UNION COUNTY FIRE STATION

PROJECT TEAM

OWNER

UNION COUNTY
COMMISSIONER'S OFFICE
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BLAIRSVILLE, GEORGIA 30512

CONTACT: MR. LARRY GARRETT
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ARCHITECT

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ELECTRICAL ENGINEER

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BLDG 700
PEACHTREE CORNERS, GA 30092

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PLUMBING ENGINEER

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MECHANICAL ENGINEER

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6991 PEACHTREE INDUSTRIAL BLVD
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PEACHTREE CORNERS, GA 30092

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PHONE: 404.394.1147

STRUCTURAL ENGINEER

GOODMAN GIANNAVOLA HINES ENGINEERS
311 14TH STREET
SUITE 2
ATLANTA, GA 30318

CONTACT: CHRIS HINES
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PHONE: 404.969.6895

GENERAL NOTES

1. DO NOT SCALE DRAWINGS. USE WRITTEN DIMENSIONS ONLY. SUBMIT ANY DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION PRIOR TO EXECUTION OF THE WORK IN QUESTION.
2. ALL DIMENSIONS ARE TO FACE OF FINISH MATERIAL OR CENTERLINE OF FIXTURE UNLESS CLEARLY SHOWN OR NOTED OTHERWISE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXECUTION OF THE WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS UNLESS WRITTEN NOTIFICATION TO THE CONTRARY IS ISSUED AND SIGNED BY THE OWNER AND/ OR ARCHITECT.
4. THE LOCATION OF THE EXISTING UTILITIES AND STRUCTURES SHOWN IN THE DOCUMENTS ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND ACTUAL LOCATION OF SUCH, WHETHER SHOWN HEREON OR NOT, PRIOR TO ANY EXCAVATION.
5. ALL VERTICAL AND HORIZONTAL DUCTS, PIPES, CONDUIT, AND SIMILAR ASSEMBLIES IN FINISHED ROOMS SHALL BE ENCLOSED IN A FINISHED CHASE. THE MATERIALS AND FINISHES OF SUCH CHASES SHALL MATCH ADJACENT FINISHED WALLS.
6. FURNISH ACCESS PANELS IN WALLS AND NON-ACCESSIBLE TYPE CEILINGS WHERE SERVICE OR ADJUSTMENT TO MECHANICAL, PLUMBING OR ELECTRICAL EQUIPMENT MAY BE REQUIRED. ACCESS PANELS SHALL BE EQUAL IN FIRE RATING TO SURFACE IN WHICH THEY OCCUR. REFER TO ENGINEERING DRAWINGS FOR LOCATION OF MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT.
7. PROVIDE CONTROL JOINTS IN GYPSUM WALL BOARD AS SHOWN IN THE DRAWINGS. OR IF NOT SHOWN, MAXIMUM ALLOWED PER MANUFACTURERS SPECIFICATION.
8. TIGHTLY SEAL ANY OPENINGS IN FIRE RATED WALLS BY DUCTS, PIPES, CONDUIT, STRUCTURAL MEMBERS, OR ANY OTHER MATERIALS. OPENINGS IN METAL STUD PARTITIONS SHALL BE SEALED WITH FIRE SAFING.
9. GYPSUM WALLBOARD IN ROOMS SUBJECT TO MOISTURE ACCUMULATION (TOILETS, SHOWERS, JANITORS CLOSET, ETC.) SHALL BE MOISTURE RESISTANT TYPE.
10. ALL GYPSUM WALL BOARD MATERIAL IN FIRE RATED ASSEMBLIES SHALL BE FIRE RESISTIVE UL CLASSIFIED MATERIAL APPLIED IN STRICT COMPLIANCE TO THE APPLICABLE FIRE TEST DESIGN WITH JOINTS ON OPPOSITE WALL FACES STAGGERED. FASTENERS SHALL BE OF APPROVED TYPE AND INSTALLED IN ACCORDANCE WITH APPLICABLE FIRE TEST. ALL WALLBOARD JOINTS IN ALL PARTITION WALLS SHALL BE TAPED AND FINISHED WITH JOINT COMPOUND, INCLUDING THOSE ABOVE THE FINISHED CEILING. PENETRATIONS FOR PIPES, CONDUIT, FRAMING MEMBERS, DUCTS, ETC. SHALL BE FRAMED WITH RUNNER CHANNELS AND TIGHTLY SEALED. SUCH PENETRATIONS SHALL BE TIGHTLY PACKED WITH MINERAL FIBER SAFING INSULATION.
11. IMMEDIATELY NOTIFY ARCHITECT IN WRITING IF ANY OMISSION, DISCREPANCY, AMBIGUITY, OR ERROR IN THE CONTRACT DOCUMENTS BE DISCOVERED OR IF ANY DOUBT AS TO THE MEANING OR INTENT THEREOF SHOULD ARISE. CLARIFICATION WILL BE MADE BY REVISION TO THE CONTRACT DOCUMENTS.
12. ALL ATTACHMENTS, SCREWS AND BOLTS BETWEEN STRUCTURAL STEEL AND TREATED WOOD, BLOCKING AND NAILERS SHALL BE GALVANIZED.
13. PAINT ALL EXPOSED DUCTWORK, PIPING, CONDUIT, ETC. PER MFG. RECOMMENDATION.
14. SHOP DRAWINGS AND SAMPLES SHALL BE SUBMITTED FOR APPROVAL TO THE INTERIOR DESIGNER/ ARCHITECT PRIOR TO CONSTRUCTION AND/OR PURCHASE OF MATERIALS DESCRIBING THE OVERALL SCOPE AS WELL AS COMPLETE DETAILS OF WORK TO BE PERFORMED. ALL FABRICATION SHALL BE BASED ON ACTUAL FIELD DIMENSIONS.
15. CONTRACTOR SHALL OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED BY LOCAL AND STATE AND LOCAL CODES. ALL RECOMMENDATIONS AND REQUIREMENTS OF THE STATE CODES AND NFPA 90-A SHALL BE FOLLOWED.
16. VISIT THE JOB SITE AND CHECK ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A PRICE FOR PERFORMING ANY WORK.
17. CONTRACTOR TO VERIFY WITH THE OWNER AND/OR OWNER'S REPRESENTATIVES ALL PLUMBING AND ELECTRICAL REQUIREMENTS FOR EQUIPMENT PROVIDED BY THE OWNER.
18. INTERIOR CONTRACT DOCUMENTS HOLD PRECEDENCE OVER ENGINEER DOCUMENTS FOR LOCATIONS, MOUNTING HEIGHTS, ETC. IF THERE IS A CONFLICT BETWEEN DOCUMENTS, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT IMMEDIATELY FOR DIRECTION.

PROJECT NOTES/ APPLICABLE CODES

INTERNATIONAL BUILDING CODE (IBC): 2018 EDITION WITH GA AMENDMENTS.

NATIONAL ELECTRIC CODE (NEC): 2020 EDITION

INTERNATIONAL FUEL GAS CODE (IFGC): 2018 EDITION WITH GA AMENDMENT.

INTERNATIONAL MECHANICAL CODE (IMC): 2018 EDITION WITH GA AMENDMENTS

INTERNATIONAL PLUMBING CODE (IPC): 2018 EDITION WITH GA AMENDMENTS

INTERNATIONAL ENERGY CONSERVATION CODE (IECC): 2015 EDITION WITH GA SUPPLEMENTS AND AMENDMENTS

INTERNATIONAL FIRE CODE (IFC): 2018 EDITION

GEORGIA ACCESSIBILITY CODE - GAC 120-3-20 - 2015 EDITION

NATIONAL FIRE PROTECTION ASSOCIATION 101 LIFE SAFETY CODE (LSC): 2018 EDITION

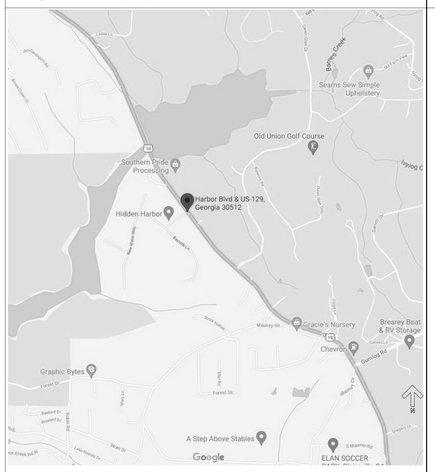
U.S. DEPT. OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBLE DESIGN (ADA): 2010 EDITION

CHAPTER 120-3-3 RULES AND REGULATIONS FOR THE STATE MIN. FIRE STANDARDS IN GA

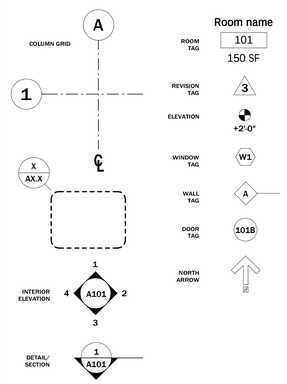
PROJECT INFORMATION

PROJECT DESCRIPTION:	UNION COUNTY FIRE STATION CONSTRUCTION
PROJECT LOCATION:	HARBOR BOULEVARD AT MURPHY HIGHWAY BLAIRSVILLE, GEORGIA 30512
OCCUPANCY CLASSIFICATION:	STORAGE (GROUP S-2) RESIDENTIAL (GROUP R-3) BUSINESS (GROUP B) ASSEMBLY (GROUP A-3)
OCCUPANCY LOAD:	83
CONSTRUCTION TYPE:	VB PER IBC 2018, V(000) PER NFPA 2018
NUMBER OF STORIES:	1
SPRINKLER SYSTEM:	SPRINKLERED - TYPE NFPA 13R
SQUARE FOOTAGE:	FIRST FLOOR: 7467 S.F. PORCH (UNENCLOSED) 653 S.F. TOTAL: 8119 S.F.

VICINITY MAP



LEGEND



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C 1	EXISTING SITE CONDITIONS		06/06/2022
C2	SITE LAYOUT PLAN		06/06/2022
C3	GRADING AND UTILITY PLAN		06/06/2022
EC1	ESPC NOTES I		06/06/2022
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IECC 2015 GA AMENDMENT TABLE C402.4 COMPLIANCE: FENESTRATION REQUIREMENTS

VERTICAL FENESTRATION, METAL FRAMING WITH OR WITHOUT THERMAL BREAK : CLIMATE ZONE 4 EXCEPT MARINE

FIXED FENESTRATION U-FACTOR	0.38
ENTRANCE DOORS U-FACTOR	0.77
OPERABLE FENESTRATION U-FACTOR	0.45

PROJECTION FACTOR = A/B WHERE A=DEPTH OF PROJECTION, B=VERTICAL EXPOSURE

GLAZING CONDITION	PROJECTION FACTOR (PF)	REQUIRED SHGC
WINDOWS UNDER NORTHEAST ENTRANCE	130.0" / 47.0" = 2.77	0.64
DOOR UNDER NORTHEAST ENTRANCE	130.0" / 37.0"=3.51	0.64
TYPICAL WINDOWS UNDER LOWER ROOF OVERHANG	30" / 47" = .64	0.64
DOORS UNDER LOWER ROOF OVERHANG	30" / 37" = .81	0.64
TYPICAL WINDOWS UNDER HIGHER ROOF OVERHANG	37"/36"=1.02	0.64
PATIO DOORS UNDER LOW ROOF OVERHANG - NORTHWEST	30"/59"=.51	0.64
GARAGE DOOR UNDER HIGHER ROOF OVERHANG	37"/44"=.84	0.64

IBC TABLE 601 COMPLIANCE

STRUCTURAL ELEMENT	CONST. TYPE	REQUIRED FIRE RESISTANCE (HR)	DETAIL REFERENCE
STRUCTURAL FRAME	II-B	0	N/A
BEARING WALLS, EXTERIOR	II-B	0	N/A
BEARING WALLS, INTERIOR	II-B	0	N/A
NONBEARING EXTERIOR WALLS	II-B	0	N/A
NONBEARING INTERIOR PARTITIONS	II-B	0	N/A
FLOOR CONSTRUCTION	II-B	0	N/A
ROOF CONSTRUCTION	II-B	0	N/A

IBC TABLE 506.2 COMPLIANCE

BUILDING AREA PER IBC 2018 TABLE 506.2

FLOOR 1: MIXED BUSINESS (B) , ASSEMBLY (A-3), STORAGE (GROUP S-2) AND RESIDENTIAL (GROUP R-3)

OCCUPANCY: BUSINESS (B)

TABULATED ALLOWABLE AREA (SQ. FT.)	23,000
SPRINKLER INCREASE BY 506.3	92,000
ACTUAL AREA OF OCCUPANCY:	630
ACTUAL AREA / ALLOWED AREA:	630/92,000

OCCUPANCY: ASSEMBLY (A-3)

TABULATED ALLOWABLE AREA (SQ. FT.)	9,500
SPRINKLER INCREASE BY 506.3	38,000
ACTUAL AREA OF OCCUPANCY	843
ACTUAL AREA / ALLOWED AREA:	843/38,000

OCCUPANCY: STORAGE (S-2)

TABULATED ALLOWABLE AREA (SQ. FT.)	26,000
SPRINKLER INCREASE BY 506.3	104,000
ACTUAL AREA OF OCCUPANCY	3,711
ACTUAL AREA / ALLOWED AREA:	3,711/104,000

OCCUPANCY: RESIDENTIAL (R-3)

TABULATED ALLOWABLE AREA (SQ. FT.)	UL
SPRINKLER INCREASE BY 506.3	UL
ACTUAL AREA OF OCCUPANCY	2,935
ACTUAL AREA / ALLOWED AREA:	2,935/UL

IBC 508.4.2 COMPLIANCE 0.0068 + 0.0221+.0357 =0.0646 < 1.0 OK

BUILDING HEIGHT PER IBC 2018 TABLE 504.3 & 504.4

OCCUPANCY : BUSINESS (B)

ALLOWED HEIGHT:	4 STORIES, 75 FEET
DESIGNED OCCUPANCY HEIGHT:	1 STORY, 36'-9"

OCCUPANCY: ASSEMBLY (A-3)

ALLOWED HEIGHT:	3 STORIES, 75 FEET
DESIGNED OCCUPANCY HEIGHT:	1 STORY, 36'-9"

OCCUPANCY : STORAGE (S-2)

ALLOWED HEIGHT:	4 STORIES, 75 FEET
DESIGNED OCCUPANCY HEIGHT:	1 STORY, 36'-9"

OCCUPANCY: RESIDENTIAL (R-3)

ALLOWED HEIGHT:	4 STORIES, 75 FEET
DESIGNED OCCUPANCY HEIGHT:	1 STORY, 36'-9"

NOTE:
FOR PURPOSES OF DETERMINING ALLOWABLE HEIGHT AND AREA, FLOORS 1, A MIXED SEPARATED OCCUPANCY, USES THE METHOD OF IBC 508.4.2

PLUMBING FIXTURE CALCULATIONS

PLUMBING FIXTURE DISTRIBUTION PER I.P.C. MINIMUM PLUMBING FIXTURE REQUIREMENTS

BUSINESS OCCUPANCY

OCCUPANCY		WATER CLOSETS				LAVATORIES			DF RATIO	DRINKING FOUNTAINS	BATHTUBS OR SHOWERS	SERVICE SINK
USE	LOAD	RATIO	MALE	RATIO	FEMALE	RATIO	MALE	FEMALE				
BUSINESS	8	1 PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50	.16	1 PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50	.16	1 PER 40 FOR THE FIRST 80 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 80	.1	.1	1 PER 100	.08	-	1
A-3	44	1 PER 125	.176	1 PER 65	.176	1 PER 200	0.26	0.26	1 PER 500	.088	-	1
R-3	17	1 PER 10	.85	1 PER 10	.85	1 PER 8	1.07	1.07	1 PER 100	.17	1 PER 8	1
S-2	14	1 PER 100	.07	1 PER 100	.07	-	-	-	1 PER 1000	.014	-	1
TOTAL REQUIRED			1.256		1.256		1.66	1.66		.352		1
TOTAL DESIGNED			3		3		3	3		0		1

Union County
Fire Station

Harbor Boulevard at
Murphy Highway
Blairsville, Georgia
30512

Revisions

No.	Date	Description
	06.27.22	Issued
1	07.18.22	Revision 1
2	08.30.22	Revision 2

GEORGIA REGISTERED No. 003949 PROFESSIONAL ARCHITECT BRANDALL SMITH

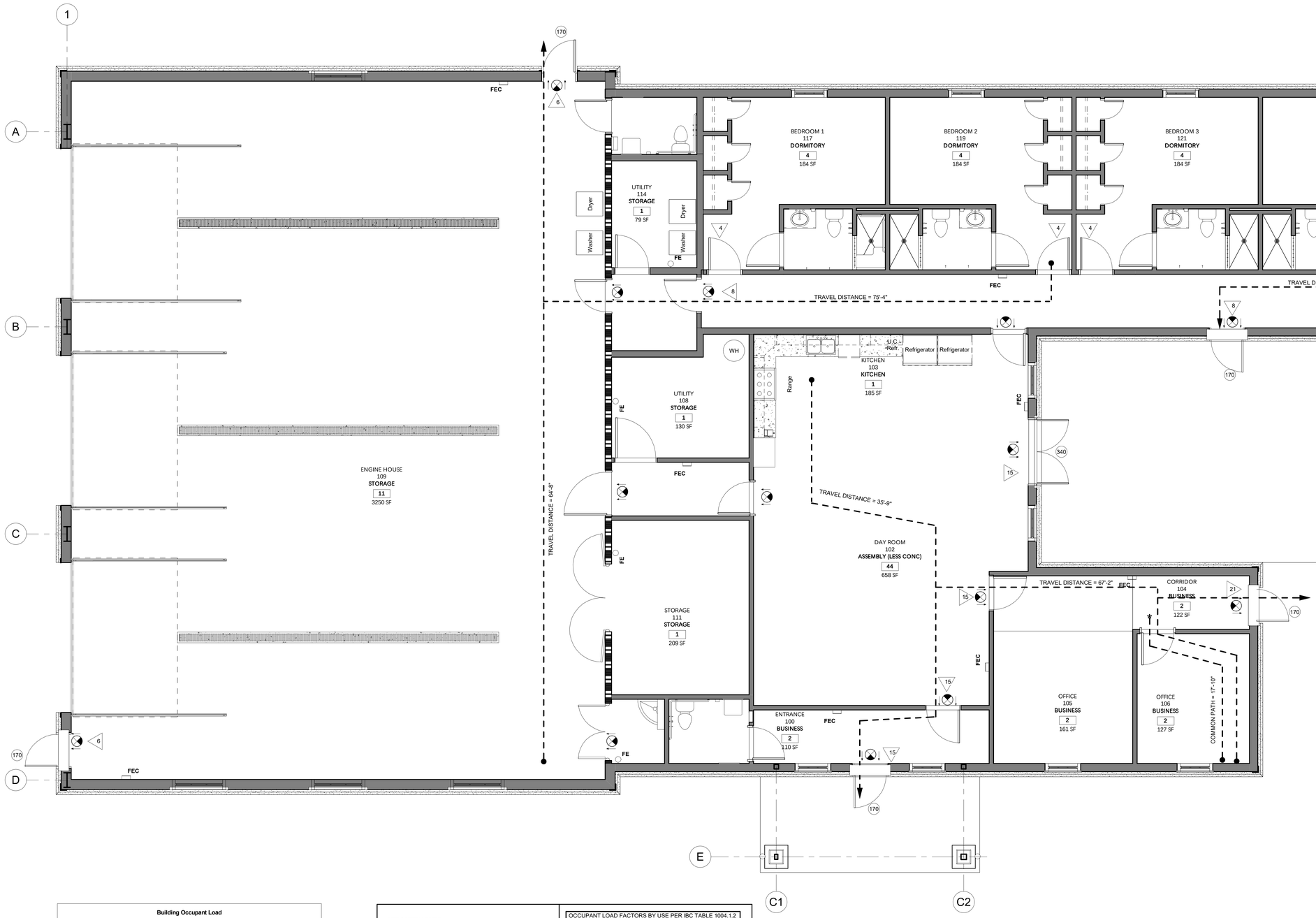
Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation
for the Practice of Architecture
www.gsstj.com

Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

20112

TITLE SHEET

G0.00



Building Occupant Load

Room No.	Room Name	Area	Room Type	Occupant Load
100	ENTRANCE	110 SF	BUSINESS	2
101	RESTROOM	45 SF	--	0
102	DAY ROOM	658 SF	ASSEMBLY (LESS CONC)	44
103	KITCHEN	185 SF	KITCHEN	1
104	CORRIDOR	122 SF	BUSINESS	2
105	OFFICE	161 SF	BUSINESS	2
106	OFFICE	127 SF	BUSINESS	2
107	CORRIDOR	64 SF	--	0
108	UTILITY	130 SF	STORAGE	1
109	ENGINE HOUSE	3250 SF	STORAGE	11
111	STORAGE	209 SF	STORAGE	1
112	RESTROOM	42 SF	--	0
114	UTILITY	79 SF	STORAGE	1
115	CORRIDOR	346 SF	--	0
117	BEDROOM 1	184 SF	DORMITORY	4
118	BATH 1	52 SF	--	0
119	BEDROOM 2	184 SF	DORMITORY	4
120	BATH 2	52 SF	--	0
121	BEDROOM 3	184 SF	DORMITORY	4
122	BATH 3	52 SF	--	0
123	BEDROOM 4	183 SF	DORMITORY	4
124	BATH 4	52 SF	--	0
				83

LIFE SAFETY LEGEND

- 1 — OCCUPANT LOAD @ ROOM
- 1 — OCCUPANT LOAD @ EXIT
- 1 — CAPACITY @ EXIT OR STAIR
- S — STROBE/HORN
- PS — PULL STATION
- EL — EMERGENCY LIGHT
- P.H. — PANIC HARDWARE
- P/P — PUSH/PULL NO LATCH
- EXIT SIGN
- TRAVEL DISTANCE
- COMMON PATH OF TRAVEL
- FEC — WALL-MOUNTED FIRE EXTINGUISHER CABINET
- FE — WALL-MOUNTED FIRE EXTINGUISHER

FIRE EXTINGUISHER CABINET(S), (FEC) @ 75' MAX. PORTABLE FIRE EXTINGUISHER(S) - TYPE 2A10BC. MOUNT TOP OF HANDLE A 4'-6" MAX. A.F.F.

OCCUPANT LOAD FACTORS BY USE PER IBC TABLE 1004.1.2	
USE	OCCUPANT LOAD
BUSINESS	1 PER 100 S.F. GROSS
DORMITORIES	1 PER 50 S.F. GROSS
ASSEMBLY, LESS CONCENTRATED	1 PER 15 S.F. NET
ACCESSORY STORAGE AREAS	1 PER 300 S.F. GROSS
MECHANICAL EQUIPMENT ROOM	1 PER 300 S.F. GROSS
KITCHEN	1 PER 200 S.F. GROSS

NEW BUSINESS OCCUPANCY, SPRINKLERED

COMMON PATH LIMIT: 100 FEET PER NFPA 101 38.2.4.5
DEAD END LIMIT: 50 FEET (CORRIDOR) PER NFPA 101 38.2.5.2
TRAVEL DISTANCE LIMIT: 300 FEET PER NFPA 101 38.2.6.3

NEW ASSEMBLY (GROUP A-3) OCCUPANCY, SPRINKLERED

COMMON PATH LIMIT: 20 FEET (> 50 OCC.) / 75 FEET (>50 OCC.) PER NFPA 101 12.2.5.1.2
DEAD END LIMIT: 20 FEET (CORRIDORS) / 20 FEET (AISLES) PER NFPA 101 12.2.5.1.3
TRAVEL DISTANCE LIMIT: 250 FEET MAXIMUM PER NFPA 101 12.2.6

NEW RESIDENTIAL (R-3) OCCUPANCY, SPRINKLERED

TRAVEL DISTANCE LIMIT: 75 FEET PER NFPA 101 26.1.3

NEW FIRE BARRIERS PROVIDED PER NFPA 101 TABLE 6.1.114.4.1:

-STORAGE ROOM /ENGINE HOUSE (S-2), 1 HR
-SLEEPING ROOMS FROM CORRIDOR, PER 26.3.5.1 - SMOKE

*POINT AT WHICH A CHOICE OF 2 EXITS BECOME AVAILABLE

SPRINKLER SYSTEM TO BE TYPE NFPA 13R.

1

1 FLOOR PLAN

1/4" = 1'-0"

Union County Fire Station

Harbor Boulevard at
Murphy Highway
Blairsville, Georgia
30512

Revisions

No.	Date	Description
	06.27.22	Issued
1	08.30.22	Revision 1

GEORGIA — No. 003949 PROFESSIONAL — ARCHITECT — BRANDALL SMITH

Gardner Spencer Smith Tench & Jarbeau
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20112

LIFE SAFETY PLAN

LS.01

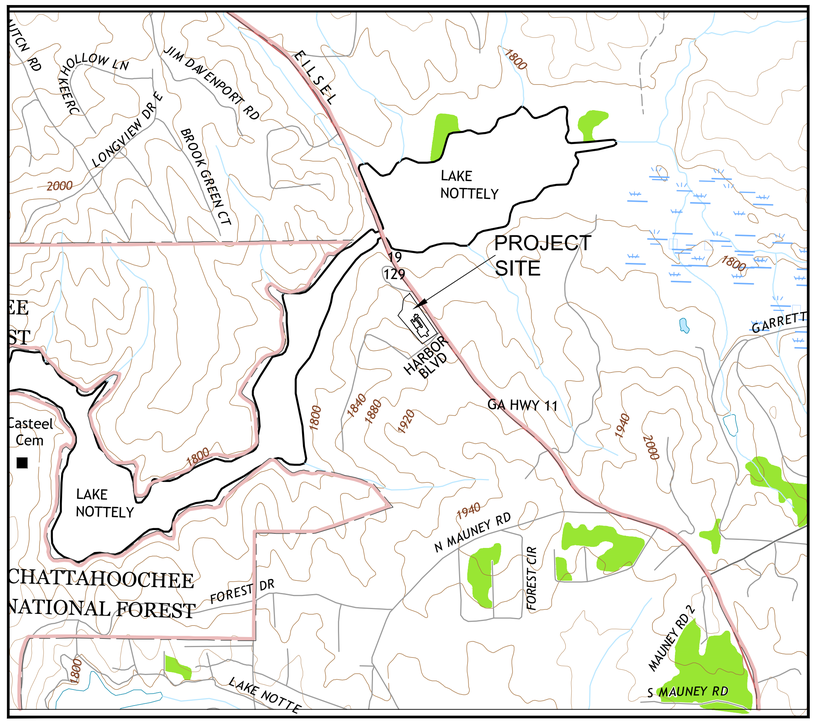
FIRE STATION

FOR

UNION COUNTY, GA

MAY 9, 2022

INDEX



PROJECT MAP
1" = 1000'

GENERAL NOTES:

1. LOCATION OF LOT LINES, PROPERTY LINES, RIGHT-OF-WAY LINES, AND OTHER LAND DIVISION REFERENCES WERE OBTAINED FROM RECORDED DATA AND LAND USE OBSERVATIONS. THE LAND DIVISIONS WERE NOT FIELD CHECKED. THEREFORE, THEY MUST ONLY BE CONSIDERED TO APPROXIMATELY REPRESENT THE ACTUAL LAND DIVISIONS, PROPERTY AND/OR EASEMENTS.
2. THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF WORK. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY LOCATION SERVICE AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK.
3. CONTRACTOR TO NOTIFY THE UTILITY PROTECTION AGENCY 72 HOURS PRIOR TO START OF WORK. PHONE 811.
4. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO EXCAVATION OR DEMOLITION. ADDITIONAL UTILITIES MAY NOT BE SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR LOCATIONS SHOWN.
5. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, HAVE REPLACED OR REPAIRED THE UTILITIES TO THEIR ORIGINAL OR BETTER CONDITION AND QUALITY, AS APPROVED BY THE OWNER AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITIES PRIOR TO SUBMITTING HIS BID IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATION'S AND/OR ADJUSTMENT WILL AFFECT THE SCHEDULING OF WORK FOR THE PROJECT. SOME UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS, WHILE SOME WORK MAY BE REQUIRED "AROUND" UTILITY FACILITIES THAT WILL REMAIN IN PLACE. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR WILL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS OR INCONVENIENCE CAUSED BY THE UTILITY ADJUSTMENTS.
6. CONTRACTOR IS TO MEET ALL LOCAL UTILITY COMPANY REGULATIONS IN ANY READJUSTMENT OR RELOCATION OF EXISTING SERVICES.
7. A MINIMUM HORIZONTAL SEPARATION OF 10' SHALL BE MAINTAINED BETWEEN WATER LINES AND SANITARY SEWER LINES. AN 18" MINIMUM VERTICAL SEPARATION SHALL BE MAINTAINED AT CROSSINGS OF WATER AND SEWER LINES. WHEN CROSSING A WATER LINE OR SEWER LINE, PIPE JOINTS SHALL BE PLACED AS FAR AWAY AS POSSIBLE FROM THE OTHER PIPE.
8. ALL CONSTRUCTION STAKING SHALL BE BY THE CONTRACTOR AT HIS EXPENSE.
9. WHEN CONSTRUCTION INVOLVES THE REMOVAL OF FENCE, POLES, SIDEWALKS, DRIVE, TEMPORARY OR FIXED STRUCTURES; THE CONTRACTOR AT HIS EXPENSE SHALL PROVIDE FOR TEMPORARY SERVICE OR CONTAINMENT TO THE AFFECTED PROPERTY, AND SHALL REPLACE SUCH ITEMS WITH SIMILAR OR BETTER MATERIALS AS SOON AS PRACTICAL OR AS DIRECTED BY THE OWNER FOLLOWING UTILITY INSTALLATION.
10. THE CONTRACTOR SHALL RESTORE OR HAVE RESTORED, AT HIS EXPENSE, ALL EXISTING FACILITIES WHICH HAVE BEEN DAMAGED DUE TO HIS CONSTRUCTION ACTIVITIES, TO THE ORIGINAL OR BETTER CONDITION. THE CONTRACTOR SHALL UTILIZE THE SAME MATERIAL COMPOSITION AS EXISTING TO REPLACE THE EXISTING FACILITIES UNLESS APPROVED OTHERWISE BY THE OWNER.
11. PEDESTRIAN AND LOCAL VEHICULAR TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. SAFETY DEVICES AND FLAGMEN SHALL BE PROVIDED BY THE CONTRACTOR AT HIS EXPENSE. WRITTEN PERMISSION TO CLOSE THE CONSTRUCTION AREA TO TRAFFIC MUST BE OBTAINED FROM THE APPROPRIATE GOVERNMENT AGENCY PRIOR TO THE CLOSING. ALL LOCAL EMERGENCY SERVICES SHALL BE NOTIFIED IN WRITING A MINIMUM 72 HOURS PRIOR TO ROAD CLOSINGS.
12. ALL EARTHWORK OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF OSHA.
13. CONTOURS FOR THIS PROJECT WERE OBTAINED FROM BLUE RIDGE MOUNTAIN SURVEYING.
14. DISTURBED LANDSCAPE AREAS SUCH AS TREES, SHRUBS, GRASS LAWNS, ETC. SHALL BE RESTORED AND REPLACED WITH MATERIALS OF LIKE KIND (I.E.: SOD LAWNS SHALL BE REPLACED WITH SOD OF SAME VARIETY AND QUALITY). THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING ANY EXISTING TREES, SHRUBS, GRASS LAWNS, OR OTHER EXISTING LANDSCAPE PLANT MATERIALS THAT ARE DAMAGED OR KILLED AS A RESULT OF CONSTRUCTION ACTIVITIES FOR ONE YEAR AFTER INSTALLATION OF WATERLINE. PLANT MATERIAL SHALL BE REPLACED WITH LIKE SIZE AND KIND OR PROPERTY OWNER SHALL BE APPROPRIATELY COMPENSATED. COMPENSATION WILL BE APPRAISED BY A QUALIFIED LANDSCAPE COMPANY.

OBSTRUCTIONS ENCOUNTERED:

IN ADDITION TO SHOWING THE STRUCTURES TO BE BUILT FOR THIS PROJECT, THE DRAWINGS SHOW CERTAIN INFORMATION OBTAINED BY THE ENGINEER REGARDING THE PIPES, POLE LINES, CONDUITS AND OTHER STRUCTURES WHICH EXIST ALONG THE LINE OF THE WORK, BOTH AT AND BELOW THE SURFACE OF THE GROUND. THE ENGINEER AND THE OWNER EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION GIVEN ON THE DRAWINGS WITH REGARD TO EXISTING STRUCTURES, AND THE CONTRACTOR WILL NOT BE ENTITLED TO ANY EXTRA COMPENSATION ON ACCOUNT OF INACCURACY OR INCOMPLETENESS OF SUCH INFORMATION, SAID STRUCTURES BEING INDICATED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR, WHO MUST VERIFY THE INFORMATION TO HIS OWN SATISFACTION. THE GIVING OF THIS INFORMATION UPON THE CONTRACT DRAWINGS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL PIPES, CONDUITS, AND OTHER STRUCTURES WHICH MAY BE ENCOUNTERED DURING THE CONSTRUCTION OF WORK, AND TO MAKE GOOD ALL DAMAGES DONE TO SUCH PIPES, CONDUITS, AND OTHER STRUCTURES, AS PROVIDED IN THESE SPECIFICATIONS. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND OBSTRUCTIONS PRIOR TO EXCAVATION SO AS TO PREVENT DAMAGE TO THOSE SERVICES OR OTHER UTILITIES. ANY SUCH DAMAGES MUST BE REPAIRED WITHOUT DELAY AND THE COST OF SUCH REPAIRS SHALL BE PAID FOR BY THE CONTRACTOR.

DATE	NO.	DESCRIPTION
7/18/2022	1	WATER LINE, GUTTER AND GUTTER DRAIN LINES, ADS DRAIN LINE, AND SEPTIC LINE REVISIONS.

GEORGIA REGISTERED NO. 17626 PROFESSIONAL ENGINEER DONALD W. BAKER
4/28/2022
STAMP

G1
SHEET NO.

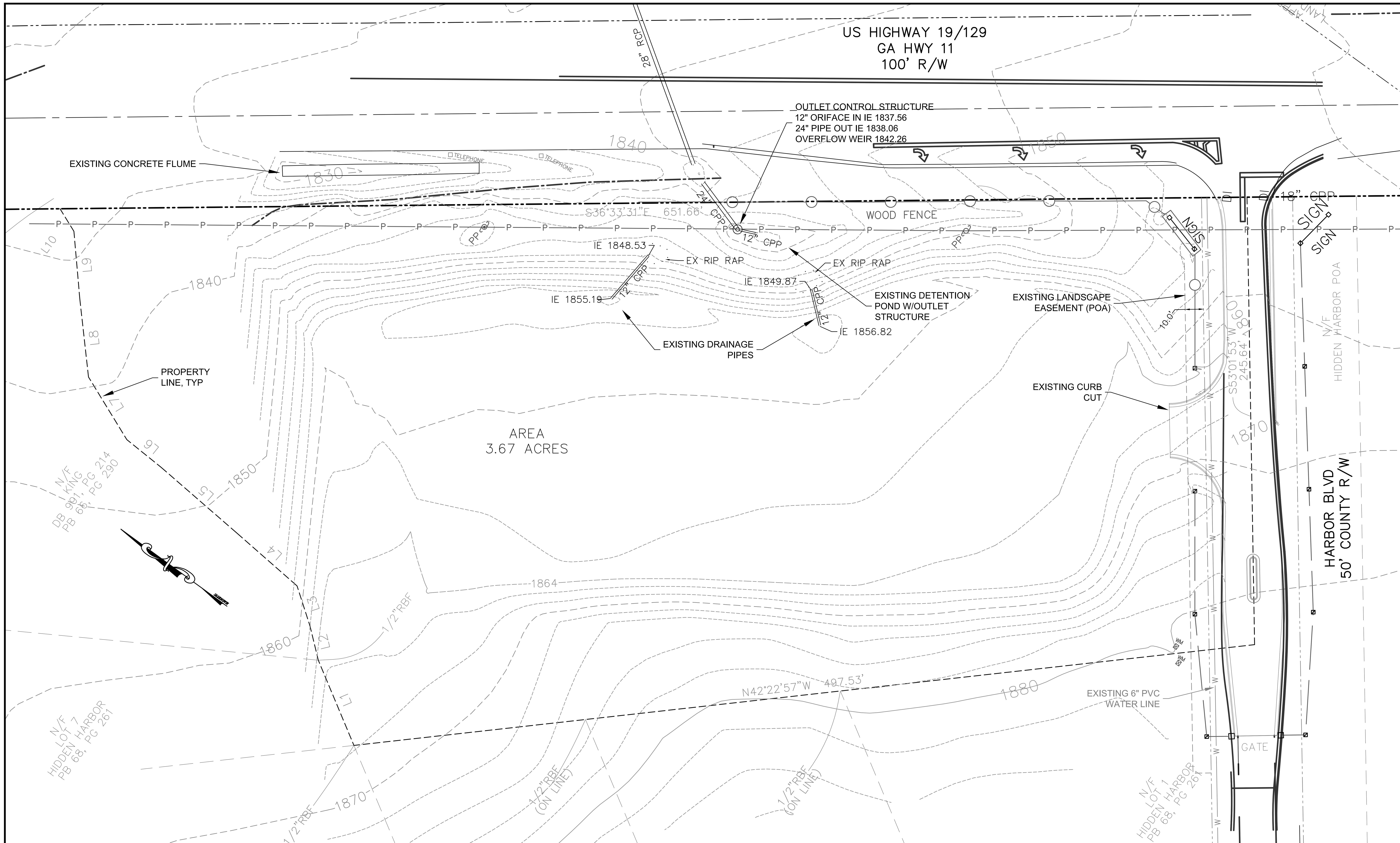
PATH & FILE: F:\Projects\2022\2022.5 Union County\2022.51 Fire Station\Design Stage\base fire station071822.dwg

OWNER
UNION COUNTY
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
ucmanager@uniongov.com
(706) 439-6000

PRIMARY PERMITTEE:
UNION COUNTY
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
ucmanager@uniongov.com
(706) 439-6000

24 HOUR CONTACT:
LARRY GARRETT
ucmanager@uniongov.com
(706) 439-6000

DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527



EXISTING		PROPOSED
W	WATERLINE	W
WV	WATER GATE VALVE	WV
	FIRE HYDRANT	N/A
	WATER METER	N/A
SS	SEWERLINE	SS
	SEWER MANHOLE	N/A
	SEWER LATERAL CLEAN OUT	N/A
	EDGE OF PAVEMENT	N/A
	EDGE OF PAVEMENT WITH CURB	N/A
P/L	PROPERTY LINE	N/A
R/W	RIGHT OF WAY	N/A
	UTILITY POLE	N/A
	GUY WIRE	N/A
P	POWER LINE	N/A
UTP	TELEPHONE PEDESTAL	N/A
G	GAS LINE	N/A
UGP	GAS LINE MARKER	N/A
TRANS	TRANSFORMER UNDERGROUND POWER	N/A
UTVP	TV PEDESTAL	N/A
	UTILITY POLE	N/A
CMF	CONCRETE MONUMENT	N/A
	FENCE	
	GUARD RAIL	N/A
	TREE	N/A
LP	LIGHT POLE	N/A
12" CMP	STORM WATER CULVERT	N/A
	SURFACE FLOW	N/A
	STORM WATER SURFACE FLOW	N/A
770 / 774	CONTOURS	770 / 774
N/A	SPOT ELEVATION	N/A
N/A	RIP RAP	

PROPERTY LINE CALL OUTS

LINE	BEARING	DISTANCE
L1	N31°18'38"E	50.68'
L2	N40°19'17"E	19.47'
L3	N36°06'58"E	23.00'
L4	N05°16'13"E	44.17'
L5	N04°57'27"E	54.90'
L6	N02°51'56"E	24.12'
L7	N22°31'49"E	40.31'
L8	N47°38'38"E	43.28'
L9	N49°01'29"E	37.12'
L10	N22°20'15"E	14.53'

GRAPHIC SCALE
0 15 30 60 90
(IN FEET)
1 inch = 30 ft.

GEORGIA 811
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SURVEY PROVIDED BY:
BLUE RIDGE MOUNTAIN SURVEYING
1365 MURPHY HWY
BLAIRSVILLE, GA 30512
(706) 897-7900

DATE	NO.	DESCRIPTION
7/18/2022	1	WATER LINE, GUTTER AND GUTTER DRAIN LINES, ADS DRAIN LINE, AND SEPTIC LINE REVISIONS.

REVISION

DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527

FIRE STATION
FOR
UNION COUNTY, GA

EXISTING SITE CONDITIONS
SHEET TITLE

DESIGN BY	DRAWN BY	CHECKED BY
DWB	DWB	

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 17626 DONALD W. BAKER
4/28/2022
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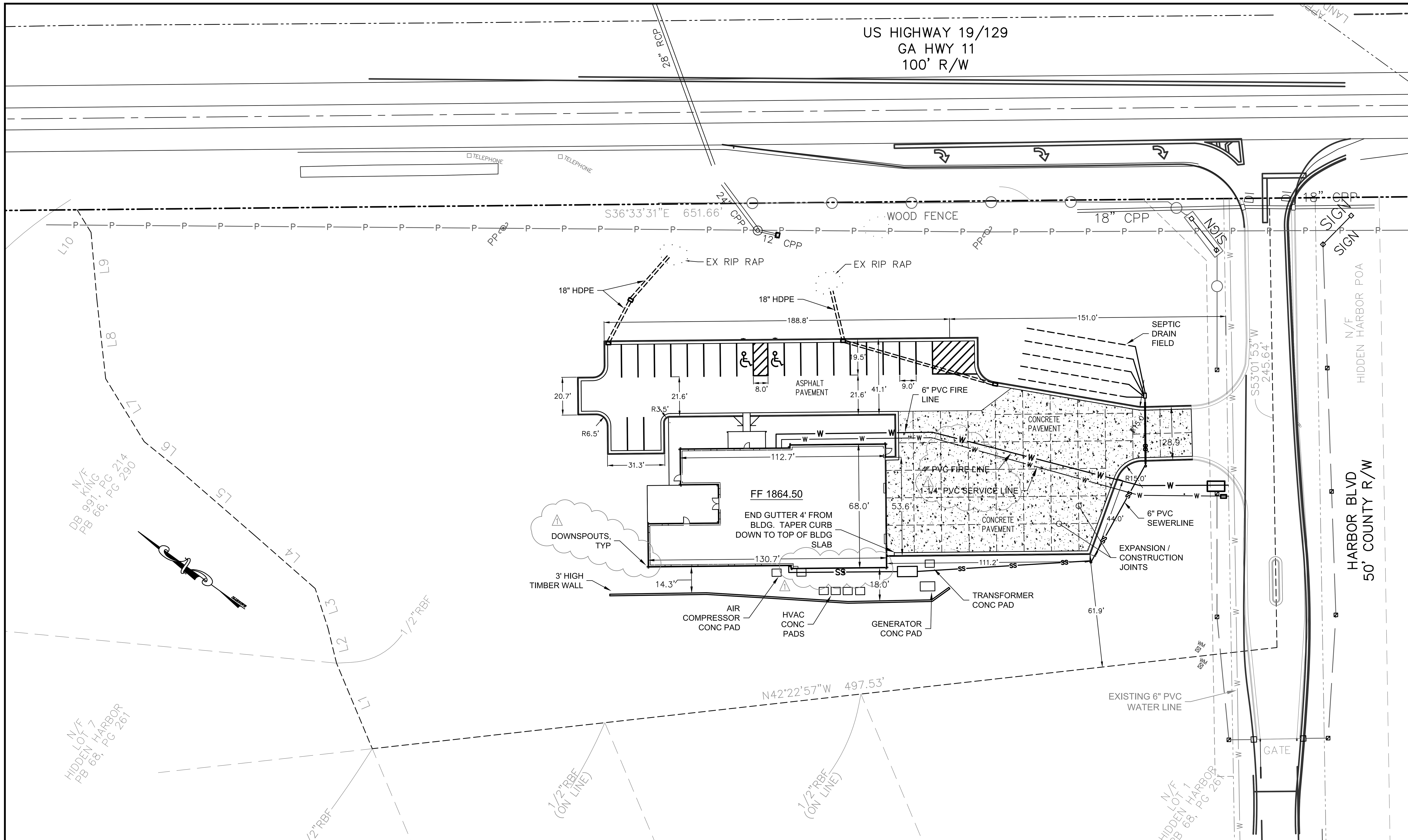
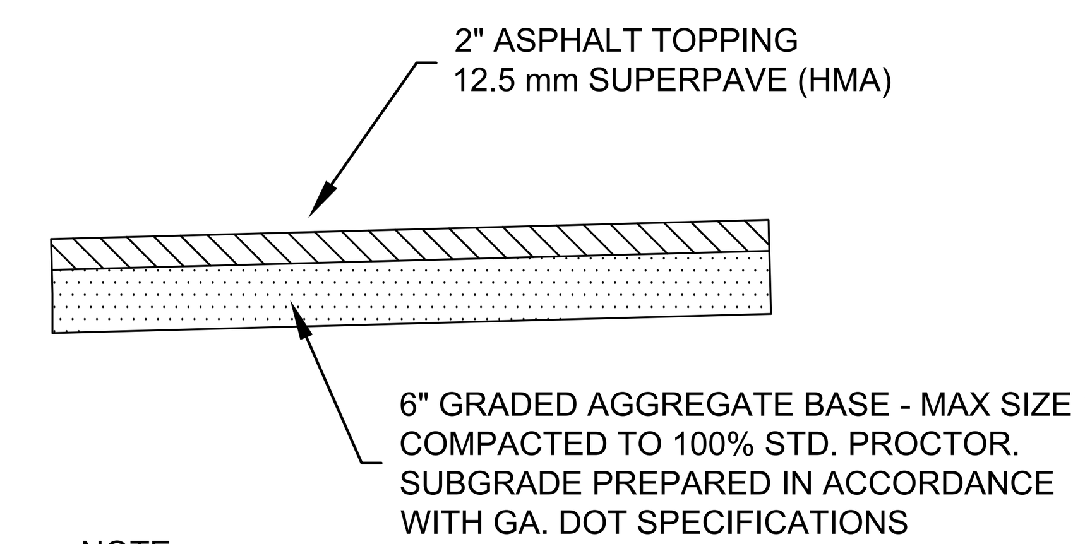
2022.51
JOB NUMBER
z:\projects
FILE LOCATION

PATH & FILE: F:\Projects\2022\2022.5 Union County\2022.51 Fire Station\Design Stage\base fire station071822

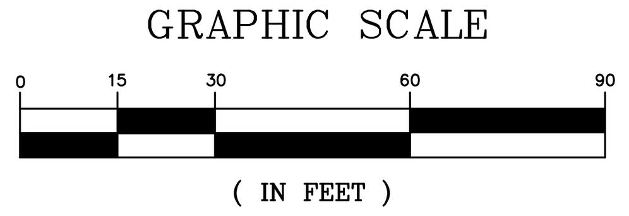
C1
SHEET





NOTE:
OWNER'S INSPECTOR SHALL CONFIRM THICKNESS OF BASE AND ASPHALT DURING CONSTRUCTION.

MEDIUM DUTY PAVEMENT



PROPERTY LINE CALL OUTS

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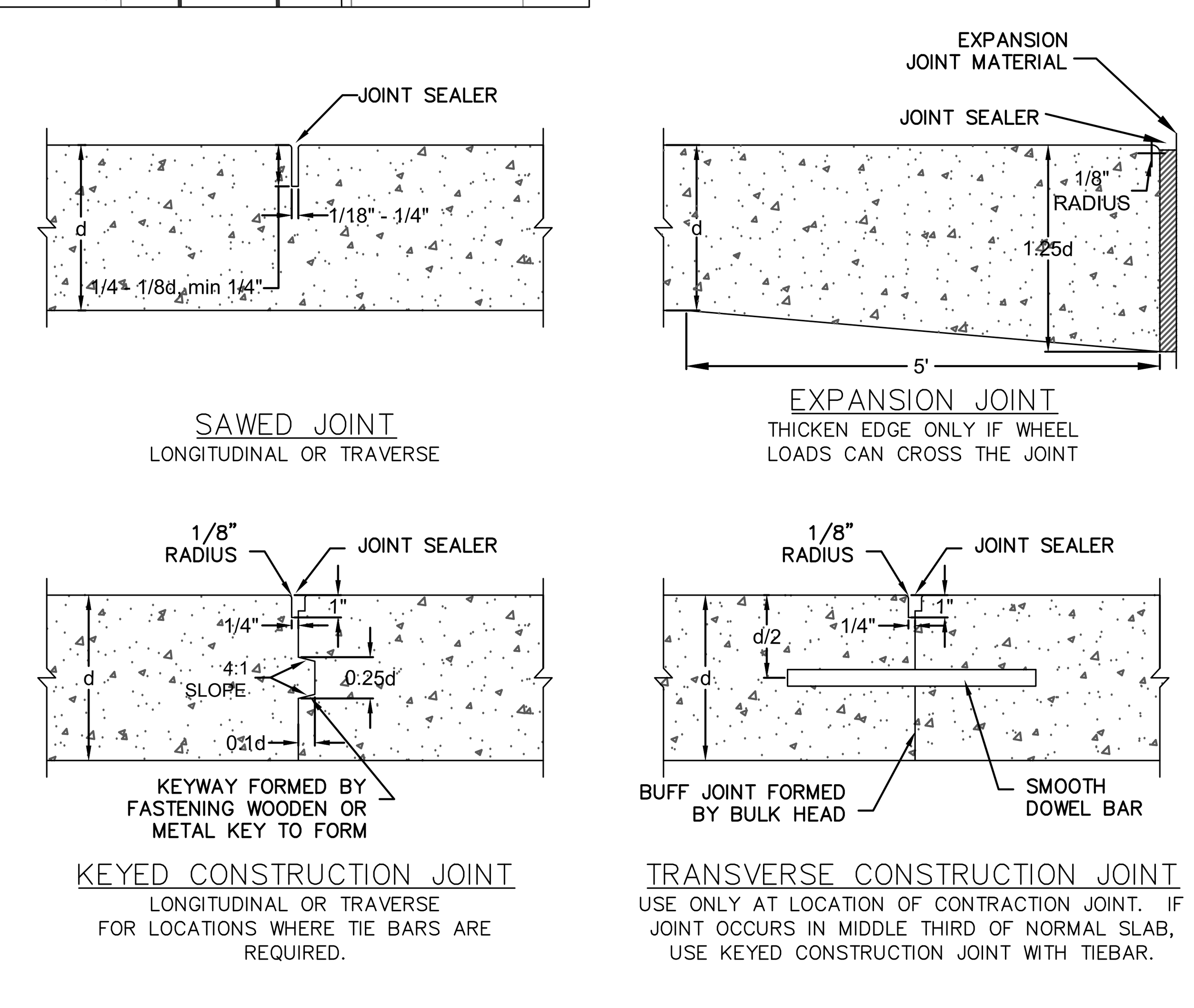
CONCRETE PAVEMENT NOTES:

1. CONCRETE AREA SHALL BE 6" THICK 4000 PSI REINFORCED CONCRETE WITH 6 X6 4/4 WELDED WIRE FABRIC.
2. BASE MATERIAL SHALL BE 4" OF CRUSHED LIMESTONE. COMPACT TO 100% STD PROCTOR.
3. FORM TRANSVERSE CONTRACTION JOINTS BY SAWING WITH APPROVED EQUIPMENT.
4. SPACE TRANSVERSE CONTRACTION JOINTS AT INTERVALS OF 15'.
5. CONSTRUCT TRANSVERSE CONSTRUCTION JOINTS AT THE END OF EACH DAY'S OPERATION (PLANNED JOINT) OR WHEN THE PLACING OF CONCRETE IS SUSPENDED FOR MORE THAN 30 MINUTES (EMERGENCY JOINT).
6. USE A TEMPORARY HEADER AT EMERGENCY JOINTS..
7. USE TIE BARS OF THE SAME DIAMETER AS DOWEL BARS FOR EMERGENCY TRANSVERSE CONSTRUCTION JOINTS.
8. LOCATE PLANNED TRANSVERSE CONSTRUCTION JOINTS AT THE SPACING REQUIRED FOR CONTRACTION JOINTS. USE AN APPROVED METHOD OF INSTALLING DOWELS IN ALL PLANNED TRANSVERSE CONSTRUCTION JOINTS.
9. DO NOT LOCATE EMERGENCY TRANSVERSE CONSTRUCTION JOINTS LESS THAN 6' FROM ANY CONTRACTION JOINT OR PLANNED CONSTRUCTION JOINT.
10. DO NOT PLACE TIE BARS IN LONGITUDINAL JOINTS WITHIN 1'–4" OF A TRANSVERSE JOINT.
11. SEAL ALL JOINTS WITH RUBBER ASPHALT JOINT SEALER IN PRESENCE OF INSPECTOR.
12. PLACE TIE BARS (DEFORMED STEEL BARS) ALONG THE LONGITUDINAL JOINTS AT 30" ON CENTER. PLACE DOWEL BARS (SMOOTH STEEL BARS) ALONG THE TRANSVERSE JOINTS AT 12" ON CENTER.
13. USE RIGID CONSTRUCTED DOWEL ASSEMBLY CAPABLE OF HOLDING THE DOWEL BAR IN PROPER POSITION DURING PLACEMENT OF CONCRETE AND DESIGNED TO PERMIT UNRESTRICTED MOVEMENT OF THE SLAB.
14. DOWEL BARS SHALL BE 1" DIAMETER AND 14" LONG.
15. TIE BARS SHALL BE 1/2" DIAMETER AND 30" LONG.



DATE	NO.	DESCRIPTION
7/18/2022	1	WATER LINE, GUTTER AND GUTTER DRAIN LINES, ADS DRAIN LINE, AND SEPTIC LINE REVISIONS.

REVISION

DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527

FIRE STATION
FOR
UNION COUNTY, GA

SITE LAYOUT PLAN
SHEET TITLE

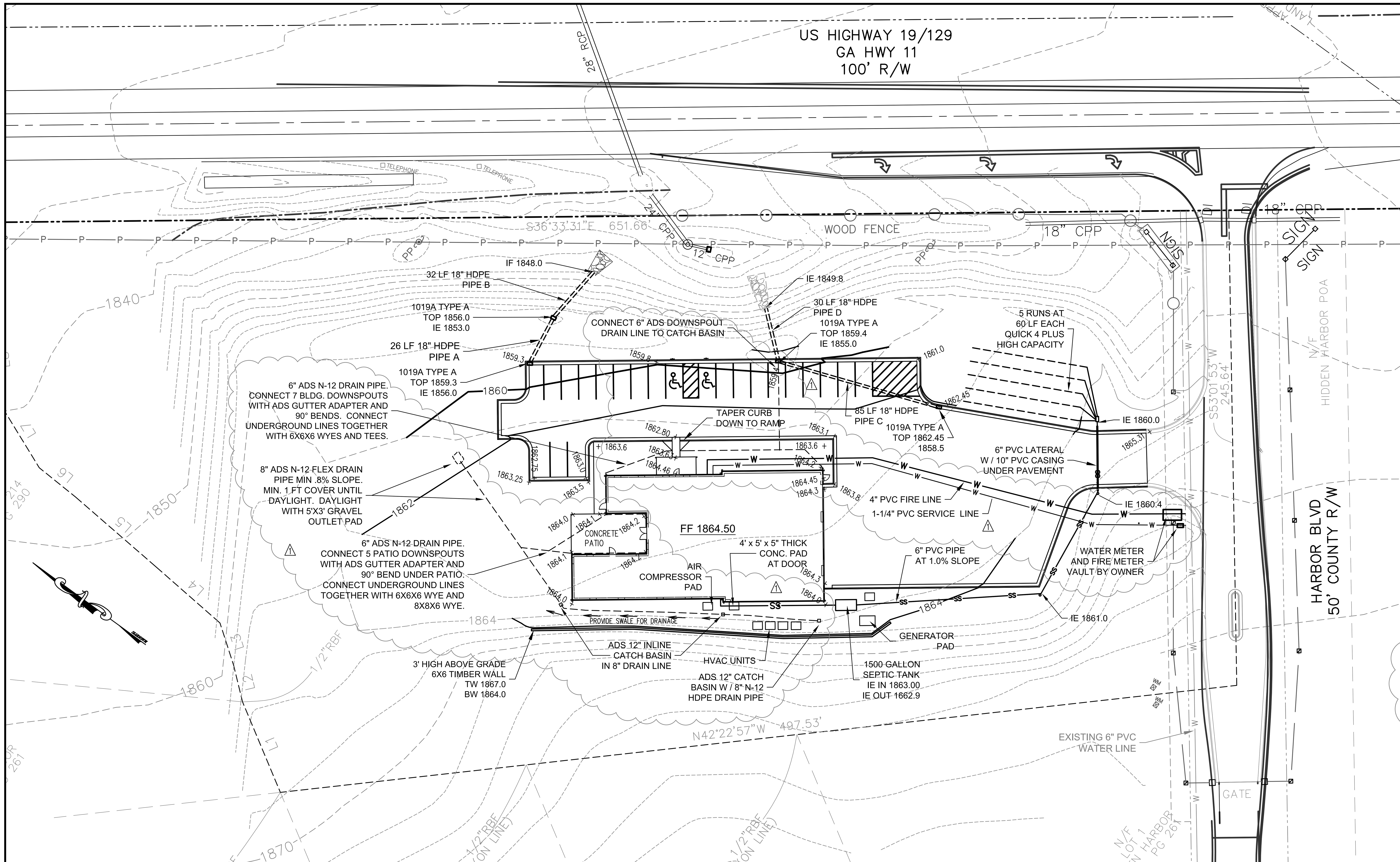
DESIGN BY	DRAWN BY	CHECKED BY
DWB	DWB	

GEORGIA REGISTERED NO. 17626 PROFESSIONAL ENGINEER DONALD W. BAKER
4/28/2022
STAMP

4/6/2022
DATE
2022.51
JOB NUMBER
z: \projects
FILE LOCATION

C2
SHEET

PATH & FILE: F:\Projects\2022\2022.5 Union County\2022.51 Fire Station\Design Stage\base fire station071822



GENERAL PIPE INSTALLATION:

1. WATER/SEWER PIPE AND APPURTENANCES SHALL BE INSTALLED ONLY WHEN TRENCH CONDITIONS ARE SUITABLE.
2. TRENCHES MUST BE DRY.
3. PROPER IMPLEMENTS, TOOLS, AND FACILITIES SHALL BE PROVIDED BY CONTRACTOR FOR SAFE AND CONVENIENT PERFORMANCE OF THE WORK.
4. PREVENT DAMAGE TO PIPE MATERIALS AND PROTECTIVE COATINGS AND LININGS.
5. DO NOT DROP OR DUMP PIPELINE INTO TRENCH.
6. CAREFULLY EXAMINE PIPE AND FITTINGS FOR CRACKS AND OTHER DEFECTS WHILE SUSPENDED ABOVE TRENCH IMMEDIATELY BEFORE INSTALLATION IN FINAL POSITION. DEFECTIVE PIPE OR FITTINGS SHALL BE CLEARLY MARKED AND SHALL BE REMOVED FROM SITE.
7. CLEAN BELL AND SPIGOT ENDS OF EACH PIPE THOROUGHLY BEFORE PIPE IS LAID.
8. PREVENT FOREIGN MATERIAL FROM ENTERING PIPE WHILE IT IS BEING PLACED IN LINE.
   A. PROVIDE PROTECTIVE COVERING FOR ENDS OF PIPE UNTIL CONNECTION IS MADE TO ADJACENT PIPE, IF NECESSARY.
   B. NO DEBRIS, TOOLS, CLOTHING, OR OTHER MATERIALS SHALL BE PLACED IN PIPE DURING LAYING OPERATIONS.
9. AS EACH LENGTH OF PIPE IS PLACED IN TRENCH, SPIGOT END SHALL BE CENTERED IN BELL AND PIPE FORCED HOME AND BROUGHT TO CORRECT LINE AND GRADE.
   A. PIPE SHALL BE SECURED IN PLACE WITH APPROVED BACK FILL MATERIAL TAMPED AROUND IT.
   B. PRECAUTIONS SHALL BE TAKEN TO PREVENT DIRT FROM ENTERING JOINT SPACE.
10. OPEN ENDS OF PIPE SHALL BE CLOSED BY WATERTIGHT PLUG, OR OTHER MEANS APPROVED BY OWNER, AT TIMES WHEN PIPE LAYING IS NOT IN PROGRESS. IF WATER IS IN TRENCH, PLUG SHALL REMAIN IN PLACE UNTIL TRENCH IS PUMPED COMPLETELY DRY. WATER SHALL NOT BE ALLOWED TO RUN INTO PIPE AT ANY TIME DURING CONSTRUCTION.
11. LAY PIPE WITH BELL ENDS FACING IN DIRECTION OF LAYING, UNLESS DIRECTED OTHERWISE BY OWNER.
12. FOR 6" SERVICE LATERAL INSTALLATION, CLEANOUTS SHALL BE INSTALLED AT ALL BENDS.
13. SEE DETAIL SHEET FOR PIPE BEDDING DETAILS FOR SEWER AND STORM PIPING.

SEPTIC SYSTEM

1. SUBMIT THIS PLAN TO UNION COUNTY HEALTH DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION OF SEPTIC SYSTEM.
2. INSTALLATION OF SEPTIC SYSTEM SHALL BE IN ACCORDANCE WITH GEORGIA DEPARTMENT OF HEALTH SEPTIC SYSTEM DESIGN MANUAL.
3. CLEANOUTS SHALL BE INSTALLED AT ALL BENDS IN SERVICE LATERALS.

WATER SYSTEM

CONTACT NOTTELY WATER AUTHORITY FOR SERVICE CONNECTION.
FIRE METER VAULT AND CONNECTION TO NOTTELY WATER SHALL BE BY OWNER.
1-1/4" SERVICE METER AND CONNECTION TO NOTTELY WATER SHALL BE BY OWNER.
4" PVC FIRE LINE SHALL BE AWWA C-900 DR 18 PRESSURE CLASS 150 AND INSTALLED BY CONTRACTOR.
1-1/4" PVC SERVICE LINE SHALL BE SDR 18 W/ PRESSURE RATING OF 200 PSI AND INSTALLED BY CONTRACTOR.
WATER LINES SHALL BE BLUE IN COLOR.
CONTRACTOR TO CONNECT INSTALLED WATER LINES TO OUTLET OF FIRE VAULT AND OUTLET OF 1-1/4" SERVICE METER BOX.

SIDEWALK NOTES:

1. SIDEWALKS SHALL BE CONSTRUCTED OF CONCRETE A MINIMUM 5' IN WIDTH AND 4" THICK. SIDEWALKS SHALL BE CONSTRUCTED WITH A CROSS SLOPE OF 0.25 IN/FT. CONCRETE SHALL BE CLASS "B" AND HAVE A STRENGTH OF 2200 PSI AT 28 DAY.

PAVEMENT

1. SEE SHEET C2 FOR CONCRETE PAVEMENT NOTES AND DETAILS.
2. ASPHALT PAVING SHALL BE CONSTRUCTED PER THE DETAIL ON SHEET C2.

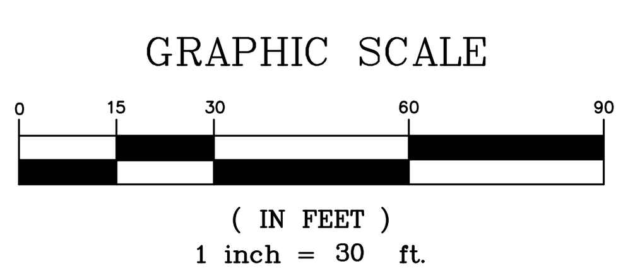
GRADING NOTES

1. CONTOUR INTERVALS ARE 2 FEET.
2. ALL EARTHWORK OPERATIONS SHALL COMPLY WITH REQUIREMENTS OF OSHA CONSTRUCTION STANDARDS. PART 1926, SUBPART P, EXCAVATIONS, TRENCHING, AND SHORING, AND SUBPART O, MOTOR VEHICLES, MECHANIZED EQUIPMENT, AND MARINE OPERATIONS, AND SHALL BE CONDUCTED IN A MANNER ACCEPTABLE TO OWNER/ENGINEER.
3. FILL MATERIALS SHALL CONSIST OF CLEAN SOIL, FREE OF ORGANIC OR DELETERIOUS MATERIALS, ROCKS, OR BROKEN PIECES OF CONCRETE LARGER THAN THREE INCHES IN SIZE, OR OF ANY OTHER FOREIGN OBJECTS THAT COULD IMPEDE COMPACTION RESULTS.
4. FILL MATERIALS SHALL BE SPREAD EVENLY IN HORIZONTAL LAYERS OF NOT MORE THAN 8 INCHES IN LOOSE LIFTS OVER THE FULL WIDTH OF FILL AND COMPACTED TO AT LEAST 95% MAXIMUM DRY DENSITY BY STANDARD PROCTOR COMPACTION TEST ASTMD698 UNLESS OTHERWISE NOTED.
5. MAXIMUM CUT OR FILL SLOPES ARE 2H:1V.
6. GRADE TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS INTO STORM CHANNELS.

RIPRAP APRON SUMMARY

PIPE ID	PIPE DIAMETER (d)	FLOW RATE (cfs)	VELOCITY (fps)	TAILWATER CONDITION	APRON LENGTH (La)	WIDTH UPSTREAM (W1)	WIDTH DOWNSTREAM (W=Do+La)	RIP RAP SIZE (d50)	RIP RAP DEPTH (in)	RIP RAP TYPE
PIPE A & B	18"	2.72	2.05	MIN	10'	5'	12'	4"	18"	DOT TYPE 3
PIPE C & D	18"	6.45	4.50	MIN	20'	5"	14'	4"	18"	DOT TYPE 3

NOTE: PIPE A & B ARE COMBINED WITH TOTAL OUTFALL FLOW SHOWN FROM PIPE B
NOTE: PIPE C & D ARE COMBINED WITH TOTAL OUTFALL FLOW SHOWN FROM PIPE D



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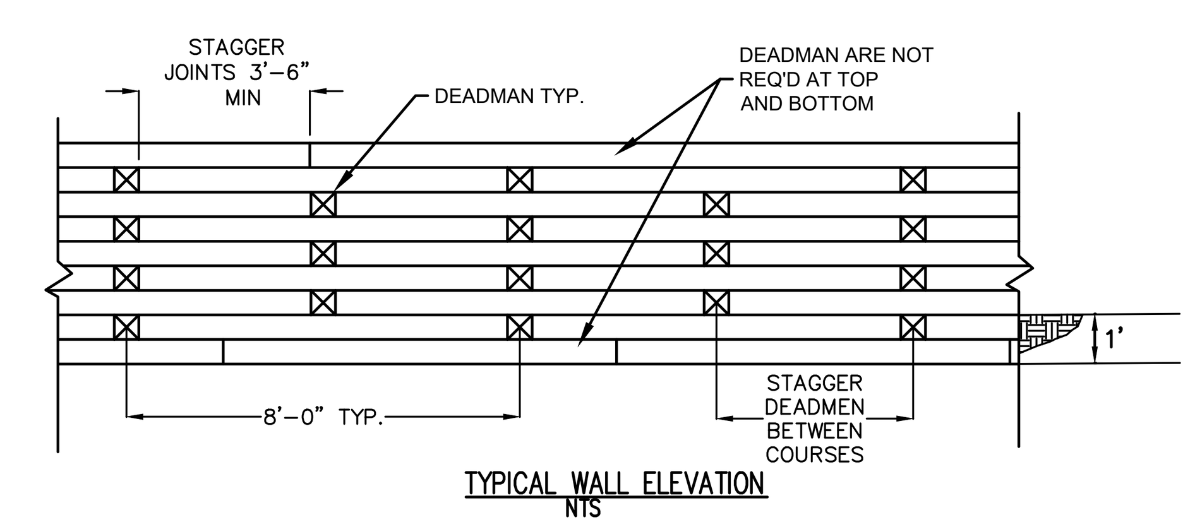
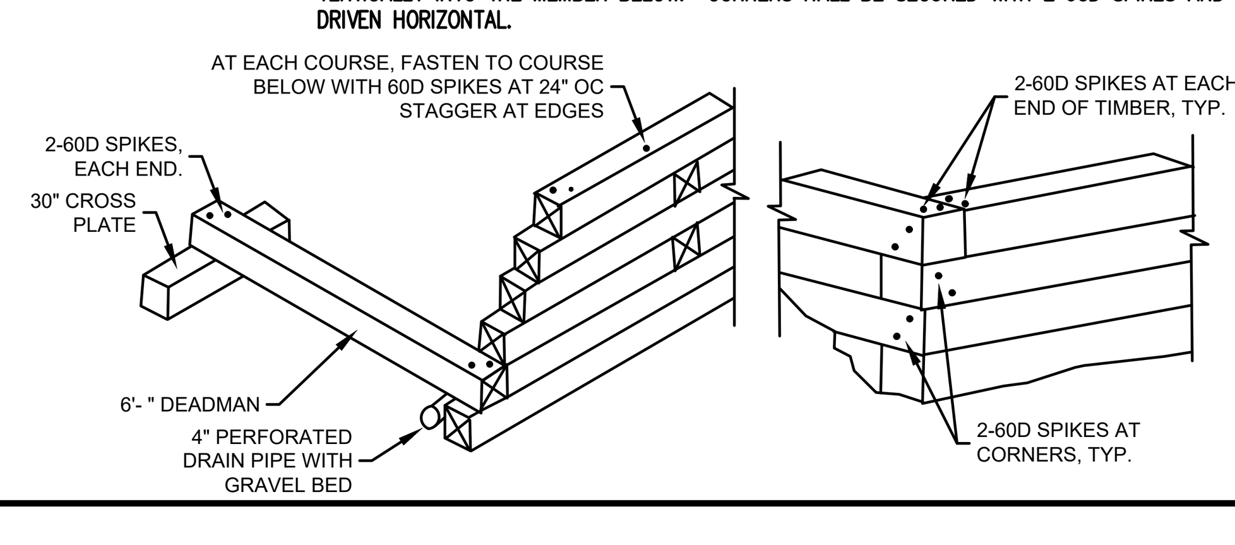


TYPICAL WALL ELEVATION
NTS

WALL CONSTRUCTION

1. LUMBER SHALL BE 6X6 SOUTHERN PINE, GRADE #2 OR BETTER AND PRESERVATIVE-TREATED IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS' ASSOC. STANDARDS FOR GROUND CONTACT.
2. ALL SPIKES SHALL BE 60D OR EQUIVALENT, HOT=DIPPED GALVANIZED OR STAINLESS STEEL AND DRIVEN INTO PRE-DRILLED HOLES. SPIKES SHALL BE OF SUFFICIENT LENGTH TO PENETRATE THE BASE MEMBER A MINIMUM OF 2 INCHES.
3. DEADMEN SHALL BE SPACED AT 8 FEET ON CENTER. DEADMEN ARE NOT REQUIRED IN THE TOP COURSE OR BOTTOM COURSE BELOW GRADE.
4. DEADMEN SHALL BE 6 FEET LONG AND HAVE A 30 INCH WIDE CROSS PLATE.
5. EACH 6X6 MEMBER SHALL BE SECURED AT EACH END WITH 2-60D SPIKES DRIVEN VERTICALLY INTO THE MEMBER BELOW. CORNERS HALL BE SECURED WITH 2-60D SPIKES AND DRIVEN HORIZONTAL.



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FIRE STATION
FOR
UNION COUNTY, GA

GRADING AND
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SHEET TITLE

DESIGN BY DWB | DRAWN BY DWB | CHECKED BY

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 17628 DONALD W. BAKER
4/28/2022
STAMP

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2022.51
JOB NUMBER
z:\projects
FILE LOCATION

C3
SHEET

CHECKLIST #1
SEE SHEETS EC1 AND EC2

CHECKLIST #2
DONALD BAKER
GSWCC LEVEL II CERT # 12796
SEE ALL EC SHEETS

CHECKLIST #3
NOT APPLICABLE - LIMITS OF DISTURBANCE < 50 ACRES

CHECKLIST #4
24 HOUR CONTACT
LARRY GARRETT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
ucmanager@uniongov.com
(706) 439- 6000

CHECKLIST #5
UNION COUNTY
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
ucmanager@uniongov.com
(706) 439- 6000

CHECKLIST #6
TOTAL DISTURBED AREA 1.31 ACRES
TOTAL PROJECT AREA: 3.67 ACRES

CHECKLIST #7
34.933506°N / -84.033251°W

CHECKLIST #8
REFERENCE TITLE BLOCKS ALL SHEETS

CHECKLIST #9
EXISTING GRASSED AND GRADED SITE AT INTERSECTION OF GA HWY 11 AND HARBOR BLVD. SITE WILL BE PARTIALLY GRADED FOR CONSTRUCTION OF A FIRE STATION AND PARKING.

CHECKLIST #10
REFERENCE SHEET EC2

CHECKLIST #11
DRAINAGE SWALE / TRIBUTARY TO LAKE CHATUGE. NO SENSITIVE ADJACENT AREAS.

CHECKLIST #12
SITE VISIT CERTIFICATION:

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

DONALD W BAKER, PE

CHECKLIST #13
"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, (MANUAL)" PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF STORM WATER OUTFALL(S) AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001."

DONALD W BAKER, PE

CHECKLIST #14
THE PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION.

DATE OF INSPECTION ____________________

I CERTIFY THE SITE WAS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE OF INSPECTION.

____
GSWCC LEVEL II DESIGN PROFESSIONAL #12796

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN.

____

____

____

THESE DOCUMENTS MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION IS OBTAINED.

CHECKLIST #15
NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

CHECKLIST #16
THERE ARE NO BUFFER ENCROACHES ON THIS PROJECT AND NO GA EPD BUFFER VARIANCES REQUIRED.

CHECKLIST #17
AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

CHECKLIST #18
WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

CHECKLIST #19
THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

CHECKLIST #20
EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

CHECKLIST #21
ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

CHECKLIST #22
THIS SITE IS WILL NOT DISCHARGED TO AN IMPAIRED STREAM, NOR IS IT 1 LINEAR MILE UPSTREAM OF ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT.

CHECKLIST #23
THIS PROJECT DOES NOT DISCHARGE TO RECEIVING WATERS THAT HAVE OR REQUIRE A TMDL IMPLEMENTATION PLAN.

CHECKLIST #24
TRUCK WASH-DOWN FACILITY

USE FOR THE CONCRETE WASH-DOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND REAR OF VEHICLES. WASH-OUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.
THE CONTRACTOR SHALL EXCAVATE A PIT OUTSIDE OF STATE WATER BUFFERS, AT LEAST 25 FEET FROM ANY STORM DRAIN AND OUTSIDE OF THE TRAVEL WAY, INCLUDING SHOULDERS, FOR A WASH/PIT AREA. THE PIT SHALL BE LARGE ENOUGH TO STORE ALL WASH-DOWN WATER WITHOUT OVERTOPPING THE PIT. IMMEDIATELY AFTER THE WASH-DOWN OPERATIONS ARE COMPLETED AND AFTER THE WASH-DOWN WATER HAS SOAKED INTO THE GROUND, THE PIT SHALL BE FILLED IN, AND THE GROUND ABOVE SHALL BE GRADED TO MATCH THE ELEVATION OF THE SURROUNDING AREAS SMOOTHED OUT. ALTERNATE WASH-DOWN PLANS MUST BE APPROVED BY THE PROJECT ENGINEER.
WASH-DOWN PLANS DESCRIBE PROCEDURES THAT PREVENT WASH DOWN WATER FROM ENTERING STREAMS AND RIVERS. NEVER DISPOSE OF WASH-DOWN WATER DOWN A STORM DRAIN. ESTABLISH A WASH-DOWN WATER PIT LOCATION THAT INCLUDES THE FOLLOWING: (1) THE PIT IS LOCATED AWAY FROM A STORM DRAIN, STREAM OR RIVER, (2) THE PIT IS ACCESSIBLE TO THE VEHICLE BEING USED FOR WASH-DOWN, (3) THE PIT HAS ENOUGH VOLUME FOR WASH-DOWN WATER, AND (4) MAKE SURE YOU HAVE PERMISSION TO USE THE AREA FOR WASH-DOWN. ON SOME SITES, YOU MAY NOT HAVE PERMISSION OR ACCESS TO A LOCATION WHICH ALLOWS FOR A WASH-DOWN PIT. IN THOSE CASES, THE CONTRACTOR MAY HAVE TO WASH-DOWN INTO A WHEELBARROW OR OTHER CONTAINER AND CARRY THE CONTAINER FOR TRANSPORT TO A PROPER DISPOSAL SITE. FOR ADDITIONAL INFORMATION, REFER TO THE GEORGIA SMALL BUSINESS ENVIRONMENTAL ASSISTANCE PROGRAM'S "A GUIDE FOR READY MIX CHUTE/HOPPER WASH-DOWN".

CHECKLIST 25
SPILL CLEANUP AND CONTROL PRACTICES

LOCAL, STATE, AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS.
FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802 AND 1-202-426-2675.
FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE. (THIS INCLUDES CAPACITIES OF EQUIP.) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

CHECKLIST #26
PERMANENT GRASS FILTER STRIPS WILL PROVIDE WATER QUALITY IN ACCORDANCE TABLE 4.1.1-1 OF THE 2016 GEORGIA STORMWATER MANAGEMENT MANUAL AND AS DESCRIBED IN SECTION 4.29.

CHECKLIST #27
CONTRACTOR IS REQUIRED TO COVER ALL BUILDING MATERIALS AND BUILDING PRODUCTS ON SITE WITH HEAVY GAUGE PLASTIC TARPS AT ALL TIMES WHEN NOT IN USE. CONTRACTOR SHALL LIMIT AMOUNT OF BUILDING MATERIALS AND BUILDING PRODUCTS TO THE MINIMAL AMOUNT NECESSARY FOR EACH PHASE OF CONSTRUCTION.

CHECKLIST #28
PRACTICES TO BE USED TO REDUCE POLLUTANTS IN STORM WATER DISCHARGE:

PRODUCT SPECIFIC PRACTICES:
PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OR SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATERS, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

PAINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.

FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

CHECKLIST #29
SEE SHEET EC2 FOR ACTIVITIES SCHEDULE.

CHECKLIST #30
INSPECTIONS

A. PRIMARY PERMITTEE.

(1). EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT; (B) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE O F TERMINATION IS SUBMITTED.

(2). MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.

(3). CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION, OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION , THE PERMITTEE MUST COMPLY WITH PART IV.4.A.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

(4). CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).

(5). BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. (6). A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION SITE THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A CERTIFICATION THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN AND THIS PERMIT. THE REPORT SHALL BE SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

CHECKLIST #31
D. SAMPLING FREQUENCY.

(1) THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

(2) HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORMWATER DISCHARGE.

(3) SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING EVENTS:

(A). FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;

(B). IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST;

(C). AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPs IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AS IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPs ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;

(D). WHERE SAMPLING PURSUANT TO (A), (B), OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B), OR (C) ABOVE; AND

(E). EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING THAN AS REQUIRED BY (C) ABOVE.

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

E. REPORTING.

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED INA A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION.
A. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
B. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
C. THE DATE(S) ANALYSES WERE PERFORMED.
D. THE TIME(S) ANALYSES WERE INITIATED;
E. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
F. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
G. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
H. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;, AND
I. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED PER THE PLAN.

3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT THE DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

CHECKLIST #32
F. RETENTION OF RECORDS

1. THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:

A. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
B. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
C: THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
D: A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
E. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;
F. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT; AND
G. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2) OF THIS PERMIT.

2. COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

CHECKLIST #33
B. SAMPLE TYPE. ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.
1. SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
2. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
3. LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
4. MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUANTIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
5. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

CHECKLIST #34
REFERENCE PLAN CHECKLIST ON EC2 FOR DIRECTION. MAXIMUM ALLOWABLE INCREASE XXXXX

CHECKLIST #35
REFERENCE PLAN CHECKLIST ON EC2 FOR DIRECTION.

CHECKLIST #36
NARRATIVE OF EROSION/SEDIMENT CONTROL PRACTICES:

INITIAL PHASE: SITE PREPARATION. THIS STAGE RELATES TO ALL ACTIVITIES PRIOR TO CONSTRUCTION ACTIVITIES AND SHALL BE COMPLETED INTO TWO SUB-STAGES, ACCORDING TO THE FOLLOWING ORDER:

A. INSTALLATION OF TEMPORARY SILT FENCES AND INLET PROTECTION AS SHOWN ON PLANS. SILT FENCES SHALL SPECIALLY BE USED AS PREVENTIVE FILTERS TO PROTECT EXISTING DOWNSTREAM DETENTION POND. SEDIMENT BARRIER MUST BE INSTALLED ALONG CONTOURS WITH ENDS POINTING UPHILL. TEMPORARY SEDIMENT BARRIER MUST BE PLACED AROUND STORM DRAIN INLETS THAT RECEIVE RUNOFF FROM DISTURBED AREAS.

B. ACCESS STABILIZATION: CONSTRUCTION EXIT SHALL PROVIDE STABLE ACCESS TO SITE. IT MUST BE CHECKED DAILY AND REPAIRED AS NEEDED. IT MUST BE REMOVED AFTER CONSTRUCTION.

C. APPLICATION OF TEMPORARY VEGETATION OF ALL DISTURBED AREAS AS SHOWN ON PLANS.

INTERMEDIATE PHASE: INTERMEDIATE AND FINAL CONSTRUCTION ACTIVITIES. DURING THIS STAGE, GRADING OPERATIONS TAKE PLACE.

A. TO PROVIDE EROSION CONTROL AT POINT OF CONCENTRATED FLOW AND HIGH FLOW VELOCITIES, STONE DUMPED RIP RAP SHALL BE USED AT STORM PIPE OUTLETS.

B. INLET SEDIMENT TRAPS WILL BE USED AT NEW STORM PIPES TO REDUCE SEDIMENT DOWNSTREAM OF PIPES.

C. APPROVED TEMPORARY AND PERMANENT VEGETATIVE AND STRUCTURAL BMPS MUST BE APPLIED AS SHOWN ON PLANS.

FINAL PHASE: ALL PERMANENT, POST-CONSTRUCTION BMPS ARE SHOWN IN THE CONSTRUCTION PLANS AND IN THE ESPC PLAN. THE POST-CONSTRUCTION BMPS FOR THIS PROJECT INCLUDE GRASSING, RIP-RAP AT PIPE OUTLETS FOR VELOCITY DISSIPATION AND OUTLET STABILIZATION. THE POST-CONSTRUCTION BMPS WILL PROVIDE PERMANENT STABILIZATION OF THE SITE AND PREVENT ACCELERATED TRANSPORTATION OF SEDIMENT AND POLLUTANTS INTO RECEIVING WATERS.

SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN FOURTEEN DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED AFTER THIRTY DAYS SHALL BE STABILIZED WITH PERMANENT GRASSING.

THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.

ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

EROSION CONTROL MEASURES MUST BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AS DIRECTED BY THE ONSITE INSPECTOR OR THE DESIGN PROFESSIONAL.

CHECKLIST #37
REFERENCE ALL PLAN SHEETS FOR NORTH ARROW AND SCALE.

CHECKLIST #38
REFERENCE ALL PLAN SHEETS FOR CONTOUR DATA.

CHECKLIST #39
NO ALTERNATIVE BMPS WILL BE USED.

CHECKLIST #40
NO ALTERNATIVE BMPS WILL BE USED.

CHECKLIST #41
NO STREAM BUFFERS ARE ON THIS PROJECT.

CHECKLIST #42
THERE ARE NO ONSITE WETLANDS OR STATE WATERS LOCATED WITHIN 200 FEET OF THIS SITE.

CHECKLIST #43
SEE SHEET EC2 FOR DRAINAGE BASINS.

CHECKLIST #44
SEE HYDROLOGY STUDY.

CHECKLIST #45
SEE HYDROLOGY STUDY AND SHEET EC2 FOR RUNOFF COEFFICIENTS AND PEAK DISCHARGE.

CHECKLIST #46
PIPE CHART SHOWN ON SHEET C3 AND EC2. SHOWS. PIPE DISCHARGES AND VELOCITIES AND RIP RAP REQUIREMENTS.

CHECKLIST #47
SEE SOIL SERIES CHART SHEET EC2.

CHECKLIST #48
SEE SHEETS EC3 THROUGH EC5.

CHECKLIST #49
SEDIMENT STORAGE WILL BE ACCOMPLISHED THROUGH THE USE OF SILT FENCE AND TEMPORARY SEDIMENT TRAPS. SEDIMENT TRAPS HAVE BEEN DESIGNED TO PROVIDE 67 CUBIC YARDS PER DISTURBED AREA.

CHECKLIST #50
REFERENCE ALL EROSION CONTROL PLAN SHEETS.

CHECKLIST #51
REFERENCE DETAIL SHEETS.

CHECKLIST #52
EROSION CONTROL PLANS PROVIDE FOR BOTH TEMORARY AND PERMANENT VEGETATION.

DONALD W. BAKER
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NO. 12796
EXPIRES 8/1/2024

DATE	NO.	DESCRIPTION
7/18/2022	1	WATER LINE, GUTTER AND GUTTER DRAIN LINES, ADS DRAIN LINE, AND SEPTIC LINE REVISIONS.

REVISION

DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527

FIRE STATION
FOR
UNION COUNTY, GA

ESPC NOTES I
SHEET TITLE

DESIGN BY	DRAWN BY	CHECKED BY
DWB	DWB	

GEORGIA REGISTERED NO. 17626 PROFESSIONAL ENGINEER DONALD W. BAKER
4/28/2022
STAMP

4/28/2022
DATE
2022.51
JOB NUMBER
z:\projects
FILE LOCATION

EC1
SHEET

PATH & FILE: F:\Projects\2022\2022.5 Union County\2022.51 Fire Station\Design Stage\base fire station071822

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST

STAND ALONE CONSTRUCTION PROJECTS

SWCD: BLUE RIDGE MOUNTAIN

Project Name: UNION COUNTY FIRE STATION Address: HARBOR BLVD.

City/County: BLAIRSVILLE, UNION COUNTY Date on Plans: 4/6/2022

Name & email of person filling out checklist: DONALD BAKER dbakerala@gmail.com

TO BE SHOWN ON ES&PC PLAN

Plan Included Page #	Y/N	Item
EC2	Y	1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. (The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
ALL	Y	2 Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)
EC1	Y	3 Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the GAEPD District Office. If GAEPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist and the GAEPD approval letter. * (A copy of the written approval by GAEPD must be attached to the plan for the Plan to be reviewed.)
EC1	Y	4 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.
EC1	Y	5 Provide the name, address, email address, and phone number of primary permittee.
EC1	Y	6 Note total and disturbed acreages of the project or phase under construction.
EC1	Y	7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
EC1	Y	8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
EC1	Y	9 Description of the nature of construction activity and existing site conditions.
EC1	Y	10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
EC1	Y	11 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
EC1	Y	12 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on Part IV page 19 of the permit.
EC1	Y	13 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 19 of the permit. *
EC1	Y	14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit. *
EC1	Y	15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."
EC1	Y	16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
EC1	Y	17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." *
EC1	Y	18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *
EC1	Y	19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."
EC1	Y	20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
EC1	Y	21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
EC1	Y	22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of a Biota Impaired Stream Segment must comply with Part III. C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *
EC1	Y	23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *
EC1	Y	24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. *
EC1	Y	25 Provide BMPs for the remediation of all petroleum spills and leaks.
EC1	Y	26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *
EC1	Y	27 Description of practices to provide cover for building materials and building products on site. *
EC1	Y	28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *
EC1	Y	29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
EC1	Y	30 Provide complete requirements of Inspections and record keeping by the primary permittee. *
EC1	Y	31 Provide complete requirements of Sampling Frequency and Reporting of sampling results. *
EC1	Y	32 Provide complete details for Retention of Records as per Part IV.F. of the permit. *
EC1	Y	33 Description of analytical methods to be used to collect and analyze the samples from each location. *
EC1	Y	34 Appendix B rationale for NTU values at all outfall sampling points where applicable. *
EC1	Y	35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged. *
EC1	Y	36 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. *
*	Y	37 Graphic scale and North arrow.
* (*SEE PLAN SHEETS)	Y	38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

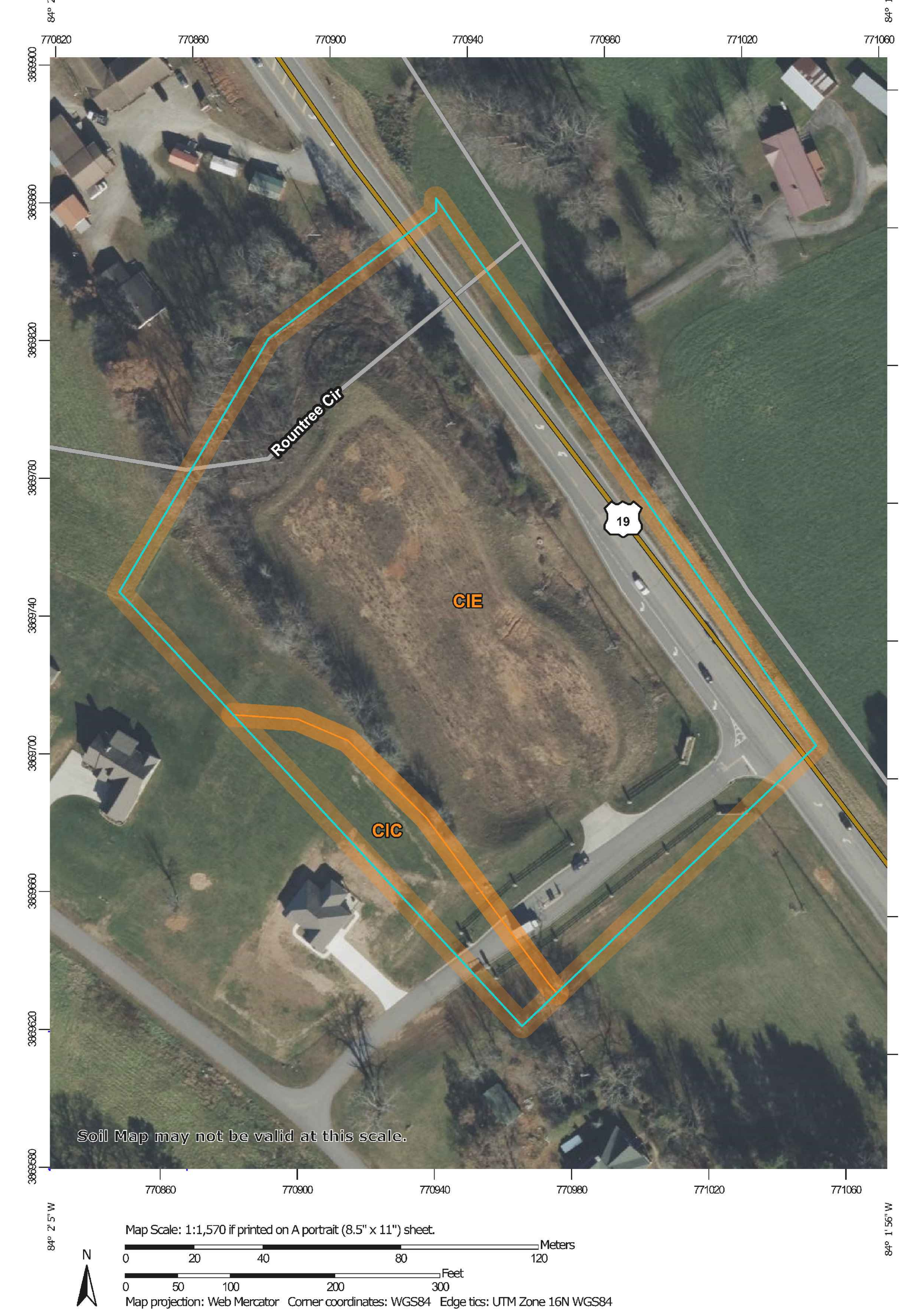
Map Scale	Ground Slope	Contour Intervals, ft.
1 inch = 100ft or larger scale	Flat 0 - 2%	0.5 or 1
	Rolling 2 - 8%	1 or 2
	Steep 8% +	2,5 or 10

Plan Included Page #	Y/N	Item
N/A		39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.
N/A		40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *
N/A	NONE	41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
N/A	NONE	42 Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
EC2	Y	43 Delineation and acreage of contributing drainage basins on the project site.
*	Y	44 Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions. *
* (* see Ec2 and Hydro)	Y	45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
C3, EC4	Y	46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
EC2	Y	47 Soil series for the project site and their delineation.
EC3-5	Y	48 The limits of disturbance for each phase of construction.
EC4	Y	49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual included for structural BMPs and all calculations used by the storage design professional to obtain the required sediment when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan.
EC3-5	Y	50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
* (*DETAIL SHEETS)	Y	51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
EC1-2	Y	52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of the year that seeding will take place and for the appropriate geographic region of Georgia.

* If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream, the * checklist items would be N/A.

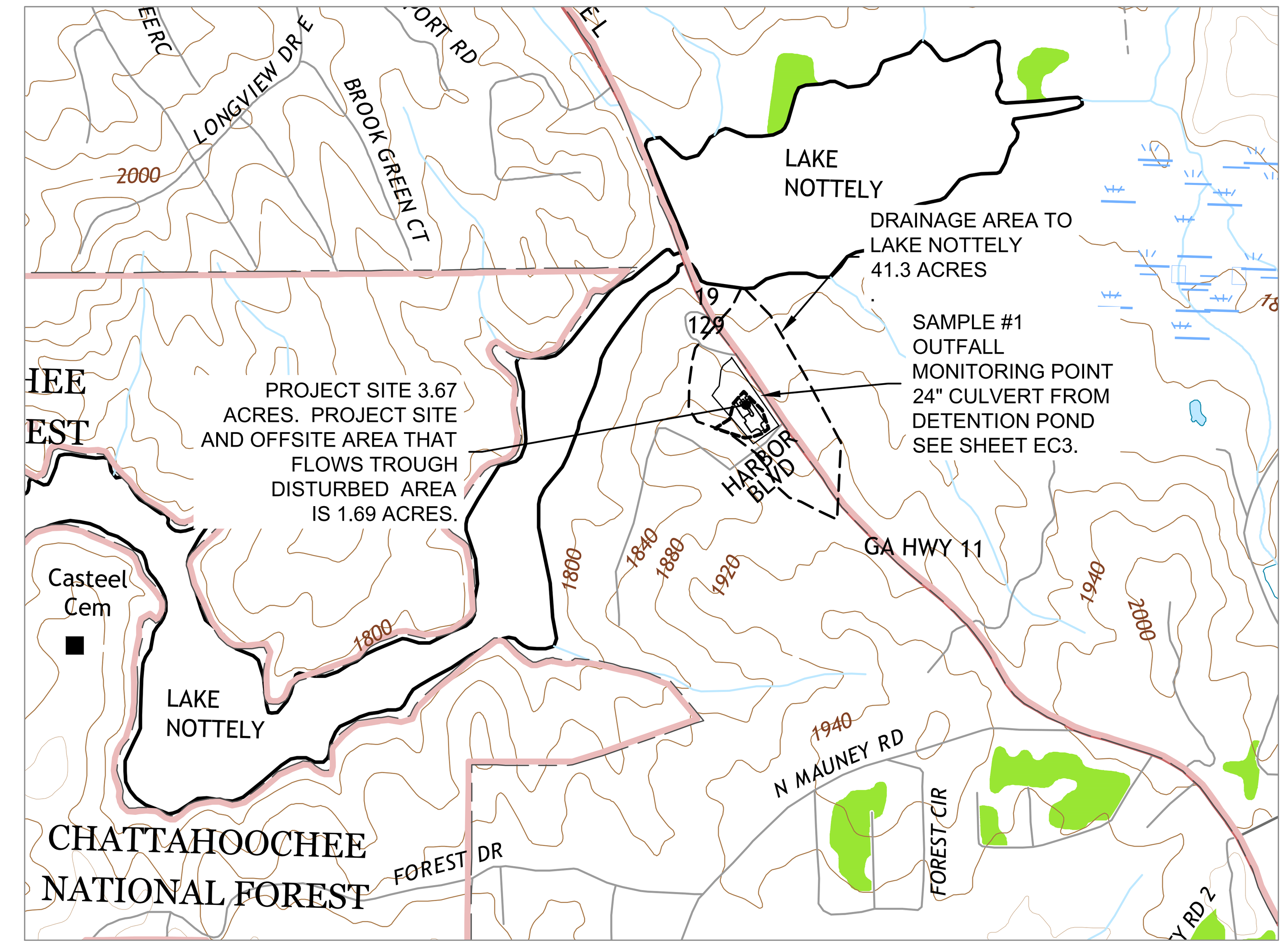
Effective January 1, 2022

Soil Map—Fannin and Union Counties, Georgia
(Union County Fire Station)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CIC	Clifton-Evard complex, 6 to 10 percent slopes	0.5	8.3%
CIE	Clifton-Evard complex, 10 to 25 percent slopes	5.6	91.7%
Totals for Area of Interest		6.1	100.0%



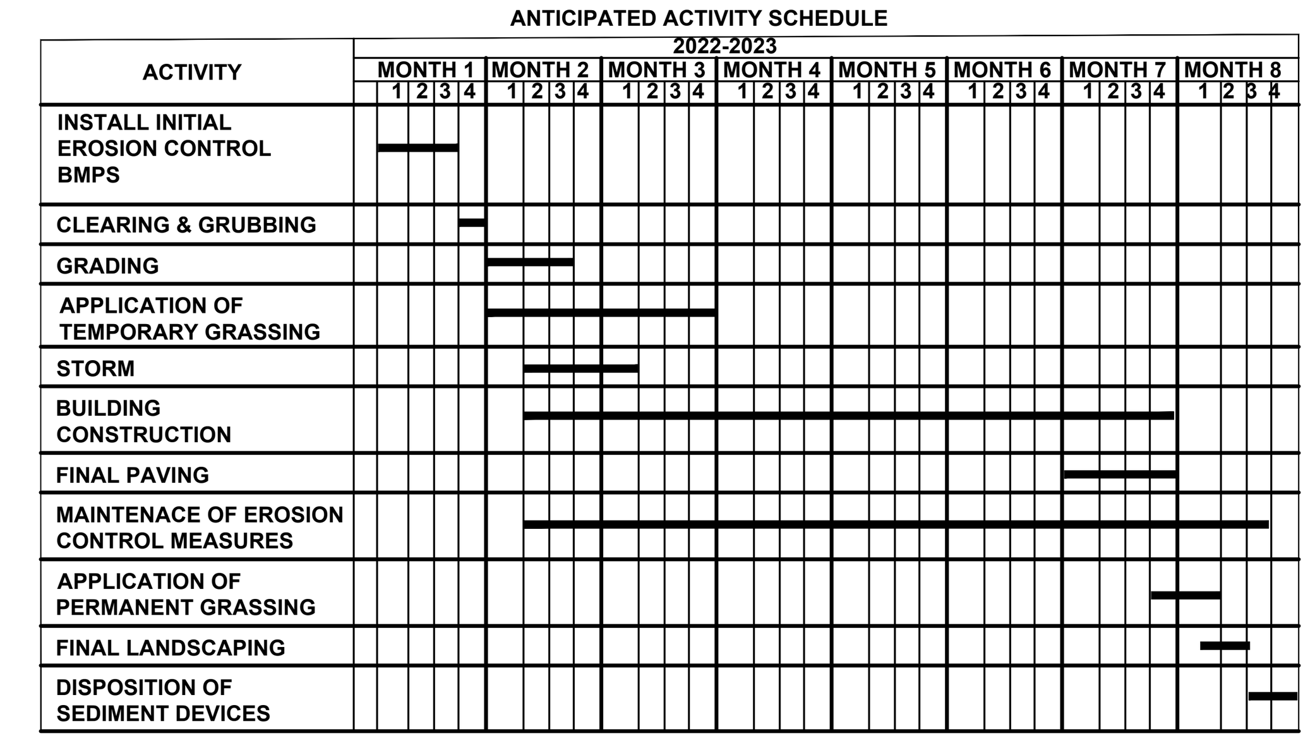
VICINITY, DRAINAGE AREA AND RECEIVING WATER SAMPLING LOCATION MAP
1" = 1000'

Monitoring Site	Primary of Alternate Site	Location Description	Name of Receiving Water	Applicable Construction Phase	Sampling Type (Outfall or Receiving Water	Drainage Area for Receiving Water (Sq Mi)	Disturbed Area (AC)	Warm or Cold Water Stream	Appendix B NTU value (Outfall Monitoring)	Allowable NTU increase (for Receiving Water)
UNION CO. FIRE STATION	Primary	Sample Location. #1	Lake Nottely	All	Outfall	<5	1.31	Warm	75	N/A

EROSION CONTROL LEGEND

- Sd1-S — SEDIMENT BARRIER — SILT FENCE TYPE C (NON-SENSITIVE)
- Du — DUST CONTROL — ALL DISTURBED AREA
- Co — CONSTRUCTION EXIT
- Sd2-B — INLET SEDIMENT TRAP - BAFFLE BOX
- Sd2-F — INLET SEDIMENT TRAP - FILTER FABRIC WITH SUPPORTING FRAME
- St — OUTLET PROTECTION
- DISTURBED LIMITS

ANTICIPATED ACTIVITY SCHEDULE



CHECKLIST #45

Pre-Developed Coeff. and Discharge C = 62.4 Q25 = 20.6 cfs
Post Developed Coeff. and Discharge C = 65.6 Q25 = 23.8

MULCHING Ds1

ALL SLOPED AREAS TO BE MULCHED AND TEMPORARILY GRASSED WITH 2 1/2 TONS PER ACRE OF DRY STRAW.

TEMPORARY GRASSING Ds2

TEMPORARY GRASSING SHALL CONSIST OF SOWING A QUICK GRASS SUCH AS RYE GRASS, BROWN TOP MILLET, OR A GRASS SUITABLE TO THE AREA AND SEASON. FERTILIZER AND LIME SHALL BE UNIFORMLY MIXED INTO THE GROUND—FERTILIZER AT A RATE OF 500#/AC. AND LIME AT 2000#/ACRE. FERTILIZER MIXED GRADE SHALL BE 10—10—10. MULCH IS NOT REQUIRED BUT SHOULD BE USED AS DICTATED BY EXISTING SITE CONDITIONS.

SPECIES	RATE	PLANTING DATE
RYE GRASS—ANNUAL	40—50#/AC.	AUGUST THRU MID—APRIL
BROWNTOP MILLET	30—40#/AC.	APRIL THRU MID—JULY
RYE	160—170#/AC.	MID—AUGUST THRU DECEMBER

PERMANENT GRASSING: Ds3

PERMANENT GRASSING SHALL CONSIST OF GROUND PREPARATION, LIMING AND FERTILIZATION, SEEDING, AND MULCHING.

THE GROUND SHALL BE PREPARED BY PLOWING AND DISKING NOT LESS THAN 4". FERTILIZER AND LIME SHALL BE UNIFORMLY MIXED INTO THE GROUND — FERTILIZER AT A RATE OF 1500#/AC. AND LIME AT 2000#/AC. THE GROUND SHALL BE FINISHED OFF SMOOTH AND UNIFORM BEING FREE OF ROCKS, CLODS, ROOTS, ETC. FERTILIZER MIXED GRADE SHALL BE EITHER 4—12— 12; 6—12—12 OR 5—10—15. SEEDING SHALL BE DONE WITHIN 24 HOURS OF THE FERTILIZER APPLICATION, WEATHER PERMITTING. SEED SHALL BE UNIFORMLY SPREAD AT THE RATE SHOWN BELOW. MULCHING IS REQUIRED AND SHALL BE DONE IMMEDIATELY AFTER SEEDING. MULCH SHALL BE UNIFORMLY APPLIED OVER THE AREA LEAVING APPROXIMATELY 25% OF THE GROUND SURFACE EXPOSED. THE RATE OF APPLICATION SHALL BE DOUBLED ON SIDE SLOPES 4:1 AND STEEPER.

SPECIES	RATE	PLANTING DATE
TALL FESCUE	50#/AC.	AUGUST THRU OCTOBER
COMMON BERMUDA (HULLED)	10#/AC.	MARCH THRU JUNE
COMMON BERMUDA (UNHULLED)	10#/AC.	OCTOBER THRU FEBRUARY
WEEPING LOVEGRASS	4#/AC.	MARCH THRU JUNE

DONALD W. BAKER
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REVISION

DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527

FIRE STATION
FOR
UNION COUNTY, GA

ESPC NOTES II
SHEET TITLE

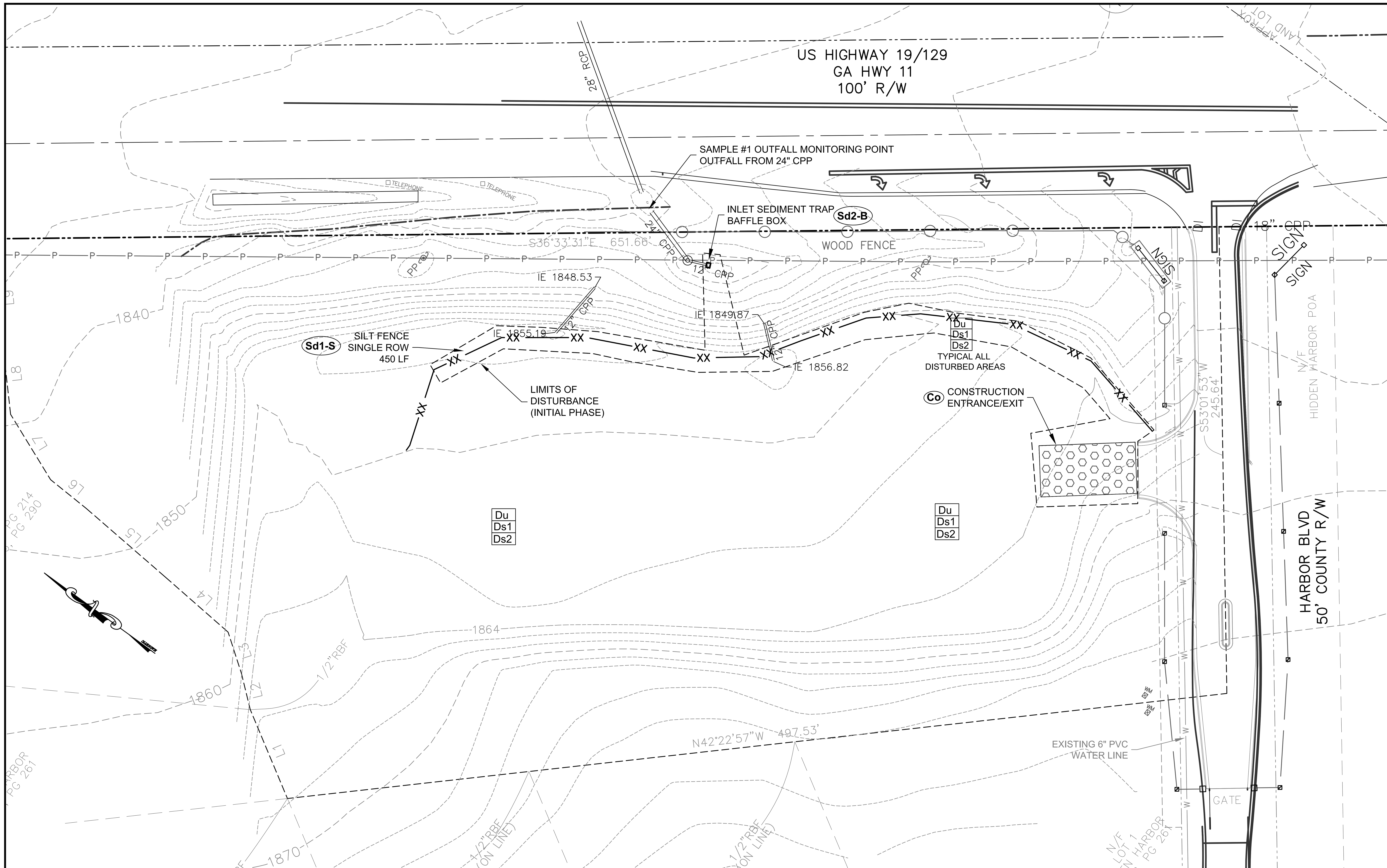
DESIGN BY DWB | DRAWN BY DWB | CHECKED BY

GEORGIA REGISTERED NO. 17626 PROFESSIONAL ENGINEER DONALD W. BAKER
4/28/2022
STAMP

4/6/2022 DATE
2022.51 JOB NUMBER
z: \projects FILE LOCATION

EC2
SHEET

PATH & FILE: F:\Projects\2022\2022.5 Union County\2022.51 Fire Station\Design Stage\base fire station071822



GRAPHIC SCALE

0 15 30 60 90

(IN FEET)
1 inch = 30 ft.

GEORGIA 811
Utilities Protection Center, Inc.
Know what's below.
Call before you dig.

UTILITY DISCLAIMER

IN ADDITION TO SHOWING THE STRUCTURES TO BE BUILT UNDER THIS CONTRACT, THE DRAWINGS SHOW CERTAIN INFORMATION OBTAINED BY THE ENGINEER REGARDING THE PIPES, POLE LINES, CONDUITS, AND OTHER STRUCTURES WHICH EXIST ALONG THE LINE OF THE WORK, BOTH AT AND BELOW THE SURFACE OF THE GROUND. THE ENGINEER AND THE OWNER EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION GIVEN ON THE DRAWINGS WITH REGARD TO EXISTING STRUCTURES, AND THE CONTRACTOR WILL NOT BE ENTITLED TO ANY EXTRA COMPENSATION ON ACCOUNT OF ANY INACCURACY OR INCOMPLETENESS OF SUCH INFORMATION, SAID STRUCTURES BEING INDICATED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR, WHO MUST VERIFY THE INFORMATION TO HIS OWN SATISFACTION. THE GIVING OF THIS INFORMATION UPON THE CONTRACT DRAWINGS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL PIPES, CONDUITS, AND OTHER STRUCTURES. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND OBSTRUCTIONS PRIOR TO EXCAVATION SO AS TO PREVENT ANY DAMAGE TO THOSE SERVICES OR OTHER UTILITIES. ANY SUCH DAMAGES MUST BE REPAIRED WITHOUT DELAY AND THE COST OF SUCH REPAIRS MUST BE BORNE BY THE CONTRACTOR.

EROSION CONTROL NOTES

1. NO BUFFER VARIANCES WILL BE REQUIRED AS PART OF THIS PROJECT.
2. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH ENTRY TO OR EXIT FROM THE SITE.
3. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
4. MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR AND THE OWNER/DEVELOPER.
5. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING IN ACCORDANCE WITH THE GUIDELINES FOR DISTURBED AREA STABILIZATION CONTAINED IN THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA.
6. EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
7. AS SOON AS THE SITE HAS ACHIEVED FINAL STABILIZATION, ALL SILT FENCE AND OTHER TEMPORARY EROSION CONTROL MEASURES MUST BE REMOVED. ALL TEMPORARY AND PERMANENT GRASSING SHALL BE HYDROSEEDED.
8. SEE DETAIL SHEETS FOR EROSION BMP INSTALLATION.
9. CONTRACTOR SHALL CONDUCT TURBIDITY SAMPLING AFTER EVERY RAIN EVEN OF 0.5 INCHES OR GREATER WITHIN ANY 24 HR PERIOD, RECOGNIZING THE EXCEPTIONS SPECIFIED IN SECTION IV.D.6.D. OF THE NPDES PERMITS.

SEDIMENT STORAGE CALCULATIONS

TOTAL SITE AREA: 3.67 ACRES
TOTAL ONSITE AND OFFSITE DRAINAGE AREA
THAT FLOWS THROUGH THE DISTURBED AREA IS: 1.67 ACRES

INITIAL PHASE DISTURBED AREA IS 0.19 ACRES.
REQUIRED SEDIMENT STORAGE
1.67 ACRES DRAINED X 67 CY/AC = 111.9 CY

EXISTING DETENTION POND STORAGE:
VOLUME OF POND FOR SEDIMENT STORAGE IS FROM CONTOUR 1838 TO CONTOUR 1842. AREA OF CONTOUR 1840 IS 502 SF. USING 1840 CONTOUR AS AVERAGE AREA, VOLUME IS 502 SF X 4 FT = 2008 CF
= 74 CY STORAGE

450 LF SILT FENCE X 0.09 CY/LF = 41 CY

TOTAL SEDIMENT STORAGE = 114 CY

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FOR
UNION COUNTY, GA

INITIAL ESPC
PLAN

SHEET TITLE

DESIGN BY	DRAWN BY	CHECKED BY
DWB	DWB	

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ENGINEER
DONALD W. BAKER
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STAMP

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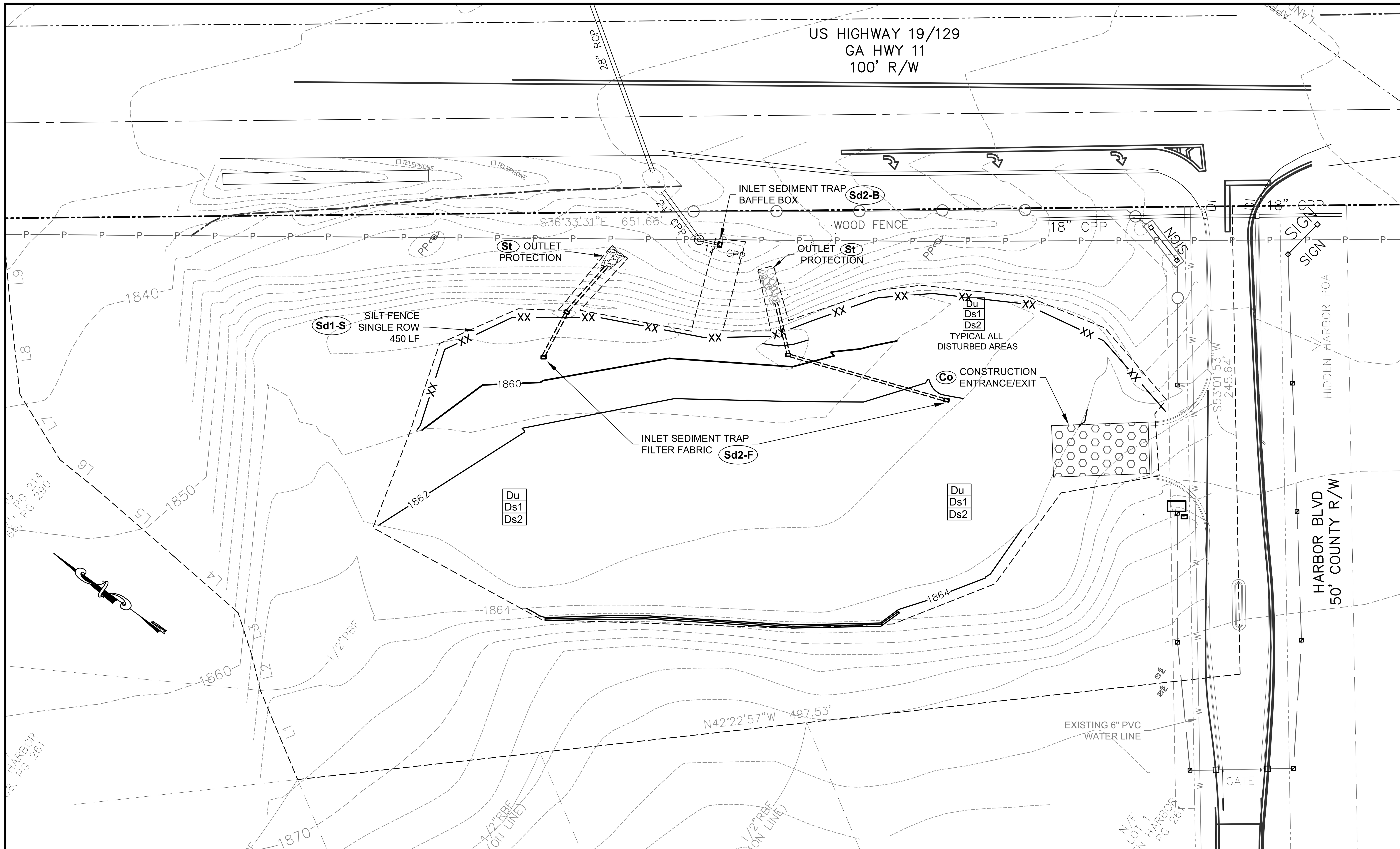
2022.51
JOB NUMBER
z:\projects
FILE LOCATION

PATH & FILE: F:\Projects\2022\2022.5 Union County\2022.51 Fire Station\Design Stage\base fire station071822

EC3

SHEET



GRAPHIC SCALE

0 15 30 60 90

(IN FEET)
1 inch = 30 ft.

GEORGIA 811
Utilities Protection Center, Inc.
Know what's below. Call before you dig.

UTILITY DISCLAIMER

IN ADDITION TO SHOWING THE STRUCTURES TO BE BUILT UNDER THIS CONTRACT, THE DRAWINGS SHOW CERTAIN INFORMATION OBTAINED BY THE ENGINEER REGARDING THE PIPES, POLE LINES, CONDUITS, AND OTHER STRUCTURES WHICH EXIST ALONG THE LINE OF THE WORK, BOTH AT AND BELOW THE SURFACE OF THE GROUND. THE ENGINEER AND THE OWNER EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION GIVEN ON THE DRAWINGS WITH REGARD TO EXISTING STRUCTURES, AND THE CONTRACTOR WILL NOT BE ENTITLED TO ANY EXTRA COMPENSATION ON ACCOUNT OF ANY INACCURACY OR INCOMPLETENESS OF SUCH INFORMATION, SAID STRUCTURES BEING INDICATED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR, WHO MUST VERIFY THE INFORMATION TO HIS OWN SATISFACTION. THE GIVING OF THIS INFORMATION UPON THE CONTRACT DRAWINGS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL PIPES, CONDUITS, AND OTHER STRUCTURES. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND OBSTRUCTIONS PRIOR TO EXCAVATION SO AS TO PREVENT ANY DAMAGE TO THOSE SERVICES OR OTHER UTILITIES. ANY SUCH DAMAGES MUST BE REPAIRED WITHOUT DELAY AND THE COST OF SUCH REPAIRS MUST BE BORNE BY THE CONTRACTOR.

RIPRAP APRON SUMMARY

PIPE ID	PIPE DIAMETER (d)	FLOW RATE (cfs)	VELOCITY (fps)	TAILWATER CONDITION	APRON LENGTH (La)	WIDTH UPSTREAM (W1)	WIDTH DOWNSTREAM (W=Do+La)	RIP RAP SIZE (d50)	RIP RAP DEPTH (in)	RIP RAP TYPE
PIPE A & B	18"	2.72	2.05	MIN	10'	5'	12'	4"	18"	DOT TYPE 3
PIPE C & D	18"	6.45	4.50	MIN	20'	5"	14'	4"	18"	DOT TYPE 3

NOTE: PIPE A & B ARE COMBINED WITH TOTAL OUTFALL FLOW SHOWN FROM PIPE B
NOTE: PIPE C & D ARE COMBINED WITH TOTAL OUTFALL FLOW SHOWN FROM PIPE B

EROSION CONTROL NOTES

1. NO BUFFER VARIANCES WILL BE REQUIRED AS PART OF THIS PROJECT.
2. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH ENTRY TO OR EXIT FROM THE SITE.
3. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
4. MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR AND THE OWNER/DEVELOPER.
5. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING IN ACCORDANCE WITH THE GUIDELINES FOR DISTURBED AREA STABILIZATION CONTAINED IN THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA.
6. EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
7. AS SOON AS THE SITE HAS ACHIEVED FINAL STABILIZATION, ALL SILT FENCE AND OTHER TEMPORARY EROSION CONTROL MEASURES MUST BE REMOVED. ALL TEMPORARY AND PERMANENT GRASSING SHALL BE HYDROSEEDED.
8. SEE DETAIL SHEETS FOR EROSION BMP INSTALLATION.
9. CONTRACTOR SHALL CONDUCT TURBIDITY SAMPLING AFTER EVERY RAIN EVEN OF 0.5 INCHES OR GREATER WITHIN ANY 24 HR PERIOD, RECOGNIZING THE EXCEPTIONS SPECIFIED IN SECTION IV.D.6.D. OF THE NPDES PERMITS.

EROSION CONTROL NOTES

1. CLEAN SEDIMENT OUT OF SILT FENCE WHEN IT ACCUMULATES TO 1/2 OF THE TOTAL HEIGHT.
2. CLEAN SEDIMENT OUT OF TEMPORARY SEDIMENT TRAP WHEN 1/3 SEDIMENT STORAGE VOLUME IS REACHED.
3. SEE SHEET D1 FOR EROSION CONTROL DETAILS.
4. Sd4-F IS TO REMAIN IN PLACE UNTIL SITE PAVING IS COMPLETE. ONCE SITE WORK IS COMPLETE REMOVE Sd4-F AND RE-GRASS AS NEEDED.
5. SILT FENCE AND Sd2B IS TO REMAIN IN PLACE UNTIL PERMANENT GRASSING IS ESTABLISHED.

SEDIMENT STORAGE CALCULATIONS

TOTAL SITE AREA: 3.67 ACRES
TOTAL ONSITE AND OFFSITE DRAINAGE AREA
THAT FLOWS THROUGH THE DISTURBED AREA IS: 1.67 ACRES

INTERMEDIATE PHASE DISTURBED AREA IS 1.31 ACRES.
REQUIRED SEDIMENT STORAGE
1.67 ACRES DRAINED X 67 CY/AC = 111.9 CY
EXISTING DETENTION POND STORAGE:
VOLUME OF POND FOR SEDIMENT STORAGE IS FROM CONTOUR 1838 TO CONTOUR 1842. AREA OF CONTOUR 1840 IS 502 SF. USING 1840 CONTOUR AS AVERAGE AREA, VOLUME IS 502 SF X 4 FT = 2008 CF
= 74 CY STORAGE

400 LF SILT FENCE X 0.09 CY/LF = 36 CY

2 INLET SEDIMENT TRAPS X 16 = 32 LF X 0.09 CY/LF = 2.9 CY

TOTAL SEDIMENT STORAGE = 1,129 CY

DONALD W. BAKER
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NO. 12796
EXPIRES 8/1/2024

DATE	NO.	DESCRIPTION
7/18/2022	1	WATER LINE, GUTTER AND GUTTER DRAIN LINES, ADS DRAIN LINE, AND SEPTIC LINE REVISIONS.

REVISION

DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527

FIRE STATION
FOR
UNION COUNTY, GA

INTERMEDIATE
ESPC PLAN

SHEET TITLE

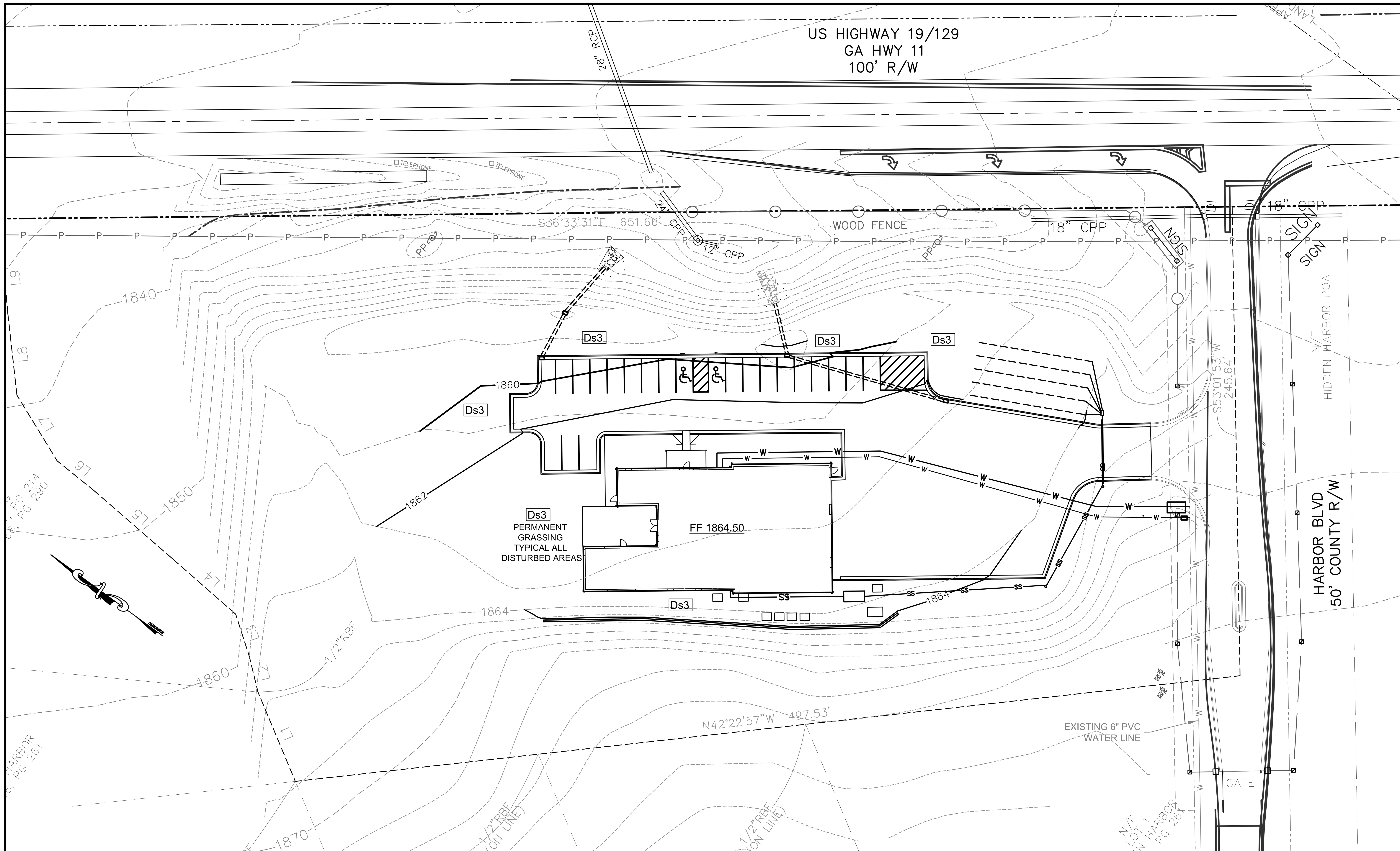
DESIGN BY	DRAWN BY	CHECKED BY
DWB	DWB	

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 17626 DONALD W. BAKER
4/28/2022
STAMP

4/6/2022
DATE
2022.51
JOB NUMBER
z:\projects
FILE LOCATION

PATH & FILE: F:\Projects\2022\2022.5 Union County\2022.51 Fire Station\Design Stage\base fire station071822

SHEET
EC4



AS SOON AS THE SITE HAS ACHIEVED FINAL STABILIZATION, AS DETERMINED BY THE SITE INSPECTION BY THE ENGINEER OF RECORD, ALL SILT FENCE, INLET SEDIMENT TRAPS AND OTHER TEMPORARY EROSION CONTROL MEASURES MUST BE REMOVED.

EROSION CONTROL NOTES

1. NO BUFFER VARIANCES WILL BE REQUIRED AS PART OF THIS PROJECT.
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DONALD W. BAKER
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NO. 12796
EXPIRES 8/1/2024

DATE	NO.	DESCRIPTION
7/18/2022	1	WATER LINE, GUTTER AND GUTTER DRAIN LINES, ADS DRAIN LINE, AND SEPTIC LINE REVISIONS.

REVISION

DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527

FIRE STATION
FOR
UNION COUNTY, GA

FINAL ESPC PLAN
SHEET TITLE

DESIGN BY	DRAWN BY	CHECKED BY
DWB	DWB	

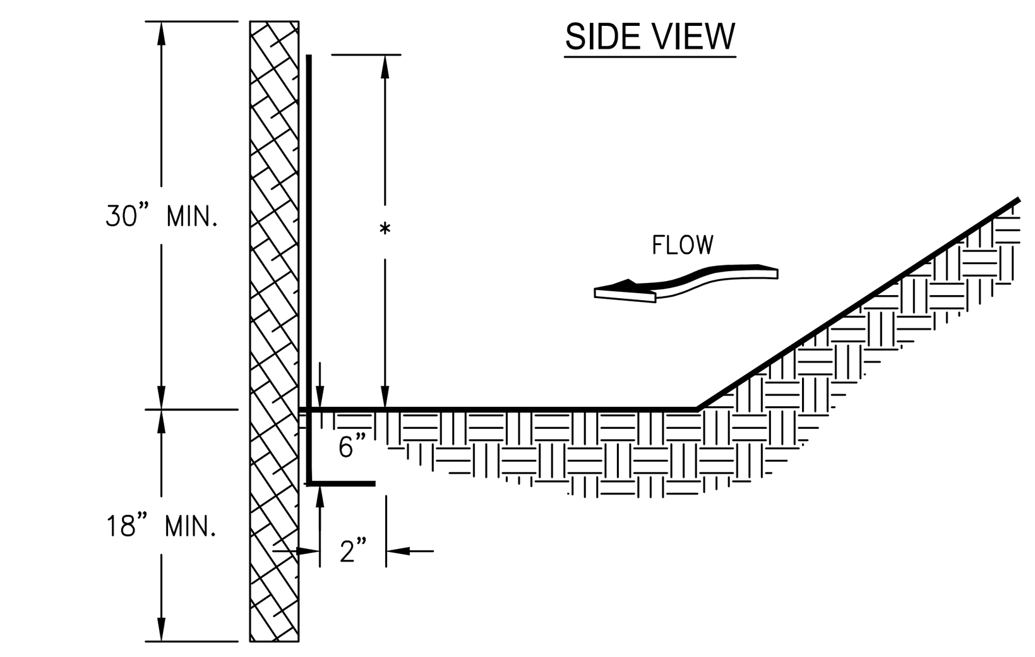
4/28/2022
STAMP

4/6/2022
DATE
2022.51
JOB NUMBER
z:\projects
FILE LOCATION

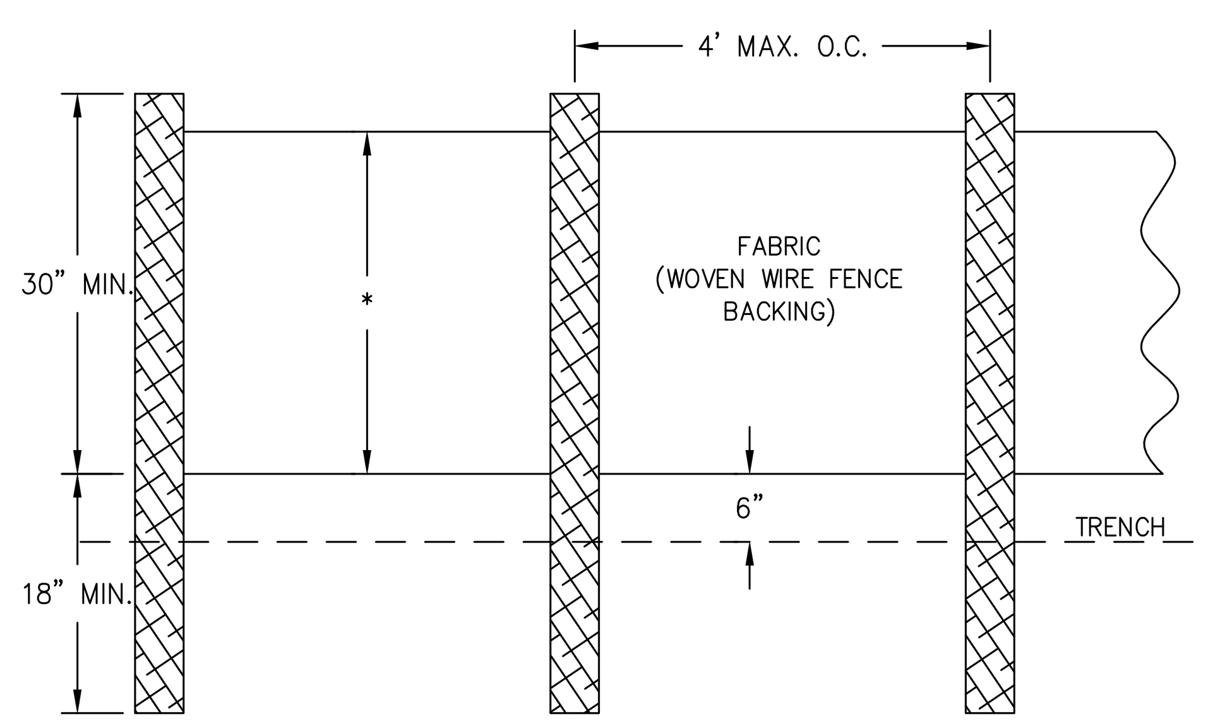
EC5
SHEET

Sd1-S SILT FENCE - TYPE SENSITIVE

SIDE VIEW



FRONT VIEW

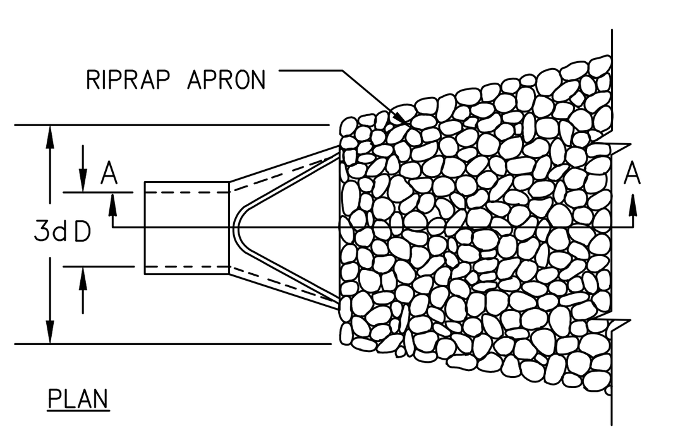


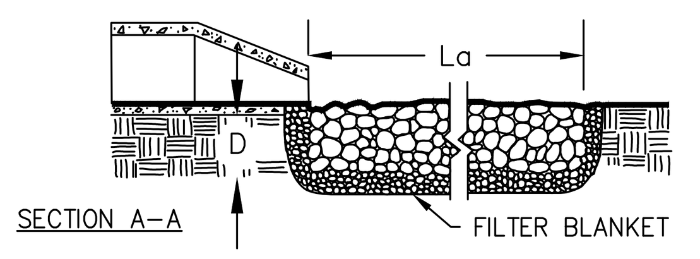
NOTES:

1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

St RIPRAP OUTLET PROTECTION

PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL

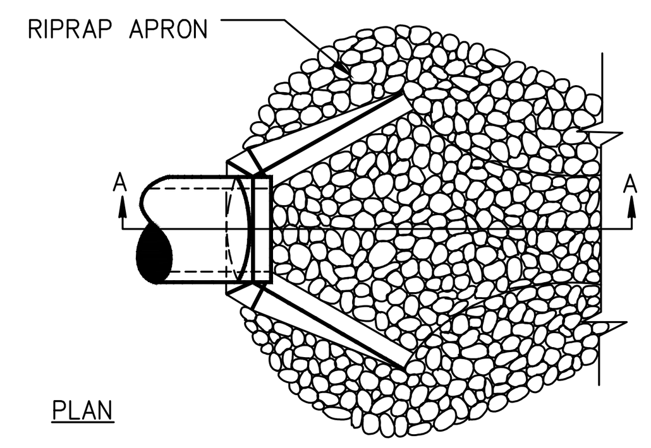


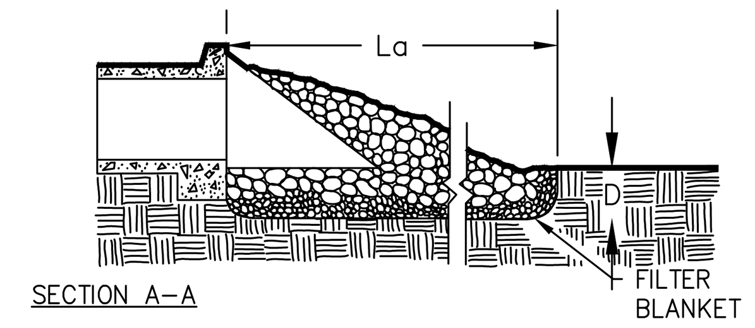


NOTES:

1. La IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESSTHAN 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.

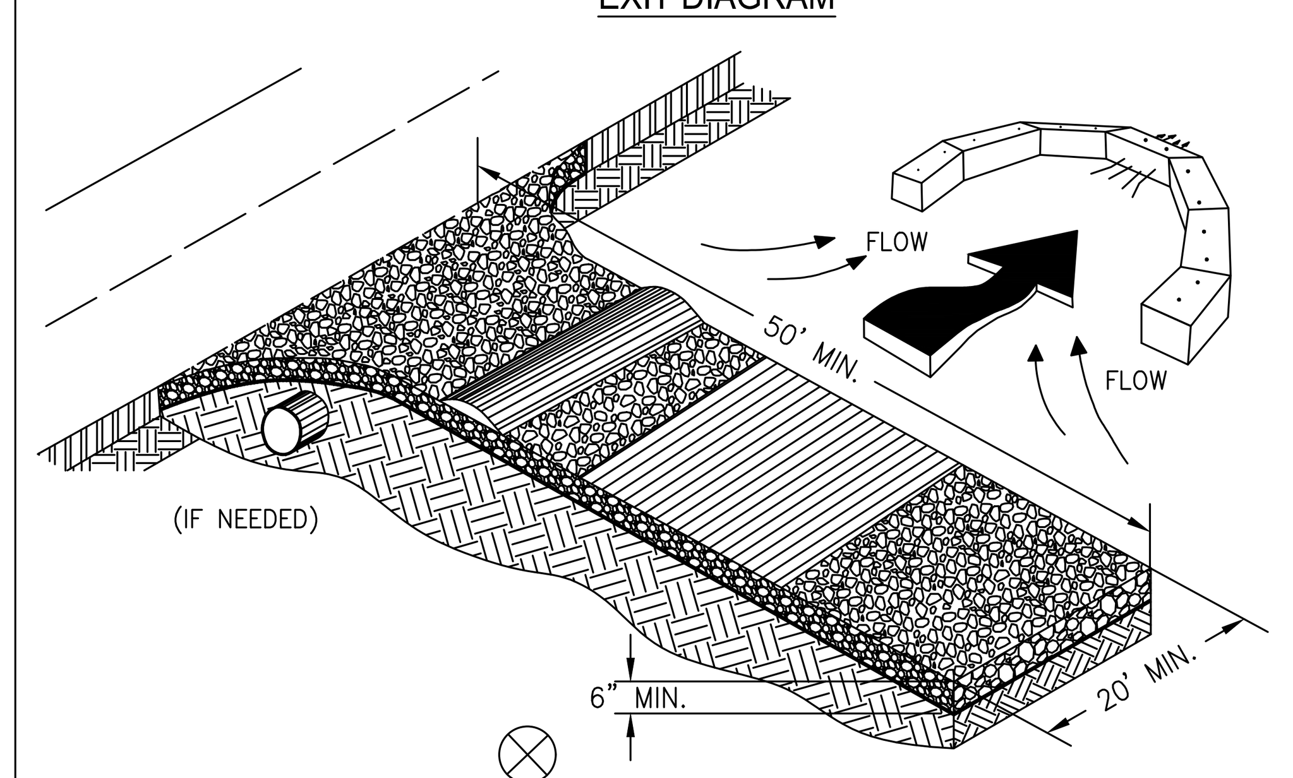
PIPE OUTLET TO WELL DEFINED CHANNEL



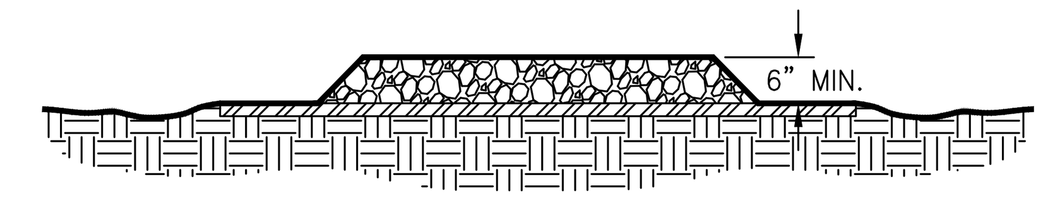


Co CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM



ENTRANCE ELEVATION

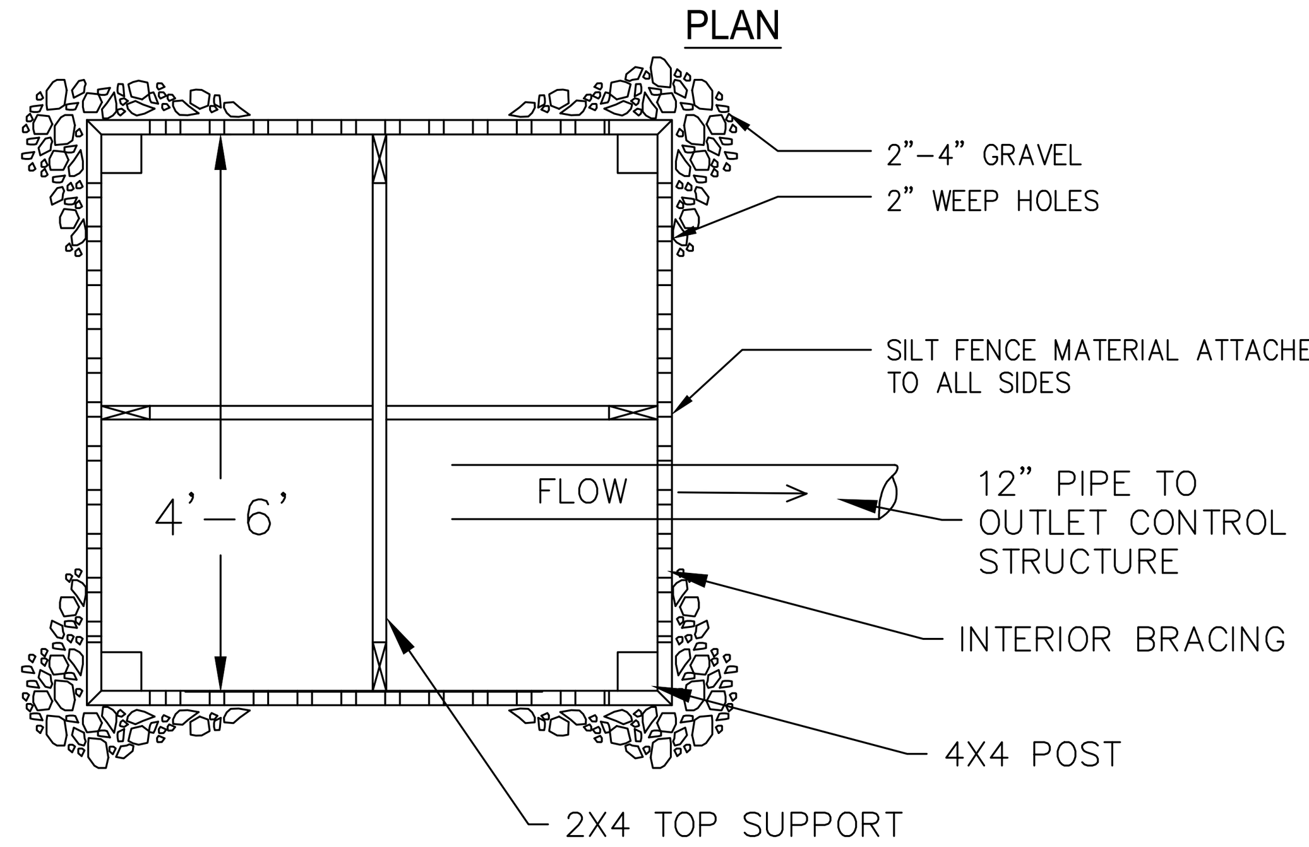


NOTES:

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%..
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

Sd2-B BAFFLE BOX

PLAN



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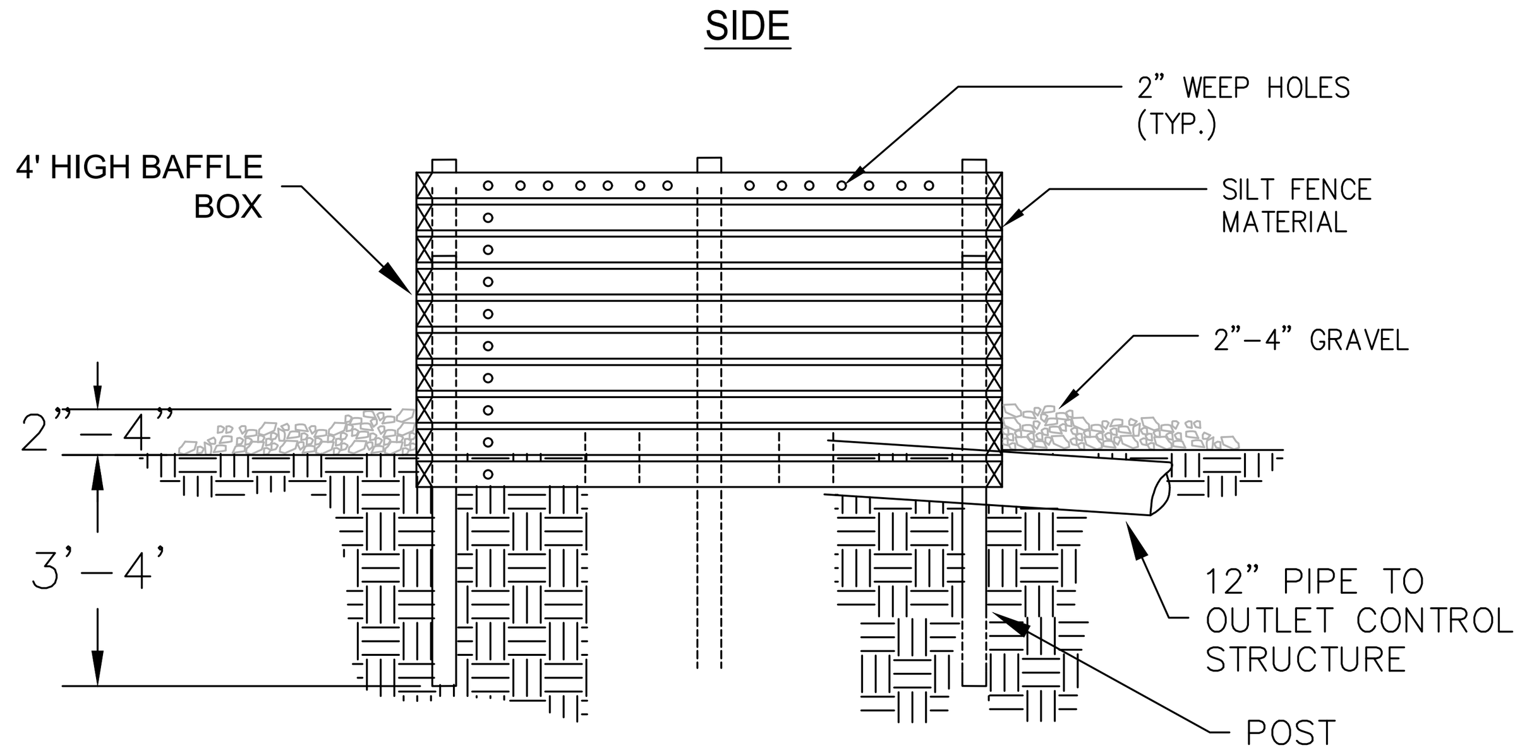
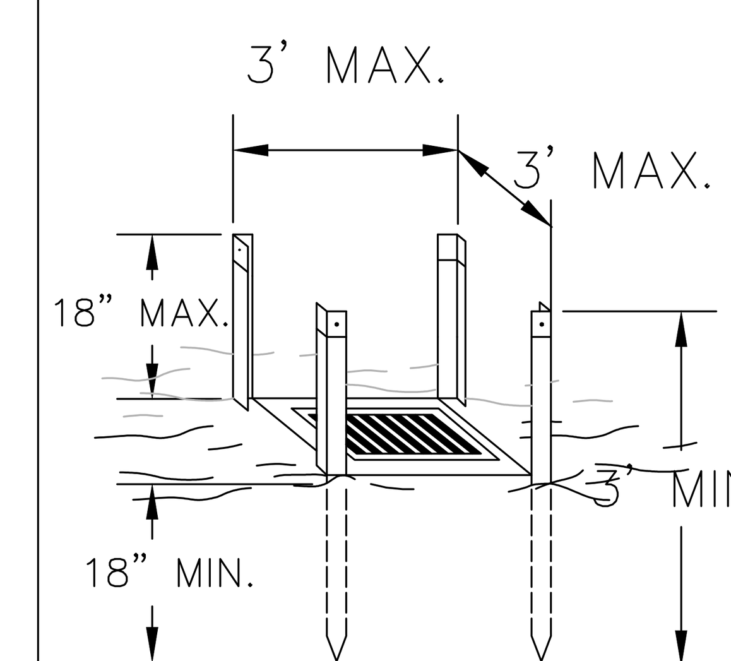


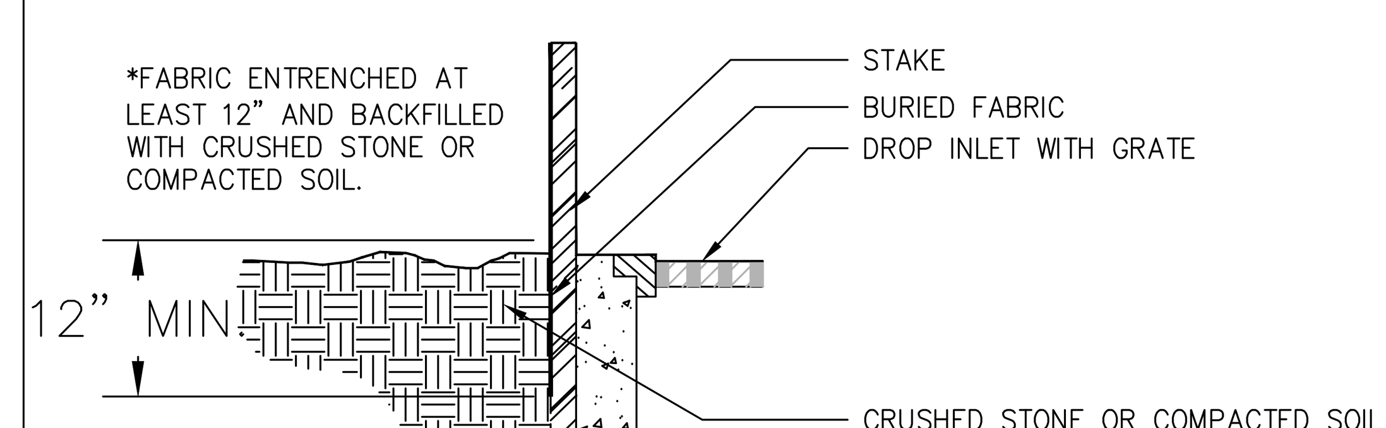
Sd2-F FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

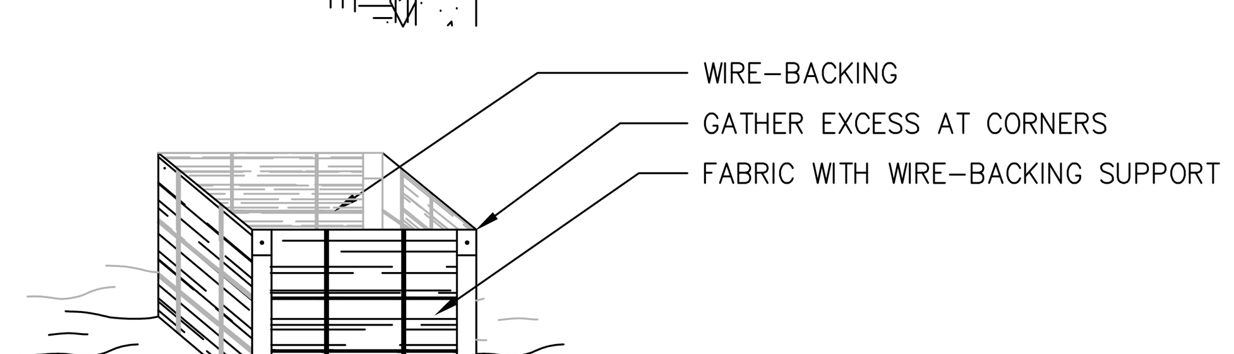
STEEL FRAME AND SILT FENCE INSTALLATION

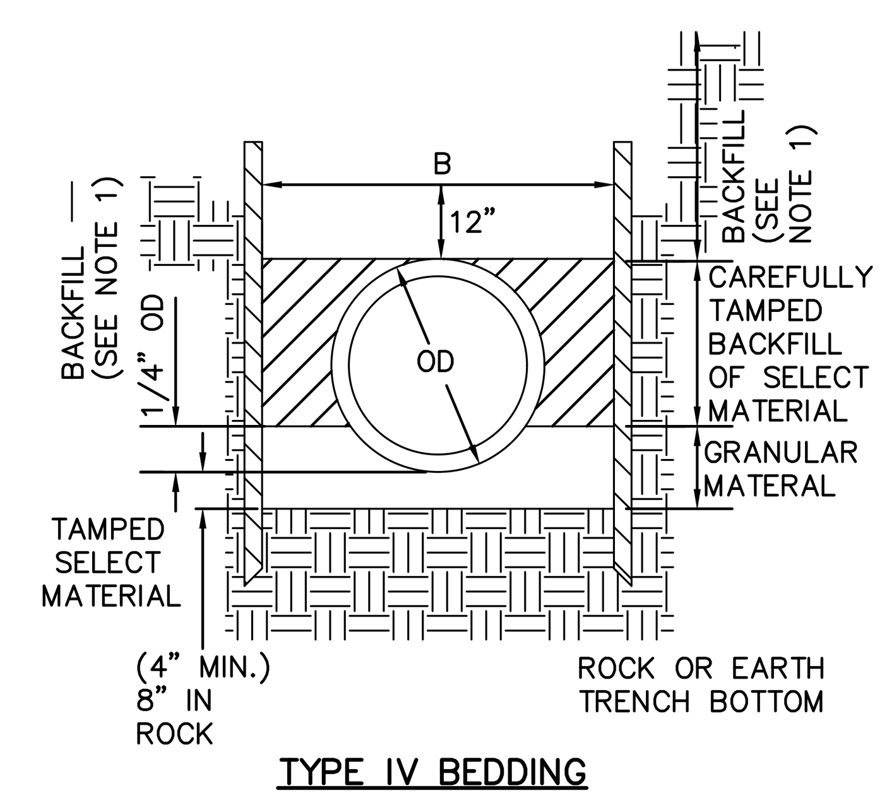


NOTES:

1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

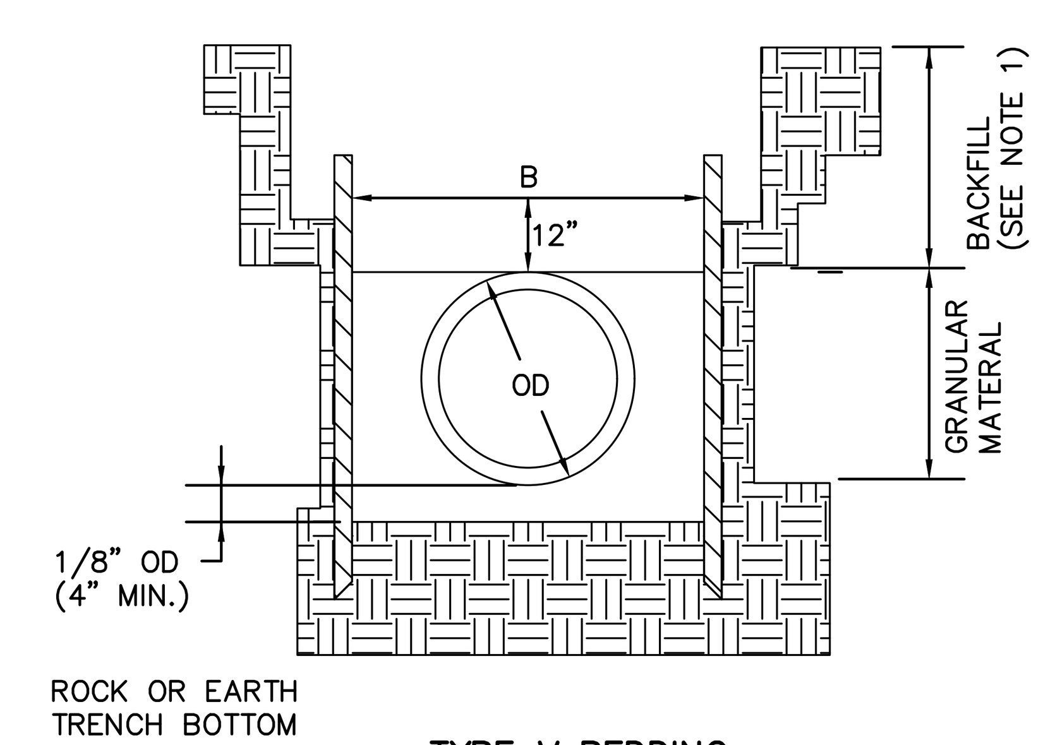






TYPE IV BEDDING

GRAVITY SEWER



TYPE V BEDDING

HDPE UNDER PAVEMENT AND ON LEVEL GROUND

I.D.. (IN.)	B (FT.)
18	3.50
21	3.70
24	4.00
27	4.71
30	5.00
36	5.58
42	6.25
48	6.83

B=MAXIMUM WIDTH OF TRENCH AT POINT 12" ABOVE TOP OF PIPE.

1. BACKFILL TO BE PLACED IN TRENCH AT 4"-12" LAYERS, AND TAMPED PROPERLY.
2. ~~TYPE III BEDDING EQUALS TYPE IV BEDDING FOR GRANULAR MATERIAL.~~
3. WHEN PIPE TRENCH PARALLELS ROADWAY AND IS UNDERNEATH PROPOSED ROADWAY, THE 12" OF BACKFILL SHALL BE CRUSHER RUN.
4. ALL TRENCH CONSTRUCTION TO BE PERFORMED IN ACCORDANCE WITH OSHA REGULATIONS.
5. ALL PIPE BEDDING SHALL CONFORM TO GEORGIA DEPT. OF TRANSPORATION STANDARDS AND SPECIFICATIONS.

PIPE BEDDING DETAILS

NTS

DONALD W. BAKER
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NO. 12796
EXPIRES 8/1/2024

DATE	NO.	DESCRIPTION
7/18/2022	1	WATER LINE, GUTTER AND GUTTER DRAIN LINES, ADS DRAIN LINE, AND SEPTIC LINE REVISIONS.

REVISION

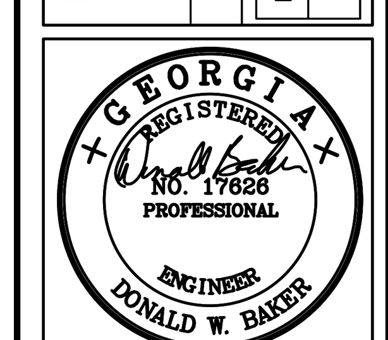
DON BAKER ENGINEERING
89 GRANDWATER DRIVE
SUWANEE, GA 30024
770-403-4527

FIRE STATION
FOR
UNION COUNTY, GA

EROSION CONTROL AND GENERAL DETAILS

SHEET TITLE

DESIGN BY	DRAWN BY	CHECKED BY
DWB	DWB	



4/28/2022

STAMP

4/28/2022
DATE

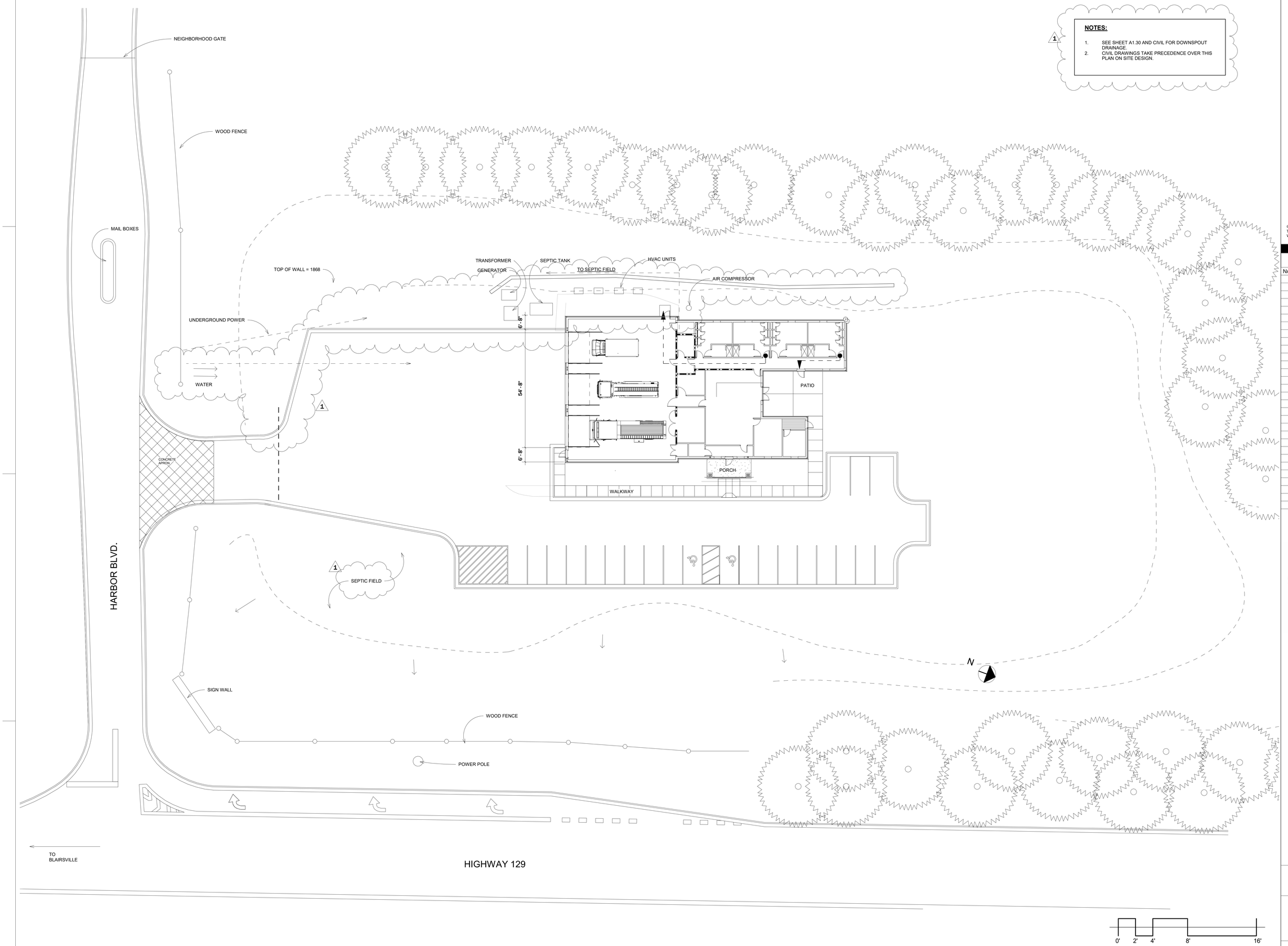
2022.51
JOB NUMBER

z:\projects
FILE LOCATION

PATH & FILE: F:\Projects\2022\2022.51 Union County\2022.51 Fire Station\Design Stage\base fire station071822

D1

SHEET



NOTES:

1. SEE SHEET A1.30 AND CIVIL FOR DOWNSPOUT DRAINAGE.
2. CIVIL DRAWINGS TAKE PRECEDENCE OVER THIS PLAN ON SITE DESIGN.

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

Revisions

No.	Date	Description
	06.27.22	ISSUED
	07.18.22	REVISION 1

GEORGIA
No. 003949
PROFESSIONAL
ARCHITECT
B. RANDALL SMITH

Gardner
Spencer
Smith
Tench &
Jarbeau
A Professional Corporation
for the Practice of Architecture
www.gsstj.com

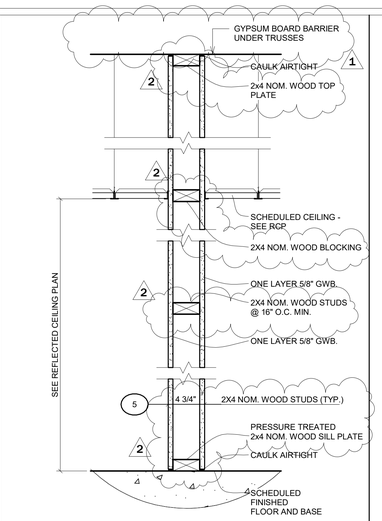
Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

20112

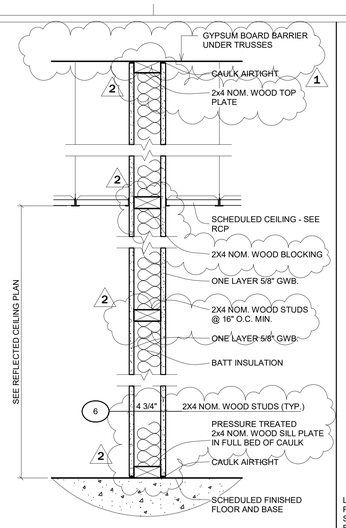
ARCHITECTURAL
SITE PLAN

A0.30

1 Site Plan 1/16" = 1'-0"

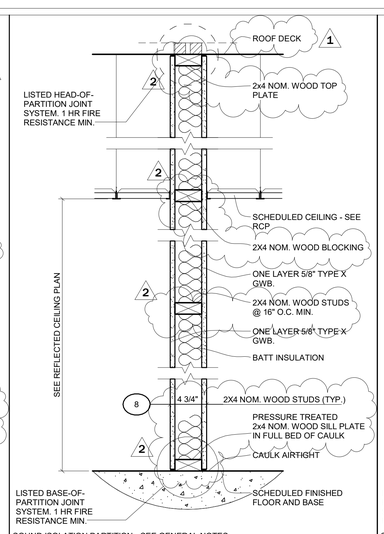


5 FULL HEIGHT PARTITION 1 1/2" = 1'-0"



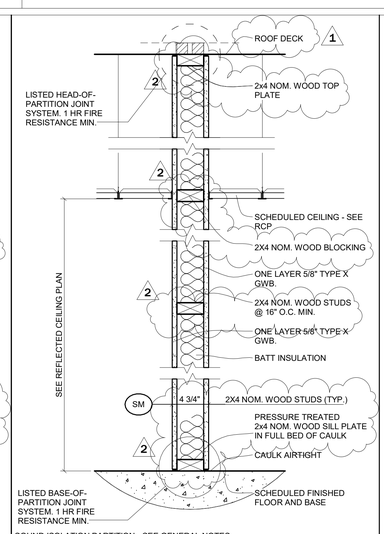
SOUND ISOLATION PARTITION - SEE GENERAL NOTES
STC 45-49

6 INSULATED PARTITION 1 1/2" = 1'-0"



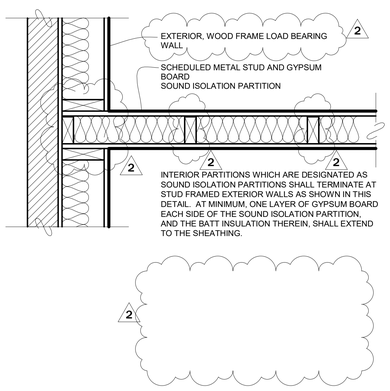
SOUND ISOLATION PARTITION - SEE GENERAL NOTES
U.L. DESIGN U419 STC 45-49

8 1 HOUR INSULATED 1 1/2" = 1'-0"

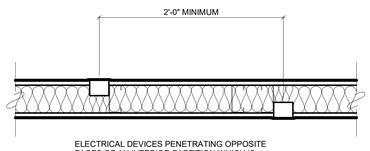


SOUND ISOLATION PARTITION - SEE GENERAL NOTES
U.L. DESIGN U465 STC 45-49

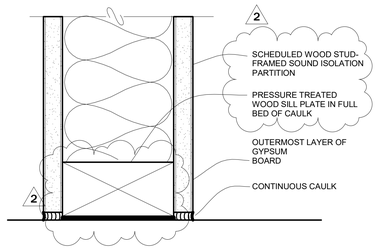
SM 1 HOUR INSULATED 1 1/2" = 1'-0"



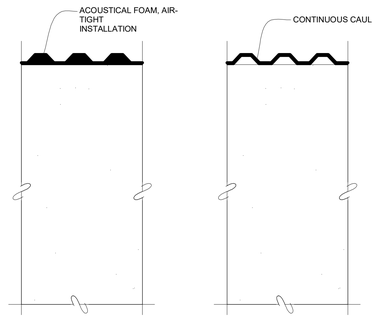
A PLAN DETAIL N.T.S.



B PLAN DETAIL N.T.S.



C DETAIL N.T.S.



INTERIOR PARTITIONS DESIGNATED AS SOUND ISOLATION PARTITIONS SHALL BE CUT TO FIT TIGHTLY TO IRREGULAR FLOOR DECKS ABOVE AND CAULKED. ALTERNATELY, VOIDS MAY BE FILLED WITH ACOUSTICAL FOAM IN AN AIR-TIGHT INSTALLATION.

D DETAIL N.T.S.

GENERAL NOTES, PARTITIONS:

1. CONTRACTOR SHALL PERMANENTLY IDENTIFY ALL FIRE-RESISTANCE-RATED WALLS (AND CORRESPONDING FIRE-RESISTANCE RATING) INCLUDING FIRE BARRIER WALLS, SMOKE BARRIER WALLS, FIRE PARTITIONS, FIRE WALLS, AND SHAFT ENCLOSURES BY INSTALLING SIGNS OR BY STENCILING IN CONCEALED SPACES THE FOLLOWING:

1 & 2 HOUR FIRE AND SMOKE BARRIER - PROTECT ALL OPENINGS.

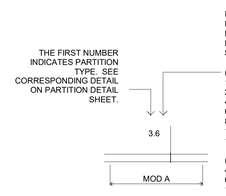
IDENTIFICATION SHALL BE SPACED NO MORE THAN TWELVE (12) FEET ON CENTER WITH A MINIMUM LETTER SIZE OF TWO (2) INCHES IN HEIGHT ON A CONTRASTING BACKGROUND.

2. EXTEND AND ANCHOR ALL STUD FRAMING TO STRUCTURE ABOVE, TYPICAL UNLESS NOTED OTHERWISE.

3. MAINTAIN HORIZONTAL CONTINUITY OF FIRE RATED FLOOR-CEILING AND ROOF-CEILING FIRE RATED ASSEMBLIES OVER TOP OF PARTITIONS, TYPICALLY.

4. WHERE NO CEILING IS SCHEDULED, EXTEND GWB TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE.

5. WHEN PIPING IS PRESENT IN PARTITION, INSTALL 3" BATT INSULATION ON BOTH SIDES OF PIPING.



MODIFICATIONS AND THEIR EXTENT ARE INDICATED BY LETTER. SEE THE CORRESPONDING DETAIL ON THE PARTITION DETAILS SHEET.

GENERAL NOTES, SOUND ISOLATION PARTITIONS:

1. ALL PARTITIONS DESIGNATED AS SOUND ISOLATION PARTITIONS SHALL RECEIVE ACOUSTICAL CAULK FOR THE ENTIRE PERIMETER OF THE PARTITION, INCLUDING TOP, SIDES AND CORNERS, UNLESS SIMILARLY SEALED FOR OTHER REASONS, SUCH AS FIRE RESISTANCE.

2. ALL PARTITIONS DESIGNATED AS SOUND ISOLATION PARTITIONS SHALL RECEIVE ACOUSTICAL CAULK AT ALL PENETRATIONS WHICH ARE NOT OTHERWISE SEALED AIR TIGHT.

3. WHERE BATT INSULATION IS SCHEDULED IN A PARTITION, THE THICKNESS OF THE BATTS SHALL BE THE LARGEST STANDARD THICKNESS THAT CAN BE CONTAINED WITHIN THE DEPTH OF THE SCHEDULED STUD CAVITY.

4. WHERE BATT INSULATION IS SCHEDULED IN A SOUND ISOLATION PARTITION, CUT BATTS 1" WIDER THAN STUD SPACING AND CREASE TO FIT IN CAVITY, TYPICALLY.

-- LEGEND & NOTES

Union County Fire Station

Harbor Boulevard at Murphy Highway
Blairsville, Georgia
30512

Revisions

No.	Date	Description
	06.27.22	Issued
1	07.18.22	Revision 1
2	08.30.22	Revision 2

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PARTITION DETAILS

A0.50

Union County Fire Station

Harbor Boulevard
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Revisions

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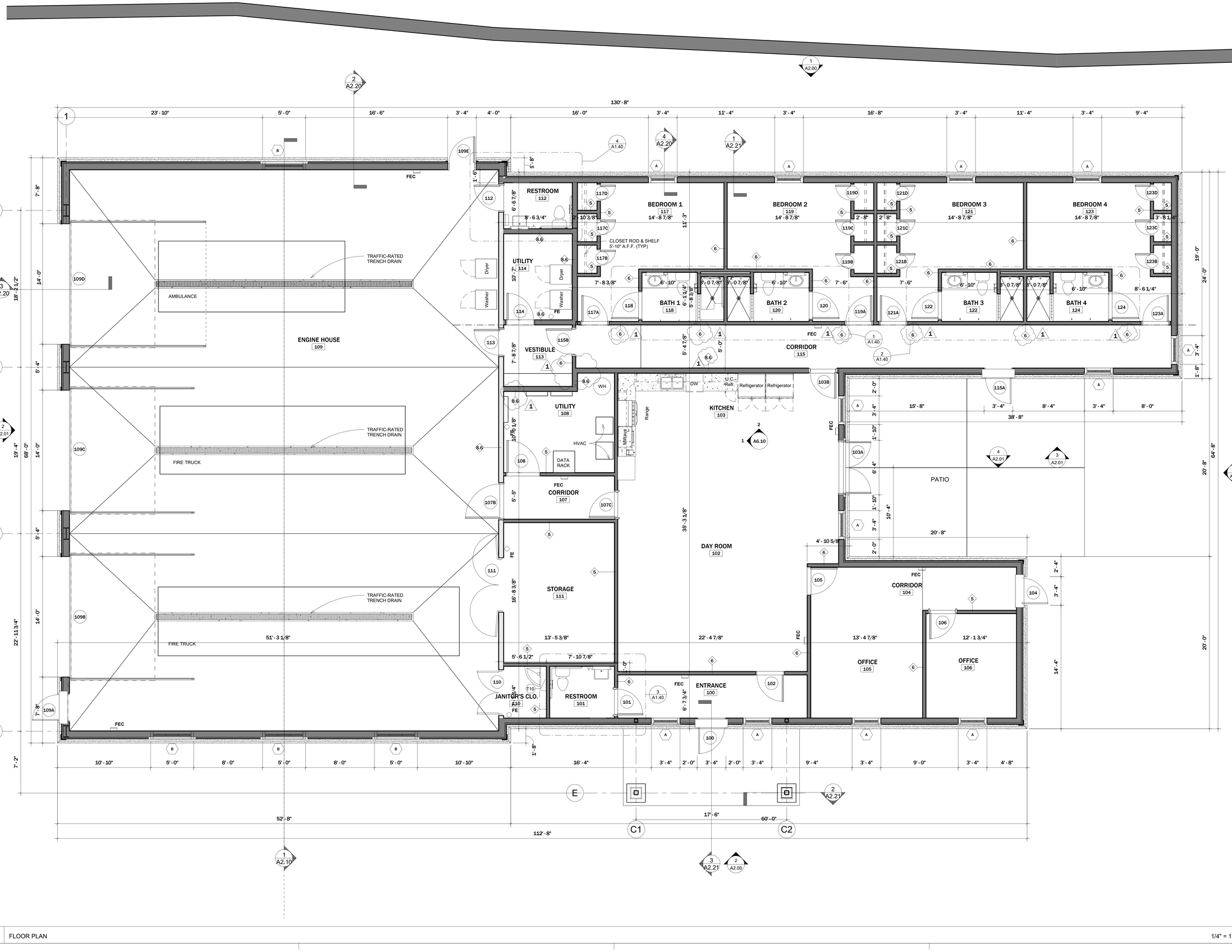
	06.27.22	ISSUED
	07.18.22	REVISION 1



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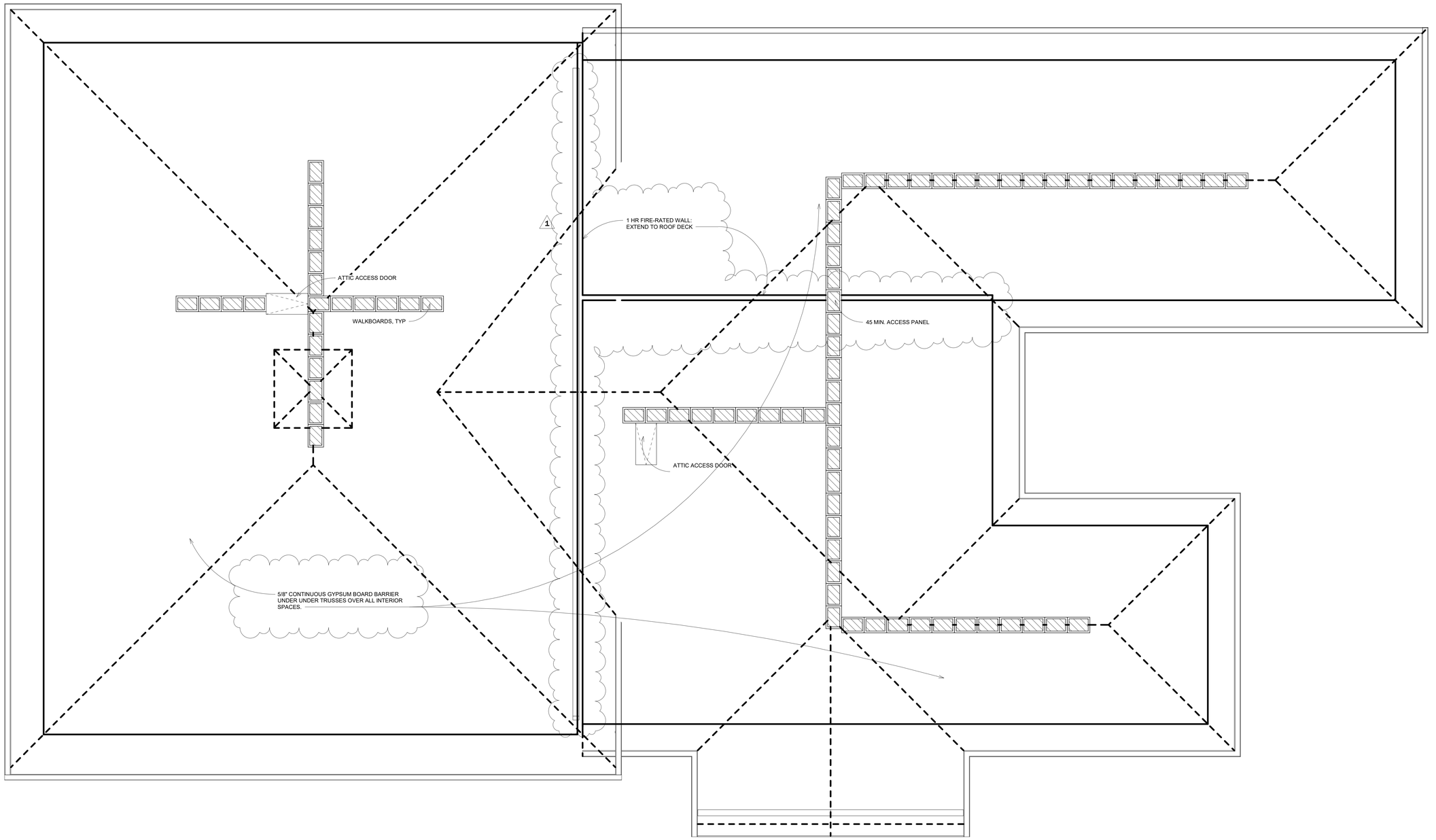
FLOOR PLAN

A1.10

1 FLOOR PLAN 1/4" = 1'-0"



1 Attic Plan

1/4" = 1'-0"

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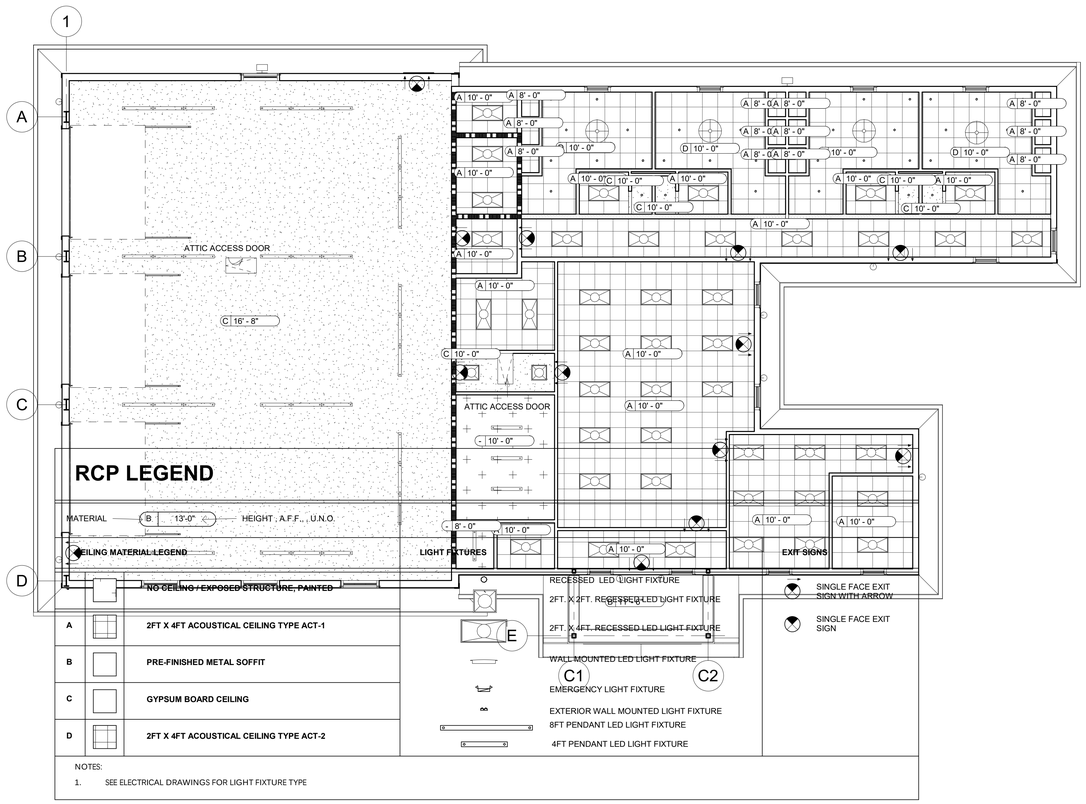
ATTIC PLAN

A1.15



1 Reflected Ceiling Plan

1/8" = 1'-0"

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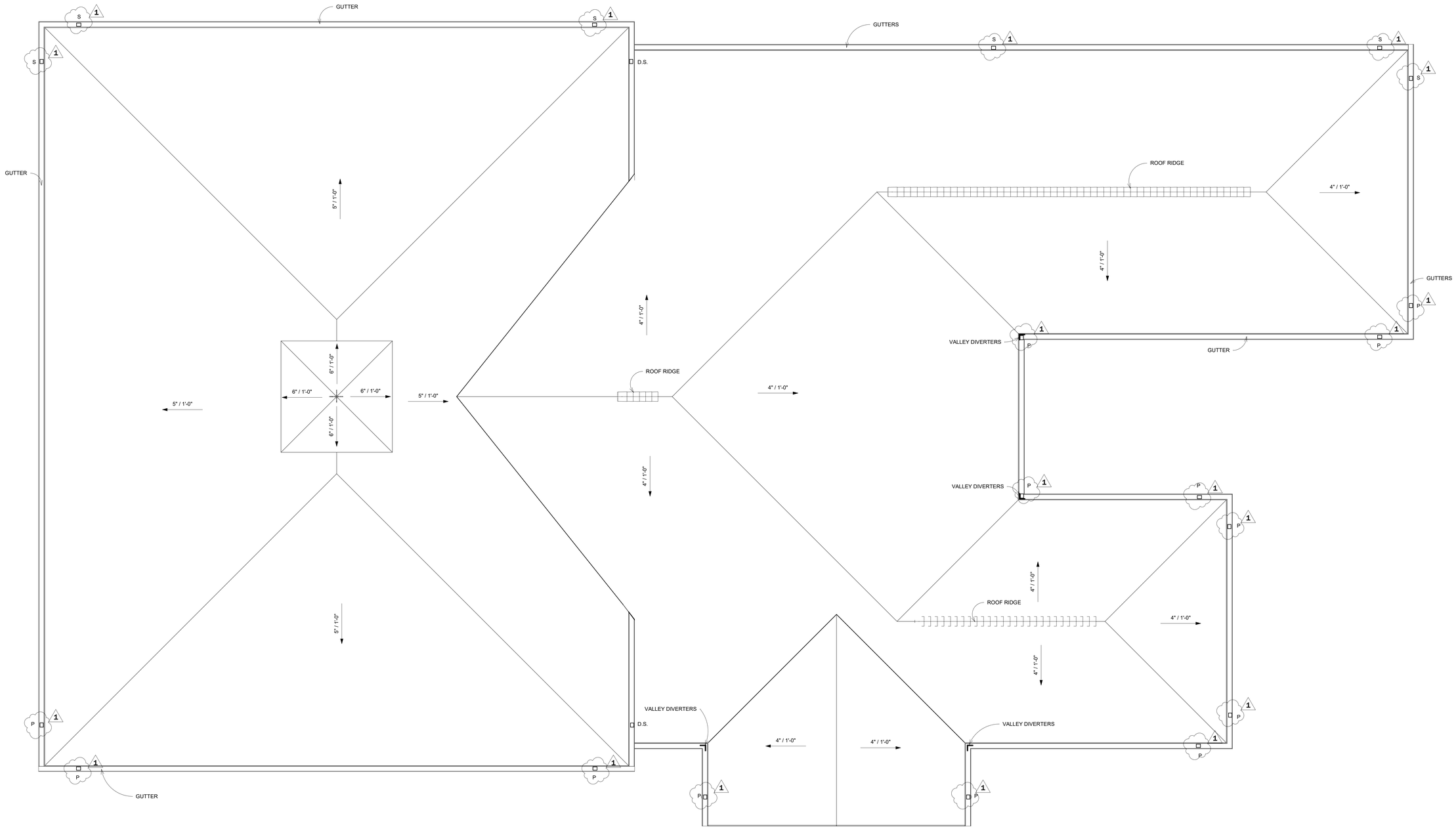
REFLECTED CEILING PLAN

A1.20



DOWNSPOUT FLOW LEGEND

P = CONNECT TO PIPE: SEE CIVIL

S = SPLASH PAD WITH SURFACE FLOW TO SWALE

1 | Roof Plan | 1/4" = 1'-0"

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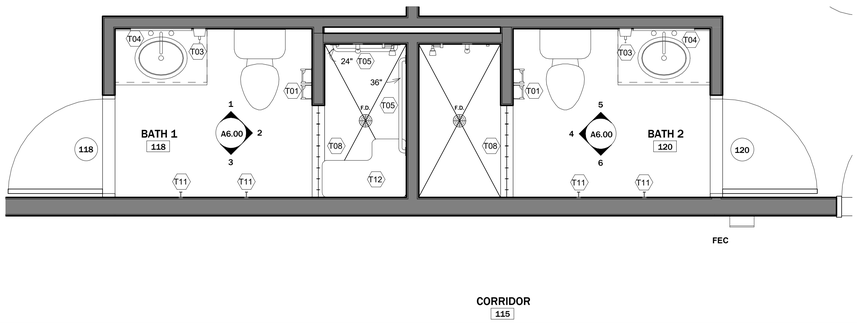
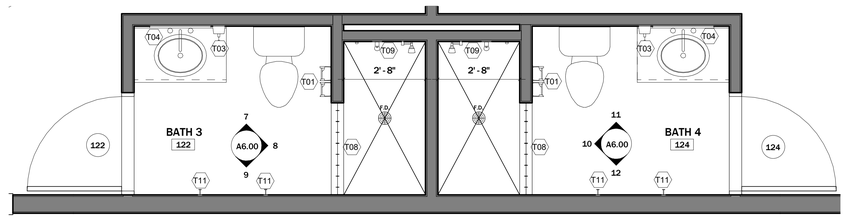
ROOF PLAN

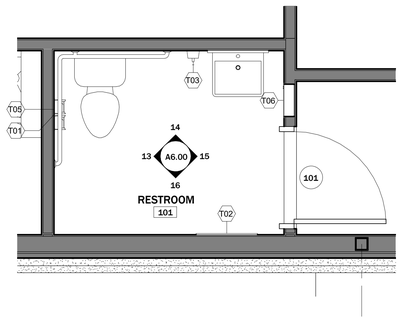
A1.30



1 Enlarged Plan - Bath 1 & 2 — 1/2" = 1'-0"

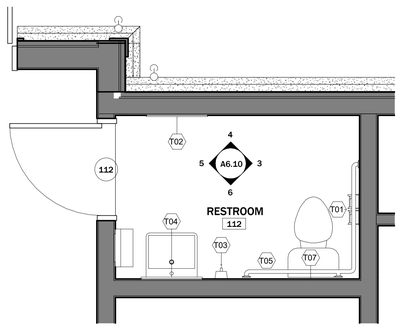


2 Enlarged Plan - Bath 3 & 4 — 1/2" = 1'-0"



3 Enlarged Plan - Restroom 101 — 1/2" = 1'-0"

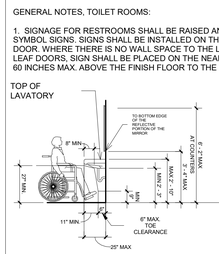
C1

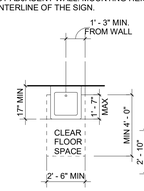


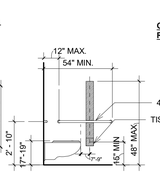
4 Enlarged Plan - Restroom 112 — 1/2" = 1'-0"

GENERAL NOTES, TOILET ROOMS:

1. SIGNAGE FOR RESTROOMS SHALL BE RAISED AND BRAILLE CHARACTERS @ 48" MIN. AND PICTORIAL SYMBOL SIGNS. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGN SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHT SHALL BE 60 INCHES MAX. ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN.

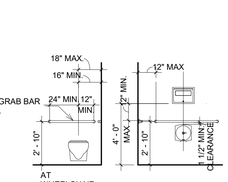






250 LBS
250 LBS
1 1/4" - 2"
1 1/2" ADA and IBC
Georgia requires 2 1/4"

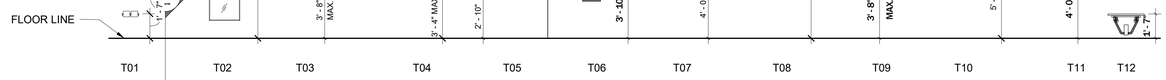
GRAB BAR REQUIREMENTS



NOTE: COORDINATE HEIGHTS WITH GRAB BARS AND SPECIFIED ACCESSORIES.

ALL LAVATORIES, WHETHER WALL-HUNG OR IN A COUNTER SHALL BE INSTALLED
TO COMPLY WITH THE CLEARANCES AND DIMENSIONS NOTED ABOVE.
ALL LAVATORIES SHALL BE EQUIPPED WITH SPECIFIED PIPE PROTECTION ENCLOSURES INSTALLED TO MEET CLEARANCES DEFINED BY DASHED LINE INDICATED IN THE SECTION ABOVE.

WATER CLOSETS IN ACCESSIBLE STALLS AND WATER CLOSETS IN ACCESSIBLE TOILET ROOMS
SHALL BE INSTALLED AS SHOWN UNLESS DIMENSIONED OR NOTED OTHERWISE.



TOILET ACCESSORY SCHEDULE	
TYPE MARK	DESCRIPTION
T01	TWO ROLL TOILET PAPER DISPENSER
T02	24" X 66" FRAMED MIRROR
T03	WALL MOUNTED SOAP DISPENSER
T04	24" X 36" FRAMED MIRROR
T05	GRAB BARS
T06	RECESSED COMBINATION TOWEL AND WASTE UNIT
T07	SEAT COVER DISPENSER
T08	36" WIDE VINYL SHOWER CURTAIN & ROD
T09	RECESSED SOAP DISH
T10	MOP RACK
T11	TOWEL HOOK
T12	ADA SHOWER SEAT

5 Toilet Mounting Heights — 1/4" = 1'-0"

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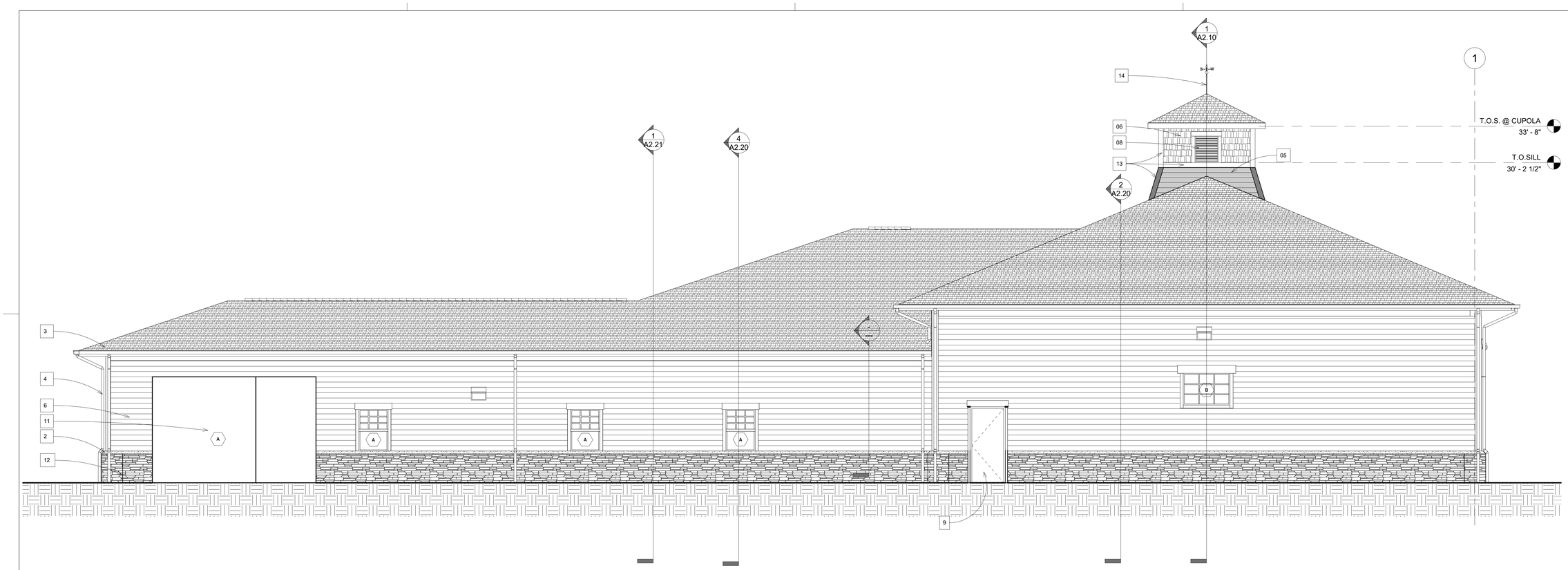
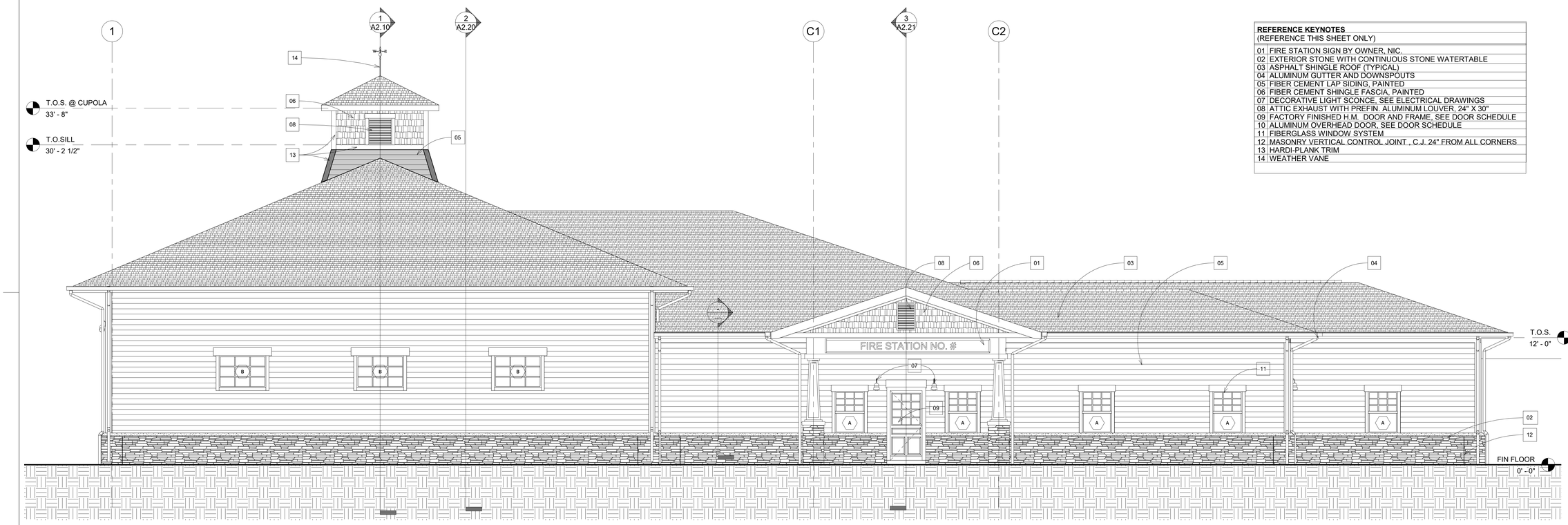
ENLARGED PLANS

A1.40



1 Southwest Elevation 1/4" = 1'-0"



REFERENCE KEYNOTES
(REFERENCE THIS SHEET ONLY)

01	FIRE STATION SIGN BY OWNER, NIC.
02	EXTERIOR STONE WITH CONTINUOUS STONE WATERTABLE
03	ASPHALT SHINGLE ROOF (TYPICAL)
04	ALUMINUM GUTTER AND DOWNSPOUTS
05	FIBER CEMENT LAP SIDING, PAINTED
06	FIBER CEMENT SHINGLE FASCIA, PAINTED
07	DECORATIVE LIGHT SCONCE, SEE ELECTRICAL DRAWINGS
08	ATTIC EXHAUST WITH PREFIN. ALUMINUM LOUVER, 24" X 30"
09	FACTORY FINISHED H.M. DOOR AND FRAME, SEE DOOR SCHEDULE
10	ALUMINUM OVERHEAD DOOR, SEE DOOR SCHEDULE
11	FIBERGLASS WINDOW SYSTEM
12	MASONRY VERTICAL CONTROL JOINT , C.J. 24" FROM ALL CORNERS
13	HARDI-PLANK TRIM
14	WEATHER VANE

2 Northeast Elevation 1/4" = 1'-0"

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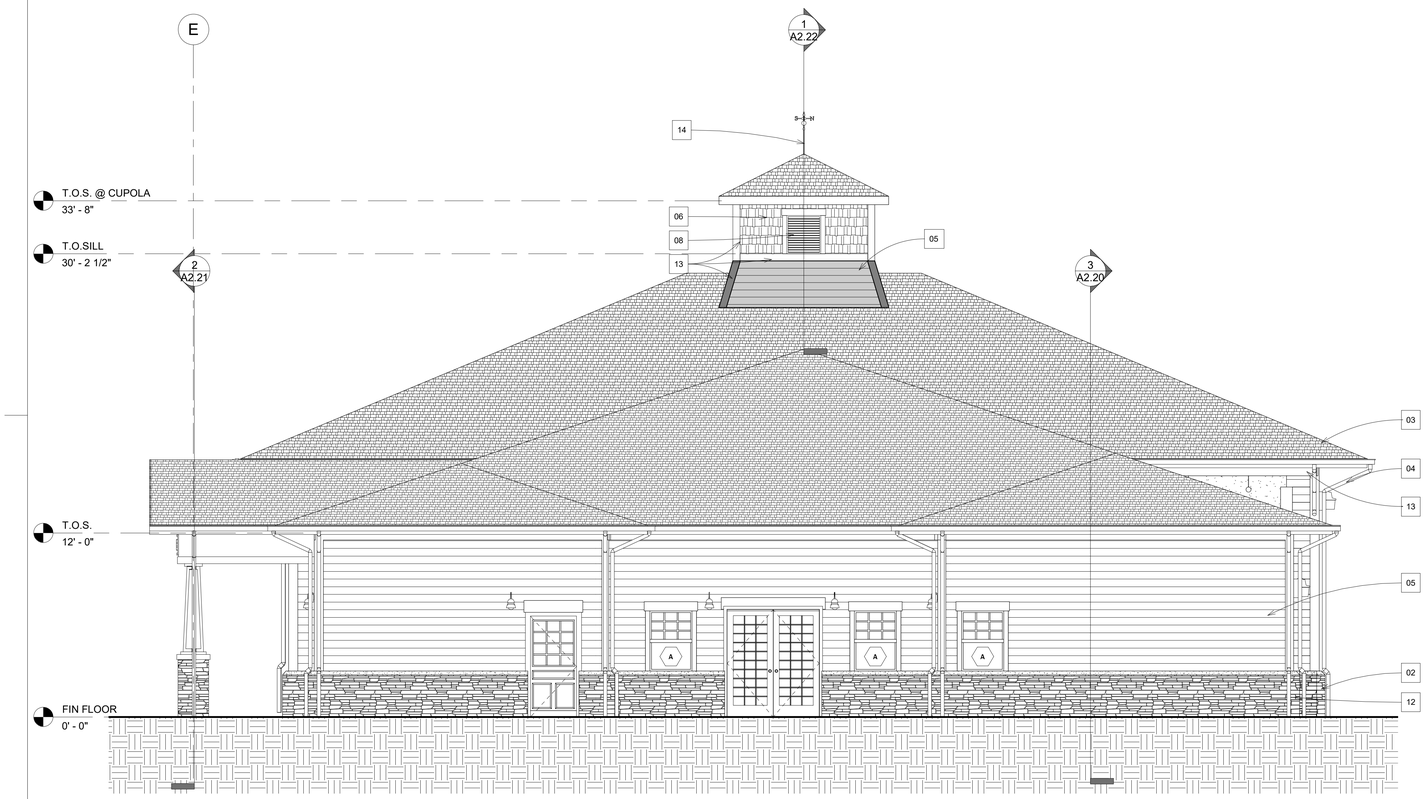
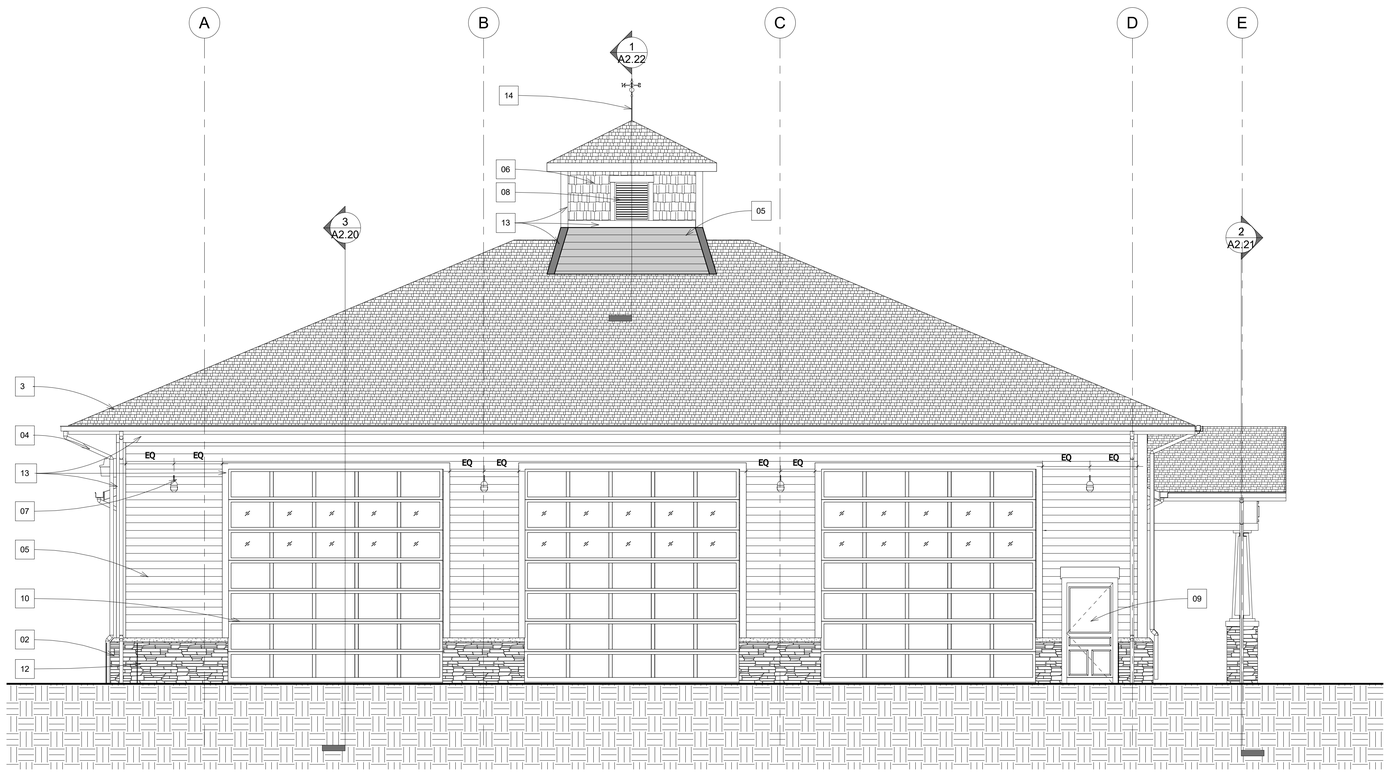
EXTERIOR
ELEVATIONS

A2.00



1 Northwest Elevation 1/4" = 1'-0"

3 Northeast Elevation @ Patio 1/4" = 1'-0"



2 Southeast Elevation 1/4" = 1'-0"

REFERENCE KEYNOTES (REFERENCE THIS SHEET ONLY)	
01	FIRE STATION SIGN BY OWNER, NIC.
02	EXTERIOR STONE WITH CONTINUOUS STONE WATERTABLE
03	ASPHALT SHINGLE ROOF (TYPICAL)
04	ALUMINUM GUTTER AND DOWNSPOUTS
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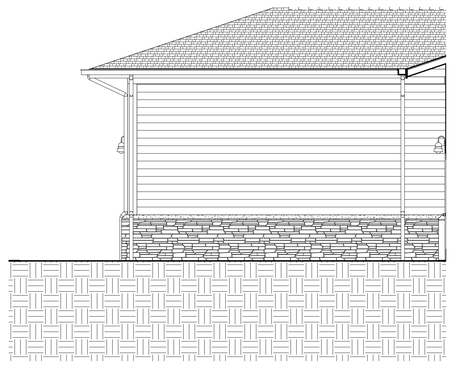
10	ALUMINUM OVERHEAD DOOR, SEE DOOR SCHEDULE
11	FIBERGLASS WINDOW SYSTEM
12	MASONRY VERTICAL CONTROL JOINT , C.J. 24" FROM ALL CORNERS
13	HARDI-PLANK TRIM
14	WEATHER VANE



4 Southwest Elevation @ Patio 1/4" = 1'-0"

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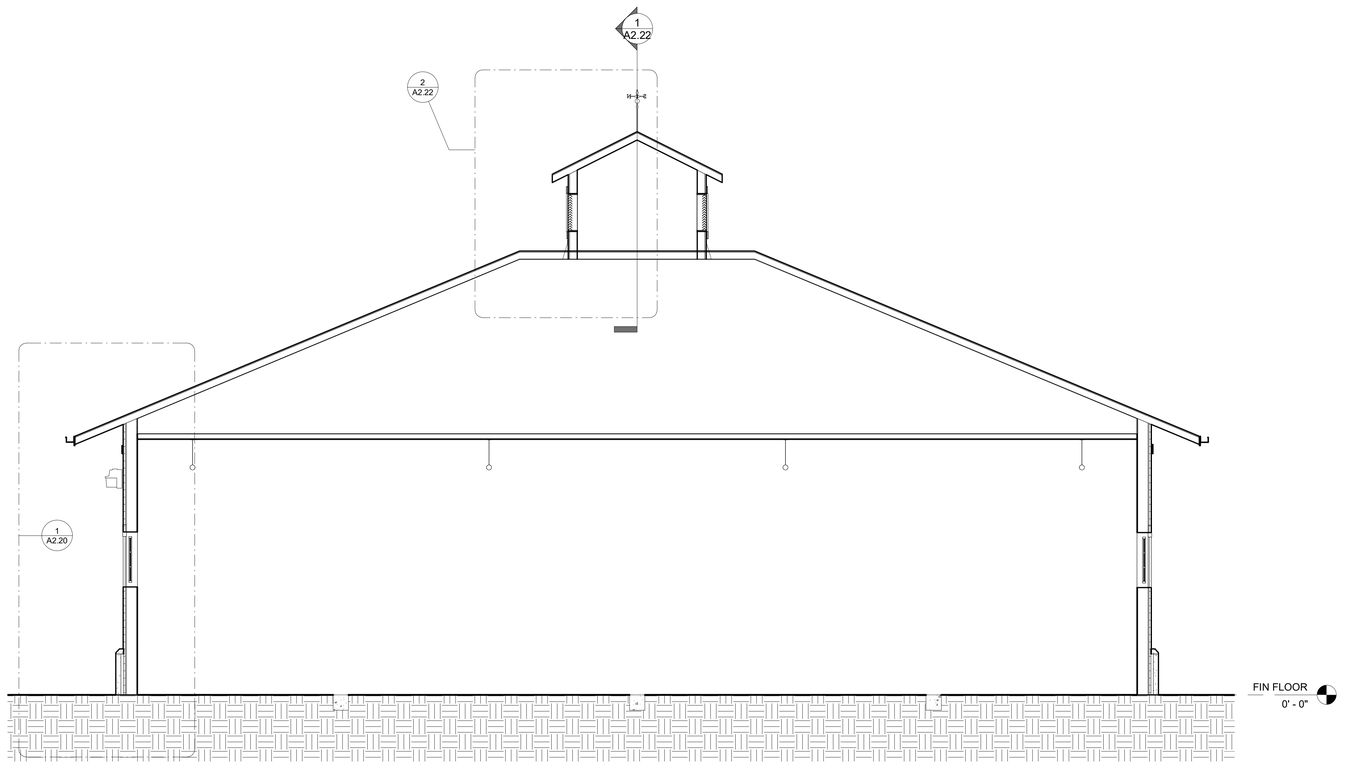
EXTERIOR ELEVATIONS

A2.01



1 Building Section 1

1/4" = 1'-0"

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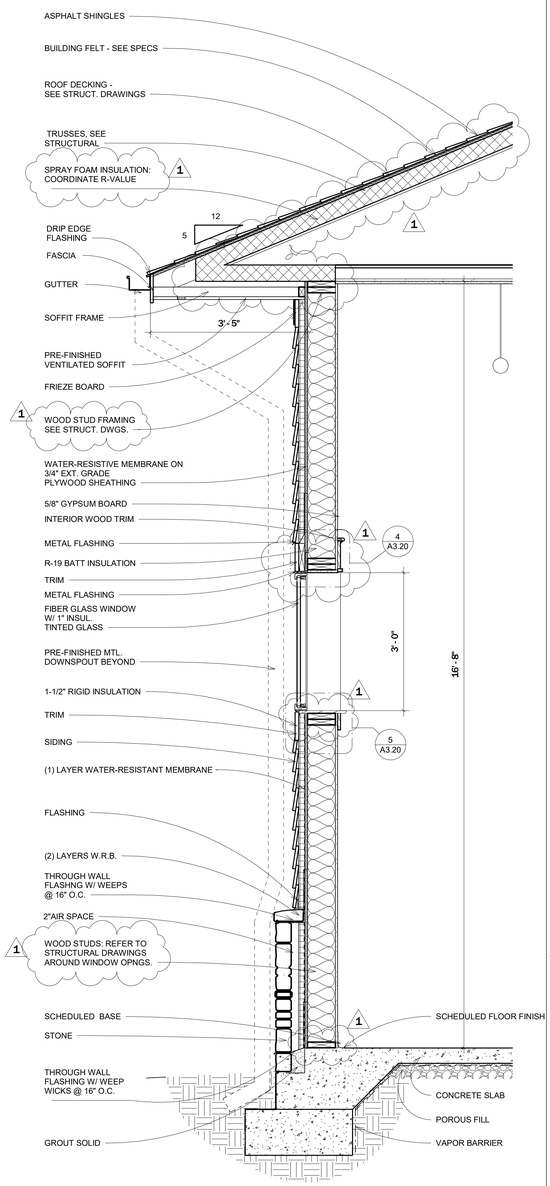
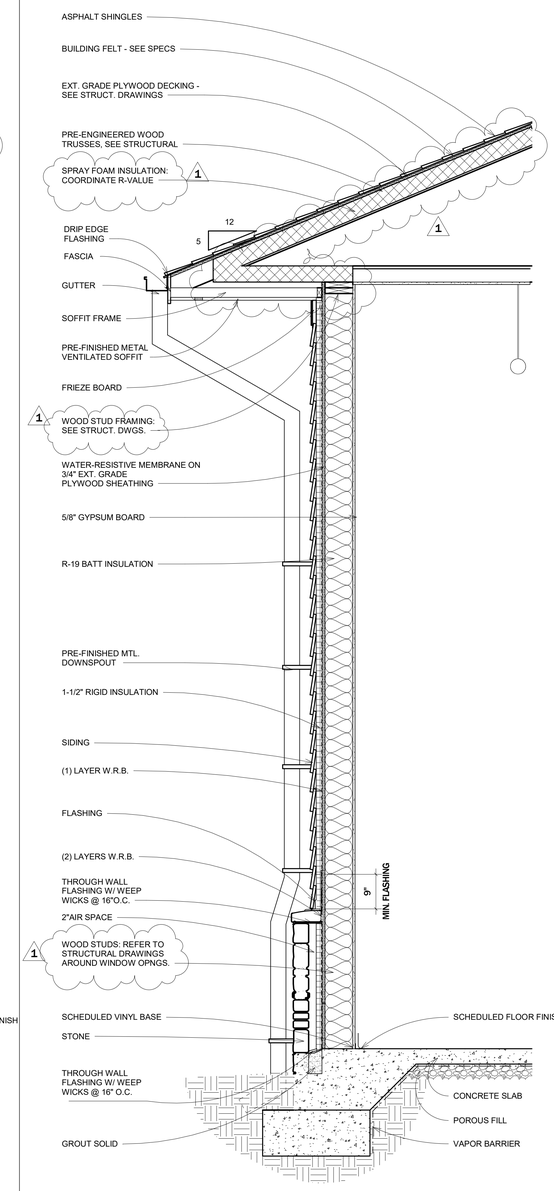
BUILDING SECTIONS

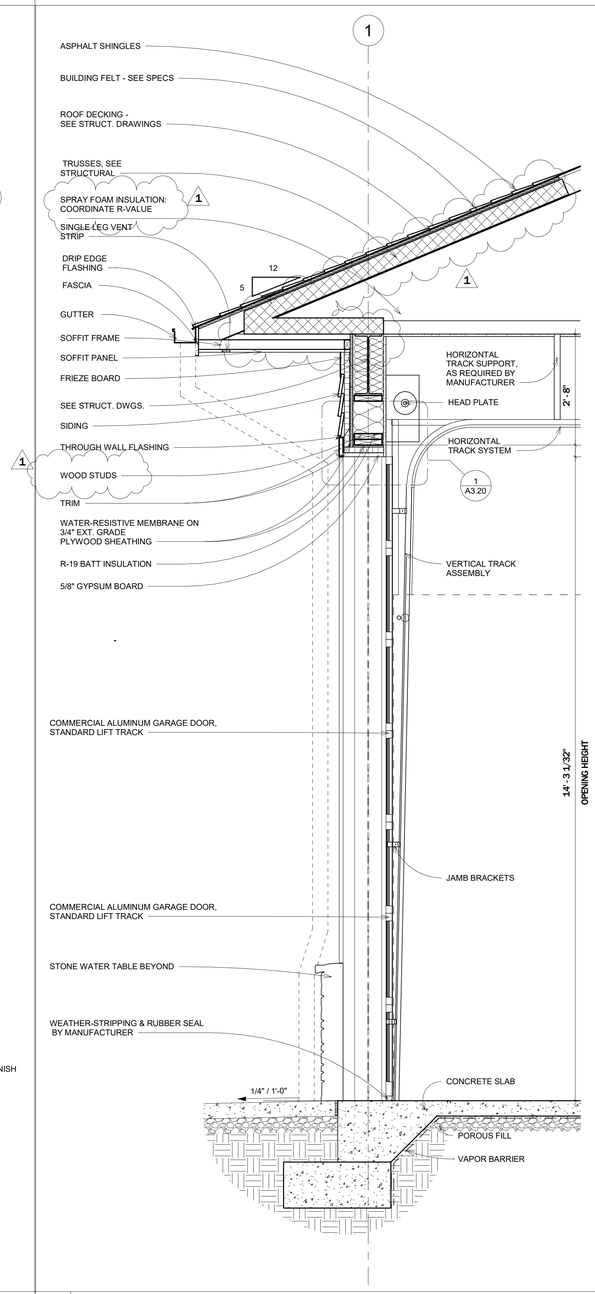
A2.10



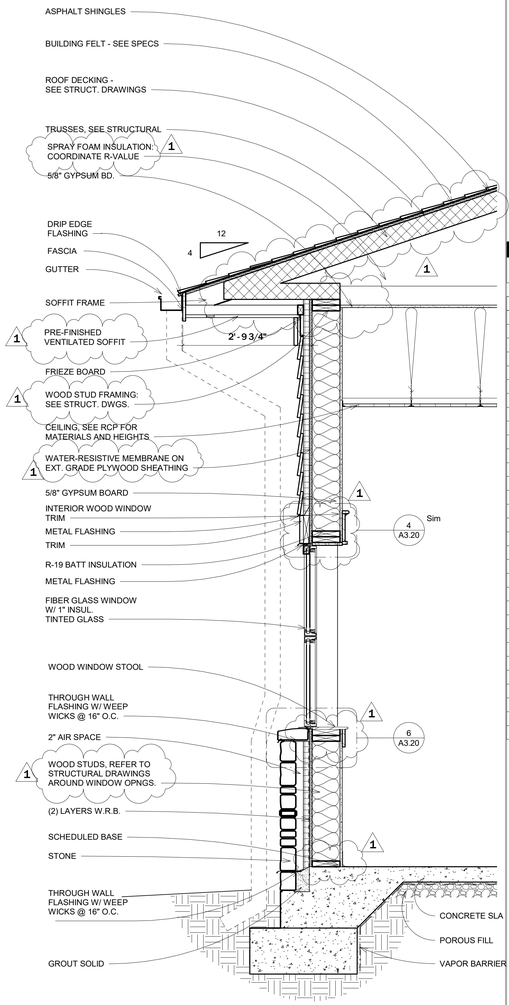
1 WALL SECTION 1 3/4" = 1'-0"



2 WALL SECTION 2 3/4" = 1'-0"



3 WALL SECTION 3 3/4" = 1'-0"



4 WALL SECTION 4 3/4" = 1'-0"

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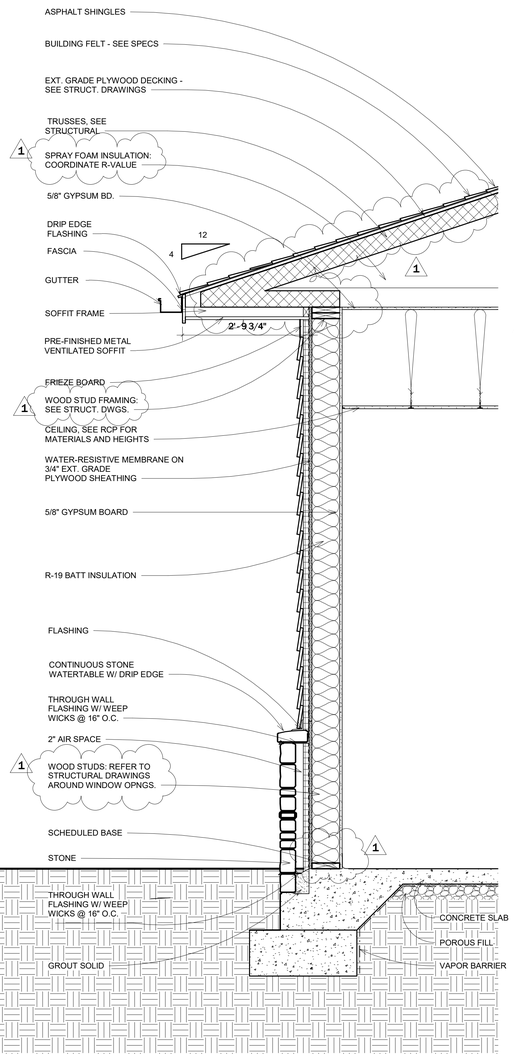
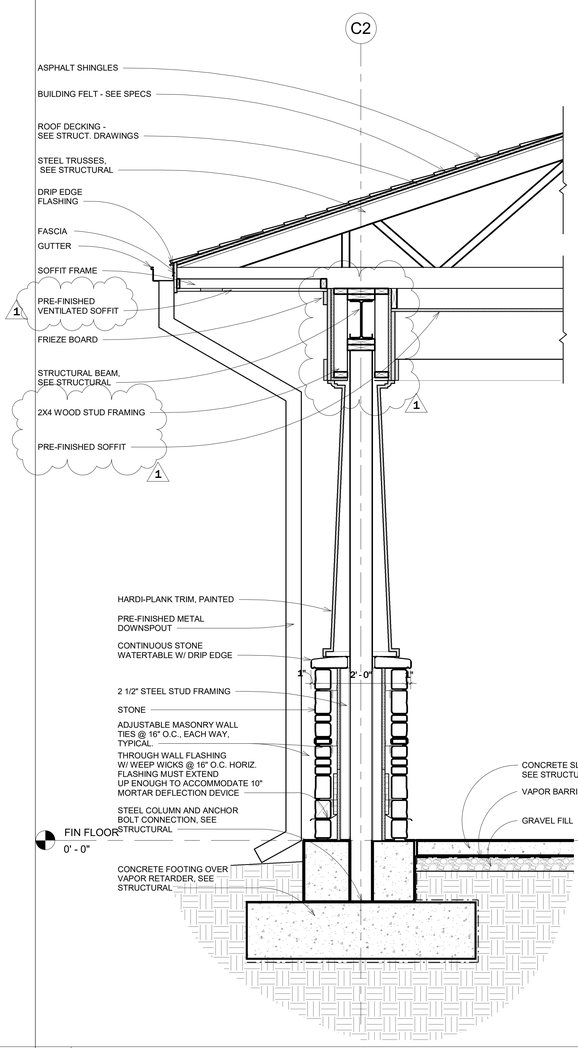
WALL SECTIONS

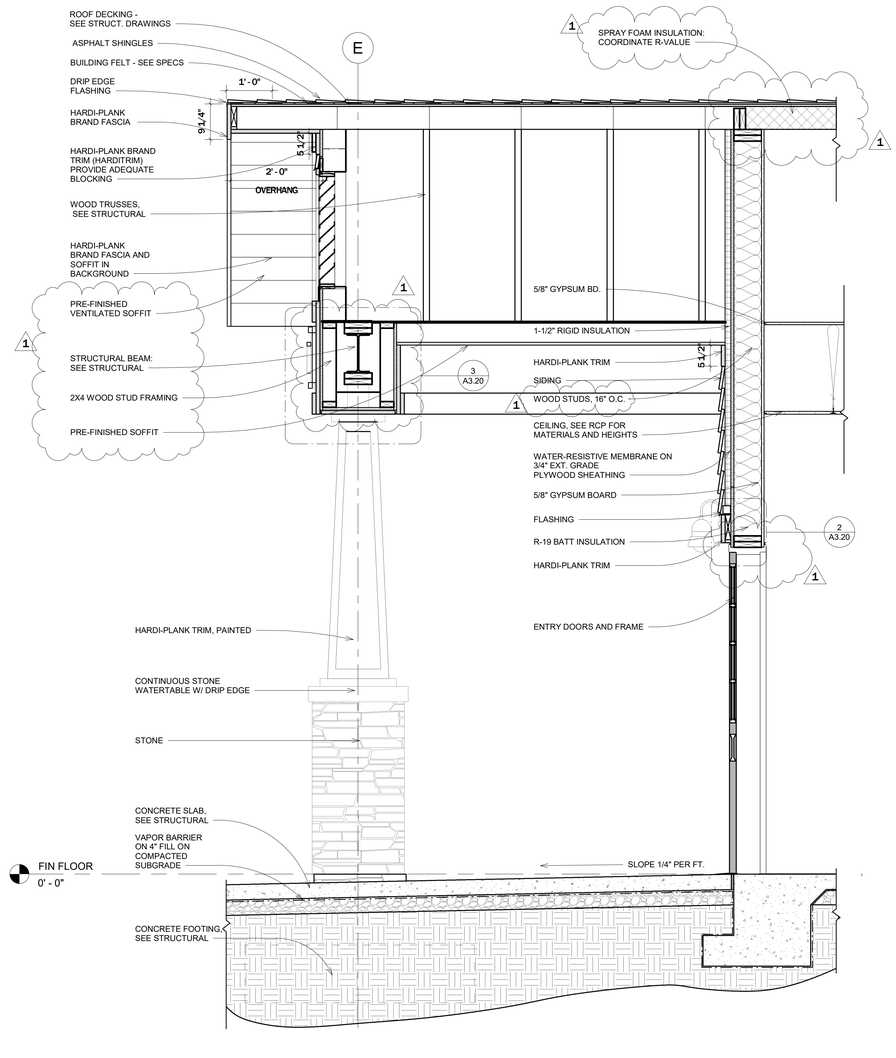
A2.20



1 WALL SECTION 5 3/4" = 1'-0"



2 WALL SECTION 6 3/4" = 1'-0"



3 WALL SECTION 7 3/4" = 1'-0"

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Revisions

No.	Date	Description
	06.27.22	Issued
1	08.30.22	Revision 1

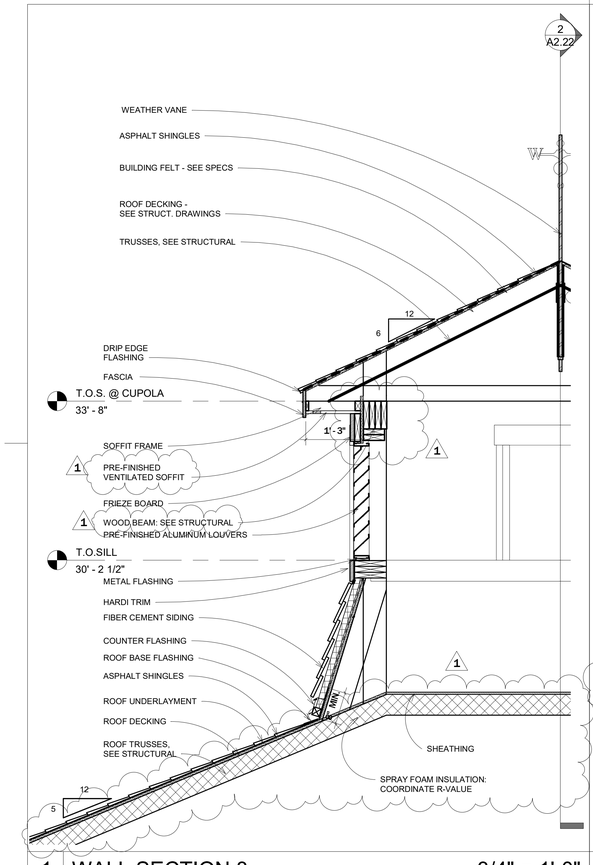
Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation for the Practice of Architecture
www.gsstj.com

Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

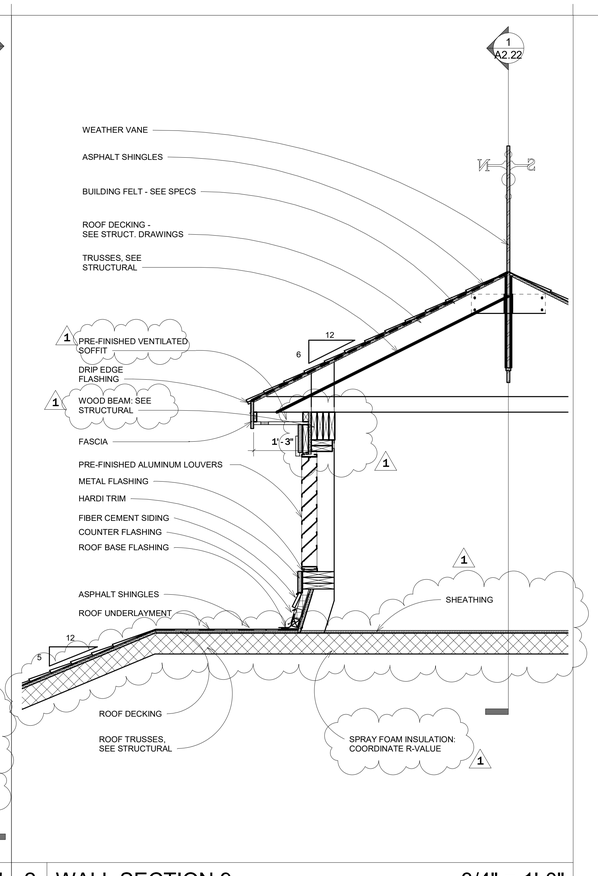
20112

WALL SECTIONS

A2.21



1 WALL SECTION 8 3/4" = 1'-0"



2 WALL SECTION 9 3/4" = 1'-0"

Union County Fire Station

Harbor Boulevard at
Murphy Highway
Blairsville, Georgia
30512

Revisions

No.	Date	Description
	06.27.22	Issued
1	08.30.22	Revision 1

GEORGIA
No. 003949
PROFESSIONAL
ARCHITECT
BRANDALL SMITH

Gardner
Spencer
Smith
Tench &
Jarbeau
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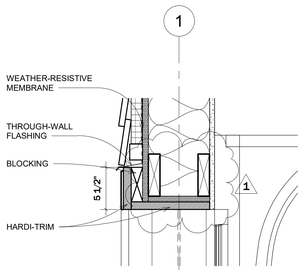
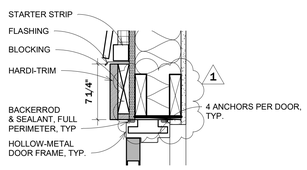
WALL SECTIONS

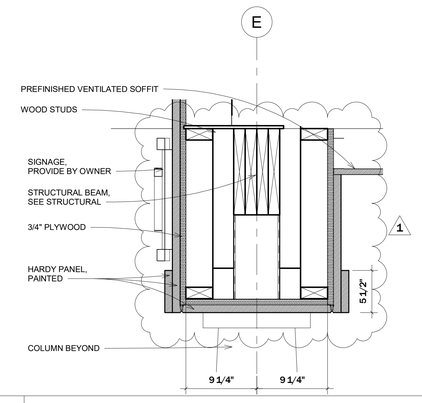
A2.22



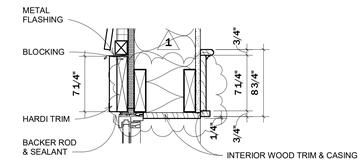
1 Detail 1 — 1 1/2" = 1'-0"



2 Detail 2 — 1 1/2" = 1'-0"



3 Detail 3 — 1 1/2" = 1'-0"



4 Detail 4 — 1 1/2" = 1'-0"

5 Detail 5 — 1 1/2" = 1'-0"

6 Detail 6 — 1 1/2" = 1'-0"

Union County Fire Station

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SECTION DETAILS - TYPICAL EXTERIOR DETAILS

A3.20

DOOR AND FRAME SCHEDULE

MARK.	ROOM	PR	DOOR SIZE W	DOOR SIZE H	DOOR SIZE T	DOOR Material/ Construction	DOOR Elevation/ Glazing	FRAME Material/ Construction	FRAME Elevation	Fire Rating	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	HARD WARE SET	NOTES
100	ENTRANCE		3' - 0"	7' - 0"	0' - 1 3/4"	HM	HL	HM	1					3.0	
101	RESTROOM		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	117	HM	1		2200H	2200J		16.0	
102	DAY ROOM		3' - 4"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		10.0	
103A	KITCHEN		6' - 0"	7' - 0"	0' - 1 3/8"	HM	FLT	HM	2		2/A3.20			1.0	
103B	KITCHEN		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	136	HM	1	1 45 MIN.	2200H	2200J	1	6.0	
104	CORRIDOR		3' - 0"	7' - 0"	0' - 1 3/4"	HM	HL	HM	1		2/A3.20			4.0	
105	OFFICE		3' - 4"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		10.0	
106	OFFICE		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	VL	HM	1		2200H	2200J		13.0	
107B	CORRIDOR		4' - 0"	7' - 0"	0' - 1 3/4"	HM	FLU	HM	1	1 45 MIN.				6.0	
107C	CORRIDOR		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	VL	HM	1		2200H	2200J		9.0	
108	UTILITY		4' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		14.0	
109A	ENGINE HOUSE		3' - 0"	7' - 0"	0' - 1 3/4"	HM	FLU-EM	HM	1		2/A3.20			2.0	
109B	ENGINE HOUSE		0' - 0"	0' - 0"	0' - 0"	ALU	OVHD	--	--					17.0	
109C	ENGINE HOUSE		0' - 0"	0' - 0"	0' - 0"	ALU	OVHD	--	--					17.0	
109D	ENGINE HOUSE		0' - 0"	0' - 0"	0' - 0"	ALU	OVHD	--	--					17.0	
109E	ENGINE HOUSE		3' - 0"	7' - 0"	0' - 1 3/4"	HM	FLU	HM	1		2/A3.20			2.0	
110	STORAGE		2' - 6"	7' - 0"	0' - 1 3/4"	HM	FLU	HM	2	1 45 MIN.				5.0	
111	STORAGE		6' - 0"	7' - 0"	0' - 1 3/4"	HM	FLU	HM	2	45 MIN.				5.0	
112	RESTROOM		3' - 0"	7' - 0"	0' - 1 3/4"	HM	FLU	HM	1	45 MIN.				8.0	
113	VESTIBULE		3' - 0"	7' - 0"	0' - 1 3/4"	HM	FLU	HM	1	45 MIN.				6.0	
114	UTILITY		3' - 4"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		14.0	
115A	CORRIDOR		3' - 0"	7' - 0"	0' - 1 3/4"	HM	HL	HM	1		2/A3.20			4.0	
115B	CORRIDOR		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	VL	HM	1					11.0	
117A	BEDROOM 1		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1	20 MIN	2200H	2200J		7.0	
117B	BEDROOM 1		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
117C	BEDROOM 1		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
117D	BEDROOM 1		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
118	BATH 1		3' - 4"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		15.0	
119A	BEDROOM 2		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1	20 MIN	2200H	2200J		7.0	
119B	BEDROOM 2		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
119C	BEDROOM 2		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
119D	BEDROOM 2		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
120	BATH 2		3' - 4"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		15.0	
121A	BEDROOM 3		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1	20 MIN	2200H	2200J		7.0	
121B	BEDROOM 3		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
121C	BEDROOM 3		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
121D	BEDROOM 3		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
122	BATH 3		3' - 4"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		15.0	
123A	BEDROOM 4		3' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1	20 MIN	2200H	2200J		7.0	
123B	BEDROOM 4		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
123C	BEDROOM 4		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
123D	BEDROOM 4		2' - 0"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		12.0	
124	BATH 4		3' - 4"	7' - 0"	0' - 1 3/4"	SCWD	FLU	HM	1		2200H	2200J		15.0	

ABBREVIATIONS USED IN DOOR SCHEDULES:

SCWD - SOLID CORE FLUSH WOOD DOOR
HM - HOLLOW METAL
SF - STOREFRONT OR CURTAIN WALL
HR - HOUR
MIN - MINUTE
PR - PAIR
ALUM - ALUMINUM
MANUF - MANUFACTURER
ELEV - ELEVATION, SEE DETAILS SHEET SHEET A4.00
VL - VISION LITE
HL - HALF LITE
FLT - FULL LITE
SL - SLIDING DOOR
DL - DIVIDED LITE
OVHD - OVERHEAD COILING DOOR

GENERAL DOOR NOTES:

1. ALL LATCHING DOORS TO HAVE LEVER HANDLED HARDWARE.

2. PROVIDE 12" CLEARANCE ON HE "PUSH" SIDE OF DOOR BETWEEN LEADING EDGE OF DOOR LEAF AND AGJACENT WALL SURFACE IF DOOR HAS BOTH CLOSER AND A LATCH. PROVIDE 18" CLEARANCE ON THE "PULL" SIDE.

3. WEATHER-STRIP ALL EXTERIOR DOORS.

4. PROVIDE RUBBER DOOR SILENCER INSERTS AT ALL HOLLOW METAL DOOR FRAMES.

5. PROVIDE VISIBLE FACTORY-APPLIED LABEL AT ALL RATED DOORS AND FRAMES.

6. PROVIDE FLOOR OR WALL MOUNTED DOOR STOPS AT LOCATIONS WHERE ADJACENT WALLS ARE SUBJECT TO DMAGE WHICH MAY BE CAUSED BY CONTACT WITH DOOR HARDWARE.

7. EXIT DOORS SHALL NOT BE SUBJECT TO THE USE OF A KEY FOR OPERATION FROM THE INSIDE OF THE BUILDING.

8. CONTRACTOR TO COORDINATE AND VERIFY WITH THE OWNERS' RESPRESENTATIVE ANY AND ALL HARDWARE CHOICES AND SPECIFICATIONS.

9. ALL THRESHOLD AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT.

10. EACH WINDOW AND DOOR LOCATED IN WALLS WHICH SEPARATE CONDITIONED AND UNCONDITIONED SPACE (INCLUDING BUILDING EXTERIOR) SHALL BE LABELED BY THE MANUFACTURER TO CERTIFY COMPLIANCE WITH THE REQUIREMENTS OF THE NATIONAL FENESTRATION RATING COUNCIL PER NFRC 100 AND 200 FOR FIELD VERIFICATION BY THE FIELD INSPECTOR.

11. PROVIDE GALVANIZED FRAME.

12. PROVIDE 1/4" MINIMUM LAMINATED GLASS (G2) IN FIRE-RATED DOORS.

13. PAIR OF DOORS

14. PROVIDE SOUND SEALS

NOTE: ALL DOORS SHALL MEET ADA ACCESSIBILITY REQUIREMENTS.

GENERAL NOTES:

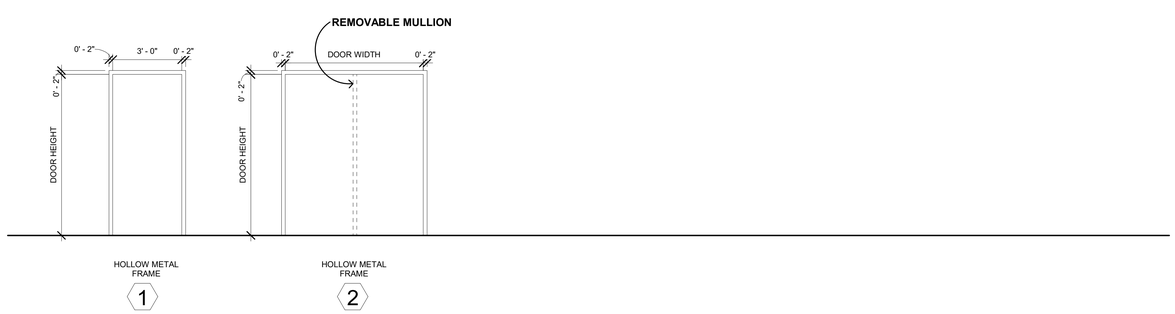
1. PROVIDE 1" INSULATING TINTED GLASS IG1 IN ALL EXTERIOR, UNLESS OTHERWISSE NOTED.

2. (T) REPRESENTS TEMPERED GLASS UNITS.

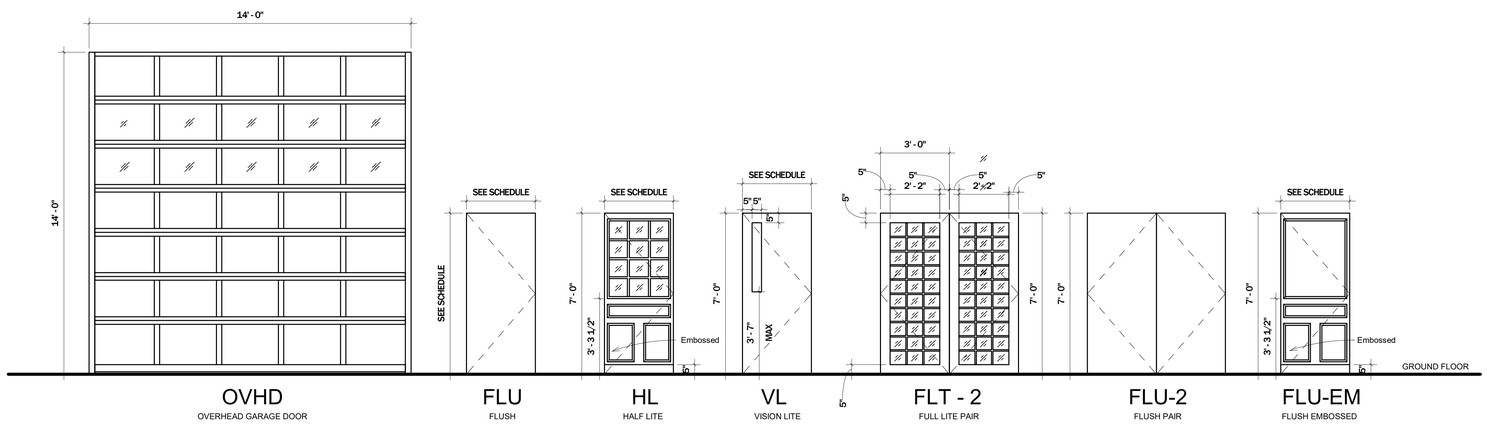
3. ALL GLASS UNITS LOCATED WITHIN 24" OF THE EDGE OF DOOR AND/OR WHERE BOTTOM EDGE IS LESS THAN 60" ABOVE THE FINISHED FLOOR SHALL BE TEMPERED GLASS.

4. PROVIDE 1/4" TEMPERED GLASS (G1) AT ALL INTERIOR DOOR LITES LOCATIONS.

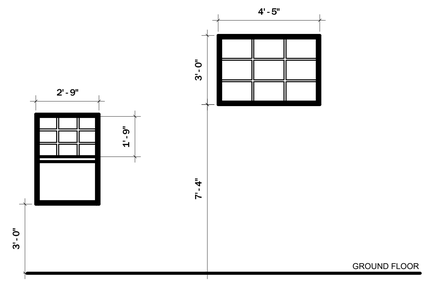
5. PROVIDE 5/8" MINIMUM LAMINATED GLASS (G3) IN FIRE-RATED WALLS.



FRAME ELEVATIONS



DOOR ELEVATIONS



Union County Fire Station

Harbor Boulevard
at
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30512

Revisions

No.	Date	Description
	06.27.22	ISSUED
	07.18.22	REVISION 1

B. BRANDALL SMITH — No. 003949 PROFESSIONAL ARCHITECT — STATE OF GEORGIA

Gardner Spencer Smith Tench & Jarbeau
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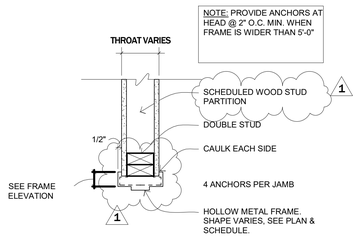
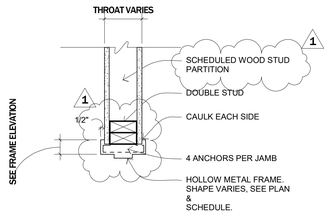
DOOR SCHEDULE

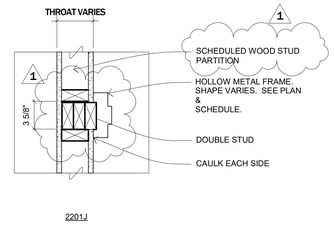
A4.10



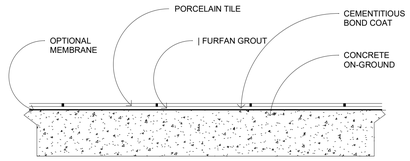
2200H HEAD DETAIL 1 1/2" = 1'-0"



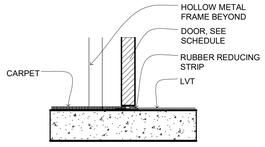
2200J JAMB DETAIL 1 1/2" = 1'-0"



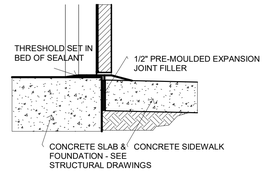
2201J JAMB DETAIL 1 1/2" = 1'-0"



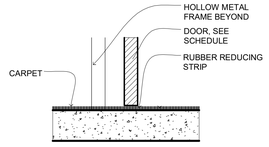
A PORCELAIN TILE DETAIL 1 1/2" = 1'-0"



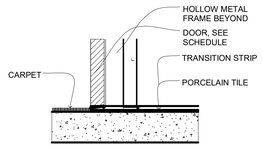
B THRESHOLD DETAIL 1 1/2" = 1'-0"



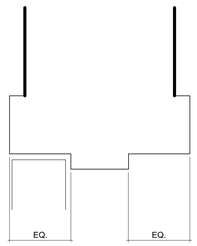
C THRESHOLD DETAIL



D THRESHOLD DETAIL



E THRESHOLD DETAIL



INTERIOR DOOR FRAMES SHALL HAVE EQUAL RABBETS EXCEPT WHERE THROAT IS
PROHIBITIVELY SMALL OR NOTED OTHERWISE

F TYPICAL RABBET DETAIL N.T.S.

1 HEAD JAMB SILL DETAIL INTERIOR OPENINGS2 1 1/2" = 1'-0"

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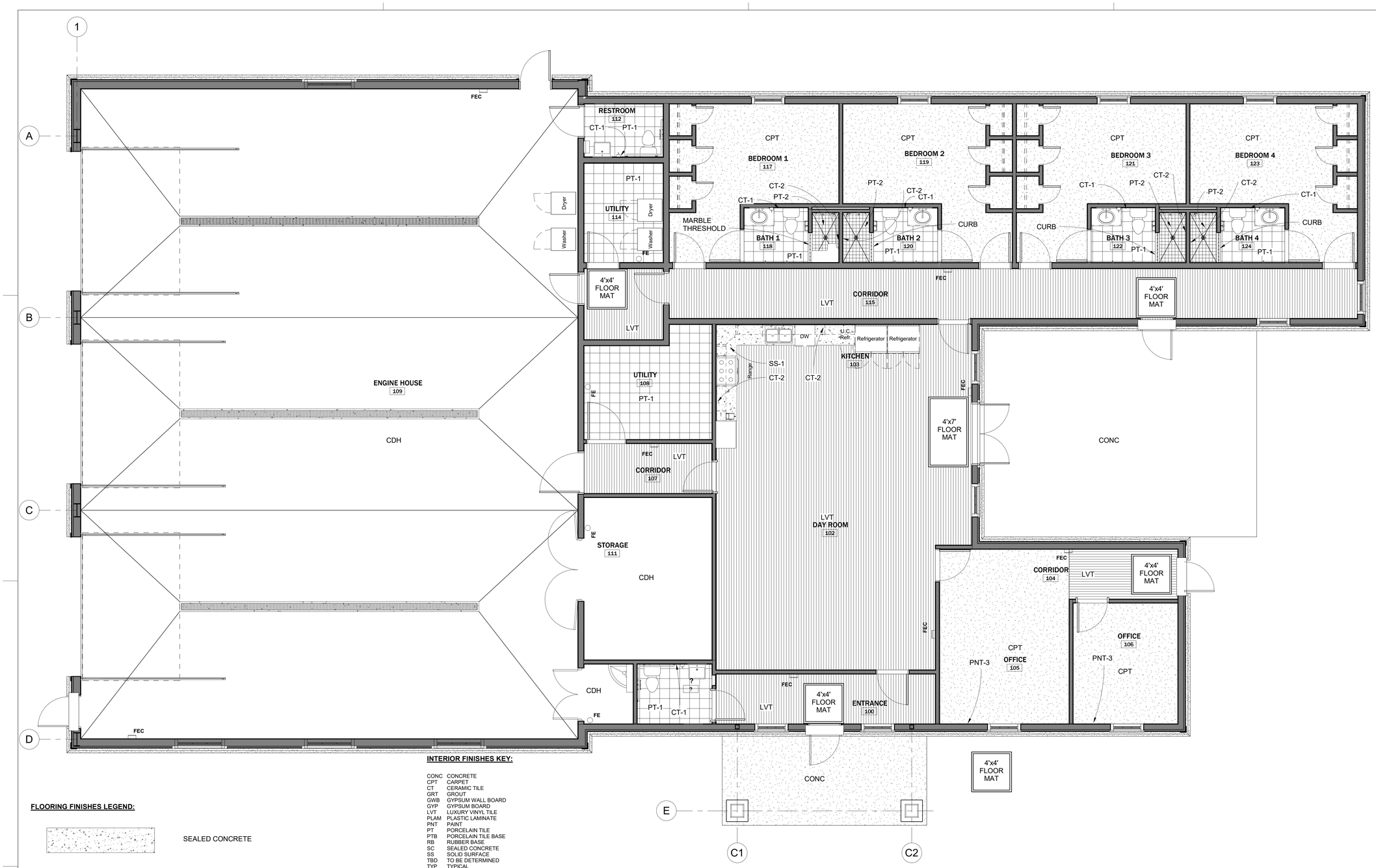
HEAD, JAMB, SILL DETAILS

A4.11



FLOORING FINISHES LEGEND:

- SEALED CONCRETE
- CAST-IN- PLACE CONCRETE
- PORCELAIN TILE
- PORCELAIN TILE
- LUXURY VINYL TILE (LVT)
- CARPET

INTERIOR FINISHES KEY:

CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
GRT	GROUT
GWB	GYPSUM WALL BOARD
GYP	GYPSUM BOARD
LVT	LUXURY VINYL TILE
PLAM	PLASTIC LAMINATE
PNT	PAINT
PT	PORCELAIN TILE
PTB	PORCELAIN TILE BASE
RB	RUBBER BASE
SC	SEALED CONCRETE
SS	SOLID SURFACE
TBD	TO BE DETERMINED
TYP	TYPICAL

INTERIOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR		BASE	WALLS		NOTES
		SUBSTRATE	FLOOR		SUBSTRATE	WALL	
100	ENTRANCE	CONC	LVT	RB	GYP	PNT	
101	RESTROOM	CONC	PT	PTB	GYP	PNT & PT	PT ON WET WALL
102	DAY ROOM	CONC	LVT	RB	GYP	PNT	ACCENT PAINT
103	KITCHEN	CONC	LVT	RB	GYP	PNT	PLAM , SS COUNTERTOPS AND CT ABOVE COUNTERTOPS AND BELOW WALL CABINETS
104	CORRIDOR	CONC	CPT	RB	GYP	PNT	
105	OFFICE	CONC	CPT	RB	GYP	PNT	ACCENT PAINT
106	OFFICE	CONC	CPT	RB	GYP	PNT	ACCENT PAINT
107	CORRIDOR	CONC	LVT	RB	GYP	PNT	
108	UTILITY	CONC	PT	PTB	GYP	PNT	
109	ENGINE HOUSE	CONC	CDH	RB	GYP	PNT	
110	JANITOR'S CLO.	CONC	CDH	RB	GYP	PNT	
111	STORAGE	CONC	CDH	RB	GYP	PNT	
112	RESTROOM	CONC	PT	PTB	GYP	PNT & PT	PT ON WET WALL
113	VESTIBULE	CONC	LVT	RB	GYP	PNT	
114	UTILITY	CONC	PT	PTB	GYP	PNT	
115	CORRIDOR	CONC	LVT	RB	GYP	PNT	
117	BEDROOM 1	CONC	CPT	RB	GYP	PNT	
118	BATH 1	CONC	PT	PTB	GYP	PNT & PT	PT ON WET WALL AND SHOWER WALLS, SCHLUTER STRIPS, PLAM AND SS
119	BEDROOM 2	CONC	CPT	RB	GYP	PNT	
120	BATH 2	CONC	PT	PTB	GYP	PNT & PT	PT ON WET WALL AND SHOWER WALLS, SCHLUTER STRIPS, PLAM AND SS
121	BEDROOM 3	CONC	CPT	RB	GYP	PNT	
122	BATH 3	CONC	PT	PTB	GYP	PNT & PT	PT ON WET WALL AND SHOWER WALLS, SCHLUTER STRIPS, PLAM AND SS
123	BEDROOM 4	CONC	CPT	RB	GYP	PNT	
124	BATH 4	CONC	PT	PTB	GYP	PNT & PT	PT ON WET WALL AND SHOWER WALLS, SCHLUTER STRIPS, PLAM AND SS

INTERIOR FINISHES:

CPT-1	CARPET TILE BY SHAW CONTRACT, STYLE: ART OF ESCAPE, #5T2321, COLOR: GLACIER #19550, SIZE: 9" X 36". ONLY WHERE NOTED ON PLAN.
CT-1	CERAMIC TILE BY TILEBAR, STYLE: VECTOR, COLOR: HESO, SIZE: 4" X 8". ONLY WHERE NOTED ON PLAN AND INTERIOR ELEVATIONS.
CT-2	CERAMIC TILE BY TILEBAR, STYLE: VECTOR, COLOR: AZUL, SIZE: 4" X 8". ONLY WHERE NOTED ON PLAN AND INTERIOR ELEVATIONS.
GRT-1	GROUT BY CUSTOM BUILDING PRODUCTS, COLOR: #165 DELOREAN GRAY. TO BE USED WITH ALL TILE.
LVT-1	LUXURY VINYL TILE BY SHAW CONTRACT, STYLR:THOUGHTFUL #4122, COLOR: WARMTH #22530, SIZE: 23.62" X 23.62". ONLY WHERE NOTED ON PLAN.
PLAM-1	PLASTIC LAMINATE BY WILSONART, STYLE: #4830K-18 SATIN STAINLESS.
PNT-1	BASE PAINT BY SHERWIN WILLIAMS, COLOR: #SW 7668 MARCH WIND, THROUGHOUT UNLESS NOTED OTHERWISE.
PNT-2	HOLLOW METAL PAINT BY SHERWIN WILLIAMS, COLOR: #SW 7670 GRAY SHINGLE. ONLY ON ALL HOLLOW METAL FRAMES.
PNT-3	ACCENT PAINT BY SHERWIN WILLIAMS, #SW 7603 POOLHOUSE. ONLY WHERE NOTED ON DRAWING.
PNT-4	CEILING PAINT BY SHERWIN WILLIAMS, #SW 7007 CEILING BRIGHT WHITE. ONLY ON GYP CEILINGS.
PNT-5	TBD
PT-1	PORCELAIN TILE BY TILEBAR, STYLE: RUSTIC STONE, COLOR: GREY, SIZE: 12" X 24", FINISH: MATTE. ONLY WHERE NOTED ON PLAN.
PT-2	PORCELAIN TILE BY TILEBAR, STYLE: HEXAGON 1", COLOR: LEVEL WHITE, SIZE: 1". THIS TILE IS ONLY FOR SHOWER FLOORS.
PTB-1	PORCELAIN TILE BASE BY TILEBAR, STYLE: RUSTIC STONE, COLOR: GREY, SIZE: 3" X 12" BULLNOSE, FINISH: MATTE. TO BE USED WITH PORCELAIN TILE.
RB-1	RUBBER BASE BY ROPPE, COLOR: #146 STEEL GRAY. THROUGHOUT UNLESS NOTED OTHER WISE.
SS-1	SOLID SURFACE BY LG HAUSYS, STYLE: #G004 WHITE QUARTZ. ONLY WHERE NOTED.
SS-2	SOLID SURFACE BY LG HAUSYS, STYLE: #G160 MOONDUST. ONLY WHERE NOTED.

INTERIOR FINISH NOTES:

1. ALL EXTERIOR WINDOW SHALL RECEIVE BUILDING STANDARD WINDOW TREATMENT, UNLESS NOTED OTHERWISE.
2. ALL FLOORING SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS REGARDING ADHESIVES, SEAMING, DIRECTIONS AND ETC.
3. ALL TRANSITIONS IN FLOOR MATERIALS SHALL OCCUR UNDER THE CENTER LINE OF THE CLOSED DOOR WHERE APPLICABLE.
4. ALL WALLS SHALL BE PAINTE PNT-1, UNLESS NOTED OTHERWISE. ALL GRILLES, DIFFUSERS AND ACCESS PANELS SHALL BE PAINTED TO MATCH THE WALL OR CEILING ON WHICH THEY ARE LOCATED, UNLESS NOTED OTHERWISE.
5. ALL CLOSET SHELVING SHALL BE PAINTED TO MATCH THE WALL ON WHICH IT IS LOCATED, UNLESS NOTED OTHERWISE.
6. ALL PAINTED METAL SHALL RECEIVE MANUFACTURER'S RECOMMENDED PRIMER COAT AND TWO (2) COATS OF LATEX SEMI-GLOSS FINISH.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT SAMPLES TO GSSTJ FOR APPROVAL PRIOR TO PURCHASE OR PRODUCT. THESSE SAMPLES MUST BE LABELED.
8. ALL INTERIOR FINISHES REQUIRED ARE INCLUDED IN THESE DRAWINGS. SOME PRODUCTS HAVE A LONGER LEAD TIME AND ARE NOT GUARANTEED TO BE IN STOCK: SUBCONTRACTORS TO PLACE ORDERS IMMEDIATELY UPON AWARD OF PROJECT TO AVOID THE USE OF INTERMEDIATE FINISHES.
9. IN ALL SHOWERS THE CERTAMIC TILE IS SUPPOSED TO BE INSTALLED ON ALL FOUR (4) WALLS.
10. CONTRACTOR TO FURNINSH AND INSTALL SCHLUTER FINISHING STRIPS. THE FINISHING STRIPS SHALL BE LOCATED ON THE WALL WHERE THE SHOWER ROD IS LOCATED, ON BOTH CORNERS. THE SCHLUTER STRIPS SHALL MATCH THE FINISH OF THE FAUCETS.

1 FLOOR PLAN

1/4" = 1'-0"

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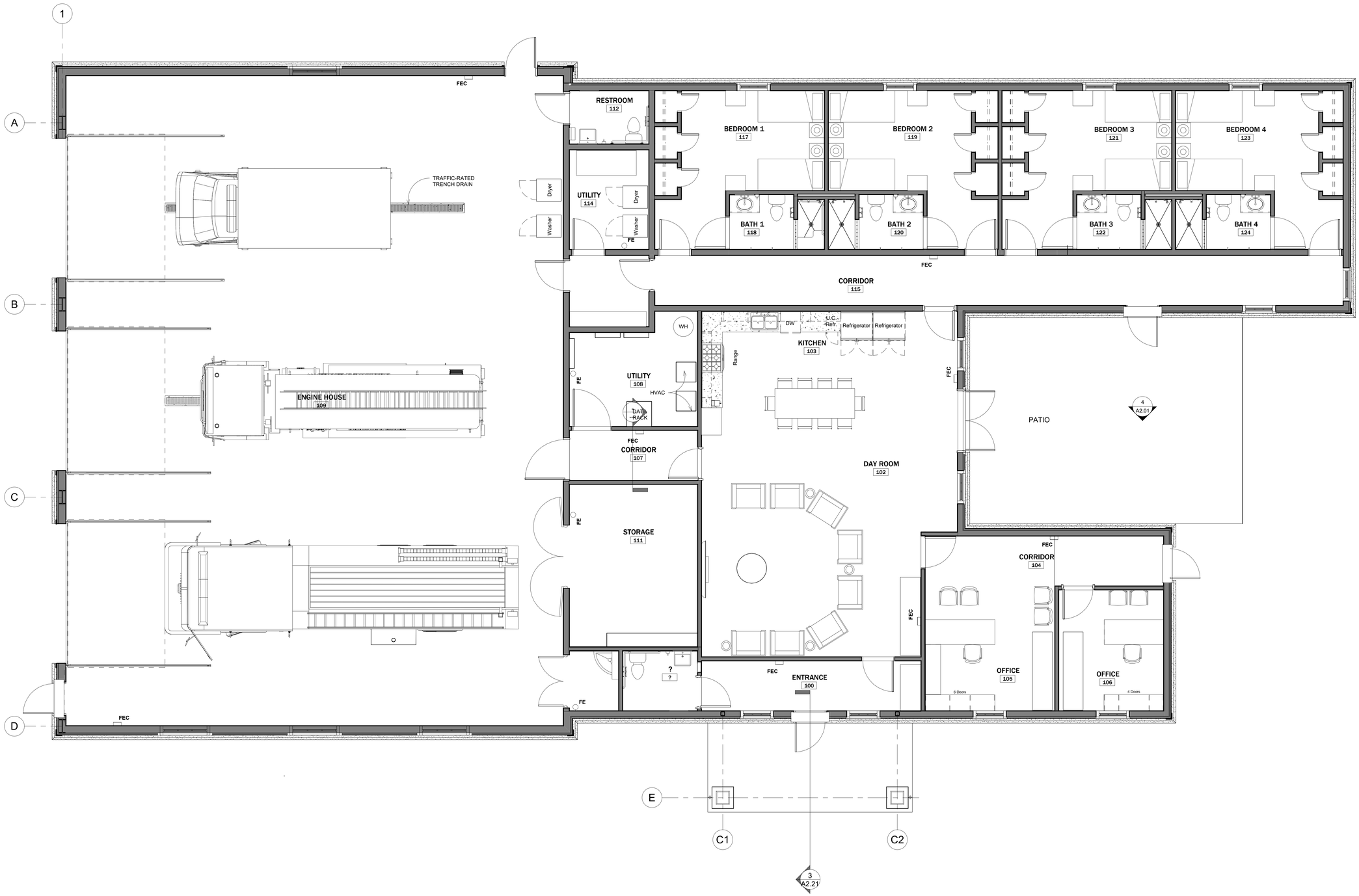
FINISH PLAN

A5.00



NOTE: FURNITURE N.I.C.

1 FLOOR PLAN 1/4" = 1'-0"

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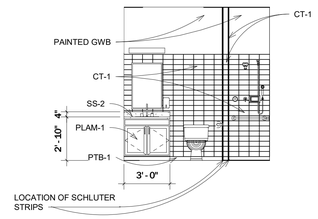
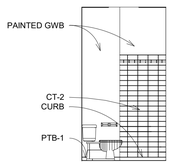
FF&E PLAN

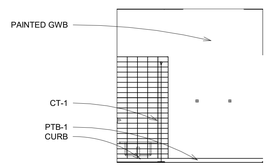
A5.10



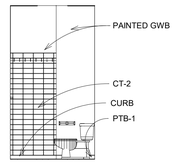
1 Bath 1 -1 1/4" = 1'-0"



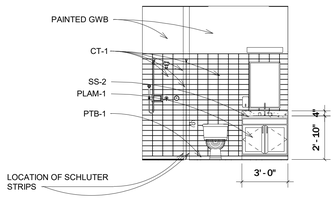
2 Bath 1 - 2 1/4" = 1'-0"



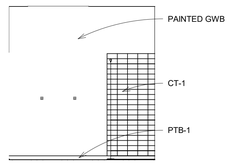
3 Bath 1 - 3 1/4" = 1'-0"



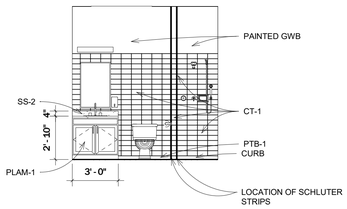
4 Bath 2 - 1 1/4" = 1'-0"



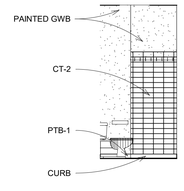
5 Bath 2- 2 1/4" = 1'-0"



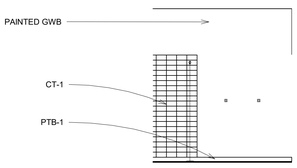
6 Bath 2 - 3 1/4" = 1'-0"



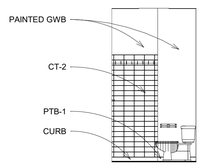
7 Bath 3 -1 1/4" = 1'-0"



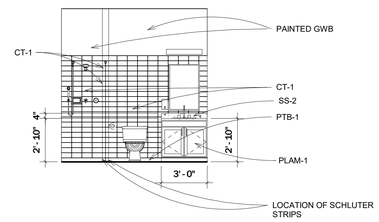
8 Bath 3-2 1/4" = 1'-0"



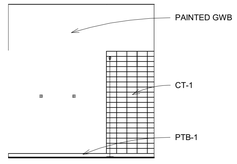
9 Bath 3 -3 1/4" = 1'-0"



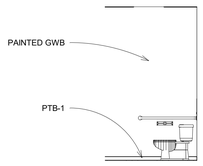
10 Bath 4 - 1 1/4" = 1'-0"



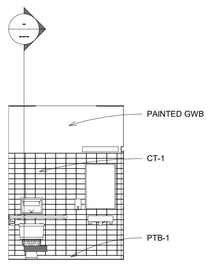
11 Bath 4-2 1/4" = 1'-0"



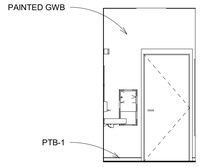
12 Bath 4 - 3 1/4" = 1'-0"



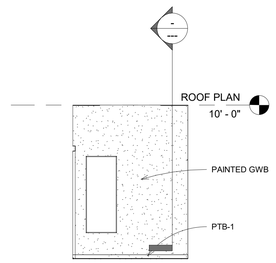
13 Restroom 101 -1 1/4" = 1'-0"



14 Restroom 101 - 2 1/4" = 1'-0"



15 Restroom 101 - 3 1/4" = 1'-0"



16 Restroom 101 - 4 1/4" = 1'-0"

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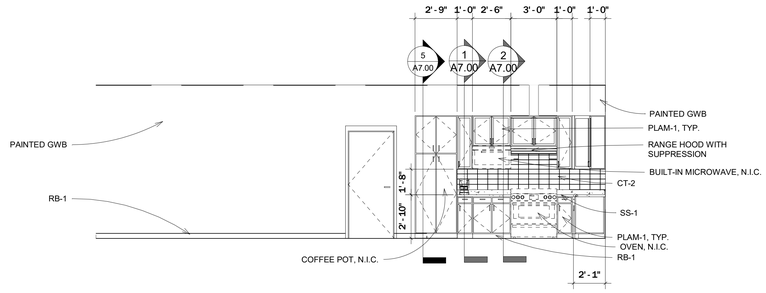
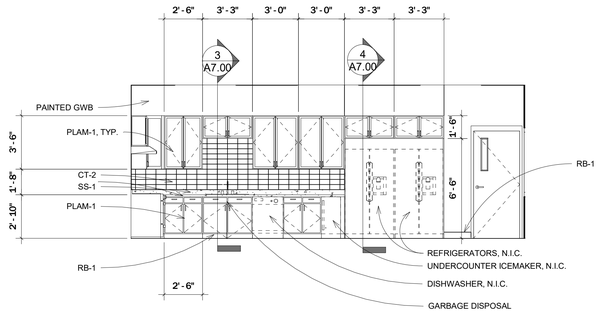
INTERIOR ELEVATIONS

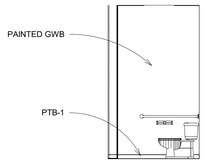
A6.00



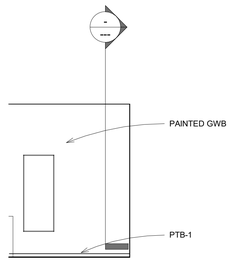
1 Interior Elevation - Kitchen A 1/4" = 1'-0"



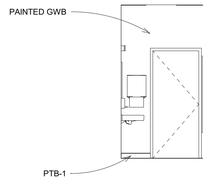
2 Interior Elevation - Kitchen B 1/4" = 1'-0"



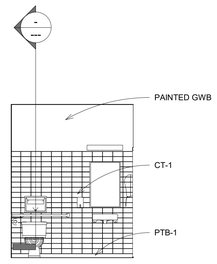
3 Restroom 112 - 1 1/4" = 1'-0"



4 Interior Elevation - Restroom 112 - 4 1/4" = 1'-0"



5 Interior Elevation - Restroom 112 - 3 1/4" = 1'-0"



6 Restroom 112 - 2 1/4" = 1'-0"

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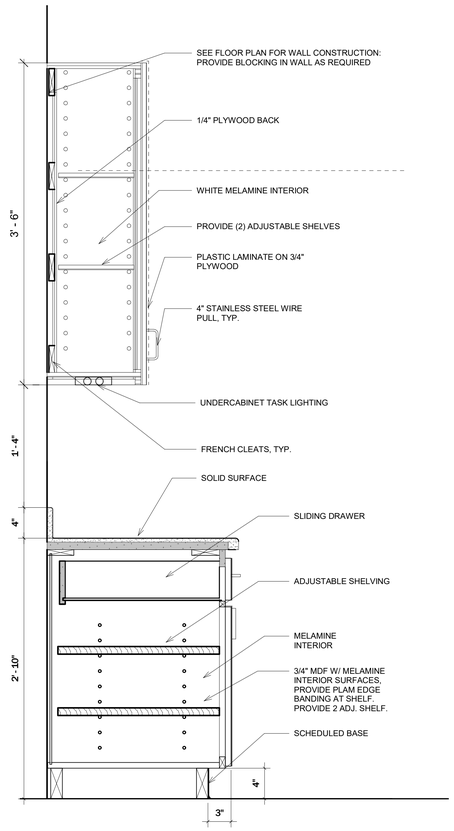
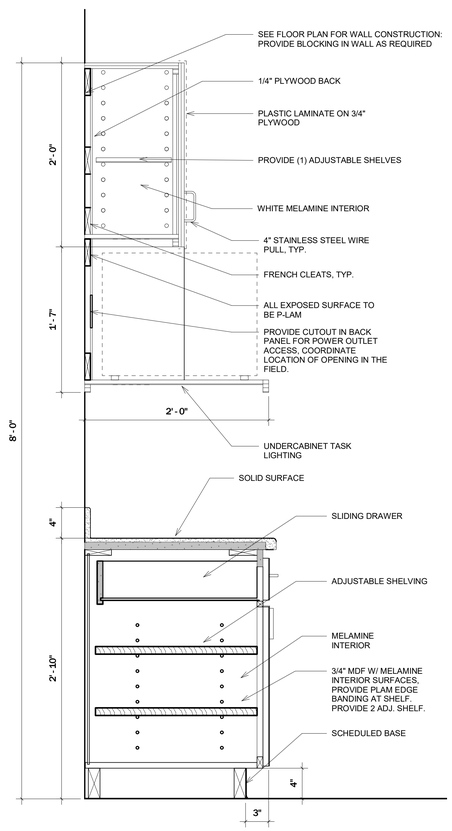
INTERIOR
ELEVATIONS

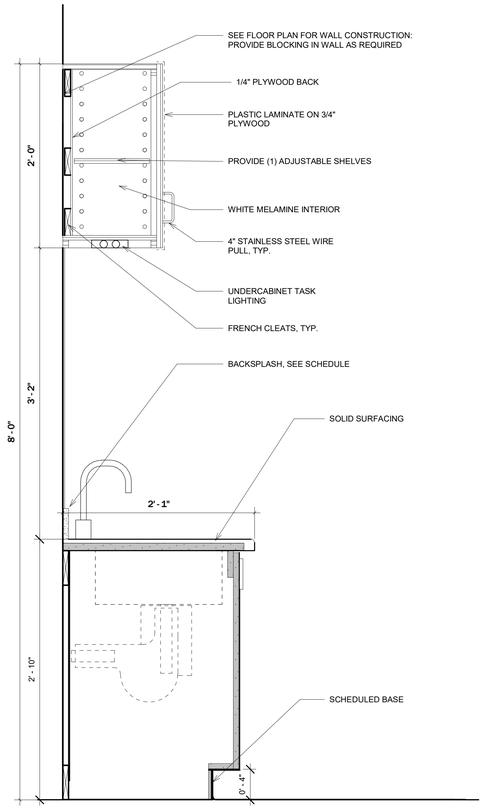
A6.10



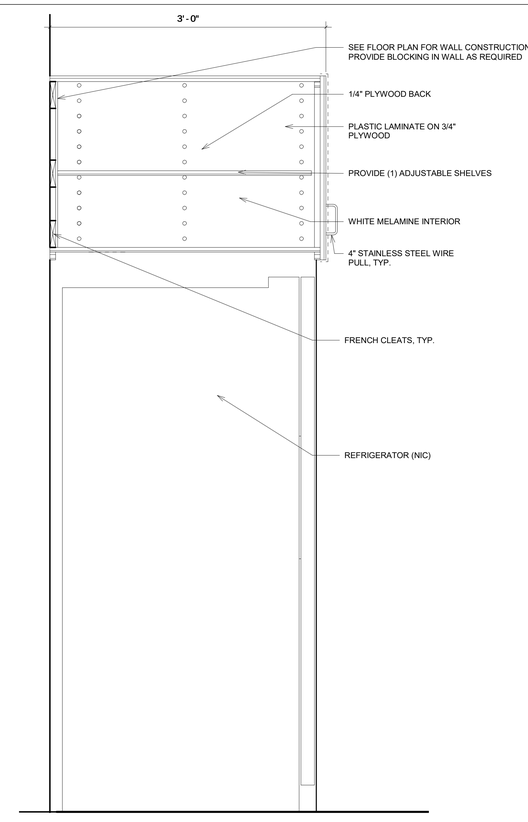
1 Section 1 1 1/2" = 1'-0"



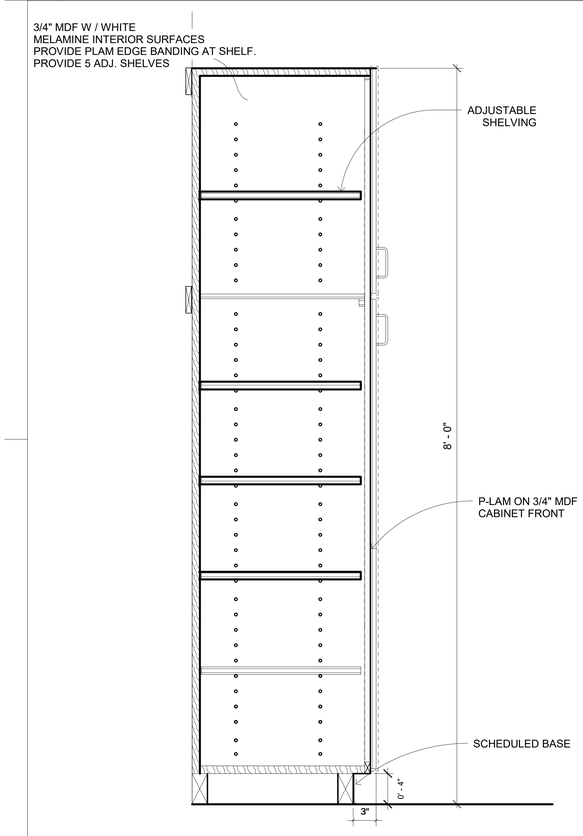
2 Section 2 1 1/2" = 1'-0"



3 Section 3 1 1/2" = 1'-0"



4 Section 4 1 1/2" = 1'-0"



5 CLOSET DETAIL 1 1/2" = 1'-0"

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CASEWORK AND CABINETRY SECTION DETAILS

A7.00

GENERAL NOTES :

THIS STRUCTURE WAS DESIGNED IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE W/ GA AMMENDMENTS AND ASCE 7–16. THE FOLLOWING CRITERIA APPLY:

LOADS:

RISK CATEGORY =	IV
ROOF LIVE LOAD = (DOES NOT INCLUDE MECHANICAL UNITS)	20 psf
ROOF DEAD LOAD =	20 psf
ROOF DEAD LOAD = (AVAILABLE TO RESIST UPLIFT)	5 psf
OCCUPIED FLOOR LIVE LOAD =	100 psf

SAFE FLOOR LOADS SHALL BE POSTED IN CONSPICUOUS PLACES.

GROUND SNOW LOAD, Pg =	10 psf
SNOW IMPORTANCE FACTOR, Is =	1.20
SLOPED ROOF SLNOW LOAD, Ps =	13.4 psf

SEISMIC IMPORTANCE FACTOR, I = 1.5
MAPPED SPECTRAL ACCELERATIONS:
Ss = 0.395, S1 = 0.111
SITE CLASS (SOIL TYPE): D
SPECTRAL RESPONSE COEFFICIENTS:
SDs = 0.391 , SD1 = 0.174
SEISMIC DESIGN CATEGORY: D
SEISMIC FORCE RESISTING SYSTEM:
STEEL ORDINARY MOMENT FRAMES MEETING LIMITATIONS OF SECTION 12.2.5.6b OF ASCE 7 (N/S)
LIGHT–FRAMED (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS (E/W)

	N/S	E/W
RESPONSE MODIFICATION FACTOR, R:	3.5	6.5
OVERSTRENGTH FACTOR, OMEGA:	3.0	3.0
DEFLECTION AMPLIFICATION FACTOR, Cd:	3.0	4.0
SEISMIC RESPONSE COEFFICIENT, Cs:	0.17	0.090
DESIGN BASE SHEAR, KIPS:	28.9	15.6
ANALYSIS PROCEDURE:	E.L.F. PROCEDURE	

BASIC WIND SPEED (ULTIMATE)	117 mph
BASIC WIND SPEED (SERVICE)	91 mph
WIND EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFFICIENT:	±0.18

COMPONENTS & CLADDING PRESSURES (ULTIMATE):

ZONE	1	2e, 2r	3	2 O.H.	3 O.H.	4	5
A=10	+25.6 −46.0	+25.6 −63.5	+25.6 −63.5	−76.5	−90.5	+32.7 −35.4	+32.7 −43.7
A=20	+22.1 −40.8	+22.1 −56.7	+22.1 −56.7	−73.5	−80.9	+31.2 −34.0	+31.2 −40.8
A=50	+16.0 −33.8	+16.0 −47.8	+16.0 −47.8	−69.5	−68.2	+29.3 −32.0	+29.3 −36.9
A=100	+16.0 −28.6	+16.0 −41.1	+16.0 −41.1	−66.5	−58.5	+27.8 −30.6	+27.8 −34.0

A = EFFECTIVE WIND AREA IN SQ. FT.; O.H. = OVERHANG EDGE DISTANCE, a = 6'–6" (ROOF); 6'–6" (WALL)

SEE FIG. 6–3, ASCE 7–10 FOR ZONE LAYOUT AND ADD. INFO.)

GENERAL:

1. GENERAL CONTRACTOR SHALL VERIFY LOCATIONS OF MECHANICAL EQUIPMENT AND COORDINATE WITH THE STRUCTURAL DRAWINGS.
2. STRUCTURAL DRAWINGS INDICATE TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND THE SPECIFIC REQUIREMENTS OF THIS PROJECT.
3. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING FOR ALL STRUCTURAL ELEMENTS DURING CONSTRUCTION.
4. CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE EXECUTING ANY WORK.
5. COMPLETE SHOP DRAWINGS FOR CONSTRUCTION OF ALL APPLICABLE SPECIALTY ITEMS INCLUDING BUT NOT LIMITED TO ALUMINUM STOREFRONT, PRE–ENGINEERED TRUSSES, CURTAIN WALL GLAZING SYSTEMS AND ORNAMENTAL GUARDRAILS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT STATE AND SHALL BE AVAILABLE AT THE JOB SITE DURING THE TIMES OF INSPECTION.
6. REPRODUCTION OF ANY PORTION OF THE CONTRACT DOCUMENTS FOR SUBMITTALS OR SHOP DRAWINGS IS NOT PERMITTED AND SHALL RESULT IN REJECTION OF THAT SUBMITTAL OR SHOP DRAWING.

FOUNDATION:

1. THE FOUNDATION DESIGN USES MINIMUM ALLOWABLE DESIGN CRITERIA DETERMINED BY 2018 IBC.
2. THE FOUNDATION DESIGN IS BASED ON A NET ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF FOR SHALLOW FOUNDATIONS ON EITHER PROPERLY COMPACED NATIVE SOILS OR STRUCTURAL FILL. SEE GEOTECH REPORT FOR SITE PREPARATION PROCEDURES.
3. A REGISTERED GEOTECHNICAL ENGINEER SHALL VERIFY THE DESIGN SOIL BEARING CAPACITY AND SHALL VERIFY THE CONDITION AND/OR ADEQUACY OF ALL SUBGRADE AND FILL PRIOR TO PLACEMENT OF FOOTINGS AND SLABS.

CONCRETE:

1. CONCRETE FOR ALL STRUCTURAL ELEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 psi, AND SHALL BE NORMAL WEIGHT U.N.O. W/CM SHALL NOT EXCEED 0.55. SEE PLAN FOR SPREAD FOOTINGS TO HAVE A COMPRESSIVE STRENGTH OF 5,000 psi.
2. UNLESS NOTED OTHERWISE, SLABS ON GRADE SHALL BE A MINIMUM OF FOUR INCHES THICK, SHALL BE REINFORCED WITH 6x6–W1.4xW1.4 W.W.F. LOCATED 1½" BELOW THE TOP OF SLAB AND PLACED OVER A 4" GRADED AGGREGATE BASE AND A MINIMUM 12 MIL VAPOR BARRIER.
3. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45 AND SHALL BE AIR ENTRAINED 5% +/–1.
4. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITIONS OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
5. CONCRETE TEST REPORTS SHALL BE AVAILABLE AT THE JOB SITE.

REINFORCING:

1. DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCING", AND CRSI MANUAL OF STANDARD PRACTICE.
2. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60 DEFORMED BARS, UNO. LAP SPLICE LENGTH SHALL BE A MINIMUM "CLASS B" TENSION SPLICE, UNO.
3. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A185 AND SHALL BE LAPPED A MINIMUM OF 8" ON ALL SIDES AND SPLICES.
4. BRICK AND CMU VENEER TIES SHOULD BE A MINIMUM 9 GAUGE CORROSION–RESISTANT WIRE @ 16" MAX. HORIZONATALLY, AND 16" O.C. VERTICALLY, SECURELY ATTACHED TO SUPPORT WALL.
5. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH (NOT FORMED)	3"
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 BARS AND LARGER	2"
#5 BARS AND SMALLER	1–1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER SLABS AND WALLS	1"

5. PROVIDE CONTINUOUS REINFORCING WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED; STAGGER SPLICES WHERE POSSIBLE; USE CLASS "B" TENSION SPLICE UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCING AND SHALL BE LAPPED WITH CLASS "B" TENSION SPLICES. UNLESS NOTED OTHERWISE LAP LENGTHS EXPRESSED IN NUMBER OF BAR DIAMETERS SHALL BE AS FOLLOWS:

BAR SIZE	CLASS	3,000	4,000	5,000
#6 OR SMALLER	A	44 DIA.	38 DIA.	34 DIA.
	B	57 DIA.	49 DIA.	44 DIA.
#7 OR LARGER	A	55 DIA.	47 DIA.	42 DIA.
	B	71 DIA.	62 DIA.	55 DIA.

TABLE IS FOR NORMAL WEIGHT CONCRETE. INCREASE THE ABOVE LAP LENGTHS BY A FACTOR OF 1.3 FOR BARS WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW THEM (I.E. TOP BARS). INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR WHEN LIGHT WEIGHT CONCRETE IS USED.

STEEL:

1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992, EXCEPT STRUCTURAL TUBING (HSS) SHALL CONFORM TO ASTM A500 GRADE C, AND PIPE SHAPES SHALL CONFORM TO ASTM A53 GRADE B. ANGLES AND MISCELLANEOUS PLATES AND BARS MAY CONFORM TO ASTM A36.
2. ALL BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED ACCORDING TO "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 AND ASTM A490 BOLTS".
3. ANCHOR RODS SHALL CONFORM TO ATSM F1554, GRADE 36, UNO.
4. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS STRUCTURAL WELDING CODE AND SHALL BE PERFORMED BY CERTIFIED WELDERS USING E70XX ELECTRODES.
5. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS, LATEST EDITION.

WOOD:

1. STRUCTURAL WOOD COMPONENTS SHALL BE NO. 2 SOUTHERN PINE CONFORMING TO THE LATEST EDITION OF NDS.
2. WOOD IN CONTACT WITH CONCRETE OR MASONRY, AND AT OTHER LOCATIONS AS SHOWN ON STRUCTURAL DRAWINGS, SHALL BE PROTECTED OR PRESSURE TREATED IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS' ASSOCIATION STANDARDS. MEMBER SIZES SHOWN ARE NOMINAL UNLESS NOTED OTHERWISE.
3. CONNECTORS AND FASTENERS FOR PRESERVATIVE–TREATED AND FIRE–RETADANT TREATED WOOD SHALL BE OF HOT–DIPPED ZINC–COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER INCLUDING BUT NOT LIMITED TO ANCHOR RODS, POWDER ACTUATED FASTENERS, NAILS, SCREWS, BOLTS, AND STEEL FRAMING HARDWARE. ZINC COATING WEIGHTS SHALL COMPLY WITH THE REQUIREMENTS INCLUDED IN IBC SECTION 2304.9.5 FOR THE APPROPRIATE USE.
4. CONNECTION HARDWARE SPECIFIED SHALL USE THE TYPE, SIZE, AND MAXIMUM NUMBER OF FASTENERS SPECIFIED IN THE MANUFACTURER'S PRODUCT LITERATURE UNLESS NOTED OTHERWISE IN THE DETAILS.
5. MULTIPLE MEMBER BEAMS OF 2x OR LVL SHALL BE ATTACHED WITH A MINIMUM OF TWO ROWS OF 16d NAILS @ 12" O.C., STAGGER.
6. LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2,600 psi, Fv = 220 psi, E = 1,800 ksi
7. INTERIOR NON LOAD–BEARING WALLS SHALL BE ATTACHED TO ROOF TRUSSES USING SIMPSON DTC CLIP ANGLES.

WOOD SHEATING:

1. ROOF SHEATHING IS DESIGNED AS A DIAPHRAGM AND SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 23 OF THE BUILDING CODE. UNLESS SHOWN OTHERWISE, PROVIDE ¾" PLYWOOD (WOOD STRUCTURAL PANELS – APA RATED SHEATHING WITH 48–24 SPAN RATING). PANELS SHALL BE FASTENED USING 10d NAILS AT 6" O/C ALONG PANEL EDGES AND OPENINGS AND 12" O/C ELSEWHERE.
2. WALL SHEATHING SHALL BE ½" PLYWOOD (WOOD STRUCTURAL PANELS – APA RATED SHEATHING WITH 32–16 SPAN RATING). PANELS SHALL BE FASTENED USING 10d NAILS AT 6" O/C ALONG PANEL EDGES, BLOCKING, AND OPENINGS AND 12" O/C ELSEWHERE.

PRE–ENGINEERED WOOD TRUSSES:

1. ENGINEERED WOOD TRUSS SYSTEMS SHALL BE DESIGNED BY SUPPLIER'S SPECIALTY ENGINEER TO CONFIGURATION AND LOAD CARRYING CAPACITY SHOWN ON DRAWINGS AND SPECIFICATIONS. ALTERNATE TRUSS LAYOUTS ARE ACCEPTABLE ONLY AS A CHANGE ORDER WHICH WILL INCLUDE ENGINEERING CHARGES FOR REDESIGN OF THE STRUCTURE BY THE ENGINEER OF RECORD. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTOR TYPES UTILIZED WITHIN TRUSSES, AS WELL AS CONNECTORS UTILIZED IN OTHER CONNECTIONS AND ATTACHMENTS BETWEEN TRUSSES OR COMPONENTS SUPPLIED AS PART OF THE ENGINEERED TRUSS SYSTEM. ALL HARDWARE (BOLTS, HANGERS, STRAPS, ETC.) REQUIRED FOR CONNECTIONS BETWEEN PRE–ENGINEERED TRUSSES SHALL BE DESIGNED AND SPECIFIED BY THE TRUSS ENGINEER. AN ERECTION DRAWING SHALL BE INCLUDED, IDENTIFYING TRUSS SYSTEM COMPONENTS, AS WELL AS PERMANENT BRACING REQUIRED FOR TRUSS DESIGN. BRACE IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE/STRUCTURAL BUILDING COMPONENT ASSOCIATION "BUILDING COMPONENT SAFETY INFORMATION", BCSI–13 GUIDELINES AND RELATED SUMMARY SHEETS.
2. ENGINEERED SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE AS THE SPECIALTY ENGINEER. ALL PRE–ENGINEERED TRUSS SHOP DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE DURING TIMES OF INSPECTION AND SHALL BEAR CLEAR INDICATION THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT STRUCTURAL ENGINEER OF RECORD.
3. LOAD DURATION FACTORS CONFORMING TO THE LATEST NDS SHALL BE USED
4. WOOD TRUSS MANUFACTURER SHALL DESIGN FOR THE FOLLOWING SUPERIMPOSED GRAVITY LOADS:

TOP CHORD DEAD LOAD	10 PSF
BOTTOM CHORD DEAD LOAD	10 PSF
TOP CHORD LIVE LOAD	20 PSF
BOTTOM CHORD LIVE LOAD, U.N.O.	10 PSF*

(*) NOT CONCURRENT WITH TOP CHORD LIVE LOAD

5. DESIGN ROOF TRUSSES TO RESIST WIND UPLIFT PRESSURES IN ACCORDANCE WITH THE BUILDING CODE NOTED ABOVE. USE ROOF DEAD LOAD (AVAILABLE TO RESIST UPLIFT) LISTED IN THE DESIGN LOAD SECTION IN DETERMINING NET UPLIFT PRESSURES.
6. IN ADDITION TO THE ABOVE LOADS, WOOD ROOF TRUSSES SHALL BE DESIGNED FOR CONCENTRATED LOADS HUNG FROM OR SUPPORTED ON TRUSSES. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS ALONG WITH ROOF FRAMING PLAN FOR LOADING INFORMATION AND LOCATION. LOADING REQUIRED BY OTHER SUBCONTRACTORS, SUCH AS FIRE PROTECTION, SHALL BE COORDINATED BY THE GENERAL CONTRACTOR.
7. ANY REPAIRS OR MODIFICATIONS OF THE PRE–ENGINEERED TRUSSES SHALL BE DESIGNED AND CERTIFIED BY THE TRUSS MANUFACTURER.

SPECIAL INSPECTIONS NOTES:

1. DURING CONSTRUCTION, SPECIAL STRUCTURAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1705 OF THE IBC. AN APPROVED SPECIAL INSPECTOR WITH QUALIFICATIONS SATISFACTORY TO THE BUILDING OFFICIAL SHALL PERFORM SPECIAL INSPECTIONS. ALL SPECIAL STRUCTURAL INSPECTION REPORTS SHALL BE PREPARED BY AND BEAR THE SEAL OF THE SPECIAL INSPECTOR, AND ALL REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL, ARCHITECT, AND TO THE STRUCTURAL ENGINEER.
2. SPECIAL INSPECTOR SHALL PREPARE THE REQUIRED QUALITY ASSURANCE PLANS & SUBMIT PLAN TO BUILDING OFFICIAL, ARCHITECT, AND THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
3. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE PERMITTED CONSTRUCTION DOCUMENTS. THE SPECIAL INSPECTOR SHALL FURNISH PERIODIC INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONALS OF RECORD. THE FREQUENCY OF REPORTS SHALL BE AS AGREED UPON BY THE BUILDING OFFICIAL. ALL NONCONFORMING ITEMS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF CORRECTED, THE BUILDING OFFICIAL, ARCHITECT, AND THE STRUCTURAL ENGINEER.
4. THE SPECIAL INSPECTOR, UPON COMPLETION OF THE WORK AND PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, SHALL SUBMIT A SIGNED & SEALED FINAL REPORT DOCUMENTING COMPLETION OF ALL REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE PRIOR REPORTS.
5. ALL STRUCTURAL ELEMENTS OF THE BUILDING FRAME SHALL BE INSPECTED FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND REQUIREMENTS OF SECTION 1705 OF THE IBC, INCLUDING, BUT NOT BE LIMITED TO THE SECTIONS LISTED ON THIS DRAWING.
6. A QUALITY ASSURANCE PLAN FOR WIND RESISTANCE IS NOT REQUIRED PER IBC 1705.10.
7. A QUALITY ASSURANCE PLAN FOR SEISMIC RESISTANCE IS REQUIRED PER IBC 1705.11.

SCHEDULE OF SPECIAL INSPECTIONS

MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT Y/N	EXTENT
1705.2.1 STEEL CONSTRUCTION			
FABRICATOR AND ERECTOR DOCUMENTS (VERIFY REPORTS AND CERTIFICATES AS LISTED IN AISC 360, SECTION N 3.2 FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS)	SUBMITTAL REVIEW	Y	EACH SUBMITTAL
MATERIAL VERIFICATION OF STRUCTURAL STEEL	SHOP* AND FIELD INSPECTION	Y	PERIODIC
STRUCTURAL STEEL WELDING:			
1. INSPECTION TASKS PRIOR TO WELDING PER AISC 360 TABLE N5.4-1	SHOP* AND FIELD INSPECTION	Y	OBSERVE OR PERFORM AS NOTED
2. INSPECTION TASKS DURING TO WELDING PER AISC 360 TABLE N5.4-2	SHOP* AND FIELD INSPECTION	Y	OBSERVE
3. INSPECTION TASKS AFTER TO WELDING PER AISC 360 TABLE N5.4-3	SHOP* AND FIELD INSPECTION	Y	OBSERVE OR PERFORM AS NOTED
4. NONDESTRUCTIVE TESTING (NDT) OF WELDED JOINTS		Y	
A. COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY III OR IV	SHOP OR FIELD ULTRASONIC TESTING - 100%	Y	PERIODIC
B. COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY II	SHOP OR FIELD ULTRASONIC TESTING - 10% OF WELDS MINIMUM	Y	PERIODIC
C. WELDED JOINTS SUBJECT TO FATIGUE WHEN REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1	SHOP OR FIELD RADIOGRAPHIC OR ULTRASONIC TESTING	Y	PERIODIC
D. FABRICATOR'S NDT REPORTS WHEN FABRICATOR PERFORMS NDT	VERIFY REPORTS	Y	EACH SUBMITTAL
STRUCTURAL STEEL BOLTING:	SHOP AND FIELD INSPECTION	Y	
1. INSPECTION TASKS PRIOR TO BOLTING (OBSERVE, OR PERFORM TASKS FOR EACH BOLTED CONNECTION, IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-1)		Y	OBSERVE OR PERFORM AS NOTED
2. INSPECTION TASKS DURING BOLTING (OBSERVE THE QA TASKS LISTED IN AISC 360, TABLE N5.6-2)			OBSERVE
A. PRE-TENSIONED & SLIP CRITICAL JOINTS			
1) TURN-OF-NUT WITH MATCHING MARKINGS		Y	PERIODIC
2) DIRECT TENSION INDICATOR		Y	PERIODIC
3) TWIST-OFF TYPE TENSION CONTROL BOLT		Y	PERIODIC
4) TURN-OF-NUT WITHOUT MATCHING MARKINGS		Y	CONTINUOUS
5) CALIBRATED WRENCH		Y	CONTINUOUS
B. SNUG TIGHT JOINTS		Y	PERIODIC
3. INSPECTION TASKS AFTER BOLTING (PERFORM TASKS FOR EACH BOLTED CONNECTION IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-3)		Y	PERFORM
VISUAL INSPECTION OF EXPOSED CUT SURFACES OF GALVANIZED STRUCTURAL STEEL MAIN MEMBERS AND EXPOSED CORNERS OF THE RECTANGULAR HSS FOR CRACKS SUBSEQUENT TO GALVANIZING	SHOP* AND FIELD INSPECTION	Y	PERIODIC
EMBEDMENTS (VERIFY DIAMETER, GRADE, TYPE, LENGTH, EMBEDMENT. SEE 1705.3 FOR ANCHORS)	FIELD INSPECTION	Y	PERIODIC
VERIFY MEMBER LOCATIONS, BRACES, STIFFENERS, AND APPLICATION OF JOINT DETAILS AT EACH CONNECTION COMPLY WITH CONSTRUCTION DOCUMENT	FIELD INSPECTION	Y	PERIODIC
1705.12.1 STRUCTURAL STEEL SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE			
SEISMIC FORCE-RESISTING SYSTEMS (SFRS) IN SDC B, C, D, E, OR F.	SHOP* AND FIELD INSPECTION	Y	PERIODIC
STRUCTURAL STEEL ELEMENTS IN SDC B, C, D, E, OR F OTHER THAN SFRS INCLUDING STRUTS, COLLECTORS, CHORDS AND FOUNDATION ELEMENTS.	SHOP* AND FIELD INSPECTION	N	PERIODIC
1705.13.1 STRUCTURAL STEEL TESTING FOR SEISMIC RESISTANCE			
NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL IN THE SEISMIC FORCE-RESISTING SYSTEMS IN ACCORDANCE WITH AISC 341 IN STRUCTURES ASSIGNED TO SDC B, C, D, E OR F.	SHOP* AND FIELD INSPECTION	Y	PER AISC 341
NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN THE SEISMIC FORCE-RESISTING SYSTEMS NOT COVERED IN 1 ABOVE INCLUDING STRUTS, COLLECTORS, CHORDS AND FOUNDATION ELEMENTS IN ACCORDANCE WITH AISC 341 IN STRUCTURES ASSIGNED TO SDC B, C, D, E OR F.	SHOP* AND FIELD INSPECTION	N	EACH OCCURENCE

SCHEDULE OF SPECIAL INSPECTIONS

MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT Y/N	EXTENT
1705.3 CONCRETE CONSTRUCTION			
INSPECTION AND PLACEMENT VERIFICATION OF REINFORCING STEEL	SHOP* AND FIELD INSPECTION	Y	PERIODIC
INSPECTION OF ANCHORS CAST IN CONCRETE.	SHOP* AND FIELD INSPECTION	Y	PERIODIC
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS PER RESEARCH REPORTS, OR, IF NO SPECIFIC REQUIREMENTS ARE PROVIDED, REQUIREMENTS SHALL BE PROVIDED BY THE REGISTERED DESIGN PROFESSIONAL AND APPROVED BY THE BUILDING OFFICIAL, INCLUDING VERIFICATION OF ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, CONCRETE MINIMUM THICKNESS, ANCHOR EMBEDMENT AND TIGHTENING TORQUE	FIELD INSPECTION	Y	PERIODIC OR AS REQUIRED BY THE RESEARCH REPORT ISSUED BY AN APPROVED SOURCE
1. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARD-INCLINED ORIENTATION THAT RESIST SUSTAINED TENSION LOADS.		N	CONTINUOUS
2. MECHANICAL AND ADHESIVE ANCHORS OTHER THAN THOSE DEFINED IN NOTE 1.		Y	PERIODIC
VERIFY USE OF APPROVED DESIGN MIX	SHOP* AND FIELD INSPECTION	Y	PERIODIC
PRIOR TO PLACEMENT, FRESH CONCRETE SAMPLING, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE TEMPERATURE OF CONCRETE AND PERFORM ANY OTHER TESTS AS SPECIFIED IN CONSTRUCTION DOCUMENTS.	SHOP* AND FIELD INSPECTION	Y	CONTINUOUS
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	SHOP* AND FIELD INSPECTION	Y	CONTINUOUS
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	SHOP* AND FIELD INSPECTION	Y	PERIODIC
ERECTION OF PRECAST CONCRETE MEMBERS		Y	PERIODIC
VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	FIELD TESTING AND REVIEW OF LABORATORY REPORTS	Y	PERIODIC
INSPECTION OF FORMWORK FOR SHAPE, LINES, LOCATION AND DIMENSIONS	FIELD INSPECTION	Y	PERIODIC
CONCRETE STRENGTH TESTING AND VERIFICATION OF COMPLIANCE WITH CONSTRUCTION DOCUMENTS	FIELD TESTING AND REVIEW OF LABORATORY REPORTS	Y	PERIODIC
1705.5 WOOD CONSTRUCTION			
FOR PREFABRICATED WOOD STRUCTURAL ELEMENTS, INSPECTION OF THE FABRICATION PROCESS AND ASSEMBLIES IN ACCORDANCE WITH SECTION 1704.2.5	IN-PLANT REVIEW*	Y	PERIODIC
FOR HIGH-LOAD DIAPHRAGMS, VERIFY GRADE AND THICKNESS OF STRUCTURAL PANEL SHEATHING AGREE WITH APPROVED BUILDING PLANS.	FIELD INSPECTION	N	PERIODIC
FOR HIGH-LOAD DIAPHRAGMS, VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, NAIL OR STAPLE DIAMETER AND LENGTH, NUMBER OF FASTENER LINES, AND THAT SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGE MARGINS AGREE WITH APPROVED BUILDING PLANS	FIELD INSPECTION	N	PERIODIC
METAL-PLATE-CONNECTED WOOD TRUSSES:			
1. VERIFICATION THAT PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE WHEN THE TRUSS HEIGHT IS GREATER THAN OR EQUAL TO 60".	FIELD INSPECTION	Y	PERIODIC
2. FOR TRUSSES SPANNING 60 FEET OR GREATER: VERIFY TEMPORARY AND PERMANENT RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE	FIELD INSPECTION	N	PERIODIC
1705.6 SOILS			
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	FIELD INSPECTION	Y	PERIODIC
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	FIELD INSPECTION	Y	PERIODIC
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	FIELD INSPECTION	Y	PERIODIC
VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL	FIELD INSPECTION	Y	CONTINUOUS
PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	FIELD INSPECTION	Y	PERIODIC
1705.12.1 STRUCTURAL STEEL SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE			
SEISMIC FORCE-RESISTING SYSTEMS (SFRS) IN SDC B, C, D, E, OR F.	SHOP* AND FIELD INSPECTION	Y	PERIODIC
STRUCTURAL STEEL ELEMENTS IN SDC B, C, D, E, OR F OTHER THAN SFRS INCLUDING STRUTS, COLLECTORS, CHORDS AND FOUNDATION ELEMENTS.	SHOP* AND FIELD INSPECTION	N	PERIODIC
1705.12.2 STRUCTURAL WOOD SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE			
FIELD GLUING OPERATIONS OF ELEMENTS OF THE SEISMIC-FORCE RESISTING SYSTEM FOR SDC C, D, E OR F.	FIELD INSPECTION	N	CONTINUOUS
NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE-RESISTING SYSTEM INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, SHEAR PANELS AND HOLD-DOWNS FOR SDC C, D, E OR F.	SHOP* AND FIELD INSPECTION	Y	PERIODIC
1705.13.1 STRUCTURAL STEEL TESTING FOR SEISMIC RESISTANCE			
NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL IN THE SEISMIC FORCE-RESISTING SYSTEMS IN ACCORDANCE WITH AISC 341 IN STRUCTURES ASSIGNED TO SDC B, C, D, E OR F.	SHOP* AND FIELD INSPECTION	Y	PER AISC 341
NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN THE SEISMIC FORCE-RESISTING SYSTEMS NOT COVERED IN 1 ABOVE INCLUDING STRUTS, COLLECTORS, CHORDS AND FOUNDATION ELEMENTS IN ACCORDANCE WITH AISC 341 IN STRUCTURES ASSIGNED TO SDC B, C, D, E OR F.	SHOP* AND FIELD INSPECTION	N	EACH OCCURENCE

NOTES:

THE INSPECTION AND TESTING AGENT(S) SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S AGENT, AND NOT BY THE CONTRACTOR OR SUBCONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL PRIOR TO COMMENCING WORK. THE QUALIFICATIONS OF THE SPECIAL INSPECTOR(S) AND/OR TESTING AGENCIES MAY BE SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL AND/OR THE DESIGN PROFESSIONAL.

(*) SHOP INSPECTIONS OF FABRICATED ITEMS ARE NOT REQUIRED WHERE THE FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC SECTION 1704.2.5.1 AND LISTED IN ACTIVITY 1709.2.

OBSERVE: OBSERVE ON A RANDOM BASIS, OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. PERFORM: THESE TASKS SHALL BE PERFORMED FOR EACH WELDED JOINT, BOLTED CONNECTION, OR STEEL ELEMENT

⚠1 GENERAL REVISIONS TO SHEET

GGHE PROJ. # 22RS68

GOODMAN GIANNAVOLA HINES ENGINEERS
311 14th STREET
SUITE 2
ATLANTA, GA 30318
GGHEngineers.com

GA FIRM # PEF007706 EXP 06/2024

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

RELEASED FOR CONSTRUCTION

Revisions — REVISIONS

No.	Date	Description
	02.15.22	Bid Set
1	08.30.22	Revise to Wood Framing

Gardner
Spencer
Smith
Tench &
Jarbeau
A Professional Corporation
for the Practice of Architecture

Tower Place Building,
3340 Peachtree Road, N.E.

Atlanta, Georgia 30326
404.522.8805
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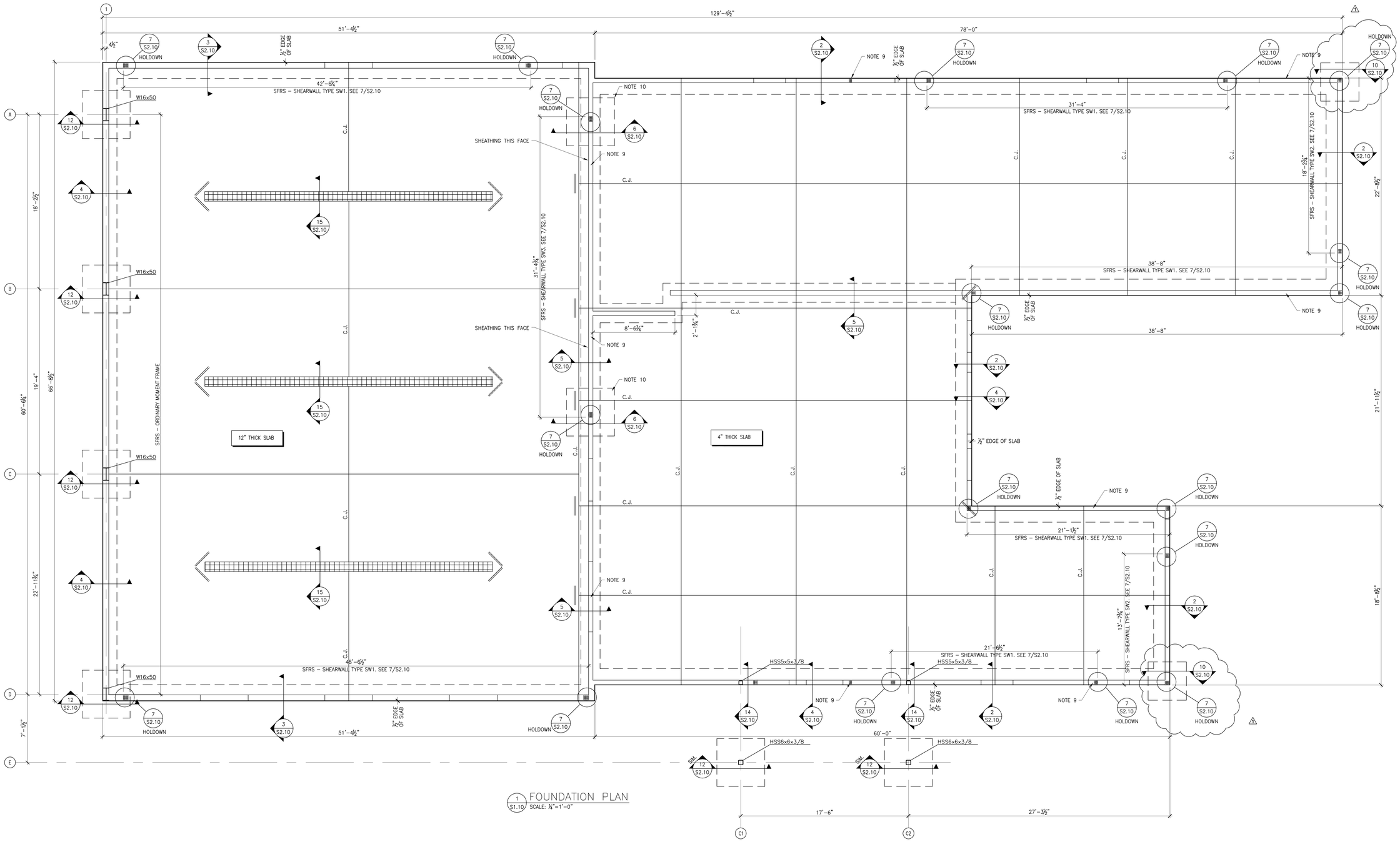
20112

General Notes &
Special Inspections

S-0.10



1 FOUNDATION PLAN
1 / S1.10 SCALE: ¼"=1'-0"

FOUNDATION PLAN NOTES:

1. ALL DIMENSIONS SHOWN ON THIS PLAN ARE APPROXIMATE. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER. FOR ADDITIONAL INFORMATION SEE ARCHITECTURAL DRAWINGS.
2. TOP OF CONCRETE SLAB ELEVATION = +0'-0". ALL OTHER DIMENSIONS ARE MEASURED FROM THIS DATUM.
3. SLAB ON GRADE SHALL BE 4" NORMAL WEIGHT CONCRETE, REINFORCED WITH 6x6 W1.4xW1.4 W.W.F. LOCATED 1½" BELOW THE TOP OF SLAB. APPARATUS BAY SLAB SHALL BE 12" NORMAL WEIGHT CONCRETE REINFORCED WITH #4 @ 12" E.W. T&B.
4. C.J. INDICATES CONTROL JOINT, SEE 1/S2.10
5. TOP OF FOOTING ELEVATION SHALL BE -2'-0" U.N.O.
6. SEE ARCHITECTURAL DRAWINGS FOR ANY SLOPES, DEPRESSIONS, TRENCHES, ETC. IN SLAB ON GRADE. MAINTAIN MINIMUM SLAB THICKNESS.
7. ═══ INDICATES (2) #4 x 4'-0" AT SLAB MID-DEPTH, 3" APART. PROVIDE AT ALL RE-ENTRANT CORNERS AND INTERSECTIONS, AT ALL DISCONTINUOUS CONTROL JOINTS IN SLAB-ON-GRADE AND AS SHOWN ON PLAN. SEE 9/S2.10
8. ALL DIMENSIONS SHOWN ON THIS PLAN ARE TO EDGE OF SLAB U.N.O.
9. PROVIDE TRIPLE STUD PACK UNDER GIRDER TRUSS BEARING LOCATIONS. SEE 11/S2.10 FOR HOLDOWN AT BUILT-UP STUDS.
10. SPREAD FOOTINGS SHALL USE 5,000 psi NW CONCRETE. FOOTINGS SHALL BE CENTERED ON HOLDOWN ANCHOR AT END OF SHEARWALL

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED No. SE000762 STRUCTURAL
09/01/2022

RELEASED FOR CONSTRUCTION

Revisions — REVISIONS

No.	Date	Description
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GOODMAN GIANNAVOLA HINES ENGINEERS
311 14th STREET
SUITE 2
ATLANTA, GA 30318
GGHEngineers.com
GGHE PROJ. # 22RS68
GA FIRM # PEF007708
EXP 06/2024

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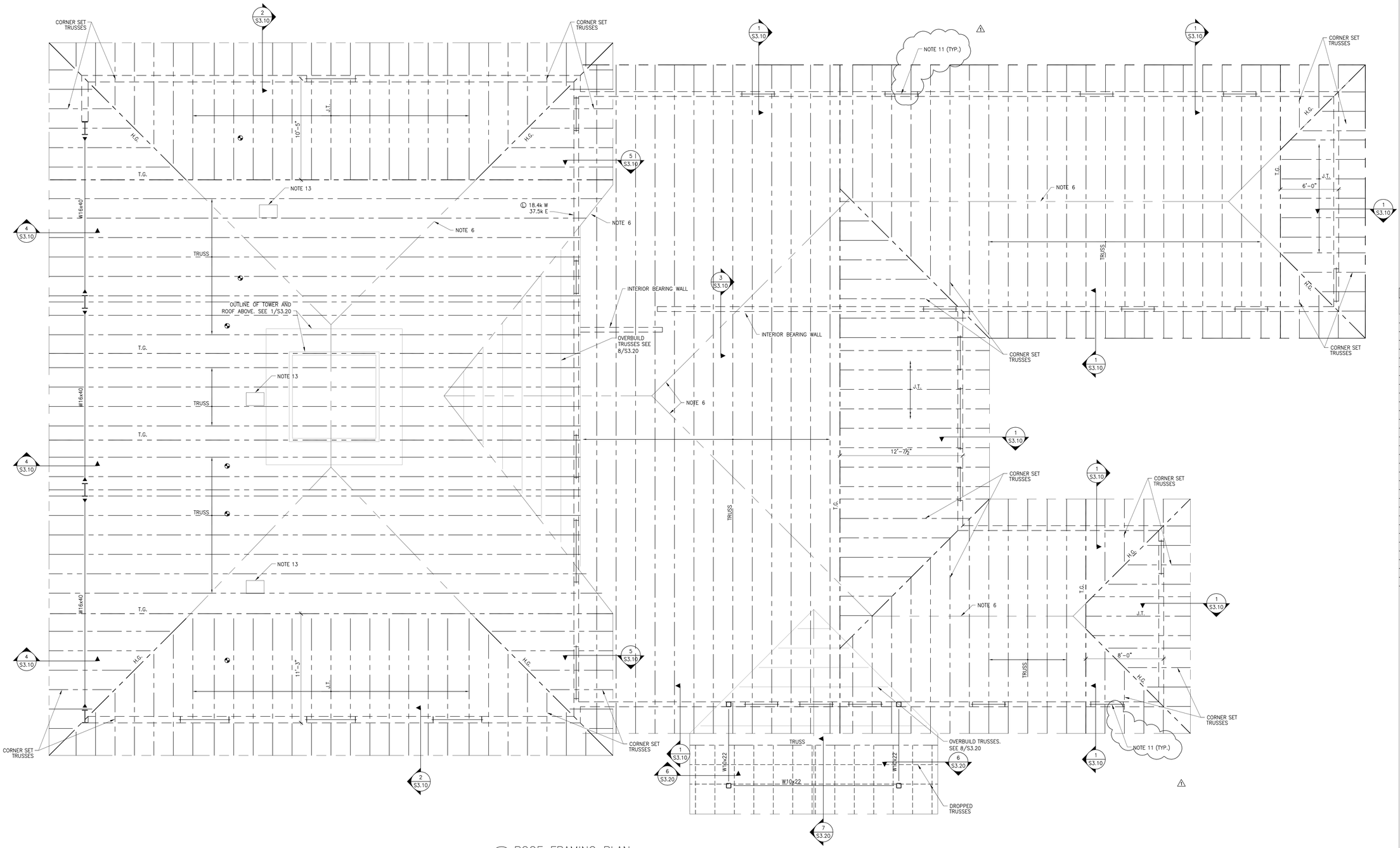
20112

Slab and Foundation Plan

S-1.10



1 S1.20 ROOF FRAMING PLAN

SCALE: ¼"=1'-0"

ROOF FRAMING PLAN NOTES:

1. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER. FOR ADDITIONAL INFORMATION SEE ARCHITECTURAL DRAWINGS.
2. SEE ARCHITECTURE FOR TOP OF FINISHED ROOF ELEVATIONS, ROOF SLOPES AND ROOF DRAIN LOCATIONS.
3. COORDINATE SIZE AND LOCATION OF ALL OPENINGS IN ROOF WITH ARCH, MECH, AND PLUMBING DRAWINGS.
4. TRUSS BEARING AND TOP OF WALL ELEVATIONS VARY. SEE WALL SECTIONS.
5. ROOF SHEATHING IS TO BE ¾" APA RATED PLYWOOD SHEATHING SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
6. PL 2"x2"x18GAxCONT. ALONG VALLEY OR RIDGE SHEATHING JOINTS. USE #8 SCREWS @ 6" O.C. EA. LEG. (TYP.)
7. TRUSS – PRE-ENGINEERED WOOD ROOF TRUSSES @ 2'-0" O.C. MAX.
   CORNER SET – ROOF CORNER SET TRUSSES @ 2'-0" O.C. MAX.
   J.T. – ROOF JACK TRUSSES @ 2'-0" O.C. MAX.
   T.G. – ROOF TRUSS GIRDER.
   H.G. – ROOF HIP GIRDER.

   PROVIDE MULTIPLE TRUSSES (DOUBLE OR TRIPLE) OR MODIFY SPACING AS REQUIRED TO SUPPORT THE LOADS.
8. PROVIDE TRIPLE STUDS UNDER ALL TRUSS GIRDER BEARING POINTS. DO NOT LOCATE TRUSS GIRDERS OVER OPENINGS IN LOAD BEARING WALLS (DOORS, WINDOWS, ETC.) WHEN POSSIBLE. COORDINATE FINAL LOCATION WITH TRUSS SHOP DRAWINGS.
9. SEE SHEET S0.10 FOR LOADS ON ROOF TRUSSES.
10. ▶ INDICATES MOMENT CONNECTION, SEE 15/S-3.10
11. SEE 9/S3.10 FOR WOOD HEADER SCHEDULE
12. ⚽ INDICATES OVERHEAD DOOR SUPPORT. TRUSSES SHALL BE DESIGNED FOR APPLIED LOAD. COORDINATE LOAD MAGNITUDE AND LOCATION WITH DOOR SELECTED AND ARCH. DRAWINGS
13. TRUSSES SHALL BE DESIGNED FOR HANGING LOAD FOR OVERHEAD DOOR MOTOR. COORDINATE LOAD MAGNITUDE AND LOCATION WITH DOOR SELECTED AND ARCH. DRAWINGS

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED No. SE000762 STRUCTURAL ENGINEER JOHN CHRISTOPHER HINES
09/01/2022

RELEASED FOR CONSTRUCTION

Revisions — REVISIONS

No.	Date	Description
	02.15.22	Bid Set
1	08.30.22	Revise to Wood Framing

GGHE PROJ. # 22RS68
GOODMAN GIANNAVOLA HINES ENGINEERS
311 14th STREET
SUITE 2
ATLANTA, GA 30318
GGHEngineers.com
GA FIRM # PEF007706
EXP 06/2024

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation for the Practice of Architecture
Tower Place Building,
3340 Peachtree Road, N.E.
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

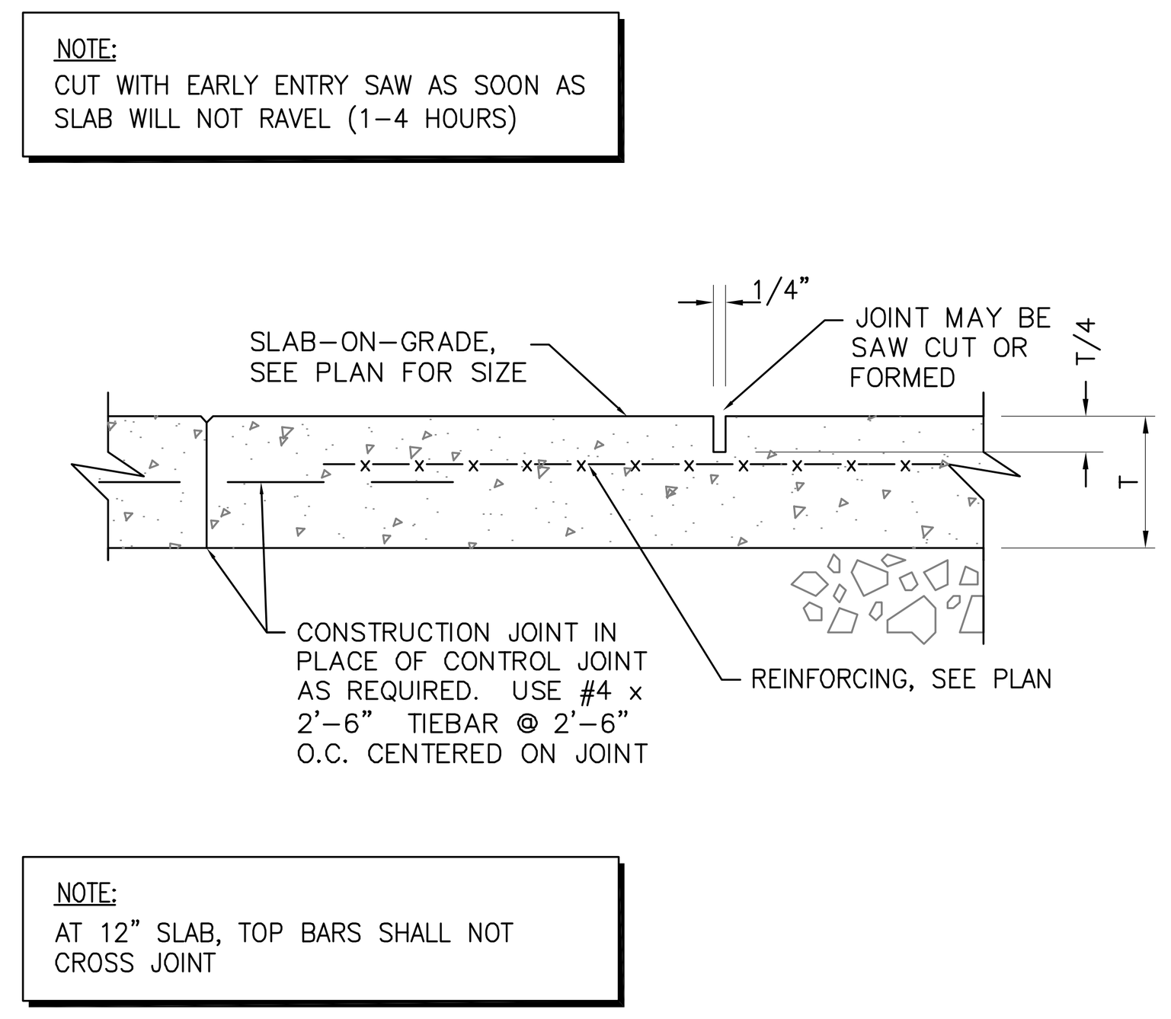
20112

Roof Framing Plan

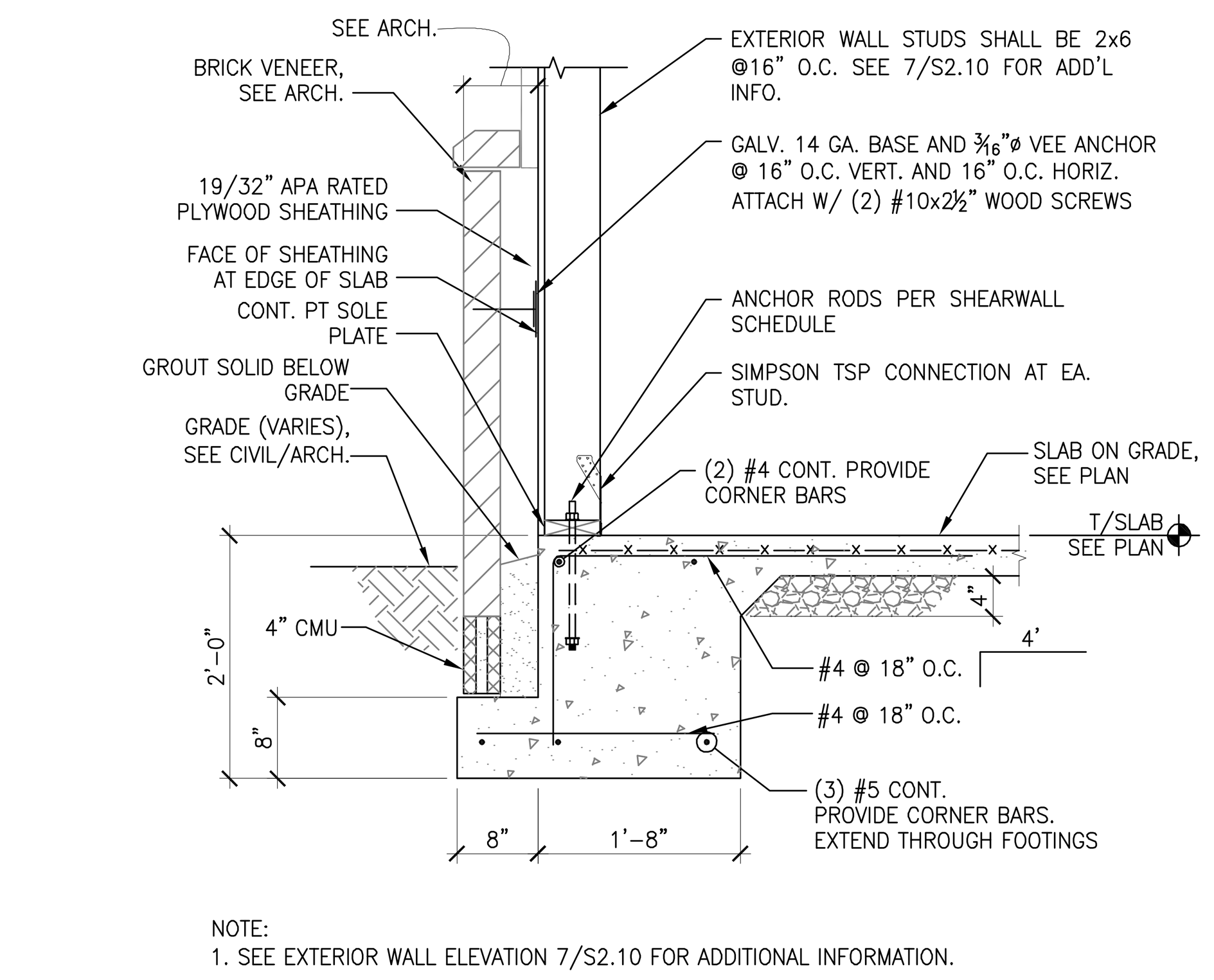
S-1.20

Union County Fire Station

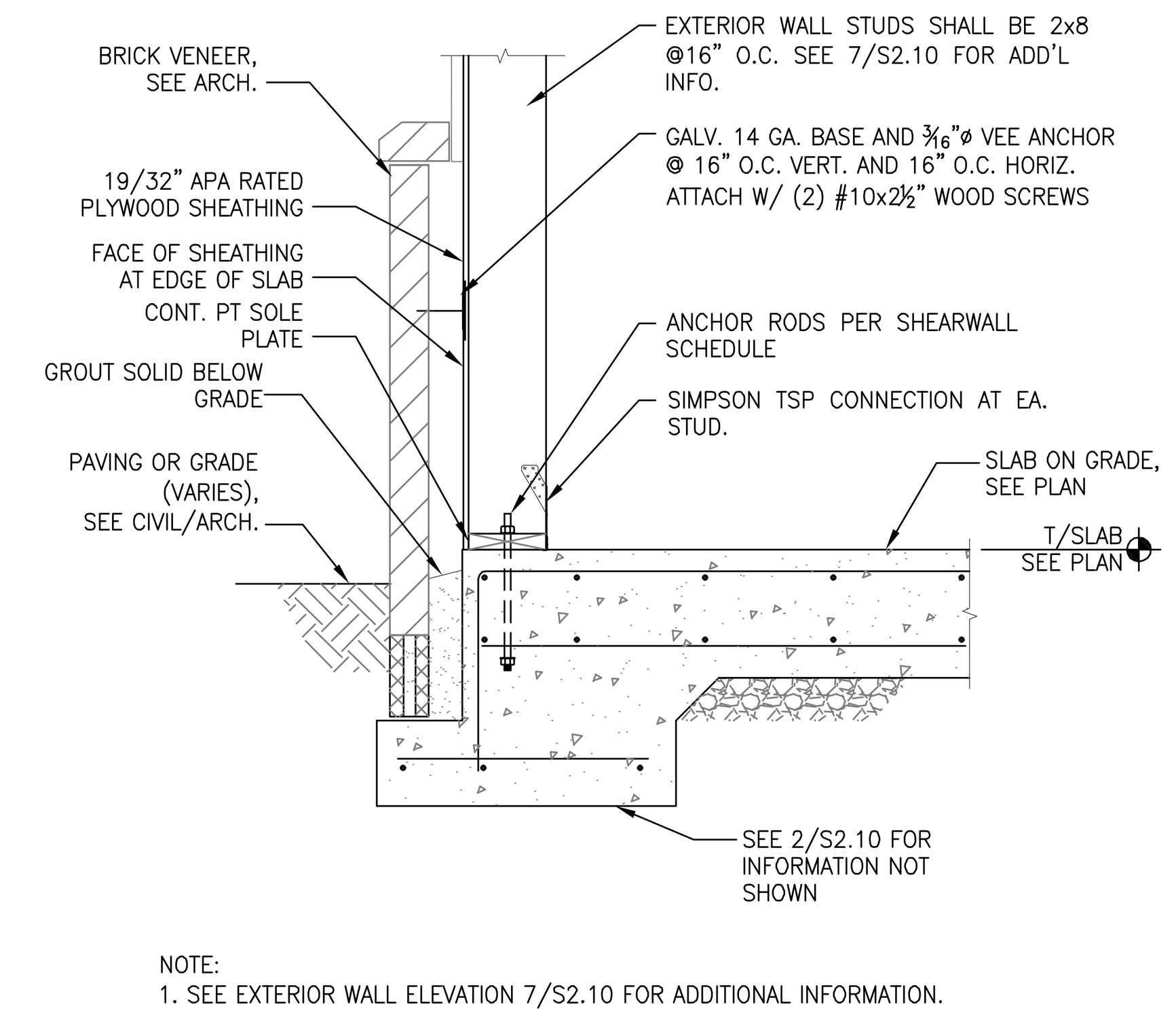
Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512



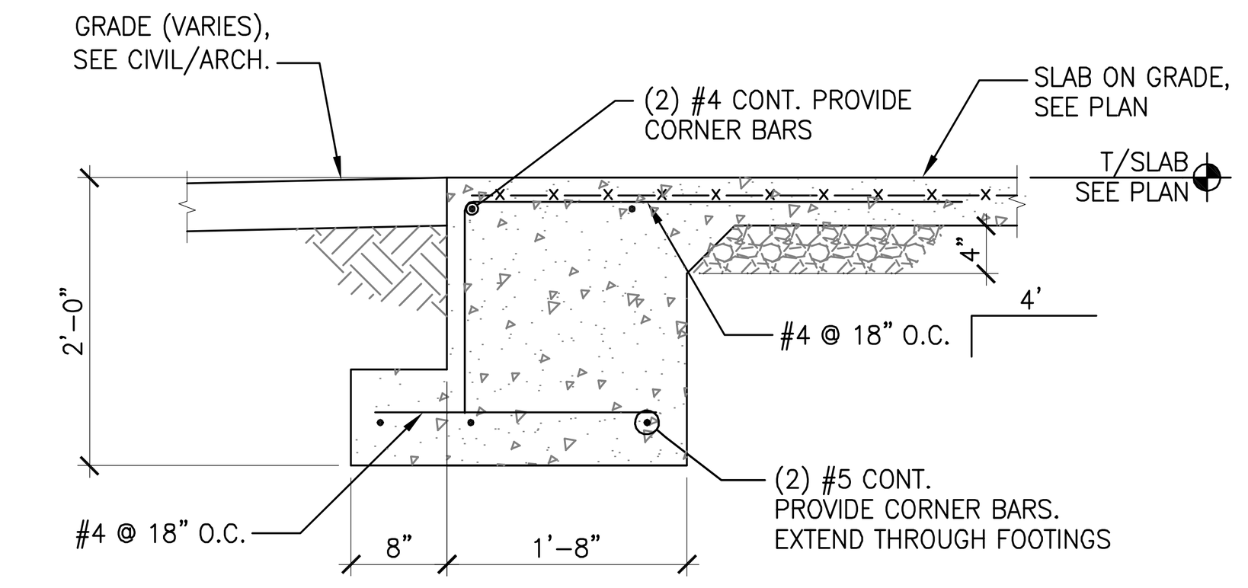
1 S2.10 CONTROL JOINT
SCALE: ¾"=1'-0"



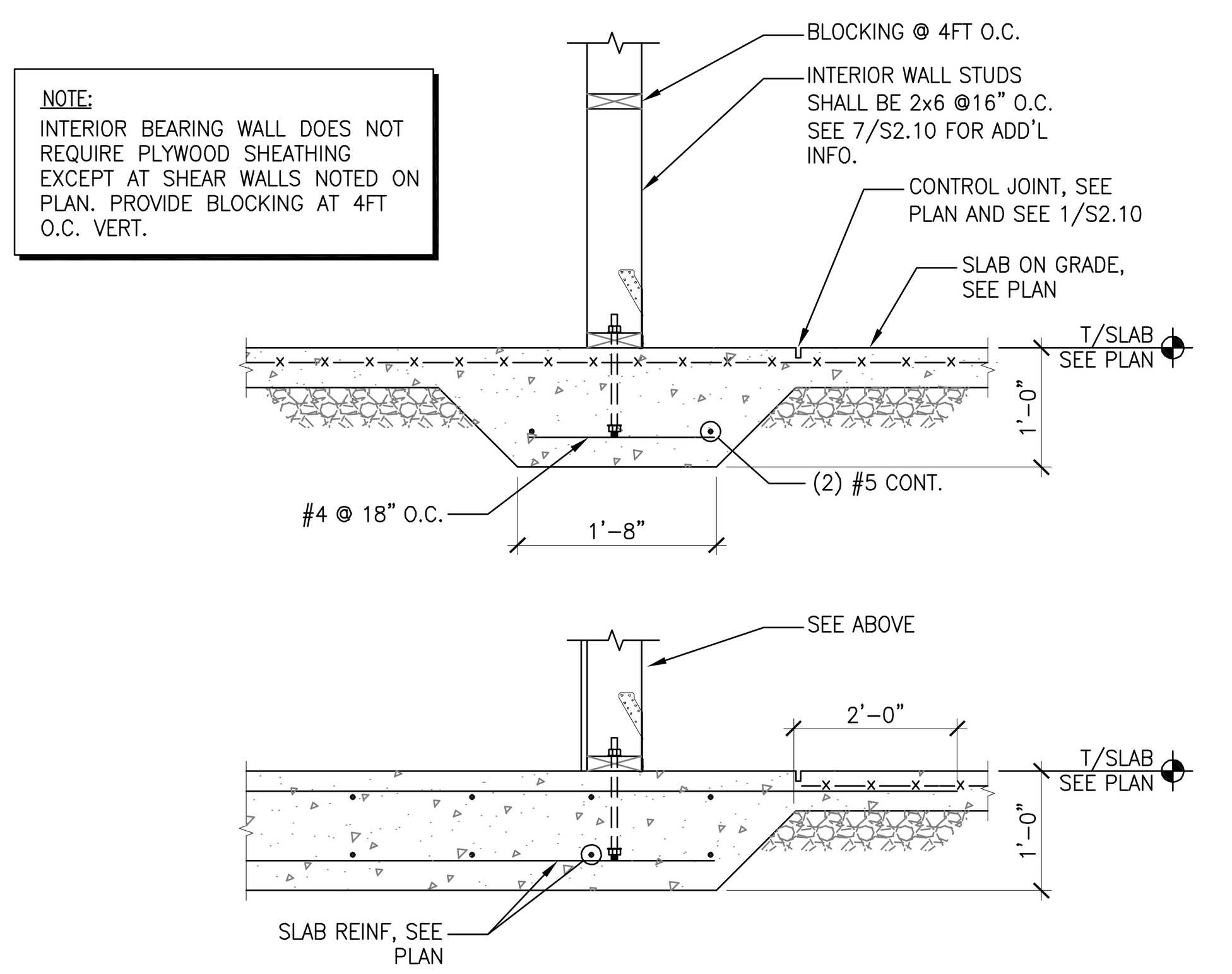
2 S2.10 TYPICAL SLAB EDGE DETAIL
SCALE: ¾"=1'-0"



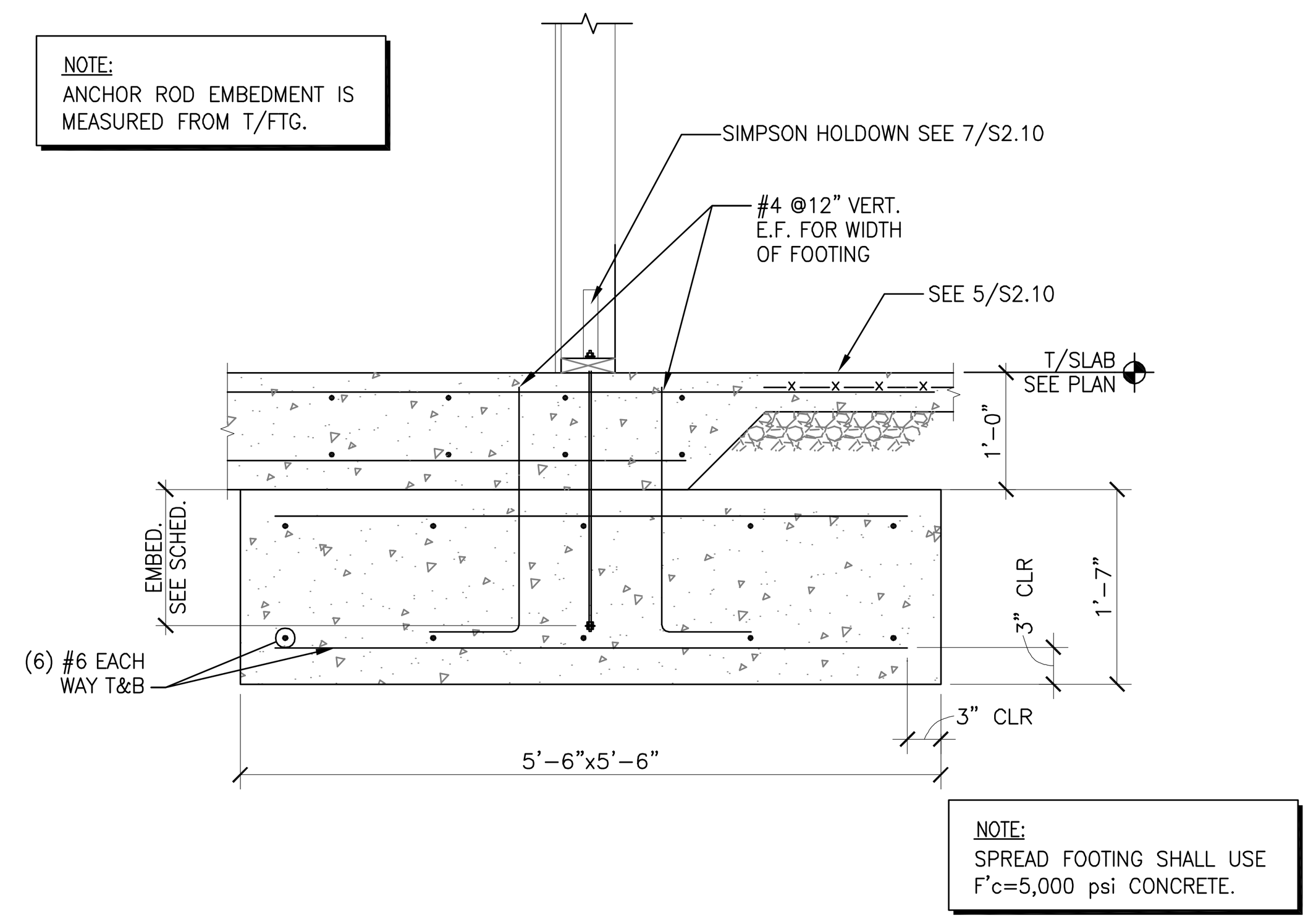
3 S2.10 TYPICAL SLAB EDGE
SCALE: ¾"=1'-0"



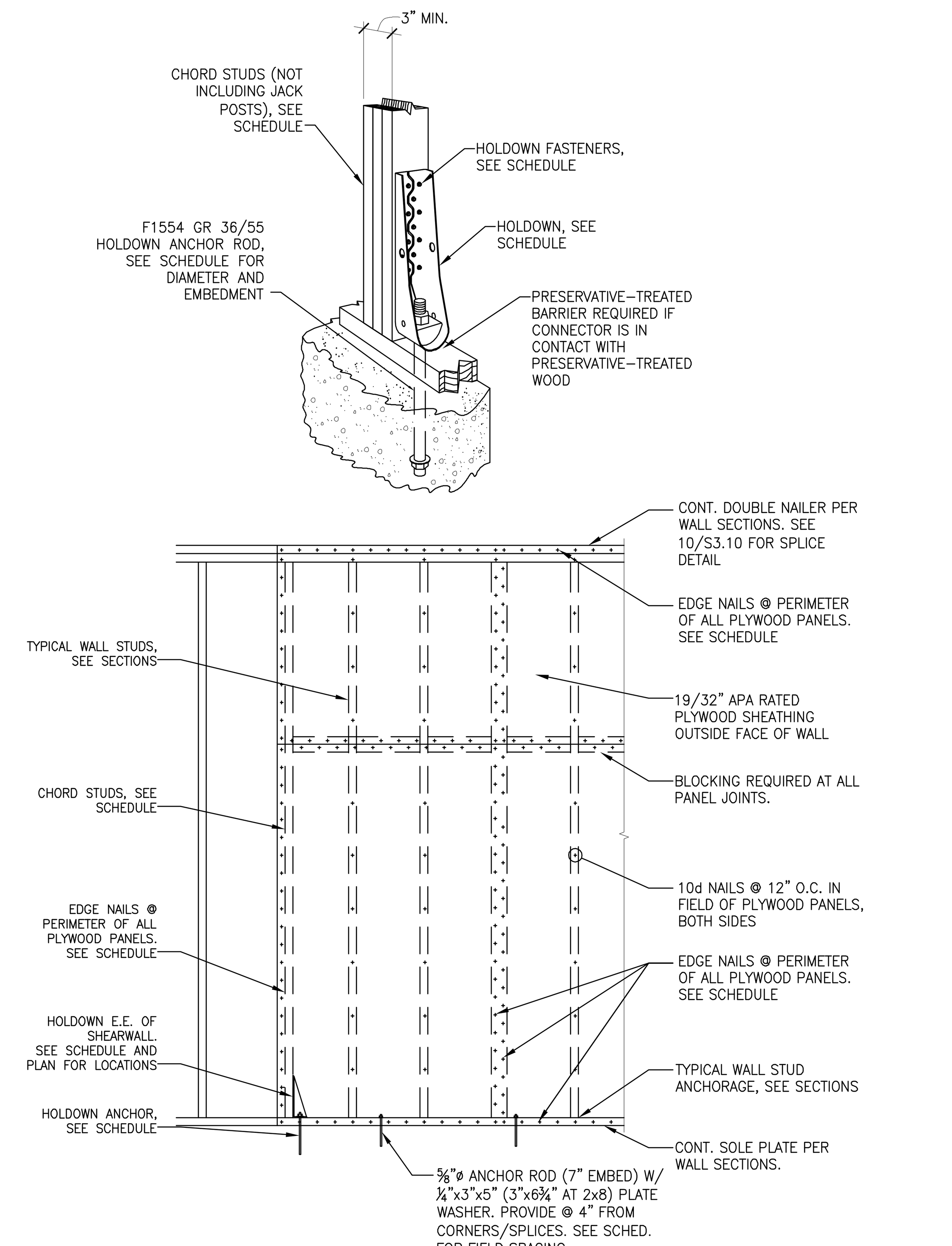
4 S2.10 SLAB EDGE DETAIL AT DOORS AND STOREFRONT
SCALE: ¾"=1'-0"



5 S2.10 THICKENED SLAB AT INTERIOR LOAD BEARING WALL
SCALE: ¾"=1'-0"



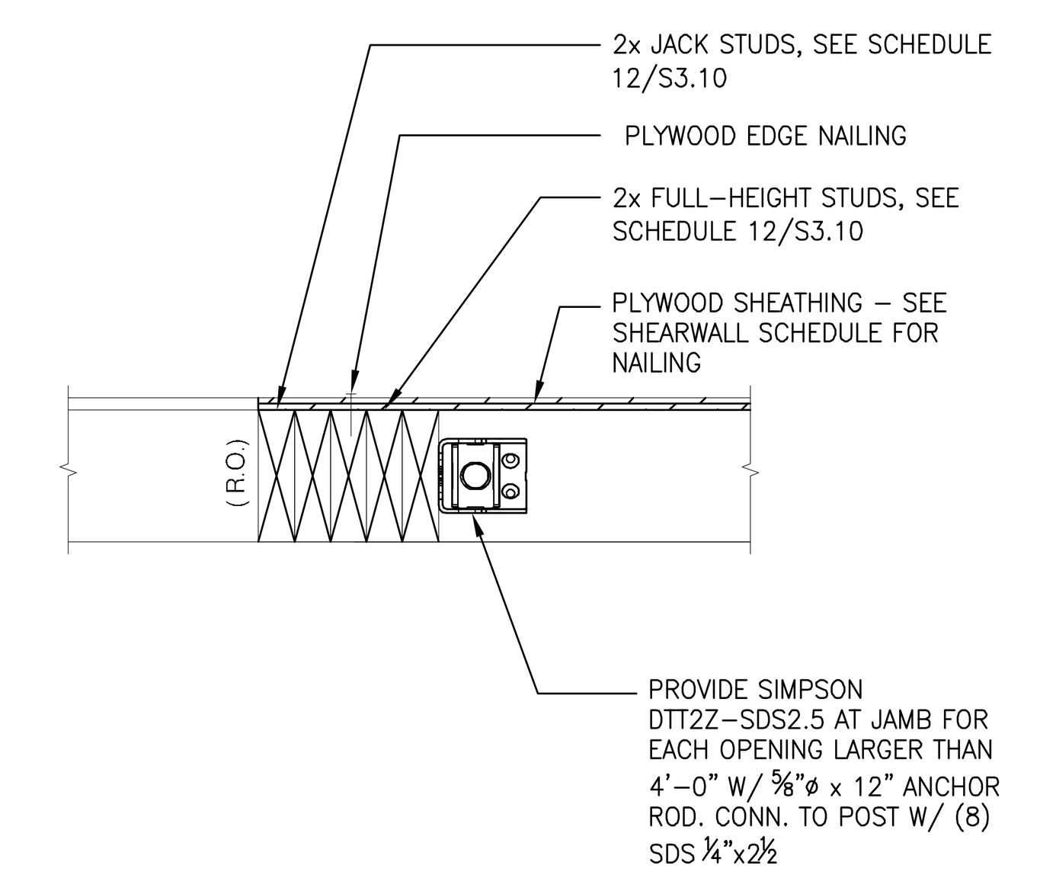
6 S2.10 SECTION AT FOOTING
SCALE: ¾"=1'-0"



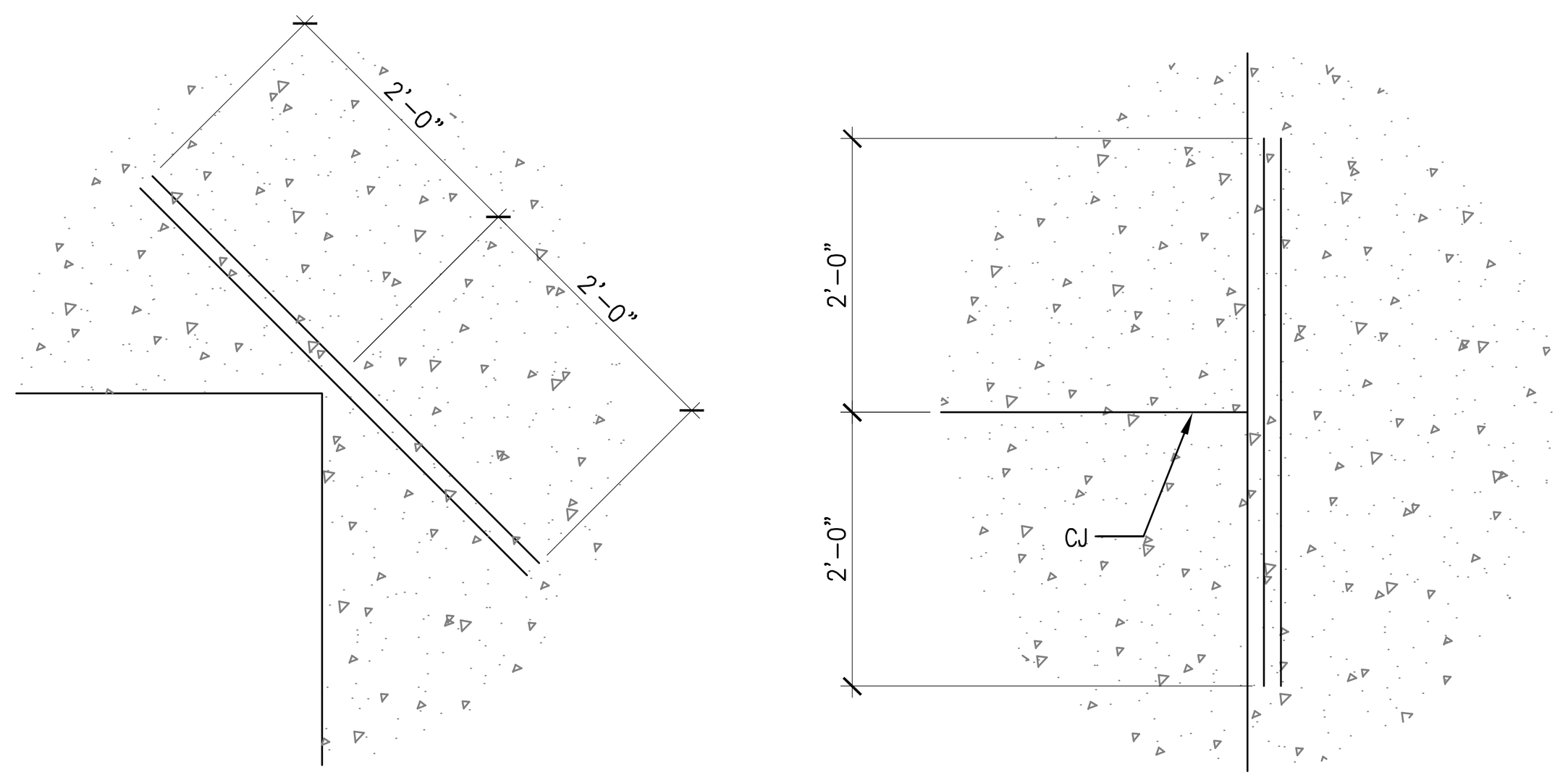
TYPE	EDGE NAILS	HOLDOWN	HOLDOWN FASTENERS	HOLDOWN ANCHOR	CHORD STUDS	ANCHOR SPAC'G
SW1	10d @ 6" O.C.	SIMPSON S/HDU2	6 SDS SCREWS	5/8"ø GR36 x 8" EMBED	2	32" O.C.
SW2	10d @ 6" O.C.	SIMPSON S/HDU8	20 SDS SCREWS	7/8"ø GR36 x 12" EMBED	3	32" O.C.
SW3	10d @ 6" O.C.	SIMPSON S/HDU11	30 SDS SCREWS	1"ø GR55 x 14" EMBED	4	24" O.C.
***	10d @ 6" O.C.	--	--	--	--	32" O.C.

*** REQUIREMENTS FOR EXTERIOR NON-SHEARWALL LOAD-BEARING WALLS

7 S2.10 SHEAR WALL ELEVATION
NOT TO SCALE



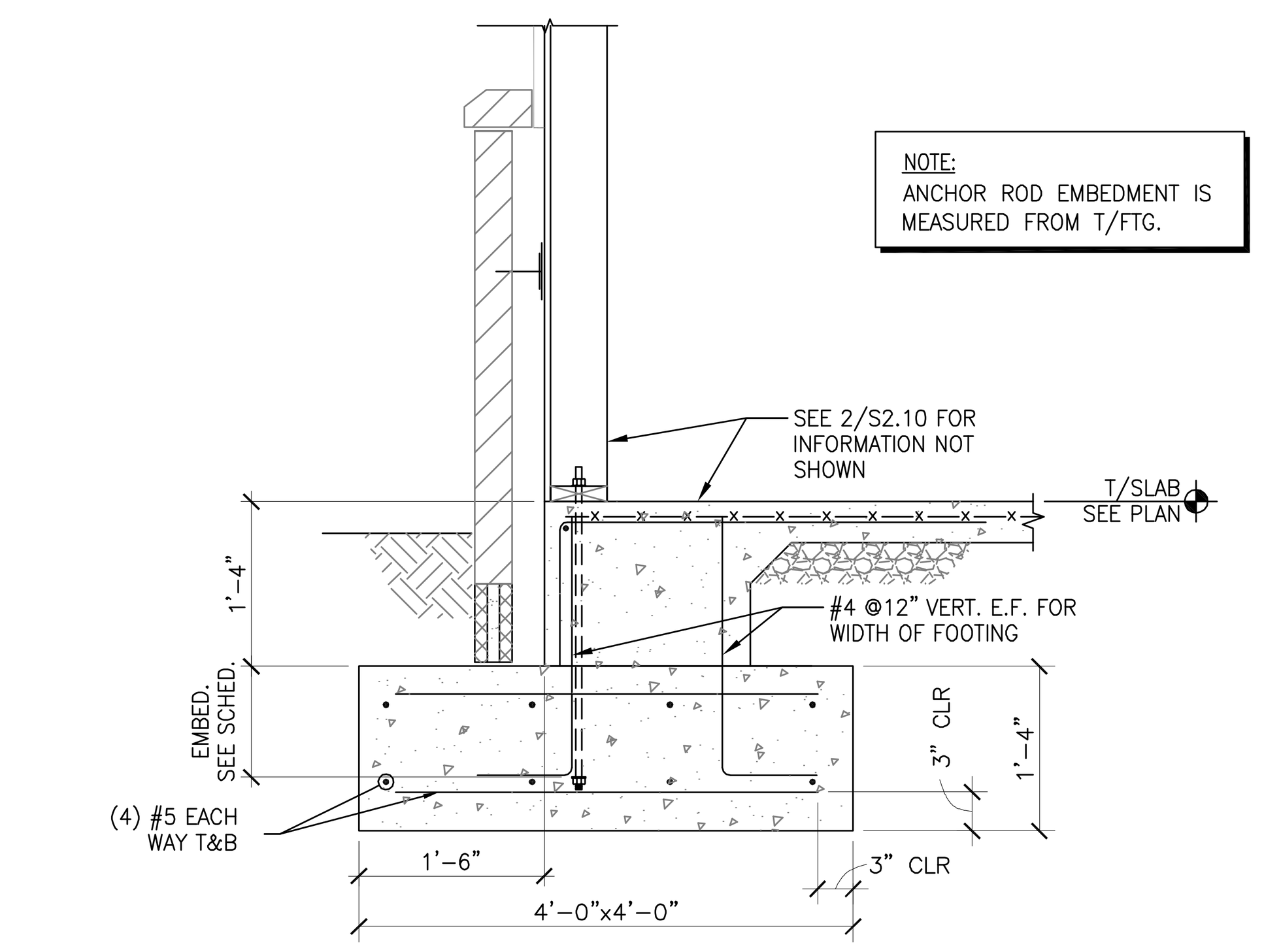
8 S2.10 JAMB ANCHORAGE
NOT TO SCALE



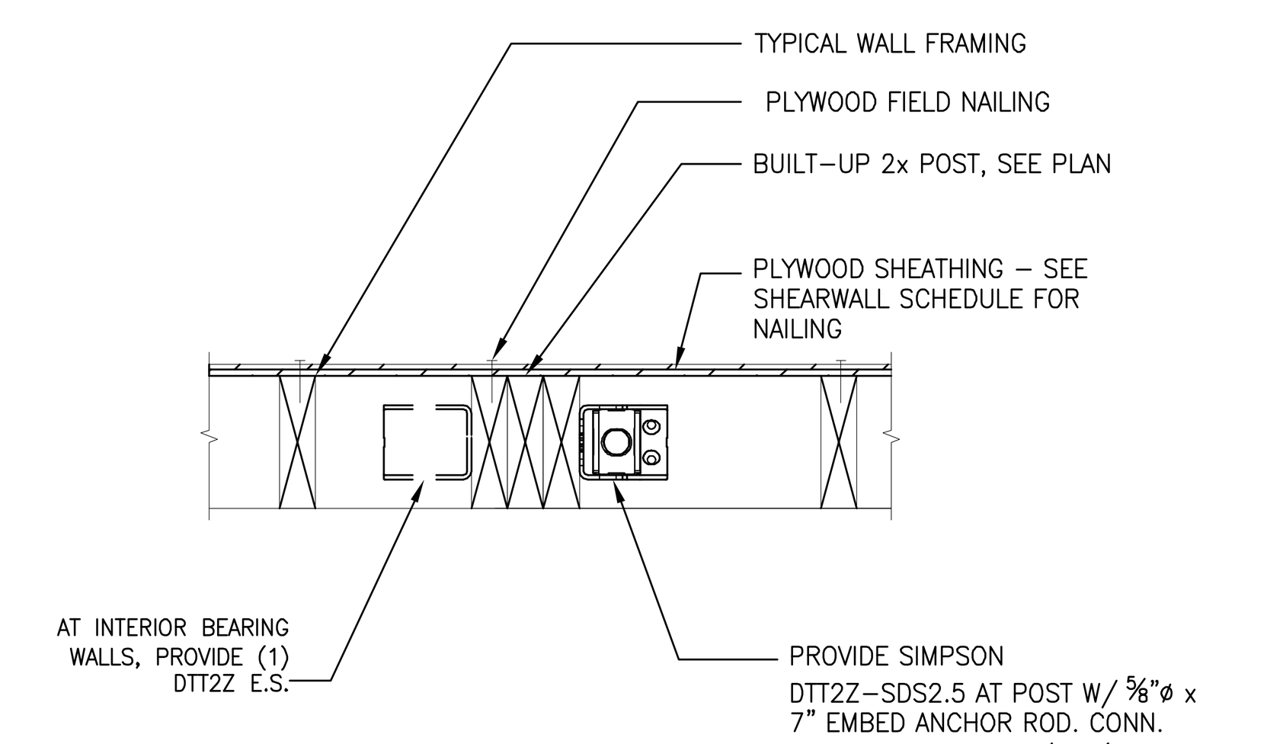
RE-ENTRANT CORNER

DISCONTINUOUS JOINT

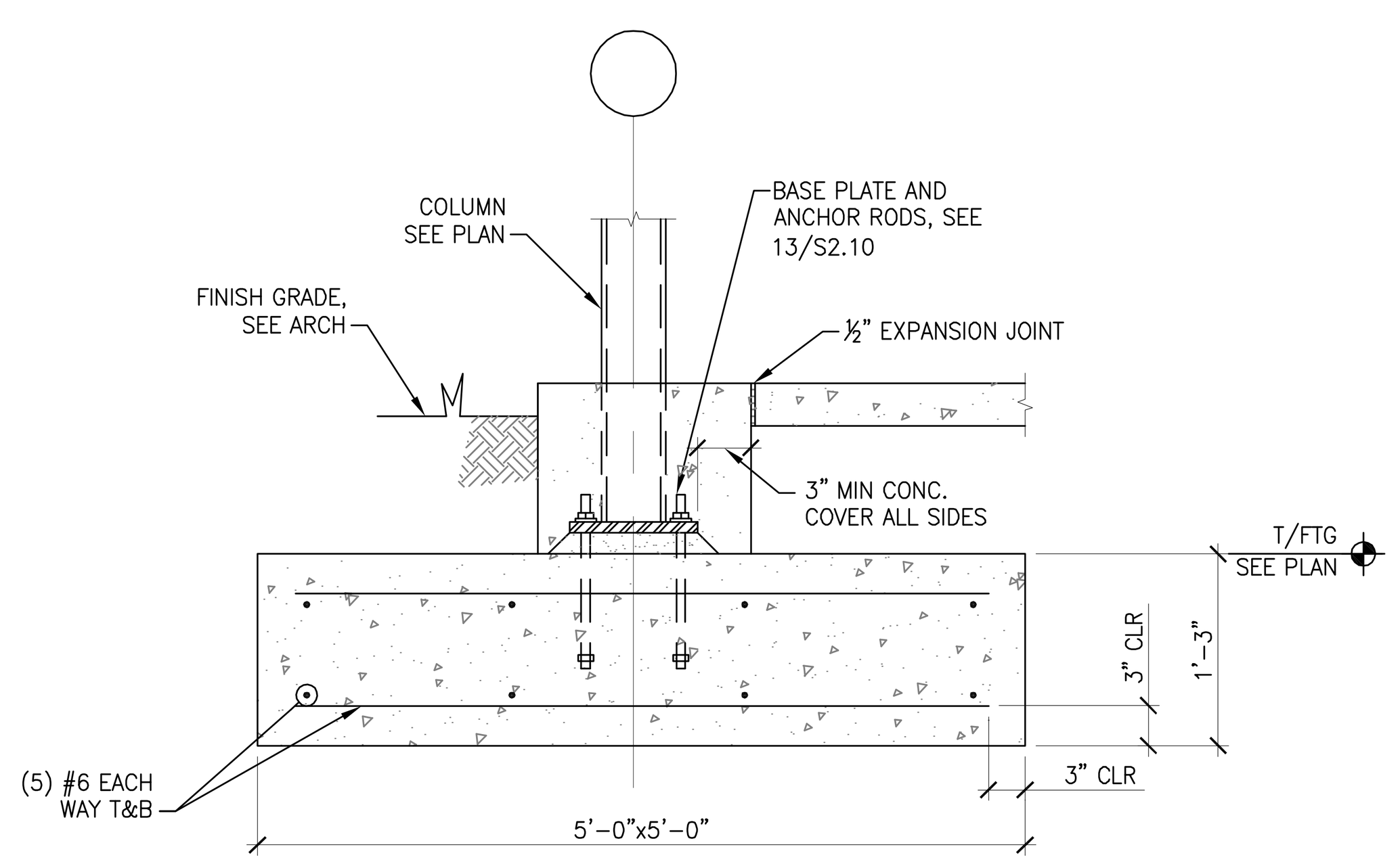
9 S2.10 TYPICAL SLAB REINFORCEMENT
SCALE: ¾"=1'-0"



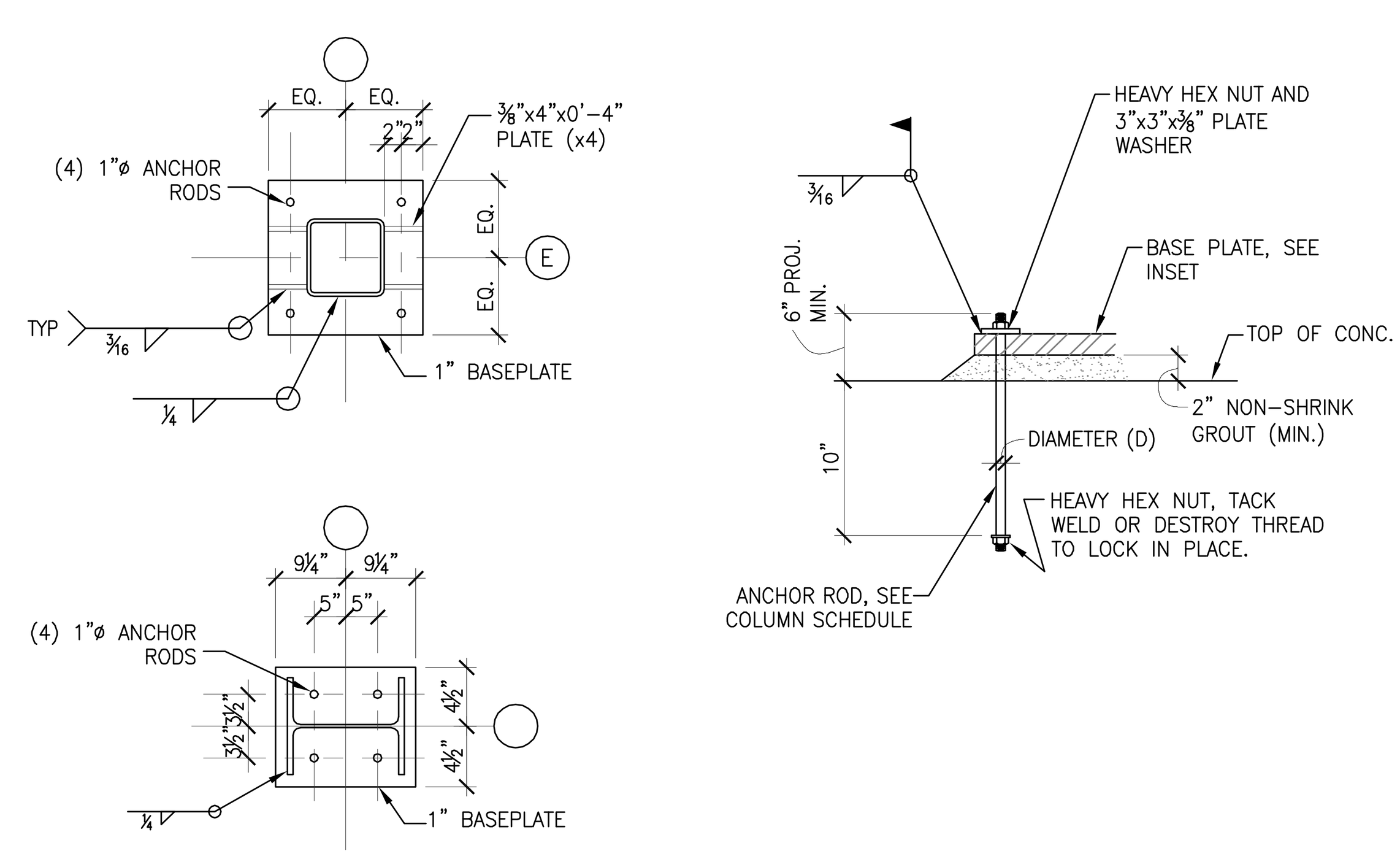
10 S2.10 SECTION AT FOOTING
NOT TO SCALE



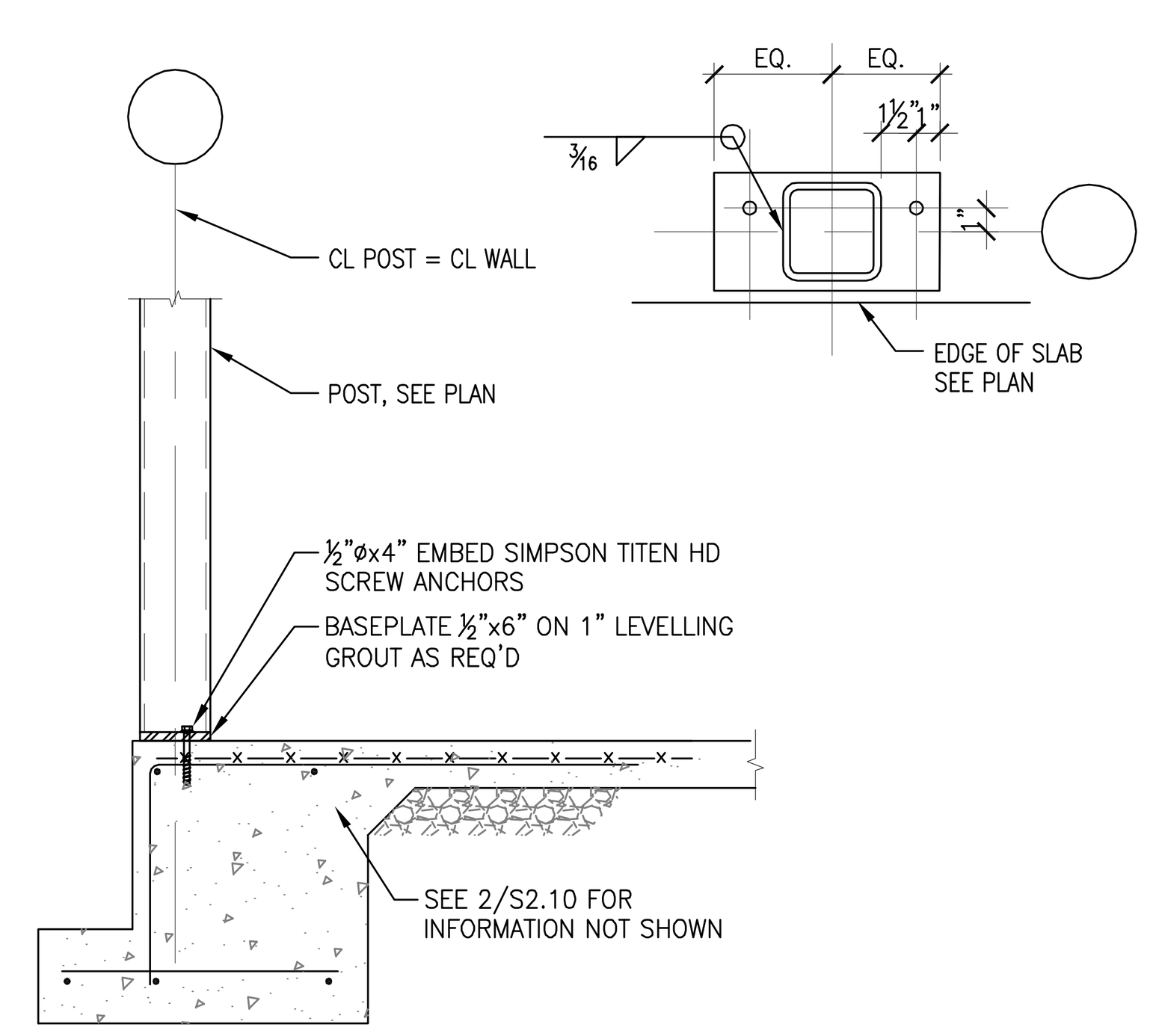
11 S2.10 POST ANCHORAGE
NOT TO SCALE



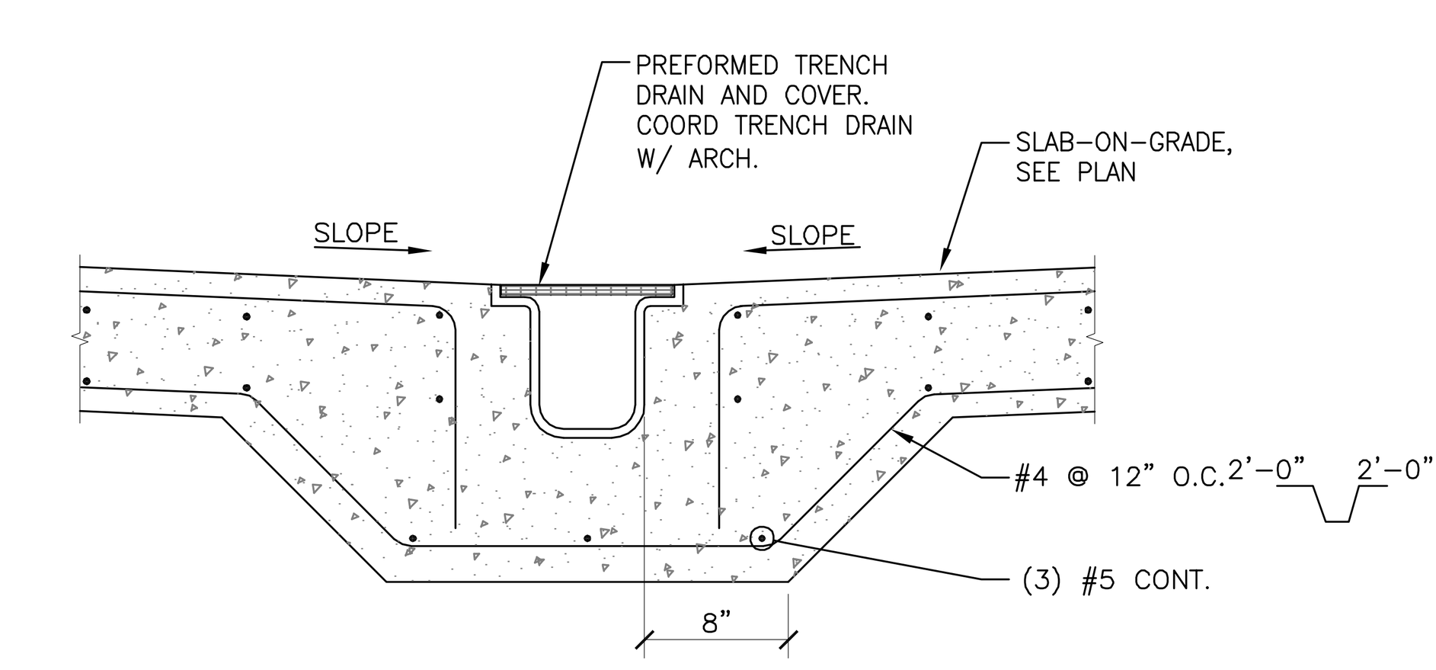
12 S2.10 EXTERIOR COLUMN DETAIL
NOT TO SCALE



13 S2.10 BASEPLATE AND ANCHOR ROD DETAIL
NOT TO SCALE



14 S2.10 SECTION AT POST
SCALE: ¾"=1'-0"



15 S2.10 SECTION AT TRENCH DRAIN
SCALE: ¾"=1'-0"

GENERAL REVISIONS TO SHEET

GOODMAN GIANNAVOLA HINES ENGINEERS
311 14th STREET SUITE 2 ATLANTA, GA 30318
GGHEngineers.com
GGHE PROJ. # 22R368
GA FIRM # PEF007706
EXP 06/2024

GEORGIA REGISTERED No. SE000762 STRUCTURAL ENGINEER CHRIS M. HINES
09/01/2022

RELEASED FOR CONSTRUCTION

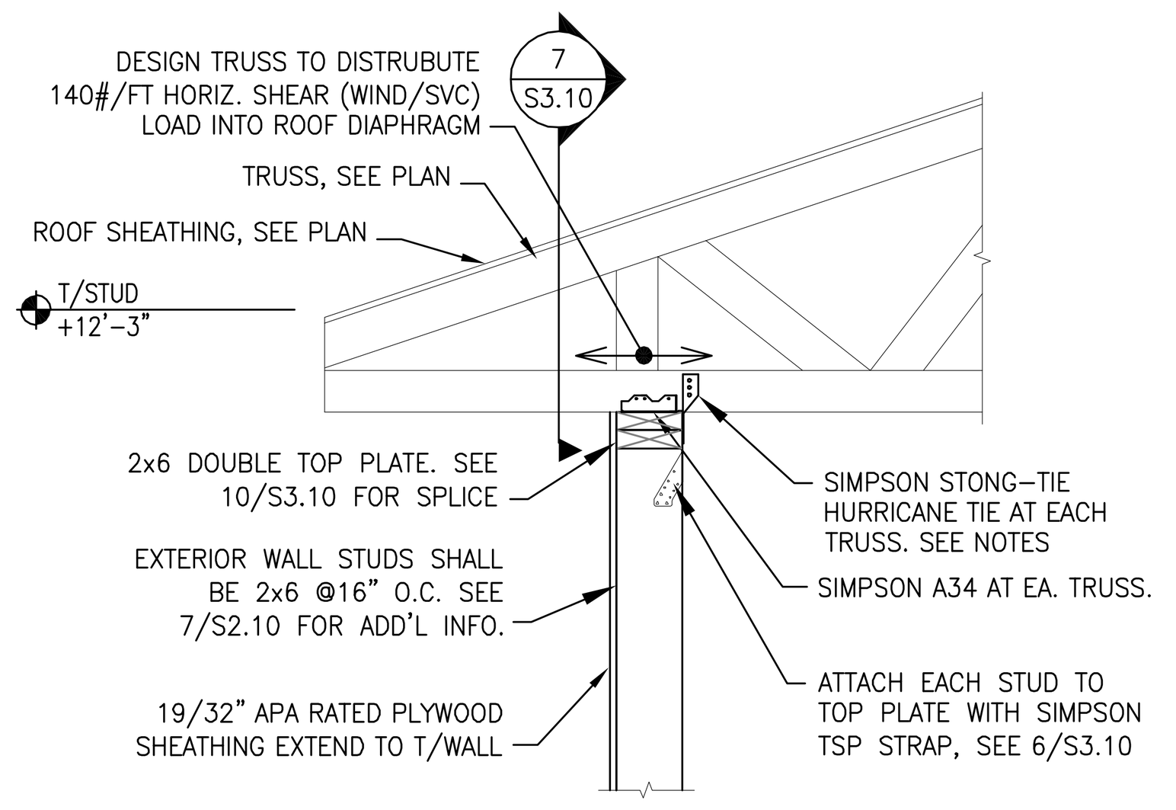
No.	Date	Description
	02.15.22	Bid Set
1	08.30.22	Revise to Wood Framing

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation for the Practice of Architecture
Tower Place Building, 3340 Peachtree Road, N.E.
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

20112

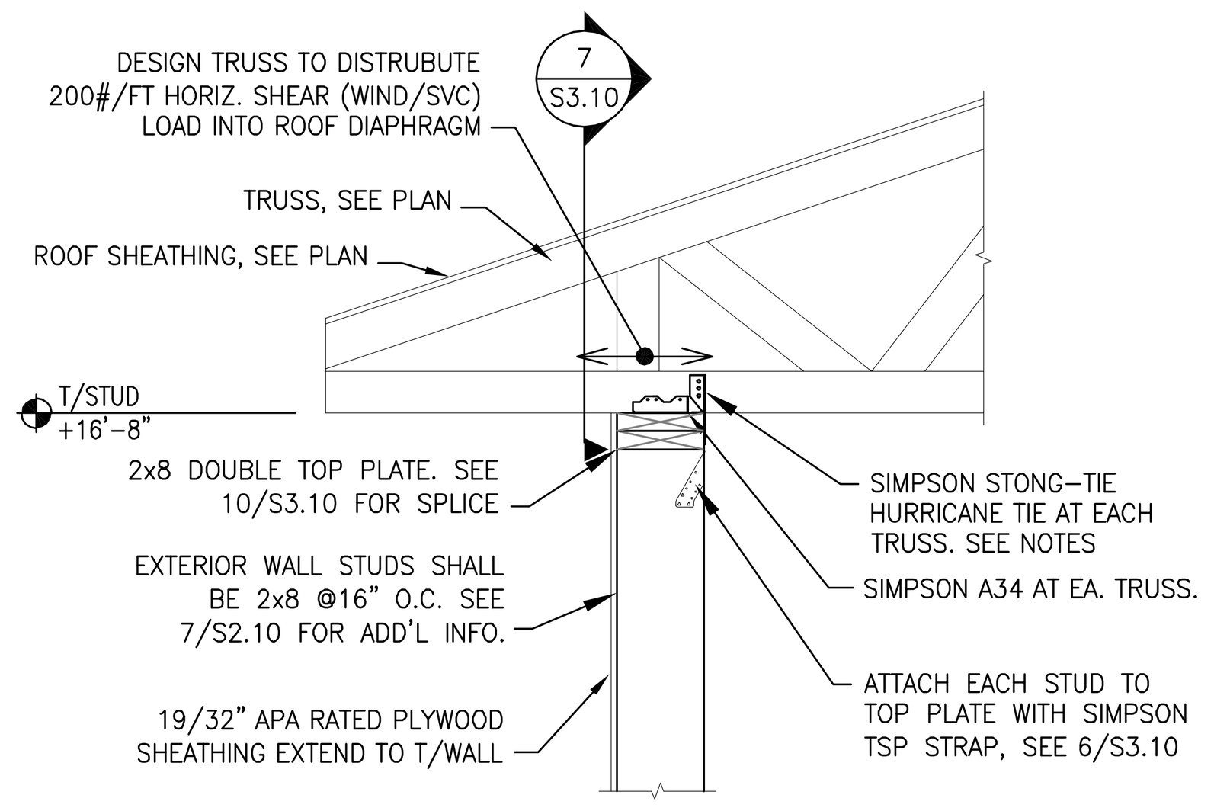
Foundation Sections and Details

S-2.10



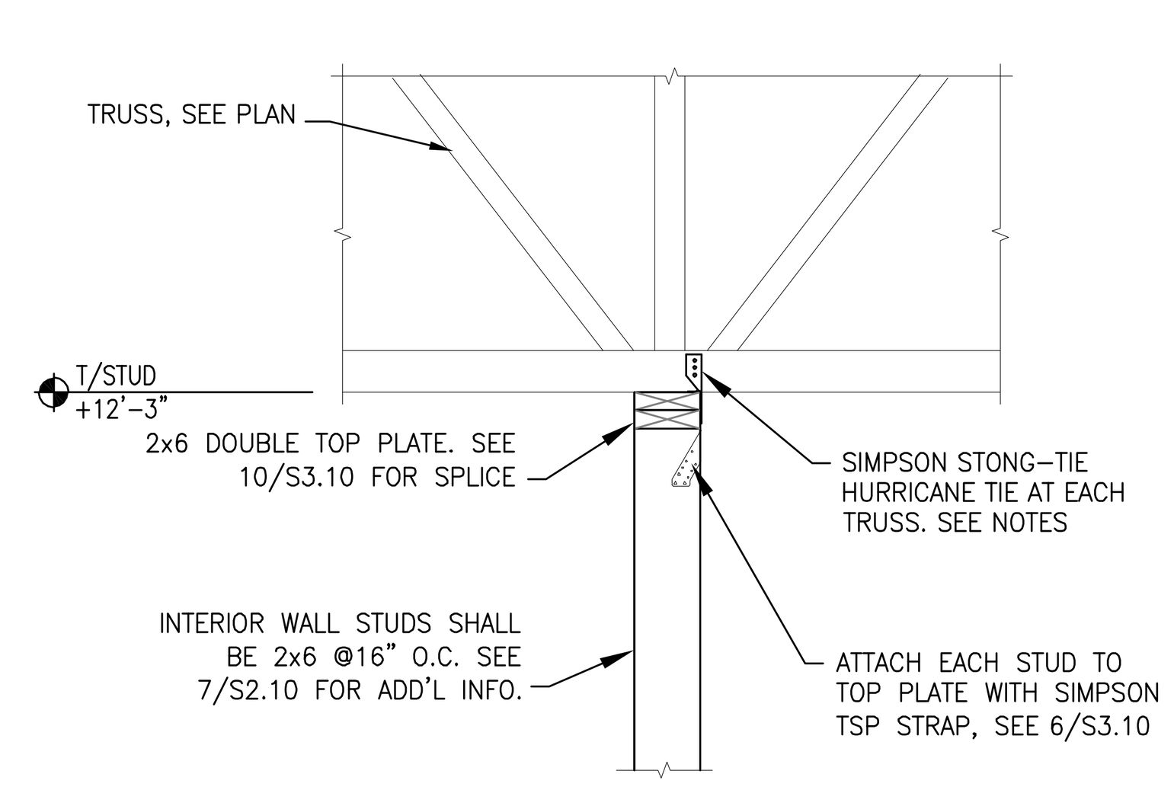
NOTES:
1. PROVIDE THE FOLLOWING SIMPSON STRONG-TIE HURRICANE TIES, MIN.:
AT TRUSSES – (1) SIMPSON H2.5A
AT J.T. AND CORNER SET TRUSSES – (1) SIMPSON H2.5A
AT TRUSS GIRDERS – LGT2/3/4 (TO MATCH TRUSS PLIES)

1 / S3.10 WALL SECTION
SCALE: ¾"=1'-0"



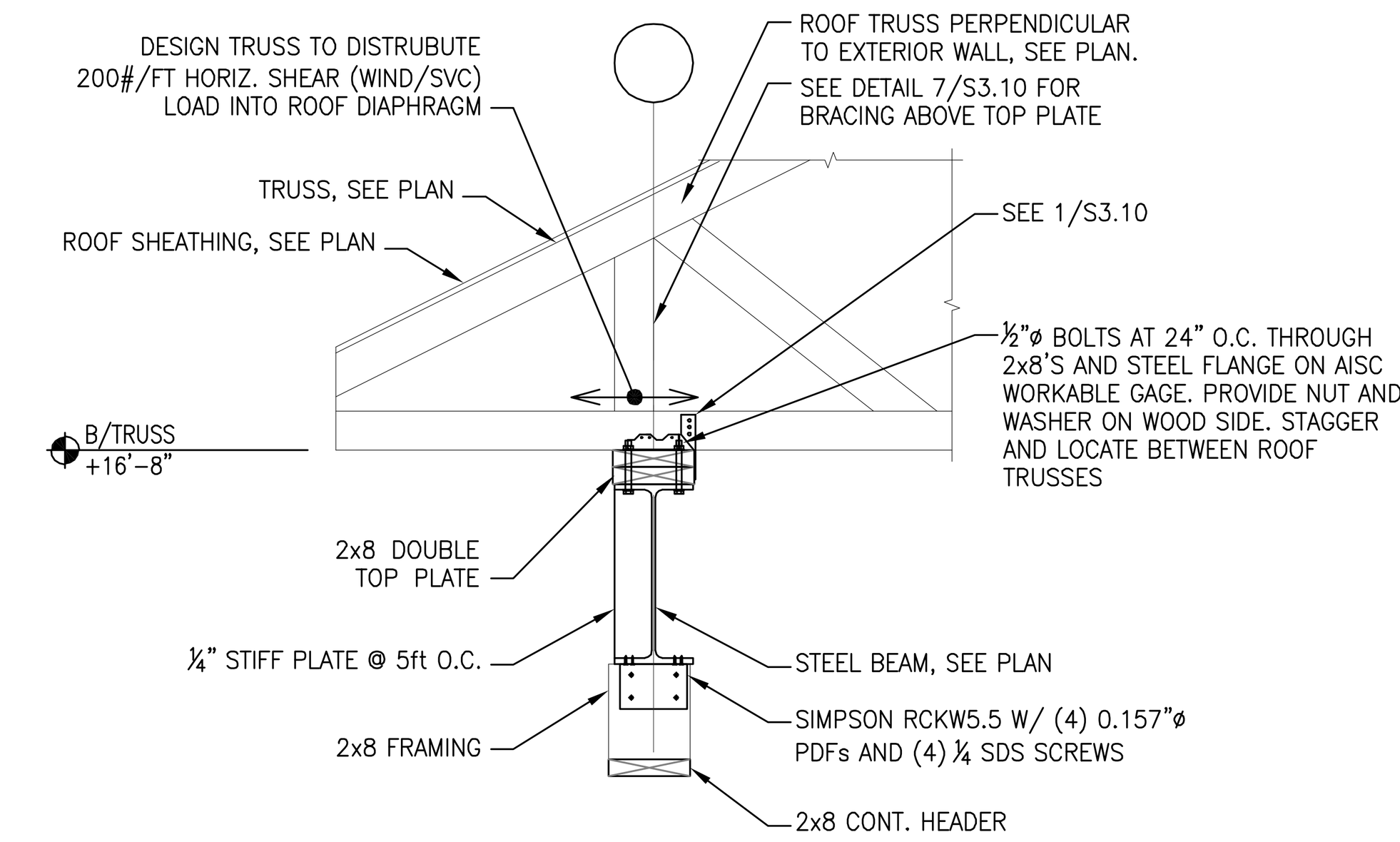
NOTES:
1. PROVIDE THE FOLLOWING SIMPSON STRONG-TIE HURRICANE TIES, MIN.:
AT TRUSSES – (1) SIMPSON H2.5A
AT J.T. AND CORNER SET TRUSSES – (1) SIMPSON H2.5A
AT TRUSS GIRDERS – LGT2/3/4 (TO MATCH TRUSS PLIES)

2 / S3.10 WALL SECTION
SCALE: ¾"=1'-0"

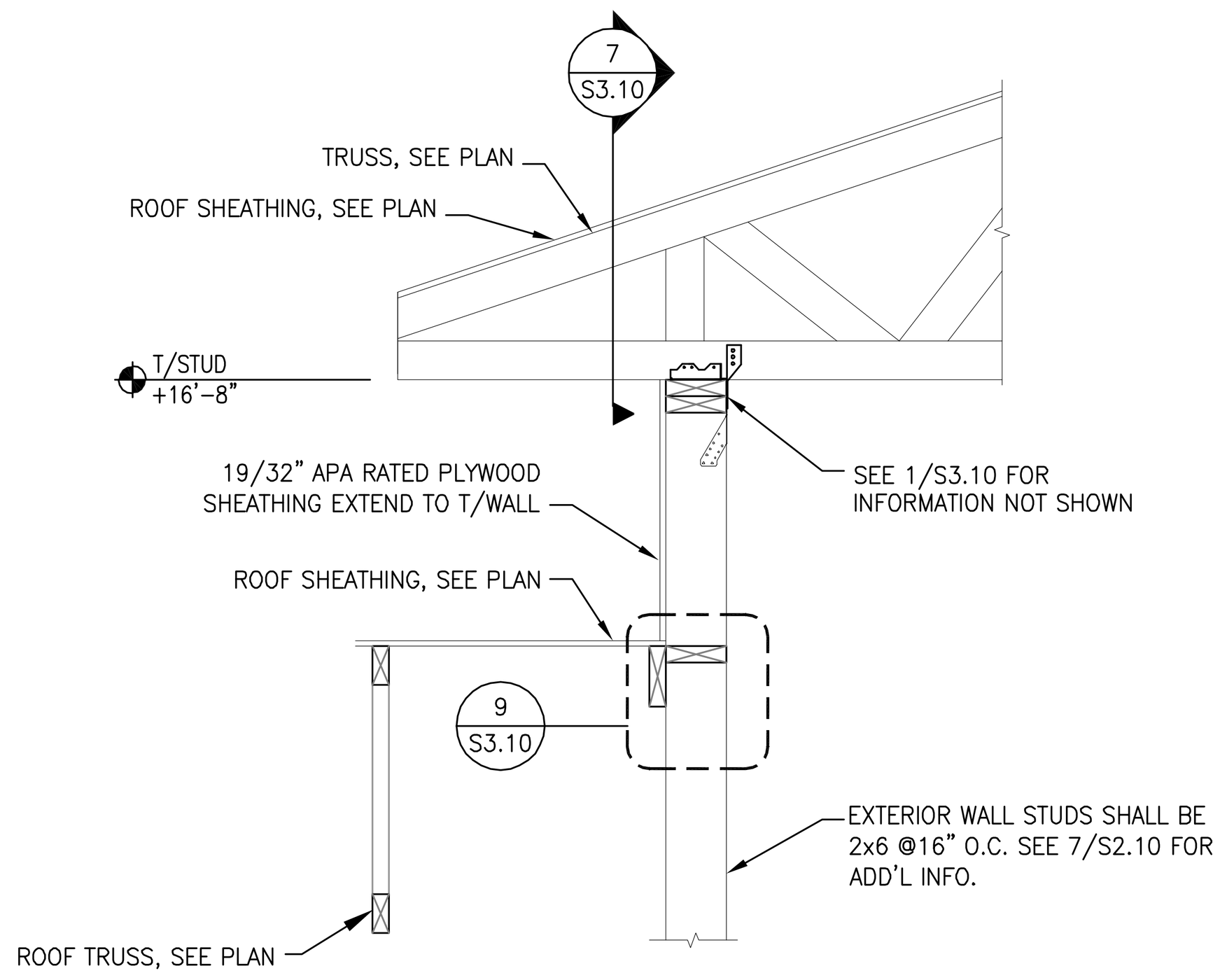


NOTES:
1. PROVIDE THE FOLLOWING SIMPSON STRONG-TIE HURRICANE TIES, MIN.:
AT TRUSSES – (1) SIMPSON H2.5A
AT TRUSS GIRDERS – LGT2/3/4 (TO MATCH TRUSS PLIES)

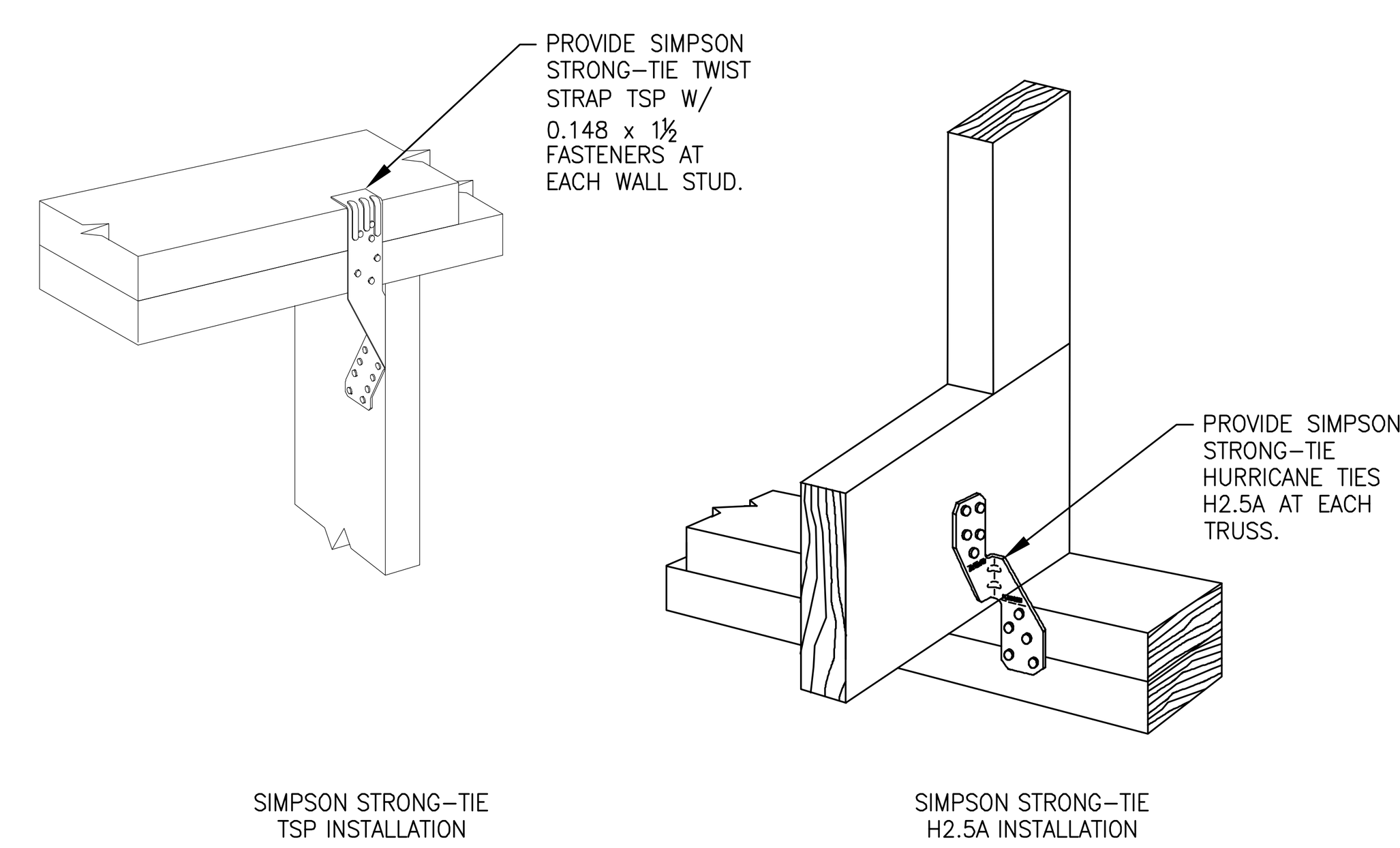
3 / S3.10 WALL SECTION
SCALE: ¾"=1'-0"



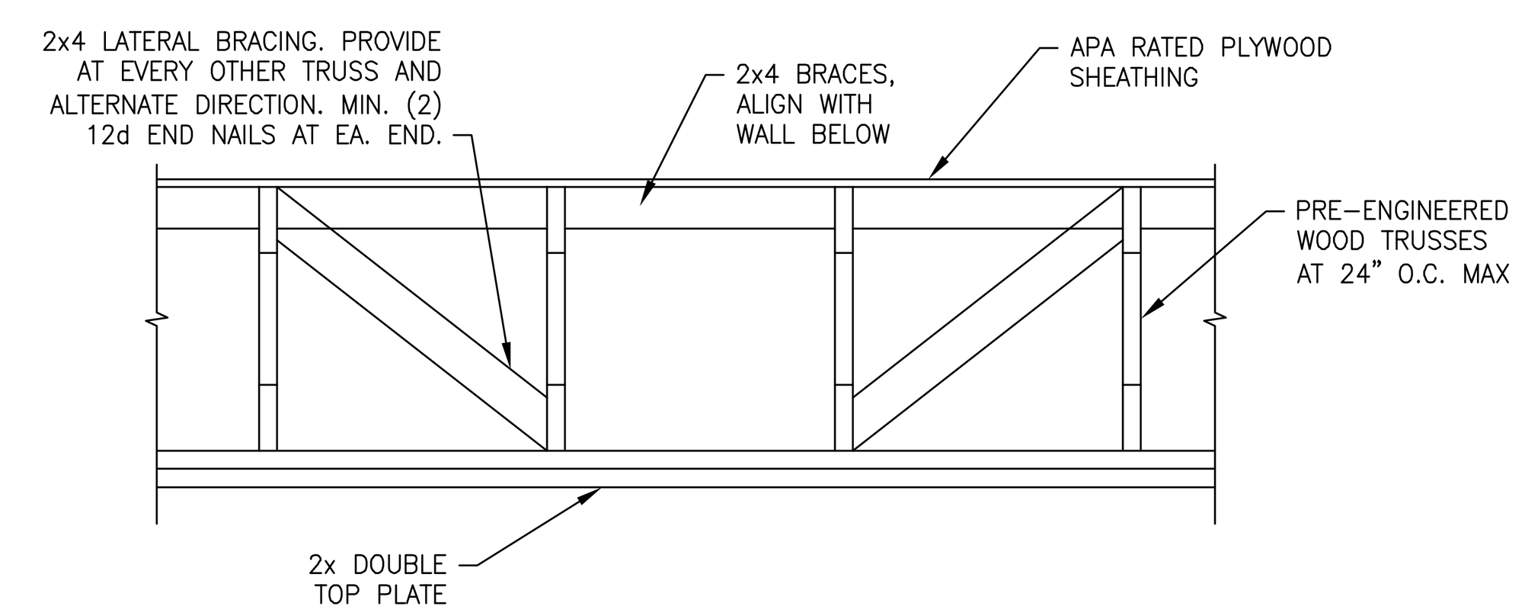
4 / S3.10 WALL SECTION
SCALE: ¾"=1'-0"



5 / S3.10 WALL SECTION
SCALE: ¾"=1'-0"

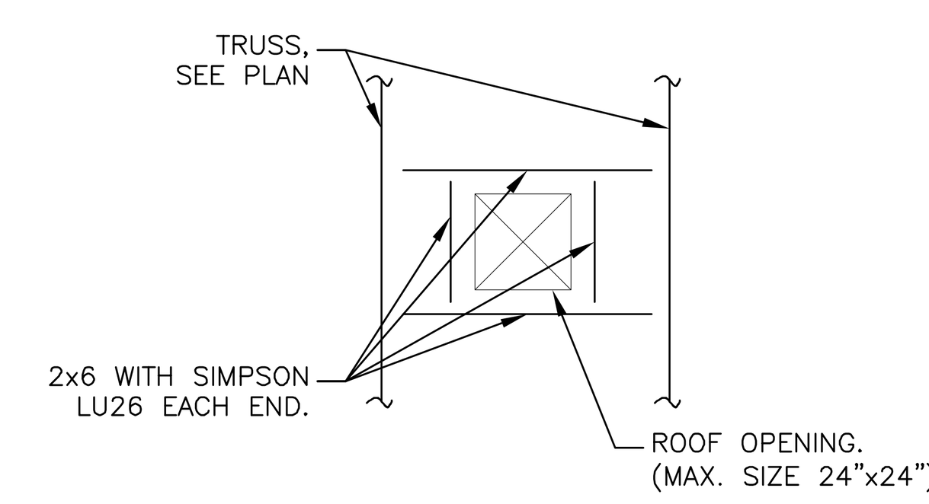


6 / S3.10 WALL/TRUSS HURRICANE TIE DETAILS
N.T.S.



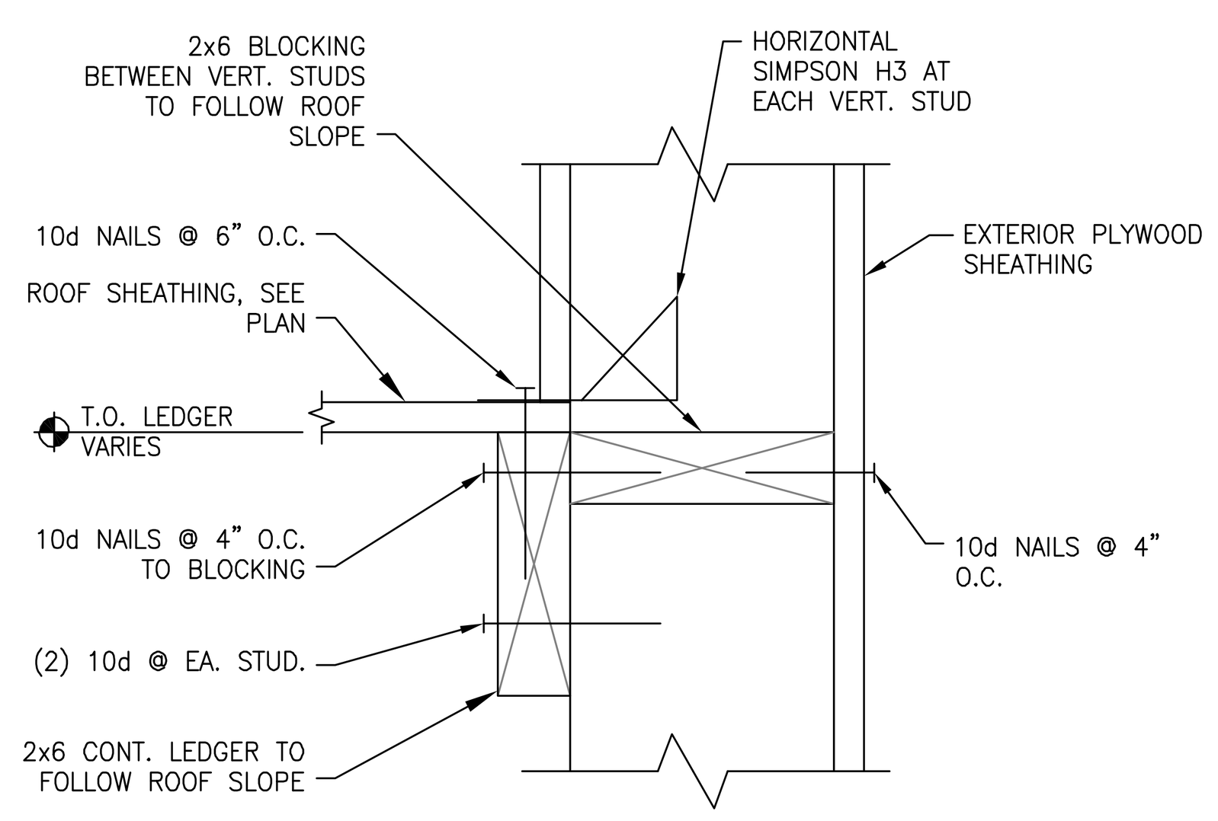
NOTES:
1. BRACING SHOWN IS IN ADDITION TO BRACING REQUIRED BY WOOD TRUSS MANUFACTURER.
2. PROVIDE TRIPLE STUD UNDER TRUSS GIRDER BEARING POINTS.

7 / S3.10 PARTIAL ELEVATION
SCALE: ¾"=1'-0"

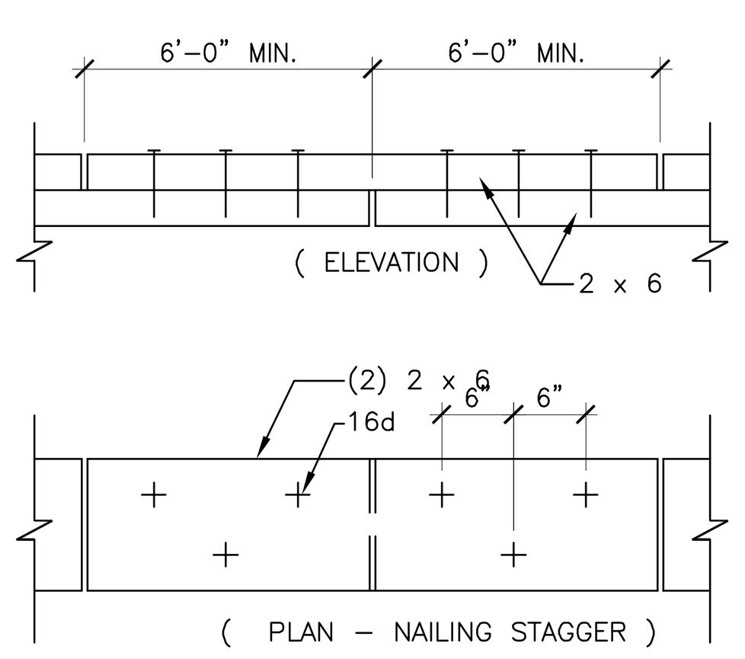


NOTES:
1. COORDINATED SIZE AND LOCATION OF ROOF OPENINGS WITH MECH. AND ARCH. DRAWINGS.

8 / S3.10 TYP. ROOF OPENING 2'-0" x 2'-0" MAX
N.T.S.

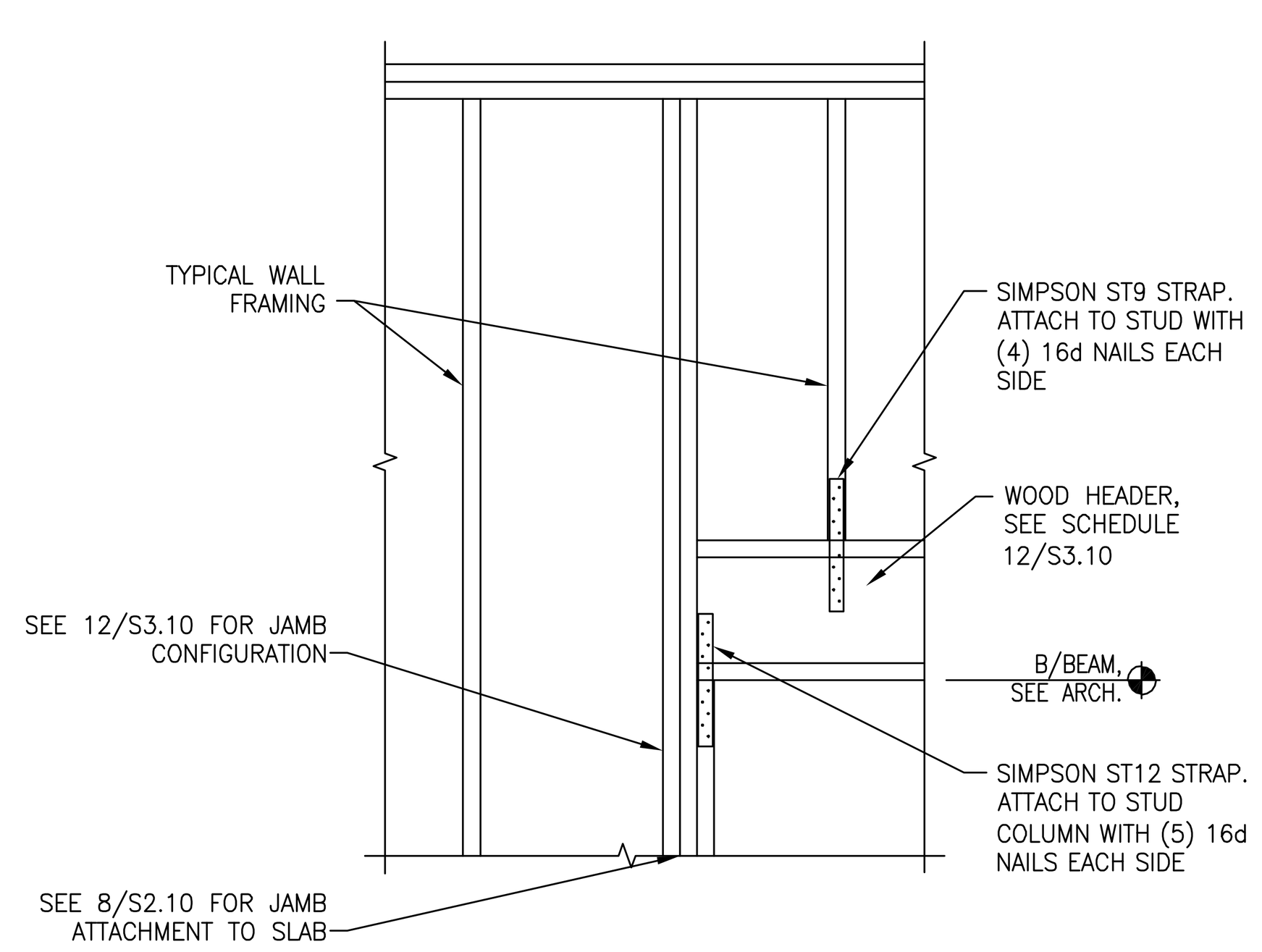


9 / S3.10 SECTION
SCALE: 3"=1'-0"



TYPICAL – ALL DOUBLE PLATE CONDITIONS – UNO

10 / S3.10 SECTION
SCALE: 3"=1'-0"



11 / S3.10 SECTION
SCALE: ¾"=1'-0"

WINDOW OR DOOR HEADER/SILL SCHEDULE						
	SPAN	SECTION	COMPOSITION	JAMB STUDS (E.S.) JACK	JAMB STUDS (E.S.) FULL HGT	WINDOW SILL
2x6 STUDWALL	0' TO 4'-0"		(3)-2x8 W/ (2) 1/2" PLYWOOD PLATES	SINGLE	DOUBLE	SINGLE
2x6 STUDWALL	4'-1" TO 6'-0"		(3)-2x12 W/ (2) 1/2" PLYWOOD PLATES	DOUBLE	DOUBLE	SINGLE
2x6 STUDWALL	6'-1" TO 8'-0"		(3) 1¾" x 9¼" L.V.L.	DOUBLE	TRIPLE	DOUBLE
2x6 STUDWALL						

NOTE:
1. SCHEDULE IS FOR HEADERS SUPPORTING ROOF LOADS ONLY
2. PROVIDE ADDITIONAL HEADER MEMBER FOR 2x8 WALL

12 / S3.10 HEADER SCHEDULE
NOT TO SCALE

CONNECTION	FASTENING [a, m]	LOCATION
1. JOIST TO SILL OR GIRDER	3 – 8d COMMON (2½"x0.131") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	TOENAIL
2. BRIDGING TO JOIST	2 – 8d COMMON (2½"x0.131") 2 – 3" x 0.131" NAILS 2 – 3" 14 GAGE STAPLES	TOENAIL EACH END
3. 1"x6" SUBFLOOR OR LESS TO EACH JOIST	2 – 8d COMMON (2½"x0.131")	FACE NAIL
4. WIDER THAN 1"x6" SUBFLOOR TO EACH JOIST	3 – 8d COMMON (2½"x0.131")	FACE NAIL
5. 2" SUBFLOOR TO JOIST OR GIRDER	2 – 16d COMMON (3½"x0.162")	BLIND AND FACE NAIL
6. SOLE PLATE TO JOIST OR BLOCKING	16d (3½"x0.135") @ 16" O.C. 3" x 0.131" NAILS @ 8" O.C. 3" 14 GAGE STAPLES @ 12" O.C.	TYPICAL FACE NAIL
SOLE PLATE TO JOIST OR BLOCKING @ BRACED WALL PANEL	3" – 16d (3½"x0.135") @ 16" 4 – 3" x 0.131" NAILS @ 16" 4 – 3" 14 GAGE STAPLES @ 16"	BRACED WALL PANELS
7. TOP PLATE TO STUD	2 – 16d COMMON (3½"x0.162") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	END NAIL
8. STUD TO SOLE PLATE	4 – 8d COMMON (2½"x0.131") 4 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	TOENAIL
	2 – 16d COMMON (3½"x0.162") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	END NAIL
9. DOUBLE STUDS	16d (3½"x0.135") @ 24" O.C. 3" x 0.131" NAILS @ 8" O.C. 3" 14 GAGE STAPLES @ 8" O.C.	FACE NAIL
10. DOUBLE TOP PLATES	16d (3½"x0.135") @ 16" O.C. 3" x 0.131" NAILS @ 12" O.C. 3" 14 GAGE STAPLES @ 12" O.C.	TYPICAL FACE NAIL
DOUBLE TOP PLATES	8 – 16d COMMON (3½"x0.162") 12 – 3" x 0.131" NAILS 12 – 3" 14 GAGE STAPLES	LAP SPLICE
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3 – 8d COMMON (2½"x0.131") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	TOENAIL
12. RIM JOIST TO TOP PLATE	8d (2½"x0.131") @ 16" O.C. 3" x 0.131" NAIL @ 8" O.C. 3" 14 GAGE STAPLE @ 6" O.C.	TOENAIL
13. TOP PLATES, LAPS, & INTERSECTIONS	2 – 16d COMMON (3½"x0.162") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	FACE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON (3½"x0.162")	16" O.C. ALONG EDGE
15. CEILING JOISTS TO PLATE	3 – 8d COMMON (2½"x0.131") 5 – 3" x 0.131" NAILS 5 – 3" 14 GAGE STAPLES	TOENAIL
16. CONTINUOUS HEADER TO STUD	4 – 8d COMMON (2½"x0.131")	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (SEE SEC. 2308.10.4.1., TABLE 2308.10.4.1)	3 – 16d COMMON (3½"x0.162") MIN. TABLE 2308.10.4.1 4 – 3" x 0.131" NAILS 4 – 3" 14 GAGE STAPLES	FACE NAIL
18. CEILING JOISTS TO PARALLEL RAFTERS (SEE SECTION 2308.10.4.1., TABLE 2308.10.4.1)	3 – 16d COMMON (3½"x0.162") MIN. TABLE 2308.10.4.1 4 – 3" x 0.131" NAILS 4 – 3" 14 GAGE STAPLES	FACE NAIL
19. RAFTER TO PLATE (SEE SECTION 2308.10.1., TABLE 2308.10.1)	3 – 8d COMMON (2½"x0.131") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	TOENAIL
20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2 – 8d COMMON (2½"x0.131") 2 – 3" x 0.131" NAILS 2 – 3" 14 GAGE STAPLES	FACE NAIL
21. 1"x8" SHEATHING TO EACH BEARING WALL	3 – 8d COMMON (2½"x0.131")	FACE NAIL
22. WIDER THAN 1"x8" SHEATHING TO EACH BEARING	3 – 8d COMMON (2½"x0.131")	FACE NAIL

CONNECTION	FASTENING [a, m]	LOCATION
23. BUILT-UP CORNER STUDS	16d COMMON (3½"x0.162") 3" x 0.131" NAILS 3" 14 GAGE STAPLES	24" O.C. 16" O.C. 16" O.C.
24. BUILT-UP GIRDER AND BEAMS	20d COMMON (4"x0.192") 32" O.C. 3" x 0.131" NAIL @ 24" O.C. 3" 14 GAGE STAPLE @ 24" O.C.	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	2 – 20d COMMON (4"x0.192") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	FACE NAIL AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	16d COMMON (3½"x0.162")	AT EACH BEARING
26. COLLAR TIE TO RAFTER	3 – 10d COMMON (3"x0.148") 4 – 3" x 0.131" NAILS 4 – 3" 14 GAGE STAPLES	FACE NAIL
27. JACK RAFTER TO HIP	3 – 10d COMMON (3"x0.148") 4 – 3" x 0.131" NAILS 4 – 3" 14 GAGE STAPLES	TOENAIL
	2 – 16d COMMON (3½"x0.162") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	FACE NAIL
28. ROOF RAFTER TO 2x RIDGE BEAM	2 – 16d COMMON (3½"x0.162") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	TOENAIL
	2 – 16d COMMON (3½"x0.162") 3 – 3" x 0.131" NAILS 3 – 3" 14 GAGE STAPLES	FACE NAIL
29. JOIST TO BAND JOIST	3 – 16d COMMON (3½"x0.162") 4 – 3" x 0.131" NAILS 4 – 3" 14 GAGE STAPLES	FACE NAIL
30. LEDGER STRIP	3 – 16d COMMON (3½"x0.162") 4 – 3" x 0.131" NAILS 4 – 3" 14 GAGE STAPLES	FACE NAIL
31. WOOD STRUCTURAL PANELS AND PARTICLEBOARD [b] SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING)	½" AND LESS: 6d [c,l]; 2⅜"x0.113" NAIL [n]; 1¾" 16 GAGE [o] 19/32" TO ¾": 8d [d] OR 6d [e]; 2⅜"x0.113" NAIL [p]; 2" 16 GAGE [p] ⅞" TO 1": 8d [c] 1⅛" TO 1¼": 10d [d] OR 8d [e]	
SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING):	¾" AND LESS: 6d [e] ⅞" TO 1": 8d [e] 1⅛" TO 1¼": 10d [d] OR 8d [e]	
32. PANEL SIDING (TO FRAMING)	½" OR LESS: 6d [f] ⅝": 8d [f]	
33. FIBERBOARD SHEATHING: [g]	½": NO. 11 GAGE ROOFING NAIL [h]; 6d COMMON NAIL (2"x0.113"); NO. 16 GAGE STAPLE [i] 25/32": NO. 11 GAGE ROOFING NAIL [h]; 8d COMMON NAIL (2½"x0.131"); NO. 16 GAGE STAPLE [i]	
34. INTERIOR PANELING	¼": 4d [j] ⅜": 6d [k]	

a. Common or box nails are permitted to be used except where otherwise stated.
b. Nails spaced at 6" on center at edges, 12" at intermediate supports except 6" at supports where spans are 48" or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
c. Common or deformed shank (6d – 2"x0.113"; 8d – 2½"x0.131"; 10d – 3"x0.148").
d. Common (6d – 2"x0.113"; 8d – 2½"x0.131"; 10d – 3"x0.148").
e. Deformed shank (6d – 2"x0.113"; 8d – 2½"x0.131"; 10d – 3"x0.148").
f. Corrosion-resistant siding (6d – 1⅞"x0.106"; 8d – 2⅜"x0.128") or casing (6d – 2"x0.099"; 8d – 2½"x0.113") nail.
g. Fasteners spaced 3" on center at exterior edges and 6" on center at intermediate supports, when used as structural sheathing. Spacing shall be 6" on center on the edges and 12" on center at intermediate supports for nonstructural applications.
h. Corrosion-resistant roofing nails with 7/16" diameter head and 1½" length for ½" sheathing and 1¾" length for 25/32" sheathing.
i. Corrsion-resistant staples with nominal 7/16" crown and 1⅛" length for ½" sheathing and 1½" length for 25/32" sheathing. Panel supports at 16" (20" if strength axis in the long direction of the panel, unless noted otherwise.
j. Casing (1½"x0.080") or finish (1½"x0.072") nails spaced 6" on panel edges, 12" at intermediate supports.
k. Panel supports at 24". Casing or finish nails spaced 6" on panel edges, 12" at intermediate supports.
l. For roof sheathing applications, 8d nails (2½"x0.113") are the minimum required for wood strucutral panels.
m. Staples shall have a minimum crown width of 7/16".
n. For roof sheathing applications, fasteners spaced 4" on center at edges, 8" at intermediate supports.
o. Fasteners spaced 4" on center at edges, 8" at intermediate supports for subfloor and wall sheathing and 3" on center at edges, 6" at intermediate supports for roof sheathing.
p. Fasteners spaced 4" on center at edges, 8" at intermediate supports.

13 / S3.10 WOOD MEMBER FASTENING SCHEDULE
N.T.S.

GENERAL REVISIONS TO SHEET

GGHE PROJ. # 22RS68
GOODMAN GIANNAVOLA HINES ENGINEERS
311 14th STREET SUITE 2 ATLANTA, GA 30318
GGHEngineers.com
GA FIRM # PEF007706
EXP 06/2024

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED No. 38000763 STRUCTURAL CHRIS M. HINES
09/01/2022

RELEASED FOR CONSTRUCTION

Revisions — REVISIONS

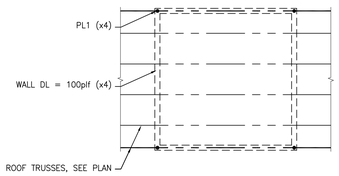
No.	Date	Description
	02.15.22	Bid Set
1	08.30.22	Revise to Wood Framing

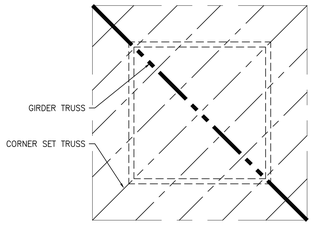
Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation for the Practice of Architecture
Tower Place Building,
3340 Peachtree Road, N.E.
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

20112

Sections and Details

S-3.10

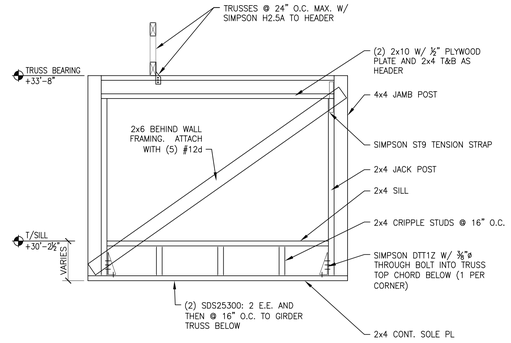




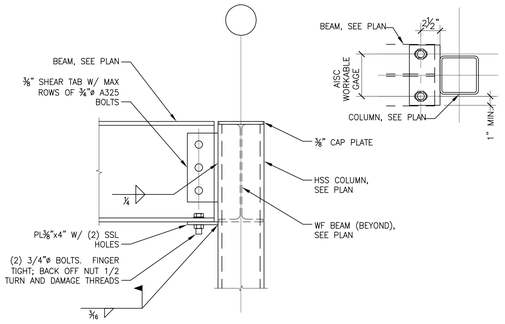
ROOF FRAMING PLAN NOTES:

1. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER. FOR ADDITIONAL INFORMATION SEE ARCHITECTURAL DRAWINGS.
2. SEE ARCHITECTURE FOR TOP OF FINISHED ROOF ELEVATIONS, ROOF SLOPES AND ROOF DRAIN LOCATIONS.
3. ROOF TRUSS MANUFACTURER SHALL DESIGN THE FEATURE ROOF TRUSSES AND THE MAIN TRUSSES CONSIDERING ALL LOADS PROVIDED.
4. TRUSS BEARING ELEVATION = +21'-7½" U.N.O.
5. TRUSSES SHALL BE SPACED AT 2'-0" O.C. MAX.
6. SEE SHEET S-0.10 FOR LOADS ON ROOF TRUSSES. SEE ROOF PLAN AND SECTIONS AND DETAILS FOR ADDITIONAL LOADS ON ROOF TRUSSES.
7. PROVIDE MULTIPLE TRUSSES (DOUBLE, ETC.) AS REQUIRED TO SUPPORT THE LOADS.
8. PL1 (ASD) = 1k# D; 1k Lr; +1k/-2k W; +1.2k/-0.8k E

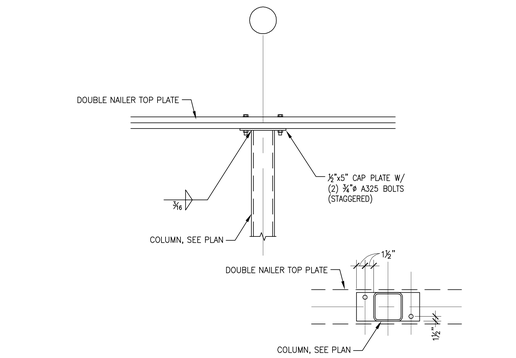
1 S3.20 HIGH ROOF FRAMING PLAN
SCALE: NONE



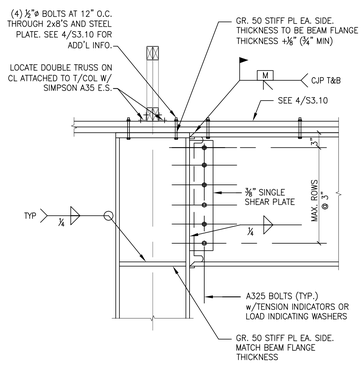
2 S3.20 TYPICAL CUPOLA WALL ELEVATION
SCALE: ¾"=1'-0"



3 S-302 BEAM CONN. TO COLUMN
SCALE: 1-1/2"=1'-0"

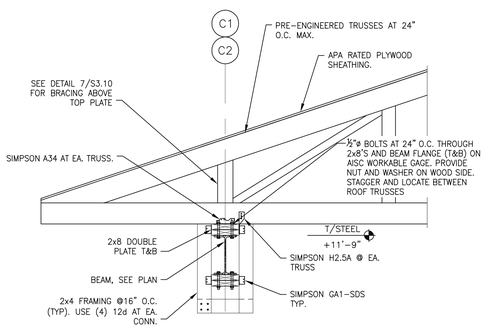


4 S3.20 FREESTANDING COLUMN IN WALL
SCALE: ¾"=1'-0"

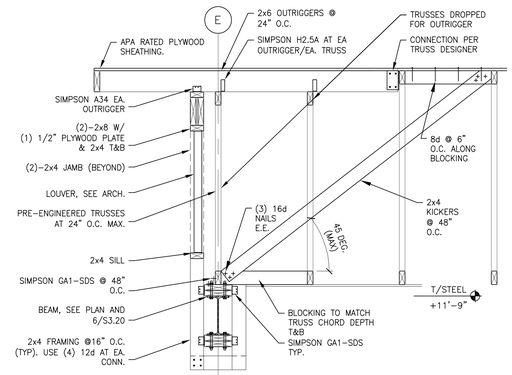


NOTES:
CJP WELDS ARE DEMAND CRITICAL
WELD ACCESS HOLE GEOMETRY SHALL CONFORM TO AWS D1.8 SUBCLAUSE 6.10.1.2. QUALITY REQUIREMENTS SHALL BE IN ACCORDANCE WITH SUBCLAUSE 6.10.2.

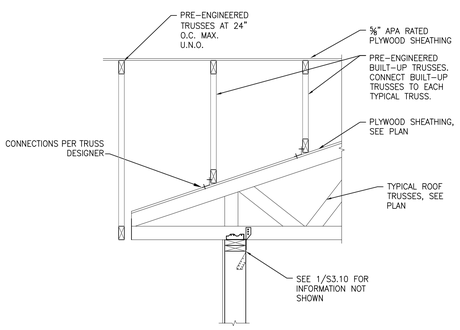
5 S3.20 ROOF BEAM TO COLUMN MOMENT CONN.
SCALE: NONE



6 S3.20 SECTION AT CANOPY
SCALE: ¾"=1'-0"

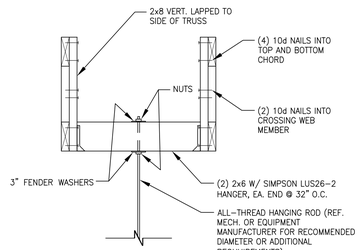


7 S3.20 SECTION AT CANOPY
SCALE: ¾"=1'-0"



8 S3.20 OVERBUILD FRAMING
SCALE: ¾"=1'-0"

NOTE:
SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION



9 S3.20 SECTION AT EQUIPMENT HUNG FROM TRUSSES
SCALE: ¾"=1'-0"

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED No. SE000762 STRUCTURAL ENGINEER
CHRIS M. HINES
09/01/2022

RELEASED FOR CONSTRUCTION

Revisions REVISIONS

No.	Date	Description
	02.15.22	Bid Set
1	08.30.22	Revise to Wood Framing

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation for the Practice of Architecture

Tower Place Building,
3340 Peachtree Road, N.E.

Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

20112

Sections and Details

S-3.20

⚠ GENERAL REVISIONS TO SHEET

GGHE PROJ. # 22R568
GOODMAN GIANNAVOLA HINES ENGINEERS
311 14th STREET SUITE 2
ATLANTA, GA 30318
GGHEngineers.com
GA FIRM # PEF007706 EXP 06/2024

SPECIFICATIONS

DUCTWORK AND ACCESSORIES:

INDUSTRY STANDARDS: COMPLY WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION) HVAC DUCT CONSTRUCTION STANDARDS, RECOMMENDATIONS FOR FABRICATION, GAUGES, CONSTRUCTION AND DETAILS, AND INSTALLATION PROCEDURES, EXCEPT AS OTHERWISE INDICATED.

COMPLY WITH ASHRAE (AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS) FUNDAMENTALS HANDBOOK RECOMMENDATIONS, EXCEPT AS OTHERWISE INDICATED.

DUCTWORK METAL AND GAUGES: EXCEPT AS OTHERWISE INDICATED, FABRICATE DUCTWORK FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A527, LOCKFORMING QUALITY, WITH ASTM A525 G90 ZINC COATING, MILL PHOSPHATIZED. GAUGES TO COMPLY WITH SMACNA STANDARDS.

DUCT SEALANT: NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT (TYPE APPLICABLE FOR THE FABRICATION/INSTALLATION DETAIL) AS COMPOUNDED AND RECOMMENDED BY THE MANUFACTURER SPECIFICALLY FOR SEALING JOINTS AND SEAMS IN DUCTWORK.

DUCTWORK SUPPORT MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE UPPER ATTACHMENT, HANGERS OF GALVANIZED STEEL STRAPS, OR STEEL RODS AND LOWER ATTACHMENT FOR SUPPORT OF DUCTWORK. HANGING/SUPPORT SYSTEMS SHALL BE IN ACCORDANCE WITH SMACNA REQUIREMENTS.

EXPOSED DUCTWORK SHALL BE DOUBLE-WALL SPIRAL PIPE WITH PAINT GRIP UNLESS OTHERWISE NOTED OR SUBSTITUTION APPROVED BY OWNER.

VOLUNTARY ALTERNATE EXPOSED DUCTWORK SHALL BE SINGLE-WALL SPIRAL PIPE UNLESS OTHERWISE NOTED OR SUBSTITUTION APPROVED BY OWNER. ALL EXPOSED DUCTWORK SHALL BE LINED IN LIEU OF WRAPPED. DUCT LINER THERMAL RESISTANCE SHALL MEET THE MINIMUM VALUES SPECIFIED IN PARAGRAPH 'DUCT INSULATION' BELOW.

DUCT INSULATION:

R-5 SUPPLY, OUTSIDE AND RETURN AIR DUCT INSULATION IN UNCONDITIONED SPACES
R-8 SUPPLY AND RETURN AIR DUCT INSULATION OUTSIDE THE BUILDING
R-8 INSULATION BETWEEN DUCTS AND THE BUILDING EXTERIOR WHEN DUCTS ARE PART OF A BUILDING ASSEMBLY

DIFFUSERS, GRILLES, & REGISTERS:

EGGCRATE GRILLE:

RETURN GRILLES SHALL BE TITUS MODEL 50F FOR THE SIZES AND MOUNTING TYPES AS SHOWN ON THE PLANS AND OUTLET SCHEDULE. RETURN GRILLES MUST PROVIDE A FREE AREA OF AT LEAST 80%. OUTER BORDERS SHALL BE CONSTRUCTED OF HEAVY EXTRUDED ALUMINUM WITH A THICKNESS OF 0.040-0.050 INCH AND SHALL HAVE COUNTERSUNK SCREW HOLES FOR A NEAT APPEARANCE. BORDER WIDTH SHALL BE 1¼ INCHES ON ALL SIDES AND SHALL BE INTERLOCKED AT THE FOUR CORNERS AND MECHANICALLY STAKED TO FORM A RIGID FRAME. CHOICE OF THREE SIZES OF ALUMINUM GRID: ½ X ½ X ½ INCH, ½ X ½ X 1 INCH, OR 1 X 1 X 1 INCH SHALL BE AVAILABLE.

OPTIONAL OPPOSED-BLADE VOLUME DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL OR ALUMINUM. DAMPER MUST BE OPERABLE FROM THE FACE OF THE GRILLE.

PLAQUE DIFFUSERS:

ARCHITECTURAL SQUARE PANEL CEILING DIFFUSERS SHALL BE OF THE SIZES AND MOUNTING TYPES SHOWN ON THE PLANS AND OUTLET SCHEDULE. THE FACE PANEL IS REMOVABLE BY MEANS OF FOUR HANGER BRACKETS. THE EXPOSED SURFACE OF THE FACE PANEL SHALL BE SMOOTH, FLAT, AND FREE OF VISIBLE FASTENERS.
THE BACK OF THE FACE PANEL SHALL HAVE AN AERODYNAMICALLY SHAPED, ROLLED EDGE TO ENSURE A TIGHT HORIZONTAL DISCHARGE PATTERN. CEILING DIFFUSERS WITH A 24 X 24-INCH FULL FACE SHALL HAVE NO LESS THAN AN 18 X 18-INCH FACE PANEL SIZE. CEILING DIFFUSERS WITH A 12 X 12-INCH FULL FACE SHALL HAVE NO LESS THAN A 9 X 9-INCH FACE PANEL SIZE.

THE BACKPAN SHALL BE ONE PIECE PRECISION DIE-STAMPED AND SHALL INCLUDE AN INTEGRALLY DRAWN INLET. THE DIFFUSER NECK SHALL HAVE A MINIMUM OF 1¼-INCH DEPTH AVAILABLE FOR DUCT CONNECTION.

THE FINISH SHALL BE #26 WHITE. THE FINISH SHALL BE AN ANODIC ACRYLIC PAINT, BAKED AT 315°F FOR 30 MINUTES. THE PENCIL HARDNESS MUST BE HB TO H.

THE PAINT MUST PASS A 100-HOUR ASTM B117 CORROSIVE ENVIRONMENTS SALT SPRAY TEST WITHOUT CREEPAGE, BLISTERING OR DETERIORATION OF FILM. THE PAINT MUST PASS A 250-HOUR ASTM D870 WATER IMMERSION TEST. THE PAINT MUST ALSO PASS THE ASTM D2794 REVERSE IMPACT CRACKING TEST WITH A 50-INCH POUND FORCE APPLIED.

OPTIONAL ROUND DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL. DAMPER MUST BE OPERABLE FROM THE FACE OF THE DIFFUSER. OPTIONAL DIRECTIONAL BLOW CLIPS SHALL BE AVAILABLE TO RESTRICT THE DISCHARGE AIR IN CERTAIN DIRECTIONS.

OPTIONAL MOLDED INSULATION BLANKET SHALL BE AVAILABLE. THE INSULATION WILL BE R-6, FOIL-BACKED, AND PROVIDE AN ADDITIONAL 1-INCH GAP AROUND THE NECK TO INSTALL INSULATED FLEX DUCT.

THE MANUFACTURER SHALL PROVIDE PUBLISHED PERFORMANCE DATA FOR THE SQUARE PANEL DIFFUSER. THE DIFFUSER SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-1991.

GRAVITY HOOD:

THE HOOD SHALL BE CONSTRUCTED OF ALUMINUM. THE INTERNAL STRUCTURE SHALL BE GALVANIZED STEEL.

THE CURB CAP SHALL BE NON-HINGED. THE HOUSING SHALL BE CONSTRUCTED OF ALUMINUM AND IN THE WINDBAND AND CURB CAP. THE WINDBAND SHALL BE ONE PIECE SPUN ALUMINUM CONSTRUCTION AND SHALL MAINTAIN THE ORIGINAL MATERIAL THICKNESS THROUGHOUT THE HOUSING. THE WINDBAND SHALL INCLUDE AN INTEGRAL ROLLED BEAD. THE CURB CAP SHALL INCLUDE PREPUNCHED MOUNTING HOLES TO ENSURE CORRECT ATTACHMENT TO THE ROOF.

REFER TO THE EQUIPMENT SCHEDULE FOR A FULL LISTING OF REQUIRED HOOD ACCESSORIES.

SPECIFICATIONS

HEAT PUMP:

EQUIPMENT
— FACTORY ASSEMBLED, SINGLE PIECE, AIR-COOLED HEAT PUMP UNIT. CONTAINED WITHIN THE UNIT ENCLOSURE IS ALL FACTORY WIRING, PIPING, CONTROLS, COMPRESSOR, REFRIGERANT CHARGE OF R-410A, AND SPECIAL FEATURES REQUIRED PRIOR TO FIELD START-UP.

UNIT CABINET
— UNIT CABINET WILL BE CONSTRUCTED OF GALVANIZED STEEL, BONDERIZED, AND COATED WITH A POWDER COAT PAINT.

FANS
— CONDENSER FAN WILL BE DIRECT-DRIVE PROPELLER TYPE, DISCHARGING AIR UPWARD.
— CONDENSER FAN MOTORS WILL BE TOTALLY ENCLOSED, 1-PHASE TYPE WITH CLASS B INSULATION AND PERMANENTLY LUBRICATED BEARINGS.
— SHAFTS WILL BE CORROSION RESISTANT.
— FAN BLADES WILL BE STATICALLY AND DYNAMICALLY BALANCED.
— CONDENSER FAN OPENINGS WILL BE EQUIPPED WITH STEEL WIRE SAFETY GUARDS.

COMPRESSOR
— COMPRESSOR WILL BE HERMETICALLY SEALED.
— COMPRESSOR WILL BE MOUNTED ON RUBBER VIBRATION ISOLATORS.
CONDENSER COIL
— CONDENSER COIL WILL BE AIR COOLED.
— COIL WILL BE CONSTRUCTED OF ALUMINUM FINS MECHANICALLY BONDED TO COPPER TUBES WHICH ARE THEN CLEANED, DEHYDRATED, AND SEALED.

REFRIGERATION COMPONENTS
— REFRIGERATION CIRCUIT COMPONENTS WILL INCLUDE LIQUID-LINE SHUTOFF VALVE WITH SWEAT CONNECTIONS, VAPOR-LINE SHUTOFF VALVE WITH SWEAT CONNECTIONS, SYSTEM CHARGE OF R-410A REFRIGERANT, POE COMPRESSOR OIL, ACCUMULATOR, AND REVERSING VALVE.

SEE SCHEDULE FOR LIST OF ACCEPTABLE MANUFACTURERS.

FAN COIL UNIT:

GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE FAN COIL UNIT MANUFACTURER'S STANDARD MATERIALS AND COMPONENTS AS INDICATED BY PUBLISHED PRODUCT INFORMATION, DESIGNED AND CONSTRUCTED AS RECOMMENDED BY MANUFACTURER, AND AS REQUIRED FOR A COMPLETE INSTALLATION.

COOLING COILS: EXCEPT AS OTHERWISE INDICATED, PROVIDE MANUFACTURER'S STANDARD COIL OF INDICATED TYPE AND RATED FOR INDICATED CAPACITY. COPPER TUBE COILS, MECHANICALLY EXPANDED INTO ALUMINUM PLATE FINS; RATED AT 250 PSIG AND LEAK TESTED AT 350 PSIG MIN. AIR PRESSURE. PROVIDE MANUAL AIR VENTS.

ELECTRIC HEATING COILS SHALL BE AN OPEN GRID TYPE WITH FACTORY INSTALLED HIGH LIMIT CONTROL. HEATER SHALL BE FULLY ACCEPTABLE THROUGH THE DISCHARGE GRILLE OPENINGS.

THE FAN SHALL BE A CENTRIFUGAL, FORWARD CURVED, DOUBLE WIDTH, DOUBLE INLET, DIRECT DRIVE TYPE. BALANCED STATICALLY AND DYNAMICALLY, AND OF INDICATED CAPACITY.

MOTORS SHALL BE OF INDICATED CAPACITY, 3 SPEED, PERMANENT SPLIT CAPACITOR, INSTALLED FOR EASY REMOVAL. PROVIDE MOTORS WITH AUTOMATIC-RESET AND INTEGRAL THERMAL OVERLOAD PROTECTION. MOTORS SHALL BE CAPABLE OF OPERATING AT TEMPERATURES INDICATED ON DRAWINGS WITHOUT OVERLOADING. MOTOR SHALL BE CAPABLE OF FIELD OILING AS REQUIRED.

CABINETS: CABINETS SHALL BE FABRICATED OF 18 GAUGE STEEL AND HAVE BAKED ENAMEL FINISH. ALL SURFACES IN CONTACT WITH AIR STREAM SHALL BE INSULATED WITH HALF INCH THICK, 1-1/2 POUND DENSITY, MATT FACED, GLASS FIBER INSULATION.

THE FILTER SHALL BE ONE INCH THICK, THROWAWAY GLASS FIBER TYPE.

THE DRAIN PAN SHALL BE REMOVABLE AND HAVE SELF EXTINGUISHER THREE (3) POUND DENSITY CELLULAR POLYSTYRENE PLASTIC LINER, THE DRAIN PAN SHALL EXTEND UNDER THE ENTIRE COIL SECTION.

THERMOSTAT SHALL BE 7-DAY PROGRAMMABLE TYPE.

SEE SCHEDULE FOR LIST OF ACCEPTABLE MANUFACTURERS.

GUARANTEE:

GUARANTEE THAT EACH PIECE OF APPARATUS SHALL BE OF THE CUSTOMARY STANDARD AND QUALITY FURNISHED BY THE DESIGNED MANUFACTURER FOR THAT CATALOG NUMBER.

GUARANTEE THAT THE AIR SYSTEMS SHALL OPERATE WITHOUT AERODYNAMIC NOISE GENERATED FROM THE FAULTY INSTALLATION OF DUCT WORK OR ANY COMPONENT OF THE AIR DISTRIBUTION SYSTEM.

GUARANTEE THAT ALL SYSTEMS AND COMPONENTS SHALL BE PROVIDED WITH A ONE YEAR WARRANTY FROM THE TIME OF DATE OF SUBSTANTIAL COMPLETION. THE WARRANTY SHALL COVER ALL MATERIALS AND WORKMANSHIP. DURING THIS WARRANTY PERIOD, ALL DEFECTS IN MATERIALS AND WORKMANSHIP SHALL BE CORRECTED BY REPAIR OR REPLACEMENT WITHOUT INCURRING ADDITIONS TO THE CONTRACT.

CEILING FAN:

CEILING MOUNTED EXHAUST FANS SHALL BE OF THE CENTRIFUGAL DIRECT DRIVE TYPE. THE FAN HOUSING SHALL BE CONSTRUCTED OF STEEL. THE PLASTIC DUCT COLLAR SHALL BE A TAPERED SLEEVE FOR EASE OF CONNECTION TO 3 IN AND 4 IN ROUND DUCTWORK AND SHALL INCLUDE A BACKDRAFT DAMPER. THE GRILLE SHALL BE CONSTRUCTED OF NON-YELLOWING HIGH STRENGTH POLYMER AND ATTACHED TO THE HOUSING WITH TORSION SPRINGS. THE WHEELS SHALL BE CONSTRUCTED OF HIGH STRENGTH POLYMER. THE ACCESS FOR WIRING SHALL BE EXTERNAL. THE MOTOR DISCONNECT SHALL BE INTERNAL AND OF THE PLUG IN TYPE.

ALL FANS SHALL BEAR THE AMCA CERTIFIED RATINGS SEALS FOR SOUND AND AIR PERFORMANCE AND SHALL BE U.L. LISTED.

KITCHEN HOOD DUCT SYSTEM:

EXHAUST DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH HOOD MANUFACTURE INSTALLATION REQUIREMENTS. SYSTEM IS TO BE COMPLETE, FROM HOOD OUTLETS TO FAN INLET, INCLUDE TRANSITIONS TO HOOD OUTLETS, ADJUSTABLE PIPE LENGTHS, SUPPORT PLATES, GUIDE RINGS, ACCESS DOORS, AND THRU WALL FIRE STOP PENETRATIONS.

EXHAUST DUCTS FOR DOMESTIC RANGE HOODS INSTALLED IN COMMERCIAL APPLICATIONS.

EXHAUST DUCTS FOR DOMESTIC RANGE HOODS INSTALLED IN COMMERCIAL APPLICATIONS SHALL BE VENTED TO THE OUTSIDE AND SHALL BE CONSTRUCTED OF (A) TYPE B VENT, OR (B) SMOOTH WALL DUCT CONSTRUCTED OF GALVANIZED OR STAINLESS STEEL WITH A MINIMUM DUCT THICKNESS OF 0.0157 INCHES (0.40 MM) OR CONSTRUCTED OF ALUMINUM OR COPPER WITH A MINIMUM DUCT THICKNESS OF 0.023 INCHES (0.58MM).

SPECIFICATIONS

APPLICABLE CODES:

INTERNATIONAL FIRE CODE (IFC), 2018 EDITION
2020 IFC GA AMENDMENTS
INTERNATIONAL PLUMBING CODE (IPC), 2018 EDITION
2020 IPC GA AMENDMENTS
INTERNATIONAL MECHANICAL CODE (IMC), 2018 EDITION
2020 IMC GA AMENDMENTS
INTERNATIONAL FUEL GAS CODE (IFGC), 2018 EDITION
2020 IFGC GA AMENDMENTS
INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2015 EDITION
2020 SUPPLEMENTS AND AMENDMENTS

EXISTING CONDITIONS:

CONTRACTOR SHALL VISIT THE SITE AND UNDERSTAND JOB CONDITIONS BEFORE SUBMITTING A PROPOSAL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS AND SIZES OF ALL EXISTING UTILITY SERVICES PRIOR TO SUBMITTING HIS PROPOSAL. NO CONSIDERATION WILL BE GIVEN TO CLAIMS FOR EXTRA COST ARISING FROM CONTRACTOR'S FAILURE TO BE FULLY COGNIZANT OF JOB OR SITE CONDITIONS EXISTING AT TIME OF ACCEPTANCE OF BID.

ACTIVE SERVICES: WHEN ENCOUNTERED IN WORK, PROTECT, BRACE, SUPPORT EXISTING ACTIVE SEWERS, GAS AND OTHER SERVICES REQUIRED FOR PROPER EXECUTION OF WORK. IF EXISTING ACTIVE SERVICES ARE ENCOUNTERED THAT REQUIRE RELOCATION, RELOCATE AS APPROVED. DO NOT PREVENT OR DISTURB OPERATION OF ACTIVE SERVICES THAT ARE TO REMAIN.

INACTIVE SERVICES: WHEN ENCOUNTERED IN WORK, REMOVE, CAP OR PLUG INACTIVE SERVICES, AS INDICATED.

INTERRUPTION OF SERVICES: WHERE WORK MAKES TEMPORARY SHUT-DOWNS OF SERVICES UNAVOIDABLE, SHUT DOWN AT NIGHT, OR AT SUCH TIMES AS APPROVED BY OWNER, WHICH WILL CAUSE LEAST INTERFERENCE WITH ESTABLISHED OPERATING ROUTINE. ARRANGE WORK TO ASSURE THAT SERVICES WILL BE SHUT DOWN ONLY DURING TIME ACTUALLY REQUIRED TO MAKE NECESSARY CONNECTION TO EXISTING WORK.

WHERE EXISTING WALLS, CEILINGS, FLOORS, ETC., ARE CUT OR OTHERWISE DAMAGED DURING CONSTRUCTION, REPAIR ALL SURFACES TO THEIR ORIGINAL CONDITION.

SHOP DRAWINGS:

SUBMIT SHOP DRAWINGS FOR REVIEW. PDF FILES PREFERRED. SHOP DRAWINGS SHALL BE BOUND INTO VOLUMES (FILES), WITH EACH VOLUME (FILE) CONTAINING ONE COPY OF ALL SHOP DRAWINGS. ALL SHOP DRAWINGS SHALL BE SUBMITTED SIMULTANEOUSLY; NO SHOP DRAWINGS WILL BE CHECKED UNTIL ALL HAVE BEEN SUBMITTED.

SUBMITTALS SHALL BE SUPPORTED BY DESCRIPTIVE MATERIAL, SUCH AS CATALOG CUTS, DIAGRAMS, PERFORMANCE CURVES AND CHARTS PUBLISHED BY THE MANUFACTURER, TO SHOW CONFORMANCE TO SPECIFICATION AND DRAWING REQUIREMENTS; MODEL NUMBERS ALONE WILL NOT BE ACCEPTABLE. ALL LITERATURE SHALL CLEARLY INDICATE THE SPECIFIED MODEL NUMBER, DIMENSIONS, ARRANGEMENT, RATING AND CHARACTERISTICS OF THE PROPOSED EQUIPMENT. CAPACITIES AND RATINGS SHALL BE BASED ON CONDITIONS INDICATED OR SPECIFIED HEREIN. ANY DEVIATIONS FROM SPECIFIED EQUIPMENT (PARTICULARLY THOSE WHICH REQUIRE COORDINATION WITH OTHER TRADES) SHALL BE CLEARLY NOTED IN A CONCISE LIST ON A SEPARATE SHEET.

TEST AND BALANCE:

TEST AND BALANCE (TAB) CONTRACTOR SHALL HOLD A CURRENT NATIONAL BALANCING COUNCIL (NBC) CERTIFICATION AND POSSESS ACCURATE AND CALIBRATED INSTRUMENTS. TAB WORK AND REPORTS SHALL BE PER NBC PRACTICAL STANDARDS, PROCEDURES AND FORMS. ACCEPTIBLE ALTERNATIVE TAB FIRM CERTIFICATIONS/PROCEDURES: NEBB, AABC, OR TABB.

PRIOR TO COMMENCEMENT OF THE TAB WORK, THE MECHANICAL SYSTEMS ARE TO BE STARTED AND FULLY FUNCTIONING. A CHECKLIST PRIOR TAB WORK IS TO BE SENT TO THE INSTALLING CONTRACTOR AND RETURNED ATTESTING TO THE READINESS OF THE SYSTEMS FOR BALANCING.

PREFERRED TAB FIRM: P-TAB.COM

GENERAL NOTES:

REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT.

ALL DUCT DIMENSIONS INDICATED IN THESE DOCUMENTS ARE INSIDE-CLEAR DIMENSIONS.

PORTIONS OF DUCTWORK OR PIPING VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK. PAINT BLACK BEHIND ALL GRILLES.

ALL WIRING IN THE CEILING PLENUM SHALL BE PLENUM RATED CABLE.

MOUNTING FRAME OF CEILING MOUNTED AIR DISTRIBUTION DEVICES SHALL BE COMPATIBLE WITH CEILING TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPE.

ALL FIRE SEPARATIONS MUST BE PROTECTED WHEN APPLICABLE.

PROVIDE NEW FILTERS (MERV 7 OR BETTER PER OWNER) FOR ALL APPLICABLE HVAC EQUIPMENT AT THE END OF CONSTRUCTION.

ALL MATERIAL IN PLENUM MUST MEET FIRE AND SMOKE SPREAD AS REQUIRED BY NFPA 90A.

ALL ROOF PENETRATIONS TO BE 12" APART AND AT LEAST 12" AWAY FROM CURBS, WALLS, AND DRAIN SUMPS TO PROVIDE ROOFING CONTRACTOR WITH SUFFICIENT ACCESS FOR FLASHING EACH ROOF PENETRATION.

SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ARCHITECT PRIOR TO BID SUBMISSION.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.

THE CONTRACTOR SHALL REFERENCE THE FULL SET OF CONSTRUCTION DOCUMENTS DURING PRICING AND CONSTRUCTION FOR COORDINATION BETWEEN DISCIPLINES RELATIVE TO THE MECHANICAL SCOPE.

LEGEND

SYMBOLS	DESCRIPTION
X1 / X2	DIFFUSER, GRILLE, REGISTER OR LOUVER TAG X1 = TYPE, X2 = CFM
⊠	POSITIVE PRESSURE (AIR GOES OUT) DIFFUSER OR REGISTER, 4-WAY AIR PATTERN (UNLESS OTHERWISE NOTED)
⊘	NEGATIVE PRESSURE (AIR GOES IN) GRILLE
→	POSITIVE PRESSURE AIRFLOW (TYP. SUPPLY)
→/→	NEGATIVE PRESSURE AIRFLOW (TYP. RETURN/EXHAUST)
|||||||	FLEXIBLE DUCT
⌜	MANUAL VOLUME DAMPER (MVD)
	BACKDRAFT DAMPER (BDD)
T	THERMOSTAT
H	HUMIDISTAT
S	REMOTE TEMPERATURE SENSOR
	INTERNALLY LINED DUCT
	DUCT UP
⊠	DUCT UP
⊘	DUCT DOWN
	SUPPLY DUCT
UNIT #	EQUIPMENT TYPE EQUIPMENT NUMBER. WHERE A LETTER IS USED, THERE ARE MULTIPLE INSTANCES.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	M	MOTOR
BDD	BACKDRAFT DAMPER	MA	MAKE-UP AIR
AHU	AIR HANDLING UNIT	MAU	MAKE-UP AIR UNIT
CO2	CARBON DIOXIDE	MAV	MANUAL AIR VENT
CU	CONDENSING UNIT	MBH	1,000 BTU PER HR
D	CONDENSATE DRAIN	MFCU	MINI FAN COIL UNIT
DB	DRY BULB	MHP	MINI HEAT PUMP
DH	DEHUMIDIFIER	MVD	MANUAL VOLUME DAMPER
EA	EXHAUST AIR	NC	NORMALLY CLOSED
EAT	ENTERING AIR TEMPERATURE	NO	NORMALLY OPEN
EDH	ELECTRIC DUCT HEATER	OA	OUTSIDE AIR
EF	EXHAUST FAN	OBD	OPPOSED BLADE DAMPER
ESP	EXTERNAL STATIC PRESSURE	PIU	POWER INDUCTION UNIT
EWH	ELECTRIC WALL HEATER	RA	RETURN AIR
F	DEGREES FAHRENHEIT	RH	RELIEF HOOD
FCU	FAN COIL UNIT	RTU	ROOFTOP UNIT
FD	FIRE DAMPER	SA	SUPPLY AIR
FSD	COMBINATION FIRE/SMOKE DAMPER	SP	STATIC PRESSURE
FURN	FURNACE	U.N.O	UNLESS NOTED OTHERWISE
H	HUMIDISTAT	UC	UNDER CUT DOOR
IH	INTAKE HOOD	VAV	VARIABLE AIR VOLUME
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LWT	LEAVING WATER TEMPERATURE	WL	WALL LOUVER

Union County Fire Station

Harbor Boulevard
at
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30512

GEORGIA REGISTERED No. 034608 PROFESSIONAL ENGINEER JENNIFER DUCHAC

RELEASED FOR CONSTRUCTION

REVISIONS

No.	Date	Description
	02.15.22	BID SET

PROFICIENT ENGINEERING
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PROJECT # 121564

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PROJECT NO.
20112

SHEET TITLE
GENERAL

SHEET NO.
M0.01

SPLIT DIRECT EXPANSION (DX) EQUIPMENT

MARK	SERVES	INDOOR UNIT: TOTAL S.A. (CFM)	O.A. (CFM)	E.S.P. (IN WG)	MOTOR (hp)	AUXILIARY HEATER (kW)	WEIGHT (LBS)	BASIS OF DESIGN	OUTDOOR UNIT: MIN. SEER	MIN. HSPF	WEIGHT (LBS)	BASIS OF DESIGN	COMBINED COOLING CAPACITIES: NOMINAL TONNAGE (TONS)	COOLING: TOTAL (MBH)	SENS (MBH)	LAT (MBH)	Ent. Tdb (°F)	Ent. Twb (°F)	Lvg. Tdb (°F)	Lvg. Twb (°F)	REMARKS 1	2	3	4	5	6	7
FCU-1 / HP-1	KITCHEN	1,000	65	0.50	1/3 ECM	7.5	122.0	FB4CNP030	14.0	8.2	186.0	25HCE430	2.5	28.1	21.1	7.0	76.2	64.7	56.0	55.0	X	X	X	X	X	X	X
FCU-2 / HP-2	OFFICES & STORAGE	1,000	65	0.50	1/3 ECM	7.5	122.0	FB4CNP030	14.0	8.2	186.0	25HCE430	2.5	28.8	21.5	7.3	76.6	64.9	56.0	55.0	X	X	X	X	X	X	X
FCU-3 / HP-3	SLEEPIN QUARTERS	1,200	50	0.50	1/2 ECM	7.5	122.0	FB4CNP036	14.0	8.2	189.0	25HCE436	3.0	34.4	25.4	9.0	75.8	64.5	55.5	54.5	X	X	X	X	X	X	X

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.

B. SUBMITTED UNIT CAPACITIES SHOULD BE WITHIN +/-10% OF SCHEDULED CAPACITIES.

C. BASIS OF DESIGN: CARRIER. REFER TO SPECIFICATIONS.
ACCEPTABLE ALTERNATES: JCI/YORK, TRANE, DAIKIN/MCQUAY, LENNOX

D. ALL EVAPORATORS AND COOLING COILS LOCATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE INSTALLED WITH AN AUXILIARY CONDENSATE DRAIN PAN UNDER THE UNIT. PROVIDE AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER IN THE AUXILIARY DRAIN PAN.

E. AS AN ALTERNATIVE TO THE AUXILIARY CONDENSATE DRAIN PAN, AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER MAY BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE OR THE EQUIPMENT SUPPLIED DRAIN PAN. THE WATER LEVEL DETECTOR SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.

REMARKS (APPLY AS SCHEDULED):

1. PROGRAMMABLE THERMOSTAT.
2. LOW AMBIENT PACKAGE
3. DISPOSABLE FILTER.
4. ANTI-SHORT CYCLE TIMER.
5. INDOOR FAN DELAY KIT.
6. DISCONNECT SWITCH PROVIDED BY ELECTRICAL SUBCONTRACTOR AT BOTH THE INDOOR AND OUTDOOR UNIT. REFER TO THE ELECTRICAL DOCUMENTS.
7. MOUNT OUTDOOR HEAT PUMP ON CONCRETE HOUSEKEEPING PAD. PAD SHALL BE A MINIMUM 4" THICK AND SHALL EXTEND 6" BEYOND UNIT ON ALL SIDES.

FAN SCHEDULE

MARK	DUTY	TYPE	CFM	E.S.P. (IN WG)	MOTOR (W / hp)	DRIVE	MAX. NOISE (SONES)	CONTROL BY	BASIS OF DESIGN MODEL	REMARKS 1	2	3	4	5
EF-A	EXHAUST	CEILING CABINET	70	0.5	100	DIRECT	2.0	SWITCHED WITH LIGHTS	GREENHECK SP	X	X	X		

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL PLANS FOR POWER CHARACTERISTICS

B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY LOREN-COOK, TWIN-CITY, PENN BARRY.

REMARKS (APPLY AS SCHEDULED):

1. FAN SPEED CONTROLLER.
2. FACTORY DISCONNECT SWITCH/PLUG.
3. GRAVITY BACKDRAFT DAMPER.
4. FACTORY INSULATED ROOF CURB.

UNIT HEATER - ELECTRIC

MARK	FAN: AIRFLOW (CFM)	FAN: MOTOR (HP)	HEATING: KW	HEATING: STAGES	BASIS OF DESIGN	WEIGHT (LBS)
EUH-A	350	1/100	5.0	2	QMARK MUH	27.0

NOTES: (APPLY TO ALL)

A. DISCONNECT SWITCH PROVIDED BY THE ELECTRICAL SUBCONTRACTOR.

B. 24V CONTROL TRANSFORMER AND REMOTE / WALL MOUNTED THERMOSTAT. THERMOSTAT SET TO 50ºF.

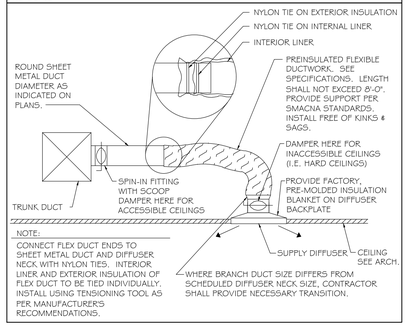
C. AUTOMATIC THERMAL CUT-OUT.

D. FAN DELAY.

E. ADJUSTABLE DISCHARGE LOUVERS.

DIFFUSER TAKE-OFF DETAIL

NO SCALE

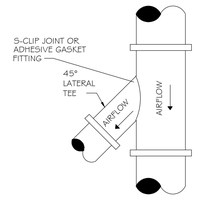


NOTE:

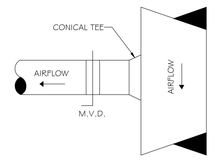
CONNECT FLEX DUCT ENDS TO SHEET METAL DUCT AND DIFFUSER NECK WITH NYLON TIES. INTERIOR LINER AND EXTERIOR INSULATION OF FLEX DUCT TO BE TIED INDIVIDUALLY. INSTALL USING TENSIONING TOOL AS PER MANUFACTURER'S RECOMMENDATIONS.

DUCTWORK DETAILS

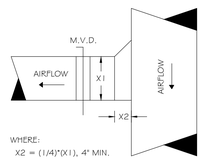
NO SCALE



ROUND - ROUND



RECTANGULAR - ROUND

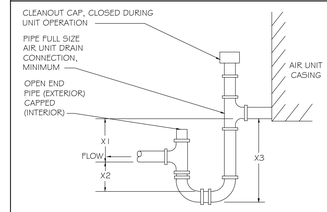


WHERE:
X2 = (1/4)*(X1), 4" MIN.

RECTANGULAR - RECTANGULAR

CONDENSATE TRAP (DRAW THROUGH UNIT)

NO SCALE



WHERE:

X1 =1" PLUS MAXIMUM NEGATIVE STATIC PRESSURE

X2 =HALF OF X1

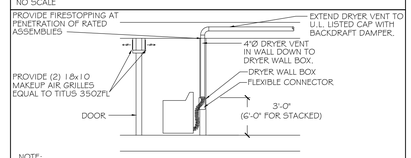
X3 =X1 +X2+PIPE Ø+INSULATION

NOTES

1. LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING.

DRYER EXHAUST DETAIL

NO SCALE

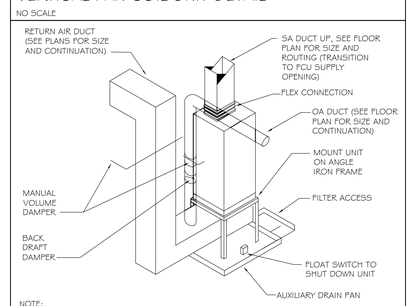


NOTE:

1. EXHAUST DUCT VENT PIPE FOR CLOTHES DRYERS SHALL BE SHEET METAL, MINIMUM 26 GAUGE, AND HAVE A SMOOTH INTERIOR FINISH AND SHALL BE MINIMUM OF 4Ø. THE ENTIRE EXHAUST SYSTEM SHALL BE SUPPORTED AND SECURED IN PLACE WITH NO PENETRATIONS OF THE DUCTWORK. THE MALE END OF THE DUCT AT OVERLAPPED DUCT JOINTS SHALL EXTEND IN THE DIRECTION OF AIRFLOW.
2. DRYER EXHAUST DUCT SHALL TERMINATE IN WALL AT A DRYER WALL BOX. THE BOX SHALL HAVE A CONNECTION IN THE VERTICAL POSITION FOR FLEXIBLE CONNECTOR TO DRYER COLLAR.
3. CLEAN-OUT OF THE DRYER VENT EXHAUST SYSTEM CAN BE ACCOMPLISHED BY REMOVING THE FLEXIBLE CONNECTOR AND REMOVING ANY EXCESS DRYER LINT.
4. THE ENTIRE DRYER EXHAUST VENT SYSTEM SHALL BE IN ACCORDANCE WITH THE LATEST LOCAL MECHANICAL CODES AND AMENDMENTS.
5. IF LAUNDRY CLOSET DOOR IS LOUVERED, MAKEUP AIR GRILLES MAY BE OMITTED.

VERTICAL FAN COIL UNIT DETAIL

NO SCALE

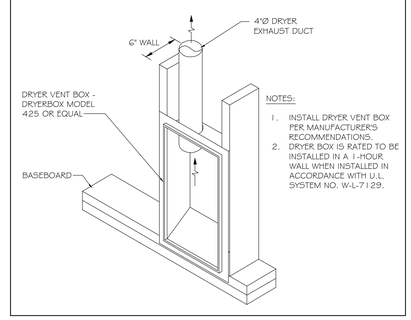


NOTE:

ROUTE PRIMARY CONDENSATE LINE TO HUB DRAIN, SEE PLMB. DWGS.

DRYER VENT WALL BOX DETAIL

NO SCALE



NOTES:

1. INSTALL DRYER VENT BOX PER MANUFACTURER'S RECOMMENDATIONS.
2. DRYER BOX IS RATED TO BE INSTALLED IN A 1-HOUR WALL WHEN INSTALLED IN ACCORDANCE WITH U.L. SYSTEM NO. W-L-7129.

Union County Fire Station

Harbor Boulevard at Murphy Highway Blairsville, Georgia 30512

GEORGIA REGISTERED No. 034608 PROFESSIONAL ENGINEER JENNIFER DUCHAC

RELEASED FOR CONSTRUCTION

REVISIONS

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	02.15.22	BID SET

PROFICIENT ENGINEERING
6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121564

Gardner Spencer Smith Tench & Jarbeau
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PROJECT NO.
20112

SHEET TITLE
DETAILS AND SCHEDULES

SHEET NO.
M0.02

GENERAL NOTES

A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.

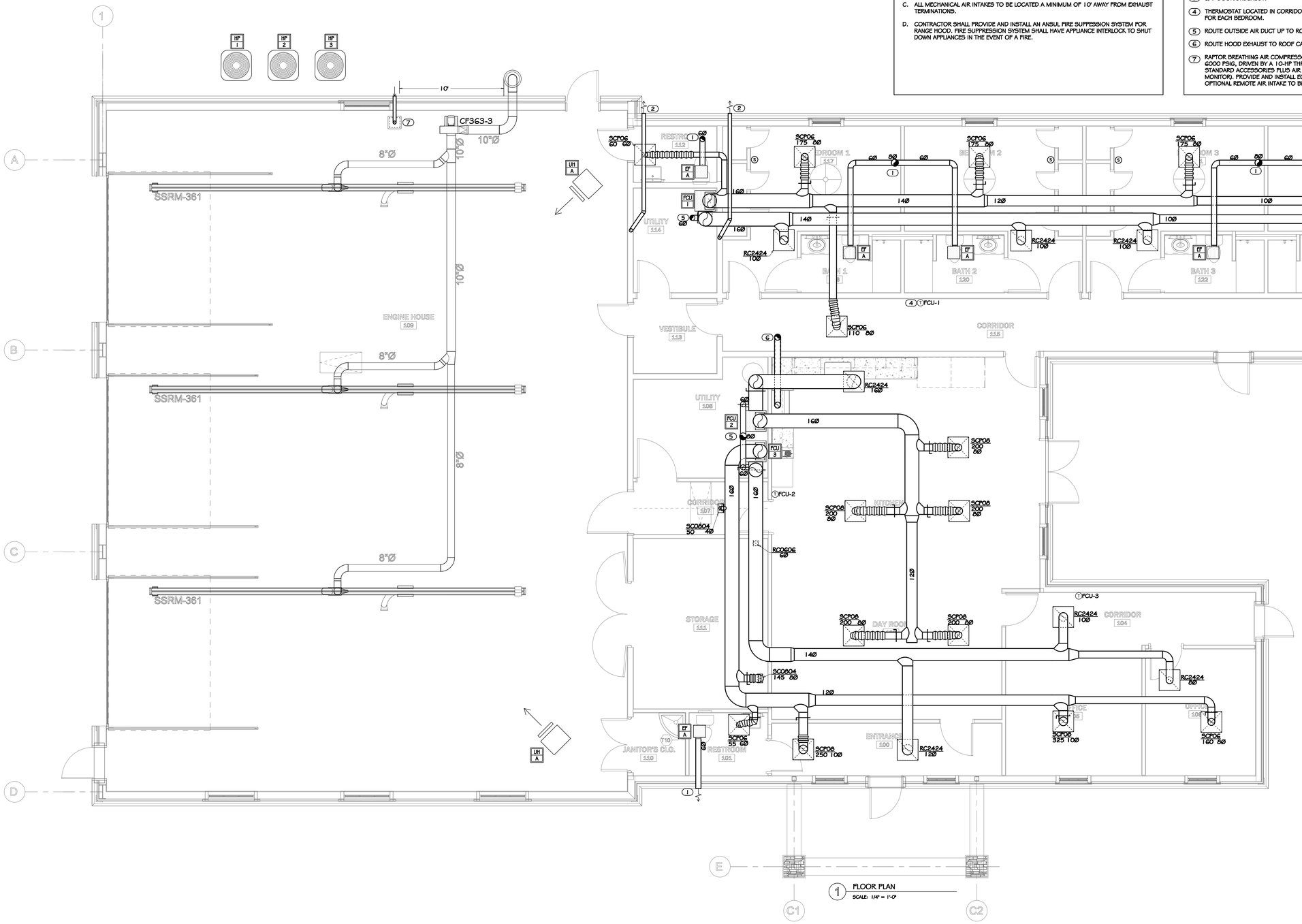
B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

C. ALL MECHANICAL AIR INTAKES TO BE LOCATED A MINIMUM OF 10' AWAY FROM EXHAUST TERMINATIONS.

D. CONTRACTOR SHALL PROVIDE AND INSTALL AN ANSUL FIRE SUPPRESSION SYSTEM FOR RANGE HOOD. FIRE SUPPRESSION SYSTEM SHALL HAVE APPLIANCE INTERLOCK TO SHUT DOWN APPLIANCES IN THE EVENT OF A FIRE.

KEYNOTES

1. ROUTE BATHROOM EXHAUST TO ROOF CAP WITH INSECT SCREEN AND BACK DRAFT DAMPER.
2. 4Ø LAUNDRY DRYER EXHAUST DUCTWORK ROUTED TO WALL CAP WITH INTEGRAL BACKDRAFT DAMPER. WALL CAP COLOR AND FINISH SHALL BE SELECTED BY ARCHITECT.
3. 3/4" DOOR UNDERCUT.
4. THERMOSTAT LOCATED IN CORRIDOR. REMOTE TEMPERATURE SENSOR TO BE PROVIDE FOR EACH BEDROOM.
5. ROUTE OUTSIDE AIR DUCT UP TO ROOF CAP WITH BACKDRAFT DAMPER.
6. ROUTE HOOD EXHAUST TO ROOF CAP WITH INSECT SCREEN AND BACK DRAFT DAMPER.
7. RAPTOR BREATHING AIR COMPRESSOR MODEL RCB105 - 13.3 CFM CHARGING RATE, 6000 PSIG, DRIVEN BY A 10-HP THREE-PHASE ELECTRIC MOTOR, COMPLETE WITH STANDARD ACCESSORIES PLUS AIR MONITOR SYSTEM (COMBINATION COMOISTURE MONITOR). PROVIDE AND INSTALL EQUIPMENT PER MANUFACTURE REQUIREMENTS. OPTIONAL REMOTE AIR INTAKE TO BE DUCTED TO EXTERIOR.



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Union County Fire Station

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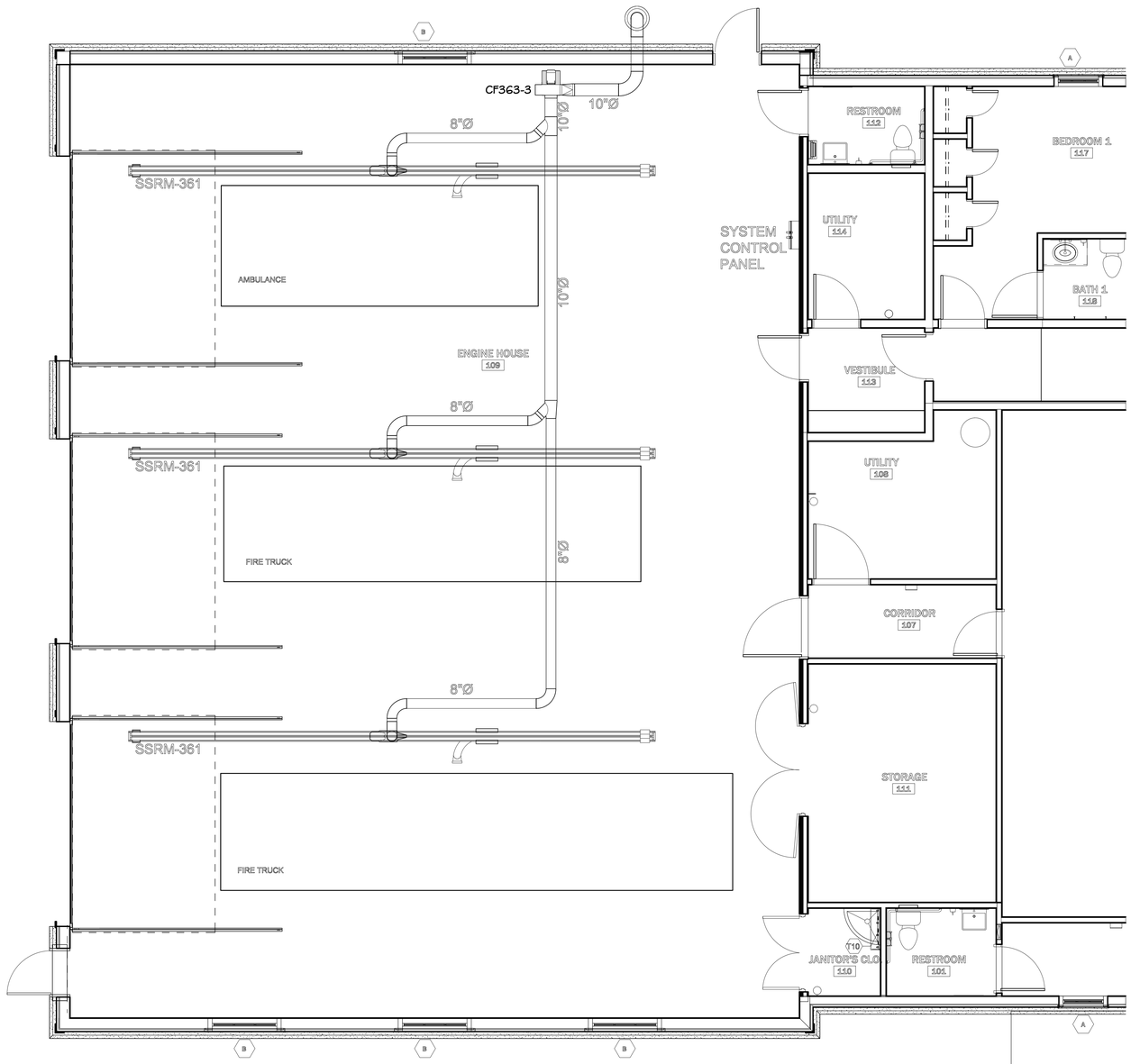
Blairsville, Georgia 30512

PROJECT NO.
20112

SHEET TITLE
FLOOR PLAN

SHEET NO.
M1.10



GENERAL CONSTRUCTION NOTES:

1. FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY DRAWINGS ARE DIAGRAMMATIC AND DESIGN INTENT ONLY.
   CONTRACTOR SHALL VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
2. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES IN ACCORDANCE WITH 2017 ICC (IBC, IMC).
3. ALL NEW MATERIAL METHODS, AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE BUILDING STANDARDS AS APPROVED.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT N STRICT ACCORDANCE WITH MANUFACTURES' RECOMMENDATIONS.
5. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EXHAUST FANS, DUCTWORK, AND EXHAUST DROPS WITH EXISTING IN-PLACE CITY FIRE DEPARTMENTS EQUIPMENT, LIGHTING, AND ALL EXISTING CONDITIONS.
6. ALL EXHAUST DUCTWORK SHALL BE SPIRAL SEAM GALVANIZED STEEL FABRICATED AND INSTALLED IN ACCORDANCE WITH CHAPTER 6 OBSC MC AND SMACNA STANDARD MANUAL.
7. SHEETMETAL DUCT DIMENSIONS SHOWN ARE AIRWAY DIMENSIONS.
8. BALANCE EXHAUST SYSTEM AND EACH EXHAUST DROP MEET AIR QUANTITIES AS REQUIRED.
9. CONTRACTOR SHALL COORDINATE WITH CITY FIRE DEPARTMENT PRIOR TO ANY PENETRATION OR ROOF CUTTING.

FAN SCHEDULE

FAN TYPE	ID#	AIRFLOW (CFM)	RPM	STATIC PRESSURE (IN - WC)	VOLTS / PHASE	HP	BREAKER	WIRE
MAGNEGRIP	CF363-3	2100	3450	6 SP	3ph	3	30 AMP	#10THHN

VEHICLE EXHAUST SYSTEM

DESCRIPTION	PART #	QTY	REMARKS	
CONTROL PANEL	500177-08	1		
RAIN CAP	500157-10	1		
SUCTION RAIL	SSRM-361	3	1 HOSE DROP EACH	
TOTAL # OF HOSE DROPS:		3	CFM PER HOSE DROP:	600 CFM

REMARKS:

A. ITEM HAS BEEN SPECIFIED FOR QUALITY AND PERFORMANCE ANY APPROVED SUBSTITUTION IS AT THE RISK OF THE OWNER.

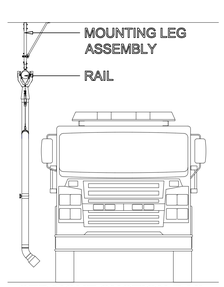
B. PROVIDE TRACK OR RAIL SYSTEM, TRANSITION ELBOW, HIGH TEMPERATURE HOSE, HOSE CLAMPS, NOZZLES, TAILPIPE CONNECTORS, FRESH AIR INTAKE, AND OTHER ITEMS REQUIRED FOR A COMPLETE INSTALLATION.

C. PROVIDE WIRELESS CONTROL PANEL ACTIVATION, PRESSURE SENSORS,WIRELESS TRANSMITTERS, AND ADDITIONAL COMPONENTS IF REQUIRED FOR AUTOMATIC FAN CONTROL.

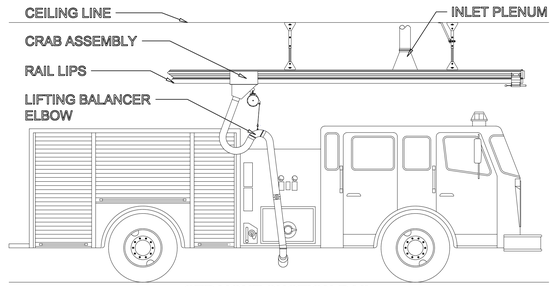
D. VEHICLE EXHAUST SYSTEM DESIGN AND DRAWING IS THE SOLE PROPERTY OF THE DESIGNERS, MAGNEGRIP.

E. DETAILS MAY NOT REPRESENT THE SAME KIND OF VEHICLE IN PLAN VIEW.

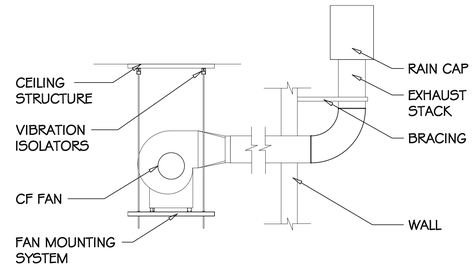
F. DETAILS ARE MEANT TO ILLUSTRATE "TYPICAL" ELEVATION VIEWS.



STRAIGHT SUCTION RAIL FRONT ELEVATION



STRAIGHT SUCTION RAIL SIDE ELEVATION



FAN ELEVATION

Union County Fire Station

Harbor Boulevard at Murphy Highway Blairsville, Georgia 30512

GEORGIA REGISTERED No. 034608 PROFESSIONAL ENGINEER JENNIFER DUCHAC

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PROJECT NO.
20112

SHEET TITLE
TAILPIPE EXHAUST SYSTEM

SHEET NO.
M1.11

SPECIFICATIONS

GENERAL

CONTRACTOR SHALL REFER TO ALL RELATED DOCUMENTS, ARCHITECTURAL, STRUCTURAL, CIVIL AND MEP DRAWINGS, AND FULLY UNDERSTAND THE SCOPE OF WORK AND CONDITION OF CONSTRUCTION.

THE WORK UNDER THIS SPECIFICATIONS AND DRAWINGS SHALL INCLUDE ALL LABOR.

ALL INSTALLATION OF DEVICES AND CONNECTION OF CONDUCTORS SHALL BE PERFORMED BY LICENSED AND SKILLED ELECTRICIAN OR JOURNEYMAN.

ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER. IF ANY PORTION OF THE WORK IS FOUND UNSATISFACTORY BY THE OWNER, IT SHALL BE REMOVED AND REINSTALLED WITHOUT DELAY AT NO COST TO THE OWNER.

THE WORK INCLUDES, BUT NOT LIMITED TO:
- THE COMPLETE ELECTRICAL DISTRIBUTION SYSTEM.
- ROUGH-IN AND FINAL CONNECTIONS TO ALL DEVICES REQUIRING ELECTRICAL POWER, INCLUDING OWNER PROVIDED EQUIPMENT.
- LIGHTING CONTROL
- LIGHTING FIXTURES

EACH CONTRACTOR SHALL OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED BY THE REGULATORY AUTHORITIES. ALL FEES RELATED TO OBTAINING PERMITS AND INSPECTION SHALL BE PAID FOR BY EACH CONTRACTOR IN HIS TRADE.

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH LOCAL, COUNTY, STATE, AND NATIONAL ELECTRICAL CODE 2020, SPECIFICATIONS, UTILITY COMPANY REQUIREMENTS AND ALL INDUSTRY STANDARDS.

ANY DIFFERENCES IN ABOVE MENTIONED REQUIREMENTS, THE MOST STERN SHALL OVERRULE ALL OTHERS.

IN ADDITION TO ABOVE MENTIONED CODES AND SPECIFICATIONS, THE FOLLOWING INDUSTRY STANDARDS SHALL BE COMPLIED IF THEY ARE MORE STRINGENT.
- IEEE
- IES
- IECC 2015
- ASHRAE 90.1
- NFPA
- NEMA
- UL
- ADA

THE MANUFACTURER'S PUBLISHED DIRECTIONS SHALL BE FOLLOWED IN THE DELIVERY, STORAGE, PROTECTION, INSTALLATION AND WIRING OF ALL EQUIPMENT AND MATERIAL.

THE DRAWINGS SHOW DIAGRAMMATICALLY THE LOCATIONS OF THE VARIOUS LINES, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHOD OF CONNECTING AND CONTROLLING THEM. IT IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL AND ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM. THE SYSTEMS SHALL INCLUDE BUT ARE NOT LIMITED TO THE ITEMS SHOWN ON THE DRAWINGS. EXACT LOCATIONS OF THESE ITEMS SHALL BE DETERMINED BY REFERENCE TO THE GENERAL PLANS AND MEASUREMENTS AT THE BUILDING AND IN COOPERATION WITH THE OTHER SUBCONTRACTORS, AND IN ALL CASES, SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE OWNER RESERVES THE RIGHT TO MAKE ANY REASONABLE CHANGE IN THE LOCATION OF ANY PART OF THIS WORK WITHOUT ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL SEEK APPROVAL FROM THE OWNER FOR ANY CHANGES TO THE SPECIFICATIONS OR CONTRACT DOCUMENTS.

ANY EXCEPTIONS, INCONSISTENCIES AND CONFLICTS IN CONTRACT DOCUMENTS, SPECIFICATIONS AND CONTRACT DOCUMENTS BY OTHER TRADE SHALL BE BROUGHT TO ATTENTION TO THE OWNER PRIOR TO BID.

CONTRACTOR SHALL COORDINATE AND VERIFY THE WORK WITH EXISTING CONDITIONS AND THE WORK OF OTHER TRADE PRIOR TO ANY FABRICATIONS OR INSTALLATION. IF THE LAYOUT OF THE DEVICES ON DRAWINGS ARE IMPRACTICAL TO THE CONDITION IN FIELD, CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY PRIOR TO ANY FABRICATION OR INSTALLATION.

ELECTRICAL DEVICES ARE INDICATED ON DRAWINGS AT APPROXIMATE LOCATIONS. THE OWNER RESERVE THE RIGHT TO MAKE REASONABLE CHANGES IN LOCATIONS WITHOUT ADDITIONAL COSTS.

THE LINES INDICATING BRANCH CIRCUITS DO NOT REPRESENT THE ROUTING OF ELECTRICAL CONDUITS. THEY INDICATE THE LAYOUT AND CONTROL OF CIRCUITS.

PRODUCTS AND WORK

MATERIALS FURNISHED SHALL BE NEW AND BY STANDARD MANUFACTURERS AND MUST CONFORM TO THE NATIONAL BOARD OF FIRE UNDERWRITER'S REQUIREMENTS AND BEAR THE UNDERWRITER'S LABORATORIES' SEAL OF APPROVAL.

LISTED MANUFACTURERS, MODELS, OR CATALOGUE NUMBERS IN PART OR ALL SHALL ENTAIL TO INCLUDE THE PUBLISHED MANUFACTURER'S DESCRIPTION AND SPECIFICATION.

CONTRACTOR SHALL NOT INTERPRET THAT THE LISTED MANUFACTURERS IN SPECIFICATIONS OR DRAWINGS TO EXCLUDE ALL OTHER MANUFACTURERS

CONTRACTOR SHALL MAKE CERTAIN THAT ALL EQUIPMENT FIT IN THE SPACE DESIGNATED AND DESIGNED FOR THE SURROUNDINGS IT OCCUPIES.

COMPLETE CATALOGUE ILLUSTRATION AND DESCRIPTIONS OF ALL EQUIPMENT SHALL BE SUBMITTED TO THE OWNER PRIOR TO ORDERING ANY EQUIPMENT.

ALL HORIZONTAL RUNS OF CONDUITS SHALL BE SUPPORTED BY MEANS OF APPROVED HANGER FROM THE STRUCTURAL CEILING.

COORDINATE THE WORK UNDER THIS SECTION WITH ALL OTHER TRADES.

CONDUITS AND RACEWAYS:

MANUFACTURERS: SQUARE D, B-LINE, ALLIED TUBE & CONDUIT, HOFFMAN, CARLON ELECTRICAL, WIREMOLD.

OUTDOORS EXPOSED: RIGID STEEL.
OUTDOORS CONCEALED ABOVE GROUND: RIGID STEEL.
OUTDOORS UNDERGROUND: TYPE EPC-40-PVC
OUTDOORS CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND MOTOR DRIVEN EQUIPMENT): LFMC.
BOXES AND ENCLOSURES ABOVE GROUND: NEMA 3R UNLESS NOTED OTHERWISE ON PLANS.
INDOORS EXPOSED NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
INDOORS EXPOSED NOT SUBJECT TO SEVERE PHYSICAL DAMAGE: EMT.
INDOORS EXPOSED SUBJECT TO SEVERE PHYSICAL DAMAGE: RIGID STEEL CONDUIT.
INDOORS CONCEALED IN CEILINGS AND INTERIOR WALLS AND PARTITIONS: EMT.
INDOORS CONNECTION TO VIBRATING EQUIPMENT: FMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS.
INDOORS DAMP OR WET LOCATIONS: IMC.
INDOORS LOW-VOLTAGE CABLES: EMT.

CONDUCTORS:

COPPER CONDUCTORS #10 AND SMALLER:

LABELED PER UL 83, TYPE THHN/THWN, SOLID COPPER 600 VOLT INSULATION, UNIFORM COLOR CODED JACKET WITH JACKET DATA.
METAL CLAD (TYPE MC) CABLE WHERE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 330.

COPPER CONDUCTORS #8 OR LARGER:

LABELED PER UL 83, TYPE THHN/THWN, STRANDED COPPER, 600VOLT INSULATION, UNIFORM COLOR CODED JACKET WITH JACKET DATA.

ACCEPTABLE MANUFACTURERS OF CONDUCTORS:
- PIRELLIE
- SOUTHWIRE
- AETNA
- REPUBLIC
- AFC
- ENCORE WIRE
- KERITE

CONTRACTOR MAY USE ALUMINUM CONDUCTORS FOR #4 AWG OR LARGER IN THE PLACE OF COPPER CONDUCTORS. CONTRACTOR SHALL REFER TO NEC TABLE 310-16 FOR EQUIVALENT AMPACITY AND SHALL COMPENSATE FOR VOLTAGE DROP.

SPECIFICATIONS

MOLDED CASE CIRCUIT BREAKER:

INCLUDE SCHEDULE OF ALL FUSES, RATINGS, TIME COORDINATION DATA, MANUFACTURER'S STANDARD DATA AND TIME-CURRENT CURVES. ALL DATA SHALL BE BASED ON TEST OF STANDARD PRODUCTS.

APPROVED MANUFACTURERS:
- GENERAL ELECTRIC
- CUTLER HAMMER
- SQUARE D
- SIEMENS

THERMAL-MAGNETIC BOLT-IN TYPE CIRCUIT BREAKERS WITH QUICK-MAKE, QUICK-BREAK CONTACTS, TRIP-FREE OPERATION WITH OVER-THE-CENTER TOGGLE HANDLE OR NON-REMOVABLE MONOLITHIC TIE-HANDLE.

MULTI-POLE BREAKERS SHALL HAVE INTERNAL COMMON TRIP AND COMMON RESET WITH A SINGLE TOGGLE HANDLE OR NON-REMOVABLE MONOLITHIC TIE-HANDLE.

TRIP RATINGS SHALL BE MOLDED ON THE HANDLE OR FACE OF BREAKER.

BREAKER TERMINALS SHALL BE RATED TO ACCOMMODATE A MINIMUM OF 75 DEGREE C. CONDUCTORS.

BREAKER SHALL BE RATED FOR MOUNTING AND OPERATION IN ANY POSITION; SHALL ACCOMMODATE AND MATCH THE TYPE OF TERMINATIONS REQUIRED.

SINGLE POLE BREAKERS RATED 15 AND 20 AMPERES SHALL BE UL LABELED AS "SWITCHING BREAKERS" AT THE APPLIED CIRCUIT VOLTAGE.

MULTI-POLE BREAKERS RATED 100 AMPERES AND LARGER SHALL BE MOLDED CASE THERMAL-MAGNETIC BOLT-IN TYPE BREAKER WITH ADJUSTABLE INSTANTANEOUS TRIP.

LIGHTING FIXTURE

SUBMITTAL:

SCHEDULE BY TYPE DESIGNATION ALL LIGHTING FIXTURES, EACH COMPLETE WITH DATA SHEET WITH COMPLETE PHYSICAL, ELECTRICAL AND LIGHTING CHARACTERISTICS, LAMP TYPE AND LAMP DATA.

REFER TO THE "LIGHTING FIXTURE SCHEDULE" IN THE DRAWINGS FOR INDIVIDUAL FIXTURE DESCRIPTIONS AND MANUFACTURER TYPES.

PROVIDE LAMPS FOR EACH FIXTURE OF QUANTITY, TYPE AND COLOR AS LISTED IN LIGHTING FIXTURE SCHEDULE. GE, SYLVANIA OR PHILIPS ARE ACCEPTABLE.

EACH LIGHTING FIXTURE SHALL BE UL LABELED FOR PROPER OPERATION IN THE TYPE OF CEILING CONSTRUCTION AND FOR THE MOUNTING ARRANGEMENT ONIN WHICH IT IS INSTALLED.

FIELD VERIFY ACTUAL CEILING SLOPE FOR FIXTURES INSTALLED IN SAME AND ACTUAL FIELD DIMENSIONS AND ANGLES OF CONSTRUCTION FOR ANY FIXTURE CONFORMING THE SHAPE AND LENGTH OF SAME, FOR COORDINATION OF FIXTURE CONSTRUCTION.

PANELBOARD

SUBMITTAL:

INCLUDE SCHEDULE OF EACH PANELBOARD WITH ALL DEVICES AND COMPLETE WITH PHYSICAL AND ELECTRICAL DATA AND WITH RATINGS FOR EACH COMPONENT INCLUDING BREAKER/FUSE OVERLAY CURVES.

LABELED PER UL #67 AND #50, CONFORM WITH NEMA #250 AND PB1, NFPA #70-384 AND 70-373.

ALL JUNCTION BOXES SHALL BE LABELED WITH PANEL AND CIRCUIT DESIGNATION.

PROVIDE TYPED CIRCUIT DIRECTORY WITH EACH CIRCUIT SERVING DEVICES AND AREA IT'S SERVING.

APPROVED MANUFACTURERS:
- GENERAL ELECTRIC
- CUTLER HAMMER
- SQUARE D
- SIEMENS

LIGHTING CONTROL

TIME SWITCHES:

SOLID STATE, PROGRAMMABLE, WITH ALPHANUMERIC DISPLAY; COMPLYING WITH UL 917. 20-A BALLAST LOAD, 120/240VAC.

TWO ON-OFF SET POINTS ON A 24-HOUR SCHEDULE AND ANNUAL HOLIDAY SCHDULE THAT OVERRIDES THE WEEKLY OPERATION ON HOLIDAYS.

ALLOW CONNECTION OF A PHOTOELECTRIC RELAY AS SUBSTITUTE FOR ON-OFF FUNCTION OF A PROGRAM

BATTERY BACKUP FOR NOT LESS THAN SEVEN DAYS RESERVE TO MAINTAIN SCHEDULES AND TIME CLOCK.

INDOOR OCCUPANCY SENSORS:

WALL OR CEILING MOUNTED SOLID-STATE INDOOR OCCUPANCY SENSORS WITH A SEPARATE POWER PACK

ADJUSTABLE TIME-DELAY OVER A RANGE OF 1 TO 30 MINUTES.

SENSOR OUTPUT: CONTACTS RATED TO OPERATE THE CONNECTED RELAY, COMPLYING WITH UL773A. SENSOR IS POWERED FROM POWER PACK.

POWER PACK: DRY CONTACTS RATED FOR 20-A BALLAST LOAD AT 120 OR 277 VAC. AUTOMATIC LIGHT-LEVEL SENSOR: ADJUSTABLE FROM 2 TO 200 FC (21.5 TO 2152 LUX); TURN LIGHTS OFF WHEN SELECTED LIGHTING LEVEL IS PRESENT.

DUAL SENSOR TYPE: DETECT OCCUPANCY AREA USING PIR (PASSIVE INFRA-RED) AND ULTRASONIC DETECTION METHOD.

GROUNDING AND BONDING

ALL GROUNDING AND BONDING SHALL CONFORM TO NEC ARTICLE 250.

COPPER WIRE OR CABLE INSULATED FOR 600V UNLESS REQUIRED BY APPLICABLE CODE OR AUTHORITIES HAVING JURISDICTION.

INSTALL SOLID CONDUCTOR FOR #8 AWG AND SMALLER AND STRANDED CONDUCTORS FOR #6 OR LARGER.

INSTALL INSULATED EQUIPMENT GROUNDING CONDUCTORS FOR ALL EQUIPMENT.

ELECTRICAL GENERAL NOTES

THE DESIGN OF THIS SET OF DOCUMENT IS BASED ON NEC 2020.

ELECTRICAL CONTRACTOR SHALL REFER TO ALL OTHER DESIGN DRAWINGS PRIOR TO BID AND RETAIN FULL UNDERSTANDING OF THE SCOPE OF WORK.

FIXTURE TYPE INDICATED BY UPPER CASE CHARACTERS, SWITCHING AND GROUPING DESIGNATED BY LOWER CASE LETTER AND CIRCUIT BY NUMBER (WHERE APPLICABLE).

REFER TO THE ARCHITECTURAL/INTERIORS REFLECTED CEILING PLANS FOR EXACT FIXTURE PLACEMENT AND DIMENSIONS.

REFER TO THE ARCHITECTURAL/INTERIORS DOCUMENTS FOR ACTUAL DEVICE LOCATIONS AND DIMENSIONS.

COORDINATE THE INSTALLATION OF ALL CEILING MOUNTED DEVICES (FIRE ALARM SYSTEM DEVICES AND SPEAKERS, SOUND SYSTEM SPEAKER, ETC.) TO BE SYMMETRICAL ABOUT LIGHT FIXTURES AND SPRINKLER HEADS. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN. TYPICAL.

ALL MOUNTING OF EQUIPMENT IS AS SHOWN UNLESS OTHERWISE NOTED. COORDINATE WITH ARCHITECT THE COLOR/FINISHES OF ALL ELECTRICAL DEVICES, OUTLETS, COVERPLATES AND TRIM.

EMERGENCY BATTERY PACKS AND EXIT SIGNS SHALL BE CONNECTED AHEAD OF ANY SWITCHING DEVICES.

REFER TO MECHANICAL DRAWINGS FOR DUCT SMOKE DETECTOR LOCATIONS AND QUANTITIES OPERATION SHALL INCLUDE DUAL CONTACT BASE WITH LOCAL EQUIPMENT SHUTDOWN AND FIRE ALARM SIGNAL INITIATION.

WHEN CONDUCTOR OR CONDUIT SIZE IS INDICATED FOR BRANCH CIRCUIT HOME RUN, THE CONDUCTOR AND CONDUIT SIZE INDICATED SHALL BE USED FOR THE COMPLETE CIRCUIT.

REFER TO THE APPROPRIATE DRAWINGS FOR THE EXACT LOCATION AND REQUIREMENTS OF EQUIPMENT INSTALLED UNDER OTHER DIVISIONS OF THE DOCUMENTS, WHICH REQUIRE ELECTRICAL SERVICE.

EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL RACEWAYS.

WALL SWITCHES CONTROLLING CIRCUITS OF OPPOSITE PHASES SHALL NOT BE INSTALLED IN COMMON BOX UNLESS PERMANENT BARRIER IS PROVIDED.

ALL HOME RUNS SHALL RUN PARALLEL TO STRUCTURE AS MUCH AS POSSIBLE WHERE CEILING IS EXPOSED.

ALL RACEWAY AND EQUIPMENT SUPPORTS AND HANGERS SHALL BE FULLY COORDINATED WITH STRUCTURAL DRAWINGS TO INSURE LOCATION OF SAME OCCURS WITHIN FOUR (4) INCHES OF PANEL POINT ON BAR JOISTS.

COORDINATE LOCATION OF ALL FLOOR MOUNTED MECHANICAL AND PLUMBING EQUIPMENT IN ORDER TO VERIFY POWER & CONTROL RACEWAY CONCEALED IN SLABS TERMINATED AT PROPER LOCATION.

DISCONNECT SWITCHES, MOTOR STARTERS AND OTHER ELECTRICAL EQUIPMENT INSTALLED ABOVE ACCESSIBLE CEILINGS, AND REQUIRING ACCESS FOR MAINTENANCE, SHALL BE INSTALLED WITH BOTTOM OF DEVICE ONE (1) FOOT ABOVE CEILING TO PROVIDE READY ACCESSIBILITY.

MECHANICAL, PLUMBING, FIRE PROTECTION AND OTHER EQUIPMENT ARE SHOWN ON FLOOR PLAN IN APPROXIMATE LOCATION. COORDINATE WITH M, P, FP AND CONTRACT DRAWINGS/SUBMITTALS FOR EXACT LOCATION OF EQUIPMENT.

GENERAL DIAGRAMATIC RACEWAY INTERCONNECTIONS OF EQUIPMENT, FIXTURES AND DEVICES ARE INDICATED ON FLOOR AND REFLECTED CEILING PLANS, REFER TO STRUCTURAL AND ARCHITECTURAL PLANS FOR ELEVATION CHANGES AND RACEWAY ROUTES.

RACEWAY FOR EXTERIOR LIGHTING MAY BE INDICATED OUTSIDE OF BUILDING FOOTPRINT FOR CLARITY. ROUTE ALL EXTERIOR LIGHTING RACEWAY WITHIN BUILDING STRUCTURE.

POWER AND COMMUNICATIONS/DATA CONDUITS CAN CROSS AT 90°, BUT WHERE PARALLEL, SHALL BE A MINIMUM OF 8" APART.

TELEVISION AND RADIO ANTENNAS CABLES SHALL HAVE SURGE PROTECTION. GROUND ALL MASTS.

PROVIDE SURGE PROTECTION FOR ELECTRICAL AND TELEPHONE SERVICES.

PROVIDE TVSS FOR FIRE ALARM CONTROL PANEL.

FIELD COORDINATE MECHANICAL AND PLUMBING EQUIPMENT ELECTRICAL CHARACTERISTICS WITH DIV.15 CONTRACTOR PRIOR TO ROUGH-IN. ADJUST ELECTRICAL CONNECTIONS IF NECESSARY TO MATCH ACTUAL EQUIPMENT IN FIELD. FOR EXAMPLE, COORDINATE THE NAMEPLATE OVERCURRENT PROTECTION DEVICE RATING OF MECHANICAL EQUIPMENT AMONG MECHANICAL AND ELECTRICAL SUBCONTRACTORS. ADJUST CIRCUIT BREAKER TO MATCH NAMEPLATE RATING OF EQUIPMENT AT NO ADDITIONAL COST.

FIELD COORDINATE MECHANICAL AND PLUMBING EQUIPMENT REQUIREMENTS FOR ANY SUPPLEMENTAL POWER REQUIREMENTS, INCLUDING BUT NOT LIMITED TO CONTROL CIRCUITS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BRING ALL EQUIPMENT TO ITS INTENDED OPERATIONAL STATUS.

REFER TO FIRE PROTECTION DRAWINGS FOR LOCATIONS OF FLOW AND TAMPER SWITCHES.

EACH PENETRATION OF A FIRE RESISTANT RATED ASSYMBLY BY A PIPE, TUBE WIRE OR CONDUIT SHALL BE PROTECTED BY A THROUGH PENETRATION FIRE STOP SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTME 814 OR E199.

ELECTRIC RECEPTACLES, SWITCHES, OUTLETS, ETC. SHALL NOT BE INSTALLED BACK TO BACK ON FIRE RESISTANCE RATED WALLS. THEY SHALL BE AT LEAST 24-INCHES APART.

LIGHT SWITCHES AND ELECTRICAL OUTLETS, LOCATED IN ROOMS ACCESSIBLE TO THE DISABLED SHALL BE LOCATED NO HIGHER THAN 48 INCHES AND NO LOWER THAN 15 INCHES ABOVE THE FINISHED FLOOR SURFACE. IF THE REACH OR THE CONTROL IS OVER AN OBSTRUCTION, THE MINIMUM HEIGHT SHALL BE REACHED TO 44 INCHES FOR A FORWARD APPROACH OR 46 INCHES FOR A SIDE APPROACH.

REFER TO LOW VOLTAGE CONSULTANT'S DRAWINGS FOR VOICE, DATA AND CATV OUTLET LOCATIONS. REFER TO LV CONSULTANT'S DRAWINGS FOR ANY ADDITIONAL INFORMATION.

CONNECT ALL EXIT SIGNS TO NEAREST UNSWITCHED PORTION OF THE LIGHTING CIRCUIT IN THE AREA.

ELECTRICAL BOXES INSTALLED IN FIRE RATED WALLS SHALL MAINTAIN THE INTEGRITY OF THE RATED WALL.

SUPPORT ALL VERTICAL RACEWAY PER NEC TABLE 300.19(A).

MAKE ELECTRICAL CONNECTIONS TO ELECTRIC WATER COOLERS FROM GFCI PROTECTED OUTLET IN WALL BEHIND COOLER HOUSING. THE OUTLET AND CORD SHALL NOT BE VISIBLE FROM PUBLIC VIEW.

COORDINATE WITH CUTSHEETS OF ALL EQUIPMENT TO BE INSTALLED AND PROVIDE ADDITIONAL CIRCUITS FOR CONTROLS IF REQUIRED BY MANUFACTURER.

FINAL COLOR, FINISH AND OTHER AESTHETIC PORTIONS OF ALL DEVICES SHALL BE COORDINATED WITH ARCHITECT OR OWNER'S REPRESENTATIVE. THIS SET OF DRAWINGS DOES NOT SUPERCEDE ARCHITECTURAL OR INTERIOR DOCUMENTS.

ALL EXPOSED HORIZONTAL RUNS OF CONDUITS SHALL BE EITHER PARALLEL OR PERPENDICULAR TO EXTERIOR WALLS.

PROVIDE PLENUM RATED CABLES IF THE CABLES ARE EXPOSED AND ROUTED THROUGH PLENUM.

LEGEND

SYMBOLS	DESCRIPTION	MOUNTING
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	18" AFF
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	42" AFF OR 6" ABOVE COUNTER TOP
	QUADRAPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	18" AFF
AC	QUADRAPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	42" AFF OR 6" ABOVE COUNTER TOP
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	FLUSH WITH FINISHED FLOOR
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	IN CEILING
	SPECIAL RECEPTACLE, CONFIGURATION AND ELECTRICAL CHARACTERISTIC AS NOTED ON DWG	18" AFF
J	JUNCTION BOX FLUSH IN WALL WITH COVER. SIZE PER NEC.	18" AFF
J	JUNCTION BOX FLUSH IN CEILING WITH COVER. SIZE PER NEC.	IN CEILING
J	JUNCTION BOX FLUSH IN FINISHED FLOOR WITH COVER. SIZE PER NEC.	FLUSH WITH FINISHED FLOOR
$	SWITCH	42" AFF
$3 / $3	SWITCH - 3 WAY	42" AFF
¢ / $OS	SWITCH - WALL MTD, INTEGRAL OCCUPANCY SENSOR	42" AFF
$LV	SWITCH - WALL MTD, LOW VOLTAGE, PILOT LIGHT	42" AFF
$D / $D	SWITCH - WALL MTD, DIMMING	42" AFF
OS	SWITCH - CEILING MOUNTED OCCUPANCY SENSOR	IN CEILING
TV	TV OUTLET	18" AFF
	TELEPHONE OUTLET	18" AFF
	TELEPHONE OUTLET. SUBSCRIPT: F - FIREMAN'S PHONE, H - HOUSE PHONE, P - PAY PHONE	42" AFF OR 6" ABOVE COUNTER TOP
	TELEPHONE / DATA COMBINATION OUTLET	18" AFF
	TELEPHONE / DATA COMBINATION OUTLET	FLUSH WITH FINISHED FLOOR
	TELEPHONE / DATA COMBINATION OUTLET	42" AFF OR 6" ABOVE COUNTER TOP
	DATA OUTLET	18" AFF
	DATA OUTLET	42" AFF OR 6" ABOVE COUNTER TOP
F	DISCONNECT SWITCH. SUBSCRIPT: AMP / # OF POLES / ENCLOSURE	AS INDICATED ON DWG
F	FUSED DISCONNECT SWITCH. SUBSCRIPT: AMP / # OF POLES / ENCLOSURE / FUSE	AS INDICATED ON DWG
	ELECTRICAL PANELBOARD. REFER TO PANELBOARD SCHEDULE.	SURFACE MOUNTED ON WALL
	EQUIPMENT AS NOTED ON DRAWING.	SURFACE MOUNTED ON WALL
M	MOTOR	
XX-#	HOME RUN WITH WIRE TICKS. XX - PANEL DESIGNATION, # - CIRCUIT DESIGNATION. WIRE TICKS - (1) NEUTRAL |, (3) HOT ||| & (1) GROUND •	
D / D	SMOKE DETECTOR. CEILING / WALL MOUNTED	
H / H	HEAT DETECTOR. CEILING/WALL MOUNTED	
	FIRE ALARM NOTIFICATION DEVICE. AUDIO AND VISUAL.	80" AFF
	FIRE ALARM NOTIFICATION DEVICE. AUDIO.	80" AFF
	FIRE ALARM NOTIFICATION DEVICE. VISUAL.	80" AFF
	FIRE ALARM INITIATION DEVICE. PULL STATION.	42" AFF

ABBREVIATIONS

AC	6" ABOVE COUNTER SPACE OR 42" AFF	IG	ISOLATED GROUND
AF	AMP FUSE	ISC	SHORT CIRCUIT CURRENT
AFF	ABOVE FINISHED FLOOR	LTG	LIGHTING
AL	ALUMINUM	MTD	MOUNTED
BFC	BELOW FINISHED CEILING	N	NEUTRAL
BKR	BREAKER	NL	NIGHT LIGHT
CND	CONDUIT	NEC	NATIONAL ELECTRICAL CODE
CONN	CONNECTED OR CONNECTION	PNL	PANEL
CTB	CABLE TV TERMINAL BACKBOARD	RECPT	RECEPTACLE
CU	COPPER	TEL	TELEPHONE
DN	DOWN	TTB	TELEPHONE TERMINAL BOARD
EC	EMPTY CONDUIT	TV	TELEVISION
ELEC	ELECTRICAL	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
FACP	FIRE ALARM CONTROL PANEL	TYP	TYPICAL
FAA	FIRE ALARM ANNUNCIATOR PANEL	XFMR	TRANSFORMER
G OR GRND	GROUND	UG	UNDERGROUND
GFCI OR GF	GROUND FAULT CIRCUIT INTERRUPTER	WP	WEATHERPROOF

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED No. 035547 PROFESSIONAL ENGINEER BRIAN M. ARMENTA

RELEASED FOR CONSTRUCTION

REVISIONS

No.	Date	Description
	02.15.22	BID SET

PROFICIENT ENGINEERING
6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121564

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation
for the Practice of Architecture

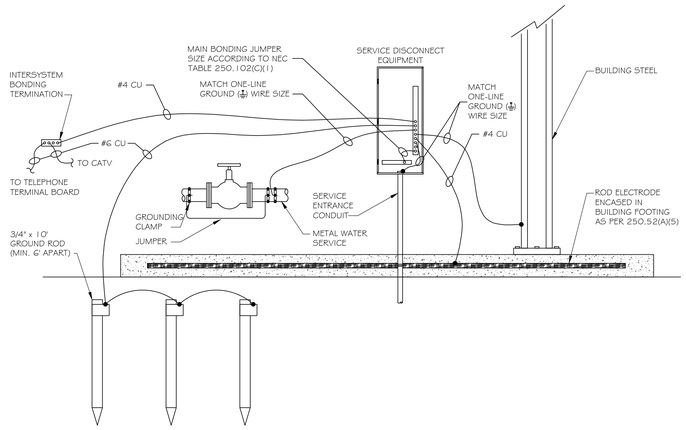
Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

PROJECT NO.
20112

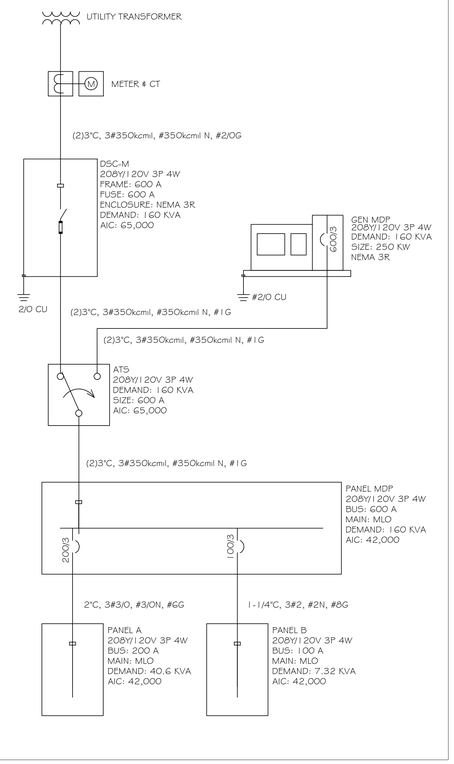
SHEET TITLE
GENERAL

SHEET NO.
E0.01

GROUNDING AND BONDING DETAIL



ONE-LINE DIAGRAM



MDP

ROOM
MOUNTING SURFACE
FED FROM ATS
NOTE NEMA 1

VOLTS 208Y/120V 3P 4W
BUS AMPS 600
NEUTRAL 100%

AIC 42,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	200/3	PANEL A	18.0			2	100/3	PANEL B	3.5		
3	|			15.4		4	|			1.8	
5	|				15.9	6	|				0.7
7	70/3	WH-1	6.0			8	30/3	UH-A	2.9		
9	|			6.0		10	|			2.9	
11	|				6.0	12	|				2.9
13	20/1	RP-1	0.4			14	30/3	CF363-3	1.3		
15	50/2	FCU-1		5.1		16	|			1.3	
17	|				5.1	18	|				1.3
19	50/2	FCU-2	5.1			20	30/3	UH-A	2.9		
21	|			5.1		22	|			2.9	
23	60/2	FCU-3			5.2	24	|				2.9
25	|		5.2			26	50/3	FAS	3.9		
27	30/2	HP-1		1.8		28	|			3.9	
29	|				1.8	30	|				3.9
31	30/2	HP-2	1.8			32	50/3	AC-1	3.9		
33	|			1.8		34	|			3.9	
35	30/2	HP-3			2.0	36	|				3.9
37	|		2.0			38	20/1	SPACE	0.0		
39	20/1	SPACE		0.0		40	20/1	SPACE		0.0	
41	20/1	SPACE			0.0	42	20/1	SPACE			0.0
								TOTAL CONNECTED KVA BY PHASE	56.9	51.8	51.6
								TOTAL CONNECTED AMPS BY PHASE	473.5	432.0	430.5

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	5.1	6.3	(125%)	RECEPTACLES	21.1	15.6	(50%>10)
LARGEST MOTOR	11.6	2.9	(25%)	KITCHEN EQUIPMENT	13.6	10.2	(LARGEST 2)
MOTORS	87.4	87.4	(100%)	CONTINUOUS	18.0	22.5	(125%)
				NONCONTINUOUS	15.0	15.0	(100%)
				TOTAL LOAD		159.9	
				BALANCED 3-PHASE LOAD		444.0 A	

A

ROOM
MOUNTING SURFACE
FED FROM MDP
NOTE NEMA 1

VOLTS 208Y/120V 3P 4W
BUS AMPS 200
NEUTRAL 100%

AIC 42,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	GARAGE DOOR	0.5			2	20/1	RECEPTACLE	0.5		
3	20/1	GARAGE DOOR		0.5		4	20/1	RECEPTACLE		1.1	
5	20/1	GARAGE DOOR			0.5	6	20/1	RECEPTACLE			0.7
7	20/1	RECEPTACLE	0.5			8	20/1	RECEPTACLE	0.7		
9	20/1	RECEPTACLE		0.5		10	20/1	RECEPTACLE		0.7	
11	20/1	RECEPTACLE			0.5	12	20/1	REFRIGERATOR			1.2
13	25/2	DRYER	2.6			14	20/1	REFRIGERATOR	1.2		
15	|			2.6		16	20/1	UC ICEMAKER		1.2	
17	20/1	WASHER			1.0	18	20/1	RECEPTACLE			0.7
19	25/2	DRYER	2.6			20	20/1	RECEPTACLE	0.5		
21	|			2.6		22	20/1	HOOD		1.0	
23	20/1	WASHER			1.0	24	50/2	RANGE			4.5
25	20/1	RECEPTACLE	0.7			26	|		4.5		
27	20/1	RECEPTACLE		1.4		28	20/1	MICROWAVE		1.5	
29	20/1	RECEPTACLE			1.4	30	20/1	DISPOSAL			1.2
31	20/1	RECEPTACLE	1.4			32	20/1	DISHWASHER	1.4		
33	20/1	RECEPTACLE		1.4		34	20/1	RECEPTACLE		0.2	
35	20/1	RECEPTACLE			0.9	36	20/1	DISPOSAL			1.2
37	20/1	RECEPTACLE	0.4			38	20/1	RECEPTACLE	0.4		
39	20/1	FACP		0.1		40	20/1	RECEPTACLE		0.5	
41	20/1	TEL BACKBOARD			1.0	42	20/1	SPACE			0.0
								TOTAL CONNECTED KVA BY PHASE	18.0	15.4	15.9
								TOTAL CONNECTED AMPS BY PHASE	150.1	131.0	134.4

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
RECEPTACLES	20.8	15.4	(50%>10)	KITCHEN EQUIPMENT	13.6	10.2	(LARGEST 2)
				NONCONTINUOUS	15.0	15.0	(100%)
				TOTAL LOAD		40.6	
				BALANCED 3-PHASE LOAD		112.7 A	

B

ROOM
MOUNTING SURFACE
FED FROM MDP
NOTE NEMA 1

VOLTS 208Y/120V 3P 4W
BUS AMPS 100
NEUTRAL 100%

AIC 42,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	LIGHTING	1.0			2	20/1	EF-A, LIGHTING	1.3		
3	20/1	LIGHTING		1.2		4	20/1	EF-A, LIGHTING		0.6	
5	20/1	RECEPTACLE			0.4	6	20/1	LIGHTING			0.4
7	20/1	SPACE	0.0			8	20/1	EF-A, LIGHTING	0.7		
9	20/1	SPACE		0.0		10	20/1	SPACE		0.0	
11	20/1	SPACE			0.0	12	20/1	SPACE			0.0
13	20/1	LIGHTING	0.5			14	20/1	SPACE	0.0		
15	20/1	SPACE		0.0		16	20/1	SPACE		0.0	
17	20/1	SPACE			0.0	18	20/1	SPACE			0.0
19	20/1	SPACE	0.0			20	20/1	SPACE	0.0		
21	20/1	SPACE		0.0		22	20/1	SPACE		0.0	
23	20/1	SPACE			0.0	24	20/1	SPACE			0.0
25	20/1	SPACE	0.0			26	20/1	SPACE	0.0		
27	20/1	SPACE		0.0		28	20/1	SPACE		0.0	
29	20/1	SPACE			0.0	30	20/1	SPACE			0.0
31	20/1	SPACE	0.0			32	20/1	SPACE	0.0		
33	20/1	SPACE		0.0		34	20/1	SPACE		0.0	
35	20/1	SPACE			0.0	36	20/1	SPACE			0.0
37	20/1	SPACE	0.0			38	20/1	SPACE	0.0		
39	20/1	SPACE		0.0		40	20/1	SPACE		0.0	
41	20/1	SPACE			0.0	42	20/1	SPACE			0.0
								TOTAL CONNECTED KVA BY PHASE	3.5	1.8	0.7
								TOTAL CONNECTED AMPS BY PHASE	29.0	15.2	6.1

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	5.1	6.3	(125%)	MOTORS	0.6	0.6	(100%)
LARGEST MOTOR	0.1	0.0	(25%)	RECEPTACLES	0.4	0.4	(50%>10)
				TOTAL LOAD		7.3	
				BALANCED 3-PHASE LOAD		20.3 A	

FAULT CURRENT SCHEDULE

DEVICE	FAULT	AIC RATING	L-N VOLTS
DSC-M	20,939	65,000	120V
ATS	37,567	65,000	120V
MDP	32,091	42,000	120V
A	23,936	42,000	120V
B	17,842	42,000	120V

VOLTAGE DROP SCHEDULE

DEVICE	FEEDER		BRANCH CIRCUIT		TOTAL VOLTAGE DROP
	VOLTAGE DROP	WIRE SIZE	MAX VOLTAGE DROP	WIRE SIZE	
GEN MDP	-	-	-	-	0%
DSC-M	0.86%	(2)#350kcmil	-	-	0.86%
ATS	1.21% / 1.17%	(2)#350kcmil / (2)#350kcmil	-	-	1.21%
MDP	1.42%	(2)#350kcmil	1.42% (CKT 35,37)	#10	2.84%
A	1.54%	#3/0	2.81% (CKT 31)	#12	4.35%
B	1.47%	#2	2.36% (CKT 2)	#12	3.83%

GENERAL SCHEDULE

CALLOUT	SYMBOL	VOLTS	KVA	BREAKER	CIRCUIT	WIRE CALLOUT	DISCONNECT DESCRIPTION
AC-1		208V 3P 4W	11.64	50/3	MDP-32,34,36	1"C,3#6,#6N,#10G	60A/3P/NEMA 1
CF363-3		208V 3P 4W	3.99	30/3	MDP-14,16,18	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 3R
EF-A		120V 1P 2W	0.1	20/1	B-2	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-A		120V 1P 2W	0.1	20/1	B-2	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-A		120V 1P 2W	0.1	20/1	B-2	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-A		120V 1P 2W	0.1	20/1	B-2	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-A		120V 1P 2W	0.1	20/1	B-4	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-A		120V 1P 2W	0.1	20/1	B-8	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
FAS		208V 3P 4W	11.64	50/3	MDP-26,28,30	1"C,3#6,#6N,#10G	60A/3P/NEMA 1
FCU-1		208/120V 2P 3W	10.15	50/2	MDP-15,17	3/4"C,2#6,#6N,#10G	60A/2P/NEMA 1
FCU-2		208/120V 2P 3W	10.15	50/2	MDP-19,21	3/4"C,2#6,#6N,#10G	60A/2P/NEMA 1
FCU-3		208/120V 2P 3W	10.48	60/2	MDP-23,25	3/4"C,2#6,#6N,#10G	60A/2P/NEMA 1
HP-1		208/120V 2P 3W	3.52	30/2	MDP-27,29	1/2"C,2#10,#10N,#10G	30A/2P/NEMA 3R
HP-2		208/120V 2P 3W	3.52	30/2	MDP-31,33	1/2"C,2#10,#10N,#10G	30A/2P/NEMA 3R
HP-3		208/120V 2P 3W	4.06	30/2	MDP-35,37	1/2"C,2#10,#10N,#10G	30A/2P/NEMA 3R
RP-1		120V 1P 2W	0.4	20/1	MDP-13	1/2"C,1#12,#12N,#12G	SINGLE POLE SWITCH
UH-A		208V 3P 4W	8.65	30/3	MDP-8,10,12	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 1
UH-A		208V 3P 4W	8.65	30/3	MDP-20,22,24	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 1
WH-1		208V 3P 4W	18	70/3	MDP-7,9,11	1-1/4"C,3#4,#4N,#8G	100A/3P/NEMA 1

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	MODEL	VOLTS
A		(1) 22.7W LED	2X4 RECESSED ARCHITECTURAL TROFFER, 3000 LUMENS, 3000K, CURVED RIBBED ACRYLIC LENS	LITHONIA LIGHTING: 2BLT4 30L ADP GZ10 LP830	120V 1P 2W
A2		(1) 22.7W LED	2X2 RECESSED ARCHITECTURAL TROFFER, 3000 LUMENS, 3000K, CURVED RIBBED ACRYLIC LENS	LITHONIA LIGHTING: 2BLT2 30L ADP GZ10 LP830	120V 1P 2W
B1		(1) 28.5W LED	2X4 ADJUSTABLE LUMEN OUTPUT/ SWITCHABLE WHITE RECESSED ARCHITECTURAL TROFFER, LOW LUMEN SETTING, 3500K, CURVED RIBBED ACRYLIC LENS	LITHONIA LIGHTING: BLT 2X4 ALO12 SWW7 LOW LUMEN	120V 1P 2W
B2		(1) 37.2W LED	2X4 ADJUSTABLE LUMEN OUTPUT/ SWITCHABLE WHITE RECESSED ARCHITECTURAL TROFFER, MEDIUM LUMEN SETTING, 3500K, CURVED RIBBED ACRYLIC LEN	LITHONIA LIGHTING: BLT 2X4 ALO12 SWW7 MEDIUM LUMEN	120V 1P 2W
C		(1) 16.1W LED	3" LED DOWNLIGHT, **** LUMENS, 3000K, WHITE BEVEL TRIM, 0-10V DIMMING TO 1%	LITHONIA: INIT3D 15LM 30K 80CRI 50D E2I MVOLT/ NT3DBV BD WH5F	120V 1P 2W
D		(1) 16.1W LED	3" LED DOWNLIGHT, **** LUMENS, 3000K, WHITE BEVEL TRIM, 0-10V DIMMING TO 1%, WITH RED DICHROIC LENS	LITHONIA INIT3D 15LM 30K 80CRI 50D E2I MVOLT/ NT3DBV BD WH5F/ DGF 200 DRED	120V 1P 2W
F		(1) 16.1W LED	3" LED DOWNLIGHT, **** LUMENS, 3500K, WHITE BEVEL TRIM, 0-10V DIMMING TO 1%, WET LISTED	LITHONIA INIT3D 15LM 35K 80CRI 50D E2I MVOLT/ NT3DBV BD WH5F WSOL	120V 1P 2W
G		(1) 37W LED	4' SURFACE MOUNTED ARCHITECTURAL WRAP, 4000 LUMENS, 3500K, CURVED RIBBED ACRYLIC LENS	LITHONIA LIGHTING: BLWP4-40L ADP GZ10 LP835/ BLWPCGF36F2	120V 1P 2W
H		(1) 32.4W LED	22" VANITY FIXTURE, 3000K	WAC LIGHTING: WS-26922-**	120V 1P 2W
J		(1) 19.5W LED	FLUSH MOUNT CEILING FAN, 6 SPEED, DC MOTOR, BLUETOOTH CONTROL, LED LIGHT, 3000K	MODERN FORMS: FH-W1803-52L-*HOUSING FINISH*-*BLADE FINISH*-	120V 1P 2W
K		(1) 204W LED	CYLINDRICAL LOW BAY, EXTRUDED ALUMINUM, POLYCARBONIATE LENS, RIGHT, DOWN, & LEFT ILLUMINATED SIDES, TANDEM MOUNTING	LUX DYNAMICS: 360F-4-RDL-835-U10-HM-WP**-CFO (2000 LMF) - TANDEM MOUNT 12'	120V 1P 2W
M		(1) 37W LED	EXTERIOR SCONCE, 13" DIAMETER SHADE, OPAL GLASS, 3500K	INTRIGUE LIGHTING: CN-WA-**LED-35K-D-OL-UNV-*FINISH*	120V 1P 2W
N		(1) LED	EXTERIOR SCONCE, 13" DIAMETER SHADE, OPAL GLASS, 3500K	INTRIGUE LIGHTING: CN-WA-**LED-35K-D-OL-UNV-BLK	120V 1P 2W
P		(1) 10W LED	EXTERIOR WALL PACK, 3500K, VISUAL COMFORT WIDE DISTRIBUTION	LITHONIA WDGE2 LED P1 35K 80CRI VW DBLXD	120V 1P 2W
T		(2) 1.5W LED	EMERGENCY LIGHTING UNIT	LITHONIA ELM2L-LED	120V 1P 2W
X		(1) 5W LED	THERMOPLASTIC EXIT SIGN WITH BACKUP BATTERY	LITHONIA LQM-S-W-3-R-120/277-EL-N	120V 1P 2W
XR		(1) INCLUDED	REMOTE LAMP HEAD	LITHONIA ELA-QWP-L0309-SD	120V 1P 2W

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED No. 035547 PROFESSIONAL ENGINEER BRIAN M. ARMENTA

RELEASED FOR CONSTRUCTION

REVISIONS

No.	Date	Description
	02.15.22	BID SET

PROFICIENT ENGINEERING
6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121564

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation
for the Practice of Architecture

Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

PROJECT NO.
20112

SHEET TITLE
SCHEDULES

SHEET NO.
E0.02

COM*check* Software Version 4.1.5.1

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: UNION COUNTY FIRESTATION
Project Type: New Construction

Construction Site:
HABOR BOULEVARD @ MURPHY HIGHWAY
BLAIRSVILLE, GA 30512

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

High efficiency HVAC. Systems that do not meet the performance requirement will be identified in the mechanical requirements checklist report.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Fire Station	7293	0.67	4886
		Total Allowed Watts =	4886

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Fire Station				
LED: A: 2X4 RECESSED ARCHITECTURAL TROF: Other:	1	25	23	568
LED: B1: 2X4 ADJUSTABLE LUMEN OUTPUT/ SW: Other:	1	7	28	200
LED: B2: 2X4 ADJUSTABLE LUMEN OUTPUT/ SW: Other:	1	11	37	409
LED: C: 3" LED DOWNLIGHT, **** LUMENS, : Other:	1	28	16	451
LED: D: 3" LED DOWNLIGHT, **** LUMENS, : Other:	1	8	16	129
LED: F: 5" LED DOWNLIGHT, **** LUMENS, : Other:	1	4	16	64
LED: G: 4' SURFACE MOUNTED ARCHITECTURA: Other:	1	4	37	148
LED: H: 2Z' VANITY FIXTURE, 3000K: Other:	1	6	32	194
LED: J: FLUSH MOUNT CEILING FAN, 6 SPEE: Other: Electronic:	1	4	20	78
LED: K: CYLINDRICAL LOW BAY, EXTRUDED A: Other:	1	11	204	2244
		Total Proposed Watts =		4485

Interior Lighting PASSES: Design 8% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COM*check* Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Brian M. Armenta -PE
Name - Title

Signature

01/05/2022
Date

COM*check* Software Version 4.1.5.1

Inspection Checklist

Energy Code: 2015 IECC

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.6 [PR16][1]	Group R-2 dwelling units have separate electrical meters.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15][1]	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1 [EL18][1]	Occupancy sensors installed in required spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1, C405.2.2.3 [EL23][2]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.1 [EL22][2]	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3 [EL16][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3, C405.2.3.1, C405.2.3.2 [EL20][1]	Primary sidelighted areas are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3, C405.2.3.1, C405.2.3.3 [EL21][1]	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.4 [EL4][2]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.4 [EL8][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][1]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C408.2.5.1 [FI16][1]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Union County Fire Station

Harbor Boulevard at Murphy Highway Blairsville, Georgia 30512

GEORGIA REGISTERED No. 035547 PROFESSIONAL ENGINEER BRIAN M ARMENTA

RELEASED FOR CONSTRUCTION

REVISIONS

No.	Date	Description
.	02.15.22	BID SET

PROFICIENT ENGINEERING
6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121564

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation for the Practice of Architecture

Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

PROJECT NO.
20112

SHEET TITLE
ENERGY COMPLIANCE REPORT

SHEET NO.
E0.03

KEYNOTES

1. ROUTE (2) 2"C FROM TELEPHONE UTILITY DEMARCATION POINT WITH PULL STRING.
2. PROVIDE POWER FOR GARAGE DOOR OPENER. COORDINATE CONTROLS AND POWER REQUIREMENTS WITH MANUFACTURER. COORDINATE CONTROLS LOCATION WITH OWNER/ARCHITECT.
3. COORDINATE KITCHEN EQUIPMENT CONNECTION REQUIREMENTS WITH MANUFACTURER.
4. DATA RACK BY OTHERS. PROVIDE A DEDICATED DUPLEX RECEPTACLE AS SHOWN. COORDINATE ADDITIONAL REQUIREMENTS WITH OTHERS.
5. RETRACTING DUPLEX RECEPTACLE SUSPENDED FROM CEILING. FIELD COORDINATE EXACT LOCATION AND REQUIREMENT WITH OWNER.
6. FIELD COORDINATE EXACT LOCATION OF FLOOR BOXES WITH FURNITURE LOCATIONS BEFORE INSTALLATION.
7. POWER FOR FIELD AIR SYSTEM. FIELD COORDINATE EXACT REQUIREMENT WITH INSTALLER.
8. POWER FOR AIR COMPRESSOR. FIELD COORDINATE EXACT REQUIREMENT WITH INSTALLER.

GENERAL NOTES

REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES.

ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY ARTICLE 250-146.

ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY ARTICLE 250-146 AND SHALL BE TAMPER-RESISTANT UNLESS OTHERWISE ALLOWED BY ARTICLE 406.12.

PER THE REQUIREMENT OF NEC ARTICLE 100 AND 210.12(A) ARC-FAULT PROTECTION IS REQUIRED IN ALL 120-VOLT, SINGLE PHASE 15- AND 20 AMPERE BRANCH CIRCUITS THAT SUPPLY OUTLETS IN DWELLING UNIT BEDROOMS, LIVING ROOMS, KITCHENS AND LAUNDRY AREAS. THIS INCLUDES RECEPTACLE OUTLETS, LIGHTING OUTLETS, CEILING FAN OUTLETS AND SMOKE DETECTORS.

ALL GUEST ROOM SMOKE DETECTORS SHALL BE LOW-VOLTAGE PHOTOELECTRIC WITH SOUNDER BASES MONITORED BY BUILDING FACP. DETECTORS SHALL BE EQUIPPED WITH SOUNDER BASES. PROGRAM AUDIBLE ALARM PER MARRIOTT STANDARDS AND REQUIREMENTS. UPON ACTIVATION, DETECTOR SHALL SEND SUPERVISORY SIGNAL TO BUILDING FACP.

CONTRACTOR SHALL PROVIDE AN ANSUL FIRE SUPPRESSION SYSTEM FOR RANGE HOOD. SYSTEM SHALL HAVE APPLIANCE INTERLOCK TO SHUT DOWN APPLIANCES IN EVENT OF FIRE.

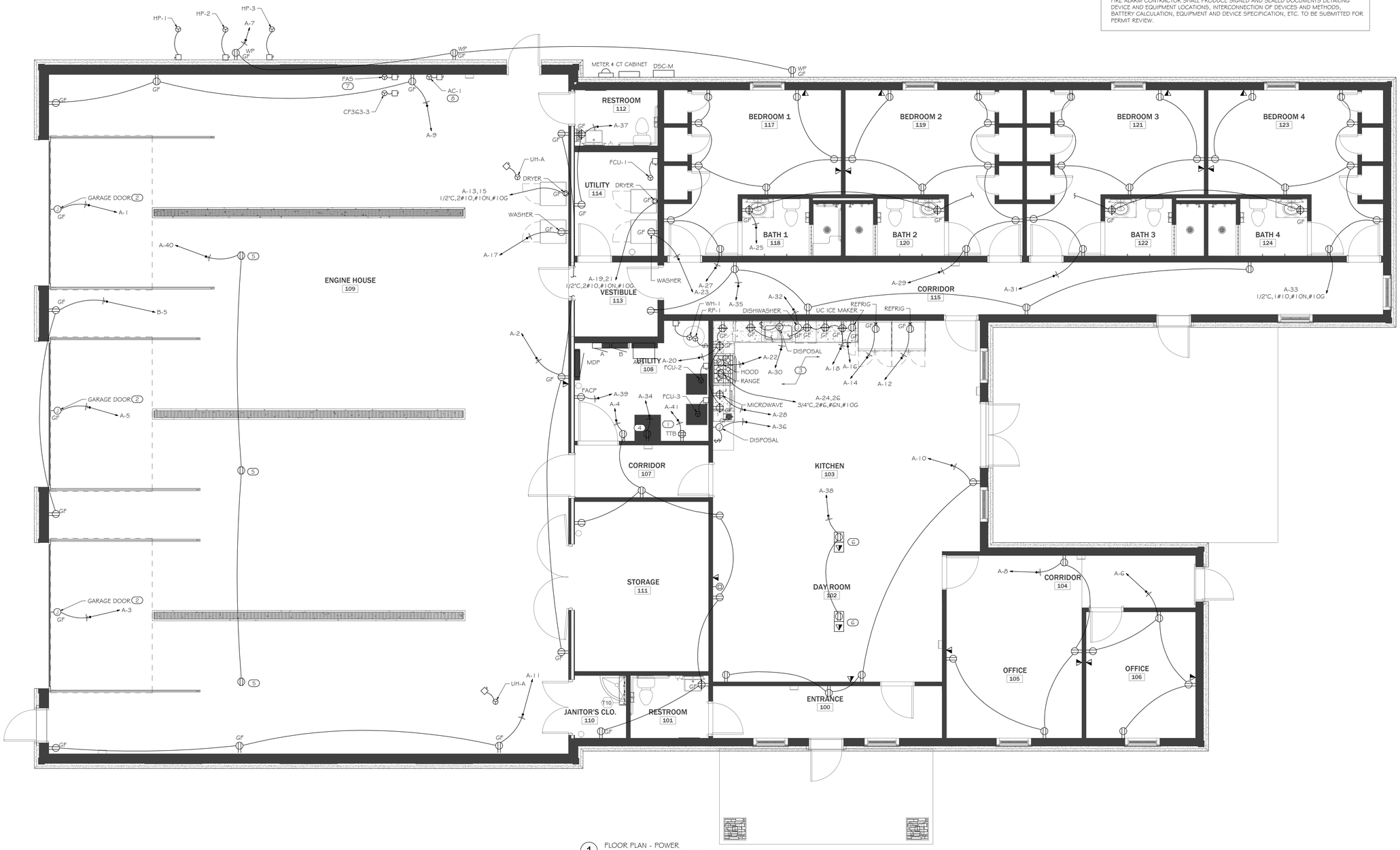
FIRE ALARM NOTES:

A FIRE ALARM SYSTEM HAS BEEN DETERMINED TO BE NECESSARY AS PER NFPA 101 AND/OR IBC REQUIREMENTS FOR THIS PROJECT.

COMPLETE FIRE ALARM DESIGN DOCUMENTS SHALL BE OF A DELEGATED DESIGN AND SHALL BE PROVIDED BY A LICENSED FIRE ALARM CONTRACTOR.

FIRE ALARM SHOP DRAWINGS SHALL BE PREPARED BY MINIMUM NICET LEVEL III OR ABOVE CERTIFIED PERSONNEL, DEPENDING ON LOCAL JURISDICTION REQUIREMENTS.

FIRE ALARM CONTRACTOR SHALL PRODUCE SIGNED AND SEALED DOCUMENTS DETAILING DEVICE AND EQUIPMENT LOCATIONS, INTERCONNECTION OF DEVICES AND METHODS, BATTERY CALCULATION, EQUIPMENT AND DEVICE SPECIFICATION, ETC. TO BE SUBMITTED FOR PERMIT REVIEW.



1 FLOOR PLAN - POWER
SCALE: 1/4" = 1'-0"

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED No. 035547 PROFESSIONAL ENGINEER BRIAN M. ARMENTA

RELEASED FOR CONSTRUCTION

REVISIONS

No.	Date	Description
	02.15.22	BID SET

PROFICIENT ENGINEERING
6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121564

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation
for the Practice of Architecture

Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

PROJECT NO.
20112

SHEET TITLE
FLOOR PLAN – POWER

SHEET NO.
E1.10

LIGHTING CONTROL

CONTRACTOR SHALL PROVIDE LIGHTING CONTROL REQUIRED BY IECC 2015. COORDINATE WITH LIGHTING VENDOR FOR REQUIRED DEVICES TO ACCOMPLISH THE REQUIREMENT OF IECC.

PRIVATE OFFICE:
- MANUAL ON OR AUTO ON FOR HALF OR LESS FIXTURES. C405.2.1.1.2
- AUTO OFF ON ALL FIXTURES VIA OCCUPANCY SENSOR. C405.2.1.1.1
- LOCAL CONTROL FOR OCCUPANT CONTROL. C405.2.2.3

CONFERENCE ROOM:
- MANUAL ON OR AUTO ON FOR HALF OR LESS FIXTURES. C405.2.1.1.2
- AUTO OFF ON ALL FIXTURES VIA OCCUPANCY SENSOR. C405.2.1.1.1
- LOCAL CONTROL FOR OCCUPANT CONTROL. C405.2.2.3
- DAYLIGHT CONTROL REQUIRED IF TOTAL WATTAGE OF LIGHTING IS 150W OR MORE. C405.2.3.1#2

LOBBY & CORRIDOR:
- FULL AUTO ON. C405.2.1.1.2
- FULL AUTO OFF OR TIMECLOCK OFF VIA SYSTEM CONTROLLER. C405.2.1.1.1 OR C405.2.2.1

DAYLIGHT RESPONSE CONTROL:
- SHALL BE PROVIDED WITHIN EACH SPACE WITH SIDELIGHT AND TOPLIGHT DAYLIGHT ZONES TOTALING >150W.

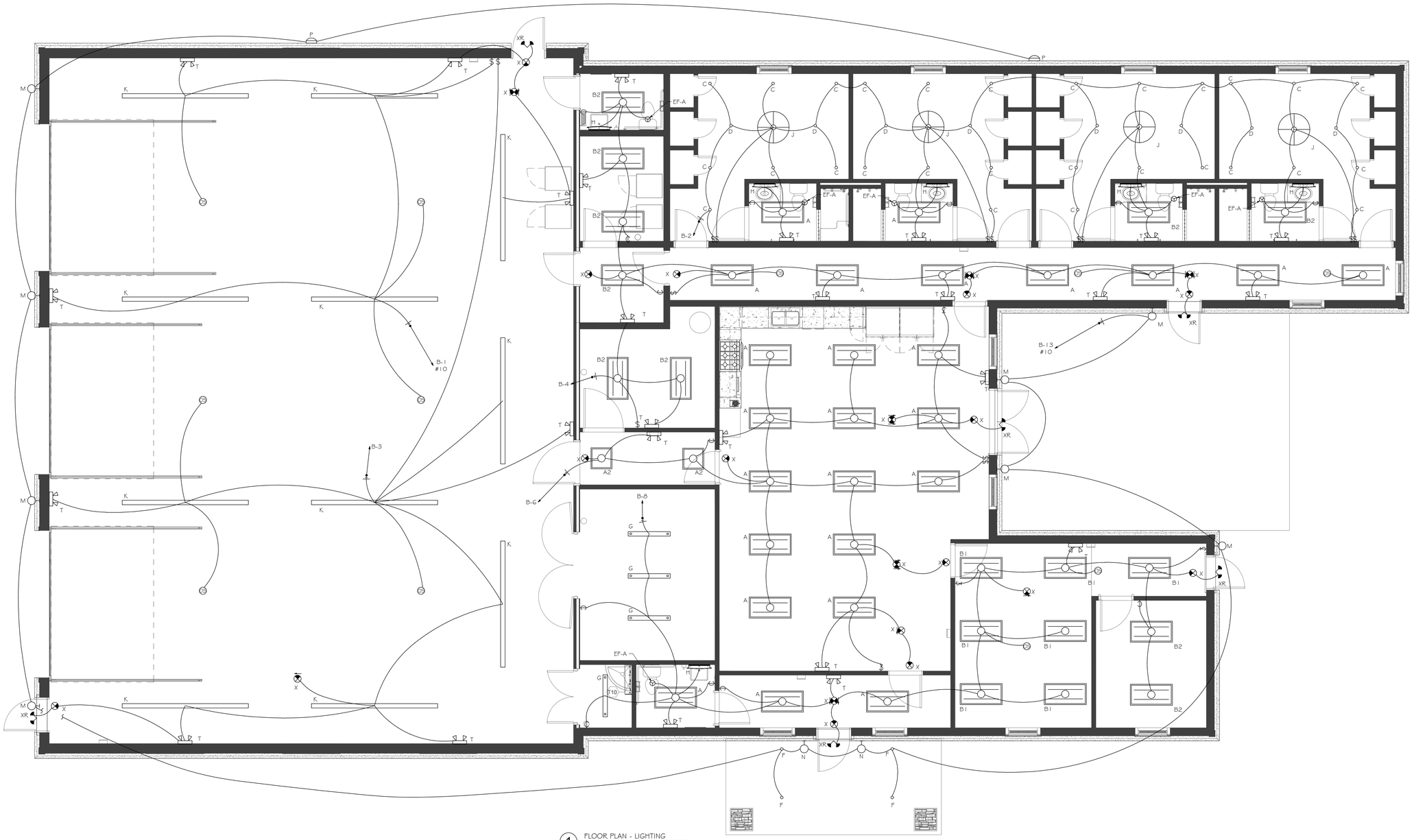
RESTROOM:
- FULL AUTO ON. C405.2.1.1.2
- AUTO OFF ON ALL FIXTURES VIA OCCUPANCY SENSOR. C405.2.1.1.1

EXTERIOR LIGHTING:
- LIGHTING SHALL AUTOMATICALLY REDUCE CONNECTED LIGHTING POWER BY NOT LESS THAN 30% FROM NO LATER THAN MIDNIGHT TO 6 AM FOR ONE HOUR AFTER BUSINESS CLOSING WHEN OCCUPANCY HAS NOT BEEN DETECTED FOR LONGER HAN 15 MINUTES. C405.2.5.3

GENERAL NOTES

REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES.

PROVIDE UNSWITCHED HOT LEG OF CIRCUIT TO EMERGENCY LIGHTING AND EXIT SIGNS.



1 FLOOR PLAN - LIGHTING
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PROJECT NO.
20112

SHEET TITLE
FLOOR PLAN – LIGHTING

SHEET NO.
E2.10

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE	IMB	ICE MACHINE BOX
A/C	ABOVE CEILING	IE	INVERT ELEVATION
A/F	ABOVE FLOOR	IWH	INSTANTANEOUS WATER HEATER
AFF, AFG	ABOVE FINISHED FLOOR/GRADE	L, LAV	LAVATORY
B/F, B/G	BELOW FLOOR/GRADE	MBH	1000 BTU/HR
BFP	BACKFLOW PREVENTER	MS	MOP SINK
CA	COMPRESSED AIR	MV	MIXING VALVE
CONT	CONTINUATION	O/H	OVERHEAD
CW	COLD WATER	G	NATURAL GAS
DN	DOWN	PD	PUMPED DISCHARGE
ET	EXPANSION TANK	PRV	PRESSURE REDUCING VALVE
EWC	ELECTRIC WATER COOLER	RP	RECIRCULATION PUMP
ex.	EXISTING	S, SAN	SANITARY
FCO	FLOOR CLEANOUT	SH	SHOWER
FD	FLOOR DRAIN	SK	SINK
FHB	FREEZEPROOF HOSE BIBB	TP	TRAP PRIMER
FS	FLOOR SINK	TYP	TYPICAL
FRH	FREEZEPROOF ROOF HYDRANT	UR	URINAL
FWH	FREEZEPROOF WALL HYDRANT	V	VENT
GCO	GRADE CLEANOUT	VTR	VENT THROUGH ROOF
GI	GREASE INTERCEPTOR	WC	WATER CLOSET
HB	HOSE BIBB	W.C.	WATER COLUMN
HD	HUB DRAIN	WCO	WALL CLEANOUT
HW	HOT WATER	WHA	WATER HAMMER ARRESTER
HWR	HOT WATER RETURN	WMB	WASHING MACHINE BOX

LEGEND

—— – —— – ——	COLD WATER PIPE
—— – – —— – – ——	HOT WATER PIPE
—— – – – ——	HOT WATER RETURN PIPE
——— S ———	SANITARY PIPE
— – — – — – —	VENT PIPE
——— CA ———	COMPRESSED AIR PIPE
——— GW ———	GREASE WASTE PIPE
——— F ———	FIRE SPRINKLER PIPE
——— ST ———	STORM PIPE
——— EST ———	EMERGENCY STORM PIPE
——— IW ———	INDIRECT WASTE PIPE
——— PD ———	PUMPED DISCHARGE
——— FW ———	FILTERED WATER PIPE
	PIPE UP / PIPE DOWN
	PIPE TEE FROM TOP / TEE FROM BOTTOM
	PIPE CAP / PIPE CONTINUATION
	DIRECTIONAL FLOW ARROW
	BALL VALVE / CHECK VALVE
	MIXING VALVE / PRESSURE REDUCING VALVE
	BACKFLOW PREVENTER ASSEMBLY
	WALL HYDRANT / HOSE BIBB
	FLOOR DRAIN / FLOOR SINK
	WATER HAMMER ARRESTOR
	GAS COCK / GAS SOLENOID VALVE
	P-TRAP
	HUB DRAIN
	TRAP PRIMER
	FLOOR CLEANOUT / GRADE CLEANOUT
	VENT THROUGH ROOF
	PIPE CLEANOUT / WALL CLEANOUT

SPECIFICATIONS

GENERAL
ALL WORK SHALL COMPLY WITH ALL STATE, CITY AND LOCAL CODES, RULES AND REGULATIONS. CONTRACTOR SHALL SECURE ALL REQUIRED PERMITS AND INSPECTIONS ASSOCIATED WITH THIS WORK, AND SHALL PAY ALL COSTS AND FEES INVOLVED.

ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE BEST RECOGNIZED PRACTICE IN THE FIELD CONCERNED. MANUFACTURED ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED DIRECTIONS, SPECIFICATIONS AND RECOMMENDATIONS.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR EQUIPMENT INSTALLATION PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS. ALL EQUIPMENT AND DEVICES SHALL BE INSTALLED SUCH THAT THEY ARE EASILY ACCESSIBLE AND SERVICABLE. THIS EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: PLUMBING FIXTURES, WATER HEATERS, EXPANSION TANKS, PUMPS, BACKFLOW PREVENTERS, VALVES, MIXING VALVES, THERMOMETERS, GAUGES, TRAP PRIMERS AND CLEANOUTS.

THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE FULL SET OF CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL & ELECTRICAL DRAWINGS (AS APPLICABLE) TO ENSURE ALL PLUMBING WORK IS COORDINATED WITH PHYSICAL CONDITIONS AND ALL OTHER TRADES.

THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE ARCHITECTURAL DRAWINGS TO ENSURE THERE IS ADEQUATE WALL THICKNESS SUCH THAT ALL PIPING, FIXTURE CARRIERS, WALL CLEANOUTS, WALL BOXES, WALL HYDRANTS AND ACCESS PANELS WILL FIT IN THE WALL SPACE. CONTRACTOR SHALL NOTIFY THE ARCHITECT IF WALL SPACE IS INADEQUATE PRIOR TO COMMENCING WORK.

THE CONTRACTOR SHALL OBTAIN EXACT WALL, FIXTURE, AND LAYOUT DIMENSIONS FROM THE ARCHITECTURAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ROUGH-IN AND INSTALLATION DRAWINGS FOR ALL PLUMBING FIXTURES, KITCHEN EQUIPMENT AND OWNER FURNISHED EQUIPMENT (AS APPLICABLE), AND SHALL COORDINATE THE PLUMBING INSTALLATION PRIOR TO COMMENCING THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL NECESSARY VALVES, CONNECTIONS, TRAPS, ACCESS PANELS, UNIONS, ESCUTCHEONS, WATER HAMMER ARRESTORS, VACUUM BREAKERS, RELIEF VALVES, PIPE INSULATION, AND EQUIPMENT SPECIALTY DEVICES AS REQUIRED TO FACILITATE COMPLETE AND OPERATIONAL CONDITIONS WHICH ARE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

THESE DRAWINGS ARE DIAGRAMMATIC AND DO NOT REFLECT ALL POSSIBLE PHYSICAL CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND EXACT LOCATIONS OF EQUIPMENT AND FIXTURES. PROVIDE NECESSARY PIPING OFFSETS TO COORDINATE WITH THE BUILDING STRUCTURE, WORK OF OTHER TRADES, AND CONNECTION TO SITE UTILITIES (AS APPLICABLE).

COORDINATE THE ELECTRICAL REQUIREMENTS AND CHARACTERISTICS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ISSUING SUBMITTALS OR PURCHASING EQUIPMENT.

UNLESS NOTED OTHERWISE, ALL DRAINAGE PIPING SHALL BE SLOPED AT A MINIMUM OF ¼" PER FOOT. 2" SANITARY PIPING AND ALL GREASE WASTE PIPING SHALL BE SLOPED AT ½" PER FOOT.

DOMESTIC WATER PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.

ALL DOMESTIC WATER PIPING, SANITARY P-TRAPS AND GREASE WASTE PIPING SUBJECT TO FREEZING SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. CONDENSATE PIPING SUBJECT TO FREEZING WITHIN WALK-IN FREEZERS SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. PIPING INSTALLED IN EXTERIOR WALLS SHALL BE WRAPPED IN 1" THICK PIPE INSULATION AND BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING INSULATION. IF INSTALLED IN EXTERIOR BLOCK WALLS, INTERSTITIAL SPACES SHALL BE FILLED WITH FOAM INSULATION.

IN CONCEALED LOCATIONS WHERE PIPING, OTHER THAN CAST-IRON OR GALVANIZED STEEL, IS INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, OR SIMILAR MEMBERS LESS THAN 1½" FROM THE NEAREST EDGE OF MEMBER, PIPE SHALL BE PROTECTED BY STEEL SHIELD PLATES IN ACCORDANCE WITH IPC 305.6.

PIPE PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS SHALL HAVE EQUIVALENTLY RATED SLEEVES AND SHALL BE SEALED AND FIRE CAULKED WITH A U.L. LISTED FIRE STOPPING SYSTEM INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LISTED DETAILS AND SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE REQUIREMENTS OF THE COUNTY HEALTH DEPARTMENT AND OTHER LOCAL AUTHORITIES HAVING JURISDICTION REGARDING GROSS CONNECTION CONTROL OR OBTAINING A FOOD SERVICE PERMIT (AS APPLICABLE). REPORT ANY OBSERVED DISCREPANCIES TO THE ARCHITECT OR ENGINEER PRIOR TO COMMENCING WITH THE WORK.

CONTRACTOR SHALL CONFIRM PLUMBING FIXTURE FINISHES WITH THE ARCHITECTURAL SCHEDULES & DETAILS (AS APPLICABLE).

SUBMITTALS
FURNISH SHOP DRAWINGS FOR MANUFACTURED PRODUCTS. ALL ITEMS SHALL BE CLEARLY MARKED TO MATCH EQUIPMENT MARKS ON THE PLUMBING DRAWINGS. ALL OPTIONS MUST BE CLEARLY MARKED ON THE SUBMITTAL SHEET. A MODEL NUMBER LISTING ON A COVER SHEET IS NOT AN ACCEPTABLE SUBSTITUTE FOR MARKING THE ACTUAL SUBMITTAL SHEET. ELECTRICAL DATA FOR POWERED EQUIPMENT MUST BE INDICATED ON THE SUBMITTAL SHEET FOR THAT ITEM.

ALL ITEMS MUST BE SUBMITTED IN ONE PACKAGE AT THE SAME TIME, IN ELECTRONIC PDF FORMAT. SEPARATE SUBMITTALS FOR FIXTURES AND EQUIPMENT IS NOT ACCEPTABLE.

SUBMITTAL REVIEW IS CONSIDERED A GENERAL ACCEPTANCE OF THE BASIC APPLICABILITY OF THE EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND/OR ALTERNATE ARRANGEMENT OF THE EQUIPMENT WITHIN A GIVEN SPACE. WHEN SUBSTITUTED EQUIPMENT IS INSTALLED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION OR ADDITIONAL COST BROUGHT ON BY THE USE OF THIS EQUIPMENT.

HANGERS AND SUPPORTS
HANGERS SHALL BE COMPLETE WITH RODS AND SUPPORTS PROPORTIONED TO THE SIZE OF PIPE TO BE SUPPORTED, IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

SIZE HANGERS FOR INSULATED PIPING TO BEAR ON OUTSIDE OF INSULATION. PROVIDE INSULATION PROTECTORS AT HANGERS BEARING ON THE OUTSIDE OF INSULATION. PROVIDE A RIGID INSERT OR RIGID INSULATION AT EACH INSULATION PROTECTOR.

WHERE SEVERAL PIPES 2½" AND SMALLER RUN PARALLEL AND IN THE SAME PLANE, THEY MAY BE SUPPORTED ON GANG OR MULTIPLE HANGERS. LARGER PIPING SHALL BE INDEPENDENTLY HUNG, RUN PARALLEL AND BE EQUALLY SPACED.

PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH IPC SECTION 308, AND SPACING OF HANGERS SHALL NOT EXCEED THE LIMITS SET FORTH IN TABLE 308.5. PIPES SHALL BE SUPPORTED WITHIN 1'-0" OF EACH ELBOW.

VERTICAL PIPE SUBJECT TO MOVEMENT SHALL BE SUPPORTED FROM THE WALL BY MEANS OF A PIPE CLAMP.

SUPPORT DOMESTIC WATER PIPING IN SPACES BEHIND PLUMBING FIXTURES BY BRACKETS AND U-BOLTS SECURED TO WASTE AND VENT STACKS. SIZE U-BOLTS TO BEAR ON THE PIPING.

AFTER HANGER RODS ARE INSTALLED IN FINISHED CONCRETE CEILING, FILL THE REMAINING OPENING WITH CEMENT SO THAT NO HOLE SHOWS AT THE CEILING.

WHERE COPPER PIPING IS USED, NONFERROUS METAL SUPPORT(S) OR PROPER ISOLATION BETWEEN DISSIMILAR MATERIALS SHALL BE PROVIDED.

PIPE HANGERS AND SUPPORTS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS SET FORTH IN MANUFACTURER'S STANDARDIZATION SOCIETY STANDARD PRACTICES NO. SP-69 AND SP-58.

SLEEVES
SLEEVES SHALL BE PROVIDED WHERE PIPES PASS THROUGH WALLS, FLOORS AND ROOFS.
PROVIDE STANDARD WEIGHT STEEL SLEEVES IN CONCRETE AND MASONRY CONSTRUCTION. PROVIDE 26GA GALVANIZED SHEET METAL SLEEVES IN INTERIOR DRYWALL CONSTRUCTION. SLEEVES SHALL BE THE FULL THICKNESS OF WALLS AND SHALL ALLOW FOR THE FULL THICKNESS OF PIPE INSULATION, WHERE APPLICABLE.

SLEEVES MAY BE OMITTED WHEN OPENINGS ARE CORE DRILLED FOR CONCEALED VERTICAL AND HORIZONTAL PIPING. SLEEVES ARE NOT REQUIRED AT INDIVIDUAL PLUMBING FIXTURES OR IN CONCRETE FLOOR SLABS ON GRADE, UNLESS OTHERWISE NOTED.

SLEEVES FOR ALL PIPING PENETRATING FIRE RATED WALLS AND FLOORS SHALL BE PROVIDED WITH 3M PIPE BARRIER NO. CP-25 FIRE PROOFING CAULKING, OR EQUAL, IN ANNULAR SPACE BETWEEN SLEEVE AND PIPING. CONTRACTOR SHALL VERIFY THE RATING OF THE WALL AND CONFIRM THE PENETRATION PROTECTION PROVIDED MEETS THAT RATING.

PENETRATIONS THROUGH OUTSIDE WALLS SHALL BE WATERTIGHT. CAULK BETWEEN PLUMBING PIPE AND SLEEVE. PACK WITH FIBERGLASS AND CAULK, 1" DEEP AT EACH FACE WITH NON-HARDENING SEALANT BETWEEN PIPE AND SLEEVE.

SPECIFICATIONS

WASTE AND VENT PIPING SYSTEMS AND ACCESSORIES
SANITARY PIPING SHALL BE PVC SCHEDULE 40 SOLID WALL PIPE AND DWV FITTING SYSTEM.

PIPE AND FITTINGS SHALL BE MANUFACTURED FROM PVC COMPOUND WITH A CELL CLASS OF 12454 PER ASTM D-1784 AND CONFORM WITH NATIONAL SANITATION FOUNDATION (NSF) STANDARD 14. PIPE SHALL BE IRON PIPE SIZE (IPS) CONFORMING TO ASTM D-1785 AND ASTM D-2665. INJECTION MOLDED FITTINGS SHALL CONFORM TO ASTM D-2665. FABRICATED FITTINGS SHALL CONFORM TO ASTM F-1866. SOLVENT CEMENTS SHALL CONFORM TO ASTM D-2564. PRIMER SHALL CONFORM TO ASTM F-656. BURIED PIPE SHALL CONFORM TO ASTM D-2321.

WASTE AND VENT PIPING SHALL BE TESTED IN ACCORDANCE WITH THE GOVERNING CODES. AT A MINIMUM, WASTE PIPING SHALL BE TESTED WITH AT LEAST 10 FOOT OF WATER HEAD PRESSURE APPLIED.

ALL VENTS THROUGH ROOF SHALL BE LOCATED AT LEAST 10'-0" AWAY FROM ANY AIR INTAKE, EVAPORATIVE COOLER, OR ANY OTHER DEVICE THAT WOULD DRAW AIR FROM THE VENT. FLASH AROUND ALL PIPES PENETRATING THROUGH ROOF WITH STANDARD MANUFACTURED FLASHINGS. FLASHING SHALL BE SHEET METAL WITH RUBBER GASKETS AND SHALL EXTEND INTO ROOFING AND UP PIPE DISTANCES IN ACCORDANCE WITH THE LOCAL CODE.

NO DOUBLE COMBINATION FITTINGS MAY BE UTILIZED IN THE HORIZONTAL.

WHERE TWO HORIZONTAL PIPES (BACK-TO-BACK WATER CLOSETS OR TWO SANITARY BRANCHES) COMBINE IN THE VERTICAL, A DOUBLE COMBINATION WYE EIGHTH BEND FITTING SHALL BE INSTALLED. DOUBLE SANITARY TEE OR SANITARY CROSS IS NOT ACCEPTABLE.

WHERE DRAWINGS REQUIRE CONNECTION TO EXISTING SANITARY SEWER PIPING IN BUILDING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD DETERMINE EXACT LOCATION, DEPTH AND DIRECTION OF FLOW PRIOR TO COMMENCING WORK. CONTRACTOR SHALL ALERT ARCHITECT/ENGINEER IF THERE IS A POTENTIAL ISSUE MAINTAINING PROPER SLOPE IN CONNECTING TO EXISTING, OR IF THERE IS A MORE DIRECT CONNECTION POSSIBLE. CONTRACTOR SHALL CONFIRM THAT ANY EXISTING PIPING TO BE REUSED IS CLEAN, FREE OF DEFECTS, ADEQUATELY SLOPED (¼"/FT MINIMUM) AND THAT THERE ARE NO DIPS THAT COULD HOLD WATER. PROVIDE CAMERA SCOPING TO DOCUMENT THIS INFORMATION. CONTRACTOR SHALL ALERT ARCHITECT/ENGINEER OF ANY DEFICIENCIES.

DOMESTIC WATER SYSTEMS AND ACCESSORIES
WATER PIPING ABOVE SLAB: TYPE 'L' HARD DRAWN COPPER TUBING, ASTM B88, WROUGHT SOLDER JOINTS, ANSI B16.22.

WATER PIPING BELOW SLAB: TYPE 'K SOFT DRAWN COPPER TUBING, WITH NO JOINTS BELOW SLAB, ASTM B88.

ALL DOMESTIC HOT WATER PIPING SHALL HAVE A MINIMUM PRESSURE RATING OF 100PSI AT 180°F.

DOMESTIC WATER PIPING SHALL BE TESTED IN ACCORDANCE WITH ALL GOVERNING CODES. PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.

BALL VALVES SHALL BE TWO-PIECE BRONZE BODY, LARGE PORT WITH SOLID, SMOOTH BORE CHROME PLATED BRASS BALL. SEATS SHALL BE REINFORCED TFE WITH TEFLON PACKING RING AND THREADED ADJUSTABLE PACKING NUT. PROVIDE STEM EXTENSION AS NEEDED TO PROVIDE HANDLE ON OUTSIDE OF PIPE INSULATION. VALVES SHALL BE APOLLO 70 OR EQUAL.

BACKFLOW PREVENTERS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS FOR EASE OF TESTING AND SERVICING. FOR BACKFLOW PREVENTERS WITH VENT CONNECTIONS, ROUTE VENT LINE TO NEAREST DRAIN AND DISCHARGE WITH AIR GAP. BACKFLOW PREVENTERS SHALL BE TESTED IN ACCORDANCE WITH IPC 312.10.2. CONTRACTOR SHALL PROVIDE CERTIFICATIONS THAT STATE DEVICES HAVE BEEN TESTED AND APPROVED.

THERMOMETERS SHALL BE 9" ADJUSTABLE ANGLE, 30°-180°F RANGE (TRERICE BX9 OR EQUAL). PRESSURE GAUGES SHALL BE 4½" DIAL SIZE, 0-160PSI (TRERICE 600CB OR EQUAL).

CONTRACTOR SHALL FIELD VERIFY INCOMING DOMESTIC WATER PRESSURE TO CONFIRM ADEQUATE PRESSURE TO SERVE THE DOMESTIC WATER SYSTEM. CONTRACTOR SHALL ALERT ENGINEER TO A POTENTIAL LOW PRESSURE CONDITION. WHERE PRESSURE EXCEEDS 80PSI, PROVIDE PRESSURE REGULATING VALVE (WATTS LF223) AND UPSTREAM STRAINER (WATTS LSF777).

CONTRACTOR SHALL FIELD COORDINATE LOCATION OF ACCESSIBLE ISOLATION VALVES ON DOMESTIC HOT & COLD WATER SUPPLIES TO FIXTURES OR GROUPS OF FIXTURES SUCH THAT THEY MAY BE SHUT OFF FOR SERVICING. SERVICE AND HOSE BIBB VALVES SHALL BE IDENTIFIED. ALL OTHER VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE(S) SHALL BE IDENTIFIED, INDICATING THE FIXTURE(S) SERVED.

RETURN AIR PLENUMS
ALL EXPOSED MATERIALS WITHIN RETURN AIR PLENUMS SHALL BE NONCOMBUSTIBLE OR HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50, AS DETERMINED IN ACCORDANCE WITH ASTM E84/UL723. COPPER AND CAST IRON PIPING IS APPROVED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL RETURN AIR PLENUM LOCATIONS WITH THE MECHANICAL CONTRACTOR.

INSULATION
INSULATE ALL DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING IN ACCORDANCE WITH IECC TABLE C403.2.10. PIPE UP TO 1¼": 1" THICK INSULATION. PIPE 1½" OR LARGER: 1½" THICK INSULATION

INSULATE ALL HORIZONTAL COLD WATER PIPING LOCATED ABOVE CEILING, VERTICAL PIPING LOCATED IN AN EXTERIOR WALL, EXPOSED PIPING (I.E. MECH ROOMS). PIPE UP TO 1": ½" THICK. PIPING 1½" AND OVER: 1" THICK INSULATION. ALL WATER AND DRAINAGE PIPING INSTALLED IN EXTERIOR WALLS SHALL BE WRAPPED IN 1" THICK PIPE INSULATION AND BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING INSULATION. IF INSTALLED IN EXTERIOR BLOCK WALLS, INTERSTITIAL SPACES SHALL BE FILLED WITH FOAM INSULATION.

ALL JOINTS SHALL BE SEALED WITH MATCHING VAPOR BARRIER TAPE.

INSULATION SHALL HAVE A K-FACTOR (AVERAGE THERMAL CONDUCTIVITY) NOT TO EXCEED 0.27 BTU-IN/HR x SQFT x °F.

PROTECTION OF PIPING
PIPING PASSING UNDER FOOTINGS OR THROUGH FOUNDATION WALLS SHALL BE PROVIDED WITH A SLEEVE TWICE THE DIAMETER OF THE PIPE. OPEN ENDS OF SLEEVES SHALL BE SEALED. PIPING PASSING THROUGH CONCRETE OR CINDER WALLS AND FLOORS OR OTHER CORROSIVE MATERIAL SHALL BE PROTECTED IN ACCORDANCE WITH IPC 305.1. ALL PIPING INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, RAFTERS OR SIMILAR MEMBERS SHALL BE PROTECTED BY STEEL SHIELD PLATES IN ACCORDANCE WITH IPC 305.6. VERTICAL STACKS IN WOOD CONSTRUCTION SHALL BE PROTECTED FROM BUILDING SETTLING WITH COMPRESSION/EXPANSION FITTINGS AND PIPE CLAMPS INSTALLED PER MANUFACTURER'S RECOMMENDATIONS (FERNCO XJ SERIES OR EQUAL).

TANK TYPE WATER HEATERS
WATER HEATERS SHALL BE U.L. LISTED AND SHALL MEET OR EXCEED THE STANDBY LOSS REQUIREMENTS OF U.S. DEPT. OF ENERGY AND CURRENT EDITION OF ASHRAE/IESNA 90.1.

WATER HEATERS SHALL HAVE 150PSI WORKING PRESSURE AND BE EQUIPPED WITH EXTRUDED HIGH DENSITY ANODE ROD AND HIGH TEMPERATURE CUTOFF SWITCH. WATER HEATERS SHALL BE THERMOSTATICALLY CONTROLLED AND SET TO 120° UNLESS OTHERWISE NOTED. WATER HEATERS SHALL BE INSTALLED ON SUSPENDED PLATFORM, STEEL STAND OR CONCRETE PAD, AS INDICATED ON DRAWINGS.

WATER HEATERS SHALL HAVE A MINIMUM 3 YEAR LIMITED WARRANTY.

WATER HEATERS SHALL BE INSTALLED LEVEL AND PLUMB. FIELD COORDINATE EXACT WATER HEATER LOCATION. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES, AND INSTALL SUCH THAT CONTROLS AND DEVICES ARE ACCESSIBLE FOR SERVICING.

INSTALL SHUTOFF VALVES IN COLD WATER INLET AND HOT WATER OUTLET. INSTALL THERMOMETER ON HOT WATER OUTLET. WATER HEATER SHALL HAVE ASME RATED COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE IN TOP PORTION OF TANK (FACTORY OR FIELD INSTALLED). PIPE RELIEF VALVE OUTLET TO FLOOR DRAIN, MOP SINK, INDIRECT WASTE RECEPTOR OR TO EXTERIOR. MAINTAIN CONTINUOUS DOWNWARD PITCH TOWARD DISCHARGE LOCATION, AND PROVIDE AIR GAP AT DISCHARGE LOCATION. WHERE WATER HEATER DRAIN PAN IS INDICATED ON PLANS, ROUTE DRAIN TO SAME LOCATION AS RELIEF VALVE AND DISCHARGE WITH AIR GAP.

FIRE PROTECTION SPECIFICATIONS

FURNISH AND INSTALL A COMPLETE AUTOMATIC SPRINKLER SYSTEM WITH ALL REQUIRED PIPING, SPRINKLER HEADS AND ACCESSORIES FOR THE ENTIRE NEW BUILDING. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, CONNECTIONS AND ANY OTHER FEES ASSOCIATED WITH THE INSTALLATION OF THE FIRE PROTECTION SYSTEM.

CONTRACTOR SHALL COORDINATE THE PERFORMANCE OF A NEW WATER FLOW TEST FOR THE FLOW AND PRESSURE DATA TO BE USED IN HYDRAULIC CALCULATIONS.

FIRE PROTECTION CONTRACTOR TO PROVIDE SHOP DRAWINGS AND HYDRAULIC CALCULATIONS WITH ALL PIPE SIZES, SPRINKLER LOCATIONS, FLOW AND TAMPER SWITCHES, INSPECTOR TESTS, ETC. THE SHOP DRAWINGS SHALL BE SUBMITTED TO ALL AUTHORITIES HAVING JURISDICTION. AFTER APPROVAL HAS BEEN OBTAINED THE SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR FINAL REVIEW. PRODUCT DATA SUBMITTALS SHALL ALSO BE SUBMITTED.

THE CONTRACTOR SHALL FULLY COORDINATE ALL PHASES OF WORK WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO AND DURING THE COURSE OF THE INSTALLATION IN ITS ENTIRETY. PIPING INSTALLATION AND THE PLACEMENT OF SPRINKLER HEADS AND SYSTEM DEVICES MUST BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN, MECHANICAL DUCTWORK AND EQUIPMENT, ELECTRICAL CONDUIT AND DEVICES, PLUMBING PIPING, AND THE STRUCTURAL CONSTRAINTS OF THE BUILDING.

ALL ELEMENTS OF THE FIRE PROTECTION SYSTEM SHALL BE U.L. LISTED. ALL ELEMENTS OF THE FIRE PROTECTION SYSTEM SHALL CONFORM TO REQUIREMENTS OF THE FOLLOWING, AS APPLICABLE: NFPA 13, 14, 20 AND 24; ALL LOCAL, COUNTY AND STATE REGULATIONS; LOCAL FIRE MARSHAL; OWNER'S INSURANCE UNDERWRITER.

WET TYPE PENDENT SPRINKLERS SHALL BE INSTALLED IN ALL AREAS, UNLESS OTHERWISE NOTED. INSTALL UPRIGHT SPRINKLERS IN AREAS WITH UNFINISHED CEILINGS. PENDENT-TYPE SEMI-RECESSED OR CONCEALED SPRINKLERS SHALL BE INSTALLED IN FINISHED CEILINGS. INSTALL SIDEWALL SPRINKLERS AS NEEDED FOR FULL COVERAGE. PROVIDE SPRINKLERS BY RELIABLE, VIKING OR TYCO.

ALL AREAS OF THE BUILDING SHALL BE COMPLETELY SPRINKLERED USING THE APPROPRIATE SPRINKLER HEADS, INCLUDING STAIRWELLS (AT TOP AND BELOW THE LOWEST LANDING), TELEPHONE ROOMS, ELECTRICAL ROOMS, ELEVATOR SHAFTS, ELEVATOR MACHINE ROOMS, AND LAUNDRY CHUTES. SPRINKLER PIPING MAY EXTEND INTO, BUT NOT PASS THROUGH, THESE AREAS.

ANY DISCREPANCIES ENCOUNTERED BY THE CONTRACTOR IN THE REPRESENTATION OF THESE DRAWINGS OR SPECIFICATIONS SHALL IMMEDIATELY BE COORDINATED WITH THE ARCHITECT.

SPRINKLER SPACING SHALL BE NO MORE THAN 15' (225 SQFT PER HEAD MAXIMUM FOR LIGHT HAZARD AND 130 SQFT PER HEAD MAXIMUM FOR ORDINARY HAZARD). SYSTEM TO BE HYDRAULICALLY CALCULATED ACCORDING TO THE FOLLOWING: LIGHT HAZARD OCCUPANCIES (I.E. PUBLIC SPACES, OFFICES, RESTAURANT SEATING AREAS, GUESTROOMS), 0.10 GPM PER SQUARE FOOT OVER THE HYDRAULICALLY MOST REMOTE 1,500 SQUARE FEET WITH A 100 GPM HOSE ALLOWANCE. ORDINARY HAZARD GROUP 1 (I.E. MECHANICAL ROOMS, COMMERCIAL LAUNDRIES, PARKING GARAGES, FOOD SERVICE AREAS), 0.15 GPM PER SQUARE FOOT OVER THE HYDRAULICALLY MOST REMOTE 1,500 SQUARE FEET WITH A 250 GPM HOSE ALLOWANCE. ORDINARY HAZARD GROUP 2 (I.E. SELF STORAGE SPACES, REPAIR GARAGES), 0.20 GPM PER SQUARE FOOT OVER THE HYDRAULICALLY MOST REMOTE 1,500 SQUARE FEET WITH A 250 GPM HOSE ALLOWANCE.

PIPE PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS SHALL HAVE EQUIVALENTLY RATED SLEEVES AND SHALL BE SEALED AND FIRE CAULKED WITH A U.L. LISTED FIRE STOPPING SYSTEM INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LISTED DETAILS AND SPECIFICATIONS.

SIAMESE FIRE DEPARTMENT CONNECTION SHALL BE PROVIDED ON THE BUILDING OR FREESTANDING REMOTE FROM THE BUILDING, AND SHALL BE READILY VISIBLE BY THE FIRE DEPARTMENT. FDC SHALL BE WITHIN 100' OF A FIRE HYDRANT.

FOR EACH SPRINKLER ZONE, PROVIDE AN ALARM TEST CONNECTION (INSPECTOR'S TEST CONNECTION) NOT LESS THAN 1" DIA. IN ACCORDANCE WITH NFPA 13, 16.14.1.1

AS APPLICABLE, COORDINATE WITH ELECTRICAL CONTRACTOR FOR WIRING OF DEVICES REQUIRING INTERLOCK TO THE FIRE ALARM SYSTEM, SUCH AS TAMPER SWITCHES AND FLOW SWITCHES.

REMOTE SYSTEM DRAIN TO BE INSTALLED & COORDINATED WITH ARCHITECT FOR EXACT LOCATION.

A CABINET SHALL BE PROVIDED CONTAINING A SUPPLY OF AT LEAST SIX SPARE SPRINKLERS (OF EACH INSTALLED TYPE) IN AN AREA THAT WILL AT NO TIME EXCEED 100FF. A LIST OF INSTALLED SPRINKLERS SHALL BE POSTED IN THE CABINET.

FIRE PROTECTION PIPING LOCATED IN NON-HEATED SPACES SHALL BE PROTECTED FROM FREEZING. FIRE PROTECTION SHOP DRAWINGS SHALL INCLUDE ALL NECESSARY FREEZE PROTECTION.

WHERE A DRY PIPE SPRINKLER SYSTEM IS PROVIDED, THE AIR COMPRESSOR SHALL BE BY VIKING CORPORATION OR GENERAL AIR PRODUCTS (OR EQUAL) AND LISTED FOR FIRE PROTECTION USE.

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GEORGIA REGISTERED PROFESSIONAL ENGINEER MIKE ROEVER

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No.	Date	Description
	02.14.22	BID SET
1	07.18.22	REVISION 1

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6991 Peachtree Industrial Blvd Building 700
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PROJECT # 121564

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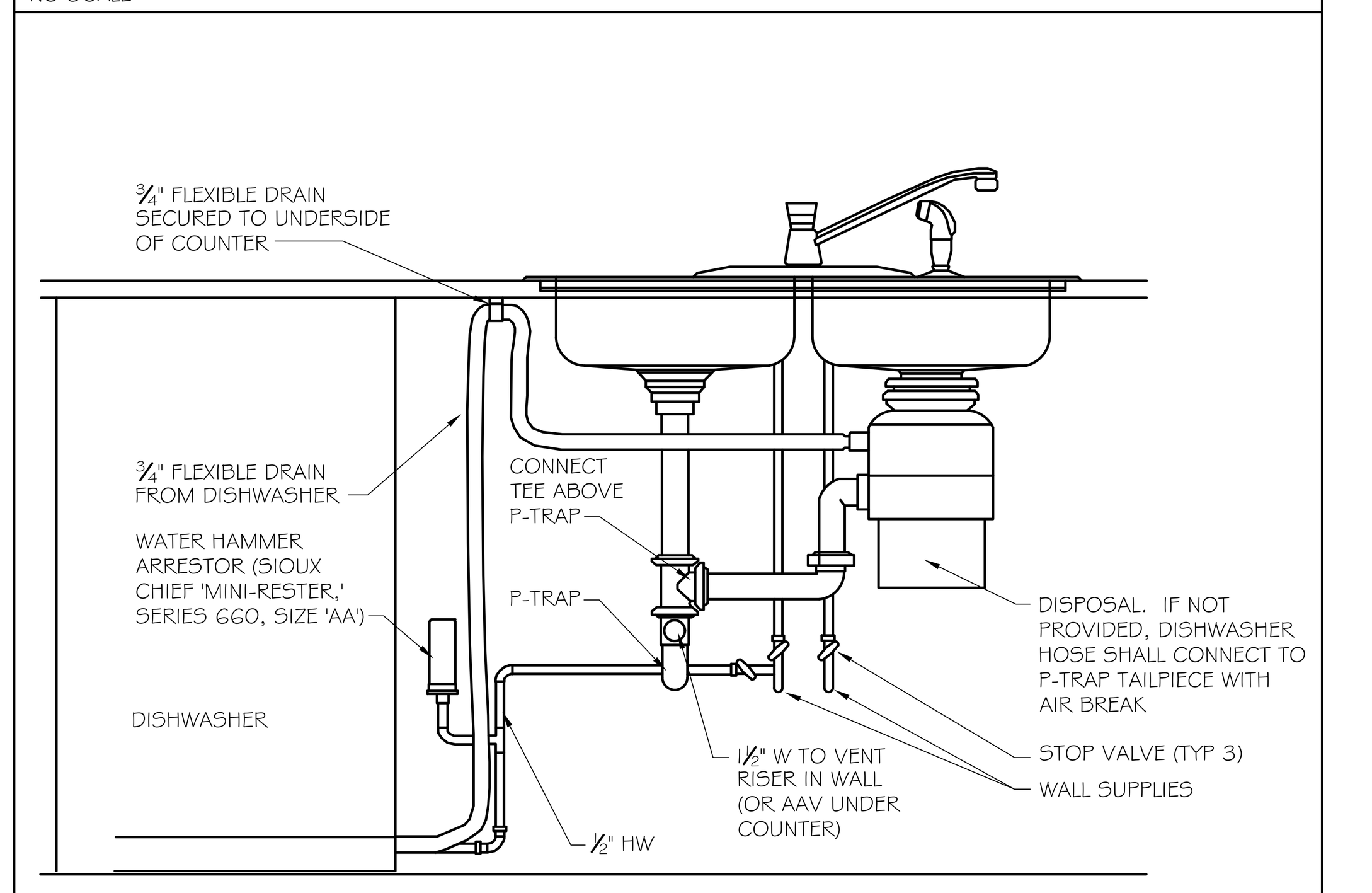
PROJECT NO.
20112

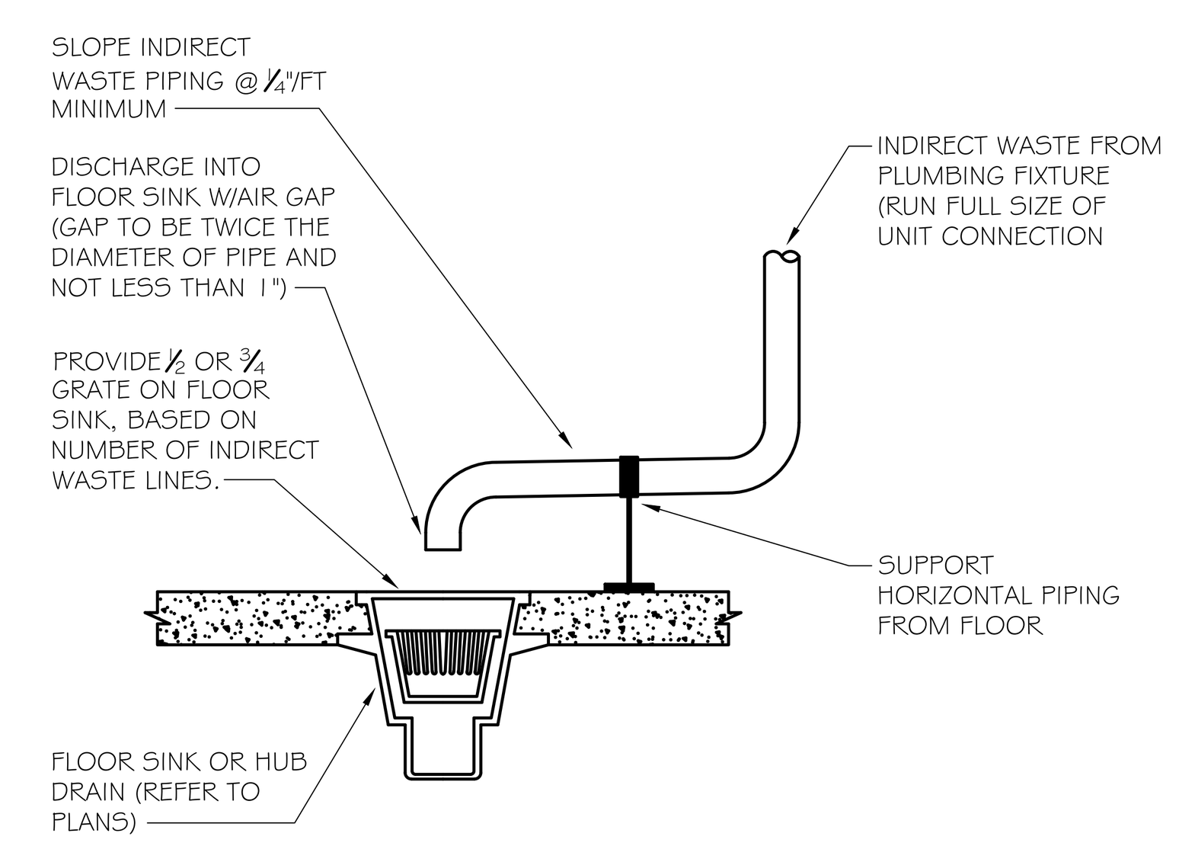
SHEET TITLE
GENERAL

SHEET NO.
P0.01

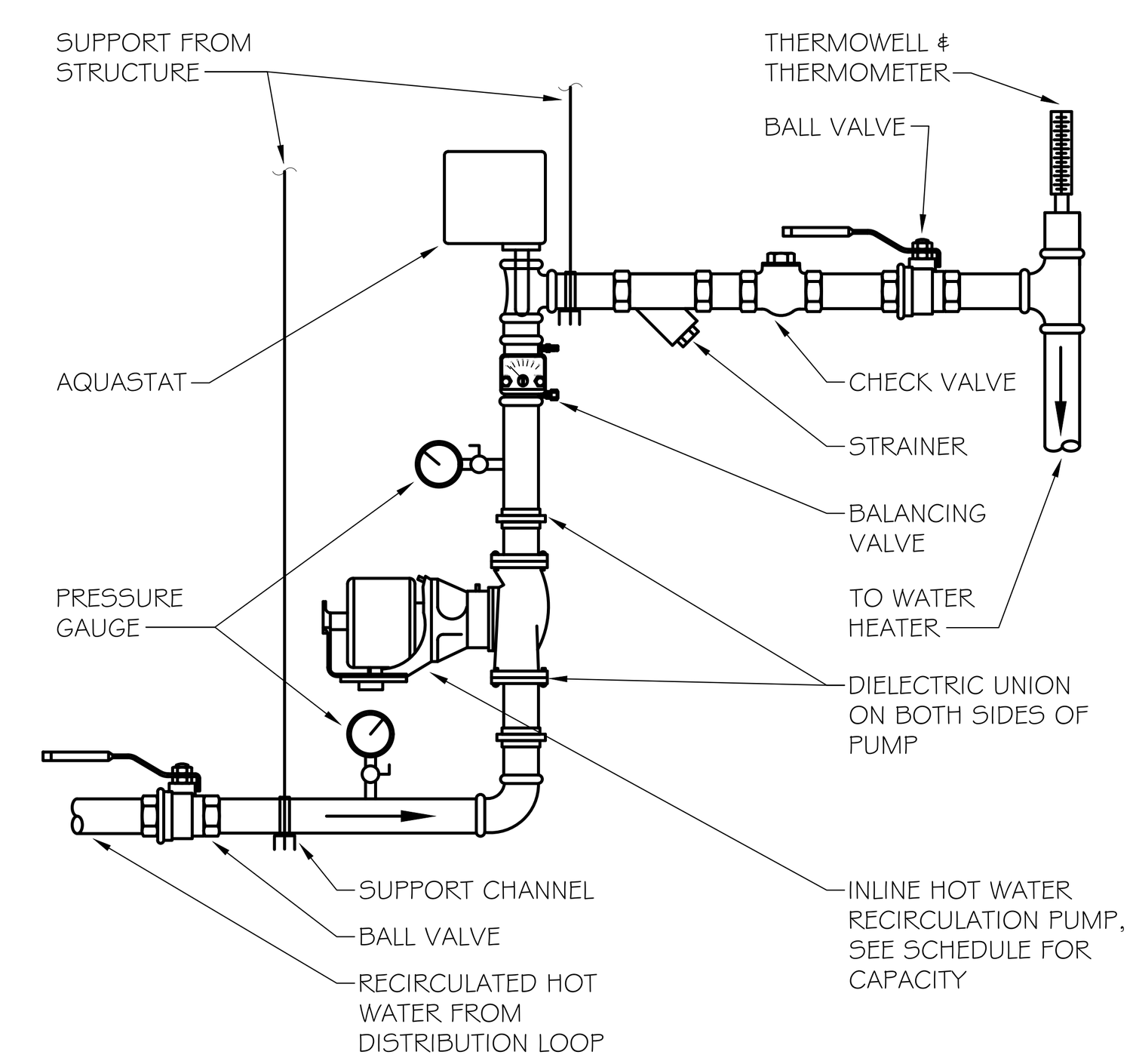
DISHWASHER CONNECTIONS
NO SCALE



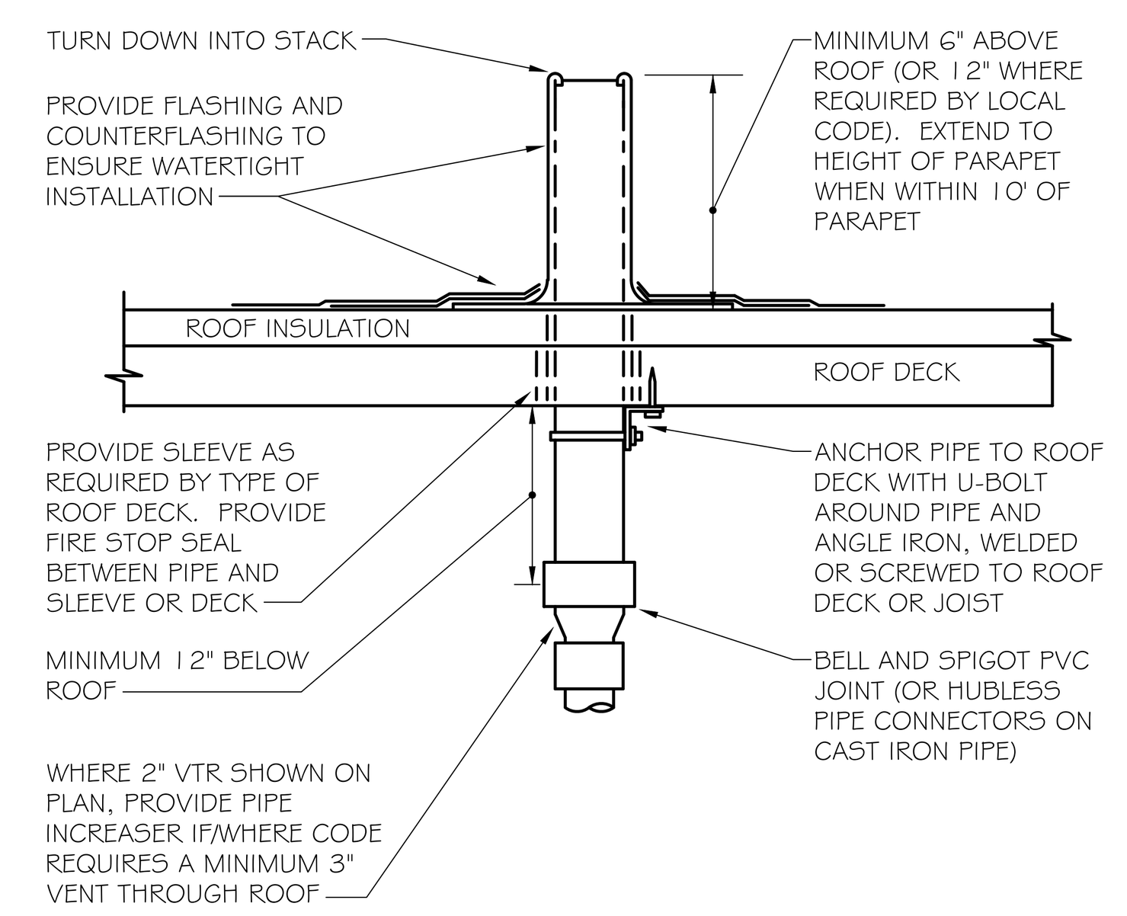
INDIRECT WASTE DETAIL
NO SCALE



HOT WATER RECIRCULATION PUMP
NO SCALE

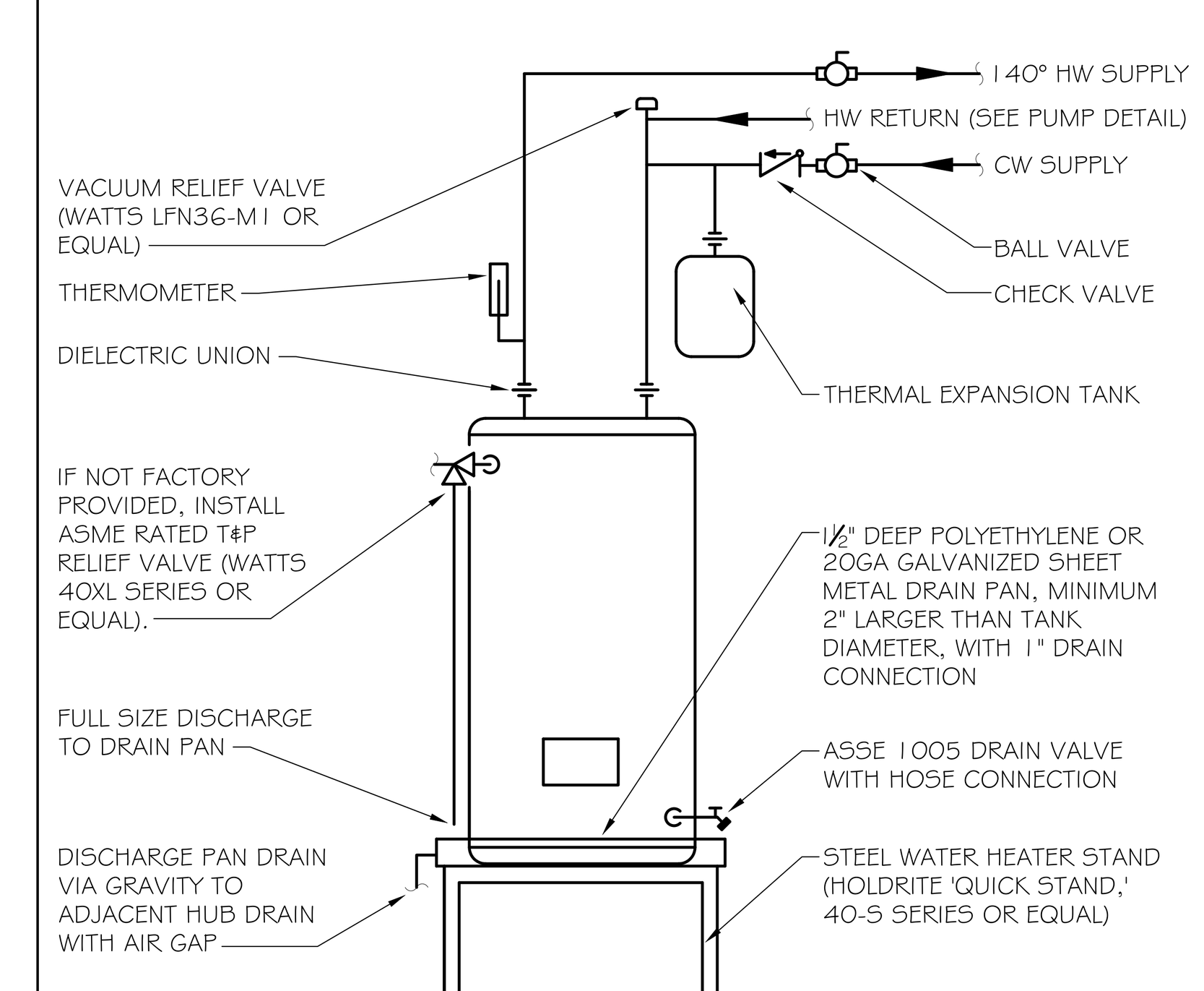


VENT THROUGH ROOF (VTR)
NO SCALE

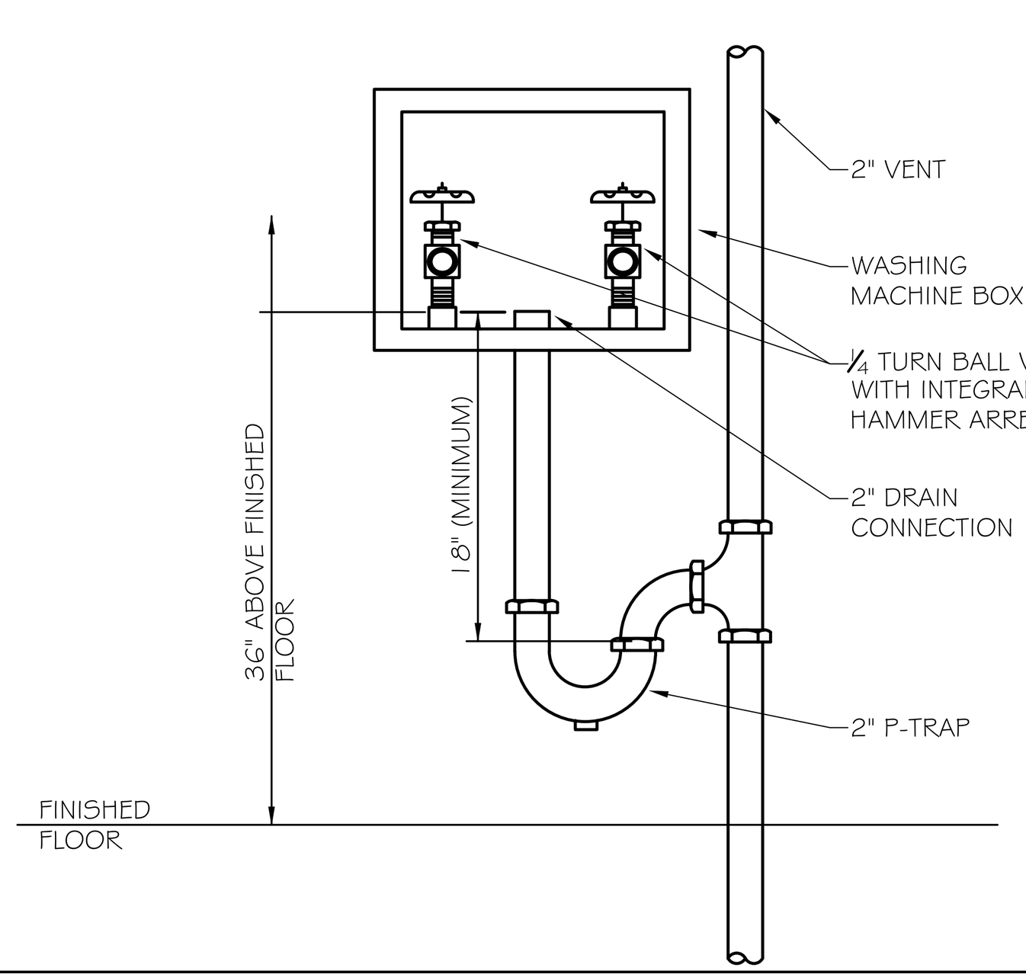


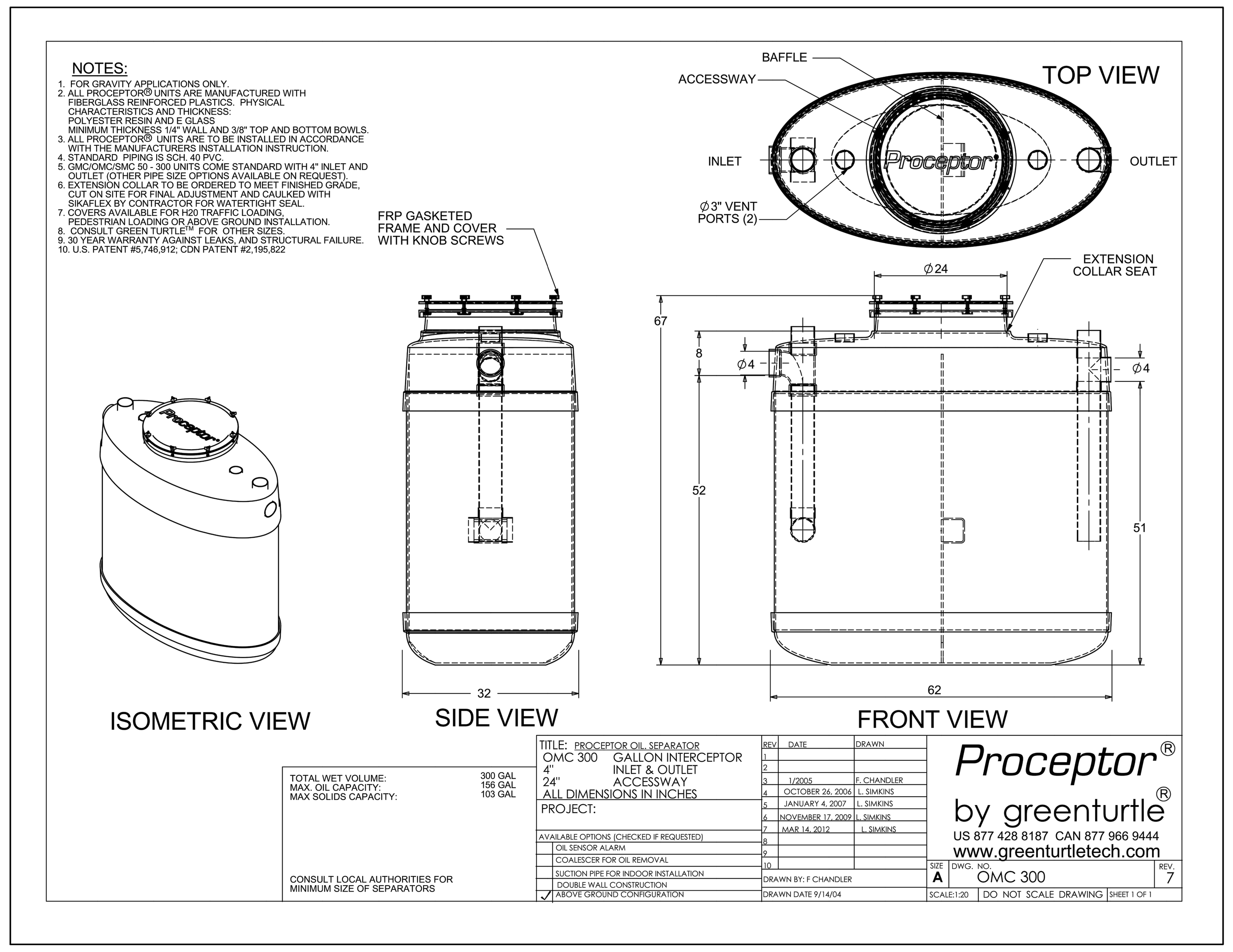
IT IS THE CONTRACTOR'S RESPONSIBILITY TO USE PROPER INSTALLATION METHODS TO ENSURE ROOF PENETRATION IS WATERTIGHT. LOCATE VTR MINIMUM FIFTEEN FEET (15'-0") HORIZONTAL FROM ANY FRESH AIR INTAKE, AND ONE FOOT FROM ANY VERTICAL SURFACE. LOCATE VTR MINIMUM 18" FROM PARAPET, EXPANSION JOINT, EQUIPMENT CURB, ETC. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

ELECTRIC WATER HEATER WITH RECIRC
NO SCALE

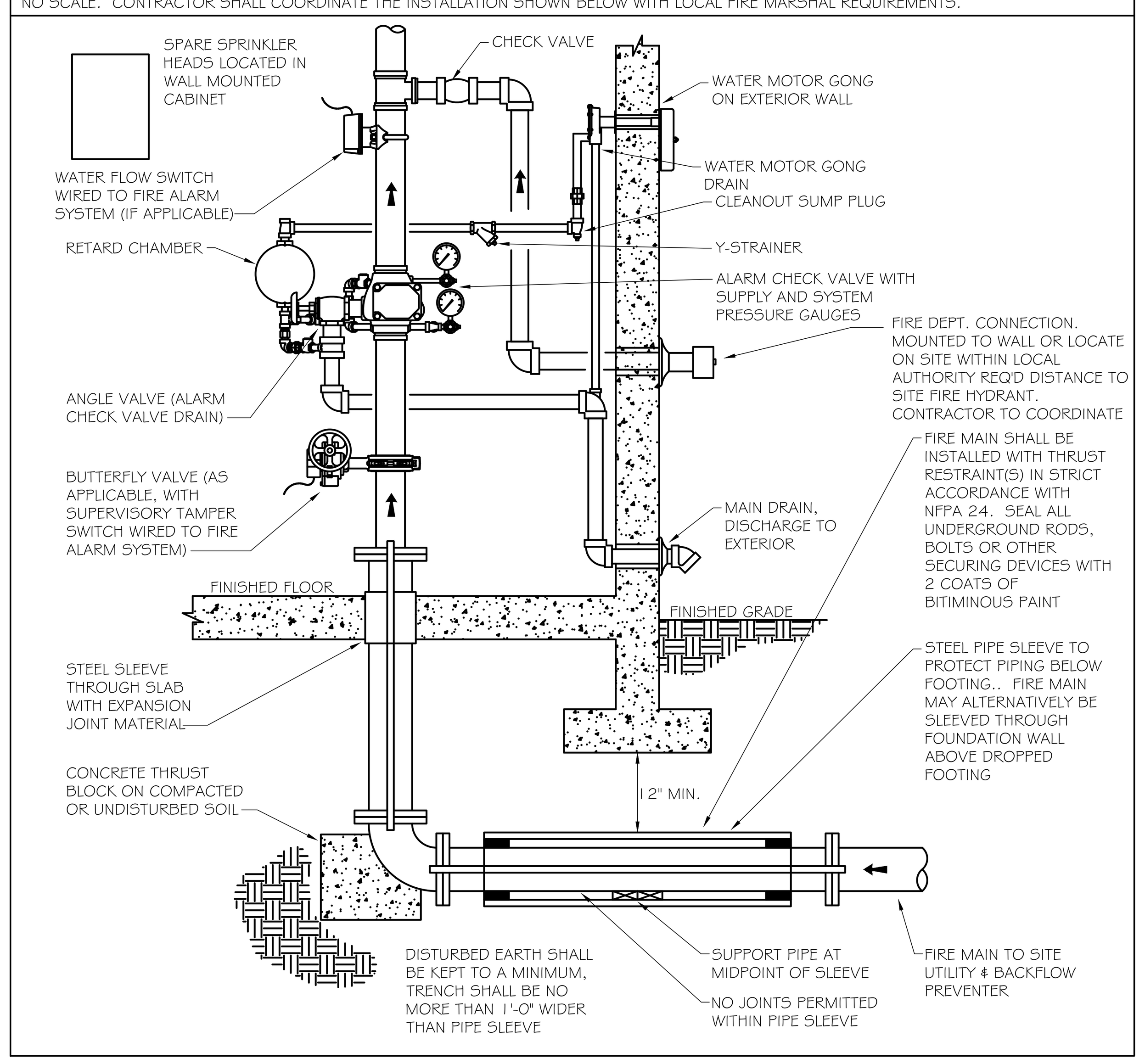


WASHING MACHINE BOX
NO SCALE





FIRE WATER SERVICE ENTRANCE
NO SCALE. CONTRACTOR SHALL COORDINATE THE INSTALLATION SHOWN BELOW WITH LOCAL FIRE MARSHAL REQUIREMENTS.



RECIRCULATION PUMP SCHEDULE

MARK	ELECTRICAL	CAPACITY	NOTES	BASIS
RP-1	120v	4.0 GPM @ 10' HEAD	PROVIDE 24-HOUR TIMER. PROVIDE ADJUSTABLE AQUASTAT (HONEYWELL L6006 OR EQUAL).	ARMSTRONG ASTRO SERIES
PRIOR TO SUBMITTAL OR PURCHASE, THE PLUMBING CONTRACTOR SHALL VERIFY THE APPROPRIATE ELECTRICAL CHARACTERISTICS OF THE SELECTED PUMP. COORDINATE DIRECTLY WITH THE ELECTRICAL CONTRACTOR AND THE POWER PANEL SCHEDULES ON THE ELECTRICAL DRAWINGS.				
CONTRACTOR SHALL INSTALL BALANCING VALVE AND SHALL ADJUST AS NEEDED TO ENSURE PUMP FLOW DOES NOT EXCEED 5 GPM				

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	WASTE RUNOUT	WASTE CONN.	VENT	WATER RUNOUT		WATER CONN.		SPECIFICATION
					CW	HW	CW	HW	
L-1	LAVATORY (ADA) - WALL HUNG	2"	1 1/2"	2"	1/2"	1/2"	3/8"	3/8"	WALL HUNG LAVATORY (AMERICAN STANDARD "LUCERNE," 0355.012) WITH CONCEALED ARM CARRIER MOUNTING (ZURN Z1231). PROVIDE 0.5GPM SINGLE HANDLE FAUCET WITH POLISHED CHROME FINISH (DELTA 501LF-HGMHDF). HANDICAP DRAIN OFFSET W/GRID DRAIN (ZURN Z8746-PC) AND CHROME PLATED P-TRAP (ZURN Z8701-PC). CHROME PLATED BRASS ANGLE SUPPLY STOPS WITH FLEX SUPPLIES (MCGUIRE H165). INSULATE OFFSET, TRAP AND SUPPLY LINES (TRUEBRO "LAVGUARD," #103 E-Z). PROVIDE THERMOSTATIC MIXING VALVE TO TEMPER HOT WATER TO 110 DEGREES (LEONARD 170-LF). LEAD FREE, ASSE 1070.
L-2	LAVATORY (ADA) - DROP IN, SELF-RIMMING	2"	1 1/2"	2"	1/2"	1/2"	3/8"	3/8"	DROP IN LAVATORY (AMERICAN STANDARD "AQUALYN," 0476.028). PROVIDE 0.5GPM SINGLE HANDLE FAUCET WITH POLISHED CHROME FINISH (DELTA 501LF-HGMHDF). HANDICAP DRAIN OFFSET W/GRID DRAIN (ZURN 8746-PC) AND CHROME PLATED P-TRAP (ZURN Z8701-PC). CHROME PLATED BRASS ANGLE SUPPLY STOPS WITH 12" LONG X 3/8" FLEX SUPPLIES (MCGUIRE H165). WHERE NOT CONCEALED BY COUNTER SHROUD, INSULATE OFFSET, TRAP AND SUPPLY LINES (TRUEBRO "LAVGUARD," #103 E-Z). PROVIDE THERMOSTATIC MIXING VALVE TO TEMPER HOT WATER TO 110 DEGREES (LEONARD 170-LF). LEAD FREE, ASSE 1070.
WC-1	WATER CLOSET - TANK TYPE	4"	3"	2"	1/2"	---	1/2"	---	FLOOR MOUNTED, TANK TYPE WATER CLOSET (AMERICAN STANDARD "CADET PRO," 215CA.104), 1.28 GPF, WHITE VITREOUS CHINA, GRAVITY FED FLUSH ACTION. TOP OF RIM AT 15" AFF. HIGH EFFICIENCY 'WATERSENSE' LISTED. PROVIDE HEAVY DUTY OPEN FRONT SEAT, LESS COVER, WITH SELF-SUSTAINING CHECK HINGE (BEMIS 1055SSC). CHROME PLATED BRASS ANGLE SUPPLY STOP WITH 12" LONG X 3/8" FLEX SUPPLY (MCGUIRE M166).
WC-2	WATER CLOSET (ADA) - TANK TYPE	4"	3"	2"	1/2"	---	1/2"	---	FLOOR MOUNTED, ADA TANK TYPE WATER CLOSET (AMERICAN STANDARD "CADET PRO RIGHT HEIGHT," 215AA.104), 1.28 GPF, WHITE VITREOUS CHINA, GRAVITY FED FLUSH ACTION. TOP OF RIM AT 16.5" AFF. HIGH EFFICIENCY 'WATERSENSE' LISTED. PROVIDE ALTERNATE TANK CONFIGURATION (215AA.105) WITH TRIP LEVER ON RIGHT HAND SIDE IF NECESSARY TO HAVE LEVER ON OPEN SIDE OF WATER CLOSET. HEAVY DUTY OPEN FRONT SEAT, LESS COVER, WITH SELF-SUSTAINING CHECK HINGE (BEMIS 1055SSC). CHROME PLATED BRASS ANGLE SUPPLY STOP WITH 12" LONG X 3/8" FLEX SUPPLY (MCGUIRE M166).
SH-1	SHOWER	3"	3"	2"	1/2"	1/2"	1/2"	1/2"	AMERICAN STANDARD "RELIANT 3" SHOWER TRIM (T385.501.002), WITH PRESSURE BALANCING VALVE (R120SS). PROVIDE SHOWER DRAIN WITH FLASHING COLLAR AND ROUND TOP ADJUSTABLE STRAINER HEAD (J.R. SMITH #2010). SHOWER ENCLOSURE AS SPECIFIED BY ARCHITECT.
SK-1	STAINLESS SINK, DROP-IN, DOUBLE-BOWL (ADA)	2"	1 1/2"	2"	1/2"	1/2"	3/8"	3/8"	STAINLESS STEEL DOUBLE BOWL DROP-IN SINK (ELKAY LRAD3322), 1 HOLE. SINK DIMENSIONS: 33" x 22". BOWL DIMENSIONS: 13.5" L, 16" W, 6.125" D. ADA COMPLIANT 1.5 GPM FAUCET WITH PULL-OUT SPRAY (ELKAY LK5000), SINGLE HOLE MOUNTING (LESS ESCHUTCHEON PLATE). MCGUIRE CHROME PLATED P-TRAP W/C.O., CHROME PLATED BRASS ANGLE SUPPLY STOPS, 12" LONG X 3/8" FLEX SUPPLIES. PROVIDE BASKET STRAINERS (ZURN Z8741-SS).PROVIDE 3/4 HP GARBAGE DISPOSAL (INSINKERATOR 'EVOLUTION COMPACT' OR EQUAL
MS-1	MOP SINK	3"	3"	2"	1/2"	1/2"	1/2"	1/2"	24"X24" FLOOR BASIN (FIAT MSB-2424) AND SERVICE FAUCET WITH VACUUM BREAKER, INTEGRAL STOPS, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT (830-AA). PROVIDE HOSE AND BRACKET (832-AA), MOP HANGER (889-CC), STAINLESS STEEL BUMPERGUARD (E-88-AA) AND STAINLESS STEEL WALL GUARD (MSG2424).
HD-1	HUB DRAIN	see plan	see plan	---	---	---	---	---	SIOUX CHIEF 832 SERIES ADJUSTABLE HUB DRAIN FIXTURE, PROVIDE STAINLESS STEEL MESH DEBRIS BASKET. PROVIDE ASSE 1072 TRAP SEALER (ZURN Z1072).
TD-1	TRENCH DRAIN	see plan	see plan	---	---	---	---	---	12" WIDE HEAVY DUTY TRENCH DRAIN (ZURN Z665).
GCO	EXTERIOR GRADE CLEANOUT	see plan	see plan	---	---	---	---	---	HEAVY DUTY CLEANOUT FOR EXTERIOR APPLICATION (J.R. SMITH 4261). CAST IRON BODY WITH DOUBLE FLANGED HOUSING AND CAST IRON TOP.
BFP-1	BACKFLOW PREVENTER (REDUCED PRESSURE ZONE)	---	---	---	see plan	---	see plan	---	REDUCED PRESSURE ZONE BACKFLOW PREVENTER WITH TWO INDEPENDENT CHECK MODULES, INTERMEDIATE RELIEF VALVE, AND TEST COCKS (WATTS LF009-QT). LEAD FREE. ASSEMBLY SHALL INCLUDE TWO ISOLATION VALVES AND STRAINER. CONFORMS TO ASSE STANDARD 1013.
BFP-2	BACKFLOW PREVENTER (BEVERAGE EQUIPMENT)	---	---	---	1/2"	---	3/8"	---	BACKFLOW PREVENTER WITH DUAL CHECK VALVES, ATMOSPHERIC VENT AND INTEGRAL STRAINER, LEAD FREE. FOR 3/8" EQUIPMENT CONNECTIONS, PROVIDE WATTS SD-3 (ASSE 1022). FOR 1/2" OR GREATER CONNECTION, PROVIDE WATTS LF009-QT (ASSE 1013).
ET-1	POTABLE WATER EXPANSION TANK	---	---	---	3/4"	---	3/4"	---	LEAD-FREE POTABLE WATER EXPANSION TANK (WATTS PLT-5). 2.1 GALLONS TOTAL VOLUME, 0.8 GALLONS MAXIMUM ACCEPTANCE VOLUME. TANK SHALL BE PRE-CHARGED TO THE SYSTEM PRESSURE PRIOR TO INSTALLATION (CONTRACTOR TO FIELD-VERIFY).
HB-1	HOSE BIBB	---	---	---	3/4"	---	3/4"	---	WOODFORD MODEL 24C HOSE BIBB WITH KNOB HANDLE AND 3/4" HOSE CONNECTION WITH ANTI-SIPHON VACUUM BREAKER (ASSE 1011).
FWH-1	FREEZEPROOF WALL HYDRANT IN BOX	---	---	---	3/4"	---	3/4"	---	CONCEALED 3/4" HOSE CONNECTION IN WALL BOX, WITH INTEGRAL AUTOMATIC DRAINING, ANTI-SIPHON VACUUM BREAKER (J.R. SMITH 5509QT). LENGTH TO SUIT WALL THICKNESS. PROVIDED WITH QUARTER TURN, SQUARE FITTING, T-HANDLE KEY.
IMB-1	ICE MAKER/REFRIGERATOR BOX	---	---	---	1/2"	---	1/2"	---	ICE MAKER CONNECTION BOX (OATEY #385xx/386xx SERIES), 6"X6". LOW LEAD, 1/4 TURN BRASS VALVE WITH INTEGRAL FACTORY INSTALLED WATER HAMMER ARRESTOR. WHERE BOX IS TO BE INSTALLED IN FIRE RATED WALL, PROVIDE OATEY 391xx SERIES. PROVIDE BACKFLOW PREVENTER IN SUPPLY LINE (WATTS 'SD3,' ASSE 1022).
WMB-1	WASHING MACHINE BOX	2"	2"	2"	1/2"	1/2"	1/2"	1/2"	WASHING MACHINE CONNECTION BOX (OATEY 3874x SERIES), 1/4 TURN BRASS BALL VALVES WITH INTEGRAL FACTORY INSTALLED WATER HAMMER ARRESTORS. WHERE BOX IS TO BE INSTALLED IN FIRE RATED WALL, PROVIDE OATEY 3847X SERIES. INTERCEPT DRAINAGE HOSE FROM WASHING MACHINE AND INSTALL INLINE WALL MOUNTED CANISTER STYLE LINT TRAP WITH REMOVABLE FILTER (FILTROL 160, OR EQUAL). LINT TRAP DRAINS TO WALL BOX.
PRIOR TO SUBMITTAL OR PURCHASE, THE PLUMBING CONTRACTOR SHALL VERIFY FIXTURE SPECIFICATIONS WITH ARCHITECT/OWNER									

ELECTRIC WATER HEATER SCHEDULE

MARK	TANK CAPACITY	RECOVERY	SETPOINT	ELECTRICAL	BASIS
WH-1	80 GAL	92 GPH @ 80° RISE	120°	18 KW	A.O. SMITH DSE-80A
PRIOR TO SUBMITTAL OR PURCHASE, THE PLUMBING CONTRACTOR SHALL VERIFY THE APPROPRIATE ELECTRICAL CHARACTERISTICS OF THE SELECTED WATER HEATER. COORDINATE DIRECTLY WITH THE ELECTRICAL CONTRACTOR AND THE POWER PANEL SCHEDULES ON THE ELECTRICAL DRAWINGS.					

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GEORGIA REGISTERED No. 039968 PROFESSIONAL ENGINEER MIKE ROEDER

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REVISIONS

No.	Date	Description
	02.14.22	BID SET
1	07.18.22	REVISION 1

PROFICIENT ENGINEERING
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PROJECT # 121564

Gardner Spencer Smith Tench & Jarbeau
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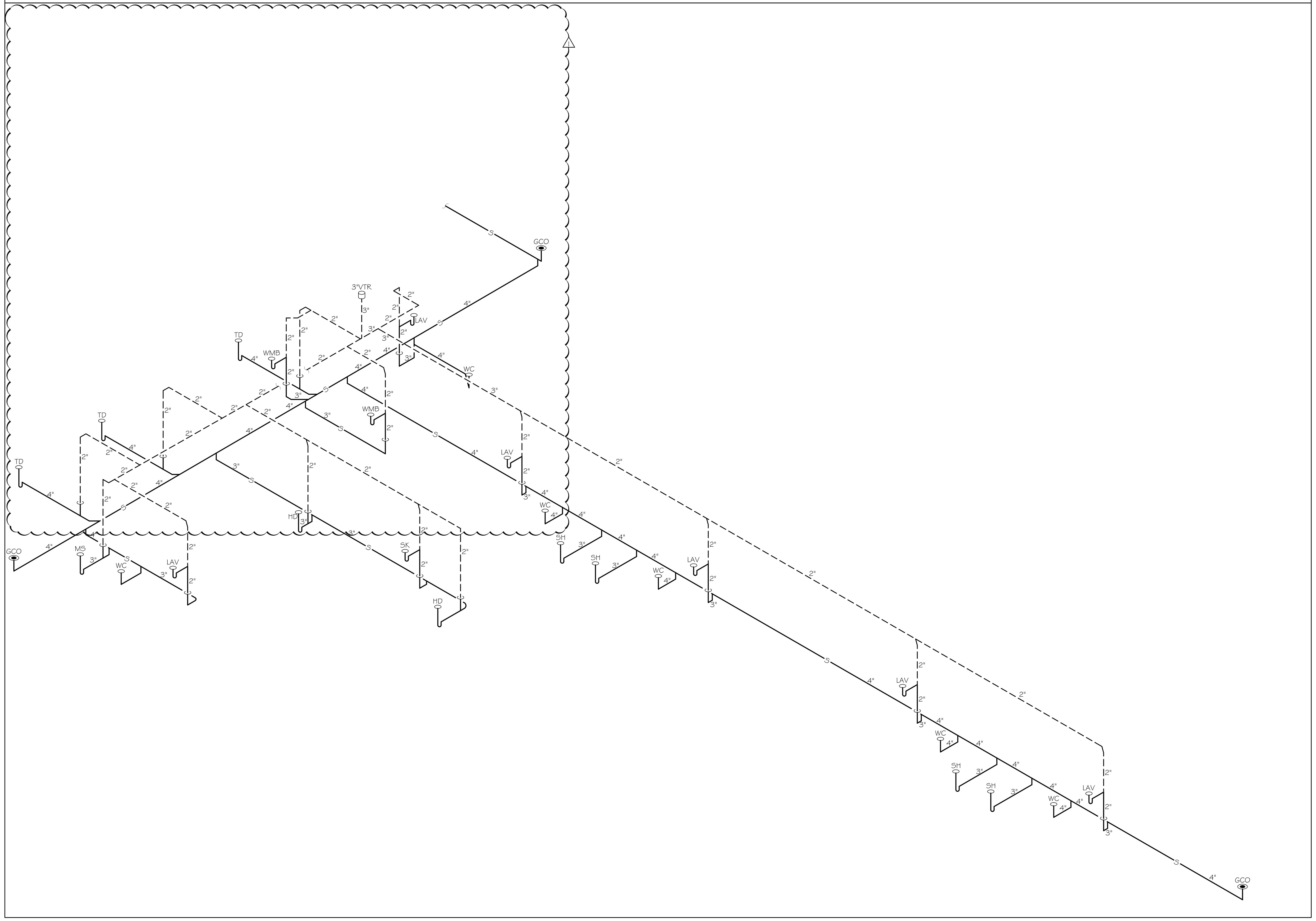
PROJECT NO.
20112

SHEET TITLE
DETAILS & SCHEDULES

SHEET NO.
P0.02

WASTE/VENT ISOMETRIC

NO SCALE



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SHEET TITLE
WASTE & VENT ISOMETRIC

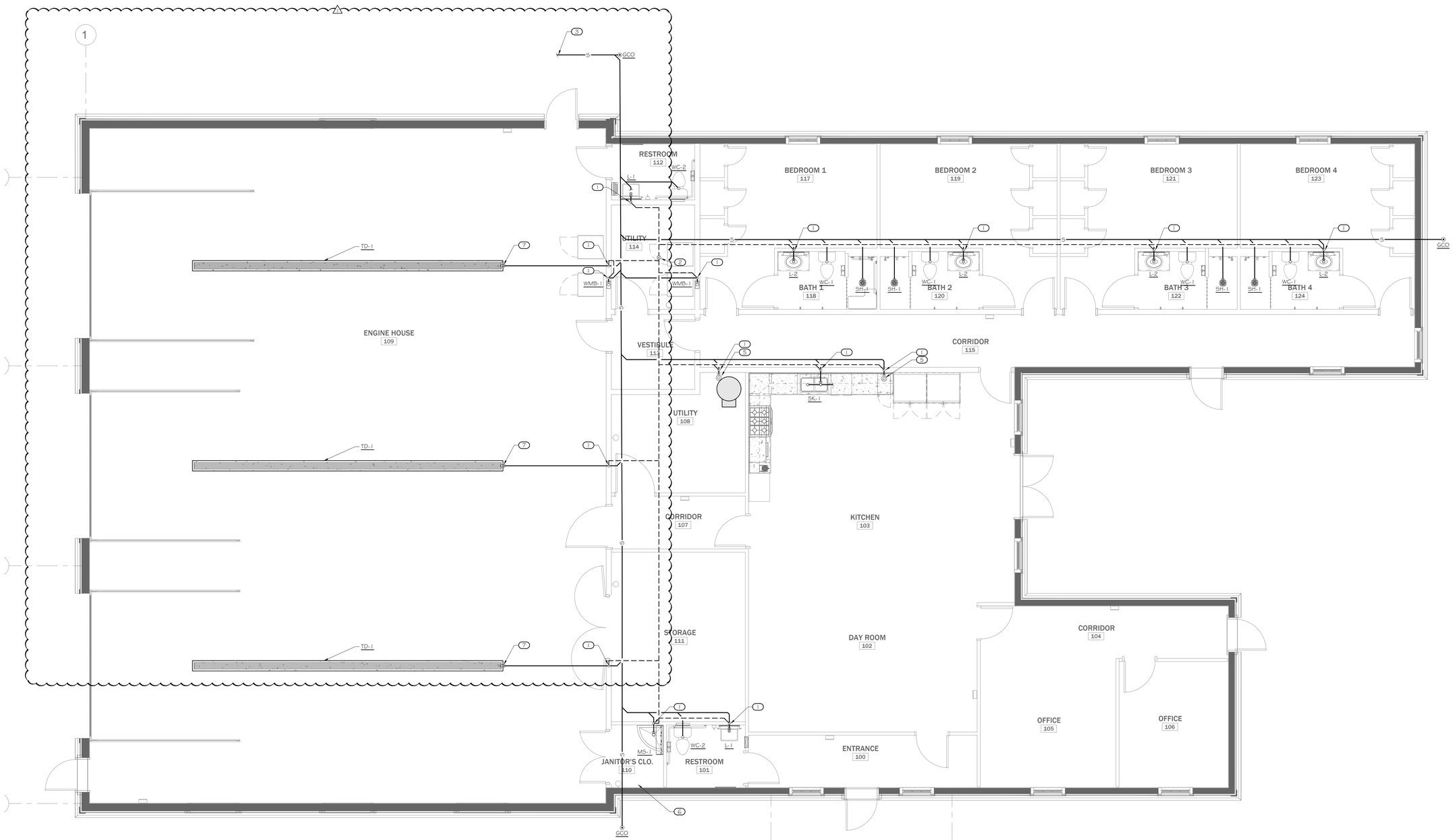
SHEET NO.
P0.03

TRENCH DRAIN NOTES

SANITARY DRAINAGE FROM ALL PLUMBING FIXTURES, INCLUDING TRENCH DRAINS, TO DRAIN TO SEPTIC TANK WITH OIL TRAP PROVIDED BY SITE CIVIL UTILITY. REFER TO CIVIL DRAWINGS FOR CONTINUATION.

KEYNOTES

1. 2" V DN
2. 3" V UP TO 3" VTR
3. 4" S BIG 4 CONNECT TO SITE SANITARY SEWER UTILITY. FIELD VERIFY EXACT LOCATION, DEPTH, AND DIRECTION OF FLOW PRIOR TO COMMENCING WORK.
4. CONNECT DISHWASHER HOSE TO SINK P-TRAP (OR DISPOSER, AS APPLICABLE) WITH AIR BREAK, SEE DETAIL
5. 3" HUB DRAIN HD-1. DISCHARGE ALL NEARBY INDIRECT WASTE CONNECTIONS FULL SIZE WAIR GAP AT LEAST TWICE THE DIAMETER OF INDIRECT WASTE PIPE (SEE DETAIL). FIELD COORDINATE WITH INSTALLED EQUIPMENT.
6. ROUTE BFP DRAIN THROUGH WALL TO EXTERIOR AND DISCHARGE WITH TURNDOWN ELBOW 0'-6" ABOVE GRADE
7. 4" P-TRAP AT BASE OF FIXTURE



E

1 FLOOR PLAN - WASTE & VENT

SCALE: 1/4" = 1'-0"

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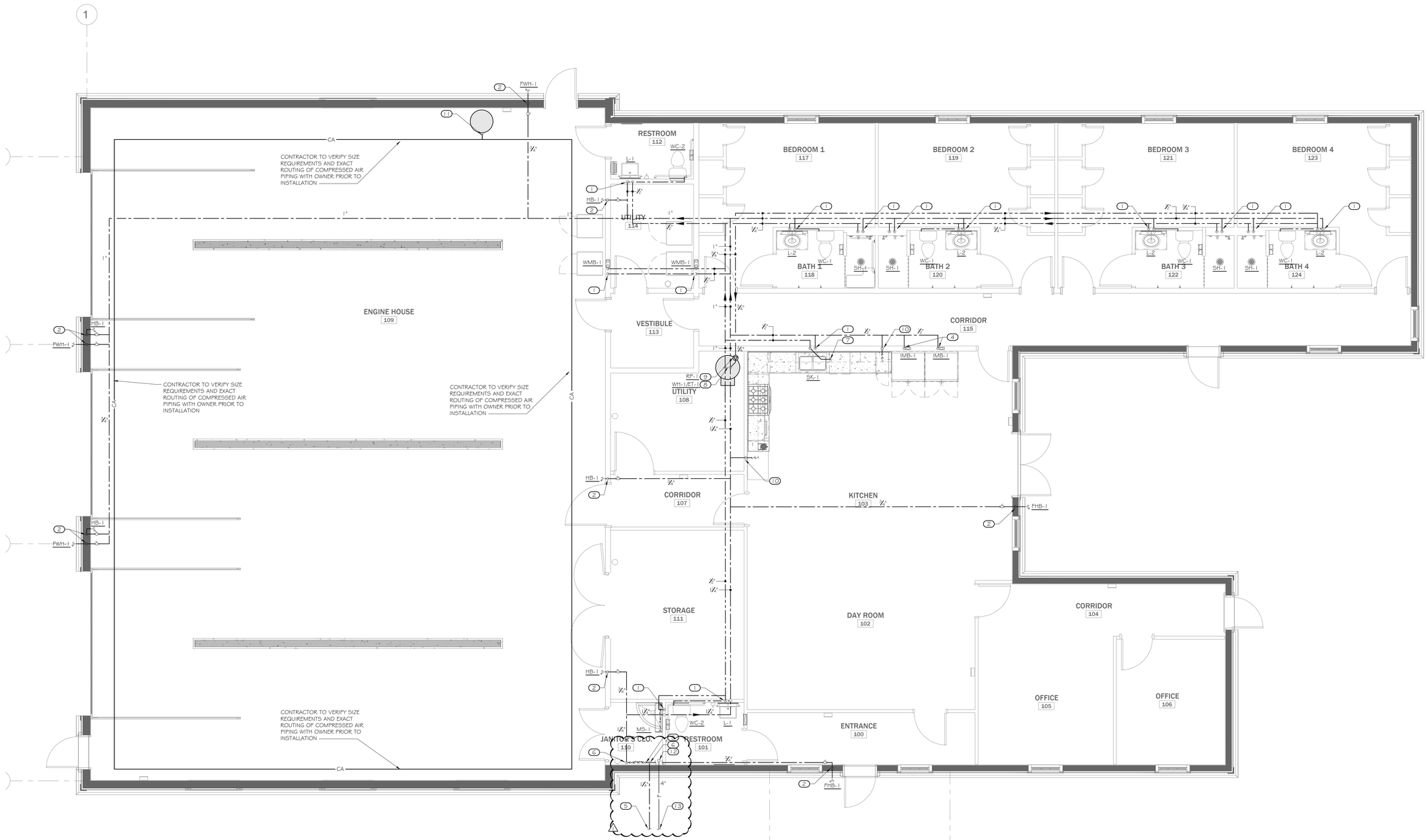
PROJECT NO.
20112

SHEET TITLE
FLOOR PLAN – WASTE & VENT

SHEET NO.
P1.10

KEYNOTES

1. ½" CW & ½" HW DN
2. ¾" CW DN
3. 1½" CW TO BACKFLOW PREVENTER BFP-1, MOUNTED AT AN ACCESSIBLE LOCATION
4. ½" CW DN
5. 1½" DOMESTIC WATER SERVICE B/G, SEE CIVIL DWG FOR CONT
6. 1½" CW DN
7. ½" VALVED HW TO DW CONNECTION W/WATER HAMMER ARRESTOR (SIOUX CHIEF 'MINI-RESTER,' SERIES 660, SIZE 'AA')
8. 1" CW, 1" HW & ¾" HWR TO STAND MOUNTED WATER HEATER, SEE DETAIL
9. ¾" HWR TO RECIRCULATION PUMP, SEE DETAIL
10. ½" CW TO BEVERAGE EQUIPMENT, PROVIDE BACKFLOW PREVENTER BFP-2 AT FINAL CONNECTION
11. CA TO 100 GALLON AIR COMPRESSOR, EQUIPMENT SELECTION BY OWNER. FIELD VERIFY EXACT LOCATION WITH EQUIPMENT TO BE PROVIDED
12. 4" SPRINKLER MAIN B/F & UP TO SERVICE ENTRANCE RISER. COMPLETE SPRINKLER DESIGN BY SPRINKLER CONTRACTOR.
13. 4" SPRINKLER MAIN B/G, SEE CIVIL DRAWING FOR CONTINUATION AND BACKFLOW PREVENTER



E

1 FLOOR PLAN - WATER

SCALE: 1/4" = 1'-0"

Union County Fire Station

Harbor Boulevard
at
Murphy Highway
Blairsville, Georgia
30512

GEORGIA REGISTERED Professional ENGINEER MIKE ROEDER

RELEASED FOR CONSTRUCTION

REVISIONS

No.	Date	Description
	02.14.22	BID SET
1	07.18.22	REVISION 1

PROFICIENT ENGINEERING
6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121564

Gardner Spencer Smith Tench & Jarbeau
A Professional Corporation
for the Practice of Architecture

Tower Place Building,
3340 Peachtree Road, N.E.
Suite 1800
Atlanta, Georgia 30326
404.522.8805
404.521.2118 (f)

PROJECT NO.
20112

SHEET TITLE
FLOOR PLAN – WATER

SHEET NO.
P1.11