

City of Killeen
EOC and FS 4 - Training Campus
Killeen, Texas



Schematic Design Estimate
June 9, 2023



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RECAP SHEET

DISCIPLINE / SCOPE OF WORK	QUANTITY	UNIT	UNIT COST	MARK-UP APPLIED	PERCENT OF TOTAL	TOTAL
1. Total Construction Cost	40,790	SF	\$393.32	0%	60.8%	\$16,043,512
2. General Conditions	40,790	SF	\$27.53	7%	4.3%	\$1,123,046
3. Bonds & Insurance	40,790	SF	\$20.20	4%	3.1%	\$823,995
4. General Contractor Fee/Profit	40,790	SF	\$18.93	4%	4.1%	\$772,330
GENERAL CONTRACTORS'S CONSTRUCTION COST TOTAL	40,790	SF	\$459.99	15%	71.1%	\$18,762,883

DISCIPLINE / SCOPE OF WORK	QUANTITY	UNIT	UNIT COST	MARK-UP APPLIED	PERCENT OF TOTAL	TOTAL
5. Training Tower (FF-4) Owner Provided QUOTE	40,790	SF	\$20.84	0%	3.2%	\$850,000
6. Design/Surveying/Estimating Fees	40,790	SF	\$31.99	0%	4.9%	\$1,305,000
7. Owner Soft Cost (Testing, FF&E, etc.) Assumed 7.5% based on Owners Review Comments	40,790	SF	\$34.50	7.5%	5.3%	\$1,407,216
OWNERS COST TOTAL	40,790	SF	\$87.33	25%	13.5%	\$3,562,216
PROJECT COST (EXCLUDING ESCALATION, EST & DESIGN CONTINGENCY)	40,790	SF	\$547.32	35%	84.6%	\$22,325,099

DISCIPLINE / SCOPE OF WORK	QUANTITY	UNIT	UNIT COST	MARK-UP APPLIED	PERCENT OF TOTAL	TOTAL
8. Estimating & Design Contingency	40,790	SF	\$84.17	0%	13.0%	\$3,433,312
9. Escalation	40,790	SF	\$15.76	0%	2.4%	\$642,716
TOTAL PROJECT COST (INCLUDING ESCALATION, EST & DESIGN CONTINGENCY)	40,790	SF	\$647.25	84%	100.0%	\$26,401,127



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Schematic Design Estimate
June 9, 2023

SUMMARY SHEET - CONSTRUCTION COST

DISCIPLINE / SCOPE OF WORK	QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
1. General Requirements	40,790	SF	\$0.00	0.00%	\$0
2. Demolition	40,790	SF	\$0.31	0.06%	\$12,794
3. Concrete	40,790	SF	\$24.93	4.45%	\$1,016,800
4. Masonry	40,790	SF	\$10.68	1.91%	\$435,545
5. Metals	40,790	SF	\$38.41	6.86%	\$1,566,600
6. Wood, Plastics, and Composites	40,790	SF	\$19.34	3.45%	\$788,841
7. Thermal and Moisture Protection	40,790	SF	\$25.44	4.54%	\$1,037,661
8. Openings	40,790	SF	\$21.08	3.77%	\$859,945
9. Finishes	40,790	SF	\$42.83	7.65%	\$1,747,079
10. Specialties	40,790	SF	\$4.55	0.81%	\$185,681
11. Equipment	40,790	SF	\$2.68	0.48%	\$109,183
12. Furnishings	40,790	SF	\$3.30	0.59%	\$134,415
13. Special Construction	40,790	SF	\$28.16	5.03%	\$1,148,616
14. Conveying Systems	40,790	SF	\$2.70	0.48%	\$110,000
15. Fire Suppression	40,790	SF	\$0.00	0.00%	\$0
16. Plumbing	40,790	SF	\$14.01	2.50%	\$571,470
17. HVAC	40,790	SF	\$23.51	4.20%	\$958,854
18. Electrical	40,790	SF	\$31.92	5.70%	\$1,301,968
19. Communications	40,790	SF	\$4.16	0.74%	\$169,680
20. Electronic Safety and Security	40,790	SF	\$6.45	1.15%	\$262,975
21. Earthwork	40,790	SF	\$28.96	5.17%	\$1,181,315
22. Exterior Improvements	40,790	SF	\$44.15	7.89%	\$1,800,878
23. Utilities	40,790	SF	\$15.77	2.82%	\$643,213
Subtotal Construction Cost	40,790	SF	\$393.32	70.25%	\$16,043,512
24. General Conditions	40,790	SF	\$27.53	4.92%	\$1,123,046
25. Estimating & Design Contingency	40,790	SF	\$84.17	15.03%	\$3,433,312
26. Bonds & Insurance	40,790	SF	\$20.20	3.61%	\$823,995
27. Escalation	40,790	SF	\$15.76	2.81%	\$642,716
28. General Contractors Fee / Profit	40,790	SF	\$18.93	3.38%	\$772,330
29. Training Tower (FF-4) Owner Provided QUOTE			EXCLUDED, INCLUDED IN RECAP		
Total Construction Cost	40,790	SF	\$559.91	100.0%	\$22,838,910



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Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM	QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
1. General Requirements	40,790	SF	\$0.00		\$0
a. No Scope			Excluded, Included in General Conditions, etc.		
2. Demolition	40,790	SF	\$0.31		\$12,794
a. Remove and Replace Existing Asphalt Pavement	250	SF	\$14.25		\$3,563
b. Remove & Replace Existing Site Concrete - Allowance	1	LS	\$5,000.00		\$5,000
c. Remove Existing Trees Within Area	600	SF	\$3.50		\$2,100
d. Sawcut/Remove Existing Curb And Gutters	145	LF	\$2.15		\$312
e. Demolish & Dispose Asphalt Pavement	200	SF	\$9.10		\$1,820
3. Cast-In-Place Concrete	40,790	SF	\$24.93		\$1,016,800
3.1 FS 04 and EOC	25,070	SF	\$22.35		\$560,274
a. Piles					
Pile Drilling, auger 24" diameter (@ 20' depth)	26	EA	\$1,050.00		\$27,384
Pile reinforcing, ready-mix and pumping	26	EA	\$1,950.00		\$50,856
Pile Caps	26	EA	\$850.00		\$22,168
b. Grade Beams/Tie Beams					
Exterior Grade Beams & Tie Beams Formwork	4,806	SFCA	\$8.50		\$40,851
Exterior Grade Beams-Assumed 24" x 36" (3 - #7 cont. T&B & #4 Stirrups 12" o.c.)	8	TON	\$3,500.00		\$29,241
Exterior Grade Beams, Ready-mix, place and finish	196	CY	\$220.00		\$43,076
Interior Grade Beams & Tie Beams Formwork	8,582	SFCA	\$8.50		\$72,943
Interior Grade Beams Assumed 18" x 36" (2 - #6 cont. T&B & #4 Stirrups 12" o.c.)	14	TON	\$3,500.00		\$48,510
Interior Grade Beams Ready-mix, place and finish	318	CY	\$220.00		\$69,923
c. Slab on Grade - 5" at living spaces	11,455				
Bar Reinforcing, #3's at 15" O.C.E.W.	3	TON	\$3,500.00		\$12,068
Concrete - (5" thk., 3,000 PSI with 10% for Waste)	178	CY	\$175.00		\$31,183
Concrete Place and Finish	178	CY	\$26.50		\$4,722
Vapor barrier	11,455	SF	\$0.30		\$3,437
Curing	11,455	SF	\$0.30		\$3,437
d. Slab on Grade - 8" Apparatus Bay	4,850				
Bar Reinforcing, #4's at 12" O.C.E.W.	3	TON	\$3,500.00		\$11,373
Concrete - (8" thk., 4,000 PSI with 10% for Waste)	120	CY	\$205.00		\$24,672
Concrete Place and Finish	120	CY	\$26.50		\$3,189
Vapor barrier	4,850	SF	\$0.30		\$1,455
Curing	4,850	SF	\$0.30		\$1,455
e. Mis. Concrete					
Upper Level Floor Slab, 3" LWIC Floor	89	CY	\$250.00		\$22,331



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Schematic Design Estimate
June 9, 2023

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ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	Equipment/Mechanical Pads - Assuming (5) 20x20	2,000	SF	\$18.00		\$36,000
	3.2 Maintenance Building	16,885	SF	\$27.04		\$456,527
	a. Piles					
	Pile Drilling, auger 24" diameter (@ 20' depth)	20	EA	\$1,050.00		\$20,513
	Pile reinforcing, ready-mix and pumping	20	EA	\$1,950.00		\$38,095
	Pile Caps	20	EA	\$850.00		\$16,606
	b. Grade Beams/Tie Beams					
	Exterior Grade Beams & Tie Beams Formwork	4,200	SFCA	\$8.50		\$35,700
	Exterior Grade Beams-Assumed 24" x 36" (3 - #7 cont. T&B & #4 Stirrups 12" o.c.)	7	TON	\$3,500.00		\$25,554
	Exterior Grade Beams, Ready-mix, place and finish	171	CY	\$220.00		\$37,644
	Interior Grade Beams & Tie Beams Formwork	7,493	SFCA	\$8.50		\$63,686
	Interior Grade Beams Assumed 18" x 36" (2 - #6 cont. T&B & #4 Stirrups 12" o.c.)	11	TON	\$3,500.00		\$38,583
	Interior Grade Beams Ready-mix, place and finish	278	CY	\$220.00		\$61,050
	c. Slab on Grade - 5" at living spaces	5,055				
	Bar Reinforcing, #3's at 15" O.C.E.W.	2	TON	\$3,500.00		\$5,325
	Concrete - (5" thk., 3,000 PSI with 10% for Waste)	79	CY	\$165.00		\$12,975
	Concrete Place and Finish	79	CY	\$26.50		\$2,084
	Vapor barrier	5,055	SF	\$0.30		\$1,517
	Curing	5,055	SF	\$0.30		\$1,517
	d. Slab on Grade - 8" Apparatus Bay	7,155				
	Bar Reinforcing, #4's at 12" O.C.E.W.	5	TON	\$3,500.00		\$16,778
	Concrete - (8" thk., 4,000 PSI with 10% for Waste)	178	CY	\$205.00		\$36,398
	Concrete Place and Finish	178	CY	\$26.50		\$4,705
	Vapor barrier	7,155	SF	\$0.30		\$2,147
	Curing	7,155	SF	\$0.30		\$2,147
	e. Mis. Concrete					
	Upper Level Floor Slab, 3" LWIC Floor	48	CY	\$250.00		\$11,904
	Equipment/Mechanical Pads - Assuming (3) 20x20	1,200	SF	\$18.00		\$21,600
	4. Masonry	40,790	SF	\$10.68		\$435,545
	4.1 FS 04 and EOC	25,070	SF	\$11.62		\$291,265
	a. Limestone Veneer at Columns	1,280	SF	\$45.75		\$58,560
	b. Brick Veneer	8,075	SF	\$24.75		\$199,856
	c. Exterior 8" CMU	675	SF	\$19.85		\$13,399
	d. 8" CMU at Elevator	600	SF	\$18.25		\$10,950
	e. Dumpster Enclosure - Allowance	1	LS	\$8,500.00		\$8,500
	4.2 Maintenance Building	25,070	SF	\$5.76		\$144,280



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Schematic Design Estimate
June 9, 2023

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ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	8" CMU at Apparatus Bay, Exercise, PPE, Utility, Workroom, Exercise, PPE, Utility, Workroom, Decon,					
	a. Dumpster Enclosure	7,440	SF	\$18.25		\$135,780
	b. Dumpster Enclosure - Allowance	1	LS	\$8,500.00		\$8,500
5. Metals		40,790	SF	\$38.41		\$1,566,600
5.1 FS 04 and EOC		25,070	SF	\$51.64		\$1,294,583
	Structural Steel / Joist Framing at 2nd Floor - (Allowed					
	a. 8 Pounds per SF)	35	TON	\$3,800.00		\$133,304
	Connections, Baseplates, Gussets, Stiffeners, Lintels,					
	b. Bracing, Uplift Bridging, etc... (Allowed 15% of Weight)	5	TON	\$3,800.00		\$19,996
	c. Erection, Mobilization, Demobilization, etc.....	40	TON	\$2,200.00		\$88,752
	d. Composite Metal Floor Decking	88	SQ	\$525.00		\$46,043
	Structural Steel / Joist Framing at Roof - (Allowed 6					
	e. Pounds per SF)	71	TON	\$3,800.00		\$271,434
	Connections, Baseplates, Gussets, Stiffeners, Lintels,					
	f. Bracing, Uplift Bridging, etc... (Allowed 15% of Weight)	11	TON	\$3,800.00		\$40,715
	g. Erection, Mobilization, Demobilization, etc.....	82	TON	\$2,200.00		\$180,718
	h. Metal Roof Decking	238	SQ	\$495.00		\$117,860
	Secondary Stairs - Steel Framed with Concrete Filled					
	i. Metal Pans	372	LF RSR	\$325.00		\$121,024
	j. Secondary Stairs - Metal Guardrail & Handrails	255	LF	\$225.00		\$57,375
	k. Guardrails at Mezzanine	65	LF	\$285.00		\$18,525
	l. 6" Exterior Metal Stud Partition Framing	19,590	SF	\$10.15		\$198,839
5.2 Maintenance Building		16,885	SF	\$16.11		\$272,017
	Structural Steel / Joist Framing at 2nd Floor - (Allowed					
	a. 8 Pounds per SF)	19	TON	\$3,800.00		\$71,060
	Connections, Baseplates, Gussets, Stiffeners, Lintels,					
	b. Bracing, Uplift Bridging, etc... (Allowed 15% of Weight)	3	TON	\$3,800.00		\$10,659
	c. Erection, Mobilization, Demobilization, etc.....	22	TON	\$2,200.00		\$47,311
	d. Composite Metal Floor Decking	47	SQ	\$525.00		\$24,544
	Secondary Stairs - Steel Framed with Concrete Filled					
	e. Metal Pans	160	LF RSR	\$325.00		\$52,068
	f. Secondary Stairs - Metal Guardrail & Handrails	105	LF	\$225.00		\$23,625
	g. Guardrails at Mezzanine	150	LF	\$285.00		\$42,750
6. Wood, Plastics, and Composites		40,790	SF	\$19.34		\$788,841
6.1 FS 04 and EOC		23,750	SF	\$27.59		\$655,278



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Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
a.	Rough Carpentry - Allowance	40,790	SF	\$1.45		\$59,146
b.	Roof Underlayment	22,250	SF	\$9.50		\$211,375
c.	Sheathing at Exterior Wall	19,590	SF	\$2.50		\$211,375
d.	Rough Carpentry - Roof - Allowance	22,250	SF	\$2.80		\$62,300
e.	Millwork at Workroom					
	Base Cabinets, Plastic Laminate	20	LF	\$380.00		\$7,600
	Wall Cabinets, Plastic Laminate	20	LF	\$325.00		\$6,500
	Countertop, Plastic Laminate	20	LF	\$80.00		\$1,600
f.	Millwork at Kitchen					
	Base Cabinets, Plastic Laminate	35	LF	\$380.00		\$13,300
	Wall Cabinets, Plastic Laminate	18	LF	\$325.00		\$5,850
	Countertop, Stainless Steel					
g.	Millwork at Breakroom					
	Base Cabinets, Plastic Laminate	45	LF	\$380.00		\$17,100
	Countertop, Stainless Steel	45	LF	\$80.00		\$3,600
h.	Millwork at Copy/Supply and Study Rooms					
	Built-In Desk, Plastic Laminate, Concealed Carriers	397	LF	\$81.26		\$32,260
	Tall Cabinets Officer Dorms and Kitchen Work Areas	8	EA	\$1,500.00		\$12,000
	Laminate	65	LF	\$80.00		\$5,200
	Kitchen Island, Base Cabinet & Countertop	12	LF	\$506.00		\$6,072
6.2 Maintenance Building		17,040	SF	\$7.84		\$133,563
a.	Rough Carpentry - Allowance	17,040	SF	\$1.45		\$24,708
b.	Roof Underlayment	7,050	SF	\$9.50		\$66,975
c.	Rough Carpentry - Roof - Allowance	7,050	SF	\$2.80		\$19,740
d.	Built-In Desk, Plastic Laminate, Concealed Carriers	125	LF	\$84.00		\$10,500
e.	Tall Cabinets Officer Dorms and Kitchen Work Areas	5	EA	\$1,500.00		\$7,500
f.	Countertops at Restrooms and Laundry, Plastic Laminate	8	LF	\$80.00		\$640
g.	Work Bench	1	EA	\$3,500.00		\$3,500
7. Thermal and Moisture Protection		40,790	SF	\$25.44		\$1,037,661
7.1 FS 04 and EOC		25,070	SF	\$36.38		\$912,026
a.	Fluid Applied Moisture Barrier / Damp proofing at Exterior Wall	19,590	SF	\$2.25		\$44,078
b.	Fire, Moisture and Acoustical Caulking and Sealants - Allowance	25,070	SF	\$1.45		\$36,352
c.	Batt Insulation at Exterior Wall	19,590	SF	\$1.75		\$34,283
d.	2" Rigid Insulation at Exterior Wall	20,265	SF	\$2.50		\$50,663
e.	Vinyl Faced Ceiling Insulation at Apparatus Bay	4,845	SF	\$4.10		\$19,865



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Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	f. Standing Seam Metal Roof	23,810	SF	\$15.00		\$357,150
	g. Cap/Coping - Allowance	820	LF	\$35.00		\$28,700
	h. Metal Wall Panels	6,415	SF	\$22.50		\$144,338
	h. Exterior Metal Perforated Screen-Allowance	4,000	SF	\$40.00		\$160,000
	i. Interior Metal Wall Paneling at Apparatus Bay & Shop Areas	2,440	SF	\$15.00		\$36,600
	7.2 Maintenance Building	17,040	SF	\$7.37		\$125,635
	a. Fluid Applied Moisture Barrier / Damp proofing at Exterior Wall	11,350	SF	\$2.25		\$25,538
	b. Fire, Moisture and Acoustical Caulking and Sealants - Allowance	17,040	SF	\$1.45		\$24,708
	c. Vinyl Faced Ceiling Insulation at Apparatus Bay	7,090	SF	\$4.10		\$29,069
	d. Interior Metal Wall Paneling at Apparatus Bay & Shop Areas	3,088	SF	\$15.00		\$46,320
	8. Openings	40,790	SF	\$21.08		\$859,945
	8.1 FS 04 and EOC	25,070	SF	\$22.69		\$568,835
	a. Exterior Hollow Metal Doors 3'-0" x 7'-0"	7	EA	\$950.00		\$6,650
	b. Exterior Hollow Metal Frames 3'-0" x 7'-0"	7	EA	\$475.00		\$3,325
	c. Interior Hollow Metal Doors - 3'-0" x 7'-0"	12	EA	\$625.00		\$7,500
	d. Interior Pocket Doors 3'-0" x 7'-0"	15	EA	\$930.00		\$13,950
	e. Interior Wood Solid Core Doors 3'-0" x 7'-0"	47	EA	\$615.00		\$28,905
	f. Interior Hollow Metal Frames 3'-0" x 7'-0"	59	EA	\$425.00		\$25,075
	g. Exterior Storefront Entrance 3'-0" x 7'-0"	7	EA	\$4,200.00		\$29,400
	h. Hardware at Exterior Single Door Openings	7	EA	\$1,400.00		\$9,800
	i. Hardware at Interior Single Door Openings	74	EA	\$1,000.00		\$74,000
	j. Exterior Curtainwall - Allowance	835	SF	\$95.00		\$79,325
	k. Exterior Storefront - Allowance	1,405	SF	\$85.00		\$119,425
	l. Exterior Punched Openings	540	SF	\$50.00		\$27,000
	m. Overhead Door at Apparatus Bay, 14'-0" x 12' HT, Fully Glazed, Motorized	4	EA	\$15,120.00		\$60,480
	n. Bi-Folding Door at Apparatus Bay, 14'-0" x 14' HT, Fully Glazed, Motorized	4	EA	\$21,000.00		\$84,000
	8.2 Maintenance Building	17,040	SF	\$17.08		\$291,110
	a. Exterior Hollow Metal Doors 3'-0" x 7'-0"	4	EA	\$950.00		\$3,800
	b. Exterior Hollow Metal Frames 3'-0" x 7'-0"	4	EA	\$475.00		\$1,900
	c. Interior Hollow Metal Doors - 3'-0" x 7'-0"	15	EA	\$625.00		\$9,375
	d. Interior Wood Solid Core Doors 3'-0" x 7'-0"	11	EA	\$615.00		\$6,765
	e. Interior Hollow Metal Frames 3'-0" x 7'-0"	26	EA	\$425.00		\$11,050



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	f. Hardware at Exterior Single Door Openings	4	EA	\$1,400.00		\$5,600
	g. Hardware at Interior Single Door Openings	26	EA	\$1,000.00		\$26,000
	h. Exterior Punched Openings	144	SF	\$50.00		\$7,200
	i. Overhead Door at Apparatus Bay, 14'-0" x 14' HT, Fully Glazed, Motorized	3	EA	\$17,640.00		\$52,920
	j. Hangar Door, 50' x 18'-0" HT	1	EA	\$166,500.00		\$166,500
	9. Finishes	40,790	SF	\$42.83		\$1,747,079
	9.1 FS 04 and EOC	25,070	SF	\$57.81		\$1,449,357
	a. Flooring					
	Sealed Concrete at Apparatus Bay, Maintenance Bay, Storage, Supply, Shop, Riser, Gear Rooms, IT, Electrical	8,330	SF	\$2.85		\$23,741
	LVT Flooring at Corridors, Kitchen, Dayroom, Breakrooms, Laundry & , Lobbies	5,120	SF	\$5.95		\$30,464
	Tile Flooring at Restrooms & Changing	1,230	SF	\$12.50		\$15,375
	Carpet Flooring at Offices, Training	890	SY	\$45.00		\$40,050
	Rubber Flooring at Exercise room	850	SF	\$35.00		\$29,750
	b. Base					
	Tile Base at Restrooms	375	LF	\$6.15		\$2,306
	Rubber Base, Roppe 4"	4,230	LF	\$2.50		\$10,575
	c. Ceiling					
	Suspended Acoustical Tile System, 2' x 2'	13,975	SF	\$4.15		\$57,996
	Gypsum Ceiling at Restrooms, Showers, Etc.	1,230	SF	\$9.25		\$11,378
	d. Painting & Coatings					
	Interior Painting, CMU, Gypsum Walls, etc.	54,990	SF	\$1.85		\$101,732
	Paint Exposed Ceiling at Apparatus Bay & Exercise	8,330	SF	\$4.50		\$37,485
	e. Wall Surfacing					
	Ceramic Tile Walls at Restrooms, 9' Ht.	3,375	SF	\$15.50		\$52,313
	Ceramic Tile Walls at Kitchen Backsplash, 1'-6" Ht.	30	SF	\$15.50		\$465
	Corridor/Room Separation- Interior Metal Stud Wall Framing - Includes 3-5/8" Metal Stud, Insulation, 5/8" GWB, etc.	1,660	LF	\$128.25		\$212,895
	Shop/Bay- Interior Metal Stud Wall Framing - Includes 6" Metal Stud, Insulation, 5/8" GWB, etc.	4,545	LF	\$151.50		\$688,568
	Plumbing-Interior Metal Stud Wall Framing - Includes 3-5/8" Metal Stud, Insulation, 5/8" GWB, etc.	115	LF	\$190.40		\$21,896
	Interior Gypsum Wall Board Assembly at Exterior Wall	19,590	SF	\$5.50		\$107,745
	Acoustical Wall Panels at Training - Assumed 4' HT	185	SF	\$25.00		\$4,625



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June 9, 2023

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ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
9.2 Maintenance Building		17,040	SF	\$17.47		\$297,722
a.	Flooring					
	Sealed Concrete at Apparatus Bay, Maintenance Bay, Storage, Supply, Shop, Riser, Gear Rooms, IT, Electrical	12,490	SF	\$2.85		\$35,597
	VCT Flooring at Corridors, Kitchen, Dayroom, Breakrooms, Laundry, Janitor, Lobbies	2,720	SF	\$4.15		\$11,288
	Epoxy Flooring at Restrooms & Changing	140	SF	\$9.50		\$1,330
	Carpet Flooring at Offices, Training	87	SY	\$42.00		\$3,640
b.	Base					
	Rubber Base, Roppe 4"	2,305	LF	\$2.00		\$4,610
c.	Ceiling					
	Suspended Acoustical Tile System, 2' x 2'	3,335	SF	\$4.15		\$13,840
	Gypsum Ceiling at Restrooms, Showers, Etc.	140	SF	\$9.25		\$1,295
d.	Painting & Coatings					
	Interior Painting, CMU, Gypsum Walls, etc.	29,720	SF	\$1.85		\$54,982
	Paint Exposed Ceiling at Apparatus Bay & Support Spaces	12,655	SF	\$4.50		\$56,948
e.	Wall Surfacing					
	FRP Panels at Restrooms & Janitor	765	SF	\$8.50		\$6,503
	Corridor/Room Separation- Interior Metal Stud Wall Framing - Includes 3-5/8" Metal Stud, Insulation, 5/8" GWB, etc.	217	LF	\$128.25		\$27,830
	Plumbing-Interior Metal Stud Wall Framing - Includes 3-5/8" Metal Stud, Insulation, 5/8" GWB, etc.	26	LF	\$190.40		\$4,950
	Interior Gypsum Wall Board Assembly at Exterior Wall	13,620	SF	\$5.50		\$74,910
10. Specialties		40,790	SF	\$4.55		\$185,681
10.1 FS 04 and EOC		23,750	SF	\$6.86		\$162,950
a.	Restroom Accessories					
	36" Grab Bar	4	EA	\$86.25		\$345
	42" Grab Bar	4	EA	\$91.25		\$365
	L-Shaped Grab Bar at ADA Shower	2	EA	\$207.50		\$415
	Fold Down Shower Seat at ADA Shower	2	EA	\$685.00		\$1,370
	ADA Shower Threshold	2	EA	\$212.50		\$425
	Shower Curtain, Rod, Hooks - 3'	2	EA	\$150.00		\$300
	Shower Curtain, Rod, Hooks - 5'	6	EA	\$250.00		\$1,500
	Soap Dispenser	12	EA	\$165.00		\$1,980



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	Paper Towel Dispenser & Waste Receptacle Combo	12	LF	\$472.50		\$5,670
	Mirrors, 24" x 48"	11	EA	\$402.50		\$4,428
	Toilet Paper Dispenser	13	EA	\$167.50		\$2,178
	Sanitary Napkin Disposal	3	EA	\$50.00		\$150
	Robe Hook	9	EA	\$86.25		\$776
	Towel Bar	9	EA	\$75.00		\$675
	Broom & Mop Rack	1	EA	\$361.25		\$361
b.	Room Signage	61	EA	\$125.00		\$7,625
c.	Exterior Extruded Metal Letters "Emergency Operations Center Training Academy" - Allowance	40	EA	\$350.00		\$14,000
c.	Exterior Extruded Metal Letters "EOC" - Allowance	3	EA	\$2,500.00		\$7,500
d.	Exterior Extruded Metal Number "4" - Allowance	1	EA	\$2,500.00		\$2,500
f.	Fire Extinguisher, Recessed Cabinet	6	EA	\$500.00		\$3,000
g.	Projector & Screen at Training - Allowance	3	LS	\$6,000.00		\$18,000
h.	Corner Guards, Rigid Vinyl, 3" Wings, 8' HT	21	EA	\$161.25		\$3,386
i.	Markerboard, Best-Rite 4' x 6' at Training	3	EA	\$787.50		\$2,363
j.	Tackboard, Best-Rite 4' x 4' at Training	3	EA	\$387.50		\$1,163
k.	Enclosed Bulletin Board, Aarco 10-942, Illuminated, 4' x 8'	1	EA	\$4,170.00		\$4,170
l.	PPE Storage, Gear Grid Storage Units	110	EA	\$711.88		\$78,306
10.2 Maintenance Building		17,040	SF	\$1.33		\$22,731
a.	Restroom Accessories					
	36" Grab Bar	2	EA	\$86.25		\$173
	42" Grab Bar	2	EA	\$91.25		\$183
	L-Shaped Grab Bar at ADA Shower	2	EA	\$207.50		\$415
	Fold Down Shower Seat at ADA Shower	2	EA	\$685.00		\$1,370
	ADA Shower Threshold	2	EA	\$212.50		\$425
	Shower Curtain, Rod, Hooks - 5'	2	EA	\$250.00		\$500
	Soap Dispenser	2	EA	\$165.00		\$330
	Paper Towel Dispenser & Waste Receptacle Combo	2	EA	\$472.50		\$945
	Mirrors, 24" x 48"	2	EA	\$402.50		\$805
	Toilet Paper Dispenser	2	EA	\$167.50		\$335
	Sanitary Napkin Disposal	1	EA	\$50.00		\$50
	Robe Hook	2	EA	\$86.25		\$173
	Towel Bar	2	EA	\$75.00		\$150
	Broom & Mop Rack	1	EA	\$361.25		\$361



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	b. Room Signage	26	EA	\$125.00		\$3,250
	Exterior Extruded Metal Letters "Fire Station					
	c. Maintenance Hanger" - Allowance	28	EA	\$350.00		\$9,800
	f. Fire Extinguisher, Recessed Cabinet	5	EA	\$500.00		\$2,500
	h. Corner Guards, Rigid Vinyl, 3" Wings, 8' HT	6	EA	\$161.25		\$968
11. Equipment		40,790	SF	\$2.68		\$109,183
11.1 FS 04 and EOC		23,750	SF	\$2.12		\$50,420
	a. Kitchen Equipment	1	LS	\$30,700.00		
	Residential Range	1	EA	\$11,500.00		\$11,500
	Residential Range Hood	1	EA	\$1,700.00		\$1,700
	Refrigerator	5	EA	\$1,900.00		\$9,500
	Dishwasher	2	EA	\$1,300.00		\$2,600
	Ice Maker - Allowance	1	EA	\$5,400.00		\$5,400
	b. Laundry & PPE Equipment	1	LS	\$19,720.00		
	PPE Drying Cabinet	1	EA	\$16,500.00		\$16,500
	Residential Washer	1	EA	\$1,720.00		\$1,720
	Residential Dryer	1	EA	\$1,500.00		\$1,500
11.2 Maintenance Building		17,040	SF	\$3.45		\$58,763
	a. Kitchen Equipment	1	LS	\$21,800.00		
	Residential Range	1	EA	\$11,500.00		\$11,500
	Residential Range Hood	1	EA	\$1,700.00		\$1,700
	Refrigerator	1	EA	\$1,900.00		\$1,900
	Dishwasher	1	EA	\$1,300.00		\$1,300
	Ice Maker - Allowance	1	EA	\$5,400.00		\$5,400
	b. Laundry & PPE Equipment	1	LS	\$36,962.50		
	Commercial Extractor	3	EA	\$11,247.50		\$33,743
	Residential Washer	1	EA	\$1,720.00		\$1,720
	Residential Dryer	1	EA	\$1,500.00		\$1,500
12. Furnishings		40,790	SF	\$3.30		\$134,415
12.1 FS 04 and EOC		23,750	SF	\$4.60		\$109,350
	a. Kitchen & Breakroom Countertops, Stainless Steel	258	SF	\$255.00		\$65,790
	Restroom Quartz on Plywood Countertops & Plastic					
	b. Laminate Plumbing Enclosure	88	LF	\$495.00		\$43,560
12.2 Maintenance Building		17,040	SF	\$1.47		\$25,065
	a. Kitchen & Breakroom Countertops, Stainless Steel	75	SF	\$255.00		\$19,125



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	Restroom Quartz on Plywood Countertops & Plastic					
	b. Laminate Plumbing Enclosure	12	LF	\$495.00		\$5,940
13.	Special Construction	40,790	SF	\$28.16		\$1,148,616
	13.1 FS 04 and EOC	40,790	SF	\$7.42		\$302,575
	a. Cantilevered Canopies at EOC	1,705	SF	\$55.00		\$93,775
	b. Prefinished Metal (Wood Look) Soffit, Berridge FW-12	8,700	SF	\$24.00		\$208,800
	13.2 Maintenance Building	16,885	SF	\$41.68		\$703,805
	a. Pre-Engineered Metal Building					
	Clear Span Tapered Beam Frame, incl. misc. steel	17,040	SF	\$24.50		\$417,480
	Exterior Sheathing at Exterior Wall	13,620	SF	\$7.75		\$105,555
	Prefinished Gutters	200	LF	\$11.50		\$2,300
	Prefinished Downspouts	270	LF	\$16.50		\$4,455
	Trim & Fascia	450	LF	\$22.70		\$10,215
	Prefinished Metal Soffit, Berridge FW-12	250	SF	\$15.00		\$3,750
	b. Cantilevered Canopies at Maintenance Building	2,910	SF	\$55.00		\$160,050
	13.3 Classroom Building (PEMB)	1,410	SF	\$100.88		\$142,236
	a. Pre-Engineered Metal Building					
	Clear Span Tapered Beam Frame, incl. misc. steel	1,410	SF	\$20.00		\$28,200
	Metal Roofing (including Clear panels)	1,558	SF	\$7.50		\$11,685
	Prefinished Gutters	160	LF	\$10.00		\$1,600
	Prefinished Downspouts	120	SF	\$12.00		\$1,440
	Concrete Slab	1,558	SF	\$9.75		\$15,191
	Concrete Foundation	1,410	SF	\$21.50		\$30,315
	Propane Gas Tank - Assume 1000 Gln	1	EA	\$10,000.00		\$10,000
	Teaching Wall- Assumed 8" CMU Wall, 10' HT	500	SF	\$19.85		\$9,925
	Visual Aids (Projectors, Smart Boards, Markerboards, etc.	1	LS	\$8,500.00		\$8,500
	MEP - Fans, Light Fixtures & Power	1,410	SF	\$18.00		\$25,380
	13.4 Training Building/Tower	1,410	SF	\$0.00		\$0
	a. Pricing Quote- Fire Training Tower & Adjacent Site Props	Excluded, Assumed Owner Provided Pricing Quote				
14.	Conveying Systems	40,790	SF	\$2.70		\$110,000
	New Freight Elevators-Assumed Hydraulic 3,500 lb. - 2					
	a. Floors	1	EA	\$110,000.00		\$110,000
15.	Fire Suppression	40,790	SF	\$0.00		\$0
	a. Fire Sprinkler System, Wet Pipe System			Excluded, Assumed Not Required		



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
16. Plumbing		40,790	SF	\$14.01		\$571,470
16.1 FS 04 and EOC		23,750	SF	\$15.32		\$363,810
a.	Plumbing Fixtures					
	ADA/TAS Water Closet, Floor Mounted	4	EA	\$2,590.00		\$10,360
	Standard Water Closet, Floor Mounted	8	EA	\$2,495.00		\$19,960
	ADA/TAS Lavatory, Wall Hung	11	EA	\$2,255.00		\$24,805
	ADA/TAS Lavatory, Wall Hung, Stainless Steel at Dec	1	EA	\$2,590.00		\$2,590
	Kitchen Sink, Single, Stainless Steel, Drop-In	1	EA	\$2,195.00		\$2,195
	Kitchen Sink, Double, Stainless Steel, Drop-In	2	EA	\$3,000.00		\$6,000
	Mop Sink	1	EA	\$1,825.00		\$1,825
	3'-6"x5' Shower Stall	6	EA	\$4,500.00		\$27,000
	3'-6"x5' Shower Stall, Stainless Steel at Decon	1	EA	\$5,500.00		\$5,500
	3'x3' Shower Stall	2	EA	\$3,500.00		\$7,000
	ADA/TAS Electric Water Cooler, Dual Height with Bottle Filling Station	1	EA	\$3,050.00		\$3,050
	Eyewash Station	1	EA	\$7,500.00		\$7,500
b.	Water Heaters, 50 Gal. (Includes Recirculating Pumps)	1	EA	\$22,500.00		\$22,500
b(1)	Water Softener	1	EA	\$15,000.00		\$15,000
c.	Domestic Water Piping	1,735	LF	\$45.00		\$78,075
d.	Sanitary Waste and Vent Piping	580	LF	\$40.00		\$23,200
e.	Trench Drains at Apparatus Bay	150	LF	\$225.00		\$33,750
f.	Compressed Air System at Apparatus Bay (80 Gal. Tank, 5 HP, 2 Stage/3Phase) - Allowance	1	LS	\$15,000.00		\$15,000
j.	Precast Sand-Oil Interceptor (750 Gal.)	1	LS	\$55,000.00		\$55,000
l.	Grease Waste Line (Allowance)	175	LF	\$20.00		\$3,500
16.2 Maintenance Building		17,040	SF	\$12.19		\$207,660
a.	Plumbing Fixtures					
	ADA/TAS Water Closet, Floor Mounted	2	EA	\$2,590.00		\$5,180
	ADA/TAS Lavatory, Wall Hung	2	EA	\$2,255.00		\$4,510
	Kitchen Sink, Single, Stainless Steel, Drop-In	1	EA	\$2,195.00		\$2,195
	Kitchen Sink, Double, Stainless Steel, Drop-In	1	EA	\$3,000.00		\$3,000
	Mop Sink	2	EA	\$1,825.00		\$3,650
	3'-6"x5' Shower Stall	2	EA	\$4,500.00		\$9,000
	Eyewash Station	1	EA	\$7,500.00		\$7,500
b.	Water Heaters, 30 Gal. (Includes Recirculating Pumps)	1	EA	\$15,000.00		\$15,000
b(1)	Water Softener	1	EA	\$15,000.00		\$15,000



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	c. Domestic Water Piping	615	LF	\$45.00		\$27,675
	d. Sanitary Waste and Vent Piping	280	LF	\$40.00		\$11,200
	e. Trench Drains at Maintenance Building	150	LF	\$225.00		\$33,750
	f. Compressed Air System at Maintenance Bay (80 Gal. Tank, 5 HP, 2 Stage/3Phase) - Allowance	1	LS	\$15,000.00		\$15,000
	g. Precast Sand-Oil Interceptor (750 Gal.)	1	LS	\$55,000.00		\$55,000
17.	HVAC	40,790	SF	\$23.51		\$958,854
	17.1 FS 04 and EOC	23,750	SF	\$28.86		\$685,397
	a. DX Unit, (2TON) w/ Exhaust (Kitchen)	1	EA	\$6,500.00		\$6,500
	b. DX Units	35	TON	\$2,550.00		\$88,400
	c. Misc. Pads/ Enclosure	1	LS	\$15,000.00		\$15,000
	d. Ductless Mini Split, 2 Ton (IT)	1	EA	\$6,500.00		\$6,500
	e. Sheet Metal Ductwork, Flex Duct	9,075	LBS	\$10.50		\$95,288
	f. Sheet Metal Ductwork Insulation	6,806	SF	\$9.50		\$64,659
	g. Air Devices	16,500	SF	\$2.50		\$41,250
	h. Terminal Units (VVT at Dorms) & FCUs	14	EA	\$4,500.00		\$63,000
	h. Exhaust System & Ductwork- Apparatus Bay	4,595	SF	\$15.00		\$68,925
h(1.)	Mechanical Louver Allowance- Apparatus Bay	1	LS	\$20,000.00		\$20,000
	j. Exhaust Fans - Restroom, Kitchen, Fitness	1	LS	\$39,000.00		\$39,000
	l. Electric Unit Heaters (w/ heating element) at Apparatus Bay, Shop	5	EA	\$4,500.00		\$22,500
	m. Testing and Balancing	23,750	SF	\$2.00		\$47,500
	n. Controls & Instrumentation	23,750	SF	\$2.50		\$59,375
	o. Commissioning	23,750	SF	\$2.00		\$47,500
	17.2 Maintenance Building	17,040	SF	\$16.05		\$273,457
	a. DX Units	10	TON	\$2,550.00		\$24,707
	b. Ductless Mini Split, 2 Ton (Storage)	3	EA	\$4,500.00		\$13,500
	c. Sheet Metal Ductwork, Flex Duct	1,962	LBS	\$10.50		\$20,601
	d. Sheet Metal Ductwork Insulation	1,472	SF	\$9.50		\$13,979
	e. Air Devices	4,360	SF	\$2.50		\$10,900
	f. Exhaust System Allowance - Apparatus & Maintenance Building	7,060	SF	\$8.50		\$60,010
	g. Exhaust Fans - Restroom	2	LS	\$2,500.00		\$5,000
	h. Electric Unit Heaters (w/ heating element) at Maintenance Bay	4	EA	\$3,500.00		\$14,000
	i. Testing and Balancing	17,040	SF	\$2.00		\$34,080
	j. Controls & Instrumentation	17,040	SF	\$2.50		\$42,600
	k. Commissioning	17,040	SF	\$2.00		\$34,080
18.	Electrical	40,790	SF	\$31.92		\$1,301,968



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM	QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
18.1 FS 04 and EOC	23,750	SF	\$31.81		\$755,441
a. Electrical Power Distribution	23,750	SF	\$5.55		
400A, 208/120V 3 Wire Panel	1	EA	\$25,000.00		\$25,000
208Y/120V Panel Allowance	23,750	SF	\$2.50		\$59,375
Feeders: Conductors & Wire at Power Distribution Only Allowance	23,750	SF	\$2.00		\$47,500
b. Power Devices	228	EA	\$450.00		\$102,375
c. Power Devices, Heavy Duty	10	EA	\$650.00		\$6,500
d. Disconnects	10	EA	\$400.00		\$4,000
d. EOC Generator (Diesel) 250KW, Allowance	250	KW	\$450.00		\$112,500
175KW Load Bank	1	EA	\$18,500.00		\$18,500
e. Transformer (Dry Type, Single Phase, 25KVA) - Allowance	1	EA	\$25,000.00		\$25,000
f. Grounding	23,750	SF	\$1.00		\$23,750
g. Lightning Protection Allowance	23,750	SF	\$0.85		\$20,188
h. Light Fixtures: Interior Building Fixtures - Allowance					
Light Fixtures: Apparatus Bay - Allowance	18	EA	\$2,500.00		\$45,950
Light Fixtures: Exterior Building Fixtures - Allowance	10	EA	\$1,250.00		\$12,500
Light Fixtures: Dorms, Restrooms, Corridor	70	EA	\$750.00		\$52,477
Light Fixtures: Kitchen, Dayroom, Training, Exercise	68	EA	\$650.00		\$44,130
Light Fixtures: Offices, Conference, EOC	51	EA	\$650.00		\$33,180
Light Fixtures: Lobbies	10	EA	\$950.00		\$9,822
Light Fixtures: Support Spaces	49	EA	\$650.00		\$32,070
i. Light Fixtures: Parking Lot Poles (30' pole LED) - Allowance	6	EA	\$7,500.00		\$45,000
l. Lighting Controls - Allowance	23,750	SF	\$1.50		\$35,625
18.2 Maintenance Building	17,040	SF	\$32.07		\$546,527
a. Electrical Power Distribution	17,040	SF	\$5.97		
400A, 208/120V 3 Wire Panel	1	EA	\$25,000.00		\$25,000
208Y/120V Panel Allowance	17,040	SF	\$2.50		\$42,600
Feeders: Conductors & Wire at Power Distribution Only Allowance	17,040	SF	\$2.00		\$34,080
b. Power Devices	160	EA	\$450.00		\$72,180
c. Power Devices, Heavy Duty	10	EA	\$650.00		\$6,500
d. Disconnects	10	EA	\$400.00		\$4,000
d. Maintenance Building Generator (Diesel) 100KW, Allowance	100	KW	\$450.00		\$45,000
175KW Load Bank	1	EA	\$18,500.00		\$18,500



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	Transformer (Dry Type, Single Phase, 25KVA) -					
e.	Allowance	1	EA	\$25,000.00		\$25,000
f.	Grounding	17,040	SF	\$1.00		\$17,040
g.	Lightning Protection Allowance	17,040	SF	\$0.85		\$14,484
h.	Light Fixtures: Interior Building Fixtures - Allowance					
	Light Fixtures: Maintenance Bay - Allowance	28	EA	\$2,500.00		\$70,600
	Light Fixtures: Exterior Building Fixtures - Allowance	8	EA	\$1,250.00		\$10,000
	Light Fixtures: Dorms, Restrooms, Corridor	8	EA	\$750.00		\$6,023
	Light Fixtures: Breakroom	4	EA	\$650.00		\$2,290
	Light Fixtures: Offices	11	EA	\$650.00		\$7,410
	Light Fixtures: Support Spaces	116	EA	\$650.00		\$75,260
j.	Light Fixtures: Parking Lot Poles (30' pole LED) - Allowance	6	EA	\$7,500.00		\$45,000
i.	Lighting Controls - Allowance	17,040	SF	\$1.50		\$25,560
19. Communications		40,790	SF	\$4.16		\$169,680
19.1 FS 04 and EOC		23,750	SF	\$4.59		\$109,009
	Communications System, Equipment Additions, Connections, Conduit & Wire Allowance					
	A/V Data Ports (Only common areas, living spaces and training, Conference, EOC)	58	EA	\$450.00		\$25,884
b.	Rough-in Allowance (inc. floor boxes, raceways, etc.)	23,750	SF	\$3.50		\$83,125
19.2 Maintenance Building		17,040	SF	\$3.56		\$60,671
	Communications System, Equipment Additions, Connections, Conduit & Wire Allowance					
	A/V Data Ports (At Breakroom)	2	EA	\$450.00		\$1,031
b.	Rough-in Allowance (inc. floor boxes, raceways, etc.)	17,040	SF	\$3.50		\$59,640
20. Electronic Safety and Security		40,790	SF	\$6.45		\$262,975
20.1 FS 04 and EOC		23,750	SF	\$6.63		\$157,375
a.	Security System with Mass Notification - Allowance	1	LS	\$10,000.00		\$10,000
	Security Cameras	5	EA	\$3,500.00		\$17,500
b.	Fire Alarm System - Allowance	23,750	SF	\$2.50		\$59,375
c.	Uninterruptable Power Systems 15kVA, 10 mins	1	EA	\$25,000.00		\$25,000
d.	Door Access Control System at Exterior Doors, IT, EMS Supply Closets - Allowance	13	EA	\$3,500.00		\$45,500
20.2 Maintenance Building		17,040	SF	\$6.20		\$105,600
a.	Security System with Mass Notification - Allowance	1	LS	\$10,000.00		\$10,000
	Security Cameras	4	EA	\$3,500.00		\$14,000
b.	Fire Alarm System - Allowance	17,040	SF	\$2.50		\$42,600



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	c. Uninterruptable Power Systems 15kVA, 10 mins	1	EA	\$25,000.00		\$25,000
	Door Access Control System at Exterior Doors -					
	d. Allowance	4	EA	\$3,500.00		\$14,000
21.	Earthwork	290,000	SF	\$4.07		\$1,181,315
	a. BMP's	6,444	BCY	\$11.88		
	Inlet Protection	6	EA	\$500.00		\$3,000
	Filter Fabric Fence	2,200	LF	\$5.50		\$12,100
	Rice Wattle (3 Locations)	6	EA	\$350.00		\$2,100
	Concrete Truck Washout	2	EA	\$2,750.00		\$5,500
	Stabilized Concrete Entrance	2	EA	\$5,500.00		\$11,000
	c. Rough Grading	106,333	SY	\$1.25		\$132,917
	d. Haul-Off Existing Soils	1,043	TL	\$125.00		\$130,377
	e. Fine Grade & Compact Subgrade	51,020	SY	\$3.13		\$159,438
	f. Fill Building Pad w/Select Fill	7,756	CY	\$32.50		\$252,056
	f. Fill Site w/General Fill	23,620	CY	\$15.60		\$368,478
	g. Excavation For Grade Beams	1,057	BCY	\$18.75		\$19,816
	h. Excavation For Tap & Water Line	56	BCY	\$18.75		\$1,042
	i. Backfill Following Utility Installation	56	BCY	\$32.50		\$1,806
	j. Backfill Building Perimeter	1,001	LCY	\$65.00		\$65,043
	j. Site Clearing	7	ACRE	\$2,500.00		\$16,644
22.	Exterior Improvements	40,790	SF	\$44.15		\$1,800,878
	a. Heavy Duty Concrete Pavement	81,754	SF			
	6" Lime Stabilization - (Includes Scarification, Grading & Compaction)	9,084	SY	\$8.95		\$81,300
	Perimeter Formwork	6,305	LF	\$5.50		\$34,679
	Bar Reinforcing, #3's at 18" O.C.E.W.	20.48	TON	\$3,600.00		\$73,726
	Concrete - (7" thk., 4,000 PSI with 10% for Waste)	1,943	CY	\$185.00		\$359,440
	Concrete Place and Finish	1,943	CY	\$22.50		\$43,716
	Curing	81,754	SF	\$0.50		\$40,877
	Expansion Joints	389	LF	\$20.00		\$7,787
	b. 6" Curb & Gutter	6,273	LF	\$13.00		\$81,549
	c. Concrete Paving at Parking & Drives, 6" Thk.	38,285	SF	\$6.32		



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	6" Lime Stabilization - (Includes Scarification, Grading & Compaction)	4,254	SY	\$8.95		\$38,073
	Perimeter Formwork	4,260	LF	\$5.50		\$23,430
	Bar Reinforcing, #3's at 18" O.C.E.W.	9.59	TON	\$3,600.00		\$34,526
	Concrete - (5" thk., 3,500 PSI with 10% for Waste)	655	CY	\$165.00		\$108,092
	Concrete Place and Finish	655	CY	\$22.50		\$14,740
	Curing	38,285	SF	\$0.50		\$19,143
	Expansion Joints	196	LF	\$20.00		\$3,923
d.	Concrete Sidewalks.	12,200	SF	\$6.93		
	Moisture Conditioned Subgrade - (Includes Scarification, Grading & Compaction)	1,356	SY	\$8.50		\$11,522
	2" Thick Compacted Bank Sand	76.81	CY	\$32.60		\$2,504
	Perimeter Formwork	3,209	LF	\$5.50		\$17,648
	Bar Reinforcing, #3's at 18" O.C.E.W.	3.05	TON	\$3,600.00		\$10,980
	Concrete - (4" THK., 3,000 PSI with 10% for Waste)	164	CY	\$155.00		\$25,423
	Concrete Place and Finish	164	CY	\$22.50		\$3,690
	Curing	12,200	SF	\$0.50		\$6,100
	Expansion Joints	336	LF	\$20.00		\$6,728
e.	ADA Ramp	7	EA	\$2,000.00		\$14,000
f.	Standard Parking Stall Markings	146	EA	\$25.00		\$3,650
g.	Accessible Parking Stall Markings	6	EA	\$175.00		\$1,050
h.	Accessible Parking Stall Signage	6	EA	\$500.00		\$3,000
i.	Concrete Wheel stops (6')	6	EA	\$150.00		\$900
j.	Security Bollards at OH Apparatus Bay, Exercise Doors, Dumpster Enclosure - Assuming 16 Ea	16	EA	\$750.00		\$12,000
k.	Security Fence	1,327	LF	\$185.00		\$245,434
l.	Entry Gates, Motorized	2	EA	\$10,000.00		\$20,000
m.	Flag Poles including Foundations	2	EA	\$7,800.00		\$15,600
n.	Monumental Sign (Allowance)			Excluded		
o.	Landscape and Irrigation Allowance	121,860	SF	\$1.95		\$237,627
p.	Sodding	85,302	SF	\$2.00		\$170,604
q.	Hydroseeding	36,558	SF	\$0.75		\$27,419
23.	Utilities	40,790	SF	\$15.77		\$643,213
a.	Water Distribution					
	New Tap and connect new addition to existing loop	1	LS	\$4,500.00		\$4,500
	Main domestic water line: 4"	270	LF	\$115.00		\$31,050
	Main domestic water line: 2"	540	LF	\$85.00		\$45,900
	Tapping Saddle, Gate Valve, Boxes	1	LS	\$8,000.00		\$8,000



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

DETAIL SHEET - BUILDING CONSTRUCTION COST

ITEM		QUANTITY	UNIT	UNIT COST	PERCENT OF TOTAL	TOTAL
	Fire Hydrants - FDC connections			Excluded/Non-shown		
	b. Sanitary Sewer - Connection					
	Connect to existing system	1	LS	\$4,500.00		\$4,500
	Sewer line 6" SDR PVC	765	LF	\$65.00		\$49,725
	45deg. Cleanouts	19	EA	\$1,250.00		\$23,750
	SS Manhole (Includes Excavation)	3	EA	\$8,500.00		\$25,500
	c. Storm Sewer - Connection Allowance					
	Storm Drain Line 12" RCP	68	LF	\$275.00		\$18,563
	New Junction Boxes	4	EA	\$7,500.00		\$30,000
	Connection to EXISTING Junction Boxes	4	EA	\$2,500.00		\$10,000
	Storm Manhole (Includes Excavation)	5	EA	\$9,500.00		\$47,500
	Mainline Connection to Existing Pond/storm Outfall- Includes Headwall	725	LF	\$85.00		\$61,625
	d. Natural Gas, Allowance (Metering and Connections)			Excluded/Non-shown		
	e. Electrical Service Connections/Allowance					
	Primary Underground Lines - Duct banks - to Main Electrical Room	720	LF	\$330.00		\$237,600
	Misc. Site Electrical Allowance	1	LF	\$25,000.00		\$25,000
	f. Misc. (Backflow Preventers, Meters/Tap, etc.)	1	LS	\$20,000.00		\$20,000
Subtotal Construction Cost		40,790	SF	\$393.32	70.25%	\$16,043,512
24. General Conditions		40,790	SF	\$27.53	4.92%	\$1,123,046
25. Estimating & Design Contingency		40,790	SF	\$84.17	15.03%	\$3,433,312
26. Bonds & Insurance		40,790	SF	\$20.20	3.61%	\$823,995
27. Escalation		40,790	SF	\$15.76	2.81%	\$642,716
28. General Contractors Fee / Profit		40,790	SF	\$18.93	3.38%	\$772,330
Total Construction Cost		40,790	SF	\$559.91	100.00%	\$22,838,910



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

COMPOSITE WORKSHEET

I. Construction Costs	% Mark-Up Factor
A. General Conditions	7.0%
B. Estimating & Design Contingency	20.0%
C. Bonds & Insurance	4.0%
D. Escalation - 4 Months	3.0%
E. General Contractors Fee / Profit	3.5%

Total

A. General Conditions 7.0%

This represents Direct Costs to the Contractor for construction of the project not associated with specialty trades. Supervisory personnel, temporary field office facilities, miscellaneous equipment and construction aids are items typically identified as General Conditions expenses.

B. Estimating & Design Contingency 20.0%

An amount allowed for items that may be necessary for construction of the project but are not yet identified in the plans and specifications or are unforeseen, associated with the original project quality and scope. It is not intended to cover increases in quality, scope or escalation. The amount varies from 20% to 50% at Feasibility / Program, 25% at Conceptual Design, 20% at Schematic Design, 15% to 25% at Design Development, 5% to 10% at Construction Documents and 0% at Bid Documents, based on historical and statistical data and industry standards. The estimator is responsible, based on their experience and review of the planning documents, to assign an appropriate value for this item using the percentages above as a guideline.

C. Bonds & Insurance 4.0%

This item represents the amount the Contractor will pay to secure Performance and Payment Bonds, General Liability Insurance, Builder's Risk Insurance and other protective means during construction of the project. These items are necessary for protection of both the Owner and the Contractor and are typically required by the Financing Entity, State and Local Governing Authorities.

D. Escalation - 4 Months 3.0%

Allowed 0.75% per month.

E. General Contractors Fee / Profit 3.5%

Overhead represents Indirect Costs borne by the Contractor for Home Office expenses associated with the project. Items such as Accounting, Submittal Processing, Contracting and Legal Fees fall under this category. Profit represents the amount the Contractor proposes for its margin after all costs associated with constructing the project are satisfied. This is first and foremost based on risk analysis and secondly on market conditions.



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

QUALIFICATIONS - (ASSUMPTIONS / EXCLUSIONS / INCLUSIONS)

GENERAL	
1.	The purpose of this estimate is to provide a Schematic Design estimate for the City of Killeen Fire Station No. 4, EOC & Training Campus project. The major elements of the project include 25K SF, Two-Story Fire Station & EOC, 17K Two Story Maintenance Hangar, Classroom & Training Tower that includes Sitework and Utilities, Kitchen, Training and Workshop rooms, Apparatus bay and Dayroom and Dormitories including Rest Rooms.
2.	The estimate is based on Based on "City of Killeen - Fire Station #4 &EOC/Training Campus SD" plan sheets dated 5/19/23 Issued May 20, 2023
3.	The estimate has been prepared by certified professional estimators accredited with both ASPE (American Society of Professional Estimators) and AACEI (Association for the Advancement of Cost Engineering International). Having adopted their Standard & Recommended Practice manual as our own, our methods and product are industry approved. These descriptions constitute the levels of the estimate. Estimates within each of these phases may be prepared multiple times during the design process as more information becomes available, or when changes are made. With each level of the estimate, the estimate will be become more detailed as more information is provided and fewer assumptions are being made. The associated estimate contingencies may decrease at each level to typically 0% at the bid level.....
4.	Order of Magnitude (Level Three) This level is usually prepared to develop a project budget and is based on historical information with adjustments made for specific project conditions. Budgets are based on costs per square foot, number of cars, rooms, seats, or other units of measure. Allowances must be made for site work and specific project conditions. Information required for this level is a project program and desired quality level from the Owner. Estimate may range from 5% to 10%.
5.	The estimate contains percentages for general contractor mark-ups reflective of a competitive sealed proposal procurement method. See the "Composite Worksheet" for the percentages used.
6.	The following is a list of the various cost resources used in the development of the cost estimate. <ul style="list-style-type: none"> · AG CM historical data · R.S. Means · Estimator judgment · Specialty vendors and suppliers
7.	All dimensions listed in the estimate are listed as "X" x "Y" respectively. The horizontal dimension "X" first and vertical dimension "Y" second.
8.	This cost estimate excludes Soft Cost for the project as indicated in RECAP



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

QUALIFICATIONS - (ASSUMPTIONS / EXCLUSIONS / INCLUSIONS)

9.	The "Total Construction Cost" shown on the summary sheet is expected to fall within the range of the low to high of 3 - 4 qualified bids. This number is not intended to predict the outcome of non-competitive (single bid submitted) or overly competitive (greater than 5 bids submitted) bidding climates.
10.	The unit cost shown in the Detail Sheets of the estimate represent pricing for FY2023, Quarter 2.
11.	Includes 3.0% Escalation (0.75% Months, assuming 4 Months)
12.	Excludes cost for hazardous material and/or asbestos abatement.
13.	Includes normal working hours. Excludes night and/or weekend work.
2. Demolition	
1.	Includes an allowance for Removal and Replacement of Asphalt Paving and Curb/Gutter at Panther Way.
2.	Includes Demolition of existing Asphalt Paving on site.
3.	Includes Removal of Landscape (Trees, Grass, etc.) at the proposed Vehicle Entrance.
3. Concrete	
1.	Includes 8" Thk Slab @ Apparatus Bay and 5" Thk at living spaces.
2.	Includes 24" Dia. Drilled Piers, 20' Depth
3.	See Estimate Detail for Concrete Reinforcing Assumptions
4.	Includes 3" LWIC at Upper Levels over Metal Decking
5.	Includes Allowance for Miscellaneous Equipment/Mechanical Pads.
4. Masonry	
1.	Includes Exterior Limestone & Coping at Columns and Brick Veneer as Shown.
2.	Includes 12" CMU at the exterior walls and 8" CMU at the interior walls around the Apparatus Bay, Exercise, PPE, Utility, and Workroom.
3.	Includes (2) Dumpster Enclosure
5. Metals	
1.	See Estimate Detail for Structural Steel Allowance
2.	Includes PEMB for Maintenance Building in Div. 13 Special Construction
6. Wood, Plastics, and Composites	
1.	Includes Plastic Laminate Cabinetry at the Workroom, Dayroom, and Kitchen.
7. Thermal and Moisture Protection	
1.	Includes Standing Seam Metal Roofing.
2.	Includes Batt & Rigid Insulation at Exterior Walls.
3.	Includes Interior Metal Wall Paneling, 8' HT at Bays Areas
4.	Includes allowances for Flashing, Trim, and Cap/Coping.



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

QUALIFICATIONS - (ASSUMPTIONS / EXCLUSIONS / INCLUSIONS)

8. Openings	
1.	See Estimate for Door, Frames, & Glazing Assumptions
2.	Includes interior Pocket Doors at the Dorm-Restroom openings and Solid Core Wood Doors with Hollow Metal Frames at the remaining openings.
9. Finishes	
1.	Includes Sealed Concrete Flooring at the Apparatus Bay, Tile in the Restrooms, and LVT & VCT Flooring at the remaining areas.
2.	Includes 9' HT Ceramic wall tile at the Restrooms.
3.	Assumed 4' High Acoustical Wall Panels at 25% of the wall in the Training Room & Conference Room.
4.	See Estimate Details for Additional Assumptions
10. Specialties	
1.	Allowance included for a Projector & Screen in the Training Room.
11. Equipment	
1.	Includes Residential and Commercial Equipment per the Specs and Equipment Floor Plans.
12. Furnishings	
1.	Includes Stainless Steel Countertops at the Kitchen.
2.	Movable Furniture has been excluded and assumed OFOI.
13. Special Construction	
1.	Includes the PEMB assemblies.
2.	Includes Canopies, Training Tower, & Classroom Building
3.	See Estimate Details for Additional Assumptions
14. Conveying Systems	
1.	Includes Freight Elevator
15. Fire Suppression	
1.	Excluded, assumed not required.
16. Plumbing	
1.	Includes one 50 Gal. Water Heaters.
2.	Includes an allowance for the Compressed Air System in the Apparatus Bay. \$15000
3.	Includes an allowance for a 750 Gallon Sand-Oil Separator in the Apparatus Bay. \$55000
4.	Includes Natural Gas system piping/infrastructure allowance.
5.	Includes an allowance for the Storm Water System.



City of Killeen
EOC and FS 4 - Training Campus
Schematic Design Estimate
June 9, 2023

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17. HVAC	
1.	Includes Roof Top Units for the various building zones. Includes VVT Type System (for 5 TON RTU Only) w/ Terminal Units serving each dorm.
2.	Includes Gas Unit Heaters at the Apparatus Bay and an Electric Unit Heater int the Utility Room.
3.	Includes allowances for Testing, Balancing, and Commissioning.
18. Electrical	
1.	Includes an allowance for a 300KW Diesel Generator.
2.	Includes an allowance for a 25KVA Dry Type, Single Phase Transformer.
3.	Includes allowances for Electrical Distribution equipment & feeders.
19. Communications	
1.	Includes an allowance for Communications System, Equipment Additions, Connections, Conduit & Wire.
20. Electronic Safety and Security	
1.	Includes allowances for the Security with Mass Notification, Door Access, and Fire Alarm Systems.
21. Earthwork	
1.	Includes Erosion Control, building and Detention Pond Excavation, and grading.
1.	Includes Allowance of 2.5' Deep General Fill for Leveling of Site
1.	Includes 3' Deep of Existing Building soil removal, & 6' Deep of Select Fill.
3.	See Estimate Details for Additional Assumptions
22. Exterior Improvements	
1.	Includes Light Duty 5" and Heavy Duty 8" Concrete Drive and Parking, with 4" sidewalks
2.	Includes Bollards at all of the Overhead Doors and Dumpster Enclosure.
3.	Planting, Sod, and Seeding has been carried with preliminary quantities.
23. Utilities	
1.	Includes new domestic water tap, and fire line, and connection to existing loop.
2.	Includes allowance for 2 Fire Hydrants - FDC connections.
3.	Includes Primary lines underground encased in concrete duct bank.
4.	Includes allowance for Backflow preventers.
5.	Excludes Detention Pond Scope in the Base Bid. See Separately Identified Items.