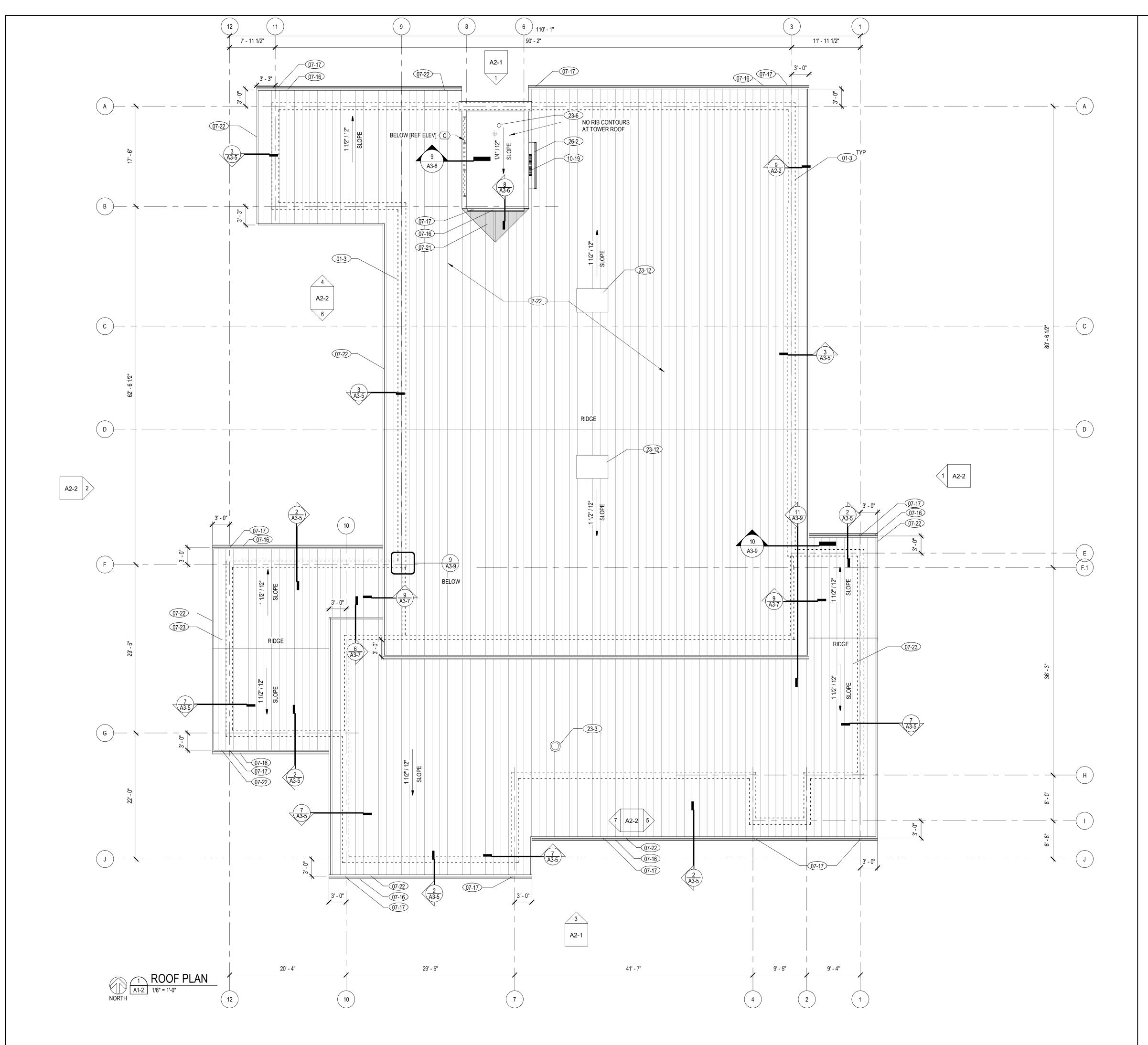


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KEYNOTE LEGEND							
01-3	DASHED LINES OF EXTERIOR WALLS BELOW						
07-16	PREFINISHED METAL GUTTER						
07-17	PREFINISHED METAL DOWNSPOUT						
07-21	CRICKET						
07-22	PREFINISHED METAL FASCIA						
07-23	MEMBRANE ROOFING PROVIDE DECORATIVE THERMOPLASTIC POLYOLEFIN (TPO) RIB CONTOURS, SPACED AT 18 INCHES O.C., FULLY ADHERED TO ROOFING MEMBRANE TO SIMULATE THE APPEARANCE OF A STANDING SEAM METAL ROOFING SYSTEM						
10-19	SIGNAGE [REF EXTERIOR ELEVATIONS]						
23-3	EXHAUST FAN [REF MECH]						
23-6	VENT PENETRATION [REF MECH]						
23-12	MECHANICAL EQUIPMENT [REF MECH]						
26-2	LIGHT FIXTURE, TYP [REF ELEC]						

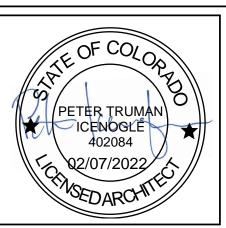
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058
BLYTHE GROUP + CO.

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

**ROOF PLAN** 

FOR CONSTRUCTION

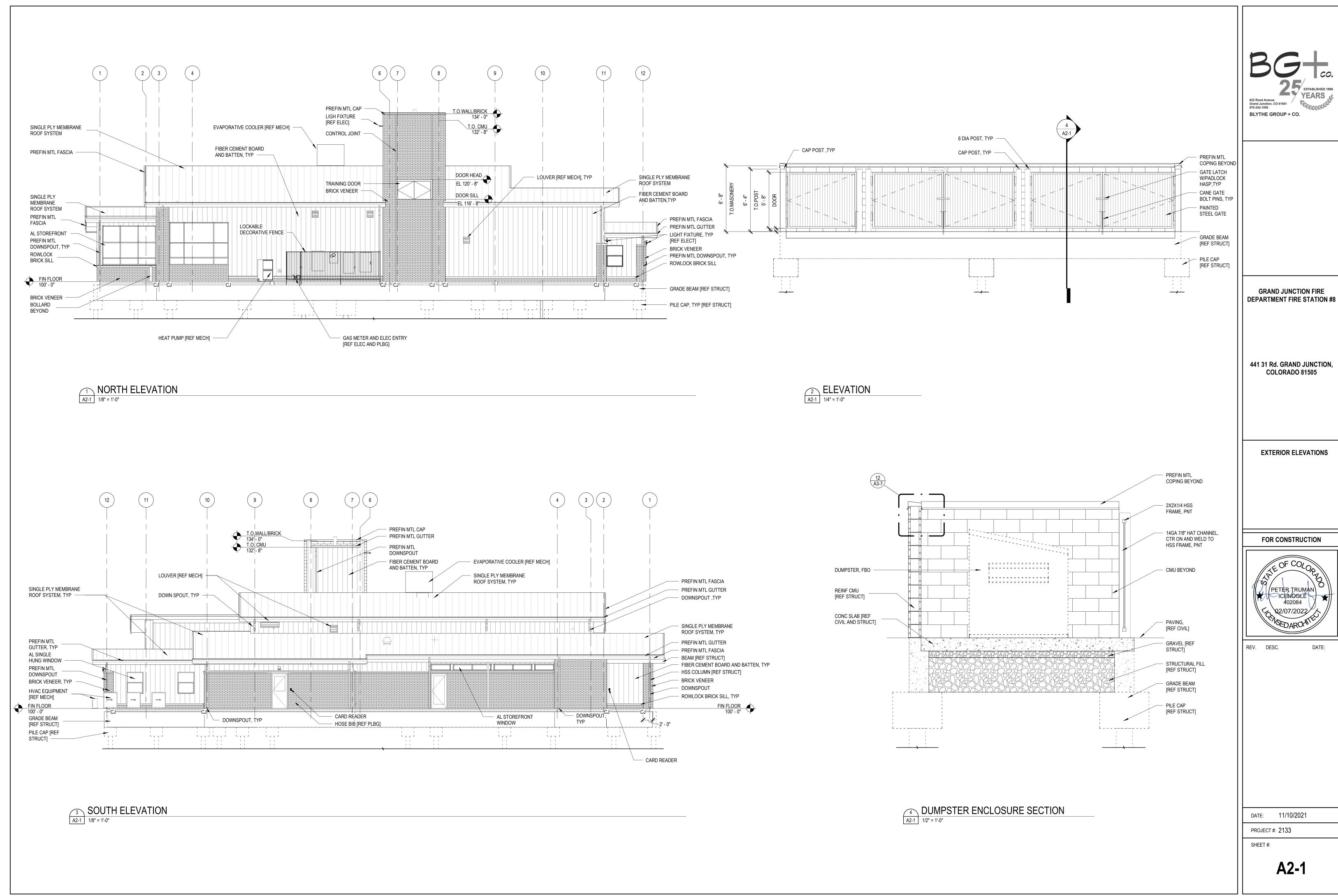


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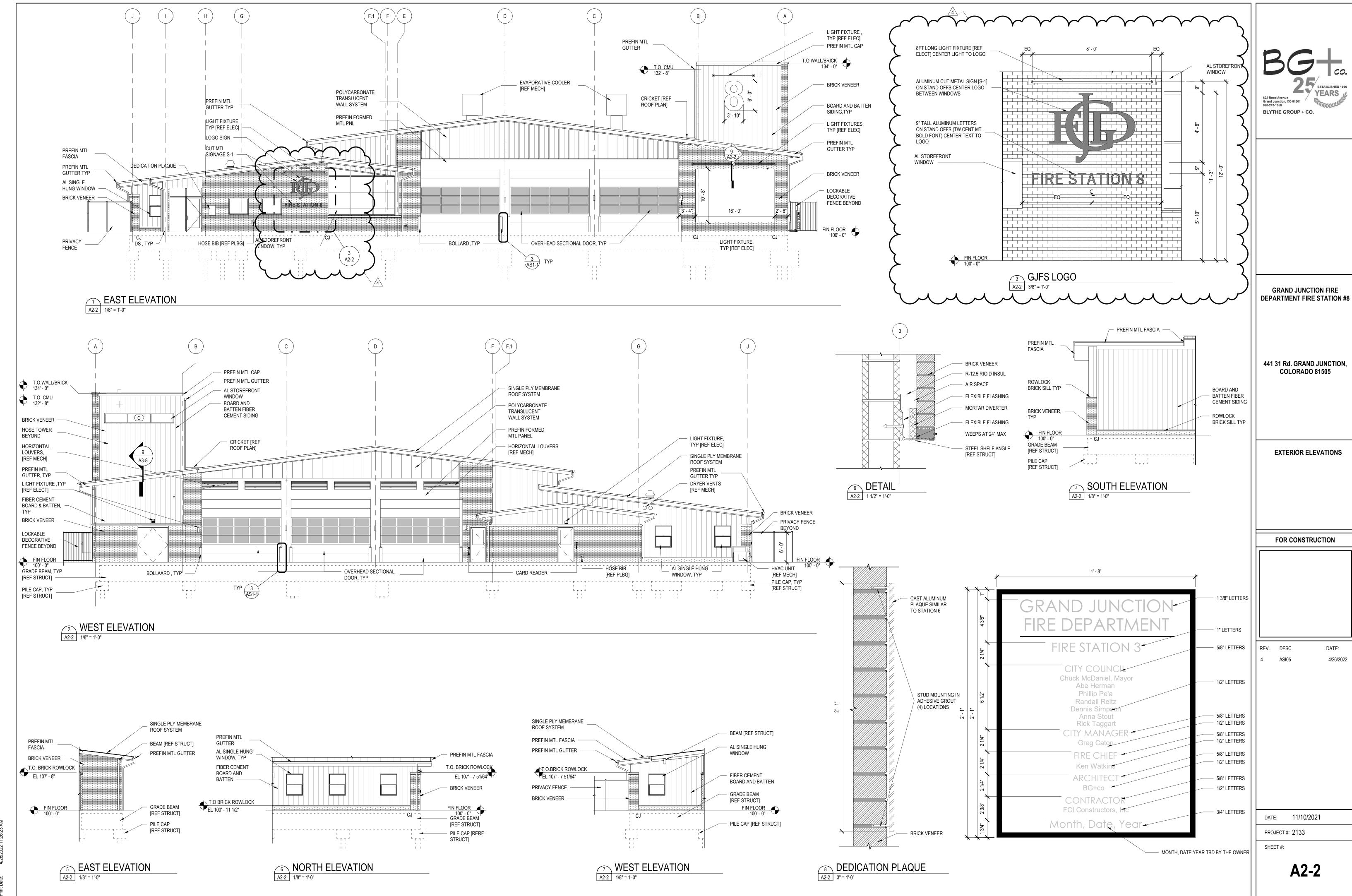
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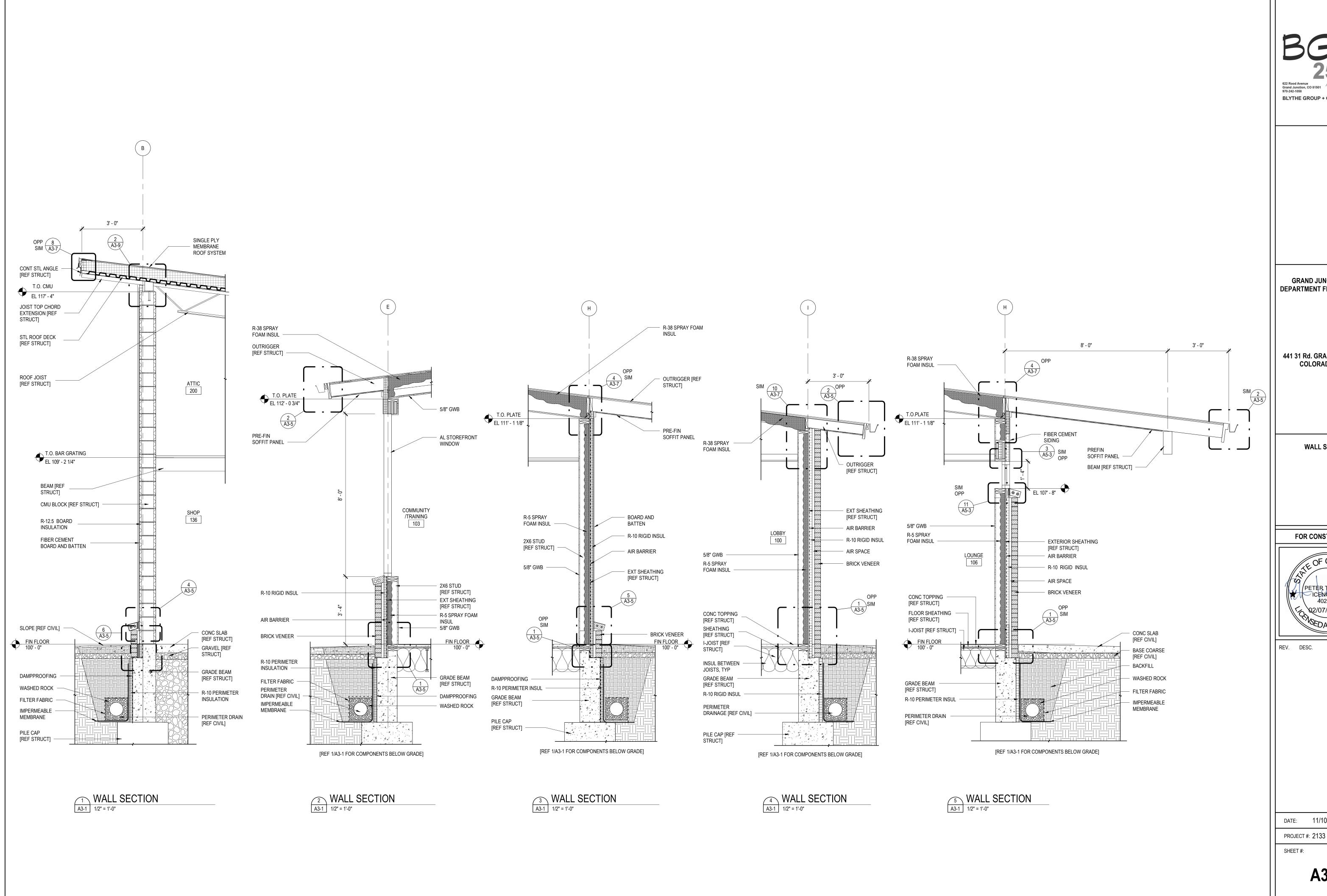
PROJECT #: 2133

A1-2



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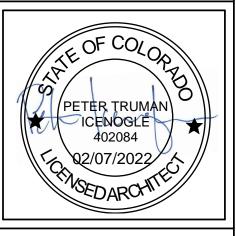
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GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8

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**WALL SECTIONS** 

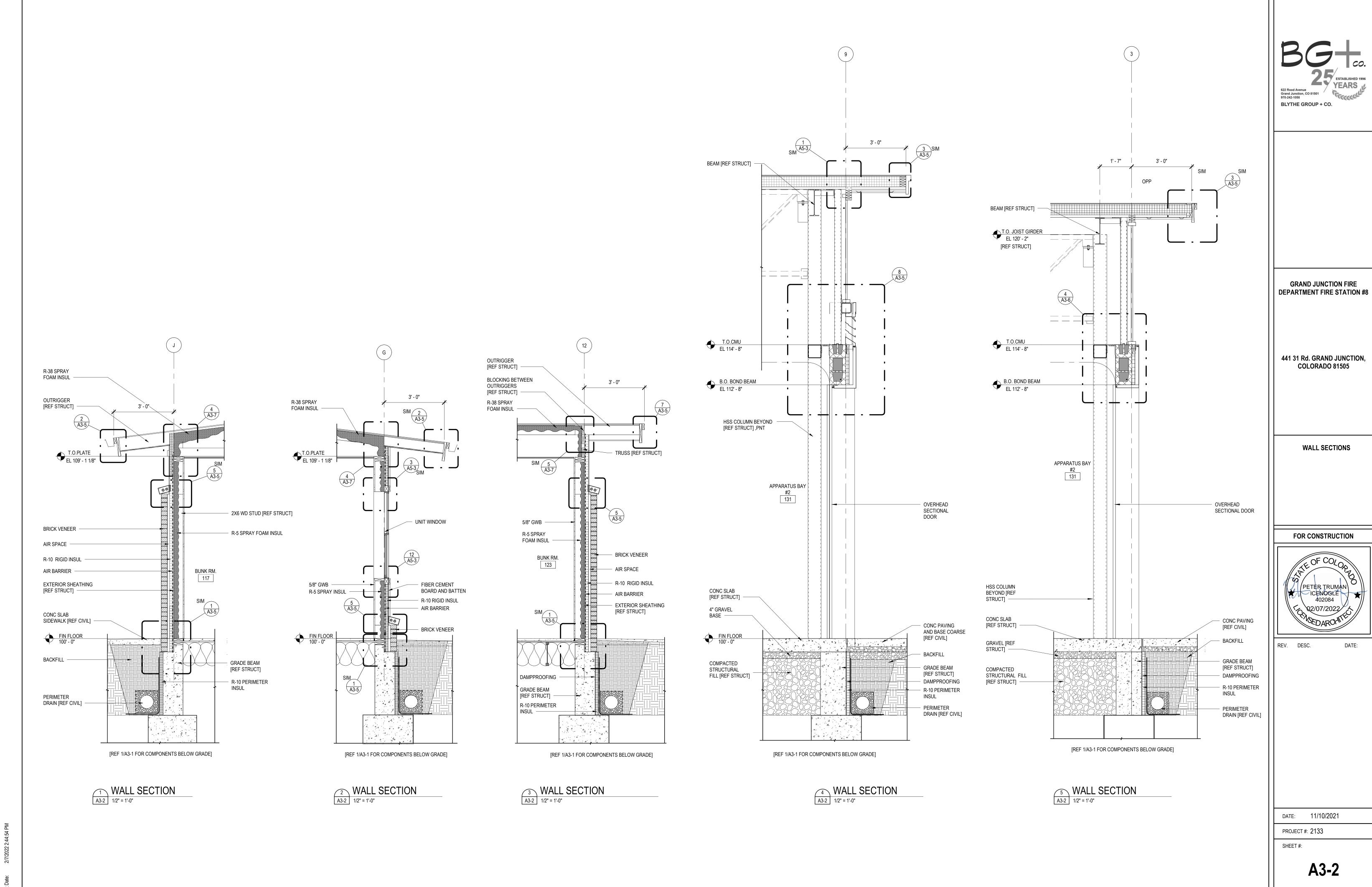
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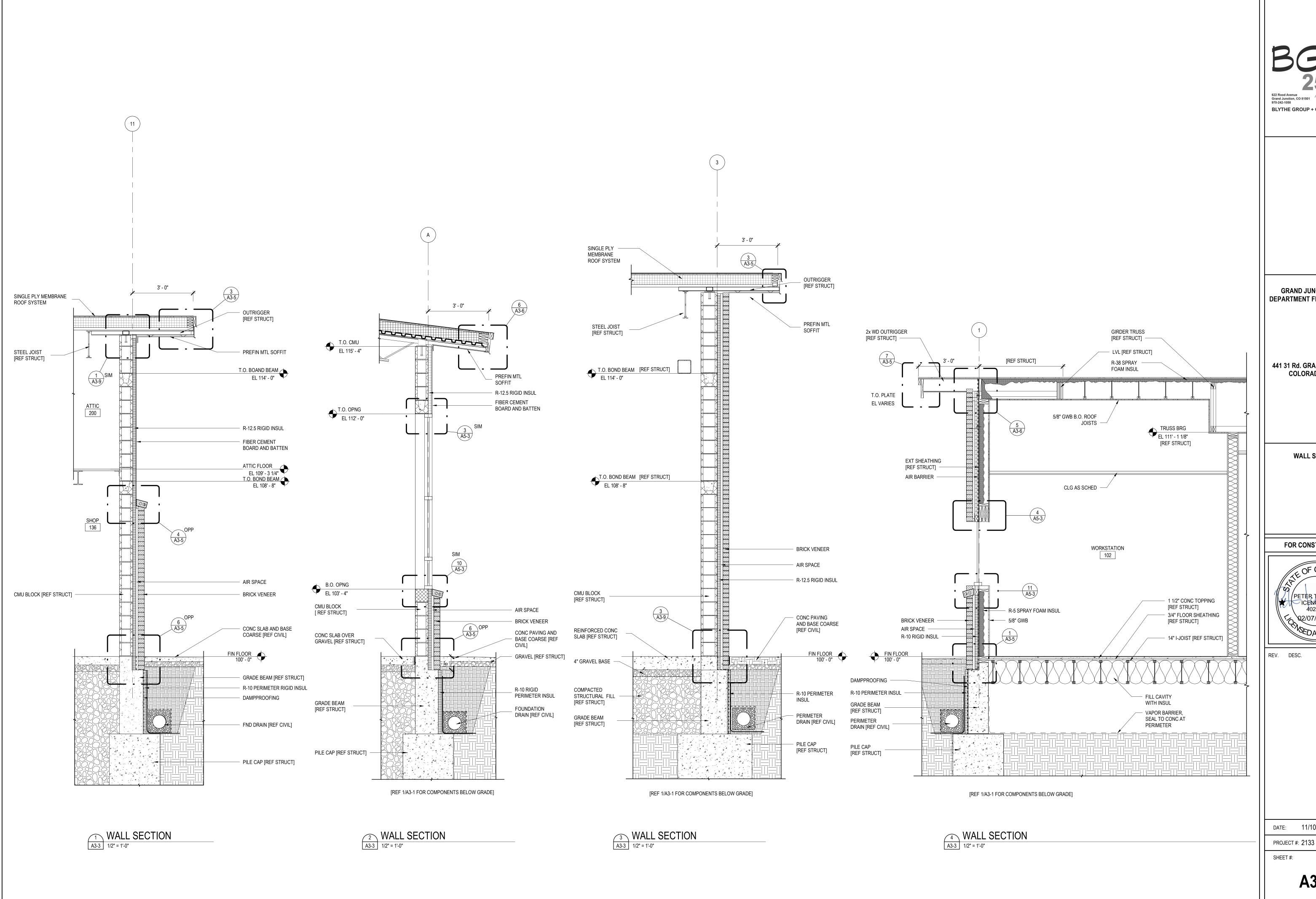


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DATE: 11/10/2021

**A3-1** 





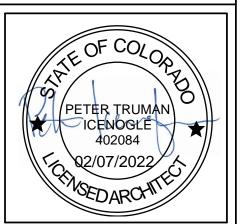
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GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8

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**WALL SECTIONS** 

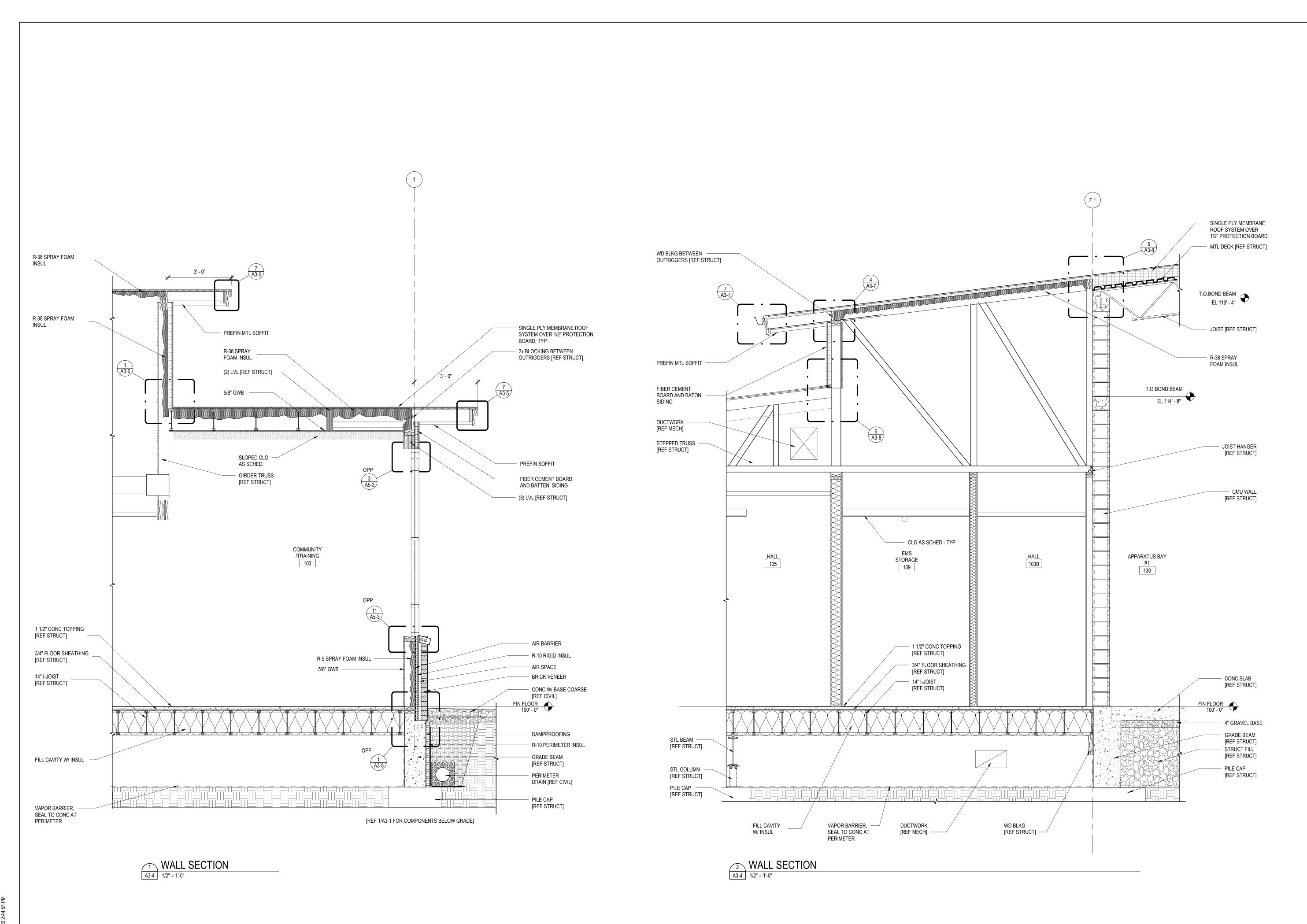
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DATE: 11/10/2021

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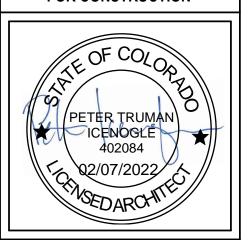
ESTABLISHED 1996
YEARS
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058
BLYTHE GROUP + CO.

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

WALL SECTIONS

FOR CONSTRUCTION

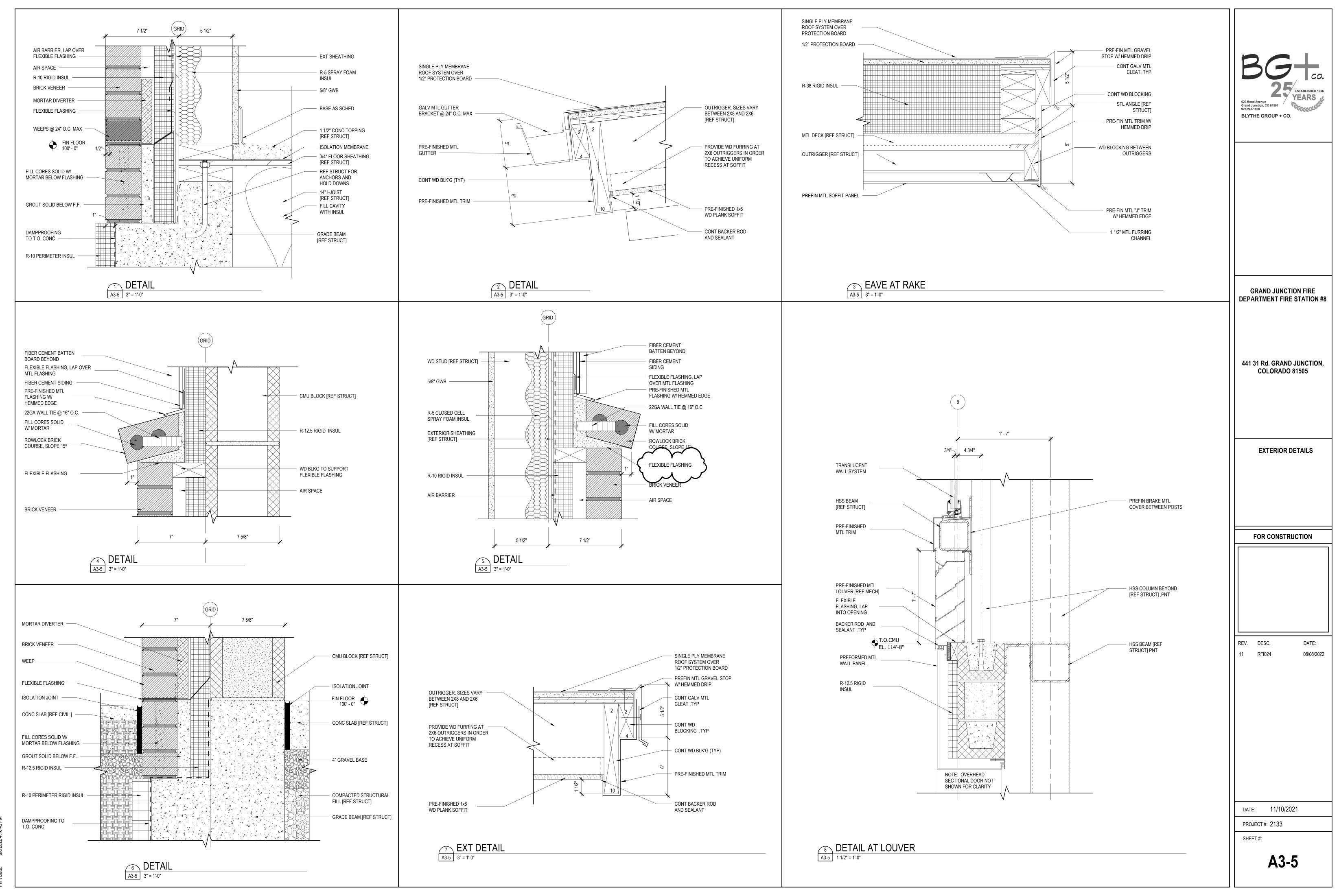


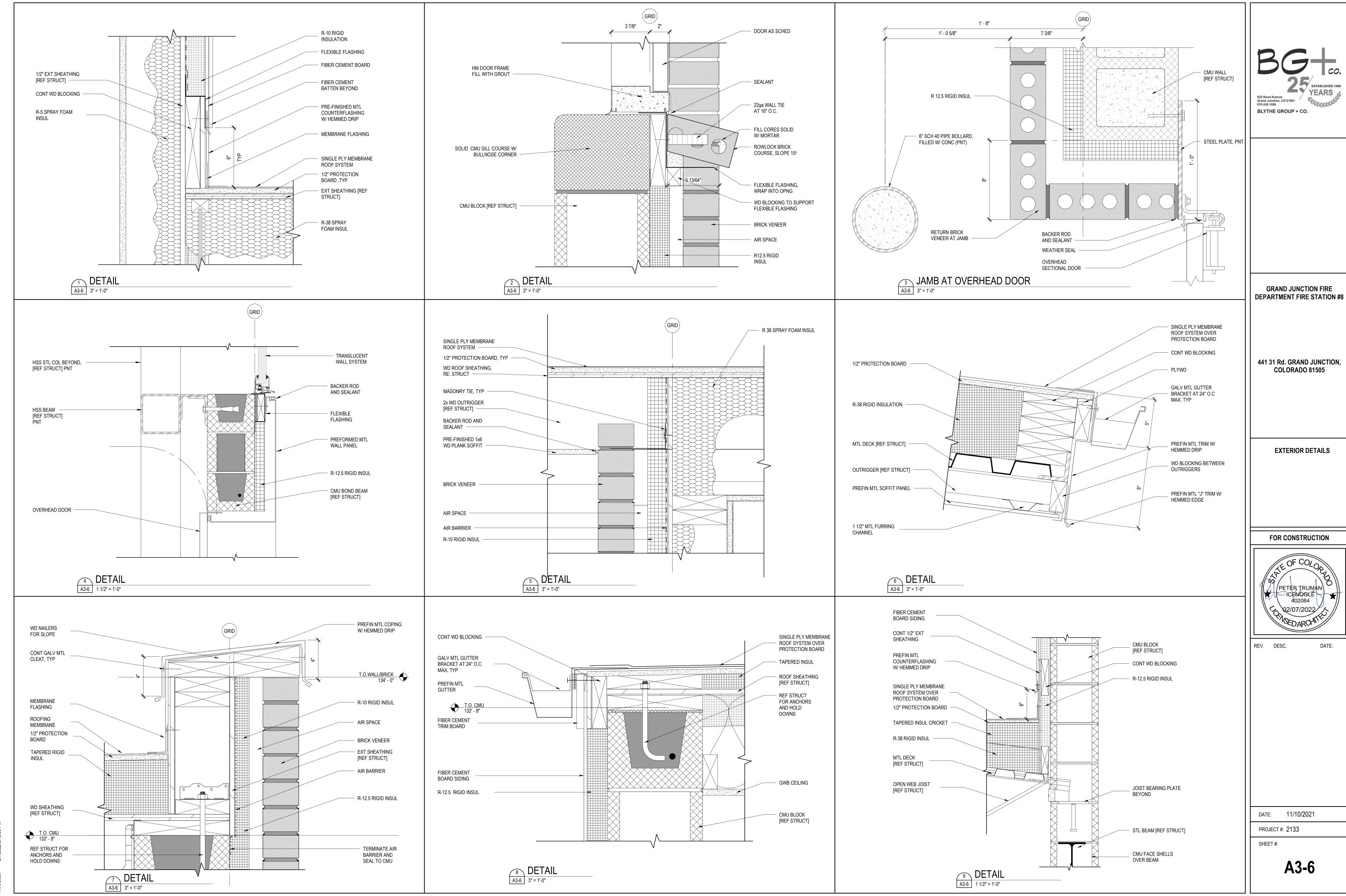
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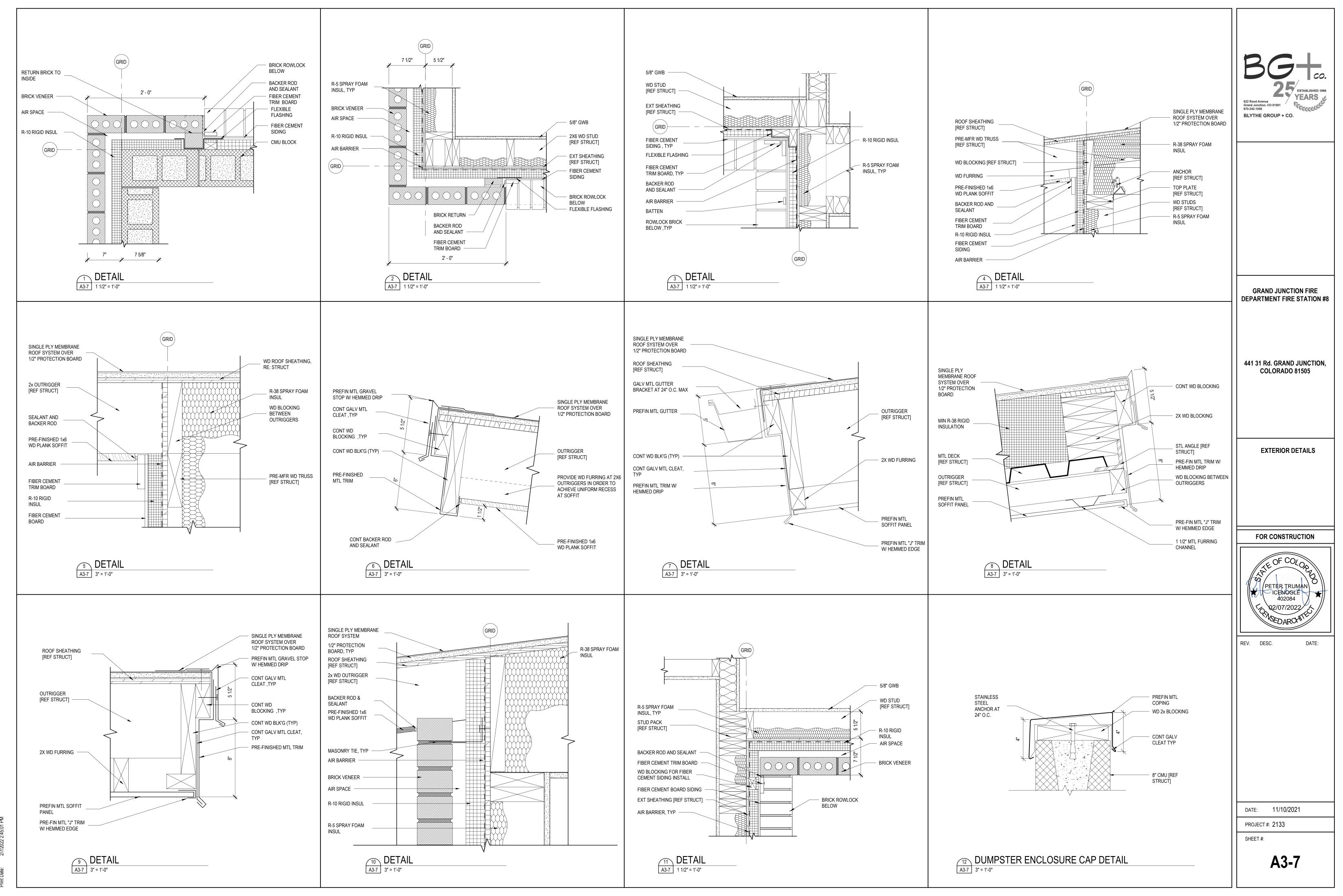
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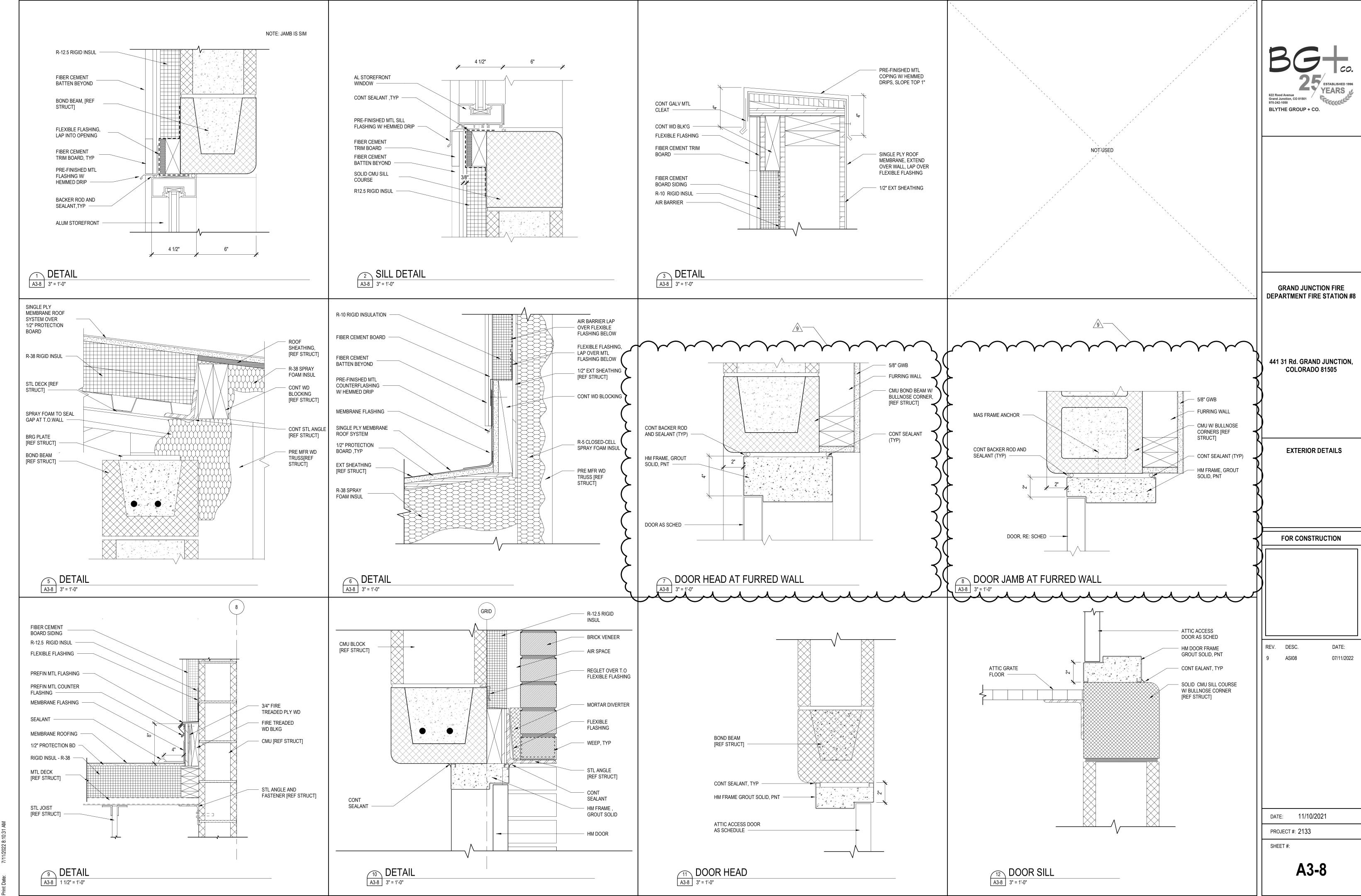
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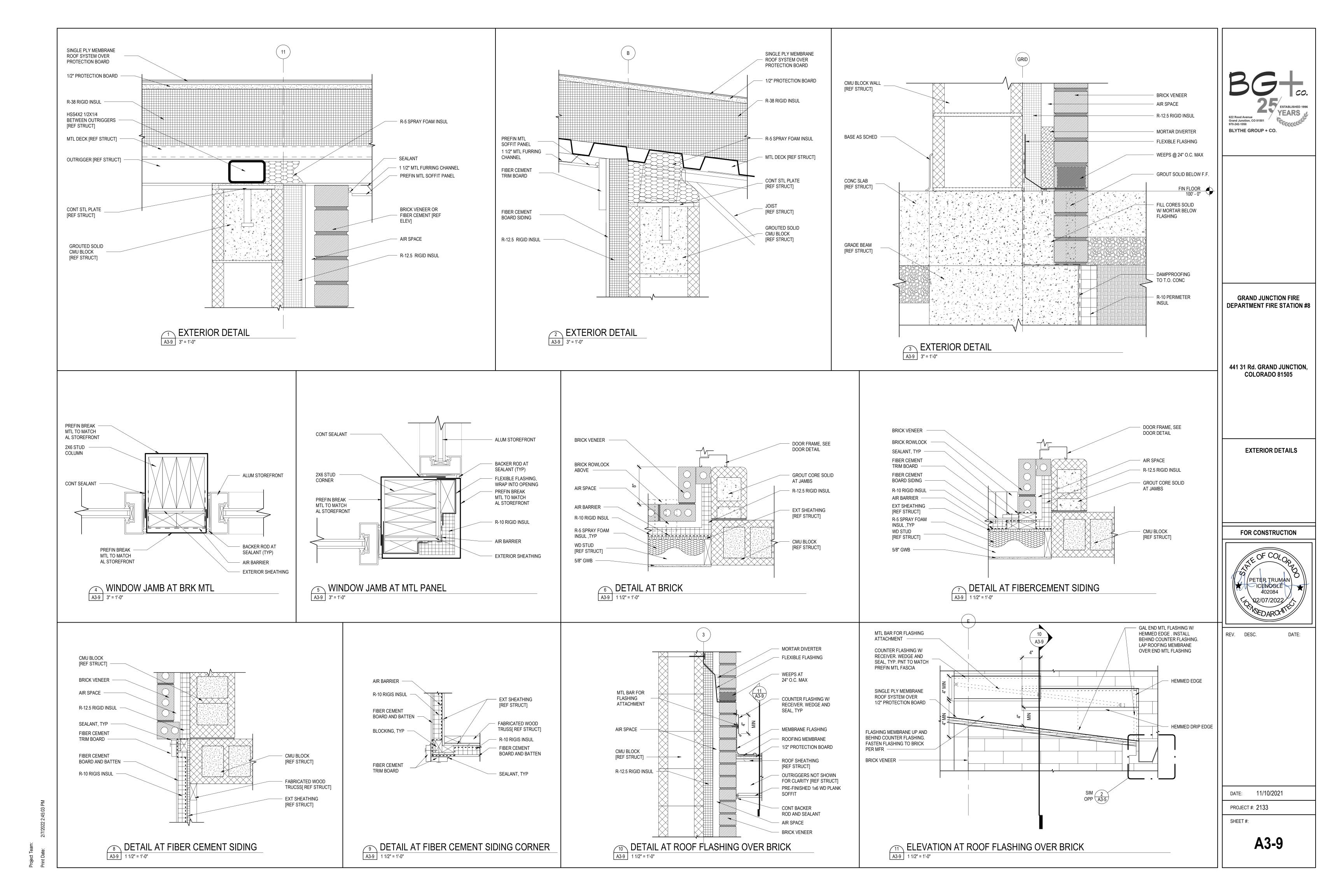


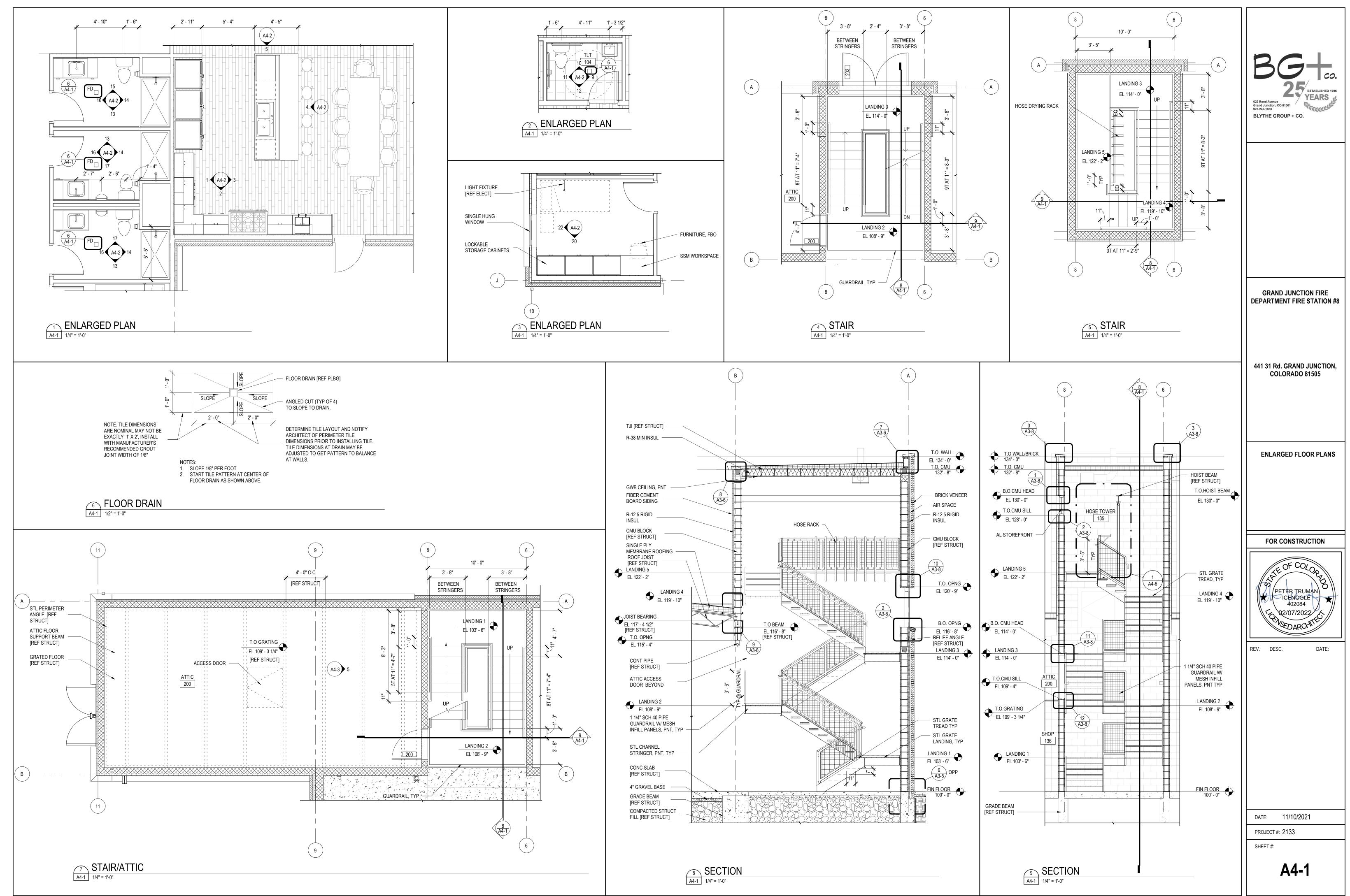


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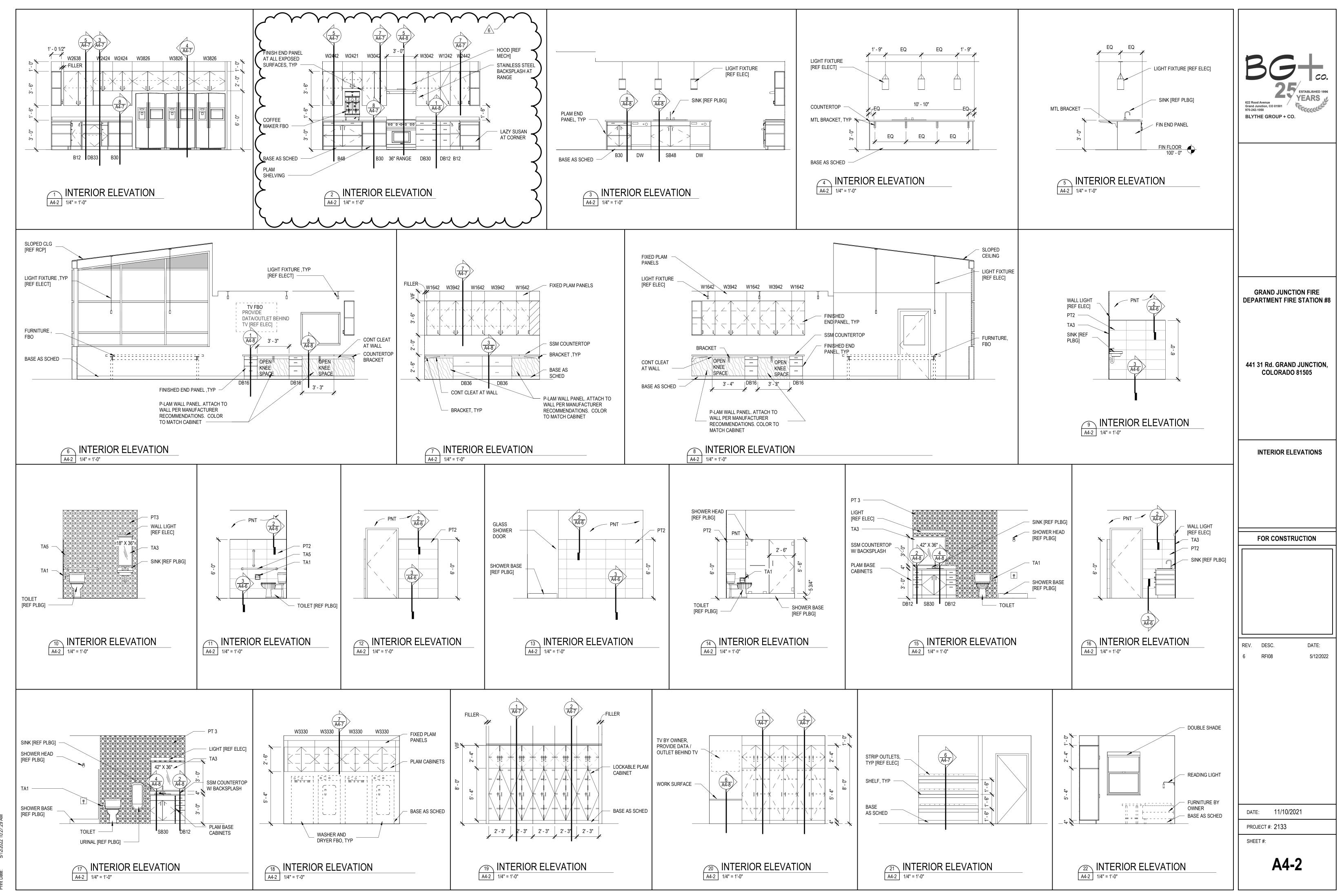




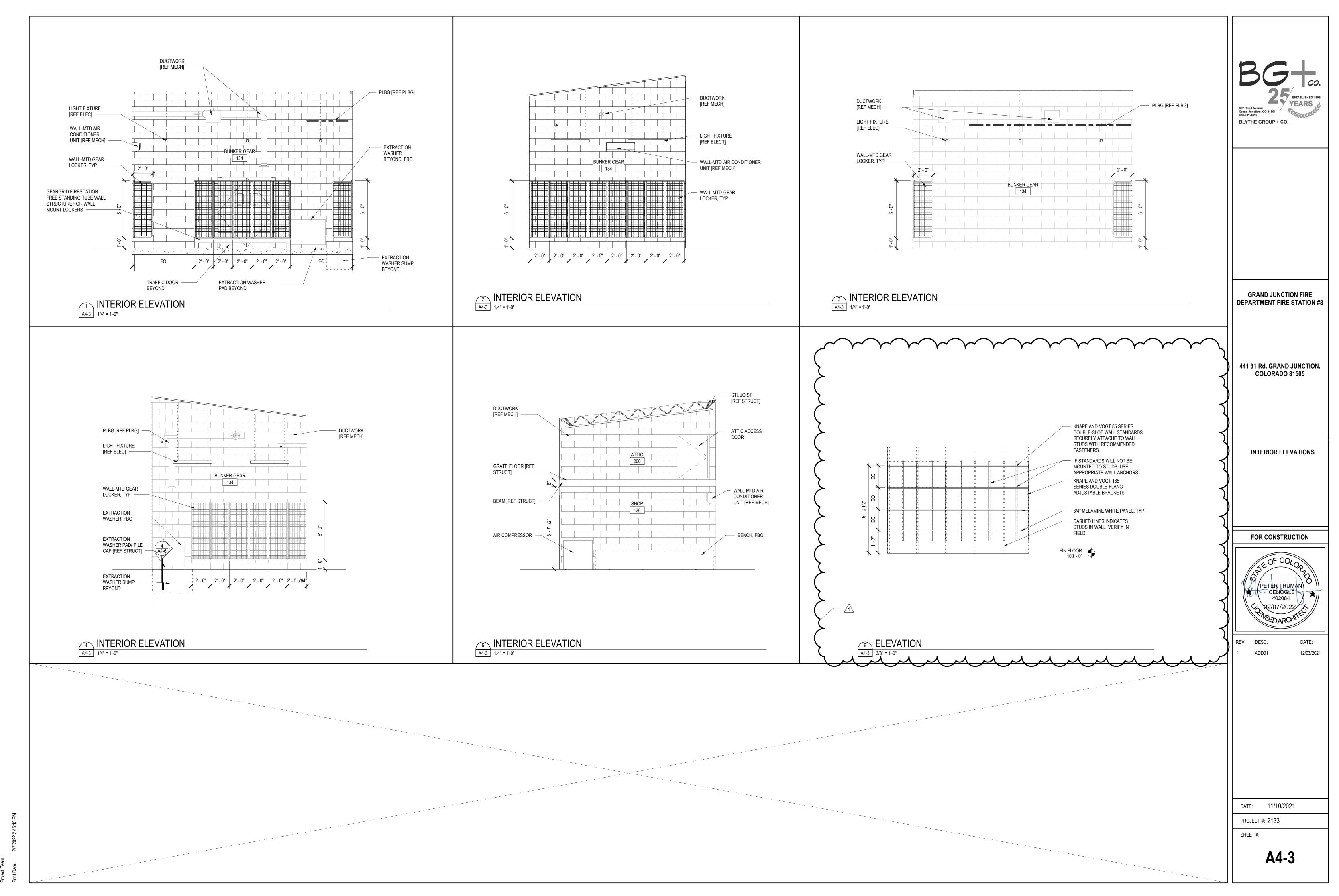


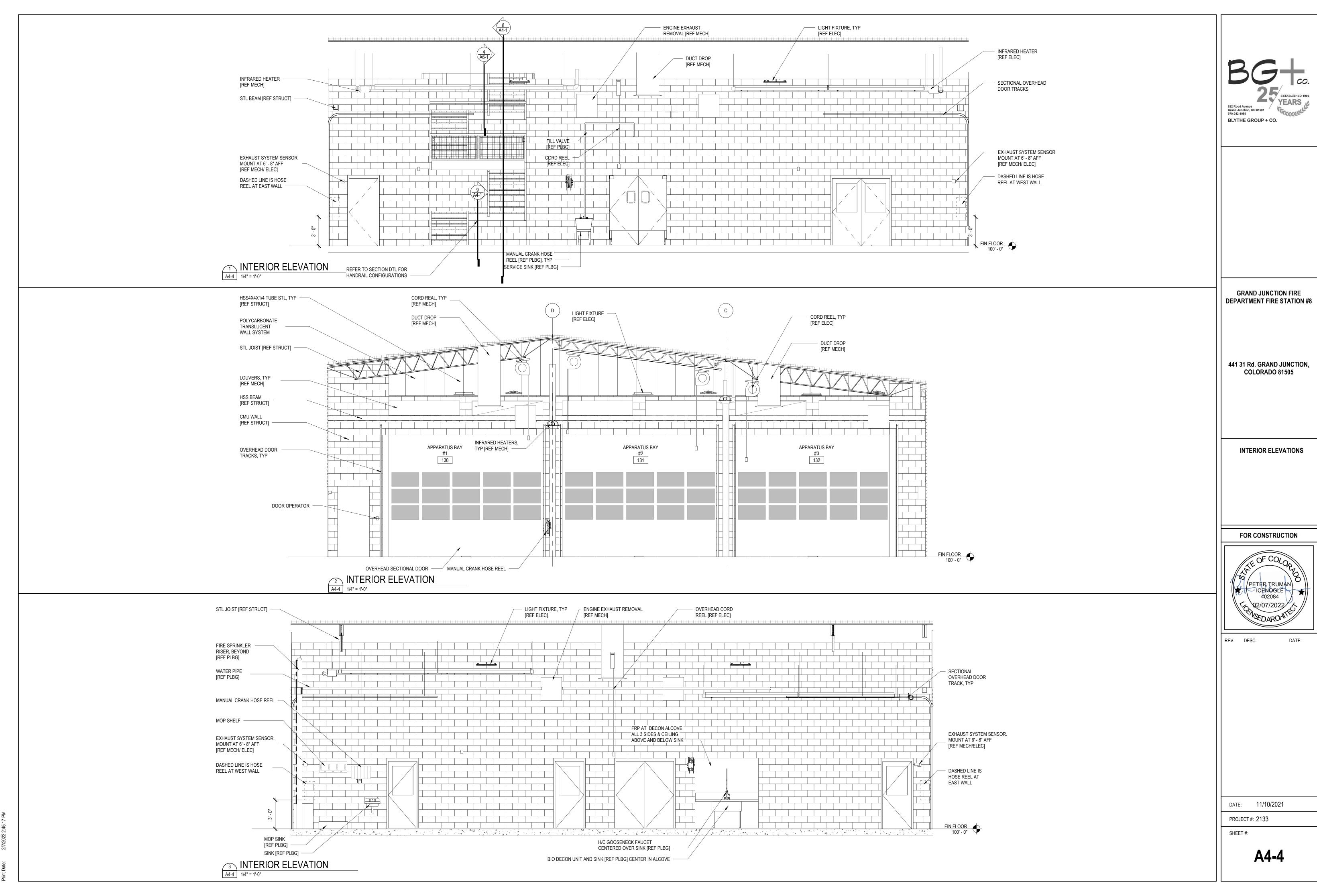


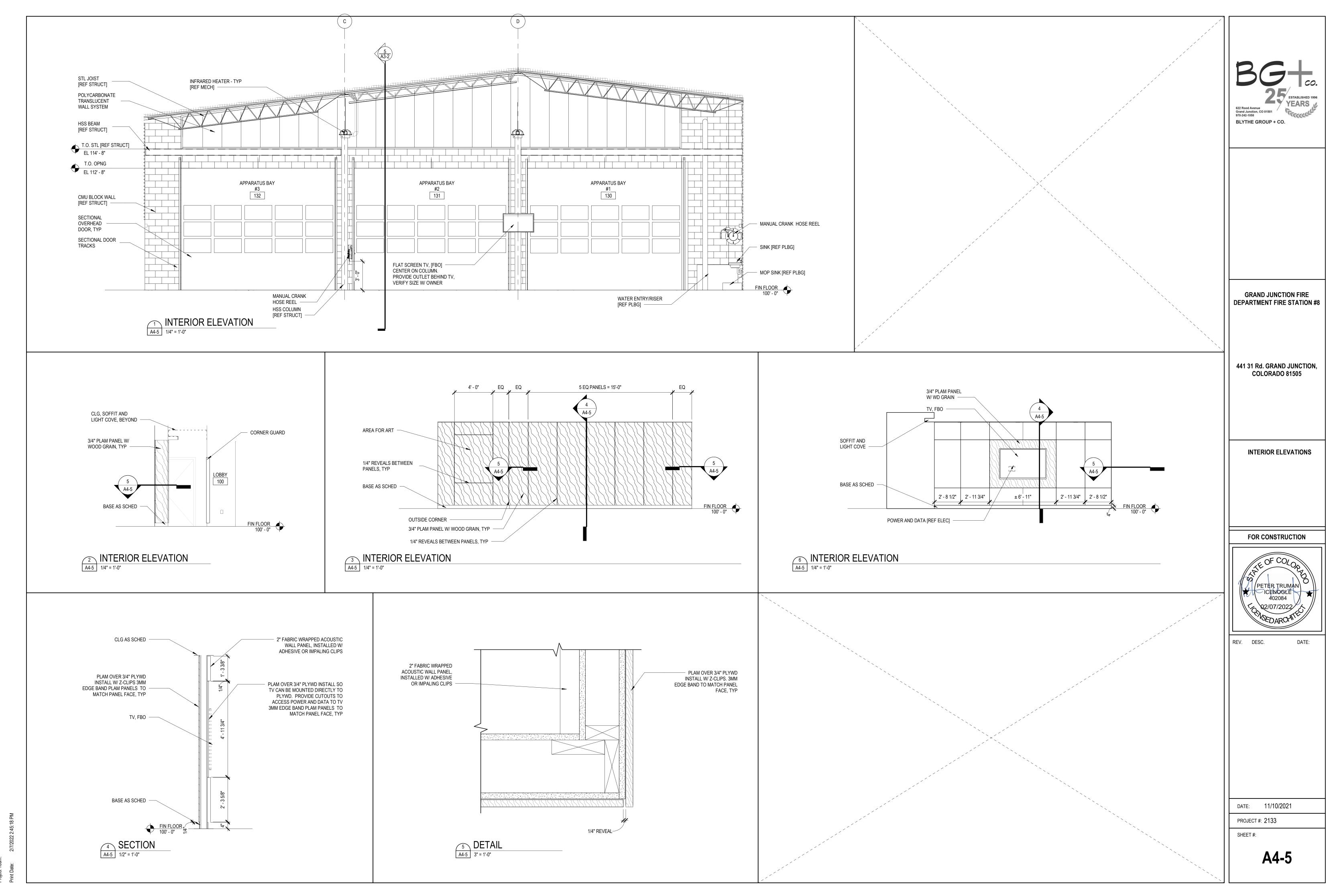
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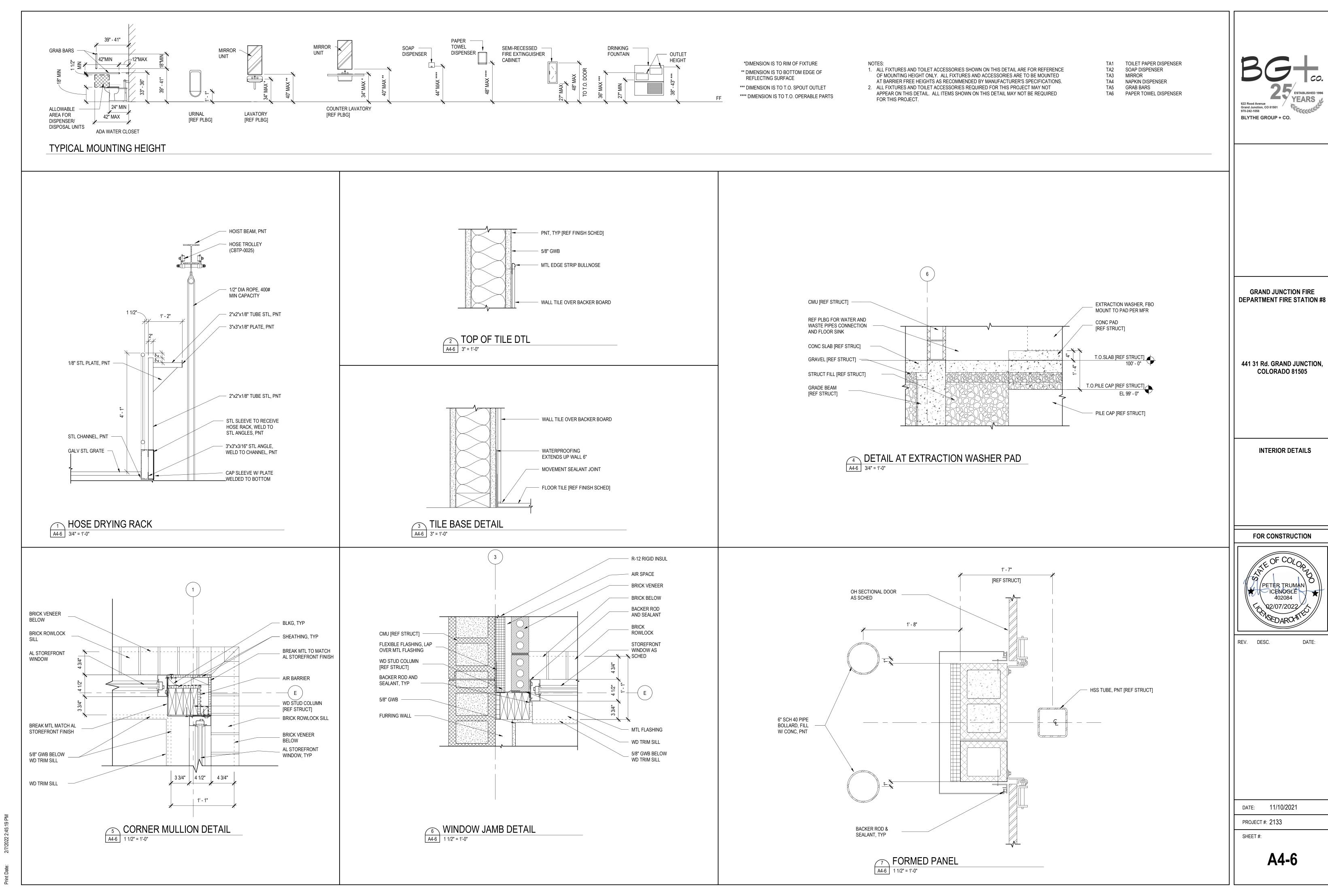


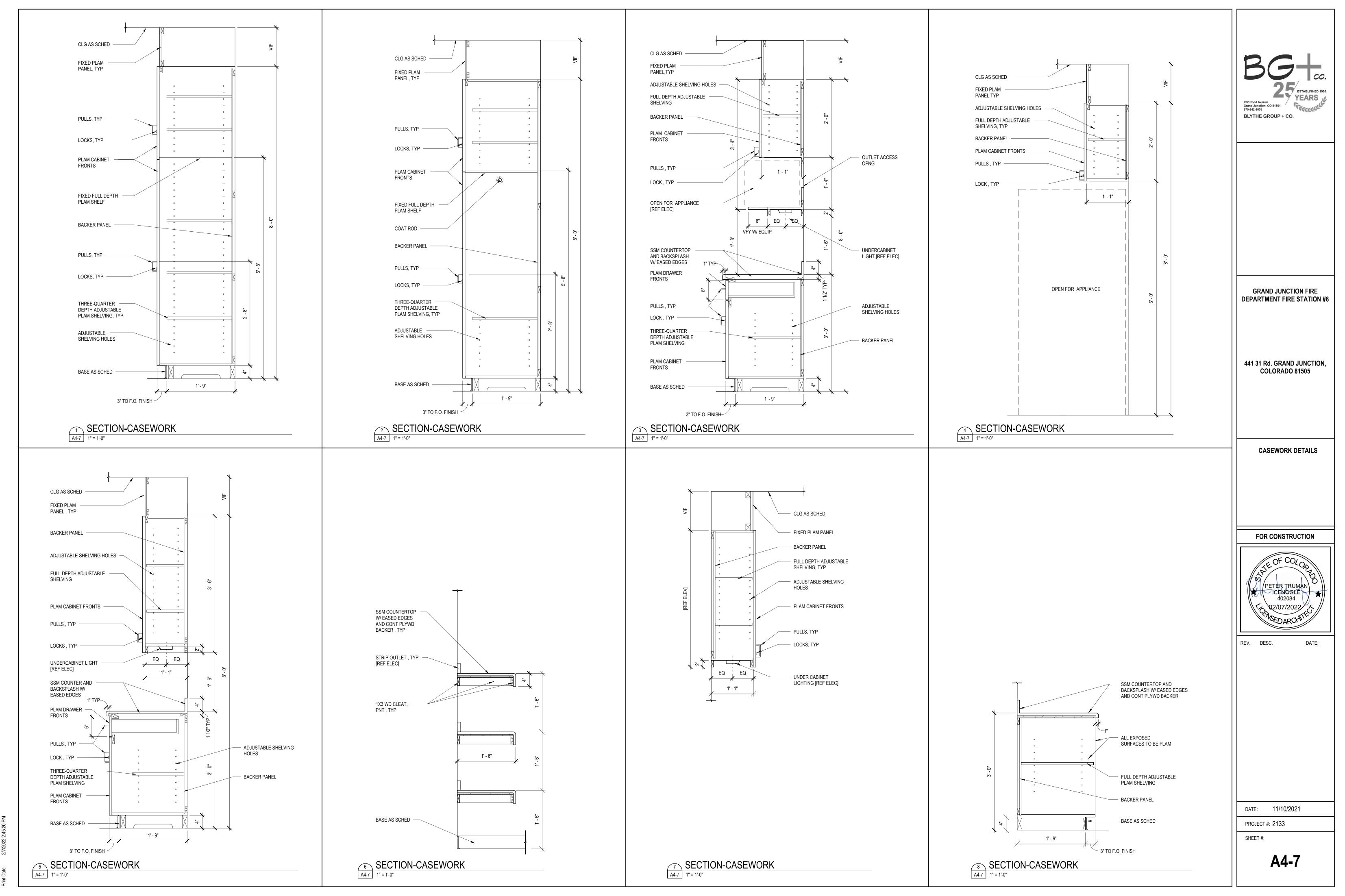
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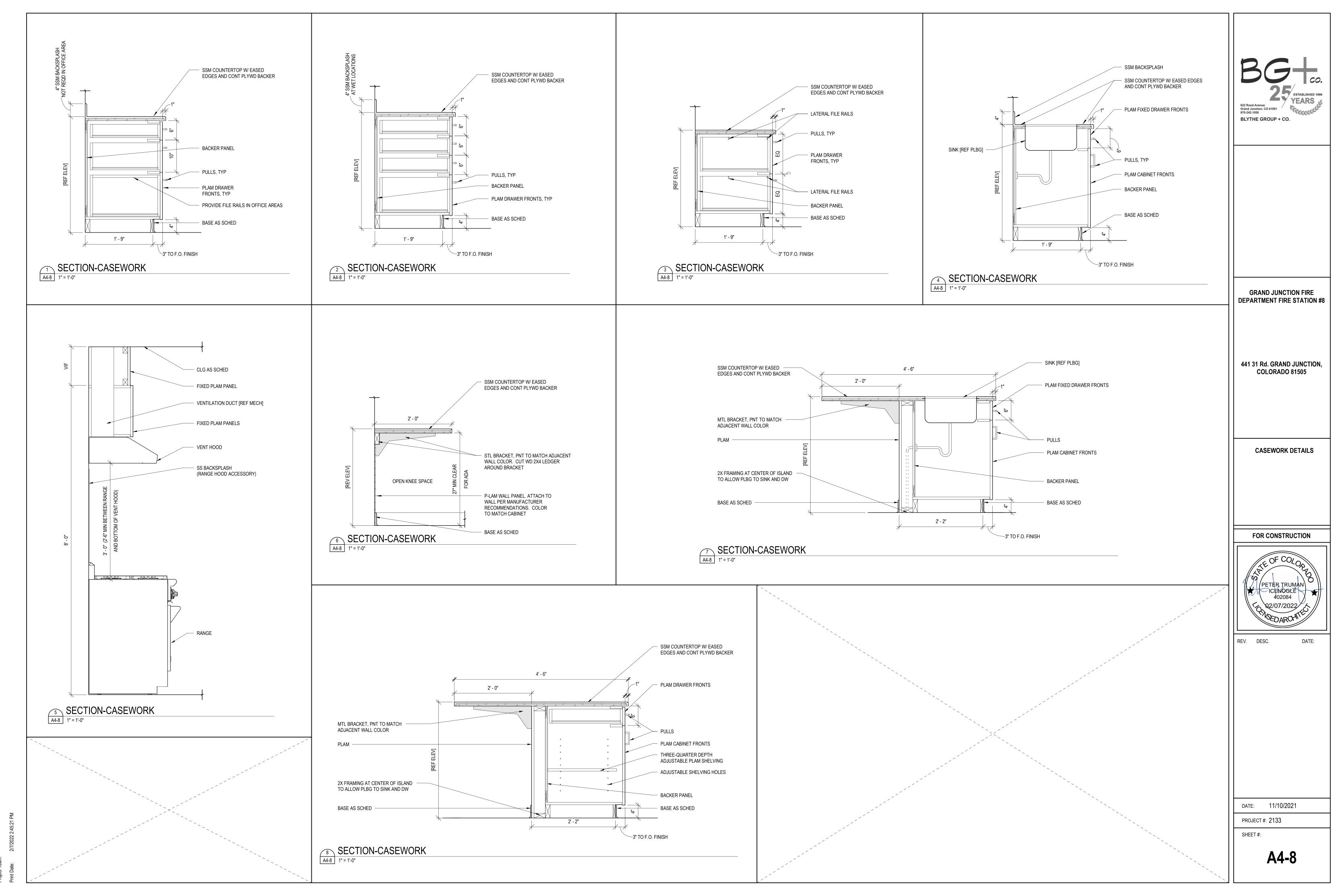












DOOR SCHEDULE																	
	DOOF	R SIZE		DOOI	R TYPE					FRAME TYPE							
DOOR NUMBER	WIDTH	HEIGHT	TYPE	MATL	GLAZING	FINISH	RATING	HDW GROUP	TYPE	MATL	FINISH	JAMB DETAIL	HEAD DETAIL	SILL / THRESHOLD	COMMENTS	SIGN TYPE	TEXT
100	3' - 0"	7' - 0"	F	AL	GL-2	FF		AL-01	3	AL	FF	8/A5-3 SIM	3/A5-3	13/A5-4	1, 2	В	EXIT
101	3' - 0"	7' - 0"	F.	WD	GL-4	FF		03	1	HM	PNT	1/A5-4	2/A5-4		., _	C	OFFICE 101 [INSERT TBD]
103	3' - 0"	7' - 0"	A	WD		FF		03	1	HM	PNT	1/A5-4	2/A5-4				OFFICE 102/TRAINING [INSERT TBD]
103A	3' - 0"	7' - 0"	D	WD	GL-4	FF		06	1	HM	PNT	1/A5-4	2/A5-4				
103B	3' - 0"	7' - 0"	D	HM	GL-4	PNT		07	4	НМ	PNT	8/A3-8	7/A3-8	14/A5-4			
104	3' - 0"	7' - 0"	Α	WD		FF		04	1	НМ	PNT	1/A5-4	2/A5-4			Α	
107	3' - 0"	7' - 0"	F	AL	GL-2	FF		AL-02	4	AL	FF	8/A5-3	5/A5-4	13/A5-4	3		
109	3' - 0"	7' - 0"	Α	HM		PNT		08	1	HM	PNT	1/A5-4	2/A5-4			В	EMS STORAGE 109
110	3' - 0"	7' - 0"	D	WD	GL-4	FF		06	1	HM	PNT	1/A5-4	2/A5-4				
110A	3' - 0"	7' - 0"	D	HM	GL-4	PNT		07	4	НМ	PNT	8/A3-8	7/A3-8	14/A5-4			
111	3' - 0"	7' - 0"	Α	HM		PNT		10	1	HM	PNT	1/A5-4	2/A5-4		1, 2	В	IT/AV ROOM 111
112	3' - 0"	7' - 0"	Α	WD		FF		05	1	HM	PNT	1/A5-4	2/A5-4			В	PANTRY 112
113	3' - 0"	7' - 0"	Α	WD		FF		04	1	HM	PNT	1/A5-4	2/A5-4			В	SHOWER AND TOILET ROOM 113
114	3' - 0"	7' - 0"	Α	WD		FF		04	1	HM	PNT	1/A5-4	2/A5-4			В	SHOWER AND TOILET ROOM 114
115	3' - 0"	7' - 0"	Α	WD		FF		04	1	HM	PNT	1/A5-4	2/A5-4			В	SHOWER AND TOILET ROOM 115
116	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
117	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
118	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
119	3' - 0"	7' - 0"	Α	WD		FF		05	1	HM	PNT	1/A5-4	2/A5-4			В	LAUNDRY 119
120	3' - 0"	7' - 0"	D	HM	GL-2	PNT		01	4	HM	PNT	6/A5-4	5/A5-4	14/A5-4	1, 2	В	EXIT
121	3' - 0"	7' - 0"	D	HM	GL-2	PNT		01	4	HM	PNT	6/A5-4	5/A5-4	14/A5-4	1, 2	В	EXIT
121A	3' - 0"	7' - 0"	Α	WD		FF		06	1	HM	PNT	1/A5-4	2/A5-4				
122	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
123	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
124	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
125	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
126	3' - 0"	7' - 0"	Α	WD		FF		12	1	HM	PNT	1/A5-4	2/A5-4				
127	3' - 0"	7' - 0"	D	WD	GL-4	FF		06	1	HM	PNT	1/A5-4	2/A5-4				
127A	3' - 0"	7' - 0"	D	HM	GL-4	PNT		07	4	HM	PNT	8/A3-8	7/A3-8	14/A5-4			
128	3' - 0"	7' - 0"	A	HM		PNT		11	1	HM	PNT	1/A5-4	2/A5-4			В	MECHANICAL ROOM 128
129	6' - 0"	7' - 0"	A	HM		PNT		09	5	HM	PNT	3/A5-4	4/A5-4		8	В	ELECTRICAL ROOM 129
130	16' - 0"	12' - 8"	l l	STL	GL-5	FF		14		STL	FF	3/A3-6	8/A3-5		2, 4		
130A	16' - 0"	12' - 8"	<u> </u>	STL	GL-5	FF		14		STL	FF	3/A3-6	4/A3-6		2, 4		
130B	3' - 0"	7' - 0"	D	HM	GL-2	PNT		01	4	HM	PNT	7/A5-4	8/A5-4	14/A5-4	1, 2	В	EXIT
131	16' - 0"	12' - 8"		STL	GL-5	FF		14		STL	FF	3/A3-6	8/A3-5		2, 4		
131A	16' - 0"	12' - 8"	<u> </u>	STL	GL-5	FF		14		STL	FF	3/A3-6	4/A3-6		2, 4		
132	16' - 0"	12' - 8"	I	STL	GL-5	FF		14		STL	FF	3/A3-6	8/A3-5		2, 4		
132A	16' - 0"	12' - 8"	I	STL	GL-5	FF		14		STL	FF	3/A3-6	4/A3-6		2, 4		
133	6' - 0"	7' - 0"	D	HM	GL-4	PNT		15	5	HM	PNT	3/A5-4	4/A5-4		8		
134	6' - 0"	7' - 4"	H	WD/ SS	ACRYLIC	FF		13				PER MFR	PER MFR		7, 8	<u> </u>	EVIT
136	6' - 0"	7' - 0"	A	HM		PNT		02	5	HM	PNT	7/A5/4	8/A5-4 SIM	14/A5-4	8	В	EXIT
136A	3' - 0"	7' - 0"	A	HM		PNT		05	4	HM	PNT	3/A5-4	4/A5-4	40/42.0	0		
200	3' - 0"	4' - 4"	A	HM		PNT		11A	1 SIM	HM	PNT	11/A3-8 SIM	11/A3-8	12/A3-8	6		
203	6' - 8"	3' - 8"	A	HM		PNT		02A	1 SIM	HM	PNT	10/A3-8 SIM	10/A3-8	2/A3-6	6, 9		

# DOOR SCHEDULE GENERAL NOTES Copy 1

- 1. FRAME ELEVATIONS INDICATED ARE BASED UPON NOMINAL DIMENSIONS. FIELD
- VERIFY DIMENSIONS OF ACTUAL ROUGH OPENINGS.

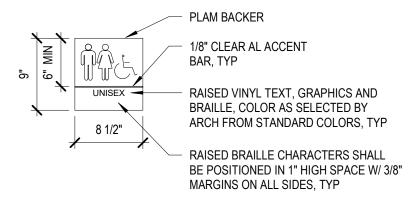
  2. ALL INTERIOR EXPOSED STEEL LINTELS ARE TO BE PAINTED TO MATCH ADJACENT WALL FINISH - REFERENCE ROOM FINISH SCHEDULE.
- ALL GLAZING IS TO BE TYPE GL-2, UNO.
   FOR HOLLOW METAL DOORS AND FRAMES COLOR, REFER TO INTERIOR COLOR SCHEDULE AND EXTERIOR COLOR SCHEDULE.

# DOOR SCHEDULE ABBREVIATIONS

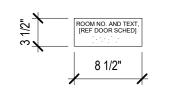
- AL ALUMINUM EX EXISTING
- FACTORY FINISH GLAZING HM HOLLOW METAL PNT PAINT
- SS STAINLESS STEEL STL STEEL WD WOOD

# DOOR SCHEDULE COMMENTS Copy 1

- PROVIDE ELECTRONIC POSITION MONITORING
   ELECTRONIC DOOR ACCESS DEVICE
- REFLECTIVE FILM ON GLASS TO PREVENT VISION INTO BUILDING
   OVERHEAD SECTIONAL DOOR WITH GLASS
- 5. STC-45 ACOUSTICAL DOOR
- 6. PARTIAL HEIGHT ACCESS DOOR, 4-SIDED FRAME
- ELIASON, METAL/ STAINLESS STEEL/ BRUSHED
   6'-0" DOOR SIZE WIDTH IS EQUAL TO A PAIR OF 3'-0" DOOR LEAVES 9. 6-8" DOOR SIZE WIDTH IS EQUAL TO A PAIR OF 3'-4" DOOR LEAVES



TYPE A UNISEX RESTROOM



- CUSTOM INSERT SLOT BEHIND 8 1/2" CLEAR ACRYLIC

TYPE B ROOM ID, DOUBLE LINE

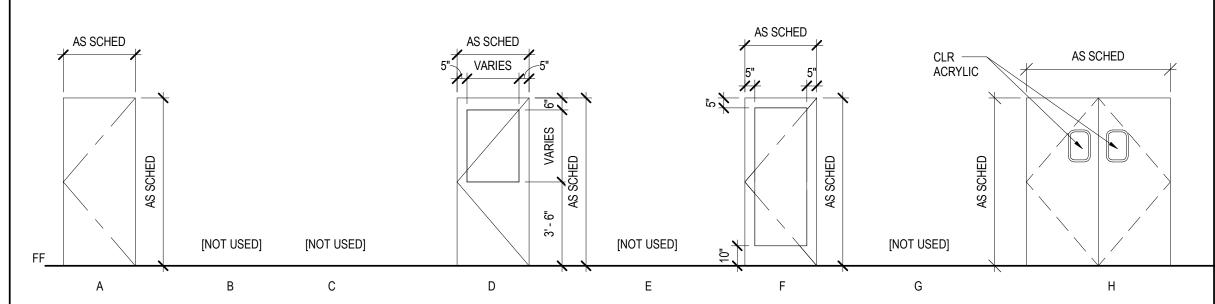
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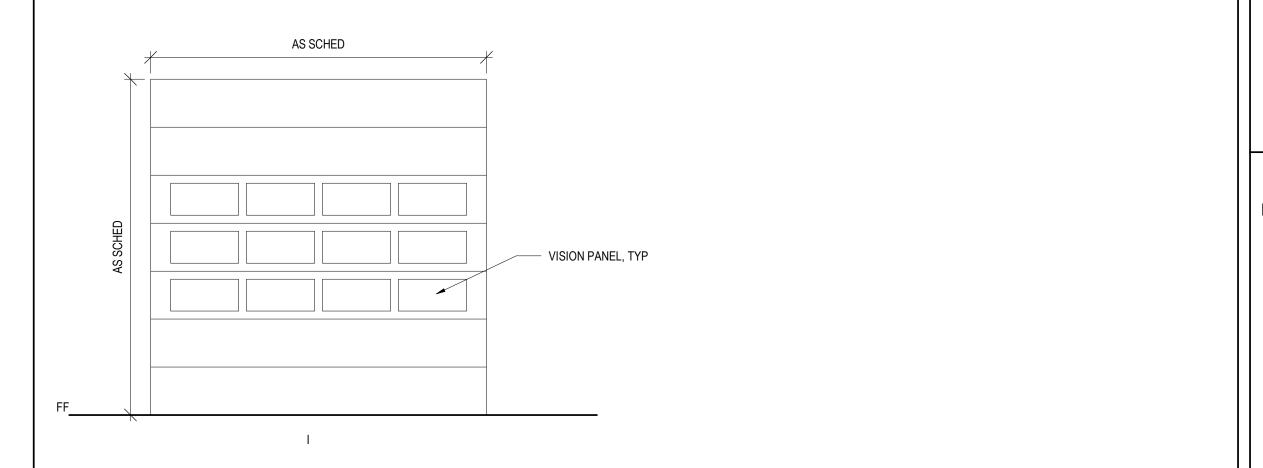
## DOOR TYPES

FRAME TYPES

2" AS SCHED 2"

[NOT USED]





| 8 | A5-3 | -

2"\ AS SCHED \( \sigma^2\)"

AS SCHED

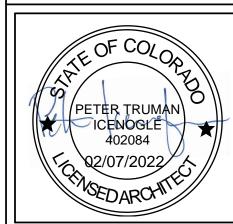
# BLYTHE GROUP + CO.

**GRAND JUNCTION FIRE** DEPARTMENT FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

DOOR SCHEDULE / FRAME **ELEVATIONS** 

FOR CONSTRUCTION

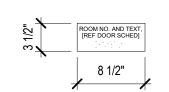


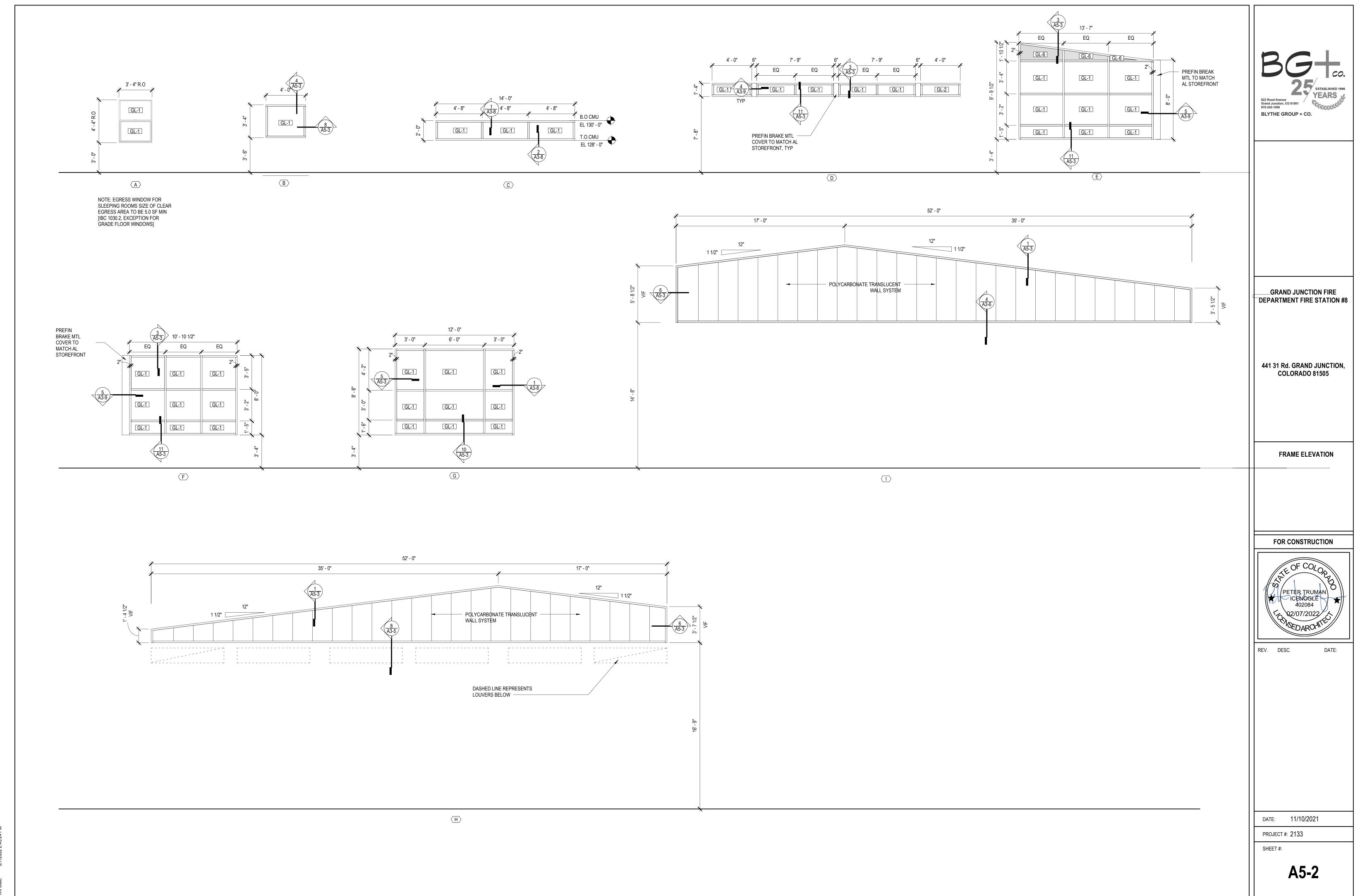
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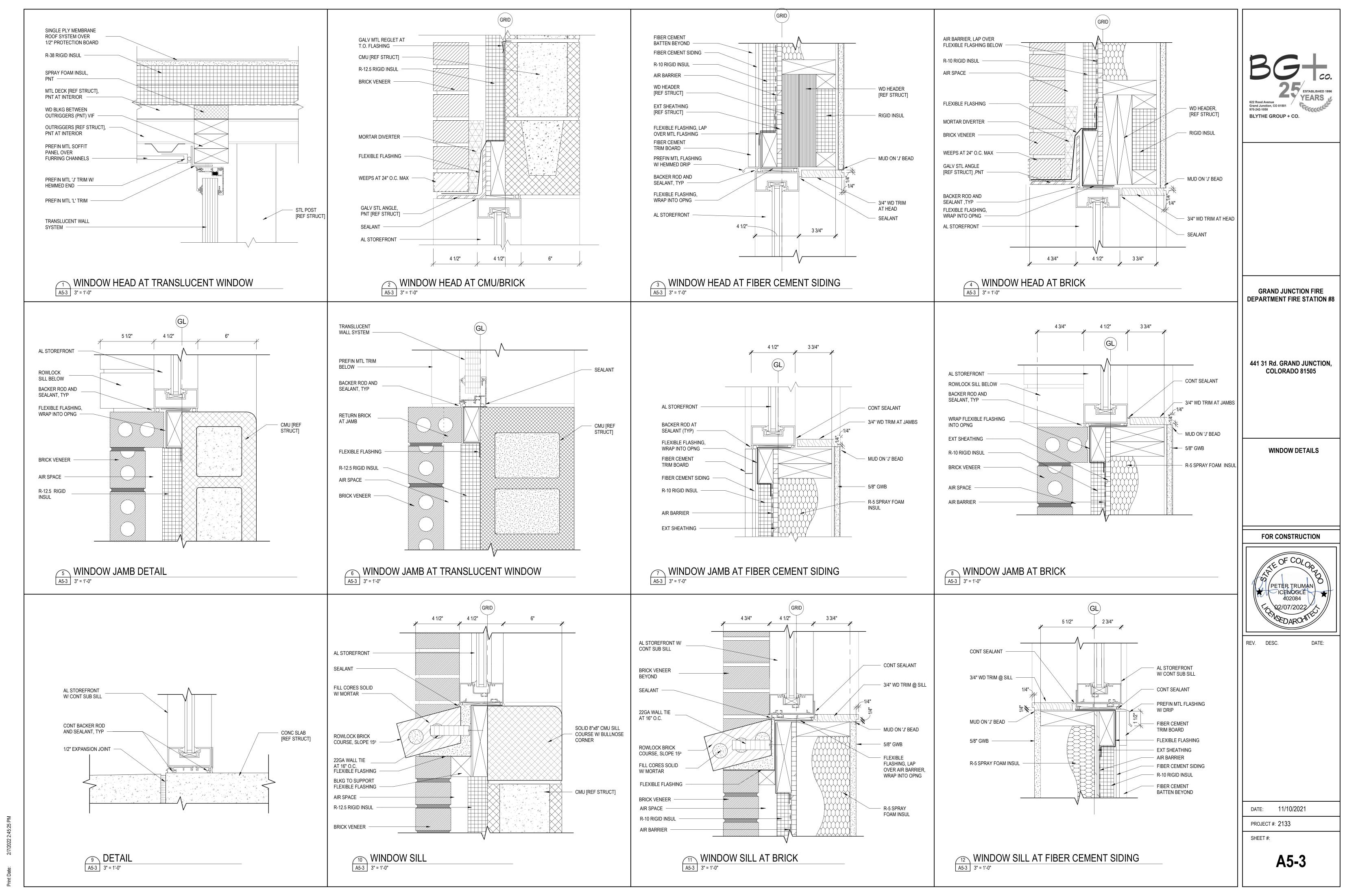
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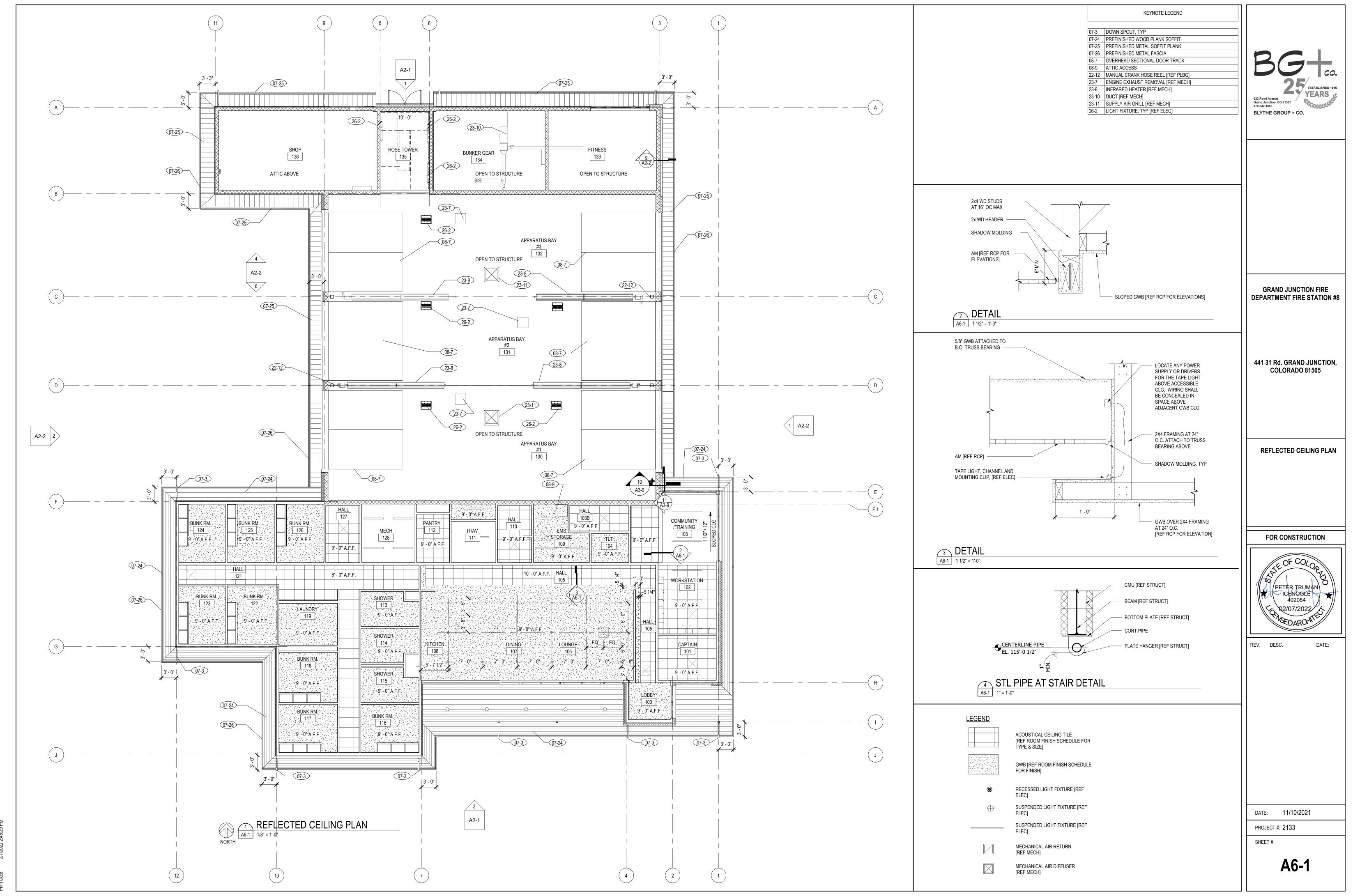
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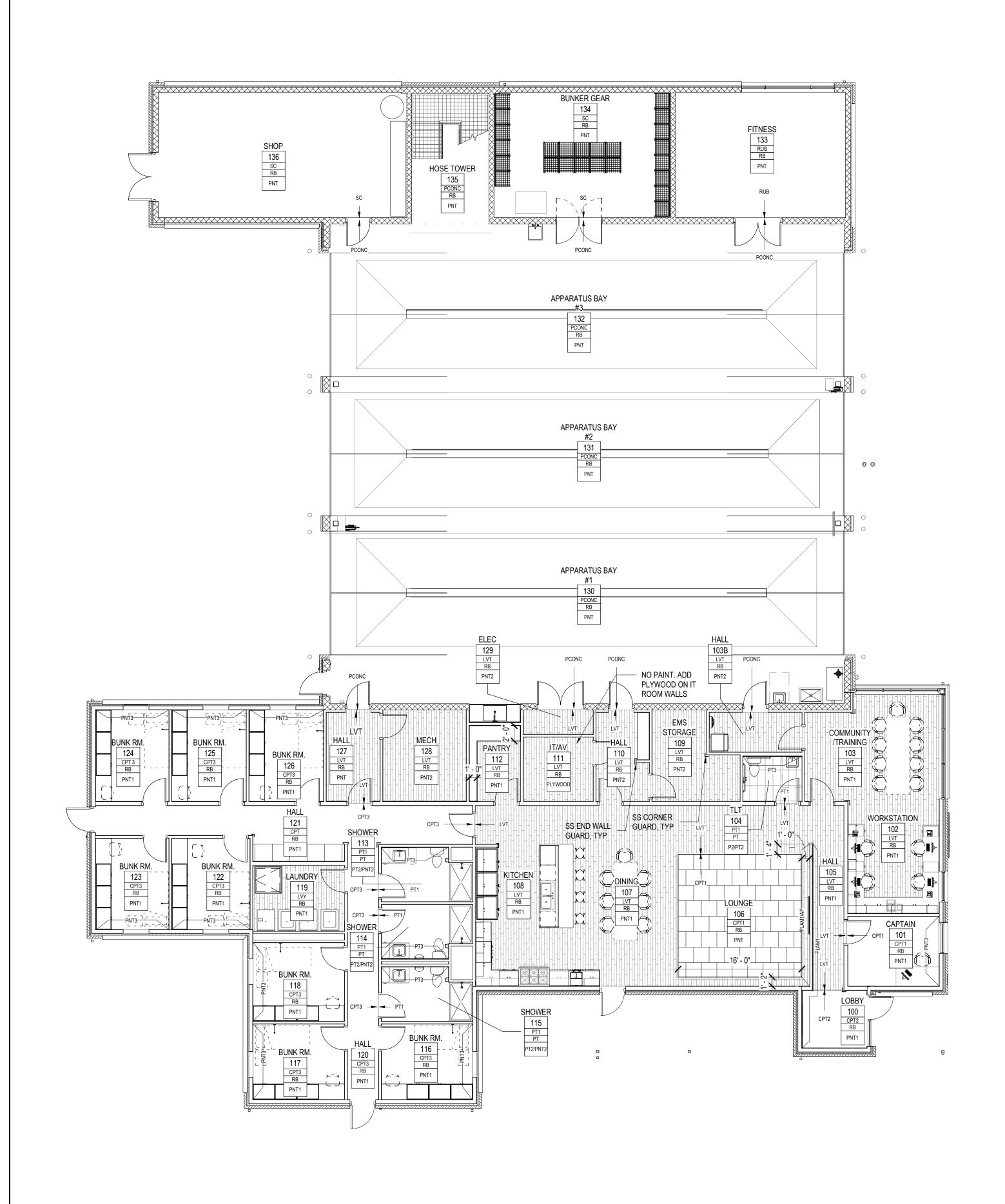




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NOTE: FURNITURE SHOWN FOR REFERENCE ONLY. FURNITURE IS FBO

FINISH PLAN

A7-1 1/8" = 1'-0"

EXTERIOR FINISH COLOR SCHEDULE									
TITLE	ITEM	COLOR							
CAST IN PLACE CONCRETE	SITE CONCRETE	GRAY							
MASONRY VENEER	BRICK VENEER	GENERAL SHALE, COLONIAL SATIN							
MASONRY VENEER	MORTAR	SOLOMON, SGS 97H SUPER BLACK							
METAL SOFFIT PANELS	METAL SOFFIT PANEL	ALUMINUM DARK BRONZE							
FIBER CEMENT SIDING	FIBER CEMENT SIDING	JAMES HARDIE, RICH ESPRESSO							
FIBER CEMENT SIDING	FIBER CEMENT BATTEN BOARDS	JAMES HARDIE, RICH ESPRESSO							
FIBER CEMENT SIDING	FIBER CEMENT TRIM BOARDS	JAMES HARDIE, RICH ESPRESSO							
ROOF SPECIALTIES	COPINGS	ALUMINUM DARK BRONZE							
ROOF SPECIALTIES	GUTTERS AND DOWNSPOUTS	ALUMINUM DARK BRONZE							
JOINT SEALANTS	MASONRY CONTROL JOINT	MATCH MORTAR							
JOINT SEALANTS	STOREFRONT TO FIBER CEMENT JOINTS	MATCH STOREFRONT							
JOINT SEALANTS	METAL PANEL TO FIBER CEMENT JOINTS	MATCH METAL PANELS							
JOINT SEALANTS	MASONRY TO METAL PANEL JOINTS	MATCH METAL PANELS							
HOLLOW METAL DOOR AND FRAMES	DOORS	MATCH ALUMINUM STOREFRONT FRAMING							
HOLLOW METAL DOOR AND FRAMES	FRAMES	MATCH ALUMINUM STOREFRONT FRAMING							
SECTIONAL DOORS	DOORS	RAL COLOR TO MATCH STOREFRONT							
AL FRAMED ENTRANCES AND STOREFRONTS	STOREFRONT FRAMING	DARK BRONZE ANODIZED							
HIGH PERFORMANCE COATINGS	EXTERIOR STEEL	MATCH AL STOREFRONT FRAMING							
SIGNAGE	EXTERIOR CAST ALUMINUM LETTERS	DARK BRONZE ANODIZED							
FLAGPOLES	FLAGPOLE	DARK BRONZE ANODIZED							

				. IN	TERIOR FINISH COLOR SCHE	DULE		
	TAG	MANUFACTURER	FAMILY/ STYLE	NUMBER	COLOR	FINISH	LOCATION	NOTES
	PNT1	SHERWIN WILLIAMS		SW6106	KILIM BEIGE		WALL	EGGSHELL FINISH TYP, EPOXY AT WET AND UTILITY LOCATIONS
	PNT2	SHERWIN WILLIAMS		SW7042	SHOJI WHITE		CEILING	GWB CEILINGS - FLAT FINISH, EPOXY AT WET AND UTILITY LOCATIONS
PAINT	PNT3	SHERWIN WILLIAMS		SW7045	INTELLECTUAL GRAY		WALL	ACCENT, EGGSHELL FINISH
	PNT4	SHERWIN WILLIAMS		SW7026	GRIFFIN		DOOR FRAMES	SEMI GLOSS FINISH
	PNT5	SHERWIN WILLIAMS		SW6991	BLACK MAGIC		CASEWORK	SEMI GLOSS FINISH
	CPT1	MANNINGTON	OFFLINE LOOP	14199	LINKED		OFFICE	
CARPET	CPT2	MANNINGTON	INERTIA	11360	KINETIC		AS SHOWN ON PLAN	WALK OFF CARPET
	CPT3	MANNINGTON	BOUCLE	15297	ONYX		SLEEPING ROOM	
LUXURY VINYL TILE	LVT	MANNINGTON	NATURE'S PATH WOOD		WINDSOR OAK MOLESKIN		AS SHOWN ON PLAN	EXTEND UNDER CASEWORK, SHELVING AND APPLIANCES
RESILIENT BASE	RB	ROPPE		194	BURNT UMBER		AS SHOWN ON PLAN	
CEILING GRID AND TILE	AM				WHITE		AS SHOWN ON RCP	
	PT1	CROSSVILLE	GOTHAM		DOCKSIDE AV325		FLOOR	
TILE	PT2	CROSSVILLE	GOTHAM		LAMP POST AV321		WALL	
	PT3	CROSSVILLE	GOTHAM		SMOKE CRV02		WALL	ACCENT, 4X4 CIRCLE W/ 4 CORNERS
GROUT							FLOOR AND WALL	TO BE SELECTED FROM MFR'S STANDARD COLORS
PLASTIC LAMINATE	PLAM1	WILSONART		7965K-12	WALNUT HEIGHTS		CASEWORK/PANELING	
CORNER GUARD/END GUARD							AS SHOWN ON PLAN	STAINLESS STEEL
					TBD	LIGHT FILTERING	WINDOWS	TO BE SELECTED FROM MFR'S STANDARD COLORS
WINDOW SHADES					TBD	BLACKOUT	WINDOWS	TO BE SELECTED FROM MFR'S STANDARD COLORS
COUNTERTOPS	SSM	CORIAN			SAHARA		AS SHOWN ON PLAN	
WALL SOUND PANEL	AP	GUILFORD OF MAINE	ОТТО	7030	SLATE		AS SHOWN ON PLAN	
FLUSH WD DOORS					PLAIN SLICED WALNUT	CLEAR	AS SCHEDULED	
RESILIENT SPORTS FLOORING	RUB						FITNESS AREA	FURNISHED AND INSTALLED BY OWNER
SIGNAGE TEXT							AS SCHEDULED	TO BE SELECTED FROM MFR'S STANDARD COLORS
SIGNAGE BACKGROUND		WILSONART		7965K-12	WALNUT HEIGHTS		AS SCHEDULED	
SIGNAGE ACCENT BAR					ANODIZED ALUMINUM		AS SCHEDULED	

# FINISH PLAN ABBREVIATIONS

# FINISH PLAN LEGEND

ROOM NUMBER

A202A FLOOR FINISH

CPT BASE FINISH

RB WALL FINISH

LVT	LUXURY VINYL TILE
CPT-1	CARPET TILE
CPT-2	TILE WALK OFF MAT
PNT1	GENERAL AREA PAINT
PNT2	GWB CEILING/WALL PAINT
PNT3	ACCENT PAINT
PNT4	DOOR FRAME PAINT
PNT5	CASEWORK PAINT
PT	PORCELAIN TILE

PORCELAIN TILE

B RUBBER, RESILIENT ATHLETIC FLOORING,
FURNISHED AND INSTALLED BY OWNER

1 RUBBER BASE, 4" COVED

RB-1 RUBBER BASE, 4" COVED
SC SEALED CONCRETE
PCONC POLISHED CONCRETE
PLAM PLASTIC LAMINATE

DATE: 11/10/2021
PROJECT #: 2133

BLYTHE GROUP + CO.

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

> ROOM FINISH/ SIGNAGE PLAN

FOR CONSTRUCTION

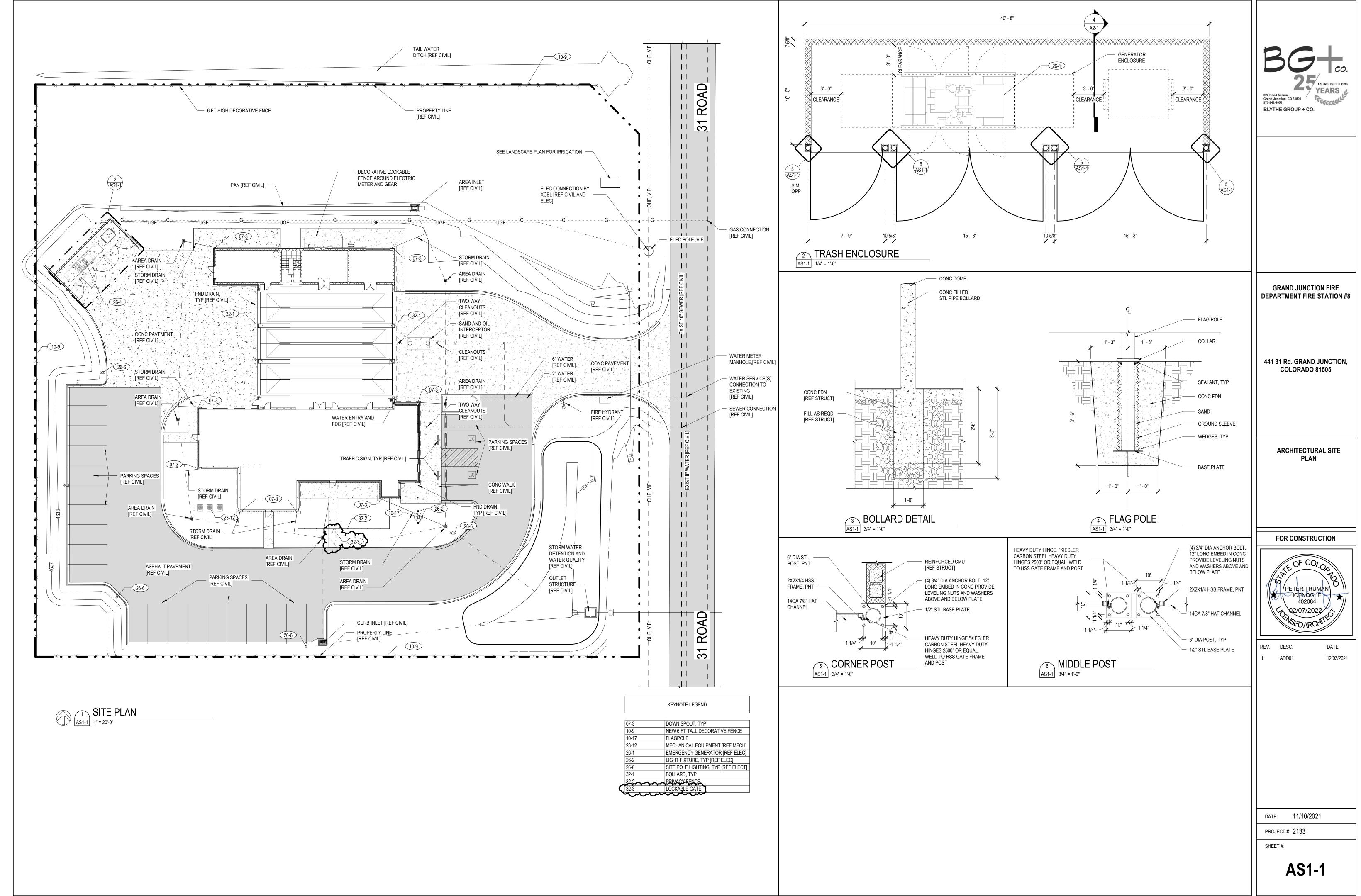
PETER TRUMAN ICENOGLE 402084

REV. DESC.

SHEET #:

A7-1

Project Team: Print Date: 2/7/2022 2:45:33 PM



#### GENERAL CONSTRUCTION NOTES

- 1. Contractor shall contact Mark Barslund, City of Grand Junction's development inspector, at (970) 201-1362, a minimum of 72 hours in advance, for a pre-construction meeting prior to beginning work.
- 2. Locations of existing utilities shown on these plans are approximate only. Contractor is to contact affected utility for specific locations before diaging.
- 3. The Contractor shall notify the engineer if unanticipated conditions area encountered during completion of the work which require modifications to the contract drawings. The engineer can be reached at 970-242-7540.
- 4. Contractor shall give 48—hour notice to all authorized inspectors, superintendents, or person in charge of public and private utilities affected by his operations prior commencement of work. Contractor shall assure himself that all construction permits are current.
- 5. Contractor shall confine his construction operations to the right—of—way, easements, and lots, as shown on plans and plat. Any damage to private facilities outside these limits shall be repaired by the Contractor at no expense to the Owner.
- 6. All road construction, related work, materials, performance and quality of work provided shall conform to the requirements of the City of Grand Junction Standard Specifications and Drawings and the applicable sections of the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standard Plans, Division of Highways M & S Standards.
- 7. Contractor shall familiarize himself with the geotechnical testing requirements of the City of Grand Junction. The results of the required types of tests and numbers of passing tests shall be furnished to the Engineer for verification before final acceptance by the Owner will be granted. All failing tests shall be brought to the immediate attention of the Engineer and retests shall be performed until passing results are obtained. All utility lines, including service lines falling shall be tested.
- 8. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for utility trench back fill unless otherwise approved by the Engineer.
- 9. All utility installations are to be performed in accordance with the City of Grand Junction Standard Specifications for the Construction of Underground Utilities and Standard Details.
- 10. All sewer lines must be tested and approved PRIOR to street construction. Contractor is required to notify the Owner's representative PRIOR to testing. The Owner's representative must be present to witness testing of water and sewer lines or the City will not approve the installation.
- 11. In the event of a descrepancy between the construction notes contained herein and the notes and details in the City of Grand Junction Standard Contract Documents for Capital Improvements Construction manual, the City's manual shall control.
- 12. All work within the City of Grand Junction Right—of—Way shall required a "Work in the Right—of—Way" Permit. All construction work shall be in accordance with the latest edition of the City of Grand Junction Standard Specifications.
- 13. Finished ground surface shall drop at least 6 inches within the first 10 feet away from the building.
- 14. All roof drains that discharge to the finished ground surface shall be provided with splash blocks that extend beyond the building foundation excavation zone.
- 15. The Contractor shall be required to comply with the requirements and recommendations of Geotech report titled Geotechnical Investigation Report Proposed Pear Park Fire Station, RockSol Project No. 599.05 dated September 25, 2020, unless otherwise noted.
- 16. All fill, building, concrete or asphalt pavement areas shall be stripped of a minimum 6—inches of topsoil.

## PAVING CONSTRUCTION NOTES

- 1. All road widths and radii are to flow line unless noted otherwise. Any "spot" design elevations are to flow line of curb and gutter unless otherwise noted.
- 2. Prior to pavement placement, the pavement prism should be stripped of all unsuitable materials. It is recommended that the subgrade soils be scarified to a depth of 12—inches, moisture conditioned, and recompacted to a minimum of 95% of the standard Proctor maximum dry density, within  $\pm 2\%$  of optimum moisture as determined by AASHTO T-99.
- 3. Contractor to protect existing utilities and appurtenances. Manholes, drainage inlets, utility lines, etc., damaged, covered, or filled with dirt or debris by the Contractor shall be cleaned and repaired at no expense to the Owner.
- 4. Where proposed pavement is to match existing pavement, existing pavement is to be squared cut, full base thickness is to be brought to match line and existing surface is to be tack—coated before proposed surface is placed.
- 5. All handicap ramps, sidewalks and curb and gutter are to be constructed where indicated on the plans and in accordance The City of Grand Junction requirements..
- 6. Curb, gutter, and drainage pans are to have expansion joints at each change in horizontal alignment of curb and gutter, but in no case at a greater distance apart than 100 feet. Locate dummy grooved joints between expansion joints at intervals not exceeding 10 feet. Where length of pour precludes 10 foot intervals, the end sections may be less then 10 feet but not less than 5 feet.
- 7. PAVEMENT SECTION: See Geotech Report.

## Asphalt:

Driving/Drive Lanes = 5" HMA over 6" ABC over 24" Class III Parking Stalls = 3" HMA over 4" ABC over 24" Class III

31 Road = 5" HMA over 6" ABC over 24" Class III

Concrete:

Driveway/Traffic = 7.5" over 6" ABC over 24" Class III with 1" Dowell bars; #5 tie bars @ 12" centers

Parking = 5" over 6" ABC over 24" Class III with 1" Dowel bars; #5 tie bars @ 12" centers

#### CLIFTON WATER DISTRICT-WATER LINE CONSTRUCTION NOTES

- 1. All water line construction within public right—of—way or to be dedicated to the district shall be constructed in accordance with the Clifton Water District Standards and Specifications.
- 2. Contractor shall notify the Clifton Water District 24 hours prior to the beginning of construction.
- 3. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined by AASHTO T-99. Contractor shall be required to perform all necessary compaction tests through a certified soils lab.
- 4. Minimum cover required over top of new waterlines is 3'-6".
- 5. All water mains to be C900 Class 200 PVC, DR14. Installation of pipe, fittings, valves and services including testing and disinfection shall be in accordance with Clifton Water standard specifications and drawings.
- 6. Cast Iron fittings to conform to AWWA C-110.
- 7. Fire Hydrants shall conform to AWWA C-502, Mueller Centurian.
- 8. All materials labor and equipment required for testing and disaffection of water lines shall be furnished by Contractor. Disinfection of water lines shall conform to AWWA C-651-86 or latest revision thereof. No separate pay.
- 9. All pipe bends/angle points, both horizontal and vertical, as called for on the plans are to be thrust blocked per Clifton Water District details and Technical Specifications.
- 10. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for water line trench backfill unless otherwise approved by the Engineer.
- 11. All Clifton Water Mains are to be bedded per City of Grand Junction Standards.
- 12 All water meter pits shall be located on opposite lot side of dry utility transformers and pedestals. This is a customer/consumer safety issue.
- 13 Abandoned services shall be removed and capped at main.

#### STORM SEWER CONSTRUCTION NOTES

- 1. All storm sewer line construction shall be in accordance with the City of Grand Junction Standards and Specifications.
- 2. All Reinforced Concrete storm sewer pipe shall conform to ASTM Standard Specifications. C-76. Class III unless otherwise noted.
- 3. All polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM Standard Specifications, D3034 and F679, SDR—35 unless otherwise noted.
- 4. All High Density Polyethylene (HDPE) pipe and fittings shall be smooth bore and shall conform to the following:
  - 12 inch to 36 inch shall meet ASSHTO M294
  - 42 inch to 48 inch shall meet ASSHTO MP6
    All HDPE pipe up to 30" shall be backfilled to springline with Class—6.

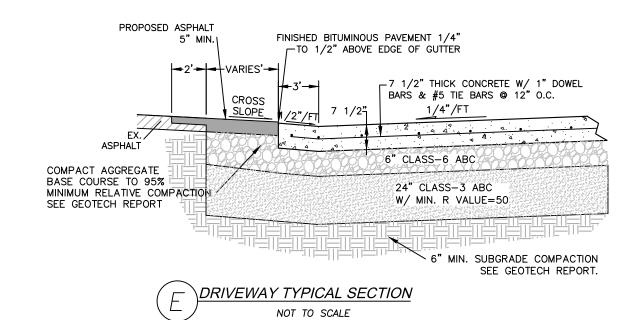
## FUGITIVE DUST CONTROL PLAN

- 1. Before stripping of the site preparation for overlot grading, the surface is to be pre—wet to control dust.
- 2. Any stockpiles of stripping materials are to be periodically sprayed with water or a crusting agent to stabilize potentially wind blown material.
- 3. Haul road both into and around the site are to be sprayed as needed to suppress dust.
- 4. The Storm Water Management Plan and permit shall be obtained and kept onsite before starting any construction work. Gravel pads are to be constructed at the entrances to the site to help in removing mud from the wheels of haulage trucks before they enter onto City streets.
- 5. Trucks hauling import fill are to be tarped to aid in the control of airborne dust.

#### LEGEND ----PROPERTY LINE PROPOSED INLINE DRAIN —— 8"W → EXISTING 8" WATER MAIN ----EXISTING EASEMENT —— 2™ —— PROPOSED 2" DOMESTIC SERVICE ----PROPOSED EASEMENT — → PROPOSED 4" FIRE LINE -EXISTING BUILDING EXISTING FIRE HYDRANT -----PROPOSED BUILDING PROPOSED FIRE HYDRANT EXISTING CURB/GUTTER EXISTING WATER METER PROPOSED CURB/GUTTER PROPOSED WATER METER PROPOSED SPILL CURB/GUTTER PROPOSED METER/BACKFLOW VAULT PROPOSED IRRIGATION MANHOLE PROPOSED TRANSITION CURB/GUTTER EXISTING RETAINING WALL ——× —— EXISTING FENCE ---- EXISTING 1-FT CONTOUR ---- EXISTING 5-FT CONTOUR → PROPOSED TRAFFIC FLOW ----<sup>GB</sup>---- GRADE BREAK PROPOSED 1-FT CONTOUR PROPOSED 5-FT CONTOUR ROOF DRAIN (RD) EXISTING ASPHALT PROPOSED ASPHAL STREET LIGHT POLE PROPOSED ASPHALT FIRE DEPARTMENT CONNETION PROPOSED HEAVY DUTY ASPHALT PARKING LOT LIGHT EXISTING CONCRETE PROPOSED BUILDING LIGHT PROPOSED CONCRETE POWER POLE PROPOSED HEAVY DUTY CONCRETE FLOWLINE -EXISTING SANITARY SEWER EDGE OF PAVEMENT TOC TOP OF CONCRETE EXISTING SANITARY SEWER MANHOLE TOW TOP OF WALL PROPOSED SANITARY SEWER MANHOLE BOW BOTTOM OF WALL PROPOSED SANITARY SEWER CLEANOUT TBW TOP BACK OF WALK EXISTING STORM SEWER TOP OF CURB ── \$ ── PROPOSED STORM SEWER BOC BACK OF CURB EXISTING STORM SEWER INLET LANDSCAPE AREA LS PROPOSED STORM SEWER INLET UTILITY PEDESTALS EXISTING STORM SEWER MANHOLE PROPOSED STORM SEWER MANHOLE

#### SANITARY SEWER CONSTRUCTION NOTES

- 1. All materials and workmanship shall comply to the Standards and Specifications of the City of Grand Junction. The City of Grand Junction reserves the right to accept or reject any materials and or workmanship that does not conform.
- 2. The Contractor shall have one signed copy of plans and a copy of the City of Grand Junction Standards and Specifications at the job site at all times.
- 3. All sanitary sewer pipe shall be PVC SDR-35 (ASTM 3034) unless otherwise specified.
- 4. All sewer lines to be laid to grade utilizing a "pipe laser".
- 5. All connections to the new sewer lines shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed, except as noted.
- 6. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined AASHTO T—99.
- 7. A minimum of 10 ft. of separation shall be maintained at all times between the waterline and sewer line except at specified crossings.
- 8. The contractor is responsible for all required sewer line testing to be completed in accordance with the City of Grand Junction Standards and Specifications. Final testing to be accomplished only after all other infrastructure has been installed. This includes waterlines, gas lines, electric lines, etc. Testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will also be accomplished after paving is completed to insure that the line is clean. These tests will be the basis for issuing the initial acceptance of the seer line extension.
- 9. Manholes shall be constructed as shown on the City of Grand Junction Standard Sanitary Sewer Detail sheets SS-02 of SS-03 as appropriate.
- 10. Water stop gaskets and clamp assemblies are to be furnished and installed at all connections to manholes. No separate pay.
- 11. Metal grade rings are NOT to be used on tip of manhole rings to adjust to finish pavement elevations. All adjustments to finish grade on new manholes shall be made using concrete grade rings and grout as shown on the standard details.
- 12. Where sanitary sewers cross under a water line with less than 18 inches of vertical separation, and in all cases where the sanitary sewer crosses over the waterline at any depth, provide total concrete encasement of pipe for a length of 10 feet to either side of the waterline.
- 13. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for sewer line trench backfill unless otherwise approved by the Engineer.
- 14. To inhibit the movement of ground water through sewer bedding and haunching material, clay cutoff wall of native material are to be constructed approximately 10 feet upstream from each manhole and shown on sanitary sewer plan and profiles.
- 15. Notify the City of Grand Junction 48 hours prior to the construction of the sanitary sewer facilities.
- 16. The contractor shall obtain a City of Grand Junction Street Cut Permit for all work within existing City right—of—way prior to construction.



UTILITIES AND AGENCIES

RANDI KIM

TRENT PRAIL

BRENDA BOES

JOHN VALDEZ

CHRIS JOHNSON

DAVE REINERTSON

CHARLIE GUENTHER

244-1429

434-7328

242-2762

244-1554

244-2681

244-4333

245-8750

CITY OF GRAND JUNCTION SANITARY SEWER

CITY OF GRAND JUNCTION PUBLIC WORKS

CLIFTON WATER DISTRICT

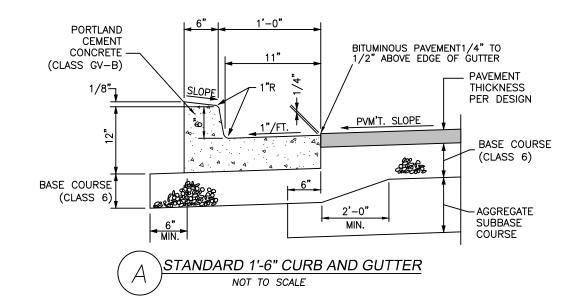
GRAND VALLEY IRRIGATION

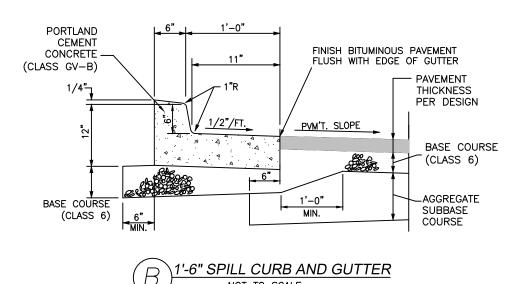
XCEL ENERGY

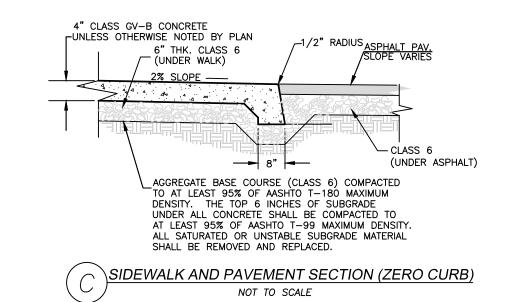
CENTURY LINK

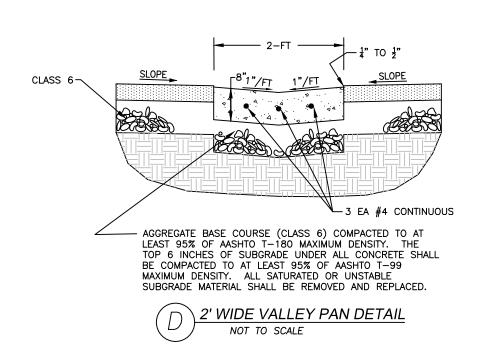
CHARTER

# TYPICAL CONCRETE SECTIONS









ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER

Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

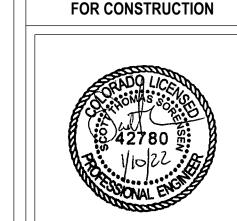
A LUSTIN CIVIL GROUP, INC.

Land Planning Civil Engineering Development Services
123 N. 7th Street, Suite 300m Grand Junction, Colorado 81501
(970) 242-7540

Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

GENERAL NOTES & DETAILS

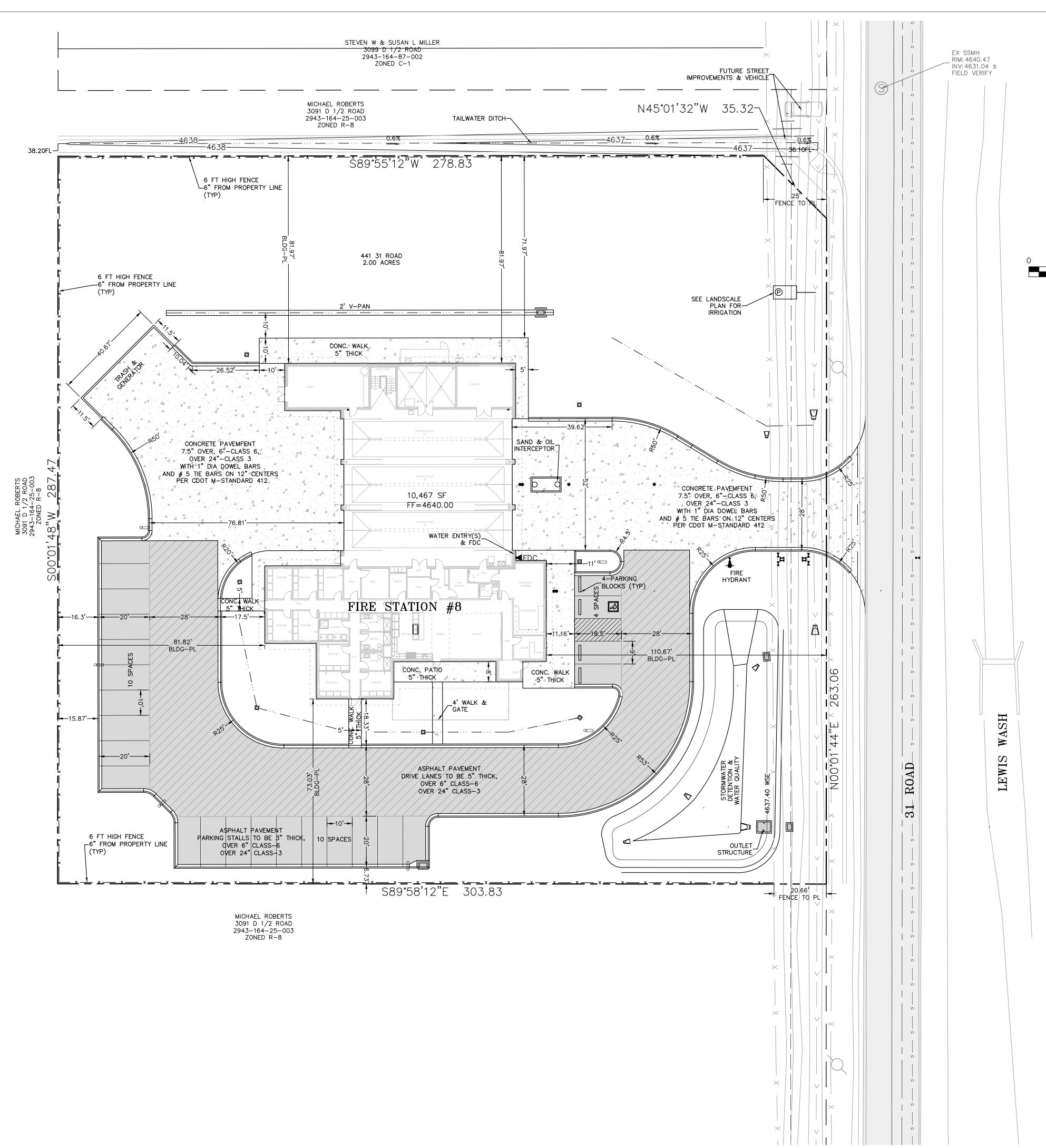


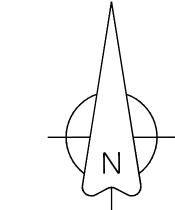
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DATE: 1-10-2022

PROJECT #: 2133

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NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 31 ROAD.

2. PARKING REQUIREMENTS ARE AS FOLLOWS:

- 1 SPACE PER EMPLOYEE + 1 SPACE PER 300 SF OFFICE
- 8 EMPLOYEES PER SHIFT + 780 SF OFFICE
- TOTAL PARKING REQUIRED = 8 + 3 = 11 SPACES
- PARKING PROVIDED = 19 SPACES



LEGEND ————PROPERTY LINE
—————ADJACENT PROPERTY LINE PROPOSED INLINE DRAIN ---- 8"W -> EXISTING 8" WATER MAIN ----EXISTING EASEMENT ----PROPOSED EASEMENT -EXISTING BUILDING EXISTING FIRE HYDRANT - PROPOSED BUILDING PROPOSED FIRE HYDRANT EXISTING CURB/GUTTER EXISTING WATER METER PROPOSED CURB/GUTTER PROPOSED WATER METER PROPOSED SPILL CURB/GUTTER PROPOSED METER/BACKFLOW VAULT PROPOSED IRRIGATION MANHOLE PROPOSED TRANSITION CURB/GUTTER — EXISTING RETAINING WALL - EXISTING 1-FT CONTOUR ---- × ---- EXISTING FENCE - EXISTING 5-FT CONTOUR → PROPOSED TRAFFIC FLOW PROPOSED 1-FT CONTOUR ----<sup>GB</sup>---- GRADE BREAK PROPOSED 5-FT CONTOUR ROOF DRAIN (RD) EXISTING ASPHALT STREET LIGHT POLE FIRE DEPARTMENT CONNETION PROPOSED ASPHALT PARKING LOT LIGHT PROPOSED HEAVY DUTY ASPHALT PROPOSED BUILDING LIGHT EXISTING CONCRETE PROPOSED CONCRETE POWER POLE PROPOSED HEAVY DUTY CONCRETE FLOWLINE EOP EDGE OF PAVEMENT - EXISTING SANITARY SEWER TOC TOP OF CONCRETE S EXISTING SANITARY SEWER MANHOLE TOW TOP OF WALL PROPOSED SANITARY SEWER MANHOLE BOW BOTTOM OF WALL PROPOSED SANITARY SEWER CLEANOUT TBW TOP BACK OF WALK -EXISTING STORM SEWER TOP OF CURB BOC BACK OF CURB —— s —— PROPOSED STORM SEWER LS LANDSCAPE AREA EXISTING STORM SEWER INLET PROPOSED STORM SEWER INLET UTILITY PEDESTALS EXISTING STORM SEWER MANHOLE PROPOSED STORM SEWER MANHOLE

UTILITIES AND AGENCIES CITY OF GRAND JUNCTION SANITARY SEWER 244-1429 CLIFTON WATER DISTRICT DAVE REINERTSON 434-7328 GRAND VALLEY IRRIGATION CHARLIE GUENTHER 242-2762 CITY OF GRAND JUNCTION PUBLIC WORKS TRENT PRALL 244-1554 XCEL ENERGY 244-2681 BRENDA BOES CENTURY LINK CHRIS JOHNSON 244-4333 CHARTER JOHN VALDEZ 245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office BLYTHE GROUP + co.

Interior Design Project Management

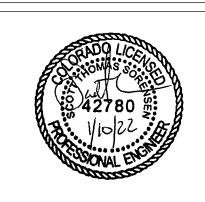
AUSTIN CIVIL GROUP, INC.
Land Planning \*Civil Engineering \* Development Services
123 N. 7th Street, Suite 300\* Grand Junction, Colorado 81501
(970) 242-7540

Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

SITE PLAN

FOR CONSTRUCTION

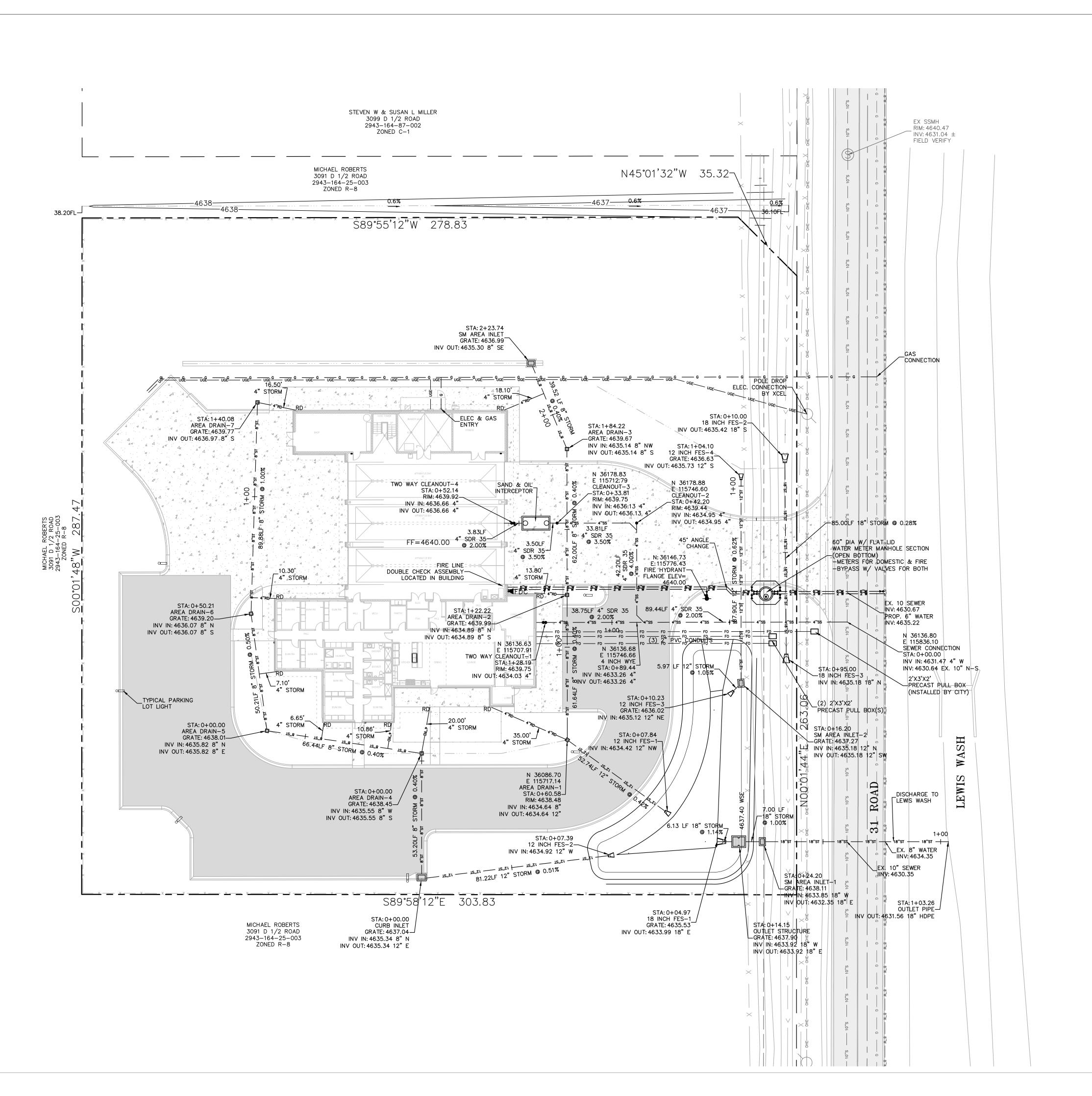


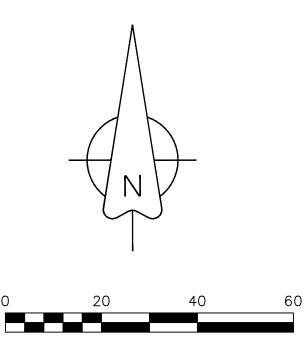
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DATE: 1-10-2022

PROJECT#: 2133
SHEET#:

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#### GENERAL NOTES:

- 1. ALL EXISTING UTILITY INFORMATION DEPICTED ON THESE PLANS IS A QUALITY LEVEL "C", UNLESS OTHERWISE NOTED.
- 2. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 31 ROAD.
- 3. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

UTILITIES AND	AGENCIES	
CITY OF GRAND JUNCTION SANITARY SEWER CLIFTON WATER DISTRICT GRAND VALLEY IRRIGATION CITY OF GRAND JUNCTION PUBLIC WORKS XCEL ENERGY CENTURY LINK CHARTER	RANDI KIM DAVE REINERTSON CHARLIE GUENTHER TRENT PRALL BRENDA BOES CHRIS JOHNSON JOHN VALDEZ	244-1429 434-7328 242-2762 244-1554 244-2681 244-4333 245-8750

CLIFTON WATER DISTRICT APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE. ACCEPTED AS CONSTRUCTED

ACCEPTANCE BLOCK THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

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CITY DEVELOPMENT ENGINEER

Interior Design **Project Management** 622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office BLYTHE GROUP + co.

A • C • G

AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services

**Grand Junction Fire Department** Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

**UTILITY COMPOSITE** 

FOR CONSTRUCTION

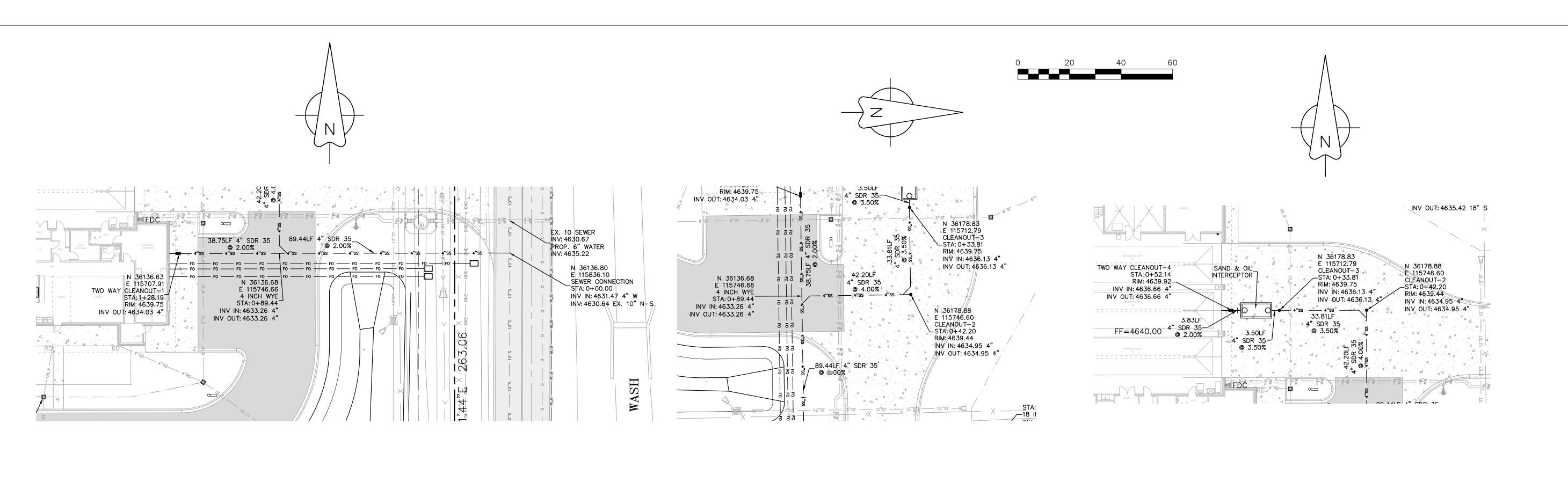


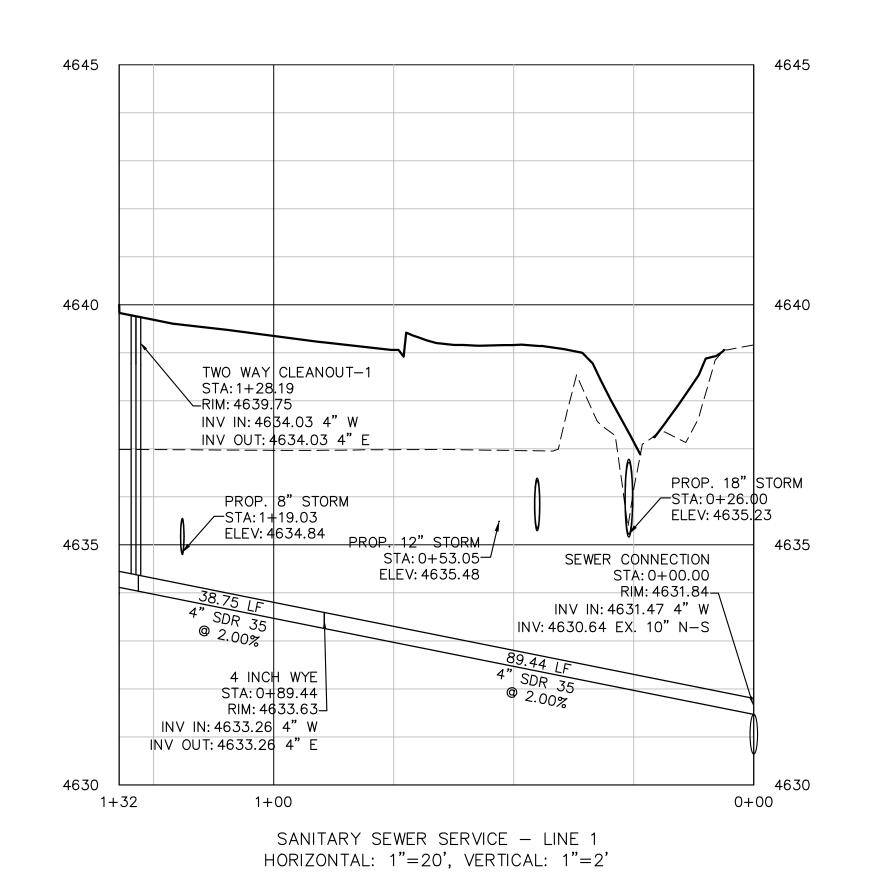
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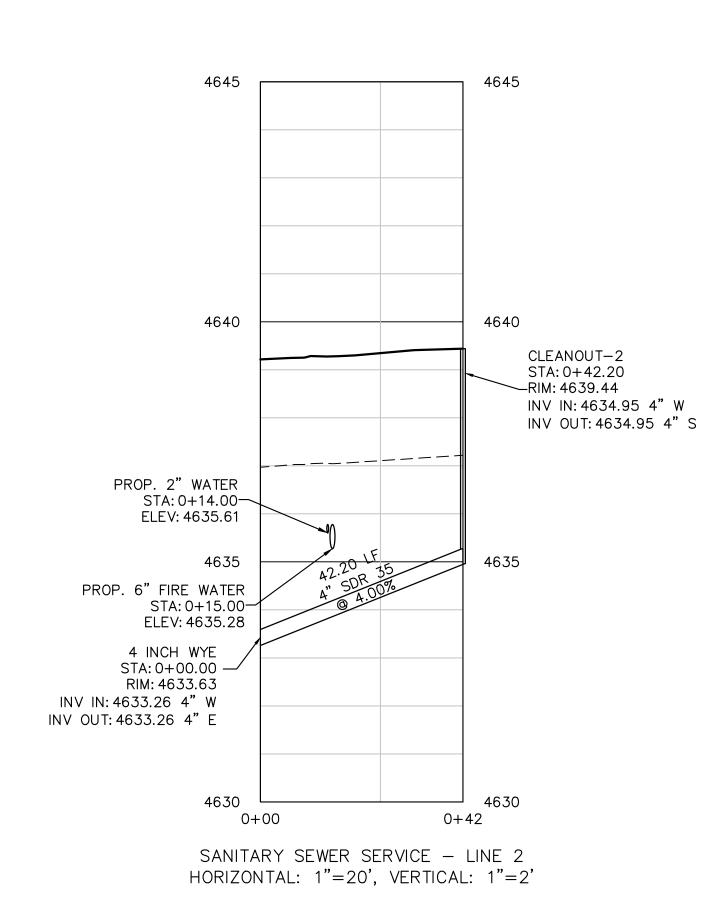
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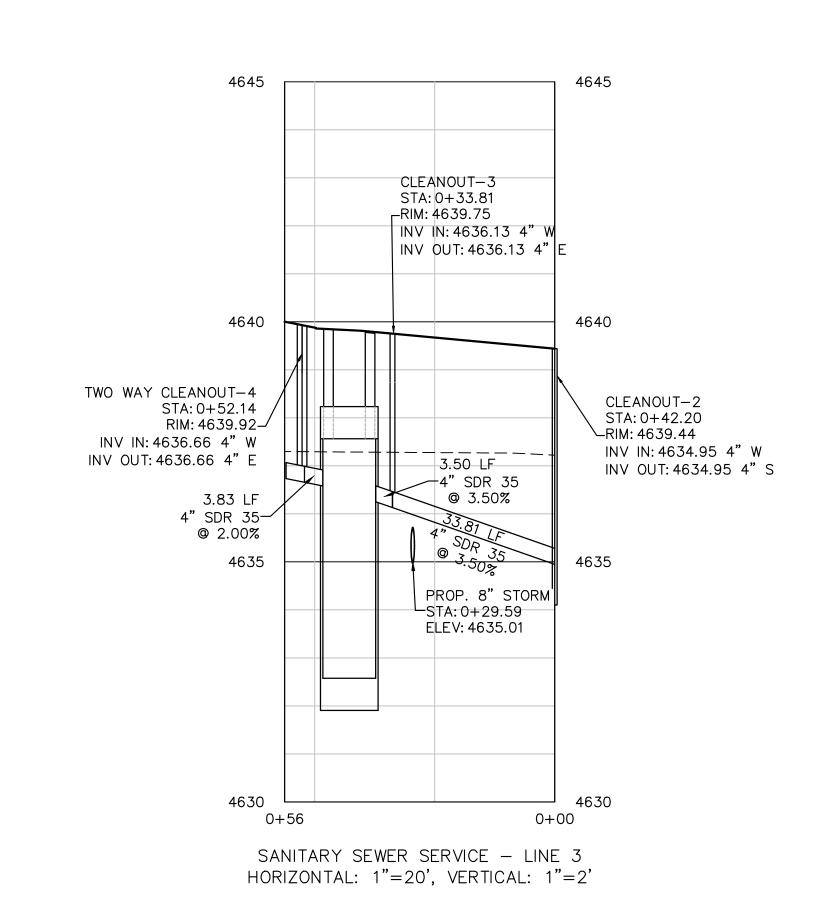
PROJECT #: 2133

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UTILITIES AND	AGENCIES	
CITY OF GRAND JUNCTION SANITARY SEWER CLIFTON WATER DISTRICT GRAND VALLEY IRRIGATION CITY OF GRAND JUNCTION PUBLIC WORKS XCEL ENERGY CENTURY LINK CHARTER	RANDI KIM DAVE REINERTSON CHARLIE GUENTHER TRENT PRALL BRENDA BOES CHRIS JOHNSON JOHN VALDEZ	244-1429 434-7328 242-2762 244-1554 244-2681 244-4333 245-8750

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

C3-1

DATE: 1-10-2022

PROJECT #: 2133

Interior Design Project Management

622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office

BLYTHE GROUP + co.

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AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services

Grand Junction Fire Department Fire Station #8

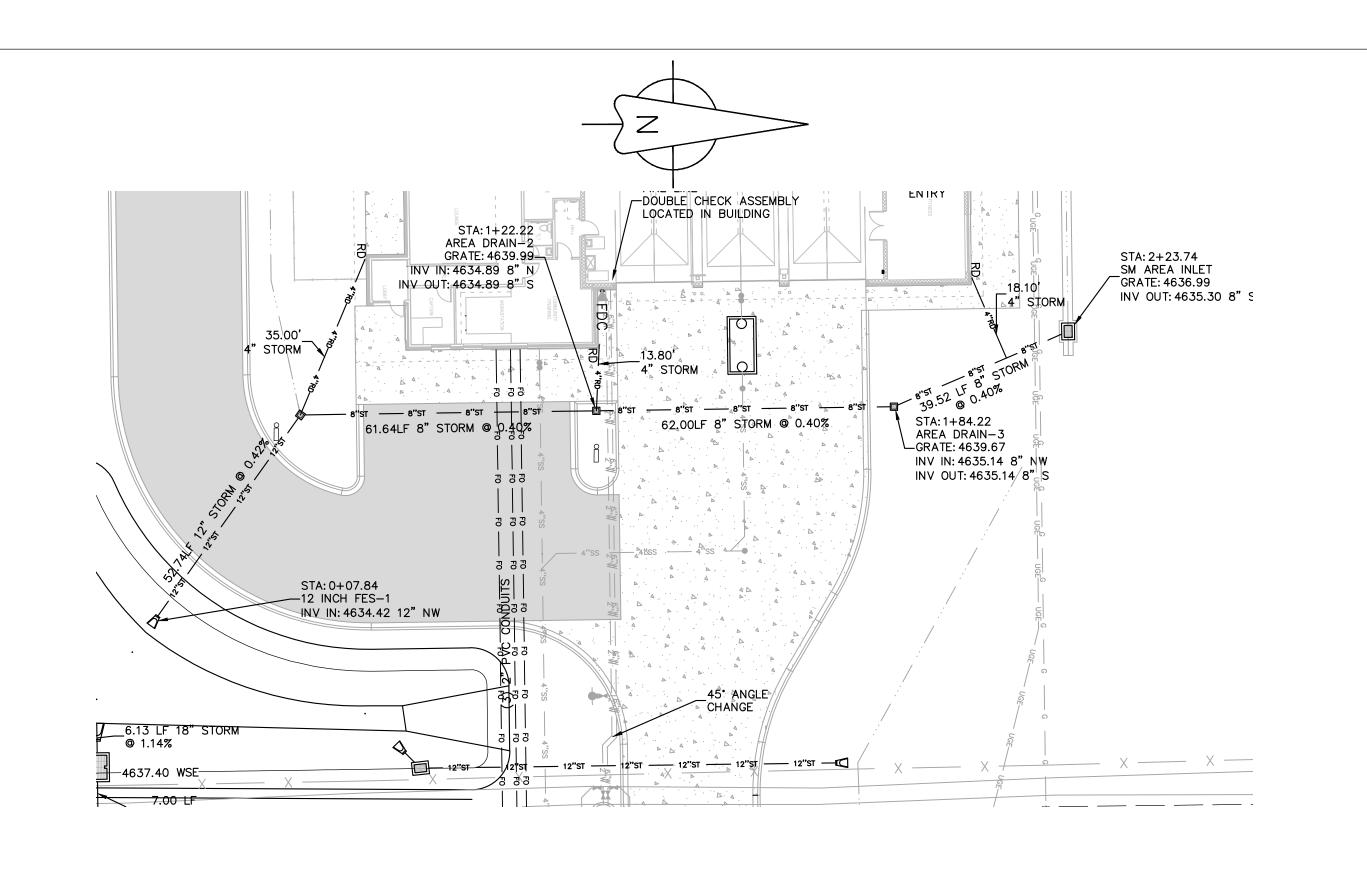
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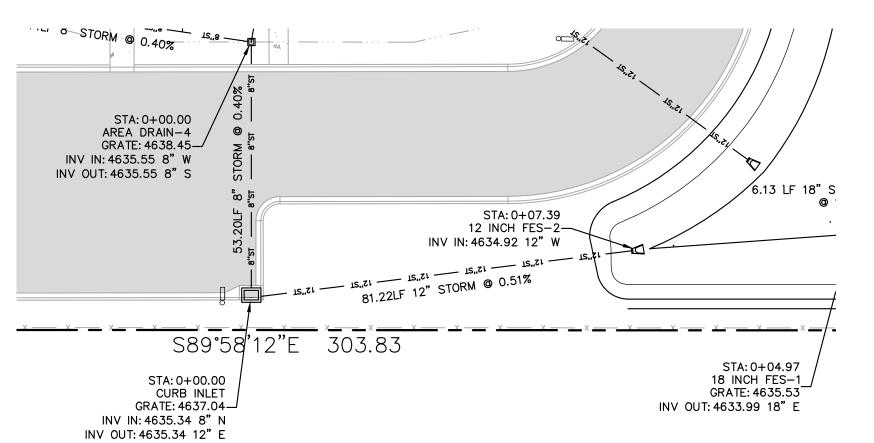
**SANITARY SEWER** 

FOR CONSTRUCTION

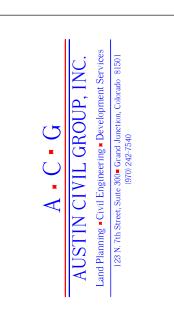
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**PLAN & PROFILE** 







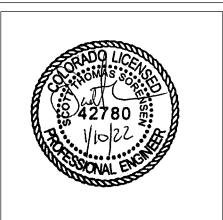


Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

> STORM SEWER LINES 1 & 2 PLAN & PROFILE

FOR CONSTRUCTION



REV. DESC.

DATE: 1-10-2022
PROJECT#: 2133

SHEET #:

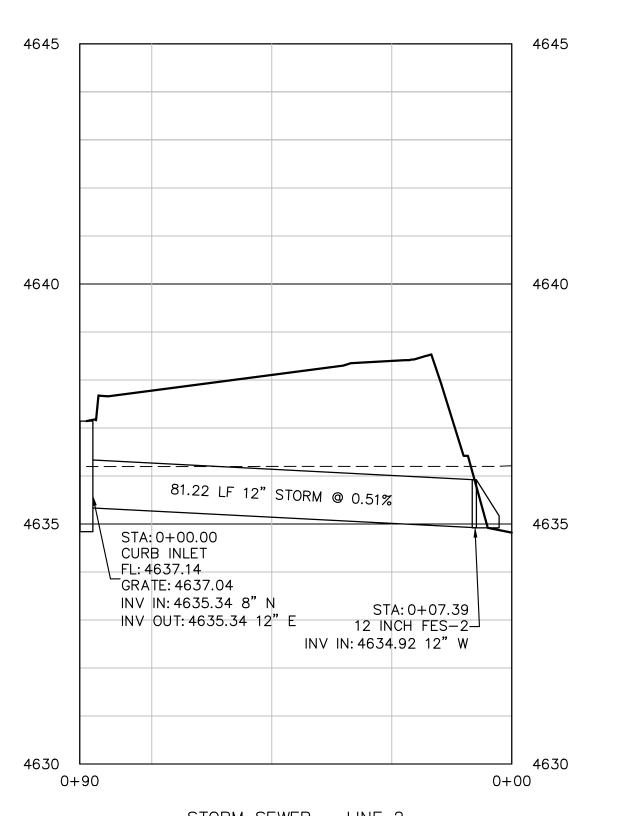
C3-2

4645 4645 STA:1+84.22 AREA DRAIN-3 FL: 4639.77 GRATE: 4639.67<sup>→</sup> INV IN: 4635.14 8" NW INV OUT: 4635.14 8" S 4640 4640 STA:1+22.22 AREA DRAIN-2 PROP. 2" DOMESTIC & FL: 4640.09 STA: 0+60.58 \_PROP. 6" FIRE WATER GRATE: 4639.99 AREA DRAIN-1 STA: 1+25.00 INV IN: 4634.89 8" N FL: 4638.48 ELEV: 4636.59 INV OUT: 4634.89 8" S GRATE: 4638.38 39.52 LF INV IN: 4634.64 8" N PROP. 4" SEWER INV OUT: 4634.64 12" SE\_ 8" STORM-@ 0.40% /-STA:1+52.72 / ELEV: 4635.98 62.00 LF 8" STORM @ 0.40% // 52.74 LF 12" STORM @ 0.42% | □ 61.64 LF 8" STORM @ 0.40% 4635 4635 STA: 2+23.74 SM AREA INLET STA: 0+07.84 PROP. 4" SEWER STA: 1+10.52 ELEV: 4633.85 └12 INCH FES-1 FL: 4637.09— INV IN: 4634.42 12" NW GRATE: 4636.99 INV OUT: 4635.30 8" SE 4630 4630 0+00 1+00 2+00 2+24

STORM SEWER - LINE 1

HORIZONTAL: 1"=20', VERTICAL: 1"=2'

CITY OF GRAND JUNCTION SANITARY SEWER CLIFTON WATER DISTRICT DAVE REINERTSON 434-7328 GRAND VALLEY IRRIGATION CHARLIE GUENTHER 242-2762 CITY OF GRAND JUNCTION PUBLIC WORKS TRENT PRALL 244-1554 XCEL ENERGY BRENDA BOES 244-2681 CENTURY LINK CHARTER CHRIS JOHNSON 244-4333 CHARTER



STORM SEWER - LINE 2 HORIZONTAL: 1"=20', VERTICAL: 1"=2'

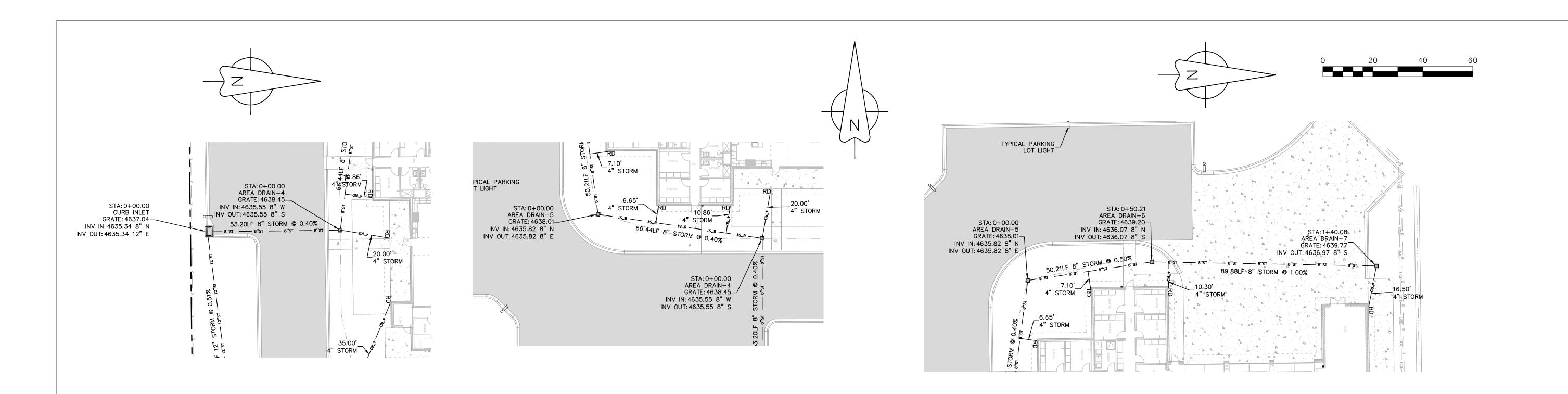
ACCEPTANCE BLOCK

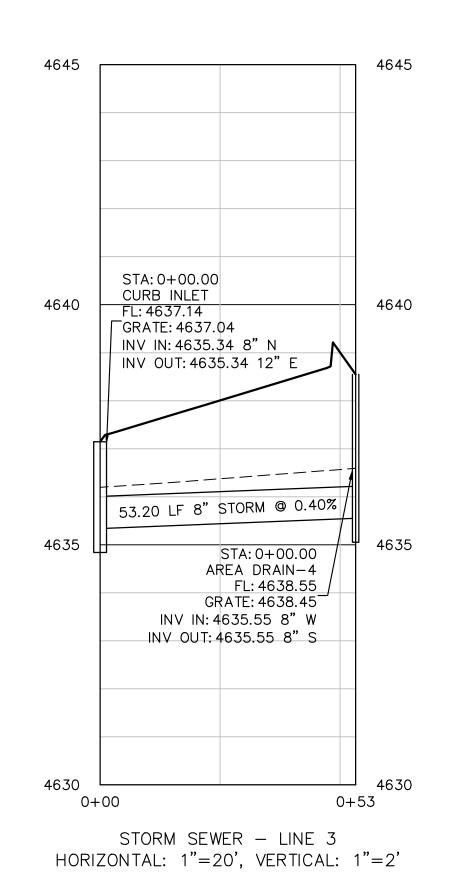
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE

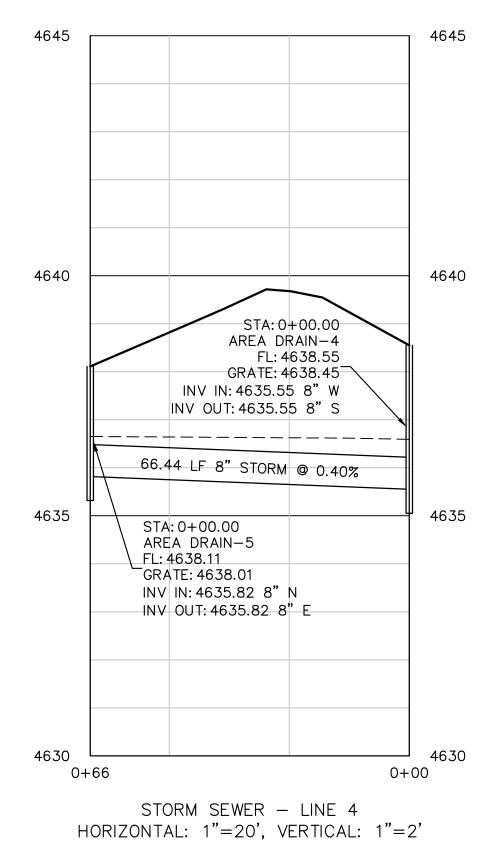
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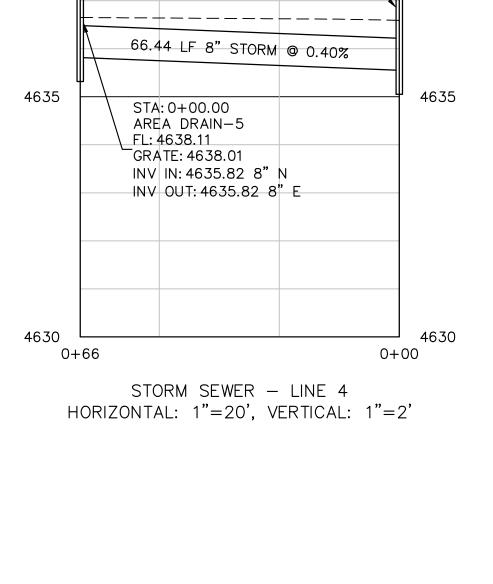
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

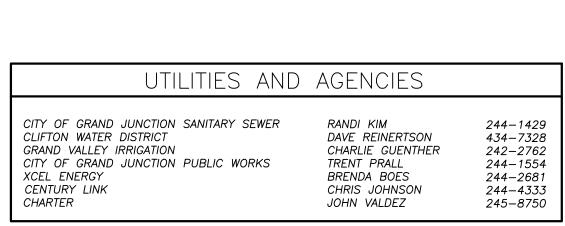
CITY DEVELOPMENT ENGINEER

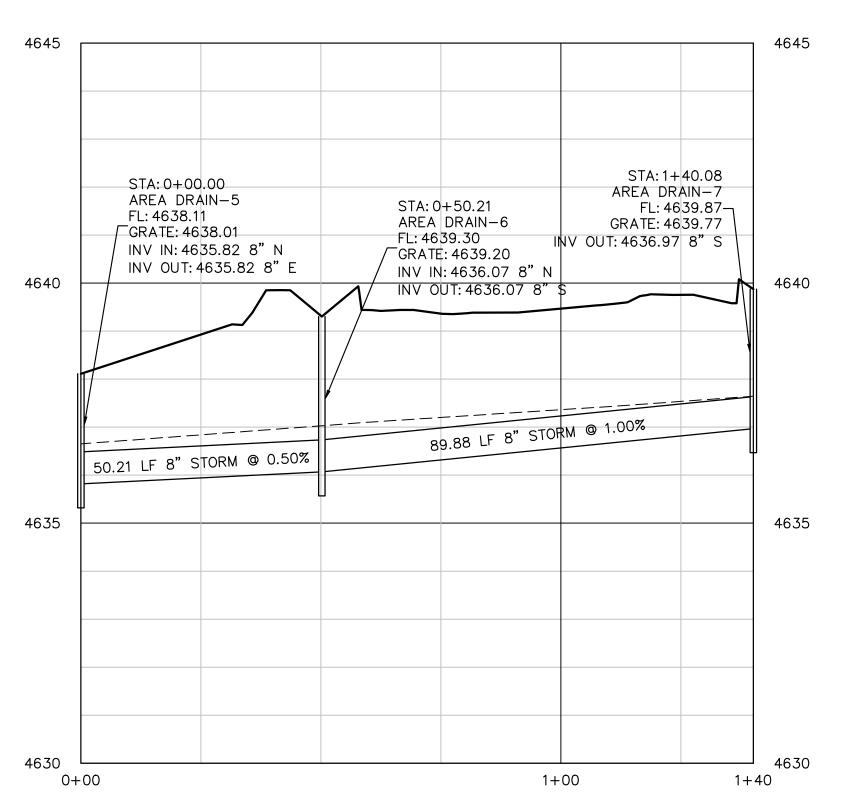












STORM SEWER - LINE 5 HORIZONTAL: 1"=20', VERTICAL: 1"=2'

> ACCEPTANCE BLOCK THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR

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CITY DEVELOPMENT ENGINEER

Architecture Interior Design Project Management 622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office BLYTHE GROUP + co.

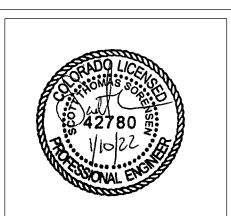


Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

> STORM SEWER **LINES 3,4 &5** PLAN & PROFILE

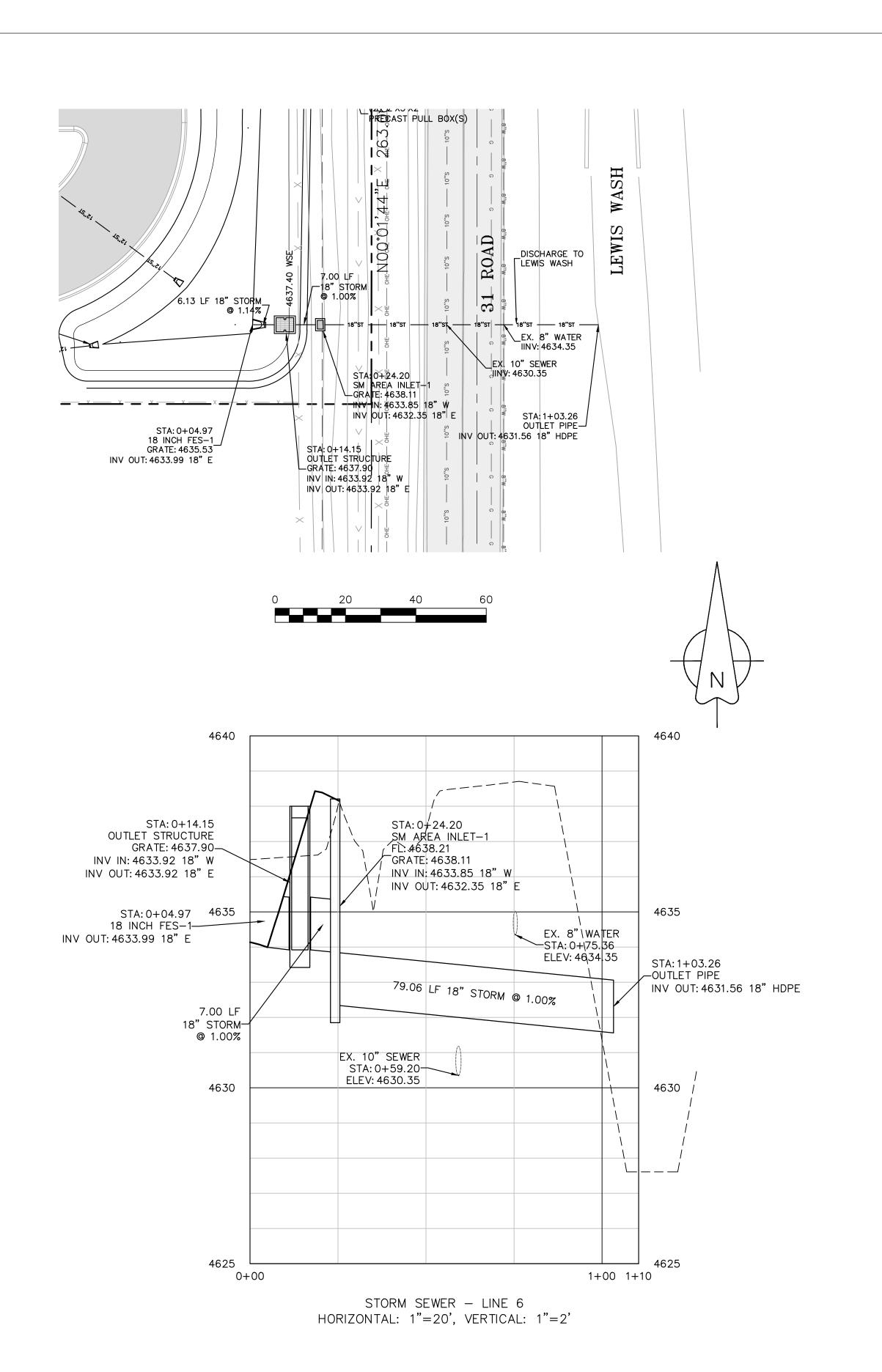
FOR CONSTRUCTION

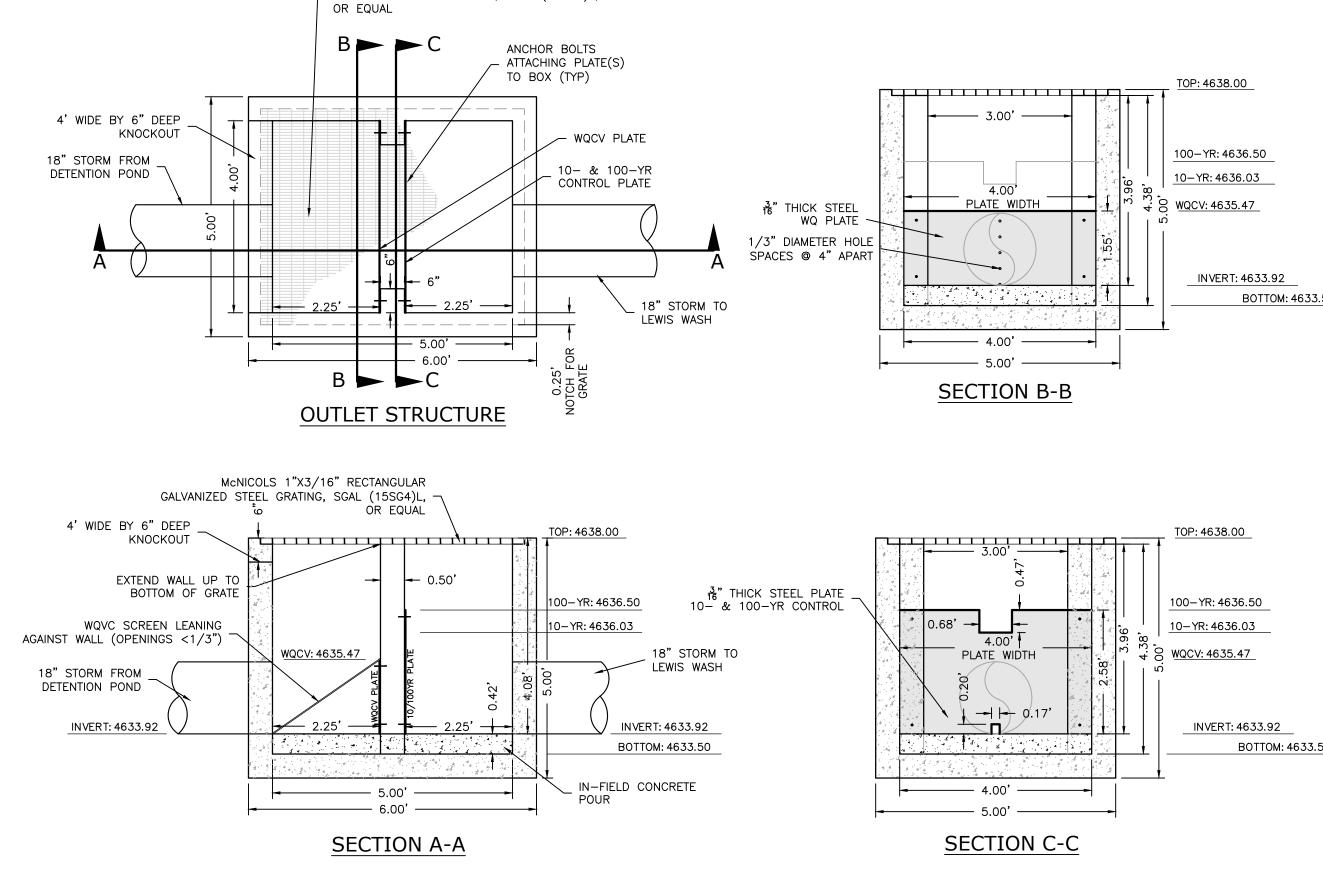


REV. DESC.

DATE: 1-10-2022 PROJECT #: 2133

C3-3





McNICOLS 1"X3/16" RECTANGULAR

GALVANIZED STEEL GRATING, SGAL (15SG4)L,

BOTTOM: 4633.50 BOTTOM: 4633.50

Interior Design Project Management 622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office BLYTHE GROUP + co.

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AUSTIN CIVIL GROUP, INC.

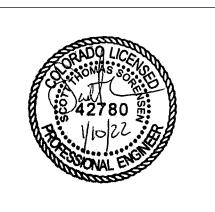
Land Planning • Civil Engineering • Development Services

Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

> **STORM SEWER LINE 6** PLAN & PROFILE & **OUTLET STRUCTURE**

FOR CONSTRUCTION



REV. DESC.

DATE: 1-10-2022 PROJECT #: 2133

ACCEPTANCE BLOCK

CITY DEVELOPMENT ENGINEER

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF

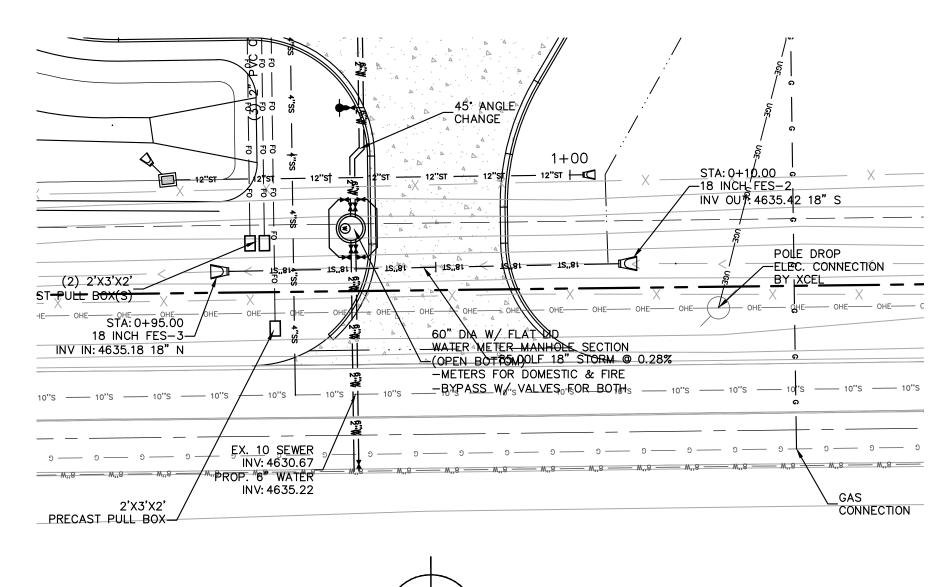
THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR

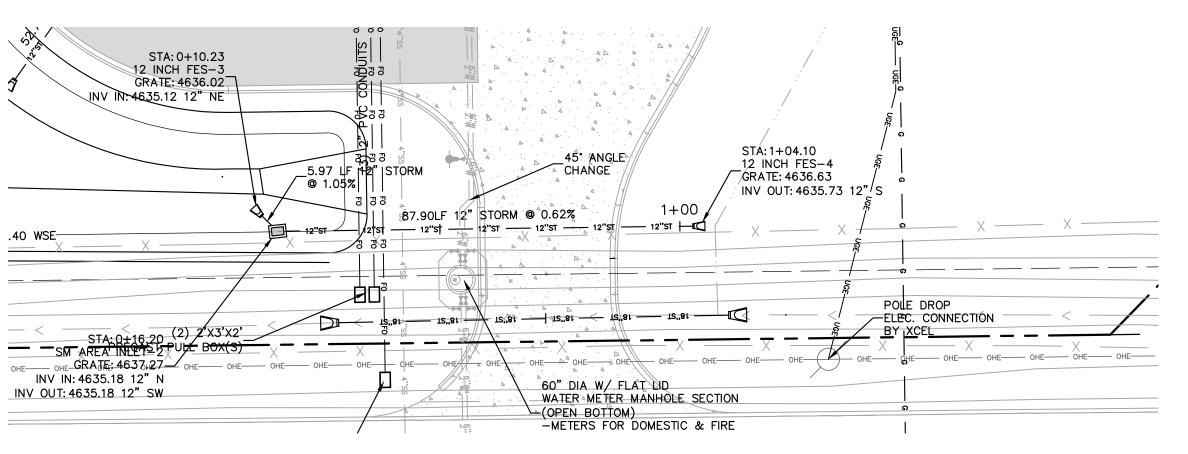
OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

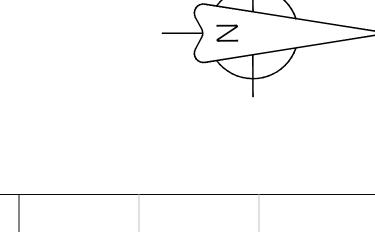
C3-4

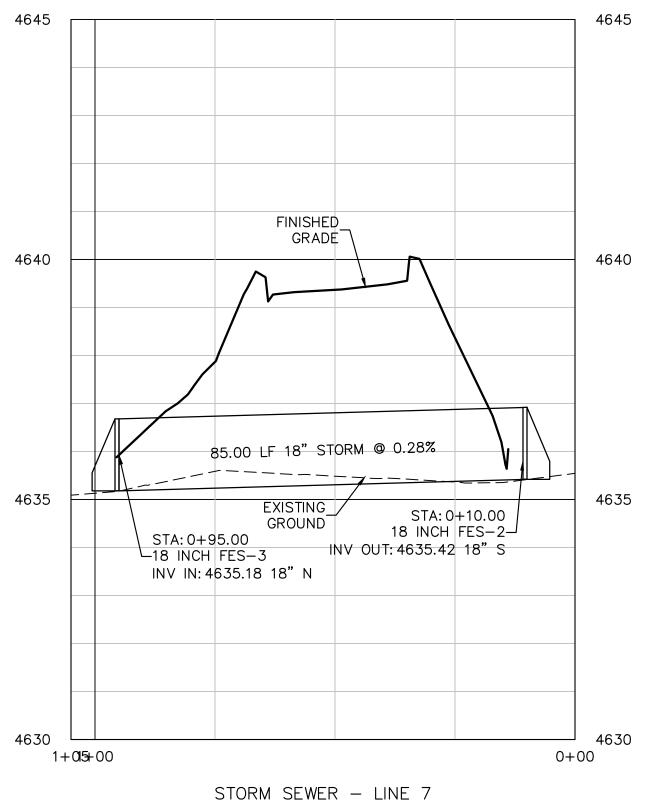
UTILITIES AND AGENCIES CITY OF GRAND JUNCTION SANITARY SEWER CLIFTON WATER DISTRICT RANDI KIM DAVE REINERTSON 244-1429 434-7328 242-2762 244-1554 244-2681 244-4333 GRAND VALLEY IRRIGATION CHARLIE GUENTHER CITY OF GRAND JUNCTION PUBLIC WORKS TRENT PRALL XCEL ENERGY CENTURY LINK BRENDA BOES CHRIS JOHNSON JOHN VALDEZ CHARTER 245-8750



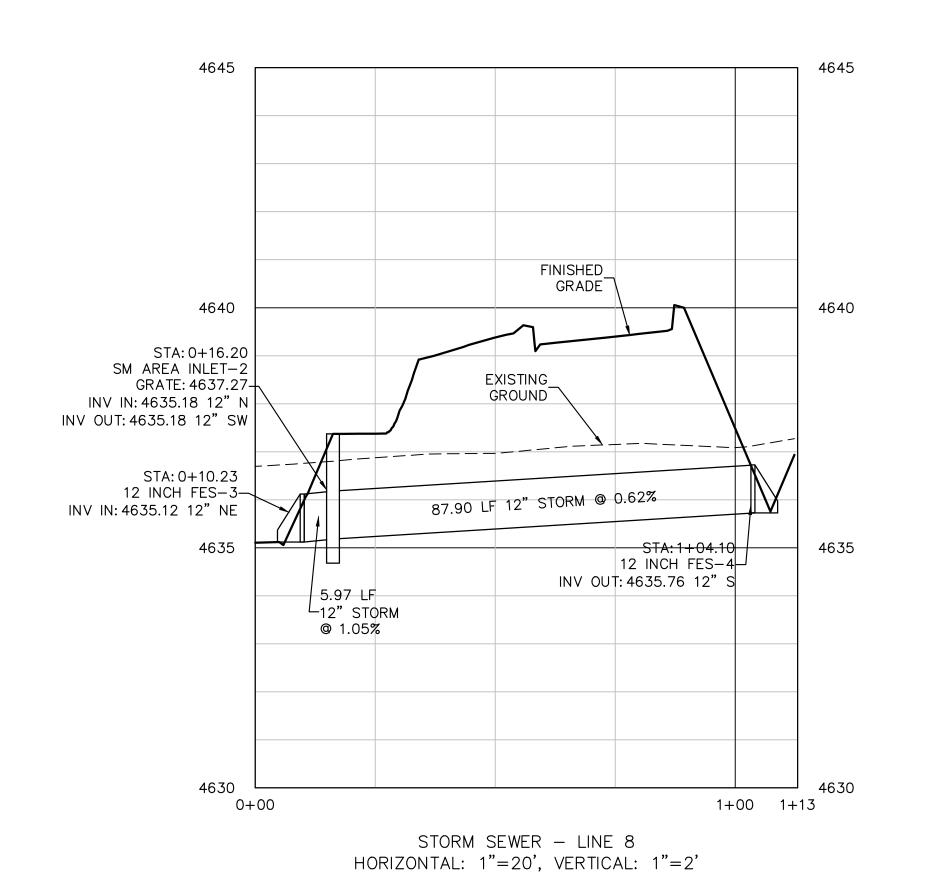








HORIZONTAL: 1"=20', VERTICAL: 1"=2'



CITY OF GRAND JUNCTION SANITARY SEWER RANDI KIM 244—1429
CLIFTON WATER DISTRICT DAVE REINERTSON 434—7328
GRAND VALLEY IRRIGATION CHARLIE GUENTHER 242—2762
CITY OF GRAND JUNCTION PUBLIC WORKS TRENT PRALL 244—1554
XCEL ENERGY BRENDA BOES 244—2681
CENTURY LINK CHRIS JOHNSON 244—4333
CHARTER JOHN VALDEZ 245—8750

ACCEPTANCE BLOCK

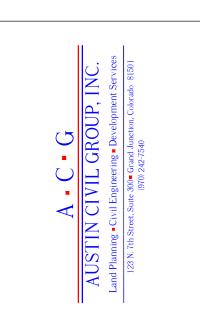
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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

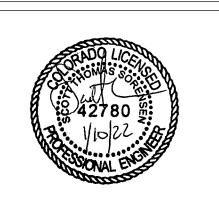


Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

> STORM SEWER LINES 7&8 PLAN & PROFILE

FOR CONSTRUCTION



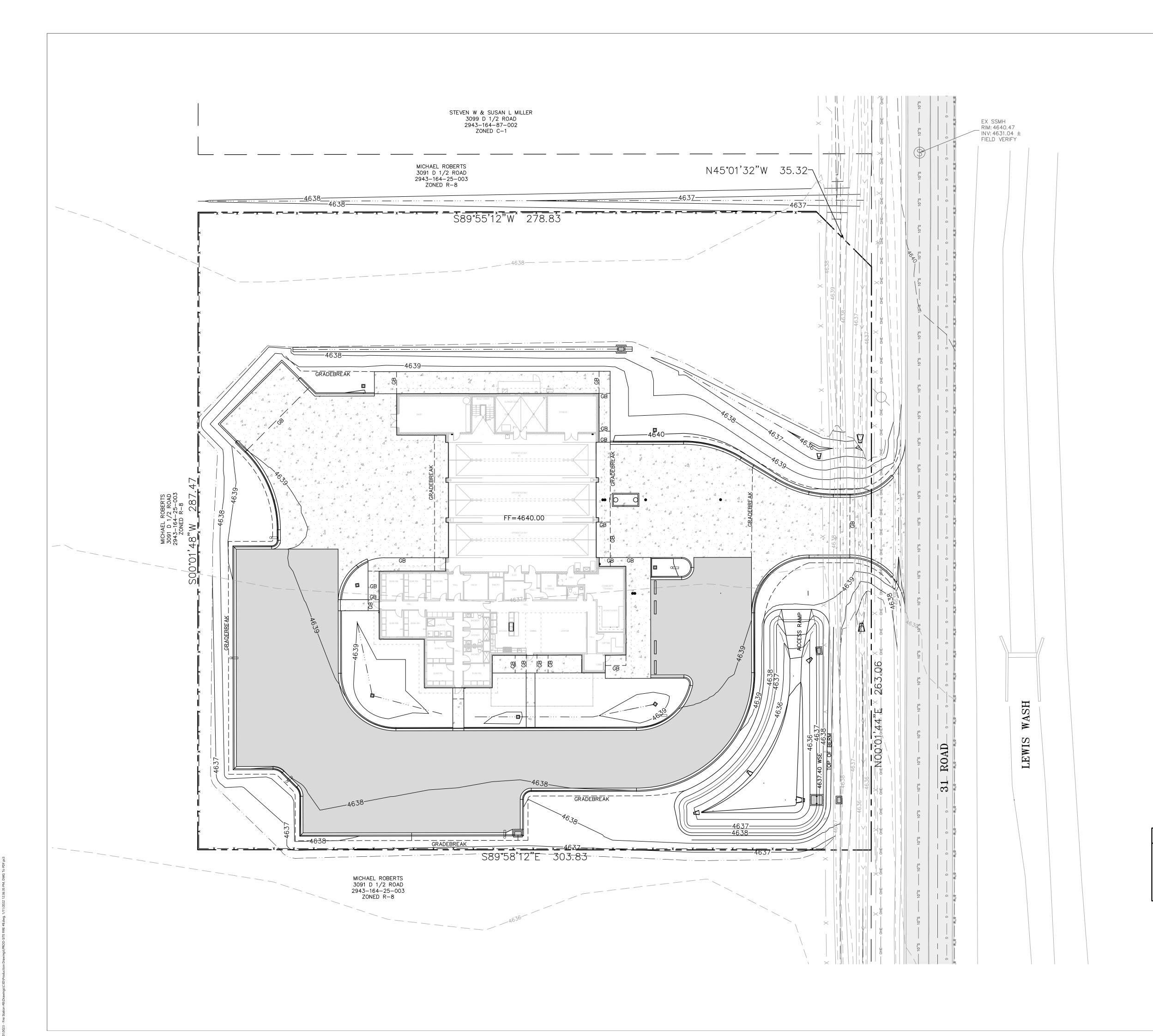
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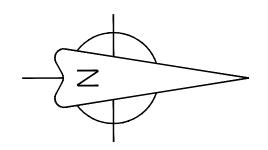
DATE: 1-10-2022

PROJECT #: 2133

SHEET #:

C3-5





0 10 20

Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
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123 N. 7th Street, Suite 300• Grand Junction, Colorado 81501

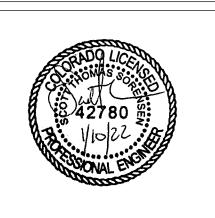
(970) 242-7540

Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

OVERALL GRADING PLAN

FOR CONSTRUCTION



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CITY OF GRAND JUNCTION SANITARY SEWER
CLIFTON WATER DISTRICT
GRAND VALLEY IRRIGATION
CITY OF GRAND JUNCTION PUBLIC WORKS
XCEL ENERGY
CENTURY LINK
CHARTER

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TRENT PRALL
244-1554
BRENDA BOES
244-2681
CHRIS JOHNSON
244-4333
JOHN VALDEZ
245-8750

ACCEPTANCE BLOCK

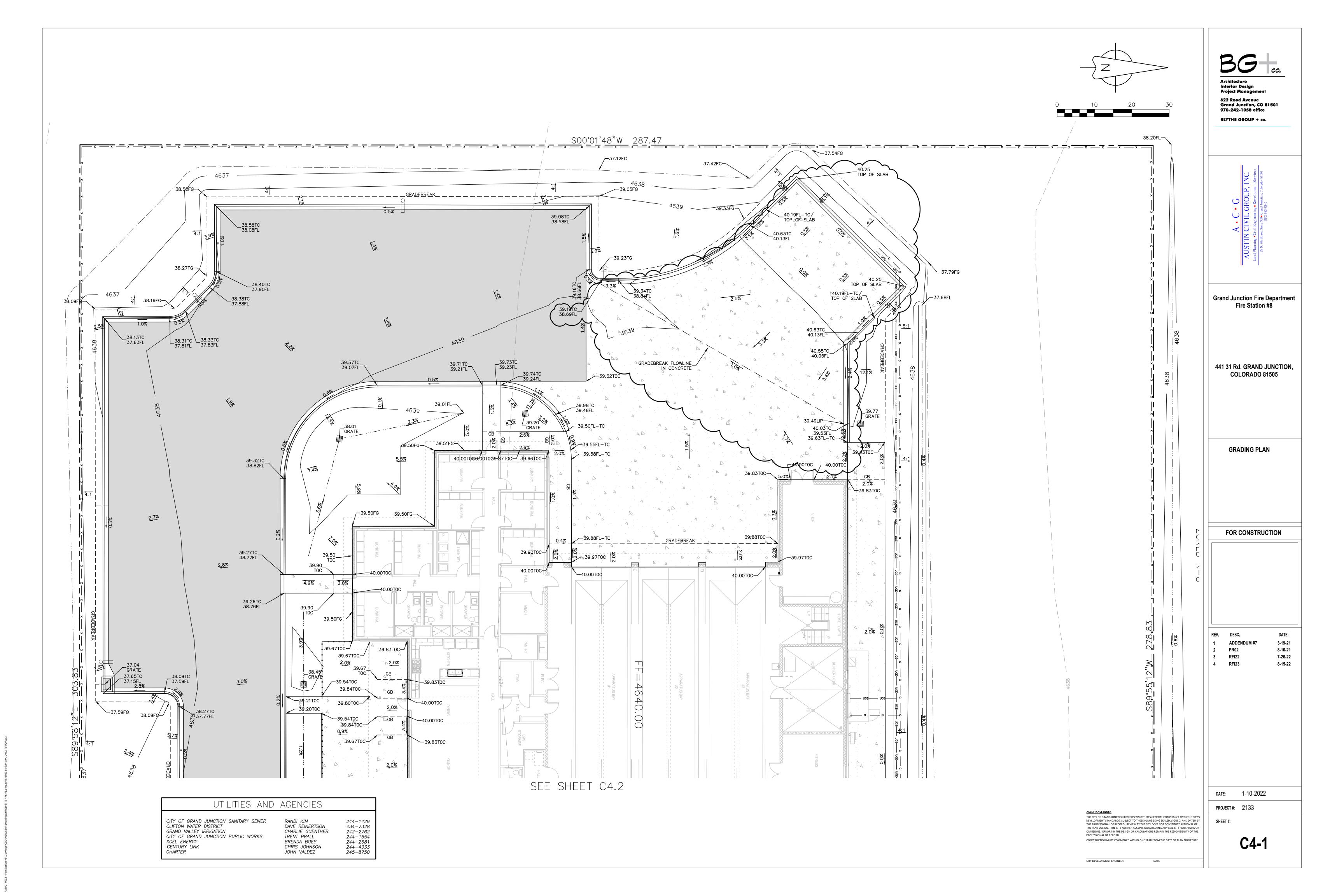
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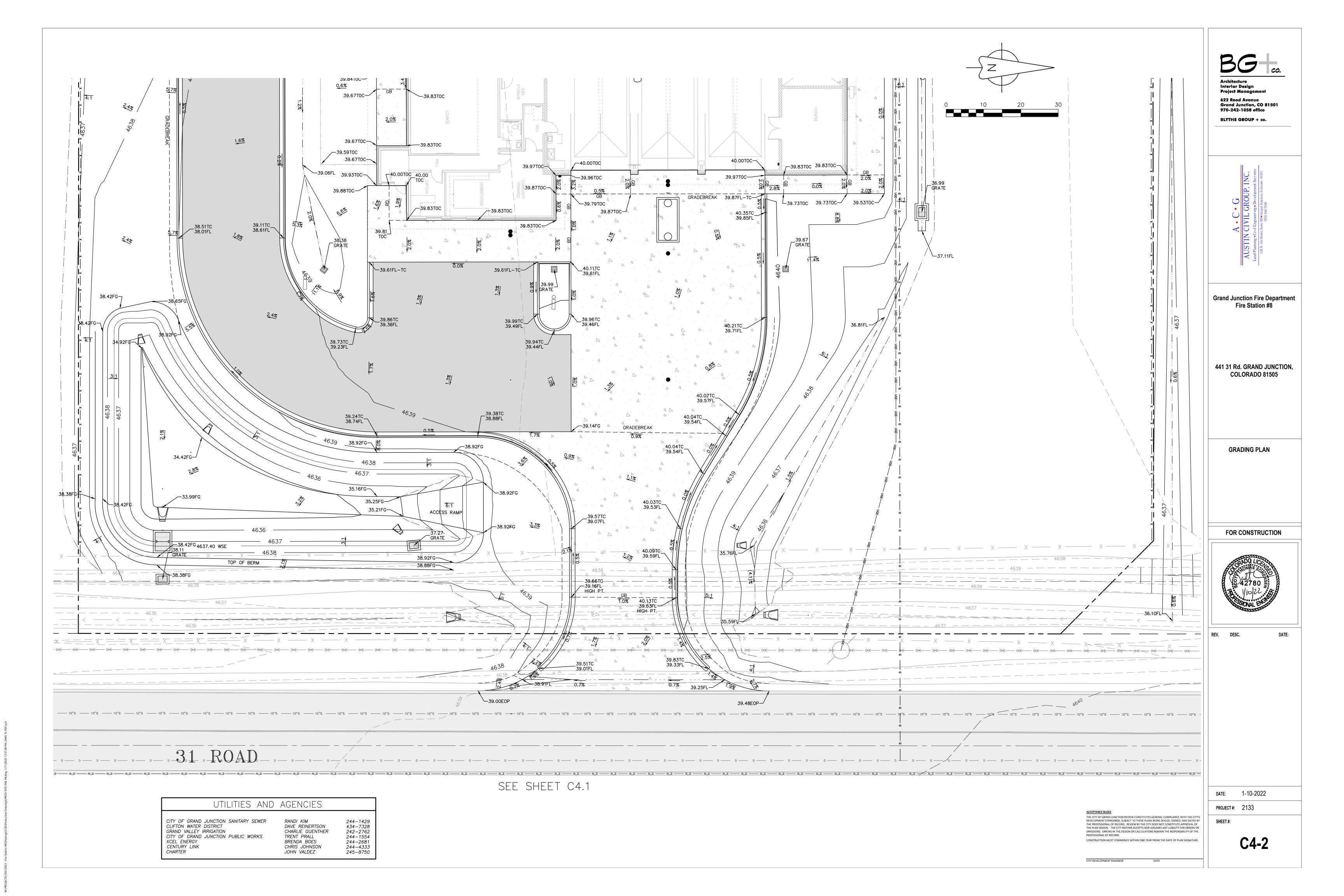
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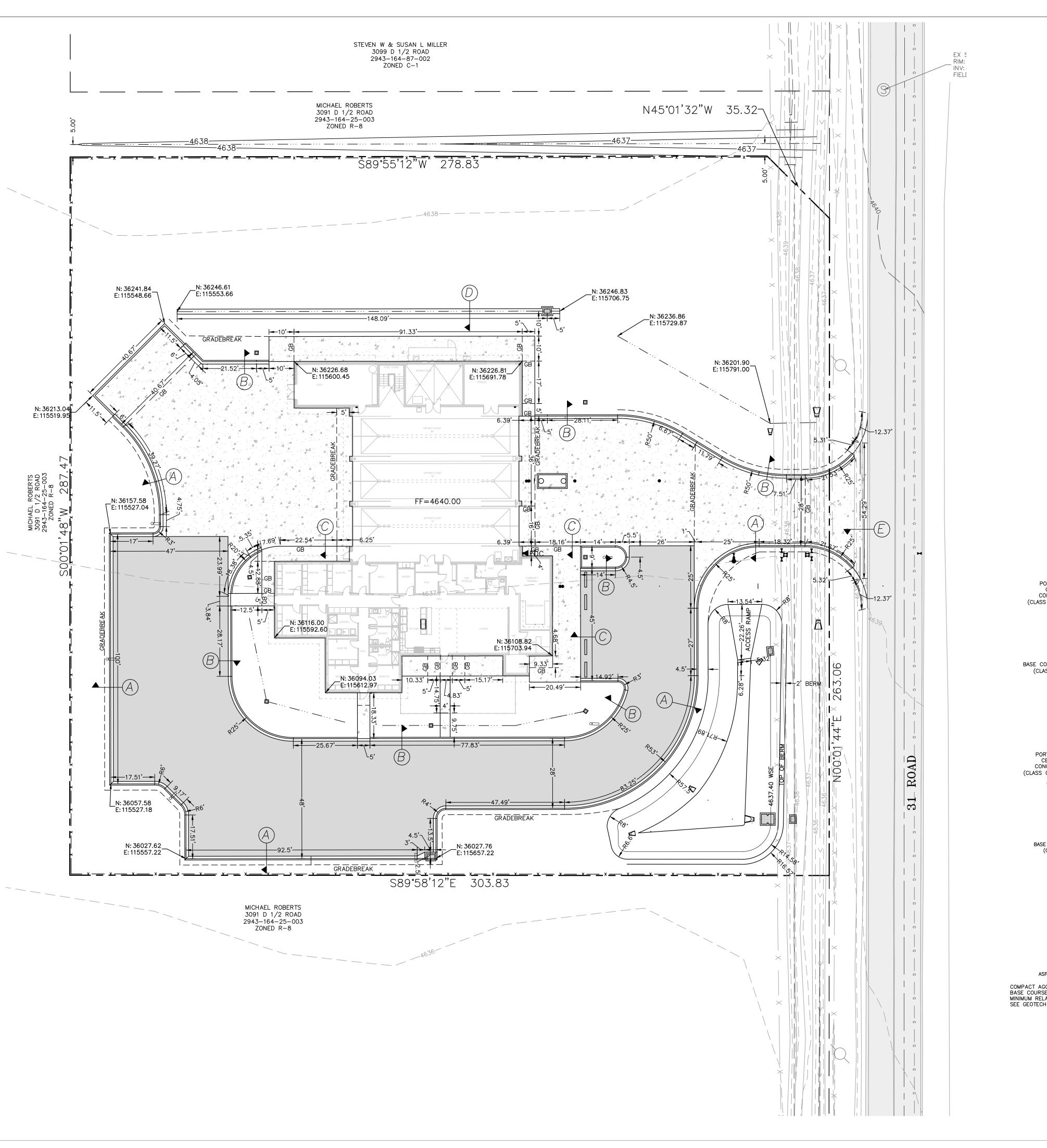
PROJECT #: 2133

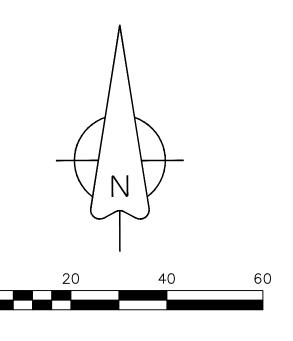
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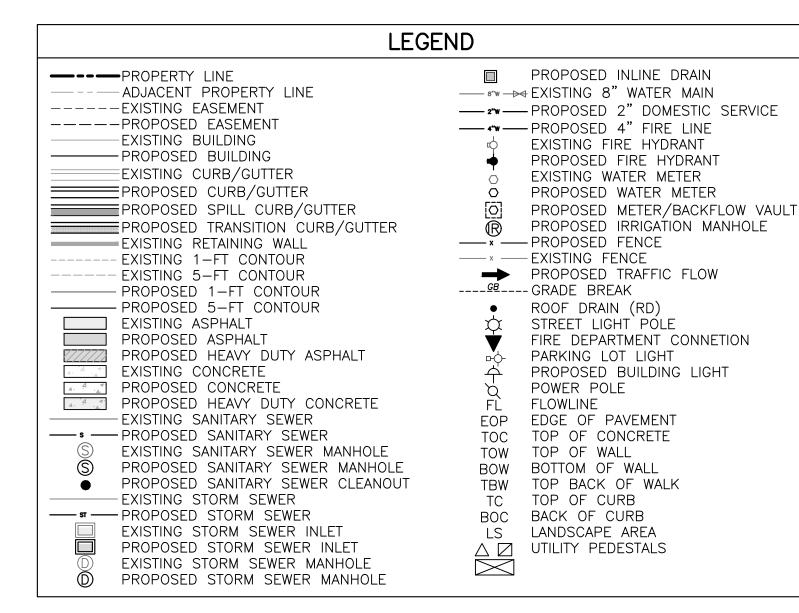
C4-0



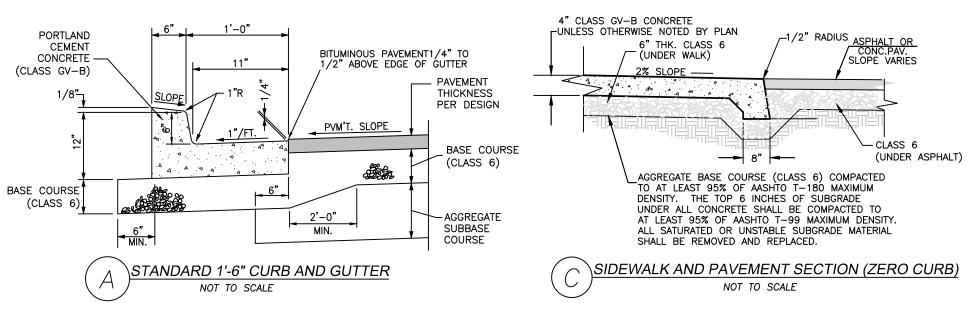


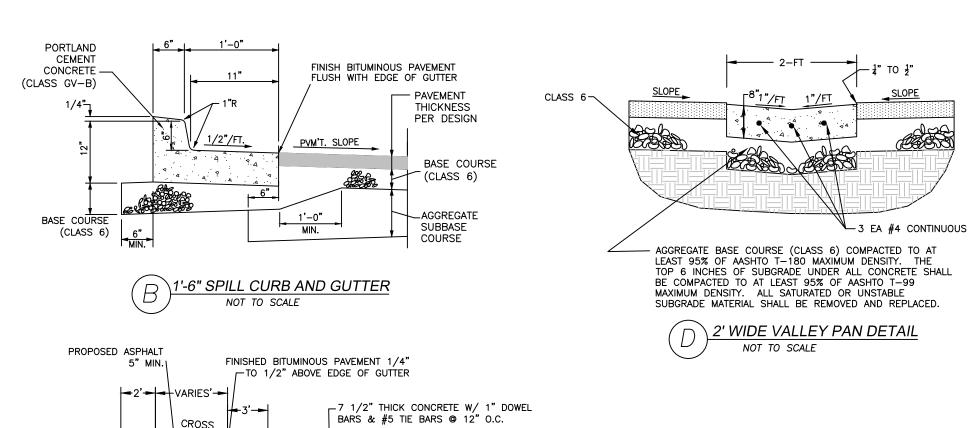


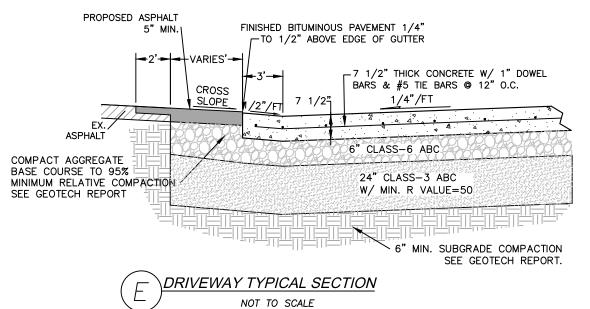




# **TYPICAL CONCRETE SECTIONS**







ACCEPTANCE BLOCK THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR

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CITY DEVELOPMENT ENGINEER

Interior Design Project Management 622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office BLYTHE GROUP + co.

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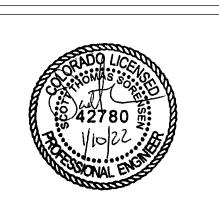
AUSTIN CIVIL GROUP, INC.
and Planning • Civil Engineering • Development Services

**Grand Junction Fire Department** Fire Station #8

441 31 Rd. GRAND JUNCTION, **COLORADO 81505** 

> HORIZONTAL **CONTROL PLAN**

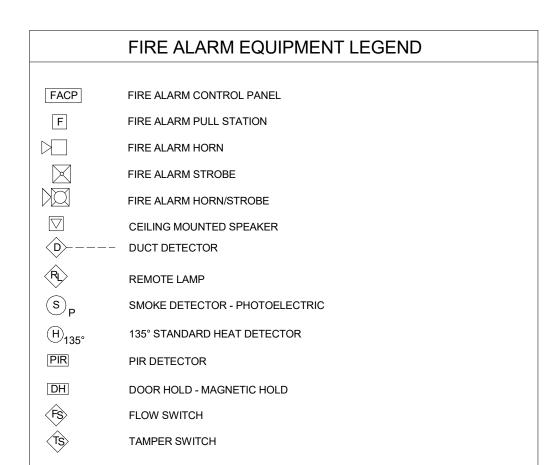
FOR CONSTRUCTION



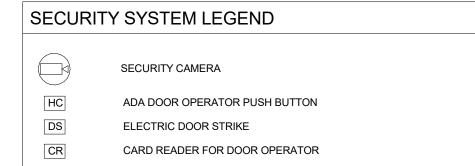
REV. DESC.

DATE: 1-10-2022 PROJECT #: 2133

**C5-0** 



COMMUN	IICATION LEGEND
9	CLOCK ONLY
90	CLOCK / PA SPEAKER WALL MOUNTED
S	ROUND CEILING MOUNTED SPEAKER
S	SQUARE SPEAKER
H C	INTERCOM PUSH TO CALL SWITCH
WAP	WIRELESS ACCESS POINT ABOVE THE CEILING
PROJECTOR	ABOVE THE CEILING PROJECTOR CONNECTION
□ HDMI	WALL MOUNTED HDMI
$\nabla$	PLAIN DATA OUTLET
▽80"	PLAIN DATA OUTLET WITH MOUNTING HEIGHT
$\Delta$	COMBINATION DATA/TELEPHONE
lacksquare	FLOOR MOUNTED COMBINATION DATA/TELEPHONE
$\overline{\mathbb{Q}}$	CEILING MOUNTED COMBINATION DATA/TELEPHONE
$\stackrel{\bullet}{\leftarrow}$	TELEVISION OUTLET



LETTER	NEXT TO A LIGHT CORRESPONDS TO THE SWITCH DESIGNATION.
	SWITCHES
\$	SINGLE POLE SWITCH
\$ <sub>2</sub>	TWO POLE SWITCH
\$ <sub>3</sub>	THREE-WAY SWITCH
\$4	FOUR-WAY SWITCH
\$ <sub>D</sub>	DIMMER SWITCH
\$ <sub>3D</sub>	3 WAY DIMMER SWITCH - (4D INDICATES A 4WAY DIMMER)
\$ <sub>DR</sub>	DOOR ACTIVATED SWITCH
\$ <sub>MA</sub>	WALL MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR SWITCH
\$ <sub>LV</sub>	LOW VOLTAGE LIGHT SWITCH
\$ <sub>TO</sub>	MANUAL MOTOR STARTER
\$ <sub>P</sub>	PILOT LIGHT SWITCH
	AUTO ON / AUTO OFF LIGHT SWITCH
\$мо	DUAL TECHNOLOGY MOTION / OCCUPANCY SENSOR LIGHT SWITCH
\$ <sup>D</sup> MA	MANUAL ON / AUTO OFF DIMMING LIGHT SWITCH
\$ <sub>K</sub>	KEY OPERATED LIGHT SWITCH
\$ <sub>T</sub>	MANUAL ON - TIMED OFF LIGHT SWITCH
(OS) (OS)	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH
(MA) (MA)	CEILING MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR
\$sc	SCENE CONTROL STATION
\$ <sub>MS</sub>	UNIT LIGHTING MANAGEMENT CONTROL STATION,

LIGHTING LEGEND

OCCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED.

LOWER CASE LETTER INDICATES THE SWITCH CIRCUIT.

VARIATION AND/OR COMBINATION MAY BE USED ON THE PLANS.

SYMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATIONS MAY BE USED ON

THE PLANS. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE

PROJECT DRAWINGS; HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS

AN UPPER CASE LETTER NEXT TO A SWITCH INDICATES THE FUNCTION OF THE SWITCH. A

AN UPPER CASE LETTER NEXT TO A LIGHT FIXTURE INDICATES THE TYPE OF FIXTURE.

REFER TO THE LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS. A LOWER CASE

A NUMBER NEXT TO A RECEPTACLE OR DEVICE INDICATES A CIRCUIT NUMBER.

NOTES:

	LIGHT FIXTURES
	I'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	2'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	2'x2' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	DPEN STRIP FIXTURE
V	VALL BRACKET LINEAR FIXTURE
A V	WALL MOUNTED SCONCE LIGHT FIXTURE
A -\$- F	RECESSED DOWNLIGHT CAN FIXTURE
A	SURFACE CEILING OR PENDANT MOUNTED FIXTURE
EX2	DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
EX1 🕥 🛇 S	SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
EM () () V	WALL MOUNTED EMERGENCY LIGHT
EMR 🖁 E	EMERGENCY EXTERIOR EGRESS FIXTURE

V	ELECTRIC MOTOR
F	FUSED SAFETY SWITCH / DISCONNECT COMBINATION
4	MOTOR STARTER
	CONTACTOR
LA-7_	CIRCUITRY HOMERUN: PANEL LA - CIR. #7
	CONDUIT OR WIRE CONCEALED IN WALL/CLG. (SOLID LINE TYPE)
	CONDUIT OR WIRE UNDERFLOOR/UNDERGND. (CENTER LINE TYPE)
	CONDUIT ON WINE UNDERFLOON UNDERGIBE. (CENTER LINE TIFE)
MAIN DIS	TRIBUTION GEAR
	CIRCUIT BREAKER IN A PANEL BOARD
	PAD MOUNTED UTILITY TRANSFORMER
	FUSED DISCONNECT 100A = AMP RATING
100 A	2P = NUMBER OF POLES
2 POLE FUSED DISCON	NNECT
M	ELECTRICAL METER SHOWN ON ONE-LINE DIAGRAMS
°)	ELECTRICAL POWER PANEL WITH MAIN LUG OR MAIN BREAKER
	PP1= PANEL NAME 225A MLO = MAIN LUG OR BREAKER SIZE
	100/000\/ = DANEL \/OLTAGE
120/208V 120/	120/208V = PANEL VOLTAGE 3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  I A MLO //208V I, 4W
225A MCB 225A 120/208V 120A 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  I A MLO //208V
225A MCB 225A 120/208V 120A 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  I A MLO //208V 1, 4W
225A MCB 225A 120/208V 120/ 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  1 A MLO 1/208V 1, 4W  CAL DEVICE LEGEND
225A MCB 225A 120/208V 120/ 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  1 A MLO 1/208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH
225A MCB 225A 120/208V 120/ 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO //208V H, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH WALL JUNCTION BOX - SURFACE/FLUSH
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO //208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE FLOOR MOUNTED RECEPTACLE
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO //208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE  FOURPLEX RECEPTACLE
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FLOOR MOUNTED FOURPLEX RECEPTACLE
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO //208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FLOOR MOUNTED FOURPLEX RECEPTACLE  APPLIANCE RECEPTACLE - 3 WIRE
225A MCB 225A MCB 120/208V 3PH, 4W 3PH  ELECTRIC	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO //208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FOUR MOUNTED FOURPLEX RECEPTACLE  APPLIANCE RECEPTACLE - 3 WIRE  GROUND FAULT CIRCUIT INTERRUPTER
225A MCB 225A MCB 120/208V 3PH, 4W 3PH	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FOURPLEX RECEPTACLE  GEONNOTED FOURPLEX RECEPTACLE  APPLIANCE RECEPTACLE - 3 WIRE  GROUND FAULT CIRCUIT INTERRUPTER  RECEPTACLE WITH USB CHARGING CAPABILITES
225A MCB 225A MCB 120/208V 3PH, 4W 3PH  ELECTRIC	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE  FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FOURPLEX RECEPTACLE  APPLIANCE RECEPTACLE - 3 WIRE  GROUND FAULT CIRCUIT INTERRUPTER  RECEPTACLE WITH USB CHARGING CAPABILITES  RECEPTACLE MOUNTED ABOVE COUNTER
225A MCB 225A MCB 120/208V 3PH, 4W 3PH  ELECTRIC  G GFCI USB AC	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE FLOOR MOUNTED RECEPTACLE SPLIT WIRED DUPLEX RECEPTACLE CEILING MOUNTED DUPLEX RECEPTACLE FOURPLEX RECEPTACLE FLOOR MOUNTED FOURPLEX RECEPTACLE APPLIANCE RECEPTACLE - 3 WIRE GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE WITH USB CHARGING CAPABILITES  RECEPTACLE MOUNTED IN CASEWORK
225A MCB 225A MCB 120/208V 3PH, 4W 3PH  ELECTRIC	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO (208V 1, 4W)  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH WALL JUNCTION BOX - SURFACE/FLUSH DUPLEX RECEPTACLE FLOOR MOUNTED RECEPTACLE SPLIT WIRED DUPLEX RECEPTACLE CEILING MOUNTED DUPLEX RECEPTACLE FOURPLEX RECEPTACLE FLOOR MOUNTED FOURPLEX RECEPTACLE APPLIANCE RECEPTACLE - 3 WIRE GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE WITH USB CHARGING CAPABILITES RECEPTACLE MOUNTED ABOVE COUNTER RECEPTACLE MOUNTED IN CASEWORK ELECTRIC HAND DRYER
225A MCB 225A MCB 120/208V 3PH, 4W 3PH  ELECTRIC   GFCI USB AC CW  CW  T	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO (208V 1, 4W)  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH  WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE FLOOR MOUNTED RECEPTACLE  SPLIT WIRED DUPLEX RECEPTACLE  CEILING MOUNTED DUPLEX RECEPTACLE  FOURPLEX RECEPTACLE  FLOOR MOUNTED FOURPLEX RECEPTACLE  APPLIANCE RECEPTACLE - 3 WIRE  GROUND FAULT CIRCUIT INTERRUPTER  RECEPTACLE WITH USB CHARGING CAPABILITES  RECEPTACLE MOUNTED IN CASEWORK  ELECTRIC HAND DRYER  THERMOSTAT
225A MCB 225A MCB 120/208V 3PH, 4W 3PH  ELECTRIC   G GFCI USB CW CW CO CW CO CW CO CW CO	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO //208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH WALL JUNCTION BOX - SURFACE/FLUSH  DUPLEX RECEPTACLE FLOOR MOUNTED RECEPTACLE SPLIT WIRED DUPLEX RECEPTACLE CEILING MOUNTED DUPLEX RECEPTACLE FOURPLEX RECEPTACLE FLOOR MOUNTED FOURPLEX RECEPTACLE APPLIANCE RECEPTACLE - 3 WIRE GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE WITH USB CHARGING CAPABILITES RECEPTACLE MOUNTED ABOVE COUNTER RECEPTACLE MOUNTED IN CASEWORK ELECTRIC HAND DRYER THERMOSTAT OPEN/CLOSE/STOP PUSH BUTTON
225A MCB 225A MCB 120/208V 3PH, 4W 3PH  ELECTRIC  G GFCI USB C CW C ROOM	3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  A MLO /208V 1, 4W  CAL DEVICE LEGEND  CEILING JUNCTION BOX - SURFACE/FLUSH WALL JUNCTION BOX - SURFACE/FLUSH DUPLEX RECEPTACLE FLOOR MOUNTED RECEPTACLE SPLIT WIRED DUPLEX RECEPTACLE CEILING MOUNTED DUPLEX RECEPTACLE FOURPLEX RECEPTACLE FLOOR MOUNTED FOURPLEX RECEPTACLE FOURPLEX RECEPTACLE GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE WITH USB CHARGING CAPABILITES RECEPTACLE MOUNTED ABOVE COUNTER RECEPTACLE MOUNTED IN CASEWORK ELECTRIC HAND DRYER THERMOSTAT OPEN/CLOSE/STOP PUSH BUTTON DRAWING KEY NOTES

GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE MOUNTED AT 44"

ABOVE FINISHED FLOOR

ELECTRICAL EQUIPMENT LEGEND

BRANCH CIRCUIT PANELBOARD

ELECTRIC MOTOR

TELEPHONE TERMINAL BOARD

	ELECTRICAL SHEET LIST											
Sheet Number	Sheet Name											
E0-1	ELECTRICAL COVER SHEET											
E1-1	LIGHTING - FLOOR PLAN											
E1-2	LIGHTING - DETAILS											
E2-1	ELECTRICAL - FLOOR PLAN											
E2-2	ELECTRICAL - ROOF PLAN											
E3-1	ELECTRIAL - MAIN DISTRIBUTION DETAILS											
E3-2	ELECTRICAL- PANEL SCHEDULES											
E3-3	ELECTRICAL - MECHANICAL EQUIPMENT SCHEDULES											
E3-4	ELECTRICAL DETAILS											
E4-1	SYSTEMS - FLOOR PLAN											
E4-2	ALERTING - FLOOR PLAN											
E4-3	SYSTEMS DETAILS											
ES1-1	LIGHTING SITE PLAN											
IES1-1	LIGHTING - IES FOOTCANDLE SITE PLAN											

### **RESPONSIBLE DIVISION:**

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
EQUIPMENT	23	23	26	
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	_
STARTERS	20	20	20	
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)		23(2)
		(_/		(_)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)		23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

1. MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1)NC

**ABBREVIATIONS:** 

A.D. ACCESS DOOR

ABV ABOVE

44" MOUNTING HEIGHT ABOVE

AAV AIR ADMITTANCE VALVE

AC AIR CONDITIONING UNIT

A.F.C. ABOVE FINISHED CEILING

A.F.G. ABOVE FINISHED GRADE

A.F.F. ABOVE FINISHED FLOOR

AP ACCESS PANEL OR DOOR

AWG AMERICAN WIRE GAGE

BD BACK DRAFT DAMPER

BOB BOTTOM OF BEAM

BOD BOTTOM OF DUCT

BOP BOTTOM OF PIPE

CB CIRCUIT BREAKER

BTU BRITISH THERMAL UNIT

CCT CORRELATED COLOR

CFH CUBIC FEET PER HOUR

CFM CUBIC FEET PER MINUTE

CHWR CHILLED WATER RETURN

CHWS CHILLED WATER SUPPLY

CMU CONCRETE MASONRY UNIT

CBV CIRCUIT BALANCING VALVE

BFP BACK FLOW PREVENTOR

AHU AIR HANDLING UNIT

ALUM ALUMINUM

AV AUDIO / VIDEO

BB BASEBOARD

BL BOILER

BLW BELOW

BLDG BUILDING

BSMT BASEMENT

C CHILLER

CAP CAPACITY

TEMPERATURE

CI CAST IRON

CLG CEILING

COL COLUMN COMP COMPRESSOR

CONC CONCRETE

DB DRY BULB

DIA DIAMETER

DIAG DIAGRAM

DEPT DEPARTMENT

DF DRINKING FOUNTAIN

COND CONDENSATE

CONN CONNECTION

CONT CONTINUATION

CONTR CONTRACTOR

CT COOLING TOWER

CU CONDENSING UNIT

CUH CABINET UNIT HEATER

CVB CONSTANT VOLUME BOX

CWR CONDENSER WATER RETURN

CWS CONDENSER WATER SUPPLY

CRI COLOR RENDERING INDEX

CT CURRENT TRANSFORMER

CL CENTER LINE

CO CLEAN OUT

CKT CIRCUIT

AVG AVERAGE

AD AREA DRAIN (SEE SYMBOLS)

AIC AMPS INTERRUPTING CAPACITY

ATS AUTOMATIC TRANSFER SWITCH

BAS BUILDING AUTOMATION SYSTEM

AC ABOVE COUNTER

FINISHED FLOOR TO CENTER OF DEVICE

2. IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

DIFF DIFFERENTIAL

DS DUCT SILENCER

DX DIRECT EXPANSION

EXHAUST FAN

EM EMERGENCY FUNCTION

EMT ELECTRIC METALLIC TUBE

ESP EXTERNAL STATIC PRESSURE

DEGREES FAHRENHEIT

EWC ELECTRIC WATER COOLER

**EFFICIENCY** 

**ELEVATION** 

EXHAUST AIR GRILLE/REGISTER

EAT ENTERING AIR TEMPERATURE

ELECTRICAL CONTRACTOR

**EXISTING** 

HT HEIGHT

HTR HEATER

HWR HEATING WATER RETURN

HWS HEATING WATER SUPPLY

INSIDE DIAMETER

ISOLATED GROUND

LAT LEAVING AIR TEMPERATURE

HX HEAT EXCHANGER

HERTZ

INCHES

JBOX JUNCTION BOX

KVA KILO VOLT - AMPS

LAVATORY

LF LINEAR FEET

LD LINEAR DIFFUSER

LRA LOCKED ROTOR AMPS

MCA MINIMUM CIRCUIT

MFR MANUFACTURER

MISC MISCELLANEOUS

MUA MAKE-UP AIR UNIT

NC NORMALLY CLOSED

NIC NOT IN CONTRACT

NO NORMALLY OPEN

NTS NOT TO SCALE

OA OUTSIDE AIR

OC ON CENTER

OCC OCCUPIED

OL OVERLOAD

OZ OUNCE

PH PHASE

MLO MAIN LUG ONLY

LWT LEAVING WATER TEMPERATURE

MBH THOUSANDS OF BTU PER HOUR

MC MECHANICAL CONTRACTOR

MCB MAIN CIRCUIT BREAKER

MDP MAIN DISTRIBUTION PANEL

MOCP MAXIMUM OVERCURRENT

NL NIGHT / SECURITY LIGHT - DO

OBD OPPOSED BLADE DAMPER

OCP OVER CURRENT PROTECTION

ORD OVERFLOW ROOF DRAIN

PBD PARALLEL BLADE DAMPER

PRV PRESSURE REDUCING VALVE

PSI POUNDS PER SQUARE INCH PT PRESSURE TRANSMITTER

OD OUTSIDE DIAMETER

PD PRESSURE DROP

POS POINT OF SALES

PS PRESSURE SWITCH

POS POSITIVE PRESSURE

MD MOTORIZED DAMPER

INV INVERT

K KELVIN

L LENGTH

LB POUND

LIN LINEAR

LIQ LIQUID

LM LUMEN

LV LOUVER

LVG LEAVING

AMPACITY

MED MEDIUM

MIN MINIMUM

PROTECTION

N NEUTRAL

NOT SWITCH

NOM NOMINAL

MTD MOUNTED

NEG NEGATIVE

KW KILOWATT

DISCH DISCHARGE

DN DOWN

DWG DRAWING

ECC ECCENTRIC

ELEC ELECTRIC

ENT ENTERING

EQUIP EQUIPMENT

TEMPERATURE

EX EXHAUST

EXT EXTERNAL

EQUIV EQUIVALENT

ES END SWITCH

ET EXPANSION TANK

EWT ENTERING WATER

EXPAN EXPANSION

FREE AREA

FD FIRE DAMPER

FD FLOOR DRAIN

FLA FULL LOAD AMPS

FOB FLAT ON BOTTOM

FP FIRE PROTECTION

FPM FEET PER MINUTE

FS FLOW SWITCH

FPS FEET PER SECOND

FSD FIRE/SMOKE DAMPER

FXC FLEXIBLE CONNECTION

GEC GROUND ELECTRODE

GC GENERAL CONTRACTOR

GPH GALLONS PER HOUR

GPM GALLONS PER MINUTE

GRS/LB GRAINS PER POUND

HD HEAD (SEE SCHEDULES)

GFCI / GFI GROUND FAULT CIRCUIT

FOT FLAT ON TOP

FP FIRE PUMP

FT FEET

GND GROUND

GA GAUGE

GAL GALLON

CONDUCTOR

INTERRUPTER

H 2O WATER

HB HOSE BIBB

HP HEAT PUMP

HP HORSEPOWER

GALV GALVANIZED

FIN FINISHED

FLEX FLEXIBLE

FLR FLOOR

FAN COIL UNIT

FOOTCANDLE

FCV FLOW CONTROL VALVE

EQ EQUAL

ELEV ELEVATOR

AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

**SUBSTITUTIONS:** 

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES VERSIONS OF THE MECHANICAL, PLUMBING AND ENERGY CONSERVATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF

OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE

Fire Station #8

Grand Junction, CO 81501 970-242-1058

**BLYTHE GROUP + CO.** 

441 31 Rd. GRAND JUNCTION, COLORADO 81505

**Bighorn Consulting** 

Mechanical & Electrical Engineers

**Grand Junction Fire Department** 

Engineers, Inc.

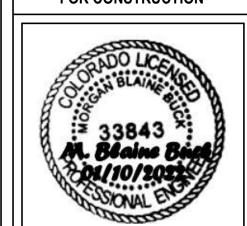
Grand Junction, CO 81501

Phone (970) 241-8709

386 Indian Road

**ELECTRICAL COVER SHEET** 

FOR CONSTRUCTION



REV. DESC.

DATE: 01/10/2022

PROJECT #: 21-230

**E0-**1

EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR

REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND

SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

PTAC PACKAGED TERMINAL AIR

RA RETURN AIR GRILLE / REGISTER

RCP REFLECTED CEILING PLAN

RPM REVOLUTIONS PER MINUTE

SCA SHORT CIRCUIT AVAILABLE

SCCR SHORT CIRCUIT CURRENT

SPD SURGE PROTECTION DEVICE

TR TRANSFER GRILLE / REGISTER

TT TEMPERATURE TRANSMITTER

UNO UNLESS NOTED OTHERWISE

VAV VARIABLE AIR VOLUME UNIT

VTR VENT THROUGH ROOF

VFD VARIABLE FREQUENCY DRIVE

VRF VARIABLE REFRIGERANT FLOW

SA SUPPLY AIR GRILLE / REGISTER

CONDITIONER

PV PLUG VALVE PVC POLYVINYL CHLORIDE

RD ROOF DRAIN

REQD REQUIRED

RF RETURN FAN

RHC REHEAT COIL

RH RELATIVE HUMIDITY

RLA RATED LOAD AMPS

SHORT CIRCUIT

SD SMOKE DAMPER

SF SUPPLY FAN

SH SENSIBLE HEAT

SHOWER

SPEC SPECIFICATION

SQ SQUARE

STD STANDARD

STL STEEL

SYS SYSTEM

SP STATIC PRESSURE

SS STAINLESS STEEL

SS SAFETY SHOWER

TEMP TEMPERATURE

TERMINAL BACKBOARD

UC UNDERCUT DOOR

UNOCC UNOCCUPIED

UH UNIT HEATER

VOLTS

VA VALVE

VOLT VOLTAGE

WATTS

W/O WITHOUT

WB WET BULB

WC WATER COLUMN

WC WATER CLOSET

WG WATER GAUGE

WP WEATHERPROOF

XFMR TRANSFORMER

WSR WITHSTAND RATING

WPIU WEATHERPROOF IN-USE

W WIDTH

VA VOLT AMPERE

TYP TYPICAL TX TRANSFORMER

TR TAMPER RESISTANT

TTB TELECOMMUNICATIONS

SEF SMOKE EXHAUST FAN

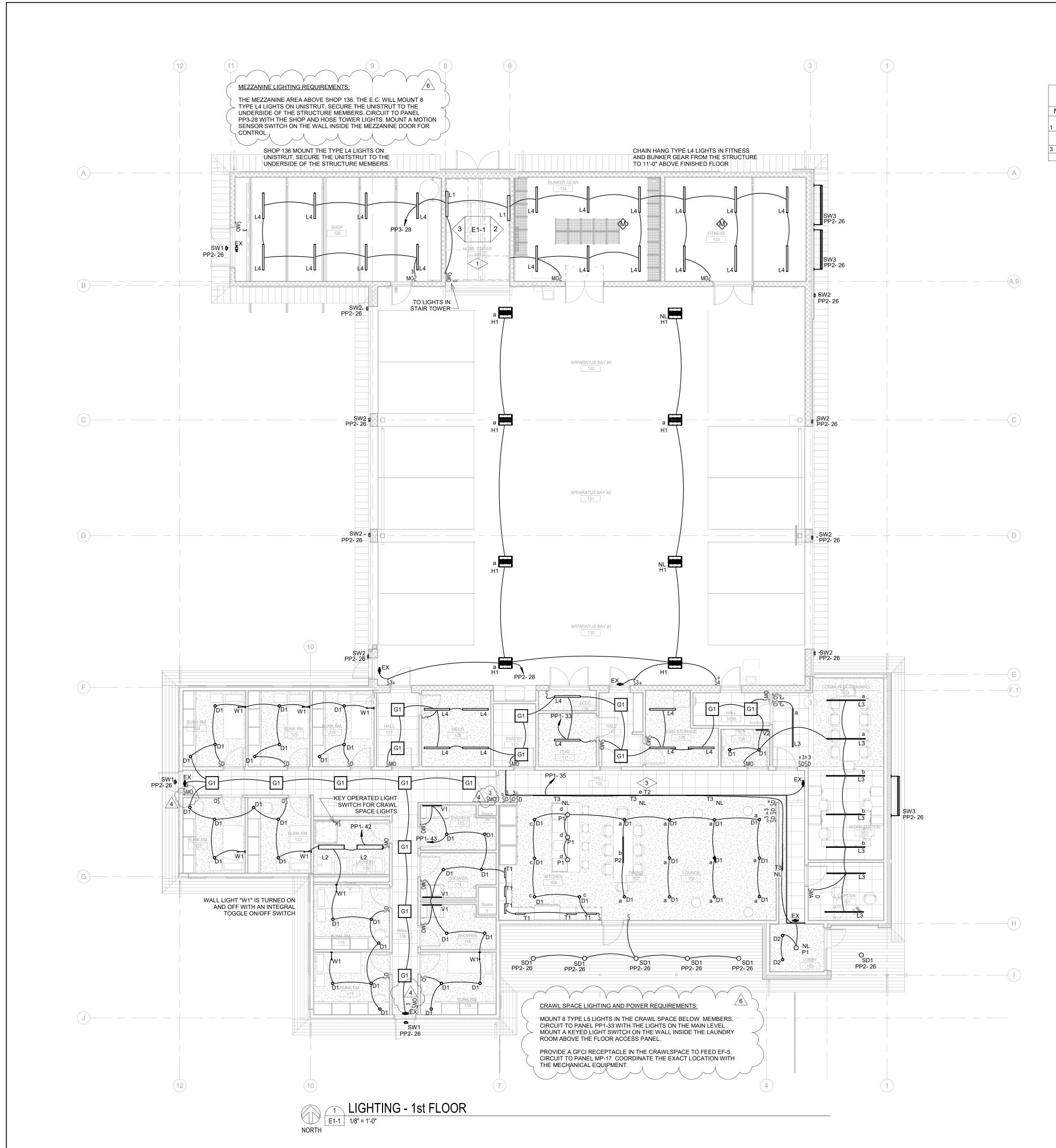
QTY QUANTITY

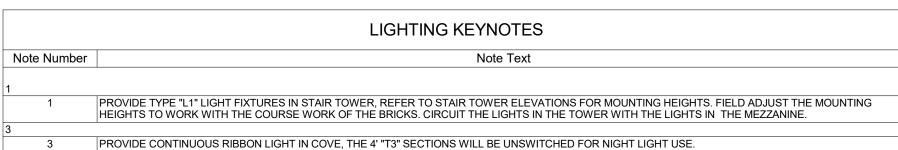
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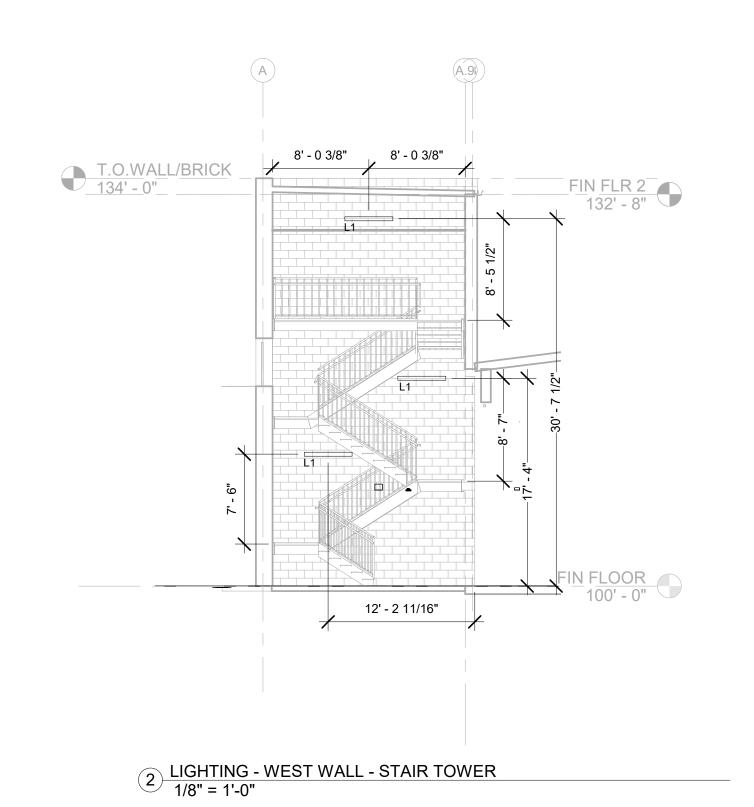
RM ROOM

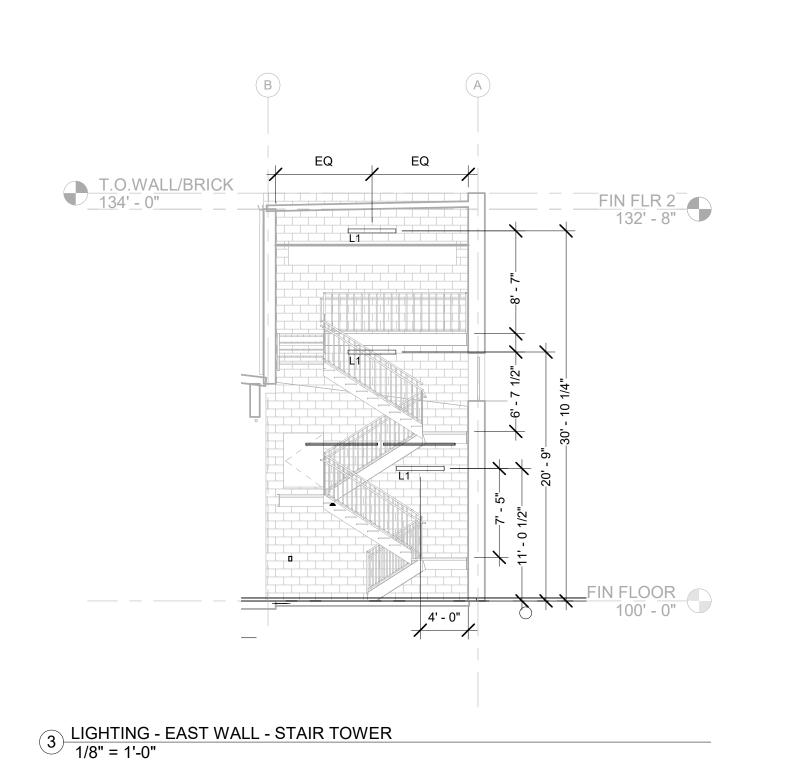
SCH SCHEDULE

RATING









622 Rood Avenue
Grand Junction, CO 81501
970-242-1058
BLYTHE GROUP + CO.



Bighorn Consulting
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Mechanical & Electrical Engineers

386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

Grand Junction Fire Department
Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

LIGHTING - FLOOR PLAN

FOR CONSTRUCTION

DEV. DESC. DATE.

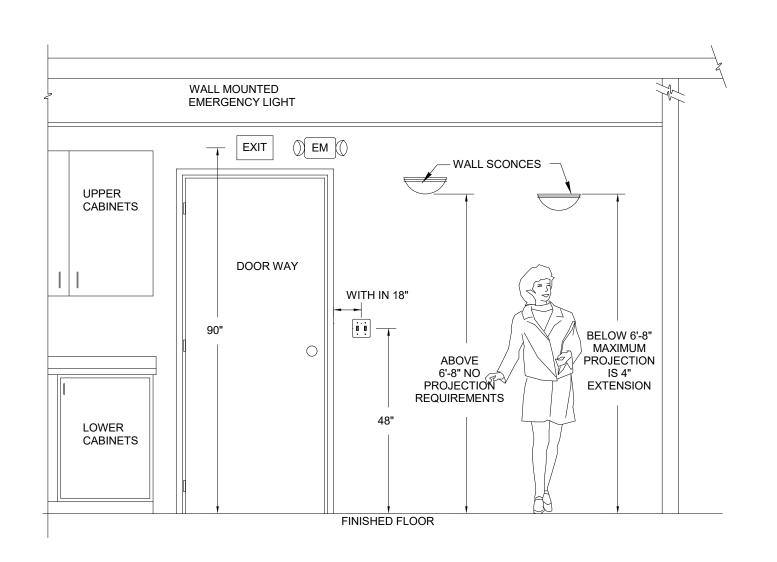
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4 PR01 3/31/22
6 PR03 6/13/22

DATE: 01/10/2022

PROJECT #: 21-230

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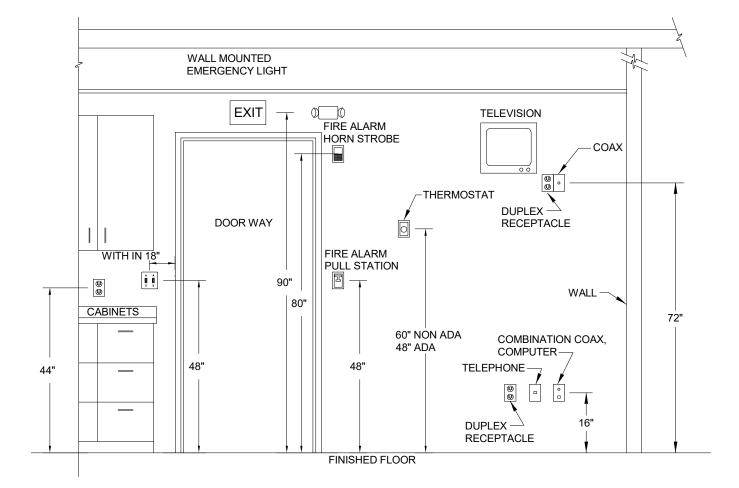
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# LIGHTING DEVICE MOUNTING HEIGHT DETAIL

NOT TO SCALE

- ALL DEVICES SHOWN ON THIS DETAIL ARE FOR REFERENCES OF MOUNTING HEIGHTS ONLY. THE ELECTRICAL CONTRACTOR
- SHALL FIELD ADJUST THE HEIGHTS AND LOCATIONS OF THE DEVICES AS REQUIRED FOR PROPER MOUNTING. 2. ALL DEVICES REQUIRED FOR THIS PROJECT MAY NOT APPEAR ON THIS DETAIL. ALL ITEMS SHOWN ON THIS DETAIL MAY NOT BE
- 3. THE AMERICANS WITH DISABILITIES ACT, KNOWN AS ADA, AFFECTS LIGHT FIXTURES USED IN CIRCULATION OR EGRESS SPACES. IN PRACTICE THIS MEANS THAT WALL MOUNTED FIXTURES LOCATED BELOW 6'-8" AFF IN HALLS, CORRIDORS, PASSAGEWAYS OR AISLES, MUST BE NO GREATER THAN 4" DEEP. THE ADA AFFECTS CONSTRUCTION FOR BOTH NEW AND EXISTING BUILDINGS.

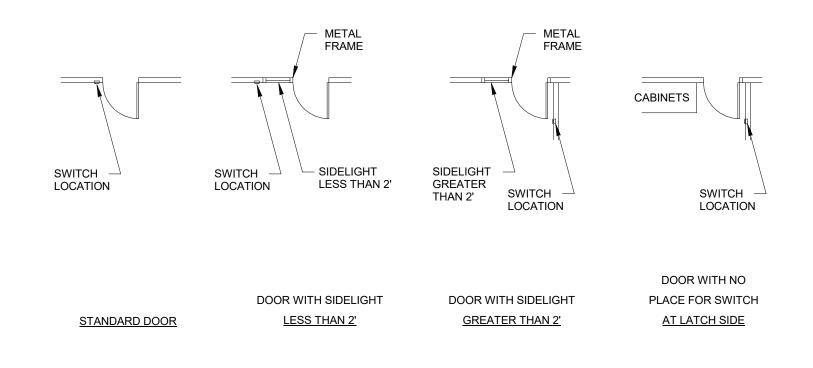


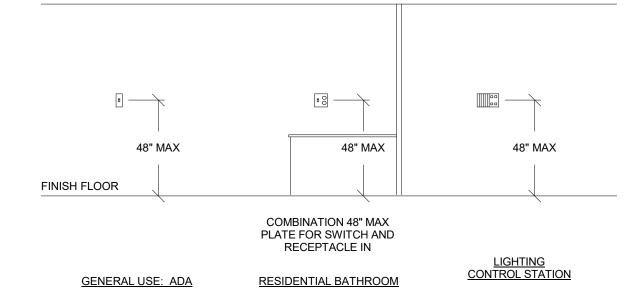
# DEVICE MOUNTING HEIGHT DETAIL

NOT TO SCALE

- NOTES:

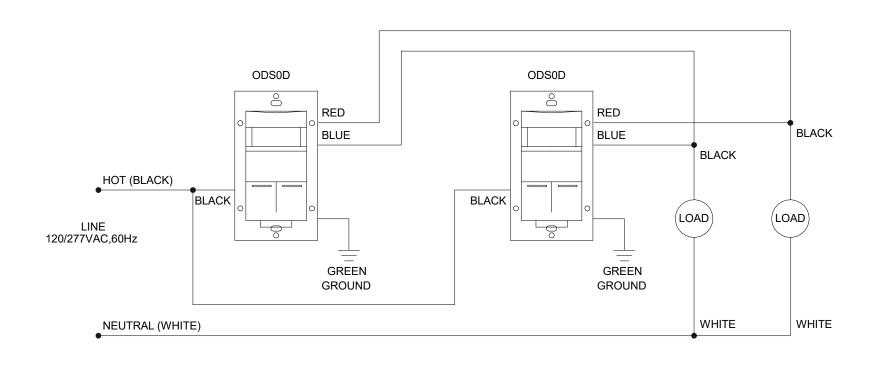
  1. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL TELEVISION OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.
- 2. ALL DEVICES SHOWN ON THIS DETAIL ARE FOR REFERENCES OF MOUNTING HEIGHTS ONLY. THE ELECTRICAL CONTRACTOR SHALL FIELD ADJUST THE HEIGHTS OF THE DEVICES AS REQUIRED FOR
- PROPER MOUNTING OF THE DEVICES. 3. ALL DEVICES REQUIRED FOR THIS PROJECT MAY NOT APPEAR ON THIS DETAIL. ALL ITEMS SHOWN ON THIS DETAIL MAY NOT BE REQUIRED FOR THIS PROJECT.

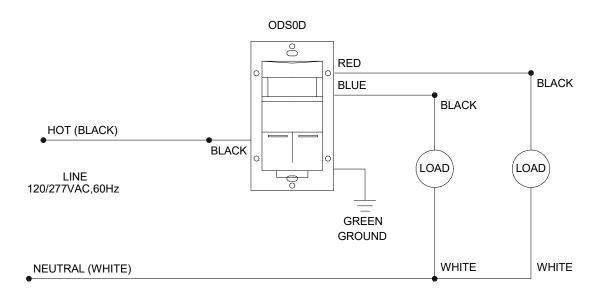




# SWITCH MOUNTING DETAILS

SCALE: NOT TO SCALE



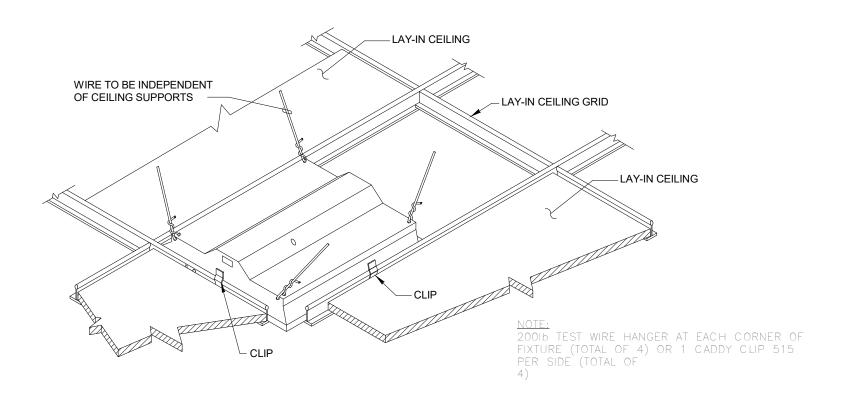


# **BI-LEVEL SWITCHING DETAIL**

NOT TO SCALE

### <u>DETAIL NOTES:</u> 1. PROVIDE SWITCHERS THAT ARE COMPATIBLE WITH THE LIGHT FIXTURES THAT ARE BEING INSTALLED. 2. PROVIDE DUAL CONTROL IN THE CORRIDORS AND ALL ROOMS WITH MORE THAN ONE DOOR.

3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE EXACT LOCATION OF THE SWITCHES WITH THE ARCHITECTURAL DETAILS OF THE SPACE.



# RECESSED LIGHT FIXTURE DETAIL

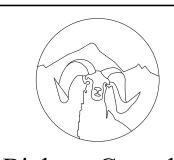
SCALE: NOT TO SCALE

- NOTE:
  1. ALL GRID MOUNTED FIXTURES ARE TO BE SUPPORTED FROM THE STRUCTURE ABOVE. 2. 200lb TEST WIRE HANGER AT EACH CORNER OF FIXTURE (TOTAL OF 4) OR 1 CADDY CLIP 515 PER SIDE
- (TOTAL OF 4)

  3. TYPICAL ALL GRID MOUNTED FIXTURES.

		LICUT		HEDITE
			ING FIXTURE SC	ПЕРОГЕ
TYPE MARK	MANUFACTURER	MODEL	LAMP	DESCRIPTION
D1	PRESCOLITE LIGHTING	LF4SL-4LFSL-20L-35K-8-B6		4" RECESSED LED DOWN LIGHT, 0-10V DRIVER, SEMI-DIFFUSE CLEAR ALZAK TRIM, SEMI-DIFFUSE REF. FINISH
D2	PRESCOLITE LIGHTING	LF4SL-4LFSL-20L-35K-8-WW-B6	2000LM, 3500K, 22W, 80CRI, 120V, 0-10V LED DIMMING	4" RECESSED LED WALL WASH DOWN LIGHT, 0-10V DRIVER, SEMI-DIFFUSE CLEAR ALZAK TRIM, SEMI-DIFFUSE REF. FINISH
EX	COMPASS LIGHTING	CE-CAG	1.5W LED	LED EXIT LIGHT, WHITE HOUSING, GREEN LETTERING, SELF -DIAGNOSTICS, NICKEL CADIUM BATTERY
G1	COLUMBIA LIGHTING	LJT22-35VLG-FS-SFA-EDU-C588-G2	DIMMING	2x2 LED RECESSED GRID TROFFER, WHITE FINISH ON STEEL HOUSING, SMOOTH FROSTED ACRYLIC SHEILDING.
H1	COLUMBIA LIGHTING	PEL-2-35-MH-FP-W-ED-U-F3C5-LHVQM5	- 7	PELOTON HIGH PERFORMANCE HIGH BAY LED FIXTURE, WIDE DISTRIBUTION, FROSTED POLYCARBONATER LENS, AIRCRAFT CABLE HANGER.
L1	PINNACLE ARCHITECTURAL LIGHTING	EX4D-A-N-835HO-4'-WA-U-PL2-1-0-W	DIMMING	4'L WALL MOUNTED EDGE LINEAR FIXTURE, SATIN LENS, DOWN SHIELDING TO OBSCURES THE LED SOURCE, WHITE FINISH
L2	COLUMBIA LIGHTING	RLW-4-35-LW-4'-FA-W-ED-U	DIMINING	REVALUME™ LINEAR WRAP, WHITE FINISH, FROSTED ACRYLIC SHIELDING.
L3	PINNACLE ARCHITECTURAL LIGHTING	EX1B-A-BW-835HO-835-6-AC48*-U-PL2-1- 0-W	79W, 80CRI, 0-10V LED DIMMING	6'L EDGE BIDIRECTIONAL LINEAR FIXTURE, SATIN LENS DIRECT SHIELDING, BATWING LENS INDIRECT SHIELDING, 15/16" BEVELED GRID MOUNTING, PROVIDE JUNCTION BOX MOUNTING FOR LIGHT MOUTNED TO GY CEILINGS
L4	COLUMBIA LIGHTING	MPS-4-35-ML-C-W-ED-U	4556LM, 3500K, 40W, 0-10V LED DRIVER	4' MULTIPURPOSE LINEAR LED FIXTURE, FROSTED ACRYLIC LENS, WIDE DISTRIBUTION,
P1	BRUCK LIGHTING	LLED-35K-90-830-MC-PWH		MOUTH-BLOWN GLASS PENDANT, CLEAR SHADE, MATTE CHROME FUNISH, WHITE CANOPY AND CABLE,
P2	KUZCO LIGHTING	LP70148		GRAMERCY PENDNT FIXTURE, GLASS CYLINDER WITH FROSTED WHITE INTEROR COATING AND ALUMINUM DIE-CAST BODY.
T1	FINELITE LIGHTING	UC-E-22-S-PS-8W CP-*		EDGE UNDER CABINET MOUNTED LIGHT FIXTURE. PROVIDE MOUNTING HARDWARE, DRIVERS, POWER SUPPLIES AND ALL NECESSARY COMPOINENTS. SILVER FINISH.
T2	CONTECH LIGHTING	TLT24V 2-35K-*-12R; TLP24VHW96-ENC; TLCIP19HW; TLPDIM10V; TLACD6; TLALD6;	447LM/FT, 3500K, 3.8W/FT, 80CRI, 24V-120V LED DIMMING	TL TAPELIGHT SERIES, CLEAR LENS, REFER TO THE ARCHITECT REFELCTED CEILING PLAN FOR RUN LENGTH
Т3	CONTECH LIGHTING	TLT24V 2-35K-*-12R; TLP24VHW96-ENC; TLCIP19HW; TLPDIM10V; TLACD6; TLALD6;	447LM/FT, 3500K, 3.8W/FT, 80CRI, 24V-120V LED DIMMING	TL TAPELIGHT SERIES, CLEAR LENS, REFER TO THE ARCHITECT REFELCTED CEILING PLAN FOR RUN LENGTH
V1	WAC LIGHTING	WS-77636-3500K-30W-2561-AL	DIMMING	3'L BRINK WALL MOUNTED VANITY LIGHT, BRUSHED ALUMINUM FINISH, MOUNT HORZIONTALLY OVER THE BATHROOM MIRROR.
V2	WAC LIGHTING	WS-77624-3500K-20.5W-17851-AL		2'L BRINK WALL MOUNTED VANITY LIGHT, BRUSHED ALUMINUM FINISH, MOUNT HORZIONTALLY OVER THE BATHROOM MIRROR.
W1	CONTECH LIGHTING	BL3JM-WW-NK	70LM, 3000K, 5W LED	LED WALL MOUNTED BED LAMP, JUNCTION BOX MOUNTED. WARM WHITE LAMP COLOR TEMPERTURE, BRUSHED NICKEL FINISH,TOGGLE SWITCH.





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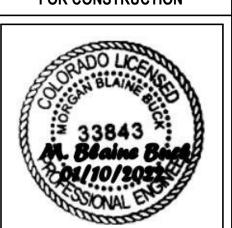
386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

**Grand Junction Fire Department** Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

LIGHTING - DETAILS

FOR CONSTRUCTION

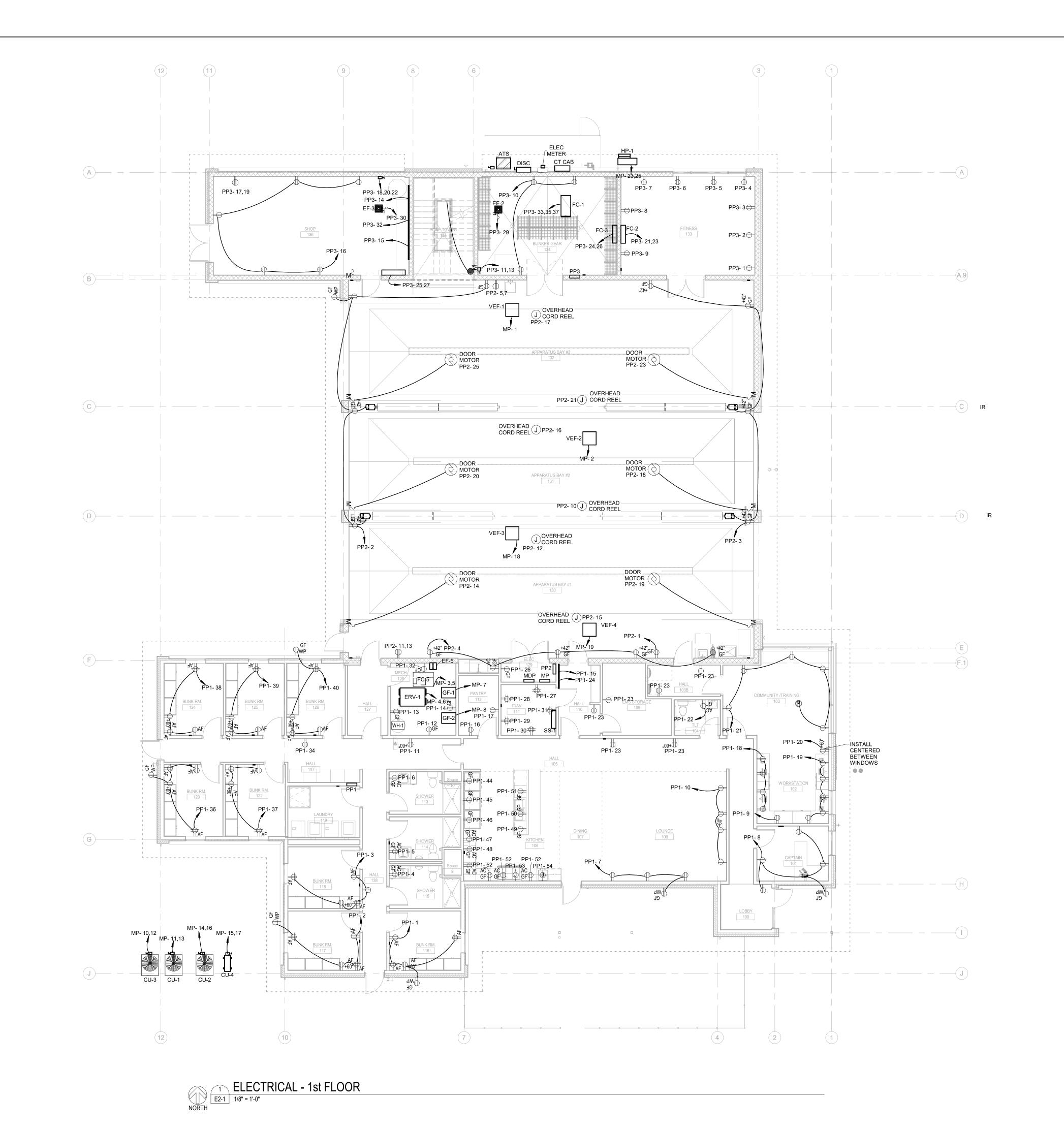


REV. DESC.

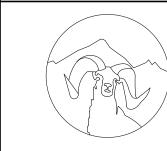
DATE: 01/10/2022

PROJECT #: 21-230

E1-2



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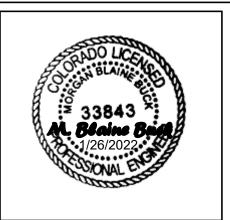
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**ELECTRICAL - FLOOR PLAN** 

FOR CONSTRUCTION



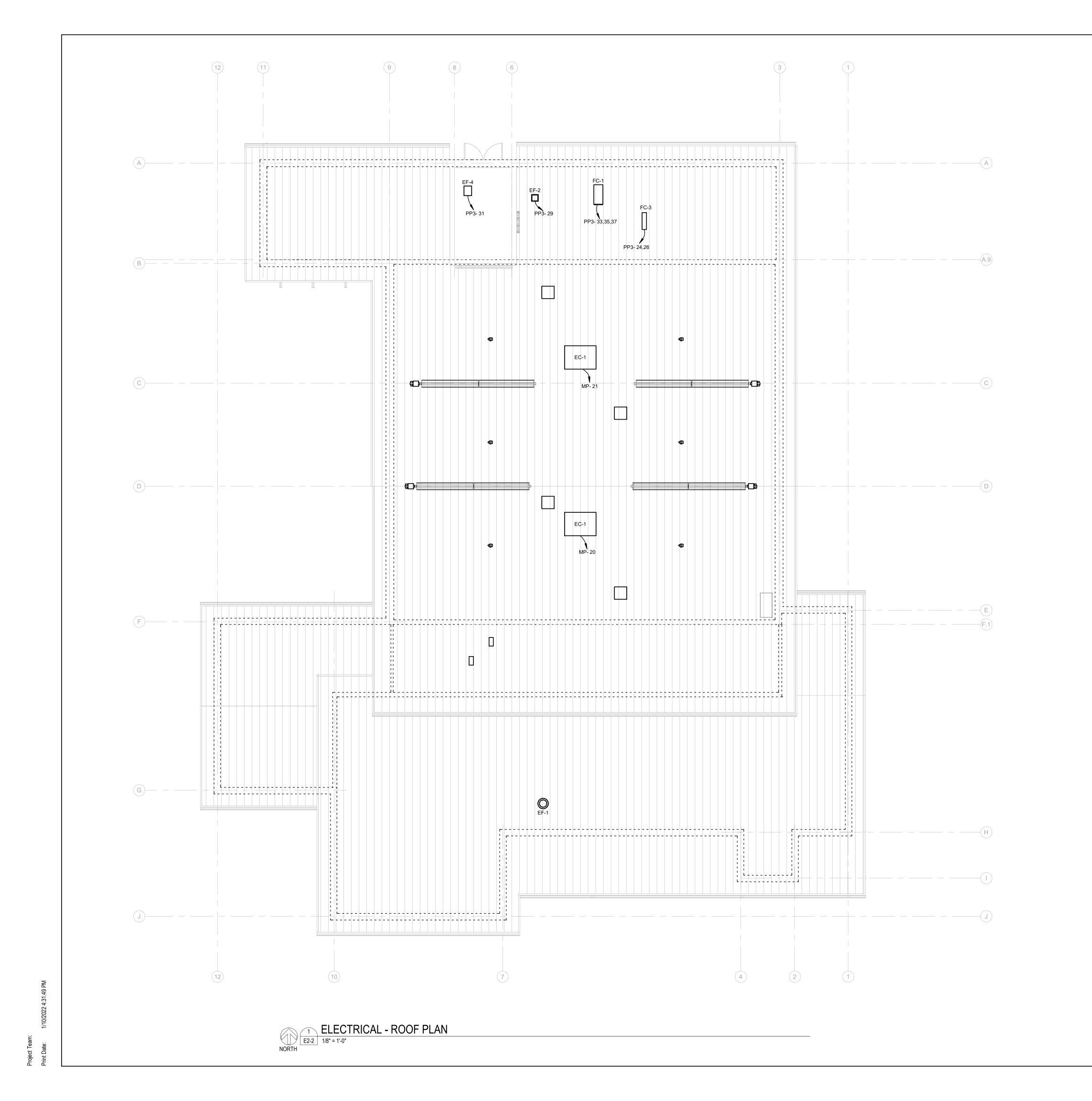
ADDENDUM 01

12/03/21

DATE: 01/10/2022

PROJECT #: 21-230

**E2-1** 







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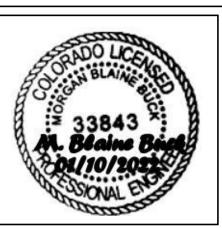
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Grand Junction Fire Department Fire Station #8

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ELECTRICAL - ROOF PLAN

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V. DESC.

DATE: 01/10/2022

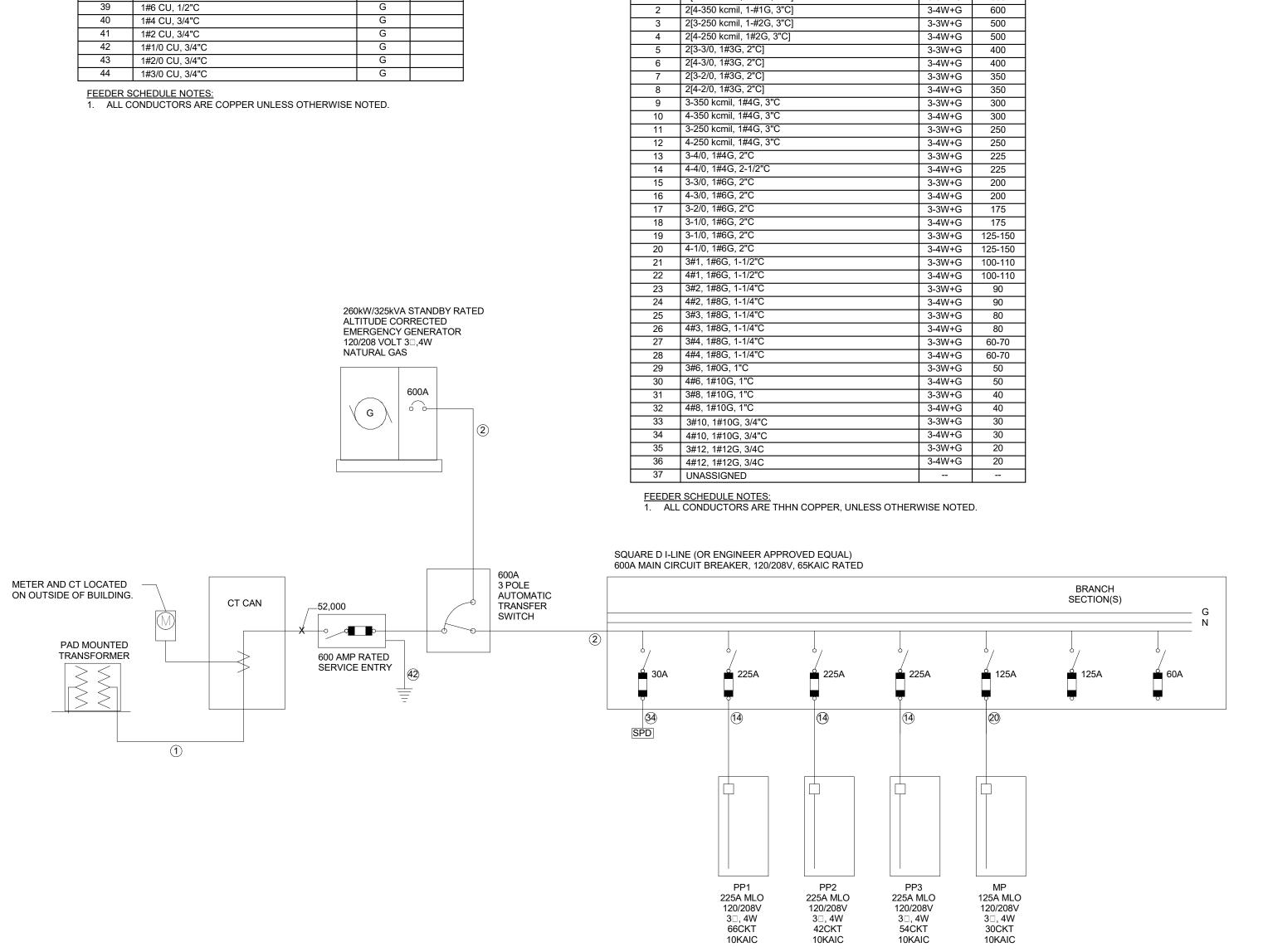
PROJECT #: 21-230

**E2-2** 

	COPPER GROUNDING CONDUC	TORS	
38	1#8 CU, 1/2"C	G	
39	1#6 CU, 1/2"C	G	
40	1#4 CU, 3/4"C	G	
41	1#2 CU, 3/4"C	G	
42	1#1/0 CU, 3/4"C	G	
43	1#2/0 CU, 3/4"C	G	
44	1#3/0 CU, 3/4"C	G	

FEEDER SCHEDULE NOTES:

1. ALL CONDUCTORS ARE COPPER UNLESS OTHERWISE NOTED.



CONDUIT AND FEEDER SCHEDULE

NO. NO.
1 2[3-350 kcmil, 1-#1G, 3"C]

2 2[4-350 kcmil, 1-#1G, 3"C] 3 2[3-250 kcmil, 1-#2G, 3"C]

PHASE AMPS

3-3W+G 600

ELECTRICAL - MAIN DISTRIBUTION ONE-LINE DIGRAM

**Branch Panel: MDP** Location: ELEC 129 Volts: 120/208 Wye A.I.C. Rating: Supply From: Mains Type: Phases: 3 Wires: 4 Mounting: Surface Mains Rating: 600 A Enclosure: Type 3R MCB Rating: 600 A CKT **Circuit Description** Poles Trip **Circuit Description** | 125 A | 3 | 1760... | 9386.. 3 225 A PP2 2 3 --4 1109... 4164... -- | -- |--5 --6 13269... 8510... -- -- --7 PP1 3 225 A PP3 8 225 A 3 1062... 10941... 9 ---10 1258... 7987... 11 --12 11839... | 1044... | -- | -- | --13 SPD 30 A 3 0 VA 0 VA 3 125 A Spare 14 15 ---- | -- |--16 0 VA 0 VA 17 ---18 0 VA | 0 VA | -- | -- |---- | --Total Load: 48559 VA 35830 VA 44064 VA Total Amps: 415 A 299 A 378 A Legend: Panel Totals **Load Classification** Connected Load **Demand Factor Estimated Demand** 331 VA 100.00% 331 VA HVAC Total Conn. Load: 128453 VA 24809 VA 100.00% 24809 VA 5127 VA 100.00% 5127 VA Total Est. Demand: 109454 VA Lighting Total Conn.: 357 A Lighting - Exterior 1500 VA 125.00% 1875 VA Total Est. Demand: 304 A Motor 7084 VA 100.00% 7084 VA 27757 VA 100.00% 27757 VA

100.00%

60.26%

100.00%

13101 VA

29374 VA

63 VA

13101 VA

48747 VA

63 VA

Power

Autre

Receptacle

25 ESTABLISHED 1996
YEARS 622 Rood Avenue Grand Junction, CO 81501 970-242-1058 **BLYTHE GROUP + CO.** 



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> **ELECTRIAL - MAIN** DISTRIBUTION DETAILS

FOR CONSTRUCTION



DATE: 01/10/2022

PROJECT #: 21-230

E3-1

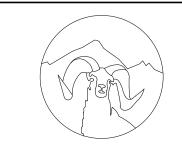
	Branch Panel: PP1  Location: LAUNDRY 119 Supply From: MDP Mounting: Surface Enclosure: Type 1				I	Volts: Phases: Wires:	-	Wye				A.I.C. Rating: Mains Type: Mains Rating: 225 A MCB Rating: 100 A		
Notes:														
CKT	Circuit Description	Trip	Poles		A	F	В	С	;	Poles	Trip	Circuit De	•	CKT
1	Receptacle BUNK RM. 116	20 A	1	180 VA	1260	1000	400.1/4			1	20 A	Receptacle BUNK RM. 11		2
3	Receptacle BUNK RM. 118	20 A	1			1260	180 VA		400 ) (4	1	20 A	Receptacle SHOWER 115		4
5	Receptacle SHOWER 114	20 A	1	722.1/4	122.1/4			180 VA	180 VA	1	20 A	<u>'</u>		6
7	Receptacle LOUNGE 106	20 A	1	720 VA	180 VA		700 \ (A			1	20 A	' ·		8
9	Receptacle WORKSTATION 102	20 A	1			180 VA	720 VA		100 \/A	1	20 A	Receptacle LOUNGE 106		10
11	Receptacle HALL 137	20 A	1 1	100 \/A	100 \/A			180 VA	180 VA	1	20 A	' ·		12
13	Receptacle MECH 128	20 A	1	180 VA	180 VA	1200	120 \/A			1	20 A	Receptacle MECH 128		14
15	WIREMOLD CHARGERS HALL 110	20 A	1			1200	180 VA		700 \/A	1	20 A	Receptacle PANTRY 112		16
17	Receptacle WORKSTATION 102	20 A	1	200 1/4	100 \/A			180 VA	720 VA	1	20 A	Receptacle WORKSTATIO		18
19	Receptacle WORKSTATION 102	20 A	1	900 VA	180 VA	1000	180 VA			1	20 A	<u>'</u>	/TRAINING 103	20
21	Receptacle COMMUNITY /TRAINING 103	20 A	1			1080	180 VA		1200	-	20 A	•		22
23	Receptacle HALL 105	20 A	1	240 \/A	100 \/A			1080	1200	1	20 A		HALL 110	24
25	Lighting  Recentacle IT/AV 111	20 A	1	249 vA	180 VA		360 VA			1	20 A	•		26 28
27	Receptacle IT/AV 111	20 A 20 A	1			360 vA		360 VA	200 \/A	1	20 A	<u>'</u>		30
29	Receptacle IT/AV 111		1	202.1/4	122.1/4			360 vA	360 vA		20 A	•		
31	Receptacle IT/AV 111	20 A	1	360 VA	180 VA	270.1/4	180 VA			1	20 A	Receptacle MECH 128		32
33	Lighting COMMUNITY /TRAINING 103	20 A 20 A	1 1			8/0 ٧٨	180 vA	14 VA	1260	1	20 A 20 A	•		34
	Lighting Receptacle BUNK RM. 122	20 A 20 A	1	1080	1080			14 VA	1200	1		Receptacle BUNK RM. 12 Receptacle BUNK RM. 12		38
	Receptacle BUNK RM. 122	20 A 20 A	1	1000	1000	1080	1260			1		Receptacle BUNK RM. 12		40
39 41	Receptacle DUNN NIVI. 120	ZU A	1			1000	1200		945 VA		20 A	· · · · · · · · · · · · · · · · · · ·	.0	40
	Lighting KITCHEN 108	20 A	1	564 VA	800 VA				945 VA	1		REFRIGERATOR KITCHE		44
	REFRIGERATOR KITCHEN 108	20 A	1	504 VA		RUU VA	800 VA			1		REFRIGERATOR KITCHE		46
	MICROWAVE KITCHEN 108	20 A	1			900 VA	000 VA	1200	1200	1		MICROWAVE KITCHEN 1		48
	DISHWASHER KITCHEN 108	20 A	1	1176	1176			1200	1200	1		DISPOSER KITCHEN 108		50
	DISHWASHER KITCHEN 108	20 A	1	1170	1170	1176	720 VA			1	20 A			52
	RANGE HOOD KITCHEN 108	20 A	1			1170		800 VA	1200	1	20 A	<u>'</u>		54
55	RANGE HOOD KITCHEN 100	20 1			-			000 VA	1000		207	Receptacle Milonia 100	<i>1</i>	56
57	+		<del> </del>								+			58
59			<del> </del>								+			60
		Tot	al Load:	106	25 VA	1258	36 VA	11839	9 VA	1	1			
			al Load. al Amps:		9 A		16 A	100						
Legend			7 Amps.		<del></del>		<u> </u>				-			
<b>-</b> 090	•													
Load C	lassification	Con	nected L	Load	Der	mand Fac	ctor	Estim	nated Der	mand		Panel 1	Totals	
Lighting			2519 VA			100.00%			2519 VA					
Other			2460 VA			100.00%			2460 VA			Total Conn. Load:	35050 VA	
Recepta	acle		30008 VA			66.66%			20004 VA			Total Est. Demand:		
Autre		1	63 VA			100.00%		1	63 VA			Total Conn.:		
		1	-					1		-		Total Est. Demand:		-
		1						1						
		1	-			-		1	-	-				
Notes:		-	-		.1						<u> </u>			
-														

Notes:	Branch Panel: MP  Location: ELEC 129  Supply From: MDP  Mounting: Surface Enclosure: Type 1					Volts: Phases: Wires:		3 Wye				A.I.C. Rating: Mains Type: Mains Rating: 125 A MCB Rating: 125 A		
СКТ	Circuit Description	Trip	Poles		Α		В			Poles	Trip	Circuit De	escription	СКТ
1	VEF-1 VEHICLE EXHAUST FAN	20 A	1	1656	1656					1	20 A	Other		2
3	FC-5 FAN COIL MECH 128	20 A	2			1005	1144			2	20 A	ERV-1 ENERGY RECOV	ERY VENT. MECH 128	4
5								1005	1144					6
7	GF-1 GAS FURNACE MECH 128	20 A	1	1200	1200					1	20 A	GF-2 GAS FURNACE ME	ECH 128	8
9	EF-1 EXHAUST FAN	20 A	1			864 VA	2496			2	35 A	CU-3 CONDENSING UN		10
11	HVAC	20 A	2					2912	2496					12
13				2912	2496					2	20 A	HVAC		14
15	CU-4 CONDENSING UNIT	20 A	2			1144	2496							16
17								1144	1656	1	20 A	Other		18
19	VEF-4 VEHICLE EXHAUST FAN	20 A	1	1656	1920					1	20 A	EC-1 EVAPORATIVE CO	OOLER	20
21	EC-1 EVAPORATIVE COOLER	20 A	1			1920	31 VA			1	15 A	EF-5 EXHAUST FAN CR	AWLER	22
23	HP-1 HEAT PUMP	40 A	2					2912						24
25				2912										26
27														28
29														30
		Tota	al Load:	1760	08 VA	1109	94 VA	1326	9 VA					1
		Tota	l Amps:	15	0 A	92	2 A	113	3 A					
egeno	d: Classification	Con	nected	l oad	Der	mand Fa	ector	Fetim	nated Den	nand		Panel	Totals	
Cooling		3311	31 VA			100.00%			31 VA			. 41101		
HVAC			24809 V			100.00%			24809 VA			Total Conn. Load:		
Other		•	17136 V	A		100.00%	0		17136 VA			Total Est. Demand:		
												Total Conn.:		
												Total Est. Demand:	116 A	
Notoo														
Notes:														

	Location: ELEC 129 Supply From: MDP Mounting: Surface Enclosure: Type 1					Volts: 120/20 Phases: 3 Wires: 4	8 Wye				A.I.C. Rating: Mains Type: Mains Rating: 225 A MCB Rating: 100 A			
Notes:	otes:													
СКТ	Circuit Description	Trip	Poles		A	В		2	Poles	Trip	Circuit De	escription	CK	
1	Receptacle APPARATUS BAY #1 130	20 A	1		900 VA				1	20 A	Receptacle APPARATUS	•	2	
3	Receptacle APPARATUS BAY #3 132	20 A	1	100 171	000 171	720 VA 180 VA			<u>·</u> 1	20 A	Receptacle APPARATUS		4	
5	Receptacle APPARATUS BAY #3 132	20 A	2			720 771 100 77	1945		•	2071	1100001401074174101100	<i>DICT III</i> 100	6	
7				1945			1010						8	
9				10 10		500 VA			1	20 A	Power		10	
11	Receptacle APPARATUS BAY #1 130	20 A	2			333 17		500 VA	<u>·</u> 1	20 A	Power		12	
13				1905	1012				 1	20 A	Motor		14	
15	Power	20 A	1			500 VA 500 VA	\		<u>·</u> 1	20 A	Power		16	
17	CORD REEL BAY #3	20 A	1				500 VA	1012	1	20 A	Motor		18	
19	Motor	20 A	1	1012	1012				1	20 A	Motor		20	
21	CORD REEL BAY #3	20 A	1			500 VA							22	
23	OVERHEAD DOOR MOTOR	20 A	1				1012	1636	1	20 A	Lighting - EXTERIOR PO	DLE LIGHTS	24	
25	OVERHEAD DOOR MOTOR	20 A	1	1012	408 VA				1	20 A	Lighting - EXTERIOR BU		26	
27						1264			1	20 A	Lighting - APPARATUS E		28	
29											<u> </u>		30	
31													32	
33													34	
35													36	
37													38	
39													40	
41													42	
		Tot	al Load:	938	6 VA	4164 VA	8510	VA						
		Tota	I Amps:	84	1 A	35 A	76	A						
_egend	d:													
	lassification		nected			mand Factor		ated De	mand		Panel	Totals		
ighting			1808 VA			100.00%		1808 VA			Total Conn. Lacet	22050 \/4		
ighting Notor	g - Exterior		1500 VA 6072 VA			125.00% 100.00%		1875 VA 6072 VA			Total Conn. Load: Total Est. Demand:			
other			0072 VF	`		0.00%		0072 VA 0 VA			Total Conn.:			
ower			3000 VA	١		100.00%		3000 VA			Total Est. Demand:			
Recept	acle		9679 V <i>A</i>			100.00%		9679 VA						
Notes:														

	Branch Panel: PP3  Location: BUNKER GEAR 134  Supply From: MDP  Mounting: Surface Enclosure: Type 1							Wye			A.I.C. Rating: Mains Type: Mains Rating: 225 A MCB Rating: 100 A			
lotes:														
	<b>5.</b>						_					<u> </u>		
CKT	Circuit Description	Trip	Poles		<b>A</b>		B 	C	;	Poles	Trip	Circuit De	<b>.</b>	СКТ
1	Receptacle FITNESS 133	20 A	1	180 VA	180 VA	400344	400344			1	20 A	Receptacle FITNESS 133		2
3	Receptacle FITNESS 133	20 A	1			180 VA	180 VA			1	20 A	Receptacle FITNESS 133		4
5	Receptacle FITNESS 133	20 A	1					180 VA	180 VA	1	20 A	Receptacle FITNESS 133		6
7	Receptacle FITNESS 133	20 A	1	180 VA	180 VA					1		Receptacle FITNESS 133		8
9	Receptacle FITNESS 133	20 A	1			180 VA	540 VA			1	20 A	Receptacle BUNKER GEA	AR 134	10
11	Power BUNKER GEAR 134	20 A	2					2042	1012	1	20 A	Motor		12
13				2042	1200					1	20 A	Other SHOP 136		14
15	Other SHOP 136	20 A	1			1200	900 VA			1	20 A	Receptacle SHOP 136		16
17	Receptacle SHOP 136	20 A	2					3000	2006	3	30 A	COMPRESSOR SHOP 13	36	18
19				3000	2006									20
21	Other	20 A	2			40 VA	2006							22
23								40 VA	40 VA	2	20 A	Other		24
25	Other SHOP 136	20 A	2	66 VA	40 VA									26
27						66 VA	908 VA			1	20 A	Lighting, TOWER, FITNE	SS, SHOP	28
29	EF-2 EXHAUST FAN	20 A	1					100 VA	100 VA	1	20 A	EF-3 EXHAUST FAN		30
31	EF-4 EXHAUST FAN	20 A	1	100 VA	0 VA					1	20 A	Other SHOP 136		32
33	FC-1 FAN COIL	20 A	3			1788								34
35								1788						36
37				1788										38
39														40
41														42
		Tota	l Load:	1094	11 VA	798	7 VA	1044	7 VA			ı		<u> </u>
		Total	Amps:	94	4 A	67	7 A	90	Α					
egeno	:													
nad C	lassification	Con	nected I	nad	Der	nand Fa	ctor	Fetim	ated Dei	mand		Panel <sup>1</sup>	Totals	
ooling			300 VA			100.00%			300 VA	···u···u		i allei		
ghting			800 VA			100.00%			800 VA			Total Conn. Load:	29375 VA	
otor			1012 VA			100.00%			1012 VA			Total Est. Demand:		
ther			3161 VA			100.00%			8161 VA			Total Conn.:		
ower			0101 V			100.00%			0101 VA			Total Est. Demand:	82 A	
ecept	acle		9060 VA	1		100.00%	)	!	9060 VA					
lotes:														





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Mechanical & Electrical Engineers

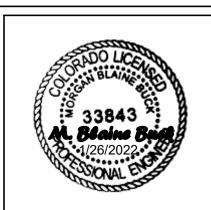
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Grand Junction Fire Department
Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

ELECTRICAL- PANEL SCHEDULES

FOR CONSTRUCTION



EV DESC

DATE: 01/10/2022

PROJECT #: 21-230

E3-2

					POW	/ER FOF	R GAS F	IRED IN	IFARED H	HEATER S	SCHEDU	JLE				
TYPE MARI	SERVICE	GAS FLOW RATE (CFH)	HEATING INPUT (MBH)	OUTPUT (MBH)	GAS PIPE CONNECTION SIZE	VENT OUTLET SIZE	AIR INLET SIZE	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	MOTOR HP	MANUFACTURER	MODEL#	OPTIONS/ ACCESSORIES
IR	APPARATUS BAY	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1

					F	POWE	R FOR E	NERGY	RECO	VERY VE	ENTILAT	OR SCHE	DULE					
TYPE MARK	SERVICE	LOCATION			SUPPLY F	FAN				EXHAUST FA	N		ELECT	RICAL	MANUFACTURER	MODEL#		
ITPEINARK	SERVICE	LOCATION	MOTOR HP	TYPE	VOLTS	PHASE	FREQUENCY	MOTOR HP	TYPE	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	WANUFACTURER	MODEL#	Panel	Circuit Number
ERV-1	VENTALATION	MECHANICAL ROOM	0.5	ECM	230 V	1	60 Hz	0.5	ECM	230 V	1	60 Hz	11 A	15 A	SOLER&PALUA	TRCE800-230	MP	4,6

				P	OWER F	OR FAN (	COIL SC	HEDULE	<u> </u>			
TYPE MARK	SERVICE	NOM. COOLING	SUPPLY FAN MOTOR			ELECTRICAL			MANUFACTURER	MODEL#		
		(TONS)	POWER	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)			Panel	Circuit Number
FC-1	OUTSIDE AIR	-	1/6	208 V	3	60 Hz	15 A	20 A	MARKEL	F3G7205	PP3	33,35,37
FC-2	FITNESS	12000	-	230 V	2	60 Hz	0 A	15 A	TRANE/MITSUBISHI ELECTRIC	TPKFYP012HM142A	PP3	21,23
FC-3	BUNKER GEAR	15000	-	230 V	1	60 Hz	0 A	15 A	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	PP3	24,26
FC-4	SHOP	15000		230 V	1	60 Hz	0 A	15 A	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	PP3	25,27
FC-5	KITCHEN MAKE-UP-AIR	35000	1	208 V	1	60 Hz	10 A	15 A	TRANE	BCVD036B1		

				POWER F	OR EXH	lAUS <sup>-</sup>	T FAN SCH	HEDULE			
TYPE MARK	SERVICE	LOCATION	EXHAUST FAN MOTOR POWER	EXHAUST FAN SPE (RPM)	MOTOR EED VOLTS	PHAS E	ELECTRICAL FREQUENCY	MANUFACTUR ER	MODEL#	Panel	Circuit Number
EF-1	KITCHEN HOOD	ROOF	1/3 HP	1750	115 V	1	60 Hz	S&P USA	STXDE10	MP	9
EF-2	BUNKER GEAR	CEILING	1/6 HP	740	115 V	1	60 Hz	S&P USA	FF200S	PP3	29
EF-3	SHOP	CEILING	1/5 HP	648	115 V	1	60 Hz	S&P USA	FF400S	PP3	30
EF-4	STAIR TOWER	CEILING	2/3 HP	955	115 V	1	60 Hz	S&P USA	FF1500S	PP3	31
EF-5	CRAWLSPACE VENT	INLINE	-	-	115 V	1	60 Hz	FANTECH	FG 4XL	MP	22
VEF-1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP	1656	120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	1
VEF-1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP	1656	120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	2
VEF-1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP	1656	120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	18
VEF-1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP	1656	120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	19

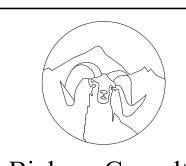
			POW	ER FOR C	SAS FUR	NACE S	CHEDUL	E			
	SERVICE	SUPPLY FAN			ELECTRICAL			MANUFACTURER	MODEL#		
Mark	SERVICE	MOTOR POWER	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	WANUFACTURER	MODEL#	Panel	Circuit Number
GF-1	KITCHEN,LIVING, DINING, OFFICES	1	120 V	1	60 Hz	14 A	15 A	TRANE	4TXCD10DS3	MP	7
GF-2	BUNK ROOMS & ADJACENT	3/4	120 V	1	60 Hz	8 A	15 A	TRANE	4PXCBU36BS3	MP	8

		Р	OWER	FOR HEA	AT PUMP	CONDE	ENSING (	JNIT SCHEDI	JLE		
TYPE MARK	SERVICE	NOM. COOLING CAPACITY	VOLTS	PHASE	ELECTRICAL FREQUENCY	MCA (A)	MOCP (A)	MANUFACTURER	MODEL#	Panel	Circuit Number
HP-1	FC-2,3,4	3 TONS	208 V	1	60 Hz	29 A	44 A	TRANE/MITSUBISHI ELECTRIC	TUMYP0361AK42	MP	23,25

			POWEF	R FOR A	IR COOL	ED CON	IDENSIN	IG UNIT			
		NOM.			ELECTRICAL						
TYPE MARK	SERVICE	COOLING CAPACITY (MBH)	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	MANUFACTUR ER	MODEL#	PANEL	CIRCUIT NUMBER
CU-1	GF-1	4 TONS	230 V	1	60 Hz	28 A	45 A	TRANE	4TTR7048B	MP	11,13
CU-2	GF-2	3 TONS	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	MP	14,16
CU-3	FC-5	3 TONS	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	MP	10,12
CU-4	IT ROOM	12000	208 V	1	60 Hz	11 A	20 A	MITSUBISHI ELECTRIC	PUY-A12NKA7	MP	15,17

			POWE	R FOR E	VAPORA	TIVE CC	OLER SCI	HEDULE			
TYPE MARK	SUPPLY AIRFLOW (CFM)	SUPPLY E.S.P	VOLTS	ELECTRICAL PHASE	FREQUENCY	POWER	MOTOR HP	MANUFACTUR ER	MODEL#	Panel	Circuit Number
EC-1	3650	0.8	120 V	1	60 Hz	1920 W	1	AEROCOOL ID500	ID500	MP	20
EC-1	3650	0.8	120 V	1	60 Hz	1920 W	1	AEROCOOL ID500	ID500	MP	21

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Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

ELECTRICAL -MECHANICAL EQUIPMENT SCHEDULES

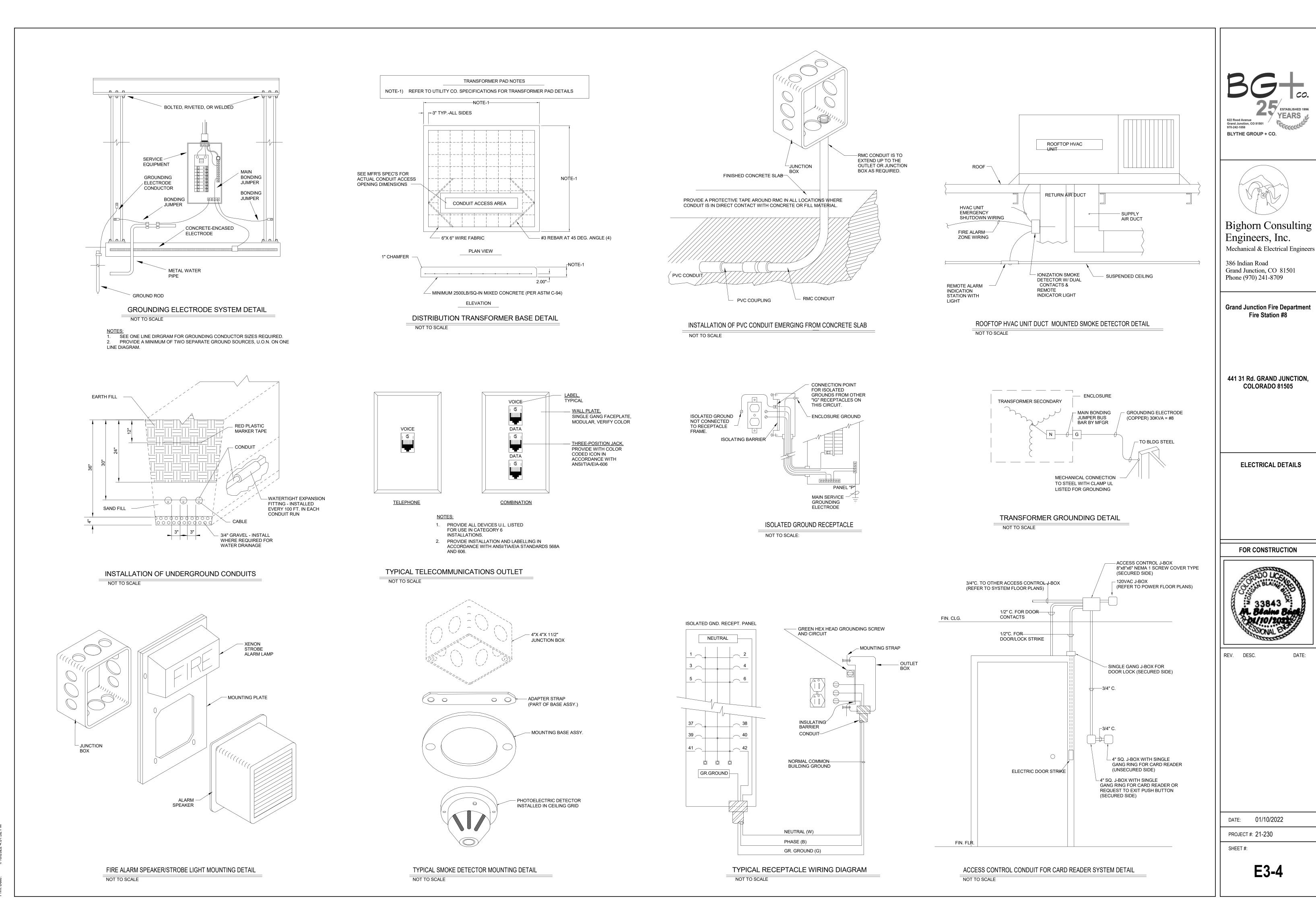
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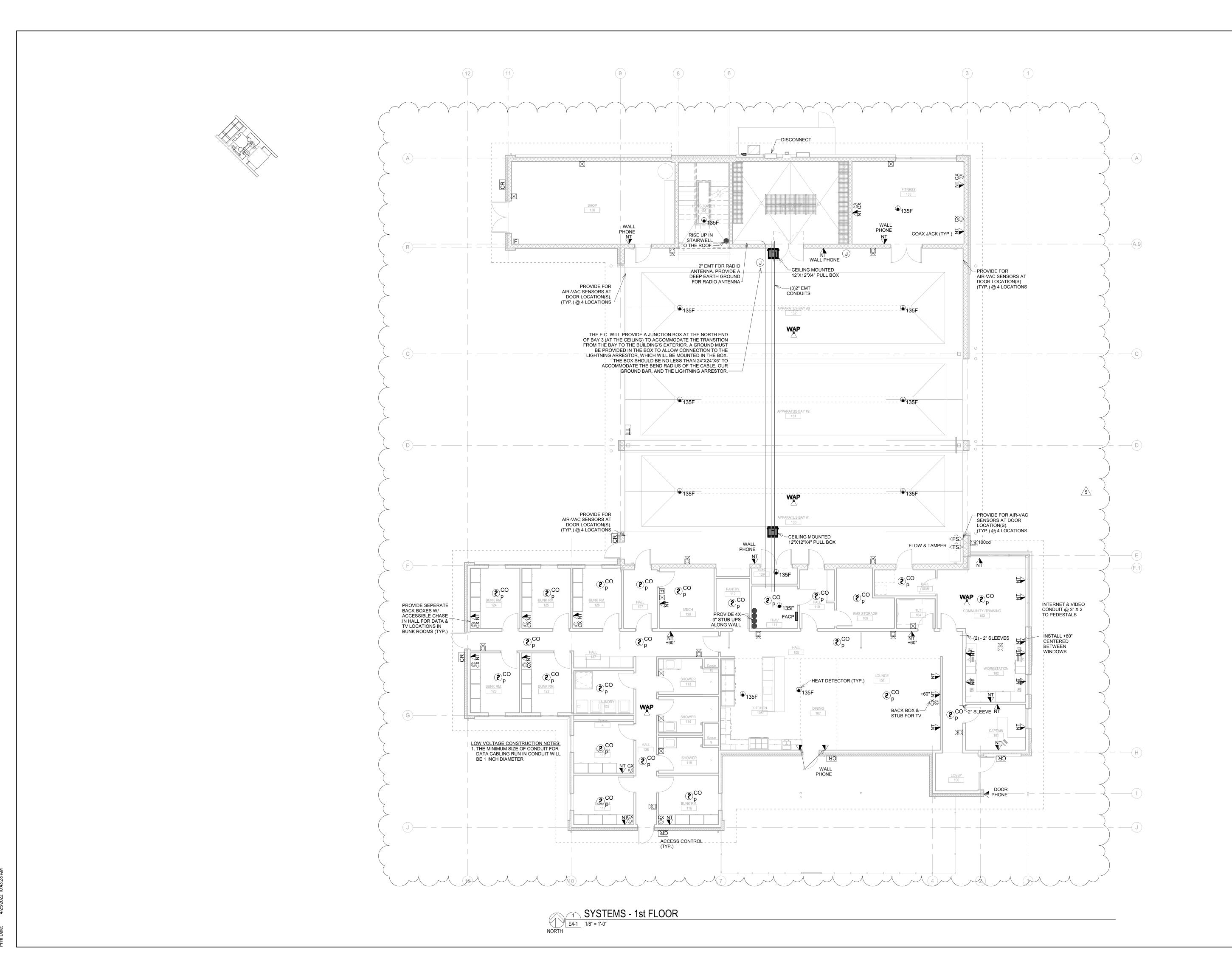


DATE: 01/10/2022

PROJECT #: 21-230

E3-3





ESTABLISHED 1996
YEARS
Grand Junction, CO 81501
970-242-1058
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SYSTEMS - FLOOR PLAN

FOR CONSTRUCTION

REV. DESC. DATE:

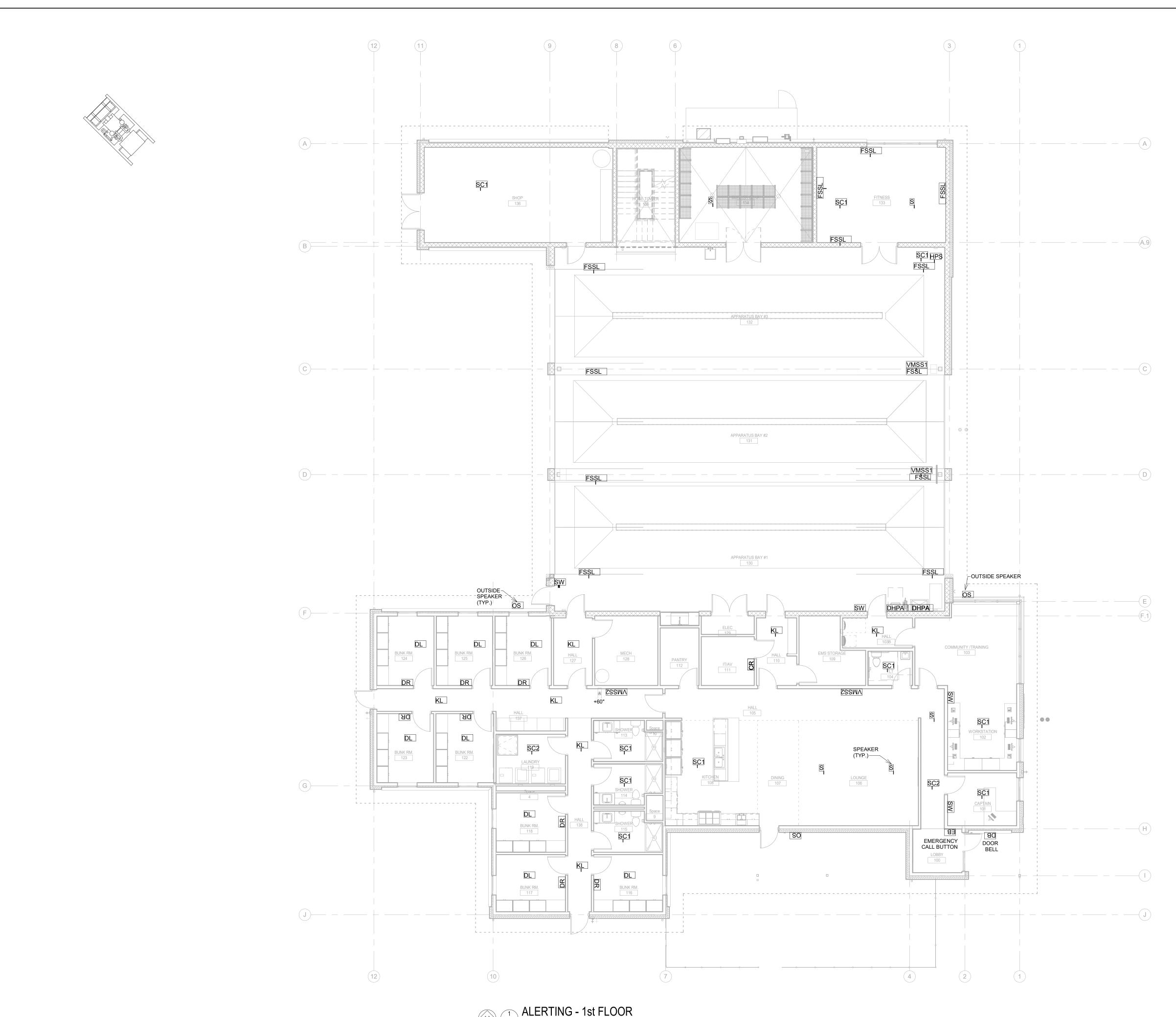
4/25/22

PR02

DATE: 01/10/2022

PROJECT #: 21-230
SHEET #:

E4-1



E4-2 1/8" = 1'-0"

NOTES REFERENCED ON THE PLANS:

<u>DR (DORM REMOTE):</u> PROVIDE HOFFMAN BOX - PART 43050 CAT #A-SEI0X8X4. MOUNT CENTER LINE OF BOX AT 48" AFF. CENTER BOX ON HEADBOARD OF BED. RECESS IN WALL 1/4" BELOW SHEETROCK. PROVIDE 3 - 3/4" EMT CONDUITS TO THE SPACE ABOVE THE ACCESSIBLE CEILING WITH BUSHINGS AND PULL STRINGS. WIRING SHALL BE DONE BY WESTNET.

DL (DORM LIGHT): NO WORK BY ELECTRICAL SUB. LIGHT IS LINE POWERED THROUGH CAT 5 CABLE. WIRING BY WESTNET.

SC1 (SATELLITE CONTROLLER):
PROVIDE HOFFMAN BOX - PART 43050 CAT #A-SE10X8X4. RECESS IN CEILING 1/4"
ABOVE SHEETROCK. PROVIDE 2 - 3/4" EMT CONDUITS TO THE SPACE ABOVE THE
ACCESSIBLE CEILING WITH BUSHINGS AND PULL STRINGS. WIRING SHALL BE DONE

SC2 (SATELLITE CONTROLLER):
BOX AND RACEWAYS NOT REQUIRED FOR ACCESSIBLE CEILING INSTALLATION. WIRING SHALL BE DONE BY WESTNET.

SC1 (SATELLITE CONTROLLERS) & S (SATELLITE SPEAKER):
PROVIDE HOFFMAN BOX - PART 43050 CAT #A-SE10X8X4. MOUNT BOX ON UNDERSIDE OF TRUSS OR BAR JOIST. PROVIDE 1" EMT CONDUIT TO THE SIGNAL JUNCTION BOX AT THE CEILING OF BUNKER GEAR ROOM. WIRING SHALL BE DONE BY WESTNET.

ASC (ALERT SYSTEM CABLES):
PROVIDED TWO 2" EMT CONDUITS FOR THE ALERTING SYSTEM CABLES FROM THE IT
ROUNTO THE TWO 6" X 12" X 12" JUNCTION BOXES ON THE UNDER SIDE OF THE ROOF

AC (APPLIANCE CONTROLLER): RB (RESET BUTTON):
THE APPLIANCE CONTROLLER IS TO BE MOUNTED ABOVE THE CEILING. PROVIDE
RECEPTACLE ABOVE THE CEILING FOR POWER. THE RESET BUTTON IS TO MOUNTED IN A SINGLE GANG DEEP BOX AT 48" AFF. PROVIDE A 1": CONDUIT TO THE SPACE ABOVE THE CEILING. SEE GAS SOLENOID WIRING DIAGRAM ON THIS SHEET. SOLENOID VALVE WIRING SHALL BE DONE BY THE ELECTRICAL SUB-CONTRTACTOR.

VMSS1 (VIDEO MESSENGER):
PROVIDE A SINGLE GANG DEEP BOX AT 84" AFF. PROVIDE A 1" CONDUIT TO THE JUNCTION BOX AT THE CEILING OF THE APPARATUS BAY. WIRING TO BE DONE BY

OS (OUTSIDE SPEAKER):
PROVIDE A FLUSH SINGLE GANG DEEP BOX AT 10'-0" AFG FOR OUTSIDE SPEAKER.
PROVIDE A 3/4" CONDUIT TO A 4" SQUARE BOX FOR THE OUTSIDE SATELLITE
CONTROLLER (OSC) ABOVE THE ACCESSIBLE CEILING.

SW (SPEAKER SWITCH):
PROVIDE A SINGLE GANG DEEP BOX AT 46" AFF. PROVIDE A 3/4" CONDUIT TO THE SPACE ABOVE THE ACCESSIBLE CEILING. COORDINATE BOX LOCATION WITH

KL (NIGHT LIGHT):
PROVIDE A SINGLE GANG DEEP BOX FLUSH WITH CEILING. DEVICE, TRIM AND WIRING

EB (EMERGENCY BUTTON):
PROVIDE A SINGLE GANG DEEP BOX AT 46" AFF. PROVIDE A 3/4" CONDUIT TO THE SPACE ABOVE THE ACCESSIBLE CEILING. DEVICE, TRIM AND WIRING BY WESTNET.

FSAS (ALERTING SYSTEM STROBE):
PROVIDE HOFFMAN BOX PART #55741, CAT #A-SE8X8X4. MOUNT ON UNDERSIDE OF TRUSS OR BAR JOIST. PROVIDE 3/4" EMT CONDUIT TO JUNCTION BOX AT CEILING OF APPARATUS BAY. WIRING TO BE DONE BY WESTNET.

FSSL (FS STROBE LIGHT): PROVIDE CUSTOM BACK BOX VERIFY SIZE FROM WESTNET . MOUNT BOX VERTICALLY IN WALL WITH TOP AT 6'-0" AFF. PROVIDE 3/4" EMT CONDUIT TO ALERTING SYSTEM STROBE (FSAS).

TT (TURN-OUT TIMER) AND CI (COMPANY INDICATOR):
PROVIDE A 4" SQUARE DEEP SINGLE GANG BOX MOUNTED AT 10'-0" AFF. PROVIDE 3/4"
EMT CONDUIT TO JUNCTION BOX AT CEILING OF APPARATUS BAY.

HPS (HIGH POWER PAGING AMPLIFIER & SPEAKER):
PROVIDE A 4" SQUARE SINGLE GANG BOX MOUNTED ON THE UNDERSIDE OF THE
TRUSS OR BAR JOIST. PROVIDE A 3/4" EMT CONDUIT TO JUNCTION BOX AT CEILING

DIAGRAMS ON THE PLANS.

4PR (4-POST RACK):
ALERTING SYSTEM UPS (4) TO BE MOUNTED IN 4-POST EQUIPMENT RACK. ALERTING SYSTEM MASTER CONTROL UNIT TO BE MOUNTED IN 4-POST EQUIPMENT RACK.

<u>CR (CONTROL REMOTE):</u> PROVIDE 12"X18"X6" HINGED COVER JUNCTION BOX. MOUNT ON WALL AT 48" AFF. CONTROL REMOTE CONTAINS 24V RELAYS FOR CONTROL OF ELECTRICAL DEVICES IN THE BUILDING SUCH AS THE GAS RANGE CONTROL CIRCUIT. WIRE CONTROL REMOTE

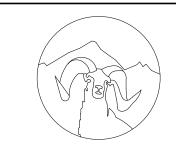
VMMS2 (VIDEO MESSENGER): PROVIDE A SINGLE GANG DEEP BOX AT 72" AFF. PROVIDE A 1" CONDUIT TO THE SPACE ABOVE THE ACCESSIBLE CEILING. WIRING TO BE DONE BY WESTNET.

RELAY CONTACTS TO PROGRAMMABLE LIGHTING CONTROLLER PER WIRING

<u>DHPA (HP AMPLIFIER):</u> SEE ALERTING SYSTEM DRAWINGS FOR RACEWAY REQUIREMENTS.

TT (TURN-OUT TIMER)
PROVIDE A 4" SQUARE SINGLE GANG BOX MOUNTED @ 10' AFF. PROVIDE A 3/4" EMT CONDUIT TO JUNCTION BOX AT CEILING OF APPARTUS BAT.

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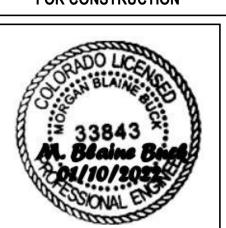
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**ALERTING - FLOOR PLAN** 

FOR CONSTRUCTION

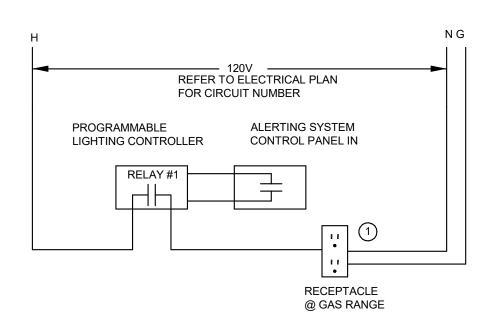


REV. DESC.

DATE: 01/10/2022

PROJECT #: 21-230

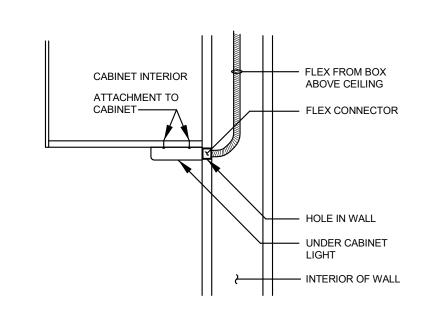
**E4-2** 



# GAS RANGE CONTROL WIRING DIAGRAM

NO SCALE

ONTROL CIRCUIT FOR GAS RANGE TO BE DE-ENERGIZED BY ALERTING SYSTEM WHEN FIREMEN ARE ON A CALL TO PREVENT RANGE AUTO PILOT FROM CONTINUALLY LIGHTING WHEN GAS VALVE IS CLOSED.

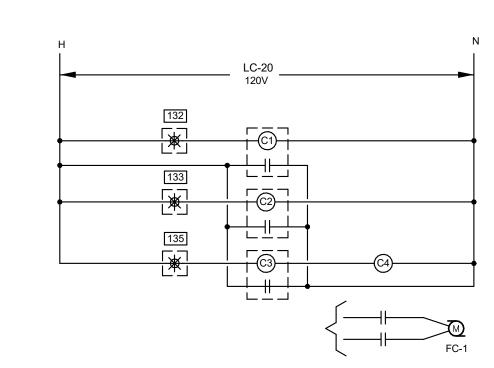


# INSTALLATION DETAIL - TASK LIGHT

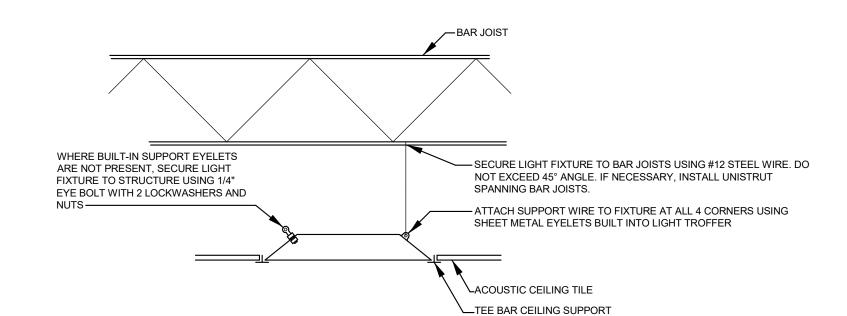
NO SCALE

- CONCEAL WIRING OF TASK LIGHTS AS FOLLOWS:
- 1. CUT A HOLE IN THE WALL AT THE HEIGHT OF THE UNDER CABINET LIGHT LARGE ENOUGH TO ACCOMMODATE THE FLEX CONNECTOR.
- 2. PULL 6" OF FLEX THROUGH THE WALL AND TERMINATE IT ON THE UNDER CABINET LIGHT.

  3. PUSH THE ASSEMBLY INTO THE WALL SO THAT THE FIXTURE IS AGAINST THE WALL AND THE FLEX AND CONNECTOR ARE CONCEALED INSIDE THE WALL. CONNECT THE UNDER CABINET LIGHT TO UNDERSIDE OF THE CABINET.

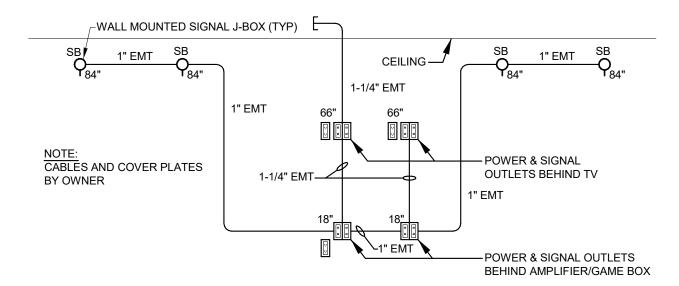


# FAN COIL WIRING DIAGRAM (FC-1)

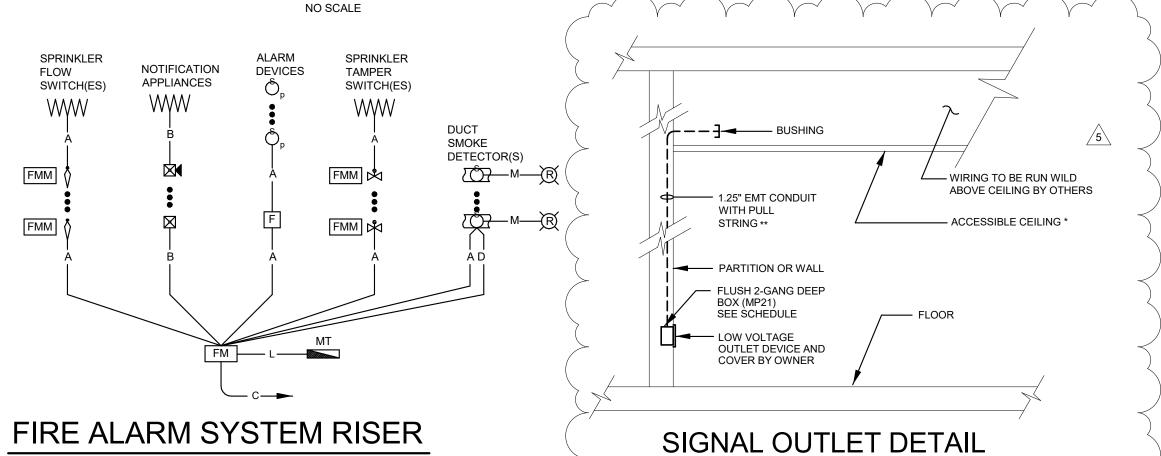


# SEISMIC SUPPORT OF RECESSED LIGHTS

NO SCALE



# LOUNGE - TV/SURROUND SOUND



\* IN CASES WHERE CEILING IS NOT ACCESSIBLE, EXTEND CONDUITS

TO THE SPACE ABOVE THE NEAREST ACCESSIBLE CEILING.

STEEL, WITH KNOCKOUTS,

STEEL, WITH KNOCKOUTS,

WALL FLUSH MOUNTING.

NONE REQUIRED

WALL FLUSH MOUNTING.

4" SQ X 2 1/8" DEEP,

		\ -
ADDRE	SSABLE FIRE ALARM SYSTEM	
DESIG-	DEVICE	
NATION	DESCRIPTION	MANUFACTURER CATALOG NUMBER ALTERNATE MANUFACTURERS
		I

DETECTOR, NOTIFIER RATED 24 VDC. 135 DEGREE F FIXED

TEMPERATURE/RATE OF RISE.

NO SCALE

DESIG-	DEVICE		вох	COVER
NATION	DESCRIPTION	MANUFACTURER CATALOG NUMBER ALTERNATE MANUFACTURERS	DESCRIPTION	DESCRIPTION
FA	ADDRESSABLE FIRE ALARM: ANNUNCIATOR, RATED 24 VDC. 80 CHARACTER BACKLIT LIQUID CRYSTOL DISPLAY WITH CONTROL SWITCHES FOR ACKNOWLEDGE, SILENCE AND RESET, TIME & DATE DISPLAY, ENABLE KEY SWITCH & LOCAL ALARM.	NOTIFIER LCD-80  	9.9"H X 4.6"W X 2.5"D NOTIFIER #ABF-1B, STEEL, WITH KNOCKOUTS, WALL FLUSH MOUNTING.	NONE REQUIRED
FM	ADDRESSABLE FIRE ALARM: DIGITAL TRANSMITTER, RATED 24 VDC. 14 TRANSMISSIONS PER HOUR, DUAL PHONE LINES, KEYBOARD, 4 CHARACTER LED DISPLAY. TRANSMITS ALARM & TROUBLE SOFTWARE ZONES, SYSTEM TROUBLE AND SUPERVISORY ALARMS.	NOTIFIER 411UDACT	9.9"H X 4.6"W X 2.5"D NOTIFIER #ABF-8R, STEEL, WITH KNOCKOUTS, WALL FLUSH MOUNTING.	NONE REQUIRED
Ö	ADDRESSABLE FIRE ALARM: SILVER COLOR, DUCT SMOKE DETECTOR, BUILT-IN DPDT RELAY, SAMPLE TUBE, PHOTOELECTRIC TYPE, RATED 24 VDC. PROVIDE SEPARATE REMOTE ALARM INDICATOR WITH TEST SWITCH.	NOTIFIER FSC-751RP & RTS-451 	NONE REQUIRED	NONE REQUIRED
	ADDRESSABLE FIRE ALARM: HORN/STROBE, RATED 24 VDC. CANDELA OUTPUT FIELD SELECTABLE AMONG 15, 15/75, 30, 75, AND 110, FIELD SELECTABLE HORN TONES, SYNCHRONIZABLE, AND WHITE COLOR.	NOTIFIER P1224MC 	4" SQ X 2 1/8" DEEP, STEEL, WITH KNOCKOUTS, WALL FLUSH MOUNTING.	NONE REQUIRED
F	ADDRESSABLE FIRE ALARM: PULL STATION, RATED 24 VDC. DUAL ACTION WITH BI-COLOR ALARM STATUS LED, KEY RESET, AND BRAILLE TEXT ON HANDLE.	NOTIFIER NBG-12LX 	4" SQ X 2 1/8" DEEP, STEEL, WITH KNOCKOUTS, WALL FLUSH MOUNTING.	NONE REQUIRED
FMM	ADDRESSABLE FIRE ALARM: MONITOR MODULE, RATED 24 VDC. MONITORS SPRINKLER FLOW AND TAMPER SWITCHES, GENERATING AN ALARM AT THE SET ADDRESS ON DEVICE CONTACT CLOSURE. 159 ADDRESSES AVAILABLE.	NOTIFIER FMM-101 	4" SQ X 2 1/8" DEEP, STEEL, WITH KNOCKOUTS, WALL FLUSH MOUNTING.	NONE REQUIRED
FM	ADDRESSABLE FIRE ALARM: MAIN PANEL, BATTERY BACKED, RATED 3A @ 120V. CAPABLE OF 301 TOTAL I/O POINTS, 99 INTELLIGENT DETECTORS, 99 ADDRESSABLE MODULES, 99 PROGRAMMABLE SOFTWARE ZONES AND 4 NAC CIRCUITS.	NOTIFIER AFP-200  	16"H X 14.5"W X 5.5"D, STEEL, WITH KNOCKOUTS, WALL SURFACE MOUNTING.	NONE REQUIRED
×	ADDRESSABLE FIRE ALARM: WHITE COLOR, STROBE, RATED NOTIFIER 24 VDC. CANDELA OUTPUT FIELD SELECTABLE AMONG 15, 15/75, 30, 75, AND 110, FIELD SELECTABLE.	S1224MC 	4" SQ X 2 1/8" DEEP, STEEL, WITH KNOCKOUTS, WALL FLUSH MOUNTING.	NONE REQUIRED
Ô <sub>p</sub>	ADDRESSABLE FIRE ALARM: SMOKE DETECTOR, RATED 24 VDC. LASER DEVICE, WITH 2 LED ALARM STATE INDICATORS, BUILT-IN MAGNETIC TEST SWITCH, HIGH SENSATIVITY.	NOTIFIER LPX751L + P710P BASE 	4" SQ X 2 1/8" DEEP, STEEL, WITH KNOCKOUTS, WALL FLUSH MOUNTING.	NONE REQUIRED
	ADDRESSABLE FIRE ALARM: WHITE COLOR, HEAT	FCT 054D	4" SQ X 2 1/8" DEEP,	NONE REQUIRED

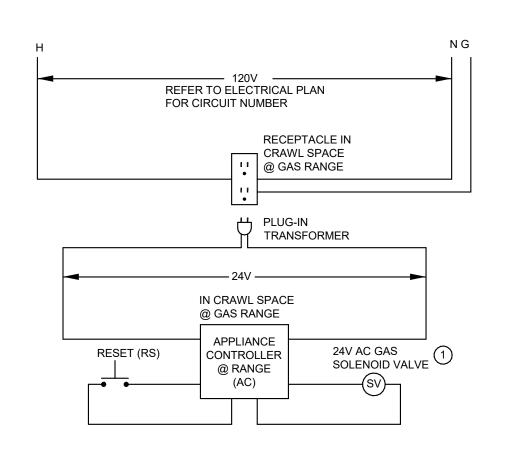
FST-851R

FST-851H

DEVICES BY MANUFACTURERS WHICH ARE NOT LISTED IN THE SCHEDULE REQUIRE 5-DAY WRITTEN PRIOR APPROVAL.

B710LPBP BASE

B710LPBP BASE



# GAS SOLENOID VALVE WIRING DIAGRAM

NO SCALE

(1) GAS SOLENOID VALVE TO BE DE-ENERGIZED (CLOSED) BY ALERTING SYSTEM WHEN FIREMEN ARE ON A CALL.

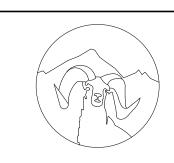
#### NOTES REFERENCED ON THE PLANS

- ROUGH-IN FOR DOOR ACCESS CONTROL CARD READER. PROVIDE 1/2" EMT RACEWAY FROM BOX TO ACCESSIBLE LOCATION ABOVE CEILING. PROVIDE RACEWAY FROM ELECTRIC STRIKE IN DOOR FRAME TO ACCESSIBLE LOCATION ABOVE CEILING. WIRE SYSTEM PER DOOR ACCESS CONTROL SYSTEM SUBMITTAL WIRING DIAGRAM.
- PROVIDE FLUSH SIGNAL BOX AND 1" EMT TO SPACE ABOVE THE LOBBY CEILING FOR OWNER'S TELEPHONE INTERCOM.
- PROVIDE JUNCTION BOX AND EMPTY 1" CONDUIT WITH PULL STRINGS BETWEEN ALL JUNCTION BOXES FOR FUTURE SURROUND SOUND SYSTEM.
- PROVIDE TWO 2" EMT CONDUITS FROM THE IT ROOM TO TWO 6" X 12" X 12" PULL BOXES ON THE UNDER SIDE OF THE ROOF TRUSSES FOR NETWORK AND TELEPHONE, AND THE RADIO ANTENNA. PROVIDE A THIRD EMT CONDUIT FROM THE IT ROOM TO BUNKER GEAR #133, BYPASSING THE PULLBOXES FOR COAXIAL CABLES. PROVIDE ADDITIONAL PULLING POINTS AS NECESSARY TO LIMIT BENDS TO THREE 90'S.
- PROVIDE A 2" EMT CONDUIT FROM THE PULL BOX TO THE HOSE TOWER ROOF. COORDINATE RISER AND ROOF PENETRATION LOCATIONS WITH OWNER. PROVIDE ADDITIONAL PULLING POINTS AS NECESSARY TO LIMIT BENDS TO THREE 90'S.

LETTER	DESCRIPTION
A	SIGNALING LINE CIRCUIT #18/2 SOLID SHIELDED PLENUM RATED FIRE ALARM
-	BELDEN #5220FN
B -	NOTIFICATION APPLIANCE CIRCUIT - #14/2 SOLID PLENUM RATED FIRE ALARM BELDEN #5120UN
C	120 VOLT POWER CIRCUIT - 1/2 EMT 2 #12 & #12 GROUND COPPER
-	SOUTHWIRE BUILDING WIRE
D	24 VOLT POWER CABLE - #16/2 SOLID PLENUM RATED FIRE ALARM
-	BELDEN #5220UN
H -	ANNUNCIATOR CABLE - 2 #16/2 SOLID SHIELDED AND 1 #16/2 SOLID UNSHIELDED PLENUM RATED FIRE ALARM TWO BELDEN #5220FN & ONE BELDEN #5220UN
L	DIALER CIRCUIT - 4 PAIR CATEGORY 5 CABLE
-	BELDEN #1624P
M -	REMOTE TEST CIRCUIT - 18/4 SOLID PLENUM RATED FIRE ALARM BELDEN #5320UN

	SMO	AE ECTOR DET HEAT	TECTOR	SMOKE OF	STATION	WER WILL	the Result CH
SYSTEM ACTIONS	SW.	0, 400	DE O.	OF SO	1/81.4	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
ACTIVATES SYSTEM NOTIFICATION APPLIANCES	Х	X		X	Х		
ACTIVATES SYSTEM SUPERVISORY ALARM						х	
DISPLAYS AT MAIN FIRE ALARM PANEL	х	х		х	х	х	
RELEASES MAGNETICALLY HELD DOORS	Х	Х		х			
SHUTS DOWN ASSOCIATED AIR HANDLING UNIT			Х				
CLOSES FIRE/SMOKE DAMPER	Х		Х	х			
ACTIVATES DIALER GENERAL ALARM SIGNAL	Х	Х		х			
ACTIVATES DIALER FLOW ALARM SIGNAL					х		
ACTIVATES DIALER SUPERVISORY SIGNAL						Х	
ACTIVATES EXTERIOR HORN/STROBE ABOVE FIRE DEPARTMENT CONNECTION	Х	Х			х		





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SYSTEMS DETAILS

FOR CONSTRUCTION

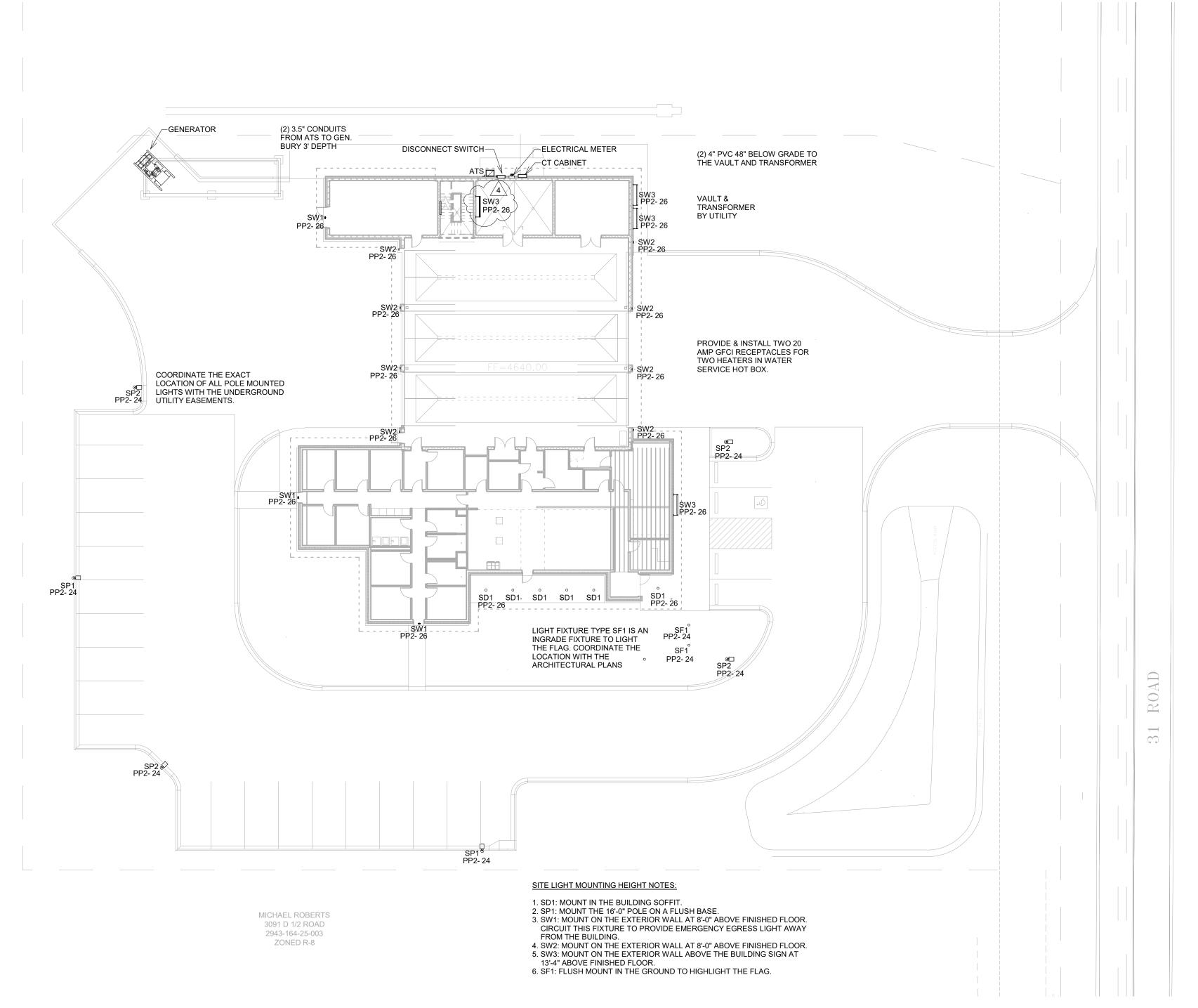
DESC. DATE:
PR02 4/25/22

DATE: 01/10/2022

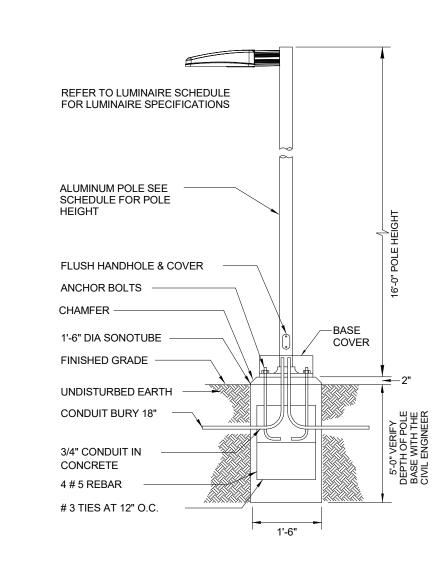
OUEET #

PROJECT #: 21-230

E4-3



	SITE LIGHTING FIXTURE SCHEDULE													
TYPE MARK	MANUFACTURER	MODEL	LAMP	DESCRIPTION										
SD1	PRESCOLITE LIGHTING	LF4SL-4LFSL-20L-35K-8-B6	2400LM, 4000K, 26W, 80CRI, 120V, 0-10V LED DIMMING	RECESSED LED DOWN LIGHT, 0-10V DRIVER, SEMI-DIFFUSE CLEAR ALZAK TRIM, SEMI-DIFFUSE REF. FINISH										
SF1	PRESCOLITE LIGHTING	LF4SL-4LFSL-20L-35K-8-B6	2400LM, 4000K, 26W, 80CRI, 120V, 0-10V LED DIMMING	RECESSED LED DOWN LIGHT, 0-10V DRIVER, SEMI-DIFFUSE CLEAR ALZAK TRIM, SEMI-DIFFUSE REF. FINISH										
SP1	BEACON LIGHTING	VPS-36L-80-3K7-4W-UNV-A-BL-SCP/40F-BC	8864LM, 4000K, 70CRI, 65W, 500mA, LED DIMMING DRIVER, 120V	VIPER SERIES SMALL POLE MOUNTED FIXTURE, TEXTURED BLACK FINISH, BACKSHEILD, PROGRAMMABLE OCCUPANCY SENSOR WITH DAYLIGHT CONTROL.										
SP2	BEACON LIGHTING	VPS-36L-80-3K7-4W-UNV-A-BL-SCP/40F	8864LM, 4000K, 70CRI, 65W, 500mA, LED DIMMING DRIVER, 120V	VIPER SERIES SMALL POLE MOUNTED FIXTURE, TEXTURED BLACK FINISH, PROGRAMMABLE OCCUPANCY SENSOR WITH DAYLIGHT CONTROL.										
SW1	HUBBLEE OUTDOOR LIGHTING	SG1-10-4K7-FT-UNV-DBT-CS SG1-YOKE	1424LM, 4000K, 11W,70CRI, 120V	LED EXTERIOR WALL MOUNTED FIXTURE, MOUNT ON YOKE, DARK BRONZE TEXTURED FINISH										
SW2	WAC LIGHTING	WS-W15912-BK	331 DELIVERED LM, 3000K, 10W, ELV DIMMING, 90CRI, 120V	ARCHETYPE OUTDOOR WALL SCONCE, BRONZE FINISH, ALUMINUM HARDWARE WITH ETCHED GLASS DIFFUSER										
SW3	ELLIPTIPAR LIGHTING	S175-R06L-HFC12-06-M-00-0-840-ZX	4588LM, 4000K, 43W, 80CRI, 0-10V LED DIMMING	SMALL OUTDOOR LED UPLIGHT, 12"LONG CANTILEVER ARM, DARK BRONZZE FINISH, 0-10V LED DIMMING DRIVER.										



## LIGHT POLE DETAIL

NOT TO SCALE

- NOTES:

  1. VERIFY THE BURY DEPTH AND DIAMETER OF THE SONOTUBE WITH THE CIVIL ENGINEER PRIOR TO PURCHASING THE EQUIPMENT. DEPTH WILL DEPEND ON SOIL CONDITIONS. TYPICAL CONCRETE DEPTH IS 5 FT.
- 2. THE ELECTRICAL CONTRACTOR IS TO INSTALL VIBRATION DAMPERS IN ALL POLES, OBTAIN DAMPERS FROM POLE MANUFACTURER FOR EACH
- ALUMINUM POLE.
- ALL OUTSIDE LIGHT SOURCES SHALL COMPLY WITH THE LOCAL ZONING AND DEVELOPMENT CODE.
   NOTIFY ENGINEER OF ANY OBSTRUCTIONS TO POLE PLACEMENT IMMEDIATELY BEFORE PROCEEDING.





Bighorn Consulting Engineers, Inc. Mechanical & Electrical Engineers

386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

LIGHTING SITE PLAN

FOR CONSTRUCTION

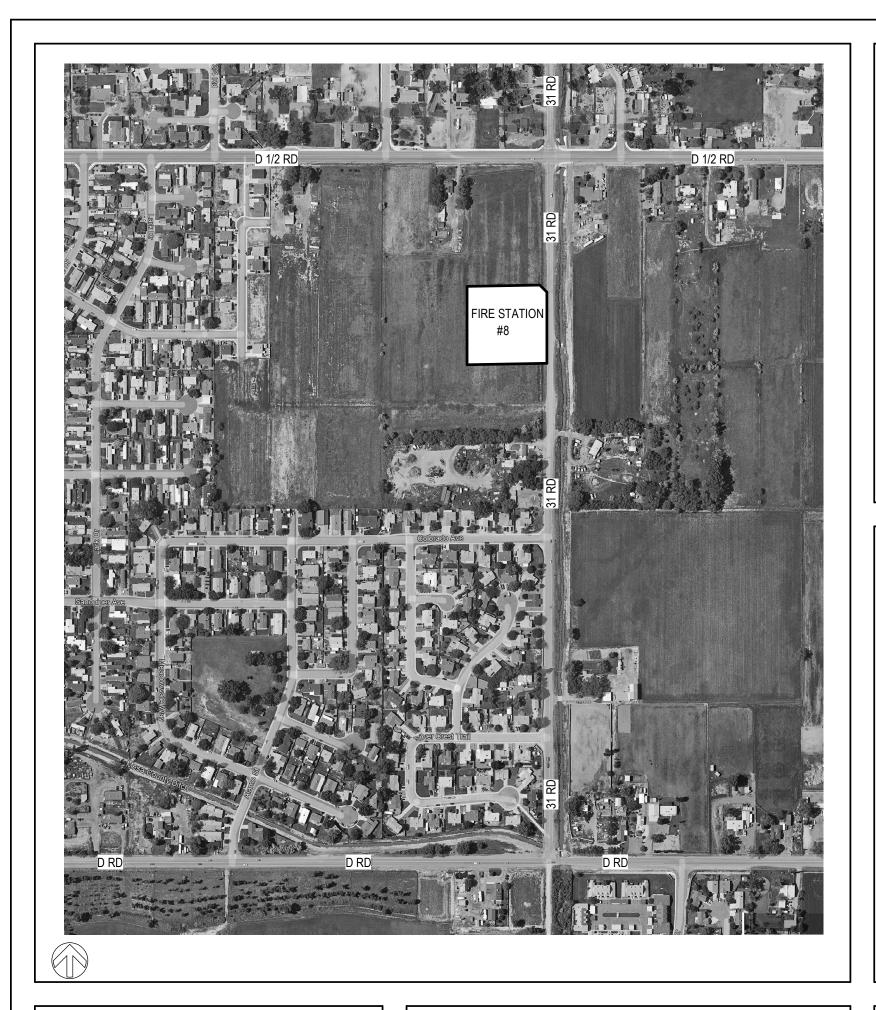
REV. DESC. 3/31/22

DATE: 01/10/2022

PROJECT #: 21-230

**ES1-1** 

ELECTRICAL & LIGHTING - SITE PLAN



# GRAND JUNCTION FIRE DEPARTMENT

# FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

BG+co. PROJECT # 2133

DESIGN DEVELOPMENT 10/01/2021 FOR CONSTRUCTION 11/10/2021

# FOR CONSTRUCTION

CIVIL / ARCHITECTURAL / STRUCTURAL / MECHANICAL / PLUMBING / ELECTRICAL

## PROJECT DESIGN TEAM

ARCHITECTURE / INTERIOR DESIGN:



Project Management

BLYTHE GROUP + co.

 $A \cdot C \cdot G$ Austin Civil Group, Inc.

**CIVIL ENGINEERING:** 

AUSTIN CIVIL GROUP 123 N SEVENTH STREET SUITE 300 **GRAND JUNCTION, CO 81501** 

STRUCTURAL ENGINEERING:



Grand Junction, CO 81501 www.lindauerdunn.com

LANDSCAPE ARCHITECTURE

MECHANICAL, PLUMBING AND ELECTRICAL ENGINEERING:



Grand Junction, CO 81501/ Durango, CO 81301 Phone: (970) 241-8709 Phone: (970) 422-7676

Bighorn Consulting Engineers, Inc.

**GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8** 

BLYTHE GROUP + CO.

441 31 Rd. GRAND JUNCTION. **COLORADO 81505** 

TITLE SHEET

FOR CONSTRUCTION

ICENOGLÉ TO

12/03/2021

02/07/2022

REV. DESC.

ADD01

# MATERIALS LEGEND

(PLAN & SECTION)

GRANULAR FILL (SECTION) STRUCTURAI (SECTION) STRUCTURAL FILL

(SECTION)

CONCRETE (PLAN & SECTION) BRICK VENEER

CONCRETE MASONRY UNITS (CMU) (PLAN & SECTION) PRECAST CONCRETE

CONCRETE

MORTAR NET (SECTION)

(SECTION)

SIEEL (SECTION) WOOD BLOCKING (CONTINUOUS) WOOD BLOCKING (INTERMITTENT)

(SECTION)

(PLAN & SECTION)

WOOD SHEATHING

WOOD (FINISH) (SECTION & ELEVATION) INSULATION (FIBROUS)

INSULATION (RIGID) (PLAN & SECTION)

STUCCO (SECTION) STUCCO (ELEVATION)

> GYPSUM WALL BOARD (GWB) (REFLECTED CEILING PLAN)

NOTE: SOME MATERIALS SHOWN MAY NOT BE USED ON THIS PROJECT.

## SYMBOLS LEGEND

**ROOM TAG** DOOR TAG ASSEMBLY TAG

NEW COLUMN GRID LINE EXISTING COLUMN GRIDLINE

**KEY NOTE** WINDOW / FRAME TYPE

1 VIEW NAME DRAWING REFERENCE A1-1 1/8" = 1'-0"

BUILDING SECTION INDICATOR ELEVATION OR DETAIL NUMBER

SHEET THAT DETAIL IS ON WALL SECTION INDICATOR

**ELEVATION INDICATOR** 

DIMENSION LINES NEW CONTOUR EXISTING CONTOUR - - - - ###**#'** - - - - - -HIDDEN LINE \_\_\_\_\_\_

OVERHEAD OBJECT \_\_\_\_\_ CENTER LINE \_\_\_\_\_ MATCH LINE LIMITS OF CONSTRUCTION

DEMOLISHED ITEMS

- - - - - - -\_\_\_\_\_

**ABBREVIATIONS** ABOVE FINISH FLOOR AIR HANDLING UNIT ALTERNATE ALT-X ALTERNATE NO. X ACOUSTIC MATERIAL AM-X ACOUSTIC MATERIAL TYPE X ARCH ARCHITECT / ARCHITECTURAL ATTEN ATTENUATION AVG AVERAGE B.O. BOTTOM OF BIT BITUMINOUS BLDG BUILDING BLKG BLOCKING

CEM CEMENT / CEMENTITIOUS CONTROL JOINT CMU CONCRETE MASONRY UNIT(S) CONC CONCRETE CONT CONTINUOUS CPT CARPET CT CERAMIC TILE

CTR CENTER D DEEP / DEPTH DBL DOUBLE DEMO DEMOLISH / DEMOLITION DEPT DEPARTMENT DF DRINKING FOUNTAIN DIA / Ø DIAMETER DIM(S) DIMENSION(S) DW DISHWASHER DWG DRAWING

EJ EXPANSION JOINT EL ELEVATION ELEC ELECTRICAL EQUIP EQUIPMENT EWC ELECTRIC WATER COOLER EXIST EXISTING EXT EXTERIOR F.O. FACE OF FAAB FLUID APPLIED AIR BARRIER FAAP FIRE ALARM ANNUNCIATOR PANEL REQD REQUIRED FACP FIRE ALARM CONTROL PANEL FBO FURNISHED BY OWNER FLOOR DRAIN FDN FOUNDATION FE FIRE EXTINGUISHER FEC FIRE EXTINGUISHER CABINET

FF FINISHED FLOOR FFIN FACTORY FINISH FRP FIBERGLASS REINFORCED PLASTIC SFT FTG FOOTING FURN FURNISHING / FURNITURE GALV GALVANIZED GL GLAZING GL-X GLAZING TYPE X GWB GYPSUM WALL BOARD HIGH / HEIGHT HC HANDICAPPED HDW HARDWARE HDWD HARDWOOD HM HOLLOW METAL

HORIZ HORIZONTAL UNO UNLESS NOTED OTHERWISE VCT HVAC HEATING VENTILATING & AIR VINYL COMPOSITION TILE CONDITIONING INTERNATIONAL BUILDING CODE VFY INSIDE DIAMETER INCL INCLUDED INSUL INSULATION INT INTERIOR JOINT

VERIFY IN FIELD VWC VINYL WALL COVERING WIDE / WIDTH W/O WITHOUT LONG / LENGTH WD WOOD WOM WALK OFF MAT LAV LAVATORY LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL MATL MATERIAL MAX MAXIMUM

MECH MECHANICAL MFR MANUFACTURER MIN MINIMUM MISC MISCELLANEOUS MO MASONRY OPENING MTD MOUNTED MTL METAL NA NOT APPLICABLE NFPA NATIONAL FIRE PROTECTION ASSOCIATION

NIC NOT IN CONTRACT NO. NUMBER NRC NOISE REDUCTION COEFFICIENT NTS NOT TO SCALE OC ON CENTER OD OUTSIDE DIAMETER OPNG OPENING

OPP OPPOSITE PERF PERFORATED PLAM PLASTIC LAMINATE PLBG PLUMBING PLYWD PLYWOOD PNT PAINT PREFAB PREFABRICATED PREFIN PREFINISHED PT PORCELAIN TILE QT QUARRY TILE QTY QUANTITY R RADIUS RB RUBBER BASE

RCP REFLECTED CEILING PLAN REF REFERENCE / REFER TO REFR REFRIGERATOR REINF REINFORCE (D) (ING) RES RESILIENT RO ROUGH OPENING ROW RIGHT OF WAY RTU ROOF TOP UNIT SC SEALED CONCRETE SCHED SCHEDULE (D) SECT SECTION SQUARE FEET STORE FRONT SIMILAR

SPEC SPECIFICATION SS STAINLESS STEEL SSM SOLID SURFACE MATERIAL STL STEEL STN STAIN STRUCT STRUCTURAL SV SHEET VINYL T&G TONGUE & GROOVE T.O. TOP OF TEMP TEMPORARY

TV TELEVISION

TYP TYPICAL

**DRAWING INDEX** 

TITLE SHEET LIFE SAFETY PLAN

G3-1 ASSEMBLY TYPES CIVIL SHEETS

C1-0 GENERAL NOTES & DETAILS C2-0 SITE PLAN C3-0 UTILITY COMPOSITE

C3-1 SANITARY SEWER PLAN & PROFILE C3-2 STORM SEWER LINES 1&2 PLAN & PROFILE C3-3 STORM SEWER LINES 3,4,5 PLAN & PROFILE

C3-4 STORM SEWER LINE 6 PLAN & PROFILE & OUTLET STRUCTURE C3-5 STORM SEWER LINES 7 & 8 PLAN & PROFILE C4-0 OVERALL GRADING PLAN

C4-1 GRADING PLAN C4-2 GRADING PLAN C5-0 HORIZONTAL CONTROL PLAN

LANDSCAPE SHEETS L1-0 LANDSCAPE PLAN

L1-1 LANDSCAPE DETAILS IR1-0 IRRIGATION PLAN IR2.0 IRRIGATION DETAIL ARCHITECTURAL SHEETS

AS1-1 ARCHITECTURAL SITE PLAN A1-1 FLOOR PLAN A1-2 ROOF PLAN A2-1 EXTERIOR ELEVATIONS

A2-2 EXTERIOR ELEVATIONS A3-1 WALL SECTIONS A3-2 WALL SECTIONS WALL SECTIONS WALL SECTIONS

EXTERIOR DETAILS EXTERIOR DETAILS EXTERIOR DETAILS A3-8 EXTERIOR DETAILS A3-9 EXTERIOR DETAILS

A4-1 ENLARGED FLOOR PLANS INTERIOR ELEVATIONS INTERIOR ELEVATIONS INTERIOR ELEVATIONS A4-5 INTERIOR ELEVATIONS

A4-6 INTERIOR DETAILS A4-7 CASEWORK DETAILS A4-8 CASEWORK DETAILS DOOR SCHEDULE / FRAME ELEVATIONS

FRAME ELEVATION A5-3 WINDOW DETAILS

A7-1 ROOM FINISH/ SIGNAGE PLAN

STRUCTURAL SHEETS

S0-1 GENERAL NOTES S0-2 SCHEDULE OF SPECIAL INSPECTIONS

S1-1 FOUNDATION PLAN S1-2 LOW ROOF FRAMING PLAN S1-3 TOWER ROOF, LOUVER SUPPORT, & MEZZANIN FRAMING PLAN

S2-1 PILE CAP DETAILS S2-2 TYPICAL FOUNDATION DETAILS

S2-3 TYPICAL MASONRY DETAILS S2-4 C.M.U WALL ELEVATIONS

S2-5 C.M.U WALL ELEVATIONS S2-6 TYPICAL STEEL FRAMING DETAILS S2-7 TYPICAL WOOD FRAMING DETAILS

S3-1 FOUNDATION SECTIONS S3-2 FOUNDATION SECTIONS S3-3 FRAMING SECTIONS S3-4 FRAMING SECTIONS

S3-5 FRAMING SECTIONS MECHANICAL SHEETS M0-1 MECHANICAL COVER SHEET

M1-1 MECHANICAL- FLOOR PLAN M1-2 MECHANICAL- CRAWL SPACE PLAN M1-3 MECHANICAL - ROOF PLAN M3-1 MECHANICAL - SCHEDULES

PLUMBING SHEETS P0-1 PLUMBING COVER SHEET P1-1 PLUMBING - FLOOR PLAN P3-1 PLUMBING SCHEDULES

P3-2 PLUMBING - DETAILS

M3-2 MECHANICAL - DETAILS

**ELECTRICAL SHEETS** E0-1 ELECTRICAL COVER SHEET E1-1 LIGHTING - FLOOR PLAN E1-2 LIGHTING - DETAILS

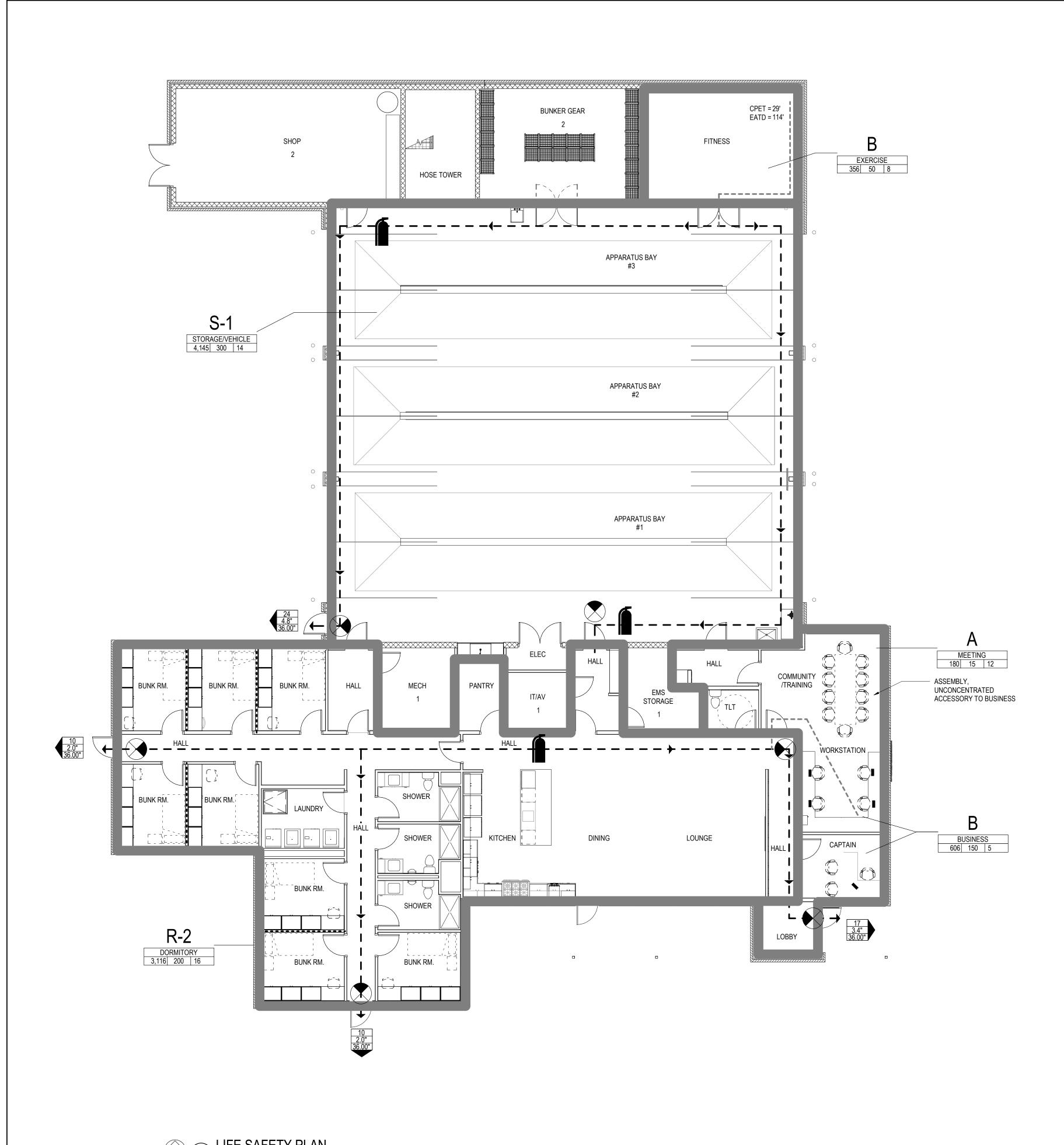
E2-1 ELECTRICAL - ELOOP PLAN E3-2 ELECTRICAL - PANEL SCHEDULES

E3-3 ELECTRICAL - MECHANICAL EQUIPMENT SCHEDULES E3-4 ELECTRICAL DETAILS E4-1 SYSTEMS - FLOOR PLAN E4-2 ALERTING - FLOOR PLAN E4-3 SYSTEMS DETAILS

ES1-1 LIGHTING SITE PLAN

DATE: 11/10/2021 PROJECT #: 2133

**G0-1** 



# **BUILDING CODE ANALYSIS**

**CODE JURISDICTION:** 2018 INTERNATIONAL BUILDING CODE (IBC) 2018 INTERNATIONAL MECHANICAL CODE (IMC) 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2018 INTERNATIONAL PLUMBING CODE (IPC) 2018 INTERNATIONAL FUEL GAS CODE (ÌFGĆ) 2018 NATIONAL ELECTRICAL CODE (NEC)

MIXED USE AND OCCUPANCY: NON-SEPARATED OCCUPANCIES (PER SECTION 508.3)

B: BUSINESS R-2: RESIDENTIAL

S-1: STORAGE

OCCUPANT LOADS: **BUSINESS=** RESIDENTIAL= STORAGE= FITNESS= MECHANICAL= TOTAL OCCUPANT LOAD= 63

CONSTRUCTION TYPE: CONSTRUCTION TYPICAL OF TYPE V-B.

**AUTOMATIC SPRINKLER SYSTEM**: WILL BE PROVIDED

**BUILDING AREA**: ACTUALTOTAL BUILDING: ALLOWED [IBC 506.1]

28,000 SF BUILDING HEIGHT: ACTUAL HEIGHT: 34'-0" AFF, 1 STORY

10,500 SF

ALLOWABLE HEIGHT: 60'-0", 2 STORIES [IBC 504];

BUILDING SETBACKS IN THE CSR ZONE DISTRICT: FRONT 25'-0", SIDE 5'-0" REAR 10'-0".

MAXIMUM HEIGHT IS 65 FT.

FIRE RESISTANCE RATING REQUIREMENTS:

(FOR TYPE V-B CONSTRUCTION) [IBC TABLE 601] STRUCTURAL FRAME: 0 HRS BEARING WALLS, EXTERIOR: 0 HRS BEARING WALLS, INTERIOR: 0 HRS NON-BEARING WALLS, EXTERIOR: 0 HRS\*

\*1 HR IF < 10 FT FIRE SEPARATION DISTANCE [IBC TABLE 602] NON-BEARING WALLS, INTERIOR: 0 HRS FLOOR CONSTRUCTION: 0 HRS

ROOF CONSTRUCTION: 0 HRS

SECTION 420

R-2 OCCUPANCY 420.2 SEPARATION WALLS IN ACCORDANCE WITH SECTION 708.3 FIRE PARTITIONS, EXCEPTION 2, 1/2 HR

COMMON PATH OF EGRESS TRAVEL: 125 FT WITH SPRINKLER SYSTEM, IBC TABLE 1014.3 EXIT ACCESS TRAVEL DISTANCE: 250 FT WITH SPRINKLER SYSTEM, IBC TABLE 1016.2

FOR B OCCUPANCY: COMMON PATH OF EGRESS TRAVEL: 100 FT WITH SPRINKLER SYSTEM, IBC TABLE 1014.3 EXIT ACCESS TRAVEL DISTANCE: 300 FT WITH SPRINKLER SYSTEM, IBC TABLE 1016.2

FOR S-1 OCCUPANCY:

COMMON PATH OF EGRESS TRAVEL: 100 FT WITH SPRINKLER SYSTEM, IBC TABLE 1014.3 EXIT ACCESS TRAVEL DISTANCE: 250 FT WITH SPRINKLER SYSTEM, IBC TABLE 1016.2

PLUMBING FIXTURE COUNT:

SHOWER DF SS REQ'D PROV REQ'D PROV REQ'D PROV REQ'D PROV REQ'D PROV OCCUPANCY TYPE OCC LD MEN WOMEN M/W M/W M/W 

\*FITNESS,STORAGE,MECHANICAL

TOTALS M/W UNISEX TOTAL FOR BUILDING 4 2 3 1 1 1 2

## LIFE SAFETY LEGEND

1/2 HR FIRE PARTITION •••••

OCCUPANCY GROUP BOUNDARY CONTINUATION OF EGRESS PATH -EGRESS ROUTE ----COMMON PATH OF EGRESS

FIRE EXTINGUISHER

STORAGE 250 100 3

LOAD

- OCCUPANT

LOAD

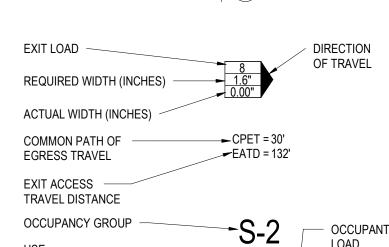
FACTOR

EMERGENCY EXIT LIGHT

USE

AREA -

DIRECTION OF EGRESS



**GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8** 

ESTABLISHED 1996
YEARS

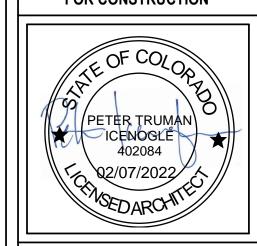
622 Rood Avenue Grand Junction, CO 81501 970-242-1058

**BLYTHE GROUP + CO.** 

441 31 Rd. GRAND JUNCTION, COLORADO 81505

LIFE SAFETY PLAN

FOR CONSTRUCTION

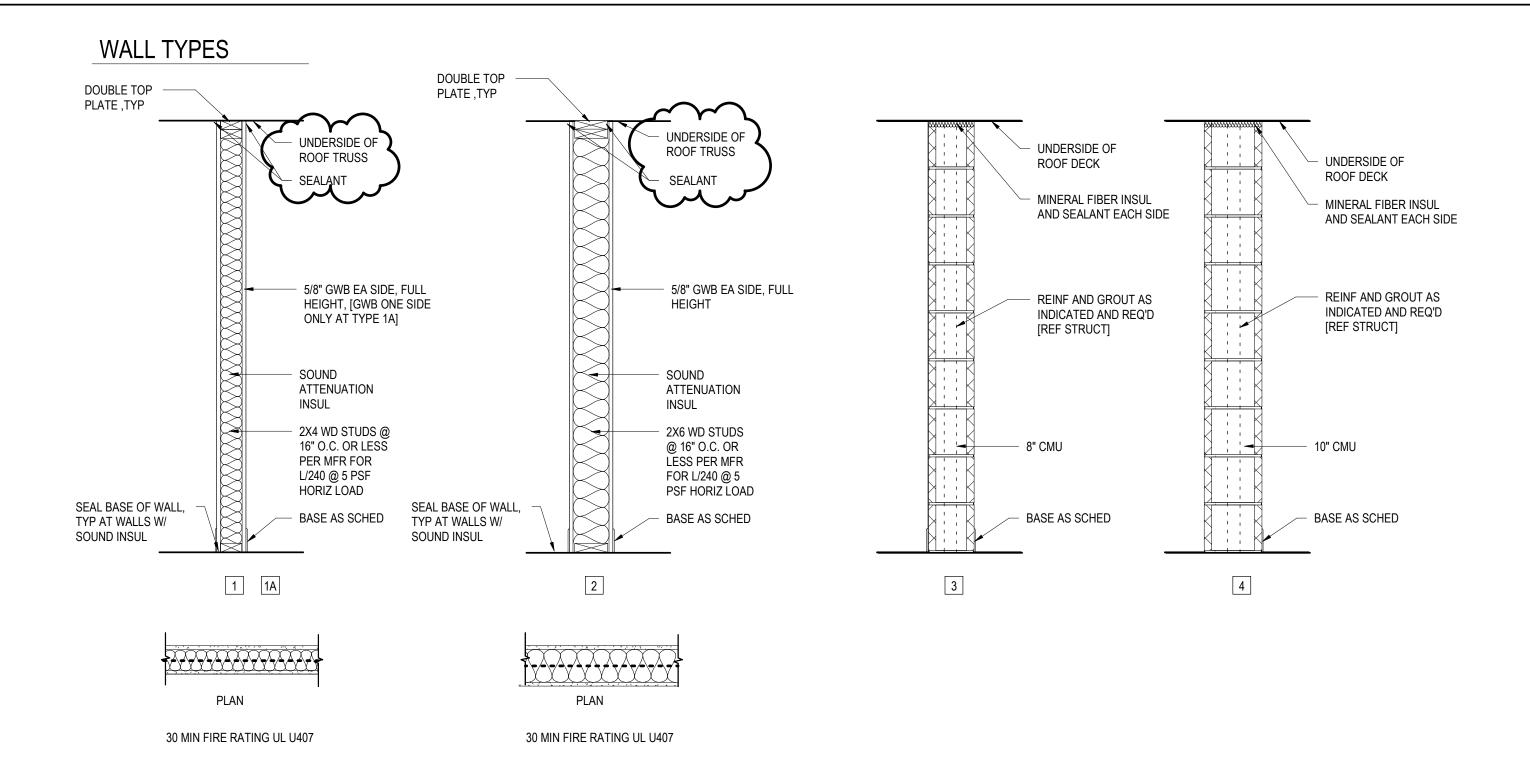


REV. DESC.

DATE: 11/10/2021

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**G1-1** 



#### **GENERAL NOTES:**

1. WALL TYPES ARE KEYED FROM FLOOR PLANS. PROVIDE FIRE BLOCKING AS REQUIRED PER IBC SEC. 717.2.

2. SEE DOOR SCHEDULE FOR CONDITIONS AT DOORS.

3. REFER TO STRUCTURAL DRAWINGS FOR MULTI-STUD AND SPACING CONDITIONS FOR BEARING WALLS AND SHEAR WALLS. 4. SEE FINISH SCHEDULE FOR APPLIED FINISHES.

5. BACKER BOARD LOCATIONS ARE PER DETAILS AND CONTINUOUS ON CEILING AND WALLS IN SHOWER AREAS.

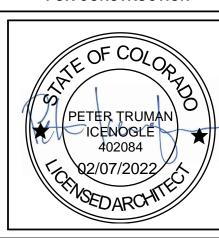
BLYTHE GROUP + CO.

**GRAND JUNCTION FIRE** DEPARTMENT FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

**ASSEMBLY TYPES** 

FOR CONSTRUCTION



12/03/2021

DATE: 11/10/2021

PROJECT #: 2133

G3-1

## IRRIGATION SCHEDULE

SYMBOL	MODEL	DESCRIPTION DETA
••• <sub>E</sub>	1806 -SAM-PRS-NP W/ 15 SER. NOZZLE	RAINBIRD POP UP SPRAY HEAD1
	5006+-R-SAM-SS-NP-2.0	RAINBIRD ROTOR—2
	5006+-R-SAM-SS-NP-2.5	RAINBIRD ROTOR 2
•	PEB-PRS-D SERIES NON-POTABLE	RAINBIRD CONTROL VALVE—
$\bowtie$	LINE SIZE	GATE VALVE 4
$\bigoplus$	s"	DRIP VALVE
•	44-NP	RAINBIRD QUICK COUPLER — 6
	ESP-LXI SERIES 24 STATION	RAINBIRD CONTROLLER - PEDESTAL MOUNT
	CL. 200 B.E. (2")	PVC MAINLINE
	CL. 200 B.E. (1")	PVC LATERALS - 1" UNLESS OTHERWISE NOTE
=====	CL. 200	PVC SLEEVING
/	<sup>3</sup> / <sub>4</sub> "	DRIP TUBING
•		CONTROLLER NUMBER VALVE SIZE
	PEB-PRS-D SERIES - 1 <sup>1</sup> / <sub>2</sub> "	RAINBIRD MASTER VALVE
$\odot$		NETAFIM TREE RING

# IRRIGATION NOTES

AND PURPLE IN COLOR.

1. REFER TO SPECIFICATIONS AND DETAILS FOR INSTALLATION INSTRUCTIONS.

ALL EQUIPMENT AND PIPING FOR THE IRRIGATION SYSTEMS COMING FROM THE NON-POTABLE WATER METERS IS TO BE NONPOTABLE

- 2. ALL BASE PLAN INFORMATION HAS BEEN TAKEN FROM DRAWINGS PREPARED BY MRLA, INC.
- 3. IRRIGATION SYSTEM IS DESIGNED FOR 25 GPM AND A STATIC WATER PRESSURE OF 80 PSI PROVIDED BY THE NEW PUMP SYSTEM. CONTRACTOR IS TO VERIFY GPM AND PRESSURE PRIOR TO INSTALLATION OF IRRIGATION SYSTEM AND NOTIFY LANDSCAPE ARCHITECT WITH VERIFICATION FIGURES. FAILURE TO NOTIFY LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR TAKING RESPONSIBILITY FOR ANY ALTERATIONS AT HIS/HER OWN COST.
- 4. INSTALL DRIP EMITTERS IN BED AREAS AS DESCRIBED BELOW:

GROUND COVER RAINBIRD XB-05PC 1 EA. 12" RADIUS, 15" O.C.

1 GALLON MAT'L. RAINBIRD XB-05PC 1 E

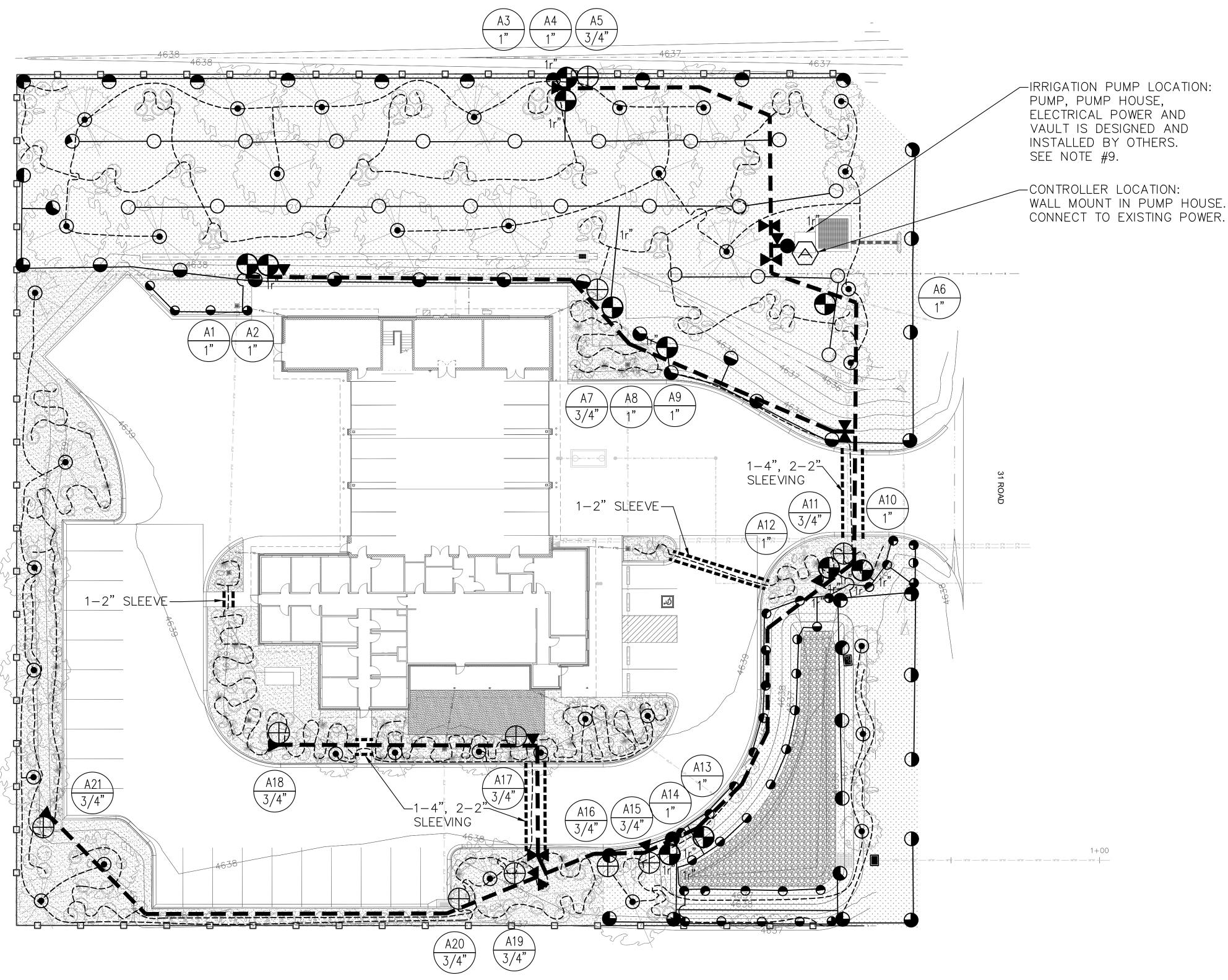
5 GALLON MAT'L. RAINBIRD XB-05PC 2 EA.

- 5. CONTRACTOR TO COORDINATE INSTALLATION OF SLEEVING WITH INSTALLATION OF PAVING AND SIDEWALKS.
- 6. USE RAINBIRD 12 SERIES NOZZLES FOR SPRAY HEADS SPACED LESS THAN 13'.
- 7. USE RAINBIRD 10 SERIES NOZZLES FOR SPRAY HEADS SPACED LESS THAN 11'.
- 8. ELECTRICAL POWER TO THE NEW CONTROLLER IS SUPPLIED BY CONTRACTOR.
- 9. TAP LOCATION: CONNECT TO EXISTING  $1\frac{1}{2}$ " COPPER LINE STUB AND INSTALL  $1\frac{1}{2}$ " MASTER VALVE AND EXTEND 2" MAINLINE AS SHOWN. INSTALL MASTER VALVE IN SEPARATE CARSON #1419-13B VALVE BOX.
- 10. IRRIGATION SYSTEM IS TO FOLLOW ALL REQUIREMENTS FOR INSTALLATION OF RECLAIMED WATER SYSTEMS AS DESCRIBED IN THE STATE OF COLORADO, WATER CONTROL DIVISION, "GUIDELINES FOR USE OF RECLAIMED WATER". LOCATOR TAPE MINIMUM OF 2" IN WIDTH, MAGNETIC BACKED, LAVENDER COLORED WITH BLACK LETTERING STATING: "RECLAIMED WATER DO NOT DRINK".
- 11. ALL CONTROL VALVE AND GATE VALVE BOXES MUST HAVE ACCEPTABLE LAVENDER COLORED LABELS PERMANENTLY AFFIXED TO OUTSIDE OF LID STATING: "RECLAIMED WATER DO NOT DRINK", OR SIMILAR TAGS ATTACHED TO VALVES THEMSELVES. ALL CONTROLLERS TO HAVE SIMILAR SIGNAGE (4"x6") PERMANENTLY AFFIXED TO DOOR OF EACH CONTROLLER.

IRRIGATION PLAN

SCALE: 1"=20'-0"

12. INSTALL 2 WIRE SYSTEMS WITH RAINBIRD FLOW SENSORS, RAINBIRD DECODERS AND RAINBIRD 2 WIRE CABLE.



Interior Design **Project Management** 622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office BLYTHE GROUP + co. MRLA LAND PLANNING 386 34 ½ Road Palisade, Colorado 81526 (970) 361-4345 **GRAND JUNCTION** FIRE DEPARTMENT FIRE STATION #8 441 31 Rd. GRAND JUNCTION, COLORADO 81505 **IRRIGATION PLAN** FOR CONSTRUCTION REV.

IRRIGATION DESIGN & CONSULTING, INC.

303-442-7027 303-665-8485- FAX



UTILITY NOTIFICATION
CENTER OF COLORADO

CALL 811

LOCATION OF UTILITIES SHOWN HEREON
WAS PROVIDED BY OTHERS. CONTRACTOR
MUST VERIFY LOCATION OF ALL EXISTING
UTILITIES PRIOR TO CONSTRUCTION.

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR

OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE

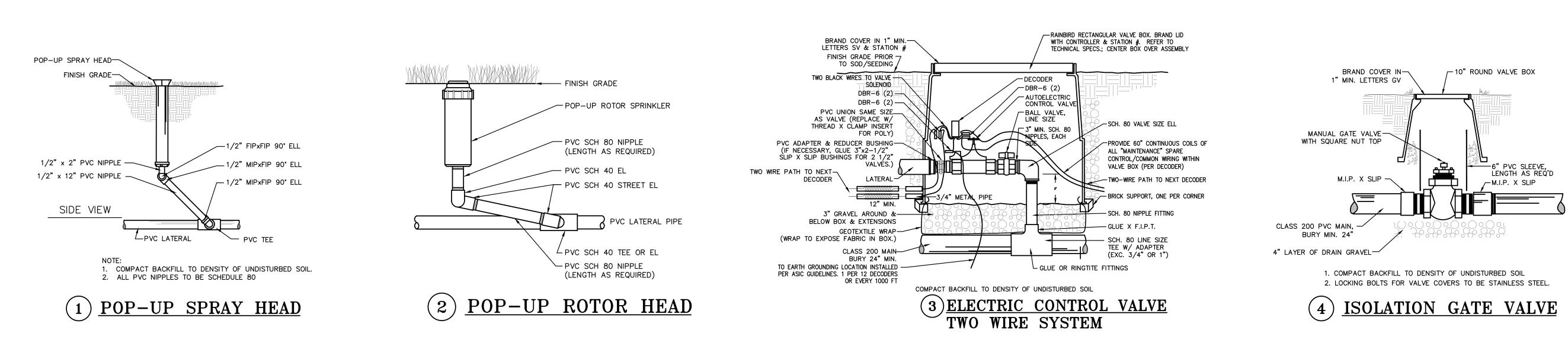
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

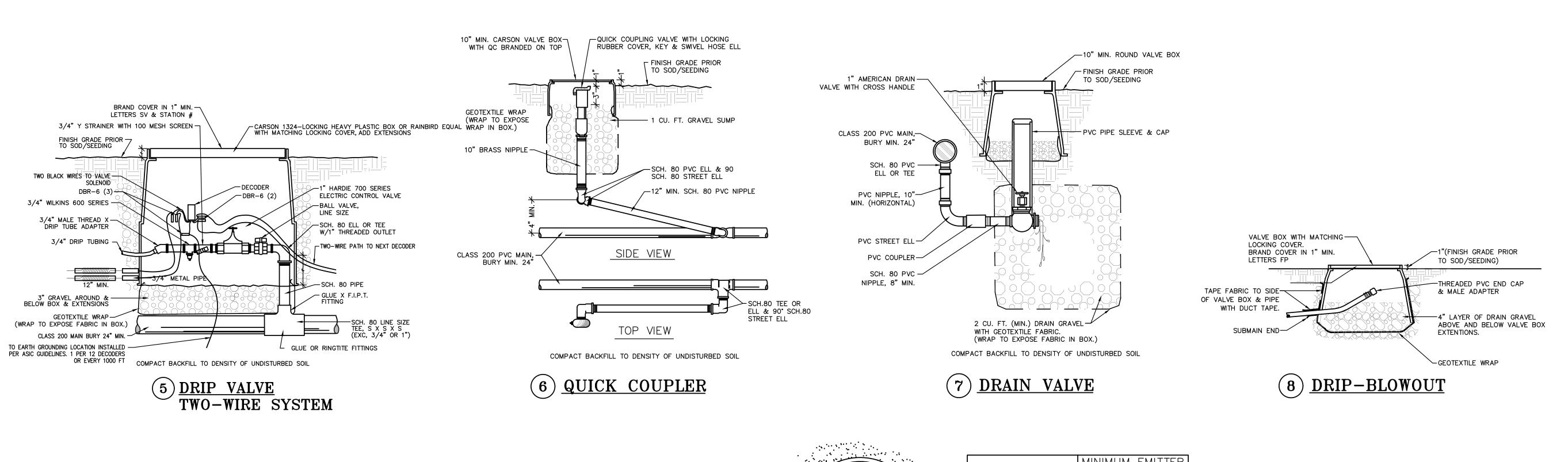
CITY PLANNER

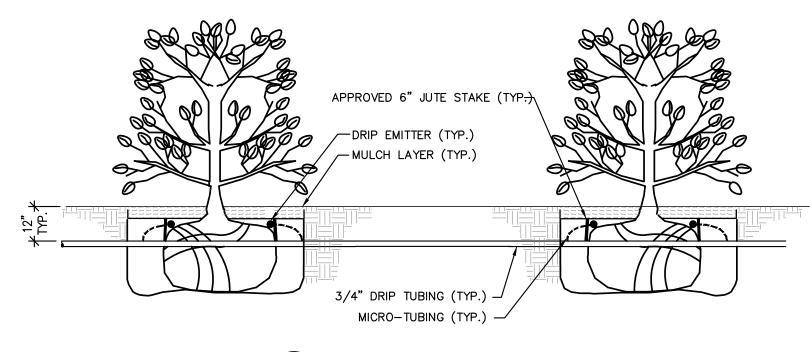
PROJECT#: 2133
SHEET#:

IR 1.0

DATE: 03/09/2022







9 DRIP-SHRUB

(\ V	ATERAL SUPPLY PIPE WITH IN-LINE CHECK ALVES IF REQUIRED
TI R	DLY DRIP SUPPLY  JBING NO EMITTERS  DOTBALL  LANTING BACKFILL MATERIAL
A B	MITTER DRIPLINE (BELOW MULCH
TI EI F	OGE OF EXCAVATION  RUNK  MITTER DIPLINE (BELOW MULCH AND ABRIC, AROUND THE ROOT BALL) 6" ROM ROOTBALL

PLANT SIZE	MINIMUM EMITTER  QTY. PER TREE						
5 GALLON SHRUBS	THREE EACH						
1½" CALIPER TREE	EIGHT EACH						
2" CALIPER TREE	TWELVE EACH						
2½" CALIPER TREE	SIXTEEN EACH						
3" CALIPER TREE	TWENTY EACH						
3½" CALIPER TREE	TWENTY-TWO EACH						
4" CALIPER TREE	TWENTY-FOUR EACH						
6 FT. CONIFEROUS TREE	TWELVE EACH						
8 FT. CONIFEROUS TREE	EIGHTEEN EACH						
10 FT. CONIFEROUS TREE	TWENTY-FOUR EACH						
12 FT. CONIFEROUS TREE	THREE EACH						

NOTES:

• EMITTERS SHALL BE EQUALLY SPACED AROUND ROOT BALL.

• EMITTER FLOW RATE PER SCHEDULE.

• DRIPLINE EMITTER SPACING PER SCHEDULE

USE NETAFIM TLCV26-18 RINGS SPACED PER THIS DETAIL.

10) SUBSURFACE EMITTER TREE RING



CALL 811

LOCATION OF UTILITIES SHOWN HEREON

MUST VERIFY LOCATION OF ALL EXISTING

UTILITIES PRIOR TO CONSTRUCTION.

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE

CITY PLANNER DATE

Interior Design Project Management 622 Rood Avenue **Grand Junction, CO 81501** 970-242-1058 office BLYTHE GROUP + co. MRLA LAND PLANNING 386 34 ½ Road Palisade, Colorado 81526 (970) 361-4345 **GRAND JUNCTION** FIRE DEPARTMENT FIRE STATION #8 441 31 Rd. GRAND JUNCTION COLORADO 81505 IRRIGATION DETAILS FOR CONSTRUCTION ŖEV.

DATE: 03/09/2022

SHEET#:

PROJECT #: 2133

IR 2.0

### LANDSCAPE REQUIREMENTS

TOTAL IMPROVED AREA: 87,120 SQ. FT.

Landscape Requirements (R-8):

One tree per 2,500 square feet of improved area, with no more than 20 percent of the total being ornamental trees or evergreens. One five-gallon shrub per 300 square feet of improved area.

Location of Landscaping on Site:

Buffer, parking lot, street frontage perimeter, foundation plantings and public right-of-way.

1 TREE REQUIRED FOR EVERY 2,500 SQ.FT. OF IMPROVED AREA.

## IMPROVED AREA = 87,120 SQ. FT.

(87,120/2,500) = ROUND TO 35 TREES REQUIRED = 35

TREES PROVIDED: 35 TREES PROVIDE

1 SHRUB REQUIRED FOR EVERY 300 SQ.FT. OF IMPROVED AREA.

#### (87,120/300) = ROUND TO 300. SHRUBS REQUIRE = 300

- Ten percent of the required shrubs may be converted to perennials and/or ground covers at a ratio of three one-gallon perennials and/or ground covers for one five-gallon shrub

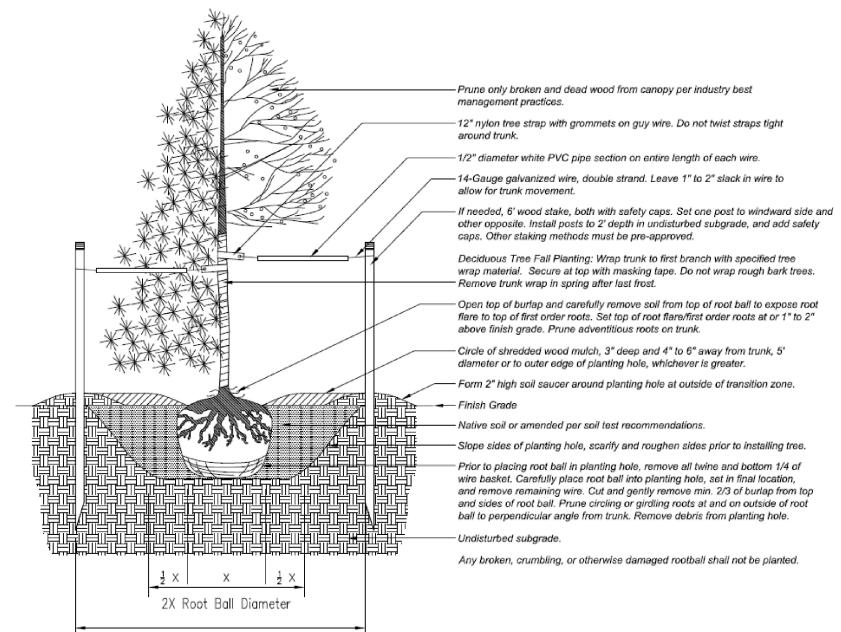
#### PERENNIAL SUBSTITUTES FOR 11 SHRUBS. (30 PERENNIALS/ 3 = 10 SHRUBS) SHRUBS PROVIDED:

FIVE GALLON SHRUBS PROVIDED = 292 ONE GALLON PERENNIALS = 46

### DDODOCED DLAMT LICT

PF	ROPOS	SED PLANT LIST		
	Sym.	Common Name/ Biological Name	Planting Size/ Remarks	Mature Size
Dec	iduous Tre	ees:		
1	ACE	Accolade Elm/ Ulmus Accolade	2" cal./ B&B	50' Ht. & 40' Spd.
3	PKL	Peking Lilac Tree / Syringa reticulata	2" cal./ B&B	15' Ht. & 12' Spd.
2	RBU	Redbud/ Cercis canadensis	2" cal./ B&B	20' Ht. & 15' Spd.
2	BUR	Bur Oak/ Quercus macrocarpa	2" cal./ B&B	70' Ht. & 50' Spd.
2	KCT	Kentucky Coffeetree/ Gymnocladus/ dioicus	2" cal./ B&B	60' Ht. & 50' Spd.
3	PCH	Chinese Pistache/ Pistacia chinensis	2" cal./ B&B	40' Ht. & 25' Spd.
7	IMP	Imperial Locust/ Gleditsia triacanthos inermis 'Imperial'	2" cal./ B&B	35' Ht. & 25' Spd.
2	HAC	Western Hackberry/ Celtis occidentalis	2" cal./ B&B	60' Ht. & 40' Spd.
6	GOA	Gambel Oak/ Ouercus gambelii	2" cal./ B&B	15' Ht. & 12' Spd.
Eve	rgreen Tre			
3	ŬTJ	Utah Juniper/ Juniperus osteosperma	5' Tall/ #20	20' Ht. & 15' Spd.
3	ACB	Arizona Cypress/ Cuppressus arizonica 'Blue Ice'	5' Tall/ #20	15' Ht. & 8' Spd.
Dec	iduous Sh			
15	ALP	Apache Plume/ Fallugia paradoxa	18" -24" Spread/ #5	5' Ht. & 5' Spd.
18	ATR	Althea- Rose of Sharon / Hibiscus syriacus	18" -24" Spread/ #5	10' Ht. & 5' Spd.
14	BMS	Blue Mist Spirea/ Caryopteris x clandonensis	18" -24" Spread/ #5	3' Ht. & 3' Spd.
6	ELA	English Lavender/ Lavandula angustifolia 'Munstead'	18" -24" Spread/ #5	2' Ht. & 2' Spd.
22	MPA	Manzanita Panchito/ Arctostaphylos 'Panchito'	18"-24" Spread/ #5	2' Ht. & 4' Spd.
24	NMP	New Mexico Privet/ Forestiera neomexicana	18"-24" Spread/ #5	8' Ht. & 6' Spd.
19	LSB	Lilla Smoke Bush/ Cotinus coggygria 'Lilla'	18"-24" Spread/ #5	4' Ht. & 4' Spd.
22	DBB	Dwarf Burning Bush/ Euonymus alatus 'Compacta'	18"-24" Spread/ #5	4' Ht. & 4' Spd.
16	RSA	Russian Sage/ Perovskia artiplicifolia	18"-24" Spread/ #5	4' Ht. & 4' Spd.
15	FOR	Forsythia Spring Glory/ Forsythia x intermedia 'Spring Glory'	18"-24" Spread/ #5	6' Ht. & 6' Spd.
22	SSK	Saskatoon Serviceberry/ Amelanchier alnifolia	18"-24" Spread/ #5	10' Ht. & 8' Spd.
25	RAB	Rabbitbrush/ Chrysothamnus nauseosus	18"-24" Spread/ #5	4' Ht. & 4' Spd.
18	YRE	Red Yucca/ Hesperaloe parviflora	18"-24" Spread/ #5	2' Ht. & 3' Spd.
15	NCH	Native Chokecherry/ Prunus virginiana	18"-24" Spread/ #5	10' Ht. & 8' Spd.
12	BYA	Banana Yucca/ Yucca baccata	18"-24" Spread/ #5	4' Ht. & 3' Spd.
		d Broadleaf Shrubs:		41.11.0.01.0.1
29	GMD	Green Mound Juniper/ Juniperus procumbens Green Mound'	18"-24" Spread/ #5	1' Ht. & 6' Spd.
		nnials/ Ground Cover:	ue	011 1 14 0 011 C = 4
10	PHM	Panicum' Heavy Metal'	#5	3" Ht. & 2" Spd.
15	MRU	Muhlenbergia reverchonii 'Undahnted'	#1	2' Ht. & 2' Spd.
7	DAY	Daylily/ Hemerocallis 'Crimson Pirate'	#1	24" Ht. & 24" Spd.
7	SDA	Autumn Joy Sedum/ Sedum spectabile 'Autumn Joy'	#1	24" Ht. & 24" Spd.
7	APD	Aster Purple Dome/ Aster novae-angliae ' Purple Dome'	#1	18" Ht. & 18" Spd.

## \*All plant totals on the plant list shall be verified with plant numbers on the landscape plans.



#### 3-4 X Root Ball Diameter Trees planted upon park land, public property, or within the Public Right of Way (PRW) are subject to the following restrictions

- Prior to digging, the Utility Notification Center of Colorado shall be contacted at 811 to locate underground utilities. · A planting permit from the Grand Junction City Forester (GJCF) is required regardless of approved plans to ensure
- the City is available to inspect the planting of public trees.
- Tree planting shall not occur when daytime temperatures reach or exceed 90—degrees Fahrenheit, unless approved by
- Only tree species approved by the GJCF shall be planted. Trees shall not be planted in tree lawns less than six feet wide unless authorized by the GJCF.
- Trees shall be centered in tree lawns and/or planting areas. Where sidewalks are not present, trees shall be located as designated by the GJCF.
- Unless authorized by the GJCF, trees shall be located: — Outside street intersection sight distance triangle, measured 30 (thirty) feet along the PRW in each direction from
- Min. 10 (Ten) feet from alleys and driveways
- Min. 20 (Twenty) feet from stop signs and curb ramps - Min. 25 (Twenty-five) feet from street lights
- Min. 10 (Ten) feet from electric/gas/water lines, water meters/pits, and fire hydrants — Min. 15 (Fifteen) feet from small cell towers
- If overhead utility wires exist, only trees with an expected mature size that meet current clearance regulations may
- Tree spacing shall be based on projected mature canopy size and above restrictions, or as approved by the GJCF. • All electric fixtures and utilities, including but not limited to outlets and lights, shall be located at outside perimeter of tree planting areas within hardscape. In tree lawns, fixtures shall be placed minimum 3 (three) feet radially from

# ree Planting Detail - City of Grand Junction

SCALE: NTS

### NATIVE SEED MIXES

Hydroseed Mix For Detention Pond

50% "Fults Alkali" Grass

50% " Alkali Sacaton" Grass

ground are present.

Hydroseed Mix For Disturbed Area 70% Turf Type Buffalo grass (Bouteloua Dactyloides).

30% Native Blue Grama (Bouteloua gracilis) Grows 10-20 inches tall if unmown. Requires little to no maintenance.

4 lbs. per 1,000 sq. ft. or up to 10 lbs. 1000 sq. ft. All seed needs to be well mixed, broadcast seeded, followed by hand raking to cover seed, and then an application of 800 pounds/acre of Biosol to improve germination. Hydromulch the seeded area with 2500 lbs/acre of virgin wood fiber

A landscape maintenance program will be needed to establish good growth of the native seed around the property. The maintenance program shall include irrigation and mowing to control annual weeds around all new landscape material. Any mowers used on the property should be rotary and the tractor should be small enough not to rut the soil and damage the vegetation. If needed, spot treat the property with an owner approved herbicide to control any noxious weeds. After the first growing season reseed any bare areas and replace any damaged or dead plant material around the property.

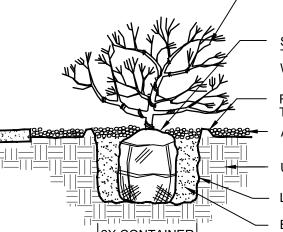
hydromulch and 150 lbs/acre of organic tackifier. Do not hydroseed and do not seed if standing water or snow/frozen

### LANDSCAPE AND IRRIGATION NOTES

1. PLANTING AREAS ARE TO HAVE 3" OF LANDSCAPE ROCK ( $\frac{3}{4}$ " TAN GRANITE). ALL PLANT MATERIAL IN THE LANDSCAPE ROCK AND NATIVE SEED AREAS SHALL HAVE A PLANTING RING AT THE BASE OF EACH PLANT WITH 3" OF WESTERN RED CEDAR MULCH OVER LANDSCAPE FABRIC.

2. AN UNDERGROUND, PRESSURIZED IRRIGATION SYSTEM WILL BE PROVIDED FROM A NEW IRRIGATION VAULT AND PUMP HOUSE THAT DRAWS WATER FROM THE EXISTING IRRIGATION DITCH ALONG THE 31 ROAD RIGHT OF WAY. THE IRRIGATION CONTROLLER WILL BE LOCATED ON THE OUTSIDE WALL OF THE FIRE STATION. ALL PLANTING BEDS ARE TO BE IRRIGATED WITH AN AUTOMATIC DRIP SYSTEM. ALL NATIVE SEED AREAS ARE TO BE IRRIGATED WITH A POP-UP SPRAY SYSTEM ALONG WITH A DRIP SYSTEM FOR ALL THE TREES AND SHRUBS THAT ARE LOCATED IN THE NATIVE SEED AREAS. SEE IRRIGATION PLANS FOR ADDITIONAL INFORMATION.

3. METAL LANDSCAPE EDGING IS TO BE INSTALLED ALONG THE EDGE OF THE LANDSCAPE ROCK AREAS. 4. THE LANDSCAPE CONTRACTOR SHALL COLLECT SOILS SAMPLES AND RUN SOILS TESTING FOR THE PROPOSED PLANTING AREAS. ADD SOIL AMENDMENTS AND FERTILIZERS AS RECOMMENDED IN THE SOIL TESTING REPORT TO ENSURE A GOOD PLANTING MEDIUM. ANY IMPORTED PLANTING SOIL SHALL ALSO BE TESTED AND BE THREE PARTS SCREENED TOPSOIL AND ONE PART MANURE.



PRUNE ALL DAMAGED OR DEAD WOOD PRIOR TO PLANTING.

SET SHRUB 2" HIGHER THAN THE HEIGHT AT WHICH IT GREW.

FORM SOIL INTO 3" WATER RING AROUND TREE BASE AT TIME OF PLANTING. 88 - APPLY SPECIFIED MULCH.

UNDISTURBED SUBGRADE.

LOOSEN SIDES OF PLANT PIT. BACKFILL WITH SPECIFIED SOIL MIX.

OR ROOTBALL DIA. Shrub Planting Detail

-12'x12' WIDE AND 6' DEEP CONCRETE IRRIGATION VAULT WITH METAL GRATE. -12" PVC PIPE TO IRRIGATION VAULT. - CONCRETE HEADWALL WITH 12" HEAD GATE AT THE IRRIGATION DITCH. VERIFY FINAL ELEVATIONS WITH THE EXISTING DITCH. -PUMP HOUSE (6'x6' METAL SHED SET ON 7'x7'

441 31 Rd. GRAND JUNCTION,

LANDSCAPE PLAN

Interior Design

MRLA

386 34 ½ Road

**Project Management** 

970-242-1058 office

BLYTHE GROUP + co.

**Grand Junction, CO 81501** 

MITCH REWOLD LANDSCAPE ARCHITECT LANDSCAPE ARCHITECTURE AND

Palisade, Colorado 81526 (970) 361-4345

**GRAND JUNCTION** 

FIRE DEPARTMENT

FIRE STATION #8

COLORADO 81505

LAND PLANNING

622 Rood Avenue

FOR CONSTRUCTION

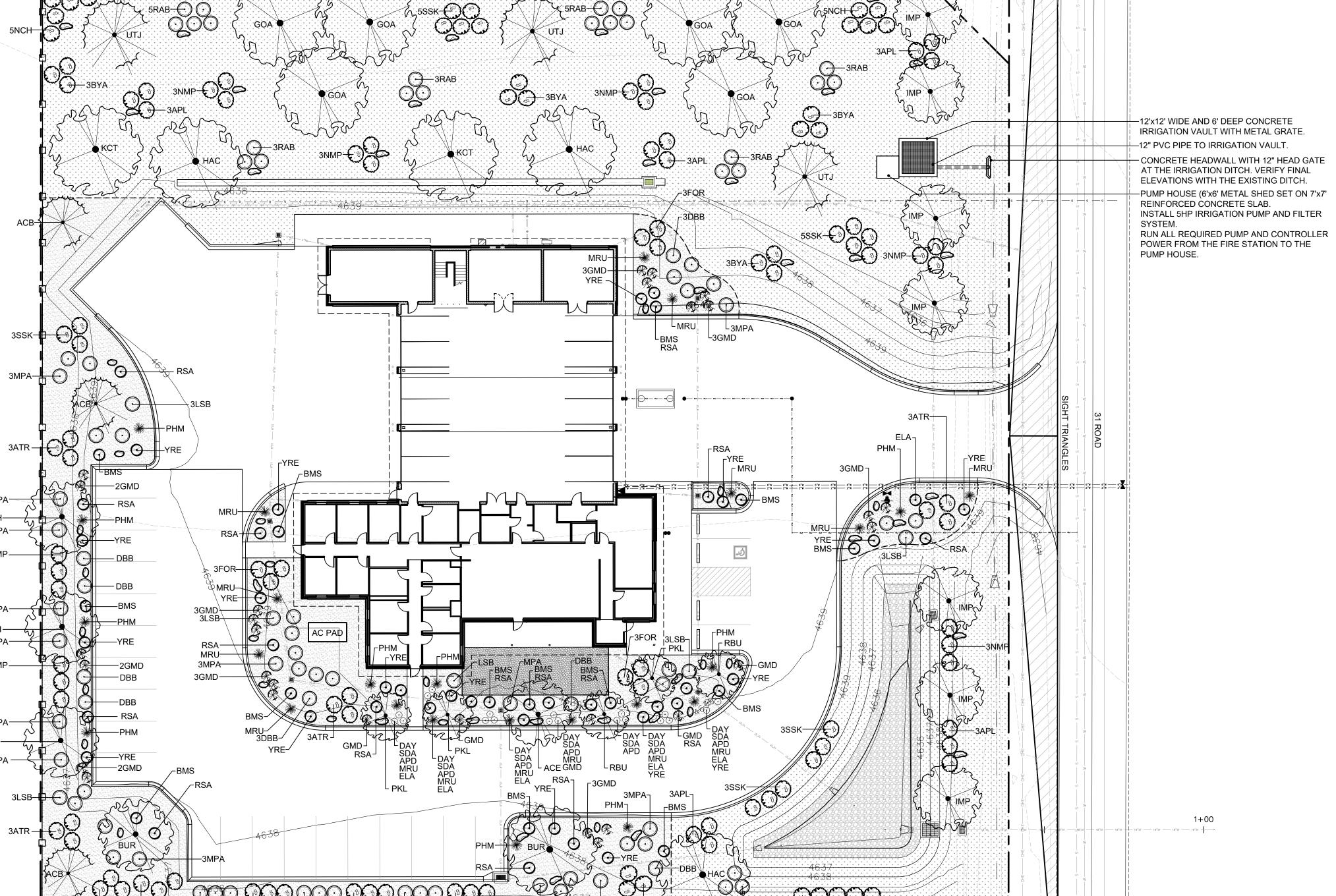


REV. DESC.

DATE: 01/10/2022

SHEET #:

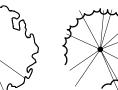
PROJECT #: 2133



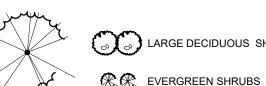
# LANDSCAPE PLAN SCALE: 1"=20'-0"

## LANDSCAPE LEGEND

**DECIDUOUS TREES** 



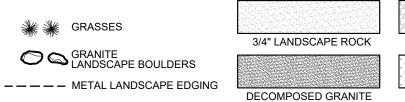
**EVERGREEN TREES** 

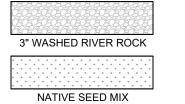










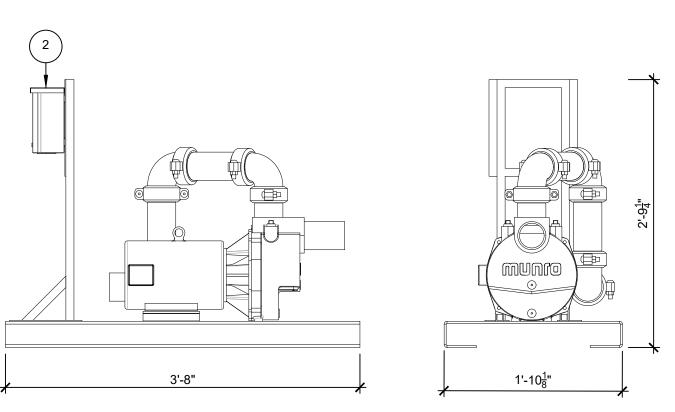




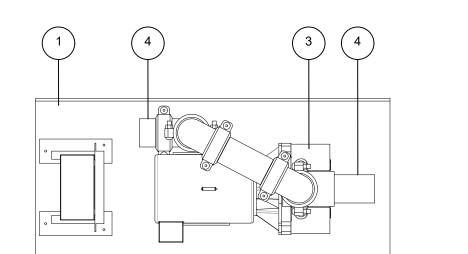
UTILITY NOTIFICATION CENTER OF COLORADO **CALL 811** LOCATION OF UTILITIES SHOWN HEREON WAS PROVIDED BY OTHERS. CONTRACTOR MUST VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

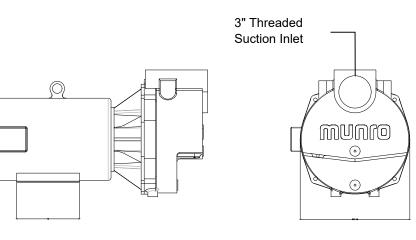
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE

L1-0









- 1. Powder Coated Marine Grade 5052 Aluminum Pump Skid
- 2. Munro SmartBox Pump Controls with Thermal Protection
- 3. Munro LP 3005 Pump Cast Iron Case and Diffuser, Brass Impeller, Stainless Steel Hardware, 5HP.
  - ° P/N: LP3005B3 -208-230/460V Three Phase
- 4. 3" Suction and Discharge Piping
- 5. Customer to Select Suction and Discharge Fitting Type. Fittings Can Be Threaded, Flanged, or Grooved Type Fittings.

BG

Interior Design
Project Management

622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office

BLYTHE GROUP + co.

# MRLA

MITCH REWOLD LANDSCAPE ARCHITECT LANDSCAPE ARCHITECTURE AND

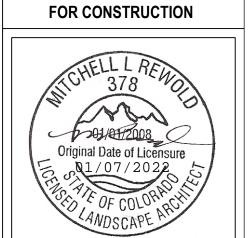
LAND PLANNING 386 34  $\frac{1}{2}$  Road

Palisade, Colorado 81526 (970) 361-4345

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

LANDSCAPE DETAILS



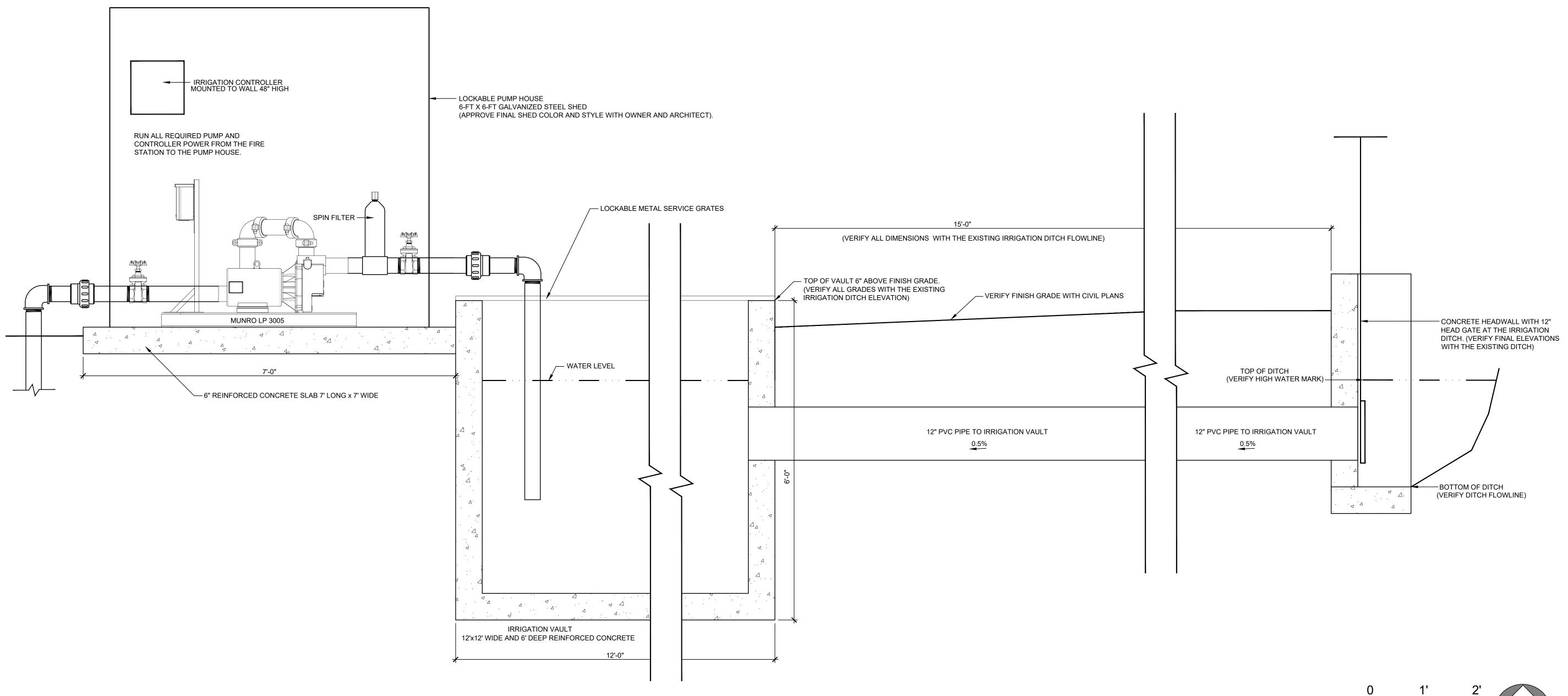
REV. DESC.

DATE: 01/07/2022

PROJECT #: 2133

SHEET#:

L1-1



IRRIGATION VAULT AND PUMP SYSTEM

SCALE: 1"=1'-0"

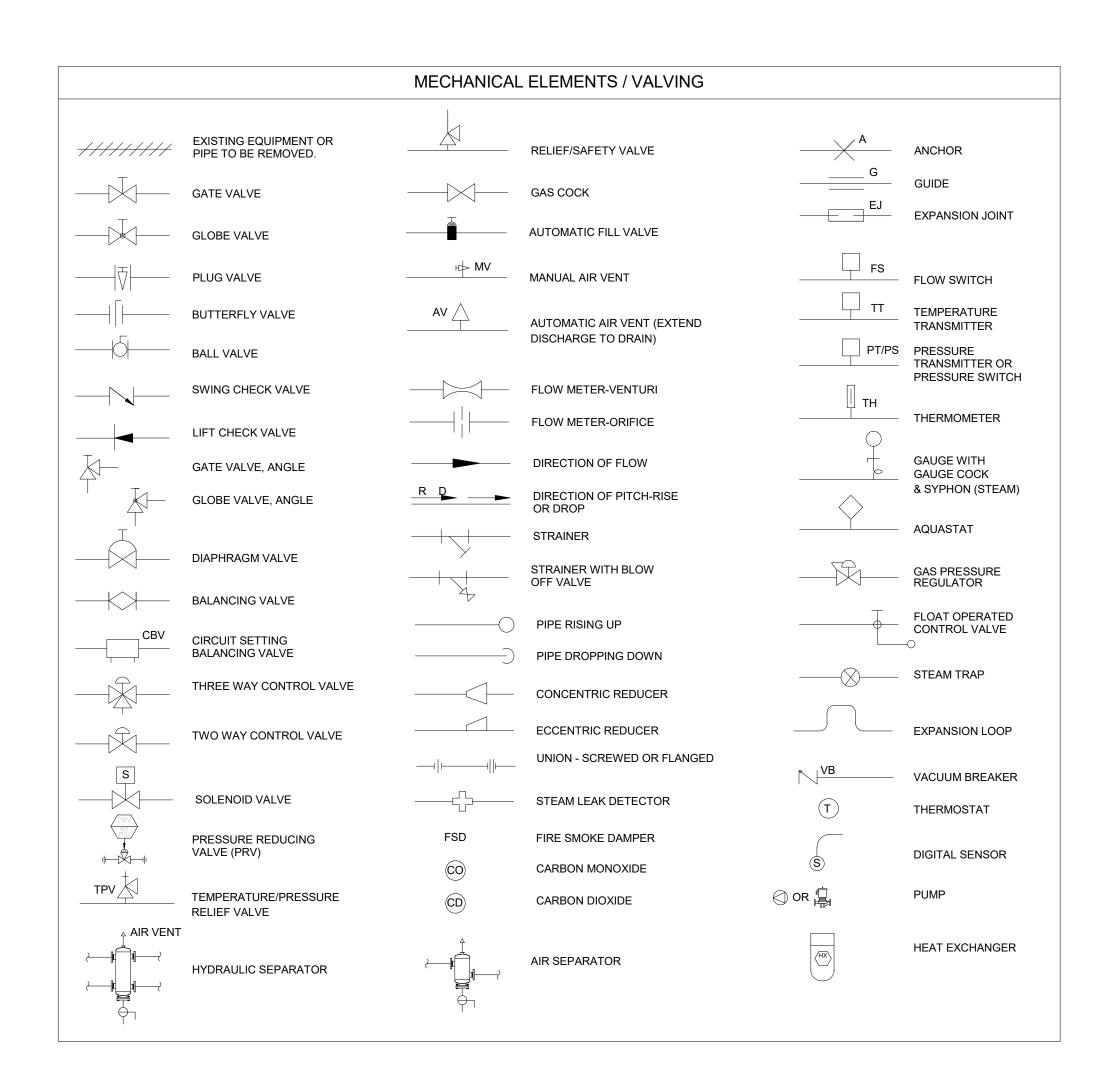
ACCEPTANCE BLOCK

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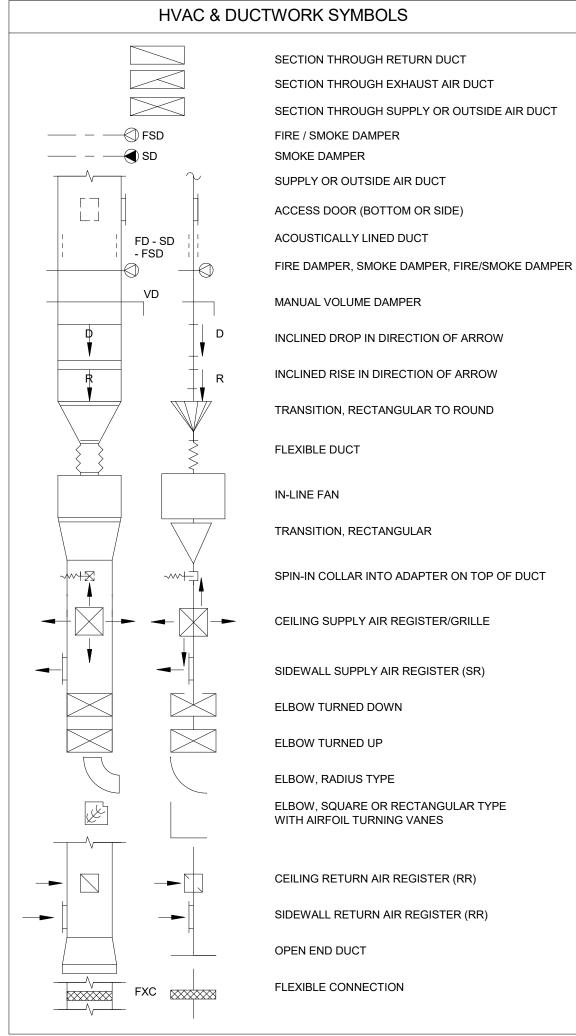
OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DI ANNIED



	MECHANICAL SHEET LIST											
Sheet Number	Sheet Name											
M0-1	MECHANICAL COVER SHEET											
M1-1	MECHANICAL - FLOOR PLAN											
M1-2	MECHANCIAL - CRAWLSPACE PLAN											
M1-3	MECHANICAL - ROOF PLAN											
M3-1	MECHANICAL - SCHEDULES											
M3-2	MECHANICAL - DETAILS											



	INE DESIGNATION SYMBOLS
CHWR —	— CHILLED WATER RETURN
CHWS	— CHILLED WATER SUPPLY
CA	COMPRESSED AIR
CR	CONDENSER WATER RETURN
cs	CONDENSER WATER SUPPLY
D	— DRAIN
——————————————————————————————————————	HEAT PUMP RETURN
HPS	HEAT PUMP SUPPLY
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
G	— NATURAL GAS
RH	REFRIGERANT HIGH PRESSURE VAPOR
R	REFRIGERANT LIQUID AND VAPOR LINE
RS	REFRIGERANT SUCTION / VAPOR
SMR	— SNOWMELT RETURN
SMS	— SNOWMELT SUPPLY
v	VENT PIPING

AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS: POWER CONTROL WIRED WIRED 23 23 EQUIPMENT 26 COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS 23(1) 26 26(2) 23 FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR 26 26 STARTERS MANUAL-OPERATING AND MULTI-SPEED SWITCHES 23 26 26 CONTROLS, RELAYS, TRANSFORMERS THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES THERMOSTATS (LINE VOLTAGE) 23 23 26 TEMPERATURE CONTROL PANELS 23 23 26 23 MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP 23(2) SWITCHES 23(2) PUSH-BUTTON STATIONS AND PILOT LIGHTS 23 23(2) 23(2) HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS 23 23 26

AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.

**ABBREVIATIONS:** 

A.D. ACCESS DOOR

ABV ABOVE

44" MOUNTING HEIGHT ABOVE

AAV AIR ADMITTANCE VALVE

AC AIR CONDITIONING UNIT

AD AREA DRAIN (SEE SYMBOLS)

AIC AMPS INTERRUPTING CAPACITY

A.F.C. ABOVE FINISHED CEILING

A.F.G. ABOVE FINISHED GRADE

A.F.F. ABOVE FINISHED FLOOR

AHU AIR HANDLING UNIT

CU CONDENSING UNIT

DB DRY BULB

DIA DIAMETER

DIAG DIAGRAM

DEPT DEPARTMENT

DF DRINKING FOUNTAIN

CUH CABINET UNIT HEATER

CVB CONSTANT VOLUME BOX

CWR CONDENSER WATER RETURN

CWS CONDENSER WATER SUPPLY

GC GENERAL CONTRACTOR

GPH GALLONS PER HOUR

H 20 WATER

HB HOSE BIBB

HP HEAT PUMP

HP HORSEPOWER

GPM GALLONS PER MINUTE

GRS/LB GRAINS PER POUND

HD HEAD (SEE SCHEDULES)

ALUM ALUMINUM

AC ABOVE COUNTER

FINISHED FLOOR TO CENTER OF DEVICE

2. IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

#### **EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:**

**SUBSTITUTIONS:** 

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL PLUMBING AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

622 Rood Avenue

Grand Junction, CO 81501 970-242-1058

**BLYTHE GROUP + CO.** 

**Bighorn Consulting** Engineers, Inc. Mechanical & Electrical Engineers

STABLISHED 1996

**YEARS** 

386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

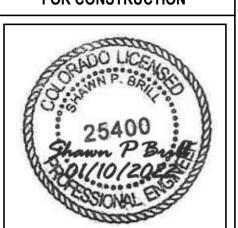
**Grand Junction Fire Department** Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

**MECHANICAL COVER** 

SHEET

FOR CONSTRUCTION



REV. DESC.

DATE: 01/10/2022

PROJECT #: 21-230

**RESPONSIBLE DIVISION:** UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, **EXHAUST FAN SWITCHES** 26 23(2) SUBSCRIPT FOOTNOTES: 1. MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1)NC

ALUM	ALUMINUM
AP	ACCESS PANEL OR DOOR
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO / VIDEO
AVG	AVERAGE
AWG	
BAS	BUILDING AUTOMATION SYSTEM
BB	BASEBOARD
BD	BACK DRAFT DAMPER
BFP	BACK FLOW PREVENTOR
BL	BOILER
BLDG	BUILDING
BLW	
BOB	BOTTOM OF BEAM
BOD	
BOP	
	BASEMENT
BTU	BRITISH THERMAL UNIT
C	CHILLER
CAP	
CB	
CBV	
CCT	
TEMPE	ERATURE
CKT	CIRCUIT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CL	CENTER LINE
CLG	CEILING
CMU	
CO	
COL	
	COMPRESSOR
	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUATION
CONTR	R CONTRACTOR
CRI	COLOR RENDERING INDEX
CT	COOLING TOWER
CT	CURRENT TRANSFORMER
01	CONTRACTOR WER

DIFF DIFFERENTIAL HR HOUR DISCH DISCHARGE HT HEIGHT HTR HEATER HWR HEATING WATER RETURN DN DOWN HWS HEATING WATER SUPPLY DUCT SILENCER HX HEAT EXCHANGER DWG DRAWING DIRECT EXPANSION HFRT7 INSIDE DIAMETER EXHAUST AIR GRILLE/REGISTER ISOLATED GROUND ENTERING AIR TEMPERATURE IN INCHES EC ELECTRICAL CONTRACTOR INV INVERT JBOX JUNCTION BOX ECC ECCENTRIC EXHAUST FAN K KELVIN EFF EFFICIENCY KW KILOWATT **ELEVATION** KVA KILO VOLT - AMPS ELEC ELECTRIC LENGTH LAT LEAVING AIR TEMPERATURE FLEV FLEVATOR EM EMERGENCY FUNCTION LV LAVATORY ENT ENTERING LB POUND EMT ELECTRIC METALLIC TUBE LD LINEAR DIFFUSER EQ EQUAL LF LINEAR FEET LIN LINEAR EQUIP EQUIPMENT EQUIV EQUIVALENT LIQ LIQUID ES END SWITCH LM LUMEN ESP EXTERNAL STATIC PRESSURE LRA LOCKED ROTOR AMPS ET EXPANSION TANK LV LOUVER EWC ELECTRIC WATER COOLER LVG LEAVING LWT LEAVING WATER TEMPERATURE EWT ENTERING WATER TEMPERATURE MBH THOUSANDS OF BTU PER HOUR EX EXHAUST MC MECHANICAL CONTRACTOR EXPAN EXPANSION MCA MINIMUM CIRCUIT EXT EXTERNAL AMPACITY MCB MAIN CIRCUIT BREAKER DEGREES FAHRENHEIT MD MOTORIZED DAMPER FA FRFF ARFA FC FAN COIL UNIT MDP MAIN DISTRIBUTION PANEL FC FOOTCANDLE MED MEDIUM FCV FLOW CONTROL VALVE MFR MANUFACTURER FD FIRE DAMPER MIN MINIMUM FD FLOOR DRAIN MISC MISCELLANEOUS FIN FINISHED MLO MAIN LUG ONLY FLA FULL LOAD AMPS MOCP MAXIMUM OVERCURRENT FLEX FLEXIBLE PROTECTION MTD MOUNTED FOB FLAT ON BOTTOM MUA MAKE-UP AIR UNIT FOT FLAT ON TOP N NEUTRAL FP FIRE PROTECTION NC NORMALLY CLOSED FP FIRE PUMP NEG NEGATIVE FPM FEET PER MINUTE NIC NOT IN CONTRACT FPS FEET PER SECOND NL NIGHT / SECURITY LIGHT - DO FS FLOW SWITCH NOT SWITCH FSD FIRE/SMOKE DAMPER NO NORMALLY OPEN FT FEET NOM NOMINAL FXC FLEXIBLE CONNECTION NTS NOT TO SCALE GND GROUND OA OUTSIDE AIR OBD OPPOSED BLADE DAMPER GA GAUGE OC ON CENTER GAL GALLON GALV GALVANIZED OCC OCCUPIED GEC GROUND ELECTRODE OCP OVER CURRENT PROTECTION CONDUCTOR OD OUTSIDE DIAMETER GFCI / GFI GROUND FAULT CIRCUIT OL OVERLOAD INTERRUPTER ORD OVERFLOW ROOF DRAIN

OZ OUNCE

PH PHASE

PBD PARALLEL BLADE DAMPER

PRV PRESSURE REDUCING VALVE

PSI POUNDS PER SQUARE INCH

PT PRESSURE TRANSMITTER

PD PRESSURE DROP

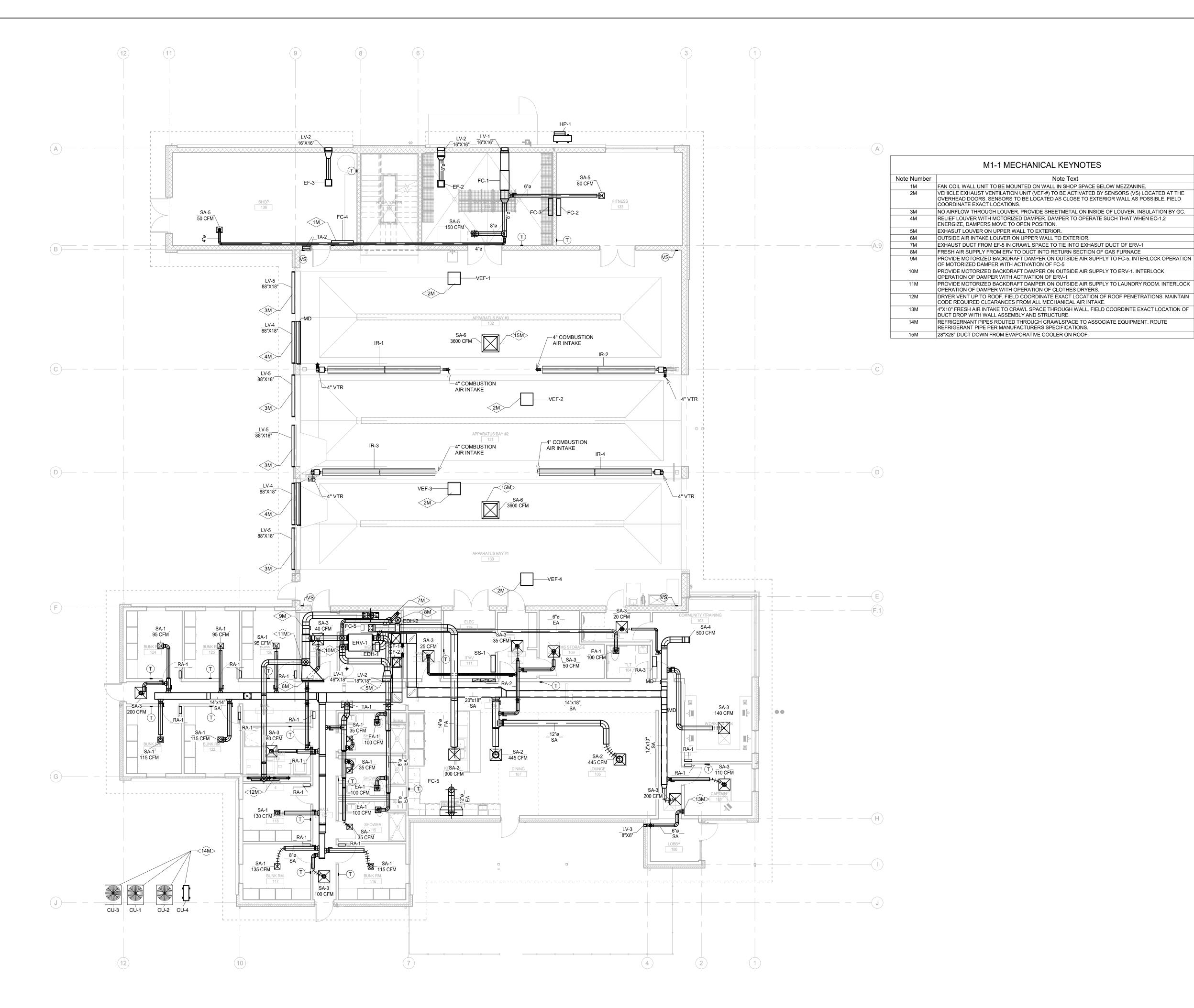
POS POINT OF SALES

POS POSITIVE PRESSURE

PS PRESSURE SWITCH

PTAC PACKAGED TERMINAL AIR CONDITIONER PV PLUG VALVE PVC POLYVINYL CHLORIDE QTY QUANTITY RA RETURN AIR GRILLE / REGISTER RCP REFLECTED CEILING PLAN RD ROOF DRAIN REQD REQUIRED RF RFTURN FAN RH RELATIVE HUMIDITY RHC REHEAT COIL RLA RATED LOAD AMPS RM ROOM RPM REVOLUTIONS PER MINUTE SA SUPPLY AIR GRILLE / REGISTER SC SHORT CIRCUIT SCA SHORT CIRCUIT AVAILABLE SCCR SHORT CIRCUIT CURRENT SCH SCHEDULE SD SMOKE DAMPER SEF SMOKE EXHAUST FAN SF SUPPLY FAN SENSIBLE HEAT SHOWER SP STATIC PRESSURE SPD SURGE PROTECTION DEVICE SPEC SPECIFICATION SS STAINLESS STEEL SS SAFETY SHOWER STD STANDARD STL STEEL SYS SYSTEM TEMP TEMPERATURE TR TRANSFER GRILLE / REGISTER TAMPER RESISTANT TEMPERATURE TRANSMITTER TTB TELECOMMUNICATIONS TERMINAL BACKBOARD TYP TYPICAL TX TRANSFORMER UC UNDERCUT DOOR UH UNIT HEATER UNO UNLESS NOTED OTHERWISE UNOCC UNOCCUPIED UR URINAL V VOLTS VA VOLT AMPERE VA VALVE VAV VARIABLE AIR VOLUME UNIT VFD VARIABLE FREQUENCY DRIVE VRF VARIABLE REFRIGERANT FLOW VOLT VOLTAGE VTR VENT THROUGH ROOF W WIDTH WATTS W/O WITHOUT WB WET BULB WC WATER COLUMN WC WATER CLOSET WG WATER GAUGE WP WEATHERPROOF WPIU WEATHERPROOF IN-USE WSR WITHSTAND RATING

XFMR TRANSFORMER







M1-1 MECHANICAL KEYNOTES

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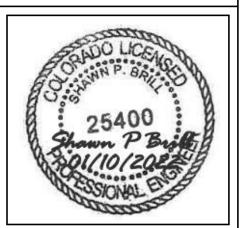
386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

**Grand Junction Fire Department** Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

> **MECHANICAL - FLOOR** PLAN

FOR CONSTRUCTION



DATE: 01/10/2022

PROJECT #: 21-230

M1-1





Bighorn Consulting
Engineers, Inc.
Mechanical & Electrical Engineers

386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

Grand Junction Fire Department Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

> MECHANCIAL -CRAWLSPACE PLAN

FOR CONSTRUCTION

M1-2 MECHANICAL KEYNOTES

8"X20" RETURN DUCT FROM FLOOR ABOVE.

Note Text

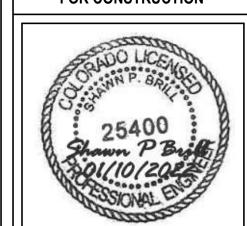
14"X6" RETURN DUCT DOWN FROM RETURN GRILLE ON MAIN FLOOR. COORDINATE EXACT LOCATIONS OF DROPS WITH STRUCTURE AND WALL ASSEMBLY. TYPICAL OF 3.

14"X4" RETURN DUCT DOWN THROUGH FLOOR/WALL ABOVE.
FRESH AIR SUPPLY TO CRAWL SPACE FROM ABOVE. SUPPLY DUCT TO BE OPEN ENDED IN CRAWL SPACE.

CRAWL SPACE ACCESS HATCH FROM LAUNDRY ROOM ABOVE. FOR REFERENCE ONLY. SEE ARCHITECTRAL PLANS FORM MORE DETAILS.

EXHAUST FAN MOUNTED INLINE AND SUPPORTED FROM CRAWLSPACE STRUCTURE.

FRESH AIR SUPPLY FROM ERV TO DUCT INTO RETURN SECTION OF GAS FURNACE

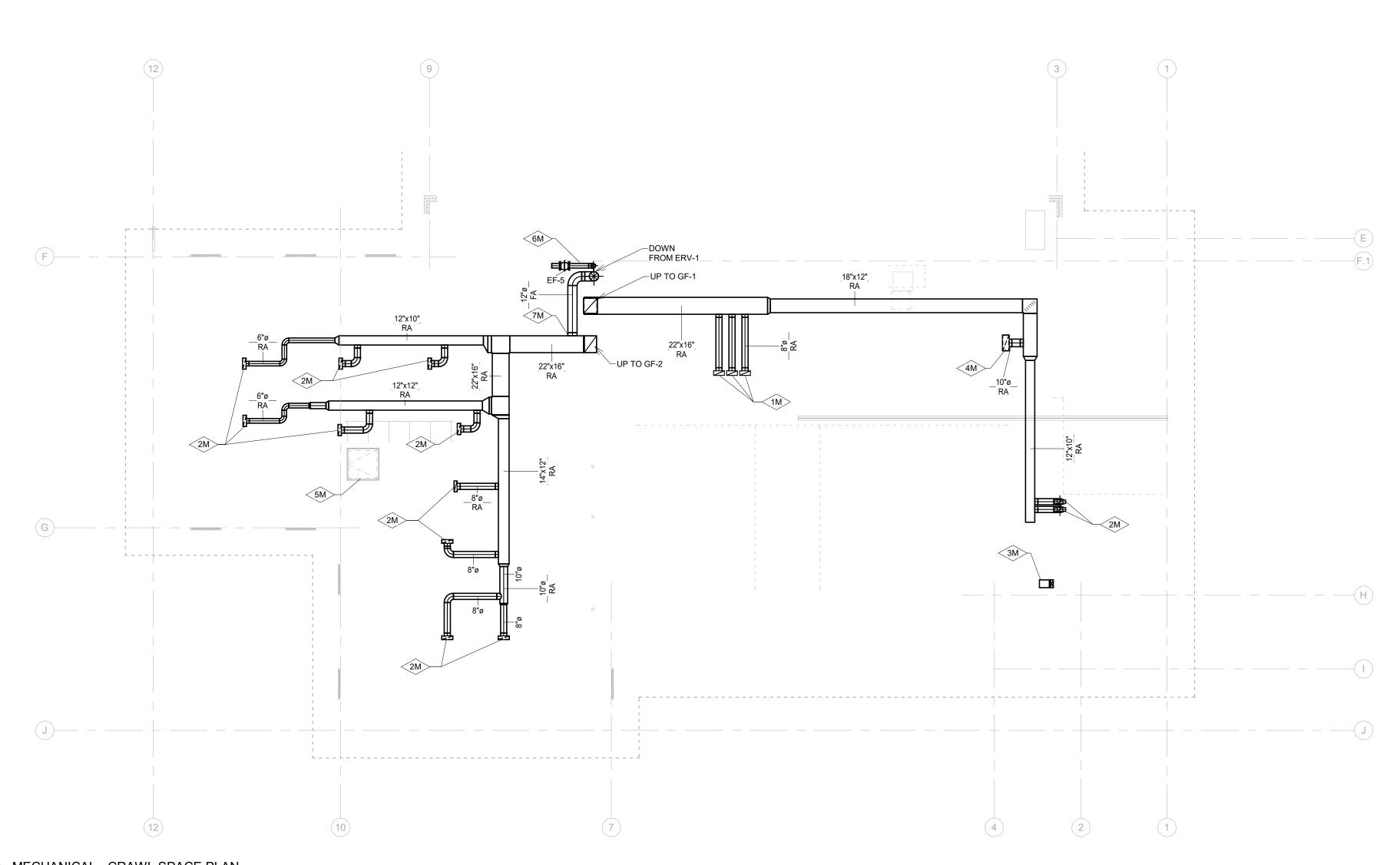


REV DESC

DATE: 01/10/2022

PROJECT #: 21-230

M1-2





622 Rood Avenue
Grand Junction, CO 81501
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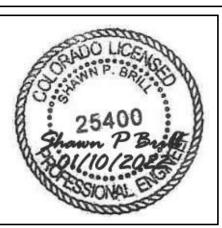
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Grand Junction Fire Department Fire Station #8

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MECHANICAL - ROOF PLAN

FOR CONSTRUCTION



REV. DESC.

DATE: 01/10/2022

PROJECT #: 21-230

M1-3

	ENERGY RECOVERY VENTILATOR SCHEDULE																							
TYPE MARK	SERVICE	LOCATION	AIR TEMPU EAT	JRATURE LAT	AIRFLOW (CFM)	E.S.P.	MOTOR HP	SUF TYPE	PPLY FAN  VOLTS	PHASE	FREQUENCY	E.S.P. (IN. W.G.)	AIRFLOW (CFM)	MOTOR HP	EXHA TYPE	UST FAN VOLTS	PHASE	FREQUENCY	PRE-HEAT (KW)	ELECT MCA (A)	RICAL MOCP (A)	MANUFACTURER	MODEL#	OPTIONS/ ACCESSORIES
ERV-1	VENTALATION	MECHANICAL ROOM			938	.08	0.5	ECM	230 V	1	60 Hz	0.8	938	0.5	ECM	230 V	1	60 Hz		11 A	15 A	SOLER&PALUA	TRCE800-230	NOTE-1

1. PROVIDE WITH VIBRATION ISOLATION CEILING HANGERS, FLEXIBLE DUCT CONNECTIONS, ECM MOTOR SPEED CONTROLER, MERV 8 FILTERS, AND HINGED ACCESS DOORS.

	GAS FURNACE SCHEDULE																	
Mark	Mark  SERVICE  SUPPLY AIRFLOW OUTSIDE SUPPLY E.S.P. NOM. COOLING CAPACITY (MBH)  (CFM) AIRFLOW (CFM) (IN. W.G.) CAPACITY (MBH)  GAS (CFH) INPUT (MBH) OUTPUT (MBH)									SUPPLY FAN MOTOR POWER						MODEL#	NOTES	
GF-1	KITCHEN,LIVING, DINING, OFFICES	1750	-	0.9	36	90.5	80	77	96	1	120 V	1	60 Hz	14 A	15 A	TRANE	4TXCD10DS3	NOTE-1
GF-2	BUNK ROOMS & ADJACENT	1150	-	0.9	22.5	67.9	60	58.2	96	3/4	120 V	1	60 Hz	8 A	15 A	TRANE	4PXCBU36BS3	NOTE-1

NOTES:
1. UPFLOW/DOWNFLOW GAS FURNACE. PROVIDE WITH VIBRATION ISOLATION, FLEXIBLE DUCT CONNECTIONS, EVAPORATOR DEFROST CONTROLS, CONCENTRIC VENT KIT, HIGH ALTITUDE KIT SIZED FOR LOCAL ELEVATION, DX COOLING COIL, THERMOSTATS, AND TOUCHSCREEN PROGRAMABLE CONTROLLER.

	GRILLE-REGISTER-DIFFUSER SCHEDULE													
ONIELE NEGIOTEN BILL OOEN OONEDOLE														
TYPE MARK	SIZE	FINISH	MANUFACTURER	MODEL#	NOTES									
EA-1	12"X12"	COLOR BY OWNER/ARCH	PRICE	500	NOTE-1									
RA-1	PER PLANS	COLOR BY OWNER/ARCH	PRICE	LBP	NOTE-2									
RA-2	PER PLANS	COLOR BY OWNER/ARCH	PRICE	500	NOTE-3									
RA-3	PER PLANS	COLOR BY OWNER/ARCH	PRICE	LBPH	NOTE-2									
SA-1	12"X12"	COLOR BY OWNER/ARCH	PRICE	SPD	NOTE-4									
SA-2	24"X24"	COLOR BY OWNER/ARCH	PRICE	SPD	NOTE-4									
SA-3	24"X24"	COLOR BY OWNER/ARCH	PRICE	SPD	NOTE-4									
SA-4	18"X12"	COLOR BY OWNER/ARCH	PRICE	600	NOTE-5									
SA-5	12"X12"	COLOR BY OWNER/ARCH	PRICE	SCD	NOTE-5									
SA-6	30"X30"	COLOR BY OWNER/ARCH	PRICE	SPD	NOTE-5									
TA-1	24"X12"	COLOR BY OWNER/ARCH	PRICE	500	NOTE-6									
TA-2	8"X8"	COLOR BY OWNER/ARCH	PRICE	500	NOTE-7									

NOTES:

1. CEILING MOUNTED EXHAUST GRILLE. COORDINATE MOUNTING WIHT CEILING TYPES. FIELD COORDINATE EXACT LOCATIONS OF GRILLES IN SPACES.

2. FLOOR MOUNTED RETURN GRILLES. COORDINATE MOUNTING AND EXACT LOCATION WITH FLOOR ASSEMBLY. 3. WALL MOUNTED RETURN GRILLE. COORDIANTE MOUNTING AND EXACT LOCATION WITH WALL ASSEMBLY. 4. CEILING MOUNTED SUPPLY DIFFUSER. COORDINATE MOUNTING WITH CEILING TYPES. PROVIDE WITH MANUAL VOLUME

5. DUCT MOUNTED SUPPLY GRILLE. PROVIDE WITH OBD. 6. WALL MOUNTED TRANSFER GRILLE. PROVIDE WITH FRAME. COORDIANATE MOUNTING AND LOCATION WITH WALL

7. CEILING MOUNTED TRANSFER GRILLE. PROVIDE WITH OBD, CEILING MOUNTING FRAME, AND MANUAL VOLUME DAMPER. COORDINATE LOCATION AND MOUNTING WITH CEILING ASSEMBLY.

### SEQUENCES OF OPERATION.

- EDH-1 SHALL OPERATE ON DUCT MOUNTED THERMOSTAT AND AIRFLOW SWITCH SUCH THAT WHEN AIRLFOW IS DETECTED. HEATER WILL RUN TO MAINTAIN 70 DEG F TEMPERATURE AT DISCHARGE.

GAS FURNACES TO BE CONTROLLED BY VVT ZONE SYSTEM WITH 2-POSITION ZONE DAMPERS AND STATIC PRESSURE BYPASS. TEMPERATURE CONTROLS BY ZONE THERMOSTATS.

INFRARED HEATERS SHALL RUN ON HEAT ONLY THERMOSTATS.

FAN COIL TO RUN CONTINUOULSY AND SHALL MAINTAIN AIR DISCARGE TEMPERATURE OF 70 DEG F.

HEAT PUMP FAN COILS TO OPORATE ON SPACE THERMOSTATS WITH FACTROY CONTROLS.

FAN COIL SHALL BE INTERLOCKED WITH OPORATION OF EF-1. COOLING OPERATES TO MAINTAIN SUPPLY AIR TEMPERATURE OF 70 DEF F.
- EDH-2 SHALL OPERATE ON DUCT MOUNTED THERMOSTAT AND AIRFLOW SWITCH SUCH THAT WHEN AIRLFOW IS DETECTED, HEATER WILL RUN TO MAINTAIN 70 DEG F TEMPERATURE AT DISCHARGE.

KITCHEN HOOD EXHAUST FAN TO BE CONTROLLED BY WALL TIMER SWITCH

EXHAUST FANS CONTROLLED BY WALL SWITCHES

EXHAUST FANS TO RUN CONTINUOUSLY.

	GAS FIRED INFARED HEATER SCHEDULE															
HEATING GAS PIPE VENT OUTLET AIR INLET ELECTRICAL															OPTIONS/	
Mark	SERVICE	GAS FLOW RATE (CFH)	INPUT (MBH)	OUTPUT (MBH)	CONNECTION SIZE	SIZE	AIR INLET SIZE	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	MOTOR HP	MANUFACTURER	MODEL#	ACCESSORIES
IR-1	APPARATUS BAY	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1
IR-3	APPARATUS BAY	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1
IR-2	APPARATUS BAY	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1
IR-4	APPARATUS BAY	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1

1. PROVIDE WITH THERMOSTAT, HEAT SHIELD, COMBUSTION AIR AND GAS FLUES ROUTED TO ROOF, CEILING HANGERS, AND SISMEC SUPPORTS AS REQURIED BY THE I.B.C.

							FA	N COIL	SCHEDU	JLE						
		SUPPLY	OUTSIDE	SUPPLY	NOM.		SUPPLY FAN			ELECTRICAL						OPTIONS/
TYPE MARK	SERVICE	AIRFLOW AIRFLOW (CFM)	AIRFLOW (CFM)	V E.S.P. (IN. W.G.)	COOLING (TONS)	FILTERS	MOTOR POWER	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	UNIT WEIGHT	MANUFACTURER	MODEL#	ACCESSORIES
FC-1	OUTSIDE AIR	650		-	-	2" MERV 8	1/6	208 V	3	60 Hz	15 A	20 A	118.00 lbf	MARKEL	F3G7205	NOTE-1
FC-2	FITNESS	413		-	12000	-	-	230 V	2	60 Hz	0 A	15 A	29.00 lbf	TRANE/MITSUBISHI ELECTRIC	TPKFYP012HM142A	NOTE-2
FC-3	BUNKER GEAR	413		-	15000	-	-	230 V	1	60 Hz	0 A	15 A	29.00 lbf	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	NOTE-2
FC-4	SHOP	413		-	15000	-		230 V	1	60 Hz	0 A	15 A	29.00 lbf	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	NOTE-2
FC-5	KITCHEN MAKE-UP-AIR	900		.5	35000	2" MERV 8	1	208 V	1	60 Hz	10 A	15 A	230.90 lbf	TRANE	BCVD036B1	NOTE-3

1. PROVIDE WITH SINGLE STAGE THERMOSTAT, ACCESS PANELS ON BOTH SIDE OF UNIT, HANGER KIT WITH VIBRATION ISOLATION, FLEXIBLE DUCT CONNECTIONS.

2. WALL MOUNTED UNIT, PROVIDE WITH REMOTE THERMOSTAT, CONDENSATE PIMP, VARIABLE SPEED FAN, REMOVEABLE INTAKE GRILLE FILTER.

3. FLOOR MOUTNED UNIT. PROVIDE WITH ECM MOTOR, DRAIN PAN, REMOTE THERMOSTA, FLEXIBLE DUCT CONNECTIONS REFRIGERENT PIPING ROUTED PER MANUFACTURERS SPECIFICATIONS.

	EXHAUST FAN SCHEDULE											
TYPE MARK SERVICE LOCATION EXHAUST AIRFLOW (CFM) EXHAUST EXHAUST FAN MOTOR EXHAUST FAN SPEED (RPM)							MOTOR ED VOLTS	PHASE	ELECTRICAL FREQUENCY	MANUFACTURER	MODEL#	NOTES
EF-1	KITCHEN HOOD	ROOF	900	.5	1/3 HP	1750	115 V	1	60 Hz	S&P USA	STXDE10	NOTE-1
EF-2	BUNKER GEAR	CEILING	180	.25	1/6 HP	740	115 V	1	60 Hz	S&P USA	FF200S	NOTE-2
EF-3	SHOP	CEILING	300	.25	1/5 HP	648	115 V	1	60 Hz	S&P USA	FF400S	NOTE-2
EF-4	STAIR TOWER	CEILING	500	.25	2/3 HP	955	115 V	1	60 Hz	S&P USA	FF1500S	NOTE-2
EF-5	CRAWLSPACE VENT	INLINE	90	75 W	-	-	115 V	1	60 Hz	FANTECH	FG 4XL	NOTE-3
VEF-1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	-	-	3/4 HP	1656	120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	NOTE-4

1. ROOF MOUNTED FAN FOR KITCHEN HOOD. PROVIDE WITH ROOF CURB, SPEED CONTROL, BIRD SCREEN, AND MOTORIZED BACKDRAFT DAMPER.

2. PROVIDE WITH SPEED CONTROL, VIBRATION ISOLATION, CEILING GRILLE, BACKDRAFT DAMPER, AND 1/2" ACOUSTIC INSULATION ON DUCTWORK. 3. INLINE EXHASUT FAN FOR CRAWLSPACE VENTILATION. PROVIDE WITH SPEED CONTROL, THERMAL OVERLOAD PROTECTION, MOUNTING BRACKET, AND ROUND DUCT CONNECTIONS. 4. PROVIDE WITH CEILING SUSPENSION, SEISMIC BRACING, VEHICLE EXHASUT VENTILATORS TO BE ACTIVATED BY SENSORS MOUNTED AT BAY DOORS.

	HEAT PUMP CONDENSING UNIT SCHEDULE												
TYPE MARK	SERVICE	NOM. COOLING CAPACITY	NOM. HEATING CAPACITY	REGRIGERANT PIPE SIZE (LIQUID)	REGRIGERANT PIPE SIZE (VAPOR)	VOLTS	PHASE	ELECTRICAL FREQUENCY	MCA (A)	MOCP (A)	MANUFACTUR ER	MODEL#	OPTIONS/ ACCESSORIES
HP-1	FC-2,3,4	3 TONS	42 MBH	3/8"Ø	5/8"	208 V	1	60 Hz	29 A	44 A	TRANE/MITSUBIS HI ELECTRIC	TUMYP0361AK42	NOTE-1

1. LOW AMBIENT COOLING, VARIABLE SPEED INVERTER DRIVEN COMPRESSOR, 18" STAND, CONCRETE HOUSEKEEPING PAD, AND HEATED PAD FOR FREEZE CONTROL. ROUTE REGFRIGERENT PER MANUFACTURERS SPECIFICATIONS AND INSULATE PIPE AS

"-													
	DUCTLESS SPLIT AIR CONDITIONING SYSTEM												
	Type Mark	SERVICE	COOLING CAPACITY (BTU/H)	SUPPLY AIRFLOW (CFM)	EER. EEF	VOLTS	ELEC PHASE	TRICAL FREQUENCY	MCA (A)	MANUFACTURER	MODEL#	OPTIONS/ ACCESSORIES	
	CU-4	IT ROOM	12000	-	12	208 V	1	60 Hz	11 A	MITSUBISHI ELECTRIC	PUY-A12NKA7	NOTE-1	
	SS-1	IT ROOM	12000	425	-	208 V	1	60 Hz	1 A	MITSUBISHI FLECTRIC	PKA-A12HA77	NOTF-2	

1. LOW AMBIANT COOLING, VARRIABLE SPEED, INVERTER DRIVEN COMPRESSOR. PROVIDE WITH STAND AND CONCRETE HOUSEKEEPING PAD. ROUTE REFRIGERANT PER MANUFACTURERS SPECIFICATIONS.
2. WALL MOUTNED INDOOR UNIT. PROVIDE WITH REMOTE THERMOSTAT MOUNTED ON WALL, CONDENSATE PUMP, VARIABLE SPEED FAN, REMOVEABLE INTAKE GRILLE FILTER.

	AIR COOLED CONDENSING UNIT											
		NOM.	REFRIGER	ANT PIPING			ELECTRICAL					
TYPE MARK	SERVICE	COOLING CAPACITY (MBH)	LIQUID	VAPOR	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	MANUFACTURER	MODEL#	OPTIONS/ ACCESSORIES
CU-1	GF-1	4 TONS	3/8"	7/8"	230 V	1	60 Hz	28 A	45 A	TRANE	4TTR7048B	NOTE-1
CU-2	GF-2	3 TONS	3/8"	3/4"	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	NOTE-1
CU-3	FC-5	3 TONS	3/8"	3/4"	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	NOTE-2

NOTES:
1. PROVIDE WITH DEFROST CONTROLS AND SEQUENCES, CONCRETE HOUSEKEEPING PAD, AND LOW AMBIANT COOLING. REOUTE REFRIGERENT PIPE PER MANUFACTURERS SPECIFICATIONS. TIE IN

2. PROVIDE WITH DEFROST CONTROLS AND SEQUENCES, CONCRETE HOUSEKEEPING PAD, AND LOW AMBIANT COOLING. REOUTE REFRIGERENT PIPE PER MANUFACTURERS SPECIFICATIONS.

ELECTRIC DUCT HEATER SCHEDULE											
TYPE MARK	SERVICE	BTU/HR	POWER	AMPS	ELE(	TRICAL PHASE	MANUFACTURER	MODEL#	OPTIONS/ ACCESSORIES		
						FIASE	FREQUENCY				
EDH-1	ERV-1	10236	3000 W	8 A	208 V	3	60 Hz	GREENHECK	IDHE	NOTE-1	
EDH-2	FC-5	54594	16000 W	44 A	208 V	3	60 Hz	GREENHECK	IDHE	NOTE-1	

	EVAPORATIVE COOLER SCHEDULE											
	SUPPLY AIRFLOW	SUPPLY E.S.P.		ELECTRICAL		MOTOR HP	MANUFACTURER	MODEL#	OPTIONS/			
Mark	(CFM)	0011212.0.1.	VOLTS	PHASE	FREQUENCY	WOTORTH	WINTER	WODEL #	ACCESSORIES			
EC-1	3650	0.8	120 V	1	60 Hz	1	AEROCOOL ID500	ID500	NOTE-1			
EC-2	3650	0.8	120 V	1	60 Hz	1	AEROCOOL ID500	ID500	NOTE-1			

1. PROVIDE THERMOSTAT, ROOF CURB, AND FLEXIBLE DUCT CONNECTIONS. INTERLOCK OPERATION OF MOTORIZED DAMPERS ON RELIEF LOUVERS.

LOUVER SCHEDULES											
TYPE MARK	SERVICE	DIMENSIONS	FINISH	MANUFACTURER	MODEL#	NOTES					
LV-1	INTAKE	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-1					
LV-2	EXHAUST	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-2					
LV-3	INTAKE	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-1					
LV-4	EXHAUST	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-2					
LV-5	ARCHITECTRUAL	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-3					

1. PROVIDE WITH WALL FRAME COORDINATED WITH WALL ASSEMBLIES, MOTORIZED DAMPER, BIRD SCREEN, FINAL COLOR SELECTION BY OWNER/ARCHITECT 2. PROVIDE WITH WALL FRAME COORDINATED WITH WALL ASSEMBLIES, MOTORIZED BACKDRAFT DAMPER, BIRD SCREEN, FINAL COLOR SELECTION BY 3. LOUVER PROVIED AS DECORATIVE FIXTURE. PROVIDE WIHT SHEET METAL COVER ON INSIDE. INSULATION BY GC.

**BLYTHE GROUP + CO.** 



Bighorn Consulting Engineers, Inc. Mechanical & Electrical Engineers

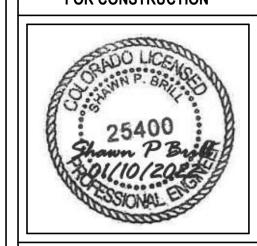
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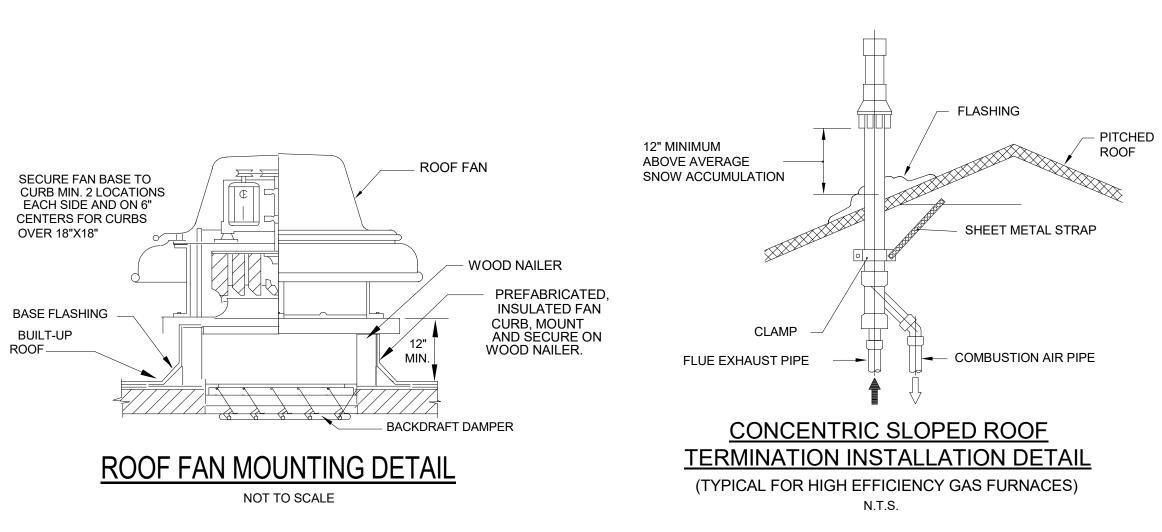
MECHANICAL - SCHEDULES

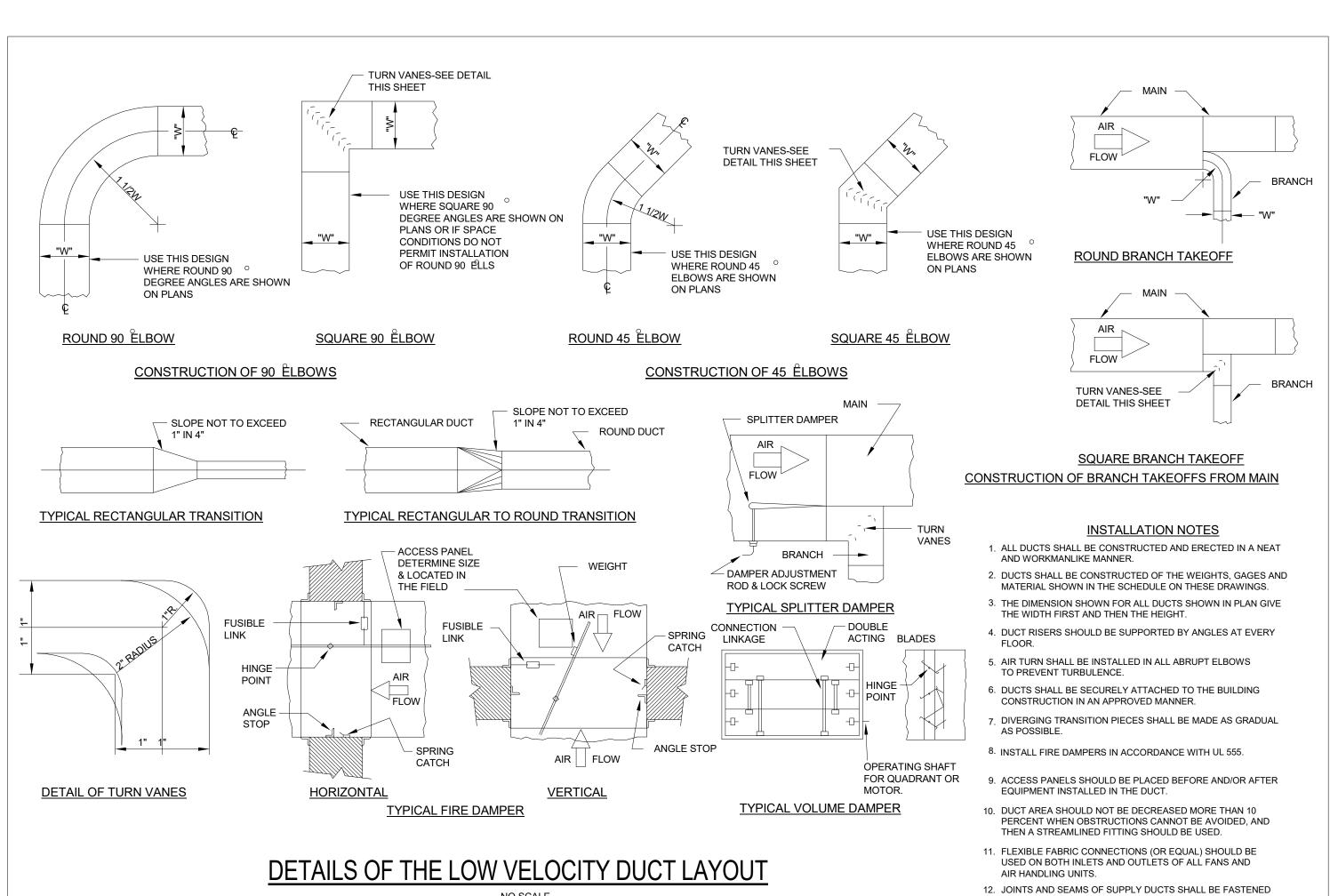
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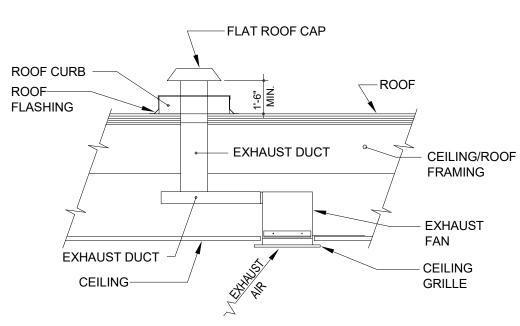
PROJECT #: 21-230



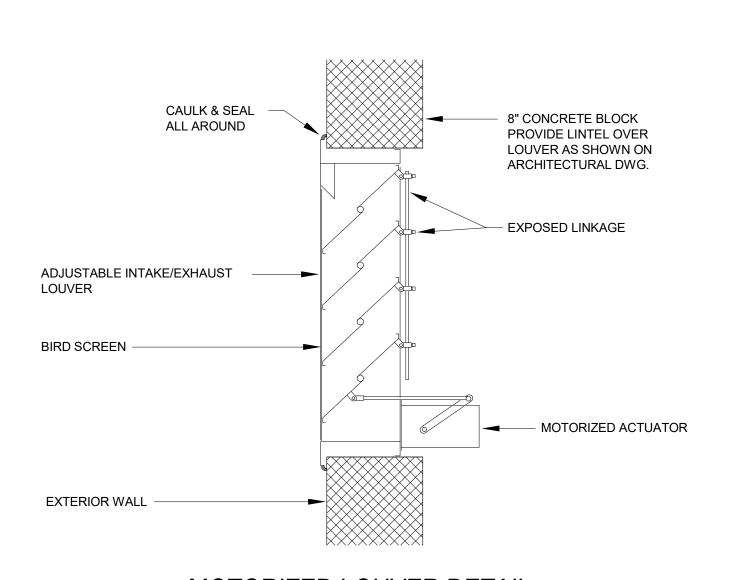


SECURELY AND MADE AIR TIGHT.

NO SCALE



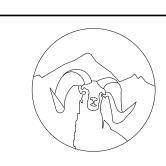
# **CEILING EXHAUST FAN DETAIL**



# MOTORIZED LOUVER DETAIL

NOT TO SCALE

BLYTHE GROUP + CO.



**Bighorn Consulting** Engineers, Inc. Mechanical & Electrical Engineers

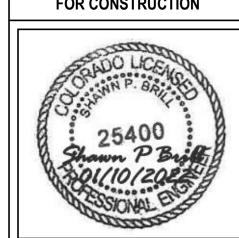
386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

**Grand Junction Fire Department** Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

**MECHANICAL - DETAILS** 

FOR CONSTRUCTION



REV. DESC.

DATE: 01/10/2022

PROJECT #: 21-230

M3-2

PLUMBING	G PIPE DESIGNATIONS
LINE TYPE	<u>DESCRIPTION</u>
140	_ HIGH TEMPERATURE (140°) WATER PIPE
	COLD WATER PIPE (CW)
CA	COMPRESSED AIR
DC	<ul> <li>DECONTAMINATION PIPING</li> </ul>
DER-	DEIONIZED WATER RETURN
DES	DEIONIZED WATER SUPPLY
DIS	DISTILLED WATER SUPPLY
DIR	DISTILLED WATER RETURN
CD	- EQUIPMENT CONDENSATE DRAIN
FP	- FIRE MAIN
GW	GREASE WASTE PIPE
——— HE ———	- HELIUM
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
	HOT WATER RECIRCULATION (HWR)
	HOT WATER PIPE (HW)
——— H2 ———	- HYDROGEN
LPC	<ul> <li>LOW PRESSURE CONDENSATE</li> </ul>
LPS	- LOW PRESSURE STEAM
MA	- MEDICAL AIR
G	- NATURAL GAS PIPE
N2	- NITROGEN
N2O	- NITROUS OXIDE
ORD-	OVERFLOW STORM WATER PIPE
O2	- OXYGEN
PG	PROPANE GAS
RD	ROOF DRAIN PIPE
	SOIL OR WASTE PIPE
S/O	- SOIL / OIL WASTE PIPE
TWR-	TOWER WATER RETURN
TWS	TOWER WATER SUPPLY
VAC	- VACUUM
	VENT PIPE (V)

	PLUMBING ELE	MENTS / VALVING	
LINE TYPE	DESCRIPTION	LINE TYPE	DESCRIPTION
PRV			PIPE RISING UP
PSI/	PRESSURE REDUCING		PIPE DROPPING DOWN
	VALVE (PRV)	——————————————————————————————————————	UNION - SCREWED OR FLANGED
	— GATE VALVE	PT/PS	DDECCUDE TRANSMITTER OR
	— GLOBE VALVE		PRESSURE TRANSMITTER OR PRESSURE SWITCH
	— PLUG VALVE	TH/TI	THERMOMETER/TEMPERATURE
1 / 1	DUTTEDELYNALVE	○ PI/GA	INDICATOR
	— BUTTERFLY VALVE		GAUGE WITH GAUGE COCK/ PRESSURE INDICATOR
	— BALL VALVE		
	— SWING CHECK VALVE		(REDUCED ZONE)  BACKFLOW PREVENTOR
	— LIFT CHECK VALVE	SA	(DOUBLE CHECK VALVE ASSEMBLY
Τ.			WATER HAMMER ARRESTER
	GATE VALVE, ANGLE		CIRCUIT SETTING
	GLOBE VALVE, ANGLE		HOOF DIDD
TD\ (		НВ	HOSE BIBB
TPV	TEMPERATURE AND PRESSURE	RD (0)	ROOF DRAIN
	RELIEF VALVE		
	RELIEF/SAFETY VALVE	FD (III)	- FLOOR DRAIN
	— GAS COCK	AD	AREA DRAIN
		СО	- FLOOR CLEAN OUT
	— GAS PRESSURE REGULATOR	FS	
	— STRAINER		<ul><li>FLOOR SINK</li></ul>
y   \ .	— STRAINER WITH	COG	CLEAN OUT TO GRADE
4	BLOW OFF VALVE	CO	
(WH)	WATER HEATER	<b>}</b>	WALL CLEAN OUT
			- FLEXIBLE-CONNECTION
—(M)—	WATER METER		CHECK VALVE
$\bigcirc$	PRESSURE GAGE		
	TEMPERATURE GAGE		VACUUM BREAKER

PLUMBING SHEET LIST									
Sheet Number	Sheet Name								
P0-1	PLUMBING COVER SHEET								
P1-1	PLUMBING - FLOOR PLAN								
P1-2	PLUMBING - ROOF PLAN								
P3-1	PLUMBING SCHEDULES								
P3-2	PLUMBING - DETAILS								

### **RESPONSIBLE DIVISION:**

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
EQUIPMENT	23	23	26	
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	<u>-</u>
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)		23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)		23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

SUBSCRIPT FOOTNOTES:

1. MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1)NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.

IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE
FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE
VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

### EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

**SUBSTITUTIONS**:

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

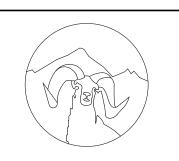
### ABBREVIATIONS:

BBI	<u>REVIATIONS:</u>		
." NISH	MOUNTING HEIGHT ABOVE ED FLOOR TO CENTER OF DEVICE		DIFFERENTIAL DISCHARGE
	AMPS	DIV	DIVISION
D.	ACCESS DOOR		DOWN
۱V	AR ADMITTANCE VALVE	DS	
		DWG	DRAWING DIRECT EXPAI
	AIR CONDITIONING UNIT ABOVE COUNTER	DX (E)	DIRECT EXPAI EXISTING
)	AREA DRAIN (SEE SYMBOLS)	(⊏ <i>)</i> ⊏∆	EXHALIST AID
F.C.	ABOVE FINISHED CEILING	EAT	EXHAUST AIR ENTERING AIR
	ABOVE FINISHED GRADE	EC.	ELECTRICAL (
C	AMPS INTERRUPTING CAPACITY	ECC	ECCENTRIC
		EF	EXHAUST FAN
ΗU	AIR HANDLING UNIT	EFF	EFFICIENCY ELEVATION
.UM	ALUMINUM		
)			ELECTRIC
S			ELEVATOR
/	AUDIO / VIDEO	EM	EMERGENCY
/G	AVERAGE	ENT	ENTERING ELECTRIC ME
VG	AMERICAN WIRE GAGE BUILDING AUTOMATION SYSTEM		EQUAL EQUAL
NS B	DACEDOADD	EQUID	EQUAL
)	BACK DRAFT DAMPER	FOULV	EQUIVALENT
, :Р	BACK DRAFT DAMPER BACK FLOW PREVENTOR		END SWITCH
•	BOILER	ESP	EXTERNAL ST
DG	BUILDING		
W	BELOW	<b>EWC</b>	EXPANSION TA
DВ	BOTTOM OF BEAM	EWT	ENTERING WA
DD	BOTTOM OF DUCT	TEMPE	RATURE
)P	BOTTOM OF PIPE		EXHAUST
TMS			EXPANSION EXPANSION
U	BRITISH THERMAL UNIT		EXTERNAL
\ D	CARACITY		DEGREES FAI
AP 3	CAPACITY	FA	FREE AREA FAN COIL UNI
5 3V	CIRCUIT BREAKER CIRCUIT BALANCING VALVE	FC	FOOTCAND F
	CORRELATED COLOR	FCV	FOOTCANDLE FLOW CONTR
	RATURE	FD	FIRE DAMPER
	CIRCUIT	FD FD	FLOOR DRAIN
Н	CUBIC FEET PER HOUR	FIN	FINISHED
M	CUBIC FEET PER MINUTE		FULL LOAD AN
		FLEX	FLEXIBLE
IWS	CHILLED WATER SUPPLY	FLR	FLOOR FLAT ON BOT
	CAST IRON		
.G	CENTER LINE CEILING	FOT FP	FLAT ON TOP
JU	CONCRETE MASONRY UNIT	FP	FIRE PUMP
)	CLEAN OUT	FPM	FEET PER MIN
DL	COLUMN	FPS	FEET PER SEC
OMP	COMPRESSOR	FS	FLOW SWITCH
ONC	CONCRETE	FSD	FIRE/SMOKE D
	CONDENSATE	FT	FEET
	CONNECTION	FXC	FLEXIBLE CON
	CONTINUATION	GND	GROUND
ontr Ri	CONTRACTOR COLOR RENDERING INDEX	GA GAL	GAUGE GALLON
χι Γ	COOLING TOWER	GALV	GALVANIZED
Г	CURRENT TRANSFORMER	GEC	
J	CONDENSING UNIT		JCTOR
J	COPPER		GFI GROUND
JH	CABINET UNIT HEATER		RUPTER
/B	CONSTANT VOLUME BOX	GC	GENERAL CON
٧R	CONDENSER WATER RETURN	GPH	GALLONS PER
VS.	CONDENSER WATER SUPPLY	GPM	GALLONS PER
3 - D T	DRY BULB	GRS/LE	
EPT :	DEPARTMENT	H 2O	WATER
A	DRINKING FOUNTAIN DIAMETER	HB HD	HOSE BIBB HEAD (SEE SC
A AG	DIAGRAM	HP	HEAT PUMP
		HP	HORSEPOWER
			·

N 23, I	CONNECT UNDER DIVISION 26.		
	DIFFERENTIAL	HR	HOUR
	DISCHARGE	HT	HEIGHT
	DIVISION		HEATER
N 3		HWR HWS	
NG		HX	HEAT EXCHANGER
Κ		HZ	HERTZ
)	EXISTING	ID	INSIDE DIAMETER
Α	EXHAUST AIR GRILLE/REGISTER	IG	ISOLATED GROUND
λ I		IN INV	INCHES INVERT
CC	ELECTRICAL CONTRACTOR ECCENTRIC	JBOX	
=	EXHAUST FAN	K	KELVIN
F	EFFICIENCY	KW	KILOWATT
	ELEVATION	KVA	KILO VOLT - AMPS
	ELECTRIC ELEVATOR	L	LEAVING AIR TEMPERATURE
		LV	LAVATORY
NΤ	ENTERING	LB	POUND
		LD	LINEAR DIFFUSER
	EQUAL	LF.	LINEAR FEET
	EQUIPMENT EQUIVALENT	LIN LIQ	LINEAR
		LIQ	LIQUID LUMEN
		LRA	LOCKED ROTOR AMPS
	EXPANSION TANK	LV	LOUVER
			LEAVING
	ENTERING WATER RATURE	LW I MBH	LEAVING WATER TEMPERATU THOUSANDS OF BTU PER HOU
	EXHAUST	MC	MECHANICAL CONTRACTOR
KPAN	EXPANSION	MCA	MINIMUM CIRCUIT
<b>KT</b>		AMPA	
	DEGREES FAHRENHEIT FREE AREA	MCB MD	MAIN CIRCUIT BREAKER MOTORIZED DAMPER
\ }	FAN COIL UNIT	MDP	MAIN DISTRIBUTION PANEL
	FOOTCANDLE	MED	MEDIUM
	FLOW CONTROL VALVE	MFR	MANUFACTURER
)	FIRE DAMPER	MIN	MINIMUM
	FLOOR DRAIN FINISHED	MISC MLO	
	FULL LOAD AMPS		MAXIMUM OVERCURRENT
	FLEXIBLE		ECTION
R	FLOOR	MTD	MOUNTED
	FLAT ON BOTTOM FLAT ON TOP	MUA N	MAKE-UP AIR UNIT NEUTRAL
יוכ	FIRE PROTECTION	NC	NORMALLY CLOSED
)	FIRE PUMP	NEG	NEGATIVE
PM	FEET PER MINUTE	NIC	NOT IN CONTRACT
PS .	FEET PER SECOND	NL NOT 0	NIGHT / SECURITY LIGHT - DO
S SD	FLOW SWITCH FIRE/SMOKE DAMPER	NOT S\	NORMALLY OPEN
	FEET	NOM	NOMINAL
(C	FLEXIBLE CONNECTION	NTS	NOT TO SCALE
ND	GROUND	OA	OUTSIDE AIR
<b>4</b>	GALLON	OBD	OPPOSED BLADE DAMPER
	GALLON GALVANIZED	OCC	ON CENTER OCCUPIED
		OCP	OVER CURRENT PROTECTION
JUNC	JCTOR	OD	OUTSIDE DIAMETER
	GFI GROUND FAULT CIRCUIT	OL	OVERLOAD
	RUPTER GENERAL CONTRACTOR	ORD OZ	OVERFLOW ROOF DRAIN OUNCE
	GALLONS PER HOUR	PBD	PARALLEL BLADE DAMPER
-M	GALLONS PER MINUTE	PD	PRESSURE DROP
RS/LE		PH	PHASE
20	WATER	POS	POSITIVE PRESSURE
3 )	HOSE BIBB HEAD (SEE SCHEDULES)	POS PRV	POINT OF SALES PRESSURE REDUCING VALVE
5	HEAT PUMP	PS PS	PRESSURE SWITCH
>	HORSEPOWER	PSI	POUNDS PER SQUARE INCH
		PT	PRESSURE TRANSMITTER

<b>.</b>			
ЦΒ	HOLIB	DTAC	PACKAGED TERMINAL AIR
HR HT	HOUR HEIGHT		TIONER
HTR	HEATER	PV	PLUG VALVE
HWR	HEATING WATER RETURN	PVC	POLYVINYL CHLORIDE
HWS	HEATING WATER SUPPLY	QTY	QUANTITY
HX	HEAT EXCHANGER	RA	RETURN AIR GRILLE / REGISTER
HZ	HERTZ	RCP	REFLECTED CEILING PLAN
ID	INSIDE DIAMETER	RD	ROOF DRAIN
IG IN	ISOLATED GROUND INCHES	REL	RELIEF REQUIRED
INV	INVERT	RF	RETURN FAN
JBOX	JUNCTION BOX	RH	RELATIVE HUMIDITY
K	KELVIN	RHC	REHEAT COIL
KW	KILOWATT	RLA	RATED LOAD AMPS
KVA	KILO VOLT - AMPS	RM	ROOM
L	LENGTH	RPM	REVOLUTIONS PER MINUTE
LAT	LEAVING AIR TEMPERATURE LAVATORY	SA SC	SUPPLY AIR GRILLE / REGISTER SHORT CIRCUIT
LV LB	POUND	SCA	SHORT CIRCUIT AVAILABLE
LD	LINEAR DIFFUSER		SHORT CIRCUIT CURRENT
LF	LINEAR FEET	RATIN	
LIN	LINEAR	SCH	SCHEDULE
LIQ	LIQUID	SD	SMOKE DAMPER
LM	LUMEN	SEF	SMOKE EXHAUST FAN
LRA	LOCKED ROTOR AMPS	SF	SUPPLY FAN
LV LVG	LOUVER LEAVING	SH SH	SENSIBLE HEAT SHOWER
LWT	LEAVING WATER TEMPERATURE	SP	STATIC PRESSURE
MBH	THOUSANDS OF BTU PER HOUR	SPD	SURGE PROTECTION DEVICE
MC	MECHANICAL CONTRACTOR		SPECIFICATION
MCA	MINIMUM CIRCUIT	SQ	SQUARE
AMPA	CITY	SS	STAINLESS STEEL
MCB	MAIN CIRCUIT BREAKER	SS	SAFETY SHOWER
MD	MOTORIZED DAMPER	STD	STANDARD
MDP	MAIN DISTRIBUTION PANEL	STL	STEEL
MED MFR	MEDIUM MANUFACTURER	SYS	SYSTEM TEMPERATURE
MIN	MINIMUM	TR	TRANSFER GRILLE / REGISTER
MISC	MISCELLANEOUS	TR	TAMPER RESISTANT
MLO	MAIN LUG ONLY	TT	TEMPERATURE TRANSMITTER
	MAXIMUM OVERCURRENT	TTB	TELECOMMUNICATIONS
PROTE			NAL BACKBOARD
MTD	MOUNTED	TYP	TYPICAL
MUA N	MAKE-UP AIR UNIT NEUTRAL	TX UC	TRANSFORMER UNDERCUT DOOR
NC	NORMALLY CLOSED	UH	UNIT HEATER
NEG	NEGATIVE	UNO	
NIC	NOT IN CONTRACT	UNOC	
NL	NIGHT / SECURITY LIGHT - DO	UR	URINAL
NOT SV	VITCH	V	VOLTS
NO	NORMALLY OPEN	VA	VOLT AMPERE
NOM	NOMINAL	VA	VALVE
NTS	NOT TO SCALE	VAV	VARIABLE AIR VOLUME UNIT
OA OBD	OUTSIDE AIR OPPOSED BLADE DAMPER	VFD VRF	VARIABLE FREQUENCY DRIVE VARIABLE REFRIGERANT FLOW
OC	ON CENTER		VOLTAGE
occ	OCCUPIED	VTR	VENT THROUGH ROOF
OCP	OVER CURRENT PROTECTION	W	WIDTH
OD	OUTSIDE DIAMETER	W	WATTS
OL	OVERLOAD	W/	WITH
ORD	OVERFLOW ROOF DRAIN	W/O	WITHOUT
OZ	OUNCE	WB	WET BULB
PBD PD	PARALLEL BLADE DAMPER PRESSURE DROP	WC WC	WATER COLUMN WATER CLOSET
PH	PHASE	WG	WATER CLOSET WATER GAUGE
POS	POSITIVE PRESSURE	WP	WEATHERPROOF
POS	POINT OF SALES		WEATHERPROOF IN-USE
PRV	PRESSURE REDUCING VALVE	WSR	WITHSTAND RATING
PS	PRESSURE SWITCH	XFMR	TRANSFORMER
DSI	DOLINDS DER SOLIARE INCH		





Bighorn Consulting
Engineers, Inc.

Mechanical & Electrical Engineers

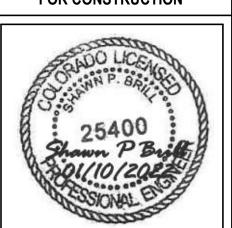
386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

Grand Junction Fire Department
Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

PLUMBING COVER SHEET

FOR CONSTRUCTION

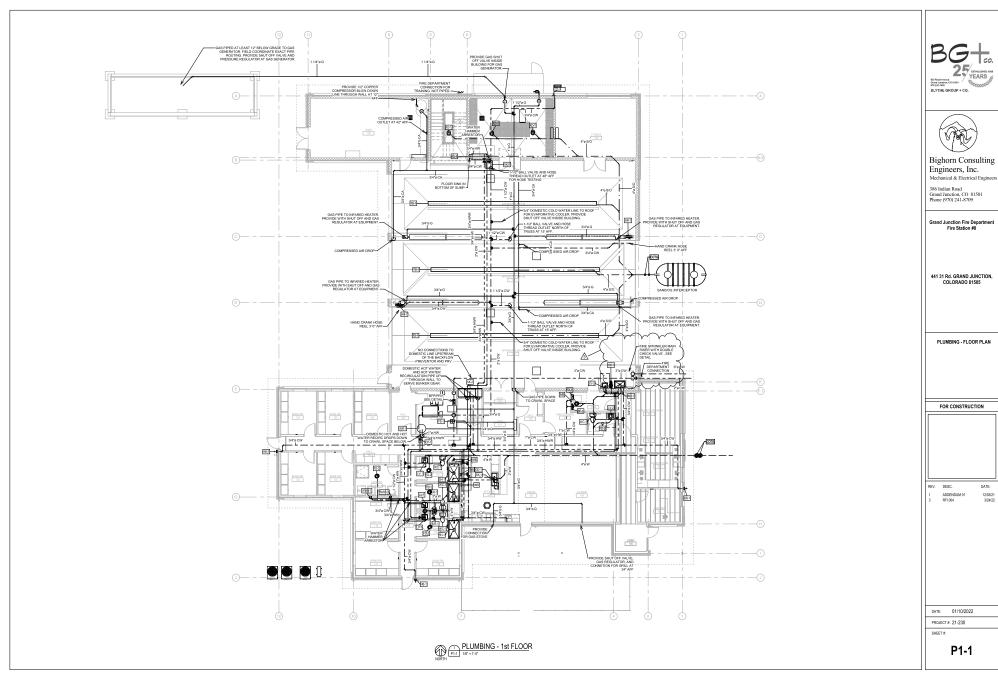


V. DESC.

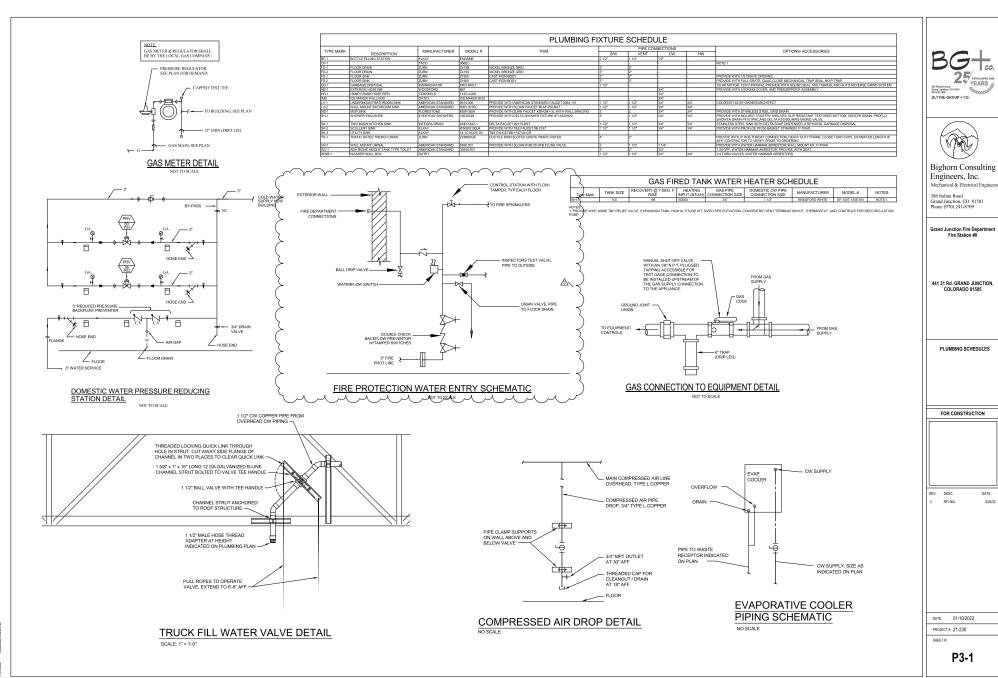
DATE: 01/10/2022

PROJECT #: 21-230

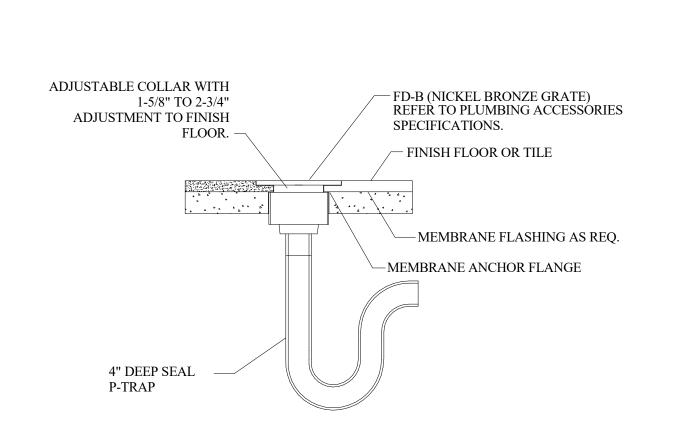
P0-1



Date: 3/24/2022 9-54/24 AM



Project Team.



BARREL FABRICATED OF HARDDRAWN

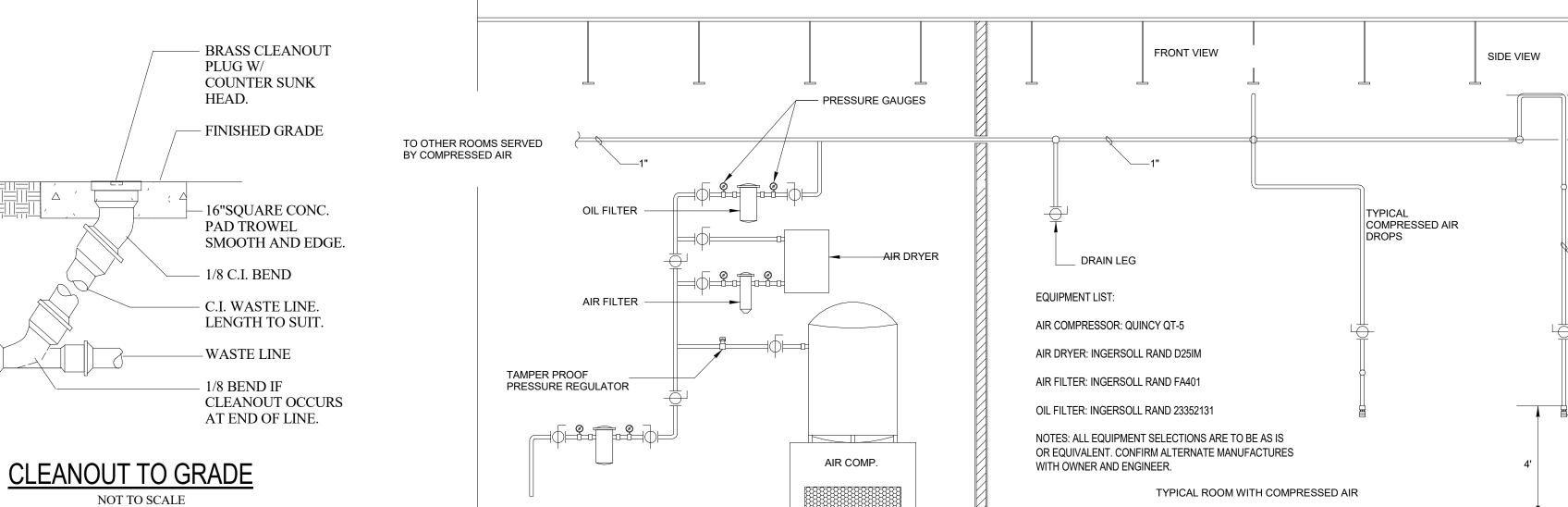
PISTON TO PROVIDE A PERMANENT MECHANICAL BARRIER BETWEEN

FLUID AND PRE-LOAD AIR CHARGE

BRASS FREE TURNING PISTON ASTM

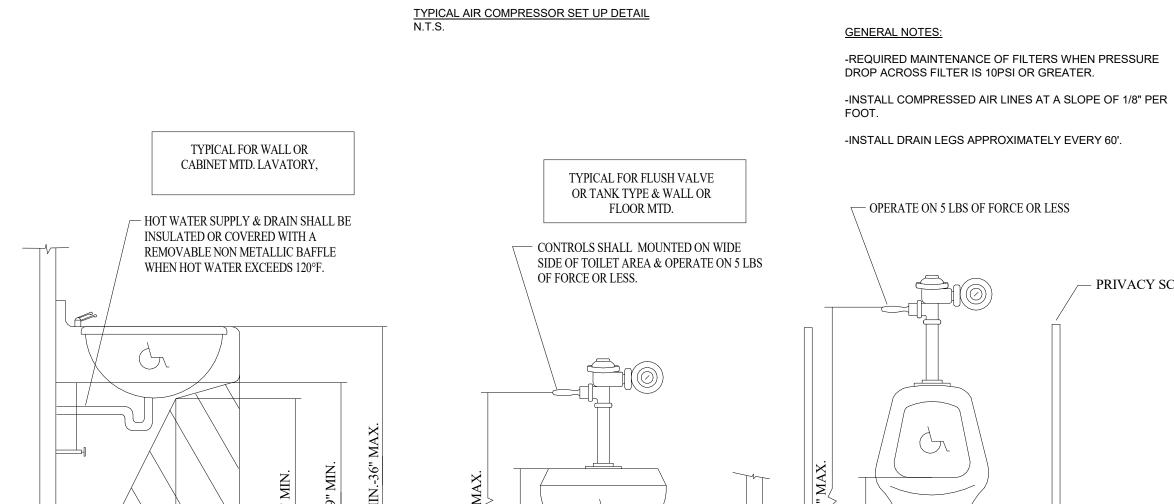
TYPE "K" COPPER

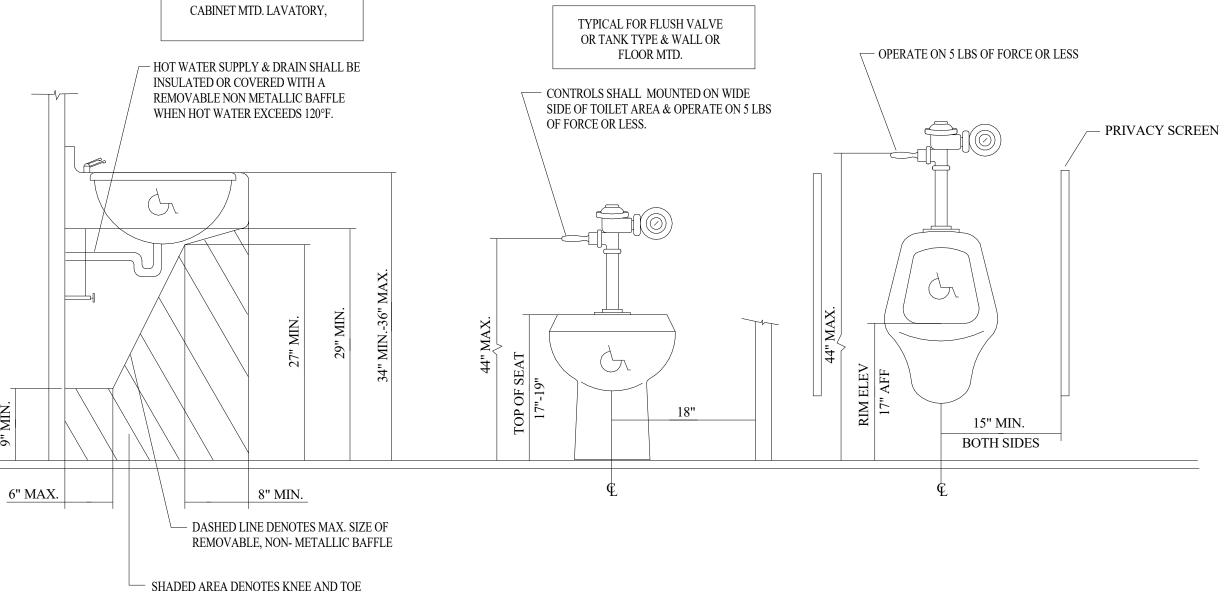
B-16 WITH O-RINGS



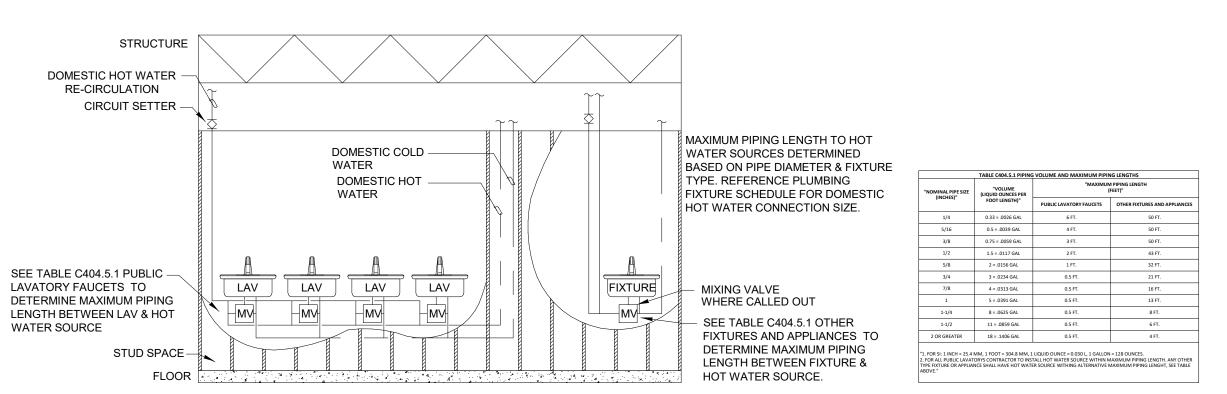
SPACE REQUIRED AT ACCESSIBLE

LAVATORY.



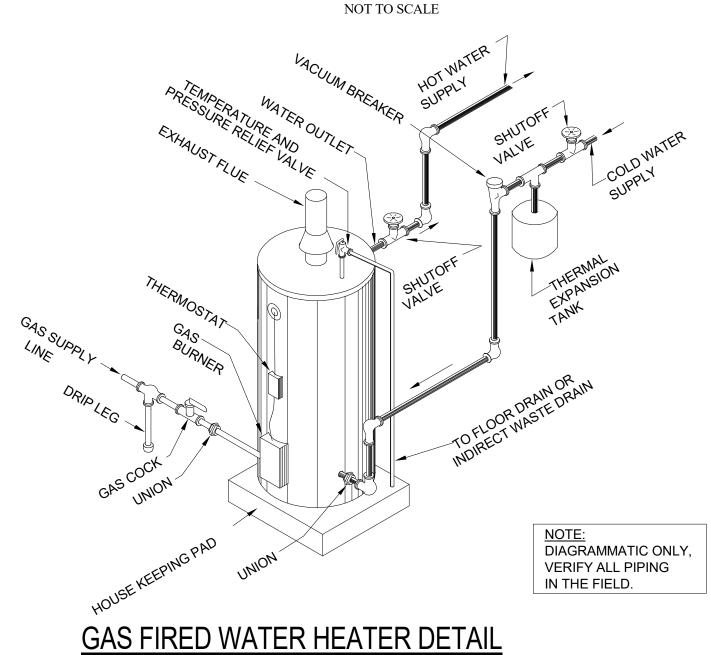


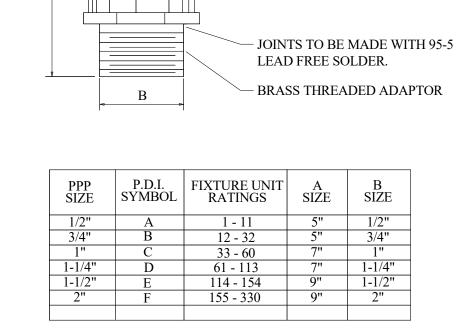
# ACCESSIBLE PLUMBING FIXTURE INSTALLATION NOT TO SCALE



# PLUMBING FIXTURE DOMESTIC HOT WATER RE-CIRCULATION DETAIL NOT TO SCALE

# MECHANICAL AREA FLOOR DRAIN

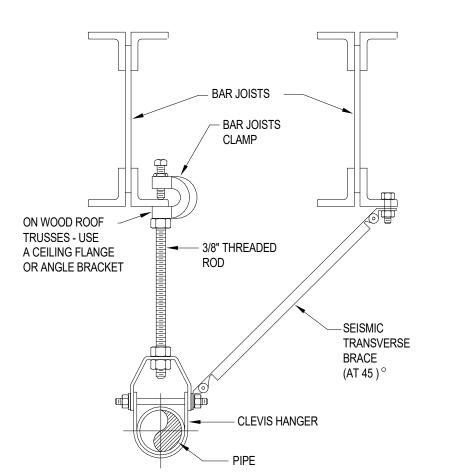




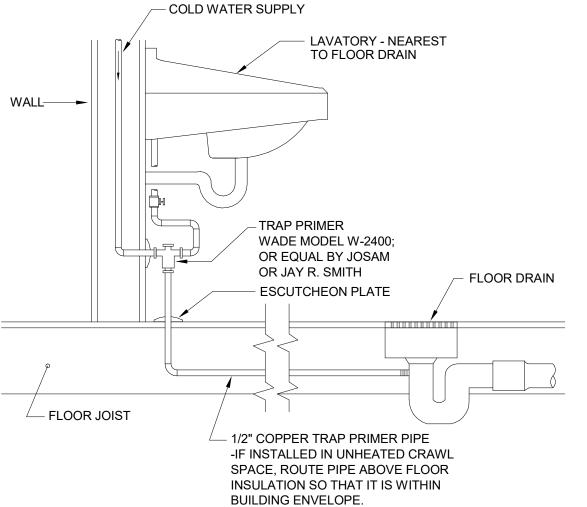
NOT TO SCALE

# NOTE: SEE FLOOR PLAN FOR LOCATIONS OF SHOCK ABSORBERS. WATER SHOCK ARRESTOR DETAIL

# PROVIDE SEISMIC RESTRAINTS FOR PIPING AS FOLLOWS: • 1" & 1-1/2" PIPES: 20 FT. ON CENTER $\, \cdot \,$ 2" & 2-1/2" PIPES: 30 FT. ON CENTER - 3", 4" & 6" PIPES: 40 FT. ON CENTER



PIPE SUPPORT AND SEISMIC RESTRAINT **DETAIL - HORIZONTAL PIPING** 



FLOOR DRAIN TRAP PRIMER DETAIL NOT TO SCALE

**BLYTHE GROUP + CO.** Bighorn Consulting

Engineers, Inc. Mechanical & Electrical Engineers

\_\_NPT QUICK CONNECT

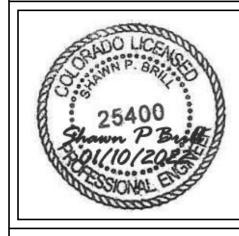
386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

**Grand Junction Fire Department** Fire Station #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

PLUMBING - DETAILS

FOR CONSTRUCTION



REV. DESC. ADDENDUM 01 12/03/21

DATE: 01/10/2022

PROJECT #: 21-230

P3-2

ABBREVIATIONS							
A.BANCHOR BOLT F.O.BFACE OF BRICK P.TPRESSURE TREATED							
ADD'L	-ADDITIONAL		-FACE OF CONCRETE	R.	-RADIUS		
ADJ.	-ADJACENT	F.O.W.	-FACE OF WALL	REINF.			
A.I.S.C.	-AMERICAN INSTITUTE OF	FS.	-FLAT SLAB	REQ'D	-REQUIRED		
71.1.5.0.	STEEL CONSTRUCTION	FT.	-FOOT	RM.	-ROOM		
ALT.	-ALTERNATE	FTG.	-FOOTING	SB	-SEATED BEAM		
ARCH.	-ARCHITECTURAL	F.W.	-FILLET WELD	SCHED			
			-GAUGE				
A.S.T.M.	-AMERICAN SOCIETY FOR	GA.		SECT.	-SECTION		
DI DC	TESTING & MATERIALS	GAL.	-GALVANIZED	SHT.	-SHEET		
BLDG.	-BUILDING	G.L.	-GLU-LAM BEAM	s.d.l.	-SUPERIMPOSED DEAD LOAD		
BM.	-BEAM	GR.	-GRADE	SIM.	-SIMILAR		
B.O.	-BOTTOM OF	GR. BM.	-GRADE BEAM	s.l.	-SNOW LOAD		
вот.	-BOTTOM	H.A.S.	-HEADED ANCHOR STUD	S.L.V.	-SHORT LEG VERTICAL		
BSMT.	-BASEMENT	H.D.G.	-HOT DIPPED GALVANIZED	SPC.	-SPACE		
BTWN.	-BETWEEN	HORIZ.	-HORIZONTAL	SPEC.	-SPECIFICATION		
CANT.	-CANTILEVER	H.S.B.	-HIGH STRENGTH BOLT	SQ.	-SQUARE		
CB.	-CARDBOARD	HSS	-HOLLOW STRUCTURAL SECTION	STD.	-STANDARD		
CH.	-CHAMFER	I.D.	-INSIDE DIAMETER	STIFF.	-STIFFENER		
C.J.	-CONTROL/CONSTRUCTION JOINT	I.F.	-INSIDE FACE	STL.	-STEEL		
CJP	-COMPLETE JOINT PENETRATION	IN.	-INCH	STOR.	-STORAGE		
CLR.	-CLEAR, CLEARANCE	INT.	-INTERIOR	SYM.	-SYMMETRICAL		
C.M.U.	-CONCRETE MASONRY UNIT	JNT.	-JOINT	T.&B.	-TOP & BOTTOM		
COL.	-COLUMN	K	-KIP (1,000 lbs.)	THK.	-THICKNESS		
CONC.	-CONCRETE	K.C.I.	-KIP PER CUBIC INCH	T.O.	-TOP OF		
CONN.	-CONNECTION	LB.	-POUND	TYP.	-TYPICAL		
CONST.	-CONSTRUCTION	LIN. FT.	-LINEAL FEET	U.N.O.	-UNLESS NOTED OTHERWISE		
CONT.	-CONTINUOUS	I.I.	-LIVE LOAD	VAR.	-VARIES		
CONTR.	-CONTRACTOR	L.L.V.	-LONG LEG VERTICAL	VERT.	-VERTICAL		
CTRD.	-CENTERED	L.S.L.	-LAMINATED STRAND LUMBER	V.I.F.	-VERIFY IN FIELD		
C.W.	-CURTAIN WALL	L.V.L.	-LAMINATED VENEER LUMBER	WT.	-WEIGHT		
DET.	-DETAIL	MAT'L.	-MATERIAL				
DIAG.	-DIAGONAL	MAX.	-MAXIMUM		<u>SYMBOLS</u>		
DIAM.	-DIAMETER	MECH.	-MECHANICAL	Œ.	CENTER LINE		
DIM.	-DIMENSION	MID.	-MIDDLE				
DISCONT.	-DISCONTINUOUS	MIN.	-MINIMUM	Ø	DIAMETER		
d.l.	-DEAD LOAD	MISC.	-MISCELLANEOUS	1			
DWG.	-DRAWING	MTL.	-METAL	<del></del>	ELEVATION		
EA.	-EACH	N.I.C.	-NOT IN CONTRACT	•			
E.F.	-EACH FACE	NO.	-NUMBER	&	AND		
EL.	-ELEVATION	NOM.	-NOMINAL				
ELECT.	-ELECTRICAL	N.T.S.	-NOT TO SCALE	W/	WITH		
ELEV.	-ELEVATOR	O.C.	-ON CENTER				
EQ.	-EQUAL	O.F.	-OUTSIDE FACE	P <u>L</u>	PLATE /— PILASTER		
E.W.B.	-END WALL BARS	O.D.	-OUTSIDE DIAMETER		P-X TYPE		
E.W.	-EACH WAY	O.H.	-OPPOSITE HAND	Χ	BY		
EXIST.	-EXISTING	OPNG.	-OPENING				
EXP. JNT.	-EXPANSION JOINT	P.A.F.	-POWDER ACTUATED FASTENERS	#	NUMBER DILE CAD		
EXT.	-EXTERIOR	PL	-PLATE		PILE CAP		
F.D.	-FLOOR DRAIN	P.S.F.	-POUND PER SQUARE FOOT	@	AT PC-X TYPE		
FDN.	-FOUNDATION	P.S.I.	-POUND PER SQUARE INCH		XXX'-XX"		
FIN.	-FINISH	P.S.L.	-PARALLEL STRAND LUMBER	ф	SQUARE TOP OF		
FLR.	-FLOOR		-		PILE CAP		
				L	ANGLE ELEVATION		

### SPECIALTY PIER SPECIFICATIONS (BID ALTERNATE #1)

- SPECIALTY PIERS (ROTARY DRIVEN PIPE PILES) SHALL BE INSTALLED BY AN AUTHORIZED PIER INSTALLING CONTRACTOR WHO HAS SATISFIED THE CERTIFICATION REQUIREMENTS RELATING TO THE TECHNICAL ASPECTS OF THE PRODUCT AND THE ASCRIBED INSTALLATION TECHNIQUES. ALL WORK AS DESCRIBED HEREIN SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE
- SAFETY CODES IN EFFECT AT THE TIME OF INSTALLATION. THE SPECIALTY PIER LEAD SECTIONS AND EXTENSIONS SHALL BE STEEL PIPE CONFIGURATION,
- WITH ONE OR MORE HELICAL BEARING PLATES WELDED TO THE SHAFT. ALL PIERS MUST BE CORROSION PROTECTED BY HOT DIP GALVANIZATION. UNCOATED STEEL MAY ONLY BE USED IF ADDITIONAL WALL THICKNESS IS PROVIDED AS REQUIRED TO MAINTAIN THE DESIGN CAPACITY OF EACH PIER FOR A MINIMUM 100 YEAR LIFE WHEN EXPOSED TO SOILS HAVING MODERATE TO HIGH POTENTIAL FOR CORROSION OF STEEL. SEE THE PROJECT GEOTECHNICAL REPORT FOR LEVELS OF CORROSIVITY OF THE SITE SOILS.
- INSTALLATION UNITS SHALL CONSIST OF A ROTARY TYPE TOROUE MOTOR WITH FORWARD AND REVERSE CAPABILITIES. THESE UNITS SHALL BE EITHER ELECTRICALLY OR HYDRAULICALLY
- INSTALLATION UNITS SHALL BE CAPABLE OF DEVELOPING THE MINIMUM TORQUE AS REQUIRED. INSTALLATION UNITS SHALL BE CAPABLE OF POSITIONING THE HELICAL PIER AT THE PROPER INSTALLATION ANGLE. THIS ANGLE MAY VARY BETWEEN VERTICAL AND 5 DEGREES DEPENDING UPON APPLICATION AND TYPE OF LOAD TRANSFER DEVICE SPECIFIED OR REOUIRED.
- INSTALLATION TORQUE SHALL BE MONITORED THROUGHOUT THE INSTALLATION PROCESS. 9. SPECIALTY PIERS SHALL BE INSTALLED TO THE MINIMUM TORQUE VALUE REQUIRED TO PROVIDE THE LOAD CAPACITIES SHOWN ON THE PLANS.
- 10. THE APPROPRIATE NEW STEEL CONSTRUCTION LOAD TRANSFER DEVICE SHALL BE USED, OR AS DETAILED IN THE FOUNDATION SECTIONS OF THE STRUCTURAL DRAWINGS. . APPROPRIATE PIER SELECTION WILL CONSIDER LOAD PLUS 2X SAFETY FACTOR, SOILS

PARAMETERS, AND THE INSTALLATION TORQUE VERSUS CAPACITY EQUATION AS PER THE

MANUFACTURER'S RECOMMENDATIONS.

Sheet List						
Sheet Number	Sheet Number Sheet Name					
S0-1	GENERAL NOTES					
S0-2	SCHEDULE OF SPECIAL INSPECTIONS					
S1-1	FOUNDATION PLAN					
S1-2	LOW ROOF FRAMING PLAN					
S1-3	TOWER ROOF, LOUVER SUPPORT, & MEZZANINE FRAMING PLAN					
S2-1	PILE CAP DETAILS					
S2-2	TYPICAL FOUNDATION DETAILS					
S2-3	TYPICAL MASONRY DETAILS					
S2-4	C.M.U. WALL ELEVATIONS					
S2-5	C.M.U. WALL ELEVATIONS					
S2-6	TYPICAL STEEL FRAMING DETAILS					
S2-7	TYPICAL WOOD FRAMING DETAILS					
S3-1	FOUNDATION SECTIONS					
S3-2	FOUNDATION SECTIONS					
S3-3	FRAMING SECTIONS					
S3-4	FRAMING SECTIONS					

FRAMING SECTIONS

### **GENERAL NOTES CONT.**

- STEEL: A. ALL STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992 (Fy = 50ksi). B. ALL STRUCTURAL STEEL ANGLES, CHANNELS, S SHAPES, AND PLATES SHALL CONFORM
- C. ALL RECTANGULAR OR SQUARE HSS (HOLLOW STRUCTURAL SECTIONS) MEMBERS SHALL CONFORM TO ASTM A500 (GRADE B). ALL ROUND HSS MEMBERS SHALL CONFORM TO ASTM A53 (GRADE B) OR A501, LATEST EDITIONS.
- D. STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH LATEST PROVISION OF THE A.I.S.C. STEEL CONSTRUCTION MANUAL.
- E. USE FRAMED BEAM CONNECTIONS WITH 3/4" DIAMETER ASTM A325 BOLTS, OR WELDED EQUIVALENT, UNLESS OTHERWISE SHOWN OR NOTED, (2) BOLT MIN. FOR BEAMS WITHOUT DESIGNATED LOADS ON DRAWINGS, USE 8k MINIMUM EACH END. IF TWO SYMBOLS ARE SHOWN, THEY DENOTE CONNECTION REQUIRED AT CORRESPONDING END. IF ONLY ONE SYMBOL IS SHOWN, IT DENOTES CONNECTION REQUIRED AT EACH END OF BEAM.
- F. STEEL ROOF DECK: (1) STEEL DECK SHALL BE ERECTED IN ACCORDANCE WITH MANUFACTURER'S
  - SUGGESTED SPECIFICATIONS. (2) STEEL ROOF DECK SHALL CONFORM TO ASTM A1008 AND SHALL HAVE A MINIMUM YIELD STRENGTH Fy = 33 KSI. SEE THE DECK SCHEDULE ON SHEET S2-6.
  - (3) DECK TO BE CONTINUOUS OVER A MINIMUM OF 3 SUPPORTS. UNLESS OTHERWISE SHOWN. (4) WELD DECK TO ALL SUPPORTS WITH PUDDLE WELDS. DECK MUST BE CAPABLE OF WITHSTANDING A DIAPHRAGM SHEAR NOTED IN THE DECK SCHEDULE. CONNECT PANEL SEAMS WITH SELF-TAPPING SCREWS, PUDDLE WELDS, OR BUTTON PUNCHES AS INDICATED IN THE DECK SCHEDULE. SUBMIT TEST DATA FROM DECK MANUFACTURER FOR DECK SELECTED TO SUBSTANTIATE THAT DECK WILL MEET OR EXCEED
- (5) PROVIDE L3 x 3 x 1/4 FRAMING AROUND ALL OPENINGS LARGER THAN 6". G. ALL WELDERS SHALL HAVE EVIDENCE OF PASSING THE A.W.S. STANDARD

REQUIRED DIAPHRAGM SHEAR.

QUALIFICATION TESTS. H. SEE ARCHITECTURAL DRAWINGS FOR NAILER HOLES OR OTHER HOLES REQUIRED IN STEEL MEMBERS.

- A. ALL BEAMS AND HEADERS 2 TO 4 INCHES THICK SHALL BE HEM-FIR NO. 2 AND BETTER
- WITH Fb = 850 PSI AND E = 1,300,000 PSI.B. ALL BEAMS 5" AND THICKER SHALL BE HEM-FIR NO. 2 WITH Fb = 850 PSI AND E = 1,300,000 PSI. C. ALL POSTS AND COLUMNS 5" AND THICKER SHALL BE HEM-FIR NO. 2 WITH Fb = 850 PSI
- D. STUDS AND PLATES SHALL BE HEM-FIR IN STUD GRADE WITH Fb = 800 PSI AND E = 1,200,000 PSI. E. LAMINATED VENEER LUMBER (L.V.L.) SHALL BE "MICRO-LAM" OR AN APPROVED EQUAL WITH Fb = 2,600 PSI AND E = 1,900,000 PSI.
- F. GLUE LAMINATED BEAMS: (1) ALL LAMINATED MEMBERS SHALL BE FABRICATED WITH ONE OF THE FOLLOWING
  - SPECIES: DOUGLAS FIR, HEMLOCK, LARCH, OR SOUTHERN PINE. (2) LAMINATED MEMBERS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR THE DESIGN AND FABRICATION OF STRUCTURAL GLUED LAMINATED LUMBER. PUBLISHED BY THE A.I.T.C. AND THE
  - APPROPRIATE LUMBER PRODUCER'S ASSOCIATION. (3) LAMINATED MEMBERS SHALL BE FABRICATED AS FOLLOWS: a. BEAMS:
- SIMPLE SPAN --CONTINUOUS AND CANTILEVERS ----b. COLUMNS:
- COMBINATION SYMBOL -----(4) LAMINATED MEMBERS SHALL BE BUILT UP USING 2" NOMINAL MATERIAL. LAMINATED MEMBER SIZES NOTED ARE NET.
- (5) MEMBERS EXPOSED TO VIEW SHALL BE FURNISHED IN "ARCHITECTURAL" APPEARANCE GRADE. MEMBERS TO BE CONCEALED BY FINISH MATERIALS OR CEILINGS MAY BE "INDUSTRIAL" GRADE.
- (6) ADHESIVES USED SHALL COMPLY WITH THE SPECIFICATIONS AS CONTAINED IN VOLUNTARY PRODUCT STANDARD PS56-73, STRUCTURAL GLUED LAMINATED TIMBER. WET-USE ADHESIVES ARE TO BE USED FOR ALL MEMBERS EXPOSED TO
- G. BUILT UP BEAMS OF DIMENSIONAL LUMBER OR LAMINATED VENEER LUMBER SHALL BE ATTACHED TOGETHER WITH 16d COMMON NAILS @ 32" O.C. TOP AND BOTTOM. STAGGERED. PROVIDE 2-16d COMMON NAILS AT BEAM ENDS AND INTERMEDIATE
- H. LAMINATED STRAND LUMBER (L.S.L.) RIM BOARDS SHALL BE "TIMBERSTRAND" BY TRUS-JOIST OR AN APPROVED EQUAL WITH Fb = 1,700 PSI AND E = 1,300,000 PSI. I. I-JOIST FRAMING SHALL BE AS DESIGNATED ON THE PLANS OR ENGINEER APPROVED ALT. JOISTS SHALL BE DESIGNED, MANUFACTURED, AND ERECTED IN ACCORDANCE WITH MANUFACTURER'S STANDARD SPECIFICATIONS & RECOMMENDATIONS.

## 6. CONCRETE MASONRY FOR STRUCTURAL WALLS:

- A. ALL REINFORCING IN MASONRY WALLS SHALL CONFORM TO ASTM A615, GRADE 60 AND SHALL BE
- FULLY ENCLOSED WITH GROUT. USE PEA GRAVEL GROUT WITH MIN. fc = 3,000 PSI. B. CONCRETE MASONRY SHALL CONSIST OF LIGHTWEIGHT CONCRETE BLOCK WITH A COMPRESSIVE STRENGTH OF 1,900 PSI.
- . CONCRETE MASONRY ASSEMBLY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH fm' = 1,500 PSI. D. FILL ALL VOIDS AND BLOCK CELLS SOLID WITH MORTAR FOR A DISTANCE OF 24" BENEATH AND 12" EACH SIDE OF ALL BEAM REACTIONS OR OTHER CONCENTRATED
- LOADS, UNLESS OTHERWISE SHOWN OR NOTED. STRUCTURAL MASONRY IS TO BE LAID IN TYPE "S" MORTAR IN ACCORDANCE WITH SECTION 2103 OF THE INTERNATIONAL BUILDING CODE. TYPE "N" MASONRY CEMENT MORTAR IS NOT ACCEPTABLE FOR C.M.U. WALLS.
- F. MASONRY WALLS MUST BE ADEQUATELY BRACED DURING CONSTRUCTION TO WITHSTAND WIND AND SEISMIC LOADS. BRACING MUST REMAIN IN PLACE UNTIL ROOF (AND FLOOR) DIAPHRAGMS ARE FULLY CAPABLE OF PROVIDING LATERAL SUPPORT.

## FOUNDATIONS:

- FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS BY HUDDLESTON-BERRY ENGINEERING & TESTING, LLC JOB #00208-0112. RECOMMENDATIONS IN THIS REPORT SHOULD BE FOLLOWED.
- (1) PIPE PILES ARE TO BE 10 3/4"x.375" WALL THICKNESS, WITH A 1" PLATE TIP, FILLED WITH CONCRETE PER THE MIX DESIGN TABLE. PIPE PILES SHALL HAVE A MINIMUM BEARING
- CAPACITY OF 50 TONS. (2) NO PILE DRIVING SHALL BE IN PROGRESS WITHIN A 15'-0" RADIUS OF A NEWLY CONCRETE
- FILLED PILE OR UNTIL CONCRETE HAS SET FOR SEVEN DAYS. (3) ALL PILES ARE TO BE DRIVEN TO REFUSAL INTO THE DENSE GRAVEL & COBBLE LAYER. FOR BID
- PURPOSES, PILES SHOULD SET UP AT A MINIMUM OF 49 FEET. (4) SPLICES ARE TO BE FULL PENETRATION FIELD WELDING TO DEVELOP FULL DESIGN LOAD.
- (5) PILE SET SHOULD BE DETERMINED BY THE JANBU FORMULA OR AN APPROVED EQUIVALENT B. ROTARY DRIVEN PIPE PILES (SCREW PILES) ALTERNATE NO. 1:
- (1) SUBJECT TO THE APPROVAL OF THE SOILS ENGINEER OF RECORD, SCREW PILES MAY BE USED AS AN ALTERNATE TO DRIVEN STEEL PIPE PILES. (2) SCREW PILES MUST HAVE A MINIMUM SHAFT DIAMETER OF 5", MINIMUM WALL THICKNESS
- OF 3/8", AND A MINIMUM HELIX DIAMETER OF 12". (3) A. SCREW PILES SHALL HAVE A MINIMUM SERVICE LOAD COMPRESSIVE CAPACITY OF 100K
- AND A MINIMUM SERVICE LOAD UPLIFT CAPACITY OF 25K, WITH A FACTOR OF SAFETY = 2.0. B. SPLICES OF PIPE SECTIONS MUST HAVE THE CAPACITY TO RESIST THE SERVICE LOADS NOTED ABOVE TIMES THE FACTOR OF SAFETY.
- (4) SCREW PILES MUSH BE DRILLED TO REFUSAL INTO THE UNDERLYING DENSE GRAVEL & COBBLE LAYER. THE AVERAGE LENGTH OF PILES SHOULD BE ASSUMED AT A MINIMUM OF 49 FEET. SOILS ENGINEER OF RECORD SHALL BE PRESENT DURING PILE DRIVING TO VERIFY THAT BEARING STRATA HAS BEEN REACHED AND THAT SOIL CAPACITIES HAVE BEEN ATTAINED.

- A. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SCHEDULE ON SHEET S0-2.
- ALL DIMENSIONS ON STRUCTURAL DRAWINGS TO BE CHECKED AGAINST ARCHITECTURAL. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH SHOP DRAWING PREPARATION AND CONSTRUCTION.
- 10. VERIFY ALL OPENINGS THROUGH FLOORS, ROOF, AND WALLS WITH MECHANICAL AND ELECTRICAL REOUIREMENTS.

- A. DEFERRED SUBMITTAL ITEMS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER AND SUBMITTED TO THE BUILDING OFFICIAL AS REQUIRED BY 2018 I.B.C. 107.3.4.1. DEFERRED SUBMITTAL ITEMS INCLUDE:
- 1. STRUCTURAL STEEL CONNECTIONS
- 2. K-SERIES AND LH-SERIES STEEL OPEN-WEB JOISTS. 3. METAL STAIRS AND RAILINGS

**GENERAL NOTES** GOVERNING CODES USED FOR DESIGN:

2018 INTERNATIONAL BUILDING CODE ASCE/SEI 7-16

FLAT ROOF SNOW LOAD Pf---

GROUND SNOW LOAD Pg--

## . LIVE LOADS USED IN DESIGN:

A. ROOF:

SNOW LOAD IMPORTANCE FACTOR Is	1.2
THERMAL FACTOR Ct	1.0
. STORAGE ROOMS	125 F
. STAIRS	100 P
. LIVING/OFFICE	50 P
. COORIDORS	100 F
WIND:	
EXPOSURE	(
RISK CATEGORY	I\
V <sub>IIIT</sub>	120 MPH
Vasp	93 MPH
: <del></del>	
`	16 PSF
,	
G. SEISMIC:	_,
RISK CATEGORY	T\
	LIVING/OFFICE COORIDORS WIND: EXPOSURE RISK CATEGORY V <sub>ASD</sub> COMPONENTS AND CLADDING (BASED ON EFFECTIVE AREA = 18 SQ. FT.) TYPICAL WALL AREA (INWARD PRESSURE) TYPICAL WALL AREA (OUTWARD PRESSURE) WALL CORNERS (OUTWARD PRESSURE) TYPICAL ROOF AREA (OUTWARD PRESSURE)

IMPORTANCE FACTOR (le) --R COEFFICIENT: APPARATUS BAY----LIVING QUARTERS AND OFFICES---

SPECTRAL RESPONSE COEFFICIENTS: --0.066 --0.257 --0.105 SEISMIC RESPONSE COEFFICIENTS: Cs (APPARATUS BAY)---

SITE CLASS --SEISMIC DESIGN CATEGORY -BASIC SEISMIC: FORCE RESISTING SYSTEM: APPARATUS BAY AND LOCKER ROOMS-----ORDINARY REINFORCED MASONRY

SHEAR WALLS LIVING QUARTERS AND OFFICES------WOOD STRUCTURAL PANEL SHEAR WALLS **DESIGN BASE SHEAR---**

---EQUIVALENT LATERAL FORCE PROCEDURE

# ANALYSIS PROCEDURE --

Cs (LIVING/OFFICE)--

A. <u>CONCRETE MIX TABLE</u> (NORMAL WEIGHT CONCRETE):

	•				-				
INTENDED USE	28 DAY STRENGTH F'C (KSI)	MAX W.C. (INCLUDING FLY ASH)	MAX AGGR. (IN) (1)	SLUMP LIMITS (IN) (+/- 1")	TOTAL AIR LIMITS (%) (2)	CEMENT TYPE	CONCRETE TYPE NORMAL WEIGHT-NW LIGHT WEIGHT-LW	REQ'D ADMIXTURES (3)	OTHER REOUREMENTS (4)
PILE CAPS, GRADE BEAMS, & PILASTERS	4.5	0.45	3/4	4	6	I/II	NW	AE	FAR
INTERIOR SLABS ON GRADE	3.5	0.62	1	4	N	I/II	NW	FAR	SOG
PIPE PILE FILL	3	0.68	3/4	7	N	I/II	NW		

(1) FOR THE MAXIMUM COARSE AGGREGATE SIZE INDICATED, USE THE FOLLOWING AGGREGATE SIZE NUMBERS PER ASTM C33:

3/4" - #67 AGGREGATE

1" - #57 AGGREGATE (2) TOTAL AIR CONTENT LIMITS INCLUDE BOTH ENTRAINED AND ENTRAPPED AIR +/- 1 1/2%. 'N' IN COLUMN INDICATES ADDITION OF ENTRAINED AIR IS NOT

(3) ABBREVIATIONS FOR REQUIRED ADMIXTURES AS FOLLOWS: AE = AIR-ENTRAINING ADMIXTURE. DO NOT USE ENTRAINED AIR FOR STEEL TROWELED FINISHED FLOORS.

WRA = WATER REDUCING ADMIXTURE.

(4) ABBREVIATIONS FOR OTHER REQUIREMENTS AS FOLLOWS: FAR = 15% CLASS F FLY ASH REQUIRED.

SOG = CONTRACTOR TO VERIFY ALKALINITY OF CONCRETE SURFACE, SLAB VAPOR TRANSMISSION, AND SLAB FLATNESS/LEVELNESS ARE COMPATIBLE WITH FLOORING SYSTEM AND ADHESIVES PRIOR TO INSTALLING FLOORING. AMOUNT OF CEMENTITIOUS MATERIALS LISTED SHALL BE PROVIDED, DO NOT USE LESS AND DO NOT SUPPLY OVER 5% MORE.

(5) FOR CONCRETE PLACED BY PUMPING, PROVIDE CONCRETE MIX FLOWABILITY TO FACILITATE PUMPING.

(6) MINIMUM CEMENTITIOUS MATERIALS SHALL BE 560 LB./CU. YD., WITH A MAXIMUM 20% FLY ASH CONTENT BY WEIGHT OF CEMENTITIOUS MATERIALS. MAXIMUM WATER SOLUBLE CHLORIDE ION CONTENT SHALL NOT EXCEED 0.1% BY WEIGHT OF CEMENT.

B. ALL REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60, EXCEPT COLUMN TIES, BEAM STIRRUPS, AND DOWELS TO SLAB ON GRADE WHICH MAY BE GRADE 40. C. NO SPLICES OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR AUTHORIZED BY THE STRUCTURAL ENGINEER. UNLESS OTHERWISE NOTED OR DETAILED ON THE DRAWINGS, LAP SPLICES, WHERE PERMITTED, SHALL BE A MINIMUM OF 40 BAR

DIAMETERS. MAKE ALL BARS CONTINUOUS AROUND CORNERS. D. CONTINUOUS REINFORCEMENT IN GRADE BEAMS SHALL BE SPLICED AS FOLLOWS: TOP BARS AT MIDSPAN, BOTTOM BARS OVER SUPPORTS.

E. DETAIL BARS IN ACCORDANCE WITH A.C.I. DETAILING MANUAL AND A.C.I. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, LATEST EDITIONS. F. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING AT POSITIONS SHOWN

ON THE DRAWINGS. DO NOT ATTEMPT TO POSITION ANY REINFORCEMENT BY LIFTING DURING CONCRETE PLACEMENT. G. REINFORCEMENT PROTECTION SHALL BE AS FOLLOWS:

(1) CONCRETE POURED AGAINST EARTH---(2) FORMED CONCRETE EXPOSED TO EARTH OR WEATHER--

(3) FORMED STAIRS OR WALLS NOT EXPOSED TO WEATHER---H. PLACE (2) #5 (ONE EACH FACE) TOP & BOTTOM @ EACH SIDE OF OPENING WITH 2'-0" PROJECTION AROUND ALL OPENINGS IN CONCRETE UNLESS OTHERWISE SHOWN OR NOTED. I. SLABS, BEAMS, AND GRADE BEAMS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT MIDDLE OF SPAN WITH VERTICAL BULKHEADS AND KEYS AS SHOWN PER THE TYPICAL CONCRETE WALL CONSTRUCTION JOINT DETAIL. ALL

CONSTRUCTION JOINTS SHALL BE AS DETAILED OR AS APPROVED BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

Architecture Interior Design Project Management

--30 PSF

-36 PSF

--0.193

--0.055

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**GRAND JUNCTION FIRE** DEPARTMENT - FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO

**GENERAL NOTES** 



REV. DESC.

DATE: 02/04/2022

PROJECT #: 21.106

	F REQUIRED SPECIAL INSPECTIONS:	FREQUENCY (DURING TASK LISTED)		APPLICABLE CODE & SECTION
	VERIFICATION OF INSPECTION TASK	CONTINUOUS	PERIODIC	FOR INSPECTION CRITERIA
1) SOILS	a) VERIFY SOILS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		Х	
	b) VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH & HAVE REACHED PROPER MATERIAL		X	
	c) PERFORM CLASSIFICATION & TESTING OF CONTROLLED FILL MATERIALS		Х	
	d) VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT & COMPLETION OF CONTROLLED FILL	Х		
	e) OBSERVE SUBGRADE FOR PROPER PREPARATION BEFORE PLACEMENT OF CONTROLLED FILL	- -	X	
2) PILING	a) VERIFY PILE MATERIALS, SIZES AND LENGTHS COMPLY WITH REQUIREMENTS	Х	<del></del>	
	b) OBSERVE DRIVING OPERATIONS AND MAINTAIN COMPLETE & ACCURATE RECORDS FOR EACH PILE	Х		
	c) VERIFY PLACEMENT LOCATIONS & PLUMBNESS, CONFIRM TYPE & SIZE OF HAMMER, RECORD NUMBER, RECORD NUMBER, RECORD NUMBER OF BLOWS PER FOOT OF PENETRATION, DETERMINE REQUIRED PENETRATION TO ACHIEVE DESIGN CAPACITY, RECORD TIP & BUTT ELEVATIONS & DOCUMENT ANY PILE DAMAGE	X	<del></del>	
	d) FOR STEEL ELEMENTS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 5.	Х		
	e) FOR CONCRETE FILLED ELEMENTS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 3.	Х		
	f) PERFORM WELD INSPECTIONS AT STEEL PILING SPLICES	Х		AWS D1.1
	g) FOR SPECIALTY PILES, IN ADDITION TO THE ABOVE REQUIREMENTS DETERMINE CAPACITIES OF TEST PILES AND CONDUCT ADDITIONAL LOAD TESTS AS REQUIRED	X		
3) CONCRETE	a) INSPECT REINFORCING STEEL		Х	ACI 318: 3.5, 7.1-7.7
	b) VERIFY USE OF REQUIRED DESIGN MIX		Х	ACI 318: CH. 4, 5.2-5.4 IBC 1904.2
	c) INSPECT REINFORCING STEEL WELDING		Х	AWS D1.4 ACI 318: 3.5.2
	d) FABRICATE TEST SPECIMENS FROM FRESH CONCRETE FOR STRENGTH TESTS, SLUMP & AIR CONTENT TESTS AND TO DETERMINE CONCRETE TEMPERATURE	Х	<del></del>	ASTM C172 ASTM C31 ACI 318: 5.6, 5.8
	e) INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	Х		ACI 318: 5.9, 5.10
	f) INSPECT FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE & TECHNIQUES		Х	ACI 318: 5.11- 5.13
	g) INSPECT FORMWORK FOR SHAPE, LOCATION & DIMENSIONS OF CONCRETE MEMBERS BEING FORMED		Х	ACI 318: 6.1.1
	h) INSPECT ANCHORS CAST INTO CONCRETE.		Х	ACI 318: 8.1.3, 21.2.8 IBC 1908.5, 1909.1
	i) INSPECT ANCHORS POST- INSTALLED INTO HARDENED CONCRETE MEMBERS.		Х	ACI 318: 3.8.6, 8.1.3, 21.2.8 IBC 1909.1
4) WOOD	a) INSPECT FABRICATED WOOD STRUCTURAL MEMBERS ASSEMBLED AT FABRICATOR'S SHOP OR PLANT.		Х	
	b) VERIFY MATERIAL SPECIES AND GRADES OF DIMENSIONAL LUMBER AND PLYWOOD OR O.S.B.	- -	Х	
	c) VERIFY BOTTOM CHORD AND OTHER BRACING OF STRUCTURAL MEMBERS.	- -	Х	
	d) INSPECT FOR PROPER FASTENING OF WOOD COMPONENTS.	- -	Х	IBC TABLE 2304.9.1
5) LATERAL BRACING SYSTEM	a) PERIODICALLY INSPECT NAILING, BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS WITHIN WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, AND HOLDOWNS.		Х	

,			<del>-</del>	
6) MASONRY	a) VERIFY I'M OF CONCRETE MASONRY UNITS PRIOR TO CONSTRUCTION.		Х	ACI 530: Art 2.6A
	b) AS MASONRY CONSTRUCTION BEGINS VERIFY THE FOLLOWING TO ENSURE COMPLIANCE:		_	
	- PROPORTIONS OF SITE – PREPARED MORTAR		Х	ACI 530: Art 1.4B
	- CONSTRUCTION OF MORTAR JOINTS		Х	ACI 530: Art 3.3B
	- LOCATION OF REINFORCEMENT CONNECTORS & ANCHORAGES		Х	ACI 530: Art 3.4, 3.6A
	c) THE INSPECTION PROGRAM SHALL VERIFY:			
	- SIZE & LOCATION OF STRUCTURAL ELEMENTS		Х	ACI 530: Art 3.36
	- TYPE, SIZE & LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS		х	ACI 530: SECTION 1.22(e), 7.1.4, 3.1.6
	- SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT		Х	ACI 530: SECTION 1.13, Art 2.4, 3.4
	- WELDING OF REINFORCING BARS	Х		ACI 530: SECTION 2.1.10.7.2, 3.3.34(B)
	- PROTECTION OF MASONRY DURING COLD WEATHER (TEMP. BELOW 40*F) OR HOT WEATHER (TEMP ABOVE 90*F)		Х	IBC 2104.3, 2104.4 ACI 530 Art 1.8C, 1.8D
	d) PRIOR TO GROUTING, VERIFY THE FOLLOWING TO ENSURE COMPLIANCE:			
	- GROUT SPACE IS CLEAR - PLACEMENT OF REINFORCEMENT,		X	ACI 530: Art 3.2D ACI 530: SECTION
	CONNECTORS & ANCHORAGES  - PROPORTIONS OF SITE		X	1.13, Art 3.4 ACI 530: Art 2.6B
{	PREPARED GROUT	<del></del>		
]	- CONSTRUCTION OF MORTAR JOINTS		Х	ACI 530: Art 3.3B
	e) VERIFY GROUT PLACEMENT TO ENSURE COMPLIANCE WITH CODE & CONSTRUCTION DOCUMENT PROVISIONS	X	-	ACI 530: Art 3.5
]]	f) OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS	Χ		IBC 2105.2.2, 2105.3 ACI 530: Art 1.4
	g) VERIFY COMPLIANCE WITH INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND COMPLIANCE WITH THE		X	ACI 530: Art 1.5
7) STEEL	a) MATERIAL VERIFICATION OF HIGH			<b>!</b>
[[	- IDENTIFICATION MARKINGS TO		Х	APPLICABLE ASTM
	CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS - MANUFACTURER'S		X	MATERIAL SPEC. AISC 360, SECTION A3.3
	CERTIFICATE OF COMPLIANCE REQUIRED		,	
	b) INSPECTION OF HIGH- STRENGTH BOLTING OF BEARING TYPE CONNECTIONS		X	AISC 360, SECTION M2.5 IBC SECTION 1704.3.3
	c) MATERIAL VERIFICATION OF STRUCTURAL STEEL:			
	- IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS		Х	ASTM A6 OR A568 IBC SECTION 1708.4
	- MANUFACTURER'S CERTIFIED MILL TEST REPORTS		Х	ASTM A6 OR A568 IBC SECTION 1708.4
	d) MATERIAL VERIFICATION OF WELD FILLER MATERIALS:			
	- IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS		Х	AISC 360, SECTION A3.5
	- MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED		Х	
	e) INSPECTION OF WELDING  1) COMPLETE & PARTIAL	X	T	AWS D1.1
	PÉNETRATION GROOVE WELDS			AISC 360 N5.4-N5.5
	2) MULTI-PASS FILLET WELDS	X		AWS D1.1 AISC 360 N5.4-N5.5
	3) SINGLE PASS FILLET WELDS > 5/16"	X		AWS D1.1 AISC 360 N5.4-N5.5
	4) SINGLE PASS FILLET WELDS < 5/16"		Х	AWS D1.1 AISC 360 N5.4-N5.5
	5) FLOOR & ROOF DECK WELDS		Х	AWS D1.3
	f) STUD SHEAR CONNECTOR SIZES, SPACING, MATERIALS & QUANTITY	X		AISC 360, SECTION N6
	g) WELDING OF STUD SHEAR CONNECTORS		Х	AWS D1.1
	h) INSPECT STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		Х	AISC 360 N5.7

a) MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:							
X APPLICABLE ASTM MATERIAL SPEC.							
Х							
•							
X AWS D1.3							
•							
X AWS D1.4 ACI 318: SECTION 3.5.2							
AWS D1.4 ACI 318: SECTION 3.5.2							
X AWS D1.4 ACI 318: SECTION 3.5.2							
X AISC 341							
X AISC 341							
X ACI 318, SECTION 21.1.5.2							
X ACI 318, SECTION 3.5.2							
X IBC SECTION 1705.11.6, ASCE 7, SECTION 13.6							
X IBC SECTION 1705.11.4, IBC SECTION 1705.12.3							
X IBC SECTION 1705.12.3, ASCE 7, SECTION 13.2							
X IBC SECTION 1705.11.8							
X ASCE 7, SECTION 17.8							
X IBC							



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> SCHEDULE OF SPECIAL INSPECTIONS

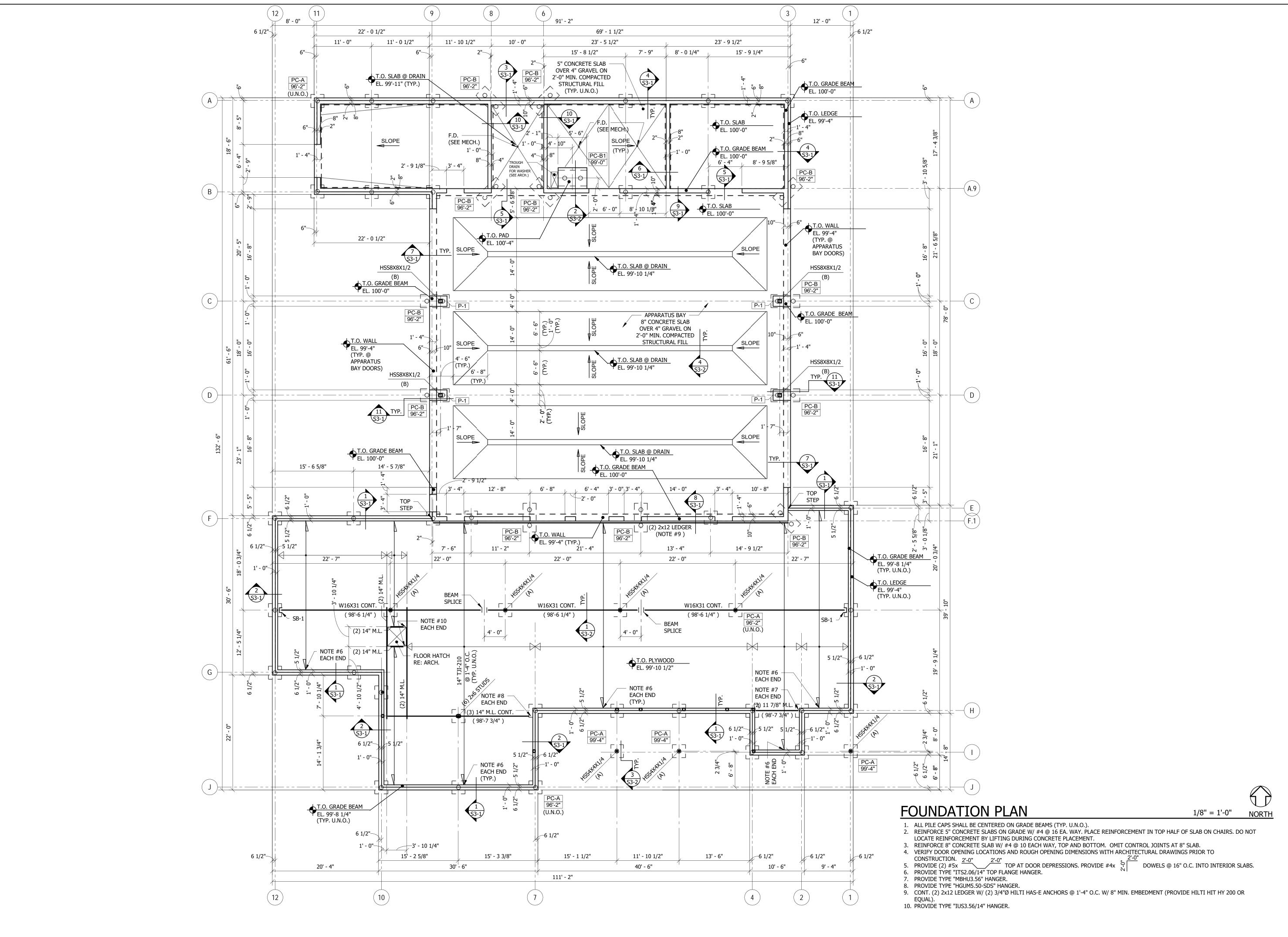
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**S0-2** 



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STRUCTURAL ENGINEERS
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www.lindauerdunn.com

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FOUNDATION PLAN

FOR CONSTRUCTION



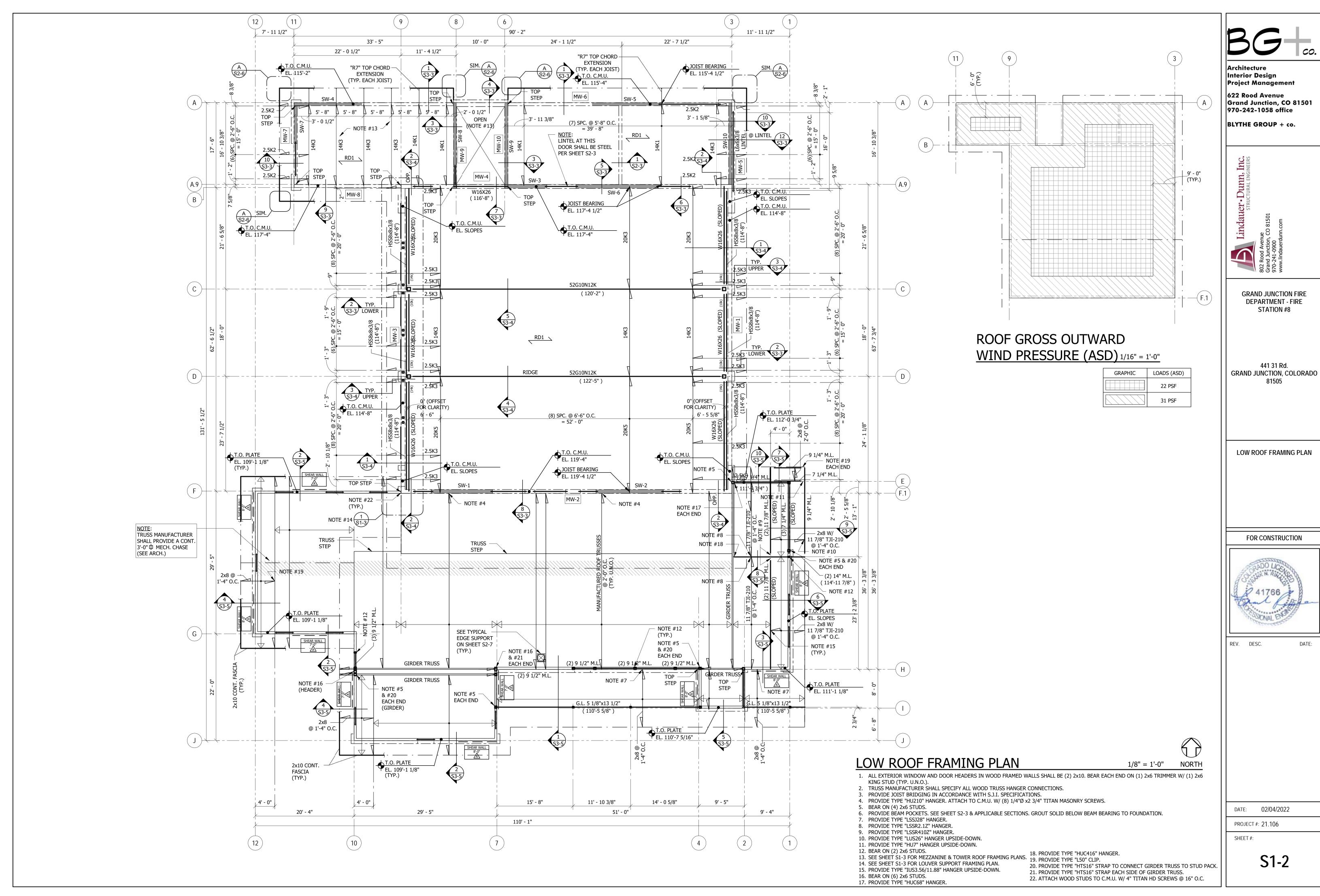
REV. DESC. DATE

DATE: 02/04/2022

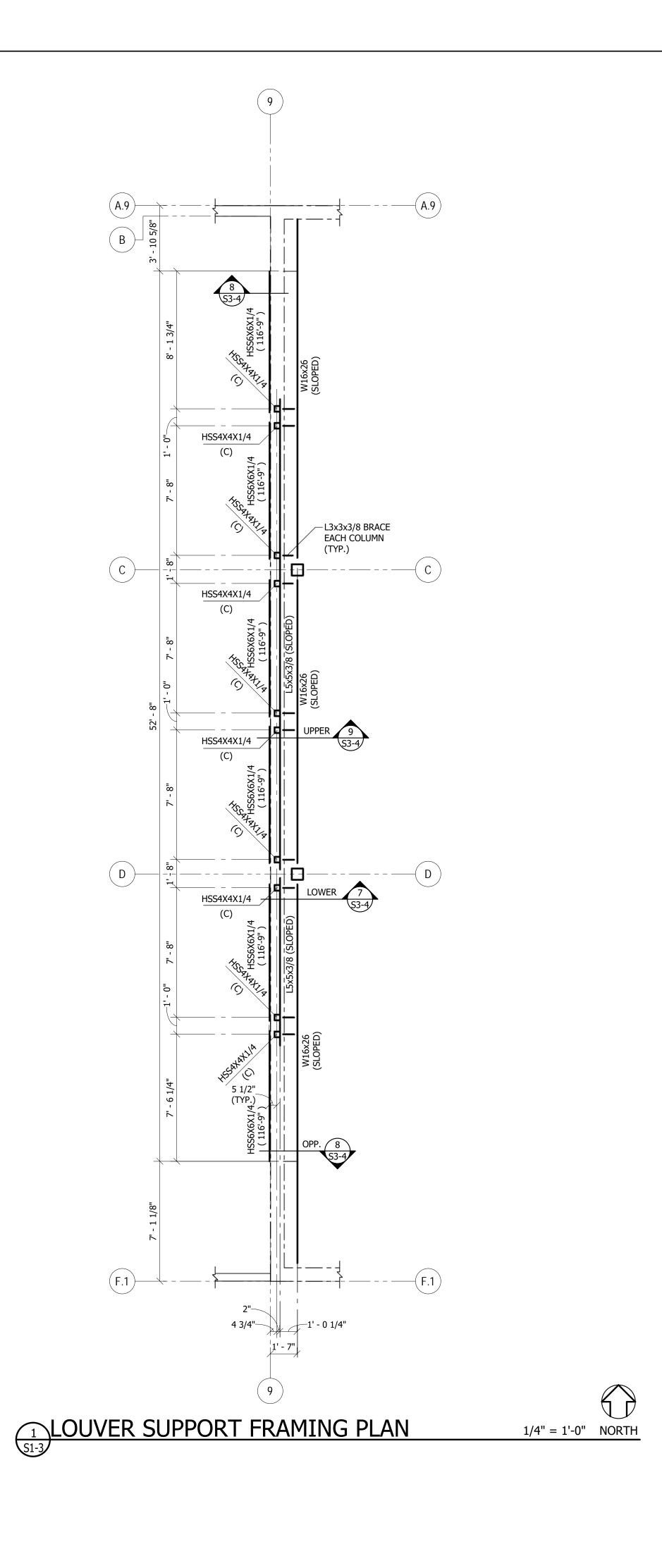
PROJECT #: 21.106

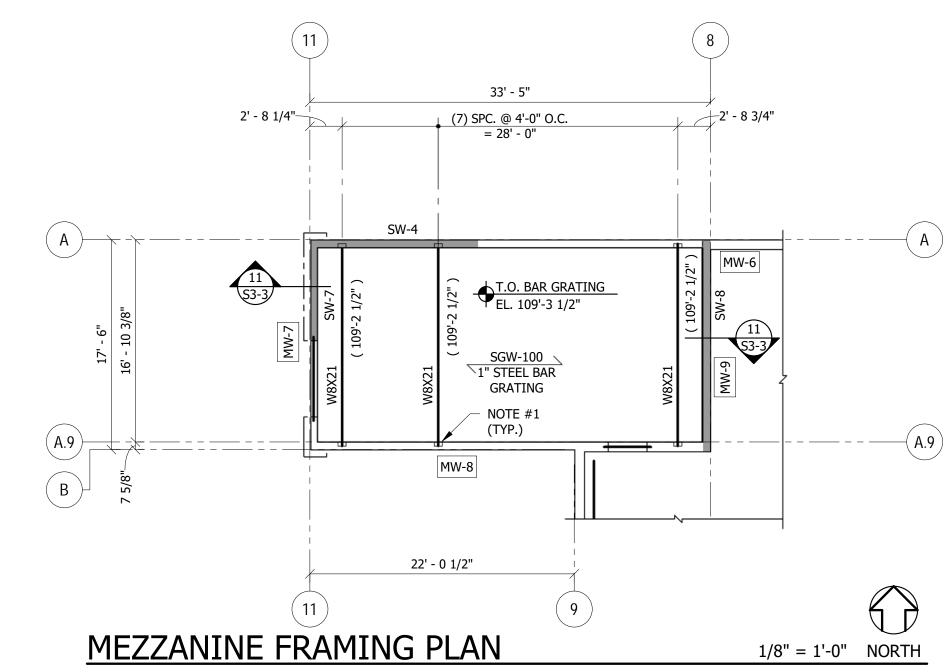
CUEET #

**S1-1** 

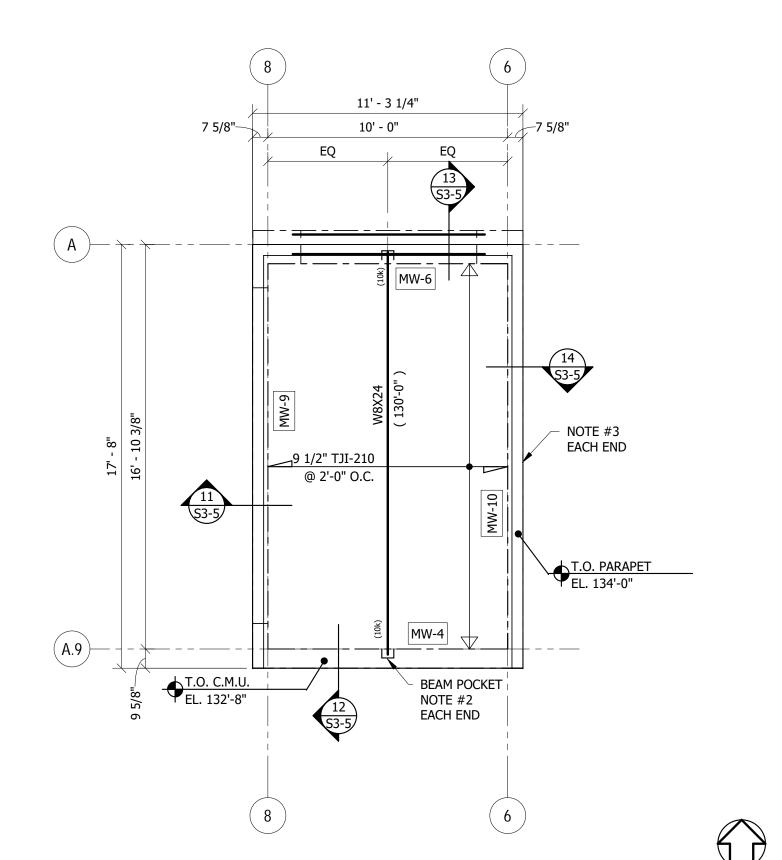








 SEE SHEET S2-3 FOR BEAM BEARING DETAILS.
 BAR GRATING SHALL BE 1/8" x 1" x 1 3/16" SPACING "GW-100A" BY MC NICHOLS (OR EQUAL). SPLICE AS REQUIRED AT SUPPORT BEAM CENTERS.
 ATTACH GRATING TO STEEL SUPPORTS W/ TYPE "GG1A" SADDLE CLIPS BY MC NICHOLS (OR EQUAL). FASTENERS SHALL BE USED AT EACH EDGE OF GRATING PANEL @ EVERY SUPPORT (TYP.).



1/4" = 1'-0" NORTH

TOWER ROOF FRAMING PLAN

TOP OF STEEL ELEVATION NOTED THUS: (XXX'-XX").
 SEE BEAM BEARING PLATE SCHEDULE ON SHEET S2-3.
 PROVIDE TYPE "ITS2.06/9.5" TOP FLANGE HANGER.

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TOWER ROOF, LOUVER SUPPORT, & MEZZANINE FRAMING PLAN

FOR CONSTRUCTION

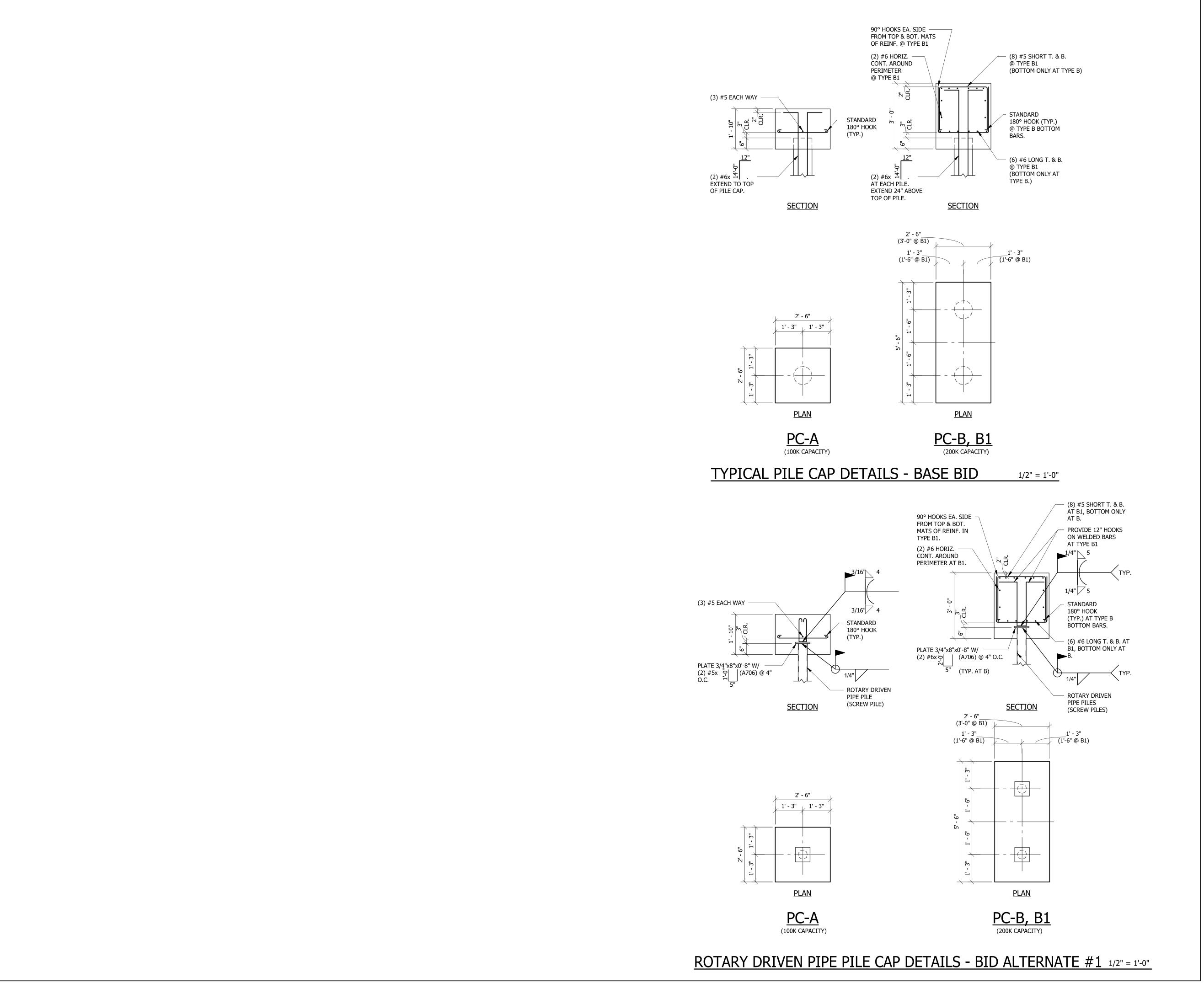


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**S1-3** 



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PILE CAP DETAILS

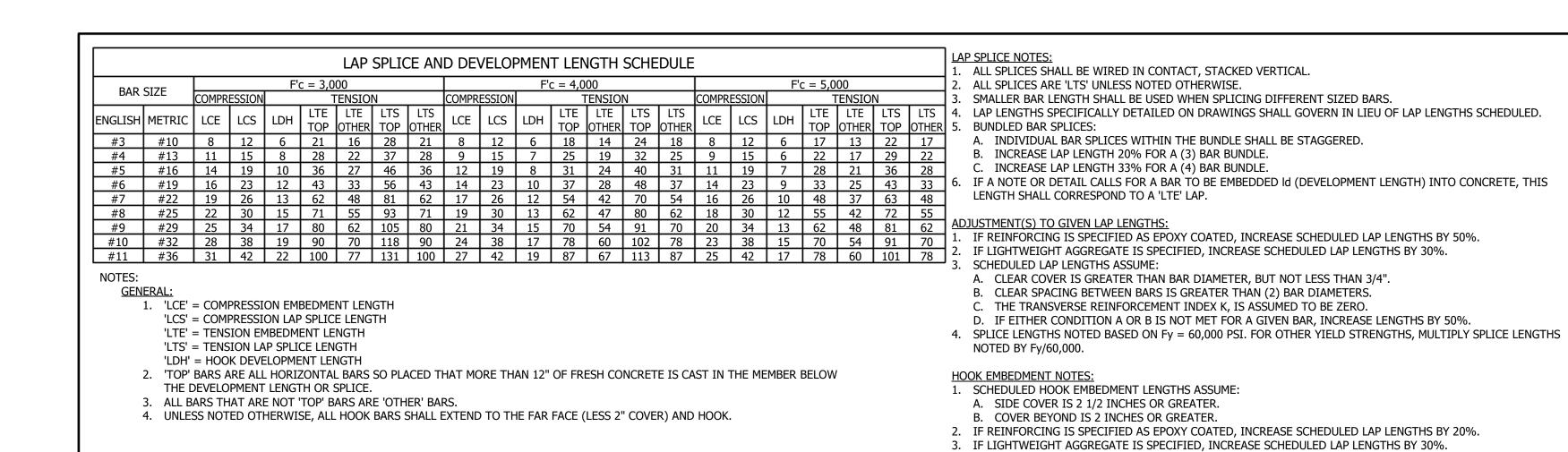
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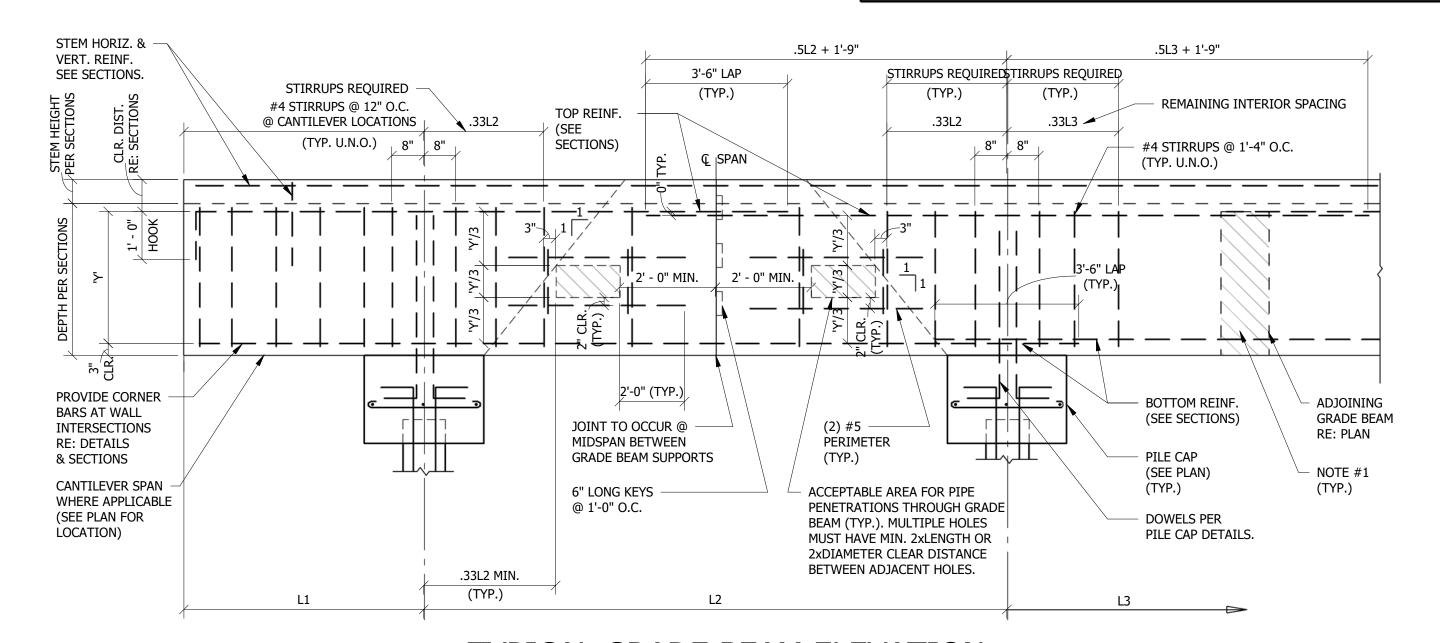


REV. DESC. DATE:

DATE: 02/04/2022

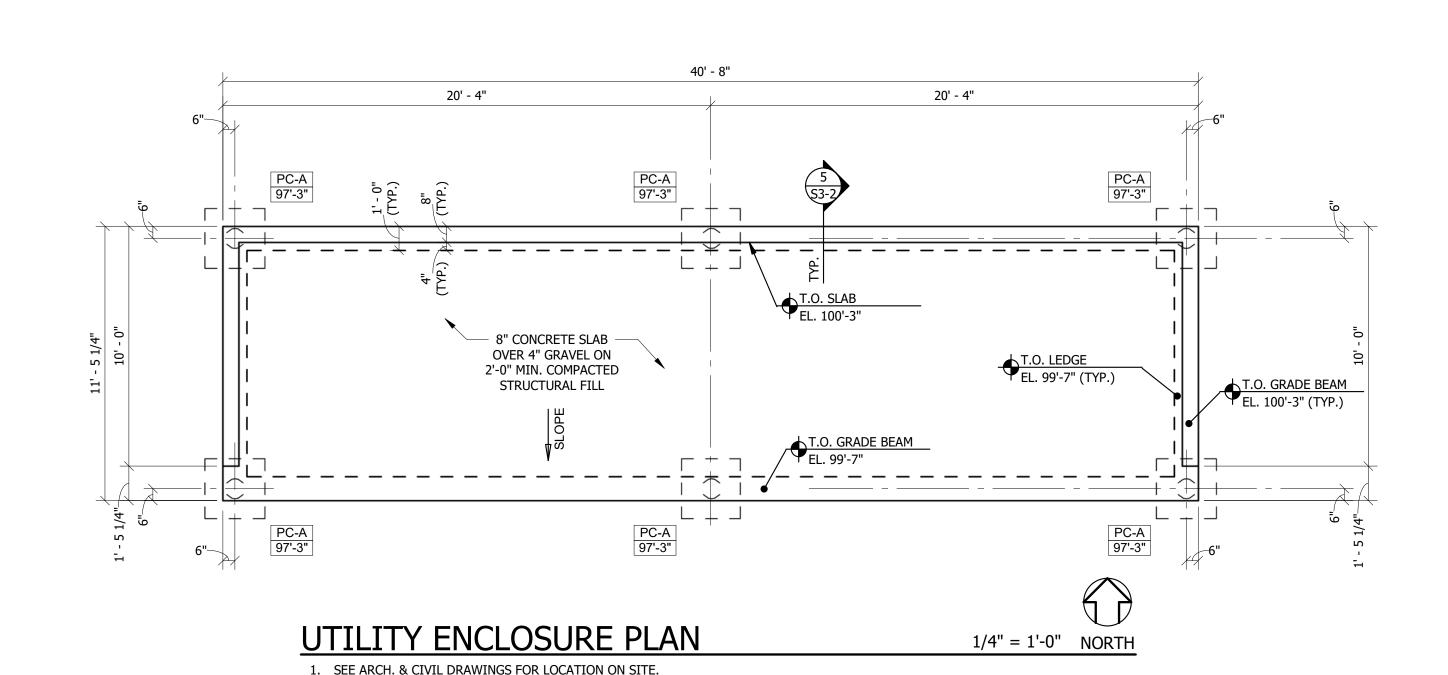
PROJECT #: 21.106



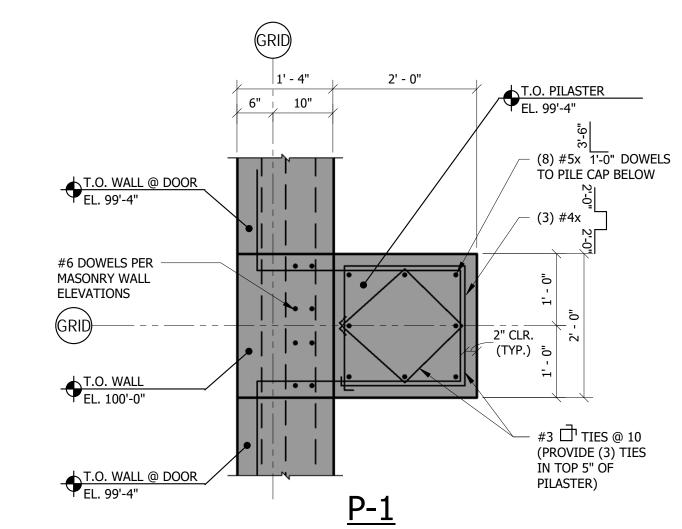


# TYPICAL GRADE BEAM ELEVATION

1. WHERE ADJOINING PERPENDICULAR GRADE BEAM(S) ATTACH IN THE INTERIOR OF SPANS L2 OR L3 GRADE BEAM, PIPE PENETRATIONS ARE NOT PERMITTED 2. GRADE BEAM PIPE PENETRATIONS ARE NOT PERMITTED AT CANTILEVER LOCATIONS.



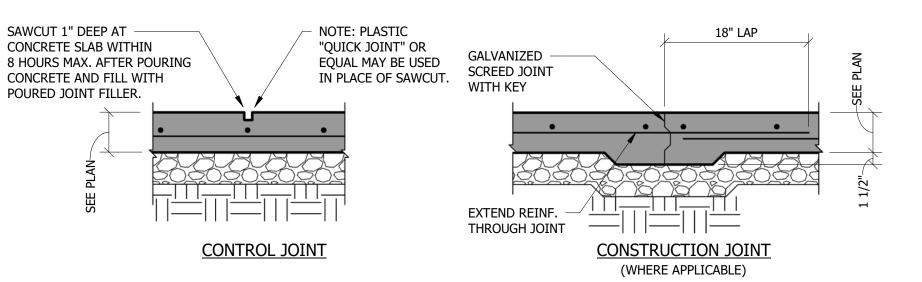
2. REINFORCE 8" CONCRETE SLAB W/ #4 @ 16 EACH WAY TOP & BOTTOM. DO NOT CUT CONTROL JOINTS IN SLAB.



4. IF SIDE COVER IS LESS THAN 2 1/2 INCHES, INCREASE LENGTHS BY 40%.

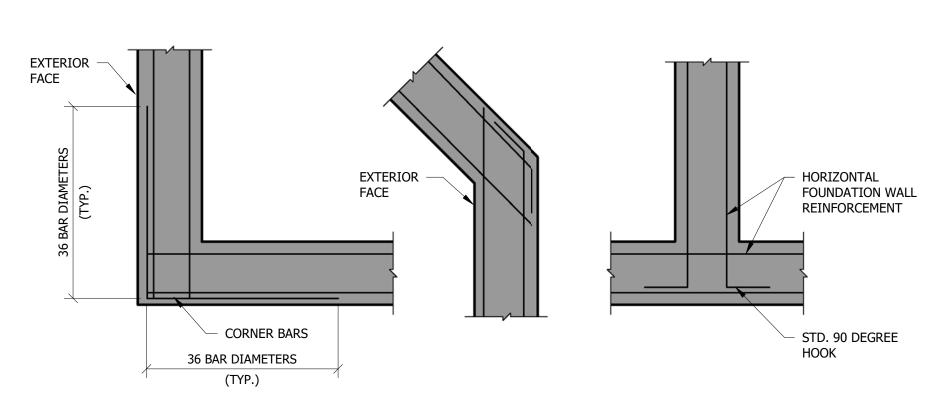
PILASTER DETAILS

3/4" = 1'-0"



TYPICAL SLAB JOINT DETAILS

1" = 1'-0"



TYPICAL CORNER DETAILS

1" = 1'-0"

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> TYPICAL FOUNDATION DETAILS

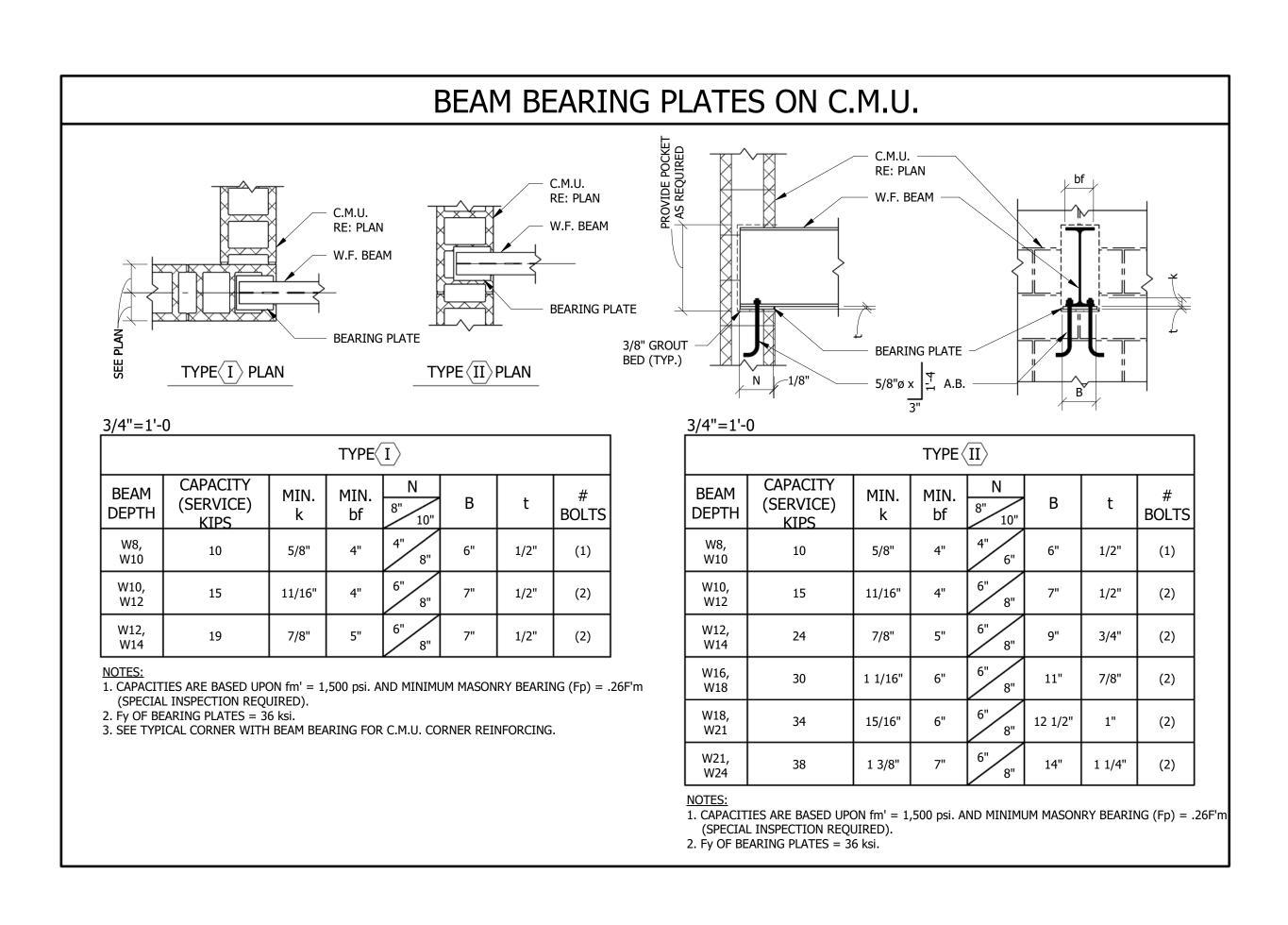
FOR CONSTRUCTION

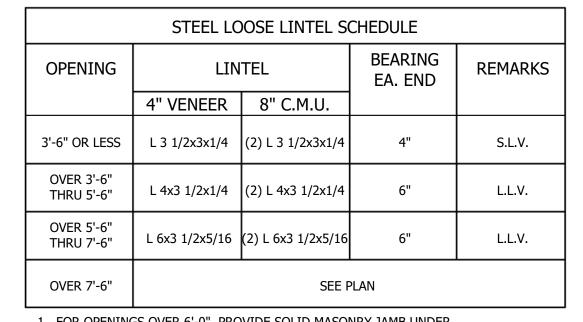


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1. FOR OPENINGS OVER 6'-0", PROVIDE SOLID MASONRY JAMB UNDER LINTEL EACH SIDE OF OPENING.

#### C.M.U. REINFORCING SCHEDULE . PROVIDE #5 @ 32 VERTICAL REINFORCING AT 8" C.M.U. AND #6 @ 24 VERTICAL REINFORCING AT

10" C.M.U. GROUT ALL VERTICAL REINFORCING SOLID. VERTICAL REINFORCEMENT SHALL EXTEND THROUGH BOND BEAMS TO 2" CLR. BELOW TOP OF C.M.U. USE STANDARD LADDER TYPE HORIZONTAL JOINT REINFORCEMENT AT 16" O.C. WITH MINIMUM (2) #9 SIDE RODS AT

. PROVIDE (2) #5 CONT. EACH SIDE OF ALL OPENINGS AND CONTROL JOINTS.

EXTEND 2'-0" MINIMUM EACH SIDE OF OPENING. GROUT SOLID. B. LAP ALL VERTICAL REINFORCING AS FOLLOWS:

#4 - MINIMUM OF 2'-0" #5 - MINIMUM OF 2'-4"

#6 - MINIMUM OF 3'-4" PROVIDE #5 x 4'-0" DOWELS @ 32 FROM GRADE BEAMS TO 8" C.M.U. LAP 2'-4" WITH WALL VERTICAL REINFORCEMENT AND GROUT SOLID. PROVIDE #6 x 5'-2" DOWELS

LAP SPLICE (TYP.)

(SEE SCHEDULE)

BOND BEAM REINFORCING SEE WALL SECTIONS.

RE: SCHEDULE &

GENERAL NOTES FOR REINF.

C.M.U. TOP STEP RE: DETAIL

MIN.

WINDOW OR DOOR

OPENING WIDTH

3/4" = 1'-0"

STEEL LOOSE LINTEL

10" WIDE C.M.U. COLUMN

W/ (2) #5 VERT. GROUTED SOLID

(2 EA. CELL)

(2) #5 CONT.

**GROUTED SOLID** 

**BELOW OPENING** 

**GROUTED SOLID** 

16" MIN. WIDE C.M.U.

COLUMN W/ (4) #5 VERT.

OR ALT. MASONRY

**RE: SCHEDULES** 

T.O. OPENING EL. RE: ARCH.

@ 24 FROM GRADE BEAMS TO 10" C.M.U. LAP 3'-6" WITH WALL VERTICAL REINFORCEMENT

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TYPICAL MASONRY DETAILS

FOR CONSTRUCTION

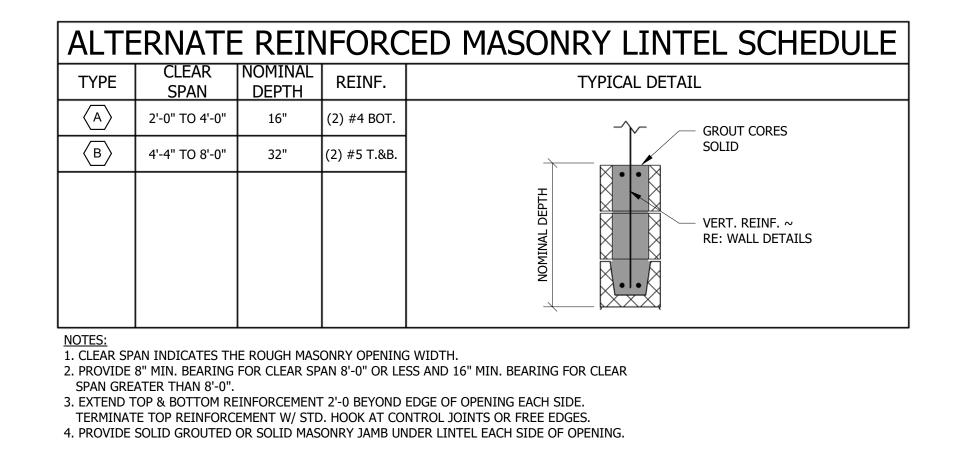


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**S2-3** 



CORNER BARS

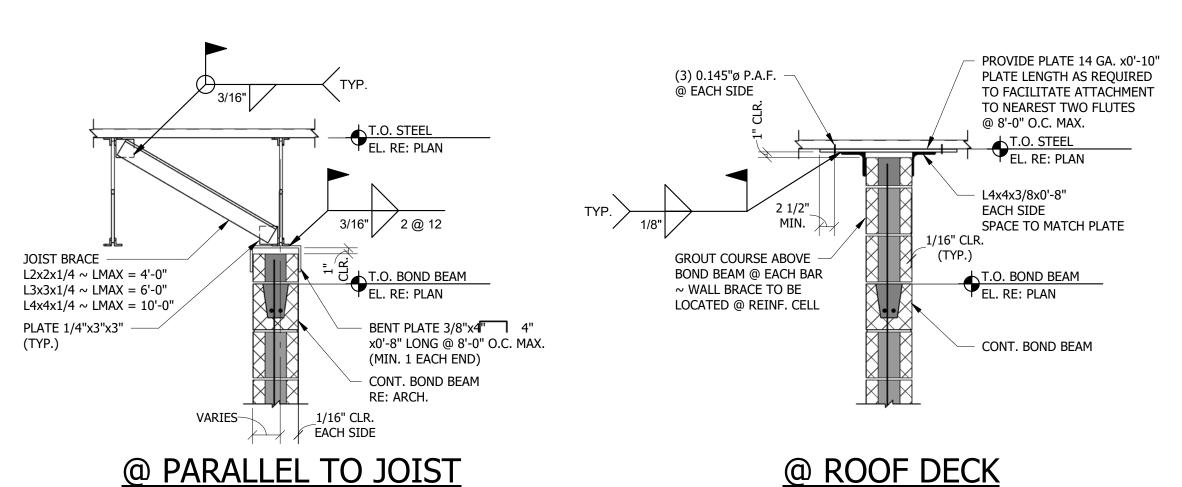
8" OR 10" C.M.U.

(SEE SCHEDULE)

T.O. C.M.U.

1'-0 HOOKS

TYP. C.M.U. TOP STEP DETAIL



@ PARALLEL TO JOIST TYP. INT. MASONRY WALL CONNECTIONS

3/4" = 1'-0"



(2) VERT. CÓRNER BARS (SEE ELEVATIONS)

C.M.U. CORNER REINF.

= 10'-4" MAX. TYPICAL C.M.U. WALL ELEVATION

WINDOW OR DOOR

OPENING WIDTH

MIN.

3/4" = 1'-0"

VERT. REINF. —— EA. SIDE OF JOINT

CONTINUE BOND BEAM

T.O. BOND BEAM EL. RE: SECTIONS

JOINT & SEALANT

DISCONTINUE LADDER

REINF. @ CONTROL JOINTS

10" WIDE C.M.U. COLUMN W/ (2) #5 VERT.

**GROUTED SOLID** 

HORIZONTAL JOINT

INTERIOR REINF

#5x5'-0" DOWELS

RE: SCHEDULE

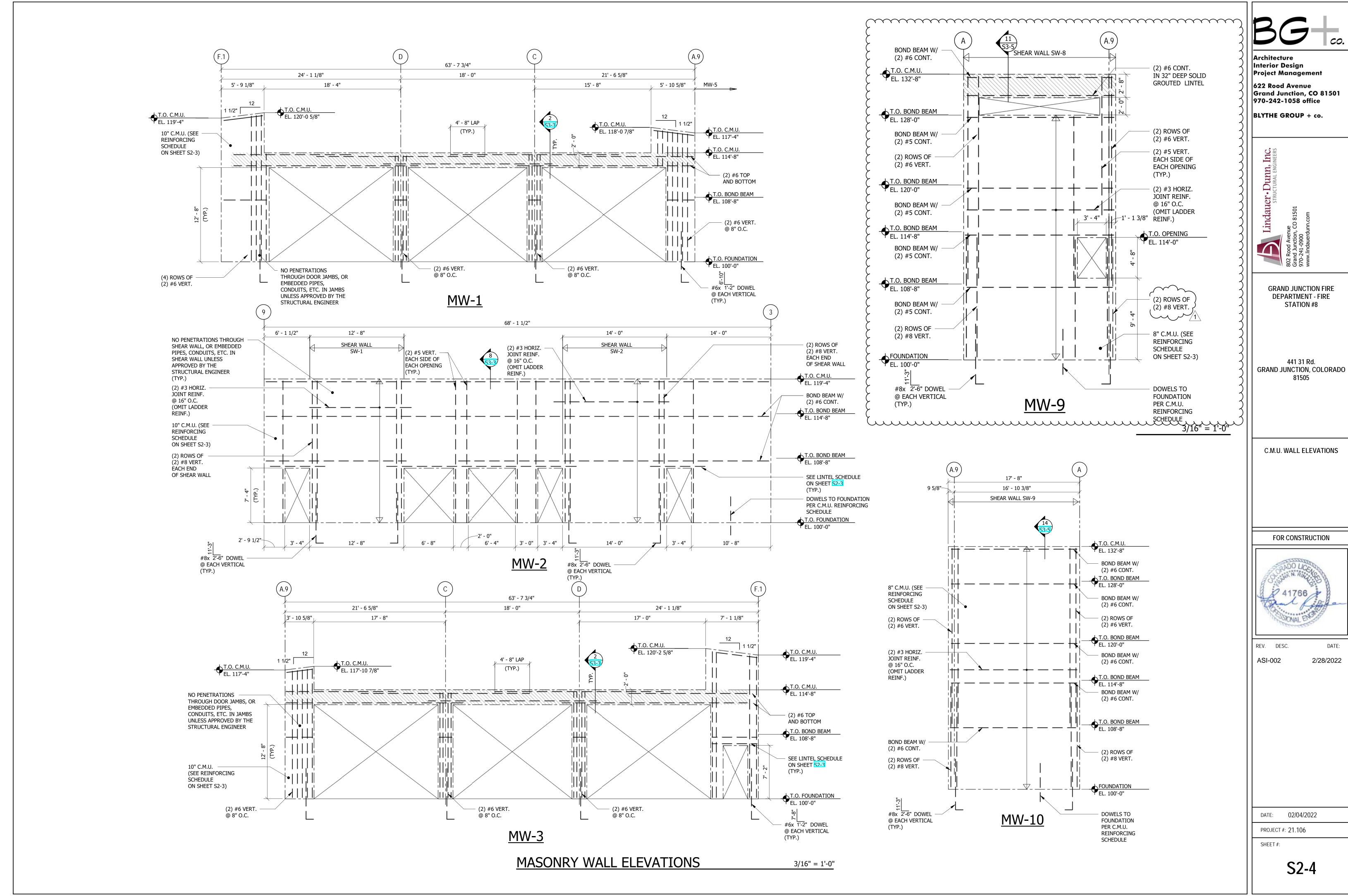
RE: ARCH.

REINF. @ CONTROL JOINTS

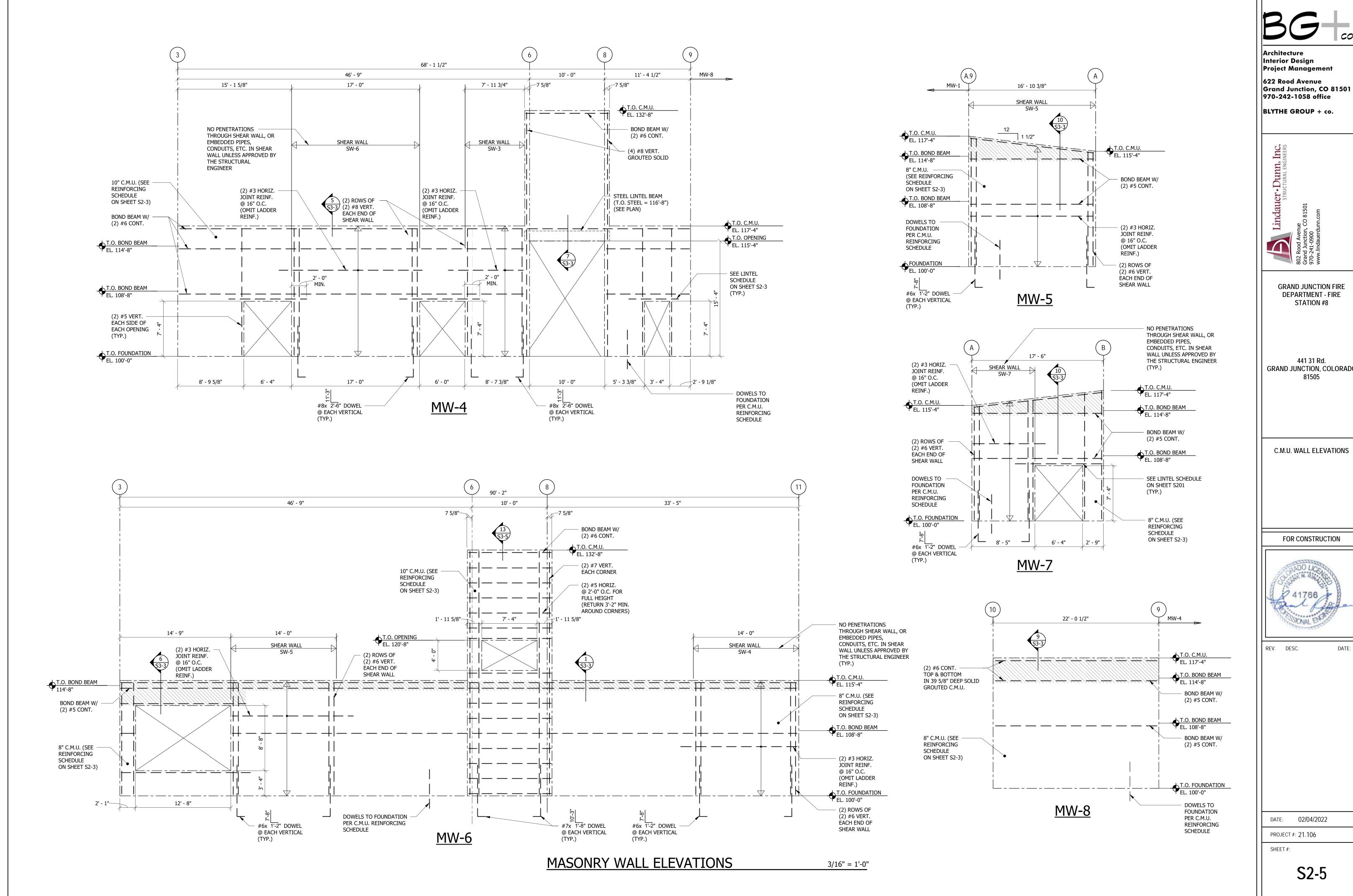
RE: SCHEDULE

T.O. C.M.U. EL. RE: PLAN

C.M.U. EDGE OPENING







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C.M.U. WALL ELEVATIONS

FOR CONSTRUCTION



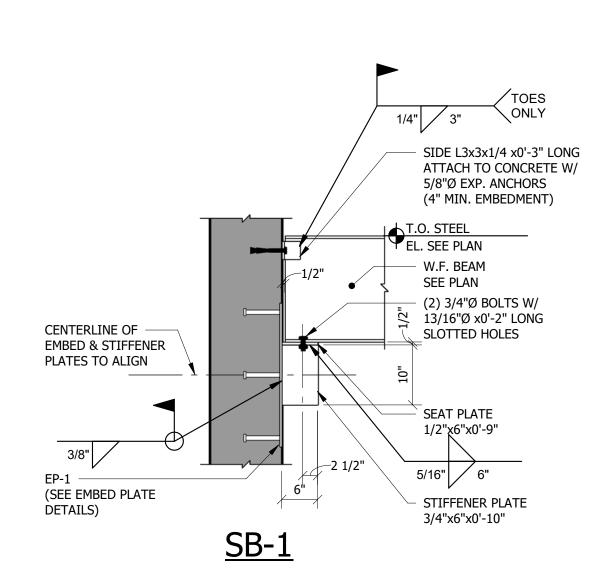
DATE:

DATE: 02/04/2022

STEEL DECK SCHEDULE																	
DECK			CONCRETE SLAB			DECK PROPERTIES (MINIMUMS)						FASTENERS					
DECK MARK	DECK TYPE	DECK DEPTH (in.)	DECK FINISH	CONC. ABOVE DECK (in.)	TOTAL THICKNES S (in.)	CONC. TYPE	SLAB REINF.	SPAN CONDITION		MAX. CLEAR CONST. SPAN	INT. DECK BRG. (in.)	EXT. DECK BRG. (in.)	DECK DIAPHRAGM SHEAR (PLF)	SUPERIMPOSED LOAD CAPACITY (UNIFORM OR CONCENTRATED)	SUPPORTS	SIDE LAPS	COMMENTS
RD1	1.5B	1 1/2	SHOP PAINTED					1-2 SPAN 3 SPAN	18 18	7'-8" 8'-6"	3	1 1/2 1 1/2	364 364	120 PSF 120 PSF	5/8" PUDDLE WELDS 36/4 PATTERN	(4) #10 TEK SCREWS EA. SPAN	ROOF DECK

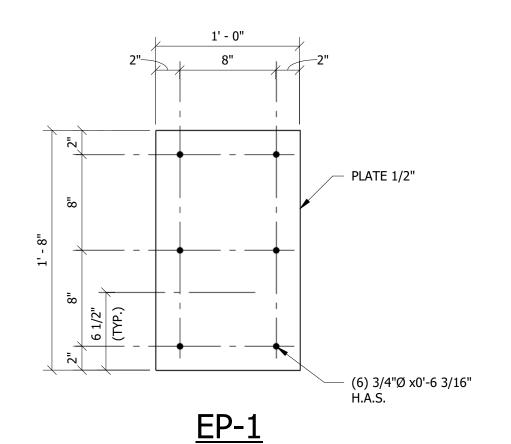
NOTES:
1. SEE GENERAL NOTES FOR REQUIRED DECK MATERIALS.

- 2. DECK WITH HIGHER YIELD STRESS MAY BE USED WITH SP & SN REQUIRED VALUES ADJUSTED BY THE RATIO OF Fy(40)/Fy(PROVIDED).
- 3. ROOF DECK CAPACITIES ARE TOTAL LOADS AND ARE BASED UPON SUPPORT CENTER TO CENTER DIMENSION.
- 4. LAP EDGES AND ENDS OF ADJOINING W.W.F. SHEETS AT LEAST TWO MESH SPACINGS.
  5. NO PERMANENT SUSPENDED LOADS ARE TO BE SUPPORTED BY THE STEEL DECK.



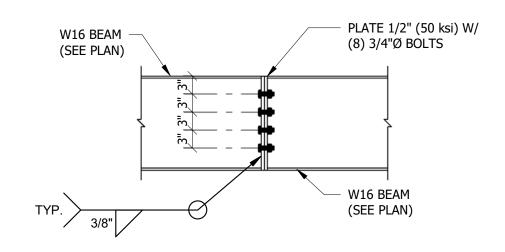
#### SEATED BEAM DETAILS

3/4" = 1'-0"



## EMBED PLATE DETAILS

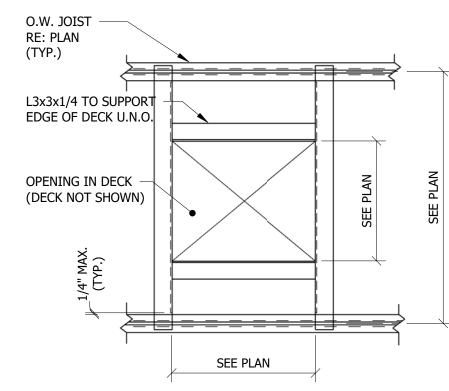
ALL REINFORCING STEEL DOWELS SHALL BE ASTM A706, GRADE 60W.
 H.A.S. LENGTHS SPECIFIED ARE BEFORE WELDING.



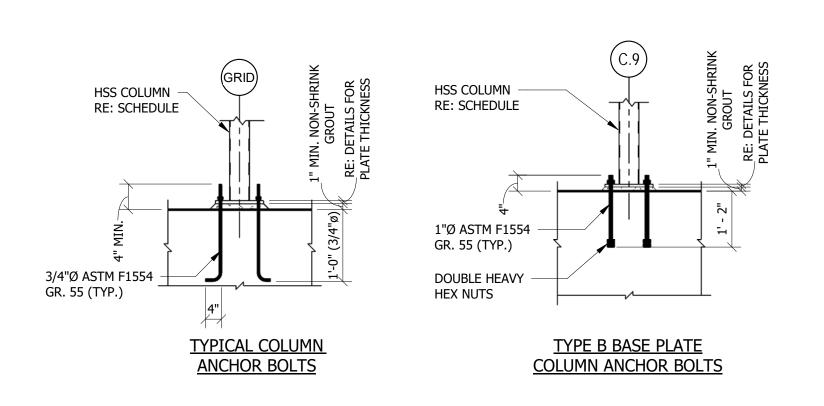
BEAM SPLICE DETAIL

3/4" = 1'-0"

1 1/2" = 1'-0"



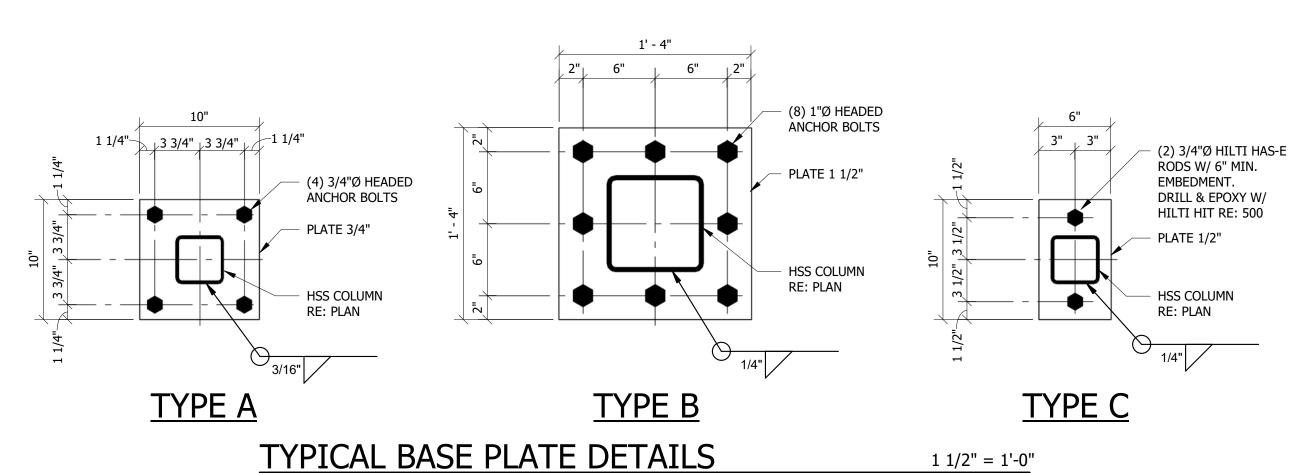
### TYP. EDGE SUPPORT @ METAL ROOF DECK PEN.

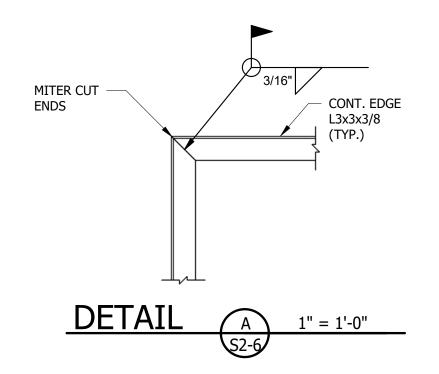


TYPICAL ANCHOR BOLT DETAILS

1/2" = 1'-0"

N.T.S.







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TYPICAL STEEL FRAMING DETAILS

FOR CONSTRUCTION



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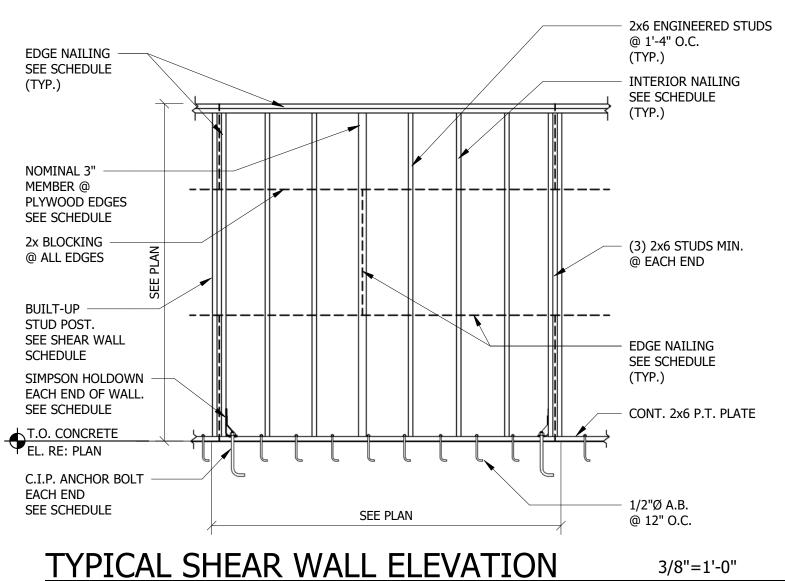
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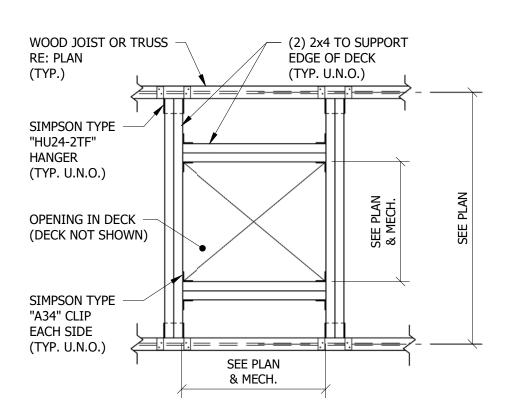
CUEET #

PLYWOOD/SHEAR WALL NAILING SCHEDULE										
USE		PLYWOOD THICKNESS	SPAN/INDEX RATIO	EDGE NAILING	INTERIOR NAILING	HOLD DOWN	HEADED ANCHOR BOLT			
FLOOR		3/4" T.&G.	24 8d @ 6" O.C.		8d @ 12" O.C.					
ROOF		19/32"	32/16	10d @ 4" O.C. (BOUNDARIES) l0d @ 6" O.C. (ALL OTHER EDGES)	10d @ 12" O.C.					
WALL	WALL		24/0	8d @ 6" O.C.	8d @ 12" O.C.					
SHEAR WALL:	Â	15/32"	24/0	10d @ 2" O.C.	10d @ 12" O.C.	"HD12"	1"Ø			

- 1. PLYWOOD FOR ROOFS, FLOORS, AND SHEAR WALL SHEATHING SHALL BE APA GRADE TRADEMARKED CDX W/ EXTERIOR GLUE. LAY UP PLYWOOD W/ FACE
- GRAIN PERPENDICULAR TO SUPPORTS AND STAGGER JOINTS. ALL NAILS SHALL BE COMMON NAILS; RING SHANKED FOR ROOF AND FLOOR SHEATHING. REFER TO TABLE ABOVE FOR USE REQUIREMENTS.
- 2. OSB SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD W/ PRIOR APPROVAL OF OWNER AND CONTRACTOR. OSB SHEATHING
- SHALL COMPLY WITH THE APA PLYWOOD DESIGN SPECIFICATION AND SHALL HAVE A SPAN RATING EQUIVALENT TO, OR BETTER, THAN
- THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES.
- 3. ALL EDGES OF ROOF SHEATHING SHALL BE BLOCKED WITH A 2" NOMINAL WOOD FRAMING MEMBER.
- 4. AT ABUTTING SHEAR WALL PANEL EDGES, STUDS SHALL BE NO LESS THAN A SINGLE 3" NOMINAL MEMBER AND NAILS SHALL BE STAGGERED. 5. PROVIDE (3) 2" NOMINAL STUDS AND HOLDOWNS AT EACH END OF SHEAR WALL.
- 6. HOLDOWNS LISTED ARE BY SIMPSON STRONG-TIE. ALTERNATES MUST BE EQUIVALENT AND MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- 7. HEADED ANCHOR BOLTS AT HOLDOWNS SHALL CONFORM TO ASTM F1554 GRADE 55. ANCHORS SHALL HAVE A MINIMUM EMBEDMENT OF 2'-0" AND SHALL HAVE A MINIMUM PROJECTION OF 6".



1. NO OPENINGS ALLOWED IN SHEAR PANELS UNLESS APPROVED BY THE STRUCTURAL ENGINEER. 2. ANCHOR BOLTS AT HOLDOWNS SHALL CONFORM TO ASTM F1554 GRADE 55.



TYP. EDGE SUPPORT @ PLYWOOD ROOF DECK PEN. N.T.S.

PROVIDE OPENING SUPPORTS FOR ALL ROOF PENETRATIONS 6"Ø AND LARGER.

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TYPICAL WOOD FRAMING DETAILS

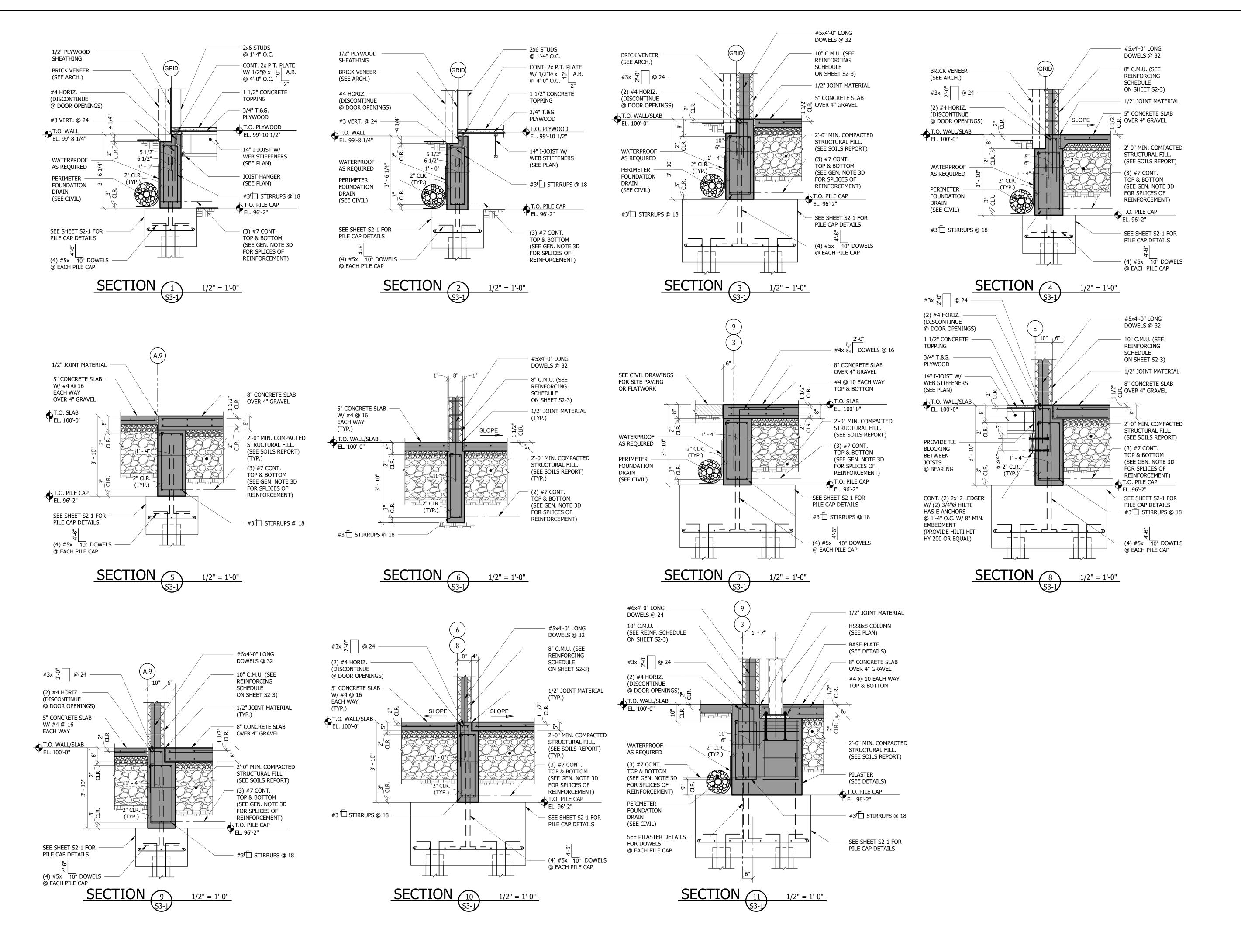
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**GRAND JUNCTION FIRE** DEPARTMENT - FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

**FOUNDATION SECTIONS** 

FOR CONSTRUCTION

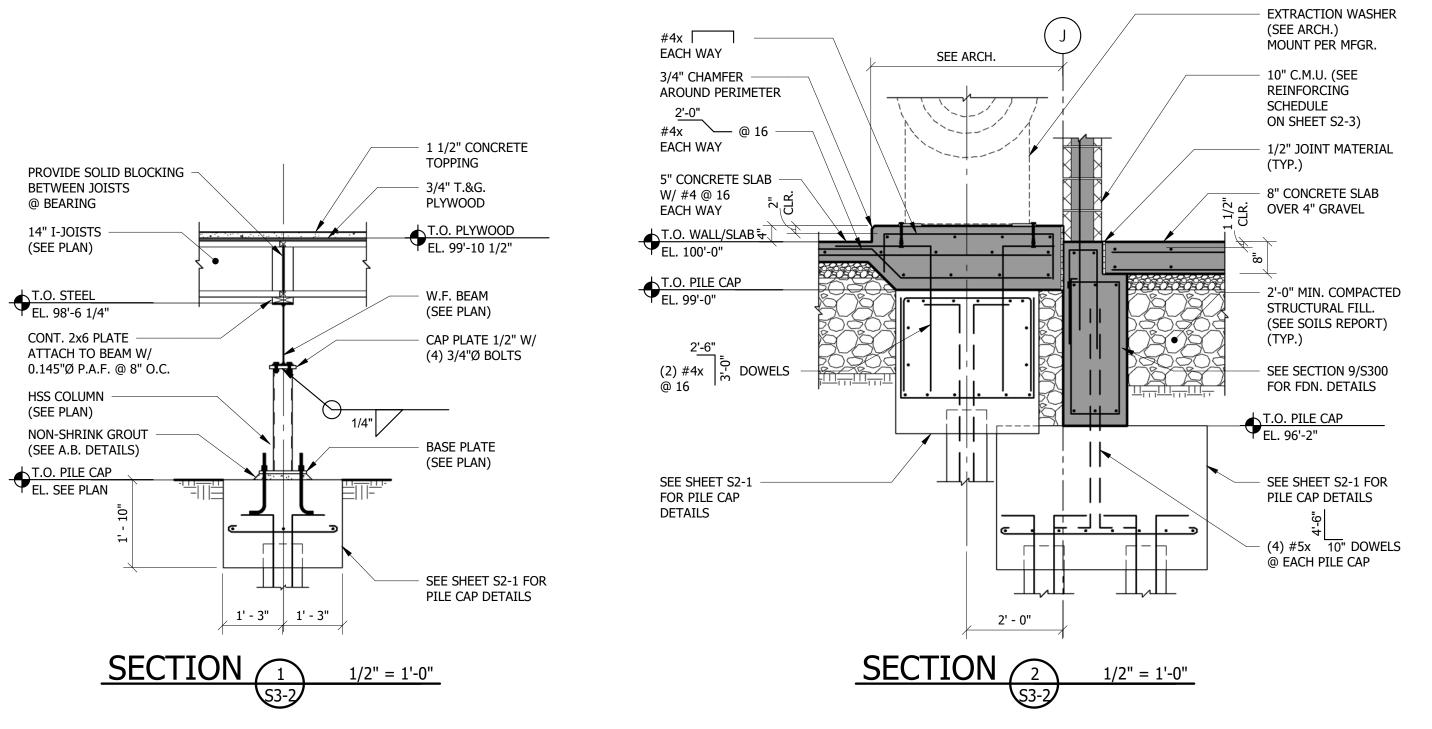


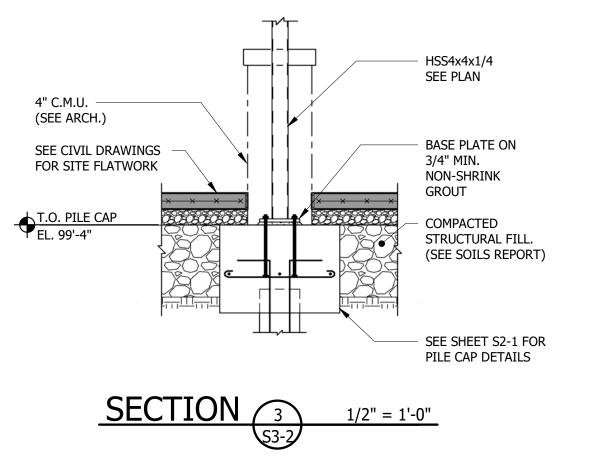
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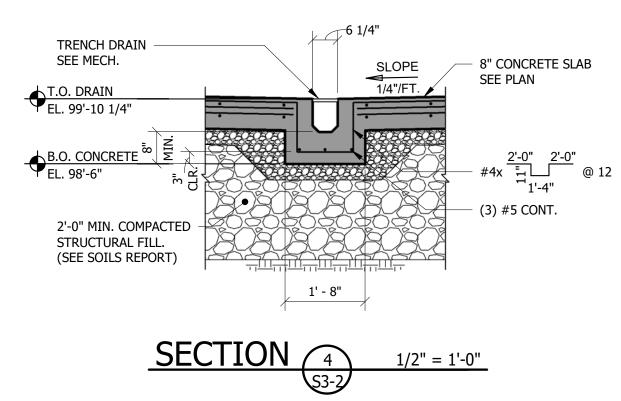
DATE: 02/04/2022

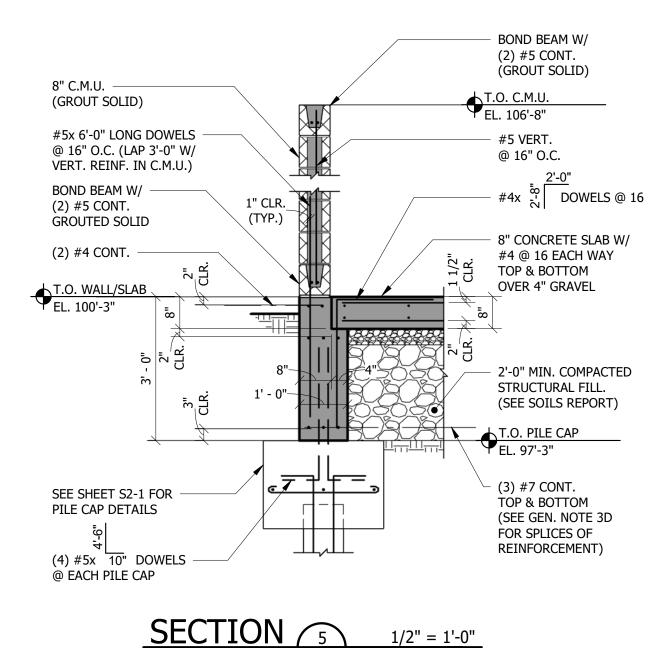
PROJECT #: 21.106

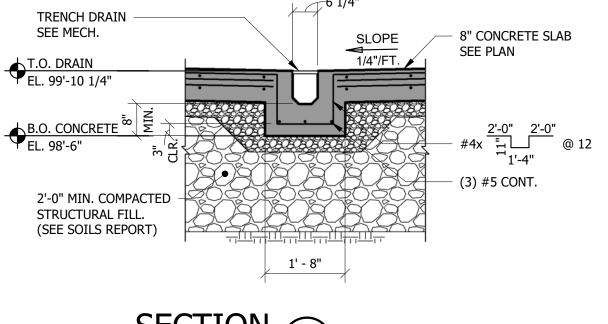
SHEET #:











FOR CONSTRUCTION

Architecture

Interior Design

622 Rood Avenue

Project Management

970-242-1058 office

BLYTHE GROUP + co.

Grand Junction, CO 81501

**GRAND JUNCTION FIRE** 

**DEPARTMENT - FIRE** STATION #8

441 31 Rd.

GRAND JUNCTION, COLORADO

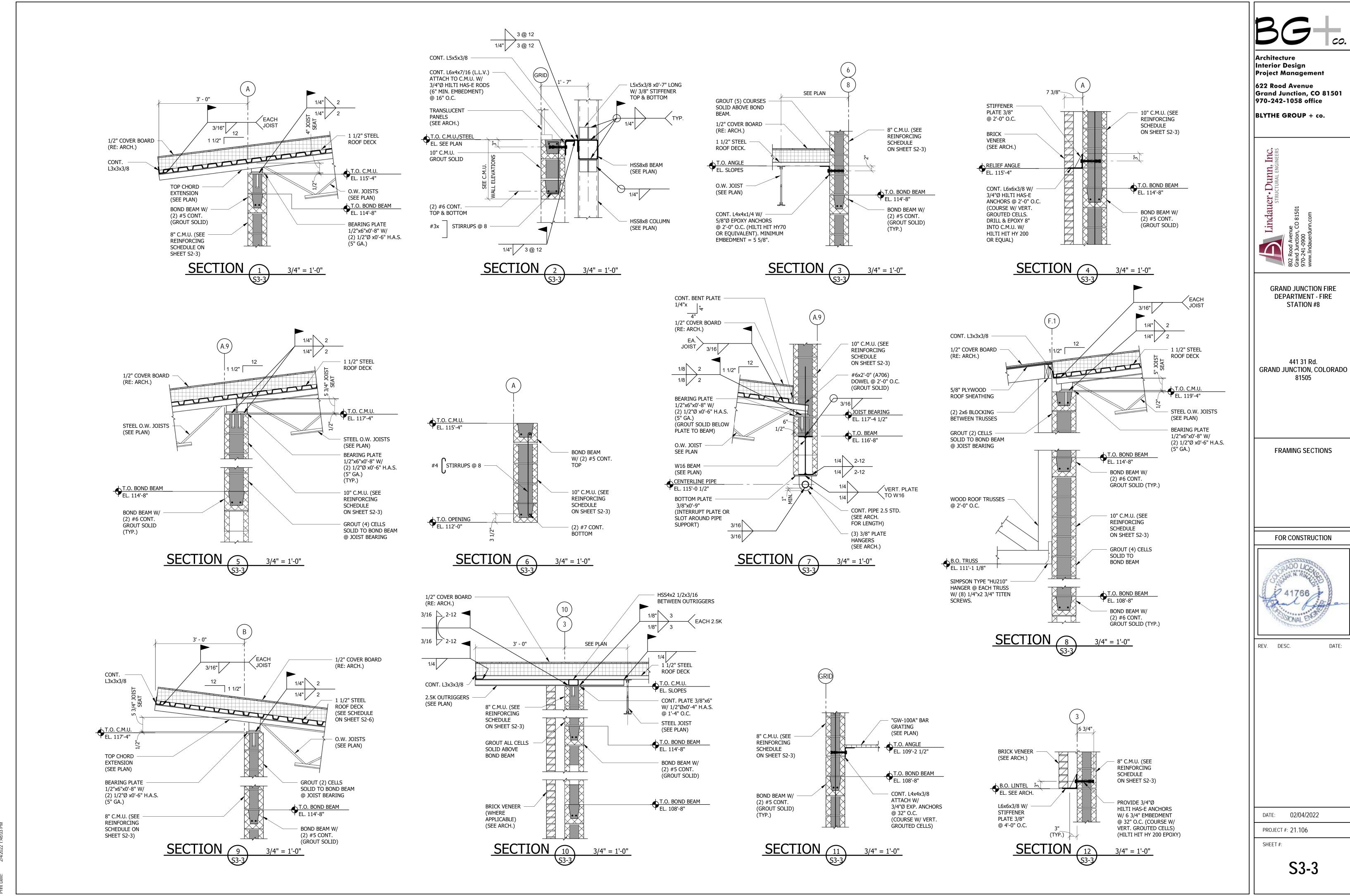
81505

FOUNDATION SECTIONS

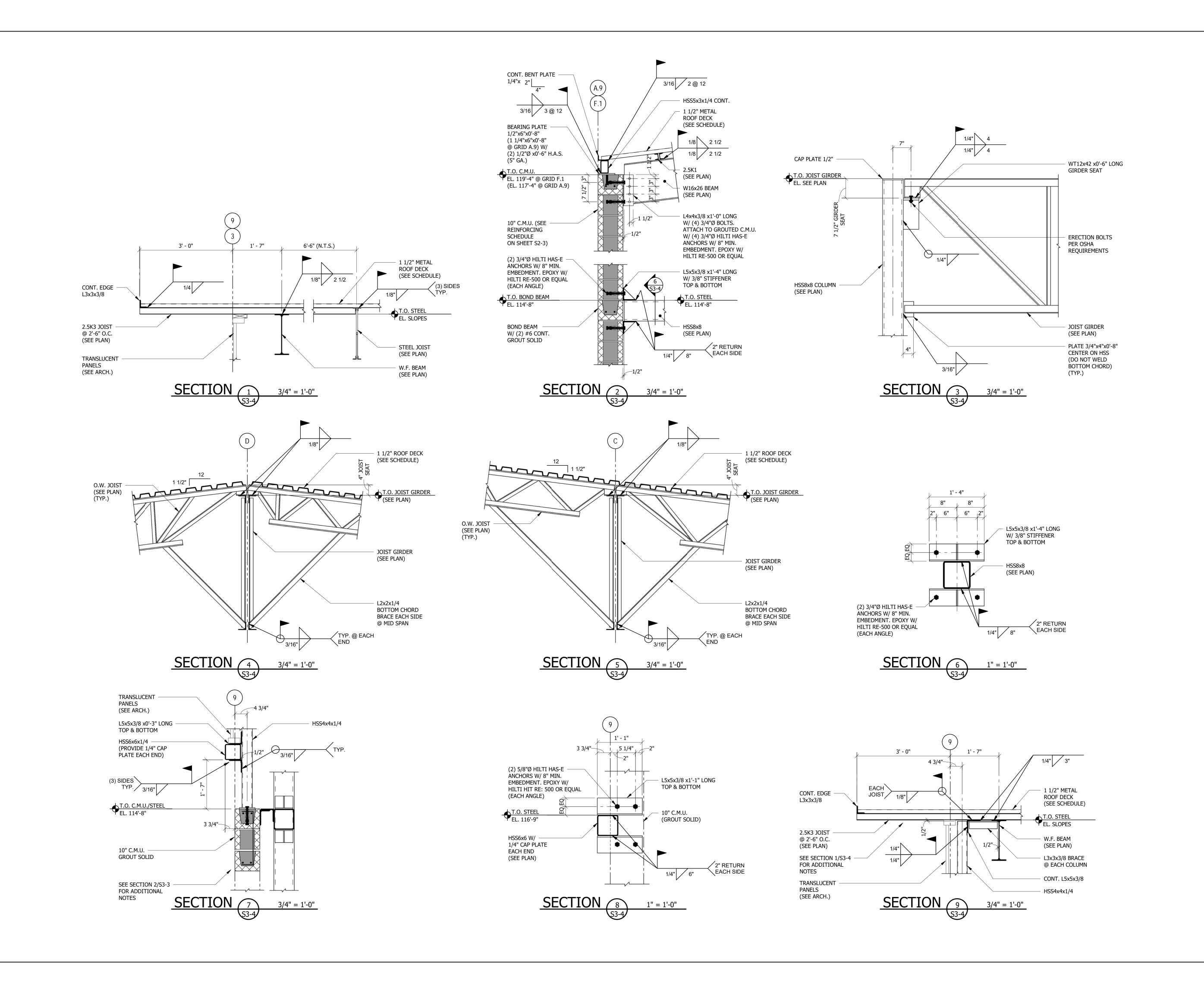


DATE: 02/04/2022

PROJECT #: 21.106







BG+...

Architecture Interior Design Project Management

BLYTHE GROUP + co.

622 Rood Avenue Grand Junction, CO 81501 970-242-1058 office

Lindauer Dunn, Inc.
STRUCTURAL ENGINEERS

GRAND JUNCTION FIRE DEPARTMENT - FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

FRAMING SECTIONS

FOR CONSTRUCTION

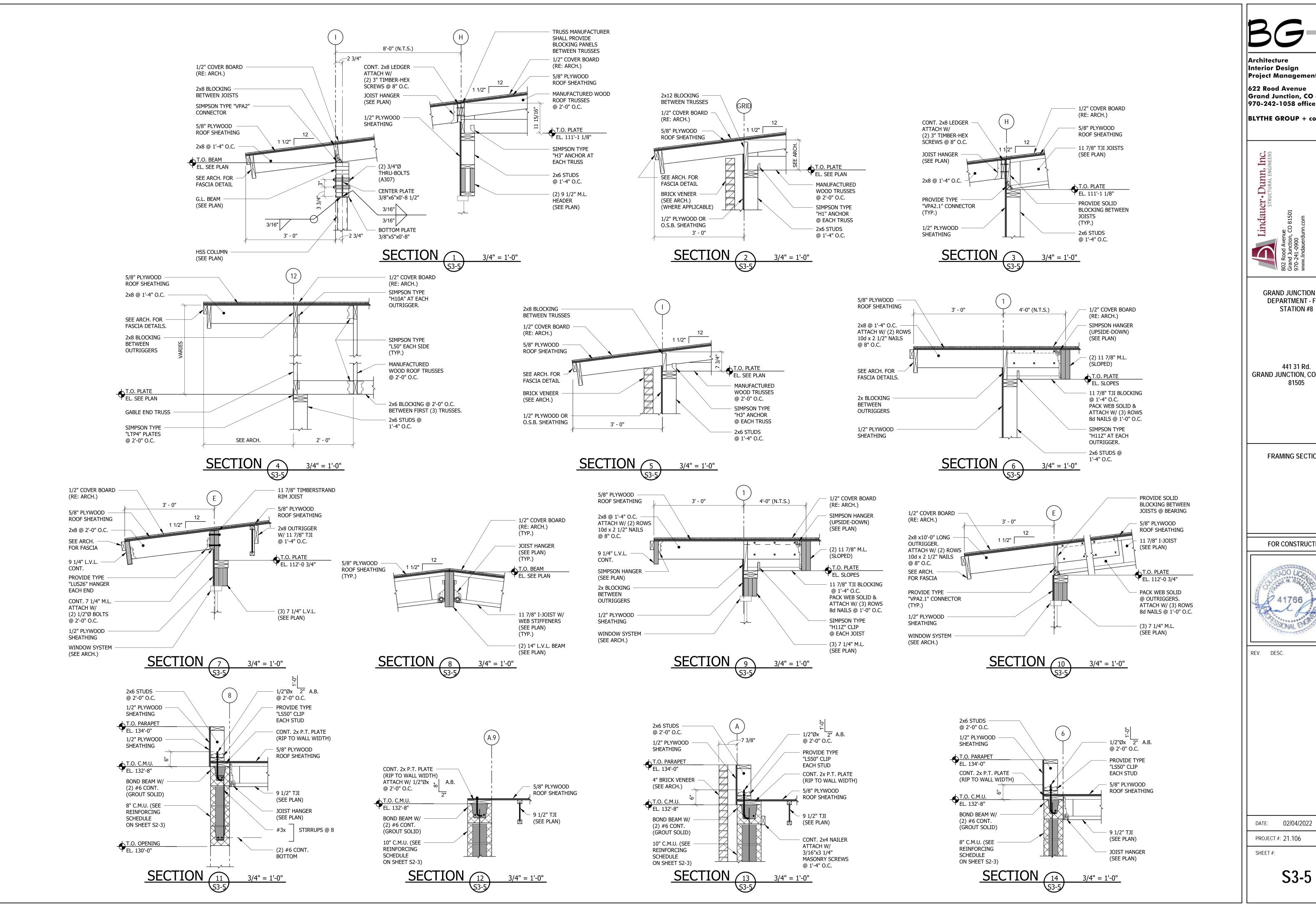


REV. DESC. DATE:

DATE: 02/04/2022

PROJECT #: 21.106

SHEET #:



Interior Design **Project Management** 

622 Rood Avenue **Grand Junction, CO 81501** 

BLYTHE GROUP + co.

**GRAND JUNCTION FIRE** DEPARTMENT - FIRE STATION #8

441 31 Rd. GRAND JUNCTION, COLORADO 81505

FRAMING SECTIONS

FOR CONSTRUCTION



DATE:

DATE: 02/04/2022