City of Killeen

Agenda

City Council

Tuesday, September 2, 2025 **3:00 PM** **City Hall**
Council Chambers
101 N. College Street
Killeen, Texas 76541

Call to Order and Roll Call

___ *Debbie Nash-King, Mayor*
___ *Ramon Alvarez*
___ *Anthony Kendrick*
___ *Nina Cobb*
___ *Jessica Gonzalez*
___ *Jose Segarra*
___ *Joseph Solomon*
___ *Riakos Adams*

Invocation

Pledge of Allegiance

Approval of Agenda

Work Session

Discuss agenda items 1-17 for the September 2, 2025 Regular Session

Citizen Comments on Agenda Items

This section allows members of the public to address the Council regarding any item, other than a public hearing item, on the agenda for Council's consideration. Each person shall sign up prior to the start of the Council meeting, may speak only one (1) time, and such address shall be limited to three (3) minutes. A timer will be placed so that the speaker and citizens can see it. A majority vote of the City Council is required for any time extensions. The Mayor and Councilmembers shall have one (1) minute to respond to citizen comments with a statement or explanation without engaging in dialogue.

Regular Session

Consent Agenda

1. RS-25-133 Consider a memorandum/resolution approving an entity membership application and representative nomination to the board for the Central Texas Water Alliance.

Attachments: Application
Presentation

2. RS-25-134 Consider a memorandum/resolution approving a negotiated settlement between the Atmos Cities Steering Committee and Atmos Energy regarding the 2025 Atmos Rate Review Mechanism Filing.

Attachments: Resolution
Tariffs
Pension Benchmark
Presentation

3. RS-25-135 Consider a memorandum/resolution authorizing the City Manager to enter into an Interlocal Agreement with Bell County and Central County Services for the utilization of the Bell County Diversion Center.

Attachments: Interlocal Agreement
Presentation

4. RS-25-136 Consider a memorandum/resolution authorizing an amendment to the Interlocal Agreement with Central County Services for a Mental Health Co-Responder Program.

Attachments: Original Agreement
Amendment
Presentation

5. RS-25-137 Consider a memorandum/resolution authorizing a third amendment to the Professional Services Agreement with Central Texas Alcohol Rehabilitation Center for substance use disorder counseling and treatment services.

Attachments: 2023 Agreement
Second Amendment
Third Amendment
Presentation

6. RS-25-138 Consider a memorandum/resolution awarding Bid No. 25-30, Terminal Mechanical and Security Improvements, to The Trevino Group, Inc., in the amount of $4,989,775.00.

Attachments: Recommendation of Award and Bid Tab
Contract
Certificate of Interested Parties
Presentation

7. RS-25-139 Consider a memorandum/resolution approving a Professional Services Agreement with Garver, LLC, for the construction phase of the Terminal Mechanical and Security Improvements Project at Killeen Regional Airport, in the amount of $679,300.00.

Attachments: Agreement
Certificate of Interested Parties
Presentation

8. RS-25-140 Consider a memorandum/resolution approving a Professional Services Agreement with Garver, LLC, for design of the Terminal Rehabilitation Project at Killeen Regional Airport, in the amount of $995,000.00.

Attachments: Agreement
Certificate of Interested Parties
Presentation

9. RS-25-141 Consider a memorandum/resolution authorizing an agreement for the construction, maintenance and operation of a continuous highway lighting system with the Texas Department of Transportation.

Attachments: Agreement
Plans
Presentation

10. RS-25-142 Consider a memorandum/resolution authorizing an agreement with Utility Service Partners Private Label, Inc., dba Service Line Warranties of America, for the maintenance of sewer service lines within the public right-of-way.

Attachments: Agreement
Contract Verification
Certificate of Interested Parties
Presentation

Public Hearings

11. PH-25-051 Hold a public hearing and consider an ordinance amending the Code of Ordinances Chapter 30, Water, Sewers and Sewage Disposal, to amend residential and commercial water rates and residential sewer rates.

Attachments: Ordinance
Presentation

12. PH-25-052 Hold a public hearing and consider an ordinance submitted by Quintero Engineering, LLC, on behalf of Atkinson Homes, Inc., (Case# Z25-25) to rezone approximately 19.56 acres out of the T. Arnold Survey, Abstract No. 55, and J. H. Lewis Survey, Abstract No. 536 from "A" (Agricultural District) to PUD (Planned Unit Development) with "RT-1" (Residential Townhouse Single-Family District) uses. The subject property is locally addressed as 7610 Clear Creek Road.

Attachments: Maps
Site Photos
Minutes
Ordinance
Letter of Request
PUD Concept Plan
PUD Development Standards
Elevation Plans
Responses
Presentation

Budget

13. PH-25-053 Hold a public hearing on the proposed tax rate for the fiscal year beginning October 1, 2025 and ending September 30, 2026.

Attachments: Taxpayer Impact Statement
Presentation

14. OR-25-010 Consider an ordinance adopting the Annual Budget for the City of Killeen for the fiscal year beginning October 1, 2025 and ending September 30, 2026.

Attachments: Ordinance
Taxpayer Impact Statement
FY 2026 Proposed Budget Hyperlink
Presentation

15. RS-25-143 Consider a memorandum/resolution ratifying the property tax revenue increase reflected in the Annual Budget for the fiscal year October 1, 2025 through September 30, 2026.

Attachments: Taxpayer Impact Statement
Presentation

16. OR-25-011 Consider an ordinance setting a tax rate of $0.7014 per $100 valuation, comprised of $0.5277 for maintenance and operations and $0.1737 for debt service, for Fiscal Year 2026 (Tax Year 2025).

Attachments: Ordinance
Taxpayer Impact Statement
Presentation

17. RS-25-144 Consider a memorandum/resolution to adopt the Five-Year Capital Improvement Program for Fiscal Year 2026 - 2030.

Attachments: FY 2026 - 2030 Capital Improvement Program
Presentation

Councilmember Requests for Future Agenda Items

18. RQ-25-008 Amend Parade & Assembly Ordinance (Chapter 25, Article V) to Enable Resource-Based Event Approval Framework

Attachments: Request

Adjournment

I certify that the above notice of meeting was posted on the Internet and on the bulletin board at Killeen City Hall on or before 5:00 p.m. on August 26, 2025.

_____

Laura J. Calcote, City Secretary

The public is hereby informed that notices for City of Killeen meetings will no longer distinguish between matters to be discussed in open or closed session of a meeting. This practice is in accordance with rulings by the Texas Attorney General that, under the Texas Open Meetings Act, the City Council may convene a closed session to discuss any matter listed on the agenda, without prior or further notice, if the matter is one that the Open Meetings Act allows to be discussed in a closed session.

This meeting is being conducted in accordance with the Texas Open Meetings Law [V.T.C.A., Government Code, § 551.001 et seq.]. This meeting is being conducted in accordance with the Americans with Disabilities Act [42 USC 12101 (1991)]. The facility is wheelchair accessible and handicap parking is available. Requests for sign interpretive services are available upon requests received at least 48 hours prior to the meeting. To make arrangements for those services, please call 254-501-7717, City Secretary's Office, or TDD 1-800-734-2989.

Notice of Meetings

The Mayor and/or City Council have been invited to attend and/or participate in the following meetings/conferences/events. Although a quorum of the members of the City Council may or may not be available to attend this meeting, this notice is being posted to meet the requirements of the Texas Open Meetings Act and subsequent opinions of the Texas Attorney General's Office. No official action will be taken by Council.

• Station 4 and EOC Grand Opening, September 4, 2025, 1:00 p.m., 9200 Trimmier Road
• Greater Killeen Chamber of Commerce - 92nd Annual Membership Banquet, September 18, 2025, 6:00 p.m., Killeen Civic and Conference Center
• Downtown ROI: Where Vision Meets Value, September 25, 2025, 4:30 p.m., 324 N. Gray St.

Dedicated Service -- Every Day, for Everyone!

City of Killeen

Staff Report

File Number: RS-25-133

Consider a memorandum/resolution approving an entity membership application and representative nomination to the board for the Central Texas Water Alliance.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Kent Cagle, City Manager**

SUBJECT: **Membership and Board Nomination for Central Texas Water Alliance**

BACKGROUND AND FINDINGS:

In October 2024, City Council approved a resolution of support for the formation of the Central Texas Water Alliance (CTWA).

The creation of the CTWA will transform water management across the region and deliver impactful benefits for the future. CTWA will serve as a regional water authority with a mission to plan and develop water resources across the Central Texas region. The alliance will work to address current water supply challenges, economic development, public health and safety, environmental protection and long-term sustainability. Senate Bill 1194 for the Central Texas Water Alliance was signed into law by the Governor's Office on May 15, 2025.

Senate Bill 1194 detailed the original sponsors' responsibility to appoint or designate the initial board. Members of the initial board were McLennan County Judge Scott Felton, Bell County Judge David Blackburn, Clearwater Underground Water Conservation District designee General Manager Dirk Aaron and Water Control and Improvement District #1 designee General Manager Ricky Garrett. The initial board created an entity membership application to allow water entities to join the alliance and submit nominations for a board representative.

THE ALTERNATIVES CONSIDERED:

Authorize the City Manager to submit an entity membership application and for the City Council to nominate a representative for placement on the board of the Central Texas Water Alliance.

Do not join the Central Texas Water Alliance nor submit a board nomination.

Which alternative is recommended? Why?

Membership and board nomination for the Central Texas Water Alliance is recommended in order to participate in responsible stewardship of our natural resources and partnering to manage water sources.

CONFORMITY TO CITY POLICY:

N/A

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

N/A

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

Click or tap here to enter text.

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

To authorize the City Manager to submit an entity membership application and for the City Council to nominate a representative for placement on the board of the Central Texas Water Alliance.

DEPARTMENTAL CLEARANCES:

Engineering
Legal

ATTACHED SUPPORTING DOCUMENTS:

Application
Presentation

Membership Application Form

submit completed application by email to Ricky Garrett **r.garret@wcid#1.org**

SECTION A: APPLICANT INFORMATION

Legal Name of Utility or GCD: City of Killeen
Mailing Address:

Street: P.O. Box 1329
City: Killeen
Zip: 76540
State: Texas

Physical Address of Utility Office (if different):

Street: 101 North College Street
City: Killeen
Zip: 76541
State: Texas

Contact Person Name: Kent Cagle
Title: City Manager
Phone: 254-501-7700
Email: kcagle@killeentexas.gov

Type of Entity (check one and one per subcategory):

☐ Investor-Owned Utility

☐ Chapter 36, Groundwater Conservation District

☑ Public Utility Entity / Political Subdivision includes but not limited to WCID, SUD, WSC, City or Municipality.
Select Key Statutory Governing Code from dropdown: Select One

☐ Other (specify): _____

SECTION B: REGULATORY ACCOUNTABILIITY

TCEQ Public Water Supply (PWS) Number: 140,006.00
TCEQ Certificate of Convenience & Necessity (CCN) Number: 10041
Date Utility Was Created or Incorporated: 01/1913 *[est. Month/Year]*
Date GCD Was Created by Legislature or TCEQ: _____
Years in Operation: 112

SECTION C: SYSTEM OPERATIONS (*None GCD applicants*)

Total Number of Active Meters in Your CCN: 58,442
Total Number of Pending Meters in Your CCN: 0

What is your sources of water and what is your maximum annual production per source in acre-ft/year:

Surface Water: Belton Lake and permitted amount per year 29,964
Lake Stillhouse and permitted amount per year 10,000

Groundwater: Select Source Aquife and permitted amount per year _____
Select Source Aquifer and permitted amount per year

Do your transport groundwater from one GCD jurisdiction to another and if so what are those transport fees on an annual basis? ☑ Yes ☐ No

Source County	Transport / Acre Ft. / Yr.	$ Cost /1000 gallons/year

Utility Service Type (check all that apply):
☑ Retail ☐ Wholesale or ☐ Both

Do you currently face infrastructure challenges as a retailer and/or wholesaler?
☑ Yes ☐ No
If yes, describe those challenges in depth:
Reduction of water loss by replace/rehab of water mains and replacement of an aging water metering system with an automated metering infrastructure

Do you currently face water quality challenges as a retailer and/or wholesaler?
☑ Yes ☐ No
If yes, describe those challenges in depth:
Dead ends require large amounts of flushing to maintain chlorine residuals

Estimated Miles of Water Infrastructure: 710
Estimated Miles of Wastewater Infrastructure (if applicable): 625
Number of Pump Stations: 7
Number of Pressure Zones: 5

In general, what is the water conveyance system you have and is that system managed by a SCADA system?
Water distribution system consists of 710 miles of water main, 61.2 MGD pumping capacity, 31 MG of ground storage, 9.25 MG of elevated storage all of which is monitored and controlled by a SCADA system

Does your utility operate wastewater treatment facilities? ☐ Yes ☑ No
If yes, what is your TPDES Permit Number: _____
If yes, please provide brief details:

_____
_____
_____
_____
_____
_____

Does your utility operate under a contractual arrangement with a private management firm? ☐ Yes ☑ No
If yes, what is the name of your contract management company?

_____

SECTION D: GOVERNANCE & ADMINISTRATION

Number of Directors on Board (or Owners if IOU): 7
How are board members selected?

- ☐ Publicly Elected,
- ☐ Elected by Members
- ☐ Appointed
- ☐ Ownership-based

Date or Month of Most Recent or Upcoming Board Election: 05/03/2025
Fiscal Year for when Annual Budget Is Adopted: 10/01/2024
Compensation Provided to Board Members (if any): $ 250
Are board meeting minutes available online?

- ☑ Yes
- ☐ No

If yes, website: killeentexas.gov

Are financial statements publicly available online?

- ☑ Yes
- ☐ No

If yes, website: killeentexas.gov

SECTION E: FINANCIAL & COMPLIANCE HISTORY

Date of Most Recent Financial Audit: 09/30/2024
Auditor Name or Firm (if known): Patillo, Brown and Hill, LLP
Bond Rating (if applicable): AA
Primary Lending Institution or Financing Source (if applicable): Bonds

Do you have any current enforcement actions from TCEQ or PUC?

- ☐ Yes
- ☑ No

If yes, please explain: _____

_____
_____

Billing Rate Structure (for Non-GCDs):

Minimum Monthly Rate $ 15.04

☐ Base Rate No Water ☐ 1000 gals/month ☑ 2,000 gals/month

Volumetric Pricing:

Range	$ Cost / 1000 gals / month
0 – 2,000 gals	$ 0.00
2,001 – 5,000 gals	$ 3.38
5,001 – 10,000 gals	$ 4.23

Year	Annual Per Capita Consumption	Water Loss (Gallons/Year and % Loss)	
2024	104	1,207,919,820	20
2023	105	1,236,258,030	20
2022	108	912,124,353	15
2021	100	945,278,646	17
2020	109	1,046,499,677	18

SECTION F: ADDITIONAL INFORMATION & DISCLOSURES

Please describe your Utility's or GCDs primary goals or areas of concern for the next 3–5 years.

The City of Killeen's primary goals or concerns are reducing water loss, reducing maximum daily demand, and efficiently getting treated water to where it is most needed.

What do you hope to gain from participation in the Central Texas Utility Alliance?

The City of Killeen hopes to collaborate with surrounding water providers to implement a much more regional approach to providing water to the people of central Texas.

Authorized Signature: _____

Printed Name: _____ Date: _____

Title: _____

After completing the application save the document by 1)selecting print 2) select Adobe PDF as your printer then print. submit completed application by email to: Ricky Garrett **r.garret@wcid#1.org**

CENTRAL TEXAS WATER ALLIANCE

RS-25-133

September 2, 2025

Background

- October 2024 City Council approved a resolution of support for the formation of the Central Texas Water Alliance (CWTA)
- Senate Bill 1194 for the creation of the CWTA was signed into law May 2025
  - Bill detailed original sponsor's responsibility to appoint or designate the initial board
  - Members of the initial board include McLennan County Judge Scott Felton, Bell County Judge David Blackburn, Clearwater Underground Water conservation District designee Dirk Aaron and Water Control and Improvement District #1 designee Ricky Garrett
- Initial board creates an entity membership application to allow water entities to join and submit nominations for a board representative

Alternatives Considered

- Submit an entity membership application and nominate a representative for placement on the board of the Central Texas Water Alliance
- Do not join the Central Texas Water Alliance nor submit a board nomination

Recommendation

Authorize the City Manager to submit an entity membership application and for the City Council to nominate a representative for placement on the board of the Central Texas Water Alliance

City of Killeen

Staff Report

File Number: RS-25-134

Consider a memorandum/resolution approving a negotiated settlement between the Atmos Cities Steering Committee and Atmos Energy regarding the 2025 Atmos Rate Review Mechanism Filing.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Holli Clements, City Attorney**

SUBJECT: **Negotiated Settlement for 2025 Atmos Rate Review Mechanism Filing**

BACKGROUND AND FINDINGS:

The City, along with 181 other Mid-Texas cities served by Atmos Energy Corporation, Mid-Tex Division ("Atmos Mid-Tex" or "Company"), is a member of the Atmos Cities Steering Committee ("ACSC"). In 2007, ACSC and Atmos Mid-Tex settled a rate application filed by the Company pursuant to Section 104.301 of the Texas Utilities Code for an interim rate adjustment commonly referred to as a GRIP filing (arising out of the Gas Reliability Infrastructure Program legislation). That settlement created a substitute rate review process, referred to as Rate Review Mechanism ("RRM"), as a substitute for future filings under the GRIP statute.

Since 2007, there have been several modifications to the original RRM Tariff. The most recent iteration of an RRM Tariff was reflected in an ordinance adopted by ACSC members in 2018. On April 1, 2025, the Company filed a rate request pursuant to the RRM Tariff adopted by ACSC members. The Company claimed that its cost-of-service in a test year ending December 31, 2024, entitled it to additional system-wide revenues of $245.2 million.

Application of the standards set forth in ACSC's RRM Tariff reduces the Company's request to $225.6 million, $163.5 million of which would be applicable to ACSC members. After reviewing the filing and conducting discovery, ACSC's consultants concluded that the system-wide deficiency under the RRM regime should be $185.6 million instead of the claimed $245.2 million.

After several settlement meetings, the parties have agreed to settle the case for $205.6 million. This is a reduction of $20 million to the Company's initial request. This includes payment of ACSC's expenses. The Effective Date for new rates is October 1, 2025. ACSC members should take action approving the Resolution before October 1, 2025.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

The ACSC Executive Committee recommends approval of the negotiated settlement because it is fair and reasonable.

CONFORMITY TO CITY POLICY:

This item conforms to law and policy.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

There is no fiscal impact to the City, other than as a rate payer.

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

Staff and the ACSC Executive Committee recommend approval of the negotiated settlement between ACSC and Atmos Energy, Mid-Tex Division regarding the 2025 RRM filing.

DEPARTMENTAL CLEARANCES:

City Attorney

ATTACHED SUPPORTING DOCUMENTS:

Resolution
Tariffs
Pension Benchmark
Presentation

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF _____, TEXAS, APPROVING A NEGOTIATED SETTLEMENT BETWEEN THE ATMOS CITIES STEERING COMMITTEE ("ACSC") AND ATMOS ENERGY CORP., MID-TEX DIVISION REGARDING THE COMPANY'S 2025 RATE REVIEW MECHANISM FILING; DECLARING EXISTING RATES TO BE UNREASONABLE; ADOPTING TARIFFS THAT REFLECT RATE ADJUSTMENTS CONSISTENT WITH THE NEGOTIATED SETTLEMENT; FINDING THE RATES TO BE SET BY THE ATTACHED SETTLEMENT TARIFFS TO BE JUST AND REASONABLE AND IN THE PUBLIC INTEREST; APPROVING AN ATTACHMENT ESTABLISHING A BENCHMARK FOR PENSIONS AND RETIREE MEDICAL BENEFITS; REQUIRING THE COMPANY TO REIMBURSE ACSC'S REASONABLE RATEMAKING EXPENSES; DETERMINING THAT THIS RESOLUTION WAS PASSED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEXAS OPEN MEETINGS ACT; ADOPTING A SAVINGS CLAUSE; DECLARING AN EFFECTIVE DATE; AND REQUIRING DELIVERY OF THIS RESOLUTION TO THE COMPANY AND THE ACSC'S LEGAL COUNSEL.

WHEREAS, the City of _____, Texas ("City") is a gas utility customer of Atmos Energy Corp., Mid-Tex Division ("Atmos Mid-Tex" or "Company"), and a regulatory authority with an interest in the rates, charges, and services of Atmos Mid-Tex; and

WHEREAS, the City is a member of the Atmos Cities Steering Committee ("ACSC"), a coalition of similarly-situated cities served by Atmos Mid-Tex ("ACSC Cities") that have joined together to facilitate the review of, and response to, natural gas issues affecting rates charged in the Atmos Mid-Tex service area; and

WHEREAS, ACSC and the Company worked collaboratively to develop a Rate Review Mechanism ("RRM") tariff that allows for an expedited rate review process by ACSC Cities as a substitute to the Gas Reliability Infrastructure Program ("GRIP") process instituted by the

Legislature, and that will establish rates for the ACSC Cities based on the system-wide cost of serving the Atmos Mid-Tex Division; and

WHEREAS, the current RRM tariff was adopted by the City in a rate ordinance in 2018; and

WHEREAS, on about April 1, 2025, Atmos Mid-Tex filed its 2025 RRM rate request with ACSC Cities based on a test year ending December 31, 2024; and

WHEREAS, ACSC coordinated its review of the Atmos Mid-Tex 2025 RRM filing through its Executive Committee, assisted by ACSC's attorneys and consultants, to resolve issues identified in the Company's RRM filing; and

WHEREAS, the Executive Committee, as well as ACSC's counsel and consultants, recommend that ACSC Cities approve an increase in base rates for Atmos Mid-Tex of $205.6 million on a system-wide basis with an Effective Date of October 1, 2025; and

WHEREAS, ACSC agrees that Atmos' plant-in-service is reasonable; and

WHEREAS, with the exception of approved plant-in-service, ACSC is not foreclosed from future reasonableness evaluation of costs associated with incidents related to gas leaks; and

WHEREAS, the attached tariffs (Attachment 1) implementing new rates are consistent with the recommendation of the ACSC Executive Committee, are agreed to by the Company, and are just, reasonable, and in the public interest; and

WHEREAS, the settlement agreement sets a new benchmark for pensions and retiree medical benefits (Attachment 2); and

WHEREAS, the RRM Tariff contemplates reimbursement of ACSC's reasonable expenses associated with RRM applications.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF _____, TEXAS:

Section 1. That the findings set forth in this Resolution are hereby in all things approved.

Section 2. That, without prejudice to future litigation of any issue identified by ACSC, the City Council finds that the settled amount of an increase in revenues of $205.6 million on a system-wide basis represents a comprehensive settlement of gas utility rate issues affecting the rates, operations, and services offered by Atmos Mid-Tex within the municipal limits arising from Atmos Mid-Tex's 2025 RRM filing, is in the public interest, and is consistent with the City's authority under Section 103.001 of the Texas Utilities Code.

Section 3. That despite finding Atmos Mid-Tex's plant-in-service to be reasonable, ACSC is not foreclosed in future cases from evaluating the reasonableness of costs associated with incidents involving leaks of natural gas.

Section 4. That the existing rates for natural gas service provided by Atmos Mid-Tex are unreasonable. The new tariffs attached hereto and incorporated herein as Attachment 1, are just and reasonable, and are designed to allow Atmos Mid-Tex to recover annually an additional $205.6 million on a system-wide basis, over the amount allowed under currently approved rates. Such tariffs are hereby adopted.

Section 5. That the ratemaking treatment for pensions and retiree medical benefits in Atmos Mid-Tex's next RRM filing shall be as set forth on Attachment 2, attached hereto and incorporated herein.

Section 6. That Atmos Mid-Tex shall reimburse the reasonable ratemaking expenses of the ACSC in processing the Company's 2025 RRM filing.

Section 7. That to the extent any resolution or ordinance previously adopted by the Council is inconsistent with this Resolution, it is hereby repealed.

Section 8. That the meeting at which this Resolution was approved was in all things conducted in strict compliance with the Texas Open Meetings Act, Texas Government Code, Chapter 551.

Section 9. That if any one or more sections or clauses of this Resolution is adjudged to be unconstitutional or invalid, such judgment shall not affect, impair, or invalidate the remaining provisions of this Resolution, and the remaining provisions of the Resolution shall be interpreted as if the offending section or clause never existed.

Section 10. That consistent with the City Ordinance that established the RRM process, this Resolution shall become effective from and after its passage with rates authorized by attached tariffs to be effective for bills rendered on or after October 1, 2025.

Section 11. That a copy of this Resolution shall be sent to Atmos Mid-Tex, care of Chris Felan, Vice President of Rates and Regulatory Affairs Mid-Tex Division, Atmos Energy Corporation, 5420 LBJ Freeway, Suite 1862, Dallas, Texas 75240, and to Thomas Brocato, General Counsel to ACSC, at Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas 78701.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF _____, TEXAS, BY A VOTE OF ____ TO ____, ON THIS THE _____ DAY OF _____, 2025.

_____
Mayor

ATTEST:

_____
City Secretary

APPROVED AS TO FORM:

_____
City Attorney

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**R – RESIDENTIAL SALES**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Application
Applicable to Residential Customers for all natural gas provided at one Point of Delivery and measured through one meter.

Type of Service
Where service of the type desired by Customer is not already available at the Point of Delivery, additional charges and special contract arrangements between Company and Customer may be required prior to service being furnished.

Monthly Rate
Customer's monthly bill will be calculated by adding the following Customer and Ccf charges to the amounts due under the riders listed below:

Charge	Amount
Customer Charge per Bill	$ 23.65 per month
Rider CEE Surcharge	$ 0.03 per month[1]
Total Customer Charge	$ 23.68 per month
Commodity Charge – All Ccf	$ 0.74748 per Ccf

Gas Cost Recovery: Plus an amount for gas costs and upstream transportation costs calculated in accordance with Part (a) and Part (b), respectively, of Rider GCR.

Weather Normalization Adjustment: Plus or Minus an amount for weather normalization calculated in accordance with Rider WNA.

Franchise Fee Adjustment: Plus an amount for franchise fees calculated in accordance with Rider FF. Rider FF is only applicable to customers inside the corporate limits of any incorporated municipality.

Tax Adjustment: Plus an amount for tax calculated in accordance with Rider TAX.

Surcharges: Plus an amount for surcharges calculated in accordance with the applicable rider(s).

Agreement
An Agreement for Gas Service may be required.

Notice
Service hereunder and the rates for services provided are subject to the orders of regulatory bodies having jurisdiction and to the Company's Tariff for Gas Service.

[1]Reference Rider CEE - Conservation and Energy Efficiency as approved in GUD 10170. Surcharge billing effective July 1, 2025.

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**C – COMMERCIAL SALES**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Application
Applicable to Commercial Customers for all natural gas provided at one Point of Delivery and measured through one meter and to Industrial Customers with an average annual usage of less than 30,000 Ccf.

Type of Service
Where service of the type desired by Customer is not already available at the Point of Delivery, additional charges and special contract arrangements between Company and Customer may be required prior to service being furnished.

Monthly Rate
Customer's monthly bill will be calculated by adding the following Customer and Ccf charges to the amounts due under the riders listed below:

Charge	Amount
Customer Charge per Bill	$ 94.00 per month
Rider CEE Surcharge	$ 0.01 per month[1]
Total Customer Charge	$ 94.01 per month
Commodity Charge – All Ccf	$ 0.22261 per Ccf

Gas Cost Recovery: Plus an amount for gas costs and upstream transportation costs calculated in accordance with Part (a) and Part (b), respectively, of Rider GCR.

Weather Normalization Adjustment: Plus or Minus an amount for weather normalization calculated in accordance with Rider WNA.

Franchise Fee Adjustment: Plus an amount for franchise fees calculated in accordance with Rider FF. Rider FF is only applicable to customers inside the corporate limits of any incorporated municipality.

Tax Adjustment: Plus an amount for tax calculated in accordance with Rider TAX.

Surcharges: Plus an amount for surcharges calculated in accordance with the applicable rider(s).

Agreement
An Agreement for Gas Service may be required.

Notice
Service hereunder and the rates for services provided are subject to the orders of regulatory bodies having jurisdiction and to the Company's Tariff for Gas Service.

Presumption of Plant Protection Level
For service under this Rate Schedule, plant protection volumes are presumed to be 10% of normal, regular, historical usage as reasonably calculated by the Company in its sole discretion. If a customer believes it needs to be modeled at an alternative plant protection volume, it should contact the company at mdtx-div-plantprotection@atmosenergy.com.

[1] Reference Rider CEE - Conservation and Energy Efficiency as approved in GUD 10170. Surcharge billing effective July 1, 2025.

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**I – INDUSTRIAL SALES**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Application
Applicable to Industrial Customers with a maximum daily usage (MDU) of less than 200 MMBtu per day for all natural gas provided at one Point of Delivery and measured through one meter. Service for Industrial Customers with an MDU equal to or greater than 200 MMBtu per day will be provided at Company's sole option and will require special contract arrangements between Company and Customer.

Type of Service
Where service of the type desired by Customer is not already available at the Point of Delivery, additional charges and special contract arrangements between Company and Customer may be required prior to service being furnished.

Monthly Rate
Customer's monthly bill will be calculated by adding the following Customer and MMBtu charges to the amounts due under the riders listed below:

Charge	Amount
Customer Charge per Meter	$ 1,848.75 per month
First 0 MMBtu to 1,500 MMBtu	$ 0.7678 per MMBtu
Next 3,500 MMBtu	$ 0.5623 per MMBtu
All MMBtu over 5,000 MMBtu	$ 0.1206 per MMBtu

Gas Cost Recovery: Plus an amount for gas costs and upstream transportation costs calculated in accordance with Part (a) and Part (b), respectively, of Rider GCR.

Franchise Fee Adjustment: Plus an amount for franchise fees calculated in accordance with Rider FF. Rider FF is only applicable to customers inside the corporate limits of any incorporated municipality.

Tax Adjustment: Plus an amount for tax calculated in accordance with Rider TAX.

Surcharges: Plus an amount for surcharges calculated in accordance with the applicable rider(s).

Curtailment Overpull Fee
Upon notification by Company of an event of curtailment or interruption of Customer's deliveries, Customer will, for each MMBtu delivered in excess of the stated level of curtailment or interruption, pay Company 200% of the midpoint price for the Katy point listed in *Platts Gas Daily* published for the applicable Gas Day in the table entitled "Daily Price Survey."

Replacement Index
In the event the "midpoint" or "common" price for the Katy point listed in *Platts Gas Daily* in the table entitled "Daily Price Survey" is no longer published, Company will calculate the applicable imbalance fees utilizing a daily price index recognized as authoritative by the natural gas industry and most closely approximating the applicable index.

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**I – INDUSTRIAL SALES**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Agreement
An Agreement for Gas Service may be required.

Notice
Service hereunder and the rates for services provided are subject to the orders of regulatory bodies having jurisdiction and to the Company's Tariff for Gas Service.

Special Conditions
In order to receive service under Rate I, Customer must have the type of meter required by Company. Customer must pay Company all costs associated with the acquisition and installation of the meter.

Presumption of Plant Protection Level
For service under this Rate Schedule, plant protection volumes are presumed to be 10% of normal, regular, historical usage as reasonably calculated by the Company in its sole discretion. If a customer believes it needs to be modeled at an alternative plant protection volume, it should contact the company at mdtx-div-plantprotection@atmosenergy.com.

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**T – TRANSPORTATION**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Application
Applicable, in the event that Company has entered into a Transportation Agreement, to a customer directly connected to the Atmos Energy Corp., Mid-Tex Division Distribution System (Customer) for the transportation of all natural gas supplied by Customer or Customer's agent at one Point of Delivery for use in Customer's facility.

This tariff is not available to customers with a maximum daily demand of 1,000 MMBtu or greater and a daily/annual load factor of 10% or less. Load factor is calculated as follows: annual usage / (maximum daily connected demand X 365). Load factors will be recalculated once each year to determine appropriate eligibility for Rate T.

Type of Service
Company's receipt and delivery of all gas quantities under the applicable Transportation Agreement will be on a wholly interruptible basis subject to the Terms and Conditions incorporated in the Transportation Agreement. If Customer is an Industrial Customer, then Customer may elect, at the reasonable discretion of Company, to contract for Plant Protection transportation quantities defined as the minimum natural gas required to prevent physical harm and/or protect critical safety to the plant facilities, plant personnel, or the public when such protection cannot be achieved through the use of an alternate fuel. Where service of the type desired by Customer is not already available at the Point of Delivery, additional charges and special contract arrangements between Company and Customer may be required prior to service being furnished.

Monthly Rate
Customer's bill will be calculated by adding the following Customer and MMBtu charges to the amounts and quantities due under the riders listed below:

Charge	Amount
Customer Charge per Meter	$ 1,848.75 per month
First 0 MMBtu to 1,500 MMBtu	$ 0.7678 per MMBtu
Next 3,500 MMBtu	$ 0.5623 per MMBtu
All MMBtu over 5,000 MMBtu	$ 0.1206 per MMBtu

Upstream Transportation Cost Recovery: Plus an amount for upstream transportation costs in accordance with Part (b) of Rider GCR.

Retention Adjustment: Plus a quantity of gas as calculated in accordance with Rider RA.

Franchise Fee Adjustment: Plus an amount for franchise fees calculated in accordance with Rider FF. Rider FF is only applicable to customers inside the corporate limits of any incorporated municipality.

Tax Adjustment: Plus an amount for tax calculated in accordance with Rider TAX.

Surcharges: Plus an amount for surcharges calculated in accordance with the applicable rider(s).

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**T – TRANSPORTATION**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Imbalance Fees
All fees charged to Customer under this Rate Schedule will be charged based on the quantities determined under the applicable Transportation Agreement and quantities will not be aggregated for any Customer with multiple Transportation Agreements for the purposes of such fees.

Monthly Imbalance Fees
Customer shall pay Company the greater of (i) $0.10 per MMBtu, or (ii) 150% of the difference per MMBtu between the highest and lowest "midpoint" price for the Katy point listed in *Platts Gas Daily* in the table entitled "Daily Price Survey" during such month, for the MMBtu of Customer's monthly Cumulative Imbalance, as defined in the applicable Transportation Agreement, at the end of each month that exceeds 10% of Customer's receipt quantities for the month.

Overpull Fee
Upon notification by Company of an event of interruption of Customer's deliveries, Customer will, for each MMBtu delivered in excess of the stated level of interruption, pay Company 200% of the midpoint price for the Katy point listed in *Platts Gas Daily* published for the applicable Gas Day in the table entitled "Daily Price Survey."

Replacement Index
In the event the "midpoint" or "common" price for the Katy point listed in *Platts Gas Daily* in the table entitled "Daily Price Survey" is no longer published, Company will calculate the applicable imbalance fees utilizing a daily price index recognized as authoritative by the natural gas industry and most closely approximating the applicable index.

Agreement
A transportation agreement is required.

Notice
Service hereunder and the rates for services provided are subject to the orders of regulatory bodies having jurisdiction and to the Company's Tariff for Gas Service.

Special Conditions
In order to receive service under Rate T, customer must have the type of meter required by Company. Customer must pay Company all costs associated with the acquisition and installation of the meter.

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RIDER:	**SUR – SURCHARGES**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Application

This Rider is applicable to customer classes in the incorporated areas under the RRM tariff as authorized by the state or any governmental entity, a municipality, or a regulatory authority pursuant to any statute, ordinance, order, rule, contract, or agreement.

Monthly Calculation

Surcharges will be calculated in accordance with the applicable statute, ordinance, order, rule, contract, or agreement.

FASB ASC 740-10 (Fin48) Refund

Applicable to Customers taking service under Rate Schedules R – Residential, C – Commercial, I – Industrial and T – Transportation.

To ensure that gas utility customers receive the benefit associated with the changes in the Company's Uncertain Tax Positions ("UTPs") arising from recognition of Texas Margin Tax returns.

The decrease shall be calculated as follows:

Beginning with implementation of rates from the negotiated RRM Tariff, and annually thereafter, the portion of UTP liabilities identified in Schedule FIN48-1.1 for the prior fiscal year shall be allocated based on the final class allocations of GUD No. 10170 as per the RRM Tariff, divided by the annual bill count to derive rates to be refunded through Rider SUR in the subsequent fiscal year. Each year's calculation will include a true-up (+ or -) due to account for over/under collections. Amounts identified in Schedule FIN48-1 shall be adjusted to reflect any audit adjustments received from the Texas Comptroller of Public Accounts.

No action on the part of the Regulatory Authority is required to give effect to the amount to be refunded to customers. However, any amount refunded to customers shall be fully subject to review for reasonableness and accuracy in the gas utility's next statement of intent proceeding with the Railroad Commission of Texas, and if applicable, the gas utility shall be required to reconcile any discrepancies.

The following refund as authorized in the most recent negotiated RRM Tariff shall be refunded to each Rate Schedules R – Residential, C – Commercial, I – Industrial and T – Transportation customer's monthly bill in each month for a 12-month period. The refund amount by month by Rate Schedule is shown in the table below:

Rate Schedules	Rate
Rate R – Residential Sales	$ (0.12)
Rate C – Commercial Sales	$ (0.41)
Rate I – Industrial Sales	$ (8.68)
Rate T – Transportation	$ (8.68)

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RIDER:	**TAX – TAX ADJUSTMENT**	
APPLICABLE TO:	**Entire Division as Set Forth Below**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	**PAGE:**

Application

Applicable to Customers taking service under Rate R, Rate C, Rate I, and Rate T, except for exempt State Agency Customers, to the extent of state gross receipts taxes only.

1. State Gross Receipts Taxes

Applicability - Entire Division except for Unincorporated Areas

Each monthly bill shall be adjusted for Miscellaneous state gross receipts taxes imposed by Sections 182-021 - 182-025 of the Texas Tax Code.

Entire Division

Each monthly bill shall also be adjusted by an amount equivalent to the amount of all applicable taxes and any other governmental impositions, rentals, fees, or charges (except state, county, city, and special district ad valorem taxes and taxes on net income) levied, assessed, or imposed upon or allocated to Company with respect to the Gas Service provided to Customer by Company, and any associated facilities involved in the performance of such Gas Service. Each monthly bill shall also be adjusted by an amount equivalent to the proportionate part of any increase or decrease of any tax and any other governmental imposition, rental, fee, or charge (except state, county, city, and special district ad valorem taxes and taxes on net income) levied, assessed, or imposed subsequent to the effective date of this tariff, upon or allocated to Company's operations, by any new or amended law, ordinance, or contract.

2. Federal or State Tax Law or Rate Changes:

Applicability – All Customers in the Mid-Tex Division ("MTX") Under the RRM Tariff

Applicable to Customers taking service under Rate R, Rate C, Rate I, and Rate T.

To ensure that gas utility customers receive the benefits or costs associated with the changes in tax rates at a federal or state level, MTX shall establish and accrue on its books and records, as of the effective date of the federal or state tax law or rate change: 1) regulatory liabilities to reflect the impact of a decrease in federal corporate income tax rates or state margin tax rates; or, 2) regulatory assets to reflect the impact of an increase in federal corporate income tax rates or state margin tax rates.

The gas utility may not change rates to give effect to a change in Federal or State Tax law or rates through the Rider TAX unless and until the city issues final authorization, an Accounting Order, or other express guidance authorizing such recovery through the RRM process.

Company may also not change rates to capture the impacts associated with the effects of Public Law 117-169, 136 STAT. 1818 of August 16, 2022 ("Tax Act 2022") and certain other tax-related costs that will change from the amounts included in the most recent base revenue requirement established through an RRM filing unless and until the city issues a final authorization, an Accounting Order, or other express guidance authorizing such recovery.

Upon receipt of authorization from the city through an Accounting Order, final authorization or other express guidance, the calculation applicable to the aforementioned federal or state tax rate or law changes are as follows; however, to the extent there is a conflict between the calculation or methodology

prescribed by an Accounting Order, final authorization, or other express guidance, and those contained in this rate schedule, the Accounting Order, final authorization, or other express guidance controls:

Calculations

1. With regard to changes in the tax rates at a federal or state level, the increase or decrease shall be calculated as follows:

    a. A portion of the gas utility's revenue representing the difference between: 1) the cost of service as approved by the Commission or the applicable regulatory authority in the gas utility's most recent statement of intent or other rate proceeding, and 2) the cost of service that would have resulted had the rates been based on the new federal income tax rate (increase or decrease) or state margin taxes (increase or decrease), as of the effective date of the change;
    b. If applicable, the portion of the gas utility's revenue representing the difference between: 1) each Interim Rate Adjustment surcharge approved by the regulatory authority since the gas utility's most recent statement of intent or other rate proceeding, and 2) each Interim Rate Adjustment surcharge that would have resulted had the surcharges been based on the new federal income tax rate (increase or decrease) or state margin taxes (increase or decrease), as of the effective date of the change; and
    c. The excess or deficient deferred tax reserve, including any associated gross up in taxes, caused by the reduction or increase in the federal corporate income tax rate or state related tax increases, as of the effective date of the change.

Upon the receipt of authorization from the Commission or applicable regulatory authority, the gas utility shall separately refund to customers based on a decrease in federal or state tax rates or separately collect from customers based on an increase in federal or state tax rates within twelve (12) months or, pursuant to applicable Internal Revenue Code ("IRC") rules and regulations, as follows:

    d. The amount collected/refunded by the gas utility that reflects the difference in base rates between: 1) the cost of service approved by the regulatory authority in the gas utility's most recent statement of intent rate proceeding, and 2) the cost of service that would have resulted had the rates been based upon the new federal or state tax rates, between the effective date of this order and the effective date of the changes.
    e. If applicable, the amount collected/refunded by the gas utility that reflects the difference between: 1) each Interim Rate Adjustment surcharge approved by the Commission or the regulatory authority since the gas utility's most recent statement of intent rate proceeding, and 2) each Interim Rate Adjustment surcharge that would have resulted had the rates been based upon the new federal or state tax rates, between the effective date of this order and the effective date of the changes.
    f. The amount collected/refunded by the gas utility that reflects the difference in the excess or deficient deferred tax reserve included in base rates between: 1) the cost of service approved by the Commission or the regulatory authority in the gas utility's most recent statement of intent rate proceeding, and 2) the cost of service that would have resulted had the rates been based upon the new federal or state tax rates, between the effective date of this order and the effective date of the changes. These amounts shall be refunded or collected from customers based upon IRC rules and regulations if applicable.

2. With regard to the Tax Act 2022 and certain other tax-related costs that will change from the amounts included in the base revenue requirement established through an RRM filing, any change in rates shall be calculated as follows:

   (a) The amount shall be calculated as the product of Company's grossed-up rate of return authorized in the cost of service as approved by the Commission or the applicable regulatory authority in the gas utility's most recent statement of intent or other rate proceeding times the Corporate Alternative Minimum Tax deferred tax asset ("CAMT DTA") estimated at September 30 of the fiscal year or applicable quarter-end within a fiscal year prior to the annual change in the rates pursuant to this tariff, less the income tax credits received in accordance with IRC requirements applicable to the Tax Act 2022 grossed-up for income taxes to a revenue equivalent.

   (b) The estimated CAMT DTA and the related effects on the rider revenue requirements shall be trued up to the actual effects in the following year and the over/under recovery amortized over the twelve months that each year's recalculated tariff rates are in effect. The over/under recovery shall include a grossed-up rate of return as authorized in Company's most recent statement of intent or other rate proceeding.

   (c) The methodology for computing Company's CAMT is as follows:

      i. Confirm when Atmos Energy Corporation and its affiliates are subject to CAMT as an "applicable corporation" as defined the Tax Act 2022, then there will be MTX's CAMT DTA in the tariff.

      ii. Calculate the Mid-Tex Division's (MTX) contribution to Adjusted Financial Statement Income ("AFSI") on a stand-alone basis. MTX's AFSI is calculated by adjusting MTX's applicable financial statement income by adjustments to depreciation, pension costs and federal income tax to arrive at AFSI. AFSI is intended to be computed consistent with applicable IRC requirements.

      iii. Compare MTX's CAMT stand-alone amount with MTX's regular stand-alone tax liability. If the stand alone CAMT is in excess of the stand-alone regular tax, the CAMT DTA is recorded to MTX.

If the Internal Revenue Service issues new guidance related to the Tax Act 2022, Company shall have the right to make additional filings to recognize such adjustments.

Any Commission filing made to give effect to Federal or State Tax Law or Rate Changes shall be filed within 12-months following the enactment of a tax rate change with the Commission's Oversight and Safety Division or as part of a Statement of Intent.

Any city filing made to give effect to Federal or State Tax Law or Rate Changes shall be filed within 12-months following the enactment of a tax rate change and addressed to the city official at the address of record with the Mid-Tex Division.

With the exception of the authorization required from the Commission to allow the gas utility to recognize the new federal income tax rate (increase or decrease) or state taxes (increase or decrease) or the impacts associated with the effects of the Tax Act 2022 and certain other tax-related costs that will change from the amounts included in the base revenue requirement in the last approved RRM Tariff filing, no action on the part of the regulatory authority is required to give effect to the amount to be refunded or

collected from customers. However, any amount refunded or collected from customers shall be fully subject to review for reasonableness and accuracy in the gas utility's next statement of intent proceeding, and if applicable, the gas utility shall be required to reconcile any discrepancies.

Regulatory orders issued pursuant to this mechanism are ratemaking orders and shall be subject to appeal under Sections 102.001(b) and 103.021, et seq., of the Texas Utilities Code (Vernon 2007). Rate changes subject to the provisions of this tariff may be implemented upon the filing of an appeal to the relevant authority.

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RIDER:	**WNA – WEATHER NORMALIZATION ADJUSTMENT**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Provisions for Adjustment

The Commodity Charge per Ccf (100 cubic feet) for gas service set forth in any Rate Schedules utilized by the cities of the Mid-Tex Division service area for determining normalized winter period revenues shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment." The Weather Normalization Adjustment shall apply to all temperature sensitive residential and commercial bills based on meters read during the revenue months of November through April. The five regional weather stations are Abilene, Austin, Dallas, Waco, and Wichita Falls.

Computation of Weather Normalization Adjustment

The Weather Normalization Adjustment Factor shall be computed to the nearest one-hundredth cent per Ccf by the following formula:

$$WNAF_i = R_i \frac{(HSF_i \times (NDD-ADD))}{(BL_i + (HSF_i \times ADD))}$$

Where

i = any particular Rate Schedule or billing classification within any such particular Rate Schedule that contains more than one billing classification

$WNAF_i$ = Weather Normalization Adjustment Factor for the i^{th} rate schedule or classification expressed in cents per Ccf

R_i = Commodity Charge rate of temperature sensitive sales for the i^{th} schedule or classification.

HSF_i = heat sensitive factor for the i^{th} schedule or classification divided by the average bill count in that class

NDD = billing cycle normal heating degree days calculated as the simple ten-year average of actual heating degree days.

ADD = billing cycle actual heating degree days.

BI_i = base load sales for the i^{th} schedule or classification divided by the average bill count in that class

The Weather Normalization Adjustment for the jth customer in ith rate schedule is computed as:

$WNA_i = WNAF_i \times q_{ij}$

Where q_{ij} is the relevant sales quantity for the jth customer in ith rate schedule.

MID-TEX DIVISION
ATMOS ENERGY CORPORATION

RIDER:	**WNA – WEATHER NORMALIZATION ADJUSTMENT**	
APPLICABLE TO:	**ALL CUSTOMERS IN THE MID-TEX DIVISION UNDER THE RRM TARIFF**	
EFFECTIVE DATE:	**Bills Rendered on or after 10/01/2025**	

Base Use/Heat Use Factors

	Residential		Commercial	
Weather Station	Base use Ccf	Heat use Ccf/HDD	Base use Ccf	Heat use Ccf/HDD
Abilene	9.61	0.1476	91.65	0.7406
Austin	8.19	0.1394	183.99	1.1581
Dallas	12.74	0.2017	193.53	1.1001
Waco	9.23	0.1277	148.26	0.7631
Wichita Falls	10.43	0.1387	122.94	0.7038

Weather Normalization Adjustment (WNA) Report

On or before June 1 of each year, the company posts on its website at www.atmosenergy.com/MTXtariffs, in Excel format, a *Weather Normalization Adjustment (WNA) Report* to show how the company calculated its WNAs factor during the preceding winter season. Additionally, on or before June 1 of each year, the company files one hard copy and an Excel version of the *WNA Report* with the Railroad Commission of Texas' Gas Services Division, addressed to the Director of that Division.

ATMOS ENERGY CORP., MID-TEX DIVISION
MID-TEX RATE REVIEW MECHANISM
PENSIONS AND RETIREE MEDICAL BENEFITS FOR CITIES APPROVAL
TEST YEAR ENDING DECEMBER 31, 2024

Line No.	Description	Shared Services		Mid-Tex Direct			Adjustment Total
		Pension Account Plan	Post-Employment Benefit Plan	Pension Account Plan	Post-Employment Benefit Plan	Supplemental Executive Benefit Plan	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Proposed Benefits Benchmark - Fiscal Year 2025 Willis Towers Watson Report as adjusted	$ 572,372	$ (649,253)	$ 882,931	$ (3,920,499)	$ 65,943	
2	Allocation Factor	46.27%	46.27%	84.14%	84.14%	100.00%	
3	Proposed Benefits Benchmark Costs Allocated to Mid-Tex (Ln 1 x Ln 2)	$ 264,856	$ (300,432)	$ 742,888	$ (3,298,664)	$ 65,943	
4	O&M and Capital Allocation Factor	100.00%	100.00%	100.00%	100.00%	100.00%	
5	Proposed Benefits Benchmark Costs to Approve (Ln 3 x Ln 4)	$ 264,856	$ (300,432)	$ 742,888	$ (3,298,664)	$ 65,943	$ (2,525,408)
6							
7	O&M Expense Factor	76.41%	76.41%	39.54%	39.54%	10.97%	
8							
9	Summary of Costs to Approve:						
10	Total Pension Account Plan	$ 202,374		$ 293,727			$ 496,101
11	Total Post-Employment Benefit Plan		$ (229,557)		$ (1,304,242)		(1,533,799)
12	Total Supplemental Executive Benefit Plan					$ 7,231	7,231
13	Total (Ln 10 + Ln 11 + Ln 12)	$ 202,374	$ (229,557)	$ 293,727	$ (1,304,242)	$ 7,231	$ (1,030,467)

NEGOTIATED SETTLEMENT ON ATMOS RRM FILING

RS-25-134

September 2, 2025

Background

- Cities exercise original jurisdiction over the level of gas rates charged within their boundaries
- Killeen is a member of the Atmos Cities Steering Committee (ACSC) along with 181 other cities served by Atmos Mid-Tex
- Since 2007, Atmos and ACSC have worked under an alternate rate review process referred to as the Rate Review Mechanism (RRM), as opposed to the statutory Gas Reliability Infrastructure Program

Atmos RRM Filing

- Atmos filed a rate request on April 1, 2025 claiming it is entitled to additional system-wide revenues of $245.2 million (based on test year ending December 31, 2024)
- ACSC consultants analyzed the filing and determined that the system-wide deficiency under the RRM should be $185.6 million

Negotiated Settlement

- The ACSC Executive Committee and Atmos negotiated a settlement
  - Atmos request reduced from $245.2 million to $205.6 million
  - The average residential increase is $7.83 per month or 9.27%
  - The average commercial usage increase is $25.73 per month or 6.56%

Alternatives

- The alternatives are to:
  - Disapprove the negotiated settlement
  - Approve the negotiated settlement

Recommendation

- Staff and the Executive Committee of the ACSC recommend approving the negotiated settlement between ASCS and Atmos Energy, Mid-Tex Division regarding the 2023 RRM filing.

City of Killeen

Staff Report

File Number: RS-25-135

Consider a memorandum/resolution authorizing the City Manager to enter into an Interlocal Agreement with Bell County and Central County Services for the utilization of the Bell County Diversion Center.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Pedro Lopez, Chief of Police**

SUBJECT: **Interlocal Agreement regarding the Bell County Diversion Center**

BACKGROUND AND FINDINGS:

Bell County Central County Services (CCS) is a political subdivision of the State of Texas under the Texas Health and Safety Code and Bell County is a political subdivision of the State of Texas pursuant to the provisions of the Interlocal Cooperation Act. Bell County owns the Bell County Diversion Center (BCDC), a voluntary, 16-bed residential crisis triage center located at 2400 Piazza Drive, Belton, Texas; CCS provides clinical mental health evaluation and services, and the City's law enforcement personnel have direct contact with individuals who commit misdemeanor offenses while experiencing a mental health crisis.

This interlocal agreement is a cooperative effort between law enforcement and mental health professionals in identifying, apprehending, and diverting individuals experiencing a mental health crisis from incarceration to appropriate mental health treatment. The facility and agreement seek to divert individuals 18 years of age and older who commit misdemeanor offenses while experiencing a mental health crisis from incarceration to appropriate mental health treatment solutions.

Killeen Police Department staff have participated in the "Steering Committee" for the development of the policies and procedures that apply to the use of the BCDC. Recently, a "Law Enforcement Workgroup" was established, and meetings began. The Killeen Police Department has trained its personnel on the use of the BCDC, including the BCDC referral process, mental health, and de-escalation techniques, and must do so annually.

The agreement will automatically renew each year, for not more than five years. There is no cost to the City of Killeen for participating in the program.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

This agreement conforms to city policy.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

None

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

City Staff recommends that the Council authorizes the City Manager or his designee to enter into the Interlocal Agreement with Bell County and Central County Services for the Utilization of the Bell County Diversion Center.

DEPARTMENTAL CLEARANCES:

Legal

ATTACHED SUPPORTING DOCUMENTS:

Interlocal Agreement
Presentation

INTERLOCAL COOPERATION AGREEMENT FOR THE UTILIZATION OF THE BELL COUNTY DIVERSION CENTER

This Agreement is made and entered into this ___ day of _____, 2025 ("**Execution Date**"), by and between the City of Killeen, Texas ("**City**"), a Texas home-rule municipality, on behalf of its Police Department ("**KPD**"), and Central Counties Services ("**CCS**"), a political subdivision of the State of Texas under Texas Health & Safety Code, and Bell County, a political subdivision of the State of Texas (the "**County**"), pursuant to the provisions of the Interlocal Cooperation Act, Texas Government Code, 791.001, *et seq.*

WHEREAS, adults experiencing mental health crises represent a significant proportion of individuals who commit misdemeanor crimes resulting in contact with law enforcement;

WHEREAS, law enforcement resources alone cannot appropriately address the mental health issues contributing to criminal conduct;

WHEREAS, experience indicates that a cooperative effort between law enforcement and mental health professionals is effective in identifying, apprehending, and diverting individuals experiencing a mental health crisis from incarceration to appropriate mental health treatment;

WHEREAS, County owns the Bell County Diversion Center (the "BCDC"), a voluntary, 16-bed residential crisis triage center located at 2400 Piazza Drive, Belton, Texas; CCS provides clinical mental health evaluation and services, and the City's law enforcement personnel have direct contact with individuals who commit misdemeanor offenses while experiencing mental health crises;

WHEREAS, pursuant to Section 791.001 *et seq.* of the Texas Government Code, cities, counties, and political subdivisions of the State of Texas are authorized to enter into Interlocal Cooperation Agreements for governmental purposes, and

WHEREAS, the Parties to this Agreement desire to divert individuals 18 years of age and older who commit misdemeanor offenses while experiencing a mental health crisis from incarceration to appropriate mental health treatment solutions;

WHEREAS, the Parties agree that it is in their best interest to operate and utilize the BCDC;

NOW, THEREFORE, the Parties agree as follows:

ARTICLE I
PURPOSE

1.01 The purpose of this Agreement is to facilitate the Parties' participation in operating and utilizing the BCDC by establishing the process for law enforcement agency referrals to, and obligations in using, BCDC.

ARTICLE II
TERM

2.01 The initial term of this Agreement shall commence on the execution date of this Agreement and shall renew automatically, but it shall not renew for more than five (5) consecutive years. The operations year for the BCDC shall be from October 1 until September 30 of each year.

2.02 A Party may terminate this Agreement during the Term for any reason. The terminating Party will send written notice to all other Parties. Termination will be effective thirty (30) days after receipt of the notice of termination. Receipt of written notice shall be presumed to be received three (3) days after mailing, if written termination is mailed via the United States Postal Service.

2.03 Subject to continued funding, the Agreement shall automatically renew annually on October 1 of each successive year, unless terminated by the Parties as provided herein.

ARTICLE III
CONSIDERATION

3.01 In consideration of this Agreement, the Parties shall provide sufficient personnel, equipment, and resources to operate, staff, manage, and utilize the BCDC, as follows:

a. The County owns the BCDC facility located at 2400 Piazza Drive, Belton, Texas 76513. The County will provide facility management and contract oversight and will serve as fiscal agent for the BCDC.

b. CCS will manage the BCDC and will use CCS employees or contracted professional and paraprofessional personnel to provide admission, discharge, and clinical services to individuals brought into the BCDC.

c. The City may utilize the BCDC as set forth in this Agreement at no cost to the City. The City will cover all costs incurred by the City prior to referral of an individual to the BCDC.

ARTICLE IV
ORGANIZATION

4.01 CCS and the County, or Bell County Attorney's Office, will jointly establish the policies governing operation of the BCDC ("BCDC Policies"). CCS or the County will provide the City with all applicable BCDC Policies, within five (5) business days of execution of this Agreement, in writing, including updates or amendments to the BCDC Policies during the Term.

4.02 The Parties anticipate creation of a "Law Enforcement Workgroup" or "Workgroup" to review processes, outcomes, and metrics of the BCDC and its referral process. Upon creation of the Law Enforcement Workgroup, the City will appoint a law enforcement member to the Workgroup who will be required to attend meetings of the Workgroup or send a qualified and authorized representative in their place and to provide any requested information, to the extent allowed by Texas law, and feedback to serve the purposes of the Workgroup.

ARTICLE V
RESPONSIBILITY

5.01 The City will follow all BCDC Policies, procedures, and protocols regarding use of the BCDC.

5.02 The KPD will train its personnel on use of the BCDC, including the BCDC referral process, mental health, and de-escalation techniques (the "Required Training") at least annually, as applicable. The City will provide written notice of the completed training to the County and CCS on or before November 1 of each year of the Term, beginning in 2025.

5.03 The City will include the Required Training in new personnel onboarding for any City personnel who will be utilizing the BCDC. The City will ensure that City personnel have completed the Required Training prior to utilizing the BCDC.

5.04 The CCS shall assist the City in providing the Required Training or otherwise meeting its obligations under Sections 5.02 and 5.03 of this Agreement.

5.05 The County or CCS, but not both in the same three months, may request, in writing, and at any time during the Term of this Agreement, but no more than one (1) time every three months, unless there has been an incident indicating the City has defaulted under this Agreement, documentation from the City verifying the City's compliance with the obligations set forth in Sections 5.01, 5.02, and 5.03, above. The City will provide the requested documentation to the County or CCS within ten (10) business days of receipt of the written request.

5.06 If the City does not provide the requested documentation or the documentation or other information reveals that the City is not in compliance with the requirements in Sections 5.01, 5.02, and 5.03, above, the City will be in default under this Agreement. The County or CCS will provide the City with written notice of the default, and the City will have thirty (30) business days from receipt of the written notice to cure the default. If the City does not cure the default within thirty (30) business days, the County or CCS may terminate the City's use of the BCDC. Alternatively, the County or CCS may restrict the City's use of the BCDC until the City cures the default.

5.07 In addition to the disclosure requirements set forth in Section 5.05, above, the City will provide any information or documentation, to the extent allowed by Texas law, related to its use of the BCDC required by the County or CCS for reporting, training, or data-collection purposes within ten (30) business days of receipt of the County or CCS's written request.

5.08 The Parties agree to provide to each other reports on any measures and metrics determined to be relevant and necessary for the evaluation of BCDC processes, utilization of the BCDC, and sustainability of the program. The Parties agree to work together to establish the information to be included in the reports and the schedule for when such reports will be provided.

ARTICLE VI
REFERRAL PROCESS

6.01 CCS will provide the City referral materials and QR-code stickers. The QR-code stickers, when scanned, will direct City law enforcement personnel to the most current referral procedures. CCS will ensure that the information linked to the QR- code is updated as needed so that City law enforcement personnel are accessing the most current information.

6.02 CCS will provide the City printed materials regarding the BCDC. The City may make printed materials regarding the BCDC available in its law enforcement stations. The City may also keep printed materials regarding the BCDC in its fleet vehicles, as appropriate.

6.03 The County or CCS, but not both in the same three months, may request, in writing, and at any time during the Term of this Agreement, but no more than one (1) time every three months, unless there has been an incident indicating the City's has defaulted under this Agreement, documentation from the City verifying the City's compliance with the obligations set forth in Sections 6.01, and 6.02, above. The City will provide the requested documentation to the County or CCS within ten (10) business days of receipt of the written request.

If the City does not provide the requested documentation or the documentation or other information reveals that the City is not in compliance with the requirements in Sections 6.02 or 6.03, the City will be in default under this Agreement. The County or CCS will provide the City with written notice of the default, and the City will have thirty (30) business days from receipt of the notice to cure the default. If the City does not cure the default within the thirty (30) business days, the County or CCS may terminate or restrict the City's use of the BCDC until the City cures the default.

ARTICLE VII
INSURANCE AND LIABILITY

7.01 Each Party will obtain its own liability insurance as it deems appropriate regarding performance of its obligations under this Agreement. Each Party will bear its own insurance costs as a separate expense and such cost will not be a shared cost.

7.02 In the event of any third-party claim brought against a Party and related to this Agreement, that Party will, within ten (10) business days of obtaining receipt or knowledge of the claim, notify the other Parties of such claim. Liability as between the Parties will be determined in accordance with the common law and statutory or other applicable law of the State of Texas including but not limited to the Texas Tort Claims Act. Any Party may assert such limitations from liability as are provided under the laws of the State of Texas including but not limited to any immunity a Party may be entitled to by law. Nothing in this Agreement requires that funds be assessed or collected or that a sinking fund be created.

ARTICLE VIII
DEFAULT

8.01 Except for the specific default processes set forth in Sections 5.06 and 6.05, above, if a Party fails to perform or observe any term of this Agreement, the non-defaulting Party will send written notice of the failure to the defaulting Party. If the defaulting Party does not remedy the failure within thirty (30) days after receipt of the written notice, the non-defaulting Party may terminate this Agreement following the process set forth in Section 2.02, above, and may pursue any other remedies available to it at law or in equity.

ARTICLE IX
GENERAL PROVISIONS

9.01 **Incorporated by Reference.** All exhibits and attachments and all other documents attached to this Agreement, if any, are incorporated by reference for all purposes.

9.02 **Assignment.** The Parties may not assign their rights and obligations under this Agreement.

9.03 **Entire Agreement and Modifications.** This Agreement supersedes all prior negotiations, representations, agreements, and contracts, written or oral, between the Parties regarding the subject matter covered in this Agreement and constitutes the entire agreement between the Parties with respect to the subject matter. This Agreement and each of its provisions are binding upon the Parties and may not be waived, modified, amended, or altered except by an amendment signed by the Parties.

9.04 **Waivers.** No delay or omission by a Party in exercising any right or power accruing upon the non-compliance or failure of performance by another Party of any of the provisions of this Agreement will impair any such right or power or be construed to be a waiver of the provision(s). A waiver by a Party of any Agreement term to be performed by another Party will not be construed to be a waiver of any subsequent breach or of any other Agreement term.

9.05 **Binding Effect/Authorization.** This Agreement is binding on and inures to the benefit of the Parties and their respective permitted assigns and successors. The Parties each represent and warrant that they have the full right and legal authority to enter into this Agreement and to grant the rights and perform the obligations in this Agreement and that no third-party consent or approval is required.

9.06 **Notices.** All notices, consents, approvals, demands, requests, or other communications provided for or permitted to be given under any of the provisions of this Agreement will be in writing and will be deemed to have been duly given or served when delivered by email, hand delivery, or by nationally recognized courier service, or when deposited in the U.S. mail by registered or certified mail, return receipt requested, postage prepaid, and addressed as follows:

If to CCS:
Attn: Johnnie Wardell, CCS Executive Director
304 South 22nd Street
Temple, Texas 76501
Email: johnnie.wardell@ccs1967.org
Phone: 254-298-7006

If to Bell County:
Attn: Honorable Judge David Blackburn
P.O. Box 768
Belton, Texas 76513
Email: david.blackburn@bellcounty.texas.gov

If to the City:
Attn: Chief Pedro Lopez
3304 Community Boulevard
Killeen, Texas 76542
Email: plopez@killeentexas.gov

Or to such other person or address as may be given in writing by either Party to the other in accordance with this provision. If the notice is mailed, it will be deemed delivered within 5 business days after the postmark date.

9.07 **Severability.** In case any provision, for any reason, is held invalid or unenforceable in any respect, such invalidity or unenforceability will not affect any other provision, and this Agreement will be construed as if such invalid or unenforceable provision had not been included.

9.08 **Available Funds.** The Parties will have the right to cancel this Agreement at the end of the then current fiscal period if funds are not allotted for the next fiscal year to continue this Agreement. A

Party may affect such cancellation by giving the other Party written notice of its intention to cancel not less than thirty (30) days prior to the end of the then-current fiscal period, stating its reasons for cancellation. Upon cancellation of this Agreement, the Parties will not be responsible for the payment of any services received which occur after the end of the current fiscal period.

9.09 **Force Majeure.** If either Party is prevented from or delayed in the performance of its obligations under this Agreement by reason of war, strikes, riots, storms, fires, epidemics, pandemics, or any other cause beyond the control of the non-performing Party, the non-performing Party is excused from performance to the extent and during the period of prevention or delay. If the delay continues for longer than sixty (60) days, any Party may terminate this Agreement upon written notice of termination to the other Parties.

9.10 **No Third-Party Beneficiaries.** Nothing in this Agreement will create a contractual relationship between a third party and any Party to this Agreement.

9.11 **Counterparts and Copies.** This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original.

9.12 **Attorney's Fees.** If a Party to this Agreement retains an attorney to enforce this Agreement, the prevailing Party is entitled to recover from the other Party or Parties reasonable attorneys' fees and other fees, costs, and expenses relating to the successful enforcement or defense of any provision of this Agreement.

9.13 **Choice of Law and Venue.** This Agreement will be interpreted and construed in accordance with the laws of Texas, without giving effect to choice of law rules. Each Party hereby consents to exclusive jurisdiction and venue in the courts located in Bell County, Texas.

9.14 NO WAIVER OF IMMUNITY. NEITHER THE EXECUTION OF THIS AGREEMENT, NOR ANY CONDUCT OF ANY PARTY REPRESENTATIVE WILL WAIVE OR BE CONSIDERED A WAIVER OF IMMUNITY.

(*Signature Page to Follow*)

AGREED TO AND EXCUTED;

COUNTY:

BELL COUNTY, a political subdivision of the State of

Texas By: _____

Name: David

Blackburn Title:

County Judge

Date: 28th day of July, 2025

CCS:

CENTRAL COUNTIES SERVICES, a political subdivision of the State of

Texas By: _____

Name: Johnnie Wardell

Title: Executive

Director

Date: 10 day of July, 2025

CITY:

CITY OF KILLEEN, a Texas home-rule municipality

By: _____

Name: _____

Title: _____

Date: ____ day of _____, 2025

ATTEST:

_____

City Secretary

APPROVED AS TO FORM:

_____

City Attorney's Office

INTERLOCAL AGREEMENT
BELL COUNTY DIVERSION CENTER

RS-25-135

September 2, 2025

ILA Bell County Diversion Center

- This interlocal agreement between Bell County, Central County Services and the City of Killeen is a cooperative effort between law enforcement and mental health professionals.

- The purpose is to identify, apprehend, and divert individuals 18 years of age and older who commit misdemeanor offenses while experiencing a mental health crisis from incarceration to appropriate mental health treatment solutions.

ILA Bell County Diversion Center

- Killeen Police Department staff have participated in the "Steering Committee" for the development of the policies and procedures that apply to the use of the BCDC.

- The Killeen Police Department has trained its personnel on the use of the BCDC, including the BCDC referral process, mental health, and de-escalation techniques, and must do so annually.

- The agreement will automatically renew each year, for not more than five years. There is no cost to the City of Killeen.

Benefits

- Immediate access to care rather than incarceration.
- Reduces stigma by treating mental illness as a health issue, not a criminal one.
- This approach shortens the time individuals have to wait to access services during a mental health crisis.
- Builds trust with the community, especially among vulnerable populations.
- Demonstrates a proactive, compassionate approach to public health and safety.

Recommendation

- City Staff recommends that the Council authorizes the City Manager or his designee to enter into the Interlocal Agreement with Bell County and Central County Services for the utilization of the Bell County Diversion Center.

City of Killeen

Staff Report

File Number: RS-25-136

Consider a memorandum/resolution authorizing an amendment to the Interlocal Agreement with Central County Services for a Mental Health Co-Responder Program.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Pedro Lopez, Chief of Police**

SUBJECT: **Killeen Police Department Mental Health Co-Responder Program**

BACKGROUND AND FINDINGS:

On September 3, 2024, Council approved an Interlocal Agreement with Central County Services (CCS) creating the Killeen Police Department mental health co-responder program. The mental health co-responder program is essential for addressing mental health crises effectively and humanely. By pairing specially trained mental health professionals with law enforcement officers, the program helps ensure that individuals experiencing mental health issues receive appropriate care and support during emergencies. This collaboration enhances public safety, reduces the likelihood of adverse outcomes, and helps de-escalate potentially volatile situations, ultimately promoting better outcomes for individuals and the community.

Up until now, CCS has paid the salary of its Co-Responder. The loss of grant funding for the position has now jeopardized the program. The proposed amendment addresses the loss by supplementing it with City Funding. CCS will continue to hire and supervise specially trained mental health professionals, known as Co-Responders, to work full-time with KPD. Under the amended agreement, beginning on Oct. 1, 2025, CCS will invoice the city monthly until it has funded $30,000 of the Co-Responders salary for Fiscal Year 26. The remaining salary expense will be covered by CCS. The Department has identified budgeted funds available for this expense.

The original provisions for annual reviews and automatic renewals remain in effect. It can be terminated by any party with a 30-day written notice, and funding will depend on the budgetary processes and available resources of each party.

THE ALTERNATIVES CONSIDERED:

None

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

This agreement conforms to city policy.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

$30,000 for FY 26, and each year thereafter that the agreement remains in force.

Is this a one-time or recurring revenue/expenditure?

Recurring

Is this revenue/expenditure budgeted?

Yes

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

Budgeted funds are available in Professional Services Account # 100-54250-210-215-000000.

RECOMMENDATION:

Staff recommends authorizing the City Manager or his designee to agree to the proposed amendment to our interlocal agreement with Central County Services to ensure continuation of the mental health co-responder program with the Killeen Police Department.

DEPARTMENTAL CLEARANCES:

Legal
Finance

ATTACHED SUPPORTING DOCUMENTS:

Original Agreement
Amendment
Presentation

Purchasing Division

Procurement **Routing Slip**

Directions:

1. Review the attached item.
2. Make any necessary changes.
3. Initial and date the designated boxes that apply.
4. Forward to the next office on the routing slip.
5. **Please return this routing slip and attachments to Purchasing after all parties have reviewed**.

ORIGINATOR	Alex Gearhart
DEPARTMENT	Police Department
ITB/RFP/RFQ # *(include timeline)*	
Document Name: Agreement Central County Services	

10/21/24 ☒ Department Head initials verified	Date Received	Reviewed No Changes	Reviewed See Changes	Date Forwarded	Other
Procurement Office	10/21/24	Lorianne Luciano Digitally signed by Lorianne Luciano Date: 2024.10.22 18:49:30 -05'00'		10/22/24	
Finance Office Kent Cagle Digitally signed by Kent Cagle Date: 2024.11.04 08:39:42 -06'00'		Kent Cagle Digitally signed by Kent Cagle Date: 2024.11.04 08:39:42 -06'00'			
City Attorney Office		Kent Cagle Digitally signed by Kent Cagle Date: 2024.11.04 08:39:42 -06'00'			
Signature Authority:					
☒ City Manager		Kent Cagle Digitally signed by Kent Cagle Date: 2024.11.04 08:39:42 -06'00'			
☐ Assistant City Manager					
☐ Finance Director					
☐ Department: _____					
Purchasing Office (Return routing slip and a copy of all documents.)					

NOTES:

-All parties sign/date the routing slip
-All parties sign the memo
- CA initial page 7
-CM sign page 7

DISPOSITION STATEMENT:

INTEROFFICE MEMORANDUM

TO: Kent Cagle, City Manager

FROM: Alex Gearhart, Assistant Chief of Police
VIA: Lorianne Luciano, Director of Procurement and Contract Management LL
VIA: Holli Clements, City Attorney hcc
Judith Tangalin, Executive Director of Finance JT
DATE: October 14, 2024

SUBJECT: **CENTRAL COUNTY SERVICES INTERLOCAL AGREEMENT**

Sir,

Attached you will find the Interlocal Agreement with Central Counties Center for Mental Health and Mental Retardation Services as approved by Council on September 3, 2024.

Please review and sign on the last page of this document.

Respectfully,

Alex Gearhart
Digitally signed by Alex Gearhart
Date: 2024.10.21 10:20:56 -05'00'

Alex Gearhart
Assistant Chief of Police

Attachments: Interlocal Agreement

INTERLOCAL AGREEMENT BETWEEN
CENTRAL COUNTIES CENTER FOR MENTAL HEALTH AND MENTAL RETARDATION
AND
THE CITY OF KILLEEN

This Agreement is made and entered into pursuant to the Interlocal Cooperation Act, Chapter, 791, Texas Government Code, Texas Revised Civil Statutes (Vernon's 1976), between Central Counties Center for Mental Health and Mental Retardation Services dba Central Counties Services, hereinafter referred to as CENTER, a community mental health center and a governmental unit of the State of Texas under the provisions of Texas Health and Safety Code §534.001, Vernon's Texas Codes Annotated, and the City of Killeen, hereinafter CITY, acting through its police department, hereinafter referred to as KPD, for the purpose of creating a collaborative process for providing mental health crisis services by establishing a Co-Responder Program, hereinafter referred to as the 'Program, comprised of specially trained, credentialed staff, Qualified Mental Health Professionals (QMHP), and KPD staff.

I. Purpose:

A. The purpose of this Interlocal Agreement is to:

1. Maximize interagency cooperation among the PARTIES in the implementation of a Co-Responder Program for cases involving mental health crises; and
2. Formalize the mutual understanding among the PARTIES regarding the Program operations, funding, policies, planning, and training.

II. Organizational Structure and Control:

A. The Roles and Responsibilities of the PARTIES are as follows:

1. The CENTER and KPD will cooperate in providing mutual administrative oversight for the Program and will work together in good faith to resolve any conflicts or disagreements which may arise regarding oversight of the Program.

2. The CENTER will hire, employ, and supervise the Co-Responder(s). For purposes of this Agreement, a Co-Responder is defined as a specially trained, credentialed Qualified Mental Health Professional (QMHP.) At the time of execution of this Agreement, the PARTIES acknowledge and agree that one (1) full time Co-Responder is to be hired and employed by the CENTER for the Program under this Agreement. The PARTIES acknowledge and agree that additional Co-responders may be added under this Agreement upon the mutual consideration and agreement of the PARTIES.

3. The CENTER will retain the ultimate decision-making authority regarding the hiring and employment of the Co-Responder(s), except that KPD may reject a Co-Responder candidate based upon the failure of any pre-employment polygraph examination or based upon behavior revealed in conjunction with such examination or background investigation, provided, however, rejection of the candidate is not otherwise prohibited by law.

4. KPD shall provide portable police radio and office space for the Program.

5. The Co-Responder(s) will work in cooperation with KPD in order to assist KPD with mental health issues arising during law enforcement activities.

6. The Co-Responder(s) will report to the CENTER for administrative matters (e.g., leave, pay, benefits) and for other matters unrelated to the case-specific work assignments under the Program. The Co-Responder(s) will report to KPD regarding case-specific work assignments under the Program.

7. It shall be the joint responsibility of the CENTER and the Co-Responder(s) to regularly, and in a timely manner, inform KPD of holiday schedules, scheduled vacations, annual leave, or sick leave. Notice of all schedules and leave will be provided to KPD as soon as it is scheduled. The Co-responder(s) will observe holidays as set by the CENTER. When the Co-Responder(s) is on leave for any reason, back-up coverage will not be provided the CENTER.

8. The Co-Responder(s) shall be subject to the personnel policies and procedures of the CENTER. To the extent KPD personnel policies are not in conflict with the CENTER personnel policies, the KPD personnel policies shall also apply to the Program work of the Co-Responder(s). In performance of case work under the Program, the Co-Responder(s) shall adhere to the operational practices and procedures of KPD. Performance appraisals will be handled by the CENTER, except that KPD will be given the opportunity to provide written comments for discretionary use by CENTER in the appraisal process.

9. KPD shall serve as host site for the Program.

10. The CENTER will provide one (1) Co-Responder to work full-time for the Program. Full time is defined as 40 hours per week, 5 days per week, Monday through Friday, 8:00AM-5:00PM, with l hour lunch, daily.

11. The CENTER will provide a vehicle and the maintenance for the vehicle, all insurance for the vehicle and required inspection and registration, a laptop, cell phone, cell phone service, wifi service and all related equipment to conduct mental health crisis services. The CENTER will provide liability and worker's compensation coverage covering the Co-Responder during the performance of his/her work with the Program and shall name the CITY as an additional insured on the policy. The policies shall also include a a in favor of the CITY. The CENTER shall provide the CITY with a copy of a certificate of insurance evidencing such coverage and will notify the CITY within 10 days of any change to such policies or cancelation of such policies. Similarly, the CITY will name the CENTER as an additional insured on the CITY's general liability policy and provide a waiver of subrogation on the CITY's worker's compensation policy. Any changes to the CITY's above named insurance policies will be communicated to the CENTER within 10 days of the change.

12. As KPD officers respond to the scene of a call and it is determined that assistance of a Co-Responder will aide in the disposition of the call, the responding officer will work jointly with the Co-responder, either directly or through dispatch.

13. Crisis services training shall be provided to KPD by the CENTER and shall include, but not be limited to, issues related to confidentiality. Additional training, as appropriate, may be provided in-kind to the CENTER or Co-Responder(s) by KPD.

14. KPD will provide training to the Co-Responder(s), and to its respective KPD employees on the Program regarding the Program's goals and protocols, dispatch

protocol for determining the need for the Co-Responder, situational awareness training, and information security training.

15. In the event that a Co-Responder is on leave and/or busy on another case, KPD will utilize the traditional process for requesting emergency crisis services (MCOT) from the CENTER, as needed.

16. If the Co-Responder has complaints, suggestions, comments, or concerns regarding the policies, procedures, practices or decisions of KPD, the Co-Responder is to first present such concerns to Co-Responder's immediate CENTER supervisor who may, in turn, pursue discussions with KPD; provided, however, it shall be permissible for a Co-Responder to communicate with KPD staff regarding daily issues pertaining to efficient and effective case processing.

17. In any instance in which the Co-Responder, in the judgment of KPD, may have engaged in misconduct or failure to fulfill the mission or purpose of the Program as requested, KPD shall notify CENTER, in writing, of the details of the alleged misconduct or failure. The CENTER shall then undertake an appropriate timely review of the allegations. Depending on the nature of the allegations, if the circumstances warrant, and at the Police Chief's discretion, the Co-Responder may be placed on administrative leave from the Program, his/her duties restricted or removed, and/or access to KPD files, software, and facilities limited during the pendency of the review of the alleged misconduct or failure. In the event the allegations are confirmed, the CENTER may implement any necessary or appropriate discipline, up to and including termination of the Co-responder, after discussion with the Program Leadership Team. The Program Leadership Team will consist of the Police Chief and the CENTER's Director of Behavioral Health and their designees. If the Police Chief disagrees with the CENTER's ultimate decision regarding the alleged misconduct, the Police Chief shall be the final authority on whether a particular person may continue in his/her role as a Co-Responder in the Program. The City and/or KPD are under no obligation to continue to utilize the services of any Co-Responder that it deems unsatisfactory but may continue with the operation of the Program and request the assignment of a different Co-responder. Any Co-Responder(s) suspended, terminated, or otherwise disciplined in relation to his/her relationship with the Program shall have no recourse against KPD for any employment decision(s) made by the CENTER.

18. Should the Program or funding be terminated or reduced for any reason, the CENTER is solely responsible for any and all decisions as to whether to continue to employ the Co-Responder(s). The Co-Responder(s) shall have no recourse against KPD for any employment decision(s) made by the CENTER as a result of termination of the Program.

19. Equipment and other tangible property provided to the Co-Responder(s) by KPD as part of the Program will remain the property of KPD and will be returned to the City within thirty (30) days of the termination of the Program or this Agreement, unless otherwise agreed to in writing. If a Co-responder is terminated from the Program, all KPD equipment and tangible property must be returned to the possession of KPD immediately upon termination.

B. Legal Status.

The PARTIES expressly intend that in reference to this Agreement, the CENTER and KPD shall be independent contractors, and have no employer-employee, agency, joint venture, or partnership relationship among themselves; additionally, this Agreement does not create a separate legal entity. Each PARTY shall be responsible and liable for its own actions and responsibilities and those of its respective employees arising under this Agreement or performance of the activities related to the Program.

C. Waiver of Liability; Assumption of Risk.
The Killeen Police Department and the CENTER and Co-Responder(s) agree that they waive all liability for illness, injury up to and including death, and property damage which may occur as a result of participation in the Program. The Killeen Police Department and the CENTER and Co-Responder(s) further agree that responding to law enforcement calls and dealing with persons in a mental health crisis is inherently dangerous and each expressly assumes the risk and liability by participating in the Program.

D. Non-Disclosure of Information; Mass Media Policy.
1. The PARTIES shall adhere to strict laws and policies regarding the confidentiality of any individual served in the Program. The CENTER shall maintain policies and complete training with the Co-responder(s) regarding confidentiality. Each Party agrees to comply with the requirements of the Health Information Portability and Accountability Act of 1996 ("HIPAA"), and amendments thereto, and the privacy, security, and breach notification regulations promulgated pursuant thereto, including regulations which may become effective during the initial term of this Agreement, or during any renewal term thereof. The PARTIES agree to take such action as may be necessary, from time to time, to amend this Agreement as necessary for the PARTIES to comply with HIPAA. Any ambiguity in the terms of this Paragraph shall be resolved in favor of a meaning that permits the PARTIES to comply with HIPAA.

2. As a general rule, all inquiries regarding the Program shall be directed to the respective Public Information Officer representing the involved PARTY. For requests involving a City call for service, the KPD shall respond. For requests involving mental health case supervision issues, the CENTER shall respond.

III. Effective Date, Duration, Termination, and Funding:

A. The initial term of this Agreement shall become effective upon approval of the governing bodies of each of the Parties and will commence on the latest signature date below. The Agreement will continue in full force and effect through August 31, 2025, unless terminated in accordance with this Agreement. If this Agreement is not otherwise terminated, the PARTIES will review the Agreement annually, at least 30 days prior to expiration, and unless otherwise terminated or amended the Agreement will automatically renew for successive one (l) year terms. Any Party to this Agreement may terminate its relationship with the Program and withdraw from this Agreement, at any time, by providing the other Party at least thirty (30) days written notification.

B. This Agreement does not obligate any PARTY to provide nor does it constitute a basis for the transfer of funds. Expenditure of funds in connection with the implementation and continuation of this Agreement will be subject to the budgetary processes of each PARTY and to the availability of funds and resources pursuant to applicable laws, regulations and policies. Pursuant to Section 791.001 (c) of the Texas Government Code, the Interlocal Cooperation Act, each PARTY must pay

for the performance of all governmental functions or services from the current revenues available to the paying PARTY.

IV. General Provisions:

A. This Agreement may be executed in one or more counterparts, including by facsimile, each of which when compiled in its entirety shall together constitute one and the same instrument.

B. This Agreement may be amended by written addendum mutually agreed upon and executed by the PARTIES.

C. The provisions of this Agreement shall be governed by, construed, and enforced in accordance with the laws of the State of Texas and in the County of Bell.

D. This Agreement contains all the terms and conditions agreed upon by the PARTIES. There are no provisions, terms, conditions, or obligations other than those contained herein, and this Agreement shall supersede all previous and future verbal communications, representations, or agreements between or among CENTER and KPD, unless demonstrated in writing. Any amendments to this Agreement must be in writing and signed by the PARTIES.

E. In the event any of the provisions herein contained shall be deemed or held to be unconstitutional, invalid or unenforceable, the remainder of this Agreement shall be interpreted as if such unconstitutional, invalid or unenforceable provision was not contained herein. Should any portion of this Agreement be judicially determined to be illegal or unenforceable, the remainder of the Agreement shall continue in full force and effect, and the PARTIES may renegotiate the terms affected by the severance.

F. This Agreement shall inure to the benefit of, and shall be binding upon, the PARTIES and their respective successors.

IN WITNESS WHEREOF, the PARTIES hereto have caused their respective and duly authorized representatives to execute this Agreement to be made effective the date last written below.

City of Killeen, Texas

By: Kent Cagle Digitally signed by Kent Cagle Date: 2024.11.04 08:39:42 -06'00' _____
City Manager

hcc

Date: _____

Central Counties Services

By: Johnnie Wardell Digitally signed by Johnnie Wardell Date: 2024.11.04 13:32:26 -06'00' _____
Johnnie Wardell, Executive Director

Date: _____

Killeen Police Department

By: Alex Gearhart Digitally signed by Alex Gearhart Date: 2024.10.21 10:21:14 -05'00' _____
Assistant Chief of Police

Date: _____

City of Killeen

File Number: RS-24-153 **Enactment Number: 24-151R**

Consider a memorandum/resolution authorizing an Interlocal Agreement with Central County Services for a Mental Health Co-Responder Program.

DATE: **September 3, 2024**

TO: **Kent Cagle, City Manager**

FROM: **Pedro Lopez, Chief of Police**

SUBJECT: **Killeen Police Department Mental Health Co-Responder Program**

BACKGROUND AND FINDINGS:

The Killeen Police Department seeks to create a mental health co-responder program with Central County Services (CCS). A police mental health co-responder program is essential for addressing mental health crises effectively and humanely. By pairing specially trained mental health professionals with law enforcement officers, the program helps ensure that individuals experiencing mental health issues receive appropriate care and support during emergencies. This collaboration enhances public safety, reduces the likelihood of adverse outcomes, and helps de-escalate potentially volatile situations, ultimately promoting better outcomes for individuals and the community.

The purpose of this Interlocal Agreement is to enhance interagency cooperation between KPD and CCS in implementing such a co-responder program for mental health crises. The agreement formalizes the mutual understanding regarding the program's operations, funding, policies, planning, and training. CCS will hire and supervise specially trained mental health professionals, known as Co-Responders, to work full-time with KPD. KPD will provide necessary resources such as office space, radios, and additional training, while the Co-Responders will support KPD in addressing mental health issues during law enforcement activities.

The agreement delineates the roles and responsibilities of CCS and KPD. CCS has the authority to hire and supervise Co-Responders, but KPD can reject candidates based on pre-employment screenings. Co-Responders will adhere to the operational practices of KPD while performing case work, but they will follow the CCS's administrative policies for other matters. Both parties will provide training to ensure the program's goals and protocols are met. The agreement includes provisions for liability, risk assumptions, confidentiality, and media policies, emphasizing compliance with HIPAA regulations. The agreement is effective upon approval by the governing bodies and remains in force through August 31, 2025, with provisions for annual reviews and automatic renewals. It can be terminated by any party with a 30-day written notice, and funding will depend on the budgetary processes and available resources of each party.

This agreement is designed to foster a collaborative approach to managing mental health crises in the community, ensuring that both law enforcement and mental health professionals work together efficiently and effectively. Approval of this agreement will formalize the partnership and provide a structured framework for its successful implementation.

THE ALTERNATIVES CONSIDERED:

None

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

This agreement conforms to city policy.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

None. KPD will utilize existing office space and radio equipment for the program.

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

Staff recommends authorizing the City Manager or his designee to enter into an interlocal agreement with Central County Services to implement mental health co-responder program with the Killeen Police Department.

DEPARTMENTAL CLEARANCES:

Legal

ATTACHED SUPPORTING DOCUMENTS:

Agreement
Presentation

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF KILLEEN:

That the above stated recommendation is hereby approved and authorized.

PASSED AND APPROVED at a regular meeting of the City Council of the City of Killeen, Texas, this the 3rd day of September, 2024, at which meeting a quorum was present, held in accordance with the provisions of V.T.C.A., Government Code, § 551.001 et seq.

Approved As To Form: Holli C. Clements
Holli C. Clements
CITY ATTORNEY

Approved: Debbie Nash-King
Debbie Nash-King
MAYOR

CITY OF KILLEEN
KILLEEN TEXAS

Attest: Laura J. Calcote
Laura J. Calcote
CITY SECRETARY

AMENDMENT TO THE
INTERLOCAL AGREEMENT BETWEEN
CENTRAL COUNTIES SERVICES AND THE
KILLEEN POLICE DEPARTMENT

This Amendment is made and entered into pursuant to the terms of the Inter-local Cooperation Agreement between Central Counties Services, hereinafter referred to as "CCS", and Killeen Police Department, hereinafter referred to as" KPD", which established the Co-Responder Program to provide collaborative mental health crisis services to individuals and coordinate services with the local mental health authority.

Purpose

The purpose of this Amendment is to clarify the proposed source and timing of funding in connection with the continuation of the Co-Responder Program.

Amendment

Section III. - Effective Date, Duration, Termination, and Funding is hereby amended and restated in its entirety and shall hereafter be and read as follows:

A. The initial term of this Agreement shall become effective upon approval of the governing bodies of each of the Parties and will commence on the latest signature date below. The Agreement will continue in full force and effect through September 30, 2026, unless terminated in accordance with this Agreement. If this Agreement is not otherwise terminated, the Parties will review the Agreement annually, at least 30 days prior to expiration, and unless otherwise terminated or amended the Agreement will automatically renew for successive one (1) year terms. Any Party to this Agreement may terminate its relationship with the Program and withdraw from this Agreement, at any time, by providing the other Party at least thirty (30) days written notification.

B. This Agreement does not obligate any Party to provide funds. Expenditure of funds in connection with the implementation and continuation of this Agreement will be subject to the budgetary processes of each Party and to the availability of funds and resources pursuant to applicable laws, regulations and policies. Pursuant to Section 791.001(c) of the Texas Government Code, the Interlocal Cooperation Act, each PARTY must pay for the performance of all governmental functions or services from the current revenues available to the paying PARTY.

C. To the extent appropriated by the City of Killeen City Council and adopted in the operating budget for KPD, and to the extent fiscal, physical, and personnel resources remain available, the City will fund the continued operation of the Co-Responder Program beginning October 1, 2025 and ending September 30, 2026. Funding will only be from the current revenues available to the City and nothing contained herein shall be construed so as to require the City to assess, levy, or collect a tax or create a sinking fund to fund its obligations. Additionally, the City's obligations under this First Amendment shall not constitute a general obligation of the City or an indebtedness under the constitution or laws of the State of Texas.

D. Funding - Central Counties Services agrees to invoice the City monthly for salary and related expenses of the Co-Responder Program until such time as the City has paid a total of $30,000 in fiscal year 2026. The City agrees to pay the invoices submitted by Central Counties Services within 30 days of receipt of the invoice.

Pursuant to the terms of the Interlocal Agreement, this Amendment shall be incorporated into the Agreement and effective upon approval of the Parties' governing bodies.

IN WITNESS WHEREOF, the PARTIES hereto have caused their respective and duly authorized representatives to execute this Amendment and to be made effective the date last written below.

City of Killeen, Texas

By: _____

Kent Cagle
City Manager

Date:

Central Counties Services

By:

Johnnie Wardell
Chief Executive Officer

Date:

Killeen Police Department

By:

Pedro

Lopez

Police Chief

Date:

Approved as to Form:

City Attorney's Office

AMENDMENT TO CENTRAL COUNTY SERVICES INTERLOCAL AGREEMENT

RS-25-136

September 2, 2025

Amendment to CCS Interlocal Agreement

- The Killeen Police Department (KPD) and Central County Services (CCS) partner to embed a **Qualified Mental Health Professional (QMHP)** with officers during calls involving mental health concerns. This program improves crisis response, reduces unnecessary arrests, and connects individuals to appropriate services while supporting officers with on-scene clinical expertise.

- A state grant administered by CCS has funded this QMHP. The original ILA was approved in November 2024. The funding has now expired, leaving the position unfunded.

Amendment to CCS Interlocal Agreement

- The expiration of state grant funding has placed the KPD–CCS Mental Health Co-Responder Program at risk. To sustain the program, a proposed amendment to the Interlocal Agreement provides $30,000 in city funding to support the Qualified Mental Health Professional (QMHP) position.

- If approved, Central County Services (CCS) will invoice the City monthly for the QMHP's salary beginning October 1, 2025. Once the City's $30,000 contribution for FY 25 is met, CCS will assume responsibility for the remaining salary costs. The Police Department has budgeted funds available for this program in the Professional Services account.

Recommendation

- Staff recommends authorizing the City Manager, or designee, to execute the proposed amendment to the Interlocal Agreement with Central County Services to ensure continuation of the KPD Mental Health Co-Responder Program.

City of Killeen

Staff Report

File Number: RS-25-137

Consider a memorandum/resolution authorizing a third amendment to the Professional Services Agreement with Central Texas Alcohol Rehabilitation Center for substance use disorder counseling and treatment services.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Tiffanie McNair, Executive Director of Community Development**

SUBJECT: **Third Amendment to Professional Services Agreement with Central Texas Alcohol and Rehabilitation Center (Cen-Tex ARC)**

BACKGROUND AND FINDINGS:

In December 2023 Killeen city council approved, under Resolution 23-192R the Professional Services agreement with Central Texas Alcohol Rehabilitation Center (Cen-Tex ARC) in the amount $143,130.00 for the provision of substance use disorder treatment, counseling, and comprehensive wrap-around services.

On April 4, 2024, the City and Cen-Tex ARC executed the First Agreement Amendment which only provided for administrative amendments but did not alter the total dollar amount of the original agreement.

This pilot program continues to support efforts outlined and recommended in the Homeless and Mental Health Strategic Plan with one of the focus area needs, intensive mental health and substance use disorder treatment. The program is instrumental in assisting individuals to exit homelessness in Killeen.

On March 18, 2025, a Second Amendment provided supplemental funding in the amount of $57,734.00 for continued substance use disorder treatment, counseling, and comprehensive wrap-around services to prepare individuals for long-term sufficiency and independence as previous program funding has been exhausted. The supplemental funding is projected to last until June 2025.

In May 2025, the City received an additional allocation in the amount of $159,589.74 from the State of Texas Opioid Abatement Settlement that may be used to fund the Substance Use Disorder (SUD) homeless initiative. This third amendment to the agreement will provide additional funding in an amount not to exceed Thirty-One Thousand Seven Hundred Seventy-Five Dollars ($31,775.00) to continue funding services up to September 30, 2025, for a total amount of $232,639.00.

Staff requests City Council authorize the City Manager or his designee to execute the Third Amendment for professional services agreement with Cen-Tex Alcohol Rehabilitation Center Inc. for a total contract amount of $232,639.00. At a later date, staff will present a new agreement with Centex ARC for City Council consideration. The proposed agreement will be in the amount of $125,814.00, the balance of Opioid Abatement Settlement funds received to date.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

Staff recommends that City Council authorize the City Manager, or his designee, to execute the Third Amendment for professional services agreement with Cen-Tex Alcohol Rehabilitation Center Inc. for a total contract amount of $232,639.00 treatment.

CONFORMITY TO CITY POLICY:

Yes, as recommended in Homeless and Mental Health Strategic Plan approved by city council.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

The expenditure for FY 2025 $31,775.00.

Is this a one-time or recurring revenue/expenditure?

This is a one-time expenditure.

Is this revenue/expenditure budgeted?

Partially. $20,000 is budgeted and the difference of 11,775 will be included on the year end budget amendment.

If not, where will the money come from?

Funds will be fully appropriated upon approval of the year end budget amendment.

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

Funds will be fully appropriated upon approval of the year end budget amendment.

RECOMMENDATION:

Staff recommends that City Council authorize the City Manager or his designee to execute the Third Amendment for professional services agreement with Cen-Tex Alcohol Rehabilitation Center Inc. for

a total contract amount of $232,639.00.

DEPARTMENTAL CLEARANCES:

Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

2023 Agreement
Second Amendment
Third Amendment
Presentation

PROFESSIONAL SERVICES AGREEMENT

BY AND BETWEEN THE CITY OF KILLEEN, TEXAS

AND CEN-TEX ALCOHOL REHABILITATION CENTER INC. ("CEN-TEX ARC")

THIS AGREEMENT is made and entered by and between the CITY of Killeen, Texas, a home rule municipal corporation located in Bell County, Texas (hereinafter called **CITY**) and **CEN-TEX ALCOHOL REHABILITATION CENTER INC.** ("CEN-TEX ARC") a nonprofit organization hereinafter referred to as **"Services Provider" or "CEN-TEX ARC"**, to be effective from and after the date as provided herein.

WHEREAS the **CITY** desires to have the services performed as set forth below requiring specialized skills, licenses and other supportive capabilities.

WHEREAS the **CITY** has determined that the **CEN-TEX ARC** is qualified and possesses sufficient skills, licenses and the necessary capabilities, including technical and professional expertise, where required, to perform the services and/or tasks set forth in this Agreement.

NOW, THEREFORE, in consideration of the terms, conditions, covenants, and performance contained herein, the Parties hereto agree as follows:

I. SCOPE OF SERVICES

CEN-TEX ARC shall perform such services and accomplish such tasks, including the furnishing of all materials and equipment necessary for full performance thereof, as are identified and designated as Service Provider responsibilities throughout this Agreement.

CEN-TEX ARC will:

1. Develop a system of triage and enrollment that enables clients being referred to have quick and easy access to services offered under their program.
2. Use the Homeless Management Information System (HMIS) as a tool to securely share, refer, and track client progress that is compliant with HIPPA and Personal Identifiable Information ("PII") federal standards.
3. Provide services that includes, but not limited to:
    a. Up to a maximum of One-Hundred Eighty (180) days of combined substance use counseling and treatment, and comprehensive wrap-around services that address social needs to prepare individuals for long-term self-sufficiency and independence;
    b. Nutritious meals including three (3) meals daily, seven (7) days weekly, using USDA-approved meal plans;

c. 24-hour Resident Monitoring for safety and security on property;

d. Semi-private living accommodations that include up to three clients per room, and a shared bathroom;

e. Transportation resources on an as needed basis;

f. Additional life skills coaching by trained staff;

g. Comprehensive Case Management services that help address other life struggles provided by licensed substance use counselors;

h. Other services as identified by the client and their counselor;

i. Additional services will be determined by needs requested and defined by **CITY** and agreed upon by **CEN-TEX ARC.**

j. Respond promptly in writing to requests by the **CITY** for authorization to proceed with specific additional services outside the agreed upon services.

4. Provide written reports to the **CITY** as requested or required by any agreement or contract to provide services to the appliable client (s) as directed.

5. The total fee for the services shall not exceed **ONE HUNDRED FORTY-THREE THOUSAND ONE HUNDRE THIRTY DOLLARS ($143,130.00).** The **CITY** has designated Officer Evan Crouse from the Killeen Police Department Homeless Outreach (HOT) Team, or other assigned designee as the **CITY's** Representative, who shall have authority to coordinate required services of each bed on the **CITY's** behalf with respect to this Agreement consistent with the budget policy.

II. CLIENT ACCEPTANCE CRITERIA:

1. Client must be homeless and have a substance use disorder; and

2. Client must conduct a pre-interview by a Committee, members to represent both **CEN-TEX ARC** and the **CITY**, to determine suitability for the program.

3. Client must consent to a background check so that **CEN-TEX ARC** is aware of criminal history but does not necessarily exclude enrollment. No individuals with convictions for arson or any sex-related offenses including registered and un-registered sex offenders will allowed in the program.

4. Client must agree to conduct a medical evaluation with a licensed physician and registered nurse and be determined healthy enough to be in a residential treatment and housing program.

5. Client must consent to Central Counties Services (former MHMR) involvement to determine co-occurring mental health issues needing treatment there.

III. RIGHTS, RESPONSIBILITIES AND DUTIES

The Parties agree that their responsibilities to work together will include the following:

1. Parties agree to adhere to the guidelines stipulated in the Health Insurance Portability and Accountability Act of 1996 (HIPPA); 42 CFR Section 2; and other federal and state laws and regulations as related to the client confidentiality and privacy requirements, including those specific to minor children when providing services. All necessary Releases of Information (ROI) will be obtained when legally required and kept on file in HMIS by each Party under the client's unique identifier. Each Party will be responsible for ensuring their staff are properly trained and that they adhere to the HIPPA & PII confidentiality requirements as directed.
2. Parties agree to maintain proper and accurate records of services in both HMIS database and individual client records, as applicable, by the respective organization for the purpose of service documentation.
3. Parties agree that no part of this Agreement shall limit an individual from their right to choose or refuse services from either Party.
4. Parties agree that clients will have the right to a grievance process with the respective Party, if requested, and will be the said Parties responsibility to establish a process or procedure if not already in place.
5. Parties agree that clients will not be charged or pay for any services or fees directly under the stipulations of this Agreement and/or other subcontractor agreements.

IV. CITY OBLIGATIONS

CITY will:

1. Refer clients identified as having a significant need and could benefit from the services offered by **CEN-TEX ARC** using an agreed upon evaluation system of eligibility for the referral.
2. Share information via use of the Homeless Management Information System (HMIS) as a tool to document and track clients referred and services provided as part of the larger component of addressing homelessness and mental health.
3. Provide payment for services as agreed upon in this Agreement as applicable.

V. TERM

No coordination of services/assignment for bed(s) shall occur prior to execution of this Agreement, and the term shall terminate and the expenditure of allocated funds for services or extended by mutual written agreement of the Parties.

VI. ASSIGNMENT

The Parties each hereby bind themselves, their successors, assigns and legal representatives to each other with respect to the terms of this Agreement. Neither Party will assign, sublet nor transfer any interest in this Agreement without the written authorization of the other.

VII. AMENDMENTS

No provisions of this Agreement may be amended or modified except by a further written document approved and signed by the **CITY** and **CEN-TEX ARC**.

VIII. TERMINATION

In connection with the work outlined in this Agreement, it is agreed and fully understood by **CEN-TEX ARC** that the **CITY** may cancel or indefinitely suspend further work hereunder or terminate this Agreement for convenience or cause upon thirty (30) days written notice to the **CEN-TEX ARC** with the understanding that immediately upon receipt of said notice all Services being performed under this Agreement will cease. Before the end of such thirty (30) day period **CEN-TEX ARC** will invoice **CITY** for all work satisfactorily completed and will be compensated in accordance with the terms of this Agreement.

CEN-TEX ARC will have the right to terminate this Agreement for cause, on thirty (30) days written notice to the **CITY** should the **CITY** fail to satisfactorily perform its obligations herein. In the event of termination, **CEN-TEX ARC** will be paid for all services rendered to date of termination. In the event of termination hereunder, **CEN-TEX ARC** will invoice **CITY** for all work satisfactorily completed up to the date of this notice of termination and will be compensated in accordance with the terms of Agreement.

III. CHOICE OF LAW; VENUE

Venue and jurisdiction of any suit or right or cause of action arising under or in connection with this Agreement will be exclusively in Bell County, Texas, and any court of competent jurisdiction will interpret this Agreement in accordance with the laws of the State of Texas. The prevailing party in an action brought under or concerning this Agreement may recover costs of court, reasonable attorney's fees, and reasonable expert witnesses' and Service Providers' fees.

IV. PAYMENT

Payment will be made by **CITY** under this Agreement per the following:

1. A fee of **$195.00, per person, per day,** for services rendered. Payment is limited to up to One Hundred Eighty (180) days of treatment per client.
2. Payment will be made within 30-days of **CITY** receiving invoice.
3. **CEN-TEX ARC** will bill **CITY** within 10-business days of each proceeding thirty days of treatment, up to the maximum 90 days of treatment per client.

V. HOLD HARMLESS

TO THE EXTENT ALLOWED BY LAW, EACH PARTY TO THIS AGREEMENT AGREES TO INDEMNIFY AND HOLD HARMLESS THE OTHER FOR AND FROM ANY CLAIMS, CAUSES OF ACTION, OR ANY OTHER PROCEEDING OF ANY TYPE OR KIND THAT IS MADE AGAINST THE OTHER WHERE SUCH CLAIM, CAUSE OF ACTION OR OTHER PROCEEDING ARISES FROM THE CONDUCT, ACT, OMISSION, OR COMMISSION BY THE OTHER PARTY.

VI. STANDARD OF CARE

Services performed under this Agreement shall be by a licensed **SERVICE PROVIDER** if a license is required by the **SERVICE PROVIDER'S** profession and shall be executed with the professional skill and care ordinarily provided by a competent **SERVICE PROVIDER** in the same or similar locality under the same or similar circumstances and professional license and shall be performed as expeditiously as is prudent considering the ordinary professional skill and care of a competent **SERVICE PROVIDER.**

VII. INDEMNIFICATION

THE SERVICE PROVIDER WILL INDEMNIFY, DEFEND, AND HOLD THE CITY AND ALL OF ITS OFFICERS, AGENTS, SERVANTS, AND EMPLOYEES HARMLESS FROM ANY LOSS, DAMAGE, LIABILITY OR EXPENSE, INCLUDING COSTS OF COURT, REASONABLE ATTORNEYS' FEES, EXPERT WITNESSES' AND SERVICE PROVIDERS' FEES, ON ACCOUNT OF DAMAGE TO PROPERTY AND/OR INJURIES, INCLUDING DEATH, TO ALL PERSONS, DUE TO ANY ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, BREACH OF ANY OBLIGATION UNDER THIS AGREEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER UNDER THIS AGREEMENT, CAUSED BY SERVICE PROVIDER OR ITS OFFICERS, AGENTS, EMPLOYEES, SUBCONTRACTORS, LICENSEES, INVITEES, OR OTHER PERSONS ACTIONS FOR WHOM SERVICE PROVIDER IS LIABLE, AND SHALL PAY ALL EXPENSES AND SATISFY ALL JUDGMENTS WHICH MAY BE INCURRED BY OR RENDERED AGAINST THEM, OR ANY OF THEM IN CONNECTION WITH THIS AGREEMENT.

THE INDEMNITY OBLIGATIONS HEREIN SHALL SURVIVE THE TERMINATION OF THE AGREEMENT FOR ANY REASON AND SHALL SURVIVE THE COMPLETION OF THE WORK.

VIII. CONFIDENTIALITY

All information obtained during the execution of this Agreement by **SERVICE PROVIDER** is deemed confidential. Disclosure of information by **SERVICE PROVIDER** not authorized by **CITY** in writing will constitute a material breach of this Agreement. Notwithstanding anything herein to the contrary, the CITY is a governmental entity and shall abide by the laws governing Open Government and the opinions of the Attorney General now current and as amended.

IX. INSURANCE

The **SERVICE PROVIDER** will maintain at all times professional liability or errors and omissions insurance covering any claim hereunder occasioned by **SERVICE PROVIDER's** negligent act, or error or omission in an amount of not less than $1,000,000 general aggregate. **SERVICE PROVIDER** agrees to maintain professional liability insurance during the term of this agreement and, if the policy is on a claims made basis, for a period of not less than five (5) years after the Project is complete and provide proof of such continuing coverage. **SERVICE PROVIDER** further agrees to provide proof of coverage as needed for prior acts back to the date of execution of this agreement if **SERVICE PROVIDER** changes insurance carriers during this extended indemnity period.

SERVICE PROVIDER will further maintain general commercial liability coverage $1,000,000 per occurrence (Bodily injury and property damage). **SERVICE PROVIDER** will maintain Automobile Liability coverage in an amount of $500,000 Combined single limit for each accident (Bodily injury and property damage). **SERVICE PROVIDER** will maintain Professional Liability Insurance $1,000,000 general aggregate.

COMPLIANCE WITH LAWS

The **SERVICE PROVIDER**, his **SERVICE PROVIDER's**, agents and employees and subcontractors, will comply with all applicable Federal and State laws, the Charter and Code or Ordinances of the City of Killeen, and all other applicable rules and regulations promoted by all local, State and National boards, bureaus and agencies.

X. SERVICE PROVIDER'S CERTIFICATION

SERVICE PROVIDER certifies that neither it, nor any of its agents or employees, have or will offer or accept gifts or anything of value, or enter into any business arrangement, with any employee, official, or agent of the **CITY.**

SERVICE PROVIDER certifies, pursuant to Texas Government Code Chapter 2270, that it does not boycott Israel and will not boycott Israel during the term of this Agreement. **SERVICE PROVIDER** further certifies, pursuant to Texas Government Code Chapter 2252, Subchapter F, that it does not engage in business with Iran, Sudan, or a foreign terrorist organization as may be designated by the United States Secretary of State pursuant to his authorization in 8 U.S.C. Section 1189. Texas Government Code, Chapter 2274 – the **SERVICE PROVIDER** verifies that it does not boycott energy companies and will not boycott energy companies during the term of the contract. *Boycott energy company is defined in Government Code Chapter 809.* Texas Government Code, Chapter 2274 – the **SERVICE PROVIDER** verifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of the contract against a firearm entity or firearm trade association. *Discriminate, firearm entity and firearm trade association are defined in Government Code Chapter 2274.*

XI. EXECUTION OF AGREEMENT

SIGNED, ACCEPTED AND AGREED TO this day of 2023, by the undersigned Parties who acknowledge that they have read and understand this Agreement and that the Agreement is issued in accordance with local, State, and Federal laws, and the undersigned Parties hereby execute this legal document voluntarily and of their own free will.

By: Kent Cagle Digitally signed by Kent Cagle Date: 2024.01.16 16:21:52 -06'00'

Kent Cagle, City Manager hcc

Date:

Principal Place of Business/Address: 101 North College Street, Killeen, Texas 76541

By: Mark Baker

Mark Baker, Executive Director

Date: 12-19-23

Principal Place of Business/Address:

Cen-Tex ARC, 2410 E. Adams Avenue, Temple, TX 76503

SECOND AMENDED PROFESSIONAL SERVICESAGREEMENT

BY AND BETWEEN THE CITY OF KILLEEN, TEXAS

AND CEN-TEX ALCOHOL REHABILITATION CENTER INC. ("CEN-TEX ARC")

THIS SECOND AMENDED AGREEMENT is effective March 18, 2025 and is made and entered by and between the CITY of Killeen, Texas, a home rule municipal corporation located in Bell County, Texas (hereinafter called **CITY**) and **CEN-TEX ALCOHOL REHABILITATION CENTER INC.** ("CEN-TEX ARC") a nonprofit organization hereinafter referred to as **"Services Provider" or "CEN-TEX ARC"**, and collectively as the **"Parties"**.

WHEREAS the **CITY** and **CEN-TEX** executed a Professional Services Agreement dated January 16, 2024, which provided for a total fee of $143,130.00 for the Services therein the Agreement, and funding has been exhausted for this program.

WHEREAS on April 4, 2024, **the CITY and CEN-TEX** executed the First Amended Agreement which only provided for administrative amendments to the Agreement but did not alter the total dollar amount of the original Agreement, and

WHEREAS the CITY and CEN-TEX wish to execute this Second Amended Agreement to authorize additional funding totaling fifty-seven thousand seven hundred and thirty-four dollars ($57,734.00) for the Services provided herein and which was made available by the Amended FY 2025 Annual Budget of the City of Killeen to increase revenue and expense accounts under Ordinance NO. 25-004.

WHEREAS the **CITY** desires to have the services performed as set forth below requiring specialized skills, licenses, and other supportive capabilities.

WHEREAS the **CITY** has determined that the **CEN-TEX ARC** is qualified and possesses sufficient skills, licenses, and the necessary capabilities, including technical and professional expertise, where required, to perform the services and/or tasks set forth in this Agreement.

NOW, THEREFORE, in consideration of the terms, conditions, covenants, and performance contained herein, the Parties hereto agree as follows:

I. SCOPE OF SERVICES

CEN-TEX ARC shall perform such services and accomplish such tasks, including the furnishing of all materials and equipment necessary for full performance thereof, as are identified and designated as Service Provider responsibilities throughout this Agreement.

CEN-TEX ARC will:

1. Develop a system of triage and enrollment that enables clients being referred to have quick and easy access to services offered under their program.

2. Use the Homeless Management Information System (HMIS) as a tool to securely share, refer, and track client progress that is compliant with HIPPA and Personal Identifiable Information ("PII") federal standards.

3. Provide services that includes, but not limited to:

    a. Up to a maximum of One-Hundred Eighty (180) days of combined substance use counseling and treatment, and comprehensive wrap-around services that address social needs to prepare individuals for long-term self-sufficiency and independence;

    b. Nutritious meals including three (3) meals daily, seven (7) days weekly, using USDA-approved meal plans;

    c. 24-hour Resident Monitoring for safety and security on property;

    d. Semi-private living accommodations that include up to three clients per room, and a shared bathroom;

    e. Transportation resources on an as needed basis;

    f. Additional life skills coaching by trained staff;

    g. Comprehensive Case Management services that help address other life struggles provided by licensed substance use counselors;

    h. Other services as identified by the client and their counselor;

    i. Additional services will be determined by needs requested and defined by **CITY** and agreed upon by **CEN-TEX ARC.**

    j. Respond promptly in writing to requests by the **CITY** for authorization to proceed with specific additional services outside the agreed upon services.

4. Provide written reports to the **CITY** as requested or required by any agreement or contract to provide services to the appliable client (s) as directed.

5. The total fee for the Services shall not exceed **FIFTY-SEVENTHOUSAND SEVEN HUNDRED THIRTY-FOUR DOLLARS ($57,734.00).** The **CITY** has designated Officer Evan Crouse from the Killeen Police Department Homeless Outreach (HOT) Team, or other assigned designee as the **CITY's** Representative, who shall have authority to coordinate required services of each bed on the **CITY's** behalf with respect to this Agreement consistent with the budget policy.

II. CLIENT ACCEPTANCE CRITERIA:

1. Client must be homeless and have a substance use disorder; and

2. Client must conduct a pre-interview by a Committee, members to represent both **CEN-TEX ARC** and the **CITY**, to determine suitability for the program. Committee shall consist of Officer Crouse or other assigned City of Killeen representative and of the Cen Tex ARC staff.

3. Client must consent to a background check so that **CEN-TEX ARC** is aware of criminal history but does not necessarily exclude enrollment. No individuals with convictions for arson or any sex-related offenses including registered and un-registered sex offenders will allowed in the program.

4. Client must consent to a background check so that **CEN-TEX ARC** is aware of criminal history but does not necessarily exclude enrollment. No individuals with convictions for arson or any sex-related offenses including registered and un-registered sex offenders will allowed in the program. Client must agree to conduct a medical evaluation with a licensed physician and registered nurse and be determined healthy enough to be in a residential treatment and housing program.

5. Client must consent to Central Counties Services (former MHMR) involvement to determine co-occurring mental health issues needing treatment there.

III. RIGHTS, RESPONSIBILITIES AND DUTIES

The Parties agree that their responsibilities to work together will include the following:

a. Parties agree to adhere to the guidelines stipulated in the Health Insurance Portability and Accountability Act of 1996 (HIPPA); 42 CFR Section 2; and other federal and state laws and regulations as related to the client confidentiality and privacy requirements, including those specific to minor children when providing services. All necessary Releases of Information (ROI) will be obtained when legally required and kept on file in HMIS by each Party under the client's unique identifier. Each Party will be responsible for ensuring their staff are properly trained and that they adhere to the HIPPA & PII confidentiality requirements as directed.

b. Parties agree to maintain proper and accurate records of services in both HMIS database and individual client records, as applicable, by the respective organization for the purpose of service documentation.

c. Parties agree that no part of this Agreement shall limit an individual from their right to choose or refuse services from either Party.

d. Parties agree that clients will have the right to a grievance process with the respective Party, if requested, and will be the said Parties responsibility to establish a process or procedure if not already in place.

e. Parties agree that clients will not be charged or pay for any services or fees directly under the stipulations of this Agreement and/or other subcontractor agreements.

IV. CITY OBLIGATIONS

CITY will:

1. Refer clients identified as having a significant need and could benefit from the services offered by **CEN-TEX ARC** using an agreed upon evaluation system of

eligibility for the referral.

2. Share information via use of the Homeless Management Information System (HMIS) as a tool to document and track clients referred and services provided as part of the larger component of addressing homelessness and mental health.
3. Provide payment for services as agreed upon in this Agreement as applicable.

V. TERM

No coordination of services/assignment for bed(s) shall occur prior to execution of the original Agreement, and the term of this Second Amended Agreement shall terminate at the expenditure of all allocated funds for services or extended by mutual written agreement of the Parties.

VI. ASSIGNMENT

The Parties each hereby bind themselves, their successors, assigns and legal representatives to each other with respect to the terms of this Agreement. Neither Party will assign, sublet nor transfer any interest in this Agreement without the written authorization of the other.

VII. AMENDMENTS

No provisions of this Agreement may be amended or modified except by a further written document approved and signed by the **CITY** and **CEN-TEX ARC**.

VIII. TERMINATION

In connection with the work outlined in this Agreement, it is agreed and fully understood by **CEN-TEX ARC** that the **CITY** may cancel or indefinitely suspend further work hereunder or terminate this Agreement for convenience or cause upon thirty (30) days written notice to the **CEN-TEX ARC** with the understanding that immediately upon receipt of said notice all Services being performed under this Agreement will cease. Before the end of such thirty (30) day period **CEN-TEX ARC** will invoice **CITY** for all work satisfactorily completed and will be compensated in accordance with the terms of this Agreement.

CEN-TEX ARC will have the right to terminate this Agreement for cause, on thirty (30) days written notice to the **CITY** should the **CITY** fail to satisfactorily perform its obligations herein. In the event of termination, **CEN-TEX ARC** will be paid for all services rendered to date of termination. In the event of termination hereunder, **CEN-TEX ARC** will invoice **CITY** for all work satisfactorily completed up to the date of this notice of termination and will be compensated in accordance with the terms of Agreement.

IX. CHOICE OF LAW; VENUE

Venue and jurisdiction of any suit or right or cause of action arising under or in connection with this Agreement will be exclusively in Bell County, Texas, and any court of competent jurisdiction will interpret this Agreement in accordance with the laws of the State of Texas. The prevailing party in an action brought under or concerning this Agreement may recover costs of court, reasonable attorney's fees, and reasonable expert witnesses' and Service Providers' fees.

X. PAYMENT

Payment will be made by **CITY** under this Agreement per the following:

1. A fee of **$195.00, per person, per day,** for services rendered. Payment is limited to up to One Hundred Eighty (180) days of treatment per client.
2. Payment will be made within 30-days of **CITY** receiving invoice.
3. **CEN-TEX ARC** will bill **CITY** within 10-business days of each proceeding thirty days of treatment, up to the maximum 180 days of treatment per client.

XI. HOLDHARMLESS

TO THE EXTENT ALLOWED BY LAW, EACH PARTY TO THIS AGREEMENT AGREES TO INDEMNIFY AND HOLD HARMLESS THE OTHER FOR AND FROM ANY CLAIMS, CAUSES OF ACTION, OR ANY OTHER PROCEEDING OF ANY TYPE OR KIND THAT IS MADE AGAINST THE OTHER WHERE SUCH CLAIM, CAUSE OF ACTION OR OTHER PROCEEDING ARISES FROM THE CONDUCT, ACT, OMISSION, OR COMMISSION BY THE OTHER PARTY.

XII. STANDARD OF CARE

Services performed under this Agreement shall be by a licensed **SERVICE PROVIDER** if a license is required by the **SERVICE PROVIDER'S** profession and shall be executed with the professional skill and care ordinarily provided by a competent **SERVICE PROVIDER** in the same or similar locality under the same or similar circumstances and professional license and shall be performed as expeditiously as is prudent considering the ordinary professional skill and care of a competent **SERVICE PROVIDER.**

XIII. INDEMNIFICATION

THE SERVICE PROVIDER WILL INDEMNIFY, DEFEND, AND HOLD THE CITY AND ALL OF ITS OFFICERS, AGENTS, SERVANTS, AND EMPLOYEES HARMLESS FROM ANY LOSS, DAMAGE, LIABILITY OR EXPENSE, INCLUDING COSTS OF COURT, REASONABLE ATTORNEYS' FEES, EXPERT WITNESSES' AND SERVICE PROVIDERS' FEES, ON ACCOUNT OF DAMAGE TO PROPERTY AND/OR INJURIES, INCLUDING DEATH, TO ALL PERSONS, DUE TO ANY ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, BREACH OF ANY OBLIGATION UNDER THIS AGREEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER UNDER THIS AGREEMENT, CAUSED BY SERVICE PROVIDER OR ITS OFFICERS, AGENTS, EMPLOYEES, SUBCONTRACTORS, LICENSEES, INVITEES, OR OTHER PERSONS ACTIONS FOR WHOM SERVICE PROVIDER IS LIABLE, AND SHALL PAY ALL EXPENSES AND SATISFY ALL JUDGMENTS WHICH MAY BE INCURRED BY OR RENDERED AGAINST THEM, OR ANY OF THEM IN CONNECTION WITH THIS AGREEMENT.

THE INDEMNITY OBLIGATIONS HEREIN SHALL SURVIVE THE TERMINATION OF

THE AGREEMENT FOR ANY REASON AND SHALL SURVIVE THE COMPLETION OF THE WORK.

XIV. CONFIDENTIALITY

All information obtained during the execution of this Agreement by **SERVICE PROVIDER** is deemed confidential. Disclosure of information by **SERVICE PROVIDER** not authorized by **CITY** in writing will constitute a material breach of this Agreement. Notwithstanding anything herein to the contrary, the CITY is a governmental entity and shall abide by the laws governing Open Government and the opinions of the Attorney General now current and as amended.

XV. INSURANCE

The **SERVICE PROVIDER** will maintain at all times professional liability or errors and omissions insurance covering any claim hereunder occasioned by **SERVICE PROVIDER's** negligent act, or error or omission in an amount of not less than $1,000,000 general aggregate. **SERVICE PROVIDER** agrees to maintain professional liability insurance during the term of this agreement and, if the policy is on a claims made basis, for a period of not less than five (5) years after the Project is complete and provide proof of such continuing coverage. **SERVICE PROVIDER** further agrees to provide proof of coverage as needed for prior acts back to the date of execution of this agreement if **SERVICE PROVIDER** changes insurance carriers during this extended indemnity period.

SERVICE PROVIDER will further maintain general commercial liability coverage $1,000,000 per occurrence (Bodily injury and property damage). **SERVICE PROVIDER** will maintain Automobile Liability coverage in an amount of $500,000 Combined single limit for each accident (Bodily injury and property damage). **SERVICE PROVIDER** will maintain Professional Liability Insurance $1,000,000 general aggregate.

COMPLIANCE WITH LAWS

The **SERVICE PROVIDER**, his **SERVICE PROVIDER's**, agents and employees and subcontractors, will comply with all applicable Federal and State laws, the Charter and Code or Ordinances of the City of Killeen, and all other applicable rules and regulations promoted by all local, State and National boards, bureaus and agencies.

XVI. SERVICE PROVIDER'S CERTIFICATION

SERVICE PROVIDER certifies that neither it, nor any of its agents or employees, have or will offer or accept gifts or anything of value, or enter into any business arrangement, with any employee, official, or agent of the **CITY.**

SERVICE PROVIDER certifies, pursuant to Texas Government Code Chapter 2270, that it does not boycott Israel and will not boycott Israel during the term of this Agreement. **SERVICE PROVIDER** further certifies, pursuant to Texas Government Code Chapter 2252, Subchapter F, that it does not engage in business with Iran, Sudan, or a foreign terrorist organization as may be designated by the United States Secretary of State pursuant to his authorization in 8 U.S.C. Section 1189. Texas Government Code, Chapter 2274 – the **SERVICE PROVIDER** verifies that it does

not boycott energy companies and will not boycott energy companies during the term of the contract. *Boycott energy company is defined in Government Code Chapter 809.* Texas Government Code, Chapter 2274 – the **SERVICE PROVIDER** verifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of the contract against a firearm entity or firearm trade association. *Discriminate, firearm entity and firearm trade association are defined in Government Code Chapter 2274.*

XVII. EXECUTION OF AGREEMENT

SIGNED, ACCEPTED AND AGREED TO this day of 2025, by the undersigned Parties who acknowledge that they have read and understand this Agreement and that the Agreement is issued in accordance with local, State, and Federal laws, and the undersigned Parties hereby execute this legal document voluntarily and of their own free will.

By: Judith Tangalin Digitally signed by Judith Tangalin Date: 2025.04.25 14:05:43 -05'00' TM

Judith Tangalin, Executive Director of Finance

Date:

Principal Place of Business/Address: 101 North College Street, Killeen, Texas 76541

By: Mark Baker

Mark Baker, Executive Director

Date: 2-24-25

Principal Place of Business/Address:

Cen-Tex ARC, 2410 E. Adams Avenue, Temple, TX 76503

THIRD AMENDED PROFESSIONAL SERVICES AGREEMENT
BY AND BETWEEN THE CITY OF KILLEEN, TEXAS
AND CEN-TEX ALCOHOL REHABILITATION CENTER INC. ("CEN-TEX ARC")

THIS THIRD AMENDED AGREEMENT is effective August 1, 2025 and is made and entered by and between the CITY of Killeen, Texas, a home rule municipal corporation located in Bell County, Texas (hereinafter called **CITY**) and **CEN-TEX ALCOHOL REHABILITATION CENTER INC.** ("CEN-TEX ARC") a nonprofit organization hereinafter referred to as **"Service Provider"** or **"CEN-TEX ARC"**, and collectively as the **"Parties"**.

WHEREAS the **CITY** and **CEN-TEX** executed a Professional Services Agreement dated January 16, 2024, which provided for a total fee of $143,130.00 for the Services therein the Agreement, and funding has been exhausted for this program.

WHEREAS on April 4, 2024, the **CITY** and **CEN-TEX** executed the First Amended Agreement which only provided for administrative amendments to the Agreement but did not alter the total dollar amount of the original Agreement, and

WHEREAS on March 18, 2025, the **CITY** and **CEN-TEX** executed the Second Amended Agreement to authorize additional funding totaling $57,734.00 for services provided herein and which was made available by the Amended FY 2025 Annual Budget of the City of Killeen to increase revenue and expense accounts under Ordinance NO. 25-004, for a total agreement amount of $200,864.00.

WHEREAS on August 19, 2025, the **CITY** and **CEN-TEX** wish to execute this Third Amended Agreement to authorize additional funding totaling **Thirty-One Thousand Seven Hundred Seventy-Five Dollars ($31,775.00)** for continued services provided herein for a total agreement amount of $232,639.00.

WHEREAS the **CITY** desires to have the services performed as set forth below requiring specialized skills, licenses, and other supportive capabilities.

WHEREAS the **CITY** has determined that the **CEN-TEX ARC** is qualified and possesses sufficient skills, licenses, and the necessary capabilities, including technical and professional expertise, where required, to perform the services and/or tasks set forth in this Agreement.

NOW, THEREFORE, in consideration of the terms, conditions, covenants, and performance contained herein, the Parties hereto agree as follows:

I. SCOPE OF SERVICES

CEN-TEX ARC shall perform such services and accomplish such tasks, including the furnishing of all materials and equipment necessary for full performance thereof, as are identified and designated as Service Provider responsibilities throughout this Agreement.

CEN-TEX ARC will:

1. Develop a system of triage and enrollment that enables clients being referred to have quick and easy access to services offered under their program.
2. Use the Homeless Management Information System (HMIS) as a tool to securely share, refer, and track client progress that is compliant with HIPPA and Personal Identifiable Information ("PII") federal standards.
3. Provide services that includes, but not limited to:
   a. Up to a maximum of One-Hundred Eighty (180) days of combined substance use counseling and treatment, and comprehensive wrap-around services that address social needs to prepare individuals for long-term self-sufficiency and independence;
   b. Nutritious meals including three (3) meals daily, seven (7) days weekly, using USDA-approved meal plans;
   c. 24-hour Resident Monitoring for safety and security on property;
   d. Semi-private living accommodations that include up to three clients per room, and a shared bathroom;
   e. Transportation resources on an as needed basis;
   f. Additional life skills coaching by trained staff;
   g. Comprehensive Case Management services that help address other life struggles provided by licensed substance use counselors;
   h. Other services as identified by the client and their counselor;
   i. Additional services will be determined by needs requested and defined by **CITY** and agreed upon by **CEN-TEX ARC.**
   j. Prompt response in writing to requests by the **CITY** for authorization to proceed with specific additional services outside the agreed upon services.
4. Provide written reports to the **CITY** as requested or required by any agreement or contract to provide services to the appliable client (s) as directed.
5. Provide Services herein described for a total fee that shall not exceed **TWO HUNDRED THIRTY-TWO THOUSAND SIX HUNDRED THIRTY-NINE DOLLARS ($232,639.00)**. The **CITY** has designated Officer Evan Crouse from the Killeen Police Department Homeless Outreach (HOT) Team, or other assigned designee as the **CITY's** Representative, who shall have authority to coordinate required services of each bed on the **CITY's** behalf with respect to this Agreement consistent with the budget policy.

II. CLIENT ACCEPTANCE CRITERIA:

1. Client must be homeless and have a substance use disorder; and

2. Client must conduct a pre-interview by a Committee, members to represent both **CEN-TEX ARC** and the **CITY**, to determine suitability for the program. Committee shall consist of Officer Crouse or other assigned City of Killeen representative and of the Cen-Tex ARC staff.
3. Client must consent to a background check so that **CEN-TEX ARC** is aware of criminal history but does not necessarily exclude enrollment. No individuals with convictions for arson or any sex-related offenses including registered and un-registered sex offenders will allowed in the program.
4. Client must consent to a background check so that **CEN-TEX ARC** is aware of criminal history but does not necessarily exclude enrollment. No individuals with convictions for arson or any sex-related offenses including registered and un-registered sex offenders will be allowed in the program. Client must agree to conduct a medical evaluation with a licensed physician and registered nurse and be determined healthy enough to be in a residential treatment and housing program.
5. Client must consent to Central Counties Services (former MHMR) involvement to determine co-occurring mental health issues needing treatment there.

III. RIGHTS, RESPONSIBILITIES AND DUTIES

The Parties agree that their responsibilities to work together will include the following:

a. Parties agree to adhere to the guidelines stipulated in the Health Insurance Portability and Accountability Act of 1996 (HIPPA); 42 CFR Section 2; and other federal and state laws and regulations as related to the client confidentiality and privacy requirements, including those specific to minor children when providing services. All necessary Releases of Information (ROI) will be obtained when legally required and kept on file in HMIS by each Party under the client's unique identifier. Each Party will be responsible for ensuring their staff are properly trained and that they adhere to the HIPPA & PII confidentiality requirements as directed.
b. Parties agree to maintain proper and accurate records of services in both HMIS database and individual client records, as applicable, by the respective organization for the purpose of service documentation.
c. Parties agree that no part of this Agreement shall limit an individual from their right to choose or refuse services from either Party.
d. Parties agree that clients will have the right to a grievance process with the respective Party, if requested, and will be the said Parties responsibility to establish a process or procedure if not already in place.
e. Parties agree that clients will not be charged or pay for any services or fees directly under the stipulations of this Agreement and/or other subcontractor agreements.

IV. CITY OBLIGATIONS

CITY will:

1. Refer clients identified as having a significant need and could benefit from the services offered by **CEN-TEX ARC** using an agreed upon evaluation system of eligibility for the referral.

2. Share information via use of the Homeless Management Information System (HMIS) as a tool to document and track clients referred and services provided as part of the larger component of addressing homelessness and mental health.
3. Provide payment for services as agreed upon in this Agreement as applicable.

V. TERM

No coordination of services/assignment for bed(s) shall occur prior to execution of the original Agreement, and the term of this Third Amended Agreement shall terminate at the expenditure of all allocated funds for services or extended by mutual written agreement of the Parties.

VI. ASSIGNMENT

The Parties each hereby bind themselves, their successors, assigns and legal representatives to each other with respect to the terms of this Agreement. Neither Party will assign, sublet nor transfer any interest in this Agreement without the written authorization of the other.

VII. AMENDMENTS

No provisions of this Agreement may be amended or modified except by a further written document approved and signed by the CITY and CEN-TEX ARC.

VIII. TERMINATION

In connection with the work outlined in this Agreement, it is agreed and fully understood by **CEN- TEX ARC** that the **CITY** may cancel or indefinitely suspend further work hereunder or terminate this Agreement for convenience or cause upon thirty (30) days written notice to the **CEN-TEX ARC** with the understanding that immediately upon receipt of said notice all Services being performed under this Agreement will cease. Before the end of such thirty (30) day period **CEN- TEX ARC** will invoice **CITY** for all work satisfactorily completed and will be compensated in accordance with the terms of this Agreement.

CEN-TEX ARC will have the right to terminate this Agreement for cause, on thirty (30) days written notice to the **CITY** should the **CITY** fail to satisfactorily perform its obligations herein. In the event of termination, **CEN-TEX ARC** will be paid for all services rendered to date of termination. In the event of termination hereunder, **CEN-TEX ARC** will invoice **CITY** for all work satisfactorily completed up to the date of this notice of termination and will be compensated in accordance with the terms of Agreement.

IX. CHOICE OF LAW; VENUE

Venue and jurisdiction of any suit or right or cause of action arising under or in connection with this Agreement will be exclusively in Bell County, Texas, and any court of competent jurisdiction will interpret this Agreement in accordance with the laws of the State of Texas. The prevailing

party in an action brought under or concerning this Agreement may recover costs of court, reasonable attorney's fees, and reasonable expert witnesses' and Service Providers' fees.

X. PAYMENT

Payment will be made by **CITY** under this Agreement per the following:

1. A fee of $195.00, per person, per day, for services rendered. Payment is limited to up to One Hundred Eighty (180) days of treatment per client.
2. Payment will be made within 30-days of **CITY** receiving invoice.
3. **CEN-TEX ARC** will bill **CITY** within 10-business days of each proceeding thirty days of treatment, up to the maximum 180 days of treatment per client.

XI. HOLD HARMLESS

TO THE EXTENT ALLOWED BY LAW, EACH PARTY TO THIS AGR EEMENT AGREES TO INDEMNIFY AND HOLD HARMLESS THE OTHER FOR AND FROM ANYCLAIMS, CAUSES OF ACTION, OR ANY OTHER PROCEEDING OF ANYTYPE OR KIND THAT IS MADE AGAINST THE OTHER WHERE SUCH CLAIM, CAUSE OF ACTION OR OTHER PROCEEDING ARISES FROM THE CONDUCT, ACT, OMISSION, OR COMMISSION BY THE OTHER PARTY.

XII. STANDARD OF CARE

Services performed under this Agreement shall be by a licensed **SERVICE PROVIDER** if a license is required by the **SERVICE PROVIDER'S** profession and shall be executed with the professional skill and care ordinarily provided by a competent **SERVICE PROVIDER** in the same or similar locality under the same or similar circumstances and professional license and shall be performed as expeditiously as is prudent considering the ordinary professional skill and care of a competent **SERVICE PROVIDER**.

XIII. INDEMNIFICATION

THE SERVICE PROVIDER WILL INDEMNIFY, DEFEND, AND HOLD THE CITY AND ALL OF ITS OFFICERS, AGENTS, SERVANTS, AND EMPLOYEES HARMLESS FROM ANY LOSS, DAMAGE, LIABILITY OR EXPENSE, INCLUDING COSTS OF COURT, REASONABLE ATTORNEYS' FEES, EXPERT WITNESSES' AND SERVICE PROVIDERS' FEES, ON ACCOUNT OF DAMAGE TO PROPERTY AND/OR INJURIES, INCLUDING DEATH, TO ALL PERSONS, DUE TO ANY ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTYINFRINGEMENT, BREACH OF ANY OBLIGATION UNDER THIS AGREEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER UNDER THIS AGREEMENT, CAUSED BY SERVICE PROVIDER OR ITS OFFICERS, AGENTS, EMPLOYEES, SUBCONTRACTORS, LICENSEES, INVITEES, OR OTHER PERSONS ACTIONS FOR WHOM SERVICE PROVIDER IS LIABLE, AND SHALL PAY ALL EXPENSES AND SATISFY ALL JUDGMENTS WHICH MAY BE INCURRED BY OR RENDERED AGAINST THEM, OR ANY OF THEM IN CONNECTION WITH THIS AGREEMENT.

THE INDEMNITY OBLIGATIONS HEREIN SHALL SURVIVE THE TERMINATION OF THE AGREEMENT FOR ANY REASON AND SHALL SURVIVE THE COMPLETION OF THE WORK.

XIV. CONFIDENTIALITY

All information obtained during the execution of this Agreement by **SERVICE PROVIDER** is deemed confidential. Disclosure of information by **SERVICE PROVIDER** not authorized by **CITY** in writing will constitute a material breach of this Agreement. Notwithstanding anything herein to the contrary, the **CITY** is a governmental entity and shall abide by the laws governing Open Government and the opinions of the Attorney General now current and as amended.

XV. INSURANCE

The **SERVICE PROVIDER** will maintain at all times professional liability or errors and omissions insurance covering any claim hereunder occasioned by **SERVICE PROVIDER's** negligent act, or error or omission in an amount of not less than $1,000,000 general aggregate. **SERVICE PROVIDER** agrees to maintain professional liability insurance during the term of this agreement and, if the policy is on a claims made basis, for a period of not less than five (5) years after the Project is complete and provide proof of such continuing coverage. **SERVICE PROVIDER** further agrees to provide proof of coverage as needed for prior acts back to the date of execution of this agreement if **SERVICE PROVIDER** changes insurance carriers during this extended indemnity period.

SERVICE PROVIDER will further maintain general commercial liability coverage $1,000,000 per occurrence (Bodily injury and property damage). **SERVICE PROVIDER** will maintain Automobile Liability coverage in an amount of $500,000 Combined single limit for each accident (Bodily injury and property damage). **SERVICE PROVIDER** will maintain Professional Liability Insurance $1,000,000 general aggregate.

XVI. COMPLIANCE WITH LAWS

The **SERVICE PROVIDER**, his **SERVICE PROVIDER's**, agents and employees and subcontractors, will comply with all applicable Federal and State laws, the Charter and Code or Ordinances of the City of Killeen, and all other applicable rules and regulations promoted by all local, State and National boards, bureaus, and agencies.

XVII. SERVICE PROVIDER'S CERTIFICATION

SERVICE PROVIDER certifies that neither it, nor any of its agents or employees, have or will offer or accept gifts or anything of value, or enter into any business arrangement, with any employee, official, or agent of the **CITY**.

SERVICE PROVIDER certifies, pursuant to Texas Government Code Chapter 2270, that it does not boycott Israel and will not boycott Israel during the term of this Agreement. **SERVICE**

PROVIDER further certifies, pursuant to Texas Government Code Chapter 2252, Subchapter F, that it does not engage in business with Iran, Sudan, or a foreign terrorist organization as may be designated by the United States Secretary of State pursuant to his authorization in 8 U.S.C. Section 1189. Texas Government Code, Chapter 2274-the **SERVICE PROVIDER** verifies that it does not boycott energy companies and will not boycott energy companies during the term of the contract. *Boycott energy company is defined in Government Code Chapter 809. Texas Government Code, Chapter 2274* – the **SERVICE PROVIDER** verifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of the contract against a firearm entity or firearm trade association. *Discriminate, firearm entity and firearm trade association are defined in Government Code Chapter 2274.*

XVIII. EXECUTION OF AGREEMENT

SIGNED, ACCEPTED AND AGREED TO this ___ day of _____ 2025, by the undersigned Parties who acknowledge that they have read and understand this Agreement and that the Agreement is issued in accordance with local, State, and Federal laws, and the undersigned Parties hereby execute this legal document voluntarily and of their own free will.

By: _____
Judith Tangalin, Executive Director of Finance

Date: _____
Principal Place of Business/Address: 101 North College Street, Killeen, Texas 76541

By: Mark Baker
Mark Baker, Executive Director

Date: 8-1-2025
Principal Place of Business/Address:
Cen-Tex ARC, 2410 E. Adams Avenue, Temple, TX 76503

CEN-TEX ALCOHOL AND REHABILITATION CENTER AGREEMENT (THIRD AMENDMENT)

RS-25-137

September 2, 2025

Background

- This program responds to recommendations outlined in the Homeless and Mental Health Strategic Plan for intensive mental health and substance use disorder treatment.
- Substance use disorder treatment includes counseling, and comprehensive wrap-around services to prepare individuals for long-term sufficiency and independence.
- The program is instrumental in assisting individuals to exit homelessness in Killeen.

Funding Source

- The City of Killeen is a recipient of funds from the State of Texas Opioid Abatement Settlement and may utilize the funds to address Substance Use Disorder (SUD).
- Funds are disbursed periodically, with the amount determined by the State.

Received	Allocation
Dec. 2023	$143,130.00
Mar. 2025	$ 57,734.00
May 2025	$157,589.00
TOTAL	**$358,453.00**

Original Agreement

- On December 12, 2023, Killeen City Council approved the Professional Services agreement with Central Texas Alcohol Rehabilitation Center (Cen-Tex ARC) in the amount $143,130.00 for substance use disorder treatment, counseling, and comprehensive wrap-around services.
- The funding for the program supports two (2) scholarship beds for up to180 days of substance use counseling and treatment.
- The maximum scholarship amount per person is $35,100.00.

First Amendment

- The First Amendment provided for administrative amendments clarifying:
  - The maximum number of days per participants; and
  - Representatives with authority to coordinate services.
- No monetary or substantive changes to the original agreement were made.
- All other terms of the agreement remained unchanged.

Second Amendment

- On March 18, 2025, the City Council allocated an additional $57,734.00 in settlement funds.
- The total funding was recalculated to equal $200,864.00.
- All other terms of the agreement remained unchanged.

Third Amendment

- The Third Amendment will increase the amount available by adding $31,775.00 for a total agreement amount of $232,639.00.
- The increase will fund SUD recovery services until all monies have been expended.
- All remaining terms of the agreement shall remain in effect.

Balance of Settlement Funds Received

- Staff will present a new agreement with Centex ARC for City Council consideration.
- The proposed agreement will be in the amount of $125,814.00, the balance of Opioid Abatement Settlement funds received to date.
  - $358,453-232,639=$125,814.00
- At that time accomplishments and previously unchanged terms may be renegotiated.

Recommendation

- Staff recommends that City Council authorize the City Manager or his designee to execute the Third Amendment for professional services agreement with Cen-Tex Alcohol Rehabilitation Center Inc. for a total contract amount of $232,639.00.

City of Killeen

Staff Report

File Number: RS-25-138

Consider a memorandum/resolution awarding Bid No. 25-30, Terminal Mechanical and Security Improvements, to The Trevino Group, Inc., in the amount of $4,989,775.00.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Mike Wilson, Executive Director of Aviation**

SUBJECT: **Award Bid No. 25-30, Terminal Mechanical and Security Improvements Project**

BACKGROUND AND FINDINGS:

The Terminal Mechanical and Security Improvements Project includes replacing the outbound baggage system's computer server and software, which is over 10 years old, and upgrading the baggage claim carousels in the terminal, originally installed in 2004 and now beyond their useful life. Additionally, glass panels on the passenger boarding bridges at Gates 1 and 6 will be replaced and the airport's emergency generator will be upgraded due to aging and declining reliability.

The City applied for and received a Federal Aviation Administration (FAA) Airport Infrastructure Grant (AIG) for the design phase of this project. The Terminal Mechanical and Security Improvements were initially separate projects. However, due to the bidder's inability to meet FAA Buy American requirements for the Security Improvements, the FAA directed the City to combine the construction phases and re-bid to ensure compliance. The project design has been completed.

The construction phase of this project will be funded 95% through a separate FAA AIG, with the remaining 5% match provided by the Passenger Facility Charge (PFC) Fund.

Advertising began on April 6, 2025, and appeared in the local newspaper as well as the City's website. Additionally, it was advertised on multiple statewide electronic bidding sites. A pre-bid meeting was held on April 22, 2025, with three (3) general contractors and three (3) sub-contractors attending.

Bids were opened on May 20, 2025, and the City of Killeen received three (3) bids as follows:

	The Trevino Group Inc.	**Cerris Builders**	**Valcorp Enterprises, LLC**
Base Bid A	$1,449,254.37	$2,079,000.00	$832,000.00
Base Bid B	$992,569.45	$638,000.00	$672,000.00
Base Bid C	$1,579,580.18	$2,543,998.00	$2,314,543.40

Add Alt. 1	$543,053.00	$560,000.00	$599,171.25
Add Alt. 3	$283,868.00	(no response)	$2,872,467.50
Add Alt. 4	$141,450.00	$158,000.00	$155,325.30
Total	**$4,989,775.00**	**$5,978,998.00**	**$7,445,507.45**

A thorough review of each bid package was completed by the airport's consultant and staff and the lowest responsive bidder was The Trevino Group Inc., with a total bid of $4,989,775 for Base Bids A, B, and C, and Add Alternates 1, 3, and 4. Add Alternate 2 was excluded as outlined in Addendum No. 4 of the bid documents.

Airport Staff and consultant believe that the bid submitted by The Trevino Group, Inc., meets all bid requirements and is the best value for the Killeen Regional Airport. Therefore, the consultant and Staff's recommendation are to award the construction contract to The Trevino Group Inc. in the amount of $4,989,775.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

This item conforms to local and state policies.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

The current fiscal year is $4,989,775.

Is this a one-time or recurring revenue/expenditure?

This is a one-time expenditure.

Is this revenue/expenditure budgeted?

Funding will be appropriated to the revenue and expense account in the Aviation CIP Grant Fund and the expense account in the Aviation PFC Fund upon approval of the year-end budget amendment.

341-43100-900-600-923039 Federal Grant Reimbursement $4,740,287
341-56201-900-605-923039 - 95% AIG Grant $4,740,287
343-56206-900-603-923039 - 5% PFC Funds $249,489.

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

Funding will be appropriated upon approval of the year-end budget amendment.

RECOMMENDATION:

Staff recommends that the City Council award a construction contract to The Trevino Group Inc., in the amount of $4,989,775, for the Terminal Mechanical and Security Improvements Project and authorize the City Manager or designee to execute all contract documents and any and all change orders or actions within the amounts set by state and local law.

DEPARTMENTAL CLEARANCES:

Purchasing
Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

Recommendation of Award and Bid Tab
Contract
Certificate of Interested Parties
Presentation

GARVER
810 Hesters Crossing
Suite 210
Round Rock, TX 78681
TEL 512.485.0020
FAX 512.485.0021
www.GarverUSA.com

June 13, 2025

Killeen Regional Airport
ATTN: Mr. Michael Wilson
8101 S. Clear Creed Road, Box C
Killeen, Texas 76549

Re: Killeen Regional Airport (GRK)
Terminal Passenger Mechanical and Security Improvements (City Bid 25-30)
Recommendation of Award

Dear Mr. Wilson:

Bids were received for the "TERMINAL PASSENGER MECHANICAL AND SECURITY IMPROVEMENTS" project through the City of Killeen's OpenGov e-bidding site at 2:15 p.m. on May 20, 2025. A tabulation of the bids received is enclosed with this letter. A total of three (3) bids were received for the project.

The lowest responsive bidder was The Trevino Group Inc. with a submitted bid total of $4,989,775. We have reviewed The Trevino Group Inc. qualifications and believe that The Trevino Group Inc. is qualified for this work based on project team experience.

The Trevino Group Inc. completed all Disadvantage Business Enterprises (DBE) forms but is unable to meet the DBE goal. They provided Good Faith Efforts (GFE) documentation with their bid and additional GFE documentation after bid opening at the Airport's request. The Solco Group, the Airport's DBE consultant, has recommended their GFE be accepted. The other bidders also could not achieve the DBE goal, which further validates their GFE. The Trevino Group Inc. has completed the Buy American form, stating they cannot comply with 100% Buy American Preferences, but will seek a Type III waiver from the FAA which they have already provided the necessary documentation and forms to Garver to submit.

Garver believes that the bid submitted by The Trevino Group Inc. is an acceptable bid for the Killeen Regional Airport. Contingent upon Federal Aviation Administration funding, we recommend that the construction contract for the "Passenger Terminal Mechanical and Security Improvements" project be awarded to The Trevino Group Inc. The total construction contract value would be **$4,989,775.**

Attachments: Bid Tabulation, The Trevino Group Inc.'s DBE and Buy American Forms

Please call me if you have any questions.

Sincerely,

GARVER, LLC

Jacob Green, P.E.

CITY OF KILLEEN
GRK TERMINAL PASSENGER MECHANICAL AND SECURITY IMPROVEMENTS
BID TABULATION
BID OPENING: 5/20/2025; 2:15 PM

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	ENGINEER'S ESTIMATE UNIT PRICE	ENGINEER'S ESTIMATE AMOUNT	The Trevino Group Inc UNIT PRICE	The Trevino Group Inc AMOUNT	Cerris Builders UNIT PRICE	Cerris Builders AMOUNT	Valcorp Enterprises, LLC UNIT PRICE	Valcorp Enterprises, LLC AMOUNT
		BASE BID SCHEDULE A - INBOUND BAGGAGE CAROUSEL REFURBISHMENT										
1	34 77 39.01	Inbound Baggage Handling Carousel Refurbishment	LS	1	$1,760,000.00	$1,760,000.00	$1,449,254.37	$1,449,254.37	$2,079,000.00	$2,079,000.00	$832,000.00	$832,000.00
		BASE BID SCHEDULE A SUBTOTAL				$1,760,000.00		$1,449,254.37		$2,079,000.00		$832,000.00
		BASE BID SCHEDULE B - BHS CONTROL SYSTEM REPLACEMENT										
1	34 77 39.01	Outbound BHS Upper-Level Replacement	LS	1	$420,000.00	$420,000.00	$992,569.45	$992,569.45	$638,000.00	$638,000.00	$672,000.00	$672,000.00
		BASE BID SCHEDULE B SUBTOTAL				$420,000.00		$992,569.45		$638,000.00		$672,000.00
		BASE BID SCHEDULE C - TERMINAL SECURITY IMPROVEMENTS										
1	SS-120-301	CONSTRUCTION SAFETY AND SECURITY	L.S.	1	$98,444.21	$98,444.21	$75,914.55	$75,914.55	$17,539.00	$17,539.00	$20,733.70	$20,733.70
2	COMM	EXISTING CAMERAS, REMOVED	L.S.	1	$127,239.23	$127,239.23	$30,866.38	$30,866.38	$63,937.00	$63,937.00	$75,580.70	$75,580.70
3	COMM	NEW CAMERAS, INSTALLED	L.S.	1	$925,376.23	$925,376.23	$405,129.24	$405,129.24	$452,387.00	$452,387.00	$534,769.30	$534,769.30
4	COMM	EXISTING BIO-READERS, REMOVED	L.S.	1	$31,584.20	$31,584.20	$48,504.32	$48,504.32	$6,920.00	$6,920.00	$8,180.90	$8,180.90
5	COMM	NEW BIOMETRIC CARDR EADERS OR APPROVED 2-STEP AUTHENTICATION CARD READER, INSTALLED	L.S.	1	$221,089.44	$221,089.44	$108,351.59	$108,351.59	$68,074.00	$68,074.00	$80,471.30	$80,471.30
6	COMM	EXISTING CARD READERS, REMOVED	L.S.	1	$9,024.05	$9,024.05	$49,055.50	$49,055.50	$9,195.00	$9,195.00	$10,870.60	$10,870.60
7	COMM	NEW CARD READERS, INSTALLED	L.S.	1	$36,916.60	$36,916.60	$451,531.11	$451,531.11	$180,291.00	$180,291.00	$213,125.90	$213,125.90
8	COMM	NEW COMMUNICATION INFRASTRUCTURE, INSTALLED	L.S.	1	$123,055.35	$123,055.35			$50,153.00	$50,153.00	$59,286.50	$59,286.50
9	COMM	NEW NETWORK SWITCH, INSTALLED	L.S.	1	$45,120.29	$45,120.29	$3,527.59	$3,527.59	$4,476.00	$4,476.00	$5,291.00	$5,291.00
10	COMM	NEW MONITORING STATIONS, INSTALLED	L.S.	1	$33,224.94	$33,224.94	$70,551.74	$70,551.74	$51,656.00	$51,656.00	$61,063.60	$61,063.60
11	COMM	ADDITIONAL PROGRAMMING, CABLING, HW, INSTALLED	L.S.	1	$147,666.42	$147,666.42	$63,130.58	$63,130.58	$849,171.00	$849,171.00	$1,003,808.00	$1,003,808.00
12	ELEC	NEW ELECTRICAL INFRASTRUCTURE, INSTALLED	L.S.	1	$131,259.04	$131,259.04	$273,017.58	$273,017.58	$790,199.00	$790,199.00	$241,361.90	$241,361.90
		BASE BID SCHEDULE C SUBTOTAL				$1,930,000.00		$1,579,580.18		$2,543,998.00		$2,314,543.40
		ADDITIVE ALTERNATE 1 - EMERGENCY BACKUP GENERATOR REPLACEMENT										
1	26 32 13.13	Emergency Backup Generator Replacement	LS	1	$940,000.00	$940,000.00	$543,053.00	$543,053.00	$560,000.00	$560,000.00	$599,171.25	$599,171.25
		ADDITIVE ALTERNATE 1 SUBTOTAL				$940,000.00		$543,053.00		$560,000.00		$599,171.25

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	ENGINEER'S ESTIMATE UNIT PRICE	ENGINEER'S ESTIMATE AMOUNT	The Trevino Group Inc UNIT PRICE	The Trevino Group Inc AMOUNT	Cerris Builders UNIT PRICE	Cerris Builders AMOUNT	Valcorp Enterprises, LLC UNIT PRICE	Valcorp Enterprises, LLC AMOUNT
	ADDITIVE ALTERNATE 3 - INBOUND BAGGAGE CAROUSEL REPLACEMENT											
1	34 77 39.01	Inbound Baggage Handling Carousel Refurbishment	LS	1	$ (1,760,000.00)	$ (1,760,000.00)	$ (1,125,494.00)	$ (1,125,494.00)	$ -	$ -	$ (832,000.00)	$ (832,000.00)
2	34 77 39.01	Inbound Baggage Handling Carousel Replacement	LS	1	$2,730,000.00	$2,730,000.00	$1,409,362.00	$1,409,362.00	$ -	$ -	$3,704,467.50	$3,704,467.50
		ADDITIVE ALTERNATE 3 SUBTOTAL				$970,000.00		$283,868.00		$ -		$2,872,467.50
		ADDITIVE ALTERNATE 4 - BOARDING BRIDGE IMPROVEMENTS: REPLACE GLASS PANELS, GATES 1 & 6										
1	PLANS-1	Replace PBB Glass Panels (4), Gate 1	LS	1	$75,000.00	$75,000.00	$70,725.00	$70,725.00	$79,000.00	$79,000.00	$81,225.30	$81,225.30
2	PLANS-2	Replace PBB Glass Panels (4), Gate 6	LS	1	$75,000.00	$75,000.00	$70,725.00	$70,725.00	$79,000.00	$79,000.00	$74,100.00	$74,100.00
		ADDITIVE ALTERNATE 4 SUBTOTAL				$150,000.00		$141,450.00		$158,000.00		$155,325.30
		TOTAL BASE BID SCHEDULES				$4,110,000.00		$4,021,404.00		$5,260,998.00		$3,818,543.40
		TOTAL ADDITIVE ALTERNATES				$2,060,000.00		$968,371.00		$718,000.00		$3,626,964.05
		OVERALL TOTAL				$6,170,000.00		$4,989,775.00		$5,978,998.00		$7,445,507.45

Corrected Prices

00 52 00 CONTRACT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT

THIS AGREEMENT is by and between City of Killeen ("Owner") and The Trevino Group Inc. ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

A. **Base Bid A: Inbound Baggage Handling Carousel Refurbishment**

B. **Base Bid B: Outbound Baggage Handling System Upper-Level Replacement**

C. **Base Bid C: Terminal Security Improvements**

D. **Additive Alternate 1: Emergency Backup Generator Replacement**

E. **Additive Alternate 3: Inbound Baggage Handling Carousel Replacement**

F. **Additive Alternate 4: Boarding Bridge Improvements (Replace Glass Panels, Gates 1 & 6)**

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **GRK Terminal Passenger Mechanical and Security Improvements**

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by **Garver, LLC**.

3.02 The Owner has retained **Garver, LLC** ("Engineer") to act as Owner's representative, and to have the rights, responsibilities, duties, and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

A. The Work will be substantially completed within the following number of days after the date when the Contract Times commence to run as provided in Section 80-07 of the General Provisions, and completed and ready for final payment in accordance with Section 90-09 of the General Provisions within the following number of days after the date when the Contract Times commence to run. The Owner's intent is to complete the projects simultaneously. The "Security Improvements" (Base Bid C) portion of the project shall be prioritized for completion.

Mechanical Improvements (Include Baggage Handling Equipment) Plans Volume 1

Description	Substantial Completion
Base Bid A and B	250 Calendar Days (Procurement) 150 Calendar Days (Construction)
Additive Alternate 1	No Additional Procurement Calendar Days No Additional Construction Calendar Days
Additive Alternate 3	No Additional Procurement Calendar Days No Additional Construction Calendar Days
Additive Alternate 4	No Additional Procurement Calendar Days No Additional Construction Calendar Days

Security Improvements Plans Volume 2

Description	Substantial Completion
Base Bid C	150 Calendar Days (Procurement) 150 Calendar Days (Construction)

Owner reserves the right to make changes to Procurement Periods after bid award through a "No Cost" Change Order to accommodate equipment lead times.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Project Substantial Completion Mechanical Improvements (Including Baggage Handling Equipment) Scope of Work (Plans Volume 1): Contractor shall pay Owner $\underline{\$1,700}$ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Mechanical Improvements Scope of Work is substantially complete.

2. Project Substantial Completion Security Improvements Scope of Work (Plans Volume 2): Contractor shall pay Owner $\underline{\$1,700}$ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Security Improvements Scope of Work is substantially complete.

4.04 *Special Damages*

A. "Mechanical Improvements": The Contractor shall be responsible for actual realized damages by Owner and it's tenants that result from scheduled building power outages during the project. Should the Owner or tenant have said damages, the Contractor will be back charged appropriately and any monies due will be deducted from final pay.

B. "Security Improvements": Contractor is responsible for any fees imposed on the Airport by the FAA or the TSA due to failure of the contractor to follow security and secure access guidelines.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item): **See attached Finalized Bid Form.**

B. The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. Estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer and Owner.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Applications for Payment shall be made in accordance with Section 90-06 of the General Provisions. Applications for Payment will be processed by Engineer as provided in the General Provisions.

6.02 *Progress Payments; Retainage*

A. Progress payments and retainage shall be in accordance with Section 90-06 of the General Provisions.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Section 50-15 of the General Provisions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in Section 90-09 of the General Provisions, minus any damages as described in Paragraphs 4.03 and 4.04.

ARTICLE 7 – INTEREST

7.01 Not Used.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all laws and regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Special Provisions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site

that have been identified in the Special Provisions, especially with respect to Technical Data in such reports and drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

K. The Contractor hereby represents and warrants to and for the benefit of the Owner that:

1. The Contractor has reviewed and understands the prevailing wage rate requirements and will provide any further verified information, certification or assurance of compliance as may be required by the Owner.

2. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner to recover as damages against the Contractor any loss, expense or cost (including without limitation attorney's fees) incurred by the Owner resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Owner). While the Contractor has no direct contractual privity with the State, as a lender to the Owner for the funding of its Project, the Owner and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

1. Executed Contract
2. Addenda (if any)
3. Advertisement for Bids
4. Instructions to Bidders
5. Bid Form (Original for Reference)

6. List of Proposed Subcontractors
7. Wage Rates
8. Qualification Statement
9. City of Killeen General Terms and Conditions
10. DBE Participation Reporting
11. Bidders Certifications
12. FAA General Provisions
13. FAA Special Provisions
14. State of Texas Requirements
15. Supplemental Specifications as listed in the Table of Contents (Included in Volume 2 of 3)
16. Technical Specifications as listed in the Table of Contents (Included in Volume 2 and 3)
17. Drawings (Volume 1 and Volume 2)
18. Performance Bond
19. Payment Bond
20. Certificates of Insurance
21. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid
22. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    a. Notice to Proceed.
    b. Work Change Directives.
    c. Change Orders.
    d. Field Orders.

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Provisions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

A. Terms not otherwise defined herein and used in this Agreement will have the meanings stated in the General Provisions and the Special Provisions.

10.02 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless

specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:	CONTRACTOR:
_____	The Trevino Group, Inc.
By: _____	By: _____
Title: _____	Title: Chief Operating Officer *(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*
Attest: _____	Attest: Jeffery Ryall
Title: _____	Title: Director of Preconstruction
Address for giving notices:	Address for giving notices:
_____	11410 Brittmoore Park Drive Houston, Texas 77041
_____	_____
_____	_____
	License No.: 583908 *(where applicable)*

This document is a MODIFIED version of EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price). Copyright © 2013 National Society of Professional Engineers, American Council of Engineering Companies and is based in part on excerpts from EJCDC documents. Those portions of the text that originated in published EJCDC documents remain subject to copyright.

FINALIZED BID FORM

CITY OF KILLEEN
GRK TERMINAL PASSENGER MECHANICAL AND SECURITY IMPROVEMENTS
UNIT PRICES - BASE BID A
INBOUND BAGGAGE CAROUSEL REFURBISHMENT

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	34 77 39.01	Inbound Baggage Handling Carousel Refurbishment	LS	1	$ 1,449,254.37	$ 1,449,254.37

TOTAL BID - BASE BID A $1,449,254.37

UNIT PRICES - BASE BID B
BHS CONTROL SYSTEM REPLACEMENT

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	34 77 39.01	Outbound BHS Upper-Level Replacement	LS	1	$ 992,569.45	$ 992,569.45

TOTAL BID - BASE BID B $992,569.45

UNIT PRICES - BASE BID C
TERMINAL SECURITY IMPROVEMENTS

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	SS-120-301	CONSTRUCTION SAFETY AND SECURITY	L.S.	1	$ 75,914.55	$ 75,914.55
2	COMM	EXISTING CAMERAS, REMOVED	L.S.	1	$ 30,866.38	$ 30,866.38
3	COMM	NEW CAMERAS, INSTALLED	L.S.	1	$ 405,129.24	$ 405,129.24
4	COMM	EXISTING BIO-READERS, REMOVED	L.S.	1	$ 48,504.32	$ 48,504.32
5	COMM	NEW BIOMETRIC CARDR EADERS OR APPROVED 2-STEP AUTHENTICATION CARD READER, INSTALLED	L.S.	1	$ 108,351.59	$ 108,351.59
6	COMM	EXISTING CARD READERS, REMOVED	L.S.	1	$ 49,055.50	$ 49,055.50
7	COMM	NEW CARD READERS, INSTALLED	L.S.	1	$ 451,531.11	$ 451,531.11
8	COMM	NEW COMMUNICATION INFRASTRUCTURE, INSTALLED	L.S.	1	$ -	$ -
9	COMM	NEW NETWORK SWITCH, INSTALLED	L.S.	1	$ 3,527.59	$ 3,527.59
10	COMM	NEW MONITORING STATIONS, INSTALLED	L.S.	1	$ 70,551.74	$ 70,551.74
11	COMM	ADDITIONAL PROGRAMMING, CABLING, HW, INSTALLED	L.S.	1	$ 63,130.58	$ 63,130.58
12	ELEC	NEW ELECTRICAL INFRASTRUCTURE, INSTALLED	L.S.	1	$ 273,017.58	$ 273,017.58

TOTAL BID - BASE BID C $1,579,580.18

CITY OF KILLEEN
GRK TERMINAL PASSENGER MECHANICAL AND SECURITY IMPROVEMENTS
UNIT PRICES - ADDITIVE ALTERNATE 1
EMERGENCY BACKUP GENERATOR REPLACEMENT

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	26 32 13.13	Emergency Backup Generator Replacement	LS	1	$ 543,053.00	$ 543,053.00

TOTAL BID - ADDITIVE ALTERNATE 1 $543,053.00

~~UNIT PRICES - ADDITIVE ALTERNATE 2~~
~~BOARDING BRIDGE IMPROVEMENTS: PRE-CONDITIONED AIR UNIT REPLACEMENT, GATES 1 & 6~~

~~ITEM NO.~~	~~SPEC. NO.~~	~~DESCRIPTION~~	~~UNIT~~	~~ESTIMATED QUANTITY~~	~~UNIT PRICE~~	~~BID AMOUNT~~
~~4~~	~~43 08 00~~	~~Pre-Conditioned Air Unit Replacement for Jet Bridges 1 and 6~~	~~LS~~	~~1~~	~~$ _____~~	~~$ _____~~

~~TOTAL BID - ADDITIVE ALTERNATE 2~~ ~~#VALUE!~~

UNIT PRICES - ADDITIVE ALTERNATE 3
INBOUND BAGGAGE CAROUSEL REPLACEMENT

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	34 77 39.01	Inbound Baggage Handling Carousel Refurbishment	LS	(1)	$ 1,125,494.00	$ (1,125,494.00)
2	34 77 39.01	Inbound Baggage Handling Carousel Replacement	LS	1	$ 1,409,362.00	$ 1,409,362.00

TOTAL BID - ADDITIVE ALTERNATE 3 $283,868.00

UNIT PRICES - ADDITIVE ALTERNATE 4
BOARDING BRIDGE IMPROVEMENTS: REPLACE GLASS PANELS, GATES 1 & 6

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	PLANS-1	Replace PBB Glass Panels (4), Gate 1	LS	1	$ 70,725.00	$ 70,725.00
2	PLANS-2	Replace PBB Glass Panels (1), Gate 6	LS	1	$ 70,725.00	$ 70,725.00

TOTAL BID - ADDITIVE ALTERNATE 4 $141,450.00

CITY OF KILLEEN
GRK TERMINAL PASSENGER MECHANICAL AND SECURITY IMPROVEMENTS
BID SCHEDULE SUMMARY

TOTAL BID - BASE BID A	$1,449,254.37
TOTAL BID - BASE BID B	$992,569.45
TOTAL BID - BASE BID C	$1,579,580.18
Total of BASE BIDS	$4,021,404.00
TOTAL BID - ADDITIVE ALTERNATE 1	$543,053.00
~~TOTAL BID - ADDITIVE ALTERNATE 2~~	
TOTAL BID - ADDITIVE ALTERNATE 3	$283,868.00
TOTAL BID - ADDITIVE ALTERNATE 4	$141,450.00
~~Total of BASE BIDS + Additive Alternate 1~~	
~~Total of BASE BIDS + Additive Alternate 1 + Additive Alternate 2~~	
~~Total of BASE BIDS + Additive Alternate 1 + Additive Alternate 2 + Additive Alternate 3~~	
Total of BASE BIDS + Additive Alternate 1 + Additive Alternate 3 + Additive Alternate 4	$4,989,775.00

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2025-1330836

Date Filed:
06/30/2025

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
The Trevino Group, Inc.
Houston, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
City of Killeen

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
25-30
Prime General Contractor Services for Terminal Passenger Mechanical and Security Improvement

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
Trevino, Dale R.	Houston, TX United States	X	
Trevino, David W.	Houston, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is Erin Trevino, and my date of birth is 11/28/58.

My address is 11410 Brittmoore Park Dr (street), Houston (city), TX (state), 77041 (zip code), USA (country).

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Harris County, State of Texas, on the 30 day of June (month), 20 25 (year).

Signature of authorized agent of contracting business entity
(Declarant)

AWARD BID NO. 25-30 TERMINAL MECHANICAL & SECURITY IMPROVEMENTS

RS-25-138

September 2, 2025

Background

- This project includes replacing the outbound baggage system's computer server and software, which is over 10 years old, and upgrading the baggage claim carousels in the terminal, originally installed in 2004 and now beyond their useful life. Additionally, glass panels on Passenger Boarding Bridges at Gates 1 and 6 will be replaced, and the airport's emergency generator will be upgraded due to aging and declining reliability.

Background

- The City applied for and received a Federal Aviation Administration (FAA) Airport Infrastructure Grant (AIG) grant for the design phase of this project. The Terminal Mechanical and Security Improvements were initially separate projects. However, due to the bidder's inability to meet FAA Buy American requirements for the Security Improvements, the FAA directed the City to combine the construction phases and re-bid to ensure compliance. The project design has been completed.

Discussion

- The construction phase of this project will be funded 95% through a separate FAA Airport Infrastructure Grant (AIG), with the remaining 5% match provided by the Passenger Facility Charge (PFC) Fund.
- No impact to the Aviation Department's operational fund or fund balance.

Discussion

- Advertising began on April 6, 2025
- Local newspaper
- City website
- Multiple statewide electronic bidding sites
- Held a pre-bid meeting on April 22, 2025 with three (3) general contractors and three (3) sub-contractors attending.

Discussion

- Bids were opened on May 20, 2025
- Three (3) bids received

Bidders	The Trevino Group Inc.	Cerris Builders	Valcorp Enterprises, LLC
Base Bid A	$1,449,254.37	$2,079,000.00	$832,000.00
Base Bid B	$992,569.45	$638,000.00	$672,000.00
Base Bid C	$1,579,580.18	$2,543,998.00	$2,314,543.00
Add Alt. 1	$543,053.00	$560,000.00	$599,171.25
Add Alt. 3	$283,868.00	$0.00	$2,872,467.50
Add Alt. 4	$141,450.00	$158,000.00	$155,325.30
Total	**$4,989,775.00**	**$5,978,998.00**	**$7,445,507.45**

Discussion

- A thorough review of each bid package was completed by the airport's consultant and staff.
- The lowest responsive bidder was The Trevino Group Inc., with a total bid of $4,989,775 for Base Bids A, B, and C, and Add Alternates 1, 3, and 4. Add Alternate 2 was excluded as outlined in Addendum No. 4 of the bid documents.

Discussion

- Airport staff and consultant believe that the bid submitted by The Trevino Group Inc. meets all bid requirements and is the best value for the Killeen Regional Airport.

Recommendation

- City Council award a construction contract to The Trevino Group Inc. in the amount of $4,989,775 for the Terminal Mechanical and Security Improvements Project and authorize the City Manager or designee to execute all contract documents and any and all change orders or actions within the amounts set by state and local law.

City of Killeen

Staff Report

File Number: RS-25-139

Consider a memorandum/resolution approving a Professional Services Agreement with Garver, LLC, for the construction phase of the Terminal Mechanical and Security Improvements Project at Killeen Regional Airport, in the amount of $679,300.00.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Mike Wilson, Executive Director of Aviation**

SUBJECT: **Professional Services Agreement with Garver, LLC - Terminal Mechanical and Security Improvements at Killeen Regional Airport**

BACKGROUND AND FINDINGS:

This project includes replacing the outbound baggage system's computer server and software, which is over 10 years old, and upgrading the baggage claim carousels in the terminal, originally installed in 2004 and now beyond their useful life. Additionally, glass panels on the passenger boarding bridges at Gates 1 and 6 will be replaced, and the airport's emergency generator will be upgraded due to aging and declining reliability.

The City applied for and was awarded a Federal Aviation Administration (FAA) Airport Infrastructure Grant (AIG) to fund the design phase of this project. The Terminal Mechanical and Security Improvements were initially separate projects. However, due to the bidder's inability to meet FAA Buy American requirements for the Security Improvements, the FAA directed the City to combine the construction phases and re-bid to ensure compliance. The design phase is complete, and bids were received and opened on June 17, 2025. The acceptance of the recommended bid will be addressed under a separate agenda item.

The construction phase of this project will be funded 95% through a separate FAA AIG, with the remaining 5% match provided by the Passenger Facility Charge (PFC) Fund. In accordance with State and FAA requirements, federally funded projects must include professional oversight and thorough documentation throughout the construction process to ensure compliance and quality assurance.

To that end, staff has negotiated a professional services agreement with Garver, LLC, in the amount of $679,300, for the Design Repackaging Services, Rebidding Services, Construction Administration, On-Site Resident Project Representative Services, and Project Closeout Services for the Terminal Mechanical and Security Improvements Project. The Garver team is the Aviation Department's engineer of record and was selected in accordance with state law and FAA

requirements.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

Pursuant to Texas Local Government Code, Section 252.022(a)(4), this item is exempt from the competitive bidding requirements, as it is an agreement for the procurement of professional services.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

The current fiscal year is $679,300.

Is this a one-time or recurring revenue/expenditure?

One-Time

Is this revenue/expenditure budgeted?

Funding will be appropriated to the Aviation CIP Grant Fund and the Aviation PFC Fund upon approval of the year-end budget amendment.

341-43100-900-600-923039 Federal Grant Reimbursement $645,335
341-56200-900-605-923039 - 95% AIG Grant $645,335
343-56206-900-603-923039 - 5% PFC Funds $33,965

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

Funding will be appropriated upon approval of the year-end budget amendment.

RECOMMENDATION:

Staff recommends that the City Council approve a professional service agreement with Garver, LLC in the amount of $679,300 and recommends that the City Council authorize the City Manager, or

designee, to execute all contract documents and all change orders or actions within the amounts set by state and local law.

DEPARTMENTAL CLEARANCES:

Finance
Legal
Purchasing

ATTACHED SUPPORTING DOCUMENTS:

Agreement
Certificate of Interested Parties
Presentation

GARVER
810 Hesters Crossing
Suite 210
Round Rock, TX 78681
TEL 512-485-0020
FAX 512-485-0021
www.GarverUSA.com

February 19, 2025

Mike Wilson
Killeen Regional Airport (GRK)
8101 S Clear Creek Road
Killeen, TX 76549

Re: Professional Services Proposal and Contract for
GRK Terminal Mechanical and Security Improvements – Rebidding and Construction Phase Services

Dear Mr. Wilson,

We appreciate the opportunity to serve the Killeen Regional Airport with the Terminal Mechanical and Security Improvements project. We worked with our subconsultants and team and have developed a proposed contract including the scope of services and fee to serve you.

Please call me if you have any questions.

Sincerely,

GARVER

Derek Mayo, P.E., PMP
Senior Project Manager

Attachments: GRK Terminal and Security Improvements Contract – Rebidding and CPS

THIS PROFESSIONAL SERVICES AGREEMENT ("**Agreement**") is made as of the Effective Date by and between the **City of Killeen** (hereinafter referred to as "**Owner**"), and **Garver, LLC** (hereinafter referred to as "**Garver**" or "**Engineer**"). Owner and Garver may individually be referred to herein after as a "Party" and/or "Parties" respectively.

RECITALS

WHEREAS, Owner intends to improve mechanical equipment and security system throughout the terminal at Killeen Regional Airport (GRK) (the **"Project"**) as defined in Exhibit A.

WHEREAS, Garver will provide professional Services related to the Project as further described herein.

NOW THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS GARVER

In addition to other defined terms used throughout this Agreement, when used herein, the following capitalized terms have the meaning specified in this Section

"Effective Date" means the date last set forth in the signature lines below.

"Damages" means any and all damages, liabilities, or costs (including reasonable attorneys' fees recoverable under applicable law).

"Hazardous Materials" means any substance that, under applicable law, is considered to be hazardous or toxic or is or may be required to be remediated, including: (i) any petroleum or petroleum products, radioactive materials, asbestos in any form that is or could become friable, (ii) any chemicals, materials or substances which are now or hereafter become defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "extremely hazardous wastes," "restricted hazardous wastes," "toxic substances," "toxic pollutants," or any words of similar import pursuant to applicable law; or (iii) any other chemical, material, substance or waste, exposure to which is now or hereafter prohibited, limited or regulated by any governmental instrumentality, or which may be the subject of liability for damages, costs or remediation.

"Personnel" means affiliates, directors, officers, partners, members, employees, and agents.

2. SCOPE OF SERVICES

2.1. Services. Owner hereby engages Garver to perform the scope of service described in Exhibit A attached hereto ("**Services**"). Execution of this Agreement by Owner constitutes Owner's written authorization to proceed with the Services. In consideration for such Services, Owner agrees to pay Garver in accordance with Section 3 below.

3. PAYMENT

3.1. Fee.

For the Services described under Section 2.1, Owner will pay Garver in accordance with this Section 3 and Exhibit B. Owner represents that funding sources are in place with the available funds necessary to pay Garver in accordance with the terms of this Agreement.

3.2. Invoicing Statements. Garver shall invoice Owner on a monthly basis. Such invoice shall include supporting documentation reasonably necessary for Owner to know with reasonable certainty the proportion of Services accomplished.

3.3. Payment.

3.3.1. Due Date. Owner shall pay Garver all undisputed amounts within thirty (30) days after receipt of an invoice. Owner shall provide notice in writing of any portion of an invoice that is disputed in good faith within fifteen (15) days of receipt of an invoice. Garver shall promptly work to resolve any and all items identified by Owner relating to the disputed invoice. All disputed portions shall be paid promptly upon resolution of the underlying dispute.

3.3.2. If any undisputed payment due Garver under this Agreement is not received within forty-five (45) days from the date of an invoice, Garver may elect to suspend Services under this Agreement without penalty.

3.3.3. Payments due and owing that are not received within thirty (30) days of an invoice date will be subject to interest at the lesser of a one percent (1%) monthly interest charge (compounded) or the highest interest rate permitted by applicable law.

4. AMENDMENTS

4.1. Amendments. Garver shall be entitled to an equitable adjustment in the cost and/or schedule for circumstances outside the reasonable control of Garver, including modifications in the scope of Services, applicable law, codes, or standards after the Effective Date ("Amendment"). As soon as reasonably possible, Garver shall forward a formal Amendment to Owner with backup supporting the Amendment. All Amendments should include, to the extent know and available under the circumstances, documentation sufficient to enable Owner to determine: (i) the factors necessitating the possibility of a change; (ii) the impact which the change is likely to have on the cost to perform the Services; and (iii) the impact which the change is likely to have on the schedule. All Amendments shall be effective only after being signed by the designated representatives of both Parties. Garver shall have no obligation to perform any additional services created by such Amendment until a mutually agreeable Amendment is executed by both Parties.

5. OWNER'S RESPONSIBILITIES

5.1. In connection with the Project, Owner's responsibilities shall include the following:

5.1.1. Those responsibilities set forth in Exhibit A.

5.1.2. Owner shall be responsible for all requirements and instructions that it furnishes to Garver pursuant to this Agreement, and for the accuracy and completeness of all programs, reports, data, and other information furnished by Owner to Garver pursuant to this Agreement. Garver may use and rely upon such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement,

subject to any express limitations or reservations applicable to the furnished items as further set forth in Exhibit A.

5.1.3. Owner shall give prompt written notice to Garver whenever Owner observes or otherwise becomes aware of the presence at the Project site of any Hazardous Materials or any relevant, material defect, or nonconformance in: (i) the Services; (ii) the performance by any contractor providing or otherwise performing construction services related to the Project; or (iii) Owner's performance of its responsibilities under this Agreement.

5.1.4. Owner agrees to allow the contractor to include "Garver, LLC" as an additional insured under the contractor's indemnity obligations included in the construction contract documents.

5.1.5. Owner will not directly solicit any of Garver's Personnel during performance of this Agreement.

6. GENERAL REQUIREMENTS

6.1. Standards of Performance.

6.1.1. Industry Practice. Garver shall perform any and all Services required herein in accordance with generally accepted practices and standards employed by the applicable United States professional services industries as of the Effective Date practicing under similar conditions and locale. Such generally accepted practices and standards are not intended to be limited to the optimum practices, methods, techniques, or standards to the exclusion of all others, but rather to a spectrum of reasonable and prudent practices employed by the United States professional services industry.

6.1.2. Owner shall not be responsible for discovering deficiencies in the technical accuracy of Garver's services. Garver shall promptly correct deficiencies in technical accuracy without the need for an Amendment unless such corrective action is directly attributable to deficiencies in Owner-furnished information.

6.1.3. On-site Services. Garver and its representatives shall comply with Owner's and its separate contractor's Project-specific safety programs, which have been provided to Garver in writing in advance of any site visits.

6.1.4. Relied Upon Information: Garver may use or rely upon design elements and information ordinarily or customarily furnished by others including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

6.1.5. Aside from Garver's direct subconsultants, Garver shall not at any time supervise, direct, control, or have authority over any contractor's work, nor shall Garver have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any such contractor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a contractor to comply with laws and regulations applicable to that contractor's services. Garver shall not be responsible for the acts or omissions of any contractor for whom it does not have a direct contract. Garver neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work in accordance with the construction contract documents applicable to the contractor's work, even when Garver is performing construction phase services.

6.1.6. In no event is Garver acting as a "municipal advisor" as set forth in the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) or the municipal advisor registration rules issued by the Securities and Exchange Commission. Consequently, Garver's Services expressly do not include providing advice pertaining to insurance, legal, finance, surety-bonding, or similar services.

6.2. Instruments of Service.

6.2.1. Deliverables. All reports, specifications, record drawings, models, data. and all other information provided by Garver or its subconsultants, which is required to be delivered to Owner under Exhibit A (the "**Deliverables**"), shall become the property of Owner subject to the terms and conditions stated herein.

6.2.2. Electronic Media. Owner hereby agrees that all electronic media, including CADD files ("**Electronic Media**"), are tools used solely for the preparation of the Deliverables. Upon Owner's written request, Garver will furnish to Owner copies of Electronic Media to the extent included as part of the Services. In the event of an inconsistency or conflict in the content between the Deliverables and the Electronic Media, however, the Deliverables shall take precedence in all respects. Electronic Media is furnished without guarantee of compatibility with the Owner's software or hardware. Because Electronic Media can be altered, either intentionally or unintentionally, by transcription, machine error, environmental factors, or by operators, it is agreed that, to the extent permitted by applicable law, Owner shall indemnify and hold Garver, Garver's subconsultants, and their Personnel harmless from and against any and all claims, liabilities, damages, losses, and costs, including, but not limited to, costs of defense arising out of changes or modifications to the Electronic Media form in Owner's possession or released to others by Owner. Garver's sole responsibility and liability for Electronic Media is to furnish a replacement for any non-functioning Electronic Media for reasons solely attributable to Garver within thirty (30) days after delivery to Owner.

6.2.3. Property Rights. All intellectual property rights of a Party, including copyright, patent, and reuse ("**Intellectual Property**"), shall remain the Intellectual Property of that Party. Garver shall obtain all necessary Intellectual Property from any necessary third parties in order to execute the Services. Any Intellectual Property of Garver or any third party embedded in the Deliverables shall remain so imbedded and may not be separated therefrom.

6.2.4. License. Upon Owner fulfilling its payment obligations under this Agreement, Garver hereby grants Owner a license to use the Intellectual Property, but only in the operation and maintenance of the Project for which it was provided. Use of such Intellectual Property for modification, extension, or expansion of this Project or on any other project, unless under the direction of Garver, shall be without liability to Garver and Garver's subconsultants. To the extent permitted by applicable law, Owner shall indemnify and hold Garver, Garver's subconsultants, and their Personnel harmless from and against any and all claims, liabilities, damages, losses, and costs, including but not limited to costs of defense arising out of Owner's use of the Intellectual Property contrary to the rights permitted herein.

6.3. Opinions of Cost.

6.3.1. Since Garver has no control over: (i) the cost of labor, materials, equipment, or services furnished by others; (ii) the contractor or its subcontractor(s)' methods of determining prices; (iii) competitive bidding; (iv) market conditions: or (v) similar material factors, Garver's opinions of Project costs or construction costs provided pursuant to Exhibit A, if any, are to be made on the basis of Garver's experience and qualifications and represent Garver's reasonable judgment as an experienced and qualified professional engineering firm, familiar with the construction industry; but Garver cannot and does not guarantee that proposals, bids, or actual Project or construction costs will not vary from estimates prepared by Garver.

6.3.2. Owner understands that the construction cost estimates developed by Garver do not establish a limit for the construction contract amount. If the actual amount of the low construction bid or resulting construction contract exceeds the construction budget established by Owner, Garver will not be required to re-design the Services without additional compensation. In the event Owner requires greater assurances as to probable construction cost, then Owner agrees to obtain an independent cost estimate.

6.4. Underground Utilities. Except to the extent expressly included as part of the Services, Garver will not provide research regarding utilities or survey utilities located and marked by their owners. Furthermore, since many utility companies typically will not locate and mark their underground facilities prior to notice of excavation, Garver is not responsible for knowing whether underground utilities are present or knowing the exact location of such utilities for design and cost estimating purposes. In no event is Garver responsible for damage to underground utilities, unmarked or improperly marked, caused by geotechnical conditions, potholing, construction, or other contractors or subcontractors working under a subcontract to this Agreement.

6.5. Design without Construction Phase Services.

6.5.1. If the Owner requests in writing that Garver provide any specific construction phase services or assistance with resolving disputes or other subcontractor related issues, and if Garver agrees to provide such services, then Garver shall be compensated for the services as an Amendment in accordance with Sections 4 and 10.2.

6.5.2. Garver shall be responsible only for those construction phase Services expressly set forth in Exhibit A, if any. With the exception of such expressly required Services, Garver shall have no responsibility or liability for any additional construction phase services, including review and approval of payment applications, design, shop drawing review, or other obligations during construction. Owner assumes all responsibility for interpretation of the construction contract documents and for construction observation and supervision and waives any claims against Garver that may be in any way connected thereto.

6.5.3. Owner agrees, to the fullest extent permitted by law, to indemnify and hold Garver, Garver's subconsultants, and their Personnel harmless from any loss, claim, or cost, including reasonable attorneys' fees and costs of defense, arising or resulting from the performance of such construction phase services by other persons or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments, or changes made to the construction contract documents to reflect changed field or other conditions, except to the extent such claims arise from the negligence of Garver in performance of the Services.

6.6. Hazardous Materials. Nothing in this Agreement shall be construed or interpreted as requiring Garver to assume any role in the identification, evaluation, treatment, storage, disposal, or transportation of any Hazardous Materials. Notwithstanding any other provision to the contrary in this Agreement and to the fullest extent permitted by law, Owner shall indemnify and hold Garver and Garver's subconsultants, and their Personnel harmless from and against any and all losses which arise out of the performance of the Services and relating to the regulation and/or protection of the environment including without limitation, losses incurred in connection with characterization, handling, transportation, storage, removal, remediation, disturbance, or disposal of Hazardous Material, whether above or below ground.

6.7. Confidentiality. Owner and Garver shall consider: all information provided by the other Party that is marked as "Confidential Information" or "Proprietary Information" or identified as confidential pursuant to this Section 6.7 in writing promptly after being disclosed verbally to be Confidential Information. Except as legally required, Confidential Information shall not be discussed with or transmitted to any third parties, except on a "need to know basis" with equal or greater confidentiality protection or written consent of the disclosing Party. Confidential Information shall not include and nothing herein shall limit either Party's right to disclose any information provided hereunder which: (i) was or becomes generally available to the public, other than as a result of a disclosure by the receiving Party or its Personnel; (ii) was or becomes available to the receiving Party or its representatives on a non-confidential basis, provided that the source of the information is not bound by a confidentiality agreement or otherwise prohibited from transmitting such information by a contractual, legal, or fiduciary duty; (iii) was independently developed by the receiving Party without the use of any Confidential Information of the disclosing Party; or (iv) is required to be disclosed by applicable law or a court order. All confidentiality obligations hereunder shall expire three (3) years after completion of the Services. Nothing herein shall be interpreted as prohibiting Garver from disclosing general information regarding the Project for future marketing purposes. Notwithstanding anything to the contrary, City is a governmental entity subject to Texas Public Information Act and shall abide by said Act and opinions of the Attorney General interpreting the same.

7. INSURANCE

7.1. Insurance.

7.1.1. Garver shall procure and maintain insurance as set forth in Exhibit C until completion of the Service. Garver shall name Owner as an additional insured on Garver's General Liability policy to the extent of Garver's indemnity obligations provided in Section 9 of this Agreement.

7.1.2. Garver shall furnish Owner a certificate of insurance evidencing the insurance coverages required in Exhibit C.

8. DOCUMENTS

8.1. Audit. Garver shall maintain all required records for the later of three (3) years after completion of the Services or Owner makes final payment and all other pending matters are closed. FAA, Owner, Comptroller General of the United States or any of their duly authorized representatives shall have access to any books, documents, papers and records of Garver which are directly pertinent to a specific grant program for the purpose of audit, examination,



excerpts, and transcription. In no event shall Owner be entitled to audit the makeup of lump sum or other fixed prices (e.g., agreed upon unit or hour rates).

8.2. Delivery. After completion of the Project, and prior to final payment, Garver shall deliver to the Owner all original documentation prepared under this Agreement, and one (1) set of the record drawing construction plans updated to reflect changes. One (1) set of the record drawing construction plans will also be delivered to the FAA airport region office. In the event the Owner does not have proper storage facilities for the protection of the original drawings, the Owner may request Garver to retain the drawings with the provision that they will be made available upon written request.

9. INDEMNIFICATION / WAIVERS

9.1. Indemnification.

9.1.1. Garver Indemnity. Subject to the limitations of liability set forth in Section 9.2, Garver agrees to indemnify and hold Owner, and Owner's Personnel harmless from Damages due to bodily injury (including death) or third-party tangible property damage to the extent such Damages are caused by the negligent acts, errors, or omissions of Garver or any other party for whom Garver is legally liable, in the performance of the Services under this Agreement.

9.1.2. Owner Indemnity. Subject to the limitations of liability set forth in Section 9.2, to the extent allowed by law, Owner agrees to indemnify and hold Garver and Garver's subconsultants and their Personnel harmless from Damages due to bodily injury (including death) or third-party tangible property damage to the extent caused by the negligent acts, errors, or omissions of Owner or any other party for whom Owner is legally liable, in the performance of Owner's obligations under this Agreement.

9.1.3. In the event claims or Damages are found to be caused by the joint or concurrent negligence of Garver and the Owner, they shall be borne by each Party in proportion to its own negligence.

9.2. Waivers. Notwithstanding any other provision to the contrary, the Parties agree as follows:

9.2.1. THE PARTIES AGREE THAT ANY CLAIM OR SUIT FOR DAMAGES MADE OR FILED AGAINST THE OTHER PARTY WILL BE MADE OR FILED SOLELY AGAINST GARVER OR OWNER RESPECTIVELY, OR THEIR SUCCESSORS OR ASSIGNS, AND THAT NO PERSONNEL SHALL BE PERSONALLY LIABLE FOR DAMAGES UNLESS THE INDIVIDUAL IS DETERMINED TO BE ACTING OUTSIDE THE SCOPE OF EMPLOYMENT.

9.2.2. MUTUAL WAIVER. TO THE FULLEST EXTENT PERMITTED BY LAW, NEITHER OWNER, GARVER, NOR THEIR RESPECTIVE PERSONNEL SHALL BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES, OR DAMAGES ARISING FROM OR IN CONNECTION WITH LOSS OF USE, LOSS OF REVENUE OR PROFIT (ACTUAL OR ANTICIPATED), LOSS BY REASON OF SHUTDOWN OR NON-OPERATION, INCREASED COST OF CONSTRUCTION, COST OF CAPITAL, COST OF REPLACEMENT POWER OR CUSTOMER CLAIMS, AND OWNER HEREBY RELEASES GARVER, AND GARVER RELEASES OWNER, FROM ANY SUCH LIABILITY.

9.2.3. LIMITATION. IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS OF THE PROJECT TO BOTH THE OWNER AND GARVER, OWNER HEREBY AGREES THAT GARVER'S AND ITS PERSONNEL'S TOTAL LIABILITY UNDER THE AGREEMENT SHALL BE LIMITED TO PROCEEDS RECEIVED FROM INSURANCE PROVIDED UNDER EXHIBIT C OF THIS AGREEMENT.

9.2.4. NO OTHER WARRANTIES. NO OTHER WARRANTIES OR CAUSES OF ACTION OF ANY KIND, WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE) SHALL APPLY. OWNER'S EXCLUSIVE REMEDIES AND GARVER'S ONLY OBLIGATIONS ARISING OUT OF OR IN CONNECTION WITH DEFECTIVE SERVICES (PATENT, LATENT OR OTHERWISE), WHETHER BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), OR OTHERWISE, SHALL BE THOSE STATED IN THE AGREEMENT.

9.2.5. THE LIMITATIONS SET FORTH IN SECTION 9.2 APPLY REGARDLESS OF WHETHER THE CLAIM IS BASED IN CONTRACT, TORT, OR NEGLIGENCE INCLUDING GROSS NEGLIGENCE, STRICT LIABILITY, WARRANTY, INDEMNITY, ERROR AND OMISSION, OR ANY OTHER CAUSE WHATSOEVER.

10. DISPUTE RESOLUTION

10.1. Any controversy or claim ("**Dispute**") arising out of or relating to this Agreement or the breach thereof shall be resolved in accordance with the following:

10.1.1. Any Dispute that cannot be resolved by the project managers of Owner and Garver may, at the request of either Party, be referred to the senior management of each Party. If the senior management of the Parties cannot resolve the Dispute within thirty (30) days after such request for referral, then either Party may request mediation. If both Parties agree to mediation, it shall be scheduled at a mutually agreeable time and place with a mediator agreed to by the Parties. Should mediation fail, should either Party refuse to participate in mediation, or should the scheduling of mediation be impractical, either Party may file for arbitration in lieu of litigation.

10.1.2. If both Parties agree to arbitration, said arbitration of the Dispute shall be administered by the American Arbitration Association ("AAA") in accordance with its Construction Industry Arbitration Rules. The arbitration shall be conducted by a single arbitrator, agreed to by the Parties. In no event may a demand for arbitration be made if the institution of legal or equitable proceedings based on such dispute is barred by the applicable statute of limitations.

10.1.3. The site of the arbitration shall be Bell County, Texas. Each Party hereby consents to the jurisdiction of the federal and state courts within whose district the site of arbitration is located for purposes of enforcement of this arbitration provision, for provisional relief in aid of arbitration, and for enforcement of any award issued by the arbitrator.

10.1.4. To avoid multiple proceedings and the possibility of inconsistent results, either Party may seek to join third parties with an interest in the outcome of the arbitration or to consolidate arbitration under this Agreement with another arbitration. Within thirty (30) days of receiving written notice of such a joinder or consolidation, the other Party may object. In the event of such an objection, the arbitrator shall decide whether the third

party may be joined and/or whether the arbitrations may be consolidated. The arbitrator shall consider whether any entity will suffer prejudice as a result of or denial of the proposed joinder or consolidation, whether the Parties may achieve complete relief in the absence of the proposed joinder or consolidation, and any other factors which the arbitrators conclude should factor on the decision.

10.1.5. The arbitrator shall have no authority to award punitive damages. Any award, order or judgment pursuant to the arbitration is final and may be entered and enforced in any court of competent jurisdiction.

10.1.6. The prevailing Party shall be entitled to recover its attorneys' fees, costs, and expenses, including arbitrator fees and costs and AAA fees and costs.

10.1.7. The foregoing arbitration provisions shall be final and binding, construed and enforced in accordance with the Federal Arbitration Act, notwithstanding the provisions of this Agreement specifying the application of other law. Pending resolution of any Dispute, unless the Agreement is otherwise terminated, Garver shall continue to perform the Services under this Agreement that are not the subject of the Dispute, and Owner shall continue to make all payments required under this Agreement that are not the subject of the Dispute.

10.2 Litigation Assistance. This Agreement does not include costs of Garver for required or requested assistance to support, prepare, document, bring, defend, or assist in litigation undertaken or defended by Owner, unless litigation assistance has been expressly included as part of Services. In the event Owner requests such services of Garver, this Agreement shall be amended in writing by both Owner and Garver to account for the additional services and resulting cost in accordance with Section 4.

11. TERMINATION

11.1. Termination for Convenience. Owner shall have the right at its sole discretion to terminate this Agreement for convenience at any time upon giving Garver ten (10) days' written notice. In the event of a termination for convenience, Garver shall bring any ongoing Services to an orderly cessation. Owner shall compensate Garver in accordance with Exhibit B for: (i) all Services performed and reasonable costs incurred by Garver on or before Garver's receipt of the termination notice, including all outstanding and unpaid invoices, (ii) all costs reasonably incurred to bring such Services to an orderly cessation.

11.2. Termination for Cause. This Agreement may be terminated by either Party in the event of failure by the other Party to perform any material obligation in accordance with the terms hereof. Prior to termination of this Agreement for cause, the terminating Party shall provide at least seven (7) business days written notice and a reasonable opportunity to cure to the non-performing Party. In all events of termination for cause due to an event of default by the Owner, Owner shall pay Garver for all Services properly performed prior to such termination in accordance with the terms, conditions and rates set forth in this Agreement.

11.3. Termination in the Event of Bankruptcy. Either Party may terminate this Agreement immediately upon notice to the other Party, and without incurring any liability, if the non-terminating Party has: (i) been adjudicated bankrupt; (ii) filed a voluntary petition in bankruptcy or had an involuntary petition filed against it in bankruptcy; (iii) made an assignment for the benefit of creditors; (iv) had a trustee or receiver appointed for it; (v) becomes insolvent; or (vi) any part of its property is put under receivership.

12. MISCELLANEOUS

12.1. Governing Law. This Agreement is governed by the laws of the State of Texas, without regard to its choice of law provisions.

12.2. Successors and Assigns. Owner and Garver each bind themselves and their successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement; neither Owner nor Garver shall assign, sublet, or transfer their interest in this Agreement without the written consent of the other, which shall not be unreasonably withheld or delayed.

12.3. Independent Contractor. Garver is and at all times shall be deemed an independent contractor in the performance of the Services under this Agreement.

12.4. No Third-Party Beneficiaries. Nothing herein shall be construed to give any rights or benefits hereunder to anyone other than Owner and Garver. This Agreement does not contemplate any third-party beneficiaries.

12.5. Entire Agreement. This Agreement constitutes the entire agreement between Owner and Garver and supersedes all prior written or oral understandings and shall be interpreted as having been drafted by both Parties. This Agreement may be amended, supplemented, or modified only in writing by and executed by both Parties.

12.6. Severance. The illegality, unenforceability, or occurrence of any other event rendering a portion or provision of this Agreement void shall in no way affect the validity or enforceability of any other portion or provision of the Agreement. Any void provision of this Agreement shall be construed and enforced as if the Agreement did not contain the particular portion or provision held to be void.

12.7. Counterpart Execution. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which taken together constitute one Agreement. Delivery of an executed counterpart of this Agreement by fax or transmitted electronically in legible form, shall be equally effective as delivery of a manually executed counterpart of this Agreement.

13. EXHIBITS

13.1. The following Exhibits are attached to and made a part of this Agreement:

Exhibit A – Scope of Services
Exhibit B – Compensation Schedule
Exhibit C – Insurance
Exhibit D – Mandatory Federal Contract Provisions for Professional Services Contracts
Exhibit E – State of Texas Requirements
Exhibit F – Certification of Engineer
Exhibit G – Project Layout

Owner and Garver, by signing this Agreement, acknowledges that they have independently assured themselves and confirms that they individually have examined all Exhibits, and agrees that all of the aforesaid Exhibits shall be considered a part of this Agreement and agrees to be bound to the terms, provisions, and other requirements thereof, unless specifically excluded.

Acceptance of this proposed Agreement is indicated by an authorized agent of the Owner signing in the space provided below. Please return one signed original of this Agreement to Garver for our records.

IN WITNESS WHEREOF, Owner and Garver have executed this Agreement effective as of the date last written below.

City of Killeen, TX	**Garver, LLC**
By: _____ *Signature*	By: _____ *Signature*
Name: _____ *Printed Name*	Name: Mitchell McAnally *Printed Name*
Title: _____	Title: Vice President
Date: _____	Date: February 19, 2025
Attest: _____	Attest: _____

EXHIBIT A
(SCOPE OF SERVICES)

Generally, the Scope of Services includes the following professional services for terminal mechanical and security improvements to the at Killeen Regional Airport. Improvements for the "Project" will consist primarily of improvements of the existing inbound baggage mechanical equipment (Baggage Claim area), replacement of the PreConditioned Air Units on Passenger Boarding Bridges 1 and 6, and replacing the baggage handling system control software/hardware, along with improving the existing security equipment with replaced access control and camera devices along with a new security monitoring system.

- Design Repackaging Services
- Rebidding Services
- Construction Administration Services
- On-Site Resident Project Representative Services
- Project Closeout Services

1. DESIGN REPACKAGING SERVICES

Garver will repackage / combine the previously separated Security Improvements Project and Mechanical Improvements Project into one single project for bid including detailed construction drawings, specifications, instructions to bidders, and general provisions and special provisions, all based on criteria furnished to Garver by the Owner and FAA, or internally developed by Garver with recently completed Mechanical Improvements Project. Contract Documents (Plans, Specifications, and Estimates) will be prepared for award of one (1) construction contract. These designs shall conform to the standards of practice ordinarily used by members of Garver's profession practicing under similar conditions and shall be submitted to the FAA office from which approval must be obtained.

2. REBIDDING SERVICES

2.1. Rebidding. Garver will assist the Owner in advertising for and obtaining bids or negotiating proposals for one prime contract for construction, materials, equipment and services; and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend a pre-bid conference. The Owner will pay advertising costs outside of this contract.

2.2. Garver will issue addenda as appropriate to interpret, clarify or expand the Bidding Documents. Garver will consult with and advise the Owner as to the acceptability of subcontractors, suppliers and other persons and organizations proposed by the prime contractor(s) (herein called "Contractor(s)") for those portions of the work as to which such acceptability is required by the Bidding Documents. Garver will consult with the Owner concerning the acceptability of substitute materials and equipment proposed by Contractor(s) when substitution prior to the award of contracts is allowed by the Bidding Documents.

2.3. Garver will attend the bid opening, prepare a bid tabulation, and assist the Owner in evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment, and services. Garver will assist the Owner in the execution of all contract documents and furnish a sufficient number of executed documents for the Owner, Contractor and FAA.

3. CONSTRUCTION ADMINISTRATION SERVICES

3.1. During the construction phase of work, Garver will accomplish the tasks below.

3.2. Issued for Construction (IFC) Documents

3.2.1. Garver will compile bid addendums and any other necessary plan changes due to post-bid project updates and/or funding changes into a final Issued for Construction (IFC) set of plans and specifications.

3.3. Submittals

3.3.1. Garver will evaluate and respond to construction material submittals and shop drawings. Corrections or comments made by Garver on the shop drawings during this review will not relieve Contractor from compliance with requirements of the drawings and specifications. The check will be for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor will be responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other trades, and performing his work in a safe and satisfactory manner. Garver's review shall not constitute approval of safety precautions or constitute approval of construction means, methods, techniques, sequences, procedures, or assembly of various components. When certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, either directly or implied for a complete and workable system, Garver shall be entitled to rely upon such submittal or implied certification to establish that the materials, systems or equipment will meet the performance criteria required by the Contract Documents.

3.4. Notice to Proceed & Preconstruction Meeting

3.4.1. Garver will issue a Notice to Proceed letter to the Contractor and attend preconstruction meeting. Garver will provide meeting minutes for submission to all parties at the conclusion of the meeting.

3.5. Services during Procurement Periods

3.5.1. Garver will provide services during the procurement period, which is the period between bid opening and a notice to proceed for construction. This scope and fee proposal is based on up to 250 calendar days of procurement time.

3.6. Progress Meetings

3.6.1. As a minimum, a Garver representative will attend monthly progress meetings during the procurement period and bi-weekly progress meetings during the construction period with the Owner and Contractor. It is expected that 5 monthly meetings will be held via teleconference during the procurement period and 24 bi-weekly meetings will be held via teleconference during the construction period. To the extent possible, progress meetings and visits to the site of the work should be scheduled to coincide with each new phase of construction, scheduled FAA inspections, and other times when Garver's presence is desirable. Garver's project engineer or his qualified representative will be available at all times work is in progress for telephone contact by the RPR. Garver's project engineer shall direct, supervise, advise, and counsel the Resident Project Representative and construction observation personnel in the accomplishment of Garver's duties. Garver will prepare for and attend any utility pre-construction meetings as required.

3.7. Owner Coordination

3.7.1. Garver will consult with and advise the Owner during the construction period. Garver will submit, when requested by the Owner, written reports to the Owner on the progress of

the construction including any problem areas that have developed or are anticipated to develop. In addition, Garver shall supply to Owner such periodic reports and information as may be required by the FAA, including FAA Form 5370-1, Construction Progress and Inspection Report, or equivalent form to the Owner on a weekly basis.

3.8. RFIs

3.8.1. Garver will issue instructions to the Contractor on behalf of the Owner and issue necessary clarifications (respond to RFIs) regarding the construction contract documents.

3.9. Progress Payments

3.9.1. Garver will prepare Contractor's progress payment requests based on the actual quantities of contract items completed and accepted and will make a recommendation to the Owner regarding payment. Garver's recommendation for payment shall not be a representation that Garver has made exhaustive or continuous inspections to (1) check the quality or exact quantities of the Work; (2) to review billings from Subcontractors and material suppliers to substantiate the Contractor's right to payment; or (3) to ascertain how the Contractor has used money previously paid to the Contractor.

3.10. Payroll Reviews

3.10.1. Garver will assist the Owner in the observation of the Contractor's operations for proper classification of workers, review of the Contractor's payroll as necessary to determine compliance with Davis Bacon requirements, and conduct contractor employee interviews to determine compliance with Davis Bacon requirements. Garver will keep the Contractor's payroll records on file demonstrating compliance with the Davis Bacon requirements. In addition, Garver will monitor the contractor's posting of the required EEO notice and provide general oversight of any obvious instance of a segregated workplace. Garver will submit Contractor's certified payroll records to Owner at the completion of the project.

3.11. Record Drawings

3.11.1. Garver will maintain a set of working drawings and provide information for preparation of record drawings of the completed project. This information will be incorporated into final record drawings completed as part of Closeout Services and final record drawings will be provided to the Owner after project completion.

3.12. Change Orders

3.12.1. When authorized by the Owner, Garver will prepare change orders or supplemental agreements for changes in the work from that originally provided for in the construction contract documents. If redesign or substantial engineering or surveying is required in the preparation of these change order documents, the Owner will pay Garver an additional fee to be agreed upon by the Owner and Garver.

3.13. Final Inspection

3.13.1. Garver will participate in a pre-final walkthrough with the Owner. Garver will also participate in a final project inspection with the Owner and Contractor, prepare a punch list, review final project closeout documents, and submit the final pay request.

4. ON-SITE RESIDENT PROJECT REPRESENTATIVE SERVICES

4.1. Garver will provide part-time Resident Project Representative (RPR) services for the 180-calendar-day construction contract performance time. The proposed fee is based on approximately up to 30 hours per week during the construction contract performance time for the RPR. If the construction time extends beyond the time established in this agreement or if the Owner wishes to increase the time or frequency of the observation, the Owner will pay Garver an additional fee agreed to by the Owner and Garver. All RPR personnel shall have the appropriate experience and qualifications.

4.2. During the construction period, Garver's RPR will provide or accomplish the following:

- Consult with and advise the Owner during the construction period. Garver will submit, when requested by the Owner, written reports to the Owner on the progress of the construction including any problem areas that have developed or are anticipated to develop. In addition, Garver shall supply to the Owner such periodic reports and information as may be required by the FAA
- As necessary, conduct safety meetings with the Contractor.
- Perform intermediate inspections in advance of the final inspection.
- Maintain a file of quantities incorporated into the work, test reports, certifications, shop drawings and submittals, and other appropriate information.
- In accordance with FAA AC 150/5370-12A, maintain a project diary which will contain information pertinent to each site visit.
- Monitor the contractor's conformance to the approved construction safety and phasing plan.

4.3. In performing construction observation services, Garver will endeavor to protect the Owner against defects and deficiencies in the work of the Contractor(s); but Garver does not guarantee the performance of the Contractor(s), nor is Garver responsible for the actual supervision of construction operations. Garver does not guarantee the performance of the contracts by the Contractors nor assume any duty to supervise safety procedures followed by any Contractor or subcontractor or their respective employees or by any other person at the job site. However, if at any time during construction Garver observes that the Contractor's work does not comply with the construction contract documents, Garver will notify the Contractor of such non-compliance and instruct him to correct the deficiency and/or stop work, as appropriate for the situation. Garver will also record the observance, the discussion, and the actions taken. If the Contractor continues without satisfactory corrective action, Garver will notify the Owner immediately, so that appropriate action under the Owner's contract with the Contractor can be taken.

5. PROJECT CLOSEOUT SERVICES

5.1. At the conclusion of construction, Garver will assist the Owner with project closeout by providing a final project report which will include all necessary documents required for FAA grant closeout. Closeout documentation will be provided within 45 days of the final payment to the Contractor. Garver will also update the airport's ALD to show the completed project as "existing" and coordinate the submission of the updated ALD through OE/AAA.

6. PROJECT DELIVERABLES

6.1. The following deliverables will be submitted to the parties identified below. Unless otherwise noted below, all deliverables shall be electronic.

- Repackaged Design to be combined with Mechanical Improvements Project.
  - Plans and specifications, electronic copy

- Issued for Construction Plans and Specifications to the Owner and Contractor.
- Reviewed submittals to the Contractor.
- Record Plans and Specifications to the Owner and FAA.
  - One hard copy to the Owner.
- Other electronic files as requested.

7. **ADDITIONAL SERVICES**

7.1. The following items are not included under this agreement but will be considered as additional services to be added under Amendment if requested by the Owner.

- Redesign for the Owner's convenience or due to changed conditions after previous alternate direction and/or approval.
- Deliverables beyond those listed herein.
- Pavement Design beyond that furnished in the Geotechnical Report.
- Design of any utility relocation.
- Engineering, architectural, or other professional services beyond those listed herein.
- Retaining walls or other significant structural design.
- Preparation of a Storm Water Pollution Prevention Plan (SWPPP). The construction contract documents will require the Contractor to prepare, maintain, and submit a SWPPP to TCDEQ.
- Construction Materials Testing.
- Environmental Handling and Documentation, including wetlands identification or mitigation plans or other work related to environmentally or historically (culturally) significant items.
- Coordination with FEMA and preparation/submittal of a CLOMR and/or LOMR.
- Services after construction, such as warranty follow-up, operations support, and Part 139 inspection support.
- Survey Services of any nature.
- Design Services beyond those identified herein.
- Easement Development services.
- Airspacing Services (e.g. upload of Construction Safety and Phasing Plan to FAA OE/AAA)
- Airfield Drainage Study Services
- Geotechnical Services
- Drainage Design
- DBE Compliance Services
- Land Acquisition Services
- Airport Planning Services

8. **SCHEDULE**

8.1. Garver shall begin work under this Agreement upon execution of this Agreement and shall complete the work within a mutually agreeable schedule with the Owner. This proposal is based on an estimated construction duration of up to 180 Calendar Days from the Notice to Proceed to final completion along with up to 250 Calendar Days of procurement period (between contract execution and Notice to Proceed).

EXHIBIT B
(COMPENSATION SCHEDULE)

The table below presents a summary of the fee amounts and fee types for this Agreement.

WORK DESCRIPTION	FEE AMOUNT	FEE TYPE
Design Repackaging Services	$46,100.00	LUMP SUM
Re-Bidding Services	$28,700.00	LUMP SUM
Construction Administration	$348,800.00	LUMP SUM
On-Site Resident Project Representative Services	$222,200.00	RATE SCHEDULE
Closeout Services	$33,500.00	LUMP SUM
TOTAL FEE	$679,300.00	

The lump sum amount to be paid under this Agreement is $457,100.00, the hourly and expenses Not to Exceed (NTE) amount under this Agreement is $222,200.00, for a total contract value of $679,300.00. For informational purposes, a breakdown of Garver's estimated costs is included in this Exhibit B.

As directed by the Owner, some billable Services may have been performed by Garver prior to execution of this Agreement. Payment for these Services will be made in accordance with the fee arrangement established herein, as approved by the Owner.

Exhibit B

City of Killeen Aviation Department
GRK Terminal Mechanical and Security Improvements

FEE SUMMARY

Title I Service	Fee Type	Estimated Fees
Design Repackaging Services	Lump Sum	$ 46,100.00
Rebidding Services	Lump Sum	$ 28,700.00
Subtotal for Title I Service		**$ 74,800.00**

Title II Service		Estimated Fees
Construction Administration	Lump Sum	$ 348,800.00
Part-Time On-Site Resident Project Representative Services	Hourly + Expenses	$ 222,200.00
Project Closeout Services	Lump Sum	$ 33,500.00
Subtotal for Title II Service		**$ 604,500.00**

Total All Services	**$ 679,300.00**

Exhibit B

City of Killeen Aviation Department
GRK Terminal Mechanical and Security Improvements

Design Repackaging Services

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	T-2	AM-2
	hr	hr	hr	hr	hr	hr	hr
1. Project Administration							
Project Administration	1	2					8
Coordination with Client		2					
Coordination with FAA		1					
Coordination with City		1					
Internal Weekly Progress Meetings (teleconference)		1	1				
External Coordination with Subs		1	1				
Project Quality Control	2	4	4				
Updates to Front End Specifications	4	4	8	16			2
Quality Control Reviews	12	16	16				16
Implementing QC Review Comments							
Preparing and Combining IFB Set of Documents	1	4		6			4
Review Meeting with Owner	5	5	5	5			
Implement Owner and Any Other Comments							
Subtotal - Project Administration	**25**	**41**	**35**	**27**	**0**	**0**	**30**
2. Civil Engineering							
Final Plans							
Cover Sheet				1			
Sheet Index				1			
General Notes				1			
Construction Safety Plans				10			
Construction Safety Details			1	1			
Subtotal - Civil Engineering	**0**	**0**	**1**	**14**	**0**	**0**	**0**
3. Mechanical Engineering							
Final Plans							
Mechanical Notes				1			
Mechanical Removal Plans				8			
Mechanical Installation Plans				2			
Subtotal - Mechanical Engineering	**0**	**0**	**0**	**11**	**0**	**0**	**0**
4. Electrical Engineering							
Final Plans							
Electrical Notes				1			
Electrical Removal Plans				8			
Electrical Installation Plans				2			
Subtotal - Electrical Engineering	**0**	**0**	**0**	**11**	**0**	**0**	**0**
Hours	**25**	**41**	**36**	**63**	**0**	**0**	**30**

SUBTOTAL - SALARIES:	**$44,215.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$1,035.00
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$50.00
Computer Modeling/Software Use	$100.00
Travel Costs	$600.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$1,885.00**
SUBTOTAL:	**$46,100.00**
TOTAL FEE:	**$46,100.00**

Exhibit B

City of Killeen Aviation Department
GRK Terminal Mechanical and Security Improvements

Rebidding Services

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	T-2	AM-2
	hr	hr	hr	hr	hr	hr	hr
1. Project Management							
Administrative and Invoicing	2						1
Research Prospective Bidders and Document			2			1	
Coordination with Subs		4					
Prepare for Pre-Bid Meeting Presentation		4	2			1	
Attend Pre-Bid Meeting		4					
Attend Bid Opening (Virtual)		1					
Prepare City of Killeen Bid Tabulation			2				
Evaluate Bids			4			1	
Meet with Airport Staff for Bid Evaluation		2					
Prepare Recommendation of Award			2				
Subtotal - Project Management	**2**	**15**	**12**	**0**	**0**	**3**	**1**
2. Mechanical Engineering							
Addendums			2	4			
RFIs			2	2			
Subtotal - Mechanical Engineering	**0**	**0**	**4**	**6**	**0**	**0**	**0**
3. Electrical Engineering							
Addendums			2	4			
RFIs			2	2			
Subtotal - Electrical Engineering	**0**	**0**	**4**	**6**	**0**	**0**	**0**
Hours	**2**	**15**	**20**	**12**	**0**	**3**	**1**

SUBTOTAL - SALARIES:	**$12,309.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$1,041.00
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$50.00
Travel Costs	$500.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$1,691.00**
SUBTOTAL:	**$14,000.00**
SUBCONSULTANTS FEE: TLC Engineering	**$14,700.00**
TOTAL FEE:	**$28,700.00**

Exhibit B

City of Killeen Aviation Department
GRK Terminal Mechanical and Security Improvements

Pre-Construction Estimated Duration	**250**	**CDs**
Substantial Completion	**150**	**CDs**
Final Completion	**30**	**CDs**
Total Anticipated Services Performed Post Bidding	**62**	**Weeks**

Construction Administration Services

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	AM-1
	hr	hr	hr	hr	hr	hr
1. Project Management						
Project Administration	4	10		12		42
Coordination with Subconsultants		10		10		
Coordination with RPR						
Coordination with Airport		8		31		
Utility Coordination		4		8		
Procurement Bi-Weekly Meetings		40		40		
Prepare for and Attendance to Pre-Construction Meeting (Includes Travel Time)		6		8		
Prepare for Weekly Construction Coordination Meetings; Distribution of Minutes		4		13		
Weekly Construction Coordination Meetings (1 Teleconference per Week)		13		13		
Regular Site Visits (Approx. Bi-Weekly By E2, Monthly by E4)		30		60		
Monthly Weather Request Reviews		6		12		
Contractor/RPR Inquiries	2	30		40		
Review Contractor Pay Requests	4	8		24		12
Shop Drawings/Material Submittals		8		20		
Record Drawings	2	8		20	6	
Prepare Change Orders		8		16		
Inspection and Punchlist		6		8	6	
Preparation for and Attendance to Final Project Inspection and Punchlist	6	6		6		
Up and Site Visit		6		2	6	
Subtotal - Project Management	**18**	**211**	**0**	**343**	**18**	**54**
2. Mechanical Engineering						
Coordination with RPR/Project Manager		2				
Attendance to Pre-Construction Meeting (Virtual)	2					
Weekly Construction Coordination Meetings (Teleconference As needed)		16				
Shop Drawings/Material Submittals		16				
Contractor/RPR Inquiries		16				
Record Drawings		6		14		
On-Site Meeting (1 Meeting Total)		12				
Prepare Change Orders		2		2		
Inspection and Punchlist		16				
Subtotal - Mechanical Engineering	**2**	**86**	**0**	**16**	**0**	**0**

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	AM-1
	hr	hr	hr	hr	hr	hr
3. Electrical Engineering						
Coordination with RPR/Project Manager		2				
Attendance to Pre-Construction Meeting (Virtual)	2					
As needed)		16				
Shop Drawings/Material Submittals		55				
Contractor/RPR Inquiries		40				
Record Drawings		16		22		
On-Site Meeting (2 Meeting Total)		24				
Prepare Change Orders		2		2		
Inspection and Punchlist		16				
Utility Coordination		40				
Subtotal - Electrical Engineering	**2**	**211**	**0**	**24**	**0**	**0**

Hours	**22**	**508**	**0**	**383**	**18**	**54**

SUBTOTAL - SALARIES: **$236,281.00**

DIRECT NON-LABOR EXPENSES

Document Printing/Reproduction/Assembly	$1,009.00
Postage/Freight/Courier	$250.00
Office Supplies/Equipment	$140.00
Computer Modeling/Software Use	$120.00
Travel Costs	$3,000.00

SUBTOTAL - DIRECT NON-LABOR EXPENSES: **$4,519.00**

SUBTOTAL: **$240,800.00**

SUBCONSULTANTS FEE: TLC Engineering **$43,000.00**
SUBCONSULTANTS FEE: Swanson Rink **$65,000.00**

TOTAL FEE: **$348,800.00**

Exhibit B

City of Killeen Aviation Department
GRK Terminal Mechanical and Security Improvements

Substantial Completion	**150**	**CDs**
Final Completion	**30**	**CDs**
Total Anticipated Services Performed Post Bidding	**26**	**Weeks**

Part-Time On-Site Resident Project Representative Services

WORK TASK DESCRIPTION	E-4	E-3	E-2	E-1	C-2	C-1
	hr	hr	hr	hr	hr	hr
1. Civil Engineering						
Review IFC Plans and Specifications					6	
Attend Preconstruction Meeting, Badging Training					4	
Part-Time Resident Project Representative Services (up to 30 hr/Week) Supplemental E-1 Coverage @ 4 hrs Per Week				104	676	
Flex Time for Multiple Scopes of Work (If Procurements Are Staggered) up to 3 Months				52	338	
Subtotal - Civil Engineering	**0**	**0**	**0**	**156**	**1024**	**0**
Hours	**0**	**0**	**0**	**156**	**1024**	**0**

SUBTOTAL - SALARIES:	**$208,012.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$988.00
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$500.00
Travel Costs	$12,600.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$14,188.00**
SUBTOTAL:	**$222,200.00**
SUBCONSULTANTS FEE:	**$0.00**
TOTAL FEE:	**$222,200.00**

Exhibit B

City of Killeen Aviation Department
GRK Terminal Mechanical and Security Improvements

Project Closeout Services

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	C-2	AM-2
	hr	hr	hr	hr	hr	hr	hr
1. Civil Engineering							
Coordinate with Airport for Project/Grant Closeout		2					1
Coordinate with Contractor for City/FAA Closeout Documentation		2		2			1
Sponsor Certifications		1					4
Distribution of Cost Spreadsheet		1		2			
Summary of DBE Utilization Including Obtaining Statement from Subconsultant DBEs		1		2			
Assemble Material Submittals				4			2
Sponsor Cover Letter				1			
Prepare and Submit Closeout Manual to Airport		2		2	8		4
Warranty Walk through and Warranty Follow Up				8			
Subtotal - Civil Engineering	**0**	**9**	**0**	**21**	**8**	**0**	**12**
2. Electrical Engineering							
Coordination on O&M Manuals			4	4			
Prepare Closeout Manual Documents - Electrical			4	4			
Subtotal - Electrical Engineering	**0**	**0**	**8**	**8**	**0**	**0**	**0**
Hours	**0**	**9**	**8**	**29**	**8**	**0**	**12**

SUBTOTAL - SALARIES:	**$12,972.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$928.00
Postage/Freight/Courier	$300.00
Office Supplies/Equipment	$100.00
Travel Costs	$200.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$1,528.00**
SUBTOTAL:	**$14,500.00**
SUBCONSULTANTS FEE: (Swanson Rink) (Est.)	**$19,000.00**
TOTAL FEE:	**$33,500.00**

EXHIBIT C
(INSURANCE)

Pursuant to Section 7.1 of the Agreement, Garver shall maintain the following schedule of insurance until completion of the Services:

Worker's Compensation	Statutory Limit
Automobile Liability	
Combined Single Limit (Bodily Injury and Property Damage)	$500,000
General Liability	
Each Occurrence	$1,000,000
Aggregate	$2,000,000
Professional Liability	
Each Claim Made	$1,000,000
Annual Aggregate	$2,000,000
Excess of Umbrella Liability	
Per Occurrence	$1,000,000
General Aggregate	$1,000,000

EXHIBIT D

MANDATORY FEDERAL CONTRACT PROVISIONS FOR PROFESSIONAL SERVICES CONTRACTS

1. ACCESS TO RECORDS AND REPORTS

The Engineer must maintain an acceptable cost accounting system. The Engineer agrees to provide the sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives, access to any books, documents, papers, and records of the Engineer which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Engineer agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

2. CIVIL RIGHTS - GENERAL

In all its activities within the scope of its airport program, the Engineer agrees to comply with pertinent statutes, Executive Orders and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, creed, color, national origin (including limited English proficiency), sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

This provision binds the Engineer and subconsultants from the solicitation period through the completion of the contract.

3. CIVIL RIGHTS – TITLE VI ASSURANCE

During the performance of this contract, the Engineer, for itself, its assignees, and successors in interest (hereinafter referred to as the "Engineer") agrees as follows:

I. Compliance with Regulations: The Engineer (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

II. Non-discrimination: The Engineer, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subconsultants, including procurements of materials and leases of equipment. The Engineer will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

III. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subconsultant or supplier will be notified by the Engineer of the Engineer's

obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

IV. Information and Reports: The Engineer will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a Engineer is in the exclusive possession of another who fails or refuses to furnish the information, the Engineer will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

V. Sanctions for Noncompliance: In the event of an Engineer's noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the Engineer under the contract until the Engineer complies; and/or

b. Cancelling, terminating, or suspending a contract, in whole or in part.

VI. Incorporation of Provisions: The Engineer will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Engineer will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Engineer becomes involved in, or is threatened with litigation by a subconsultant, or supplier because of such direction, the Engineer may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Engineer may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);

- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);

- The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.) (prohibits discrimination on the basis of age);

- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);

- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;

- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];

- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

4. DEBARMENT AND SUSPENSION

By submitting a bid/proposal under this solicitation, the Engineer certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

5. EQUAL EMPLOYEMENT OPPORTUNITY (E.E.O.)

I. During the performance of this contract, the Engineer agrees as follows:

(1) The Engineer will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Engineer will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex,

sexual orientation, gender identify or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Engineer agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Engineer will, in all solicitations or advertisements for employees placed by or on behalf of the Engineer, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The Engineer will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Engineer's legal duty to furnish information.

(4) The Engineer will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the said labor union or workers' representatives of the Engineer's commitments under this section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Engineer will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Engineer will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Engineer's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Engineer may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Engineer will include the portion of the sentence immediately preceding paragraph (1)

and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subconsultant or vendor. The Engineer will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event an Engineer becomes involved in, or is threatened with, litigation with a subconsultant or vendor as a result of such direction by the administering agency the Engineer may request the United States to enter into such litigation to protect the interests of the United States.

II. Standard Federal Equal Employment Opportunity Contract Specifications

(1) As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;

d. "Minority" includes:

i. Black (all) persons having origins in any of the Black African racial groups not of Hispanic origin);

ii. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);

iii. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

iv. American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Whenever the Engineer, or any subconsultant at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

(3) If the Engineer is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an

association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Engineers shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Engineer or subconsultant participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Engineers or subconsultants toward a goal in an approved Plan does not excuse any covered Engineer's or subconsultant's failure to take good faith efforts to achieve the Plan goals and timetables.

(4) The Engineer shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Engineer should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Engineers performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Engineer is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

(5) Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Engineer has a collective bargaining agreement to refer either minorities or women shall excuse the Engineer's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.

(6) In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Engineer during the training period, and the Engineer shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

(7) The Engineer shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Engineer's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Engineer shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Engineer's employees are assigned to work. The Engineer, where possible, will assign two or more women to each construction project. The Engineer shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Engineer's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to

community organizations when the Engineer or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Engineer by the union or, if referred, not employed by the Engineer, this shall be documented in the file with the reason therefore along with whatever additional actions the Engineer may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Engineer has a collective bargaining agreement has not referred to the Engineer a minority person or female sent by the Engineer, or when the Engineer has other information that the union referral process has impeded the Engineer's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Engineer's employment needs, especially those programs funded or approved by the Department of Labor. The Engineer shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Engineer's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Engineer in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such a superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Engineer's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Engineer's EEO policy with other Engineers and subconsultants with whom the Engineer does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Engineer's

recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Engineer shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a Engineer's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Engineer's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Engineers and suppliers, including circulation of solicitations to minority and female Engineer associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Engineer's EEO policies and affirmative action obligations.

(8) Engineers are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of an Engineer association, joint Engineer union, Engineer community, or other similar groups of which the Engineer is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Engineer actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Engineer's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Engineer. The obligation to comply, however, is the Engineer's and failure of such a group to fulfill an obligation shall not be a defense for the Engineer's noncompliance.

(9) A single goal for minorities and a separate single goal for women have been established. The Engineer, however, is required to provide equal employment opportunity and to take

affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Engineer has achieved its goals for women generally, the Engineer may be in violation of the Executive Order if a specific minority group of women is underutilized.)

(10) The Engineer shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

(11) The Engineer shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

(12) The Engineer shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Engineer who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

(13) The Engineer, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Engineer fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

(14) The Engineer shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Engineers shall not be required to maintain separate records.

(15) Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

6. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The Engineer has full responsibility to monitor compliance to the referenced statute or regulation. The Engineer must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division

7. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Engineer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Engineer retains full responsibility to monitor its compliance and their subconsultant's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Engineer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

8. TERMINATION OF CONTRACT

I. Termination for Convenience. The Owner may, by written notice to the Engineer, terminate this Agreement for its convenience and without cause or default on the part of Engineer. Upon receipt of the notice of termination, except as explicitly directed by the Owner, the Engineer must immediately discontinue all services affected.

Upon termination of the Agreement, the Engineer must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Engineer for satisfactory work completed up through the date the Engineer receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Engineer harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

II. Termination for Default. Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating the termination action must allow the breaching party an opportunity to dispute or cure the breach.

The terminating party must provide the breaching party [7] days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

a) Termination by Owner: The Owner may terminate this Agreement in whole or in part, for the failure of the Engineer to:

1. Perform the services within the time specified in this contract or by Owner approved extension;

2. Make adequate progress so as to endanger satisfactory performance of the Project;

3. Fulfill the obligations of the Agreement that are essential to the completion of the Project.

Upon receipt of the notice of termination, the Engineer must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Engineer must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Engineer for satisfactory work completed up through the date the Engineer receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Engineer harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

b) Termination by Engineer: The Engineer may terminate this Agreement in whole or in part, if the Owner:

1. Defaults on its obligations under this Agreement;

2. Fails to make payment to the Engineer in accordance with the terms of this Agreement;

3. Suspends the Project for more than 180 days due to reasons beyond the control of the Engineer.

Upon receipt of a notice of termination from the Engineeer, Owner agrees to cooperate with Engineer for the purpose of terminating the agreement or portion thereof, by mutual consent. If Owner and Engineer cannot reach mutual agreement on the termination settlement, the Engineer may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Owner's breach of the contract.

In the event of termination due to Owner breach, the Engineer is entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Engineer through the effective date of termination action. Owner agrees to hold Engineer harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

9. TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Engineer certifies that with respect to this solicitation and any resultant

contract, the Engineer –

(1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR.);

(2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and

(3) has not entered into any subcontract for any product to be used on the Federal on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, § 1001.

The Engineer must provide immediate written notice to the Owner if the Engineer learns that its certification or that of a subconsultant was erroneous when submitted or has become erroneous by reason of changed circumstances. The Engineer must require subconsultants provide immediate written notice to the Engineer if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR § 30.17, no contract shall be awarded to an Engineer or subconsultant:

(1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR. or

(2) whose subconsultants are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or

(3) who incorporates in the public works project any product of a foreign country on such USTR list;

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of an Engineer is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Engineer agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in in all lower tier subcontracts. The Engineer may rely on the certification of a prospective subconsultant that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Engineer has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Engineer or subconsultant knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of

the contract or subcontract for default at no cost to the Owner or the FAA.

10. VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), the Engineer and all sub-tier Engineers must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. § 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

11. TAX DELINQUENCY AND FELONY CONVICTIONS

The Engineer agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

1) The Engineer represents that it is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

2) The Engineer represents that it is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

Felony conviction: Felony conviction means a conviction within the preceding twenty-four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

12. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Engineer and Subconsultants agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

13. DOMESTIC PREFERENCES FOR PROCUREMENTS

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

EXHIBIT E

STATE OF TEXAS REQUIREMENTS

I. PROHIBITION ON CONTRACTS WITH FOREIGN TERRORIST ORGANIZATIONS

Consultant's Acknowledgement of Prohibition on Contracts with Foreign Terrorist Organizations Effective September 1, 2017, Consultant acknowledges, in accordance with Chapter 2252 of the Texas Government Code, that (a) Consultant does not engage in business with Iran, Sudan, or any foreign terrorist organizations and (b) Consultant is not listed by the Texas Comptroller as a terrorist organization as defined by Chapter 2252 of the Texas Government Code. Consultant further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between the City and Consultant for (1) professional or consulting services subject to the Professional Services Act – Chapter 2254 of the Texas Government Code, (2) general construction, (3) an improvement, (4) a service, (5) a public works project, or (6) for a purchase of supplies, materials or equipment.

II. PROHIBITION ON CONTRACTS WITH COMPANIES BOYCOTTING ISRAEL

Consultant's Acknowledgement of Prohibition on Contracts with Companies Boycotting Israel Effective September 1, 2017 and as amended May 7, 2019, Consultant acknowledges, in accordance with Chapter 2271 of the Texas Government Code, that Consultant does not boycott Israel and will not boycott Israel during the term of any contract with the City of Killeen to provide goods and services to the City. Consultant further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between the City and Consultant for goods and services.

III. PROHIBITION ON CONTRACTS WITH CERTAIN FOREIGN-OWNED COMPANIES IN CONNECTION WITH CRITICAL INFRASTRUCTURE

Consultant's Acknowledgement of Prohibition on Contracts with Certain Foreign-Owned Companies in Connection with Critical Infrastructure Effective June 18, 2021, Consultant acknowledges, in accordance with Chapter 2274 of the Texas Government Code, that Consultant does not and will not engage in contracts with certain foreign-owned companies in connection with critical infrastructure during the term of any contract with the City of Killeen to provide goods and services to the City. Consultant further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between the City and Consultant for goods and services.

IV. PROHIBITION ON CONTRACTS WITH COMPANIES THAT DISCRIMINATE AGAINST FIREARM AND AMMUNITION INDUSTRIES

The Consultant must verify that it does not have a practice, policy, guidance or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the

term of the contract against a firearm entity or firearm trade association. Verification is not required from a sole source provider or when the city does not receive any bids from a company able to provide the required verification. Discriminate, firearm entity and firearm trade association are defined in Government Code Chapter 2274

V. PROHIBITION ON CONTRACTS WITH COMPANIES BOYCOTTING CERTAIN ENERGY COMPANIES

The Consultant verifies that it does not have a practice, policy, guidance or directive that discriminates against certain energy companies as defined in Chapter 809 of the Texas Government Code. The Consultant verifies that it:

a) Does not boycott energy companies; and
b) Will not boycott energy companies during the term of the contract

EXHIBIT F

AIRPORT IMPROVEMENT AID PROJECT: TBD
STATE: TEXAS

CERTIFICATION OF ENGINEER

I hereby certify that I am Derek Mayo, PE and duly authorized representative of the firm of GARVER, LLC, whose address is 810 Hesters Crossing, Suite 210, Round Rock, TX 78681 and that neither I nor the above firm I here represent has:

(a) Employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me of the above consultant) to solicit or secure this contract.

(b) Agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract; or

(c) Paid or agreed to pay to any firm, organization, or person (other than a bona fide employee working solely for me or the above consultant) any fee, contribution, donation, or consideration of any kind, for, or in connection with, procuring or carrying out the contract; except as here expressly stated (if any).

I acknowledge that this certificate is to be furnished to the Federal Aviation Administration of the United States Department of Transportation, in connection with this contract involving participation of Airport Improvement Program (AIP) funds and is subject to applicable State and Federal laws, both criminal and civil.

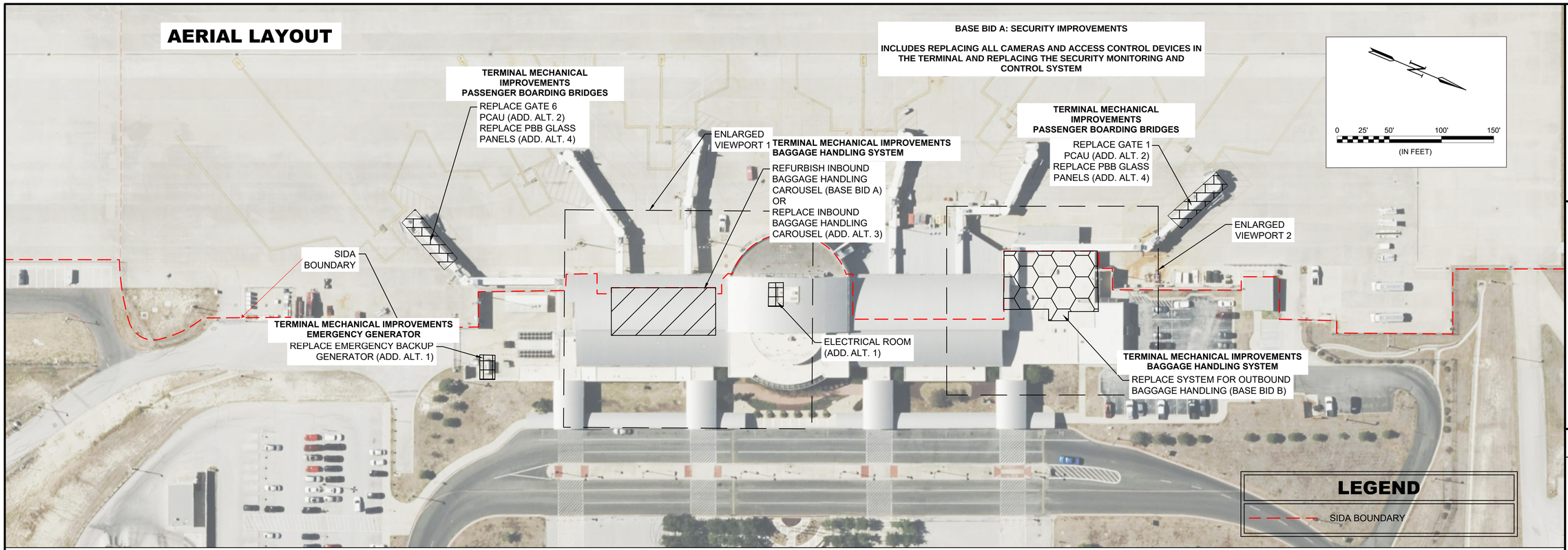
GARVER, LLC

By _____

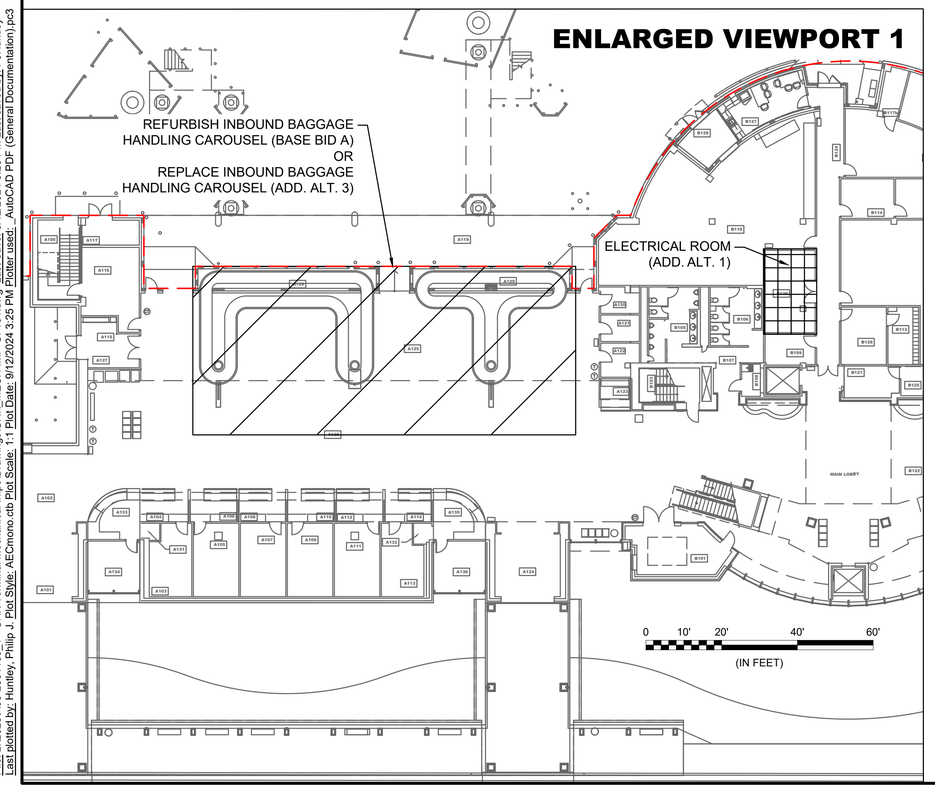
DATE:

February 19, 2025

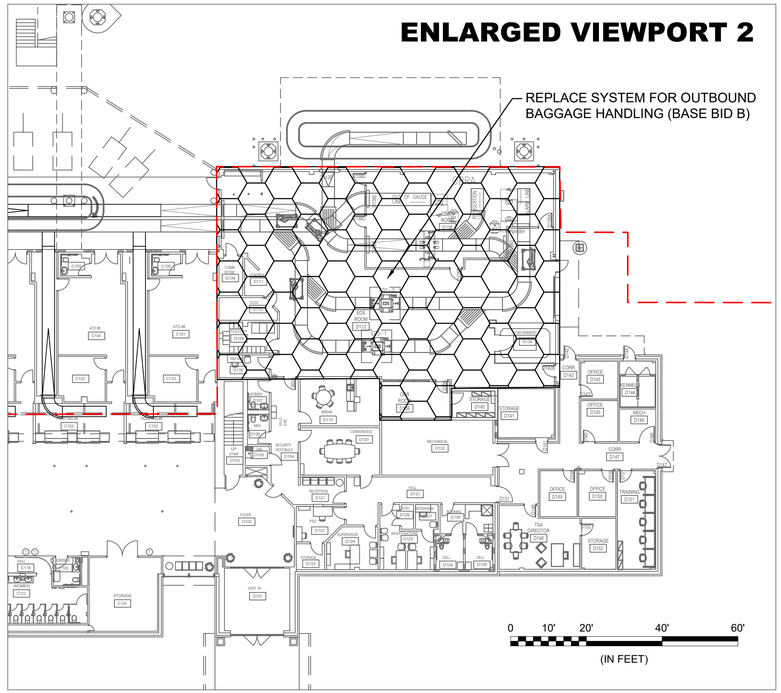
AERIAL LAYOUT



ENLARGED VIEWPORT 1



ENLARGED VIEWPORT 2



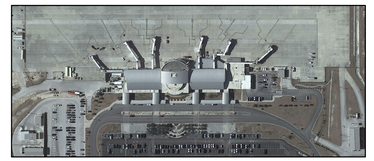
ITEMS OF WORK

BASE BID A: SECURITY IMPROVEMENTS

INCLUDES REPLACING ALL CAMERAS AND ACCESS CONTROL DEVICES IN THE TERMINAL AND REPLACING THE SECURITY MONITORING AND CONTROL SYSTEM

- BASE BID B: INBOUND BAGGAGE CAROUSEL REFURBISHMENT (SEE B02.00)
- BASE BID C: BHS CONTROL SYSTEM REPLACEMENT (SEE B02.00)
- ADDITIVE ALTERNATE 1: EMERGENCY BACKUP GENERATOR REPLACEMENT (SEE ED-101)
- ADDITIVE ALTERNATE 2: PRE-CONDITIONED AIR UNIT REPLACEMENT, GATES 1 & 6 (SEE MS-101)
- ADDITIVE ALTERNATE 3: INBOUND BAGGAGE CAROUSEL REPLACEMENT (SEE B03.01A)
- ADDITIVE ALTERNATE 4: PBB GLASS PANEL REPLACEMENT GATES 1 & 6 (SEE QJ-101)

KEYMAP



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THIS DOCUMENT, ALONG WITH THE IDEAS AND DESIGNS CONVEYED HEREIN, SHALL BE CONSIDERED INSTRUMENTS OF PROFESSIONAL SERVICE AND ARE PROPERTY OF GARVER, LLC. ANY USE, REPRODUCTION, OR DISTRIBUTION OF THIS DOCUMENT, ALONG WITH THE IDEAS AND DESIGN CONTAINED HEREIN, IS PROHIBITED UNLESS AUTHORIZED IN WRITING BY GARVER, LLC OR EXPLICITLY ALLOWED IN THE GOVERNING PROFESSIONAL SERVICES AGREEMENT FOR THIS WORK.

REV.	DATE	DESCRIPTION	BY

KILLEEN REGIONAL AIRPORT
KILLEEN, TX

TERMINAL MECHANICAL SECURITY IMPROVEMENTS

PROJECT LAYOUT PLAN

JOB NO.: A06-2301160
DATE: JUNE 2024
DESIGNED BY: JCG
DRAWN BY: MCC

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
GI-101

SHEET NUMBER **3**

File: L:\2023\A06-2301160_1 - GRK Terminal Mechanical Imps\Drawings\GRK_MECH-IMP-GI-101.dwg Last Save: 9/12/2024 3:23 PM Last saved by: PJHuntley
Last plotted by: Huntley, Philip J. Plot Style: AECmono.ctb Plot Scale: 1:1 Plot Date: 9/12/2024 3:25 PM Plotter used: _AutoCAD PDF (General Documentation).pc3

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2025-1258075

Date Filed:
01/16/2025

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
GARVER, LLC
ROUND ROCK, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
City of Killeen, Texas

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
2402654
GRK Terminal & Security Improvements - Rebidding & Construction Phase Services

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
HOSKINS, BROCK	ROUND ROCK, TX United States	X	
GRAVES, MICHAEL	ROUND ROCK, TX United States	X	
SCHNIERS, BRENT	ROUND ROCK, TX United States	X	
SOBER, JEFFREY	ROUND ROCK, TX United States	X	
MOTT, JR., Wm. EARL	ROUND ROCK, TX United States	X	
HOLDER, JR., JERRY	ROUND ROCK, TX United States	X	
MCILLWAIN, FRANK	ROUND ROCK, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is Mitchell McAnally, and my date of birth is July 2, 1986.

My address is 810 Hesters Crossing, Suite 210 (street), Round Rock (city), TX (state), 78681 (zip code), USA (country).

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Williamson County, State of Texas, on the 16th day of January (month), 20 25 (year).

Signature of authorized agent of contracting business entity
(Declarant)

PROFESSIONAL SERVICES AGREEMENT WITH GARVER, LLC

RS-25-139

September 2, 2025

Background

- This project includes replacing the outbound baggage system's computer server and software, which is over 10 years old, and upgrading the baggage claim carousels in the terminal, originally installed in 2004 and now beyond their useful life. Additionally, glass panels on Passenger Boarding Bridges at Gates 1 and 6 will be replaced, and the airport's emergency generator will be upgraded due to aging and declining reliability.

Background

- The City applied for and received a Federal Aviation Administration (FAA) Airport Infrastructure Grant (AIG) for the design phase of this project.
- The Terminal Mechanical and Security Improvements were initially separate projects. However, due to the bidder's inability to meet FAA Buy American requirements for the Security Improvements, the FAA directed the City to combine the construction phases and re-bid to ensure compliance.

Background

- The project design is complete, and bids have been received.
- Acceptance of recommended bid is being considered under a separate agenda item.

Discussion

- The construction phase of this project will be funded from a separate FAA AIG and the match will come from the Passenger Facility Charge (PFC) Fund.
- No impact to the Aviation Department's operational fund or fund balance.

Discussion

- The FAA requires federally funded projects to have professional experienced oversite and documentation of the construction.
- Garver, LLC is the Airport's engineer of record and was selected in accordance with state law and FAA requirements.

Discussion

- Staff negotiated a professional services agreement with Garver, LLC, in the amount of $679,300, for the Design Repackaging Services, Rebidding Services, Construction Administration, On-Site Resident Project Representative Services and Project Closeout Services.
- $645,335 - 95% federally funded
- $33,965 - 5% funded by PFC funds
- No impact to the Aviation Department's operational fund or fund balance.

Recommendation

- City Council approve a professional service agreement with Garver, LLC in the amount of $679,300 and recommends that the City Council authorize the City Manager, or designee, to execute all contract documents and any and all change orders or actions within the amounts set by state and local law.

City of Killeen

Staff Report

File Number: RS-25-140

Consider a memorandum/resolution approving a Professional Services Agreement with Garver, LLC, for design of the Terminal Rehabilitation Project at Killeen Regional Airport, in the amount of $995,000.00.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Mike Wilson, Executive Director of Aviation**

SUBJECT: **Professional Services Agreement with Garver, LLC - Design of the Terminal Rehabilitation Project**

BACKGROUND AND FINDINGS:

The Killeen Regional Airport (KRA) staff has identified critical passenger terminal infrastructure that has reached the end of its useful life. This project aims to enhance terminal safety and comfort for the traveling public by updating older equipment such as the elevators/escalators, public address system, fire control system, public restrooms, and curbside sidewalks. These improvements will reduce maintenance costs and improve passenger safety and comfort. Funding for this project will come from a grant provided by the Federal Aviation Administration (FAA).

The City has been offered a FAA Airport Infrastructure Grant (AIG) to cover 95% of the design phase for the Terminal Rehabilitation Project at Killeen Regional Airport (KRA). The required 5% local match will be funded through the Passenger Facility Charge (PFC) Application, approved by the FAA on March 14, 2025.

Staff has negotiated a professional services agreement with Garver, LLC, in the amount of $995,000, for project administration, design services, bidding services, and other engineering fees for the Terminal Rehabilitation Project. The Garver team is the Aviation Department's engineer of record and was selected in accordance with state law and FAA requirements.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

Pursuant to Texas Local Government Code, Section 252.022(a)(4), this item is exempt from the competitive bidding requirements, as it is an agreement for the procurement of processional services.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

The expenditure for current fiscal year is $995,000.

341-56200-900-605-925008 - 95% AIG Grant $945,250
343-56206-900-603-925008 - 5% PFC Funds $ 49,750

Is this a one-time or recurring revenue/expenditure?

One-time

Is this revenue/expenditure budgeted?

Yes, but additional appropriation is required. The 5% local match of $49,750 is fully funded from the Aviation PFC Fund (343-56206-900-603-925008), which has sufficient available balance. Of the $945,250 AIP grant-funded portion, $719,500 is already budgeted in the Aviation AIP Grants Fund (341-56200-900-605-925008). The remaining $225,750 will be appropriated to the Aviation AIP Grants Fund through the year-end budget amendment.

341-43100-900-600-925008 Federal Grant Reimbursement $225,750
341-56200-900-605-925008 Design/Engineering $225,750.

If not, where will the money come from?

Funding will come from an FAA AIG Grant and PFC funds. The additional funding will be appropriated in the year-end budget amendment.

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

No, the additional funding will be appropriated in the year-end budget amendment.

RECOMMENDATION:

Staff recommends City Council approve a professional service agreement with Garver, LLC in the amount of $995,000 and recommends that the City Council authorize the City Manager, or designee, to execute all contract documents and any and all change orders or actions within the amounts set by state and local law.

DEPARTMENTAL CLEARANCES:

Finance
Legal
Purchasing

ATTACHED SUPPORTING DOCUMENTS:

Agreement
Certificate of Interested Parties
Presentation

GARVER

810 Hesters Crossing
Suite 210
Round Rock, TX 78681

TEL 512.485.0020
FAX 512.485.0021

www.GarverUSA.com

May 30, 2025

Mike Wilson
Killeen Regional Airport (GRK)
8101 S Clear Creek Road
Killeen, TX 76549

Re: Professional Services Proposal and Contract for
GRK Terminal Rehabilitation – Design

Dear Mr. Wilson,

We appreciate the opportunity to serve the Killeen Regional Airport with the Terminal Rehabilitation - Design. We have developed a proposed contract including the scope of services and fee.

Please call me if you have any questions.

Sincerely,

GARVER

Derek Mayo, P.E., PMP
Senior Project Manager

Attachments: GRK Terminal Rehabilitation – Design Contract

THIS PROFESSIONAL SERVICES AGREEMENT ("**Agreement**") is made as of the Effective Date by and between the **City of Killeen** (hereinafter referred to as "**Owner**"), and **Garver, LLC** (hereinafter referred to as "**Garver**" or "**Engineer**"). Owner and Garver may individually be referred to herein after as a "Party" and/or "Parties" respectively.

RECITALS

WHEREAS, Owner intends to rehabilitate the terminal facility at Killeen Regional Airport (GRK) (the **"Project"**).

WHEREAS, Garver will provide professional Services related to the Project as further described herein.

NOW THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS GARVER

In addition to other defined terms used throughout this Agreement, when used herein, the following capitalized terms have the meaning specified in this Section

"Effective Date" means the date last set forth in the signature lines below.

"Damages" means any and all damages, liabilities, or costs (including reasonable attorneys' fees recoverable under applicable law).

"Hazardous Materials" means any substance that, under applicable law, is considered to be hazardous or toxic or is or may be required to be remediated, including: (i) any petroleum or petroleum products, radioactive materials, asbestos in any form that is or could become friable, (ii) any chemicals, materials or substances which are now or hereafter become defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "extremely hazardous wastes," "restricted hazardous wastes," "toxic substances," "toxic pollutants," or any words of similar import pursuant to applicable law; or (iii) any other chemical, material, substance or waste, exposure to which is now or hereafter prohibited, limited or regulated by any governmental instrumentality, or which may be the subject of liability for damages, costs or remediation.

"Personnel" means affiliates, directors, officers, partners, members, employees, and agents.

2. SCOPE OF SERVICES

2.1. Services. Owner hereby engages Garver to perform the scope of service described in Exhibit A attached hereto ("**Services**"). Execution of this Agreement by Owner constitutes Owner's written authorization to proceed with the Services. In consideration for such Services, Owner agrees to pay Garver in accordance with Section 3 below.

3. PAYMENT

3.1. Fee.
For the Services described under Section 2.1, Owner will pay Garver in accordance with this Section 3 and Exhibit B. Owner represents that funding sources are in place with the available funds necessary to pay Garver in accordance with the terms of this Agreement.

3.2. Invoicing Statements. Garver shall invoice Owner on a monthly basis. Such invoice shall include supporting documentation reasonably necessary for Owner to know with reasonable certainty the proportion of Services accomplished.

3.3. Payment.

3.3.1. Due Date. Owner shall pay Garver all undisputed amounts within thirty (30) days after receipt of an invoice. Owner shall provide notice in writing of any portion of an invoice that is disputed in good faith within fifteen (15) days of receipt of an invoice. Garver shall promptly work to resolve any and all items identified by Owner relating to the disputed invoice. All disputed portions shall be paid promptly upon resolution of the underlying dispute.

3.3.2. If any undisputed payment due Garver under this Agreement is not received within forty-five (45) days from the date of an invoice, Garver may elect to suspend Services under this Agreement without penalty.

3.3.3. Payments due and owing that are not received within thirty (30) days of an invoice date will be subject to interest at the lesser of a one percent (1%) monthly interest charge (compounded) or the highest interest rate permitted by applicable law.

4. AMENDMENTS

4.1. Amendments. Garver shall be entitled to an equitable adjustment in the cost and/or schedule for circumstances outside the reasonable control of Garver, including modifications in the scope of Services, applicable law, codes, or standards after the Effective Date ("Amendment"). As soon as reasonably possible, Garver shall forward a formal Amendment to Owner with backup supporting the Amendment. All Amendments should include, to the extent know and available under the circumstances, documentation sufficient to enable Owner to determine: (i) the factors necessitating the possibility of a change; (ii) the impact which the change is likely to have on the cost to perform the Services; and (iii) the impact which the change is likely to have on the schedule. All Amendments shall be effective only after being signed by the designated representatives of both Parties. Garver shall have no obligation to perform any additional services created by such Amendment until a mutually agreeable Amendment is executed by both Parties.

5. OWNER'S RESPONSIBILITIES

5.1. In connection with the Project, Owner's responsibilities shall include the following:

5.1.1. Those responsibilities set forth in Exhibit A.

5.1.2. Owner shall be responsible for all requirements and instructions that it furnishes to Garver pursuant to this Agreement, and for the accuracy and completeness of all programs, reports, data, and other information furnished by Owner to Garver pursuant to this

Agreement. Garver may use and rely upon such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement, subject to any express limitations or reservations applicable to the furnished items as further set forth in Exhibit A.

5.1.3. Owner shall give prompt written notice to Garver whenever Owner observes or otherwise becomes aware of the presence at the Project site of any Hazardous Materials or any relevant, material defect, or nonconformance in: (i) the Services; (ii) the performance by any contractor providing or otherwise performing construction services related to the Project; or (iii) Owner's performance of its responsibilities under this Agreement.

5.1.4. Owner agrees to allow the contractor to include "Garver, LLC" as an additional insured under the contractor's indemnity obligations included in the construction contract documents.

5.1.5. Owner will not directly solicit any of Garver's Personnel during performance of this Agreement.

6. GENERAL REQUIREMENTS

6.1. Standards of Performance.

6.1.1. Industry Practice. Garver shall perform any and all Services required herein in accordance with generally accepted practices and standards employed by the applicable United States professional services industries as of the Effective Date practicing under similar conditions and locale. Such generally accepted practices and standards are not intended to be limited to the optimum practices, methods, techniques, or standards to the exclusion of all others, but rather to a spectrum of reasonable and prudent practices employed by the United States professional services industry.

6.1.2. Owner shall not be responsible for discovering deficiencies in the technical accuracy of Garver's services. Garver shall promptly correct deficiencies in technical accuracy without the need for an Amendment unless such corrective action is directly attributable to deficiencies in Owner-furnished information.

6.1.3. On-site Services. Garver and its representatives shall comply with Owner's and its separate contractor's Project-specific safety programs, which have been provided to Garver in writing in advance of any site visits.

6.1.4. Relied Upon Information: Garver may use or rely upon design elements and information ordinarily or customarily furnished by others including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

6.1.5. Aside from Garver's direct subconsultants, Garver shall not at any time supervise, direct, control, or have authority over any contractor's work, nor shall Garver have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any such contractor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a contractor to comply with laws and regulations applicable to that contractor's services. Garver shall not be responsible for the acts or omissions of any contractor for whom it does not have a direct contract. Garver neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform

its work in accordance with the construction contract documents applicable to the contractor's work, even when Garver is performing construction phase services.

6.1.6. In no event is Garver acting as a "municipal advisor" as set forth in the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) or the municipal advisor registration rules issued by the Securities and Exchange Commission. Consequently, Garver's Services expressly do not include providing advice pertaining to insurance, legal, finance, surety-bonding, or similar services.

6.2. Instruments of Service.

6.2.1. Deliverables. All reports, specifications, record drawings, models, data. and all other information provided by Garver or its subconsultants, which is required to be delivered to Owner under Exhibit A (the "**Deliverables**"), shall become the property of Owner subject to the terms and conditions stated herein.

6.2.2. Electronic Media. Owner hereby agrees that all electronic media, including CADD files ("**Electronic Media**"), are tools used solely for the preparation of the Deliverables. Upon Owner's written request, Garver will furnish to Owner copies of Electronic Media to the extent included as part of the Services. In the event of an inconsistency or conflict in the content between the Deliverables and the Electronic Media, however, the Deliverables shall take precedence in all respects. Electronic Media is furnished without guarantee of compatibility with the Owner's software or hardware. Because Electronic Media can be altered, either intentionally or unintentionally, by transcription, machine error, environmental factors, or by operators, it is agreed that, to the extent permitted by applicable law, Owner shall indemnify and hold Garver, Garver's subconsultants, and their Personnel harmless from and against any and all claims, liabilities, damages, losses, and costs, including, but not limited to, costs of defense arising out of changes or modifications to the Electronic Media form in Owner's possession or released to others by Owner. Garver's sole responsibility and liability for Electronic Media is to furnish a replacement for any non-functioning Electronic Media for reasons solely attributable to Garver within thirty (30) days after delivery to Owner.

6.2.3. Property Rights. All intellectual property rights of a Party, including copyright, patent, and reuse ("**Intellectual Property**"), shall remain the Intellectual Property of that Party. Garver shall obtain all necessary Intellectual Property from any necessary third parties in order to execute the Services. Any Intellectual Property of Garver or any third party embedded in the Deliverables shall remain so imbedded and may not be separated therefrom.

6.2.4. License. Upon Owner fulfilling its payment obligations under this Agreement, Garver hereby grants Owner a license to use the Intellectual Property, but only in the operation and maintenance of the Project for which it was provided. Use of such Intellectual Property for modification, extension, or expansion of this Project or on any other project, unless under the direction of Garver, shall be without liability to Garver and Garver's subconsultants. To the extent permitted by applicable law, Owner shall indemnify and hold Garver, Garver's subconsultants, and their Personnel harmless from and against any and all claims, liabilities, damages, losses, and costs, including but not limited to costs of defense arising out of Owner's use of the Intellectual Property contrary to the rights permitted herein.

6.3. Opinions of Cost.

6.3.1. Since Garver has no control over: (i) the cost of labor, materials, equipment, or services furnished by others; (ii) the contractor or its subcontractor(s)' methods of determining prices; (iii) competitive bidding; (iv) market conditions: or (v) similar material factors, Garver's opinions of Project costs or construction costs provided pursuant to Exhibit A, if any, are to be made on the basis of Garver's experience and qualifications and represent Garver's reasonable judgment as an experienced and qualified professional engineering firm, familiar with the construction industry; but Garver cannot and does not guarantee that proposals, bids, or actual Project or construction costs will not vary from estimates prepared by Garver.

6.3.2. Owner understands that the construction cost estimates developed by Garver do not establish a limit for the construction contract amount. If the actual amount of the low construction bid or resulting construction contract exceeds the construction budget established by Owner, Garver will not be required to re-design the Services without additional compensation. In the event Owner requires greater assurances as to probable construction cost, then Owner agrees to obtain an independent cost estimate.

6.4. Underground Utilities. Except to the extent expressly included as part of the Services, Garver will not provide research regarding utilities or survey utilities located and marked by their owners. Furthermore, since many utility companies typically will not locate and mark their underground facilities prior to notice of excavation, Garver is not responsible for knowing whether underground utilities are present or knowing the exact location of such utilities for design and cost estimating purposes. In no event is Garver responsible for damage to underground utilities, unmarked or improperly marked, caused by geotechnical conditions, potholing, construction, or other contractors or subcontractors working under a subcontract to this Agreement.

6.5. Design without Construction Phase Services.

6.5.1. If the Owner requests in writing that Garver provide any specific construction phase services or assistance with resolving disputes or other subcontractor related issues, and if Garver agrees to provide such services, then Garver shall be compensated for the services as an Amendment in accordance with Sections 4 and 10.2.

6.5.2. Garver shall be responsible only for those construction phase Services expressly set forth in Exhibit A, if any. With the exception of such expressly required Services, Garver shall have no responsibility or liability for any additional construction phase services, including review and approval of payment applications, design, shop drawing review, or other obligations during construction. Owner assumes all responsibility for interpretation of the construction contract documents and for construction observation and supervision and waives any claims against Garver that may be in any way connected thereto.

6.5.3. Owner agrees, to the fullest extent permitted by law, to indemnify and hold Garver, Garver's subconsultants, and their Personnel harmless from any loss, claim, or cost, including reasonable attorneys' fees and costs of defense, arising or resulting from the performance of such construction phase services by other persons or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments, or changes made to the construction contract documents to reflect changed field or other conditions, except to the extent such claims arise from the negligence of Garver in performance of the Services.

6.6. Hazardous Materials. Nothing in this Agreement shall be construed or interpreted as requiring Garver to assume any role in the identification, evaluation, treatment, storage, disposal, or transportation of any Hazardous Materials. Notwithstanding any other provision to the contrary in this Agreement and to the fullest extent permitted by law, Owner shall indemnify and hold Garver and Garver's subconsultants, and their Personnel harmless from and against any and all losses which arise out of the performance of the Services and relating to the regulation and/or protection of the environment including without limitation, losses incurred in connection with characterization, handling, transportation, storage, removal, remediation, disturbance, or disposal of Hazardous Material, whether above or below ground.

6.7. Confidentiality. Owner and Garver shall consider: all information provided by the other Party that is marked as "Confidential Information" or "Proprietary Information" or identified as confidential pursuant to this Section 6.7 in writing promptly after being disclosed verbally to be Confidential Information. Except as legally required, Confidential Information shall not be discussed with or transmitted to any third parties, except on a "need to know basis" with equal or greater confidentiality protection or written consent of the disclosing Party. Confidential Information shall not include and nothing herein shall limit either Party's right to disclose any information provided hereunder which: (i) was or becomes generally available to the public, other than as a result of a disclosure by the receiving Party or its Personnel; (ii) was or becomes available to the receiving Party or its representatives on a non-confidential basis, provided that the source of the information is not bound by a confidentiality agreement or otherwise prohibited from transmitting such information by a contractual, legal, or fiduciary duty; (iii) was independently developed by the receiving Party without the use of any Confidential Information of the disclosing Party; or (iv) is required to be disclosed by applicable law or a court order. All confidentiality obligations hereunder shall expire three (3) years after completion of the Services. Nothing herein shall be interpreted as prohibiting Garver from disclosing general information regarding the Project for future marketing purposes. Notwithstanding anything to the contrary, City is a governmental entity subject to Texas Public Information Act and shall abide by said Act and opinions of the Attorney General interpreting the same.

7. INSURANCE

7.1. Insurance.

7.1.1. Garver shall procure and maintain insurance as set forth in Exhibit C until completion of the Service. Garver shall name Owner as an additional insured on Garver's General Liability policy to the extent of Garver's indemnity obligations provided in Section 9 of this Agreement.

7.1.2. Garver shall furnish Owner a certificate of insurance evidencing the insurance coverages required in Exhibit C.

8. DOCUMENTS

8.1. Audit. Garver shall maintain all required records for the later of three (3) years after completion of the Services or Owner makes final payment and all other pending matters are closed. FAA, Owner, Comptroller General of the United States or any of their duly authorized representatives shall have access to any books, documents, papers and records of Garver which are directly pertinent to a specific grant program for the purpose of audit, examination, excerpts, and transcription. In no event shall Owner be entitled to audit the makeup of lump sum or other fixed prices (e.g., agreed upon unit or hour rates).

8.2. Delivery. After completion of the Project, and prior to final payment, Garver shall deliver to the Owner all original documentation prepared under this Agreement, and one (1) set of the record drawing construction plans updated to reflect changes. One (1) set of the record drawing construction plans will also be delivered to the FAA airport region office. In the event the Owner does not have proper storage facilities for the protection of the original drawings, the Owner may request Garver to retain the drawings with the provision that they will be made available upon written request.

9. INDEMNIFICATION / WAIVERS

9.1. Indemnification.

9.1.1. Garver Indemnity. Subject to the limitations of liability set forth in Section 9.2, Garver agrees to indemnify and hold Owner, and Owner's Personnel harmless from Damages due to bodily injury (including death) or third-party tangible property damage to the extent such Damages are caused by the negligent acts, errors, or omissions of Garver or any other party for whom Garver is legally liable, in the performance of the Services under this Agreement.

9.1.2. Owner Indemnity. Subject to the limitations of liability set forth in Section 9.2, to the extent allowed by law, Owner agrees to indemnify and hold Garver and Garver's subconsultants and their Personnel harmless from Damages due to bodily injury (including death) or third-party tangible property damage to the extent caused by the negligent acts, errors, or omissions of Owner or any other party for whom Owner is legally liable, in the performance of Owner's obligations under this Agreement.

9.1.3. In the event claims or Damages are found to be caused by the joint or concurrent negligence of Garver and the Owner, they shall be borne by each Party in proportion to its own negligence.

9.2. Waivers. Notwithstanding any other provision to the contrary, the Parties agree as follows:

9.2.1. THE PARTIES AGREE THAT ANY CLAIM OR SUIT FOR DAMAGES MADE OR FILED AGAINST THE OTHER PARTY WILL BE MADE OR FILED SOLELY AGAINST GARVER OR OWNER RESPECTIVELY, OR THEIR SUCCESSORS OR ASSIGNS, AND THAT NO PERSONNEL SHALL BE PERSONALLY LIABLE FOR DAMAGES UNLESS THE INDIVIDUAL IS DETERMINED TO BE ACTING OUTSIDE THE SCOPE OF EMPLOYMENT.

9.2.2. MUTUAL WAIVER. TO THE FULLEST EXTENT PERMITTED BY LAW, NEITHER OWNER, GARVER, NOR THEIR RESPECTIVE PERSONNEL SHALL BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, OR

EXEMPLARY DAMAGES, OR DAMAGES ARISING FROM OR IN CONNECTION WITH LOSS OF USE, LOSS OF REVENUE OR PROFIT (ACTUAL OR ANTICIPATED), LOSS BY REASON OF SHUTDOWN OR NON-OPERATION, INCREASED COST OF CONSTRUCTION, COST OF CAPITAL, COST OF REPLACEMENT POWER OR CUSTOMER CLAIMS, AND OWNER HEREBY RELEASES GARVER, AND GARVER RELEASES OWNER, FROM ANY SUCH LIABILITY.

9.2.3. LIMITATION. IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS OF THE PROJECT TO BOTH THE OWNER AND GARVER, OWNER HEREBY AGREES THAT GARVER'S AND ITS PERSONNEL'S TOTAL LIABILITY UNDER THE AGREEMENT SHALL BE LIMITED TO PROCEEDS RECEIVED FROM INSURANCE PROVIDED UNDER EXHIBIT C OF THIS AGREEMENT.

9.2.4. NO OTHER WARRANTIES. NO OTHER WARRANTIES OR CAUSES OF ACTION OF ANY KIND, WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE) SHALL APPLY. OWNER'S EXCLUSIVE REMEDIES AND GARVER'S ONLY OBLIGATIONS ARISING OUT OF OR IN CONNECTION WITH DEFECTIVE SERVICES (PATENT, LATENT OR OTHERWISE), WHETHER BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), OR OTHERWISE, SHALL BE THOSE STATED IN THE AGREEMENT.

9.2.5. THE LIMITATIONS SET FORTH IN SECTION 9.2 APPLY REGARDLESS OF WHETHER THE CLAIM IS BASED IN CONTRACT, TORT, OR NEGLIGENCE INCLUDING GROSS NEGLIGENCE, STRICT LIABILITY, WARRANTY, INDEMNITY, ERROR AND OMISSION, OR ANY OTHER CAUSE WHATSOEVER.

10. DISPUTE RESOLUTION

10.1. Any controversy or claim ("**Dispute**") arising out of or relating to this Agreement or the breach thereof shall be resolved in accordance with the following:

10.1.1. Any Dispute that cannot be resolved by the project managers of Owner and Garver may, at the request of either Party, be referred to the senior management of each Party. If the senior management of the Parties cannot resolve the Dispute within thirty (30) days after such request for referral, then either Party may request mediation. If both Parties agree to mediation, it shall be scheduled at a mutually agreeable time and place with a mediator agreed to by the Parties. Should mediation fail, should either Party refuse to participate in mediation, or should the scheduling of mediation be impractical, either Party may file for arbitration in lieu of litigation.

10.1.2. If both Parties agree to arbitration, said arbitration of the Dispute shall be administered by the American Arbitration Association ("AAA") in accordance with its Construction Industry Arbitration Rules. The arbitration shall be conducted by a single arbitrator, agreed to by the Parties. In no event may a demand for arbitration be made if the institution of legal or equitable proceedings based on such dispute is barred by the applicable statute of limitations.

10.1.3. The site of the arbitration shall be Bell County, Texas. Each Party hereby consents to the jurisdiction of the federal and state courts within whose district the site of arbitration

is located for purposes of enforcement of this arbitration provision, for provisional relief in aid of arbitration, and for enforcement of any award issued by the arbitrator.

10.1.4. To avoid multiple proceedings and the possibility of inconsistent results, either Party may seek to join third parties with an interest in the outcome of the arbitration or to consolidate arbitration under this Agreement with another arbitration. Within thirty (30) days of receiving written notice of such a joinder or consolidation, the other Party may object. In the event of such an objection, the arbitrator shall decide whether the third party may be joined and/or whether the arbitrations may be consolidated. The arbitrator shall consider whether any entity will suffer prejudice as a result of or denial of the proposed joinder or consolidation, whether the Parties may achieve complete relief in the absence of the proposed joinder or consolidation, and any other factors which the arbitrators conclude should factor on the decision.

10.1.5. The arbitrator shall have no authority to award punitive damages. Any award, order or judgment pursuant to the arbitration is final and may be entered and enforced in any court of competent jurisdiction.

10.1.6. The prevailing Party shall be entitled to recover its attorneys' fees, costs, and expenses, including arbitrator fees and costs and AAA fees and costs.

10.1.7. The foregoing arbitration provisions shall be final and binding, construed and enforced in accordance with the Federal Arbitration Act, notwithstanding the provisions of this Agreement specifying the application of other law. Pending resolution of any Dispute, unless the Agreement is otherwise terminated, Garver shall continue to perform the Services under this Agreement that are not the subject of the Dispute, and Owner shall continue to make all payments required under this Agreement that are not the subject of the Dispute.

10.2 Litigation Assistance. This Agreement does not include costs of Garver for required or requested assistance to support, prepare, document, bring, defend, or assist in litigation undertaken or defended by Owner, unless litigation assistance has been expressly included as part of Services. In the event Owner requests such services of Garver, this Agreement shall be amended in writing by both Owner and Garver to account for the additional services and resulting cost in accordance with Section 4.

11. TERMINATION

11.1. Termination for Convenience. Owner shall have the right at its sole discretion to terminate this Agreement for convenience at any time upon giving Garver ten (10) days' written notice. In the event of a termination for convenience, Garver shall bring any ongoing Services to an orderly cessation. Owner shall compensate Garver in accordance with Exhibit B for: (i) all Services performed and reasonable costs incurred by Garver on or before Garver's receipt of the termination notice, including all outstanding and unpaid invoices, (ii) all costs reasonably incurred to bring such Services to an orderly cessation.

11.2. Termination for Cause. This Agreement may be terminated by either Party in the event of failure by the other Party to perform any material obligation in accordance with the terms hereof. Prior to termination of this Agreement for cause, the terminating Party shall provide at least seven (7) business days written notice and a reasonable opportunity to cure to the non-performing Party. In all events of termination for cause due to an event of default by the

Owner, Owner shall pay Garver for all Services properly performed prior to such termination in accordance with the terms, conditions and rates set forth in this Agreement.

11.3. Termination in the Event of Bankruptcy. Either Party may terminate this Agreement immediately upon notice to the other Party, and without incurring any liability, if the non-terminating Party has: (i) been adjudicated bankrupt; (ii) filed a voluntary petition in bankruptcy or had an involuntary petition filed against it in bankruptcy; (iii) made an assignment for the benefit of creditors; (iv) had a trustee or receiver appointed for it; (v) becomes insolvent; or (vi) any part of its property is put under receivership.

12. MISCELLANEOUS

12.1. Governing Law. This Agreement is governed by the laws of the State of Texas, without regard to its choice of law provisions.

12.2. Successors and Assigns. Owner and Garver each bind themselves and their successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Agreement; neither Owner nor Garver shall assign, sublet, or transfer their interest in this Agreement without the written consent of the other, which shall not be unreasonably withheld or delayed.

12.3. Independent Contractor. Garver is and at all times shall be deemed an independent contractor in the performance of the Services under this Agreement.

12.4. No Third-Party Beneficiaries. Nothing herein shall be construed to give any rights or benefits hereunder to anyone other than Owner and Garver. This Agreement does not contemplate any third-party beneficiaries.

12.5. Entire Agreement. This Agreement constitutes the entire agreement between Owner and Garver and supersedes all prior written or oral understandings and shall be interpreted as having been drafted by both Parties. This Agreement may be amended, supplemented, or modified only in writing by and executed by both Parties.

12.6. Severance. The illegality, unenforceability, or occurrence of any other event rendering a portion or provision of this Agreement void shall in no way affect the validity or enforceability of any other portion or provision of the Agreement. Any void provision of this Agreement shall be construed and enforced as if the Agreement did not contain the particular portion or provision held to be void.

12.7. Counterpart Execution. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which taken together constitute one Agreement. Delivery of an executed counterpart of this Agreement by fax or transmitted electronically in legible form, shall be equally effective as delivery of a manually executed counterpart of this Agreement.

13. EXHIBITS

13.1. The following Exhibits are attached to and made a part of this Agreement:

Exhibit A – Scope of Services
Exhibit B – Compensation Schedule
Exhibit C – Insurance
Exhibit D – Mandatory Federal Contract Provisions for Professional Services Contracts
Exhibit E – State of Texas Requirements
Exhibit F – Certification of Engineer
Exhibit G – Conceptual Layout

Owner and Garver, by signing this Agreement, acknowledges that they have independently assured themselves and confirms that they individually have examined all Exhibits, and agrees that all of the aforesaid Exhibits shall be considered a part of this Agreement and agrees to be bound to the terms, provisions, and other requirements thereof, unless specifically excluded.

Acceptance of this proposed Agreement is indicated by an authorized agent of the Owner signing in the space provided below. Please return one signed original of this Agreement to Garver for our records.

IN WITNESS WHEREOF, Owner and Garver have executed this Agreement effective as of the date last written below.

City of Killeen, TX		**Garver, LLC**	
By:	_____ *Signature*	By:	Mitchell McAnally *Signature*
Name:	_____ *Printed Name*	Name:	Mitchell McAnally, PE *Printed Name*
Title:	_____	Title:	Vice President
Date:	_____	Date:	May 30, 2025
Attest:	_____	Attest:	_____

EXHIBIT A
(SCOPE OF SERVICES)

Generally, the Scope of Services includes the following professional services for improvements to the Terminal Building at Killeen Regional Airport.

- Project Administration
- Design Services
  - Preliminary Engineering Report
  - 60% Preliminary Design
  - 90% Final Design
  - 100% Issued for Bid
- Bidding Services

Improvements to the Terminal Building will consist primarily of architectural, civil, mechanical, plumbing, and electrical improvements to existing spaces and replacement and refurbishment of existing equipment. The project is limited to the following items, as shown in Exhibit G:

- Elevator and Escalator Refurbishment
- Fire Control Panel and Alarm System Replacement
- Public Address (PA) System Replacement
- Curbside Walkway Rehabilitation
- Public Restroom Renovations
- Building Waterproofing Envelope Rehabilitation (Roof, Window Seals, and Building Seals)
- Replacing Pre-Conditioned Air Units (PCAIR) on Gates 1 and 6 Jet Bridges

1. PROJECT ADMINISTRATION

1.1. Garver will serve as the Owner's representative for the project and furnish consultation and advice to the Owner during the performance of this service. Garver will attend conferences alone or with Owner's representatives, local officials, state and federal agencies, and others regarding the scope of the proposed project, its general design, functions, and impacts.

1.2. Garver will assist in development of grant reimbursement packets for review, execution, and submittal to FAA by the Owner.

2. DESIGN SERVICES

2.1. General: Garver will prepare detailed construction drawings, specifications, instructions to bidders, and general provisions and special provisions, all based on guides furnished to Garver by the Owner and FAA, or internally developed by Garver. Contract Documents (Plans, Specifications, and Estimates) will be prepared for award of one (1) construction contract. These designs shall conform to the standards of practice ordinarily used by members of Garver's profession practicing under similar conditions and shall be submitted to the FAA office from which approval must be obtained.

2.2. Owner / Agency Coordination: Garver's project manager and/or design team will coordinate with the Owner as necessary to coordinate design decisions, site visits, document procurement, or other design needs.

2.3. Project Management Plan / Quality Control Procedures

2.3.1 Garver will develop a project specific project management plan. The project management plan will include the project background, scope of work, stakeholder contact information, project team organization and roles, design criteria, project schedule, deliverables, and quality control procedures.

2.3.2 Garver will complete quality control reviews for each deliverable prior to any design submission to Owner and/or FAA. Quality control reviews will be completed by qualified project managers, project engineers, and/or senior construction observers who are experienced in the relevant discipline and design elements under review. Bi-Weekly internal progress meetings will be held during all design phases to ensure adequate quality control throughout the design phases.

2.4. Construction Safety and Phasing Plan

2.4.1. Garver will develop a construction safety and phasing plan (CSPP) for the project. During development of the CSPP, Garver will hold a meeting with Airport staff and other stakeholders at the Airport's request to obtain feedback regarding operations during each proposed phase of construction.

2.4.2. After receiving comments from the meeting, Garver will develop a preliminary CSPP for the Owner's review prior to submission to the FAA. After incorporating Owner comments, the CSPP will be submitted to FAA for review through the OE/AAA website, as necessary.

2.5. Existing Conditions Review

2.5.1. Record Document Review: Garver will review record document data from the vicinity of the construction site to evaluate existing conditions. Record document data may include record drawings, record surveys, utility maps, GIS data, and previous design reports.

2.5.2. Site Visits: Garver's engineers, architects, and subconsultants will perform up to two (2) site visits to the project site to review existing conditions and evaluate survey and record document data.

2.5.3. Building Scanning: To supplement Airport Record Drawings, Garver will perform scanning of internal project areas.

2.6. Specialty Design

2.6.1. Elevator and Escalator Refurbishment: Henderson Engineers, a subconsultant to Garver, will be responsible for providing Elevator and Escalator Refurbishment design for rehabilitation and improvement to the existing elevators and escalators as shown in Exhibit G. Garver will provide additional quality control and review.

2.6.2. Fire Control Panel and Alarm System Replacement: TLC Engineering Solutions, a subconsultant to Garver, will be responsible for providing design for replacing the existing fire control panel and alarm system.

2.6.3. Public Address (PA) System Replacement: TLC Engineering Solutions, a subconsultant to Garver, will be responsible for providing design for replacing the PA system.

2.6.4. Building Waterproofing Envelope (Roof, Window Seals, and Building Seals) Rehabilitation: WJE, a subconsultant to Garver, will be responsible for providing an assessment and design of the building waterproofing envelope rehabilitation.

2.7. Curbside Walkway Rehabilitation: Garver will provide design services for the proposed rehabilitation and improvements to the existing curbside walkway area as shown in Exhibit G.

2.8. Public Restroom Renovation: Garver will provide design services for the proposed renovations and improvements to the existing public restrooms as shown in Exhibit G.

2.9. Replacing PCAIR Units: Garver will provide design services for the proposed replacement of PCAIR units on jet bridges for Gates 1 and 6 as shown in Exhibit G.

2.10. Permitting and Other Regulatory Requirements: Garver will submit for and obtain the following approvals:

2.10.1. Building Permit. Assumed Permit Fees are waived or covered by the City of Killeen.
2.10.2. Airspace Analysis (OE/AAA Submission)
2.10.3. TDLR Accessibility Plan Review. TDLR Accessibility Inspection will be conducted by Contractor.
2.10.4. Asbestos Survey

2.11. Specifications and Contract Documents

2.11.1. Technical Specifications: Detailed specifications shall be developed using FAA "Standards for Specifying Construction for Airports" AC 150/5370-10 (latest edition) or other appropriate standards approved for use by the FAA. Additional supplementary specifications will be developed for project requirements not covered by FAA AC150/5370-10 or when state or local standards are approved by the FAA.

2.11.2. Construction Contract Documents: Garver will develop construction contract documents based on EJCDC standards and Owner provided template. A specimen copy of the General Provisions and applicable prevailing wage rates will be obtained by Garver from the FAA and/or Department of Labor as appropriate for incorporation into the specifications for the proposed project. Final construction contract documents will be submitted to the Owner for final review and approval.

2.12. Preliminary Engineer's Report: Garver will prepare an Engineer's Report to outline the project's design criteria and design considerations. The report will discuss design decisions of all major project parameters. A summary of the sections to be included in the Engineer's Report are shown below:

- Executive Summary
- Project Background
- Existing Conditions
- Applicable Standards
- Construction Safety and Phasing
- Design Approach
  - Elevator and Escalator Refurbishment
  - Fire Control Panel and Alarm System Replacement
  - Public Address (PA) System Replacement
  - Curbside Walkway Rehabilitation



- Public Restroom Renovations
- Building Waterproofing Envelope Rehabilitation
- PCAIR Units (Gates 1 and 6) Replacement

- Miscellaneous Design Items
- Project Schedule
- Engineer's Opinion of Probable Cost
- Appendices

2.13. Quantities and Engineer's Opinion of Probable Cost: Garver will develop detailed quantities in PDF format for use in construction cost estimating for each design phase. Quantities will be completed by pay item. Upon the completion of quantity development, Garver will review previous cost data and market conditions and complete an Engineer's Opinion of Probable Cost.

2.14. Design Services Submission and Meeting Summary: The following design submittal phases shall be included in the fee summary. A summary of each design phase and the associated review meetings is included below.

2.14.1. Preliminary Engineering Report

2.14.1.1. Garver will develop Preliminary Engineering Report and submit to the Owner for review. It is anticipated that the Owner will review the design submission within two (2) weeks.

2.14.1.2. At the completion of the Owner review period, Garver will meet with the Owner to review the Preliminary Engineering Report and to receive Owner comments and direction.

2.14.2. 60% Preliminary Design

2.14.2.1. Garver will develop 60% preliminary design plans, specifications, and update preliminary engineer's report and submit these to the Owner for review. It is anticipated that the Owner will review the design submission within two (2) weeks.

2.14.2.2. At the completion of the Owner review period, Garver will meet with the Owner to review the 60% preliminary design plans, specifications, and engineer's report and to receive Owner comments and direction.

2.14.3. 90% Final Design

2.14.3.1. Garver will develop 90% final design plans, specifications, and update preliminary engineer's report and submit these to the Owner for review. It is anticipated that the Owner will review the design submission within two (2) weeks.

2.14.3.2. At the completion of the Owner review period, Garver will meet with the Owner to review the 90% final design plans, specifications, and engineer's report and to receive Owner comments and direction.

2.14.4. 100% Issued for Bid (IFB): Garver will develop 100% IFB plans and specifications, addressing all Owner comments received from the 90% review. Garver will submit the updated project documents to the Owner for advertisement and bidding of the project.

3. BIDDING SERVICES

3.1. Bidding. Garver will assist the Owner in advertising for and obtaining bids or negotiating proposals for one (1) prime contract for construction, materials, equipment and services; and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, and attend a pre-bid conference. The Owner will pay advertising costs outside of this contract.

3.2. Garver will issue addenda as appropriate to interpret, clarify or expand the Bidding Documents. Garver will consult with and advise the Owner as to the acceptability of subcontractors, suppliers and other persons and organizations proposed by the prime contractor(s) (herein called "Contractor(s)") for those portions of the work as to which such acceptability is required by the Bidding Documents. Garver will consult with the Owner concerning the acceptability of substitute materials and equipment proposed by Contractor(s) when substitution prior to the award of contracts is allowed by the Bidding Documents.

3.3. Garver will attend the bid opening, prepare a bid tabulation, and assist the Owner in evaluating bids or proposals and in assembling and awarding contracts for construction. Garver will assist the Owner in the execution of all contract documents and furnish executed documents for the Owner as noted in Project Deliverables below.

4. PROJECT DELIVERABLES

4.1. The following deliverables will be submitted to the parties identified below. Unless otherwise noted below, all deliverables shall be electronic.

- Preliminary Engineering Report and Engineer's Opinion of Probable Cost to the Owner and FAA.
  - One hard copy to the Owner.
  - Electronic copies to Owner and FAA.
- 60% Preliminary Design Plans, Specifications, Engineer's Opinion of Probable Cost, and Report to the Owner and FAA.
  - One hard copy to the Owner.
  - Electronic copies to Owner and FAA.
- 90% Final Design Plans, Specifications, Engineer's Opinion of Probable Cost, and Report to the Owner and FAA.
  - One hard copy to the Owner.
  - Electronic copies to Owner and FAA.
- 100% Issued for Bid Plans, Specifications, Engineer's Opinion of Probable Cost, and Report to the Owner and FAA.
  - One hard copy to the Owner.
  - Electronic copies to Owner and FAA.
- Issued for Construction Plans and Specifications to the Owner, Contractor, and FAA.
  - One hard copy to the Owner.
  - Electronic copies to Owner, FAA, and Contractor.
- Other electronic files as requested.

5. ADDITIONAL SERVICES

5.1. The following items are not included under this agreement but will be considered as additional services to be added under Amendment if requested by the Owner.

- Property Surveys and Easement Development
- Geotechnical Investigation and Engineering services of any kind
- Development and/or preparation of a modification to standard (MOS)
- Development of separate procurement documents required by the AIP Handbook
- Prepare an updated or new Disadvantaged Business Enterprise (DBE) Program.
- Safety Risk Management (SRM) services
- Modeling for any areas or scopes of work beyond those listed herein.
- Detailed routing of utilities throughout terminal not pertaining to scope of work or design services associated with project.
- Redesign for the Owner's convenience or due to changed conditions after previous alternate direction and/or . Changes conditions may include, but are not limited to major changes to pavement, building, or utility alignments.
- Deliverables beyond those listed herein.
- Design services outside the work areas identified in Exhibit G.
- Engineering, architectural, or other professional services beyond those listed herein.
- Retaining walls or other structural design.
- Preparation of a Storm Water Pollution Prevention Plan (SWPPP). The construction contract documents will require the Contractor to prepare, maintain, and submit a SWPPP to TCEQ.
- Construction Administration Services, On-Site Construction Observation, and Construction Materials Testing.
- Project Closeout Services
- Environmental Handling and Documentation, including wetlands identification or mitigation plans or other work related to environmentally or historically (culturally) significant items.
- Permitting for environmentally sensitive areas.
- Coordination with FEMA and preparation/submittal of a CLOMR and/or LOMR.
- Services after construction, such as warranty follow-up, operations support, and Part 139 inspection support.
- Survey services beyond those listed herein.
- Lease negotiations
- Specialty lighting design
- Mold or lead paint survey or report
- Construction means and methods
- LEED and/or Green Building Programs documentation and analyses
- City Review and Filing Fees, Taxes, and COM check fees
- Permitting fees
- Site visits other than those listed herein

6. SCHEDULE

6.1. Garver shall begin work under this Agreement within ten (10) days of execution of this Agreement and shall complete the work in accordance with the schedule below:

Design Phase	Calendar Days
Preliminary Engineering Report	90 Days from Notice to Proceed from Owner or Project Kickoff Meeting, whichever is later
60% Preliminary Design	90 Days from Receipt of Preliminary Engineering Report Comments from All Parties Participating in Review

90% Final Design	60 Days from Receipt of 60% Preliminary Design Comments from All Parties Participating in Review
100% Issued for Bid (IFB)	30 Days from Receipt of 90% Final Design Comments from All Parties Participating in Review

Note:

1. In the event that a submittal date lands on a Monday, the deadline will be shifted to the following business day.
2. Any federal holidays and holiday adjacent days (includes Friday after Thanksgiving, Christmas Eve, and New Years Eve) that occur within a design phase will extend the phase by the number of holidays and holiday adjacent days that occur during the proposed phase.

EXHIBIT B
(COMPENSATION SCHEDULE)

The table below presents a summary of the fee amounts and fee types for this Agreement.

WORK DESCRIPTION	FEE AMOUNT	FEE TYPE
Preliminary Engineering Report	$277,250.00	LUMP SUM
60% Preliminary Design	$341,250.00	LUMP SUM
90% Final Design	$176,500.00	LUMP SUM
100% Issued For Bid	$124,250.00	LUMP SUM
Bidding Services	$75,750.00	LUMP SUM
TOTAL FEE	$995,000.00	

The lump sum amount to be paid under this Agreement is $995,000. For informational purposes, a breakdown of Garver's estimated costs is included in this Exhibit B.

Exhibit B

City of Killeen
GRK Terminal Rehabilitation - Design

FEE SUMMARY

Title I Service	Fee Type	Estimated Fees
Preliminary Engineering Report	Lump Sum	
Garver		$ 116,135.80
TLC (PA System, Fire Alarm)		$ 31,878.00
WJE (Building Waterproofing Envelope)		$ 34,902.50
Henderson (Elevator and Escalator)		$ 74,333.70
Building Scan		$ 20,000.00
60% Design	Lump Sum	
Garver		$ 204,952.00
TLC (PA System, Fire Alarm)		$ 26,726.00
WJE (Building Waterproofing Envelope)		$ 38,927.50
Henderson (Elevator and Escalator)		$ 70,644.50
90% Design	Lump Sum	
Garver		$ 104,611.77
TLC (PA System, Fire Alarm)		$ 13,584.38
WJE (Building Waterproofing Envelope)		$ 19,895.00
Henderson (Elevator and Escalator)		$ 38,408.85
100% Design	Lump Sum	
Garver		$ 56,857.12
TLC (PA System, Fire Alarm)		$ 4,528.13
WJE (Building Waterproofing Envelope)		$ 19,895.00
Henderson (Elevator and Escalator)		$ 42,969.75
Bidding Services	Lump Sum	
Garver		$ 36,007.15
TLC (PA System, Fire Alarm)		$ 16,514.00
WJE (Building Waterproofing Envelope)		$ 3,450.00
Henderson (Elevator and Escalator)		$ 19,778.85
Subtotal for Title I Service		**$ 995,000.00**

Exhibit B

City of Killeen
GRK Terminal Rehabilitation - Design

Preliminary Engineering Report

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	AM-1
	hr	hr	hr	hr	hr	hr
1. Project Administration						
Project Management	10		24			
Coordination with Airport and City	3		6			
Asbestos Survey and Coordination			4			
External Coordination (Subs, Utilities, Etc.)	3		9			
Develop Project Management Plan	1		8			
Submittal Production			1			4
Subtotal - Project Administration	**17**	**0**	**52**	**0**	**0**	**4**
2. Civil Engineering						
Design Kickoff Meeting and Site Visit (2 People, In-Person)	8		8			
Curbside Walkway Rehabilitation						
Establish Design Criteria and Parameters			1		1	
Review As-Built Drawings			1		1	
Prepare Exhibits for Appendices			1		1	
Develop Typical Sections			1		1	
Develop Geometric Layout			1		1	
Base Map Setup					2	
Develop Conceptual Construction Safety and Phasing Plan					1	
Schedule Analysis			2			
Draft Report			8		15	
Develop Conceptual Opinions of Probable Construction Costs			1		1	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review	4		4			
Incorporate QC Review Comments			1		4	
Attend Conceptual Plan Review Meeting (2 People, Virtual)	3		3			
Prepare and Distribute Conceptual Review Meeting Minutes and Tasks			1			
Subtotal - Civil Engineering	**15**	**0**	**39**	**0**	**34**	**0**
3. Electrical Engineering						
Design Kickoff Meeting and Site Visit (1 Person, In-Person)			8			
Curbside Walkway Rehabilitation						
Establish Design Criteria and Parameters			1		2	
Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		4	
Public Restroom Renovations						
Establish Design Criteria and Parameters			1		2	
Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		4	
Elevator and Escalator Refurbishment						
Establish Design Criteria and Parameters			1		2	
Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		4	
Fire Control Panel and Alarm System Replacement & Public Address (PA) System Replacement						
Establish Design Criteria and Parameters			1		2	
Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		4	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Establish Design Criteria and Parameters			1		1	
Review As-Built Drawings			1		1	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		2	
Draft Report			10		16	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review		4				
Incorporate QC Review Comments					8	
Attend Conceptual Plan Review Meeting (1 Person, Virtual)			3			
Subtotal - Electrical Engineering	**0**	**4**	**43**	**0**	**67**	**0**
4. Architectural Design						
Design Kickoff Meeting and Site Visit (1 Person, In-Person)		8				
Public Restroom Renovations						
Establish Design Criteria and Parameters		1		1		
Review As-Built Drawings		1		1		
Develop Conceptual Design		1		2		
Prepare Exhibits and Renderings for Appendices		1		2		
Draft Report		12		12	5	
Construction Cost Analysis		1		1		
Internal (Bi-Weekly) Progress Meetings (6)		6		6		
Internal Quality Control (QC) Review		4				
Incorporate QC Review Comments				4		
Attend Conceptual Plan Review Meeting (1 person, Virtual)		3				
Subtotal - Architectural Design	**0**	**38**	**0**	**29**	**5**	**0**
5. Mechanical and Plumbing Engineering						
Design Kickoff Meeting and Site Visit (1 Person, In-Person)			8			
Public Restroom Renovations						
Establish Design Criteria and Parameters			1		2	
Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		2	
Elevator and Escalator Refurbishment						
Establish Design Criteria and Parameters			1		2	

Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		2	
Public Address (PA) System Replacement						
Establish Design Criteria and Parameters			1		2	
Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		2	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Establish Design Criteria and Parameters			1		2	
Review As-Built Drawings			1		2	
Prepare and Review Schematic Design for Potential Conflicts and Impacts			1		2	
Draft Report			12		16	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review		4				
Incorporate QC Review Comments					8	
Attend Conceptual Plan Review Meeting (1 Person, Virtual)			3			
Subtotal - Mechanical and Plumbing Engineering	**0**	**4**	**42**	**0**	**55**	**0**
6. Landscape Architectural Design						
Design Kickoff Meeting and Site Visit (1 Person, In-Person)			8			
Curbside Walkway Rehabilitation						
Establish Design Criteria and Parameters			1		1	
Review As-Built Drawings			1		1	
Develop Conceptual Layout			1		1	
Draft Report			8		12	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review		4				
Incorporate QC Review Comments					4	
Attend Conceptual Plan Review Meeting (1 Person, Virtual)			3			
Subtotal - Landscape Architectural Design	**0**	**4**	**29**	**0**	**26**	**0**
Hours	**32**	**50**	**205**	**29**	**187**	**4**

SUBTOTAL - SALARIES:	**$112,134.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$951.80
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$100.00
Computer Modeling/Software Use	$100.00
Travel Costs	$2,750.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$4,001.80**
GARVER FEE TOTAL:	**$116,135.80**

Exhibit B

City of Killeen
GRK Terminal Rehabilitation - Design

60% Design

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	AM-1
	hr	hr	hr	hr	hr	hr
1. Project Administration						
Project Management	30		48			
Coordination with Airport and City	3		24			
Building Permit Coordination			8		8	
External Coordination (Subs, Utilities, Etc.)	3		4			
Submittal Production			1			4
Subtotal - Project Administration	**36**	**0**	**85**	**0**	**8**	**4**
2. Civil Engineering						
Incorporate Preliminary Engineering Report Owner Review Comments			1		8	
Site Visit (1 Person, In-Person)			8			
60% General Plans						
Cover Sheet					2	
Sheet Index					2	
General Notes					2	
Overall Project Layout Plan					2	
Construction Safety Plans					2	
Construction Safety Details					2	
Curbside Walkway Rehabilitation						
60% Plans	8		24			
Existing Conditions Plans					2	
Demolition Plans					2	
Demolition Details					2	
Project Layout Plan					2	
Typical Sections					2	
Paving Plans					2	
Paving Details					2	
Joint Layout Plans					2	
Joint Details					2	
60% Technical Specificatoins			2		16	
Schedule Analysis			1		2	
Update Preliminary Engineering Report					4	
Develop Conceptual Opinions of Probable Construction Costs			1		2	
Develop Preliminary Front End Specifications			20		16	
CSPP and Air Space Analysis Submission to FAA Through OEAAA			1		2	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review	8		8			
Incorporate QC Review Comments					8	
Attend 60% Design Review Meeting (2 People, Virtual)	3		3			
Prepare and Distribute Conceptual Review Meeting Minutes and Tasks			1			
Subtotal - Civil Engineering	**19**	**0**	**76**	**0**	**94**	**0**
3. Electrical Engineering						
Incorporate Preliminary Engineering Report Owner Review Comments			1		8	
Site Visit (1 Person, In-Person)			8			
Curbside Walkway Rehabilitation						
Electrical Analysis and Calculations			3		8	
Electrical Modeling			2		8	
60% Plans (Layouts, Notes, Details, Etc.)		1	4		8	
60% Technical Specificatoins		1	4		8	
Public Restroom Renovations						
Electrical Analysis and Calculations			3		8	
Electrical Modeling			2		8	
60% Plans (Layouts, Notes, Details, Etc.)		1	4		8	
60% Technical Specificatoins		1	4		8	
Elevator and Escalator Refurbishment						
Electrical Analysis and Calculations			3		1	
Electrical Modeling			2		1	
Prepare and Review Design for Potential Conflicts and Impacts			2		2	
Fire Control Panel and Alarm System Replacement & Public Address (PA) System Replacement						
Electrical Analysis and Calculations			3		1	
Electrical Modeling			2		1	
Prepare and Review Design for Potential Conflicts and Impacts			2		2	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Electrical Analysis and Calculations			3		8	
Electrical Modeling			2		8	
Prepare and Review Design for Potential Conflicts and Impacts			2		8	
Update Preliminary Engineering Report					4	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments					8	
Attend 60% Design Review Meeting (1 Person, Virtual)			3			
Subtotal - Electrical Engineering	**0**	**12**	**66**	**0**	**123**	**0**
4. Architectural Design						
Incorporate Preliminary Engineering Report Owner Review Comments		1		4		
Site Visit (1 Person, In-Person)		8				
Public Restroom Renovations						
Architectural Design and Modeling		4		8		
Update Renderings		4		8		
60% Plans (Layouts, Notes, Details, Etc.)		8		12		
60% Technical Specificatoins		12		8		
Update Preliminary Engineering Report				4		
Construction Cost Analysis		2		2		
Internal (Bi-Weekly) Progress Meetings (6)		6		6		
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments				8		
Attend 60% Design Review Meeting (1 Person, Virtual)		3				
Subtotal - Architectural Design	**0**	**56**	**0**	**60**	**0**	**0**
5. Mechanical and Plumbing Engineering						
Incorporate Preliminary Engineering Report Owner Review Comments			1		4	
Site Visit (1 Person, In-Person)			8			

Public Restroom Renovations						
Mechanical Analysis and Calculations			4		8	
Mechanical Modeling			2		8	
Plumbing Analysis and Calculatoins			2		8	
Plumbing Modeling			2		8	
60% Plans (Layouts, Notes, Details, Etc.)		2	2		8	
60% Technical Specificatoins		2	8		8	
Elevator and Escalator Refurbishment						
Analysis and Calculations			4		2	
Modeling			2		2	
Prepare and Review Design for Potential Conflicts and Impacts			2		2	
Fire Control Panel and Alarm System Replacement & Public Address (PA) System Replacement						
Analysis and Calculations			4		2	
Modeling			2		2	
Prepare and Review Design for Potential Conflicts and Impacts			2		2	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Analysis and Calculations			4		8	
Modeling			2		8	
Prepare and Review Design for Potential Conflicts and Impacts			2		8	
Update Preliminary Engineering Report					4	
Construction Cost Analysis			2		2	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments					8	
Attend 60% Design Review Meeting (1 Person, Virtual)			3			
Subtotal - Mechanical and Plumbing Engineering	**0**	**12**	**64**	**0**	**108**	**0**
6. Landscape Architectural Design						
Incorporate Preliminary Engineering Report Owner Review Comments			1		4	
Site Visit (1 Person, In-Person)			8			
Curbside Walkway Rehabilitation						
Landscape Architectural Design and Modeling			4		8	
60% Plans (Layouts, Notes, Details, Etc.)		2	4		10	
60% Technical Specificatoins		2	6		10	
Update Preliminary Engineering Report					8	
Construction Cost Analysis			2		2	
Internal (Bi-Weekly) Progress Meetings (6)			6		6	
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments					8	
Attend 60% Design Review Meeting (1 Person, Virtual)			3			
Subtotal - Landscape Architectural Design	**0**	**12**	**34**	**0**	**56**	**0**
Hours	**55**	**92**	**325**	**60**	**389**	**4**

SUBTOTAL - SALARIES:	**$201,201.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$701.00
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$100.00
Computer Modeling/Software Use	$100.00
Travel Costs	$2,750.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$3,751.00**
GARVER FEE TOTAL:	**$204,952.00**

Exhibit B

City of Killeen
GRK Terminal Rehabilitation - Design

90% Design

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	AM-1
	hr	hr	hr	hr	hr	hr
1. Project Administration						
Project Management	9		18			
Coordination with Airport and City	3		6			
Building Permit Coordination			4		4	
External Coordination (Subs, Utilities, Etc.)			4			
Submittal Production			1			4
Subtotal - Project Administration	**12**	**0**	**33**	**0**	**4**	**4**
2. Civil Engineering						
Incorporate 60% Design Owner Review Comments			1		8	
90% General Plans						
Cover Sheet					1	
Sheet Index					1	
General Notes					1	
Overall Project Layout Plan					1	
Construction Safety Plans					1	
Construction Safety Details					1	
Curbside Walkway Rehabilitation						
90% Plans			8			
Existing Conditions Plans					1	
Demolition Plans					1	
Demolition Details					1	
Project Layout Plan					1	
Typical Sections					1	
Paving Plans					1	
Paving Details					1	
Joint Layout Plans					1	
Joint Details					1	
90% Technical Specificatoins			2		12	
Schedule Analysis			1		1	
Finalize Preliminary Engineering Report			1		1	
Update Conceptual Opinions of Probable Construction Costs			1		1	
Finalize Front End Specifications			4		4	
TDLR Accessibility Plan Review			2		4	
Internal (Bi-Weekly) Progress Meetings (4)			4		4	
Internal Quality Control (QC) Review	8		8			
Incorporate QC Review Comments					8	
Attend 90% Plan Review Meeting (2 People, Virtual)	3		3			
Prepare and Distribute Conceptual Review Meeting Minutes and Tasks			1			
Subtotal - Civil Engineering	**11**	**0**	**36**	**0**	**58**	**0**
3. Electrical Engineering						
Incorporate 60% Design Owner Review Comments			1		8	
Curbside Walkway Rehabilitation						
Electrical Analysis and Calculations			2		4	
Electrical Modeling			1		4	
90% Plans (Layouts, Notes, Details, Etc.)			1		4	
90% Technical Specificatoins			1		4	
Public Restroom Renovations						
Electrical Analysis and Calculations			2		4	
Electrical Modeling			1		4	
90% Plans (Layouts, Notes, Details, Etc.)			1		4	
90% Technical Specificatoins			1		4	
Elevator and Escalator Refurbishment						
Electrical Analysis and Calculations			2		1	
Electrical Modeling			1		1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Fire Control Panel and Alarm System Replacement & Public Address (PA) System Replacement						
Electrical Analysis and Calculations			2		1	
Electrical Modeling			1		1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Electrical Analysis and Calculations			2		4	
Electrical Modeling			1		4	
Prepare and Review Design for Potential Conflicts and Impacts			1		4	
Finalize Preliminary Engineering Report					4	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (4)			4		4	
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments					8	
Attend 90% Plan Review Meeting (1 Person, Virtual)			3			
Subtotal - Electrical Engineering	**0**	**8**	**31**	**0**	**75**	**0**
4. Architectural Design						
Incorporate 60% Design Owner Review Comments		1		4		
Public Restroom Renovations						
Architectural Design and Modeling		2		4		
Update Renderings		2		4		
90% Plans (Layouts, Notes, Details, Etc.)		2		4		
90% Technical Specificatoins		2		4		
Finalize Preliminary Engineering Report				4		
Construction Cost Analysis		1		1		
Internal (Bi-Weekly) Progress Meetings (4)		4		4		
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments				8		
Attend 90% Plan Review Meeting (1 Person, Virtual)		3				
Subtotal - Architectural Design	**0**	**25**	**0**	**37**	**0**	**0**
5. Mechanical and Plumbing Engineering						
Incorporate 60% Design Owner Review Comments			1		4	
Public Restroom Renovations						
Mechanical Analysis and Calculations			2		4	
Mechanical Modeling			1		4	
Plumbing Analysis and Calculatoins			1		4	

Plumbing Modeling			1		4	
90% Plans (Layouts, Notes, Details, Etc.)			1		4	
90% Technical Specificatoins			2		4	
Elevator and Escalator Refurbishment						
Analysis and Calculations			2		1	
Modeling			1		1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Fire Control Panel and Alarm System Replacement & Public Address (PA) System Replacement						
Analysis and Calculations			2		1	
Modeling			1		1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Analysis and Calculations			2		4	
Modeling			1		4	
Prepare and Review Design for Potential Conflicts and Impacts			1		4	
Finalize Preliminary Engineering Report					4	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (4)			4		4	
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments					8	
Attend 90% Plan Review Meeting (1 Person, Virtual)			3			
Subtotal - Mechanical and Plumbing Engineering	**0**	**8**	**29**	**0**	**63**	**0**
6. Landscape Architectural Design						
Incorporate 60% Design Owner Review Comments			1		4	
Curbside Walkway Rehabilitation						
Landscape Architectural Design and Modeling			1		4	
90% Plans (Layouts, Notes, Details, Etc.)			1		4	
90% Technical Specificatoins			1		4	
Finalize Preliminary Engineering Report					2	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (4)			4		4	
Internal Quality Control (QC) Review		8				
Incorporate QC Review Comments					8	
Attend 90% Plan Review Meeting (1 Person, Virtual)			3			
Subtotal - Landscape Architectural Design	**0**	**8**	**12**	**0**	**31**	**0**
Hours	**23**	**49**	**141**	**37**	**231**	**4**

SUBTOTAL - SALARIES:	**$102,612.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$699.77
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$100.00
Computer Modeling/Software Use	$100.00
Travel Costs	$1,000.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$1,999.77**
GARVER FEE TOTAL:	**$104,611.77**

Exhibit B

City of Killeen
GRK Terminal Rehabilitation - Design

100% Design

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	AM-1
	hr	hr	hr	hr	hr	hr
1. Project Administration						
Project Management	6		12			
Coordination with Airport and City	1		3			
Finalize Building Permit Coordination			2		4	
External Coordination (Subs, Utilities, Etc.)			2			
Submittal Production			1			4
Subtotal - Project Administration	**7**	**0**	**20**	**0**	**4**	**4**
2. Civil Engineering						
Incorporate 90% Design Owner Review Comments			1		4	
100% General Plans						
Cover Sheet					1	
Sheet Index					1	
General Notes					1	
Overall Project Layout Plan					1	
Construction Safety Plans					1	
Construction Safety Details					1	
Curbside Walkway Rehabilitation						
100% Plans						
Existing Conditions Plans					1	
Demolition Plans					1	
Demolition Details					1	
Project Layout Plan					1	
Typical Sections					1	
Paving Plans					1	
Paving Details					1	
Joint Layout Plans					1	
Joint Details					1	
100% Technical Specificatoins			1		1	
Schedule Analysis			1		1	
Finalize Conceptual Opinions of Probable Construction Costs			1		1	
Finalize Front End Specifications			1		1	
Incorporate TDLR Accessibility Plan Review Comments					1	
Internal (Bi-Weekly) Progress Meetings (2)			2		2	
Internal Quality Control (QC) Review	4		4			
Incorporate QC Review Comments					1	
Attend 100% Plan Review Meeting (2 People, Virtual)	3		3			
Prepare and Distribute Conceptual Review Meeting Minutes and Tasks			1			
Incorporate 100% Design Owner Review Comments					2	
Sign and Seal Contract Documents Coordination			1			
Subtotal - Civil Engineering	**7**	**0**	**16**	**0**	**29**	**0**
3. Electrical Engineering						
Incorporate 90% Design Owner Review Comments			1		4	
Curbside Walkway Rehabilitation						
Electrical Analysis and Calculations					2	
Electrical Modeling					2	
100% Plans (Layouts, Notes, Details, Etc.)			1		2	
100% Technical Specificatoins			1		2	
Public Restroom Renovations						
Electrical Analysis and Calculations					2	
Electrical Modeling					2	
100% Plans (Layouts, Notes, Details, Etc.)			1		2	
100% Technical Specificatoins			1		2	
Elevator and Escalator Refurbishment						
Electrical Analysis and Calculations					1	
Electrical Modeling					1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Fire Control Panel and Alarm System Replacement & Public Address (PA) System Replacement						
Electrical Analysis and Calculations					1	
Electrical Modeling					1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Electrical Analysis and Calculations					2	
Electrical Modeling					2	
Prepare and Review Design for Potential Conflicts and Impacts			1		2	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (2)			2		2	
Internal Quality Control (QC) Review		4				
Incorporate QC Review Comments					2	
Attend 100% Plan Review Meeting (1 Person, Virtual)			3			
Incorporate 100% Design Owner Review Comments					2	
Sign and Seal Contract Documents Coordination			1			
Subtotal - Electrical Engineering	**0**	**4**	**15**	**0**	**39**	**0**
4. Architectural Design						
Incorporate 90% Design Owner Review Comments		1		2		
Public Restroom Renovations						
Architectural Design and Modeling				2		
Update Renderings				2		
100% Plans (Layouts, Notes, Details, Etc.)		1		2		
100% Technical Specificatoins		1		2		
Construction Cost Analysis		1		1		
Internal (Bi-Weekly) Progress Meetings (2)		2				
Internal Quality Control (QC) Review	4					
Incorporate QC Review Comments				4		
Attend 100% Plan Review Meeting (1 Person, Virtual)		3				
Incorporate 100% Design Owner Review Comments				4		
Sign and Seal Contract Documents Coordination		1				
Subtotal - Architectural Design	**4**	**10**	**0**	**19**	**0**	**0**
5. Mechanical and Plumbing Engineering						
Incorporate 90% Design Owner Review Comments			1		4	
Public Restroom Renovations						

Mechanical Analysis and Calculations					1	
Mechanical Modeling					1	
Plumbing Analysis and Calculatoins					1	
Plumbing Modeling					1	
100% Plans (Layouts, Notes, Details, Etc.)			1		2	
100% Technical Specificatoins			1		2	
Elevator and Escalator Refurbishment						
Analysis and Calculations					1	
Modeling					1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Fire Control Panel and Alarm System Replacement & Public Address (PA) System Replacement						
Analysis and Calculations					1	
Modeling					1	
Prepare and Review Design for Potential Conflicts and Impacts			1		1	
Pre-Conditioned Air Units Gates 1 & 6 Replacement						
Analysis and Calculations					2	
Modeling					2	
Prepare and Review Design for Potential Conflicts and Impacts			1		2	
Construction Cost Analysis			1		1	
Internal (Bi-Weekly) Progress Meetings (2)			2		2	
Internal Quality Control (QC) Review		4				
Incorporate QC Review Comments					4	
Attend 100% Plan Review Meeting (1 Person, Virtual)			3			
Incorporate 100% Design Owner Review Comments					4	
Sign and Seal Contract Documents Coordination			1			
Subtotal - Mechanical and Plumbing Engineering	**0**	**4**	**13**	**0**	**35**	**0**
6. Landscape Architectural Design						
Incorporate 90% Design Owner Review Comments			1		2	
Curbside Walkway Rehabilitation						
Landscape Architectural Design and Modeling					2	
100% Plans (Layouts, Notes, Details, Etc.)					2	
100% Technical Specificatoins					2	
Construction Cost Analysis					1	
Internal (Bi-Weekly) Progress Meetings (2)			2		1	
Internal Quality Control (QC) Review		4				
Incorporate QC Review Comments					4	
Attend 100% Plan Review Meeting (1 Person, Virtual)			3			
Incorporate 100% Design Owner Review Comments					4	
Sign and Seal Contract Documents Coordination			1			
Subtotal - Landscape Architectural Design	**0**	**4**	**7**	**0**	**18**	**0**
Hours	**18**	**22**	**71**	**19**	**125**	**4**

SUBTOTAL - SALARIES:	**$54,864.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$693.12
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$100.00
Computer Modeling/Software Use	$100.00
Travel Costs	$1,000.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$1,993.12**
GARVER FEE TOTAL:	**$56,857.12**

Exhibit B

City of Killeen
GRK Terminal Rehabilitation - Design

Bidding Services

WORK TASK DESCRIPTION	E-5	E-4	E-3	E-2	E-1	AM-1
	hr	hr	hr	hr	hr	hr
1. Project Administration & Civil Engineering						
Contractor Outreach	4		8			
Prepare for Pre-Bid Meeting			1		1	
Attend Pre-Bid Meeting (1 Person, In-Person)			8			
Review and Respond to Bidder Questions			8		8	
Draft and Distribute Addendums and Changes to Contract Documents			2		4	
Bid Opening (2 People, Virtual)	1		1			
Prepare Bid Tabulation			1			
Award			1			
Prepare Issued for Construction Plans and Specifications					1	
Subtotal - Project Administration & Civil Engineering	**5**	**0**	**30**	**0**	**14**	**0**
2. Electrical Engineering						
Documents			3		4	
Review and Respond to Bidder Questions			3		10	
Prepare for Pre-Bid Meeting			1			
Attend Pre-Bid Meeting (1 Person, In-Person)			8			
Prepare Issued for Construction Plans and Specifications					1	
Subtotal - Electrical Engineering	**0**	**0**	**15**	**0**	**15**	**0**
3. Architectural Design						
Documents		2		2		
Review and Respond to Bidder Questions		2		8		
Prepare for Pre-Bid Meeting		1				
Attend Pre-Bid Meeting (1 Person, In-Person)		8				
Prepare Issued for Construction Plans and Specifications		1				
Subtotal - Architectural Design	**0**	**14**	**0**	**10**	**0**	**0**
4. Mechanical and Plumbing Engineering						
Documents			3		4	
Review and Respond to Bidder Questions			3		10	
Prepare for Pre-Bid Meeting			1			
Attend Pre-Bid Meeting (1 Person, In-Person)			8			
Prepare Issued for Construction Plans and Specifications			1			
Subtotal - Mechanical and Plumbing Engineering	**0**	**0**	**16**	**0**	**14**	**0**
4. Landscape Architectural Design						
Documents			2		2	
Review and Respond to Bidder Questions			2		8	
Prepare Issued for Construction Plans and Specifications			1			
Subtotal - Landscape Architectural Design	**0**	**0**	**5**	**0**	**10**	**0**
Hours	**5**	**14**	**66**	**10**	**53**	**0**

SUBTOTAL - SALARIES:	**$32,476.00**
DIRECT NON-LABOR EXPENSES	
Document Printing/Reproduction/Assembly	$831.15
Postage/Freight/Courier	$100.00
Office Supplies/Equipment	$100.00
Travel Costs	$2,500.00
SUBTOTAL - DIRECT NON-LABOR EXPENSES:	**$3,531.15**
GARVER FEE TOTAL:	**$36,007.15**

EXHIBIT C
(INSURANCE)

Pursuant to Section 7.1 of the Agreement, Garver shall maintain the following schedule of insurance until completion of the Services:

Worker's Compensation	Statutory Limit
Automobile Liability	
Combined Single Limit (Bodily Injury and Property Damage)	$500,000
General Liability	
Each Occurrence	$1,000,000
Aggregate	$2,000,000
Professional Liability	
Each Claim Made	$1,000,000
Annual Aggregate	$2,000,000
Excess of Umbrella Liability	
Per Occurrence	$1,000,000
General Aggregate	$1,000,000

EXHIBIT D

MANDATORY FEDERAL CONTRACT PROVISIONS FOR PROFESSIONAL SERVICES CONTRACTS

1. ACCESS TO RECORDS AND REPORTS

The Engineer must maintain an acceptable cost accounting system. The Engineer agrees to provide the sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives, access to any books, documents, papers, and records of the Engineer which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Engineer agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

2. BREACH OF CONTRACT TERMS

Any violation or breach of terms of this contract on the part of the Engineer or its subconsultants may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Engineer written notice that describes the nature of the breach and corrective actions the Engineer must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Engineer until such time the Engineer corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Engineer must correct the breach. Owner may proceed with termination of the contract if the Engineer fails to correct the breach by deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

3. CIVIL RIGHTS - GENERAL

In all its activities within the scope of its airport program, the Engineer agrees to comply with pertinent statutes, Executive Orders and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, creed, color, national origin (including limited English proficiency), sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

This provision binds the Engineer and subconsultants from the solicitation period through the completion of the contract.

4. CIVIL RIGHTS – TITLE VI ASSURANCE

During the performance of this contract, the Engineer, for itself, its assignees, and successors in interest (hereinafter referred to as the "Engineer") agrees as follows:

I. Compliance with Regulations: The Engineer (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

II. Non-discrimination: The Engineer, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subconsultants, including procurements of materials and leases of equipment. The Engineer will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

III. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subconsultant or supplier will be notified by the Engineer of the Engineer's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

IV. Information and Reports: The Engineer will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a Engineer is in the exclusive possession of another who fails or refuses to furnish the information, the Engineer will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

V. Sanctions for Noncompliance: In the event of an Engineer's noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the Engineer under the contract until the Engineer complies; and/or

b. Cancelling, terminating, or suspending a contract, in whole or in part.

VI. Incorporation of Provisions: The Engineer will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Engineer will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Engineer becomes involved in, or is threatened with litigation by a subconsultant, or supplier because of such direction, the Engineer may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Engineer may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);

- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);

- The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.) (prohibits discrimination on the basis of age);

- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);

- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;

- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];

- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

5. CLEAN AIR AND WATER POLLUTION CONTROL

Engineer agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 U.S.C. §§ 740-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. §§ 1251-1387). The Engineer agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

6. DEBARMENT AND SUSPENSION

By submitting a bid/proposal under this solicitation, the Engineer certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

7. DISADVANTAGED BUSINESS ENTERPRISE

The Engineer or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Engineer shall carry out applicable requirements of 49 CFR part 26 in the award and administration of Department of Transportation-assisted contracts. Failure by the Engineer to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Owner deems appropriate, which may include, but is not limited to:

1) Withholding monthly progress payments;
2) Assessing sanctions;
3) Liquidated damages; and/or
4) Disqualifying the Engineer from future bidding as non-responsible.

The Engineer to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contractor receives from the Owner. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Owner. This clause applies to both DBE and non-DBE subcontractors.

The Engineer must not terminate a DBE subcontractor listed in response to without prior written consent of the Owner. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The Engineer shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Owner. Unless Owner consent is provided, the Engineer shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The Owner may provide such written consent only if the Owner agrees, for reasons stated in the concurrence document, that the Engineer has good cause to terminate the DBE firm. For purposes of

this paragraph, good cause includes the circumstances listed in 49 CFR §26.53.

Before transmitting to the Owner its request to terminate and/or substitute a DBE subcontractor, the Engineer must give notice in writing to the DBE subcontractor, with a copy to the Owner, of its intent to request to terminate and/or substitute, and the reason for the request.

The Engineer must give the DBE five days to respond to the prime contractor's notice and advise the Owner and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Owner should not approve the Engineer's action. If required in a particular case as a matter of public necessity (e.g., safety), the Owner may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to preaward deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

8. DISTRACTED DRIVING

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), the Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Engineer to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Engineer must include the substance of this clause in all sub-tier contracts exceeding $10,000 and involve driving a motor vehicle in performance of work activities associated with the project.

9. EQUAL EMPLOYEMENT OPPORTUNITY (E.E.O.)

I. During the performance of this contract, the Engineer agrees as follows:

(1) The Engineer will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Engineer will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identify or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Engineer agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Engineer will, in all solicitations or advertisements for employees placed by or on behalf of the Engineer, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The Engineer will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Engineer's legal duty to furnish information.

(4) The Engineer will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the said labor union or workers' representatives of the Engineer's commitments under this section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Engineer will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Engineer will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Engineer's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Engineer may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Engineer will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subconsultant or vendor. The Engineer will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event an Engineer becomes involved in, or is threatened with, litigation with a subconsultant or vendor as a result of such direction by the administering agency the Engineer may request the United States to enter into such litigation to protect the interests of the United States.

II. Standard Federal Equal Employment Opportunity Contract Specifications

(1) As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;

d. "Minority" includes:

i. Black (all) persons having origins in any of the Black African racial groups not of Hispanic origin);

ii. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);

iii. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

iv. American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Whenever the Engineer, or any subconsultant at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

(3) If the Engineer is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Engineers shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Engineer or subconsultant participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Engineers or subconsultants toward a goal in an approved Plan does not excuse any covered Engineer's or subconsultant's failure to take good faith efforts to achieve the Plan goals and timetables.

(4) The Engineer shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from

which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Engineer should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Engineers performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Engineer is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

(5) Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Engineer has a collective bargaining agreement to refer either minorities or women shall excuse the Engineer's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.

(6) In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Engineer during the training period, and the Engineer shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

(7) The Engineer shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Engineer's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Engineer shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Engineer's employees are assigned to work. The Engineer, where possible, will assign two or more women to each construction project. The Engineer shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Engineer's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Engineer or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Engineer by the union or, if referred, not employed by the Engineer, this shall be documented in the file with the reason therefore along with whatever additional actions the Engineer may have taken.

d. Provide immediate written notification to the Director when the union or unions with

which the Engineer has a collective bargaining agreement has not referred to the Engineer a minority person or female sent by the Engineer, or when the Engineer has other information that the union referral process has impeded the Engineer's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Engineer's employment needs, especially those programs funded or approved by the Department of Labor. The Engineer shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Engineer's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Engineer in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such a superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Engineer's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Engineer's EEO policy with other Engineers and subconsultants with whom the Engineer does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Engineer's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Engineer shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a Engineer's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do

so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Engineer's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Engineers and suppliers, including circulation of solicitations to minority and female Engineer associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Engineer's EEO policies and affirmative action obligations.

(8) Engineers are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of an Engineer association, joint Engineer union, Engineer community, or other similar groups of which the Engineer is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Engineer actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Engineer's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Engineer. The obligation to comply, however, is the Engineer's and failure of such a group to fulfill an obligation shall not be a defense for the Engineer's noncompliance.

(9) A single goal for minorities and a separate single goal for women have been established. The Engineer, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Engineer has achieved its goals for women generally, the Engineer may be in violation of the Executive Order if a specific minority group of women is underutilized.)

(10) The Engineer shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

(11) The Engineer shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

(12) The Engineer shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Engineer who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

(13) The Engineer, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Engineer fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

(14) The Engineer shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Engineers shall not be required to maintain separate records.

(15) Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

10. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The Engineer has full responsibility to monitor compliance to the referenced statute or regulation. The Engineer must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division

11. LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

The Engineer certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

I. No Federal appropriated funds have been paid or will be paid, by or on behalf of the Engineer, to any person for influencing or attempting to influence an officer or employee of an agency, a

Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

II. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

III. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

12. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Engineer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Engineer retains full responsibility to monitor its compliance and their subconsultant's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Engineer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

13. TERMINATION OF CONTRACT

I. Termination for Convenience. The Owner may, by written notice to the Engineer, terminate this Agreement for its convenience and without cause or default on the part of Engineer. Upon receipt of the notice of termination, except as explicitly directed by the Owner, the Engineer must immediately discontinue all services affected.

Upon termination of the Agreement, the Engineer must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Engineer for satisfactory work completed up through the date the Engineer receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Engineer harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

II. Termination for Default. Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating the termination action must allow the breaching party an opportunity to dispute or cure the breach.

The terminating party must provide the breaching party [7] days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

a) Termination by Owner: The Owner may terminate this Agreement in whole or in part, for the failure of the Engineer to:

1. Perform the services within the time specified in this contract or by Owner approved extension;

2. Make adequate progress so as to endanger satisfactory performance of the Project;

3. Fulfill the obligations of the Agreement that are essential to the completion of the Project.

Upon receipt of the notice of termination, the Engineer must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Engineer must deliver to the Owner all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Engineer under this contract, whether complete or partially complete.

Owner agrees to make just and equitable compensation to the Engineer for satisfactory work completed up through the date the Engineer receives the termination notice. Compensation will not include anticipated profit on non-performed services.

Owner further agrees to hold Engineer harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

b) Termination by Engineer: The Engineer may terminate this Agreement in whole or in part, if the Owner:

1. Defaults on its obligations under this Agreement;

2. Fails to make payment to the Engineer in accordance with the terms of this Agreement;

3. Suspends the Project for more than 180 days due to reasons beyond the control of the Engineer.



Upon receipt of a notice of termination from the Engineeer, Owner agrees to cooperate with Engineer for the purpose of terminating the agreement or portion thereof, by mutual consent. If Owner and Engineer cannot reach mutual agreement on the termination settlement, the Engineer may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Owner's breach of the contract.

In the event of termination due to Owner breach, the Engineer is entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Engineer through the effective date of termination action. Owner agrees to hold Engineer harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

14. TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Engineer certifies that with respect to this solicitation and any resultant contract, the Engineer –

(1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR.);

(2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and

(3) has not entered into any subcontract for any product to be used on the Federal on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, § 1001.

The Engineer must provide immediate written notice to the Owner if the Engineer learns that its certification or that of a subconsultant was erroneous when submitted or has become erroneous by reason of changed circumstances. The Engineer must require subconsultants provide immediate written notice to the Engineer if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR § 30.17, no contract shall be awarded to an Engineer or subconsultant:

(1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR. or

(2) whose subconsultants are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or

(3) who incorporates in the public works project any product of a foreign country on such USTR list;

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of an Engineer is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Engineer agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in in all lower tier subcontracts. The Engineer may rely on the certification of a prospective subconsultant that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Engineer has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Engineer or subconsultant knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

15. VETERAN'S PREFERENCE

In the employment of labor (excluding executive, administrative, and supervisory positions), the Engineer and all sub-tier Engineers must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. § 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

16. TAX DELINQUENCY AND FELONY CONVICTIONS

The Engineer agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

1) The Engineer represents that it is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

2) The Engineer represents that it is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

Felony conviction: Felony conviction means a conviction within the preceding twenty-four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not

being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

17. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Engineer and Subconsultants agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

18. DOMESTIC PREFERENCES FOR PROCUREMENTS

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

EXHIBIT E

STATE OF TEXAS REQUIREMENTS

I. PROHIBITION ON CONTRACTS WITH FOREIGN TERRORIST ORGANIZATIONS

Consultant's Acknowledgement of Prohibition on Contracts with Foreign Terrorist Organizations Effective September 1, 2017, Consultant acknowledges, in accordance with Chapter 2252 of the Texas Government Code, that (a) Consultant does not engage in business with Iran, Sudan, or any foreign terrorist organizations and (b) Consultant is not listed by the Texas Comptroller as a terrorist organization as defined by Chapter 2252 of the Texas Government Code. Consultant further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between the City and Consultant for (1) professional or consulting services subject to the Professional Services Act – Chapter 2254 of the Texas Government Code, (2) general construction, (3) an improvement, (4) a service, (5) a public works project, or (6) for a purchase of supplies, materials or equipment.

II. PROHIBITION ON CONTRACTS WITH COMPANIES BOYCOTTING ISRAEL

Consultant's Acknowledgement of Prohibition on Contracts with Companies Boycotting Israel Effective September 1, 2017 and as amended May 7, 2019, Consultant acknowledges, in accordance with Chapter 2271 of the Texas Government Code, that Consultant does not boycott Israel and will not boycott Israel during the term of any contract with the City of Killeen to provide goods and services to the City. Consultant further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between the City and Consultant for goods and services.

III. PROHIBITION ON CONTRACTS WITH CERTAIN FOREIGN-OWNED COMPANIES IN CONNECTION WITH CRITICAL INFRASTRUCTURE

Consultant's Acknowledgement of Prohibition on Contracts with Certain Foreign-Owned Companies in Connection with Critical Infrastructure Effective June 18, 2021, Consultant acknowledges, in accordance with Chapter 2274 of the Texas Government Code, that Consultant does not and will not engage in contracts with certain foreign-owned companies in connection with critical infrastructure during the term of any contract with the City of Killeen to provide goods and services to the City. Consultant further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between the City and Consultant for goods and services.

IV. PROHIBITION ON CONTRACTS WITH COMPANIES THAT DISCRIMINATE AGAINST FIREARM AND AMMUNITION INDUSTRIES

The Consultant must verify that it does not have a practice, policy, guidance or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of the contract against a firearm entity or firearm trade association. Verification is not required

from a sole source provider or when the city does not receive any bids from a company able to provide the required verification. Discriminate, firearm entity and firearm trade association are defined in Government Code Chapter 2274

V. PROHIBITION ON CONTRACTS WITH COMPANIES BOYCOTTING CERTAIN ENERGY COMPANIES

The Consultant verifies that it does not have a practice, policy, guidance or directive that discriminates against certain energy companies as defined in Chapter 809 of the Texas Government Code. The Consultant verifies that it:

a) Does not boycott energy companies; and
b) Will not boycott energy companies during the term of the contract

EXHIBIT F

AIRPORT IMPROVEMENT AID PROJECT: TBD
STATE: TEXAS

CERTIFICATION OF ENGINEER

I hereby certify that I am Derek W. Mayo and duly authorized representative of the firm of GARVER, LLC, whose address is 810 Hesters Crossing, Suite 210, Round Rock, TX 7868, and that neither I nor the above firm I here represent has:

(a) Employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me of the above consultant) to solicit or secure this contract.

(b) Agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract; or

(c) Paid or agreed to pay to any firm, organization, or person (other than a bona fide employee working solely for me or the above consultant) any fee, contribution, donation, or consideration of any kind, for, or in connection with, procuring or carrying out the contract; except as here expressly stated (if any).

I acknowledge that this certificate is to be furnished to the Federal Aviation Administration of the United States Department of Transportation, in connection with this contract involving participation of Airport Improvement Program (AIP) funds and is subject to applicable State and Federal laws, both criminal and civil.

GARVER, LLC

By Derek W. Mayo

DATE: 05/30/2025

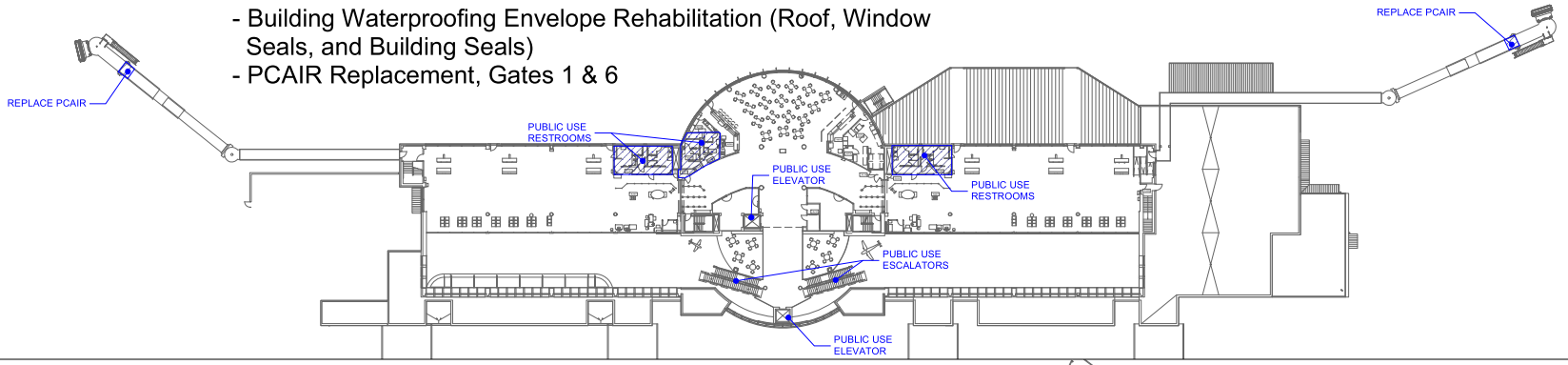
EXHIBIT G - CONCEPTUAL LAYOUT

Proposed Scope of Work

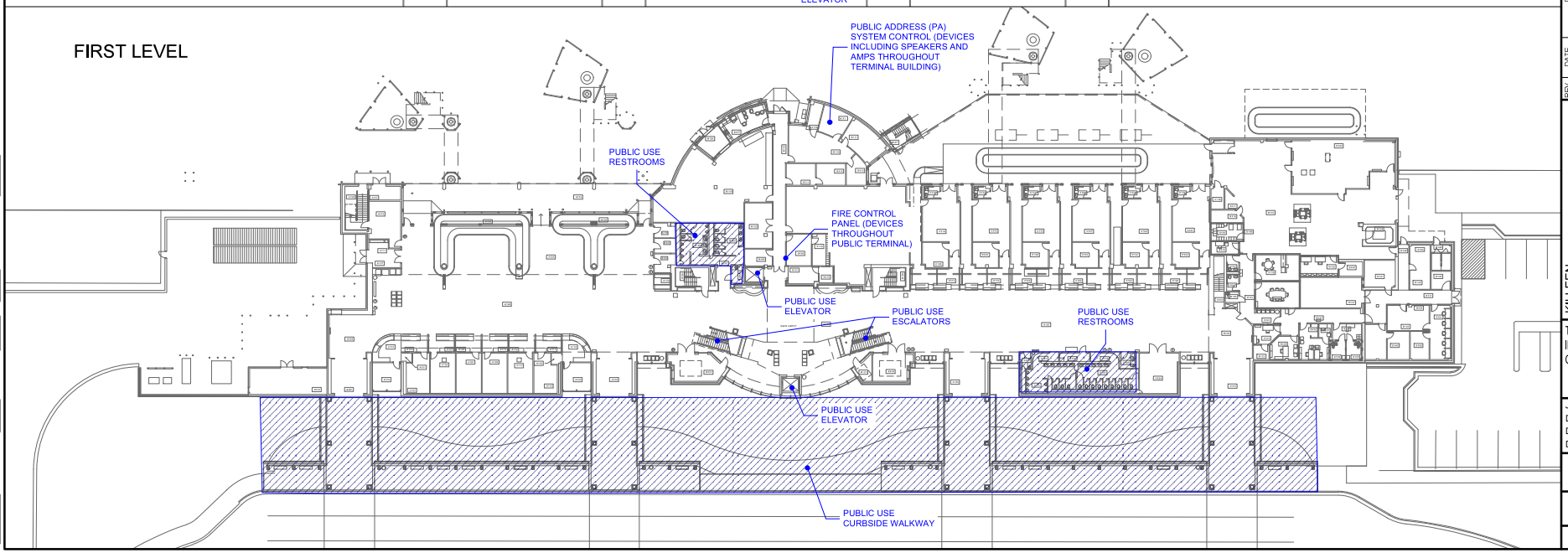
- Elevator and Escalator Refurbishment
- Fire Control Panel and Alarm System Replacement
- Public Address (PA) System Replacement
- Curbside Walkway Rehabilitation
- Public Restrooms Renovations
- Building Waterproofing Envelope Rehabilitation (Roof, Window Seals, and Building Seals)
- PCAIR Replacement, Gates 1 & 6

0 150' 300' 600' 900'
(IN FEET)

SECOND LEVEL



FIRST LEVEL



GARVER
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THIS DOCUMENT, ALONG WITH THE IDEAS AND DESIGNS CONVEYED HEREIN, SHALL BE CONSIDERED INSTRUMENTS OF PROFESSIONAL SERVICE AND ARE PROPERTY OF GARVER, LLC. ANY USE, REPRODUCTION, OR DISTRIBUTION OF THIS DOCUMENT, ALONG WITH THE IDEAS AND DESIGN CONTAINED HEREIN, IS PROHIBITED UNLESS AUTHORIZED IN WRITING BY GARVER, LLC OR EXPLICITLY ALLOWED IN THE GOVERNING PROFESSIONAL SERVICES AGREEMENT FOR THIS WORK.

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF CONTRACTING UNDER THE AUTHORITY OF JACOB C. GREEN, P.E. 142326 ON JULY 7, 2025. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMITTING PURPOSES.

REV.	DATE	DESCRIPTION	BY

KILLEEN REGIONAL AIRPORT
KILLEEN, TX

TERMINAL IMPROVEMENTS CONCEPTUAL LAYOUT

TERMINAL IMPROVEMENTS CONCEPTUAL LAYOUT

JOB NO.
DATE: MAY 2025
DESIGNED BY: DWM
DRAWN BY: JCG

BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
EXG

SHEET NUMBER 1

File: L:\2023\A06-230116\5_1 - GRK Terminal Mechanical Impr\Contracts\Client\Draft\Design\GRK Terminal Mechanical Improvements - Exhibit G - Conceptual Layout.dwg Last Save: 12/13/2024 10:38 AM Last saved by: ORDockery
Last plotted by: Dockery, Olivia R. File Size: ACmono.ctb Plot Scale: 1 = 1 Plot Date: 12/13/2024 10:39 AM Plotter used: DWG To PDF.pc3

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2025-1312356

Date Filed:
05/20/2025

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
GARVER, LLC
ROUND ROCK, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
City of Killeen, Texas

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
A06-2500973
GRK Terminal Rehabilitation - Design

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
HOSKINS, BROCK	ROUND ROCK, TX United States	X	
GRAVES, MICHAEL	ROUND ROCK, TX United States	X	
SCHNIERS, BRENT	ROUND ROCK, TX United States	X	
SOBER, JEFFREY	ROUND ROCK, TX United States	X	
MOTT, JR., Wm. EARL	ROUND ROCK, TX United States	X	
HOLDER, JR., JERRY	ROUND ROCK, TX United States	X	
MCILLWAIN, FRANK	ROUND ROCK, TX United States	X	

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is Mitchell McAnally, and my date of birth is July 2, 1986.

My address is 810 Hesters Crossing, Suite 210 (street), Round Rock (city), TX (state), 78681 (zip code), USA (country).

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Williamson County, State of Texas, on the 20th day of May (month), 20 25 (year).

Mitchell McAnally

Signature of authorized agent of contracting business entity
(Declarant)

PROFESSIONAL SERVICES AGREEMENT WITH GARVER, LLC

RS-25-140

September 2, 2025

Background

- The Killeen Regional Airport (KRA) staff has identified critical passenger terminal infrastructure that has reached the end of its useful life. This project aims to enhance terminal safety and comfort for the traveling public by updating older equipment such as the elevators/escalators, public address system, fire control system, public restrooms, and curbside sidewalks.

Background

- These improvements will reduce maintenance costs and improve passenger safety and comfort.
- Funding for this project will come from a grant provided by the Federal Aviation Administration (FAA).

Background

- The City has been offered an FAA Airport Infrastructure Grant (AIG) to fund 95% of the design of the Terminal Rehabilitation Project at the Killeen Regional Airport (KRA). The required 5% local match will be funded through the FAA PFC Application that was approved by the FAA on March 14, 2025.
- No impact to the operational fund or fund balance.

Discussion

- Staff has negotiated a professional services agreement with Garver, LLC, in the amount of $995,000, for project administration, design services, bidding services, and other engineering fees for the Terminal Rehabilitation Project.
  - $945,250 - 95% federally funded
  - $ 49,750 - 5% funded by PFC funds
- The Garver team is the Aviation Department's engineer of record and was selected in accordance with state law and FAA requirements.

Recommendation

- Approve the professional services agreement with Garver, LLC in the amount of $995,000 and authorize the City Manager or designee to execute all agreement documents and any and all amendments or actions within the amounts set by state and local law.

City of Killeen

Staff Report

File Number: RS-25-141

Consider a memorandum/resolution authorizing an agreement for the construction, maintenance and operation of a continuous highway lighting system with the Texas Department of Transportation.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Jeffery Reynolds, Executive Director of Public Works**

SUBJECT: **Agreement for the Construction, Maintenance, and Operation of Continuous Highway Lighting Systems with the Texas Department of Transportation**

BACKGROUND AND FINDINGS:

On April 15, 2025, City Council approved an agreement (Res. No. 25-055R), for the maintenance and operation of a highway lighting system along the I-14 corridor from Western City Limits to just east of Jasper Drive. The construction is set to begin for this portion in November 2025.
The Texas Department of Transportation (TxDOT) has requested that the City of Killeen enter into a second Agreement for Construction, Maintenance, and Operation of Continuous Highway Lighting System within the city along the I-14 corridor from Jasper Drive to Rosewood Drive.
Upon approval of this agreement, the State will prepare, or provide for, the plans and specifications, advertise for bids, sign the construction contract, and supervise construction of the project. The State will submit plans and specifications of the proposed work to the City and will secure the City's consent to construct the lighting system prior to awarding the contract. All costs associated with the construction of the lighting system will be by the State and the lighting system will remain property of the State. This project is set to be let for construction in June 2026, with an estimated construction start date to begin in February 2027 as there is a 180-day delay start for materials.
It is estimated that the lighting system would be turned over to the city for maintenance approximately October/November 2027. Maintenance funds will need to be allocated beginning in the Fiscal Year 2028 budget. It would be agreed upon that the City will furnish, at its expense, the electrical energy required for proper operation of the lighting system, will maintain, and operate the lighting system in an efficient and sightly condition without any cost to the State. The City will assume these operations and maintenance costs upon written notification from the State that the lighting system is complete and accept. This agreement will remain in force for a period of two years from the date responsibilities are assumed by the City and will automatically renew for two-year periods unless modified by mutual agreement by both parties. This agreement can be terminated 60 days after filing of written notice by either party.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

This item conforms with state and local policies.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

Maintenance cost will begin in Fiscal Year 2028

Is this a one-time or recurring revenue/expenditure?

Recurring once it begins

Is this revenue/expenditure budgeted?

Not required until Fiscal Year 2028

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

Authorize the City Manager or designee, to execute the Agreement for Construction, Maintenance, and Operation of Continuous Highway Lighting Systems Within a Municipality with the Texas Department of Transportation for the operation and maintenance of high mast lighting along the I-14 corridor.

DEPARTMENTAL CLEARANCES:

Public Works
Finance
City Attorney

ATTACHED SUPPORTING DOCUMENTS:

Agreement
Plans
Presentation

STATE OF TEXAS §

COUNTY OF TRAVIS §

AGREEMENT FOR CONSTRUCTION, MAINTENANCE AND OPERATION OF CONTINUOUS HIGHWAY LIGHTING SYSTEMS WITHIN A MUNICIPALITY (Specific Limits)

THIS AGREEMENT, dated this 23rd day of July, 2025, by and between the State of Texas, hereinafter referred to as the "State," party of the first part, acting by and through the Texas Department of Transportation, and the City of _____, _____ County, Texas, acting by and through its duly authorized officers under a ordinance or resolution passed the _____ day of _____, 20_____, hereinafter called the "City," party of the second part, is made to become effective when fully executed by both parties.

W I T N E S S E T H

WHEREAS, the City has requested the State to contribute financial aid in the construction, maintenance, and operation of a continuous highway lighting system on the highway designated as IH 14 (CSJ: 0231-03-156 within the limits from Jasper Drive to Rosewood Drive as shown on Exhibit 1 inside the City which is in accordance with 43 Texas Administrative Code, Section 25.11. Within the City, said lighting system hereinafter referred to as the "lighting system" is to consist of continuous lighting to be built in sections as financed and designated by the Texas Transportation Commission; and

WHEREAS, the Executive Director, acting for and in behalf of the Texas Transportation Commission, has made it known to the City that the State will construct said highway lighting system, conditioned that the City, as provided in 43 Texas Administrative Code, Section 25.11 and Transportation Code, §221.002, will maintain and operate said lighting system.

NOW THEREFORE, in consideration of the premises and of the mutual covenants and agreements of the parties hereto to be by them respectively kept and performed, as hereinafter set forth, it is agreed as follows:

A G R E E M E N T

Article 1. CONSTRUCTION RESPONSIBILITIES

A. The State will prepare or provide for the plans and specifications, advertise for bids, let the construction contract, or otherwise provide for the construction, and will supervise construction, reconstruction or betterment work as required by said plans and specifications. As this lighting system project is developed to construction stage, either as a unit or in increments, the State will submit plans and specifications of the proposed work to the City and will secure the City's consent to construct the lighting system prior to awarding the contract; said City consent being signified by the signatures of duly authorized City officers in the spaces provided on the title sheet of the plans containing the following notation.
"Exhibit No. 1 to special AGREEMENT FOR CONSTRUCTION,

MAINTENANCE, AND OPERATION OF CONTINUOUS HIGHWAY LIGHTING SYSTEMS WITHIN A MUNICIPALITY (Specific Limits) dated July 23, 2025.

The City-State construction, maintenance, and operation responsibilities shall be a heretofore agreed to, accepted, and specified in the Agreement to which these plans are made a part."

B. All costs of constructing the lighting system will be borne by the State, and the lighting system will remain the property of the State.

Article 2. MAINTENANCE AND OPERATION RESPONSIBILITIES

A. The City hereby agrees to furnish at its expense the electrical energy required for proper operation of the lighting system, such electrical energy to be provided at points on the illumination system as designated by the State. The City further agrees to maintain and operate the lighting system in an efficient and sightly condition, including the furnishing of all equipment and labor and making any replacements which may become necessary, without cost to the State.
B. The City shall assume maintenance and operation on a date to correspond with the date construction of the lighting system is completed and accepted by the State. The State will provide written notification to the City of such acceptance. The City hereby agrees to furnish at its expense the electrical energy consumed by the system during the period of trial operation prior to the acceptance by the State. If the lighting system is constructed by sections, this provision shall apply to each such separately constructed section.
C. The City will obtain approval of the Executive Director before making any major changes in the design and/or operation of the lighting system as designed and constructed by the State or before the removal of any part of the installation except for the purpose of replacement where identical or accepted equivalent equipment to that originally installed is used.

Article 3. GENERAL

A. This Agreement shall remain in force for a period of two years from the date that maintenance and operation responsibilities are first assumed by the City and shall be automatically renewed for two-year periods unless modified by mutual agreement by both parties
B. The State will not incur any financial obligation to the City as a result of the Agreement.
C. This Agreement may be terminated sixty (60) days after the filing of a written notice by either party of a desire for cancellation. The State reserves the right to remove the lighting system upon cancellation of the Agreement.
D. If, at any time, the City does not maintain and operate the lighting system in a satisfactory manner, the State reserves the right to either arrange for maintenance at the expense of the City or to remove the lighting system. Should the lighting system be removed due to lack of maintenance, the City hereby agrees to reimburse the State for the cost of removal.
E. Should disputes arise as to the parties' obligations under this Agreement, the State's decision shall be final and binding.
F. The City shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any court, or administrative bodies or tribunals in any matter affecting the performance of this Agreement.
G. Changes in time frame, character, cost, or obligations authorized herein shall be enacted by written amendment. Any amendment to this Agreement must be executed by both parties within the contract period.

H. This Agreement shall bind, and shall be for the sole and exclusive benefit of the respective parties and their legal successors. The City shall not assign or transfer its interest in this Agreement without written consent of the State.
I. In case any one or more of the provisions contained in this Agreement shall, for any reason, be held invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.
J. This Agreement constitutes the sole and only agreement for lighting at the location described herein of the parties hereto and supersedes any prior understandings or written or oral agreement between the parties respecting within subject matter.
K. The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.
L. At the request of the State, the Local Government shall submit any information required by the State in the format directed by the State.

Article 4. INDEMNIFICATION

The City acknowledges that it is not an agent, servant, or employee of the State and, thus, is responsible for its own acts and deeds and for those of its agents or employees during the performance of the work defined in this agreement.

Each party is signing this agreement on the date stated below that party's signature.

THE CITY OF Killeen

Executed on behalf of the City by:

By_____ Date_____

Typed or Printed Name and Title _____

_____

THE STATE OF TEXAS

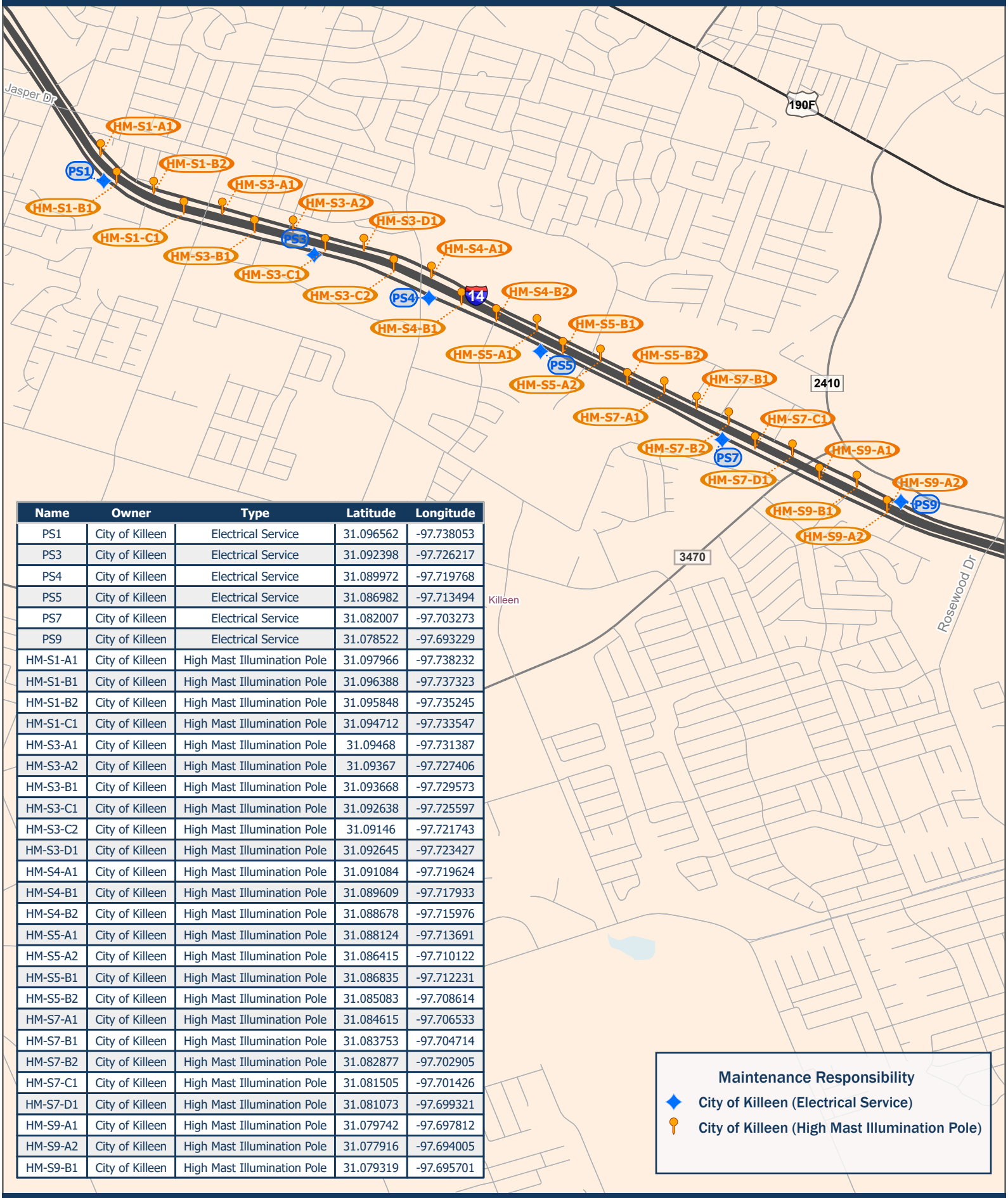
Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By_____ Date_____

Waco District Engineer

IH 14 Continuous Lighting TEA 22

Exhibit 1



Name	Owner	Type	Latitude	Longitude
PS1	City of Killeen	Electrical Service	31.096562	-97.738053
PS3	City of Killeen	Electrical Service	31.092398	-97.726217
PS4	City of Killeen	Electrical Service	31.089972	-97.719768
PS5	City of Killeen	Electrical Service	31.086982	-97.713494
PS7	City of Killeen	Electrical Service	31.082007	-97.703273
PS9	City of Killeen	Electrical Service	31.078522	-97.693229
HM-S1-A1	City of Killeen	High Mast Illumination Pole	31.097966	-97.738232
HM-S1-B1	City of Killeen	High Mast Illumination Pole	31.096388	-97.737323
HM-S1-B2	City of Killeen	High Mast Illumination Pole	31.095848	-97.735245
HM-S1-C1	City of Killeen	High Mast Illumination Pole	31.094712	-97.733547
HM-S3-A1	City of Killeen	High Mast Illumination Pole	31.09468	-97.731387
HM-S3-A2	City of Killeen	High Mast Illumination Pole	31.09367	-97.727406
HM-S3-B1	City of Killeen	High Mast Illumination Pole	31.093668	-97.729573
HM-S3-C1	City of Killeen	High Mast Illumination Pole	31.092638	-97.725597
HM-S3-C2	City of Killeen	High Mast Illumination Pole	31.09146	-97.721743
HM-S3-D1	City of Killeen	High Mast Illumination Pole	31.092645	-97.723427
HM-S4-A1	City of Killeen	High Mast Illumination Pole	31.091084	-97.719624
HM-S4-B1	City of Killeen	High Mast Illumination Pole	31.089609	-97.717933
HM-S4-B2	City of Killeen	High Mast Illumination Pole	31.088678	-97.715976
HM-S5-A1	City of Killeen	High Mast Illumination Pole	31.088124	-97.713691
HM-S5-A2	City of Killeen	High Mast Illumination Pole	31.086415	-97.710122
HM-S5-B1	City of Killeen	High Mast Illumination Pole	31.086835	-97.712231
HM-S5-B2	City of Killeen	High Mast Illumination Pole	31.085083	-97.708614
HM-S7-A1	City of Killeen	High Mast Illumination Pole	31.084615	-97.706533
HM-S7-B1	City of Killeen	High Mast Illumination Pole	31.083753	-97.704714
HM-S7-B2	City of Killeen	High Mast Illumination Pole	31.082877	-97.702905
HM-S7-C1	City of Killeen	High Mast Illumination Pole	31.081505	-97.701426
HM-S7-D1	City of Killeen	High Mast Illumination Pole	31.081073	-97.699321
HM-S9-A1	City of Killeen	High Mast Illumination Pole	31.079742	-97.697812
HM-S9-A2	City of Killeen	High Mast Illumination Pole	31.077916	-97.694005
HM-S9-B1	City of Killeen	High Mast Illumination Pole	31.079319	-97.695701

Maintenance Responsibility

- City of Killeen (Electrical Service)
- City of Killeen (High Mast Illumination Pole)

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STATE OF TEXAS §

COUNTY OF _____ §

I, _____, the duly appointed, qualified and acting City Secretary of the City of _____, Texas, hereby certify that the foregoing pages constitute a true and correct copy of an ordinance/resolution duly passed by the City Council at a meeting held on _____, 20____, A.D. at _____ o'clock __M

To certify which, witness my hand and seal of the City of _____, Texas, this ___ day of _____, 20____, at _____, Texas.

_____

City Secretary of _____, Texas

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NODE

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT

FEDERAL AID PROJECT: STP ()VRU

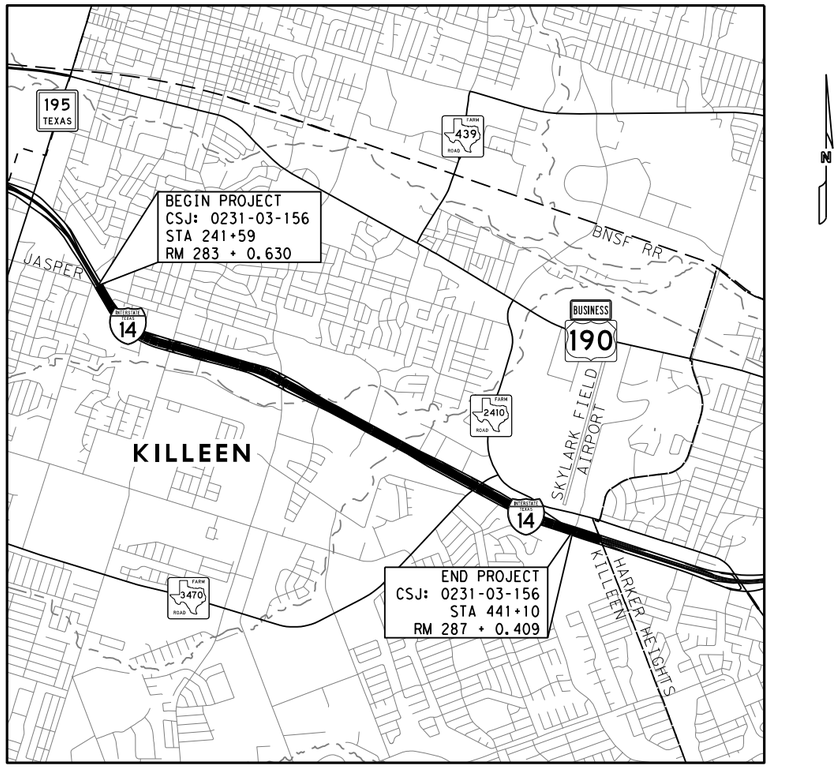
BELL COUNTY

IH-14

	CSJ 0231-03-156		PROJECT NET	
ROADWAY:	FT= 18,644.00	MI.= 3.531	FT= 18,644.00	MI.= 3.531
BRIDGE:	FT= 1307.00	MI.= 0.248	FT= 1307.00	MI.= 0.248
TOTAL:	FT= 19,951.00	MI.= 3.779	FT= 19,951.00	MI.= 3.779

CSJ 0231-03-156 LIMITS: FROM: JASPER DRIVE TO: ROSEWOOD DR

FOR THE CONSTRUCTION OF SAFETY
CONSISTING OF INSTALL ILLUMINATION



EXCEPTIONS: NONE
EQUATIONS: NONE
RR CROSSINGS: NONE
SCALE: 1" = 5280' (1.0 MI)

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, SEPTEMBER 1, 2024 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, WILL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR ALL FEDERAL - AID CONSTRUCTION CONTRACTS(FORM FHWA 1273, OCTOBER 2023).

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DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	STP ()VRU		IH-14
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	WACO	BELL	1
CHECK	CONTROL	SECTION	JOB	
	0231	03	156	

YEAR	ADT
2022	71272
2042	99781

ATTACHMENT No. XX-XX TO SPECIAL AGREEMENT FOR CONSTRUCTION, MAINTENANCE AND OPERATION OF CONTINUOUS HIGHWAY ILLUMINATION SYSTEM WITHIN MUNICIPALITIES, DATED . THE CITY-STATE CONSTRUCTION, MAINTENANCE AND OPERATION RESPONSIBILITIES SHALL BE AS HERETOFORE AGREED TO, ACCEPTED, AND SPECIFIED IN THE AGREEMENT TO WHICH THESE PLANS ARE MADE A PART.

Texas Department of Transportation

Recommended for Letting

Area Engineer

Recommended for Letting

Director of Transportation Planning & Development

Approved for Letting

District Engineer

	SHEET	DESCRIPTION
		GENERAL
	1	TITLE SHEET
	2	INDEX OF SHEETS
	3	GENERAL NOTES
	4	ESTIMATE & QUANTITY
	5-6	CONSOLIDATED SUMMARIES
		TRAFFIC CONTROL
	7	SEQUENCE OF CONSTRUCTION
		TRAFFIC CONTROL PLAN STANDARDS
*	8-19	BC(1)-21 THRU BC(12)-21
*	20-24	TCP(1-1)-18 THRU TCP(1-5)-18
*	25-26	TCP(2-1)-18 THRU TCP(2-2)-18
*	27	TCP(2-3)-23
*	28	TCP(2-4)-18
*	29	TCP(5-1)-18
*	30-34	TCP(6-1)-12 THRU TCP(6-5)-12
		ROADWAY
	35-39	MBGF LAYOUT
		ROADWAY DETAILS STANDARDS
*	40	GF(31)-19
*	41	GF(31)MS-19
*	42	GF(31)DAT-19
*	43	RAIL-ADJ(A)-19
*	44	SGT(11S)31-18
*	45	SGT(12S)31-18
*	46	SGT(15)31-20
		TRAFFIC
	47-66	REMOVAL LAYOUT
	67-70	EXISTING ELECTRICAL SCHEMATIC
	71-83	SOIL BORING LOGS
	84	ILLUMINATION GENERAL NOTES & UTILITY LEGEND
	85-104	ILLUMINATION LAYOUT
	105	ELECTRICAL SERVICE DATA
	106-110	PROPOSED ELECTRICAL SCHEMATIC
		TRAFFIC STANDARDS
*	111-117	ED(1)-25 THRU ED(7)-25
*	118	ED(9)-25
*	119	ED(11)-25
*	120-121	HMIF(1)-98 THRU HMIF(2)-98
*	122-124	RID(1)-20 THRU RID(3)-20
*	125-128	RIP(1)-19 THRU RIP(4)-19
*	129-134	D & OM(1)-25 THRU D &OM(6)-25
*	135	D & OM(VIA)-25
		ENVIRONMENTAL
	136-137	STORMWATER POLLUTION PREVENTION PLAN (SWP3)
	138	ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS (EPIC)
		ENVIRONMENTAL STANDARDS
*	139-148	TA-BMP (WACO DISTRICT STANDARD)
*	149-150	EC(1)-16 THRU EC(2)-16)

* THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME OR UNDER MY DIRECT SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

INTERIM REVIEW

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF

PATRICK JALUFKA P.E., ON: 7/11/2025

IT IS NOT TO BE USED FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

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INDEX OF SHEETS

SHEET 1 OF 1

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		2

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SUMMARY OF ROADWAY ITEMS									
MBGF LAYOUT SHEET NO.	104	432	540	540	540	542	544	544	658
	7005	7013	7002	7015	7028	7001	7001	7003	7018
	REMOVING CONCRETE(MOW STRIP)	RIPRAP (MOW STRIP)(4 IN)	MTL W-BEAM GD FEN (STEEL POST)	DOWNSTREAM ANCHOR TERMINAL SECTION	MTL BM GD FEN TRANS (31"-28")	REMOVE METAL BEAM GUARD FENCE	GUARDRAIL END TREATMENT (INSTALL)	GUARDRAIL END TREATMENT (REMOVE)	INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2
	LF	CY	LF	EA	EA	LF	EA	EA	EA
1 OF 5		15	175		1	50	1	1	4
2 OF 5	53	10	75				1	1	3
3 OF 5		11	100	1			1		3
4 OF 5		12	125	1			1		3
5 OF 5	106	10	100				1	1	3
PROJECT TOTAL:	159	58	575	2	1	50	5	3	16

SUMMARY OF ILLUMINATION REMOVAL ITEMS						
ILLUMINATION REMOVAL LAYOUT SHEET NO.	610	610	624	628	690	690
	7006	7009	7013	7002	7144	7150
	REMOVE RD IL ASM (BRIDGE MOUNT)	REMOVE RD IL ASM (TRANS-BASE)	REMOVE GROUND BOX	REMOVE ELECTRICAL SERVICES	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
	EA	EA	EA	EA	LF	LF
1 OF 20						
2 OF 20		3	2			2046
3 OF 20				1		
4 OF 20	1	2	3		261	5573
5 OF 20		2				798
6 OF 20				1		87
7 OF 20		1				1575
8 OF 20		4	4	1		9016
9 OF 20		4	3			5676
10 OF 20		4	4			5262
11 OF 20		3				3162
12 OF 20						
13 OF 20						
14 OF 20			1	1		624
15 OF 20		6				4524
16 OF 20		5		1		2817
17 OF 20		3	2			4623
18 OF 20			3	1		2286
19 OF 20						
20 OF 20						
PROJECT TOTAL:	1	37	22	6	261	48069

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CONSOLIDATED SUMMARIES

SHEET 1 OF 2

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		5

NODE

SUMMARY OF ILLUMINATION ITEMS																
ILLUMINATION LAYOUT SHEET NO.	416	416	432	610	618	618	618	624	624	628	690	690	6013	6071	6083	6083
	7035	7040	7001	7124	7036	7061	7090	7014	7015	7049	7218	7220	7006	7003	7001	7002
	DRILL SHAFT (HIGH MAST POLE) (48 IN)	DRILL SHAFT (RDWY ILL POLE) (30 IN)	RIPRAP (CONC) (4 IN)	IN RD IL (TY SA) 40T-8 (250W EQ) LED	CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80) (3") (BORE)	CONDUIT (PREPARE)	INSTL GROUND BOX (W/SECURE LID)	RETRO GROUND BOX (W/SECURE LID)	ELC SRV TY A 240/480 060(NS)SS (E)SP(U)	REPLACE FUSE	REPLACE BREAKAWAY FUSE HOLDER	GROUND BOX (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)(SHLD)
	LF	LF	CY	EA	LF	LF	LF	EA	EA	EA	EA	EA	EA	LF	EA	EA
1 OF 20																
2 OF 20	30		4.66		714	243		6		1				3887		2
3 OF 20	18		2.33		1072	225		5	3					5195		1
4 OF 20	50		4.66		416		637	3	7					2196	2	
5 OF 20	23		2.33		1407			4						4383	1	
6 OF 20	45		4.66		2145	226		7	5	2			1	8111	2	
7 OF 20	18		2.33	1	1448	54	525	5	1					6081	1	
8 OF 20	45		4.66		398	71	1136	4	8	1				5605	2	
9 OF 20	25		2.33		1283	210		5						4921	1	
10 OF 20	35		4.66		280			2						840	2	
11 OF 20	25		2.33	2	1896		978	8	6	1				10681	1	
12 OF 20	48		4.66		1124			3						3372	2	
13 OF 20	25	20	2.33	2	851			4		1				2775	1	
14 OF 20	43		4.66		1193			7		1				7152	2	
15 OF 20	15		2.33		1910			5	3				1	5979	1	
16 OF 20	50		4.66		732			3	2	1			1	2196	2	
17 OF 20	18		2.33		1840			7						5913	1	
18 OF 20	18		2.33		820			5		2				4344	1	
19 OF 20																
20 OF 20																
* AS DIRECTED											20	10				
PROJECT TOTAL:	531	20	58	5	19529	1029	3276	83	35	10	20	10	3	83631	22	3

* AS DIRECTED QUANTITIES ARE FOR REPLACING ANTICIPATED BREAKS WHEN REMOVING EXISTING CONDUCTORS

SUMMARY OF EROSION CONTROL ITEMS						
LOCATION	164	164	168	506	506	506
	7012	7015	7001	7039	7040	7041
	DRILL SEED (PERM_URBAN_CLAY)	DRILL SEED (TEMP_WARM_COOL)	VEGETATIVE WATERING	TEMP SDMT CONT FENCE (INSTALL)	TEMP SDMT CONT FENCE (INLET PROTECTION)	TEMP SDMT CONT FENCE (REMOVE)
	SY	SY	TGL	LF	LF	LF
AS DIRECTED	2200	2200	36	2800	200	3000
PROJECT TOTAL:	2200	2200	36	2800	200	3000

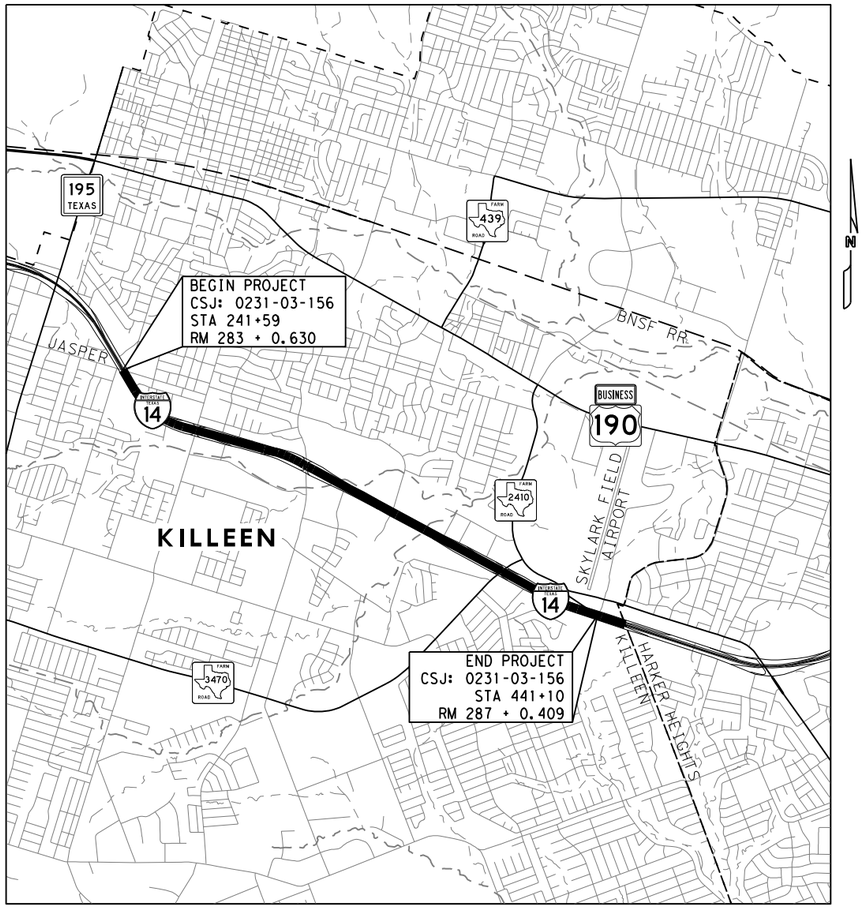
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CONSOLIDATED SUMMARIES

SHEET 2 OF 2

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		6

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SCALE: 1" = 5280'

VICINITY MAP

1. SIGNS G20-1 WITH PLAQE OR G20-5T, G20-6, G20-2a, G20-2b, CW20-1D, R20-3, R20-5, G20-9T AND R20-5 PLAQUE WILL BE REQUIRED AT PROJECT LIMITS.

2. CW20-1D AND G20-2a WILL BE REQUIRED AT ALL CROSSROADS.

3. G20-1a WILL BE REQUIRED AT ALL MAJOR CROSSROADS.

SIGNAGE LEGEND

G20-1 W/ PLAQUE OR G20-5T	48X26	BEGIN ROAD WORK NEXT X MILES
	48X24	BEGIN ROAD WORK NEXT X MILES
G20-6	48X30	NAME, ADDRESS, CITY, STATE, CONTRACTOR
G20-9T	36X30	BEGIN WORK ZONE
G20-2b	36X18	END WORK ZONE
R20-3	48X42	OBEY WARNING SIGNS STATE LAW
G20-1a	72X36	ROAD WORK NEXT X MILES
CW20-1D	48X48	ROAD WORK AHEAD
R20-5	36X36	TRAFFIC FINES DOUBLE
R20-5 PLAQUE	36X18	WHEN WORKERS ARE PRESENT
G20-2a	48X24	END ROAD WORK

NOTES:

1. ALL TRAFFIC CONTROL DEVICES WILL CONFORM WITH THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (TMUTCD), AND WILL BE MAINTAINED AS DIRECTED. ADDITIONAL GUIDELINES FOR TRAFFIC CONTROL DEVICES MAY BE FOUND IN THE TMUTCD.

2. FOR CHANNELING DEVICE PLACEMENT AND SPACING FOR ALL PHASES, REFER TO THE TCP STANDARDS.

GENERAL

A. INSTALL ALL SIGNS, BARRICADES AND TRAFFIC CONTROL DEVICES AS SHOWN AND IN ACCORDANCE WITH THE STANDARD BC SHEETS AND AS DIRECTED.

B. ADDITIONAL SIGNS, BARRICADES OR TRAFFIC CONTROL DEVICES OTHER THAN THOSE SPECIFIED MAY BE REQUIRED FOR THE SAFE MOVEMENT OF TRAFFIC THROUGH THE PROJECT. PAYMENT FOR ALL SUCH SIGNS, BARRICADES OR TRAFFIC CONTROL DEVICES WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "BARRICADES, SIGNS AND TRAFFIC HANDLING".

C. WORK SITES SHOULD BE CAREFULLY MONITORED TO ENSURE THAT TRAFFIC CONTROL MEASURES ARE OPERATING EFFECTIVELY AND THAT ALL DEVICES USED ARE CLEARLY VISIBLE, CLEAN AND IN GOOD REPAIR.

D. THE CONTRACTOR WILL PROVIDE SAFE ACCESS TO AND FROM ALL PRIVATE PROPERTY AT ALL TIMES AND IN ALL WEATHER CONDITIONS.

E. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED SCHEDULE OF WORK PRIOR TO THE BEGINNING OF CONSTRUCTION WHICH GENERALLY CONFORMS TO THE SEQUENCE SHOWN ON THE TCP SEQUENCE OF OPERATION BELOW.

F. COMPLETE ALL WORK ON PROJECT AS SHOWN ON THE VARIOUS PLAN SHEETS AND IN COMPLIANCE WITH THE GENERAL NOTES OF THIS CONTRACT.

G. ANY REQUEST TO ALTER THE SEQUENCE OF OPERATION OR TRAFFIC CONTROL PLAN WILL BE SUBMITTED TO THE ENGINEER FOR HIS WRITTEN APPROVAL.

SEQUENCE OF CONSTRUCTION

A. LIMIT THE TIME THAT AN EXISTING SERVICE IS SHUT DOWN TO 10 WORKING DAYS. HAVE THE NEW SERVICE UP AND OPERATIONAL WITHIN THOSE 10 WORKING DAYS.

B. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED SCHEDULE OF WORK TO THE AREA ENGINEER PRIOR TO THE BEGINNING OF CONSTRUCTION, WHICH GENERALLY CONFORMS TO THE FOLLOWING SEQUENCE:

1. SET PROJECT BARRICADES.
2. REMOVE AND INSTALL METAL BEAM GUARD FENCE.
2. INSTALL PROPOSED CONDUIT AND GROUND BOXES.
3. INSTALL HIGH MAST FOUNDATIONS AND SET POLES.
4. INSTALL NEW ELECTRICAL SERVICES.
5. DISCONNECT EXISTING SERVICE AND REMOVE REQUIRED CONDUIT AND CONDUCTORS.
6. PULL NEW CONDUCTORS.
7. CONNECT NEW ELECTRICAL SERVICE TO POWER.
8. COMPLETE ALL OTHER WORK AS DIRECTED.
9. FINAL CLEAN-UP.

INTERIM REVIEW

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF

PATRICK JALUFKA P.E., ON: 7/11/2025

IT IS NOT TO BE USED FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

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SEQUENCE OF CONSTRUCTION

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		7

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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).

2. The development and design of the Traffic Control Plan (TCP)is the responsibility of the Engineer.

3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.

4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.

5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.

6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.

7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.

8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.

9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.

10. Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.

11. Traffic control devices should be in place only while work is actually in progress or a definite need exists.

12. The Engineer has the final decision on the location of all traffic control devices.

13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY NOTES:

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.

2. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES

1. Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.

2. Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

SHEET 1 OF 12

Texas Department of Transportation

Traffic Safety Division Standard

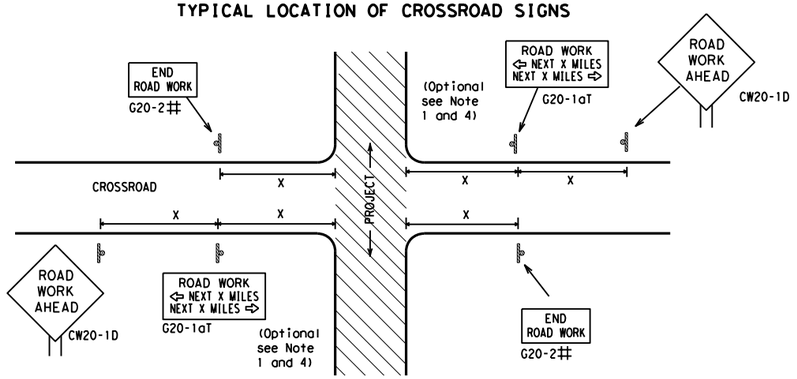
BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS

BC(1)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-03 7-13 9-07 8-14 5-10 5-21	0231	03	156	IH-14
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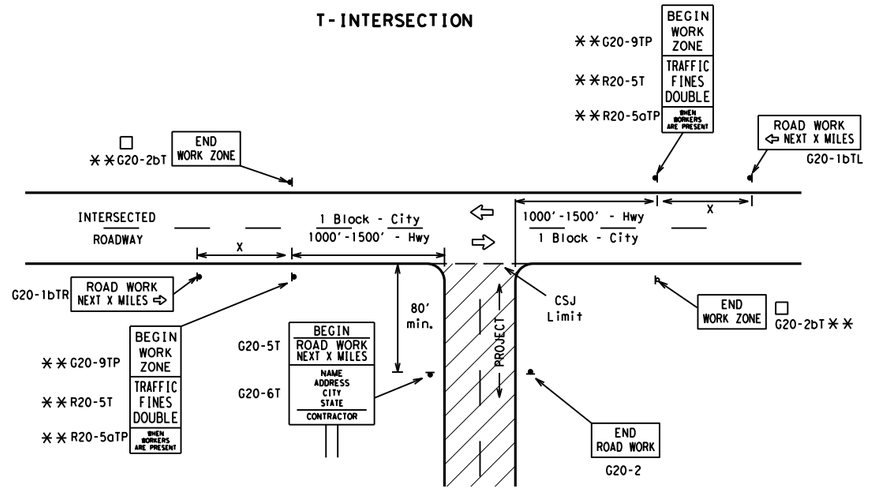
TYPICAL LOCATION OF CROSSROAD SIGNS



May be mounted on back of "ROAD WORK AHEAD"(CW20-1D) sign with approval of Engineer. (See note 2 below)

1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D)sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK"(G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume as per TMUTCD Part 5. This information shall be shown in the plans.
3. Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
4. The "ROAD WORK NEXT X MILES"(G20-1aT)sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

1. The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
2. If construction closes the road at a T-intersection, the Contractor shall place the "CONTRACTOR NAME"(G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow(G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR)" signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING[1,5,6]

SIZE

Sign Number or Series	Conventional Road	Expressway/ Freeway
CW20[4] CW21 CW22 CW23 CW25	48" x 48"	48" x 48"
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"

SPACING

Posted Speed	Sign △ Spacing "X"
MPH	Feet (Apprx.)
30	120
35	160
40	240
45	320
50	400
55	500[2]
60	600[2]
65	700[2]
70	800[2]
75	900[2]
80	1000[2]
*	*[3]

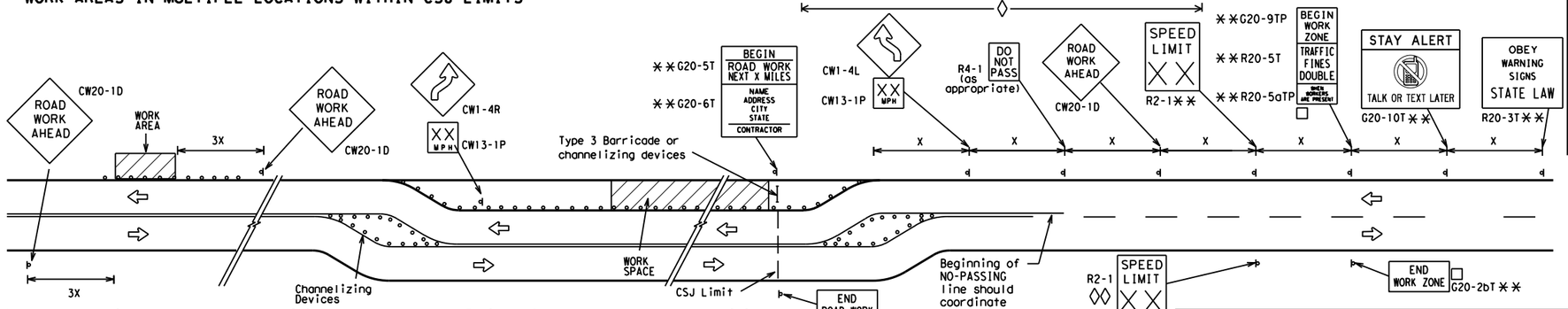
* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

1. Special or larger size signs may be used as necessary.
2. Distance between signs should be increased as required to have 1500 feet advance warning.
3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D)signs may be used on low volume crossroads at the discretion of the Engineer as per TMUTCD Part 5. See Note 2 under "Typical Location of Crossroad Signs".
5. Only diamond shaped warning sign sizes are indicated.
6. See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

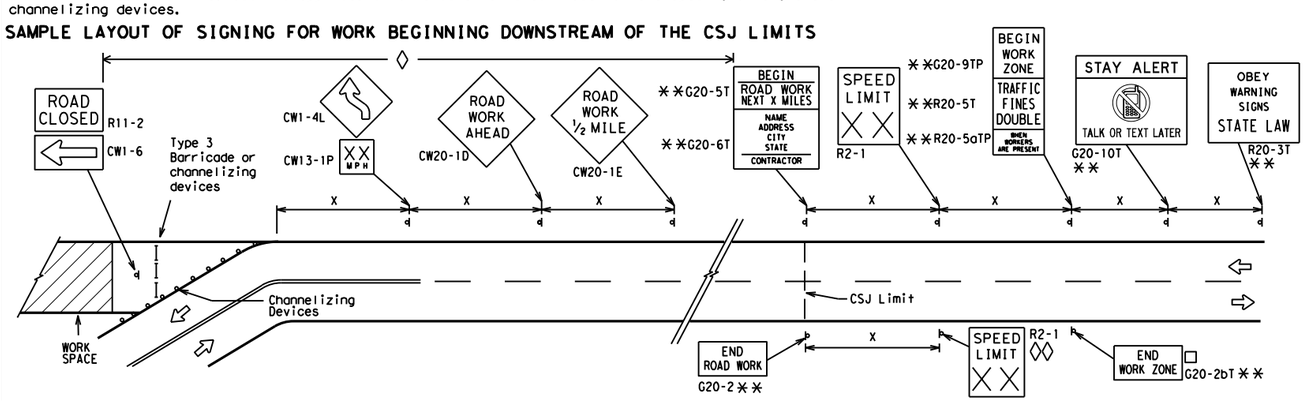
WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD"(CW20-1D)signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



NOTES

The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES"(G20-5T)sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.

□ The "BEGIN WORK ZONE"(G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.

** CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.

◊ Area for placement of "ROAD WORK AHEAD" (CW20-1D)sign and other signs or devices as called for on the Traffic Control Plan.

◊◊ Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND	
⊢⊣	Type 3 Barricade
○ ○ ○	Channelizing Devices
▬	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-21

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7-13 5-21	WACO	BELL		9

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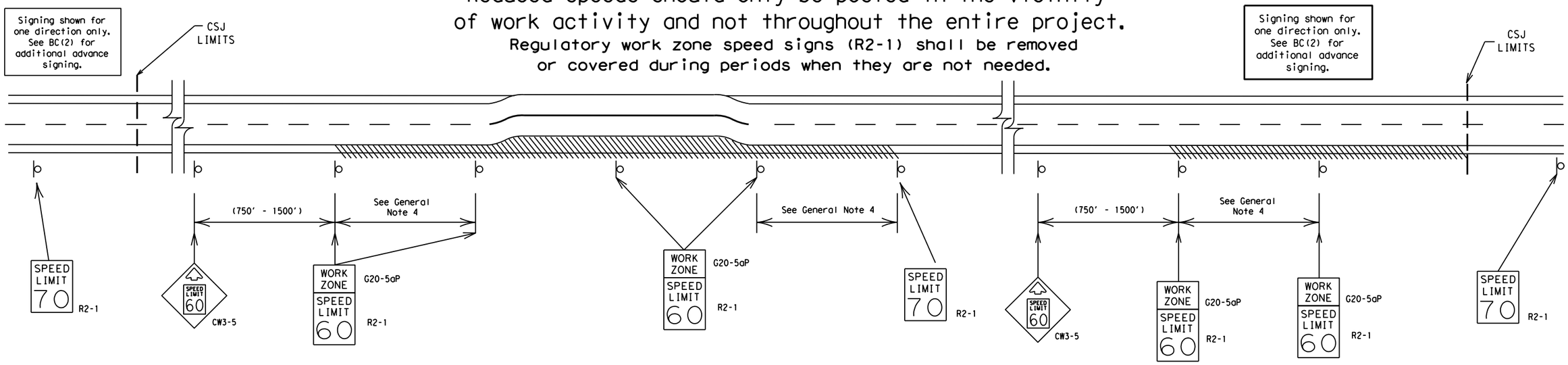
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TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project.

Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

a) rough road or damaged pavement surface
b) substantial alteration of roadway geometrics (diversions)
c) construction detours
d) grade
e) width
f) other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the traveled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered.
(See Removing or Covering on BC(4)).

GENERAL NOTES

1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. Frequency of work zone speed limit signs should be:
   40 mph and greater 0.2 to 2 miles
   35 mph and less 0.2 to 1 mile
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. Fabrication, erection and maintenance of the"ADVANCE SPEED LIMIT"(CW3-5)sign, "WORK ZONE"(G20-5aP) plaque and the "SPEED LIMIT"(R2-1)signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. Techniques that may help reduce traffic speeds include but are not limited to:
   A. Law enforcement.
   B. Flagger stationed next to sign.
   C. Portable changeable message sign (PCMS).
   D. Low-power (drone) radar transmitter.
   E. Speed monitor trailers or signs.
9. Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
10. For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

Texas Department of Transportation | Traffic Safety Division Standard

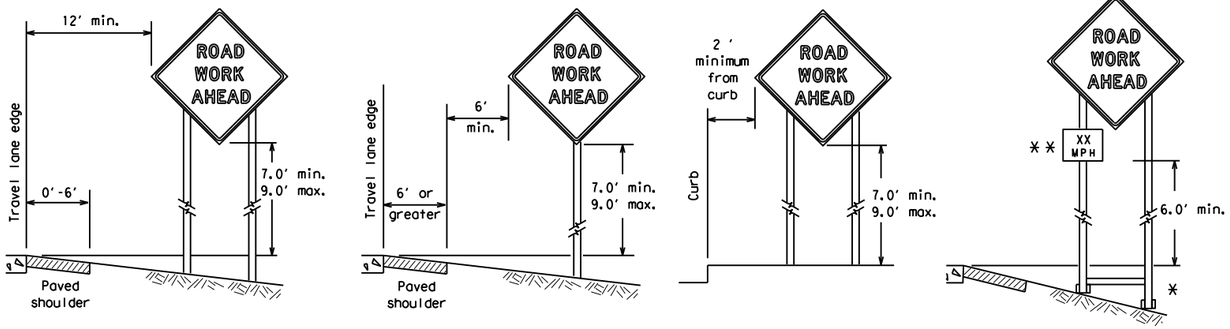
BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

BC(3)-21

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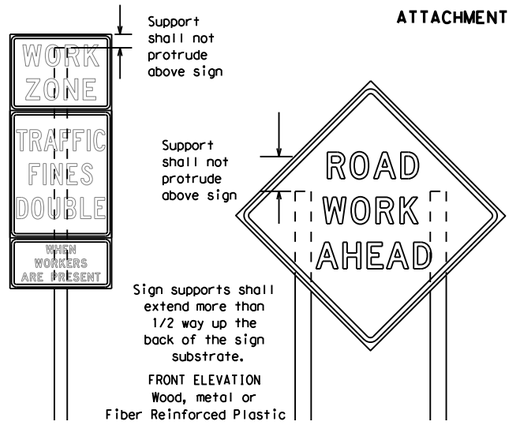
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS

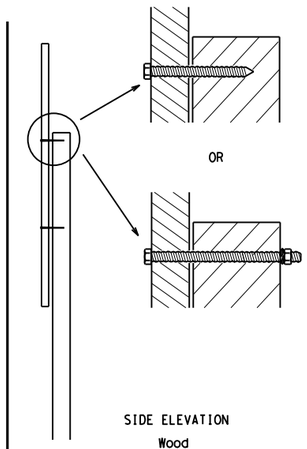


* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

** When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

ATTACHMENT FOR SIGN SUPPORTS





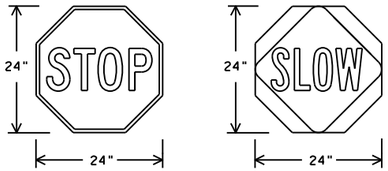
Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the spice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

STOP/SLOW PADDLES

1. STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24".
2. STOP/SLOW paddles shall be retroreflectorized when used at night.
3. STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
4. Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



SHEETING REQUIREMENTS (WHEN USED AT NIGHT)		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B_{FL} OR C_{FL} SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

1. Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (LOGO), or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
2. When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the TS-CD standard.
3. When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
4. If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
5. If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC standard sheets, TLRS standard sheets or the CWZTCD list. The signs shall meet the required mounting heights shown on the BC, or the SMD standard sheets during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
6. Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
5. The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
6. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD) for small roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
7. The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
8. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
9. The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

1. The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
   a. Long-term stationary - work that occupies a location more than 3 days.
   b. Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
   c. Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
   d. Short, duration - work that occupies a location up to 1 hour.
   e. Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

1. The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
2. The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
3. Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
4. Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
5. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

1. The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

1. The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
2. "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
3. All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

1. All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
3. Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
4. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

1. Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

1. Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

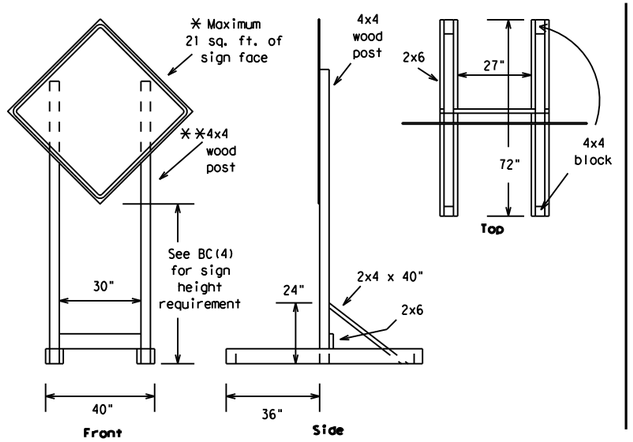
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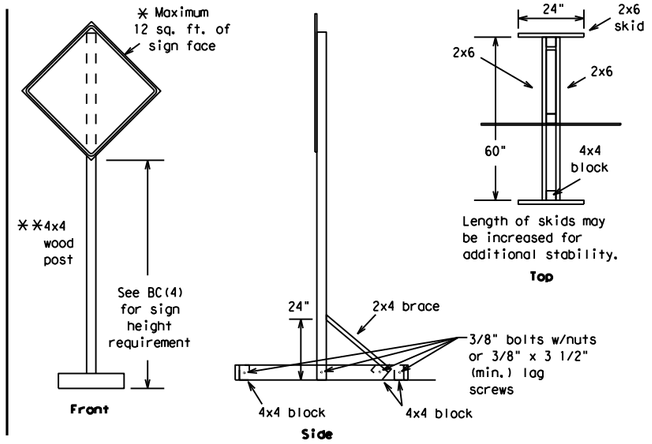
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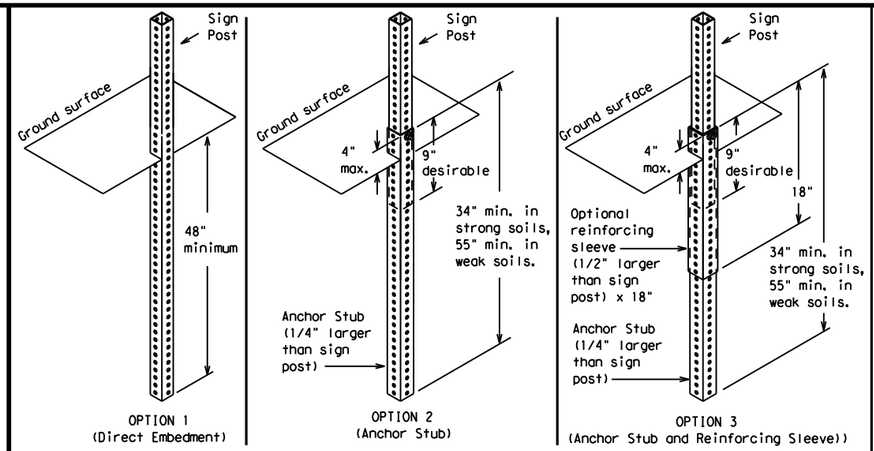
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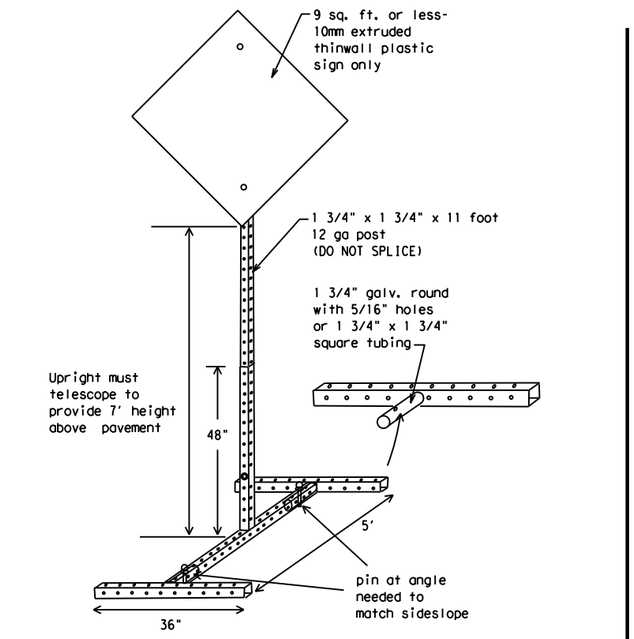
SKID MOUNTED WOOD SIGN SUPPORTS

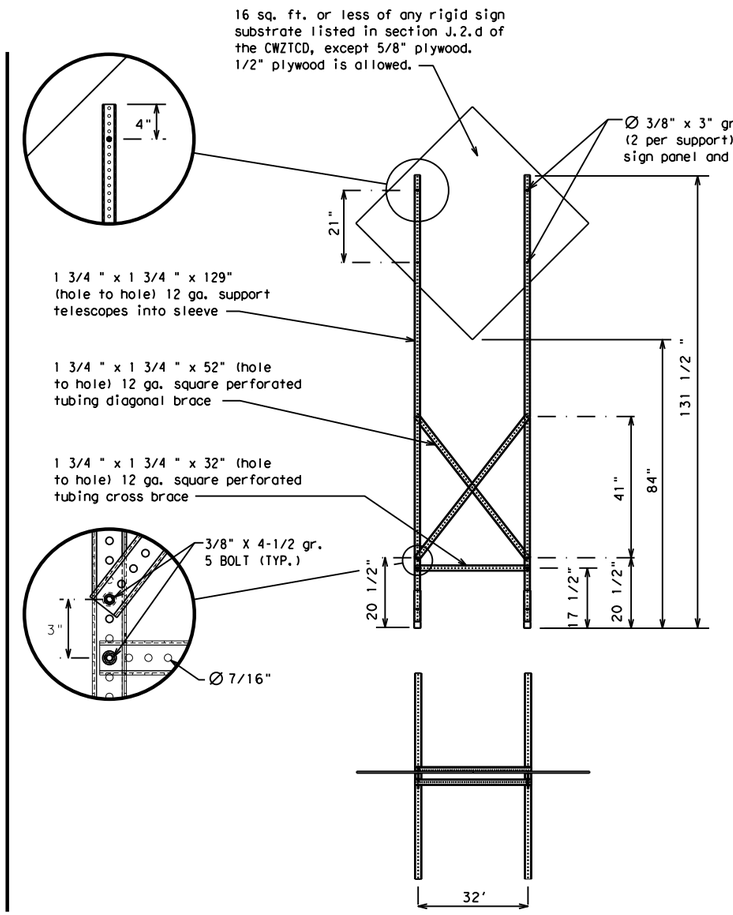
* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS

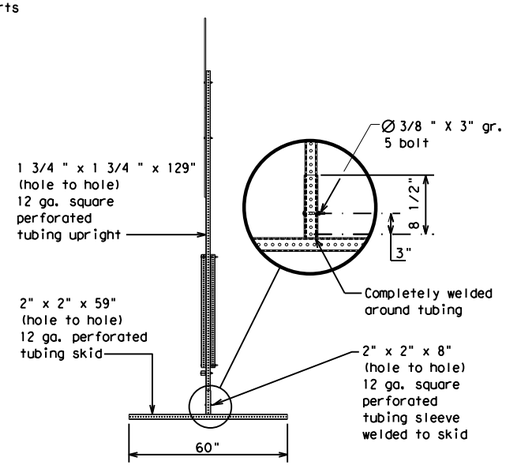


GROUND MOUNTED SIGN SUPPORTS

Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support.
The maximum sign square footage shall adhere to the manufacturer's recommendation.
Two post installations can be used for larger signs.







SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS

* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS

WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

GENERAL NOTES

1. Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
2. No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
3. When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

* See BC(4) for definition of "Work Duration."

** Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.

☐ See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

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BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC(5)-21

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

PORTABLE CHANGEABLE MESSAGE SIGNS

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
3. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
8. The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
15. PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
16. Each line of text should be centered on the message board rather than left or right justified.
17. If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD
Alternate	ALT
Avenue	AVE
Best Route	BEST RTE
Boulevard	BLVD
Bridge	BRDG
Cannot	CANT
Center	CTR
Construction Ahead	CONST AHD
CROSSING	XING
Detour Route	DETOUR RTE
Do Not	DONT
East	E
Eastbound	(route) E
Emergency	EMER
Emergency Vehicle	EMER VEH
Entrance, Enter	ENT
Express Lane	EXP LN
Expressway	EXPWY
XXXX Feet	XXXX FT
Fog Ahead	FOG AHD
Freeway	FRWY, FWY
Freeway Blocked	FWY BLKD
Friday	FRI
Hazardous Driving	HAZ DRIVING
Hazardous Material	HAZMAT
High-Occupancy	HOV
Vehicle Highway	HWY
Hour(s)	HR, HRS
Information	INFO
It Is	ITS
Junction	JCT
Left	LFT
Left Lane	LFT LN
Lane Closed	LN CLOSED
Lower Level	LWR LEVEL
Maintenance	MAINT

WORD OR PHRASE	ABBREVIATION
Major	MAJ
Miles	MI
Miles Per Hour	MPH
Minor	MNR
Monday	MON
Normal	NORM
North	N
Northbound	(route) N
Parking	PKING
Road	RD
Right Lane	RT LN
Saturday	SAT
Service Road	SERV RD
Shoulder	SHLDR
Slippery	SLIP
South	S
Southbound	(route) S
Speed	SPD
Street	ST
Sunday	SUN
Telephone	PHONE
Temporary	TEMP
Thursday	THURS
To Downtown	TO DWNTN
Traffic	TRAF
Travelers	TRVLRS
Tuesday	TUES
Time Minutes	TIME MIN
Upper Level	UPR LEVEL
Vehicles (s)	VEH, VEHS
Warning	WARN
Wednesday	WED
Weight Limit	WT LIMIT
West	W
Westbound	(route) W
Wet Pavement	WET PVMT
Will Not	WONT

Roadway designation * IH-number, US-number, SH-number, FM-number

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

- FREEWAY CLOSED X MILE
- FRONTAGE ROAD CLOSED
- ROAD CLOSED AT SH XXX
- SHOULDER CLOSED XXX FT
- ROAD CLSD AT FM XXXX
- RIGHT LN CLOSED XXX FT
- RIGHT X LANES CLOSED
- RIGHT X LANES OPEN
- CENTER LANE CLOSED
- DAYTIME LANE CLOSURES
- NIGHT LANE CLOSURES
- I-XX SOUTH EXIT CLOSED
- VARIOUS LANES CLOSED
- EXIT XXX CLOSED X MILE
- EXIT CLOSED
- RIGHT LN TO BE CLOSED
- MALL DRIVEWAY CLOSED
- X LANES CLOSED TUE - FRI
- XXXXXXXX BLVD CLOSED

Other Condition List

- ROADWORK XXX FT
- ROAD REPAIRS XXXX FT
- FLAGGER XXXX FT
- LANE NARROWS XXXX FT
- RIGHT LN NARROWS XXXX FT
- TWO-WAY TRAFFIC XX MILE
- MERGING TRAFFIC XXXX FT
- CONST TRAFFIC XXX FT
- LOOSE GRAVEL XXXX FT
- UNEVEN LANES XXXX FT
- DETOUR X MILE
- ROUGH ROAD XXXX FT
- ROADWORK PAST SH XXXX
- ROADWORK NEXT FRI-SUN
- BUMP XXXX FT
- US XXX EXIT X MILES
- TRAFFIC SIGNAL XXXX FT
- LANES SHIFT *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

- MERGE RIGHT
- FORM X LINES RIGHT
- DETOUR NEXT X EXITS
- USE XXXXX RD EXIT
- USE EXIT XXX
- USE EXIT I-XX NORTH
- STAY ON US XXX SOUTH
- USE I-XX E TO I-XX N
- TRUCKS USE US XXX N
- WATCH FOR TRUCKS
- WATCH FOR TRUCKS
- EXPECT DELAYS
- EXPECT DELAYS
- PREPARE TO STOP
- REDUCE SPEED XXX FT
- END SHOULDER USE
- USE OTHER ROUTES
- WATCH FOR WORKERS
- STAY IN LANE *

Location List

- AT FM XXXX
- BEFORE RAILROAD CROSSING
- NEXT X MILES
- PAST US XXX EXIT
- XXXXXXX TO XXXXXXX
- US XXX TO FM XXXX

Warning List

- SPEED LIMIT XX MPH
- MAXIMUM SPEED XX MPH
- MINIMUM SPEED XX MPH
- ADVISORY SPEED XX MPH
- RIGHT LANE EXIT
- USE CAUTION
- DRIVE SAFELY
- DRIVE WITH CARE

** Advance Notice List

- TUE-FRI XX AM- X PM
- APR XX-XX X PM-X AM
- BEGINS MONDAY
- BEGINS MAY XX
- MAY X-X XX PM - XX AM
- NEXT FRI-SUN
- XX AM TO XX PM
- NEXT TUE AUG XX
- TONIGHT XX PM- XX AM

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
6. For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES

1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

1. When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
2. When symbol signs, such as the "Flagger Symbol"(CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
3. When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
4. A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

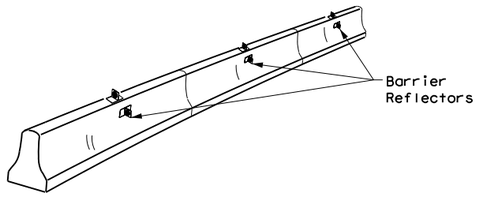
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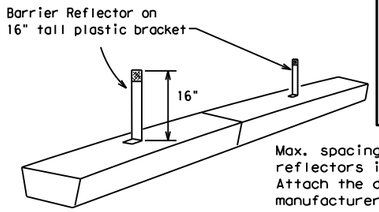
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1. Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
2. Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.



CONCRETE TRAFFIC BARRIER (CTB)

3. Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
4. Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional)while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
5. When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
6. Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
7. Maximum spacing of Barrier Reflectors is forty (40) feet.
8. Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
9. Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
10. Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
11. Single slope barriers shall be delineated as shown on the above detail.

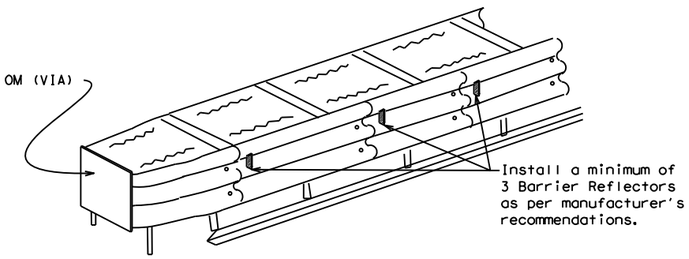


Max. spacing of barrier reflectors is 20 feet. Attach the delineators as per manufacturer's recommendations.

LOW PROFILE CONCRETE BARRIER (LPCB) USED IN WORK ZONES

LPCB is approved for use in work zone locations, where the posted speed is 45mph, or less. See Roadway Standard Sheet LPCB.

LOW PROFILE CONCRETE BARRIER (LPCB)

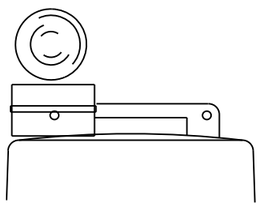


DELINEATION OF END TREATMENTS

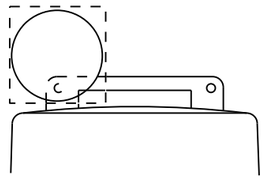
END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet the apppropriate crashworthy standards as defined in the Manual for Assessing Safety Hardware (MASH). Refer to the CWZTCD List for approved end treatments and manufacturers.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS



Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.



Warning reflector may be round or square. Must have a yellow reflective surface area of at least 30 square inches

WARNING LIGHTS

1. Warning lights shall meet the requirements of the TMUTCD.
2. Warning lights shall NOT be installed on barricades.
3. Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B_{FL} or C_{FL} Sheeting meeting the requirements of Departmental Material Specification DMS-8300.
4. Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
5. The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
6. When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
7. When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
8. The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

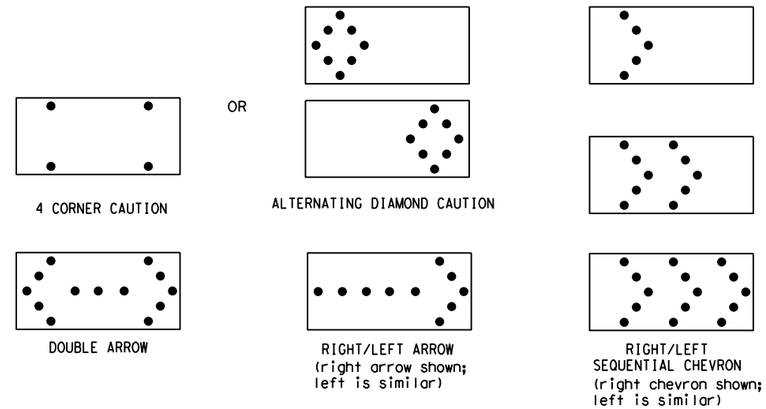
1. Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
2. Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
3. A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
4. Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
5. Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
6. Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
7. The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

1. A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
2. The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCD.
3. The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
4. Round reflectors shall be fully reflectorized, including the area where attached to the drum.
5. Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
6. The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
7. When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
8. The warning reflector should be mounted on the side of the handle nearest approaching traffic.
9. The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

1. The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
2. Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
3. The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
4. The Flashing Arrow Board should be able to display the following symbols:



5. The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
6. The straight line caution display is NOT ALLOWED.
7. The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
8. Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
9. The sequential arrow display is NOT ALLOWED.
10. The flashing arrow display is the TxDOT standard; however, the sequential chevron display may be used during daylight operations.
11. The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
12. A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
13. A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
14. Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION

Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

FLASHING ARROW BOARDS

TRUCK-MOUNTED ATTENUATORS

1. Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the Manual for Assessing Safety Hardware (MASH).
2. Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
3. Refer to the CWZTCD for a list of approved TMAs.
4. TMAs are required on freeways unless otherwise noted in the plans.
5. A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
6. The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.

SHEET 7 OF 12

Texas Department of Transportation — Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC(7)-21

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©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21	WACO	BELL		14

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GENERAL NOTES

1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections, one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

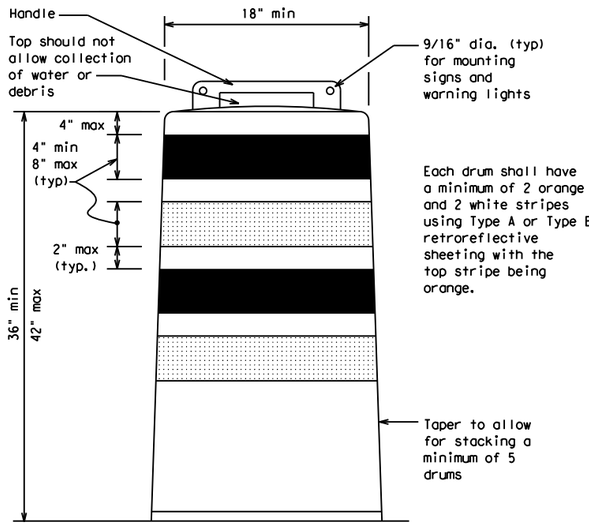
1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

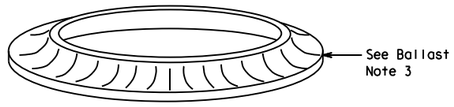
RETROREFLECTIVE SHEETING

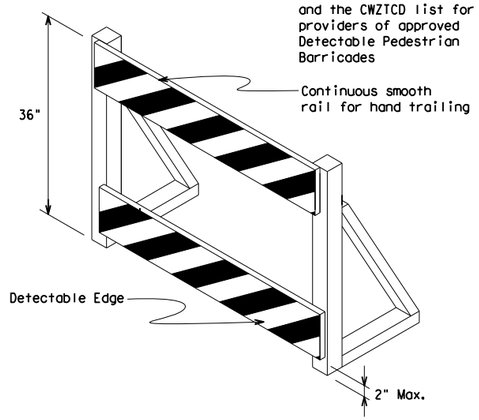
1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials," Type A or Type B reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

BALLAST

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.

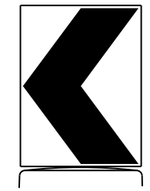




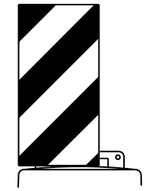


DETECTABLE PEDESTRIAN BARRICADES

1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. Refer to WZ(BTS-2) for Pedestrian Control requirements for Sidewalk Diversions, Sidewalk Detours and Crosswalk Closures.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a Detectable Pedestrian Barricade shall be placed across the full width of the closed sidewalk instead of a Type 3 Barricade.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades should use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer



12" x 24"
Vertical Panel
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A or Type B. Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations, they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(8)-21

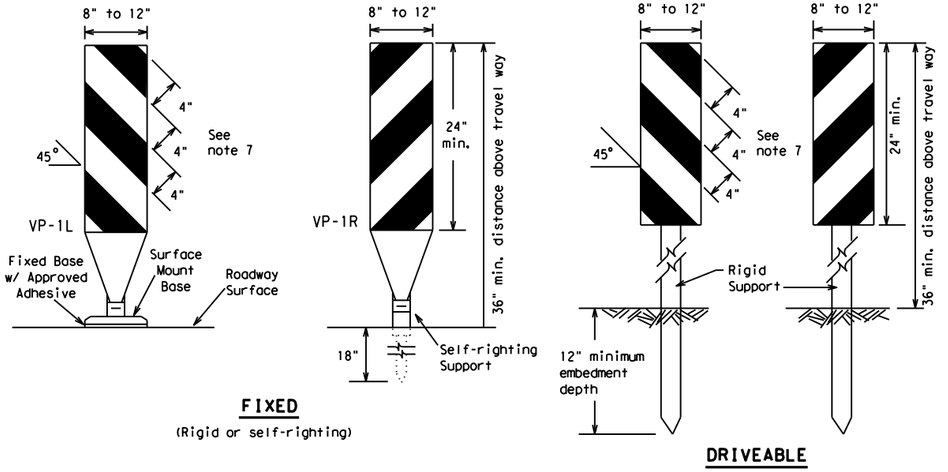
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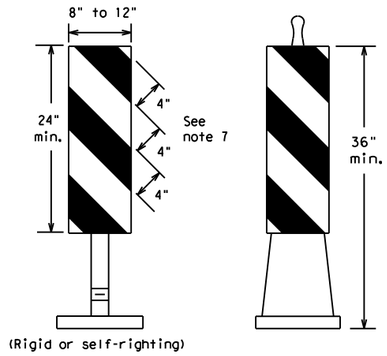
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FIXED
(Rigid or self-righting)

DRIVEABLE

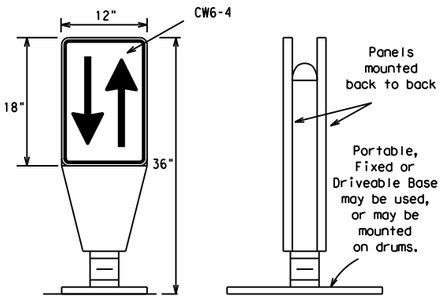


(Rigid or self-righting)

PORTABLE

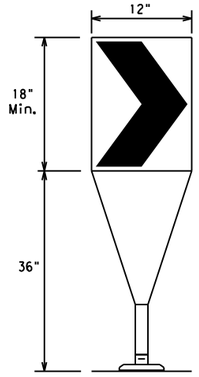
VERTICAL PANELS (VPs)

1. Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
2. VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use VP's for drop-offs.
3. VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
4. VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
5. Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
6. Sheeting for the VP's shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
7. Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.



1. Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
2. The OTLD may be used in combination with 42" cones or VPs.
3. Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
4. The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.

OPPOSING TRAFFIC LANE DIVIDERS (OTLD)



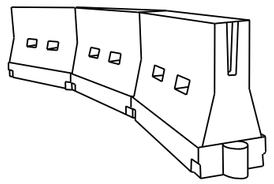
Fixed Base w/ Approved Adhesive
(Driveable Base, or Flexible Support can be used)

1. The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
2. Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
3. Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
4. To be effective, the chevron should be visible for at least 500 feet.
5. Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
6. For Long Term Stationary use on tapers or transitions on freeways and divided highways, self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS

GENERAL NOTES

1. Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
3. Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
4. The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
5. Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
6. Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
7. The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.



LONGITUDINAL CHANNELIZING DEVICES (LCD)

1. LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
2. LCDs may be used instead of a line of cones or drums.
3. LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
5. LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
6. LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10). Place reflective sheeting near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

1. Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (MASH) crashworthiness requirements based on roadway speed and barrier application.
2. Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
3. Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
5. When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

Posted Speed	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent
30	$L = \frac{WS^2}{60}$	150′	165′	180′	30′	60′
35		205′	225′	245′	35′	70′
40		265′	295′	320′	40′	80′
45	L = WS	450′	495′	540′	45′	90′
50		500′	550′	600′	50′	100′
55		550′	605′	660′	55′	110′
60		600′	660′	720′	60′	120′
65		650′	715′	780′	65′	130′
70		700′	770′	840′	70′	140′
75		750′	825′	900′	75′	150′
80		800′	880′	960′	80′	160′

** Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(9)-21

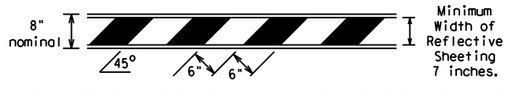
FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
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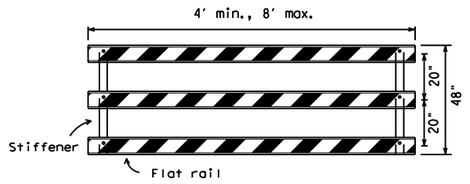
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road, striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.



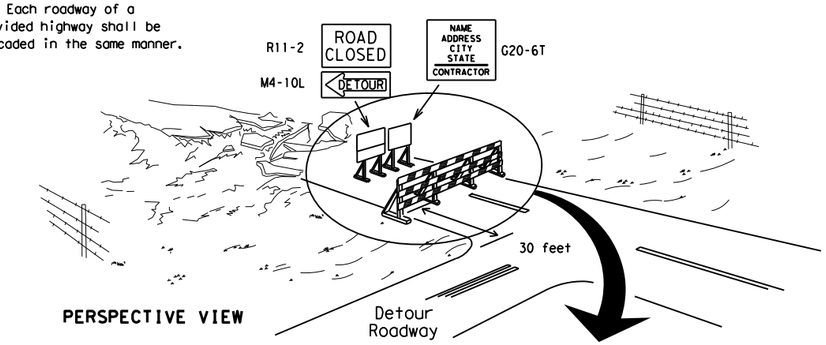
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

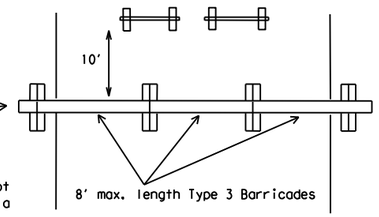
TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

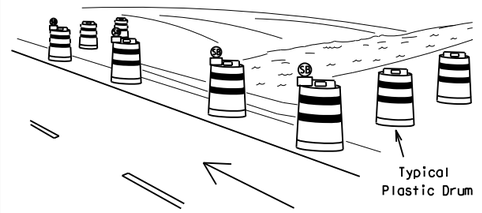
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic.
Barricade striping should slant downward in the direction of detour.



PLAN VIEW

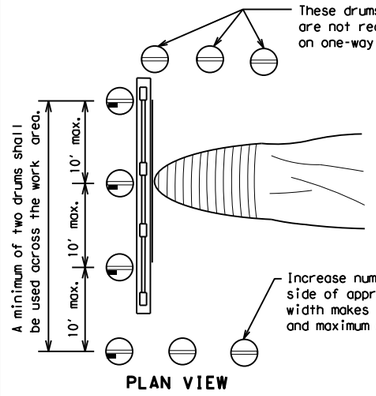
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

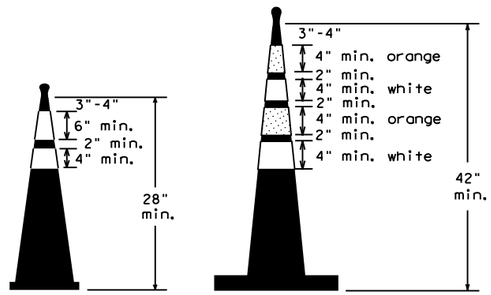
1. Where positive redirectional capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.



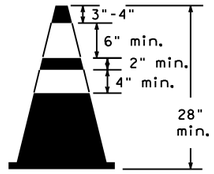
PLAN VIEW

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
SB	Steady burn warning light or yellow warning reflector

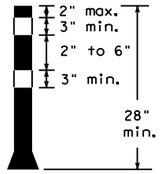
CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



Two-Piece cones



One-Piece cones

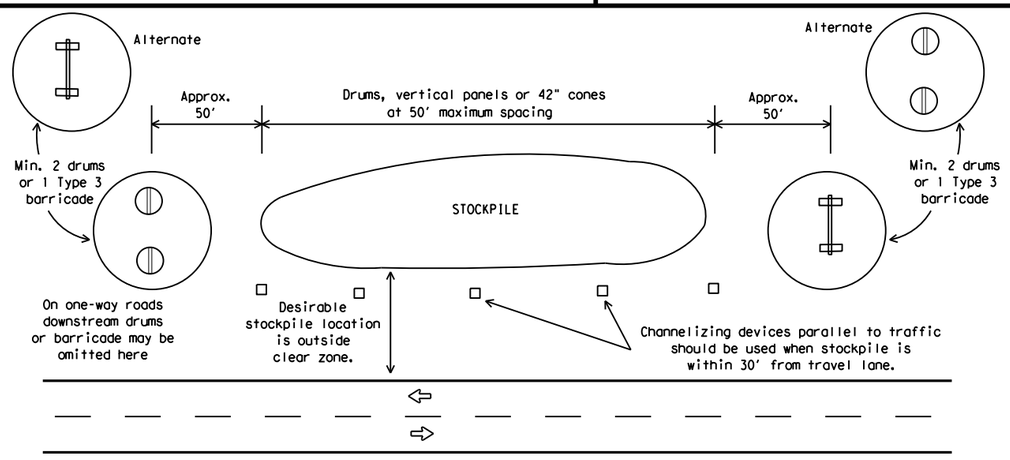


Tubular Marker

28" Cones shall have a minimum weight of 9 1/2 lbs.

42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A or Type B.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

Texas Department of Transportation — Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-21

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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(12).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

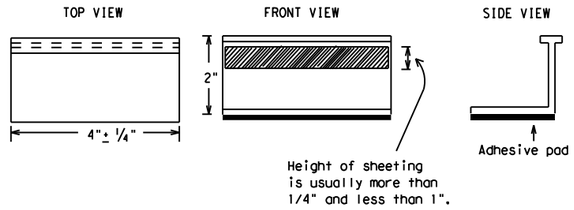
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
   A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
   B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
YELLOW - (two amber reflective surfaces with yellow body).
WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-21

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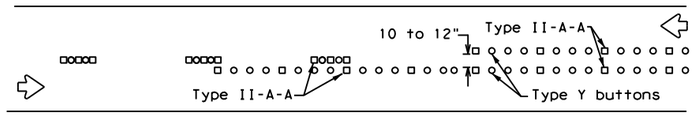
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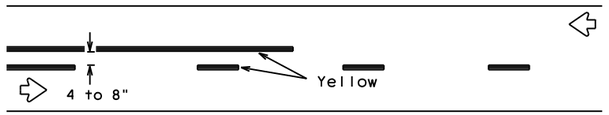
PAVEMENT MARKING PATTERNS



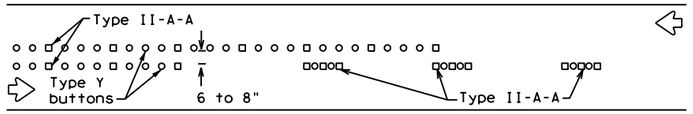
REFLECTORIZED PAVEMENT MARKINGS - PATTERN A



RAISED PAVEMENT MARKERS - PATTERN A



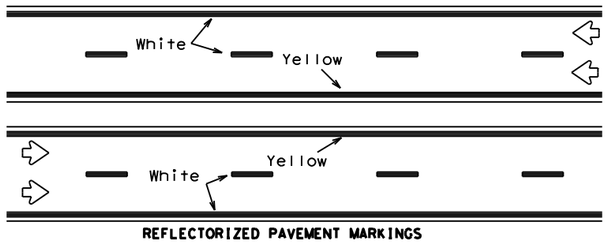
REFLECTORIZED PAVEMENT MARKINGS - PATTERN B



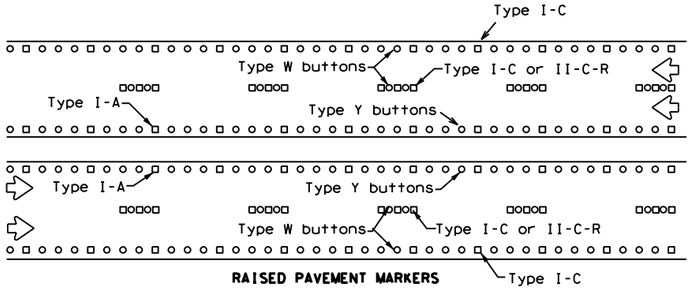
RAISED PAVEMENT MARKERS - PATTERN B

Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer.
Prefabricated markings may be substituted for reflectorized pavement markings.

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



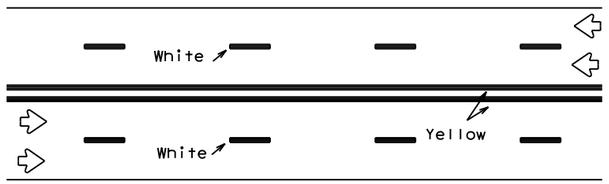
REFLECTORIZED PAVEMENT MARKINGS



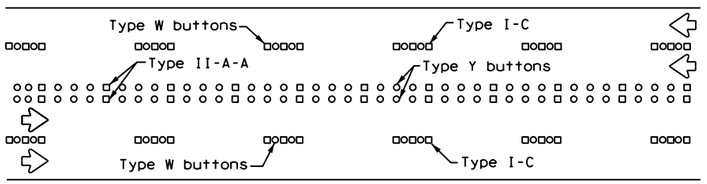
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



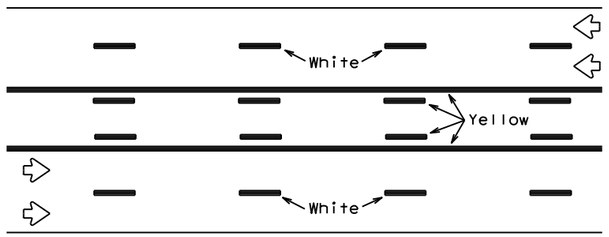
REFLECTORIZED PAVEMENT MARKINGS



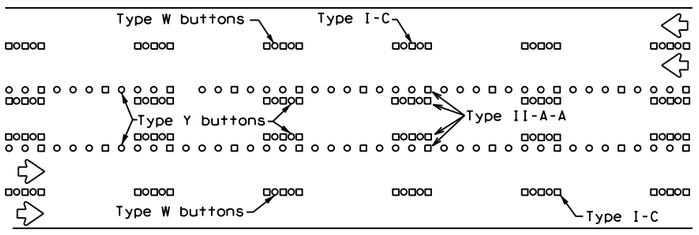
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS



RAISED PAVEMENT MARKERS

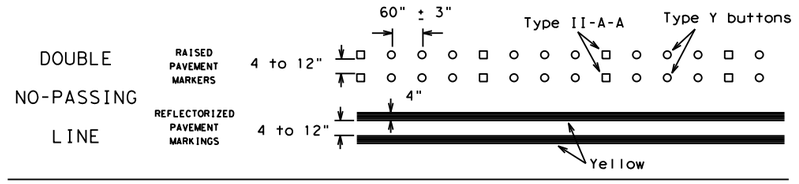
Prefabricated markings may be substituted for reflectorized pavement markings.

TWO-WAY LEFT TURN LANE

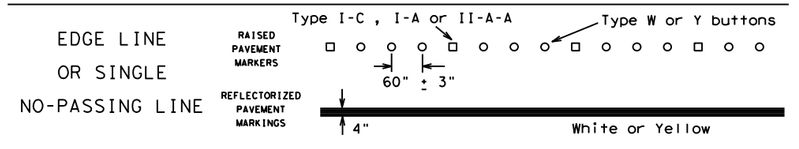
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS

SOLID LINES

DOUBLE NO-PASSING LINE

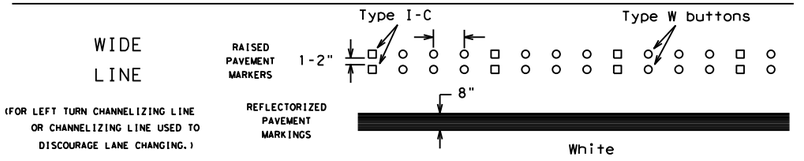


EDGE LINE OR SINGLE NO-PASSING LINE



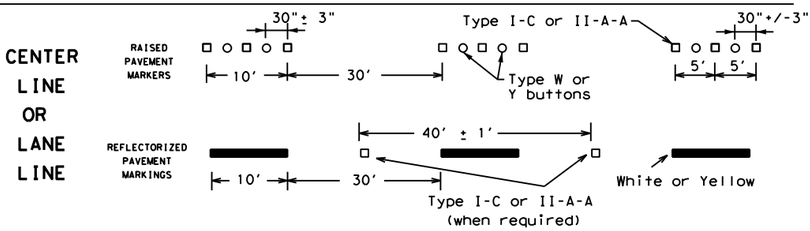
WIDE LINE

(FOR LEFT TURN CHANNELIZING LINE OR CHANNELIZING LINE USED TO DISCOURAGE LANE CHANGING.)

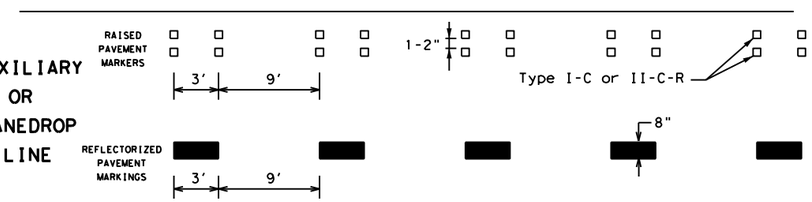


BROKEN LINES

CENTER LINE OR LANE LINE

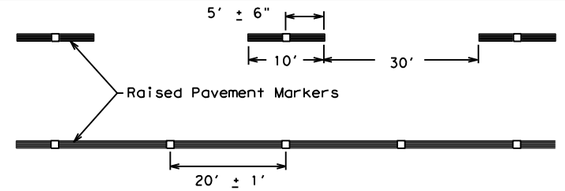


AUXILIARY OR LANEDROP LINE



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



Centerline only - not to be used on edge lines

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

SHEET 12 OF 12

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

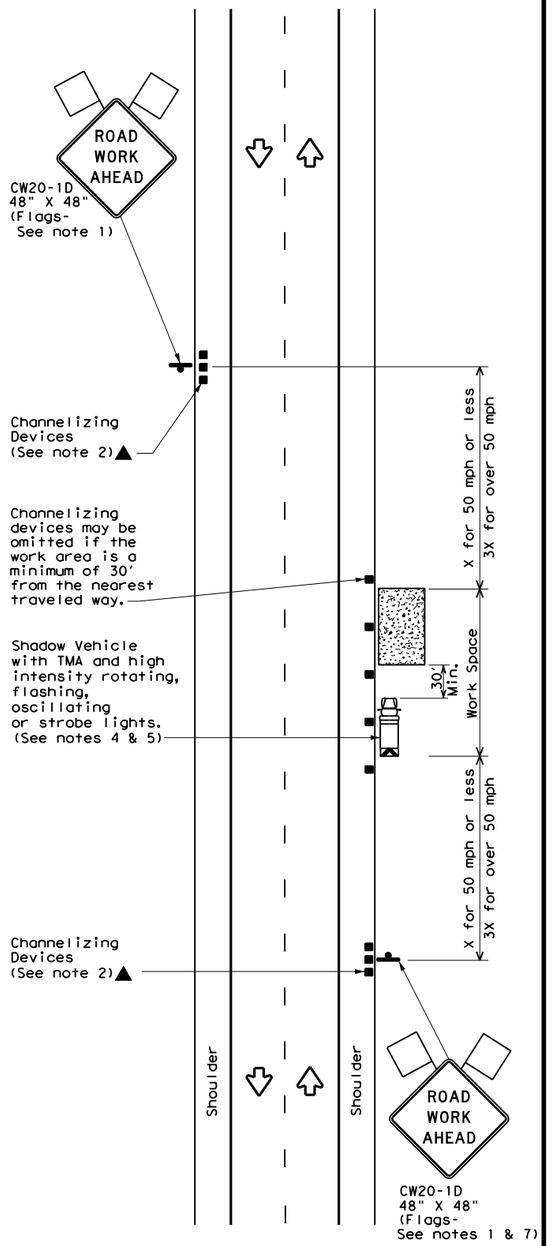
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	WACO	BELL		19

106

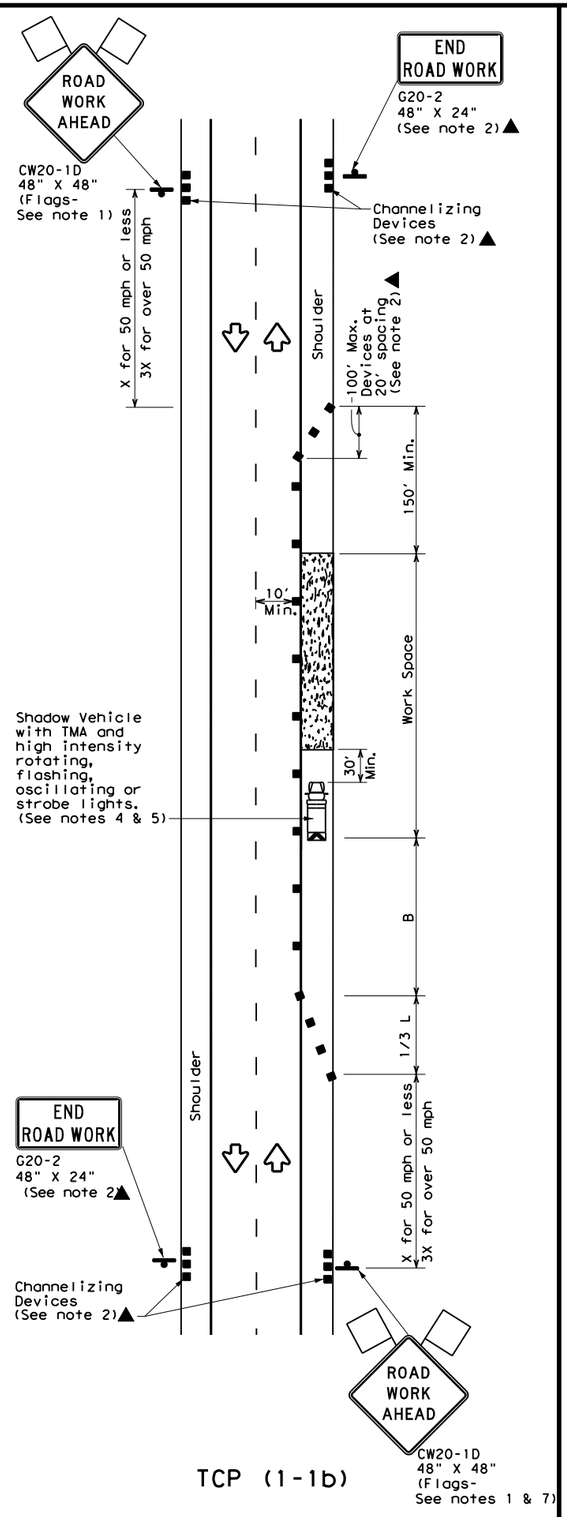
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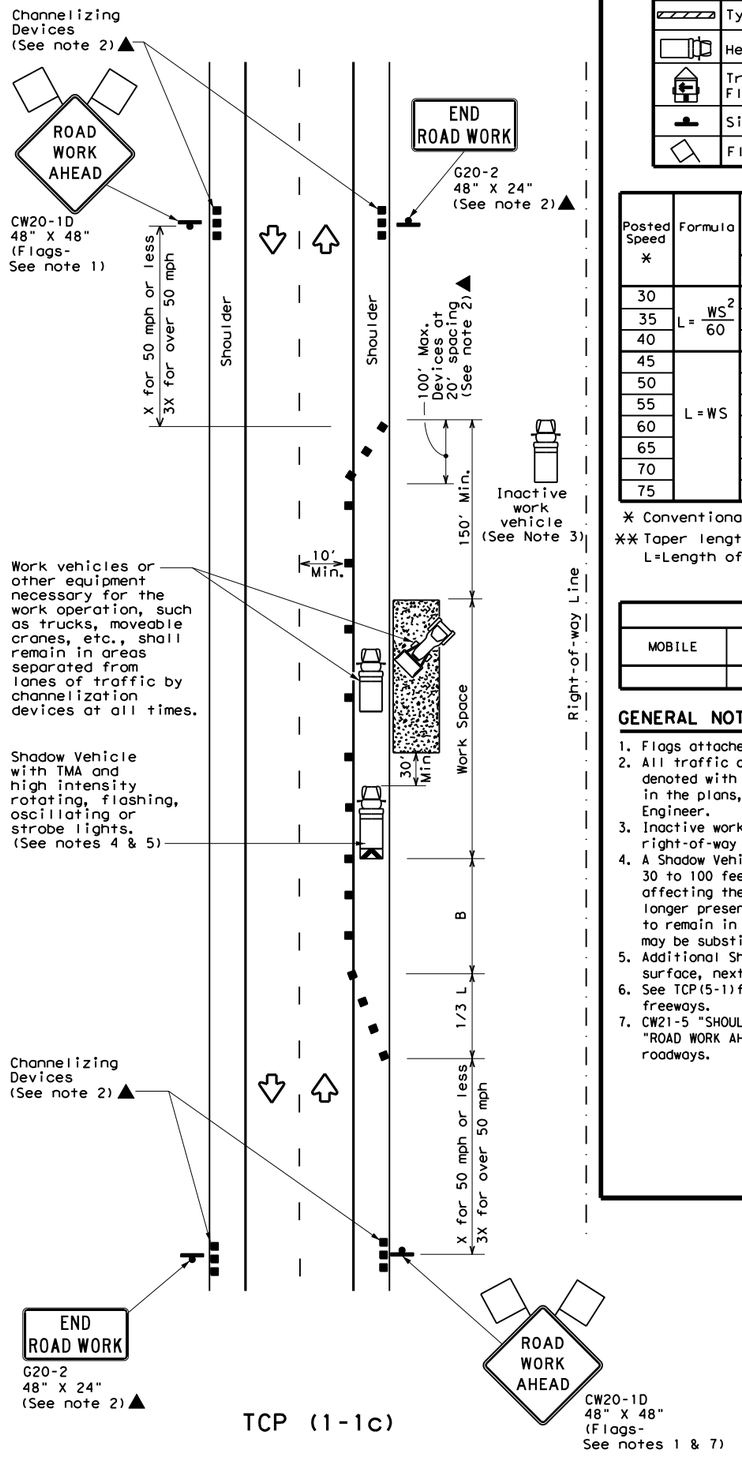
TCP (1-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
4. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
6. See TCP(5-1)for shoulder work on divided highways, expressways and freeways.
7. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

Texas Department of Transportation — Traffic Operations Division Standard

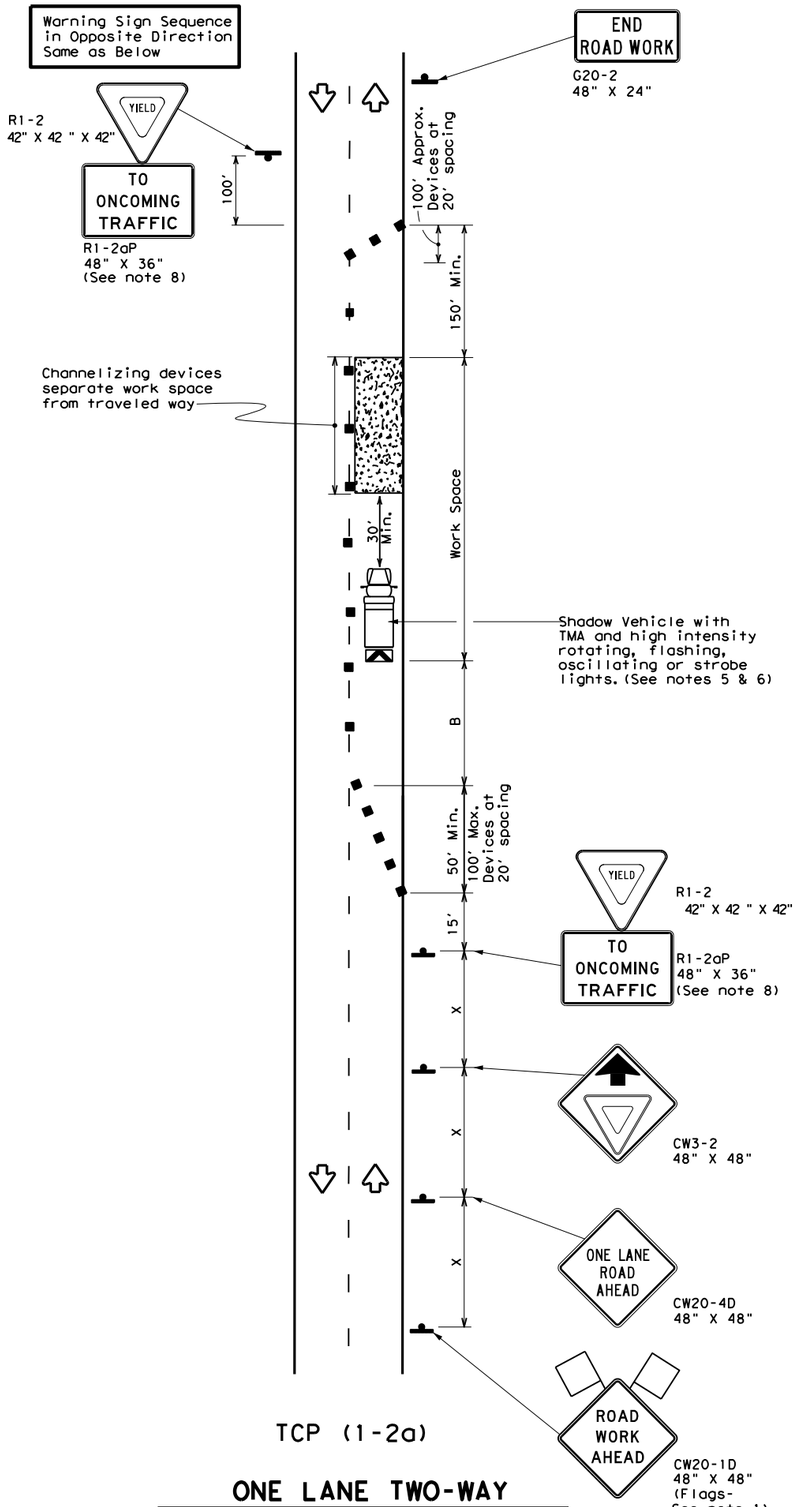
TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP(1-1)-18

FILE: tcp1-1-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS 2-94 4-98 8-95 2-12 1-97 2-18	0231	03	156	IH-14
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	WACO	BELL		20

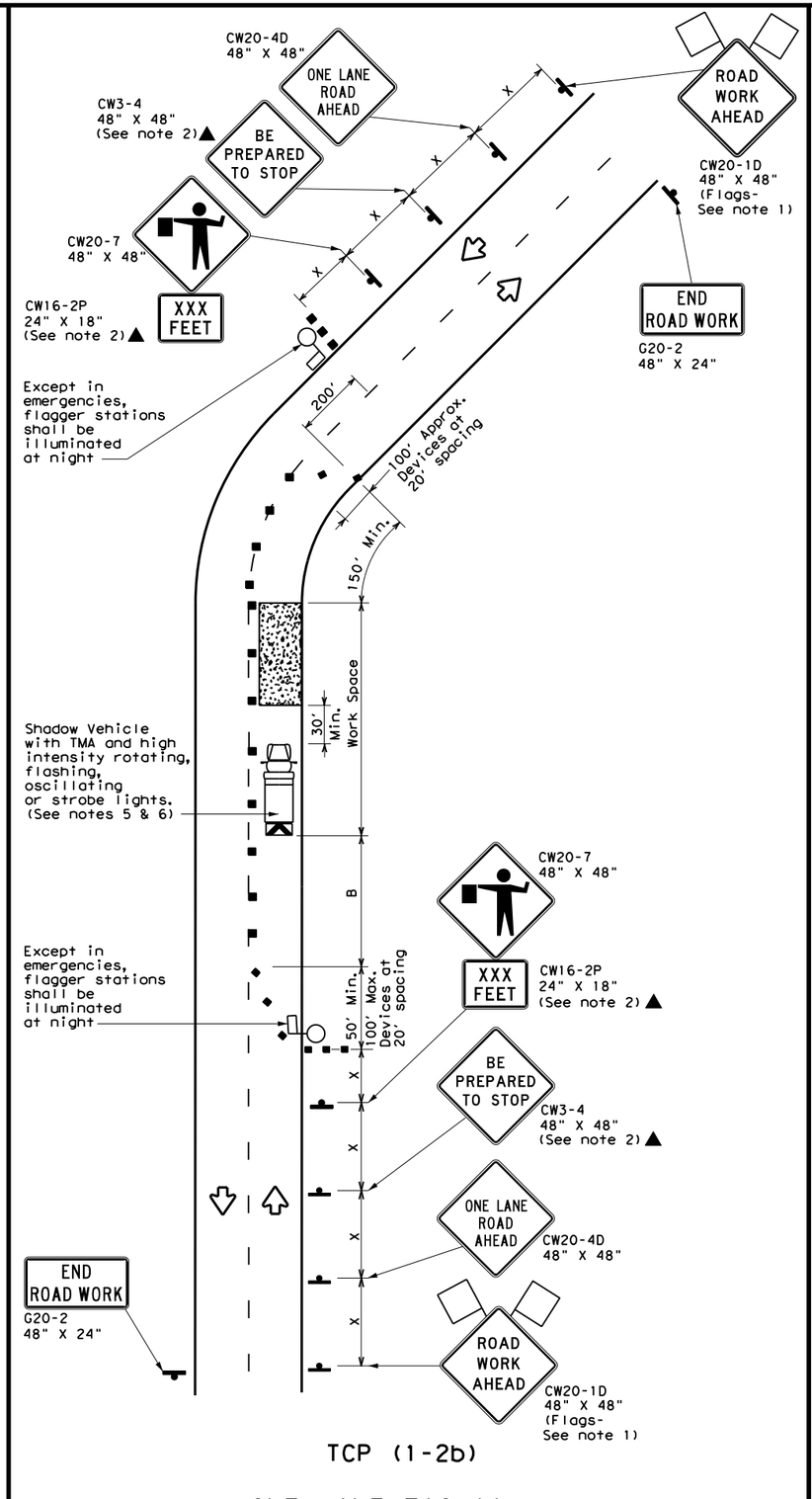
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TCP (1-2a)

ONE LANE TWO-WAY CONTROL WITH YIELD SIGNS
(Less than 2000 ADT - See note 7)



TCP (1-2b)

ONE LANE TWO-WAY CONTROL WITH FLAGGERS

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L = WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
4. Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
5. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
6. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.

TCP (1-2a)

7. R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than one half city block. In rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
8. R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.

TCP (1-2b)

9. Flaggers should use two-way radios or other methods of communication to control traffic.
10. Length of work space should be based on the ability of flaggers to communicate.
11. If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
12. Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
13. Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation

Traffic Operations Division Standard

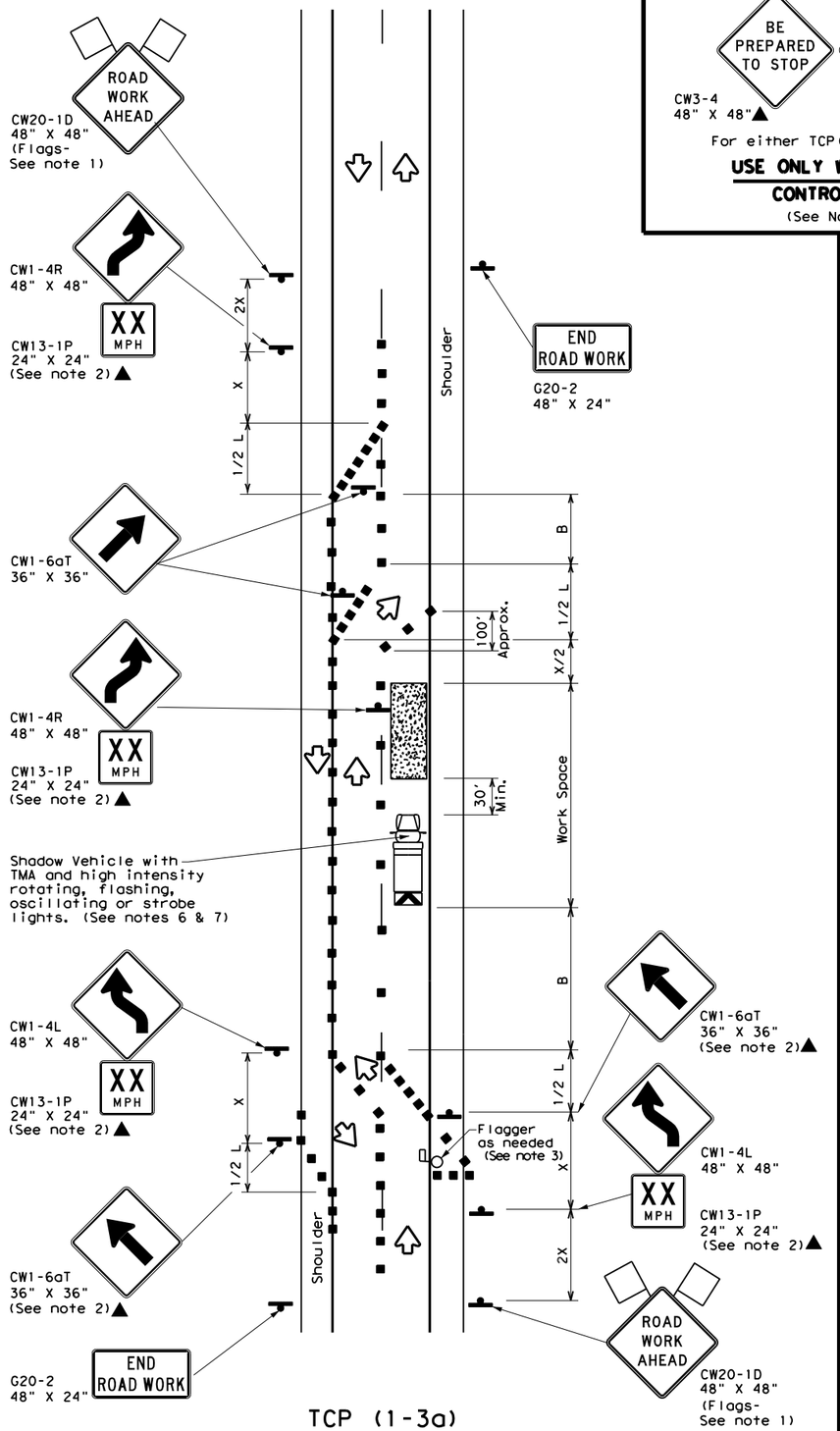
TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY TRAFFIC CONTROL

TCP(1-2)-18

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© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-90 4-98 2-94 2-12 1-97 2-18	0231	03	156	IH-14
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	WACO	BELL		21

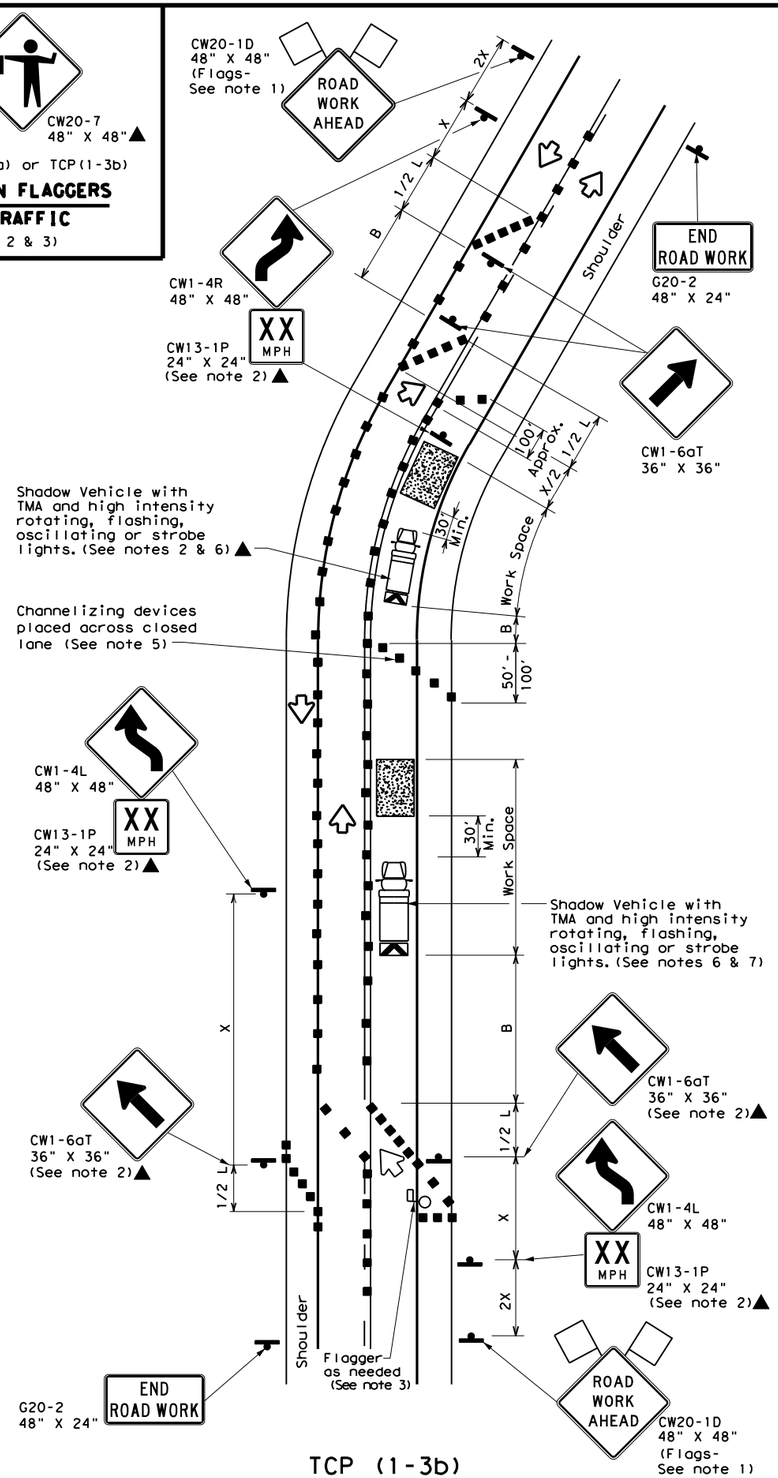
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TCP (1-3a)
2-LANE ROADWAY WITH PAVED SHOULDERS

ONE LANE CLOSED
ADEQUATE FIELD OF VIEW



TCP (1-3b)
2-LANE ROADWAY WITH PAVED SHOULDERS

ONE LANE CLOSED
INADEQUATE FIELD OF VIEW

LEGEND			
	Type 3 Barricade	■ ■	Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Flagger control should NOT be used unless roadway conditions or heavy traffic volume require additional emphasis to safely control traffic. Additional flaggers may be positioned in advance of traffic queues to alert traffic to reduce speed.
4. DO NOT PASS, PASS WITH CARE and construction regulatory speed zone signs may be installed downstream of the ROAD WORK AHEAD signs.
5. When the work zone is made up of several work spaces, channelizing devices should be placed laterally across the closed lane to re-emphasize closure. Laterally placed channelizing devices should be repeated every 500 to 1000 feet in urban areas and every 1/4 to 1/2 mile in rural areas.
6. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
7. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
8. Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20', or 15' if posted speed are 35 mph or slower, and for tangent sections, at 1/2S where S is the speed in mph. This tighter device spacing is intended for the area of conflicting markings not the entire work zone.

Texas Department of Transportation

Traffic Operations Division Standard

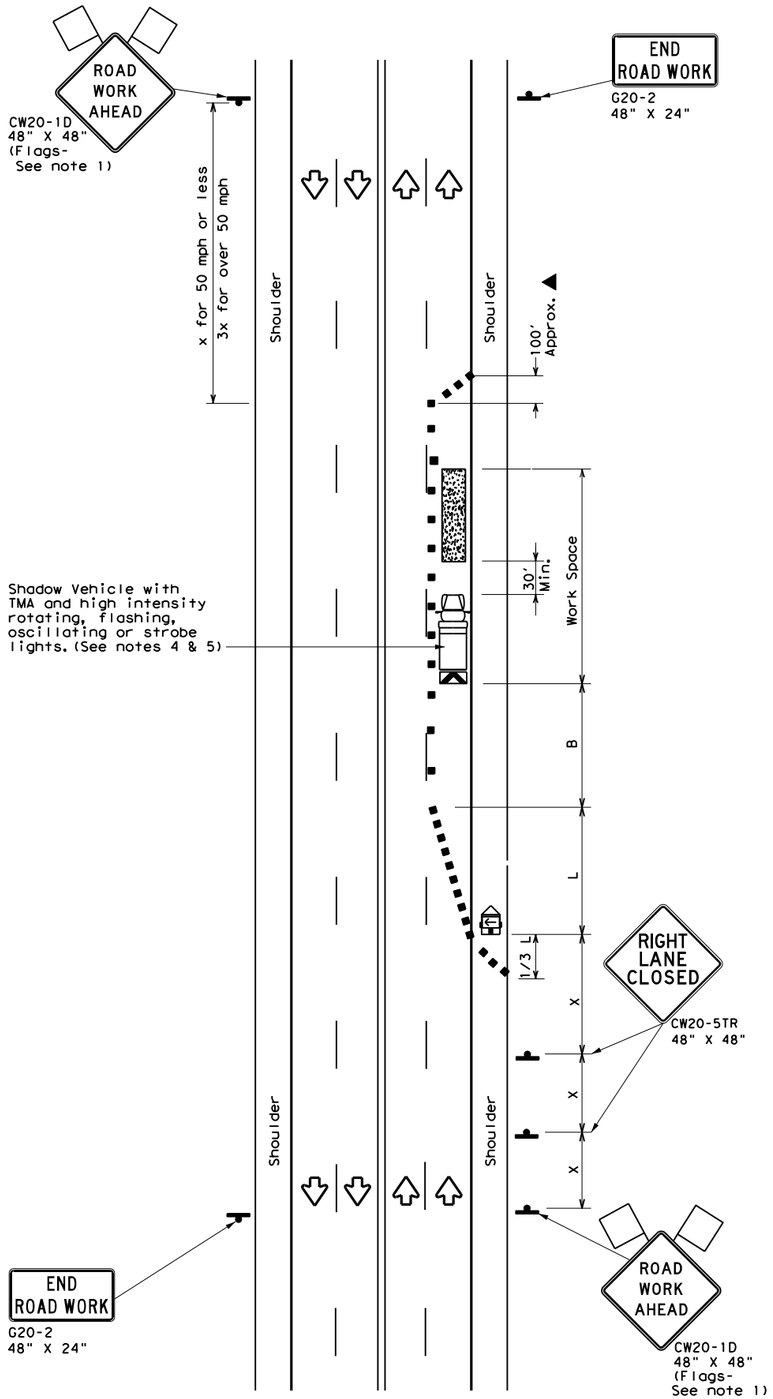
TRAFFIC CONTROL PLAN
TRAFFIC SHIFTS ON TWO LANE ROADS

TCP(1-3)-18

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© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
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2-94 4-98	DIST	COUNTY		SHEET NO.
8-95 2-12	WACO	BELL		22
1-97 2-18				

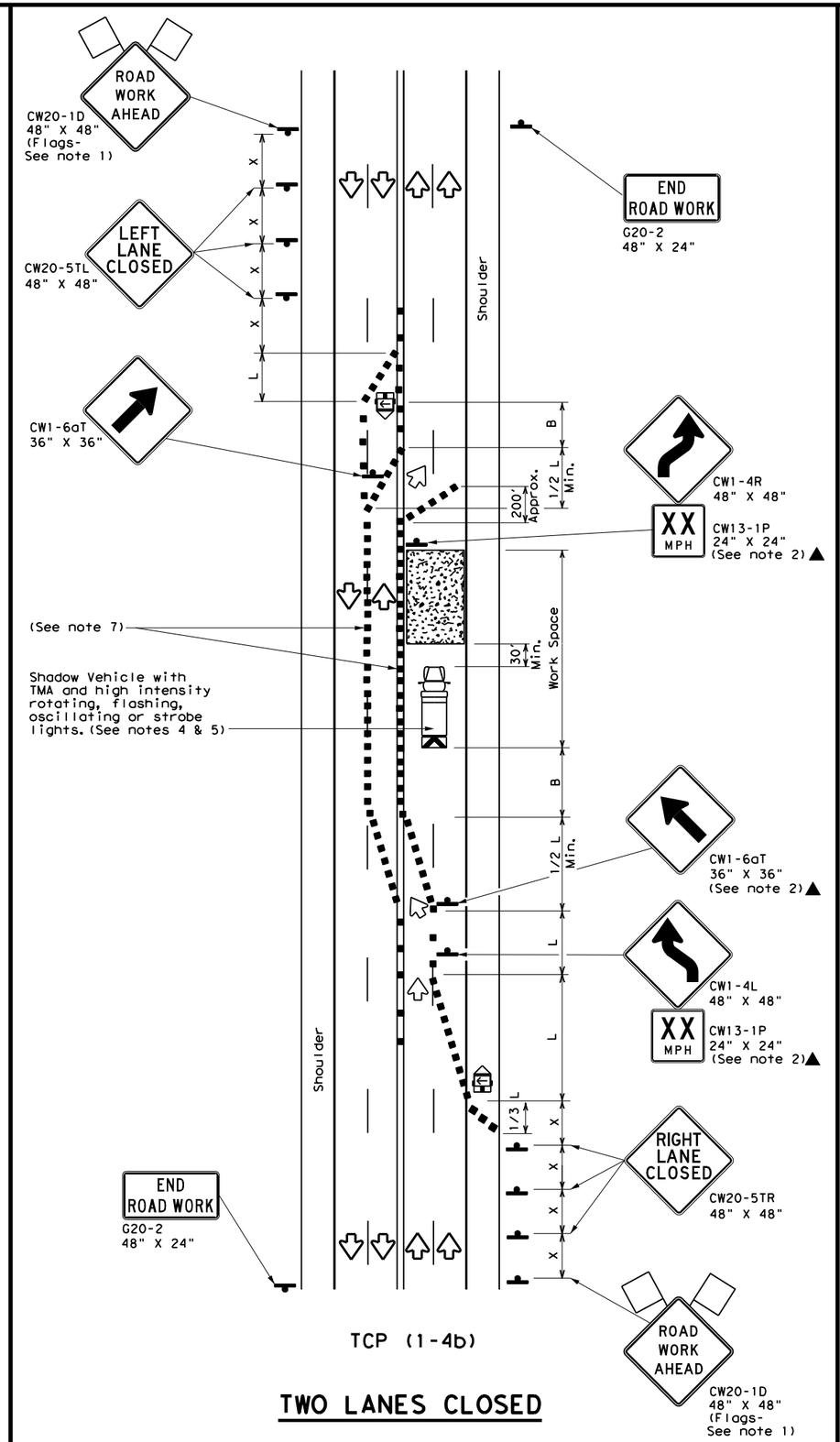
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TCP (1-4a)

ONE LANE CLOSED



TCP (1-4b)

TWO LANES CLOSED

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The CW20-1D "ROAD WORK AHEAD" sign may be repeated if the visibility of the work zone is less than 1500 feet.
4. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.

TCP (1-4a)

6. If this TCP is used for a left lane closure , CW20-5TL "LEFT LANE CLOSED" signs shall be used and channelizing devices shall be placed on the centerline where needed to protect the work space from opposing traffic with the arrow panel placed in the closed lane near the end of the merging taper.

TCP (1-4b)

7. Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2S where S is the speed in mph. This tighter device spacing is intended for the areas of conflicting markings, not the entire work zone.

Texas Department of Transportation — Traffic Operations Division Standard

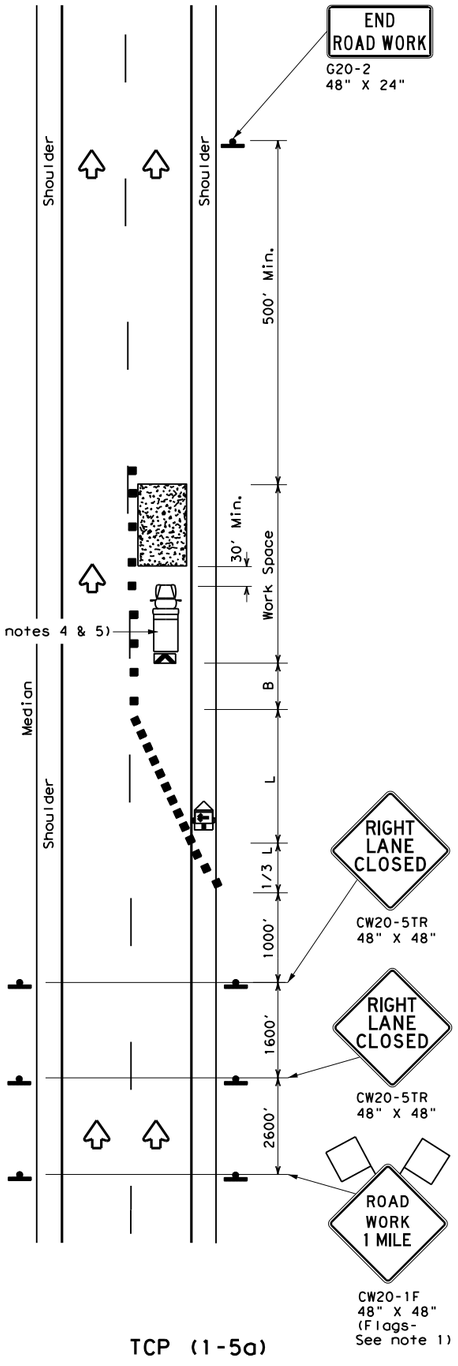
TRAFFIC CONTROL PLAN LANE CLOSURES ON MULTILANE CONVENTIONAL ROADS

TCP(1-4)-18

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© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
2-94 4-98	DIST	COUNTY		SHEET NO.
8-95 2-12	WACO	BELL		23
1-97 2-18				

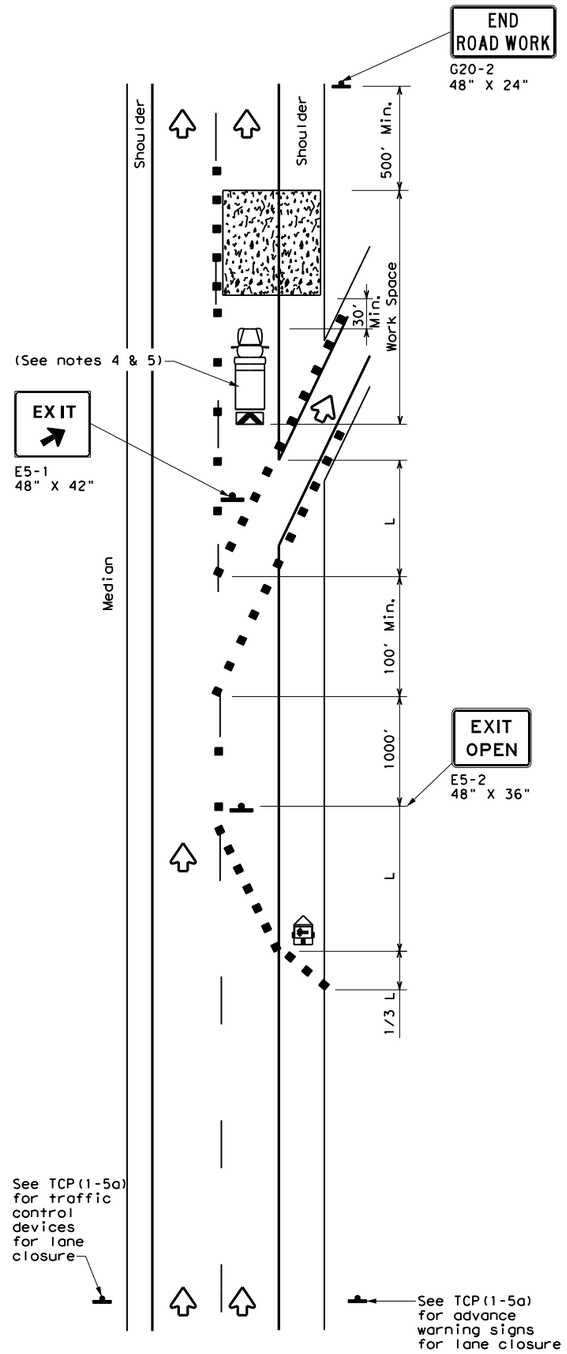
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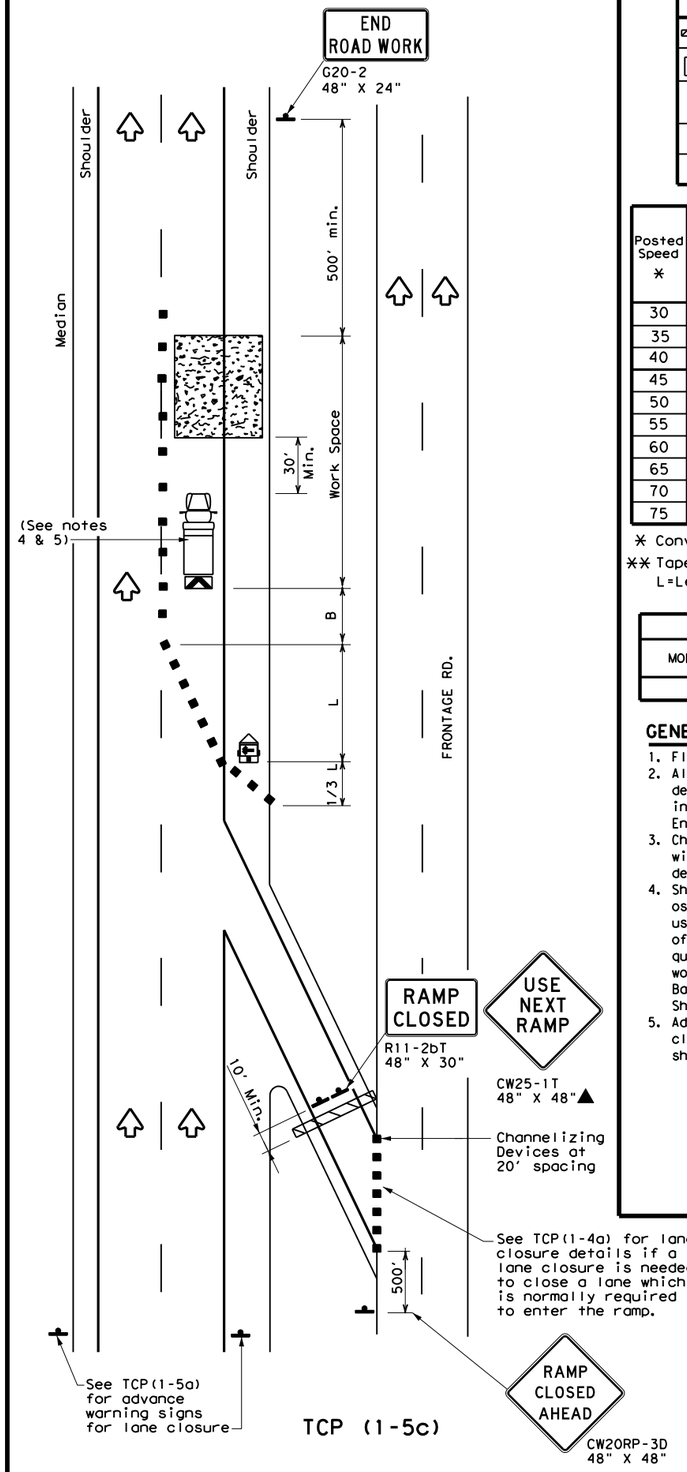
TCP (1-5a)

ONE LANE CLOSURE



TCP (1-5b)

LANE CLOSURE NEAR EXIT RAMPS



TCP (1-5c)

LANE CLOSURE NEAR ENTRANCE RAMPS

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓		

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Channelizing devices used to close lanes may be supplemented with the Chevron Alignment Sign placed on every other channelizing device. Chevrons may be attached to plastic drums as per BC Standards.
4. Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned in each closed lane, on the shoulder or off the paved surface, next to those shown in order to protect a wider work space.

Texas Department of Transportation

Traffic Operations Division Standard

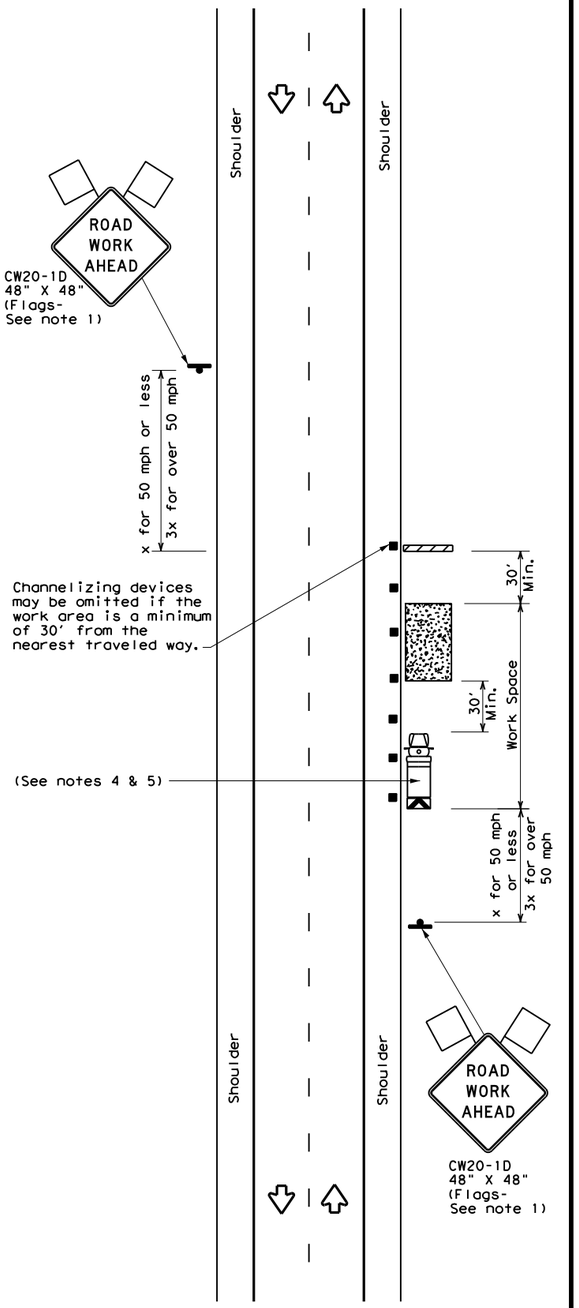
TRAFFIC CONTROL PLAN LANE CLOSURES FOR DIVIDED HIGHWAYS

TCP(1-5)-18

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©TxDOT February 2012	CONT	SECT	JOB	HIGHWAY
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	WACO	BELL		24

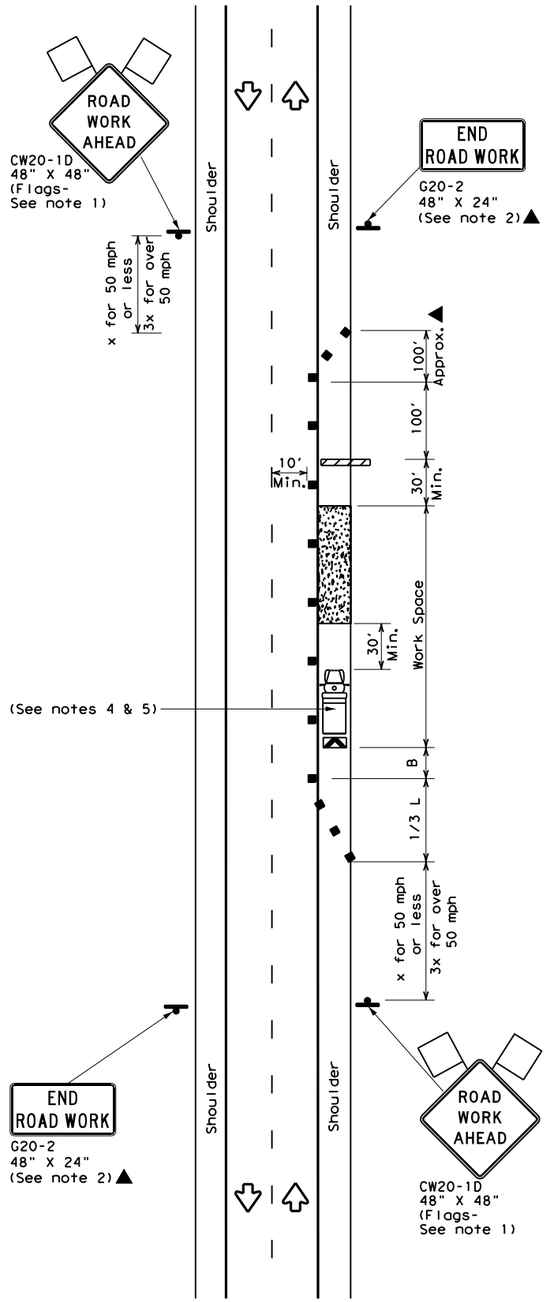
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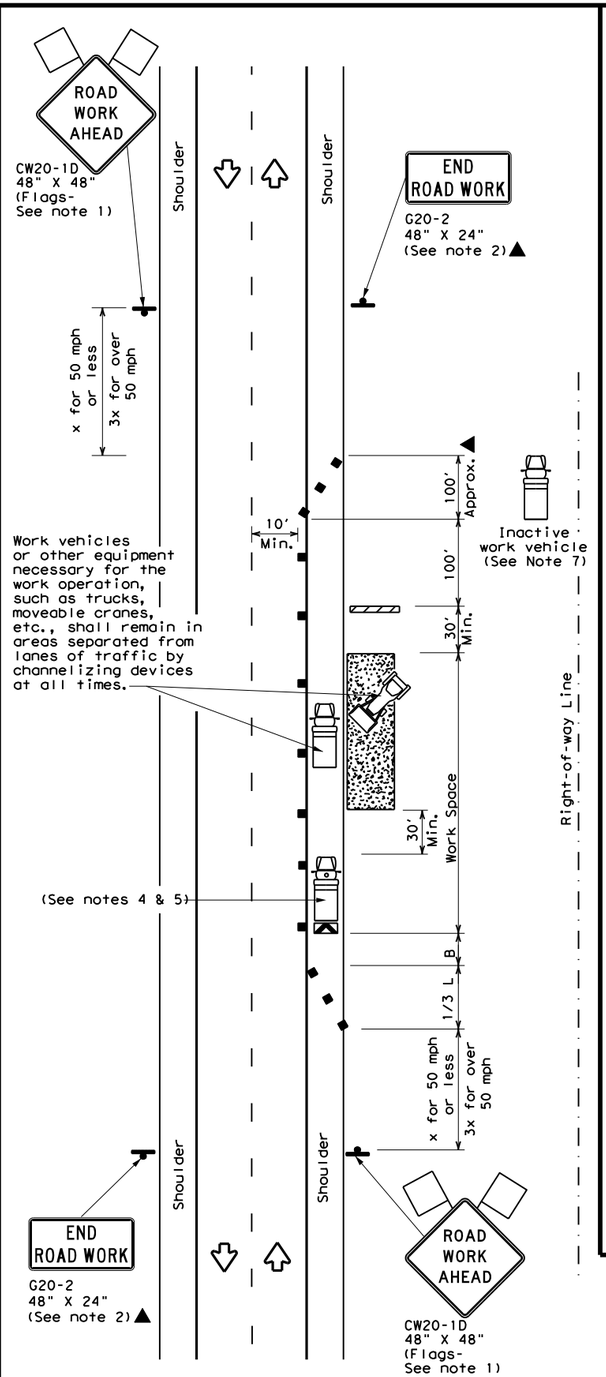
TCP (2-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (2-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (2-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	✓

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
3. Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
4. Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
6. See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
7. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
8. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

Texas Department of Transportation

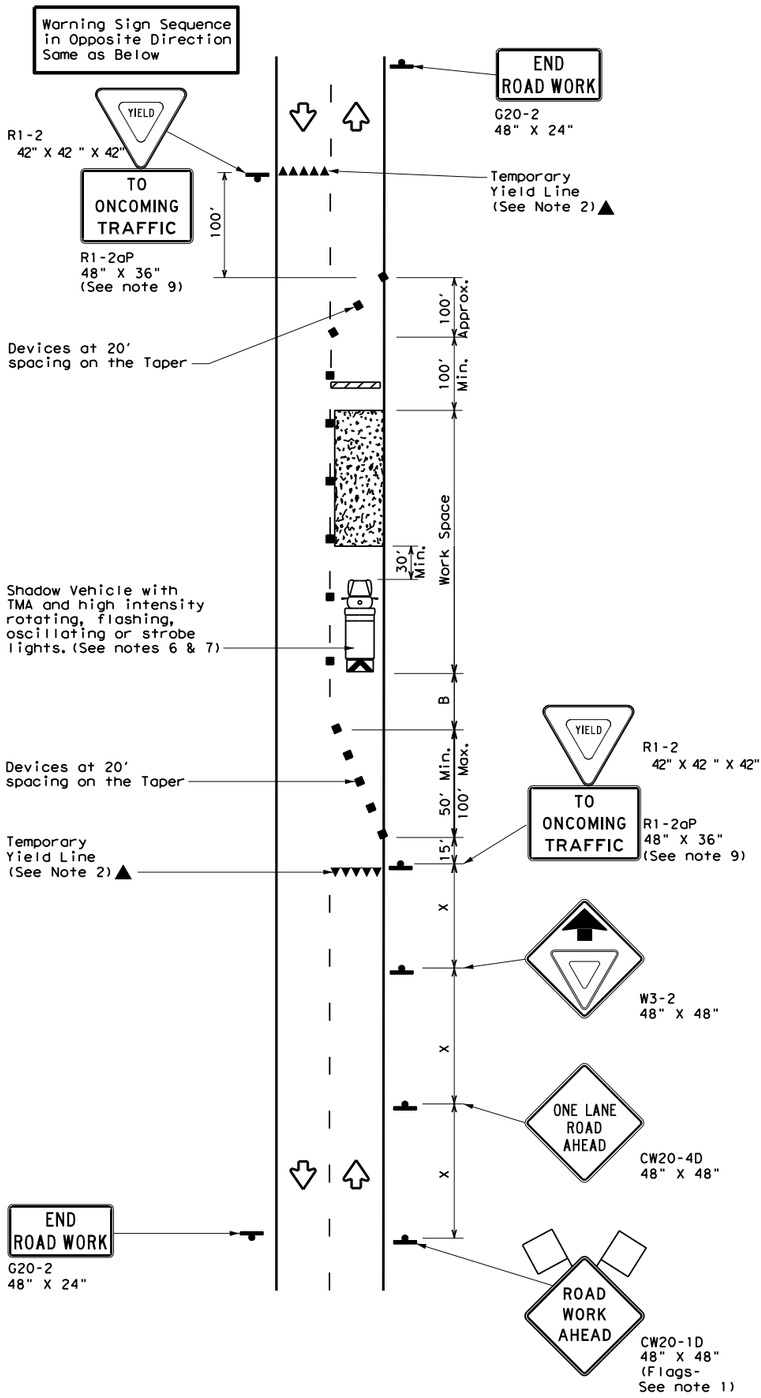
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

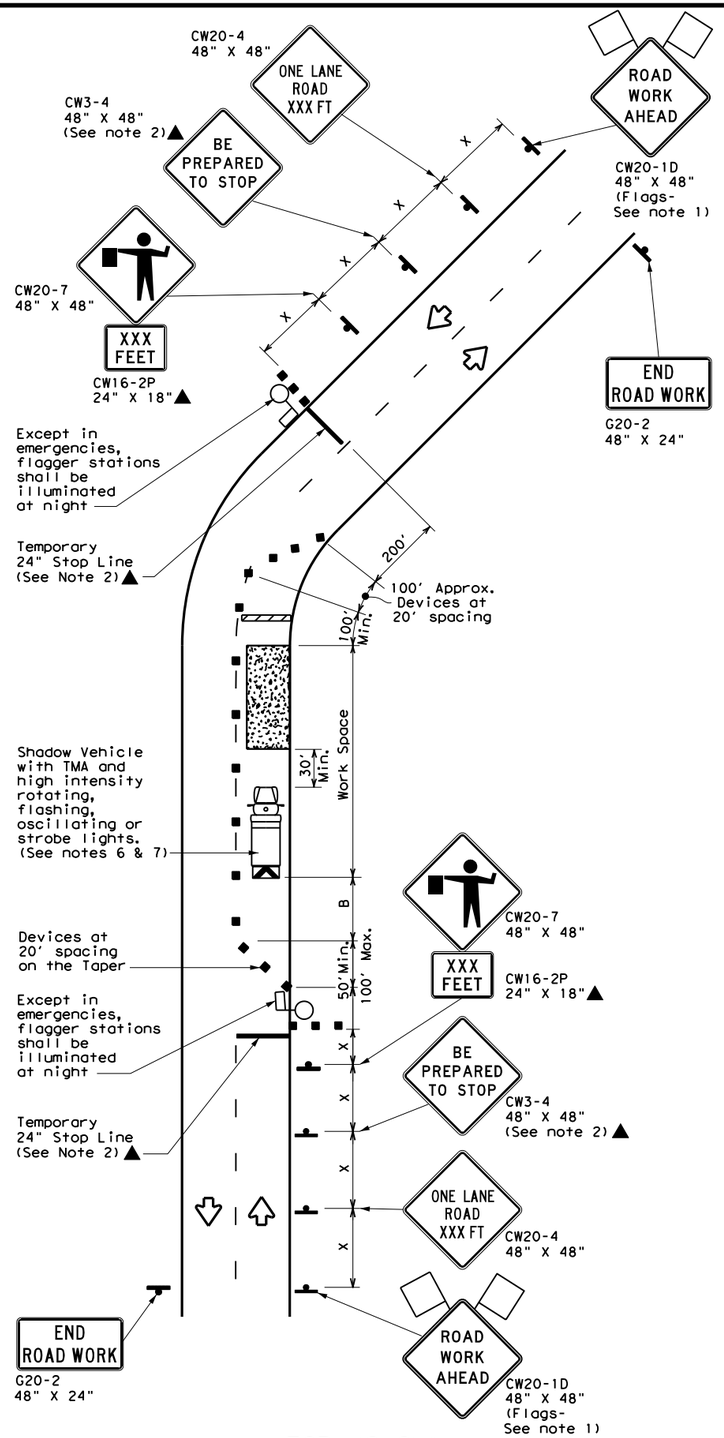
TCP(2-1)-18

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2-94 4-98	DIST	COUNTY		SHEET NO.
8-95 2-12	WACO	BELL		25
1-97 2-18				

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TCP (2-2a)
2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE TWO-WAY
CONTROL WITH YIELD SIGNS
(Less than 2000 ADT - See Note 9)



TCP (2-2b)
2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE TWO-WAY
CONTROL WITH FLAGGERS

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L=WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
4. Flaggers should use two-way radios or other methods of communication to control traffic.
5. Length of work space should be based on the ability of flaggers to communicate.
6. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
7. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-2a)

8. The R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work space should be no longer than one half city block. In rural areas, roadways with less than 2000 ADT, work space should be no longer than 400 feet.
9. The R1-2aP "YIELD TO ONCOMING TRAFFIC" sign shall be placed on a support at a 7 foot minimum mounting height.

TCP (2-2b)

10. Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
11. If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See table above).
12. Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situtations.

Texas Department of Transportation
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY
TRAFFIC CONTROL

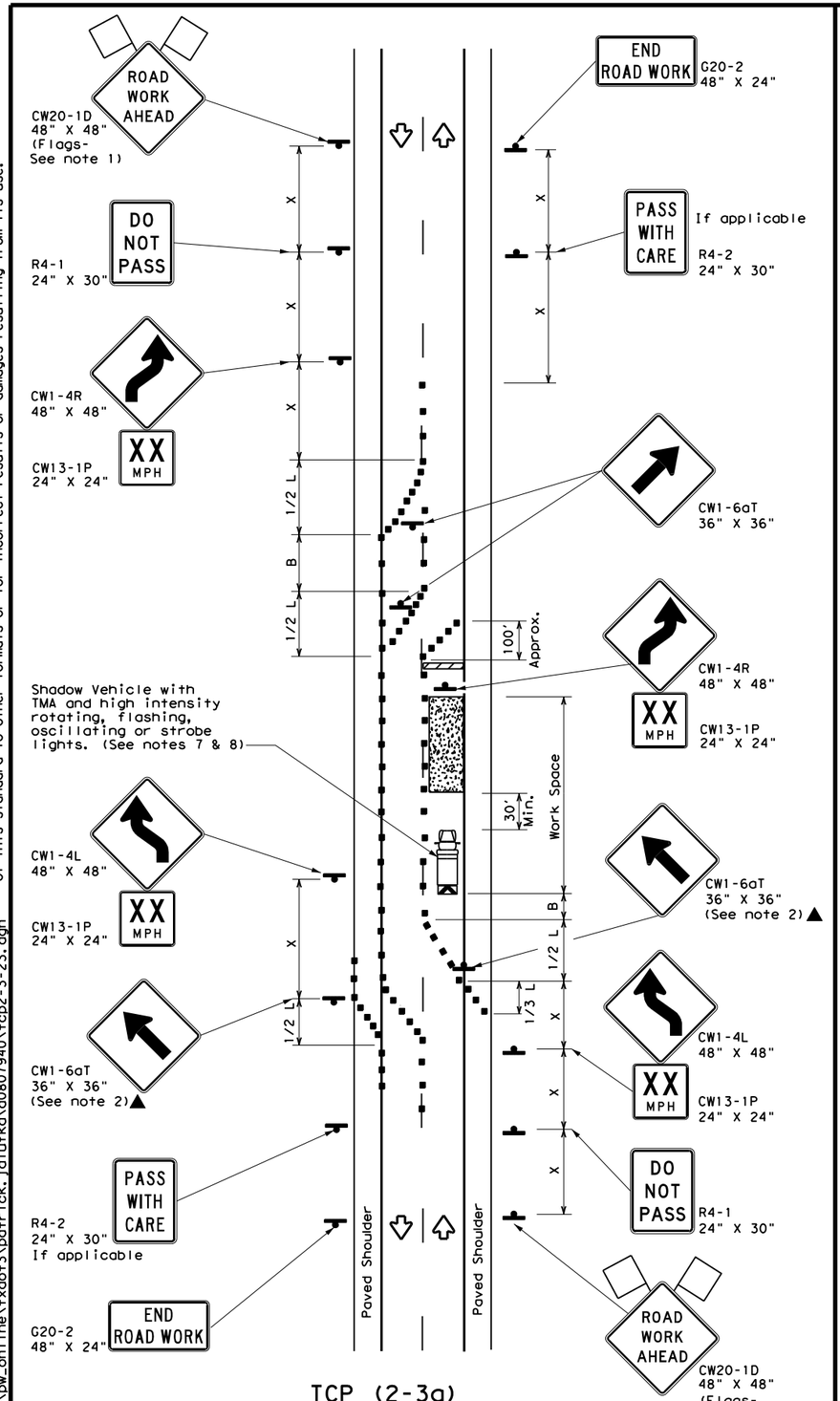
TCP(2-2)-18

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©TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS 8-95 3-03 1-97 2-12 4-98 2-18	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		26

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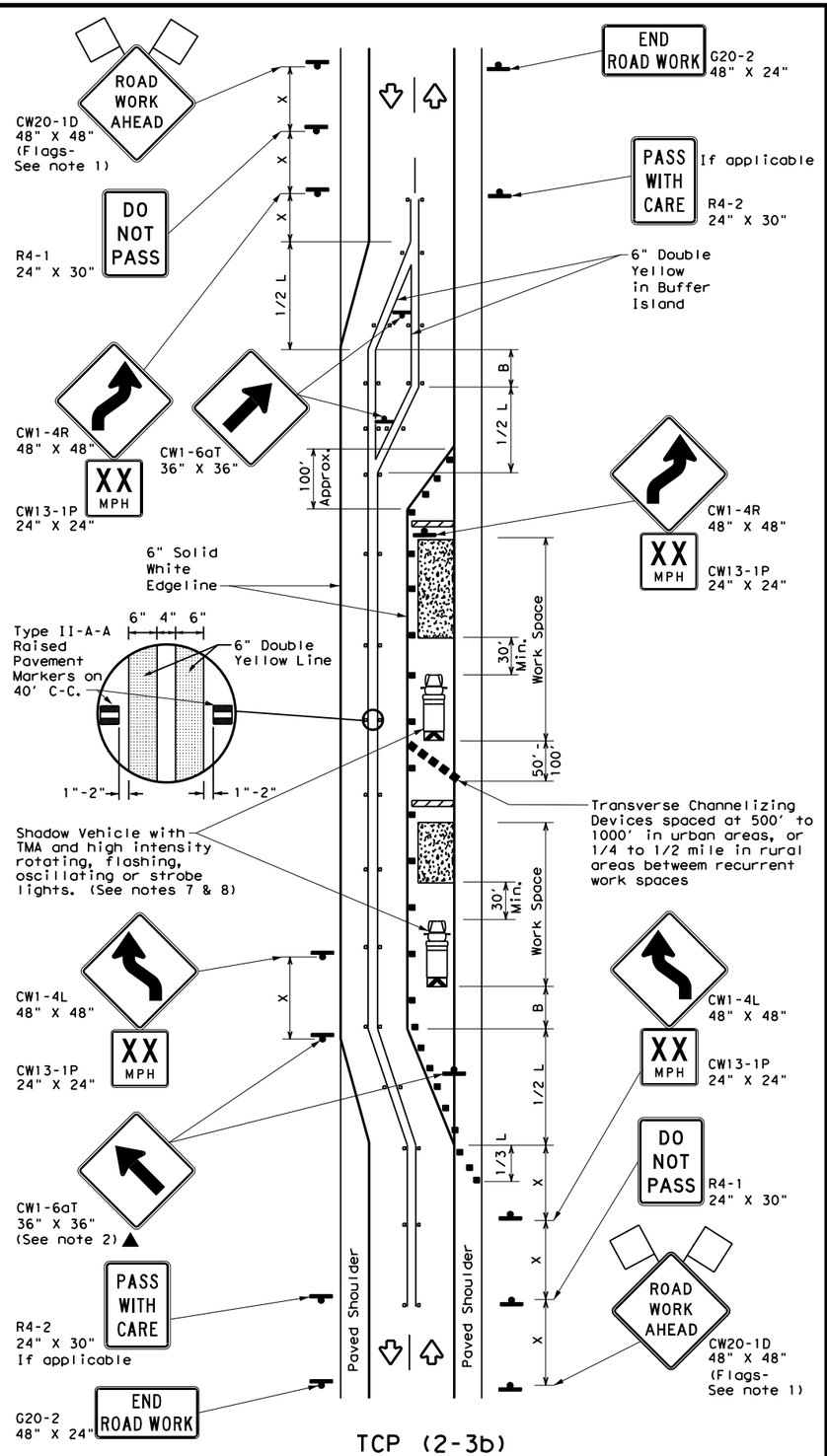
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TCP (2-3a)
2-LANE ROADWAY WITH PAVED SHOULDERS

ONE LANE CLOSED
ADEQUATE FIELD OF VIEW



TCP (2-3b)
2-LANE ROADWAY WITH PAVED SHOULDERS

ONE LANE CLOSED
INADEQUATE FIELD OF VIEW

LEGEND			
	Type 3 Barricade	■ ■	Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	....	Raised Pavement Markers Ty II-AA
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
				TCP(2-3b)ONLY
			✓	✓

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. When work space will be in place less than three days existing pavement markings may remain in place. Channelizing devices shall be used to separate traffic.
4. Flagger control should NOT be used unless roadway conditions or heavy traffic volume require additional emphasis to safely control traffic. Flagger should be positioned at end of traffic queue.
5. The R4-1 "DO NOT PASS," R4-2 " PASS WITH CARE" and construction regulatory speed zone signs may be installed within CW20-1D "ROAD WORK AHEAD" signs. Proper spacing of signs shall be maintained.
6. Conflicting pavement marking shall be removed for long term projects.
7. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted.
8. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-3a)

9. Conflicting pavement markings shall be removed for long-term projects. For shorter durations where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2(S) where S is the speed in mph. This tighter device spacing is intended for the area of the conflicting markings, not the entire work zone.

Texas Department of Transportation — Traffic Safety Division Standard

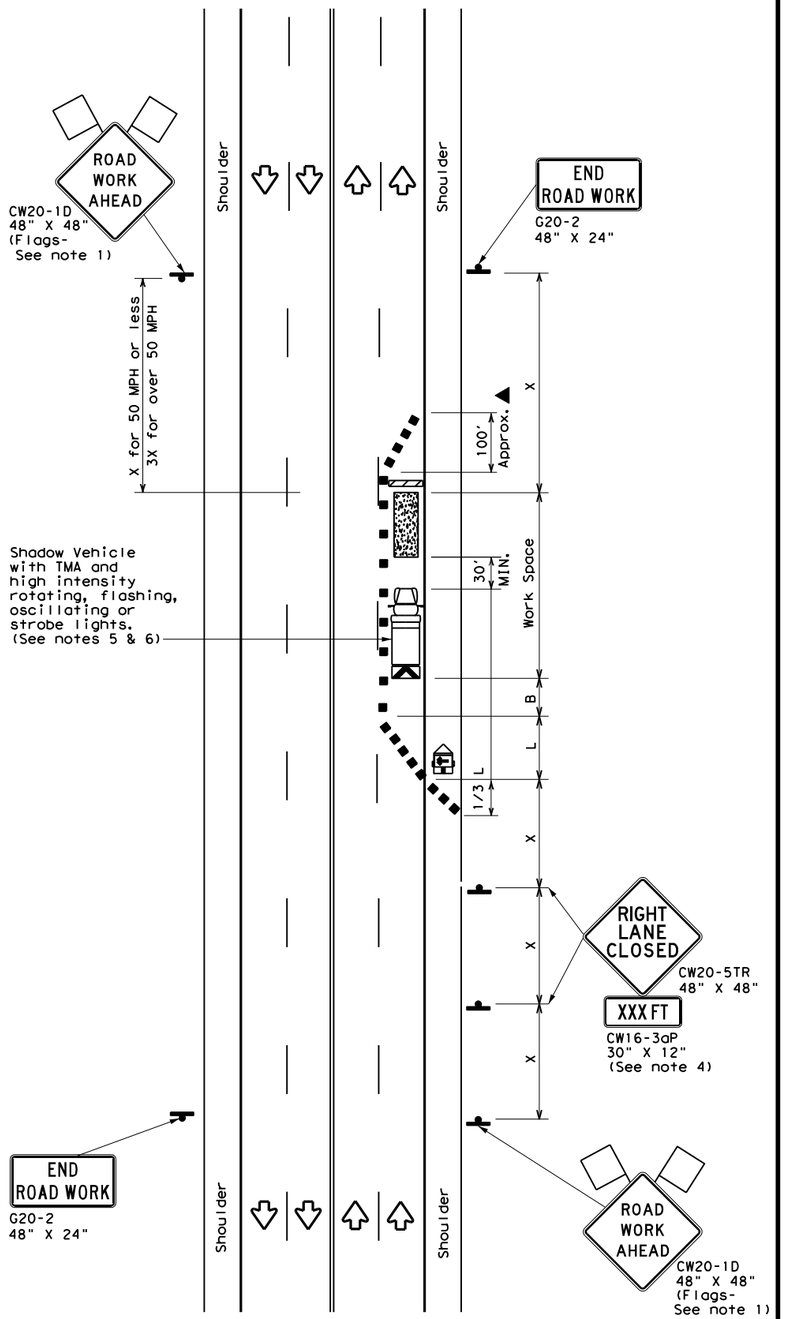
TRAFFIC CONTROL PLAN TRAFFIC SHIFTS ON TWO-LANE ROADS

TCP(2-3)-23

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REVISIONS 12-85 4-98 2-18	0231	03	156	IH-14
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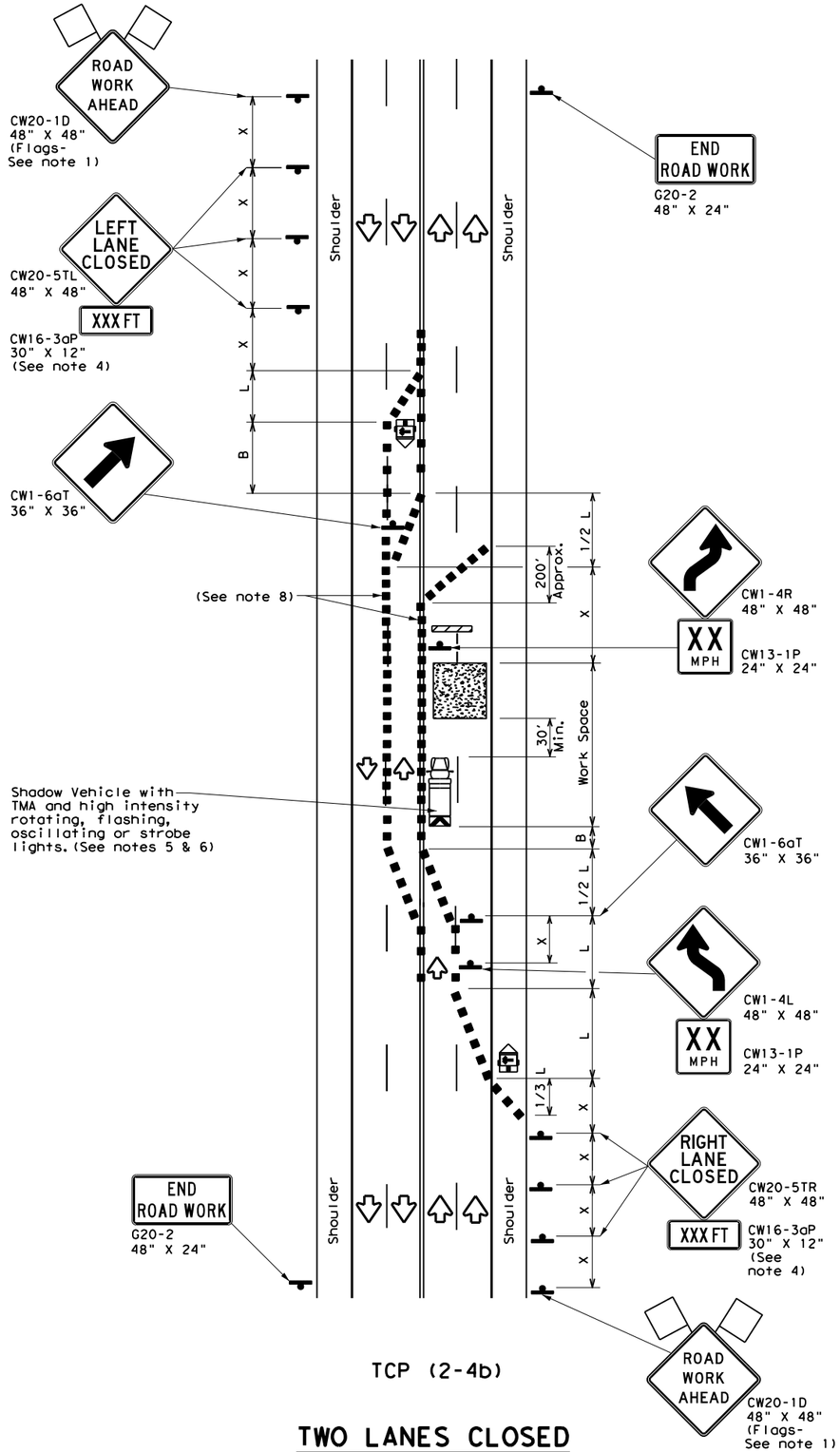
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TCP (2-4a)

ONE LANE CLOSED



TCP (2-4b)

TWO LANES CLOSED

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓	✓	

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The downstream taper is optional. When used, it should be 100 feet minimum length per lane.
4. For short term applications, when post mounted signs are not used, the distance legend may be shown on the sign face rather than on a CW16-3aP supplemental plaque.
5. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
6. Additional Shadow Vehicles with TMAs may be positioned in each closed lane, on the shoulder or off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-4a)

7. If this TCP is used for a left lane closure, CW20-5TL "LEFT LANE CLOSED"signs shall be used and channelizing devices shall be placed on the centerline to protect the work space from opposing traffic with the arrow board placed in the closed lane near the end of the merging taper.

TCP (2-4b)

8. For shorter durations where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2(S) where S is the speed in mph. This tighter devices spacing is intended for the area of conflicting markings, not the entire work zone.

Texas Department of Transportation — Traffic Operations Division Standard

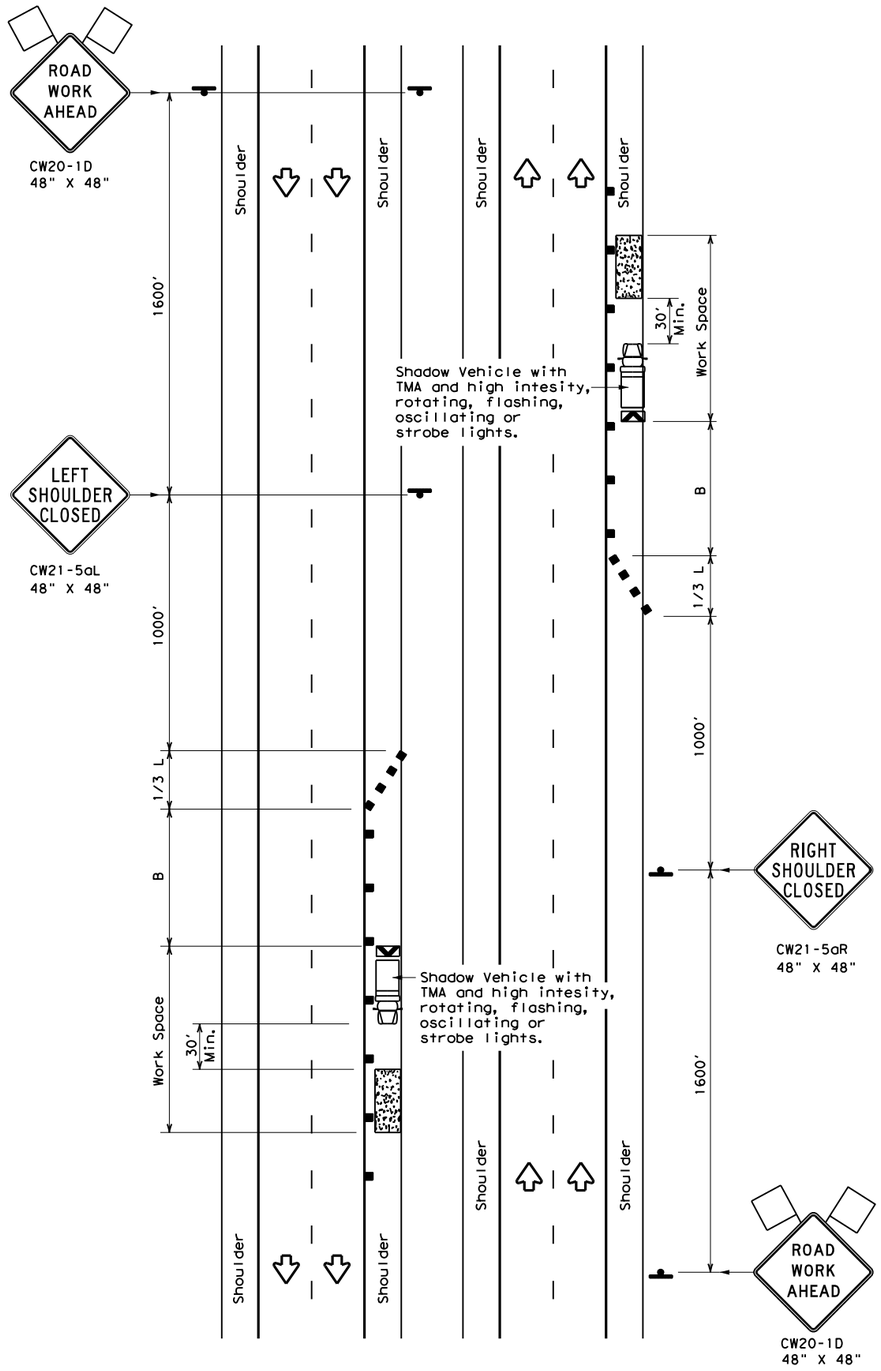
TRAFFIC CONTROL PLAN LANE CLOSURES ON MULTILANE CONVENTIONAL ROADS

TCP(2-4)-18

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4-98 2-18	WACO	BELL		28

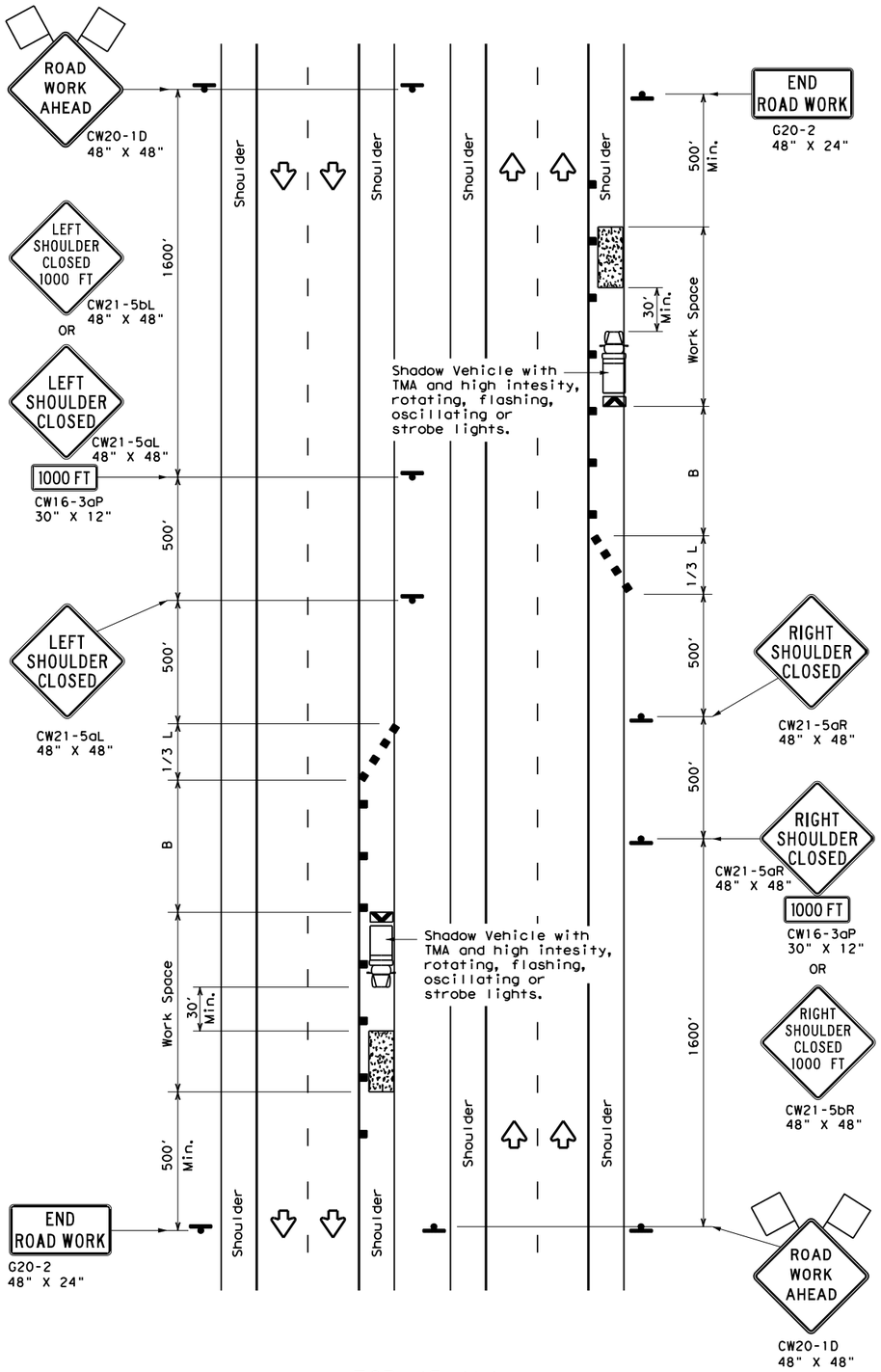
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TCP (5-1a)

WORK AREA ON SHOULDER



TCP (5-1b)

WORK AREA ON SHOULDER

LEGEND

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	90'
35		205'	225'	245'	35'	70'	120'
40		265'	295'	320'	40'	80'	155'
45	L=WS	450'	495'	540'	45'	90'	195'
50		500'	550'	600'	50'	100'	240'
55		550'	605'	660'	55'	110'	295'
60		600'	660'	720'	60'	120'	350'
65		650'	715'	780'	65'	130'	410'
70		700'	770'	840'	70'	140'	475'
75		750'	825'	900'	75'	150'	540'
80		800'	880'	960'	80'	160'	615'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	TCP(5-1a)	TCP(5-1b)	TCP(5-1b)	

GENERAL NOTES

1. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30' to 100' in advance of the area of crew exposure without adversely effecting the performance or quality of the work. Type 3 barricades or drums may be substituted when workers on foot are no longer present when approved by the Engineer.
2. 28" tall or taller one-piece cones will be allowed only for Short Duration or Short Term stationary operations when workers are present to maintain the devices upright and in proper location. Intermediate Term stationary work areas should use Drums, Vertical Panels or 42" tall two-piece cones.

Texas Department of Transportation

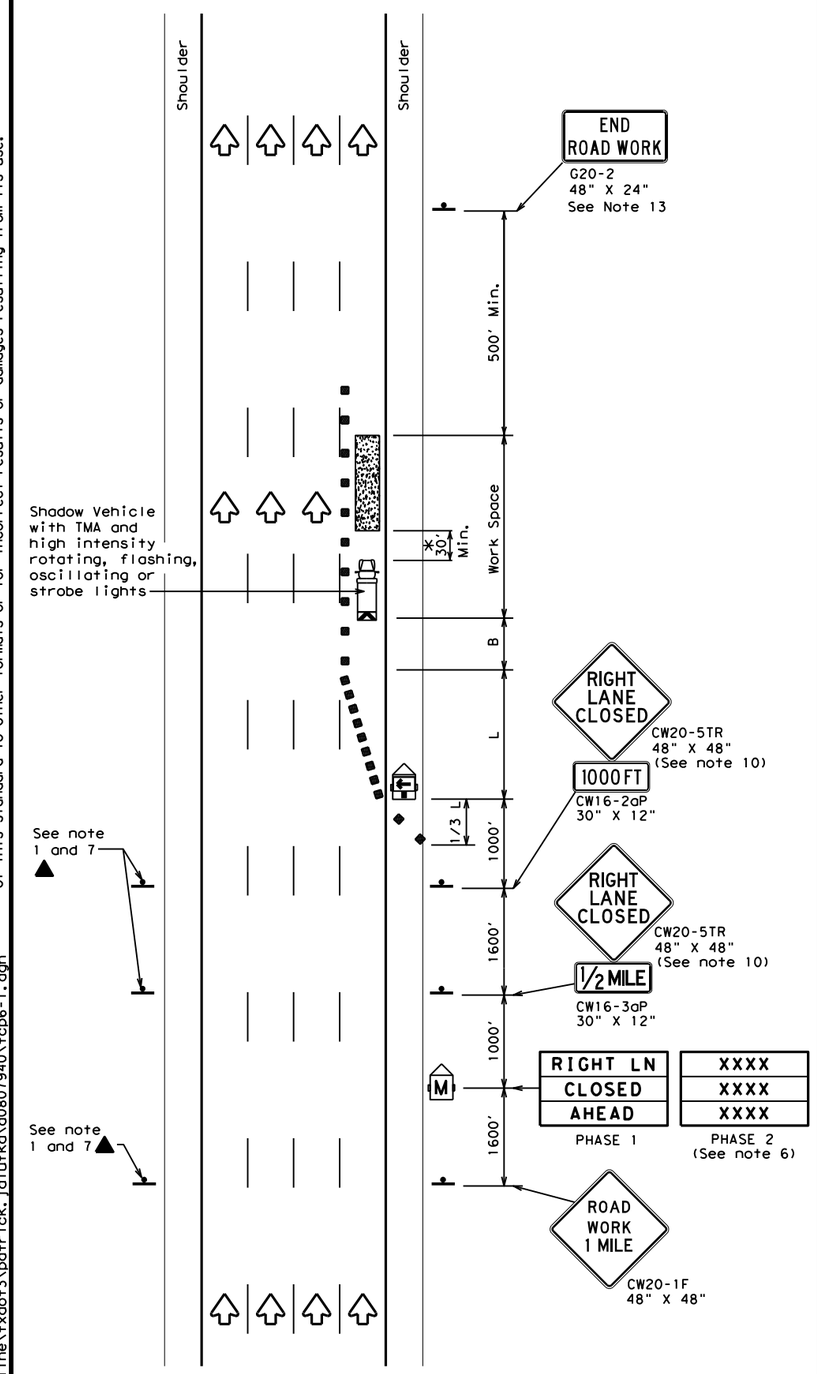
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN SHOULDER WORK FOR FREEWAYS / EXPRESSWAYS

TCP(5-1)-18

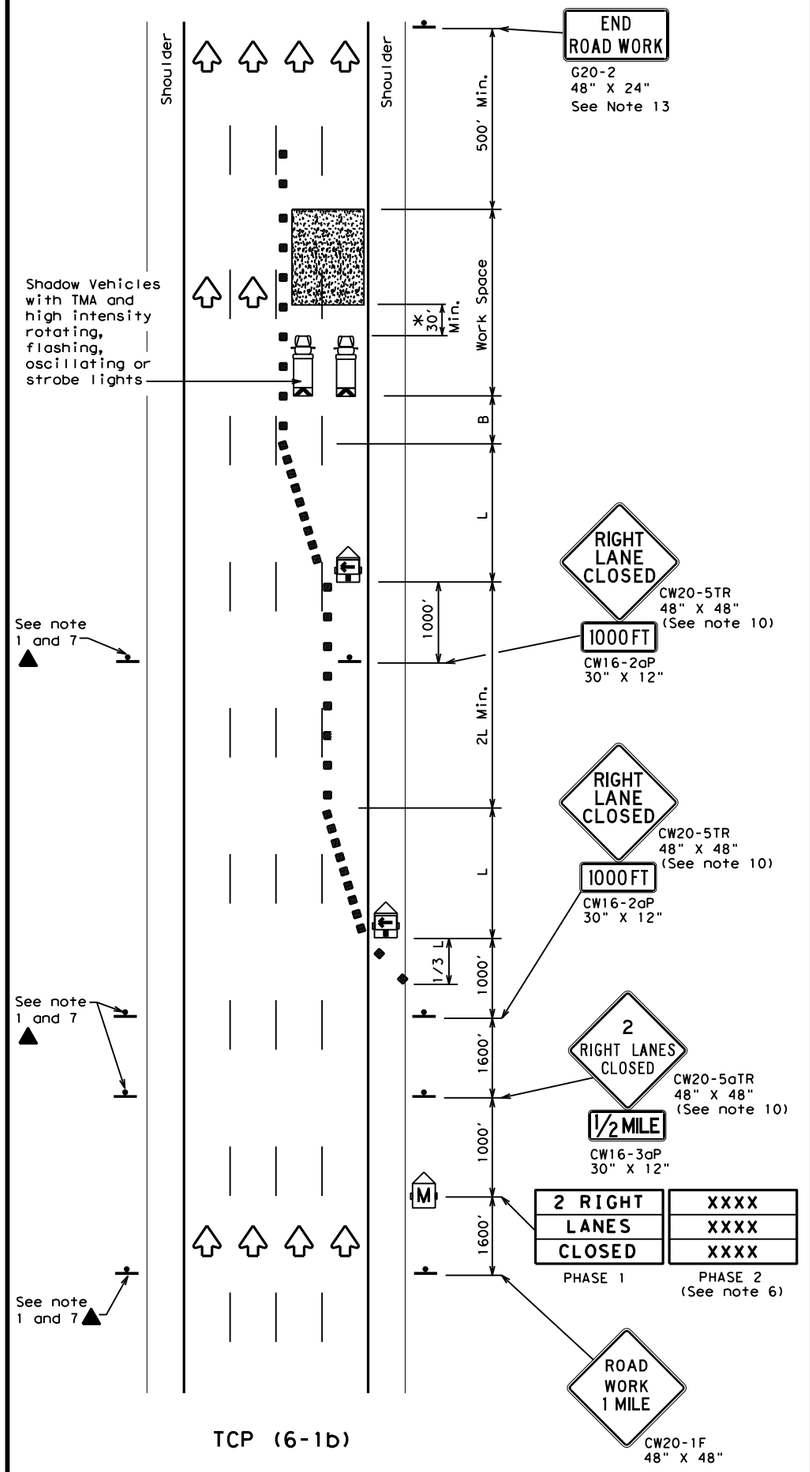
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2-18	DIST	COUNTY		SHEET NO.
	WACO	BELL		29

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TCP (6-1a)

TYPICAL FREEWAY ONE LANE CLOSURE



TCP (6-1b)

TYPICAL FREEWAY TWO LANE CLOSURE

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed	Formula	Minimum Desirable Taper Lengths "L" ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Suggested Longitudinal Buffer Space "B"
45	L=WS	450'	495'	540'	45'	90'	195'
50		500'	550'	600'	50'	100'	240'
55		550'	605'	660'	55'	110'	295'
60		600'	660'	720'	60'	120'	350'
65		650'	715'	780'	65'	130'	410'
70		700'	770'	840'	70'	140'	475'
75		750'	825'	900'	75'	150'	540'
80		800'	880'	960'	80'	160'	615'

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

1. All traffic control devices illustrated are REQUIRED. Devices denoted with the triangle symbol may be omitted when stated elsewhere in the plans.
2. Drums or 42"cones are the typical channelizing devices. For Intermediate Term Stationary work, drums shall be used on tapers with drums or 42" cones used on tangent sections. Other channelizing devices may be used as directed by the Engineer.
3. All construction signs and barricades placed during any phase of work shall remain in place until removal is approved by the Engineer.
4. The Engineer may direct the Contractor to furnish additional signs and barricades as required to maintain traffic flow, detours and motorist safety during construction.
5. Static message boards or changeable message signs stating the date and duration of ramp or freeway lane closures shall be placed a minimum of seven (7) calendar days in advance of the actual closure.
6. Phase 2 of the PCMS message should include appropriate information formatted as shown on BC(6), such as "MERGE LEFT," recommended advisory speed, delay information, or other specific warnings.
7. Duplicate construction warning signs should be erected on the medians side of freeways where median width will permit and traffic volume justifies the signing.
8. The number of closed lanes may be increased provided the spacing of traffic control devices, taper lengths and tangent lengths meet the requirements of the TMUTCD.
9. Warning signs for intermediate term stationary work should be mounted at 7' to the bottom of the sign.
10. Warning signs shown shall be appropriately altered for left lane closures. When signs are mounted at 1' height for short term stationary or short duration work, sign versions shown in the SHSD for Texas with distances on the sign face rather than mounted on a plaque below the sign may be used.
11. When possible, PCMS units should be located in advance of the last available exit ramp prior to the lane closure to allow motorists an alternate route. They may also be relocated to improve advance warning in case of unanticipated queuing or congestion.
12. For Intermediate Term Stationary work at night, floodlights should be used to illuminate the work area and equipment crossings. Floodlights shall not produce a disabling glare condition for road users or workers.
13. The END ROAD WORK (G20-2) sign may be omitted when it conflicts with G20-2 signs already in place on the project.

* A shadow vehicle equipped with a Truck Mounted Attenuator is typically required. A shadow vehicle equipped with a TMA shall be used if it can be positioned 30' to 100' in advance of the area of crew exposure without adversely affecting the work performance.

Texas Department of Transportation
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN FREEWAY LANE CLOSURES

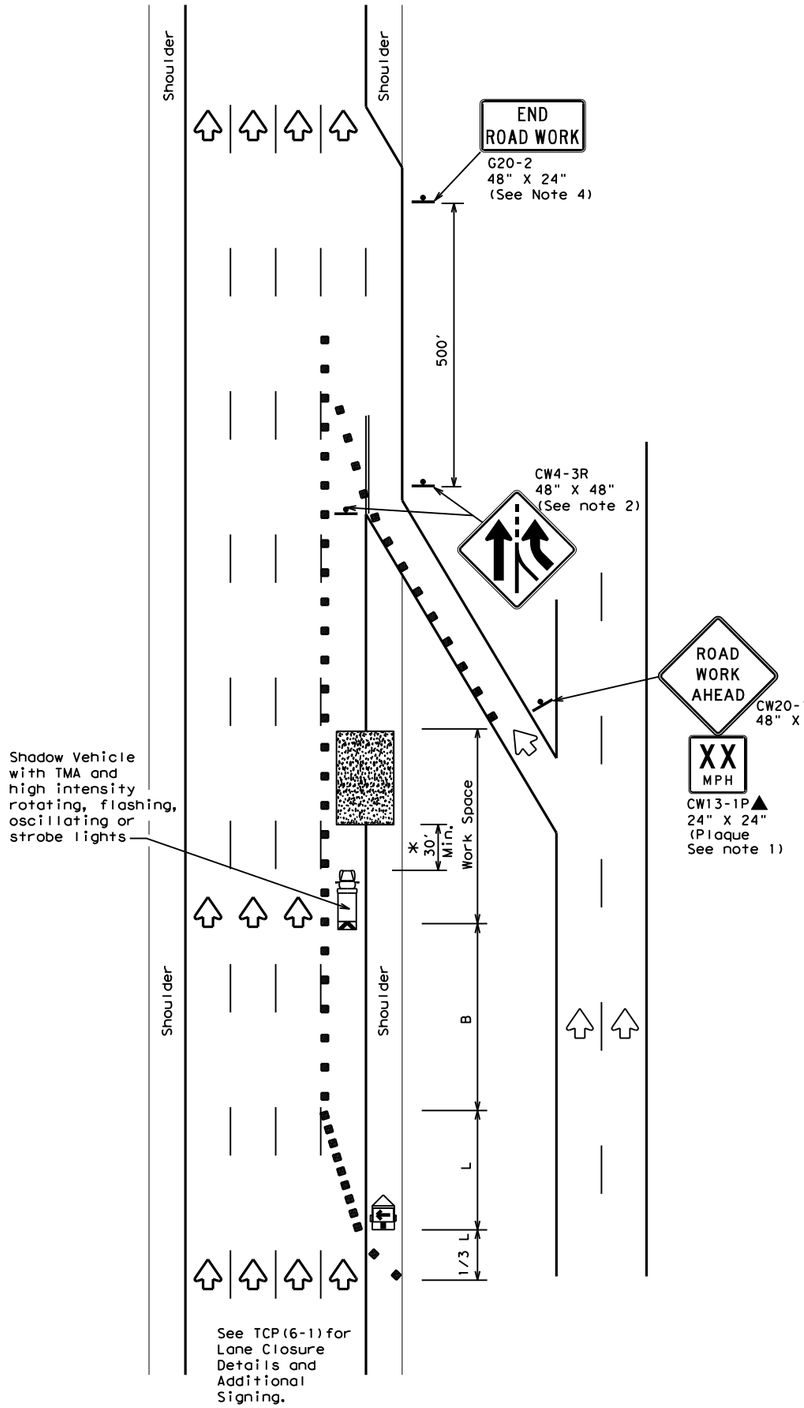
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©TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS 8-12	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		30

201

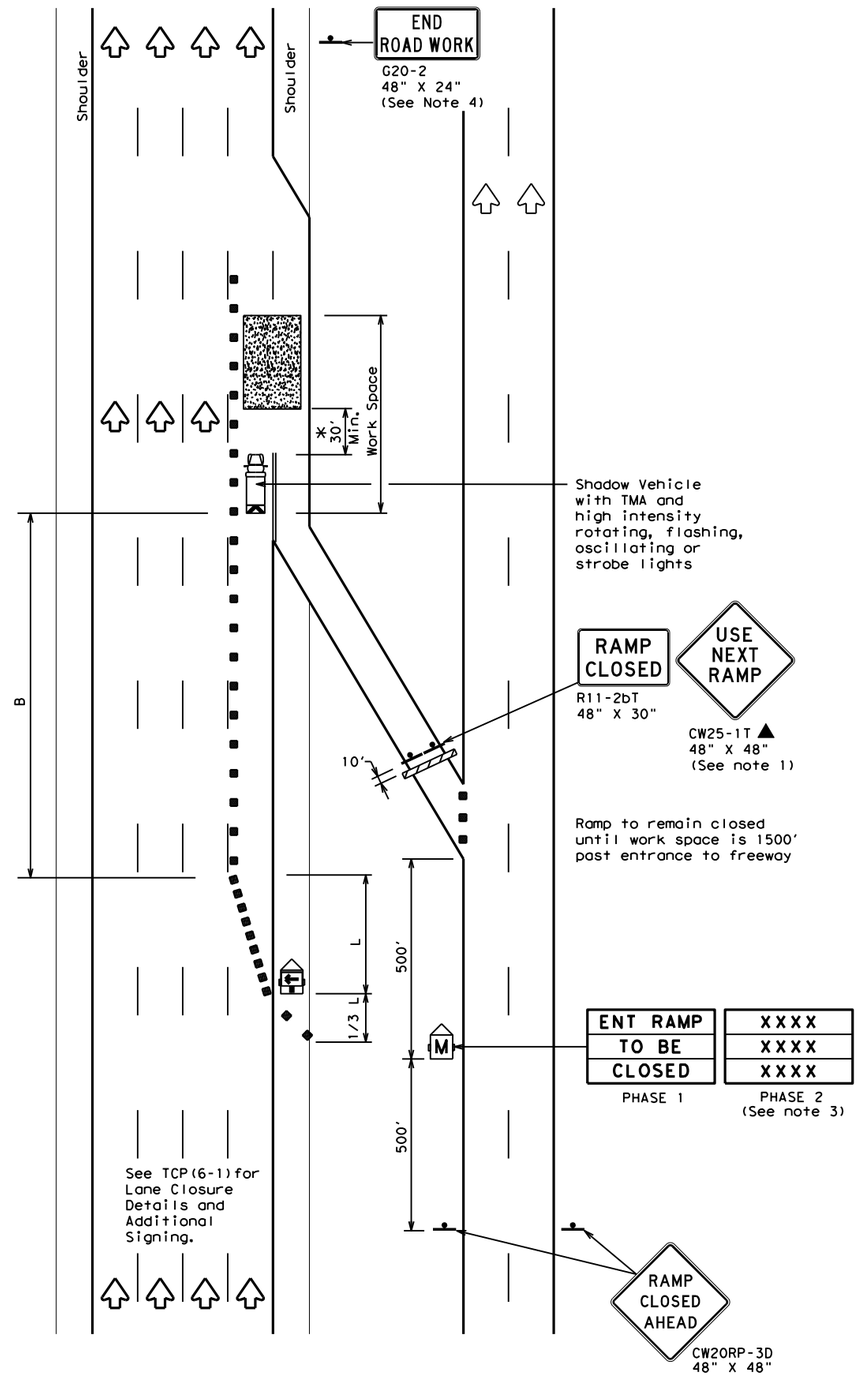
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TCP (6-2a)

ENTRANCE RAMP OPEN
WORK WITHIN 500' OF RAMP



TCP (6-2b)

ENTRANCE RAMP CLOSED

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed	Formula	Minimum Desirable Taper Lengths "L" ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Suggested Longitudinal Buffer Space "B"
45	L=WS	450'	495'	540'	45'	90'	195'
50		500'	550'	600'	50'	100'	240'
55		550'	605'	660'	55'	110'	295'
60		600'	660'	720'	60'	120'	350'
65		650'	715'	780'	65'	130'	410'
70		700'	770'	840'	70'	140'	475'
75		750'	825'	900'	75'	150'	540'
80		800'	880'	960'	80'	160'	615'

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

1. All traffic control devices illustrated are REQUIRED. Devices denoted with the triangle symbol may be omitted when stated elsewhere in the plans.
2. ADDED LANE Symbol (CW4-3) sign may be omitted when sign between ramp and mainlane can be seen from both roadways.
3. See "Advance Notice List" on BC(6) for recommended date and time formatting options for PCMS Phase 2 message.
4. The END ROAD WORK (G20-2) sign may be omitted when it conflicts with G20-2 signs already in place on the project.

*A shadow vehicle equipped with a Truck Mounted Attenuator is typically required. A shadow vehicle equipped with a TMA shall be used if it can be positioned 30' to 100' in advance of the area of crew exposure without adversely affecting the work performance.

Additional requirements for lane closures and advance signing shall be as shown on TCP (6-1) or as directed by the Engineer.

Texas Department of Transportation
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
WORK AREA NEAR RAMP

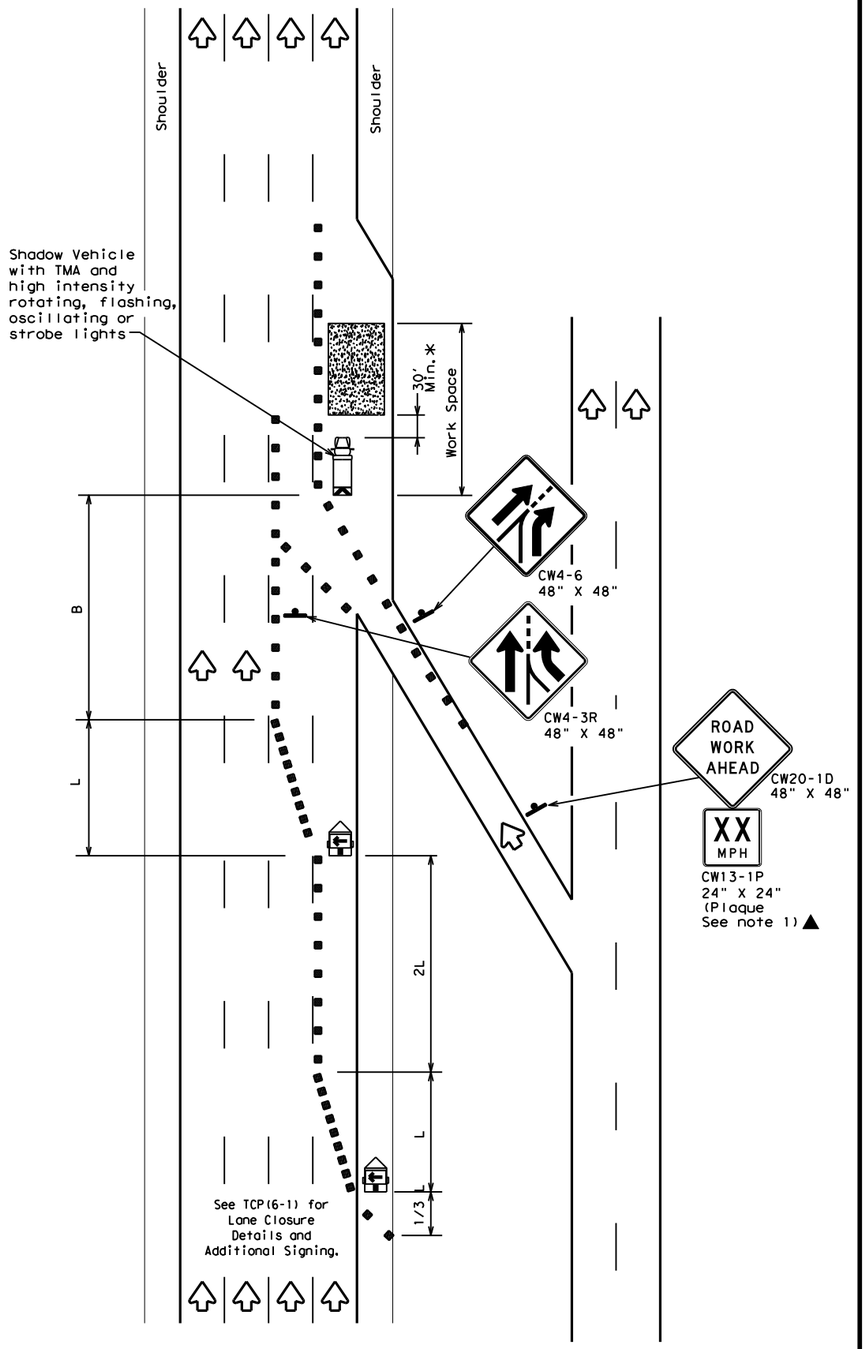
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©TxDOT February 1994	CONT	SECT	JOB	HIGHWAY
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1-97 8-98	DIST	COUNTY		SHEET NO.
4-98 8-12	WACO	BELL		31

202

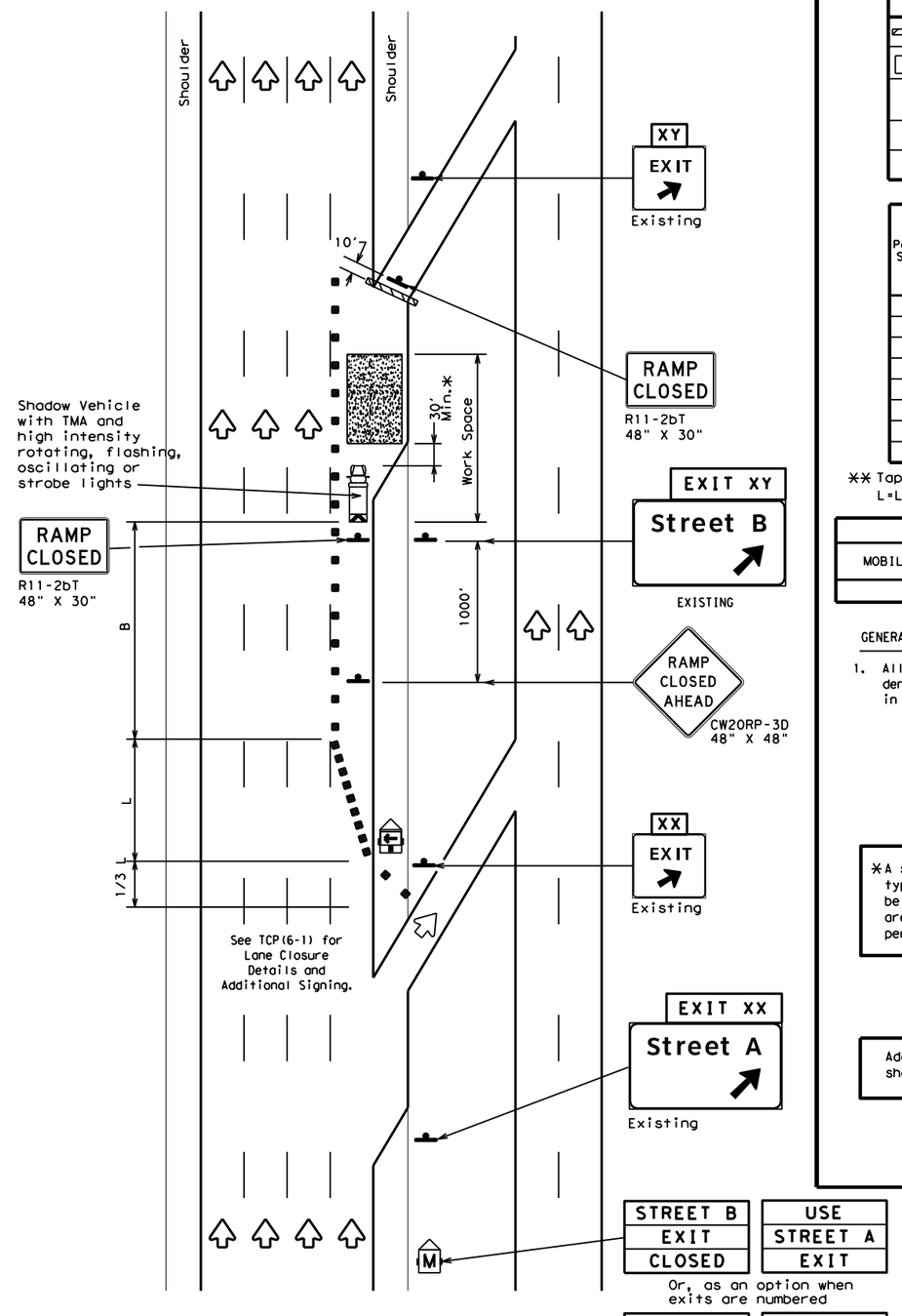
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TCP (6-3a)

ENTRANCE RAMP OPEN



TCP (6-3b)

EXIT RAMP CLOSED
TRAFFIC EXITS PRIOR TO CLOSED RAMP

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed	Formula	Minimum Desirable Taper Lengths "L" ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Suggested Longitudinal Buffer Space "B"
45	L=WS	450'	495'	540'	45'	90'	195'
50		500'	550'	600'	50'	100'	240'
55		550'	605'	660'	55'	110'	295'
60		600'	660'	720'	60'	120'	350'
65		650'	715'	780'	65'	130'	410'
70		700'	770'	840'	70'	140'	475'
75		750'	825'	900'	75'	150'	540'
80		800'	880'	960'	80'	160'	615'

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES:

1. All traffic control devices illustrated are REQUIRED. Devices denoted with the triangle symbol may be omitted when stated elsewhere in the plans.

*A shadow vehicle equipped with a Truck Mounted Attenuator is typically required. A shadow vehicle equipped with a TMA shall be used if it can be positioned 30' to 100' in advance of the area of crew exposure without adversely affecting the work performance.

Additional requirements for lane closures and advance signing shall be as shown on TCP (6-1) or as directed by the Engineer.

Texas Department of Transportation
Traffic Operations Division Standard

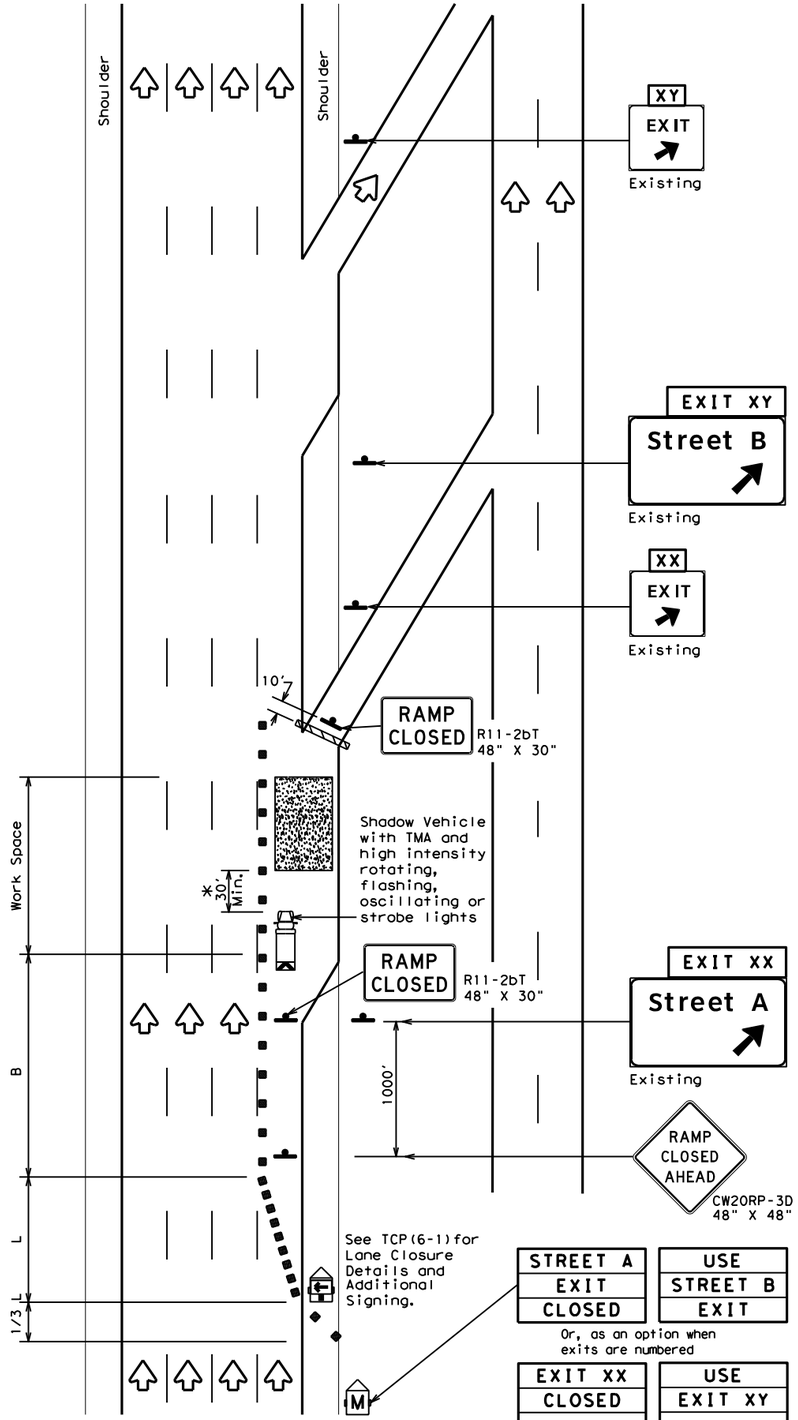
TRAFFIC CONTROL PLAN
WORK AREA BEYOND RAMP

TCP(6-3)-12

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©TxDOT February 1994	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
1-97 8-98	DIST	COUNTY		SHEET NO.
4-98 8-12	WACO	BELL		32

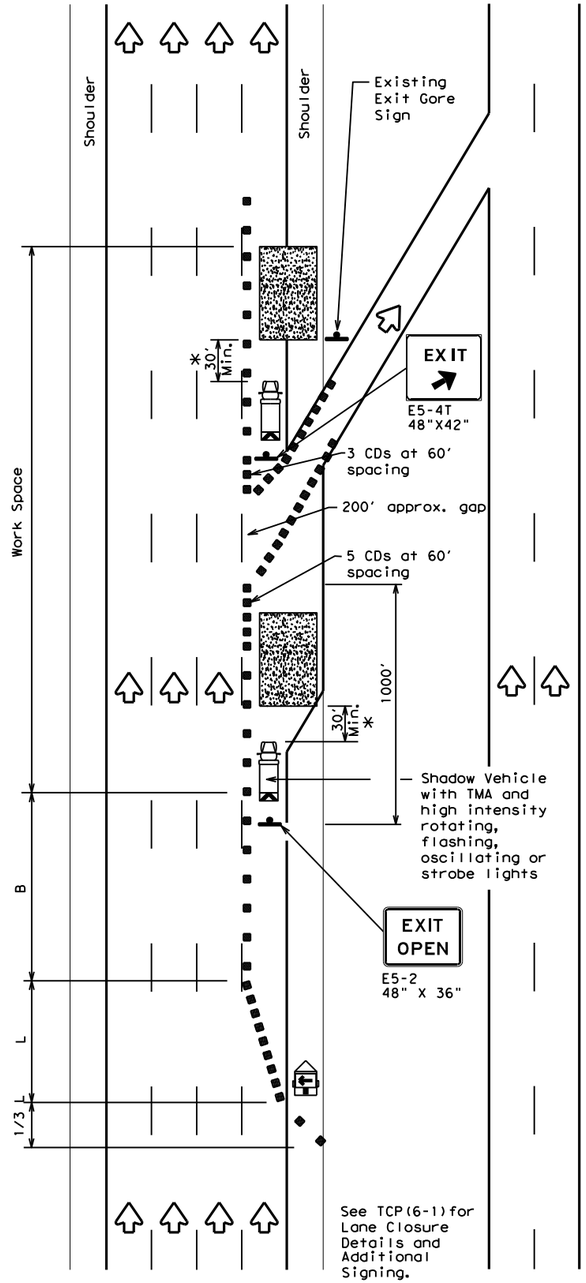
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TCP (6-4a)

EXIT RAMP CLOSED
TRAFFIC EXITS PAST CLOSED RAMP



TCP (6-4b)

EXIT RAMP OPEN

LEGEND

	Type 3 Barricade	■ ■	Channelizing Devices (CDs)
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed	Formula	Minimum Desirable Taper Lengths "L" ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Suggested Longitudinal Buffer Space "B"
45	L=WS	450'	495'	540'	45'	90'	195'
50		500'	550'	600'	50'	100'	240'
55		550'	605'	660'	55'	110'	295'
60		600'	660'	720'	60'	120'	350'
65		650'	715'	780'	65'	130'	410'
70		700'	770'	840'	70'	140'	475'
75		750'	825'	900'	75'	150'	540'
80		800'	880'	960'	80'	160'	615'

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

1. All traffic control devices illustrated are REQUIRED. Devices denoted with the triangle symbol may be omitted when stated elsewhere in the plans.
2. See BC Standards for sign details.

*A shadow vehicle equipped with a Truck Mounted Attenuator is typically required. A shadow vehicle equipped with a TMA shall be used if it can be positioned 30' to 100' in advance of the area of crew exposure without adversely affecting the work performance.

Additional requirements for lane closures and advance signing shall be as shown on TCP (6-1) or as directed by the Engineer.

Texas Department of Transportation
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
WORK AREA AT EXIT RAMP

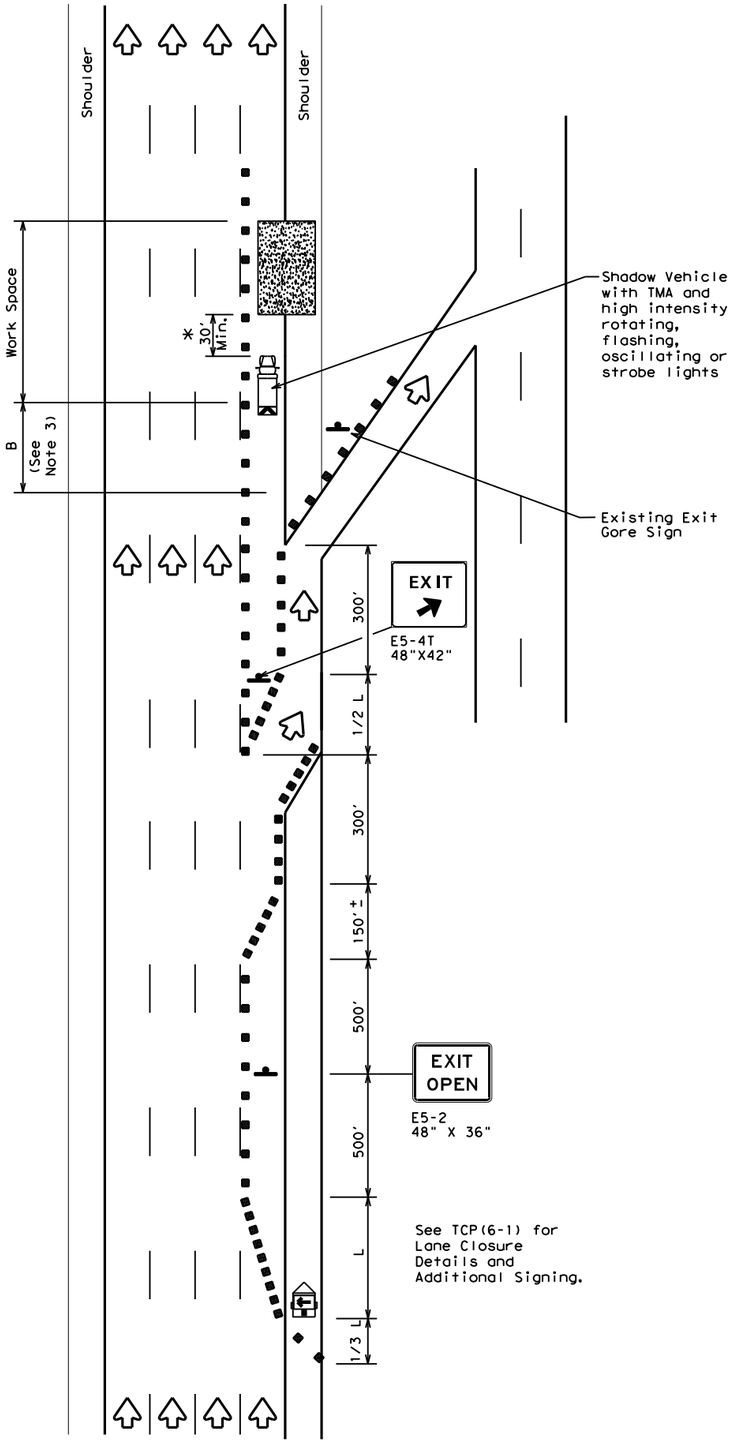
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©TxDOT Feburary 1994	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
1-97 8-98	DIST	COUNTY		SHEET NO.
4-98 8-12	WACO	BELL		33

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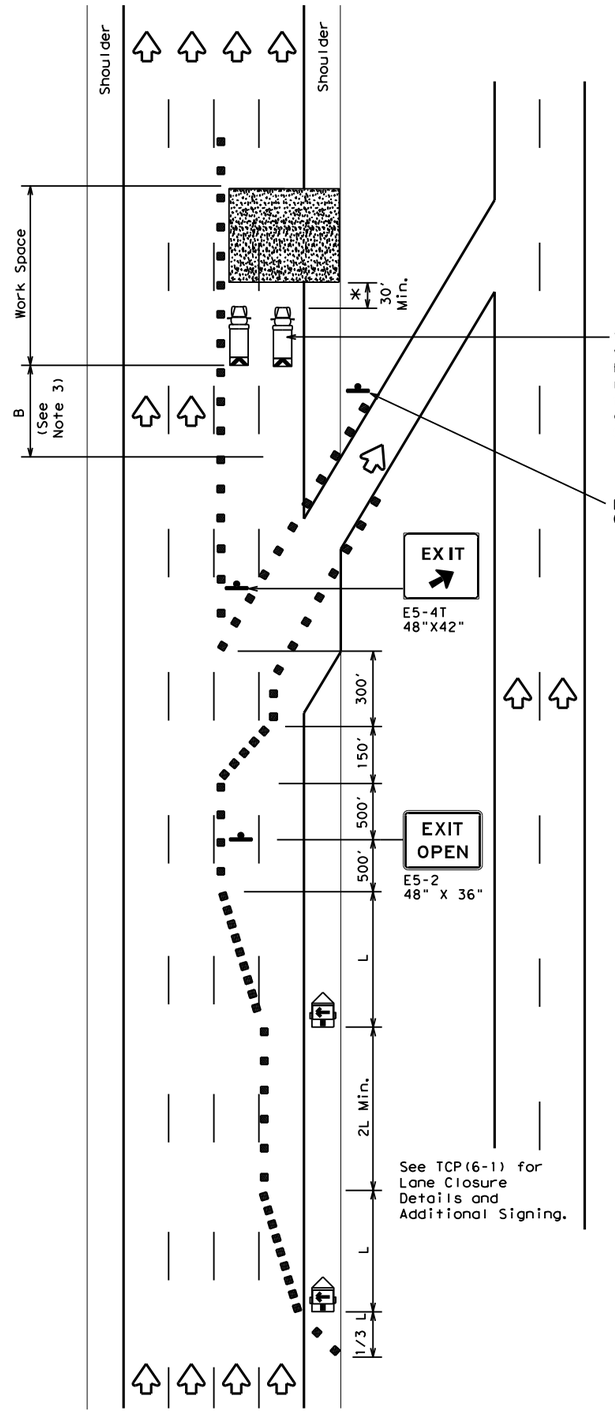
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TCP (6-5a)

EXIT RAMP OPEN



TCP (6-5b)

EXIT RAMP OPEN
TWO LANE CLOSURE WITHIN 1500' PAST EXIT RAMP

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed	Formula	Minimum Desirable Taper Lengths "L" ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Suggested Longitudinal Buffer Space "B"
45	L=WS	450'	495'	540'	45'	90'	195'
50		500'	550'	600'	50'	100'	240'
55		550'	605'	660'	55'	110'	295'
60		600'	660'	720'	60'	120'	350'
65		650'	715'	780'	65'	130'	410'
70		700'	770'	840'	70'	140'	475'
75		750'	825'	900'	75'	150'	540'
80		800'	880'	960'	80'	160'	615'

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

1. All traffic control devices illustrated are REQUIRED. Devices denoted with the triangle symbol may be omitted when stated elsewhere in the plans.
2. See BC standards for sign details.
3. If adequate longitudinal buffer length "B" does not exist between the work space and the exit ramp, consideration should be given to closing the ramp.

*A shadow vehicle equipped with a Truck Mounted Attenuator is typically required. A shadow vehicle equipped with a TMA shall be used if it can be positioned 30' to 100' in advance of the area of crew exposure without adversely affecting the work performance.

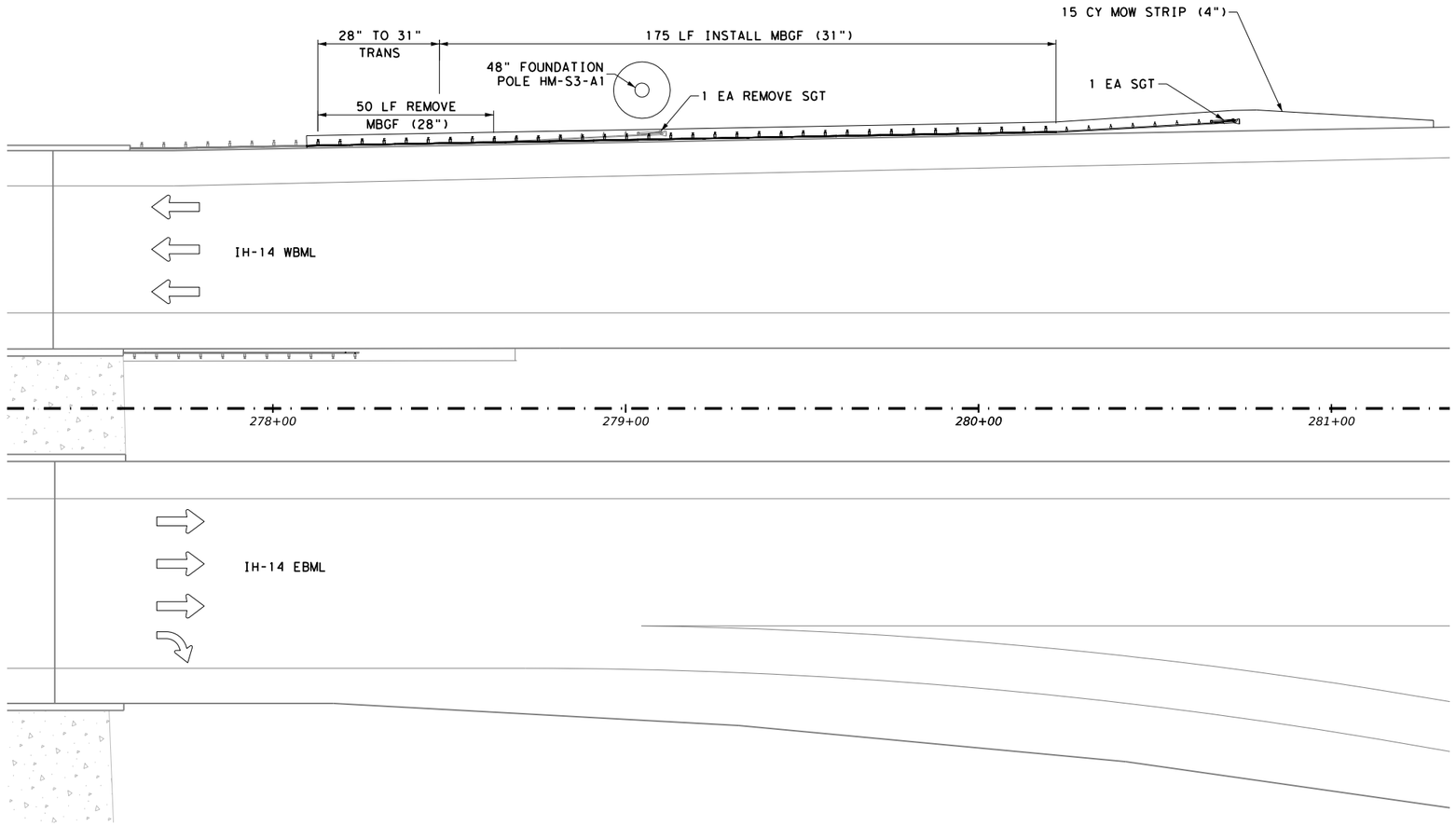
Additional requirements for lane closures and advance signing shall be as shown on TCP (6-1) or as directed by the Engineer.

Texas Department of Transportation
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
WORK AREA BEYOND EXIT RAMP

TCP(6-5)-12

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©TxDOT Feburary 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
1-97 8-98	DIST	COUNTY		SHEET NO.
4-98 8-12	WACO	BELL		34



SUMMARY OF ROADWAY ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
0432 7013	RIPRAP (MOW STRIP)(4 IN)	CY	15
0540 7002	MTL W-BEAM GD FEN (STEEL POST)	LF	175
0540 7028	MTL BM GD FEN TRANS (31"-28")	EA	1
0542 7001	REMOVE METAL BEAM GUARD FENCE	LF	50
0544 7001	GUARDRAIL END TREATMENT (INSTALL)	EA	1
0544 7003	GUARDRAIL END TREATMENT (REMOVE)	EA	1
0658 7018	INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2	EA	4

INTERIM REVIEW

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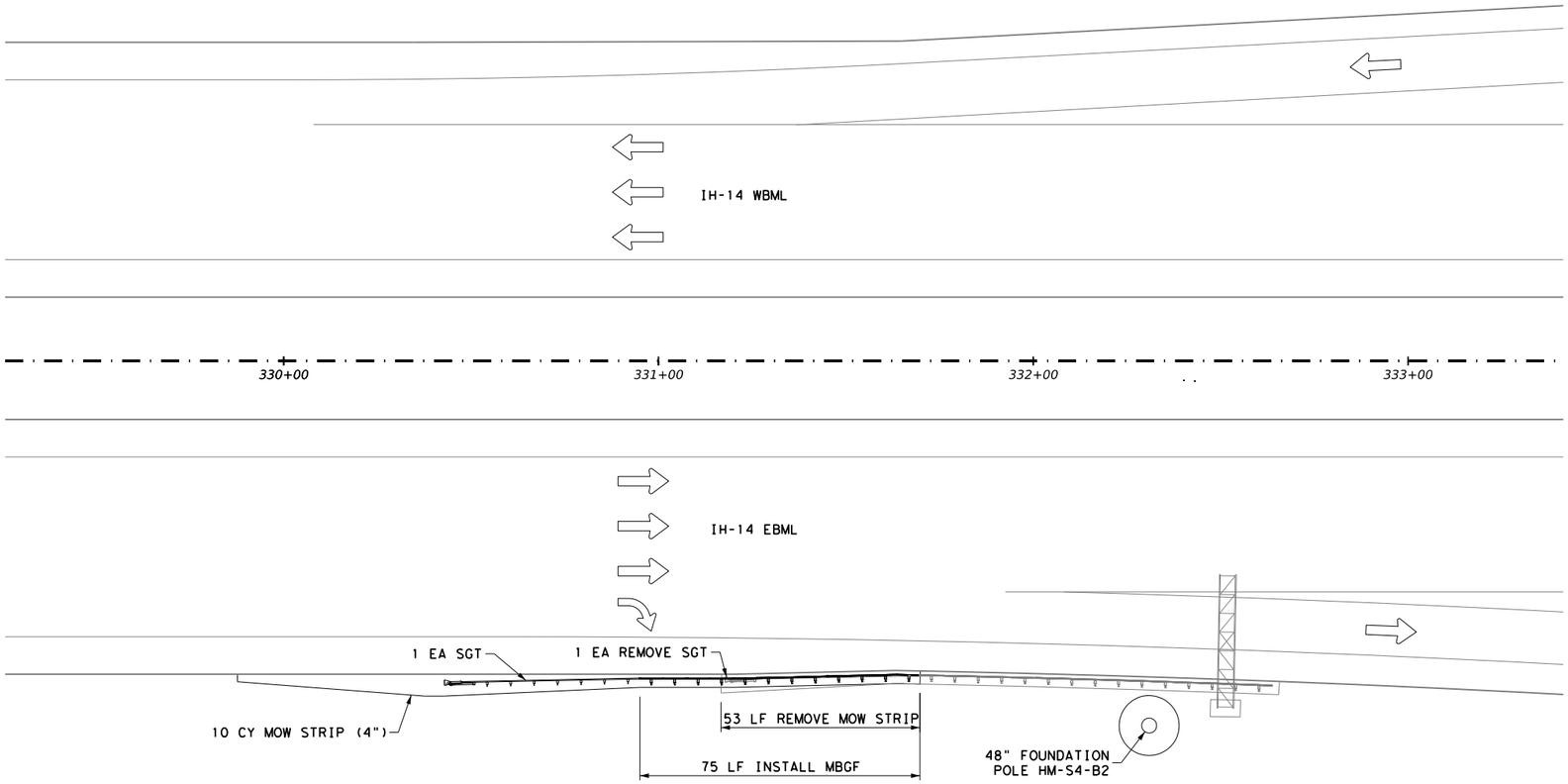
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SHEET 1 OF 5

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	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		35

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7/11/2025 4:33:58 PM
NODE



SUMMARY OF ROADWAY ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
0104 7005	REMOVING CONCRETE (MOW STRIP)	LF	53
0432 7013	RIPRAP (MOW STRIP) (4 IN)	CY	10
0540 7002	MTL W-BEAM GD FEN (STEEL POST)	LF	75
0544 7001	GUARDRAIL END TREATMENT (INSTALL)	EA	1
0544 7003	GUARDRAIL END TREATMENT (REMOVE)	EA	1
0658 7018	INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2	EA	3

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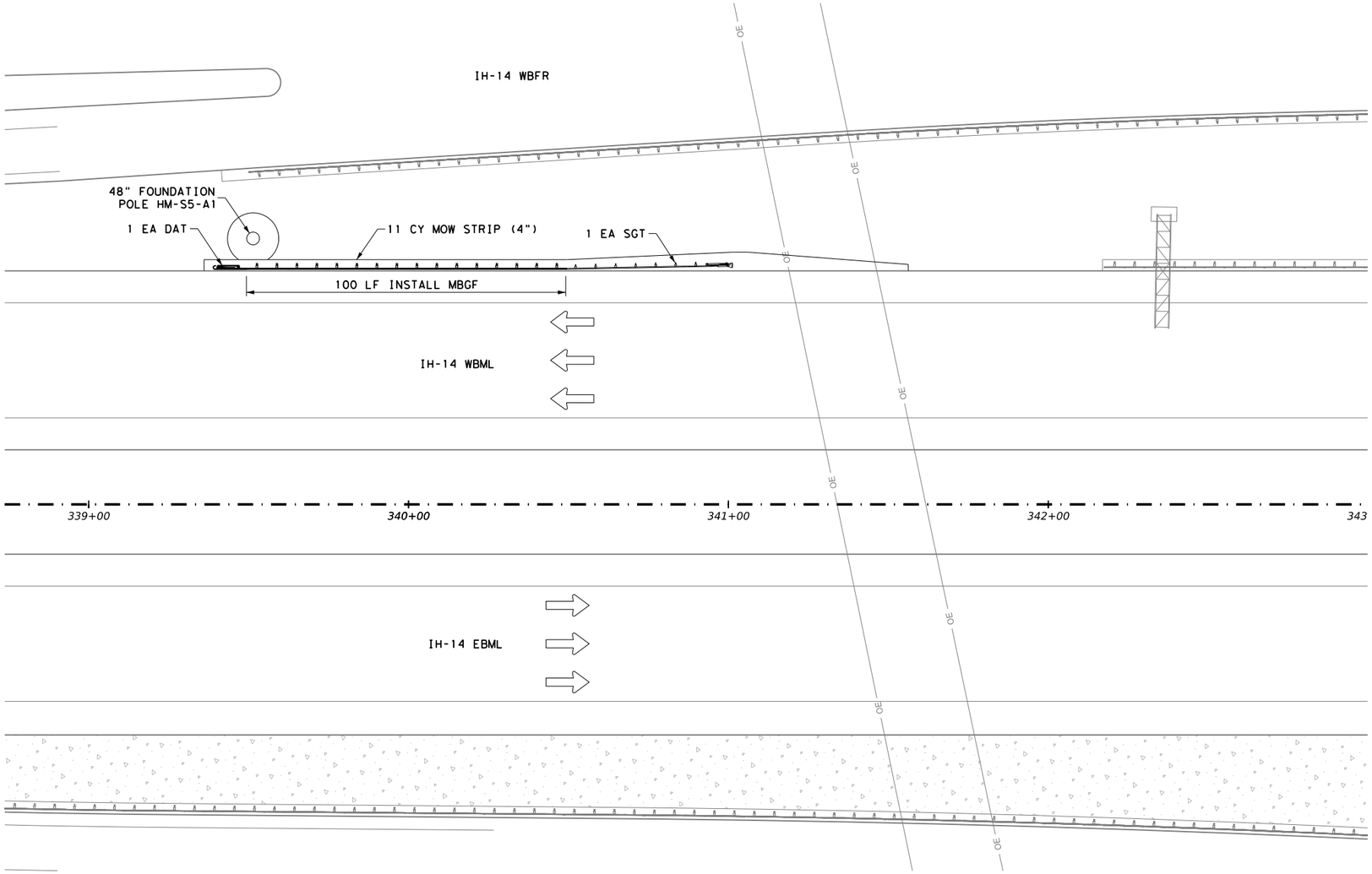
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SCALE: 0 10 20 40 FEET
1" = 40' HORIZ.

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		36



SUMMARY OF ROADWAY ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
0432 7013	RIPRAP (MOW STRIP)(4 IN)	CY	11
0540 7002	MTL W-BEAM GD FEN (STEEL POST)	LF	100
0540 7015	DOWNSTREAM ANCHOR TERMINAL SECTION	EA	1
0544 7001	GUARDRAIL END TREATMENT (INSTALL)	EA	1
0658 7018	INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2	EA	3

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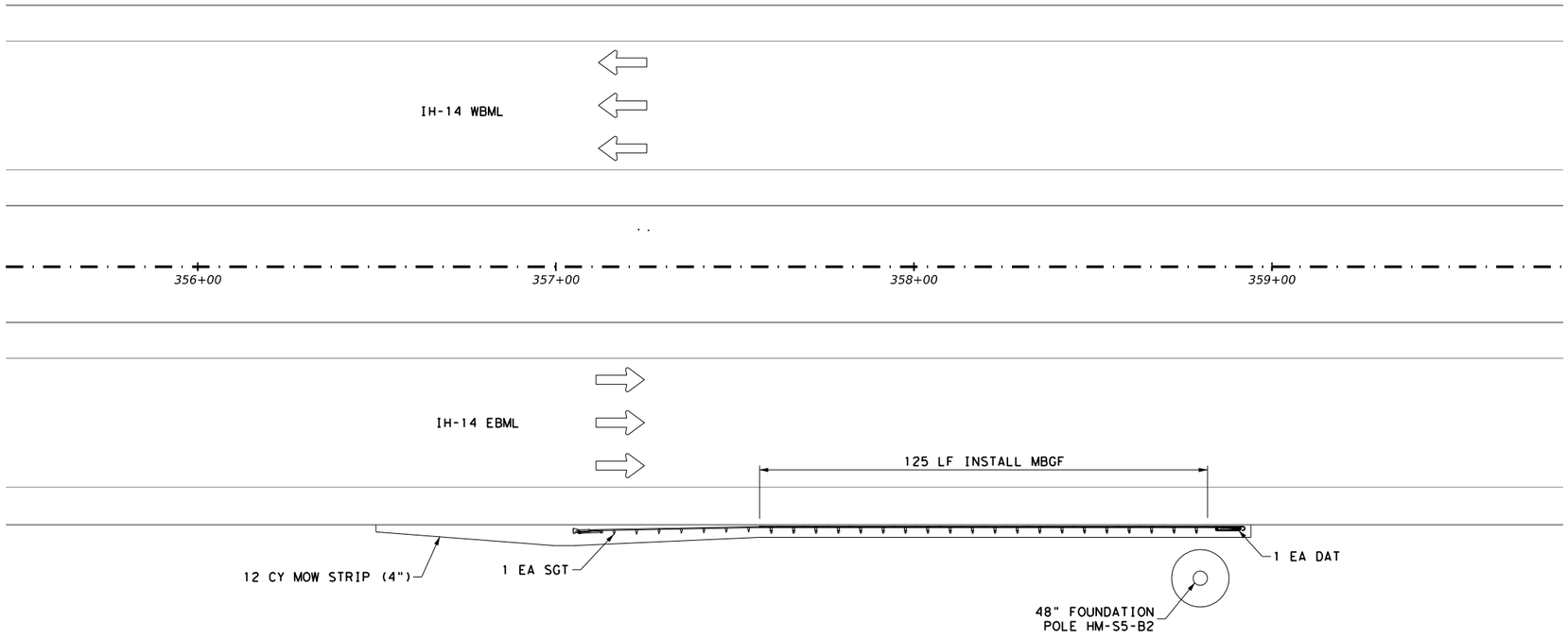
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1" = 40' HORIZ.

SHEET 3 OF 5

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	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		37

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SUMMARY OF ROADWAY ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
0432 7013	RIPRAP (MOW STRIP)(4 IN)	CY	12
0540 7002	MTL W-BEAM GD FEN (STEEL POST)	LF	125
0540 7015	DOWNSTREAM ANCHOR TERMINAL SECTION	EA	1
0544 7001	GUARDRAIL END TREATMENT (INSTALL)	EA	1
0658 7018	INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2	EA	3

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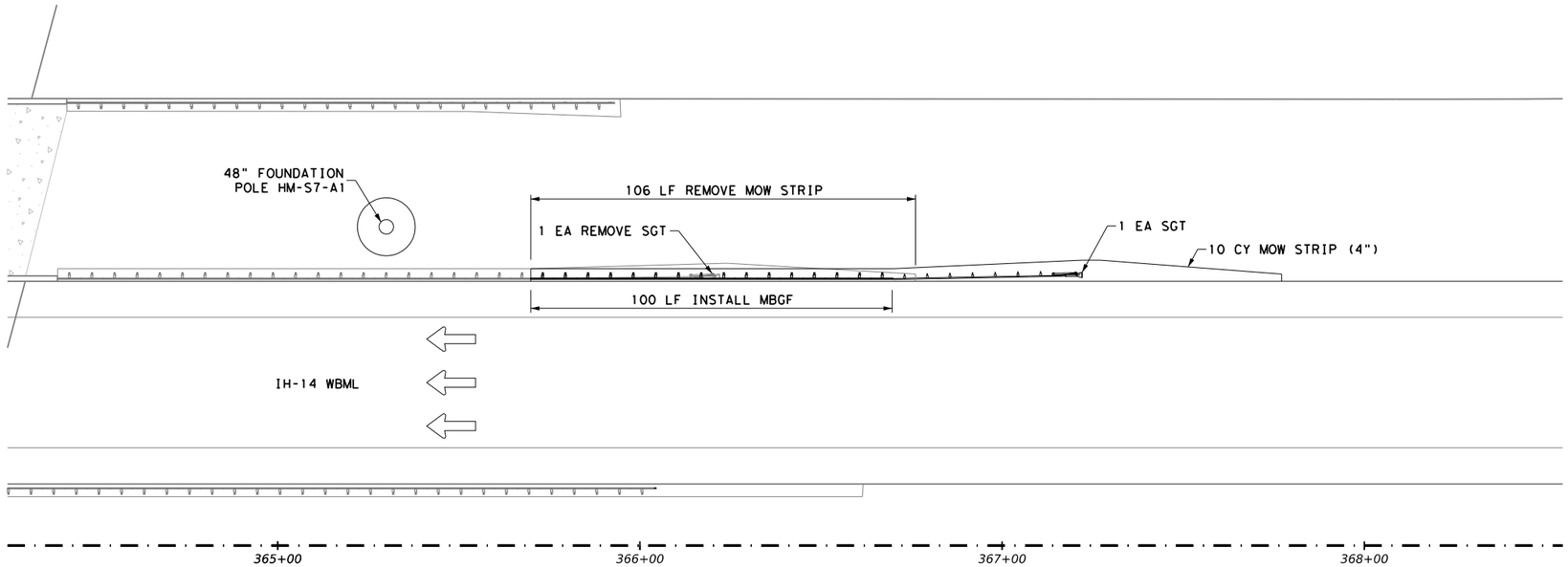
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SHEET 4 OF 5

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	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		38

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SUMMARY OF ROADWAY ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
0104 7005	REMOVING CONCRETE (MOW STRIP)	LF	106
0432 7013	RIPRAP (MOW STRIP) (4 IN)	CY	10
0540 7002	MTL W-BEAM GD FEN (STEEL POST)	LF	100
0544 7001	GUARDRAIL END TREATMENT (INSTALL)	EA	1
0544 7003	GUARDRAIL END TREATMENT (REMOVE)	EA	1
0658 7018	INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2	EA	3

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SCALE: 0 10 20 40 FEET
1" = 40' HORIZ.

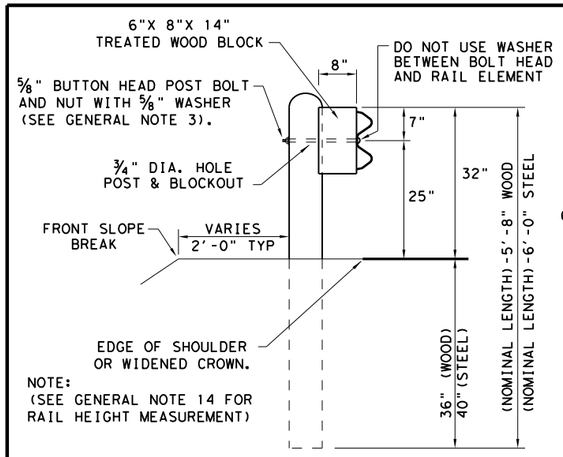
SHEET 5 OF 5

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
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	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		39

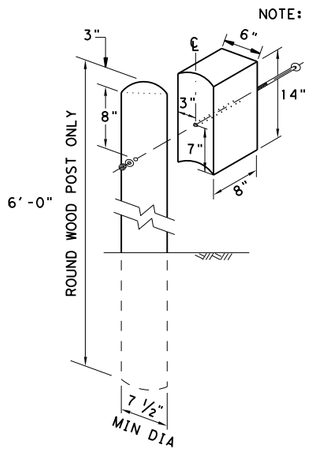
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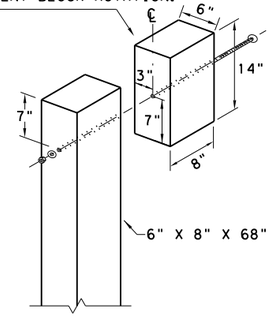


TYPICAL POST PLACEMENT

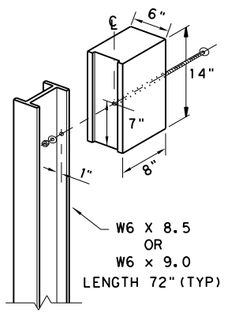


WOOD BLOCK TO ROUND WOOD POST

NOTE: TOENAIL WITH ONE 16D GALV. NAIL TO PREVENT BLOCK ROTATION.

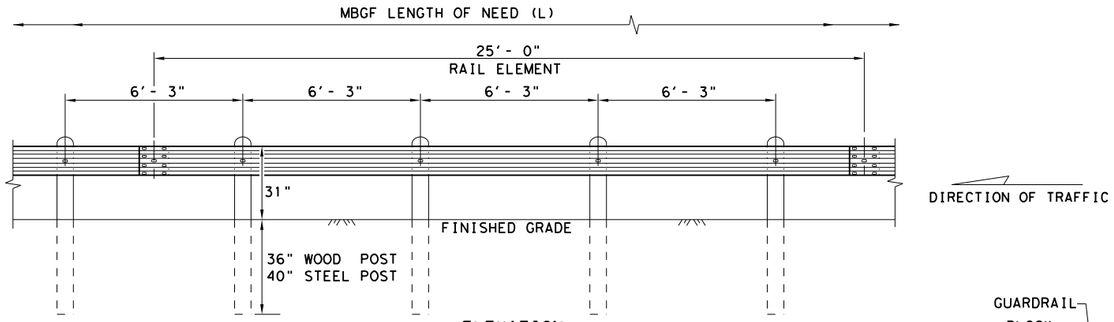


WOOD BLOCK TO RECTANGULAR WOOD POST



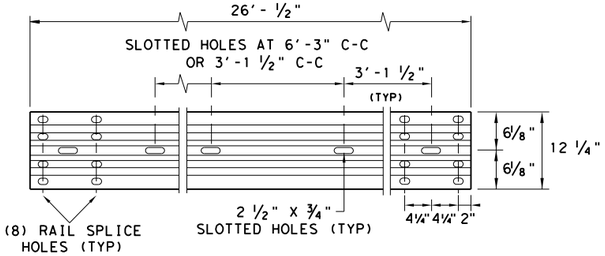
ROUTED WOOD BLOCK TO I-BEAM STEEL POST

NOTE: ** "WOOD" INDICATES DIMENSIONS FOR BOTH ROUND AND RECTANGULAR WOOD POST SYSTEMS.



ELEVATION
MID-SPAN RAIL SPLICE

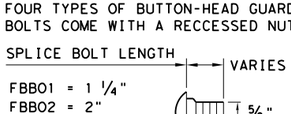
SHOWING A 25'- 0" SECTION OF W-BEAM RAIL. (SEE GENERAL NOTE 2)



ELEVATION 25'- 0" (NOM.) W-BEAM SECTION

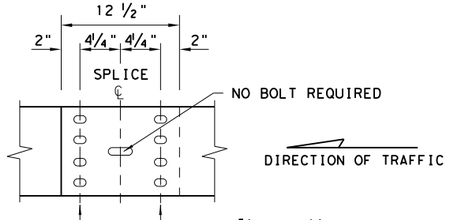
NOTES: SEE GENERAL NOTE 2 FOR ALLOWABLE RAIL TYPES.
SEE RAIL SPLICE DETAIL FOR REQUIRED HARDWARE.

NOTE:
FOUR TYPES OF BUTTON-HEAD GUARD RAIL BOLTS COME WITH A RECCESSED NUT.



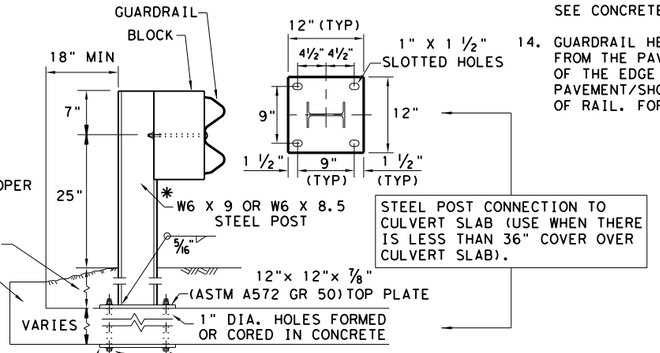
BUTTON HEAD BOLT

NOTE: SEE GENERAL NOTE 3 FOR SPLICE & POST BOLT DETAILS.



MID-SPAN RAIL SPLICE DETAIL

NOTE: GF(31), MID-SPAN RAIL SPLICES ARE REQUIRED WITH 6'-3" POST SPACINGS.



LOW FILL CULVERT POST

NOTE: TWO INSTALLATION OPTIONS.

1. BOLT-THROUGH OPTION: REQUIRES A 6" MIN. SLAB THICKNESS. ⅞" DIA (ASTM A449) HEAVY HEX BOLTS WITH TWO HARDENED WASHER EACH AND HEAVY HEX NUTS.
   NOTE: BOLT LENGTH = SLAB PLUS 2 ¼" MIN.

2. EPOXY ANCHOR OPTION: THIS OPTION MAY ONLY BE USED IF THE CULVERT SLAB IS 9" MIN. THICK. THREADED ANCHOR RODS MUST BE ⅞" DIA. ASTM A449 OR A193 GRADE B7 WITH HEAVY HEX NUT, AND ONE HARDENED WASHER EACH. EMBED ANCHOR RODS 6" WITH HILTI HIT RE 500 EPOXY ADHESIVE. OTHER TYPE III CLASS C EPOXY ADHESIVES MEETING THE REQUIREMENTS OF DMS-6100, "EPOXIES AND ADHESIVES", MAY BE USED IF IT CAN BE DEMONSTRATED THAT THEY MEET OR EXCEED THE STRENGTH OF HILTI HIT RE 500 WITH THE SAME EMBEDMENT DEPTH AND THREADED ROD DIA. FOLLOW THE MANUFACTURER'S REQUIREMENTS FOR INSTALLING EPOXIED THREADED RODS. EXTEND RODS ¼" MIN. BEYOND NUT.

NOTE: CULVERTS OF 25 FT. OR LESS, SEE GF(31)LS STANDARD FOR "LONG SPAN" OPTION.

NOTE: TRANSISTIONS TO BRIDGE RAILS OR TRAFFIC BARRIERS.
SEE GF(31)TL3 TR STANDARD FOR HIGH-SPEED TL-3 TRANSITIONS.
SEE GF(31)TL2 TR STANDARD FOR LOW-SPEED TL-2 TRANSITIONS.

GENERAL NOTES

1. THE TYPE OF POST (ROUND WOOD POST, RECTANGULAR WOOD POST, OR STEEL POST) WILL BE AS SHOWN IN THE PLANS. THE EXACT POSITION OF MBGF SHALL BE SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. STEEL POSTS TO BE GALVANIZED IN ACCORDANCE WITH ITEM 445, "GALVANIZING."
2. RAIL ELEMENTS SHALL MEET THE REQUIREMENTS OF ITEM 540, "METAL BEAM GUARD FENCE" EXCEPT AS MODIFIED IN THE PLANS. THE CONTRACTOR MAY FURNISH RAIL ELEMENTS OF 25'- 0", OR 12'- 6" (NOM.) LENGTHS. RAIL ELEMENTS MAY HAVE SLOTTED HOLES AT 3'-1 ½" C-C OR 6'-3" C-C. A SPECIAL LENGTH OF RAIL MAY BE MANUFACTURED TO ACCOMMODATE THE DOWNSTREAM ANCHOR TERMINAL (DAT) AND THE TRANSITION SECTIONS OF GUARDRAIL.
3. BUTTON HEAD "POST BOLTS & NUTS" SHALL MEET THE REQUIREMENTS OF (ASTM A307), AND SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND ⅝" WASHER (FWC16a) AND NOT MORE THAN 1" BEYOND IT. TRIM REMAINING BOLT LENGTH TO MEET REQUIRED LENGTH.
4. FITTINGS (BOLTS, NUTS, AND WASHERS) SHALL BE GALVANIZED IN ACCORDANCE WITH ITEM 445, "GALVANIZING." FITTINGS SHALL BE SUBSIDIARY TO THE BID ITEM.
5. CROWN SHALL BE WIDENED TO ACCOMMODATE THE METAL BEAM GUARD FENCE.
6. THE LATERAL APPROACH TO THE GUARD FENCE, SHALL HAVE A MAXIMUM SLOPE OF 1V:10H.
7. IF SHOWN ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER, THE GUARD FENCE MAY BE FLARED AT A RATE OF 25:1 OR FLATTER.
8. UNLESS OTHERWISE SHOWN IN THE PLANS, GUARD FENCE PLACED IN THE VICINITY OF CURBS SHALL BE POSITIONED SO THAT THE FACE OF CURB IS LOCATED DIRECTLY BELOW OR BEHIND THE FACE OF THE RAIL. RAIL PLACED OVER CURBS SHALL BE INSTALLED SO THAT THE POST BOLT IS LOCATED APPROXIMATELY 25 INCHES ABOVE THE GUTTER PAN OR EDGE OF SHOULDER.
9. APPLICATIONS IN SOLID ROCK ARE ONLY ALLOWED WITH STEEL POSTS. IF SOLID ROCK IS ENCOUNTERED WITHIN 0 TO 18" OF THE FINISHED GRADE, DRILL A 24" DIA. HOLE, 24" INTO THE ROCK. IF SOLID ROCK IS ENCOUNTERED BELOW 18", DRILL A 12" DIA. HOLE, 12" INTO THE ROCK OR TO THE STANDARD EMBEDMENT DEPTH, WHICHEVER MAYBE LESS. ANY EXCESS POST LENGTH, AFTER MEETING THESE DEPTHS, MAY BE FIELD CUT TO ENSURE PROPER GUARDRAIL MOUNTING HEIGHT. BACKFILL WITH COARSE AGGREGATE MATERIAL.
10. POSTS SHALL NOT BE SET IN CONCRETE, OF ANY DEPTH.
11. SPECIAL FABRICATION WILL BE REQUIRED AT INSTALLATION LOCATIONS HAVING A CURVATURE OF LESS THAN 150 FT. RADIUS.
12. UNLESS OTHERWISE SHOWN IN THE PLANS, A COMPOSITE MATERIAL BLOCK THAT MEETS THE REQUIREMENTS OF DMS-7210, "COMPOSITE MATERIAL POSTS AND BLOCKS FOR METAL BEAM GUARD FENCE" MAY BE SUBSTITUTED FOR BLOCKS OF SIMILAR DIMENSIONS. THE CONSTRUCTION DIVISION, TXDOT MAINTAINS A MATERIAL PRODUCER LIST (MPL) FOR PRODUCERS OF MATERIALS CONFORMING TO DMS-7210 ONLY PRODUCERS ON THE MPL MAY FURNISH COMPOSITE MATERIAL BLOCKS.
13. FOR THE LOW FILL CULVERT OPTION, POSTS LOCATED PARTIALLY OR WHOLLY BETWEEN PRECAST BOX CULVERT UNITS, THE USE OF A CAST-IN-PLACE CONCRETE CLOSURE BETWEEN BOXES IS REQUIRED. THE LENGTH OF THE CAST-IN-PLACE CONCRETE CLOSURE SHALL ACCOMMODATE THE PLACEMENT OF THE LOW FILL CULVERT OPTION. SEE CONCRETE CLOSURE DETAILS ON BRIDGE STANDARD SCP-MD.
14. GUARDRAIL HEIGHT MEASUREMENT: WHEN THE GUARDRAIL IS LOCATED ABOVE PAVEMENT, MEASURE THE HEIGHT FROM THE PAVEMENT TO THE TOP OF THE W-BEAM RAIL. WHEN THE GUARDRAIL IS LOCATED UP TO 2 FT. OFF OF THE EDGE OF PAVEMENT OR FOR A PAVEMENT OVERLAY, USE A 10-FOOT STRAIGHTEDGE TO EXTEND THE PAVEMENT/SHOULDER SLOPE TO THE BACK OF RAIL, MEASURE FROM THE BOTTOM OF STRAIGHTEDGE TO THE TOP OF RAIL. FOR GUARDRAIL LOCATED DOWN A 10:1 SLOPE, MEASURE FROM THE NOMINAL TERRAIN.

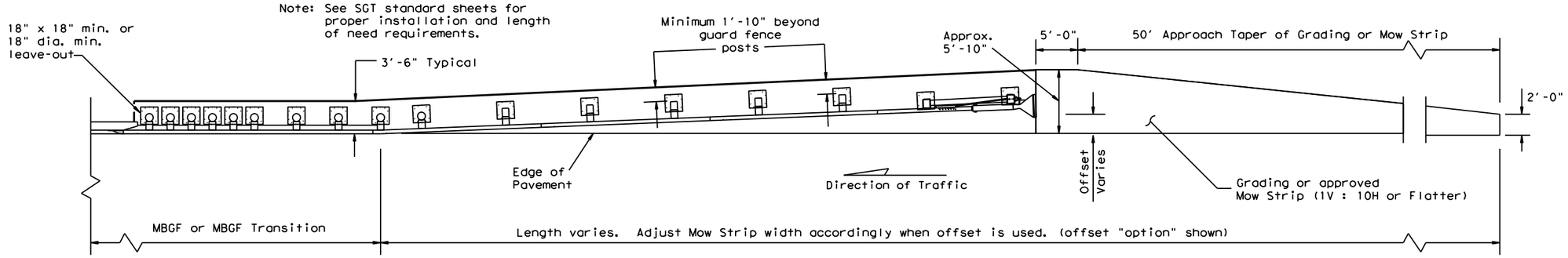
Texas Department of Transportation — Design Division Standard

METAL BEAM GUARD FENCE
TL-3 MASH COMPLIANT
GF(31)-19

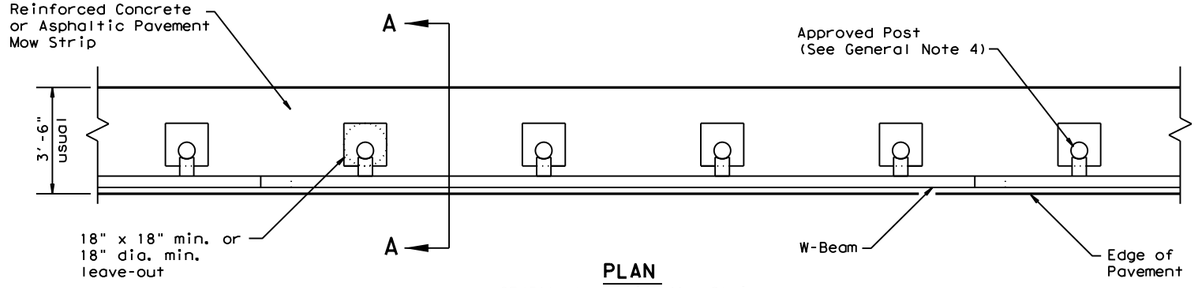
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©TxDOT: NOVEMBER 2019	CONT	SECT	JOB	HIGHWAY	
REVISIONS	0231	03	156	IH-14	
	DIST	COUNTY		SHEET NO.	
	WACO	BELL		40	

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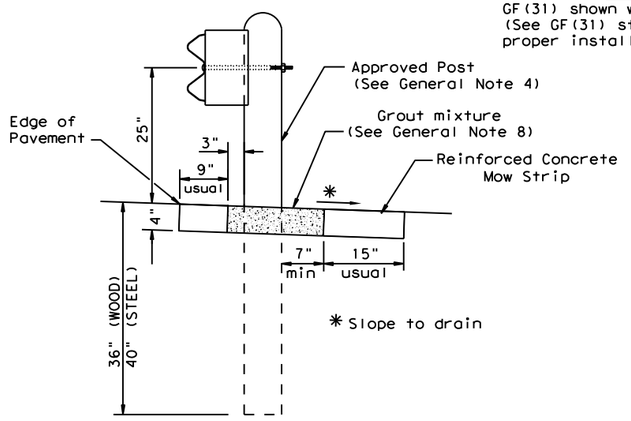


GRADING AND MOW STRIP AT GUARDRAIL END TREATMENTS



PLAN

GF(31) shown with Mow Strip
(See GF(31) standard sheet for proper installation)

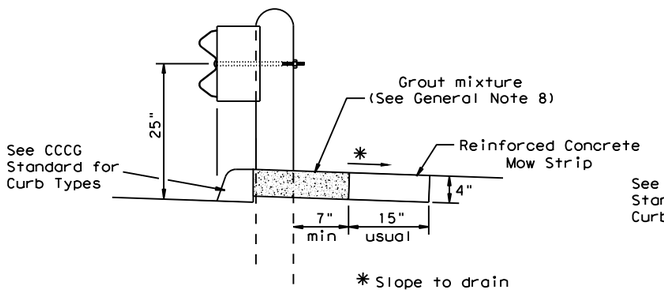


SECTION A-A

Typical

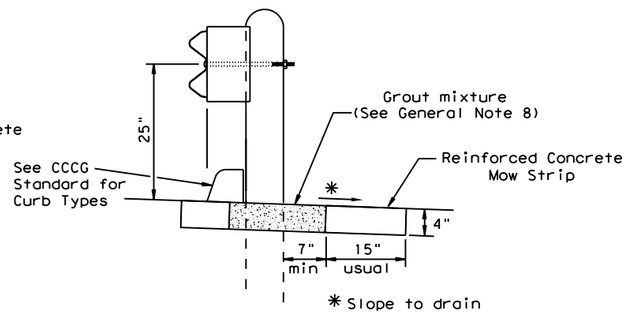
MOW STRIP DETAIL

Reinforced Concrete Mow Strip
with 18" x 18" Square or
18" Dia. minimum leave-out.



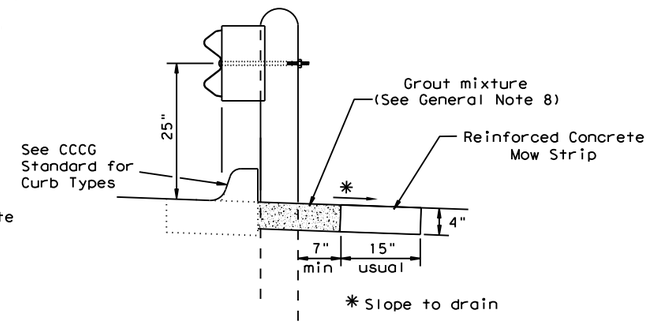
CURB OPTION (1)

This option will increase the post embedment throughout the system.



CURB OPTION (2)

Curb shown on top of mow strip



CURB OPTION (3)

Note: Site Condition(s)

Site conditions may exist where grading is required for the proper installation of metal guard fence and end treatments.

Approach grading or mow strip may be decreased or eliminated, as directed by the Engineer.

GENERAL NOTES

1. This mow strip design is for use with metal beam guard fence, guard fence transitions, and guard fence end treatments. See applicable GF(31) MBGF or GF(31) Transition Standard sheet for additional information.
2. Mow strips shall be reinforced concrete with (wire mesh or synthetic fiber), as shown on the plans and will be paid for under the pertinent bid item. Reinforced concrete shall be placed in accordance with Item 432, "Riprap." The use of the synthetic fiber in lieu of steel reinforcing is acceptable, provided the fiber producer is on the Department Material Producer List (MPL), maintained by TxDOT, Construction Division.
3. The leave-out behind the post shall be a minimum of 7".
4. Only steel (W6 x 8.5 or W6 x 9.0), or 7 ½" Dia. round wood posts are acceptable for use in the mow strip. See GF(31) Standard for additional details.
5. Other curb placement options may be used. Curbs are not considered part of the mow strip and will be paid for under other pertinent bid item.
6. Thickness of the mow strip will be 4".
7. The limits of payment for reinforced concrete will include leave-outs for the posts.
8. The leave-outs shall be filled with a Grout mixture consisting of: 2719 pounds sand, 188 pounds Type 1 or II cement, and 550 pounds of water per cubic yard, with a 28-day compressive strength of approximately 230 psi or less. Provide grout with a consistency that will flow into and completely fill all voids. Due to auger size, larger leave-out dimensions are acceptable from both an impact performance and maintenance repair standpoint (Suggested Maximum leave-out of 20"). Payment for furnishing and placing the grout mixture will be subsidiary to the pay item of riprap mow strip.

Texas Department of Transportation

Design Division Standard

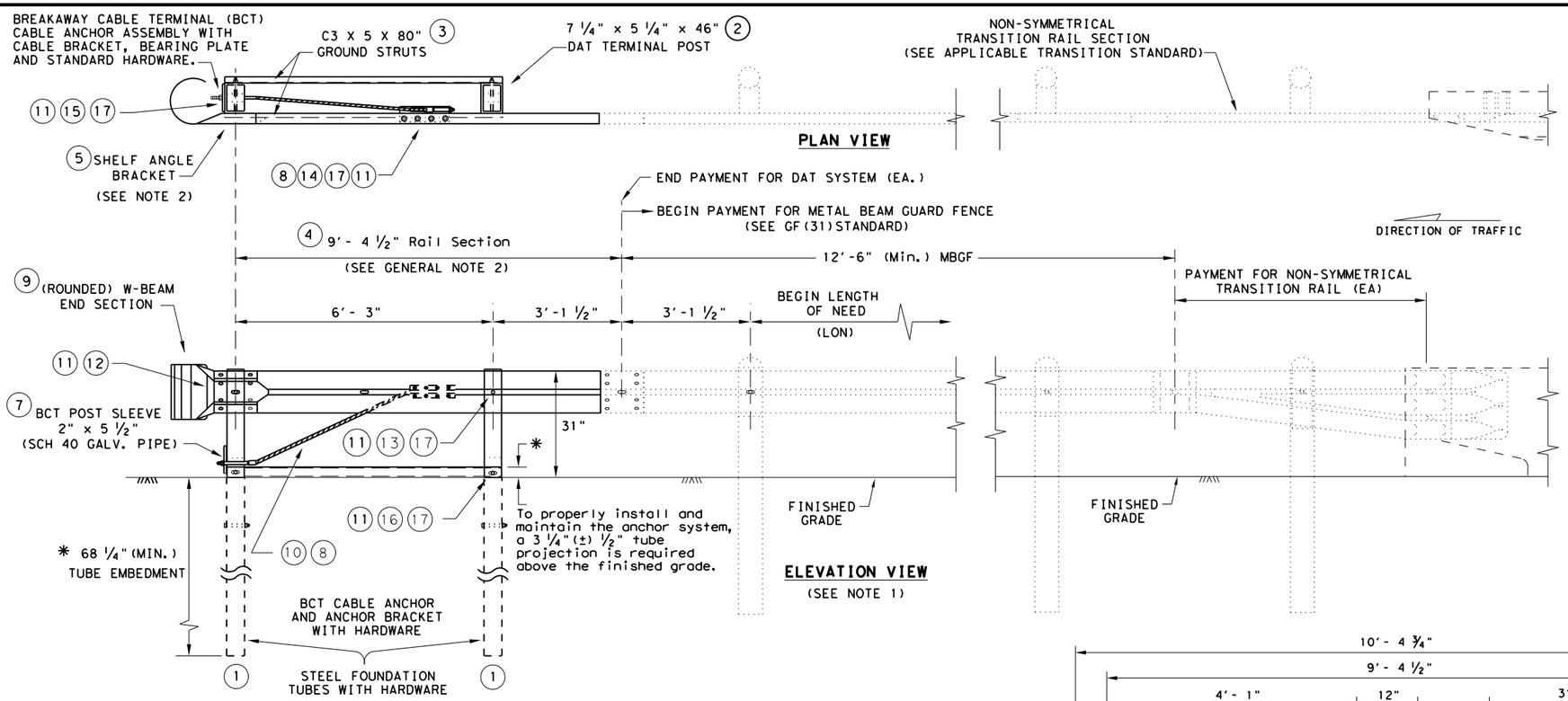
METAL BEAM GUARD FENCE (MOW STRIP) TL-3 MASH COMPLIANT

GF(31)MS-19

FILE: gf31ms19.dgn	DN: TxDOT	CK: KM	DW: VP	CK: CGL/AG
©TxDOT: NOVEMBER 2019	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		41

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DOWNSTREAM ANCHOR TERMINAL (DAT)

NOTE: ONLY FOR DOWNSTREAM USE, WHEN LOCATED OUTSIDE THE HORIZONTAL CLEARANCE AREA OF OPPOSING TRAFFIC.

GENERAL NOTES

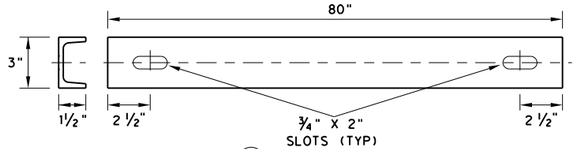
1. THE DETAIL SHOWN IS THE MINIMUM LENGTH OF NEED (LON) FOR A DOWNSTREAM ANCHOR TERMINAL (DAT) CONNECTED TO A CONCRETE RAIL.
2. THE RAIL SECTION AT THE END POST IS SUPPORTED BY THE SHELF ANGLE BRACKET. THE RAIL ELEMENT IS NOT ATTACHED TO THE END POST.
3. THE FOUNDATION TUBES SHALL NOT PROJECT MORE THAN 3 3/4" ABOVE THE FINISHED GRADE.
4. ALL HARDWARE FOR DAT SHALL BE ASTM A307 UNLESS OTHERWISE SHOWN.
5. REFER TO GF(31) SHEET FOR TERMINAL CONNECTION DETAILS.

MOW STRIP INSTALLATION

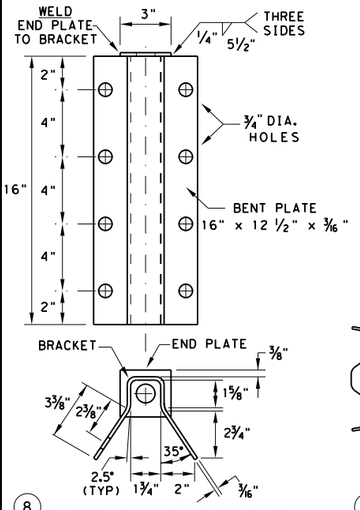
IF A MOW STRIP IS REQUIRED WITH THE DAT INSTALLATION THE LEAVE-OUT AREA AROUND THE STEEL FOUNDATION TUBES AND THE TWO CHANNEL STRUTS MAY BE OMITTED. THIS WILL REQUIRE A FULL POUR AT THE FOUNDATION TUBES.

#	(DAT) PARTS LIST	QTY
(1)	STEEL FOUNDATION TUBE	2
(2)	DAT TERMINAL POST	2
(3)	CHANNEL STRUT	2
(4)	TERMINAL RAIL ELEMENT	1
(5)	SHELF ANGLE BRACKET	1
(6)	BCT BEARING PLATE	1
(7)	BCT POST SLEEVE	1
(8)	GUARDRAIL ANCHOR BRACKET	1
(9)	(ROUNDED) W-BEAM END SECTION	1
(10)	BCT CABLE ANCHOR	1
(11)	RECESSED NUT, GUARDRAIL	20
(12)	1 1/4" BUTTON HEAD BOLT	4
(13)	10" BUTTON HEAD BOLT	2
(14)	5/8" X 2" HEX HEAD BOLT	8
(15)	5/8" X 8" HEX HEAD BOLT	4
(16)	5/8" X 10" HEX HEAD BOLT	2
(17)	5/8" FLAT WASHER	18

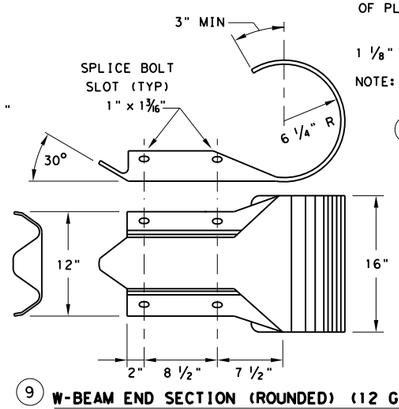
(4) TERMINAL RAIL ELEMENT FOR DAT



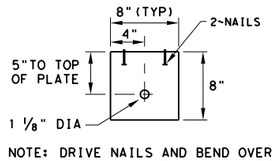
(3) CHANNEL STRUT
C3 X 5 X 80", GRADE A36



(8) GUARDRAIL ANCHOR BRACKET

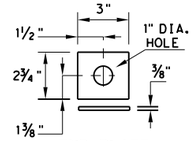


(9) W-BEAM END SECTION (ROUNDED) (12 GA.)

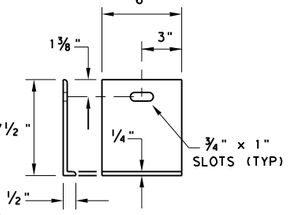


NOTE: DRIVE NAILS AND BEND OVER TO PREVENT PLATE ROTATION

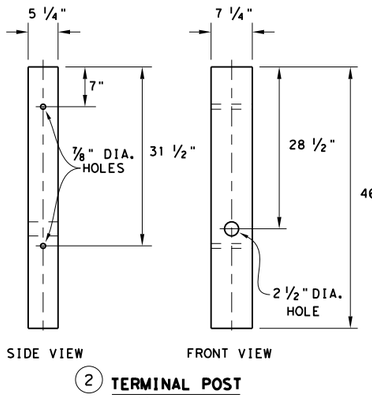
(6) BEARING PLATE
8"x 8"x 5/8" R



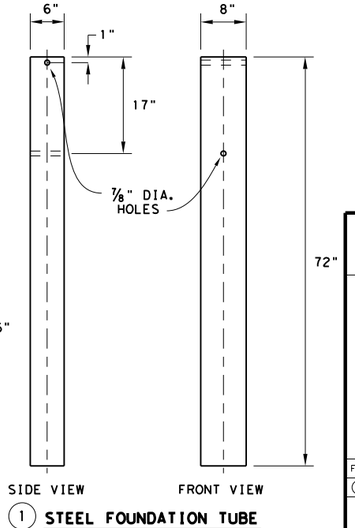
END PLATE



(5) SHELF ANGLE BRACKET



(2) TERMINAL POST
7 1/4"x 5 1/4"x 46" WOOD POST



(1) STEEL FOUNDATION TUBE
6"x 8"x 1/8" x 72" STEEL TUBE

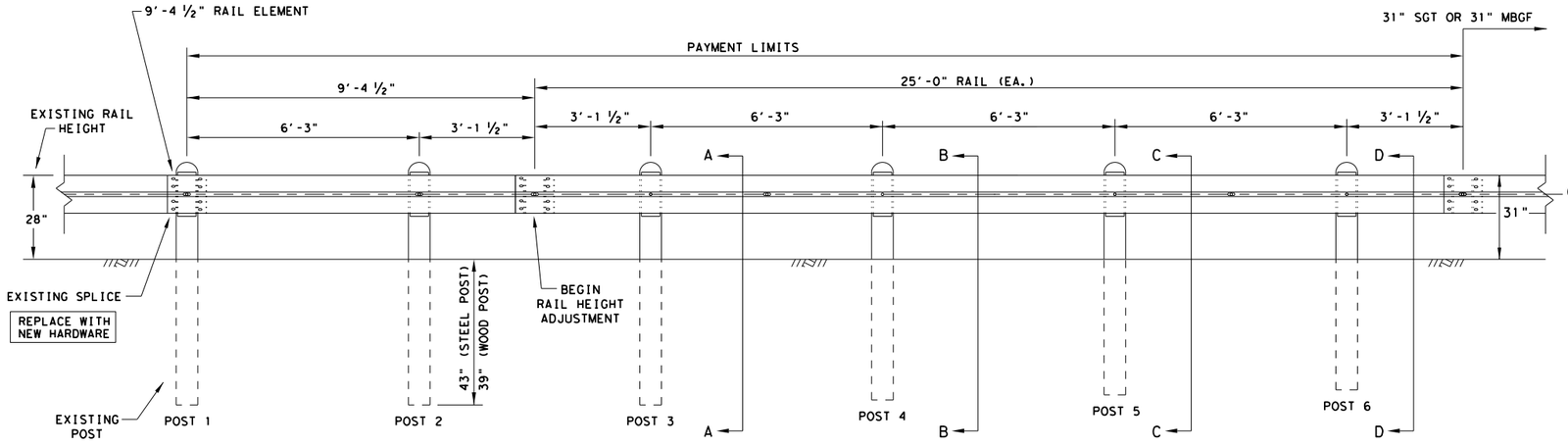
Texas Department of Transportation — Design Division Standard

METAL BEAM GUARD FENCE (DOWNSTREAM ANCHOR TERMINAL) TL-3 MASH COMPLIANT

GF(31)DAT-19

FILE: gf31dat19.dgn	DN: TxDOT	CK: KM	DW: VP	CK: CGL/AG
©TxDOT: NOVEMBER 2019	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		42





ELEVATION VIEW

✳ "WOOD" INDICATES DIMENSIONS FOR BOTH ROUND AND RECTANGULAR WOOD POST SYSTEMS.

ROUTED WOOD BLOCK-OUT TO STEEL POST

WOOD BLOCK TO RECTANGULAR WOOD POST

WOOD BLOCK-OUT TO DOMED ROUND WOOD POST

POST AND BLOCK-OUT TYPES AVAILABLE

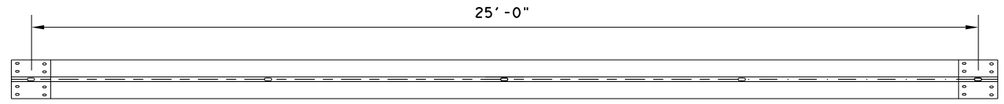
	QTY	HARDWARE LIST DESCRIPTION
	1	9'-4 ½" W-BEAM RAIL ELEMENT 12GA.
	1	25'-0" W-BEAM RAIL ELEMENT 12GA. (TYP)
	6	7 ½" DIA X 6'-0" DOMED ROUND WOOD POSTS (TYP)
	6	6" X 8" X 68" RECTANGULAR WOOD POSTS (TYP)
	6	W6 X 8.5 OR W6 X 9 X 72" STEEL POSTS (TYP)
	6	6" X 8" X 14" WOOD BLOCKS OR COMPOSITE (TYP)
FOR WOOD POST	6	⅝" X 18" GUARDRAIL BOLTS WITH NUTS (FBB04)
	6	⅝" ROUND WASHERS (ASTM F436) (FWC16a)
FOR STEEL POST	6	⅝" X 10" GUARDRAIL BOLTS WITH NUTS (FBB03)
	24	⅝" X 1- ¼" GUARDRAIL SPLICE BOLTS WITH DOUBLE RECESSED NUTS (ASTM A563) (FBB01)

NOTE: HARDWARE SHALL MEET THE FOLLOWING REQUIREMENTS.

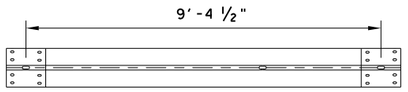
GUARDRAIL POST BOLTS (ASTM A307 GR.A)
GUARDRAIL ROUND WASHERS (ASTM F436)
GUARDRAIL DOUBLE RECESSED NUTS (ASTM A563)
GUARDRAIL SPLICE BOLTS (ASTM A307 GR.A)
GUARDRAIL SPLICE NUTS (ASTM A563)

GENERAL NOTES

1. THE TYPE OF POST (ROUND WOOD POST, RECTANGULAR WOOD POST, OR STEEL POST) WILL BE AS SHOWN IN THE PLANS. THE EXACT POSITION OF MBGF SHALL BE AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. STEEL POSTS TO BE GALVANIZED IN ACCORDANCE WITH ITEM 445, "GALVANIZING."
2. RAIL ELEMENT SHALL MEET THE REQUIREMENTS OF ITEM 540, "METAL BEAM GUARD FENCE" EXCEPT AS MODIFIED IN THE PLANS. THE CONTRACTOR MAY FURNISH RAIL ELEMENTS OF 25'-0", OR 12'-6" (NOM.) LENGTHS. RAIL ELEMENTS MAY HAVE SLOTTED HOLES AT 3'-1 ½" C-C OR 6'-3" C-C. A SPECIAL LENGTH OF RAIL MAY BE MANUFACTURED TO ACCOMMODATE THE TRANSITION SECTIONS OF GUARDRAIL.
3. BUTTON HEAD "POST" BOLTS (ASTM A307) SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT (ASTM A563) AND ⅝" ROUND WASHER (ASTM F436) AND NOT MORE THAN 1" BEYOND IT. BUTTON HEAD "SPLICE" BOLTS (ASTM A307) ARE ⅝" X 1-¼" WITH ⅝" NUTS (ASTM A563).
4. FITTINGS (BOLTS, NUTS, AND WASHERS) SHALL BE GALVANIZED IN ACCORDANCE WITH ITEM 445, "GALVANIZING." FITTINGS SHALL BE SUBSIDIARY TO THE BID ITEM REQUIRING CONSTRUCTION OF THE TRANSITION.
5. CROWN SHALL BE WIDENED TO ACCOMMODATE THE METAL BEAM GUARD FENCE.
6. THE LATERAL APPROACH TO THE GUARD FENCE, SHALL HAVE A MAXIMUM SLOPE OF 1V:10H.
7. IF SHOWN ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER, THE GUARD FENCE MAY BE FLARED AT A RATE OF 25:1 OR FLATTER.
8. APPLICATIONS IN SOLID ROCK ARE ONLY ALLOWED WITH STEEL POSTS. SEE GF(31) STANDARD FOR INSTALLATION GUIDANCE.
9. POSTS SHALL NOT BE SET IN CONCRETE.
10. UNLESS OTHERWISE SHOWN IN THE PLANS, A COMPOSITE MATERIAL BLOCK THAT MEETS THE REQUIREMENTS OF DMS-7210, "COMPOSITE MATERIAL POSTS AND BLOCKS FOR METAL BEAM GUARD FENCE" MAY BE SUBSTITUTED FOR BLOCKS OF SIMILAR DIMENSIONS. THE CONSTRUCTION DIVISION, TXDOT MAINTAINS A MATERIAL PRODUCER LIST (MPL) FOR PRODUCERS OF MATERIALS CONFORMING TO DMS-7210. ONLY PRODUCERS ON THE MPL MAY FURNISH COMPOSITE MATERIAL BLOCKS.
11. REFER TO STANDARD GF(31) FOR ADDITIONAL DETAILS.
12. RAIL HEIGHT ADJUSTMENT IS ASSESSED AT TL-3 MASH COMPLIANT FOR STEEL POST HEIGHT TRANSITION TO 28" STEEL POST GUARDRAIL.



25'-0" (NOM.) W-BEAM RAIL ELEMENT



9'-4 ½" (NOM.) W-BEAM RAIL ELEMENT

Texas Department of Transportation

Design Division Standard

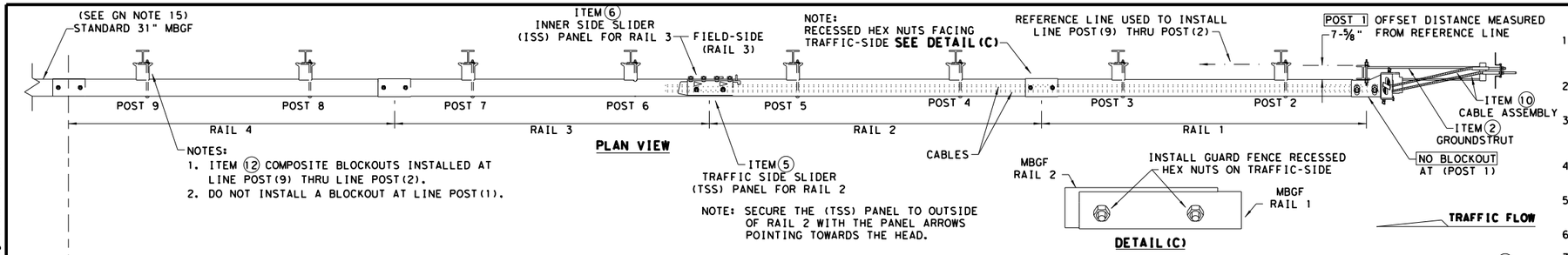
METAL BEAM GUARD FENCE RAIL HEIGHT ADJUSTMENT (28" TO 31") TL-3 MASH COMPLIANT

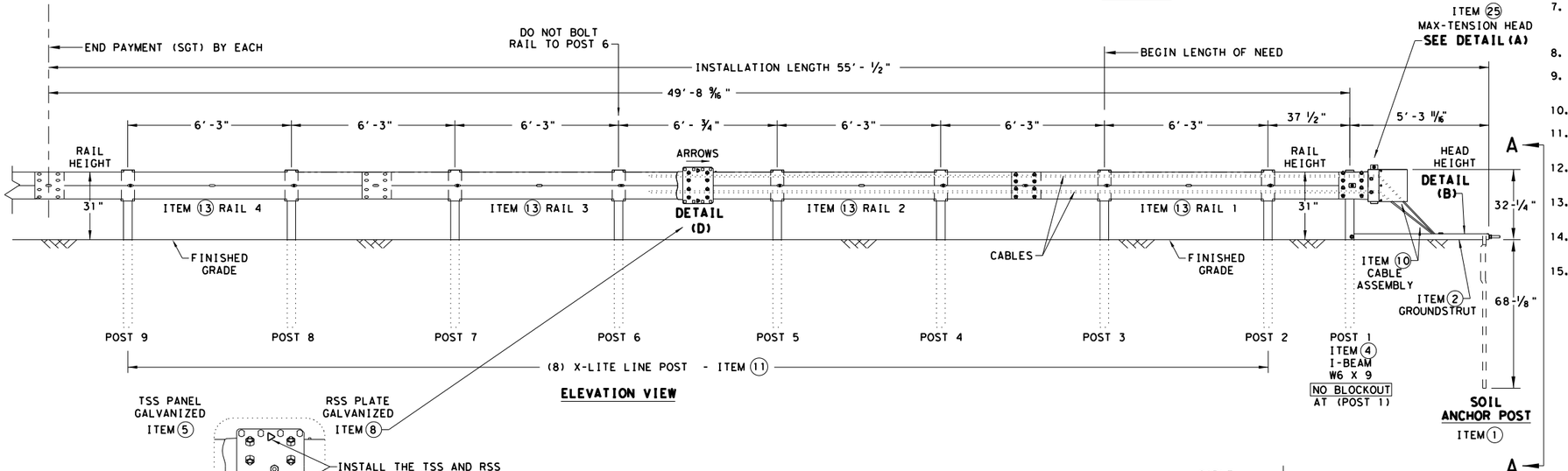
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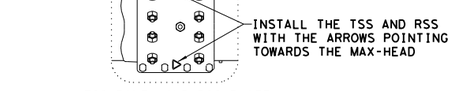
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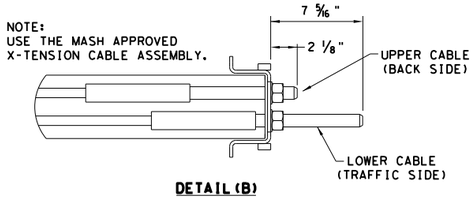
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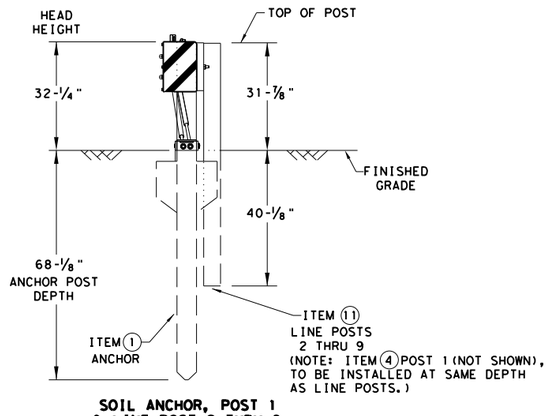
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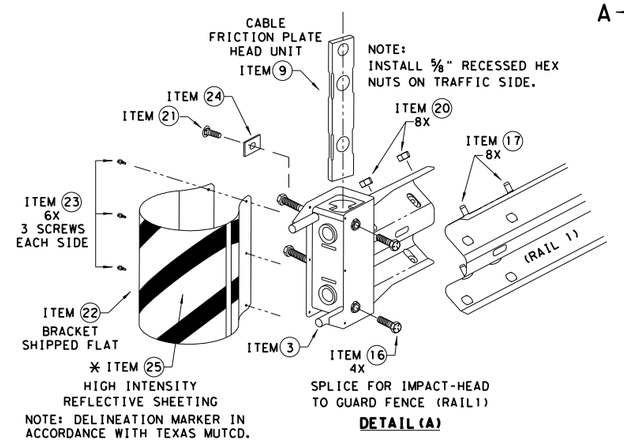


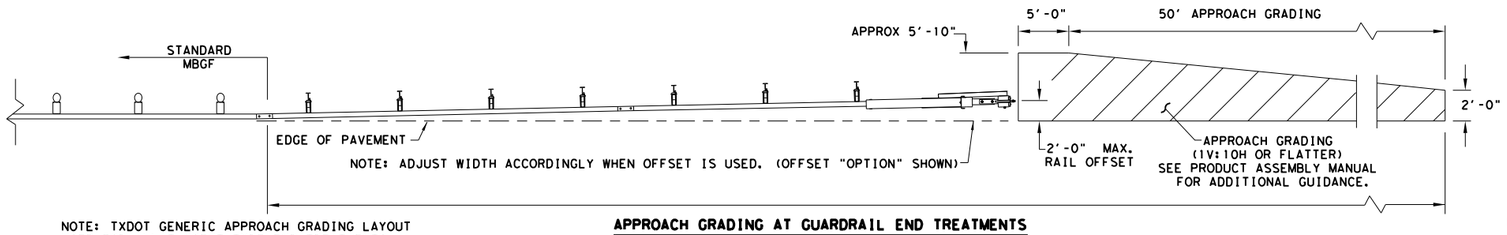












GENERAL NOTES

1. FOR SPECIFIC INFORMATION REGARDING INSTALLATION AND TECHNICAL GUIDANCE OF THE SYSTEM, CONTACT: LINDSAY TRANSPORTATION SOLUTIONS (LTS) - BARRIER SYSTEMS, INC. AT (707) 374-6800
2. FOR INSTALLATION, REPAIR, & MAINTENANCE REFER TO THE; MAX-TENSION INSTALLATION INSTRUCTION MANUAL. P/N MANMAX REV D (ECN 3516).
3. APPLY HIGH INTENSITY REFLECTIVE SHEETING, "OBJECT MARKER" ON THE FRONT FACE OF THE DEVICE PER MANUFACTURE'S RECOMMENDATIONS. OBJECT MARKER SHALL CONFORM TO THE STANDARDS REQUIRED IN TEXAS MUTCD.
4. FOR POST (LEAVE-OUT) INSTALLATION AND GUIDANCE SEE TXDOT'S LATEST ROADWAY MOW STRIP STANDARD.
5. ALL STEEL COMPONENTS ARE GALVANIZED PER ASTM A123 OR EQUIVALENT UNLESS OTHERWISE STATED.
6. SYSTEM SHOWN USING STEEL WIDE FLANGE POST WITH COMPOSITE BLOCKOUTS.
7. COMPOSITE MATERIAL BLOCKOUT THAT MEETS THE REQUIREMENTS OF DMS-7210, MAY BE SUBSTITUTED FOR BLOCKOUTS SIMILAR DIMENSIONS. SEE CONSTRUCTION DIVISION MATERIAL PRODUCER LIST(MPL)FOR CERTIFIED PRODUCERS.
8. REFER TO INSTALLATION MANUAL FOR SPECIFIC PANEL LAPPING GUIDANCE.
9. IF SOLID ROCK IS ENCOUNTERED SEE THE MANUFACTURER'S INSTALLATION MANUAL FOR INSTALLATION GUIDANCE.
10. POSTS SHALL NOT BE SET IN CONCRETE.
11. A DRIVING CAP WITH A TIMBER OR PLASTIC INSERT SHALL BE USED WHEN DRIVING POST TO PREVENT DAMAGE TO THE GALVANIZING ON TOP OF THE POST.
12. MAX-TENSION SYSTEM SHALL NEVER BE INSTALLED WITHIN A CURVED SECTION OF GUARDRAIL.
13. IF A DELINEATION MARKER IS REQUIRED, MARKER SHALL BE IN ACCORDANCE WITH TEXAS MUTCD.
14. THE SYSTEM IS SHOWN WITH 12'-6" MBGF PANELS, 25'-0" MBGF PANELS ARE ALSO ALLOWED.
15. A MINIMUM OF 12'-6" OF 12GA. MBGF IS REQUIRED IMMEDIATELY DOWNSTREAM OF THE MAX-TENSION SYSTEM.

ITEM #	PART NUMBER	DESCRIPTION	QTY
1	BSI-1610060-00	SOIL ANCHOR - GALVANIZED	1
2	BSI-1610061-00	GROUND STRUT - GALVANIZED	1
3	BSI-1610062-00	MAX-TENSION IMPACT HEAD	1
4	BSI-1610063-00	W6x9 I-BEAM POST 6FT.-GALVANIZED	1
5	BSI-1610064-00	TSS PANEL - TRAFFIC SIDE SLIDER	1
6	BSI-1610065-00	ISS PANEL - INNER SIDE SLIDER	1
7	BSI-1610066-00	TOOTH - GEOMET	1
8	BSI-1610067-00	RSS PLATE - REAR SIDE SLIDER	1
9	B061058	CABLE FRICTION PLATE - HEAD UNIT	1
10	BSI-1610069-00	CABLE ASSEMBLY - MASH X-TENSION	2
11	BSI-1012078-00	X-LITE LINE POST-GALVANIZED	8
12	B090534	8" W-BEAM COMPOSITE-BLOCKOUT XT110	8
13	BSI-4004386	12'-6" W-BEAM GUARD FENCE PANELS 12GA.	4
14	BSI-1102027-00	X-LITE SQUARE WASHER	1
15	BSI-2001886	⅝" X 7" THREAD BOLT HH (GR.5)GEOMET	1
16	BSI-2001885	¾" X 3" ALL-THREAD BOLT HH (GR.5)GEOMET	4
17	4001115	⅝" X 1 ¼" GUARD FENCE BOLTS (GR.2)MGAL	48
18	2001840	⅝" X 10" GUARD FENCE BOLTS MGAL	8
19	2001636	⅝" WASHER F436 STRUCTURAL MGAL	2
20	4001116	⅝" RECESSED GUARD FENCE NUT (GR.2)MGAL	59
21	BSI-2001888	⅝" X 2" ALL THREAD BOLT (GR.5)GEOMET	1
22	BSI-1701063-00	DELINEATION MOUNTING (BRACKET)	1
23	BSI-2001887	¼" X ¾" SCREW SD HH 410SS	7
24	4002051	GUARDRAIL WASHER RECT AASHTO FWR03	1
* 25	SEE NOTE BELOW	HIGH INTENSITY REFLECTIVE SHEETING	1
** 26	4002337	8" W-BEAM TIMBER-BLOCKOUT, PDB01B	8
** 27	BSI-4004431	25' W-BEAM GUARDRAIL PANEL,8-SPACE,12GA.	2
28	MANMAX Rev-(D)	MAX-TENSION INSTALLATION INSTRUCTIONS	1

* TO BE PROVIDED BY DISTRIBUTOR OR CONTRACTOR.

** ALTERNATIVE ITEMS NOT SHOWN.
ITEM(26) 8" WOOD-BLOCKOUTS
ITEM(27) 25'GUARD FENCE PANELS

NOTE:
THIS STANDARD IS A BASIC REPRESENTATION OF THE MAX-TENSION END TERMINAL, IT IS NOT INTENDED TO REPLACE THE PRODUCT DESCRIPTION ASSEMBLY MANUAL.

Texas Department of Transportation

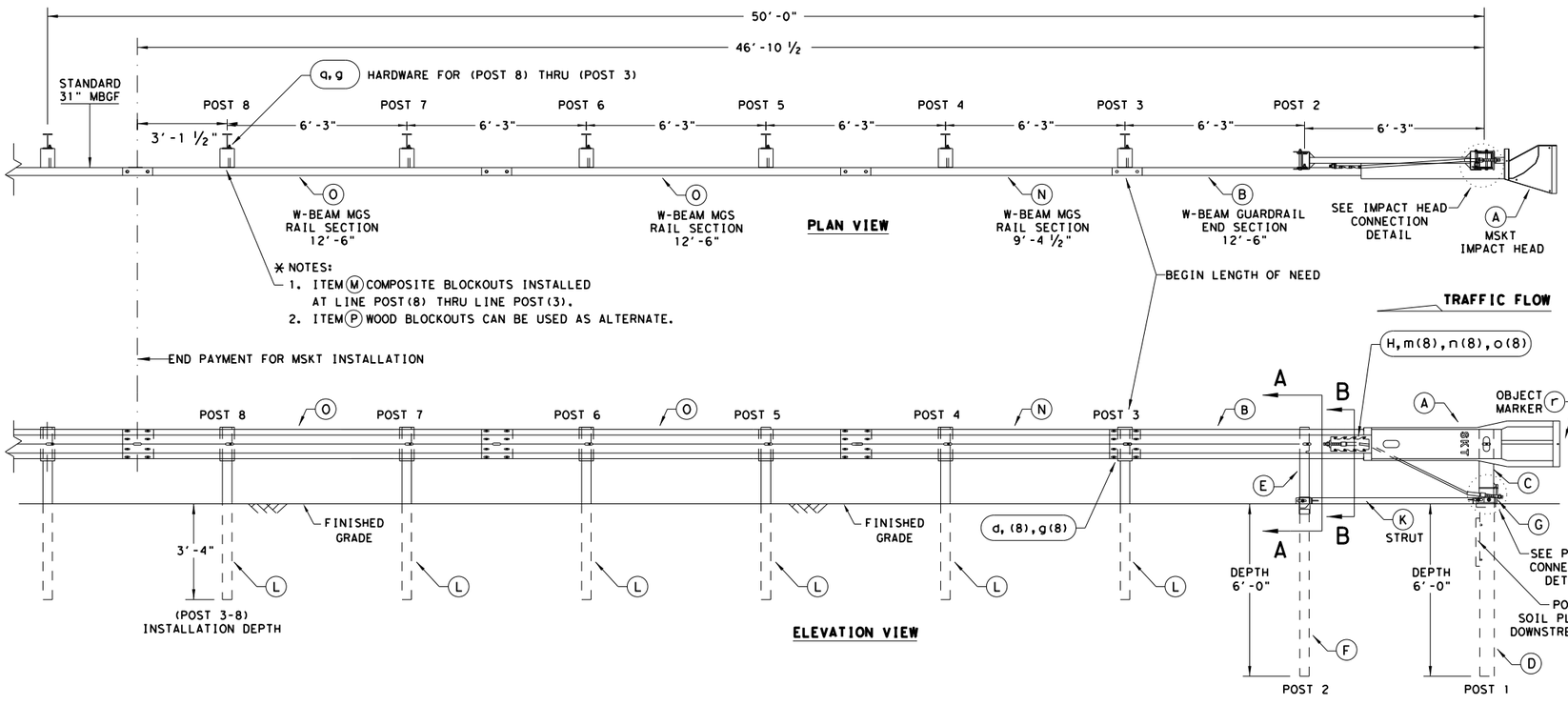
Design Division Standard

MAX-TENSION END TERMINAL
MASH - TL-3
SGT(11S)31-18

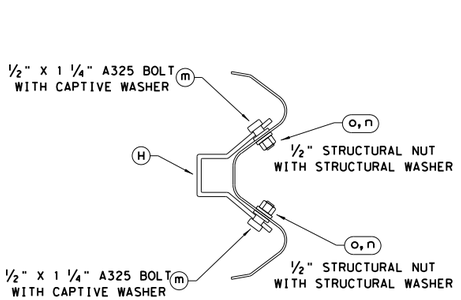
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	DIST	COUNTY		SHEET NO.
	WACO	BELL		44

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE "TEXAS ENGINEERING PRACTICE ACT". NO WARRANTY OF ANY KIND IS MADE BY TXDOT FOR ANY PURPOSE WHATSOEVER. TXDOT ASSUMES NO RESPONSIBILITY FOR THE CONVERSIONOF THIS STANDARD TO OTHER FORMATS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

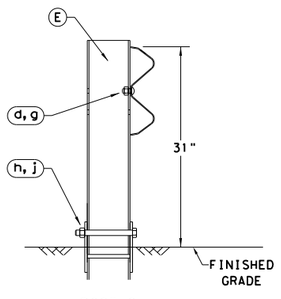
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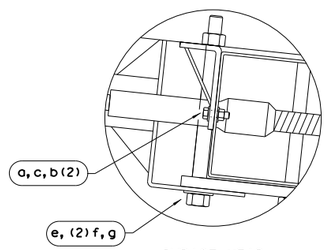
NOTE: SEE (GENERAL NOTE 14) FOR DRIVING CAP INFORMATION.



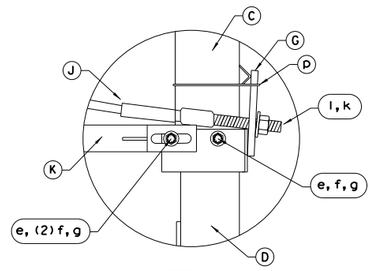
SECTION B-B
ANCHOR BRACKET



POST 2
SECTION A-A



IMPACT HEAD
CONNECTION DETAIL



POST 1
CONNECTION DETAIL

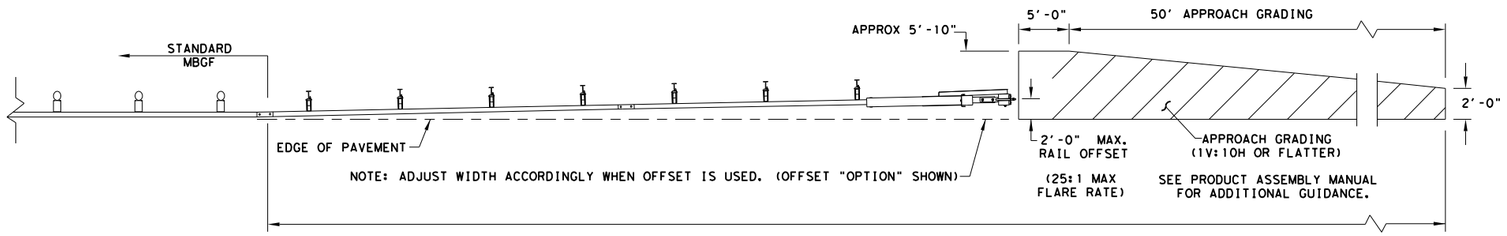
GENERAL NOTES

1. FOR SPECIFIC INFORMATION REGARDING INSTALLATION AND TECHNICAL GUIDANCE OF THE SYSTEM, CONTACT: ROAD SYSTEMS, INC. (432)263-2435. 3616 OLD HOWARD COUNTY AIRPORT, BIG SPRING, TX 79720
2. FOR INSTALLATION, REPAIR AND MAINTENANCE REFER TO THE; MSKT END TERMINAL, PRODUCT DESCRIPTION ASSEMBLY MANUAL (PUBLICATION~062717).
3. APPLY HIGH INTENSITY REFLECTIVE SHEETING, "OBJECT MARKER" ON THE FRONT FACE OF THE DEVICE PER MANUFACTURER'S RECOMMENDATIONS. OBJECT MARKER SHALL CONFORM TO THE STANDARDS REQUIRED IN TEXAS MUTCD.
4. FOR POST (LEAVE-OUT) INSTALLATION AND GUIDANCE SEE TXDOT'S LATEST ROADWAY MOW STRIP STANDARD.
5. HARDWARE (BOLTS, NUTS, & WASHERS) SHALL BE GALVANIZED IN ACCORDANCE WITH ITEM 445, "GALVANIZING". FITTINGS SHALL BE SUBSIDIARY TO THE BID ITEM.
6. SYSTEM SHOWN USING STEEL WIDE FLANGE POSTS WITH COMPOSITE BLOCKOUTS.
7. A COMPOSITE MATERIAL BLOCKOUTS THAT MEETS THE REQUIREMENTS OF DMS-7210, MAY BE SUBSTITUTED FOR BLOCKOUTS OF SIMILAR DIMENSIONS. SEE CONSTRUCTION DIVISION MATERIAL PRODUCER LIST (MPL) FOR CERTIFIED PRODUCERS.
8. IF SOLID ROCK IS ENCOUNTERED IN THE AREA OF (POST 1) AND / OR (POST 2) CONTACT THE MANUFACTURER, & REFER TO THE LATEST ROADWAY MBGF STANDARD FOR INSTALLATION GUIDANCE.
9. POSTS SHALL NOT BE SET IN CONCRETE.
10. SYSTEM MUST BE ATTACHED TO STANDARD 31" MBGF.
11. UNDER NO CIRCUMSTANCES SHALL THE GUARDRAIL WITHIN THE MSKT SYSTEM BE CURVED.
12. A FLARE RATE OF UP TO 25:1 MAY BE USED TO PREVENT THE TERMINAL HEAD FROM ENCROACHING ON THE SHOULDER. THE FLARE MAY BE DECREASED OR ELIMINATED FOR SPECIFIC INSTALLATIONS, IF DIRECTED BY THE ENGINEER.
13. THE SYSTEM IS SHOWN WITH TWO 12'-6" MBGF PANELS, ONE 25'-0" MBGF PANEL IS ALSO ALLOWED IN THEIR PLACE.
14. A DRIVING CAP WITH A TIMBER OR PLASTIC INSERT SHALL BE USED WHEN DRIVING POSTS 3-8 TO PREVENT DAMAGE TO THE GALVANIZING ON TOP OF THE POST. SPECIAL DRIVING CAP TO BE USED ON LOWER POSTS 1 & 2 TO PREVENT DAMAGE TO THE WELDED PLATES.

ITEM	QTY	MAIN SYSTEM COMPONENTS	ITEM NUMBERS
A	1	MSKT IMPACT HEAD	MS3000
B	1	W-BEAM GUARDRAIL END SECTION, 12 Ga.	SF1303
C	1	POST 1 - TOP (6" X 6" X ⅛" TUBE)	MTPHP1A
D	1	POST 1 - BOTTOM (6' W6X15)	MTPHP1B
E	1	POST 2 - ASSEMBLY TOP	UHP2A
F	1	POST 2 - ASSEMBLY BOTTOM (6' W6X9)	HP2B
G	1	BEARING PLATE	E750
H	1	CABLE ANCHOR BOX	S760
J	1	BCT CABLE ANCHOR ASSEMBLY	E770
K	1	GROUND STRUT	MS785
L	6	W6x9 OR W6x8.5 STEEL POST	P621
M	6	COMPOSITE BLOCKOUTS	CBSP-14
N	1	W-BEAM MGS RAIL SECTION (9'-4 ½")	G12025
O	2	W-BEAM MGS RAIL SECTION (12'-6")	G1203A
P	6	WOOD BLOCKOUT 6" X 8" X 14"	P675
Q	1	W-BEAM MGS RAIL SECTION (25'-0")	G1209
		SMALL HARDWARE	
a	2	⅝" x 1" HEX BOLT (GRD 5)	B5160104A
b	4	⅝" WASHER	W0516
c	2	⅝" HEX NUT	N0516
d	25	⅝" Dia. x 1 ¼" SPLICE BOLT (POST 2)	B580122
e	2	⅝" Dia. x 9" HEX BOLT (GRD A449)	B580904A
f	3	⅝" WASHER	W050
g	33	⅝" Dia. H.G.R NUT	N050
h	1	¾" Dia. x 8 ½" HEX BOLT (GRD A449)	B340854A
j	1	¾" Dia. HEX NUT	N030
k	2	1 ANCHOR CABLE HEX NUT	N100
l	2	1 ANCHOR CABLE WASHER	W100
m	8	½" x 1 ¼" A325 BOLT WITH CAPTIVE WASHER	SB12A
n	8	½" STRUCTURAL NUTS	N012A
o	8	1 1/16" O.D. x ⅜" I.D. STRUCTURAL WASHERS	W012A
p	1	BEARING PLATE RETAINER TIE	CT-100ST
q	6	⅝" x 10" H.G.R. BOLT	B581002
r	1	OBJECT MARKER 18" X 18"	E3151

SEE NOTES: *

ALTERNATIVE ITEMS NOT SHOWN. **
* ITEM(P) 8" WOOD-BLOCKOUT
** ITEM(Q) 25'GUARD FENCE PANEL



NOTE: ADJUST WIDTH ACCORDINGLY WHEN OFFSET IS USED. (OFFSET "OPTION" SHOWN)

APPROACH GRADING AT GUARDRAIL END TREATMENTS

NOTE: TXDOT GENERIC APPROACH GRADING LAYOUT USED FOR ALL TANGENT TYPE END TREATMENTS.

NOTE: THIS STANDARD IS A BASIC REPRESENTATION OF THE MSKT END TERMINAL, IT IS NOT INTENDED TO REPLACE THE PRODUCT DESCRIPTION ASSEMBLY MANUAL.

Texas Department of Transportation

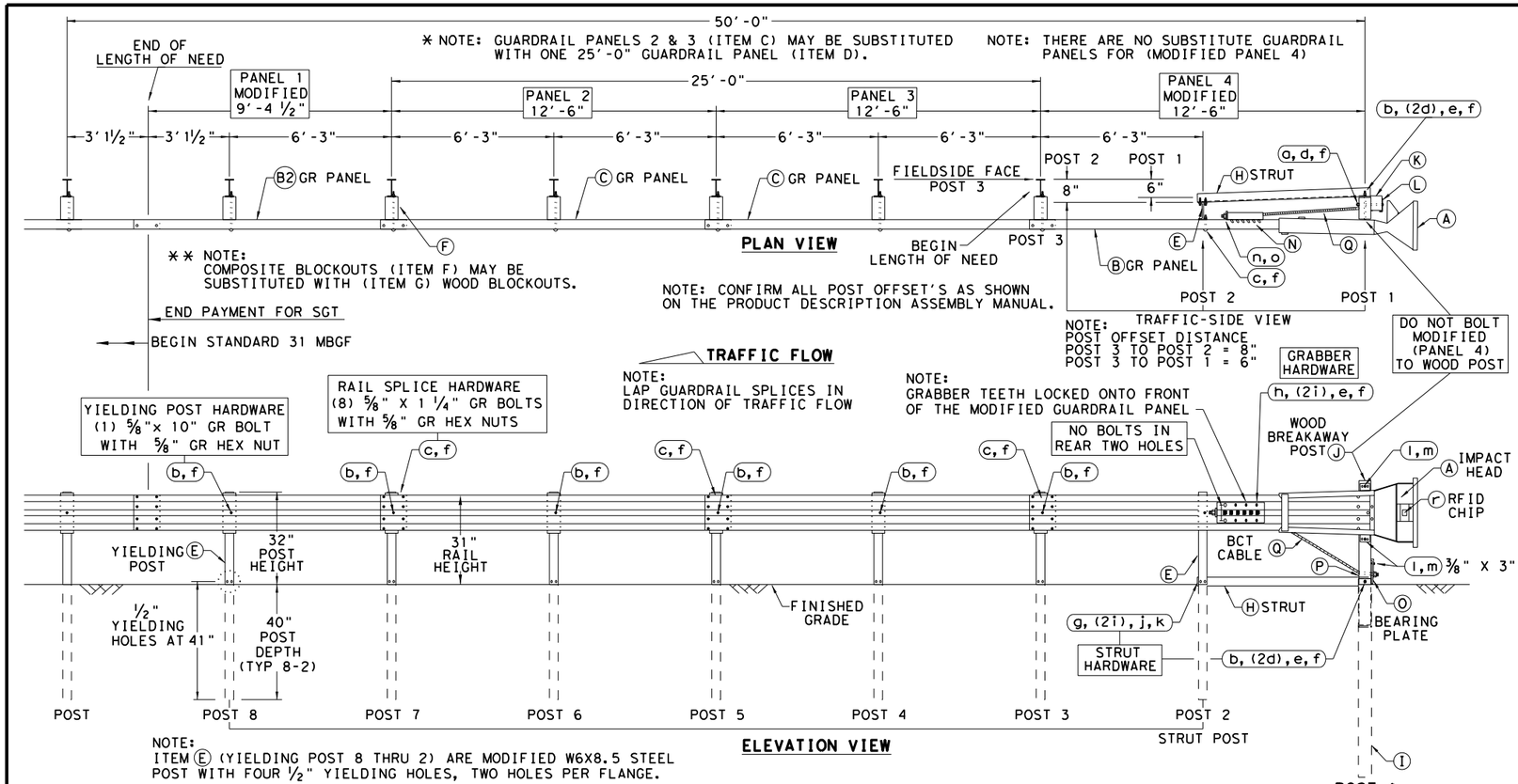
Design Division Standard

SINGLE GUARDRAIL TERMINAL
MSKT-MASH-TL-3
SGT(12S)31-18

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	DIST	COUNTY		SHEET NO.	
	WACO	BELL		45	

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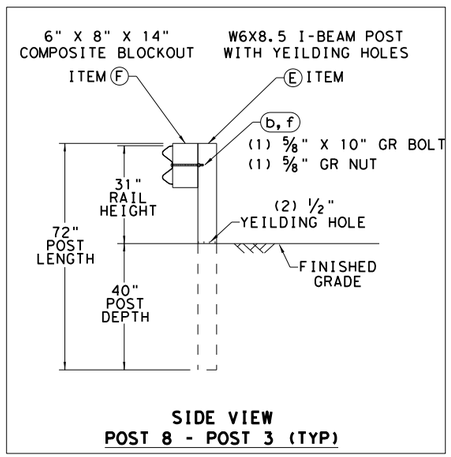


GENERAL NOTES

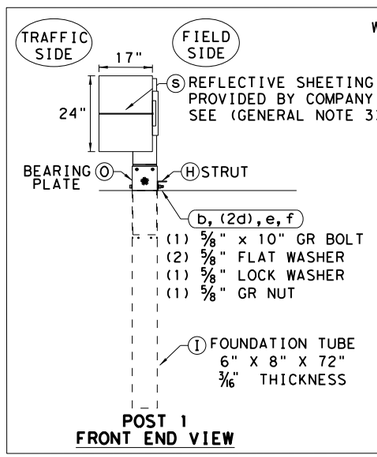
1. FOR SPECIFIC INFORMATION REGARDING INSTALLATION AND TECHNICAL GUIDANCE OF THE SYSTEM, CONTACT: SPIG INDUSTRY, INC. AT 1(267) 644-9510. 14675 INDUSTRIAL PARK RD; BRISTOL, VA 24202
2. FOR INSTALLATION, REPAIR AND MAINTENANCE REFER TO THE MANUFACTURER'S; SGET END TERMINAL, PRODUCT DESCRIPTION ASSEMBLY MANUAL.
3. MANUFACTURER WILL APPLY HIGH INTENSITY REFLECTIVE SHEETING, "OBJECT MARKER" TO THE FACE PLATE OF THE DEVICE PER MANUFACTURER'S RECOMMENDATIONS. THE OBJECT MARKER SHALL CONFORM TO THE STANDARDS REQUIRED IN TEXAS MUTCD.
4. THE NOMINAL HEIGHT OF THE GUARDRAIL BEAM IS 31 INCHES WITH A TOLERANCE OF +/- ONE INCH.
5. FOR POST (LEAVE-OUT) INSTALLATION AND GUIDANCE SEE TXDOT'S LATEST ROADWAY MOW STRIP STANDARD.
6. (POST 2 THROUGH POST 8) ARE MODIFIED STEEL-YIELDING POSTS WITH YIELDING HOLES AT GROUND LEVEL. THERE ARE NO SUBSTITUTE POSTS.
7. POSTS SHALL NOT BE SET IN CONCRETE.
8. IF SOLID ROCK IS ENCOUNTERED FOR ANY OF THE POSTS IN THE SYSTEM, CONTACT THE MANUFACTURER FOR SPECIFIC INSTALLATION GUIDANCE.
9. HARDWARE (BOLTS, NUTS, & WASHERS) SHALL BE GALVANIZED IN ACCORDANCE WITH ITEM 445,"GALVANIZING". FITTINGS SHALL BE SUBSIDIARY TO THE BID ITEM.
10. A COMPOSITE MATERIAL BLOCKOUT THAT MEETS DMS-7210 REQUIREMENTS MAY BE SUBSTITUTED FOR AN APPROVED WOOD BLOCKOUT. SEE CONSTRUCTION DIVISION MATERIAL PRODUCER LIST (MPL) FOR CERTIFIED PRODUCERS.
11. THE ENTIRE SYSTEM MUST BE INSTALLED IN A STRAIGHT LINE WITHOUT ANY CURVE. HOWEVER, THE SYSTEM CAN BE OFFSET BY TWO FEET AS SHOWN ON THE APPROACH GRADING DETAIL TO HELP OFF-SET THE IMPACT HEAD FROM SHOULDER OF THE ROAD.

ITEM	QTY	MAIN SYSTEM COMPONENTS	ITEM #
A	1	SGET IMPACT HEAD	SIH1A
B	1	MODIFIED GUARDRAIL PANEL 12'-6" 12GA	126SPZGP
B2	1	MODIFIED GUARDRAIL PANEL 9'-4 1/2" 12GA	GP94
C	2	STANDARD GUARDRAIL PANEL 12'-6" 12GA	GP126
D *	1	STANDARD GUARDRAIL PANEL 25'-0" 12GA	GP25
E	7	MODIFIED YIELDING I-BEAM POST W6x8.5	YP6MOD
F	6	COMPOSITE BLOCKOUT 6" X 8" X 14"	CBO8
G **	6	WOOD BLOCKOUT 6" X 8" X 14"	WBO8
H	1	STRUT 3" X 3" X 80" x 1/4" A36 ANGLE	STR80
I	1	FOUNDATION TUBE 6" X 8" X 72" x 3/16"	FNDT6
J	1	WOOD BREAKAWAY POST 5 1/2" x 7 1/2" x 50"	WBRK50
K	1	WOOD STRIKE BLOCK	WSBLK14
L	1	STRIKE PLATE 1/4" A36 BENT PLATE	SPLT8
M	1	REINFORCEMENT PLATE 12 GA. GR55	REPLT17
N	1	GUARDRAIL GRABBER 2 1/2" X 2 1/2" X 16 1/2"	GGR17
O	1	BEARING PLATE 8" X 8 5/8" X 5/8" A36	BPLT8
P	1	PIPE SLEEVE 4 1/4" X 2 3/8" O.D. (2 1/8" I.D.)	PSLV4
Q	1	BCT CABLE 3/4" X 81" LENGTH	CBL81
		SMALL HARDWARE	
a	1	5/8" X 12" GUARDRAIL BOLT 307A HDG	12GRBLT
b	7	5/8" X 10" GUARDRAIL BOLT 307A HDG	10GRBLT
c	33	5/8" X 1 1/4" GR SPLICE BOLTS 307A HDG	1GRBLT
d	3	5/8" FLAT WASHER F436 A325 HDG	58FW436
e	1	5/8" LOCK WASHER HDG	58LW
f	39	5/8" GUARDRAIL HEX NUT HDG	58HN563
g	2	1/2" X 2" STRUT BOLT A325 HDG	2BLT
h	6	1/2" X 1 1/4" PLATE BOLT A325 HDG	125BLT
i	16	1/2" FLAT WASHER F436 A325 HDG	12FWF436
j	8	1/2" LOCK WASHER HDG	12LW
k	8	1/2" HEX NUT A563 HDG	12HN563
l	4	3/8" X 3" HEX LAG SCREW GR5 HDG	38LS
m	4	3/8" FLAT WASHER F436 A325 HDG	38FW844
n	2	1" FLAT WASHER F436 A325 HDG	1FWF436
o	2	1" HEX NUT A563DH HDG	1HN563
p	1	18" TO 24" LONG ZIP TIE RATED 175-200LB	ZPT18
q	1	1 1/2" X 4" SCH-40 PVC PIPE	PSPCR4
r	1	RFID CHIP RATED MIL-STD-810F	RFID810F
s	1	IMPACT HEAD REFLECTIVE SHEETING	RS30M

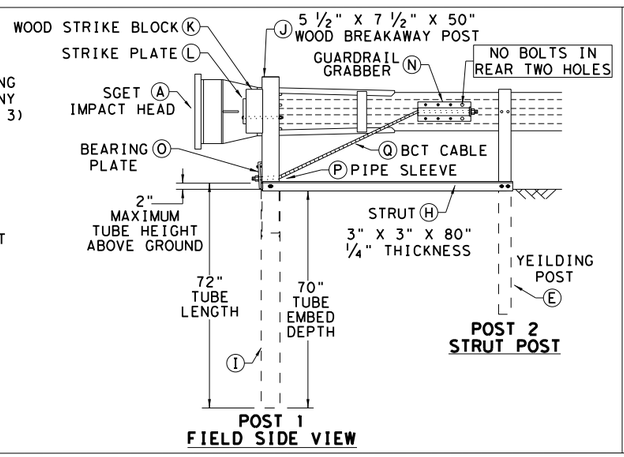
* ALTERNATIVE ITEMS
** NOTE: SEE PLAN VIEW



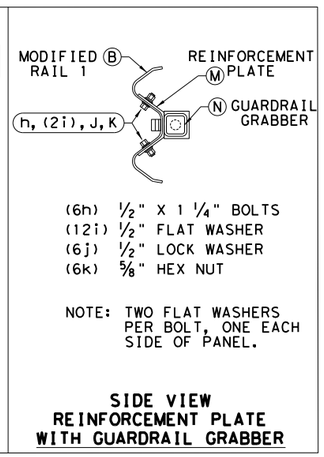
SIDE VIEW
POST 8 - POST 3 (TYP)



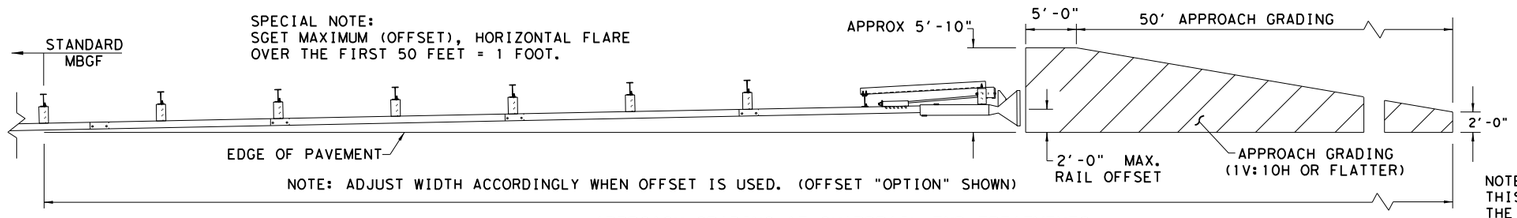
POST 1
FRONT END VIEW



POST 1
FIELD SIDE VIEW



SIDE VIEW
REINFORCEMENT PLATE
WITH GUARDRAIL GRABBER



APPROACH GRADING AT GUARDRAIL END TREATMENTS

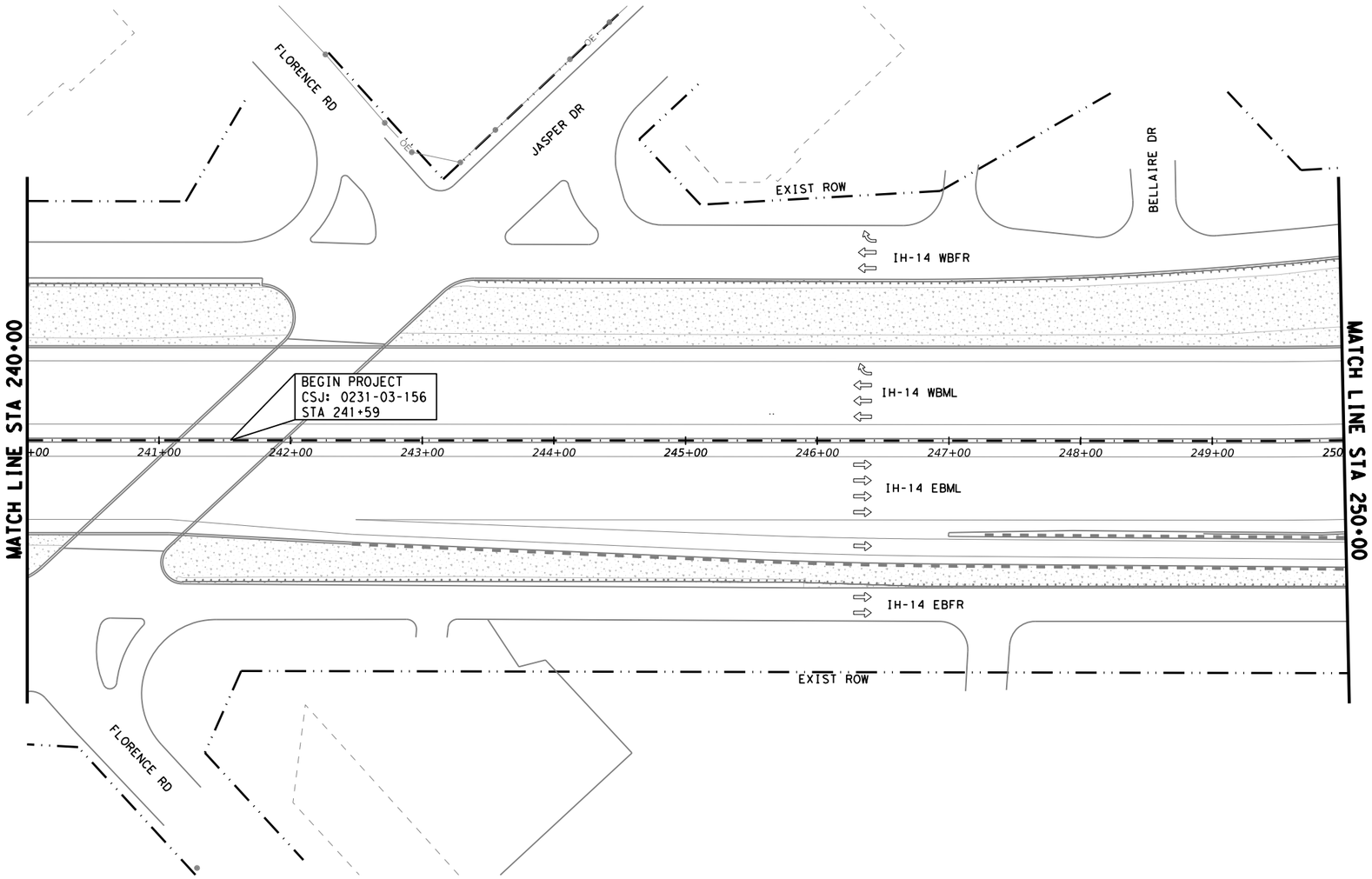
NOTE:
THIS STANDARD IS A BASIC REPRESENTATION OF THE SGET TERMINAL SYSTEM AND IS NOT INTENDED TO REPLACE THE MANUFACTURER'S ASSEMBLY MANUAL.

Texas Department of Transportation
Design Division Standard

SPIG INDUSTRY, LLC
SINGLE GUARDRAIL TERMINAL
SGET - TL-3 - MASH
SGT(15)31-20

FILE: sgt153120.dgn	DN: TxDOT	CK: KM	DW: VP	CK: VP
©TxDOT: APRIL 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		46

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	690 7144 REMOVE ABOVE-GROUND CONDUIT LF	0690 7150 REMOVE CONDUCTOR LF
NO REMOVALS THIS SHEET					

INTERIM REVIEW

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REMOVAL LAYOUT

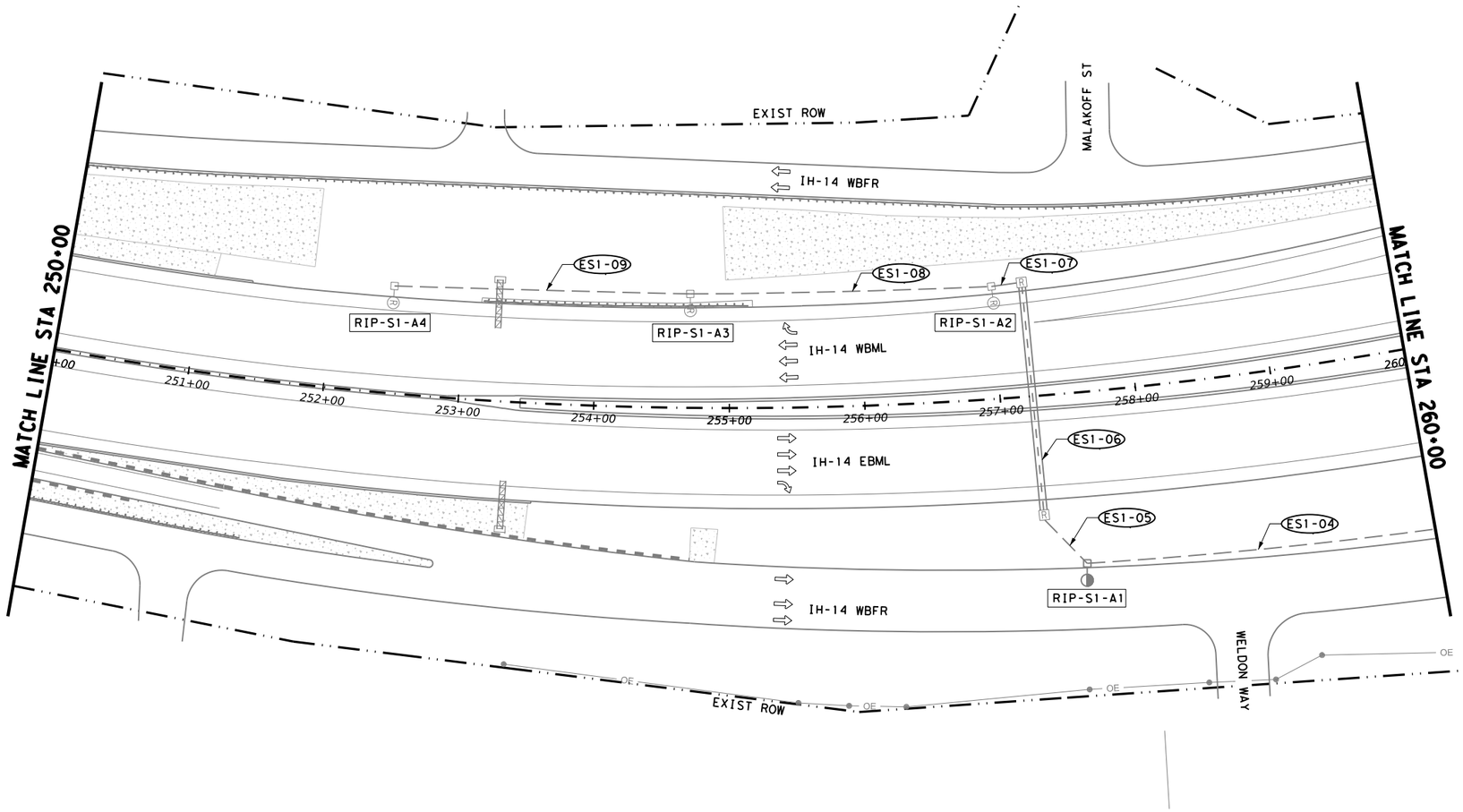
SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 1 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		47

NODE

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NODE



LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES1-04	ES1	A	259	NO WORK	
ES1-05	ES1	A	48		144
ES1-06	ES1	A	172		516
ES1-07	ES1	A	22		66
ES1-08	ES1	A	220		660
ES1-09	ES1	A	220		660
			SHEET TOTAL:		2046

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	3
624 7013	REMOVE GROUND BOX	EA	2
690 7150	REMOVE CONDUCTOR	LF	2046

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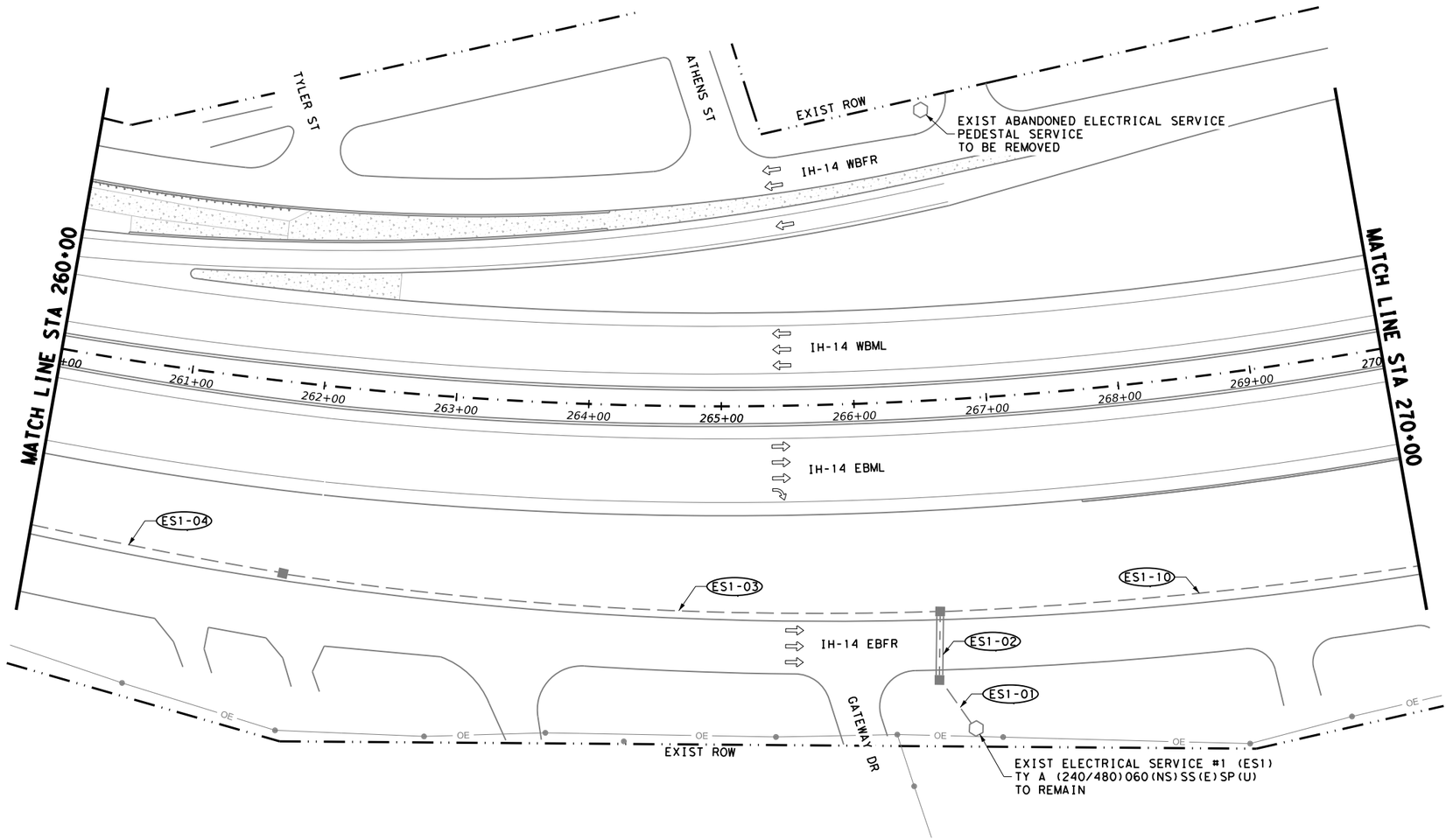
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REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		48



LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES1-01	ES1	ABC	46	NO WORK	
ES1-02	ES1	ABC	52	NO WORK	
ES1-03	ES1	A	498	NO WORK	
ES1-04	ES1	A	194	NO WORK	
ES1-10	ES1	BC	365	NO WORK	
SHEET TOTAL:					

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
628 7002	REMOVE ELECTRICAL SERVICES	EA	1

INTERIM REVIEW

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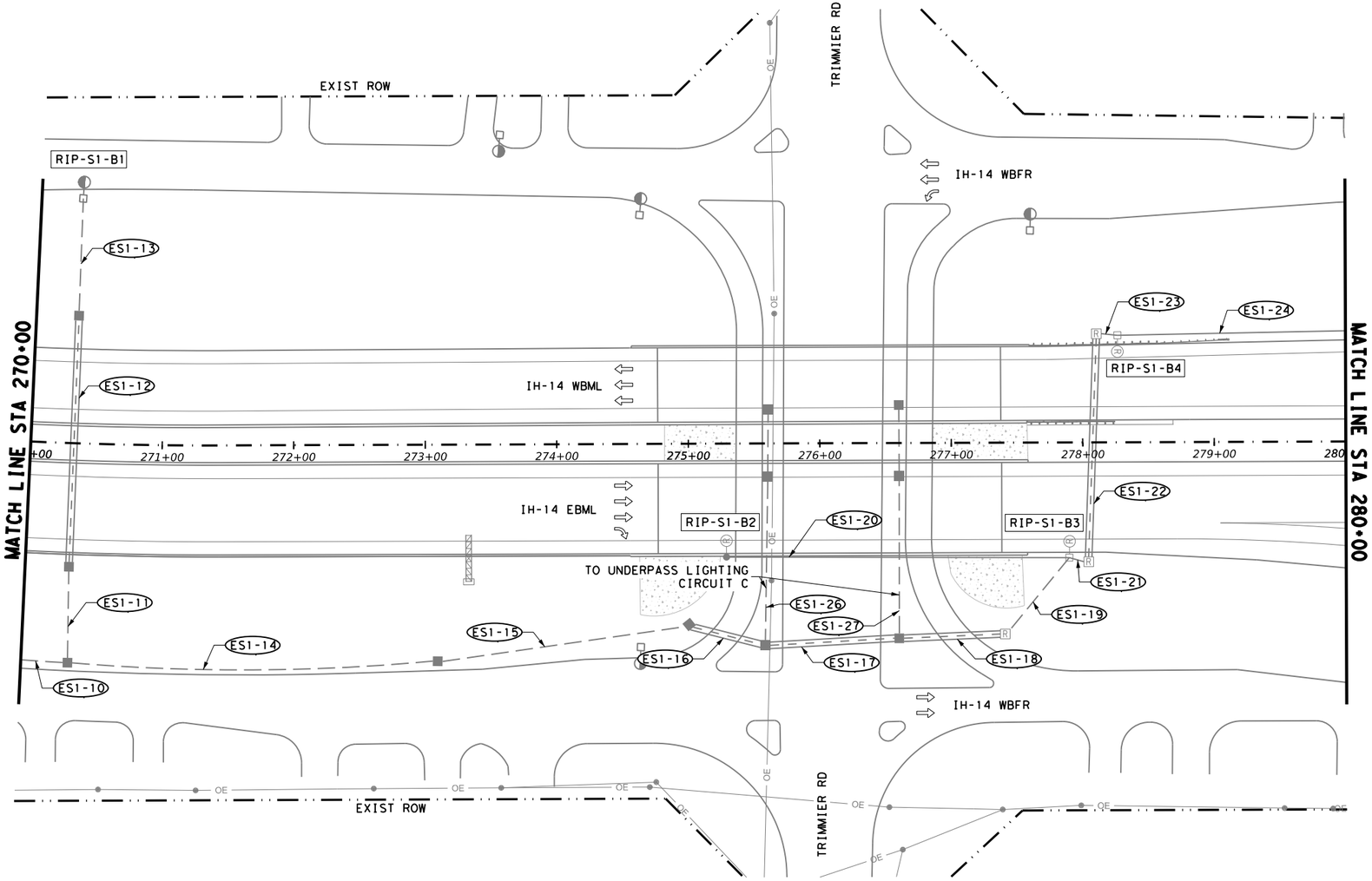
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 3 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		49

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690 0690	
				7144 7150	
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES1-10	ES1	BC	36	NO WORK	
ES1-11	ES1	B	73	NO WORK	
ES1-12	ES1	B	191	NO WORK	
ES1-13	ES1	B	89	NO WORK	
ES1-14	ES1	BC	282		1410
ES1-15	ES1	BC	193		965
ES1-16	ES1	BC	60		300
ES1-17	ES1	BC	102		510
ES1-18	ES1	B	81		243
ES1-19	ES1	B	76		228
ES1-20	ES1	B	261	261	783
ES1-21	ES1	B	15		45
ES1-22	ES1	B	174		522
ES1-23	ES1	B	16		48
ES1-24	ES1	B	173		519
ES1-26	ES1	C	128	NO WORK	
ES1-27	ES1	C	123	NO WORK	
			SHEET TOTAL:	261	5573

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7006	REMOVE RD IL ASM (BRIDGE MOUNT)	EA	1
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	2
624 7013	REMOVE GROUND BOX	EA	3
690 7144	REMOVE ABOVE-GROUND CONDUIT	LF	261
690 7150	REMOVE CONDUCTOR	LF	5573

INTERIM REVIEW

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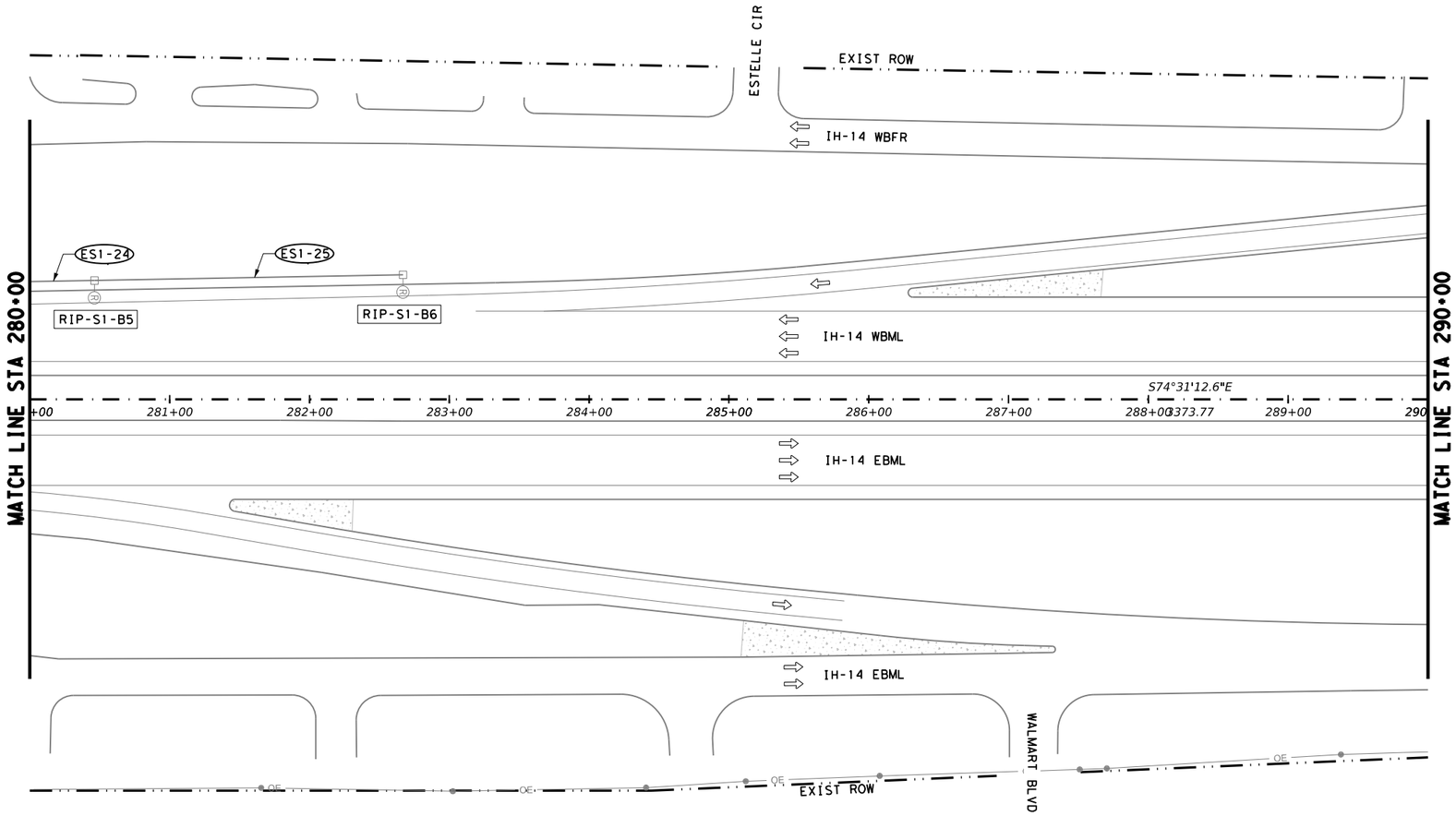
REMOVAL LAYOUT

SCALE: 1" = 100' HORIZ. 0 25 50 100 FEET

SHEET 4 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		50

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES1-24	ES1	B	46		138
ES1-25	ES1	B	220		660
			SHEET TOTAL:		798

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	2
690 7150	REMOVE CONDUCTOR	LF	798

INTERIM REVIEW

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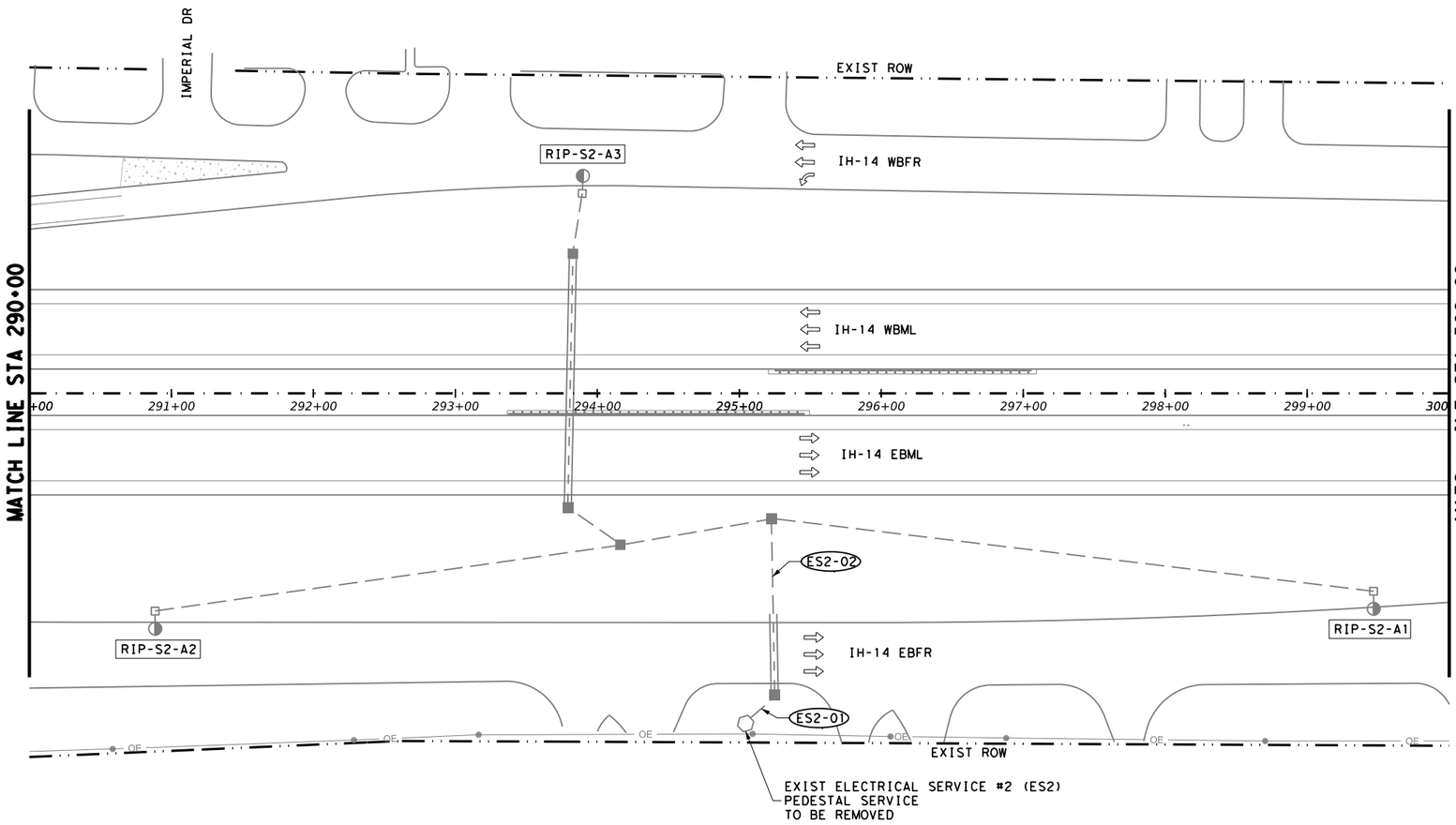
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 5 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		51

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES2-01	ES2	A	29		87
ES2-02	ES2	A	124	NO WORK	
			SHEET TOTAL:		87

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
628 7002	REMOVE ELECTRICAL SERVICES	EA	1
690 7150	REMOVE CONDUCTOR	LF	87

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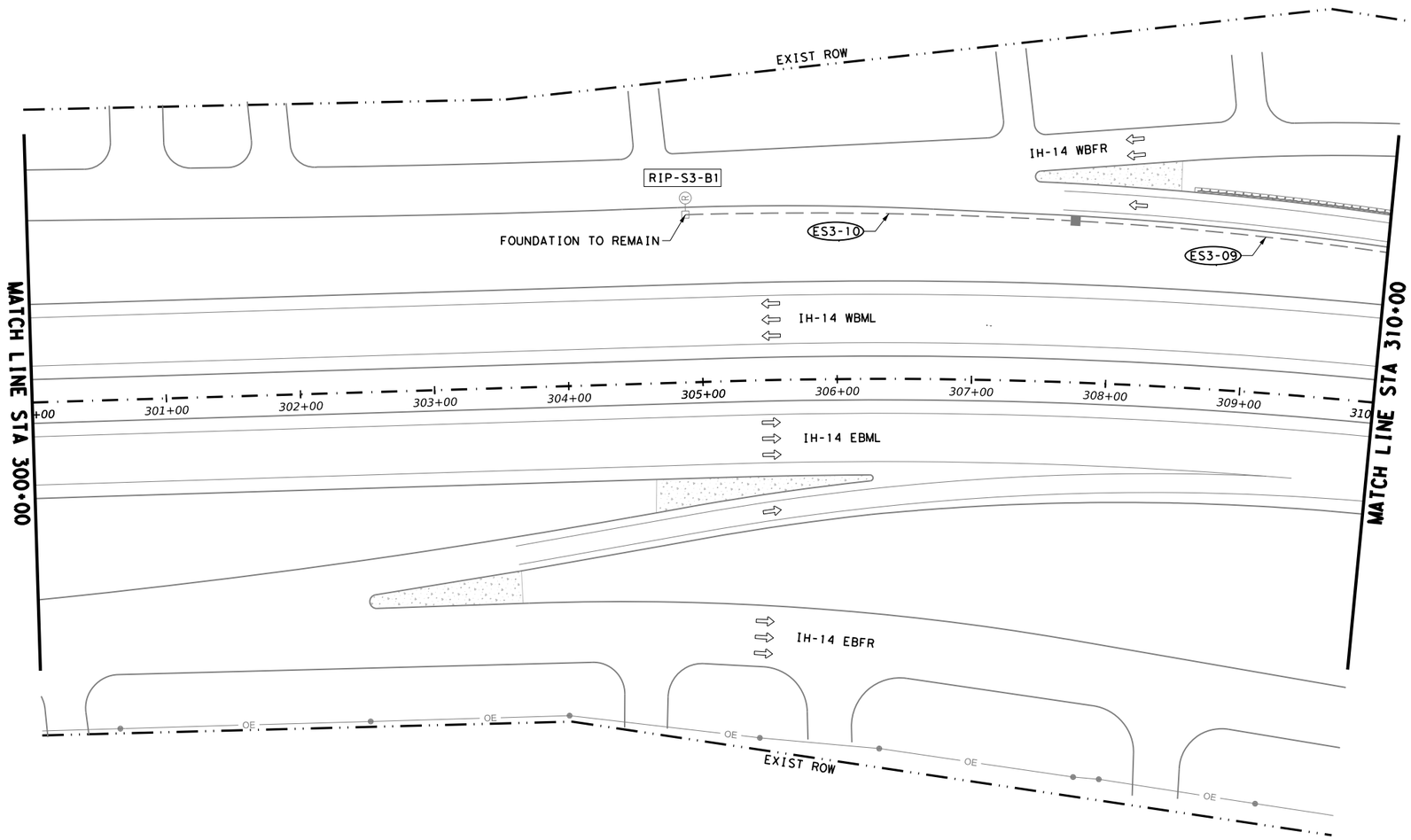
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 6 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		52

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES3-09	ES3	B	234		702
ES3-10	ES3	B	291		873
			SHEET TOTAL:		1575

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	1
690 7150	REMOVE CONDUCTOR	LF	1575

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REMOVAL LAYOUT

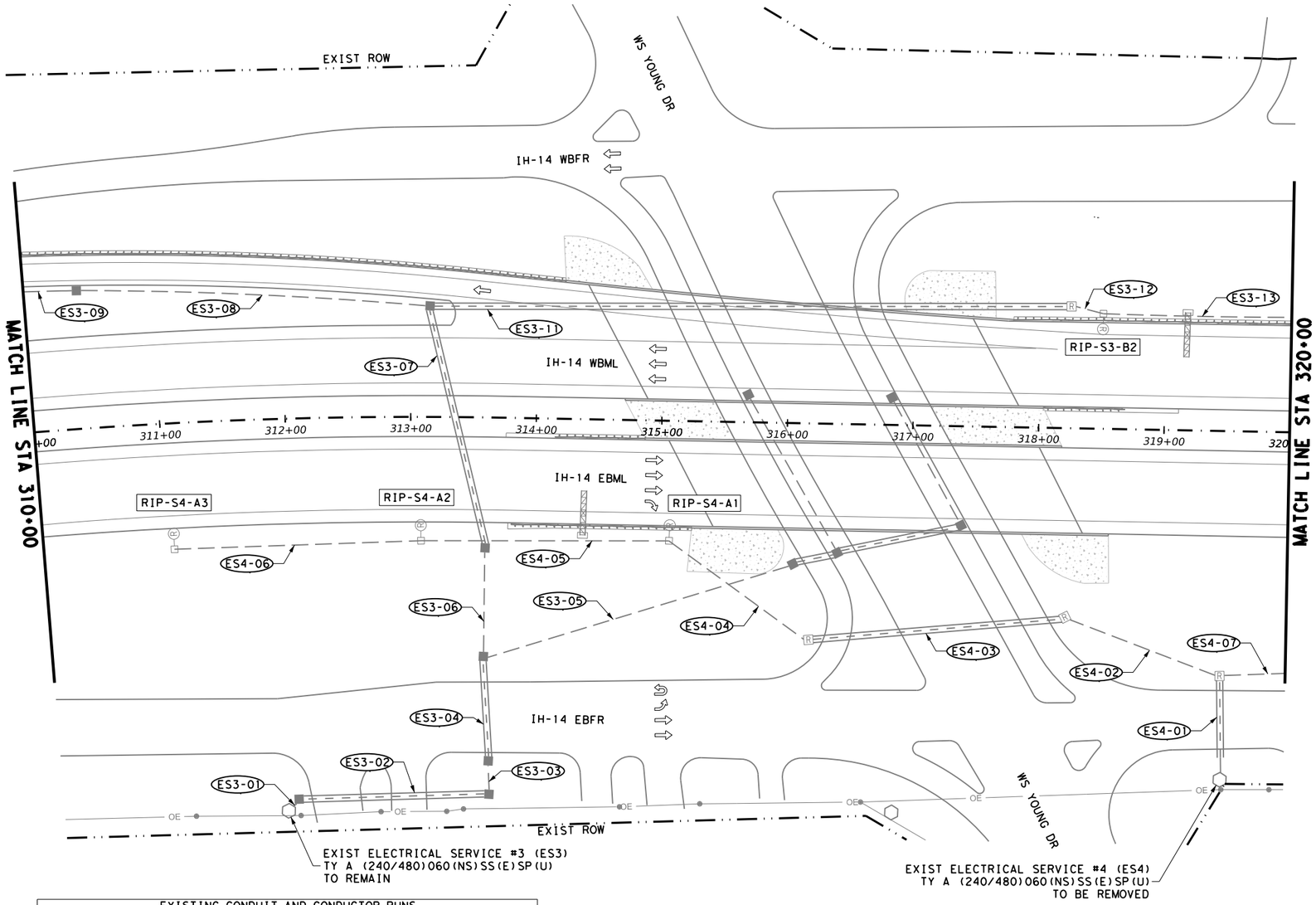
SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 7 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		53

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NODE

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES3-01	ES3	AB	12		60
ES3-02	ES3	AB	151		755
ES3-03	ES3	AB	26		130
ES3-04	ES3	AB	83		415
ES3-05	ES3	A	257		771
ES3-06	ES3	B	86		258
ES3-07	ES3	B	197		591
ES3-08	ES3	B	282		846
ES3-09	ES3	B	42		126
ES3-11	ES3	B	511		1533
ES3-12	ES3	B	26		78
ES3-13	ES3	B	150		450
ES4-01	ES4	A	83		249
ES4-02	ES4	A	132		396
ES4-03	ES4	A	205		615
ES4-04	ES4	A	136		408
ES4-05	ES4	A	197		591
ES4-06	ES4	A	196		588
ES4-07	ES4	A	52		156
			SHEET TOTAL:		9016

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	4
624 7013	REMOVE GROUND BOX	EA	4
628 7002	REMOVE ELECTRICAL SERVICES	EA	1
690 7150	REMOVE CONDUCTOR	LF	9016

INTERIM REVIEW

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REMOVAL LAYOUT

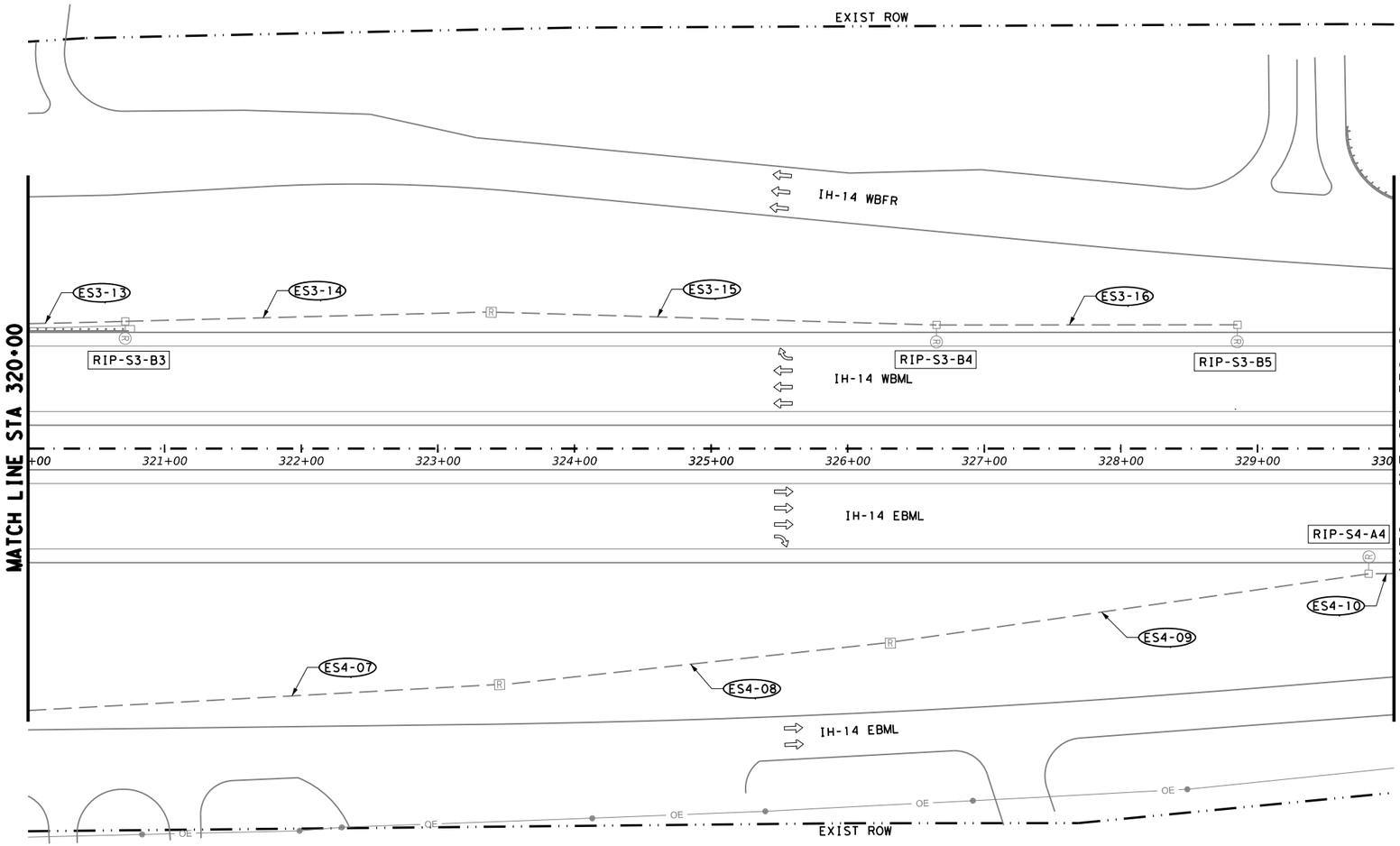
SCALE: 1" = 100' HORIZ. 0 25 50 100 FEET

SHEET 8 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		54

NODE

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NODE



LEGEND

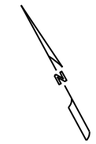
- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT



EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES3-13	ES3	B	71		213
ES3-14	ES3	B	268		804
ES3-15	ES3	B	326		978
ES3-16	ES3	B	220		660
ES4-07	ES4	A	346		1038
ES4-08	ES4	A	288		864
ES4-09	ES4	A	354		1062
ES4-10	ES4	A	19		57
			SHEET TOTAL:		5676

SUMMARY OF REMOVAL ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
610	7009	REMOVE RD IL ASM (TRANS-BASE)	EA	4
624	7013	REMOVE GROUND BOX	EA	3
690	7150	REMOVE CONDUCTOR	LF	5676

INTERIM REVIEW

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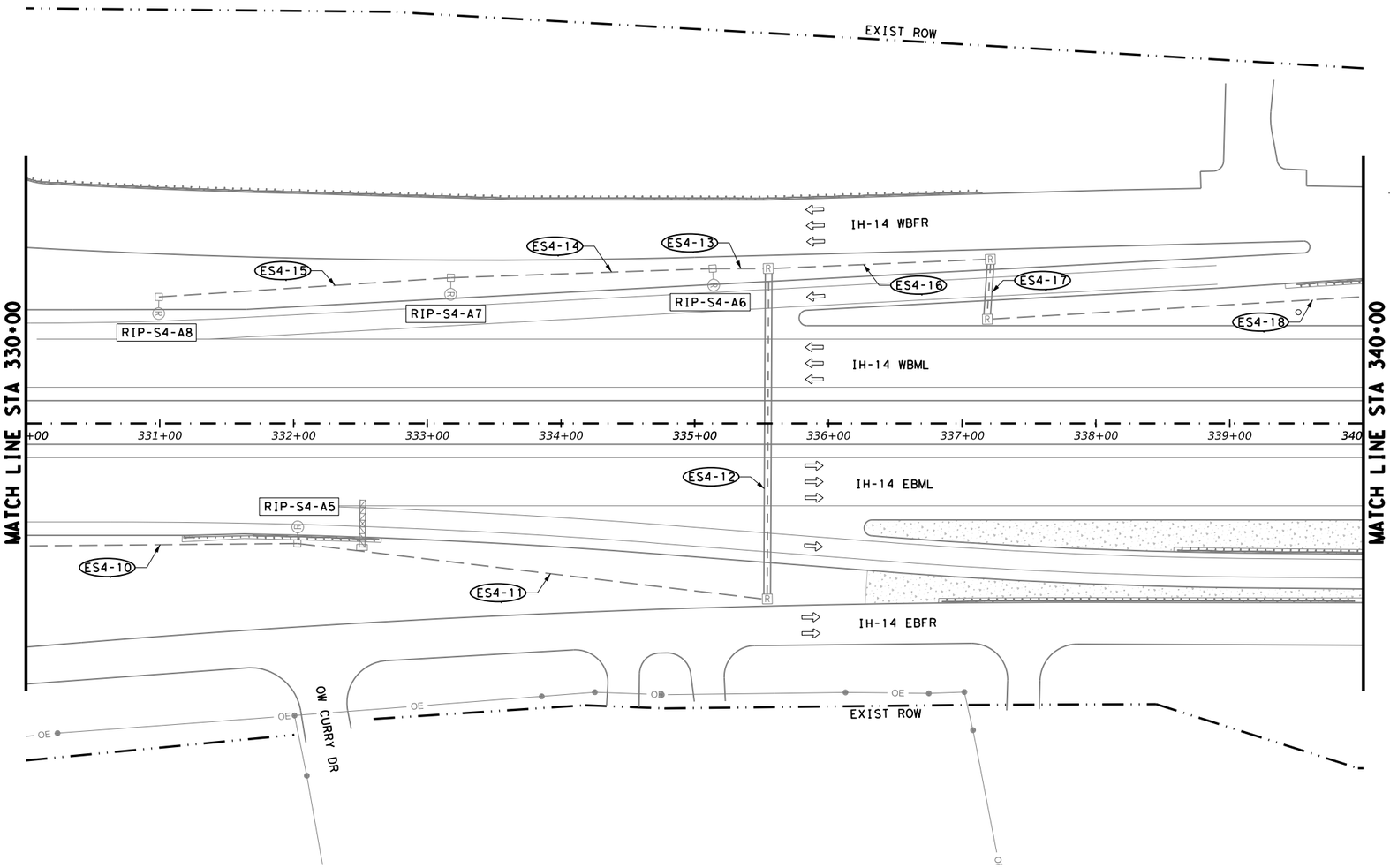
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 9 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		55

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES4-10	ES4	A	203		609
ES4-11	ES4	A	354		1062
ES4-12	ES4	A	247		741
ES4-13	ES4	A	42		126
ES4-14	ES4	A	196		588
ES4-15	ES4	A	219		657
ES4-16	ES4	A	166		498
ES4-17	ES4	A	45		135
ES4-18	ES4	A	282		846
			SHEET TOTAL:		5262

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	4
624 7013	REMOVE GROUND BOX	EA	4
690 7150	REMOVE CONDUCTOR	LF	5262

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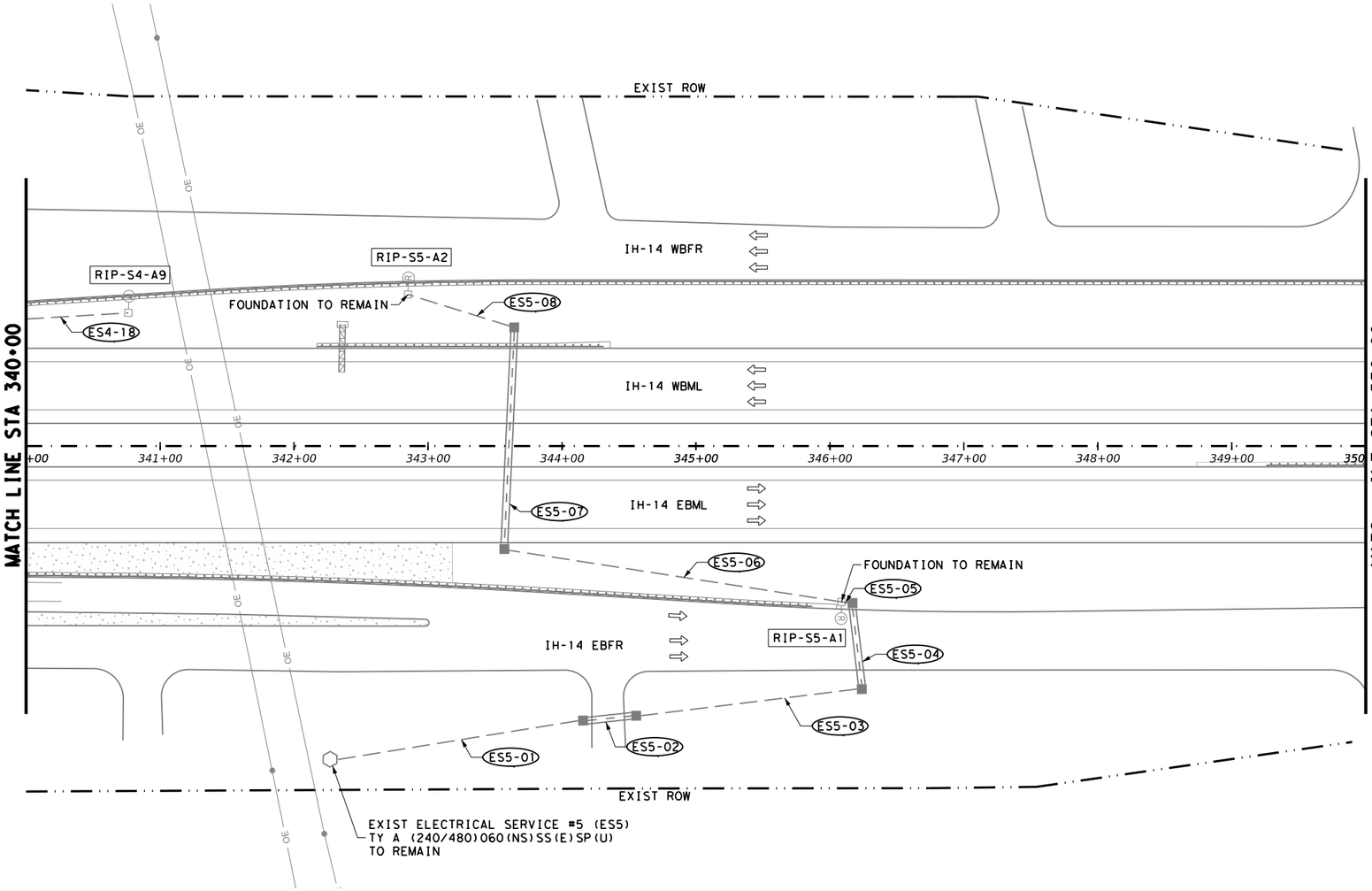
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REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 10 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		56



LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES4-18	ES4	A	76		228
ES5-01	ES5	A	191		573
ES5-02	ES5	A	40		120
ES5-03	ES5	A	170		510
ES5-04	ES5	A	65		195
ES5-05	ES5	A	8		24
ES5-06	ES5	A	255		765
ES5-07	ES5	A	166		498
ES5-08	ES5	A	83		249
			SHEET TOTAL:		3162

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	3
690 7150	REMOVE CONDUCTOR	LF	3162

INTERIM REVIEW

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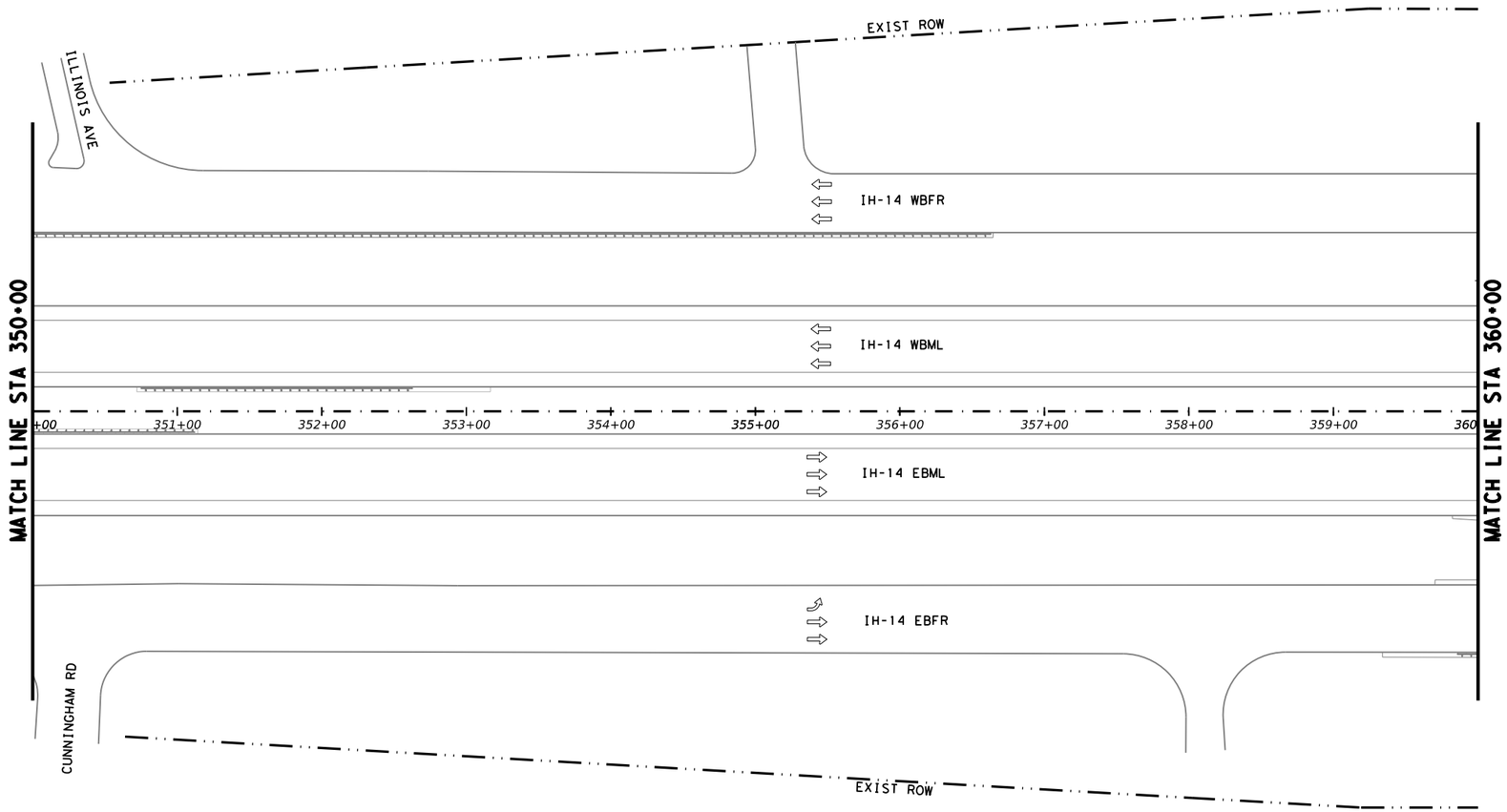
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 11 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		57

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	690 7144 REMOVE ABOVE-GROUND CONDUIT	0690 7150 REMOVE CONDUCTOR
				LF	LF
NO REMOVALS THIS SHEET					

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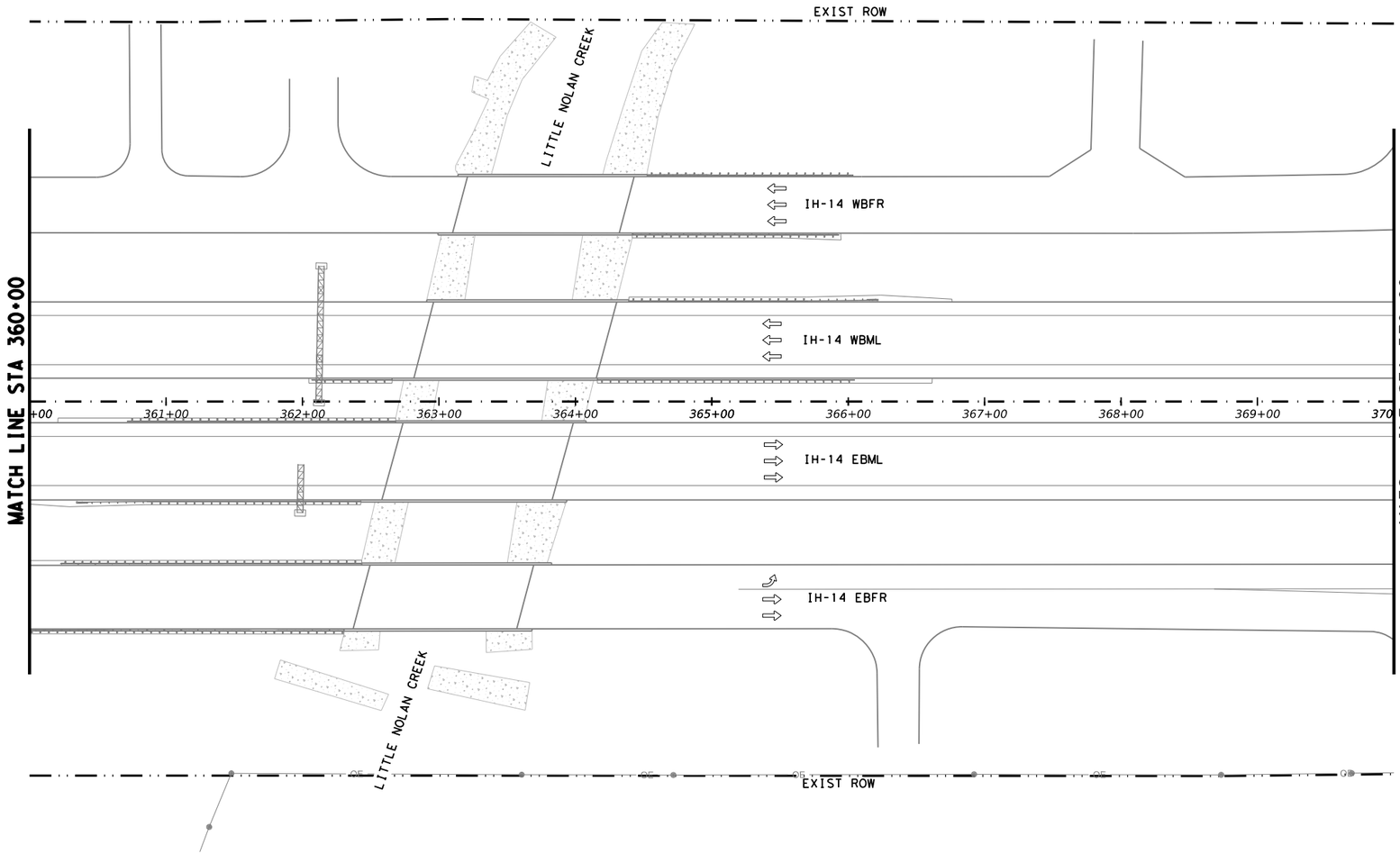
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 12 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		58

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NODE



LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	690 7144 REMOVE ABOVE-GROUND CONDUIT LF	0690 7150 REMOVE CONDUCTOR LF
NO REMOVALS THIS SHEET					

INTERIM REVIEW

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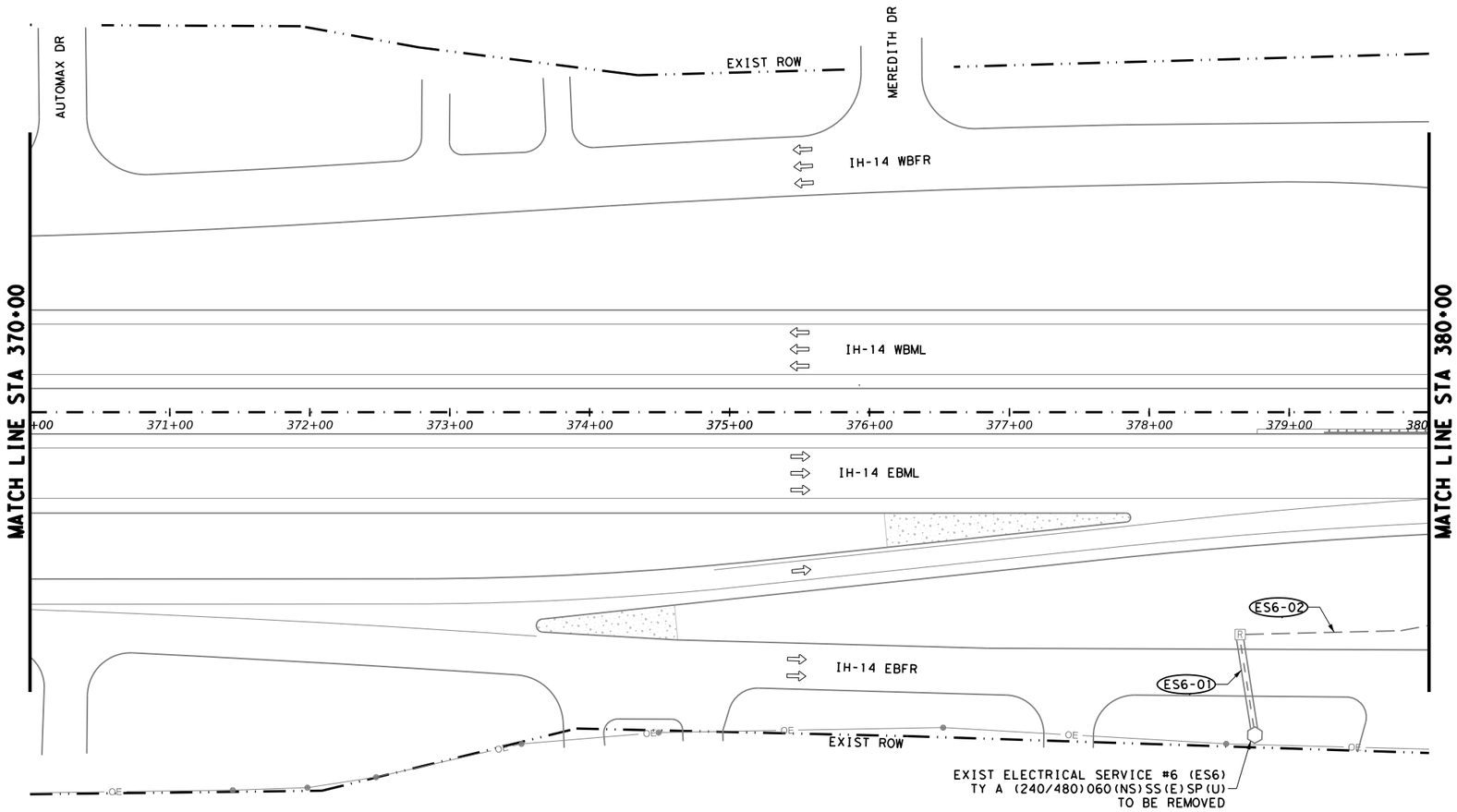
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 13 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		59

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NODE



LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	690 7144 REMOVE ABOVE-GROUND CONDUIT LF	0690 7150 REMOVE CONDUCTOR LF
ES6-01	ES6	A	73		219
ES6-02	ES6	A	135		405
			SHEET TOTAL:		624

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7006	REMOVE RD IL ASM (BRIDGE MOUNT)	EA	
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	
624 7013	REMOVE GROUND BOX	EA	1
628 7002	REMOVE ELECTRICAL SERVICES	EA	1
690 7144	REMOVE ABOVE-GROUND CONDUIT	LF	0
690 7147	REMOVE UNDERGROUND CONDUIT	LF	0
690 7150	REMOVE CONDUCTOR	LF	624

INTERIM REVIEW

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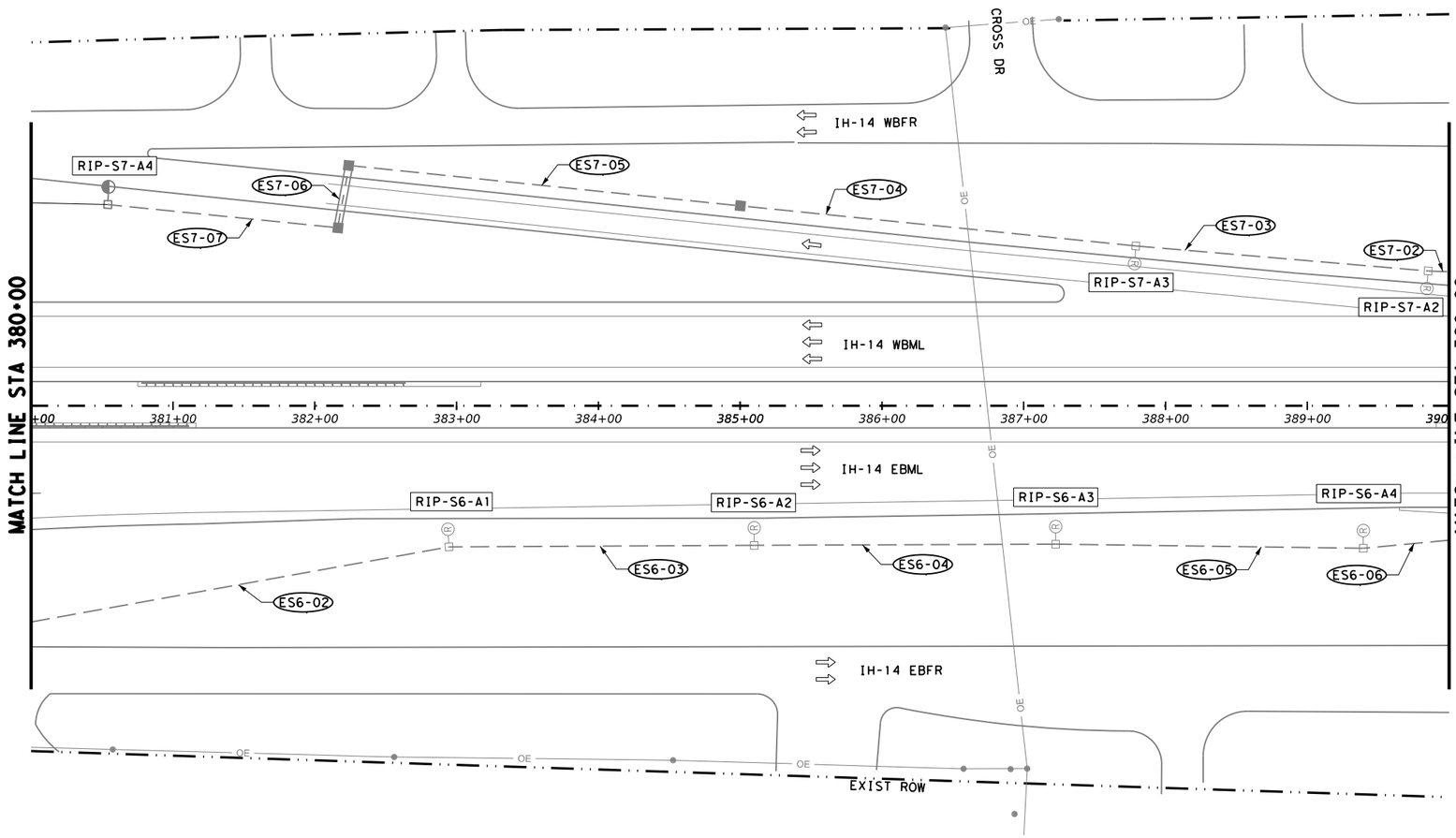
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 14 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		60

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES6-02	ES6	A	300		900
ES6-03	ES6	A	215		645
ES6-04	ES6	A	213		639
ES6-05	ES6	A	217		651
ES6-06	ES6	A	61		183
ES7-02	ES7	A	15		45
ES7-03	ES7	A	207		621
ES7-04	ES7	A	280		840
ES7-05	ES7	A	278	NO WORK	
ES7-06	ES7	A	45	NO WORK	
ES7-07	ES7	A	163	NO WORK	
			SHEET TOTAL:		4524

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	6
690 7150	REMOVE CONDUCTOR	LF	4524

INTERIM REVIEW

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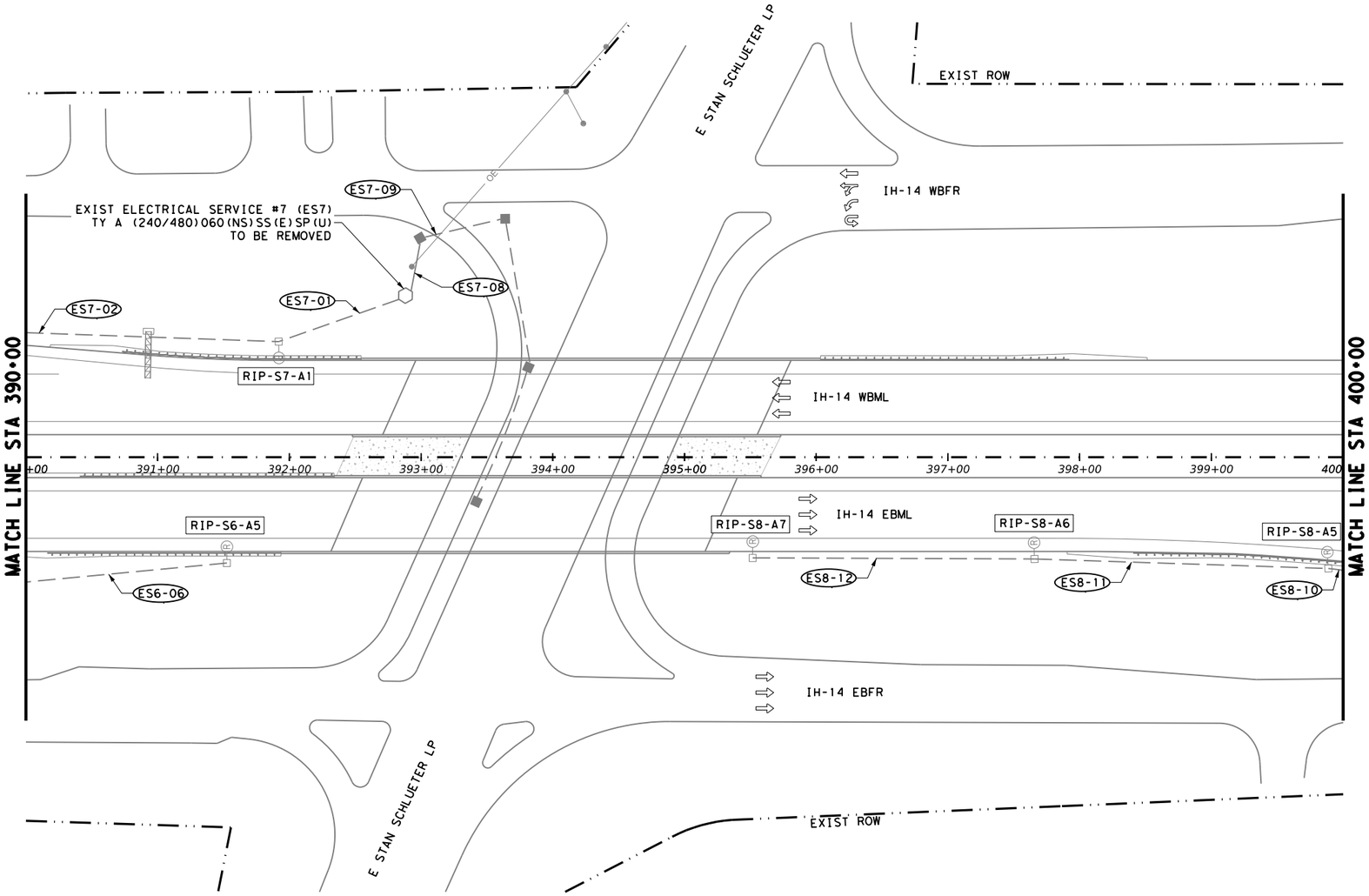
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 15 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		61

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES6-06	ES6	A	153		459
ES7-01	ES7	A	102		306
ES7-02	ES7	A	192		576
ES7-08	ES7	B	44		132
ES7-09	ES7	B	66	NO WORK	
ES8-10	ES8	A	11		33
ES8-11	ES8	A	223		669
ES8-12	ES8	A	214		642
			SHEET TOTAL:		2817

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	5
628 7002	REMOVE ELECTRICAL SERVICES	EA	1
690 7150	REMOVE CONDUCTOR	LF	2817

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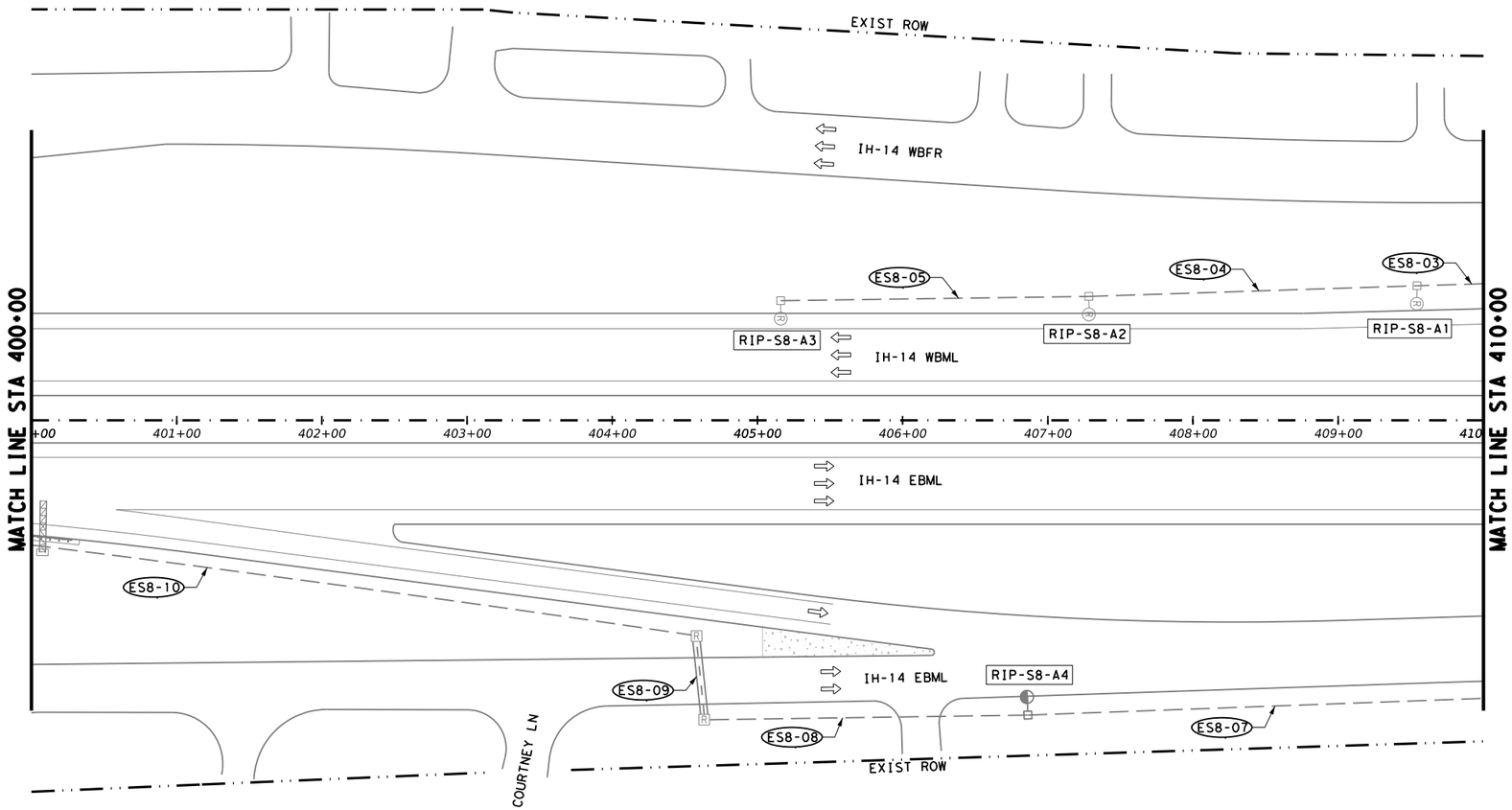
REMOVAL LAYOUT

SCALE: 1" = 100' HORIZ. (0, 25, 50, 100 FEET)

SHEET 16 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		62

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES8-03	ES8	A	46		138
ES8-04	ES8	A	226		678
ES8-05	ES8	A	212		636
ES8-07	ES8	A	314		942
ES8-08	ES8	A	223		669
ES8-09	ES8	A	58		174
ES8-10	ES8	A	462		1386
			SHEET TOTAL:		4623

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
610 7009	REMOVE RD IL ASM (TRANS-BASE)	EA	3
624 7013	REMOVE GROUND BOX	EA	2
690 7150	REMOVE CONDUCTOR	LF	4623

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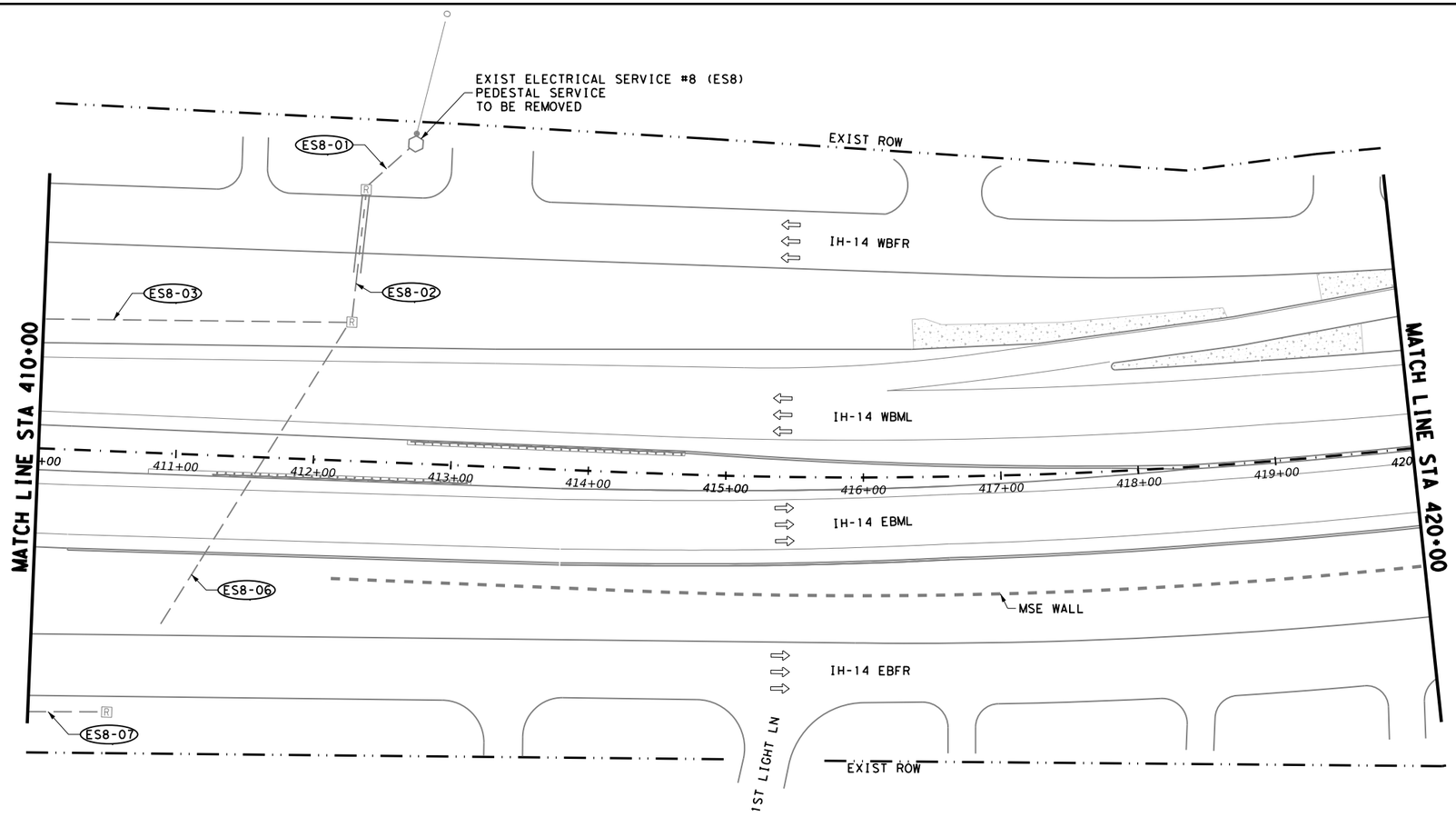
REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 17 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		63

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
				690	0690
				7144	7150
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
ES8-01	ES8	A	49		147
ES8-02	ES8	A	97		291
ES8-03	ES8	A	224		672
ES8-06	ES8	A	335		1005
ES8-07	ES8	A	57		171
			SHEET TOTAL:		2286

SUMMARY OF REMOVAL ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
624 7013	REMOVE GROUND BOX	EA	3
628 7002	REMOVE ELECTRICAL SERVICES	EA	1
690 7150	REMOVE CONDUCTOR	LF	2286

INTERIM REVIEW

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PATRICK JALUFKA P.E., ON: 7/8/2025

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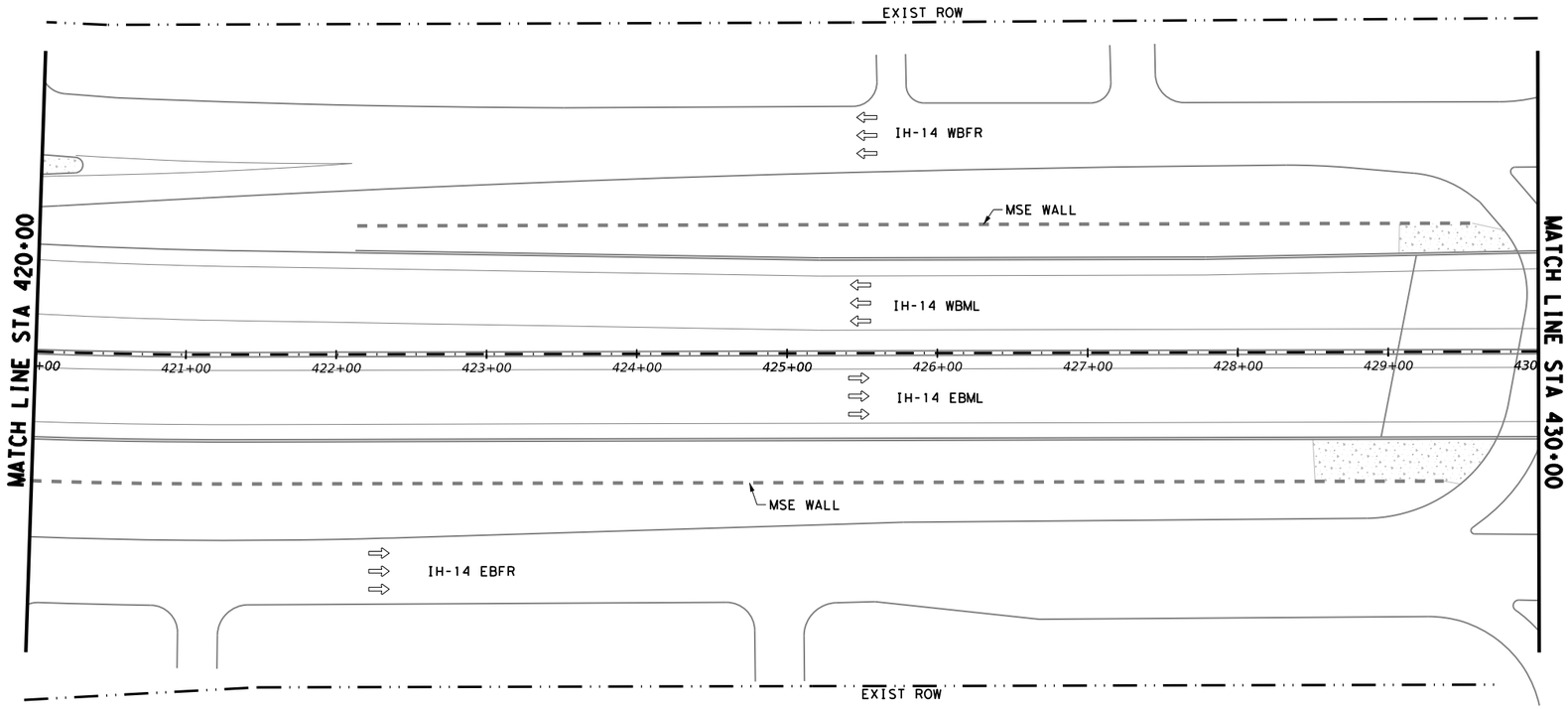
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REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		64

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	690 7144 REMOVE ABOVE-GROUND CONDUIT LF	0690 7150 REMOVE CONDUCTOR LF
NO REMOVALS THIS SHEET					

INTERIM REVIEW

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REMOVAL LAYOUT

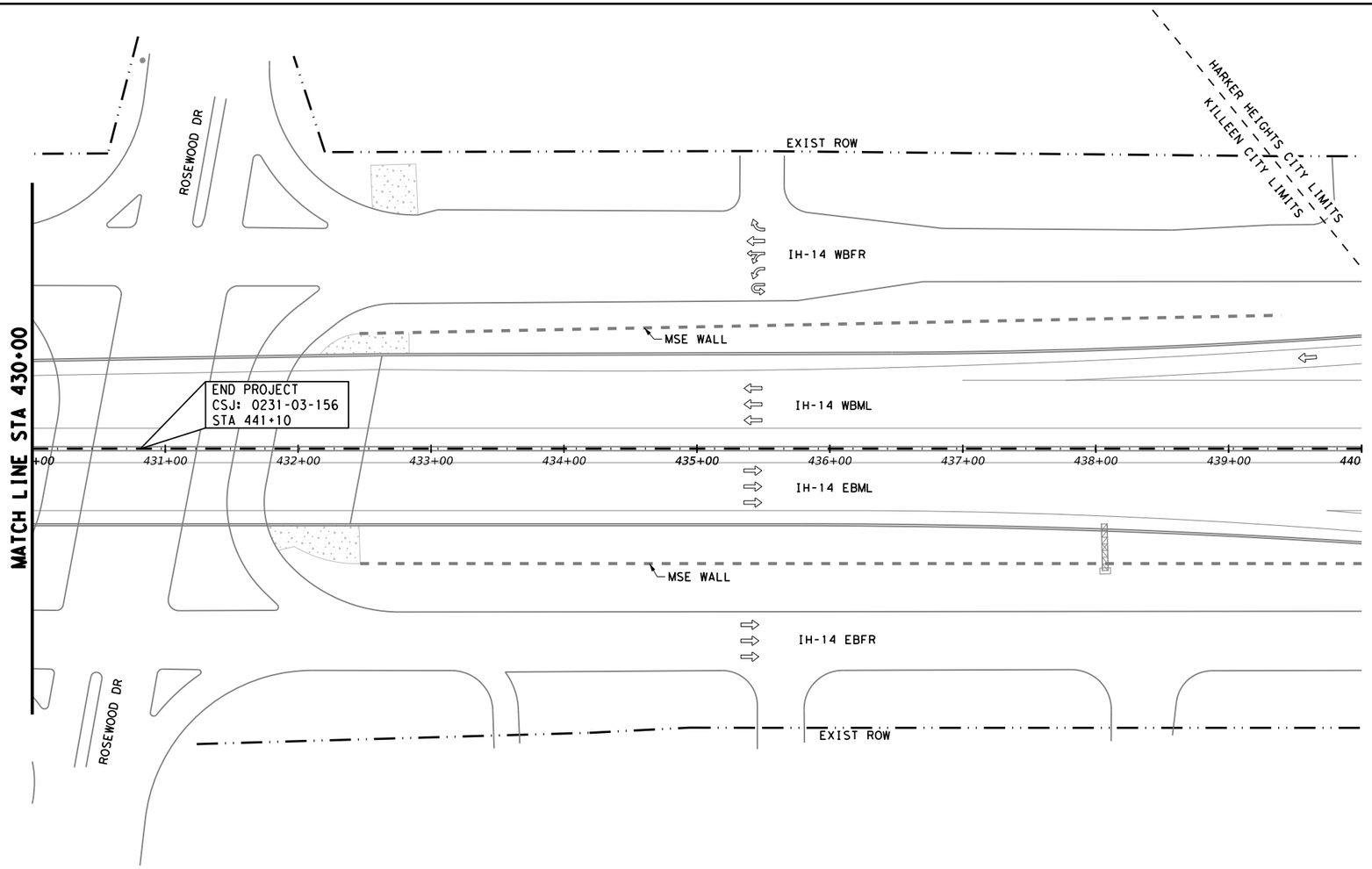
SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 19 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		65

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LEGEND

- EXIST TY A GROUND BOX TO BE REMOVED
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (TRANS BASE)
- EXIST RDWY ILLUM ASSEM TO BE REMOVED (BRIDGE MOUNT)
- EXIST GROUND BOX (TY A)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- EXIST RIGID METAL CONDUIT
- EXIST RDWY ILLUM ASSEM TO REMAIN (TRANS BASE)
- EXIST ELEC SERVICE

POLE DESIGNATION

RIP-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- EXISTING CONDUIT

EXISTING CONDUIT AND CONDUCTOR RUNS					
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	690	0690
				7144	7150
				REMOVE ABOVE-GROUND CONDUIT	REMOVE CONDUCTOR
				LF	LF
NO REMOVALS THIS SHEET					

INTERIM REVIEW

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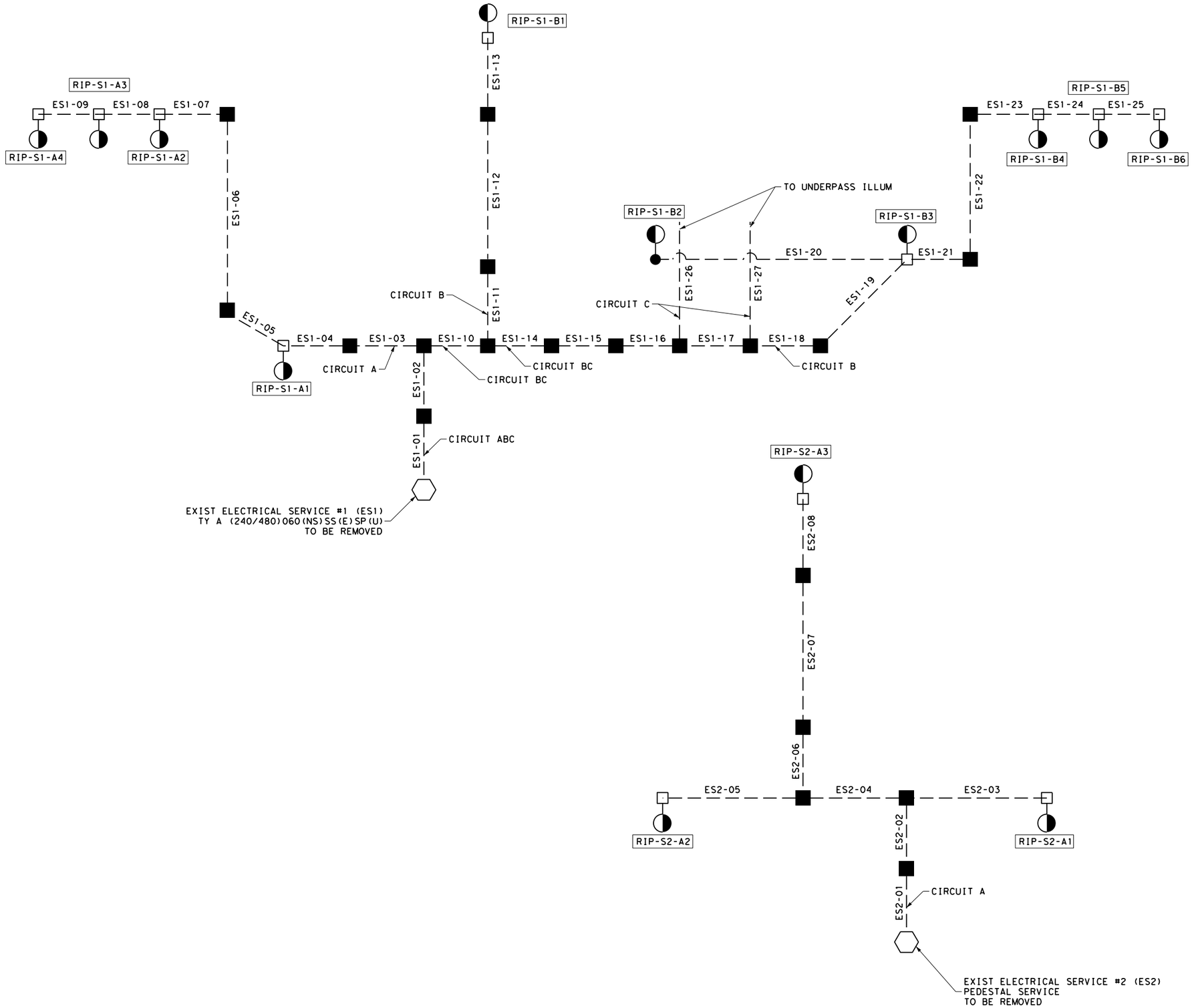
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REMOVAL LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 20 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		66



LEGEND

- GROUND BOX (TY A)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS BASE)
- RDWY ILLUM ASSEM (BRIDGE MOUNT)
- ELEC SERVICE

POLE DESIGNATION

RIP-ES#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #

INTERIM REVIEW

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EXISTING ELECTRICAL SCHEMATIC

NOT TO SCALE

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		67

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LEGEND

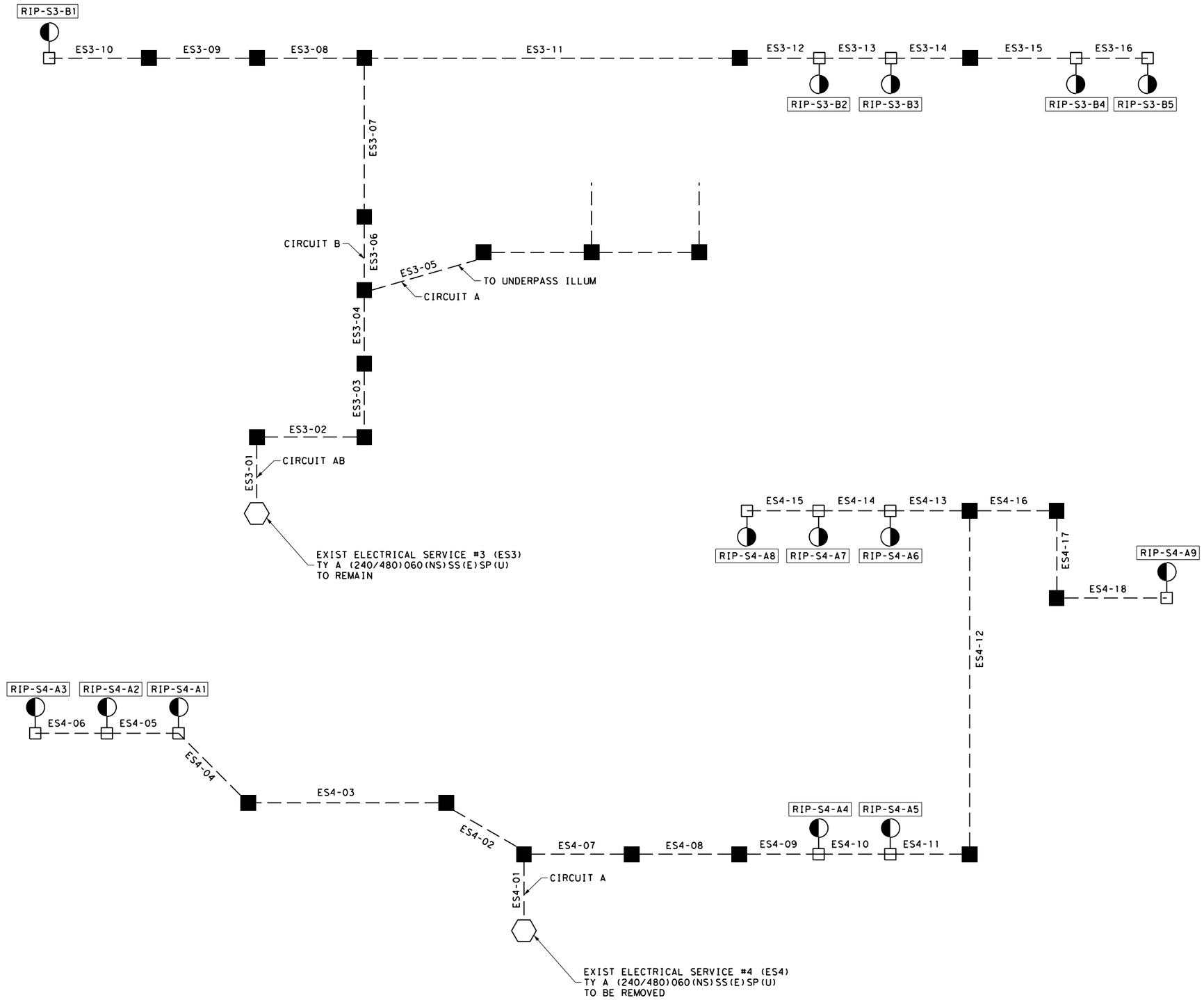
- GROUND BOX (TY A)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS BASE)
- RDWY ILLUM ASSEM (BRIDGE MOUNT)
- ELEC SERVICE

POLE DESIGNATION

RIP-ES#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #



INTERIM REVIEW

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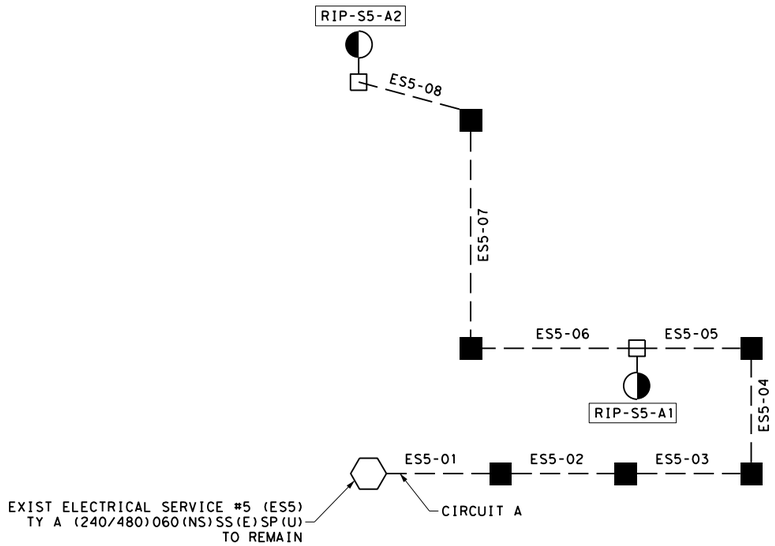
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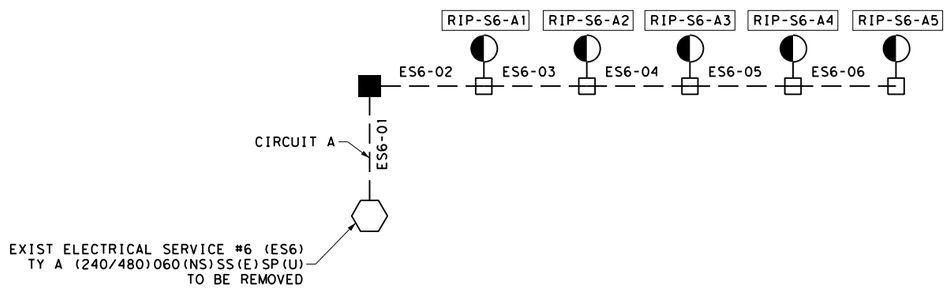
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EXISTING ELECTRICAL SCHEMATIC

NOT TO SCALE

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		68





LEGEND

- GROUND BOX (TY A)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS BASE)
- RDWY ILLUM ASSEM (BRIDGE MOUNT)
- ELEC SERVICE

POLE DESIGNATION

RIP-ES#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #

INTERIM REVIEW

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EXISTING ELECTRICAL SCHEMATIC

NOT TO SCALE

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		69

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LEGEND

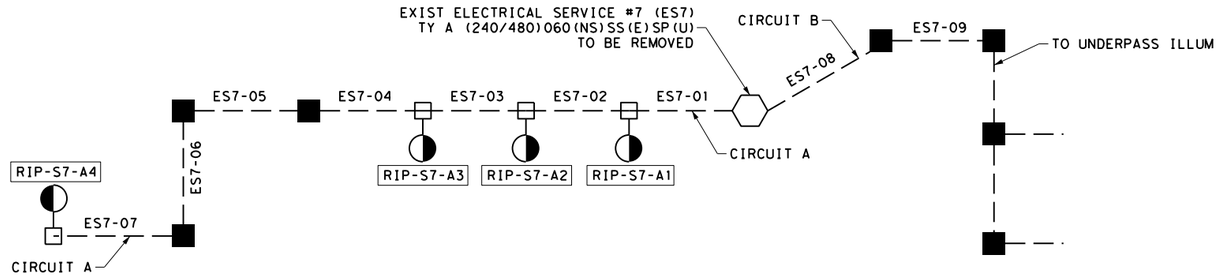
- GROUND BOX (TY A)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS BASE)
- RDWY ILLUM ASSEM (BRIDGE MOUNT)
- ELEC SERVICE

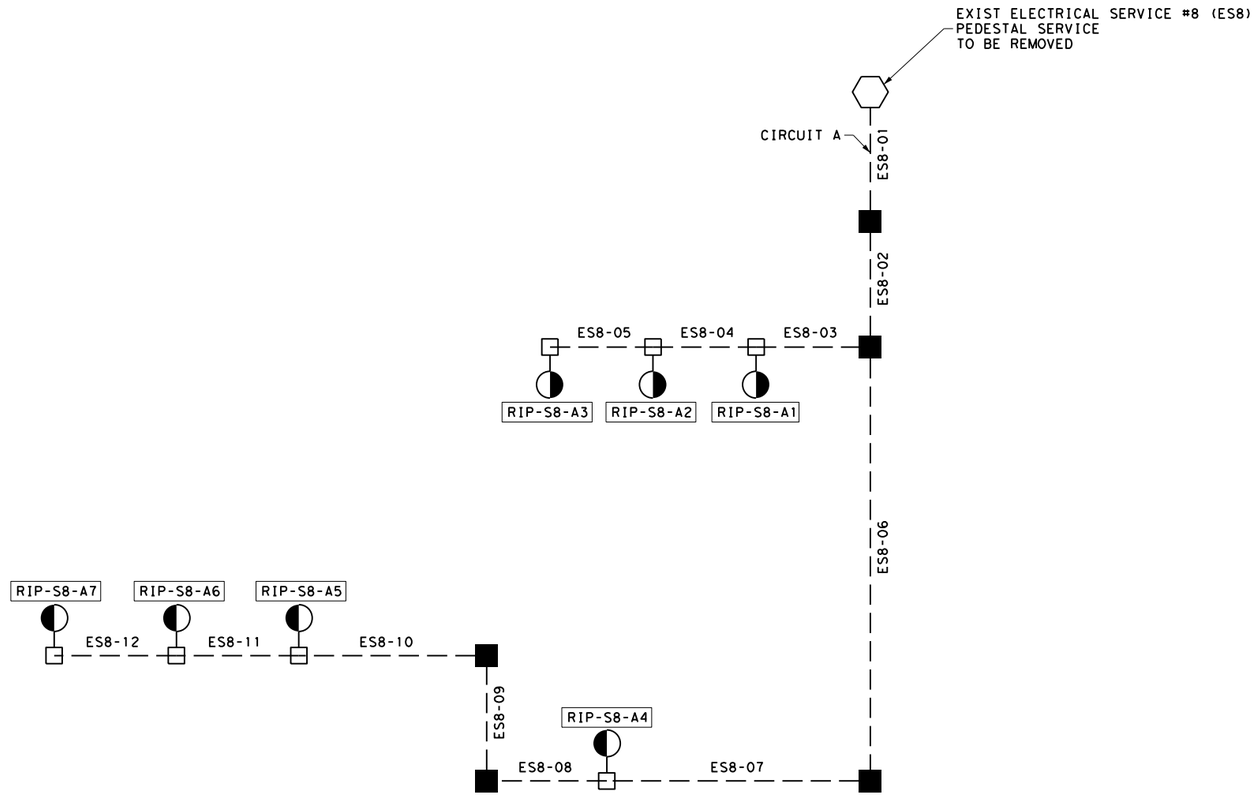
POLE DESIGNATION

RIP-ES#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #





INTERIM REVIEW

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EXISTING ELECTRICAL SCHEMATIC

NOT TO SCALE

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		70

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NOTES:

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DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	043	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/17/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
97.0			CLAY, very hard, tan, dry, with limestone fragments (CL)			6	34	19		PP = 4.5+ tsf
	5	50 (0.75) 50 (0.5)	LIMESTONE, tan, weathered, with clay seams							
90.0	10	50 (0.5) 50 (0.25)	LIMESTONE, gray, interbedded with shale	0	348	8			145	
	15	50 (0.5) 50 (0.25)		0	568					RUN: 10'-15'; REC: 75%; RQD: 30%
80.0	20	50 (0.25) 50 (0.25)	SHALE, gray, interbedded with limestone							RUN: 15'-20'; REC: 72%; RQD: 40%
	25	50 (0.5) 50 (0.25)		0	134	14			141	RUN: 20'-25'; REC: 65%; RQD: 15%
	30	50 (1.75) 50 (0.75)		0	203	9			148	RUN: 25'-30'; REC: 95%; RQD: 72%
	35	50 (0.5) 50 (0.25)								RUN: 30'-35'; REC: 98%; RQD: 58%
	40	50 (0.5) 50 (0.25)								RUN: 35'-40'; REC: 100%; RQD: 60%
	45	50 (0.5) 50 (0.25)								RUN: 40'-45'; REC: 80%; RQD: 13%
50.0	50	50 (0.5) 50 (0.25)								RUN: 45'-50'; REC: 65%; RQD: 7%
	55									

Remarks:
Latitude = 31.09808 Longitude = -97.73828

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Omar Jimenez** **Organization: Raba-Kistner Consultants, Inc.**

B-17

DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	044	District	Waco
Highway	IH-14	Structure	Light Poles	Date	03/27/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff to very hard, dry to moist, brown to tan, sandy, with limestone lenses and fossil shells (CL)							
	5	50 (1.5) 50 (1)				8				
	10	29 (6) 45 (6)				8	33	19		% Passing #200 = 52
	15	50 (5) 50 (1.75)				23				
82.0			LIMESTONE, tan, weathered, with clay seams							
	20	50 (1.75) 50 (1.75)								
75.0	25	50 (1.75) 50 (0.5)	LIMESTONE, gray, with clay seams and fossil shells			14				
	30	50 (0.75) 50 (0.5)		0	824	4			136	RUN: 25'-30'; REC: 67%; RQD 0%
	35	50 (0.5) 50 (0.25)								RUN: 30'-35'; REC: 87%; RQD: 26%
	40	50 (0.5) 50 (0.25)								RUN: 35'-40'; REC: 50%; RQD: 0%
	45	50 (0.5) 50 (0)		0	871	5			133	RUN: 40'-45'; REC: 87%; RQD: 0%
50.0	50	50 (0.5) 50 (0.25)		0	621	4			140	RUN: 45'-50'; REC: 88%; RQD: 16%
	55									

Remarks:
Latitude = 31.09638 Longitude = -97.73733

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

B-18

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SOIL BORING LOGS

SHEET 1 OF 13

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		71

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NOTES:

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DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	045	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/18/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, hard, brown to tan, dry, sandy, with limestone fragments (CH)							
95.0	5	50 (3) 49 (6)				7	34	12		
			CLAY, stiff to hard, brown to tan, dry, with sand and limestone fragments (CL)							
	10	25 (6) 14 (6)								
	15	50 (3) 50 (4)								
	20	21 (6) 16 (6)				14	45	28		% Passing #200 = 75
77.0			LIMESTONE, tan, weathered, with clay seams							
	25	50 (0.5) 50 (0)								RUN: 25'-30'; REC: 35%; RQD: 0%
70.0	30	50 (0.13) 50 (0)	LIMESTONE, light gray							
				0	1799	9			148	RUN: 30'-35'; REC: 91%; RQD: 35%
	35	50 (0.25) 50 (0.13)								
				0	897	12			134	RUN: 35'-40'; REC: 76%; RQD: 47%
	40	50 (0.5) 50 (0.25)								
				0	1052	8			136	
				0	916	8			140	RUN: 40'-45'; REC: 100%; RQD: 97%
	45	50 (0.5) 50 (0)								
				0	768	10			140	RUN: 45'-50'; REC: 97%; RQD: 97%
50.0	50	50 (0.5) 50 (0)								
	55									

Remarks:
Latitude = 31.09586 Longitude = -97.73524

The ground water elevation was not determined during the course of this boring.

Driller: ETTL **Logger: Rabbi** **Organization: Raba-Kistner Consultants, Inc.**

DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	046	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/31/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, very hard, dry to moist, dark brown, with limestone fragments, and trace sand (CH)			43	66	41		PP = 4.5 tsf; % Passing #200 = 55
97.0	5	13 (6) 20 (6)	CLAY, very stiff to very hard, dry, light brown to tan, with limestone fragments and trace sand (CL)	0	126	16	42	26	105	PP = 4.5 tsf
	10	50 (1.5) 50 (1.5)								
85.0	15	50 (2) 50 (2.5)				27	34	19		% Passing #200 = 69
			LIMESTONE, tan, weathered, with clay seams							RUN: 15'-20'; REC: 38%; RQD: 0%
80.0	20	50 (0.5) 50 (0.75)	LIMESTONE, gray, with fossil shells and some clay							
				0	706	7			142	RUN: 20'-25'; REC: 83%; RQD: 18%
	25	50 (1) 50 (0)								
				0	799	3			139	RUN: 25'-30'; REC: 88%; RQD: 64%
	30	50 (1.5) 50 (0.25)								
				0	769	3			142	RUN: 30'-35'; REC: 93%; RQD: 89%
	35	50 (0.25) 50 (0.25)								
				0	1712	10			142	RUN: 35'-40'; REC: 93%; RQD: 84%
	40	50 (0.25) 50 (0.25)								
				0	1203	5			143	RUN: 40'-45'; REC: 92%; RQD: 77%
	45	50 (0.5) 50 (0.25)								
50.0	50	50 (0.5) 50 (0.25)								RUN: 45'-50'; REC: 94%; RQD: 12%
	55									

Remarks:
Latitude = 31.09456 Longitude = -97.7336

The ground water elevation was not determined during the course of this boring.

Driller: Texas Geobore **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

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SOIL BORING LOGS

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		72

NODE

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NOTES:

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DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	047	District	Waco
Highway	IH-14	Structure	Light Poles	Date	03/27/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	87.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff, dry to moist, brown to tan, with limestone fragments, ferrous staining, and fossil shells (CL)							
		37 (6) 37 (6)				6				
5										
		30 (6) 24 (6)				13	39	23		PP = 4.5+ tsf; % Passing #200 = 86
10										
87.0			SAND, very dense, dry to moist, tan, clayey, with limestone fragments (SC)							
		50 (2.75) 50 (1)				4	31	17		PP = 2.0 tsf; % Passing #200 = 50
15										
		50 (1) 50 (0.5)				9	23	10		% Passing #200 = 48
20										
77.0			CLAY, very hard, dry to moist, tan, sandy, with limestone fragments (CL)							
75.0		50 (1.75) 50 (0.5)	LIMESTONE, tan, weathered, with clay seams			17	25	11		% Passing #200 = 69
25										
		50 (0.5) 50 (0.25)								RUN: 25'-30'; REC: 70%; RQD: 0%
30										
		50 (0.25) 50 (0.25)								RUN: 30'-35'; REC: 30%; RQD: 0%
65.0			LIMESTONE, dark gray, with fossil shells							
35				0	407	4			137	
		50 (0.75) 50 (0.25)		0	682	8			143	RUN: 35'-40'; REC: 87%; RQD: 62%
40				0	1324	4			139	
		50 (0.5) 50 (0.25)		0	1414	4			137	RUN: 40'-45'; REC: 85%; RQD: 67%
45										
		50 (0.25) 50 (0.25)		0	1620	2			138	RUN: 45'-50'; REC: 97%; RQD: 57%
50.0										
50										
55										

Remarks:
Latitude = 31.09404 Longitude = -97.73161

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	048	District	Waco
Highway	IH-14	Structure	Light Poles	Date	04/17/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, soft, moist, dark brown, with gravel and limestone fragments (CH)							
		8 (6) 10 (6)				30	82	57		PP = 2.5 tsf; % Passing #200 = 96
5										
92.0			CLAY, very stiff, dry to moist, tan, with sand, fossil shells, calcareous deposits and limestone fragments (CL)							
10		20 (6) 50 (4.25)				13	38	23		% Passing #200 = 80
		50 (1.75) 50 (0.75)				10	25	11		% Passing #200 = 76
15										
82.0			LIMESTONE, tan to light gray, with fossil shells and clay seams							
20		50 (1.5) 50 (1.25)				10				
		50 (0.5) 50 (0.25)								
25										
		50 (0.5) 50 (0.25)								
30										
67.0			LIMESTONE, light gray to dark gray, with fossil shells and clay seams							
35		50 (0.25) 50 (0.25)		0	1094	8			145	
										RUN: 35'-40'; REC: 73%; RQD: 58%
		50 (0.75) 50 (0.25)		0	780	3			141	
40										RUN: 40'-45'; REC: 93%; RQD: 23%
		50 (0.5) 50 (0.25)								
45				0	748	7			143	
										RUN: 45'-50'; REC: 97%; RQD: 32%
50.0		50 (0.5) 50 (0.25)								
50										
55										

Remarks:
Latitude = 31.09361 Longitude = -97.72954

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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SOIL BORING LOGS

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		73

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	049	District	Waco
Highway	IH-14	Structure	Light Poles	Date	03/28/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, soft, moist, dark brown (CH)							
95.0	5	7 (6) 10 (6)				28	65	41		PP = 3.0 tsf; % Passing #200 = 95
			CLAY, soft to very hard, dry to moist, tan, with sand, ferrous staining, calcareous deposits, limestone lenses and fossil shells (CL)							
	10	26 (6) 25 (6)				13	36	22		PP = 4.5+ tsf; % Passing #200 = 81
	15	50 (0.75) 50 (0.25)				11				
82.0			LIMESTONE, tan, weathered, with clay seams							
80.0	20	50 (1.25) 50 (0.75)	LIMESTONE, light gray, vuggy, with clay seams							
	25	50 (0.5) 50 (0.25)		0	811	6			130	RUN: 20'-25'; REC: 78%; RQD: 14%
	30	50 (0.75) 50 (0.5)								RUN: 25'-30'; REC: 77%; RQD: 0%
		50 (0.5) 50 (0.25)								RUN: 30'-35'; REC: 45%; RQD: 7%
65.0	35		LIMESTONE, gray to dark gray, with fossil shells and some clay	0	790	3			141	
	40	50 (0.5) 50 (0.5)		0	486	9			145	RUN: 35'-40'; REC: 91%; RQD: 44%
	45	50 (0.5) 50 (0.25)								RUN: 40'-45'; REC: 92%; RQD: 25%
50.0	50	50 (0.5) 50 (0.25)								RUN: 45'-50'; REC: 85%; RQD: 13%
	55									

Remarks:
Latitude = 31.09316 Longitude = -97.72758

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	050	District	Waco
Highway	IH-14	Structure	Light Poles	Date	03/28/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, stiff to very hard, dry to moist, brown to tan, sandy, with ferrous staining, fossil shells, calcareous deposits and limestone lenses (CL)							
	5	12 (6) 12 (6)				10	34	19		PP = 4.5+ tsf; % Passing #200 = 66
	10	28 (6) 23 (6)				9	32	17		PP = 4.5+ tsf; % Passing #200 = 64
	15	50 (1.75) 50 (1.5)				13				
82.0			LIMESTONE, tan, weathered, with clay seams							
80.0	20	50 (1.75) 50 (1)	LIMESTONE, light gray, with fossil shells and clay seams							
	25	50 (0.5) 50 (0.25)								RUN: 20'-25'; REC: 33%; RQD: 0%
	30	50 (0.5) 50 (0.5)								RUN: 25'-30'; REC: 60%; RQD: 0%
		50 (1.25) 50 (1)								RUN: 30'-35'; REC: 55%; RQD: 0%
65.0	35		LIMESTONE, gray to dark gray, with fossil shells							
	40	50 (0.5) 50 (0.25)		0	1214	1			135	RUN: 35'-40'; REC: 42%; RQD: 21%
	45	50 (0.5) 50 (0.5)		0	919	9			146	RUN: 40'-45'; REC: 84%; RQD: 48%
50.0	50	50 (0.75) 50 (0.5)								RUN: 45'-50'; REC: 78%; RQD: 0%
	55									

Remarks:
Latitude = 31.09265 Longitude = -97.72559

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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SOIL BORING LOGS

SHEET 4 OF 13

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		74

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	051	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/18/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, stiff, brown, dry, with sand and limestone fragments (CL)			17	49	29		PP = 4.5+ tsf; % Passing #200 = 80
	5	17 (6) 22 (6)								
	10	50 (5) 50 (3)				14	46	32		% Passing #200 = 77
87.0			CLAY, very stiff to very hard, tan, dry to moist, sandy, with limestone fragments (CL)			16	44	27		% Passing #200 = 58
	15	22 (6) 26 (6)								
82.0			LIMESTONE, tan, weathered, with clay seams							
80.0	20	26 (6) 50 (4)	LIMESTONE, tan to light gray, with some clay							
	25	50 (1) 50 (0.5)								
	30	50 (1) 50 (3)		0	885	9			140	RUN: 25'-30'; REC: 63%; RQD: 10%
	35	50 (0.5) 50 (0.25)		0	896	8			134	RUN: 30'-35'; REC: 53%; RQD: 0%
60.0	40	50 (0) 50 (0)	LIMESTONE, light gray							RUN: 35'-40'; REC: 80%; RQD: 24%
	45	50 (0) 50 (0)		0	485	10			140	RUN: 40'-45'; REC: 98%; RQD: 29%
50.0	50	50 (0) 50 (0.5)		0	1394	4			144	RUN: 45'-50'; REC: 96%; RQD: 75%
	55									

Remarks:
Latitude = 31.09265 Longitude = -97.72342

The ground water elevation was not determined during the course of this boring.

Driller: ETTL **Logger: Rabbi** **Organization: Raba-Kistner Consultants, Inc.**

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DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	052	District	Waco
Highway	IH-14	Structure	Light Poles	Date	03/29/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, stiff, moist, dark brown, with sand (CH)							
95.5	5	12 (6) 12 (6)	CLAY, stiff, dry to moist, tan, with sand, ferrous staining, calcareous deposits, fossil shells and limestone fragments (CL)			26	65	40		PP = 4.0 tsf; % Passing #200 = 81
	10	20 (6) 19 (6)				14	29	14		PP = 4.5+ tsf; % Passing #200 = 79
87.0			LIMESTONE, tan, weathered, with fossil shells and clay seams							
	15	50 (2.25) 50 (1)								
	20	50 (1.75) 50 (0.75)								
77.0			LIMESTONE, tan to light gray, with fossil shells and clay seams							
	25	50 (1.25) 50 (0.75)								
	30	50 (0.5) 50 (0.25)								
	35	50 (0.5) 50 (0.25)		0	794	2			139	
65.0			LIMESTONE, dark gray to gray, with fossil shells							
	40	50 (0.25) 50 (0.25)		0	436	6			142	RUN: 35'-40'; REC: 87%; RQD: 66%
	45	50 (0.5) 50 (0.25)		0	978	5			139	RUN: 40'-45'; REC: 88%; RQD: 69%
50.0	50	50 (0.5) 50 (0.25)		0	1719	2			134	RUN: 45'-50'; REC: 100%; RQD: 76%
	55			0	522	2			135	

Remarks:
Latitude = 31.09139 Longitude = -97.72178

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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SOIL BORING LOGS

SHEET 5 OF 13

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		75

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	053	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/19/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
97.0			CLAY, very hard, brown, dry to moist, with sand and limestone fragments (CL)			18	42	23		PP = 4.5 tsf
		50 (1) 50 (0.5)	LIMESTONE, tan, weathered, with clay seams							
5										
		50 (0.25) 50 (0)								RUN: 10'-15'; REC: 25%; RQD: 0%
10										
85.0		50 (0.25) 50 (0.25)	LIMESTONE, gray	0	693	13			141	
15										RUN: 15'-20'; REC: 73%; RQD: 15%
		50 (0.5) 50 (0.25)								
20										RUN: 20'-25'; REC: 90%; RQD: 18%
		50 (0.25) 50 (0)		0	452	10			140	
25										RUN: 25'-30'; REC: 58%; RQD: 0%
		50 (0.25) 50 (0.25)								
30				0	793	8			144	
										RUN: 30'-35'; REC: 90%; RQD: 88%
35		50 (0.25) 50 (0)								
										RUN: 35'-40'; REC: 83%; RQD: 67%
40		50 (0.5) 50 (0)		0	1155	8			143	
										RUN: 40'-45'; REC: 80%; RQD: 22%
45		50 (0.25) 50 (0)		0	1576	8			138	
										RUN: 45'-50'; REC: 83%; RQD: 59%
50.0		50 (0.25) 50 (0)								
50										
55										

Remarks:
Latitude = 31.09126 Longitude = -97.71951

The ground water elevation was not determined during the course of this boring.

Driller: Texas Geobore **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

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DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	054	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/30/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, soft, tan to brown, dry to moist, with sand and limestone fragments (CL)			17	49	28		% Passing #200 = 77
		5 (6) 13 (6)				11	32	10		
5										
91.5			CLAY, very hard, dry to moist, dark brown, sandy (CH)							
90.0		50 (0.5) 50 (0.5)	LIMESTONE, tan, with clay seams			30	69	44		% Passing #200 = 58
10										
85.0		50 (0.5) 50 (0.5)	LIMESTONE, fossiliferous, gray, interbedded with shale	0	591	2			144	
15										RUN: 15'-20'; REC: 88%; RQD: 71%
		50 (0.5) 50 (0.25)								
20				0	489	5			145	RUN: 20'-25'; REC: 100%; RQD: 72%
		50 (0.5) 50 (0.5)								
25				0	871	9			144	RUN: 25'-30'; REC: 68%; RQD: 56%
		50 (0.5) 50 (0.5)								
70.0			LIMESTONE, light gray, interbedded with shale							
30										RUN: 30'-35'; REC: 98%; RQD: 91%
		50 (0.5) 50 (0.5)								
35										RUN: 35'-40'; REC: 87%; RQD: 31%
		50 (2) 50 (1)		0	352	7			148	
40										RUN: 40'-45'; REC: 85%; RQD: 59%
		50 (0.5) 50 (0.5)		0	919	5			147	
45										RUN: 45'-50'; REC: 62%; RQD: 18%
50.0		50 (2) 50 (2)		0	766	4			146	
50										
55										

Remarks:
Latitude = 31.09034 Longitude = -97.71774

The ground water elevation was not determined during the course of this boring.

Driller: Texas Geobore **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

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SOIL BORING LOGS

SHEET 6 OF 13

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		76

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	055	District	Waco
Highway	IH-14	Structure	Light Poles	Date	04/18/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, very hard, dry to moist, orange, with fossil shells and limestone gravel (CL)							
	5	50 (1) 50 (0.25)				18	37	17		PP = 4.5+ tsf; % Passing #200 = 94
93.0			LIMESTONE, light tan, with fossil shells							
	10	50 (0.25) 50 (0.25)				14				
	15	50 (0.5) 50 (0.25)				10				
81.0	20	50 (0.5) 50 (0.25)	LIMESTONE, dark gray, with fossil shells, interbedded shale and clay seams	0	706	2			138	RUN: 20'-25'; REC: 92%; RQD: 87%
	25	50 (0.5) 50 (0.25)		0	673	2			144	RUN: 25'-30'; REC: 100%; RQD: 73%
	30	50 (0.75) 50 (0.5)		0	558	1			131	RUN: 30'-35'; REC: 88%; RQD: 88%
	35	50 (0.5) 50 (0.25)		0	1022	3			136	RUN: 35'-40'; REC: 97%; RQD: 97%
	40	50 (0.5) 50 (0.25)								
58.0			SHALE, dark gray, with fossil shells and interbedded limestone lenses							
55.0	45	50 (0.25) 50 (0.25)	LIMESTONE, dark gray, with fossil shells	0	481	7			147	RUN: 40'-45'; REC: 82%; RQD: 58%
50.0	50	50 (0.25) 50 (0.25)								RUN: 45'-50'; REC: 98%; RQD: 87%
	55									

Remarks:
Latitude = 31.08857 Longitude = -97.71589

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	056	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/17/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff to very hard, dry, tan to brown, sandy, with limestone fragments (CL)							PP = 3.5 tsf
	5	50 (0.75) 50 (0.25)								PP = 4.5 tsf
	10	50 (0.75) 50 (0.25)								RUN: 10'-15'; REC: 87%; RQD: 54%
85.0	15	50 (0.5) 50 (0.25)	LIMESTONE, gray, with shell fragments			38	33	17		% Passing #200 = 57
	20	50 (0.25) 50 (0.25)		0	1160	8			135	RUN: 15'-20'; REC: 89%; RQD: 67%
	25	50 (0.5) 50 (0.25)								RUN: 20'-25'; REC: 92%; RQD: 89%
	30	50 (0.5) 50 (0.25)								RUN: 25'-30'; REC: 100%; RQD: 89%
	35	50 (0.5) 50 (0.5)		0	814	10			153	RUN: 30'-35'; REC: 98%; RQD: 88%
	40	50 (0.5) 50 (0.25)								RUN: 35'-40'; REC: 83%; RQD: 55%
	45	50 (0.25) 50 (0.25)		0	1282	6			139	RUN: 40'-45'; REC: 88%; RQD: 47%
50.0	50	50 (0.5) 50 (0.5)								RUN: 45'-50'; REC: 90%; RQD: 56%
	55									

Remarks:
Latitude = 31.08808 Longitude = -97.71357

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

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SOIL BORING LOGS

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		77

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	057	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/19/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff, brown to tan, dry, with sand and limestone fragments (CH)			23	66	42		PP = 4.5+ tsf; % Passing #200 = 76
95.0 5		35 (6) 37 (6)	CLAY, very hard, tan, dry, with limestone fragments (CH)			15	50	33		
90.0 10		50 (3) 50 (0.5)	CLAY, very hard, tan, dry, sandy, with limestone fragments (CL)			19	56	37		% Passing #200 = 93
85.0 15		50 (0.25) 50 (0.13)	LIMESTONE, tan, weathered, with clay seams				41	25		% Passing #200 = 58
		50 (1.5) 50 (0.25)		0	909	11			143	RUN: 15'-20'; REC: 50%; RQD: 23%
79.0 20			LIMESTONE, light gray, interbedded with shale							
25		50 (0.5) 50 (0)		0	978	9			138	RUN: 20'-25'; REC: 77%; RQD: 27%
30		50 (1.5) 50 (0)								RUN: 25'-30'; REC: 72%; RQD: 19%
35		50 (0.5) 50 (0)								RUN: 30'-35'; REC: 82%; RQD: 54%
40		50 (0) 50 (0)								RUN: 35'-40'; REC: 82%; RQD: 18%
45		50 (0) 50 (0)								RUN: 40'-45'; REC: 77%; RQD: 40%
50.0 50		50 (0.5) 50 (0)		0	676	6			143	RUN: 45'-50'; REC: 100%; RQD: 90%
55										

Remarks:
Latitude = 31.08722 Longitude = -97.71174

The ground water elevation was not determined during the course of this boring.

Driller: ETTL **Logger: Rabbi** **Organization: Raba-Kistner Consultants, Inc.**

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DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	058	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/31/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
98.0			SAND, very dense, moist, tan, clayey (SC)			20	69	48		PP = 4.5 tsf; % Passing #200 = 47
95.0 5		50 (1.5) 50 (1)	CLAY, very hard, moist, tan, with limestone fragments (CH)			25	78	55		PP = 3.0 tsf
90.0 10		50 (1.5) 50 (1)	CLAY, very hard, dry to moist, tan, with limestone fragments (CL)			31	32	17		% Passing #200 = 63
			LIMESTONE, tan, with clay seams							RUN: 10'-15'; REC: 58%; RQD: 15%
15		50 (1) 50 (1)		0	549	12			139	RUN: 15'-20'; REC: 93%; RQD: 34%
20		50 (1) 50 (0.5)								RUN: 20'-25'; REC: 72%; RQD: 17%
75.0 25		50 (0.5) 50 (0.75)		0	1055	7			144	
			LIMESTONE, gray, interbedded with shale							RUN: 25'-30'; REC: 88%; RQD: 79%
30		50 (0.5) 50 (0.5)								RUN: 30'-35'; REC: 88%; RQD: 67%
35		50 (1) 50 (1)								RUN: 35'-40'; REC: 93%; RQD: 87%
40		50 (0.5) 50 (0.5)		0	491	8			140	RUN: 40'-45'; REC: 88%; RQD: 0%
45		50 (1) 50 (0.5)								RUN: 45'-50'; R0EC: 87%; RQD: 14%
50.0 50		50 (0.5) 50 (0.25)		0	468	8			148	
55										

Remarks:
Latitude = 31.08633 Longitude = -97.70994

The ground water elevation was not determined during the course of this boring.

Driller: Texas Geobore **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

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SOIL BORING LOGS

SHEET 8 OF 13

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		78

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	059	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/29/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
98.0			CLAY, stiff, dark brown, moist, with sand and limestone fragments (CL)			20	48	30		PP = 2.0 tsf; % Passing #200 = 71
		50 (2.5) 50 (2)	CLAY, stiff, moist, dark brown, sandy, with limestone fragments (CL)							
90.0		50 (0.25) 50 (0.25)	LIMESTONE, tan, with clay seams, and fossil shells			21	25	10		% Passing #200 = 66
		50 (0.5) 50 (0.5)								RUN: 10'-15'; REC: 68%; RQD: 14%
85.0			LIMESTONE, gray, interbedded, with shale							
		50 (0.75) 50 (0.75)								RUN: 15'-20'; REC: 100%; RQD: 90%
		50 (0.5) 50 (0.5)		0	1149	4			139	RUN: 20'-25'; REC: 92%; RQD: 78%
		50 (0.5) 50 (0.25)		0	968	6			145	RUN: 25'-30'; REC: 96%; RQD: 28%
		50 (0.5) 50 (0.25)		0	805	8			146	RUN: 30'-35'; REC: 83%; RQD: 38%
		50 (0.5) 50 (0.5)								RUN: 35'-40'; REC: 85%; RQD: 57%
		50 (0.5) 50 (0)		0	4712	1			160	RUN: 40'-45'; REC: 90%; RQD: 38%
50.0		50 (0.5) 50 (0.5)								RUN: 45'-50'; REC: 58%; RQD: 31%

Remarks:
Latitude = 31.08544 Longitude = -97.70814

The ground water elevation was not determined during the course of this boring.

Driller: Texas Geobore **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	060	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/18/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	85.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, soft to stiff, brown, with limestone fragments (CH)				68	43		PP = 2.0 tsf; % Passing #200 = 88
		5 (6) 5 (6)		0	42	15			131	PP = 4.5+ tsf
90.0		9 (6) 13 (6)					66	46		PP = 2.5 tsf; % Passing #200 = 95
		5 (6) 12 (6)	CLAY, very hard, moist, brown to tan, sandy (CL)				43	26		PP = 1.5 tsf; % Passing #200 = 55
80.0		50 (0.5) 50 (0.25)					29	15		% Passing #200 = 70
		50 (0.75) 50 (0.25)	LIMESTONE, gray, interbedded with shale	0	446	9			148	RUN: 25'-30'; REC: 83%; RQD: 45%
		50 (0.5) 50 (0.25)		0	1410	10			143	RUN: 30'-35'; REC: 95%; RQD: 35%
65.0		50 (0.5) 50 (0.25)	SHALE, gray, interbedded with limestone	0	110	17			141	RUN: 35'-40'; REC: 83%; RQD: 65%
		50 (1.75) 50 (1.25)		0	59	23			130	RUN: 40'-45'; REC: 95%; RQD: 53%
50.0		50 (0.5) 50 (0.25)								RUN: 45'-50'; REC: 85%; RQD: 33%

Remarks:
Latitude = 31.08456 Longitude = -97.70634

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: Rubicon **Logger: Omar Jimenez** **Organization: Raba-Kistner Consultants, Inc.**

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SOIL BORING LOGS

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		79

NODE

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	061	District	Waco
Highway	IH-14	Structure	Light Poles	Date	06/19/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
98.0			SAND, very stiff, brown, moist, clayey (SC)			24	40	25		PP = 2.0 tsf; % Passing #200 = 32
			CLAY, stiff to very stiff, brown to tan, dry, sandy, with limestone fragments (CL)							
	5	25 (6) 26 (6)				11	27	13		PP = 4.0 tsf; % Passing #200 = 87
	10	16 (6) 23 (6)				13	38	23		PP = 4.5+ tsf; % Passing #200 = 68
87.0			LIMESTONE, tan, weathered, with clay seams							
	15	50 (2) 50 (0.5)		0	928	6			139	RUN: 15'-20'; REC: 92%; RQD: 70%
80.0	20	50 (1.5) 50 (2)	LIMESTONE, gray							
				0	154	3			133	RUN: 20'-25'; REC: 95%; RQD: 51% RUN: 45'-50'; REC: 93%; RQD: 72%
	25	50 (0) 50 (0)								RUN: 25'-30'; REC: 95%; RQD: 72%
	30	50 (0) 50 (0)								RUN: 30'-35'; REC: 95%; RQD: 57%
	35	50 (1) 50 (0.5)		0	1374	3			136	RUN: 35'-40'; REC: 80%; RQD: 46%
	40	50 (0) 50 (0.25)		0	1331	5			152	RUN: 40'-45'; REC: 67%; RQD: 30%
	45	50 (3) 50 (0)		0	1456	6			143	
50.0	50	50 (1) 50 (0)								
	55									

Remarks:
Latitude = 31.08367 Longitude = -97.70454

The ground water elevation was not determined during the course of this boring.

Driller: ETTL **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

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DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	062	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/29/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, hard, tan to light brown, dry to moist, with marl and limestone fragments (CH)			15	57	40		% Passing #200 = 95
95.0	5	50 (4) 50 (4.5)	CLAY, hard, tan, dry to moist, with sand and limestone fragments (CL)			12	43	27		
90.0	10	18 (6) 19 (6)	CLAY, hard, tan, moist, with sand and limestone fragments (CH)			36	49	33		% Passing #200 = 81
	15	50 (1.5) 50 (3)				64	60	40		% Passing #200 = 89
80.0	20	50 (0.75) 50 (0.5)	LIMESTONE, fossiliferous, gray			45	57	38		% Passing #200 = 85
				0	352	3			137	RUN: 20'-25'; REC: 88%; RQD: 57%
	25	50 (0.5) 50 (0.25)								RUN: 25'-30'; REC: 52%; RQD: 0%
70.0	30	50 (0.5) 50 (0.5)	LIMESTONE, light gray, interbedded with shale	0	582	11			139	RUN: 30'-35'; REC: 92%; RQD: 53%
	35	50 (1) 50 (1)								
	40	50 (0.5) 50 (0.5)		0	700	7			145	RUN: 35'-40'; REC: 93%; RQD: 66%
	45	50 (0.25) 50 (0.25)		0	2315	5			141	RUN: 40'-45'; REC: 91%; RQD: 67%
50.0	50	50 (0.5) 50 (0.25)								RUN: 45'-50'; REC: 93%; RQD: 29%
	55									

Remarks:
Latitude = 31.0828 Longitude = -97.70272

The ground water elevation was not determined during the course of this boring.

Driller: Texas Geobore **Logger: Bryanna** **Organization: Raba-Kistner Consultants, Inc.**

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SOIL BORING LOGS

SHEET 10 OF 13

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		80

DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	063	District	Waco
Highway	IH-14	Structure	Light Poles	Date	04/16/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
98.0			SAND, dense, dry to moist, tan, clayey (SC)				33	15		PP = 4.5+ tsf; % Passing #200 = 42
	5	50 (3) 50 (3.5)	CLAY, hard, dry, tan to reddish tan, sandy, with fossil shells, limestone gravel and interbedded shaley clay seams from 6 feet to 8 feet (CL)			9	30	16		% Passing #200 = 59
	10	50 (2) 50 (3.25)				16				
86.0	15	50 (0.5) 50 (0.25)	LIMESTONE, gray, with fossil shells, interbedded clay and shale seams	0	653	7			141	
	20	50 (0.25) 50 (0.25)		0	878	8			133	RUN: 15'-20'; REC: 80%; RQD: 74%
	25	50 (0.5) 50 (0.25)								RUN: 20'-25'; REC: 100%; RQD: 88%
	30	50 (1.25) 50 (0.5)								RUN: 25'-30'; REC: 83%; RQD: 58%
69.0			SHALE, dark gray, with fossil shells and interbedded limestone lenses							RUN: 30'-35'; REC: 100%; RQD: 69%
	35	50 (2.75) 50 (1.25)		0	260	18			134	
62.5			LIMESTONE, dark gray, fossiliferous, with interbedded shale and clay seams							RUN: 35'-40'; REC: 83%; RQD: 72%
	40	50 (0.5) 50 (0.25)		0	1351	9			145	
	45	50 (0.5) 50 (0.25)								RUN: 40'-45'; REC: 90%; RQD: 73%
54.0			LIMESTONE, light gray, with fossil shells	0	1364	4			144	
50.0	50	50 (0.25) 50 (0.25)								RUN: 45'-50'; REC: 67%; RQD: 27%
	55									

Remarks:
Latitude = 31.08142 Longitude = -97.70125

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	064	District	Waco
Highway	IH-14	Structure	Light Poles	Date	07/18/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
98.0			CLAY, very hard, brown, with limestone fragments (CL)			20	43	27		
	5	40 (6) 50 (0.75)	LIMESTONE, tan, with clay seams							
	10	50 (3) 50 (3)								
	15	50 (0.5) 50 (0.25)								
	20	50 (5.5) 50 (4.75)								
	25	50 (0.5) 50 (0.25)								
73.0			SHALE, gray, interbedded with limestone	0	176	11			143	
70.0	30	50 (2) 50 (0.25)	LIMESTONE, gray, with trace fossils, interbedded with shale	0	79	20			131	
	35	50 (1) 50 (0.5)		0	479	7			151	RUN: 30'-35'; REC: 80%; RQD: 63%
	40	50 (0.75) 50 (0.25)		0	1655	9			147	RUN: 35'-40'; REC: 100%; RQD: 30%
	45	50 (0.5) 50 (0.25)								RUN: 40'-45'; REC: 100%; RQD: 67%
	50	50 (0.5) 50 (0.25)		0	1035	14			140	RUN: 45'-50'; REC: 97%; RQD: 30%
	55									

Remarks:
Latitude = 31.08038 Longitude = -97.69935

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Omar Jimenez** **Organization: Raba-Kistner Consultants, Inc.**

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

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SOIL BORING LOGS

SHEET 11 OF 13

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		81

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	065	District	Waco
Highway	IH-14	Structure	Light Poles	Date	04/18/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, moist, dark brown, sandy, with gravel (CL)							
95.0	5	7 (6) 6 (6)		0	43	14	39	21	132	PP = 4.5+ tsf; % Passing #200 = 67
			CLAY, soft, dry to moist, orange and tan, with fossil shells and limestone gravel (CH)							
90.0	10	9 (6) 12 (6)				34	84	57		PP = 2.0 tsf; % Passing #200 = 98
			CLAY, very stiff, dry to moist, gray to light gray, with gravel (CL)							
	15	30 (6) 50 (3.75)				10	34	20		PP = 4.5+ tsf; % Passing #200 = 86
82.0			LIMESTONE, tan to light brown, with fossil shells and interbedded shale							
	20	50 (2.75) 50 (1.75)								
	25	50 (0.5) 50 (0.25)				12				
71.0			SHALE, dark gray, weathered, with fossil shells							
	30	43 (6) 50 (6)								
	35	50 (0.5) 50 (0.25)				19				
	40	50 (6) 42 (6)								
	45	50 (4) 50 (1.5)				17				
52.5			SHALE, dark gray							
50.0	50	50 (0.5) 50 (0.25)								
	55									

Remarks:
Latitude = 31.07944 Longitude = -97.69756

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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DRILLING LOG

1 of 1

WinCore Version 3.3

County	Bell	Hole	066	District	Waco
Highway	IH-14	Structure	Light Poles	Date	03/25/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			SAND, very dense, moist, brown, clayey (SC)							
95.0	5	24 (6) 33 (6)				12	20	9		% Passing #200 = 44
			CLAY, very stiff to very hard, dry to moist, tan to light gray, with sand, limestone lenses and fossil shells at 18 feet (CL)							
	10	34 (6) 39 (6)				12	23	8		PP = 4.5+ tsf; % Passing #200 = 77
	15	50 (4) 50 (2.5)				9				
	20	50 (2) 50 (0.75)				11				
	25	50 (1) 50 (0.25)								
75.0			LIMESTONE, tan and gray, with interbedded clay seams, ferrous staining and fossil shells							RUN: 25'-30'; REC: 65%; RQD: 24%
	30	50 (0.75) 50 (0.25)								
68.0			LIMESTONE, gray and tan, with fossil shells and interbedded clay seams	0	349	3			133	RUN: 30'-35'; REC: 53%; RQD: 11%
	35	50 (1.25) 50 (0.25)								
63.0			LIMESTONE, dark gray, with fossil shells and interbedded clay seams							RUN: 35'-40'; REC: 62%; RQD: 23%
	40	50 (0.75) 50 (0.5)		0	128	17			141	RUN: 40'-45'; REC: 87%; RQD: 47%
	45	50 (1.5) 50 (1.25)		0	628	12			135	RUN: 45'-50'; REC: 78%; RQD: 48%
50.0	50	50 (0.5) 50 (0.25)								
	55									

Remarks:
Latitude = 31.07914 Longitude = -97.69532

The ground water elevation was not determined during the course of this boring.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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SOIL BORING LOGS

SHEET 12 OF 13

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		82

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NOTES:

1. FOR CONTRACTOR INFORMATION ONLY.

DRILLING LOG

WinCore Version 3.3

County	Bell	Hole	067	District	Waco
Highway	IH-14	Structure	Light Poles	Date	04/16/24
CSJ	0231-03-155	Station		Grnd. Elev.	100.00 ft
		Offset		GW Elev.	56.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
		38 (6) 22 (6)	CLAY, very stiff to very hard, moist, brown to tan, sandy, with gravel, fossil shells and calcareous nodules (CL)			14				
		47 (6) 50 (5.25)				12				
		50 (2.25) 50 (1.75)				9	28	14		% Passing #200 = 60
80.0		50 (1.5) 50 (0.25)								
		50 (1.75) 50 (0.75)	LIMESTONE, tan, weathered, with fossil shells and interbedded shaley clay seams							
72.5		50 (4.25) 50 (1.75)	LIMESTONE, dark gray							
		50 (6) 42 (6)				14				
		50 (5.5) 47 (6)								
		50 (0.5) 50 (0.25)								
50.0		50 (0.75) 50 (0.25)								

Remarks:
Latitude = 31.07778 Longitude = -97.6939

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: Rubicon **Logger: Bradley Coffman** **Organization: Raba-Kistner, Inc.**

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SOIL BORING LOGS

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		83

ILLUMINATION GENERAL NOTES

1. EXISTING FIBER OPTICS, STORM SEWER, TELEPHONE, GAS, ITS, AND ELECTRICAL SYSTEMS WITHIN PROJECT AREA MAY NOT BE IN EXACT LOCATION AS SHOWN OR NOT SHOWN ON PLANS OR OTHER PLANS. BEFORE DIGGING, DRILLING OR BORING IN THE PROJECT AREA, THE CONTRACTOR SHALL PERFORM A "ONE CALL" AND NOTIFY THE UTILITY COMPANIES 72 HOURS PRIOR TO CONSTRUCTION.

2. INSTALLATION OF HIGH MAST POLES REQUIRES COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION. THE CONTRACTOR IS RESPONSIBLE FOR RECORDING THE LATITUDE, LONGITUDE, AND ELEVATION OF EACH FINALIZED POLE LOCATION AND PROVIDE TO THE ENGINEER. THIS WORK WILL NOT BE PAID FOR DIRECTLY AND WILL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS. PROVIDE DATA AND NOTIFY THE ENGINEER NO LATER THAN 3 CALENDAR DAYS AFTER A POLE IS ERECTED. THIS WILL BE DONE FOR EACH HIGH MAST LOCATION.

3. ALL HIGH MAST ILLUMINATION POLES WILL HAVE AVIATION WARNING LIGHTS INSTALLED. THIS IS SUBSIDIARY TO SPECIAL SPECIFICATION 6083.

4. THIS PROJECT INCLUDES TWO TYPES OF ILLUMINATION - CONTINUOUS ILLUMINATION TO BE MAINTAINED BY THE CITY OF KILLEEN USING HIGH MAST POLES, AND SAFETY LIGHTING TO BE MAINTAINED BY TXDOT USING ROADWAY ILLUMINATION POLES AND UNDERPASS LIGHTING FIXTURES. THESE TWO TYPES OF LIGHTING ARE TO BE POWERED USING SEPARATE SERVICES. SAFETY LIGHTING AND CONTINUOUS LIGHTING ARE NOT ALLOWED TO SHARE THE SAME CONDUIT. THEY ARE ALLOWED TO USE THE SAME TRENCH AND GROUND BOX.

5. ALL ELECTRICAL CONDUCTOR SPLICES INVOLVING ALUMINUM MUST BE PERFORMED BY A MASTER ELECTRICIAN.

6. ALL NEW GROUND BOXES WILL BE TYPE D WITH APRON. NEW GROUND BOXES WILL BE SECURED USING A METHOD APPROVED BY THE ENGINEER. NEW GROUND BOXES WILL BE PAID FOR USING ITEM 624 7014 (INSTL GROUND BOX W/SECURE LID).

7. WHERE CALLED OUT, EXISTING GROUND BOXES THAT ARE TO REMAIN WILL HAVE THEIR LIDS REPLACED WITH ONES THAT ARE LOCKABLE. THIS WILL BE PAID FOR USING ITEM 624 7015 (RETRO GROUND BOX W/SECURE LID).

8. SERVICE, GROUND BOX, CONDUIT, ILLUMINATION POLES, AND HIGH MAST LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED MARGINALLY TO BETTER FIT FIELD CONDITIONS. HIGH MAST POLES SHOULD NOT BE ADJUSTED TO BE WITHIN THE CLEAR ZONE IF THEY ARE NOT PROTECTED. HIGH MAST LOCATIONS ARE TO BE APROVED BY THE ENGINEER BEFORE CONSTRUCTION.

9. WHEN APPLICABLE, LOCATE NEW SERVICES AS CLOSE AS PRACTICAL TO ORIGINAL SERICE TO PRESERVE EXISTING SERVICE ADDRESS AND ESID NUMBER.

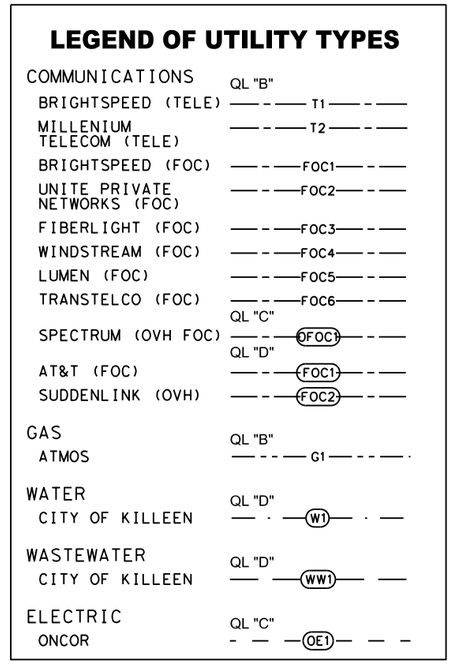
10. WHEN AN EXISTING CIRCUIT CHANGES IDENTIFIERS (A,B,C, ETC.) GOING FROM EXISTING LAYOUT TO PROPOSED, REPLACE ALL CIRCUIT IDENTIFIER TAGS THAT WERE AFFECTED AND ARE ACCESSIBLE.

11. REPLACE FUSES AND BREAKAWAY FUSE HOLDERS IN EXISTING ILLUMINATION POLES THAT ARE LABELED AND ARE TO REMAIN. THIS IS FOR ANTICIPATED BREAKAGE WHEN REMOVING EXISTING CONDUCTORS.

12. SOME ROADWAY ILLUMINATION POLES HAVE DIFFERENT DESIGNATIONS FROM EXISTING TO PROPOSED DUE TO CHANGING CIRCUITS AND/OR SERVICES.

13. ABANDONED CONDUIT NOT SHOWN ON ILLUMINATION LAYOUT FOR CLARITY.

LEGEND OF UTILITY TYPES



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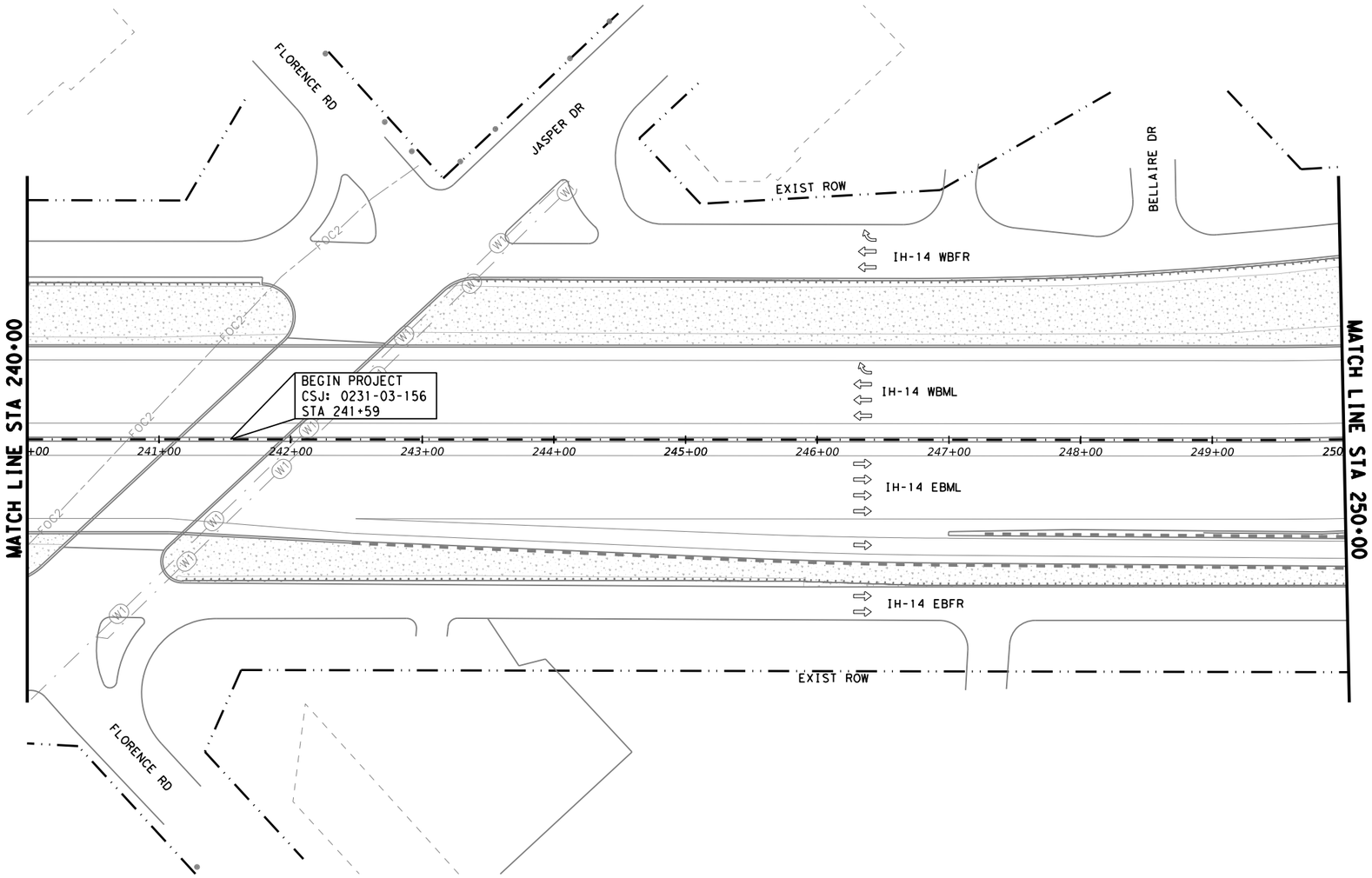
ILLUMINATION GENERAL NOTES & UTILITY LEGEND

SHEET 1 OF 1

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		84

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80) (3") (BORE)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
NO WORK THIS SHEET								

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ILLUMINATION LAYOUT

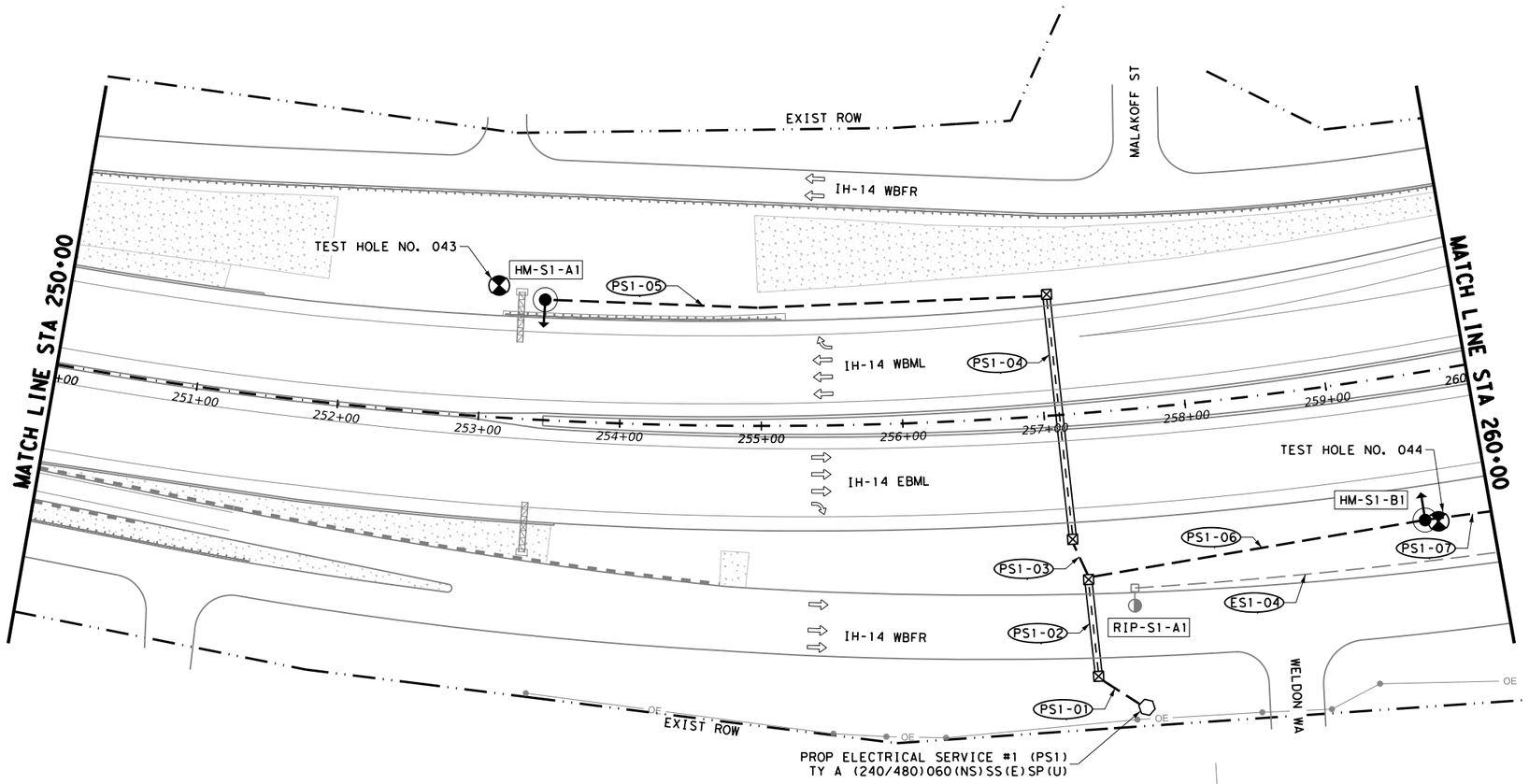
SCALE: 1" = 100' HORIZ. 0 25 50 100 FEET

SHEET 1 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		85

NODE

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80) (3") (BORE)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS1-01	PS1	ABC	41	41			41	246
PS1-02	PS1	ABC	69		69		69	414
PS1-03	PS1	A	30	30			30	60
PS1-04	PS1	A	174		174		174	348
PS1-05	PS1	A	355	355			355	710
PS1-06	PS1	BC	241	241			241	964
PS1-07	PS1	BC	47	47			47	188
ES1-04	ES1	A	259	NO WORK				
SHEET TOTAL:				714	243		957	2930

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	30
432	7001	RIPRAP (CONC)(4 IN)	CY	4.66
618	7036	CONDT (PVC) (SCH 40) (3")	LF	714
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	243
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	6
628	7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	1
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	3887
6083	7002	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)(SHLD)	EA	2

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER (IN)	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S1-A1	253+05	94 LT	(100 FT)(80MPH)(6FIXT)(TY B)(SHLD)	48	15
HM-S1-B1	259+55	104 RT	(100 FT)(80MPH)(6FIXT)(TY B)(SHLD)	48	15

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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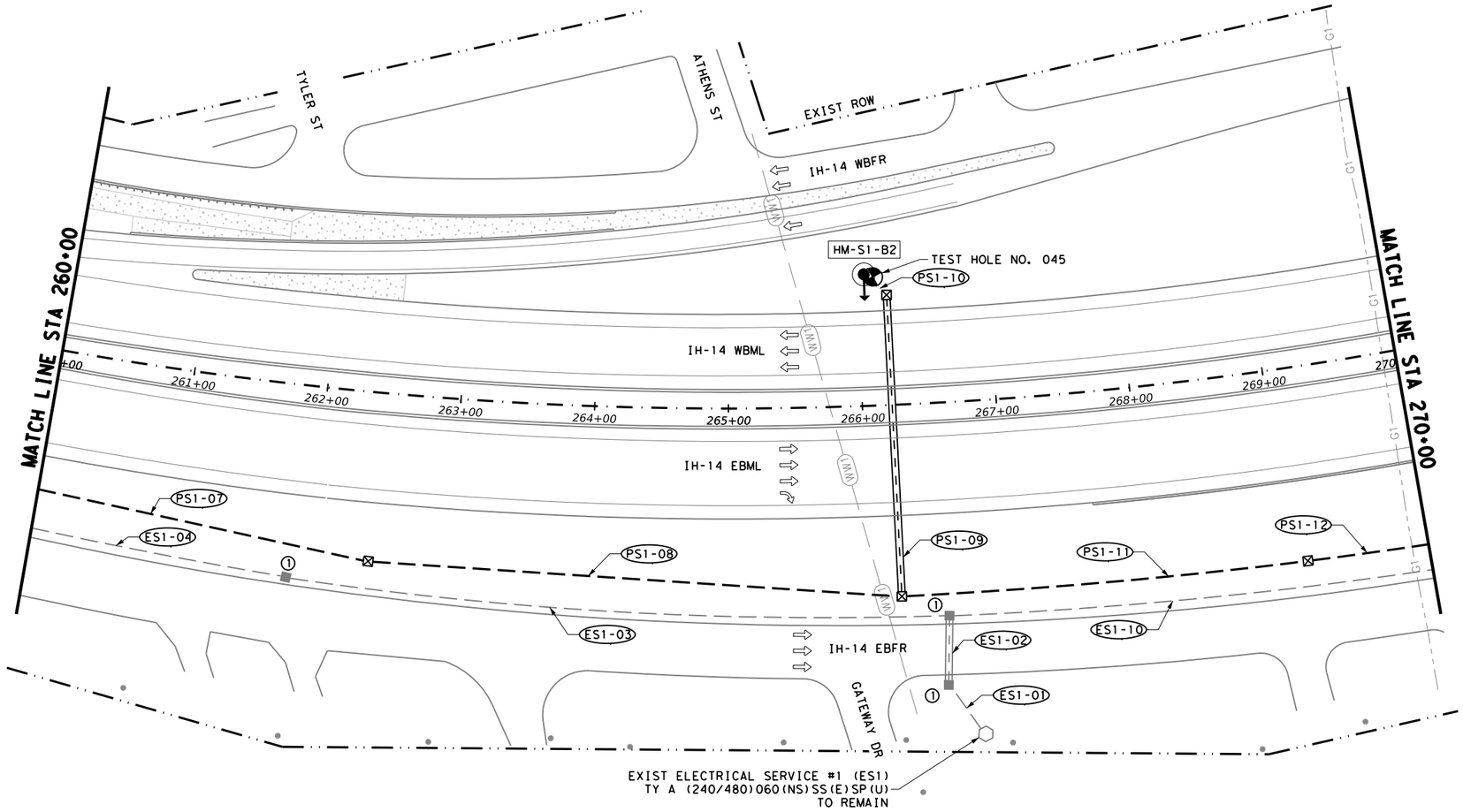
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 2 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		86

NODE



LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS1-07	PS1	BC	252	252			252	1008
PS1-08	PS1	BC	400	400			400	1600
PS1-09	PS1	B	225		225		225	450
PS1-10	PS1	B	24	24			24	48
PS1-11	PS1	C	305	305			305	610
PS1-12	PS1	C	91	91			91	182
ES1-01	ES1	ABC	46	NO WORK				
ES1-02	ES1	ABC	52	NO WORK				
ES1-03	ES1	A	498	NO WORK				
ES1-04	ES1	A	194	NO WORK				
ES1-10	ES1	BC	365	SPLICE EXISTING TO PROPOSED				
SHEET TOTAL:				1072	225		1297	3898

SUMMARY OF ILLUMINATION ITEMS

BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	18
432	7001	RIPRAP (CONC) (4 IN)	CY	2.33
618	7036	CONDT (PVC) (SCH 40) (3")	LF	1072
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	225
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	5
624	7015	RETRO GROUND BOX (W/SECURE LID)	EA	3
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	5195
6083	7002	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)(SHLD)	EA	1

ILLUMINATION ASSEMBLY SUMMARY

POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S1-B2	266+05	98 LT	(100 FT)(80MPH)(6FIXT)(TY B)(SHLD)	48	18

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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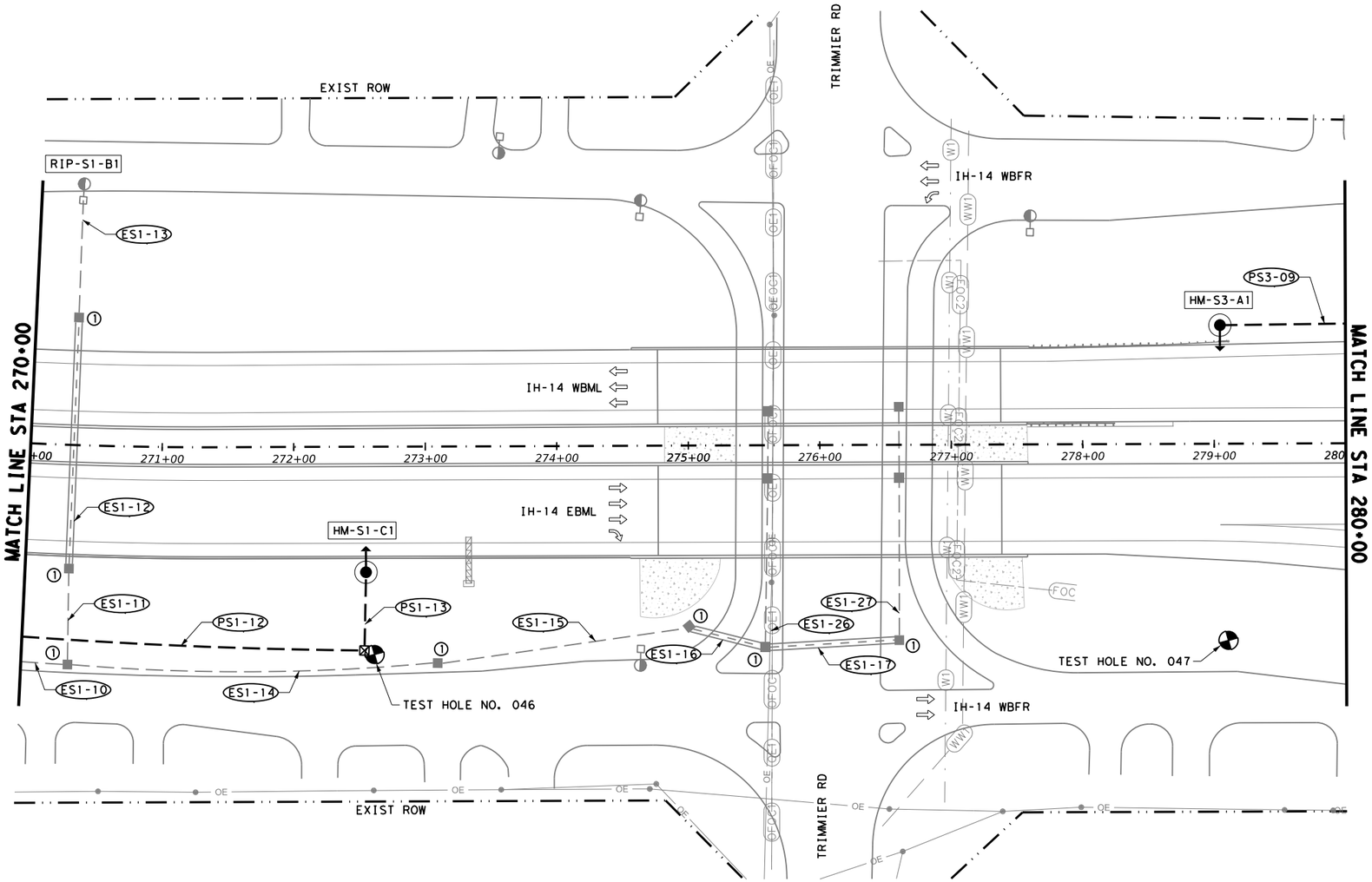
ILLUMINATION LAYOUT

SCALE: 1" = 100' HORIZ. (0 25 50 100 FEET)

SHEET 3 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		87

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

N

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS1-12	PS1	C	261	261				
PS1-13	PS1	C	60	60				
ES1-10	ES1	BC	36	SPLICE EXISTING TO PROPOSED				
ES1-11	ES1	B	73	SPLICE EXISTING TO PROPOSED				
ES1-12	ES1	B	191	NO WORK				
ES1-13	ES1	B	89	NO WORK				
ES1-14	ES1	C	282			282	282	564
ES1-15	ES1	C	193			193	193	386
ES1-16	ES1	C	60			60	60	120
ES1-17	ES1	C	102			102	102	204
ES1-26	ES1	C	128	SPLICE EXISTING TO PROPOSED				
ES1-27	ES1	C	123	SPLICE EXISTING TO PROPOSED				
PS3-09	PS3	A	95	95			95	190
		SHEET TOTAL:		416		637	732	1464

SUMMARY OF ILLUMINATION ITEMS

BID CODE	DESCRIPTION	UNIT	QTY
416 7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	50
432 7001	RIPRAP (CONC) (4 IN)	CY	4.66
618 7036	CONDT (PVC) (SCH 40) (3")	LF	416
618 7090	CONDUIT (PREPARE)	LF	637
624 7014	INSTL GROUND BOX (W/SECURE LID)	EA	3
624 7015	RETRO GROUND BOX (W/SECURE LID)	EA	7
6071 7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	2196
6083 7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	2

POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S1-C1	272+55	95 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25
HM-S3-A1	279+05	90 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25

* INCLUDES 3 FEET EXPOSURE

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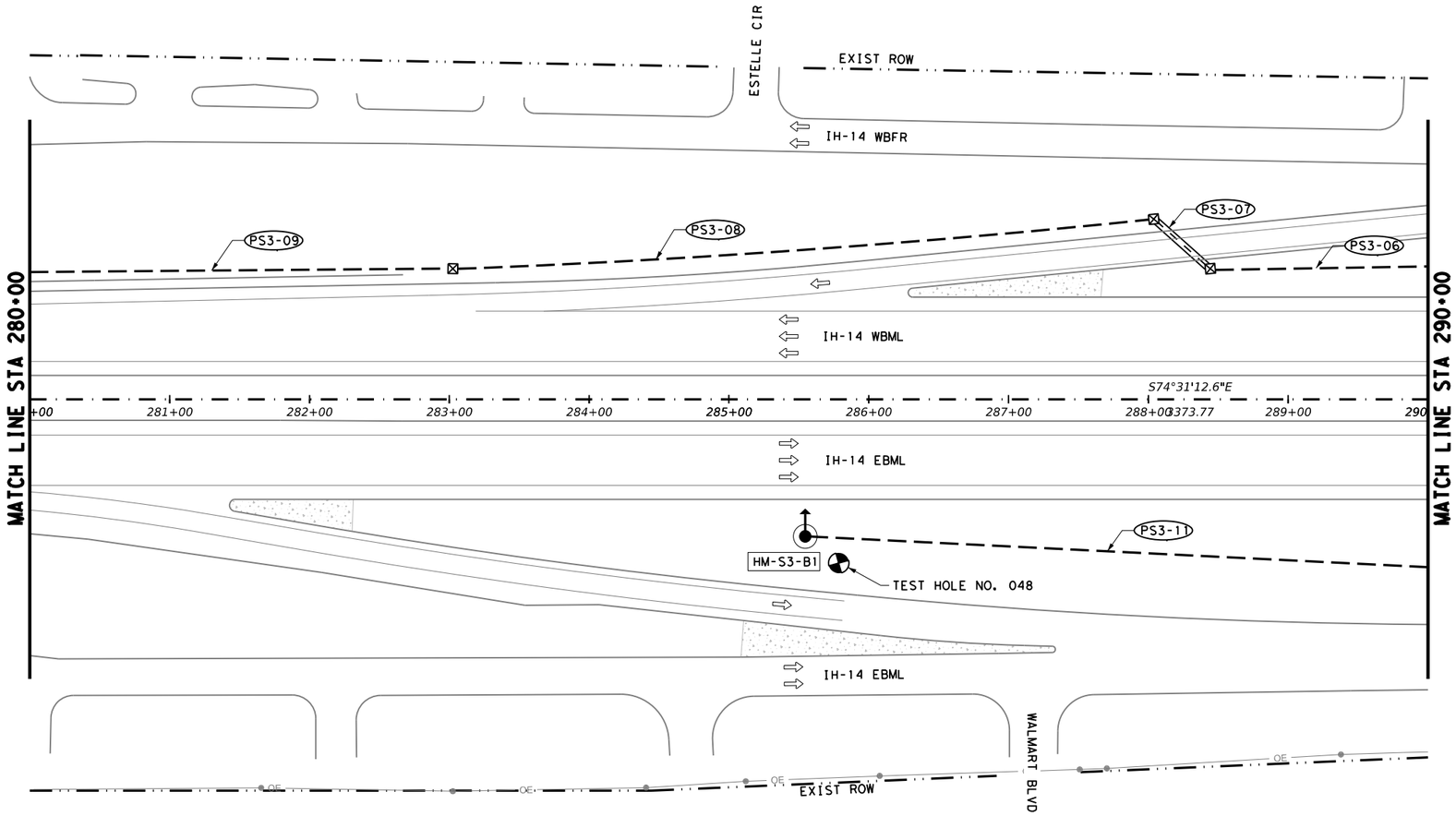
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 4 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		88

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

N

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS3-06	PS3	A	156	156			156	312
PS3-07	PS3	A	54		54		54	108
PS3-08	PS3	A	502	502			502	1004
PS3-09	PS3	A	303	303			303	606
PS3-11	PS3	B	446	446			446	892
		SHEET TOTAL:		1407	54		1461	2922

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	23
432	7001	RIPRAP (CONC)(4 IN)	CY	2.33
618	7036	CONDT (PVC) (SCH 40) (3")	LF	1407
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	4
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	4383
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S3-B1	285+55	98 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	23

* INCLUDES 3 FEET EXPOSURE

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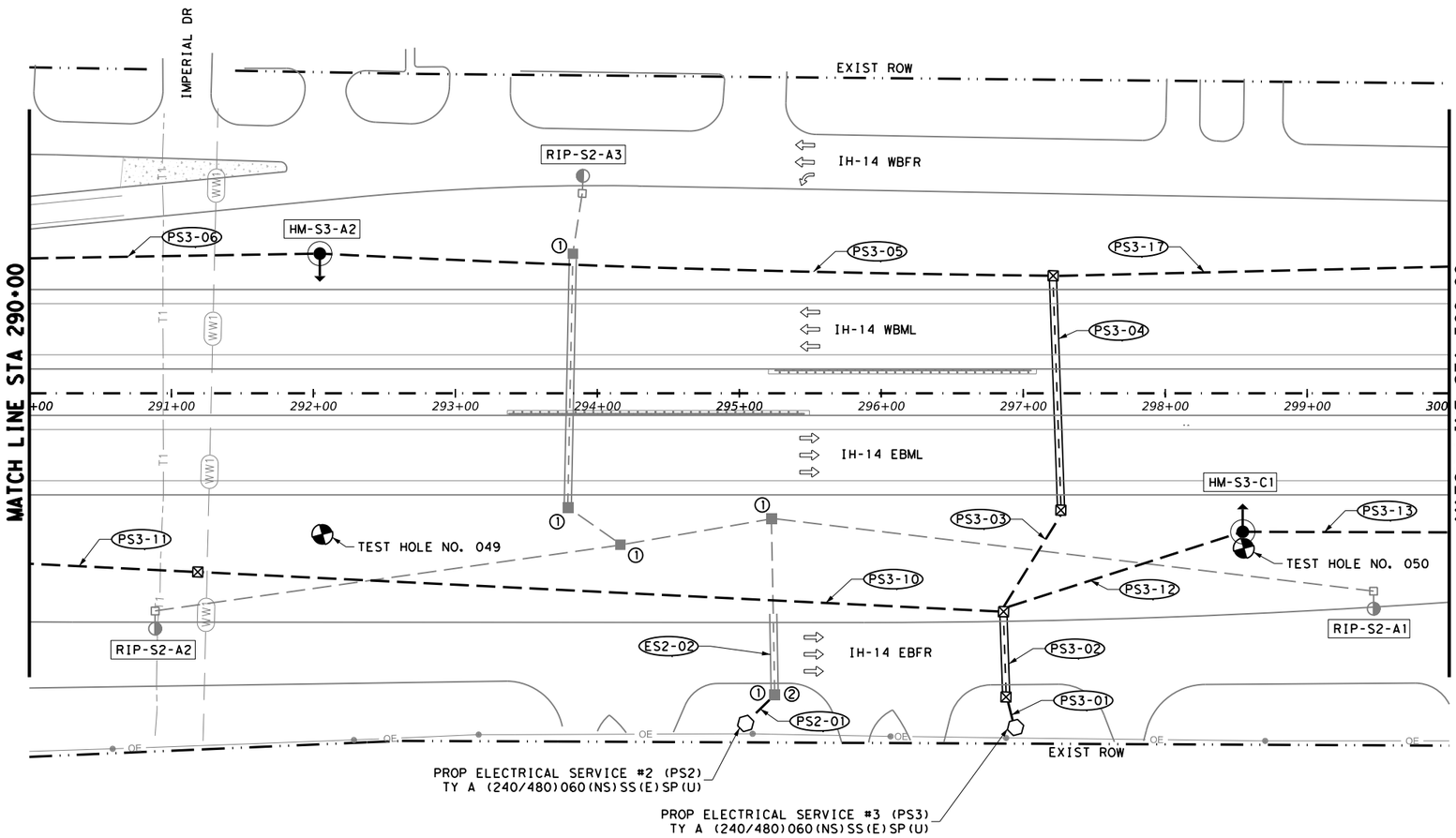
ILLUMINATION LAYOUT

SCALE: 1" = 100' HORIZ. (0 25 50 100 FEET)

SHEET 5 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		89

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

N

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS2-01	PS2	A	29	29			29	58
ES2-02	PS2	A	124	SPLICE EXISTING TO PROPOSED				
PS3-01	PS3	ABCD	23	23			23	184
PS3-02	PS3	ABCD	61		61		61	488
PS3-03	PS3	AD	82	82			82	328
PS3-04	PS3	AD	165		165		165	660
PS3-05	PS3	A	517	517			517	1034
PS3-06	PS3	A	205	205			205	410
PS3-10	PS3	B	568	568			568	1136
PS3-11	PS3	B	119	119			119	238
PS3-12	PS3	C	178	178			178	356
PS3-13	PS3	C	145	145			145	290
PS3-17	PS3	D	279	279			279	558
		SHEET TOTAL:		2145	226		2371	5740

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	45
432	7001	RIPRAP (CONC)(4 IN)	CY	4.66
618	7036	CONDT (PVC) (SCH 40) (3")	LF	2145
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	226
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	7
624	7015	RETRO GROUND BOX (W/SECURE LID)	EA	5
628	7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	2
6013	7006	GROUND BOX (PREPARE)	EA	1
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	8111
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	2

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S3-A2	292+05	98 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25
HM-S3-C1	298+55	98 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	20

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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PATRICK JALUFKA P.E., ON: 7/11/2025

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ILLUMINATION LAYOUT

SCALE: 1" = 100' 0 25 50 100 FEET

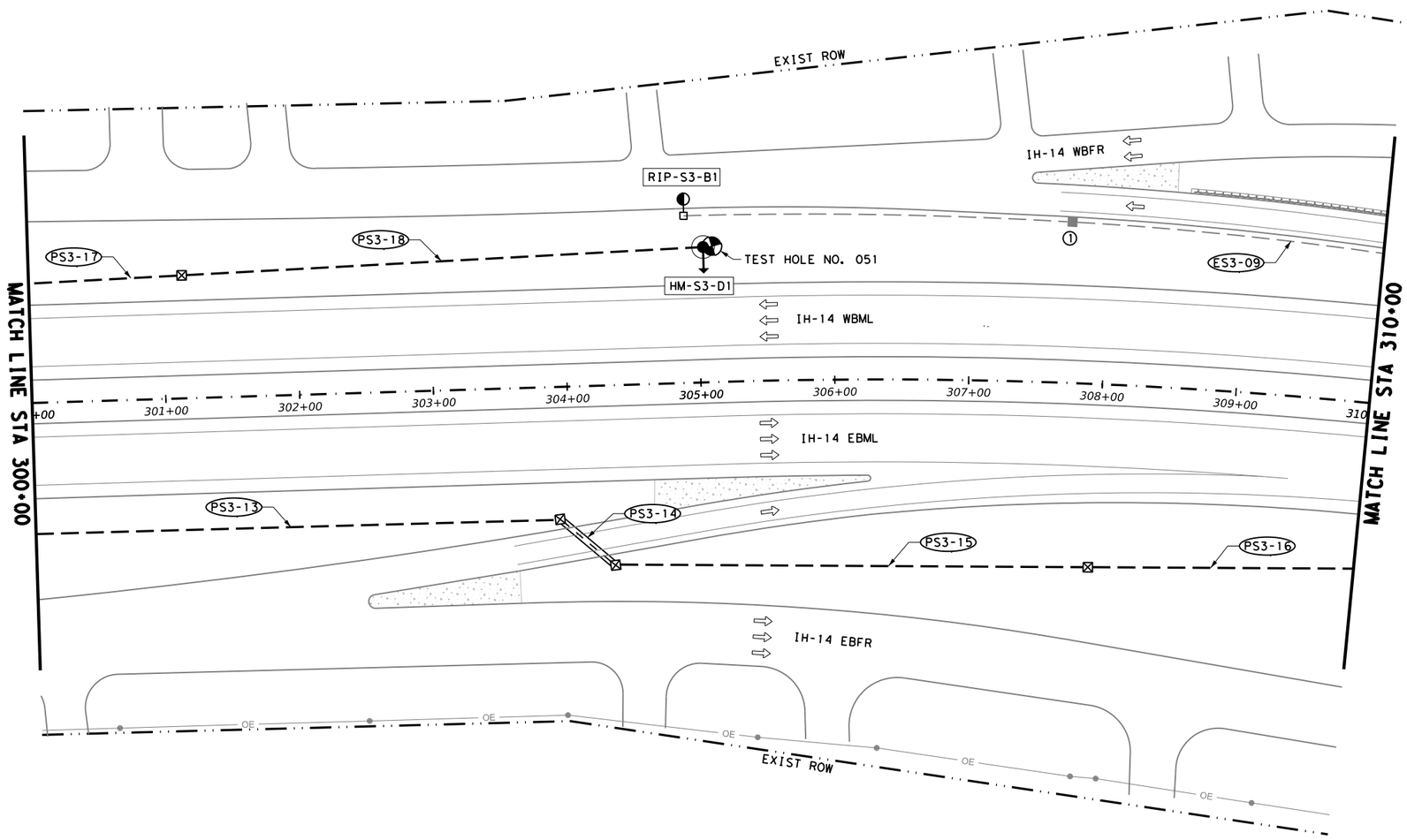
HORIZ.

SHEET 6 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		90

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT



CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS3-13	PS3	C	392	392			392	784
PS3-14	PS3	C	54		54		54	108
PS3-15	PS3	C	353	353			353	706
PS3-16	PS3	C	198	198			198	396
PS3-17	PS3	D	115	115			115	230
PS3-18	PS3	D	390	390			390	780
ES3-09	ES3	B	234			234	234	468
ES3-10	ES3	B	291			291	291	582
		SHEET TOTAL:		1448	54	525	2027	4054

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	18
432	7001	RIPRAP (CONC) (4 IN)	CY	2.33
610	7124	IN RD IL (TY SA) 40T-8 (250W EQ) LED	EA	1
618	7036	CONDT (PVC) (SCH 40) (3")	LF	1448
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	54
618	7090	CONDUIT (PREPARE)	LF	525
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	5
624	7015	RETRO GROUND BOX (W/SECURE LID)	EA	1
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	6081
6071	7004	ALUMINUM ELECTRICAL COND (#8 XHHW)	LF	1575
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S3-D1	305+05	101 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	18

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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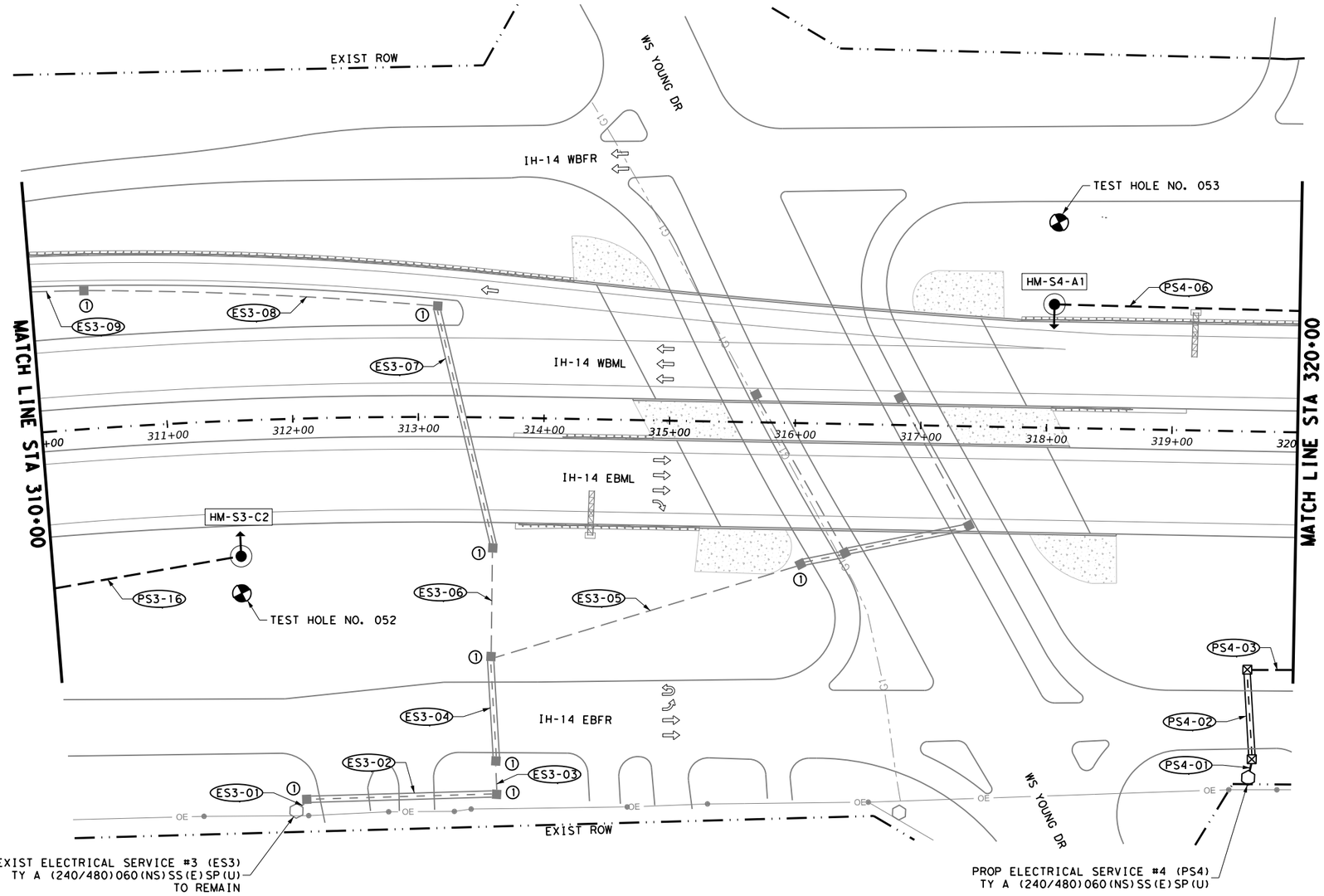
ILLUMINATION LAYOUT

SCALE: 1" = 100' HORIZ. (0 25 50 100 FEET)

SHEET 7 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		91

NODE



LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT 0618 7036 CONDT (PVC) (SCH 40) (3") LF	CONDUIT 0618 7061 CONDT (PVC) (SCH 80) LF	CONDUIT 0618 7090 CONDUIT (PREPARE) LF	EQUIPMENT GROUNDING CONDUCTOR 6071 6003 ALUMINUM ELECTRICAL COND (#6 XHHW) LF	ELECTRICAL CONDUCTOR 6071 6003 ALUMINUM ELECTRICAL COND (#6 XHHW) LF
PS3-16	PS3	C	151	151			151	302
ES3-01	ES3	AB	12			12	12	48
ES3-02	ES3	AB	151			151	151	604
ES3-03	ES3	AB	26			26	26	104
ES3-04	ES3	AB	83			83	83	332
ES3-05	ES3	A	257			257	257	514
ES3-06	ES3	B	86			86	86	172
ES3-07	ES3	B	197			197	197	394
ES3-08	ES3	B	282			282	282	564
ES3-09	ES3	B	42			42	42	84
PS4-01	PS4	AB	15	15			15	60
PS4-02	PS4	AB	71		71		71	284
PS4-03	PS4	AB	37	37			37	148
PS4-06	PS4	A	195	195			195	390
		SHEET TOTAL:		398	71	1136	1605	4000

SUMMARY OF ILLUMINATION ITEMS

BID CODE	DESCRIPTION	UNIT	QTY
416 7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	45
432 7001	RIPRAP (CONC)(4 IN)	CY	4.66
618 7036	CONDT (PVC) (SCH 40) (3")	LF	398
618 7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	71
618 7090	CONDUIT (PREPARE)	LF	1136
624 7014	INSTL GROUND BOX (W/SECURE LID)	EA	4
624 7015	RETRO GROUND BOX (W/SECURE LID)	EA	8
628 7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	1
6071 7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	5605
6071 7004	ALUMINUM ELECTRICAL COND (#8 XHHW)	LF	864
6083 7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	2

ILLUMINATION ASSEMBLY SUMMARY

POLE	LOCATION STATION	LOCATION OFFSET (FT)	ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
HM-S3-C2	311+55	108 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	20
HM-S4-A1	318+05	98 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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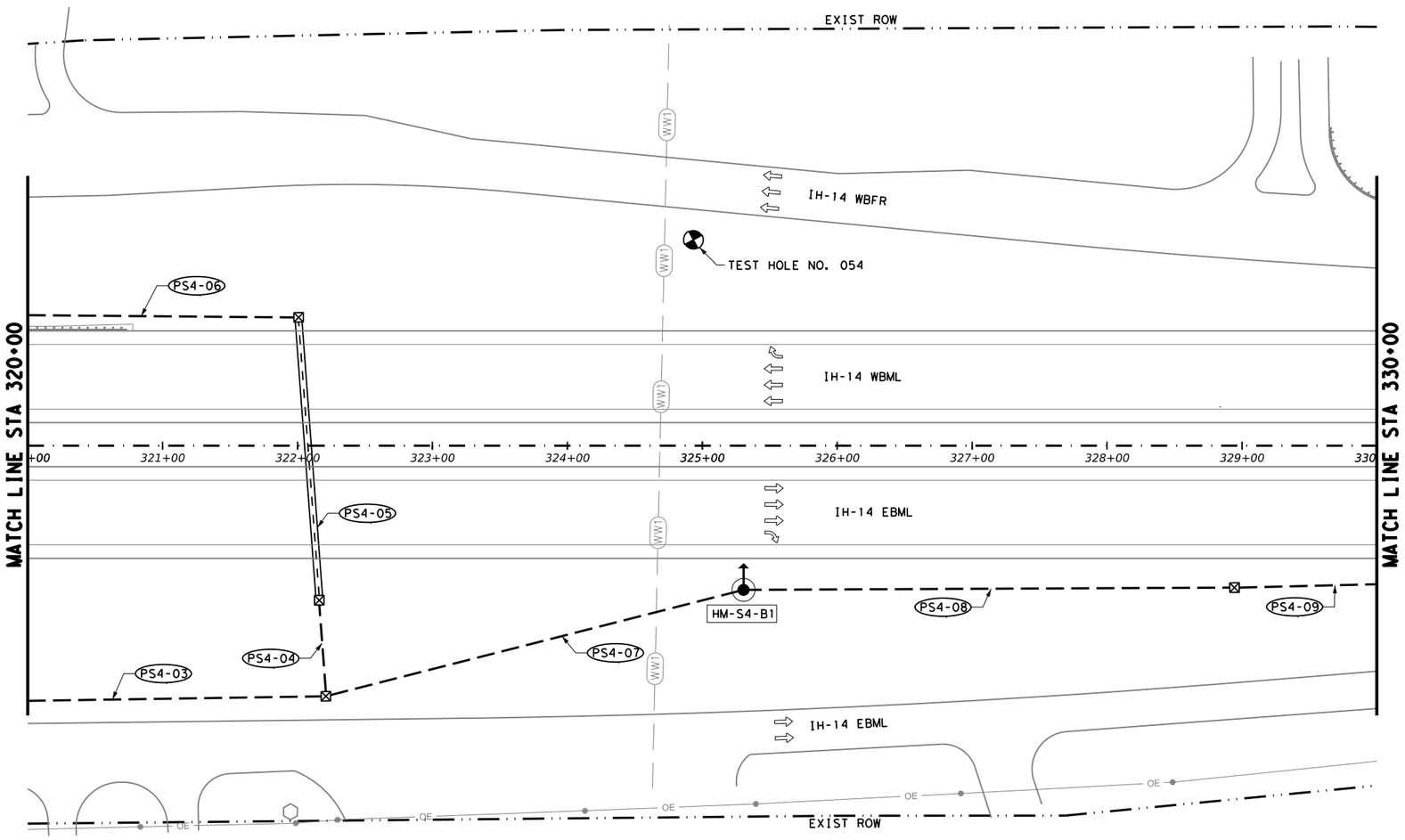
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 8 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		92

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS4-03	PS4	AB	221	221			221	884
PS4-04	PS4	A	72	72			72	144
PS4-05	PS4	A	210		210		210	420
PS4-06	PS4	A	201	201			201	402
PS4-07	PS4	B	319	319			319	638
PS4-08	PS4	B	364	364			364	728
PS4-09	PS4	B	106	106			106	212
		SHEET TOTAL:		1283	210		1493	3428

SUMMARY OF ILLUMINATION ITEMS

BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	25
432	7001	RIPRAP (CONC) (4 IN)	CY	2.33
618	7036	CONDT (PVC) (SCH 40) (3")	LF	1283
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	210
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	5
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	4921
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1

ILLUMINATION ASSEMBLY SUMMARY

POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S4-B1	325+31	107 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25

* INCLUDES 3 FEET EXPOSURE

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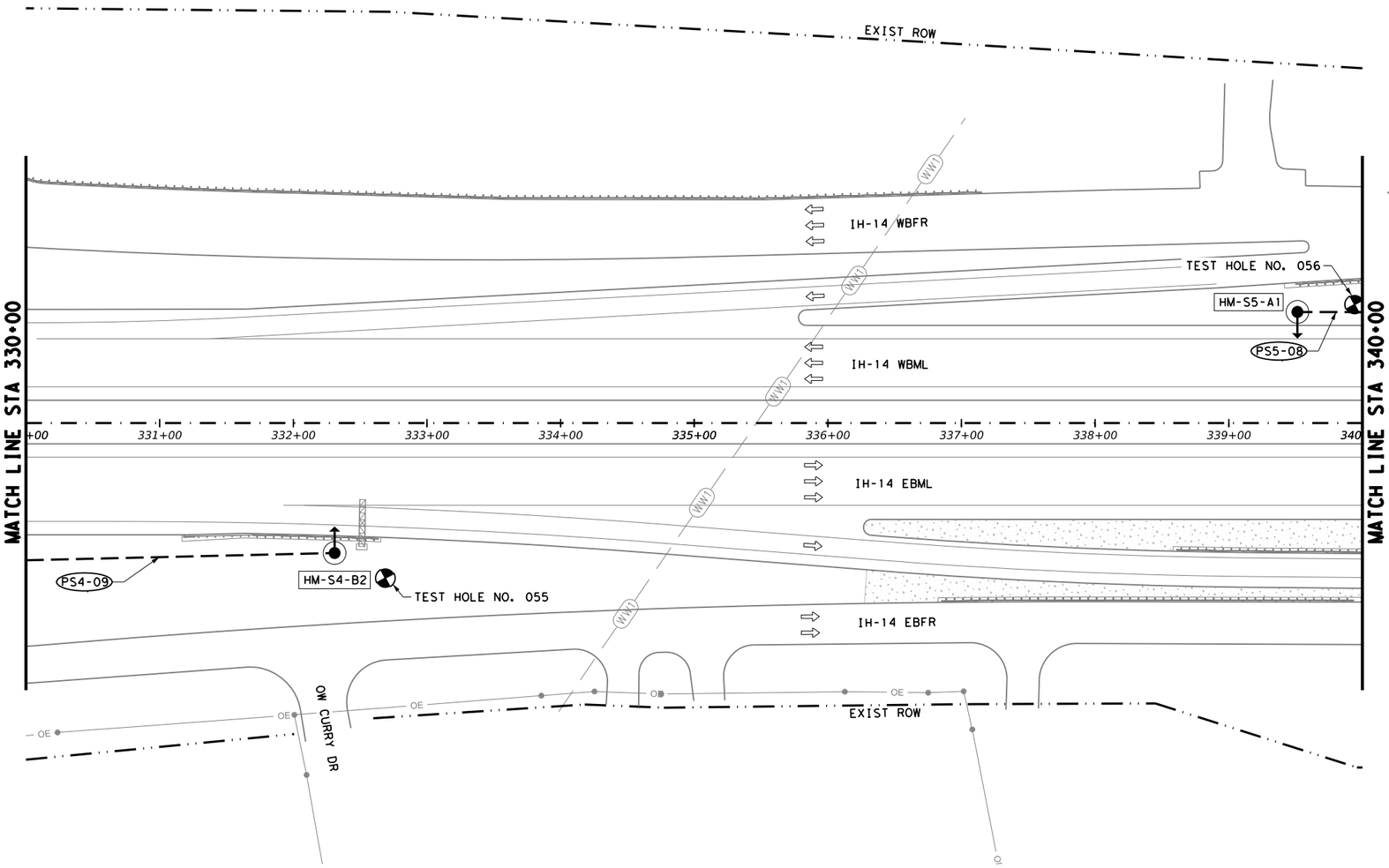
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 9 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		93

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS4-09	PS4	B	231	231			231	462
PS5-08	PS5	A	49	49			49	98
SHEET TOTAL:				280			280	560

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	35
432	7001	RIPRAP (CONC) (4 IN)	CY	4.66
618	7036	CONDT (PVC) (SCH 40) (3")	LF	280
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	2
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	840
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	2

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S4-B2	332+58	103 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	20
HM-S5-A1	339+51	83 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	15

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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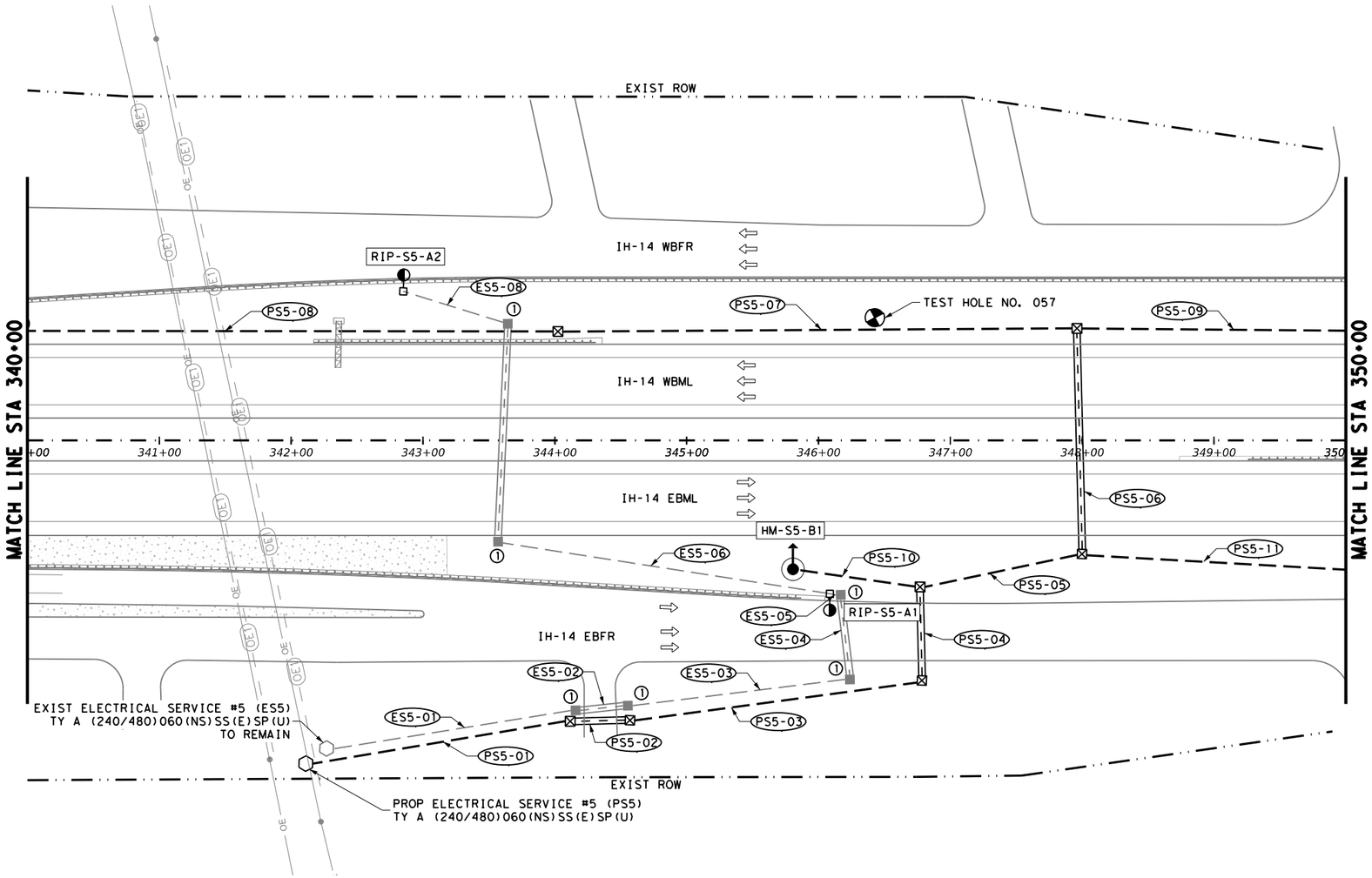
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 10 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		94

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS5-01	PS5	AB	203	203			203	812
PS5-02	PS5	AB	46	46			46	184
PS5-03	PS5	AB	224	224			224	896
PS5-04	PS5	AB	70		70		70	280
PS5-05	PS5	AB	125	125			125	500
PS5-06	PS5	A	171		171		171	342
PS5-07	PS5	A	394	394			394	788
PS5-08	PS5	A	402	402			402	804
PS5-09	PS5	A	204	204			204	408
PS5-10	PS5	B	97	97			97	194
PS5-11	PS5	B	201	201			201	402
ES5-01	ES5	A	191			191	191	382
ES5-02	ES5	A	40			40	40	80
ES5-03	ES5	A	170			170	170	340
ES5-04	ES5	A	65			65	65	130
ES5-05	ES5	A	8			8	8	16
ES5-06	ES5	A	255			255	255	510
ES5-07	ES5	A	166			166	166	332
ES5-08	ES5	A	83			83	83	166
		SHEET TOTAL:		1896	241	978	3115	7566

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	25
432	7001	RIPRAP (CONC) (4 IN)	CY	2.33
610	7124	IN RD IL (TY SA) 40T-8 (250W EQ) LED	EA	2
618	7036	CONDT (PVC) (SCH 40) (3")	LF	1896
618	7090	CONDUIT (PREPARE)	LF	978
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	8
624	7015	RETRO GROUND BOX (W/SECURE LID)	EA	6
628	7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	1
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	10681
6071	7004	ALUMINUM ELECTRICAL COND (#8 XHHW)	LF	978
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S5-B1	345+80	98 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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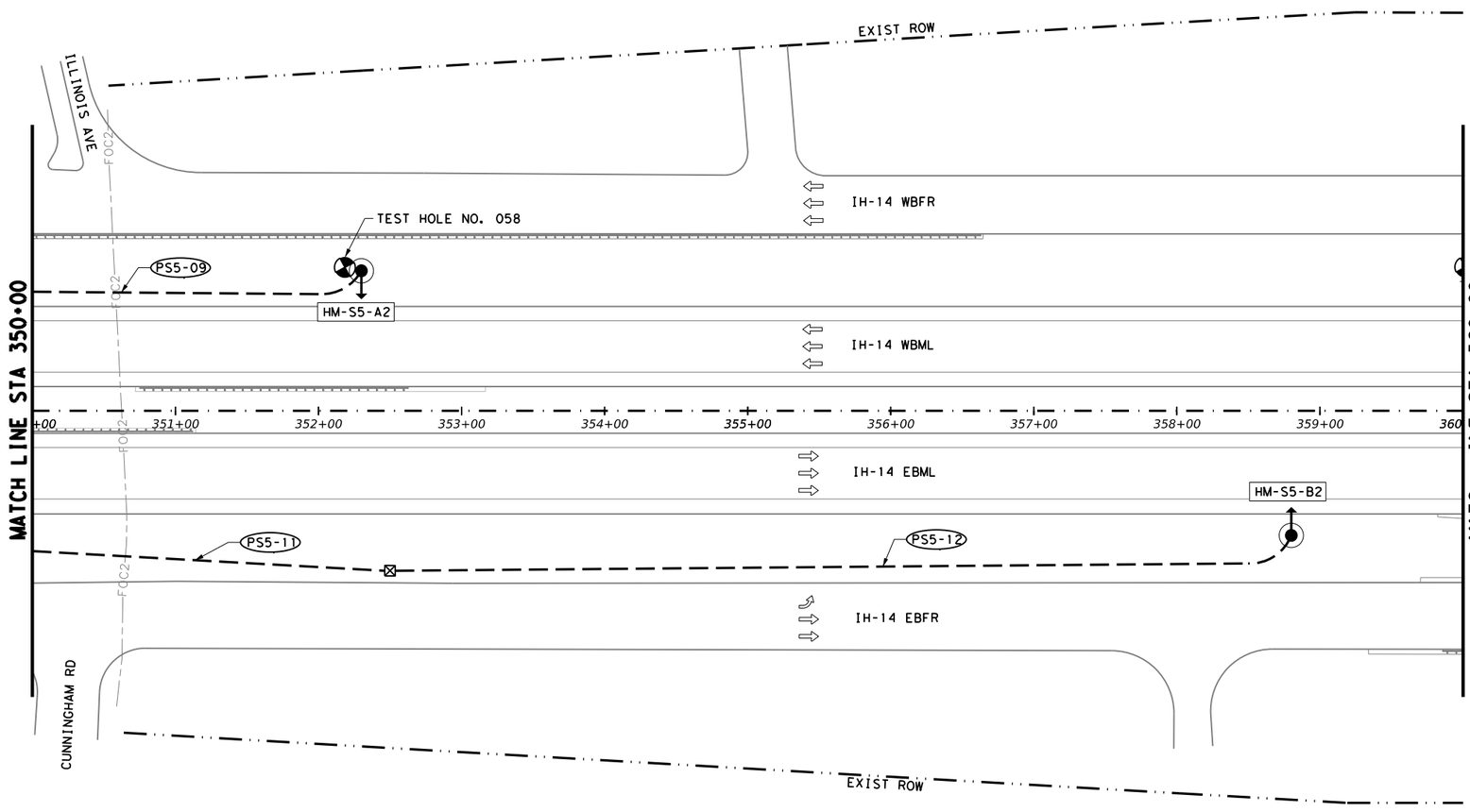
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 11 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		95

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618 7036 CONDT (PVC) (SCH 40) (3")	0618 7061 CONDT (PVC) (SCH 80)	0618 7090 CONDUIT (PREPARE)	6071 6003 ALUMINUM ELECTRICAL COND (#6 XHHW)	6071 6003 ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS5-09	PS5	A	236	236			236	472
PS5-11	PS5	B	250	250			250	500
PS5-12	PS5	B	638	638			638	1276
SHEET TOTAL:				1124			1124	2248

SUMMARY OF ILLUMINATION ITEMS

BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	48
432	7001	RIPRAP (CONC) (4 IN)	CY	4.66
618	7036	CONDT (PVC) (SCH 40) (3")	LF	1124
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	3
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	3372
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	2

ILLUMINATION ASSEMBLY SUMMARY

POLE	LOCATION STATION	LOCATION OFFSET (FT)	ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
HM-S5-A2	352+30	98 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	23
HM-S5-B2	358+80	87 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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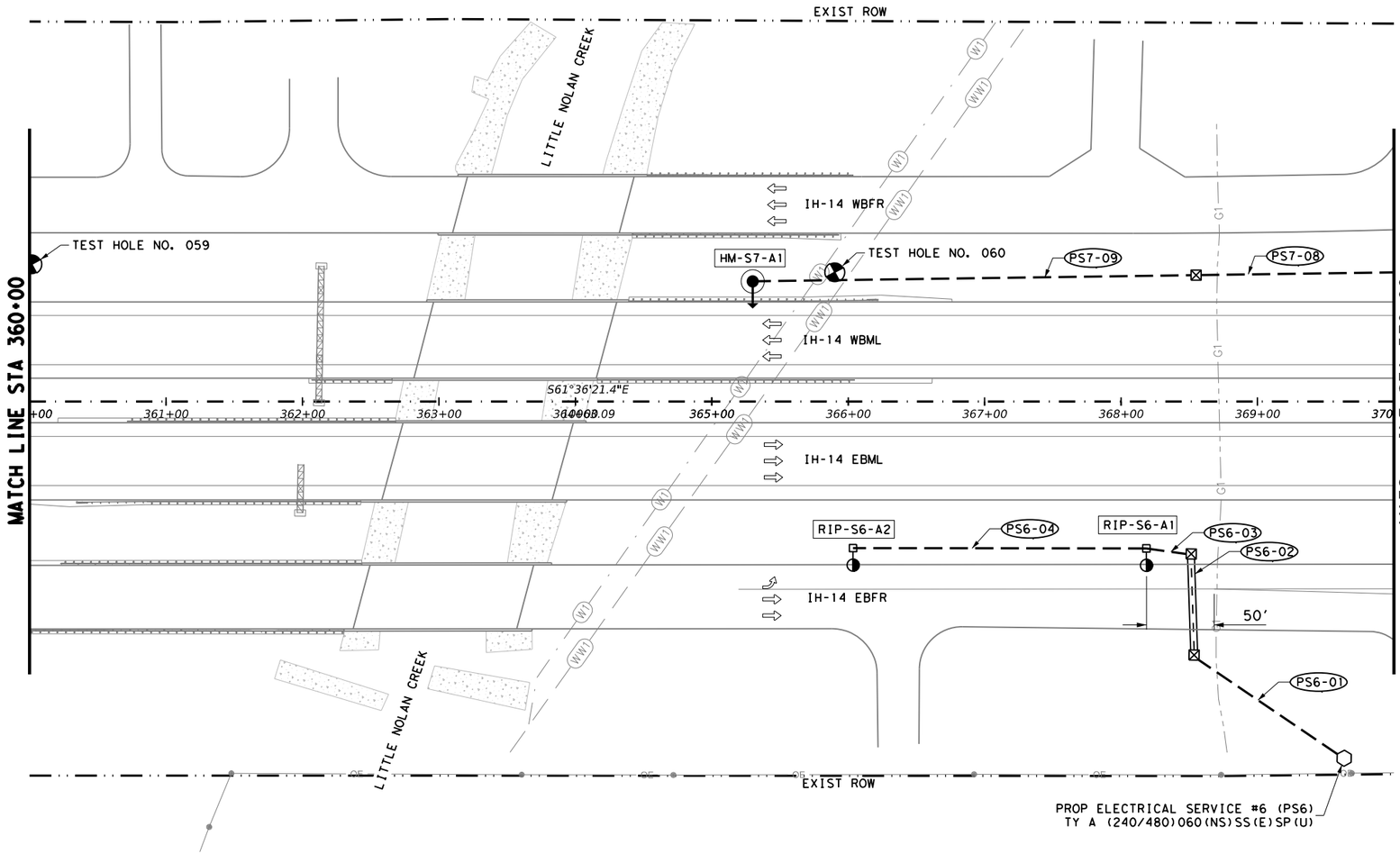
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 12 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		96

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NODE



LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS6-01	PS6	A	133	133			133	266
PS6-02	PS6	A	74		74		74	148
PS6-03	PS6	A	33	33			33	66
PS6-04	PS6	A	215	215			215	430
PS7-08	PS7	A	145	145			145	290
PS7-09	PS7	A	325	325			325	650
		SHEET TOTAL:		851	74		925	1850

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	25
416	7040	DRILL SHAFT (RDWY ILL POLE) (30 IN)	LF	20
432	7001	RIPRAP (CONC) (4 IN)	CY	2.33
610	7124	IN RD IL (TY SA) 40T-8 (250W EQ) LED	EA	2
618	7036	CONDT (PVC) (SCH 40) (3")	LF	851
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	
618	7090	CONDUIT (PREPARE)	LF	
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	4
624	7015	RETRO GROUND BOX (W/SECURE LID)	EA	
628	7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	1
690	7218	REPLACE FUSE	EA	
690	7220	REPLACE BREAKAWAY FUSE HOLDER	EA	
6027	6003	CONDUIT (PREPARE)	LF	
6013	7006	GROUND BOX (PREPARE)	EA	
6071	7001	ALUMINUM ELECTRICAL COND (#4 XHHW)	LF	
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	2775
6071	7004	ALUMINUM ELECTRICAL COND (#8 XHHW)	LF	
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1
6083	7002	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)(SHLD)	EA	

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S7-A1	365+30	88 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25
RIP-S6-A2	366+04	SEE RID(2)-20	(TY SA)40T-8(250W EQ)LED	30	10
RIP-S6-A1	368+19	SEE RID(2)-20	(TY SA)40T-8(250W EQ)LED	30	10

* INCLUDES 3 FEET EXPOSURE FOR HIGH MAST

INTERIM REVIEW

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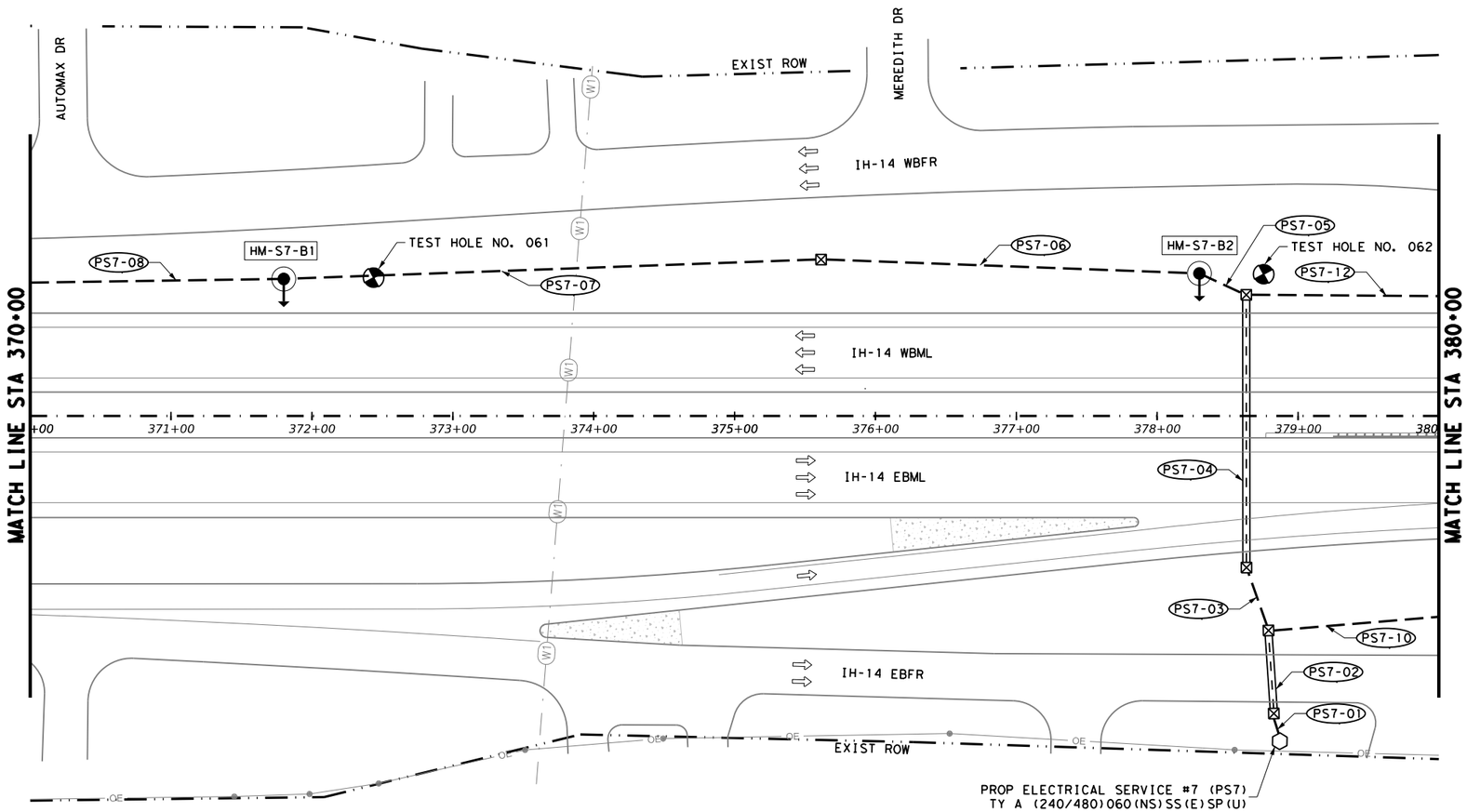
ILLUMINATION LAYOUT

SCALE: 1" = 100' HORIZ. (0 25 50 100 FEET)

SHEET 13 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		97

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS7-01	PS7	ABCD	20	20			20	160
PS7-02	PS7	ABCD	59		59		59	472
PS7-03	PS7	ABD	47	47			47	282
PS7-04	PS7	ABD	194		194		194	1164
PS7-05	PS7	AB	37	37			37	148
PS7-06	PS7	AB	269	269			269	1076
PS7-07	PS7	AB	382	382			382	1528
PS7-08	PS7	A	180	180			180	360
PS7-10	PS7	C	121	121			121	242
PS7-12	PS7	D	137	137			137	274
		SHEET TOTAL:		1193	253		1446	5706

SUMMARY OF ILLUMINATION ITEMS

BID CODE	DESCRIPTION	UNIT	QTY
416 7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	43
432 7001	RIPRAP (CONC) (4 IN)	CY	4.66
618 7036	CONDT (PVC) (SCH 40) (3")	LF	1193
624 7014	INSTL GROUND BOX (W/SECURE LID)	EA	7
628 7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	1
6071 7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	7152
6083 7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	2

ILLUMINATION ASSEMBLY SUMMARY

POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S7-B1	371+80	97 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25
HM-S7-B2	378+30	101 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	18

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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ILLUMINATION LAYOUT

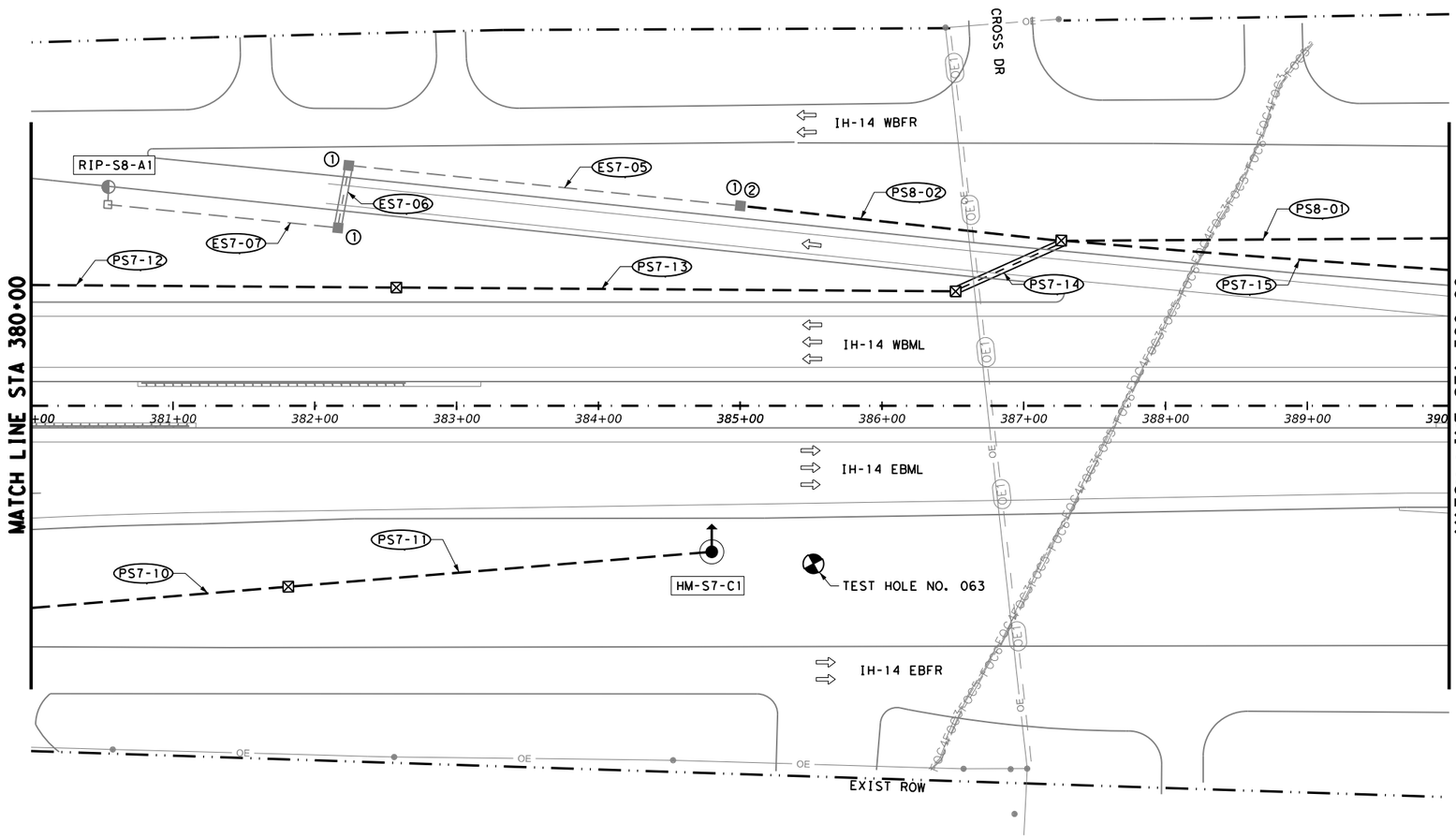
SCALE: 1" = 100' HORIZ. 0 25 50 100 FEET

SHEET 14 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		98

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618 7036	0618 7061	0618 7090	6071 6003	6071 6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS7-10	PS7	C	182	182			182	364
PS7-11	PS7	C	300	300			300	600
PS7-12	PS7	D	258	258			258	516
PS7-13	PS7	D	394	394			394	788
PS7-14	PS7	D	83		83		83	166
PS7-15	PS7	D	274	274			274	548
PS8-01	PS8	A	274	274			274	548
PS8-02	PS8	A	228	228			228	456
ES7-05	PS8	A	278	SPLICE EXISTING TO PROPOSED				
ES7-06	PS8	A	45	NO WORK				
ES7-07	PS8	A	163	NO WORK				
SHEET TOTAL:				1910	83		1993	3986

SUMMARY OF ILLUMINATION ITEMS			
BID CODE	DESCRIPTION	UNIT	QTY
416 7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	15
432 7001	RIPRAP (CONC)(4 IN)	CY	2.33
618 7036	CONDT (PVC) (SCH 40) (3")	LF	1910
624 7014	INSTL GROUND BOX (W/SECURE LID)	EA	5
624 7015	RETRO GROUND BOX (W/SECURE LID)	EA	3
6013 7006	GROUND BOX (PREPARE)	EA	1
6071 7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	5979
6083 7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S7-C1	384+80	103 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	15

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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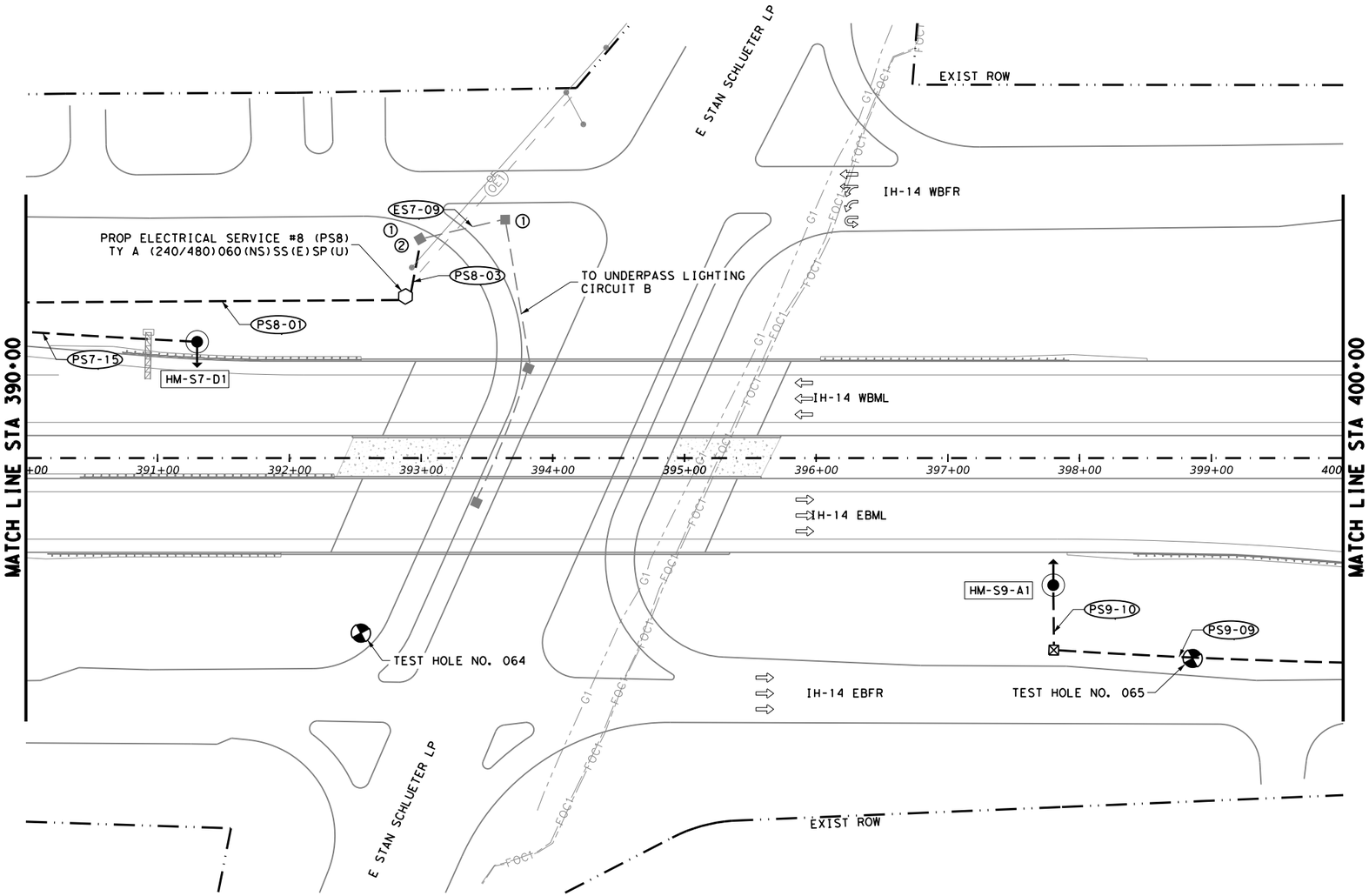
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 15 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		99

NODE



LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS7-15	PS7	D	130	130			130	260
PS8-01	PS8	A	288	288			288	576
PS8-03	PS8	B	45	45			45	90
ES7-09	PS8	B	66	SPLICE EXISTING TO PROPOSED				
PS9-09	PS9	A	220	220			220	440
PS9-10	PS9	A	49	49			49	98
SHEET TOTAL:				732			732	1464

SUMMARY OF ILLUMINATION ITEMS				
BID CODE		DESCRIPTION	UNIT	QTY
416	7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	50
432	7001	RIPRAP (CONC) (4 IN)	CY	4.66
618	7036	CONDT (PVC) (SCH 40) (3")	LF	732
624	7014	INSTL GROUND BOX (W/SECURE LID)	EA	3
624	7015	RETRO GROUND BOX (W/SECURE LID)	EA	2
628	7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	1
6013	7006	GROUND BOX (PREPARE)	EA	1
6071	7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	2196
6083	7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	2

ILLUMINATION ASSEMBLY SUMMARY					
POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S7-D1	391+30	88 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25
HM-S9-A1	397+80	96 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	25

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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ILLUMINATION LAYOUT

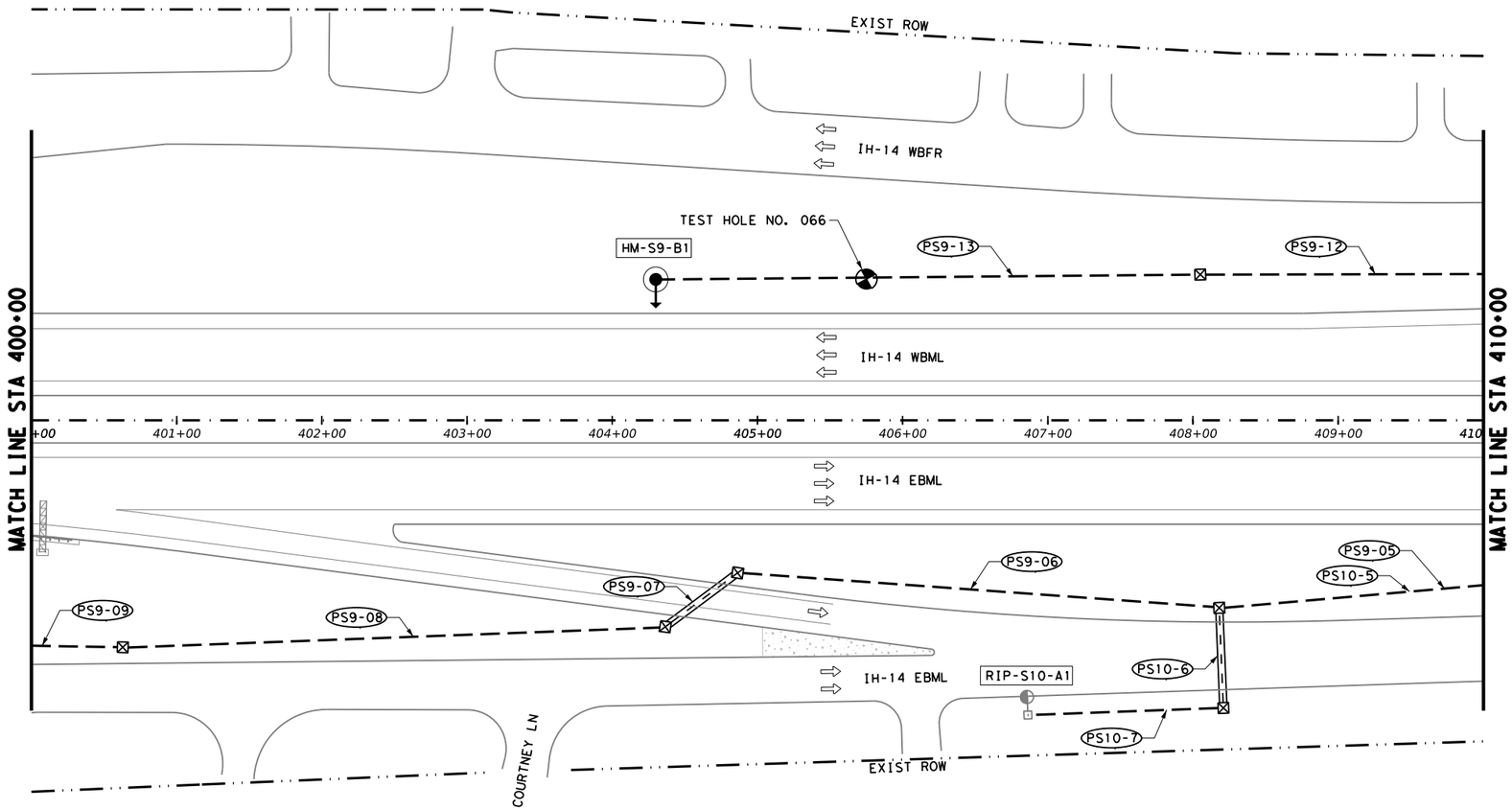
SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 16 OF 20

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		100

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS9-05	PS9	A	183	183			183	366
PS9-06	PS9	A	332	332			332	664
PS9-07	PS9	A	62		62		62	124
PS9-08	PS9	A	374	374			374	748
PS9-09	PS9	A	63	63			63	126
PS9-12	PS9	B	195	195			195	390
PS9-13	PS9	B	375	375			375	750
PS10-5	PS10	A	183	183			183	366
PS10-6	PS10	A	69		69		69	138
PS10-7	PS10	A	135	135			135	270
		SHEET TOTAL:		1840	131		1971	3942

SUMMARY OF ILLUMINATION ITEMS

BID CODE	DESCRIPTION	UNIT	QTY
416 7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	18
432 7001	RIPRAP (CONC) (4 IN)	CY	2.33
618 7036	CONDT (PVC) (SCH 40) (3")	LF	1840
624 7014	INSTL GROUND BOX (W/SECURE LID)	EA	7
6071 7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	5913
6083 7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1

ILLUMINATION ASSEMBLY SUMMARY

POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S9-B1	404+30	97 LT	(100 FT)(80MPH)(6FIXT)(TY B)	48	18

* INCLUDES 3 FEET EXPOSURE

INTERIM REVIEW

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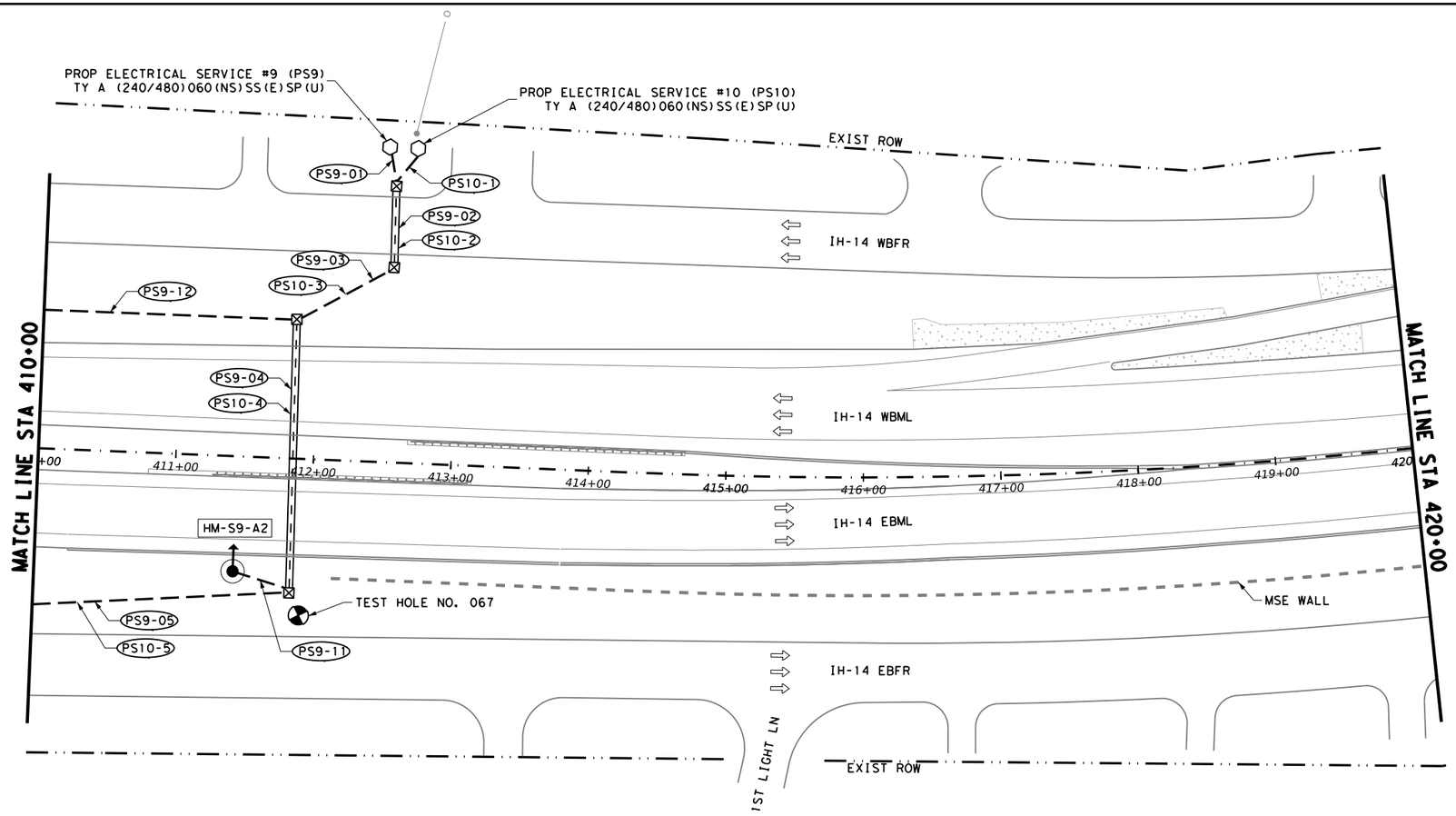
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 17 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		101

NODE



LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
PS9-01	PS9	AB	29	29			29	116
PS9-02	PS9	AB	59		59		59	236
PS9-03	PS9	AB	80	80			80	320
PS9-04	PS9	A	199		199		199	398
PS9-05	PS9	A	187	187			187	374
PS9-11	PS9	A	44	44			44	88
PS9-12	PS9	B	184	184			184	368
PS10-1	PS10	A	29	29			29	58
PS10-2	PS10	A	59		59		59	118
PS10-3	PS10	A	80	80			80	160
PS10-4	PS10	A	199		199		199	398
PS10-5	PS10	A	187	187			187	374
			SHEET TOTAL:	820	516		1336	3008

ILLUMINATION ASSEMBLY SUMMARY

BID CODE	DESCRIPTION	UNIT	QTY
416 7035	DRILL SHAFT (HIGH MAST POLE) (48 IN)	LF	18
432 7001	RIPRAP (CONC)(4 IN)	CY	2.33
618 7036	CONDT (PVC) (SCH 40) (3")	LF	820
624 7014	INSTL GROUND BOX (W/SECURE LID)	EA	5
628 7049	ELC SRV TY A 240/480 060(NS)SS(E)SP(U)	EA	2
6071 7003	ALUMINUM ELECTRICAL COND (#6 XHHW)	LF	4344
6083 7001	LED HI MST(100 FT)(80MPH)(6FIXT)(TY B)	EA	1

HIGH MAST ILLUMINATION SUMMARY

POLE	LOCATION		ASSEMBLY TYPE	FOUNDATION DIAMETER	FOUNDATION LENGTH (FT) *
	STATION	OFFSET (FT)			
HM-S9-A2	411+45	84 RT	(100 FT)(80MPH)(6FIXT)(TY B)	48	18

* INCLUDES 3 FEET EXPOSURE

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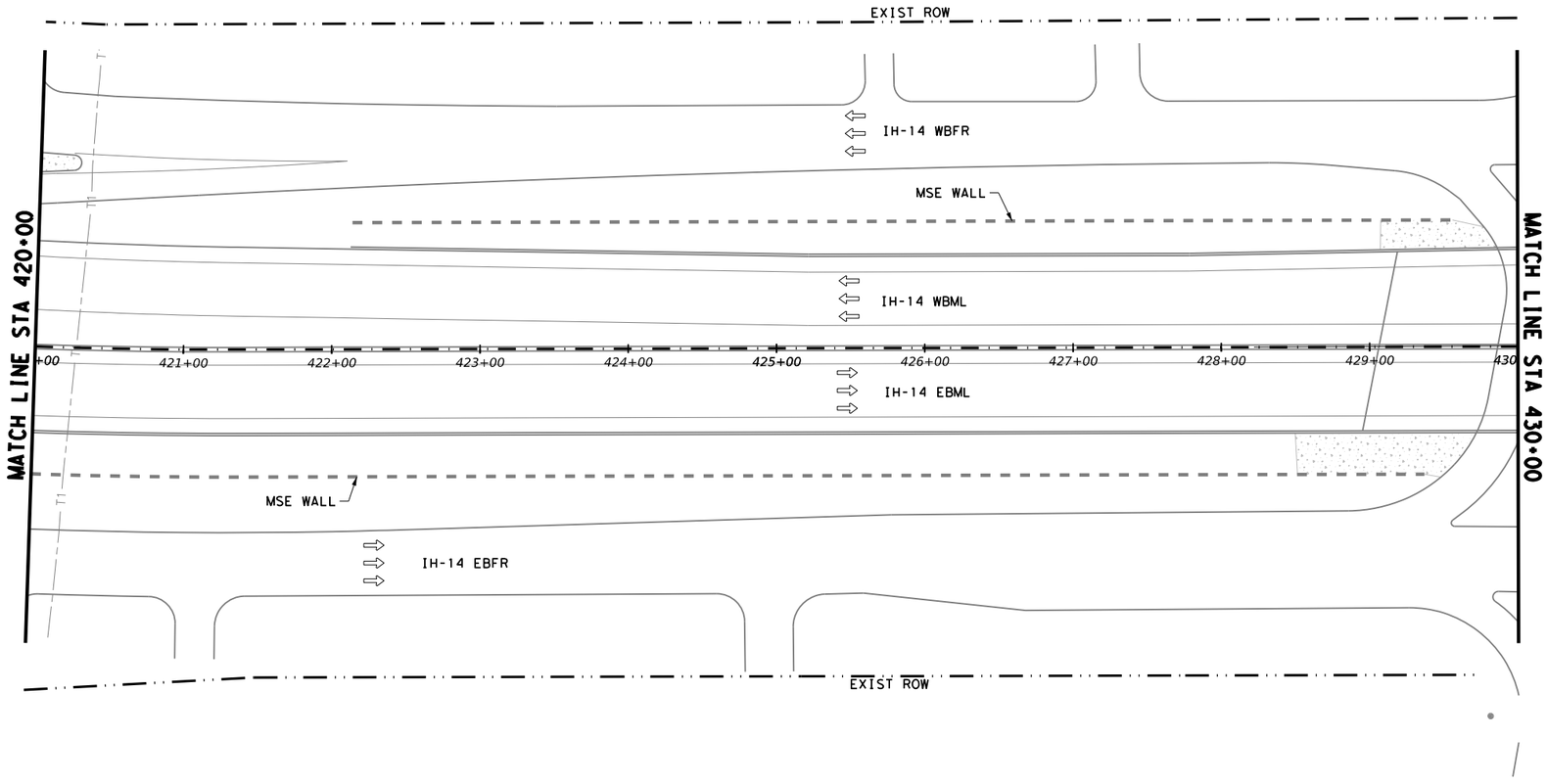
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ILLUMINATION LAYOUT

SCALE: 1" = 100' HORIZ. (0 25 50 100 FEET)

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		102

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS

RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
NO WORK THIS SHEET								

INTERIM REVIEW

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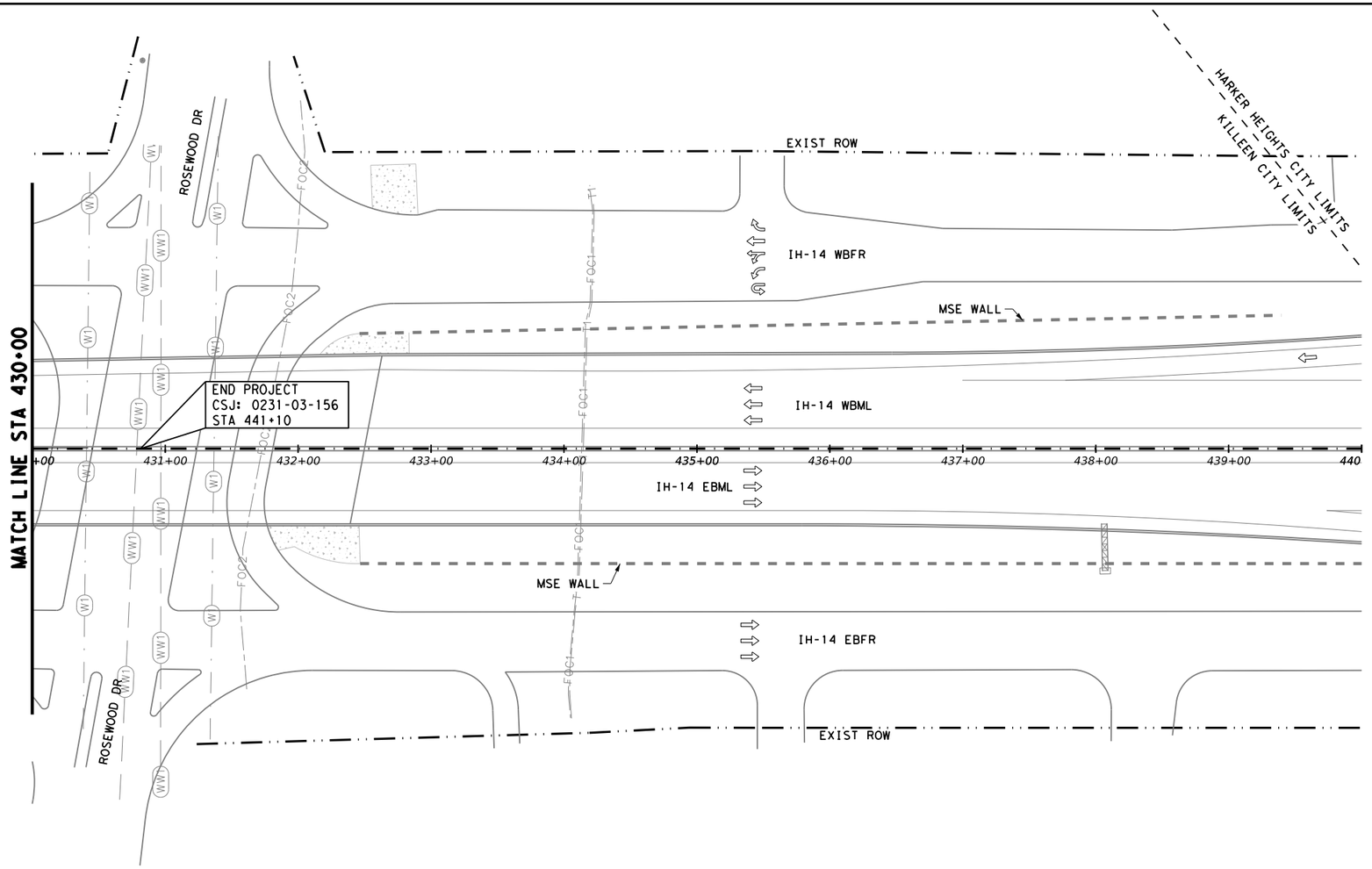
ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 19 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		103

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LEGEND

- EXIST GROUND BOX (TY A)
- PROP GROUND BOX (TY D W/ APRON)
- EXIST CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- PROP CONDUIT (TRENCHED)
- EXIST CONDUIT (BORED)
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- PROP HIGH MAST ILLUM POLE W/ GB
- EXIST RDWY ILLUM ASSEM (TRANS)
- EXIST/PROP ELEC SERVICE
- (1) RETROFIT GROUND BOX LID
- (2) GROUND BOX (PREPARE)

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

CONDUIT AND CONDUCTOR RUNS								
RUN NAME	SERVICE	CIRCUITS	RUN LENGTH	CONDUIT			EQUIPMENT GROUNDING CONDUCTOR	ELECTRICAL CONDUCTOR
				0618	0618	0618	6071	6071
				7036	7061	7090	6003	6003
				CONDT (PVC) (SCH 40) (3")	CONDT (PVC) (SCH 80)	CONDUIT (PREPARE)	ALUMINUM ELECTRICAL COND (#6 XHHW)	ALUMINUM ELECTRICAL COND (#6 XHHW)
				LF	LF	LF	LF	LF
NO WORK THIS SHEET								

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ILLUMINATION LAYOUT

SCALE: 0 25 50 100 FEET
1" = 100' HORIZ.

SHEET 20 OF 20

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		104

NODE

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PROPOSED ELECTRICAL SERVICE DATA												
ELEC. SERVICE NO.	ELEC. SERVICE NAME *	SHEET NO.	ELECTRICAL SERVICE DESCRIPTION	SERVICE CONDUIT SIZE	SERVICE CONDUCTOR NO./SIZE	SAFETY SWITCH AMPS	MAIN CKT. BKR. POLES/AMPS	TWO-POLE CONTACTOR AMPS	BRANCH CIRCUIT NO.	BRANCH CKT. BKR. POLES/AMPS	BRANCH CIRCUIT AMPS	KVA LOAD
PS1	023103156 (CL) (PS1) KILLEEN	2 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (HIGH MAST)	2P/30	7.5	14.4
									B (HIGH MAST)	2P/30	15	
									C (HIGH MAST)	2P/30	7.5	
PS2	023103156 (SL) (PS2)	6 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (RDWY ILLUM POLE)	2P/20	1.05	0.5
PS3	023103156 (CL) (PS3) KILLEEN	6 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (HIGH MAST)	2P/30	15	21.6
									B (HIGH MAST)	2P/30	7.5	
									C (HIGH MAST)	2P/30	15	
									D (HIGH MAST)	2P/30	7.5	
PS4	023103156 (CL) (PS4) KILLEEN	8 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (HIGH MAST)	2P/30	7.5	10.8
									B (HIGH MAST)	2P/30	15	
PS5	023103156 (CL) (PS5) KILLEEN	11 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (HIGH MAST)	2P/30	15	14.4
									B (HIGH MAST)	2P/30	15	
PS6	023103156 (SL) (PS6)	13 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (RDWY ILLUM POLE)	2P/20	0.7	0.3
PS7	023103156 (CL) (PS7) KILLEEN	14 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (HIGH MAST)	2P/30	7.5	10.8
									B (HIGH MAST)	2P/30	15	
									C (HIGH MAST)	2P/30	7.5	
									D (HIGH MAST)	2P/30	7.5	
PS8	023103156 (SL) (PS8)	16 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (RDWY ILLUM POLE)	2P/20	0.35	1.1
									B (UNDERPASS ILLUM)	1P/20	4	
PS9	023103156 (CL) (PS9) KILLEEN	18 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (HIGH MAST)	2P/30	15	10.8
									B (HIGH MAST)	2P/30	7.5	
PS10	023103156 (SL) (PS10)	18 OF 20	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U)	2"	3/#6	N/A	2P/60	60	A (RDWY ILLUM POLE)	2P/30	0.35	0.2

* LABEL SERVICE WITH NAME PER DMS 11080

NEW SERVICE INFORMATION			
PROPOSED SERVICE	ADJACENT EXISTING SERVICE (EXISTING REPLACED)	SERVICE ADDRESS	ESID
PS1	NEW LOCATION	-	-
PS2	ES2	UNMETERED	
PS3	NEW LOCATION	-	-
PS4	ES4	2200 S W S YOUNG DR HLTS	10443720008015737
PS5	NEW LOCATION	-	-
PS6	NEW LOCATION	-	-
PS7	ES6	3700 E CENTRAL TEXAS EXPY SGNL	10443720009915696
PS8	ES7	4005 E CENTRAL TEXAS EXPY HLTS	10443720008015799
PS9	NEW LOCATION	-	-
PS10	ES8	UNMETERED	

EXISTING SERVICE INFORMATION (EXISTING SERVICES TO REMAIN, NO SERVICE WORK ANTICIPATED)		
EXISTING SERVICE	SERVICE ADDRESS	ESID
ES1	800 E CENTRAL TEXAS PKWY ODLT	10443720000318695
ES3	2006 E CENTRAL TEXAS PKWY ODLT	10443720000318757
ES5	3100 E CENTRAL TEXAS PKWY ODLT	10443720000318788

INTERIM REVIEW

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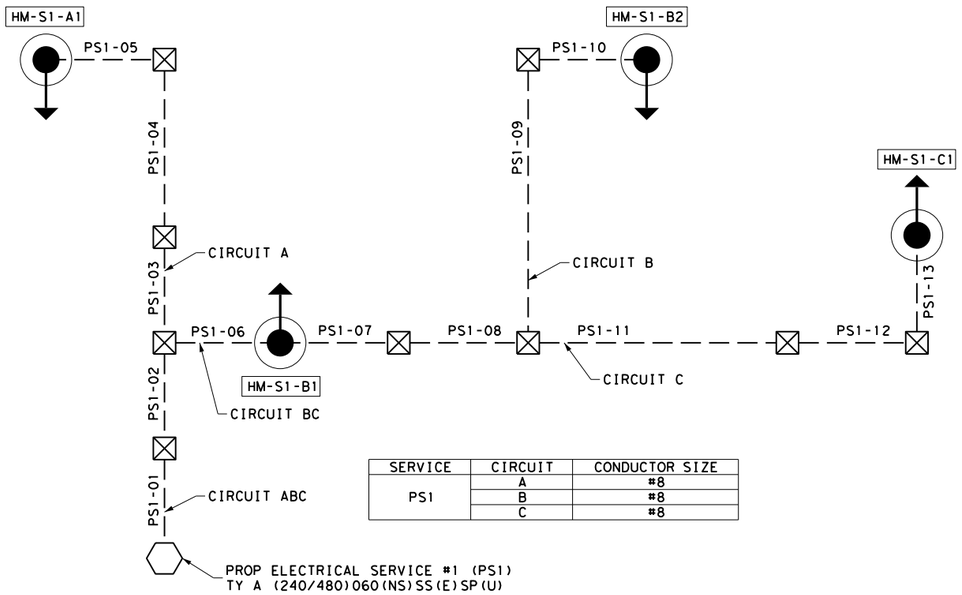
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ELECTRICAL SERVICE DATA

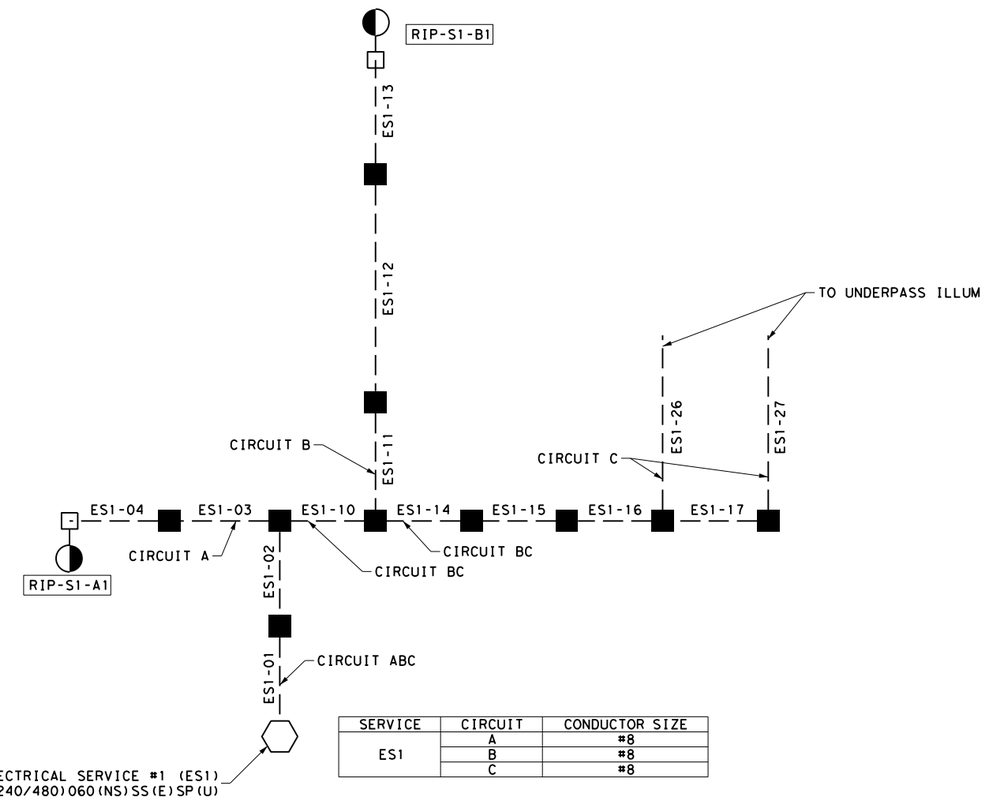
SHEET 1 OF 1

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		105

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SERVICE	CIRCUIT	CONDUCTOR SIZE
PS1	A	#8
	B	#8
	C	#8



SERVICE	CIRCUIT	CONDUCTOR SIZE
ES1	A	#8
	B	#8
	C	#8

LEGEND

- GROUND BOX (TY A)
- GROUND BOX (TY D)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- HIGH MAST ILLUM POLE
- ELEC SERVICE

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

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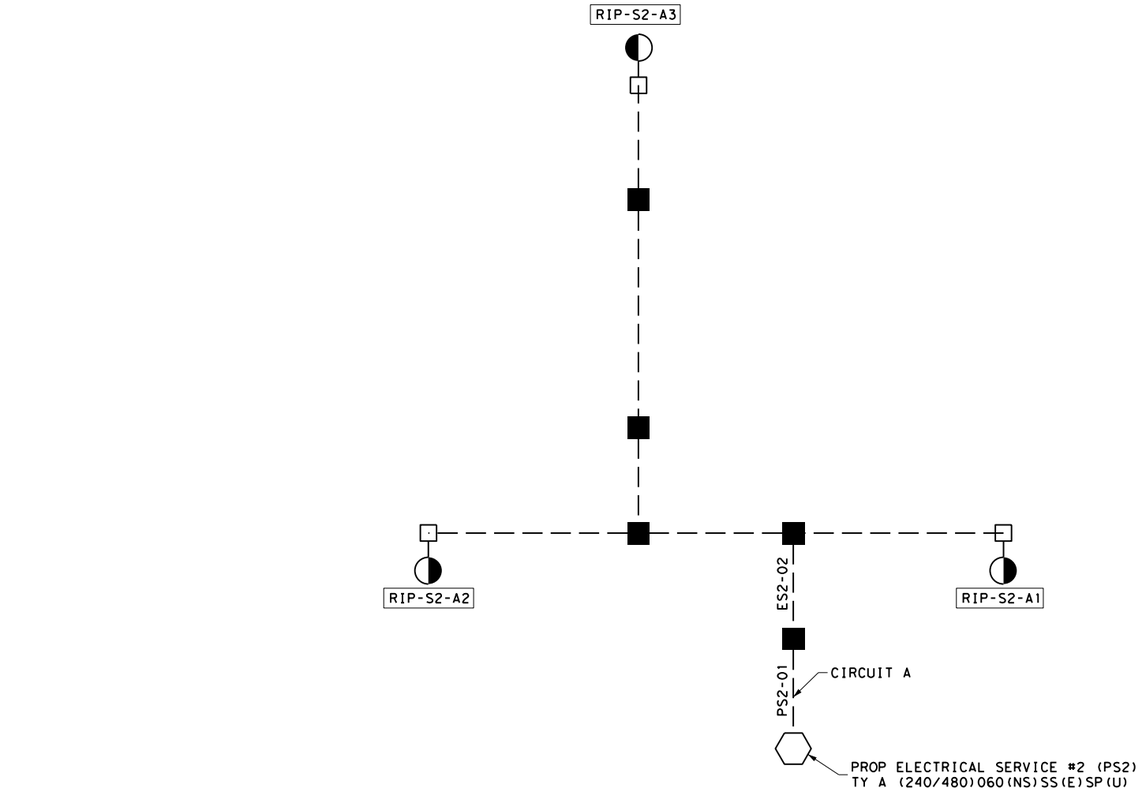
PROPOSED ELECTRICAL SCHEMATIC

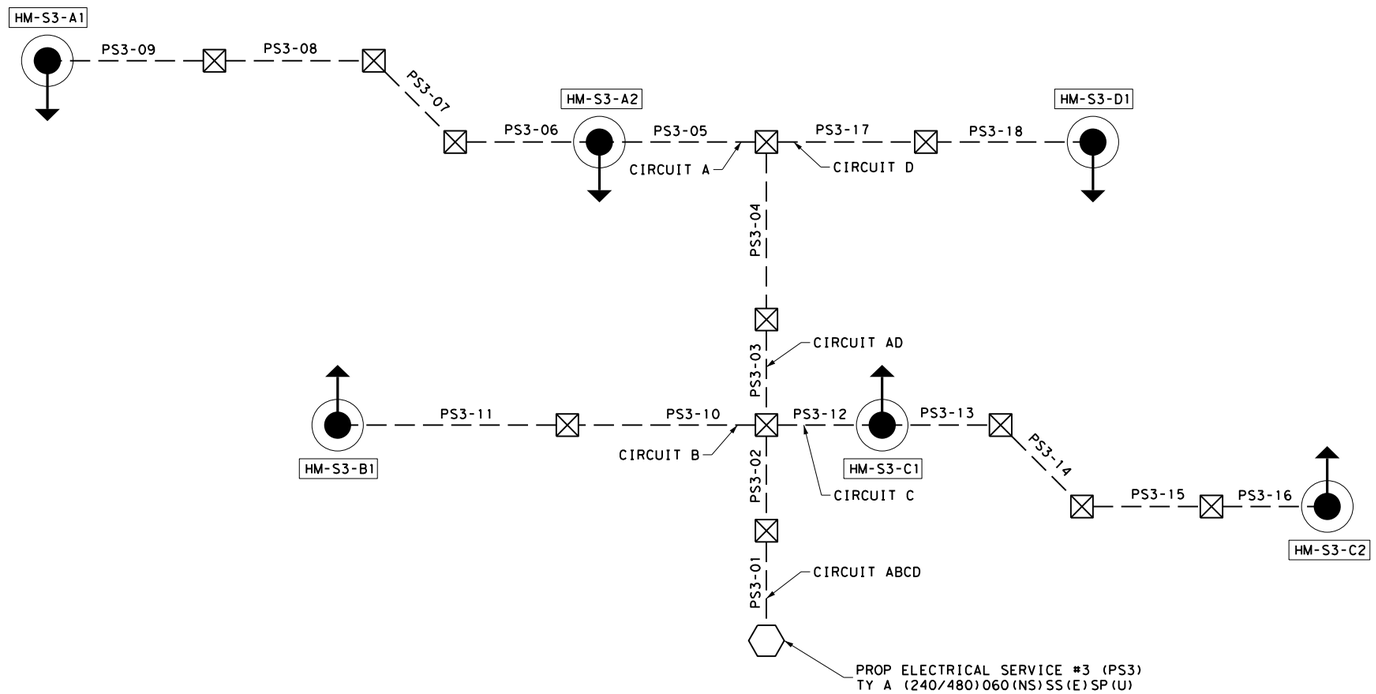
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SHEET 1 OF 5

CHANGE ORDER	FED.RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		106

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NODE





LEGEND

- GROUND BOX (TY A)
- GROUND BOX (TY D)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- HIGH MAST ILLUM POLE
- ELEC SERVICE

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

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PROPOSED ELECTRICAL SCHEMATIC

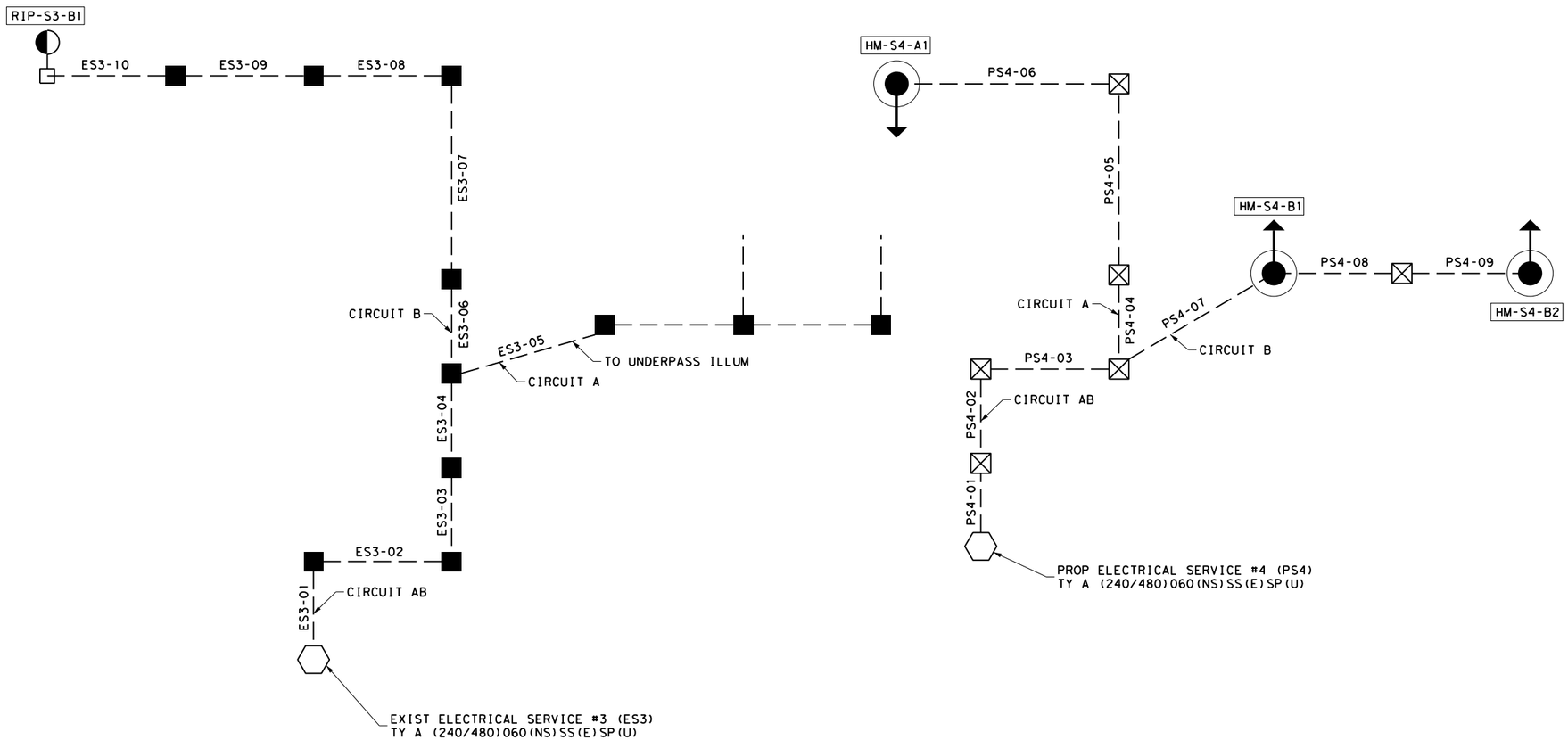
NOT TO SCALE

SHEET 2 OF 5

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		107

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NODE

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LEGEND

- GROUND BOX (TY A)
- GROUND BOX (TY D)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- HIGH MAST ILLUM POLE
- ELEC SERVICE

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT

INTERIM REVIEW

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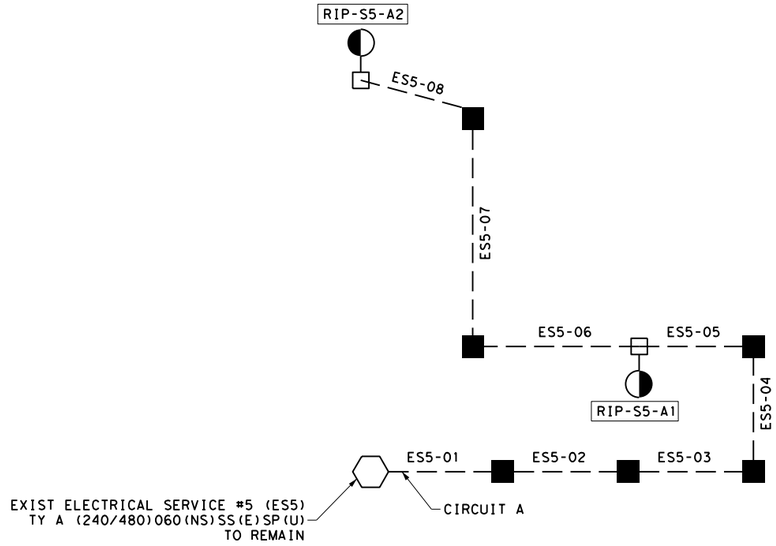
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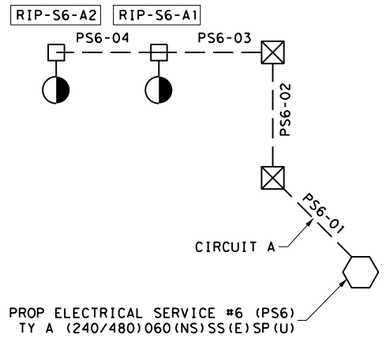
PROPOSED ELECTRICAL SCHEMATIC

NOT TO SCALE

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		108

NODE





LEGEND

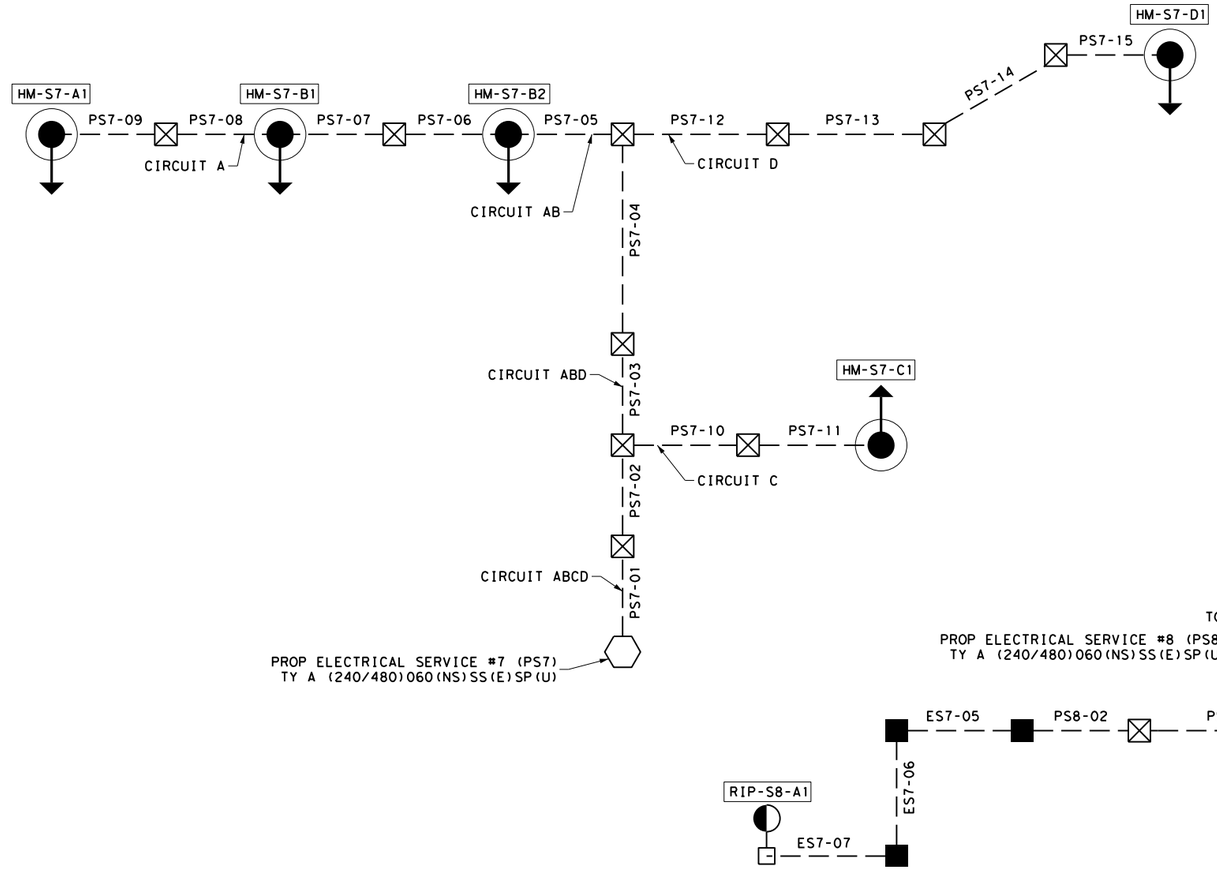
- GROUND BOX (TY A)
- GROUND BOX (TY D)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- HIGH MAST ILLUM POLE
- ELEC SERVICE

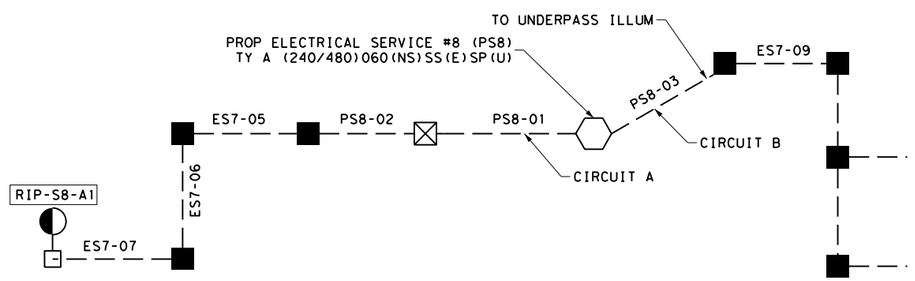
POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
- P - PROP CONDUIT





INTERIM REVIEW

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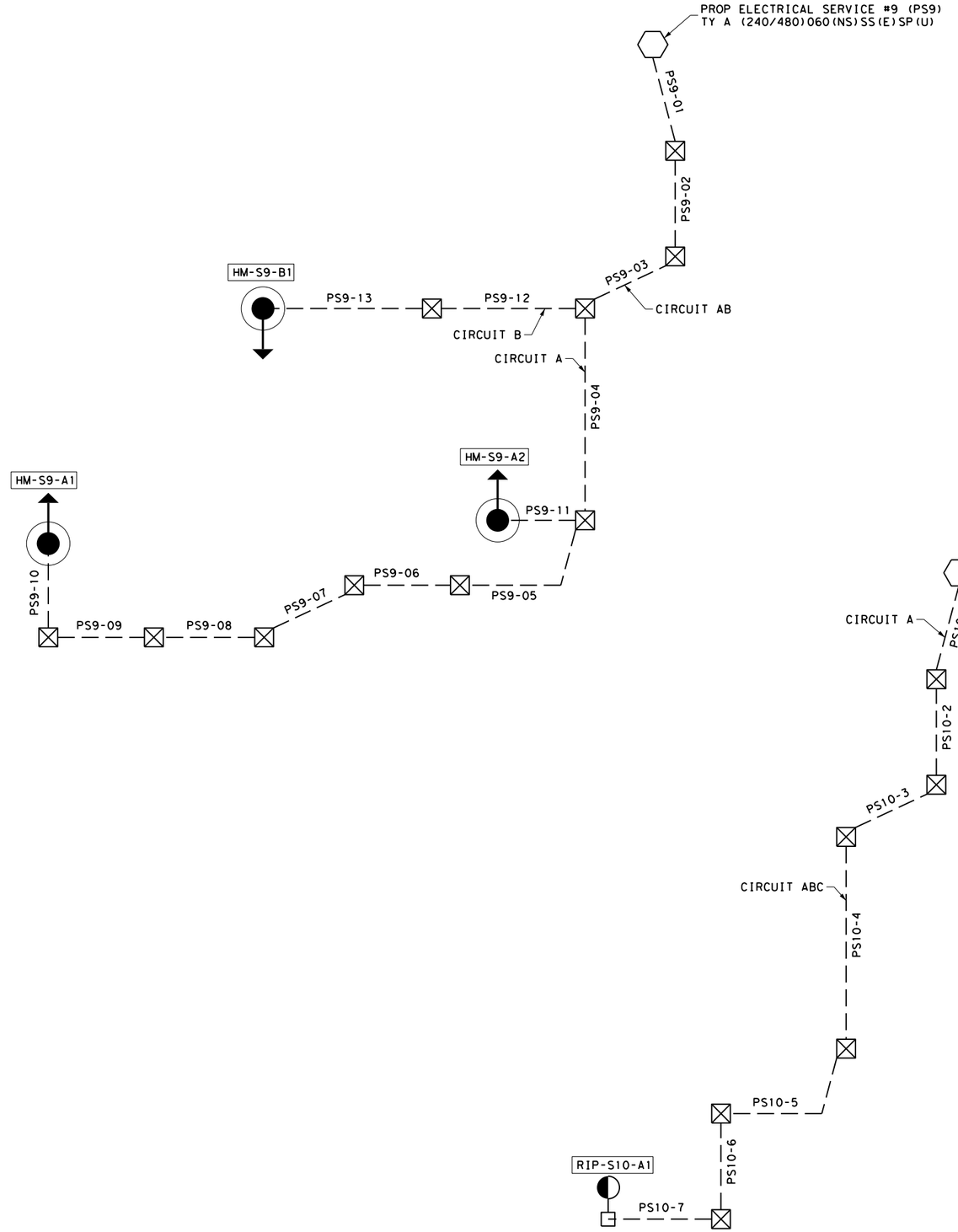
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PROPOSED ELECTRICAL SCHEMATIC

NOT TO SCALE

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
	6	0231	03	156	IH-14
	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		109

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NODE



LEGEND

- GROUND BOX (TY A)
- GROUND BOX (TY D)
- CONDUIT
- RDWY ILLUM ASSEM (TRANS)
- RDWY ILLUM ASSEM (SHOE/BRIDGE)
- HIGH MAST ILLUM POLE
- ELEC SERVICE

POLE DESIGNATION

HM-S#-A#
- POLE #
- CIRCUIT #
- SERVICE #

CONDUIT DESIGNATION

ES#-##
- RUN #
- SERVICE #
- E - EXIST CONDUIT
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PROPOSED ELECTRICAL SCHEMATIC

NOT TO SCALE

SHEET 5 OF 5

CHANGE ORDER	FED. RD. DIV. NO.	CONT	SECT	JOB	HIGHWAY
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	STATE	DIST	COUNTY		SHEET NO.
	TEXAS	WACO	BELL		110

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GENERAL NOTES FOR ALL ELECTRICAL WORK

1. The location of all conduits, junction boxes, ground boxes, and electrical services is diagrammatic and may be shifted to accommodate field conditions.

2. Provide new, unused, and undamaged materials. Ensure that all materials and installations comply with the National Electrical Code (NEC), TxDOT standards and specifications, National Electrical Manufacturers Association (NEMA), and are listed by Underwriters Laboratories (UL) or a Nationally Recognized Testing Lab (NRTL). NRTLs such as CSA Group, Intertek Testing Services, or FM Approvals can be considered equivalent to UL. Where reference is made to NEMA listed devices, International Electrotechnical Commission (IEC) listed devices will not be considered an acceptable equal to NEMA. Faulty fabrication or poor workmanship in any material, equipment, or installation is justification for rejection. Replace or reinstall rejected material or equipment at no additional cost to the Department.

3. Miscellaneous nuts, bolts, and hardware, except for high strength bolts, may be stainless steel when plans specify galvanized, provided the bolt size is 1/2 in. or less in diameter.

4. Provide the following test equipment as required by the Engineer to confirm compliance with the contract and the NEC: voltmeter, ammeter, megohm meter (1000 volt DC), ground resistance tester, torque wrenches, and torque screwdrivers. Ensure all equipment has been properly calibrated within the last year. Provide calibration certification to the Engineer upon request. Operate test equipment during inspection as requested by the Engineer.

5. Install grounding as shown on the plans and in accordance with the NEC. Ensure all metallic conduits, metal poles, luminaires, and metal enclosures are bonded to an equipment grounding conductor. Provide stranded bare copper or green insulated grounding conductors. Ground rods, connectors, and bonding jumpers are subsidiary to the various bid items.

6. When required by the Engineer, notify the Department in writing of materials from the Material Producer List (MPL) intended for use on each project. Prequalified materials are listed on the MPL on TxDOT's website under "Roadway Illumination and Electrical Supplies." No substitutions will be allowed for materials on this list.

CONDUIT

A. MATERIALS

1. Provide conduit, junction boxes, fittings, and hardware per TxDOT Departmental Material Specification DMS-11030, "Conduit" and Item 618, "Conduit" of TxDOT's "Standard Specifications for Construction and Maintenance of Highways, Streets, And Bridges," latest edition. Provide conduits listed under Item 618 on the MPL under "Roadway Illumination and Electrical Supplies." Provide conduit types according to the descriptive code or as shown on the plans. Do not substitute other types of conduits for those shown. Provide Liquidtight Flexible Metal Conduit (LFMC) when flexible conduit is called for on galvanized steel Rigid Metal Conduit (RMC) systems. Provide Liquidtight Flexible Nonmetallic Conduit (LFNC) when flexible conduit is called for on Polyvinyl Chloride (PVC) systems.

2. Provide galvanized steel RMC for all exposed conduits, unless otherwise shown on the plans. Properly bond all metal conduits.

3. Unless otherwise shown on the plans, provide junction boxes with a minimum size as shown in the following table, which applies to the greatest number of conductors entering the box through one conduit with no more than four conduits per box. When a mixture of conductor sizes are present, count the conductors as if all are of the larger size. For situations not applicable to this table, size junction boxes per the NEC.

JUNCTION BOX SIZES

AWG	3 CONDUCTORS	5 CONDUCTORS	7 CONDUCTORS
#1	10" x 10" x 4"	12" x 12" x 4"	16" x 16" x 4"
#2	8" x 8" x 4"	10" x 10" x 4"	12" x 12" x 4"
#4	8" x 8" x 4"	10" x 10" x 4"	10" x 10" x 4"
#6	8" x 8" x 4"	8" x 8" x 4"	10" x 10" x 4"
#8	8" x 8" x 4"	8" x 8" x 4"	8" x 8" x 4"

4. Junction boxes with internal volumes up to 100 cu. in. and that are supported by entering raceways must have threaded entries or hubs identified for the intended purpose and be supported by connection of two or more rigid metal conduits. Secure conduit within 3 ft. of the box or within 18 in. of the box if all conduit entries are on the same side. Mechanically secure all junction boxes with an internal volume greater than 100 cu. in.

5. Provide hot dipped galvanized cast iron or sand cast aluminum outlet boxes for junction boxes containing only 10 AWG or 12 AWG conductors. Do not use die cast aluminum boxes. Size outlet boxes according to the NEC.

6. Do not use Intermediate Metal Conduit (IMC) or Electrical Metallic Tubing (EMT) unless specifically required by the plan sheets. When EMT is called for, provide junction boxes sized as directed above, listed and approved for outdoor use, unless otherwise noted on the plans. Provide junction boxes for IMC conduit systems that meet the same requirements for junction boxes used with RMC systems.

7. Provide PVC junction boxes intended for outdoor use on PVC conduit systems, unless otherwise noted on the plans.

8. Provide PVC elbows, unless otherwise shown in the plans. Use only a flat, high tensile strength polyester fiber pull tape for pulling conductors through the PVC conduit system.

A. MATERIALS (CONTINUED)

9. When galvanized steel RMC elbows are specifically called for in the plans and any portion of the RMC elbow is buried less than 18 in. below grade or bottom of the ground box, ground the RMC elbow with a grounding bushing on a rigid metal extension. Grounding of the rigid metal elbow is not required if the entire RMC elbow is encased in a minimum of 2 in. of concrete. PVC extensions are allowed on these concrete encased rigid metal elbows. Elbows are subsidiary to various bid items.

10. When required, provide High-Density Polyethylene (HDPE) conduit with factory installed internal conductors according to DMS-11060, "Duct Cable." At the Contractor's request and with approval by the Engineer, substitute HDPE conduit with no conductors according to DMS-11030 for PVC conduit bid under Item 618. Provide conduit of the size and schedule as shown on the plans. Do not extend HDPE conduit into ground boxes or foundations. Provide PVC elbows at all ground boxes and foundations.

11. Use two-hole straps or strut straps when supporting 2 in. and larger conduits. On electrical service poles, properly sized stainless steel or hot dipped galvanized strut straps or stand-off straps are allowed on the service riser conduit.

B. CONSTRUCTION METHODS

1. Provide and install expansion joint conduit fittings on all structure-mounted conduits at the structure's expansion joints to allow for movement of the conduit. In addition, provide and install expansion joint fittings on all continuous runs of galvanized steel RMC conduit externally exposed on structures such as bridges at maximum intervals of 150 ft. When requested by the project Engineer, supply manufacturer's specification sheet for expansion joint conduit fittings. Repair or replace expansion joint fittings that do not allow for movement at no additional cost to the Department. Provide the method of determining the amount of expansion to the Engineer upon request. Do not use LFMC or LFNC as a substitute for the required expansion conduit fittings.

2. Space all conduit supports at maximum intervals of 5 ft. Install conduit spacers when attaching metal conduit to surfaces of concrete structures. See "Conduit Mounting Options" on ED(2). Install conduit supports within 3 ft. of all enclosures and conduit terminations.

3. Do not attach conduit supports directly to pre-stressed concrete beams, except as shown specifically in the plans or as approved by the Engineer.

4. Unless otherwise shown on the plans, jack or bore conduit placed beneath existing roadways, driveways, sidewalks, or after the base or surfacing operation has begun. Backfill and compact the bore pits below the conduit per Item 476 "Jacking, Boring, or Tunneling Pipe or Box" prior to installing conduit or duct cable to prevent bending of the connections.

5. When placing conduit in the subgrade of new roadways, backfill all trenches with excavated material unless otherwise noted on the plans. When placing conduit in the subbase of new roadways, backfill all trenches with cement-stabilized base as per requirements of Items: 110, "Excavation;" 400, "Excavation and Backfill for Structures;" 401, "Flowable Backfill;" 402, "Trench Excavation Protection;" and 403, "Temporary Special Shoring."

6. During construction, temporarily cap or plug open ends of all conduit and raceways immediately after installation to prevent entry of dirt, debris and animals. Temporary caps constructed of durable duct tape are allowed. Tightly affix the tape to the conduit opening. Clean out the conduit and prove it clear in accordance with Item 618 prior to installing any conductors.

7. Ensure conduit entry into the top of an enclosure is waterproof by installing conduit sealing hubs or using boxes with threaded bosses. This includes surface mounted safety switches, meter cans, service enclosures, auxiliary enclosures and junction boxes. Grounding bushings on water tight sealing hubs are not required.

8. Fit the ends of all PVC conduit terminations with bushings or bell end fittings. Provide and install a grounding bushing on all metal conduit terminations.

9. Install a bonding jumper from each grounding bushing to the nearest ground rod, grounding lug, or equipment grounding conductor. Ensure all bonding jumpers are the same size as the equipment grounding conductor. Bonding of conduit used as a casing under roadways for duct cable is not required, if the duct extends the full length through the casing.

10. Place conduits entering ground boxes so that the conduit openings are between 3 in. and 6 in. from the bottom of the box. See the ground box detail on sheet ED(4).

11. After completion of conductor installation, immediately seal ends of all conduits emerging from ground with duct seal, expandable foam, or other methods approved by the Engineer. Do not use silicone caulking. Do not use duct tape as a permanent seal.

12. File smooth the cut ends of all mounting strut and conduit. To avoid overspray, paint the field cut ends of all mounting strut and RMC (threaded or non-threaded) with zinc rich paint (94% min. zinc content as specified on DMS-8103 and listed on the MPL for Galvanizing Repair Paints) before installing. Use zinc rich paint to touch up galvanized material as allowed under Item 445 "Galvanizing." Do not paint non-galvanized material with zinc rich paint as an alternative for materials required to be galvanized.

13. For all conduits, ensure the burial depth is 18" min. For conduits placed under a roadway, ensure the burial depth is 24" min.

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS CONDUITS & NOTES

ED(1)-25

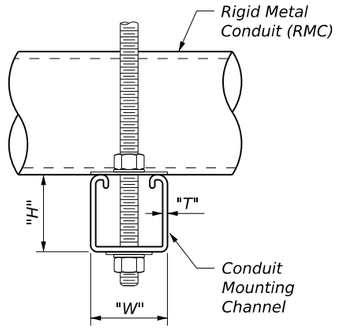
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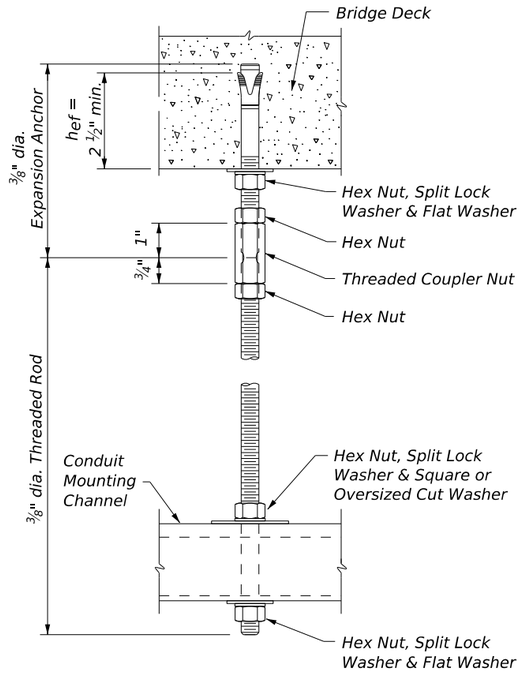
ELECTRIC CONDUIT TO BRIDGE DECK ATTACHMENT

HANGER ASSEMBLY DETAIL

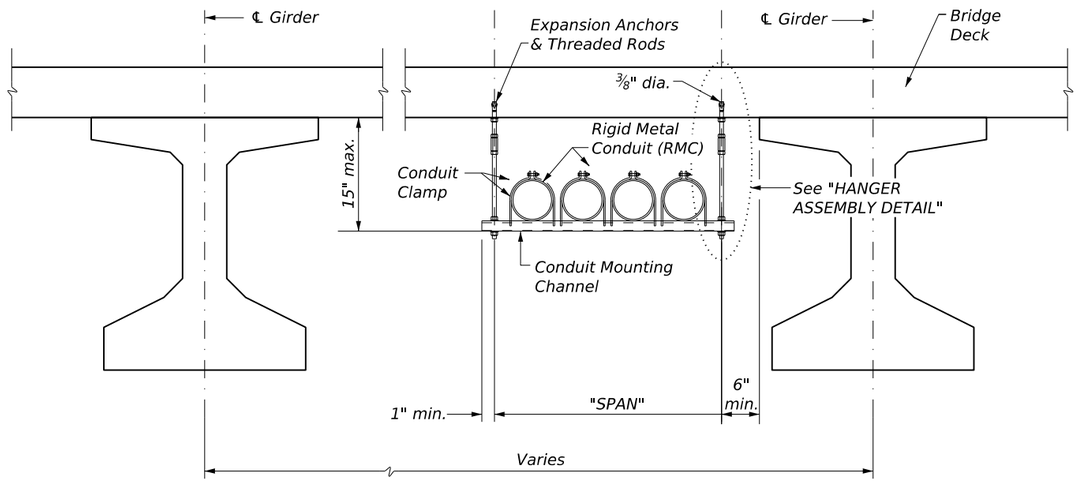
CONDUIT MOUNTING CHANNEL		
"SPAN"	"W" x "H"	"T"
less than 2'	1 5/8" x 1 3/8"	12 ga.
2'-0" to 2'-6"	1 5/8" x 1 5/8"	12 ga.
>2'-6" to 3'-0"	1 5/8" x 2 7/16"	12 ga.

NOTE: Channels with round or short slotted hole patterns are allowed, provided the load carrying capacity is not reduced by more than 15%.



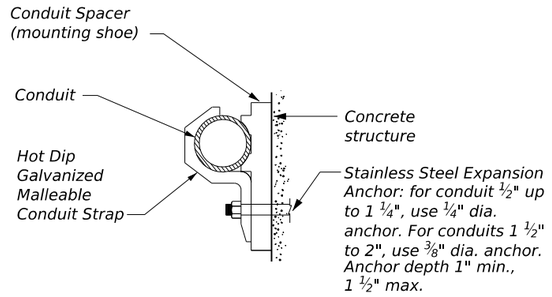


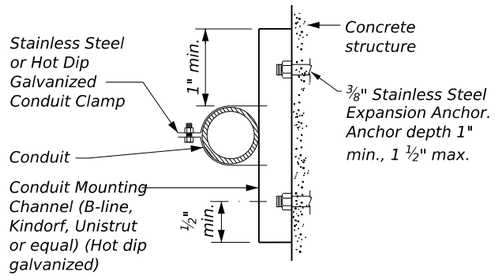
CONDUIT HANGING DETAIL



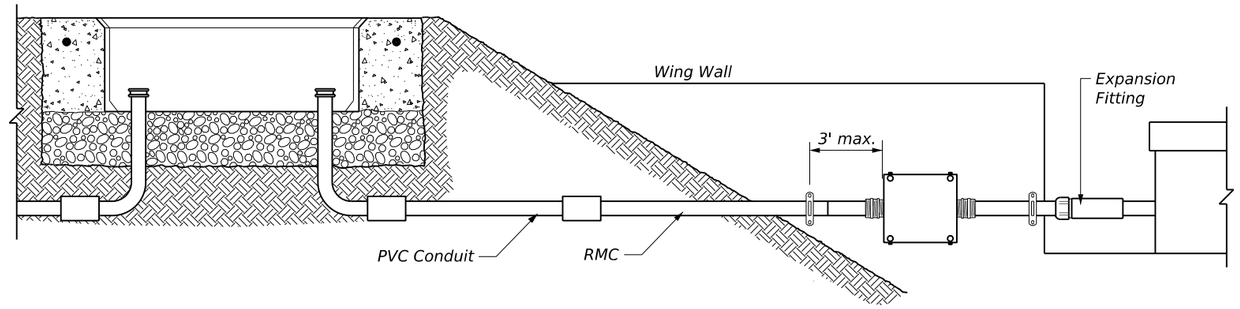
CONDUIT MOUNTING OPTIONS

ATTACHMENT TO CONCRETE SURFACES - SEE ED(1), CONDUIT, NOTE B.2





TYPICAL CONDUIT ENTRY TO BRIDGE STRUCTURE DETAIL



EXPANSION ANCHOR NOTES FOR BRIDGE DECK ATTACHMENT:

1. *Use torque controlled mechanical expansion anchors that are approved for use in cracked concrete by the International Code Council, Evaluation Service (ICC-ES). The chosen anchor product shall have a designated ICC-ES Evaluation Report number, and its approval status shall be maintained on the ICC-ES website under Division 031600 for Concrete Anchors.*

2. *Unless otherwise approved by the Engineer: do not use adhesive anchors; do not use expansion anchors that are not included in the ICC-ES approval list; and do not use expansion anchors that are only approved for use in uncracked concrete.*

3. *Use anchors manufactured with stainless steel expansion wedges. Anchors manufactured with carbon steel expansion wedges are not allowed. Anchor bodies can be either zinc-plated carbon steel or stainless steel. Provide only stainless steel anchor bodies and expansion wedges for applications in marine environments.*

4. *Install anchors as shown on the plans and in accordance with the anchor manufacturer's published installation instructions. Arrange a field demonstration test to evaluate the procedures and tools. The test shall be witnessed and approved by the Engineer prior to furnishing anchors on the structure.*

5. *Prior to hole drilling, use rebar locator to ensure clearing of existing deck strands or reinforcement. Install anchors to ensure a minimum effective embedment depth, (h_{ef}), as shown. Increase (h_{ef}) as needed to ensure sufficient thread length for proper torquing and tightening of anchors.*

6. *Use anchors of at least 1600 lbs. tensile capacity (minimum of steel, concrete breakout, and concrete pullout strengths as determined by ACI 318 Appendix D) at the required minimum embedment depth (h_{ef}). No lateral loads shall be introduced after conduit installation.*

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS CONDUIT SUPPORTS

ED(2)-25

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ELECTRICAL CONDUCTORS

A. MATERIAL INFORMATION

1. Provide Type XHHW insulated copper conductors in accordance with Departmental Material Specification DMS-11040, "Conductors" and Item 620, "Electrical Conductors." Provide conductors as listed on the Material Producer List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies" Item 620.

2. Identify grounded (neutral) conductors with white insulation. Identify grounding conductors (ground wires) with green insulation or bare conductors. Identify ungrounded (hot) conductors with any color insulation except green, white, or gray. Keep color scheme consistent throughout the wiring system. Identify conductors 6 American Wire Gauge (AWG) and smaller by continuous color jacket. Identify electrical conductors 4 AWG and larger by continuous color jacket or by colored tape. When identifying conductors with colored tape, mark at least 6 in. of the conductor's insulation with half laps of tape at each accessible location.

3. Insulated grounding conductors may be substituted for bare conductors, unless otherwise shown in the plans. Insulated grounding conductors must be color coded green in accordance with Note 2.

4. Provide a 6 AWG bare solid copper grounding electrode conductor to bond the electrical service equipment to the concrete encased grounding electrode or the ground rod at the service location. Connect the grounding electrode conductor to the ground rod with a UL listed connector in accordance with DMS-11040. Connect the grounding electrode conductor to the concrete encased grounding electrode as shown in the plans.

5. Where two or more circuits are present in one conduit or enclosure, permanently label the conductors of each branch circuit by attaching a non-metallic, weather resistant tag around both circuit conductors at each accessible location. Provide one-piece tags with two $\frac{3}{16}$" straps, large enough to indicate circuit number, letter, or other identification as shown in the plans. Print circuit identification on the tag with a permanent marker.

6. Use listed compression connectors, mechanical lugs, terminal blocks, or split bolt connectors for splicing as specified in DMS-11040. Use hot melt adhesive tape to fill the gap and seal the ends of heat shrink tubing. Provide UL listed gel-filled insulating splice covers. Splicing materials, insulating materials, breakaway disconnects, splice covers, and fuse holders are subsidiary to various bid items.

B. CONSTRUCTION METHODS

1. Use only a flat, high tensile strength polyester fiber pull tape for pulling conductors through the conduit system.

2. Leave 2 ft. to 3 ft. of length for each conductor up to the splice in ground boxes. Leave 3 ft. to 4 ft. of length for each conductor in ground boxes when pulled through with no splice. Leave 1 ft. to 1.5 ft. of length for each conductor at enclosures and pole bases. Leave 1.5 ft. to 3 ft. of length as required by electric utility for conductors exiting weatherheads.

3. Make splices only in junction boxes, ground boxes, pole bases, or electrical enclosures and use only listed compression connectors, mechanical lugs, terminal blocks, or split bolt connectors. Insulate splices with heavy wall heat shrink tubing or gel-filled insulating splice covers to provide a watertight splice. Overlap conductor insulation with heat shrink tubing a minimum of 2 in. past both sides of the splice. Where heat shrink tubing may not shrink sufficiently to provide a watertight seal around the individual conductors, prior to heating the tubing, increase the diameter of the conductor insulation using hot melt adhesive tape to provide a watertight seal between each conductor and the heat shrink tubing. Ensure the tape extends past the heat shrink tubing. Use hot melt adhesive tape to fill the gap and seal the ends of heat shrink tubing. Heat shrink tubing that appears to have been burned or overheated is considered defective and must be replaced.

4. Size and install gel-filled insulating splice covers according to manufacturer's specifications when used in place of heat shrink tubing.

5. Wire nuts with factory applied waterproof sealant may be used for 8 AWG or smaller conductors in above ground junction boxes, but not in pole bases or ground boxes. Install wire nuts in an upright position to prevent the accumulation of water.

6. Support conductors in illumination poles with a J-hook at the top of the pole.

7. When terminating conductors, remove the insulation and jacketing material without nicking the individual strands of the conductor. Conductors with nicked individual conductor strands or removed strands will be considered damaged.

8. Replace conductors and cables that are damaged or that fail an insulation resistance test at no additional cost to the Department.

9. Do not repair damaged conductors with duct tape, electrical tape, or wire nuts. Use only approved splicing methods.

B. CONSTRUCTION METHODS (CONTINUED)

10. Do not terminate more than one conductor under a single lug unless it is rated for multiple conductors. Do not exceed the lug's listing for maximum number and size of conductors allowed.

11. Follow manufacturer's instructions when terminating conductors to breakaway connectors. Properly torque threaded connections. Proper terminations are critical to the safe operation of breakaway devices. Trim waterproofing boots on breakaway connectors to fit snugly around the conductor to ensure a waterproof connection. Only one conductor may enter a single opening in a boot. Provide waterproof boots with the correct number of openings. Leave unused openings factory sealed. Use prequalified breakaway connectors as shown on the MPL.

12. Provide and install a separate stranded equipment grounding conductor (EGC) in all conduits that contain circuit wiring of 50 volts or more. Unless shown elsewhere, size the EGC to be the same size as the largest current carrying conductor in the conduit. Bond all EGCs together at every accessible location. For ITS installations, bond and ground metal ground box covers and other metal equipment as shown on ITS standards.

C. TEMPORARY WIRING

1. Install temporary conductors and electrical equipment in accordance with the NEC article "Temporary Installations" and Department standard sheets.

2. Provide a ground fault circuit interrupter (GFCI) for powering portable electrical equipment, power tools, ice machines, ice storage bins and refrigerators located outdoors at grade. GFCI may be any one of the following: molded cord and plug set, receptacle, or circuit breaker type.

3. Use listed wire nuts with factory applied sealant for temporary wiring where approved.

4. Enclose conductor splices within a listed enclosure or ground box, or ensure the splices are more than 10 ft. above grade vertically and more than 5 ft. horizontally from any metal structure. When installing temporary conductors in areas subject to vehicle traffic or mobile construction equipment, ensure the vertical clearance to ground is at least 18 ft. when measured at the lowest point. Ground messenger wires that support power conductors in conformance with the NEC.

5. Protect and when necessary repair any existing electrical conduits uncovered during the construction process in a timely manner and in conformance with the NEC.

GROUND RODS & GROUNDING ELECTRODES

A. MATERIAL INFORMATION

1. Provide and install a grounding electrode at electrical services. Provide ground rods according to DMS-11040 and the plans. Larger diameter or longer length rods may be called for in some locations. Concrete encased grounding electrodes may be called for in some locations including electrical services — see plan sheets.

B. CONSTRUCTION METHODS

1. Furnish and install ground rods in soil, concrete, or both, as called for in the plans. For ground rods installed in concrete, ensure the connection of the conductor to the ground rod is readily accessible for inspection or repairs. For ground rods installed in soil, ensure that the upper end is between 2 to 4 in. below finished grade.

2. Do not place ground rods in the same drilled hole as a timber or concrete pole.

3. Install ground rods so the imprinted part number is at the upper end of the rod.

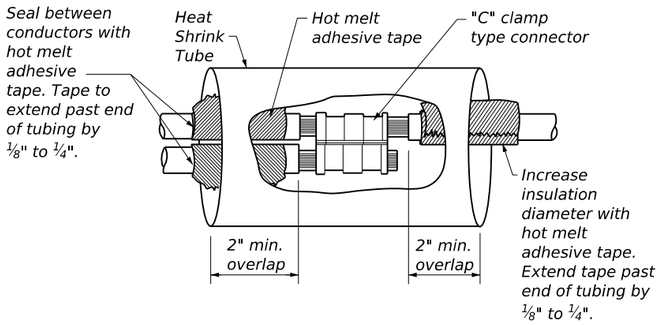
4. Remove all non-conductive material such as concrete splatter from the rod at the clamp location.

5. Route all conductors as short and straight as possible for connection to lightning protection ground rods. When a bend is required, ensure a minimum radius bend of 4 in.

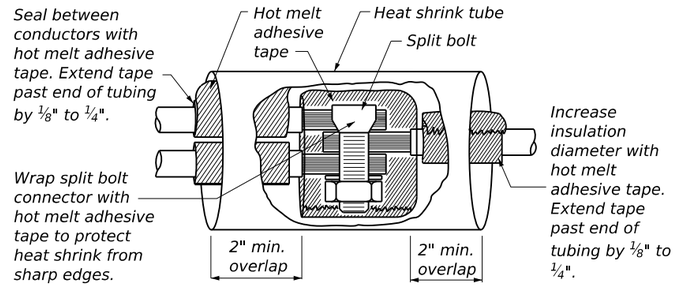
6. Unless otherwise called for in the plans, protect grounding electrode conductors with non-metallic conduit. When protecting grounding electrode conductors with metal conduit, provide and install a grounding bushing and properly sized bonding jumper on each end of the metal conduit.

7. Written authorization is required before installing a ground rod in a horizontal trench for rocky soil or a solid rock bottom.

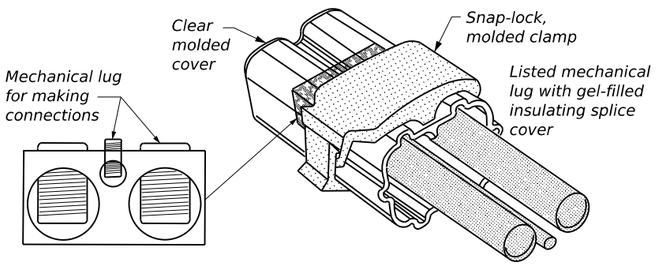
COMPRESSION SPLICE
OPTION 1



SPLIT BOLT SPLICE
OPTION 2



GEL-FILLED INSULATED SPLICE
OPTION 3



Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS CONDUCTORS

ED(3)-25

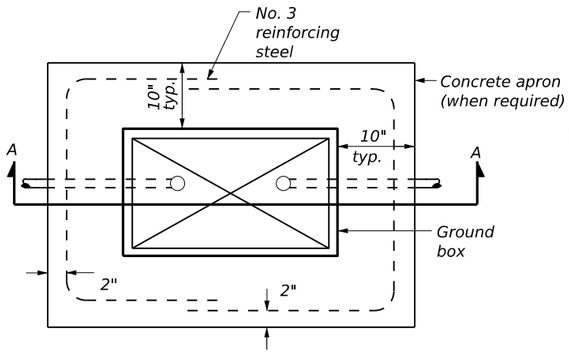
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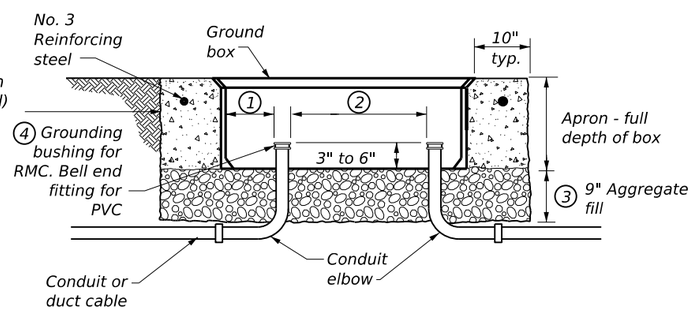
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APRON FOR GROUND BOX

PLAN VIEW



SECTION A - A



SECTION A - A NOTES:

1. Uniformly space ends of conduits within the ground box. Position ends of conduits so that ground box walls do not interfere with the installation of grounding bushings or bell end fittings.
2. Maintain sufficient space between conduits to allow for proper installation of bushing.
3. Place aggregate under the box, not in the box. Aggregate should not encroach on the interior volume of the box.
4. Install a grounding bushing on the upper end of all RMC terminating in a ground box. Ground RMC elbows when any part of the elbow is less than 18 in. below the bottom of the ground box. Install a PVC bushing or bell end fitting on the upper end of all PVC conduits terminating in a ground box.

GROUND BOXES	
TYPE	OUTSIDE DIMENSIONS (Width x Length X Depth)
A	12" X 23" X 11"
B	12" X 23" X 22"
C	16" X 29" X 11"
D	16" X 29" X 22"
E	12" X 23" X 17"

GROUND BOX COVERS								
TYPE	DIMENSIONS							
	H	I	J	K	L	M	N	P
A, B & E	23 ¼"	23"	13 ¾"	13 ½"	9 ⅞"	5 ⅛"	1 ⅜"	2"
C & D	30 ½"	30 ¼"	17 ½"	17 ¼"	13 ¼"	6 ¾"	1 ⅜"	2"

NOTES:

A. MATERIALS

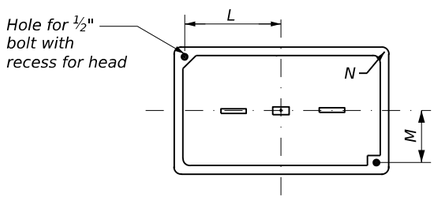
1. Provide polymer concrete ground boxes measuring 16 in. x 30 in. x 24 in. (W x L x D) or smaller in accordance with Departmental Material Specification DMS-11070, "Ground Boxes" and Item 624, "Ground Boxes."
2. Provide Type A, B, C, D, and E ground boxes as shown in the plans and as listed on the Material Producers List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies," Item 624.
3. Ensure ground box cover is correctly labeled in accordance with DMS-11070.
4. Provide larger ground boxes in accordance with Item 624 and as shown in the plans.

B. CONSTRUCTION METHODS

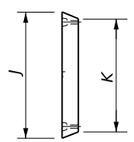
1. Before setting ground box and after placing and capping conduits, lay an aggregate bed a minimum of 9 in. deep that extends 10 in. beyond the sides of the ground box. Provide coarse aggregate sized 3/4 in. to 2 in., with no more than 20% material passing through a no. 8 sieve, and as defined by the current ASTM C33/33M standard. Clean aggregate and dirt from conduits according to Item 618.
2. Cast ground box aprons in place. Reinforcing steel may be field bent. Ensure the depth of concrete for the apron extends from finished grade to the top of the aggregate bed under the box. Ground box aprons, including concrete and reinforcing steel, are subsidiary to ground boxes when called for by descriptive code.
3. Keep bolt holes in the box clear of dirt. Bolt covers down when not working in ground boxes.
4. Install all conduits and elbows in a professional and skillful manner. Uniformly space conduits so grounding bushings and bell end fittings can easily be installed.
5. Temporarily seal all conduits in the ground box until conductors are installed.
6. Permanently seal conduits immediately after the completion of conductor installation. Permanently seal the ends of all conduits with duct seal, expandable foam, or other method as approved. Do not use duct tape as a permanent conduit seal. Do not use silicone caulk as a sealant.
7. Bond all equipment grounding conductors in a ground box together with listed connectors.
8. When a Type B or D ground box is stacked to meet volume requirements, an appropriately sized hole may be cut for conduit entry in the side wall at least 18 in. below grade.
9. If an existing ground box in the contract has a metal cover, bond the cover to the equipment grounding conductor with a 3 ft. long stranded bonding jumper that is the same size as the grounding conductor. The bonding jumper is subsidiary to various bid items. Verify existing ground boxes with metal covers are shown on the plans, with notes fully describing the work required.
10. If other ground boxes with metal covers are within the project limits but are not part of the contract, the Engineer may direct the Contractor to bond the metal covers, identifying the specific boxes in writing. This work will be paid for separately.
11. Bond metal ground box covers to the grounding conductor with a tank ground type lug.

GROUND BOX COVER

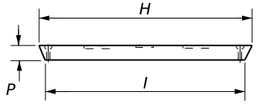
PLAN VIEW



END



SIDE



Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS GROUND BOXES

ED(4)-25

FILE: ed4-25.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT April 2025	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
1-92 3-03 4-25 4-98 5-03 12-00 10-14	DIST	COUNTY		SHEET NO.
	WACO	BELL		114

71D

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ELECTRICAL SERVICES NOTES

1. Provide electrical services in accordance with Electrical Details standard sheets, Departmental Material Specification (DMS)-11080, "Electrical Services" and Item 628, "Electrical Services." Provide electrical service types A, C, and D, as listed on the Material Producers List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies," Item 628. Provide other service types as detailed on the plans.

2. Coordinate with the Engineer and the utility provider for metering and compliance with utility requirements. Primary line extensions, connection charges, meter charges, and other charges by the utility company to provide power to the location are paid for in accordance with Item 628. Get approval for the costs associated with these charges prior to engaging the utility company to do the work. Consult with the utility provider to determine costs and requirements, and coordinate the work as approved.

3. Provide a Master Lock, Model No. 2, M1, or 6121, keyed to code 2195. Master Lock 2195 keys and locks become property of the Department. Unless otherwise approved, do not energize electrical service equipment until locks are installed.

4. Enclosures with external disconnects that de-energize all equipment inside the enclosure do not need a dead front trim. Protect incoming line terminations from incidental contact as required by the NEC.

5. When galvanized is specified for nuts, screws, bolts or miscellaneous hardware, stainless steel may be used.

6. Provide wiring and electrical components rated for 75°C. Provide red, black, and white colored XHHW service entrance conductors of minimum size 6 American Wire Gauge (AWG). Identify conductors per ED(3). Ensure each service entrance conductor exits through a separately bushed non-metallic opening in the weatherhead. The lengths of the conductors outside the weatherhead are to be 1.5 ft. to 3 ft. as required by electric utility.

7. Provide rigid metal conduit (RMC) for all conduits on service, except for the ½ in. PVC conduit containing the electrical service grounding electrode conductor. Size the service entrance conduit as shown in the plans. Ensure conduit for branch circuit entry to enclosure is the same size as shown on the layout sheets for branch circuit conduit. Extend all rigid metal conduits a minimum of 6 in. underground and then couple to the type and schedule of the conduit shown on the plans. Install a grounding bushing on the RMC where it terminates in the service enclosure.

8. Use of liquidtight flexible metal conduit (LFMC) is allowed between the meter and service enclosure when they are mounted 90 to 180 degrees from each other. Size this LFMC the same size as the service entrance conduit. LFMC must not exceed 3 ft. in length. Strap LFMC within 1 ft. of each end. Terminate each end of the LFMC with a grounding bushing or fitting. The LFMC must contain a grounded (neutral) conductor. Ensure bends in LFMC do not exceed 180 degrees. A pull test is required on all installed conductors, with at least 6 in. of free conductor movement demonstrated to the satisfaction of the Engineer.

9. Ensure all mounting hardware and installation details of services conform to utility company specifications.

10. Provide the following documents in the electrical service document pocket: schematic drawing unique to the service from the UL 508 shop; plan sheet showing Electrical Service Data Chart for the service; plan sheets for the circuits powered by the service; and red lined plan sheets if installation differs from the original design. Reduce larger sheets to 8 ½ in. x 11 in. and laminate all documents.

11. When providing an "Off The Shelf" Type D or Type T service, provide laminated plan sheets detailing equipment and branch circuits supplied by that service. Reduce 11 in. x 17 in. plan sheets to 8 ½ in. x 11 in. before laminating. When the enclosure has no door pocket, deliver these drawings to the Engineer before completion of the work.

12. Do not install conduit in the back wall of a service enclosure where it would penetrate the equipment mounting panel inside the enclosure. Provide grounding bushings on all metal conduits, and terminate bonding jumpers to grounding bus. Grounding bushings are not required when the end of the metal conduit is fitted with a watertight conduit hub or meter hub.

MAIN DISCONNECT & BRANCH CIRCUIT BREAKERS

1. Field drill flange-mounted remote operator handle, if needed, to ensure handle is lockable in both the "On" and "Off" positions.

2. When the utility company provides a transformer larger than 50 KVA, verify that the available fault current is less than the circuit breaker's ampere interrupting capacity (AIC) rating and provide documentation from the electric utility provider to the Engineer.

PHOTOELECTRIC CONTROL

1. Provide photocell as listed on the MPL. Move, adjust, or shield the photocell from stray or ambient night time light to ensure proper operation. Mount photocell facing north when practical. Mount top of pole photocells as shown on Top Mounted Photocell Detail.

ELECTRICAL SERVICE DATA (EXAMPLE) ∗

ELEC. SERVICE ID	PLAN SHEET NUMBER	ELECTRICAL SERVICE DESCRIPTION	SERVICE CONDUIT SIZE ∗∗	SERVICE CONDUCTORS NO./SIZE	SAFETY SWITCH AMPS	MAIN CKT. BKR. POLE/AMPS	LIGHTING CONTACTOR AMPS	PANELBOARD/ LOADCENTER AMP RATING	BRANCH CIRCUIT ID	BRANCH CKT. BKR. POLE/AMPS	BRANCH CIRCUIT AMPS	KVA LOAD
SB 183	289	ELC SRV TY A 240/480 100(SS)AL(E)SF(U)	2"	3/#2	100	2P/100	2P/100	N/A	Lighting NB	2P/40	26	28.1
									Lighting SB	2P/40	25	
									Underpass	1P/20	15	
NB Access	30	ELC SRV TY D 120/240 060(NS)SS(E)TS(O)	1 ¼"	3/#6	N/A	2P/60	2P/30	100	Sig. Controller	1P/30	23	5.3
									Luminaires	2P/20	9	
									CCTV	1P/20	3	
2nd & Main	58	ELC SRV TY T 120/240 000(NS)GS(N)SP(O)	1 ¼"	3/#6	N/A	N/A	N/A	70	Flashing Beacon 1	1P/20	4	1.0
									Flashing Beacon 2	1P/20	4	

∗ Example only, not for construction. All new electrical services must have electrical service data chart specific to that service as shown in the plans.

∗∗ Verify service conduit size with utility. Size may change due to utility meter requirements. Ensure conduit size meets the National Electrical Code.

ELECTRICAL SERVICE BID ITEM DESCRIPTIONS

ELEC SERV TY X XXX/XXX XXX(XX)XX(X)XX(X)

SCHEMATIC TYPE

SERVICE VOLTAGE

DISCONNECT AMP RATING
NOTE: 000 indicates main lug only, typically Type T

SAFETY SWITCH
(SS) = Safety Switch Ahead of Meter - Check with Utility
(NS) = No Safety Switch Ahead of Meter - Check with Utility

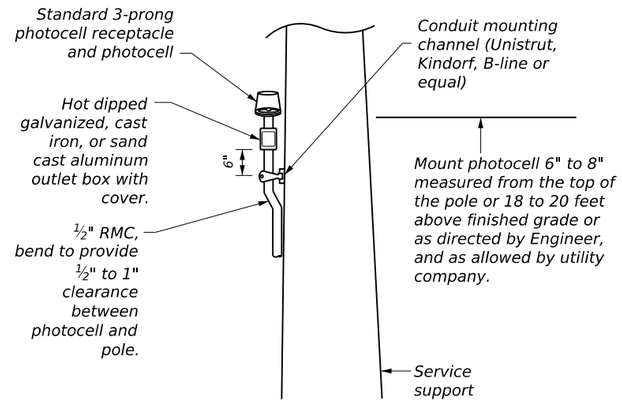
ENCLOSURE TYPE
GS = Galvanized steel ("off the shelf")
SS = Stainless steel (Custom Enclosure) - See MPL
AL = Aluminum (Custom Enclosure) - See MPL

PHOTOCELL MOUNTING LOCATION
(E) = Inside Service/Enclosure Mounted
(T) = Top of pole
(L) = Luminaire mounted
(N) = None - No Photocell or Lighting Contactor Required

SERVICE SUPPORT TYPE
GC = Granite concrete
OC = Other concrete
TP = Timber pole
SP = Steel pole
SF = Steel frame
OT = Pole by others or paid for separately
EX = Existing pole
TS = Service on traffic signal pole
PS = Pedestal Service

SERIVCE FEED
O = Overhead Service Feed from Utility
U = Underground Service Feed from Utility

TOP MOUNTED PHOTOCELL



Install conduit strap maximum 3 ft. from box. Spacing between straps supporting conduit is 5 ft. maximum.

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS SERVICE NOTES & DATA

ED(5)-25

FILE: ed5-25.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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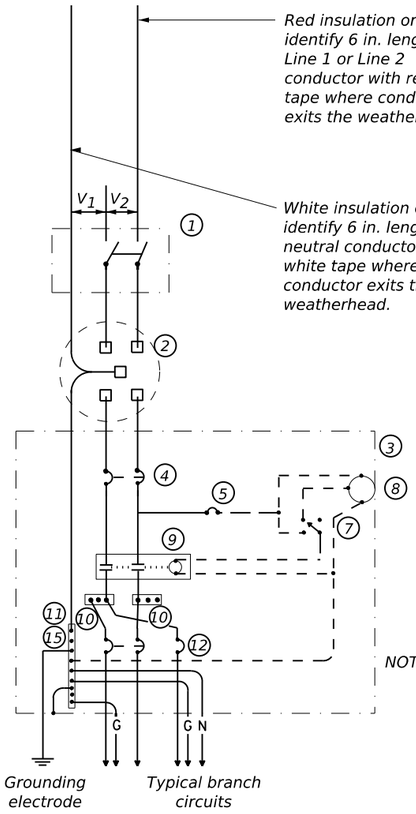
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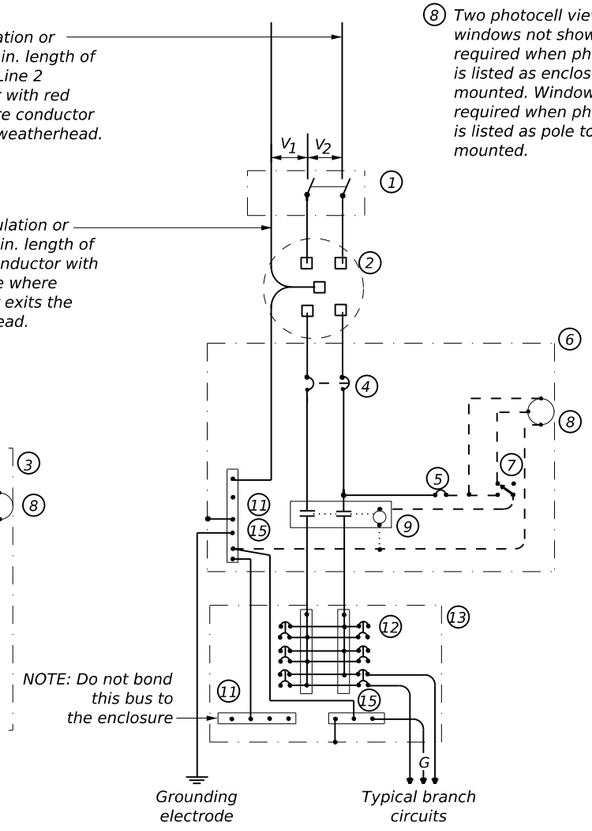
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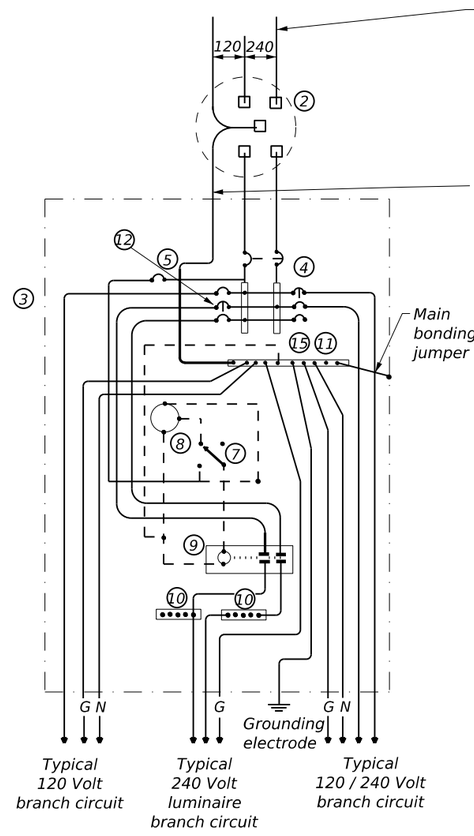
TYPE A
THREE WIRE



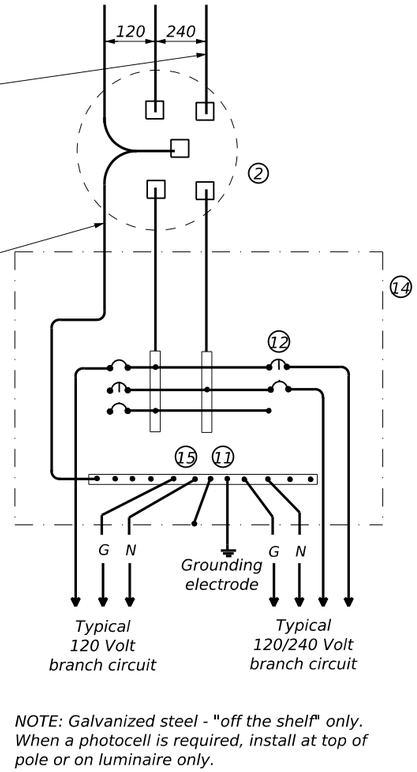
TYPE C
THREE WIRE



TYPE D - CUSTOM
120/240 VOLTS - THREE WIRE



TYPE T
120/240 VOLTS - THREE WIRE



NOTE: Galvanized steel - "off the shelf" only. When a photocell is required, install at top of pole or on luminaire only.

WIRING LEGEND	
———	Power Wiring
- - - -	Control Wiring
—N—	Neutral Conductor
—G—	Equipment grounding conductor (always required)

SCHEMATIC NOTES:

1. Safety Switch (when required)
2. Meter (when required - verify with electric utility provider)
3. Service Assembly Enclosure
4. Main Disconnect Breaker (See Electrical Service Data)
5. Circuit Breaker, 15 Amp (Control Circuit)
6. Auxiliary Enclosure
7. Control Station ("H-O-A" Switch)
8. Photo Electric Control (enclosure-mounted shown)
9. Lighting Contactor
10. Power Distribution Terminal Blocks
11. Neutral Bus
12. Branch Circuit Breaker (See Electrical Service Data)
13. Separate Circuit Breaker Panelboard
14. Load Center
15. Ground Bus

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS SERVICE SCHEMATICS AND NOTES

ED(6)-25

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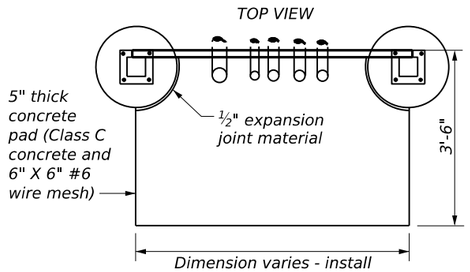
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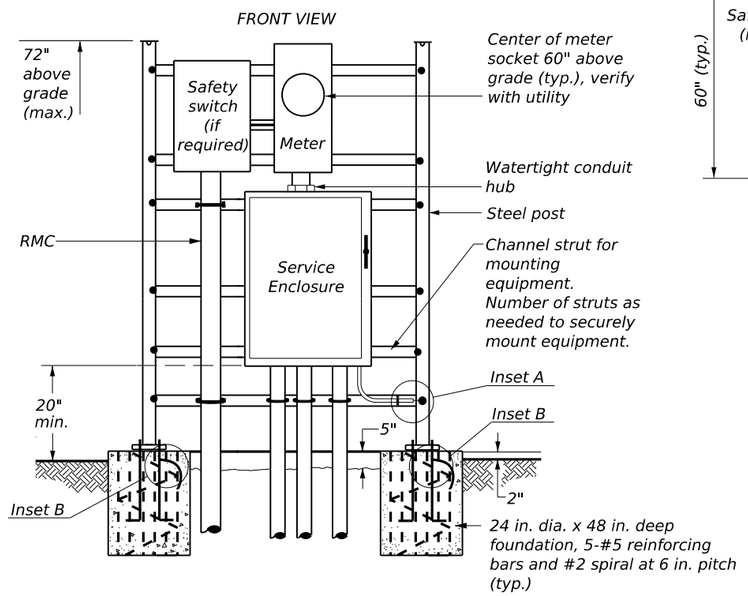
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SUPPORT TYPE STEEL POLE (SP) AND STEEL FRAME (SF) NOTES:

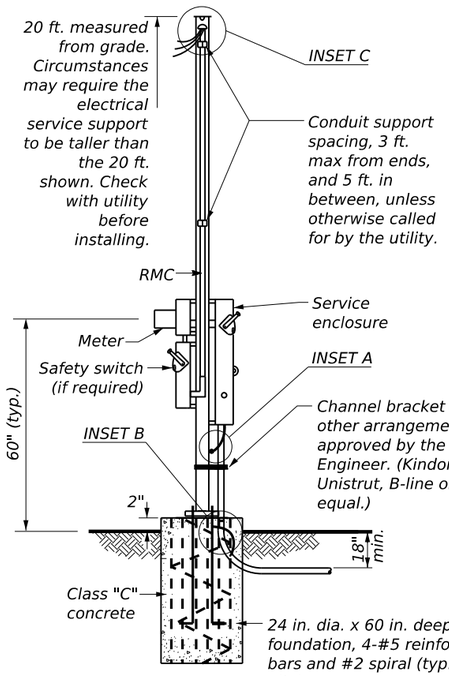
1. Provide steel pole and steel frame supports as per TxDOT Departmental Material Specification DMS-11080, "Electrical Services." Mount all equipment and conduit on 12 gauge galvanized steel or stainless steel channel strut, 1 ½ in. or 1 ⅝ in. wide by 1 in. to 3 ¾ in. deep Unistrut, Kindorf, B-line or equal. Drill, tap, and bolt or weld all channel and hardware to vertical members as approved. Do not stack channel. File smooth and paint field-cut ends of all channel with zinc-rich paint before installing.
2. Install a one point rack or eye bolt bracket 6 in. to 12 in. below the weatherhead as an overhead service drop anchoring point for the electric utility. Attaching bolt must pass through the pole and use a nut, washer, and locking washer on the other size. Self-tapping screws or lag bolts are not allowed.
3. Provide and install galvanized ¾ in. x 18 in. x 4 in. (dia. x length x hook length) anchor bolts for underground service supports. Provide and install galvanized ¾ in. x 56 in. x 4 in. anchor bolts for overhead service supports. Ensure anchor bolts have 3 in. of thread, with 3 ¼ in. to 3 ½ in. of the exposed anchor bolt projecting above finished foundation. Provide and install leveling nuts for all anchor bolts.
4. Use Class C concrete for foundations. Ensure reinforcing steel is Grade 60 with 3 in. of unobstructed concrete cover.
5. Shop drawings are not required for service support structure unless specifically stated elsewhere or directed by the Engineer.
6. Avoid contact of the service drop and service entrance conductors with the metal pole to prevent abrasion of the insulated conductors.
7. Placement of the meter and service enclosure may vary based on the installation of a safety switch.
8. Drill and tap steel poles and frames for ½ in. x 13 UNC tank ground fitting. For steel pole service supports, provide and install tank ground fitting 4 in. to 6 in. directly below the electrical service enclosure. Provide properly sized hole through the bottom of the enclosure for the service grounding electrode conductor. Ensure electrical service grounding electrode conductor is as short and straight as possible from the enclosure to the tank ground fitting.
9. For steel frame service supports, provide and install tank ground fitting on steel frame post. Install service grounding electrode conductor in a non-metallic conduit or tubing from the enclosure to the steel frame post. Connect electrical service grounding electrode conductor to the tank ground fitting. See SF, SP details and Inset A for more information.
10. Provide and install grounding bushings where RMC terminates in the enclosure. Grounding bushings are not required when RMC is fitted into a watertight conduit hub or meter hub.
11. If steel pole or frame is painted, bond each separate painted piece with a bonding jumper and lugs screwed into tapped holes.
12. Provide ¼ in. x 20 UNC machine screws for bonding. Do not use sheet metal screws. Remove all non-conductive material at contact points. Terminate bonding jumpers with listed devices. Install 6 AWG or larger stranded copper bonding jumpers. Make up all threaded bonding connections wrench-tight.
13. Bond one of the anchor bolts to the rebar cage with 6 AWG bare stranded copper conductor. Use listed mechanical connectors rated for embedment in concrete. See Inset B.

TYPE SF(U)
UNDERGROUND SERVICE

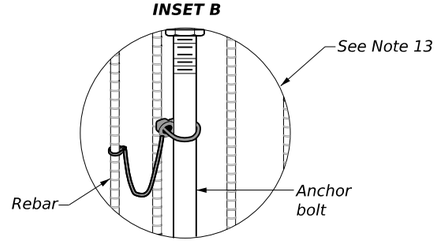




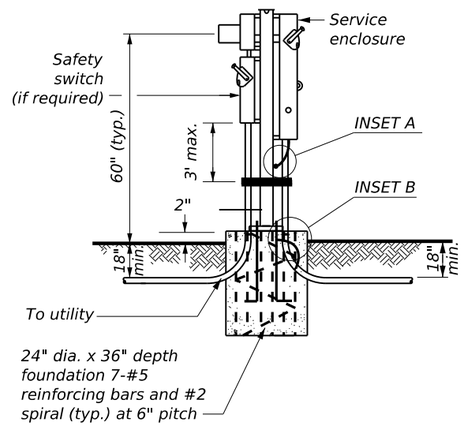
TYPE SP(O)
OVERHEAD SERVICE



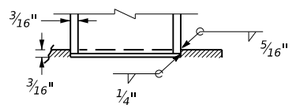
INSET B



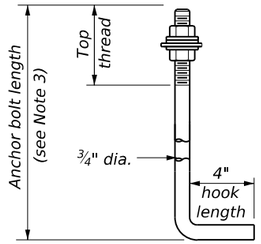
TYPE SP(U)



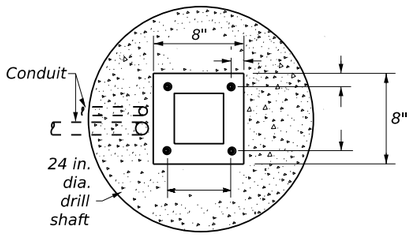
BOTTOM OF POLE DETAIL
TYPES SF & SP



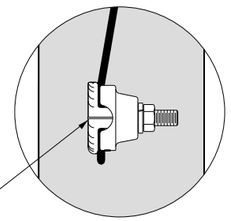
HOOKED ANCHOR DETAIL



BASE PLATE DETAIL

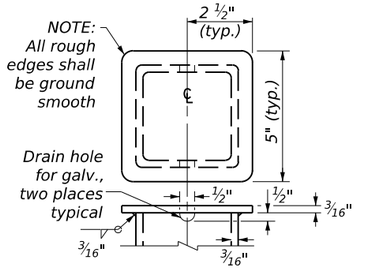


INSET A
FRONT VIEW

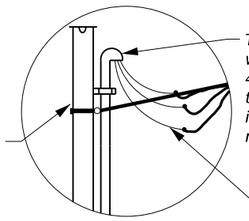


Drill, tap, and thread ½" x 13 UNC. Install tank ground fitting, connect electrical service grounding electrode conductor. See Note 8.

POLE TOP PLATE DETAIL



INSET C
SIDE VIEW



Identify conductors red, black, and white as specified in ED(3), Electrical Conductors, Note A.2. Provide 1.5 ft. to 3 ft. of conductor length as required by electric utility.

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS SERVICE SUPPORT TYPES SF & SP

ED(7)-25

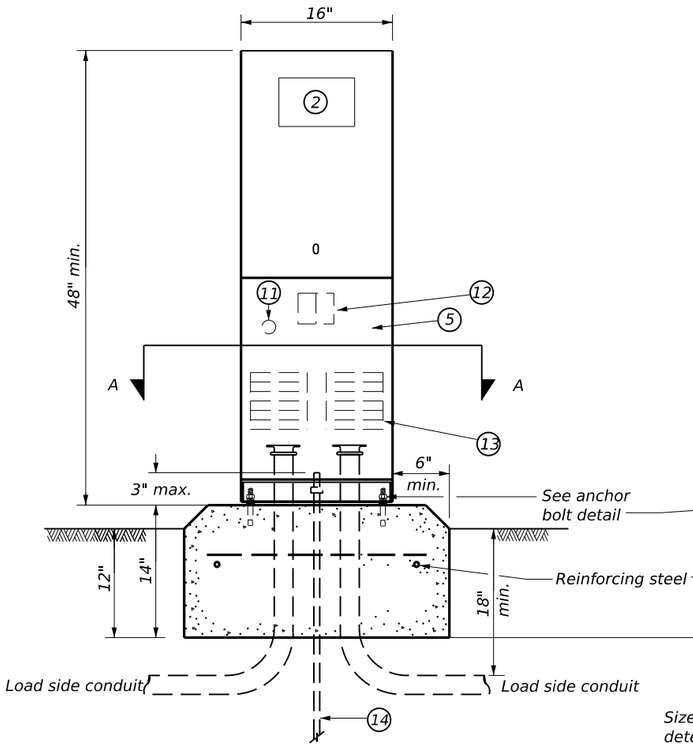
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	WACO	BELL		117

71G

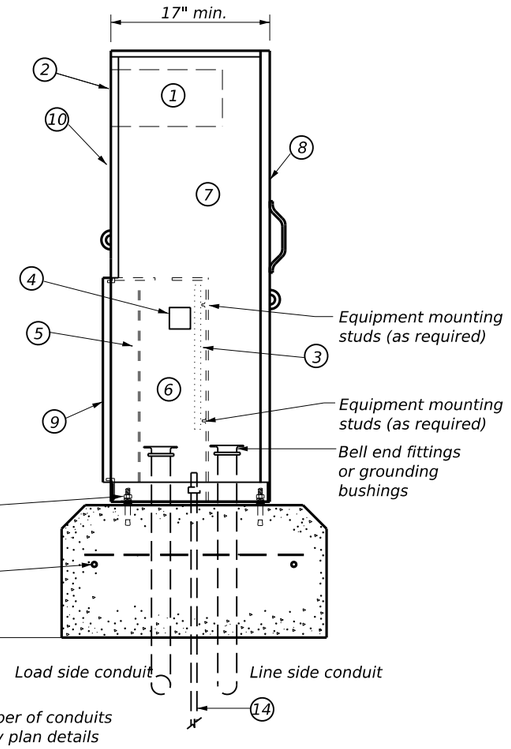
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FRONT VIEW



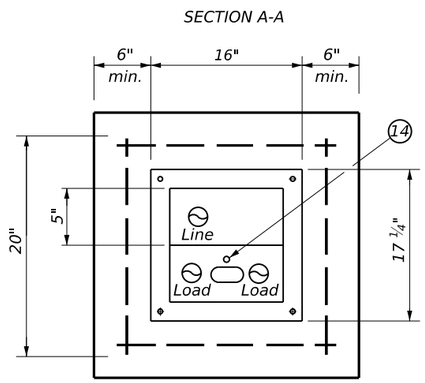
SIDE VIEW



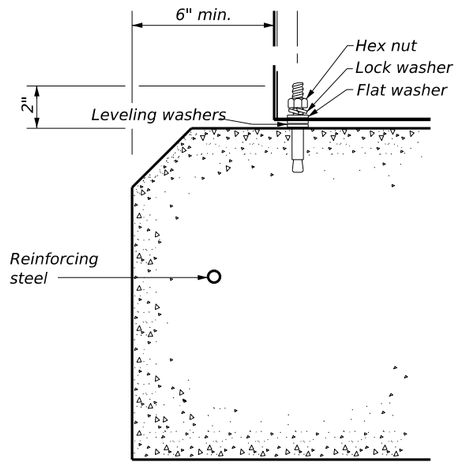
NOTE: Type D shown, Type A similar except that Type A shall have circuit breakers (CB) mounted on an equipment mounting panel. CB handles shall protrude through hinged deadfront trim.

Size and number of conduits determined by plan details

SECTION A-A



ANCHOR BOLT DETAIL



DETAIL CALLOUTS:

1. Meter socket (when required)
2. Meter socket window (when required)
3. Equipment mounting panel
4. Photoelectric control window (when required)
5. Hinged deadfront trim
6. Load side conduit area
7. Line side conduit area
8. Utility access door, with handle
9. Pedestal door
10. Hinged meter access
11. Control station (H-O-A switch)
12. Main disconnect
13. Branch circuit breakers
14. Copper clad ground rod (in load side of cabinet) - 5/8" x 10'

NOTES:

1. *Manufacture pedestal electrical services in accordance with Departmental Material Specifications DMS-11080, "Electrical Services," DMS-11085, "Electrical Services-Pedestal (PS)" and Item 628, "Electrical Services." Provide pedestal electrical services listed on the Material Producer list (MPL) under "Roadway Illumination and Electrical Supplies," Item 628. Ensure all mounting hardware and installation details of services meet utility company specifications. Contact the local utility company for approval of pedestal details prior to installing the electrical pedestal service. Submit any changes required by the utility company prior to manufacturing the pedestal enclosure.*
2. *When a meter socket is required, provide a socket with a 100 amp (minimum) rating that complies with local utility requirements.*
3. *Provide concrete for pedestal service foundations in accordance with Item 656, "Foundations for Traffic Control Devices" except that concrete will not be paid for directly but is considered subsidiary to Item 628.*
4. *Provide #4 reinforcing steel for foundations in accordance with Item 440, "Reinforcement for Concrete."*
5. *Install ½ in. X 2 1/16 in. minimum length concrete single expansion type anchors for mounting pedestal enclosure to foundation. Match anchor location to mounting holes in each corner of enclosure. Secure each of the four corners of the pedestal enclosure to the anchors in the foundation with a ½ in. galvanized or stainless steel machine thread bolt, a properly sized locknut and a flat washer.*
6. *Finish top of concrete foundation in a professional and skillful manner. If leveling washers are used, ensure no more than ⅛ in. of gap exists at any corner. Do not exceed a maximum dip or rise in the foundation of ⅛ in. per foot. Ensure the top of the service enclosure is level front to back and side to side within ¼ in. Repair rocking or movement of the service enclosure at no additional cost to the Department.*
7. *Do not use liquidtight flexible metal conduit (LFMC) on pedestal services.*
8. *Ensure all elbows in the foundation are sized to meet utility provider's conduit requirements for underground conduit and feeders. PVC conduit extensions may be installed provided the ends of the rigid metal conduits are more than 2 in. below the top of the concrete foundation. Where extension conduits are metal, grounding bushings must be installed with a properly terminated bonding jumper.*

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS PEDESTAL SERVICE TYPE PS

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4-98 5-03 12-00 10-14 3-03 4-25	DIST	COUNTY		SHEET NO.
	WACO	BELL		118

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NOTES:

1. Provide duct cable in accordance with Departmental Material Specification DMS-11060, "Duct Cable" and Special Specification 6000, "Duct Cable." Provide duct cable as listed on the Material Producer List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies," Special Specification 6000 - Duct Cable. Provide and install duct cable according to NEC Article 354, Nonmetallic Underground Conduit with Conductors (NUCC).

2. Provide High-Density Polyethylene (HDPE) conduit in accordance with DMS-11030 and Item 618, "Conduit." Provide HDPE as listed on the MPL on the Department web site under "Roadway Illumination and Electrical Supplies," Item 618.

3. Supply duct cable with a minimum 2 in. diameter, unless otherwise shown in the plans. Provide duct cable and HDPE conduit as shown by descriptive code or on the plans. Bend duct cable and HDPE conduit as recommended by the manufacturer, with a minimum bending radius of 26 in. for 2 in. duct. Follow manufacturers' recommendations when handling duct cable and HDPE conduit reels and during installation of duct cable and HDPE conduit.

4. Do not splice conductors within duct cable or HDPE conduit. Couple duct cable and HDPE entering a ground box or foundation to a PVC elbow. When galvanized steel rigid metal conduit (RMC) elbows are called for in the plans and any portion of the RMC elbow is buried less than 18 in. from possible contact, ground the RMC elbow.

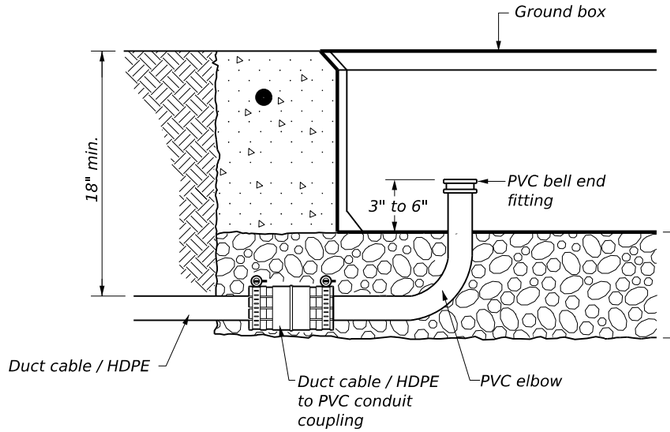
5. When conduit casing is called for in the plans, extend duct cable or HDPE conduit through the conduit casing in one continuous length without connection to the casing.

6. Seal the ends of duct cable or HDPE conduit with duct seal, expandable foam, or other approved method after installation.

7. Provide minimum cover of 24 in. under roadways, 18 in. in other locations, or as shown on the plans.

8. Furnish and install listed fittings to couple duct cable or HDPE conduit to other types of conduit. Duct cable and HDPE conduit may be field-threaded and spliced with PVC or RMC threaded couplings; connected with listed tie-wrap fittings; connected using listed couplings made of HDPE with stainless steel external banding clamps and locking rings; connected with approved electrofusion conduit couplings; or connected using an approved chemical fusion method using an epoxy or adhesive specifically designed for HDPE couplings and connectors. Install connectors in accordance with manufacturer's instructions. Do not use PVC glue on HDPE. Do not use water pipe fittings, or connect conduit with heat shrink tubing.

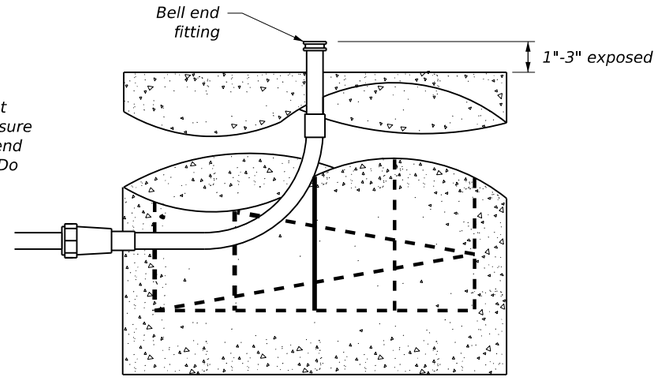
DUCT CABLE/HDPE AT GROUND BOX



When the upper end of an RMC elbow does not enter the ground box,it may be extended with a SCH-40 PVC conduit nipple and bell end, provided there is a minimum of 18 in. of cover over all parts of the elbow. If not, a rigid extension and ground bushing is required.

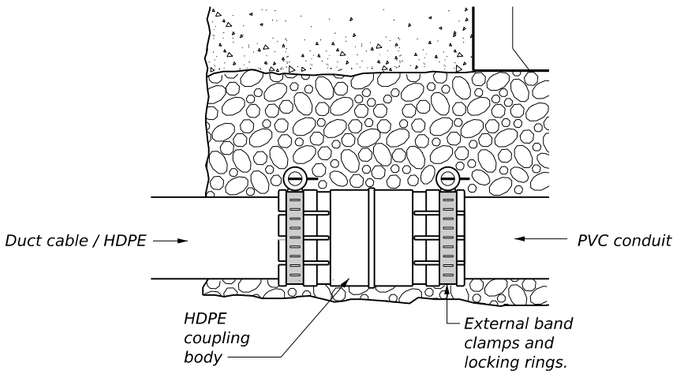
Bed of aggregate is to be a minimum of 9 in. deep, placed under and not in the ground box. Ensure the aggregate does not encroach into the interior of the box.

DUCT CABLE / HDPE AT FOUNDATION

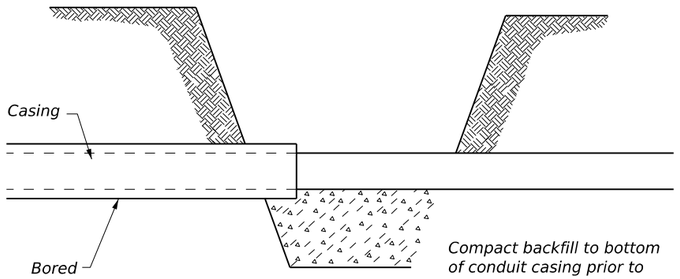


Couple duct to conduit elbow at foundations. Ensure conductors extend into pole base. Do not splice conductors in conduit.

DUCT CABLE / HDPE TO PVC



BORE PIT DETAIL



Compact backfill to bottom of conduit casing prior to placing duct cable, to prevent kinking.

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS DUCT CABLE/ HDPE CONDUIT

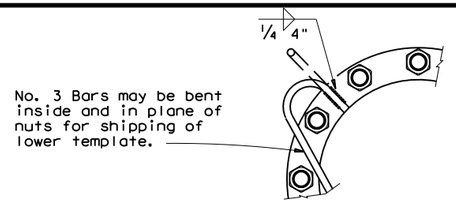
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4-98 10-14 12-00 4-25 3-03	DIST	COUNTY		SHEET NO.
	WACO	BELL		119

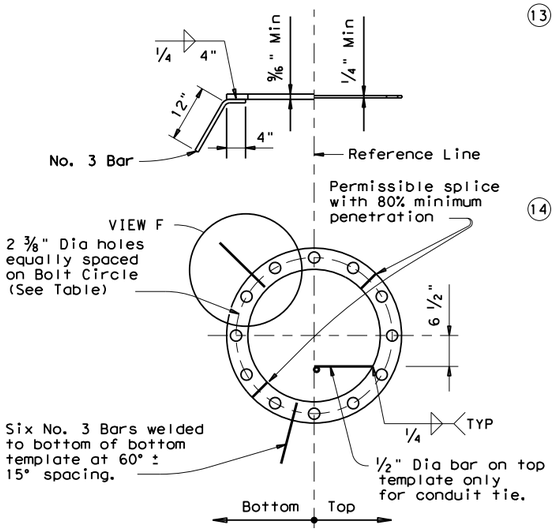
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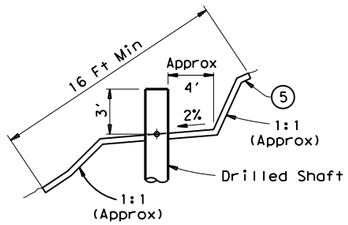
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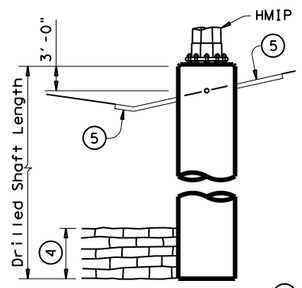
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ANCHOR BOLT TEMPLATES

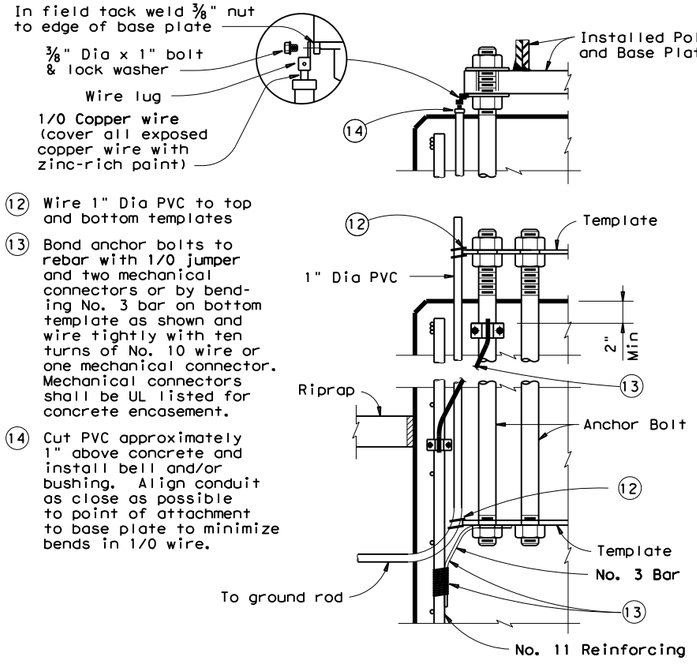


RIPRAP ON SLOPES



(5) Match slope of finished ground if slope is less than approx 4 to 1. For steeper slopes, bench to provide work area with approx 2 % slope around pole base. Other configurations may be shown elsewhere on the plans.

(4) If rock is encountered, the Drilled Shaft shall extend a minimum of two diameters into solid rock.

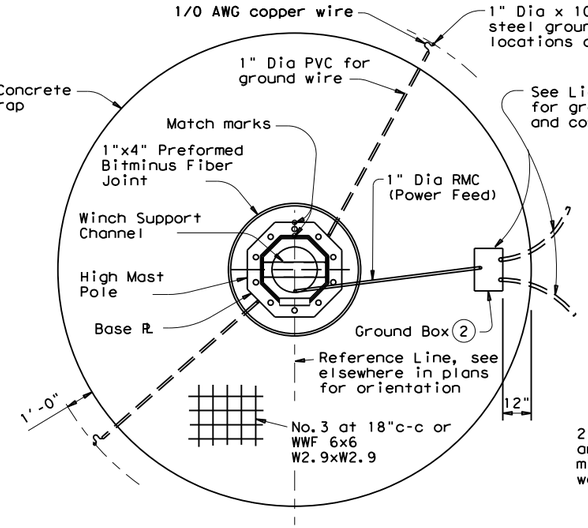


(12) Wire 1" Dia PVC to top and bottom templates

(13) Bond anchor bolts to rebar with 1/0 jumper and two mechanical connectors or by bending No. 3 bar on bottom template as shown and wire tightly with ten turns of No. 10 wire or one mechanical connector. Mechanical connectors shall be UL listed for concrete encasement.

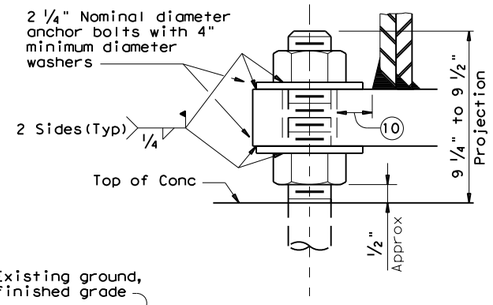
(14) Cut PVC approximately 1" above concrete and install bell and/or bushing. Align conduit as close as possible to point of attachment to base plate to minimize bends in 1/0 wire.

LIGHTNING PROTECTION SYSTEM



(2) Place ground box cover flush with riprap.

(10) If, due to tolerances in fabrication, the anchor bolt hole to ground sleeve weld is less than approx 7/8", clipped 1/2" thick washers shall be supplied at those



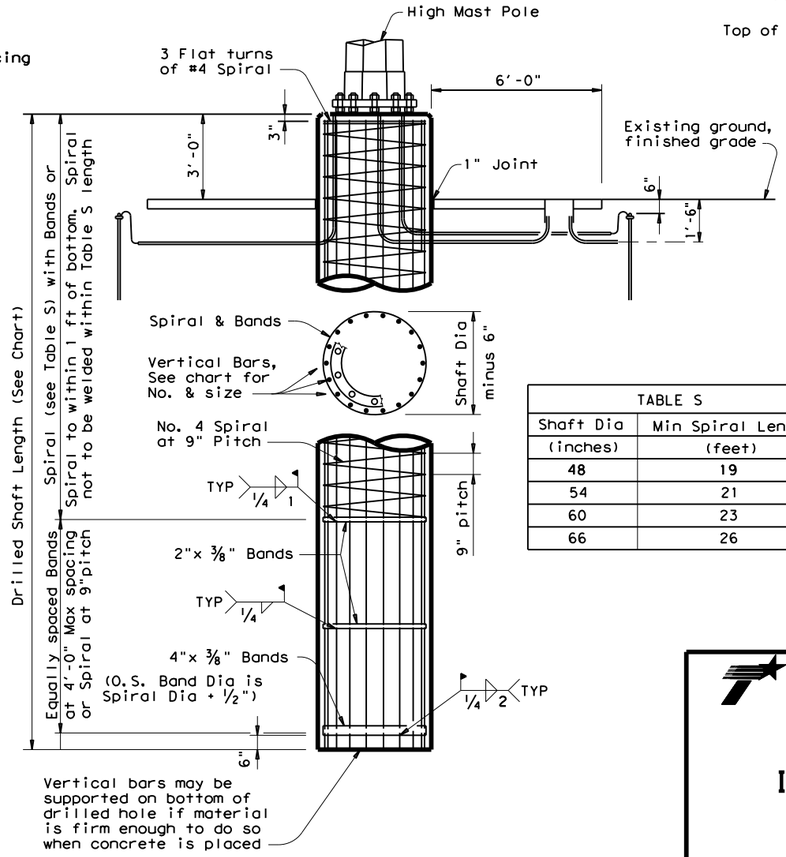
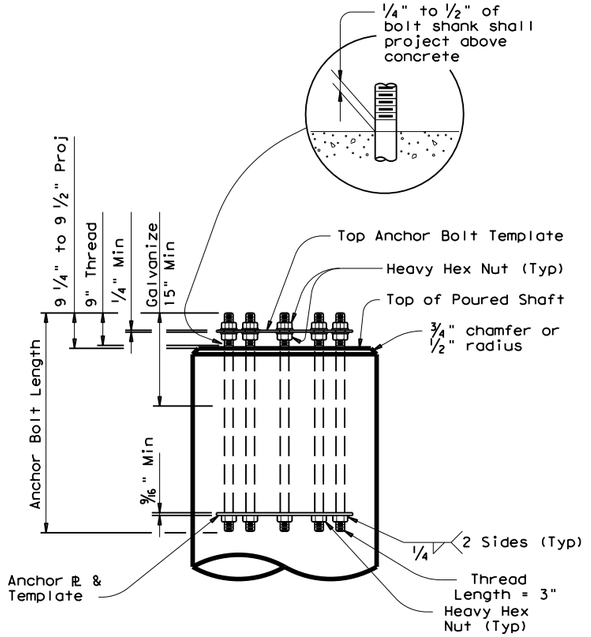


TABLE S	
Shaft Dia (inches)	Min Spiral Length (feet)
48	19
54	21
60	23
66	26



ANCHOR BOLT ASSEMBLY

(See Anchor Bolt Table for number of bolts required)

DRILLED SHAFT FOUNDATION DETAIL

Texas Department of Transportation
Traffic Operations Division

HIGH MAST ILLUMINATION POLE FOUNDATIONS

SHEET 1 OF 2 HMIF(1)-98

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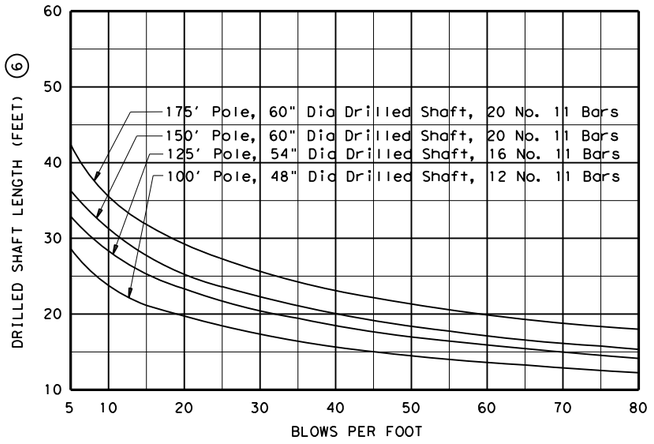
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REVISIONS
11-97
5-98 ~ Anchor Bolt Circle Dia

CONT	SECT	JOB	HIGHWAY
0231	03	156	IH-14
DIST	COUNTY		SHEET NO.
WACO	BELL		120

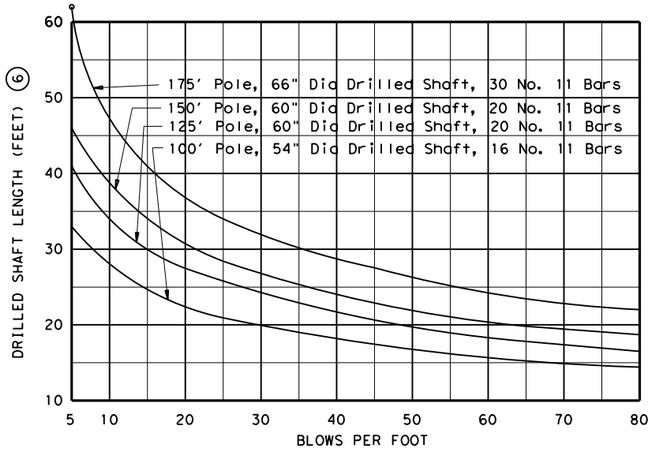
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⑥ Includes normal 3 Ft exposure. Shafts with more than 3 Ft exposure must have additional length.



80 MPH POLES

Do not extrapolate below 5 Blows/Ft. A special design will be required for soil less than 5 Blows/Ft.



100 MPH POLES

Do not extrapolate below 5 Blows/Ft. A special design will be required for soil less than 5 Blows/Ft.

TEXAS CONE PENETROMETER TEST TABLES

NOTE: Use average "N" value over the top third of the embedded shaft. Ignore the top 2' of soil.

ANCHOR BOLT TABLE

	Pole Height	Bolt Diameter	Bolt Length	Bolt Templates O D	Bolt Templates I D	No. of Bolts	Bolt Cir Dia
	(feet)	(inches)	(feet)	(inches)	(inches)	~	(inches)
80 MPH DESIGNS	8 SIDED POLE						
	175	2.25	4.83	45.5	36.5	16	41
	150	2.25	4.83	42.5	33.5	12	38
	125	2.25	4.83	39.5	30.5	8	35
	100	2.25	4.83	35.5	26.5	6	31
	12 SIDED POLE						
	175	2.25	4.83	48.5	39.5	12	44
	150	2.25	4.83	45.5	36.5	10	41
	125	2.25	4.83	40.5	31.5	8	36
	100	2.25	4.83	36.5	27.5	6	32
100 MPH DESIGNS	8 SIDED POLE						
	175	2.25	4.83	50.5	41.5	20	46
	150	2.25	4.83	47.5	38.5	16	43
	125	2.25	4.83	43.5	34.5	12	39
	100	2.25	4.83	38.5	29.5	10	34
	12 SIDED POLE						
	175	2.25	4.83	50.5	41.5	16	46
	150	2.25	4.83	48.5	39.5	12	44
	125	2.25	4.83	44.5	35.5	10	40
	100	2.25	4.83	40.5	31.5	6	36

MISCELLANEOUS QUANTITIES - ONE HMIF

Shaft Diameter	(in) ⑦	48	54	60
Concrete Riprap	(CY)	2.33	2.44	2.56
Reinforcing	(Lbs) ⑧	94	99	103
Ground Box	(ea)	1	1	1
R O W Marker	(ea) ⑨	1	1	1

⑦ See elsewhere on plans for length of Drilled Shaft required.
⑧ For Contractors information only.
⑨ Designated elsewhere on plans if required.

GENERAL NOTES:

Unless otherwise noted, the welded steel bands may be replaced with spiral as shown on the foundation details.

Anchor bolts shall be placed in foundation so there are always two bolts on reference line.

Drilled shaft lengths as determined from the foundation design chart or other acceptable methods are to be as shown elsewhere on the plans.

ODSR may not be used for HMIF drilled shafts.

Concrete for drilled shafts shall be Class C.

Repair welded areas with zinc-rich paint.

All Anchor Bolts, Nuts and Washers shall be galvanized in accordance with Item 445, "Galvanizing".

Texas Department of Transportation
Traffic Operations Division

HIGH MAST ILLUMINATION POLE FOUNDATIONS

SHEET 2 OF 2 **HMIF(2)-98**

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REVISIONS
5-98 - Anchor Bolt Circle Dia

CONT	SECT	JOB	HIGHWAY
0231	03	156	IH-14
DIST	COUNTY		SHEET NO.
WACO	BELL		121

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ROADWAY ILLUMINATION ASSEMBLY NOTES

1. Details apply to roadway lighting installations bid or referenced under Item 610, "Roadway Illumination Assemblies." Provide, furnish, and install all other materials not shown on the plans which may be necessary for complete and proper construction. Where manufacturers provide warranties or guarantees as a customary trade practice, furnish to the State such warranties or guarantees.

2. The locations of poles and fixtures may be shifted by the Engineer to accommodate local conditions. Install or remove poles and luminaires located near overhead electrical lines using established industry and utility safety practices and in accordance with laws governing such work. Consult with the appropriate utility company prior to beginning such work.

3. Provide new and unused materials. Ensure that all materials and installations comply with the applicable articles of the National Electrical Code (NEC),TxDOT standards and specifications, National Electrical Manufacturers Association (NEMA),and are listed by Underwriters Laboratories (UL) or a Nationally Recognized Testing Lab (NRTL). NRTLs such as Canadian Standard Association, Intertek Testing Services NA Inc., or FM Approvals LLC can be considered equivalent to UL. Faulty fabrication or poor workmanship in any material, equipment, or installation is justification for rejection.

4. Provide Roadway Illumination Light Fixtures as per TxDOT Departmental Material Specification (DMS) 11010, Item 610, and as shown on the Material Producers List (MPL) for Roadway Illumination and Electrical Supplies.

5. Fabricate steel roadway illumination poles in accordance with Roadway Illumination Poles (RIP) standards and Item 610. Poles fabricated according to RIP standards do not require shop drawing submittals.

   a. Alternate designs to RIP standards or the use of aluminum to fabricate poles will require the submission of shop drawings electronically. For instructions on submitting shop drawings electronically see "Guide to Electronic Shop Drawing Submittal" on the TxDOT web site.

   b. Limitations on use of the RIP standard: The RIP standard details were developed for installations in locations where the 3-second gust basic maximum wind speed is 110 mph, and where the elevation of the base of the pole is less than (i.e. not more than) 25' above the elevation of the surrounding terrain, in accordance with the "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals," 6th Edition (2013) of the AASHTO Design Specifications. For poles to be installed in regions where the maximum basic wind speed exceeds 110 mph or to be mounted more than 25' above the surrounding terrain, provide poles meeting the following requirements:

      i. Submittals. Following the electronic shop drawing submittal process (see Guide to Electronic Shop Drawing Submittal on the TxDOT web site), submit to the Engineer for approval fabrication drawings and calculations for the poles, sealed by a Texas licensed professional engineer (P.E.).

      ii. Luminaire Structural Support Requirements. Provide light poles, arms, and anchor bolt assemblies with a 25 year design life to safely resist dead loads, ice loads and the required basic wind speeds at the location of installation in accordance with the 6th edition (2013) of the AASHTO Design Specifications. For transformer base poles, include transformer base and connecting hardware in calculations and shop drawing submittals. Structurally test all transformer bases to resist the theoretical plastic moment capacity of the pole. Submit certification of the plastic moment load test and FHWA breakaway requirement test of the model of base being furnished with the shop drawings. Show breakaway base model number, manufacturer's name, and logo on shop drawings. Include on manufacturer's shop drawings the ASTM designations for all materials to be used.

6. For both transformer and shoe-base type illumination poles, provide and install double-pole breakaway fuse holders as specified by DMS-11040. Breakaway fuse holders are listed on the MPL for Roadway Illumination and Electrical Supplies under Items 610 & 620. Provide 10 amp time delay fuses for breakaway connectors in light poles, or inside the light fixture for underpass luminaires. In each pole, connect luminaires to the breakaway connector with continuous stranded 12 AWG copper conductors as listed on the MPL. Bond all equipment grounding conductors together and to the ground lug in the transformer base or hand hole.

7. Tighten anchor bolts for shoe base, concrete traffic barrier base, and bridge mount roadway illumination poles, in accordance with Item 449.

8. Install T-Base with following procedure:

   a. Anchor Bolt Tightening.

      i. Coat the threads of the anchor bolts with electrically conductive lubricant.

      ii. Place the T-base over the anchor bolts. Foundation must be level and flat. The maximum permissible gap under any one corner of the t-base is 1/8" before nuts are tightened.

      iii. Coat the bearing surfaces of the nuts and washers with electrically conductive lubricant. Install (1) 1/2" hold down washer, (1) lock washer, and (1) nut on each anchor bolt. Turn the nuts onto the bolts so that each is hand-tight against the washer.

      iv. Using a torque wrench, tighten each nut to 150 ft-lb. Uniform contact is required between the foundation and the T-base in the corner regions of the T-base, and all corner gaps must be closed after applying torque. If a gap still exists after torquing to 150 ft-lbs, continue torquing each bolt incrementally until gap is closed or maximum allowable torque of 250 ft. pound is reached, whichever comes first. If 250 ft-lbs is not enough to close the gap the foundation must be leveled. Gaps along the straight sides of the T-bases and the foundation are permissible. Ensure that no high point of contact occurs between the straight sides of the T-base and the foundation.

      v. Check top of T-base for level. If not level then foundation must be leveled.

   b. Top Bolt Procedure

      i. Erect pole over T-base with crane. Coat bolts, nuts, washers, and lock washers with electrically conductive lubricant.

      ii. Install bolts and 1/2" connecting washers from the inside of the T-base, thread up through the pole base. Install flat washers, lock washers and nuts snug tight according to Item 447, "Structural Bolting."

      iii. Tighten each nut to 150 ft-lb. using a torque wrench.

   c. Level and Plumb

      i. Ensure pole is plumb and mast arm is perpendicular to the roadway according to plans to within 5 degrees.

9. Construct luminaire pole foundations in accordance with Item 416, "Drilled Shaft Foundations," and TxDOT standard sheet RID(2).

10. Provide and install underpass luminaires in accordance with Item 610, DMS-11010, and TxDOT standard sheet RID(3). Typical luminaire size for underpass luminaires is 150W HPS or 150W EQ LED.

11. Mount luminaires on arms level as shown by the luminaire level indicator.

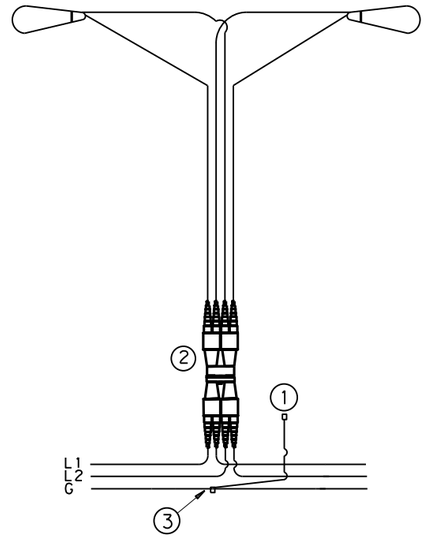
12. Orient luminaires perpendicular to the roadway intended to be lit unless otherwise shown on the plans.

Wiring Diagram Notes:

(1) Use 1/2 in.-13 UNC threaded, copper or tin-plated copper, pole bonding connector, sized appropriately for conductors, bonded to T-base, or use ground lug in handhole as available.

(2) Use pre-qualified two-pole breakaway connectors for all luminaire pole installations. For luminaires fed by a circuit with a neutral conductor, use double pole breakaway connectors with the neutral side unfused and marked white.

(3) Split Bolt or other connector.



L1,L2 = Hot Conductors
G = Grounding Conductor

TYPICAL WIRING DIAGRAM

LUMINAIRES SERVED AT 480V ON 240/480 VOLT SERVICE OR LUMINAIRES SERVED AT 240V FOR 120/240 VOLT SERVICE.

Decorative LED Lighting Notes:

1. LED Drivers in Remote Outdoor enclosures (for drivers that do not include an enclosure as part of a factory assembly):

   a. Provide NEMA 3R outdoor enclosure or as approved.

   b. Install enclosure at least 12" above ground or other horizontal surface. Mount vertically or on ceiling, and avoid direct sun where possible.

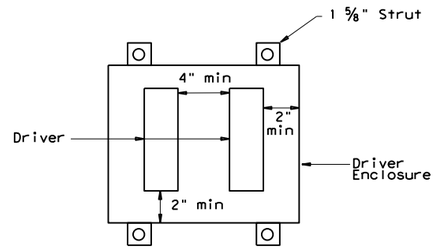
   c. Install drivers with at least 2 inches of space from enclosure walls.

   d. For multiple drivers in an enclosure, provide at least 4 inches side to side and 1 inch end to end from other drivers or electronic equipment

   e. For drivers mounted on back wall of enclosure, mount enclosure on 1 5/8" strut or other standoff to dissipate heat, or mount driver to side of the enclosure or to the metal cover.

   f. Provide remote drivers with a maximum of 100 watts

   g. Provide drivers with documentation of 100,000 hr lifetime at Tcase of 65C or higher.



Driver Spacing In Remote Enclosure

Texas Department of Transportation — Traffic Safety Division Standard

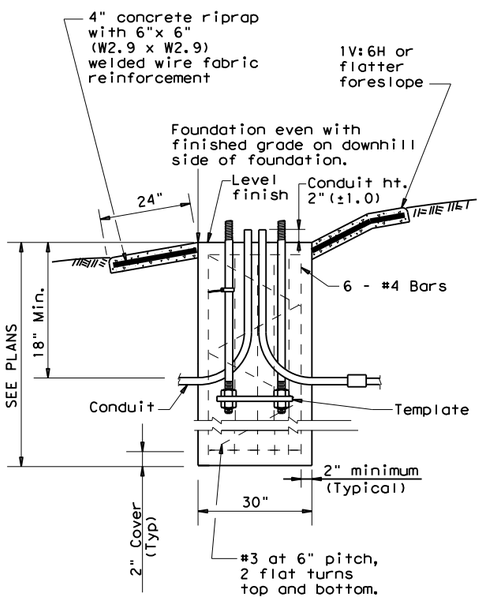
ROADWAY ILLUMINATION DETAILS

RID(1)-20

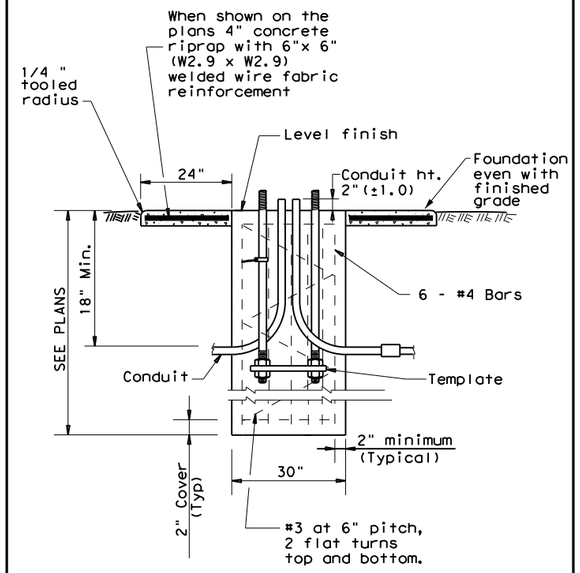
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© TxDOT January 2007	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
7-17	DIST	COUNTY		SHEET NO.
12-20	WACO	BELL		122

72A

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SECTION A-A
SHOWING SLOPED GRADE



SECTION A-A
SHOWING CONSTANT GRADE

TABLE 1

ANCHOR BOLTS

POLE MOUNTING HEIGHT	BOLT CIRCLE		ANCHOR BOLT SIZE
	Shoe Base	T-Base	
<40 ft.	13 in.	14 in.	1in.x 30in.
40-50 ft.	15 in.	17 ¼in.	1 ¼in. x 30in.

TABLE 2

RECOMMENDED FOUNDATION LENGTHS
(See note 1)

MOUNTING HEIGHT	TEXAS CONE PENETROMETER N Blows/ft		
	10	15	40
≤20 ft.	6′	6′	6′
>20 ft. to 30 ft.	8′	6′	6′
>30 ft. to 40 ft.	8′	8′	6′
>40 ft. to 50 ft.	10′	8′	6′

TABLE 3

PAY QUANTITY OF RIPRAP PER FOUNDATION (Install only when shown on the plans)

Foundation Diameter	RIPRAP DIAMETER	RIPRAP (CONC) (CL B)
30 in.	78 in.	0.35 CY

GENERAL NOTES:

1. "Recommended Foundation Lengths" table is for information purposes only. Foundation lengths shall be as shown on the plans, or as directed by the Engineer. Foundations will be paid for under Item 416, "Drilled Shaft Foundations," unless otherwise shown on the plans.
2. Erect roadway illumination assembly poles plumb and true. Form and level the top 6" of the foundation so the pole will be plumb. Use leveling nuts to plumb shoe base poles. Do not use shims or leveling nuts under transformer bases. Do not grout between baseplate and the foundation.
3. Ensure Class 2A and 2B fit for anchor bolts and nuts. Tap and chase nuts after galvanizing. Anchor bolt body with rolled threads need not be full size.
4. Use appropriate class of concrete as specified in Items 416 and 432. Concrete for riprap may be upgraded to Class C at no extra cost to the Department.
5. Place riprap around the foundation when called for elsewhere in the plans. Riprap will be paid for under Item 432.
6. Locate breakaway roadway illumination assemblies as shown in the placement table, unless otherwise dimensioned on the plans. Protect non-breakaway illumination assemblies from vehicular impact (i.e. 2.5 ft. behind guard rail or mounted on traffic barrier), or located outside the clear zone, except that 2.5 ft. from curb face is minimum desired for light poles on city streets, 45 mph or less. See Roadway Design Manual for further information.
7. Use 4 hold down and 4 connecting washers on transformer base poles as recommended by the manufacturer and supplied with base.
8. Install a minimum of 2 conduits in each foundation. See lighting layout sheets for locations of foundations with more than 2 conduits. Cap unused conduits in foundations on both ends.
9. Conduit location in foundations is critical for breakaway devices. Place conduits 2 in. apart on centerline as shown.
10. Bond anchor bolt to rebar cage with #6 bare stranded copper conductor. Use listed mechanical connectors rated for embedment in concrete. The bonded steel in the foundation creates a concrete encased grounding electrode which replaces the ground rod.
11. Grade earthwork around T-base foundations even with the finished grade as shown in Section A-A to ensure proper function of the breakaway device. Use riprap on T-base foundations that are located on sloped grades, and as shown on the plans for level grades.

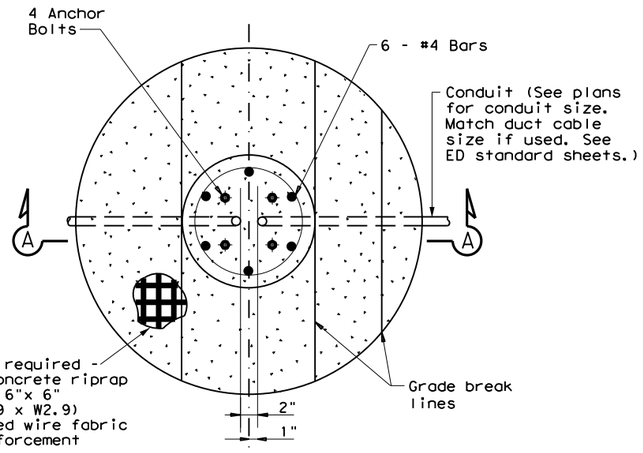
TABLE 4

BREAKAWAY POLE PLACEMENT (See note 6)

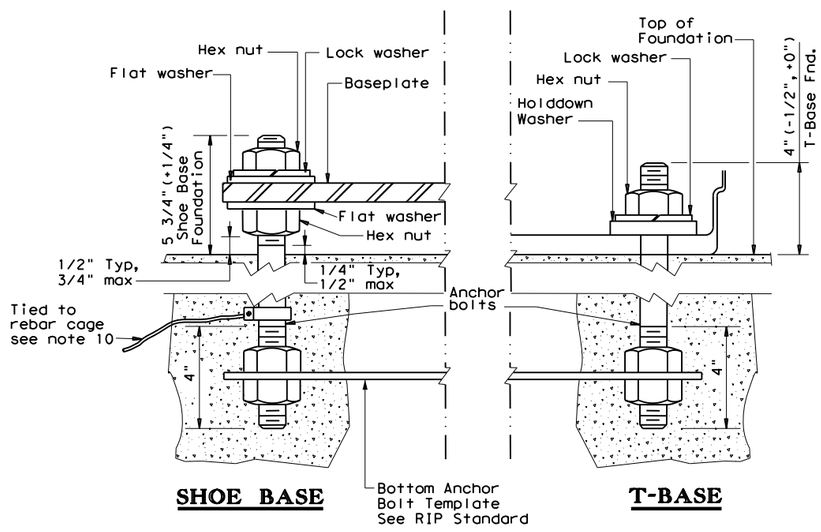
ROADWAY FUNCTIONAL CLASSIFICATION	** POLE OFFSET (DISTANCE TO FACE OF TRANSFORMER BASE)
Freeway Mainlanes (roadway with full control of access)	15 ft. (minimum and typical) from lane edge
All curbed, 45 mph or less design speed	2.5 ft. minimum (15 ft. desirable) from curb face
All others	10 ft. minimum*(15 ft. desirable) from lane edge

* or as close to ROW line as is practical

** provide 2/5 of the luminaire mounting height behind the pole for "falling area" to prevent encroachment on the other travel lanes. See design guidelines.



FOUNDATION DETAIL



SHOE BASE **T-BASE**

ANCHOR BOLT DETAIL

Texas Department of Transportation

Traffic Safety Division Standard

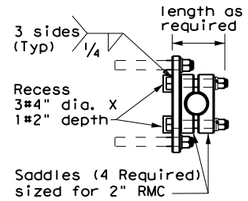
ROADWAY ILLUMINATION DETAILS
(RDWY ILLUM FOUNDATIONS)
RID(2)-20

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	WACO	BELL		123

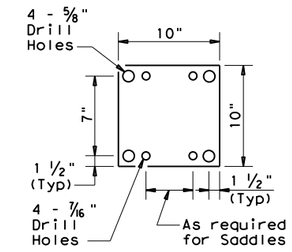
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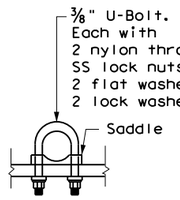
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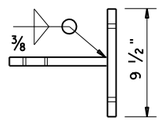
SECTION A-A



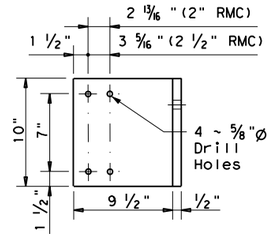
MOUNTING PLATE
(ASTM A-36 or better)



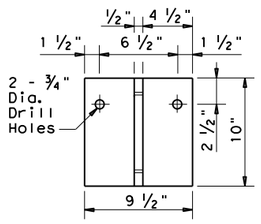
CLAMP DETAIL
(2 Req'd)



PLAN VIEW

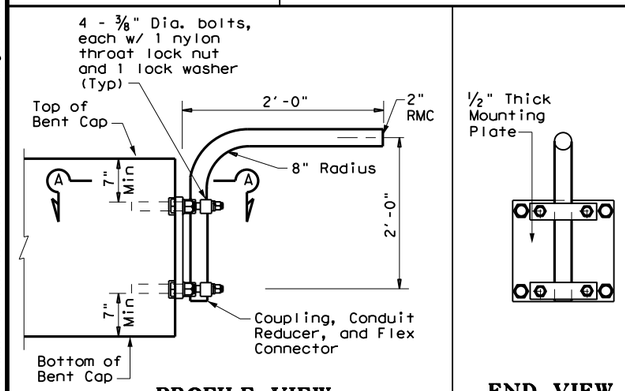


FRONT



SIDE

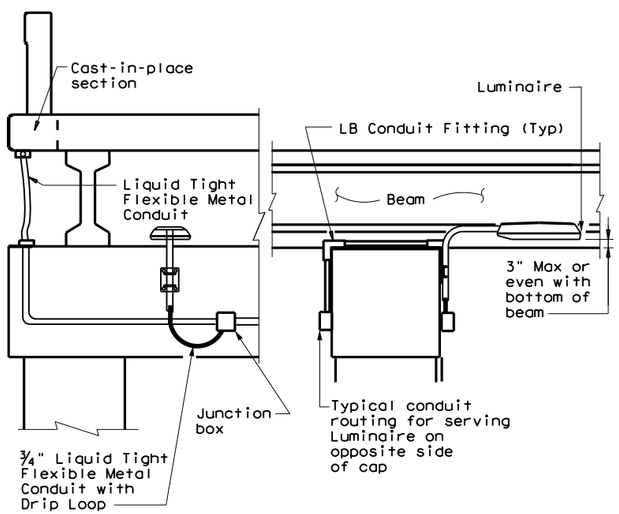
BRACKET DETAIL
Make from 1/2" plate (ASTM A-36 or better)



PROFILE VIEW
Or as Required
(See Note A.3)

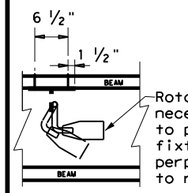
END VIEW

UNDERPASS LIGHTING ARM



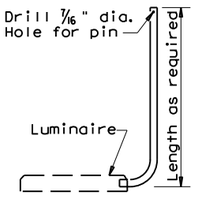
IN RD IL AM (U/P)(TY 1)
If bridge has pre-cast panels under deck, run circuit under deck edge.

UNDERPASS LIGHTING TYPE 1

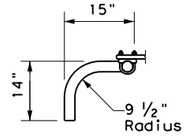


PLAN VIEW

FIXTURE ORIENTATION

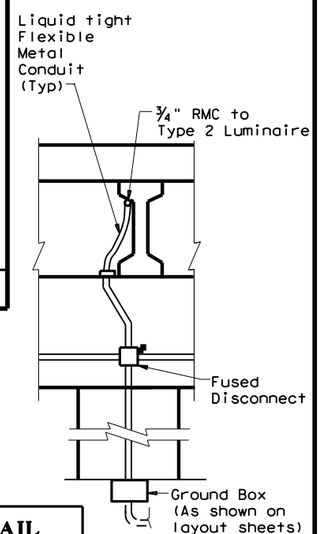


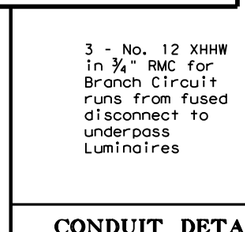
SIDE



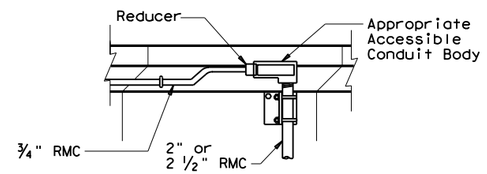
PLAN VIEW

ARM DETAIL



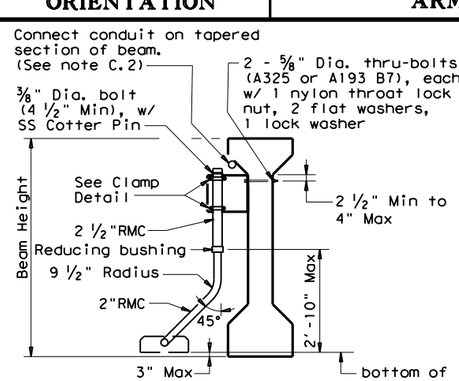


CONDUIT DETAIL



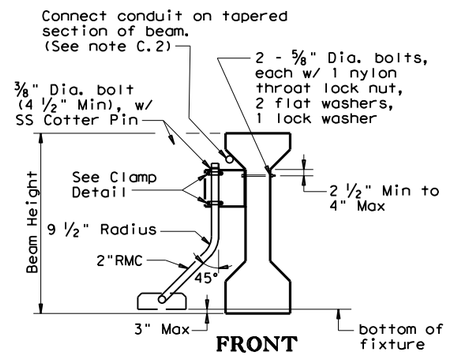
CONDUIT CONNECTION PROFILE

Connect conduit on tapered section of beam. (See note C.2)



FRONT
(Beam height greater than 54")

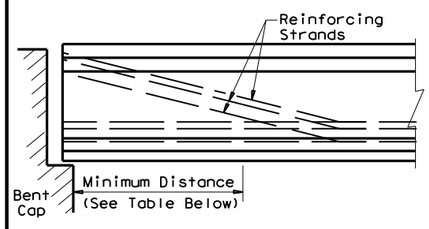
Connect conduit on tapered section of beam. (See note C.2)



FRONT
(Beam height equal to or less than 54")

IN RD IL AM (U/P)(TY 2)

UNDERPASS LIGHTING TYPE 2



LOCATION OF UNDERPASS LIGHT MOUNTING BRACKET

TABLE 5

LOCATION OF UNDERPASS LIGHT MOUNTING BRACKET TABLE

SPAN LENGTH	MINIMUM DISTANCE
≤ 50'	10'-0"
50' - 70'	15'-0"
70' - 90'	20'-0"
> 90'	25'-0"

GENERAL NOTES:

A. ALL 150 watt HPS and 150 watt equivalent LED Luminaires

1. Luminaire locations, conduit and conductor sizes and routing are typical and diagrammatic only. See project layout sheets for specific details.
2. Conduit will be paid for under Item 618, "Conduit" and conductors will be paid for under Item 620, "Electrical Conductors," unless otherwise shown on the plans.
3. Adjust conduit in saddles to place fixture height and orientation as required. See fixture orientation detail and plans. Where practicable, place luminaires so the bottom of luminaire is above the bottom of the beam, maximum of 3 in. (See detail UNDERPASS LIGHTING ARM TYPE 2)
4. Except as noted, galvanize all structural steel and exposed bolts, nuts, and washers in accordance with Item 445 "Galvanizing".
5. Fabrication of brackets and support arms will not be paid for directly but is subsidiary to Item 610, "Roadway Illumination Assemblies."
6. Install a heavy duty NEMA 3R fused disconnect or breaker enclosure rated at 30 amps and 480 volts to switch underpass luminaires as shown on plans, with at least one per bridge circuit. Install 20 amp time-delay fuses or inverse-time circuit breakers. Mount disconnect or breaker enclosure 10 ft. (min) above grade on columns or bent caps as approved by the Department. Modify disconnect to allow padlocking in the "ON" and "OFF" positions. Padlocks and disconnect switches or circuit breakers for underpass fixtures will not be paid for directly but are subsidiary to the various bid items of the contract.
7. Conduit on columns, caps, and slab is shown surface mounted. For new columns and caps, embed PVC conduit in concrete. Bond and ground metal junction boxes and conduit.

B. TYPE 1

1. Provide 2 in. rigid metal conduit (2.375" O.D., 0.146" wall) for Type 1 arm shaft.
2. Use 3/8 in. stainless steel bolt or stud non-epoxy type expansion anchors for concrete for Type 1 mounting. Except as noted, provide an allowable 2650 lbs minimum pull-out force (after consideration of adjustment factors for edge distance and bolt spacing) for each anchor. Install each anchor to the embedment depth recommended by the manufacturer.
3. Attach conduit to plate with 4 saddles, four - 3/8 in. diameter bolts, nylon throat lock nuts, and lock washers.

C. TYPE 2

1. Provide 2 in. rigid metal conduit (2.375" O.D., 0.146" wall) or provide a combination of 2 1/2 in. (2.875" O.D., 0.193" wall) and 2 in. (2.375" O.D., 0.146" wall) rigid metal conduits with a reducing bushing as beam height stipulated for Type 2 arm shaft. Field cutting and threading will be permitted. Paint cut and threaded areas with zinc rich paint after conduit is connected to adjacent fitting.
2. Connecting conduit may be strapped to tapered section only of precast beams as shown. Anchor as approved by the Engineer. Maximum anchor depth is 1 in.
3. Indiscriminate drilling into precast concrete beams may result in reduced beam strength. Use drilling location and method as directed by the Engineer. See Location of Underpass Lighting Mounting Bracket detail. The locations shown in the table are such that reinforcing strands will not be damaged.

Texas Department of Transportation

Traffic Safety Division Standard

ROADWAY ILLUMINATION DETAILS

(UNDERPASS LIGHT FIXTURES)

RID(3)-20

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7-17	WACO	BELL		124
12-20				

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SHIPPING PARTS LIST - POLES AND LUMINAIRE ARMS

Nominal Mounting Ht. (ft)	Shoe Base Designation Pole	A1	A2	Luminaire	Quantity	T-Base Designation Pole	A1	A2	Luminaire	Quantity	CSB/SSCB Mounted Designation Pole	A1	A2	Luminaire	Quantity
20	(Type SA 20 S - 4)			(150W EQ) LED		(Type SA 20 T - 4)			(150W EQ) LED						
	(Type SA 20 S - 4 - 4)			(150W EQ) LED		(Type SA 20 T - 4 - 4)			(150W EQ) LED						
30	(Type SA 30 S - 4)			(250W EQ) LED		(Type SA 30 T - 4)			(250W EQ) LED		(Type SP 28 S - 4)			(250W EQ) LED	
	(Type SA 30 S - 4 - 4)			(250W EQ) LED		(Type SA 30 T - 4 - 4)			(250W EQ) LED		(Type SP 28 S - 4 - 4)			(250W EQ) LED	
	(Type SA 30 S - 8)			(250W EQ) LED		(Type SA 30 T - 8)			(250W EQ) LED		(Type SP 28 S - 8)			(250W EQ) LED	
	(Type SA 30 S - 8 - 8)			(250W EQ) LED		(Type SA 30 T - 8 - 8)			(250W EQ) LED		(Type SP 28 S - 8 - 8)			(250W EQ) LED	
40	(Type SA 40 S - 4)			(250W EQ) LED		(Type SA 40 T - 4)			(250W EQ) LED		(Type SP 38 S - 4)			(250W EQ) LED	
	(Type SA 40 S - 4 - 4)			(250W EQ) LED		(Type SA 40 T - 4 - 4)			(250W EQ) LED		(Type SP 38 S - 4 - 4)			(250W EQ) LED	
	(Type SA 40 S - 8)			(250W EQ) LED		(Type SA 40 T - 8)			(250W EQ) LED		(Type SP 38 S - 8)			(250W EQ) LED	
	(Type SA 40 S - 8 - 8)			(250W EQ) LED		(Type SA 40 T - 8 - 8)			(250W EQ) LED		(Type SP 38 S - 8 - 8)			(250W EQ) LED	
	(Type SA 40 S - 10)			(250W EQ) LED		(Type SA 40 T - 10)			(250W EQ) LED		(Type SP 38 S - 10)			(250W EQ) LED	
	(Type SA 40 S - 10 - 10)			(250W EQ) LED		(Type SA 40 T - 10 - 10)			(250W EQ) LED		(Type SP 38 S - 10 - 10)			(250W EQ) LED	
	(Type SA 40 S - 12)			(250W EQ) LED		(Type SA 40 T - 12)			(250W EQ) LED		(Type SP 38 S - 12)			(250W EQ) LED	
	(Type SA 40 S - 12 - 12)			(250W EQ) LED		(Type SA 40 T - 12 - 12)			(250W EQ) LED		(Type SP 38 S - 12 - 12)			(250W EQ) LED	
50	(Type SA 50 S - 4)			(400W EQ) LED		(Type SA 50 T - 4)			(400W EQ) LED		(Type SP 48 S - 4)			(400W EQ) LED	
	(Type SA 50 S - 4 - 4)			(400W EQ) LED		(Type SA 50 T - 4 - 4)			(400W EQ) LED		(Type SP 48 S - 4 - 4)			(400W EQ) LED	
	(Type SA 50 S - 8)			(400W EQ) LED		(Type SA 50 T - 8)			(400W EQ) LED		(Type SP 48 S - 8)			(400W EQ) LED	
	(Type SA 50 S - 8 - 8)			(400W EQ) LED		(Type SA 50 T - 8 - 8)			(400W EQ) LED		(Type SP 48 S - 8 - 8)			(400W EQ) LED	
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	(Type SA 50 S - 10 - 10)			(400W EQ) LED		(Type SA 50 T - 10 - 10)			(400W EQ) LED		(Type SP 48 S - 10 - 10)			(400W EQ) LED	
	(Type SA 50 S - 12)			(400W EQ) LED		(Type SA 50 T - 12)			(400W EQ) LED		(Type SP 48 S - 12)			(400W EQ) LED	
	(Type SA 50 S - 12 - 12)			(400W EQ) LED		(Type SA 50 T - 12 - 12)			(400W EQ) LED		(Type SP 48 S - 12 - 12)			(400W EQ) LED	

OTHER Designation Pole	A1	A2	Luminaire	Quantity

GENERAL NOTES:

1. All work, materials and services not shown on the plans which may be necessary for complete and proper construction shall be performed, furnished and installed by the Contractor. Faulty fabrication or poor workmanship in any material, equipment or installation will be considered justification for rejection. Where manufacturers provide warranties or guarantees as a customary trade practice, furnish to the Department such warranties or guarantees.

2. The location of poles and fixtures are diagrammatic only and may be shifted by the Engineer to accommodate local conditions. Install or remove poles and luminaires located near overhead electrical lines using established industry and utility safety practices and in accordance with laws governing such work. Consult with the appropriate utility company prior to beginning such work.

3. Standard Steel Pole Designs. Steel poles fabricated in accordance with the details and dimensions shown herein, shall be considered standard designs. Submission of shop drawings and design calculations for standard designs is not required.

4. Optional Steel Pole Designs. Multi-sided steel poles may be allowed as optional designs, if steel poles are permitted or required, pending approval by the Department as outlined below.

   a. Shop Drawings. Optional designs require submission of shop drawings and design calculations bearing the seal of an engineer licensed in the State of Texas, in accordance with Item 441, "Steel Structures." The Department may elect to pre-approve some shop drawings for optionally designed poles. Submission of shop drawings and design calculations is not required for structures fabricated in accordance with the details of shop drawings on the pre-approved list maintained by the TxDOT Traffic Operations Division. Any deviation from the pre-approved shop drawings will require submission of shop drawings of the complete assembly and design calculations as described above.
   b. Structural Support Design for Luminaires. Lighting support structures shall be designed for a 25 year design life in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 6th Edition (2013) and Interim Revisions thereto. All poles shall be designed for 110 mph 3-second gust wind speeds. The Gust Factor, G, and Wind Importance Factor, Ir, shall be applied as per the AASHTO Specifications assuming a 25-year design life. The design wind pressure for hurricane wind velocities greater than 100 mph shall not be less than the design wind pressure using 100 mph with the non-hurricane Wind Importance Factor, Ir, value. For transformer base poles, fabricator shall include transformer base and connecting hardware in design calculations and shop drawing submittals. All transformer bases shall have been structurally tested to resist the theoretical plastic moment capacity of the pole. Certification of the plastic moment load test and FHWA breakaway requirement test of the model of base being furnished shall be submitted with the shop drawings. Shop drawings shall show breakaway base model number, and manufacturer's name and logo. Manufacturer's shop drawings shall include the ASTM designations for all materials to be used.
   c. Mast Arm Attachments. All poles and attachments shall be structurally designed to support two 12-foot mast arms and luminaires. Poles shall be supplied with mast arm combinations as shown in the plans. All mast arms shall be designed for a 60-pound luminaire having an effective projected area of 1.6 square feet.
   d. Anchor Bolt Assembly. Anchor bolt assemblies for optionally designed poles shall be the same as those shown herein.

5. Aluminum Pole Designs. Aluminum pole designs may be allowed, if aluminum poles are permitted or required, pending approval by the Department as outlined below.

   a. Meet all of the requirements stated above for optional steel pole designs and the following:
      1. Aluminum poles shall be fabricated in accordance with "Structural Welding Code-Aluminum" AWS D1.2.
      2. Aluminum pole designs shall use the same anchor bolt assembly and be subject to the same geometric restraints and other requirements for steel poles specified herein.
      3. Aluminum poles shall be equipped with vibration mitigation devices, as approved by the engineer.
      4. Pole components shall be constructed using the following material:
         Shaft: ASTM B221 or B241 Alloy 6063-T6, ASTM B209 Alloy 5086-H34, ASTM B221 Alloy 6005-T5.
         Base Flange: ASTM B26 Alloy 356.0-T6 or ASTM B108 Alloy 356.0-T6 (Yield strength test required).
         Mast Arm Fitting: ASTM B209 Alloy 6061-T6 or ASTM B221 Alloy 6005-T5.
         Mast Arms: ASTM B241 Alloy 6061-T6 or Alloy 6063-T6.
         Pole Cap: ASTM B209 Alloy 5086-H32 or ASTM B108 or B26 Alloy 356.0-T6.
         Bolts: Stainless Steel AISI 300 series. Bolts threading into aluminum threads shall be treated with anti-seize compound, Never-Seez Compound, Permatex 133K or equal.

6. Special Designs. Poles with architectural treatments shall meet the requirements shown elsewhere in the plans.

7. Luminaire Mounting Height. Actual luminaire mounting height shall be the nominal mounting height given on RIP(2) for all pole-arm combinations except for poles with 4 ft. luminaire arms, which shall be 3'-0" lower than the nominal height, unless otherwise shown or directed.

EXPLANATION OF ROADWAY ILLUMINATION ASSEMBLY DESIGNATIONS

(TYPE SA 50 T - X - X) (400W EQ) LED

- SA: Pole and mast arm may be steel or aluminum.
- ST: Pole and mast arm must be steel.
- AL: Pole and mast arm must be aluminum.
- SP: Special (ovalized) steel or aluminum pole for installing on CSB or SSCB. See standard sheet CSB (4), or SSCB (4).

Two numerical digits denote nominal mounting height in feet.

Next letter denotes type of base, (S-Shoe Base, T-Transformer Base, or B-Bridge/Ret.Wall Mount)

First number denotes length of mast arm in feet.

Use of second mast arm is indicated by second dashed number which denotes length in feet.

Luminaire rating in watts (i.e. 400W). Equivalent wattage LED fixtures will include EQ (i.e. 400W EQ)

Last letters indicate light source (S - High Pressure Sodium; LED - LED luminaire)

SHEET 1 OF 4

Texas Department of Transportation

Traffic Safety Division Standard

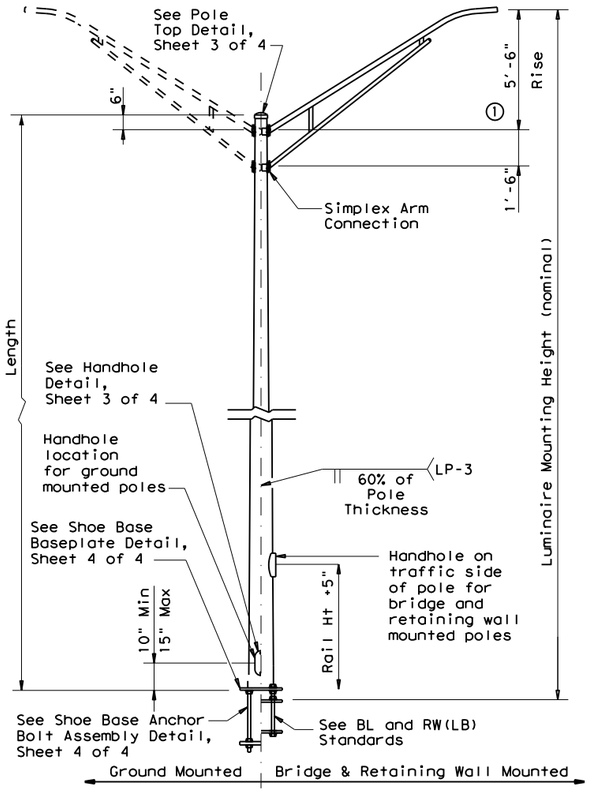
ROADWAY ILLUMINATION POLES

RIP(1)-19

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	WACO	BELL		125

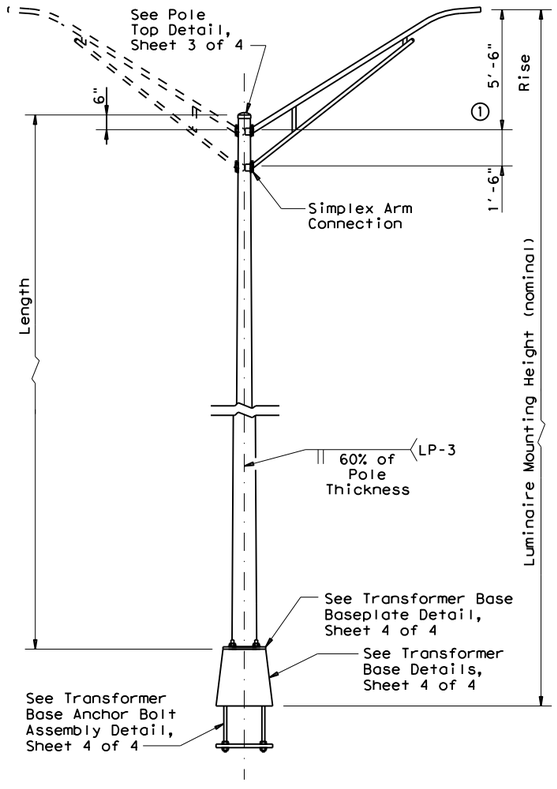
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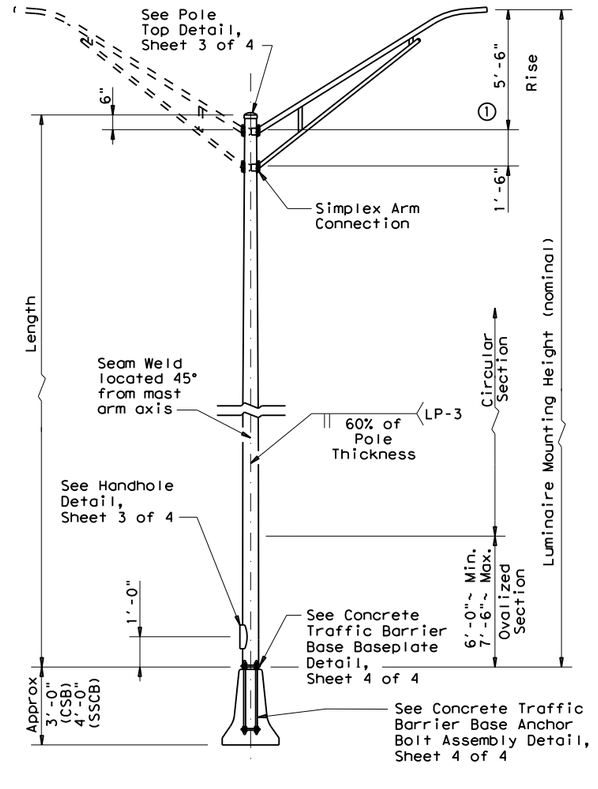
SHOE BASE POLE

SHOE BASE POLE					
Luminaire Mounting Height (Nominal) (ft)	Base Diameter (in)	Top Diameter (in)	Length (ft)	Pole Thickness (in)	Design Moment (K-ft)
20.00	7.00	4.90	15.00	0.1196	7.1
30.00	7.50	4.00	25.00	0.1196	13.2
31.00-39.00	8.00	4.36-3.24	26.00-34.00	0.1196	20.7
40.00	8.50	3.60	35.00	0.1196	20.7
50.00	10.50	4.20	45.00	0.1196	30.3



TRANSFORMER BASE POLE

TRANSFORMER BASE POLE					
Luminaire Mounting Height (Nominal) (ft)	Base Diameter (in)	Top Diameter (in)	Length (ft)	Pole Thickness (in)	Design Moment (K-ft)
20.00	7.00	5.11	13.50	0.1196	7.1
30.00	7.50	4.21	23.50	0.1196	13.2
31.00-39.00	8.00	4.57-3.45	24.50-32.50	0.1196	20.7
40.00	8.50	3.81	33.50	0.1196	20.7
50.00	10.00	3.91	43.50	0.1196	30.3



CONCRETE TRAFFIC BARRIER BASE POLE

CONCRETE TRAFFIC BARRIER BASE POLE (CSB/SSCB)						
Luminaire Mounting Height (Nominal) (ft)	Base ② Diameter (in)	Top Diameter (in)	Length (ft)	Pole Thickness (in)	Design Moment (K-ft)	
					About ℄ of Rail	Perp. to Rail
28.00	9.00	5.78	23.00	0.1196	10.3	13.2
38.00	9.00	4.38	33.00	0.1196	16.6	20.8
48.00	10.50	4.48	43.00	0.1345	25.1	30.5

MATERIAL DATA		
COMPONENT	ASTM DESIGNATION	MIN. YIELD (ksi)
Pole Shaft (0.14"/ft. Taper)	A572 Gr 50, A595 Gr A, A1011 HSLAS Gr 50 Cl 2 ③, or A1008 HSLAS Gr 50 Cl 2	50
Base Plate and Handhole Frame	A572 Gr.50, or A36	36
T-Base Connecting Bolts	F3125 Gr A325	92
Anchor Bolts	F1554 Gr 55, A193-B7 or A321	55 105
Anchor Bolt Templates	A36	36
Heavy Hex (H.H.) Nuts	A194 Gr 2H, or A563 Gr DH	
Flat Washers	F436	

NOTES:

① 2'-6" rise for 4 ft. luminaire arms.

② Before ovalized as shown on Concrete Traffic Barrier Base Baseplate details, Sheet 4 of 4.

③ A1011 SS Gr 50 may be used instead of HSLAS, provided the material meets the elongation requirements for HSLAS.

POLE ASSEMBLY FABRICATION TOLERANCES TABLE

DIMENSION	TOLERANCE
Shaft length	+1"
I.D. of outside piece of slip fitting pieces	+1/8", -1/16"
O.D. of inside piece of slip fitting pieces	+1/32", -1/8"
Shaft diameter: other	+3/16"
Out of "round"	1/4"
Straightness of shaft	±1/4" in 10 ft
Twist in multi-sided shaft	4° in 50 ft
Perpendicular to baseplate	1/8" in 24"
Pole centered on baseplate	±1/4"
Location of Attachments	±1/4"
Bolt hole spacing	±1/16"

GENERAL NOTES:

1. Designs conform to AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals , 6th Edition (2013) and Interim Revisions thereto. Design 3-Second Gust Wind Speed equals 110 mph with a 1.14 gust factor. A wind importance factor of 0.80 is applied to adjust the wind speed to a 25 year recurrence interval. Design moments listed in tables assume base of pole is 25' above natural ground level.
2. Structures are designed to support two 12' luminaire mast arms and luminaires. Mast arms are designed to support a 60-pound luminaire having an effective projected area of 1.6 square feet.
3. Fabrication shall be in accordance with the Specifications and with the details, dimensions, and weld procedures shown herein. Do not submit shop drawings for roadway illumination pole assemblies fabricated in accordance with the details, dimensions, and weld procedures shown herein. Weld references call for preapproved weld procedures which the Fabricator must obtain prior to fabrication. Materials, fabrication tolerances, and shipping practices shall meet the requirements of these sheets and the Specifications. In the absence of specified fabrication tolerances, dimensions shall be within the tolerances generally obtainable in normal fabrication practice.
4. For mounting heights between values shown in the tables, use base diameter and thickness values for the larger height.
5. Unless otherwise noted, all steel parts shall be galvanized in accordance with Item 445, "Galvanizing."
6. Steel poles shall be fabricated in accordance with Item 441, "Steel Structures." Longitudinal seam welds for pole sections shall have 60% minimum penetration. All welding shall be in accordance with AWS D1.1, Structural Welding Code-Steel.
7. Two-section poles joined by circumferential welds will not be permitted, unless otherwise shown on the plans. Poles may be fabricated in two sections and field-assembled by the lap-joint method. The two sections shall telescope together with a lap length of not less than 1-1/2 times the shaft diameter at the lap joint.
8. Alternate material equal to or better than material specified may be substituted with the approval of the Engineer.
9. Lubricate and tighten anchor bolts, when erecting shoe base poles and concrete traffic barrier base poles, in accordance with Item 449, "Anchor Bolts."
10. All poles, except Transformer Base Poles, shall have hand holes with reinforcing frames and covers. For ground mounted shoe base poles, hand holes shall be placed 90 degrees to mast arm unless otherwise noted on the plans. For poles mounted on a concrete traffic barrier with one luminaire arm, hand holes shall be located 180 degrees from luminaire arm. For poles mounted on a concrete traffic barrier with two luminaire arms, all hand holes shall be on the same side of the barrier. For poles mounted on a bridge lighting bracket or a retaining wall lighting bracket, hand hole shall be on traffic side of the pole, at a height that will clear the barrier.
11. The finished pole shall have a smooth, uniform finish free of pits, blisters, or other defects. Scratched, chipped, and other damaged galvanized areas on poles and mast arms shall be repaired in accordance with Item 445, "Galvanizing."
12. Pole length is based on a 5'-6" luminaire arm rise. 4 ft. luminaire arms have a 2'-6" rise. A pole with 4 ft. luminaire arms will have an actual mounting height 3'-0" less than the nominal mounting height. Increasing the pole length to meet the nominal mounting height is allowed, but unnecessary unless otherwise directed by the engineer.
13. Erect transformer base poles in accordance with sheet RID(1).

Texas Department of Transportation | Traffic Safety Division Standard

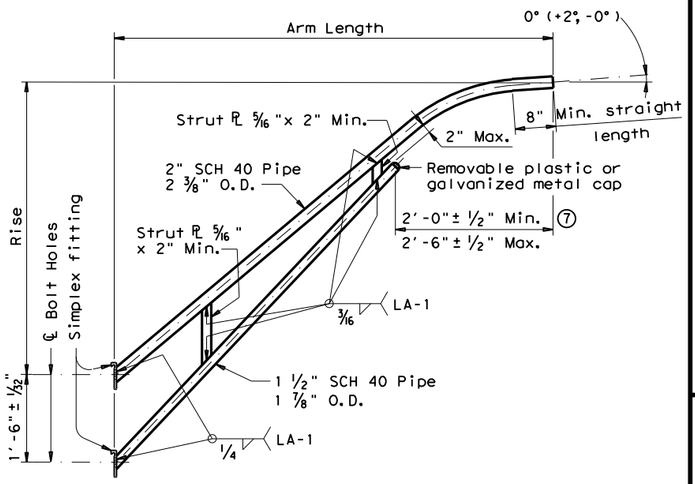
ROADWAY ILLUMINATION POLES

RIP(2)-19

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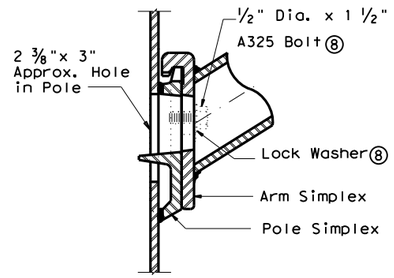
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LUMINAIRE ARM

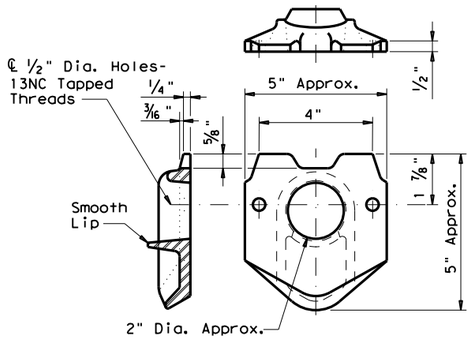
LUMINAIRE ARM DIMENSIONS		
Nominal Arm Length	Arm Length	Rise
4'-0"	3'-6"	2'-6"
6'-0"	5'-6"	5'-6"
8'-0"	7'-6"	5'-6"
10'-0"	9'-6"	5'-6"
12'-0"	11'-6"	5'-6"

ARM ASSEMBLY FABRICATION TOLERANCES TABLE	
DIMENSION	TOLERANCE
Arm Length	±1"
Arm Rise	±1"
Deviation from flat	1/8" in 12"
Spacing between holes	±1/32"

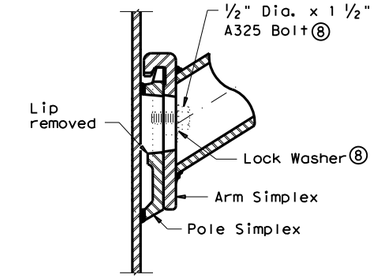


UPPER SIMPLEX FITTING

(Gusset not shown for clarity)



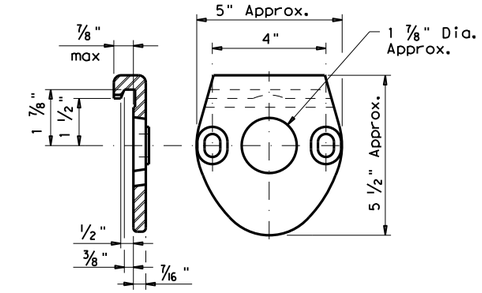
POLE SIMPLEX DETAIL ⑨



LOWER SIMPLEX FITTING

(Gusset not shown for clarity)

SECTION B-B



ARM SIMPLEX DETAIL ⑨

NOTES:

④ Any of the materials listed for plates may be used where the drawings do not specify a particular ASTM designation.

⑤ A576 must be suitable for forging and also meet minimum tensile strength of 65 ksi, minimum yield of 35 ksi, and elongation in 2 inches of 22 percent.

⑥ A572, A1008 HSLAS-F, and A1011 HSLAS-F materials may have higher yield strengths but shall not have less elongation than the grade indicated.

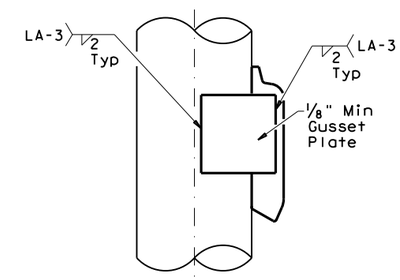
⑦ Dimensional limits are given to show acceptable variation in design. All of a Fabricator's production of a particular arm length shall have the same dimensions within specified tolerances.

⑧ Each pole simplex fitting shall be supplied with 2 bolts and 2 lock washers of the size specified. The bolts and lock washers shall be secured to the pole with the other hardware items called for in the plans.

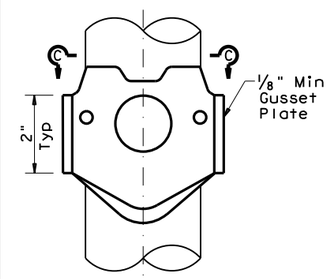
⑨ Proposed deviations in arm simplex dimensions or materials must be submitted to the Department for approval.

⑩ A welded handhole frame is permissible. Maximum of two (2) CJP weld splices is allowed.

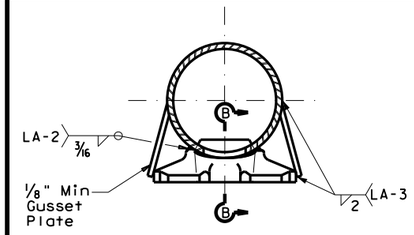
MATERIALS	
Pole or Arm Simplex	ASTM A27 Gr 65-35 or Gr 70-36, A148 Gr 80-50, A576 Gr 1021 ⑤, or A36 (Arm only)
Arm Pipes	ASTM A53 Gr A or B, A500 Gr B, A501, A 1008 HSLAS-F Gr 50 ⑥, or A1011 HSLAS-F Gr 50 ⑥
Arm Struts and Gusset Plates ④	ASTM A36, A572 Gr 50 ⑥, or A588
Misc.	ASTM designations as noted



SIDE

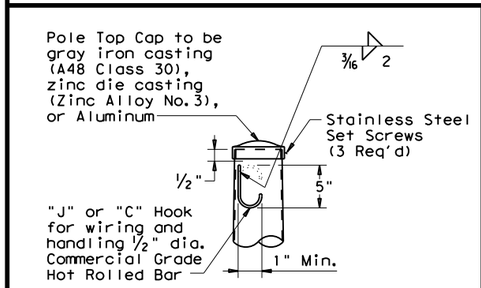


ELEVATION

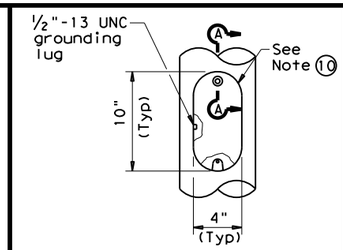


SECTION C-C

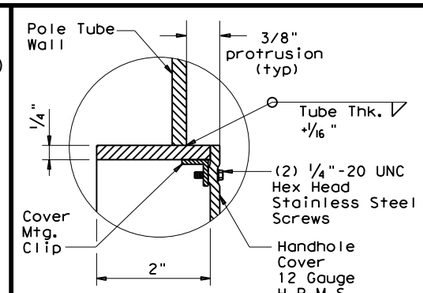
SIMPLEX ATTACHMENT DETAIL



POLE TOP



ELEVATION



SECTION A-A

HANDHOLE

SHEET 3 OF 4

Texas Department of Transportation

Traffic Safety Division Standard

ROADWAY ILLUMINATION POLES

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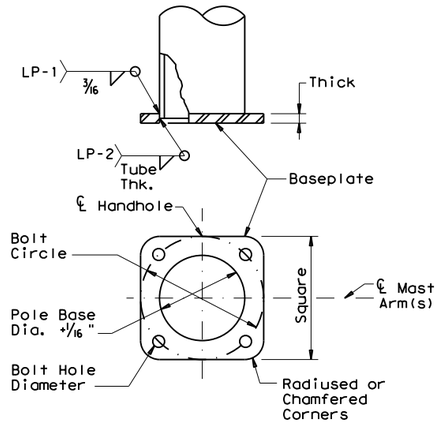
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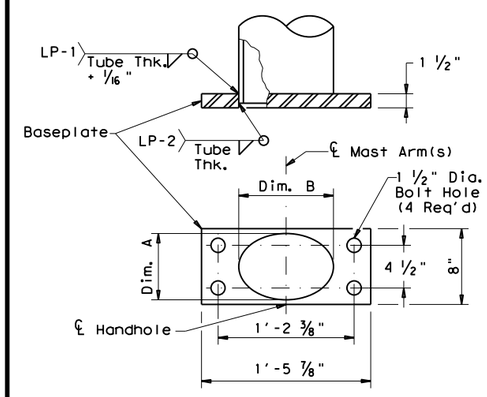
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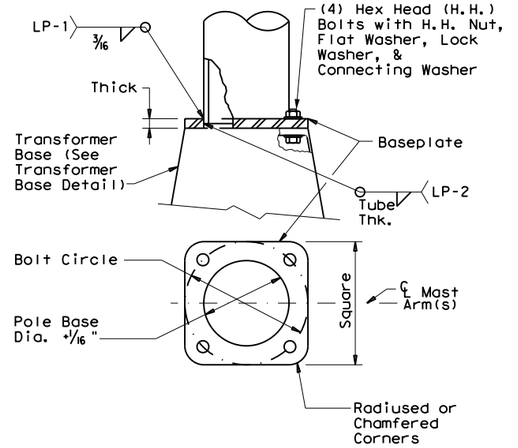
SHOE BASE BASEPLATE

SHOE BASE BASEPLATE TABLE				
MOUNTING HEIGHTS (nominal)	BOLT CIRCLE	SQUARE	THICK	BOLT HOLE DIAMETER
20' - 39'	13"	13"	1 1/4"	1 1/4"
40'	15"	15"	1 1/4"	1 1/2"
50'	15"	15"	1 1/2"	1 1/2"



CONCRETE TRAFFIC BARRIER BASE BASEPLATE

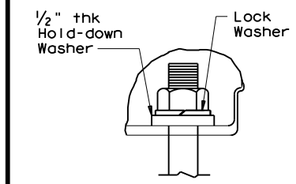
CONCRETE TRAFFIC BARRIER BASE BASEPLATE TABLE			
MOUNTING HEIGHTS (nominal)	POLE DIA.(12)	DIM. A	DIM. B
28' - 38'	9"	7" ± 1/4"	10" ± 1/4"
48'	10 1/2"	7" ± 1/4"	13" ± 1/4"



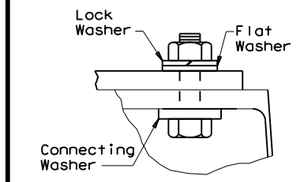
TRANSFORMER BASE BASEPLATE

TRANSFORMER BASE BASEPLATE TABLE						
MOUNTING HEIGHTS (nominal)	BOLT CIRCLE	SQUARE	THICK	CONNECTING BOLT DIA.	BOLT HOLE DIAMETER	TRANSFOMER BASE TYPE
20' - 39'	13"	13"	1 1/4"	1"	1 1/4"	A
40'	15"	15"	1 1/4"	1 1/4"	1 1/2"	B
50'	15"	15"	1 1/2"	1 1/4"	1 1/2"	B

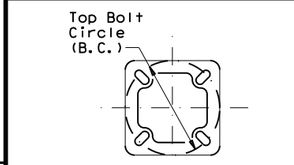
TRANSFORMER BASE TABLE		
TYPE	TOP B.C.	BTM. B.C.
A	13"	14"
B	15"	17 1/4"



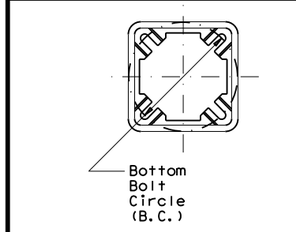
DETAIL A



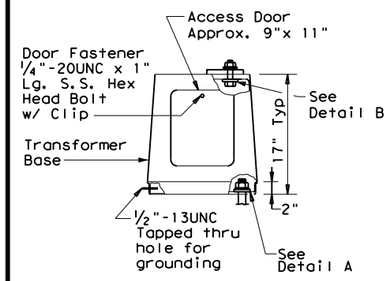
DETAIL B



TOP PLAN



BOTTOM PLAN



ELEVATION

TRANSFORMER BASE DETAILS

GENERAL NOTES:

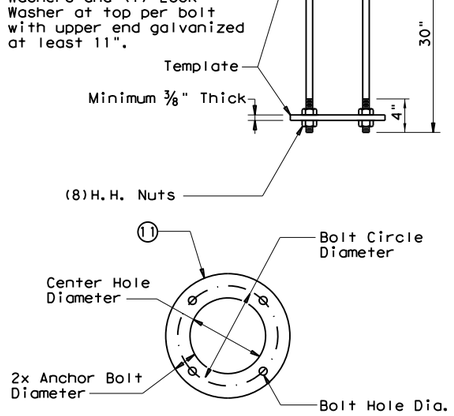
1. For mounting heights between those shown in the table, use the values in the table for the larger mounting height.
2. All breakaway bases shall meet the breakaway requirements of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 6th Edition (2013) and Interim Revisions thereto, and shall have been tested by FHWA-approved methods. All bases shall have been structurally tested to resist 150% of the design moment.
3. Transformer bases shall be cast from aluminum, ASTM B108 or B26 Alloy 356.0-T6, or other material approved by the Engineer. Four Hex Head (H.H.) bolts with four H.H. nuts, four lock washers, four flat washers, and connecting and hold-down washers as recommended by the manufacturer, galvanized to ASTM A153 Class C or D, or B695 Class 50, shall be provided with each transformer base for connecting the pole. Bolts shall be ASTM A325 or approved equal. Nuts shall be ASTM A563 grade DH galvanized.
4. Bases shall be stamped, incised or by other approved permanent means, marked to show fabricator's name or logo, and model number. Such information shall be placed in a readily seen location, inside or outside the base, but shall not be placed on the door.
5. Doors for transformer bases shall be made of plastic, fiberglass or other non-metallic material approved by the Engineer and shall be attached with stainless steel screws or bolts. Transformer bases shall be cleaned by grit blast cleaning after heat treatment. Certification by the manufacturer of heat treatment shall be furnished with transformer bases. The certification shall show the metal alloy and temper and that the base meets those requirements, chemical and physical. The certification shall also show the material ASTM specification. Transformer bases shall be cast with a removable tab bar for material testing. Some bars may have been removed by the manufacturer for testing.

NOTES:

(11) Anchor Bolt Templates do not need to be galvanized.

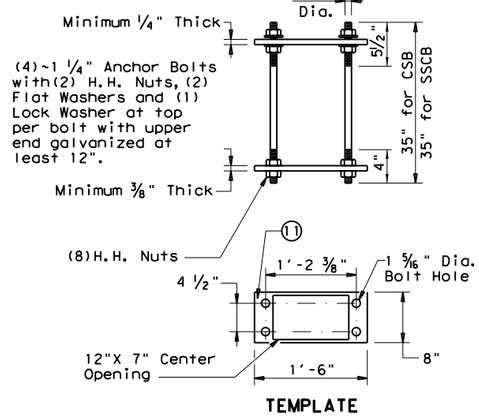
(12) Pole diameter before ovalized.

ANCHOR BOLT FABRICATION TOLERANCES TABLE	
DIMENSION	TOLERANCE
Length	± 1/2"
Threaded length	± 1/2"
Galvanized length (if required)	- 1/4"



SHOE BASE ANCHOR BOLT ASSEMBLY

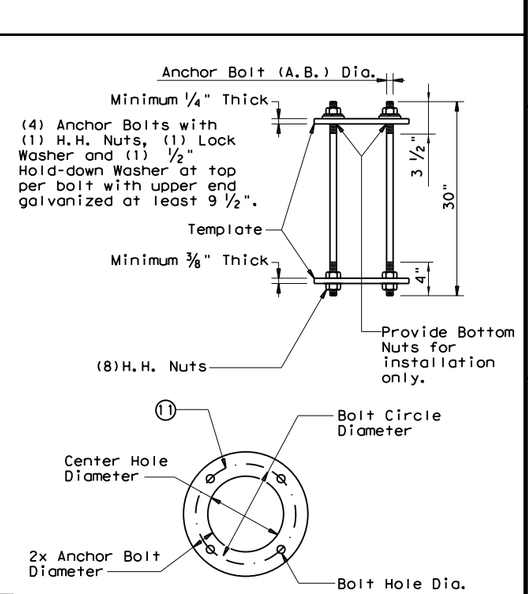
SHOE BASE ANCHOR BOLT ASSEMBLY TABLE				
MOUNTING HEIGHTS (nominal)	A.B. Dia.	BOLT CIRCLE DIAMETER	CTR. HOLE DIAMETER	BOLT HOLE DIAMETER
20'-39'	1"	13"	11"	1 1/16"
40'-50'	1 1/4"	15"	12 1/2"	1 5/16"



TEMPLATE

CONCRETE TRAFFIC BARRIER BASE ANCHOR BOLT ASSEMBLY

TRANSFORMER BASE ANCHOR BOLT ASSEMBLY TABLE				
MOUNTING HEIGHTS (nominal)	A.B. Dia.	BOLT CIRCLE DIAMETER	CTR. HOLE DIAMETER	BOLT HOLE DIAMETER
20' - 39'	1"	14"	12"	1 1/16"
40' - 50'	1 1/4"	17 1/4"	14 3/4"	1 5/16"



TRANSFORMER BASE ANCHOR BOLT ASSEMBLY

SHEET 4 OF 4

Texas Department of Transportation

Traffic Safety Division Standard

ROADWAY ILLUMINATION POLES

RIP(4)-19

FILE: rip-19.dgn	DN:	CK:	DW:	CK:
©TxDOT January 2007	CONT	SECT	JOB	HIGHWAY
REVISIONS 7-17 12-19	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		128

730

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DELINEATOR - BID ITEM DESCRIPTIONS

XXXXX DEL ASSM (D-XX)SZ X (XXXX)XXXXX(XX)

PAYMENT
- *INSTL = Installation*
- *REPLC = Replacement*

NUMBER OF REFLECTORS
- *S = Single*
- *D = Double*

COLOR OF REFLECTORS
- *W = White*
- *Y = Yellow*
- *R = Red*

REFLECTOR UNIT SIZE
- *SZ 1 or SZ 2 or SZ 5 or SZ 6*

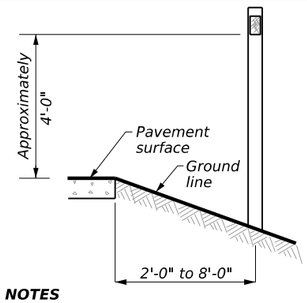
TYPE OF POST OR DELINEATOR
- *WC = Wing Channel Post*
- *YFLX = Yellow Flexible Post*
- *WFLX = White Flexible Post*
- *BRF = Barrier Reflector*

TYPE OF MOUNT
- *GND = Ground Embedded (drivable or set in concrete)*
- *CAB1 or CAB2 or CAB3 = Cable Barrier*
- *CTB = Concrete Traffic Barrier*
- *GF1 or GF2 = Guard Fence*
- *SRF = Surface Mount*

IDENTIFICATION
- *LL= Low Speed, Low Impact*
- *HH = High Speed, High Impact*

DIRECTION [if required]
- *BI = Bi-Directional*
- *BR = Bi-Directional with red on back*

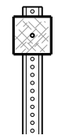
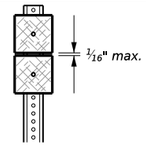
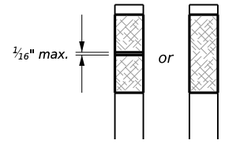
DELINEATOR - TYPICAL INSTALLATION



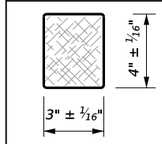
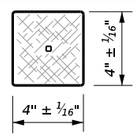
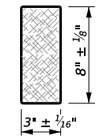
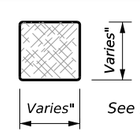
DELINEATOR DEFINITION

Retroreflective devices mounted on the roadway surface or at the side of the roadway in a series to indicate the alignment of the roadway, especially at night or in adverse weather. (See TMUTCD - Part 3, DELINEATORS.)

SINGLE AND DOUBLE MOUNTED DELINEATORS

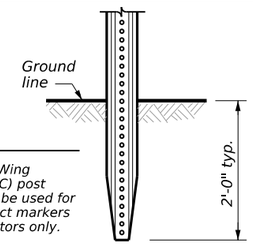
	SINGLE		***DOUBLE***	
DEVICE	 *1-Size 2 reflector unit*	 *1-Size 1 reflector unit*	 *2-Size 2 reflector units*	 *2-Size 1 reflector units or 1-Size 5 reflector unit*
POST TYPE	*WC*	*YFLX, WFLX*	*WC*	*YFLX, WFLX*
MOUNT TYPE	*GNDLL*	*GNDLL, GNDHH, SRFLL, SRFHH*	*GNDLL*	*GNDLL, GNDHH, SRFLL, SRFHH*

REFLECTOR UNIT DIMENSIONS FOR DELINEATORS

	SIZE 1	***SIZE 2***	***SIZE 5***	***SIZE 6***
DEVICE				 *See Note 3*
SHEETING	*Yellow, White, or Red Type B or C reflective sheeting*			
NOTES	*1. Size 1 and 5 - Direct applied reflective sheeting for use on flexible post (flx).* *2. Size 2 - For use on wing channel (wc) post only. Use approved metal, plastic, or fiberglass backplate with 17/64" mounting holes.* *3. Size 6 - For use on cable barrier systems only. Direct applied reflective sheeting. Various dimensions as specified elsewhere in the plans or as defined by the manufacturer.*			

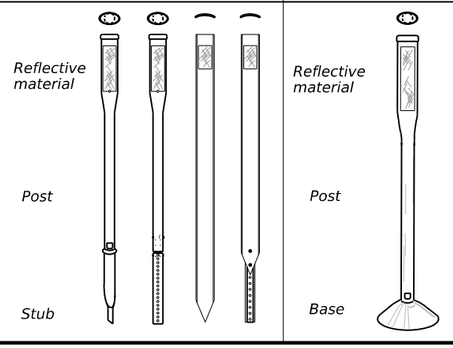
POST TYPE AND SUPPORT FOUNDATION DETAILS

WING CHANNEL (WC) — *GND*



NOTES
1. *See Embedded Wing Channel (WC) post option may be used for Type 2 object markers and delineators only.*
2. *1.12 lbs/ft steel per ASTM A 1011 SS Gr.50, or ASTM A499.*

FLEXIBLE POSTS (YFLX, WFLX) — *GND* | *SRF*



NOTES
1. *See "Flexible Delineator and Object Marker Posts" Material Producer List for approved devices.*
2. *Install per manufacturer's recommendations.*
3. *Post length may vary to meet field conditions.*

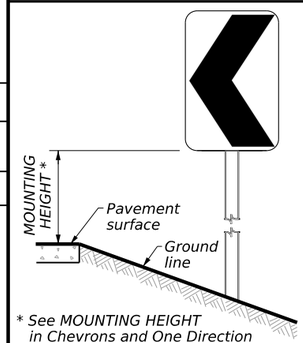
CHEVRONS

DEVICE				
	W1-8			
SIZE (W x L)	*18"x 24" (Conventional)*	*24"x 30" (Conventional oversize)*	*30"x 36" (Expressway)*	*36" x 48" (Freeway)*
MOUNTING HEIGHT	*4'-0" to 4'-6" or 7'-0" to 7'-6"*		*7'-0" to 7'-6"*	

ONE DIRECTION LARGE ARROW

DEVICE		
	W1-6	
SIZE (W x L)	*48"x 24" (Conventional)*	*60" x 30" (Expressway & Freeway)*
MOUNTING HEIGHT	*7'-0" to 7'-6"*	
NOTES	*1. Chevron Alignment (W1-8) signs and One-Direction Large Arrow (W1-6) signs shall be installed per Sign Mounting Details (SMD) Standard Sheets and paid under Item 644 (Small Roadside Sign Assemblies).* *2. When there is a need to increase conspicuity, a larger One-Direction Large Arrow (W1-9T) sign may be used in lieu of the typical W1-6 sign.*	

CHEVRONS AND ONE DIRECTION LARGE ARROW SIGNS TYPICAL INSTALLATION



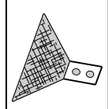
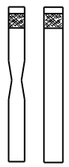
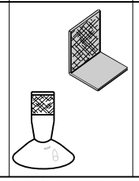
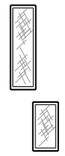
** See MOUNTING HEIGHT in Chevrons and One Direction Large Arrow tables.*

GENERAL NOTES
1. *Place delineators on a section of roadway at a consistent distance from the edge of pavement.*
2. *When delineators are more than 8'-0" from the edge of the pavement, it may not be possible to maintain a height of approximately 4'-0". If this is the case, place the delineator as close to the desired height as possible.*
3. *Install all delineators and barrier reflectors in accordance with the manufacturer's recommendation.*
4. *GF1, GF2, and CTB barrier reflectors should be installed a minimum of 18 inches above the edge of the pavement surface.*
5. *When using yellow delineators with flexible posts to separate opposing direction of travel, such as centerline or median use, the flexible posts shall be yellow.*
6. *Delineator substrates and sign substrates shall be 0.080" aluminum sign blank and confrom to ASTM B-209 Alloy 6061-T6 or an approved alternative.*

DEPARTMENTAL MATERIAL SPECIFICATIONS

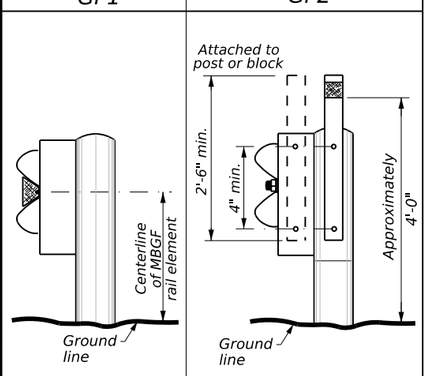
FLEXIBLE DELINEATOR & OBJECT MARKER POSTS (EMBEDDED & SURFACE MOUNT TYPES)	*DMS-4400*
SIGN FACE MATERIALS	*DMS-8300*
DELINEATORS, OBJECT MARKERS AND BARRIER REFLECTORS	*DMS-8600*

BARRIER REFLECTORS (BRF)

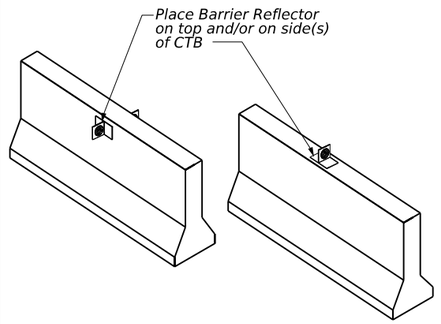
	GF1	***GF2***	***CTB***	***CAB1***	***CAB2***	***CAB3***
DEVICE						
	1. Barrier reflectors shall meet the requirements of DMS-8600. *2. Approved barrier reflectors are listed on the "Barrier Reflectors" Material Producer List at: www.txdot.gov.* *3. GF2 and CAB3 are coded as "YFLX" or "WFLX" instead of "BRF".* *4. CAB1, CAB2, and CAB3 are only to be used as replacements. Per Item 543, original installation is to be considered subsidiary to the Cable Barrier System.*					
SHEETING	*Yellow, White, Red*					
NOTE	*1. Reflective sheeting shall have a minimum dimension of 3 inches by 3 inches and minimum surface area of 9 square inches.*					

BARRIER MOUNT TYPES

GUARD FENCE — *GF1* | *GF2*

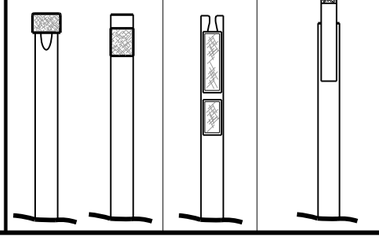


CONCRETE TRAFFIC BARRIER (CTB)



CABLE BARRIER

CAB1 | *CAB2* | *CAB3*



Texas Department of Transportation

Traffic Safety Division Standard

DELINEATOR MATERIAL DESCRIPTION & INSTALLATION

D & OM(1)-25

FILE: dom1-25.dgn		DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT		
©TxDOT May 2025		CONT	SECT	JOB		HIGHWAY	
REVISIONS		0231	03	156		IH-14	
8-04 3-15		DIST	COUNTY			SHEET NO.	
10-09 7-20		WACO	BELL			129	
4-10 5-25							

20A

DATE: 7/11/2025 4:42:09 PM
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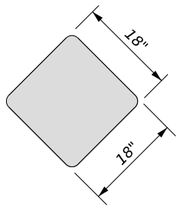
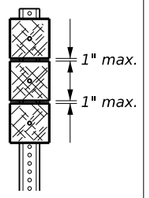
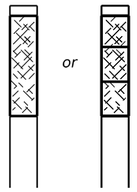
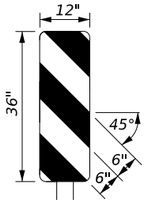
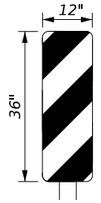
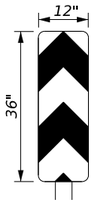
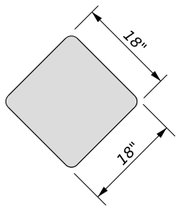
OBJECT MARKER - BID ITEM DESCRIPTIONS

XXXXX OM ASSM (OM-XX)(XXXX)XXXXX(XX)

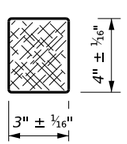
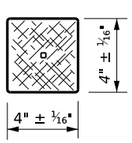
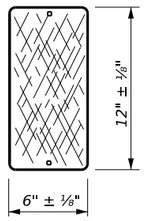
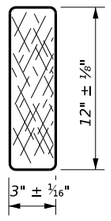
- **PAYMENT**
  - INSTL = Installation
  - REPLC = Replacement
- **TYPE OF OBJECT MARKER**
  - 1, 2, 3, or 4
- **NUMBER OF REFLECTORS OR DIRECTION**
  - X = 3-Size 2 reflector units (Type 2 only)
  - Y = 1-Size 3 reflector unit (Type 2 only)
  - Z = 3-Size 1 or 1-Size 4 reflector unit(s)(Type 2 only)
  - L = Left Side (Type 3 Object Marker only)
  - R = Right Side (Type 3 Object Marker only)
  - C = Center (Type 3 Object Marker only)
- **TYPE OF POST**
  - WC = Wing Channel Post
  - WFLX = White Flexible Post
  - YFLX = Yellow Flexible Post
  - TWT = Thin Walled Tubing
- **TYPE OF MOUNT**
  - GND = Ground Embedded (drivable or set in concrete)
  - SRF = Surface Mount
  - WAS = Wedge Anchor Steel
  - WAP = Wedge Anchor Plastic
- **IDENTIFICATION**
  - LL = Low Speed, Low Impact
  - HH = High Speed, High Impact
- **DIRECTION [if required]**
  - BI = Bi-Directional

OBJECT MARKER DEFINITION

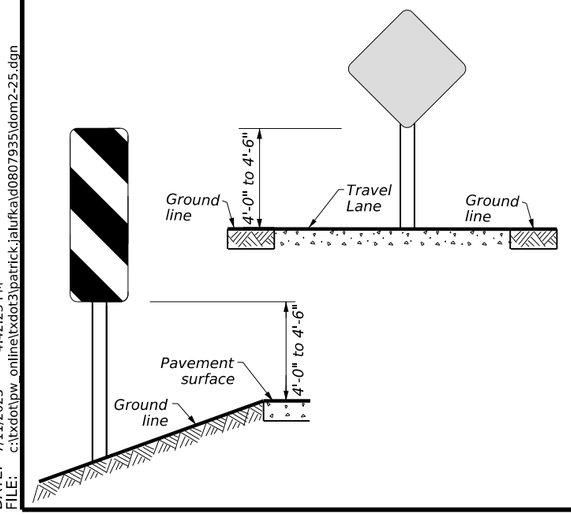
Devices used to mark obstructions within or adjacent to the roadway. (See TMUTCD - Chapter 2C, WARNING SIGNS AND OBJECT MARKERS.)

	Type 1 (OM-1)	Type 2 (OM-2)			Type 3 (OM-3)			Type 4 (OM-4)
	OM-1	OM-2X	OM-2Y	OM-2Z	OM-3L	OM-3R	OM-3C	OM-4
DEVICE		 3-Size 2 reflector units	 1-Size 3 reflector unit	 1-Size 4 reflector unit or 3-Size 1 reflector units				
SHEETING	Yellow - Type B_{FL} or C_{FL} sheeting	White and Yellow - Type B or C sheeting			Alternating Acrylic Black and Retroflective Yellow - Type B_{FL} or C_{FL} sheeting			Red - Type B_{FL} or C_{FL} sheeting
POST TYPE	TWT	WC	WC	WFLX, YFLX	TWT, WFLX			TWT
MOUNT TYPE	WAS, WAP	GNDLL	GNDLL	GNDLL, GNDHH, SRFLL, SRFHH	WAS, WAP, GNDLL, GNDHH, SRFLL, SRFHH			WAS, WAP

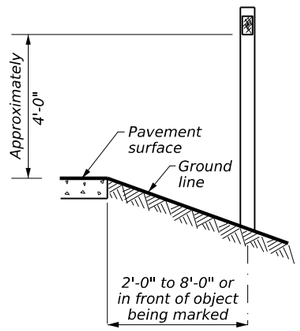
REFLECTOR UNIT DIMENSIONS FOR OBJECT MARKERS

	SIZE 1	SIZE 2	SIZE 3	SIZE 4
DEVICE				
NOTE	1. Size 1 and 4 - Direct applied reflective sheeting for use on flexible post (flx). 2. Size 2 and 3 - For use on wing channel (wc) post only. Use approved metal, plastic, or fiberglass backplate with 17/64" mounting holes.			

TYPES 1, 3, AND 4 OBJECT MARKERS TYPICAL INSTALLATION



TYPE 2 OBJECT MARKERS TYPICAL INSTALLATION

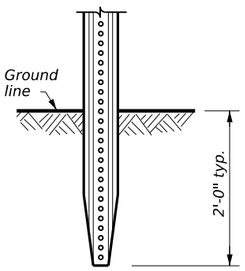


See General Notes 1, 2, and 3

POST TYPE AND SUPPORT FOUNDATION DETAILS

WING CHANNEL (WC)

GND

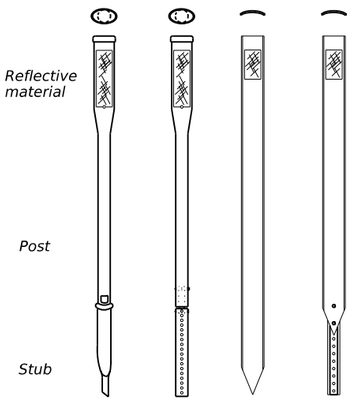


NOTES

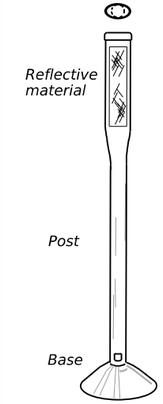
1. Embedded Wing Channel (WC) post option may be used for Type 2 object markers and delineators only.
2. 1.12 lbs/ft steel per ASTM A 1011 SS Gr. 50, or ASTM A499.

FLEXIBLE POSTS (YFLX, WFLX)

GND



SRF

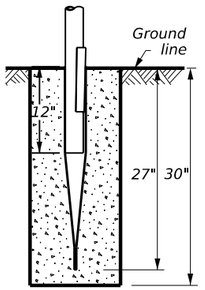


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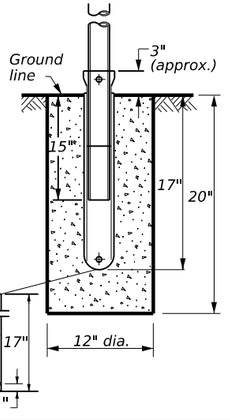
1. See "Flexible Delineator and Object Marker Posts" Material Producer List for approved devices.
2. Install per manufacturer's recommendations.
3. Post length may vary to meet field conditions.

WEDGE ANCHOR SYSTEMS

WAS



WAP



NOTE

1. Install per manufacturer's recommendations.

GENERAL NOTES

1. Where a restriction prevents consistent placement from the pavement edge, place the affected object markers in line with the innermost edge of the obstruction.
2. When Type 2 object markers are more than 8'-0" from the edge of the pavement, it may not be possible to maintain a height of approximately 4'-0". If this is the case, place the object marker as close to the recommended height as possible.
3. Install all object markers in accordance with the manufacturer's recommendation.
4. Diagonal stripes on Type 3 object markers shall slope down toward the intended travel lane.
5. Object marker substrates shall be 0.080" aluminum sign blank and conform to ASTM B-209 Alloy 6061-T6 or an approved alternative.

DEPARTMENTAL MATERIAL SPECIFICATIONS

FLEXIBLE DELINEATOR & OBJECT MARKER POSTS (EMBEDDED & SURFACE MOUNT TYPES)	DMS-4400
SIGN FACE MATERIALS	DMS-8300
DELINEATORS, OBJECT MARKERS AND BARRIER REFLECTORS	DMS-8600

Texas Department of Transportation

Traffic Safety Division Standard

OBJECT MARKER MATERIAL DESCRIPTION & INSTALLATION

D & OM(2)-25

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DELINEATOR AND OBJECT MARKER APPLICATION AND SPACING

CONDITION	REQUIRED TREATMENT	MINIMUM SPACING
Fwy./Exp. Tangent	RPMs	See PM and FPM standard sheets
Fwy./Exp. Curve	Single delineators on right side	See delineator spacing table
Fwy/Exp.Ramp	Single delineators on at least one side of ramp (should be on outside of curves) (see Detail 4a on D&OM(4))	100 feet on ramp tangents Use delineator spacing table for ramp curves ("straightway spacing" does not apply to ramp curves)
Acceleration/ Deceleration Lane	Double delineators (see Detail 4a on D&OM(4))	100 feet (See Detail 4a on D & OM(4))
Truck Escape Ramp	Single red delineators on both sides	50 feet
Bridge Rail (steel or concrete) and Metal Beam Guard Fence	Bi-Directional Delineators when undivided with one lane each direction Single Delineators when multiple lanes each direction	Equal spacing (100'max) but not less than 3 delineators
Concrete Traffic Barrier (CTB) or Steel Traffic Barrier	Barrier reflectors matching the color of the edge line	Equal spacing 100' max
Cable Barrier	Reflectors matching the color of the edge line Bi-Directional Delineators when within clearzone	Every 5th cable barrier post (up to 100'max)
Cable Barrier Terminus / Impact Head	Object marker on end	Requires reflective sheeting provided by manufacturer per D & OM (VIA) or a Type 3 Object Marker (OM-3) in front of the terminal end See D & OM(6)
Guard Rail Terminus / Impact Head	Divided highway - Object marker on approach end Undivided 2-lane highways - Object marker on approach and departure end	Requires reflective sheeting provided by manufacturer per D & OM (VIA) or a Type 3 Object Marker (OM-3) in front of the terminal end See D & OM(5) and D & OM(6)
Bridges with no Approach Rail	Type 3 Object Marker (OM-3) at end of rail and 3 single delineators approaching rail	See D & OM(5)
Reduced Width Approaches to Bridge Rail	Type 2 and Type 3 Object Markers (OM-3) and 3 single delineators approaching bridge	Requires reflective sheeting provided by manufacturer per D & OM(VIA) or a Type 3 Object Marker (OM-3) in front of the terminal end See D & OM(5)
Culverts without MBGF	Type 2 Object Markers	See Detail 2 on D & OM(4)
Crossovers	Double yellow delineators and RPMs	See Detail 1 on D & OM(4)
Pavement Narrowing (lane merge) on Freeways/Expressway	Single delineators adjacent to affected lane for full length of transition	100 feet

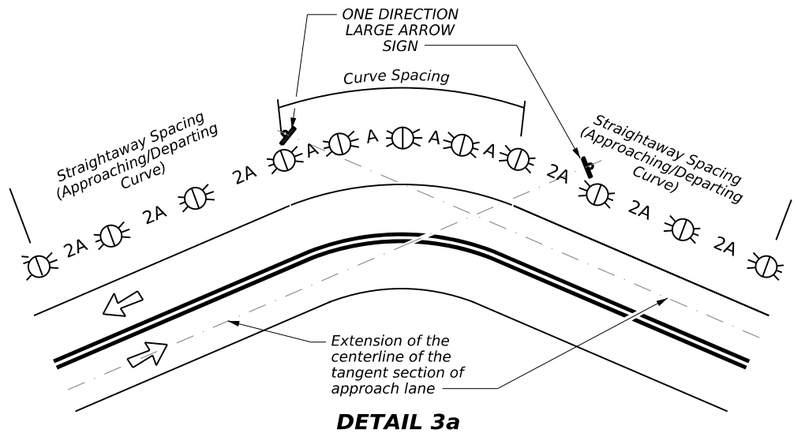
MINIMUM WARNING DEVICES AT CURVES WITH ADVISORY SPEEDS

Amount by which Advisory Speed is less than Posted Speed	Turn/Curve Advisory Speed: Turn (30 MPH or less)	Turn/Curve Advisory Speed: Curve (35 MPH or more)
5 MPH	• RPMs and Pavement Markings	
10 MPH	• Advance Horizontal Alignment Warning Sign with Advisory Speed Plaque; and • RPMs and Pavement Markings	
15 MPH	• Advance Horizontal Alignment Warning Sign with Advisory Speed Plaque; and • RPMs, Pavement Markings, and Delineators; or • RPMs, Pavement Markings, and One Direction Large Arrow sign(s)	• Advance Horizontal Alignment Warning Sign with Advisory Speed Plaque; and • RPMs, Pavement Markings, and Chevrons; or • RPMs, Pavement Markings, and One Direction Large Arrow sign(s) where geometric conditions or roadside obstacles prevent the installation of chevrons
20 MPH	• Advance Horizontal Alignment Warning Sign with Advisory Speed Plaque; and • RPMs, Pavement Markings, and Chevrons; or • RPMs, Pavement Markings, and One Direction Large Arrow sign(s) where geometric conditions or roadside obstacles prevent the installation of chevrons	
25 MPH or more	• Advance Horizontal Alignment Warning Sign with Advisory Speed Plaque; and • RPMs, Pavement Markings, and Chevrons; or • RPMs, Pavement Markings, and One Direction Large Arrow sign(s) where geometric conditions or roadside obstacles prevent the installation of chevrons	• Advance Horizontal Alignment Warning Sign with Advisory Speed Plaque; and • RPMs, Pavement Markings, and Chevrons

NOTE

A roadway is considered to have pavement markings when either a center line, edge lines, or both are present. A roadway is considered to have RPMs when they are used to supplement centerline pavement markings.

SUGGESTED SPACING FOR DELINEATORS ON HORIZONTAL CURVES



DETAIL 3a

NOTE

ONE DIRECTION LARGE ARROW (W1-6) sign should be located at approximately and perpendicular to the extension of the centerline of the tangent section of approach lane.

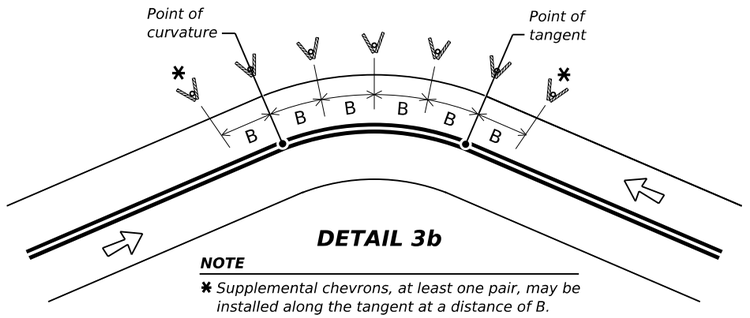
LEGEND

	Delineator
	Bi-directional Delineator
	Sign

GENERAL NOTES

1. Unless otherwise indicated, the delineator or barrier reflector color shall conform to the color of the pavement edge line on the side of the road where the delineators or barrier reflectors are placed.
2. Barrier reflectors may be used to replace required delineators.
3. Single red delineators may be mounted on the back side of delineator posts for wrong way driver applications.

SUGGESTED SPACING FOR CHEVRONS ON HORIZONTAL CURVES



DETAIL 3b

NOTE

✱ Supplemental chevrons, at least one pair, may be installed along the tangent at a distance of B. Adverse curve aligment is a factor in determining if supplemental chevrons are needed.

DELINEATOR AND CHEVRON SPACING

WHEN DEGREE OF CURVE OR RADIUS IS KNOWN

Degree of Curve	FEET: Radius of Curve	Spacing in Curve	Spacing in Straightaway	Chevron Spacing in Curve
		A	2A	B
1	5730	225	450	—
2	2865	160	320	—
3	1910	130	260	200
4	1433	110	220	160
5	1146	100	200	160
6	955	90	180	160
7	819	85	170	160
8	716	75	150	160
9	637	75	150	120
10	573	70	140	120
11	521	65	130	120
12	478	60	120	120
13	441	60	120	120
14	409	55	110	80
15	382	55	110	80
16	358	55	110	80
19	302	50	100	80
23	249	40	80	80
29	198	35	70	40
38	151	30	60	40
57	101	20	40	40

Curve delineator approach and departure spacing should include 3 delineators spaced at 2A. This spacing should be used during design preparation or when the degree of curve is known.

DELINEATOR AND CHEVRON SPACING

WHEN DEGREE OF CURVE OR RADIUS IS NOT KNOWN

Advisory Speed (MPH)	FEET: Spacing in Curve	Spacing in Straightaway	Chevron Spacing in Curve
	A	2A	B
65	130	260	200
60	110	220	160
55	100	200	160
50	85	170	160
45	75	150	120
40	70	140	120
35	60	120	120
30	55	110	80
25	50	100	80
20	40	80	80
15	35	70	40

If the degree of curve is not known, delineator spacing may be determined based on the Advisory Speed of the curve. Use the delineator curve spacing for each Advisory Speed (MPH).

Texas Department of Transportation

Traffic Safety Division Standard

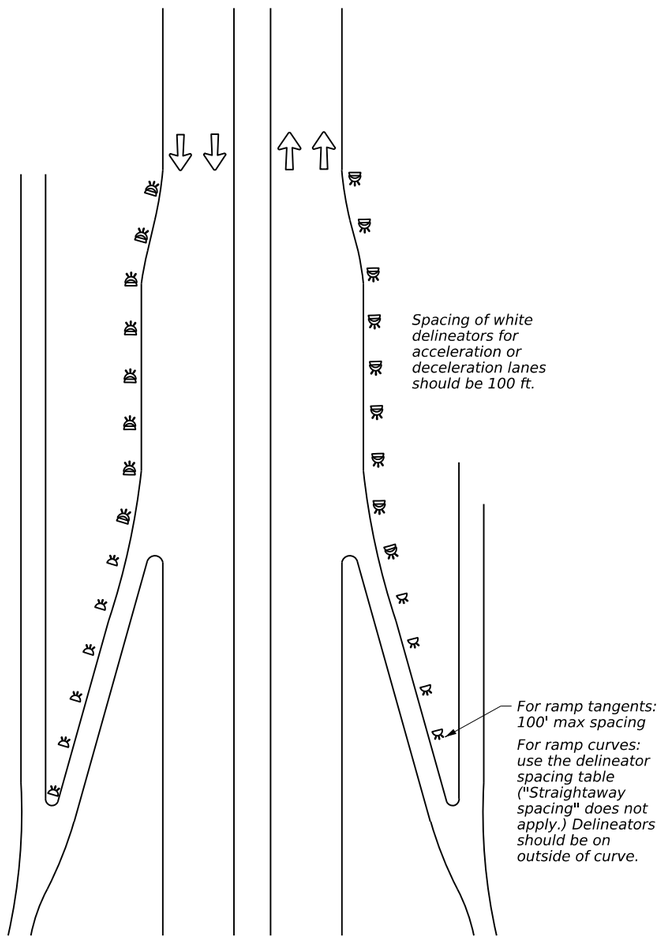
DELINEATOR & OBJECT MARKER PLACEMENT DETAILS APPLICATION & SPACING D & OM(3)-25

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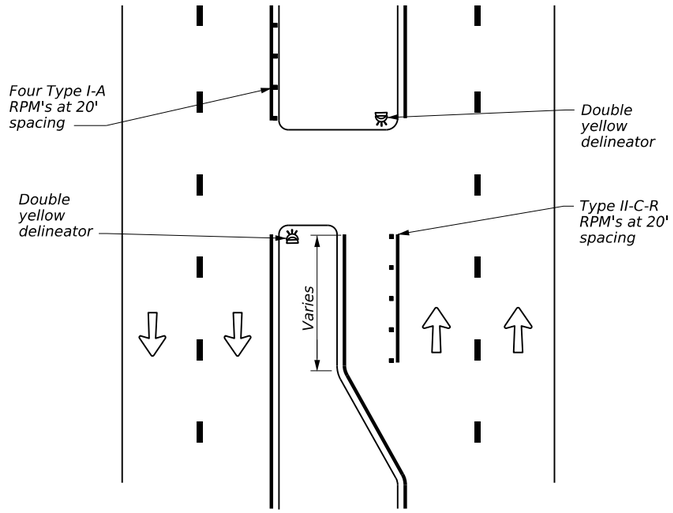
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FREEWAY DELINEATION FOR RAMPS AND ACCELERATION / DECELERATION LANES



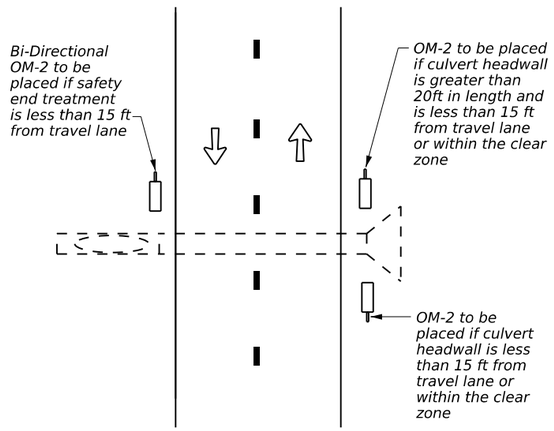
DETAIL 4a

CROSSOVERS



DETAIL 4b

FOR CULVERTS WITHOUT METAL BEAM GUARD FENCE (MBGF)

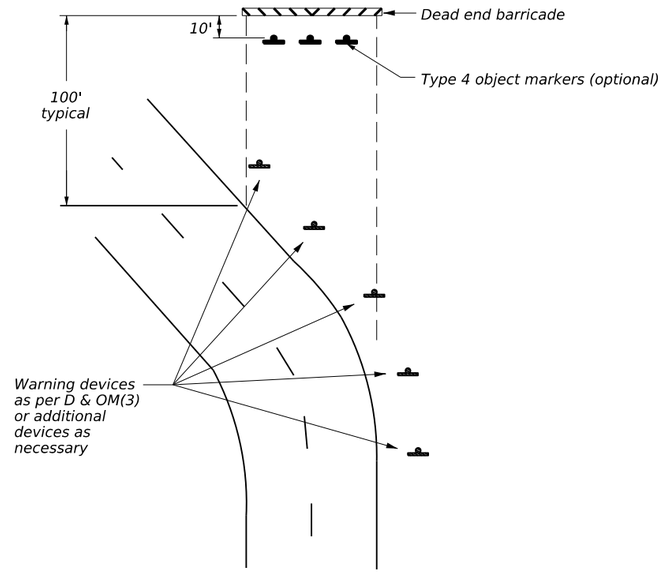


DETAIL 4c

NOTES

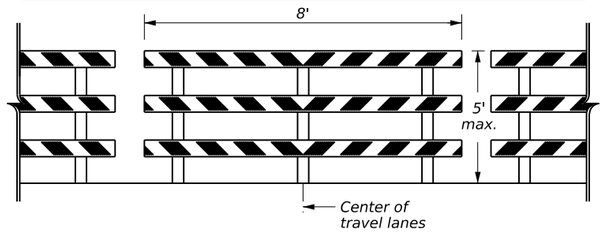
1. This detail applies for all existing culverts without MBGF, for application of OMs. New bridge-class culverts require safety end treatments, MBGF, or bridge railing. See the TxDOT Bridge Railing Manual.
2. For culverts with MBGF, see Sheet 5.

TYPICAL APPLICATION OF DEAD END BARRICADE



DETAIL 4d

TYPICAL DEAD END BARRICADE INSTALLATION



DETAIL 4e

NOTES

1. Barricade striping shall be red and white reflective sheeting for all permanent road closures.
2. Barricade striping is red and white sloping toward the center of the roadway.
3. Type 3 Barricade Supports should be anchored to soil or pavement as described in the Compliant Work Zone Traffic Control Devices list (CWZTCD).

LEGEND

	Delineator
	Double delineator
	OM-2
	Sign
	Raised Pavement Marker (RPM)
	Traffic Flow

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DELINEATOR & OBJECT MARKER PLACEMENT DETAILS

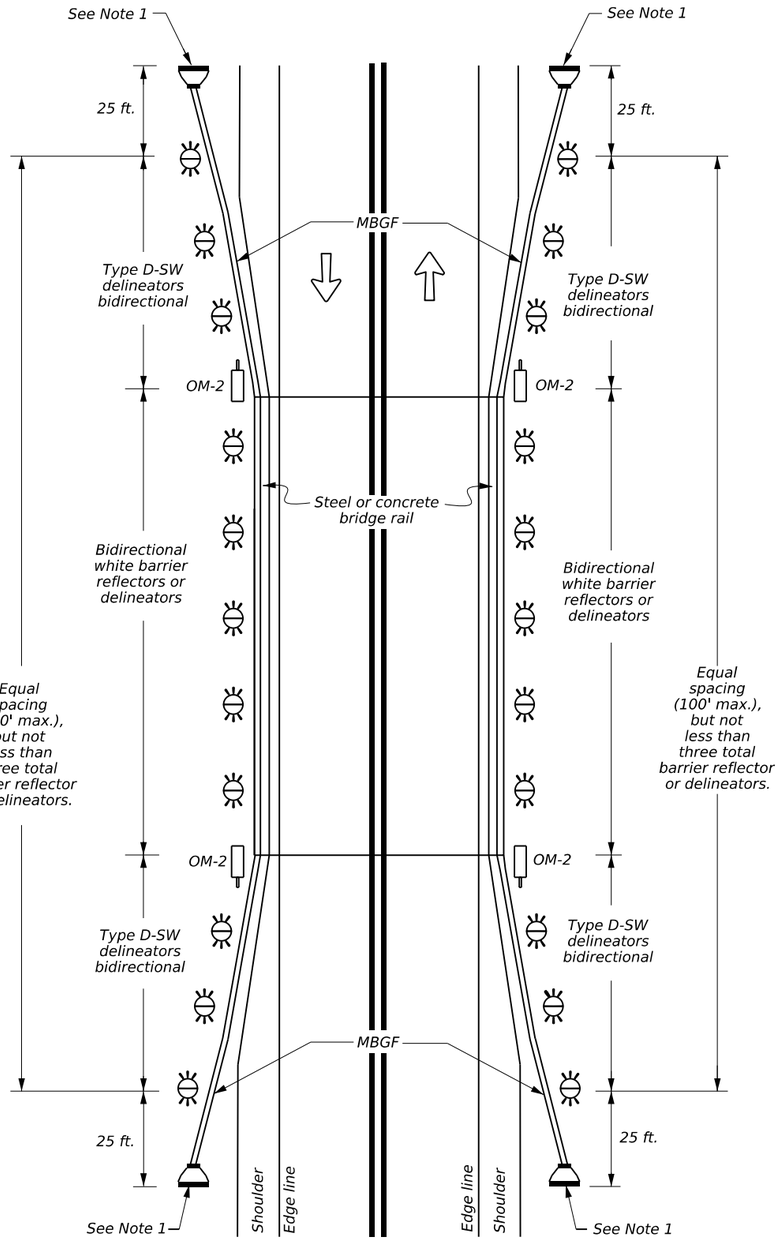
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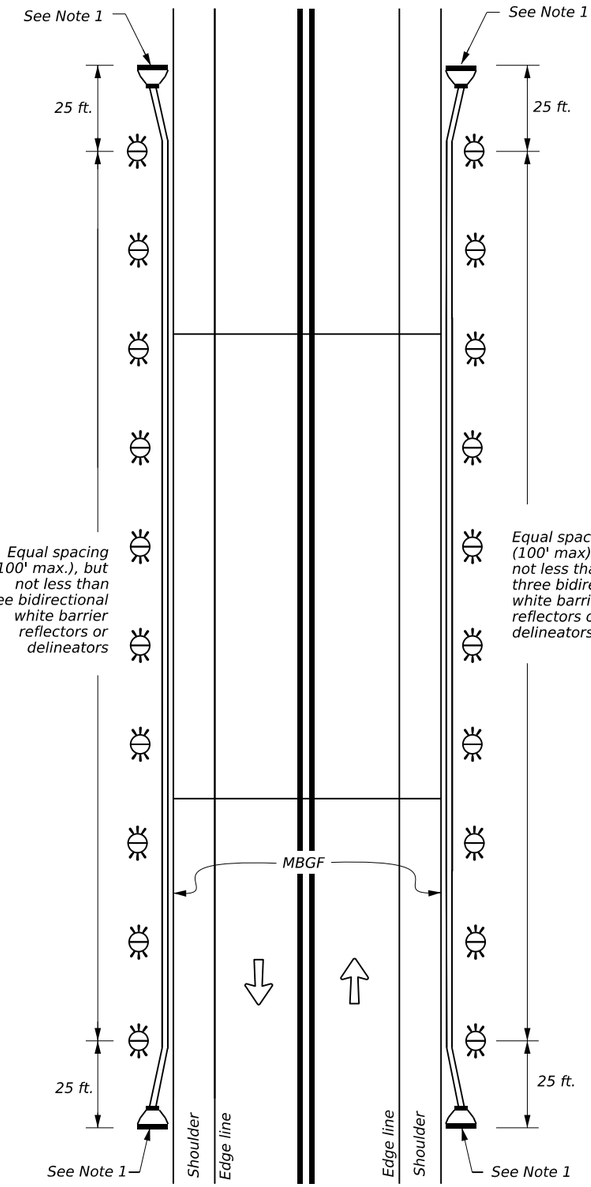
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TWO-WAY, TWO LANE ROADWAY WITH REDUCED WIDTH APPROACH RAIL



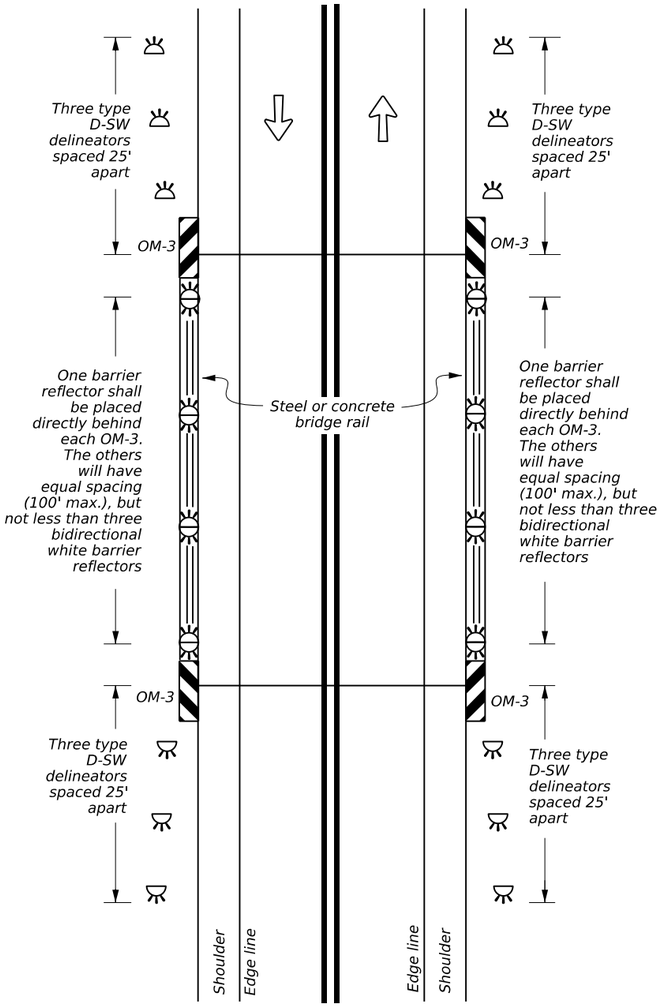
DETAIL 5a

TWO-WAY, TWO LANE ROADWAY WITH METAL BEAM GUARD FENCE (MBGF)



DETAIL 5b

TWO-WAY, TWO LANE ROADWAY BRIDGE WITH NO APPROACH RAIL



DETAIL 5c

NOTES

1. Terminal ends require reflective sheeting provided by manufacturer per D&OM(VIA) or a Type 3 object marker (OM-3) in front of the terminal end.
2. Bridge-class culverts may require OMs on or in advance of culvert headwalls. Refer to the TxDOT Roadway Design Manual and the TMUTCD.

GENERAL NOTE

Delineators (D) indicate roadway alignment. Object Markers (OM) identify obstructions. See D and OM definitions on D&OM(1) and D&OM(2), respectively.

LEGEND

	Delineator
	Bidirectional Delineator
	OM-2
	OM-3
	Terminal End
	Traffic Flow

Texas Department of Transportation

Traffic Safety Division Standard

DELINEATOR & OBJECT MARKER PLACEMENT DETAILS (BRIDGE & BRIDGE-CLASS CULVERTS)

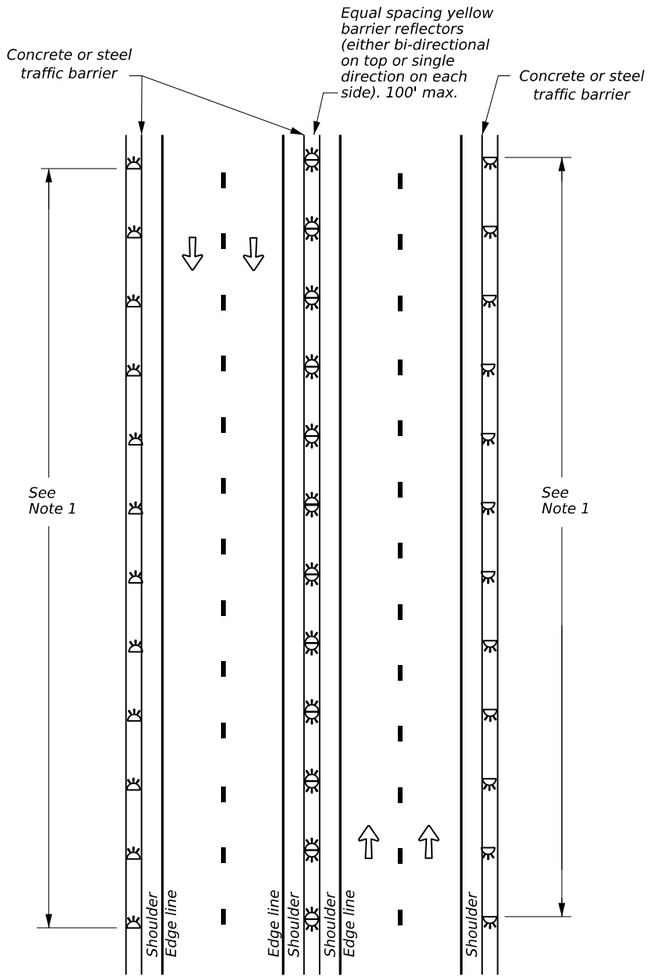
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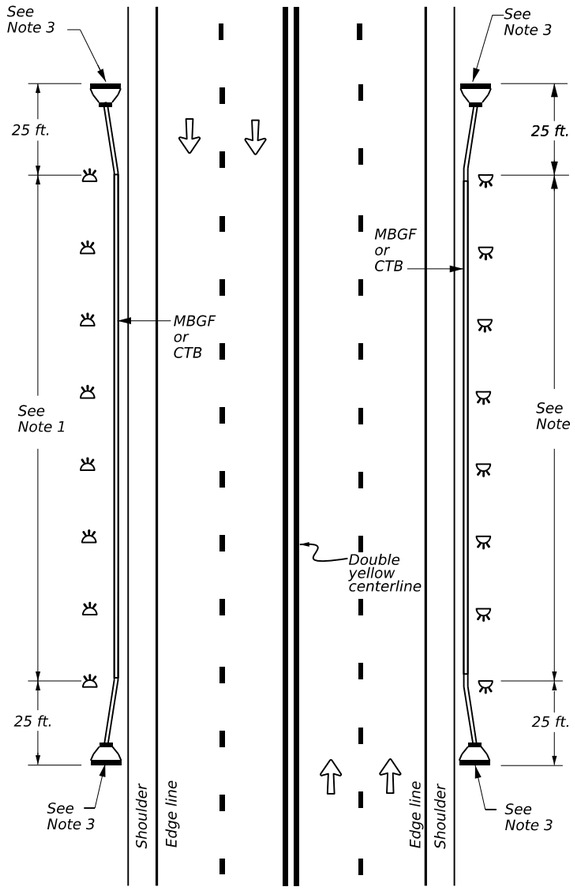
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CONTINUOUS CONCRETE OR STEEL BARRIER



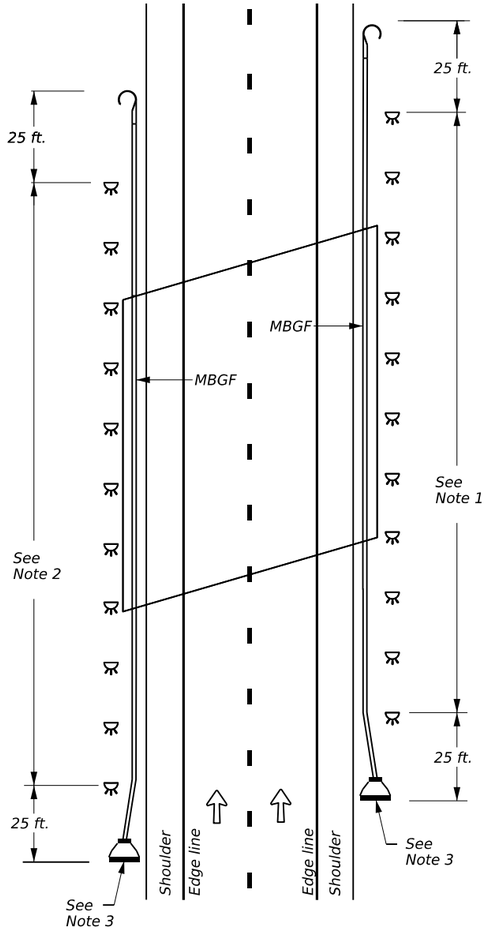
DETAIL 6a

MULTI-LANE UNDIVIDED, TWO-WAY ROADWAY WITH METAL BEAM GUARD FENCE (MBGF)



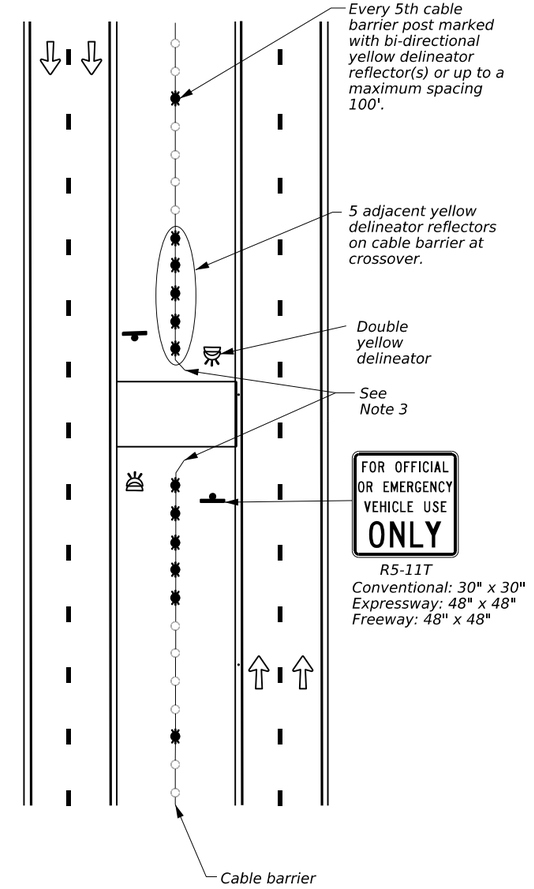
DETAIL 6b

DIVIDED ROADWAY WITH METAL BEAM GUARD FENCE (MBGF)



DETAIL 6c

EMERGENCY CROSSOVER WITH CABLE BARRIER



DETAIL 6d

NOTES

1. Equal spacing (100' max), but not less than three single directional white barrier reflectors or delineators. On Continuous Barrier, equal spacing (100' max.)
2. Equal spacing (100' max), but not less than three single directional yellow barrier reflectors or delineators.
3. Terminal ends require reflective sheeting provided by manufacturer per D&OM(VIA) or a Type 3 object marker (OM-3) in front of the terminal end.
4. Optional bi-directional delineators may be placed on divided roadways to indicate wrong way direction of travel. White or yellow reflector toward normal traffic and red reflector toward wrong way traffic.

GENERAL NOTE

Delineators (D) indicate roadway alignment. Object Markers (OM) identify obstructions. See D and OM definitions on D&OM(1) and D&OM(2), respectively.

LEGEND

	Traffic Flow
	Terminal End
	Downstream Anchor Terminal End
	Delineator
	Bidirectional Delineator
	Double Delineator

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Traffic Safety Division Standard

DELINEATOR & OBJECT MARKER PLACEMENT DETAILS

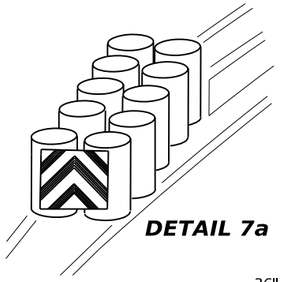
D & OM(6)-25

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©TxDOT May 2025	CONT	SECT	JOB	HIGHWAY
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8-15 7-20 5-25	DIST	COUNTY		SHEET NO.
	WACO	BELL		134

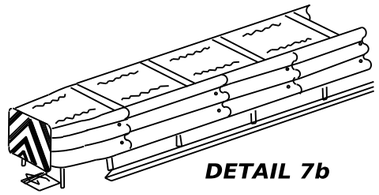
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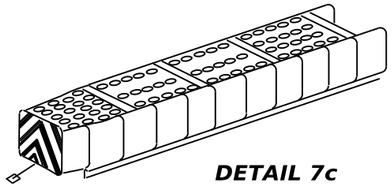
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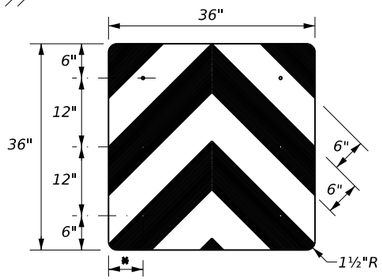
DETAIL 7a

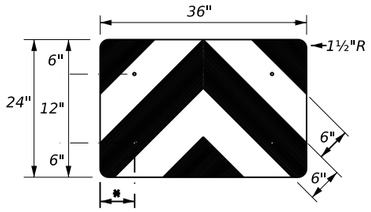


DETAIL 7b



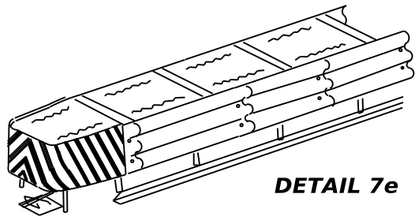
DETAIL 7c



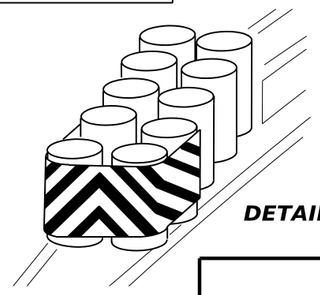


* *Adjust to fit attenuator per manufacturer's recommendation, or as directed by the Engineer*

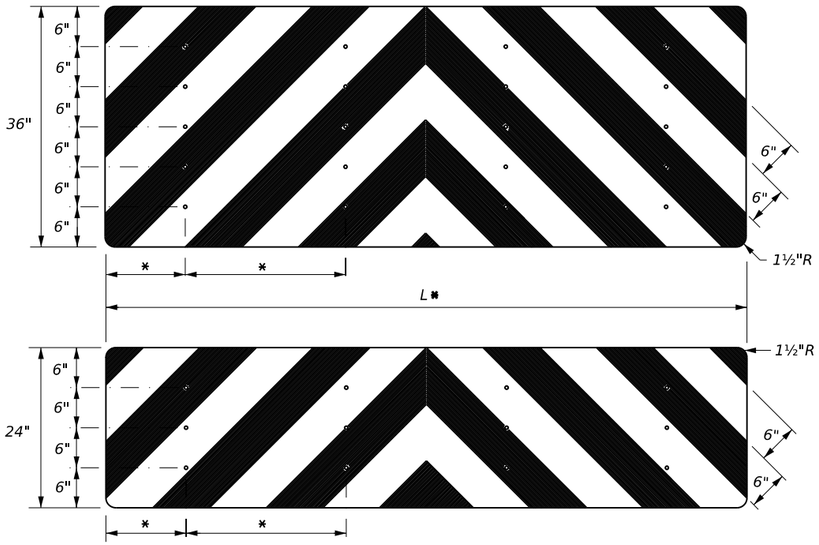
TYPICAL ATTENUATOR INSTALLATION



DETAIL 7e



DETAIL 7f

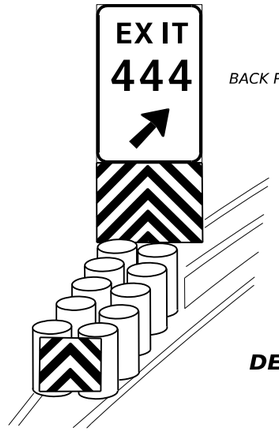


NOTES

*1. *Spacing should be adjusted to attach through centerline of drum, per attenuator manufacturers recommendation, or as directed by the Engineer.*

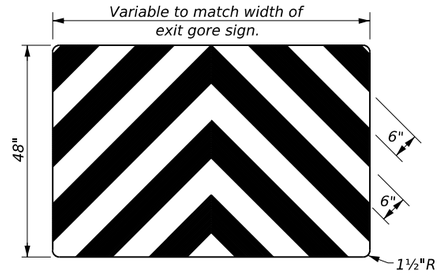
2. *Mounting should be flush with top of attenuator. Minimum size 96" x 24".*

TYPICAL APPLICATION OF OPTIONAL BACK PANEL

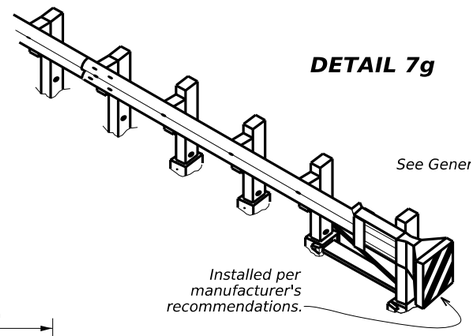


BACK PANEL (OPTIONAL)

DETAIL 7d



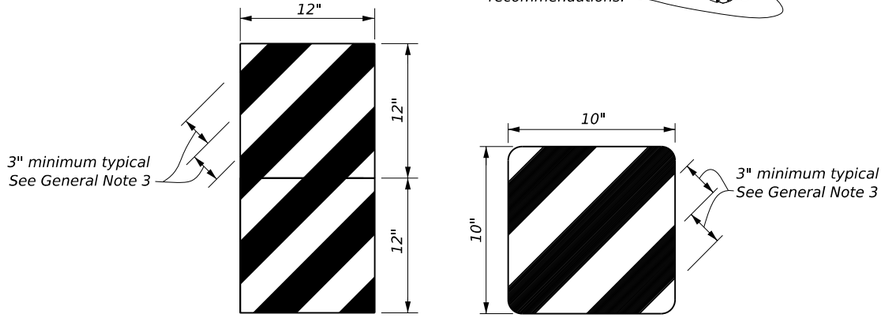
GUARDRAIL END TREATMENT



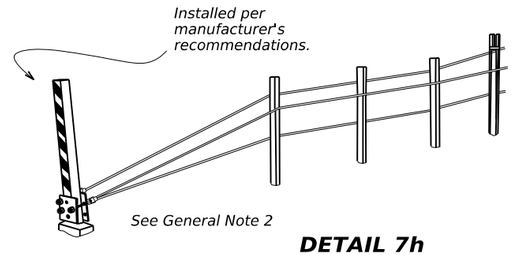
DETAIL 7g

See General Note 2

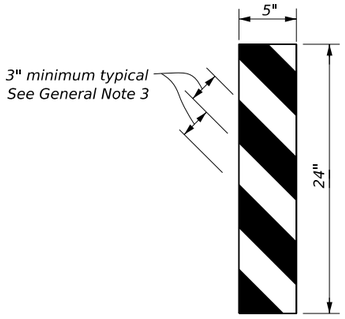
Installed per manufacturer's recommendations.



CABLE BARRIER END TREATMENT



DETAIL 7h



GENERAL NOTES

1. *Markers [with the appearance of a Type 3 object marker (OM-3)] shall conform to the TMUTCD and meet the color and reflectivity requirement of the Departmental Material Specification (DMS-8300). Background shall be yellow reflective sheeting (Type B or C) and Chevron shall be black.*

2. *Markers may be fabricated from adhesive backed reflective sheeting applied directly to guardrail and cable barrier end treatments, or applied directly to an "end cap" as per the manufacturer's recommendation. Direct applied sheeting shall provide a smooth surface and have no wrinkles, air bubbles, cuts, or tears. A radius at the corners is not required for direct applied sheeting.*

3. *The combined width of alternating black and yellow stripes is typically 6". Marker size may be reduced to fit smaller devices. Markers smaller than 3ft² may have reduced width stripes of a minimum of 2¼" (combined 4½" width).*

4. *Pop rivets, screws, or nuts and bolts may be used to attach markers and reflectors. Holes, slots, or other openings may be cut or drilled through markers to allow cable or other attachments.*

5. *Marker or object marker placed on or at nose of attenuator is subsidiary to the attenuator.*

6. *See D & OM (1-4) for required barrier reflectors.*

Texas Department of Transportation

Traffic Safety Division Standard

OBJECT MARKER FOR VEHICLE IMPACT ATTENUATORS

D & OM(VIA)-25

FILE: domvia-25.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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REVISIONS	0231	03	156	IH-14
12-89 4-98 7-20 4-92 8-04 5-25 8-95 3-15	DIST	COUNTY		SHEET NO.
	WACO	BELL		135

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STORMWATER POLLUTION PRVENTION PLAN (SWP3):

This SWP3 has been developed in accordance with TxDOT policy for projects disturbing less than 1 acre of soil, and not part of a larger common plan of development.

For projects with less than one acre of soil disturbing activity and that have Environmental, Permits, Issues, and Commitments (EPICs) dependent on stormwater controls and water quality measures TxDOT will maintain a SWP3 with all pertinent records, correspondence, environmental documents, etc. at the project field office, Area Office, or electronically.

This SWP3 is consistent with requirements specified in applicable stormwater plans, and the project's environmental permits, issues, and commitments (EPICs).

1.0 SITE/PROJECT DESCRIPTION

1.1 PROJECT CONTROL SECTION JOB (CSJ):

0231-03-156

1.2 PROJECT LIMITS:

From: Jasper Drive

To: Rosewood Dr

1.3 PROJECT COORDINATES:

BEGIN: (Lat) 31.100646, (Long) -97.740397

END: (Lat) 31.075119, (Long) -97.685105

1.4 TOTAL PROJECT AREA (Acres): 185

1.5 TOTAL AREA TO BE DISTURBED (Acres): 0.45

1.6 NATURE OF CONSTRUCTION ACTIVITY:

HIGH MAST ILLUMINATION INSTALLATION

1.7 MAJOR SOIL TYPES:

Soil Type	Description
SaB	San Saba Clay
PrB	Purves Silty Clay
DeB	Denton Silty Clay

1.8 PROJECT SPECIFIC LOCATIONS (PSLs):

PSLs must be depicted on the Environmental Layout Sheets in Attachment 1.2 of this SWP3. PSLs may be identified during preconstruction meetings or during the construction process. Please choose from the options below:

☐ PSLs determined during preconstruction meeting
☐ PSLs determined during construction
☒ No PSLs planned for construction

Type	Sheet #s

All off-ROW PSLs required by the Contractor are the Contractor's responsibility. The Contractor shall secure all permits required by local, state, federal laws for off-ROW PSLs. The contractor shall provide diagrams, areas of disturbance, acreage, and BMPs for all off-ROW PSLs within one mile of the project.

1.9 CONSTRUCTION ACTIVITIES:

(Use the following list as a starting point when developing the Construction Activity Schedule and Ceasing Record in Attachment 2.3.)

☐ Mobilization
☐ Install sediment and erosion controls
☐ Blade existing topsoil into windrows, prep ROW, clear and grub
☐ Remove existing pavement
☐ Grading operations, excavation, and embankment
☐ Excavate and prepare subgrade for proposed pavement widening
☐ Remove existing culverts, safety end treatments (SETs)
☒ Remove existing metal beam guard fence (MBGF), bridge rail
☐ Install proposed pavement per plans
☐ Install culverts, culvert extensions, SETs
☒ Install mow strip, MBGF, bridge rail
☐ Place flex base
☐ Rework slopes, grade ditches
☐ Blade windrowed material back across slopes
☐ Revegetation of unpaved areas
☐ Achieve site stabilization and remove sediment and erosion control measures
☐ Other: _____
☐ Other: _____
☐ Other: _____

1.10 POTENTIAL POLLUTANTS AND SOURCES:

☒ Sediment laden stormwater from stormwater conveyance over disturbed area
☒ Fuels, oils, and lubricants from construction vehicles, equipment, and storage
☒ Solvents, paints, adhesives, etc. from various construction activities
☒ Transported soils from offsite vehicle tracking
☒ Construction debris and waste from various construction activities
☒ Contaminated water from excavation or dewatering pump-out water
☒ Sanitary waste from onsite restroom facilities
☒ Trash from various construction activities/receptacles
☒ Long-term stockpiles of material and waste
☒ Discharges from concrete washout activities, runoff from concrete cutting activities, and other concrete related activities
☐ Other: _____
☐ Other: _____
☐ Other: _____

1.11 RECEIVING WATERS:

Receiving waters must be depicted on the Environmental Layout Sheets in Attachment 1.2 of this SWP3. Include Segment # for receiving waters.

Tributaries	Classified Waterbody
South Nolan Creek	Brazos River (Segment 1218B)
Little Nolan Creek	Brazos River (Segment 1218C)
Trimmer Creek	Brazos River (Segment 1216A)

* Add (*) for impaired waterbodies with pollutant in ().

1.12 ROLES AND RESPONSIBILITIES: TxDOT

☒ Development of plans and specifications
☒ Perform SWP3 inspections
☒ Maintain SWP3 records and update to reflect daily operations
☐ Other: _____
☐ Other: _____

1.13 ROLES AND RESPONSIBILITIES: CONTRACTOR

☒ Day To Day Operational Control
☒ Maintain schedule of major construction activities
☒ Install, maintain and modify BMPs
☐ Other: _____
☐ Other: _____
☐ Other: _____

STORMWATER POLLUTION PREVENTION PLAN (SWP3) (Less Than 1 Acre)

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July 2023 Sheet 1 of 2

Texas Department of Transportation

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
			136
STATE	STATE DIST.	COUNTY	
TEXAS	WACO	BELL	
CONT.	SECT.	JOB	HIGHWAY NO.
0231	03	156	IH-14

STORMWATER POLLUTION PRVENTION PLAN (SWP3):

2.0 BEST MANAGEMENT PRACTICES (BMPs) AND CONTROLS, INSPECTION, AND MAINTENANCE

The Contractor shall be the responsible party for implementing the BMPs described herein and for complying with the SWP3 for control of erosion and sedimentation during day-to-day operations. The Contractor shall implement changes to this SWP3 approved by TxDOT within the times specified in this SWP3 or the CGP.

2.1 EROSION CONTROL AND SOIL STABILIZATION BMPs:

T / P

- ☐ X Protection of Existing Vegetation
- ☐ ☐ Vegetated Buffer Zones
- ☐ ☐ Soil Retention Blankets
- ☐ ☐ Geotextiles
- ☐ ☐ Mulching/ Hydromulching
- ☐ ☐ Soil Surface Treatments
- ☐ ☐ Temporary Seeding
- ☐ ☐ Permanent Planting, Sodding or Seeding
- ☐ ☐ Biodegradable Erosion Control Logs
- ☐ ☐ Rock Filter Dams/ Rock Check Dams
- ☐ ☐ Vertical Tracking
- ☐ ☐ Interceptor Swale
- ☐ ☐ Riprap
- ☐ ☐ Diversion Dike
- ☐ ☐ Temporary Pipe Slope Drain
- ☐ ☐ Embankment for Erosion Control
- ☐ ☐ Paved Flumes
- ☐ ☐ Other: _____
- ☐ ☐ Other: _____
- ☐ ☐ Other: _____
- ☐ ☐ Other: _____

2.2 SEDIMENT CONTROL BMPs:

T / P

- ☐ ☐ Biodegradable Erosion Control Logs
- ☐ ☐ Dewatering Controls
- ☐ ☐ Inlet Protection
- ☐ ☐ Rock Filter Dams/ Rock Check Dams
- ☐ ☐ Sandbag Berms
- X ☐ Sediment Control Fence
- ☐ ☐ Stabilized Construction Exit
- ☐ ☐ Floating Turbidity Barrier
- ☐ ☐ Vegetated Buffer Zones
- ☐ ☐ Vegetated Filter Strips
- ☐ ☐ Other: _____
- ☐ ☐ Other: _____
- ☐ ☐ Other: _____
- ☐ ☐ Other: _____

Refer to the Environmental Layout Sheets/ SWP3 Layout Sheets located in Attachment 1.2 of this SWP3

2.3 PERMANENT CONTROLS:

(Coordinate post-construction BMPs with appropriate TxDOT maintenance sections.)

BMPs To Be Left In Place Post Construction:

Type	Stationing	
	From	To

Refer to the Environmental Layout Sheets/ SWP3 Layout Sheets located in Attachment 1.2 of this SWP3

2.4 OFFSITE VEHICLE TRACKING CONTROLS:

- X Excess dirt/mud on road removed daily
- ☐ Haul roads dampened for dust control
- ☐ Loaded haul trucks to be covered with tarpaulin
- ☐ Stabilized construction exit
- ☐ Daily street sweeping
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

2.5 POLLUTION PREVENTION MEASURES:

- ☐ Chemical Management
- X Concrete and Materials Waste Management
- X Debris and Trash Management
- ☐ Dust Control
- X Sanitary Facilities
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

2.6 VEGETATED BUFFER ZONES:

Natural vegetated buffers shall be maintained as feasible to protect adjacent surface waters. If vegetated natural buffer zones are not feasible due to site geometry, the appropriate additional sediment control measures have been incorporated into this SWP3.

Type	Stationing	
	From	To

Refer to the Environmental Layout Sheets/ SWP3 Layout Sheets located in Attachment 1.2 of this SWP3

2.7 ALLOWABLE NON-STORMWATER DISCHARGES:

- X Fire hydrant flushings
- X Irrigation drainage
- X Pavement washwater (where spills or leaks have not occurred, and detergents are not used)
- X Potable water sources
- X Springs
- X Uncontaminated groundwater
- X Water used to wash vehicles or control dust
- X Other allowable non-stormwater discharges as allowed by TPDES GP TXR150000.

2.8 DEWATERING:

Dewatering discharges of accumulated stormwater, groundwater, and surface water including discharges from dewatering of trenches, excavations, foundations, vaults, and other points of accumulation are prohibited unless managed by appropriate controls to prevent and minimize the offsite discharge of sediment and other pollutants.

2.9 INSPECTIONS:

All disturbed areas and erosion and sediment control devices shall be inspected at least once every seven (7) days. Inspections shall be performed by TxDOT as indicated on the Field Inspection and Maintenance Report Form 2118 and retained in Attachment 2.3 of this SWP3 .

2.10 MAINTENANCE:

Control measures shall be properly installed according to specifications. If it is determined that a BMP or control measure is not operating effectively, maintenance must be accomplished as soon as possible and before the next anticipated rain event, but in no case later than 7 calendar days after being able to access the site. Maintenance shall be performed by the Contractor as indicated on the Field Inspection and Maintenance Report Form 2118 and retained in Attachment 2.3 of this SWP3.

STORMWATER POLLUTION PREVENTION PLAN (SWP3) (Less Than 1 Acre)

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July 2023 Sheet 2 of 2

Texas Department of Transportation

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
			137
STATE	STATE DIST.	COUNTY	
TEXAS	WACO	BELL	
CONT.	SECT.	JOB	HIGHWAY NO.
0231	03	156	IH-14

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DATE:
FILE:

I. STORMWATER POLLUTION PREVENTION-CLEAN WATER ACT SECTION 402

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 506.

List MS4 Operator(s) that may receive discharges from this project. They may need to be notified prior to construction activities.

1. City of Killeen MS4

2.

☒ No Action Required ☐ Required Action

Action No.

1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
2. Comply with the SW3P and revise when necessary to control pollution or required by the Engineer.
3. Post Construction Site Notice (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
4. Project will disturb more than 5 acres, submit NOI to TCEQ and the Engineer.

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas.

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

☒ No Permit Required

☐ Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)

☐ Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)

☐ Individual 404 Permit Required

☐ Other Nationwide Permit Required: NWP# _____

Required Actions: List waters of the US permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post-project TSS.

1.
2.
3.
4.
5.
6.
7.
8.

The elevation of the ordinary high water marks of any areas requiring work to be performed in the waters of the US requiring the use of a nationwide permit can be found on the Bridge Layouts.

Best Management Practices:

Erosion	Sedimentation	Post-Construction TSS
☐ Temporary Vegetation	☒ Silt Fence	☐ Vegetative Filter Strips
☐ Blankets/Matting	☒ Rock Berm	☐ Retention/Irrigation Systems
☐ Mulch	☐ Triangular Filter Dike	☐ Extended Detention Basin
☐ Sodding	☐ Sand Bag Berm	☐ Constructed Wetlands
☐ Interceptor Swale	☐ Straw Bale Dike	☐ Wet Basin
☐ Diversion Dike	☐ Brush Berms	☐ Erosion Control Compost
☐ Erosion Control Compost	☐ Erosion Control Compost	☐ Mulch Filter Berm and Socks
☐ Mulch Filter Berm and Socks	☐ Mulch Filter Berm and Socks	☐ Compost Filter Berm and Socks
☐ Compost Filter Berm and Socks	☐ Compost Filter Berm and Socks	☐ Vegetation Lined Ditches
	☐ Stone Outlet Sediment Traps	☐ Sand Filter Systems
	☐ Sediment Basins	☐ Grassy Swales

III. CULTURAL RESOURCES

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

☐ No Action Required ☒ Required Action

Action No.

1. SEE STATEMENT ABOVE

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical.
Contractor must adhere to Construction Specification Requirements Specs 162, 164, 192, 193, 506, 730, 751, 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

☐ No Action Required ☒ Required Action

Action No.

1. SEE STATEMENT ABOVE

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.

☐ No Action Required ☒ Required Action

Action No.

1. Comply with Migratory Bird Treaty Act (MBTA)

2. SEE STATEMENT BELOW

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the Engineer immediately.

LIST OF ABBREVIATIONS

BMP:	Best Management Practice	SPCC:	Spill Prevention Control and Countermeasure
CGP:	Construction General Permit	SW3P:	Storm Water Pollution Prevention Plan
DSHS:	Texas Department of State Health Services	PCN:	Pre-Construction Notification
FHWA:	Federal Highway Administration	PSL:	Project Specific Location
MOA:	Memorandum of Agreement	TCEQ:	Texas Commission on Environmental Quality
MOU:	Memorandum of Understanding	TPDES:	Texas Pollutant Discharge Elimination System
MS4:	Municipal Separate Stormwater Sewer System	TPWD:	Texas Parks and Wildlife Department
MBTA:	Migratory Bird Treaty Act	TxDOT:	Texas Department of Transportation
NOT:	Notice of Termination	T&E:	Threatened and Endangered Species
NWP:	Nationwide Permit	USACE:	U.S. Army Corps of Engineers
NOI:	Notice of Intent	USFWS:	U.S. Fish and Wildlife Service

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used.

Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act.

Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the following are detected:

* Dead or distressed vegetation (not identified as normal)
* Trash piles, drums, canister, barrels, etc.
* Undesirable smells or odors
* Evidence of leaching or seepage of substances

Does the project involve any bridge class structure rehabilitation or replacements (bridge class structures not including box culverts)?

☐ Yes ☒ No

Are the results of the asbestos inspection positive (is asbestos present)?

☐ Yes ☒ No

If "Yes", then TxDOT must retain a DSHS licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled demolition.

If "No", then TxDOT is still required to notify DSHS 15 working days prior to any scheduled demolition.

In either case, the Contractor is responsible for providing the date(s) for abatement activities and/or demolition with careful coordination between the Engineer and asbestos consultant in order to minimize construction delays and subsequent claims.

Any other evidence indicating possible hazardous materials or contamination discovered on site. Hazardous Materials or Contamination Issues Specific to this Project:

☒ No Action Required ☐ Required Action

Action No.

1.

VII. OTHER ENVIRONMENTAL ISSUES

(includes regional issues such as Edwards Aquifer District, etc.)

☒ No Action Required ☐ Required Action

Action No.

1.

2.

3.

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Design Division Standard

ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

EPIC

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©TxDOT: February 2015	CONT	SECT	JOB		HIGHWAY	
REVISIONS	0231	03	155		IH 14	
12-12-2011 (DS)	DIST	COUNTY			SHEET NO.	
05-07-14 ADDED NOTE SECTION IV.	WACO	BELL			138	
01-23-2015 SECTION I (CHANGED ITEM 1122 TO ITEM 506, ADDED GRASSY SWALES.						

BEST MANAGEMENT PRACTICE (BMP) GENERAL NOTES

1. Prior to TxDOT allowing the Contractor to start construction, the Contractor will provide the required storm water and 404 permit documentation and support activities, including but not limited to the following:

   - Provide a list of all chemicals, construction and waste products that will be generated, stored or brought upon TxDOT ROW. The list includes expected construction debris, sanitary wastes, construction chemicals and petroleum products used or generated by the Contractor and sub-contractors. Along with the list, the Contractor will supply a spill prevention plan and clean up procedures that will include each of these chemical products or generated waste.

   - Provide in the construction schedule the necessary line items that will comply with the schedule and planning requirements of the storm water permit.

   - Post the TxDOT storm water permit and any Contractor permits, per permit requirements.

   - Provide copies of storm water permits for Contractor PSL(s). As new PSL(s) may be obtained for the project, provide copies of new or amended permits to TxDOT. The Contractor will not disturb soil without the proper permits.

   - Provide scale drawings of off ROW PSL's within one mile of the project, for field offices, borrow sources, plant sites or other uses.

   - Provide permit information on any Contractor batch plants or concrete crushing plants to be located at a Contractor PSL(s) within one mile of the project limits or boundaries. Copies of the air and water permits are to be provided to TxDOT before materials will be used on the project. No asphalt or concrete batch plants or concrete crushing plants will be located on TxDOT ROW.

   - Provide a letter indicating a Contractor Responsible Person for environmental compliance (CRP) for the project, and maintain a CRP throughout the project duration.

   - Provide all environmental documentation including certification of compliance and EMS training documents/certificates prior to starting work. The Contractor is to provide daily BMP inspection reports that document all field BMPs needing repair or replacement. The Contractor is to clearly document specific BMPs needing repair and location each work day. The Contractor is encouraged to be proactive in fixing BMPs without TxDOT direction.

   - Provide documentation required for Waters of the US, Note #3 and submittals for Item 496 bridge removal. Bridge removal methods submitted will follow all Waters of the US note requirements. The Contractor is not to start construction within the Ordinary High Water Marks of any stream until receiving approval for stream channel construction methods from TxDOT.

   - Provide a written procedure for managing all chemicals and construction items placed in vertical containment structures. Also, provide methods to be used for the treatment, disposal, collection or release of storm water.

   - Provide an estimated date by letter, for the submittal of marked up bridge drawings, indicating cut locations for any structural steel requiring cutting or torching of steel, coated with lead containing paints.

2. Place and maintain trash cans and portable sanitary facilities at locations where there is active construction. Worker generated trash and construction debris will be kept from being transported by storm water and will be collected daily from the ground and routinely hauled from the work area.

3. Contractor will provide TxDOT copies of all correspondence with MS4s, TCEQ, EPA, DSHS and Corps of Engineers regarding activities on this project.

4. Contractor to conduct storm water inspections and develop SWPPP documents to support Contractor permits obtained for the project including PSL(s).

5. Contractor will maintain written documentation of locations of all portable sanitary facilities. The Contractor is required to document the location and disposition of all spills and cleanups from portable sanitary facilities.

6. Contractor will not store chemicals on TxDOT ROW, unless chemicals are stored following all environmental and safety regulations. Fuels for construction equipment will not be stored on TxDOT ROW.

7. The Contractor will store fuels and bulk chemicals on Contractor PSL(s) using a secondary containment method, such as double lined tanks and/or free standing containment reservoirs made of plastic or steel designed to hold bulk chemicals or drums.

8. The Contractor will not remove sediment controls without the prior approval of TxDOT, except for a sediment control that may back up water and cause safety or traffic problems.

SCALE = NTS SHEET 1 OF 10

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Waco District Standard

TYPICAL APPLICATIONS FOR BEST MANAGEMENT PRACTICES

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BEST MANAGEMENT PRACTICE (BMP) GENERAL NOTES

9. Any sediment controls removed by the Contractor must be re-installed before the next rainfall event or by the end of day, as approved in advance.

10. Vegetative buffer strips may be used in place of temporary sediment controls such as silt fences and rock filter dams. The amount of disturbed soil area will be limited to 1/3 of an acre or less for a minimum of 50 feet of grassed ditch and 2/3 of an acre of disturbed soil for a minimum of 100 feet of grassed ditch.

11. Construction equipment found to be leaking oil, fuel or coolant will be immediately stopped, the leaking fluid collected and the equipment fixed. Equipment continuing to leak will be removed from the project at no cost to TxDOT. Leaking fluids from equipment will be collected and removed from the project or PSL.

12. Earth berms or mounds typically used to stockpile topsoil and used in place of boundary silt fence will be seeded upon being constructed. Long term use of earth berms or mounds will not be continued without establishing grass on the control.

13. The Contractor will inform TxDOT of new areas where soil will be disturbed to facilitate planning for new sediment controls. Areas of vegetated soil will not be disturbed by the Contractor, unless adequate sediment controls can be installed before the next rainfall event. The Contractor will assist TxDOT in keeping an accurate set of working SWPPP drawings that show the locations of all temporary sediment and erosion controls.

14. The Contractor will maintain an adequate amount of temporary sediment controls on hand at the field office or project staging area for critical SWPPP maintenance, including silt fence (minimum of 200 feet) and rock / fabric for rock filter dams (minimum for 100 feet of Type III dams).

    The requirement for BMP rock quantities on hand is waived for small projects for on and off system bridge installations. The Contractor having a BMP Subcontractor does not eliminate the requirement for the Contractor to have the required silt fence and rock on hand, typically stored at the Contractor PSL.

15. Failure of a sub-contractor to complete storm water work on time will require the Contractor to start storm water sediment control work immediately and complete the work with high priority, or be subject to stop work on the entire project.

16. Earth materials on roads as a result of soil tracking will not be allowed to be transported off ROW in storm water. Soil or rock material found on roadways deposited from Contractor equipment will be removed daily.

17. Unless approved, completed concrete curb inlets will not be blocked by sediment controls. The contractor will frequently sweep the completed or partially completed roadway to keep sediment out of drainage pipes.

18. The Contractor will be responsible for proper dust control and will route construction traffic in a manner that minimizes dust generation.

19. Water for dust control will contain no pollutants, but may be non-potable from upland stock ponds. No quantity of water to be used for construction purposes may be taken from a 404 stream, prior to the proper authorizations or permits being obtained by the Contractor.

20. Contractor is to direct workers and sub-contractors to use portable sanitary facilities provided by the Contractor and not to trespass off ROW.

21. Contractor will provide written verification to TxDOT that earth borrow pits and disposal sources meet environmental and regulatory requirements, prior to use. Excavations will meet all OSHA requirements and the current safety guidelines established for TxDOT Quarries and Pits.

22. Boundary silt fences that are terminated down slope, with one end being at the lowest elevation, will be installed with an L - hook to contain sediment. Boundary silt fences that are installed on flat ground will have L-hooks on both ends.

23. Rock filter dams across ditches will be constructed where the rock filter dam ends are embedded within the ditch side slopes and ditch bottom. The top center elevation of the rock filter dam will be at least 6 inches lower than the elevations on the rock filter dam ends.

24. Silt fence will be constructed in a U or V pattern across ditch lines and up the ditch side slope to keep storm water from flowing around the ends of the silt fence. Small silt fences that do not adequately span the ditch and allows storm water around the end(s) will not be used. Where there is adequate space, large U pattern silt fences are preferred to facilitate sediment collection and sediment removal with equipment.

25. Sediment controls (RFDs or silt fences) will be located along road ditches as marked on the SWPPP drawings. Modifications to the sediment control spacing will be adjusted during the project based on sediment control effectiveness. The installation and maintenance of sediment controls at or near outfalls, where storm water leaves TxDOT ROW, takes persistent over ditch line sediment controls.

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TYPICAL APPLICATIONS FOR BEST MANAGEMENT PRACTICES

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BEST MANAGEMENT PRACTICE (BMP) GENERAL NOTES

26. Storm water draining sheet flow over disturbed soil sloped towards the ROW property line, will be intercepted by a boundary silt fence typically installed with L-shaped ends.

27. For ditch grading and shoulder up work, the Contractor is limited during good weather to remove up to one mile (limited to five acres of disturbed soil) of ditch line sediment controls; on one side of the roadway. Outfall controls cannot be removed during this activity. Ditch line controls must be replaced upon completion of work and before the next rain event.

28. Sediment controls damaged by the Contractor, as defined by permit, must be fixed or replaced immediately upon discovery.

29. Notches in silt fences are not typically allowed. Specific silt fences that back up water onto lanes of traffic may be notched if approved.

30. For silt fence maintenance, the Contractor will leave approximately 4 inches of deposited sediment up stream of silt fences and not over excavate around silt fences or rock filter dams.

31. The Contractor will inform TxDOT of new construction areas and where soil is planned to be disturbed. Sediment controls will be installed at outfalls prior to the Contractor beginning soil disturbing activities up slope from the outfall.

32. Water from concrete saw cutting, concrete grinding and concrete coring activities; or fine materials from concrete chipping and salvage will not be allowed to enter storm drains or enter streams.

33. Storm water containing suspended sediment and turbidity needing to be removed from excavations or low areas will be pumped or gravity drained through vegetated buffer strips (50 foot minimum) or placed in ditches with temporary sediment controls, prior to the water being discharged into a stream.

34. Uncontaminated water from natural groundwater seepage, springs, foundations and drains that does not contain suspended sediment or any pollutants may be discharged without storm water controls.

35. Lime or cement if spilled in ditches or outside the defined limits of application is considered a pollutant and will be excavated and removed the same day, to avoid contaminating streams.

36. If located along the project ROW, RAP stockpiles will be located where there is a minimum 100 feet of vegetative buffer strip before storm water will reach a stream. RAP will not be used as a construction material within the Ordinary High Water Marks of a stream channel of a 404 designated stream.

37. If allowed on the project, concrete truck wash out areas will have adequate volume to allow 12 inch freeboard for rain and will be lined with 6 mils of plastic. No concrete will be stored higher than the 12 inch freeboard. Cleaning of truck chutes and equipment does not constitute concrete truck wash out and this activity may be completed at the concrete placement location. Wash out areas will not be located closer than 50 ft from down slope inlets or stream channels.

38. For outfalls near stock ponds closer than 50 foot from disturbed soil at the ROW line, redundant sediment controls will be provided, typically a combination of rock filter dam and a silt fence constructed in line of the flow.

39. Earth stockpiles will utilize silt fence sediment controls, positioned on the low end of the stockpile drainage area with L-hooks or silt fence installed around the entire stockpile.

40. Sediment controls including rock filter dams and silt fences will not be installed across any 404 streams. Sediment controls at 404 streams will be positioned to limit sediment entering the stream from the banks and around structures/culverts, and will allow free flow of storm water to pass through the ROW without being dammed by any sediment controls. Remove loose materials from stream channels prior to each rain event.

41. Sediment controls for non-404 streams may be constructed across the drainage channel in unlimited locations. It is appropriate to use sediment control details typically used for 404 streams for non-404 streams when flow velocities are high. Remove loose material from stream channels prior to each rain event.

42. Incomplete drainage pipe installation across the roadway does not remove the requirement for having sediment controls around the ends of the pipe. To stay within permit requirements, sediment controls should be installed over and around the terminated end and along each side of the banks as soon as construction on the pipe has been completed. Remove loose material from stream channels prior to each rain event.

43. Safety end / headwall construction temporarily will require the removal of part of the sediment control placed over and around the pipe end. Retain in place as much functioning sediment control as possible. Replace the silt fence over and around the top of the pipe, immediately upon concrete placement and form removal. Do not remove culvert sediment controls that cannot be replaced before the next rain event. Sediment control at the ends of culverts must be in place and available for any rain event until the disturbed soil areas are re-vegetated.

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BEST MANAGEMENT PRACTICE (BMP) GENERAL NOTES

44. Between the Ordinary High Water Marks of a 404 stream channel, the Contractor will disturb only the minimum amount of stream channel that is necessary to complete the work.

45. Rock riprap for erosion control does not replace the requirements to maintain sediment control until vegetation is re-established. Replace sediment controls immediately after installing erosion rock.

46. At the direction of TxDOT, sediment deposited into existing and new culverts will be removed subsidiary to Item 506. Sediment to be removed is either pre-existing material before construction starts or sediment generated as a part of this project.

47. Provide treated 2X4 cross bracing for rectangular inlet silt fence, subsidiary to Item 506.

48. Loose or granular earth materials will not be used to repair silt fence undercuts. Silt fence undercut repairs will be conducted with well compacted soils or the silt fence will be reset in a nearby location.

49. Silt fence steel T posts of approximately 1.25 pounds per foot are allowed at a spacing of 8 feet or less. Silt fence steel T posts between approximately 1.25 pounds per foot and 0.85 pounds per foot are allowed for T post spacing of 5 feet or less.

50. Silt fence to be used to slow the flow of storm water down slopes will be positioned approximately horizontal (on the contour) with L hooks on the ends and limited to approximately 200 feet in length. Multiple sections and levels of silt fence may be required in addition to temporary / permanent erosion control flumes.

51. Soil retention blankets will be installed rolled down the slope with the small dimension side embedded at the top of slope, unless recommended otherwise by the manufacturer. Excess grass, rocks, trash, debris or clods will be removed before seeding and installing soil retention blankets. All installations will be by the manufacturer recommendations. Contractor equipment, including tractor mowers will be kept off areas with soil retention blankets until the grass is established.

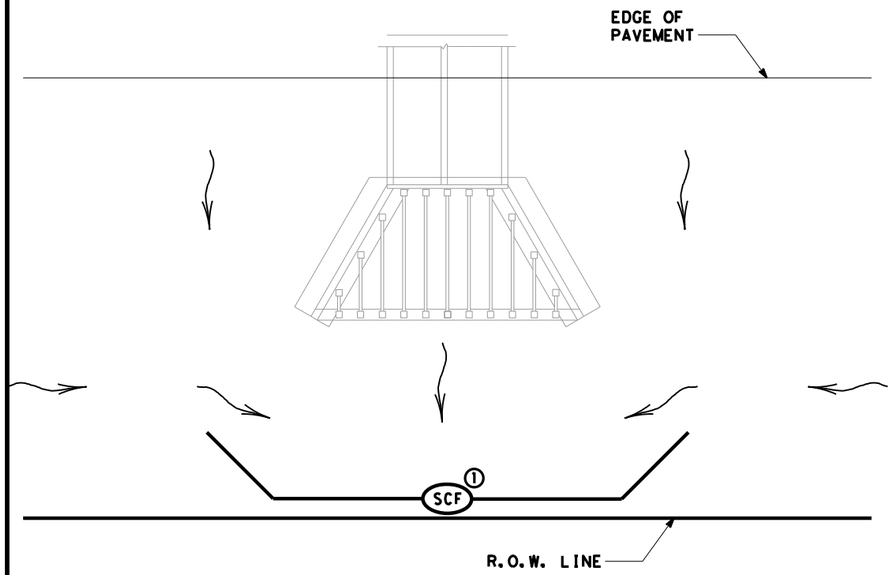
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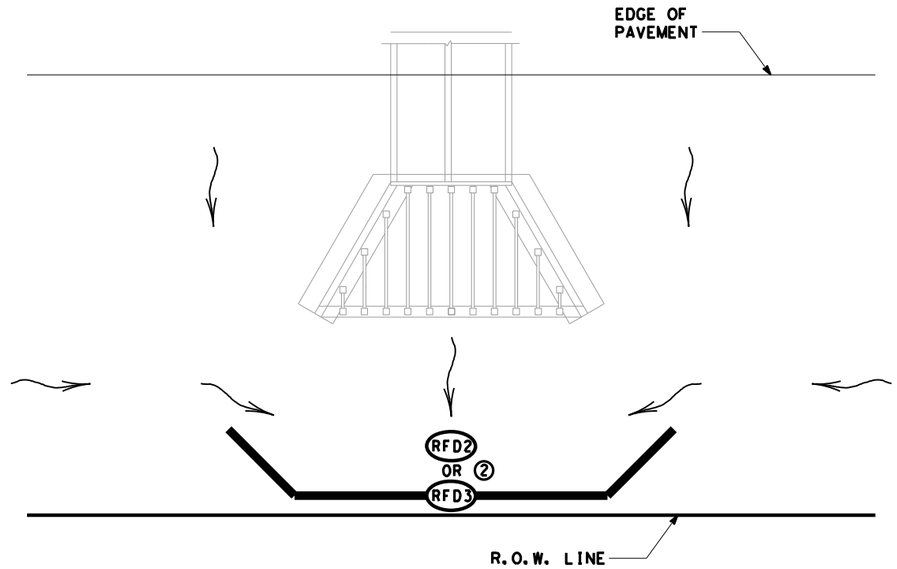
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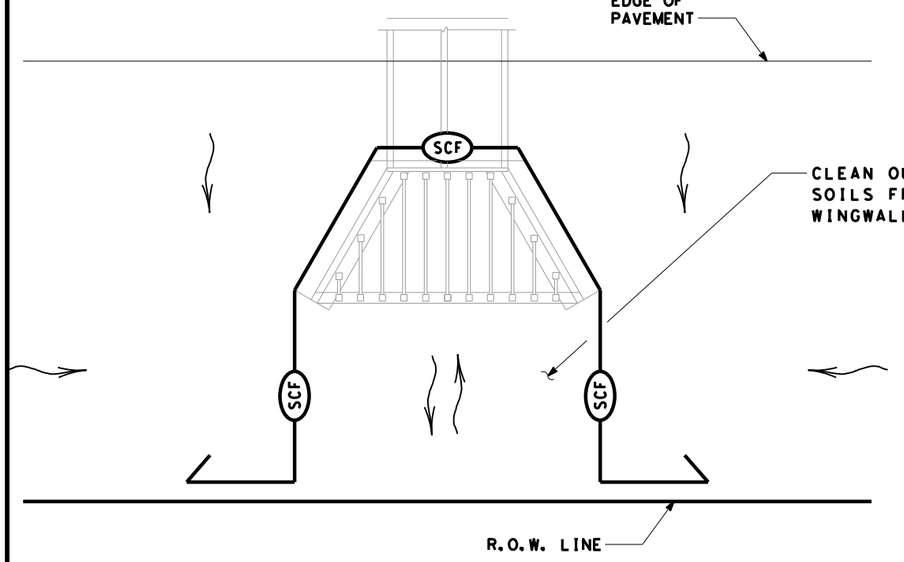
BEST MANAGEMENT PRACTICE (BMP) #1

FOR NON-404 STREAMS ONLY ~ SEDIMENT CONTROL AT EXIT OF CULVERT



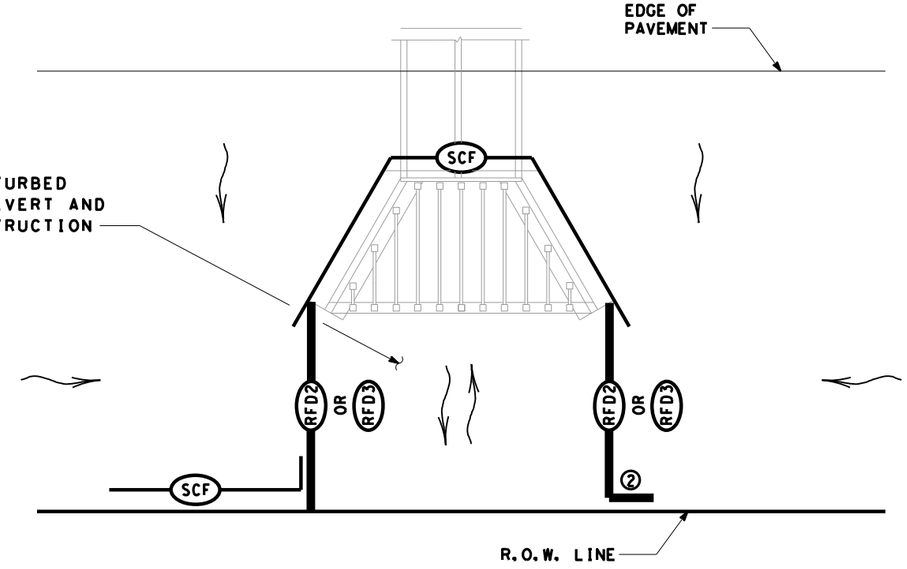
BEST MANAGEMENT PRACTICE (BMP) #2

FOR NON-404 STREAMS ONLY ~ SEDIMENT CONTROL AT EXIT OF CULVERT



BEST MANAGEMENT PRACTICE (BMP) #3

FOR 404 OR NON-404 STREAMS ~ SEDIMENT CONTROL AT EXIT OR ENTRANCE OF CULVERT



BEST MANAGEMENT PRACTICE (BMP) #4

FOR 404 OR NON-404 STREAMS ~ SEDIMENT CONTROL AT EXIT OR ENTRANCE OF CULVERT

SCF	SEDIMENT CONTROL FENCE
RFD2	ROCK FILTER DAM (TY 2)
RFD3	ROCK FILTER DAM (TY 3)
	DIRECTION OF FLOW

NOTES:

1. EXTEND SILT FENCE SO STORM WATER DOES NOT GO AROUND THE ENDS. USE L-HOOKS ON ENDS AS REQUIRED.
2. EXTEND ROCK FILTER DAM SO STORM WATER DOES NOT GO AROUND THE ENDS.

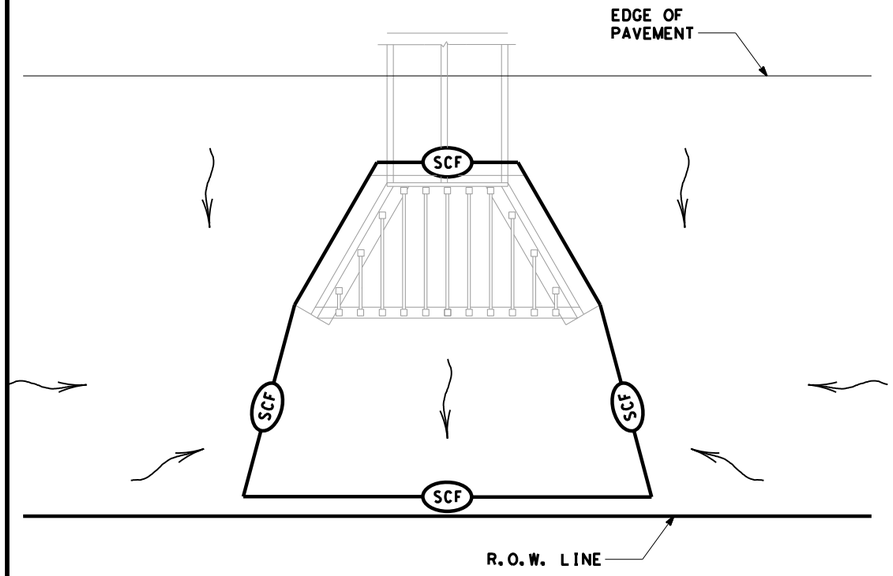
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TYPICAL APPLICATIONS FOR BEST MANAGEMENT PRACTICES

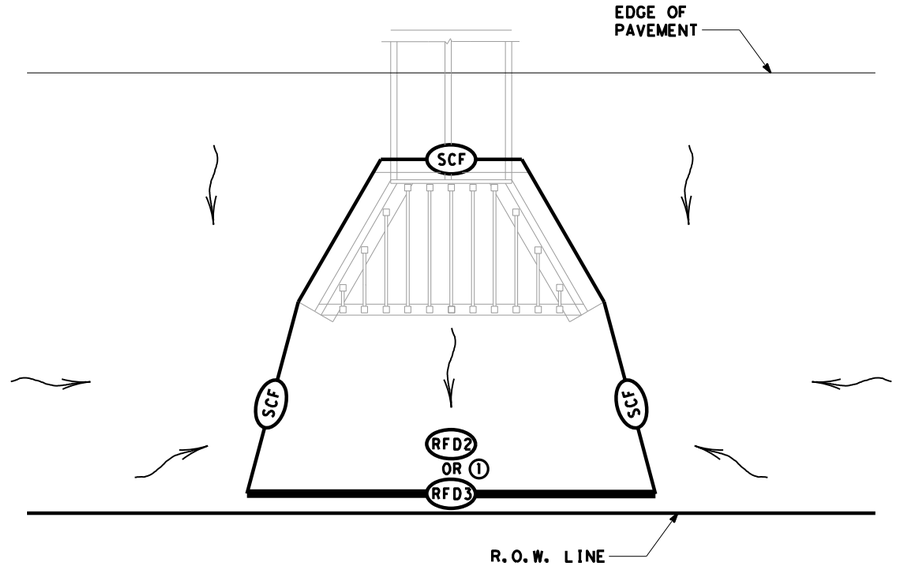
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BEST MANAGEMENT PRACTICE (BMP) #5

FOR NON-404 STREAMS ONLY ~ SEDIMENT CONTROL AT EXIT OF CULVERT



BEST MANAGEMENT PRACTICE (BMP) #6

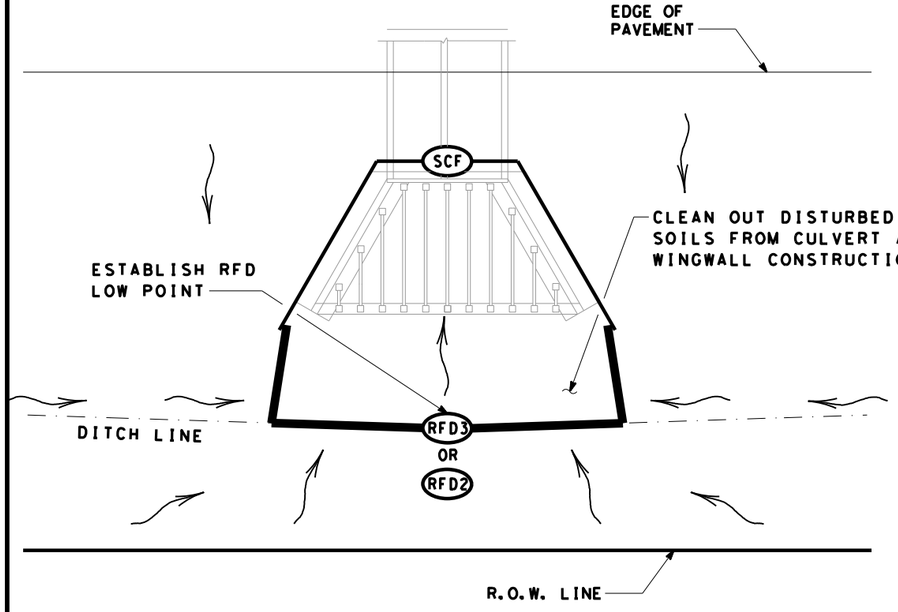
FOR NON-404 STREAMS ONLY ~ SEDIMENT CONTROL AT EXIT OF CULVERT

SCF	SEDIMENT CONTROL FENCE
RFD2	ROCK FILTER DAM (TY 2)
RFD3	ROCK FILTER DAM (TY 3)
	DIRECTION OF FLOW

NOTES:

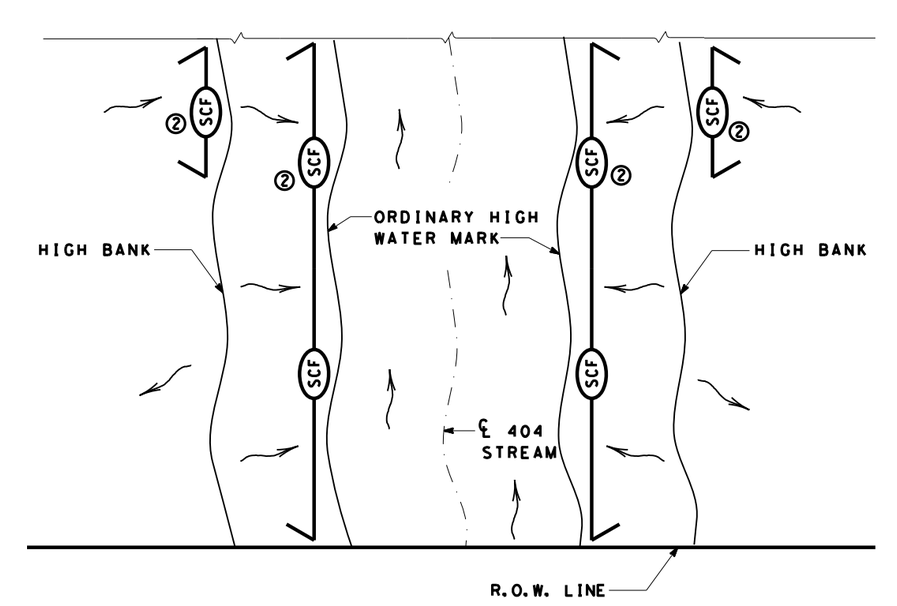
① PROVIDE OVERLAP OF SILT FENCE WITH ROCK FILTER DAM.

② USE SILT FENCE L-HOOKS ON ENDS TO BLOCK STORM WATER SEDIMENT



BEST MANAGEMENT PRACTICE (BMP) #7

FOR NON-404 STREAMS ONLY ~ SEDIMENT CONTROL AT ENTRANCE OF CULVERT



BEST MANAGEMENT PRACTICE (BMP) #8

FOR 404 STREAMS ~ SEDIMENT CONTROL DURING PROJECT CLEARING AND GRUBBING

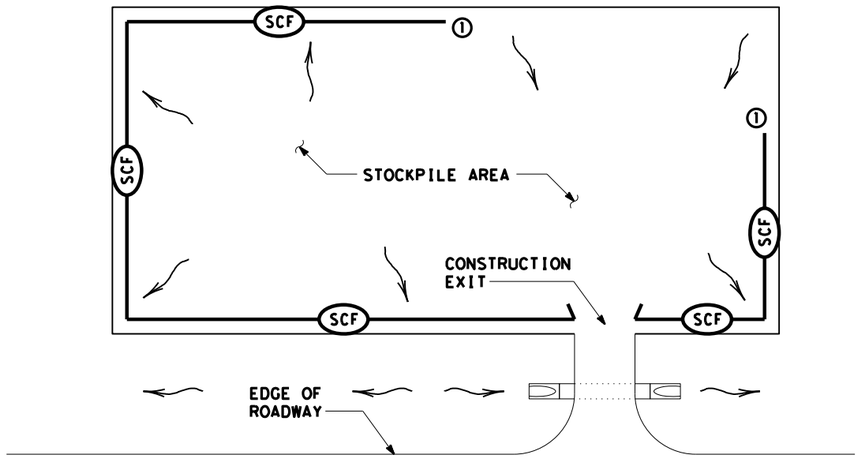
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TYPICAL APPLICATIONS FOR BEST MANAGEMENT PRACTICES

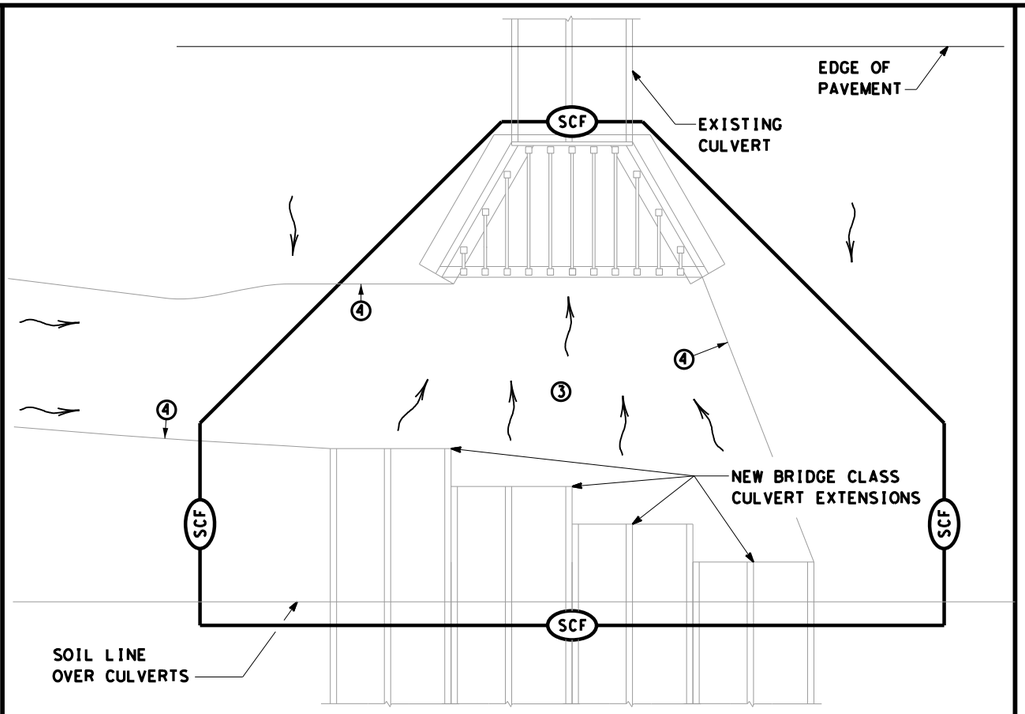
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BEST MANAGEMENT PRACTICE (BMP) #9

STOCKPILE SEDIMENT CONTROL



BEST MANAGEMENT PRACTICE (BMP) #10

FOR 404 OR NON-404 STREAMS ONLY ~
SEDIMENT CONTROL AT PHASED CONSTRUCTION OF BRIDGE CLASS CULVERTS

SCF	SEDIMENT CONTROL FENCE
RFD2	ROCK FILTER DAM (TY 2)
RFD3	ROCK FILTER DAM (TY 3)
	DIRECTION OF FLOW

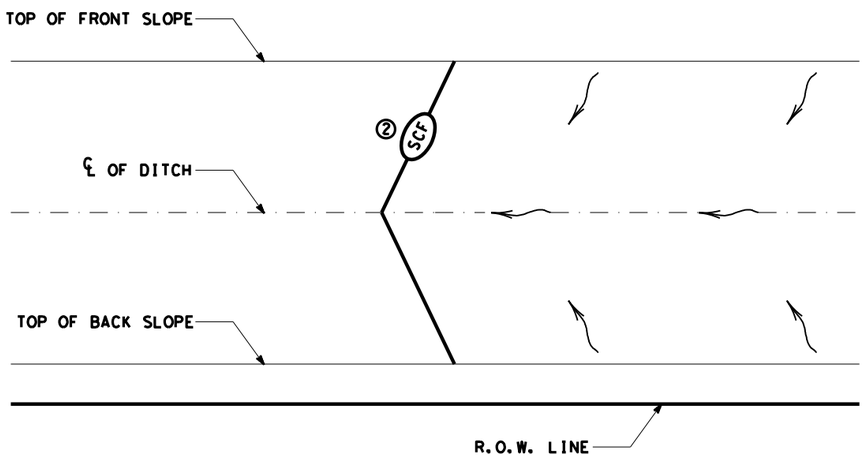
NOTES:

① START SEDIMENT CONTROL AT LOCATION SO ALL STORM WATER WITH SEDIMENT IS COLLECTED

② ROCK FILTER DAMS OR EARTH/GRASSED EMBANKMENTS CAN BE SUBSTITUTED AS DIRECTED.

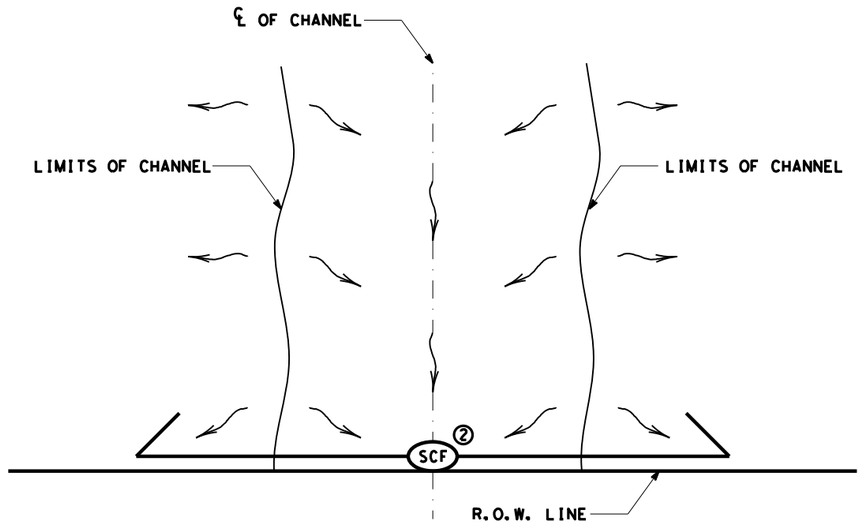
③ PROVIDE A SMOOTH TRANSITION FROM THE INVERT ELEVATIONS BETWEEN CULVERTS. REMOVE LOOSE SOIL FROM EXCAVATED AREA BETWEEN CULVERTS.

④ PROVIDE AND INSTALL PNEUMATICALLY PLACED CONCRETE ON THE DITCH BOTTOM AND SIDE SLOPES BETWEEN TEMPORARY TERMINATIONS BETWEEN OLD AND NEW CULVERTS. PNEUMATICALLY PLACED CONCRETE WILL BE PLACED TO THE HEIGHT OF THE LARGEST CULVERT ON THE DITCH SIDE SLOPES; AND TO A LIMIT 10 FEET OUTSIDE THE LOCATION OF BMPS ALONG THE DITCH BOTTOM. CEMENT STABILIZED SAND MAY BE SUBSTITUTED FOR PNEUMATICALLY PLACED CONCRETE, IN AREAS WHERE INSTALLATION WORKS AND AT THE OPTION OF TXDOT.



BEST MANAGEMENT PRACTICE (BMP) #11

BOUNDRY SEDIMENT CONTROL ~ BOTH ENDS OF CONTROL TERMINATED UP SLOPE



BEST MANAGEMENT PRACTICE (BMP) #12

BOUNDRY SEDIMENT CONTROL ~ BOTH ENDS OF CONTROL TERMINATED DOWN SLOPE

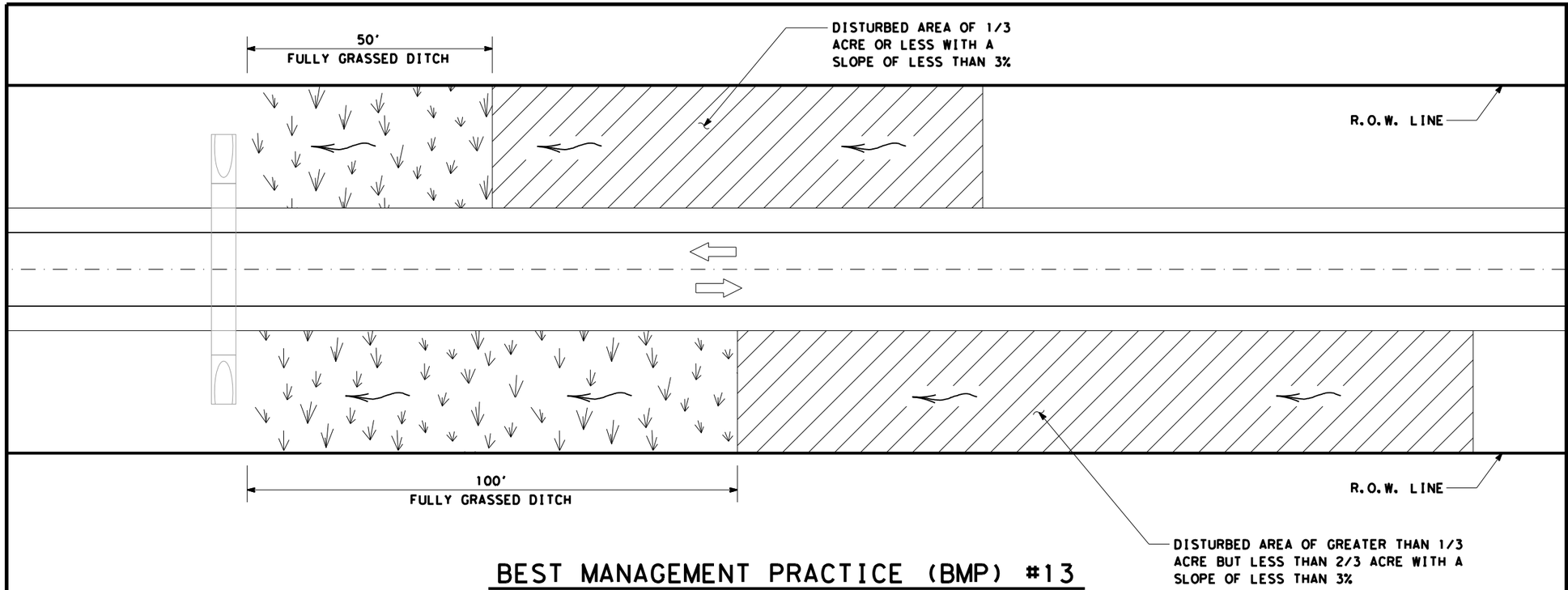
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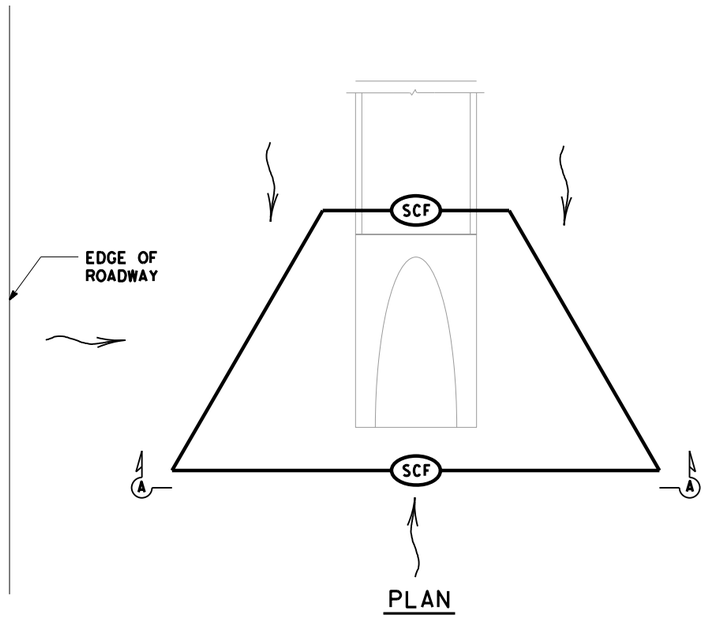
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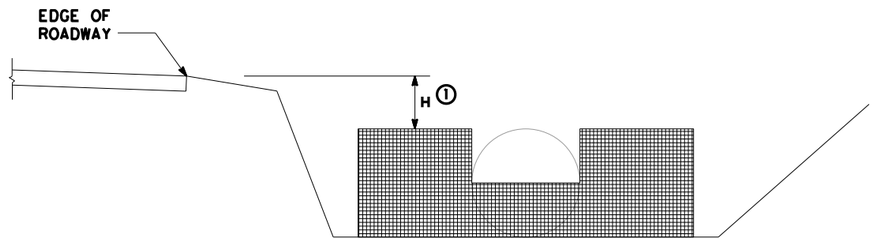


BEST MANAGEMENT PRACTICE (BMP) #13

USE OF VEGETATIVE BUFFERS IN PLACE OF TEMPORARY SEDIMENT CONTROLS SUCH AS SILT FENCE AND ROCK FILTER DAMS



PLAN



VIEW A-A

BEST MANAGEMENT PRACTICE (BMP) #14

NON-404 STREAMS AND DITCHES ONLY - SEDIMENT CONTROL AT PARALLEL DRAINAGE STRUCTURE ENTRANCE ②

	FULLY GRASSED DITCH
	DISTURBED AREA
	DIRECTION OF FLOW
SCF	SEDIMENT CONTROL FENCE

① FOR H DIMENSIONS LESS THAN 1.5' SILT FENCE MAY NEED TO BE NOTCHED AS SHOWN IN VIEW A-A. ADD EXTRA POSTS AT NOTCH.

② BMP #14 MAY BE USED AT CROSS DRAINAGE STRUCTURES AS DIRECTED.

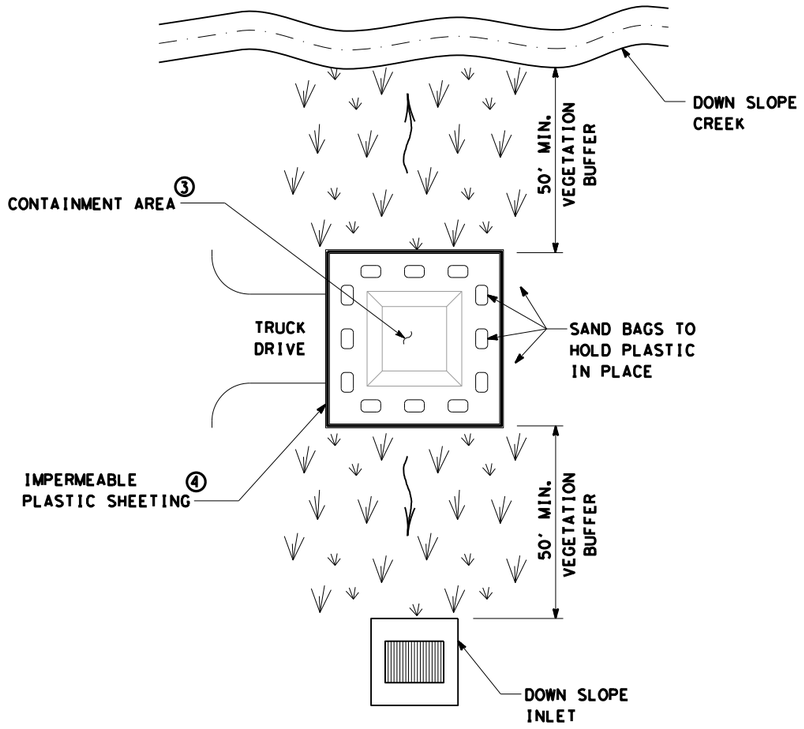
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Waco District Standard

TYPICAL APPLICATIONS FOR BEST MANAGEMENT PRACTICES

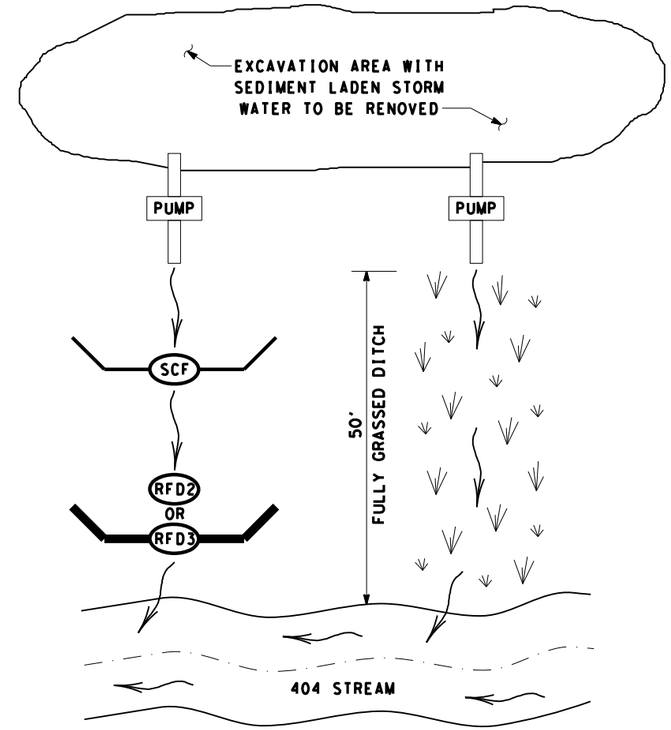
TA-BMP

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© TxDOT 2009	CONT	SECT	JOB	HIGHWAY
REVISIONS DEC 2013 FEB 2015	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		146



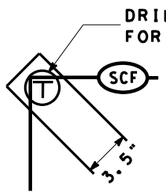
BEST MANAGEMENT PRACTICE (BMP) #15

CONCRETE TRUCK WASHOUT AREA

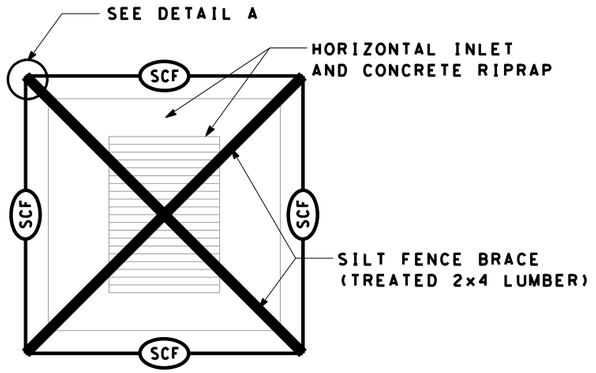


BEST MANAGEMENT PRACTICE (BMP) #16

PUMPED STORM WATER SEDIMENT CONTROLS ①

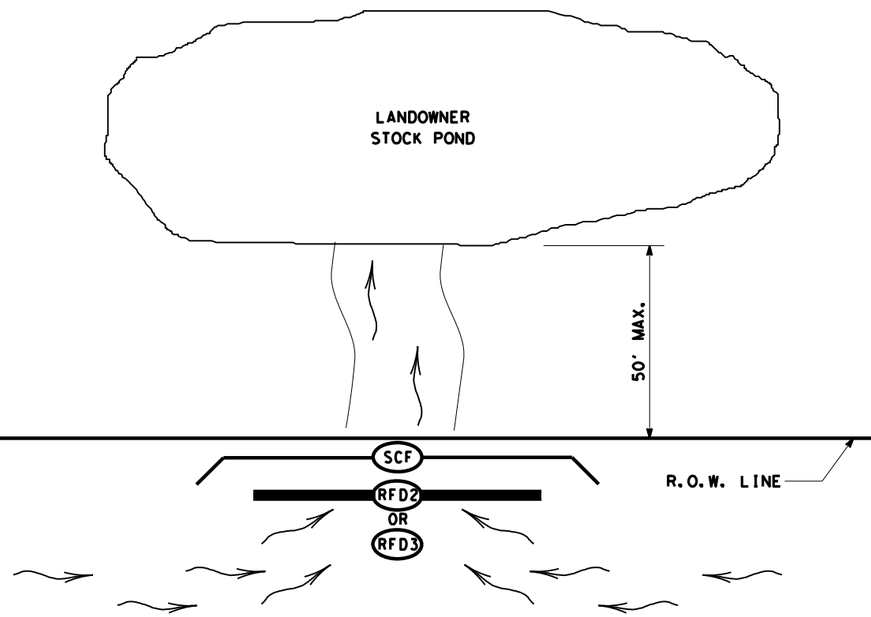


DETAIL A



BEST MANAGEMENT PRACTICE (BMP) #17

HORIZONTAL INLET SEDIMENT CONTROL



BEST MANAGEMENT PRACTICE (BMP) #18

LANDOWNER STOCKPOND SEDIMENT CONTROL ②

	FULLY GRASSED DITCH
	DIRECTION OF FLOW
SCF	SEDIMENT CONTROL FENCE
RFD2	ROCK FILTER DAM (TY 2)
RFD3	ROCK FILTER DAM (TY 3)

① PUMPED STROM WATER FROM AN EXCAVATION AREA SHOULD BE DISCHARGED IN A 50' VEGETATIVE BARRIER OR THROUGH TWO TEMPORARY SEDIMENT CONTROLS BEFORE ENTERING A 404 STREAM.

② FOR LANDOWNER STOCKPONDS WITHIN 50' OF THE RIGHT OF WAY LINE, PROVIDE REDUNDANT SEDIMENT CONTROLS AT THE CONVEYANCE OF THE POND. MINIMUM OF TWO SEDIMENT CONTROLS.

③ WHEN CONTAINMENT AREA REACHES 1' FREEBOARD, DISCONTINUE WASHOUT PLACEMENT AND REMOVE MATERIAL UPON SOLIDIFICATION.

④ EACH TIME SOLIDIFIED MATERIAL IS REMOVED REPLACE PLASTIC SHEETING.

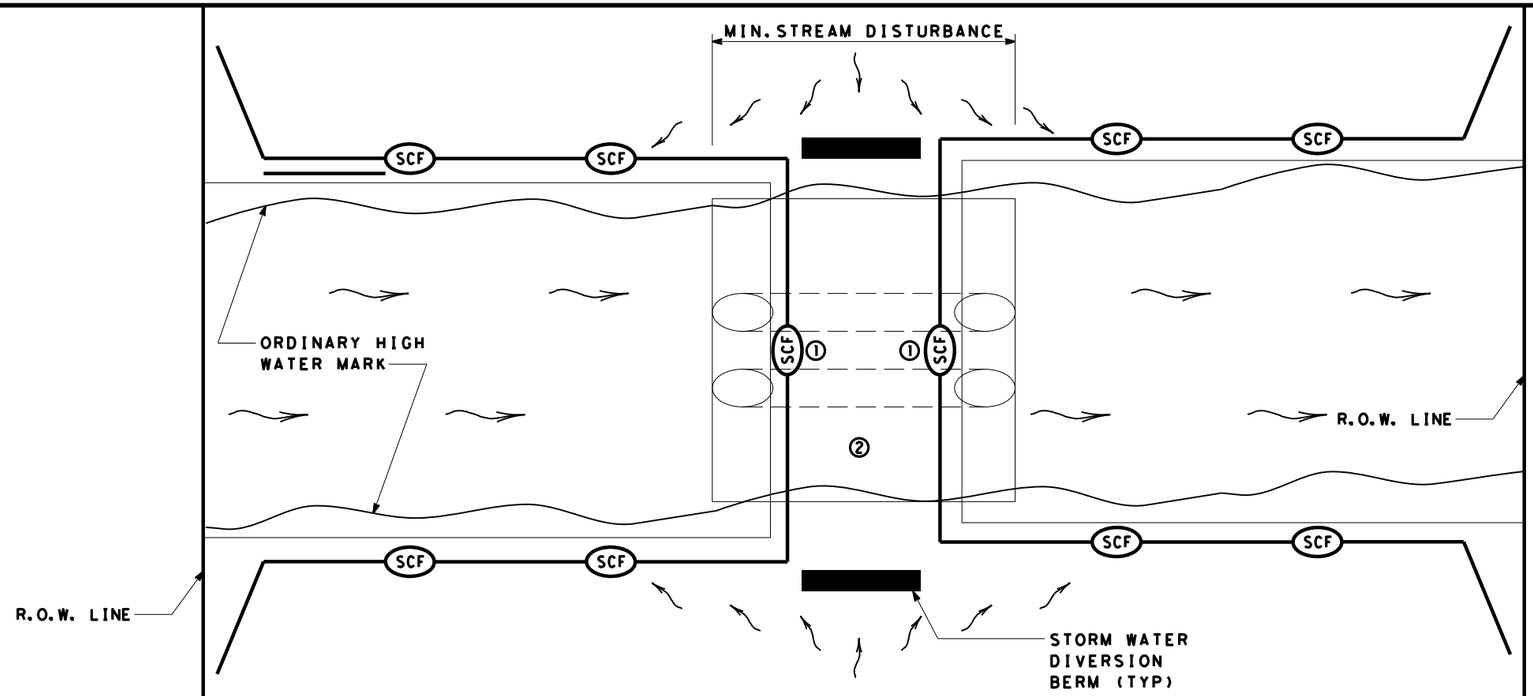
SCALE = NTS SHEET 9 OF 10

Texas Department of Transportation
Waco District Standard

TYPICAL APPLICATIONS FOR BEST MANAGEMENT PRACTICES

TA-BMP

FILE: BMPLAYOUTS.dgn	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
©TxDOT 2009	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
DEC 2013 FEB 2015	DIST	COUNTY		SHEET NO.
	WACO	BELL		147



BEST MANAGEMENT PRACTICE (BMP) #19

TYPICAL 404 STREAM CROSSING (SEDIMENT CONTROL AT CROSSING)

	DIRECTION OF FLOW
SCF	SEDIMENT CONTROL FENCE
RFD	ROCK FILTER DAM
	SECURITY FENCING

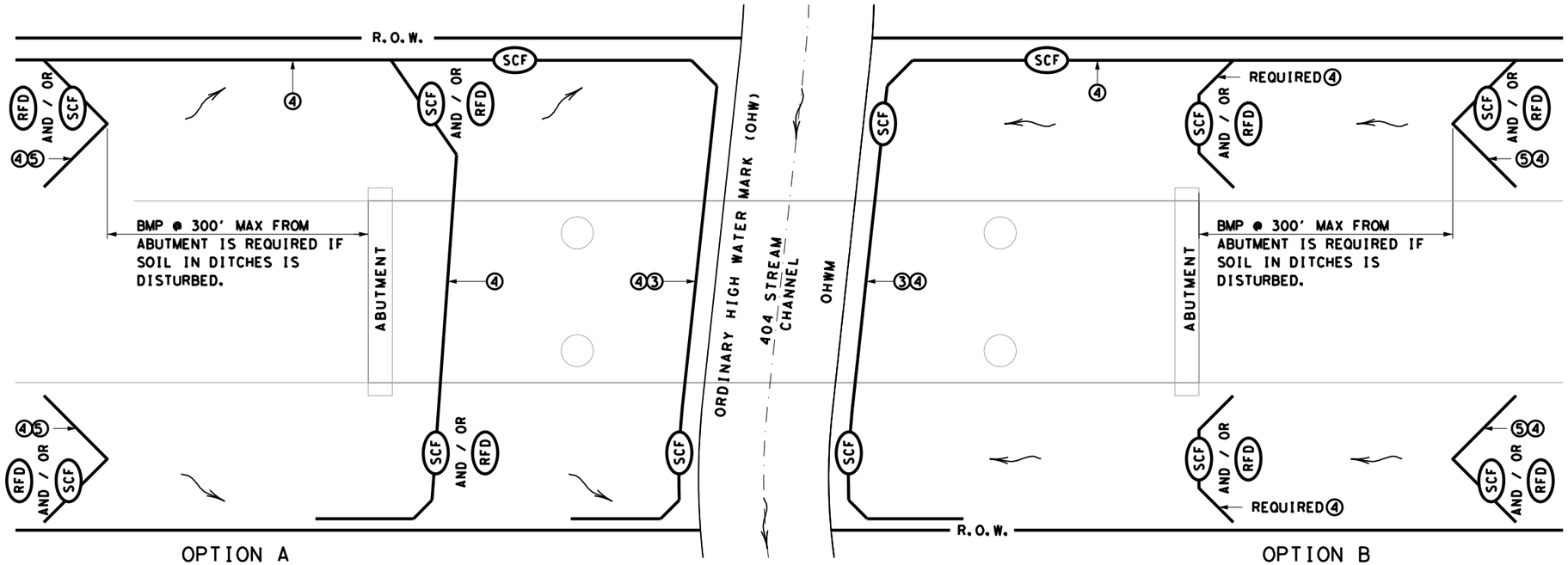
① HAY BALES MAY BE SUBSTITUTED FOR SILT FENCE OVER THE STREAM CROSSING.

② CROSSING WILL BE AS PER REQUIREMENTS OF THE WATERS OF THE US GENERAL NOTES.

③ INSTALL SILT FENCE SLIGHTLY UP FROM OHW MARK FROM R.O.W. TO R.O.W.

④ USE SILT FENCE L-HOOKS ON LEVEL OR DOWN SLOPING ENDS TO BLOCK STORM WATER SEDIMENT

⑤ INSTALL LARGE V OR U SHAPED BMP'S FROM ABUTMENT AS SHOWN. IF THERE IS STEEP DITCH CONDITIONS DECREASE SPACING AND CONSIDER RFD'S. ADD ADDITIONAL BMP'S IF GRADE IS STEEP OR IF FLOW IS HIGH.



BEST MANAGEMENT PRACTICE (BMP) #20

FOR 404 STREAMS ~ BMP'S AT BRIDGES

SCALE = NTS SHEET 10 OF 10

Texas Department of Transportation
Waco District Standard

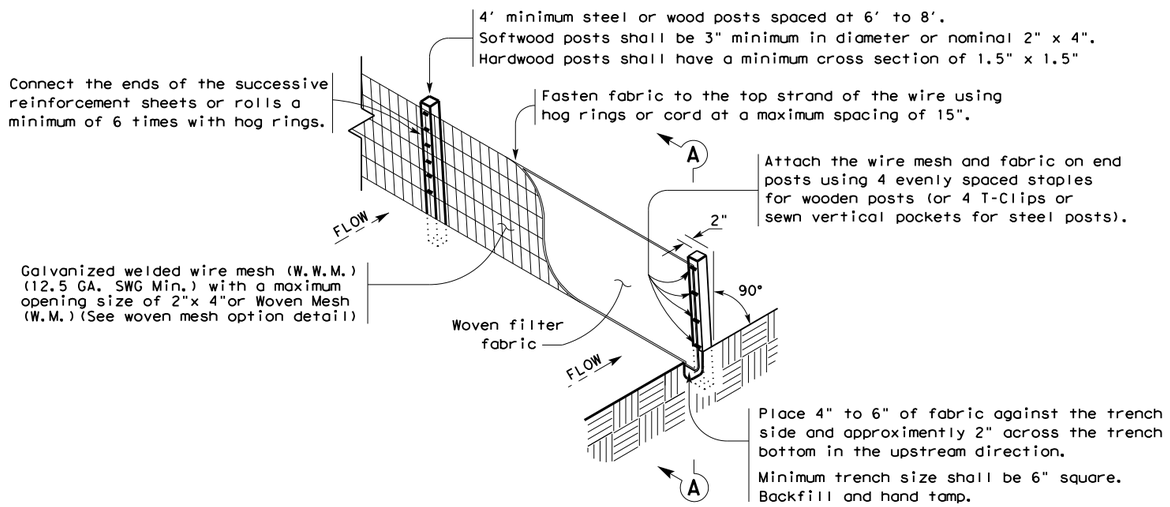
TYPICAL APPLICATIONS FOR BEST MANAGEMENT PRACTICES

TA-BMP

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© TxDOT 2009	CONT	SECT	JOB	HIGHWAY	
REVISIONS DEC 2013 FEB 2015	0231	03	156	IH-14	
	DIST	COUNTY		SHEET NO.	
	WACO	BELL		148	

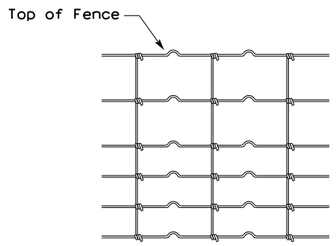
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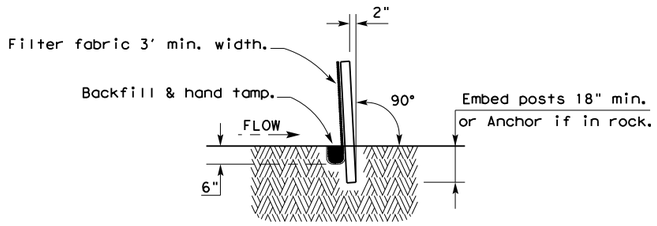
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TEMPORARY SEDIMENT CONTROL FENCE

SCF





SECTION A-A

HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL

Galvanized hinge joint knot woven mesh (12.5 GA.SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT^2. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

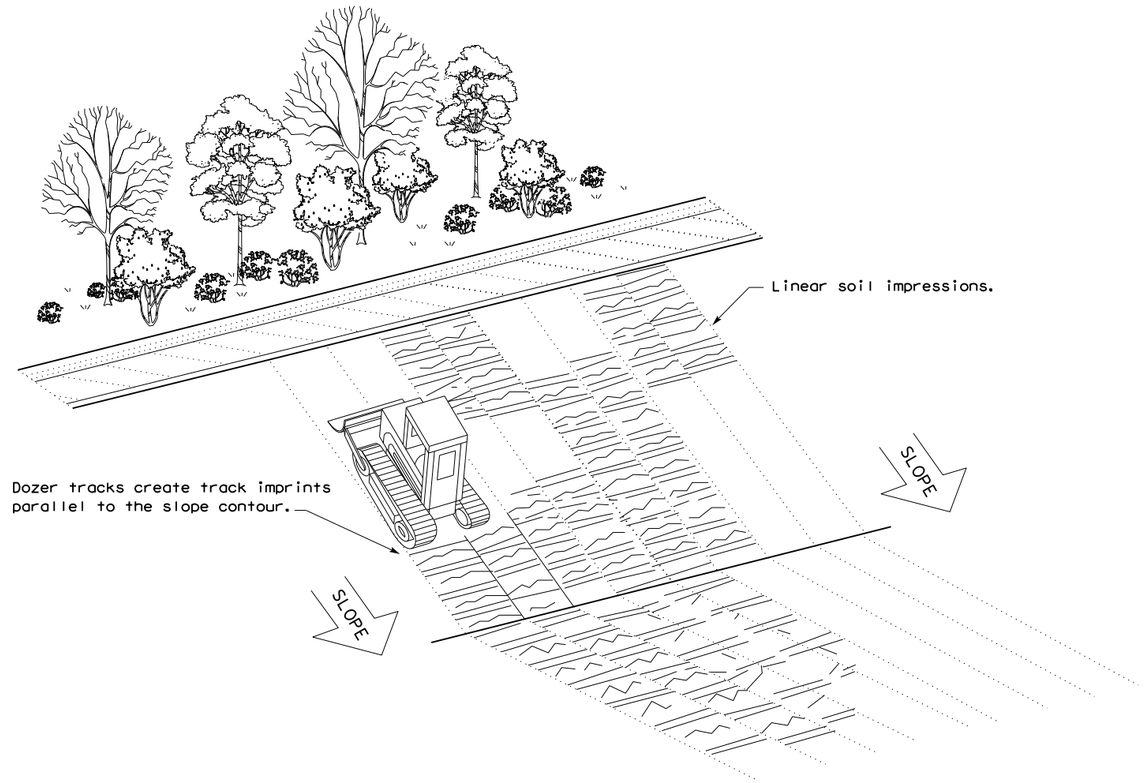
LEGEND

Sediment Control Fence

SCF

GENERAL NOTES

1. Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
2. Perform vertical tracking on slopes to temporarily stabilize soil.
3. Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
4. Do not exceed 12" between track impressions.
5. Install continous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.



VERTICAL TRACKING

Texas Department of Transportation

Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

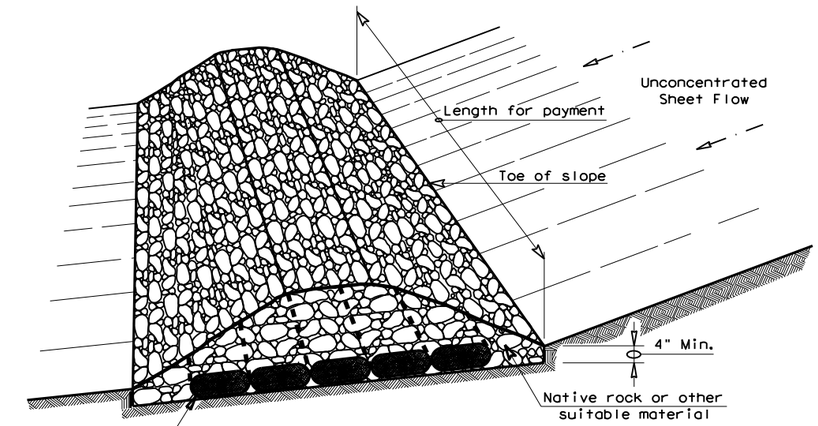
FENCE & VERTICAL TRACKING

EC(1)-16

FILE: ec116	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY
REVISIONS	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		149

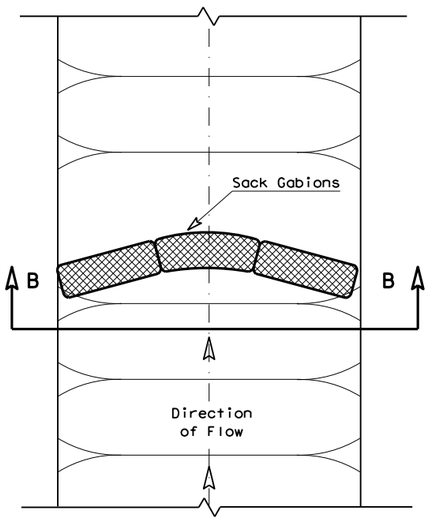
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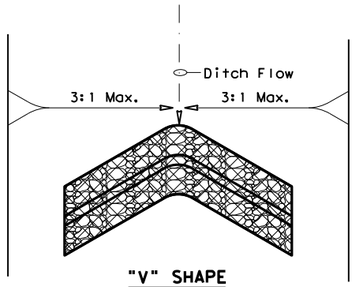


FILTER DAM AT TOE OF SLOPE

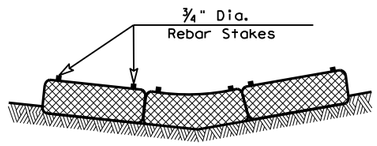
RFD1



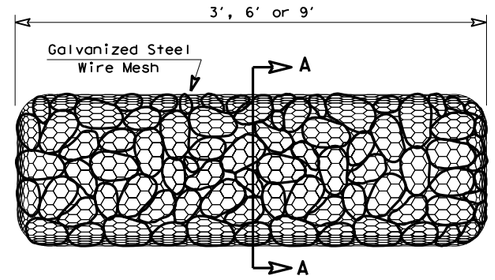
PLAN VIEW



"V" SHAPE
PLAN VIEW

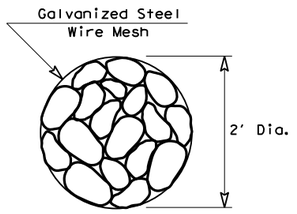


SECTION B-B

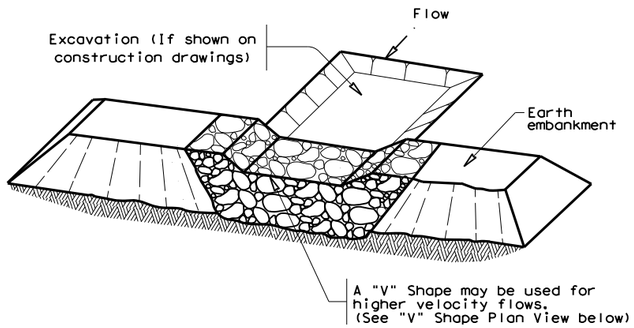


TYPE 4 (SACK GABIONS)

RFD4

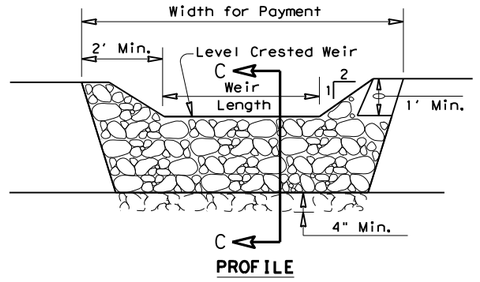


SECTION A-A

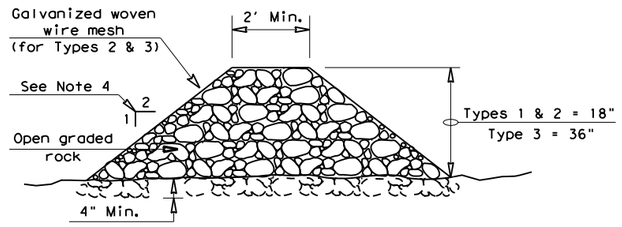


FILTER DAM AT SEDIMENT TRAP

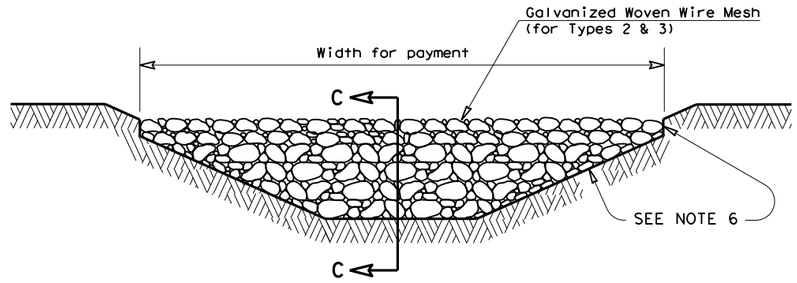
RFD1 — OR — RFD2



PROFILE



SECTION C-C



FILTER DAM AT CHANNEL SECTIONS

RFD1 — OR — RFD2 — OR — RFD3

GENERAL NOTES

1. If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
2. Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
3. The rock filter dam dimensions shall be as indicated on the SW3P plans.
4. Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
5. Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
6. Filter dams should be embedded a minimum of 4" into existing ground.
7. The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
8. Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. For in stream use, the mesh should be secured or staked to the stream bed prior to aggregate placement.
9. Sack Gabions should be staked down with ¾" dia. rebar stakes, and have a double-twisted hexagonal weave with a nominal mesh opening of 2 ½" x 3 ¼"
10. Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
11. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT^2 of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

Type 1 (18" high with no wire mesh) (3" to 6" aggregate): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approximently 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh) (3" to 6" aggregate): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh) (4" to 8" aggregate): Type 3 may be used in stream flow and should be secured to the stream bed.

Type 4 (Sack gabions) (3" to 6" aggregate): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

Type 5: Provide rock filter dams as shown on plans.

PLAN SHEET LEGEND

Type 1 Rock Filter Dam	RFD1
Type 2 Rock Filter Dam	RFD2
Type 3 Rock Filter Dam	RFD3
Type 4 Rock Filter Dam	RFD4

Texas Department of Transportation — Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

ROCK FILTER DAMS

EC(2)-16

FILE: ec216	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
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REVISIONS	0231	03	156	IH-14
	DIST	COUNTY		SHEET NO.
	WACO	BELL		150

TXDOT HIGH MAST LIGHTING I-14 AGREEMENT

RS-25-141

September 2, 2025

Background

- On April 15, 2025, Council approved an agreement with the Texas Department of Transportation (TxDOT) for construction, maintenance, and operation of a continuous highway lighting system along the Interstate 14 corridor.
  - From SS 172 (western City limits) to just east of Jasper Drive.
  - A preconstruction meeting was held for the project on Thursday, July 31, 2025.

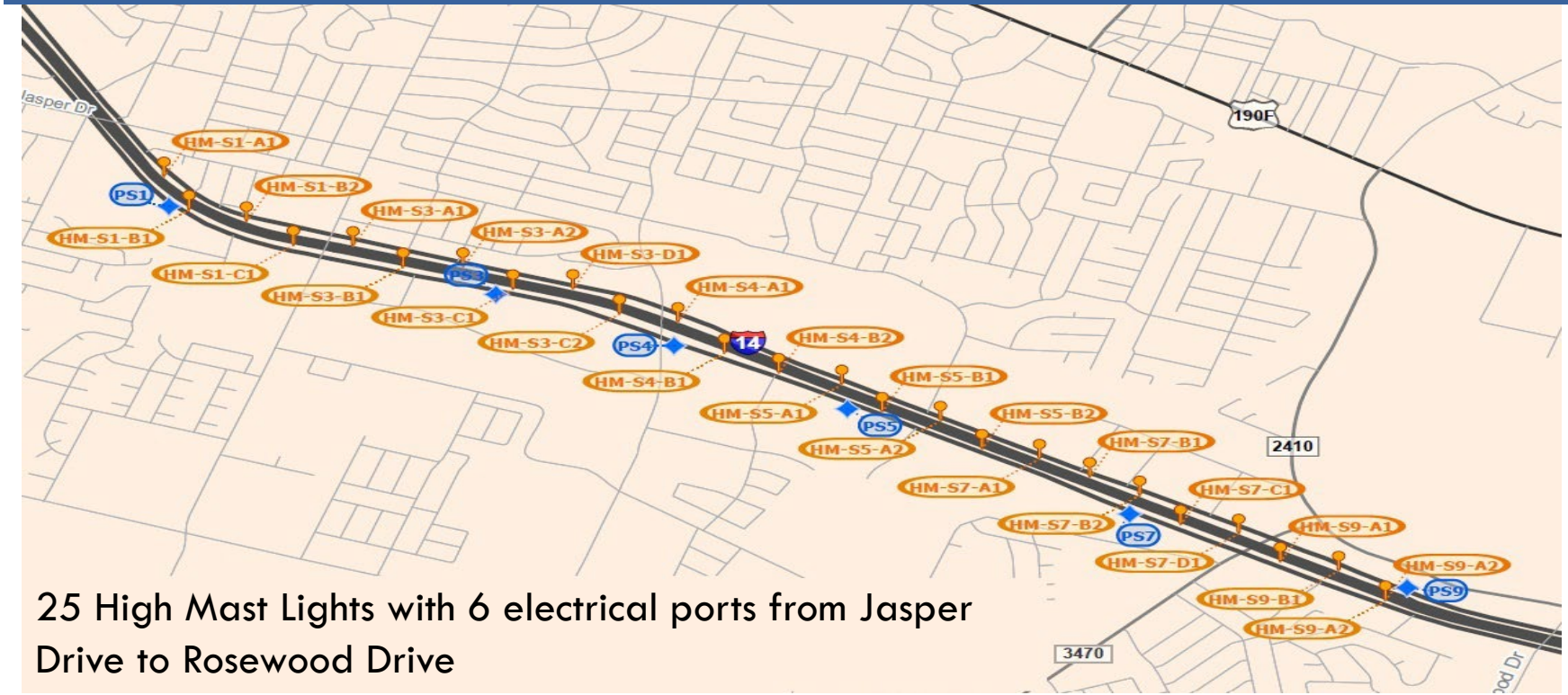
Background Cont.

- TXDOT is now proposing an agreement with the City of Killeen (COK) for the construction, maintenance, and operation of a continuous highway lighting system along the Interstate 14 corridor.
  - From Jasper Drive to Rosewood Drive
- Per agreement, TxDOT will prepare specifications, advertise for bids, award construction contract, and supervise the project during construction.
  - All cost associated with this portion will be the responsibility of the state.

Background Cont.

- Responsibilities for COK will include the following:
  - The electrical energy required for proper operation of the lighting system; and
  - Maintain and operate the lighting system in an efficient and sightly condition.
- COK will assume operations and maintenance of the system upon written notification from the State that the lighting system is complete and accepted.
  - Agreement will be for a period of two years and will auto-renew for two-year intervals unless modified by mutual agreement of both parties.

High Mast Lighting Locations



25 High Mast Lights with 6 electrical ports from Jasper Drive to Rosewood Drive

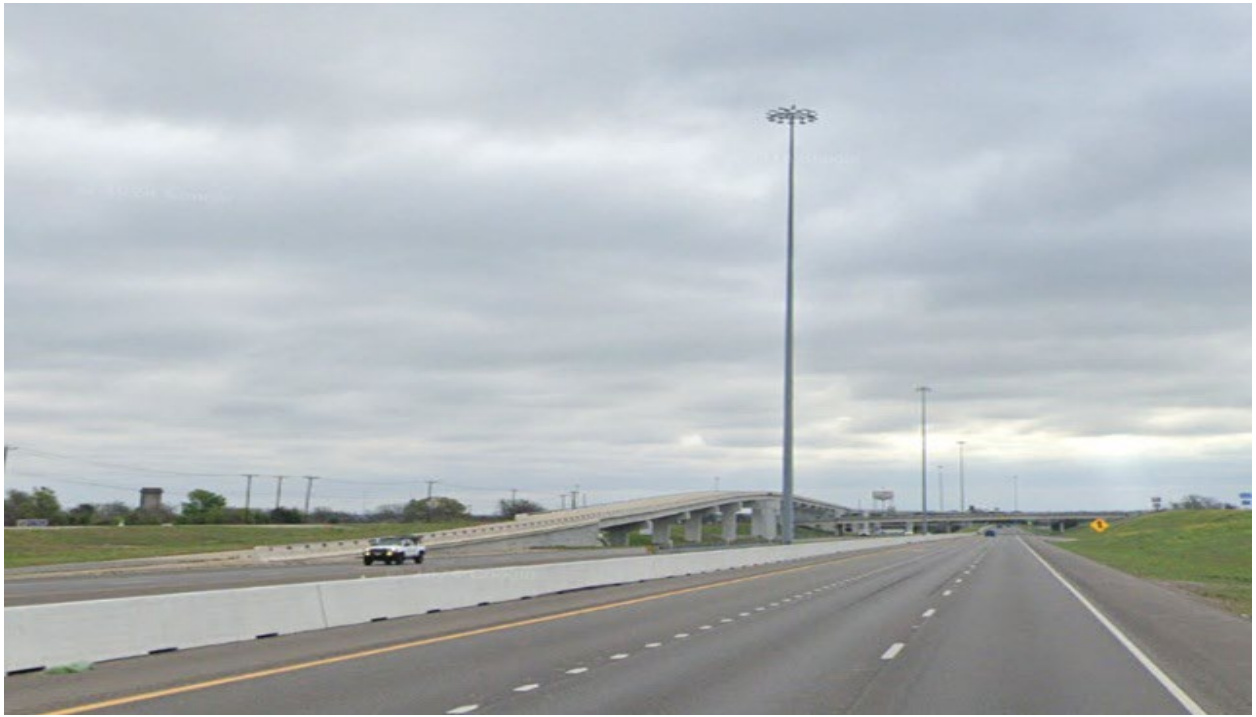
Advantages of High Mast Lighting

- Improved Visibility and Safety
  - Uniform illumination – with elevated placement there is a more uniform and wider area of illumination improving visibility for drivers; translating to fewer accidents and improved overall road safety.
- Safer Maintenance
  - Safe work environment – designed for easier maintenance, workers are able to access the lights without closing lanes of traffic.
  - Reduced risk of collisions – high mast poles can be placed further away from the edge of the pavement.

Advantages cont.

- High mast lighting is recommended for most urban interchanges that qualify for complete interchange lighting and for tangent sections of freeways with initial average daily traffic (ADT) of 70,000 or greater where lane closure would be necessary for maintenance where traffic flow disruptions would occur during such closures.

High Mast Lights



Recommendation

- Authorize the City Manager, or designee, to execute the Agreement for Construction, Maintenance, and Operation of Continuous Highway Lighting Systems Within a Municipality with the Texas Department of Transportation for the operation and maintenance of high mast lighting along the I-14 corridor.

City of Killeen

Staff Report

File Number: RS-25-142

Consider a memorandum/resolution authorizing an agreement with Utility Service Partners Private Label, Inc., dba Service Line Warranties of America, for the maintenance of sewer service lines within the public right-of-way.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Jeffery Reynolds, Executive Director of Public Works**

SUBJECT: **Enter into an outsourcing agreement with Utility Service Partners Private Label, Inc. dba Service Line Warranties of America for the maintenance of sewer service lines within the public right-of-way.**

BACKGROUND AND FINDINGS:

On June 5, 2018, Council requested a future item be placed on the agenda regarding sanitary sewer service repairs in the public right-of-way due to the costly repairs on homeowners. Between June 2018 and January 2019, many options were brought before City Council.

On January 22, 2019, City Council directed Staff to move forward with the City providing repairs and/or replacement of certain sewer service lines within the public right-of-way (ROW) and partnering with Utility Service Partners Private Label, Inc. (USP) dba Service Line Warranties of America (SLWA) to outsource maintenance which will cost 50 cents per month for each residential sewer customer. During Staff's discussions with USP, it was discovered that these types of warranties are not available for commercial establishments due to the larger size of service lines. Staff negotiated an outsourcing agreement and a marketing agreement with USP. Under these agreements, USP would manage the repair and replacement of residential sewer service lines within the ROW, work with the City to determine the location of the leak or blockage, contract with licensed plumbing contractors to perform the work within the ROW, and offer an optional warranty program directly to customers for portions of the sewer service line not covered by the mandatory warranty program. This took effect on May 1, 2019, and Chapter 30 of the Code of Ordinances, was amended accordingly.

In December 2024, SLWA reached out to discuss an amendment to the outsourcing agreement. Over five years of offering the service, SLWA completed over 1,000 claims at a total cost of $4,281,040 with the sewer line warranty; with an average of $4,148.30 per claim. The investment from residents for the five years has been $30.00, which is a very small portion compared to what the repairs would have cost had the city not entered into this agreement.

SLWA is proposing an increase to $1.33 per month per homeowner. This equates to $15.96 per residential home, per year and is included in the Fiscal Year 2026 projected budget. There is an expected increase of up to 5% each year while under contract. Overall, this is still a great savings when compared to what an average sewer line claim could cost a homeowner.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

This item conforms with state and local policies.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

Staff has calculated the $1.33 per month added to each residential sewer customer's base bill will pay for the warranty service; that expenditure will be approximately $536,000 and will be offset by the revenue.

Is this a one-time or recurring revenue/expenditure?

Recurring

Is this revenue/expenditure budgeted?

Yes, upon adoption of the FY 2026 budget.

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

Yes

RECOMMENDATION:

Authorize the City Manager, or designee, to enter into an agreement with USP/Homeserve for maintenance of the sewer service lines within the public right-of-way for an initial term of five (5) years and authorize the City Manager, or designee, to approve any and all change orders as allowed by state and local law.

DEPARTMENTAL CLEARANCES:

Public Works
City Attorney Office
Finance

ATTACHED SUPPORTING DOCUMENTS:

Agreement
Contract Verification
Certificate of Interested Parties
Presentation

Docusign Envelope ID: EF7174FA-9409-4100-92BB-1E7CF97B7747

OUTSOURCING AGREEMENT

This OUTSOURCING AGREEMENT ("**Agreement**") is entered into and made effective as of October 1, 2025 ("**Effective Date**"), by and between the City of Killeen, Texas ("**City**"), and Utility Service Partners Private Label, Inc. d/b/a Service Line Warranties of America ("**SLWA**," and together with City, the "**Parties**," and each, a "**Party**").

WHEREAS, individual residential property owners residing in the City ("**Resident(s)**") own and are responsible for sewer service lines between the mainlines and the connection on their property;

WHEREAS, a portion of such sewer service lines are often within the public right of way ("**ROW**");

WHEREAS, the City wishes to provide for repairs or replacements as necessary for sewer service lines within the ROW; and

WHEREAS, SLWA has extensive experience in managing independent contractors in the State of Texas for the repair or replacement of sewer service lines within the ROW; and

WHEREAS, the City wishes to outsource the management of residential sewer service line repairs or replacements within the ROW.

NOW, THEREFORE, in consideration of the foregoing recitals, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and with the intent to be legally bound hereby, the Parties agree as follows:

1. **Purpose.** The City hereby grants to SLWA the right to manage the repair or replacement of all Resident's sewer service line laterals within the ROWs located within the City's geographic boundaries that become inoperable as a result of ordinary wear and tear so as to maintain adequate flow within all such laterals, subject to the terms and conditions of this Agreement.

2. **Responsibilities of the Parties.**

A. SLWA's Responsibilities. SLWA shall be responsible for the following:

i. Receiving the initial contact from a Resident if a Resident opts to initially contact SLWA.

ii. Contacting the City's Water and Sewer Services Department to request the location of the leak and/or blockage.

iii. If the City advises the leak and/or blockage is located within the ROW, dispatching a network contractor to perform the necessary repairs or replacement at SLWA's sole cost and expense.

iv. If the City advises the leak and/or blockage is located on the Resident's property outside of the ROW, contacting the Resident and advising as follows:

   a. If the Resident is a customer of SLWA, processing such claim in accordance with SLWA's normal operating procedures; or

   b. If the Resident is not a customer of SLWA, providing the Resident with the choice of: (a) having SLWA's network contractor perform the repairs or replacement; or (b) informing the Resident they may hire their own contractor to perform the repairs or replacement, each option at the Resident's sole cost and expense. Should the Resident choose option (a), SLWA shall track the claim using its standard operating procedure. Should the Resident choose option (b), SLWA shall have no obligation or responsibility to track anything related to such Resident's claim.

v. Cooperating with the City to establish repair and replacement standards for work to be performed in the ROW.

B. City's Responsibilities. City shall be responsible for the following:

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i. Receiving the initial contact from a Resident if a Resident opts to initially contact the City, and communicating such contact to SLWA if needed.

ii. Providing SLWA with a list of Resident service addresses within the City's geographic boundaries and update such list as required by this Agreement.

iii. When requested by SLWA, determining the location of leaks and/or blockages in a Resident's sewer service line and advise SLWA accordingly, including whether such leak and/or blockage is in the ROW.

iv. If the leak and/or blockage is in the Resident's main sewer service line, communicating to the Resident that the City will be responsible for making the necessary repairs or replacement at the City's sole cost and expense, and making such repairs or replacement.

v. If the leak and/or blockage is located on the Resident's property outside of the ROW, confirming such information with SLWA.

vi. Cooperating with SLWA to establish repair and replacement standards for work to be performed in the ROW.

vii. Consulting with SLWA on repairs or replacement within the ROW to confirm adherence to the repair and replacement standards established by the Parties and which are set forth on Exhibit A, attached hereto and incorporated herein by reference.

C. Notwithstanding anything herein to the contrary, SLWA may, in its sole discretion, manage its network of local and licensed plumbing contractors to provide the services contemplated herein, including, but not limited to, the assignment and dispatching of any network contractor it deems acceptable to provide services for a Resident. For the avoidance of doubt, the City shall not request any particular contractor over another and SLWA shall determine which contractor shall perform each job hereunder. Further, SLWA shall be permitted at all times to expand and enhance its network to ensure the performance of its obligations under this Agreement. All contractors utilized by SLWA hereunder shall be registered with the City's Building Inspection Division and are in adherence with SLWA's network contractor guidelines.

D. Mutual Grant of License. Each Party grants to the other Party a non-exclusive license ("**License**") to use the designated names, symbols, trademarks, service marks, logotypes, trade names and insignias ("**Marks**") owned by the other Party or its affiliates, solely in connection with such Party's performance of its obligations under this Agreement, all at the sole cost of the Party granted the License and subject to the other Party's prior review and approval, which will not be unreasonably conditioned, delayed, denied, or withheld. Each Party's use of the other Party's Marks in accordance with this Agreement will not infringe any other party's rights. In the event that the City extends a similar license to a competitor of SLWA during the Term, the City shall provide thirty (30) days' written notice prior to such grant of license and SLWA may immediately terminate this Agreement.

3. **Data.** The City shall provide SLWA with "zip code" data for Residents in an agreed-upon format. The City shall also provide a list of the service address of Residents ("**Resident Data**") to SLWA. Resident Data will be provided to SLWA quarterly or more frequently during the Term as agreed to by the Parties and in a mutually agreed upon electronic format. SLWA will only use Resident Data as permitted by this Agreement. Each Resident's name, address, phone number, email address and any other information that SLWA collects from a Resident in its own interactions with any Resident, is SLWA's property and Confidential Information.

4. **Term; Termination.** The initial term of this Agreement ("**Initial Term**") shall be for five (5) years from the Effective Date. This Agreement will then renew for additional one (1) year periods (each, a "**Renewal Term**" and together with the Initial Term, the "**Term**") unless one of the Parties gives the other advance written notice of at least ninety (90) days that it does not intend to renew this Agreement. Either Party may terminate this Agreement thirty (30) days after giving notice to the other Party that the Party is in material breach of this Agreement if said breach is not cured during said thirty (30) day period. Following such termination, neither Party will have any further obligations to the other and this Agreement will terminate. Additionally, SLWA may terminate this Agreement at any time, with or without cause, upon thirty (30) days' prior written notice to the City. In the event such a notice of termination is provided by SLWA, SLWA shall perform any outstanding work in connection with then existing claims and claims received by the City pursuant to this Agreement within

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the thirty (30) day notice provided by SLWA to City. Upon completion of such work, SLWA shall have no further obligations to City.

5. **Consideration**. As compensation for the responsibilities undertaken in this Agreement, the City will pay to SLWA one dollar and thirty-three cents ($1.33) per month for every residential sewer connection within the City's geographical boundaries, inclusive of any such connection existing as of the Effective Date. All compensation payments shall be made to SLWA by the tenth day of each month. Thereafter, SLWA may, in its sole discretion, adjust the compensation on an annual basis starting on the first anniversary of the Effective Date; provided, that any such adjustment shall not exceed four percent (4%) of the then current compensation and that SLWA shall endeavor to provide advance notice of such increase to the City no later than April 1 of each calendar year.

6. **Applicable Laws.** Each Party shall comply at all times with all applicable laws, statutes, treaties, rules, codes, ordinances, regulations, permits, official guidelines, judgements, orders and interpretations, as well as licensing or registration requirements ("**Applicable Laws**") with respect to its obligations under this Agreement. For any Resident Data provided by the City to SLWA, the City warrants, represents, and covenants that Resident Data has been and will be collected in compliance with all Applicable Laws, the City is permitted by Applicable Laws and privacy policies to provide Resident Data to SLWA and to permit SLWA to use such data as contemplated by this Agreement.

7. **Confidentiality. "Confidential Information"** of a Party means any non-public, proprietary, or confidential information, whether or not it constitutes a trade secret under Applicable Laws, and any other information that a reasonable person would expect to be confidential. Each Party will treat Confidential Information received from the other Party as confidential, and such Party shall not disclose or use such information in a manner contrary to the purposes of this Agreement. Notwithstanding the foregoing, a Party shall not be liable to the other Party for any disclosure of Confidential Information that is required under any Applicable Laws, applicable public records act or under court order. To the extent legally permissible, a Party shall provide written notice to the other Party prior to any such disclosure.

8. **Ruling and/or Code Change; Coverage Changes.** In the event that: (i) a change or proposed change in Applicable Laws, or municipal or similar codes; or (ii) an interpretation, policy, ruling, or order by any court, tribunal, arbitrator, regulatory agency, commission, including a public service commission or similar body of a City, or other instrumentality of the United States, or any state, county, City, or other political subdivision; negatively or potentially negatively impacts the terms of this Agreement or the obligations of the Parties set forth in this Agreement, the Parties shall negotiate in good faith to modify the terms of this Agreement accordingly. Should the Parties be unable to reach a mutual agreement to revise this Agreement, then either Party may terminate this Agreement on thirty (30) days' written notice to the other Party. In the event such a notice of termination is provided by SLWA, SLWA shall perform any outstanding work in connection with then existing claims and claims received by the City pursuant to this Agreement within the thirty (30) day notice provided by SLWA to City. Upon completion of such work, SLWA shall have no further obligations to City.

9. **Indemnification.** To the greatest extent allowed by Applicable Laws, each Party (the "**Indemnifying Party**") hereby agrees to indemnify, defend and hold the other Party and its directors, managers, members, officers, employees, contractors, subcontractors, and agents, and in the case of City, also its elected officials ("**Representatives**") (collectively or individually, "**Indemnitee**") harmless from and against any and all third party claims, damages, losses, expenses, suits, actions, decrees, judgments, awards, reasonable attorneys' fees and court costs ("**Claim(s)**"), which an Indemnitee may suffer or which may be sought against or are recovered or obtainable from an Indemnitee, as a result of or arising out of the Indemnifying Party's or its Representatives' (a) breach of any of its obligations and representations hereunder, (b) negligent or fraudulent act, intentional misconduct, or omission in the performance of this Agreement, or (c) failure to comply with Applicable Laws; provided that the applicable Indemnitee notifies the Indemnifying Party of any such Claim within a time that does not prejudice the ability of the Indemnifying Party to defend against such Claim. Any Indemnitee under this Agreement may participate in its own defense, but will be responsible for all costs incurred, including reasonable attorneys' fees, in connection with such participation.

10. **Limitation of Liability.** HOMESERVE'S LIABILITY FOR ANY MATTER UNDER THIS AGREEMENT IS LIMITED TO THE AMOUNTS PAID TO HOMSERVE HEREUNDER FOR THE PREVIOUS TWELVE (12) MONTH PERIOD FROM THE DATE THE MATTER AROSE, INCLUDING FOR THIRD-PARTY CLAIMS AND ACTIONS THAT ARE SUBJECT TO INDEMNIFICATION UNDER SECTION 9. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN THIS SECTION 10, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY

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OR ITS INDEMNITEES FOR SPECIAL, INDIRECT, PUNITIVE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES IN CONTRACT, TORT, WARRANTY, STRICT LIABILITY, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR DATA.

11. **Insurance.** Each Party shall carry and maintain for the Term and for a period of one (1) year thereafter, at its cost, insurance coverages in such amounts as may be required under Applicable Laws, as well as commercial general liability insurance and such other insurance as shall be appropriate for the nature and extent of its business. To the fullest extent permitted by law, all insurance obtained by the Parties in compliance with this Agreement shall include a waiver of subrogation in favor of the other Party. Upon request, certificates of insurance evidencing the coverages, including renewals or replacements thereof, shall be provided. All insurers must have a minimum rating by A.M. Best of A- VIII.

12. **Independent Contractor Status.** The obligations performed by each Party in this Agreement shall be executed as an independent contractor. Neither Party nor any of its Representatives shall be considered an employee, representative, agent or subcontractor of the other Party or its Representatives.

13. **Anti-Bribery and Corruption.**

A. Each Party warrants to the other that:

i. it has not offered, promised, given, accepted, or agreed to give or accept, and shall not during the Term offer, promise, give, accept, or agree to give to or accept from any person any bribe on behalf of the other Party or otherwise with the object of obtaining a business advantage for the other Party or otherwise;

ii. it will not engage in any activity or practice which would constitute an offense under any applicable anti-bribery and corruption laws, including but not limited to the United States Foreign Corrupt Practices Act of 1977, the United Kingdom's Bribery Act 2010 and Canada's Corruption of Foreign Public Officials Act, and it will notify the other Party as soon as practicable of any offense of the foregoing acts in connection with this Agreement, or any breach of the undertakings contained in this section of which it becomes aware;

iii. it has in place, and during the Term will maintain, its own policies, procedures, and internal controls, including accounting procedures to record expenditures in connection with this Agreement, necessary to ensure compliance with any applicable anti-bribery and corruption laws;

iv. it will ensure that any person who performs or has performed services for or on its behalf ("**Associated Person**") complies with this section, it will not enter into an agreement with any Associated Person in connection with this Agreement unless such agreement contains terms substantially similar to those contained in this section, and it shall be responsible for any breach of such terms, or these terms, by any Associated Person that is a subcontractor of the Party hereunder;

v. from time to time during the Term, at the reasonable request of the other Party, it will confirm in writing that it has complied with the terms of this section and will provide any information reasonably requested by the other Party to demonstrate such compliance; and

vi. in the case of the City, it will abide by the "Reporting Hotline" section of SLWA's Business Partner Code of Conduct (described in "Business Partner Code of Conduct" section) to report to SLWA any request or demand for any improper payments or other improper advantage of any kind in connection with the performance of this Agreement.

14. **Records; Audit.** Each Party shall, at all times during the Term and for a period of seven (7) years after the termination or expiration of this Agreement, maintain complete and accurate records, together with supporting or underlying documents and materials, kept and maintained by such Party, its employees, contractors, agents, assigns, successors, or subcontractors, to substantiate such Party's compliance with its obligations and responsibilities under this Agreement. Up to once per year of the Term, each Party shall have the right, upon at least ten (10) days' prior written notice and during normal business hours, at its sole cost and expense, to audit and inspect, on its own or through a Representative, the other Party's records for the purpose of confirming such other Party's compliance with the terms of this Agreement.

15. **Notice.** Any notice required to be given under this Agreement shall be deemed to have been received when delivered (i) by personal service, (ii) by electronic mail with confirmation of delivery and receipt (provided a hard copy is sent promptly by regular mail), or (iii) by registered or certified mail, return receipt requested, with the United States Postal Service, addressed as follows:

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To: City:
City of Killeen
P.O. Box 1329
Killeen, TX 76541
Attention: Public Works
email: jreynolds@killeentexas.gov

With a copy to:
Water & Sewer Division
P.O. Box 1329
Killeen, TX 76541

With a copy to:
City Attorney's Office
P.O. Box 1329
Killeen, TX 76541

To: SLWA:
Utility Service Partners Private Label, Inc.
c/o HomeServe USA Corp.
45 Glover Ave., 6th Fl.
Norwalk, CT 06850
Attention: Michael Backus, Chief Revenue Officer
email: michael.backus@homeserveusa.com

With a copy to:
Legal Department
email: legal@homeserveusa.com

16. **Entire Agreement; No Third-Party Beneficiaries; Severability.** The Parties acknowledge that no representations, agreements, or promises were made by the other Party or by any of its Representatives other than those specifically contained in this Agreement. This Agreement, including the recitals as well as any attachments or exhibits, constitutes the entire agreement of the Parties with respect to the matters contemplated in this Agreement, and supersedes any prior agreement or understanding with respect to them, including that certain Outsourcing Agreement between the Parties dated May 1, 2019, but not that certain Marketing Agreement between the Parties dated May 1, 2019. The Parties agree that this Agreement was entered into solely for the respective benefit of each of them and their respective successors and assigns, and nothing in this Agreement is intended to create any third-party beneficiaries. This Agreement may be amended or modified only by a written instrument executed by an authorized representative of each of the Parties. No term or provision hereof shall be deemed waived and no breach excused unless such waiver or consent is in writing and signed by the Party claimed to have waived or consented. Subject to Applicable Laws, the invalidity or unenforceability of a specific provision in the Agreement shall not render any other provision(s) invalid, inoperative, or unenforceable.

17. **Assignment.** Neither Party may assign or transfer any of its rights under this Agreement without the prior written consent of the other Party, which consent shall not be unreasonably delayed, withheld, conditioned, or denied, except to an affiliate of the assigning Party or an acquirer of all or substantially all of the assets of the assigning Party. Any purported assignment or delegation in violation of this section shall be null and void. No assignment or transfer of this Agreement shall relieve the assigning Party of any of its obligations under this Agreement. This Agreement shall be binding upon and shall inure to the benefit of the Parties as well as their respective successors or permitted assigns.

18. **Counterparts; Electronic Delivery.** This Agreement may be executed in counterparts delivered by email, DocuSign, or other electronic transmission; such counterparts will be deemed originals and binding upon the Parties upon receipt, regardless of whether originals are delivered thereafter. All such counterparts will constitute one and the same contract, and the signature of any Party to any counterpart will be deemed a signature to any other counterpart.

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19. **Contract Verification.** On or promptly after the Effective Date, SLWA agrees to submit a Contract Verification, to be provided by the City in accordance with Applicable Laws, attesting to the fact that SLWA does not boycott Israel, does not boycott energy companies, and does not discriminate against firearms entities or firearm trade associations.

20. **Governing Law; Venue; Waiver of Jury Trial.** The Parties shall comply with all Applicable Laws with respect to their respective obligations under this Agreement. This Agreement is governed by and shall be construed in accordance with the laws of Texas, without regard to the choice of law principles of the forum state. Any action at law, suit in equity, or other proceeding against any Party with respect to this Agreement or in connection with any of the matters contemplated by this Agreement shall be brought and maintained exclusively in the state or federal courts located in Texas, as applicable.

21. **Business Partner Code of Conduct.** SLWA and the City are committed to conducting their business activities with the highest standards of honesty and integrity. The City acknowledges that it has received and reviewed SLWA's Business Partner Code of Conduct (available at https://www.homeserve.com/sc/cobc) as updated from time to time, and the City agrees to abide by SLWA's Business Partner Code of Conduct as a material condition of this Agreement. Should the City suspect or become aware of any actual or suspected violation of SLWA's Business Partner Code of Conduct, the City shall promptly notify SLWA or its anonymous ethics hotline (*see* SLWA's Business Partner Code of Conduct).

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the Effective Date.

CITY OF KILLEEN, TEXAS	**UTILITY SERVICE PARTNERS PRIVATE LABEL, INC. D/B/A SERVICE LINE WARRANTIES OF AMERICA**
By: _____	By: DocuSigned by: Michael Backus 0F9AA4D707BA476...
Name: _____	Name: Michael Backus
Title: _____	Title: Chief Revenue Officer

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EXHIBIT A

Guidelines for Killeen ROW Program

When the sanitary sewer main is located near or in a public street, alley or highway

- **The Right of Way perimeters are:**
  - The linear developed length from the curb toward the property will be up to 11 feet. When determining the location of the leak/blockage, City staff will verify and advise SLWA of the extent of the ROW.
  - The linear developed length from the opposite side curb away from the property will be up to 11 feet. When determining the location of the leak/blockage, City staff will verify and advise SLWA of the extent of the ROW.
  - Between these 2 points is considered the Right of Way which would include the street, sidewalks and land area

When the sanitary sewer main is located within an easement or private property

- **The Right of Way perimeters are:**
  - From the center point of the sanitary sewer, up to 8 feet on either side is the ROW responsibility. When determining the location of the leak/blockage, City staff will verify and advise SLWA of the extent of the ROW.

Guidelines of execution of work for the Killeen ROW Program

- **Structural Failures** – Any leaking, collapsed, or permanently blocked piping impeding waste water flow within the boundaries of the ROW, damaged as a result of normal wear and tear.
  - **Includes** – *Any Sewer Line laterals and sewer main taps*
  - **Root Intrusion** – *In the case of root intrusion, the clog will be cleared and flow restored*
  - **Restoration of paved or concreted surfaces** – *All paved or concreted surfaces disturbed due to an excavation will be responsibly restored to their original state.*
  - **All repair or replacement work performed within the Killeen ROW on all such laterals or taps**– *Will be executed by 1 or more licensed contractors under the management of SLWA*
  - **All repair or replacement work performed within the Killeen ROW on all such laterals or taps–** *Will require a ROW permit and inspection through the Building Inspections Division.*
  - **City will determine the location of the leak –** and instruct SLWA accordingly
  - **All work deemed necessary to perform** –*will be completed at the discretion and cost of SLWA*

Exclusions for the Killeen ROW Program

- **Repairs that might be needed to meet local code requirement or utility directives for matters unrelated to the ability of the external sewer to maintain an unimpeded flow**
  - Failed smoke tests
  - Failed dye tests
  - Ground and/or storm water infiltration

- **Repairs reasonably requiring access to the residential/commercial or Industrial property**
  - If a property owner denies access to the internal or external portion of the property for the sole

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purpose of performing repairs or diagnosing a negative issue

- **Damages from accident, negligence, natural disaster, or otherwise not related to normal wear and tear**
- **Shared sanitary sewer lines servicing 5 or more dwelling units**
- **Lift stations**
- **Sump, trash and grinder pumps**
- **Storm sewer lines**
- **Septic tanks**
- **Leaching Fields**
- **The installation of a cleanout to provide access to the Killeen ROW**

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Contract Verification

Texas law provides that a governmental entity may not enter into certain contracts for goods and services with a company unless the company provides written verification regarding aspects of the company's business dealings.

- Texas Government Code, Chapter 2271 – the company must verify that it does not boycott Israel and will not boycott Israel during the term of the contract. Boycotting Israel is defined in Texas Government Code section 808.001 to mean refusing to deal with, terminating business activities with, or taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.
- Texas Government Code, Chapter 2274 – the company must verify that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of the contract against a firearm entity or firearm trade association. Verification is not required from a sole source provider. Discriminate against a firearm entity or a firearm trade association are defined in Texas Government Code section 2274.001 as (A) with respect to the entity or association, to (i) refuse to engage in the trade of any goods or services; (ii) refrain from continuing an existing business relationship; (iii) terminate an existing business relationship; or (iv) otherwise express a prejudice against the entity or association; and (B) does not include the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories.
- Texas Government Code, Chapter 2276 – the company must verify that it does not boycott energy companies and will not boycott energy companies during the term of the contract. "Boycott energy company" is defined in Texas Government Code section 809.001 to mean, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company: (A) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; or (B) does business with a company described by Paragraph (A).

Affected by the above statutes are contracts 1) with a company with ten (10) or more full-time employees, and 2) valued at $100,000 or more to be paid wholly or partly from public funds. A contract with a sole proprietorship is not included.

By signing below, I verify that the company listed below does not boycott Israel, does not boycott energy companies, and does not discriminate against firearms entities or firearm trade associations and will not do so during the term of the contract entered into with the City of Killeen. I further certify that I am authorized by the company listed below to make this verification.

DocuSigned by:
Michael Backus
0F9AA4D707BA476...
Signature

Utility Service Partners Private Label, Inc. d/b/a Service Line Warranties of America
Company Name

Michael Backus
Printed Name

Chief Revenue Officer
Title

July 8, 2025
Date

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CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2025-1310845

Date Filed:
05/16/2025

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.
Utility Service Partners Private Label, Inc. d/b/a Service Line Warranties of America
Norwalk, CT United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.
City of Killeen, Texas

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.
SLWA Sewer Warranty
Management of independent contractors to repair / replace sewer service lines within city ROWs.

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary
HomeServe USA Corp.	Norwalk, CT United States	X	

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is Michael Backus, and my date of birth is 04/08/1971.

My address is 45 Glover Avenue, 6th Floor (street), Norwalk (city), CT (state), 06850 (zip code), USA (country).

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Fairfield County, State of Connecticut, on the 8th day of July (month), 2025 (year).

DocuSigned by:
Michael Backus
0F0AA4D707BA476...
Signature of authorized agent of contracting business entity
(Declarant)

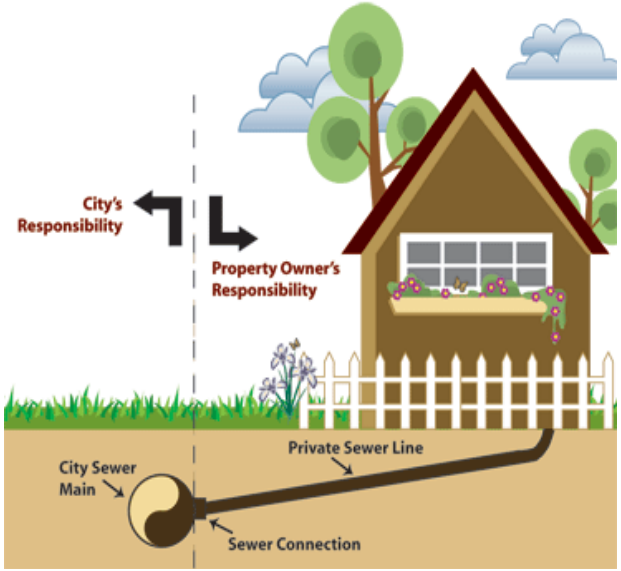
SLWA SEWER WARRANTY

RS-25-142

September 2, 2025

Background

- Prior to May 1, 2019, Chapter 30 Water, Sewers, and Sewage Disposal, of the official code of ordinances stated in part:
  - The sewer service line connecting a private property to the City owned sewer main is owned and maintained by the property owner.



Background Cont.

- On June 5, 2018, City Council requested a discussion item regarding Sanitary Sewer Service Repairs in public Right-of-Way (ROW), as repairs within the public ROW, particularly under the street, can be very expensive.
- Discussions included:
  - Absorbing the cost of all repairs between the property line and the sanitary sewer main line.
  - Installing cleanout at all property lines; staff would maintain lines from cleanout to sewer main.
  - Warranty Program

Background Cont.

- On March 19, 2019, City Council approved for the city to enter into an agreement with Utility Service Partners Private Label, Inc. (USP) to provide maintenance of certain sewer service lines within the public ROW and partner with USP to outsource maintenance.
- City Council also approved the amendment of Chapter 30 of the City's Code of Ordinances to add a section that clarifies maintenance responsibilities and adjust rates.
  - Cost of $.50/month for single family, two family, three-unit, and four-unit residential properties.
    - Warranty is not available for commercial services

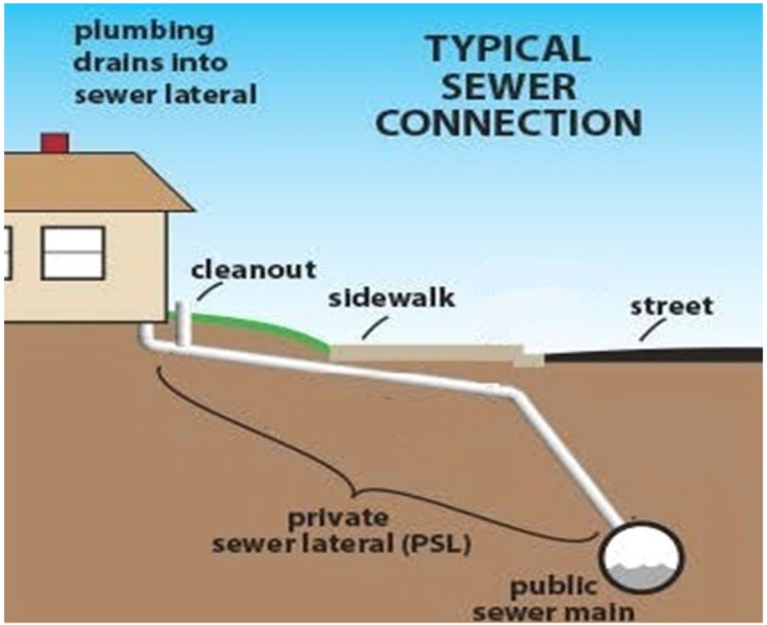
Outcome

- A flat rate of $0.50 was added to the monthly water bill.
- Chapter 30 of the Code of Ordinances was updated to explain the responsibilities of the homeowner and the city considering the ROW sewer service line.
- Homeowners are able to obtain optional warranty coverage for service line maintenance outside of the ROW.

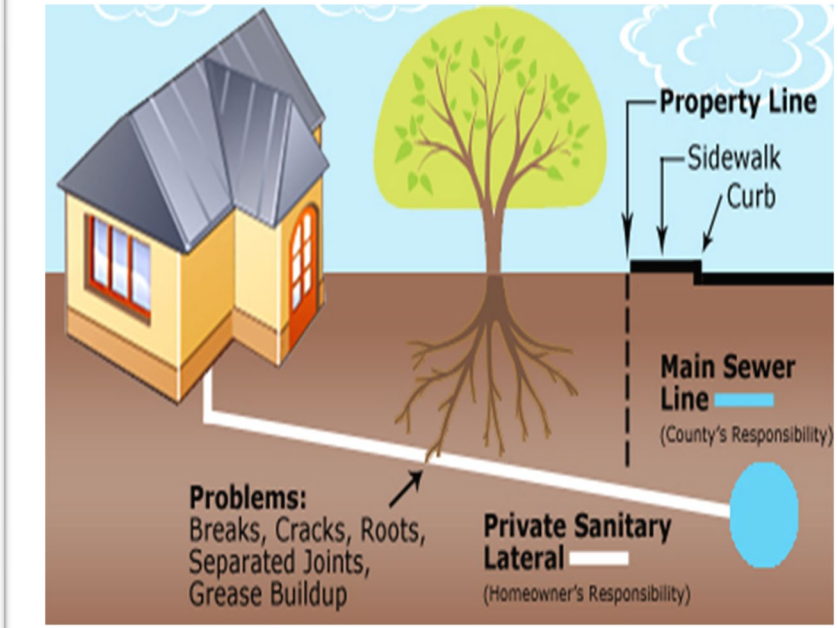
Rate	Claims	Total Amount	Average # of Claims Per Year	Average Cost Per Claim	Homeowner Cost Per Year
$0.50	1,032	$4,281,040	172	$4,148.30	$6.00

Outcome Cont.

Before Sewer Line Warranty



After Sewer Line Warranty



Updates

- A new Outsourcing Agreement has been proposed
  - Increase the monthly amount to $1.33 per month per homeowner.
    - single family, two family, three-unit, and four-unit residential properties
  - Initial five (5) year agreement includes annual increase, up to 4%.

Rate FY 2026	Rate FY 2027	Rate FY 2028	Rate FY 2029	Rate FY 2030
$1.33	$1.38	$1.44	$1.50	$1.56
Residential Investment Over 5 Years			$86.44	
Average Cost Per Claim			$4,148.30	

SLWA Texas Cities (45)

El Paso Water	City of Kennedale	City of Rowlett	City of Texarkana	City of Penitas
City of Anna	City of Kyle	City of San Angelo	City of Commerce	City of Pilot Point
City of Arlington	City of Lancaster	City of Temple	City of Corrigan	City of Poteet
City of Bryan	City of Lewisville	City of Waxahachie	City of Dayton	City of Sweetwater
City of Corinth	City of Madisonville	City of Crandall	City of Decatur	City of Hutchins
City of Denison	City of Mercedes	City of Rockdale	City of Denver City	Town of Anthony
City of Forest Hill	City of Navasota	City of Marshall	City of Diboll	Southwest Water Company
City of Forney	City of Odessa	City of Uvalde	City of Hondo	City of La Marque
City of Hurst	City Of Princeton	City of Rockport	City of Kaufman	City of Roanoke

Recommendation

- Authorize the City Manager, or designee, to enter into an agreement with USP/Homeserve for maintenance of the sewer service lines within the public right-of-way for an initial term of five (5) years and authorize the City Manager, or designee, to approve any and all change orders as allowed by state and local law.

City of Killeen

Staff Report

File Number: PH-25-051

Hold a public hearing and consider an ordinance amending the Code of Ordinances Chapter 30, Water, Sewers and Sewage Disposal, to amend residential and commercial water rates and residential sewer rates.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Jeffery Reynolds, Executive Director of Public Works**

SUBJECT: **Water and Sewer Ordinance Rate Amendments**

BACKGROUND AND FINDINGS:

On July 7, 2020, City Council received the results of the 2020 Water and Sewer Rate Study. The study found that the City's water revenues were insufficient to fully fund the projected expenses over the next five years. City Council deferred a rate adjustment at the time due to the pandemic. In the recent Water & Sewer five-year rate analysis it was also recommended to implement a phased approach to adjusting the base rate paid on different meter sizes by commercial customers to be in line with the American Water Works Association (AWWA) recommendation. The first phase adjustment was included in the fiscal year (FY) 2023 Budget, the second phase adjustment was included in the FY 2024 Budget, phase three was included in the FY 2025 Budget, and phase four is included in the proposed FY 2026 Budget.

The last residential water rate increase took place in FY 2022 and the top two volumetric tiers were increased in the FY 2025 budget. The FY 2026 Budget includes an increase to the residential water rates, as well as an increase to the three-tier volumetric rates to encourage water conservation. This includes a $0.50 increase to the base water bill, making the standard rate $15.54 a month and includes up to 2,000 gallons. All volumetric rates are based on each additional 1,000 gallons of water. Therefore, tier one (2,001 - 15,000 gallons) will see a 3.15% ($0.11) increase, tier two (15,001 - 30,000 gallons) will see a 5.16% ($0.23) increase, and tier three (30,001 gallons and above) will see a 5.03% ($0.28) increase.

Additionally, in the proposed FY 2026 Budget, there is a recommendation to increase residential sewer rates by $0.83 due to an increase in the Sewer Warranty Program. This program increase will affect all residential customers that are in single-, two-, three-, and four-unit homes, and provides coverage of the sewer line in the right-of-way to the main.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

N/A

CONFORMITY TO CITY POLICY:

This item conforms with state and local policies.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

The financial impact is additional revenue from the increase to the base rate and three-tier rates for residential water. There is also additional revenue from the fourth of a 5-year phase-in of increases to the base rate for commercial meters. The additional expenditure for the sewer warranty will be offset by the revenue collected. All the additional revenue is included in the FY 2026 Proposed Budget.

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

City Council approve the ordinance amending Chapter 30, Water, Sewers, and Sewage Disposal, of the Code of Ordinances, to amend residential and commercial water rates as well as residential sewer rates.

DEPARTMENTAL CLEARANCES:

Public Works
Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

Ordinance
Presentation

ORDINANCE NO. 25-XXX

AN ORDINANCE AMENDING CHAPTER 30, ARTICLE IV, OF THE CODE OF ORDINANCES OF THE CITY OF KILLEEN, TEXAS, BY AMENDING COMMERCIAL AND RESIDENTIAL WATER RATES AND RESIDENTIAL SEWER RATES; PROVIDING FOR THE REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR A SAVINGS CLAUSE; PROVIDING FOR PUBLICATION AND AN EFFECTIVE DATE.

WHEREAS, the City of Killeen, Texas is a home-rule city acting under its charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Local Government Code; and,

WHEREAS, the City Council of the City of Killeen deems the continued operation and functionality of the City's water and sewer infrastructure to be of vital importance to the protection of the public health, safety, and welfare of its citizens; and,

WHEREAS, the City maintains sewer mains for the benefit of the public and desires to ensure proper functioning of the system and adopt the maintenance responsibilities for sewer service lines; and,

WHEREAS, sewer laterals between the main lines and the connection on private property are owned by individual property owners; and,

WHEREAS, a portion of such sewer laterals are often within the public right of way; and,

WHEREAS, the City wishes to provide for repairs and/or replacements as necessary for certain sewer laterals with the ROW; and,

WHEREAS, the City will outsource the management of residential sewer lateral repairs and/or replacements within the ROW and finds that one dollar and thirty-three cents ($1.33) per month per customer for the warranty protection is reasonable; and,

WHEREAS, a Water and Sewer rate study has determined that in order to provide continued water and sewer service, it is necessary and in the best interest of the public health and safety to amend the commercial and residential water and sewer rates.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF KILLEEN, TEXAS:

SECTION I. That Section 30-136 of the City of Killeen Code of Ordinances is hereby amended to read as follows:

Sec. 30-136. Assessed.

(a) The following water charges shall apply to all residential users for the consumption of water inside the city limits:

0 to 2,000 gallons — Meter size:

⅝" and ¾"$~~15.04~~15.54

1"$~~16.49~~16.99

1½"$~~20.13~~20.63

2"$~~24.48~~24.98

3"$~~34.65~~35.15

4"$~~49.20~~49.70

6"$~~86.61~~87.11

8"$~~129.10~~129.60

Applicable to all meter sizes:

2,001 to 15,000 gallons, per 1,000 gallons: $~~3.38~~3.49

15,001 to 30,000 gallons per 1,000 gallons: $~~4.23~~4.46

Over 30,000 gallons, per 1,000 gallons: $~~5.29~~5.57

(b) The following water charges shall apply to all commercial users for the consumption of water inside the city limits:

0 to 2,000 gallons — Meter size:

⅝" and ¾"$15.52

1"$~~19.63~~21.50

1½"$~~33.65~~40.19

2"$~~50.47~~62.62

3"$~~89.73~~114.96

4"$~~145.81~~189.74

6"$~~286.01~~376.67

8"$~~454.25~~600.99

Applicable to all meter sizes:

All over 2,000 gallons, per 1,000 gallons: $3.50

(c) The following water charges shall apply to all apartment, small apartment, and mobile home park users for the consumption of water inside the city limits:

0 to 2,000 gallons — Meter size:

⅝" and ¾"$~~15.04~~15.5~~2~~4

1"$~~16.49~~16.99

1½"$~~20.13~~20.63

2"$~~24.48~~24.98

3"$~~34.65~~35.15

4"$~~49.20~~49.70

6"$~~86.61~~87.11

8"$~~129.10~~129.60

Applicable to all meter sizes:

All over 2,000 gallons, per 1,000 gallons: $3.38

(d) The water rates for all residential users outside the city limits shall be equal to the rates for residential users inside the city limits plus fifty (50) percent:

0 to 2,000 gallons — Meter size:

⅝" and ¾"$~~22.56~~23.31

1"$~~24.74~~25.49

1½"$~~30.20~~30.95

2"$~~36.72~~37.47

3"$~~51.98~~52.73

4"$~~73.80~~74.55

6"$~~129.92~~130.67

8"$~~193.65~~194.40

Applicable to all meter sizes:

2,001 to 15,000 gallons, per 1,000 gallons: $~~5.07~~5.24

15,001 to 30,000 gallons per 1,000 gallons: $~~6.35~~6.69

Over 30,000 gallons, per 1,000 gallons: $~~7.94~~8.36

(e) The water rates for all commercial users outside the city limits shall be equal to the water rates for commercial users inside the city limits plus fifty (50) percent:

0 to 2,000 gallons — Meter size:

⅝" and ¾"$23.28

1"$~~29.45~~32.25

1½"$~~50.48~~60.29

2"$~~75.71~~93.93

3"$~~134.60~~172.44

4"$~~218.72~~284.61

6"$~~429.02~~565.01

8"$~~681.38~~901.49

Applicable to all meter sizes:

All over 2,000 gallons, per 1,000 gallons: $5.25

(f) The water rates for all apartment, small apartment, and mobile home park users outside the city limits shall be equal to the water rates for apartment, small apartment and mobile home park users inside the city limits plus fifty (50) percent:

0 to 2,000 gallons — Meter size:

⅝" and ¾"$~~22.56~~23.~~28~~31

1"$~~24.74~~25.49

1½"$~~30.20~~30.95

2"$~~36.72~~37.47

3"$~~51.98~~52.73

4"$~~73.80~~74.55

6"$~~129.92~~130.67

8"$~~193.65~~194.40

Applicable to all meter sizes:

All over 2,000 gallons, per 1,000 gallons: $5.07

(g) The meter rates for fire hydrant construction meters are as follows:

0 to 2,000 gallons: $64.49

All over 2,000 gallons, per 1,000 gallons: $3.50

(h) The meter rates for Stonetree Golf Course irrigation shall be equal to the M&O rate for potable water or reuse water rate per 1,000 gallons charged to the City of Killeen by Bell County Water Control and Improvement District No. 1.

SECTION II. That Section 30-151 of the City of Killeen Code of Ordinances is hereby amended to read as follows:

Sec. 30-151. Rates.

(a) The wastewater use rates for all users shall be based on and calculated by the water meter consumption less three thousand (3,000) gallons minimum times the

appropriate return flow factor times the cost for each unit of discharge plus the minimum charge shown below for each account category. (Example: Commercial account: Usage 10,000 gallons minus 3,000 gallons = 7,000 gallons: 7,000 gallons x 90% flow factor = 6,300 gallons; 6,300 gallons x 3.80 per 1,000 gallons = $23.94 + $20.65 (minimum charge) = $44.59 (total charge))

The wastewater rate shall be per one thousand (1,000) gallons and the minimum monthly fee:

(1) *Rate for single-family residential.* Twenty-one dollars and ~~seventy-six~~fifty-nine cents ($~~20.76~~21.59) minimum charge for the first three thousand (3,000) gallons, plus three dollars and eighty cents ($3.80) per one thousand (1,000) gallons thereafter, not to exceed ten thousand (10,000) gallons.

(2) *Rate for two-family and multifamily (three- and four-unit) residential.* Twenty-one dollars and ~~fifteen~~ ninety-eight cents ($21.~~15~~98) minimum charge for the first three thousand (3,000) gallons, plus three dollars and eighty cents ($3.80) per one thousand (1,000) gallons in excess of minimum thereafter.

(3) *Rate for commercial and apartment customers.* Twenty dollars and sixty-five cents ($20.65) minimum charge for the first three thousand (3,000) gallons, plus three dollars and eighty cents ($3.80) per one thousand (1,000) gallons in excess of minimum.

(4) *Rates for motels.* Twenty dollars and sixty-five cents ($20.65) minimum charge for the first three thousand (3,000) gallons, plus three dollars and eighty cents ($3.80) per one thousand (1,000) gallons in excess of minimum thereafter.

(5) *Rate for mobile home parks.* Twenty-one dollars and fifteen cents ($21.15) per unit minimum charge for the first three thousand (3,000) gallons per unit, plus three dollars and eighty cents ($3.80) per one thousand (1,000) gallons in excess of minimum, not to exceed ten thousand (10,000) gallons per unit.

(6) *Rate for residential outside city limits.* The wastewater rates for all users outside the city limits shall be equal to the rates for residential inside the city limits plus fifty (50) percent.

(7) *Rate for commercial outside city limits.* The wastewater rates for all users outside the city limits shall be equal to the rates for commercial inside the city limits plus fifty (50) percent.

(b) The following return flow factors will be applied for each class of sewer customer:

(1) Residential 100%

(2) Commercial 90%

(3) Outside city residential 100%

(4) Apartments, motels, etc. 90%

(5) Laundries and car wash 90%

(6) Industrial 90%

(7) Mobile home parks 100%

(8) Outside city commercial 100%

(c) The return flow in gallons is determined by multiplying the water meter consumption, less three thousand (3,000) gallons minimum, times the return flow factor for each specific classification (i.e., usage 10,000 gallons minus 3,000 gallons minimum = 7,000 gallons; 7,000 gallons x 90% flow factor = 6,300 gallons).

(1) *Residential.* One hundred (100) percent of metered water up to ten thousand (10,000) gallons per month.

(2) *Commercial.* Ninety (90) percent of metered water.

(3) *Outside city residential.* One hundred (100) percent of metered water up to ten thousand (10,000) gallons per month.

(4) *Apartments, motels, etc.* Ninety (90) percent of metered water.

(5) *Laundries and car wash.* Ninety (90) percent of metered water.

(6) *Industrial.* Ninety (90) percent of metered water.

(7) *Mobile home parks.* One hundred (100) percent of metered water up to ten thousand (10,000) gallons per unit.

(8) *Outside city commercial.* One hundred (100) percent of metered water.

SECTION III. That should any section or part of this ordinance be declared unconstitutional or invalid for any reason, it shall not invalidate or impair the validity, force, or effect of any other section or parts of this ordinance.

SECTION IV. That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

SECTION V. That this ordinance shall take effect October 1, 2025.

PASSED AND APPROVED at a regular meeting of the City Council of the City of Killeen, Texas, this 16th day of September 2025, at which meeting a quorum was present, held in accordance with the provisions of V.T.C.A., Government Code, § 551.001, *et seq*.

APPROVED:

_____

Debbie Nash-King, MAYOR

ATTEST:

_____

Laura J. Calcote, CITY SECRETARY

APPROVED AS TO FORM

_____

Holli C. Clements, CITY ATTORNEY

CHAPTER 30 ORDINANCE RATE AMENDMENTS

PH-25-051

September 2, 2025

Background

- July 7, 2020, City Council received the results of the 2020 Water & Sewer Rate Study
  - Study indicated that water revenues were insufficient to fully fund projected expenses to include infrastructure replacement
  - Recommended a five-year phased approach to increase the base charge for commercial meters based on the American Water Works Association (AWWA) standard for meter size capacities
    - Phase 1 was implemented in the FY 2023 Budget
    - Phase 2 was implemented in the FY 2024 Budget
    - Phase 3 was implemented in the FY 2025 Budget

Background (cont'd)

- All additional revenue created by these increases are proposed in the FY 2026 Budget.
  - Phase four of five-year commercial water rate increase - $175,000 Revenue
  - $.50 increase to residential water base rate - $330,000
    - $.11 increase to tier one - $130,165
    - $.23 increase to tier two - $27,633
    - $.28 increase to tier three - $25,679
  - $.83 increase to residential sewer base rate - $536,000

Monthly Residential Rates

	Current Amount	Change Amount	Recommended Amount	Change Percent
Residential:				
Sewer -				
Minimum	$ 20.76	$ 0.83	$ 21.59	3.84%
Volumetric (3,001-15,000 gals)	$ 3.80	-	$ 3.80	0.00%
Water (3/4") Residential -				
Minimum				
5/8" and 3/4"	$ 15.04	$ 0.50	$ 15.54	3.22%
1"	$ 16.49	$ 0.50	$ 16.99	2.94%
1-1/2"	$ 20.13	$ 0.50	$ 20.63	2.42%
2"	$ 24.48	$ 0.50	$ 24.98	2.00%
3"	$ 34.65	$ 0.50	$ 35.15	1.42%
4"	$ 49.20	$ 0.50	$ 49.70	1.01%
6"	$ 86.61	$ 0.50	$ 87.11	0.57%
8"	$ 129.10	$ 0.50	$ 129.60	0.39%
Volumetric (2,001-15,000 gals)	$ 3.38	$ 0.11	$ 3.49	3.15%
Volumetric (15,001 - 30,000 gals)	$ 4.23	$ 0.23	$ 4.46	5.16%
Volumetric (Over 30,000 gals)	$ 5.29	$ 0.28	$ 5.57	5.03%
(1) Outside of city limits is recommended rate plus fifty percent (50%)				

Monthly Commercial Rates

	Current Amount	Change Amount	Recommended Amount	Change Percent
Commercial (inside City limits):				
Sewer -				
Minimum	$ 20.65	$ -	$ 20.65	0.00%
Volumetric (3,001+ gals @ 90% flow factor)	3.80	-	3.80	0.00%
Minimum by Meter Size (Phase 4 of 5):				
Water (5/8" and 3/4")	$ 15.52	$ -	$ 15.52	0.00%
Water (1")	$ 19.63	$ 1.87	$ 21.50	9.53%
Water (1-1/2")	$ 33.65	$ 6.54	$ 40.19	19.44%
Water (2")	$ 50.47	$ 12.15	$ 62.62	24.07%
Water (3")	$ 89.73	$ 25.23	$ 114.96	28.12%
Water (4")	$ 145.81	$ 43.93	$ 189.74	30.13%
Water (6")	$ 286.01	$ 90.66	$ 376.67	31.70%
Water (8")	$ 454.25	$ 146.74	$ 600.99	32.30%
(1) Outside of city limits is recommended rate plus fifty percent (50%)				

Utility Bill Comparison

Average Residential Customer (using 5,700 gallons of water per month)				
Description	Recommended Amount	Current Amount	Change Amount	Change Percent
Sewer	$ 32.99	$ 31.02	$ 1.97	6.35%
Water	$ 29.50	$ 27.55	$ 1.95	7.08%
Solid Waste	$ 19.78	$ 19.78	$ -	0.00%
Street Maintenance	$ 10.00	$ 10.00	$ -	0.00%
Drainage	$ 5.40	$ 5.40	$ -	0.00%
Total Utility Bill	$ 97.67	$ 93.75	$ 3.92	4.18%

Recommendations

- City Council approve the ordinance amending Chapter 30, Water, Sewers, and Sewer Disposal, of the Code of Ordinances, to amend Residential and Commercial Water and Residential Sewer Rates as presented.

City of Killeen

Staff Report

File Number: PH-25-052

Hold a public hearing and consider an ordinance submitted by Quintero Engineering, LLC, on behalf of Atkinson Homes, Inc., **(Case# Z25-25)** to rezone approximately 19.56 acres out of the T. Arnold Survey, Abstract No. 55, and J. H. Lewis Survey, Abstract No. 536 from "A" (Agricultural District) to PUD (Planned Unit Development) with "RT-1" (Residential Townhouse Single-Family District) uses. The subject property is locally addressed as 7610 Clear Creek Road.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Wallis Meshier, Exec. Dir. Of Dev. Serv.**

SUBJECT: **Zoning Case # Z25-25: "A" to PUD w/ "RT-1" uses**

BACKGROUND AND FINDINGS:

Property Information:

Property Owner: Atkinson Homes, Inc.
Agent: Quintero Engineering, LLC
Current Zoning: "A" (Agricultural District)
Proposed Zoning: Planned Unit Development (PUD) w/"RT-1" (Residential Townhouse Single-Family District)
FLUM Designation: 'Residential Mix' (RM)
Growth Sector Designation: 'Controlled Growth' (CG)

Summary of Request:

Quintero Engineering, on behalf of Atkinson Homes, Inc., requests a zoning change from "A" (Agricultural District) to Planned Unit Development (PUD) with "RT-1" (Residential Townhouse Single-Family District) for the property at 7610 Clear Creek Road. If approved, the applicant intends to develop the property into townhomes (i.e. single family attached housing) consisting of 3-unit and 4-unit townhouse groups. The PUD Concept Plan identifies thirty-two (32) 4-unit buildings and nineteen (19) 3-unit buildings, for a total of 185 townhomes.

The proposed development will have private streets with two points of ingress/egress from Pauline Drive. To meet the Fire Code, all units will have a fire suppression system.

The applicant is requesting approval of a Planned Unit Development (PUD) with "RT-1" (Residential Townhouse Single-Family District) base zoning to accommodate deviations from the City of Killeen's standard zoning requirements. The primary modifications include reductions to dimensional standards, such as side yard setbacks, rear setbacks, and private yard area. The PUD also proposes zero-lot-line construction and allows reduced separation between townhouse groups, as well as fewer units per group. Visitor parking requirements are reduced, and landscape standards are modified to permit shorter canopy trees, smaller shrubs, and a broader range of ground cover materials. Architectural standards not specified in the base code are introduced, including requirements for masonry, a selection of architectural design elements, and restrictions on elevation repetition to promote visual variety. Additionally, the timing of common area amenity installation is adjusted to coincide with the issuance of certificates of occupancy. These deviations are proposed to support a more compact, design-controlled townhouse community with shared amenities and private street maintenance.

Below is a summary of the typical lot dimensions in the proposed PUD in relation to the standards in the existing "RT-1" and the Code of Ordinances:

General Overview of the PUD Standards

Zoning: Planned Unit Development (PUD) with base zoning "RT-1" (Residential Townhouse Single-Family District)

Max Density: 10 units per acre

Uses Allowed: Townhouses and accessory buildings

HOA: Required; owns and maintains all private streets and common areas

Lot & Building Standards

- ☐ **Minimum Lot Size**: 2,500 sq ft
- 1 **Minimum Lot Width**: 25 ft
- 2 **Front Yard**: 20 ft minimum
- 3 **Rear Yard**: 15 ft minimum
- 4 **Side Yard**:
  - ☐ 0 ft on interior lot lines (zero-lot-line)
  - 1 5 ft on exterior lot lines
  - 2 10 ft minimum along street sides
- ☐ **Private Yard**:
  - ☐ 300 sq ft minimum
  - 1 May include patio cover (up to 25% of yard)
  - 2 6 ft fence required along yard sides
- ☐ **Building Height**: 2 stories minimum, 35 ft maximum
- 1 **Townhouse Group Size**:
  - ☐ 3-4 units per group
  - 1 Max group length: 200 ft
  - 2 10 ft minimum separation between groups

Streets & Access

Street Ownership: Private (maintained by HOA)

Street Design: Per Exhibits A & B (minimum 27-ft pavement in 40-ft ROW)

Sidewalks: 5-ft sidewalks required along private streets

Parking Requirements

Resident Parking: 2 spaces per unit (garage or driveway)

Visitor Parking: 0.25 spaces per unit (in HOA tracts), rounded up

Architectural Standards

☐ **Materials**: Minimum 25% brick/stone/stucco on front and side façades

1 **Design Features**: Each unit must have 4 of the following:

- ☐ Decorative garage hardware
- 1 Enhanced windows (e.g., shutters, transoms)
- 2 2+ architectural features (e.g., columns, railings)
- 3 Variable roof design
- 4 Horizontal articulation (3 wall planes, 12" min offset)
- 5 Enclosed front patio (on 3 sides)

☐ **Repetition Control**:

- ☐ No repeat elevations within group
- 1 No elevation repeated more than 4 times in development or 3 times per street

Landscaping

☐ **Trees**:

- ☐ 1 canopy tree per lot (1.5" caliper, 5 ft tall)
- 1 Additional trees per open space area and visitor parking

☐ **Shrubs**: 6 shrubs per lot (2-gallon minimum)

1 **Ground Cover**: Turf, artificial turf, gravel, mulch, or other porous decorative covers

2 **Irrigation**: Hose bib or automated system required within 150 ft of landscaping

Common Areas & Amenities

☐ Must be completed by the time 75% of units have certificates of occupancy

1 Required amenities include:

- ☐ 2 gazebos
- 1 1 playscape
- 2 1 dog park
- 3 1 half basketball court
- 4 2 pickleball courts
- 5 4 picnic tables with grills

Zoning/Plat Case History:

The subject property was annexed into the city limits in 2008 via Ordinance No. 07-110 and subsequently zoned "A" (Agricultural District), the default zoning for newly annexed property.

Character of the Area:

North: Developed "A" Agricultural District and "R-1" (Single-Family Residential District).
East: Undeveloped property zoned "A" (Agricultural District) and a developing subdivision zoned "PUD" (Planned Unit Development).
South: Developed "R-1" (Single-Family Residential District) and undeveloped "A" (Agricultural District).
West: Mobile Home Park, single-family residential homes, and undeveloped property zoned "A" (Agricultural District) and"R-1" (Single-Family Residential District); and undeveloped property zoned "B-4" (Business District)

Future Land Use Map Analysis:

This property is located within the 'Controlled Growth' area on the Growth Sector Map and designated as 'Residential Mix' on the Future Land Use Map (FLUM) of the 2040 Comprehensive Plan.

The 'Controlled Growth' sector includes areas in the city limits and approved Municipal Utility Districts (MUDs) that have access to city infrastructure in close proximity. Development proposed in this sector will be evaluated for adherence to the Big Ideas and Recommendations of the plan, particularly those related to housing and neighborhood options, and improve the fiscal health and sustainability of Killeen.

The 'Residential Mix' place type allows a flexible mix of residential building typologies. This place type encourages most residential uses such as single-family detached, townhouses, small-plex (2-4 units), etc. This place type encourages a use mix of up to twenty-five percent (25%) nonresidential and up to ninety-five percent (95%) residential. Neighborhood-scale commercial should be allowed along avenues and higher intensity roadways. A key indicator of a successful Residential Mix area is if every property has access to some neighborhood scale commercial within walking distance.

Development Zone Analysis:

These properties are located within the City of Killeen Development Zone #5. This development zone is west of Fort Hood Street and south of Stan Schlueter Loop. This development zone consists of 69.41% residential uses and 30.59% commercial uses.

The current land use mix within this area comprises of the following acreages and percentages approximately:

District	Acres	Percentage
Special Districts	195.79	5.66%
Residential	2206.39	63.75%
Industrial	19.91	0.58%
Commercial	337.92	9.76%

Agricultural	700.92	20.25%
Totals	**3460.93**	**100.00%**

Vacant Land	1630.86	47.12%

Water, Sewer and Drainage Services:

Provider: City of Killeen
Within Service Area: Yes

Feasibility Study or Service Commitment: Water, wastewater, and drainage services are located within the City of Killeen municipal utility service area.

Water services are available for the property via an existing 8" water distribution main located in Pauline Dr.

Wastewater services are not available adjacent to the property. A new wastewater main would have to be extended approximately 600' to connect existing infrastructure located at the corner of Pauline Dr. and Reginald Dr.

No existing stormwater infrastructure is adjacent to the property. However, there is an existing three-barrel 18" culvert crossing under Pauline Dr., located immediately to the southeast of the tract.

Transportation and Thoroughfare Plan:

Access to the property is via Pauline Dr. (80' ROW), classified as a Collector Road in the currently adopted Comprehensive Plan.

The current zoning classification for the property is "A". The property is currently undeveloped and generates no appreciable traffic.

The proposed zoning classification is PUD with "RT-1" with the proposed use stated as an approximate 185-unit townhome development. Based on the information contained in the 10th Edition of the ITA Trip Generation documents and the anticipated proposed use of the property, approximately 1,794 Average Daily Trips will be generated by the tract.

An individual traffic impact analysis is not required at this time. If the conditions or assumptions used in the development of the current Traffic Impact Determination change, a revised determination may be warranted at that time.

PARKS AND PROPOSED TRAIL PLAN:

The proposed PUD Concept Plan indicates 185 units. Based on this number, the Parkland Dedication and Development Fees will be as follows:

Fees-In-Lieu of Parkland Dedication: $ 138,750.00

Park Development Fees: $ 83,250.00

Total Park Fees: $ 222,000.00

Environmental Assessment:

The property is in the Stillhouse Hollow Lake / Lampasas River Watershed. The property is located in Zone X (Outside the 0.2% Annual Change Flood Hazard), per Federal Emergency Management Agency Flood Insurance Rate Maps 48027C0260E and 48027C0275E with effective date September 26, 2008.

There are no wetlands located on the property, as shown on the National Wetlands Inventory map. No visual evidence of other environmental impediments is apparent on the property at this time.

Public Notification:

Staff notified property owners of fifty (50) surrounding properties regarding this request.

As of the date of this staff report, staff has received one (1) written responses in opposition to this request.

Staff Findings:

The subject property is currently zoned as "A" (Agricultural District). If approved, the applicant intends to develop single-family residential townhomes. The surrounding area features various residential uses, including standard single-family lots, mobile homes, PUD single-family homes, and undeveloped property.

Staff finds that the applicant's request is consistent with the recommendations of the City of Killeen Comprehensive Plan.

THE ALTERNATIVES CONSIDERED:

The City Council may:

Disapprove the applicant's zoning request;

Approve the proposed PUD with conditions; or

Approve the applicant's zoning request as presented.

Which alternative is recommended? Why?

Staff recommends approval of the applicant's request to rezone the property from "A" to Planned Unit Development (PUD) with "RT-1" (Residential Townhouse Single-Family District) as presented.

The applicant's request is primarily to accommodate deviations from the city's base zoning standards, specifically, adjustments to the front setback and side yard requirements within the residential portion of the development. These modifications are consistent with the flexibility intended under the PUD zoning framework and do not conflict with the overall character or intent of the surrounding land uses. Staff finds that the proposed development includes common open space amenities and enhanced landscaping provisions that are sufficient to meet the intent of a Planned Unit Development (PUD), as stated in Killeen Code of Ordinances Sections 31-800 and 31-801.

CONFORMITY TO CITY POLICY:

This zoning request does conform to the City's policy and procedures, as detailed in Chapter 31 of the Killeen Code of Ordinances.

FINANCIAL IMPACT:

What is the amount of the expenditure in the current fiscal year? For future years?

This zoning request does not involve the expenditure of city funds. However, subsequent development and dedication of public infrastructure will require maintenance funds over the life cycle of future development.

Is this a one-time or recurring expenditure?

This is not applicable.

Is this expenditure budgeted?

This is not applicable.

If not, where will the money come from?

This is not applicable.

Is there a sufficient amount in the budgeted line item for this expenditure?

This is not applicable.

RECOMMENDATION:

Staff recommends approval of the applicant's request to rezone the subject property from "A" to PUD (Planned Unit Development with "RT-1" (Residential Townhouse Single-Family District) as presented.

At their regular meeting on August 11, 2025, the Planning and Zoning commission recommended

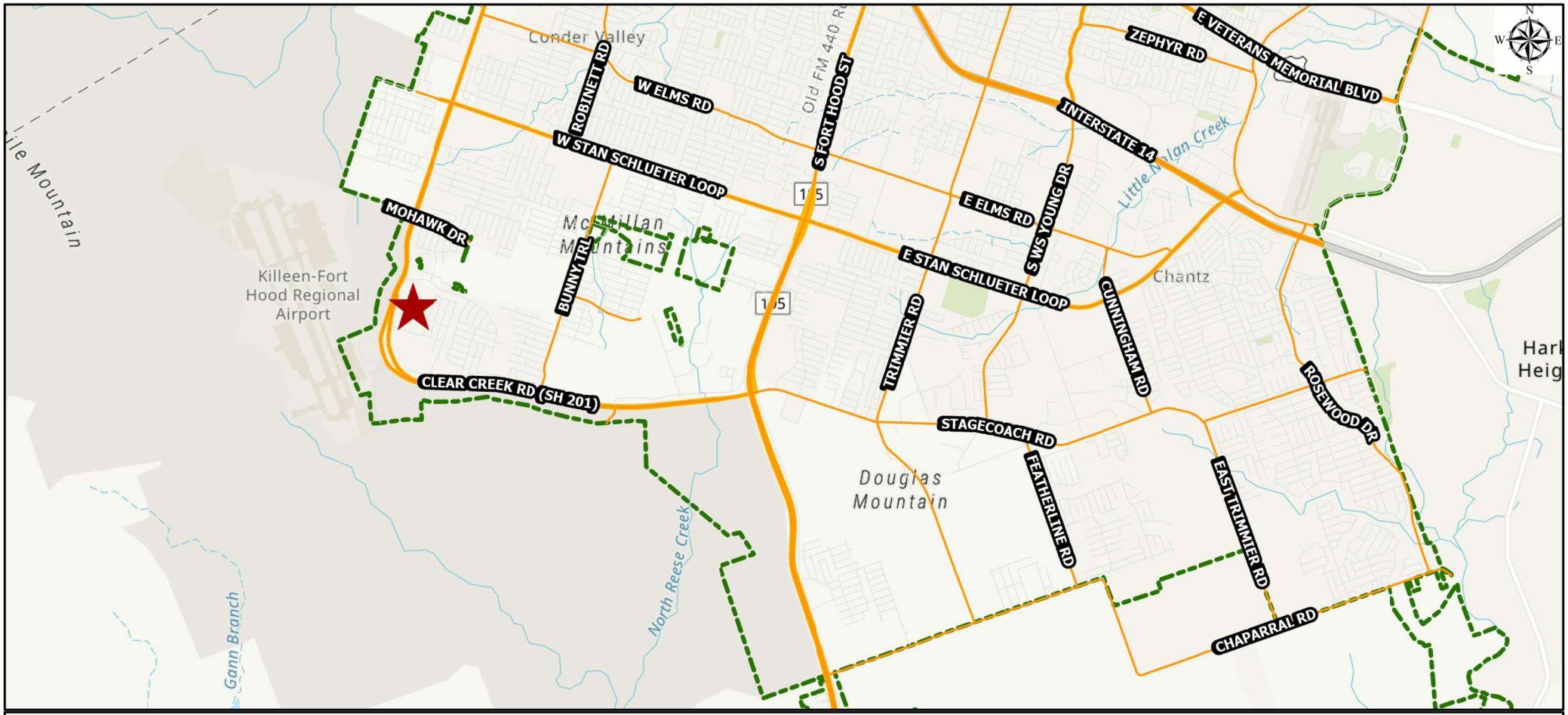
approval of the applicant's request to change the zoning classification from "A" (Agricultural District) to PUD (Planned Unit Development) with "RT-1" (Residential Townhouse Single-Family District) by a vote of 5 to 0.

DEPARTMENTAL CLEARANCES:

This item has been reviewed by the Planning and Legal staff.

ATTACHED SUPPORTING DOCUMENTS:

Maps
Site Photos
Minutes
Ordinance
Letter of Request
PUD Concept Plan
PUD Development Standards
Elevation Plans
Responses
Presentation



LOCATION MAP

Council District: 4

0 1 2 Miles

Zoning Case 2025-25

A TO PUD W/RT-1

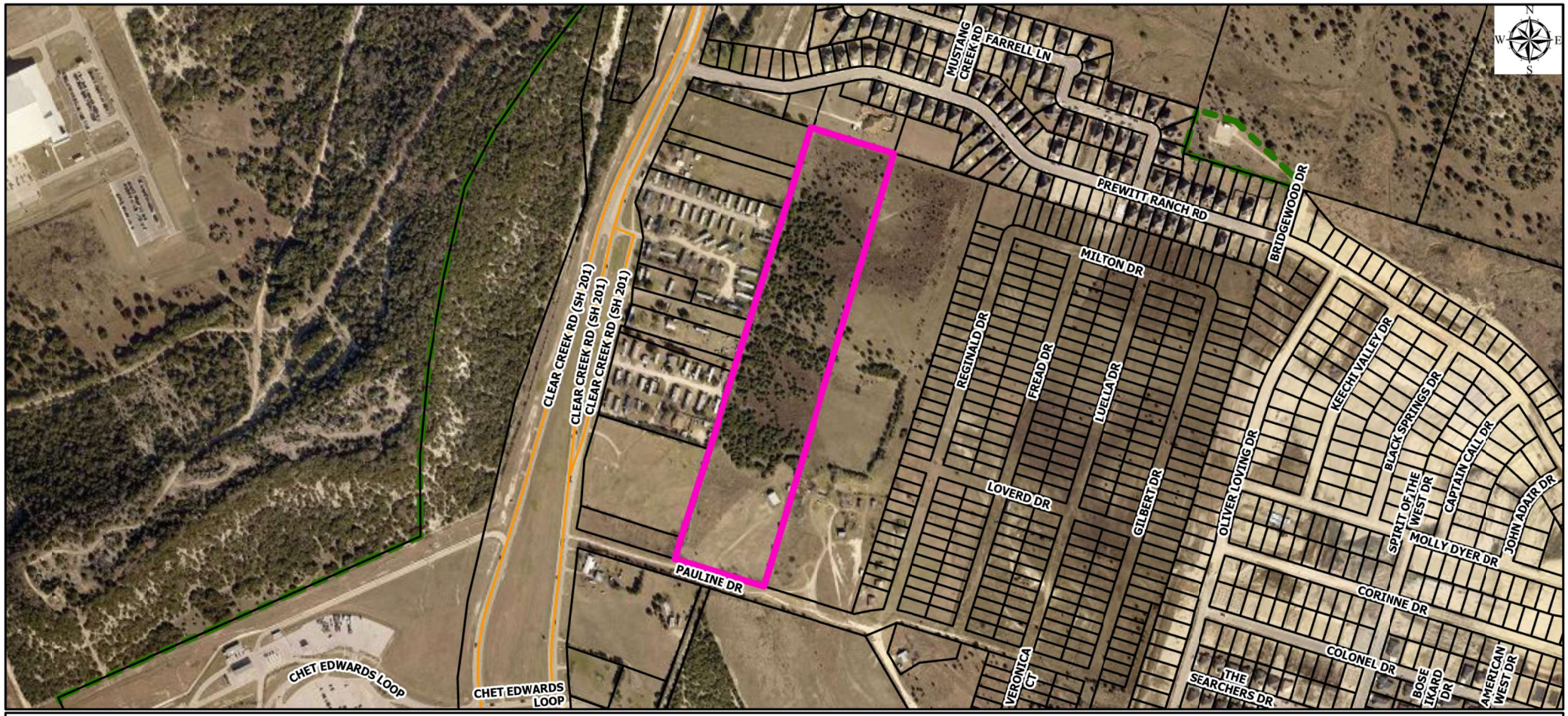
Legend

Major Roads

City Limit

Zoning Case Location

Subject Property Legal Description: A0055BC T ARNOLD, 6-2, A0536 J H LEWIS, 1-16, ACRES 19.56



AERIAL MAP

Council District: 4

0 200 400

Feet

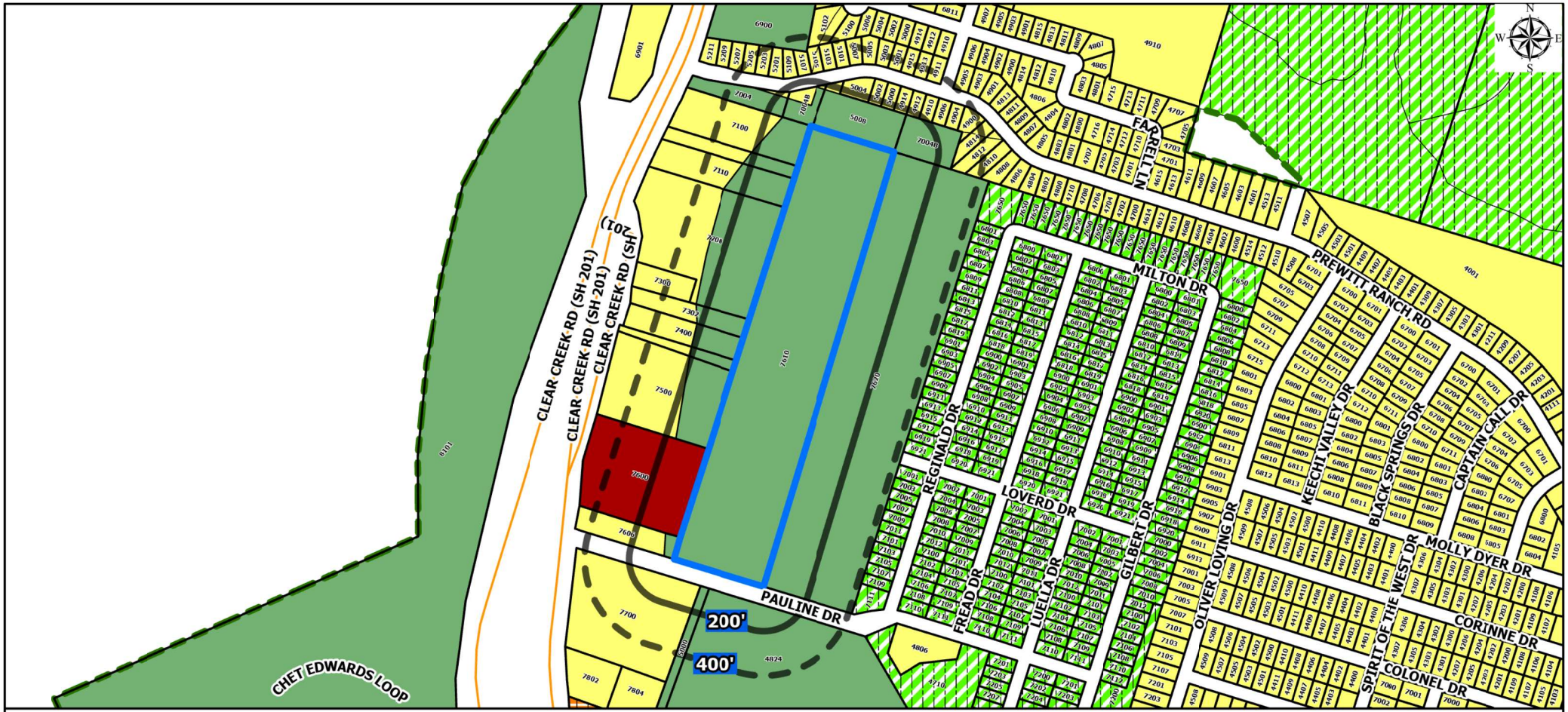
Zoning Case 2025-25

A TO PUD W/RT-1

Legend

Zoning Case

Subject Property Legal Description: A0055BC T ARNOLD, 6-2, A0536 J H LEWIS, 1-16, ACRES 19.56



NOTIFICATION MAP
Council District: 4
0 200 400
Feet

Zoning Case 2025-25
A TO PUD W/RT-1

Legend
Current Zoning
B-4
PUD
A
B-C-1
R-1
Zoning Case

Subject Property Legal Description: A0055BC T ARNOLD, 6-2, A0536 J H LEWIS, 1-16, ACRES 19.56

SITE PHOTOS

Case #Z25-25: “A” to PUD w/ ”RT-1”

View of the subject property from Pauline Drive:



From Pauline Drive facing west looking towards Clear Creek Road:



SITE PHOTOS

Case #Z25-25: “A” to PUD w/ ”RT-1”

From Pauline Drive, facing east, looking towards Mitchell Farm Subdivision:



From Pauline Drive, facing south, looking towards the adjacent property:



MINUTES
PLANNING AND ZONING COMMISSION MEETING
AUGUST 11, 2025
CASE # Z25-25
"A" to PUD W/"RT-1"

Hold a public hearing and consider a request submitted by Quintero Engineering, LLC on behalf Atkinson Homes, Inc. **(Case# Z25-25)** to rezone approximately 19.56 acres out of the T. Arnold Survey, Abstract No. 55, and J. H. Lewis Survey, Abstract No. 536 from "A" (Agricultural District) to PUD (Planned Unit Development) with "RT-1" (Residential Townhouse Single-Family District). The subject property is locally addressed as 7610 Clear Creek Road.

Mr. Hermosillo presented the staff report for this item. He stated that, if approved, the applicant intends to develop the property into townhomes. Mr. Hermosillo also stated that the PUD development standards are outlined in the proposed PUD Concept Plan.

The subject property is currently designated 'Controlled Growth' area on the Growth Sector Map and 'Residential Mix' (RM) on the Future Land Use Map (FLUM). Mr. Hermosillo stated that the request is consistent with the recommendations of the Killeen 2040 Comprehensive Plan. He also stated that staff recommends approval of the applicant's request to rezone the property from "A" (Agricultural District) to Planned Unit Development (PUD) with "RT-1" (Residential Townhouse Single-Family District) as presented.

Mr. Hermosillo stated that staff notified the owners of fifty (50) surrounding properties regarding this request. As of the date of the meeting, staff has received one (1) written response in opposition to the request.

The applicant, Mr. Pedro Quintero of Quintero Engineering, was present to represent the request. Mr. Quintero elaborated on the amenities being incorporated in their concept plan.

Chairman Minor asked if the development would be "owner occupied" and "for sale". Mr. Quintero stated that these units will be owner occupied.

There was also a discussion about a citizen's response that expressed concerns about lack of an adequate buffer between the proposed development and neighboring residential.

Chairman Minor opened the public hearing at 5:21 p.m.

With no one wishing to speak, the public hearing was closed at 5:21 p.m.

Commissioner Giacomozzi moved to recommend approval of the request as presented. Commissioner O'Brien seconded, and the motion passed by a vote of 5 to 0.

ORDINANCE NO. 25-XXX

AN ORDINANCE AMENDING THE CITY OF KILLEEN ZONING ORDINANCE BY CHANGING THE ZONING OF APPROXIMATELY 19.56 ACRES OUT OF THE T. ARNOLD SURVEY, ABSTRACT NO. 55, AND J. H. LEWIS SURVEY, ABSTRACT NO. 536 FROM "A" (AGRICULTURAL DISTRICT) TO PUD (PLANNED UNIT DEVELOPMENT) WITH "RT-1" (RESIDENTIAL TOWNHOUSE SINGLE-FAMILY DISTRICT) USES; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR THE REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, pursuant to Chapter 211 of the Texas Local Government Code and Section 31-39 of the City of Killeen Code of Ordinances, the City Council, upon application, may amend the City of Killeen Zoning Ordinance following a recommendation by the Planning and Zoning Commission and a public hearing;

WHEREAS, Quintero Engineering, on behalf of Atkinson Homes; presented to the City of Killeen, a request for an amendment to the City of Killeen Zoning Ordinance by changing the classification of approximately 19.56 acres, acres out of the T. Arnold Survey, Abstract No. 55, and J. H. Lewis Survey, Abstract No. 536, locally addressed as 7610 Clear Creek Road, from "A" (Agricultural District) to PUD (Planned Unit Development) with "RT-1" (Residential Townhouse Single-Family District) uses;

WHEREAS, the Planning and Zoning Commission of the City of Killeen, following a public hearing on August 11, 2025, duly recommended approval of the application for amendment;

WHEREAS, due notice of the filing of said request and the date of hearing thereon was given as required by law, and hearing on said request was set for 3:00 P.M., on September 2, 2025, at the City Hall, City of Killeen; and

WHEREAS, the City Council at said hearing duly considered said request, the action of the Planning and Zoning Commission, and the evidence in support thereof, and the City Council being of the majority opinion that the applicant's zoning request should be approved as recommended by the Planning and Zoning Commission.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF KILLEEN:

SECTION I. That the zoning classification of approximately 19.56 acres, acres out of the T. Arnold Survey, Abstract No. 55, and J. H. Lewis Survey, Abstract No. 536, locally addressed as 7610 Clear Creek Road, from “A” (Agricultural District) to PUD (Planned Unit Development) with “RT-1” (Residential Townhouse Single-Family District) uses.

SECTION II. That should any section or part of this ordinance be declared unconstitutional or invalid for any reason, it shall not invalidate or impair the validity, force, or effect of any other section or parts of this ordinance.

SECTION III. That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

SECTION IV. That this ordinance shall take effect immediately upon passage of the ordinance.

PASSED AND APPROVED at a regular meeting of the City Council of the City of Killeen, Texas, this 2nd day of September 2025, at which meeting a quorum was present, held in accordance with the provisions of V.T.C.A., Government Code, § 551.001, *et seq*.

APPROVED:

_____
Debbie Nash-King, MAYOR

ATTEST:

_____
Laura J. Calcote, CITY SECRETARY

APPROVED AS TO FORM

_____
Holli C. Clements, CITY ATTORNEY
Case #25-25
Ord. #25-___

Quintero Engineering, LLC
Civil Engineering • Land Surveying
Planning • Construction Management
www.quinteroeng.com

June 16, 2025

City of Killeen – Planning & Development Services
Attn: Wallis Meshier
200 E. Avenue D, 2nd Floor
Killeen, Texas 76541

RE: Zoning Change Letter of Request – Garden Village, Killeen

Dear Mrs. Meshier,

On behalf of the property owner, we are submitting this letter of request for a zoning change from Agricultural District (A) to Townhouse (RT-1) Planned Unit Development (PUD) for the property located at 7610 Clear Creek Road, Killeen.

The surrounding area consists of a mix of land uses, including Agricultural District (A), Local Business District (B-4), Single-Family Residential District (R-1), and a Planned Unit Development (PUD) known as Mitchell Farms. The property owner intends to develop a townhouse community, a housing product that is currently underrepresented in the City of Killeen. This proposed zoning change will facilitate the creation of a medium-density residential development, which aligns with the housing needs identified in the recently adopted Comprehensive Plan.

This development aims to foster a connected, vibrant community where residents can enjoy a well-designed living environment with shared amenities and common areas that promote social interaction. The development will be managed by a Homeowners Association (HOA), which will be responsible for the maintenance of private amenities, including landscaping, recreation areas, and private streets. This ensures that the community remains well-maintained, visually appealing, and cohesive in the long term, creating a stable and attractive environment for its residents.

This zoning change is consistent with the city's goals outlined in the Comprehensive Plan and will contribute to the diversification of housing options within the city. We believe this development will not only be compatible with, but will also enhance the surrounding land uses by promoting growth in an underdeveloped area of the city. The project will support the city's efforts to expand its housing options while maintaining a cohesive and complementary transition between residential and commercial.

We trust that this proposal will be viewed favorably, as it represents a thoughtful and sustainable approach to addressing Killeen's housing needs. We look forward to your consideration and approval of this zoning change request.

Should you need additional information or have any questions, please do not hesitate to contact our office at 254.493.9962 or me directly on my cell phone at 254.394.0034.

Sincerely,

Gorge J. Meza
Project Manager
Quintero Engineering, LLC

1501 W. Stan Schlueter Lp., Killeen, Texas 76549
Phone 254.493.9962 Fax 254.432.7070
T.B.P.E. Firm No.: 14709 T.B.P.L.S. Firm No. 10194110

AMENITIES

5' CONCRETE SIDEWALK (AS SHOWN)
GAZEBO
PLAYSCAPE
DOG PARK
BASKETBALL COURT (HALF)
PICKLEBALL COURT
PICNIC TABLE W/ OUTDOOR GRILL

PUD NOTES: AN OWNER'S ASSOCIATION SHALL BE ESTABLISHED AND SHALL OWN AND BE RESPONSIBLE TO PROVIDE FOR OPERATION, REPAIR AND MAINTENANCE OF ALL PRIVATE COMMON AREAS AND IMPROVEMENTS.

LEGEND

PROPERTY BOUNDARY
STREET CENTERLINE
PRIVATE RIGHT-OF-WAY LINE (R.O.W.)
LOT LINES
ADJOINING TRACT PROPERTY LINES
6" SEWER LINE
6" WATER LINE
FIRE HYDRANT ASSEMBLY
MANHOLE
CLEANOUT

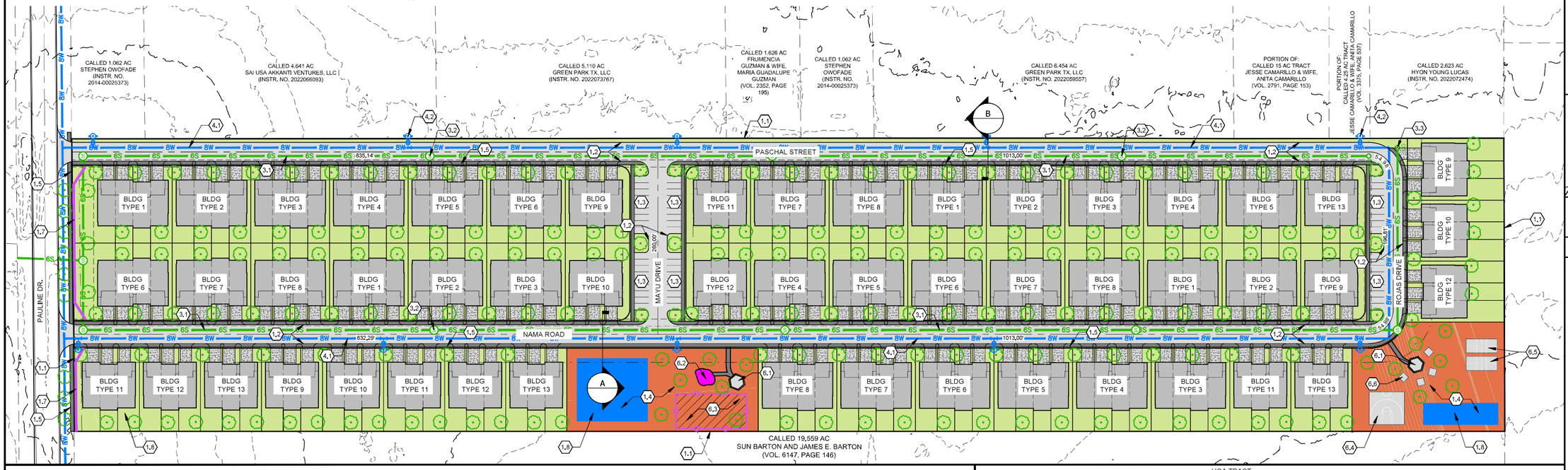
SITE NOTES

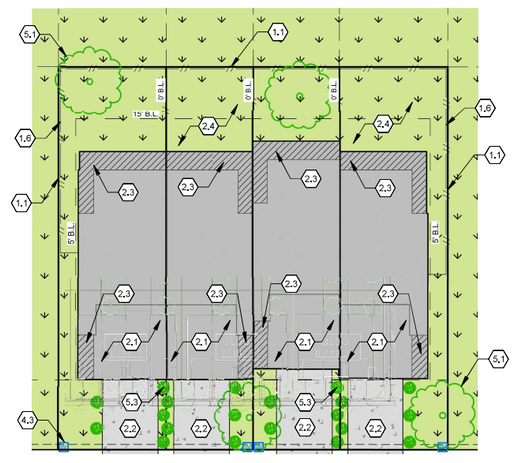
1. THE GARDEN VILLAGE PUD SHALL HAS TWO (2) ACCESS POINTS ALONG PAULINE DR.
2. THE 3 AND 4 UNIT TOWNHOUSE GROUPS SHOWN ARE FOR REPRESENTATION ONLY. THE FINAL TOWNHOUSE LOT CONFIGURATION SHALL BE FINALIZED DURING THE PREPARATION OF THE CONSTRUCTION PLANS AND FINAL PLAT AND SHALL CONFORM TO THE PROPOSED GARDEN VILLAGE PUD DEVELOPMENT STANDARDS.

STREET SUMMARY

PRIVATE STREET NAME	PRIVATE ROW	PAVEMENT WIDTH
NAMA ROAD	40	27' BOC-BOC
MAYU DRIVE	40	27' BOC-BOC
ROJAS DRIVE	40	27' BOC-BOC
PASCHAL STREET	VARIES	27' BOC-BOC

GRAPHIC HORIZONTAL SCALE 0 70' 140'



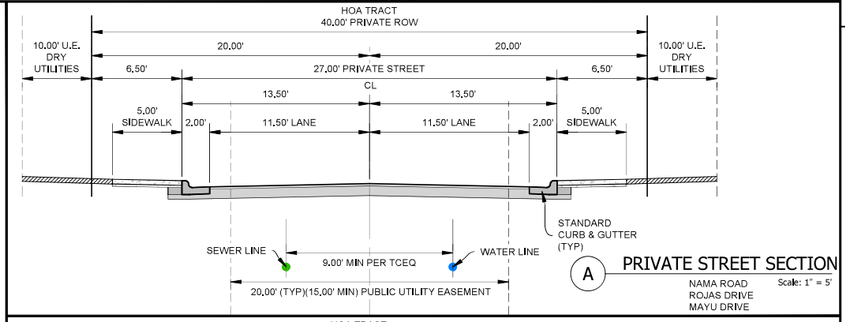


PRIVATE DRIVE
HOA TRACT
(PRIVATE R.O.W.)

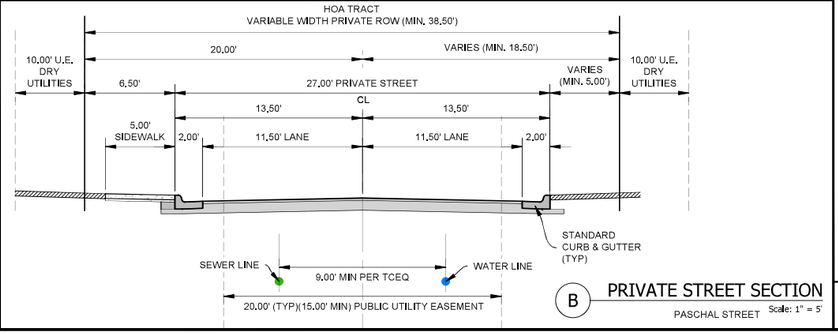
- TYPICAL TOWNHOUSE GROUP
SCALE: 1"=20'

SITE KEYNOTES

1. SITE
   - 1.1. PROPERTY LINE
   - 1.2. 27' BOC-BOC PRIVATE STREET
   - 1.3. VISITOR PARKING
   - 1.4. HOA COMMON AREAS: AMENITY AND DRAINAGE AREAS
   - 1.5. 5' CONCRETE SIDEWALK
   - 1.6. 6' PRIVACY WOOD FENCE
   - 1.7. MASONRY ENTRANCE FENCING W/ COMMUNITY MONUMENT SIGN
   - 1.8. DRAINAGE POND
2. BUILDING
   - 2.1. UNIT'S GARAGE
   - 2.2. UNIT'S DRIVEWAY
   - 2.3. COVERED PATIO
   - 2.4. NOT USED
   - 2.5. PRIVATE YARD
3. SEWER
   - 3.1. SEWER LINE MAIN
   - 3.2. SEWER MANHOLE
   - 3.3. SEWER CLEANOUT
4. WATER
   - 4.1. WATER LINE MAIN
   - 4.2. FIRE HYDRANT
   - 4.3. WATER METER
5. LANDSCAPING
   - 5.1. CANOPY TREE
   - 5.2. NON-CANOPY TREE
   - 5.3. SHRUB
6. AMENITIES
   - 6.1. GAZEBO
   - 6.2. PLAYSCAPE
   - 6.3. DOG PARK
   - 6.4. BASKETBALL COURT (HALF)
   - 6.5. PICKLEBALL COURT
   - 6.6. PICNIC TABLE W/ OUTDOOR GRILL



A PRIVATE STREET SECTION
NAMA ROAD
ROJAS DRIVE
MAYU DRIVE
Scale: 1" = 5'



B PRIVATE STREET SECTION
PASCHAL STREET
Scale: 1" = 5'

No.	DATE	REMARKS	BY
---	---	---	---
---	---	---	---

REVISIONS

07/09/2025

STATE OF TEXAS
PEDRO QUINTERO
111656
LICENSED PROFESSIONAL ENGINEER
Pedro Quintero, P.E.

ISSUED FOR REVIEW, COMMENT

PROJECT NO. 012-23
DATE: JULY 2025

QUINTERO ENGINEERING, LLC
1501 W. STAN SCHLUETER LP,
KILLEEN, TEXAS 76549
PHONE: (254) 493-2662
FAX: (254) 432-2070
T.B.P.E.: FIRM NO.: 14709
T.B.P.L.S. FIRM NO.: 10194110

QUINTERO ENGINEERING

GARDEN VILLAGE
7610 S CLEAR CREEK ROAD
KILLEEN, BELL COUNTY, TEXAS

SHEET TITLE:
PROPOSED PUD CONCEPT PLAN

DRAWING NO.:
CP1

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GARDEN VILLAGE PUD DEVELOPMENT STANDARDS

The Garden Village PUD development will establish a Home Owner's Association (HOA) and the HOA shall own and be responsible to provide for operation, repair and maintenance of all private common areas and improvements.

Townhouse lots “RT-1” (Residential Townhouse Single-Family District) shall conform to the following standards:

Approval of the Garden Village PUD Development Standards constitutes approval of all subdivision variances listed herein.

1) Definitions.

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Common area shall mean private property owned in common by, and designated for the private use of, the owners or occupants of townhouses in a particular project or subdivision. Common area uses include, but are not limited to, recreation areas, parks and plazas, ornamental areas open to the general view within the project or subdivision, and building setbacks not otherwise required by ordinance. The common area does not include public streets, alleys, required building setbacks or utility easements.

Dwelling unit shall mean a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

Exterior lot line shall mean a lot line that separates two (2) townhouse groups.

Interior lot line shall mean a lot line that separates two (2) townhouse single-family dwelling units within a townhouse group.

Open Space shall mean property under public or private ownership which is or used for parks, recreation, conservation, preservation of native habitat and other natural resources, surface water impoundment, historic, or scenic purposes.

Townhouse shall mean one (1) single-family dwelling unit within a group of three or more dwelling units in which each dwelling unit extends from foundation to roof and attached to another dwelling unit on a least one side.

Townhouse group shall mean three (3) to four (4) townhouses. No dwelling unit shall be located over another dwelling unit and there shall be no visible separation between walls or roofs of adjoining units. Each dwelling unit shall be separated from other units by one or more vertical common firewalls.

2) Density

a) The residential density in the Garden Village PUD - “RT-1” (Residential Townhouse Single-Family District) shall not be more than ten (10) units per acre.

3) Use regulations.

a) All buildings and premises located within the Garden Village PUD shall be limited to a townhouse development and accessory buildings.

b) Townhouse group:

(1) No townhouse group shall exceed two hundred (200) feet in length.

(2) There shall be not less than ten (10) feet of separation between each townhouse group.

4) Height regulations.

a) No townhouse within the Garden Village PUD shall be less than two stories with a maximum height of thirty-five (35) feet.

5) Lots

a) Lots are not required to have frontage on, or direct access to, a dedicated public street; all lots shall have frontage and gain direct access from a private street as approved with this PUD.

b) Each townhouse shall be constructed on an individually platted lot and have frontage to a private street.

c) Each townhouse lot shall have a lot area of not less than two thousand five hundred (2,500) square feet.

d) Each townhouse lot shall have a width of not less than twenty-five (25) feet.

e) Each lot shall contain a private yard with not less than three hundred (300) square feet of area. A wall or solid fence not less than six (6) feet in height shall be required on side lot lines where the required private yard adjoins such lot lines. A private yard may contain a patio cover or roof which does not cover more than twenty-five (25) percent of the private yard.

f) Front yard:

i) There shall be a front yard having a depth of not less than twenty (20) feet as measured from the front property line.

g) Side yard:

i) Interior lot lines shall have a zero (0) foot side yard.

ii) Exterior lot lines shall have a minimum of five (5) feet of side yard.

iii) A side yard adjacent to a side street shall not be less than ten (10) feet.

iv) In all instances each townhouse group shall have a minimum of ten (10) feet of separation between each adjoining townhouse group.
v)

h) Rear yard:
   i) There shall be a rear yard having a depth of not less than fifteen (15) feet as measured from the rear property line.

6) Blocks

a) The maximum allowable block length shall be one-thousand two hundred (1,200) feet.

7) Parking

a) Two (2) off-street parking spaces shall be provided for each townhouse.
   i) Resident parking spaces shall be provided by the spaces located in the unit's front-loading garage, and/or the unit's driveway.

b) There shall be minimum visitor parking of one-fourth (0.25) space per unit. Visitor parking shall be provided in the HOA tracts. Any fraction thereof shall be rounded up to the next whole number.

8) Private Streets

a) Private streets are owned and maintained by the HOA.

b) Private streets shall conform to the standards set forth in Exhibit A and Exhibit B.

9) Sidewalks

a) Sidewalks to be installed as shown in the overall PUD Concept Plan.

b) Five (5) foot sidewalks adjacent to the private streets shall be installed during the individual townhouse construction.

10) **Public Utility Mains**

a) The water and sewer line mains shall be installed within the private streets right-of-way.

11) HOA Common Areas and Amenities

a) The amenities listed below and shown on the PUD concept plan shall be installed on or before the City has issued seventy-five (75%) percent of the final certificate of occupancies and shall not be located within onsite drainage ponds.

b) The HOA tracts shown on the PUD Concept Plan shall include the following amenities:
   i) Gazebo (2 minimum)
   ii) Playscape (1 minimum)
   iii) Dog Park (1 minimum)
   iv) Basketball Court (Half) (1 minimum)
   v) Pickleball Court (2 minimum)

vi) Picnic Table with Outdoor Grill (4 minimum)

12) Architectural standards

a) Each townhouse must have a minimum of twenty-five percent (25%) brick, stucco or stone for front exterior walls and twenty-five percent (25%) brick, stucco or stone veneer for side exterior walls, excluding doors, windows and gables.

b) Each townhouse shall include decorative hardware on garage doors and four (4) of the following elements:

(1) Decorative hardware on garage doors.

Garage doors shall have decorative hardware that is permanently affixed to the garage door.

(2) Enhanced windows.

Windows on the front elevation shall incorporate at least one (1) window enhancement, including: transoms, bay windows, shutters, dormers, eyebrow windows, headers, or other similar window enhancements.

(3) Architectural features.

The front elevation shall incorporate no fewer than two (2) different architectural features, including: corbels, quoining, louvered vents, keystones, decorative railings, columns, cupola, turret, coach lights, decorative half-timbering, or other architectural features approved by the executive director of development services or his/her designee. Incorporation of at least four (4) different architectural features from this list counts as two (2) architectural elements.

(4) Variable roof design.

At least two (2) different roof types (e.g., hip and gable), heights, pitches, plate heights, or planes shall be provided.

(5) Horizontal articulation.

A minimum of three (3) wall planes shall be provided on the front elevation, with offsets being at least twelve (12) inches deep.

(6) Enclosed patio.

A patio or outdoor seating area on the front of the house, which is enclosed on at least three (3) sides by a fence or wall at least thirty-six (36) inches in height.

c) No townhouse elevation shall be repeated within each townhouse group.

d) Townhouse elevation combinations within a townhouse group:

i) Shall not be repeated more than four (4) times within the development and,

ii) Shall not be repeated more than three (3) times along the same street.

13) Landscaping

a) Residential Trees. The following requirements shall apply to tree landscaping:
   i) Each townhouse lot shall require one (1) canopy tree.

b) Additional Landscape Trees
   i) One (1) canopy tree shall be provided per five-thousand (5,000) square feet of common open space within the HOA tracts.

   ii) One (1) canopy tree shall be provided per ten (10) visitor parking spaces.

   iii) One (1) canopy tree shall be provided per thirty (30) feet of frontage along Pauline Drive.

c) Newly planted canopy trees shall measure at least one and a half (1 ½") inch caliper and five (5) feet in height at the time of planting, and shall be planted in a permeable area not less than three (3) feet in diameter in the front or rear yard of each townhouse lot. Tree plantings shall be of a recommended species as detailed in section 31-892.

d) Existing trees to be used for landscape credit shall be in a healthy physical state, shall measure at least two-inch caliper and shall be maintained in an undisturbed area within the drip line of the tree.

e) Should an existing or newly planted tree used for landscape credit die, it shall be replaced with new landscaping according to the requirements of this section.

f) Each canopy tree maintained in excess of the total number of trees required by this section may reduce the number of shrubs required by four (4). Each non-canopy tree maintained in excess of the total number of trees required by this section may reduce the number of shrubs required by two (2). Each two (2) square feet of planting bed used and maintained for the purpose of rotating live decorative planting materials shall reduce the number of shrubs required by one (1).

g) Newly planted canopy trees shall be permitted to be placed within building setbacks, public and private utility easements, and public and private right-of-way.

h) Street Trees per section 26-109 shall not be required for this development

i) Shrubbery
   i) Each townhouse lot shall require six (6) two (2) gallon shrubs.

   ii) The placement of shrubbery shall take into consideration the plant size at maturity and shall be located so as not to conflict with vehicular or pedestrian traffic visibility.

j) Ground cover . The following requirements shall apply to ground cover landscaping:

(1) Ground cover, artificial turf, or grass shall be planted, or installed in the remaining area of the lot or parcel not planted in trees, shrubbery, planting beds, or covered by structures, pavement or other impervious surfaces.

(2) Approved non-vegetative ground cover materials (such as washed gravel, artificial turf, bark mulch, lava rock, rock, or other decorative covers generally used in landscaping) may be used to meet the provisions of this section. Where approved, non-vegetative ground cover shall be porous and form a uniform appearance free from weeds and grasses.

k) Irrigation. The following requirements shall apply to irrigation:

(1) All landscaping required by this section shall be irrigated by either an automated system, or a hose bib attachment within one hundred fifty (150) feet of all landscaping.

(2) Automated underground irrigation systems shall be designed and installed in accordance with the requirements of other provisions of this code.

(3) The building official may waive irrigation requirements where xeriscaping or a substitute landscaping plan is used.

QUINTERO ENGINEERING, LLC

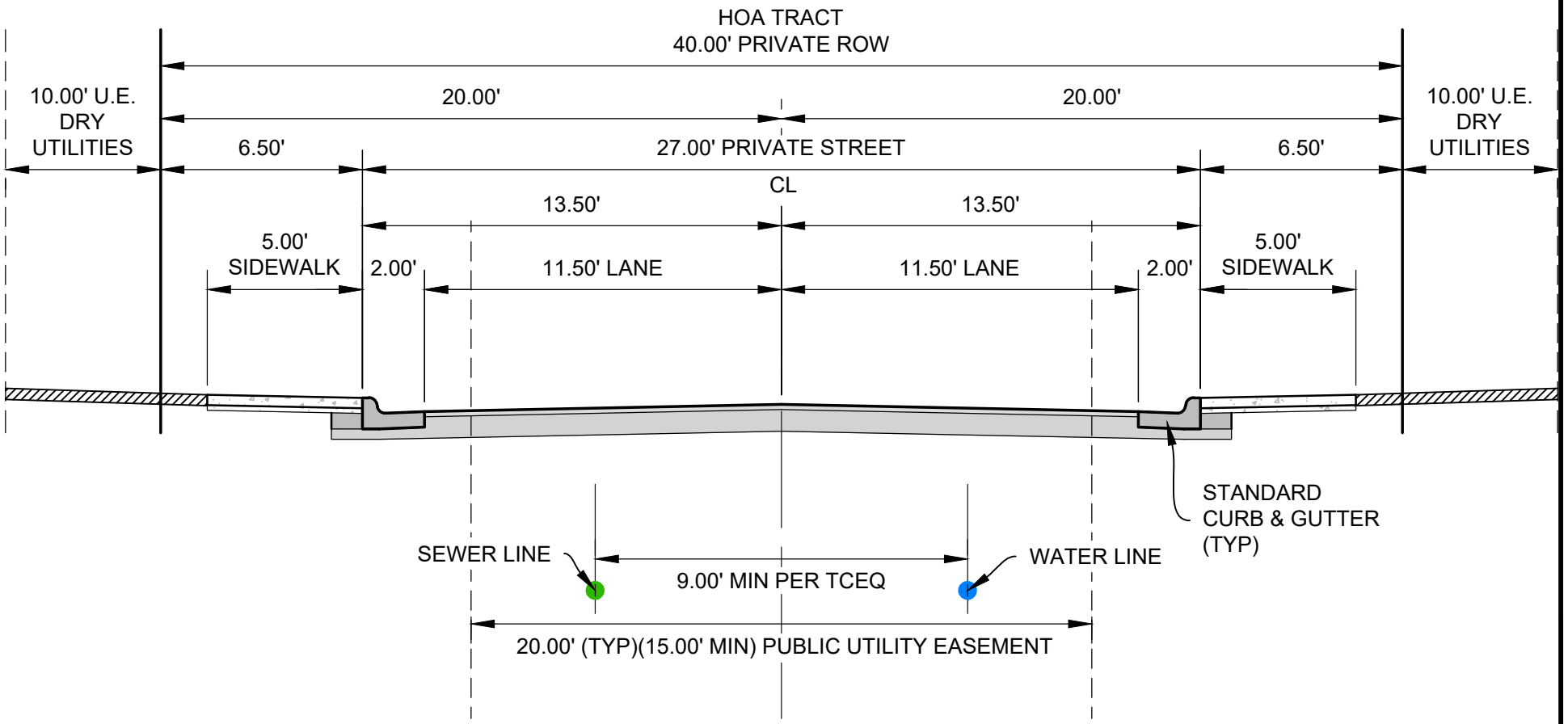
CIVIL ENGINEERING ● LAND SURVEYING ● PLANNING ● CONSTRUCTION MANAGEMENT

1501 W. STAN SCHLUETER LP., KILLEEN, TEXAS (254) 493-9962

T.B.P.E. FIRM REGISTRATION NO. 14709

T.B.P.L.S. REGISTRATION NO. 10194110

EXHIBIT A



A PRIVATE STREET SECTION

Scale: 1" = 5'

NAMA ROAD
ROJAS DRIVE
MAYU DRIVE

QUINTERO ENGINEERING, LLC

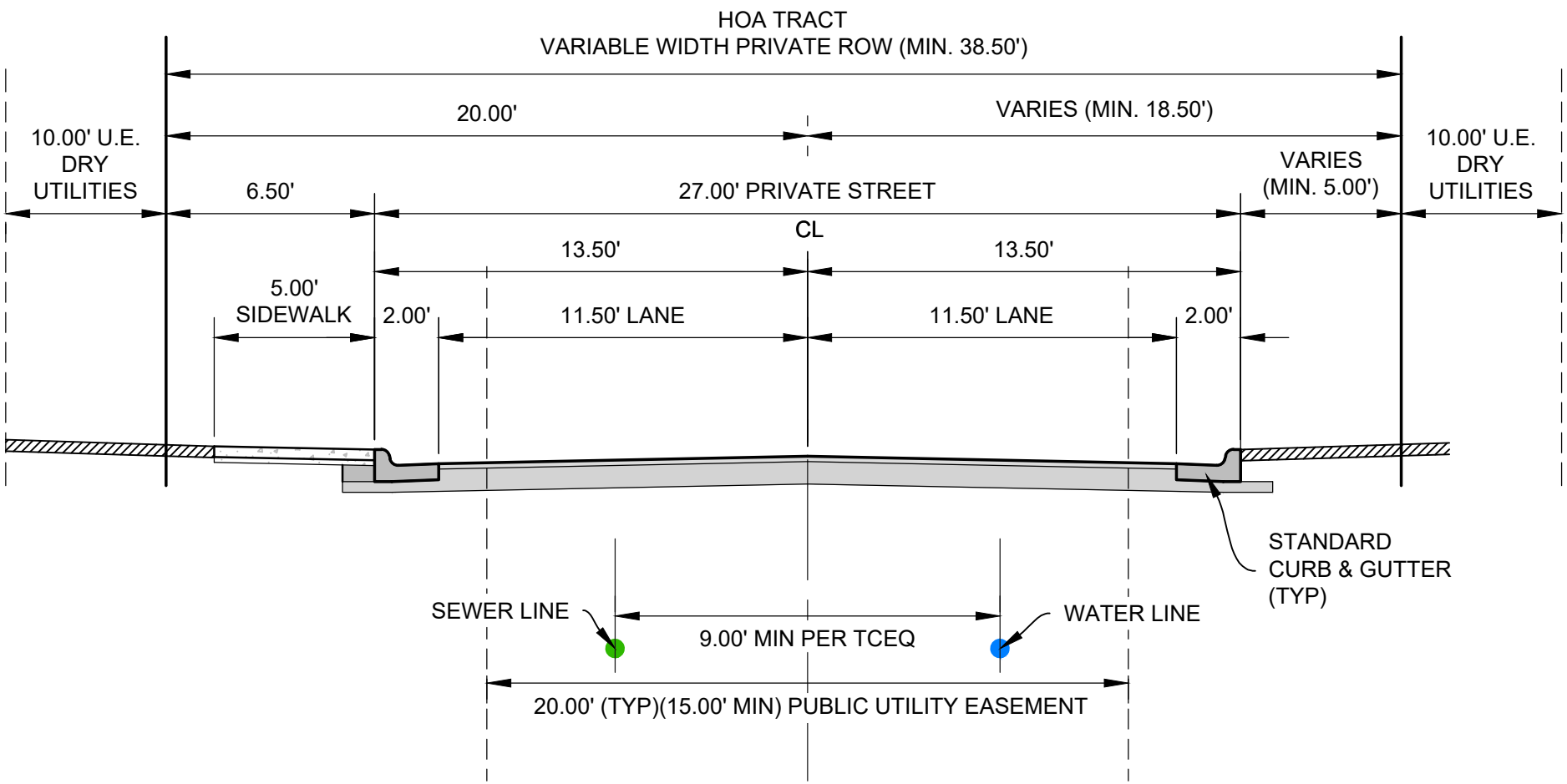
CIVIL ENGINEERING ● LAND SURVEYING ● PLANNING ● CONSTRUCTION MANAGEMENT

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T.B.P.E. FIRM REGISTRATION NO. 14709

T.B.P.L.S. REGISTRATION NO. 10194110

EXHIBIT B



B PRIVATE STREET SECTION

PASCHAL STREET Scale: 1" = 5'





E3 ELEVATION A
1/4 in = 1 ft

SOLOMON'S
SIGNATURE HOMES

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

GARDEN VILLAGE

ELEVATION A

DRAWINGS PROVIDED BY:
Solomon's Signature Homes, LLC
Paschal Miller
solomonsignaturehomes@gmail.com
512.826.5467

DATE:
7/7/2025

SCALE:

SHEET:
A1





E6 ELEVATION B
1/4 in = 1 ft

SOLOMON'S
SIGNATURE HOMES

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

GARDEN VILLAGE

ELEVATION B

DRAWINGS PROVIDED BY:
Solomon's Signature Homes, LLC
Paschal Miller
solomonsignaturehomes@gmail.com
512.826.5467

DATE:
7/7/2025

SCALE:

SHEET:
A3





E6 ELEVATION C
1/4 in = 1 ft

SOLOMON'S
SIGNATURE HOMES

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

GARDEN VILLAGE

ELEVATION C

DRAWINGS PROVIDED BY:
Solomon's Signature Homes, LLC
Paschal Miller
solomonsignaturehomes@gmail.com
512.826.5467

DATE:
7/7/2025

SCALE:

SHEET:
A5





E6 ELEVATION D
1/4 in = 1 ft

SOLOMON'S
SIGNATURE HOMES

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

GARDEN VILLAGE

ELEVATION D

DRAWINGS PROVIDED BY:
Solomon's Signature Homes, LLC
Paschal Miller
solomonsignaturehomes@gmail.com
512.826.5467

DATE:
7/7/2025

SCALE:

SHEET:
A7

July 28, 2025

Frumencio Guzman
7400 S Clear Creek Rd
Killeen, Tx 76549
(254) 462-8483

RECEIVED
AUG 0 6 2025
By JL

To:
City of Killeen Planning Division
200 E Ave D Suite 6
Killeen, TX 76541

Subject: Opposition to Rezoning of 7610 Clear Creek Rd from "A" to PUD with RT-1

Dear Members of the Planning and Zoning Commission,

I am writing as a concerned resident and property owner regarding the proposed rezoning of **7610 Clear Creek Road** from **"A" (Agricultural District)** to **PUD (Planned Unit Development) with RT-1 zoning**. I respectfully urge the Commission to **deny this request** or, at minimum, impose **conditions** that address neighborhood concerns especially the safety and integrity of our **livestock** and rural properties.

1. Incompatible with Surrounding Land Use

The surrounding area is primarily agricultural or low density residential. Rezoning this parcel to allow high density townhome development is inconsistent with the established character of the neighborhood and may constitute spot zoning.

2. Negative Impact on Property Values and Privacy

Increased housing density adjacent to large-lot homes raises real concerns about noise, crowding, and long-term property values for nearby residents.

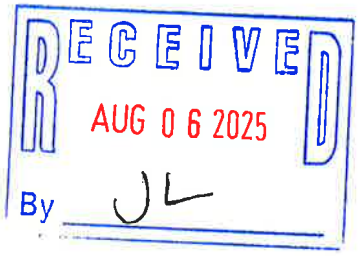
3.Traffic Impact on Clear Creek Road

Clear Creek Road already carries heavy traffic, including military commuters, commercial vehicles, and school buses. Adding a new residential development will only increase congestion and safety risks.

4.Threat to Livestock and Agricultural Operations

Our property includes active livestock and agricultural use. Introducing a dense residential development immediately adjacent to working farmland puts our animals at risk due to:

- **Trespassing** by new residents or pets (especially dogs)



- **Noise, lighting, and human activity** stressing animals
- **Liability exposure** if fencing is compromise
- **Loss of agricultural buffer zones**

This rezoning may reduce our ability to manage livestock safely and responsibly, which is precisely what A-zoning was designed to protect. We have invested in fencing and land improvements based on the existing zoning, and a sudden shift to RT-1 density next door could put our animals and property at real risk.

If Approved, These Conditions Must Be Required:

Should the Commission decide to approve this rezoning, I respectfully request the following conditions be imposed as part of the PUD:

1. **Minimum 8-Foot Masonry Wall or Fence Buffer**
   A solid privacy wall (not chain-link or wood) should be installed along all rear or side property lines that border existing residences. This will help protect neighbors' privacy and reduce noise.
2. **Height and Setback Transition**
   Any buildings constructed within 50 feet of existing homes should be limited to one story in height and set back at least **30 feet** from the shared property lines.

These protections would go a long way in reducing negative impacts and showing respect for the surrounding community.

I value responsible growth in Killeen, but rezoning should be done with fairness and care. I urge the Commission to prioritize neighbors' rights and existing land uses when making this decision.

Thank you for your time and consideration.

Sincerely,

Frumencio Guzman

CASE# Z25-25:
“A” TO “PUD” W/ “RT-1”

PH-25-052

September 2, 2025

Case# 25-25 “A” to “PUD” w/ “RT-1”

- Hold a public hearing and consider a request submitted by Quintero Engineering, LLC on behalf Atkinson Homes, Inc. **(Case# Z25-25)** to rezone approximately 19.56 acres out of the T. Arnold Survey, Abstract No. 55, and J. H. Lewis Survey, Abstract No. 536 from “A” (Agricultural District) to PUD (Planned Unit Development) with “RT-1” (Residential Townhouse Single-Family District) uses. The subject property is locally addressed as 7610 Clear Creek Road.

Case# 25-25 “A” to “PUD” w/ “RT-1”

- If approved, the applicant intends to develop the property into townhomes (attached single-family units) consisting of 3-unit and 4-unit townhouse groups.

- The proposed PUD Concept Plan identifies 185 townhome units, including thirty-two (32) 4-unit buildings and nineteen (19) 3-unit buildings.

Case# 25-25 “A” to “PUD” w/ “RT-1”

- The proposed development will have private streets with two points of ingress/egress from Pauline Drive.
- To meet Fire Code retirements, all units will have a fire suppression system.
- The residential density of the proposed development shall not exceed ten (10) units per acre.

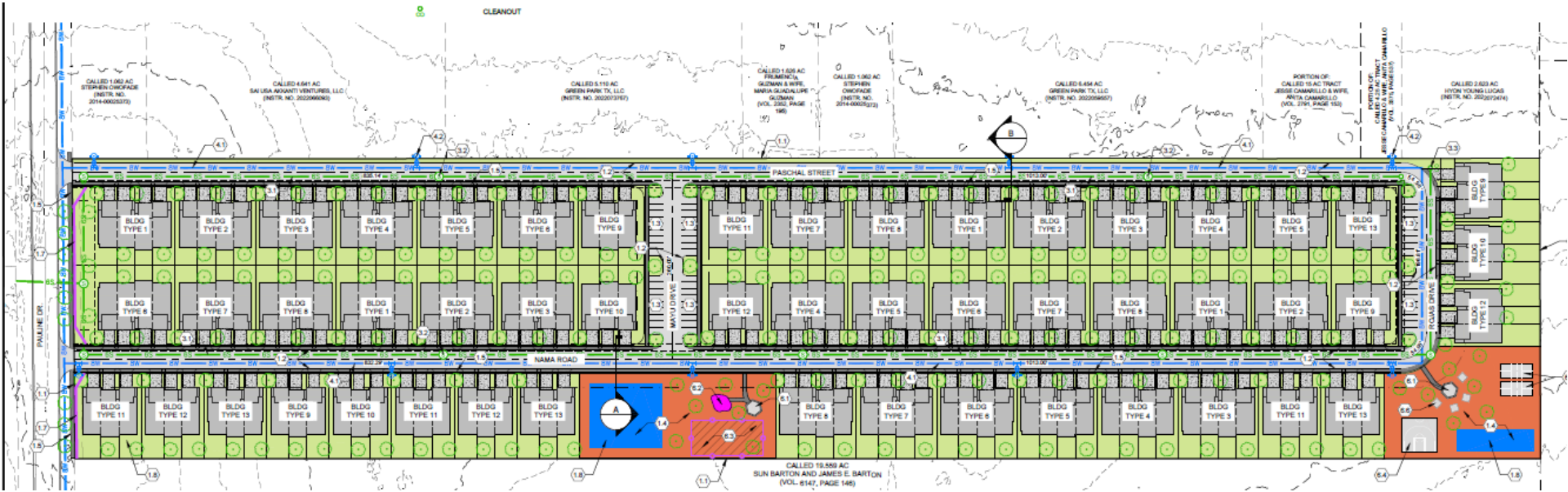
Case# 25-25 “A” to “PUD” w/ “RT-1”

- The primary intent of the PUD is to reduce the setback and building spacing requirements in the “RT-1” (Residential Townhouse Single-Family) district.
- The proposed PUD standards also modify the visitor parking and landscaping requirements.

Case# 25-25 “A” to “PUD” w/ “RT-1”

- The proposed concept plan includes the following open space amenities:
  - 2 gazebos
  - 1 playscape
  - 1 dog park
  - 1 half basketball court
  - 2 pickleball courts
  - 4 picnic tables with grills

Case# 25-25 “A” to “PUD” w/ “RT-1”



Case# 25-25 “A” to “PUD” w/ “RT-1”

- A Property Owners’ Association will be established for the operation and maintenance of all common area amenities.
- All amenities must be completed prior to final inspection of the 139th unit (75% completion).







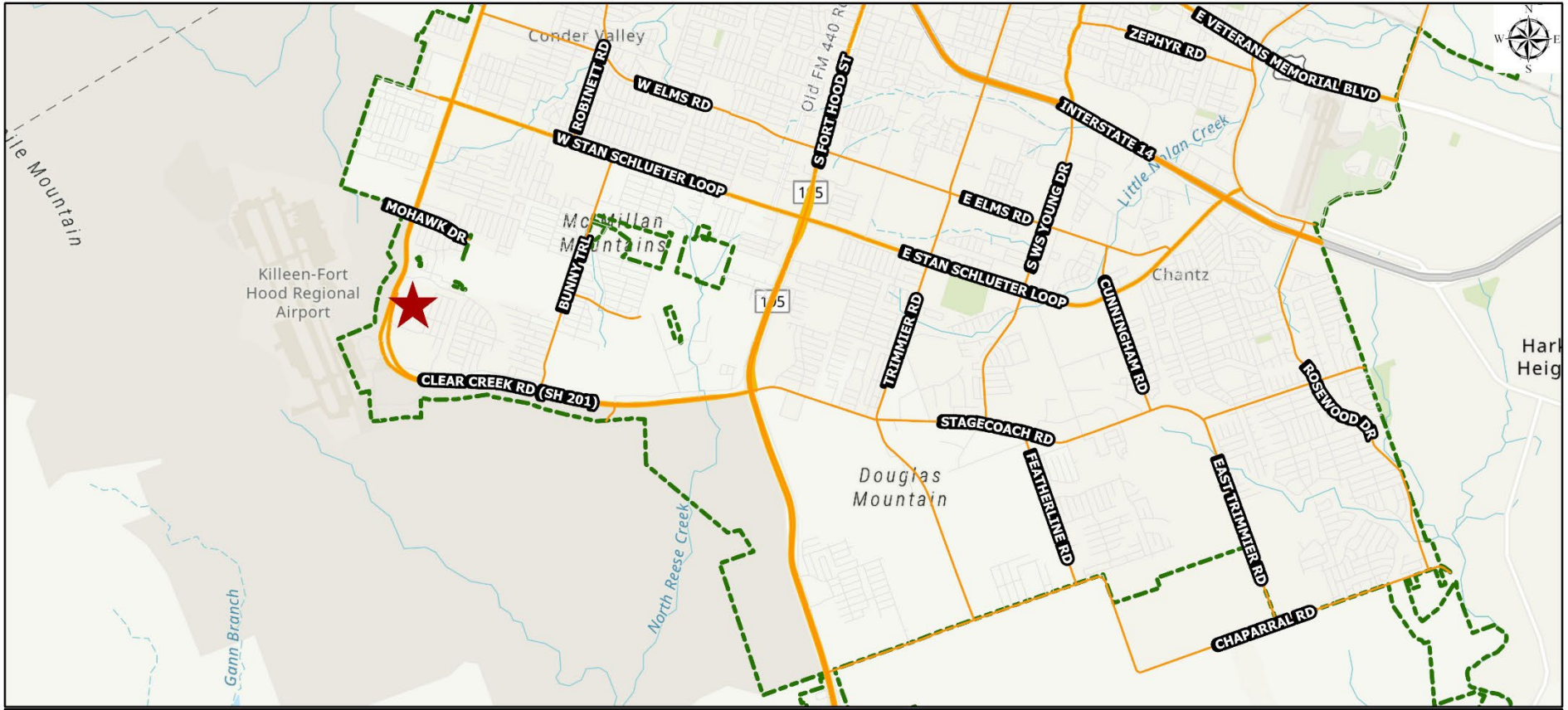


Case# 25-25 “A” to “PUD” w/ “RT-1”

- The proposed PUD Concept Plan indicates 185 units. Based on this number, the Parkland Dedication and Development Fees will be as follows:
  - Fees-In-Lieu of Parkland Dedication: $ 138,750.00
  - Park Development Fees: $ 83,250.00
  - **Total Park Fees: $ 222,000.00**

Case# 25-25 “A” to “PUD” w/ “RT-1”

- The subject property is located within the ‘Controlled Growth’ sector on the Growth Sector Map and designated ‘Residential Mix’ on the Future Land Use Map (FLUM) of the Killen 2040 Comprehensive Plan.



LOCATION MAP

Council District: 4

0 1 2 Miles

Zoning Case 2025-25

A TO PUD W/RT-1

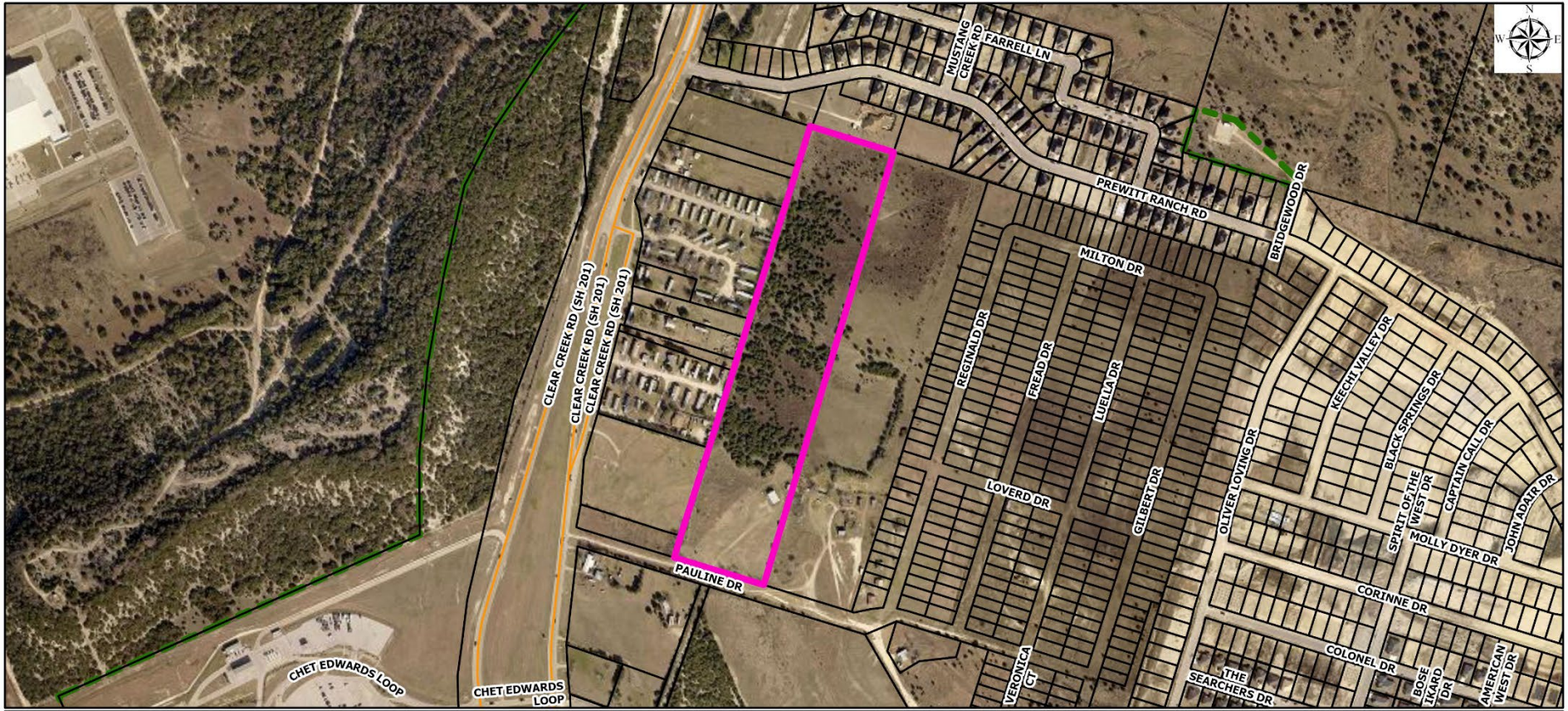
Legend

Major Roads

City Limit

Zoning Case Location

Subject Property Legal Description: A0055BC T ARNOLD, 6-2, A0536 J H LEWIS, 1-16, ACRES 19.56



AERIAL MAP

Council District: 4

0 200 400

Feet

Zoning Case 2025-25

A TO PUD W/RT-1

Legend

Zoning Case

Subject Property Legal Description: A0055BC T ARNOLD, 6-2, A0536 J H LEWIS, 1-16, ACRES 19.56

Case# 25-25 “A” to “PUD” w/ “RT-1”

View of the subject property from Pauline Drive facing north:



Case# 25-25 “A” to “PUD” w/ “RT-1”

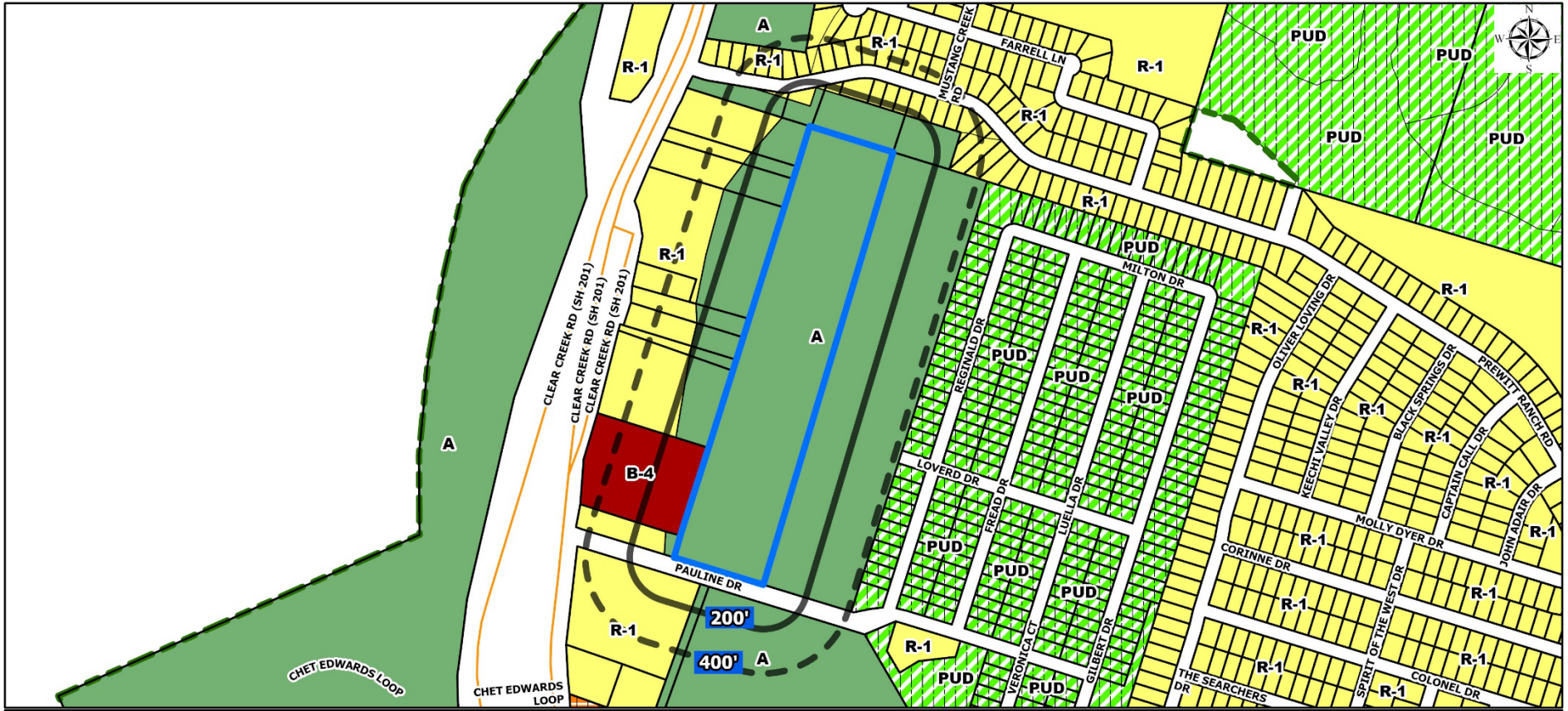
View facing west on Pauline Drive (subject property on right):



Case# 25-25 “A” to “PUD” w/ “RT-1”

View facing east Pauline Drive (subject property on left):





ZONING MAP

Council District: 4

0 200 400

Feet

Zoning Case 2025-25

A TO PUD W/RT-1

Subject Property Legal Description: A0055BC T ARNOLD, 6-2, A0536 J H LEWIS, 1-16, ACRES 19.56

Public Notification

- Staff notified owners of fifty (50) surrounding properties.
- To date, staff has received one (1) written response in opposition to this request.
- No citizens spoke regarding this request during the public hearing at the Planning and Zoning Commission meeting on August 11th.

Staff Findings

- Staff finds that the proposed development includes common open space amenities meeting the intent of a Planned Unit Development, as stated in Killeen Code of Ordinances Sec. 31-800 and 31-801.

Staff Recommendation

- Therefore, staff recommends approval of the applicant's request to rezone the property from "A" (Agricultural District) to "PUD" (Planned Unit Development) with "RT-1" (Residential Townhouse Single-Family District) uses as presented.

Commission Recommendation

- At their regular meeting on August 11, 2025, the Planning and Zoning Commission recommended approval of the applicant's request by a vote of 5 to 0.

City of Killeen

Staff Report

File Number: PH-25-053

Hold a public hearing on the proposed tax rate for the fiscal year beginning October 1, 2025 and ending September 30, 2026.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Judith Tangalin, Executive Director of Finance**

SUBJECT: **Tax Rate Public Hearing for Tax Year 2025/Fiscal Year 2026**

BACKGROUND AND FINDINGS:

On August 5, 2025, City Council set the preliminary tax rate at $0.7014 per $100 valuation, adopted a resolution setting a public hearing for September 2, 2025 on the preliminary tax rate for the proposed FY 2026 Budget, and scheduled the adoption of the tax rate for September 2, 2025. The preliminary tax rate establishes the ceiling for the FY 2026 Budget. The actual tax rate can be equal to or lower than the preliminary tax rate and not higher.

The proposed FY 2026 Budget was submitted to City Council using a tax rate of $0.6830. After the certified tax roll and tax rate calculations were received, the proposed tax rate was proposed to change to $0.7014 which brings in an additional $2,499,289 in General Fund and $189,367 in Debt Service Fund as compared to the revenue that was included in the proposed budget. The no-new-revenue tax rate for FY 2026 is $0.6487 and the voter-approval tax rate for FY 2026 is $0.7015. Since the preliminary tax rate was set above the no-new-revenue tax rate, Texas Property Tax Code requires a public hearing be held prior to the adoption of the final tax rate.

Senate Bill 2 from the 86th Legislature changed the laws regarding public hearings for tax rates. The requirement went from two public hearings to one public hearing. In addition, the allotment of time between the hearing and adoption was shortened. As a result, there was a change allowing the governing body to vote on the proposed tax rate at the public hearing per Property Tax Code Section 26.06(d). If the governing body does not adopt the tax rate at the public hearing, the meeting to vote on the tax increase may not be held later than the seventh day after the date of the public hearing per Section 26.06(e). Due to this change, the City Council will hold the public hearing on the same day as the tax rate adoption.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

In accordance with Texas Property Tax Code Section 26.05(d), the governing body of a taxing unit other than a school district may not adopt a tax rate that exceeds the lower of the voter-approval tax rate or the no-new-revenue tax rate calculated as provided by this chapter until the governing body has held a public hearing on the proposed tax rate and has otherwise complied with Section 26.06 and Section 26.065.

CONFORMITY TO CITY POLICY:

Meets truth-in-taxation laws as set forth in the Texas Property Tax Code.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

N/A

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

City Council hold a public hearing on the proposed tax rate for the fiscal year beginning October 1, 2025 and ending September 30, 2026.

DEPARTMENTAL CLEARANCES:

Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

Taxpayer Impact Statement
Presentation

City of Killeen, Texas
Fiscal Year 2026 / Tax Year 2025

Estimated Taxpayer Impact (Proposed FY 2026 Rate)

The following reflects the estimated impact of the City's proposed FY 2026 tax rate on the median-valued homestead property.

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
Annual Property Tax Levy	$1,454.04	$1,637.26	$183.22
Monthly Cost	$121.17	$136.44	$15.27

Property tax amount = tax rate x taxable value of your property / 100

This table illustrates the estimated change in the median homestead property tax bill under the proposed rate compared to the current fiscal year.

Required Taxpayer Impact Statement (HB 1522)

In accordance with House Bill 1522, 89th Texas Legislature, the City provides the following comparison of the median homestead property tax bill:

	Current Rate FY 2025	No-New-Revenue Rate FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.6487	-0.0086
Annual Property Tax Levy	$1,454.04	$1,514.25	$60.21
Monthly Cost	$121.17	$126.19	$5.02

This statement is provided in compliance with HB 1522, which requires a comparison of the current fiscal year's median homestead property tax bill with the estimated amount under the proposed budget, assuming adoption at the no-new-revenue tax rate. The required comparison does not reflect the City's proposed or adopted tax rate.

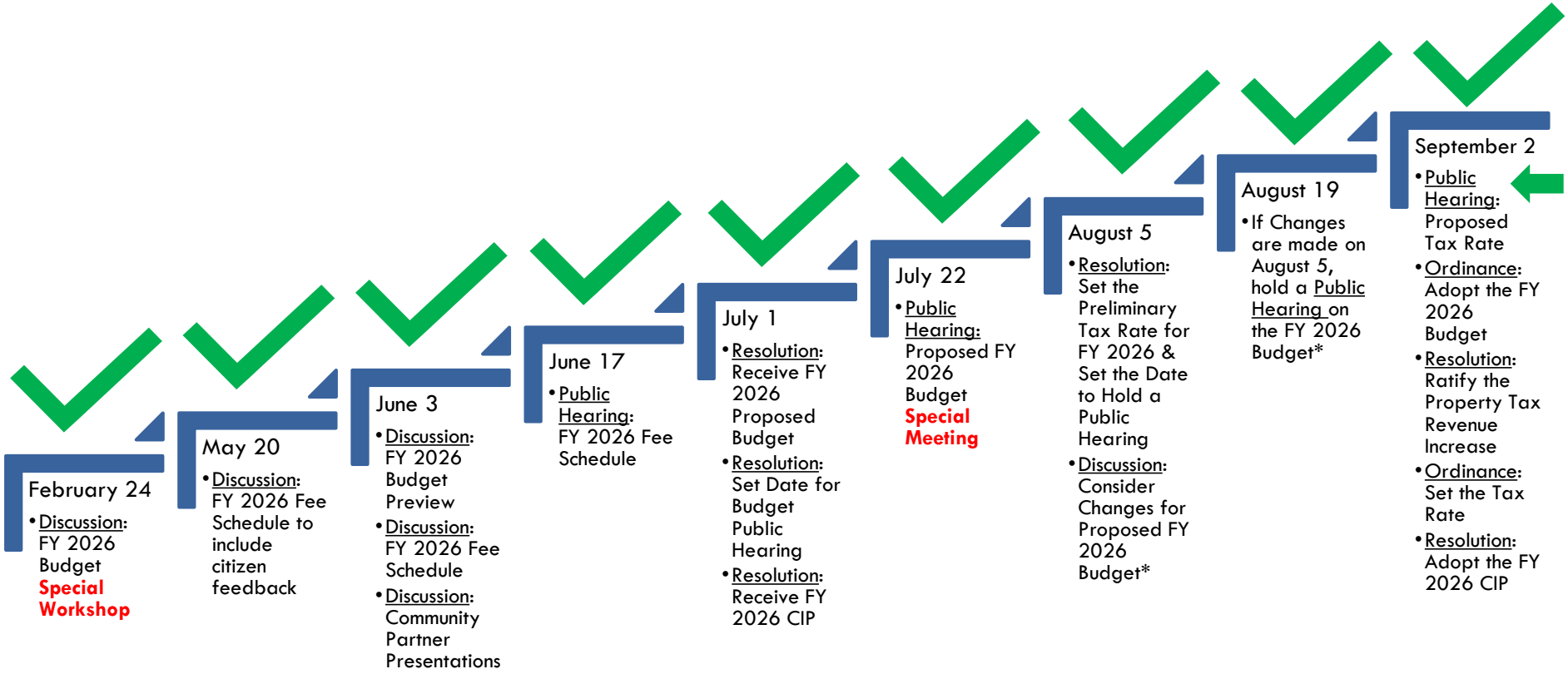
FY 2026 PROPOSED BUDGET

TAX RATE PUBLIC HEARING

PH-25-053

September 2, 2025

Budget Calendar



Key Tax Rates

Tax Year 2025 / Fiscal Year 2026

General Fund & Debt Service Fund

Current Rate

$0.6573

The tax rate adopted for the current year

No-New-Revenue Rate

$0.6487

Generates the same tax revenue as the prior year from properties taxed both years

Budgeted Rate

$0.7014

Used in preparing the FY 2026 Proposed Budget

Voter-Approval Rate

$0.7015

Allows a 3.5% increase in M&O over the No-New-Revenue Rate, plus unused increment.

Triggers automatic election if exceeded

Proposed Tax Rate (Certified)

General Fund & Debt Service Fund

	FY 2025	FY 2026	Increase/ (Decrease)
Operations M&O	0.5107	0.5277	0.0170
Debt I&S	0.1466	0.1737	0.0271
Total Tax Rate	0.6573	0.7014	0.0441

Levy Comparison

General Fund & Debt Service Fund

Rate Type	Tax Rate	Total Levy	Difference from Budgeted Rate (Certified)
Current Rate	$0.6573	$71,903,875	–$4,561,587
No-New-Revenue Rate	$0.6487	$71,014,313	–$5,451,148
Budgeted Rate (Preliminary Tax Roll)	$0.6830	$74,185,638	–$2,176,387
Budgeted Rate (Certified Tax Roll)	$0.7014	$76,465,462	–
Voter-Approval Rate	$0.7015	$76,475,805	+$10,344

Taxpayer Impact

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
Annual Property Tax Levy	$1,454.04	$1,637.26	$183.22
Monthly Cost	$121.17	$136.44	$15.27
Property tax amount = tax rate x taxable value of your property / 100			

Recommendation

- Hold Public Hearing
  - Public hearing notice published August 10, 2025, in accordance with Texas Tax Code Section 26.06(b-2)

City of Killeen

Staff Report

File Number: OR-25-010

Consider an ordinance adopting the Annual Budget for the City of Killeen for the fiscal year beginning October 1, 2025 and ending September 30, 2026.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Judith Tangalin, Executive Director of Finance**

SUBJECT: **FY 2026 Budget Adoption**

BACKGROUND AND FINDINGS:

Article V. of Killeen's City Charter requires the City Manager to submit a proposed budget to City Council that provides a complete financial plan for the upcoming fiscal year. The proposed FY 2026 Budget was submitted to City Council on July 1, 2025.

State law and the City Charter require a public hearing be held to elicit citizen comment on the proposed budget. A public hearing was held on July 22, 2025. The City Charter also states that City Council may insert additional items and make increases to the City Manager's proposed budget as long as there is a public hearing held on the changes.

A motion of direction to make changes to the proposed FY 2026 Budget was given on August 5, 2025. The changes made to the proposed budget required an additional public hearing, which was held on August 19, 2025. Below is a list of those changes:

General Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$130,848,166	$130,848,166
Add: Property Tax	2,499,289	-
Add: 1% COLA/Comp Plan Implementation	-	628,106
Add: Traffic Signal Inventory & 5 Year Maint Plan	-	663,000
Add: PD 4 Officers & 1 Sergeant	-	522,577
Add: Assistant City Manager	-	281,584
Add: FD Deputy Chief	-	169,306
Add: Transfer to IT Fund for New FTE	-	113,253
Add: Municipal Court Bailiff	-	63,724
Add: Children's Advocacy Center	-	41,500
Add: PD Body Armor	-	39,202

Add: PD Field Training Officer Incentive Pay Inc	-	37,087	
Add: FD Reclass Captain to Battalion Chief	-	12,772	
Add: FD Arson Investigator Assignment Pay Inc	-	7,428	
Reduce: City Council Travel & Training	-	(80,250)	
New Total	**$133,347,455**	**$133,347,455**	

Debt Service Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$20,207,374	$21,087,558
Add: Property Tax	189,367	-
New Total	**$20,396,741**	**21,087,558**

Hotel Occupancy Tax Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$3,110,515	$3,110,515
Add: Interest Income	8,906	-
Add: 1% COLA/Comp Plan Implementation		8,906
New Total	**$3,119,421**	**$3,119,421**

Court Building Security Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$80,490	$81,988
Add: 1% COLA/Comp Plan Implementation		713
New Total	**$80,490**	**$82,701**

Local Youth Diversion Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$86,975	$63,390
Add: 1% COLA/Comp Plan Implementation		581
New Total	**$86,975**	**$63,971**

Tx State Veteran Cemetery Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$1,969,152	$1,969,152
Add: 1% COLA/Comp Plan Implementation		13,728
New Total	**$1,969,152**	**$1,982,880**

Law Enforcement Grant Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$351,915	$351,127
Add: 1% COLA/Comp Plan Implementation		435
New Total	**$351,915**	**$351,562**

Aviation Enterprise Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$7,011,248	$6,403,363

Add: 1% COLA/Comp Plan Implementation	-	58,241
New Total	**$7,011,248**	**$6,461,604**

Solid Waste Enterprise Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$28,393,641	$28,393,641
Add: Interest Income	58,020	-
Add: 1% COLA/Comp Plan Implementation	-	58,020
New Total	**$28,451,661**	**$28,451,661**

Water & Sewer Enterprise Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$52,309,845	$52,309,845
Add: Interest Income	96,892	-
Add: 1% COLA/Comp Plan Implementation	-	96,892
New Total	**$52,406,737**	**$52,406,737**

Drainage Utility Enterprise Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$5,532,601	$5,532,601
Add: Interest Income	49,629	-
Add: 1% COLA/Comp Plan Implementation	-	49,629
New Total	**$5,582,230**	**$5,582,230**

Fleet Internal Service Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$2,040,503	$2,040,503
Add: 1% COLA/Comp Plan Implementation	-	15,779
New Total	**$2,040,503**	**$2,056,282**

Risk Management Internal Service Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$2,399,975	$2,399,975
Add: 1% COLA/Comp Plan Implementation	-	2,223
New Total	**$2,399,975**	**$2,402,198**

Information Technology Internal Service Fund

	Revenues	**Expenses**
FY 2026 Proposed Budget	$8,255,575	$9,220,033
Add: Transfer from General Fund	113,253	-
Add: Information Technology Security Manager	-	113,253
Add: 1% COLA/Comp Plan Implementation	-	17,645
New Total	**$8,368,828**	**$9,350,931**

THE ALTERNATIVES CONSIDERED:

Adopt the Budget

Which alternative is recommended? Why?

Adopt the budget ordinance as presented. The City Charter requires the budget to be adopted by majority vote of the City Council on or before the 20th day of the last month of the fiscal year (September 20th), or the budget as submitted by the City Manager is deemed to have been adopted.

CONFORMITY TO CITY POLICY:

The attached ordinance conforms with the City Charter and the City's Financial Governance Policy.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

Proposed revenue and expenditures for FY 2026 are as follows:

Fund Group	**FY 2026 Revenues**	**FY 2026 Expenses**
General Fund	$133,347,455	$133,347,455
Water & Sewer Fund	52,406,737	52,406,737
Capital Project Funds	24,509,303	39,357,498
Solid Waste Fund	28,451,661	28,451,661
Internal Service Funds	22,340,464	23,340,569
Debt Service Fund	20,396,741	21,087,558
Other Special Revenues	12,549,024	14,570,258
Street Maintenance Fund	10,245,240	9,686,850
Aviation Fund	7,011,248	6,461,604
Drainage Utility Fund	5,582,230	5,582,230
Hotel Occupancy Tax	3,119,421	3,119,421
Golf Course Fund	1,548,836	1,696,977
Total	**$321,508,360**	**$339,108,818**

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

Approve the ordinance adopting the Annual Budget for the City of Killeen for the fiscal year beginning October 1, 2025 and ending September 30, 2026.

DEPARTMENTAL CLEARANCES:

Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

Ordinance
Taxpayer Impact Statement
FY 2026 Proposed Budget Hyperlink
Presentation

ORDINANCE_____

AN ORDINANCE APPROVING AND ADOPTING A BUDGET FOR OPERATING THE MUNICIPAL GOVERNMENT OF THE CITY OF KILLEEN FOR THE FISCAL YEAR BEGINNING ON OCTOBER 1, 2025 AND ENDING ON SEPTEMBER 30, 2026; APPROPRIATING MONEY FOR THE VARIOUS FUNDS AND PURPOSES OF SUCH BUDGET INCLUDING APPROPRIATIONS OF MONEY TO PAY INTEREST AND PRINCIPAL SINKING FUND REQUIREMENTS ON ALL INDEBTEDNESS; PROVIDING A SAVINGS AND SEVERABILITY CLAUSE; REPEALING ALL ORDINANCES AND APPROPRIATIONS IN CONFLICT WITH THE PROVISIONS OF THIS ORDINANCE; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, a budget for operating the municipal government of the City of Killeen for the fiscal year October 1, 2025 to September 30, 2026 has been prepared by Kent Cagle, City Manager, as Budget Officer for the City of Killeen, Texas; and

WHEREAS, said budget has been submitted to the City Council by the City Manager along with his budget message, in accordance with the City Charter; and

WHEREAS, public notice of a public hearing upon this budget has been duly and legally made as required by City Charter and law; and

WHEREAS, a separate record vote of the City Council is required to adopt a budget that will raise more revenue from property taxes than the previous year; and

WHEREAS, the public hearing has been had upon said budget and, after full and final consideration of proposed expenditures, revenues, financial condition, and comparative expenditures as presented, it is the consensus of opinion that the budget as considered and amended at said hearing should be approved and adopted;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF KILLEEN:

SECTION I. That the City Council of the City of Killeen ratifies, approves and adopts the budget as finally considered for the fiscal year of October 1, 2025 to September 30, 2026, a copy of which shall be filed with the office of the City Secretary and with the Bell County Clerk and which is incorporated herein for all intents and purposes.

SECTION II. That the appropriations for the 2026 fiscal year for the different administrative units and purposes of the City of Killeen, Texas, be fixed and determined for said fiscal year in accordance with the expenditures shown in said budget, and that the distribution and division of said appropriations be made in accordance with said budget including such amounts shown for providing for sinking funds for the payment of the principal and interest and the retirement of the bonded debt of the City of Killeen.

SECTION III. That pursuant to Section 76 of the City Charter, approval in this budget of items costing up to the threshold specified in Section 76 shall constitute the prior approval of said expenditures by City Council, and the City Manager or the Acting City Manager is authorized to advertise for bids for all contracts or purchases exceeding that threshold as provided by said Section, without further authorization by the City Council.

SECTION IV. That should any part, portion, or section of this ordinance be declared invalid, inoperative, or void for any reason by a court of competent jurisdiction, such decision, opinion, or judgment shall in no way affect the remaining portions, parts, or sections or parts of a section of this ordinance, which provisions shall be, remain and continue to be in full force and effect.

SECTION V. That all ordinances and appropriations for which provision has heretofore been made are hereby expressly repealed if in conflict with the provisions of this ordinance.

SECTION VI. That this ordinance shall take effect and be in full force and effect from and after its passage and approval according to law.

PASSED AND APPROVED at a regular meeting of the City Council of the City of Killeen, Texas this 2nd of September 2025, at which meeting a quorum was present, held in accordance with the provisions of V.T.C.A. Government Code, §551.001 *et. seq.*

APPROVED

_____
Debbie Nash-King, MAYOR

ATTEST:

_____
Laura J. Calcote, CITY SECRETARY

APPROVED AS TO FORM:

_____
Holli C. Clements, CITY ATTORNEY

City of Killeen, Texas
Fiscal Year 2026 / Tax Year 2025

Estimated Taxpayer Impact (Proposed FY 2026 Rate)

The following reflects the estimated impact of the City's proposed FY 2026 tax rate on the median-valued homestead property.

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
Annual Property Tax Levy	$1,454.04	$1,637.26	$183.22
Monthly Cost	$121.17	$136.44	$15.27

Property tax amount = tax rate x taxable value of your property / 100

This table illustrates the estimated change in the median homestead property tax bill under the proposed rate compared to the current fiscal year.

Required Taxpayer Impact Statement (HB 1522)

In accordance with House Bill 1522, 89th Texas Legislature, the City provides the following comparison of the median homestead property tax bill:

	Current Rate FY 2025	No-New-Revenue Rate FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.6487	-0.0086
Annual Property Tax Levy	$1,454.04	$1,514.25	$60.21
Monthly Cost	$121.17	$126.19	$5.02

This statement is provided in compliance with HB 1522, which requires a comparison of the current fiscal year's median homestead property tax bill with the estimated amount under the proposed budget, assuming adoption at the no-new-revenue tax rate. The required comparison does not reflect the City's proposed or adopted tax rate.

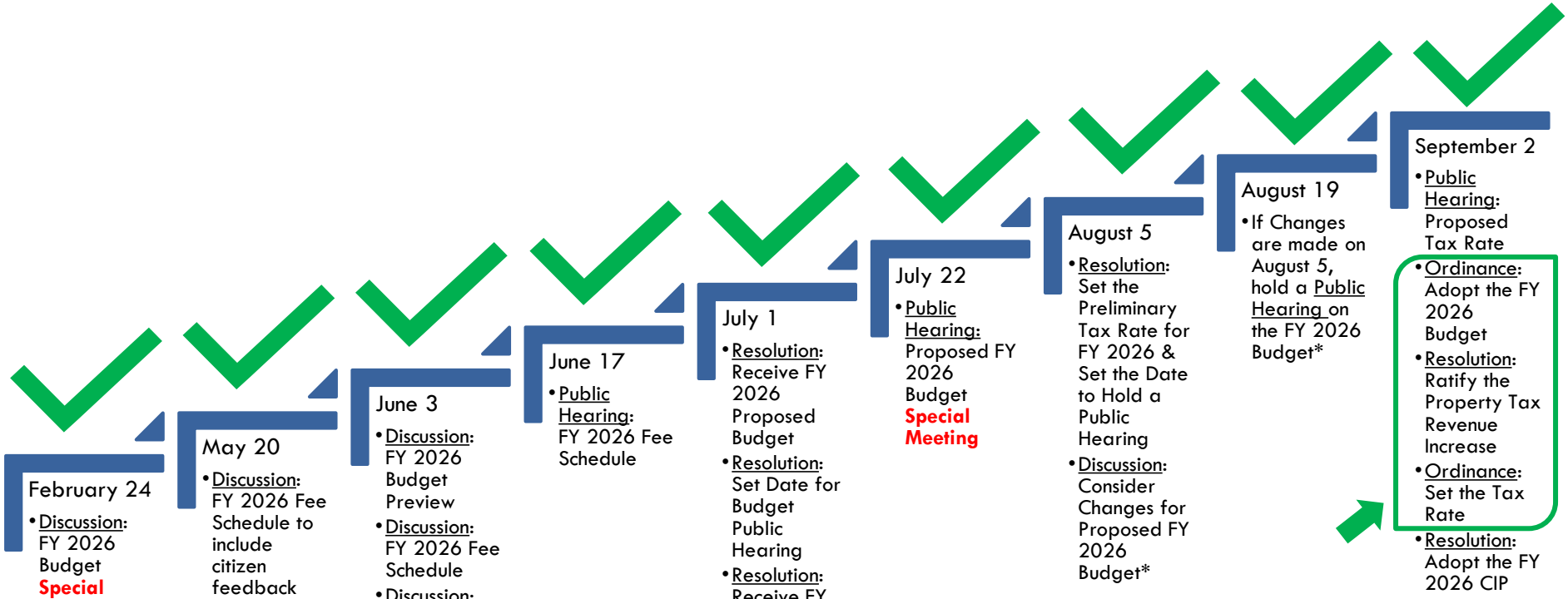
FY 2026 PROPOSED BUDGET

ADOPTION, RATIFY INCREASE, SET RATE

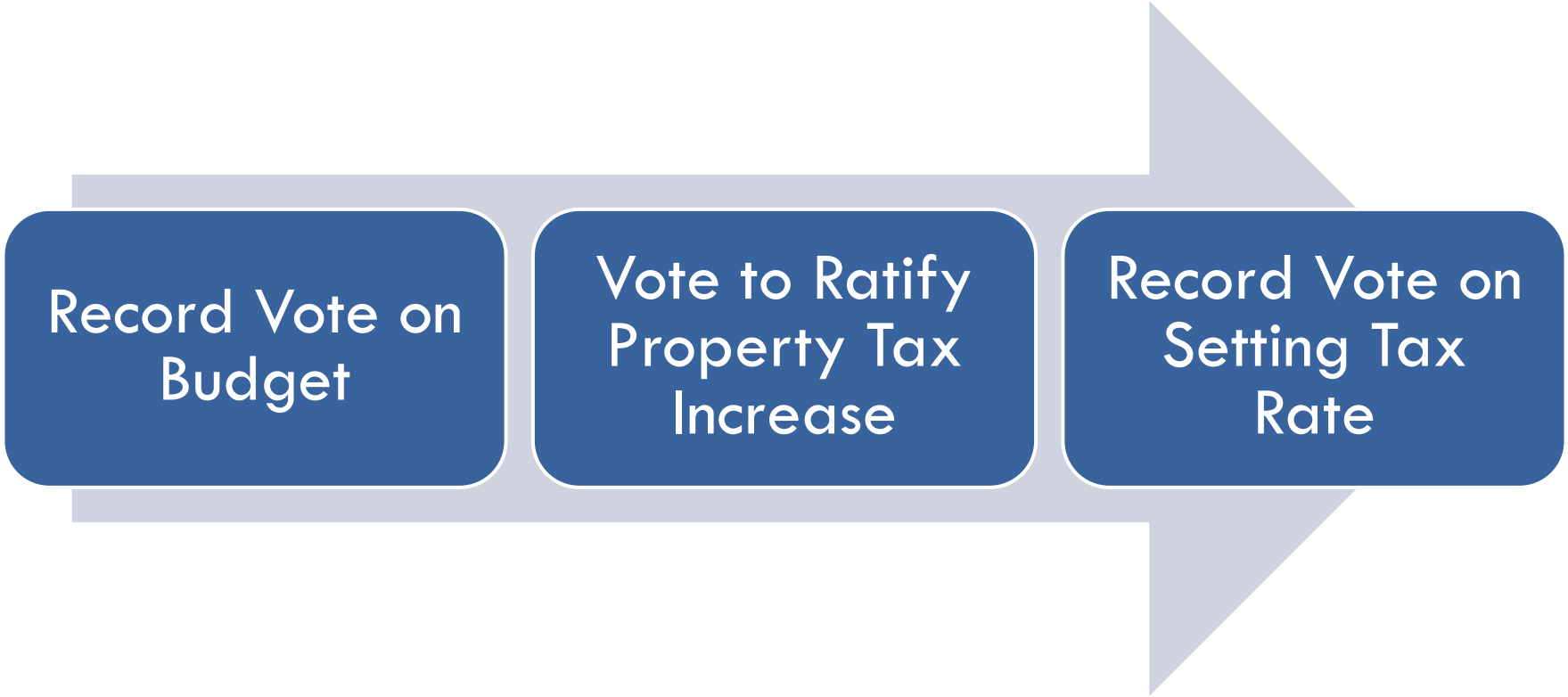
OR-25-010, RS-25-143, OR-25-011

September 2, 2025

Budget Calendar



Required Order



FY 2026 Proposed Budget

Fund Group	Projected Beginning Fund Balance	FY 2026 Revenues	FY 2026 Expenses	Change in Fund Balance	Projected Ending Fund Balance	Fund Balance Reserve
General Fund	$ 34,594,025	$ 133,347,455	$ 133,347,455	$ -	$ 34,594,025	25.94%
Water & Sewer Fund	12,047,696	52,406,737	52,406,737	-	12,047,696	22.99%
Capital Project Funds	26,480,878	24,509,303	39,357,498	(14,848,195)	11,632,683	29.56%
Solid Waste Fund	6,610,715	28,451,661	28,451,661	-	6,610,715	23.23%
Internal Service Funds	7,824,728	22,340,464	23,340,569	(1,000,105)	6,824,623	29.24%
Debt Service Fund	5,060,622	20,396,741	21,087,558	(690,817)	4,369,805	20.72%
Other Special Revenues	5,465,085	12,549,024	14,570,258	(2,021,234)	3,443,851	23.64%
Street Maintenance Fund	7,408,128	10,245,240	9,686,850	558,390	7,966,518	82.24%
Aviation Fund	6,770,344	7,011,248	6,461,604	549,644	7,319,988	113.28%
Drainage Utility Fund	1,474,785	5,582,230	5,582,230	-	1,474,785	26.42%
Hotel Occupancy Tax	716,982	3,119,421	3,119,421	-	716,982	22.98%
Golf Course Fund	292,914	1,548,836	1,696,977	(148,141)	144,773	8.53%
Subtotal	**$ 114,746,900**	**$ 321,508,360**	**$ 339,108,818**	**$ (17,600,458)**	**$ 97,146,442**	
Less Interfund Activity		(34,633,257)	(34,633,257)			
Less Health Insurance Transfer		(7,469,990)	(7,469,990)			
Adjusted Total		**$ 279,405,113**	**$ 297,005,571**			

Budget Adoption

Record Vote on Budget

Ratify Property Tax Revenue Increase

Per Local Government Code 102.007(c), a separate vote is required to ratify any property tax revenue increase over the prior year.

Total tax revenue increase is $6,431,349 (9.18%)

M&O $3,309,964

I&S $3,121,385

Ratify Property Tax Revenue Increase

Vote to Ratify Property Tax Increase

Set Tax Rate

	Tax Rate	Budgeted Revenue
Operations M&O	0.5277	$58,498,395
Debt I&S	0.1737	$17,967,067
Total Tax Rate	0.7014	$76,465,462

Taxpayer Impact

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
Annual Property Tax Levy	$1,454.04	$1,637.26	$183.22
Monthly Cost	$121.17	$136.44	$15.27
Property tax amount = tax rate x taxable value of your property / 100			

Setting the Tax Rate

Per Tax Code 26.05(b), if the tax rate exceeds the no-new-revenue rate:

A record vote is required

Approval by at least 60% of Council (5 members)

Motion must state:

'I move that the property tax rate be increased by the adoption of a tax rate of $0.7014, which is effectively a 8.12% increase in the tax rate.'

Tax Rate Adoption

Record Vote on Tax Rate

City of Killeen

Staff Report

File Number: RS-25-143

Consider a memorandum/resolution ratifying the property tax revenue increase reflected in the Annual Budget for the fiscal year October 1, 2025 through September 30, 2026.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Judith Tangalin, Executive Director of Finance**

SUBJECT: **Ratifying the Property Tax Revenue Increase as Required by the Local Government Code**

BACKGROUND AND FINDINGS:

Local Government Code Section 102.007(c) requires the governing body to ratify the property tax revenue increase if the budget will raise more revenue from property taxes than in the previous year.

In accordance with Local Government Code Section 102.007 (d), the following statement will be included in an Adopted Budget cover page, if approved as presented:

This budget will raise more revenue from property taxes than last year's budget by an amount of $6,431,349, which is a 9.18 percent increase from last year's budget. The property tax revenue to be raised from new property added to the tax roll this year is $1,565,677.

THE ALTERNATIVES CONSIDERED:

N/A

Which alternative is recommended? Why?

Approve the memorandum/resolution to be in compliance with the requirements set forth in the Local Government Code.

CONFORMITY TO CITY POLICY:

The memorandum/resolution ratifying the tax revenue increase conforms with Local Government Code Section 102.007(c).

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

N/A

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

City Council ratify the property tax revenue increase reflected in the Annual Budget for the fiscal year October 1, 2025, through September 30, 2026.

DEPARTMENTAL CLEARANCES:

Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

Taxpayer Impact Statement
Presentation

City of Killeen, Texas
Fiscal Year 2026 / Tax Year 2025

Estimated Taxpayer Impact (Proposed FY 2026 Rate)

The following reflects the estimated impact of the City's proposed FY 2026 tax rate on the median-valued homestead property.

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
Annual Property Tax Levy	$1,454.04	$1,637.26	$183.22
Monthly Cost	$121.17	$136.44	$15.27

Property tax amount = tax rate x taxable value of your property / 100

This table illustrates the estimated change in the median homestead property tax bill under the proposed rate compared to the current fiscal year.

Required Taxpayer Impact Statement (HB 1522)

In accordance with House Bill 1522, 89th Texas Legislature, the City provides the following comparison of the median homestead property tax bill:

	Current Rate FY 2025	No-New-Revenue Rate FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.6487	-0.0086
Annual Property Tax Levy	$1,454.04	$1,514.25	$60.21
Monthly Cost	$121.17	$126.19	$5.02

This statement is provided in compliance with HB 1522, which requires a comparison of the current fiscal year's median homestead property tax bill with the estimated amount under the proposed budget, assuming adoption at the no-new-revenue tax rate. The required comparison does not reflect the City's proposed or adopted tax rate.

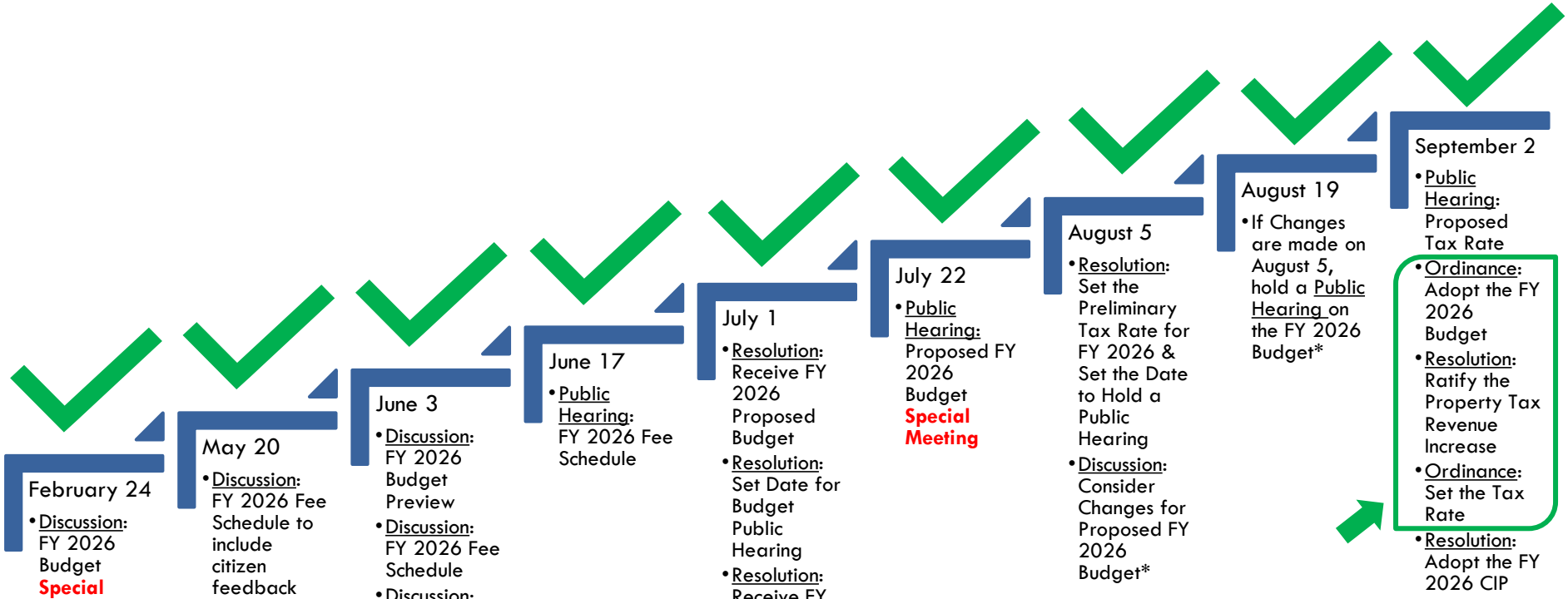
FY 2026 PROPOSED BUDGET

ADOPTION, RATIFY INCREASE, SET RATE

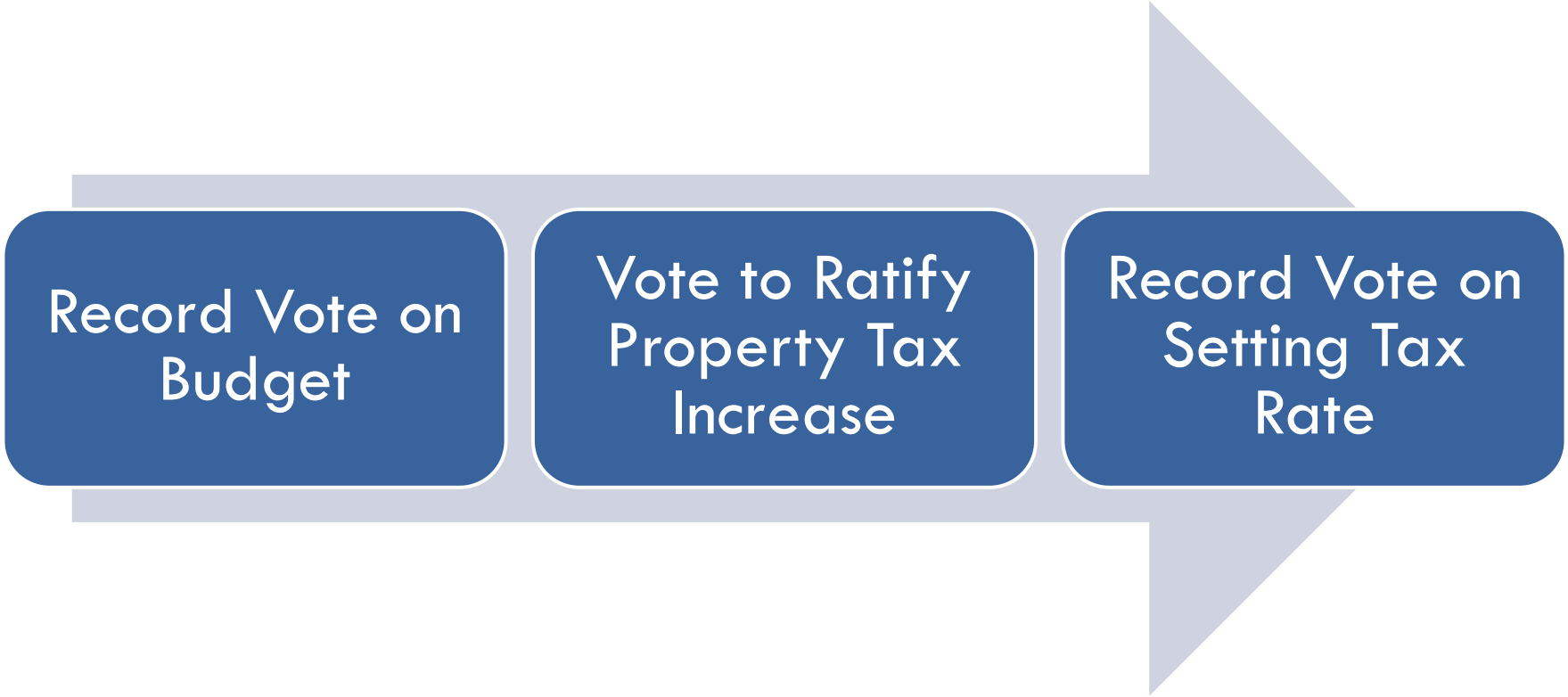
OR-25-010, RS-25-143, OR-25-011

September 2, 2025

Budget Calendar



Required Order



FY 2026 Proposed Budget

Fund Group	Projected Beginning Fund Balance	FY 2026 Revenues	FY 2026 Expenses	Change in Fund Balance	Projected Ending Fund Balance	Fund Balance Reserve
General Fund	$ 34,594,025	$ 133,347,455	$ 133,347,455	$ -	$ 34,594,025	25.94%
Water & Sewer Fund	12,047,696	52,406,737	52,406,737	-	12,047,696	22.99%
Capital Project Funds	26,480,878	24,509,303	39,357,498	(14,848,195)	11,632,683	29.56%
Solid Waste Fund	6,610,715	28,451,661	28,451,661	-	6,610,715	23.23%
Internal Service Funds	7,824,728	22,340,464	23,340,569	(1,000,105)	6,824,623	29.24%
Debt Service Fund	5,060,622	20,396,741	21,087,558	(690,817)	4,369,805	20.72%
Other Special Revenues	5,465,085	12,549,024	14,570,258	(2,021,234)	3,443,851	23.64%
Street Maintenance Fund	7,408,128	10,245,240	9,686,850	558,390	7,966,518	82.24%
Aviation Fund	6,770,344	7,011,248	6,461,604	549,644	7,319,988	113.28%
Drainage Utility Fund	1,474,785	5,582,230	5,582,230	-	1,474,785	26.42%
Hotel Occupancy Tax	716,982	3,119,421	3,119,421	-	716,982	22.98%
Golf Course Fund	292,914	1,548,836	1,696,977	(148,141)	144,773	8.53%
Subtotal	**$ 114,746,900**	**$ 321,508,360**	**$ 339,108,818**	**$ (17,600,458)**	**$ 97,146,442**	
Less Interfund Activity		(34,633,257)	(34,633,257)			
Less Health Insurance Transfer		(7,469,990)	(7,469,990)			
Adjusted Total		**$ 279,405,113**	**$ 297,005,571**			

Budget Adoption

Record Vote on Budget

Ratify Property Tax Revenue Increase

Per Local Government Code 102.007(c), a separate vote is required to ratify any property tax revenue increase over the prior year.

Total tax revenue increase is $6,431,349 (9.18%)

M&O $3,309,964

I&S $3,121,385

Ratify Property Tax Revenue Increase

Vote to Ratify Property Tax Increase

Set Tax Rate

	Tax Rate	Budgeted Revenue
Operations M&O	0.5277	$58,498,395
Debt I&S	0.1737	$17,967,067
Total Tax Rate	0.7014	$76,465,462

Taxpayer Impact

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
Annual Property Tax Levy	$1,454.04	$1,637.26	$183.22
Monthly Cost	$121.17	$136.44	$15.27
Property tax amount = tax rate x taxable value of your property / 100			

Setting the Tax Rate

Per Tax Code 26.05(b), if the tax rate exceeds the no-new-revenue rate:

A record vote is required

Approval by at least 60% of Council (5 members)

Motion must state:

'I move that the property tax rate be increased by the adoption of a tax rate of $0.7014, which is effectively a 8.12% increase in the tax rate.'

Tax Rate Adoption

Record Vote on Tax Rate

City of Killeen

Staff Report

File Number: OR-25-011

Consider an ordinance setting a tax rate of $0.7014 per $100 valuation, comprised of $0.5277 for maintenance and operations and $0.1737 for debt service, for Fiscal Year 2026 (Tax Year 2025).

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Judith Tangalin, Executive Director of Finance**

SUBJECT: **Setting the Tax Rate for Fiscal Year 2026 (Tax Year 2025)**

BACKGROUND AND FINDINGS:

A public hearing required by Section 26.05 of the Property Tax Code may not be held before the fifth day after the date the notice of public hearing is given. The notice required by Property Tax Code 26.06 was published in the Killeen Daily Herald on Sunday, August 10, 2025.

The City has complied with all provisions of the truth-in-taxation laws regarding the adoption of the tax rate.

The City Manager's proposed FY 2026 Budget used a tax rate of $0.6830 per $100 valuation. On August 5, 2025, at a City Council meeting, the City Council made a motion of direction to incorporate changes to the proposed budget and set the preliminary tax rate at $0.7014 per $100 valuation. The preliminary tax rate represents the maximum rate that can be adopted for the FY 2026 Budget. The no-new-revenue tax rate for FY 2026 (Tax Year 2025) is $0.6487, and the voter-approval tax rate is $0.7015.

Texas Tax Code requires the vote on an ordinance setting a tax rate that exceeds the no-new-revenue rate to be a record vote and approved by at least sixty (60) percent of the members of the governing body. In order to set the tax rate above the no-new-revenue rate of $0.6487, the ordinance must be approved by at least five (5) members of City Council.

THE ALTERNATIVES CONSIDERED:

1) Set the tax rate for fiscal year 2026 (2025 Tax Year).

Which alternative is recommended? Why?

Set the tax rate at $0.7014 per $100 valuation as presented in the ordinance.

CONFORMITY TO CITY POLICY:

The ordinance complies with truth-in taxation laws set by the Texas Tax Code and Local Government Code.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

N/A

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

City Council approve the ordinance setting a tax rate of $0.7014 per $100 valuation, comprised of $0.5277 for maintenance and operations and $0.1737 for debt service, for fiscal year 2026 (2025 Tax Year).

DEPARTMENTAL CLEARANCES:

Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

Ordinance
Taxpayer Impact Statement
Presentation

ORDINANCE_____

AN ORDINANCE SETTING THE TAX RATE AND LEVYING A TAX UPON ALL PROPERTY SUBJECT TO TAXATION WITHIN THE CITY LIMITS OF THE CITY OF KILLEEN, TEXAS, FOR THE 2025 TAX YEAR AND FOR THE USE AND SUPPORT OF THE MUNICIPAL GOVERNMENT OF THE CITY OF KILLEEN FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2025, AND ENDING SEPTEMBER 30, 2026; APPORTIONING SAID LEVY AMONG THE VARIOUS FUNDS AND ITEMS FOR WHICH REVENUE MUST BE RAISED INCLUDING PROVIDING A SINKING FUND FOR THE RETIREMENT OF THE BONDED DEBT OF THE CITY; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, the Chief Appraiser of the Bell County Tax Appraisal District has prepared and certified the appraisal roll for the City of Killeen, Texas, said roll being that portion of the approved appraisal roll of the Bell County Tax Appraisal District which lists property taxable by the City of Killeen, Texas; and

WHEREAS, the Chief Appraiser of the Bell County Tax Appraisal District has performed the statutory calculations required by Section 26.04 of the Texas Property Tax Code, and the City of Killeen has published the no-new-revenue rate, the voter-approval tax rate, and an explanation of how they were calculated and has fulfilled all other requirements for publication as contained in Texas Property Tax Code Section 26.06, in a manner designated to come to the attention of all residents of said City and has submitted rates to the City Council of said City prior to the City Council meeting of August 5, 2025; and,

WHEREAS, "THIS TAX RATE WILL RAISE MORE TAXES FOR MAINTENANCE AND OPERATIONS THAN LAST YEAR'S TAX RATE." AND "THE TAX RATE WILL EFFECTIVELY BE RAISED BY 3.47 PERCENT AND WILL RAISE TAXES FOR MAINTENANCE AND OPERATIONS ON A $100,000 HOME BY APPROXIMATELY $17.70."

WHEREAS, the City Council has complied with all applicable requirements of the Texas Property Tax Code prior to the setting of the tax rate for said City for 2025 tax year;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF KILLEEN;

SECTION I. That the tax rate of the City of Killeen, Texas for the tax year 2025 be, and is hereby, set at $0.7014 on each $100 of the taxable value of real and personal property not exempt from taxation by the constitution and laws of this state within the corporate limits of said City.

SECTION II. That there is hereby levied for the tax year 2025 upon all real and personal property not exempt from taxation by the constitution and laws of this state situated within the corporate limits of said City, and there shall be collected for the use and support of the municipal government of the City of Killeen, Texas, to provide a sinking fund for the retirement of the bonded debt of said City and to provide for permanent improvements in said City, said tax; and said tax, so levied and collected, shall be apportioned to the specific purposes hereinafter set forth; to wit:

A. For the payment of current expenses and to be deposited in the general fund (for the purposes of maintenance and operations) $0.5277 on each $100 of the taxable value; and,

B. To provide for sinking funds for the payment of the principal and interest and the retirement of bonded debt, $0.1737 on each $100 of the taxable value of such property.

SECTION III. That the Chief Appraiser is hereby authorized to assess and collect the taxes of said City employing the above tax rate.

SECTION IV. That the Executive Director of Finance of said City shall keep accurate and complete records of all monies collected under this Ordinance and of the purposes for which same are expended.

SECTION V. That monies collected pursuant to this Ordinance shall be expended as set forth in the City of Killeen FY 2026 Annual Budget.

SECTION VI. That all monies collected which are not specifically appropriated shall be deposited in the general fund.

SECTION VII. That this ordinance shall take effect and be in full force and effect from and after its passage and approval according to law.

PASSED AND APPROVED at a regular meeting of the City Council of the City of Killeen, Texas this 2nd day of September, 2025, at which meeting a quorum was present, held in accordance with the provisions of V.T.C.A. Government Code, Section 551.001 et. seq.

APPROVED

_____
Debbie Nash-King
MAYOR

ATTEST:

_____
Laura J. Calcote
CITY SECRETARY

APPROVED AS TO FORM:

_____
Holli C. Clements
CITY ATTORNEY

City of Killeen, Texas
Fiscal Year 2026 / Tax Year 2025

Estimated Taxpayer Impact (Proposed FY 2026 Rate)

The following reflects the estimated impact of the City's proposed FY 2026 tax rate on the median-valued homestead property.

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
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Monthly Cost	$121.17	$136.44	$15.27

Property tax amount = tax rate x taxable value of your property / 100

This table illustrates the estimated change in the median homestead property tax bill under the proposed rate compared to the current fiscal year.

Required Taxpayer Impact Statement (HB 1522)

In accordance with House Bill 1522, 89th Texas Legislature, the City provides the following comparison of the median homestead property tax bill:

	Current Rate FY 2025	No-New-Revenue Rate FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.6487	-0.0086
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Monthly Cost	$121.17	$126.19	$5.02

This statement is provided in compliance with HB 1522, which requires a comparison of the current fiscal year's median homestead property tax bill with the estimated amount under the proposed budget, assuming adoption at the no-new-revenue tax rate. The required comparison does not reflect the City's proposed or adopted tax rate.

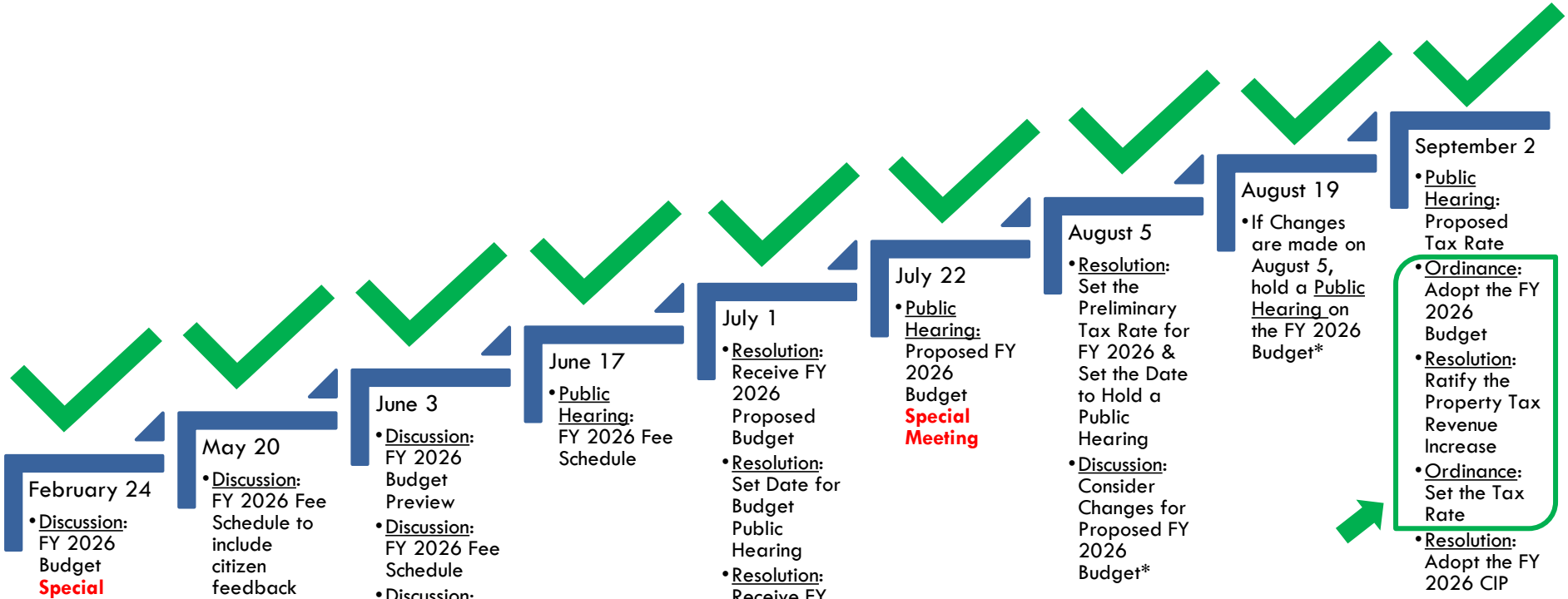
FY 2026 PROPOSED BUDGET

ADOPTION, RATIFY INCREASE, SET RATE

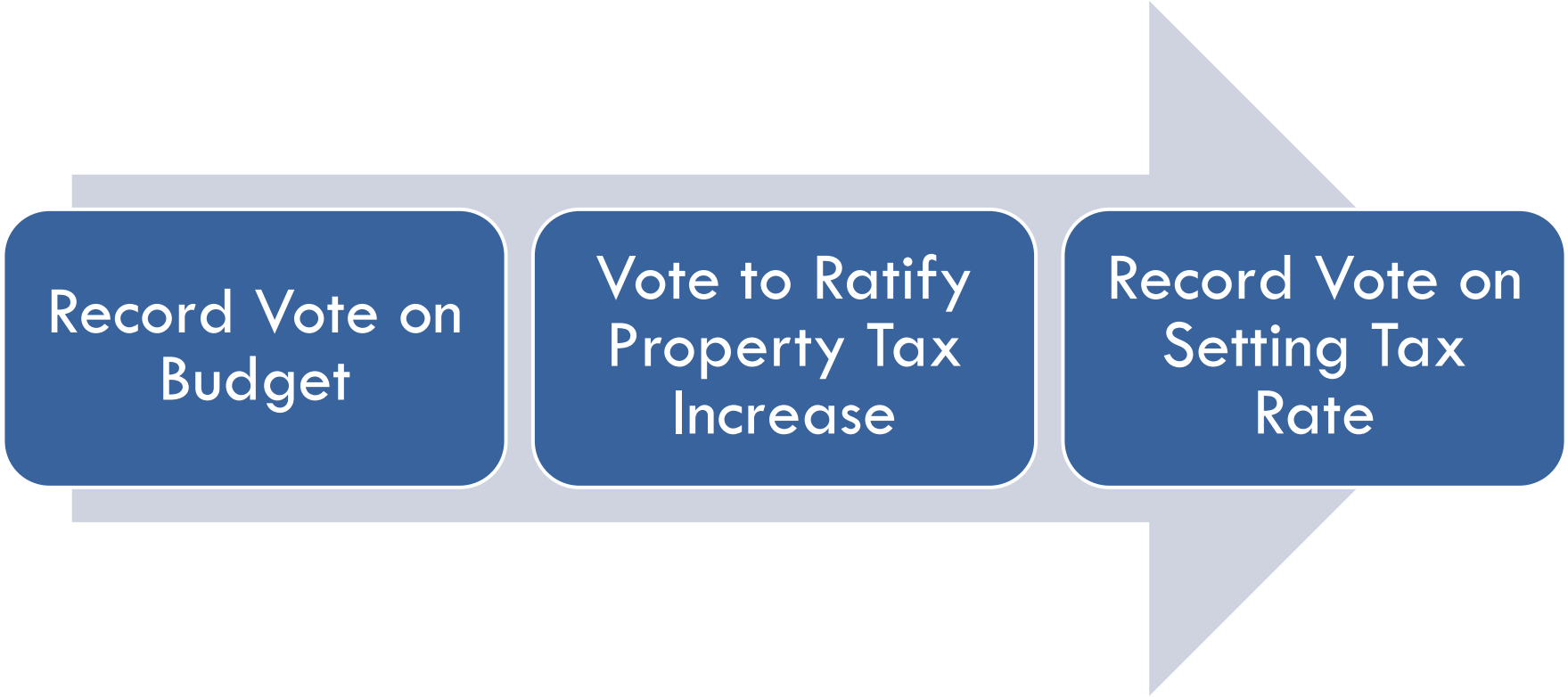
OR-25-010, RS-25-143, OR-25-011

September 2, 2025

Budget Calendar



Required Order



FY 2026 Proposed Budget

Fund Group	Projected Beginning Fund Balance	FY 2026 Revenues	FY 2026 Expenses	Change in Fund Balance	Projected Ending Fund Balance	Fund Balance Reserve
General Fund	$ 34,594,025	$ 133,347,455	$ 133,347,455	$ -	$ 34,594,025	25.94%
Water & Sewer Fund	12,047,696	52,406,737	52,406,737	-	12,047,696	22.99%
Capital Project Funds	26,480,878	24,509,303	39,357,498	(14,848,195)	11,632,683	29.56%
Solid Waste Fund	6,610,715	28,451,661	28,451,661	-	6,610,715	23.23%
Internal Service Funds	7,824,728	22,340,464	23,340,569	(1,000,105)	6,824,623	29.24%
Debt Service Fund	5,060,622	20,396,741	21,087,558	(690,817)	4,369,805	20.72%
Other Special Revenues	5,465,085	12,549,024	14,570,258	(2,021,234)	3,443,851	23.64%
Street Maintenance Fund	7,408,128	10,245,240	9,686,850	558,390	7,966,518	82.24%
Aviation Fund	6,770,344	7,011,248	6,461,604	549,644	7,319,988	113.28%
Drainage Utility Fund	1,474,785	5,582,230	5,582,230	-	1,474,785	26.42%
Hotel Occupancy Tax	716,982	3,119,421	3,119,421	-	716,982	22.98%
Golf Course Fund	292,914	1,548,836	1,696,977	(148,141)	144,773	8.53%
Subtotal	**$ 114,746,900**	**$ 321,508,360**	**$ 339,108,818**	**$ (17,600,458)**	**$ 97,146,442**	
Less Interfund Activity		(34,633,257)	(34,633,257)			
Less Health Insurance Transfer		(7,469,990)	(7,469,990)			
Adjusted Total		**$ 279,405,113**	**$ 297,005,571**			

Budget Adoption

Record Vote on Budget

Ratify Property Tax Revenue Increase

Per Local Government Code 102.007(c), a separate vote is required to ratify any property tax revenue increase over the prior year.

Total tax revenue increase is $6,431,349 (9.18%)

M&O $3,309,964

I&S $3,121,385

Ratify Property Tax Revenue Increase

Vote to Ratify Property Tax Increase

Set Tax Rate

	Tax Rate	Budgeted Revenue
Operations M&O	0.5277	$58,498,395
Debt I&S	0.1737	$17,967,067
Total Tax Rate	0.7014	$76,465,462

Taxpayer Impact

	Current FY 2025	Proposed FY 2026	Difference
Median-Valued Homestead Property	$221,214	$233,428	$12,214
Tax Rate	0.6573	0.7014	0.0441
Annual Property Tax Levy	$1,454.04	$1,637.26	$183.22
Monthly Cost	$121.17	$136.44	$15.27
Property tax amount = tax rate x taxable value of your property / 100			

Setting the Tax Rate

Per Tax Code 26.05(b), if the tax rate exceeds the no-new-revenue rate:

A record vote is required

Approval by at least 60% of Council (5 members)

Motion must state:

'I move that the property tax rate be increased by the adoption of a tax rate of $0.7014, which is effectively a 8.12% increase in the tax rate.'

Tax Rate Adoption

Record Vote on Tax Rate

City of Killeen

Staff Report

File Number: RS-25-144

Consider a memorandum/resolution to adopt the Five-Year Capital Improvement Program for Fiscal Year 2026 - 2030.

DATE: **September 2, 2025**

TO: **Kent Cagle, City Manager**

FROM: **Judith Tangalin, Executive Director of Finance**

SUBJECT: **Five-Year Capital Improvement Program for FY 2026 - 2030**

BACKGROUND AND FINDINGS:

The Fiscal Year 2026 - 2030 Capital Improvement Program (CIP) for the City of Killeen is a comprehensive document that provides a five-year outlook for capital projects. This document serves as a guide for the preparation of the capital budget. Only those projects scheduled for Fiscal Year 2026 will be incorporated into the annual budget. If additional funding becomes available or projects finish under the budgeted amount, projects may move to earlier fiscal years as applicable. The Five-Year Capital Improvement Program is updated on an annual basis. Projects shown in later years are for planning purposes only, as funding and priorities may change during the life of the program.

The Five-Year Capital Improvement Program was developed to establish a long-term commitment to the capital projects necessary to protect the health, safety, and welfare, and to sustain and improve the quality of life of the citizens of Killeen.

THE ALTERNATIVES CONSIDERED:

Adopt the Capital Improvement Program as presented.

Which alternative is recommended? Why?

City Council adopt the FY 2026 - 2030 Capital Improvement Program as presented.

CONFORMITY TO CITY POLICY:

The document conforms to City policies including the Capital Projects Policies.

FINANCIAL IMPACT:

What is the amount of the revenue/expenditure in the current fiscal year? For future years?

Adopting this document does not have a direct fiscal impact; however, it is important to note that projects for Fiscal Year 2026 will be incorporated into the annual budget.

Is this a one-time or recurring revenue/expenditure?

N/A

Is this revenue/expenditure budgeted?

N/A

If not, where will the money come from?

N/A

Is there a sufficient amount in the budgeted line-item for this revenue/expenditure?

N/A

RECOMMENDATION:

City Council adopt the Five-Year capital Improvement Program for Fiscal Year 2026 - 2030.

DEPARTMENTAL CLEARANCES:

Finance
Legal

ATTACHED SUPPORTING DOCUMENTS:

FY 2026 - 2030 Capital Improvement Program
Presentation

FY 2026 ADOPTED CAPITAL IMPROVEMENT PROGRAM

As adopted by City Council on September 2, 2025



CITY OF KILLEEN, TEXAS

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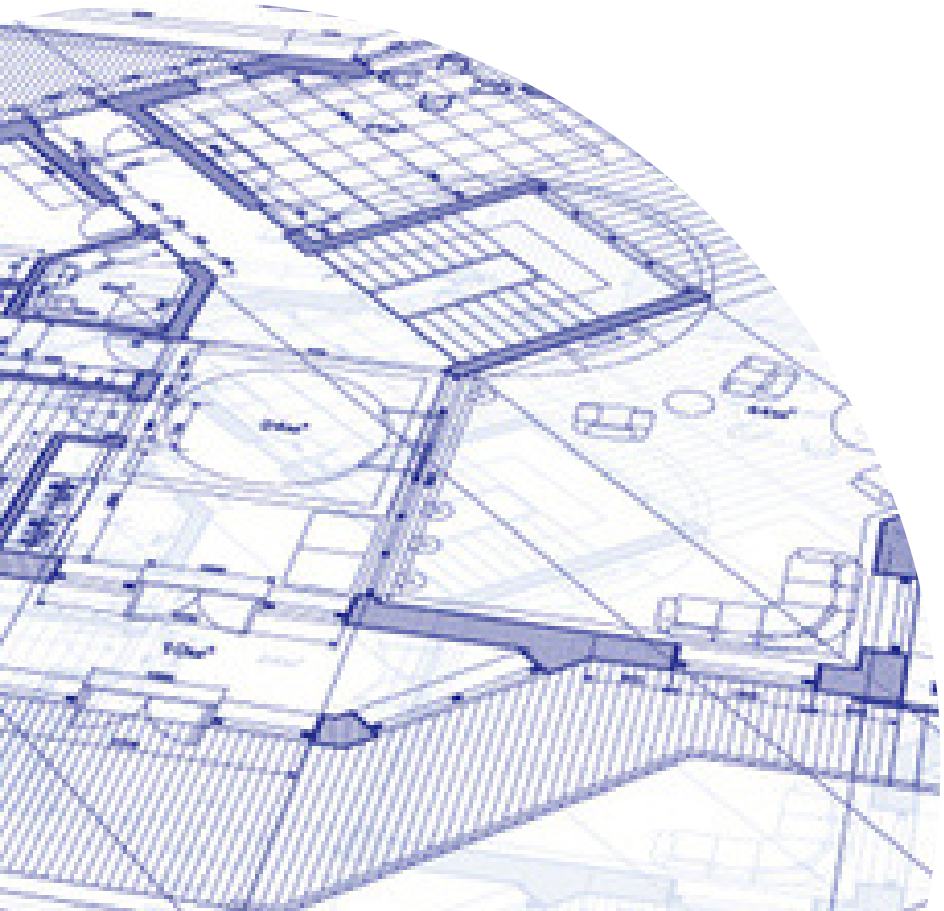
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INTRODUCTION



The City of Killeen Capital Improvement Program (CIP) was developed to establish a long-term commitment to the capital projects necessary to protect the health, safety, and welfare, and sustain and improve the quality of life of the citizens of Killeen. This program is designed to meet the infrastructure and facilities needs for today, as well as the future. The five-year CIP uses a comprehensive approach to ensure the most efficient use of public funds. Additional information is available in the Capital Improvement Plan Annual Budgeting Process documents.

Each budget year, funding is set aside for the City's Capital Improvement Program (CIP). The funding is available for citywide community projects that improve public property. This includes streets and sidewalks, parks, and buildings. Projects have a useful life exceeding one year and cost $100,000 or more.

The City of Killeen plans capital expenditures over a five year period; however, a formal capital improvement budget is adopted by the City Council for the current year only.

HOW TO USE THE CIP DOCUMENT

The CIP document is organized by project type. Each project type includes information on existing projects that will carry forward into fiscal year 2026, and projects that are anticipated in fiscal years 2026 - 2030.

By nature, many capital projects may span across fiscal years. Funding for each project is shown in the year funds are to be encumbered. The actual expenditure by year will be ruled by the project contract, and pace at which the contractor completes the project.

The summary section includes total use by project type and source of funds. Detailed project descriptions and justifications are provided for projects inside of the five-year plan.

DEFINITIONS

- Capital Project
  - A non-recurring expenditure that exceeds approximately $100,000 and has a useful life exceeding one year.
- Capital Improvement Project
  - A capital project for the new construction or expansion of infrastructure or facilities.
- Capital Equipment Project
  - A capital project for items such as equipment, vehicles, tools, or other similar items.
- Capital Maintenance Project
  - A capital project for the remodel, reconstruction, or rehabilitation of infrastructure or facilities.
- Recurring Capital Maintenance Projects
  - Recurring capital maintenance projects reflect the recurring capital expenditure needs required to preserve or replace existing city assets due to wear and tear.

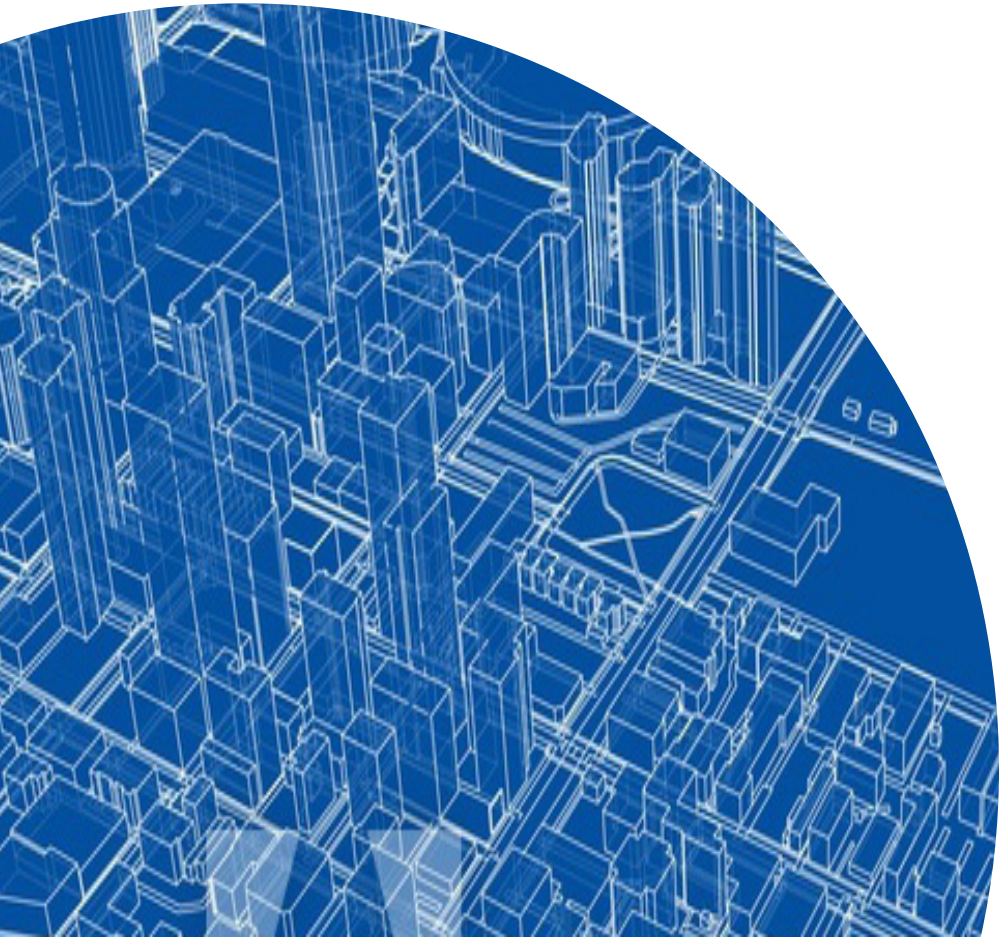
PROJECT DATA SHEETS

Each Project Submittal Sheet includes the following:

- Project Type
  - To identify the representative type of capital of the project.
- Project Title
  - A brief descriptive title for the project.
- Impact on Operating Budget
  - Estimated increases in personnel, maintenance & operations, and capital costs directly associated with the project. These costs are based upon best estimates as they correlate to the current level of service. An estimated number of Full-time employees (FTEs) that would be needed for the associated project.
- Project Management Information
  - Codes, department/division, numbers, and manager.
- Description
  - A statement that describes the limits and scope of the project.
- Justification
  - A statement regarding the need for the project.
- Project Schedule
  - Estimated project schedule duration.
- Project Costs and Source of Funds
  - Details of project costs and sources of funding including prior year expenditures, current fiscal year budgeted expenditures, and estimated expenditures for upcoming fiscal years.
- Site Information
  - A graphic representation of the project

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CAPITAL IMPROVEMENT PROGRAM PROCESS



DEVELOPMENT PROCESS

A Capital Improvement Program (CIP) is an iterative process and should therefore be treated as a work in progress. The intent of this program is to cover a five-year planning cycle and to identify long-range projects, beyond the five-year plan. Per the adopted Capital Projects Policies, this plan will be prepared, reviewed, and adopted annually to forecast the five-year projects. Adoption of the capital plan will set the stage for the adoption of the annual budget. Funding is appropriated with the adoption of the annual budget. Future years are used for planning purposes and are intended to establish working goals, objectives, and direction for City Staff. If additional funds become available, projects may be moved into earlier years. For a detailed description of the CIP development process, refer to the adopted Capital Projects Policy.

Projects in the capital improvement program have an appropriation for only the first year of the five-year plan. These projects are reviewed and evaluated as part of the annual budget development process. The desired goal is to close out the projects within one year. The first year's appropriation may be carried forward into the next fiscal year if and when the project requires more time for completion. Each capital project is assigned a project number to track revenues and expenditures.

REVIEW PROCESS

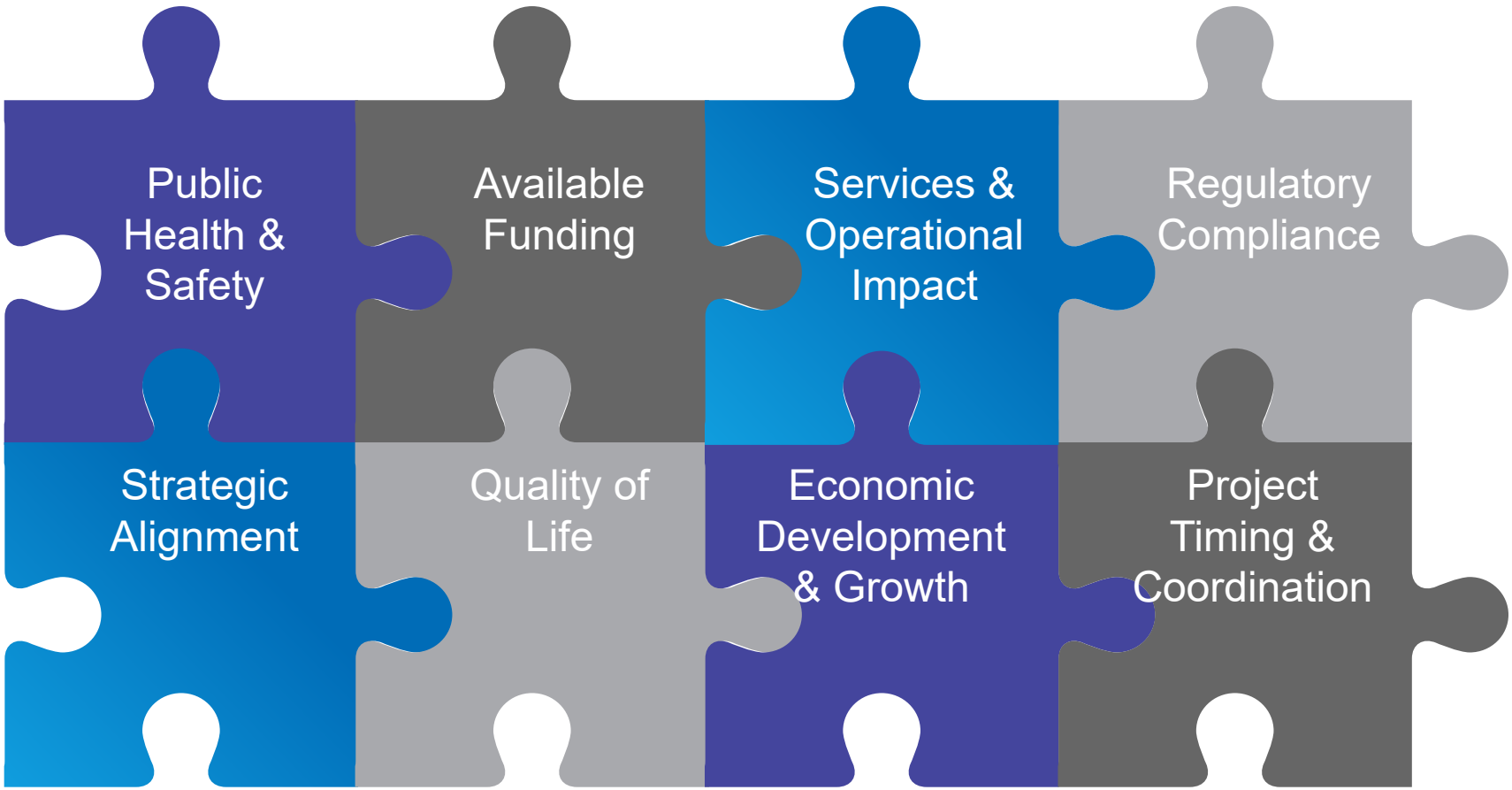
The City of Killeen uses a CIP Committee to review all CIP Projects submitted for the upcoming fiscal year. The CIP Committee consists of individuals from a variety of divisions and professional disciplines to review project submissions and ensure that:

- Projects are scoped properly (a building has Americans with Disabilities Act (ADA) access, includes telephones, computers, etc.)
- Infrastructure components are coordinated (a waterline is installed at the same time as a roadway improvement at a specific location)
- Long-term operating impacts are included in estimates (staffing, utility and maintenance costs are considered)
- Time frames for construction activity and cash flow requirements are realistic
- Projects are coordinated geographically (i.e., not more than one north/south major thoroughfare is restricted at a time)
- Project costs are reviewed to determine adequacy of the budget and appropriate funding sources
- Projects meet city's current hardware, software and security standards
- Network bandwidth requirements are needed to support the application if technology will be accessed from remote locations
- Long-term operating impacts are included in estimates (training, maintenance and support)
- Funding for ongoing maintenance of hardware, operating system, application and database is identified
- Parties responsible for day-to-day support are identified
- Identify systems that require after hours technical support
- Funding is included to cover ongoing monthly maintenance costs associated with the system
- Backups and data retention have been considered
- Disaster recovery and security considerations have been addressed

While these illustrations are not exhaustive, they provide examples of the value added through project review by the CIP Committee.

PRIORITIZATION CRITERIA

The CIP Committee prioritizes the projects based on City Council's broad goals, division priorities, anticipated funding sources, and recommended practices from GFOA.



PROJECT TYPES

The Capital Improvement Plan is comprised of ten major project types:

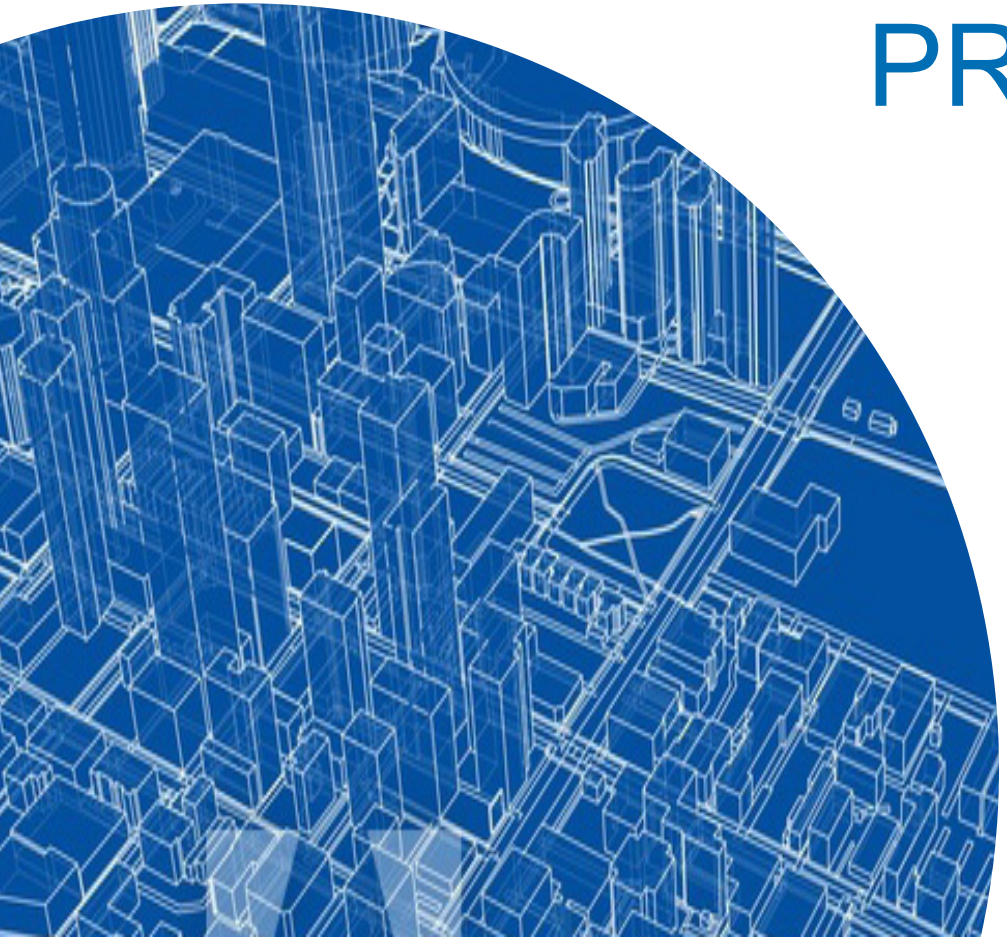
- Aviation
- Transportation
- Facilities
- Water & Sewer
- Parks & Recreation
- Technology
- Drainage
- Vehicles & Equipment
- Other Projects
- Fiscally Constrained

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FY 2026 CAPITAL IMPROVEMENT PROGRAM

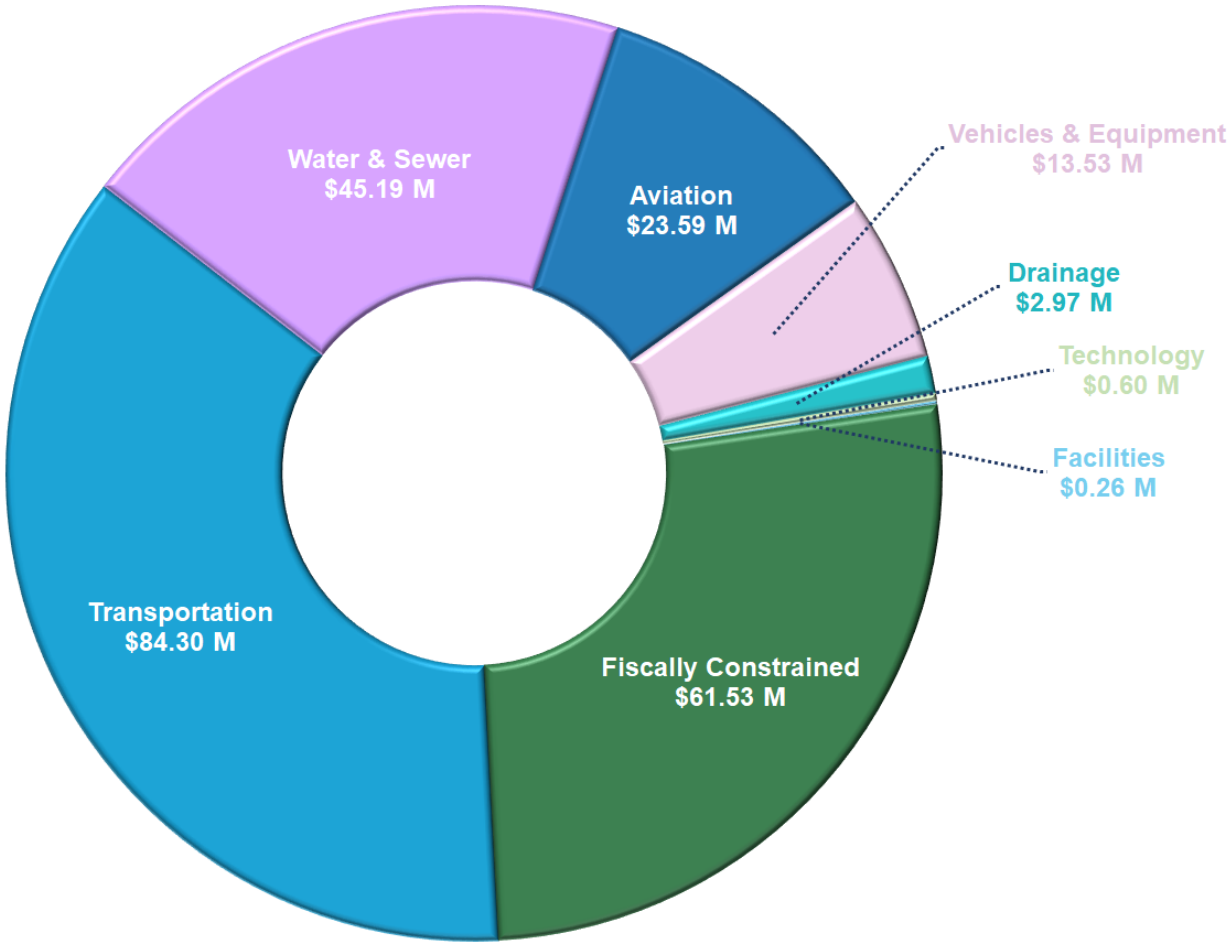


HIGHLIGHTS

The FY 2026 Capital Improvement Program includes funding for 21 individual projects and 60 vehicles/equipment totaling $38,022,384.

- **AVIATION**
  - Three projects totaling $4.1M
- **DRAINAGE**
  - Three projects totaling $875,000
- **FACILITIES**
  - One project totaling $256,000
- **TECHNOLOGY**
  - Two projects totaling $600,000
- **TRANSPORTATION**
  - Five projects totaling approximately $8.8M
- **VEHICLE & EQUIPMENT**
  - Seven new vehicle/equipment purchases totaling approximately $4.8M
  - 53 replacement vehicle/equipment purchases totaling approximately $8.7M
- **WATER & SEWER**
  - Seven projects totaling approximately $9.9M

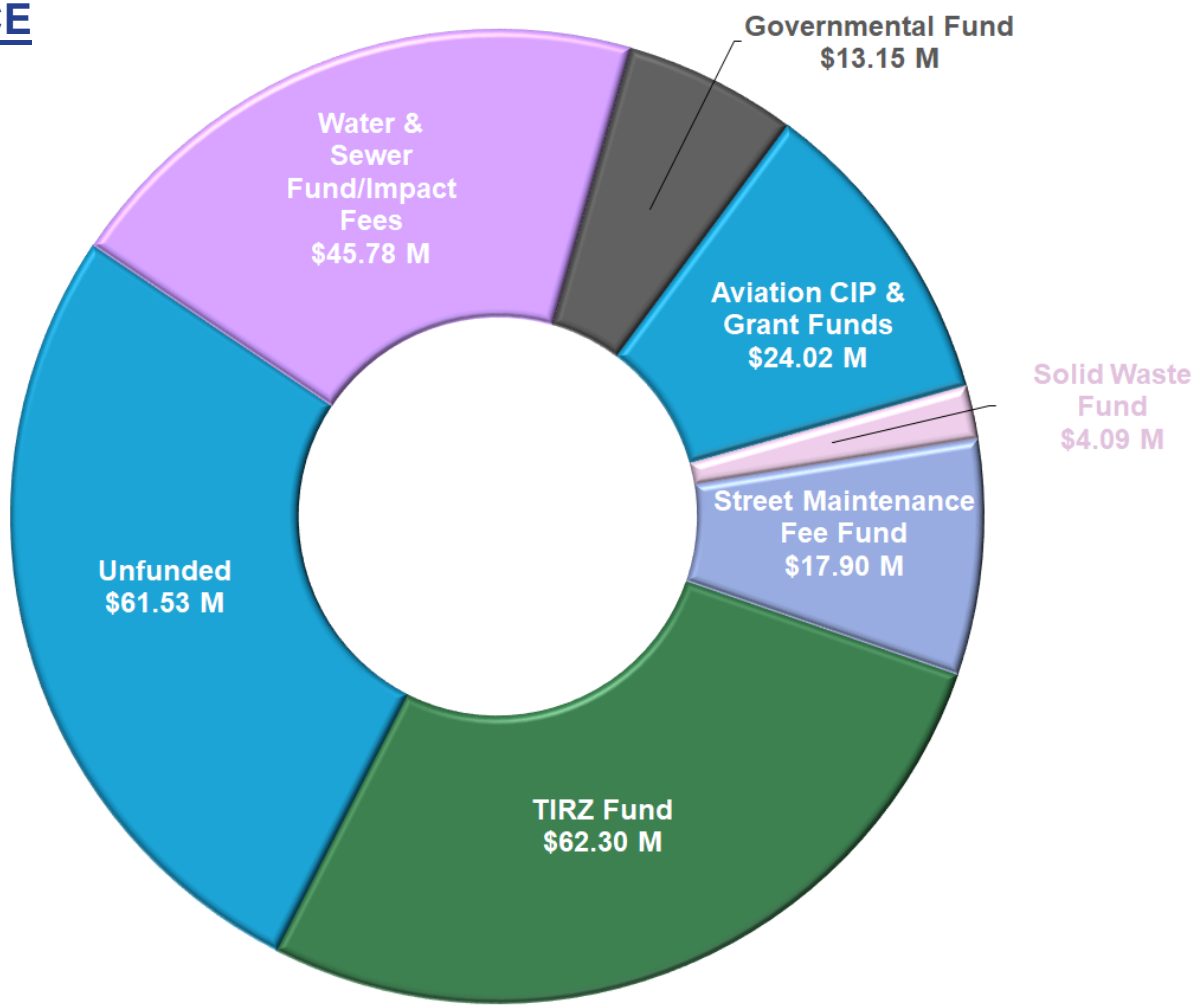
5-YEAR CIP BY USE



By Use	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Vehicles & Equipment	$ 13,531,830	$ -	$ -	$ -	$ -
Water & Sewer	9,878,434	10,581,512	8,666,503	8,607,029	7,453,821
Transportation	8,781,120	11,012,782	12,795,693	26,664,321	25,050,000
Aviation	4,100,000	6,260,000	4,570,000	800,000	7,860,000
Drainage	875,000	1,600,000	490,000	-	-
Technology	600,000	-	-	-	-
Facilities	256,000	-	-	-	-
Total By Use	**38,022,384**	**29,454,294**	**26,522,196**	**36,071,350**	**40,363,821**
Fiscally Constrained	-	18,297,194	16,430,800	8,364,000	18,440,000
Total CIP	**$ 38,022,384**	**$ 47,751,488**	**$ 42,952,996**	**$ 44,435,350**	**$ 58,803,821**

The City of Killeen plans capital expenditures over a five year period; however, the formal capital improvement budget is adopted by the City Council for the current year only.

5-YEAR CIP BY SOURCE



By Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Governmental Fund	$ 10,328,286	$ 1,362,782	$ 795,693	$ 664,321	$ -
Water & Sewer Fund/Impact Fees	10,467,342	10,581,512	8,666,503	8,607,029	7,453,821
Aviation CIP & Grant Funds	4,526,700	6,260,000	4,570,000	800,000	7,860,000
Solid Waste Fund	4,086,832	-	-	-	-
TIRZ Fund	4,000,000	9,300,000	12,000,000	26,000,000	11,000,000
Street Maintenance Fee Fund	3,500,000	350,000	-	-	14,050,000
Drainage Fund	1,113,224	1,600,000	490,000	-	-
Total By Source	**38,022,384**	**29,454,294**	**26,522,196**	**36,071,350**	**40,363,821**
Unfunded	-	18,297,194	16,430,800	8,364,000	18,440,000
Total CIP	**$ 38,022,384**	**$ 47,751,488**	**$ 42,952,996**	**$ 44,435,350**	**$ 58,803,821**

SUMMARY CAPITAL PROJECTS FUNDS

City of Killeen
FY 2026
Capital Project Funds

Capital Projects Funds	Beginning Available Resources	Prior Year Commitments	FY 2026 Revenues	FY 2026 Expenditures [1]	Change in Fund Balance	Ending Available Resources
Governmental Capital Projects Fund	$ 57,401,617	$ 53,877,816	$ 8,559,093	$ 11,206,122	$ (2,647,029)	$ 876,772
Certificates of Obligation 2025	39,393,931	38,330,600	-	-	-	1,063,331
2025 Water & Sewer Revenue Bond	37,088,510	37,088,510	-	-	-	-
Certificates of Obligation 2023	34,110,313	31,069,315	679,721	3,040,000	(2,360,279)	680,719
Water & Sewer Capital Projects Fund	25,779,744	21,409,069	4,070,440	8,392,342	(4,321,902)	48,773
Certificates of Obligation 2022	21,386,552	20,720,183	537,633	-	537,633	1,204,002
Aviation AIP Grants	14,168,681	13,693,193	3,690,000	3,690,000	-	475,488
2020 Water & Sewer Improvement Bond	11,410,984	10,146,358	378,888	1,264,000	(885,112)	379,514
Solid Waste Capital Projects Fund	9,921,759	7,007,955	3,061,281	5,588,971	(2,527,690)	386,114
Drainage Utility Capital Projects Fund	7,987,296	4,813,837	744,328	2,278,224	(1,533,896)	1,639,563
Aviation Capital Projects Fund	7,101,291	6,378,117	456,917	912,839	(455,922)	267,252
Aviation Customer Facility Charge	3,997,369	1,821,770	489,853	-	489,853	2,665,452
Aviation Passenger Facility Charge	1,417,426	964,298	426,270	410,000	16,270	469,398
Water Impact Fee	3,163,836	279,920	1,024,890	2,522,000	(1,497,110)	1,386,806
Wastewater Impact Fee	(194,124)	53,366	389,989	53,000	336,989	89,499
Total Capital Projects Funds	**$ 274,135,185**	**$ 247,654,307**	**$ 24,509,303**	**$ 39,357,498**	**$ (14,848,195)**	**$ 11,632,683**
Other Non-Capital Funds						
Street Maintenance Fund	$ -	$ -	$ -	$ 3,500,000	$ -	$ -
Tax Increment Fund	-	-	-	4,000,000	-	-
Total Non-Capital Funds	**$ -**	**$ -**	**$ -**	**$ 7,500,000**	**$ -**	**$ -**
TOTAL FUNDS	**$ 274,135,185**	**$ 247,654,307**	**$ 24,509,303**	**$ 46,857,498**	**$ (14,848,195)**	**$ 11,632,683**

[1] Includes $8,835,114 of non-capital project expenses such as contingency, accounting services, debt service, and bond issuance costs.

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AVIATION CAPITAL IMPROVEMENT PROGRAM



PROJECT TYPE: AVIATION

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
1	Project Code 925008	GRK Terminal Rehabilitation	800,000	4,000,000	6,210,000	1,000,000	-	-	12,010,000
2	Project Code 923004	GRK Rehab Runway/Taxiway	194,070	50,000	50,000	50,000	50,000	50,000	444,070
3	Project Code 926001	Pavement Management Plan Update	-	50,000	-	-	50,000	-	100,000
4	Project Code N/A	Airport Land Acquisition	-	-	-	3,400,000	-	-	3,400,000
5	Project Code N/A	Aeronautical Commercial Development	-	-	-	-	700,000	7,810,000	8,510,000
6	Project Code N/A	Airport Layout Plan Update	-	-	-	120,000	-	-	120,000
		Total	**$ 994,070**	**$ 4,100,000**	**$ 6,260,000**	**$ 4,570,000**	**$ 800,000**	**$ 7,860,000**	**$ 24,584,070**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
340 Aviation CIP Fund	-	-	-	340,000	70,000	781,000	1,191,000
341 Aviation AIP Grant	894,663	3,690,000	5,634,000	4,113,000	720,000	7,074,000	22,125,663
343 Aviation PFC Fund	99,407	410,000	626,000	117,000	10,000	5,000	1,267,407
Total	**$ 994,070**	**$ 4,100,000**	**$ 6,260,000**	**$ 4,570,000**	**$ 800,000**	**$ 7,860,000**	**$ 24,584,070**

PROJECT TYPE: AVIATION

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	918007	GRK ATP Solar Project	7,148,231						7,148,231
2	921047	Wayfinding Signage Improvement	34,900						34,900
3	921048	Aircraft Hanger No. 2	6,658,675						6,658,675
4	922008	Taxiway E Relocation	8,084,608						8,084,608
5	922025	Admin Fees Appl #12	50,462						50,462
6	922037	Skylark 10% Match	573,740						573,740
7	923019	GRK Security System Rehabilitation	120,900						120,900
8	923021	Admin Fees Appl #13	45,307						45,307
9	923032	Skylark Fixed Base Operations Building	5,209,024						5,209,024
10	923035	Skylark Field AWOS Relocation	535,251						535,251
11	923039	GRK PAX Terminal & Security Improv	297,027						297,027
12	924016	GRK IGSA Airfield Maintenance	1,515,000						1,515,000
13	924021	GRK-TxVEMP Grant - Equipment	430,000						430,000
14	925022	GRK Office Building	5,184,834						5,184,834
15	925023	Admin Fees Appl #14	35,000						35,000
		Total	**$ 35,922,959**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 35,922,959**

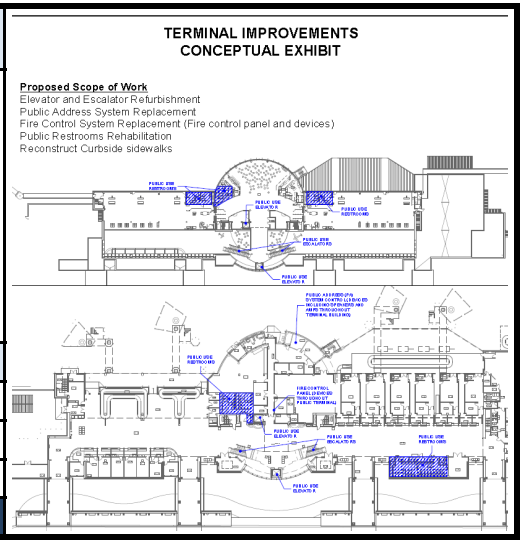
Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
226 Tax Increment Fund	350,001						350,001
300 Governmental CIP Fund	1,000,000						1,000,000
306 Certificate of Obligation 2023	2,700,000						2,700,000
340 Aviation CIP Fund	7,619,343						7,619,343
341 Aviation AIP Grant	19,981,612						19,981,612
342 Aviation CFC Fund	2,571,246						2,571,246
343 Aviation PFC Fund	1,015,923						1,015,923
350 Water & Sewer CIP Fund	684,834						684,834
Total	**$ 35,922,959**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 35,922,959**

Project Code 925008	GRK Terminal Rehabilitation	Aviation

Project Description & Justification

This project includes design/rehabilitation to the GRK Terminal built in the early 2000's. The rehabilitation scope includes the following:

-Public restroom renovations (20+ years old)
-Public address system replacement)
-Fire control panel and alarm system replacement
-Curbside walkway rehabilitation
-Escalater and Elevator rehabilitation (20+ years old)



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 719,500	$ 1,010,000	$ -	$ -	$ -	$ -	$ 1,729,500	3 to 6 months
Construction	-	2,989,500	6,210,000	1,000,000	-	-	$10,199,500	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	80,500	500	-	-	-	-	$ 81,000	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 800,000**	**$ 4,000,000**	**$ 6,210,000**	**$ 1,000,000**	**$ -**	**$ -**	**$12,010,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
341 Aviation AIP Grant	$ 720,000	$ 3,600,000	$ 5,589,000	$ 900,000	$ -	$ -	$10,809,000
343 Aviation PFC Fund	80,000	400,000	621,000	100,000	-	-	$ 1,201,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 800,000**	**$ 4,000,000**	**$ 6,210,000**	**$ 1,000,000**	**$ -**	**$ -**	**$12,010,000**

Project Status

- ☐ Planning
- ☑ Design
- ☑ Construction

Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 923004	GRK Rehab Runway/Taxiway	Aviation

Project Description & Justification

This project involves routine cleaning, minor repairs, and maintenance of the runway and taxiway, including sealing longitudinal and transverse cracks, patching pavement, and remarking the runway. Funding is allocated at $50,000 for the runway in FY2025, FY2027, and FY2029, and $50,000 for the taxiway in FY2026, FY2028, and FY2030. These efforts will enhance safety, maintain full operational functionality, and extend the lifespan of both the runway and taxiway.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 90,000	$ -	$ -	$ -	$ -	$ -	$ 90,000	3 to 6 months
Construction	84,663	50,000	50,000	50,000	50,000	50,000	$ 334,663	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	19,407	-	-	-	-	-	$ 19,407	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 194,070**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 444,070**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
341 Aviation AIP Grant	$ 174,663	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 399,663
343 Aviation PFC Fund	19,407	5,000	5,000	5,000	5,000	5,000	$ 44,407
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 194,070**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 444,070**

Project Status

- ☐ Planning
- ☑ Design
- ☐ Construction

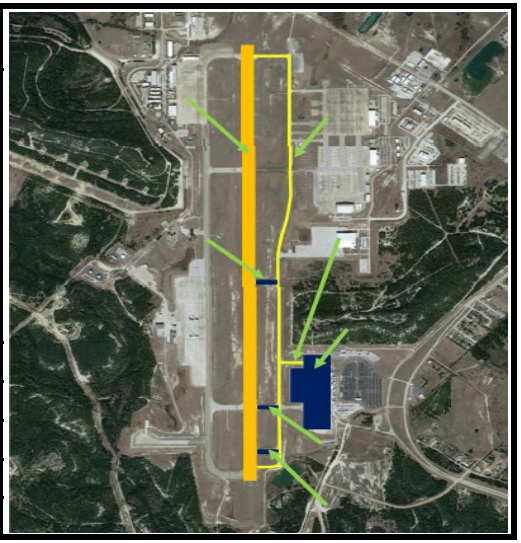
Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 926001	Pavement Management Plan Update	Aviation

Project Description & Justification

This project updates the current Pavement Management Plan (PMP) for the airfield to help manage and track the useful life of the Runway and Taxiways and help efficiently schedule and prioritize pavement management and rehabilitation across areas of the airfield. This PMP Update is required to comply with FAA Grant Assurances.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ 50,000	$ -	$ -	$ 50,000	$ -	$ 100,000	3 to 6 months
Construction	-	-	-	-	-	-	$ -	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 50,000**	**$ -**	**$ -**	**$ 50,000**	**$ -**	**$ 100,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
341 Aviation AIP Grant	$ -	$ 45,000	$ -	$ -	$ 45,000	$ -	$ 90,000
343 Aviation PFC Fund	-	5,000	-	-	5,000	-	$ 10,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 50,000**	**$ -**	**$ -**	**$ 50,000**	**$ -**	**$ 100,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code N/A	Airport Land Acquisition	Aviation

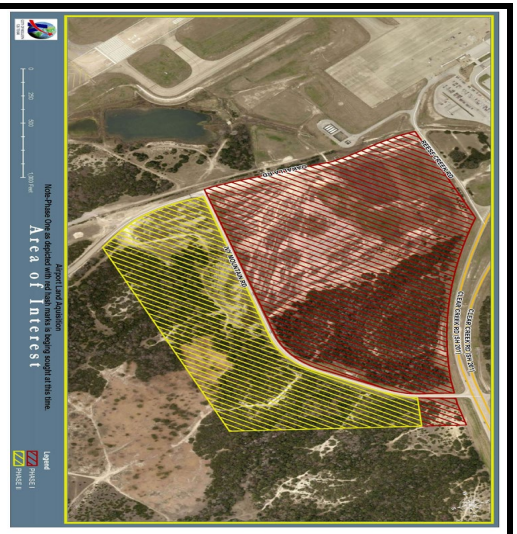
Project Description & Justification

The objective is to increase airport self-sustainability by increasing land available for aeronautical and non-aeronautical development.

•Land to be acquired >100 Acres

• FAA process for land acquisition will be followed through reimbursement with proper appraisal and oth documentation.

Acquisition of land will limit encroachment near the airport of non-aeronautical activities and provide the airport with development opportunity of both aeronautical and non-aeronautical activities to sustain itself fiscally.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ 55,000	$ -	$ -	$ 55,000	1 to 2 years
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	3,345,000	-	-	$ 3,345,000	1 to 2 years
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ -**	**$ 3,400,000**	**$ -**	**$ -**	**$ 3,400,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
341 Aviation AIP Grant	$ -	$ -	$ -	$ 3,060,000	$ -	$ -	$ 3,060,000
340 Aviation CIP Fund	-	-	-	340,000	-	-	$ 340,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ -**	**$ 3,400,000**	**$ -**	**$ -**	**$ 3,400,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

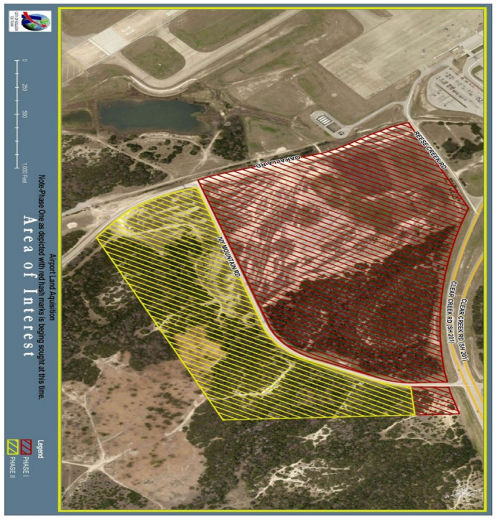
Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code N/A	Aeronautical Commercial Development	Aviation

Project Description & Justification

This project consists of the design of common-use taxiways that will support future airport growth after land acquisition is completed. This project aligns with fostering a self-sustaining airport through achieving economic benefits and increasing integration with local communities by providing access to future hangar development (by others). This project is consistent with the master plan and supported by the airport layout plan.This access will allow for future airport development, growth, and aid in satisfying needed hangar capacity.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ 700,000	$ 710,000	$ 1,410,000	1 to 2 years
Construction	-	-	-	-	-	7,100,000	$ 7,100,000	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ 700,000**	**$ 7,810,000**	**$ 8,510,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
341 Aviation AIP Grant	$ -	$ -	$ -	$ -	$ 630,000	$ 7,029,000	$ 7,659,000
340 Aviation CIP Fund	-	-	-	-	70,000	781,000	$ 851,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ 700,000**	**$ 7,810,000**	**$ 8,510,000**

Project Status
☑ Planning
☐ Design
☐ Construction
Funding Status
☑ Funded
☐ Unfunded
☐ Partially Funded

Project Code N/A	Airport Layout Plan Update	Aviation

Project Description & Justification

To support the Airports planned acquisition of land for future aviation development, an update to the Airport Master Plan (AMP) is necessary to assess and revise both the Master Plan and the Airport Layout Plan (ALP) for the newly acquired property



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ 120,000	$ -	$ -	$ 120,000	3 to 6 months
Construction	-	-	-	-	-	-	$ -	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ -**	**$ 120,000**	**$ -**	**$ -**	**$ 120,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
341 Aviation AIP Grant	$ -	$ -	$ -	$ 108,000	$ -	$ -	$ 108,000
343 Aviation PFC Fund	-	-	-	12,000	-	-	$ 12,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ -**	**$ 120,000**	**$ -**	**$ -**	**$ 120,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

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CITY OF KILLEEN

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DRAINAGE CAPITAL IMPROVEMENT PROGRAM



PROJECT TYPE: DRAINAGE

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
1	Project Code 925001	Low Water Crossing Flood Mitigation- Phases 1 to 3	125,000	575,000	600,000	490,000	-	-	1,790,000
2	Project Code 926002	Dickens Ditch Repair and Improvements	-	150,000	500,000	-	-	-	650,000
3	Project Code 926003	Long Branch Environmental Improvements	-	150,000	500,000	-	-	-	650,000
		Total	**$ 125,000**	**$ 875,000**	**$ 1,600,000**	**$ 490,000**	**$ -**	**$ -**	**$ 3,090,000**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
390 Drainage Utility CIP Fund	125,000	875,000	1,600,000	490,000	-	-	3,090,000
Total	**$ 125,000**	**$ 875,000**	**$ 1,600,000**	**$ 490,000**	**$ -**	**$ -**	**$ 3,090,000**

CIP Projects - Approved FY 2025 Scheduled & Underway

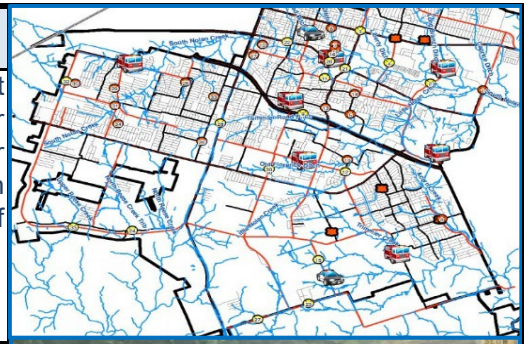
	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	921006	Storm Drain/Inlets - Trimmier/10th Street	697,667						697,667
2	921008	I-14/Trimmier & WS Young Drainage Improvement	952,825						952,825
3	921033	Bunny Trail Improvement	676,265						676,265
4	923007	Drainage Master Plan	373,069						373,069
5	923008	Stonetree Drive Drainage	181,284						181,284
6	925002	Stream Gauge Installation - Emergency Management	200,000						200,000
		Total	**$ 3,081,111**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3,081,111**

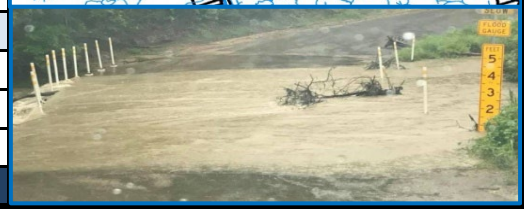
Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
390 Drainage Utility CIP Fund	3,081,111						3,081,111
Total	**$ 3,081,111**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3,081,111**

Project Code 925001	Low Water Crossing Flood Mitigation- Phases 1 to 3	Drainage

Project Description & Justification

Design and construction of drainage and associated infrastructure to improve stormwater conveyance at different low water crossings within the city. Improvement project is proposed for the three most dangerous low water crossings. The project will allow runoff to pass through the pipes or culverts and mitigate water overtopping or minimize running or standing water over the road surface. There are approximately 35 low water crossings within the city of which 19 crossings have been identified as dangerous, and staff has determined 6 priority locations out of which 3 locations should be considered for improvements. This project is critical to public health, safety, and welfare.





Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 125,000	$ 125,000	$ 130,000	$ -	$ -	$ -	$ 380,000	2 to 3 years
Construction	-	450,000	470,000	490,000	-	-	$ 1,410,000	3 to 4 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 125,000**	**$ 575,000**	**$ 600,000**	**$ 490,000**	**$ -**	**$ -**	**$ 1,790,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
390 Drainage Utility CIP Fund	$ 125,000	$ 575,000	$ 600,000	$ 490,000	$ -	$ -	$ 1,790,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 125,000**	**$ 575,000**	**$ 600,000**	**$ 490,000**	**$ -**	**$ -**	**$ 1,790,000**

Project Status

- ☐ Planning
- ☑ Design
- ☐ Construction

Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 926002	Dickens Ditch Repair and Improvements	Drainage

Project Description & Justification

Design and construction for channel bank stabilization and stream restoration. Dickens ditch starts near Winchester Dr. and N. 60th St. and then travel south towards Westcliff Rd. and ultimately discharges into Long Branch tributary near Dickens Dr. The ditch is a combination of wide natural earthen channel and narrow concrete channel. Repair and improvements are necessary for the segment south of Westcliff Road. This stream has been experiencing erosion and has the potential to damage private property and erode further outside of the drainage easement. Therefore, actions to stabilize the stream downstream of Westcliff Road should be considered. This project is ranked # 6 in Stream Repair and Floodplain Improvements category and 13 overall in all categories in 2012 DMP.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000	6 to 12 months
Construction	-	-	500,000	-	-	-	$ 500,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 150,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ 650,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
390 Drainage Utility CIP Fund	$ -	$ 150,000	$ 500,000	$ -	$ -	$ -	$ 650,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 150,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ 650,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

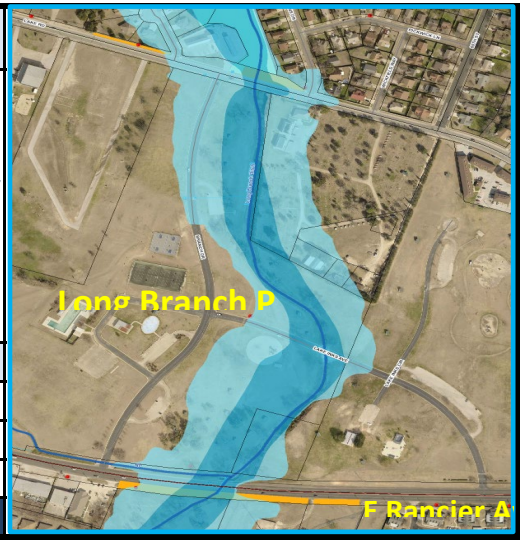
Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 926003	Long Branch Environmental Improvements	Drainage

Project Description & Justification

Improvements include the design and construction of a wet online pond along the Long Branch Tributary inside Long Branch Park. The project will provide water quality benefits as well as recreational and aesthetic benefits for the park users and potentially provide partial detention/flooding benefits for developments in downstream properties. The scope also includes stabilization of eroded stream bank at some locations and improvement in vegetation and buffer area. The City's 2005 and 2012 Drainage Master Plan proposed environmental enhancement which will improve overall aesthetics and provide water quality and drainage benefits. Benefits include flood mitigation for downstream properties, stormwater quality control, and recreational facilities for the park users.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000	6 to 12 months
Construction	-	-	500,000	-	-	-	$ 500,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 150,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ 650,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
390 Drainage Utility CIP Fund	$ -	$ 150,000	$ 500,000	$ -	$ -	$ -	$ 650,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 150,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ 650,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [x] Funded
- [ ] Unfunded
- [ ] Partially Funded

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FACILITIES CAPITAL IMPROVEMENT PROGRAM



PROJECT TYPE: FACILITIES

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
1	Project Code 926004	Outdoor Warning Sirens Phase 2	-	256,000	-	-	-	-	256,000
		Total	**$ -**	**$ 256,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 256,000**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
300 Governmental CIP Fund	-	256,000	-	-	-	-	256,000
Total	**$ -**	**$ 256,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 256,000**

PROJECT TYPE: FACILITIES

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	280351	Emergency/Fire Operations Center	12,259,032						12,259,032
2	282359	Police Range & Training Facility	255,971						255,971
3	283356	HCCA - Meals on Wheels	200,000						200,000
4	283357	KCCC HVAC Replacement	1,638,703						1,638,703
5	920033	Rosa Hereford Community Center	9,721,878						9,721,878
6	921050	ADA Compliance Project	2,174,791						2,174,791
7	922032	City Hall Structure	33,370						33,370
8	922038	Fire Station #4 New Building	12,149,046						12,149,046
9	922039	Bell County Annex	676,443						676,443
10	923010	City Hall Complex	108,296						108,296
11	923011	Animal Serivces Quarantine Facility	1,801,434						1,801,434
12	923013	Transfer Station Tunnel	1,112,889						1,112,889
13	923022	City of Killeen Reunification Center	2,000,000						2,000,000
14	923029	Parks Maintenance Facility	3,161,851						3,161,851
15	923031	PD Evidence Storage Building	4,769,790						4,769,790
16	923034	Fleet Services Facility	17,788,359						17,788,359
17	924001	FD Parking Lot Resurface	178,000						178,000
18	924002	FD Overhead Door Replacement	49,000						49,000
19	924005	Outdoor Warning Sirens	110,312						110,312
20	924020	PD Real Time Crime Center	747,133						747,133
21	924024	Ave D Building Readiness	10,838						10,838
22	925012	AS Crematorium	210,201						210,201
23	925013	Transfer Station Pushwall Fire Repair	202,703						202,703
24	925016	Fire Station 5 Rebuild	9,000,000						9,000,000
25	925026	Long Branch Pool Improvement	28,769						28,769
26	925027	Police HQ Roof Replacements*	265,256						265,256
27	925028	Fire Training Tower*	600,000						600,000
28	925029	Police Impound Lot*	200,000						200,000
		Total	**$ 81,454,068**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 81,454,068**

* After Proposed CIP is presented to the Council, these projects are added as FY 2025 projects by approval of CCMRs or MOD.

PROJECT TYPE: FACILITIES

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
300 Governmental CIP Fund	45,971,341						45,971,341
306 Certificates of Obligation 2023	24,420,001						24,420,001
307 Certificates of Obligation 2025	9,000,000						9,000,000
380 Solid Waste CIP Fund	1,315,592						1,315,592
271 PD State Seizure Fund	355,322						355,322
273 Police Dept Donations	268,264						268,264
272 Police Federal Seizure Fund	123,547						123,547
Total	**$ 81,454,068**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 81,454,068**

Project Code 926004	Outdoor Warning Sirens Phase 2	Facilities

Project Description & Justification

With the growth in the southern portions of the City of Killeen, there are sound coverage gaps to the existing outdoor warning sirens. This request is to install three (3) additional Outdoor Warning Sirens based on findings from the most recent coverage study to ensure people who are outside during a severe weather incident can hear and heed warnings. These sirens will be placed in parks or other large open spaces where outdoor activities take place on a routine basis.





Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	256,000	-	-	-	-	$ 256,000	6 to 12 months
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 256,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 256,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
300 Governmental CIP Fund	$ -	$ 256,000	$ -	$ -	$ -	$ -	$ 256,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 256,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 256,000**

Project Status
☑ Planning
☐ Design
☐ Construction
Funding Status
☑ Funded
☐ Unfunded
☐ Partially Funded

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OTHER PROJECTS



PROJECT TYPE: OTHER PROJECTS

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
			-	-	-	-	-	-	-
		Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
	-	-	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	924009	Engineering Standards	50,000						50,000
2	924023	Electric Vehicle Charging Station	167,654						167,654
3	925003	Strategic Land Acquisition	500,000						500,000
4	925004	North Killeen Grocery Store Site Development	250,000						250,000
		Total	**$ 967,654**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 967,654**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
226 Tax Increment Fund	750,000						750,000
300 Governmental CIP Fund	167,654						167,654
390 Drainage Utility CIP Fund	50,000						50,000
Total	**$ 967,654**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 967,654**

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PARKS & RECREATION CAPITAL IMPROVEMENT PROGRAM



PROJECT TYPE: PARKS & RECREATION

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
			-	-	-	-	-	-	-
		Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
	-	-	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	280355	Phyllis Park Improvement	299,489						299,489
2	281350	Long Branch Pool Improvement	581,631						581,631
3	281355	Stewart Park Improvement	599,537						599,537
4	282350	Gap Sidewalk Improvement	931,178						931,178
5	284350	Conder Park	1,827,131						1,827,131
6	921020	Trail Lights	223,425						223,425
7	922002	NRP Group/PFC	82,001						82,001
8	922015	Westside Regional Park Development	46,000						46,000
9	923026	Park Development	4,801,954						4,801,954
10	924006	GC Bunker & Tee Renovation	3,173,340						3,173,340
11	924018	GC Retaining Wall	60,000						60,000
		Total	**$ 12,625,686**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 12,625,686**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
300 Governmental CIP Fund	5,125,686						5,125,686
306 Certificate of Obligation 2023	4,500,000						4,500,000
307 Certificate of Obligation 2025	3,000,000						3,000,000
Total	**$ 12,625,686**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 12,625,686**

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TECHNOLOGY CAPITAL IMPROVEMENT PROGRAM



PROJECT TYPE: TECHNOLOGY

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
1	Project Code 926005	Disaster Recovery Site	-	250,000	-	-	-	-	250,000
2	Project Code 926006	Fiber Network Facilities Connectivity	-	350,000	-	-	-	-	350,000
		Total	**$ -**	**$ 600,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 600,000**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
300 Governmental CIP Fund	-	600,000	-	-	-	-	600,000
Total	**$ -**	**$ 600,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 600,000**

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	921023	Police Records Management System	1,399,999						1,399,999
2	923015	ERP Software Upgrade	2,400,000						2,400,000
3	923038	Solid Waste Hardware Conversion	185,001						185,001
4	924010	Utility Collection Customer Information System	1,700,000						1,700,000
5	924014	IT Fiber Network Connection	149,000						149,000
6	925006	Network Hardware Replacement	300,000						300,000
7	925009	Emergency Operations Center (EOC) Systems	950,000						950,000
		Total	**$ 7,084,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 7,084,000**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
300 Governmental CIP Fund	4,549,999						4,549,999
350 Water & Sewer CIP Fund	1,175,523						1,175,523
380 Solid Waste CIP Fund	728,106						728,106
627 IT Internal Service Fund	300,000						300,000
220 PEG Cable System Fund	200,000						200,000
390 Drainage Utility CIP Fund	130,372						130,372
Total	**$ 7,084,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 7,084,000**

Project Code 926005	Disaster Recovery Site	Technology

Project Description & Justification

The City's Information Technology Strategic Plan identified the need to improve disaster recovery efforts. While upgrades have been made to the network infrastructure, connectivity, security and back-up processes, this project will continue to work on disaster recovery improvements with the implementation of a redundant, off-site location to continue City operations in the case of an emergency or should City Hall become unusable. The implementation of a redundant, off-site location will allow the City to continue operating should Information Technology Facility becomes unusable during a disaster. This will also provide for a more secure and reliable back-up system



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	250,000	-	-	-	-	$ 250,000	6 to 12 months
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
300 Governmental CIP Fund	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ 250,000
	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [x] Funded
- [ ] Unfunded
- [ ] Partially Funded

Project Code 926006	Fiber Network Facilities Connectivity	Technology

Project Description & Justification

This project supports the construction of fiber optic network at the transfer station and Police Range, The City leases a fiber optic network from Lumen/CenturyLink that provides an institutional network (I-Net) connection to City facilities not currently connected to the City's fiber. Constructing the fiber optic network increase the connectivity to the transfer station and future Fleet location. Extensive research and evaluation of technological and market conditions shows that the construction of its own fiber optic network will lead to long-term savings and increased service capabilities. □



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	350,000	-	-	-	-	$ 350,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 350,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 350,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
300 Governmental CIP Fund	$ -	$ 350,000	$ -	$ -	$ -	$ -	$ 350,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 350,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 350,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

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TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM



PROJECT TYPE: TRANSPORTATION

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
1	Project Code 926007	Zephyr Road Reconstruction	-	3,500,000	350,000	-	-	14,050,000	17,900,000
2	Project Code 926008	Traffic Signal at the Intersection of Rosewood and Aspen	-	90,000	600,000	-	-	-	690,000
3	Project Code 926009	Traffic Signal Infrastructure Upgrade	-	861,120	447,782	465,693	484,321	-	2,258,916
4	Project Code 926010	TXDOT Underpass Painting	-	330,000	315,000	330,000	180,000	-	1,155,000
5	Project Code 923009	Rancier Drive Reconstruction	3,000,001	4,000,000	7,800,000	12,000,000	26,000,000	11,000,000	63,800,001
		Total	**$ 3,000,001**	**$ 8,781,120**	**$ 9,512,782**	**$ 12,795,693**	**$ 26,664,321**	**$ 25,050,000**	**$ 85,803,917**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
225 Street Maintenance Fund	-	3,500,000	350,000	-	-	14,050,000	17,900,000
300 Governmental CIP Fund	-	1,281,120	1,362,782	795,693	664,321	-	4,103,916
226 Tax Increment Fund	3,000,001	4,000,000	2,300,000	2,000,000	1,000,000	1,000,000	13,300,001
Unfunded	-	-	5,500,000	10,000,000	25,000,000	10,000,000	50,500,000
Total	**$ 3,000,001**	**$ 8,781,120**	**$ 9,512,782**	**$ 12,795,693**	**$ 26,664,321**	**$ 25,050,000**	**$ 85,803,917**

PROJECT TYPE: TRANSPORTATION

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	921026	Little Nolan - WS Young Traffic Signal	400,000						400,000
2	921033	Bunny Trail Improvement	676,265						676,265
3	921036	Street Lighting Project	1,431,000						1,431,000
4	922026	Gilmer Reconstruction	6,365,742						6,365,742
5	922027	Willow Springs Reconstruction	838,940						838,940
6	922028	Bunny Trail Reconstruction	9,433,940						9,433,940
7	922031	Watercrest Reconstruction	13,268,477						13,268,477
8	923003	Chaparral Road Widening	9,500,000						9,500,000
9	923012	Stagecoach Road Reconstruction	10,538,903						10,538,903
10	923016	Sidewalk Improvements	360,000						360,000
11	924015	Downtown Streetscape	300,001						300,001
12	925010	Featherline Reconstruction	11,390,000						11,390,000
13	925014	Mohawk Drive	8,940,600						8,940,600
		Total	**$ 73,443,868**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 73,443,868**

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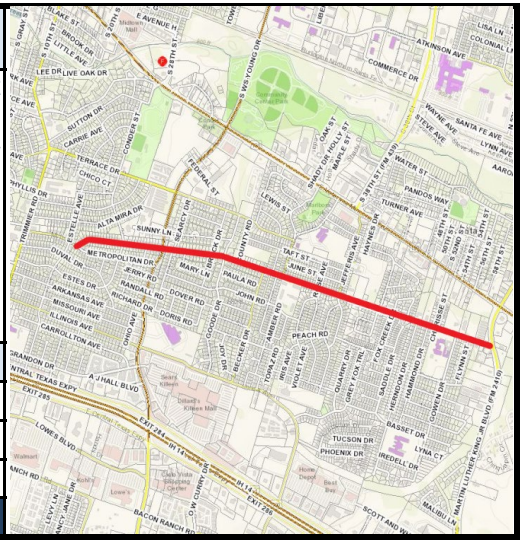
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Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
305 Certificate of Obligation 2022	26,729,135						26,729,135
307 Certificate of Obligation 2025	26,330,600						26,330,600
225 Street Maintenance Fund	9,447,772						9,447,772
300 Governmental CIP Fund	7,859,558						7,859,558
226 Tax Increment Fund	300,001						300,001
390 Drainage Utility CIP Fund	2,094,802						2,094,802
280 Child Safety Fund	360,000						360,000
303 Certificate of Obligation 2011	322,000						322,000
Total	**$ 73,443,868**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 73,443,868**

Project Code 926007	Zephyr Road Reconstruction	Transportation

Project Description & Justification

This project will reconstruct Zephyr Road from MLK to Metropolitan Drive. This project was listed as a priority street in the 2022 CIP list for Street Reconstruction. The roadway will be reconstructed as a 3-lane road section with a center turn lane to add safety for all driveway access along the roadway. The reconstruction will also include new sidewalks and upgraded ramps, street lighting, and street trees. This project will start with the design of the entire length of the 1.9 mile roadway. The construciton will follow as the street fees collected become available. The total estimate for this project is $17,900,000.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ 3,500,000	$ -	$ -	$ -	$ -	$ 3,500,000	2 to 3 years
Construction	-	-	-	-	-	14,050,000	$14,050,000	1 to 2 years
Land/ROW	-	-	350,000	-	-	-	$ 350,000	6 to 12 months
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 3,500,000**	**$ 350,000**	**$ -**	**$ -**	**$14,050,000**	**$17,900,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
225 Street Maintenance Fund	$ -	$ 3,500,000	$ 350,000	$ -	$ -	$14,050,000	$17,900,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 3,500,000**	**$ 350,000**	**$ -**	**$ -**	**$14,050,000**	**$17,900,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 926008	**Traffic Signal at the Intersection of Rosewood and Aspen**	Transportation

Project Description & Justification

This project will install a new traffic signal at the intersection of Rosewood and Aspen. This project is a result of a recent speed study that was performed along Rosewood at the request of City Council. The speed study justified the raising of the posted speed limit along Rosewood and indicated that this location needed additional studying for signal warrants. A warrant study was performed at this intersection, and showed to meet the warrant requirements. The main warrants for a traffic signal included sight distance and accident history. This project will install a new traffic signal and review the ADA access across as well as provide pedestrian signals.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	2,150	2,150	2,150	2,150
Capital	-	-	-	-	-
Total	**$ -**	**$ 2,150**	**$ 2,150**	**$ 2,150**	**$ 2,150**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ 90,000	$ 50,000	$ -	$ -	$ -	$ 140,000	6 to 12 months
Construction	-	-	550,000	-	-	-	$ 550,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 90,000**	**$ 600,000**	**$ -**	**$ -**	**$ -**	**$ 690,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
300 Governmental CIP Fund	$ -	$ 90,000	$ 600,000	$ -	$ -	$ -	$ 690,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 90,000**	**$ 600,000**	**$ -**	**$ -**	**$ -**	**$ 690,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

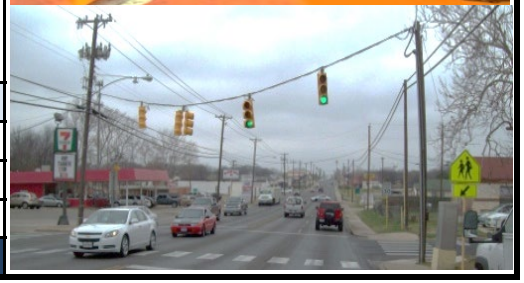
- [x] Funded
- [ ] Unfunded
- [ ] Partially Funded

Project Code 926009	Traffic Signal Infrastructure Upgrade	Transportation

Project Description & Justification

11 intersections, 1 upgraded due to vehicle accident, leaving 10 to upgrade all field wiring & cables, including signal heads, detection cameras & electrical disconnect box. Signals are 30+ years old & some do not have vehicle detection cameras for efficient traffic flow & communication to the Traffic Management Center (TMC). Signals have span wire & heads that are fraying, cracking, & dry rotted. Installation of vehicle detection cameras allow the system to communicate with the TMC, meet mandates set by the Federal Highway Adminsitration (FHWA), National Electrical Code (NEC), and Texas Manual of Uniformed Traffic Controll Devices (TXMUTCD). Quote $207,000,($215,280 4% increase) per intersection a request of 2 intersections per year. 4% annual increase due to inflation based on previous estimate increases





Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	861,120	447,782	465,693	484,321	-	$ 2,258,916	4 to 5 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 861,120**	**$ 447,782**	**$ 465,693**	**$ 484,321**	**$ -**	**$ 2,258,916**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
300 Governmental CIP Fund	$ -	$ 861,120	$ 447,782	$ 465,693	$ 484,321	$ -	$ 2,258,916
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 861,120**	**$ 447,782**	**$ 465,693**	**$ 484,321**	**$ -**	**$ 2,258,916**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

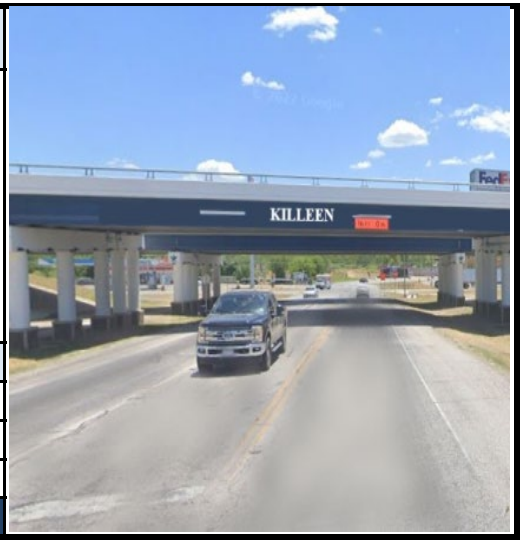
Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 926010	TXDOT Underpass Painting	Transportation

Project Description & Justification

This project includes painting the girders of the underpasses of Rosewood, Stan Schlueter, W.S. Young, Trimmier, South Fort Hood, and the overpasses of Willow Springs Road, and Clear Creek. The painting will include a solid color background and graphics representing the City of Killeen. This work will be in coordination permitting with TXDOT since all these locations are within TXDOT Right-of-Way. Based on the most recent prices, each overpass would cost approximately $150,000 to paint.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ 30,000	$ -	$ -	$ -	$ -	$ 30,000	3 to 6 months
Construction	-	300,000	315,000	330,000	180,000	-	$ 1,125,000	3 to 4 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 330,000**	**$ 315,000**	**$ 330,000**	**$ 180,000**	**$ -**	**$ 1,155,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
300 Governmental CIP Fund	$ -	$ 330,000	$ 315,000	$ 330,000	$ 180,000	$ -	$ 1,155,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 330,000**	**$ 315,000**	**$ 330,000**	**$ 180,000**	**$ -**	**$ 1,155,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

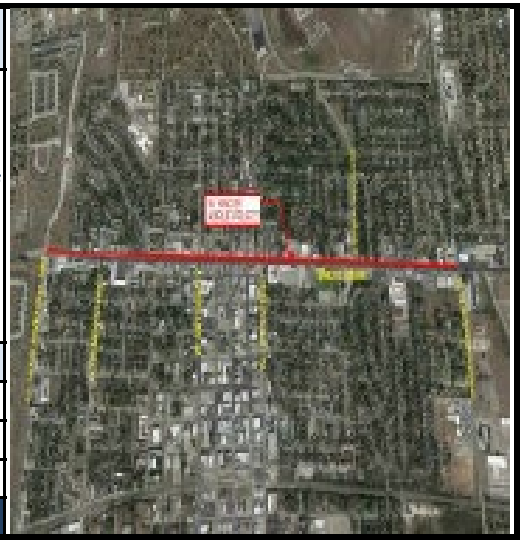
Funding Status

- [x] Funded
- [ ] Unfunded
- [ ] Partially Funded

Project Code 923009	Rancier Drive Reconstruction	Transportation

Project Description & Justification

The project involves reconstructing approximately 2.5 miles of the existing 4-lane roadway, including full-depth pavement, 6ft to 11ft sidewalks, underground drainage, upgraded traffic and pedestrian signals, utility relocation, lighting, and landscaping. This project is part of the downtown revitalization, aiming to improve arterial roadways to support all transportation modes and promote growth with safe access. The project also includes the replacement of aging water and sanitary sewer infrastructure.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	5,000
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ 5,000**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 3,000,001	$ 2,500,000	$ 2,300,000	$ 2,000,000	$ 1,000,000	$ 1,000,000	$ 11,800,001	1 to 2 years
Construction	-	-	4,000,000	10,000,000	25,000,000	10,000,000	$ 49,000,000	2 to 3 years
Land/ROW	-	1,500,000	1,500,000	-	-	-	$ 3,000,000	1 to 2 years
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 3,000,001**	**$ 4,000,000**	**$ 7,800,000**	**$12,000,000**	**$26,000,000**	**$11,000,000**	**$63,016,398**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
226 Tax Increment Fund	$ 3,000,001	$ 4,000,000	$ 2,300,000	$ 2,000,000	$ 1,000,000	$ 1,000,000	$ 13,300,001
Unfunded	-	-	5,500,000	7,408,000	25,000,000	10,000,000	$ 47,908,000
Unfunded	-	-	-	2,592,000	-	-	$ 2,592,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 3,000,001**	**$ 4,000,000**	**$ 7,800,000**	**$12,000,000**	**$26,000,000**	**$11,000,000**	**$63,016,398**

Project Status

- ☑ Planning
- ☑ Design
- ☐ Construction

Funding Status

- ☐ Funded
- ☐ Unfunded
- ☑ Partially Funded

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VEHICLES & EQUIPMENT CAPITAL IMPROVEMENT PROGRAM





PROJECT TYPE: VEHICLES & EQUIPMENT

Under Review	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
1	826300	Fleet Replacement Gov't CIP - FY 2026	-	3,770,699	-	-	-	-	3,770,699
2	826380	Fleet Replacement Solid Waste CIP - FY 2026	-	4,086,832	-	-	-	-	4,086,832
3	826350	Fleet Replacement Water & Sewer CIP - FY 2026	-	588,908	-	-	-	-	588,908
4	826390	Fleet Replacement Drainage CIP - FY 2026	-	238,224	-	-	-	-	238,224
5	826340	Fleet Replacement Aviation CIP - FY 2026	-	181,700	-	-	-	-	181,700
6	Project Code 924016	GRK IGSA Airfield Maintenance Bucket Truck	715,000	245,000	-	-	-	-	960,000
7	Project Code 926012	Limited Tax Note 2026 SCBA	-	4,420,467	-	-	-	-	4,420,467
		Total	**$ 715,000**	**$ 13,531,830**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 14,246,830**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
300 Governmental CIP Fund	-	3,770,699	-	-	-	-	3,770,699
380 Solid Waste CIP Fund	-	4,086,832	-	-	-	-	4,086,832
350 Water & Sewer CIP Fund	-	588,908	-	-	-	-	588,908
390 Drainage CIP Fund	-	238,224	-	-	-	-	238,224
340 Aviation CIP Fund	715,000	426,700	-	-	-	-	1,141,700
Limited Tax Note Series 2026 SCBA	-	4,420,467	-	-	-	-	4,420,467
Total	**$ 715,000**	**$ 13,531,830**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 14,246,830**

PROJECT TYPE: VEHICLES & EQUIPMENT

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	822300	Fleet Replacement Governmental CIP FY 2022	4,278,083						4,278,083
2	822390	Fleet Replacement Drainage CIP FY 2022	156,997						156,997
3	823300	Fleet Replacement Governmental CIP FY 2023	4,295,812						4,295,812
4	823350	Fleet Replacement Water & Sewer CIP FY 2023	665,013						665,013
5	823380	Fleet Replacement Solid Waste CIP FY 2023	3,112,105						3,112,105
6	824300	Fleet Replacement Governmental CIP FY 2024	3,192,344						3,192,344
7	824350	Fleet Replacement Water & Sewer CIP FY 2024	397,995						397,995
8	824380	Fleet Replacement Solid Waste CIP FY 2024	3,827,416						3,827,416
9	825300	Fleet Replacement Governmental CIP FY 2025	3,241,698						3,241,698
10	825340	Fleet Replacement Aviation CIP FY 2025	121,530						121,530
11	825350	Fleet Replacement Water & Sewer CIP FY 2025	743,327						743,327
12	825380	Fleet Replacement Solid Waste CIP FY 2025	3,287,526						3,287,526
13	825390	Fleet Replacement Drainage CIP FY 2025	203,566						203,566
14	923001	Limited Tax Note Series 2023	5,000,001						5,000,001
15	923017	New Pumper Station 4	971,508						971,508
16	925017	Fire Station 9 HVAC	773,500						773,500
17	925024	Fire Station 4 Generator*	332,493						332,493
18	925025	EOC Generator*	512,656						512,656
		Total	**$ 35,113,571**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 35,113,571**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
300 Governmental CIP Fund	22,598,095						22,598,095
380 Solid Waste CIP Fund	10,227,048						10,227,048
350 Water & Sewer CIP Fund	1,806,335						1,806,335
390 Drainage CIP Fund	360,563						360,563
340 Aviation CIP Fund	121,530						121,530
Total	**$ 35,113,571**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 35,113,571**

* After Proposed CIP is presented to the Council, these projects are added as FY 2025 projects by approval of CCMRs or MOD.

FY 2026 Fleet Replacement & Additions Detail

Governmental Fund

	Unit #	Description of Existing Unit	Division	Department	Project Code	Estimated Replacement Cost	Replacement Unit Description
1	00205	2004 Ford F350 CC 4WD	Fire	Fire	826300	90,420	3/4 T, CC, 4WD, Gas
2	00229	2008 Dodge 5500 Brush/Booster Truck #5	Fire	Fire	826300	335,846	Ford F-550, CC, Gas, 4WD, Skeeter BT
3	00263	2019 Ford Interceptor Explorer - Totaled	Fire	Fire	826300	91,000	1/2 T, CC, 4WD, Upfitted
4	00283	2013 Chevrolet Suburban	Fire	Fire	826300	91,000	1/2 T, CC, 4WD, Upfitted
5	02290	2018 Dodge 4500 Ambulance	Fire	Fire	826300	380,000	Ford F-450/Frazer Ambulance
6	04012	2008 Ford F250 4WD	Mowing	Public Works	826300	61,000	3/4 T, CC, SB, 4WD, Gas
7	03139	2013 Chevy Police Tahoe	Municipal Court	Finance	826300	116,435	Police Interceptor
8	00606	2008 Ford F250	Parks & Recreation	Parks & Recreation	826300	58,298	3/4 T, CC, LB, Gas
9	00922	2014 Chevrolet Silverado	Police	Police	826300	35,500	Equinox 1LS
10	00923	2014 Chevrolet Silverado	Police	Police	826300	38,500	Camry Hybrid
11	00925	2014 Chevrolet Equinox	Police	Police	826300	35,500	Equinox 1LS
12	00926	2014 Chevrolet Equinox	Police	Police	826300	48,000	Traverse
13	00927	2014 Chevrolet Equinox	Police	Police	826300	35,500	Equinox 1LS
14	00929	2014 Chevrolet Impala	Police	Police	826300	38,500	Camry Hybrid
15	00930	2014 Chevrolet Impala	Police	Police	826300	35,500	Equinox 1LS
16	00931	2014 Chevrolet Impala	Police	Police	826300	38,500	Camry Hybrid
17	00970	2012 Ford F250, CC	Police	Police	826300	61,000	3/4 T, CC, MB, Gas, 4WD
18	03146	2013 Chevy Police Tahoe	Police	Police	826300	116,435	Police Interceptor
19	03155	2013 Chevy Police Tahoe	Police	Police	826300	116,435	Police Interceptor
20	03156	2013 Chevy Police Tahoe	Police	Police	826300	116,435	Police Interceptor
21	03181	2017 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
22	03182	2017 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
23	03184	2017 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
24	03187	2019 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
25	03190	2019 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
26	03192	2019 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
27	03203	2019 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
28	03206	2019 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor

FY 2026 Fleet Replacement & Additions Detail							
29	03210	2019 Ford Police Interceptor Explorer	Police	Police	826300	116,435	Police Interceptor
30	00309	2007 Chevrolet C3500, RC, DRW, Dsl, FB	Transportation	Public Works	826300	72,510	1T, CC, DRW, Gas, 9' FB, 2-Tboxes
31	00325	2009 International 7400, Tandem Dump Truck	Transportation	Public Works	826300	179,000	Freightliner/Warren 13' Dump Body
32	00360	2012 International 4300 Tymco Sweeper	Transportation	Public Works	826300	359,470	Freightliner/Tymco Sweeper
33	**Add**	N/A - FY 26 Decision Package	Code Enforcement	Community Development	826300	32,000	Ford Escape or similar
34	**Add**	N/A - FY 26 Decision Package	Police	Police	826300	35,000	Ford Escape or similar
35	**Add**	N/A - FY 26 Decision Package	Police	Police	826300	35,000	Ford Escape or similar
36	**Add**	N/A - FY 26 Decision Package	Police	Police	826300	35,000	Ford Escape or similar
37	**Add**	N/A - FY 26 Decision Package	Police	Police	826300	35,000	Ford Escape or similar
Governmental Fund Total						**$3,770,699**	

Solid Waste Fund							
	Unit #	**Description of Existing Unit**	**Division**	**Department**		**Estimated Replacement Cost**	**Replacement Unit Description**
1	00470	2020 Autocar ACX64/McNeilus Front Loader	Commercial	Public Works - Solid Waste	826380	418,600	Battle/Wittke Front Loader
2	00491	2021 Autocar ACX64/McNeilus Front Loader	Commercial	Public Works - Solid Waste	826380	418,600	Battle/Wittke Front Loader
3	00498	2021 Autocar ACX64/Heil Front Loader	Commercial	Public Works - Solid Waste	826380	418,600	Battle/Wittke Front Loader
4	00428	2020 F-Liner M2106 Brush/Grapple Truck	Residential	Public Works - Solid Waste	826380	255,000	F-Liner/Peterson Brush/Grapple Truck
5	00429	2020 F-Liner M2106 Brush/Grapple Truck	Residential	Public Works - Solid Waste	826380	255,000	F-Liner/Peterson Brush/Grapple Truck
6	04076	2021 Autocar ACX64/Heil Auto Side Loader	Residential	Public Works - Solid Waste	826380	490,633	Battle/New Way Auto Side Loader
7	04077	2021 Autocar ACX64/Heil Auto Side Loader	Residential	Public Works - Solid Waste	826380	490,633	Battle/New Way Auto Side Loader
8	04078	2021 Autocar ACX64/Heil Auto Side Loader	Residential	Public Works - Solid Waste	826380	490,633	Battle/New Way Auto Side Loader
9	04080	2021 Autocar ACX64/Heil Auto Side Loader	Residential	Public Works - Solid Waste	826380	490,633	Battle/New Way Auto Side Loader
10	00479	1997 Mustang 2060 Skid Steer	Transfer Station	Public Works - Solid Waste	826380	69,000	Like Unit
11	00483	2108 Cat 938M Wheel Loader	Transfer Station	Public Works - Solid Waste	826380	289,500	Like Unit
Solid Waste Fund Total						**$4,086,832**	

FY 2026 Fleet Replacement & Additions Detail

Water & Sewer Fund

	Unit #	Description of Existing Unit	Division	Department		Estimated Replacement Cost	Replacement Unit Description
1	05011	2018 F-Liner 114SD w/CJ1200 Vacuum Truck	Sanitary Sewers	Public Works - W & S	826350	530,500	Sewer Cleaner
2	05010	2012 Chevrolet Colorado	Engineering	Engineering Svcs	826350	58,408	Like Unit
Water and Sewer Fund Total						**$588,908**	

Drainage Utility Fund

	Unit #	Description of Existing Unit	Division	Department		Estimated Replacement Cost	Replacement Unit Description
1	00071	2007 New Holland 95D 4WD w/Cab and 8' RC	Drainage	Public Works - Drainage	826390	88,397	Similar Unit w/Rotary Cutter
2	01082	2009 Chevrolet C3500, CC, 4WD, Dsl	Drainage	Public Works - Drainage	826390	92,827	1T, CC, DRW, UB, Dsl, 4WD, w/GN
3	01083	2010 Ford F-150 CC SB	Drainage	Public Works - Drainage	826390	57,000	1/2 T, CC, SB, V8, 4WD, w/Strobes
Drainage Utility Fund Total						**$238,224**	

Aviation Fund

	Unit #	Description of Existing Unit	Division	Department		Estimated Replacement Cost	Replacement Unit Description
1	00006	John Deere Gator	KFHRA (GRK)	Aviation	826340	19,900	John Deere Gator
2	00017	2012 Jeep Liberty	KFHRA (GRK)	Aviation	826340	61,000	1/T, CC, SB, V6, Strobes, Rack lts, & Radio
3	00020	Chevrolet 1500 4x2 RC SB	KFHRA (GRK)	Aviation	826340	61,000	1/T, CC, SB, V6, Strobes, Rack lts, & Radio
4	00032	John Deere Gator	KFHRA (GRK)	Aviation	826340	19,900	John Deere Gator
5	00034	John Deere Gator	KFHRA (GRK)	Aviation	826340	19,900	John Deere Gator
Aviation Fund Total						**$181,700**	

Total Funded - 58						**$8,866,363**	

Project Code 924016	GRK IGSA Airfield Maintenance Bucket Truck	Vehicles & Equipment

Project Description & Justification

The Airport currently lacks a bucket truck but must maintain buildings with high rooflines at Skylark Field and the Killeen Regional Airport. Additionally, a service agreement with Ft. Cavazos requires work at heights up to 60 feet. With increased responsibilities under the IGSA, relying on borrowed equipment is no longer feasible. This truck will enhance efficiency in maintaining airport facilities and fulfilling service obligations. Unlike most bucket trucks of this size, it does not require a CDL, allowing easier transport between job sites.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	551,674	245,000	-	-	-	-	$ 796,674	3 to 6 months
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	163,326	-	-	-	-	-	$ 163,326	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 715,000**	**$ 245,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 960,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
340 Aviation CIP Fund	$ 715,000	$ 245,000	$ -	$ -	$ -	$ -	$ 960,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 715,000**	**$ 245,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 960,000**

Project Status
☑ Planning
☐ Design
☐ Construction
Funding Status
☑ Funded
☐ Unfunded
☐ Partially Funded

Project Code 926012	Limited Tax Note 2026 SCBA	Vehicles & Equipment

Project Description & Justification

Purchase of 150 Self Contained Breathing Apparatus assemblies. Our current inventory was purchased in 2017 and is at end of life for frontline use. It also does not meet the newly released requirement update by the National Fire Protection Association. Replacement over multiple years is not feasible as the new SCBA components are placed in different locations than the current inventory. Component locations are critical to firefighter safety when working in an Immediately Dangerous to Life & Health (IDLH) atmosphere. Firefighters learn the location of all the components through training and muscle memory so they can safely operate the SCBA in zero visibility conditions. The new design will come with a Lifetime Warranty and be serviced and supported for as long as we own each SCBA.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	4,420,467	-	-	-	-	$ 4,420,467	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-		-	-	-	-		-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 4,420,467**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,420,467**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Limited Tax Note Series 2026 SCBA	$ -	$ 4,420,467	$ -	$ -	$ -	$ -	$ 4,420,467
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 4,420,467**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,420,467**

Project Status	
☑	Planning
☐	Design
☐	Construction
Funding Status	
☑	Funded
☐	Unfunded
☐	Partially Funded

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WATER & SEWER CAPITAL IMPROVEMENT PROGRAM



PROJECT TYPE: WATER & SEWER

Project Ranking	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
1	Project Code 921011	Water Meter Replacement Program	5,194,810	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	15,194,810
2	Project Code 922000	24-Inch Hwy 195 Waterline	15,968,873	2,375,000	-	-	-	-	18,343,873
3	Project Code 922021	Waterline Rehabilitation Phase 1-5	3,251,562	1,161,338	5,400,000	3,300,000	3,300,000	3,300,000	19,712,900
4	Project Code 923024	Lift Station No. 1 Rehabilitation	2,928,000	1,000,000	-	-	-	-	3,928,000
5	Project Code 923025	Sewer Line Rehabilitation - 10 Year Program	2,900,289	1,821,902	1,921,938	2,106,929	2,047,455	2,153,821	12,952,334
6	Project Code 925011	Water Storage Tank Asset Management	720,194	720,194	759,574	759,574	759,574	-	3,719,110
7	Project Code 926011	Motor Control Center Replacement	-	800,000	500,000	500,000	500,000	-	2,300,000
		Total	**$ 30,963,728**	**$ 9,878,434**	**$ 10,581,512**	**$ 8,666,503**	**$ 8,607,029**	**$ 7,453,821**	**$ 76,151,027**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Funded
354 Water & Sewer Impr 2020	2,624,933	-	-	-	-	-	2,624,933
350 Water & Sewer CIP Fund	14,994,855	7,503,434	10,581,512	8,666,503	8,607,029	7,453,821	57,807,154
355 Water & Sewer Impr 2025	13,343,940	-	-	-	-	-	13,343,940
351 Water Impact Fee	-	2,375,000	-	-	-	-	2,375,000
Total	**$ 30,963,728**	**$ 9,878,434**	**$ 10,581,512**	**$ 8,666,503**	**$ 8,607,029**	**$ 7,453,821**	**$ 76,151,027**

PROJECT TYPE: WATER & SEWER

CIP Projects - Approved FY 2025 Scheduled & Underway

	Project Code	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
1	918014	Chaparral Rd Wastewater Improvement	3,080,786						3,080,786
2	920016	Move Irrigation Pumps @GC	669,088						669,088
3	921015	SWS-Chaparral Pump Station	9,001,492						9,001,492
4	921035	Airport Pump Station Rehabilitation	1,923,218						1,923,218
5	922001	Hwy 195 Ground Storage Tank	5,780,915						5,780,915
6	922018	SCADA Upgrade	359,999						359,999
7	922020	Life Station No. 6 Rehabilitation & Expansion	7,818,360						7,818,360
8	922035	Trimmier Basin 12" Sewer	1,983,836						1,983,836
9	923023	Pump Station #2 Rehabilitation	2,599,906						2,599,906
10	923024	Lift Station #1 Rehabilitation	2,928,000						2,928,000
11	923025	Sewer Line Rehabilitation Phase 1-5	2,900,289						2,900,289
12	924007	NKR Area Sewer Rehab & Redev Incentive Program	388,540						388,540
13	924019	Water & Sewer 2024 Master Plan	252,001						252,001
14	925007	Reuse Water for Community Center Park	95,000						95,000
15	925011	Water Tank Maintenance Program	720,194						720,194
16	925018	12-Inch Featherline Water Repl	3,516,300						3,516,300
17	925019	12" Wastewater Trimmier Basin	3,450,500						3,450,500
18	925020	Dead-End Looping/Auto-Flushing	3,000,000						3,000,000
19	925021	Redevelop Utility Extensions	164,478						164,478
		Total	**$ 50,632,902**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 50,632,902**

Funding Sources	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total
350 Water & Sewer CIP Fund	14,244,597						14,244,597
355 W&S Improvement Bond 2025	21,369,570						21,369,570
354 W&S Improvement Bond 2020	13,639,097						13,639,097
352 Wastewater Impact Fee	1,233,836						1,233,836
353 W&S Improvement Bond 2013	145,802						145,802
Total	**$50,632,902**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 50,632,902**

Project Code 921011	Water Meter Replacement Program	Water & Sewer

Project Description & Justification

The installation of 10,000 "smart" water meters and radios are complete. The installation and startup of two advanced metering infrastructure (AMI) basestations are complete. Installation of the next 5,000 meters and radios will be complete in October 2025. Testing of replaced meters continues to show a meter efficiency of 93%. If a 93% meter efficiency is applied to the entire City, the water and sewer estimated annual revenue lost is $2M. The added AMI benefits are numerous for both customers and the City.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	5,194,810	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	$15,194,810	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 5,194,810**	**$ 2,000,000**	**$ 2,000,000**	**$ 2,000,000**	**$ 2,000,000**	**$ 2,000,000**	**$15,194,810**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ 5,194,810	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$15,194,810
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 5,194,810**	**$ 2,000,000**	**$ 2,000,000**	**$ 2,000,000**	**$ 2,000,000**	**$ 2,000,000**	**$15,194,810**

Project Status

- ☐ Planning
- ☐ Design
- ☑ Construction

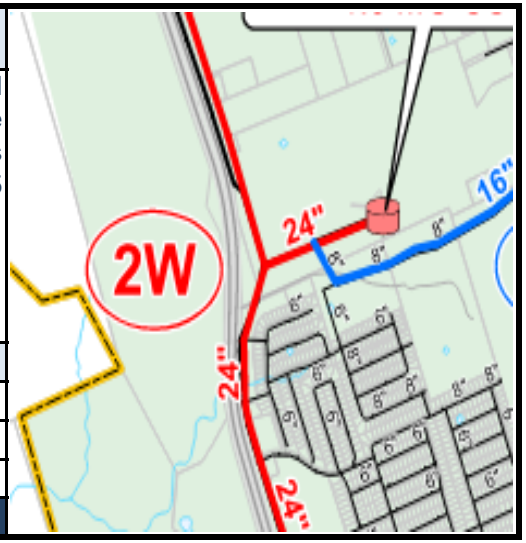
Funding Status

- ☐ Funded
- ☐ Unfunded
- ☑ Partially Funded

Project Code 922000	24-Inch Hwy 195 Waterline	Water & Sewer

Project Description & Justification

24-inch water transmission main along Chaparral Road and Highway 195 between the Chaparral Pump Station and Stagecoach Road. This transmission main is needed to convey water from the Chaparral Pump Station into the Upper Pressure Plan. It also provides transmission capacity to and from the proposed Highway 195 Tank. This is Project 1W and 2W in the 2024 Water and Wastewater Master Plan. Although this project was part of the FY 2025 CIP, additional funding is necessary based on revised construction estimates in the 2024 Master Plan.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 735,854	$ -	$ -	$ -	$ -	$ -	$ 735,854	1 to 2 years
Construction	15,233,019	2,375,000	-	-	-	-	$19,983,000	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$15,968,873**	**$ 2,375,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$20,718,854**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
354 Water & Sewer Impr 2020	$ 2,624,933	$ -	$ -	$ -	$ -	$ -	$ 2,624,933
355 Water & Sewer Impr 2025	13,343,940	-	-	-	-	-	$15,718,921
351 Water Impact Fee	-	2,375,000	-	-	-	-	$ 2,375,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$15,968,873**	**$ 2,375,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$20,718,854**

Project Status

- ☐ Planning
- ☑ Design
- ☑ Construction

Funding Status

- ☑ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 922021	Waterline Rehabilitation Phase 1-5	Water & Sewer

Project Description & Justification

With the VODA.ai assessment of all water mains in the city complete, all water mains are now prioritized from worst to best. The FY 2025 CIP approved Phase 1 of the rehabilitation/replacement of the 18 worst prioritized water mains. The FY 2026 CIP is requesting funding for Phase 2 of the water main rehabilitation/replacement program. This assessment, prioritization, and rehabilitation/replacement process will continue for years into the future. As water lines age, they need to be replaced or rehabilitated to maintain functionality.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 228,130	$ 100,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 1,528,130	6 to 12 months
Construction	3,023,432	1,061,338	5,100,000	3,000,000	3,000,000	3,000,000	$18,184,770	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 3,251,562**	**$ 1,161,338**	**$ 5,400,000**	**$ 3,300,000**	**$ 3,300,000**	**$ 3,300,000**	**$19,712,900**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ 3,251,562	$ 1,161,338	$ 5,400,000	$ 3,300,000	$ 3,300,000	$ 3,300,000	$19,712,900
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 3,251,562**	**$ 1,161,338**	**$ 5,400,000**	**$ 3,300,000**	**$ 3,300,000**	**$ 3,300,000**	**$19,712,900**

Project Status

- ☐ Planning
- ☑ Design
- ☑ Construction

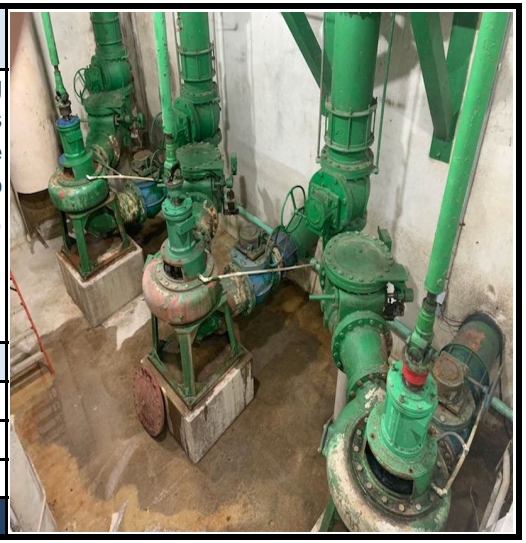
Funding Status

- ☐ Funded
- ☐ Unfunded
- ☑ Partially Funded

Project Code 923024	Lift Station No. 1 Rehabilitation	Water & Sewer

Project Description & Justification

Design of the Lift Station No. 1 Rehabilitation Project was approved in the FY 2024 CIP and construction funding was approved in FY 2025. This lift station was built in 1995 and is located at 106 North W.S. Young Drive. This project includes architectural, electrical, and mechanical improvements to this lift station that serves the northwestern part of the city. As wastewater lines and facilities age, assets need to be replaced or rehabbed to maintain functionality. The Engineer's Opinion of Construction Cost at the 60% design phase is $3.5M; therefore, $1M is needed in the FY 2026 CIP for construction cost.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 428,000	$ -	$ -	$ -	$ -	$ -	$ 428,000	1 to 2 years
Construction	2,500,000	1,000,000	-	-	-	-	$ 3,500,000	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 2,928,000**	**$ 1,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3,928,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ 2,928,000	$ 1,000,000	$ -	$ -	$ -	$ -	$ 3,928,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 2,928,000**	**$ 1,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3,928,000**

Project Status

- ☐ Planning
- ☑ Design
- ☐ Construction

Funding Status

- ☐ Funded
- ☐ Unfunded
- ☑ Partially Funded

Project Code 923025	Sewer Line Rehabilitation - 10 Year Program	Water & Sewer

Project Description & Justification

With the great success of the past 10-year sewer line rehabilitation program, the city has moved forward with the next 10-year program. The sanitary sewer evaluation survey (SSES) of Phase 1 is nearing completion. In FY 2025, funding for Phase 2 of SSES and Phase 1 of the rehabilitation to fix the problems found in Phase 1 of SSES was approved. In FY 2026, funding for Phase 3 of SSES and Phase 2 of rehabilitation is needed. As sewer lines age, they need to be replaced or rehabilitated to maintain functionality.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 1,302,000	$ 719,402	$ 764,313	$ 891,423	$ 771,173	$ 813,725	$ 5,315,995	6 to 12 months
Construction	1,598,290	1,102,500	1,157,625	1,215,506	1,276,282	1,340,096	$ 7,636,339	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 2,900,289**	**$ 1,821,902**	**$ 1,921,938**	**$ 2,106,929**	**$ 2,047,455**	**$ 2,153,821**	**$12,952,334**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ 2,900,289	$ 1,821,902	$ 1,921,938	$ 2,106,929	$ 2,047,455	$ 2,153,821	$12,952,334
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 2,900,289**	**$ 1,821,902**	**$ 1,921,938**	**$ 2,106,929**	**$ 2,047,455**	**$ 2,153,821**	**$12,952,334**

Project Status

- ☐ Planning
- ☑ Design
- ☐ Construction

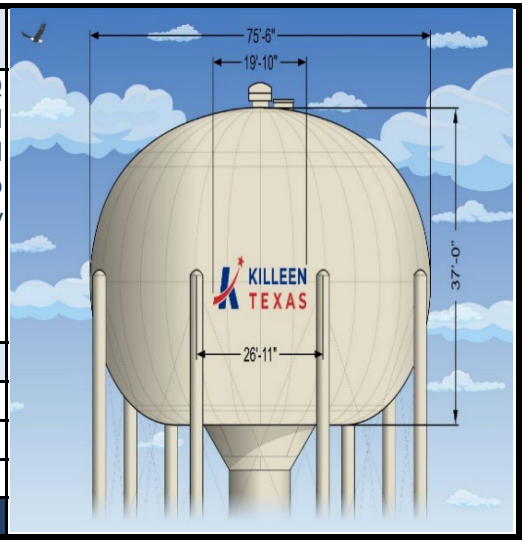
Funding Status

- ☐ Funded
- ☐ Unfunded
- ☑ Partially Funded

Project Code 925011	Water Storage Tank Asset Management	Water & Sewer

Project Description & Justification

This project is will provide a full asset management program for water storage tanks, which includes annual TCEQ inspections and detailed condition reporting, interior and exterior coating renovations, steel repair as needed, as well as any required engineering to secure mandated permitting through the TCEQ office for each individual project. It will also provide the needed coverage to meet the department's mission to proactively care for the City's water tanks to reduce overall long-term cost, improve aesthetics, and ensure our stored water continues to be clean and sanitary for the citizens and visitors of Killeen.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	325,677
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ 325,677**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	720,194	720,194	759,574	759,574	759,574	-	$ 3,719,110	4 to 5 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 720,194**	**$ 720,194**	**$ 759,574**	**$ 759,574**	**$ 759,574**	**$ -**	**$ 3,719,110**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ 720,194	$ 720,194	$ 759,574	$ 759,574	$ 759,574	$ -	$ 3,719,110
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 720,194**	**$ 720,194**	**$ 759,574**	**$ 759,574**	**$ 759,574**	**$ -**	**$ 3,719,110**

Project Status

- ☐ Planning
- ☐ Design
- ☑ Construction

Funding Status

- ☐ Funded
- ☐ Unfunded
- ☐ Partially Funded

Project Code 926011	Motor Control Center Replacement	Water & Sewer

Project Description & Justification

Replacement of motor control centers (MCC) at 4 pump stations and 7 lift stations that have reached or exceeded their life expectancy. Due to the extended age of our current MCC panels, replacement parts and various equipment, no longer adhere to the precise spacing requirements of these older panels. This discrepancy impedes the individual rehabilitation of each panel. To safeguard against potential negative impacts on current water and wastewater services and to effectively address future maintenance needs, a comprehensive replacement with up-to-date models is imperative.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ 300,000	$ -	$ -	$ -	$ -	$ 300,000	6 to 12 months
Construction	-	500,000	500,000	500,000	500,000	-	$ 2,000,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ 800,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ -**	**$ 2,300,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ -	$ 800,000	$ 500,000	$ 500,000	$ 500,000	$ -	$ 2,300,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ 800,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ -**	**$ 2,300,000**

Project Status

- ☐ Planning
- ☑ Design
- ☐ Construction

Funding Status

- ☐ Funded
- ☐ Unfunded
- ☐ Partially Funded

RETURN TO TABLE OF CONTENTS

FISCALLY CONSTRAINED PROJECTS



FISCALLY CONSTRAINED PROJECTS

Project Ranking	Project Type	Projects	Project Budget to Date	Planned 2026	2027	2028	2029	2030	Total Unfunded
1	Drainage	Flood Early Warning System	-	-	85,000	225,000	-	-	310,000
2	Drainage	Stewart Ditch Repair and Improvements	-	-	-	300,000	950,000	-	1,250,000
3	Facilities	New Lighting System Killeen Civic & Conference Center	-	-	520,000	-	-	-	520,000
4	Facilities	Police Academy Defensive Tactics Building & Gym	-	-	3,903,500	-	-	-	3,903,500
5	Facilities	Fire Administration Building	-	-	938,000	-	-	-	938,000
6	Facilities	Fire Station 6 Remodel	-	-	900,000	-	-	-	900,000
7	Facilities	Fire Training Tower Purchase	-	-	1,241,000	-	-	-	1,241,000
8	Facilities	Fire Station 7 Remodel	-	-	1,130,625	-	-	-	1,130,625
9	Parks & Recreation	Solar Light Package for 5 Parks	-	-	440,735	-	-	-	440,735
10	Parks & Recreation	Long Branch Park Multi-Purpose Fields	-	-	638,000	1,100,000	-	-	1,738,000
11	Parks & Recreation	Hunt Park Playground Replacement	-	-	170,000	-	-	-	170,000
12	Parks & Recreation	Junior League Splashpad Flooring Update	-	-	130,160	-	-	-	130,160
13	Parks & Recreation	Fowler Park Playground Replacement	-	-	130,000	-	-	-	130,000
17	Transportation	Quiet Zone Downtown Killeen Fort Hood to 28th Street	-	-	950,000	3,400,000	3,400,000	-	7,750,000
14	Transportation	City of Killeen Survey Reference Markers	-	-	400,000	-	-	-	400,000
15	Transportation	Traffic Signal at Rosewood and Fawn	-	-	90,000	600,000	-	-	690,000
16	Transportation	Traffic Signal Upgrade at Elms Road and S Fort Hood St	-	-	90,000	665,000	-	-	755,000
18	Transportation	Elms Road Sidewalk and Signal	-	-	230,000	200,000	2,060,000	-	2,490,000
19	Transportation	Traffic Signal at Ivy Mountain and Clear Creek	-	-	-	98,000	654,000	-	752,000
20	Transportation	Trimmier Road Widening	-	-	-	1,300,000	1,100,000	18,240,000	20,640,000
21	Vehicles & Equipment	KPD Mobile Command Post	-	-	297,068	-	-	-	297,068
22	Vehicles & Equipment	Fire Cardiac Monitor Purchase	-	-	1,633,606	-	-	-	1,633,606
23	Vehicles & Equipment	Fire HazMat Vehicle Purchase	-	-	1,710,000	-	-	-	1,710,000
24	Vehicles & Equipment	Fire Mobile Command Vehicle	-	-	388,000	-	-	-	388,000
25	Water & Sewer	Redevelopment Utility Extensions	171,548	-	400,000	200,000	200,000	200,000	1,000,000
26	Water & Sewer	Reuse Water for Community Center Park	95,000	-	630,000	-	-	-	630,000
27	Water & Sewer	18-in Wastewater Main Repl. in S. Nolan Creek Subbasin	-	-	572,900	3,818,800	-	-	4,391,700
28	Water & Sewer	20-inch Rodeo EST Transmission Line	-	-	678,600	4,524,000	-	-	5,202,600
		Total Unfunded	**$ 266,548**	**$ -**	**$ 18,297,194**	**$ 16,430,800**	**$ 8,364,000**	**$ 18,440,000**	**$ 61,531,994**

Project Code N/A	Flood Early Warning System	Drainage

Project Description & Justification

Purchase and install equipment to implement an early flood warning system for the city. This system would consist of a series of hazard arms, signage, warning lights, audible alarms, weather gauges, and IT hardware and software. The location and type of each would be dependent on the intensity of flooding at selected low water crossings and number of residents in a given area. The actual number of locations will depend on cost. There are approximately 35 low water crossings within the city of which 19 crossings have been identified as dangerous. The system monitors rainfall, water levels and low water crossings and alert drivers. This system improves community preparedness for extreme weather such as floods. This will be an important component of disaster risk management strategies.





Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	2,000	2,000	2,000
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ 2,000**	**$ 2,000**	**$ 2,000**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 85,000	$ -	$ -	$ -	$ 85,000	6 to 12 months
Construction	-	-	-	225,000	-	-	$ 225,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 85,000**	**$ 225,000**	**$ -**	**$ -**	**$ 310,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 85,000	$ 225,000	$ -	$ -	$ 310,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 85,000**	**$ 225,000**	**$ -**	**$ -**	**$ 310,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

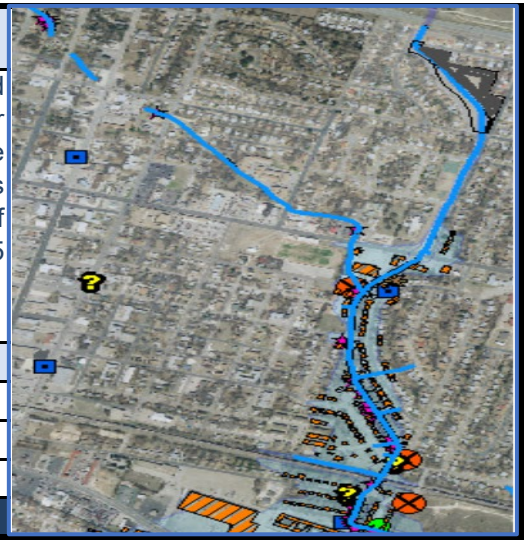
Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	Stewart Ditch Repair and Improvements	Drainage

Project Description & Justification

Repair severely damaged concrete channel and improve capacity. Stewart Ditch starts at Warrior Way and discharges into South Nolan Creek. The existing channel can handle only 10-year flow and overflow occurs at larger rain events. The engineering analysis will assess the conditions and determine areas where major repairs are necessary. The analysis will also list improvements to increase flow capacity. There are approximately 88 structures in the subject 100-year floodplain area. More severe and extensive damage will occur in future storm events if repairs are not made. This project is ranked # 1 in Stream Repair and Floodplain Improvements category and 5 overall in all categories in 2012 DMP. This project scope will be updated with the Drainage Master Plan update.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ 300,000	$ -	$ -	$ 300,000	1 to 2 years
Construction	-	-	-	-	950,000	-	$ 950,000	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ -**	**$ 300,000**	**$ 950,000**	**$ -**	**$ 1,250,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ -	$ 300,000	$ 950,000	$ -	$ 1,250,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ -**	**$ 300,000**	**$ 950,000**	**$ -**	**$ 1,250,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	New Lighting System Killeen Civic & Conference Center	Facilities

Project Description & Justification

The lighting system at the Killeen Civic & Conference Center is the original system from 2002. It operates on outdated technology, relying on a floppy disk for programming. Over the years, it has failed multiple times, and repairs have become increasingly difficult. The last time it broke, staff was informed that the system was at the end of its operational life, with no viable repair options left. This system controls lighting in ballrooms and key areas. If it fails, lighting will not be available, severely impacting events and revenue. Additionally, the manufacturer no longer supports or services it, making future failures unfixable. To prevent disruptions, K3C request $520,000 in funding to replace it with a modern, reliable system. This investment is critical to maintaining our event spaces' functionality marketability.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	2,500	2,500	2,500	2,500
Capital	-	-	-	-	-
Total	**$ -**	**$ 2,500**	**$ 2,500**	**$ 2,500**	**$ 2,500**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Construction	-	-	-	-	-	-	$ -	30 to 90 days
Land/ROW	-	-	-	-	-	-	$ -	
Equipment & Machinery	-	-	-	-	-	-	$ -	
Furniture & Fixtures	-	-	-	-	-	-	$ -	
Other/Contingency	-	-	520,000	-	-	-	$ 520,000	
Technology	-	-	-	-	-	-	$ -	
Total	**$ -**	**$ -**	**$ 520,000**	**$ -**	**$ -**	**$ -**	**$ 520,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 520,000	$ -	$ -	$ -	$ 520,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 520,000**	**$ -**	**$ -**	**$ -**	**$ 520,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

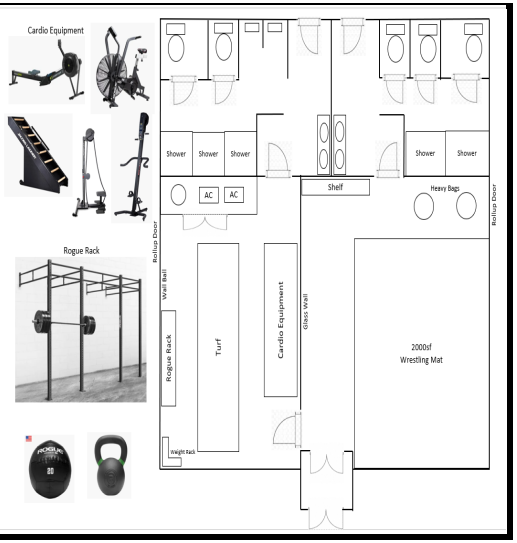
Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Police Academy Defensive Tactics Building & Gym	Facilities

Project Description & Justification

Create a multi-purpose room for defensive tactics training, gym, bathroom and showers. Currently there are no gym or shower facilities at the academy. The room will be used year round for additional classes. The cost will include a modular weight room.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	50,000	50,000	50,000	50,000
Capital	-	-	-	-	-
Total	**$ -**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 337,500	$ -	$ -	$ -	$ 337,500	1 to 2 years
Construction	-	-	2,250,000	-	-	-	$ 2,250,000	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	250,000	-	-	-	$ 250,000	1 to 2 years
Furniture & Fixtures	-	-	341,000	-	-	-	$ 341,000	1 to 2 years
Other/Contingency	-	-	675,000	-	-	-	$ 675,000	1 to 2 years
Technology	-	-	50,000	-	-	-	$ 50,000	1 to 2 years
Total	**$ -**	**$ -**	**$ 3,903,500**	**$ -**	**$ -**	**$ -**	**$ 3,903,500**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 3,903,500	$ -	$ -	$ -	$ 3,903,500
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 3,903,500**	**$ -**	**$ -**	**$ -**	**$ 3,903,500**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Fire Administration Building	Facilities

Project Description & Justification

Our Training Division and Academy will be moving to the new facility on S. Trimmier later in 2025. Our goal is to remodel the existing Academy Building, located at 207 S 28th St, into the Administration Building. This facility will house offices, break, conference, and training areas for Administrative personnel in one building. The vacated office space at Central Fire Station will be converted to a climate controlled fitness area, relocating the current fitness area that is taking up an indoor vehicle parking space on the apparatus bay floor which is not climate controlled. The vacated office space will also be converted to a firefighter PPE storage room, reducing exposure to sunlight and vehicle exhaust on the apparatus bay floor which reduces the life expectancy and protective capabilities of the costly PPE.





Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 10,000	$ -	$ -	$ -	$ 10,000	3 to 6 months
Construction	-	-	640,000	-	-	-	$ 640,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	100,000	-	-	-	$ 100,000	-
Technology	-	-	188,000	-	-	-	$ 188,000	3 to 6 months
Total	**$ -**	**$ -**	**$ 938,000**	**$ -**	**$ -**	**$ -**	**$ 938,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 938,000	$ -	$ -	$ -	$ 938,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 938,000**	**$ -**	**$ -**	**$ -**	**$ 938,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

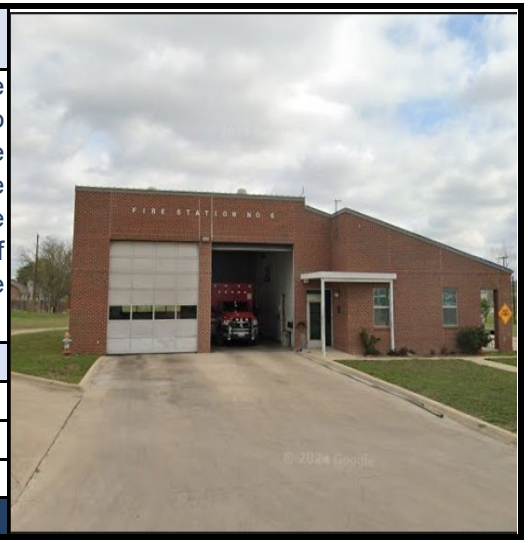
Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Fire Station 6 Remodel	Facilities

Project Description & Justification

Substantial remodel and addition to Fire Station #6 located at 2001 Elms Road. The project would include the remodel of existing living areas, kitchen and dining area. The shared sleeping quarters would be renovated to individual sleeping quarters, enhancing the privacy of both male and female firefighters. The addition of a drive through bay to the apparatus floor and climate-controlled area adjacent to the new apparatus bay will enhance safety: 1) Currently, the ambulance is required to back into its assigned bay. The drive-through bay will reduce the potential of vehicle damage. 2) Firefighter workout area would be moved into a climate-controlled space and out of the apparatus bay floor. 3) Firefighter PPE would be moved to a climate-controlled room which help sustain the life expectancy and protective capabilities of the costly PPE.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 120,000	$ -	$ -	$ -	$ 120,000	6 to 12 months
Construction	-	-	690,000	-	-	-	$ 690,000	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	75,000	-	-	-	$ 75,000	-
Technology	-	-	15,000	-	-	-	$ 15,000	-
Total	**$ -**	**$ -**	**$ 900,000**	**$ -**	**$ -**	**$ -**	**$ 900,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 900,000	$ -	$ -	$ -	$ 900,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 900,000**	**$ -**	**$ -**	**$ -**	**$ 900,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Fire Training Tower Purchase	Facilities

Project Description & Justification

We are requesting funding to build a Fire Training Tower to complete the Fire Training Facility. The fire department is currently using three metal shipping containers that were welded together and turned into an approximately 500 square foot live fire training area in 2004. The site has been rebuilt twice since the initial build and does not meet current NFPA standards for live fire training. The three-story tower at the Former Conder Park Fire Station is utilized by non-live fire training exercises only and has exceeded the original 50-year life expectancy. The fire academy and all training operations will be relocated to the new Fire Station #4 facility at 9200 Trimmier Road in September 2025. Besides being used to train our firefighters, the new training tower will have revenue potential as it can be offered to surrounding agencies to utilize for a fee.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	1,241,000	-	-	-	$ 1,241,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 1,241,000**	**$ -**	**$ -**	**$ -**	**$ 1,241,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 1,241,000	$ -	$ -	$ -	$ 1,241,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 1,241,000**	**$ -**	**$ -**	**$ -**	**$ 1,241,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	Fire Station 7 Remodel	Facilities

Project Description & Justification

Substantial remodel and addition to Fire Station #7 located at 3701 Watercrest Road. The project would include the remodel of existing living areas, kitchen and dining area. The shared sleeping quarters would be renovated to individual sleeping quarters, enhancing the privacy of both male and female firefighters. The addition of a drive through bay to the apparatus floor and climate-controlled area adjacent to the new apparatus bay will enhance safety: 1) Currently, the ambulance is required to back into its assigned bay. The drive-through bay will reduce the potential of vehicle damage. 2) Firefighter workout area would be moved into a climate-controlled space and out of the apparatus bay floor. 3) Firefighter PPE would be moved to a climate-controlled room which help sustain the life expectancy and protective capabilities of the costly PPE.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 189,000	$ -	$ -	$ -	$ 189,000	1 to 2 years
Construction	-		842,625	-	-	-	$ 842,625	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-		84,000	-	-	-	$ 84,000	-
Technology	-	-	15,000	-	-	-	$ 15,000	-
Total	**$ -**	**$ -**	**$ 1,130,625**	**$ -**	**$ -**	**$ -**	**$ 1,130,625**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
300 Governmental CIP Fund	$ -		$ 1,130,625	$ -	$ -	$ -	$ 1,130,625
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 1,130,625**	**$ -**	**$ -**	**$ -**	**$ 1,130,625**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Solar Light Package for 5 Parks	Parks & Recreation

Project Description & Justification

This project would include installation of 181 solar lights along 4 new park trails and in 3 parking lots at the Killeen Athletic Complex. Lights along new trails would create a larger and safer window of usable hours during the winter months when sunset is as early as 5:30PM and early evening hours of the summer months when temperatures are cooler. Lights installed in the parking lot areas would provide a safer setting for the hundreds of families that use these parking lots throughout the year for athletic league programs as well as tournament participants and spectators, aligning with the 2022 Killeen Parks and Open Space Mater Plan. Parking lot lights would also help Police Department identify vehicles present past park closing hours.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	45,250	-	-	-	$ 45,250	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	395,485	-	-	-	$ 395,485	6 to 12 months
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 440,735**	**$ -**	**$ -**	**$ -**	**$ 440,735**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 440,735	$ -	$ -	$ -	$ 440,735
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 440,735**	**$ -**	**$ -**	**$ -**	**$ 440,735**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Long Branch Park Multi-Purpose Fields	Parks & Recreation

Project Description & Justification

This project would consist of adding 5 multipurpose use sports fields to the east side of Long Branch park. Currently there are two end of life playgrounds and open space that is currently used for sports field practice. The creation of five multi-purpose use fields would permit many more local teams and athletic clubs an adequate and safe plain surface, aligning with the 2022 Killeen Parks and Open Space Mater Plan. The need for more unprogrammed sports fields was identified in the park's master plan and would greatly improve the look and usability of Long Branch Park. This project would be broken down in phases, with the last phase extending the already existing parking lot.





Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ 50,000	$ -	$ -	$ 50,000	30 to 90 days
Construction	-	-	440,000	950,000	-	-	$ 1,390,000	1 to 2 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	160,000	-	-	-	$ 160,000	6 to 12 months
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	38,000	100,000	-	-	$ 138,000	1 to 2 years
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 638,000**	**$ 1,100,000**	**$ -**	**$ -**	**$ 1,738,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 638,000	$ 1,100,000	$ -	$ -	$ 1,738,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 638,000**	**$ 1,100,000**	**$ -**	**$ -**	**$ 1,738,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Hunt Park Playground Replacement	Parks & Recreation

Project Description & Justification

Hunt Park has a main playground structure that was installed in 2002. This park & community needs a playground renovation to bring it back to life. This project would include new playground, safety surfacing, sidewalks, ADA accessible path, seating areas, a water fountain, and shade trees, aligning with the 2022 Killeen Parks and Open Space Mater Plan. It would also eliminate the risk of injuries associated with metal slides due to extremely high summer temperatures.





Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 10,000	$ -	$ -	$ -	$ 10,000	3 to 6 months
Construction	-	-	50,000	-	-	-	$ 50,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	110,000	-	-	-	$ 110,000	6 to 12 months
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 170,000**	**$ -**	**$ -**	**$ -**	**$ 170,000**	

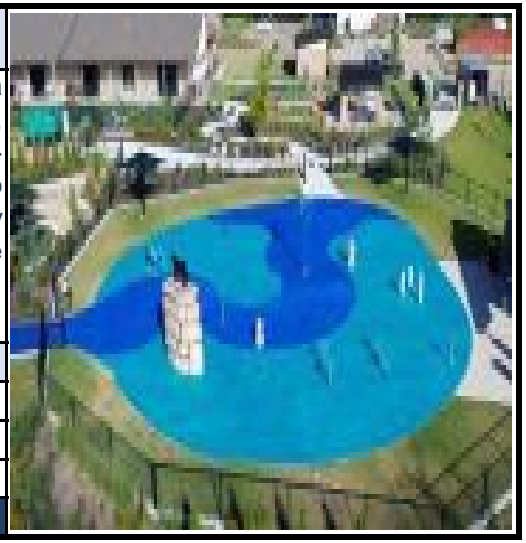
Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 170,000	$ -	$ -	$ -	$ 170,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 170,000**	**$ -**	**$ -**	**$ -**	**$ 170,000**

Project Status
☑ Planning
☐ Design
☐ Construction
Funding Status
☐ Funded
☑ Unfunded
☐ Partially Funded

Project Code N/A	Junior League Splashpad Flooring Update	Parks & Recreation

Project Description & Justification

The current splash pad flooring has suffered significant damage, likely due to improper installation, which poses a safety risk for visitors. Aquatile flooring minimizes slip and fall risks while providing cushioning that absorbs impact, ensuring safety for users of all ages, aligning with the 2022 Killeen Parks and Open Space Mater Plan. Its UV-stabilized tiles retain their slip resistance and color integrity even in intense sunlight, and they are engineered to withstand chemical exposure for easy cleaning. This project will use a sole source vendor and comes with a turnkey quote. With its unique features and aesthetic appeal, Aquatile is the ideal choice for enhancing the Junior League splash pad. During this project, we will address and repair the minor plumbing/drainage issues that have been found.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	20,000	-	-	-	$ 20,000	3 to 6 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	110,160	-	-	-	$ 110,160	3 to 6 months
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 130,160**	**$ -**	**$ -**	**$ -**	**$ 130,160**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 130,160	$ -	$ -	$ -	$ 130,160
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 130,160**	**$ -**	**$ -**	**$ -**	**$ 130,160**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Fowler Park Playground Replacement	Parks & Recreation

Project Description & Justification

Fowler Park had a main playground structure that reached it's end of life and was removed in April 2022. This park & community needs a playground renovation to bring it back to life, aligning with the 2022 Killeen Parks and Open Space Mater Plan. This project would include a new playground, safety surfacing, ADA accessible path, seating areas, a water fountain, and shade trees. We are currently working on a ninety-nine (99) year lease with St. Andrew's United Methodist Church that the park is adjacent to and owned by.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	20,000	-	-	-	$ 20,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	110,000	-	-	-	$ 110,000	6 to 12 months
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 130,000**	**$ -**	**$ -**	**$ -**	**$ 130,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 130,000	$ -	$ -	$ -	$ 130,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 130,000**	**$ -**	**$ -**	**$ -**	**$ 130,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Quiet Zone Downtown Killeen Fort Hood to 28th Street	Transportation

Project Description & Justification

This project will design and construct needed improvements at the intersections with the BNSF railroad at Fort Hood Street, College Street, 2nd Street, 4th Street, Gray Street, 8th Street, 10th Street, and 28th Street in order for a quiet zone through the downtown area. This will help eliminate the requirements by the railroad to sound the horn as they travel. This project will also improve each crossing with safety features to the public and vehicles. This project will pursue funding through the Grant Partnership Opportunities - SS4A, CRISI, and PIDP.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 950,000	$ 920,000	$ 920,000	$ -	$ 2,790,000	3 to 4 years
Construction	-	-	-	2,480,000	2,480,000	-	$ 4,960,000	2 to 3 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 950,000**	**$ 3,400,000**	**$ 3,400,000**	**$ -**	**$ 7,750,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 950,000	$ 3,400,000	$ 3,400,000	$ -	$ 7,750,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 950,000**	**$ 3,400,000**	**$ 3,400,000**	**$ -**	**$ 7,750,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

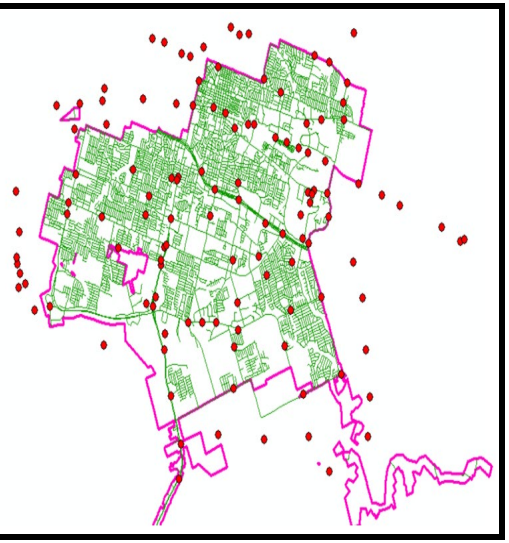
Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	City of Killeen Survey Reference Markers	Transportation

Project Description & Justification

Currently, the city does not have a well-defined network of survey monuments. The limited number that are installed throughout the city are also inconsistent with the datums that were used. This has resulted in a lack of and inconsistent information that can be used for all developments throughout the city. The benchmarks are utilized to ensure that all elevations and locations are accurately surveyed and consistent as it relates to real world coordinates and locations. This project will resurvey all existing monuments to bring them all to one consistent datum for reference and ensure they are all properly installed. The project will also look to add new monuments to the network for better coverage to allow surveying across the city be consistent and accurate.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 400,000	$ -	$ -	$ -	$ 400,000	6 to 12 months
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 400,000**	**$ -**	**$ -**	**$ -**	**$ 400,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 400,000	$ -	$ -	$ -	$ 400,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 400,000**	**$ -**	**$ -**	**$ -**	**$ 400,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Traffic Signal at Rosewood and Fawn	Transportation

Project Description & Justification

This project will install a new traffic signal at the intersection of Rosewood and Fawn. This project is a result of a speed study that was performed along Rosewood at the request of City Council. The speed study justified the raising of the posted speed limit along Rosewood and indicated that this location needed additional studying for signal warrants. A warrant study was performed at this intersection, and showed to meet the warrant requirements. The main warrants for a traffic signal included sight distance and accident history. This project will install a new traffic signal and review the ADA access across as well as provide pedestrian signals.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	2,150	2,150	2,150	2,150
Capital	-	-	-	-	-
Total	**$ -**	**$ 2,150**	**$ 2,150**	**$ 2,150**	**$ 2,150**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 90,000	$ 50,000	$ -	$ -	$ 140,000	6 to 12 months
Construction	-	-	-	550,000	-	-	$ 550,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 90,000**	**$ 600,000**	**$ -**	**$ -**	**$ 690,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -		$ 90,000	$ 600,000	$ -	$ -	$ 690,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 90,000**	**$ 600,000**	**$ -**	**$ -**	**$ 690,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

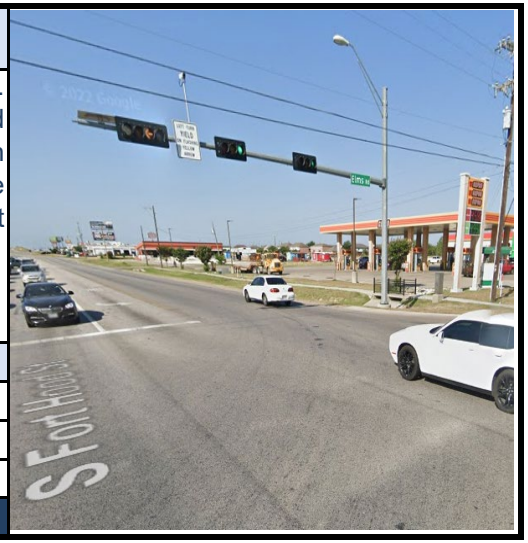
Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	Traffic Signal Upgrade at Elms Road and S Fort Hood Street	Transportation

Project Description & Justification

This project will install a new traffic signal and improve the intersection of Elms Road and South Fort Hood Street. This project will address the overall safety of the intersection. This locaton has a high amount of pedestrian related accidents that can be addressed with sidewalk and signal improvements. This project will be coordinated with TxDOT since South Fort Hood Street is a state route. The project will be submitted for a STIP Grant (State Transportation Improvement Program) and SSFA (Safe Streets for All) since this has been identified in the current KTMPO Plan that is being developed in association with the SSFA program.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	2,150	2,150	2,150	2,150
Capital	-	-	-	-	-
Total	**$ -**	**$ 2,150**	**$ 2,150**	**$ 2,150**	**$ 2,150**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 90,000	$ 15,000	$ -	$ -	$ 105,000	1 to 2 years
Construction	-	-	-	650,000	-	-	$ 650,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 90,000**	**$ 665,000**	**$ -**	**$ -**	**$ 755,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -		$ 90,000	$ 665,000	$ -	$ -	$ 755,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 90,000**	**$ 665,000**	**$ -**	**$ -**	**$ 755,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

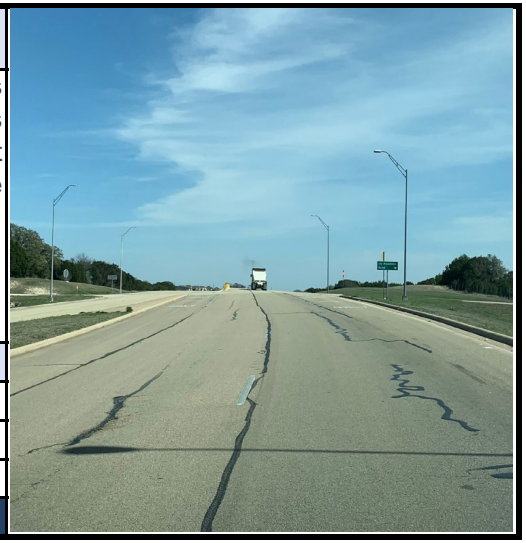
Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Elms Road Sidewalk and Signal	Transportation

Project Description & Justification

This project will install a new traffic signal at the intersection of Florence Road and Elms Road. In addition, this project will construct a new sidewalk between the intersection of Elms Road, Brenda Lane, and Hereford Lane. This project will connect the gap in the sidewalk along the north side of Elms Road between Trimmier Road and S. Fort Hood Street. This project will provide safe pedestrian access along Elms and a safe point to cross at the intersection of Elms Road and Florence Road.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	3,000
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3,000**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 230,000	$ 150,000	$ 60,000	$ -	$ 440,000	3 to 4 years
Construction	-	-	-	-	2,000,000	-	$ 2,000,000	1 to 2 years
Land/ROW	-	-	-	50,000	-	-	$ 50,000	6 to 12 months
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 230,000**	**$ 200,000**	**$ 2,060,000**	**$ -**	**$ 2,490,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 230,000	$ 200,000	$ 2,060,000	$ -	$ 2,490,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 230,000**	**$ 200,000**	**$ 2,060,000**	**$ -**	**$ 2,490,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	Traffic Signal at Ivy Mountain and Clear Creek	Transportation

Project Description & Justification

This project will install a new traffic signal at the intersection of Ivy Mountain and Clear Creek. This project is a result of a recent Traffic Study that was performed for an adjacent development. The study showed that the increase of project traffic from both the development and surrounding area showed a future need for a traffic signal in this location. The developer will be installing turn lane improvements at the current intersection to meet the immediate and future need as a result of the development and as part of their requirement mitigation. This project will install a new traffic signal and review the ADA access across as well as provide pedestrian signals.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	2,150	2,150
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ 2,150**	**$ 2,150**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ 98,000	$ 54,000	$ -	$ 152,000	1 to 2 years
Construction	-	-	-	-	600,000	-	$ 600,000	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ -**	**$ 98,000**	**$ 654,000**	**$ -**	**$ 752,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ -	$ 98,000	$ 654,000	$ -	$ 752,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ -**	**$ 98,000**	**$ 654,000**	**$ -**	**$ 752,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

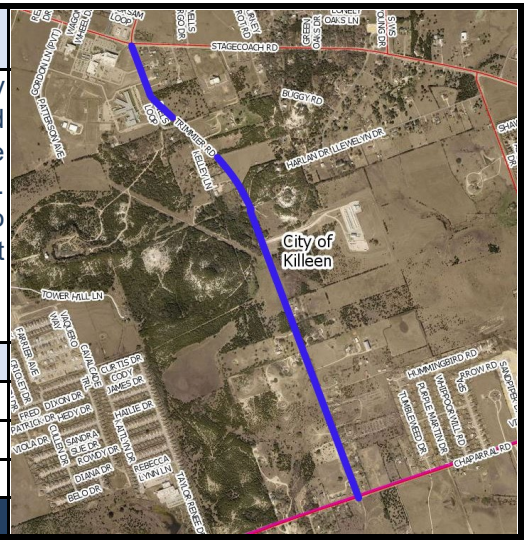
Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Trimmier Road Widening	Transportation

Project Description & Justification

This project will widen Trimmier Road from East Stagecoach Road to Chaparral Road. The project is approximately 1.9 miles in length. The project will widen the roadway to accommodate the necessary vehicle, pedestrian and bicycle traffic demands. The project will include pavement to meet the current city standards, 6' sidewalks, bike lanes, landscaping including street trees, underground drainage, and replacement of the crossing stream culverts. The roadway improvements will provide complete street access between Stagecoach and Chaparral Road to accommodate the increased use in the area. Project is planned to start construction in 2030. Total estimated project cost is $20,640,000.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ 1,300,000	$ 200,000	$ 300,000	$ 1,800,000	3 to 4 years
Construction	-	-	-	-	-	17,940,000	$17,940,000	2 to 3 years
Land/ROW	-	-	-	-	900,000	-	$ 900,000	1 to 2 years
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ -**	**$ 1,300,000**	**$ 1,100,000**	**$18,240,000**	**$20,640,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ -	$ 1,300,000	$ 1,100,000	$18,240,000	$20,640,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ -**	**$ 1,300,000**	**$ 1,100,000**	**$18,240,000**	**$20,640,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	KPD Mobile Command Post	Vehicles & Equipment

Project Description & Justification

Replace current command post with a new one to handle critical incidents. Advancements in technology, including communication systems, data analysis tools, and surveillance equipment, has rendered our current command post obsolete. Replacing it with a technologically advanced facility ensures that law enforcement can leverage the latest innovations for improved crime prevention and response. Can also be used by the Fire Department and EOC during incidents.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance		8,190	8,190	8,190	8,190
Capital	-	-	-	-	-
Total	**$ -**	**$ 8,190**	**$ 8,190**	**$ 8,190**	**$ 8,190**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	297,068	-	-	-	$ 297,068	1 to 2 years
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 297,068**	**$ -**	**$ -**	**$ -**	**$ 297,068**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 297,068	$ -	$ -	$ -	$ 297,068
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 297,068**	**$ -**	**$ -**	**$ -**	**$ 297,068**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code N/A	Fire Cardiac Monitor Purchase	Vehicles & Equipment

Project Description & Justification

Our current inventory of cardiac monitors is nearing end of life and technical support. We are requesting to purchase 24 new Monitor/Defibrillators to stock each front line ambulance and fire apparatus, 2 EMS Captain vehicles, and 2 spare units. The purchase would include a 4-year “Bumper-to-Bumper” maintenance agreement that would result in zero operational costs for any repair, software updates, and battery replacement. The agreement can be renewed in 4-year increments for the life of the monitors. The current maintenance contract for existing monitors costs $28,000 annually. Significant repairs are needed on the current inventory of monitors at least once per month. The current annual maintenance contract covers the cost of any repairs. The cardiac monitors are used on EMS patient contact at least 24,000 times each year.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	1,633,606	-	-	-	$ 1,633,606	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 1,633,606**	**$ -**	**$ -**	**$ -**	**$ 1,633,606**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 1,633,606	$ -	$ -	$ -	$ 1,633,606
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 1,633,606**	**$ -**	**$ -**	**$ -**	**$ 1,633,606**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

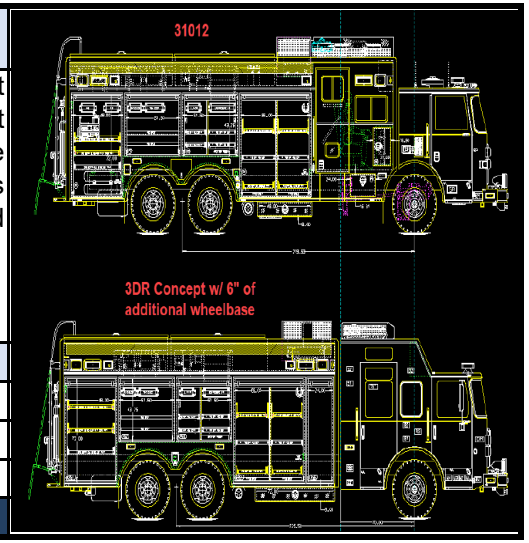
Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	Fire HazMat Vehicle Purchase	Vehicles & Equipment

Project Description & Justification

Currently KFD has an aging HazMat trailer which is hauled by a semi tractor. We are requesting a new single unit vehicle which will be equipped to respond to incidents involving hazardous materials. This would be on a “straight truck chassis” allowing anyone with a Class B license from Fire to deploy the unit. The current “tractor-trailer” type unit requires a Class A license which is more specialized and difficult to obtain with a limited number of employees currently holding the Class A type license. The Hazardous Materials team is a regional response team, recognized by the CTCOG, that covers west Bell County and adjacent counties up to, and including, San Saba County.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	1,710,000	-	-	-	$ 1,710,000	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 1,710,000**	**$ -**	**$ -**	**$ -**	**$ 1,710,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 1,710,000	$ -	$ -	$ -	$ 1,710,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 1,710,000**	**$ -**	**$ -**	**$ -**	**$ 1,710,000**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	Fire Mobile Command Vehicle	Vehicles & Equipment

Project Description & Justification

Currently the City does not own a Mobile Command Vehicle to provide on-site support. This unit will be a supplement to the smaller “Sprinter Van” Command Unit that was submitted by the Police Department and would be utilized at all special events with expected attendance greater than 1,000 people (currently more than 15 per year) as well as any large-scale incident or long-term incident lasting more than 8 hours. The unit will have the ability to tie into the Police Department Real Time Crime Center and have “plug & play” technology that would allow any command personnel to utilize their assigned laptop computer or mobile device at any of the workstations. This would be on a “straight truck chassis” allowing anyone with a Class B license from Fire, Police, or OHS&EM to deploy the unit.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	3,000	3,000	3,000	3,000
Capital	-	-	-	-	-
Total	**$ -**	**$ 3,000**	**$ 3,000**	**$ 3,000**	**$ 3,000**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
Construction	-	-	-	-	-	-	$ -	-
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	368,000	-	-	-	$ 368,000	1 to 2 years
Technology	-	-	20,000	-	-	-	$ 20,000	-
Total	**$ -**	**$ -**	**$ 388,000**	**$ -**	**$ -**	**$ -**	**$ 388,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 388,000	$ -	$ -	$ -	$ 388,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 388,000**	**$ -**	**$ -**	**$ -**	**$ 388,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

Project Code 925021	Redevelopment Utility Extensions	Water & Sewer

Project Description & Justification

This project is intended for small water and sanitary sewer projects to construct extensions for redevelopment projects within the revitalization areas of the City. There are several properties where there is no adequate water and sewer service available. This program at a relatively low cost allows for the City to be able to construct small extensions to promote enhanced and infill redevelopment in key revitalization areas across the City.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 29,070	$ -	$ 60,000	$ 30,000	$ 30,000	$ 30,000	$ 179,070	3 to 6 months
Construction	142,478	-	340,000	170,000	170,000	170,000	$ 992,478	6 to 12 months
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 171,548**	**$ -**	**$ 400,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 1,171,548**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ 171,548	$ -	$ -	$ -	$ -	$ -	$ 171,548
Unfunded	-	-	400,000	200,000	200,000	200,000	$ 1,000,000
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 171,548**	**$ -**	**$ 400,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 1,171,548**

Project Status

- ☐ Planning
- ☑ Design
- ☐ Construction

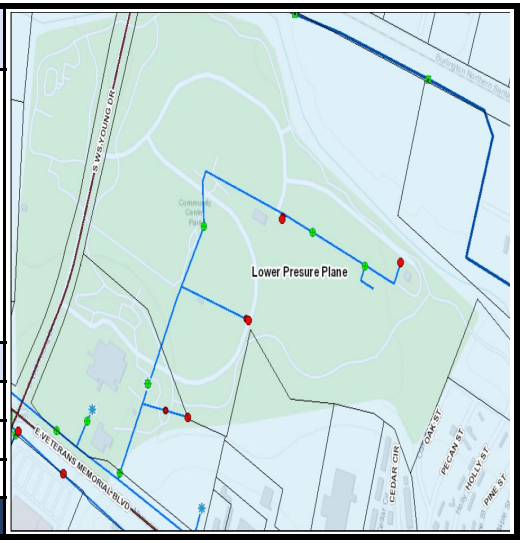
Funding Status

- ☐ Funded
- ☐ Unfunded
- ☑ Partially Funded

Project Code 925007	Reuse Water for Community Center Park	Water & Sewer

Project Description & Justification

This project will design and construct a new reuse water supply for the Killeen Community Center Park irrigation system. Project will include 3,300' of 8" reuse main, 2,000' of 4" distribution pipe, and a hydropneumatic system to provide irrigation system pressure. This new system will tie into the existing reuse water system at WCID's North Wastewater Treatment Plant. The use of reuse water to irrigate the Community Center Park will reduce Killeen's potable water demand which decreases the need for costly water treatment plant expansion projects.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ 95,000	$ -	$ -	$ -	$ -	$ -	$ 95,000	1 to 2 years
Construction	-	-	630,000	-	-	-	$ 630,000	2 to 3 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ 95,000**	**$ -**	**$ 630,000**	**$ -**	**$ -**	**$ -**	**$ 725,000**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
350 Water & Sewer CIP Fund	$ 95,000	$ -	$ -	$ -	$ -	$ -	$ 725,000
Unfunded	-	-	630,000	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ 95,000**	**$ -**	**$ 630,000**	**$ -**	**$ -**	**$ -**	**$ 725,000**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

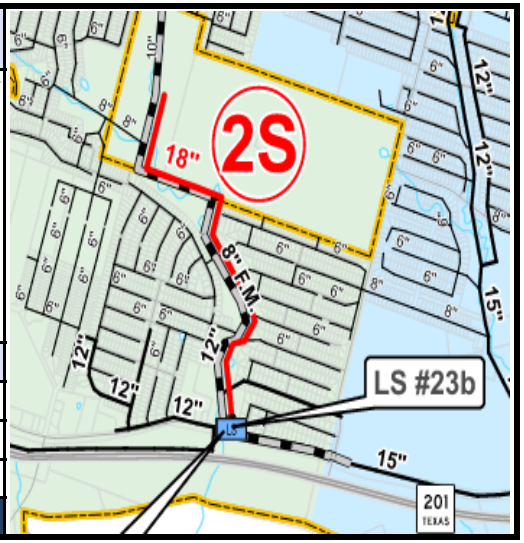
Funding Status

- [ ] Funded
- [ ] Unfunded
- [x] Partially Funded

Project Code N/A	18-inch Wastewater Main Replacement in S. Nolan Creek Subbasin	Water & Sewer

Project Description & Justification

The 2024 Water and Wastewater Master Plan includes Project 2S which will replace an existing 10/12" wastewater main that follows the creek north of Lift Station No. 23 with an 18" wastewater main. This upsizing of the existing wastewater main is needed to provide capacity to convey future peak wet weather flows from planned developments in the South Nolan Creek Subbasin.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 572,900	$ -	$ -	$ -	$ 572,900	1 to 2 years
Construction	-	-	-	3,818,800	-	-	$ 3,818,800	2 to 3 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 572,900**	**$ 3,818,800**	**$ -**	**$ -**	**$ 4,391,700**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 572,900	$ 3,818,800	$ -	$ -	$ 4,391,700
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 572,900**	**$ 3,818,800**	**$ -**	**$ -**	**$ 4,391,700**

Project Status

- ☑ Planning
- ☐ Design
- ☐ Construction

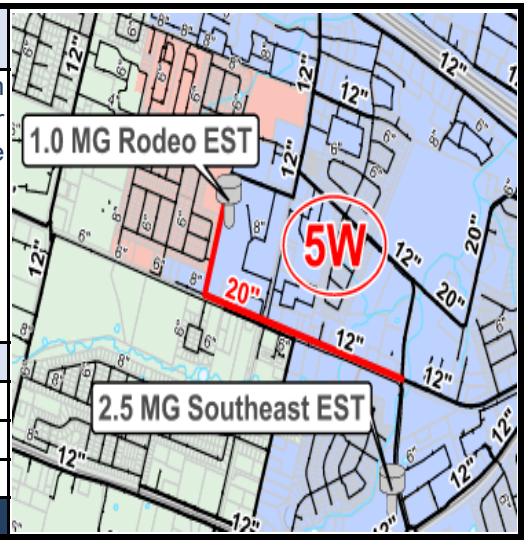
Funding Status

- ☐ Funded
- ☑ Unfunded
- ☐ Partially Funded

Project Code N/A	20-inch Rodeo EST Transmission Line	Water & Sewer

Project Description & Justification

The 2024 Water and Wastewater Master Plan includes Project 5W which will replace an existing 12" water main coming from Rodeo Elevated Storage Tank (EST) with a 20" transmission line. This upsizing of the existing water main is needed to improve connectivity in the Lower Pressure Plane (LPP) and allow Rodeo EST to operate more effectively with the other LPP ESTs.



Impact on Operating Budget	2026	2027	2028	2029	2030
Personnel	$ -	$ -	$ -	$ -	$ -
Operations/Maintenance	-	-	-	-	-
Capital	-	-	-	-	-
Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Project Costs	Budget to Date	Budget 2026	Future Fiscal Planning 2027	2028	2029	2030	Project Total	Schedule Duration
Design/Engineering	$ -	$ -	$ 678,600	$ -	$ -	$ -	$ 678,600	1 to 2 years
Construction	-	-	-	4,524,000	-	-	$ 4,524,000	2 to 3 years
Land/ROW	-	-	-	-	-	-	$ -	-
Equipment & Machinery	-	-	-	-	-	-	$ -	-
Furniture & Fixtures	-	-	-	-	-	-	$ -	-
Other/Contingency	-	-	-	-	-	-	$ -	-
Technology	-	-	-	-	-	-	$ -	-
Total	**$ -**	**$ -**	**$ 678,600**	**$ 4,524,000**	**$ -**	**$ -**	**$ 5,202,600**	

Source of Funds	Budget to Date	Budget 2026	Future Planning 2027	2028	2029	2030	Project Total
Unfunded	$ -	$ -	$ 678,600	$ 4,524,000	$ -	$ -	$ 5,202,600
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
-	-	-	-	-	-	-	$ -
Total	**$ -**	**$ -**	**$ 678,600**	**$ 4,524,000**	**$ -**	**$ -**	**$ 5,202,600**

Project Status

- [x] Planning
- [ ] Design
- [ ] Construction

Funding Status

- [ ] Funded
- [x] Unfunded
- [ ] Partially Funded

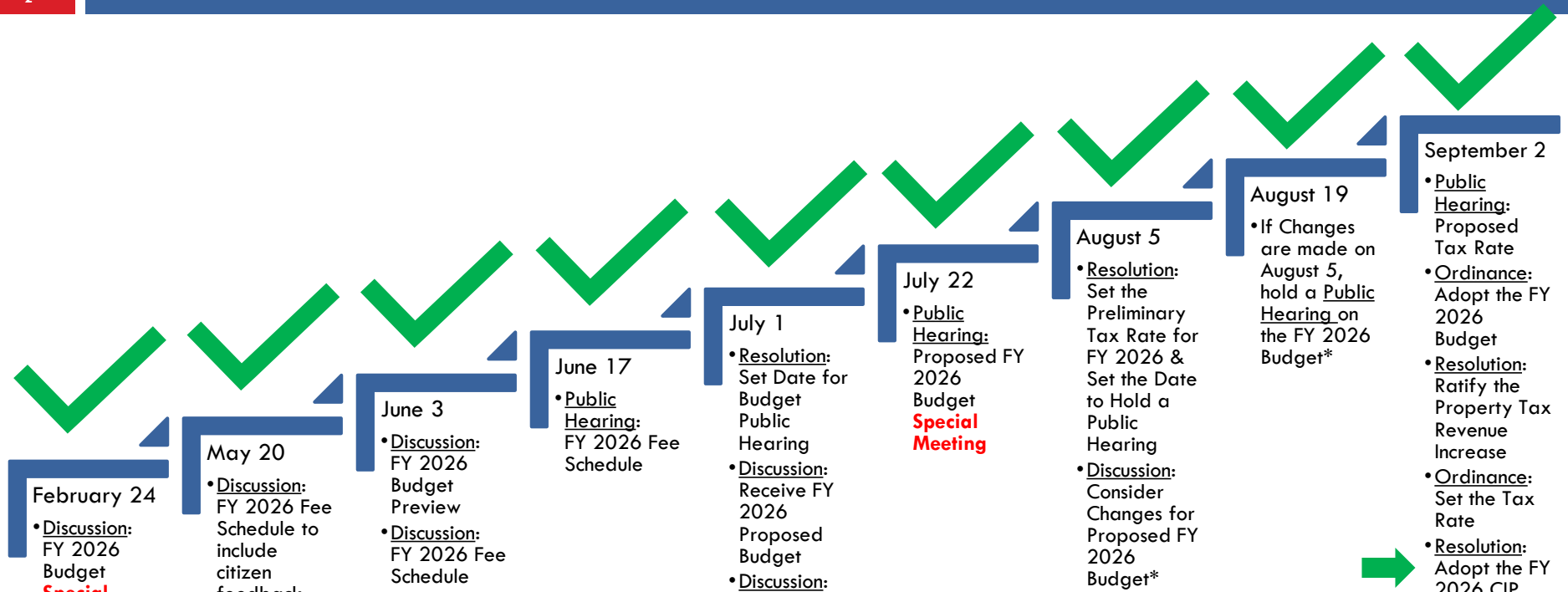
FY 2026 PROPOSED CIP

ADOPTION OF 5-YEAR CAPITAL IMPROVEMENT PROGRAM FOR FISCAL YEARS 2026 - 2030

RS-25-144

September 2, 2025

Budget Calendar



Background

- City Council adopted Capital Project Policies on April 10, 2018, requiring a 5-year CIP to be produced annually.
- Proposed 5-year CIP is developed based on master plans and departmental needs.
- This presentation provides an overview of recommended new projects and ongoing projects needing additional funding in FY 2026.
- Eligible projects include equipment, vehicles, facilities, and infrastructure with a value exceeding $100,000.
- Project categories: Aviation, Facilities, Parks & Recreation, Drainage, Transportation, Water & Sewer, Technology, Vehicles & Equipment, Other Projects, and Fiscally Constrained.

Project Funding Sources

Funding sources considered fall into one of the following categories:

- Fund Balance
  - Aviation CIP Funds
  - Governmental CIP Fund
  - Drainage CIP Fund
  - Solid Waste CIP Fund
  - Water and Sewer CIP Fund
  - Street Maintenance Fund
  - Tax Increment TIRZ Fund
- Grant/Reimbursement Programs
- Bonds
  - General Obligation
    - General Fund
    - Hotel Occupancy Tax Fund
    - Street Maintenance Fund
  - Revenue
    - Aviation Fund
    - Solid Waste Fund
    - Water and Sewer Fund
    - Drainage Utility Fund

CIP Summary by Type

Category	# of Projects/ Vehicles & Equipment Funded	FY 2026 Budget
Vehicles & Equipment	60	$13,531,830
Water & Sewer	7	9,878,434
Transportation	5	8,781,120
Aviation	3	4,100,000
Drainage	3	875,000
Technology	2	600,000
Facilities	1	256,000
Total	81	$38,022,384

CIP Summary by Fund

Category	FY 2026 Budget
Governmental CIP/Bond Funds	$13,828,286
Water & Sewer CIP/Bond/Impact Fee Funds	10,467,342
Aviation CIP & Grant Funds	4,526,700
Solid Waste CIP Fund	4,086,832
TIRZ Fund	4,000,000
Drainage CIP Fund	1,113,224
Total	$38,022,384

City of Killeen

Staff Report

File Number: RQ-25-008

Amend Parade & Assembly Ordinance (Chapter 25, Article V) to Enable Resource-Based Event Approval Framework

From:	Cecelia I. Dunbar
To:	Laura Calcote; Beatrice L. Canseco
Cc:	Kent Cagle; Laura Calcote
Subject:	FW: Future Agenda Request
Date:	Tuesday, August 19, 2025 3:16:06 PM
Attachments:	Outlook-ei0r5unu.png image001.png

Below please find a future agenda item request form from Councilmember Adams.

Please place on the September 2 agenda.

Cecelia Dunbar
Executive Administrative Assistant
City Manager's Office
City of Killeen
Phone: (254) 501-7700
cdunbar@killeentexas.gov
www.killeentexas.gov
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Dedicated Service - Every Day, for Everyone!

From: Riakos Adams <RAdams@killeentexas.gov>
Sent: Tuesday, August 19, 2025 10:58 AM
To: Cecelia I. Dunbar <CDunbar@killeentexas.gov>
Cc: Laurie Wilson <LWilson@killeentexas.gov>; Kent Cagle <kcagle@killeentexas.gov>
Subject: Future Agenda Request

REQUEST TO PLACE ITEM ON THE AGENDA

(Per Section 1-20 of Governing Standards and Expectations)

Requestor(s): Riakos Adams
Date: 8/19/2025

Problem / Issue / Idea Name for Agenda:
Amend Parade & Assembly Ordinance (Chapter 25, Article V) to Enable Resource-Based Event Approval Framework

Description of Problem / Issue / Idea:
Chapter 25, Article V of the Killeen Code of Ordinances restricts approval to a single parade or event at a time. This limitation unnecessarily constrains civic and cultural life. Peer Texas cities of comparable size—such as Denton, Tyler, Abilene, Round Rock, Beaumont, and McAllen—use multi-event permit systems that evaluate public safety, traffic management, staffing resources, and cost recovery to allow multiple events when feasible.

The **Killeen 2040 Comprehensive Plan** emphasizes “expanding events and programming” and “creating inviting public spaces” as central to downtown revitalization and community vibrancy. Maintaining a one-event-only restriction limits our ability to realize these adopted goals. A criteria-driven framework would allow multiple events when resources permit, enhancing cultural, civic, and economic vitality while safeguarding public safety and minimizing disruption.

Requested Action:
Place on the **September 2025** agenda an item to discuss and consider:

1. Repealing the “one event only” restriction in Chapter 25, Article V.
2. Establishing transparent approval criteria tied to public safety, traffic management, staffing, and cost recovery.
3. Authorizing the City Manager or designee to approve concurrent or overlapping events when those criteria are satisfied, including alternatives such as staggered times, adjusted routes, shared staging, or modified event footprints.

Yours In Service,

Riakos L. Adams

Mayor Pro Tem/Councilmember At Large

City of Killeen

Phone: (254) 501-7700

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