NEW 911 CENTER
FOR UNION COUNTY

507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

12/06/2024

CONSTRUCTION DOCUMENT PACKAGE

HUSSEY GAY BELL
Established 1958

3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 / T: 770.923.1600

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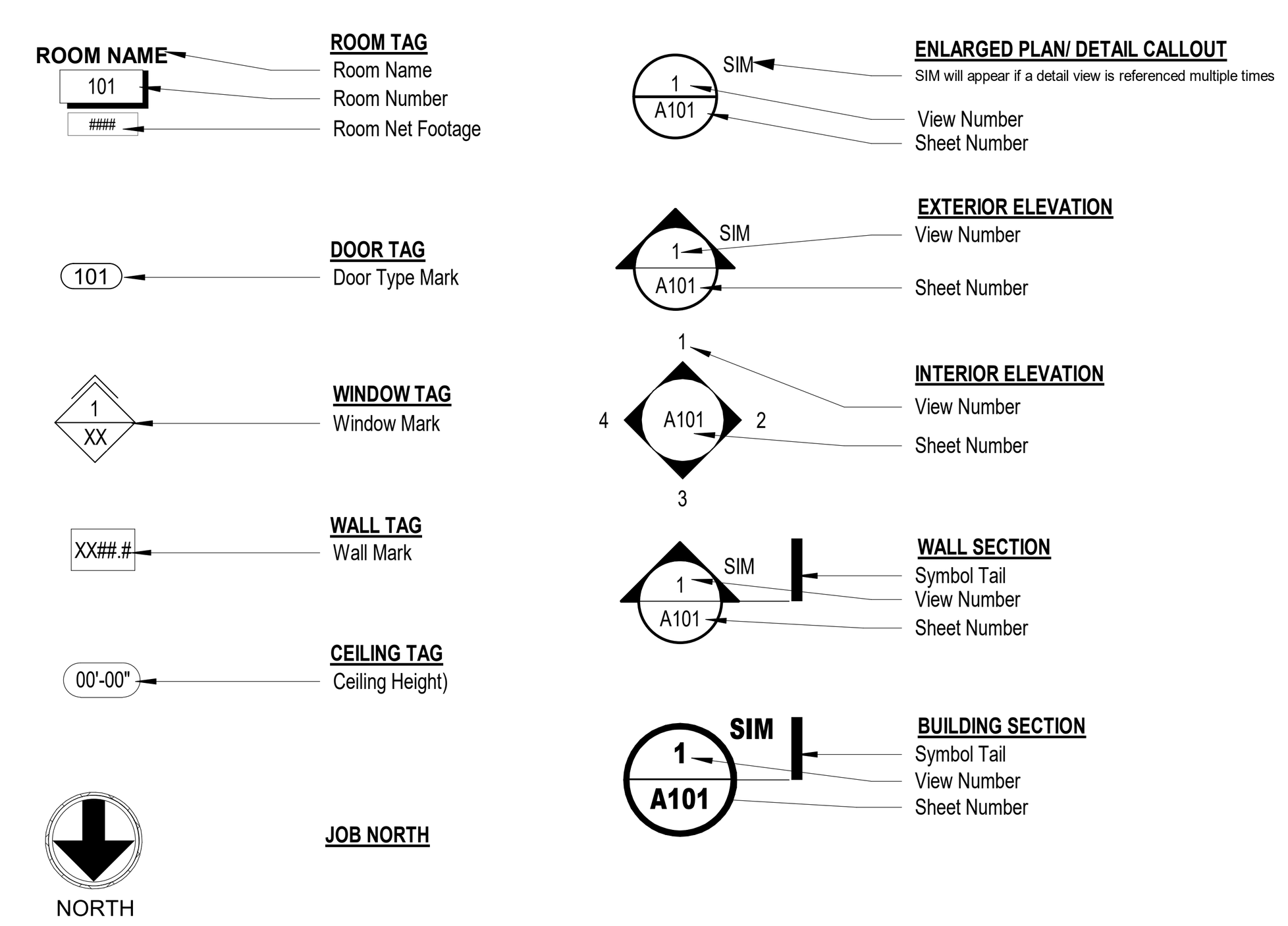
A	
AC	ACRE / ACRES
A/C	AIR CONDITIONER / AIR CONDITIONING
ACOUS	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS with DISABILITIES ACT
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE/GROUND
ALFG	ALUMINUM FULL GLASS
ALT	ALTERNATIVE / ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APC	ACOUSTICAL PANEL CEILING
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATTEN	ATTENUATION
A/V	AUDIO / VISUAL
AVW	AT VARIANCE WITH
B	
BCS	BABY CHANGING STATION
BD	BOARD
BETW	BETWEEN
BKS	BOOK SHELF
BLDG	BUILDING
BOS	BOTTOM OF STEEL
BRK	BRICK
BRNG	BEARING
BUR	BUILT-UP ROOFING
C	
C	CLOCK
CAB	CABINET / CABINETRY
CD	COMPUTER DESK
CEM	CEMENTITIOUS BOARD
CG	CORNER GUARD
CH	COAT HOOK
CJ	CONTROL JOINT
CL	CLOSET
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COMP	COMPUTER
CONC	CONCRETE
CONF	CONFERENCE
CORR	CORRIDOR
CPT	CARPET
CS	COMPUTER STATION
CT	CERAMIC TILE
CU	CONDENSING UNIT
D	
DD	DUTCH DOOR
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIM	DIMENSION
DIS	DISPLAY CASE / CABINET
DISP	DISPENSER
DN	DOWN
DRY	DRYER
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING
DWR	DRAWER
E	
EA	EACH
EDF	ELECTRIC DRINKING FOUNTAIN
EEW	EMERGENCY EYE WASH
EF	EACH FACE
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EJC	EXPANSION JOINT COVER
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EQUIP	EQUIPMENT
ESB	ELECTRIC SCORE BOARD
ETR	EXISTING TO REMAIN
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	
F	FLUSH
FA	FIRE ALARM
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FH	FUME HOOD
FHC	FIRE HOSE CABINET
FIN	FINISH
FJ	FLOOR JOINT
FLASH	FLASHING
FLR	FLOOR
FOC	FACE OF CONCRETE
FOE	FACE OF EIFS
FOUND	FOUNDATION
FRP	FIBERGLASS REINFORCED PANEL
FT	FOOT / FEET
FTG	FOOTING
FURR	FURRING
FV	FIELD VERIFY
FWD	FLUSH WOOD DOOR
G	
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GB 24	24" GRAB BAR
GB 36	36" GRAB BAR
GB 42	42" GRAB BAR
GCO	GROUND CLEAN OUT
GFI	GROUND FAULT INTERRUPT
GFRC	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GRD	GROUND
GRVL	GRAVEL
GT	GROUT
GYP	GYPSUM
GYP BD	GYPSUM BOARD
H	
HB	HOSE BIBB
HC	HANDICAP
HD	HAND DRYER
HDWR	HARDWARE
HM	HOLLOW METAL
HORZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HVAC	HEATING / VENTILATING / AIR CONDITIONING
I	
IN	INCH
INSUL	INSULATION
INT	INTERIOR
J	
JAN	JANITOR
JT	JOINT
K	
KIT	KITCHEN
L	
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
LF	LINEAR FOOT/FEET
LGTH	LENGTH
LIN	LINEAR
LKR	LOCKER
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT	LIGHT
M	
M	MIRROR
MANUF	MANUFACTURE
MAT	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MBR	MODIFIED BITUMEN ROOFING
MC	MEDICINE CABINET
MECH	MECHANICAL
MEZZ	MEZZANINE
MF	METAL FLUSH
MHG	METAL HALF GLASS
MIN	MINIMUM / MINUTE
MISC	MISCELLANEOUS
ML	METAL LOUVER
MLDG	MOULDING
MNG	METAL NARROW GLASS
MO	MASONRY OPENING
MR	MOP RACK
MRBL	MARBLE
MT	MARBLE THRESHOLD
MTD	MOUNTED
MTL	METAL
MW	MICROWAVE
N	
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
O	
OC	ON CENTER
OH	OVERHEAD
OPH	OPPOSITE HAND
OPP	OPPOSITE
OTSA	OPEN TO STRUCTURE ABOVE
P	
PART	PARTITION
PC	PRECAST
PEJ	PRE MOLDED EXPANSION JOINT
PGBD	PEG BOARD
PL	PLATE
PLAM	PLASTIC LAMINATE
PLST	PLASTER
PLUMB	PLUMBING
PLY	PLYWOOD
PME	PLUMB / MECH / ELEC
PNL	PANEL
PNT	PAINT
PR	PAIR
PREFAB	PREFABRICATED
PREMAN	PREMANUFACTURED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PVC	POLYVINYL CHLORIDE
Q	
QT	QUARRY TILE
QTY	QUANTITY
R	
R	RISER
R/A	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RCP	REFLECTED CEILING PLAN
RCPT	RECEPTION
RD	ROOF DRAIN
RECPT	RECEPTACLE
REF	REFERENCE
REFRIG	REFRIGERATOR
REINF	REINFORCED / REINFORCING
REQD	REQUIRED
REV	REVISION
RH	ROBE HOOK
RM	ROOM
RO	ROUGH OPENING
R&S	ROD & SHELF
R/W	RIGHT OF WAY
S	
SC	STORAGE CABINET
SCHED	SCHEDULE
SCR	SCREEN
SD	SOAP DISPENSER
SDR	STORM DRAIN
SECT	SECTION
SF	SQUARE FOOT / SQUARE FEET
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SND	SANITARY NAPKIN DISPENSER / DISPOSAL
SPEC	SPECIFICATION
SPKR	SPEAKER
SPLBK	SPLASHBLOCK
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRFNT	STOREFRONT
STRUCT	STRUCTURAL / STRUCTURE
SUSP	SUSPENDED
SVT	SOLID VINYL TILE
SYM	SYMMETRICAL
T	
T	TREAD
TB	TACK BOARD
TC	TEACHER CABINET
TD	TEACHER DESK
TDR	TRENCH DRAIN
TEMP	TEMPORARY / TEMPERED
TERR	TERRAZZO
T&G	TONGUE & GROVE
THD	TRESHOLD
THRU	THROUGH
TLT	TOILET
TOC	TOP OF CONCRETE
TOCMU	TOP OF CONCRETE MASONRY UNIT
TOF	TOP OF FOOTING
TOP	TOP OF PAVEMENT
TOPL	TOP OF PLATE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TR	TOWEL RACK / BAR
TS	TACK STRIP
TV	TELEVISION
TWAC	THROUGH WALL AIR CONDITIONER
TWS	TEACHER WORK STATION
TYP	TYPICAL
U	
UL	UNDERWRITERS LABORATORY
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
V	
VAR	VARIES / VARIABLE
VCT	VINYL COMPOSITION TILE
VE	VALUE ENGINEERED
VEND	VENDING MACHINE
VERT	VERTICAL / VERTICALLY
VEST	VESTIBULE
VF	VINYL FLOORING
VHIR	VERY HIGH IMPACT RESISTANT
VIF	VERIFY IN FIELD
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	
W/	WITH
WASH	WASHER
W/C	WATER CLOSET
WC	WALL COVERING
WCO	WALL CLEAN OUT
WD	WOOD
WF	WOOD FLUSH
WFD	WOOD FIBER DECKING
WH	WATER HEATER
WHG	WOOD HALF GLASS
WL	WOOD LOUVER
WNG	WOOD NARROW GLASS
W/O	WITHOUT
WP	WATER PROOF
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
X	
XFMR	TRANSFORMER
Y	
YR(S)	YEAR(S)

STANDARD ABBREVIATIONS



STANDARD SYMBOLS

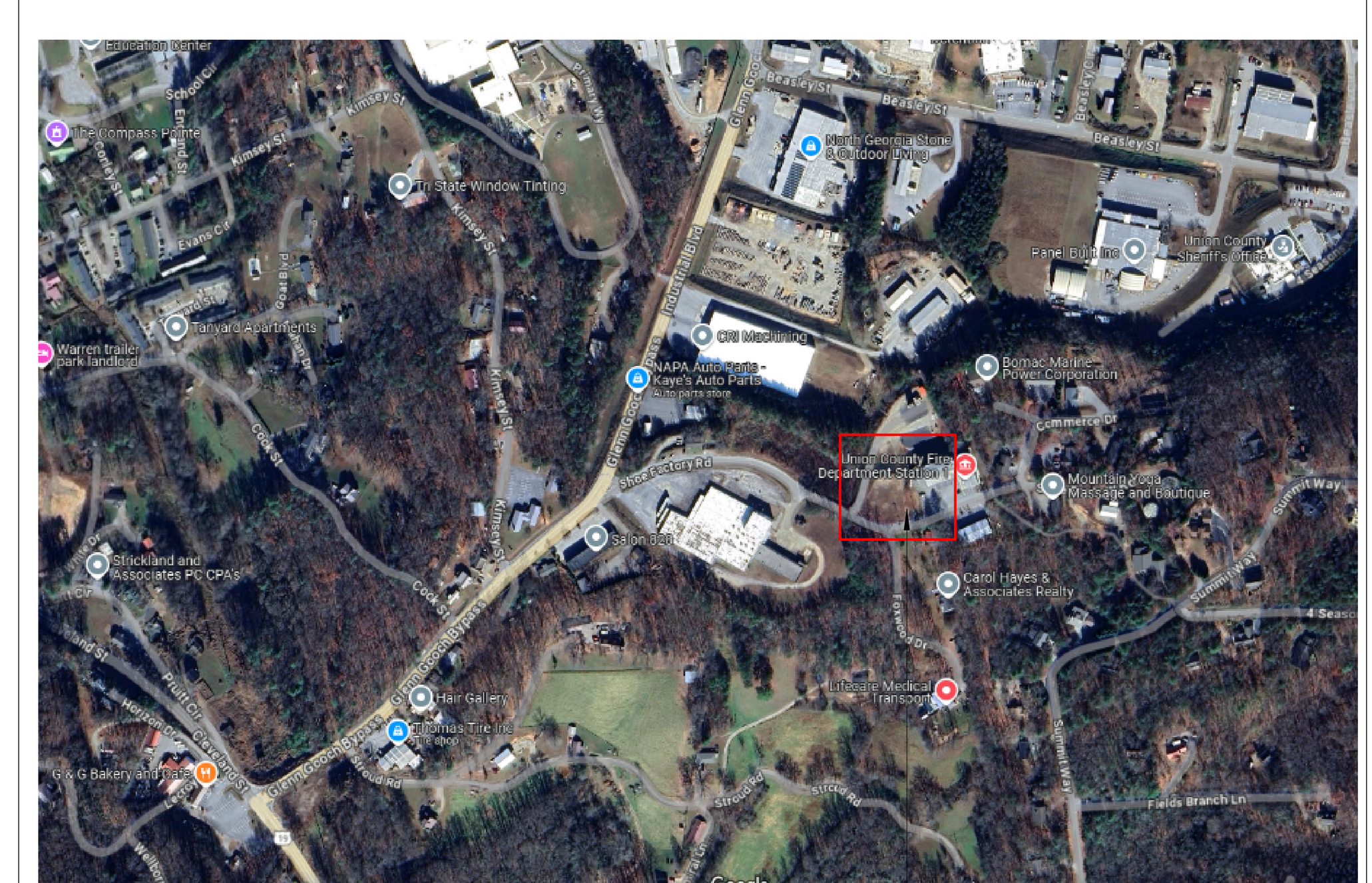
- INTERNATIONAL BUILDING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022), (2024)
- INTERNATIONAL FIRE CODE, 2018 EDITION, WITH GEORGIA MODIFICATIONS
- INTERNATIONAL PLUMBING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022), (2023), (2024)
- INTERNATIONAL MECHANICAL CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2024)
- INTERNATIONAL FUEL GAS CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022)
- NATIONAL ELECTRICAL CODE, 2020 EDITION WITH GEORGIA AMENDMENTS (2021)
- INTERNATIONAL ENERGY CONSERVATION CODE, 2015 EDITION, WITH GEORGIA SUPPLEMENTS AND AMENDMENTS (2020), (2022) , (2023)
- NFPA 101 LIFE SAFETY CODE, 2018 EDITION WITH GEORGIA MODIFICATIONS
- ADA STANDARDS FOR ACCESSIBLE DESIGN, 2010 EDITION

APPLICABLE CODES

PROJECT ADDRESS:	**507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512**
OCCUPANCY GROUP :	B, S-2
TYPE OF CONSTRUCTION :	NFPA = TYPE II (000), IBC = TYPE IIB
SPRINKLERED :	NO
NUMBER OF STORIES :	2 STORY
BUILDING HEIGHT :	36'-0"
BUILDING CODE HEIGHT LIMIT :	75'-0"
PROJECT NUMBER :	624 1109 01

BUILDING AREA:		
	LEVEL 1	**3,171 SF GROSS**
	LEVEL 2	**4,187 SF GROSS**
	TOTAL	**7,358 SF GROSS**

PROJECT DATA



PROJECT LOCATION

VICINITY MAP

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA CHRISTOPHER ... CAUDLE CERTIFICATE NO. 14921 REGISTERED ARCHITECT 12-6-24

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

INDEX SHEET

DRAWING NUMBER

G0.01

CONSTRUCTION DOCUMENT PACKAGE

BUILDING CODE - PROJECT NAME

LIFE SAFETY CODE (NFPA 101)

OCCUPANCY CLASSIFICATION

CHAPTER 38: NEW BUSINESS OCCUPANCY
CHAPTER 42: NEW STORAGE OCCUPANCY

GENERAL CODE INFORMATION

CLASSIFICATION OF HAZARDS CONTENT (NFPA 101 38.1.5 & 42.1.5): ASSEMBLY = ORDINARY HAZARD

AUTOMATIC SPRINKLER SYSTEM (NFPA13): ASSEMBLY = YES

CONSTRUCTION TYPE (NFPA 220): ASSEMBLY = TYPE V (000)

MEANS OF EGRESS CODE DATA

CHAPTER 7 TABLE 7.3.1.2 OCCUPANT LOAD FACTOR (SEE LIFE SAFETY PLANS)

LIFE SAFETY OCCUPANT LOAD FACTOR		
NAME	AREA	PERSONS
LEVEL 01		
BUSINESS COLLABORATION <450 (30 SF PER PERSON)		
BREAKROOM/ CONFERENCE	441.27 SF	15
	441.27 SF	15 PERSONS
BUSINESS USE (150 SF GROSS PER PERSON)		
DISPATCH ROOM	683.08 SF	5
OFFICE	179.37 SF	2
OFFICE	170.82 SF	2
	1033.27 SF	9 PERSONS
INCIDENTAL ASSEMBLY (15 SF PER PERSON)		
VEST	39.58 SF	3
	39.58 SF	3 PERSONS
STORAGE (500 SF PER PERSON)		
CUST. STORAGE	131.48 SF	1
LOCKER	124.89 SF	1
SERVER	230.88 SF	1
STORAGE	106.48 SF	1
MECH/ ELEC	84.88 SF	1
	678.60 SF	5 PERSONS
	2192.72 SF	**32 PERSONS**

LIFE SAFETY OCCUPANT LOAD FACTOR		
NAME	AREA	PERSONS
LEVEL 02		
BUSINESS USE (150 SF GROSS PER PERSON)		
MAPPING OFFICE	178.64 SF	2
SIGN FABRICATION	175.20 SF	2
	353.84 SF	4 PERSONS
INCIDENTAL ASSEMBLY (15 SF PER PERSON)		
ENTRY VESTIBULE	122.62 SF	8
	122.62 SF	8 PERSONS
STORAGE (500 SF PER PERSON)		
STORAGE	139.92 SF	1
CUST.	106.28 SF	1
FUTURE DATA	77.77 SF	1
FUTURE MECH/ELEC.	69.37 SF	1
TRANSPORT.	108.21 SF	1
RECREATION DEPARTMENT	109.05 SF	1
GOLF COURSE	109.05 SF	1
ALCOHOL ENFORC.	109.05 SF	1
COUNTRY CLERK	109.05 SF	1
SHERIFFS OFFICE	101.50 SF	1
BUILDING INSPECTIONS	195.19 SF	1
GIS MAPPING	119.62 SF	1
TAX ASSESSOR	119.62 SF	1
MAGISTRATE	119.62 SF	1
DISTRICT ATTORNEY	119.62 SF	1
CLERK OF COURT	119.62 SF	1
PROBATE	122.08 SF	1
TBD	157.41 SF	1
	2112.06 SF	18 PERSONS
	2588.51 SF	**30 PERSONS**
Grand total	4781.23 SF	**62 PERSONS**

CHAPTER 7 - CONTINUED

EGRESS CAPACITY FACTORS (TABLE 7.3.3.1): SEE 7.3.3.2 FOR EXPANDED STAIR CAPACITY FOR STAIRS & CORRIDORS WIDER THAN 44" (MINIMUM CORRIDOR WIDTH = 44", ACTUAL WIDTH OF CORRIDOR(S) = 72")

STAIRS= 0.3" PER PERSON (EXTERIOR STAIRS ONLY - NO EGRESS STAIRS)
OTHER = 0.2" PER PERSON

LEVEL 1 (TOTAL PER FLOOR):
LEVEL = 0.2 x 33 PERSONS = 6.6"

LEVEL 2 (TOTALS PER FLOOR):
LEVEL = 0.2 x 30 PERSONS = 6.0"

NUMBER OF MEANS OF EGRESS (SECTION 7.4.1.2): OCCUPANT LOAD < 500 = NOT LESS THAN 2.

LEVEL 1: 2 REQUIRED, 3 PROVIDED (SEE PLAN)
LEVEL 2: 2 REQUIRED, 2 PROVIDED (SEE PLAN)

COMMON PATH, DEAD END & TRAVEL DISTANCE (SECTION 38.2.5.2.2, 38.2.5.3.2, 38.2.6.2, 42.2.5, 42.2.6):

COMMON PATH OF TRAVEL (STORAGE) = 50'
(BUSINESS) = 100' NOT SERVING MORE THAN 30 OCCUPANTS
DEAD END CORRIDOR (STORAGE) = 50'
(BUSINESS) = 20'
TRAVEL DISTANCE (STORAGE) = 200'
(BUSINESS) = 200'

SEE LIFE SAFETY PLANS FOR ACTUAL DISTANCES

INTERNATIONAL BUILDING CODE

OCCUPANCY CLASSIFICATION

CHAPTER 3: BUSINESS GROUP B
SEPARATED MIXED USE OCCUPANCIES STORAGE GROUP S-2

BUILDING HEIGHT AND AREA LIMITATIONS

IBC CONSTRUCTION TYPE = TYPE IIB
GENERAL BUILDING HEIGHT & AREA LIMITATIONS FOR TYPE (SECTION 503):

BUILDING (B):
NUMBER OF STORIES ALLOWED: 4 (ACTUAL = 2 STORY)
AREA PER FLOOR ALLOWED: 69,000 SF
MAXIMUM HEIGHT ALLOWED: 75'-0" (ACTUAL = 36' - 0")

STORAGE (S-2):
NUMBER OF STORIES ALLOWED: 4 (ACTUAL = 2 STORY)
AREA PER FLOOR ALLOWED: 78,000 SF
MAXIMUM HEIGHT ALLOWED: 75'-0" (ACTUAL = 36' - 0")

LEVEL 1 **3,171 SF GROSS**
LEVEL 2 **4,187 SF GROSS**

TOTAL BUILDING AREA: **7,358 SF GROSS**

CONSTRUCTION TYPE CLASSIFICATION

CHAPTER 6: TYPES OF CONSTRUCTION (SECTION 602.5 AND TABLE 601)

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame[g] (see Section 202)	3[a, b]	2[a, b]	1[a]	0	1[b]	0	HT	1[b]	0
Bearing walls Exterior[e, f]	3	2	1	0	2	2	2	1	0
Interior	3[a]	2[a]	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[d]	0	0	0	0	0	0	See Section 2304.11.2	0	0
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 1/2[b]	1[b,c]	1[b,c]	0[c]	1[b,c]	0	HT	1[b,c]	0

For SI: 1 foot = 304.8 mm.
a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members in roof construction shall not be required, including protection of primary structural frame members, roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
d. Not less than the fire-resistance rating required by other sections of this code.
e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
f. Not less than the fire-resistance rating as referenced in Section 704.10.

TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE[c, d, e]

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H[a]	OCCUPANCY GROUP F-1, M, S-1[f]	OCCUPANCY GROUP A, B, E, F-2, I, R[i], S-2, U[h]
X < 5[g]	All	3	2	1
5 ≤ X < 10	IA	3	2	1
	Others	2	1	1
10 ≤ X < 30	IA, IB	2	1	1[g]
	IIB, VB	1	0	0
	Others	1	1	1[g]
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.
a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
b. See Section 706.1.1 for party walls.
c. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
d. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
e. For special requirements for Group H occupancies, see Section 415.6.
f. For special requirements for Group S aircraft hangars, see Section 412.3.1.
g. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
h. For a building containing only a Group U occupancy private garage or carport, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.
i. For a Group R-3 building of Type II-B or Type V-B construction, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.

PLUMBING FIXTURE COUNT

CHAPTER 6: PLUMBING SYSTEMS (TABLE 2902.1)

	FIXTURE TYPE	REQUIRED	PROVIDED*
BUSINESS (28 AT LEVEL 1) (12 AT LEVEL 2)	WATERCLOSET	1 PER 25 (1 PER 50 AFTER 50) = 2	= 3
	LAVATORY	1 PER 40 (1 PER 80 AFTER 80) = 1	= 4
	DRINKING FOUNTAIN	1 PER 100 = 1	= 1
	SERVICE SINK	NOT REQUIRED PER THE IBC 2020 AMMENDMENTS	= 0
STORAGE (5 AT LEVEL 1) (18 AT LEVEL 2)	WATERCLOSET	1 PER 100 = 1	= 2
	LAVATORY	1 PER 100 = 1	= 2
	DRINKING FOUNTAIN	1 PER 1000 = 1	= 1
	SERVICE SINK	NOT REQUIRED PER THE IBC 2020 AMMENDMENTS	= 1

TOTAL	FIXTURE TYPE	REQUIRED	PROVIDED
	WATERCLOSET	= 3	= 5
	LAVATORY	= 2	= 6
	DRINKING FOUNTAIN	= 2	= 2
	SERVICE SINK	= 1	= 1

GENERAL FIRE MARSHAL NOTES

GENERAL NOTES

1. FIRE ALARM CONTRACTOR SHALL OBTAIN A FIRE ALARM SYSTEM PERMIT FROM THE AHJ FIRE MARSHAL'S OFFICE PRIOR TO INSTALLATION. ANY FIRE ALARM PLANS INCLUDED IN THIS SET OF PLANS ARE FOR REFERENCE ONLY. NOT FOR PERMIT.

2. INSULATING MATERIALS SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 AS DETERMINED IN ACCORDANCE WITH ASTM E 84.

3. CONTRACTOR SHALL PERMANENTLY IDENTIFY ALL FIRE-RESISTANT-RATED WALLS INCLUDING FIRE BARRIER WALLS, SMOKE BARRIER WALLS, FIRE PARTITIONS, FIRE WALLS, AND SHAFT ENCLOSURES EITHER BY INSTALLING SIGNS OR BY STENCILING IN CONCEALED SPACES THE FOLLOWING: "----- 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.

4. EXIT DOORS SHALL NOT BE SUBJECT TO THE USE OF A KEY OR REQUIRE SPECIAL KNOWLEDGE TO OPERATE PER NFPA 101 LIFE SAFETY CODE, 2000 EDITION, CHAPTER 7-2.1.5.1.

5. ALL DUCT DETECTORS TO BE TIED INTO FIRE ALARM SYSTEM IN ACCORDANCE WITH NFPA 72.

NFPA 101 FIRE RATED COMPONENTS

CHAPTER 8

HAZARDOUS MATERIALS 38.2.11.3 : WHERE HAZARDOUS MATERIALS ARE STORED, USED, OR HANDLED, THE PROVISIONS OF 7.12.2 SHALL APPLY.

PROTECTION FROM HAZARDS 38.3.2.1 : HAZARDOUS AREAS INCLUDING, BUT NOT LIMITED TO, AREAS USED FOR GENERAL STORAGE, BOILER OR FURNACE ROOMS, AND MAINTENANCE SHOPS THAT INCLUDE WOODWORKING AND PAINTING AREAS SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 8.7.

HAZARDOUS MATERIALS 42.2.11.3 : WHERE HAZARDOUS MATERIALS ARE PRESENT, THE PROVISIONS OF 7.12.2 SHALL APPLY.

PROTECTION FROM HAZARDS 42.3.2 : WHERE HAZARDOUS MATERIALS ARE STORED, USED, OR HANDLED, THE PROVISIONS OF 8.7.3.1 SHALL APPLY.

BUSINESS - CORRIDORS, 38.3.6.1: EXCEPTION 2 - WITHIN A SPACE OCCUPIED BY A SINGLE TENANT

STORAGE - CORRIDORS, 42.3.6 : THE PROVISIONS OF 7.1.3.1 SHALL NOT APPLY

BUSINESS - STORAGE, 6.1.14.4.1: WHERE SEPARATED OCCUPANCIES ARE PROVIDED, EACH PART OF THE BUILDING COMPRISING A DISTINCT OCCUPANCY, AS DESCRIBED IN THIS CHAPTER, SHALL BE COMPLETELY SEPARATED FROM OTHER OCCUPANCIES BY FIRE BARRIERS, AS SPECIFIED IN TABLE 6.1.14.4.1(a), TABLE 6.1.14.4.1(b), AND 6.1.14.4.2 THROUGH 6.1.14.4.4, UNLESS SEPARATION IS PROVIDED BY APPROVED EXISTING SEPARATIONS OR AS OTHERWISE PERMITTED BY 6.1.14.4.6.

CONSTRUCTION TYPE (NFPA 220 CHAPTER 4): FIRE RESISTANCE RATING FOR TYPE IIB (000)
CONSTRUCTION (HR) (NFPA 220, TABLE 4.1.1).

CONSTRUCTION ELEMENT	HOURLY RATING REQUIREMENT	DESIGN REFERENCE
EXTERIOR BEARING WALLS	0 HR.*	N/A
INTERIOR BEARING WALLS	0 HR.	N/A
COLUMNS	0 HR.	N/A
BEAMS, GIRDERS, TRUSSES & ARCHES	0 HR.	N/A
FLOOR CEILING ASSEMBLIES	0 HR.	N/A
ROOF CEILING ASSEMBLIES	0 HR.	N/A
INTERIOR NONBEARING WALLS	0 HR.	N/A
EXTERIOR NONBEARING WALLS	0 HR.*	N/A

BUILDING CODES

- INTERNATIONAL BUILDING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022), (2024)
- INTERNATIONAL FIRE CODE, 2018 EDITION WITH GEORGIA MODIFICATIONS
- INTERNATIONAL PLUMBING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022), (2023), (2024)
- INTERNATIONAL MECHANICAL CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2024)
- INTERNATIONAL FUEL GAS CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020), (2022)
- NATIONAL ELECTRICAL CODE, 2020 EDITION WITH GEORGIA AMENDMENTS (2021)
- INTERNATIONAL ENERGY CONSERVATION CODE, 2015 EDITION, WITH GEORGIA SUPPLEMENTS AND AMENDMENTS (2020), (2022) , (2023)
- NFPA 101 LIFE SAFETY CODE, 2018 EDITION WITH GEORGIA MODIFICATIONS
- ADA STANDARDS FOR ACCESSIBLE DESIGN, 2010 EDITION

LIFE SAFETY NOTES

1. SEE ELECTRICAL DRAWINGS FOR EMERGENCY LIGHTING LOCATIONS, CIRCUITING, AND SPECIFICATIONS.

2. COMMUNICATION FEATURES AND ELEMENTS THAT ARE REQUIRED TO BE ACCESSIBLE AND SATISFY CHAPTER 7 OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN. ACCESSIBLE AUDIBLE AND VISIBLE ALARMS AND NOTIFICATION APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72 §105.2.2, BE POWERED BY A COMMERCIAL LIGHT AND POWER SOURCE, BE PERMANENTLY CONNECTED TO THE WIRING OF THE PREMISES ELECTRICAL SYSTEM, AND BE PERMANENTLY INSTALLED.

3. EVERY OCCUPIED PORTION OF ANY BUILDING, ROOM OR SPACE USED FOR ASSEMBLY PURPOSES THAT CONTAINS SEATS TABLES, DISPLAYS, SIMILAR FIXTURES OR EQUIPMENT SHALL BE PROVIDED WITH AISLES LEADING TO EXITS OR EXIT ACCESS DOORWAYS IN ACCORDANCE WITH CHAPTER 12 OF THE NFPA .

4. PROVIDE ILLUMINATED EXIT SIGNAGE AND EMERGENCY LIGHTING AS REQUIRED BY THE CODE.

5. PROVIDE FIRE EXTINGUISHERS PER NFPA 10, INTERNATIONAL FIRE CODE AND LOCAL JURISDICTION REQUIREMENTS. FINAL LOCATION AND NUMBER TO BE DETERMINED BY FIRE MARSHAL.

6. SEE FIRE PROTECTION DRAWINGS FOR FIRE EQUIPMENT LOCATIONS, INCLUDING SPRINKLER LAYOUT AND HEAD LOCATIONS.

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT
STATE OF GEORGIA
CHRISTOPHER S. CC HOUSE
CERTIFICATE NO. 14151
12-6-24
REGISTERED ARCHITECT
HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

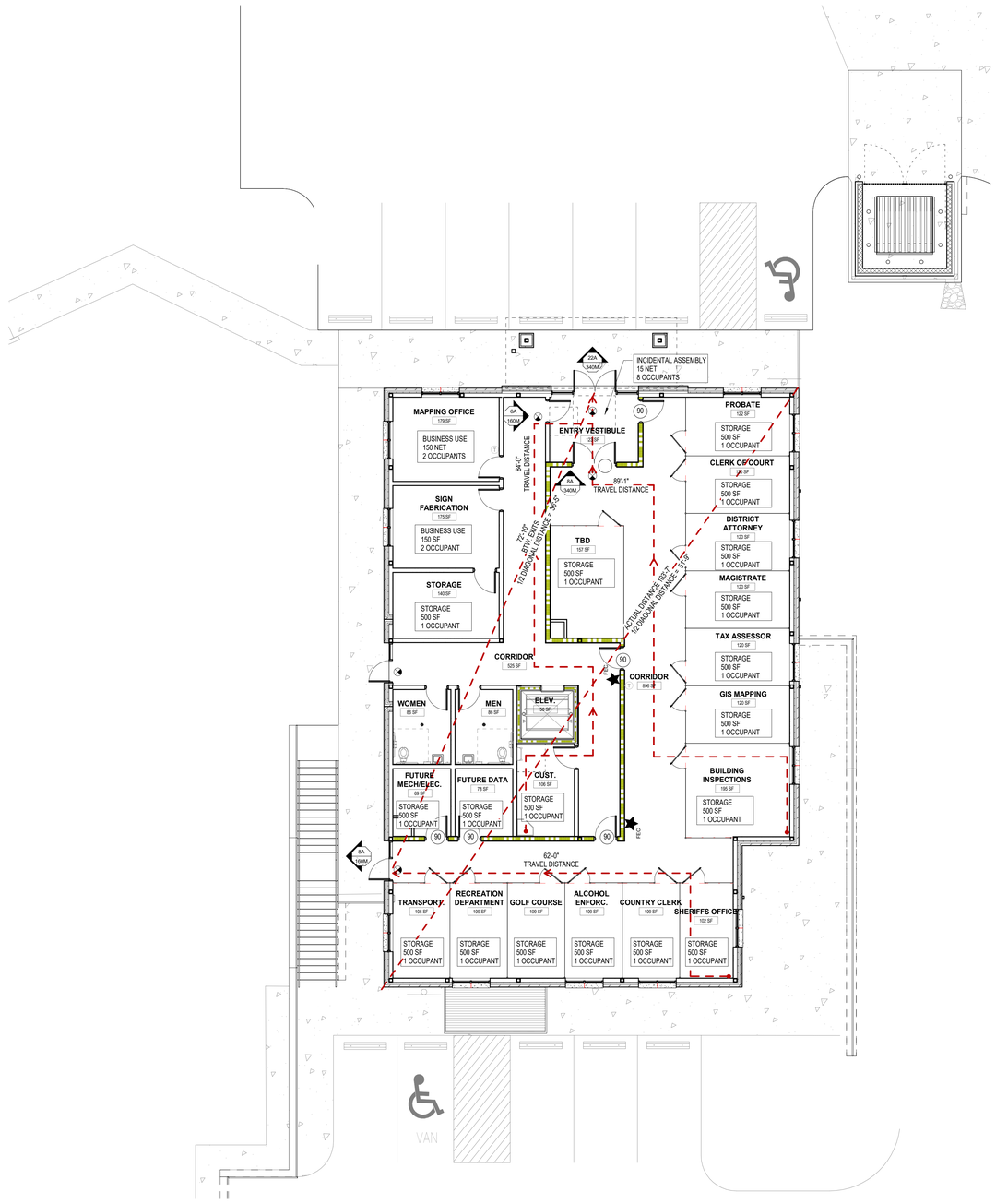
BUILDING CODE SUMMARY

DRAWING NUMBER

G1.10

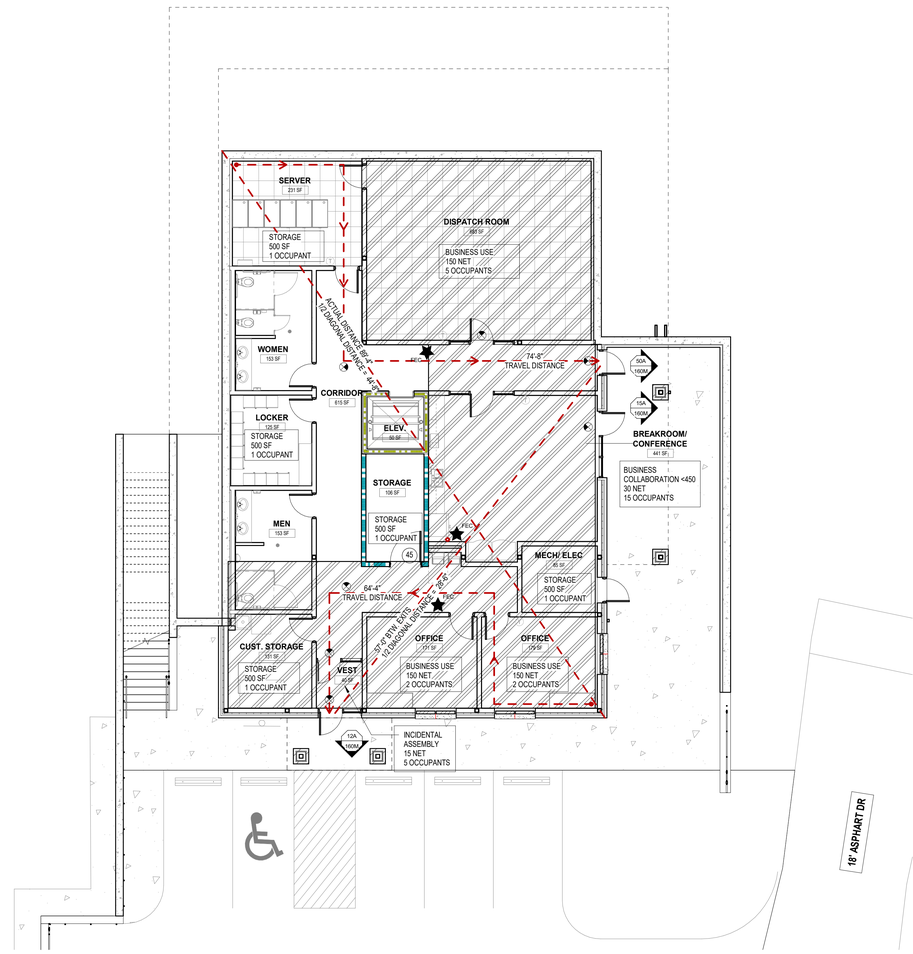
LIFE SAFETY PLAN LEGEND

	METAL STUD WALL (NON FIRE RATED)
METAL STUD	1 HOUR RATED WALL - METAL STUD
CMU / METAL STUD	2 HOUR RATED WALL - CMU WALL AND METAL STUD
ROOM NAME / 101 / #### SF	ROOM TAG ROOM NAME ROOM NUMBER ROOM SQUARE FEET
75 / 150	EGRESS CAPACITY TAG ACTUAL NUMBER OF PERSONS EXITING THROUGH THE DOOR MAX NUMBER OF PERSON ALLOWED BY CODE TO EXIT THROUGH THE DOOR (THE CLEAR WIDTH OF THE DOOR DIVIDED BY .2)
	TRAVEL DISTANCE
	EXIT SIGN LOCATION - SEE ELECTRICAL
45	DOOR FIRE RATING IN MINUTES
FEC	FIRE EXTINGUISHER CABINET LOCATION
	2 HOUR RATED FLOOR AND CEILING BETWEEN LEVEL 01 AND LEVEL 02



2 LEVEL 02 LIFE SAFETY PLAN
1/8" = 1'-0"

NORTH



1 LEVEL 01 LIFE SAFETY PLAN
1/8" = 1'-0"

NORTH

CONSTRUCTION DOCUMENT PACKAGE

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS: △

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

LEVEL 01 - LIFE SAFETY PLAN

DRAWING NUMBER

G1.11

START UL DETAIL HW-D-0042

UL Product iQ®

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

XHBN - Joint Systems
XHBN7 - Joint Systems Certified for Canada

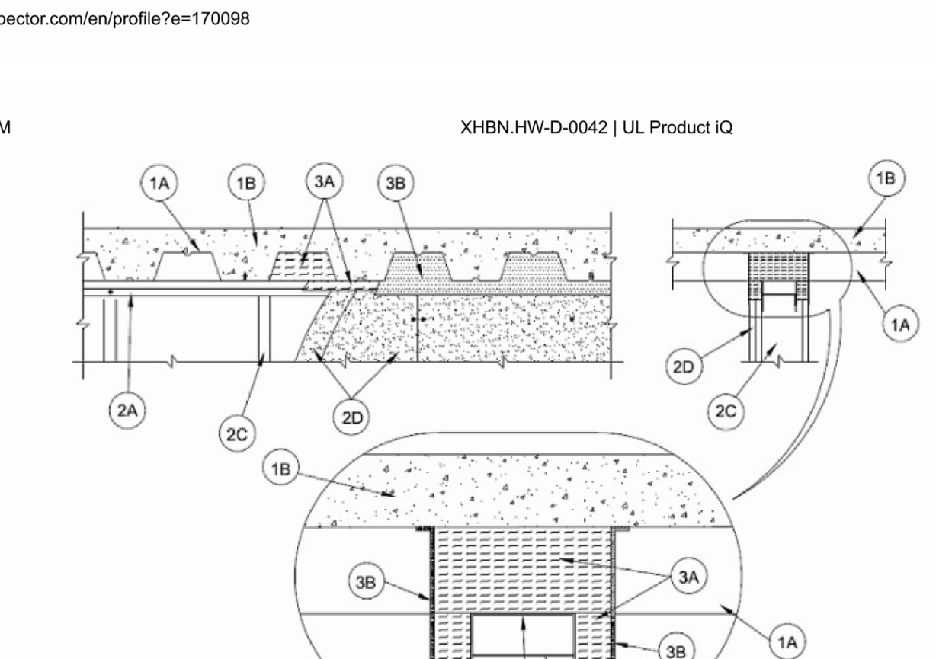
See General Information for Joint Systems

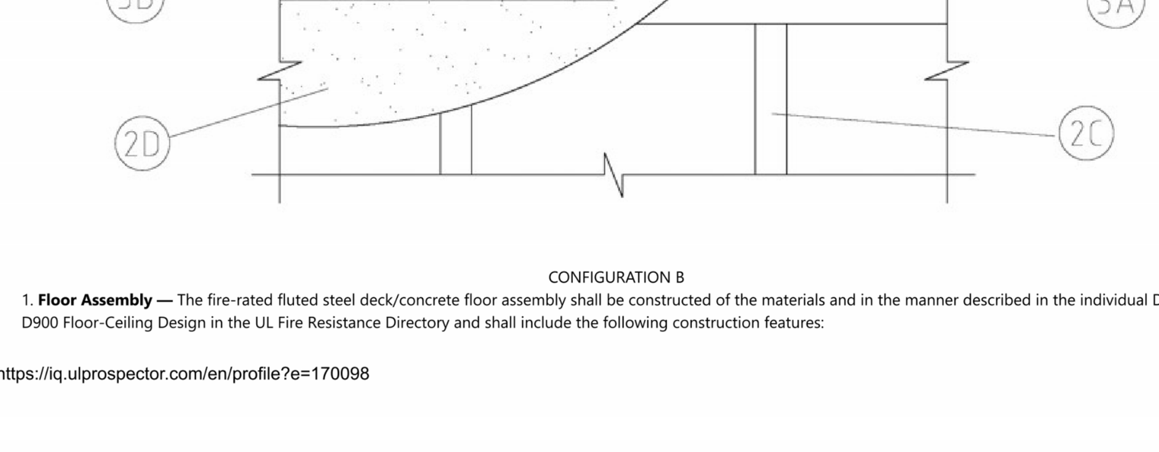
See General Information for Joint Systems Certified for Canada

System No. HW-D-0042

June 21, 2023

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Items 2 and 3A)	F Ratings — 1 and 2 Hr (See Items 2 and 3A)
Nominal Joint Width — 1 In.	FT Ratings — 1 and 2 Hr (See Items 2 and 3A)
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Items 2 and 3A)
L Rating At Ambient — Less Than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Items 2 and 3A)
L Rating At 400°F — Less Than 1 CFM/Lin Ft	Nominal Joint Width — 1 In.
	Class II Movement Capabilities — 50% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/Lin Ft
	L Rating At 400°F — Less Than 1 CFM/Lin Ft





CONFIGURATION B

1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor And Form Units* —** Max 3 in. (76 mm) deep galv steel fluted units.

A1. **Steel Floor And Form Units* (Configuration B) —** Composite max 2.5 in. (64 mm) deep galv steel fluted units.

EPIC METALS CORP — Types "EC" or "Toris C"

A2. **Steel Floor And Form Units* (Configuration B) —** Composite max 2 in. (51 mm) deep galv steel fluted units.

NEW MILLENNIUM BUILDING SYSTEMS L L C — Versa-Dek®

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Spray-Applied Fire Resistive Materials* —** (Optional, Not Shown) — Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B, respectively) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1-3/4 in. (45 mm) thickness of fire resistive material.
GCP APPLIED TECHNOLOGIES INC — Types MK-6-HY or MK-10HB

ISOLATEK INTERNATIONAL — Type 300

1A. **Roof Assembly —** (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

A1. **Steel Floor And Form Units* (Configuration B) —** Composite max 2.5 in. (64 mm) deep galv steel fluted units.

EPIC METALS CORP — Types "Toris C" or "ER2R"

A2. **Steel Floor And Form Units* (Configuration B) —** Composite max 2 in. (51 mm) deep galv steel fluted units.
NEW MILLENNIUM BUILDING SYSTEMS L L C — Versa-Dek®

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

1B. **Roof Assembly —** As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

A1. **Steel Floor And Form Units* (Configuration B) —** Composite max 2.5 in. (64 mm) deep galv steel fluted units.
EPIC METALS CORP — Type "Toris C"

B. **Spray Applied Fire Resistive Materials* —** (Not Shown) — Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.
GCP APPLIED TECHNOLOGIES INC — Types MK-6-HY or MK-10HB

ISOLATEK INTERNATIONAL — Type 300

2. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor And Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2C). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.

A1. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel fasteners or welds spaced max 24 in. (610 mm) OC before optional spray-applied fire resistive material is used. Ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK

CEMCO, LLC — CST

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — SDT250, SDT300

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

OLMAR SUPPLY INC — STT250, STT300

R & P SUPPLY — SCT250, SCT300

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO

TELLING INDUSTRIES L L C — True-Action Deflection Track

A2. **Light Gauge Framing* — Vertical Deflection Ceiling Runner —** When the nom joint width is less than or equal to 3/4 in. (19 mm), vertical deflection ceiling runner may be used as an alternate to the ceiling runners in Items 2A and 2A1. Vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2C). Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800

A3. **Light Gauge Framing* — Notched Ceiling Runner —** As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2C). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
OLMAR SUPPLY INC — Type SCR

B. **Steel Attachment Clips —** (Optional — Not Shown) — When spray applied fireproofing is used ceiling runner may be secured to deck with Z-shaped clips formed from min 1 in. (25 mm) long strips of min 20 ga galv steel. Length of clips should not exceed the width (thickness) of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom of the steel deck with 1-1/2 or 2 in. (38 or 51 mm) long upper and lower legs. Legs of clips fastened to valleys of steel deck (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel masonry anchors, steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC.

C. **Studs —** Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When Epic Metals composite floor or roof deck (Item 1A1) is used, steel studs to be min 3-5/8 in. (92 mm) wide. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

D. **Gypsum Board* —** Gypsum board installed to a min total thickness of 5/8 in. and 1-1/4 in. (16 and 32 mm) on each side of wall for 1 and 2 hr rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a max 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel deck units and the top row of screws shall be installed into the studs 1-1/2 to 2 in. (38 to 51 mm) below the bottom of the ceiling runner. **The hourly rating of the joint system is dependent on the hourly rating of the wall.**

3. **Joint System — Max separation between bottom of floor or roof and top of wall at time of installation of joint system is 1 in. (13 mm).** The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of forming material and a fill material, as follows:
A. **Forming Material* —** Nom 4 pcf (64 kg/m³) density mineral wool batt insulation cut with a length approx equal to the overall thickness of the wall. Multiple pieces stacked on top of each other, as needed, and then compressed 25 percent in thickness and inserted into the flutes of the steel deck above the top of the ceiling runner. The mineral wool batt insulation is to project beyond each side of the ceiling runner, flush with wall surfaces. Alternately, nom 4 pcf (64 kg/m³) forming material cut to shape of flute and nom 1 in. (25 mm) longer than thickness of wall; mineral wool compressed from ends and firmly packed into each flute to attain a min compression rate of 14.3 percent in the length (wall thickness) direction to be flush with both wall surfaces. When Composite Steel Form and Floor Units (Items 1A1, 1A2) are used, the mineral wool is to be tightly packed into the inverted flutes to the full thickness of the wall. In addition, for the Epic Metals "Toris C" deck, the mineral wool is to be packed to min 25% compression within the recessed indentations immediately above the ceiling runners. For the New Millennium Versa-Dek, pieces of mineral wool shall be packed to the maximum depth possible to fill any embossments within the valleys of the fluted deck. Additional 5/8 in. and 1-1/4 in. (16 and 32 mm) wide strips for 1 and 2 hr rated assemblies, respectively, of nom 4 pcf (64 kg/m³) mineral wool batt insulation are to be cut to fill the gap between the top of the gypsum board and bottom of the steel deck. The strips of mineral wool are compressed 50 percent and tightly packed, cut edge first, into the gap between the top of the gypsum board and bottom of the steel deck on both sides of the wall.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta- Board

ROCKWOOL — SAFE

THERMAFIBER INC — Type SAF

A1. **Forming Material* — Plugs —** (Optional, Not Shown) — Preformed mineral wool plugs, formed to the shape of the trapezoidal fluted floor units, friction fit to completely fill the flutes above the ceiling channel. The plugs shall project beyond each side of the ceiling runner, flush with wall surfaces. Additional forming material, described in Item 3A, to be used in conjunction with the plugs to fill the gap between the top of gypsum board and bottom of steel floor units.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

A2. **Forming Material* — Strips —** (Optional) — Nom 5/8 in. and 1-1/4 in. (16 and 32 mm) wide by 2 in. (51 mm) high precut mineral wool strips for 1 and 2 hr rated assemblies respectively. The strips are compressed 50 percent and firmly packed, cut edge first, into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips

B. **Fill, Void or Cavity Material* —** Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on both sides of wall. When **Spray-Applied Fire Resistive Material*** is applied to the **Steel Floor and Form Units***, the fill material is to overlap the gypsum board a min of 1/2 in. (13 mm) and the Spray-Applied Fire Resistive Material a min of 2 in. (51 mm) on both sides of wall. When spray-applied fire resistive materials are used, the firestop joint spray shall overlap the wall a min 1/2 in. (13 mm) and overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2023-06-21

END UL DETAIL HW-D-0042

START UL DETAIL HW-D-0098

UL Product iQ®

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

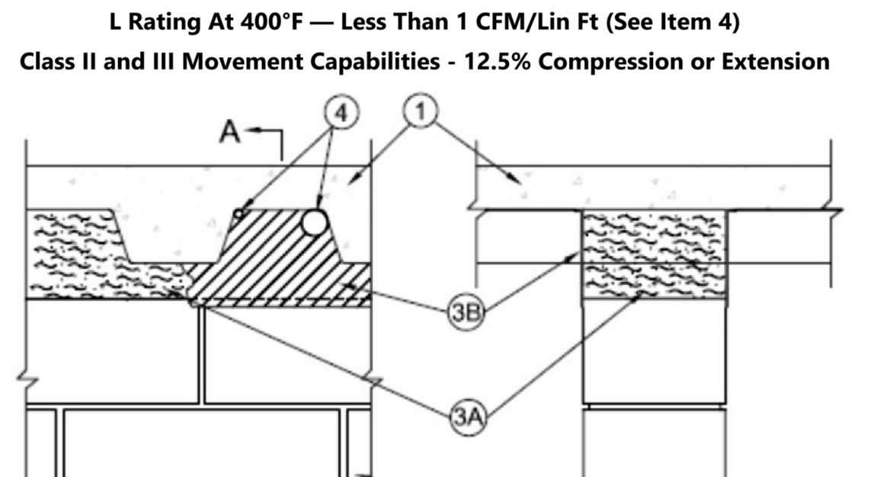
XHBN - Joint Systems

See General Information for Joint Systems

System No. HW-D-0098

June 04, 2010

Assembly Rating — 1 and 2 Hr (See Item 4)
Nominal Joint Width - 1 in.
L Rating At Ambient — Less Than 1 CFM/Lin Ft (See Item 4)
L Rating At 400°F — Less Than 1 CFM/Lin Ft (See Item 4)
Class II and III Movement Capabilities - 12.5% Compression or Extension



1. **Floor Assembly —** The fire rated fluted steel unit/concrete floor assembly shall be constructed of the materials and in a manner described in the individual D700 or D900 Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor and Form Units* —** Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete as measured from top plane of the floor units.

C. **Spray-Applied Fire Resistive Materials* —** (Optional)—(Not Shown)—Prior to the installation of the forming material and fill, void or cavity material (Items 3A, 3B) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1-3/4 in. (44 mm) thickness of fire resistive material.
GCP APPLIED TECHNOLOGIES INC — Type MK-6-HY

ISOLATEK INTERNATIONAL — Type 300

1A. **Roof Assembly —** (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

1B. **Roof Assembly —** As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Spray—Applied Fire Resistive Materials* —** (Not Shown)—Prior to the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.

2. **Wall Assembly —** Min 6 in. (152 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. **Joint System — Max separation between bottom of floor or roof and top of wall at time of installation of joint system is 1 in (25 mm) . The joint system is designed to accommodate a max 12.5 percent compression or extension from its installed width.** The joint system shall consist of the following:
A. **Forming Material —** Nom 4 pcf (64 kg/m³) mineral wool batt insulation compressed and firmly packed to completely fill the flutes and the gap between the top of the wall and bottom of the floor or roof as a permanent form. Batt insulation cut to the shape of the fluted steel deck, approx 33 percent larger than the flutes. Pieces compressed and installed vertically into the flutes above the top of the wall. Additional pieces of batt insulation, min 6 in. wide, installed edge-first into joint opening between bottom of fluted steel deck and top of wall, parallel with joint direction, such that batt sections are compressed min 33 percent in thickness. Compressed batt sections are flush with both surfaces of wall. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. (1.22 m) apart along the length of the joint.
ROCK WOOL MANUFACTURING CO — Delta Board

A1. **Forming Material*—Plugs —** (Optional-Not Shown) Performed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the ceiling runner. The plugs shall be flush with both wall surfaces. Additional forming material, described in Item 3A, to be used in conjunction with the plugs to fill the gap between the top of the wall and the bottom of the steel floor units.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

B. **Fill, Void or Cavity Material* —** Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6mm dry thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto wall and steel deck on both sides of wall. When spray-applied fire resistive material* is applied to the steel deck, the fill material is to overlap the wall a min of 1/2 in. (14 mm) and to overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of wall. When through-penetrants (Item 4) are installed within flute, the fill material shall overlap a min 1/2 in. (13 mm) onto the periphery of each penetrant, on both sides of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

4. **Through-Penetrants —** Max of two penetrants may be installed parallel with and within the flutes of the steel floor or roof deck. The annular space between penetrants and steel deck or spray-applied fire resistive material on steel deck shall be min 0 in. (point contact) and the annular space between penetrants within the flute shall be min 2 in. (51 mm). Penetrants to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of penetrants may be used:
A. **Polyvinyl Chloride (PVC) Pipe —** Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) piping systems.

B. **Rigid Nonmetallic Conduit+ —** Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA 70).

C. **Steel Conduit or Tubing —** Nom 1/2 in. (13 mm) diam rigid steel conduit or steel electrical metallic tubing (EMT) installed in accordance with the National Electrical Code (NFPA No. 70).
When Through-Penetrant(s) installed in flute of steel deck, the hourly rating of the joint system is 1 hr.

When Through-Penetrant(s) installed in flute of steel deck, L Ratings do not apply.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2010-06-04

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END UL DETAIL HW-D-0098

START UL DETAIL U-423

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- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
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- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
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- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

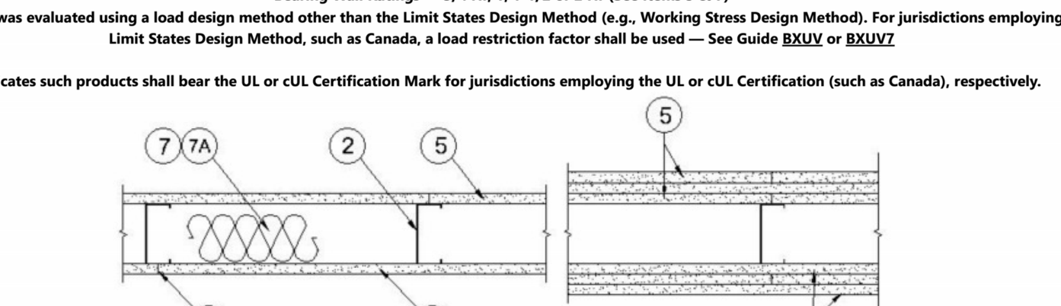
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U423

June 14, 2024

Bearing Wall Ratings — 3/4 Hr, 1, 1-1/2 or 2 Hr (See Items 5 & 7)
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.0329 in., bare metal thickness (No. 20 MSG) corrosion-protected steel, that provide a sound structural connection between steel studs and adjacent assemblies such as floors, ceilings and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. OC.

1A. **Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1, For Use With Item 5A and 5C) — Channel shaped runners min 3-1/2 in. deep with 1-1/4 in. flanges fabricated from min No. 20 MSG corrosion-protected steel. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. OC.

2. **Steel Studs —** Min 0.0329 in., bare metal thickness (No. 20 MSG) corrosion-protected steel studs, min 3-1/2 in. wide, cold formed, designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute (AISI). All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 24 in. OC. Studs attached to floor and ceiling runners with 1/2 in. long Type S-12 steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications.

2A. **Steel Studs —** (As an alternate to Item 2, For use with Item 5A, 5C, 5D, and 5E) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min width, min 1-1/2 in. flanges and 1/4 in. return, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners.

2B. **Steel Studs —** (As an alternate to Item 2 and 2A, For Use With Item 5B) — Min 0.0329 in., (No. 20 MSG) corrosion-protected cold formed steel studs, min 3-1/2 in. deep by 1-5/8 in. wide with 1/2 in. returns. Braced at mid-height and designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute (AISI). All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 24 in. OC. Studs attached to floor and ceiling runners with 1/2 in. long Type S-12 steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications.

2C. **Framing Members - Steel Studs —** (As an alternate to Item 2, For use with Item 5C) — Channel shaped, fabricated from min 20 MSG (0.0327 in. thick) corrosion-protected or galv steel, 3-1/2 in. min width, min 1-1/2 in. flanges and 1/4 in. return, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

3. **Lateral Support Members —** (Not shown) — Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

4. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.
The maximum loading on the steel studs was evaluated with the steel studs braced at mid-height and not braced by the plywood sheathing.

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered when load is reduced to 90 percent of max stud capacity. When load is at 100 percent, horizontal edge joints and horizontal butt joints on opposite sides of studs staggered a min of 12 in. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered at 100 percent load with Type ULIX. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. When used in widths other than 48 in., gypsum panels to be installed horizontally. The thickness and number of layers and percent of design load for the 45 min, 1 hr, 1-1/2 hr, and 2 hr ratings are as follows:

Wallboard Protection on Each Side of Wall

Rating	No. of Layers & Thkns of Panel	% of Design Load
45 Min	1 layer, 1/2 in. thick	100
1 hr	1 layer, 5/8 in. thick	100
1-1/2 hr	2 layers, 1/2 in. thick	100
2 hr	2 layers, 5/8 in. thick	80
2 hr@	2 layers, 5/8 in. thick	100
2 hr	3 layers, 1/2 in. thick	100
2 hr	2 layers, 3/4 in. thick	100

@Rating applicable when Batts and Blankets (Item 7) are used.

CGC INC — 1/2 in. thick Type IP-X2, IPC-AR, C, WRC, or; 5/8 in. thick Type SCX, SHX, WRX, IP-X1, AR, C, IP-AR, IP-X2, IPC-AR, ULIX, ULX, or WRC; 3/4 in. thick Types AR, IP-AR, IP-X3, ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR, or WRC; 5/8 in. thick Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, WRX, or WRC; 3/4 in. thick Types AR, IP-AR or IP-X3, ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR, WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, WRX or WRC; 3/4 in. thick Types AR, IP-AR, IP-X3, ULTRACODE

5A. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1A, 2A 8, 8A(a). Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 12) or Lead Discs or Tabs (see Item 13).
RAY-BAR ENGINEERING CORP — Type RB-LBG

5B. **Gypsum Board* —** (As an alternate to Items 5 and 5A) — Nom 5/8 in. thick gypsum panels with square edges, applied horizontally or vertically. For the1 hour single layer system -when the gypsum board panels are installed horizontally the joints are to be staggered by a minimum of 12 in. on opposite sides of assembly, they are to be secured on each side of the studs with 1-1/4 in. long Type S-12 bugle head steel screws spaced 8 in. OC to the top and bottom tracks and in the field with screws 1 in. and 4 in. from the horizontal joints. When the gypsum board panels are installed vertically all vertical joints must be centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC to the top and bottom tracks and in the field with screws 1 in and 4 in. from the perimeter. For the 2 hour double layer system - when the gypsum board panels are installed horizontally the joints need not be staggered on opposite sides of assembly. Base layer secured on each side of the studs with 1-1/4 in. long Type S-12 bugle head steel screws spaced 16 in. OC to the top and bottom track and in the field with screws beginning 1 in. and 8 in. from the horizontal joints. Face layer horizontal joints staggered 8 in from base layer joints and secured with 1-5/8 in. long Type S-12 bugle head steel screws spaced 16 in. OC to the top and bottom tracks and in the field with screws beginning 1 in. and 8 in. from the horizontal joints. Face layer screws offset 8 in. from base layer screws. When the gypsum board panels are installed vertically all vertical joints must be centered over studs and staggered min 1 stud cavity on opposite sides of studs. Face layer gypsum boards secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 16 in. OC with screws 2 in. and 16 in. from the perimeter. Base layer gypsum boards secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 16 in. OC with screws 1-1/2 in and 8 in. from the perimeter. Face layer screws offset 8 in. from base layer screws.
CGC INC — Type USGX

UNITED STATES GYPSUM CO — 5/8 in. thick Type USGX (Joint tape and compound, Item 9, optional with Type USGX)

USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type USGX (Joint tape and compound, Item 9, optional with Type USGX)

USG MEXICO S A DE C V — Type USGX

5C. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5D. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1A, 2A 8, 8A(a). Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 12A) or Lead Discs (see Item 13A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5E. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nom 5/8 in. may be used as alternate to all 5/8. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1A, 2A 8, 8A(a). Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

5F. **Gypsum Board* —** (As an alternate to Item 5 when Foam Plastic insulation (Item 17 or 18) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-7/8 in. long steel screws spaced 8 in. OC.

6. **Fasteners —** (Not Shown) — For use with Item 5 - Type S-12 steel screws used to attach panels to runners (Item 1 or 1A) and studs (Item 2 or 2A) or furring channels (Item 8). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 12 in. OC when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC along the perimeter and in the field when panels are applied horizontally or vertically. **Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in. and 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Three-layer systems:** First layer- 1 in. long for 1/2 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Batts and Blankets* —** (Required as indicated under Item 5) — Nom 2 in. thick mineral wool batts, friction fitted between studs and runners. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

7A. **Batts and Blankets* —** (Optional, Not Shown) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

7B. **Batts and Blankets* —** (Optional, Not Shown) — Placed in stud cavities, glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
OWENS CORNING — Type QuietZone Acoustic Batts

7C. **Fiber, Sprayed* —** (Optional) — As an alternate to Batts and Blankets (Item 7) — Not for use with Items 8A or 8B) — Spray applied mineral wool insulation. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

8. **Furring Channels —** (Optional on one or both sides, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 panhead steel screws. Not for use with type FRX-G gypsum panels and Item 5A, 5C, 5D, or 5E.

8A. **Steel Framing Members (Not Shown)* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX-G gypsum panels and Item 5A, 5C, 5D, or 5E.

b. **Steel Framing Members* —** Used to attach furring channels (Item 8a) to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75).

8B. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX-G gypsum panels and Item 5A, 5C, 5D, or 5E.

b. **Steel Framing Members* —** Used to attach furring channels to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GENIECLIP

8C. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX-G gypsum panels and Item 5A, 5C, 5D, or 5E.

b. **Steel Framing Members* —** Used to attach furring channels to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

8D. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 8Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX-G gypsum panels and Item 5A, 5C, 5D, or 5E.

b. **Steel Framing Members* —** Used to attach furring channels to studs (Item 2). Clips spaced max. 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

8E. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. Not for use with type FRX-G gypsum panels and Item 5A, 5C, 5D, or 5E.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 8Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

8F **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 5.

b. **Steel Framing Members* —** Used to attach furring channels (Item 8Fa) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

9. **Joint Tape and Compound —** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layers. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

10. **Siding, Brick or Stucco —** (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

11. **Caulking and Sealants* —** (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.
UNITED STATES GYPSUM CO — Type AS

12. **Lead Batten Strips —** (Not Shown, For Use With Item 5A) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5A) and optional at remaining stud locations. Required behind vertical joints.

12A. **Lead Batten Strips —** (Not Shown, for use with Item 5D) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

13. **Lead Discs or Tabs —** (Not Shown, For Use With Item 5A) — Used in lieu of or in addition to the lead batten strips (Item 12) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

13A. **Lead Discs —** (Not Shown, for use with Item 5D) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

14. **Lead Batten Strips —** (Not Shown, For Use With Item 5C) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5C) and optional at remaining stud locations.

15. **Lead Tabs —** (Not Shown, For Use With Item 5C) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5C) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

16. **Wall and Partition Facings and Accessories* —** (CLBV) (Optional, Not Shown) — For use with Item 1, Item 2 to 2C, Item 3, Item 5,Item 6, Item 7A, Item 8 and Item 9. For a maximum fire rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 5), install RefleXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When RefleXor membrane is used an additional layer of Gypsum Board identical to the one used in the first layer and as specified in Item 5 shall be installed over the membrane. Additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 5 except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 7A.

On the other side of the wall prior to the installation of the Gypsum Board install Resilient Channels as per Item 8. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with min. 1-1/4 in. long drywall screws and washers spaced at 16 in. OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 5 with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

Alternately, on the other side of the wall prior to the installation of the Gypsum Board (Item 5), install 3/4 in. thick SONOpan panels, secured to one side of studs either horizontally or vertically. Panels secured to each stud with min. 1-1/4 in. long drywall screws spaced 12 in. OC. Over the SONOpan, install 25 MSG galv steel, Resilient Channels, spaced vertically 24 in. OC. Resilient Channels fastened through panels to each stud with min. 2 in. long drywall screws or self-tapping screws. Over the Resilient Channels install Gypsum Board as specified in Item 5 with drywall screws as specified in Item 6. Panels not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

MSL — RefleXor membrane, SONOpan panel.

17. **Foamed Plastic*** – (Optional – only for use with item 5F, Not Shown, As an alternate to Item 7) Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

CARLISLE SPRAY FOAM INSULATION – Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO

18. **Foamed Plastic***– (Optional, Not Shown, Only for use with item 5F, As an alternate to Item 7) Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

BASF CORP - Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite® HP+, Spraytite Comfort® XL, Walltite® XL, , Walltite® MAX, Walltite® LWP, Walltite® Plus and Enertite® Max

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2024-06-14

END UL DETAIL U-423

CONSTRUCTION DOCUMENT PACKAGE

Blairsville
UNION COUNTY
BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER M. CAUDLE
12-6-24
CERTIFICATE NO. 14921
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

UL DETAILS

DRAWING NUMBER

G1.21

START UL DETAIL U-4103

UL Product **iQ**®

Solutions

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

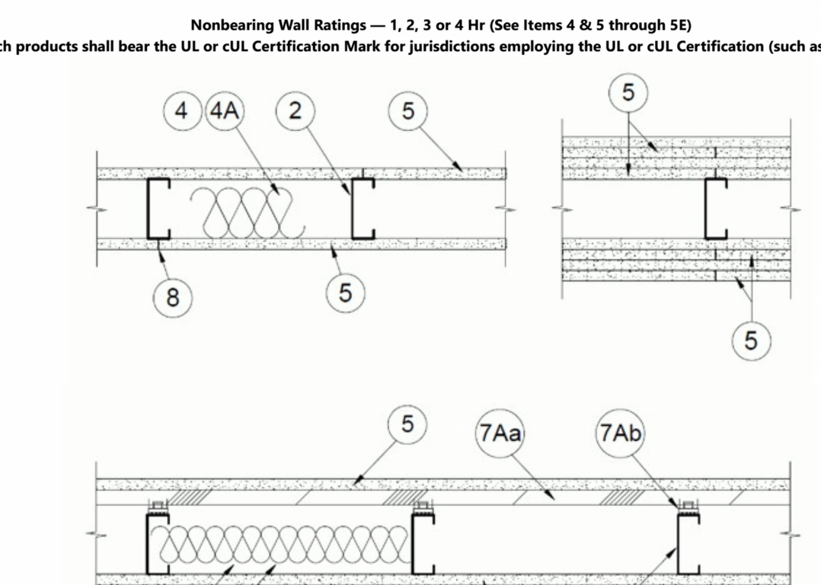
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

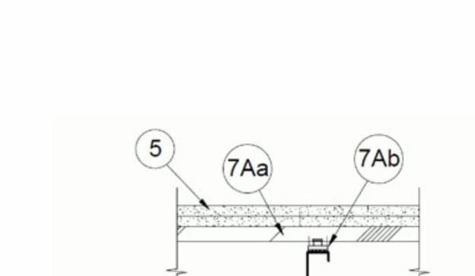
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **U4103**

June 14, 2024

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5E)
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**





1. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 – For use with Item 2A, proprietary channel shaped runners, 1-1/4 in. wide, depth to accommodate stud size, fabricated from min 0.019 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
PANEL REY S A – SUPRA Track 20EQ/19 mil

2. **Steel Studs —** Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Framing Members* - Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1A, proprietary channel shaped steel studs, min 1-1/4 in. wide, depth as indicated under Item 5, with 1/4 in. return lips fabricated from min 0.019 in. thick galv steel, spaced 24 in. OC max. Studs cut 3/8 to 3/4 in. less in length than assembly height.
PANEL REY S A – SUPRA Stud 20EQ/19 mil

3. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets* —** (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4A. **Batts and Blankets* —** (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4B. **Fiber, Sprayed* —** (Optional, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

4C. **Foamed Plastic* —** (As an alternate to Item 4, , for use with Item 5E) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in.

CARLISLE SPRAY FOAM INSULATION — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

4D. **Foamed Plastic* —** (As an alternate to Item 4, , for use with Item 5E) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for up to 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

BASF CORP - Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite HP+, FE137®, FE158®, Spraytite® 158, Spraytite® SP, Spraytite® 81205, Walltite® MAX, Walltite® LWP, Walltite® Plus and Enertite® Max

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, **Steel Framing Members***, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.
UNITED STATES GYPSUM CO — Type FRX-G, SHX.

5B. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.
UNITED STATES GYPSUM CO — Type USGX

5C. **Gypsum Board* —** (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.
UNITED STATES GYPSUM CO — Type ULIX, ULX

5D. **Gypsum Board* —** (As an alternate to Item 5 when Foam Plastic insulation (Item 4C) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-5/8 in. long steel screws spaced 8 in. OC.

5E. **Gypsum Board* —** (As an alternate to Item 5 - required when Foam Plastic insulation (Items 4C or 4D) are used – 1 hour rating only) **—** Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field.

6. **Fasteners —** (Not Shown) — For use with Item 2 - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC in the field and perimeter, when panels are applied horizontally or vertically.**Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer.**Three-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels —** (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws.

7A. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

7B. **Framing Members* —** (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC — Type Isomax

7C. **Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ca) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GENIECLIP

7D. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Da) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

7E. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 7Eb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

7F. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 7Fa) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

7G. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ga) to studs (Item 2). Clips spaced max. 48 in. OC. Clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

8. **Joint Tape and Compound —** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. **Siding, Brick or Stucco —** (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. **Caulking and Sealants* —** (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.
UNITED STATES GYPSUM CO — Type AS

11. **Barrier Mesh —** (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2024-06-14

END UL DETAIL U-4103

START UL DETAIL D-502

UL Product **iQ**®

Solutions

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

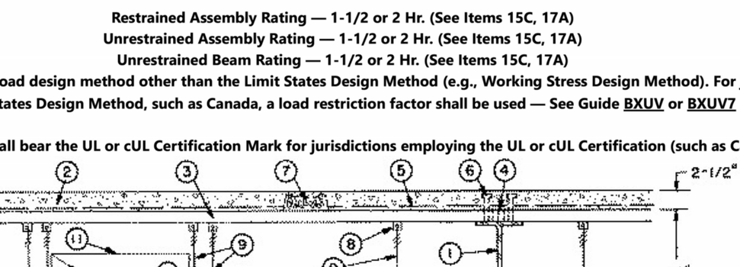
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. D502
August 01, 2024

Restrained Assembly Rating — 1-1/2 or 2 Hr. (See Items 15C, 17A)
Unrestrained Assembly Rating — 1-1/2 or 2 Hr. (See Items 15C, 17A)
Unrestrained Beam Rating — 1-1/2 or 2 Hr. (See Items 15C, 17A)
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Beam —** W8 x 28, min size. As alternate to steel beams, Joist girders — (Not shown) — 20 in. min depth and 20 lb per lin ft min weight. Type 12K1 min size steel joists or LH series steel joists of any size may be used as secondary support. Spacing of joists not limited. Lateral bracing required. A min clearance of 8 in. shall be maintained between bottom chord of joists or beams and face of ceiling.

2. **Normal-Weight Concrete —** Carbonate or siliceous aggregate, 150 (+ or -) 3 pcf unit weight, 3000 psi compressive strength, vibrated.

3. **Steel Floor and Form Units* —** Composite or non-composite, 1-1/2, 2 or 3 in. deep, min 22 MSG galv fluted units and/or composite 1-1/2, 2 or 3 in. deep, min 20/20 MSG galv cellular units. When a blend of fluted and cellular units is used, the concrete topping thickness shall be measured from the top plane of the deepest units. Welded to supports 12 in. OC. Adjacent units button-punched or welded together 36 in. OC at side joints.
ASC STEEL DECK, DIV OF ASC PROFILES L L C — 32 in. wide Types NH-32, NHN-32, NHF-32; 36 in. wide Types BH-36, BHN-36, BHN-35-1/4, BHF-36, BHF-36A, 2WH-36, 2WHS-36, 2WHF-36, 2WHF-36A, 3WxH-36, 3WxHF-36, 3WxHF-36A, 3WH-36,3WHF-36, 3WHF-36A, 3W-36, 3WF-36, DG3W-36, DG3WF-36. All units may be galvanized or Prime Shield. Non-cellular decks may be vented designated with a "V" suffix to the product name. Cellular deck top and bottom sections may be riveted together (designated with "Fr") vs. arc spot welded, "F".

CANAM GROUP INC — 36 in. wide Type P-3623, P-3606, P-3615 and 24 in wide Type P-2432 composite, 36 in. wide Type P-3606 and P-3615 non-composite; 24 in. wide Type LF3; 36 in. wide Types 1.5B, 1.5BI, 1.5BL and 1.5BLI; 24 in. or 36 in. wide, Type LF2, vented Types LF2 and LF3.

CANAM STEEL CORP — 24, 30 or 36 in. wide Types 1-1/2 in. BL, BLC; 24 in. wide Types LF2, -3, LFC2, -3; 24 in. wide Types NL, NLC.

KAM INDUSTRIES LTD, DBA CORDECK — QL Types 24 or 36 in. wide, 2 or 3 in. 99, AKX, WKX.

DECK WEST INC — 36 in. Type 2-DW or 3-DW.

DECKCO LLC – 36 in. wide, Types DC 1.5B, DC 1.5 Form, DC 1.5 Inverted Composite, DC 1.5 Inverted Form, DC 1.5 Composite, DC 2 Form, DC 2 Composite, DC 3 Form, DC 3 Composite.

INTSEL STEEL EAST LLC — 36 in. wide Types 1.5" COMPOSITE/FLOOR, 2" COMPOSITE/FLOOR, 3" COMPOSITE/FLOOR.

KAM INDUSTRIES LTD, DBA CORDECK — Hi-Bond Types 24 in. wide 3KA1F24; 30 in. wide 3KF30, 3P30.

MARLYN STEEL DECKS INC — Type 1.5 CF, 2.0 CF or 3.0 CF.

NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 or 36 in. wide, Types 2.0CD, 3.0CD, 2.0CFD, 3.0CFD, 3.0CFDES; 24, 30 or 36 in. wide Types 1.5CD, 1.5CDI, 1.5CFD. Fluted units may be phos/painted or galvanized.

STEEL MASTERS INTERNATIONAL DEPENDABLE STEEL — 36 in. wide Types 2WH-36, 3WH-36. Units may be phos/painted or galvanized.

VALLEY JOIST+DECK — 24 or 36 in. wide Types WVC 1-1/2 or WVC 2.

VERCO DECKING INC - A NUCOR CO — FORMLOK™ deck types PLB, B, BR, PLN3, N3, PLN, N, PLW2, W2, PLW3, W3. Units are min 24 in. wide and may be galvanized, phos./ptd., or mill finish. Units may be cellular with the suffix "CD" added to the product name, respectively. All non-cellular deck may be vented or non-vented. The superimposed loading for Types B and BR units shall not be greater than 80 percent of their published loadings.

VULCRAFT, DIV OF NUCOR CORP — 24, 30 or 36 in. wide Types 1.5VL, 1.5VLI, 1.50PLVLP; 24 or 36 in. wide Type 2VLI, 2.0PLVLI, 3VLI,3.0PLVLI 2VLP, 2.0PLVLP, 3VLP, 3.0PLVLP. Types 1.5VLI, 1.5PLVLP, 2VLI, 2.0PLVLI, 3VLI, 3.0PLVLI. Units may be phos./ptd. 36 in. wide Type 1.5 SB; 24 or 36 in wide Types 2.0 SB, 3.0 SB, 36 in. wide Type High Strength 1.5 SBI, 36 in. wide Type High Strength 1.5 SBN. Units may be phos/ptd.

Alternate Construction — Noncomposite units of the same type listed above may be used provided allowable loading is calculated on the basis of noncomposite design.

4. **Joint Cover —** 2 in. wide pressure-sensitive cloth tape. Where fluted and cellular floor units are installed end to end, galv steel angles shall be tack-welded to the cellular floor units in such a manner as to cover the cells.

5. **Welded Wire Fabric —** 6x6-W1.4xW1.4.

6. **Shear Connectors —** (Optional) — Studs, 3/4 in. diam with 1-1/4 in. diam by 1/2 in. thick head or equivalent per AISC specifications. 1/2-in. concrete cover required above top of shear connector.

7. **Electrical Inserts —** Preset and after set electrical inserts Classified as **"Outlet Boxes and Fittings Classified for Fire Resistance."** * Unless specified otherwise for a particular preset electrical insert type, the spacing of the preset electrical inserts shall be not less than 24 in. O.C. along cellular steel floor units with not more than one preset electrical insert in each 4 sq ft of floor area.
KAM INDUSTRIES LTD, DBA CORDECK — Inserts.

Installed per accompanying installation instructions over factory-punched holes in QL-AKX or QL-WKX floor units. Inserts are used in the pre-active, active, or abandoned condition. The holes cut in the insert cover for passage of wires shall be no more than 1/8 in. larger diam than the wire. For abandonment of Tapmate inserts, see installation instructions. Abandonment requires use of KEB-PC insert cover with no holes in it (for all Tapmate inserts), or a KEB-PC2 or -PC2-A1 abandonment cover for Tapmate II-EAFN only.

The Tapmate II-FN insert may use KEB-HP-1 outlet box fittings in lieu of the KEB-PC flush cover fittings.

KAM INDUSTRIES LTD, DBA CORDECK — Tapmate II-FN, II-EAFN; Series KEB.

(2)**Wiremold Co.** and **Kam Industries LTD d/b/a Cordeck** Inserts.

The NRG Bloc IV insert is furnished by **KAM INDUSTRIES LTD d/b/a CORDECK**. The service fitting components are furnished by **WIREMOLD CO.** Installed per accompanying installation instructions over factory-punched holes in 3 in. deep K-Type cellular steel floor units (furnished by **KAM INDUSTRIES LTD d/b/a CORDECK**). Either Type RAKM-II, FAKM-II, S36BB, S36CC, S36PB, S36PP, S38CC, S38BB, S38PB, S38PP, FPCTC, FPBTC, FPFFTC service fittings or Type S3AXBP abandonment plate are installed with Type N-R-G Bloc IV Series preset inserts per accompanying installation instructions. Refer to installation instructions for Classified assemblies.

WIREMOLD CO — Type N-R-G Bloc IV Series inserts; Type RAKM-II, FAKM-II, S36BB, S36CC, S36PB, S36PP, S38CC, S38BB, S38PB, S38PP, FPCTC, FPBTC, FPFFTC service fittings or Type S3AXBP abandonment plate.

8. **Hanger Clips —** Min 0.045 in. thick (18 gauge) galv steel, 2 in. wide, 3-1/2 in. long, hooked at one end for attachment over male leg of steel floor units and a hole at other end, spaced as required for hanger wire attachment.

9. **Hanger Wire —** No. 12 SWG galv steel, pigtailed in concrete through steel floor units, prior to concrete placement, or attached to hanger clips (Item No. 8). Hanger wires located 48 in. O.C. on main runners with additional hanger wires to occur at all four corners of light fixtures, at the midspan of cross tees adjacent to light fixtures, and at the cut end of cross tees longer than 23 in. which abut the walls.

10. **Cold Rolled Channels —** Min 0.053 in. thick (16 gauge) painted cold-rolled steel channels, 1-1/2 deep with 9/16 in. flanges used for support of air ducts. Support provision for hanger wires between hanger clip locations shall be provided by two channels tied back to back with 18 SWG galv steel wire 48 in. O.C. and suspended by No. 12 SWG hanger wires spaced not over 48 in. O.C.

11. **Air Duct —** Min 0.029 in. thick (22 gauge) galv steel. Total area of duct openings not to exceed 144 sq in. per 100 sq ft of ceiling area. Area of indiv duct opening not to exceed 144 sq in. Max dimension of opening 12 in. Duct support channels located 6 in. from and on each side of duct drop and max 48 in. O.C. away from duct drop.

12. **Damper —** Min 0.070 in. thick (14 gauge) galv steel, sized to overlap duct opening 2 in. min. Protected on both sides with 1/32 in. thick ceramic fiber paper laminated to the steel and held open with a Fusible Link (Bearing the UL Listing Mark).

13. **Fixtures, Recessed Light —** (Bearing the UL Listing Mark). Recessed light fixture with steel housing, 2 by 4 ft size, provided with detachable spring-loaded trim flange or with adjustable mounting brackets. Fixtures spaced so their area does not exceed 24 sq ft per 100 sq ft of ceiling area. Wired in conformance with the National Electrical Code.

13A. **Alternate Fixtures, Recessed Light —** For use with Steel Framing Members, Item 15B, 15D, 15E, 15F, or 15G - (Bearing the UL Listing Mark). Recessed light fixture with NEMA Type F steel housing, 1 by 2 ft, 1 by 4 ft, 2 by 2 ft or 2 by 4 ft size. Fixtures provided with swing-out steel support hooks near each corner designed to engage the bulb of the steel framing member cross tees. Size of steel framing member module to be nominally 2 in. wider and longer than the nominal fixture size. Fixtures to be additionally screw-attached to the web of the cross tees near the center of each long side and at both ends using No. 6 by 2-5/8 in. long (sides) and No. 6 by 1-5/8 in. long (ends) steel drywall screws. Fixtures spaced so their area does not exceed 24 sq ft per each 100 sq ft of ceiling area. Wired in conformance with the National Electrical Code.

13B. **Alternate Fixtures, Recessed Light —** For Use with Steel Framing Members, Item 15A - (Bearing the UL Listing Mark). Recessed light fixture with NEMA Type F steel housing, 1 by 2 ft, 1 by 4 ft, 2 by 2 ft or 2 by 4 ft size. Fixtures provided with swing-out steel support hooks near each corner designed to engage the bulb of the steel framing member cross tees. Fixtures to be additionally screw-attached to the cross tees near the center of each long side and at both ends using 2 in. long Type S-12 (sides) and 3 in. long Type S-12 (ends) steel screws. Fixtures spaced so their area does not exceed 24 sq ft per each 100 sq ft of ceiling area. Wired in conformance with the National Electrical Code.

14. **Fixture Protection — Gypsum Board* —** 5/8 in. thick, cut from the same gypsum board used in the remainder of the ceiling membrane (See Item 17). The five sided enclosure for fixture (Item 13) consists of a 24 by 48 in. top piece, two 4-1/2 (or wider) by 48 in. side pieces, two 6 (or wider) by 24 in. end pieces, and two 6 by 6 in. spacers to maintain a 5/8 in. clearance between the light fixture housing and the top piece. The spacers are placed on top of the fixture housing, with care taken not to locate the spacers over the light fixture ballasts. The top and side pieces are laid in place, and the end pieces are secured to the edges of the side and end pieces with 6d nails at each corner. When fixtures are installed end to end, no end pieces are used where the fixtures abut. Instead, a 6 by 24 in. piece is placed on top of and centered over the gap between the top pieces.

14A. **Fixture Protection — Gypsum Board* —** For use with Steel Framing Members, Item 15B, 15D, 15E, 15F, or 15G - 5/8 in. thick, same as Item 17 or 17C. Cut to form a five sided enclosure, rectangular in cross-section, at least 1-1/4 in. higher than the NEMA Type F light fixture housing (Item 13A). The fixture protection enclosure is to be installed in the grid module prior to installation of the NEMA Type F light fixture. The fixture protection side pieces are to be provided with nominal 1-1/4 in. wide by 3-1/2 in. long cutouts to accommodate the swing-out steel support hooks near each corner of the fixture. The fixture protection side and end pieces rest on the flanges of the primary cross tees and are screw-attached to the web of the cross tee with No. 6 by 1-5/8 in. long steel drywall screws. The top piece rests on the top edges of the side and end pieces without mechanical attachment. The dimensions of the fixture protection pieces for the various sizes of NEMA Type F fixtures are tabulated below:

NEMA Type F Fixture Size	1 by 2 ft	1 by 4 ft	2 by 2 ft	2 by 4 ft
Top Piece, in.	13-1/2 x 25-1/2	13-1/2 x 49-1/2	25-1/2 x 25-1/2	25-1/2 x 49-1/2
Side Piece, in.	7 x 25-1/2	7 x 49-1/2	7 x 25-1/2	7 x 49-1/2
End Piece, in.	7 x 12-1/4	7 x 12-1/4	7 x 24-1/4	7 x 24-1/4

14B. **Fixture Protection — Gypsum Board* —** For Use with Steel Framing Members, Item 15A - 5/8 in. thick, same as Item 17 0r 17B. Cut to form a five sided enclosure, rectangular in cross section, for the NEMA Type F light fixture (Item 13B). The fixture protection enclosure is installed around the grid module prior to installation of the NEMA Type F light fixture. The end pieces of the light fixture protection rest upon the flanges additional nom 4 ft long cross tees placed at each end of light fixture opening. The pieces of gypsum board are secured to both cross tees with three 1 in. long Type S screws, one at the center of the cross tee and the remaining two screws spaced 12 in. O.C. in both directions. The end clips of the two additional cross tees are removed and the cross tee/gypsum board combinations are placed at each end of the module facing the light fixture opening with the ends of the cross tees resting on the flanges of the main runner. Two side pieces of the gypsum board protection are notched at the bottom with three 1/4 in. wide by 1-9/16 in. long notches to accommodate the cross tee bulbs. On each side the pieces are installed vertically, resting on the three cross tees intersecting the 50 in. long cross tees and placed 1-1/4 in from the edge of the 50 in. cross tees. The four side pieces of the light fixture protection box are secured together with 6d nails, one at mid-height, and one at each of the four corners. The top piece of gypsum board is loosely-laid on top of the four sided box and secured at each of the four corners with 6d nails. Holes are drilled through the top piece of gypsum board for the attachment of the hanger wires specified in Item 9. Two 4 ft long cross tees are placed on top of the fixture protection box, equally spaced and secured from the underside of the fixture protection box with three 1 in. long Type S screws equally spaced. The dimensions of the fixture protection pieces for the various sizes of NEMA Type F fixtures are listed below:

NEMA Type F Fixture Size	1 by 2 ft	1 by 4 ft	2 by 2 ft	2 by 4 ft
Top Piece, in.	19 x 31	19 x 55	31 x 31	31 x 55
Side Piece, in.	6 x 30	6 x 54	6 x 30	6 x 54
End Piece, in.	6 x 19	6 x 19	6 x 31	6 x 31

15. **Steel Framing Members* —** Main runners nom 12 ft long spaced 48 in. OC. Cross tees nom 4 ft long installed perpendicular to main runners and spaced 24 in. OC. Additional cross tees located 8 in. from and on both sides of each gypsum board end joint and each recessed light fixture.
ROXUL USA INC. D/B/A ROCKFON — Types 650, 650C, 670, 670C, 670D

15A. **Alternate Steel Framing Members* —** Main runners, cross tees, cross channels and wall angle as listed below:
a. **Main Runners —** Nom 10 or 12 ft. long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC.

b. **Cross Tees —** Nom 4 ft. long, 1-1/2 in. wide face or 15/16 in. wide face installed at sides of light fixtures (Item 13), installed perpendicular to the main runners, spaced 24 in. OC. When Batts and Blankets* (Item 20) are used, cross tees spaced 16 in. OC. Additional cross tees or cross channels used at 8 in. from each side of butted gypsum board end joints. The cross tees or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation. When NEMA Type F (Item 13B) light fixtures are used, nom 4ft long cross tees, 1-1/2 in wide face, installed perpendicular to main runners and spaced nom 50 in. O.C. Two nom 50 in. long cross tees, 1-1/2 inch wide face, spaced nom 14 in. O.C. to accommodate nom 1 by 2 ft or 1 by 4 ft NEMA Type F fixture or spaced 26 in. O.C. to accommodate nom 2 by 2 ft NEMA or 2 by 4 ft NEMA Type F fixture. When nom 2 by 2 ft NEMA Type F fixture is used, nom 26 in. long cross tees to be used to form nom 26 in. module at the center of the nom 50 in. long cross tees. Two additional nom 4 ft cross tees, 1-1/2 in. wide face are installed perpendicular to the main runners outside each end of fixture opening to support the end pieces of drywall fixture protection. Small cutoff pieces of cross tees were installed at the center of the nom 50 in. long cross tees and main runners by inserting the dip end into a cross tee slot on the main runner and securing the other end with a pop rivet to the nom 50 in. long cross tee.

c. **Cross Channels —** Nom 4 ft. long, installed perpendicular to main runners, spaced 24 in. OC. When Batts and Blankets* (Item 20) are used, cross channels spaced 16 in. OC.

d. **Wall Angle or Channel —** Painted or galv steel angle with 1 in. legs or 1-9/16 in. deep painted or galv steel channel with 1 in. legs attached to walls at perimeter of ceiling with fasteners 16 in. OC. to support steel framing member ends and for screw-attachment of the gypsum board.
CGC INC — Type DGL or RX

USG INTERIORS LLC — Type DGL or RX

15B. **Alternate Steel Framing Members* —** (Not shown) — Main runners nom 12 ft long, spaced 48 in. OC. Primary cross tees (1-1/2 in. wide across flange) or cross channels, nom 4 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional primary cross tees or cross channels required at each gypsum board end joint, 8 in. from and on each side of gypsum board end joint, and 8 in. from each side of NEMA Type G (Item 13) light fixtures. Secondary cross tees (15/16 in. wide across flange), nom 4 ft long, installed at sides of NEMA Type G light fixtures. When NEMA Type F (Item 13A) light fixtures are used, nom 4 ft long primary cross tees installed perpendicular to main runners and spaced nom 50 in. OC. Two nom 50 in. long primary cross tees installed perpendicular to nom 4 ft long primary cross tees and spaced nom 14 in. OC to accommodate nom 1 by 2 ft or 1 by 4 ft NEMA Type F fixture or spaced 26 in. OC to accommodate nom 2 by 2 ft or 2 by 4 ft NEMA Type F fixture. When nom 1 by 2 ft or 2 by 2 ft NEMA Type F fixtures are used, nom 14 in. or 26 in. long primary cross tees to be used to form nom 26 in. long modules at the center of the nom 50 in. long primary cross tees. Additional lengths of primary cross tee to be installed at each end of each nominal 50 in. long primary cross tee to create a nominal 14 or 26 in. by 22 or 24 in. module at each end of light fixture module. Ends of these additional lengths of primary cross tee are to engage cross tee routs at end of fixture and are to be riveted to nom 4 ft long cross tee at opposite end. Additional short lengths of primary cross tee to be installed perpendicular to main runners near center of nom 50 in. long cross tee on each side of light fixture. Ends of these additional short lengths of cross tee are to engage rout of main runner at one end and are to be riveted to nom 50 in. long primary cross tee at opposite end. The main runners, cross tees or cross channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.
ARMSTRONG WORLD INDUSTRIES INC — Type DFR-8000.

15C. **Alternate Steel Framing Members* —** (Not shown) — As an alternate to Items 15, 15A and 15B. For use with 1/2 in. thick gypsum board only. Main runners nom 12 ft long, spaced 48 in. O.C. Cross channels, 4 ft. long, installed perpendicular to main runners and spaced 24 in. O.C. Additional cross channels required 8 in. from and on each side of gypsum board end joints, and 8 in. from each side of light fixtures. Cross tees, 4 ft long installed perpendicular to main runners to support the 4 ft sides of light fixtures. 2 ft cross tees installed perpendicular to 4 ft cross tees to form 2 ft by 2 ft modules when ceiling air diffusers are used. J-shaped metal trim molding, installed at perimeter of light fixtures and lay-in ceiling air diffusers to cover and support the exposed gypsum board edges.
ROXUL USA INC. D/B/A ROCKFON — Type 630. When Type 630 Steel Framing Members are used, assembly and beam ratings are limited to 1-1/2 hr. when inserts (Item 7) are employed. Assembly and beam ratings are 2 hr. when inserts are omitted.

15D. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to Items 15, 15A, 15B and 15C. For use in corridors or rooms having a maximum width dimension of 14 ft. Steel framing members consist of grid runners, locking angle wall molding and hanger bars. Locking angle wall molding secured to walls with steel nails or screws spaced max 24 in. OC. Slots of locking angle wall molding parallel with hanger bars to be aligned with tabbed cutouts in bottom edge of hanger bars. Hanger bars spaced max 50 in. OC and suspended with No. 12 AWG steel hanger wires spaced max 48 in. OC. Adjoining lengths of hanger bar to overlap 12 in. and to be secured together and suspended by a shared hanger wire. A min clearance of 1/4 in. shall be maintained between the ends of the hanger bars and the walls. Grid runners cut-to-length and installed perpendicular to hanger bars and spaced max 24 in. OC with additional grid runners installed 8 in. OC at gypsum board end joints and adjacent to each side of nom 2 by 2 ft or nom 2 by 4 ft NEMA Type F light fixtures (Item 13A). Grid runners parallel with walls to be spaced max 16 in. from wall. Grid runners to rest on and engage slots of locking angle wall molding with a clearance of 3/8 in. to 1/2 in. maintained between each end of the grid runner and the wall. Bulb of grid runner to be captured by tabbed cutouts in bottom edge of hanger bars. When nom 2 by 2 ft or 2 by 4 ft NEMA Type F light fixtures are used, flange of grid runner on each side of fixture module is to be slit and bent upward 90 deg along the length dimension of the fixture. Nom 24 in. long cross tees with tabbed ends bent 90 deg are to be formed from lengths of grid runner and are to be secured to the grid runner at each end of the fixture module using steel screws or rivets. Additional cross tees, nom 8 in. long with tabbed ends bent 90 deg, are to be formed from lengths of grid runner and are to be secured to the grid runners at the corners and center of each side of the fixture module using steel screws or rivets.
ARMSTRONG WORLD INDUSTRIES INC — Type DFR-8000-SS

15E. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to Items 15, 15A, 15B, 15C and 15D. Main runners nom 12 ft long, spaced 72 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. When NEMA Type F (Item 13A) light fixtures are used, nom 6 ft long cross tees installed perpendicular to main runners and spaced nom 14 in., 26 in. or 50 in. OC, dependent upon fixture size and orientation. Nominal 14 in., 26 in. and/or 50 in. cross tees used in combination with the 6 ft long cross tees to create modules to accommodate nom 1 by 2 ft, 1 by 4 ft, 2 by 2 ft and 2 by 4 ft NEMA Type F fixtures. Additional lengths of cross tee to be installed between the 6 ft long cross tees at each end of each nominal 14 in., 26 in. or 50 in. long cross tee forming a light fixture module. Ends of these additional lengths of cross tee are to engage cross tee routs at end of fixture and are to be riveted to nom 6 ft long cross tee at opposite end. Additional short lengths of cross tee to be installed perpendicular to main runners near center of nom 50 in. long cross tee on each side of 1 by 4 ft or 2 by 4 ft light fixture which is installed with its long dimension parallel with the main runners. Ends of these additional short lengths of cross tee are to engage rout of main runner at one end and are to be riveted to nom 50 in. long cross tee at opposite end. The main runners and cross tees may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.
ARMSTRONG WORLD INDUSTRIES INC — Type DFR-8000

15F. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to Items 15 through 15E - Main runners nom 12 ft long, spaced 72 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. When NEMA Type F (Item 13A) light fixtures are used, nom 6 ft long cross tees installed perpendicular to main runners and spaced nom 14 in., 26 in. or 50 in. OC, dependent upon fixture size and orientation. Nominal 14 in., 26 in. and/or 50 in. cross tees used in combination with the 6 ft long cross tees to create modules to accommodate nom 1 by 2 ft, 1 by 4 ft, 2 by 2 ft and 2 by 4 ft NEMA Type F fixtures. Additional lengths of cross tee to be installed between the 6 ft long cross tees at each end of each nominal 14 in., 26 in. or 50 in. long cross tee forming a light fixture module. Ends of these additional lengths of cross tee are to engage cross tee routs at end of fixture and are to be riveted to nom 6 ft long cross tee at opposite end. Additional short lengths of cross tee to be installed perpendicular to main runners near center of nom 50 in. long cross tee on each side of 1 by 4 ft or 2 by 4 ft light fixture which is installed with its long dimension parallel with the main runners. Ends of these additional short lengths of cross tee are to engage rout of main runner at one end and are to be riveted to nom 50 in. long cross tee at opposite end. The main runners and cross tees may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.
USG INTERIORS LLC — Type DGL or RX

15G. **Alternate Steel Framing Members* —** (Not Shown) - As an alternate to Items 15 through 15F - Main runners nom 12 ft long, spaced 48 in. OC. Cross tees, nom 4 ft. long, installed perpendicular to main runners and spaced 24 in. OC. Additional 4 ft. long cross tees required at 6 in. from each side of butted gypsum board end joints. When **Batts and Blankets*** (Item 20A) are used, cross tees spaced 16 in. OC with additional cross tees 8 in. away from each side of butted gypsum board end joints. The cross tees shall be riveted with 1/8 in. dia. rivets to the wall angle and to the main tee where the cross tee does not align with slot in the main tee. When NEMA Type F (Item 13A) light fixtures are used, nom 4ft long cross tees, 1-1/2 in wide face, installed perpendicular to main runners and spaced nom 50 in. O.C. Two nom 50 in. long cross tees, 1-1/2 inch wide face, spaced nom 14 in. O.C. to accommodate nom 1 by 2 ft or 1 by 4 ft NEMA Type F fixture or spaced 26 in. O.C. to accommodate nom 2 by 2 ft NEMA or 2 by 4 ft NEMA Type F fixture. When nom 2 by 2 ft NEMA Type F fixture is used, nom 26 in. long cross tees to be used to form nom 26 in. module at the center of the nom 50 in. long cross tees. Two additional nom 4 ft cross tees, 1-1/2 in. wide face are installed perpendicular to the main runners outside each end of fixture opening to support the end pieces of drywall fixture protection. Small cutoff pieces of cross tees are installed at the center of the nom 50 in. long cross tees and main runners by inserting the dip end into a cross tee slot on the main runner and securing the other end with a pop rivet to the nom 50 in. long cross tee. Galvanized steel wall angle with 1-1/2 in. legs attached to walls at perimeter of ceiling with fasteners at 16 in. OC. to support steel framing member ends and for screw-attachment of the gypsum board.
CERTAINTEED CORP — Types DWS12-13-20, DWS4.16-13-20, DWS4-13-20, DWS2-13-20, DWS2.16-13-20 and DWA1.5-1.5

CERTAINTEED CORP — Types EZDWS12-13-18, EZDWS4.16-13-18, EZDWS4-13-18, EZDWS2-13-18, EZDWS2.16-13-18 and DWA1.5-1.5

15H. **Alternate Framing Members* —** (Not Shown) — As an alternate to Items 15 through 15G. Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.
ROXUL USA INC. D/B/A ROCKFON — Type 670C, 670D

16. **Wall Molding —** (Not shown) — Min 0.019 in. thick (26 gauge) painted or galv steel channel, 1-11/16 in. deep with 15/16 in. flanges, nailed to walls along perimeter of ceiling with 8d nails spaced 16 in. O.C.

17. **Gypsum Board* —** 5/8 in. thick, 4 ft wide; installed with long dimension perpendicular to cross tees with end joints centered along cross tees and with side joints centered along main runners. Gypsum board fastened to each cross tee with five steel drywall screws (Item 18) with one screw located at the midspan of the cross tee, one screw located 12 in. from and on each side of the cross tee midspan and one screw located 1-1/2 in. from each gypsum board side joint. Except at gypsum board end joints, steel drywall screws shall be located on alternating sides of cross tee flange. At gypsum board end joints, steel drywall screws shall be located 1/2 in. from the joint. Gypsum board fastened to main runners with steel drywall screws, 3/8 to 1/2 in. from side joints, midway between intersections with cross tees (24 in. OC). End joints of adjacent gypsum board sheets shall be staggered not less than 4 ft OC. Gypsum board sheets screw-attached to flange of wall channel with steel drywall screws spaced 12 in. OC.
When alternate **Steel Framing Members*** (Item 15D) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the grid runners with the end joints staggered min 4 ft and centered between grid runners which are spaced 8 in. OC. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide by 48 in. long pieces of gypsum board are to be laid atop the grid runner flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the grid runners at opposite corners of the backer strip to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to grid runners with drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. Joints to be covered with paper tape and joint compound.

When alternate **Steel Framing Members*** (Item 15E) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. Joints to be covered with paper tape and joint compound.

When alternate **Steel Framing Members*** (Items 15F and 15H) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. Joints to be covered with paper tape and joint compound.

AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type C, Type LGFC-C/A

CGC INC — Types C, IP-X2, IPC-AR, WRC, ULIX.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, C, DAPC, TG-C.

NATIONAL GYPSUM CO — Types FSK-C, FSW-C, FSW-G.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C.

THAI GYPSUM PRODUCTS PCL — Type C .

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, WRC, ULIX.

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC.

17A. **Gypsum Board* —** (For use with steel framing members described in Item 15C) — 1/2 in. thick, 4 ft wide. Installed with long dimension (side joints) perpendicular to the cross channels and 4 ft cross tees, and with the side joints centered along the main runners. Gypsum board fastened to cross channels with 1 in. long Type S steel drywall screws (Item 18) located 1/2 in. from butted end joints, with one screw located at the midspan of the cross channel, one screw located 12 in. from and on each side of the channel midspan, and one screw located 2-3/4 in. from each side joint.
AMERICAN GYPSUM CO — Type AG-C.

CGC INC — Types C, IP-X2, IPC-AR, WRC, ULIX.

CERTAINTEED GYPSUM INC — Type LGFC-C/A.

GEORGIA-PACIFIC GYPSUM L L C — Types C, DAP, DA, DAPC.

NATIONAL GYPSUM CO — Type FSW-C.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, WRC, ULIX.

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC.

For use with steel framing members described in Item 15C. Assembly and beam ratings are limited to 1-1/2 hr when inserts (Item 7) are employed. Assembly and beam ratings are 2 hr when inserts are omitted.

17B. **Gypsum Board * —** For use when **Batts and Blankets*** (Item 20) and **Steel Framing Members*** (Item 15A) are used - 5/8 in. thick, 4 ft wide; installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Fastened to cross tees with 1 in. long steel drywall screws spaced 8 in. OC in the field and 8 in. OC along end joints. Fastened to main runners with 1 in. long steel drywall screws spaced midway between cross tees. Screws along sides and ends of boards spaced 3/8 to 1/2 in. from board edge. End joints of the sheets shall be staggered with spacing between joints on adjacent boards not less than 4 ft OC.
CGC INC — Types C, IP-X2, IPC-AR, WRC, ULIX.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, WRC, ULIX.

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC.

17C. **Gypsum Board* —** For use when alternate **Steel Framing Members*** (Item 15G) are used - 1/2 in. thick, 4 ft. wide; installed with long dimension parallel to main runners and perpendicular to the 4 ft. long cross tees with the end joints centered between cross tees which are spaced 6 in. OC. Sheets are attached to cross tees with screws spaced 8 in. OC on the ends and 12 in. OC in the field with additional screws located 1-1/2 in, from the side edges. Sheets are attached to the main tees with screws spaced 8 in. OC with additional screws located 4 in. OC from the edges. Screws on the sides are located 1/2 in. from the side edge of the gypsum board. When **Batts and Blankets*** (Item 20A) are used - 5/8 in. thick, 4 ft wide; installed with long dimension parallel to main runners and perpendicular to cross tees and attached with screws spaced 8 in. OC on the ends and 8 in. OC in the field with additional screws located 1-1/2 in. from the side edges. Sheets are attached to main tees with screws spaced 8 in. OC with additional screws located 4 in. OC from the side edges. Screws on the sides located 3/4 in. from the side edge of the gypsum board, and screws at the end of the gypsum board located 1/2 in. from the board ends. Joints to be covered with paper tape and joint compound.
CERTAINTEED GYPSUM INC — Type C

18. **Screws —** No. 6 Phillips-type, Type S self-drilling and self-tapping, min 1 in. long steel drywall screws. Screw heads may be either exposed or covered with joint cement.

19. **Alternate Finishing System —** (Not shown) — Gypsum board joints may be either exposed or covered with paper tape and joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of the Classified gypsum board.

19A. **Alternate Finishing System — Acoustical Material** * — (Not shown) — Optional, acoustical tile may be laminated to the entire surface of the Classified gypsum board.
Any Manufacturer — Any UL Classified acoustical material and adhesive with a flame spread of 25 or less (See Building Materials Directory).

20. **Batts and Blankets* —** (Optional, Not Shown) - When used the Ratings are limited to 1 Hr. - For use with **Steel Framing Members*** (specifically Item 15A) and **Gypsum Board*** (specifically Item 17B) - Any thickness mineral wool or glass fiber insulation bearing the UL Classification Marking for Surface Burning Characteristics, having a flame spread value of 25 or less and a smoke spread value of 50 or less. Insulation fitted in the concealed space, draped over steel framing members/gypsum board ceiling membrane.

20A. **Batts and Blankets* —** (Optional, Not Shown) - For use with **Steel Framing Members*** (specifically Item 15G) and **Gypsum Board*** (specifically Item 17C) - min. 3-1/2 in. thick, min. density 0.9 lb/ft^3 unfaced fiberglass batt insulation bearing the UL Classification Marking for Surface Burning Characteristics, having a flame spread value of 25 or less and a smoke spread value of 50 or less. Insulation fitted in the concealed space, draped over steel framing members/gypsum board ceiling membrane and light fixture protection.

21. **Discrete Products Installed in Air-handling Spaces* —** Automatic Balancing Valve/Damper (Not Shown - Optional) — For use with item 12. Valve/Damper to be provided with ducted installation with steel duct per damper manufacturer's instructions. Automatic Balancing Valve/Damper shall be installed within duct such that it is not directly above the ceiling radiation damper.
METAL INDUSTRIES INC — Model ABV-4, ABV-5, ABV-6

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2024-08-01

END UL DETAIL D-502

CONSTRUCTION DOCUMENT PACKAGE

Blairsville
UNION COUNTY
BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER M. CAUDLE
12-6-24
CERTIFICATE NO. 14921
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

UL DETAILS

DRAWING NUMBER

G1.22

START UL DETAIL U-465

UL Product iQ®

UL Solutions

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

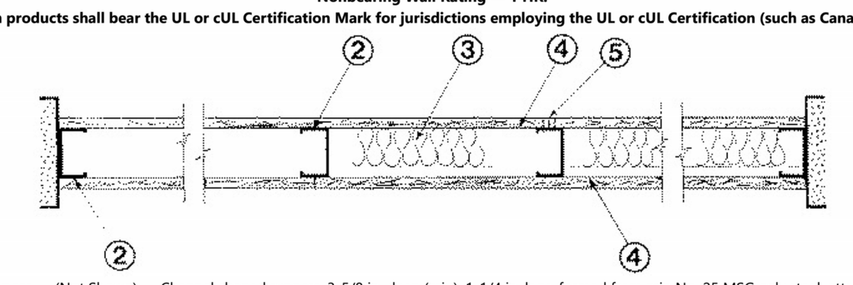
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **U465**

June 14, 2024

Nonbearing Wall Rating — 1 HR.
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 — Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1B. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2C — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1D. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1C — For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1E. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1D — For use with Item 2E and 4I only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1F. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1E — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
KIRII (HONG KONG) LTD — Type KIRII

1G. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1F — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2H, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

1J. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 — For use with Item 2 L, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1K. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2M, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper X Track

1L. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CRACO MFG INC — SmartTrack20™

1M. **Framing Members* - Floor and Ceiling Runners –** Not shown – In lieu of Items 1 through 1L – For use with Item 2O, proprietary channel shaped runners, min 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 20 MSG galv steel (0.0329 in. min bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.

PANEL REY S A – SUPRA Track 20/33 mil

1N. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 – For use with Item 2P, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-5/8 in. deep fabricated from min 0.019 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

PANEL REY S A – SUPRA Track 20EQ/19 mil

1O. **Framing Members* — Floor and Ceiling Runner —** (Not Shown — Alternate to Item 1) — For use with Item 2Q, channel shaped runners pre-equipped with proprietary attachment clips. Min. 3-5/8 in. wide. Legs of top runners minimum 3-1/4 in. wide. Legs of bottom runners minimum 1-1/2 in. wide. Runners attached to floor and ceiling with fasteners 24 in. OC max.

HYPERFRAME INC - Hypertrack

1P. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 – For use with Item 2R, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-5/8 in. deep fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

JJC INTERNATIONAL DISTRIBUTORS — Non-structural Tracks 3-5/8" and 6".

1Q. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 — _For use with Item 2R, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

IRONLINE METALS LLC — Bantam Track.

2. **Steel Studs —** Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members* — Steel Studs —** As an alternate to Item 2 — Channel shaped studs, min 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CEMCO, LLC — Viper20™

CRACO MFG INC — SmartStud20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2C. **Steel Studs —** (As an alternate to Item 2, For use with Item 1C) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height. See materials in Item(s) 4 that require Item 2C studs.

2D. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2C — For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2E. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2D — For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2F. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2E — For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
KIRII (HONG KONG) LTD — Type KIRII

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 through 2F — For use with Item 1G. Proprietary channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height.
STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1I, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

2I. **Framing Members* — Steel Studs —** In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2J. **Framing Members* — Steel Studs —** In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1B (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2L. **Framing Members* — Steel Studs —** As an alternate to Items 2 — For use with Item 1J, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2M. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1K, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/4 in. less in length than assembly height.
CEMCO, LLC — Viper X

2N. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1L, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CRACO MFG INC — SmartStud20™

2O. **Framing Members* - Steel Studs –** Not Shown – In lieu of Items 2 through 2N – For use with Item 1M, proprietary channel shaped steel studs, min 1-5/8 in. wide by min 3-5/8 in. deep fabricated from min 20 MSG galv steel (0.0329 in. min bare metal thickness) spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.

PANEL REY S A – SUPRA Stud 20/33 mil

2P. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1N, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep with 1/4 in. return lips fabricated from min 0.019 in. thick galv steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.

PANEL REY S A – SUPRA Stud 20EQ/19 mil

2Q. **Framing Members* — Steel Studs —** (Not Shown — Alternate to Item 2, For use with Item 1O) — Channel shaped steel studs with attachment clips at top and bottom, min 3-5/8 in. depth, spaced a max of 24 in. OC. Studs clipped into floor and ceiling runners (Item 1O). Max 2-3/8 in. extension reveal from top of stud to inside of ceiling runner.

HYPERFRAME INC— Hyperstud

2R. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1P, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.

JJC INTERNATIONAL DISTRIBUTORS — Non-structural Studs 3-5/8" and 6".

2R. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1Q, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min. min. 0.018 in. thick galvanized steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.

IRONLINE METALS LLC — Bantam Stud.

3. **Batts and Blankets* —** (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.
See **Batts and Blankets** (BZJZ) category for names of Classified companies.

ROCKWOOL — Type AFB, min. density 1.69 pcf / 27.0 kg/m^3

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

3A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
Applegate Greenfiber Acquisition LLC — Insulmax and SANCTUARY for use with wet or dry application.

3B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

3C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

3D. **Batts and Blankets* —** For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the studs and floor and ceiling runners.
See **Batts and Blankets** (BZJZ) category for names of manufacturers.

3E. **Batts and Blankets* —** For use with Item 4R and 4S. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

3F. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft^3.

Applegate Greenfiber Acquisition LLC— Applegate Advanced Stabilized Cellulose Insulation

3G. **Foamed Plastic* —** As an alternate to Batts and Blankets (Items 3-3F), for use with Item 4U — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with min. 20 MSG thickness.

CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

3H. **Foamed Plastic* —** As an alternate to Batts and Blankets (Items 3-3F), for use with Item 4U — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with min. 20 MSG thickness.

BASF CORP - Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite® HP+, FE137®, FE158®, Spraytite® 158, Spraytite® SP, Spraytite® 81205, Spraytite® Comfort XL, Walltite® XL, Walltite® MAX, Walltite® LWP, Walltite® Plus and Enertite® Max.

4. **Gypsum Board* —** 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When Steel Framing Members* (Item 6 or any alternate clips) are used, gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

AMERICAN GYPSUM CO — Types AG-C, AGX-1, M-Glass, LightRoc

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, Type X-1, Type C, 5/8" Easi-Lite Type X, Easi-Lite Type X-2, Type LWTX

CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSMR-C, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSL, RSX.

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C, PG-9, PG-11, PGS-WRS, PGI

PANEL REY S A — Types GREX, GRIX, PRC, PRC2, PRX, RHX, MDX, ETX, PRX2

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type X and Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX, (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

4A. **Gypsum Board* —** (As alternate to Item 4) — Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.
CERTAINTEED GYPSUM INC — Type X-1, Type C, Type EGRG/ GlasRoc, GlasRoc-2, Type SilentFX, Easi-Lite Type X-2

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

GEORGIA-PACIFIC GYPSUM L L C — Types DAP, DAPC, DGG, DS

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type X and Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

4B. **Gypsum Board* —** (As an alternate to Items 4 or 4A) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in.
CGC INC — Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, IP-AR

USG MEXICO S A DE C V — Types AR, IP-AR

4C. **Gypsum Board* —** As an alternate to Items 4, 4A, and 4B — Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing.
GEORGIA-PACIFIC GYPSUM L L C — Type DGG, GreenGlass Type X

4D. **Gypsum Board* —** As an alternate to Items 4, 4A, 4B, 4C, 4G — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field, and12 in. along the top and bottom of the wall. When used in widths other than 48 in., gypsum panels to be installed horizontally. When studs (Item 2) spaced a max 16 in. OC, 5/8 in. thick gypsum panels applied vertically or horizontally, 1 in. long spaced 16 in. OC along vertical edges and in the field, and 16 in. OC along top and bottom of wall.
NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C

4E. **Gypsum Board* —** (As an Alternate to Items 4 through 4D) – Installed as described in item 4. 5/8 in. thick, 4 ft wide, applied vertically only and fastened to the studs and plates with 1 in. long Type S steel screws spaced 12 in. OC. When studs (Item 2) spaced a max 16 in. OC, 5/8" in. thick gypsum panels applied vertically or horizontally with 1 in. long Type S steel screws spaced 16 in. OC along vertical edges and in the field, and 16 in. OC along top and bottom of wall.
NATIONAL GYPSUM CO — Type SBWB

4F. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
RAY-BAR ENGINEERING CORP — Type RB-LBG

4G. **Gypsum Board* —** (As an alternate to Items 4 through 4F) — For use with Items 1D and 2D only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using Types eXP-C, FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C and ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.
CGC INC — Type SCX, ULIX

CERTAINTEED GYPSUM INC — Type LGFC6A, LGFC-C/A

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, and FSMR-C

UNITED STATES GYPSUM CO — Type SCX, ULIX

USG BORAL DRYWALL SFZ LLC — Type SCX

4H. **Gypsum Board* —** (As an alternate to Items 4 through 4G) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES

4I. **Gypsum Board* —** (As an alternate to Items 4 through 4F) — 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.
CGC INC — Types SCX, ULIX

UNITED STATES GYPSUM CO — Types SCX, ULIX

USG BORAL DRYWALL SFZ LLC — Type SCX

4J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4K. **Gypsum Board* —** (As an alternate to Item 4 and 4A, not for use with Items 1D, 1E, 2D and 2E) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4 and 4A.
CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX

USG MEXICO S A DE C V — Type ULX

4L. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4M. **Gypsum Board* —** (For use with Item 8) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 8) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 8). Secured to outermost studs and floor and ceiling runners with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound.
AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type C

CGC INC — Types C, IP-X2, IPC-AR

CERTAINTEED GYPSUM INC — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C

PANEL REY S A — Types PRC, PRC2

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

4N. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527

4O. **Gypsum Board* —** As an alternate to Items 4, 4A, 4B, and 4C — Two layers Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal joints on the same side need not be staggered. When applied horizontally, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC and staggered 4 in. OC between layers. When applied vertically, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field, staggered 4 in. OC between layers. Screws spaced a max 12 in. along the top and bottom edges of the wall.
NATIONAL GYPSUM CO — Type FSW

4P. **Gypsum Board* —** As an alternate to Item 4. Nom 5/8 in. thick, 4 ft wide, Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and runners with 1 in. long Type S steel screws spaced 12 in. OC when applied horizontally or vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CGC INC — Type ULIX

UNITED STATES GYPSUM CO — Types ULIX

4Q. **Gypsum Board* —** 3/4 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track as described in Item 4 with screw length increased to min. 1- 1/8 in.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-13

4R. **Gypsum Board* —** As an alternate to Item 4D. For use with Item 3E, **Batts and Blankets*** — 5/8 in. thick, 4 ft wide, installed as described in Item 4. When studs (Item 2) spaced a max 16 in. OC, 5/8 in. thick gypsum panels applied vertically or horizontally, 1 in. long spaced 16 in. OC along vertical edges and in the field, and 16 in. OC along top and bottom of wall.
NATIONAL GYPSUM CO — Type FSLX.

4S. **Gypsum Board* —** As an alternate to Item 4. For use with Item 3E, **Batts and Blankets*** — 5/8 in. thick, 4 ft wide, installed as described in Item 4A.
CERTAINTEED GYPSUM INC — Type CLLX.

4T. **Wall and Partition Facings and Accessories* —** (As an alternate to 5/8 in. thick board as outlined in Item 4) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

4U. **Gypsum Board*—** (As an alternate to Item 4 when Foam Plastic insulation Items 3G or 3H is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 4 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-7/8 in. long steel screws spaced 8 in. OC.

4V. **Gypsum Board* —** (As an alternate to Item 4, for 1 hr. rating) — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications.

CERTAINTEED GYPSUM INC — Type X-1, SilentFX, GlasRoc, Type C

5. **Joint Tape and Compound —** Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

6. **Resilient Channel —** (Optional — Not Shown) — 25 MSG galv steel resilient channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 pan head steel screws. May not be used with Item 4F, 4J or 4L.

6A. **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Not for use with Items 4F, 4J, or 4L.

b. **Framing Members* —** Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75)

6B. **Framing Members* — —** (Optional on one or both sides, Not Shown, As an alternate to Item 6) — Furring channel and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ba) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type Genie Clip

6C. **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

6D. **Steel Framing Members* —** (Optional, Not Shown As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members* —** UUsed to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC, and secured to studs with No.8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

6E. **Steel Framing Members* —** (Optional, Not Shown As an alternate to Item 6) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 6Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

6F **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
a **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 4.

b **Steel Framing Members* —** Used to attach furring channels (Item 6Fa) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

6F. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Fa) to studs. Clips spaced 48 in. OC., and secured to studs with No. 10 x 2 in. screw through the center hole. Furring channels are friction fit into clips.
MASON INDUSTRIES INC — Type CWC-50

7. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR-500 and QR-510

8. **Mineral and Fiber Board* —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer (Item 4M) is to be installed over the Mineral and Fiber Boards. Batts and Blankets, Item 3D, and Adhesive, Item 11, are required.
HOMASOTE CO — Homasote Type 440-32

8A. **Mineral and Fiber Board —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. Not evaluated for use with Item 4M.
BLUE RIDGE FIBERBOARD INC — SoundStop

8B. **Mineral and Fiber Board* —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer is to be installed over the Mineral and Fiber Boards and secured to studs with length of fasteners increased by 1/2 in. over the length specified for installation of the gypsum boards. Batts and Blankets, Item 3, are optional unless otherwise required. Not for use with Items 4F, 4J, 4L, and 4M.
HOMASOTE CO — Homasote Type 440-32

9. **Lead Batten Strips —** (Not Shown, For Use With Item 4E) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4E) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips —** (Not Shown, for use with Item 4J) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4J) and optional at remaining stud locations.

10. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4E) — Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4E) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10A. **Lead Discs —** (Not Shown, for use with Item 4J) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

11. **Adhesive —** Not Shown — (For use with Item 8) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 8).

12. **Wall and Partition Facings and Accessories* —** (CLBV) (Optional, Not Shown) — For use with Items 1 to 1I, Items 2 to 2J, Item 3, Items 4 to 4I, Item 5 and Item 6. For maximum fire rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 4 to Item 4I), install RefleXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When RefleXor membrane is used an additional layer of Gypsum Board that is identical to the one used in the first layer and as specified in Item 4 to Item 4I shall be installed over the membrane. The additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 4 to Item 4I except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 3.

On the other side of the wall, prior to the installation of the Gypsum Board, install Resilient Channels as per Item 6. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with min. 1-1/4 in. long drywall screws and washers spaced at 16 in. OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 4 to Item 4I with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

Alternately, on the other side of the wall prior to the installation of the Gypsum Board, install 3/4 in. thick SONOpan panels, secured to one side of studs either horizontally or vertically. Panels secured to each stud with min. 1-1/4 in. long drywall screws spaced 12 in. OC. Over the SONOpan, install 25 MSG galv steel, Resilient Channels, spaced vertically 24 in. OC. Resilient Channels fastened through panels to each stud with min. 2 in. long drywall screws or self-tapping screws. Over the Resilient Channels install Gypsum Board as specified in Item 4 to Item 4I with the specified drywall screws. Panels not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

MSL — RefleXor membrane, SONOpan panel

13. **Barrier Mesh —** (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2024-06-14

END UL DETAIL D-465

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA — CHRISTOPHER M. CAUDLE — 12-6-24 — CERTIFICATE NO. 14921 — REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

UL DETAILS

DRAWING NUMBER

G1.23

CONSTRUCTION DOCUMENT PACKAGE

SITE DEVELOPMENT PLANS
FOR
UNION COUNTY 911 CENTER

SHOE FACTORY RD BLAIRSVILLE, GA 30512
LAND LOT 305 / 9 DISTRICT / PARCEL ID 086 027 B
UNION COUNTY

A NEW 7,520-SF BUILDING FOR A 911 CALL CENTER AND OFFICE / STORAGE SPACE

FLOODPLAIN NOTE

THERE **IS NO** FLOODPLAIN ON THIS PROPERTY FROM A WATER COURSE WITH A DRAINAGE AREA EXCEEDING 100 ACRES.

WETLAND NOTE

THERE ARE NO WETLANDS ON THIS SITE.

STATE WATERS BUFFER NOTE

THERE **ARE NO** STATE WATERS BUFFERS ON OR WITHIN 200 FEET OF THIS PROPERTY.

WETLAND CERTIFICATE

WETLAND CERTIFICATION: THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLAND INVENTORY MAPS HAVE BEEN CONSULTED; AND, 2) THE APPROPRIATE PLAN SHEET **DOES NOT** INDICATE AREAS OF U.S. ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION (SECTION 404) PERMIT HAS BEEN OBTAINED.

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY **UNION COUNTY** OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND AREA DISTURBANCE

VICINITY MAP
SCALE: N.T.S.

FIRM PANEL MAP
FIRM NO.: 13291C0152D EFF.: 09/28/2007
SCALE: N.T.S.

OWNER
UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
CONTACT: TONY HUGHES
Phone: 706-897-5507

24 HOUR CONTACT FOR EROSION CONTROL
MR. TONY HUGHES
706-897-5507

PROJECT AREA = 0.95 ACRES
DISTURBED AREA = 0.69 ACRES

PROJECT DESCRIPTION

THIS SITE IS A CLEARED, VACANT LOT ADJACENT TO THE UNION COUNTY FIRE DEPARTMENT STATION ONE. THE PREPARED BUILDING WILL HOUSE A NEW UNION COUNTY 911 CALL CENTER IN THE LOWER LEVEL AND STORAGE AND OFFICE SPACE IN THE UPPER LEVEL. BUILDING IS 7,520 SF

ISSUE/REVISION

NO.	DESCRIPTION	DATE
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SITE VISIT CERTIFICATION

I CERTIFY THAT PRIOR TO THE DESIGN OF EROSION CONTROL PLANS I OR A REPRESENTATIVE UNDER MY SUPERVISION VISITED THE SITE.

REID W. DYER DATE
GA #1014
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#06911

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.

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.

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

Sheet List Table

HUSSEY GAY BELL
Established 1958

3100 Breckinridge Blvd., Building 300, DULUTH, GA 30097 / T:770.923.1600
SAVANNAH • BLUE RIDGE • ATLANTA • STATESBORO • CHARLESTON • COLUMBIA NASHVILLE GREENVILLE
www.husseygaybell.com

CONTACT: MARK BOND, PE / REID DYER, RLA
HJA PROJECT NO.: 24-558-C

I:\projeng\2024\24558e - union county 911 center\dwg\production\24558cv.dwg
1/21/2025 9:56 AM christie sims
normal.ctb

LEGEND

PROPOSED	DESCRIPTION	EXISTING
	DOUBLE WING CATCH BASIN	
	SINGLE WING CATCH BASIN	
	HOODED CATCH BASIN	
	GRATE INLET / DROP INLET	
	FLARED END SECTION	
	HEADWALL	
	OUTLET CONTROL STRUCTURE	
S	SANITARY SEWER MANHOLE	S
	STORM SEWER MANHOLE	
	WEIR INLET	
	YARD INLET	
	DIRECTIONAL ARROWS (FOR INFORMATION ONLY TO INDICATE TRAFFIC FLOW)	
	DIRECTIONAL ARROWS ON PAVEMENT	
	CLEANOUT	
E	ELECTRIC MANHOLE	E
E	ELECTRIC BOX	E
CATV	CABLE TV BOX	CATV
T	TELEPHONE MANHOLE	T
	LIGHT POLE	
	POWER POLE	
	POWER POLE WITH LIGHT	
	POWER POLE WITH GUY WIRE	
P	POWER LINE	P
T	TELEPHONE LINE	T
CATV	CABLE TELEVISION LINE	CATV
G	NATURAL GAS LINE	G
	VALVE	
W	WATER LINE (POTABLE)	W
NPW NPW	WATER LINE (NON-POTABLE)	NPW NPW
RW	REUSE WATER LINE	RW
	METER	
	WATER PIPE REDUCER	
	FIRE HYDRANT	
	PLUGGED STUB	
W	WELL	W
	MONITORING WELL	
	AIR VENT	
SS	SANITARY SEWER PIPE	SS
FM	SANITARY SEWER FORCEMAIN	FM
	STORM DRAINAGE PIPE	
	PROPERTY LINE	
	PARCEL LINE	
	RIGHT OF WAY LINE	
	SETBACK LINE	
	CREEK	
	ACCESS EASEMENT	
X X X	FENCE	X X X
000	CONTOUR LINE WITH ELEVATION	000
+XXX.xx	SPOT ELEVATION	+XXX.xx
	FLOW ARROW	
	TREE LINE	
	SIGNIFICANT TREES	
	GUARD RAIL	
XX	LOT NUMBER	XX
XX	PARCEL NUMBER	XX
XX	NUMBER OF PARKING SPACE NUMBER	XX
	SIGN w/POST	
	DOUBLE SIGN w/POST	
	BOLLARD	
	WHEEL STOP	
	HANDICAP PARKING	
	SATELLITE DISH	
	ROCK BORE LOCATION	
	PROPERTY CORNER	
	GIS BENCHMARK	
	TRAVERSE POINT	
	RIGHT OF WAY MONUMENT	
	IRON PIN FOUND	
	IRON PIN SET	
	WETLAND AREA	
	LAND LOT LINE	
LL XXX	LAND LOT NUMBER	

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO BOTH PLANS AND SPECIFICATIONS FOR THIS PROJECT. ALL ITEMS NECESSARY FOR A COMPLETE AND WORKABLE JOB SHALL BE FURNISHED AND INSTALLED.
2. ALL DIMENSIONS ARE TO **FACE OF CURB, FACE OF BUILDING, CENTER OF COLUMN, EDGE OF PAVEMENT, CENTERLINE OF PIPE, OR CENTER OF STRUCTURE** UNLESS OTHERWISE NOTED.
3. EQUIPMENT AND MATERIALS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER. CONSTRUCTION AND STORAGE AREAS SHALL BE KEPT NEAT AND CLEAN. TREE SAVE AREAS SHALL NOT BE USED FOR STORAGE OR PARKING.
4. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF ALL TIE-IN POINTS FOR THE INSTALLATION OF UTILITIES, CURB & GUTTER, AND PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY IF DIFFERENT THAN AS SHOWN ON PLANS.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS IMMEDIATELY UPON DISCOVERY.
6. ALL WORK WILL COMPLY WITH APPLICABLE STATE AND LOCAL CODES, SPECIFICATIONS AND REQUIREMENTS. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE. CONTRACTOR SHALL VERIFY THAT ALL NECESSARY PERMITS AND APPROVALS ARE OBTAINED PRIOR TO CONSTRUCTION.
7. DEVIATIONS FROM THESE PLANS, NOTES AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE OWNER, HIS REPRESENTATIVE OR THE ENGINEER MAY RESULT IN THE WORK BEING UNACCEPTABLE BY THE OWNER, AND REDONE TO MEET THE PLANS, NOTES AND SPECIFICATIONS.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL SITE SAFETY AS WELL AS THE WAYS, MEANS AND METHODS OF CONSTRUCTION.
9. CONTRACTOR SHALL COORDINATE CONSTRUCTION TRAFFIC AND GENERAL PUBLIC TRAFFIC ROUTING WITH OWNER AND APPROPRIATE REGULATING AGENCY PRIOR TO CONSTRUCTION.
10. CONTRACTOR SHALL NOT WILLINGLY PROCEED WITH CONSTRUCTION IN A PARTICULAR AREA WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTION AND/OR DIFFERENCES FROM EXISTING CONDITIONS THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
11. CITY/COUNTY/STATE INSPECTORS MAY REQUIRE CHANGES TO THE DRAWINGS AND/OR SPECIFICATIONS BASED ON THEIR INSPECTION. CONTRACTOR SHALL BRING ANY REQUIRED CHANGES TO THE ENGINEERS ATTENTION IMMEDIATELY.
12. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.
13. ALL WORK SHALL BE PERFORMED AND FINISHED IN A WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER, AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
14. ALL MATERIAL SHALL BE NEW- NO USED OR SALVAGED MATERIALS.
15. ALL BUFFERS AND TREE SAVE AREAS SHALL BE CLEARLY IDENTIFIED WITH FLAGGING AND/OR FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE ACTIVITIES.
16. LANDSCAPING IS A HIGH PRIORITY. PROPER PROTECTION OF EXISTING LANDSCAPING, FENCES, PROPERTY CORNERS AND/OR D.O.T. CONCRETE RIGHT-OF-WAY MONUMENTS SHALL BE PROVIDED. WHERE DAMAGE OCCURS, REPLACEMENT TO EXISTING CONDITION IS REQUIRED. ALL LANDSCAPING REPLACEMENT IS SUBJECT TO APPROVAL FROM FORSYTH COUNTY AND THE ENGINEER.
17. CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERRORS HE DISCOVERS IN THE PLANS.
18. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS AS REQUIRED IN THE GENERAL CONDITIONS.
19. THIS PLAT IS NOT FOR RECORDING.
20. UTILITY LOCATIONS ARE SHOWN TO THE BEST KNOWLEDGE OF THE ENGINEER. CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD VERIFICATION OF ALL UTILITIES AND WILL NOT BE ENTITLED TO ANY EXTRA COMPENSATION ON ACCOUNT OF INACCURACY OR INCOMPLETENESS OF SUCH INFORMATION.
21. MAXIMUM CUT OF FILL SLOPES ARE **2** HORIZONTAL TO 1 VERTICAL.
22. UTILITY COORDINATION SHALL BE INCLUDED IN THE PROJECT SCHEDULE AND IS THE EXPLICIT RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT THE PROJECT SCHEDULE INCLUDES THE NECESSARY RELOCATIONS. THE CONTRACTOR WILL NOT BE PAID ADDITIONALLY FOR THIS COORDINATION. THE CONTRACTOR SHOULD SEEK ASSISTANCE FROM ALL UTILITY COMPANIES TO LOCATE AND PROTECT THEIR FACILITIES.
23. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AND PRECAUTIONS TO ASSURE THAT EXISTING SEWER LINES, FORCE MAIN LINES, AND WATER LINES REMAIN FUNCTIONAL AND UNDISTURBED.
24. ALL WORK SHALL BE PERFORMED AND FINISHED IN A WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
25. CONTRACTOR IS RESPONSIBLE FOR ADDITIONAL STAGING AND/OR STORAGE REQUIRED OUTSIDE OF THE EASEMENTS PROVIDED BY OWNER. CONTRACTOR TO ALSO LOCATE STAGING AREAS AND EQUIPMENT MAINTENANCE AREAS (PARTICULARLY FOR OIL CHANGES) AT LEAST 200 FEET FROM STREAM BANKS TO MINIMIZE THE POTENTIAL FOR WASH WATER, PETROLEUM PRODUCTS, OR OTHER CONTAMINANTS FROM CONSTRUCTION EQUIPMENT ENTERING THE STREAMS.

SITE CLEARING & SITE DEMOLITION NOTES

1. CONTRACTOR SHALL CLEARLY MARK AND MAINTAIN PROPERTY CORNER MONUMENTS AND BENCHMARKS AND WILL BE RESPONSIBLE FOR THE COST OF REPLACING THEM IF DISTURBED OR DESTROYED.
2. THE CONTRACTOR SHALL HAVE THE LIMITS OF CLEARING AND DEMOLITION AND ALL BUFFERS STAKED WITH FLAGGING STRUNG BETWEEN ANGLE POINTS TO ENSURE THE PROPER LOCATION OF THE TREE SAVE FENCE AND PROPOSED IMPROVEMENTS PRIOR TO CLEARING AND DEMOLITION.
3. CONTRACTOR SHALL PROTECT ALL ADJACENT LANDS FROM DAMAGE DURING CLEARING & DEMOLITION WORK. ANY OFF-SITE AREAS DISTURBED SHALL BE RETURNED TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION AT NO ADDITIONAL COST TO THE OWNER.
4. NO CLEARING OR DEMOLITION MATERIALS SHALL BE DISPOSED OF ON-SITE ALL DEBRIS SHALL BE HAULED OFF-SITE TO DISPOSAL AREAS APPROVED BY THE STATE OF GEORGIA FOR THE HANDLING OF CLEARING & DEMOLITION MATERIALS.
5. ALL VEGETATION (UNLESS OTHERWISE NOTED), ROOT SYSTEMS, TOPSOIL, REFUSE, OTHER DELETERIOUS MATERIAL, EXISTING PAVEMENTS, CURBS, ORGANICS AND UNSUITABLE BEARING SOILS SHALL BE STRIPPED FROM THE SURFACE WITHIN THE CONSTRUCTION LIMITS AND DISPOSED OF OFFSITE TO A DISPOSAL AREA APPROVED BY THE STATE OF GEORGIA FOR THE HANDLING OF CLEARING & DEMOLITION MATERIALS.
6. CLEAN TOP SOIL MAY BE STOCKPILED IN AN AREA APPROVED BY THE ENGINEER AND REUSED LATER IN THE TOP 4" OF LANDSCAPED AREAS ONLY. EXCESS TOPSOIL SHALL BE DISPOSED OF OFFSITE.
7. ALL STRUCTURES NOT IDENTIFIED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION. ANY STRUCTURES THAT ARE TO REMAIN THAT ARE DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION AT NO ADDITIONAL COST TO THE OWNER.
8. CONSTRUCTION ENTRANCE, SILT FENCE AND ANY OTHER REQUIRED EROSION CONTROL DEVICE SHALL BE IN PLACE PRIOR TO CLEARING & DEMOLITION OPERATIONS.
9. DISCONNECT AND SEAL OFF ABANDONED UTILITIES AND UTILITIES TO BE REMOVED PRIOR TO START OF DEMOLITION. UTILITIES SHALL BE DISCONNECTED BELOW EXISTING GRADE OR OUTSIDE OF CONTRACT LIMITS BY THE APPLICABLE UTILITY OWNER. ALL COSTS FOR THIS WORK SHALL BE BORNE BY THE CONTRACTOR.
10. ALL STRUCTURES TO BE DEMOLISHED SHALL BE COMPLETELY REMOVED ABOVE AND BELOW GRADE. ABANDONED SERVICE LINES TO THE STRUCTURES SHALL ALSO BE REMOVED.
11. CONTRACTOR TO PROVIDE ALL NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL MEASURES AS MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC THROUGHOUT CLEARING, DEMOLITION AND CONSTRUCTION IN COMPLIANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" CURRENT EDITION, THE GEORGIA D.O.T. SPECIFICATIONS SECTION 150 AND ANY RULES AND REGULATIONS OF THE LOCAL AUTHORITY HAVING JURISDICTION OVER THIS PROJECT.
12. THE EXISTING TREES SHOWN ON THESE PLANS MAY ONLY BE THE MINIMAL AMOUNT SURVEYED AS REQUIRED FOR PERMITTING. THE SITE MAY HAVE ADDITIONAL TREES BEYOND THAT WHICH IS SHOWN. THE CONTRACTOR SHALL VISIT THE SITE BEFORE MAKING HIS BID TO INVESTIGATE THE AMOUNT OF EXISTING TREES THAT WILL NEED TO BE REMOVED WITHIN THE LIMITS OF CLEARING.

REFERENCES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION BASED ON A TOPOGRAPHIC SURVEY FOR **UNION COUNTY GOVERNMENT**, DATED **AUGUST 2024** AND PREPARED BY **HUSSEY GAY BELL, 322 W MAIN ST, BLUE RIDGE, GEORGIA 30513, (706) 632-4981.**
2. THE SURVEY INDICATES THAT THIS PROPERTY **DOES NOT** LIE WITHIN A FLOOD HAZARD ZONE X AS IDENTIFIED ON A F.I.R.M. COMMUNITY PANEL NO. **13291C0152D** DATED **09-28-07** AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY – FEDERAL HAZARD INSURANCE ADMINISTRATION.
3. THIS SITE **DOES NOT** CONTAIN WETLANDS.
4. LAKE **DOES NOT** EXIST WITHIN 500' OF THE SITE.
5. A **50'** UNDISTURBED VEGETATIVE BUFFER WILL BE MAINTAINED ADJACENT TO STATE WATERS, INCLUDING WETLANDS (FROM TOP OF BANK TO OR EDGE OF WATER). NONE EXIST.
6. SITE **DOES NOT CONTAIN** STATE WATERS WHICH ARE SUBJECT TO A 25-FOOT STATE WATERS BUFFER FROM TOP OF BANK OR EDGE OF WATER.

UTILITY NOTES

1. ALL IMPROVEMENTS TO CONFORM WITH **CITY OF BLAIRSVILLE** CONSTRUCTION STANDARDS AND SPECIFICATIONS (LATEST EDITION). THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPLICABLE UTILITY AND OBTAINING THE APPLICABLE SPECIFICATIONS.
2. CONTRACTOR TO NOTIFY **CITY OF BLAIRSVILLE** INSPECTOR DEPARTMENT 24 HOURS PRIOR TO BEGINNING EVERY PHASE OF CONSTRUCTION. PHONE: **706-745-2000.**
3. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL, AND LOCAL CODES AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER.
4. ALL WORK PERFORMED ON COUNTY RIGHT-OF-WAYS SHALL BE IN STRICT CONFORMANCE WITH APPLICABLE **CITY OF BLAIRSVILLE** STANDARDS & SPECIFICATIONS.
5. ANY WORK IMPACTING TRAFFIC FLOW OR SAFETY SHALL BE DONE IN ACCORDANCE WITH AND APPROVED BY **CITY OF BLAIRSVILLE** ENGINEERING DEPARTMENT AND GEORGIA D.O.T.
6. ALL MATERIAL SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE APPROVED BY THE OWNER IN WRITING.
7. RIP-RAP SHALL BE PLACED AT ALL STORM DRAIN HEADWALLS AND CONSIST OF 50 POUND STONES.
8. ALL DISTURBED AREAS TO BE RETURNED TO EXISTING GRADE AS SOON AS CONSTRUCTION PHASES PERMIT.
9. THERE WILL BE NO DISPOSAL OF DEBRIS ONSITE, ALL CONSTRUCTION DEBRIS SHALL BE REMOVED AND DISPOSED OF PROPERLY BY THE CONTRACTOR.
10. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL INFRASTRUCTURE FOR A ONE YEAR PERIOD FOLLOWING FINAL ACCEPTANCE OF THE PROJECT BY **CITY OF BLAIRSVILLE.**
11. CONTRACTOR TO NOTIFY UTILITY PROTECTION AGENCY 72 HOURS PRIOR TO START OF WORK. PHONE: 811
12. ALL PERMANENT SANITARY SEWER EASEMENTS SHOULD BE DRIVABLE WITH NO CROSS SLOPES OVER 14%.
13. CONSTRUCTION DEBRIS, LIQUID CONCRETE, OLD RIP-RAP, OLD SUPPORT MATERIALS, AND OTHER LITTER IN STREAMS OR IN AREAS OF POTENTIAL MIGRATION INTO THE STREAM IS PROHIBITED.
14. NO BURY PITS ALLOWED WITHIN SANITARY SEWER EASEMENTS.
15. NO FENCES, STRUCTURES, OR OTHER OBSTRUCTIONS ALLOWED WITHIN SANITARY SEWER EASEMENTS UNLESS OTHERWISE SHOWN IN DRAWINGS
16. LIMITS OF CLEARING SHALL BE WITHIN THE TEMPORARY CONSTRUCTION EASEMENTS DELINEATED ON THESE PLANS.
17. ALL MANHOLES SHALL USE CAST IN BOLT DOWN RING, COVER AND GASKET.
18. THE ONLY MATERIAL TO BE BURIED ON-SITE IS VEGETATIVE MATERIAL, PROVIDED IT IS NOT BURIED WITHIN 100' OF ANY PROPERTY LINE OR ENCLOSED STRUCTURE. CONSTRUCTION WASTE MAY NEITHER BE BURNED NOR BURIED AND MUST BE TAKEN TO STATE APPROVED LANDFILL.
19. SEE SHEET **C-13** FOR PIPE BEDDING DETAILS.
20. **THE CITY OF BLAIRSVILLE** MAY HAVE AN APPROVED CONTRACTOR LIST FOR INSTALLATION AND/OR MANUFACTURER OF UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE COUNTY TO OBTAIN THE APPLICABLE LIST.
21. THE UTILITIES SHOWN ARE SHOWN FOR THE CONTRACTORS CONVENIENCE ONLY. THERE COULD BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

SANITARY SEWER NOTES

1. ANCHOR COLLARS SHALL BE PROVIDED ON SANITARY SEWER LINES WHOSE SLOPE EXCEEDS 17%
2. TOPS OF EXISTING MANHOLES SHALL BE RAISED/LOWERED AS NECESSARY TO BE FLUSH WITH NEW FINISHED GRADES.
3. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT ELEVATION OF EXISTING WASTEWATER SYSTEM AND REPORT DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION OF NEW LINES.
4. SANITARY SEWER LINES SHALL BE INSTALLED, TESTED AND APPROVED PRIOR TO BACKFILLING.
5. MINIMUM ANGLE BETWEEN INFLUENT AND EFFLUENT SANITARY SEWER LINES AT A MANHOLE = 90 DEGREES.
6. ALL SEWER PIPE CONSTRUCTION MUST CONFORM TO **CITY OF BLAIRSVILLE** COUNTY STANDARDS AND SPECIFICATIONS.
7. ALL WASTE WATER EASEMENTS MUST BE DRESSED AND GRASSED TO CONTROL EROSION PRIOR TO ACCEPTANCE. TREES SHALL NOT BE PLANTED IN THE PERMANENT EASEMENT.
8. NEOPRENE COUPLINGS WITH STAINLESS STEEL BANDS AND SHEAR RINGS ARE REQUIRED FOR JOINING DIFFERENT TYPES OF SANITARY SEWER PIPES.
9. LOW PRESSURE AIR TESTING IS REQUIRED FOR ALL WASTE WATER PIPE SYSTEMS. THIS TEST MUST MEET ALL REQUIREMENTS AS OUTLINED IN ASTM C-828-80 OR CURRENT REVISION. AN INSPECTOR MUST BE PRESENT DURING TESTING.
10. NOTIFY INSPECTOR 24 HOURS PRIOR TO CONSTRUCTION.
11. EIGHT INCH OR LARGER PIPE LINES SHOULD BE TV INSPECTED.
12. COMPACTION OF BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO 90% OF THE PROCTER DENSITY. BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, OR OTHER DEBRIS AND SHALL BE PLACED AT OR NEAR OPTIMUM MOISTURE. CORRECTION OF ANY TRENCH WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
13. THE USE OF PRECAST INVERT MANHOLES IS ACCEPTABLE PROVIDED THE INVERTS ARE NOT MODIFIED.
14. AS-BUILTS AND RECORD DRAWINGS ARE REQUIRED PRIOR TO REQUESTING A CERTIFICATE OF OCCUPANCY.

CONDITIONS FOR PVC (SEWER)

1. PIPE SHALL BE ASTM-3034, SDR 35 IN 12.5 FOOT LAYING LENGTHS WITH ELASTOMERIC SEALED JOINTS IN ACCORDANCE WITH ASTM-D3212.
2. PIPE BEDDING SHALL BE #57, SHARP, ANGULAR, CRUSHED STONE. BEDDING SHALL EXTEND A MINIMUM OF 4" BELOW THE PIPE AND EXTEND TO THE TOP OF THE PIPE. THE BEDDING SHALL BE COMPACTED BY "SLICING WITH A FLAT SHOVEL". THE WIDTH OF THE DITCH AT THE TOP OF THE PIPE SHALL BE A MAXIMUM OF 3'.
3. INITIAL BACKFILL: AFTER BEDDING, COMPLETE INITIAL BACKFILL WITH # 57 STONE. IF NO ROCK IS ENCOUNTERED, INITIAL BACKFILL SHALL EXTEND TO A HEIGHT 6" ABOVE THE TOP OF THE PIPE. OTHERWISE INITIAL BACKFILL SHALL EXTEND TO 12" ABOVE THE TOP OF PIPE.
4. FITTINGS FOR LATERAL CONNECTIONS SHALL BE 45° WYES AND BENDS. PROVIDE PVC PIPE STOPPERS FOR EACH LATERAL. PROVIDE SPECIAL WATER-TIGHT CONNECTIONS AT MANHOLES AND TRANSITIONS TO DUCTILE IRON PIPE AS RECOMMENDED BY THE PIPE MANUFACTURER.
5. AFTER INSTALLATION, A DEFLECTION TEST IS REQUIRED. INITIAL DEFLECTION SHALL BE LIMITED TO 3% OF THE UNDEFLECTED DIAMETER. A SECOND TEST SHALL BE MADE AT LEAST 8 MONTHS AFTER THE INSTALLATION BUT BEFORE FINAL ACCEPTANCE. AT THAT TIME, DEFLECTION SHALL BE LIMITED TO 5% OF THE UNDEFLECTED DIAMETER.

WATER NOTES

1. THE LOCATION OF THE DOMESTIC AND FIRE LINES MUST BE COORDINATED W/THE BUILDING PLUMBING PLAN PRIOR TO INSTALLATION.
2. NO TEES ALLOWED ON WATER MAIN TIE-INS. USE STAINLESS STEEL TAPPING SLEEVE AND TAPPING VALVE.
3. ALL CITY WATERLINE SHALL BE DUCTILE IRON PIPE AND COMPLY TO ANS/AWWA A21-111-85 STANDARD SPECIFICATIONS.
4. ALL BENDS MUST INCLUDE MEGA-LUGS AND CONCRETE KICKERS. THRUST BLOCKS SHALL BE LOCATED AT ALL WATER PIPE VALVES,
5. VERTICAL BENDS, AND VERTICAL ELBOWS, TEES AND FIRE HYDRANTS.
6. ALL WATER VALVE MARKERS SHALL BE PLACED AT ALL LOCATIONS WHERE WATER VALVES ARE NOT IN THE STREETS. WATER VALVES THAT ARE IN THE STREET WILL BE CLEARLY MARKED ON THE CURB.
7. NOTIFY THE CITY OF BLAIRSVILLE 48 HOURS PRIOR TO START OF EACH PHASE OF CONSTRUCTION.

ABBREVIATIONS

AE –ACCESS EASEMENT	GI – GRATE INLET	P.O.C –POINT OF COMMENCEMENT
A.K.A. –ALSO KNOWN AS	GM –GAS METER	PROP –PROPOSED
APPROX –APPROXIMATE	GMD –GEORGIA MILITIA DISTRICT	PT –POINT OF TANGENCY
ARV –AIR RELEASE VALVE	G.P.S. –GLOBAL POSITIONING SYSTEM	PVMT –PAVEMENT
B&D –BEARING AND DISTANCE	GV –GATE VALVE	PVC –POLYVINYL CHLORIDE PIPE
BC –BACK OF CURB	HH –HANDHOLE	R –RADIUS
BCCMP –BITUMINOUS COATED CMP	HDPE –HIGH DENSITY POLYETHYLENE	RCP –REINFORCED CONCRETE PIPE
BLDG –BUILDING	HGL –HYDRAULIC GRADE LINE	R.D.P. –RESIDENTIAL DRAINAGE PLAN REQUIRED
B/L –BUILDING LINE	H.L.P. –HOUSE LOCATION PLAN REQUIRED	REV –REVISED OR REVISION
BM –BENCHMARK	HP –HIGH POINT	RW – REUSE WATER
CB –CATCH BASIN	HW –HEADWALL	R/W –RIGHT OF WAY
C & G –CURB & GUTTER	ID –INSIDE DIAMETER	SD –STORM DRAIN
℄ –CENTERLINE	IE –INVERT ELEVATION	SS –SANITARY SEWER
CMF –CONCRETE MONUMENT FOUND	IN. –INCH	SSE –SANITARY SEWER EASEMENT
CMP –CORRUGATED METAL PIPE	IPF –IRON PIN FOUND	ST – STORM SEWER LINE
CMS –CONCRETE MONUMENT SET	IPS –IRON PIN SET	STA – STATION NUMBER
CO –CLEANOUT	IRR –IRRIGATION LINE	SW –SIDEWALK
CONC –CONCRETE	JB –JUNCTION BOX	SWCB–SINGLE WINGED CATCH BASIN
D.B. –DEED BOOK	JT –JOINT	T –TELEPHONE
DE –DRAINAGE EASEMENT	LF –LINEAR FOOT/FEET	TC –TOP OF CURB ELEVATION
DI –DROP INLET	LLL –LAND LOT LINE	TOB –TOP OF BANK
DIA –DIAMETER	LOD –LIMITS OF DISTURBANCE	TPF –TREE PROTECTION FENCING
DIP –DUCTILE IRON PIPE	L.P. –LIGHT POLE	T.P.O.B. –TRUE POINT OF BEGINNING
DS –DOWN SPOUT	MAX –MAXIMUM	U –UNDERGROUND
DWCB –DOUBLE WING CATCH BASIN	MH –MANHOLE	VCP –VITRIFIED CLAY PIPE
EG – EXISTING GRADE	MIN –MINIMUM	W –WATER
ELEV –ELEVATION	MISC –MISCELLANEOUS	WI –WEIR INLET
EOP –EDGE OF PAVEMENT	MON –MONUMENT	WM –WATER METER
ESMT –EASEMENT	MSL –MEAN SEA LEVEL	WV –WATER VALVE
ETB –ELECTRIC TRANSFORMER BOX	MT –MARKED TREE	YI – YARD INLET
EX. –EXISTING	N/F – NOW OR FORMERLY	
FDC –FIRE DEPARTMENT CONNECTION	NTS –NOT TO SCALE	
FFE –FINISHED FLOOR ELEVATION	NO. –NUMBER	
FG – FINISH GRADE	NPW – NON-POTABALE WATER	
FH –FIRE HYDRANT	OCS –OUTLET CONTROL STRUCTURE	
F.I.R.M. –FEDERAL INSURANCE RATE MAP	OD –OUTSIDE DIAMETER	
FM –SEWER FORCE MAIN	PB –PLAT BOOK	
FOC –FACE OF CURB	PC –POINT OF CURVATURE	
FP – FLOOD PLAIN	PG. –PAGE	
FT –FOOT/FEET	PL –PROPERTY LINE	
G –GAS	P.O.B. –POINT OF BEGINNING	

Know what's **below.** **Call** before you dig.

NOTE:
1. NOTIFY **UNION** COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (706) 439-6057

HUSSEY GAY BELL
Established 1958
322 W Main St, Blue Ridge, GA 30513
T:706.632.4981

UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	Description	By	App.	Date
	REVISION			

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Project Location

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

GENERAL NOTES & LEGEND

Sheet Number

C-01

N/F
128 INDUSTRIAL BLVD
HOLDING, LLC
DB 1016, PG 144
PB 68, PG 114

N/F
UNION COUNTY
DB 1133, PG 391
PB 71, PG 53

0.48 ACRE

DI
TOP=2054.43'
INV IN=2050.87'
INV IN=2049.09'
INV OUT=2048.29'

DI
TOP=2053.70'
INV OUT=2050.66'

JB
TOP=2055.99'
INV IN=2047.39'
INV OUT=2047.37'

30" CPP
INV =2029.91

APPROX. LOCATION OF EXIST. 6" WATER
(CITY OF BLAIRSVILLE)
LINE TO BE ABANDONED IN PLACE AND
REMOVED AS NEEDED

APPROX. LOCATION OF
EXIST. 6" WATER
(CITY OF BLAIRSVILLE)
LINE TO BE ABANDONED
IN PLACE AND REMOVED
AS NEEDED

EXISTING
BOLLARDS

EXISTING FH +
WATER METER

EXIST. 6" WATER
(CITY OF BLAIRSVILLE)

SHOE FACTORY ROAD
60' ROW

EDGE OF PAVEMENT

RIGHT-OF-WAY OF SHOE
FACTORY ROAD

EX 24" RCP

EX 30" CPP

EXISTING 18' ASPHALT DRIVE

TREE LINE

EDGE OF GRAVEL

40' POWER EASEMENT

ROCK FLUME

LP Tank

BLOCK
WALL

20'

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

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UNION COUNTY GOVERNMENT
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BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	REVISION Description	By App.	Date

GEORGIA REGISTERED NO. 23270 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Project Location

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

EXISTING CONDITIONS

Sheet Number **C-02**

NOTE: SEE ARCHITECT'S PLANS FOR ANY BUILDING RELATED ITEMS AND DETAILS.

PARKING SUMMARY

OFFICE/STORAGE

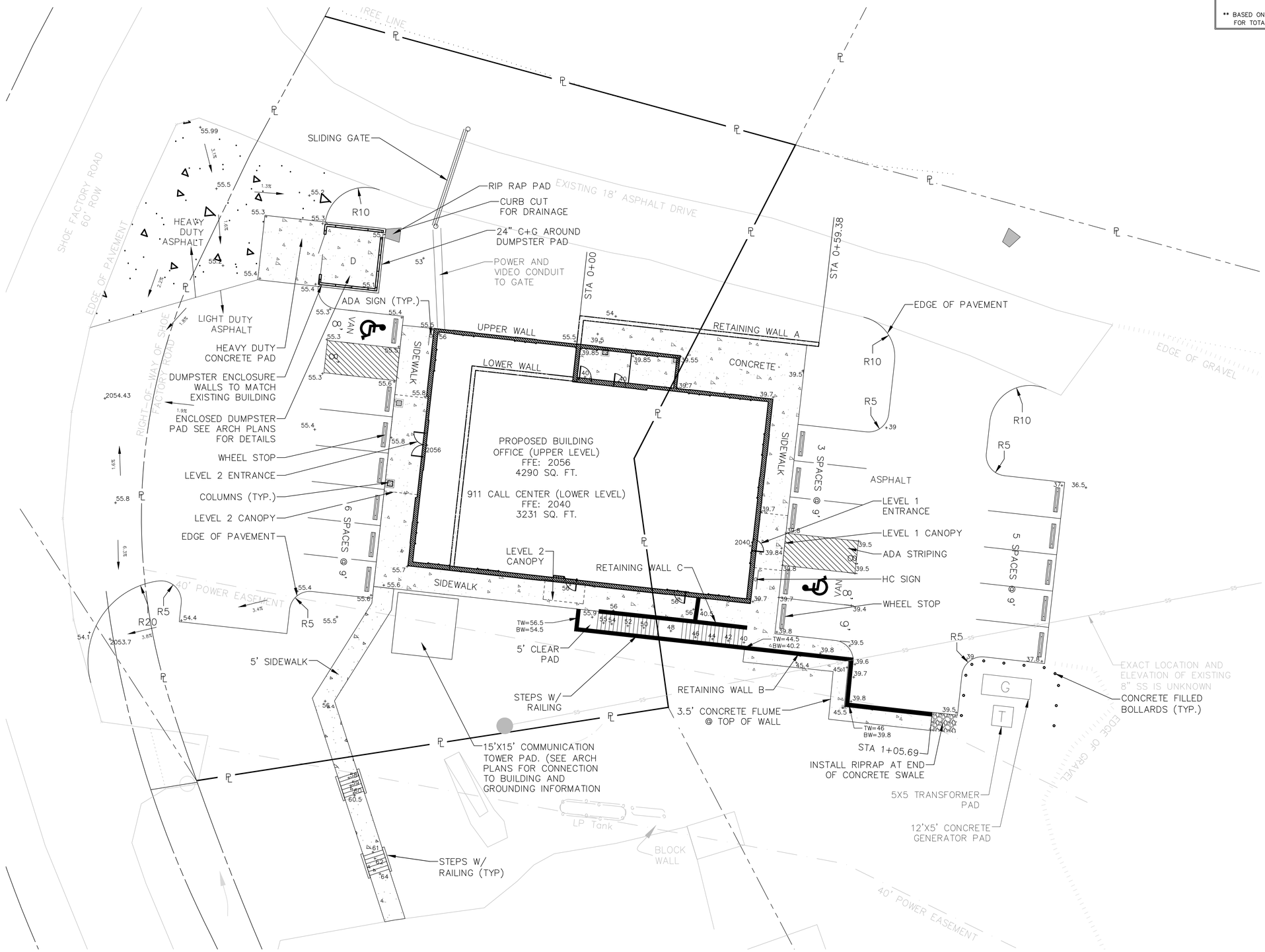
	STANDARD	HANDICAP	TOTAL
NEW	6	1	7

911 CALL CENTER

	STANDARD	HANDICAP	TOTAL
NEW	9	1	10

SITE TOTAL 17

** BASED ON LATEST A.D.A CODE OF FOR TOTAL PROPOSED SPACES



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

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No.	Description	REVISION	By App.	Date

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Project Location

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

SITE PLAN

Sheet Number

C-03

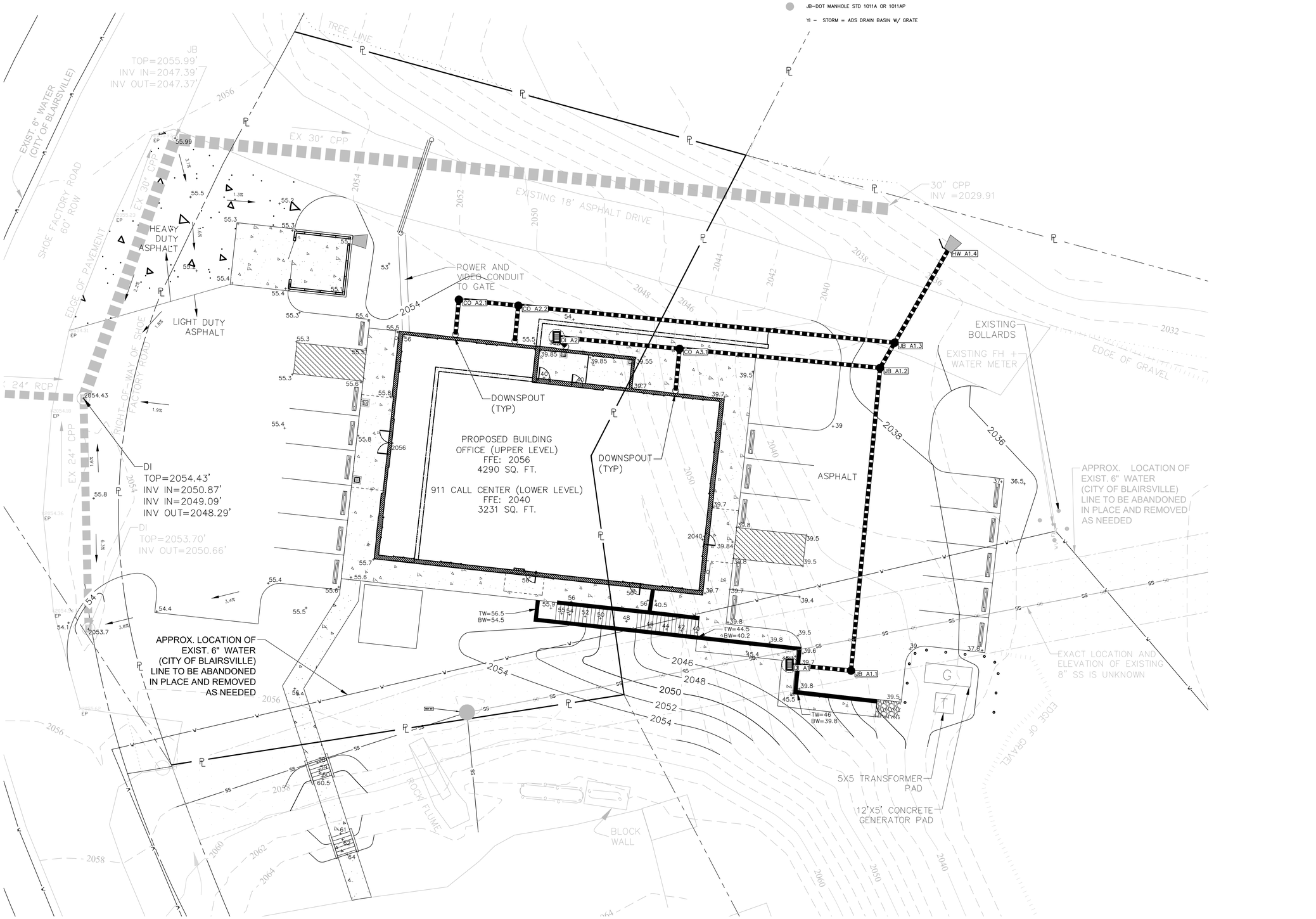
christie sims 1/21/2025 10:44 AM normal.ctb I:\aproj\eng\2024\24558e - union county 911 center\dwg\production\24558e.dwg

STORM DRAINAGE LEGEND

- SW=DOT STD 1033D
- DW=DOT STD 1034D
- DI = GRATED INLET WELDED TO FRAME NEENAH R-3573 OR EQUAL
- CI = (GRATE W/ HOOD) = DOT STD 1019A TYPE E OR 1019B TYPE V-1
- WI = INLET W/ WEIR, TOP ON PEDESTAL W/ RING & COVER
- CO-STORM = ADS DRAIN BASIN
- JB-DOT MANHOLE STD 1011A OR 1011AP
- YI - STORM = ADS DRAIN BASIN W/ GRATE

GENERAL GRADING NOTES

1. SPOT ELEVATIONS IN PAVED AREAS ARE SHOWN AT EDGE OF PAVEMENT
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND LABOR NECESSARY TO CONNECT BUILDING DOWNSPOUTS TO SITE STORM WATER COLLECTION SYSTEM.



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

Know what's below. Call before you dig.

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Project Location

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

GRADING PLAN

Sheet Number

C-04

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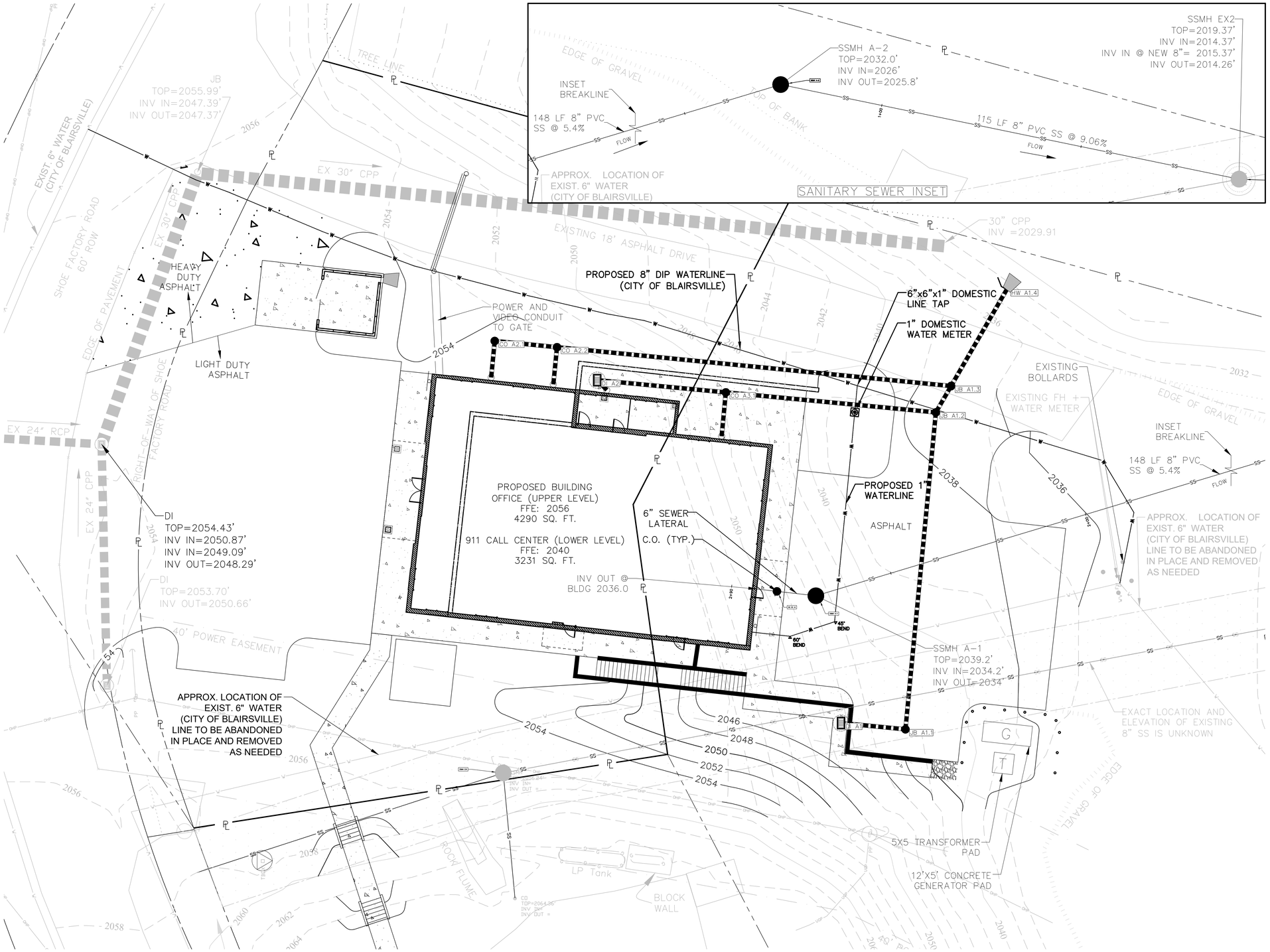
christie sims



UTILITY PLAN NOTE:

THE LOCATION SHOWN FOR THE EXISTING 8" SANITARY SEWER IS FROM BEST AVAILABLE INFORMATION. CONTRACTOR TO BE AWARE OF THE POSSIBILITY OF A DIFFERENT CONFIGURATION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND IN THE FIELD.

811 Know what's below. Call before you dig.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

HUSSEY GAY BELL
Established 1958
322 W Main St, Blue Ridge, GA 30513
T:706.632.4981

UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	Description	By App.	Date

GEORGIA REGISTERED NO. 23270 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Project Location

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
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County	UNION
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Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

UTILITY PLAN

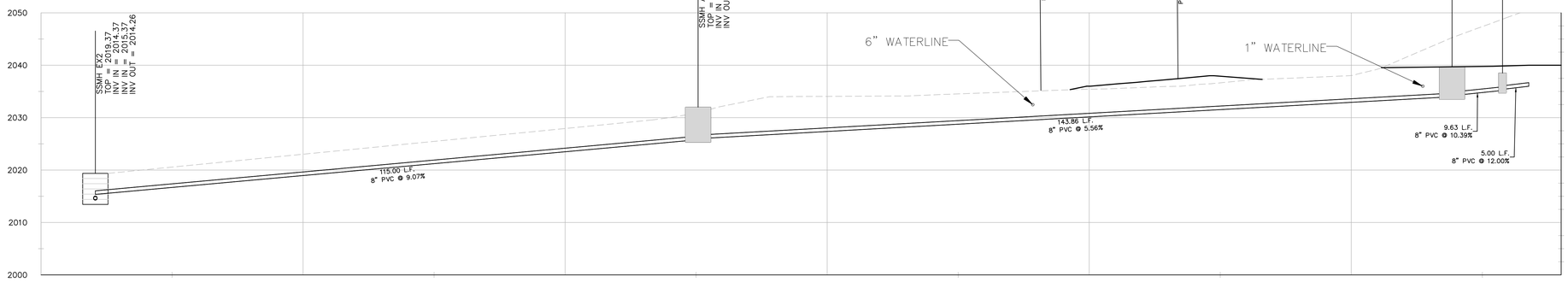
Sheet Number

C-05

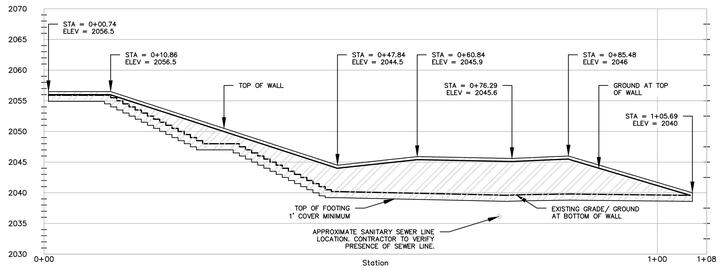
christie sims 1/21/2025 10:43 AM normal.ctb i:\proj eng\2024\24558e - union county 911 center\dwg\production\24558e.dwg

NOTE: EXISTING GRADE SHOWN BETWEEN STRUCTURE A-2 AND THE EXISTING SSMH IS APPROXIMATE. CONTRACTOR TO VERIFY GRADE PRIOR TO SANITARY SEWER INSTALLATION.

NOTE: CONTRACTOR TO VERIFY SEPARATION BETWEEN SANITARY SEWER AND WATER LINES. WATERLINE TO BE ENCASED IN CONCRETE IF SEPARATION IS LESS THAN 12".

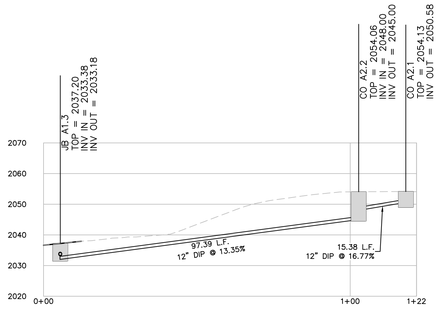


PROFILE OF SANITARY LINE 'SAN A1-EX2'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'

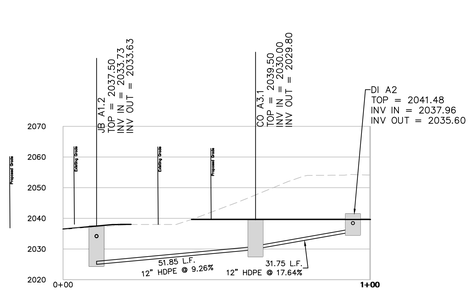


NOTE: THIS WALL PROFILE IS SHOWN FOR INFORMATION ONLY. WALL TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.

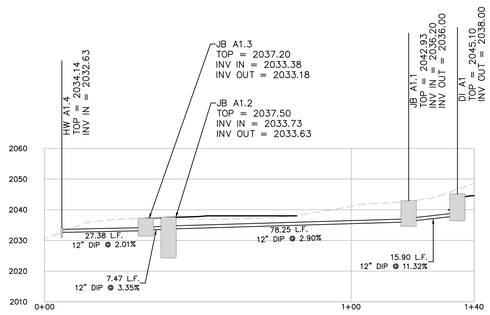
PROFILE OF RETAINING WALL 'B'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'



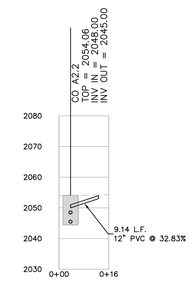
PROFILE OF STORM LINE 'A2'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'



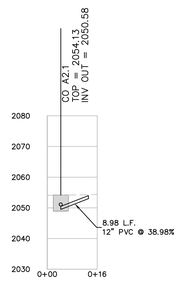
PROFILE OF STORM LINE 'A3'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'



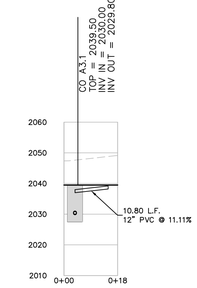
PROFILE OF STORM LINE 'A1'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'



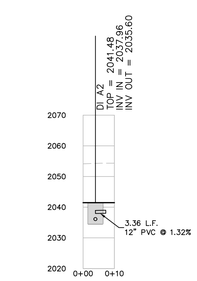
PROFILE OF STORM LINE 'A2.2'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'



PROFILE OF STORM LINE 'A2.1'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'



PROFILE OF STORM LINE 'A3.2'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'



PROFILE OF STORM LINE 'A3.1'
VERT. SCALE 1"=1'
HORZ. SCALE 1"=1'

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, GA 30096
T:706.632.4981

UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	Description	REVISION By App.	Date

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Project Location

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

SANITARY SEWER AND WALL PROFILES

Sheet Number

C-06

DESCRIPTION OF MAJOR ACTIVITIES:

PHASE 1 EROSION CONTROL CONSISTS OF INITIAL PERIMETER CONTROLS, AND INSTALLATION OF SEDIMENT STORAGE BMPS.

PHASE 2 EROSION CONTROL CONSISTS OF MAINTENANCE OF THE PERIMETER CONTROLS AND SEDIMENT STORAGE BMPS INSTALLED IN PHASE 1. PHASE 2 ALSO INCLUDES CLEARING, GRADING AND EXCAVATION ACTIVITIES. STABILIZATION OF DISTURBED AREAS AND INSTALLATION OF BMPS TO PREVENT ESCAPE OF POLLUTANTS INTRODUCED BY CLEARING AND GRADING ACTIVITIES.

PHASE 3 EROSION CONTROL CONSISTS OF MAINTENANCE OF BMPS INSTALLED IN PHASES 1 & 2 AND FINAL STABILIZATION OF THE SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES ONCE THE SITE IS STABILIZED.

CRITICAL AREAS:

1. EXISTING ROADS
   - 1.1. DIVERSION DITCHES AND/OR A DOUBLE ROW OF SILT FENCE SHALL BE INSTALLED ALONG EXISTING EDGE OF PAVEMENT TO PREVENT SEDIMENT FROM ESCAPING.
   - 1.2. EXISTING INLETS SHALL BE PROTECTED W/ Sd2–F OR aD2–P AS SHOWN TO PREVENT CLOGGING OF EXISTING STORM PIPE. EXISTING PIPE SYSTEMS SHALL BE INSPECTED AND CLEANED AFTER EVERY RAINFALL.
2. THERE IS AN EXISTING LAKE WITHIN A MILE DOWNSTREAM OF THE SITE. SEDIMENT BASINS AND SILT FENCE WILL BE INSTALLED TO PROTECT THE LAKE FORM SILTATION.
3. THERE ARE STEEP SLOPES WITHIN THE PROJECT AREA: THESE SLOPES WILL BE STABILIZED WITH THE APPROPRIATE MATTING. DIVERSION DITCHES SHALL DIRECT RUNOFF TO THE APPROPRIATE DOWNDRAIN STRUCTURE.

THIS SHEET IS FOR EROSION, SEDIMENT & POLLUTION CONTROL PURPOSES ONLY.

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.

AMENDMENTS/REVISIONS TO THE ESAPC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL

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

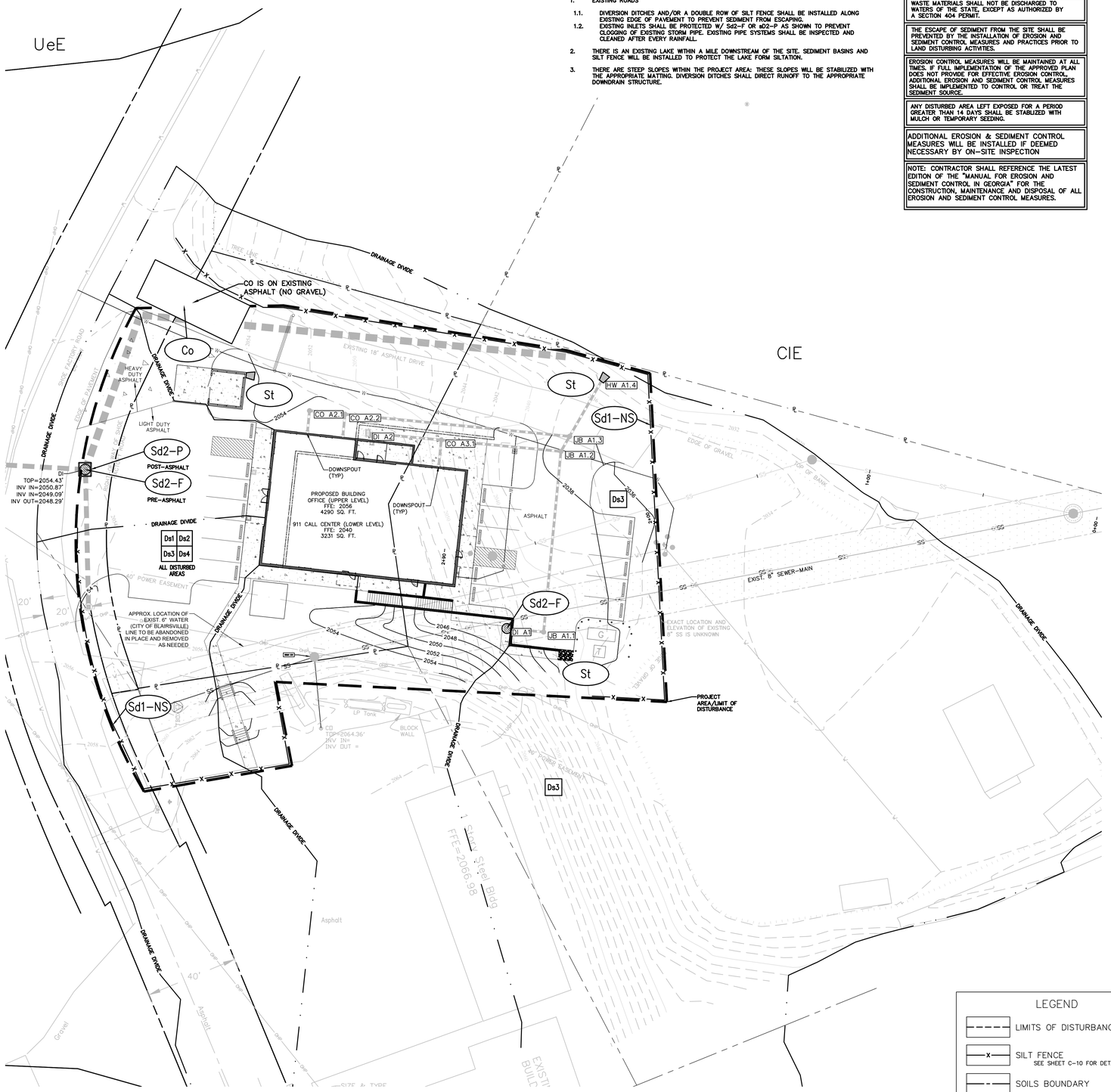
THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

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.

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

ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON–SITE INSPECTION

NOTE: CONTRACTOR SHALL REFERENCE THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR THE CONSTRUCTION, MAINTENANCE AND DISPOSAL OF ALL EROSION AND SEDIMENT CONTROL MEASURES.



LEGEND

- LIMITS OF DISTURBANCE
- SILT FENCE — SEE SHEET C–10 FOR DETAIL
- SOILS BOUNDARY
- DRAINAGE DIVIDE
- Sd2–P — SEE SHEET C–10 FOR DETAIL
- Sd2–F — SEE SHEET C–10 FOR DETAIL
- St — SEE SHEET C–10 FOR DETAIL

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

I EROSION NOTES:

1. THE EXISTING LAND IS CURRENTLY WOODED AND GRASSED. 1 EXISTING BUILDING IS WITHIN THE SITE.
2. THE PROPOSED USE OF THE LAND IS A 7521 SFT BUILDING AND ASSOCIATED PARKING AND DRIVES.
3. PROPERTY OWNER: UNION COUNTY GOVERNMENT
   65 COURTHOUSE STREET, SUITE 1
   BLAIRSVILLE, GA 30512
   CONTACT: TONY HUGHES UNION COUNTY MANAGER
   PHONE: (706) 897–5507
   uamanager@unionga.com
4. PROJECT ACREAGE = 0.97 ACRES
5. DISTURBED AREA = 0.69 ACRES
6. THE ADJACENT PROPERTY IS ZONED XXX.
7. THERE ARE NO STREAM BUFFERS ON THE PROJECT.
8. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.
9. SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN STORAGE STRUCTURES, INDICATING THE ½ FULL VOLUME (CLEAN OUT LEVEL).
10. DETENTION POND, DETENTION OUTLET STRUCTURES AND TEMPORARY SEDIMENT POND FEATURES ARE TO BE CONSTRUCTED AND FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION GRADING.
11. ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE.
12. CONCENTRATED FLOW AREAS AND ALL SLOPES GREATER THAN 2.5:1 WITH A HEIGHT OF 10 FEET OR GREATER SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
13. THERE ARE NO WETLANDS ON THE PROPOSED PROJECT. THERE ARE NO STATE WATERS WITHIN 200 FEET OF THE PROPOSED PROJECT.
14. THERE IS NO TREE PROTECTION REQUIRED FOR THIS SITE.
15. SOLID WASTE DISPOSAL TO BE OFF–SITE AS DESCRIBED IN THE SOLID WASTE MANAGEMENT AFFIDAVIT. NOT DISCHARGE TO WATERS OF THE STATE EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

II EROSION NOTES:

1. SEDIMENT AND EROSION CONTROL MEASURES AND PRACTICES TO BE INSPECTED DAILY.
2. DISTURBED AREAS ARE TO BE GRASSED AS SOON AS CONSTRUCTION PHASES PERMIT.
3. STORAGE LOCATION AND DISPOSAL PROCEDURES FOR CONCRETE TRUCK OR MIXER WASH OUT: CONCRETE TRUCK WAS OUT LOCATION SHALL BE IN A TEMPORARY TRUCK WASH AREA LOCATED IN AN AREA DESIGNATED BY THE CONTRACTOR. WASH OUT SHALL BE CONTAINED WITHIN A PIT OR TRENCH WITH NO MATERIAL LEAVING THE SITE OR IMPACTING VEGETATED AREAS SHOWN TO BE SAVED ON THE TREE SAVE PLAN. DISPOSAL OF MATERIAL SHALL BE EITHER THE BREAKING OF MATERIAL INTO ACCEPTABLE PIECES AND PLACEMENT WITHIN UNCLASSIFIED FILL AREAS AS DIRECTED BY THE ONSITE GEOTECHNICAL ENGINEER.
4. PAINT AND/OR OTHER CHEMICALS SHALL BE STORED IN SECURED FACILITIES WITH RESTRICTED ACCESS TO EMPLOYEES ONLY. CLEAN UP AND DISPOSAL OF THIS MATERIAL SHALL BE IN ACCORDANCE WITH ALL RECOGNIZED LOCAL AND FEDERAL REQUIREMENTS. ALL DISPOSAL SHALL BE APPROVED OFF–SITE WASTE FACILITIES CLASSIFIED TO ACCEPT THAT MATERIAL.
5. EMERGENCY PROCEDURES FOR SPILL OR REPORTABLE QUALITY OF PETROLEUM PRODUCTS: ALL PETROLEUM PRODUCTS SHALL BE STORED AND USED IN AN AREAS THAT PROVIDES A SECONDARY CONTAINMENT FEATURE. TYPICALLY THIS WILL CONSIST OF AN EARTHEN BERM CONSTRUCTED AROUND 3 SIDES OF THE STORAGE AREA. EMERGENCY PROCEDURES FOR SPILLS SHALL BE KEPT IN THE CONSTRUCTION TRAILER INCLUDING EMERGENCY CONTACT NUMBERS. THE CONTRACTOR SHALL LOCATED STORAGE FACILITIES IN AREAS WITH THE LEAST FORESEEABLE IMPACT IF A CATASTROPHIC EVENT SHOULD OCCUR.
6. PORTAJOHNS SHALL BE LOCATED ONSITE AND USED DURING CONSTRUCTION.

III EROSION NOTES:

1. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH ENTRY TO OR EXIT FROM THE SITE.
2. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN–OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM THE VEHICLES ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED.
3. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR WITHIN THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
4. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXISTS, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
5. THE CONTRACTOR AGREES TO PROVIDE AND MAINTAIN OFF–STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.
6. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES WHILE ROADWAY FRONTAGE IMPROVEMENTS ARE BEING MADE.
7. THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.
8. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL THE EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO GEORGIA STANDARDS.
9. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN PROGRESS.

SOIL CLASSIFICATION TABLE

CIE – CLIFTON–EVARD COMPLEX, 10 TO 25 PERCENT SLOPES.

CxF – COWEE–EVARD COMPLEX, 25 TO 45 PERCENT SLOPES.

UeE – URBAN LAND–EVARD–CLIFTON COMPLEX, 10 TO 35 PERCENT SLOPES.

24 HOUR EMERGENCY CONTACT:
MR. TONY HUGHES
(706) 897-5507

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Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, GA 30096
T:706.632.4981

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BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	REVISION Description	By App.	Date

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

Stephen Mark Bond

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Project Location

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Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

EROSION CONTROL

Sheet Number

C-07

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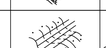
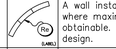
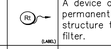
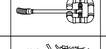
GEORGIA
UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER			A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM			Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)		Cs	Planting vegetation on dunes that are denuded artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS		Fl-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

DEFINITION

THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

REQUIREMENT FOR REGULATORY COMPLIANCE

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. IF AN AREA IS EXPECTED TO BE UNDISTURBED FOR LONGER THAN SIX MONTHS, PERMANENT PERENNIAL VEGETATION SHALL BE USED. IF OPTIMUM PLANTING CONDITIONS FOR TEMPORARY GRASSING ARE LACKING, MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. REFER TO SPECIFICATION Dst-DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

SPECIFICATIONS

GRADING AND SHAPING

EXCESSIVE WATER RUN-OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS.

NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION

WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HANDSEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL.

WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

LIME AND FERTILIZER

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE DETERMINED BY SOIL TEST FOR pH. BIO STIMULANTS SHOULD BE CONSIDERED WHEN THERE IS LESS THAN 3% ORGANIC MATTER IN THE SOIL. SOILS MUST BE TESTED TO DETERMINE REQUIRED FERTILIZER AND AMENDMENT AMOUNTS. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL. ON STEEP SLOPES, FERTILIZER SHALL BE HYDRAULICALLY APPLIED, PREFERABLY IN THE FIRST PASS WITH SEED AND HYDRAULIC MULCH, THEN TOPPED WITH THE REMAINING REQUIRED APPLICATION RATE.

SEEDING

SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTI-PACKER-SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE "RAKED" LIGHTLY TO COVER SEED WITH SOIL IF SEEDED BY HAND.

MULCHING

TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO Ds1 – DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

IRRIGATION

DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

Ds-2 DISTURBED AREA STABILIZATION w/ TEMPORARY SEEDING

2016

PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS 1/

SPECIES	BROADCAST RATES 2/ – PLS 3/ PER ACRE	BROADCAST RATES 2/ – PLS 3/ PER 1000 S.F.	RESOURCE AREA 4/	PLANTING DATES J F M A M J J A S O N D	REMARKS
BARLEY (Hordeum vulgare) ALONE IN MIXTURES	144 LBS. 24 LBS.	3.3 LBS. 0.6 LBS.	M-L P C	J F M A M J J A S O N D	14,000 SEED PER POUND WINTERHARDY. USE ON PRODUCTIVE SOILS.
LESPEDEZA, ANNUAL (Lespedeza striata) ALONE IN MIXTURES	40 LBS. 10 LBS.	0.9 LBS. 0.2 LBS.	M-L P C	J F M A M J J A S O N D	200,000 SEED PER POUND. MAY VOLUNTEER FOR SEVERAL YEARS. USE INOCULANT EL.
LOVEGRASS, WEEPING (Eragrotis curvula) ALONE IN MIXTURES	4 LBS. 2 LBS.	0.1 LBS. 0.05 LBS.	M-L P C	J F M A M J J A S O N D	1,500,000 SEED PER POUND. MAY LAST FOR SEVERAL YEARS. MIX WITH SERICEA LESPEDEZA
MILLET, BROWNTOP (Panicum fasciculatum) ALONE IN MIXTURES	40 LBS. 10 LBS.	0.9 LBS. 0.2 LBS.	M-L P C	J F M A M J J A S O N D	137,000 SEED PER POUND. QUICK DENSE COVER. WILL PROVIDE TOO MUCH COMPETITION IN MIXTURES IF SEEDED AT HIGH RATES.
RYE (Secale cereale) ALONE IN MIXTURES	168 LBS. 28 LBS.	3.9 LBS. 0.6 LBS.	M-L P C	J F M A M J J A S O N D	18,000 SEED PER POUND. QUICK COVER. DROUGHT TOLERANT AND WINTERHARDY.
RYEGRASS, ANNUAL (Lolium temulentum) ALONE	40 LBS.	0.9 LBS.	M-L P C	J F M A M J J A S O N D	227,000 SEED PER POUND. DENSE COVER. VERY COMPETITIVE AND IS NOT TO BE USED IN MIXTURES.
MILLET, PEARL (Panicum glaucum) ALONE	50 LBS.	1.1 LBS.	M-L P C	J F M A M J J A S O N D	88,000 SEED PER POUND. QUICK, DENSE COVER. MAY REACH 5 FEET IN HEIGHT. NOT RECOMMENDED FOR MIXTURES.
OATS (Avena sativa) ALONE IN MIXTURES	128 LBS. 32 LBS.	2.9 LBS. 0.7 LBS.	M-L P C	J F M A M J J A S O N D	13,000 SEED PER POUND. USE ON PRODUCTIVE SOILS. NOT AS WINTERHARDY AS RYE OR BARLEY.
SUDAN GRASS (Sorghum sudanese) ALONE	60 LBS.	1.4 LBS.	M-L P C	J F M A M J J A S O N D	55,000 SEED PER POUND. GOOD NOT ON DROUGHT SITES. RECOMMENDED FOR MIXTURES.
TRITICALE (X-Triticosecale) ALONE IN MIXTURES	144 LBS. 24 LBS.	3.3 LBS. 0.6 LBS.	C	J F M A M J J A S O N D	USE ON LOWER PART OF SOUTHERN COASTAL PLAIN AND IN ATLANTIC COASTAL FLATWOODS ONLY.
WHEAT (Triticum aestivum) ALONE IN MIXTURES	180 LBS. 30 LBS.	4.1 LBS. 0.7 LBS.	M-L P C	J F M A M J J A S O N D	15,000 SEED PER POUND. WINTERHARDY.

1/ TEMPORARY COVER CROPS ARE VERY COMPETITIVE AND WILL CROWN OUT PERENNIALS IF SEEDED TOO HEAVILY.
2/ REDUCE SEEDING RATES BY 50% WHEN DRILLED.
3/ PLS IS AN ABBREVIATION FOR PURE LIVE SEED.
4/ M-L REPRESENTS TO MOUNTAIN; BLUE RIDGE; AND RIDGES AND VALLEYS MLRA'S
P REPRESENTS THE SOUTHERN PIEDMONT MLRA
C REPRESENTS THE SOUTHERN COASTAL PLAIN; SAND HILLS; BLACK LANDS; AND ATLANTIC COAST FLATWOODS MLRAs

DEFINITION

A PERMANENT VEGETATIVE COVER USING SODS ON HIGHLY ERODIBLE OR CRITICALLY ERODED LANDS.

CONDITIONS

THIS APPLICATION IS APPROPRIATE FOR AREAS WHICH REQUIRE IMMEDIATE VEGETATIVE COVERS, DROP INLETS, GRASS SWALES, AND WATERWAYS WITH INTERMITTENT FLOW.

PLANNING CONSIDERATIONS

SODDING CAN INITIALLY BE MORE COSTLY THAN SEEDING, BUT THE ADVANTAGES JUSTIFY THE INCREASED INITIAL COSTS.

1. IMMEDIATE EROSION CONTROL, GREEN SURFACE, AND QUICK USE.
2. REDUCED FAILURE AS COMPARED TO SEED AS WELL AS THE LACK OF WEEDS
3. CAN BE ESTABLISHED NEARLY YEAR-ROUND.

SODDING IS PREFERABLE TO SEED IN WATERWAYS AND SWALES BECAUSE OF THE IMMEDIATE PROTECTION OF THE CHANNEL AFTER APPLICATION. SODDING MUST BE STAKED IN CONCENTRATED FLOW AREAS (SEE FIGURE 6-6.1) CONSIDER USING SOD FRAMED AROUND DROP INLETS TO REDUCE SEDIMENTS AND MAINTAINING THE GRADE.

CONSTRUCTION SPECIFICATIONS INSTALLATION

SOIL PREPARATION

BRING SOIL SURFACE TO FINAL GRADE. CLEAR SURFACE OF TRASH, WOODY DEBRIS, STONES AND CLODS LARGER THAN 1". APPLY SOD TO SOIL SURFACES ONLY AND NOT FROZEN SURFACES, OR GRAVEL TYPE SOILS.TOPSOIL PROPERLY APPLIED WILL HELP GUARANTEE A STAND. DON'T USE TOPSOIL RECENTLY TREATED WITH HERBICIDES OR SOIL STERILANTS. MIX FERTILIZER INTO SOIL SURFACE. FERTILIZE BASED ON SOIL TESTS OR TABLE 6-6.1.

INSTALLATION

LAY SOD WITH TIGHT JOINTS AND IN STRAIGHT LINES. DON'T OVERLAP JOINTS. STAGGER JOINTS AND DO NOT STRETCH SOD (SEE FIGURE 6-6.2) ON SLOPES STEEPER THAN 3:1. SOD SHOULD BE ANCHORED WITH PINS OR OTHER APPROVED METHODS. INSTALLED SOD SHOULD BE ROLLED OR TAMPED TO PROVIDE GOOD CONTACT BETWEEN SOD AND SOIL. IRRIGATE SOD AND SOIL TO A DEPTH OF 4" IMMEDIATELY AFTER INSTALLATION. SOD SHOULD NOT BE CUT OR SPREAD IN EXTREMELY WET OR DRY WEATHER. IRRIGATION SHOULD BE USED TO SUPPLEMENT RAINFALL FOR A MINIMUM OF 2-3 WEEKS.

MATERIALS

SOD SELECTED SHOULD BE CERTIFIED. SOD GROWN IN THE GENERAL AREA OF THE PROJECT IS DESIRABLE.

1. SOD SHOULD BE MACHINE CUT AND CONTAIN 3/4" (+ OR – 1/4 ") OF SOIL, NOT INCLUDING SHOOTS OR THATCH.
2. SOD SHOULD BE CUT TO THE DESIRED SIZE WITHIN + OR –5% TORN OR UNEVEN PADS SHOULD BE REJECTED.
3. SOD SHOULD BE CUT AND INSTALLED WITHIN 36 HOURS OF DIGGING.
4. AVOID PLANTING WHEN SUBJECT TO FROST HEAVE OR HOT WEATHER IF IRRIGATION IS NOT AVAILABLE
5. THE SOD TYPE SHOULD BE SHOWN ON THE PLANS OR INSTALLED ACCORDING TO TABLE 6-6.2. SEE FIGURE 6-4.1 FOR YOUR RESOURCE AREA.

MAINTENANCE

RE-SOD AREAS WHERE AN ADEQUATE STAND OF SOD IS NOT OBTAINED. NEW SOD SHOULD BE MOWED SPARINGLY. GRASS HEIGHT SHOULD NOT BE CUT LESS THAN 2"-3" OR AS SPECIFIED (SEE FIGURE 6-6.2). APPLY ONE TON OF AGRICULTURAL LIME AS INDICATED BY SOIL TESTS AND EVERY 4-6 YEARS. FERTILIZE GRASSES IN ACCORDANCE WITH SOIL TESTS OR TABLE 6-6.3

FERTILIZER REQUIREMENTS FOR SOD

TYPES OF SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATE (lbs./acre)	NITROGEN TOP DRESSING RATE (lbs./acre)
COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 1000 400	50-100 -- 30
WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 800 400	50-100 50-100 30

FERTILIZER REQUIREMENTS FOR SOIL SURFACE APPLICATION

FERTILIZER TYPE	FERTILIZER RATE (lbs/acre)	FERTILIZER RATE (lbs/sq ft)	SEASON
10-10-10	1000	.025	FALL

AGRICULTURAL LIME SHOULD BE APPLIED BASED ON SOIL TESTS OR AT A RATE OF 1 TO 2 TONS PER ACRE.

SOD PLANTING REQUIREMENTS

GRASS	VARIETIES	RESOURCE AREA	GROWING SEASON
BERMUDAGRASS	COMMON TIFWAY TIFGREEN TIFLAWN	M-L,P,C P,C P,C P,C	WARM WEATHER
BAHIAGRASS	PENSACOLA	P,C	WARM WEATHER
CENTIPEDE	–	P,C	WARM WEATHER
ST. AUGUSTINE	COMMON BITTERBLUE RALEIGH	C	WARM WEATHER
ZOYSIA	EMERALD MYER	P,C	WARM WEATHER
TALL FESCUE	KENTUCKY	M-L,P	COOL WEATHER

Ds-4 DISTURBED AREA STABILIZATION W/ SODDING

N.T.S.

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No.	Description	REVISION By	Appr.	Date

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

EROSION CONTROL DETAIL (1 OF 3)

Sheet Number

C-08

Ds-3 DISTURBED AREA STABILIZATION w/ PERMANENT VEGETATION

THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

INSTRUCTIONS

THIS PRACTICE SHALL BE APPLIED IMMEDIATELY TO ROUGH GRADED AREAS THAT WILL BE UNDISTURBED FOR LONGER THAN SIX MONTHS. THIS PRACTICE OR SODDING SHALL BE APPLIED IMMEDIATELY TO ALL AREAS AT FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, AND THAT FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, AT LEAST 70% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS THE USE OF RIP RAP, GABIONS, PERMANENT MULCHES OR GEOTEXTILES) HAVE BEEN EMPLOYED. PERMANENT VEGETATION SHALL CONSIST OF: PLANTED TREES, SHRUBS, PERENNIAL VINES; A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE REGION, SUCH THAT WITHIN THE GROWING SEASON A 70% COVERAGE BY PERENNIAL VEGETATION SHALL BE ACHIEVED.
FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION. FOR LINEAR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL OR SILVICULTURAL PURPOSES, FINAL STABILIZATION MAY BE ACCOMPLISHED BY STABILIZING THE DISTURBED LAND FOR ITS AGRICULTURAL OR SILVICULTURAL USE. UNTIL THIS STANDARD IS SATISFIED AND PERMANENT CONTROL MEASURES AND FACILITIES ARE OPERATIONAL, INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL NOT BE REMOVED.

PLANNING CONSIDERATIONS
1. USE CONVENTIONAL PLANTING METHODS WHERE POSSIBLE.
2. WHEN MIXED PLANTINGS ARE DONE DURING MARGINAL PLANTING PERIODS, COMPANION CROPS SHALL BE USED.
3. NO-TILL PLANTING IS EFFECTIVE WHEN PLANTING IS DONE FOLLOWING A SUMMER OR WINTER ANNUAL COVER CROP.
4. BLOCK SOD PROVIDES IMMEDIATE COVER. IT IS ESPECIALLY EFFECTIVE IN CONTROLLING EROSION ADJACENT TO CONCRETE FLUMES AND OTHER STRUCTURES. REFER TO Ds-4 DISTURBED AREA STABILIZATION (WITH SODDING).
5. IRRIGATION SHOULD BE USED WHEN THE SOIL IS DRY OR WHEN SUMMER PLANTINGS ARE DONE.
6. LOW MAINTENANCE PLANTS, AS WELL AS NATIVES, SHOULD BE USED TO ENSURE LONG LASTING EROSION CONTROL.
7. MOWING SHOULD NOT BE PERFORMED DURING THE QUAIL NESTING SEASON (MAY TO SEPT.) WILDLIFE PLANTINGS SHOULD BE INCLUDED IN CRITICAL AREA PLANTINGS. SEE MANUAL FOR PLANT LIST.

GRADING & SHAPING

GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT. WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING AND MAINTENANCE OF THE VEGETATION. CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

LIME AND FERTILIZER APPLICATION

WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INNOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INNOCULANT, IF NEEDED, SHALL BE MIXED WITH THE SEED PRIOR TO BEING PLACED INTO THE HYDRAULIC SEEDER. THE SLURRY MIXTURE WILL BE AGITATED DURING APPLICATION TO KEEP THE INGREDIENTS THOROUGHLY MIXED. THE MIXTURE WILL BE SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER.

FINELY GROUND LIMESTONE WILL BE MIXED WITH WATER AND APPLIED IMMEDIATELY AFTER MULCHING IS COMPLETED OR IN COMBINATION WITH THE TOP DRESSING. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS.
1. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEEDBED PREPARATION.
2. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS.
3. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED OR TRENCHED.
4. A FERTILIZER PELLET SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH TREE SEEDLING.

LIME AND FERTILIZER RATES AND ANALYSIS

AGRICULTURAL LIME IS REQUIRED AT A RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.

LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIMESTONE." GROUND LIMESTONE IS CALCITIC OR DOLOMITIC LIMESTONE GROUND SO THAT 90% OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE, NOT LESS THAN 50% WILL PASS THROUGH A 50-MESH SIEVE AND NOT LESS THAN 25 PERCENT WILL PASS THROUGH A 100-MESH SIEVE.

LIME AND FERTILIZER RATES AND ANALYSIS CONT

AGRICULTURAL LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHALL BE "FINELY GROUND LIMESTONE." FINELY GROUND LIMESTONE IS CALCITIC OR DOLOMITIC LIMESTONE GROUND SO THAT 98% OF THE MATERIAL WILL PASS THROUGH A 20-MESH SIEVE AND NOT LESS THAN 70% WILL PASS THROUGH A 100-MESH SIEVE.

IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN AND ATLANTIC COAST FLATWOODS MLRA'S. (SEE MANUAL). AGRICULTURAL LIME IS GENERALLY NOT REQUIRED WHERE ONLY TREES ARE PLANTED. INITIAL FERTILIZATION, NITROGEN, TOPDRESSING, AND MAINTENANCE FERTILIZER REQUIREMENTS FOR EACH SPECIES OR COMBINATION OF SPECIES ARE LISTED IN TABLE 6-5.1.

PLANT SELECTION

REFER TO TABLE BELOW FOR APPROVED SPECIES. SPECIES NOT LISTED SHALL BE APPROVED BY THE OWNER AND THE STATE RESOURCE CONSERVATIONIST OF THE NATURAL RESOURCE CONSERVATION SERVICE BEFORE THEY ARE USED. PLANTS SHALL BE SELECTED ON THE BASIS OF SPECIES CHARACTERISTICS, SITE AND SOIL CONDITIONS, PLANNED USE AND MAINTENANCE OF THE AREA; TIME OF YEAR OF PLANTING, METHOD OF PLANTING; AND THE NEEDS AND DESIRES OF THE LAND USER. SOME PERENNIAL SPECIES ARE EASILY ESTABLISHED AND CAN BE PLANTED ALONE. EXAMPLES OF THESE ARE COMMON BERMUDA, TALL FESCUE AND WEEPING LOVEGRASS. THE ADDITIONAL SPECIES WILL PROVIDE QUICK COVER AND AMPLE SOIL PROTECTION UNTIL THE TARGET PERENNIAL SPECIES BECOME ESTABLISHED. FOR EXAMPLE COMMON SEEDING COMBINATIONS INCLUDE: WEEPING LOVEGRASS WITH SERICEA LESPEDEZA (SCARIFIED) AND TALL FESCUE WITH SERICEA LESPEDEZA (UNSCARIFIED).

PLANT SELECTION MAY ALSO INCLUDE ANNUAL COMPANION CROPS. ANNUAL COMPANION CROPS SHOULD BE USED ONLY WHEN THE PERENNIAL SPECIES ARE NOT PLANTED DURING THEIR OPTIMUM PLANTING PERIOD. A COMMON MIXTURE IS BROWN TOP MILLET WITH COMMON BERMUDA IN MID-SUMMER. CARE SHOULD BE TAKEN IN SELECTING COMPANION CROP SPECIES AND SEEDING RATES BECAUSE ANNUAL CROPS WILL COMPETE WITH PERENNIAL SPECIES FOR WATER, NUTRIENTS AND GROWING SPACE. A HIGH SEEDING RATE OF THE COMPANION CROP MAY PREVENT THE ESTABLISHMENT OF PERENNIAL SPECIES. RYEGRASS SHALL NOT BE USED IN ANY SEEDING MIXTURES CONTAINING PERENNIAL SPECIES DUE TO ITS ABILITY TO OUT-COMPETE DESIRED SPECIES CHOSEN FOR PERMANENT PERENNIAL COVER.

SEED QUALITY

THE TERM "PURE LIVE SEED" IS USED TO EXPRESS THE QUALITY OF SEED AND IS NOT SHOWN ON THE LABEL. PURE LIVE SEED, PLS, IS EXPRESSED AS A PERCENTAGE OF THE SEEDS THAT ARE PURE AND WILL GERMINATE. INFORMATION ON PERCENT GERMINATION AND PURITY CAN BE FOUND ON SEED TAGS. PLS IS DETERMINED BY MULTIPLYING THE PERCENT OF PURE SEED WITH THE PERCENT OF GERMINATION; I.E., PLS = % GERMINATION x % PURITY

THE PERCENT OF PLS HELPS YOU DETERMINE THE AMOUNT OF SEED YOU NEED. FOR EXAMPLE IF THE SEEDING RATE IS 10 POUNDS PLS AND THE BULK SEED IS 56% PLS,

THE BULK SEEDING RATE IS: $\frac{\text{10 LBS. OF PLS / ACRE}}{\text{56\% PLS}} = \text{17.9 LBS / ACRE}$

YOU WOULD NEED TO PLANT 17.9 LBS/ACRE TO PROVIDE 10 LBS/ACRE OF PURE LIVE SEED.

SEEDBED PREPARATION

SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS:

BROADCAST PLANTINGS:
1. TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 IN. ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.
2. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
3. TILLAGE SHOULD BE DONE ON THE CONTOUR, WHERE FEASIBLE.
4. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 IN. APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

INDIVIDUAL PLANTS

1. WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES, OPENING FURROWS, OR DIBBLE PLANTING.
2. FOR NURSERY STOCK PLANTS, HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT CROWDING.
3. WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN AUGUST OR SEPTEMBER.

INNOCULANTS
ALL LEGUME SEED SHALL BE INOCULATED WITH APPROPRIATE NITROGEN-FIXING BACTERIA. THE INNOCULANT SHALL BE A PURE CULTURE PREPARED SPECIFICALLY FOR THE SEED SPECIES AND USED WITHIN THE DATES ON THE CONTAINER. A MIXING MEDIUM RECOMMENDED BY THE MANUFACTURER SHALL BE USED TO BOND THE INNOCULANT TO THE SEED. FOR CONVENTIONAL SEEDING, USE TWICE THE AMOUNT OF INNOCULANT RECOMMENDED BY THE MANUFACTURER. FOR HYDRAULIC SEEDING, FOUR TIMES THE AMOUNT OF INNOCULANT RECOMMENDED BY THE MANUFACTURER SHALL BE USED. ALL INOCULATED SEED SHALL BE PROTECTED FROM THE SUN AND HIGH TEMPERATURES AND SHALL BE PLANTED THE SAME DAY INOCULATED. NO INOCULATED SEED SHALL REMAIN IN THE HYDROSEEDER LONGER THAN ONE HOUR.

PLANTS, PLANTING RATES, AND PLANTING DATES

SPECIES	BROADCAST RATES 1/ - PLS 2/ PER ACRE	PER 1000 sq. ft.	RESOURCE AREA 3/	PLANTING DATES BY RESOURCE AREAS — PLANTING DATES (SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES.) J F M A M J J A S O N D	REMARKS
FESCUE, TALL (FESTUCA ARUNDINACEA) ALONE	50 LBS.	1.1 LB.	M-L		227,000 SEED PER POUND. USE ALONE ONLY ON BETTER SITES. NOT FOR DROUGHTY SOILS. APPLY TOPDRESSING IN SPRING FOLLOWING FALL PLANTINGS. NOT FOR HEAVY USE AREAS OR ATHLETIC FIELDS.
BERMUDA, COMMON (CYNODON DACTYLON)			P, C		1,787,000 SEED PER POUND. QUICK COVER. LOW GROWING AND SOD FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS.
ALONE	10 LBS	0.2 LB			
WITH OTHER PERENNIALS	6 LBS	0.1 LB			
BERMUDA, COMMON (CYNODON DACTYLON) UNHULLED SEED			P, C		
WITH TEMPORARY COVER	10 LBS	0.2 LB			PLANT WITH WINTER ANNUALS.
WITH OTHER PERENNIALS	6 LBS	0.1 LB			PLANT WITH TALL FESCUE.
BERMUDA SPRIGS (CYNODON DACTYLON)	40 CU. FT OR SOD PLUGS 3' X 3'	0.9 CU. FT.	M-L		
COASTAL, COMMON, MIDLAND, OR TIFT 44					A CUBIC FOOT CONTAINS APPROXIMATELY 650 SPRIGS. A BUSHEL CONTAINS 1.25 CUBIC FEET OR APPROXIMATELY 800 SPRIGS.
COASTAL, COMMON, OR TIFT 44			P, C		SAME AS ABOVE
TIFT 78			C		SOUTHERN COASTAL PLAIN ONLY.
CENTIPEDE (ERMOCHLOA OPHIUROIDES)	BLOCK SOD ONLY		P, C		DROUGHT TOLERANT. FULL SUN OR PARTIAL SHADE. EFFECTIVE ADJACENT TO CONCRETE AND IN CONCENTRATED FLOW AREAS. IRRIGATION IS NEEDED UNTIL FULLY ESTABLISHED. DO NOT PLANT NEAR PASTURES. WINTERHARDY AS FAR NORTH AS ATHENS AND ATLANTA.
LOVEGRASS, WEEPING (ERAGROSTIS CURVULA)			M-L, P, C		1,500,000 SEED PER POUND. QUICK COVER. DROUGHT TOLERANT. GROWS WELL WITH SERICEA LESPEDEZA ON ROADBANKS
ALONE	4 LBS	0.1 LB			
WITH OTHER PERENNIALS	2 LBS	0.05 LB			

PLANTING
HYDRAULIC SEEDING: MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.
CONVENTIONAL SEEDING: SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER-SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.
NO-TILL SEEDING: NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.
INDIVIDUAL PLANTS: SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS. NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TOPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE. WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOE, TWO INCHES OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN THE HOLE.

MULCHING
MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED.

DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONES PER ACRE.
WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER THE HYDRAULIC SEEDING.
ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 4:1 OR STEEPER
SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.

PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH
STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

ANCHORING MULCH
ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS.:
EMULSIFIED ASPHALT CAN BE (A) SPRAYED UNIFORMLY ONTO THE MULCH AS IT IS EJECTED FROM THE BLOWER MACHINE OR (B) SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT. THE COMBINATION OF ASPHALT EMULSION AND WATER SHALL CONSIST OF A HOMOGENEOUS MIXTURE SATISFACTORY FOR SPRAYING. THE MIXTURE SHALL CONSIST OF 100 GALLONS OF WATER PER TON OF MULCH. CARE SHALL BE TAKEN AT ALL TIMES TO PROTECT STATE WATERS, THE PUBLIC, ADJACENT PROPERTY, PAVEMENTS, CURBS, SIDEWALKS AND OTHER STRUCTURES FROM ASPHALT DISCOLORATION. 2. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL. 3. SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. REFER TO Tb - TACKIFIERS AND BINDERS. 4. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE-HALF BUSHEL PER ACRE. 5. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

BEDDING MATERIAL: MULCH USED AS A BEDDING MATERIAL TO CONSERVE MOISTURE AND CONTROL WEEDS IN NURSERIES, ORNAMENTAL BEDS, AROUND SHRUBS, AND ON BARE AREAS ON LAWNS.

MATERIAL	DEPTH
GRAIN STRAW	4" TO 6"
GRASS HAY	4" TO 6"
PINE NEEDLES	3" TO 5"
WOOD WASTE	4" TO 6"

IRRIGATION: IRRIGATION WILL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF.

TOPDRESSING: WILL BE APPLIED ON ALL TEMPORARY AND PERMANENT (PERENNIAL) SPECIES PLANTED ALONE OR IN MIXTURES WITH OTHER SPECIES. RECOMMENDED RATES OF APPLICATION ARE LISTED IN TABLE 6-5.1

SECOND YEAR AND MAINTENANCE FERTILIZATION: SECOND YEAR FERTILIZER RATES AND MAINTENANCE FERTILIZER RATES ARE LISTED IN TABLE 6-5.1

LIME MAINTENANCE APPLICATION: APPLY ONE TON OF AGRICULTURAL LIME EVERY 4 TO 6 YEARS OR AS INDICATED BY SOIL TESTS. SOIL TESTS CAN BE CONDUCTED TO DETERMINE MORE ACCURATE REQUIREMENTS IF DESIRED.

USE AND MANAGEMENT: MOW SERICEA LESPEDEZA ONLY AFTER FROST TO ENSURE THAT THE SEEDS ARE MATURE. MOW BETWEEN NOVEMBER AND MARCH. BERMUDAGRASS, BAHIAGRASS AND TALL FESCUE MAY BE MOWED AS DESIRED. MAINTAIN AT LEAST 6 INCHES OF TOP GROWTH UNDER ANY USE AND MANAGEMENT. MODERATE USE OF TOP GROWTH IS BENEFICIAL AFTER ESTABLISHMENT. EXCLUDE TRAFFIC UNTIL THE PLANTS ARE WELL ESTABLISHED. BECAUSE OF THE QUAIL NESTING SEASON, MOWING SHOULD NOT TAKE PLACE BETWEEN MAY AND SEPTEMBER.

		ANALYSIS OR EQUIVALENT N-P-K		N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	50-100 LBS./AC. 1/ 2/ -- 30
2. COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	0-50 LBS./AC. 1/ -- --
3. GROUND COVERS	FIRST SECOND MAINTENANCE	10-10-10 10-10-10 10-10-10	1300 LBS./AC. 3/ 1300 LBS./AC. 3/ 1100 LBS./AC.	-- -- --
4. PINE SEEDLINGS	FIRST	20-10-5	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	--
5. SHRUB LESPEDEZA	FIRST MAINTENANCE	0-10-10 0-10-10	700 LBS./AC. 700 LBS./AC. 4/	--
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10-10-10	500 LBS./AC.	30 LBS./AC. 5/
7. WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC. 800 LBS./AC. 400 LBS./AC.	50-100 LBS./AC. 2/ 6/ 50-100 LBS./AC. 2/ 30 LBS./AC.
8. WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	50 LBS./AC. 6/

1/ APPLY IN SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3/ APPLY IN 3 SPLIT APPLICATIONS.
4/ APPLY WHEN PLANTS ARE PRUNED.
5/ APPLY TO GRASS SPECIES ONLY.
6/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

Ds-1 DISTURBED AREA STABILIZATION w/MULCHING ONLY (2016)

SPECIFICATIONS

MULCHING WITHOUT SEEDING

THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION

1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.
3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

MULCHING MATERIALS

SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:
1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
2. WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
3. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE-USED.

APPLYING MULCH

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.
1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
3. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

ANCHORING MULCH

1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK". DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION.

   STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED. TACKIFIERS, BINDERS AND HYDRAULIC MULCH WITH TACKIFIER SPECIFICALLY DESIGNED FOR TACKING STRAW CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION TACKIFIERS. PLASTIC MESH OR
   NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

Ds-1 DISTURBED AREA STABILIZATION w/MULCHING ONLY
2016

Du DUST CONTROL ON DISTURBED AREAS (2016)

DEFINITION

CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS, AND DEMOLITION SITES.

PURPOSE

-TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES
-TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE, OR SAFETY, OR TO ANIMALS OR PLANT LIFE.

CONDITIONS

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

METHODS AND MATERIALS

TEMPORARY METHODS:

MULCHES SEE STANDARD Ds1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD Tac-TACKIFIERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER SEE STANDARD Ds2 - DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

SPRAY-ON ADHESIVES THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD Tac.

TILLAGE THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF THE SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

IRRIGATION THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS SOLID BOARD FENCES, SNOWFENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

CALCIUM CHLORIDE APPLY AT A RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS:

PERMANENT VEGETATION SEE STANDARD Ds3 - DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD Tp-TOPSOILING.

STONE COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD Cr-CONSTRUCTION ROAD STABILIZATION.

Du DUST CONTROL ON DISTURBED AREAS
2016

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, DULUTH, GA 30096
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65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

REVISION

No.	Description	By	App.	Date

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 23275 STEPHEN MARK BOND
GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title
UNION COUNTY 911 CENTER

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title
EROSION CONTROL DETAIL (2 OF 3)

Sheet Number
C-09

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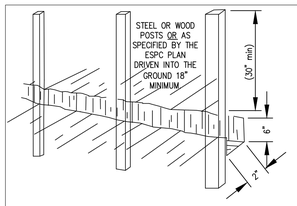
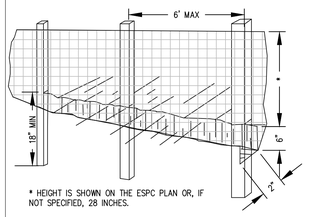
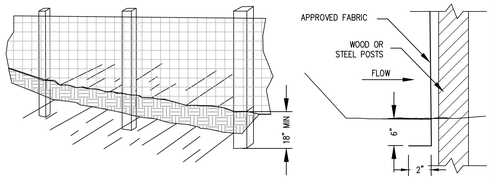


NOTES:
1. TYPE NS SEDIMENT BARRIERS SHALL HAVE A P-FACTOR NO GREATER THAN 0.045.
2. POSTS SHALL BE SPACED NO FARTHER THAN 6'.
3. POSTS SHALL BE DRIVEN A MINIMUM OF 18" INTO THE GROUND.

INSTALLATION:
1. POST INSTALLATION SHALL START AT THE CENTER OF A LOW POINT (IF APPLICABLE)
2. POST SIZE LENGTH = 4 FEET:
   - 2.1. SOFT WOOD = 3" DIA OR 2"X4"
   - 2.2. OAK = 1.5" X 1.5"
   - 2.3. STEEL = 1.3 LB/FT (MIN)
3. FASTENERS:
   - 3.1. WIRE STAPLES–GAUGE 17 (MIN)–3/4"W CROWN, LEGS=½" LONG, 5 (MIN) STAPLES/POST.
   - 3.2. GAUGE 14 (MIN), 1" LONG, ¾" BUTTON HEAD, 4 (MIN) NAIL/POST
   - 3.3. FILTER FABRIC MAY ALSO BE ATTACHED TO POST BY WIRE, CHORS, AND POCKETS OR ANY OTHER METHOD PROVIDED MINIMUM P-FACTOR, AS REQUIRED BY GSWCC, IS MET.
4. INSTALL USING STATIC SLICING METHOD OR TRENCHING METHOD.



* HEIGHT IS SHOWN ON THE ESPC PLAN OR, IF NOT SPECIFIED, 28 INCHES.

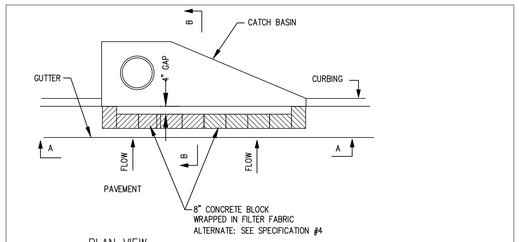


SILT FENCE SECTION

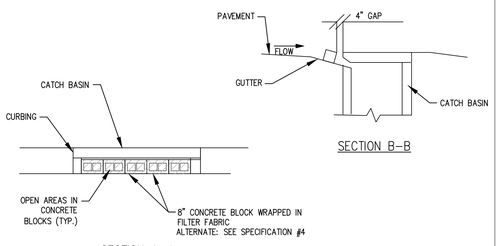
MAINTENANCE REQUIREMENTS

SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE–HALF THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY 6 MONTHS) OR THE HEIGHT OF THE PRODUCT IS NOT MAINTAINING 80% OF ITS PROPERLY INSTALLED HEIGHT. TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

Sd1–NS SEDIMENT BARRIER – NONSENSITIVE AREAS
2014



PLAN VIEW

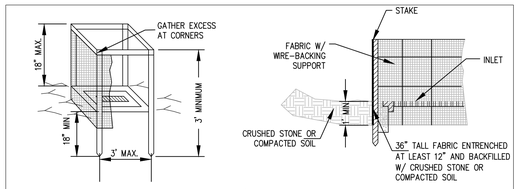


SECTION B–B

SECTION A–A

CONSTRUCTION SPECIFICATIONS:
1. ONCE PAVEMENT HAS BEEN INSTALLED, A CURB INLET FILTER SHALL BE INSTALLED ON INLETS RECEIVING RUNOFF FROM DISTURBED AREAS.
2. THIS METHOD OF INLET PROTECTION SHALL BE REMOVED IF A SAFETY HAZARD IS CREATED.
3. ONE METHOD OF CURB INLET PROTECTION USES "PIGS–IN–A–BLANKET" – 8" CONCRETE BLOCKS WRAPPED IN FILTER FABRIC.
4. THE OTHER USES GRAVEL BAGS CONSTRUCTED BY WRAPPING DOT #57 STONE WITH FILTER FABRIC, WIRE, PLASTIC MESH, OR EQUIVALENT MATERIAL.
5. A GAP OF APPROXIMATELY 4 INCHES SHALL BE LEFT BETWEEN THE INLET FILTER AND THE INLET TO ALLOW FOR OVERFLOW AND PREVENT HAZARDOUS PONDING IN THE ROADWAY.
6. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE–HALF THE HEIGHT OF THE TRAP.
7. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY.
8. SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP, DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN.
9. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY.

Sd2–P INLET SEDIMENT TRAP
N.T.S.

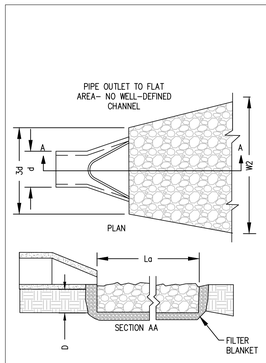


1. THIS DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS.
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAX OF 3' APART)
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHALL BE 36" TALL & ENTRENCHED 12 INCHES AND BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.
5. WIRE AND FABRIC SHALL BE SECURELY FASTENED TO THE POSTS AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18" OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

MAINTENANCE

THE TRAP SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE–HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL NOT BE WASHED INTO THE INLET, IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET, AGAIN. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

Sd2–F FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION
2016



CONSTRUCTION NOTES:

1. La IS THE LENGTH OF THE RIPRAP APRON.
2. THE MINIMUM THICKNESS OF RIPRAP, D, SHALL BE 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6". (D = Dmax X 1.5)
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 SOIL FOUNDATION.
5. ENSURE THAT THE SUBGRADE FOR THE FILTER AND THE RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENISTY STATED IN THE SPECIFICATIONS.
6. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
7. GEOTEXTILE MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLTION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER FABRIC OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MIN. OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER FABRIC.
8. RIP RAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
9. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
10. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT. IF A CURVE IS NEEDED, PLACE IT IN THE UPPER SECTION OF THE APRON.
11. STONE QUALITY–SELECT STONE FOR RIPRAP FROM FIELD STONE OR QUARRY STONE. THE STONE SHOULD BE HARD, ANGULAR AND HIGHLY WEATHER RESISTANT. THE SPECIFIC GRAVITY OF THE INDIV. STONES SHOULD BE AT LEAST 2.5
12. FILTER: INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER AND A SYNTHETIC FILTER CLOTH. APPENDIX C; P.C–1

MAINTENANCE
INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

FILTER BEDDING STONE

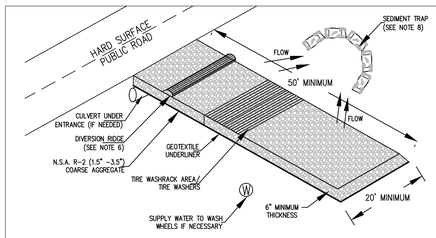
N.S.A. NO.	SIZE, INCHES (SQUARE OPENING) MAX.	AVG. 2	MIN 3
FS–1	3/8	#30 MESH	#100 MESH
FS–2	2	#4	#100 MESH
FS–3	6–1/2	2–1/2	#16

GRADED RIP RAP STONE

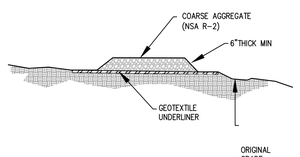
FLOW VELOCITY (FT./SEC.)	N.S.A. NO.	SIZE, INCHES (SQUARE OPENING) MAX.	AVG. 2	MIN.	FILTER STONE N.S.A. NO.
2.5	R–1	1–1/2	3/4	NO. 8	FS–1
4.5	R–2	3	1–1/2	1	FS–1
6.5	R–3	6	3	2	FS–2
9.0	R–4	12	6	3	FS–2
11.5	R–5	18	9	5	FS–2

1. NATIONAL STONE ASSOCIATION
2. AT LEAST 50% OF THE INDIVIDUAL STONE PARTICLES MUST BE EQUAL OR LARGER THAN THIS LISTED SIZE.

St STORM DRAIN OUTLET PROTECTION
2014



MAINTENANCE:
THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO THE PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5–3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ON SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.



CONSTRUCTION SPECIFICATIONS

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 AREAS 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.

Co CRUSHED STONE CONSTRUCTION ENTRANCE
FIGURE 6–14.1 2014 N.T.S.

CONSTRUCTION SPECIFICATIONS:
1. ONCE PAVEMENT HAS BEEN INSTALLED, A CURB INLET FILTER SHALL BE INSTALLED ON INLETS RECEIVING RUNOFF FROM DISTURBED AREAS.
2. THIS METHOD OF INLET PROTECTION SHALL BE REMOVED IF A SAFETY HAZARD IS CREATED.
3. USE GRAVEL BAGS CONSTRUCTED BY WRAPPING DOT #57 STONE WITH FILTER FABRIC, WIRE, PLASTIC MESH, OR EQUIVALENT MATERIAL.
4. A GAP OF APPROXIMATELY 4 INCHES SHALL BE LEFT BETWEEN THE INLET FILTER AND THE INLET TO ALLOW FOR OVERFLOW AND PREVENT HAZARDOUS PONDING IN THE ROADWAY.
5. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE–HALF THE HEIGHT OF THE TRAP.
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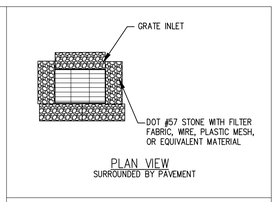
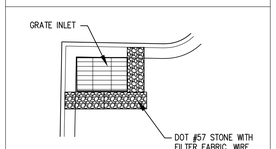
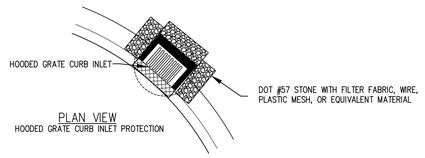
8. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY.



PLAN VIEW
SURROUNDED BY PAVEMENT



PLAN VIEW
DI's 8–6B & D–3.2 EXAMPLE



PLAN VIEW
HOODED GRATE CURB INLET PROTECTION

Sd2–P DI'S @ C&G, SURROUNDED BY PAVEMENT, & FOR CI'S
N.T.S.

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, GA 30096
T:706.632.4981

UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	Description	REVISION	By	App.	Date

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

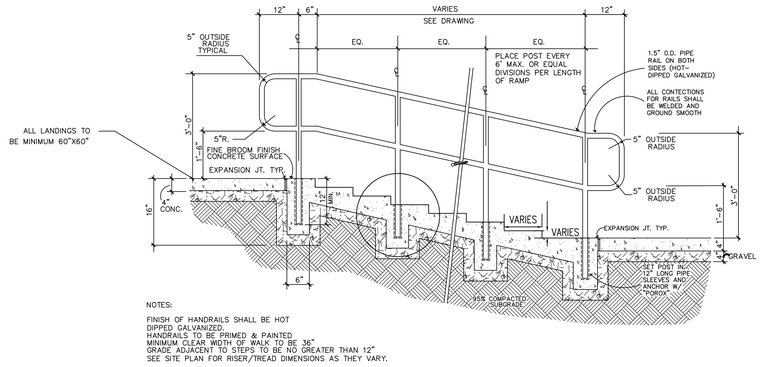
Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

EROSION CONTROL DETAIL (3 OF 3)

Sheet Number

C-10



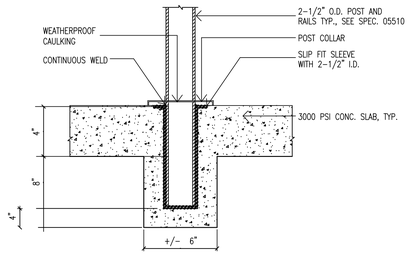
NOTES:

FINISH OF HANDRAILS SHALL BE HOT DIPPED GALVANIZED.
HANDRAILS TO BE PRIMED & PAINTED
MINIMUM CLEAR WIDTH OF WALK TO BE 36"
GRADE ADJACENT TO STEPS TO BE NO GREATER THAN 12"
SEE SITE PLAN FOR RISER/TREAD DIMENSIONS AS THEY VARY.

CONCRETE STAIR AND HANDRAIL DETAIL

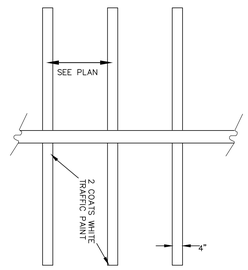
N.T.S.

NOTE: SITE STAIRS ONLY. SEE ARCHITECT PLANS FOR STAIRS ADJACENT TO BUILDING.



HANDRAIL POST DETAIL

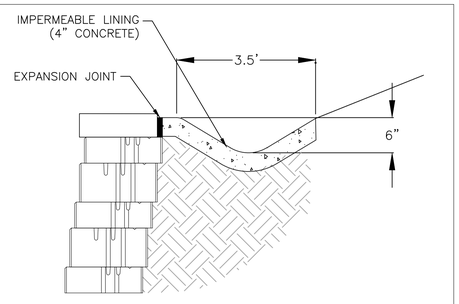
N.T.S.



NOTE: SEE SITE DEVELOPMENT PLAN FOR PARKING DIMENSIONS & LAYOUT

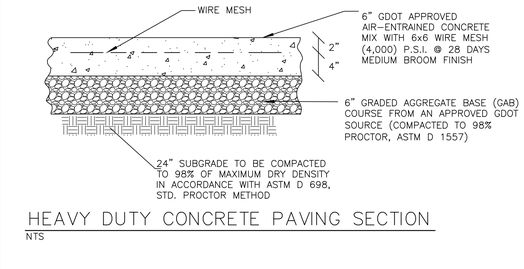
PAVEMENT STRIPING DETAIL

NTS



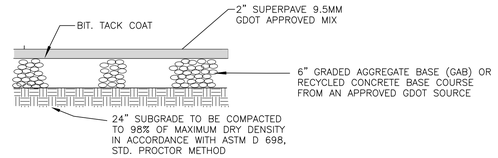
CONCRETE FLUME AT TOP OF WALL

NTS



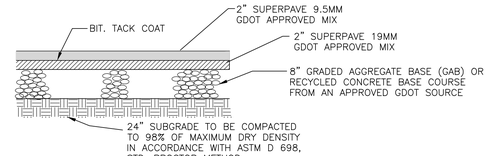
HEAVY DUTY CONCRETE PAVING SECTION

NTS



STANDARD DUTY PAVING

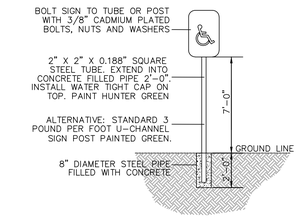
NTS



HEAVY DUTY PAVING

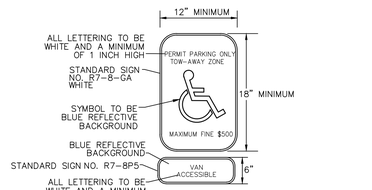
NTS

NOTE:
1. ALL GRADED AGGREGATE BASE MATERIAL SHALL MEET THE REQUIREMENTS OF THE GDOT SPECIFICATION FOR GROUP 2 AGGREGATE.
2. THE MAX. ALLOWABLE THICKNESS TO BE PLACED IN ONE COURSE IS EIGHT (8) INCHES.



HANDICAPPED PARKING SIGN PLACEMENT DETAIL

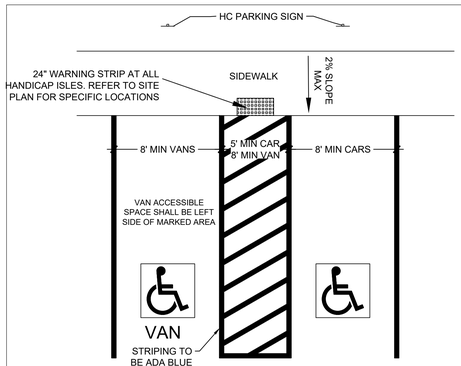
N.T.S.



1. ALL SIGNS TO BE 0.080" THICK ALUMINUM
2. ALL SIGNS SHALL CONFORM WITH ALL CURRENT A.D.A. FEDERAL, STATE, AND LOCAL CODES & REGULATIONS
3. PLACE "VAN ACCESSIBLE" SIGN IN FRONT OF VAN ACCESSIBLE SPACES ONLY.

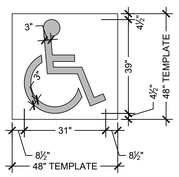
HANDICAPPED SIGN DETAIL

N.T.S.



ADA PARKING SPACE

N.T.S.

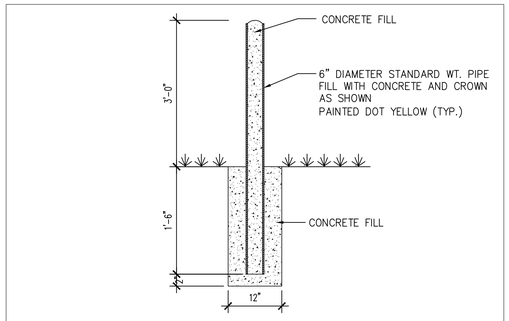


NOTES:

1. HANDICAPPED SYMBOL SHALL BE WHITE
2. BACKGROUND SHALL BE HANDICAP BLUE.
3. LOADING / UNLOADING ZONE TO BE LOCATED AT THE RIGHT OR LEFT OF ALL HANDICAPPED SPACES. (RIGHT OF VAN SPACES)
4. ALL HANDICAPPED SPACE STRIPING SHALL BE PAINTED HANDICAP BLUE.
5. CONSULT LOCAL AUTHORITIES FOR ADDITIONAL REQUIREMENTS.

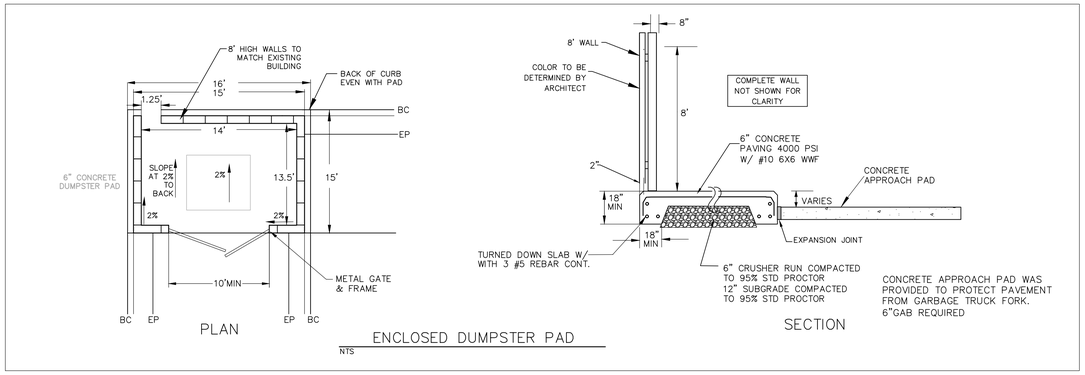
HC PARKING SYMBOL

N.T.S.



BOLLARD DETAIL

NTS



CONCRETE APPROACH PAD WAS PROVIDED TO PROTECT PAVEMENT FROM GARBAGE TRUCK FORK. 6"GAB REQUIRED

ENCLOSED DUMPSTER PAD

NTS

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, GA 30096
T:706.632.4981

UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
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No.	Description	REVISION By	App.	Date

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

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Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

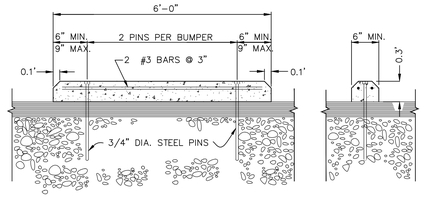
Sheet Title

CONSTRUCTION DETAILS (1 OF 2)

Sheet Number

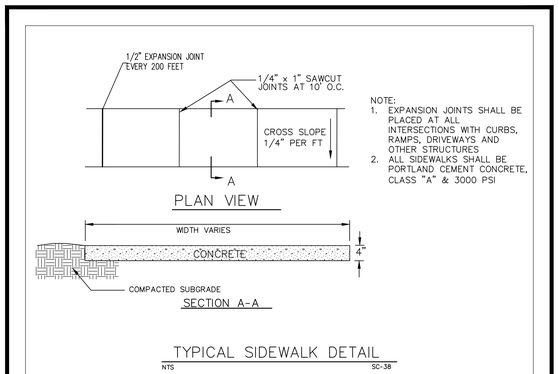
C-11

christie sims 1/21/2025 10:40 AM normal.ctb i:\projects\2024\24558e - union county 911 center\dwg\production\24558dt.dwg



NOTE:
BUMPERS SHALL BE 3000 PSI PRECAST CONCRETE AND SHALL BE AS SHOWN OR SIMILAR IN CONFIGURATION.

CURB STOP DETAIL
N.T.S.



NOTE:
1. EXPANSION JOINTS SHALL BE PLACED AT ALL INTERSECTIONS WITH CURBS, RAMPS, DRIVEWAYS AND OTHER STRUCTURES
2. ALL SIDEWALKS SHALL BE PORTLAND CEMENT CONCRETE, CLASS "A" & 3000 PSI

TYPICAL SIDEWALK DETAIL
NTS SC-38

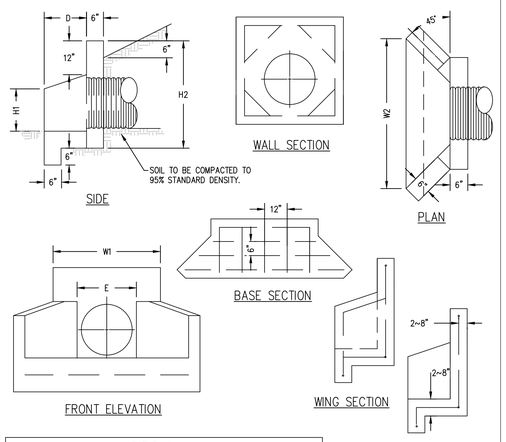
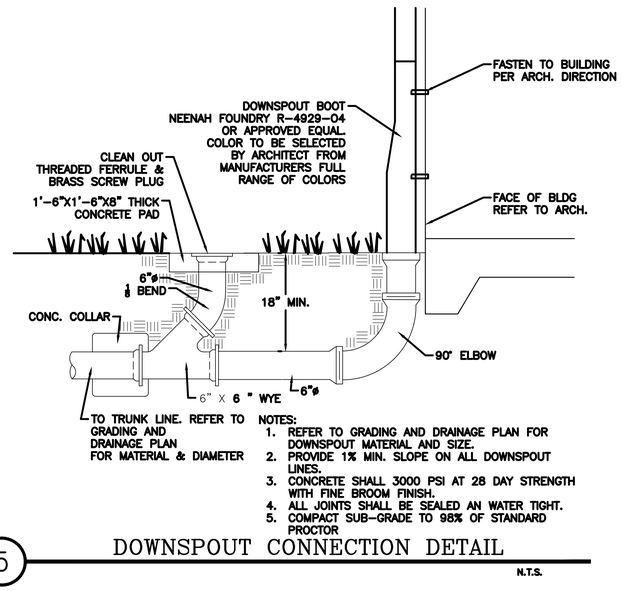


TABLE 1								
HEADWALL DIMENSIONS FOR METAL PIPE*								
INSIDE DIA. OF PIPE	W_1	W_2	H_1	H_2	D	E	WT.	BASE AREA (SQ.FT.)
18"	3'-2"	4'-10"	1'-3"	3'-2"	1'-3"	1'-9"	1,550	7.34
21",24"	3'-8"	6'-1"	1'-9"	3'-8"	1'-6"	2'-3"	2,100	9.90
30"	4'-2"	7'-2"	2'-0"	4'-2"	1'-10"	2'-9"	2,850	13.50
36"	4'-8"	8'-4"	2'-4"	4'-8"	2'-2"	3'-3"	3,700	17.65
42",48",54"	5'-8"	10'-10"	3'-3"	5'-8"	2'-11"	4'-3"	5,600	28.60

*USE NEXT LARGER SIZE FOR CONCRETE PIPE

NOTES:
1. ALL CONCRETE SHALL BE CLASS AA1 4500 PSI.
2. REINFORCEMENT STEEL SHALL BE 1/2"ø OF INTERMEDIATE GRADE.
3. CHAMFER ALL EXPOSED EDGE 3/4".

PRECAST CONCRETE HEADWALL SYSTEM
N.T.S.



NOTES:
1. REFER TO GRADING AND DRAINAGE PLAN FOR DOWNSPOUT MATERIAL AND SIZE.
2. PROVIDE 1% MIN. SLOPE ON ALL DOWNSPOUT LINES.
3. CONCRETE SHALL 3000 PSI AT 28 DAY STRENGTH WITH FINE BROOM FINISH.
4. ALL JOINTS SHALL BE SEALED AN WATER TIGHT.
5. COMPACT SUB-GRADE TO 98% OF STANDARD PROCTOR

5 DOWNSPOUT CONNECTION DETAIL
N.T.S.

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, GA 30096
T:706.632.4981

UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	Description	By	App.	Date
REVISION				

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

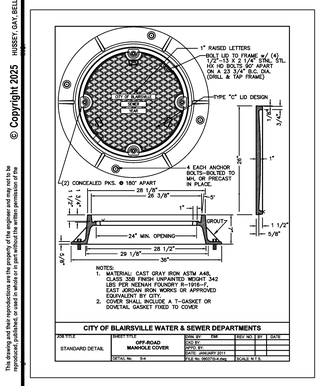
Sheet Title

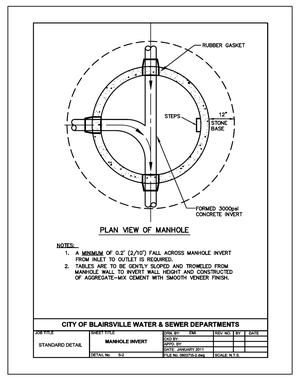
CONSTRUCTION DETAILS (2 OF 2)

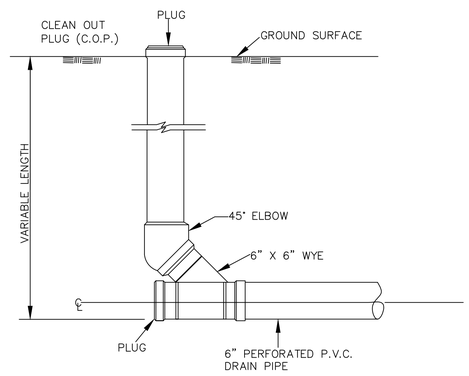
Sheet Number

C-12

christie sims 1/21/2025 10:51 AM normal.ctb i:\proj\proj\2024\24558e - union county 911 center\dwg\production\24558d1.dwg

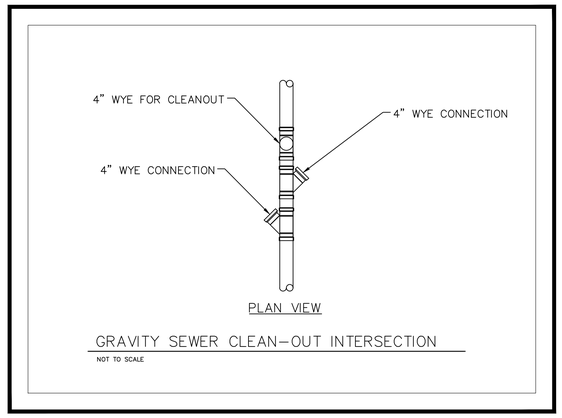






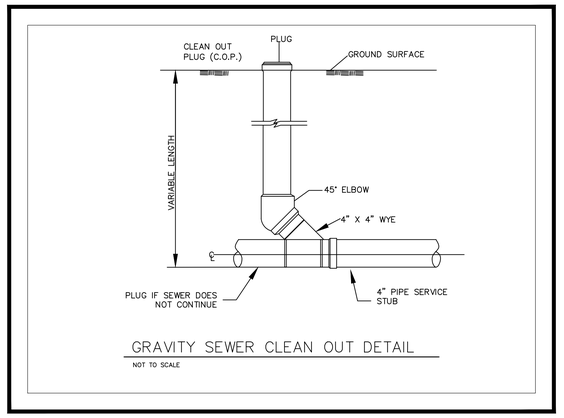
CLEAN OUT PLUG DETAIL

NOT TO SCALE SD–61



GRAVITY SEWER CLEAN–OUT INTERSECTION

NOT TO SCALE



GRAVITY SEWER CLEAN OUT DETAIL

NOT TO SCALE

Line Pressure = 150 PSI Soil Pressure = 2000 PSF				
Pipe Size X	A	B	C	D
90 DEGREE BEND				
24"	2'–7"	7'–0"	7'–0"	4'–6"
20"	2'–1"	6'–0"	6'–0"	3'–9"
18"	1'–11"	5'–6"	5'–6"	3'–6"
16"	1'–9"	5'–0"	5'–0"	3'–3"
14"	1'–7"	4'–0"	4'–0"	2'–6"
12"	1'–4"	3'–6"	3'–6"	2'–3"
10"	1'–3"	3'–0"	3'–0"	2'–0"
8"	1'–0"	2'–6"	2'–6"	1'–9"
6"	0'–11"	1'–9"	1'–9"	1'–6"
4"	0'–9"	1'–3"	1'–3"	1'–3"
45 DEGREE BEND				
24"	2'–4"	5'–6"	5'–0"	3'–9"
20"	1'–11"	4'–6"	4'–0"	3'–0"
18"	1'–9"	4'–0"	4'–0"	2'–9"
16"	1'–7"	3'–6"	3'–6"	2'–3"
14"	1'–3"	3'–0"	3'–0"	2'–0"
12"	1'–3"	3'–0"	2'–6"	2'–0"
10"	1'–3"	2'–6"	2'–0"	1'–9"
8"	1'–0"	1'–9"	1'–9"	1'–3"
6"	0'–11"	1'–6"	1'–6"	1'–0"
4"	0'–9"	1'–0"	1'–0"	1'–0"

Line Pressure = 150 PSI Soil Pressure = 2000 PSF				
Pipe Size X	A	B	C	D
11 1/4 DEGREE BEND				
24"	1'–9"	2'–9"	2'–9"	1'–0"
20"	1'–6"	2'–3"	2'–3"	1'–0"
18"	1'–4"	2'–0"	2'–0"	1'–0"
16"	1'–3"	1'–9"	1'–9"	1'–0"
14"	1'–2"	1'–6"	1'–6"	1'–0"
12"	1'–2"	1'–6"	1'–6"	1'–0"
10"	1'–0"	1'–3"	1'–3"	1'–0"
8"	0'–10"	1'–0"	1'–0"	1'–0"
6"	0'–9"	1'–0"	1'–0"	1'–0"
4"	0'–7"	1'–0"	1'–0"	1'–0"
22 1/2 DEGREE BEND				
24"	2'–0"	3'–6"	3'–6"	2'–6"
20"	1'–8"	3'–0"	3'–0"	1'–9"
18"	1'–6"	2'–9"	2'–9"	1'–6"
16"	1'–5"	2'–6"	2'–6"	1'–3"
14"	1'–4"	2'–3"	2'–3"	1'–0"
12"	1'–2"	2'–0"	2'–0"	1'–0"
10"	1'–0"	1'–9"	1'–9"	1'–0"
8"	0'–10"	1'–6"	1'–6"	1'–0"
6"	0'–9"	1'–3"	1'–3"	1'–0"
4"	0'–7"	1'–0"	1'–0"	1'–0"

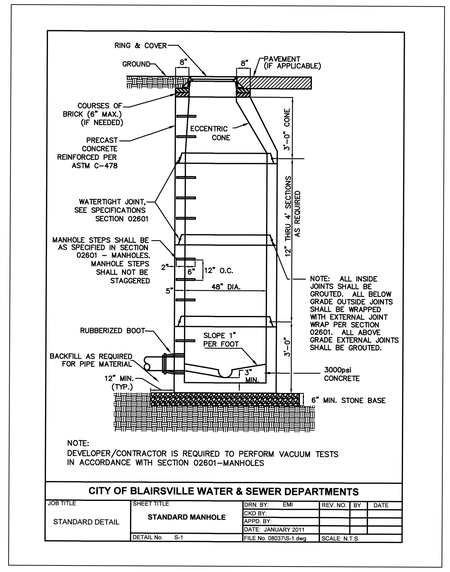
Line Pressure = 150 PSI Soil Pressure = 2000 PSF				
Pipe Size X	A	B	C	D
Unbalanced Tee & Plug				
24"	2'–10"	6'–0"	6'–0"	2'–9"
20"	2'–5"	5'–0"	5'–0"	2'–3"
18"	2'–3"	4'–6"	4'–6"	2'–0"
16"	2'–1"	4'–0"	4'–0"	1'–9"
14"	1'–11"	3'–6"	3'–6"	1'–6"
12"	1'–8"	3'–0"	3'–0"	1'–3"
10"	1'–6"	2'–6"	2'–6"	1'–0"
8"	1'–4"	2'–0"	2'–0"	1'–0"
6"	1'–2"	1'–6"	1'–6"	1'–0"
4"	1'–0"	1'–0"	1'–0"	1'–0"
Tee				
24"	2'–6"	6'–0"	6'–0"	3'–6"
20"	2'–4"	5'–0"	5'–0"	3'–0"
18"	1'–2"	4'–6"	4'–6"	2'–9"
16"	1'–6"	4'–0"	4'–0"	2'–6"
14"	1'–6"	3'–6"	3'–6"	2'–3"
12"	1'–3"	3'–0"	3'–0"	2'–0"
10"	1'–3"	2'–6"	2'–6"	1'–6"
8"	1'–0"	2'–0"	2'–0"	1'–6"
6"	0'–11"	1'–6"	1'–6"	1'–3"
4"	0'–10"	1'–0"	1'–0"	1'–0"

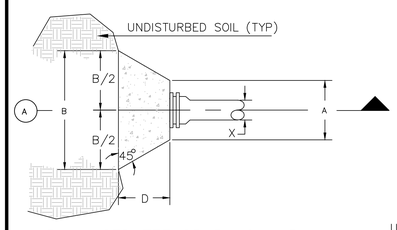
NOTES :

1. BLOCKING SHALL BE CLASS "C" CONCRETE ; "SACKCRETE" WILL NOT BE ALLOWED.
2. THE WATER LINE MUST BE LOWERED IN ORDER TO HAVE FIVE FEET (5') OF COVER AT THE BEND, TEE, REDUCER OR PLUG AT ALL LOCATIONS WHERE THESE FITTINGS MAY BE UTILIZED.
3. THE CONTRACTOR HAS THE OPTION TO USE RESTRAINED JOINTS IN LIEU OF OR IN ADDITION TO CONCRETE BLOCKING AS SPECIFIED IN SECTION 02660 OF THE SPECIFICATIONS.

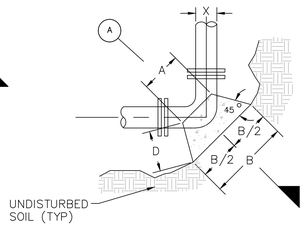
THRUST BLOCK DIMENSIONS

N.T.S.

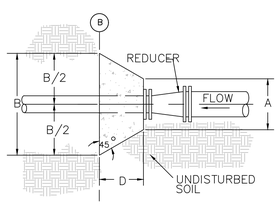




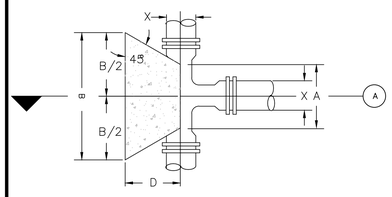
UNBALANCED TEE OR PLUG – PLAN



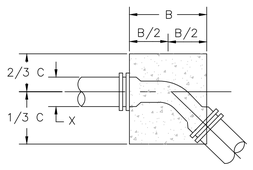
HORIZONTAL BEND – PLAN



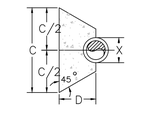
REDUCER – PLAN



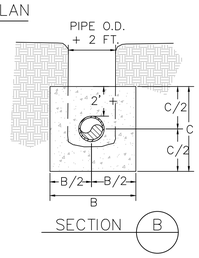
TEE – PLAN



VERTICAL BEND – ELEVATION



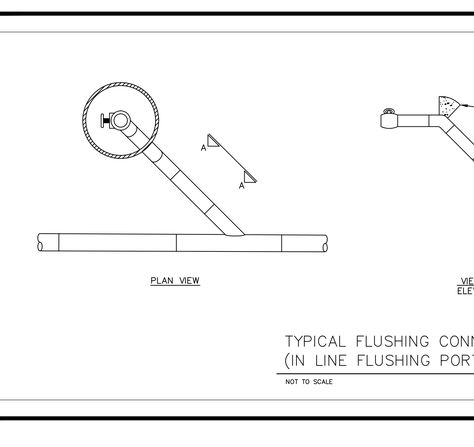
SECTION A



SECTION B

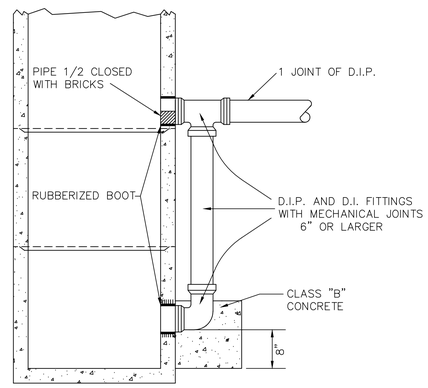
THRUST BLOCK DETAILS

N.T.S.



TYPICAL FLUSHING CONNECTION ON FORCE MAIN (IN LINE FLUSHING PORT)

NOT TO SCALE



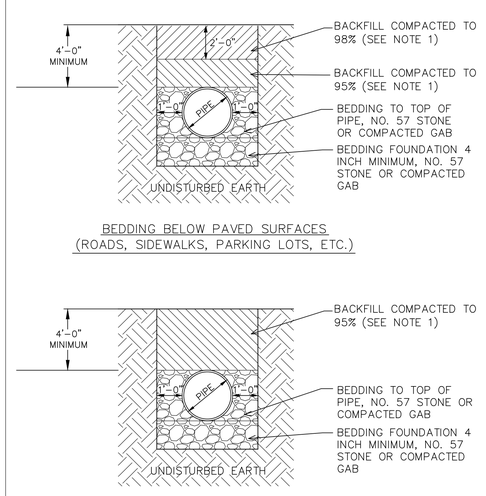
NOTE

MANHOLE SHALL BE INSTALLED LIKE STANDARD PRECAST MANHOLE, EXCEPT FOR DROP.

MAXIMUN ALLOWABLE INSIDE DROP SHALL BE 4 FEET.

DROP MANHOLE

NTS SS–24



BEDDING BELOW PAVED SURFACES (ROADS, SIDEWALKS, PARKING LOTS, ETC.)

GENERAL BACKFILL

NOTES

1. COMPACTION % BASED UPON MAXIMUM DRY DENSITY AS DETERMINED BY A STANDARD PROCTOR ANALYSIS +/– 3% OF THE OPTIMUM MOISTURE CONTENT.
2. UNSUITABLE SOILS ENCOUNTERED IN BOTTOM OF EXCAVATED & REPLACED WITH NO. 57 STONE OR AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
3. ONLY SUITABLE SOIL SHALL BE USED AS BACKFILL.

P.V.C. SEWER PIPE BEDDING

N.T.S. DETAIL NG 1 DATED MAY 2024

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, GA 30096
T:706.632.4981

UNION COUNTY GOVERNMENT
65 COURTHOUSE STREET, SUITE 1
BLAIRSVILLE, GA 30512
PHONE: (706) 897-5507

CONTACT: TONY HUGHES
UNION COUNTY MANAGER
(706) 897-5507

No.	Description	REVISION	By	App.	Date

GEORGIA REGISTERED NO. 23275 PROFESSIONAL ENGINEER STEPHEN MARK BOND

GSWCC #11367
EXPIRATION DATE: 5/27/2027

Project Title

UNION COUNTY 911 CENTER

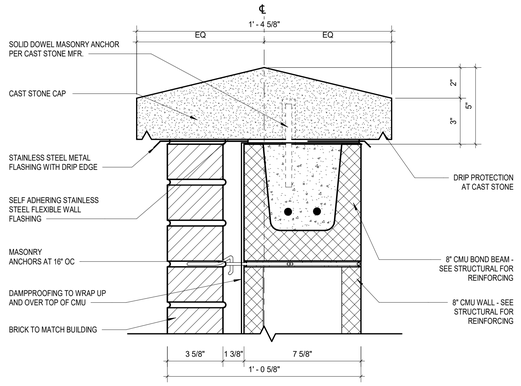
Address	SHOE FACTORY RD
City, State Zip	BLAIRSVILLE, GA 30512
Land Lot	305
District-Section	9
County	UNION
Project No.	24-558-c
Drawn By:	NOAH ANDERSON
Checked By:	MARK BOND
Initial Issue Date:	01-21-2025

Sheet Title

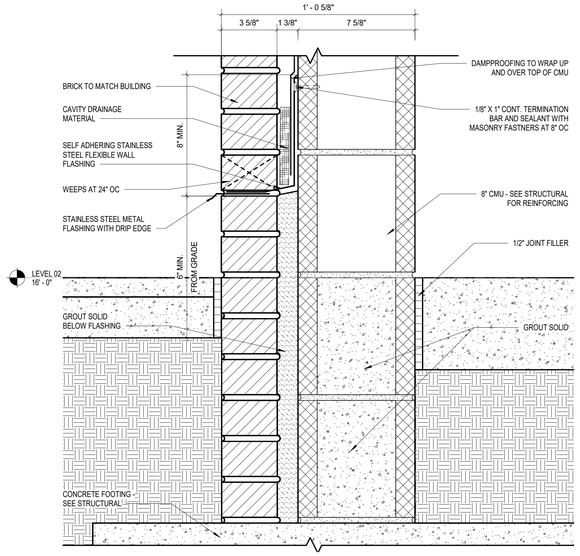
WATER AND SS DETAILS

Sheet Number

C-13

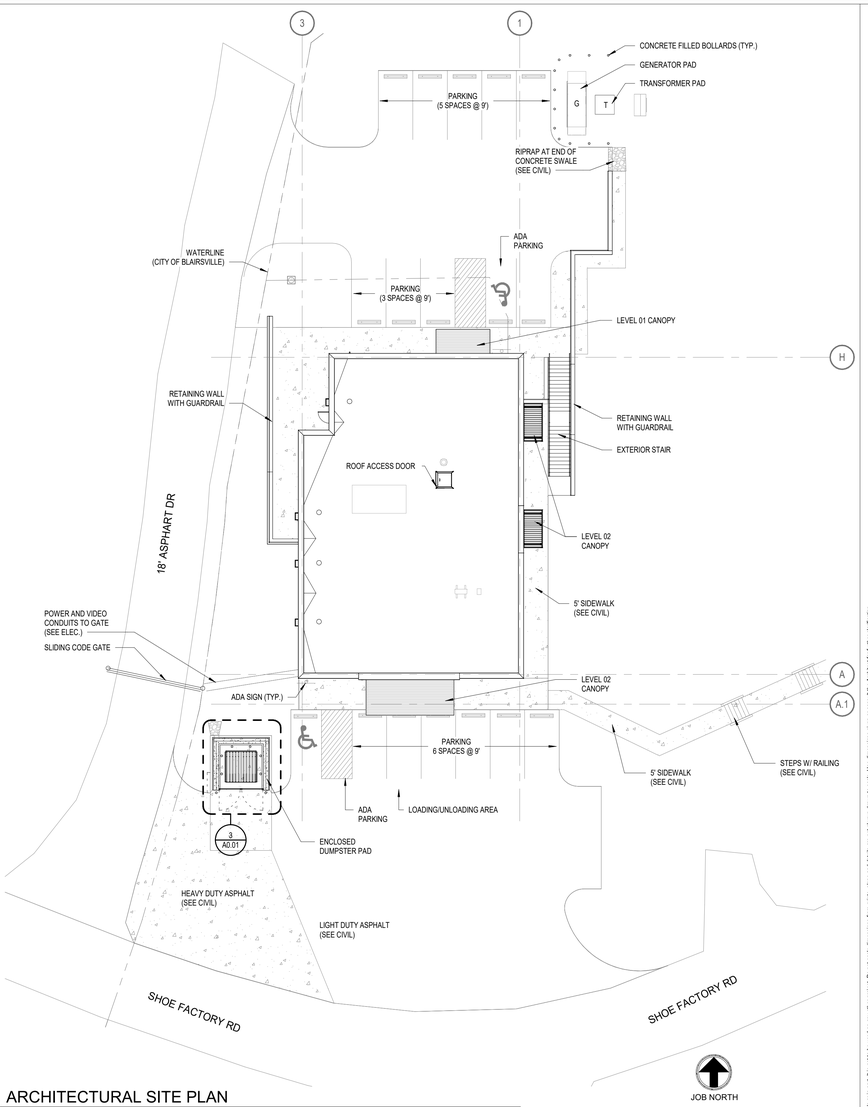


6 CAST STONE CAP DETAIL
3" = 1'-0"

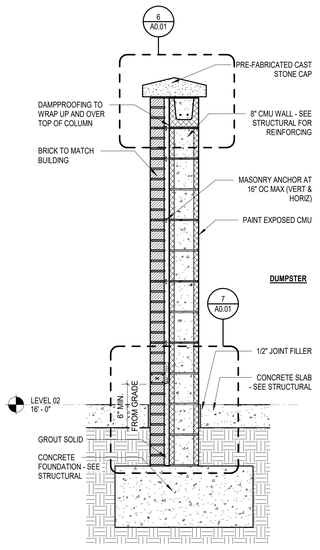


7 ENCLOSURE FOOTING
3" = 1'-0"

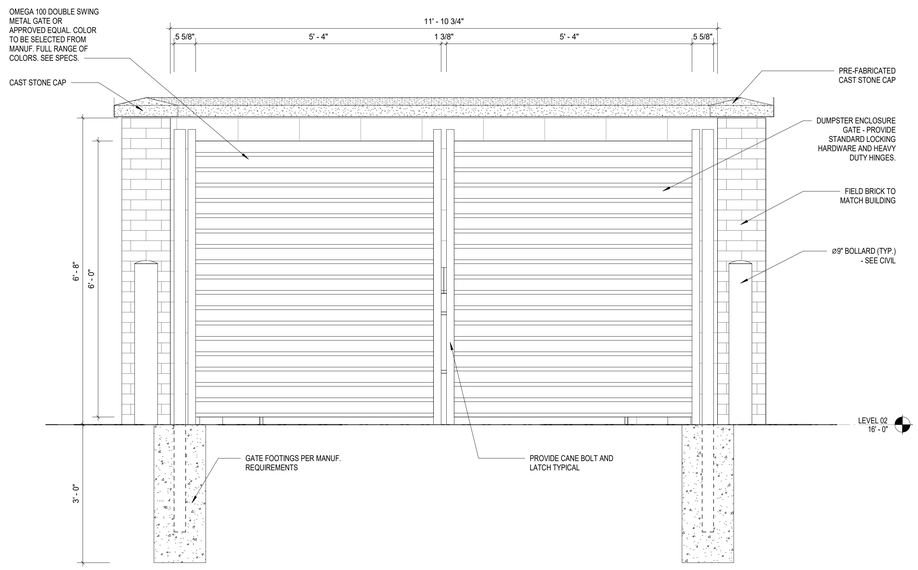
2 JOB SIGN
3/4" = 1'-0"



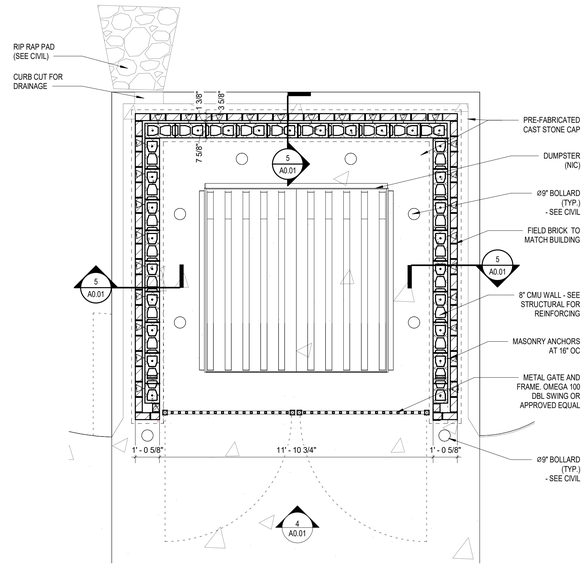
1 ARCHITECTURAL SITE PLAN
1/16" = 1'-0"



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



4 ENCLOSURE ELEVATION
3/4" = 1'-0"



3 DUMPSTER ENCLOSURE PLAN
3/8" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT
STATE OF GEORGIA
CHRISTOPHER C. SMALLEY
12-6-24
CERTIFICATE NO. 34101
REGISTERED ARCHITECT
HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ARCHITECTURAL SITE PLAN

DRAWING NUMBER

A0.01

CONSTRUCTION DOCUMENT PACKAGE

LEGEND

A,B,C... = INDICATES REFERENCED WALL TYPE
C = CONCRETE MASONRY UNIT
c = TO 6" ABOVE SCHEDULED CEILING
i = SOUND ATTENUATION ABOVE CEILING AND AT WALL
M = METAL STUD FRAMING
S = SHAFT WALL
W = WOOD STUD FRAMING

2 = 1 5/8" METAL STUD
3 = 2 1/2" METAL STUD
4 = 3 5/8" METAL STUD
6 = 6" METAL STUD
8 = 8" CMU

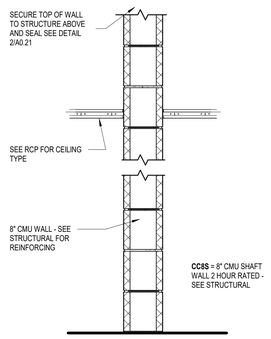
GENERAL NOTES:

1. METAL STUD SPACING FOR WALLS SHALL BE 16" OC MAX

WALL TYPE MARKER

CC8S

WALL SECTION



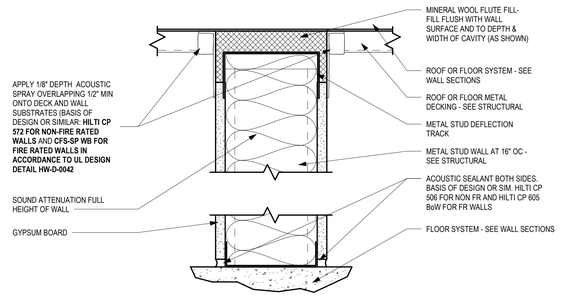
PLAN

DESCRIPTION

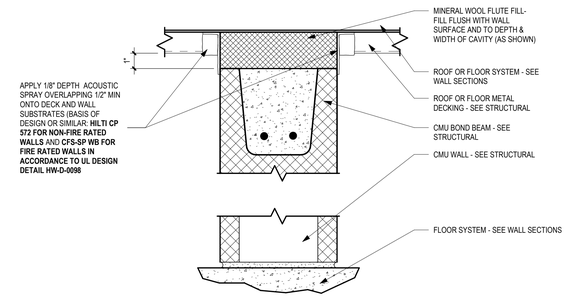
CONCRETE MASONRY UNIT WALL **2 HOUR FIRE RATED** UP TO UNDERSIDE OF DECKING ABOVE (OR SHAFT WALL FROM LOWER LEVEL FLOOR TO UNDERSIDE OF ROOF DECKING)

UL DESIGN

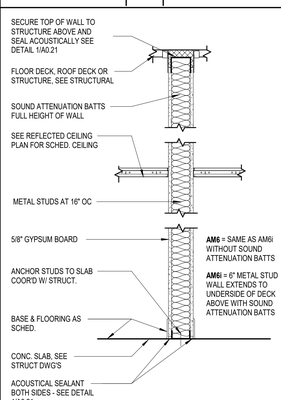
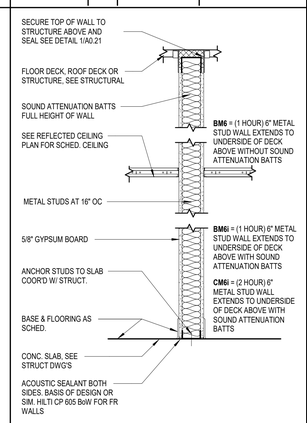
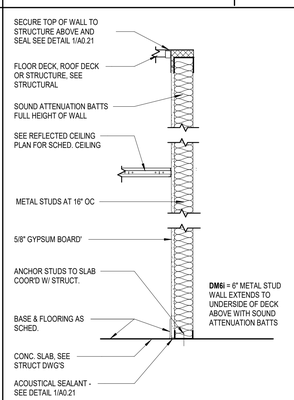
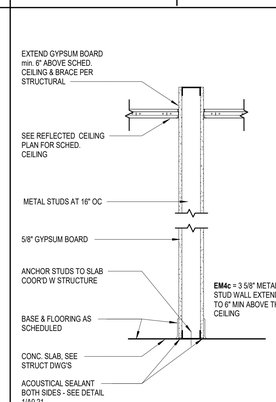
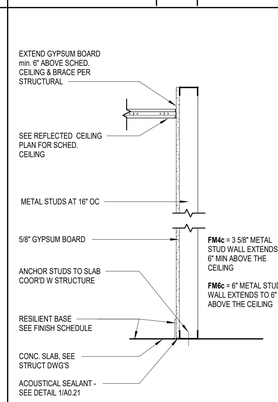
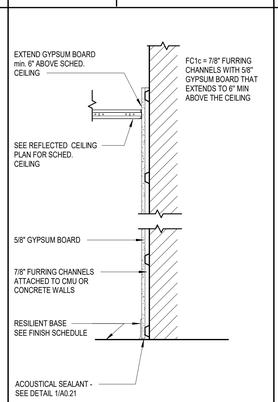
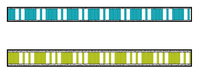
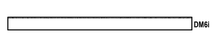
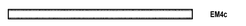
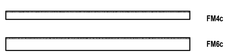
UL DESIGN **#U905**



1 JOINT PROTECTION DETAIL - METAL STUD WALLS
3" = 1'-0"



2 JOINT PROTECTION DETAIL - CMU WALLS
3" = 1'-0"

WALL TYPE MARKER	AM6 AM6i	BM6 BM6i CM6i	DM6i	EM4c	FM4c FM6c	FC1c
WALL SECTION						
PLAN						
DESCRIPTION	METAL STUD W/ GYPSUM BOARD ON BOTH SIDES, FULL HEIGHT OF WALL SEALED AT FLOOR AND DECK. (SEE PLAN FOR STUD SIZES) NON LOAD BEARING - NOT RATED	METAL STUD W/ FIRE RATED GYPSUM BOARD ON BOTH SIDES, FULL HEIGHT OF WALL. SEALED @ FLOOR AND DECK. UL #465 - NON LOAD BEARING 1 HOUR WALL OR UL #423 2 HOUR (SEE UL FOR ADDITIONAL GYPSUM BOARD REQUIREMENTS)	METAL STUD W/ GYPSUM BOARD ON BOTH SIDES, FULL HEIGHT OF WALL SEALED AT FLOOR AND DECK. (SEE PLAN FOR STUD SIZES) NON LOAD BEARING - NOT RATED	METAL STUD W/ GYPSUM BOARD ON BOTH SIDES WITH ACOUSTIC INSULATION ABOVE (SEE PLAN FOR STUD SIZES) NOT RATED - NON LOAD BEARING	METAL STUD W/ GYPSUM BOARD ON BOTH SIDES WITH ACOUSTIC INSULATION ABOVE (SEE PLAN FOR STUD SIZES) NOT RATED - NON LOAD BEARING	METAL STUD W/ GYPSUM BOARD ON BOTH SIDES WITH ACOUSTIC INSULATION ABOVE (SEE PLAN FOR STUD SIZES) NOT RATED - NON LOAD BEARING
UL DESIGN #		UL #465 - NON LOAD BEARING 1 HOUR WALL. UL #423 - LOAD BEARING 2 HOUR WALL.				

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER SNEAD
12-6-24
CERTIFICATE NO. 14101
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brookstridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

WALL TYPES AND CODES

DRAWING NUMBER

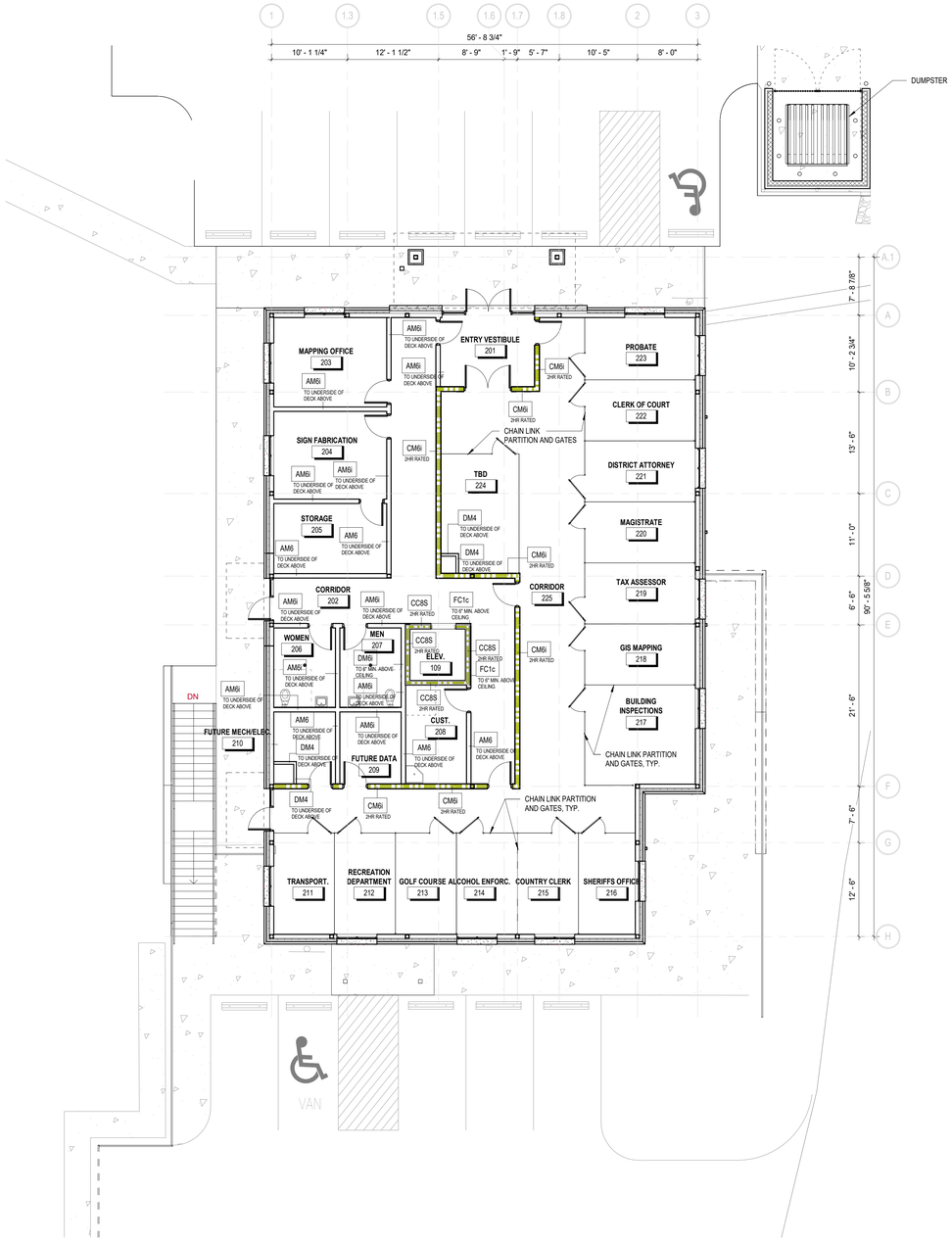
A0.21

WALL TYPE PLAN LEGEND

	METAL STUD WALL
	1 HOUR RATED WALL - 6" METAL STUD
	2 HOUR RATED WALL - CMU OR 6" METAL STUD
AM6	PARTITION TYPE TAG - SEE SHEET A0.21

A = INDICATES REFERENCED WALL TYPE
C = CONCRETE MASONRY UNIT OR CEILING
M = METAL STUD FRAMING
S = SHAFT WALL

1 = 7/8" METAL HAT CHANNEL
2 = 1 1/2" MEAL HAT CHANNEL
4 = 3 5/8" METAL STUD FRAMING
6 = 6" METAL STUD FRAMING
8 = 8" CMU



2 LEVEL 02 WALL TYPE PLAN
1/8" = 1'-0"

NORTH

1 LEVEL 01 WALL TYPE PLAN
1/8" = 1'-0"

NORTH

CONSTRUCTION DOCUMENT PACKAGE

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STATE OF GEORGIA
CHRISTOPHER YANCEY
12-6-24
CERTIFICATE NO. 14151
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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DATE: 12/06/2024

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NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

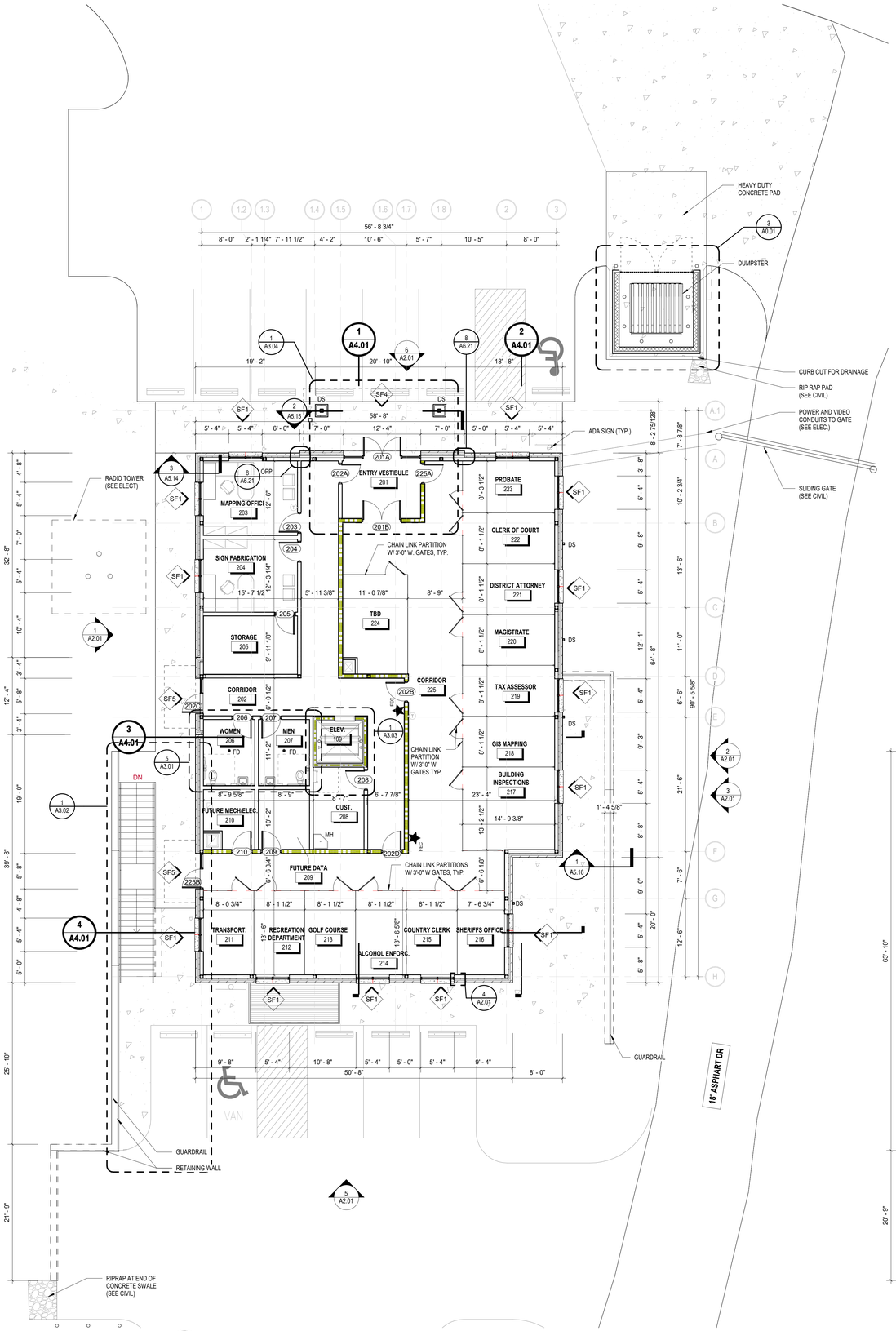
WALL TYPE PLAN - LEVEL 01, LEVEL 02

DRAWING NUMBER

A0.31

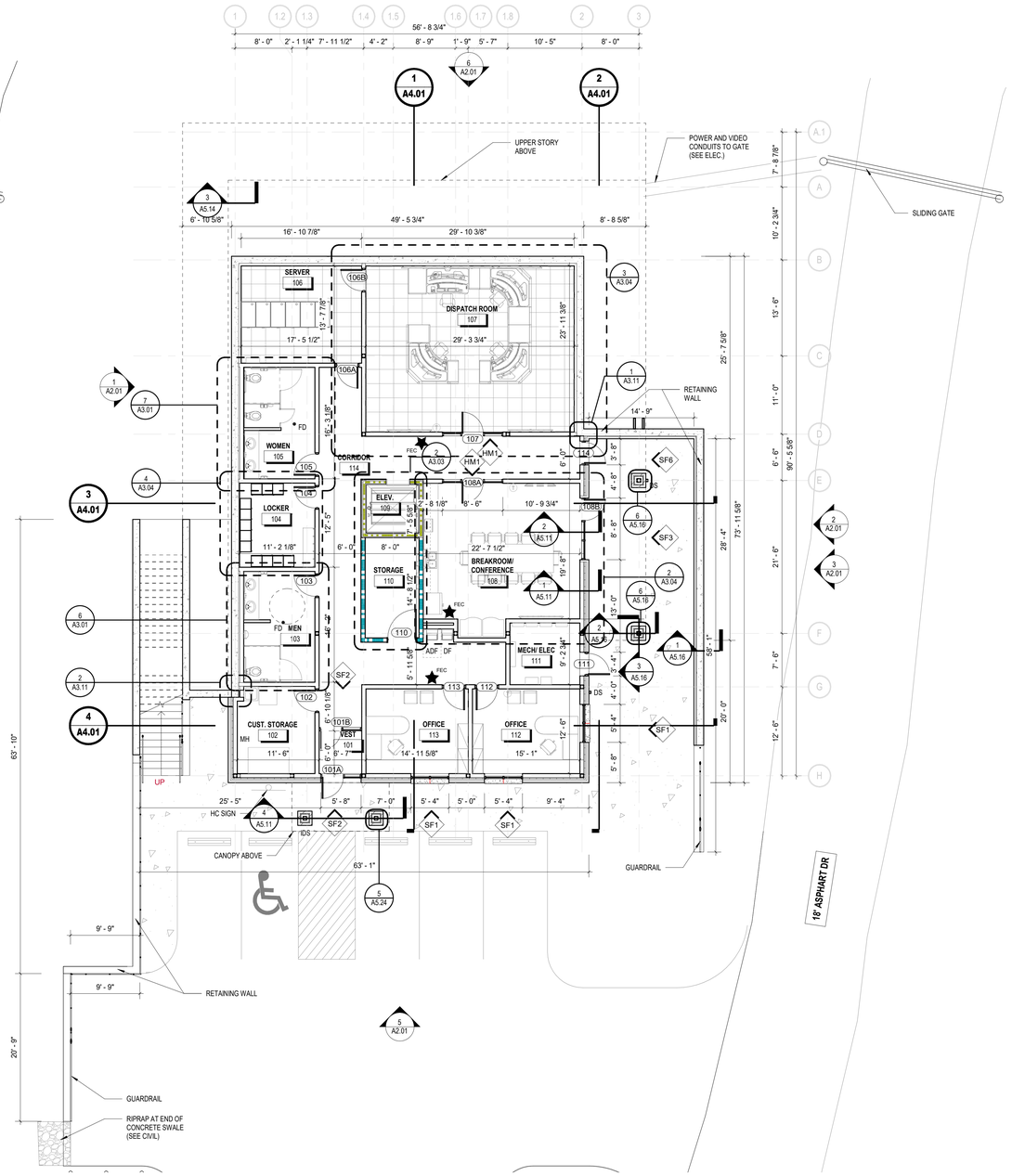
FLOOR PLAN LEGEND

	METAL STUD WALL (NON FIRE RATED)
	1 HOUR RATED WALL - 6" METAL STUD
	2 HOUR RATED WALL - CMU WALL AND METAL STUD
FD	FLOOR DRAIN - FLOORS SHALL SLOPE TO DRAIN 1/4" PER 12 " - SEE PLUMBING
DF ADF	DRINKING FOUNTAIN - SEE PLUMBING ACCESSIBLE DRINKING FOUNTAIN - SEE PLUMBING
DS	DOWNSPOUT TO UNDERGROUND STORMWATER - SEE ROOF PLAN AND CIVIL
IDS	INTERNAL DOWNSPOUT AT CANOPY COLUMN TO PASS THROUGH COLUMN AND TO SPILL OUT ONTO GRADE TOWARDS THE PARKING AREA
MH	MOP & BROOM HOLDER / UTILITY SHELF
FEC	FIRE EXTINGUISHER IN SEMI RECESSED CABINET
	WINDOW ELEVATION TAG



2 PLAN DETAILS
1/8" = 1'-0"

NORTH



1 LEVEL 01 FLOOR PLAN
1/8" = 1'-0"

NORTH

CONSTRUCTION DOCUMENT PACKAGE

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STATE OF GEORGIA
CHRISTOPHER J. YANCEY
CERTIFICATE NO. 14101
12-6-24
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HUSSEY GAY BELL
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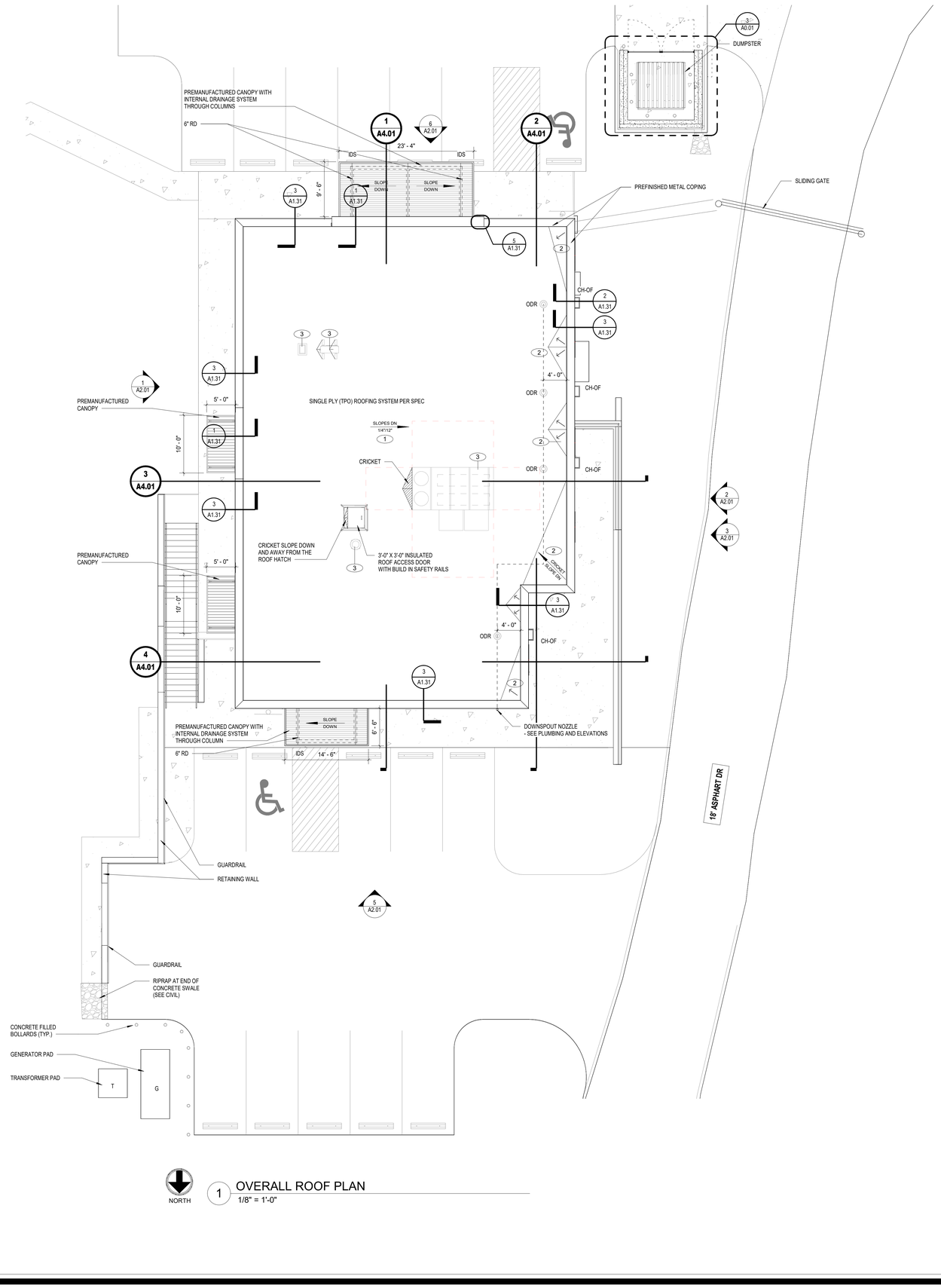
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

DIMENSION/REFERENCE PLAN - LEVEL 01, LEVEL 02

DRAWING NUMBER

A1.11



NORTH

1 OVERALL ROOF PLAN
1/8" = 1'-0"

ROOF PLAN LEGEND

CH-OF	THRU WALL SCUPPER TO CONDUCTOR HEAD WITH OVERFLOW AND DOWNSPOUT - SEE ELEVATIONS AND DETAIL 2 / A1.31
DS	SMOOTH RECTANGULAR DOWNSPOUT TO CONNECT TO UNDERGROUND STORMWATER SYSTEM - SEE CIVIL
IDS	INTERNAL DOWNSPOUT AT CANOPY COLUMN TO PASS THROUGH COLUMN AND TO SPILL OUT ONTO GRADE TOWARDS THE PARKING AREA
WP	ROOF WALKWAY PADS - SHALL BE COMPATIBLE WITH TPO ROOFING SYSTEM - PADS SHALL BE PLACED AT ROOF HATCH AND AROUND MECHANICAL UNITS TO PROVIDE PROTECTION WHILE SERVICING EQUIPMENT
ODR	OVERFLOW ROOF DRAIN - SEE PLUMBING AND DETAIL 2 / A1.31

GENERAL NOTES:
1. SEE PLUMBING AND MECHANICAL DRAWINGS FOR ROOF MOUNTED EQUIPMENT AND ROOF PENETRATIONS.

KEYED NOTES :

1	SINGLE PLY MEMBRANE (TPO) ROOFING OVER 1/2" OVERLAY BOARD OVER 6" (R-30 MIN) RIGID INSULATION OVER METAL DECKING.
2	USE RIGID INSULATION TO PROVIDE CRICKET SLOPE
3	MECHANICAL EQUIPMENT - SEE MECHANICAL

ROOF NOTES :

1. ROOF INSTALLATION MUST MEET ALL NATIONAL ROOFING CONTRACTORS ASSOCIATION GUIDELINES AND ROOF MANUFACTURER'S PRINTED INSTRUCTIONS FOR 20 YEAR WARRANTY WITH FLASHING ENDORSEMENTS.
2. ALL ROOF SURFACES TO HAVE MIN. 1/4"/ FT. SLOPE. CRICKET w/TAPERED INSULATION AS NEEDED BEHIND HVAC UNITS.
3. COORDINATE ROOFING WORK WITH MECH/HVAC WORK. KEEP BUILDING WEATHERTIGHT.
4. INDICATED THICKNESS FOR METALS ARE TO ESTABLISH MINIMUM REQUIREMENTS ONLY. PROVIDE METALS OF SUFFICIENT THICKNESS FOR THE CONDITION. ANY METALS THAT INDICATE "OIL-CANNING" AFTER INSTALLATION WILL BE REQUIRED TO BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
5. INSTALL 2 ROWS OF 30" WALKWAY PADS AROUND ALL ROOF TOP UNITS AND AT ROOF HATCH. TYPICAL. PER SPECS.
6. ALL ROOF TOP UNITS ARE TO BE COUNTERFLASHED AND INSULATED BY ROOFING CONTRACTOR.
7. ALL COPINGS TO HAVE STANDING SEAMS @ 10' MAX. PER SMACNA PLATE 68, SECTION A-A.
8. GAS PIPE ABOVE THE ROOF TO BE PAINTED YELLOW PER THE SPECIFICATIONS.

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA — CHRISTOPHER NOLE — CERTIFICATE NO. 14101 — REGISTERED ARCHITECT — 12-6-24

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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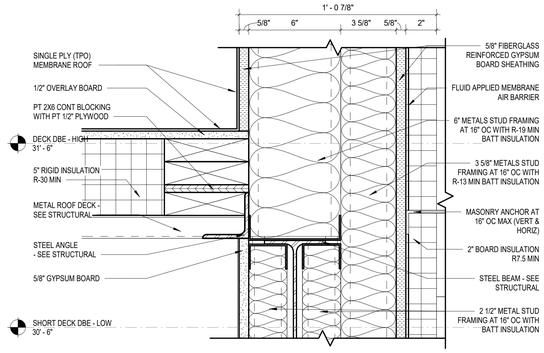
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ROOF PLAN

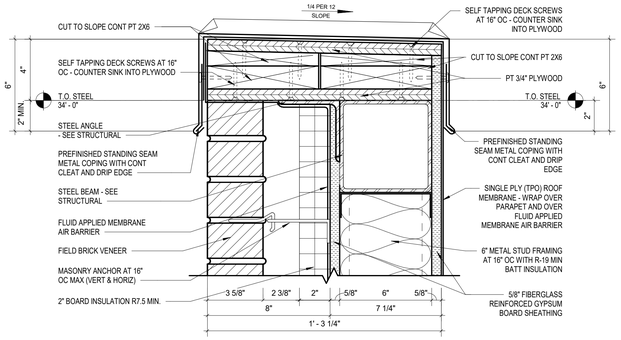
DRAWING NUMBER

A1.21

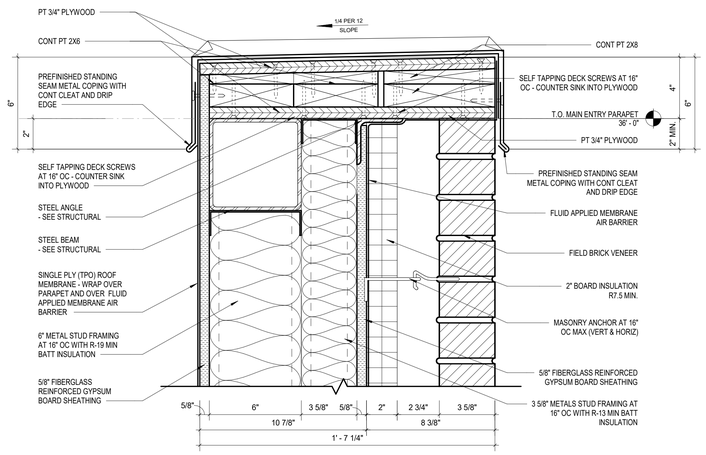
CONSTRUCTION DOCUMENT PACKAGE



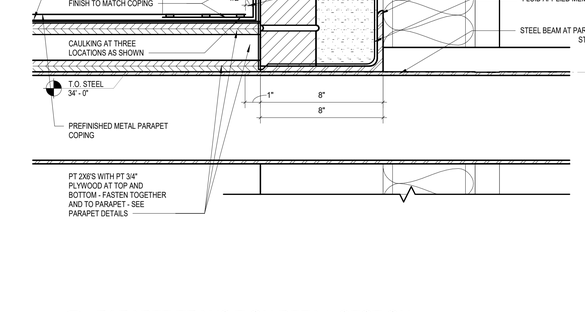
6 ROOF DECK AT HIGH PARAPET
3" = 1'-0"



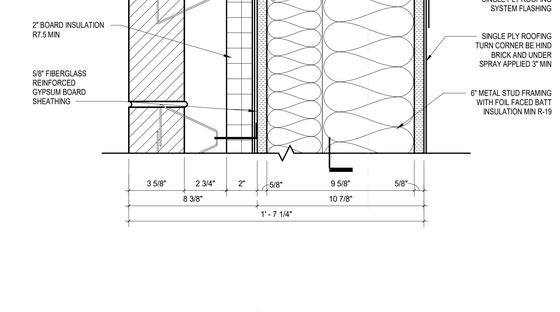
3 WALL PARAPET DETAIL AT LOW PARAPET
3" = 1'-0"



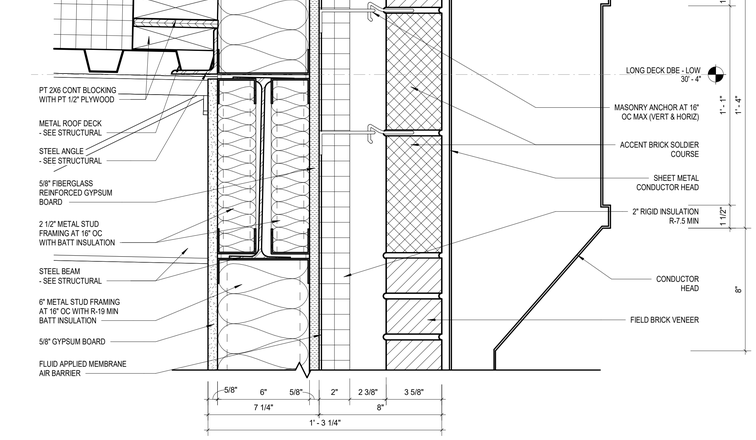
1 WALL PARAPET DETAIL AT HIGH PARAPET
3" = 1'-0"



7 ROOF DECK AT PARAPET
3" = 1'-0"



4 ROOF DECK AT PARAPET
3" = 1'-0"



2 SCUPPER SECTION DETAIL
3" = 1'-0"

9 PARAPET TRANSITION DETAIL SECTION
3" = 1'-0"

5 PARAPET TRANSITION COPING/FLASHING DETAIL PLAN
3" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER S. YANCEY
12-6-24
CERTIFICATE NO. 14121
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ROOF DETAILS

DRAWING NUMBER

A1.31

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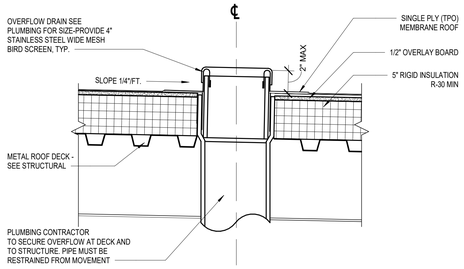
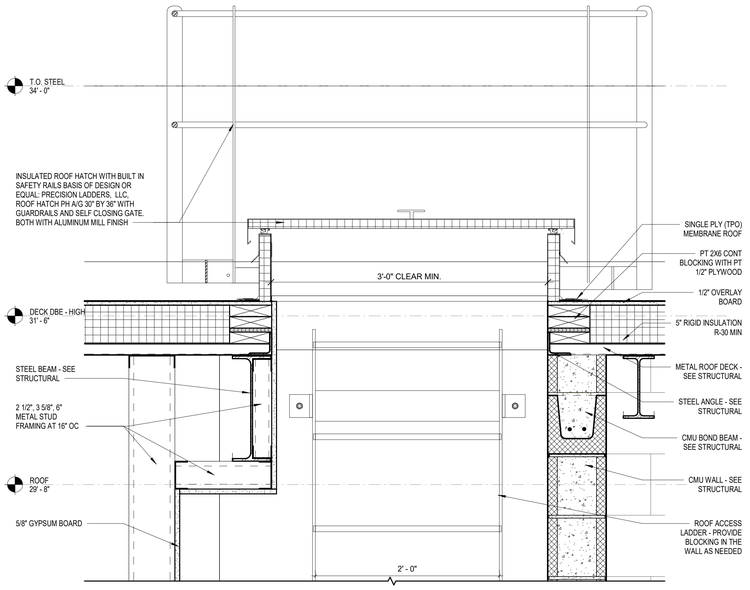
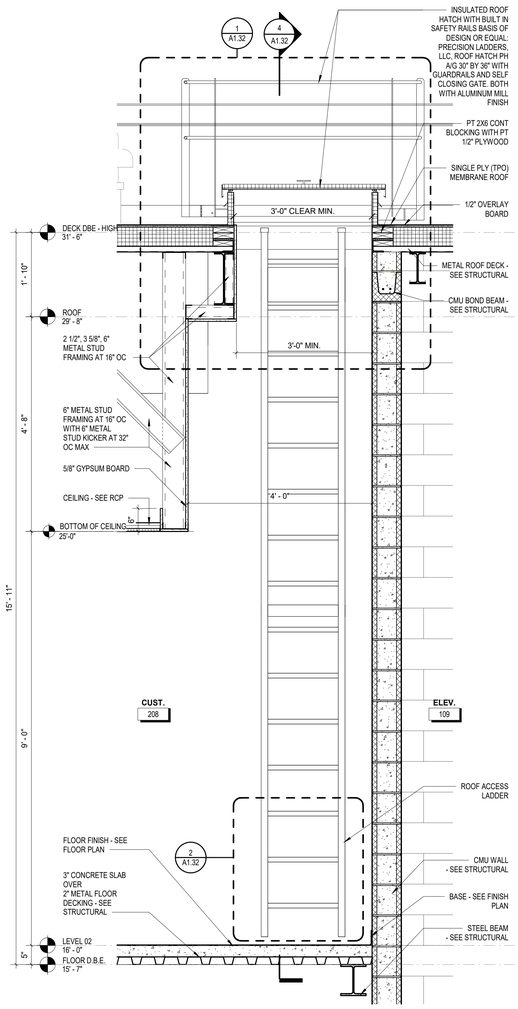


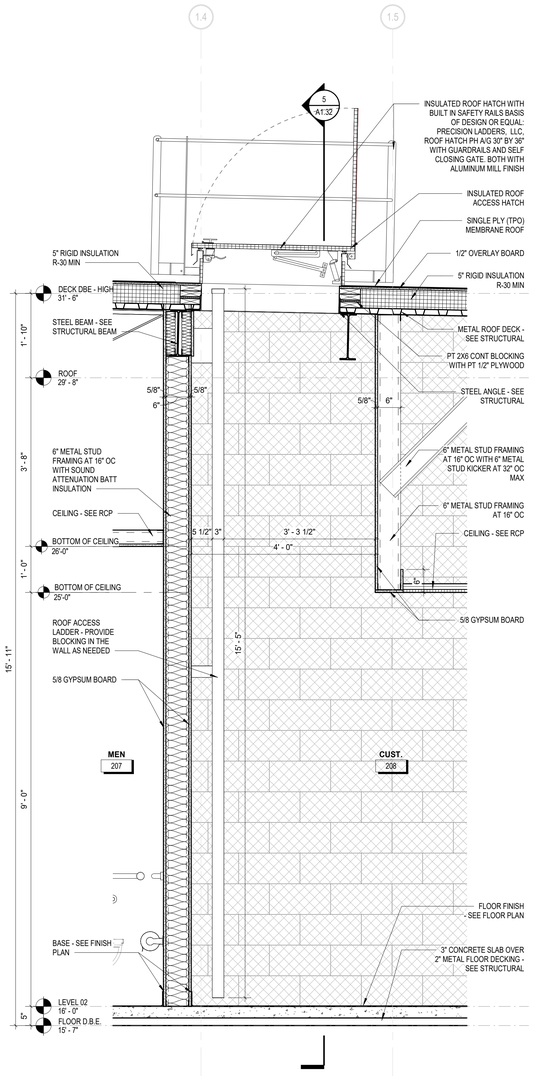
3 OVERFLOW DRAIN DETAIL
1 1/2" = 1'-0"



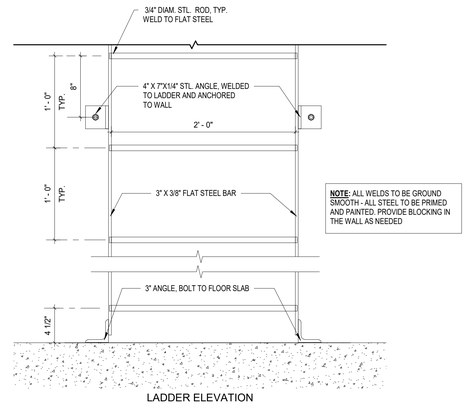
1 ROOF HATCH & LADDER ELEVATION
1 1/2" = 1'-0"



5 ROOF ACCESS LADDER SECTION
3/4" = 1'-0"



4 ROOF ACCESS LADDER SECTION
3/4" = 1'-0"



LADDER ELEVATION

2 LADDER ELEVATION
1 1/2" = 1'-0"

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER B. CAMPBELL
CERTIFICATE NO. 14101
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS: △

DESIGNED	DRAWN	CHECKED
CC	BK, YL	CC SN

DATE: 12/06/2024

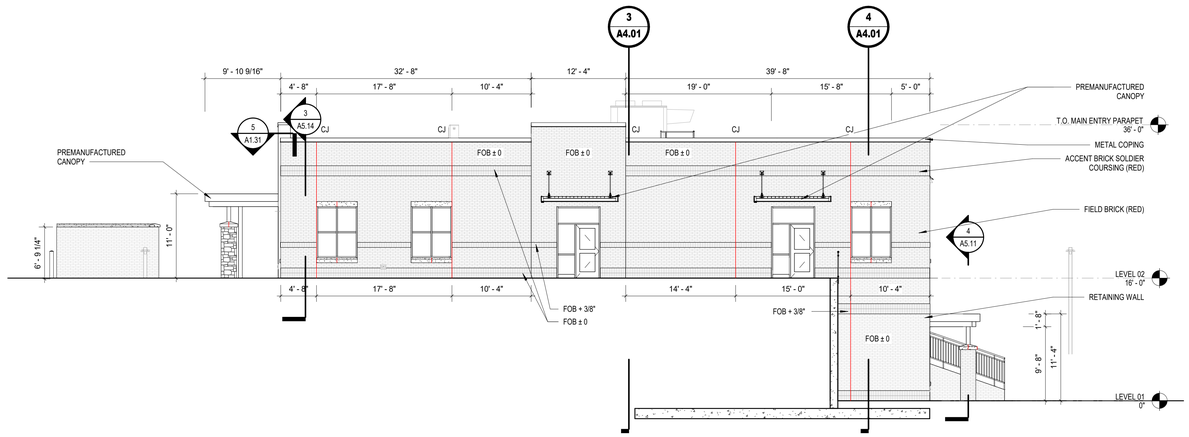
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

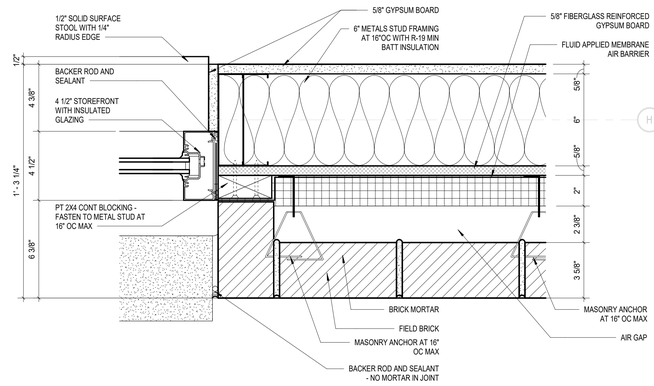
ROOF DETAILS

DRAWING NUMBER

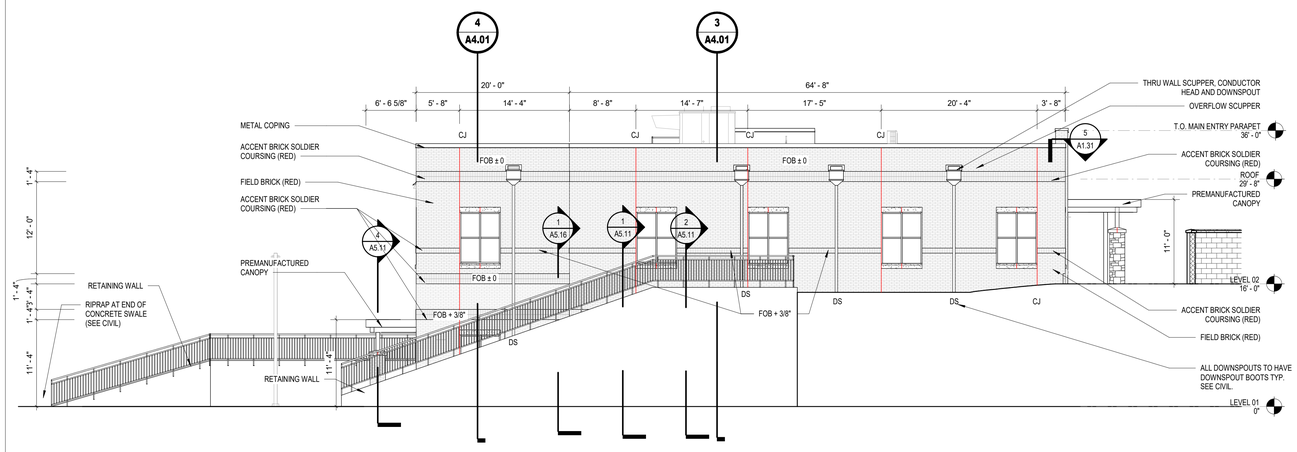
A1.32



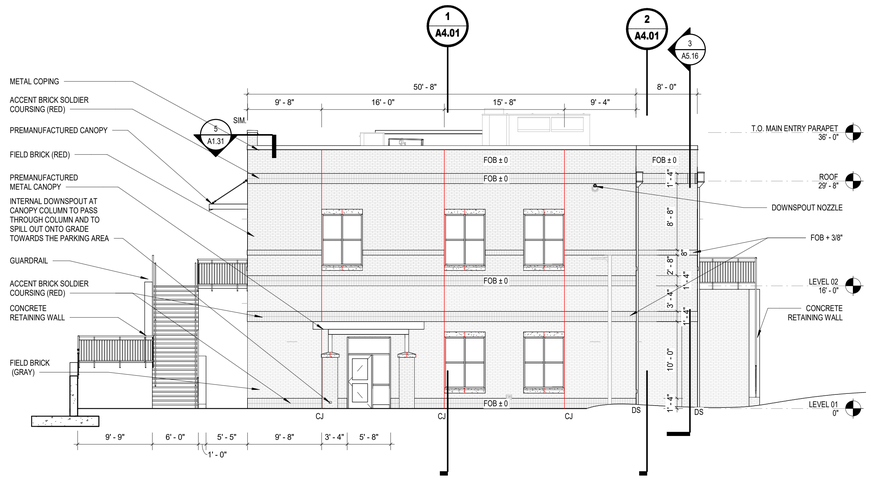
1 BUILDING ELEVATION - EAST
1/8" = 1'-0"



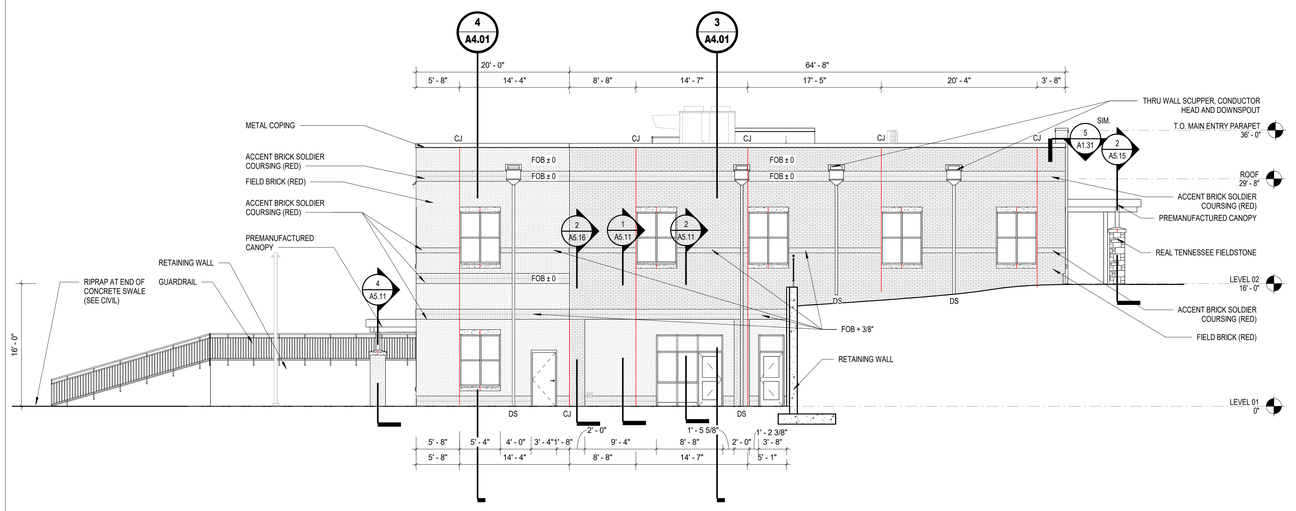
4 TYPICAL BRICK CONTROL JOINT
3" = 1'-0"



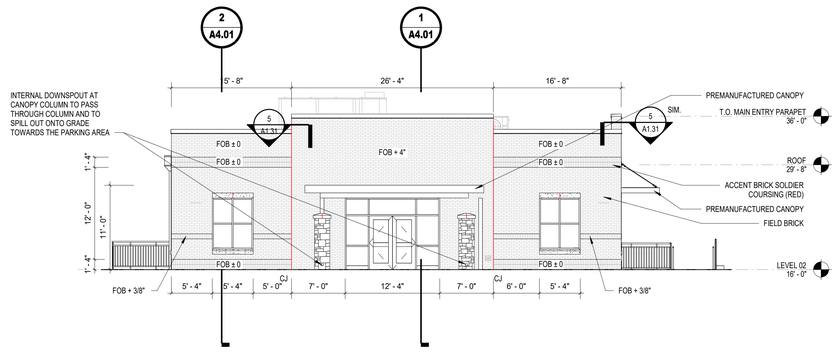
2 BUILDING ELEVATION - WEST 1
1/8" = 1'-0"



5 BUILDING ELEVATION - NORTH
1/8" = 1'-0"



3 BUILDING ELEVATION - WEST 2
1/8" = 1'-0"



6 BUILDING ELEVATION - SOUTH
1/8" = 1'-0"

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CC	YL	CC SN

DATE: 12/06/2024

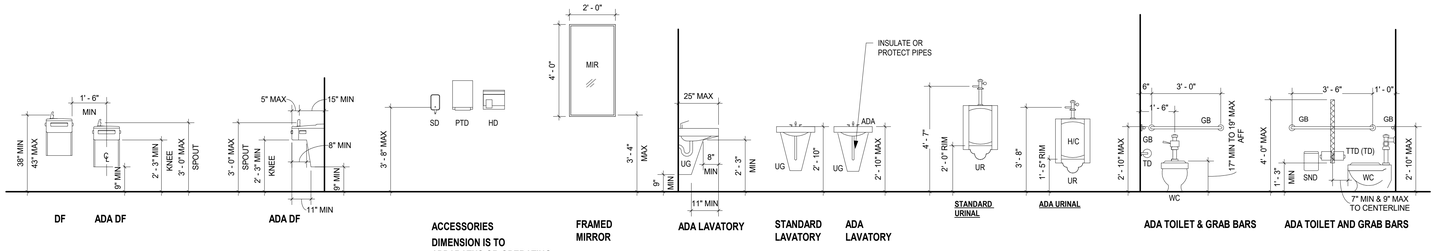
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

BUILDING ELEVATIONS

DRAWING NUMBER

A2.01



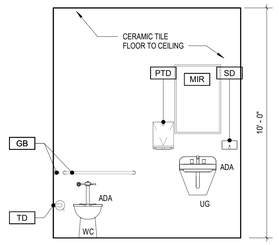
A3.10 TOILET ACCESSORIES HEIGHTS LEGEND

3/8" = 1'-0"

MATERIALS ABBREVIATION LEGEND :

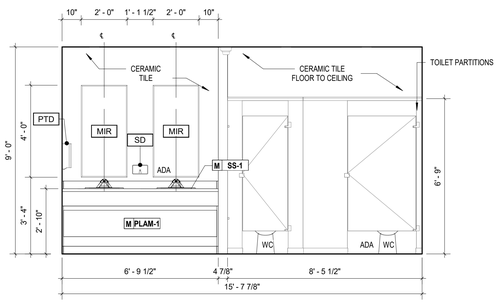
B - WALL BASE
ACT - ACOUSTICAL CEILING TILE
CP - CEILING PLANKS
F - FLOOR FINISH
LVT - LUXURY VINYL TILE
M - MISC. FINISH
PNT - PAINT
CT- CERAMIC TILE
PT - PORCELAIN TILE
PLAM- PLASTIC LAMINATE
QT - QUARRY TILE
RT - RUBBER TREAD
SS - SOLID SURFACE
SV - SHEET VINYL
W - WALL FINISH

TOILET ACCESSORIES LEGEND	
NAME	DESCRIPTION
ADA	INDICATES TO MOUNT FIXTURE AT ACCESSIBLE HEIGHT IN COMPLIANCE WITH THE 2010 ADA STANDARD FOR ACCESSIBLE DESIGN
FD	FLOOR DRAIN - SEE PLUMBING (SLOPES TO FLOOR DRAIN SHALL BE 1/4":12")
GB	1-1/2" DIA. HEAVY DUTY SS GRAB BAR (36" AND 42")
MH	MOP AND BROOM HOLDER/UTILITY SHELF - PROVIDE AT EACH CUSTODIAL CLOSET. SEE FLOOR PLAN
MIR	24"X48" SS FRAMED WALL MIRROR ATTACHED W/ CONCEALED FASTENERS - WITH 1/4" TEMPERED GLASS MIRROR
PTD	PAPER TOWEL DISPENSER
SD	SOAP DISPENSER
SND	SANITARY NAPKIN DISPOSAL
TD	TOILET TISSUE DISPENSER
UG	UNDERLAVATORY GUARD (LAVATORY PROTECTIVE ENCLOSURE)
UR	URINAL - SEE PLUMBING
W/C	WATER CLOSET - SEE PLUMBING



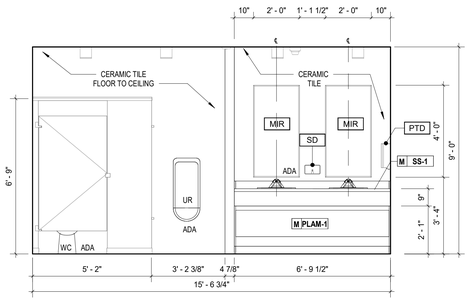
1 MEN ENLARGED TOILET 207 ELEVATION

3/8" = 1'-0"



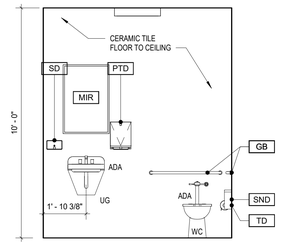
4 WOMEN ENLARGED TOILET 105 ELEVATION

3/8" = 1'-0"



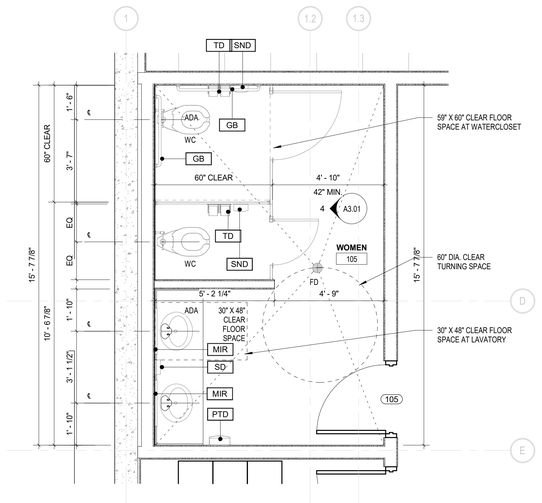
3 MEN ENLARGED TOILET 103 ELEVATION

3/8" = 1'-0"



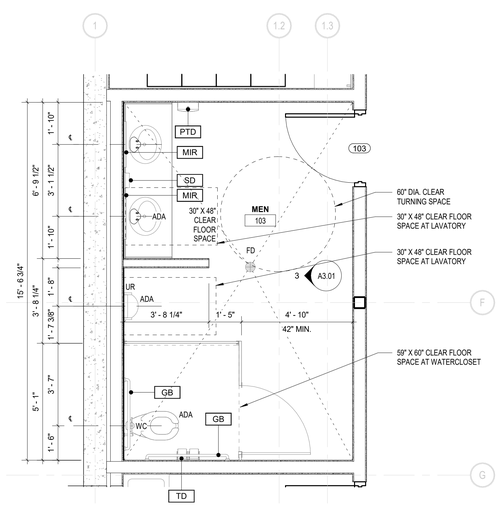
2 WOMEN ENLARGED TOILET 206 ELEVATION

3/8" = 1'-0"



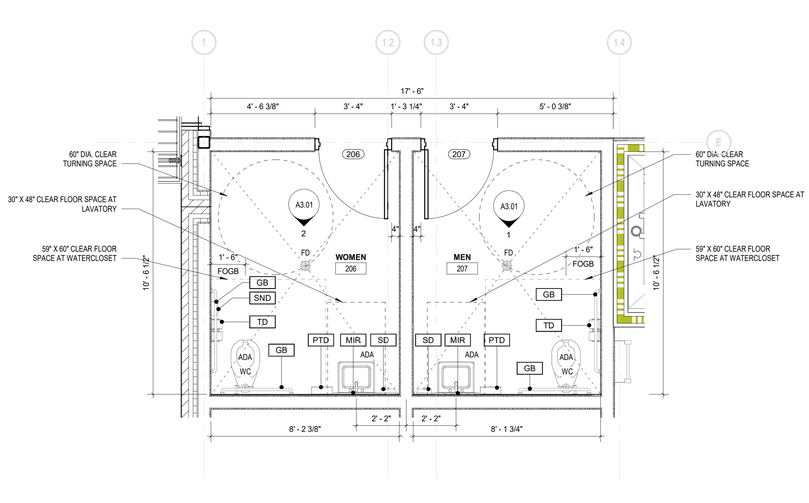
7 WOMEN ENLARGED TOILET PLAN - LEVEL 01

3/8" = 1'-0"



6 MEN ENLARGED TOILET PLAN - LEVEL 01

3/8" = 1'-0"



5 ENLARGED TOILET PLAN - LEVEL 02

3/8" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER SNOW
12-6-24
CERTIFICATE NO. 14151
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

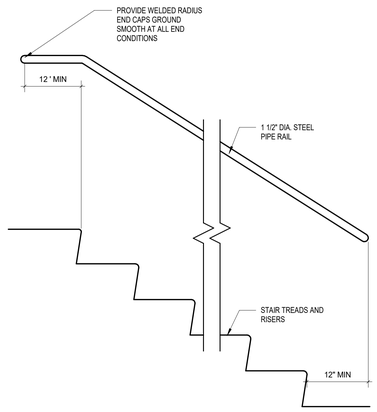
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ENLARGED FLOOR PLANS - TOILET

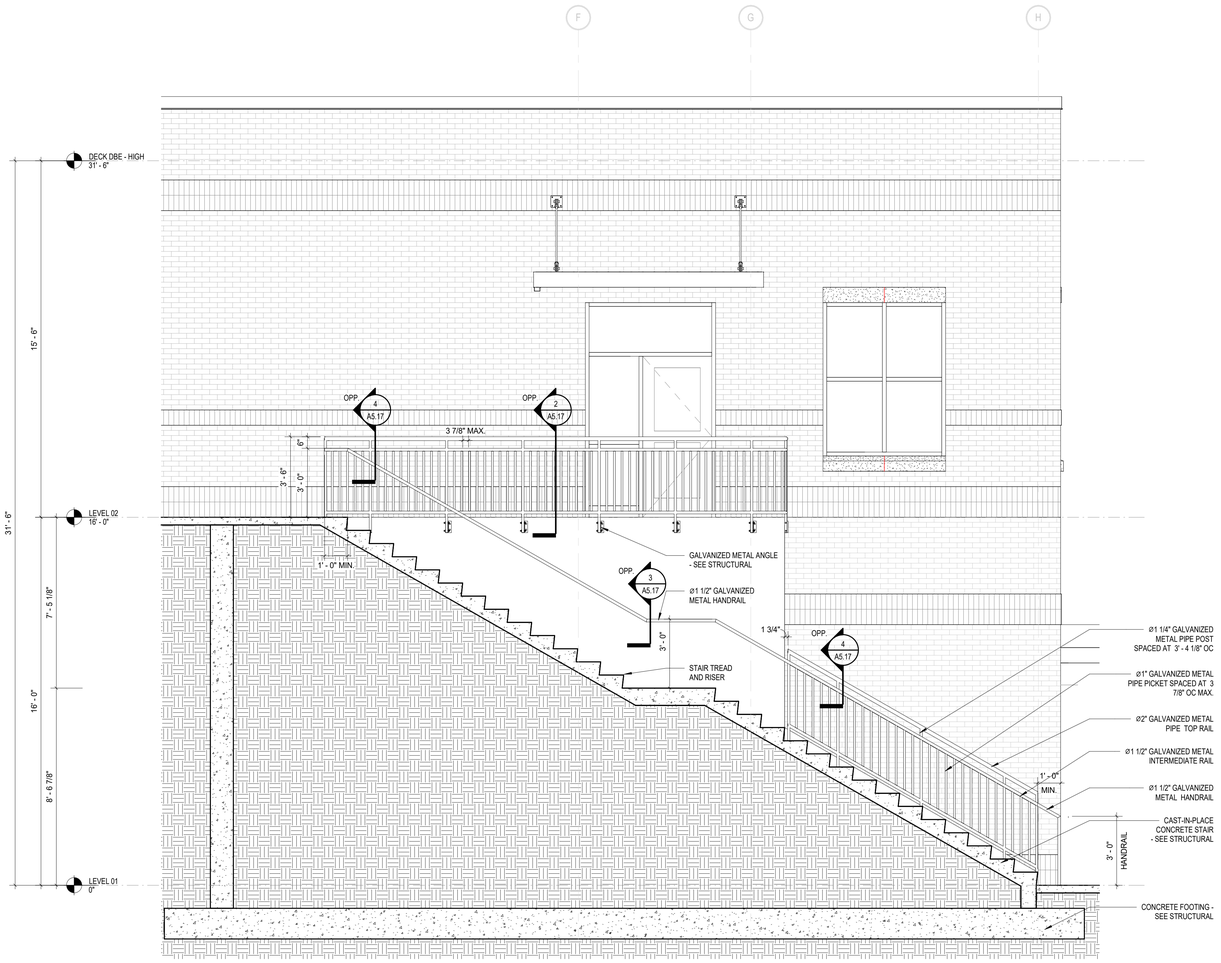
DRAWING NUMBER

A3.01

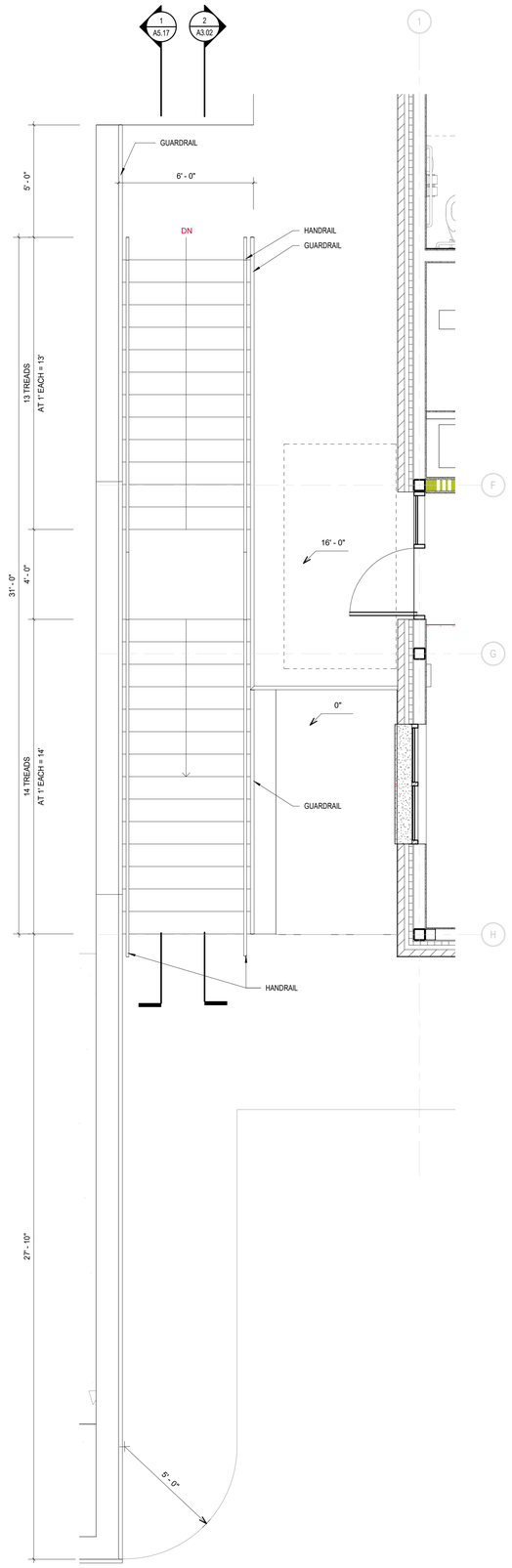
CONSTRUCTION DOCUMENT PACKAGE



4 TYP HANDRAIL EXTENSION
1" = 1'-0"



2 EXTERIOR STAIR SECTION
3/8" = 1'-0"



1 LEVEL 02 - EXTERIOR STAIR PLAN
3/8" = 1'-0"

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER C. SCHULE
CERTIFICATE NO. 14101
REGISTERED ARCHITECT
12-6-24

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

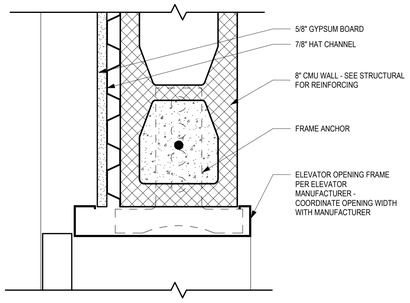
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

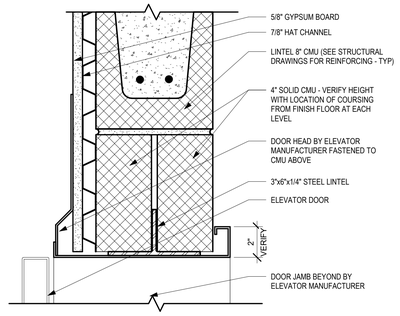
ENLARGED FLOOR PLANS - EXTERIOR STAIR

DRAWING NUMBER

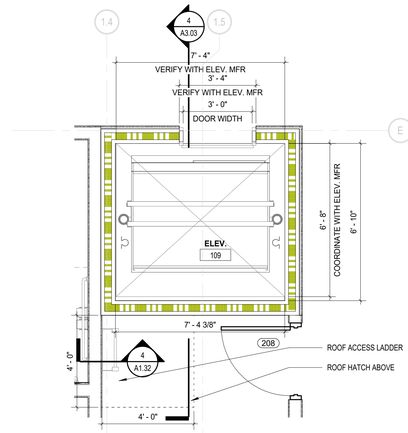
A3.02



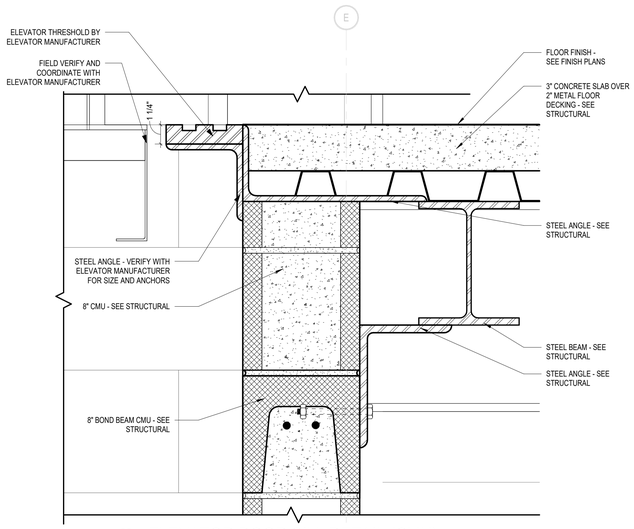
6 ELEVATOR DOOR JAMB DETAIL
3" = 1'-0"



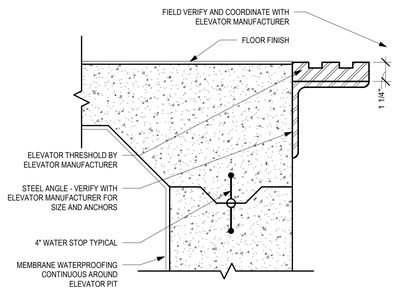
5 ELEVATOR DOOR HEAD DETAIL
3" = 1'-0"



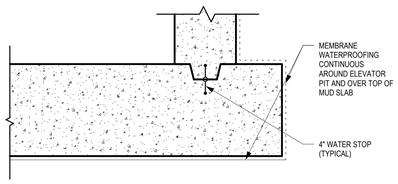
1 LEVEL 02 - ELEVATOR PLAN
3/8" = 1'-0"



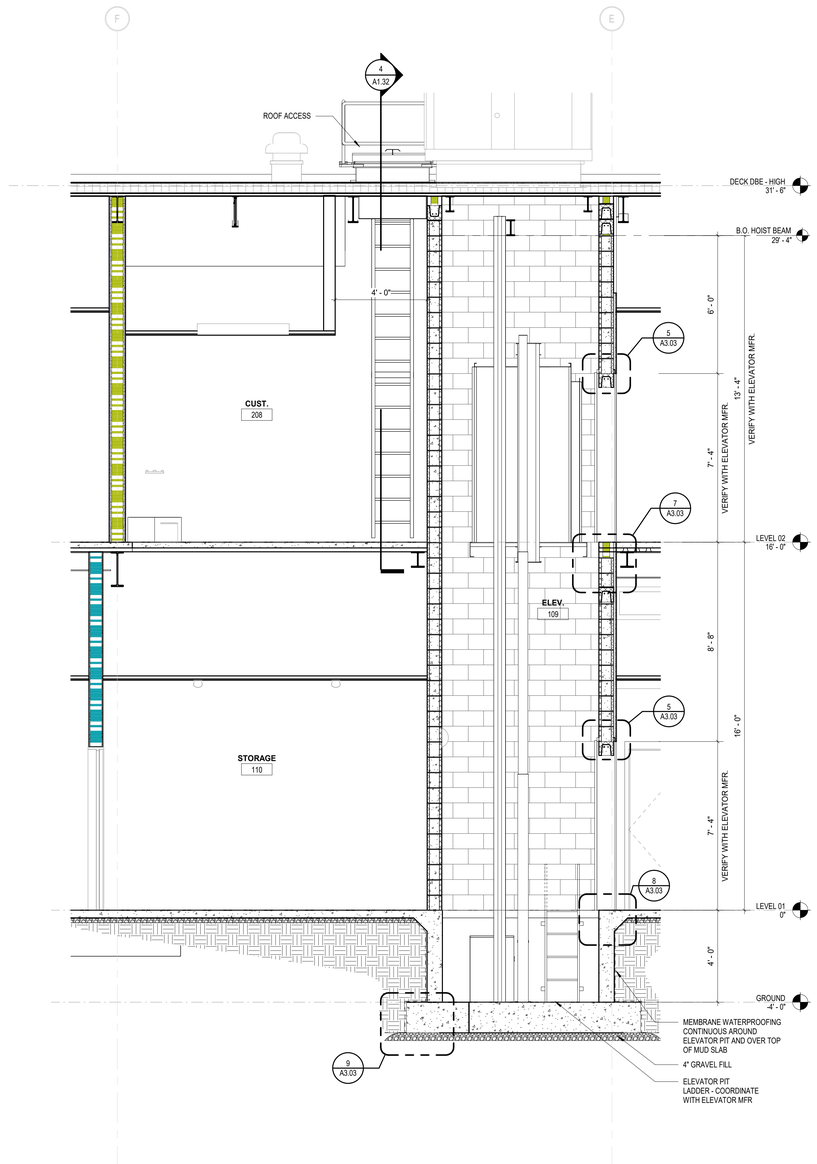
7 ELEVATOR DOOR SILL DETAIL (CMU)
3" = 1'-0"



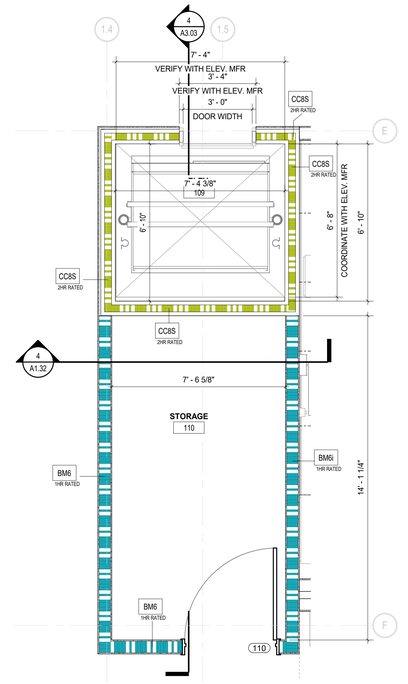
8 ELEVATOR DOOR SILL DETAIL
3" = 1'-0"



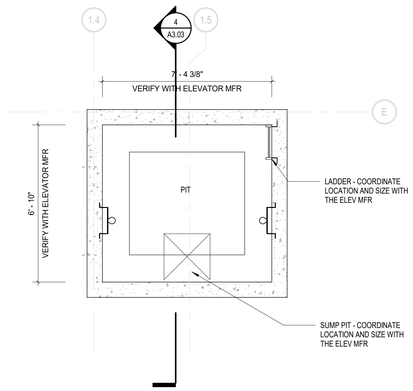
9 ELEVATOR PIT DETAIL
1 1/2" = 1'-0"



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



2 LEVEL 01 - ELEVATOR PLAN
3/8" = 1'-0"



3 PIT - ELEVATOR PLAN
3/8" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER C. SMILEY
12-6-24
CERTIFICATE NO. 14101
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brookstridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

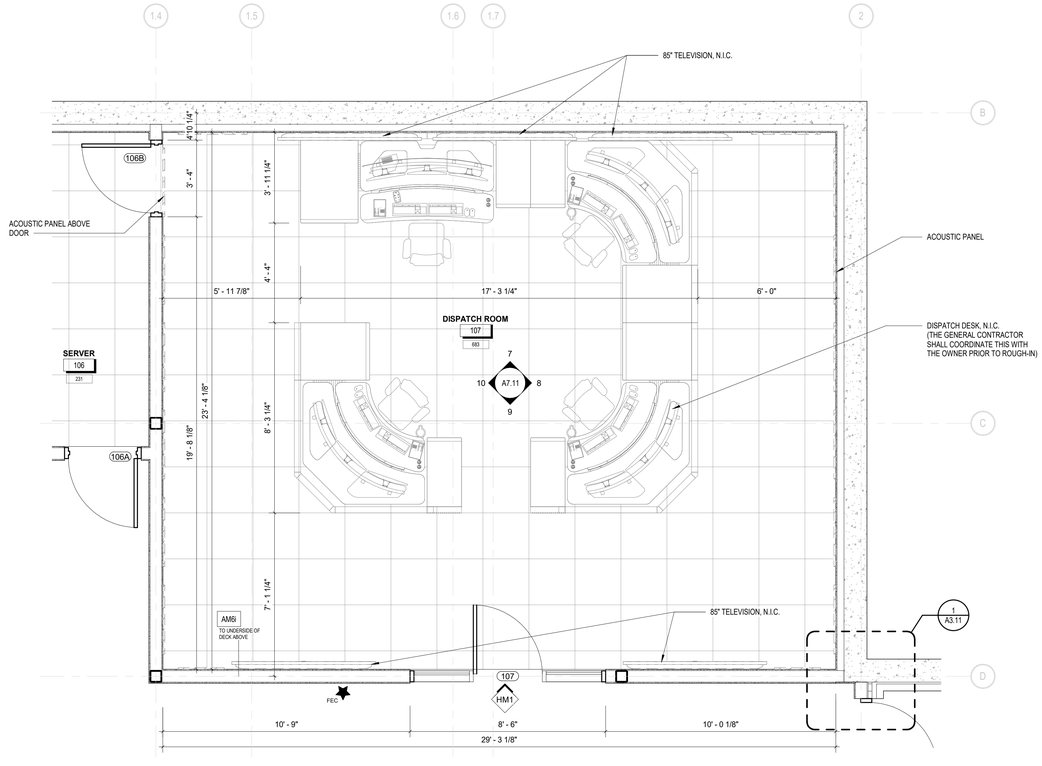
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ENLARGED FLOOR PLANS - ELEVATOR

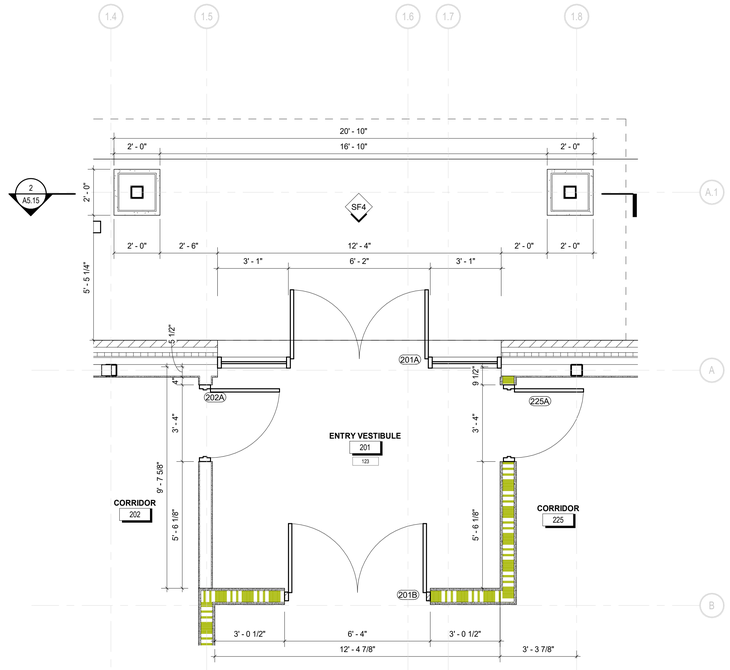
DRAWING NUMBER

A3.03

CONSTRUCTION DOCUMENT PACKAGE



3 ENLARGED PLAN - DISPATCH ROOM
3/8" = 1'-0"



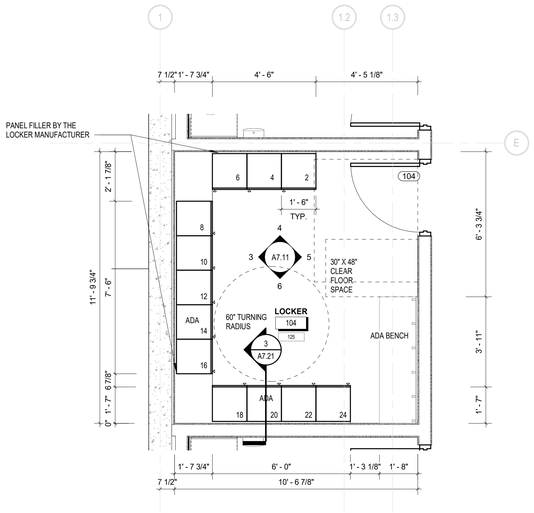
1 ENLARGED PLAN - MAIN ENTRANCE
3/8" = 1'-0"

CASEWORK LEGEND	
TAG	DESCRIPTION
B1	39"W x 34"T x 24"D - ADA BASE CABINET SINK CABINET W/ DOUBLE DOOR, SEE PLAN VIEW FOR CLEAR SPACE AND FRONT APPROACH ACCESSIBLE SINK.
B2	36"W x 34"T x 24"D - DOUBLE DOOR, BASE CABINET W/ (2) TWO 6" TALL DRAWERS AND (1) ADJUSTABLE SHELF.
W1	39"W x 24"T x 12"D - WALL CABINET W/ (2) TWO DOORS AND (1) ONE ADJUSTABLE SHELF.
W2	36"W x 30"T x 12"D - WALL CABINET W/ (2) TWO DOOR AND (2) TWO ADJUSTABLE SHELVES.

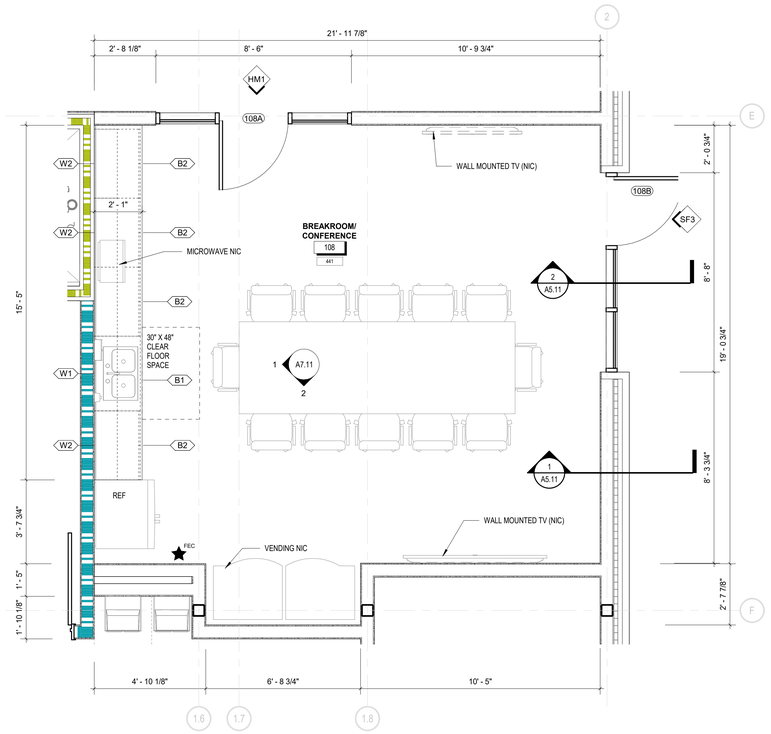
GENERAL NOTES:

ALL CASEWORK W/ EXPOSED ENDS SHALL BE FINISHED TO MATCH

CASEWORK NOTES
1. ALL DIMENSIONS ARE TO FACE OF METAL STUD OR FACE OF COUNTER TOP OR FACE OF CABINET, UNLESS OTHERWISE NOTED. FIELD VERIFY ALL DIMENSIONS PRIOR TO MANUFACTURING OF CABINETS
2. IF CONFLICTING INFORMATION OR INSTRUCTIONS ARE FOUND IN THE CONTRACT DOCUMENTS, THE GENERAL CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT IN WRITING. IN THE ABSENCE OF A REQUEST FOR CLARIFICATION, THE GENERAL CONTRACTOR SHALL ASSUME THE MORE EXPENSIVE OPTION AS PART OF THE BASE BID.
3. FOGB = FACE OF GYPSUM BOARD



4 ENLARGED PLAN - LOCKER
3/8" = 1'-0"



2 ENLARGED PLAN - BREAKROOM/ CONFERENCE
3/8" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER CALE
12-6-24
CERTIFICATE NO. 14321
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

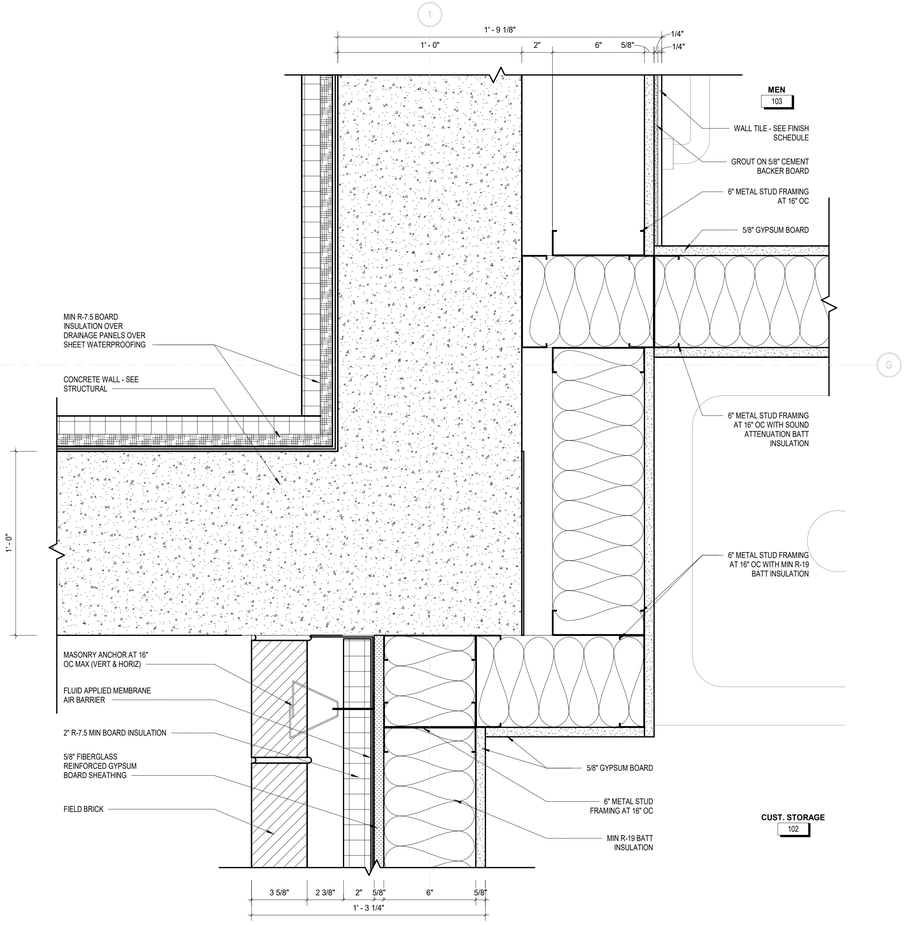
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ENLARGED FLOOR PLANS

DRAWING NUMBER

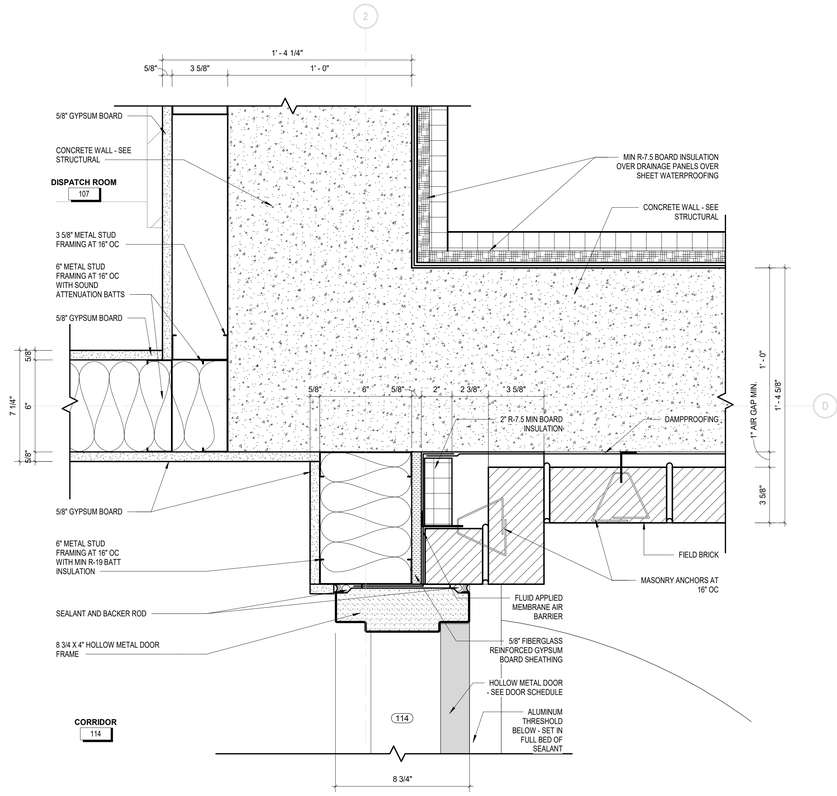
A3.04

CONSTRUCTION DOCUMENT PACKAGE



2 ENLARGED PLAN DETAIL @ RETAINING WALL 2

3" = 1'-0"



1 ENLARGED PLAN DETAIL @ RETAINING WALL 1

3" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER J. COLE
CERTIFICATE NO. 14101
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	BK, YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

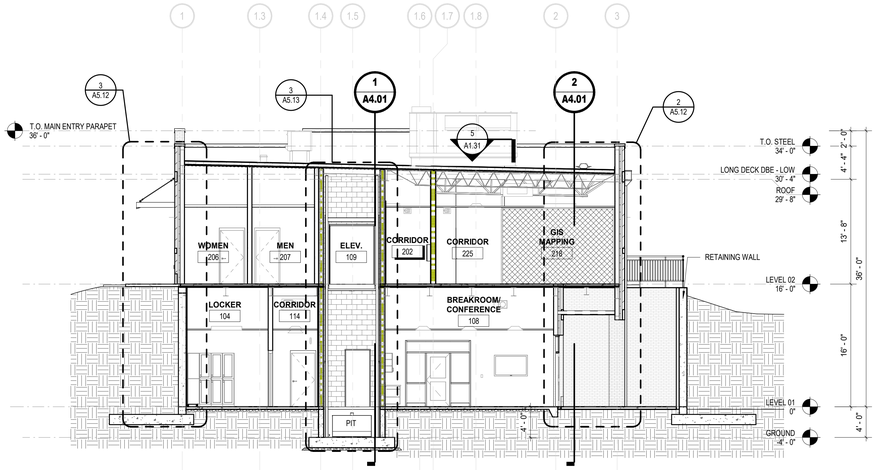
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

PLAN DETAILS

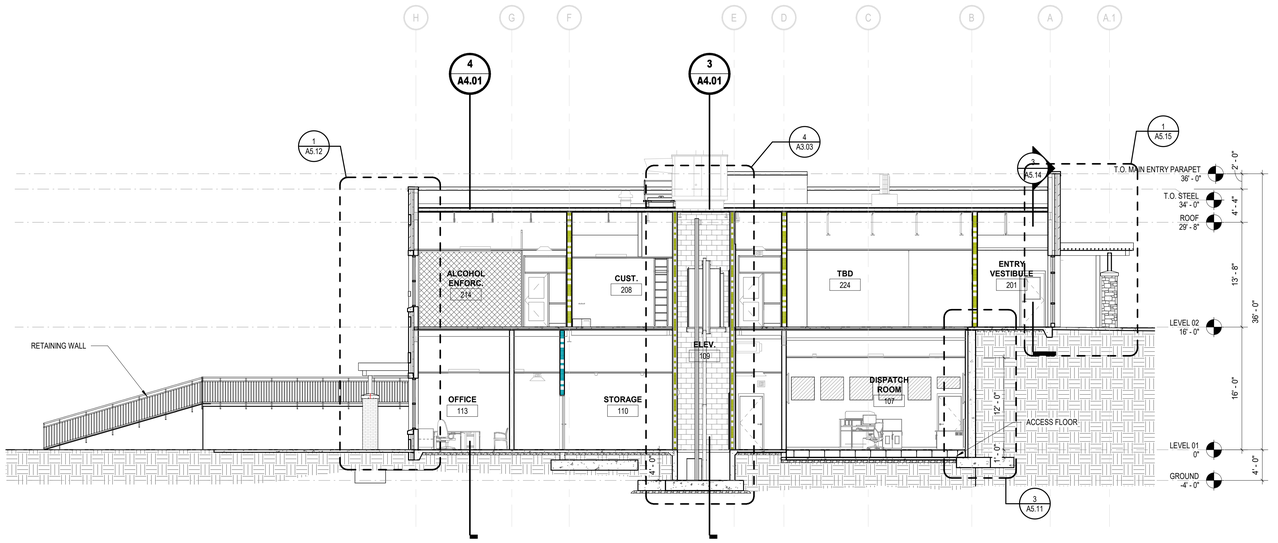
DRAWING NUMBER

A3.11

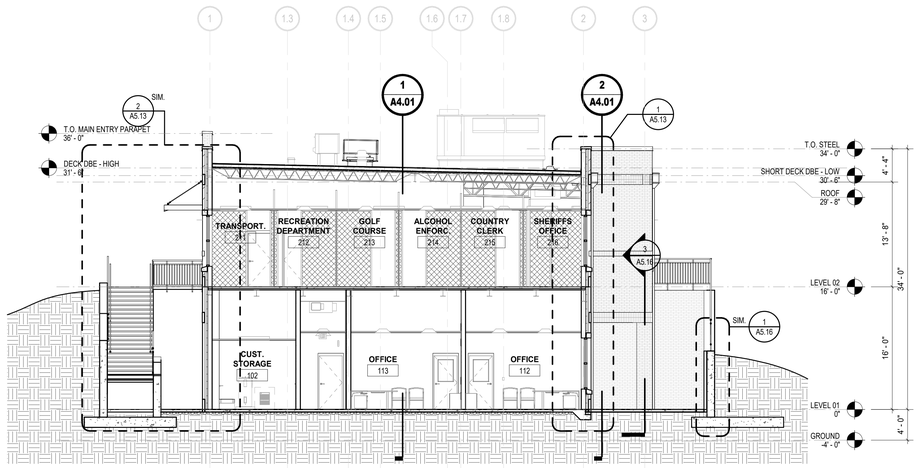
CONSTRUCTION DOCUMENT PACKAGE



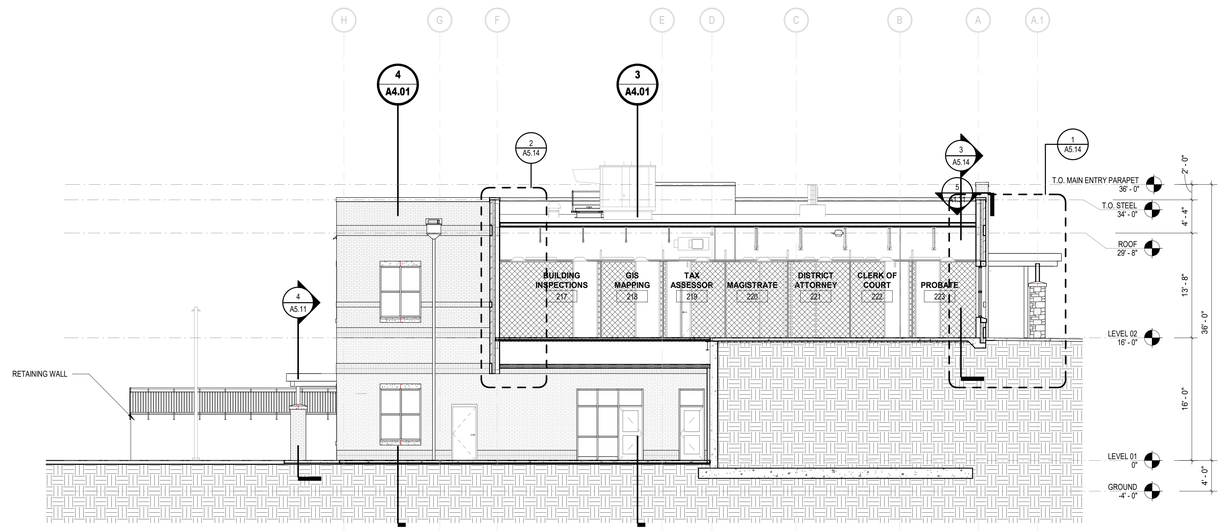
3 OVERALL BUILDING HORIZONTAL SECTION1
1/8" = 1'-0"



1 OVERALL BUILDING LONGITUDINAL SECTION1
1/8" = 1'-0"



4 OVERALL BUILDING HORIZONTAL SECTION2
1/8" = 1'-0"



2 OVERALL BUILDING LONGITUDINAL SECTION2
1/8" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT!

STATE OF GEORGIA
CHRISTOPHER J. YANCEY
CERTIFICATE NO. 14101
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

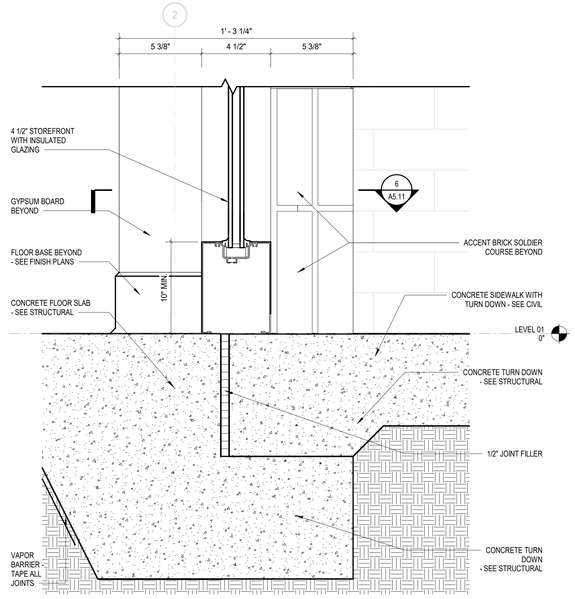
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

OVERALL BUILDING SECTIONS

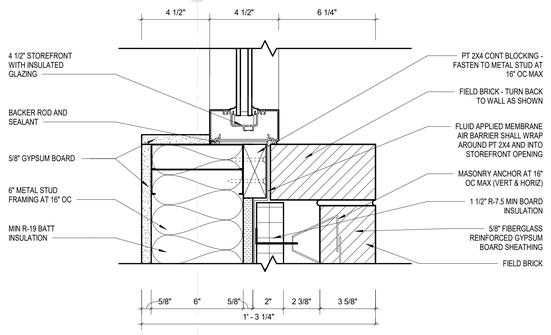
DRAWING NUMBER

A4.01

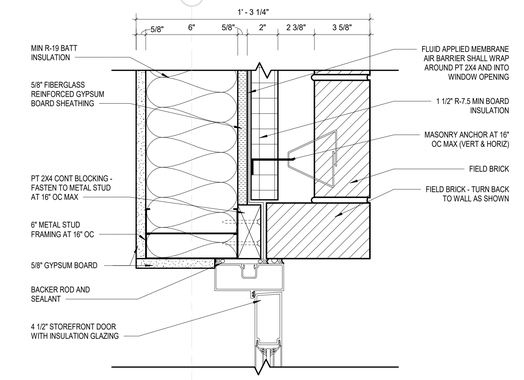
CONSTRUCTION DOCUMENT PACKAGE



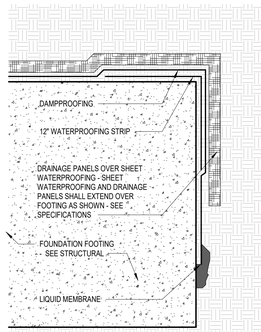
8 WALL SECTION AT STOREFRONT DOOR
3" = 1'-0"



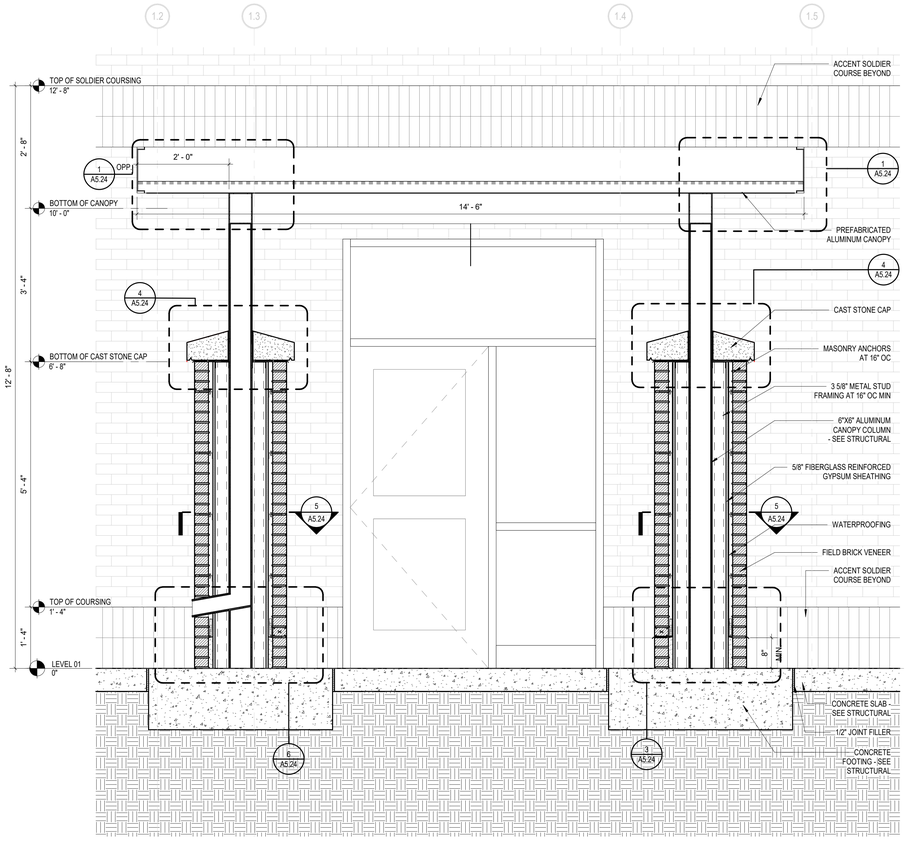
7 STOREFRONT JAMB
3" = 1'-0"



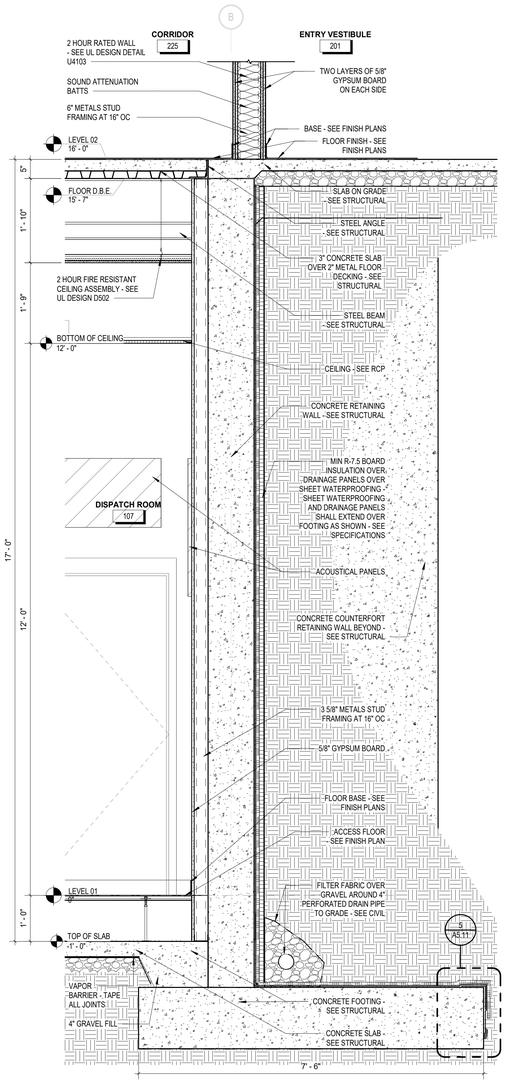
6 STOREFRONT DOOR JAMB AT BRICK
3" = 1'-0"



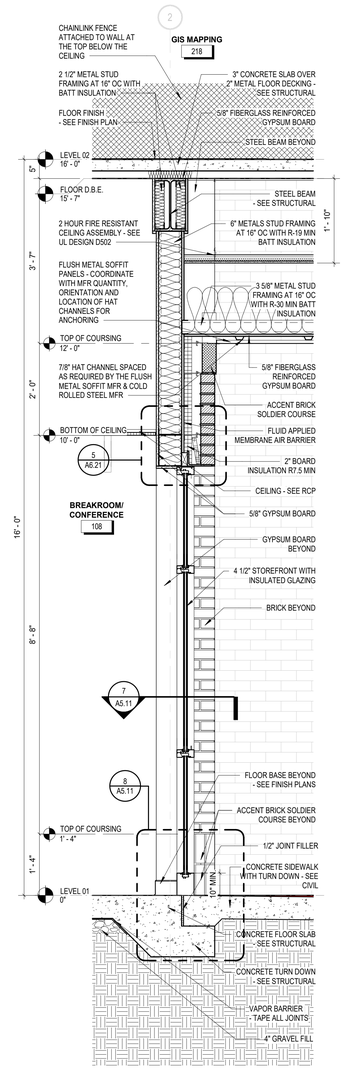
5 CONCRETE FOOTING EDGE DETAIL
3" = 1'-0"



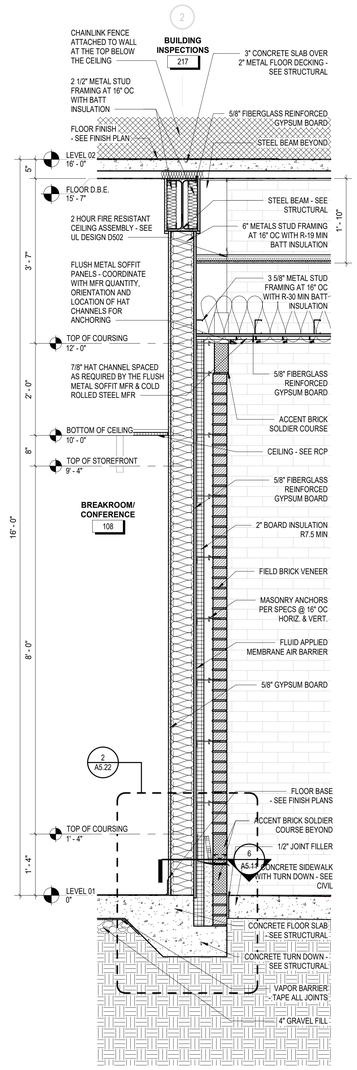
4 LOWER CANOPY
3/4" = 1'-0"



3 WALL SECTION AT DISPATCH ROOM
3/4" = 1'-0"



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



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

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

CHRISTOPHER C. SCHULZ
12-6-24
CERTIFICATE NO. 14301
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	BK	CC SN

DATE: 12/06/2024

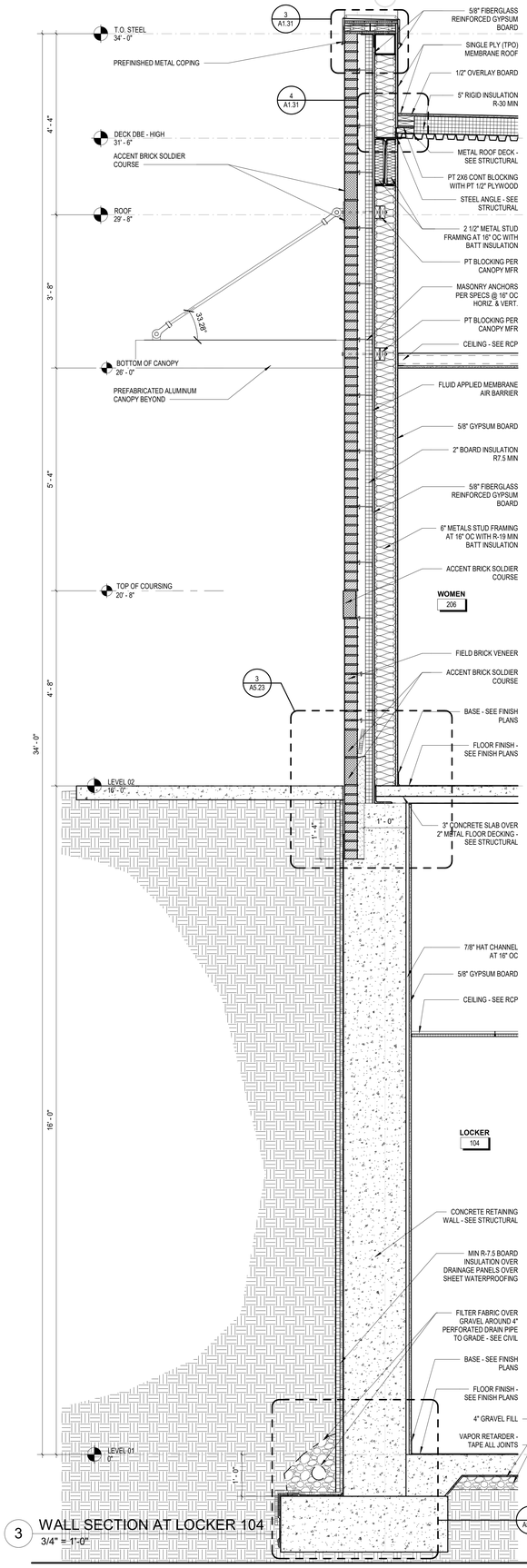
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

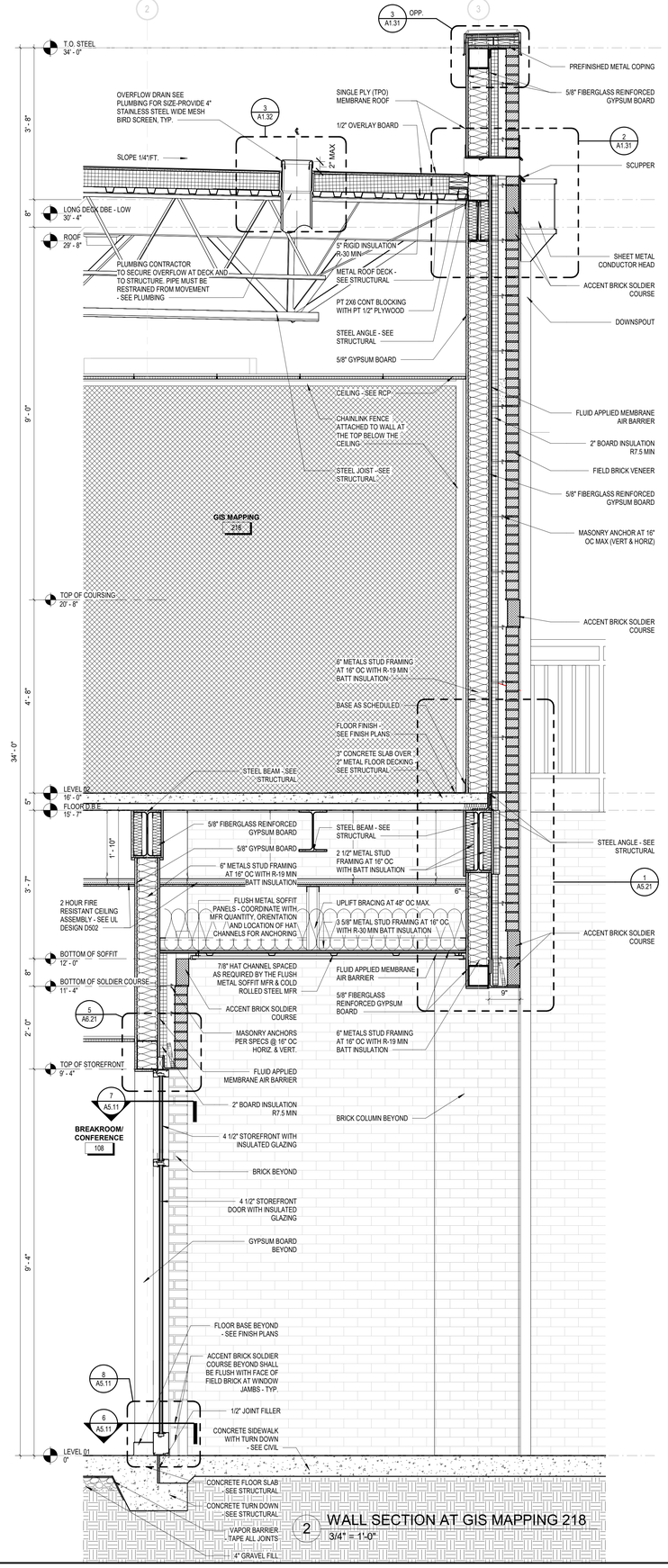
WALL SECTIONS

DRAWING NUMBER

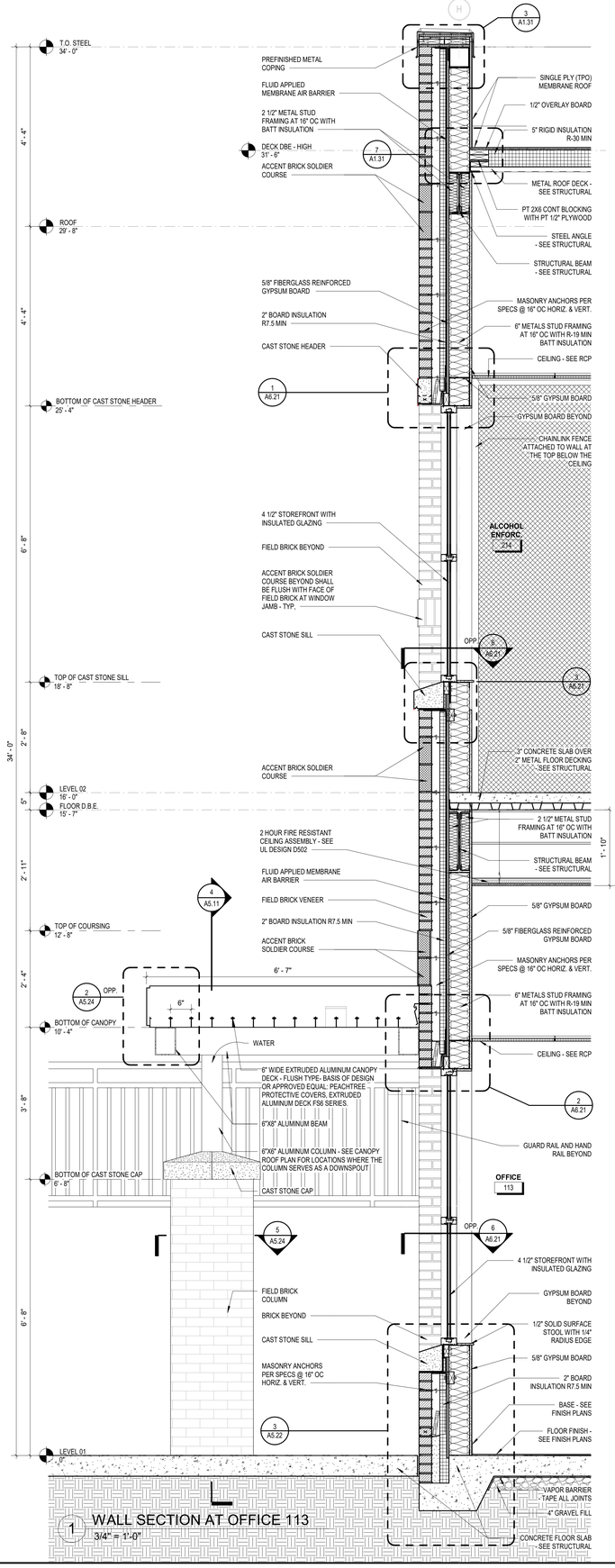
A5.11



3 WALL SECTION AT LOCKER 104
3/4" = 1'-0"



2 WALL SECTION AT GIS MAPPING 218
3/4" = 1'-0"



1 WALL SECTION AT OFFICE 113
3/4" = 1'-0"

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER K. CAMPBELL
12-6-24
CERTIFICATE NO. 14151
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	BK	CC SN

DATE: 12/06/2024

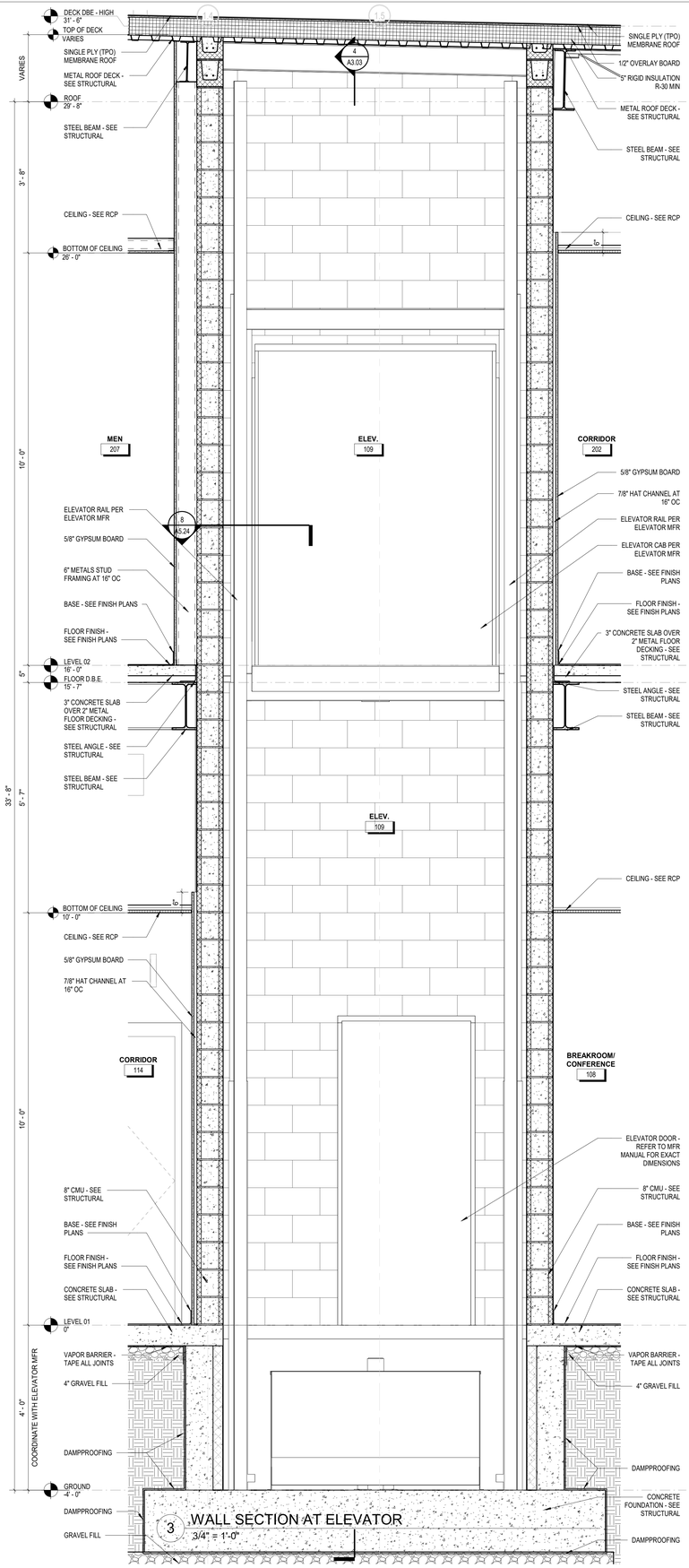
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

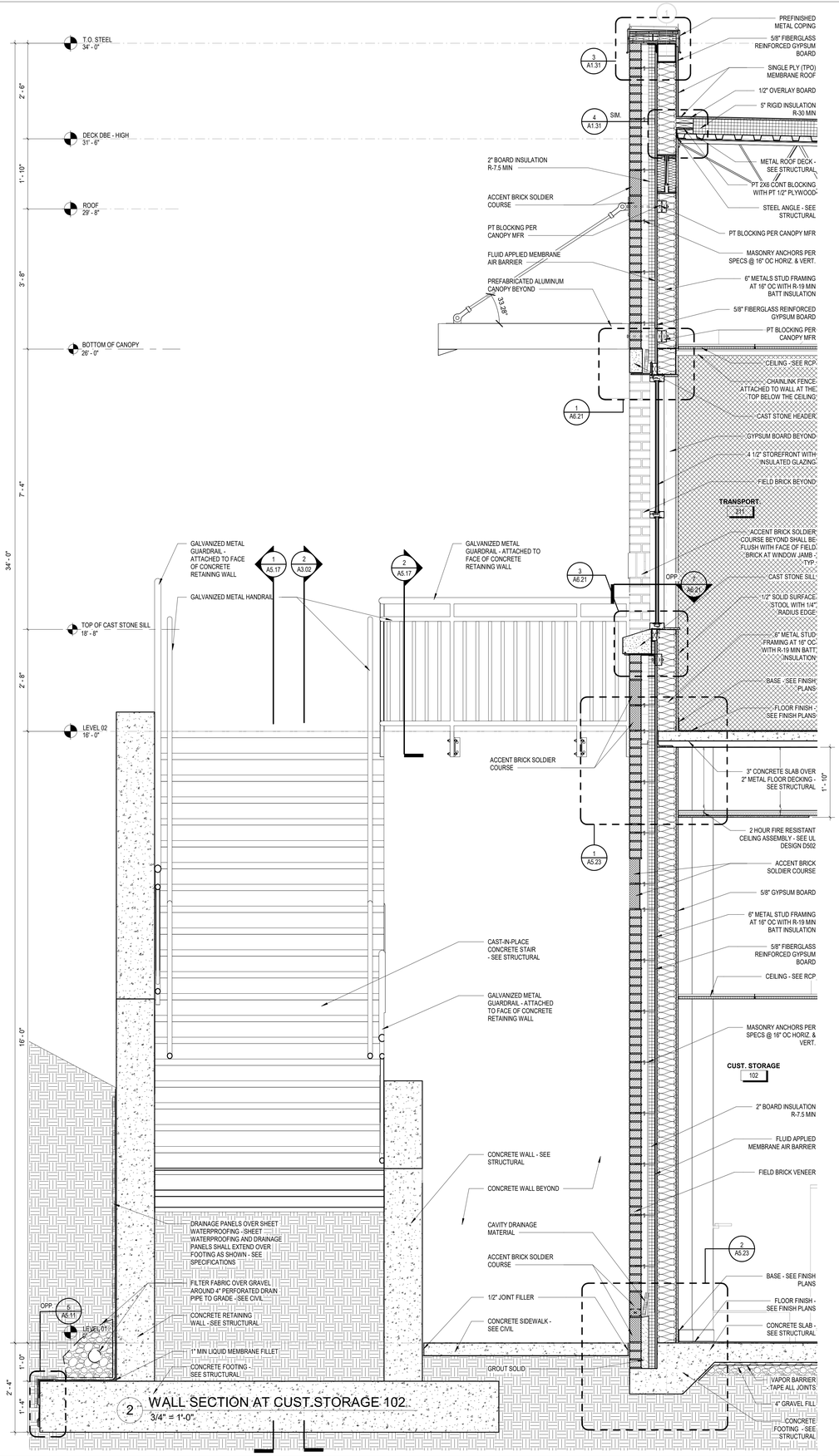
WALL SECTIONS

DRAWING NUMBER

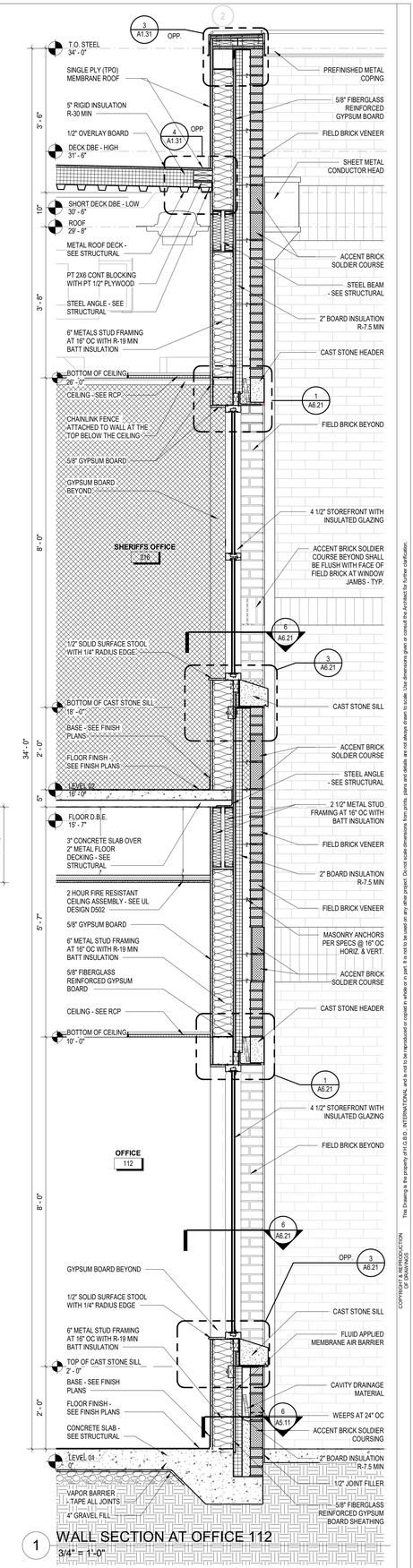
A5.12



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



2 WALL SECTION AT CUST.STORAGE 102
3/4" = 1'-0"



1 WALL SECTION AT OFFICE 112
3/4" = 1'-0"

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STATE OF GEORGIA
CHRISTOPHER COLE
CERTIFICATE NO. 14101
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS: △

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DATE: 12/06/2024

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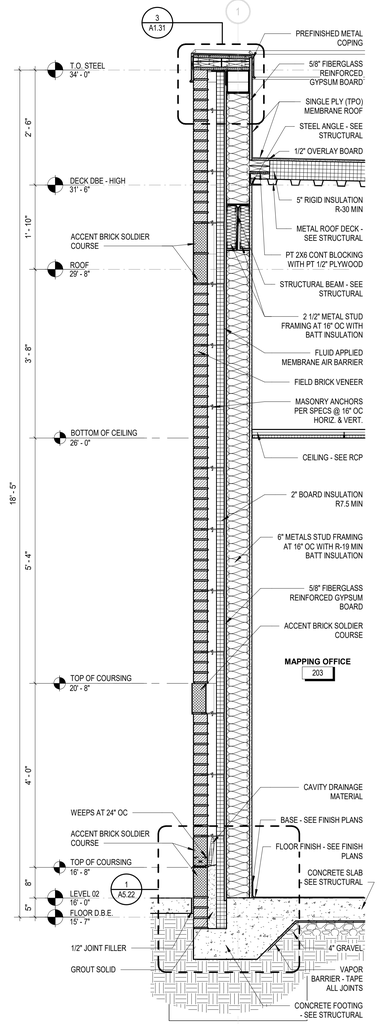
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

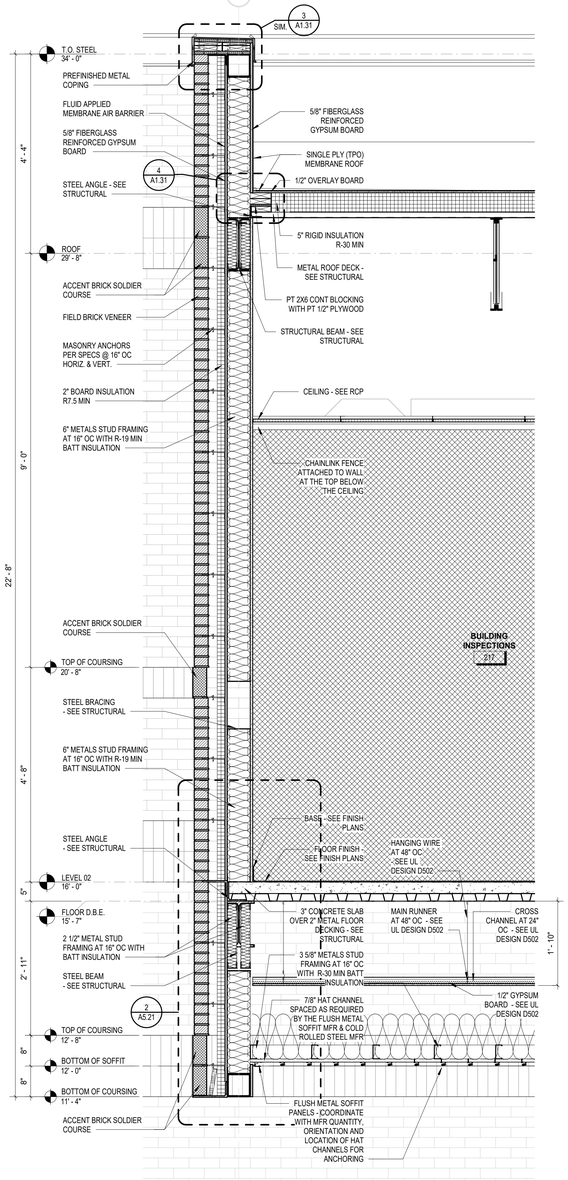
WALL SECTIONS

DRAWING NUMBER

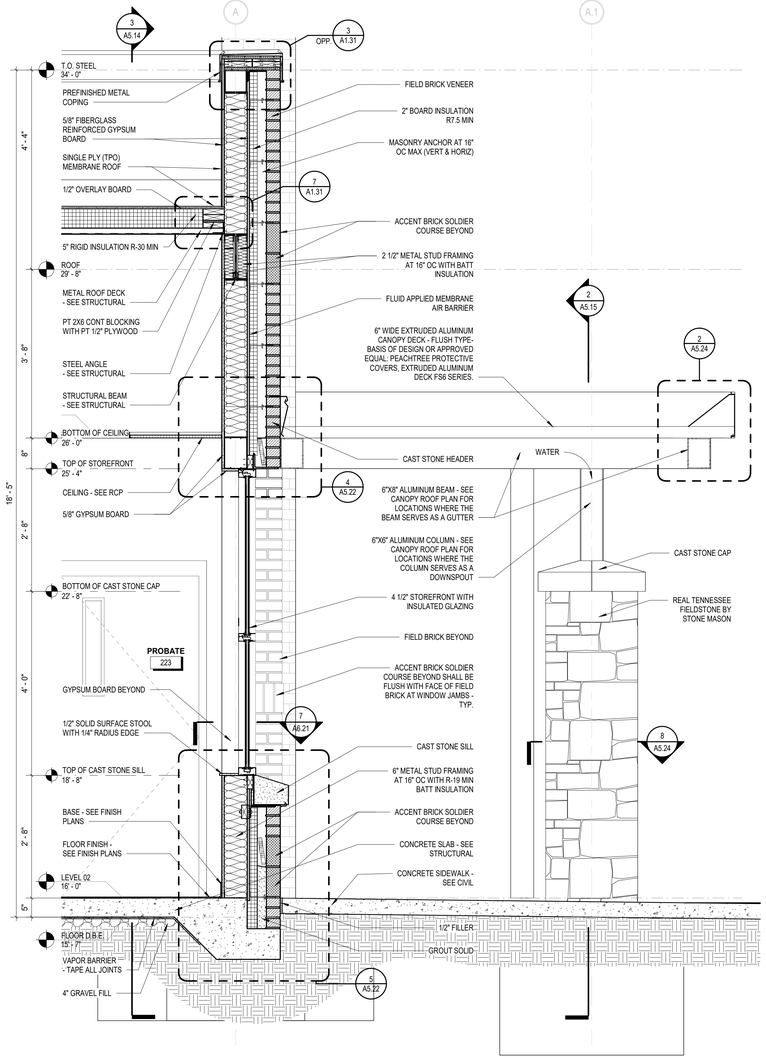
A5.13



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



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



1 WALL SECTION AT PROBATE 223
3/4" = 1'-0"

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STATE OF GEORGIA
CHRISTOPHER C. SMALLEY
12-6-24
CERTIFICATE NO. 14151
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

WALL SECTIONS

DRAWING NUMBER

A5.14

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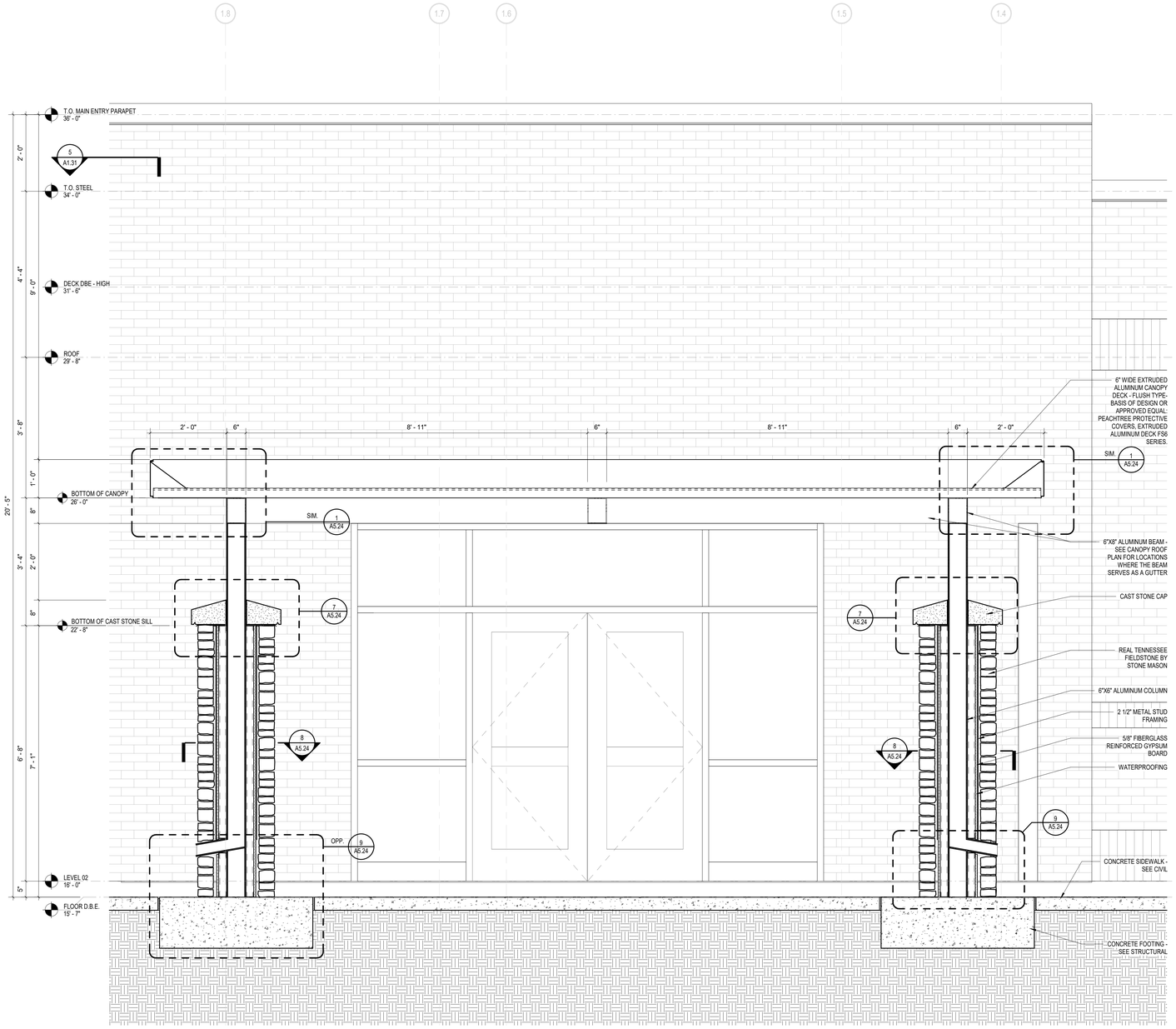
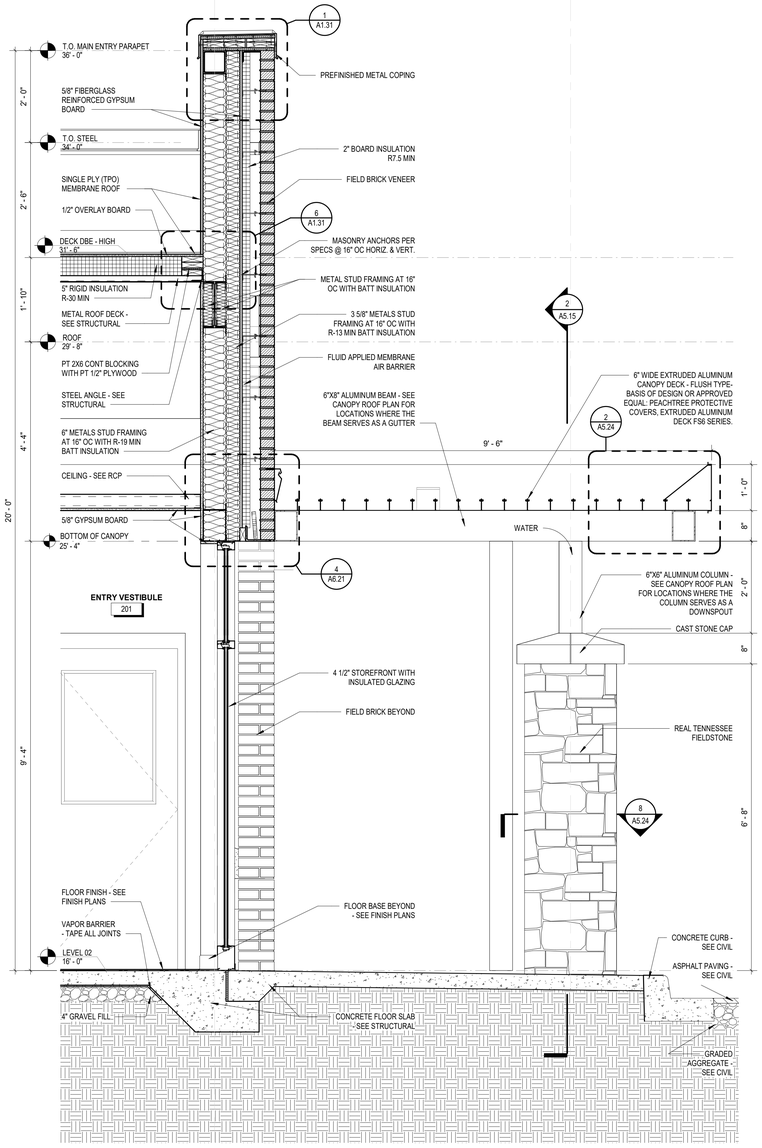


2 MAIN ENTRY CANOPY SECTION
3/4" = 1'-0"



1 WALL SECTION AT ENTRY VESTIBULE
3/4" = 1'-0"

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STATE OF GEORGIA
CHRISTOPHER C. SNARE
CERTIFICATE NO. 14151
REGISTERED ARCHITECT
12-6-24

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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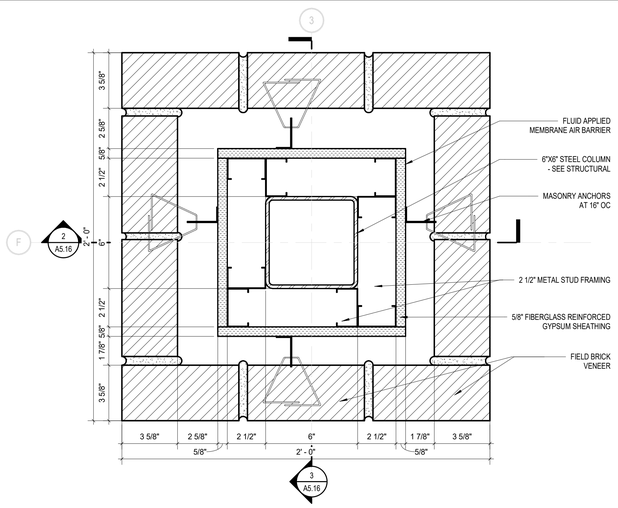
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

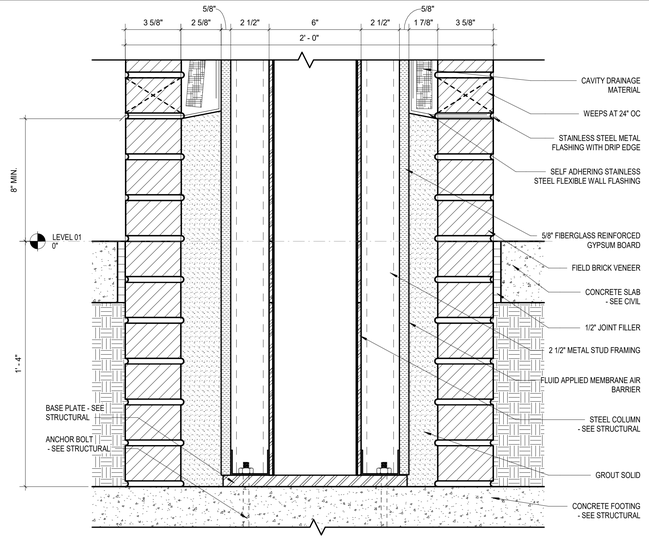
WALL SECTIONS

DRAWING NUMBER

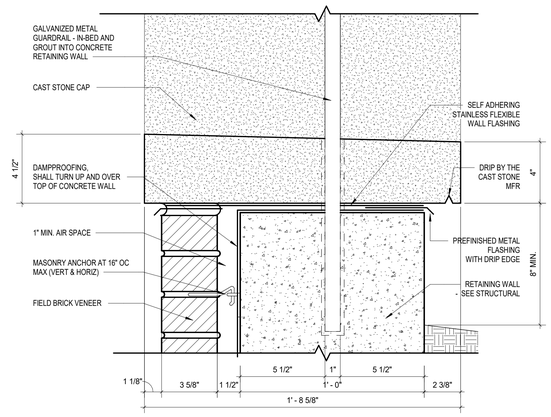
A5.15



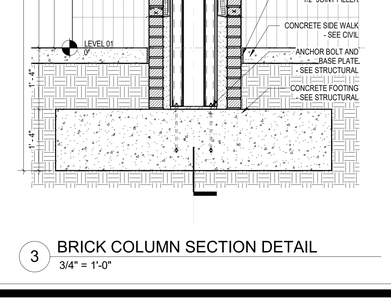
6 BRICK COLUMN PLAN DETAIL
3" = 1'-0"



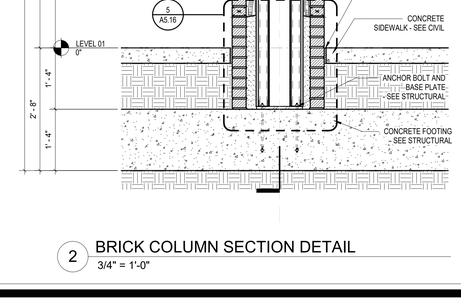
5 BRICK COLUMN FOOTING
3" = 1'-0"



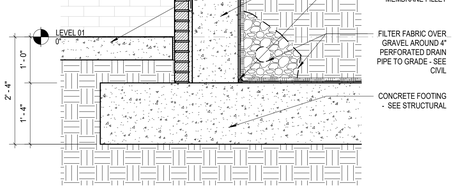
4 TYP. RETAINING WALL CAP ENLARGED
3" = 1'-0"



3 BRICK COLUMN SECTION DETAIL
3/4" = 1'-0"



2 BRICK COLUMN SECTION DETAIL
3/4" = 1'-0"



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

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Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER C. SNEAD
12-6-24
CERTIFICATE NO. 34501
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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DATE: 12/06/2024

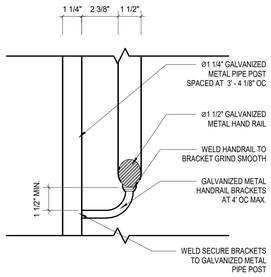
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

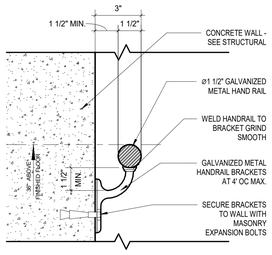
WALL SECTIONS

DRAWING NUMBER

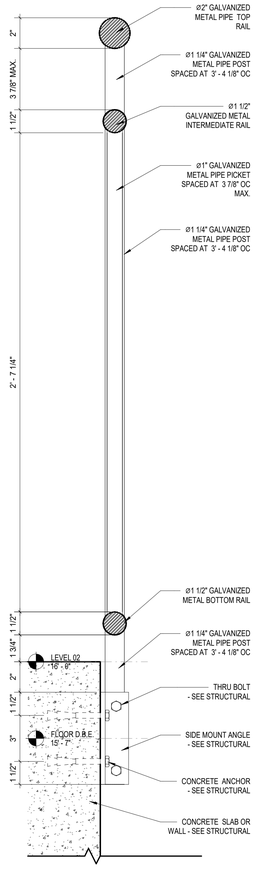
A5.16



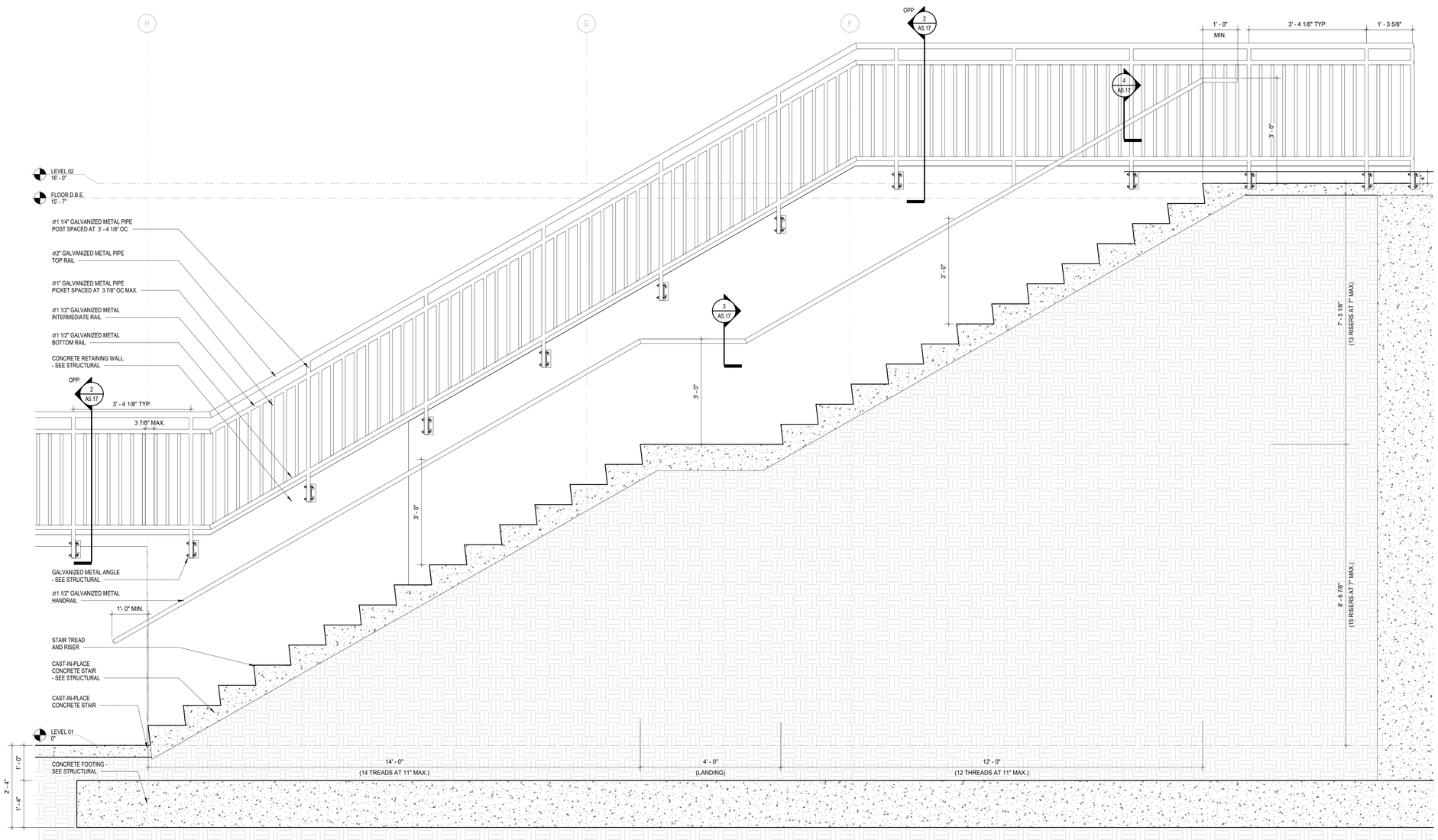
4 TYP HANDRAIL WELD
3" = 1'-0"



3 TYP HANDRAIL SECTION
3" = 1'-0"



2 TYP. SIDE MOUNT GUARDRAIL
3" = 1'-0"



1 EXTERIOR STAIR SECTION
3/4" = 1'-0"

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STATE OF GEORGIA
CHRISTOPHER SCHULE
CERTIFICATE NO. 14101
REGISTERED ARCHITECT
12-6-24

HUSSEY GAY BELL
Established 1958
3100 Brookstridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

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Designer	Author	CC SN

DATE: 12/06/2024

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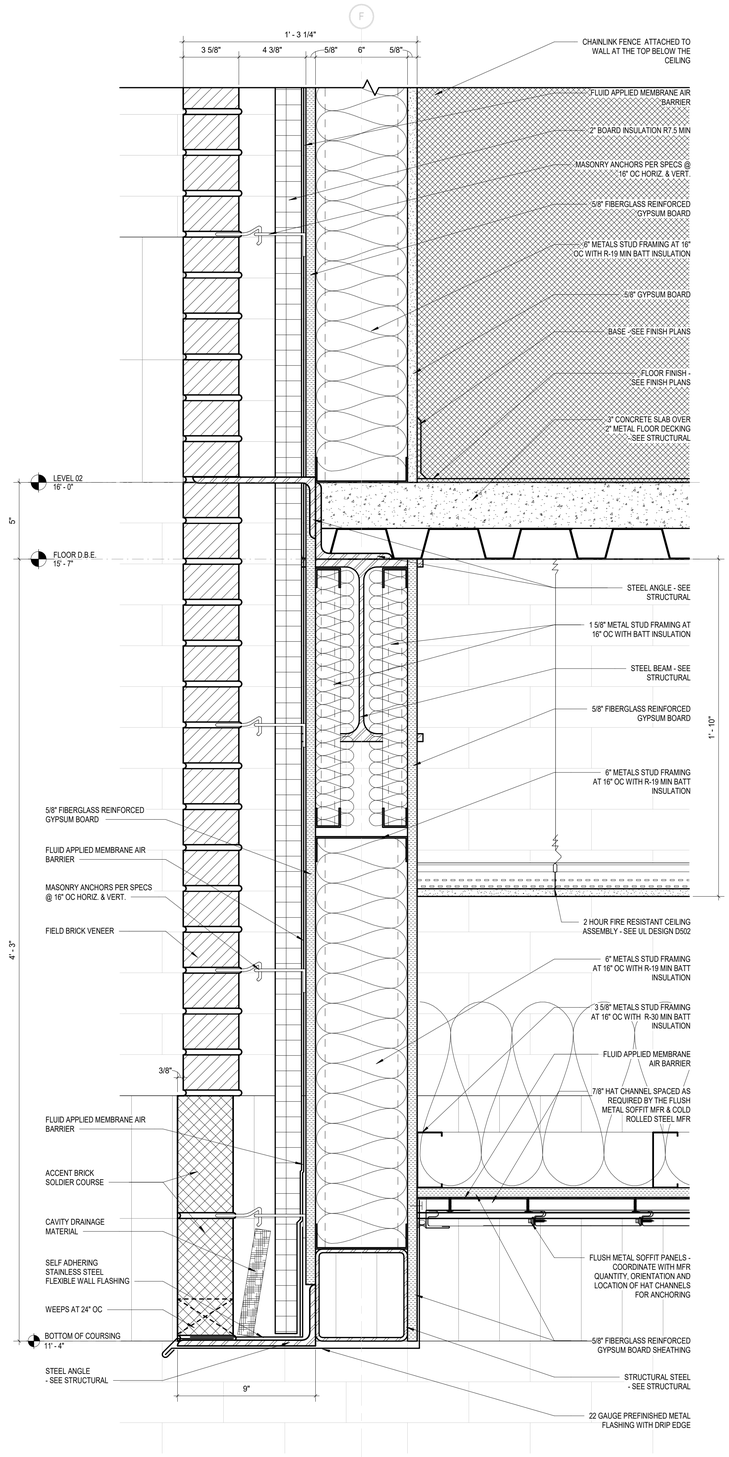
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

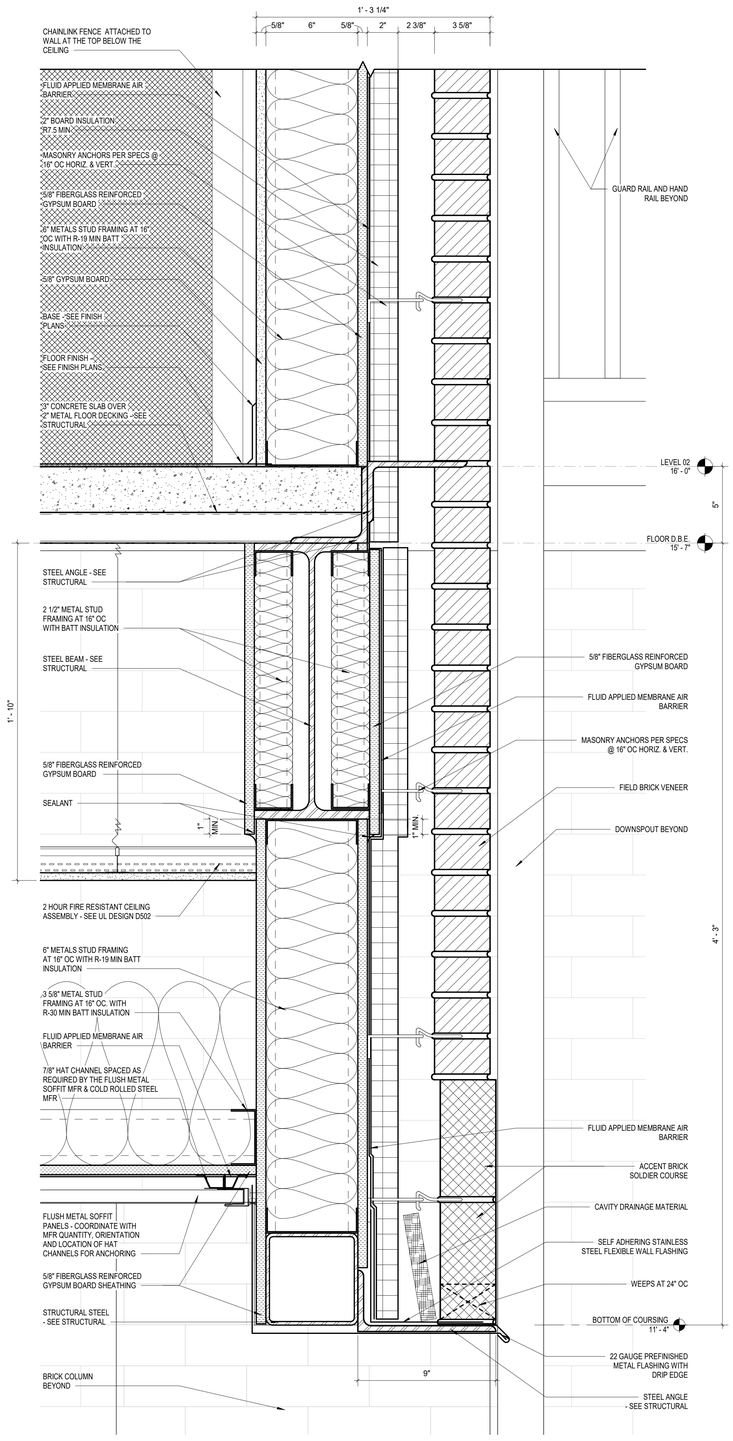
WALL SECTIONS

DRAWING NUMBER

A5.17



2 EXTERIOR CORNER AT BRICK
3" = 1'-0"



1 EXTERIOR CORNER AT BRICK
3" = 1'-0"

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UNION COUNTY
BELIEVE IT!

STATE OF GEORGIA
CHRISTOPHER COLE
CERTIFICATE NO. 34501
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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DATE: 12/06/2024

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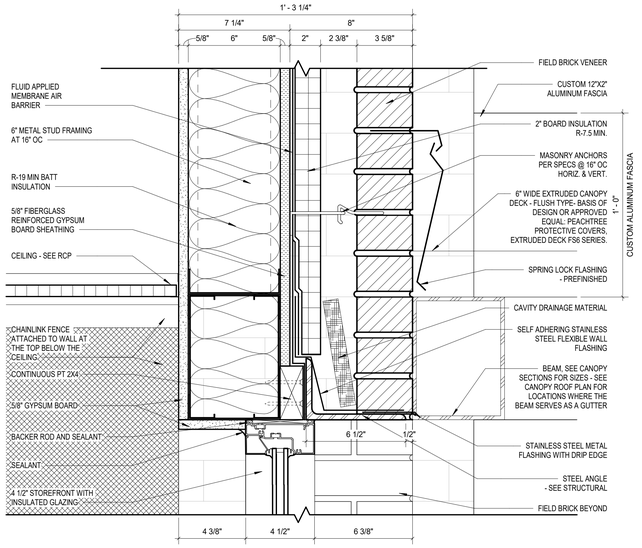
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

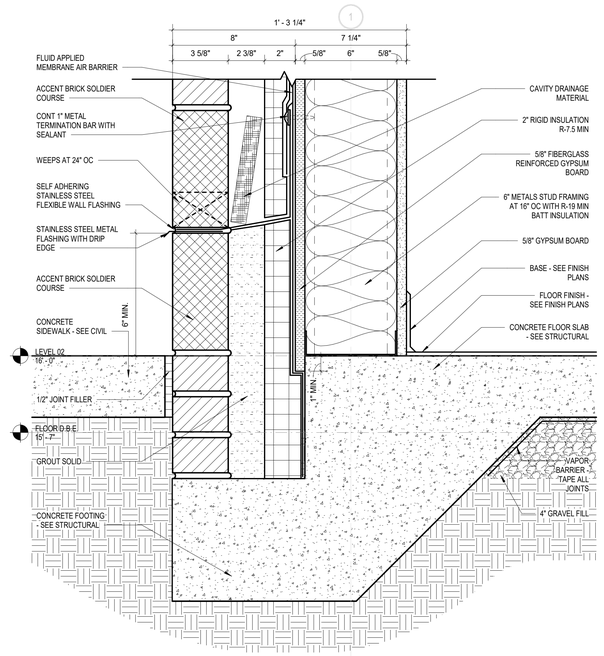
ENLARGED SECTIONS AND DETAILS

DRAWING NUMBER

A5.21



4 WINDOW FLASHING AT BRICK WALL
3" = 1'-0"



1 BASE FLASHING AT BRICK WALL
3" = 1'-0"

5 BASE FLASHING AT BRICK WALL
3" = 1'-0"

3 BASE FLASHING AT BRICK WALL
3" = 1'-0"

2 BASE FLASHING AT BRICK WALL
3" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER K. SMALLEY
CERTIFICATE NO. 14151
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ENLARGED SECTIONS AND DETAILS

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A5.22

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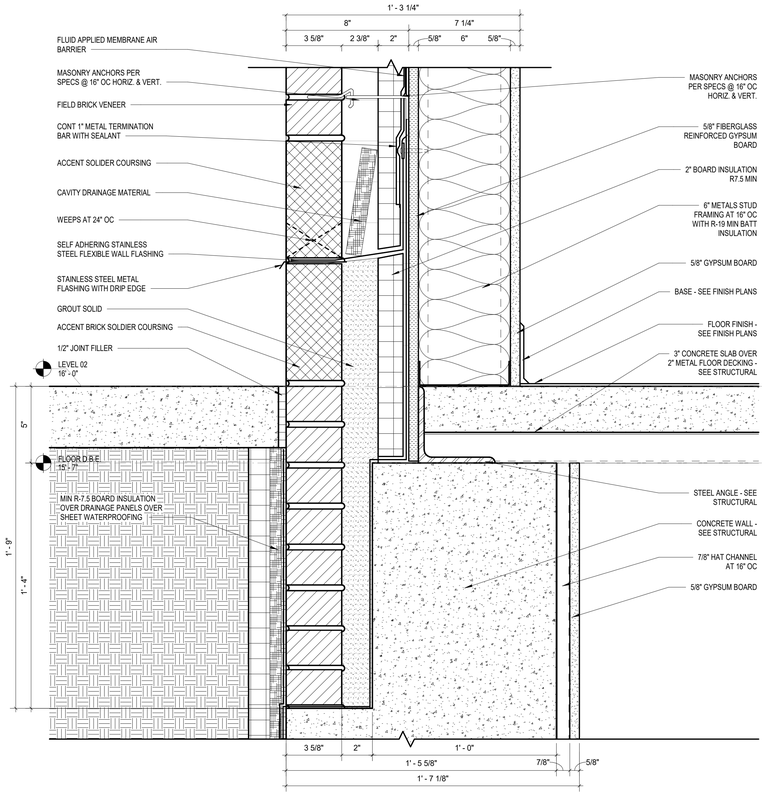
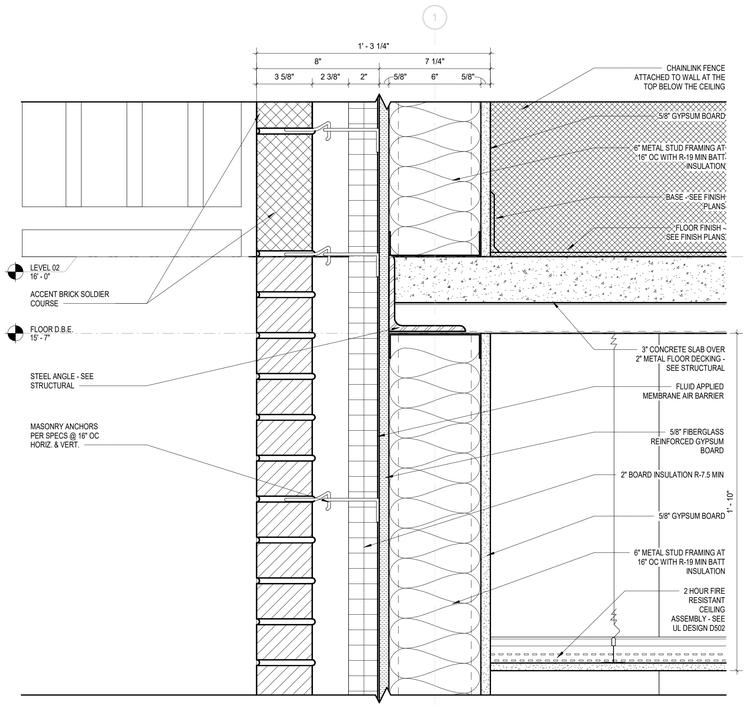
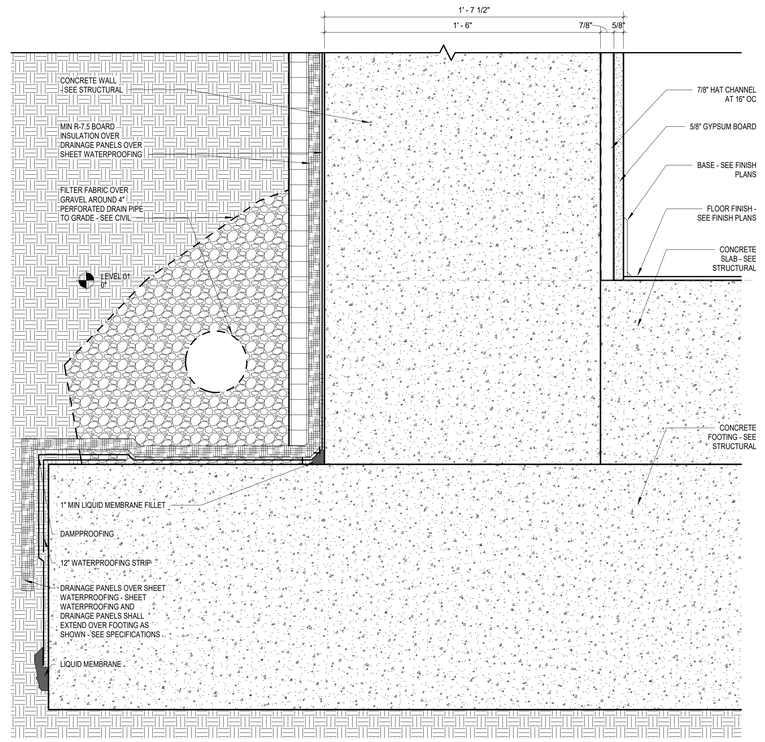


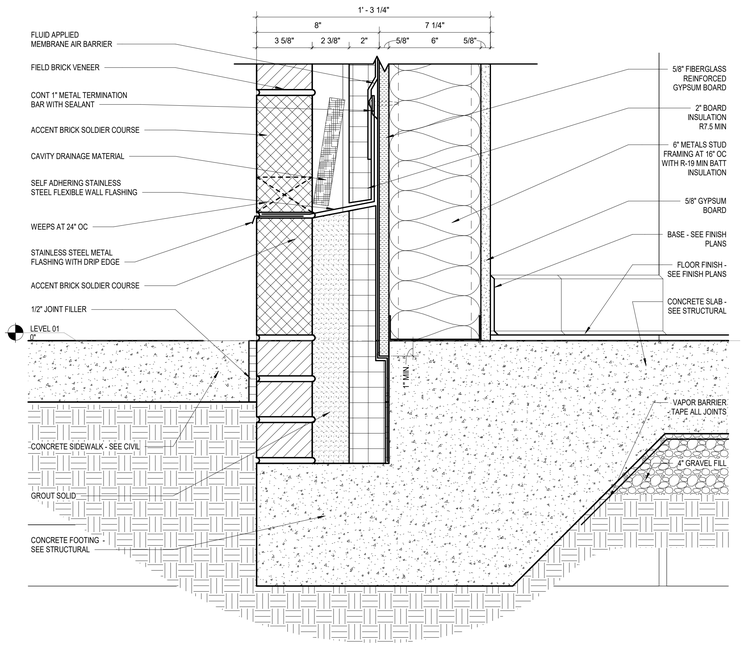
3 RETAINING WALL SECTION DETAIL
3" = 1'-0"



1 BRICK WALL AT LEVEL 02
3" = 1'-0"



4 RETAINING WALL SECTION DETAIL AT BASE
3" = 1'-0"



2 BASE FLASHING AT BRICK WALL
3" = 1'-0"

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STATE OF GEORGIA
CHRISTOPHER S. GAULE
12-6-24
CERTIFICATE NO. 14001
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

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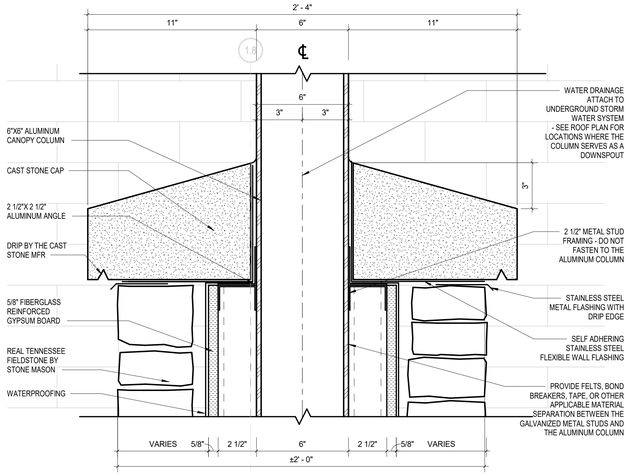
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

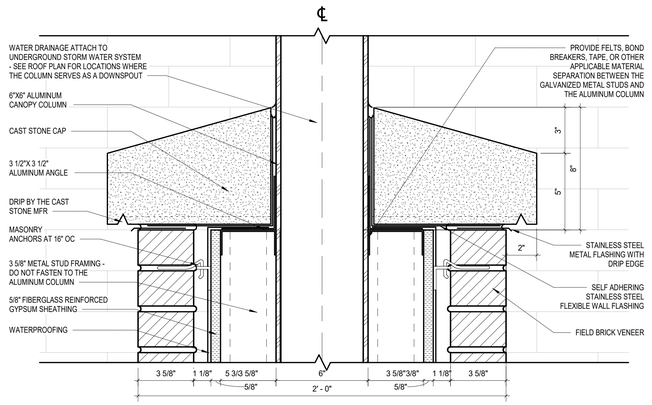
ENLARGED SECTIONS AND DETAILS

DRAWING NUMBER

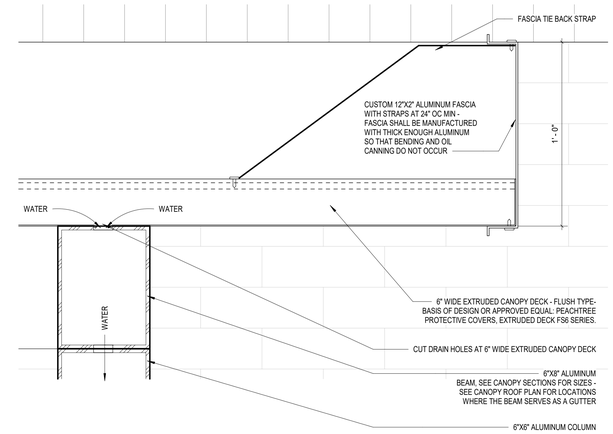
A5.23



7 PRECAST STONE CAP AT CANOPY
3" = 1'-0"



4 PRECAST STONE CAP AT CANOPY
3" = 1'-0"

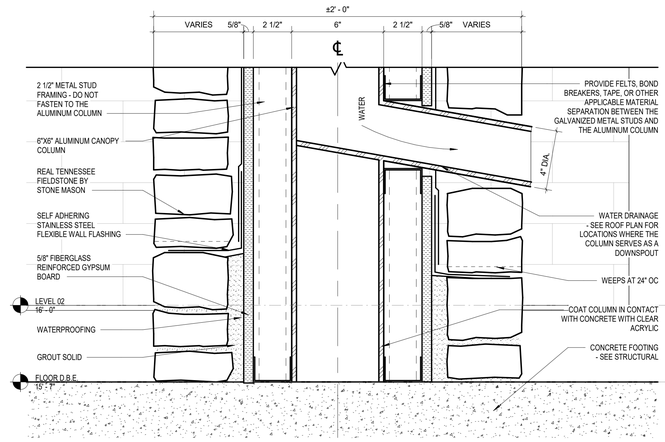


1 CANOPY SECTION DETAIL
3" = 1'-0"

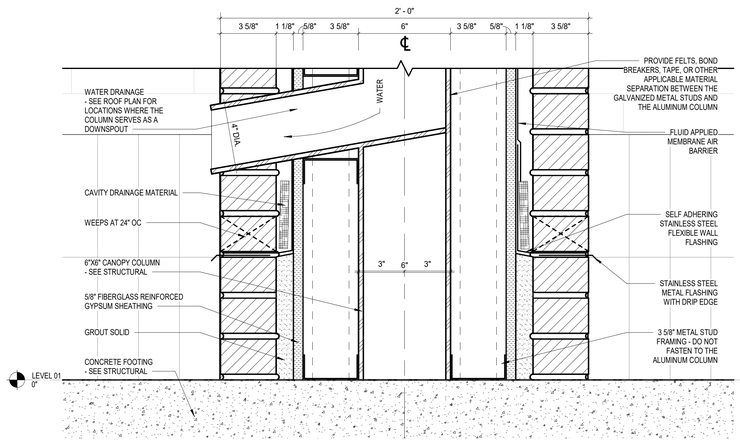
8 ENLARGED PLAN - STONE COLUMN
3" = 1'-0"

5 CANOPY COLUMN PLAN DETAIL
3" = 1'-0"

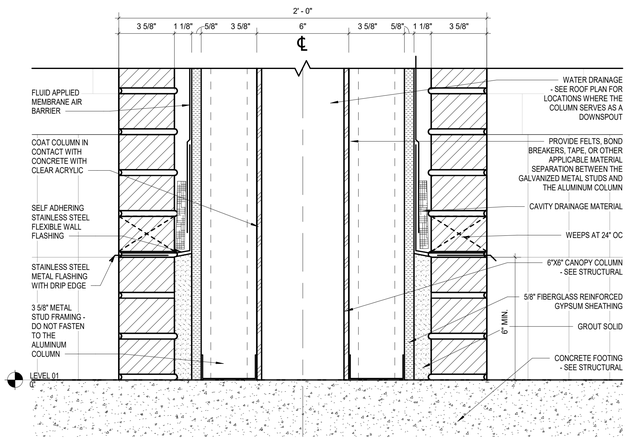
2 CANOPY COVER FASCIA
3" = 1'-0"



9 UPPER CANOPY FOOTING DETAIL
3" = 1'-0"



6 LOWER CANOPY FOOTING DETAIL
3" = 1'-0"



3 LOWER CANOPY FOOTING DETAIL
3" = 1'-0"

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS

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DATE: 12/06/2024

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NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ENLARGED SECTIONS AND DETAILS

DRAWING NUMBER

A5.24

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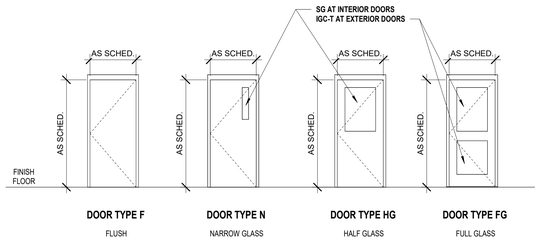
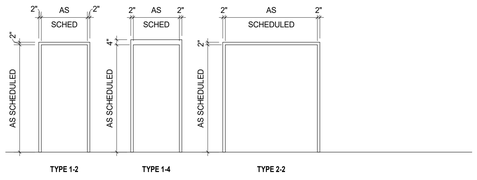


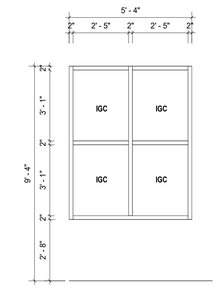
DOOR TYPE LEGEND

1/4" = 1'-0"

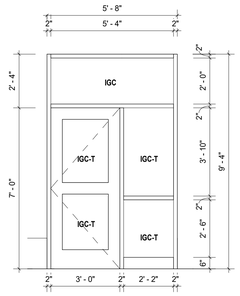


FRAME TYPE LEGEND

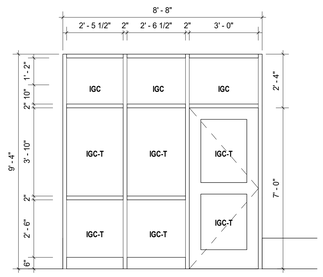
1/4" = 1'-0"



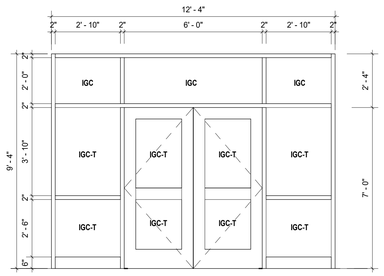
SF1



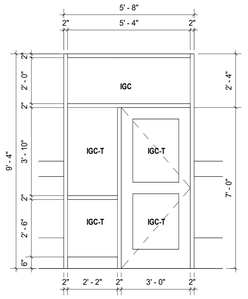
SF2



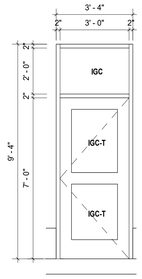
SF3



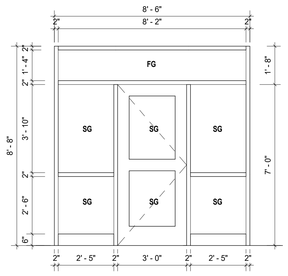
SF4



SF5



SF6



HM1

FRAME AND DOOR LEGEND

SF	4 1/2" STOREFRONT (ALUMINUM FRAME)
HM	8 3/4" HOLLOW METAL FRAME AND/OR HOLLOW METAL DOORS
ALUM	ALUMINUM (DOORS)
WD	WOOD (DOORS)
MFR	MANUFACTURER'S FINISH

GLAZING LEGEND

SG	SAFETY GLASS, 1/4" CLEAR TEMPERED
FG	1/4" CLEAR GLASS
IGC	INSULATED GLASS UNITS (LOW E)
IGC-T	INSULATED GLASS UNITS, TEMPERED (LOW E)

NOTES

1. VERIFY IN FIELD ALL DIMENSIONS PRIOR TO FABRICATION OF STOREFRONT AND HM FRAMES.

DOOR SCHEDULE

	DOOR					FRAME					FINISH		FIRE	
MARK	WIDTH	HT	THK	MAT	PANEL	TYPE	MAT	HEAD	JAMP	SILL	DOOR	FRAME	RATING	REMARKS
LEVEL 01														
101A	3' - 0"	7' - 0"	1 3/4"	ALUM	FG	SF2	ALUM				MFR	MFR		INSULATED, GLASS
101B	3' - 0"	7' - 0"	1 3/4"	ALUM	FG	SF2	ALUM				MFR	MFR		
102	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
103	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
104	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
105	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
106A	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
106B	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
107	3' - 0"	7' - 0"	1 3/4"	WD	HG	HM1	HM				STAIN	PAINT		INSULATED, GLASS
108A	3' - 0"	7' - 0"	1 3/4"	WD	HG	HM1	HM				STAIN	PAINT		INSULATED, GLASS
108B	3' - 0"	7' - 0"	1 3/4"	ALUM	FG	SF3	ALUM				MFR	MFR		
110	4' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT	45	
111	3' - 0"	7' - 0"	1 3/4"	HM	F	1-4	HM				PAINT	PAINT		
112	3' - 0"	7' - 0"	1 3/4"	WD	HG	1-2	HM				STAIN	PAINT		
113	3' - 0"	7' - 0"	1 3/4"	WD	HG	1-2	HM				STAIN	PAINT		
114	3' - 0"	7' - 0"	1 3/4"	ALUM	HG	SF6	ALUM				MFR	MFR		
LEVEL 02														
201A	6' - 0"	7' - 0"	1 3/4"	ALUM	FG	SF4	ALUM				MFR	MFR		INSULATED, GLASS
201B	6' - 0"	7' - 1"	1 3/4"	WD	N	2-2	HM				PAINT	PAINT	90	
202A	3' - 0"	7' - 0"	1 3/4"	WD	HG	1-2	HM				STAIN	PAINT		
202B	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT	90	
202C	3' - 0"	7' - 0"	1 3/4"	ALUM	FG	SF5	ALUM				MFR	MFR		INSULATED, GLASS
202D	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT	90	
203	3' - 0"	7' - 0"	1 3/4"	WD	HG	1-2	HM				STAIN	PAINT		
204	3' - 0"	7' - 0"	1 3/4"	WD	HG	1-2	HM				STAIN	PAINT		
205	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
206	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
207	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
208	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT		
209	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT	90	
210	3' - 0"	7' - 0"	1 3/4"	WD	F	1-2	HM				STAIN	PAINT	90	
225A	3' - 0"	7' - 0"	1 3/4"	WD	N	1-2	HM				STAIN	PAINT	90	
225B	3' - 0"	7' - 0"	1 3/4"	ALUM	FG	SF5	ALUM				MFR	MFR		INSULATED, GLASS

PROVIDE WINDOW BLINDS AT ALL APPLICABLE WINDOWS

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER SNEAD
CERTIFICATE NO. 14121
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

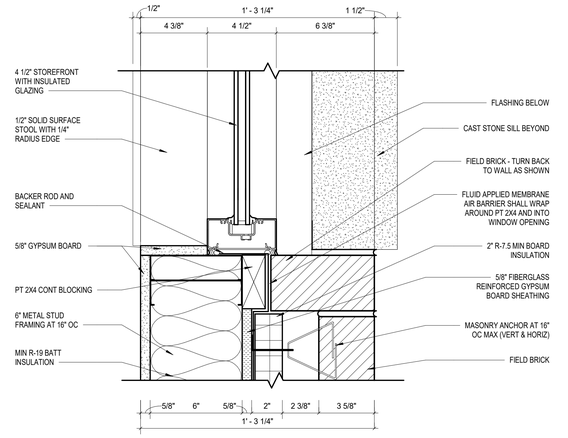
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

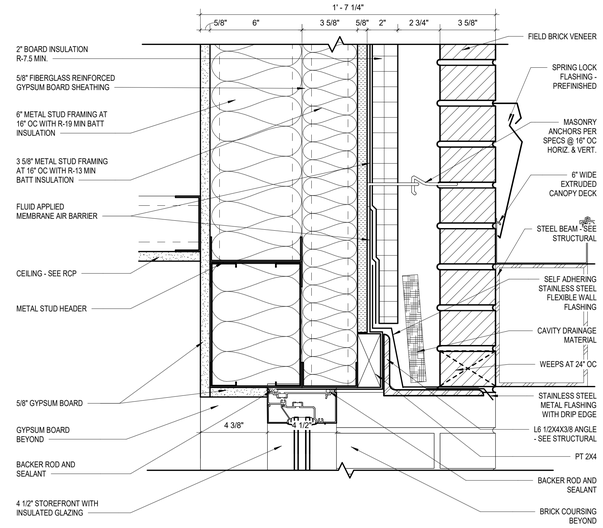
DOOR SCHEDULE

DRAWING NUMBER

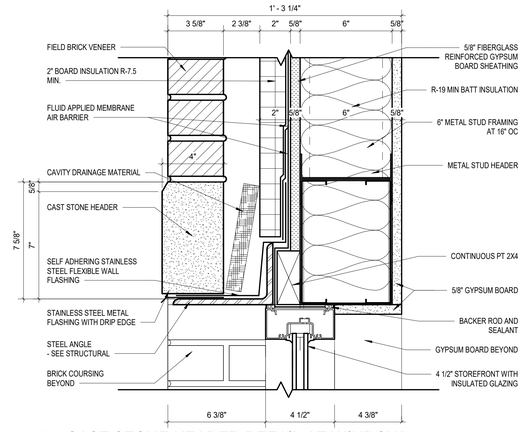
A6.11



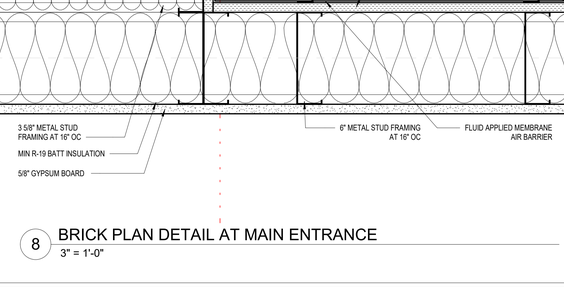
6 WINDOW JAMB AT BRICK WALL - 2 3/8" AIR GAP
3" = 1'-0"



4 BRICK HEADER DETAIL AT WINDOW
3" = 1'-0"

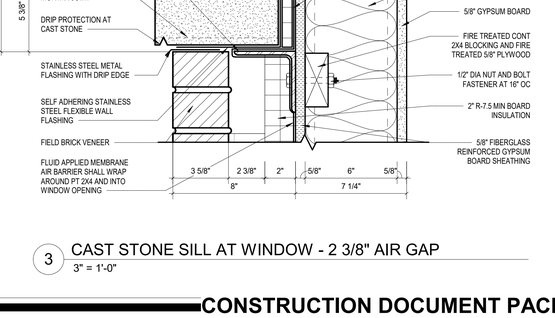


1 CAST STONE HEADER DETAIL AT WINDOW
3" = 1'-0"



7 WINDOW JAMB AT BRICK WALL - 2 3/8" AIR GAP
3" = 1'-0"

5 WINDOW HEAD DETAIL AT BRICK & METAL STUD
3" = 1'-0"



2 CAST STONE HEADER DETAIL AT CANOPY
3" = 1'-0"

8 BRICK PLAN DETAIL AT MAIN ENTRANCE
3" = 1'-0"

3 CAST STONE SILL AT WINDOW - 2 3/8" AIR GAP
3" = 1'-0"

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER S. CAULE
CERTIFICATE NO. 14151
REGISTERED ARCHITECT
12-6-24

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	BK	CC SN

DATE: 12/06/2024

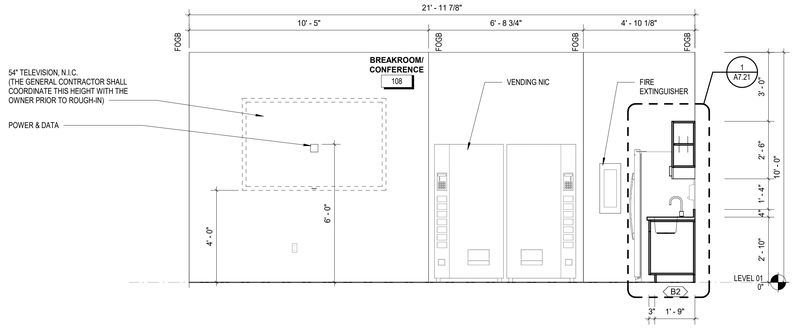
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

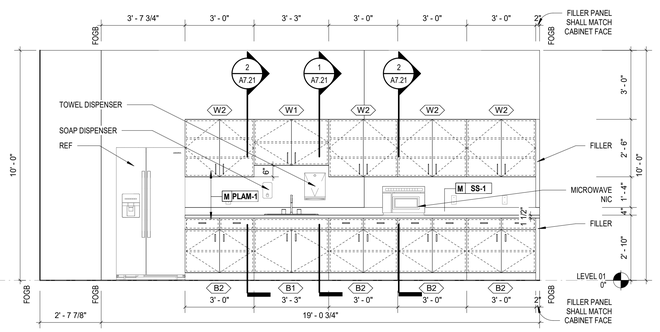
DOOR AND WINDOW DETAILS

DRAWING NUMBER

A6.21



2 BREAKROOM/ CONFERENCE 108 -2
3/8" = 1'-0"



1 BREAKROOM/ CONFERENCE 108 -1
3/8" = 1'-0"

CASEWORK LEGEND

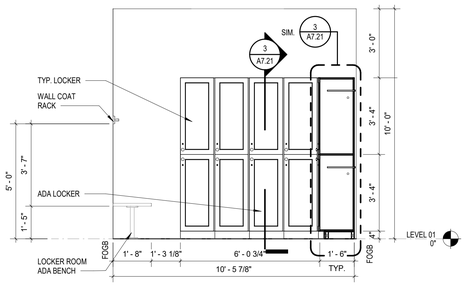
TAG	DESCRIPTION
B1	39"W x 34"T x 24"D - ADA BASE CABINET SINK CABINET W/ DOUBLE DOOR, SEE PLAN VIEW FOR CLEAR SPACE AND FRONT APPROACH ACCESSIBLE SINK.
B2	36"W x 34"T x 24"D - DOUBLE DOOR, BASE CABINET W/ (2) TWO 6" TALL DRAWERS AND (1) ADJUSTABLE SHELF.
W1	39"W x 24"T x 12"D - WALL CABINET W/ (2) TWO DOORS AND (1) ONE ADJUSTABLE SHELF.
W2	36"W x 30"T x 12"D - WALL CABINET W/ (2) TWO DOOR AND (2) TWO ADJUSTABLE SHELVES.

GENERAL NOTES:

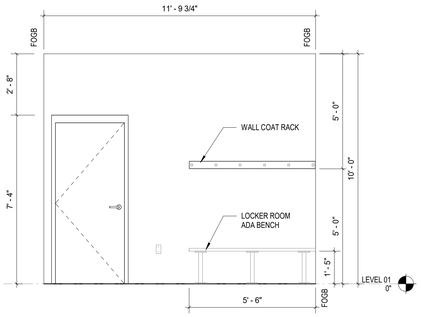
ALL CASEWORK W/ EXPOSED ENDS SHALL BE FINISHED TO MATCH

CASEWORK NOTES

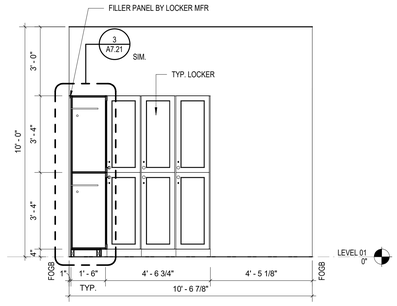
1. ALL DIMENSIONS ARE TO FACE OF METAL STUD OR FACE OF COUNTER TOP OR FACE OF CABINET, UNLESS OTHERWISE NOTED. FIELD VERIFY ALL DIMENSIONS PRIOR TO MANUFACTURING OF CABINETS
2. IF CONFLICTING INFORMATION OR INSTRUCTIONS ARE FOUND IN THE CONTRACT DOCUMENTS, THE GENERAL CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT IN WRITING. IN THE ABSENCE OF A REQUEST FOR CLARIFICATION, THE GENERAL CONTRACTOR SHALL ASSUME THE MORE EXPENSIVE OPTION AS PART OF THE BASE BID.
3. FOGB = FACE OF GYPSUM BOARD



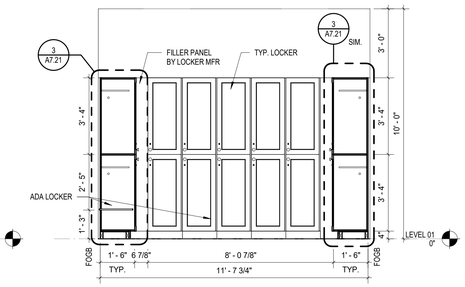
6 LOCKER ROOM 104 -4
3/8" = 1'-0"



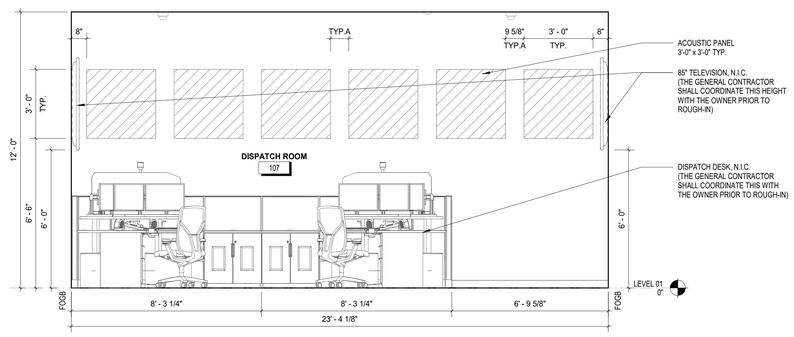
5 LOCKER ROOM 104 -3
3/8" = 1'-0"



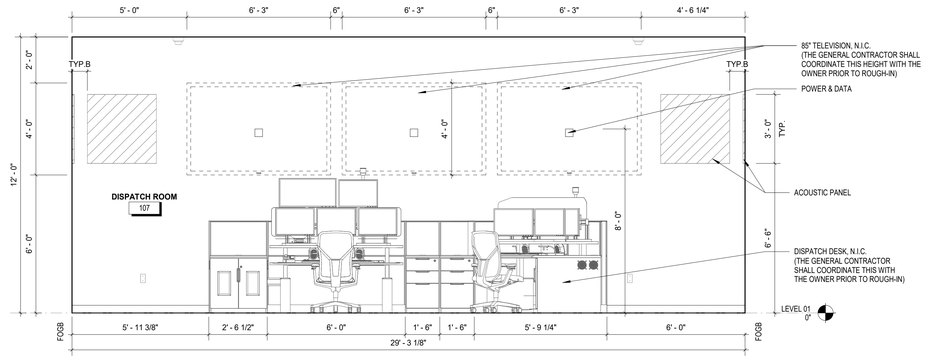
4 LOCKER ROOM 104 -2
3/8" = 1'-0"



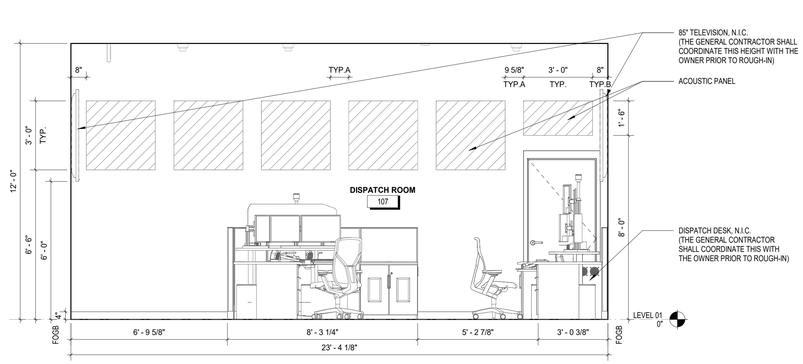
3 LOCKER ROOM 104 -1
3/8" = 1'-0"



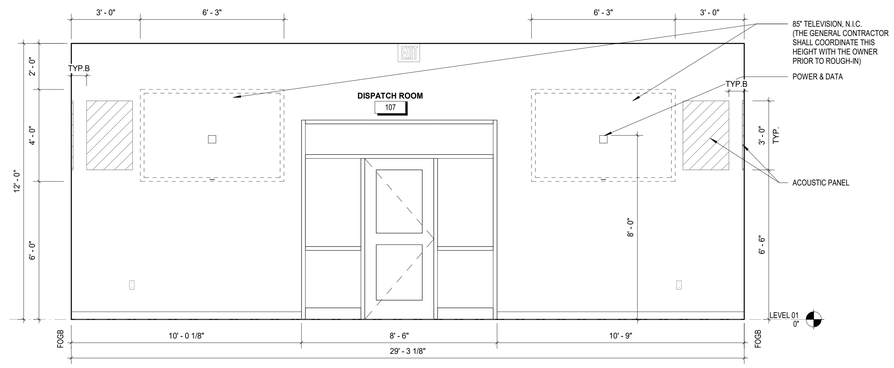
8 DISPATCH ROOM 107 -2
3/8" = 1'-0"



7 DISPATCH ROOM 107 -1
3/8" = 1'-0"



10 DISPATCH ROOM 107 -4
3/8" = 1'-0"



9 DISPATCH ROOM 107 -3
3/8" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER SCHULZE
CERTIFICATE NO. 14121
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS: △

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

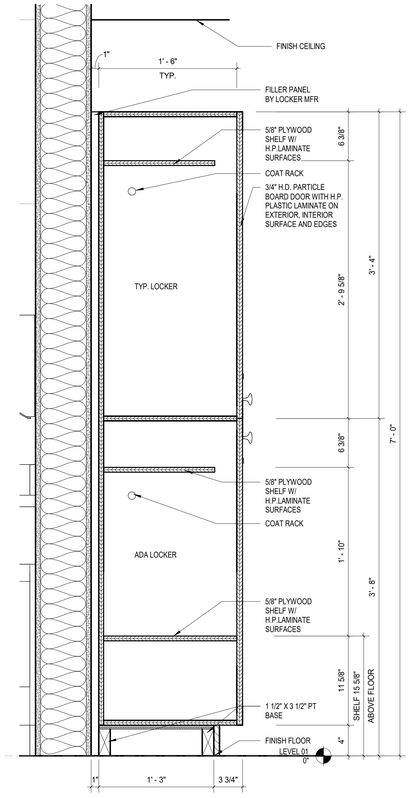
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

INTERIOR ELEVATIONS

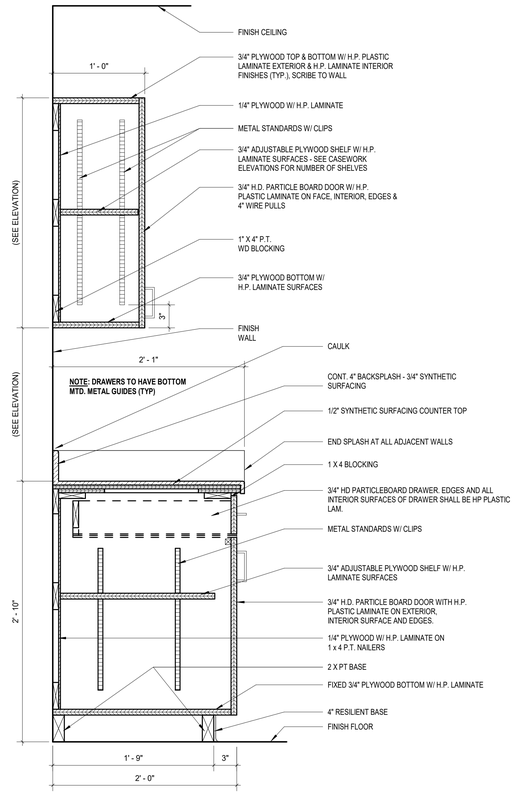
DRAWING NUMBER

A7.11

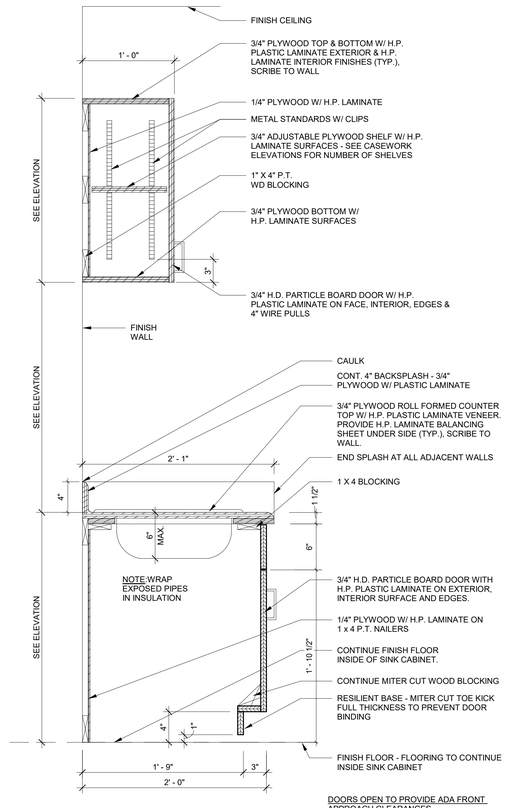
CONSTRUCTION DOCUMENT PACKAGE



3 LOCKER SECTION DETAIL
1 1/2" = 1'-0"



2 CASE WORK SECTION
1 1/2" = 1'-0"



DOORS OPEN TO PROVIDE ADA FRONT APPROACH CLEARANCES.

NOTE:

- REFER TO INTERIOR ELEVATIONS FOR NOTES PERTAINING TO ADD ALTERNATES.

1 CASEWORK SECTION AT SINK (ADA)
1 1/2" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER COLE
CERTIFICATE NO. 14151
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brookstridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

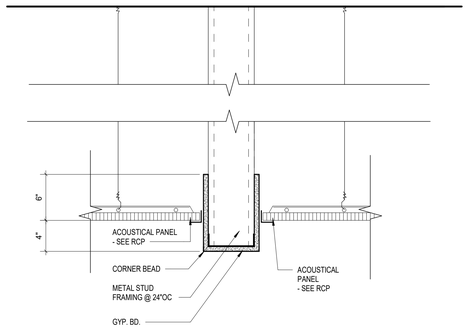
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

INTERIOR ELEVATION DETAILS

DRAWING NUMBER

A7.21

CONSTRUCTION DOCUMENT PACKAGE

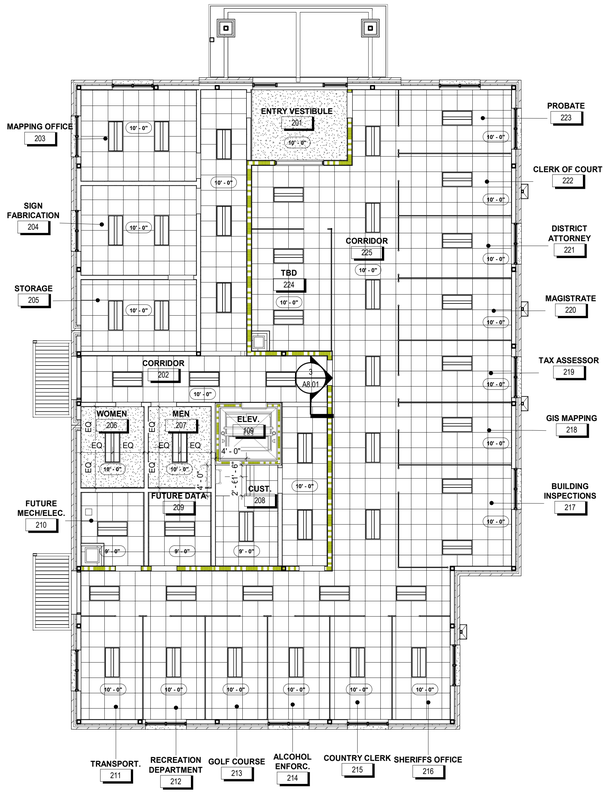


3 CEILING DETAIL
1 1/2" = 1'-0"

RCP SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	2'-0"x2'-0" SUSPENDED LAY-IN ACOUSTICAL PANEL CEILING SYSTEM. w/SQUARE EDGE
	INDICATES LOCATION OF SOUND ATTENUATION ABOVE THE CEILING
	GYPSUM BOARD CEILING
	PREFINISHED METAL SOFFIT PANEL
	2' x 4' OR 2' x 2' LIGHT FIXTURE - SEE ELECTRICAL
	LED EXIT SIGN - SEE ELECTRICAL.
	EXTERIOR LIGHT - SEE ELECTRICAL.
	4" WIDE LED PENDANT LIGHT FIXTURE - SEE ELECTRICAL.
	ROUND CEILING MOUNTED LIGHT FIXTURE - SEE ELECTRICAL.
	GENERAL PURPOSE 4' INDUSTRIAL STRIP FIXTURE - SEE ELECTRICAL.
	HVAC RETURN
	HVAC SUPPLY

NOTES:

1. CEILING GRIDS TO BE CENTERED IN SPACE EACH DIRECTION. ADJUST GRID SUCH THAT NO PORTIONS OF TILE OCCUR AT WALL LESS THAN 4" WIDE.
2. REFER TO MEP DRAWINGS FOR FIXTURE TYPE AND QUANTITY .
3. PROVIDE ACCESS PANELS FOR SHUT OFF VALVES OR ACCESS TO ANY MECHANICAL EQUIPMENT NEEDED - SEE MECHANICAL AND PLUMBING DRAWINGS
4. SEE ELECTRICAL DRAWINGS FOR MOUNTING LIGHTING FIXTURE TYPE
5. ALL GYPSUM BOARD FASTENED TO UNDERSIDE OF ROOF TRUSSES THAT ARE EXPOSED TO VIEW SHALL BE FINISHED AND PAINTED.
6. EXPOSED STRUCTURE ABOVE SHALL BE FOG PAINTED. COLOR TO BE SELECTED BY THE ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.



NORTH
2 LEVEL 02 REFLECTED CEILING PLAN
1/8" = 1'-0"

NORTH
1 LEVEL 01 REFLECTED CEILING PLAN
1/8" = 1'-0"

Blairsville UNION COUNTY BELIEVE IT!

STATE OF GEORGIA
CHRISTOPHER C. SNUGGS
12-6-24
CERTIFICATE NO. 14151
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

REFLECTED CEILING PLAN

DRAWING NUMBER

A8.01

CONSTRUCTION DOCUMENT PACKAGE

MATERIAL ABBREVIATION LEGEND:

ACT	ACOUSTICAL CEILING TILE
B	WALL BASE
F	FLOOR FINISH
LVT	LUXURY VINYL TILE
M	MISC. FINISH
PLAM	PLASTIC LAMINATE
PNT	PAINT
PT	PORCELAIN TILE
CT	CERAMIC TILE
RB	RUBBER BASE
SS	SOLID SURFACE
W	WALL FINISH
DATA	RAISED DATA FLOOR SYS
SC	SEALED CONCRETE

FINISH MATERIAL LIST

SURFACE	SYMBOL	MATERIAL	MANUFACTURER BASIS OF DESIGN
FLOORING	LVT	LUXURY VINYL TILE	SHAW TERRAIN II - STYLE 0454V - COLOR TBD FROM FULL RANGE OF OPTIONS
	DATA	ACCESS FLOOR SYSTEM	REFER TO SPECS
	CT	CERAMIC TILE	DALTILE - HAUT MONDE - COLOR TBD FROM FULL RANGE OF OPTIONS - 12 X 24
BASE	RB	RUBBER BASE	ROPPE TP RUBBER BASE - CONTOURS WALL BASE SYSTEM - COLOR TBD.
	CT	CERAMIC TILE BASE	6" HIGH COVE BASE TO MATCH CT FLOORING
WALLS	CT	CERAMIC TILE	DALTILE - COLOR WHEEL LINEAR, POLISHED 4X16 LAID VERTICALLY/SOLDIER STACKED - COLOR TBD FROM FULL RANGE OF OPTIONS
	PNT-1	GYPSUM BD.	SHERWIN WILLIAMS PROMAR 200 ZERO VOC INTERIOR LATEX EGG SHELL - 2 COATS MIN. PLUS PRIMER - COLOR TBD
	PNT-2	GYPSUM BD.	SHERWIN WILLIAMS PROMAR 200 ZERO VOC INTERIOR LATEX EGG SHELL - 2 COATS MIN. PLUS PRIMER - COLOR TBD
COUNTER TOPS	SS-1	SOLID SURFACE	WILSONART SOLID SURFACE COUNTERTOP - COLOR TBD - REFER TO ELEVATIONS
CABINETRY	PLAM-1	LAMINATE	WILSONART - MATTE FINISH - COLOR TBD FROM FULL RANGE OF COLORS
CEILING	ACT-1	ACOUSTICAL TILE	ARMSTRONG OPTIMA LAY IN 2 X 2 ACOUSTICAL CEILING PANELS/HEAVY DUTY MTL. SUSPENSION SYSTEM - WHITE
	PNT	GYPSUM BD.	SHERWIN WILLIAMS PROMAR 200 ZERO VOC INTERIOR LATEX EGG SHELL - 2 COATS MIN. PLUS PRIMER SW7007 CEILING BRIGHT WHITE

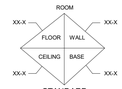
A9.11 ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR MAT.	FLOOR FIN.	WALLS NORTH MAT.	WALLS NORTH FIN.	WALLS EAST MAT.	WALLS EAST FIN.	WALLS SOUTH MAT.	WALLS SOUTH FIN.	WALLS WEST MAT.	WALLS WEST FIN.	CEILING MAT.	CEILING FIN.	REMARKS
101	VEST	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
102	CUST. STORAGE	SC	SC	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	
103	MEN	CT	CT	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	WET WALLS TO HAVE WALL TILE FROM FLOOR TO CEILING
104	LOCKER	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	REFER TO FINISH PLANS FOR LVT LOCATIONS
105	WOMEN	CT	CT	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	WET WALLS TO HAVE WALL TILE FROM FLOOR TO CEILING
106	SERVER	DATA FLR.	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO SPECS. FOR DATA FLOORING SYSTEM
107	DISPATCH ROOM	DATA FLR.	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO SPECS. FOR DATA FLOORING SYSTEM
108	BREAKROOM/ CONFERENCE	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-2	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
109	ELEV.	LVT	RB	MFR	MFR	MFR	MFR	MFR	MFR	MFR	MFR	MFR		
110	STORAGE	SC	SC	CMU	PNT-1	CMU	PNT-1	CMU	PNT-1	CMU	PNT-1	GYP.	PNT	
111	MECH/ ELEC	SC	SC	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	
112	OFFICE	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
113	OFFICE	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
114	CORRIDOR	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
201	ENTRY VESTIBULE	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	REFER TO FINISH PLANS FOR LVT LOCATIONS
202	CORRIDOR	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
203	MAPPING OFFICE	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
204	SIGN FABRICATION	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
205	STORAGE	LVT	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		REFER TO FINISH PLANS FOR LVT LOCATIONS
206	WOMEN	CT	CT	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	WET WALLS TO HAVE WALL TILE FROM FLOOR TO CEILING
207	MEN	CT	CT	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	WET WALLS TO HAVE WALL TILE FROM FLOOR TO CEILING
208	CUST.	SC	SC	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT	
209	FUTURE DATA	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
210	FUTURE MECH/ELEC.	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
211	TRANSPORT.	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
212	RECREATION DEPARTMENT	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
213	GOLF COURSE	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
214	ALCOHOL ENFORC.	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
215	COUNTRY CLERK	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
216	SHERIFFS OFFICE	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
217	BUILDING INSPECTIONS	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
218	GIS MAPPING	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
219	TAX ASSESSOR	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
220	MAGISTRATE	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
221	DISTRICT ATTORNEY	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
222	CLERK OF COURT	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
223	PROBATE	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
224	TBD	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		
225	CORRIDOR	SC	RB	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	GYP.	PNT-1	ACT		

FLOOR FINISH LEGEND

LVT-1 · SC · RAISED DATA ROOM FLOORING SYSTEM

LVT-2 · CT



STANDARD FINISH SYMBOL

NOTES:

1. INSTALL TRANSITION STRIPS BETWEEN DISSIMILAR FLOOR FINISHES.
2. CONTRACTOR TO SUBMIT ALL FINISH SAMPLES TO ARCHITECT PRIOR TO ORDERING FOR VERIFICATION OF CORRECT PRODUCT AND COLOR.
3. REFER TO A6.11 FOR STOREFRONT FINISH.
4. FINISHES TO MEET FLAME SPREAD AND SMOKE DEVELOPED RATINGS PER CODE.
5. EXTEND FLOORING UNDER COUNTERTOPS AND BASE CABINETS UNLESS NOTED OTHERWISE.
6. CONTROL JOINTS ARE SHOWN FOR REFERENCE ONLY, SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. PROVIDE SHOP DRAWINGS SHOWING ALL PROPOSED JOINT LAYOUTS IN TILE PRIOR TO INSTALLATION W/ A PRE-INSTALLATION CONFERENCE.
8. ALL FLOOR DRAINS ARE TO BE COVERED AND PROTECTED PRIOR TO ANY TILE OR OTHER FINISH FLOOR INSTALLATION, AND SHALL REMAIN COVERED AND PROTECTED THROUGH FINAL GROUTING AND CLEANING. ALL DRAINS MUST BE KEPT CLEAN AND FREE OF ANY CONSTRUCTION DEBRIS, MORTAR, GROUT, TOILET PARTITION SHAVINGS, ETC.
9. SAW-CUT CONTROL JOINTS IN EXISTING SLAB/FLOOR TO BE RELOCATED TO THE NEXT NEAREST GROUT JOINT WITH APPROVED CRACK ISOLATION MEMBRANE PER TCNA METHOD F125 PARTIAL.
10. ALL FINISHES AND PAINT LOCATIONS ARE PENDING FINALIZATION UNTIL AFTER OWNER FINISH MEETING. FOR PRICING ONLY.

ALL FINISH COLOR SAMPLES SHALL BE PROVIDED AT THE JOB TRAILER FOR FINAL COLOR SELECTION. COLOR SLECTION WILL BE MADE BY THE OWNER AND ARCHITECT. SELECTION WILL NOT BE MADE UNTIL ALL FINISH COLOR SAMPLES HAVE BEEN PROVIDED FOR THE PROJECT.

INTERIOR WALL AND CEILING FINISH MATERIALS

PER NFPA 101 INTERIOR WALL AND CEILING FINISH MATERIALS SHALL COMPLY AND BE TESTED IN ACCORDANCE WITH ASTM E84 OR ANSI/UL 723 (2018 IBC SECTION 803). INTERIOR WALL AND CEILING FINISH MATERIALS SHALL BE CLASSIFIED IN ACCORDANCE WITH ASTM E84, STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS, OR ANSI/UL 723 STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS. SHALL COMPLY PER NFPA 101, SECTION 10.2

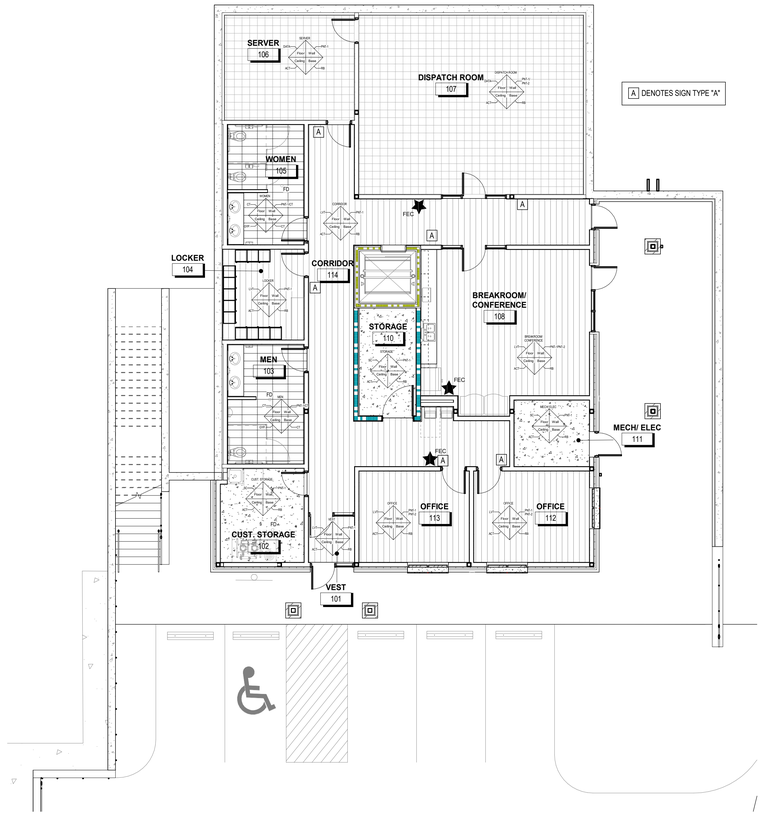
AT CORRIDORS, LOBBIES AND ENCLOSED STAIRWAYS INTERIOR WALL AND CEILING FINISH MATERIALS SHALL COMPLY WITH NFPA 101 SECTION 10.2 AND SHALL BE CLASS A OR CLASS B IN ALL CORRIDORS AND LOBBIES AND SHALL BE CLASS A IN ALL ENCLOSED STAIRWAYS.

AT ASSEMBLY AREAS, INTERIOR WALL AND CEILING FINISH MATERIALS SHALL COMPLY WITH NFPA 101 SECTION 10.2 AND SHALL BE CLASS A OR CLASS B IN GENERAL ASSEMBLY AREAS HAVING OCCUPANT LOADS OF MORE THAN 300 AND SHALL BE CLASS A, CLASS B OR CLASS C IN ASSEMBLY AREAS HAVING OCCUPANT LOADS OF 300 OR FEWER.

INTERIOR WALL MATERIAL FLAME SPREAD INDEX

ALL INTERIOR WALL COVERINGS AND FINISH MATERIALS INCLUDING LAMINATED PRODUCTS SHALL COMPLY WITH THE REQUIREMENTS FOR FLAME SPREAD INDEX IN ACCORDANCE WITH ASTM E84 OR UL 723 AS PER THE 2018 IBC SECTION 803

2 LEVEL 02 FINISH FLOOR PLAN
1/8" = 1'-0"
NORTH



1 LEVEL 01 FINISH FLOOR PLAN
1/8" = 1'-0"
NORTH

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT
STATE OF GEORGIA
CHRISTOPHER NOLLE
12-6-24
CERTIFICATE NO. 14331
REGISTERED ARCHITECT
HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	CC SN

DATE: 12/06/2024

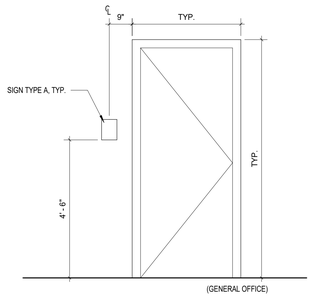
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

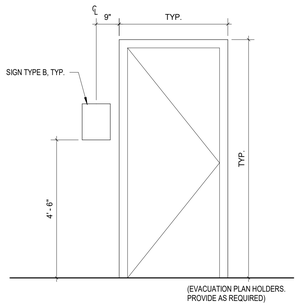
FINISH FLOOR PLAN AND FINISH SCHEDULE

DRAWING NUMBER

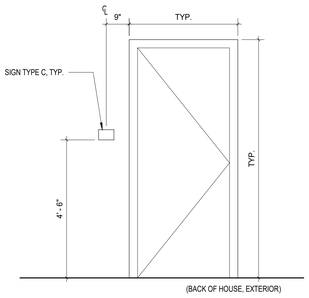
A9.11



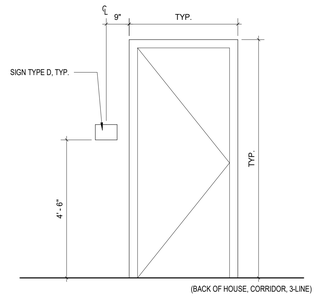
ELEVATION TYPE A



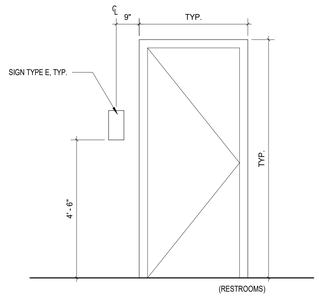
ELEVATION TYPE B



ELEVATION TYPE C



ELEVATION TYPE D



ELEVATION TYPE E

SIGNAGE NOTES

1. THE SIGNAGE VENDOR SHALL FURNISH AND INSTALL ALL SIGNAGE INDICATED IN THESE DRAWINGS AND SPECIFICATIONS AS WELL AS ANY/ALL ADDITIONAL SIGNAGE REQUIRED BY THE ADA, NFPA 101 AND THE UNION COUNTY FIRE MARSHAL, INCLUDING, BUT NOT LIMITED TO EGRESS SIGNAGE, ROOM OCCUPANCY SIGNAGE, STAIRWAY SIGNAGE, ELEVATOR SIGNAGE, EVACUATION PLAN SIGNAGE, ETC.

2. THE SIGNAGE VENDOR SHALL FIELD VARIFY ALL ROOM, SPACES, DOORS AND DOOR LOCATIONS AND ADVISE THE ARCHITECT OF ANY DISCREPANCIES. ANY MISSING SIGN LOCATIONS OR ADDITIONAL SIGNAGE REQUIRED SHALL BE INCLUDED IN THE VENDORS BASE BID. SIGNAGE VENDOR ASSUMES RESPOSIBILITY FOR ANY REQUIRED SIGNAGE NOT INDICATED IN THESE DRAWINGS.

3. SHOP DRAWINGS SHALL BE FURNISHED TO THE ARCHITECT ACCURATELY INDICATING EXISTING SPACE LAYOUTS AND DOOR/OPENING LOCATIONS. SHOP DRAWINGS SHALL INDICATE THE LOCATION OF EACH SIGN AND CORRESPOND TO A SIGNAGE SCHEDULE INDICATING THE ROOM LOCATION NUMBER. THE SIGN TYPE, THE SIGN HEADER COLOR, ANY INCLUDED SYMBOL(S), THE PAPER COPY, THE PRINTED COPY, THE TACTILE COPY, A COLUMN INDICATING IF GLASS BACKERS ARE REQUIRED, A COLUMN FOR ANY SIGNAGE VENDOR COMMENTS/QUESTIONS, A COLUMN FOR OWNER COMMENTS/QUESTIONS, AND A TOP PLAN VIEW. THE SUBMITTAL SHOULD ALSO INCLUDE ELEVATIONS AND TOP PLAN VIEW OF EACH SIGN TYPE PROPOSED AND/OR REQUIRED.

4. THESE CONTRACT DOCUMENTS ARE INTENDED AS A MINIMUM GUIDE FOR VENDORS TO PROVIDE FIXED BID PRICING AND TO CONVEY THE OWNERS DESIRED INTENT. ALL REQUIREMENTS FOR COMPLETE SIGNAGE REPLACEMENT SHALL BE FINALIZED BY FIELD VERIFICATION AND DURING THE SUBMITTAL/SHOP DRAWING REVIEW PROCESS

5. SIGN ELEVATIONS AND SIZES ARE FOR ROOM PURPOSES ONLY. FINAL SIGN ELEVATIONS/SIZES/COLORS TO BE CONFIRMED WITH OWNER PRIOR TO FABRICATION/INSTALLATION

6. BASIS OF DESIGN IS APCO SIGNS, "FULL VIEW X SERIES", OR APPROVED EQUAL.

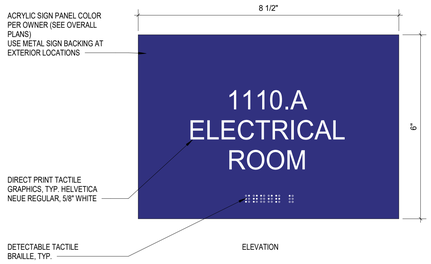
7. VENDORS SHALL PROVIDE FIRE ALARM EVACUATION PLAN SIGN TYPE B AS REQUIRED BY CODE AND THE ADA AS PART OF THE BASE BID. THESE SIGN TYPES ARE NOT IDENTIFIED BY SPACE.

6 SIGNAGE ELEVATION TYPE

1/2" = 1'-0"

NOTES:

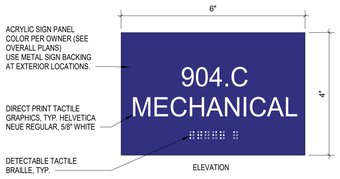
1. BASIS OF DESIGN IS "FULL VIEW X-SERIES" BY APCO SIGNS OR APPROVED EQUAL
2. WHERE SIGN IS USED AT EXTERIOR LOCATIONS USE METAL SIGN BACKING, EXTERIOR GRADE PAINT AND SILICONE CAULK AT TOP AND SIDES - MECH ROOM 111



SIGN TYPE D

NOTES:

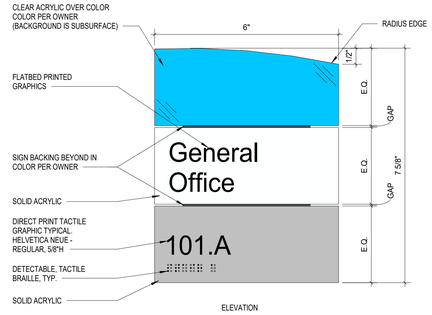
1. BASIS OF DESIGN IS "FULL VIEW X-SERIES" BY APCO SIGNS OR APPROVED EQUAL
2. WHERE SIGN IS USED AT EXTERIOR LOCATIONS USE METAL SIGN BACKING, EXTERIOR GRADE PAINT AND SILICONE CAULK AT TOP AND SIDES - MECH. ROOM 111



SIGN TYPE C

NOTES:

1. SIGN BACKING SHALL ALLOW FOR REMOVAL AND REPLACEMENT OF SIGN.
2. BASIS OF DESIGN IS "FULL VIEW X-SERIES" BY APCO, OR APPROVED EQUAL
3. COPY TO BE HELEVETICAL NEUE - REGULAR, 5/8" H, BLACK
4. SEE FINISH FLOOR PLANS FOR LOCATIONS OF SIGN TYPE "A"

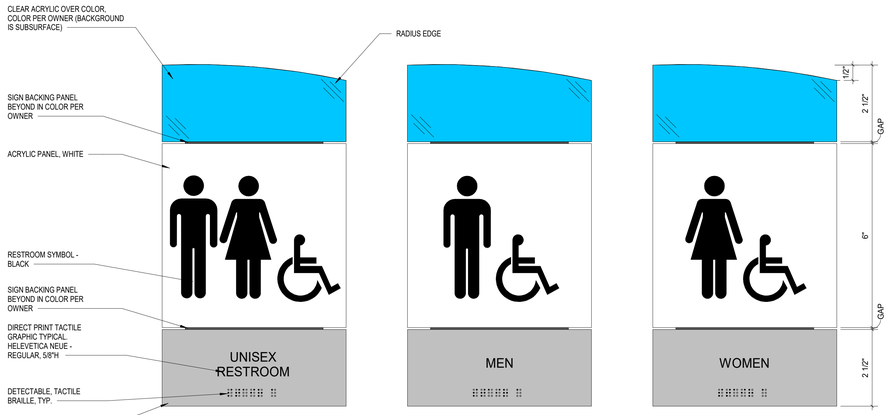


SIGN TYPE A

SEE FINISH PLANS FOR LOCATIONS

NOTES:

1. BASIS OF DESIGN IS "FULL VIEW X-SERIES" BY APCO SIGNS OR APPROVED EQUAL
2. MOUNTING LOCATIONS TO BE FINALIZED WITH OWNER



SIGN TYPE E

AT ALL RESTROOMS

NOTES:

1. BASIS OF DESIGN IS "FULL VIEW X-SERIES" BY APCO SIGNS OR APPROVED EQUAL
2. MOUNTING LOCATIONS TO BE FINALIZED WITH OWNER

SIGN TYPE B

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

STATE OF GEORGIA
CHRISTOPHER N. CC HOUSLE
CERTIFICATE NO. 14151
12-6-24
REGISTERED ARCHITECT

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
CC	YL	SN CC

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

SIGNAGE SCHEDULE AND PLANS

DRAWING NUMBER

A9.41

DESIGN CRITERIA:

BUILDING CODE - INTERNATIONAL BUILDING CODE 2018 WITH GEORGIA AMENDMENTS.

1. RISK CATEGORY & IMPORTANCE FACTORS:
   - A. RISK CATEGORY.. IV
   - B. WIND FACTOR.. 1.0
   - C. SNOW FACTOR.. 1.2
   - D. SEISMIC FACTOR... 1.5

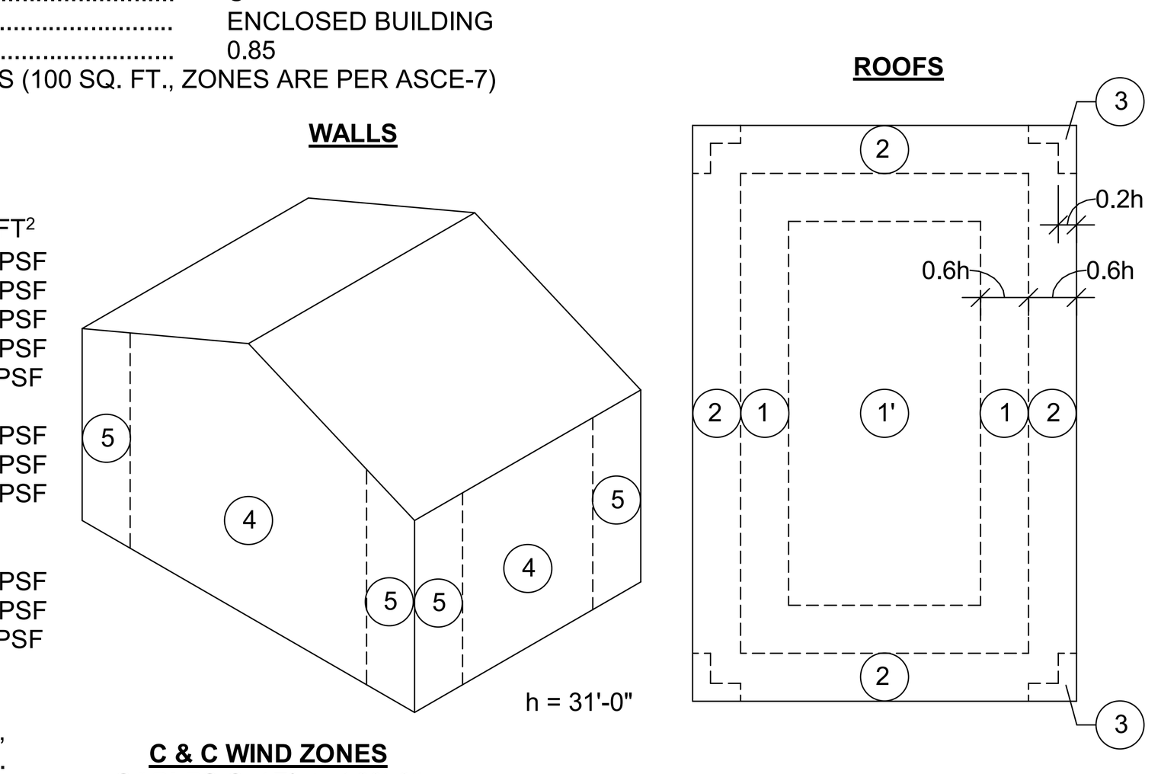
2. DESIGN DEAD LOADS:
   - A. FLOOR.. 80 PSF
   - B. ROOF.. 20 PSF

3. DESIGN LIVE LOADS*:
   - A. FLOOR:
     STAIRS.. 100 PSF
     STORAGE.. 125 PSF
   - B. ROOF.. 20 PSF
     * LIVE LOADS ARE REDUCIBLE IN ACCORDANCE WITH THE BUILDING CODE.

4. WIND LOADS:
   - A. ULTIMATE WIND SPEED... 117 MPH
   - B. DIRECTIONALITY FACTOR (Kd).................................... 0.85
   - C. EXPOSURE CATEGORY... C
   - D. ENCLOSURE CLASSIFICATION....................................... ENCLOSED BUILDING
   - E. GUST EFFECT FACTOR (G).. 0.85
   - F. COMPONENT AND CLADDING LOADS (100 SQ. FT., ZONES ARE PER ASCE-7)

ROOFS	10 FT²	100 FT²
NEGATIVE ZONE 1	-58.5 PSF	-45.7 PSF
NEGATIVE ZONE 1'	-33.6 PSF	-33.6 PSF
NEGATIVE ZONE 2	-77.2 PSF	-60.7 PSF
NEGATIVE ZONE 3	-105.2 PSF	-72.3 PSF
POSITIVE ALL ZONES	16.0 PSF	16.0 PSF
OVERHANG ZONE 1&1'	-52.9 PSF	-49.8 PSF
OVERHANG ZONE 2	-71.6 PSF	-49.6 PSF
OVERHANG ZONE 3	-99.6 PSF	-61.2 PSF
WALLS		
NEGATIVE ZONE 4	-36.4 PSF	-31.5 PSF
NEGATIVE ZONE 5	-44.8 PSF	-34.9 PSF
POSITIVE ZONES 4 & 5	33.6 PSF	28.7 PSF

REFERENCE ASCE 7 FOR EFFECTIVE WIND AREAS NOT LISTED. OTHERWISE, USE THE SMALLEST APPLICABLE AREA.



C & C WIND ZONES
GABLES Θ ≤ 7°, h ≤ 60'-0"
MONOSLOPES ≤ 3°, h ≤ 60'-0"

5. EARTHQUAKE LOADS:
   - A. SITE CLASS.. C
   - B. Ss =.. 0.345
   - C. S1 =.. 0.106
   - D. SDS =.. 0.299
   - E. SD1 =.. 0.106
   - F. SEISMIC DESIGN CATEGORY....................................... C
   - G. BASIC SEISMIC FORCE RESISTING SYSTEM =........ STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE.
   - H. RESPONSE MODIFICATION COEFFICIENT, R =........ 3.0
   - I. OVER-STRENGTH FACTOR (Ωo)...................................... 3.0
   - J. DEFLECTION AMPLIFICATION FACTOR (Cd)............ 3.0
   - K. SEISMIC RESPONSE COEFFICIENT (Cs) =............... 0.150
   - L. LONG PERIOD TRANSITION PERIOD (TL)................. 12
   - M. ANALYSIS PROCEDURE... EQUIVALENT LATERAL FORCE
   - N. DESIGN BASE SHEAR =.. 70K

6. SNOW LOADS:
   - A. GROUND SNOW LOAD... 10.0 PSF
   - B. FLAT ROOF SNOW LOAD (Pf)...................................... 8.4 PSF
   - C. THERMAL FACTOR (Ct)... 1.0
   - D. SNOW EXPOSURE FACTOR (Ce)............................... 1.0
   - E. RAIN ON SNOW SURCHARGE.................................... 5.0 PSF
   - F. UNIFORM ROOF SNOW LOAD................................... 13.4 PSF

7. RETAINING WALLS:
   - A. LATERAL PRESSURE METHOD................................. EQUIVALENT FLUID PRESSURE
   - B. ACTIVE SOIL PRESSURE.. 45 PCF
   - C. AT-REST SOIL PRESSURE... 66 PCF
   - D. COEFFICIENT OF FRICTION.. 0.4
   - E. SOIL DENSITY (HEEL)... 115 PCF

SPECIAL INSPECTIONS:

1. SPECIAL INSPECTION AND A FINAL REPORT IN ACCORDANCE WITH IBC SECTION 1704.2.4 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF THE WORK IS APPROVED FOR OCCUPANCY.

2. THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION ACCORDING TO THE SCHEDULE OF SPECIAL INSPECTIONS.

3. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

4. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   - A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
   - B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL OF RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
   - C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

5. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:
   - A. NOTIFY THE SPECIAL INSPECTOR THAT SPECIAL INSPECTIONS ARE NEEDED.
   - B. COORDINATE THE SCHEDULING AND TIMELY NOTIFICATION OF THE SPECIFIC INDIVIDUALS NEEDED FOR THE SPECIAL INSPECTION.
   - C. PROVIDE DIRECT ACCESS TO THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT
   - D. SUBMIT FABRICATORS CERTIFICATES OF COMPLIANCE, WELDER'S CERTIFICATES, AND OTHER REQUIRED DOCUMENTATION FOR REVIEW BY THE SPECIAL INSPECTOR.
   - E. PROVIDE SAFE ACCESS TO THE WORK TO BE INSPECTED AND DELIVER SAMPLES FOR TESTING WHEN NEEDED.

6. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.

QUALITY ASSURANCE:

1. THE CONTRACTOR/OWNER SHALL EMPLOY AND PAY FOR THE SERVICES OF AN INDEPENDENT TESTING AGENCY ACCEPTABLE TO THE OWNER TO PROVIDE QUALITY ASSURANCE TESTING AND INSPECTIONS. THE TESTING AGENCY SHALL BE LICENSED BY THE PROJECT STATE AND ALL TESTING AND INSPECTIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF AN ENGINEER REGISTERED IN THE PROJECT STATE.

2. FAILURE OF QUALITY ASSURANCE TESTING AND INSPECTIONS TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS NOTED, NOR SHALL IT OBLIGATE THE OWNER'S REPRESENTATIVE FOR FINAL ACCEPTANCE.

3. THE TESTING AGENCY AND ITS REPRESENTATIVE ARE NOT AUTHORIZED TO REVOKE, ALTER, RELAX, ENLARGE OR RELEASE ANY PORTION OF THE WORK, PERFORM ANY DUTIES OF THE CONTRACTOR OR BE A PARTY TO SCHEDULING OF WORK.

4. RECORDS OF INSPECTIONS SHALL BE KEPT AVAILABLE TO THE BUILDING OFFICIAL DURING PROGRESS OF THE WORK AND FOR TWO YEARS AFTER COMPLETION OF THE PROJECT. RECORDS SHALL BE PRESERVED BY THE INDEPENDENT TESTING AGENCY.

5. A MINIMUM OF TWENTY-FIVE PERCENT OF ALL SHOP AND FIELD COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE INSPECTED AT RANDOM. ALL FIELD COMPLETE OR PARTIAL PENETRATION GROOVE WELDS ALONG THE COLUMN BASE PLATES SHALL BE TESTED IN COMPLIANCE WITH THE GOVERNING CITY, MUNICIPAL OR FEDERAL BODY, IF THE TESTING REQUIREMENT, BOTH IN TERMS OF QUALITY AND QUANTITY, IS DIFFERENT THAN STATED ABOVE THE MORE STRINGENT OF THE TWO REQUIREMENTS SHALL BE FOLLOWED. ANY DEVIATION FROM THIS GUIDELINE IS SUBJECT TO THE ENGINEER OF RECORD'S APPROVAL.

SUBMITTALS:

1. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTAL DATES AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL. FAILURE TO SUBMIT DRAWINGS ON DESIGNATED DATES MAY IMPACT REVIEW SCHEDULE.

2. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
   - A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
   - B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE ICC-ES, AND THE ICC-ES REPORT IS SUBMITTED WITH THE REQUEST. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE CONSIDERED.

3. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. SEE SPECIFIC PROVISIONS IN THE CONTRACT DOCUMENT DEALING WITH THE APPROPRIATE DESIGN RESPONSIBILITIES OF CONTRACTORS, SUBCONTRACTORS AND CONTRACT SUPPLIERS.

4. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT AND OBLIGATES HIM TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING FROM ANY ERRORS THAT MAY OCCUR HEREIN.

MISCELLANEOUS:

1. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK, AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS.

3. NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN OR TO ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.

4. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.

5. OPENINGS 1'-4" OR LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.

6. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

7. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL THE TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.

8. DO NOT SCALE THESE DRAWINGS: USE DIMENSIONS. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE ARCHITECTURAL DRAWINGS.

9. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

10. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD, IN WRITING, OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD, REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN THE WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.

11. WHERE A SECTION/DETAIL IS CUT ON THE PLAN, IT IS ASSUMED/UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.

12. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECT'S OR ENGINEER'S PRESENCE AT THE JOB SITE OR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH OSHA REGULATIONS.

13. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION, SIZE AND EXTENT OF CHASES, INSERTS, RECESSES, RIDGES, FINISHES, DEPRESSIONS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.

14. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES.

15. THE CONTRACTOR SHALL VERIFY ALL FLOOR AND ROOF MOUNTED MECHANICAL EQUIPMENT WEIGHTS AS WELL AS FLOOR AND/OR ROOF OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

16. THE CONTRACTOR SHALL NOTIFY, IN WRITING, THE STRUCTURAL ENGINEER OF RECORD OF CONDITIONS ENCOUNTERED IN THE FIELD WHICH ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS.

17. STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.

18. REFERENCE TO STANDARD SPECIFICATIONS OR ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES SHALL MEAN THE LATEST STANDARD, CODE SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AND PUBLISHED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.

19. SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPE, AND LOCATION OF DEPRESSED FLOOR AREAS. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.

20. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS AND HE SHALL PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON THE DRAWINGS OR NOT. HE SHALL VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH THE MECHANICAL CONTRACTOR. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL.

FOUNDATIONS:

1. SPREAD FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 3.0 KSF FOR INDIVIDUAL COLUMN FOOTINGS AND 3.0 KSF FOR CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE LIVE AND DEAD LOAD.

2. THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARING. HOWEVER, IF ADEQUATE BEARING CAPACITY IS NON-EXISTENT AT THESE ESTIMATED ELEVATIONS, THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESCRIBED SAFE BEARING CAPACITY EXISTS.

3. FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.

4. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZES AND DIMENSIONS, AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.

5. IN THE AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS AS IDENTIFIED BY THE GEOTECHNICAL INVESTIGATION REPORT SHALL BE REMOVED. ANY FILL MATERIAL REQUIRED AT THE SITE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT AND APPROVED BY A SOILS ENGINEER. ROCKS OF A DIAMETER GREATER THAN THAT SPECIFIED SHALL BE EXCLUDED FROM STRUCTURAL FILL LIFTS. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS ACCORDING TO THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND COMPACTED TO A SPECIFIED MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED COMPACTION TEST (ASTM D1557). ADEQUATE FIELD DENSITY AND MOISTURE CONTENT TESTS SHALL BE PERFORMED TO ENSURE COMPLIANCE.

6. FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. IF THE BEARING SURFACE IS ALLOWED TO BECOME DISTURBED IN ANY WAY, IT SHALL BE REWORKED TO THE SATISFACTION OF THE TESTING ENGINEER PRIOR TO CASTING THE CONCRETE.

7. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.

8. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-6" BELOW FINAL GRADE FOR FROST PROTECTION.

9. WHEN UNSATISFACTORY OR UNCONTROLLED FILL IS ENCOUNTERED, REMOVAL AND REPLACEMENT WILL BE PAID ON THE BASIS OF UNIT PRICES SET FORTH IN THE CONTRACT.

10. DRAINAGE FILL SHALL BE AN EVENLY GRADED MIXTURE OF NATURAL OR CRUSHED STONE, CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD C33, AND HAVING A GRADATION AS FOLLOWS:

    100 % PASSING.............A 3/4" SIEVE
    10-30 % PASSING......... A 1/2" SIEVE
    0-10 % PASSING........... A 3/8" SIEVE
    0-5 % PASSING............. A #4 SIEVE

11. ANY FILL WITHIN 10'-0" OF THE BUILDING LIMIT SHALL CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER FOR PREPARATION.

12. BACKFILL AROUND AND OVER FOUNDATION ELEMENTS SHALL BE OF SUITABLE MATERIAL, INSPECTED AND PRE-APPROVED BY THE TESTING ENGINEER.

13. BACKFILL AGAINST WALLS SHALL BE PLACED IN 8 INCH LIFTS AND SHALL BE DEPOSITED EVENLY AGAINST EACH SIDE OF THE WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDENT UPON TOP AND BOTTOM SLABS/FOUNDATION FOR SUPPORT UNTIL SUCH SLABS HAVE ATTAINED MINIMUM DESIGN COMPRESSIVE STRENGTH. WALLS WITH SLAB-ON-GROUND AT THE TOP OF THE WALL SHALL BE SAFELY SHORED AND BRACED DURING BACKFILLING.

14. MAXIMUM SLOPE OF EXCAVATIONS SHALL BE IDENTIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT AND ADHERED TO. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.

15. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.

16. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHIC WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION.

17. THERE SHALL BE NO HORIZONTAL OR VERTICAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

18. CONCRETE CAST ON SLOPING SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED POUR IS COMPLETED.

19. FOUNDATION DESIGN IS BASED ON THE SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION "DATED NOVEMBER 5, 2024 AS PREPARED BY GEO-HYDRO ENGINEERS, PROJECT NO. 242482.20".

DEFERRED SUBMITTALS:

1. DEFERRED SUBMITTALS ARE DEFINED AS THE FOLLOWING PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF APPLICATION AND THAT ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD:
   - A. STEEL STAIRS & LADDERS
   - B. COLD-FORMED METAL FRAMING
   - C. HANDRAILS & GUARDS
   - D. CHAIN LINK FENCE

2. THE DEFERRED SUBMITTALS SHALL BE APPROVED BY THE PROJECT ARCHITECT AND/OR ENGINEER OF RECORD. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN AUTHORIZED BY THE BUILDING OFFICIAL.

CONCRETE:

1. CODE: AMERICAN CONCRETE INSTITUTE (ACI) 318 (LATEST ADDITION)

2. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:

   FOOTINGS, SLABS ON GRADE & ELEVATED SLABS.................................. 3000 PSI
   RETAINING WALLS, BASEMENT WALLS, DEEP FDN. & COLUMN/PIERS... 4500 PSI

3. ALL CONCRETE SHALL HAVE A DENSITY OF 150 PCF UNLESS NOTED OTHERWISE.

4. CONCRETE SHALL BE ENTRAINED AS REQUIRED TO CONFORM TO DURABILITY REQUIREMENTS OF ACI 318.

5. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR ALL UNIQUE CONCRETE APPLICATIONS FOR REVIEW WELL IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL BE CERTIFIED BY AN ENGINEER REGISTERED IN THE PROJECT STATE. MIX DESIGN TEST DATA SHALL COMPLY WITH ACI 318 AND SHALL INCLUDE (AT A MINIMUM) AVERAGE 28 DAY STRENGTH, NUMBER OF SAMPLES, AND STANDARD DEVIATION (IF APPLICABLE). TEST RESULTS SHALL NOT BE MORE THAN 24 MONTHS OLD AT TIME OF SUBMITTAL.

6. REINFORCING SHALL CONFORM TO ASTM A615, GR60, UNLESS NOTED OTHERWISE.

7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, GRADE 60.

8. WELDED WIRE FABRIC SHALL BE PLACED 1" BELOW T/SLAB, UNLESS NOTED OTHERWISE. LAP FABRIC 6" ON SIDES AND ENDS.

9. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST ADDITION OF THE ACI DETAILING MANUAL.

10. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.

11. REINFORCEMENT LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 (CLASS "B" WHERE APPLICABLE), UNLESS NOTED OTHERWISE. ALL CONTINUES REINFORCEMENT SHALL BE SPLICED AS REQUIRED.

12. HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS AT CORNERS AND INTERSECTIONS, AS SHOWN ON TYPICAL BAR PLACING DETAILS.

13. PROVIDE 3" X 6" X 20 GAGE SHEET METAL BAR CHAIRS AT 4'-0" MAXIMUM CENTERS EACH WAY FOR ALL TOP REINFORCING FOR SLABS-ON-GRADE.

14. SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.

15. PRODUCTS AND MATERIALS:
    - A. TYPE I/II PORTLAND CEMENT SHALL CONFORM TO ASTM-C150.
    - B. AGGREGATES SHALL CONFORM TO ASTM C-33.
    - C. REINFORCING BARS SHALL CONFORM TO ASTM A-615 (GRADE 60).
    - D. FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.
    - E. NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER.
    - F. NON-SHRINK GROUT SHALL BE READY TO USE NON-METALLIC AGGREGATE AND DEVELOP A 7-DAY COMPRESSIVE STRENGTH OF 5000 PSI.

16. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH LATEST ADDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".

17. MINIMUM CONCRETE COVER (UNLESS NOTED OTHERWISE) SHALL BE:

    CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH........ 3 INCHES
    CONCRETE EXPOSED TO EARTH OR WEATHER:
    #6 BARS AND LARGER.. 2 INCHES
    #5 BARS AND SMALLER.. 1-1/2 INCHES
    CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
    BEAMS AND COLUMNS.. 1-1/2 INCHES
    SLABS, WALLS, AND JOISTS... 3/4 INCHES

18. SCHEDULED OR DETAILED REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPLICES ARE NOT PERMITTED WITHOUT ENGINEER'S APPROVAL. WHERE WELDING IS APPROVED IT SHALL CONFORM TO AWS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL.

19. SLAB-ON-GRADE SHALL BE SAW CUT IMMEDIATELY AFTER CONCRETE HARDENS. THE CONTRACTOR SHALL SUBMIT LAYOUT AND CONSTRUCTION SCHEDULE ("SOFT CUT" ® INTERNATIONAL OR SIM.)

20. CONTROL JOINTS IN SLABS ON GROUND SHALL BE LOCATED AT 15'-0" MAXIMUM SPACING AND SHALL CREATE SECTIONS OF SLAB WITH A MAXIMUM ASPECT RATIO OF 1.5:1. CONTROL JOINTS SHALL BE SAWN AND SHALL BE A MINIMUM OF 1/4 OF THE SLAB THICKNESS DEEP IF CUT WITH A CONVENTIONAL SAW, OR 1" DEEP IF CUT WITH AN EARLY-ENTRY DRY-CUT SAW. THE CONTROL JOINTS SHALL BE SAWN AS SOON AS THE SAW BLADE CAN CUT THE CONCRETE WITHOUT DISPLACING THE AGGREGATE. CUT EVERY OTHER MESH WIRE AT THE CONTROL JOINT LOCATION PRIOR TO PLACING CONCRETE.

21. SAWN CONTROL JOINTS SHALL BE PLACED AS SOON AS CONCRETE IS ABLE TO BE SAWN WITHOUT PULLING AGGREGATE FROM FLOOR. SLABS SHALL NOT BE LEFT OVERNIGHT, OR ANY REASONABLE AMOUNT OF TIME, WITHOUT SAWING JOINTS. WEATHER IS CRITICAL TO THE SCHEDULE OF SAWN JOINTS. IF LARGE AREAS OF SLAB ARE POURED AT ONE TIME, SEVERAL SAWS MAY BE REQUIRED SO THAT JOINTS ARE PLACED IN TIME TO PREVENT SHRINKAGE CRACKING. PROPER JOINTING OF THE SLAB IS CRITICAL. REFER TO THE ACI MANUAL OF CONCRETE PRACTICE FOR PROPER JOINTING TECHNIQUES.

22. BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC. BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 4" OF CONCRETE.

23. THE FLATNESS AND LEVELNESS OF THE SLAB-ON-GRADE SHALL BE DETERMINED ACCORDING TO ASTM E-1155 OR ACI 117, SLAB CLASS 5 (ACI 302) STANDARD TEST METHOD USING F NUMBERS. THE SPECIFIC FLATNESS AND LEVELNESS SHALL BE F/F-35 AND F/L-20.

24. WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING, UNLESS NOTED OTHERWISE.

25. PROVIDE TEMPORARY SHORING AND BRACING OF ALL STRUCTURAL AND MISCELLANEOUS ELEMENTS UNTIL CONCRETE HAS OBTAINED 80% OF DESIGN STRENGTH AND ALL PERMANENT BRACING ELEMENTS ARE INSTALLED.

26. PLACEMENT OF CONCRETE, COLD WEATHER AND HOT WEATHER PRECAUTIONS, MATERIAL AND PROPORTIONING REQUIREMENTS, REBAR COVER AND DETAILING SHALL CONFORM TO THE REQUIREMENTS OF THE ACI 318.

27. PROVIDE CONTROL/CONSTRUCTION JOINTS IN CANTILEVERED CONCRETE WALLS AT A MAXIMUM SPACING OF TWICE THE HEIGHT OF THE WALL ABOVE THE TOP OF FOOTING. MAXIMUM JOINT SPACING SHALL NOT EXCEED 24'-0". CONTROL JOINTS SHALL HAVE A 3/4" DEEP BY 1-1/2" WIDE TAPERED REVEAL AT EACH SIDE OF THE WALL. AT CONTROL JOINTS, EVERY OTHER HORIZONTAL BAR SHALL BE CUT BACK 1-1/2" FROM THE CONTROL JOINT. CONSTRUCTION JOINTS SHALL BE FORMED SIMILARLY TO CONTROL JOINTS. AT CONSTRUCTION JOINTS, ALL HORIZONTAL STEEL SHALL BE DISCONTINUOUS AND A DOWEL BAR OF SIZE AND SPACING TO MATCH THE HORIZONTAL REINFORCING SHALL BE EMBEDDED A MINIMUM OF 40 BAR DIAMETERS AT EACH SIDE OF THE CONSTRUCTION JOINT. SEE ARCHITECTURAL DRAWINGS FOR ARCHITECTURAL JOINT TREATMENT.

CONCRETE REINFORCEMENT LAP LENGTH SCHEDULE

BAR SIZE	f'c = 3,000 PSI		f'c = 4,000 PSI		f'c = 4,500 PSI	
	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER
#3	28"	22"	25"	19"	23"	18"
#4	38"	29"	33"	25"	31"	24"
#5	47"	36"	41"	31"	38"	30"
#6	56"	43"	49"	37"	46"	35"
#7	81"	63"	71"	54"	67"	51"
#8	93"	72"	81"	62"	76"	59"

NOTES:

1. WHERE THE CLEAR SPACING BETWEEN BARS BEING SPLICED IS LESS THAN (2) BAR DIAMETERS, INCREASE THE LAP LENGTH BY 50%.
2. WHERE THE BAR COVER IS LESS THAN OR EQUAL TO THE BAR DIAMETER, INCREASE THE LAP LENGTH BY 50%.
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
4. LAP SPLICE LENGTHS ARE PROVIDED FOR NORMAL WEIGHT CONCRETE. WHERE LIGHTWEIGHT CONCRETE IS USED, INCREASE LAP SPLICE LENGTHS BY 30%.
5. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
6. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINED TWO MATTS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.

METAL FLOOR DECK:

1. METAL FLOOR DECK SHALL COMPLY WITH THE REQUIREMENTS OF THE STEEL DECK INSTITUTE SPECIFICATIONS AND COMMENTARY FOR STEEL FLOOR DECK, CURRENT EDITION.

2. THE STEEL DECK WORK SHALL CONSIST OF FURNISHING EVERYTHING (LABOR, MATERIALS, ACCESSORIES, EQUIPMENT, ETC.) NECESSARY AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF ALL STEEL DECK WORK, AS INDICATED AND SPECIFIED ON THE DRAWINGS.

3. SUBMIT PLACEMENT AND DETAILED ("SHOP") DRAWINGS FOR REVIEW. NO STEEL DECK SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.

4. STEEL DECK UNITS SHALL BE OF SUFFICIENT LENGTH TO ACCOMMODATE THREE SPAN INSTALLATION.

5. PROVIDE CLOSURES AT SIDES, ENDS, AROUND COLUMNS, AND AT ALL OTHER PLACES WHERE LOSS OF CONCRETE IS POSSIBLE. ALL CLOSURES SHALL BE CONSTRUCTED OF 16 GAGE STEEL, UNLESS NOTED OTHERWISE.

6. STEEL DECK AND CLOSURES SHALL BE GALVANIZED, HAVING A COATING OF 0.5 OUNCES/S.F. AND CONFORMING TO ASTM A-525.

7. SHEAR CONNECTORS SHALL BE 3/4" DIAMETER HEADED STUDS WHICH WILL BE 3-1/2" LONG AFTER INSTALLATION, UNLESS NOTED OTHERWISE. THEY SHALL BE INSTALLED USING AUTOMATIC END WELDERS OF SUFFICIENT CAPACITY TO WELD THEM THROUGH THE STEEL DECK TO THE TOP FLANGE OF THE BEAM, AS SHOWN IN THE TYPICAL DETAILS..

8. THE DECK SHALL BE CONNECTED BY THE SHEAR CONNECTORS. TYPICALLY, AND WHERE INSUFFICIENT CONNECTORS ARE SPECIFIED, WELDING WASHERS SHALL BE ADDED TO THOSE FLUTES.

9. WHERE ONE OR TWO SPAN UNITS OF STEEL DECK ARE USED, THEY SHALL BE SHORED AT THEIR MIDPOINTS PRIOR TO CASTING CONCRETE

10. THE CONTRACTOR SHALL FURNISH 7% ADDITIONAL CONCRETE TO COMPENSATE FOR THE DEFLECTION OF THE METAL DECK.

MASONRY:

1. CODE: AMERICAN CONCRETE INSTITUTE (ACI) 530 (LATEST EDITION)

2. MASONRY SHALL BE LIGHTWEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH, f'm, OF 1500 PSI BASED ON GROSS AREA. MORTAR SHALL CONFORM TO ASTM C270 TYPES S OR M. GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8".

3. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.

4. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS TYPE FABRICATED UNITS WITH A SINGLE PAIR OF 9 GAGE SIDE RODS AND 9 GAGE CONTINUOUS DIAGONAL CROSS RODS FABRICATED FROM COLD DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE.

5. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. JOINT REINFORCING SHALL BE STOPPED EITHER SIDE OF VERTICAL CONTROL JOINTS.

6. CONTROL JOINTS SHALL BE LOCATED IN THE INTERIOR WALLS FOR THE BUILDING AT A SPACING NOT EXCEEDING 0.67 TIMES THE WALL HEIGHT (30 FEET MAX). JOINTS SHALL, AT A MINIMUM, BE LOCATED AT INTERSECTING WALLS AND JAMBS/LINTELS OF OPENING IN WALL.

7. GROUTED CELLS WITH VERTICAL REINFORCEMENT SHALL BE LOCATED ADJACENT TO CONTROL OR EXPANSION JOINTS.

8. ALL REINFORCED CELLS AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.

9. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.

10. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.

11. VERTICAL BARS SHALL BE HELD IN POSITION WITH PRE-MANUFACTURED TIES AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING NOR 10 FEET.

12. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4 OF AN INCH FROM THE MASONRY AND NOT LESS THAN ONE BAR DIAMETER BETWEEN BARS.

13. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 2-1/2" X 3".

14. GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.

15. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.

16. ALL BOLTS INSERTED IN THE WALLS SHALL BE GROUTED SOLIDLY INTO POSITION.

17. WHERE EXPANSION BOLTS OR OTHER ANCHORS ARE EMBEDDED INTO THE SIDE OF MASONRY WALLS, THE CELLS SHALL BE FULLY GROUTED AT LEAST 8" ABOVE AND BELOW EACH BOLT OR ANCHOR.

18. REINFORCING SHALL BE LAPPED A MINIMUM OF 36 INCHES. U.N.O.

19. WHERE NOT OTHERWISE SHOWN, MASONRY WALL FOOTINGS SHALL BE 12" THICK AND HAVE A MINIMUM OF 4" PROJECTION ON EACH SIDE OF WALL. REINFORCE WITH (3) #5 BARS CONTINUOUS.

20. WALLS SHALL BE GROUTED USING LOW LIFT GROUTING TECHNIQUES.

STRUCTURAL STEEL:

1. CODE: LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ANSI/AISC 360. STEEL SHALL CONFORM TO THE FOLLOWING GRADES:

   WIDE FLANGE SHAPES.. ASTM A992 (Fy=50ksi)
   ALL CHANNELS, ANGLES, PLATES, ETC. (UNO)....................... A36 (Fy=36ksi)
   STRUCTURAL TUBES.. A500, GRADE B (Fy=46ksi)
   ANCHOR BOLTS... F1554, GRADE 36 (Fy=36ksi)
   STEEL PIPE... A53 (Fy=35ksi)
   BOLTS.. A325
   WELDING ELECTRODES... E70xx
   HARDENED STEEL WASHERS... F436

2. STRUCTURAL STEEL DETAILING, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF STEEL CONSTRUCTION" OF THE AMERICAN INSTITUTE STEEL CONSTRUCTION. SHOP DRAWINGS SHALL SHOW COMPLETE WELDING INFORMATION, BOTH SHOP AND FIELD, USING AMERICAN WELDING SOCIETY SYMBOLS UNLESS OTHERWISE INDICATED OR SHOWN, BOLTED CONNECTION SHALL BE MADE USING 3/4" DIAMETER BOLTS CONFORMING TO ASTM A325 UNLESS OTHERWISE NOTED. THEY SHALL BE INSTALLED AND INSPECTED IN STRICT CONFORMANCE WITH LATEST EDITION RSCS "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."

3. THE STEEL STRUCTURE IS A NON-SELF-SUPPORTING STEEL FRAME AND IS DEPENDENT UPON DIAPHRAGM ACTION OF THE METAL ROOF DECK AND ATTACHMENT TO THE SHEAR WALLS & BRACED/MOMENT FRAMES FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THESE ELEMENTS ARE COMPLETE AND ARE CAPABLE OF PROVIDING THIS SUPPORT.

4. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS. CONNECTIONS SHOWN ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. CONNECTION DETAILS INDICATED ON THE DRAWINGS SHALL BE INCORPORATED INTO FABRICATOR'S CONNECTION DESIGN, SEE SPECIFICATIONS.

5. SPLICING OF STEEL MEMBERS UNLESS SHOWN ON THE DRAWINGS IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.

6. NO HOLES SHALL BE CUT IN ANY STEEL ELEMENT UNLESS THEY ARE DETAILED ON THE DRAWINGS.

7. UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR 8" MINIMUM ON CONCRETE OR MASONRY, ANCHOR BEAMS TO MASONRY WITH TWO 3/4" DIAMETER ANCHOR BOLTS WITH A 1'-4" EMBEDMENT.

8. WHERE BEAMS INTERSECT AT THE TERMINATING ELEVATION OF A COLUMN, THE BEAM WITH THE GREATEST REACTION SHALL BEAR ON TOP OF THE COLUMN. WHERE THE BEAMS INTERSECT AT THE INTERMEDIATE ELEVATION OF A COLUMN, THE FRAMING BEAMS SHALL BE CONNECTED TO THE COLUMNS WITH A WT. FIN PLATE CONNECTIONS ARE NOT PERMITTED.

9. CONNECTIONS FOR NON-COMPOSITE BEAMS WHICH CANNOT CONFORM TO AISC TYPICAL CONNECTION DETAILS SHALL BE DETAILED IN ACCORDANCE WITH THE FOLLOWING:
   - A. WHERE BEAM REACTIONS ARE NOT SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE MAXIMUM UNIFORM LOAD WHICH THE BEAM WILL SUPPORT (AS SIMPLE SPAN) FOR THE SPAN SHOWN ON THE CONSTRUCTION DOCUMENTS.
   - B. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
   - C. WHERE CONNECTIONS SUPPORT BEAMS WHICH ARE SUBJECT TO CONCENTRATED LOADS, SUCH CONCENTRATED LOADS SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
   - D. BOLTED CONNECTIONS SHALL BE BEARING TYPE WITH A325 BOLTS. MINIMUM DIAMETER OF ALL BOLTS SHALL BE 3/4". MAX. DIA. 1-1/8". PROVIDE AT LEAST 2 BOLTS PER CONNECTION. TIGHTENED BY THE "TURN-OF-THE-NUT" METHOD.
   - E. END CONNECTIONS OF FLOOR MEMBERS SHALL ACCOMMODATE END ROTATIONS SIMPLE, UNRESTRAINED BEAMS. FOR THIS PURPOSE, INELASTIC ACTION IN THE CONNECTION IS PERMITTED.
   - F. COPED OR CUT ENDS OF MEMBERS SHALL BE REINFORCED WHERE REQUIRED TO SUSTAIN THE SPECIFIED REACTIONS.
     DESIGN OF SPECIAL CONNECTIONS BETWEEN STEEL FRAMING COMPONENTS, INCLUDING BUT NOT LIMITED TO: BRACE END CONNECTIONS; MOMENT-RESISTING CONNECTIONS, MODIFIED BEAM SEAT CONNECTIONS; AND MEMBER SPLICE CONNECTIONS, DESIGNED BY ANYONE OTHER THAN THE PROJECT STRUCTURAL ENGINEER-OF-RECORD, SHALL BE BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

10. MOMENT CONNECTIONS (SHOWN ON THE PLANS) SHALL BE DESIGNED FOR THE FULL MOMENT CAPACITY OF THE BEAMS BEING CONNECTED. "CPW" INDICATES COMPLETE PENETRATION WELD.

11. TENSILE CONNECTIONS SHALL BE DESIGNED FOR A FORCE RESULTING FROM MULTIPLYING THE GROSS AREA BY 20 KSI.

12. STEEL STAIRS SHALL BE DESIGNED AND DETAILED BY A SPECIALTY ENGINEER.

13. FABRICATE AND ERECT FLOOR MEMBERS WITH NATURAL CAMBER UP.

14. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE SIZE OF WELDS SHALL NOT BE SMALLER THAN 1/4".

15. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL ADDITIONAL STEEL CONNECTIONS, GUYING, ETC. REQUIRED FOR ERECTION.

16. OBTAIN ALL FIELD MEASUREMENTS REQUIRED FOR PROPER FABRICATION AND INSTALLATION OF WORK PRIOR TO DETAILING. PRECISE MEASUREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

17. PROVIDE STIFFENERS TO BEAR UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS, ON ALL MEMBERS FRAMING OVER COLUMNS, AT BEAM COLUMN JOINTS (AS REQUIRED BY THE AISC SPECIFICATIONS) AND WHERE SHOWN ON THE DRAWINGS.

18. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND ELEVATIONS OF LOOSE LINTELS.

19. THE FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND FOR THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.

20. ALL HORIZONTAL TUBES REQUIRE AN END PLATE AT EACH END WITH A THICKNESS EQUAL TO OR GREATER THAN THE TUBE'S WALL THICKNESS.

21. SHORING OF FLOOR MEMBERS TO CONTROL SLAB THICKNESS, FLOOR LEVEL AND OTHER TOLERANCES, AND CONCRETE PONDING IS THE CONTRACTOR'S OPTION. FLOORS SHALL BE CAST SO AS TO MAINTAIN UNIFORM SLAB THICKNESS ACROSS THE TOP OF STEEL MEMBERS.

22. FOR ALL COMPOSITE BEAMS USING CONCRETE SLAB AS COMPRESSIVE FLANGE, THE BEAM-TO-COLUMN CONNECTION SHOULD DEVELOP THE END REACTION OF THE CONNECTED BEAM. THE END REACTION OF THE CONNECTED BEAM CAN BE OBTAINED BY MULTIPLYING UNIFORM LOADS AS GIVEN IN PART 3 (BEAMS AND GIRDERS) OF THE AISC MANUAL OF STEEL CONSTRUCTION, BY THE FOLLOWING FACTORS:

W12 & W14	2.4
W16 & W18	2.0
W21 & W24	1.80
W27 & W30	1.60
W33 & W36	1.45

Willett Engineering Company
Consulting Structural Engineers
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CONSTRUCTION DOCUMENT PACKAGE

GEORGIA REGISTERED STRUCTURAL ENGINEER No. SE000538 BRANDON JOSEPH HOFFMAN

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
KAG	KAG	BJH

DATE: 12/06/2024

JOB NO. 624 1109 01

12/06/2024

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

GENERAL NOTES

DRAWING NUMBER

S0.01

METAL STUDS AND JOISTS (COLD FORM FRAMING):

1. CONTRACTOR SHALL SUBMIT THE FOLLOWING AS A COMPLETE PACKAGE, DELAYED SUBMITTAL:
   A. SHOP DRAWINGS SEALED BY AN ENGINEER LICENSED IN THE PROJECT STATE INCLUDING PLACEMENT PLANS, ELEVATIONS, AND SECTIONS.
      a. INCLUDE LAYOUT, SPACINGS, SIZES, THICKNESSES, AND TYPES OF COLD-FORMED STEEL FRAMING; FABRICATION; AND FASTENING AND ANCHORAGE DETAILS, INCLUDING MECHANICAL FASTENERS.
      b. INDICATE REINFORCING CHANNELS, OPENING FRAMING, SUPPLEMENTAL FRAMING, STRAPPING, BRACING, BRIDGING, SPLICES, ACCESSORIES, CONNECTION DETAILS, AND ATTACHMENT TO ADJOINING WORK.
   B. CALCULATIONS SEALED BY AN ENGINEER LICENSED IN THE PROJECT STATE FOR REVIEW BY ENGINEER OF RECORD.
   C. PRODUCT CATALOG WITH PROPERTIES OF ALL FRAMING AND ACCESSORIES.

2. DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO LATEST ADDITION OF THE AISI "NORTH AMERICAN SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" INCLUDING SUBSEQUENT SUPPLEMENTS. ALL METAL STUDS SHALL BE GALVANIZED.

3. ALL STUDS, JOISTS, TRACK, BRIDGING, END CLOSURES AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE REQUIREMENTS OF AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" UNLESS NOTED OTHERWISE.

4. ALL PRODUCTS TO BE MANUFACTURED BY A CURRENT MEMBER OF THE STEEL MANUFACTURERS ASSOCIATION.

5. CONTRACTOR SHALL FURNISH COMPLETE FABRICATION AND ERECTION DRAWINGS PREPARED BY AN ENGINEER LICENSED IN THE PROJECT STATE FOR APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO THE COMMENCEMENT OF FABRICATION. INCLUDE PLACING DRAWINGS FOR FRAMING MEMBERS SHOWING SIZE AND GAGE DESIGNATIONS, NUMBER, TYPE, LOCATION AND SPACING. INDICATE SUPPLEMENTAL TRAPPING, BRACES, SPLICES, BRIDGING, ACCESSORIES AND DETAILS REQUIRED FOR PROPER INSTALLATION.

6. MEMBER SIZE, GAGE AND SPACING OF EXTERIOR WALL STUDS AND ALL MEMBERS CONNECTIONS SHALL BE DESIGNED BY A SPECIALTY ENGINEER. SUBMIT CALCULATIONS FOR MEMBERS AND CONNECTIONS WITH SHOP DRAWINGS (SIGNED AND STAMPED BY LICENSED STRUCTURAL ENGINEER IN THE STATE IN WHICH THE PROJECT WILL BE CONSTRUCTED) TO ENGINEER OF RECORD FOR REVIEW. SHOP DRAWINGS SHALL SHOW WALL SECTIONS COORDINATED WITH DRAWINGS SHOWING FRAMING, ACCESSORIES, ANCHORAGE AND CONNECTION DETAILS. REVIEW OF SHOP DRAWINGS SHALL BE FOR CONFORMANCE WITHTHE CONTRACT DOCUMENTS REGARDING ARRANGEMENT AND SIZES OF MEMBERS AND THE CONTRACTOR'S INTERPRETATION OF THE DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE DESIGN OF THE COLD-FORMED STEEL STRUCTURAL MEMBERS AND THEIR CONNECTIONS.

7. DELEGATED DESIGN: ENGAGE A QUALIFIED PROFESSIONAL ENGINEER TO DESIGN COLD-FORMED STEEL FRAMING CAPABLE OF WITHSTANDING DESIGN LOADS WITHIN LIMITS AND CONDITIONS INDICATED BELOW.
   A. DESIGN LOADS: AS INDICATED ON DRAWINGS OR COMPUTED USING DESIGN CRITERIA PROVIDED.
   B. DESIGN FRAMING SYSTEMS TO WITHSTAND DESIGN LOADS WITHOUT DEFLECTIONS GREATER THAN THE FOLLOWING:
      a. EXTERIOR WALL FRAMING: HORIZONTAL DEFLECTION OF 1/240 OF THE WALL HEIGHT, 1/360 OF THE WALL HEIGHT FOR SIMULATED STONE WALLS OR STUCCO FINISHES, 1/600 FOR BRICK OR STONE VENEER WALLS.
      b. INTERIOR WALL FRAMING: HORIZONTAL DEFLECTION OF 1/240 OF THE WALL HEIGHT UNDER A HORIZONTAL LOAD OF 5 LBF/SQ. FT.
      c. CEILING JOIST FRAMING: VERTICAL DEFLECTION OF 1/360 OF THE SPAN FOR LIVE LOADS AND 1/240 FOR TOTAL LOADS OF THE SPAN.

8. DESIGN WALL FRAMING TO ACCOMMODATE HORIZONTAL DEFLECTION WITHOUT REGARD FOR CONTRIBUTION OF SHEATHING MATERIALS. FOR STRENGTH CALCULATIONS, WALLS SHALL BE DESIGNED AS BRACED AT THE STRAP SPACING (OR UNBRACED IF NO STRAPS ARE DESIGNATED) IF FULL-HEIGHT STRUCTURAL SHEATHING IS NOT INSTALLED ON BOTH SIDES OF STUDS. STRUCTURAL SHEATHING IS LIMITED TO PLYWOOD AND OSB. SHEATHING, BRIDGING, AND BRACING SHALL BE INSTALLED PRIOR TO VERTICAL LOAD OF LOAD BEARING WALLS.

9. DESIGN FRAMING SYSTEMS TO PROVIDE FOR MOVEMENT OF FRAMING MEMBERS LOCATED OUTSIDE THE INSULATED BUILDING ENVELOPE WITHOUT DAMAGE OR OVERSTRESSING, SHEATHING FAILURE, CONNECTION FAILURE, UNDUE STRAIN ON FASTENERS AND ANCHORS, OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO A MAXIMUM AMBIENT TEMPERATURE CHANGE OF 120 DEG F (67 DEG C).

10. PROVIDE TEMPORARY SHORES, GUYS, BRACES, AND OTHER SUPPORTS DURING ERECTION TO KEEP STRUCTURAL FRAMING SECURE, PLUMB, AND IN ALIGNMENT AGAINST TEMPORARY CONSTRUCTION LOADS EQUAL IN INTENSITY TO DESIGN LOADS. REMOVE TEMPORARY SUPPORTS WHEN PERMANENT STRUCTURAL FRAMING CONNECTIONS AND BRACING ARE IN PLACE, UNLESS OTHERWISE INDICATED.

11. DESIGN FRAMING SYSTEM TO MAINTAIN CLEARANCES AT OPENINGS, TO ALLOW FOR CONSTRUCTION TOLERANCES, AND TO ACCOMMODATE LIVE LOAD DEFLECTION OF PRIMARY BUILDING STRUCTURE AS FOLLOWS (INCLUDES SLIP TRACKS, SLIP CLIPS, & BYPASS CLIPS):
   A. UPWARD AND DOWNWARD MOVEMENT EQUALS 1/240 TIMES THE SPAN OF THE UPPER BOUND PRIMARY STRUCTURAL ELEMENT (BEAM).

12. MINIMUM MEMBER SIZES ARE AS FOLLOWS:

MEMBER	FLANGE	THICKNESS (MILS)
S (STUD)	162	33
T (TRACK)	200	33

13. MINIMUM YIELD STRENGTH (Fy) OF ALL SECTIONS 20 TO 18 GAUGE (33 TO 43 MILS) SHALL BE 33 KSI. MINIMUM YIELD STRENGTH (Fy) OF ALL SECTIONS 16 TO 12 GAUGE (54 TO 97 MILS) SHALL BE 50 KSI.

14. ALL STUDS BACKING MASONRY OR STONE VENEER SHALL BE 43 MILS MIN.

15. THE QUANTITY OF STUDS OR JOISTS PLACED ON EACH SIDE OF OPENINGS SHALL BE DESIGNATED BY THE SPECIALTY ENGINEER. (2) STUDS MIN. EACH SIDE OF OPENING.

16. SELF-DRILLING TAPPING SCREW FASTENERS SHALL BE IN COMPLIANCE WITH ASTM C1513 OR AN APPROVED DESIGN OR RECOGNIZED DESIGN STANDARD. ALL SCREWS SHALL BE NON-CORROSIVE NO. 12-14 STANDARD SELF-DRILLING SCREWS UNLESS NOTED OTHERWISE ON DRAWINGS (DO NOT USE STAINLESS STEEL OR COPPER COATED FASTENERS).

17. ALL POWDER ACTUATED FASTENERS (PAF) SHALL BE 0.157" MIN. DIAMETER POWDER ACTUATED FASTENERS.

18. ALL SCREWS SHALL BE SPACED NO CLOSER THAN 1" ON CENTER UNLESS NOTED OTHERWISE ON DRAWINGS. MIN. EDGE DISTANCE FOR SCREWS SHALL BE 1".

19. TRACKS SHALL BE CONNECTED TO SUPPORTS WITH TWO SCREWS OR PINS AT 16" O.C. MAX. STUDS OR JOISTS SHALL BE CONNECTED TO TRACKS AT EACH SIDE.

20. ALL BRIDGING MUST BE CONTINUOUS FOR FULL LENGTH OF WALL OR PROPERLY SPLICED WITH AN APPROVED SPLICE ELEMENT.

21. ALL WELDING TO BE PERFORMED BY A QUALIFIED WIRE FEED WELDER PER ASTM A-108. FIELD WELDING SHALL BE DONE WITH E60 ELECTRODES. WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STANDARD D1.3, LATEST EDITION. DO NOT WELD SHAPES LESS THAN 68 MILS (14 GAUGE).

22. APPLY ZINC COATING TO ALL WELDS.

23. SHOP- FABRICATE ALL FRAMING MEMBERS FOR FIELD BOLTED ASSEMBLY. THE SURFACES OF THE BOLTED CONNECTIONS MUST BE SMOOTH AND FREE FROM BURRS OR DISTORTIONS.

STEEL JOISTS:

1. STEEL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, K-SERIES" OF THE STEEL JOIST INSTITUTE (SJI).

2. STEEL JOISTS SHALL BE DESIGNED BY THE MANUFACTURER. THE MANUFACTURER'S ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN, ADEQUACY AND SAFETY OF ALL STEEL JOISTS. JOIST DESIGNATIONS ON THE STRUCTURAL DRAWINGS REPRESENT A TYPICAL JOIST FOR A UNIFORM SPACING AND LOADING. THE JOIST MANUFACTURER SHOULD DESIGN & PROVIDE SPECIAL (KSP) JOISTS INTERACTING WITH ROOF MOUNTED MECHANICAL UNITS OR THAT HAVE CONCENTRATED OR NON-UNIFORM LOADS FROM A DIFFERENT SOURCE. CONTRACTOR SHALL SEND INFORMATION TO THE ARCHITECT GIVING THE SIZE AND OPERATING WEIGHT OF THE UNIT ACTUALLY PURCHASED FOR VERIFICATION PRIOR TO FABRICATION OF BAR JOISTS OR ROOF DECK. SEE ADDITIONAL ATYPICAL LOADING PROVIDED ON THE STRUCTURAL FRAMING PLAN.

3. UNLESS OTHERWISE NOTED, STEEL JOISTS SHALL BE DESIGNED AS SIMPLY SUPPORTED UNIFORMLY LOADED TRUSSES WITH THE TOP CHORD BRACED AGAINST LATERAL BUCKLING. THE UNIFORM DESIGN LOAD SHALL BE THE TOTAL SAFE UNIFORMLY DISTRIBUTED LOAD AS SHOWN IN THE SJI STANDARD LOAD TABLE.

4. WHEN NET UPLIFT FORCES DUE TO WIND ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS, BRIDGING, AND CONNECTIONS OF THE JOISTS TO THE SUPPORTING STRUCTURE FOR THE NET UPLIFT. A SINGLE LINE OF BOTTOM CHORD BRIDGING MUST BE PROVIDED NEAR THE FIRST BOTTOM CHORD PANEL POINTS WHENEVER UPLIFT DUE TO WIND FORCES IS SHOWN ON THE DESIGN DRAWINGS.

5. WHEN NON-UNIFORM OR CONCENTRATED LOADS ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS IN ACCORDANCE WITH THE SJI STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES.

6. STEEL JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SJI SPECIFICATION. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE PLACED AND STEEL JOIST ENDS FIXED PRIOR TO THE APPLICATION OF ANY LOADS. COORDINATE BRIDGING LOCATIONS TO AVOID INTERFERENCE WITH ALL MECHANICAL, ELECTRICAL AND FIRE PROTECTION EQUIPMENT.

7. MINIMUM BEARING REQUIREMENTS FOR K-SERIES JOISTS, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
   A. ON STRUCTURAL STEEL..... 2-1/2 INCHES
   B. ON STEEL BEARING PLATES OVER MASONRY OR CONCRETE... 4 INCHES

8. UNLESS NOTED OTHERWISE, K-SERIES STEEL JOISTS SHALL BE ATTACHED TO SUPPORTING STEEL WORK OR STEEL BEARING PLATES WITH TWO 1/8" FILLET WELDS (ONE EACH SIDE), 2" LENGTH MINIMUM, OR WITH (2) 1/2" DIAMETER BOLTS (ONE EACH SIDE).

9. MINIMUM BEARING REQUIREMENTS FOR LH-SERIES JOISTS, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
   A. ON STRUCTURAL STEEL..... 4 INCHES
   B. ON STEEL BEARING PLATES OVER MASONRY OR CONCRETE.... 6 INCHES

10. UNLESS NOTED OTHERWISE, LH-SERIES STEEL JOISTS SHALL BE ATTACHED TO SUPPORTING STEEL WORK OR STEEL BEARING PLATES WITH TWO 1/4" FILLET WELDS (ONE EACH SIDE), 2" LENGTH MINIMUM, OR WITH (2) 3/4" DIAMETER BOLTS (ONE EACH SIDE).

11. STEEL JOISTS AT COLUMN CENTER LINES SHALL BE BOLTED TO STRUCTURAL STEEL WITH (2) 1/2" DIAMETER BOLTS. WHERE STEEL JOISTS DO NOT SPACE TO COLUMN CENTER LINES, USE BOLTED CONNECTIONS FOR THE STEEL JOIST CLOSEST TO THE CENTER LINE.

12. HOLES IN STEEL JOIST CHORDS WILL NOT BE PERMITTED, EXCEPT FOR BOLTED CONNECTIONS AT THE BEARING END OF THE STEEL JOIST.

13. ALL THE ITEMS SUCH AS MECHANICAL EQUIPMENT, DUCT WORK, PIPES, CEILING FIXTURES, ETC. THAT ARE TO BE SUPPORTED OR HUNG FROM THE STEEL JOISTS SHALL BE FRAMED WITH AUXILIARY FRAMING TO THE PANEL POINTS OF THE STEEL JOISTS. METHODS OF FRAMING THAT INDUCE BENDING TO THE STEEL JOIST CHORDS OR WEB MEMBERS WILL NOT BE PERMITTED.

14. CONTRACTOR SHALL COORDINATE LOCATION OF JOISTS AND MASONRY WALLS TO PREVENT INTERFERENCE.

15. EXTEND JOIST BOTTOM CHORD TYPICALLY AT COLUMN LINES. DO NOT WELD BOTTOM CHORD UNTIL ROOF DEAD LOAD IS IN PLACE.

16. DAMAGED MEMBERS WILL BE REJECTED. THE CONTRACTOR AND THE JOIST MANUFACTURER ARE RESPONSIBLE FOR REPAIRING AND/OR REPLACING DAMAGED MEMBERS. IF REPAIRS ARE MADE, A LETTER BEARING THE SEAL OF A REGISTERED ENGINEER MUST BE PROVIDED BY THE JOIST MANUFACTURER APPROVING SUCH REPAIRS.

POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS SHALL ONLY BE INSTALLED WHERE SPECIFIED ON THE CONTRACT DRAWINGS. POST-INSTALLED ANCHORS SHALL NOT BE USED FOR MISSING OR MIS-PLACED CAST-IN-PLACE ANCHORS WITHOUT PERMISSION FROM THE ENGINEER OF RECORD.

2. TESTING, SCANNING, AND LOCATING OF EXISTING REINFORCEMENT IS REQUIRED PRIOR TO INSTALLATION OF POST-INSTALLED ANCHORS TO AVOID INTERFERENCE AND/OR DAMAGE TO IN-PLACE REINFORCEMENT.

3. SUBSTITUTION REQUESTS FOR SPECIFIED POST-INSTALLED ANCHORS SHALL BE ACCOMPANIED BY ADEQUATE CALCULATIONS BY A ENGINEER LICENSED IN THE PROJECT STATE THAT THE REQUESTED ANCHOR MEETS OR EXCEEDS THAT OF WHAT IS SPECIFIED.

4. MECHANICAL ANCHORS SHALL BE TESTED AND ASSESSED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ACI 355.2 QUALIFICATION OF POST INSTALLED MECHANICAL ANCHORS IN CONCRETE AND COMMENTARY.

5. ADHESIVE ANCHOR SYSTEMS SHALL BE TESTED AND ASSESSED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ACI 355.4 QUALIFICATION OF POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE (355.4) AND COMMENTARY. BULKMIXED (E.G., BUCKET-MIXED) ADHESIVES ARE NOT PERMITTED.

6. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 2,500 PSI AT THE TIME OF ADHESIVE ANCHOR INSTALLATION.

7. CONCRETE AT TIME OF ADHESIVE ANCHOR INSTALLATION SHALL HAVE A MINIMUM AGE OF 21 DAYS. FOR INSTALLATION OF ADHESIVE ANCHORS IN CONCRETE HAVING AN AGE LESS THAN 21 DAYS, TESTS SHALL BE CONDUCTED TO VERIFY THE PERFORMANCE OF THE PRODUCT IN ACCORDANCE WITH ACI 355.4.

8. THE CONCRETE TEMPERATURE AT THE TIME OF ADHESIVE ANCHOR INSTALLATION SHALL BE AT LEAST 50°F UNLESS TESTING HAS BEEN CONDUCTED IN ACCORDANCE WITH RECOGNIZED CRITERIA TO VERIFY PERFORMANCE IN CONCRETE AT LOWER TEMPERATURES.

9. ADHESIVE ANCHORS SHALL BE SUPPLIED AS AN ENTIRE SYSTEM. THE SYSTEM SHALL INCLUDE, BUT IS NOT LIMITED TO, MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS (MPII) AS SUPPLIED WITH THE ADHESIVE, ADHESIVE CARTRIDGE, MIXING NOZZLE, EXTENSION TUBE, DISPENSER, AND ALL REQUIRED EQUIPMENT FOR PROPERLY CLEANING THE DRILLED HOLE.

10. ALL-THREADED ROD (EYEBOLTS, THREADED STUDS, INTERNAL THREADED PARTS) TO BE USED IN ADHESIVE ANCHOR ASSEMBLIES SHALL CONFORM TO ASTM A36, F1554 OR OTHER APPROVED ANCHOR ASSEMBLY TYPES. (STAINLESS STEEL ANCHOR RODS SHALL BE AISI TYPE 304 OR TYPE 316.) THREADS SHALL BE UNC COARSE THREADS, UNLESS NOTED OTHERWISE. COMPATIBLE NUTS AND WASHERS SHALL BE FURNISHED WITH THE ALL-THREAD ROD AND CONSIDERED PART OF THE ASSEMBLY. WITH HOT-DIPPED GALVANIZED RODS, USE OVERSIZED TAPPED, HOT-DIPPED GALVANIZED NUTS.

11. NUTS, WASHERS, AND OTHER HARDWARE USED WITH AN ALL-THREADED BAR ADHESIVE ANCHOR SYSTEM OR WITH A MECHANICAL EXPANSION ANCHOR SHALL HAVE A MATERIAL OR AN ALLOY DESIGNATION THAT IS COMPATIBLE WITH THE ANCHOR RODIALLOY. GALVANIZED ASSEMBLIES SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. ELECTROPLATE GALVANIZING IS NOT ACCEPTABLE. DISSIMILAR METAL ASSEMBLIES SHALL BE SEPARATED BY NYLON, EPDM, OR OTHER APPROVED NON-METALLIC WASHERS.

12. REINFORCING BARS TO BE USED IN ADHESIVE ANCHOR ASSEMBLIES OR AS POST-INSTALLED REINFORCING SHALL CONFORM TO ASTM A615, A706, A995, OR A1035

13. THE EMBEDMENT DEPTH SPECIFIED SHALL BE DEFINED AS THE DEPTH FROM THE BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN FULLY INSTALLED.

14. ADHESIVE CARTRIDGES SHALL BE STORED UNDER CONDITIONS IN COMPLIANCE WITH MANUFACTURER RECOMMENDATIONS REGARDING TEMPERATURE, EXPOSURE TO SUNLIGHT, ETC. AND EVIDENCE OF COMPLIANCE SHALL BE MADE AVAILABLE UPON REQUEST. THE USE OF EXPIRED ADHESIVE, AS INDICATED BY THE EXPIRATION DATE ON THE CARTRIDGE, IS PROHIBITED.

15. ADHESIVE ANCHORS SHALL BE INSTALLED BY QUALIFIED PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS IN ACCORDANCE WITH THE SPECIFICATIONS (ALT: CONTRACT DOCUMENTS). BOTH POST-INSTALLED EXPANSION AND ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

16. ADHESIVE ANCHORS WITH DIAMETER GREATER THAN 3/8- INCH INSTALLED IN ORIENTATIONS FROM HORIZONTAL TO VERTICAL SHALL EMPLOY A PISTON PLUG FOR THE ADHESIVE INJECTION.

17. INSTALLATION OF ADHESIVE ANCHORS IN ORIENTATIONS FROM HORIZONTAL TO VERTICAL TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY THE ACI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR EQUIVALENT.

18. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT REQUIRED TO INSTALL THE EXPANSION AND/OR ADHESIVE ANCHOR INCLUDING, BUT NOT LIMITED TO, DRILLS, SETTING TOOLS, CLEAN-OUT BRUSHES, BLOWOUT BULBS, OIL-FREE COMPRESSED AIR, VACUUMS, WRENCHES, ETC.

19. UNLESS OTHERWISE SPECIFIED, ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH A ROTARY IMPACT HAMMER DRILL OR, WHERE NOT OTHERWISE PROSCRIBED, A ROCK DRILL. WHERE SPECIFIED AND WHERE PERMITTED BY THE MPII, HOLES MAY BE DRILLED WITH A DIAMOND CORE DRILL. IN ALL CASES, THE BIT DIAMETER SHALL BE IN ACCORDANCE WITH THE MPII.

20. ANCHOR HOLES SHALL BE THOROUGHLY CLEANED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED IN THE MPII PRIOR TO ADHESIVE INJECTION.

21. DRILLED AND CLEANED ANCHOR HOLES SHALL BE PROTECTED FROM CONTAMINATION AND WATER (E.G. RAIN) UNTIL THE ADHESIVE IS INSTALLED.

22. A DRILLED ANCHOR HOLE SHALL BE RE-CLEANED JUST PRIOR TO ADHESIVE INJECTION IF, IN THE OPINION OF THE ENGINEER, INSPECTOR, OR OWNER'S REPRESENTATIVE, THE HOLE HAS BECOME CONTAMINATED AFTER INITIAL CLEANING.

23. ADHESIVE SHALL BE INJECTED IN ACCORDANCE WITH THE MPII USING EQUIPMENT AND PROCEDURES AS SPECIFIED THEREIN FOR THE SPECIFIC CONDITIONS ASSOCIATED WITH THE INJECTION. THIS SHOULD BE CLEARLY SPECIFIED IN THE MPII, IF NOT, ANOTHER PRODUCT SHOULD BE SPECIFIED.

24. ANCHOR ELEMENTS TO BE INSTALLED IN THE ADHESIVE SHALL BE CLEAN, OIL-FREE, AND FREE OF LOOSE RUST, PAINT, OR OTHER COATINGS. THREADS ON THE PROJECTING PORTION OF THE ANCHOR ELEMENT SHALL BE PROTECTED FROM ADHESIVE CONTAMINATION.

25. INSTALLED ADHESIVE ANCHORS SHALL BE SECURELY FIXED IN-PLACE TO PREVENT DISPLACEMENT WHILE THE ADHESIVE CURES. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, ANCHORS SHALL BE INSTALLED PERPENDICULAR TO THE CONCRETE SURFACE. ANCHORS DISPLACED BEFORE FULL ADHESIVE CURE SHALL BE CONSIDERED DAMAGED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

26. POST-INSTALLED REINFORCING BARS OR ALL-THREADED BARS SHALL NOT BE BENT AFTER BEING INSTALLED.

SUSPENSION FROM ROOF STRUCTURE:

1. SUBCONTRACTORS INSTALLING CONDUIT, PIPING, OR EQUIPMENT SUSPENDED FROM THE STRUCTURE SHALL ATTEND A PRE-CONSTRUCTION MEETING.

2. ATTACHMENT TO METAL DECK, BRIDGING OR JOIST STRUTS IS PROHIBITED.

3. HANGER ATTACHMENT TO STEEL BAR JOIST:
   A. PIPE HANGERS SHALL BE ATTACHED TO BOTTOM CHORDS OF JOISTS AT PANEL POINTS WITH APPROVED STEEL WASHER PLATES AND DOUBLE NUTS ONLY IF CONCENTRATED LOADS ARE SHOWN ON THE STRUCTURAL DRAWINGS.
   B. PIPE HANGERS SHALL BE ATTACHED TO TOP CHORDS OF BAR JOISTS AT PANEL POINTS WITH APPROVED UNDER DECK "C"-CLAMPS.
   C. IF HANGERS CANNOT BE INSTALLED WITH 3" OF PANEL POINTS, THE JOIST SHALL BE REINFORCED AS SHOWN ON STRUCTURAL DRAWINGS.

4. PIPE HANGERS SHALL BE ATTACHED TO BOTTOM FLANGES OF WIDE FLANGE BEAMS, I-BEAMS, AND CHANNELS WITH APPROVED "BEAM CLAMPS" AND "CHANNEL CLAMPS".

5. ALL SINGLE OR MULTIPLE TIER CABLE TRAYS, PIPE RACKS OR GROUPS OF DUCTS PERPENDICULAR TO THE JOISTS SHALL BE SUPPORTED FROM EACH BAR JOIST AND BEAM. SUCH A SYSTEM PARALLEL TO JOISTS SHALL BE ATTACHED TO TWO ADJACENT JOISTS AT 8'-0" O.C.

6. INDIVIDUAL PIPES UP TO 6" IN DIAMETER SHALL BE SUPPORTED FROM ALTERNATE JOISTS WHEN PIPES ARE PERPENDICULAR TO THE JOIST AND AT 10'-0" O.C., MAXIMUM, WHEN PIPES ARE PARALLEL TO THE JOISTS. INDIVIDUAL PIPES LARGER THAN 6" SHALL BE SUPPORTED AT EACH BAR JOIST WHEN PIPES ARE PERPENDICULAR TO THE JOIST AND AT 10'-0" O.C., MAXIMUM, WHEN PIPES ARE PARALLEL TO THE JOISTS.

7. HANGERS SHALL BE ADDED AT PANEL POINTS AT ALL LOCATIONS WHERE VALVES OR FITTINGS OCCUR.

8. ROUTING OF PIPES AND CONDUIT SHALL BE COORDINATED BY THE CONTRACTOR.

METAL ROOF DECK:

1. METAL ROOF DECK SHALL COMPLY WITH THE REQUIREMENTS OF THE STEEL DECK INSTITUTE SPECIFICATIONS AND COMMENTARY FOR STEEL ROOF DECK, CURRENT EDITION.

2. THE STEEL DECK WORK SHALL CONSIST OF FURNISHING EVERYTHING (LABOR, MATERIALS, ACCESSORIES, EQUIPMENT, ETC.) NECESSARY AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF ALL STEEL DECK WORK AS INDICATED AND SPECIFIED ON THE DRAWINGS.

3. SUBMIT PLACEMENT AND DETAILED ("SHOP") DRAWINGS FOR REVIEW. NO STEEL DECK SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.

4. STEEL DECK UNITS SHALL BE OF SUFFICIENT LENGTH TO ACCOMMODATE THREE SPAN INSTALLATION PER STANDARDS ESTABLISHED BY THE STEEL DECK INSTITUTE.

5. METAL ROOF DECK SHALL BE OF THE CONFIGURATION, DEPTH AND MINIMUM GAUGE SHOWN ON THE DRAWINGS. ATTACHMENT TO THE SUPPORTING STRUCTURE SHALL BE AS SHOWN ON THE DRAWINGS, AS A MINIMUM. SEE ROOF PLAN NOTES.

6. DO NOT HANG OR SUPPORT ANY LOADS FROM THE METAL DECK.

7. WHERE POSSIBLE, METAL DECK SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SPANS. TWO SPAN DECK SHALL BE USED ONLY WHERE DECK LAYOUT DOES NOT PERMIT THE USE OF THREE SPANS. SINGLE SPAN DECK IS NOT PERMITTED.

8. ROOF OPENINGS LESS THAN 6" SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6" TO 10", INCLUSIVE, SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6" MAXIMUM CENTERS WITH A 5/8" DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. SEE DRAWINGS FOR REINFORCEMENT OF OPENINGS LARGER THAN 10".

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HUSSEY GAY BELL
Established 1958
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REVISIONS: △

DESIGNED	DRAWN	CHECKED
KAG	KAG	BJH

DATE: 12/06/2024

JOB NO. 624 1109 01

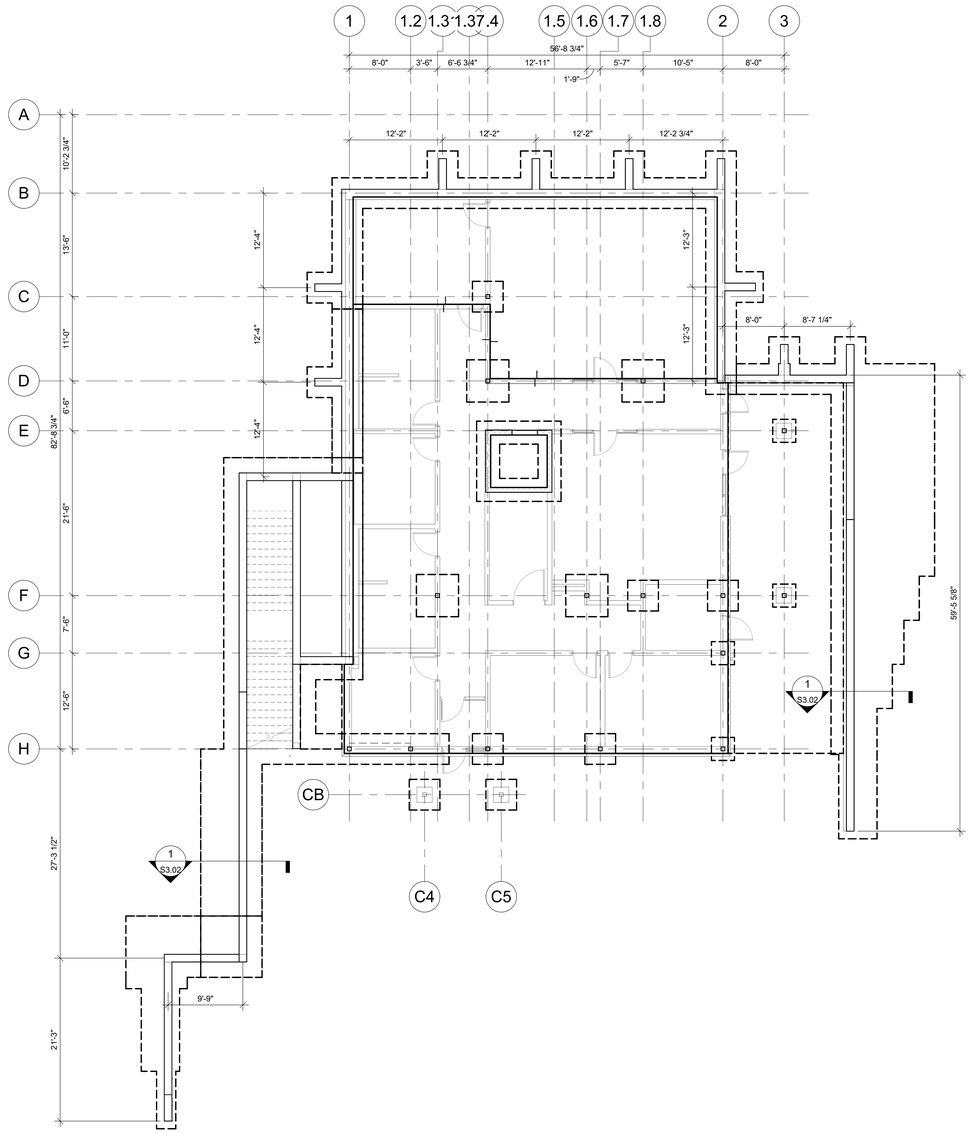
12/06/2024

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

GENERAL NOTES

DRAWING NUMBER

S0.02



1 S1.01 OVERALL FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

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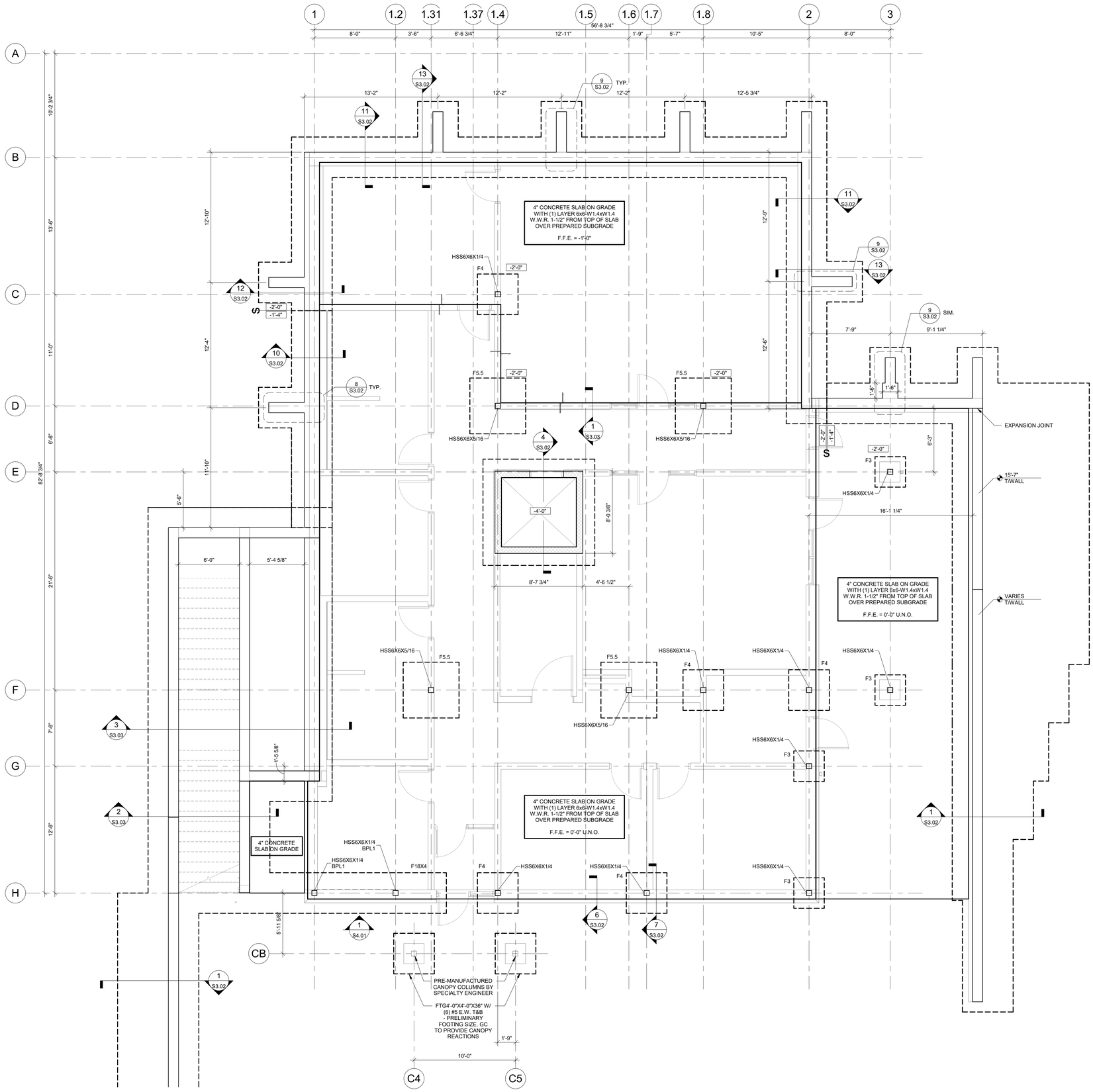
OVERALL FOUNDATION PLAN

DRAWING NUMBER

S1.01



FOUNDATION PLAN NOTES:

1. TOP OF ALL EXTERIOR FOOTINGS SHALL BE -1'-4" BELOW FINISHED FLOOR, U.N.O.
2. TOP OF ALL INTERIOR FOOTINGS SHALL BE -0'-8" BELOW FINISHED FLOOR, U.N.O.
3. REFER TO ARCH'L AND CIVIL DRAWINGS FOR LOCATION OF MOISTURE BARRIER, CURBS, EXTERIOR SLABS, DRAINAGE, RAMPS, STEPS, WALKS, ETC.
4. BUILDING SLAB IS NOT DESIGNED TO SUPPORT CRANE LOADS, CONCRETE MIXING TRUCKS, OR OTHER SPECIFIC CONSTRUCTION LOADINGS.
5. FOOTINGS SHALL BE CENTERED ON THE CENTERLINE OF THE WALL AND/OR COLUMNS, U.N.O.
6. COORDINATE LOCATION OF LOWERED FOOTINGS WITH PLUMBING DRAWINGS.
7. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN. COORDINATE SLAB ELEVATIONS AND SLOPES WITH ARCHITECTURAL PLANS.
8. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR SIZE AND LOCATION OF SLAB AND FOUNDATION PENETRATIONS.
9. THICKEN SLAB TO MAINTAIN THE SLAB THICKNESS AROUND FLOOR BOXES AND CONDUIT.

FOUNDATION PLAN LEGEND

- S — INDICATES STEP IN FOUNDATION (SEE STEPPED FOOTING DETAIL)
- -X-XX" — INDICATES ATYPICAL TOP OF FOOTING ELEVATION
- INDICATES A STEP IN THE SLAB ON GRADE

FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCEMENT
4	4' - 0"	4' - 0"	3' - 0"	(5) #5 E.W.
F3	3' - 0"	3' - 0"	1' - 4"	(4) #5 E.W.
F4	4' - 0"	4' - 0"	1' - 4"	(5) #5 E.W.
F5.5	5' - 6"	5' - 6"	1' - 4"	(7) #5 E.W.
F7	7' - 0"	7' - 0"	1' - 4"	(8) #5 E.W.
F18X4	18' - 0"	4' - 0"	1' - 4"	#5 @ 10" O.C. E.W. T&B
F18X6	18' - 0"	6' - 0"	1' - 4"	#5 @ 10" O.C. E.W. T&B

1 S1.02 **FOUNDATION PLAN**

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

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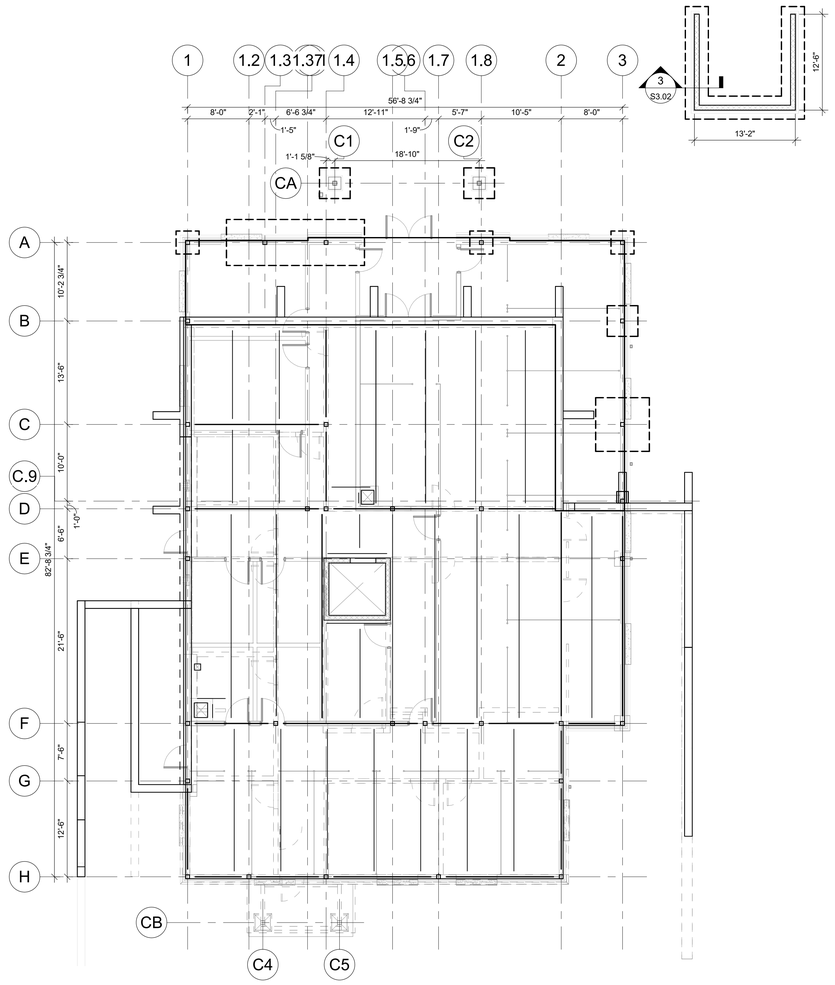
FOUNDATION PLAN

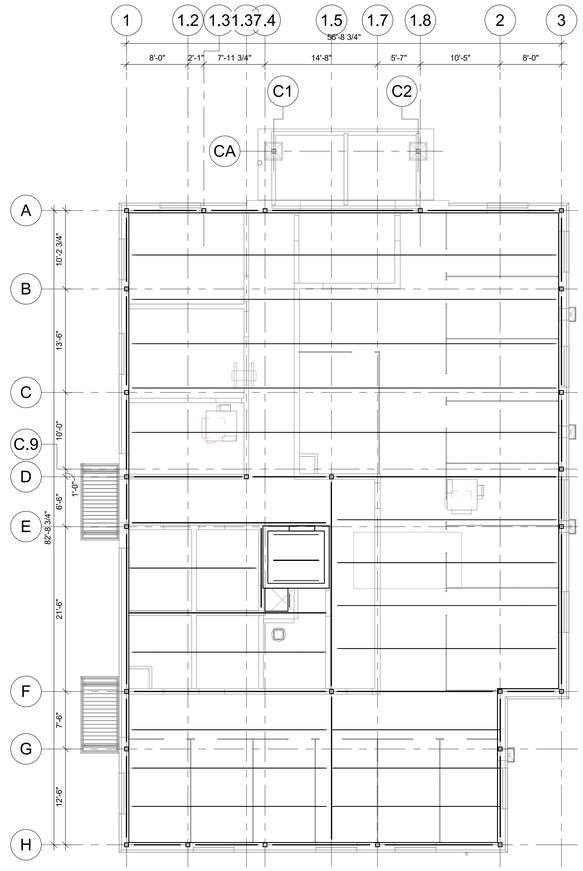
DRAWING NUMBER

S1.02



1 S2.01 **OVERALL FLOOR FRAMING PLAN**

SCALE: 1/8" = 1'-0"



2 S2.01 **OVERALL ROOF FRAMING PLAN**

SCALE: 1/8" = 1'-0"

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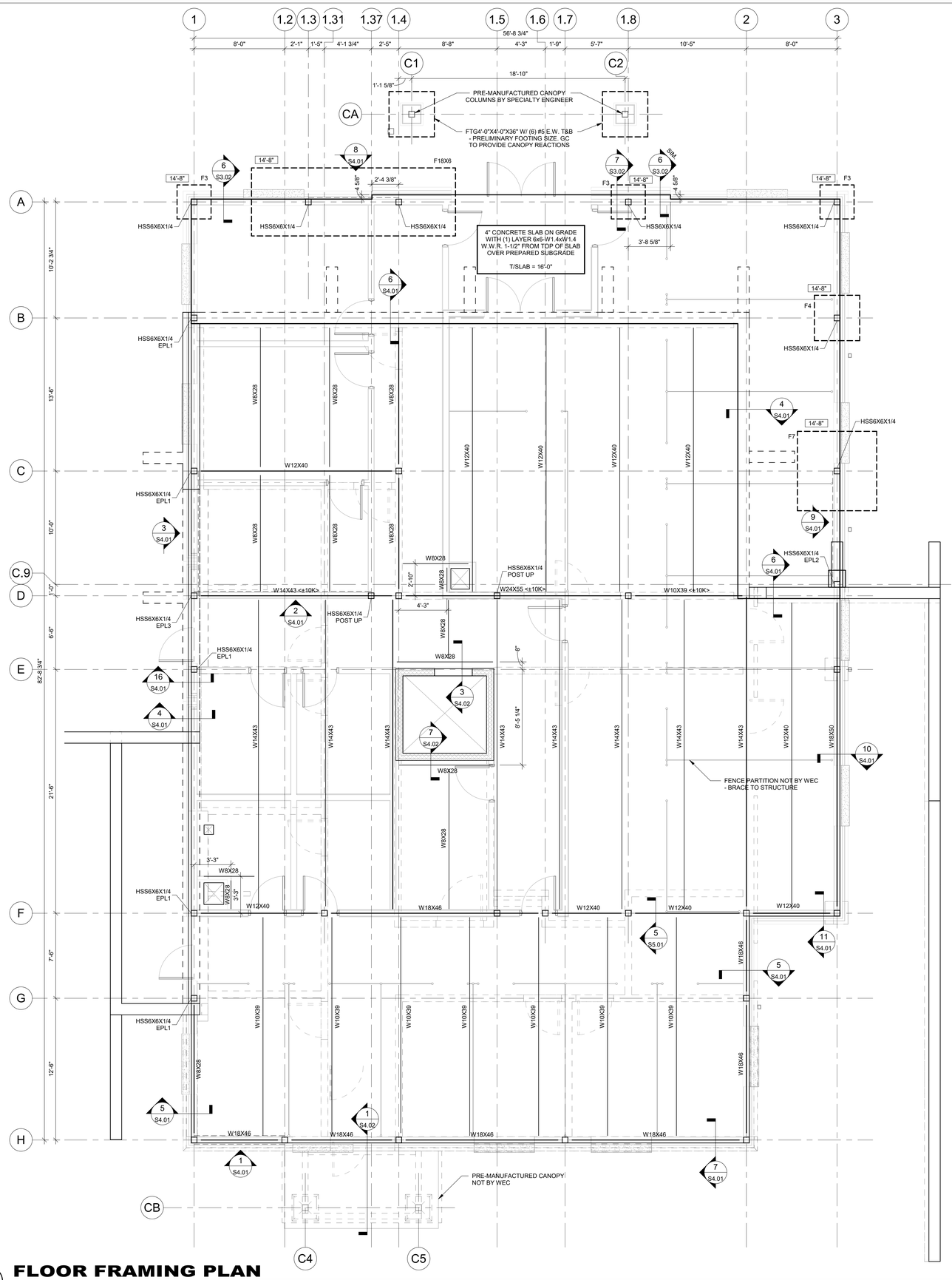
OVERALL FRAMING PLANS

DRAWING NUMBER

S2.01



1 S2.02 **FLOOR FRAMING PLAN**

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

FOUNDATION PLAN NOTES:

1. TOP OF ALL EXTERIOR FOOTINGS SHALL BE -1'-4" BELOW FINISHED FLOOR, U.N.O.
2. TOP OF ALL INTERIOR FOOTINGS SHALL BE -0'-8" BELOW FINISHED FLOOR, U.N.O.
3. REFER TO ARCH'L AND CIVIL DRAWINGS FOR LOCATION OF MOISTURE BARRIER, CURBS, EXTERIOR SLABS, DRAINAGE, RAMPS, STEPS, WALKS, ETC.
4. BUILDING SLAB IS NOT DESIGNED TO SUPPORT CRANE LOADS, CONCRETE MIXING TRUCKS, OR OTHER SPECIFIC CONSTRUCTION LOADINGS.
5. FOOTINGS SHALL BE CENTERED ON THE CENTERLINE OF THE WALL AND/OR COLUMNS, U.N.O.
6. COORDINATE LOCATION OF LOWERED FOOTINGS WITH PLUMBING DRAWINGS.
7. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN. COORDINATE SLAB ELEVATIONS AND SLOPES WITH ARCHITECTURAL PLANS.
8. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR SIZE AND LOCATION OF SLAB AND FOUNDATION PENETRATIONS.
9. THICKEN SLAB TO MAINTAIN THE SLAB THICKNESS AROUND FLOOR BOXES AND CONDUIT.

FOUNDATION PLAN LEGEND

- INDICATES STEP IN FOUNDATION (SEE STEPPED FOOTING DETAIL)
- -X-XX- INDICATES ATYPICAL TOP OF FOOTING ELEVATION
- INDICATES A STEP IN THE SLAB ON GRADE

FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCEMENT
4	4' - 0"	4' - 0"	3' - 0"	(5) #5 E.W.
F3	3' - 0"	3' - 0"	1' - 4"	(4) #5 E.W.
F4	4' - 0"	4' - 0"	1' - 4"	(5) #5 E.W.
F5.5	5' - 6"	5' - 6"	1' - 4"	(7) #5 E.W.
F7	7' - 0"	7' - 0"	1' - 4"	(8) #5 E.W.
F18X4	18' - 0"	4' - 0"	1' - 4"	#5 @ 10" O.C. E.W. T&B
F18X6	18' - 0"	6' - 0"	1' - 4"	#5 @ 10" O.C. E.W. T&B

FLOOR FRAMING PLAN NOTES

1. DECK SHALL BE 3" NW CONCRETE ON 2" VLI 22 GA. GALV. COMPOSITE METAL DECK (5" TOTAL THICKNESS) U.N.O. W/ (1) LAYER 6x6:W2.1xW2.1 WWR 1-1/2" BELOW T/SLAB. BEAMS SHALL BE SPACED AT 6'-6" O.C. MAX. ATTACH DECK TO SUPPORTING MEMBER WITH 5/8" DIA. PUDDLE WELDS IN A 36/4 PATTERN WITH (2) #10 SCREWS PER SIDELAP.
2. T/SLAB = 16'-0" U.N.O.
3. DO NOT CUT CONTROL JOINTS IN ELEVATED SLABS. PROVIDE #4x4'-0" DOWELS @ 12" O.C. AT GIRDERS.
4. DO NOT PLACE CONDUIT IN ELEVATED SLABS.
5. VERIFY AND COORDINATE EQUIPMENT WITH MEP DRAWINGS FOR EXACT SIZE AND LOCATION. CONTACT ARCHITECT AND E.O.R. IF DISCREPANCIES OCCUR BETWEEN ARCHITECTURAL AND MEP DRAWINGS AND INFORMATION SHOWN ON STRUCTURAL PLANS.
6. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR SIZE AND LOCATION OF DECK PENETRATIONS.

FLOOR FRAMING PLAN LEGEND:

- INDICATES BEAM SPLICE (SEE BEAM SPLICE DETAIL)
- <±XXK> INDICATES AXIAL ASD (0.6W OR 0.7EQ) LOAD TO BE INCORPORATED INTO MEMBERS AND CONNECTION DESIGN
- DENOTES MOMENT CONNECTION

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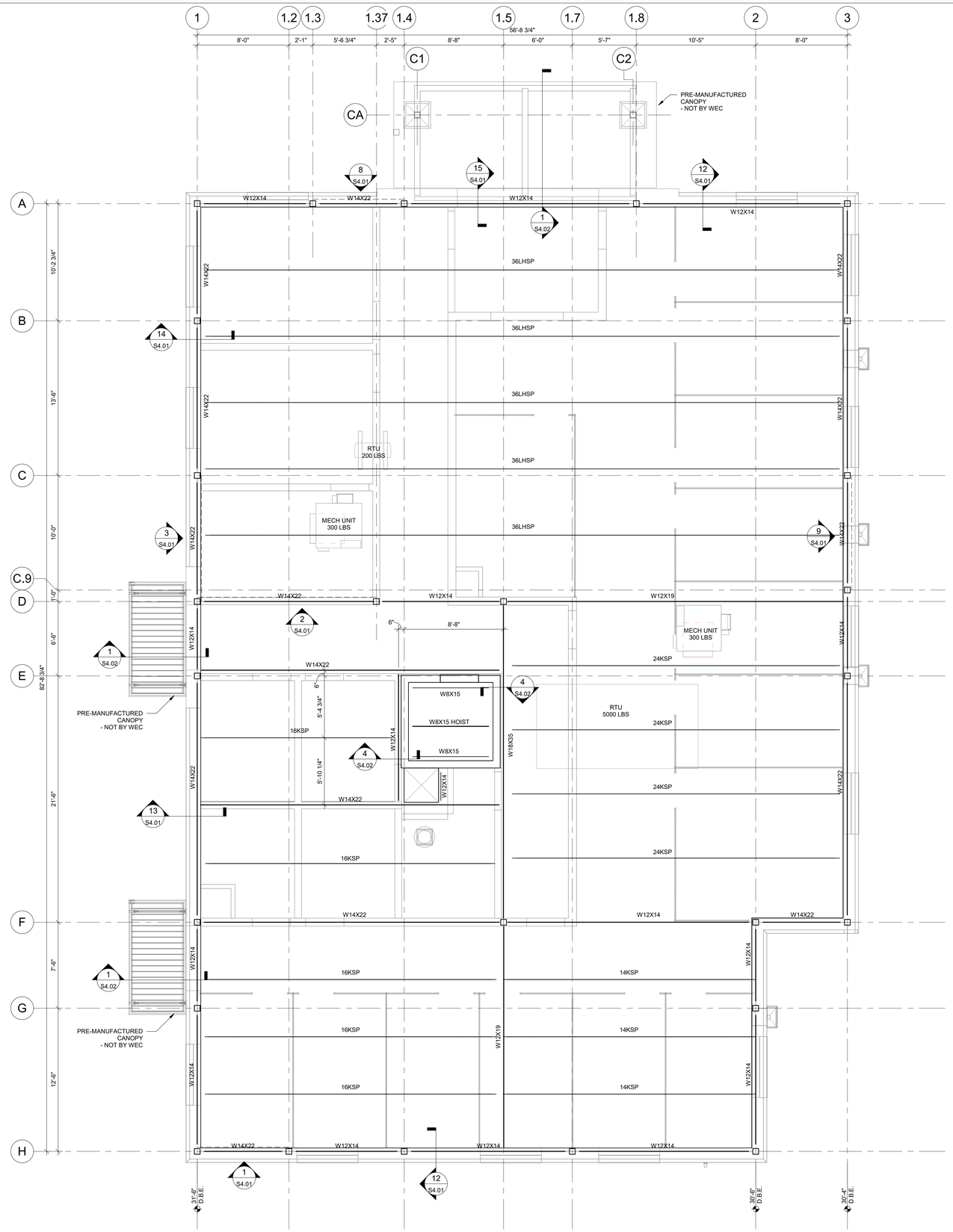
FLOOR FRAMING PLAN

DRAWING NUMBER

S2.02

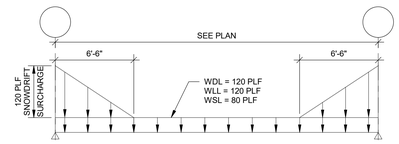


ROOF FRAMING PLAN NOTES

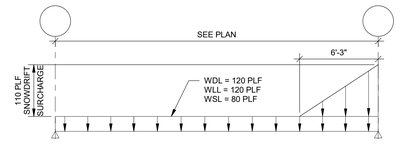
1. ROOF DECK SHALL BE 1-1/2" WIDE RIB (TYPE B) ROOF DECK ATTACHED TO SUPPORTING MEMBERS W/ 5/8" DIA. PUDDLE WELDS IN A 36/4 PATTERN WITH (2) #10 SCREWS PER SIDELAP U.N.O. ATTACH PERIMETER @ 6" O.C.
2. ROOF IS NOT DESIGNED TO SUPPORT ANY FUTURE ROOF TOP EQUIPMENT. WHAT IS INDICATED ON THIS DRAWING SHALL BE INCORPORATED INTO THE DESIGN BY THE JOIST MFR.
3. VERIFY AND COORDINATE ROOF TOP EQUIPMENT WITH MEP DRAWINGS FOR EXACT SIZE AND LOCATION. CONTACT ARCHITECT AND E.O.R. IF DISCREPANCIES OCCUR BETWEEN ARCHITECTURAL AND MEP DRAWINGS AND INFORMATION SHOWN ON STRUCTURAL PLANS.
4. "SP" DENOTES SPECIAL JOIST DESIGN. SEE SPECIAL JOIST DIAGRAM AND SCHEDULE FOR LOADING.
5. JOIST REACTIONS SHOWN ON THE PLAN ARE ADDITIVE TO THE JOIST DESIGNATION REACTION.
6. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR SIZE AND LOCATION OF DECK PENETRATIONS.
7. JOIST MFR SHALL DESIGN JOISTS FOR SPRINKLER PIPE LOADS. REFERENCE FIRE PROTECTION FOR PIPE SIZES AND LOCATIONS.

ROOF FRAMING PLAN LEGEND:

- ⌀ ——— INDICATES BEAM SPLICE (SEE BEAM SPLICE DETAIL)
- <±XXK> INDICATES AXIAL ASD (0.6W OR 0.7EQ) LOAD TO BE INCORPORATED INTO MEMBERS AND CONNECTION DESIGN
- ◄——— DENOTES MOMENT CONNECTION



36LHSP



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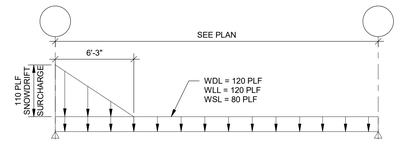

16KSP

1 S2.03 **ROOF FRAMING PLAN**

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

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HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS: △

DESIGNED	DRAWN	CHECKED
KAG	KAG	BJH

DATE: 12/06/2024

JOB NO. 624 1109 01

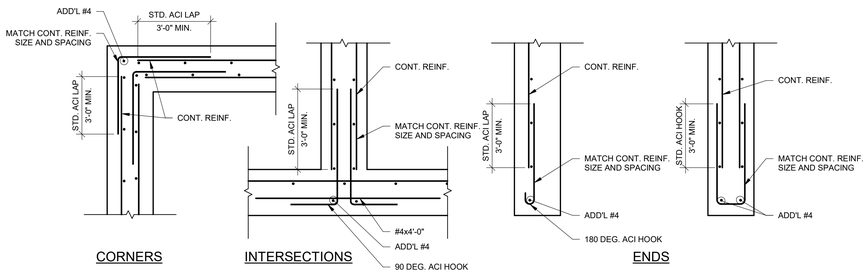
12/06/2024

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ROOF FRAMING PLAN

DRAWING NUMBER

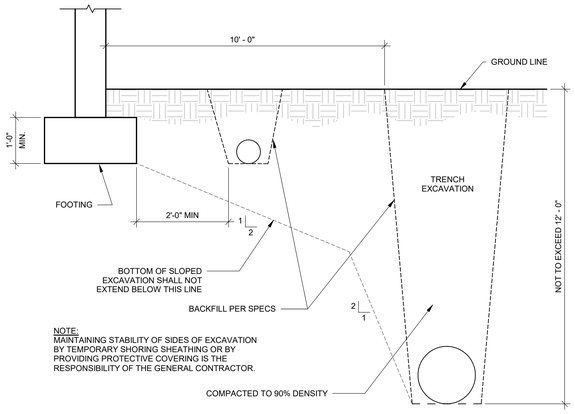
S2.03



TYP. REINF. ARRANGMENTS AT CORNERS

1 S3.01

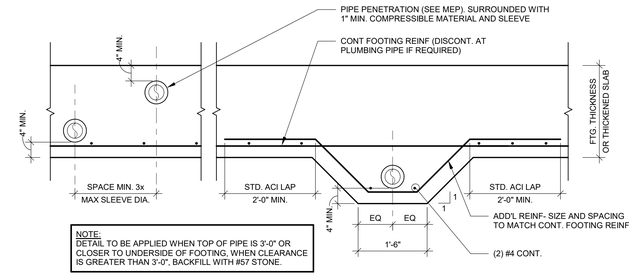
SCALE: 3/4" = 1'-0"



TYP. EXCAVATIONS PARALLEL TO WALL FOOTING

2 S3.01

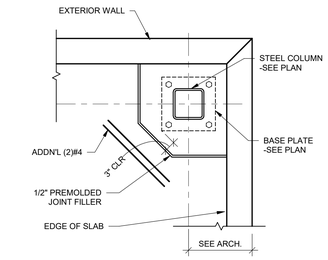
SCALE: 3/4" = 1'-0"



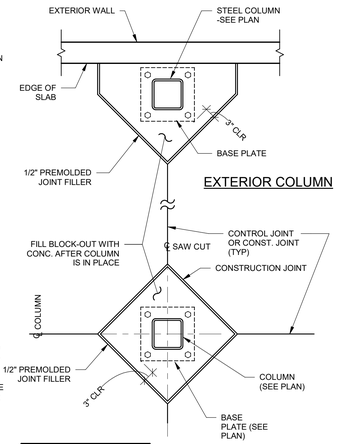
TYP. UTILITIES UNDER SLAB OR WALL FOOTING

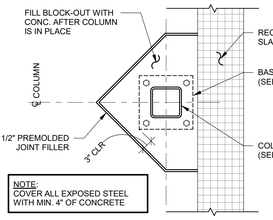
3 S3.01

SCALE: 3/4" = 1'-0"



EXTERIOR CORNER COLUMN





NOTE:
COVER ALL EXPOSED STEEL WITH MIN. 4" OF CONCRETE

INTERIOR RECESSED AREAS

NOTE:
COVER ALL EXPOSED STEEL WITH MIN. 4" OF CONCRETE

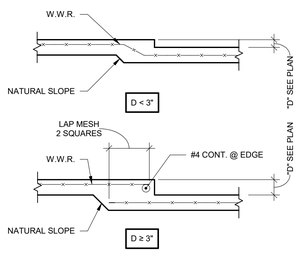
INTERIOR COLUMN

TYP. INTERIOR & EXTERIOR COLUMNS

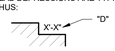
TYP. COLUMN ISOLATION JOINTS

4 S3.01

SCALE: 3/4" = 1'-0"



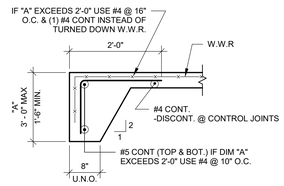
NOTE:
1. W.W.F. TO BE POSITIONED WITHIN SLAB DEPTH w/ PRFABRICATED CHAIRS.
2. COORDINATE DEPTHS AND LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE (1) #4x4'-0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.
4. SLAB DEPRESSIONS ARE TYPICALLY SHOWN ON PLAN THUS:



TYP. DEPRESSED SLAB ON GRADE

8 S3.01

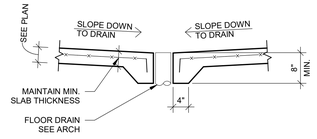
SCALE: 3/4" = 1'-0"



TYP. TURNED DOWN SLAB

9 S3.01

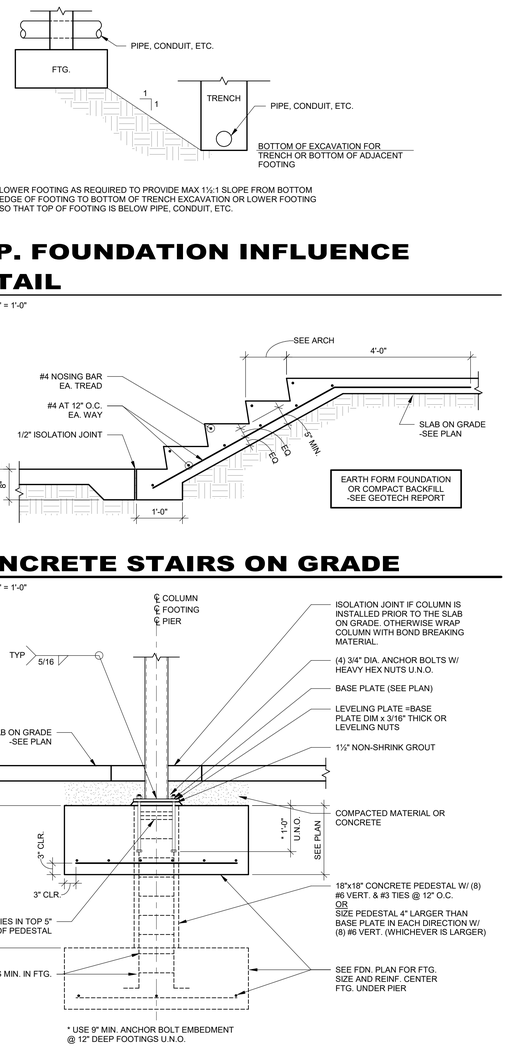
SCALE: 3/4" = 1'-0"



TYP. SLAB AT FLOOR DRAIN

10 S3.01

SCALE: 3/4" = 1'-0"



TYP. FOUNDATION INFLUENCE DETAIL

5 S3.01

SCALE: 3/4" = 1'-0"

CONCRETE STAIRS ON GRADE

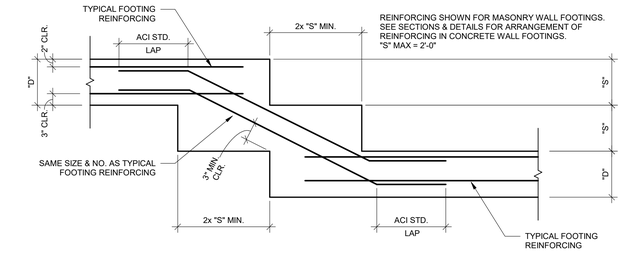
7 S3.01

SCALE: 3/4" = 1'-0"

TYP. INT. COLUMN & FOOTING

11 S3.01

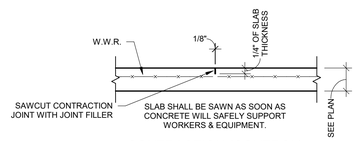
SCALE: 3/4" = 1'-0"



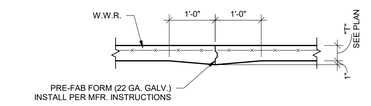
TYP. STEPPED FOOTING

6 S3.01

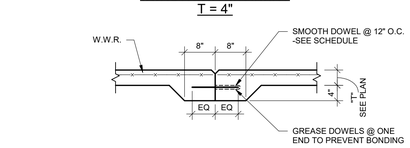
SCALE: 3/4" = 1'-0"



CONTRACTION (CONTROL) JOINT



CONSTRUCTION JOINT T = 4"



CONSTRUCTION JOINT T > 4"

CONSTRUCTION JOINT NOTES:
1. SEE PLAN FOR SLAB THICKNESS (T) AND REINFORCEMENT.
2. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
3. DO NOT USE THE KEY JOINT FOR SCREEDING BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE OF KEY AND DOWEL WITH A CURING COMPOUND, ASPHALTIC EMULSION, OR FORM OIL.
4. REFER TO SPECIFICATIONS AND DRAWINGS FOR SUB FLOOR DRAINAGE SYSTEM, SUBGRADE PREPARATION AND/OR MUD SLAB ON VAPOR BARRIER REQUIREMENTS.
5. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.

CONSTRUCTION JOINT DOWELS	
"T"	DOWEL SIZE
5"	5/8" DIA. x1'-0"
6"	3/4" DIA. x1'-2"
7"	7/8" DIA. x1'-2"
8"	1" DIA. x1'-2"
9"	1 1/8" DIA. x1'-4"
10"	1 1/4" DIA. x1'-4"

TYP. JOINTS IN SLAB ON GRADE

12 S3.01

SCALE: 3/4" = 1'-0"

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UNION COUNTY
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TYPICAL FOUNDATION DETAILS

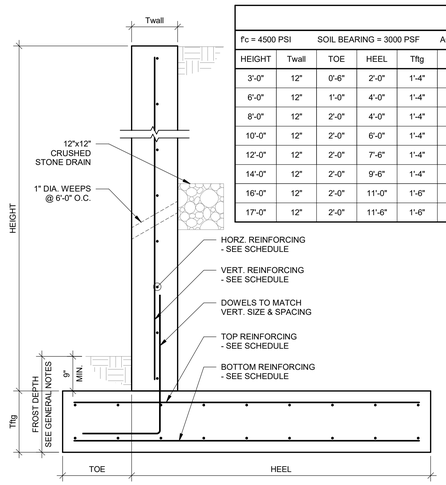
DRAWING NUMBER

S3.01

RETAINING WALL SCHEDULE

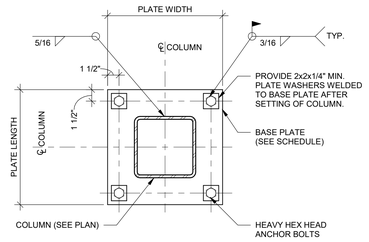
f'c = 4500 PSI | SOIL BEARING = 3000 PSF | ACTIVE PRESSURE = 45 PSF/FT | PASSIVE PRESSURE = 300 PSF/FT | FRICTION FACTOR = 0.40

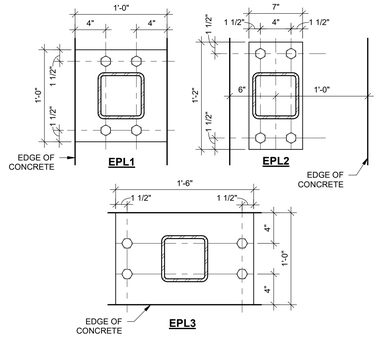
HEIGHT	Twall	TOE	HEEL	Tftg	VERT. REINF.	HORZ. REINF.	TOP REINF.	BOTTOM REINF.
3'-0"	12"	0'-6"	2'-0"	1'-4"	#5 @ 12" O.C. CENT.	#5 @ 12" O.C. CENT.	NONE	#5 @ 10" O.C. LONG
6'-0"	12"	1'-0"	4'-0"	1'-4"	#5 @ 12" O.C. CENT.	#5 @ 12" O.C. CENT.	#5 @ 10" O.C. E.W.	#5 @ 10" O.C. LONG
8'-0"	12"	2'-0"	4'-0"	1'-4"	#5 @ 9" O.C. CENT.	#5 @ 12" O.C. CENT.	#5 @ 10" O.C. E.W.	#5 @ 10" O.C. LONG
10'-0"	12"	2'-0"	6'-0"	1'-4"	#5 @ 9" O.C. E.F.	#5 @ 12" O.C. E.F.	#5 @ 10" O.C. E.W.	#5 @ 10" O.C. LONG
12'-0"	12"	2'-0"	7'-6"	1'-4"	#5 @ 6" O.C. E.F.	#5 @ 12" O.C. E.F.	#5 @ 10" O.C. E.W.	#5 @ 10" O.C. LONG
14'-0"	12"	2'-0"	9'-6"	1'-4"	#6 @ 6" O.C. E.F.	#5 @ 12" O.C. E.F.	#5 @ 10" O.C. E.W.	#5 @ 10" O.C. E.W.
16'-0"	12"	2'-0"	11'-0"	1'-6"	#7 @ 6" O.C. E.F.	#5 @ 12" O.C. E.F.	#5 @ 8" O.C. E.W.	#5 @ 8" O.C. E.W.
17'-0"	12"	2'-0"	11'-6"	1'-6"	#7 @ 4" O.C. E.F.	#5 @ 12" O.C. E.F.	#5 @ 6" O.C. E.W.	#5 @ 6" O.C. E.W.



1 S3.02 RETAINING WALL SCHEDULE

SCALE: 3/4" = 1'-0"





BASE PLATE SCHEDULE

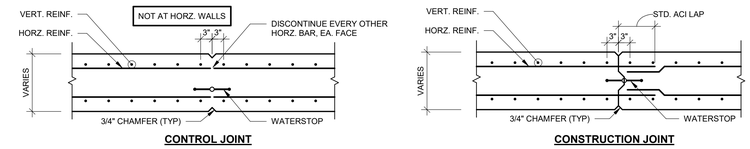
MARK	PLATE LENGTH	PLATE WIDTH	PLATE THICKNESS	ANCHOR BOLTS
HSS6x6	12"	12"	3/4"	(4) 3/4" DIA. x12" EMBED
BPL1	18"	18"	1"	(4) 1 1/4" DIA. x12" EMBED
BPL2	14"	14"	3/4"	(4) 1" DIA. x12" EMBED

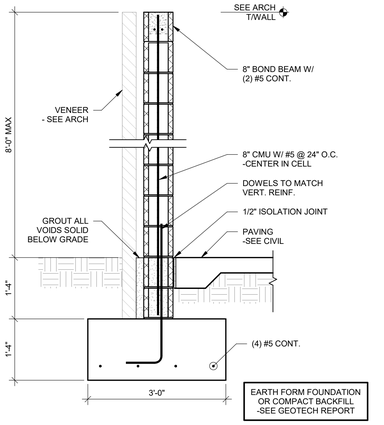
EMBED PLATE SCHEDULE

MARK	PLATE LENGTH	PLATE WIDTH	PLATE THICKNESS	HEADED STUDS
EPL1	12"	12"	3/4"	(4) 3/4" DIA. x6" EMBED
EPL2	12"	12"	3/4"	(4) 3/4" DIA. x6" EMBED
EPL3	18"	12"	3/4"	(4) 3/4" DIA. x12" EMBED

2 S3.02 BASE PLATE SCHEDULE

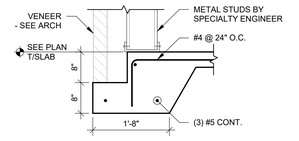
SCALE: 1 1/2" = 1'-0"

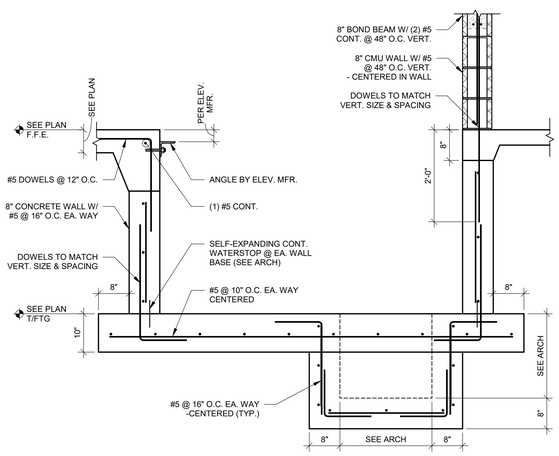




3 S3.02 CMU WALL AT DUMPSTER

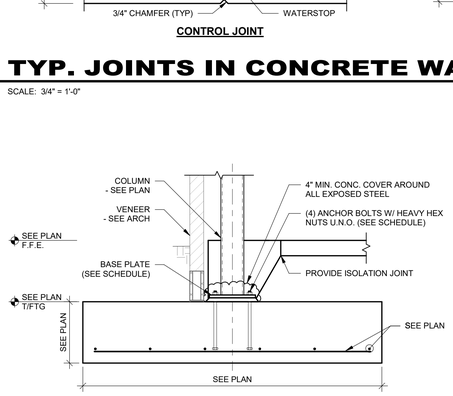
SCALE: 3/4" = 1'-0"





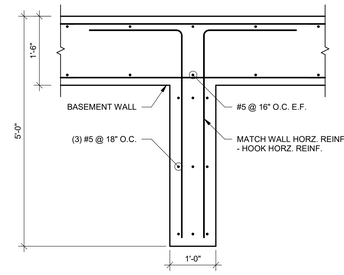
4 S3.02 SECTION AT ELEVATOR

SCALE: 3/4" = 1'-0"



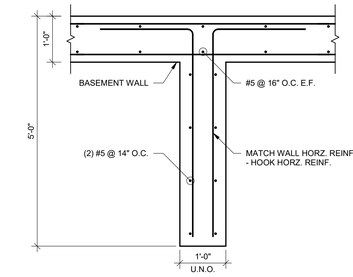
7 S3.02 EXT. COLUMN FOOTING

SCALE: 3/4" = 1'-0"



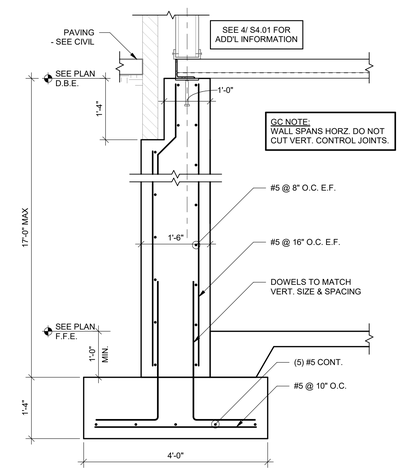
8 S3.02 COUNTERFORT @ 18" THICK WALL

SCALE: 3/4" = 1'-0"



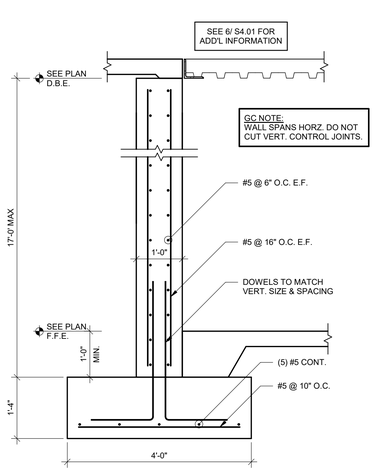
9 S3.02 COUNTERFORT @ 12" THICK WALL

SCALE: 3/4" = 1'-0"



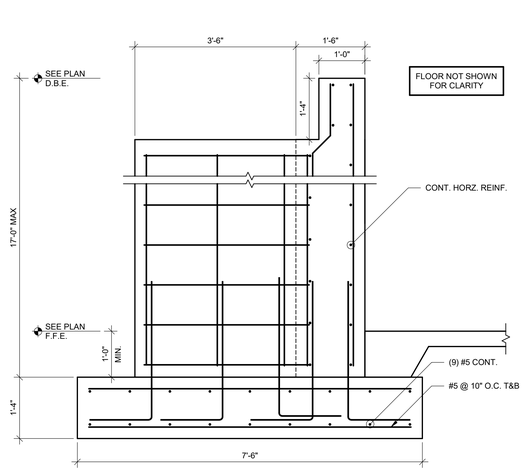
10 S3.02 18" BASEMENT WALL

SCALE: 3/4" = 1'-0"



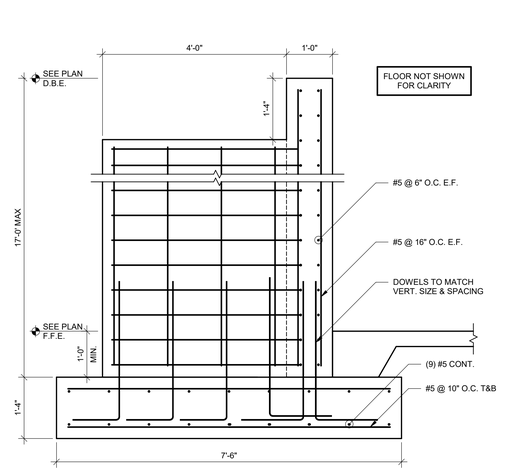
11 S3.02 12" BASEMENT WALL

SCALE: 3/4" = 1'-0"



12 S3.02 COUNTERFORT AT 18" WALL

SCALE: 3/4" = 1'-0"



13 S3.02 COUNTERFORT AT 12" WALL

SCALE: 3/4" = 1'-0"

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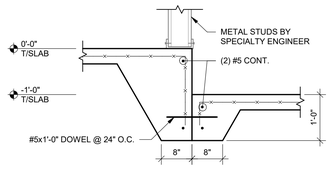
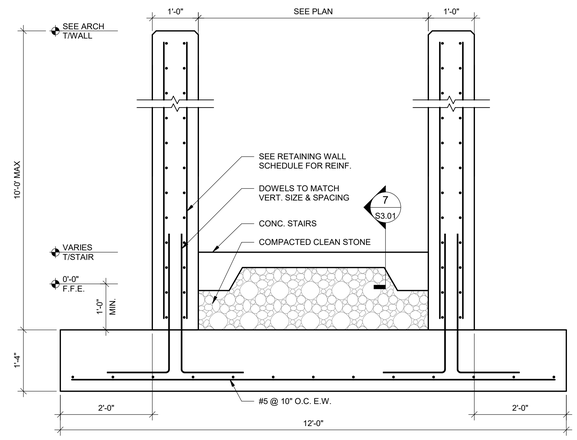


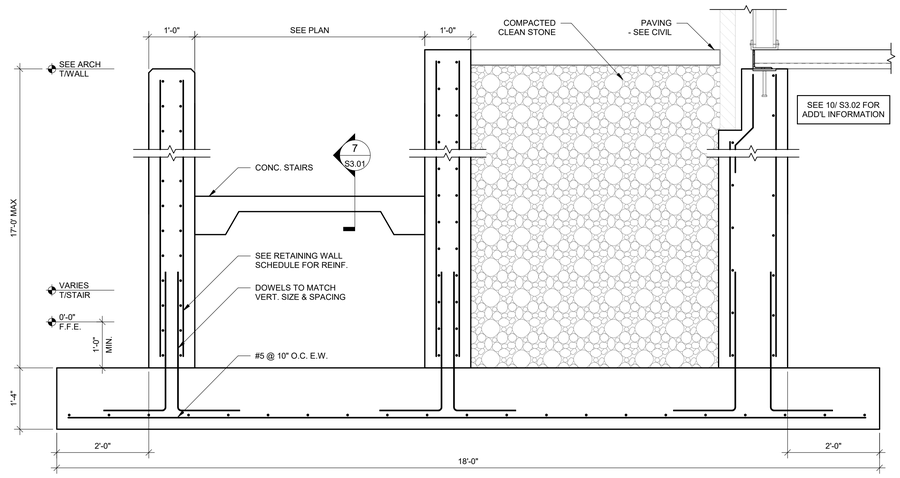
1 S3.03 SECTION

SCALE: 3/4" = 1'-0"



2 S3.03 RETAINING WALL AT STAIRS

SCALE: 3/4" = 1'-0"



3 S3.03 RETAINING WALL AT STAIRS

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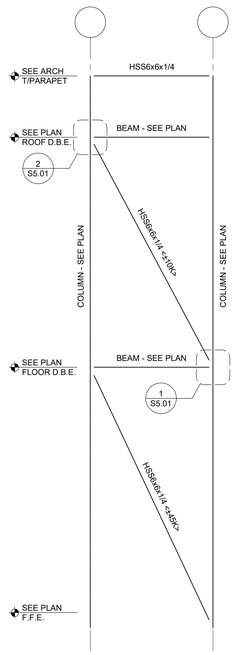
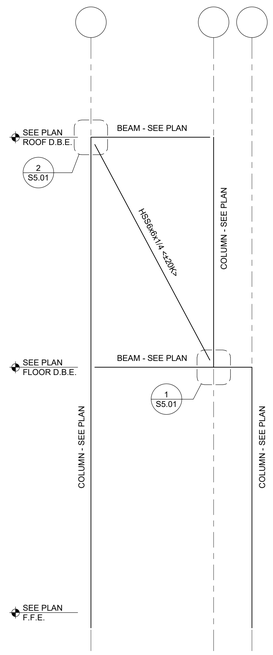


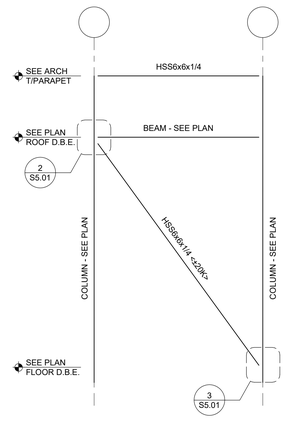
1 S4.01 GRID H BRACED FRAME

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



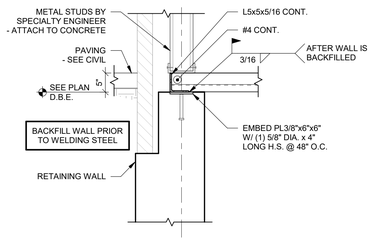
2 S4.01 GRID D BRACED FRAME

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



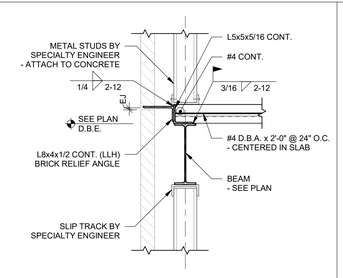
3 S4.01 GRID 1 BRACED FRAME

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



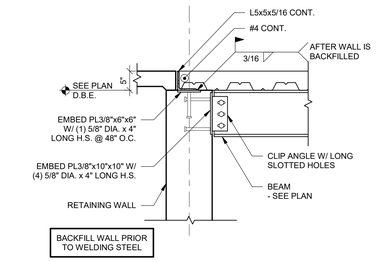
4 S4.01 SECTION

SCALE: 3/4" = 1'-0"



5 S4.01 SECTION

SCALE: 3/4" = 1'-0"



6 S4.01 SECTION

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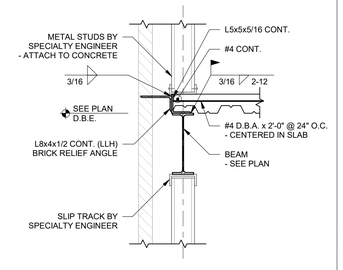

7 S4.01 SECTION

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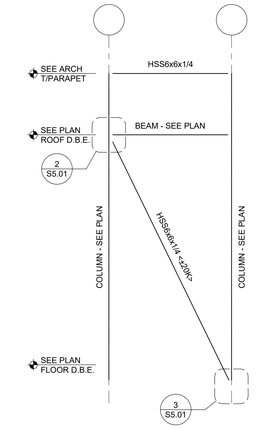
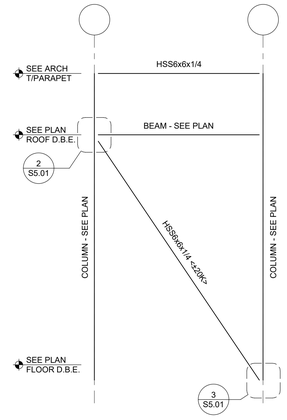


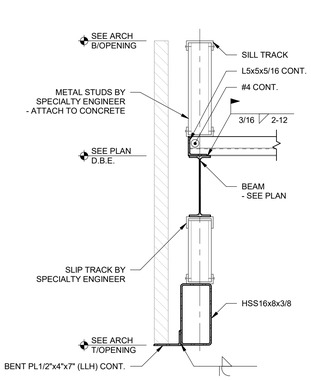
8 S4.01 GRID A BRACED FRAME

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



9 S4.01 GRID 3 BRACED FRAME

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



10 S4.01 SECTION

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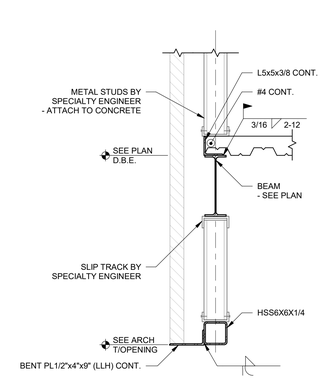

11 S4.01 SECTION

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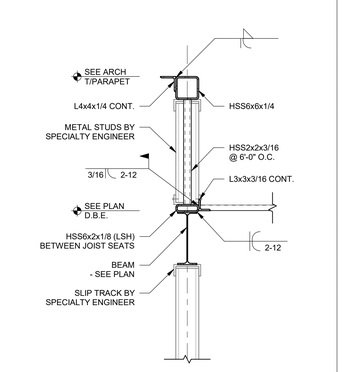

12 S4.01 SECTION

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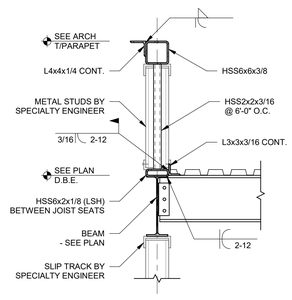

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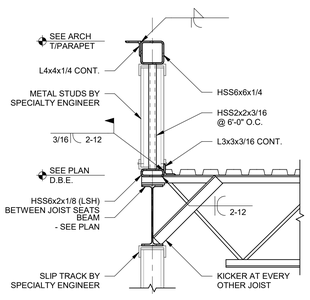
SCALE: 3/4" = 1'-0"



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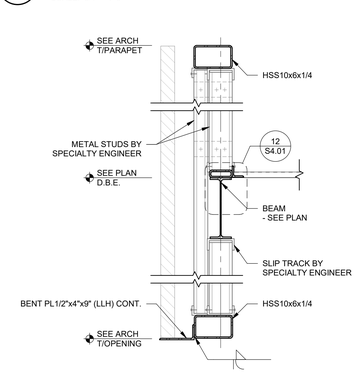
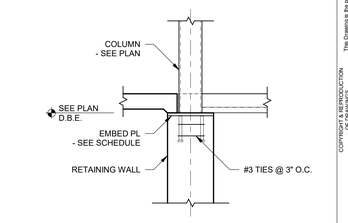


15 S4.01 SECTION

SCALE: 3/4" = 1'-0"



16 S4.01 SECTION

SCALE: 3/4" = 1'-0"

Willett Engineering Company
Consulting Structural Engineers
3528 Habersham at Northlake
Tucker, Georgia 30084
Phone: (770) 270-9484
www.WillettEngineering.com

CONSTRUCTION DOCUMENT PACKAGE

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

GEORGIA REGISTERED No. SE000538 STRUCTURAL ENGINEER BRANDON JOSEPH HEFFNER

REVISIONS:

DESIGNED	DRAWN	CHECKED
KAG	KAG	BJH

DATE: 12/06/2024

JOB NO. 624 1109 01

12/06/2024

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

SECTIONS & DETAILS

DRAWING NUMBER

S4.01

1 S4.02 **SECTION**

SCALE: 3/4" = 1'-0"

2 S4.02 **CHAIN LINK DETAIL**

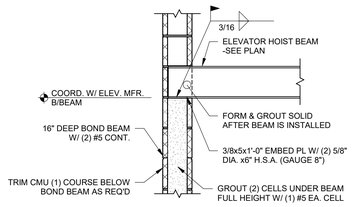
SCALE: 3/4" = 1'-0"

3 S4.02 **SECTION**

SCALE: 3/4" = 1'-0"

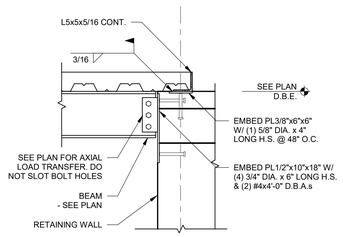
4 S4.02 **SECTION**

SCALE: 3/4" = 1'-0"



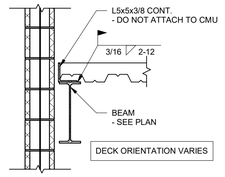
5 S4.02 **HOIST BEAM DETAIL**

SCALE: 3/4" = 1'-0"



6 S4.02 **SECTION**

SCALE: 3/4" = 1'-0"



7 S4.02 **SECTION**

SCALE: 3/4" = 1'-0"

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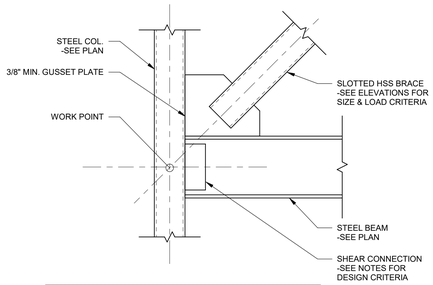
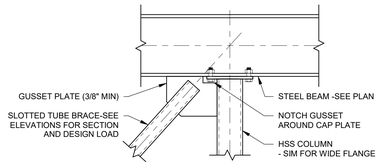
S4.02



GUSSET PLATE AND ATTACHMENT OF GUSSET PLATE TO STRUCTURE AND BRACE TO GUSSET SHALL BE DESIGNED IN ACCORDANCE TO THE "STRUCTURAL STEEL" SECTION OF THE GENERAL NOTES PAGE AND IS NOT BY WILLETT ENGINEERING. DETAILS SHALL BE CONSIDERED SCHEMATIC ONLY.

1 S5.01 BRACE FRAME LOW CONNECTION

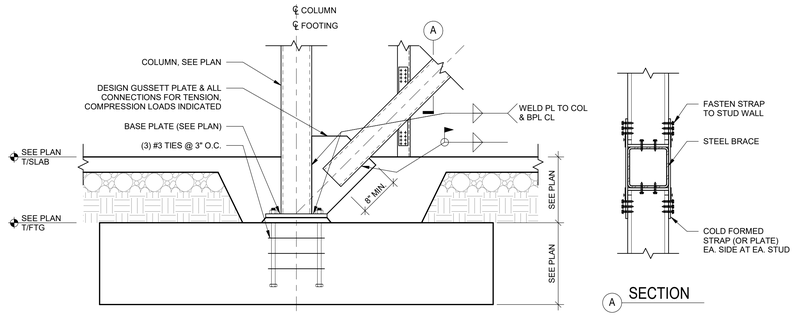
SCALE: 1" = 1'-0"



GUSSET PLATE AND ATTACHMENT OF GUSSET PLATE TO STRUCTURE AND BRACE TO GUSSET SHALL BE DESIGNED IN ACCORDANCE TO THE "STRUCTURAL STEEL" SECTION OF THE GENERAL NOTES PAGE AND IS NOT BY WILLETT ENGINEERING. DETAILS SHALL BE CONSIDERED SCHEMATIC ONLY.

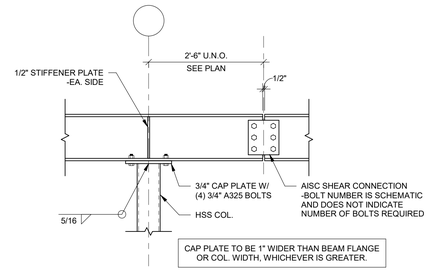
2 S5.01 BRACE FRAME HIGH CONNECTION

SCALE: 1" = 1'-0"



3 S5.01 TYPICAL TUBE STEEL BRACE CONNECTION DETAIL

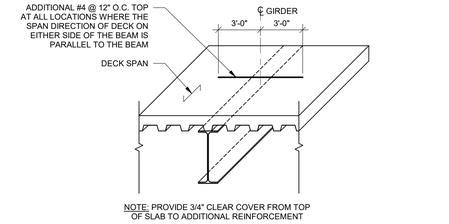
SCALE: 1" = 1'-0"



CAP PLATE TO BE 1" WIDER THAN BEAM FLANGE OR COL. WIDTH, WHICHEVER IS GREATER.

4 S5.01 TYPICAL BEAM BEARING DETAIL

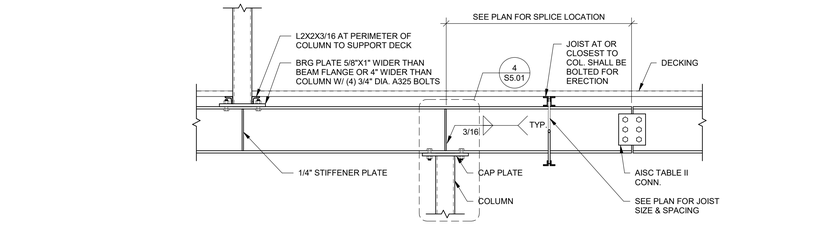
SCALE: 3/4" = 1'-0"



NOTE: PROVIDE 3/4" CLEAR COVER FROM TOP OF SLAB TO ADDITIONAL REINFORCEMENT

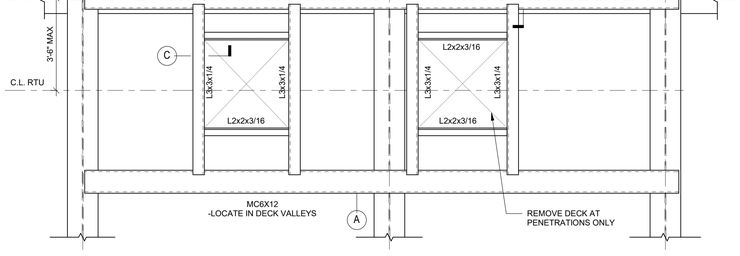
5 S5.01 ADD'L DECK REINF. AT GIRDER

SCALE: 3/4" = 1'-0"

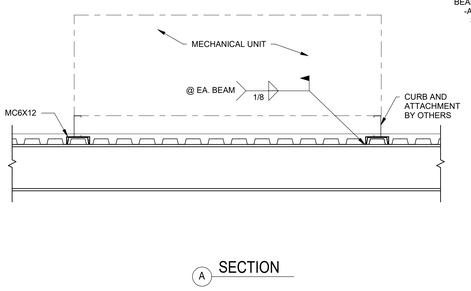


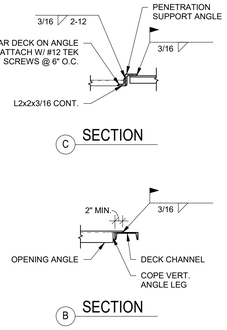
6 S5.01 TYPICAL BEAM SPLICE AND COLUMN DETAIL

SCALE: 3/4" = 1'-0"



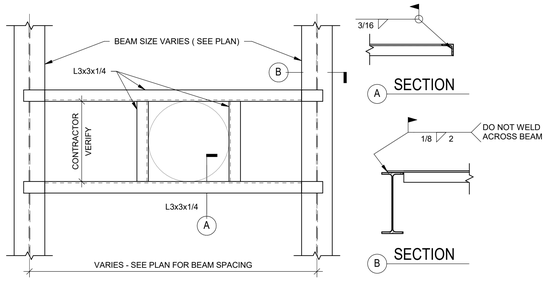
NOTES:
1. LOCATE CURB OVER CHANNELS. SEE MECHANICAL DRAWINGS FOR EXACT SIZES & LOCATIONS.
2. REMOVE DECK AT DUCT PENETRATION LOCATIONS AS REQUIRED. FIELD WELD NEW DECK SUPPORT ANGLES BETWEEN CHANNELS. DECK SUPPORT ANGLE MAY BE OMITTED IF EDGE OF PENETRATION IS WITHIN 6 INCHES OF A BEAM.





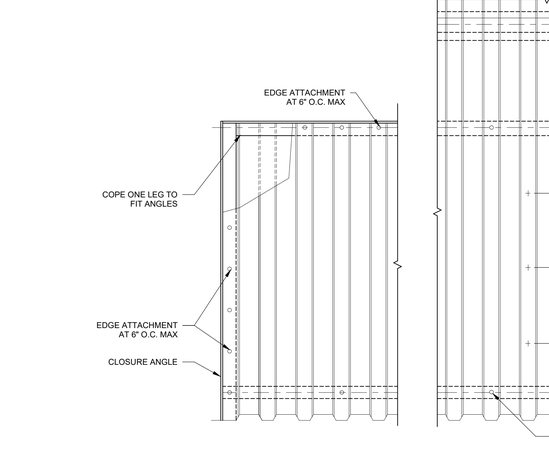
7 S5.01 TYPICAL MECHANICAL UNIT SUPPORT FRAMING DETAILS

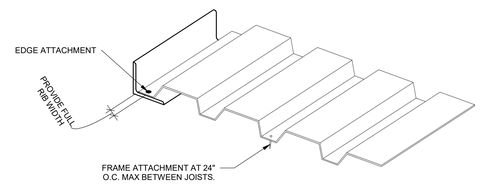
SCALE: 3/4" = 1'-0"



8 S5.01 TYPICAL ROOF DRAIN SUPPORT FRAMING DETAIL - BEAM

SCALE: 3/4" = 1'-0"





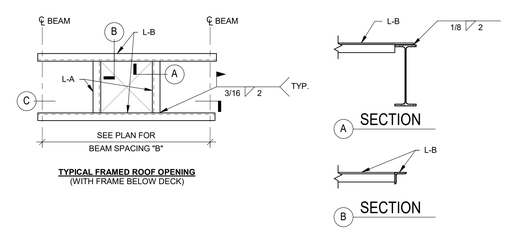
NOTE:
SEE ROOF FRAMING PLAN FOR DECK SIZE & ATTACHMENTS.

NOTE:
DECK ATTACHMENT SHALL BE AS SPECIFIED ON PLANS AS EITHER:
A. 5/8" DIA. PUDDLE WELDS. DECKS 22 GAUGE AND THINNER SHALL REQUIRE WELDING WASHERS.
B. #12-14x3/4" HEX-WASHER HEAD SELF DRILLING SCREWS TEK.
C. POWDER ACTUATED FASTENERS AS NOTED ON PLAN. PAF ARE BRAND AND MODEL SPECIFIC.

ATTACHMENT SHALL NOT BE SUBSTITUTED FROM THAT SPECIFIED WITHOUT APPROVAL FROM THE ENGINEER OF RECORD.

9 S5.01 TYP. DECK ATTACHMENT DETAIL

SCALE: 3/4" = 1'-0"



TYPICAL FRAMED ROOF OPENING
(WITH FRAME BELOW DECK)

NOTES:
1. FRAMED OPENING REQUIRED IN ROOF FOR ALL OPENINGS GREATER THAN 0'-6" AND/OR SUPPORTING EQUIPMENT GREATER THAN 100 POUNDS.
2. COORDINATE TYPE OF OPENING REQUIRED WITH APPROPRIATE MANUFACTURER.
3. SEE ROOF FRAMING PER PLAN ORIENTATION.

* COORDINATE DIM. W/ EQUIP. ACTUALLY FURNISHED

ROOF OPENING FRAME SCHEDULE FOR ANGLE FRAMING			
DIM "A"	"L"-SIZE A	DIM "B"	"L"-SIZE B
2'-0"	3x3x3/16	4'-0"	3x3x3/16
3'-0"	3x3x3/16	5'-0"	3x3x1/4
4'-0"	3x3x3/16	6'-0"	3 1/2x3 1/2x1/4
5'-0"	3x3x3/16	7'-0"	4x4x5/16

10 S5.01 TYPICAL FRAMED ROOF OPENING

SCALE: 3/4" = 1'-0"

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UNION COUNTY
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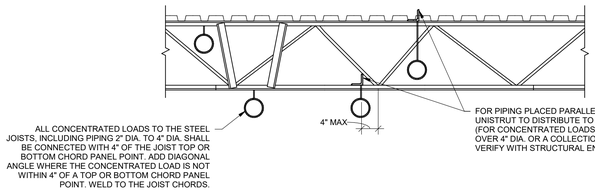
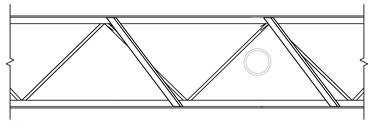
TYPICAL STEEL DETAILS

DRAWING NUMBER

S5.01

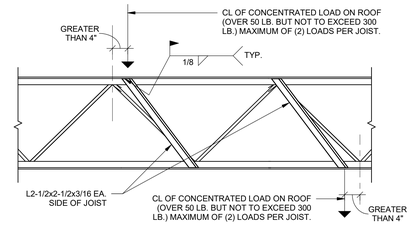




NOTE:
1. WHERE HANGERS OCCUR MORE THAN 4" FROM PANEL POINTS, SEE JOIST REINFORCEMENT DETAILS FOR ADD'L ANGLE STRUT ON EACH SIDE OF JOIST.
2. DO NOT ATTACH PIPES GREATER THAN 4" IN DIAMETER TO JOISTS. NOTIFY E.O.R. & JOIST MFR. TO VERIFY JOIST CAPACITY.
3. GC SHALL BE RESPONSIBLE FOR THE DESIGN OF PIPE SUPPORTS & CONNECTIONS U.N.O.
4. PIPES 4" & SMALLER SHALL BE ATTACHED TO JOISTS @ EVERY OTHER JOIST OR 12'-0" O.C. MAX. PIPES LARGER THAN 4" SHALL BE ATTACHED AT EVERY JOIST OR 6'-0" O.C. & REQUIRE E.O.R. APPROVAL.

1 S5.02 SPECIFIC HANGER REQUIREMENTS FOR STEEL JOISTS

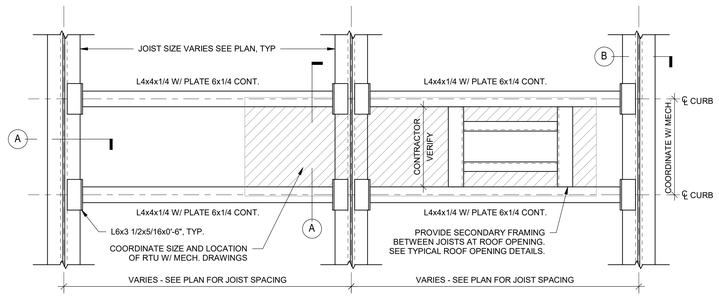
SCALE: 3/4" = 1'-0"

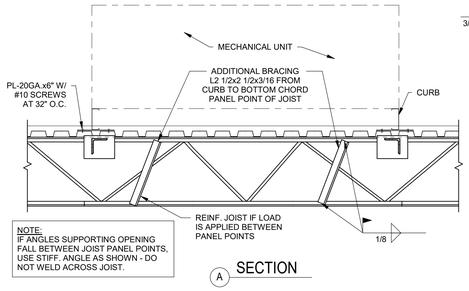


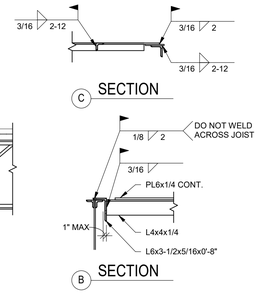
NOTE:
1. INSTALL STIFFENER ANGLE AS SHOWN WHERE CONCENTRATED LOADS ARE APPLIED TO JOIST MORE THAN 4" FROM A JOIST PANEL POINT. (DO NOT WELD ACROSS JOIST CHORDS)
2. WHERE LOAD EXCEEDS 50 LBS. NOTIFY E.O.R. & JOIST MFR. IF LOAD IS NOT INDICATED ON CONTRACT OR SHOP DRAWINGS.

2 S5.02 TYP. JOIST REINFORCEMENT DETAIL

SCALE: 3/4" = 1'-0"

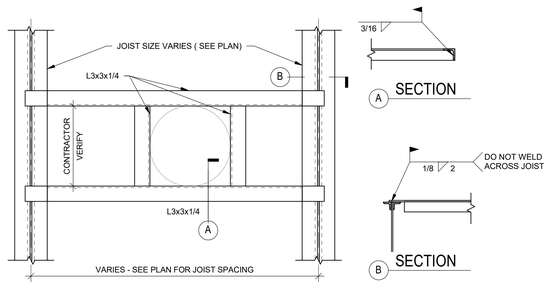






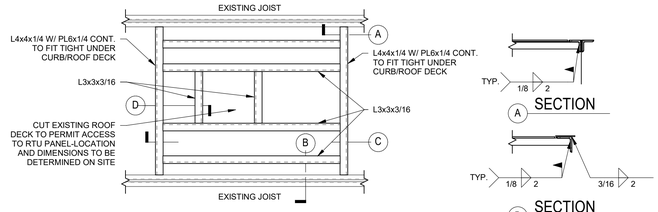
3 S5.02 TYPICAL MECHANICAL UNIT SUPPORT FRAMING DETAILS

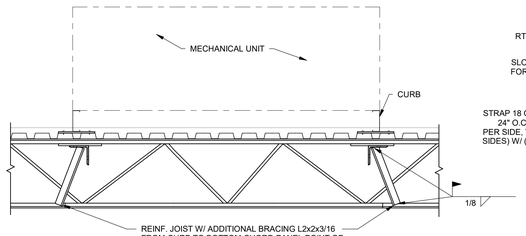
SCALE: 3/4" = 1'-0"

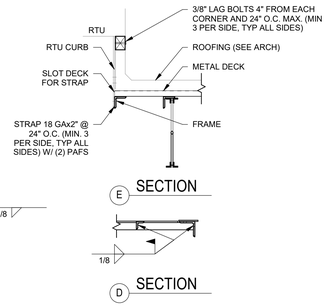


4 S5.02 TYPICAL ROOF DRAIN SUPPORT FRAMING DETAIL

SCALE: 3/4" = 1'-0"







NOTES:
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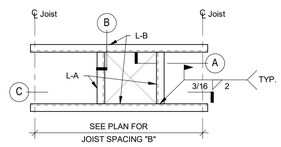
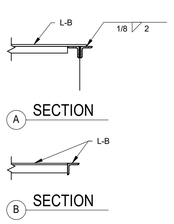
2. COORDINATE TYPE OF OPENING REQUIRED WITH APPROPRIATE MANUFACTURER.
3. SEE ROOF FRAMING PER PLAN ORIENTATION.
4. WHEN JOIST BRIDGING INTERFERES WITH ROOF OPENING, STOP BRIDGING AT EACH SIDE OF OPENING AND REPLACE WITH ONE RUN OF "X" BRIDGING EACH SIDE OF OPENING. EXTEND ADDITIONAL "X" BRIDGING ONE JOIST SPACE EACH SIDE OF OPENING ADJACENT TO THE OPENING PER SJI.

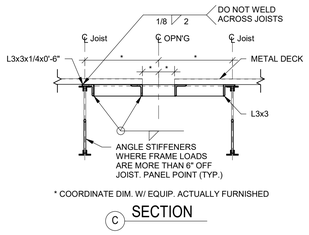
5 S5.02 TYPICAL FRAMED ROOF OPENING DETAILS

SCALE: 3/4" = 1'-0"

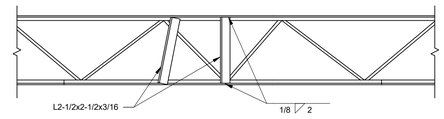


TYPICAL FRAMED ROOF OPENING
(WITH FRAME BELOW DECK)



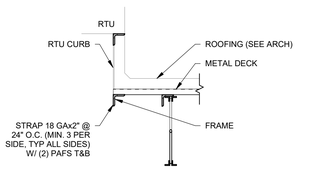


* COORDINATE DIM. W/ EQUIP. ACTUALLY FURNISHED



NOTE:
IF ANGLES SUPPORTING OPENING FALL BETWEEN JOIST PANEL POINTS, USE STIFF. ANGLE AS SHOWN - DO NOT WELD ACROSS JOIST.

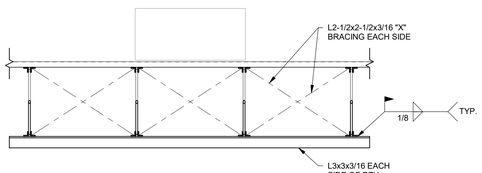
ROOF OPENING FRAME SCHEDULE FOR ANGLE FRAMING			
DIM "A"	"L"-SIZE A	DIM "B"	"L"-SIZE B
2'-0"	3x3x3/16	4'-0"	3x3x3/16
3'-0"	3x3x3/16	5'-0"	3x3x1/4
4'-0"	3x3x3/16	6'-0"	3 1/2x3 1/2x1/4
5'-0"	3x3x3/16	7'-0"	4x4x5/16



NOTES:
1. FRAMED OPENING REQUIRED IN FLOOR FOR ALL OPENINGS GREATER THAN 0'-6" AND/OR SUPPORTING EQUIPMENT GREATER THAN 100 POUNDS.
2. COORDINATE TYPE OF OPENING REQUIRED WITH APPROPRIATE MANUFACTURER.
3. SEE ROOF FRAMING PER PLAN ORIENTATION.
4. WHEN JOIST BRIDGING INTERFERES WITH FLOOR OPENING, STOP BRIDGING AT EACH SIDE OF OPENING AND REPLACE WITH ONE RUN OF "X" BRIDGING EACH SIDE OF OPENING. EXTEND ADDITIONAL "X" BRIDGING ONE JOIST SPACE EACH SIDE OF OPENING ADJACENT TO THE OPENING PER SJI.

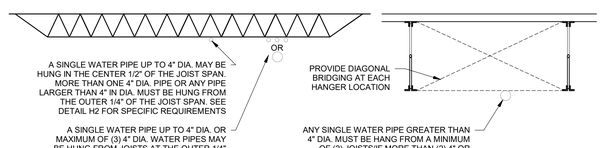
7 S5.02 TYP. FRAMED ROOF OPENING DETAILS

SCALE: 3/4" = 1'-0"



6 S5.02 TYPICAL ROOF CURB SUPPORT FRAMING DETAIL

SCALE: 3/4" = 1'-0"



PERPENDICULAR TO JOISTS

PARALLEL TO JOISTS

8 S5.02 TYPICAL PLACEMENT OF WATER PIPES SUPPORTED BY JOISTS

SCALE: 3/4" = 1'-0"

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Consulting Structural Engineers
3528 Habersham at Northlake
Tucker, Georgia 30084
Phone: (770) 270-9484
www.WillettEngineering.com

CONSTRUCTION DOCUMENT PACKAGE

GEORGIA REGISTERED No. SE000538 STRUCTURAL ENGINEER BRANDON JOSEPH HEFFNER

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
KAG	KAG	BJH

DATE: 12/06/2024

JOB NO. 624 1109 01

12/06/2024

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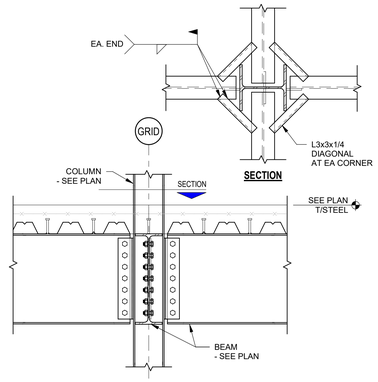
TYPICAL JOIST DETAILS

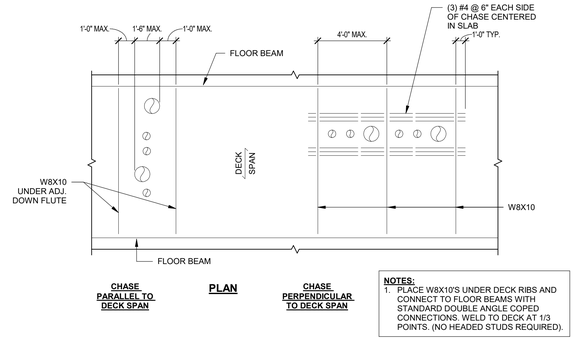
DRAWING NUMBER

S5.02



1 S5.03 TYP. COLUMN AT SLAB ON DECK

SCALE: 3/4" = 1'-0"



CHASE PARALLEL TO DECK SPAN

PLAN

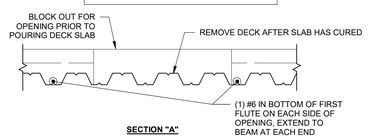
CHASE PERPENDICULAR TO DECK SPAN

NOTES:
1. PLACE W8X10'S UNDER DECK RIBS AND CONNECT TO FLOOR BEAMS WITH STANDARD DOUBLE ANGLE COPED CONNECTIONS. WELD TO DECK AT 1/3 POINTS. (NO HEADED STUDS REQUIRED).

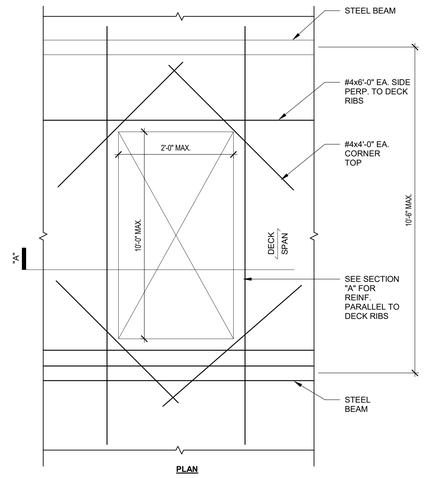
2 S5.03 OPENINGS IN SLAB ON DECK

SCALE: NO SCALE

NOTE:
REINFORCING NOT REQUIRED AT OPENINGS LESS THAN 6" WIDE UNLESS DETAILED OTHERWISE. FOR OPENINGS LARGER THAN 2'-0" WIDE, PROVIDE BEAM FRAMING.



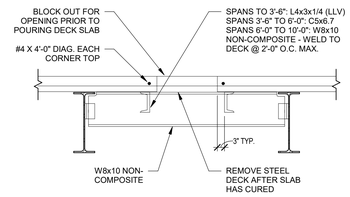
SECTION "A"



PLAN

3 S5.03 LARGE OPENINGS IN FLOOR DECK

SCALE: NO SCALE



4 S5.03 OPENINGS IN FLOOR DECK

SCALE: NO SCALE

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JOB NO. 624 1109 01

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COMPOSITE STEEL TYPICAL DETAILS

DRAWING NUMBER

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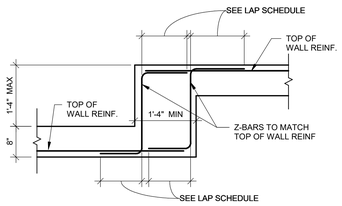
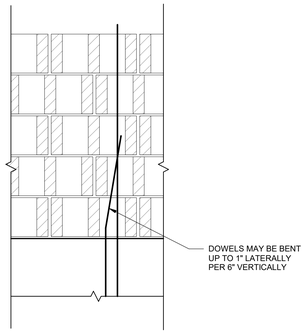


NOTE: TRIM BLOCK (1) COURSE BELOW BOND BEAM TO PROVIDE ROOF SLOPE

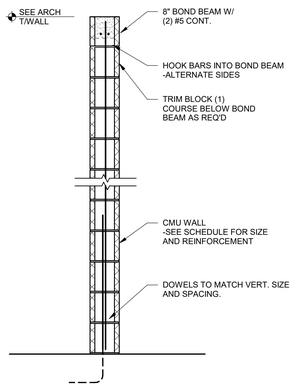
1 S6.01 TYP. STEP IN CMU

SCALE: 3/4" = 1'-0"



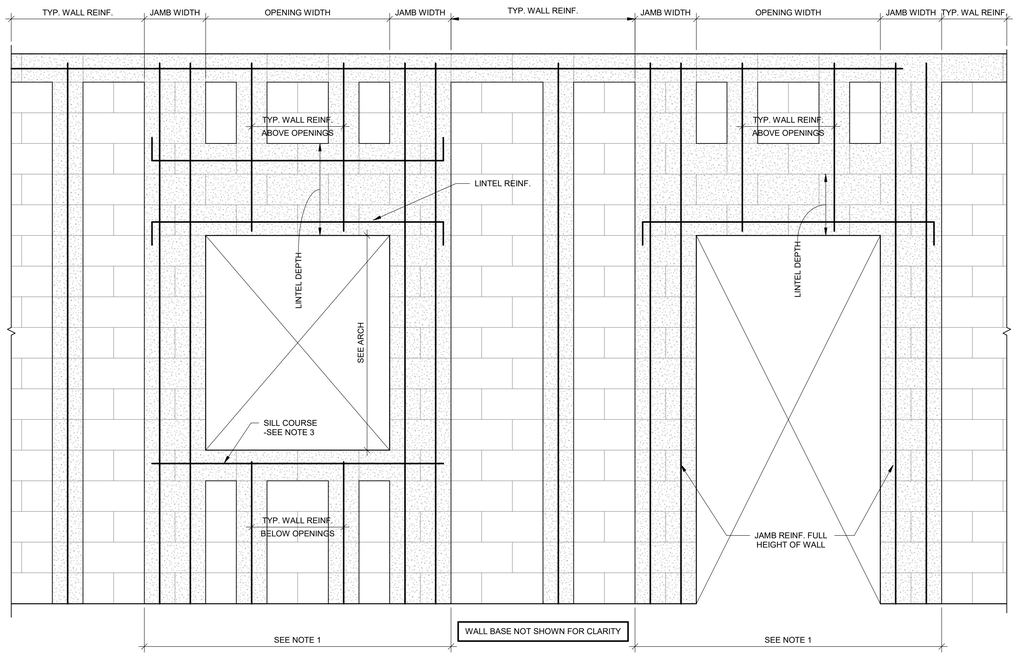
2 S6.01 PERMISSIBLE BENDING OF FOUNDATION DOWELS

SCALE: 1" = 1'-0"



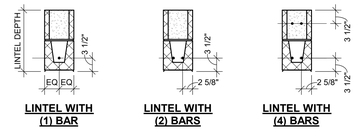
3 S6.01 TYP. CMU STRUCTURAL WALLS

SCALE: 3/4" = 1'-0"



CMU OPENING SCHEDULE						
NOMINAL WALL THICKNESS	OPENING WIDTH (MAX)	LINTEL		JAMBS		NOTES
		DEPTH	REINF.	WIDTH	REINF. (EA. CELL)	
8"	4'-0"	8"	(2) #5	16"	#5 CENTERED	INTERIOR

NOTES:
1. DO NOT PLACE CONTROL JOINTS WITHIN OPENING OR JAMB REGIONS.
2. GROUT SOLID ALL CELLS CONTAINING REINFORCEMENT.
3. SILL COURSE AS REQ'D:
   A. 12" CMU = (2) #6 CONT. (10'-0" MAX)
   B. 8" CMU = (2) #5 CONT. (8'-0" MAX)
   C. 6" CMU = (1) #5 CONT. (6'-0" MAX)
4. NOTIFY STRUCTURAL ENGINEER OF RECORD IF OPENING WIDTHS EXCEED THOSE SCHEDULED.
5. AT 12" CMU, SPACE BOND BEAMS WITH (2) #6 AT 48" O.C. VERTICALLY ABOVE AND BELOW OPENINGS, TYP.



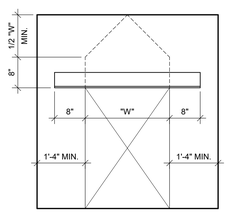
LINTEL WITH (1) BAR | **LINTEL WITH (2) BARS** | **LINTEL WITH (4) BARS**

4 S6.01 TYP. CMU OPENING SCHEDULE

SCALE: 3/4" = 1'-0"

BRICK LINTEL SCHEDULE		
OPENING WIDTH	BRICK W/ AIR SPACE (SEE ARCH, h, 1/2")	BRICK W/ NO AIR SPACE
≤ 5'-0"	L4xhx3/8 (h = 4" MIN)	L3-1/2x3-1/2x3/8
6'-0"	L6xhx3/8 (h = 4" MIN)	L4x4x3/8
8'-0"	L6xhx3/8 (h = 6" MIN)	L6x4x3/8 (LLV)
10'-0"	L6xhx1/2 (h = 4" MIN)	L6x4x3/4 (LLV)

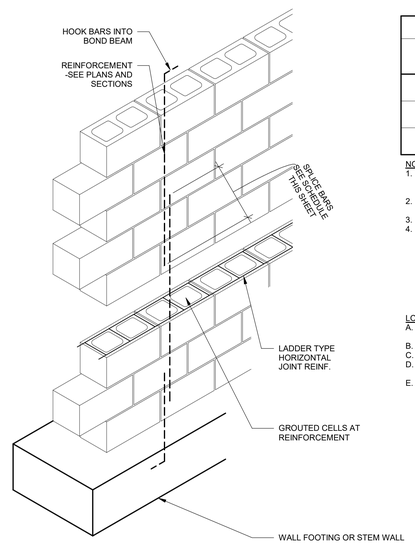
NOTES:
1. LOOSE LINTELS SHALL BE HOT-DIP GALVANIZED U.N.O.
2. WHERE ANGLE SIZES ARE NOT AVAILABLE, BENT PLATES ARE ALLOWED TO BE SUBSTITUTED.
3. "h" DENOTES ANGLE HORIZONTAL LEG VARIES BASED ON AIR SPACE AND BRICK DIMENSIONS.
4. BEAR LOOSE LINTELS A MIN. OF 8" ON EACH SIDE OF OPENINGS.
5. DO NOT USE THE BRICK LINTEL SCHEDULE WHERE DIMENSIONS DO NOT MEET MINIMUM WALL DIMENSIONS IN THE ALLOWABLE WALL DIMENSIONS DIAGRAM.



ALLOWABLE WALL DIMENSIONS FOR LOOSE LINTELS

5 S6.01 LOOSE LINTEL SCHEDULE

SCALE: 3/4" = 1'-0"



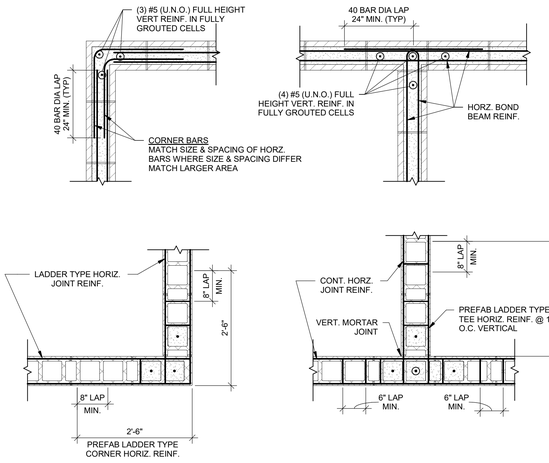
6 S6.01 TYP. DETAIL OF LOW-LIFT REINFORCED CMU

SCALE: 3/4" = 1'-0"

MINIMUM REINFORCING LAP LENGTH SCHEDULE (SD)				
BAR TYPE	BAR SIZE AND LAP LENGTH			
	#3	#4	#5	#6
FILLED 8" CMU CELLS (SINGLE BAR)	16"	21"	32"	54"
FILLED 12" CMU CELLS (SINGLE BAR)	16"	21"	26"	40"
FILLED 12" CMU CELLS (DOUBLE BARS)	19"	34"	45"	54"

NOTES:
1. THESE VALUES ARE ADEQUATE FOR REGULAR WEIGHT CONCRETE THEY MAY BE MULTIPLIED BY 1.3 IF LIGHT WEIGHT CONCRETE IS USED.
2. THESE VALUES ARE ADEQUATE FOR BARS WITHOUT EPOXY COATING.
3. THESE VALUES APPLY TO MASONRY w/ f'm = 1,500 PSI.
4. TMS 402/ACI 530/ASCE 5 ALLOW OPTIONAL REINFORCING SPLICES AS FOLLOWS:
   - A WELDED SPLICE WHEREBY BARS ARE BUTTED AND WELDED TO DEVELOP IN TENSION 125 PERCENT OF THE YIELD STRENGTH OF THE BAR
   - MECHANICAL CONNECTIONS THAT ARE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BAR.

LOW LIFT GROUTING PROCEDURE:
A. CONSTRUCT WALL TO HEIGHT OF 5'-0". ALLOW MORTAR TO SET SUFFIENTLY TO WITHSTAND GROUT PRESSURE.
B. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
C. FILL CELLS TO 1½" BELOW TOP COURSE.
D. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.
E. VERTICAL REINFORCING PRE-MANUFACTURED REBAR POSITIONER SHALL BE LOCATED AT THE TOP OF THE FIRST COURSE AT THE COURSE BELOW THE TOP OF THE WALL AND 4'-0" O.C. (MAX.)



@ CORNER | **@ TEE INTERSECTION**

NOTE:
1. CORNER/TEE INTERSECTION REINF. SHALL BE LAPPED WITH THE TYPICAL LADDER TYPE HORIZ. REINF. AND EXTEND A MINIMUM OF 30" IN EACH DIRECTION AT THE INTERSECTION.

7 S6.01 TYPICAL CMU WALL CORNERS AND INTERSECTIONS

SCALE: 3/4" = 1'-0"

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REVISIONS

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KAG	KAG	BJH

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JOB NO. 624 1109 01

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UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

TYPICAL CMU DETAILS

DRAWING NUMBER

S6.01

ROOF AIR CONDITIONER SCHEDULE

ITEM	AIRFLOW CFM		EXT. STATIC IN. WG	COOLING CAPACITY @ 95°F O.A.						SUPPLY FAN HP MAX.	FILTER THICKNESS / EFFICIENCY	REMARKS
	TOTAL	O.A.		TOTAL MBH	SENS. MBH	ENTERING AIR DB °F	ENTERING AIR WB °F	LEAVING AIR DB °F	LEAVING AIR WB °F			
RAC-1	6000	800	2	231	149	80	67	55	54	5	2" / MERV 13	CARRIER 50K VAV / EER 10.0 / IEER 13.2

1. REFER TO ELECTRICAL PLANS FOR POWER CONNECTIONS. REFER TO SPEC SECTION 235110 FOR FURTHER INFORMATION.
2. INSTALL AN AIR TREATMENT DEVICE(S) IN ALL RAC UNITS.
3. BALANCE SYSTEM TO 5260 CFM. RAC UNIT IS SIZED FOR FUTURE SECOND FLOOR CONVERSION.

TERMINAL UNIT SCHEDULE

ITEM	INLET SIZE IN.	PRIMARY AIR CFM MAX./MIN.	HEATING CFM	FAN CFM	EXT. STATIC IN. WG	HEATING CAPACITY				REMARKS
						CAPACITY KW	ENTERING AIR °F	LEAVING AIR °F	HEATING STAGES	
TU-1	12	950 / 285	950	950	0.5	8.0 208/3	62	88	SCR	TITUS DTQS SERIES FAN POWERED VAV - MAX. NC-34
TU-2	08	660 / 305	305	---	0.25	3.5 208/3	55	91	SCR	TITUS DESV SINGLE DUCT VAV - MAX. NC-30
TU-3	09	1000 / 300	300	---	0.25	3.5 208/3	55	92	SCR	TITUS DESV SINGLE DUCT VAV - MAX. NC-30
TU-4	12	1050 / 315	1050	1050	0.5	9.0 208/3	64	91	SCR	TITUS DTQS SERIES FAN POWERED VAV - MAX. NC-30
TU-5	14	1600 / 480	1600	1600	0.5	10.0 208/3	64	85	SCR	TITUS DTQS SERIES FAN POWERED VAV - MAX. NC-36

1. REFER TO ELECTRICAL PLANS FOR POWER CONNECTIONS. REFER TO SPEC SECTION 232420 FOR FURTHER INFORMATION.
2. MAXIMUM STATIC PRESSURE DROP SHALL BE RATED AT MAXIMUM CFM FOR THE AIR VALVE AND COIL.
3. MAXIMUM NC SHALL BE FOR ALL OPERATING CONDITIONS (DISCHARGED AND RADIATED).

FAN SCHEDULE

ITEM	AIRFLOW CFM	EXT. STATIC IN.WG	TYPE	MAX. SONE RATING	MAX. FAN RPM	MAX. MOTOR HP	REMARKS
EF-1	635	0.50	ROOF CENTRIFUGAL DIRECT DRIVE	9.3	1562	1/6	GREENHECK G CONTINUOUS OPERATION

1. REFER TO ELECTRICAL PLANS FOR POWER CONNECTIONS. REFER TO SPEC SECTION 232310 FOR FURTHER INFORMATION.

DUCTLESS HEAT PUMP SCHEDULE

ITEM	AIRFLOW CFM		EXT. STATIC IN. WG	COOLING CAPACITY @ 95°F O.A.				REMARKS
	TOTAL	O.A.		TOTAL MBH	SENS. MBH	ENTERING AIR DB °F	ENTERING AIR WB °F	
DHP-1 DAH-1	780	---	---	36	25	80	67	CARRIER 37MARAQ / 45MAHAQ 19 SEER2

1. REFER TO ELECTRICAL PLANS FOR POWER CONNECTIONS. REFER TO SPEC SECTION 236110 FOR FURTHER INFORMATION.
2. INSTALL AN AIR TREATMENT DEVICE(S) IN ALL DAH UNITS.

ELECTRIC HEATER SCHEDULE

ITEM	TYPE	CAPACITY KW	AIRFLOW CFM	CONTROL	REMARKS
EH-1	HEAVY DUTY WALL HEATER	4.8 208/3	100	INTEGRAL TSTAT	QMARK AWH SURFACE MOUNT

1. REFER TO ELECTRICAL PLANS FOR POWER CONNECTIONS. REFER TO SPEC SECTION 233110 FOR FURTHER INFORMATION.

AIR DISTRIBUTION SCHEDULE

DESIGNATION	DESCRIPTION
A	6" NECK SQUARE PLAQUE FACE CEILING DIFFUSER, LAY-IN
B	8" NECK SQUARE PLAQUE FACE CEILING DIFFUSER, LAY-IN
C	10" NECK SQUARE PLAQUE FACE CEILING DIFFUSER, LAY-IN
D	12" NECK SQUARE PLAQUE FACE CEILING DIFFUSER, LAY-IN
E	6" NECK SQUARE PLAQUE FACE CEILING DIFFUSER, SURFACE MOUNTED
F	1'x2' EGGCRATE CEILING RETURN / EXHAUST GRILLE, LAY-IN
G	2'x2' EGGCRATE CEILING RETURN / EXHAUST GRILLE, LAY-IN
H	1'x1' EGGCRATE CEILING RETURN / EXHAUST GRILLE, SURFACE MOUNTED

1. REFER TO SPEC SECTION 232210 FOR FURTHER INFORMATION.

MECHANICAL LEGEND

⊠		SUPPLY AIR DUCT
⊠		RETURN AIR DUCT OR EXHAUST DUCT
		DUCT TRANSITION
		EXTERIOR DUCT
		SINGLE WALL SPIRAL SEAM DUCT
		DOUBLE WALL SPIRAL SEAM DUCT
		LINED DUCT
		FABRIC DUCT
XY / Z		X = DIFFUSER TYPE / Y = THROW; Z = AIRFLOW, CFM
	MD	MANUAL DAMPER
M	MD	MOTORIZED DAMPER
M	VAVD	VARIABLE AIR VOLUME DAMPER
	FD	FIRE DAMPER
	SD	SMOKE DAMPER
	FSD	FIRE / SMOKE DAMPER
	CRD	CEILING RADIATION DAMPER
		SINGLE WALL TURNING VANES
		FLEXIBLE DUCT CONNECTION
	AD	ACCESS DOOR
	TU	TERMINAL UNIT
	DHP	DUCTLESS HEAT PUMP
	DAH	DUCTLESS AIR HANDLER
	RAC	ROOF AIR CONDITIONER
	EH	ELECTRIC HEATER
	EF	EXHAUST FAN
	L	LOUVER
	VFD	VARIABLE FREQUENCY DRIVE
T		THERMOSTAT / TEMPERATURE SENSOR
H		HUMIDISTAT / HUMIDITY SENSOR
S		DUCT SMOKE DETECTOR
	AMS	AIRFLOW MEASURING STATION
	EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
	VAV	VARIABLE AIR VOLUME
	ECON	ECONOMIZER
	DB	HVAC DRAIN BOX (PER PLUMBING PLANS)
Ø	DIA	DIAMETER
	OA	OUTDOOR AIR
	UG	UNDERGROUND
	W/	WITH
	AFF	ABOVE FINISH FLOOR
		CONNECT TO EXISTING
D		HVAC DRAIN PIPING
R		REFRIGERANT PIPING

GENERAL NOTES

1. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATIONS OF THE MECHANICAL WORK. THE CONTRACTOR SHALL COORDINATE THE MECHANICAL INSTALLATION WITH THE STRUCTURE AND ALL OTHER TRADES. PERFORM ALL WORK IN ACCORDANCE WITH 2018 INTERNATIONAL MECHANICAL CODE (IMC) WITH GA AMENDMENTS.
2. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF THE CEILING MOUNTED DEVICES.
3. DUCTWORK SHOWN ON THE PLANS IS SIZED AND ROUTED BASED ON INFORMATION AVAILABLE DURING DESIGN PHASE FOR CEILING HEIGHTS, STRUCTURAL MEMBERS, ETC. ALL DUCTS SIZES AND ROUTINGS MUST BE CONFIRMED IN THE FIELD BY THE CONTRACTOR PRIOR TO FABRICATION AND INSTALLATION. WHERE CONFLICTS ARISE. REFER TO THE ENGINEER.
4. REFER TO SENSOR MOUNTING DETAIL FOR MOUNTING HEIGHT.
5. ALL CONCEALED SUPPLY AIR AND RETURN AIR DUCTWORK SHALL HAVE ONE LAYER OF TYPE 'A' DUCT WRAP. ALL LINED DUCTWORK CALLED OUT ON PLANS SHALL HAVE ONE LAYER OF TYPE 'A' DUCT LINER. ALL EXPOSED RECTANGULAR DUCTWORK SHALL HAVE ONE LAYER OF TYPE 'A' DUCT LINER AND SHALL HAVE PAINT GRIP FINISH WITH COLOR SELECTED BY ARCHITECT. GENERAL EXHAUST AIR DUCTWORK SHALL NOT BE INSULATED.
6. INCLUDE ALL REQUIRED REFRIGERANT PIPING ACCESSORIES AND INCREASE PIPE SIZES AS NEEDED FOR LONG LINE LENGTH APPLICATIONS.
7. ROOF MOUNTED EQUIPMENT SHALL BE LOCATED 10 FEET MINIMUM FROM ROOF EDGE.
8. DEVICES REQUIRED TO BE ACCESSIBLE SHALL NOT BE INSTALLED ABOVE DRYWALL CEILINGS. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF HARD CEILINGS.
9. SMOKE DAMPERS SHALL BE ACTUATED BY CEILING MOUNTED SMOKE DETECTORS FURNISHED AND INSTALLED BY DIV. 26/27.
10. ALL FIRE DAMPERS AND SMOKE DAMPERS (AS APPLICABLE) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S UL LISTED DETAILS.

GEORGIA
DULOHERY, WEEKS & GAGLIANO, INC.
No. PEF000182
EXP. 6/30/26
CERTIFICATE OF AUTHORIZATION

DULOHERY WEEKS ENGINEERS

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

ROBERT E. LEFORD GEORGIA No. 36840 PROFESSIONAL 12/6/24 ENGINEER ROBERT E. LEFORD

HUSSEY GAY BELL
Established 1958
3100 Brookstridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
REL	REL	JFS

DATE: 12/06/2024

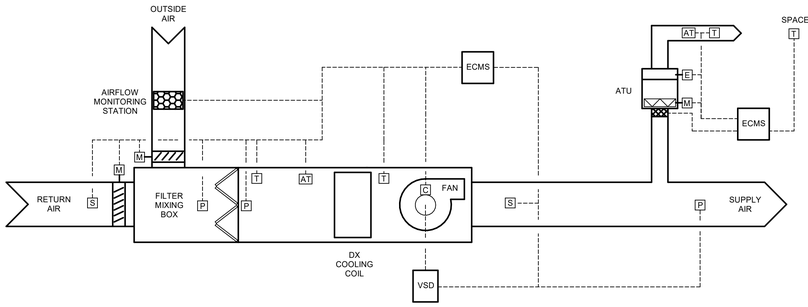
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

MECHANICAL LEGEND & SCHEDULES

DRAWING NUMBER

M0.01



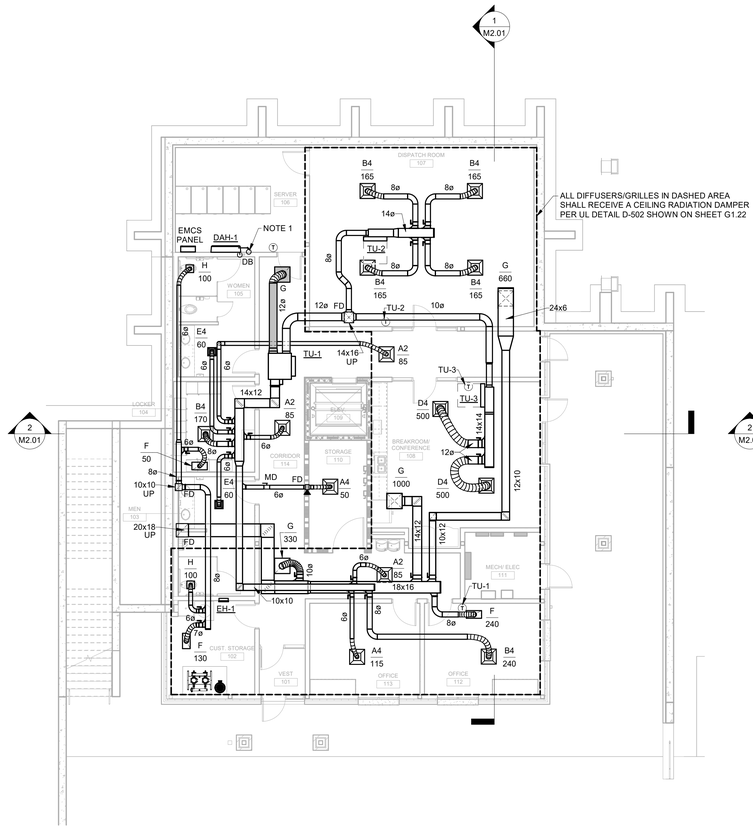
CONTROL DIAGRAM LEGEND

T	TEMPERATURE SENSOR
P	PRESSURE SENSOR
F	FLOW SWITCH
C	CURRENT SWITCH
E	ELECTRIC HEAT CONTROLLER
S	SMOKE DETECTOR (DIV. 26000)
M	MOTORIZED ACTUATOR
AT	AIR TREATMENT DEVICE

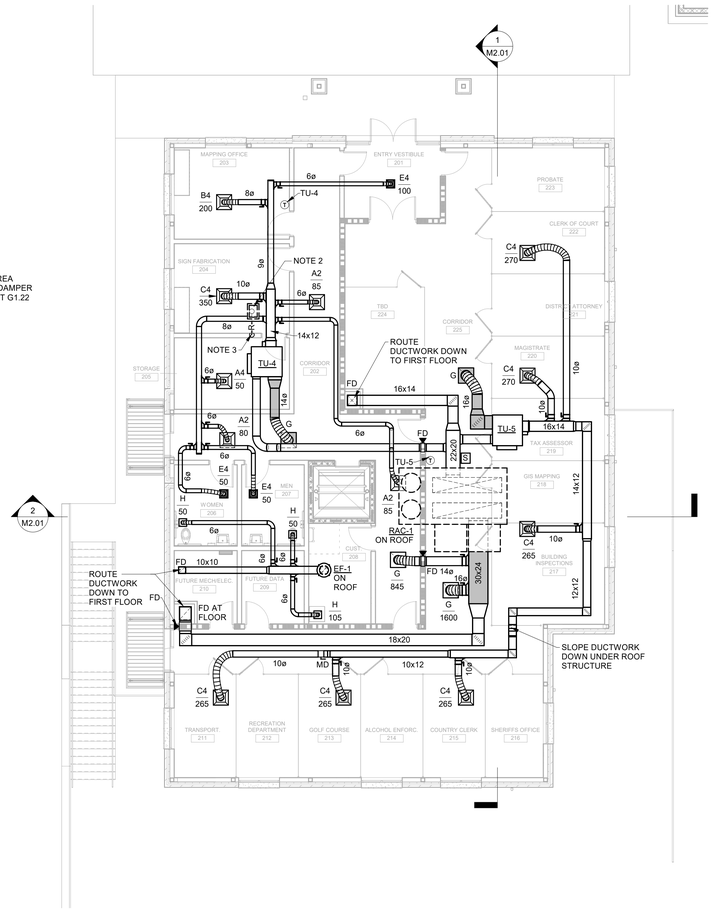
4 M1.01 **VAV RAC CONTROL DIAGRAM**
NOT TO SCALE

SHEET NOTES

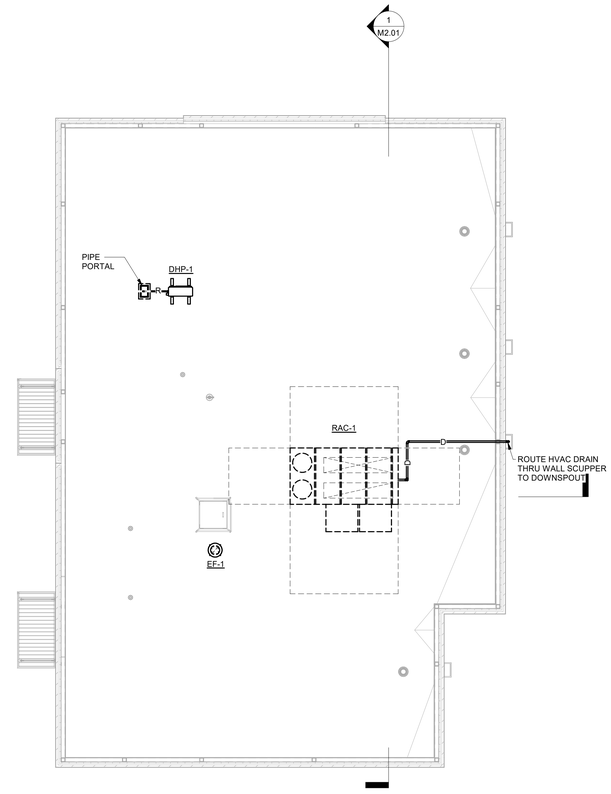
1. ROUTE REFRIGERANT PIPING UP IN WALL TO ROOF.
2. ROUTE REFRIGERANT PIPING UP THRU PIPE PORTAL TO DHP UNIT ON ROOF.
3. ROUTE REFRIGERANT PIPING DOWN IN WALL TO ASSOCIATED DAH UNIT.



1 M1.01 **MECHANICAL PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"



2 M1.01 **MECHANICAL PLAN - LEVEL 2**
SCALE: 1/8" = 1'-0"



3 M1.01 **MECHANICAL PLAN - ROOF**
SCALE: 1/8" = 1'-0"

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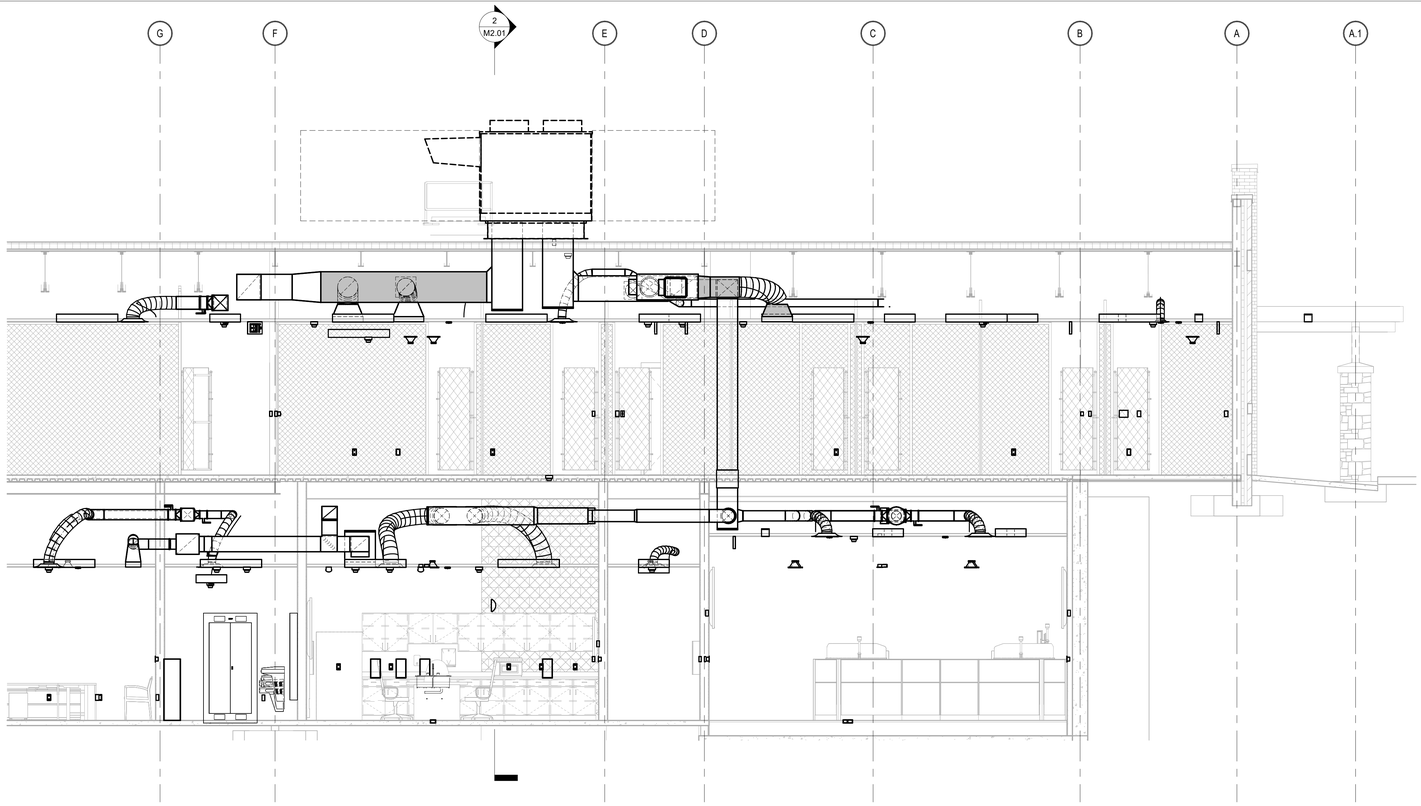
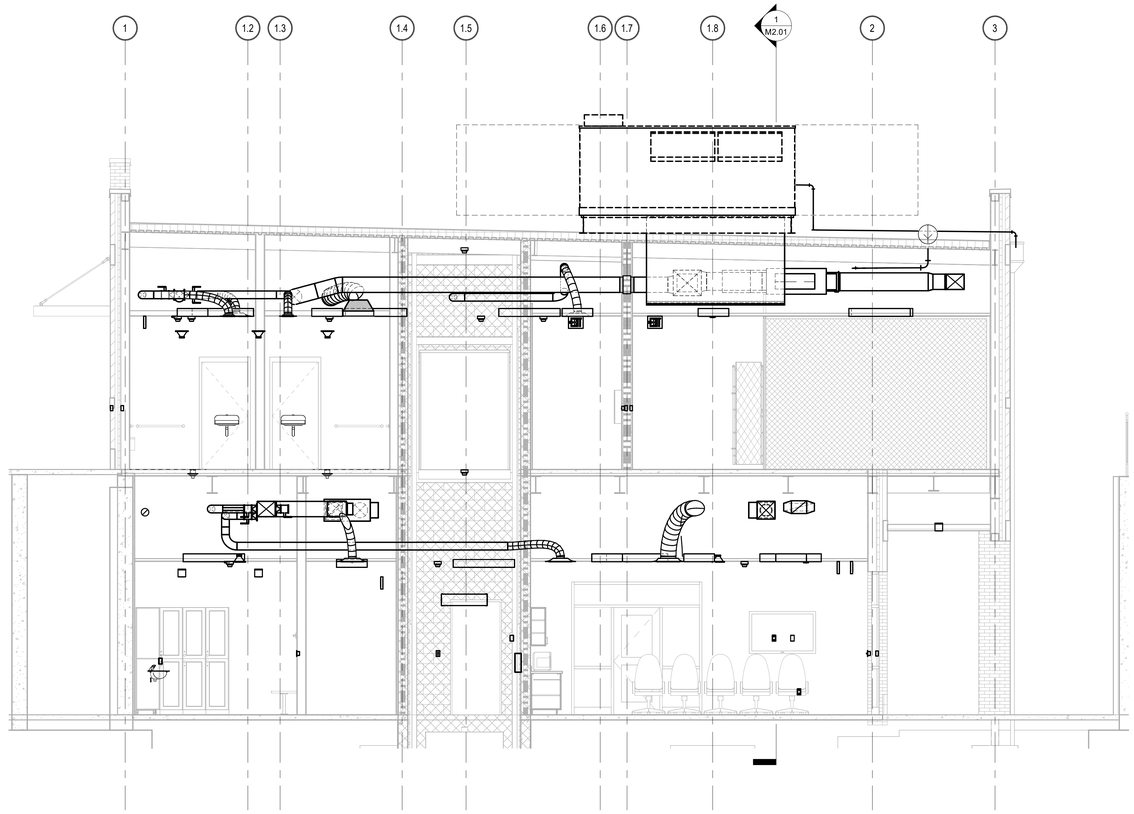
MECHANICAL PLANS

DRAWING NUMBER

M1.01



1 M2.01 **SECTION 1**
SCALE: 1/4" = 1'-0"



2 M2.01 **SECTION 2**
SCALE: 1/4" = 1'-0"

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UNION COUNTY
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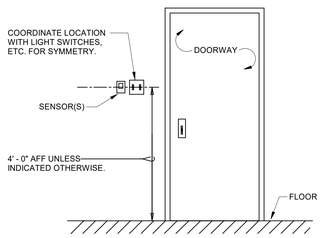
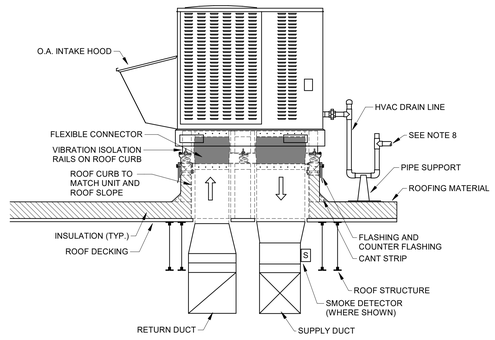
MECHANICAL SECTIONS

DRAWING NUMBER

M2.01

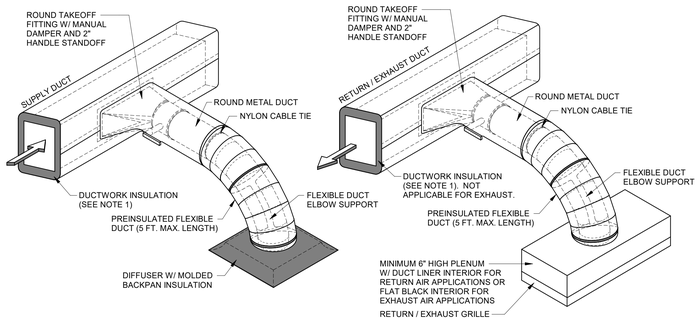


1 M3.01 SENSOR MOUNTING DETAIL
NOT TO SCALE



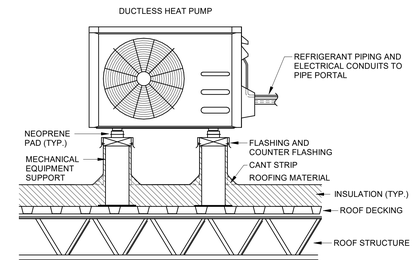
NOTES
1. CUT THE ROOF DECK ONLY AS NEEDED FOR DUCT PENETRATIONS.
2. SEAL DUCT PENETRATIONS WITH ACOUSTICAL SEALANT.
3. INSTALL (2) LAYERS OF ACOUSTICAL SOUND BARRIER MATERIAL INSIDE ROOF CURB.
4. INSTALL FLEXIBLE CONNECTIONS ON SUPPLY AND RETURN TRUNK DUCTS.
5. COORDINATE WITH STRUCTURAL PLANS FOR PLACEMENT OF STEEL SUPPORTS.
6. INSTALL SMOKE DETECTOR IN SUPPLY DUCTWORK BEFORE ANY BRANCH TAKEOFFS.
7. MOUNT AND SECURE EQUIPMENT ON ROOF CURB SUITABLE FOR WIND LOAD SPECIFIED IN 239110.
8. ROUTE HVAC DRAIN LINE AS SHOWN ON ROOF PLAN.

2 M3.01 ROOF AIR CONDITIONER DETAIL
NOT TO SCALE



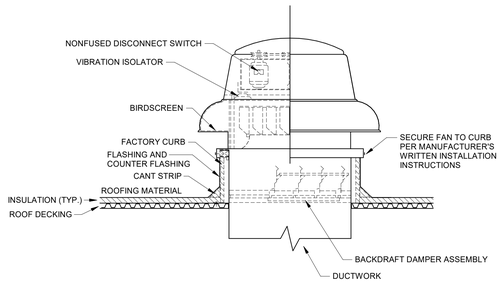
NOTES:
1. REFER TO PLANS FOR ACTUAL DUCTWORK INSULATION TYPE AND LOCATION.
2. INSTALL NYLON CLAMP ON FLEX DUCT INNER LINER AND ALSO ON OUTER JACKET.
3. SEAL DUCT CONNECTIONS PER DUCT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. DIFFUSER INSULATION SHALL BE FULL SIZE OF GRID WITH SQUARE CORNERS. DO NOT COMPRESS INSULATION OR ALLOW AIR GAPS BETWEEN INSULATION AND DIFFUSER. DO NOT TAPE INSULATION TO GRID.
5. USE FSK TAPE TO SECURE INSULATION AND BOTTOM EDGE OF DIFFUSER TO CEILING GRID. TRIM TAPE ON FACE OF DIFFUSER. TAPE SHALL NOT BE EXPOSED AT CEILING GRID.
6. PROVIDE FLEXIBLE DUCT ELBOW SUPPORT ACCESSORY FOR FLEX DUCT CONNECTION AS SPECIFIED.

3 M3.01 DIFFUSER / GRILLE DETAIL - RECTANGULAR TRUNKS
NOT TO SCALE



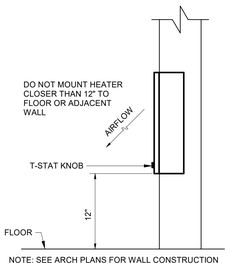
NOTES:
1. MOUNT AND SECURE EQUIPMENT ON ROOF SUPPORTS SUITABLE FOR WIND LOAD RATING AS SPECIFIED IN SPEC SECTION 239110.
2. EXPOSED REFRIGERANT SUCTION LINE SHALL HAVE WEATHERPROOF INSULATION AND METAL JACKET.
3. COORDINATE WITH OWNER'S ROOFING REPRESENTATIVE FOR DHP SUPPORT APPROVAL.

4 M3.01 DUCTLESS HEAT PUMP DETAIL
NOT TO SCALE



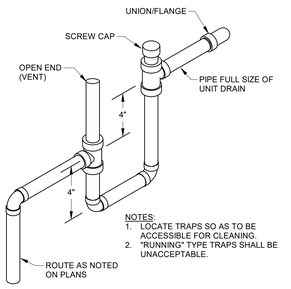
NOTE:
1. COORDINATE ROOF WORK WITH ARCHITECTURAL PLANS AND ROOFING CONTRACTOR.
2. MOUNT AND SECURE EQUIPMENT ON ROOF CURB SUITABLE FOR WIND SPEED SPECIFIED IN 239110.

5 M3.01 ROOF EXHAUST FAN DETAIL
NOT TO SCALE



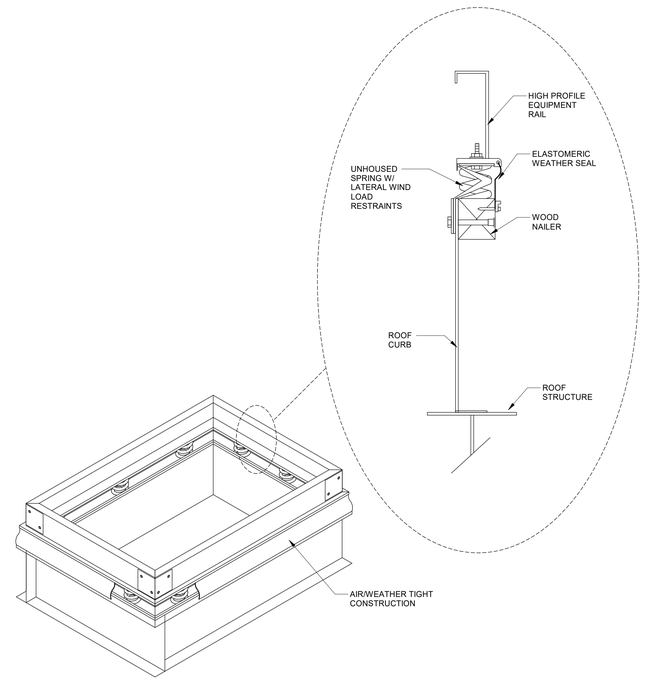
NOTE: SEE ARCH PLANS FOR WALL CONSTRUCTION

6 M3.01 WALL HEATER DETAIL
NOT TO SCALE

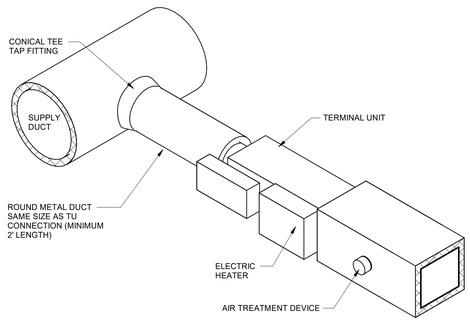


NOTES:
1. LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING.
2. "RUNNING" TYPE TRAPS SHALL BE UNACCEPTABLE.

7 M3.01 HVAC DRAIN TRAP DETAIL
NOT TO SCALE

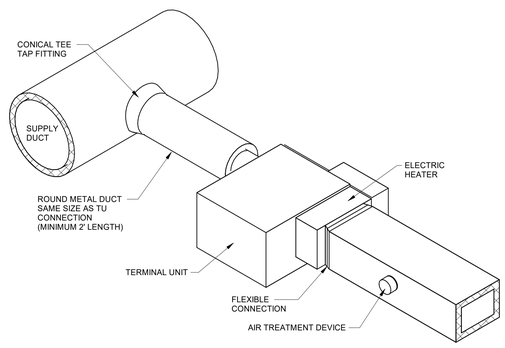


8 M3.01 VIBRATION ISOLATION RAIL DETAIL
NOT TO SCALE



NOTES:
1. COORDINATE THE LOCATION OF ALL TU TO ENSURE PROPER CLEARANCES ARE PROVIDED.
2. INSTALL MATCHING HANGER BRACKETS, VIBRATION ISOLATORS, AND HANGER RODS.
3. COVER ELECTRIC HEATER SECTION WITH 2" DUCT WRAP.
4. BRANCH DUCT SIZE MUST MATCH TU INLET FOR 24" LENGTH MINIMUM.
5. WHERE PLANS SHOW BRANCH DUCT SIZE LARGER THAN TU INLET, REDUCER MUST BE LOCATED 24" MINIMUM UPSTREAM OF TU INLET.
6. INSTALL AIR TREATMENT DEVICE DOWNSTREAM OF THE TERMINAL UNIT OUTLET BEFORE ANY BRANCH TAKEOFFS. DUCT ACCESS DOOR(S) ARE PROVIDED FOR AIR TREATMENT DEVICE MAINTENANCE.

9 M3.01 SINGLE DUCT TERMINAL UNIT DETAIL
NOT TO SCALE



NOTES:
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2. INSTALL MATCHING HANGER BRACKETS, VIBRATION ISOLATORS, AND HANGER RODS.
3. COVER ELECTRIC HEATER SECTION WITH 2" DUCT WRAP.
4. BRANCH DUCT SIZE MUST MATCH TU INLET FOR 24" LENGTH MINIMUM.
5. WHERE PLANS SHOW BRANCH DUCT SIZE LARGER THAN TU INLET, REDUCER MUST BE LOCATED 24" MINIMUM UPSTREAM OF TU INLET.
6. INSTALL AIR TREATMENT DEVICE DOWNSTREAM OF THE TERMINAL UNIT OUTLET BEFORE ANY BRANCH TAKEOFFS. DUCT ACCESS DOOR(S) ARE PROVIDED FOR AIR TREATMENT DEVICE MAINTENANCE.

10 M3.01 SERIES FAN POWERED TERMINAL UNIT DETAIL
NOT TO SCALE

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NEW 911 CENTER FOR UNION COUNTY
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MECHANICAL DETAILS

DRAWING NUMBER

M3.01

LEGEND:

LIGHTING FIXTURES:

UPPERCASE LETTER ADJACENT TO FIXTURE DENOTES DESIGNATION PER THE LIGHTING FIXTURE SCHEDULE. LOWERCASE LETTER DENOTES SWITCHLEG. THE RESPECTIVE SWITCH WILL HAVE THE SAME DESTINATIONS. NUMERAL DENOTES BRANCH CIRCUIT CONNECTION.

REFER TO THE FIXTURE SCHEDULE FOR THE SPECIFIC FIXTURE INFORMATION.

NON-EMERGENCY	GENERATOR BACKUP	
		LIGHTING FIXTURE: LINEAR
		LIGHTING FIXTURE: LINEAR
		LIGHTING FIXTURE: LINEAR
		LIGHTING FIXTURE: STRIP
		LIGHTING FIXTURE: WALL MTD.
		DOWNLIGHT/SCONCE FIXTURE
		EXIT AREA OF REFUGE LIGHT: UNIVERSAL MTD.

DEVICE IDENTIFIER TAGS:

NUMERAL ADJACENT TO DEVICE DENOTES BRANCH CIRCUIT CONNECTION. IDENTIFIER TAGS ADJACENT TO DEVICES INDICATE:

C	MOUNT ABOVE COUNTERTOP OR BACKSPLASH, 9" ABOVE WORK SURFACE TO CENTER
XX"	MOUNT DEVICE AT HEIGHT INDICATED
WP	PROVIDE WEATHER-PROOF COVER

RECEPTACLES:

NOMINAL MOUNTING HEIGHT OF RECEPTACLES SHALL BE 18" TO CENTER, UNO. IF APPLICABLE, ADJUST SO DEVICE COVER IS IN THE CENTER OF MASONRY COURSE NEAREST THAT HEIGHT. THE HEIGHT ESTABLISHED SHALL GOVERN FOR ALL BOX INSTALLATIONS, WHERE INSTALLED IN MASONRY OR FRAMED WALLS.

	NORMAL POWER RECEPTACLE: SIMPLEX
	NORMAL POWER RECEPTACLE: DUPLEX
	NORMAL POWER RECEPTACLE: GROUND-FAULT-INTERRUPTING TYPE
	NORMAL POWER RECEPTACLE: QUADRUPLEX
	EMERGENCY GENERATOR POWERED RECEPTACLE: DUPLEX
	EMERGENCY GENERATOR POWERED RECEPTACLE: QUADRUPLEX
	EMERGENCY GENERATOR POWERED RECEPTACLE: GROUND-FAULT-INTERRUPTING TYPE
	FLUSH FLOOR BOX WITH (2) DUPLEX RECEPTACLES AND (2) LOW VOLTAGE COMPARTMENTS. POVIDE LEGRAND RFBA SERIES 4 GANG FLOOR BX FOR ON-GRADE CONCRETE FLOORS. COORDINATE FINISH OF COVERPLATE WITH ARCHITECT. PROVIDE 1-1/4" CONDUIT FROM EACH LOW VOLTAGE COMPARTMENT TO ABOVE ACCESSIBLE CEILING.
W	ELECTRIC WATER COOLER POWER CONNECTION. FED FROM GFCI CIRCUIT BREAKER.
	RECEPTACLE: CEILING MOUNTED

SWITCHES:

MOUNTING HEIGHT OF SWITCHES SHALL BE 48" NOMINAL, ADJUSTED IN THE SAME MANNER AS SPECIFIED ABOVE, FOR RECEPTACLES. LOWERCASE LETTER INDICATES SWITCHLEG CONNECTION. THE RESPECTIVE FIXTURE(S) WILL HAVE THE SAME DESIGNATION.

S	SWITCH: SINGLE-POLE
S_3	SWITCH: THREE-WAY TYPE
S_4	SWITCH: FOUR-WAY TYPE
S_a	SWITCH: SUBSCRIPT THAT INDICATES CORRESPONDING FIXTURES THAT SWITCH CONTROLS
S_V	SWITCH: LOW VOLTAGE OVERRIDE SWITCH FOR VACANCY SENSOR. WHERE MULTIPLE SUBSCRIPTS ARE INDICATED ("ab" FOR EXAMPLE) PROVIDE A PUSHBUTTON FOR EACH CORRESPONDING GROUP OF FIXTURES TO BE CONTROLLED (2 BUTTON SWITCH FOR "ab" FOR EXAMPLE). THE PUSHBUTTONS SHALL BE MOUNTED UNDER A SINGLE GANG FACEPLATE.
D	SWITCH: DIMMER TYPE. DIMMER SHALL BE COMPATIBLE WITH BALLAST INSTALLED. PROVIDE ALL LOW VOLTAGE CABLING AND CONNECTIONS FOR 0 TO 10 VOLT DIMMING.
S_K	SWITCH: KEY-OPERATED
S_O	SWITCH: OVERRIDE
O_S	OCCUPANCY SENSOR, CEILING MOUNTED
OS	OCCUPANCY SENSOR, WALL MOUNTED
V_S	VACANCY SENSOR, CEILING MOUNTED
VS	VACANCY SENSOR, WALL MOUNTED
PC	PHOTOCELL: LOCATE UNDER EAVES, FACING NORTH, AVOID ANY OTHER OUTSIDE LIGHT SOURCE

ELECTRICAL EQUIPMENT:

REFER TO ONE-LINE DIAGRAM AND EQUIPMENT CONNECTION SCHEDULE FOR LOAD DATA USED AS THE BASIS OF DESIGN AND REQUIRED CONNECTIONS. VERIFY LOAD AND LOCATION WITH EQUIPMENT CUT-SHEETS AND INSTALLER.

S_M	SWITCH: MOTOR RATED, WITHOUT OVERLOAD PROTECTION
	DISCONNECT SWITCH
T	DRY-TYPE TRANSFORMER
	PANELBOARD: SURFACE MOUNTED
XX-1	EQUIPMENT AS NOTED, SEE ABBREVIATIONS, THIS SHEET
	GROUND CONNECTION

BRANCH CIRCUITS:

CONDUCTOR COUNTS ARE SHOWN ON THE HOMERUNS ONLY. CONTRACTOR SHALL DETERMINE COUNTS FOR INTERMEDIATE RUNS BASED ON THE MANNER IN WHICH THE CIRCUIT ELEMENTS ARE CONNECTED. REFER TO THE SPECIFICATION SECTIONS 262010, 262080, & 262030 FOR SPECIAL REQUIREMENTS.

	BRANCH CIRCUIT: CONCEALED
	BRANCH CIRCUIT: CONCEALED IN FLOOR SLAB
	BRANCH CIRCUIT: EXPOSED
LA-1,3,5	"HOMERUN" TO PANEL: NUMBER OF HASH MARKS INDICATES QUANTITY OF UNGROUNDED CONDUCTORS IN MINIMUM 3/4" RACEWAY. GROUNDED CONDUCTORS (NEUTRALS) ARE NOT SHOWN. NUMBER OF ARROWHEADS DENOTES QUANTITY OF CIRCUITS INSTALLED. ONE DEDICATED NEUTRAL IS REQUIRED FOR EACH CIRCUIT INSTALLED, SEE SPECIFICATIONS. EACH CONDUCTOR SHALL BE MIN. #12 AWG UNLESS NOTED OTHERWISE. FOR MECHANICAL EQUIPMENT, SEE MECHANICAL EQUIPMENT RATINGS AND CONNECTIONS SCHEDULE FOR ELECTRICAL CHARACTERISTICS.

FIRE ALARM:

F	FIRE ALARM PULL STATION. WALL MOUNTED WITH OPERABLE PART OF THE DEVICE AT 42" AFF.
	FIRE ALARM SIGNAL, HORN AND FLASHING LIGHT, 80" AFF TO THE BOTTOM OF THE LINES. "C" DESIGNATION INDICATES CEILING MOUNTED.
	FIRE ALARM STROBE LIGHT, 80" AFF TO THE BOTTOM OF THE LENS.
	FIRE ALARM STROBE LIGHT, CEILING MOUNTED.
H	FIRE ALARM SIGNAL, HORN. 90" AFF TO THE TOP OF THE DEVICE. WEATHER PROOF.
	FIRE ALARM SMOKE DETECTOR, CEILING MOUNTED.
	FIRE ALARM DUCT SMOKE DETECTOR LOCATED IN HVAC DUCT.
	FIRE ALARM HEAT DETECTOR, 135 DEG, OPERATION.
	FIRE ALARM CARBON MONOXIDE DETECTOR.
DH	FIRE ALARM DOOR HOLDER, WALL MOUNTED, CONSULT ARCHITECTURAL DRAWINGS TO DETERMINE TYPE REQUIRED. PROVIDE POWER FROM NEAREST RECEPTACLE CIRCUIT AND CONNECT TO FIRE ALARM SYSTEM.
VS	TAMPER SWITCH, FURNISHED AND INSTALLED WITH SPRINKLER SYSTEM. INTERLOCK WITH FIRE ALARM SYSTEM BY ELECTRICAL.
WF	FLOW SWITCH, FURNISHED AND INSTALLED WITH SPRINKLER SYSTEM. INTERLOCK WITH FIRE ALARM SYSTEM BY ELECTRICAL.
FACP	FIRE ALARM CONTROL PANEL, FLUSH RECESSED WALL MOUNTED.
FAA	FIRE ALARM REMOTE LCD ANNUNCIATOR PANEL. FLUSH RECESSED WALL MOUNTED.
SD	SMOKE DAMPER, 120V. PROVIDE POWER CONNECTION AND ALL NEEDED SMOKE DETECTION AND CONTROL MODULES AS REQUIRED BY NFPA 72 FOR PROPER OPERATION.

GENERAL NOTES:

1. THE ELECTRICAL DRAWINGS ARE ONLY PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS FOR THEIR INTERRELATIONSHIP AND REQUIRED COORDINATION BETWEEN DISCIPLINES.
2. WHERE COMPLETE BRANCH CIRCUIT WIRING IS NOT SHOWN, PROVIDE ACCORDING TO HOMERUNS SHOWN AND CORRESPONDING CIRCUIT NUMBERS ADJACENT TO THE DEVICE OR FIXTURE. REFER TO THE SPECIFICATIONS FOR THE WIRING METHODS. BRANCH CIRCUIT RATINGS SHALL BE BASED ON OVERCURRENT DEVICE RATINGS SHOWN IN THE PANEL SCHEDULES.
3. REFER TO THE ELECTRICAL PANELBOARD SCHEDULES AND EQUIPMENT RATINGS & CONNECTIONS SCHEDULE FOR VOLTAGE, BRANCH CIRCUITS REQUIREMENTS, BREAKERS SIZES AND OTHER RELATED ELECTRICAL EQUIPMENT TO BE PROVIDED AND/OR INSTALLED BY THE ELECTRICAL CONTRACTOR.

MISCELLANEOUS COMPONENTS:

J	JUNCTION BOX: MTD. ABOVE CEILING
J	JUNCTION BOX: WALL MTD.

BDA / ERRC SYSTEM NOTES:

1. THE CONTRACTOR SHALL PROVIDE A COMPLETE BI-DIRECTIONAL ANTENNA (BDA) SYSTEM FOR EMERGENCY RESPONDER RADIO COVERAGE (ERRC) FOR THE ENTIRE BUILDING. THE BDA/ERRC SYSTEM SHALL BE DESIGNED AND INSTALLED BY AN FCC CERTIFIED TECHNICIAN TRAINED ON THE SYSTEM BEING INSTALLED. THE SYSTEM SHALL COMPLY WITH UL 2524, NFPA 72, NFPA 1221 AND IFC. THE SYSTEM SHALL BE OF THE SAME MANUFACTURER AS THE FIRE ALARM SYSTEM. BDA SYSTEM DESIGN SHALL BE SUBMITTED WITH THE FIRE ALARM SYSTEM SHOP DRAWINGS FOR ENGINEER'S REVIEW. PROVIDE ROOF PENETRATION AS REQUIRED FOR ROOF MOUNTED ANTENNA -COORDINATE WITH ARCHITECT FOR LOCATION. CRITICAL AREAS SHALL BE PROVIDED WITH 100% FLOOR AREA RADIO COVERAGE. GENERAL BUILDING AREAS SHALL BE PROVIDED WITH 95% RADIO COVERAGE, OR AS SPECIFIED BY AHJ.
2. BDA/ERRC SYSTEM SHALL BE A DEDUCTIVE ALTERNATE IN THE BID PRICE. RADIO SIGNAL COVERAGE IN THE BUILDING SHALL BE TESTED NEAR THE END OF BUILDING ONSTRUCTION AFTER ALL WALLS, CEILINGS, ROOF AND MAJOR COMPONENTS HAVE EEN INSTALLED. THE PRICE OF THE SYSTEM SHALL BE OFFERED BACK TO OWNER NLY IF RADIO SIGNALS (WITHOUT THE BDA/ERRC SYSTEM) MEET THE COVERAGE REQUIREMENTS LISTED ABOVE.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER/SERIES	REFLECTOR/DIFFUSER	FINISH	MOUNTING	LAMPS	NOTES
A	2'X4' VOLUMETRIC LED TROFFER	LITHONIA VTL SERIES COLUMBIA METALUX CRUZ SERIES DAY-BRITE	ACRYLIC LINEAR PRISMATIC CENTER DIFFUSER WITH DIFFUSER TRIM RINGS	WHITE	RECESSED CEILING	4000 LUMENS 33W 4000K	0-10V DIMMING TO 1%
A2	2'X2' VOLUMETRIC LED TROFFER					3300 LUMENS 27W 4000K	
AF	2'X4' VOLUMETRIC LED TROFFER	LITHONIA VTL SERIES COLUMBIA METALUX CRUZ SERIES DAY-BRITE	ACRYLIC LINEAR PRISMATIC CENTER DIFFUSER WITH DIFFUSER TRIM RINGS	WHITE	RECESSED CEILING. FLANGE MOUNTED.	4000 LUMENS 33W 4000K	
B	2'X4' LED FLAT PANEL SELECTABLE LUMENS	LITHONIA CPANL SERIES ELITE 22FPLBL SERIES METALUX FPS SERIES ILP VPAN SERIES	FROSTED ACRYLIC LENS	WHITE	RECESSED CEILING	4000 LUMENS 40W 4000K	
C	4' LONG LED VAPORTIGHT LIGHT	LITHONIA DMW2 SERIES METALUX 4VT3 SERIES COLUMBIA LXEM SERIES ILP WTZ SERIES	FIBERGLASS REINFORCED POLYESTER HOUSING, HIGH IMPACT POLYCARBONATE LENS	WHITE	SURFACE	4,000 LUMENS 32W 4000K	WET LOCATION, IP67 LISTED
D	6" ROUND LED DOWN LIGHT	LITHONIA LDN6 SERIES HALO COMMERCIAL P06 SERIES PRESCOLITE LF6 SERIES INTENSE IML6, ELITE HH6	OPEN SEMI-SPECULAR CLEAR ALZAK CONE. MEDIUM BEAM SPREAD.	TRIM RING - WHITE	RECESSED CEILING	2000 LUMENS 22.5W 4000K	0-10V DIMMING TO 1%
E	4' LED STRIP	LITHONIA ZL1D SERIES METALUX SRLED SERIES COLUMBIA LCL SERIES ELITE OEC SERIES	FROSTED DROP LENS	WHITE (HOUSING)	SURFACE OR SUSPENDED	5,000 LUMENS 41W 4000K	
EM	2 HEAD, WALL MOUNTED EMERGENCY FIXTURE	LITHONIA "ELM" SERIES BEGHELI HUBBELL SURE-LITE DUAL-LITE		WHITE	WALL MOUNTED	LED	90 MIN. BATTERY
OA	LED WALL PACK SURFACE MOUNT VANDAL RESISTANT	LITHONIA WDGE SERIES MCGRAW/EDISON IST SERIES SPAULDING TRP SERIES GARDCO 101 SERIES HUBBELL TRP2 SERIES	TYPE IV DISTRIBUTION	BY ARCHITECT	WALL MOUNTED	4000 LUMENS 45W 4000K	
OB	SQUARE SEMI-RECESSED SOFFIT LIGHT	LITHONIA SCNY LED SERIES MCGRAW/EDISON SPAULDING GARDCO HUBBELL	FLAT POLYCARBONATE FROSTED LENS	WHITE	RECESSED	4200 LUMENS 28W 4000K	
SL	POLE MOUNTED SITE LIGHT	LITHONIA DSX1 SERIES BEACON VIPER SERIES GARDCO PUREFORM SERIES ILP SKYLINE SERIE	TYPE 3 MEDIUM DISTRIBUTION	BY ARCHITECT	PROVIDE 30' SQUARE STEEL POLE	LED: 20,939 LUMENS, 165W, 4000K	
XA	SINGLE FACE EXIT	BEGHELLI OL2 SERIES HUBBELL LE SERIES SURE-LITE ES SERIES EMERGILITE LXN SERIES DUAL-LITE LES SERIES LITHONIA EDGR SERIES	GREEN LETTERS "EXIT"	INJECTION MOLDED CLEAR ACRYLIC LENS W/RECESSED HOUSEING	CEILING	LED	
XB	DOUBLE FACE EXIT						

MECHANICAL EQUIPMENT RATINGS AND CONNECTIONS

ITEM	VOLT	PH	FLA	MCA	MOCP	PANEL CKT	DISCONNECT	WIRE SIZE	NOTES
AV	120 V	1	15	15	20	EM1-71	MRS	2#12,#12G,1/2"C.	
BP-1	208 V	3	16.7	20	30	EM1-60,62,64	30A/3P	3#10,#10G,3/4"C.	
DHP/DAH-1	208 V	1	33	33	35	EM1-46,48	60A/2P/3R	2#8,#10G,3/4"C.	NOTE 4
EF-1	120 V	1	2.2	3	15	EM1-50	BY DIV 23	2#12,#12G,1/2"C.	
EH-1	208 V	1	23.1	25	30	EM1-66,68	BY DIV 23	2#10,#10G,3/4"C.	
HWCP-1	120 V	1	4	5	20	EM1-81	MRS	2#12,#12G,1/2"C.	
JH/JH1	208 V	3	92.3	100	125	EM1-61,63,65	200A/3P	3#1/0,#6G,1-1/2"C.	
JHL	208 V	1	15	15	20	EM1-67,69	30A/2P	2#12,12G,1/2"C.	
RAC-1	208 V	3	138	138	175	EM1-40,42,44	BY DIV 23	3#2/0,#6,2"C.	
TU-1	208 V	3	34	34	35	EM1-28,30,32	BY DIV 23	3#8,#10G,3/4"C.	
TU-2	208 V	3	12.1	12.1	15	EM1-34,36,38	BY DIV 23	3#12,#12G,1/2"C.	
TU-3	208 V	3	12.1	12.1	15	EM1-43,45,47	BY DIV 23	3#12,#12G,1/2"C.	
TU-4	208 V	3	44.5	44.4	45	EM1-49,51,53	BY DIV 23	3#6,#10G,1"C.	
TU-5	208 V	3	49.6	49.6	50	EM1-55,57,59	BY DIV 23	3#6,,#10G,1"C.	
WH-1	208 V	3	28.9	30	40	EM1-54,56,58	60A/3P	3#8,#10G,3/4"C.	

MECHANICAL EQUIPMENT RATINGS AND CONNECTION SCHEDULE NOTES:

1. REFER TO SECTION 260120 FOR THE COORDINATION AFFIDAVIT THAT MUST BE SUBMITTED AND APPROVED BEFORE MATERIALS MAY BE ORDERED.
2. THE DESIGN IS BASED ON SINGLE POINT CONNECTIONS TO ALL EQUIPMENT, UNLESS NOTED OTHERWISE.
3. WHERE STARTER IS REQUIRED BY DIV 26 ,IT IS SHOWN AS SIZE 1 ,ETC. ALL STARTERS SHALL BE COMBINATION TYPE UNLESS INDICATED OTHERWISE. DISCONNECTS ARE SHOWN AS 30/3/1, ETC.
4. THE INDOOR UNIT RECEIVES POWER FROM THE OUTDOOR UNIT. PROVIDE 30 AMP, 3 POLE TOGGLE SWITCH ON LINE SIDE OF INDOOR UNIT. REFER TO UNIT CUT-SHEETS FOR CONNECTION REQUIREMENTS. DIVISION 26 CONTRACTOR IS RESPONSIBLE FOR ALL WIRING COMPONENTS AND INSTALLATION.

Blairsville UNION COUNTY BELIEVE IT
GEORGIA REGISTERED PROFESSIONAL ENGINEER Wesley Womack 30596 ELECTRICAL
HUSSEY GAY BELL
Established 1958
3100 Brookstridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

JOB NO. 624 1109 01

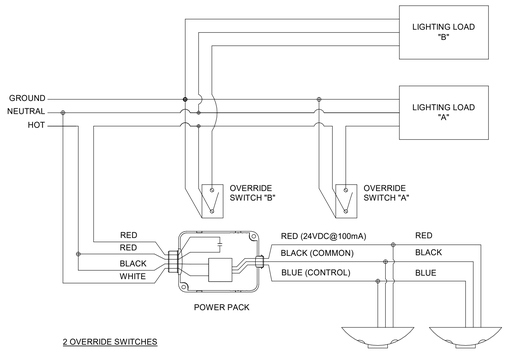
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ELECTRICAL LEGEND & DETAILS

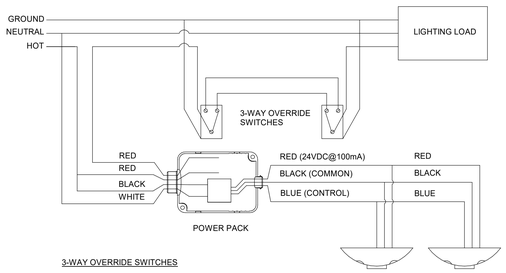
DRAWING NUMBER

E0.01

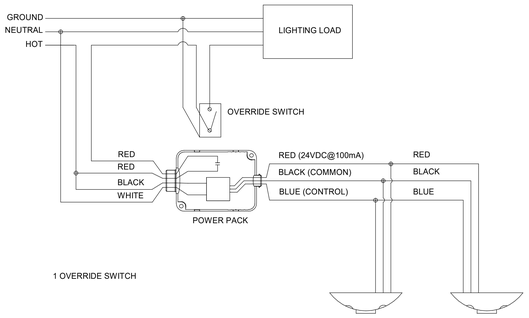
DESIGN DEVELOPMENT PACKAGE



2 OVERRIDE SWITCHES



3-WAY OVERRIDE SWITCHES



1 OVERRIDE SWITCH

NOTES: (OCCUPANCY SENSOR WIRING DETAIL)

A. NOT ALL MANUFACTURERS' WIRING CONFIGURATIONS ARE THE SAME. REFER TO MANUFACTURER SPECIFIC WIRING DETAILS PRIOR TO INSTALLATION.

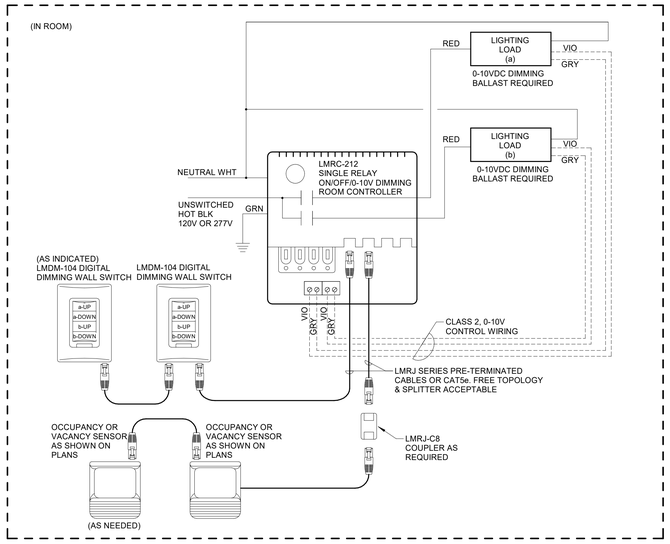
B. THESE PLANS INDICATE AREAS TO BE CONTROLLED BY OCCUPANCY SENSORS. SINCE COVERAGES AND DEVICES VARY BETWEEN MANUFACTURERS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE PROPER DEVICE LOCATION, ORIENTATION, AND QUANTITIES WITH THE MANUFACTURER OF THE SYSTEM BEING INSTALLED TO MEET THE SPECIFIED CRITERIA.

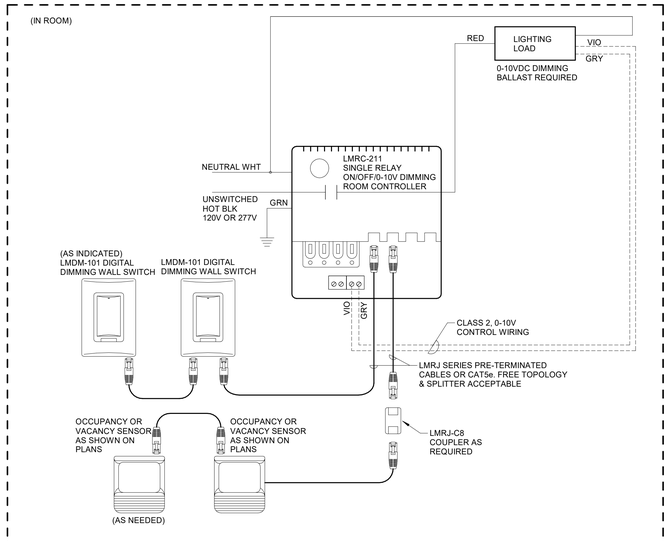
C. THERE ARE NO POWER PACKS SHOWN ON THESE PLANS. PROVIDE POWER PACKS AS REQUIRED WITH SENSORS. POWER PACKS ARE TO BE RATED AT 20A. PROVIDE ONE POWER PACK PER 20A LIGHTING CIRCUIT OR PER INDIVIDUAL AREA BEING CONTROLLED.

D. CEILING SENSORS ARE TO BE MOUNTED AWAY FROM ANY STRONG AIRFLOW. COORDINATE LOCATION OF SENSORS WITH MECHANICAL AND LIGHTING PLANS.

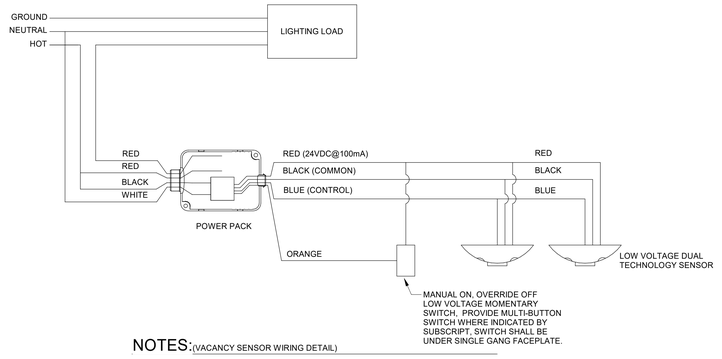
E. ALL SENSORS SHALL BE CEILING MOUNTED EXCEPT WHERE CEILING HEIGHTS EXCEED 15'. PROVIDE SENSOR WITH ADAPTOR PLATE FOR JUNCTION BOX MOUNTING (JUNCTION BOX SHALL BE CONCEALED ABOVE ACCESSIBLE CEILING). JUNCTION BOX SHALL BE SUPPORTED FORM STRUCTURE UTILIZING A 3/8" THREADED ROD. WHERE CEILING HEIGHTS EXCEED 15', WALL MOUNT SENSORS AT 12'.

1 E0.02 OCCUPANCY SENSOR WIRING
SCALE:NOT TO SCALE





2 E0.02 0-10V DIMMING WIRING SCHEMATICS
SCALE: 1/8" = 1'-0"



NOTES: (VACANCY SENSOR WIRING DETAIL)

A. NOT ALL MANUFACTURERS' WIRING CONFIGURATIONS ARE THE SAME. REFER TO MANUFACTURER SPECIFIC WIRING DETAILS PRIOR TO INSTALLATION.

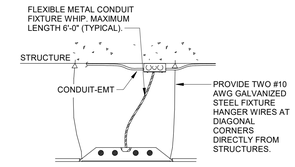
B. THESE PLANS INDICATE AREAS TO BE CONTROLLED BY VACANCY SENSORS. SINCE COVERAGES AND DEVICES VARY BETWEEN MANUFACTURERS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE PROPER DEVICE LOCATION, ORIENTATION, AND QUANTITIES WITH THE MANUFACTURER OF THE SYSTEM BEING INSTALLED TO MEET THE SPECIFIED CRITERIA.

C. THERE ARE NO POWER PACKS SHOWN ON THESE PLANS. PROVIDE POWER PACKS AS REQUIRED WITH SENSORS. POWER PACKS ARE TO BE RATED AT 20A. PROVIDE ONE S POWER PACK PER 20A LIGHTING CIRCUIT OR PER INDIVIDUAL AREA BEING CONTROLLED.

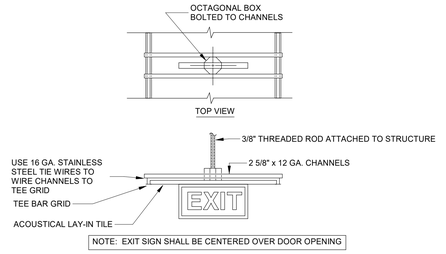
D. CEILING SENSORS ARE TO BE MOUNTED AWAY FROM ANY STRONG AIRFLOW. COORDINATE LOCATION OF SENSORS WITH MECHANICAL AND LIGHTING PLANS.

E. ALL SENSORS SHALL BE CEILING MOUNTED EXCEPT WHERE CEILING HEIGHTS EXCEED 15'. PROVIDE SENSOR WITH ADAPTOR PLATE FOR JUNCTION BOX MOUNTING (JUNCTION BOX SHALL BE CONCEALED ABOVE ACCESSIBLE CEILING). JUNCTION BOX SHALL BE SUPPORTED FROM STRUCTURE UTILIZING A 3/8" THREADED ROD. WHERE CEILING HEIGHTS EXCEED 15', WALL MOUNT SENSORS AT 12'.

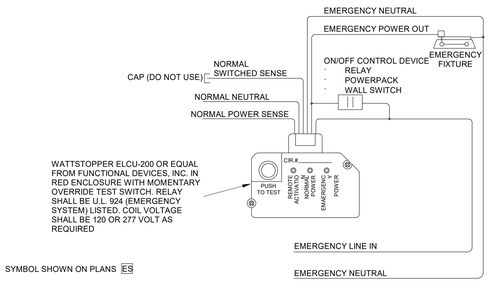
3 E0.02 VACANCY SENSOR WIRING
SCALE:NOT TO SCALE



4 E0.02 LIGHT FIXTURE MOUNTING
SCALE:NOT TO SCALE



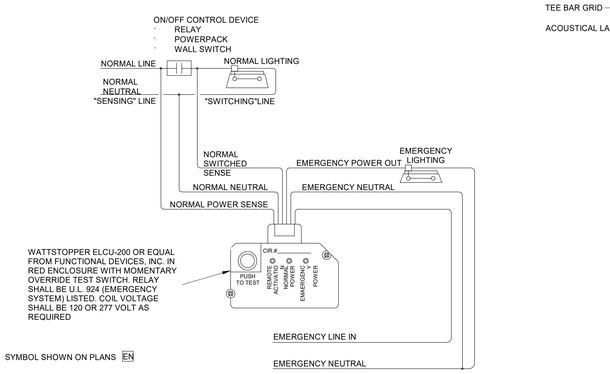
5 E0.02 EXIT LIGHT MOUNTING
SCALE:NOT TO SCALE



NOTE: NORMAL POWER SENSING FEED IS NOT SHOWN ON THE DRAWINGS BUT SHALL BE PROVIDED FROM NEAREST NORMAL POWER CIRCUIT.

SWITCHED EMERGENCY LIGHTING

6 E0.02 SWITCHED EMERGENCY LIGHTING
SCALE:NOT TO SCALE



NOTE: NORMAL POWER SENSING FEED IS NOT SHOWN ON THE DRAWINGS BUT SHALL BE PROVIDED FROM NEAREST NORMAL POWER CIRCUIT.

EMERGENCY LIGHT SWITCHED WITH NORMAL LIGHTS

7 E0.02 EMERGENCY LIGHTS SWITCHED WITH NORMAL
SCALE: 1/8" = 1'-0"

DESIGN DEVELOPMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT
GEORGIA REGISTERED PROFESSIONAL ENGINEER Wesley Wommack 30584 ELECTRICAL
HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

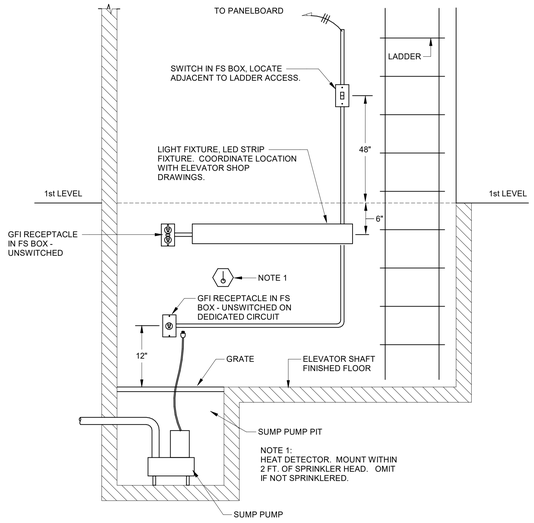
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

LIGHTING DETAILS

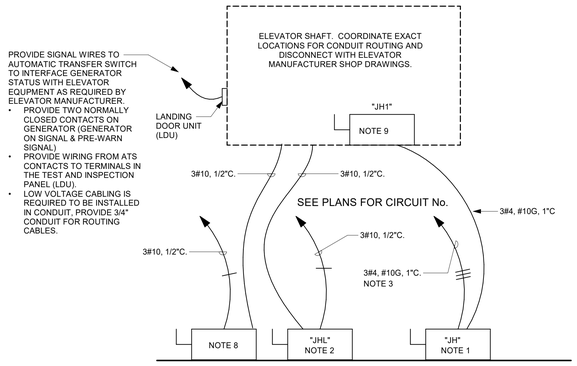
DRAWING NUMBER

E0.02



1 E0.03 ELEVATOR ELEVATION - ELECTRICAL

SCALE:NOT TO SCALE



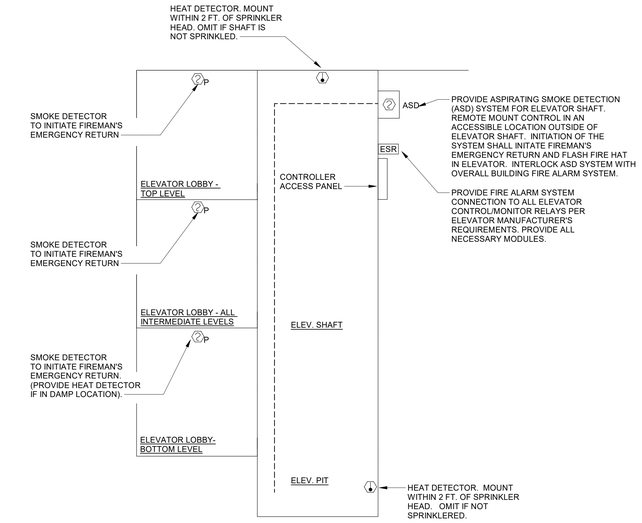
ELEVATOR ON GENERATOR BACKUP POWER

NOTES:

1. PROVIDE 100A/3P FUSED DISCONNECT. PROVIDE AUXILIARY CONTACTS TO OPEN CIRCUIT TO EMERGENCY RETURN UNIT WHEN MAIN DISCONNECT IS OPEN. FUSE DISCONNECT PER ELEVATOR MANUFACTURER'S REQUIREMENTS. LOCATE FUSED DISCONNECT IN ROOM INDICATED IN REVISED PLAN.
2. PROVIDE 30A/2P FUSED DISCONNECT FOR ELEVATOR CAB LIGHTS. FUSE DISCONNECT PER ELEVATOR MANUFACTURER'S REQUIREMENTS. LOCATE FUSED DISCONNECT IN ROOM INDICATED IN REVISED PLAN.
3. PROVIDE, AS A MINIMUM, THE ELEVATOR POWER CIRCUIT SHOWN. COORDINATE EXACT FEEDER SIZE WITH THE ELEVATOR MANUFACTURER FOR THE EQUIPMENT ACTUALLY PROVIDED.
4. (GENERAL) ARRANGE EQUIPMENT IN SPACE AS RECOMMENDED BY ELEVATOR SUPPLIER AND ACCORDING TO N.E.C.
5. (GENERAL) PROVIDE ITEMS NOT SHOWN BUT REQUIRED BY THE ELEVATOR MANUFACTURER.
6. (GENERAL) HEAT DETECTOR AT TOP OF ELEVATOR SHAFT AND ELEVATOR PIT SHALL SHUNT BREAKER WHEN ACTIVATED. SEE ELEVATOR ELEVATION - FIRE ALARM DETAIL FOR LOCATION OF HEAT DETECTORS.
7. (GENERAL) ALL CONDUITS SHALL BE INSTALLED OUTSIDE OF ELEVATOR SHAFT.
8. 30A/2P DISCONNECT FOR 2-WAY AUDIO/VISUAL COMMUNICATIONS CIRCUIT.
9. PROVIDE 30A/3P NON-FUSED DISCONNECT WITH AUXILIARY CONTACTS. (LOCKABLE IN THE OPEN POSITION) AT TOP OF ELEVATOR SHAFT WITHIN SIGHT OF MOTOR CONTROLLER WHERE INDICATED IN ELEVATOR SHOP DRAWINGS. PROVIDE A LABEL ON THIS DISCONNECT STATING THE LOCATION OF DISCONNECT "JH" AND BRANCH CIRCUIT OVERCURRENT PROTECTION DEVICE IN ACCORDANCE WITH N.E.C.

2 E0.03 MRL ELEVATOR DISCONNECT SWITCHES - EMERGENCY POWER

SCALE:NOT TO SCALE



GENERAL NOTES: (MRL ELEVATOR - FIRE ALARM DETAIL)

A. COORDINATE INSTALLATION OF DETECTORS WITH ELEVATOR EQUIPMENT.

B. INTERLOCK HEAT DETECTORS WITH SHUNT TRIP BREAKER SERVING ELEVATOR TO INITIATE ELEVATOR POWER SHUTOFF UPON ACTIVATION.

C. THE EXACT PLACEMENT OF DETECTORS SHALL BE FIELD DETERMINED IN ACCORDANCE WITH ASME A17.1, NFPA 72, AND THE ELEVATOR MANUFACTURER.

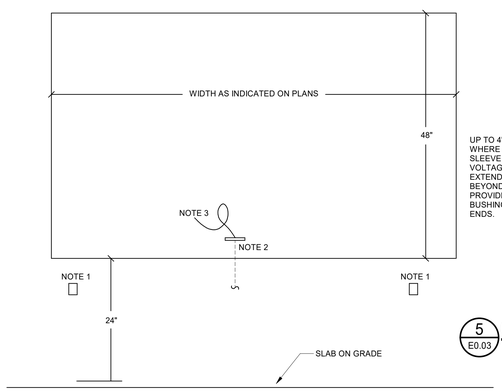
D. THIS DETAIL SHALL BE ADAPTED AS REQUIRED FOR ALL ELEVATORS.

3 E0.03 MRL ELEVATOR ELEVATION - FIRE ALARM1

SCALE:NOT TO SCALE

7 E0.03 SLEEVE THROUGH FIRE RATED FLOOR

SCALE:NO SCALE

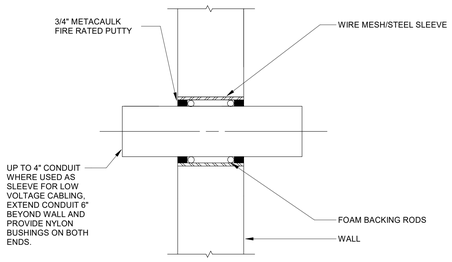


NOTES: (BACKBOARD DETAIL)

1. RECEPTACLES AS SHOWN
2. GROUND BUS ,W/ No. 6 AWG (G) TO NEAREST DISTRIBUTION PANEL AND BUILDING STEEL.SEE GROUND BAR DETAIL
3. PROVIDE No. 6 AWG GROUND WIRE TO EACH PIECE OF EQUIPMENT MOUNTED ON BACKBOARD.

8 E0.03 BACKBOARD DETAIL

SCALE:NOT TO SCALE

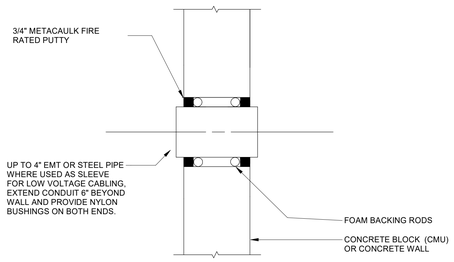


NOTE: (GYPSUM WALLBOARD PENETRATION DETAIL)

WHERE CONDUIT IS USED AS A SLEEVE FOR ROUTING LOW VOLTAGE CABLES THROUGH A RATED WALL, LOCATE CONDUCTORS IN CENTER OF SLEEVE AND FILL OPENING WITH NON HARDENING FIRE RATED PUTTY AT EACH END.

5 E0.03 GYPSUM WALLBOARD PENETRATION

SCALE:NOT TO SCALE

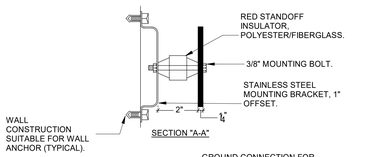


NOTE: (CONCRETE WALL PENETRATION DETAIL)

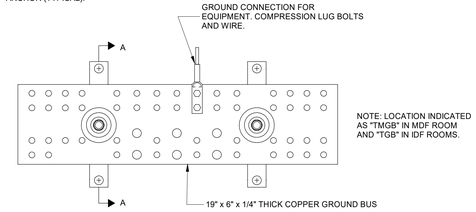
A. WHERE CONDUIT IS USED AS SLEEVE FOR ROUTING LOW VOLTAGE CABLES THROUGH A RATED WALL, LOCATE CONDUCTORS IN CENTER OF SLEEVE AND FILL OPENING WITH NON HARDENING FIRE RATED PUTTY AT EACH END SLEEVE.

6 E0.03 CONCRETE WALL PENETRATION

SCALE:NOT TO SCALE



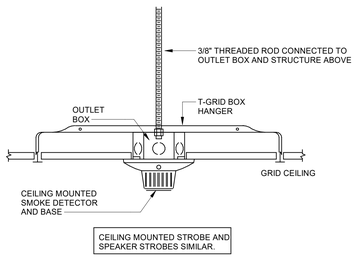
SECTION "A-A"



FRONT ELEVATION

9 E0.03 TELECOMMUNICATIONS EQUIPMENT GROUND BUS

SCALE:NOT TO SCALE



4 E0.03 SMOKE DETECTOR MOUNTING

SCALE:NOT TO SCALE

Blairsville UNION COUNTY BELIEVE IT

GEORGIA REGISTERED PROFESSIONAL ENGINEER Wesley O. Womack 12/06/24

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

JOB NO. 624 1109 01

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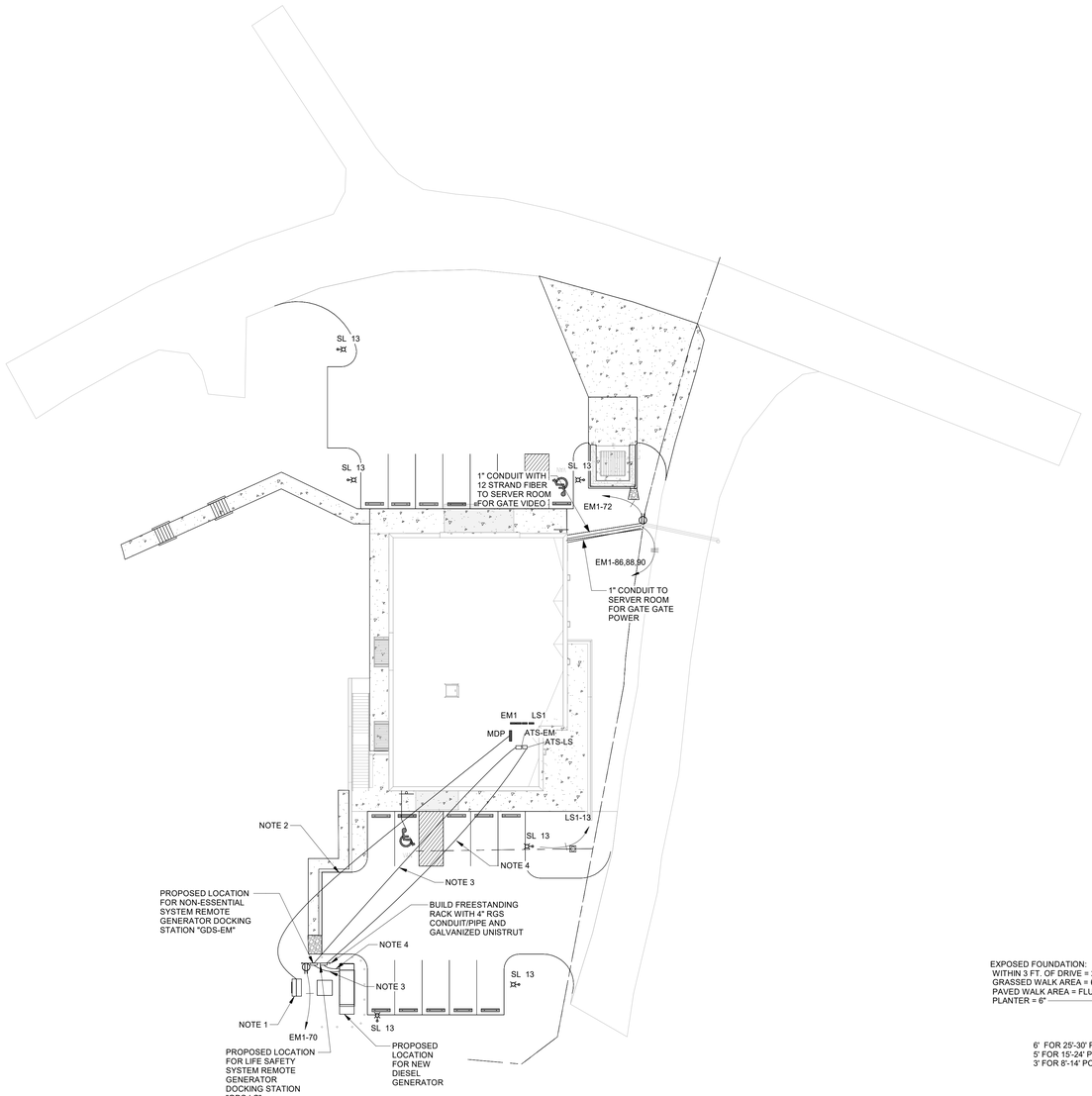
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ELECTRICAL DETAILS

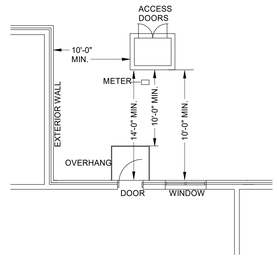
DRAWING NUMBER

E0.03

DESIGN DEVELOPMENT PACKAGE



1 E0.04 SITE PLAN - ELECTRICAL
SCALE: 1" = 20'-0"



NOTES: (UTILITY PAD MOUNTED TRANSFORMER LOCATION)

A. EDGE OF TRANSFORMER PAD SHALL BE LOCATED 10'-0" MINIMUM FROM BUILDING OVERHANGS, CANOPIES, EXTERIOR WALLS, BALCONIES, EXTERIOR STAIRS, AND/OR WALKWAYS CONNECTED TO THE BUILDING.

B. EDGE OF TRANSFORMER PAD SHALL BE LOCATED 14'-0" MINIMUM FROM ANY DOOR.

C. EDGE OF TRANSFORMER PAD SHALL BE LOCATED 10'-0" MINIMUM FROM ANY WINDOW OR OTHER OPENINGS.

D. IF BUILDING HAS AN OVERHANG AND IS 3 OR LESS FLOORS IN HEIGHT ABOVE THE GROUND, THE 10'-0" CLEARANCE IS MEASURED FROM A POINT BELOW THE EDGE OF THE OVERHANG. IF THE BUILDING IS 4 STORIES OR MORE, THE 10 FOOT CLEARANCE SHALL BE MEASURED FROM THE OUTSIDE BUILDING WALL.

E. FIRE ESCAPES, OUTSIDE STAIRS AND WALKWAYS ATTACHED TO OR BETWEEN BUILDINGS SHALL BE CONSIDERED PART OF THE BUILDING.

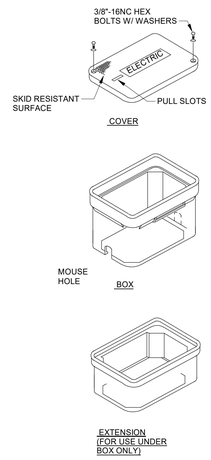
F. SECONDARY OF THE TRANSFORMER SHALL FACE THE BUILDING (SWITCHGEAR).

G. CURRENT TRANSFORMER (CT) TO BE PROVIDED BY LOCAL POWER COMPANY AND INSTALLED BY CONTRACTOR.

H. PROVIDE ONE 1'-1/4" RIGID GALVANIZED STEEL CONDUIT FROM CT TO ELECTRIC METER. METER AND PEDISTAL TO BE SUPPLIED BY UTILITY COMPANY AND INSTALLED BY CONTRACTOR., PEDISTAL SHALL BE BURIED MINIMUM 2'-0" DEEP, SET IN CONCRETE.

I. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND ARRANGEMENT WITH SERVING UTILITY COMPANY FOR SERVICE CONNECTION (INCLUDING PAYMENT OF ALL COSTS ASSOCIATED WITH THE SERVICE).

2 E0.04 UTILITY PAD MOUNTED TRANSFORMER LOCATION
SCALE:NOT TO SCALE



NOTES: (PULL BOX DETAIL)

A. GROUND COVER ON CONDUITS MAY BE REDUCED AT POINTS OF CONNECTIONS TO BOXES

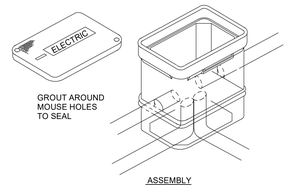
B. SIZE OF BOXES SHALL CONFORM TO NFPA 70, BASED ON CONDUITS ENTERING AND LEAVING BOXES, DEPTH OF BOX AND EXTENSION SHALL BE 30" NOMINAL.

C. PROVIDE SEPARATE BOXES FOR MEDIUM VOLTAGE AND LOW VOLTAGE SYSTEMS.

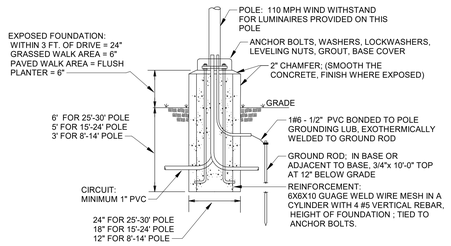
D. NO ENTRIES WILL BE ALLOWED THROUGH WALL OF EXTENSION. ALL ENTRIES MUST BE MADE THROUGH MOUSEHOLES OR ELBOWED FROM UNDERNEATH. ALL TERMINATIONS SHALL HAVE SOME TYPE OF BUSHING.

E. SET BOXES FLUSH WITH FINISHED GRADE. LOCATIONS SHALL BE APPROVED BY THE ARCHITECT.

F. SPECIFICATIONS.
COMPRESSIVE STRENGTH: 11,000 PSI MINIMUM.
ENCLOSURE RATING: 15,000 LBS. OVER 10"X10" AREA.
COVER: HEAVY DUTY LOCKING TYPE WITH LOGO INDICATED.
COLOR: GRAY.
CONSTRUCTION: POLYMER CONCRETE WITH HEAVY-WEAVE FIBERGLASS REINFORCEMENT.



3 E0.04 PULL BOX DETAIL
SCALE:NOT TO SCALE



4 E0.04 POLE BASE DETAIL
SCALE:NOT TO SCALE

GENERAL NOTES:

A. SURVEY AND SITE INFORMATION PROVIDED BY OTHERS. VERIFY ALL CONDITIONS ON SITE AND WITH OFFICIAL SURVEYS AND OTHER TRADES.

B. CONTACT UNDERGROUND UTILITY CENTER AND VERIFY ALL UNDERGROUND UTILITIES.

C. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC. PROVIDE GRS ELBOWS PAINTED WITH BITUMINOUS PAINT TO TRANSITION TO ABOVE GRADE OR SLAB.

D. CONTRACTORS SHALL STAKE-OFF ALL EXISTING UTILITIES PRIOR TO ROUGH-IN. ALL NEW INSTALLATION SHALL BE COORDINATED WITH EXISTING UTILITY LOCATIONS.

E. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL UTILITIES FOR THIS PROJECT.

F. MINIMUM SIZE OF ALL CONDUITS ON THIS SHEET SHALL BE 3/4 IN.

G. PROVIDE PULL BOXES AS REQUIRED BY NEC FOR UNDERGROUND FEEDERS SHOWN, SEE PULL BOX DETAIL.

NOTES:

1. PROPOSED LOCATION OF NEW PAD MOUNTED UTILITY TRANSFORMER AND METER. TRANSFORMER FURNISHED AND INSTALLED BY UTILITY COMPANY. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION. SEE ARCHITECTURAL PLAN AND REFER TO UTILITY PAD MOUNTED TRANSFORMER LOCATION DETAIL 2/E0.04. COORDINATE WITH ELECTRIC POWER UTILITY FOR EXACT LOCATION AND REQUIREMENTS PRIOR TO BID.
2. PROVIDE CONDUIT BELOW GRADE FROM NEW UTILITY TRANSFORMER TO PANEL 'MDP'. CONDUITS SHALL BE GALVANIZED RIGID STEEL UNDER PARKING AND DRIVE AREAS. REFER TO RISER DIAGRAM FOR SERVICE CONDUCTOR QUANTITY AND SIZING.
3. PROVIDE CONDUIT BELOW GRADE FROM NEW GENERATOR TO NEW GENERATOR DOCKING STATION 'GDS-EM' AND FROM 'GDS-EM' TO NEW AUTOMATIC TRANSFER SWITCH 'ATS-EM'. CONDUITS SHALL BE GALVANIZED RIGID STEEL UNDER PARKING AND DRIVE AREAS. REFER TO RISER DIAGRAM FOR CONDUCTOR QUANTITY AND SIZING.
4. PROVIDE CONDUIT BELOW GRADE FROM NEW GENERATOR TO NEW GENERATOR DOCKING STATION 'GDS-EM' AND FROM 'GDS-LS' TO NEW AUTOMATIC TRANSFER SWITCH 'ATS-LS'. CONDUITS SHALL BE GALVANIZED RIGID STEEL UNDER PARKING AND DRIVE AREAS. REFER TO RISER DIAGRAM FOR CONDUCTOR QUANTITY AND SIZING.

Blairsville UNION COUNTY BELIEVE IT
GEORGIA REGISTERED ARCHITECT Wesley Woodward 025624 ARCHITECTURE
HUSSEY GAY BELL
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REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

JOB NO. 624 1109 01

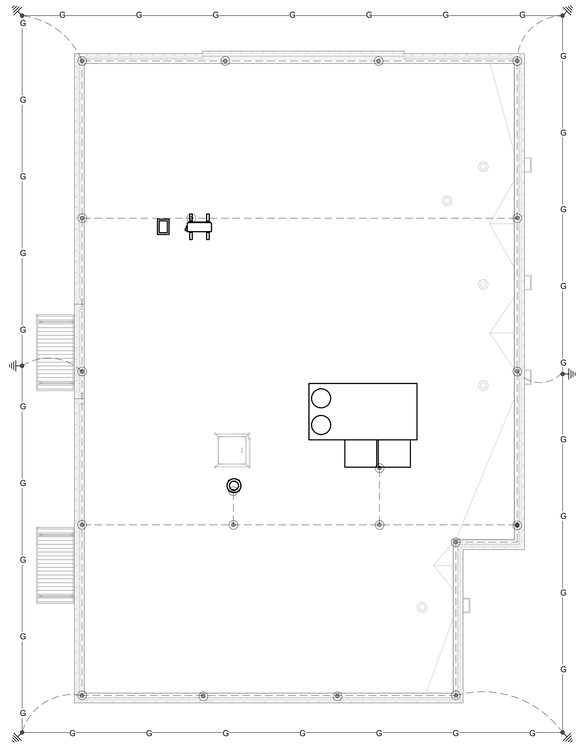
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

ELECTRICAL SITE PLAN

DRAWING NUMBER

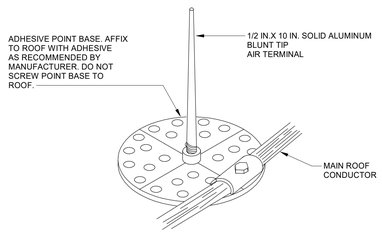
E0.04

DESIGN DEVELOPMENT PACKAGE



1 E0.05 LIGHTNING PROTECTION PLAN - ROOF

SCALE: 1/8" = 1'-0"



2 E0.05 LIGHTNING POINT ATTACHMENT DETAIL

SCALE:NOT TO SCALE

GENERAL NOTES:

A. LOCATE AIR TERMINALS AS SHOWN OR AS REQUIRED TO ACHIEVE U.L. MASTER LABEL. PROVIDE ADDITIONAL ELECTRODES AND DOWN CONDUCTORS AS REQUIRED ALSO TO MEET NFPA 78 AND UL96A.. TAKE CARE TO ENSURE THAT ALL POINTS ARE WITHIN 2'-0" OF OUTSIDE BUILDING EDGE, OUTSIDE CORNERS AND RIDGE ENDS, AND THAT MAXIMUM SPACING DOES NOT EXCEED 20'-0", AND THAT MINIMUM PROJECTION ABOVE OBJECT PROTECTED IS 10" (POINTS PROJECTING 24" MAY BE SPACED @ 25'-0" MAX.

B. MAINTAIN HORIZONTAL OR DOWNWARD COURSING OF MAIN CONDUCTOR AND INSURE THAT ALL BENDS HAVE AT LEAST AN 8 IN. RADIUS AND DO NOT EXCEED 90 DEGREES.

C. ATTACH ALL EXPOSED ROOF, DOWN LEAD AND BONDING CABLES AT 3'-0". ON CENTER MAXIMUM. VERIFY COMPATIBILITY OF ADHESIVE ON METAL ROOF APPLICATIONS PRIOR TO INSTALLATION.

D. GROUND ELECTRODES SHALL BE INSTALLED AS SHOWN BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0". BELOW GRADE AND 2'-0". FROM FOUNDATION WALL DRIVEN RODS SHALL PENETRATE EARTH AT EAST 10'-0".

E. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS SHOWN AND AS REQUIRED BY CODES.

F. INTERCONNECT LIGHTNING PROTECTION GROUND TO ELECTRIC, TELEPHONE, AND OTHER BUILDING GROUND SYSTEMS AS SHOWN OR AS REQUIRED BY CODE.

G. SYSTEM SHALL BE INSTALLED AS SHOWN TO ENSURE PROPER CODE COMPLIANCE AND SYSTEM CERTIFICATION. ANY MAJOR VARIANCE SHALL ENTAIL RESUBMITTAL AND NEW APPROVAL.

H. "AS-BUILT" DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH CERTIFICATION PROCEDURES.

I. ALL MATERIAL TO BE UNDERWRITER'S LABORATORIES APPROVED WITH LABELS ON CONDUCTORS @ 10'-0" INTERVALS AND LABELS ON ALL AIR TERMINALS.

J. COMPLETED INSTALLATION AS SHOWN SHALL BEAR U.L. MASTER LABEL.TO BE SECURED BY SYSTEM INSTALLER PER UL96A.

K. ALL MATERIALS SHOWN AND INTENDED FOR USE ARE TO BE AS MANUFACTURED BY THOMPSON LIGHTNING PROTECTION INC., 901 SIBLEY HWY. ST PAUL, MN 55118. APPROVED EQUALS ARE INDEPENDENT PROTECTION CO. AND ROBBINS LIGHTNING PROTECTION CO.

L. INSTALLATION SHALL COMPLY IN ALL RESPECTS TO L.P.I. CODE 175. INSTALLATION SHALL BE MADE BY OR UNDER THE SUPERVISION OF AN L.P.I. CERTIFIED MASTER INSTALLER. COMPLETED INSTALLATION TO RECEIVE SYSTEM CERTIFICATION INCLUDING SUBMITTAL OF FORM L.P.I.-1-R91.

LEGEND:

———	CLASS II MAIN CONDUCTOR ON ROOF
——X———	CONNECTION TO GROUND ROD (UNDERGROUND)
◉	LIGHTNING POINT
•—|||—	GROUND RODS
G	CLASS II MAIN CONDUCTOR BELOW GRADE

CRITICAL COORDINATION NOTE
ROOFER/GC MUST ADVISE ROOFING TYPE TO LIGHTNING PROTECTION SYSTEM INSTALLER FOR PROPER ADHESIVE SELECTION. NO LIGHTNING PROTECTION WORK WITHOUT THIS INFO.

INSTALLATION IS BASED UPON ALL ROOF-MOUNTED LIGHTNING PROTECTION EQUIPMENT BEING ADHERED DIRECTLY TO ROOF SURFACE. ANY VARIANCE OR SPECIAL PROVISIONS BY ROOFING CONTRACTOR. DO NOT PENETRATE ROOF, NO EXCEPTIONS.

DESIGN DEVELOPMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

GEORGIA REGISTERED PROFESSIONAL ENGINEER Wesley Wommack 035624 U.S.A.

HUSSEY GAY BELL

Established 1958

3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS: △

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

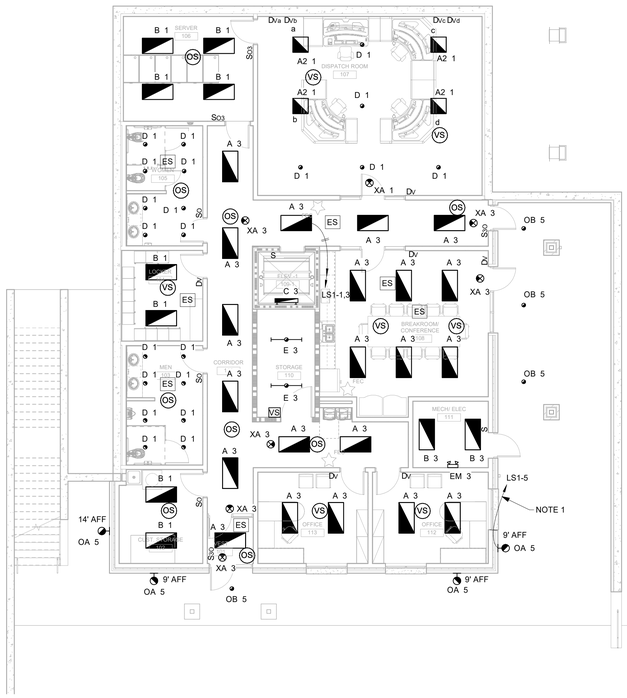
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

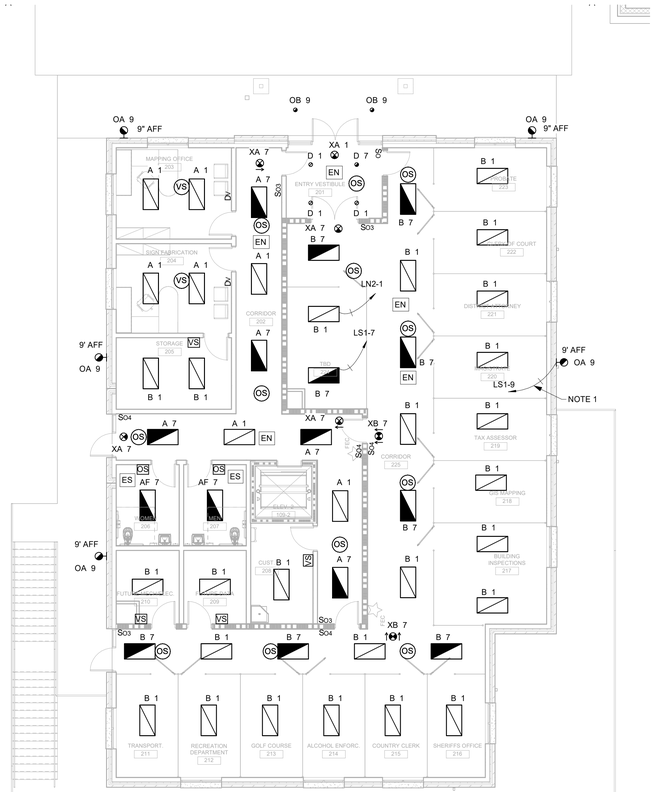
LIGHTNING PROTECTION PLAN

DRAWING NUMBER

E0.05



1 LIGHTING PLAN - LEVEL 1
E1.01 SCALE: 1/8" = 1'-0"



2 LIGHTING PLAN - LEVEL 2
E1.01 SCALE: 1/8" = 1'-0"

NOTES:
1. PROVIDE #10 ENTIRE CIRCUIT. ROUTE CIRCUIT TO EXTERIOR LIGHTING CONTACTOR. CONTACTOR TO BE CONTROLLED BY PHOTOCELL AND TIMECLOCK. SEE NOTES 1 AND 2 ON E3.01 FOR MORE INFORMATION.

GENERAL NOTES:
A. COORDINATE EXACT LOCATIONS AND MOUNTINGS (FLANGE/LAY-IN) WITH ARCHITECTURAL CEILING PLAN AND SCHEDULES PRIOR TO ORDERING AND INSTALLING ANY FIXTURE.

B. EXIT LIGHT AND NIGHT LIGHT CIRCUITS ARE TO REMAIN UNSWITCHED.

C. PROVIDE UNSWITCHED PHASE CONDUCTOR TO EACH EMERGENCY FIXTURE FOR BATTERY CHARGING AND POWER LOSS SENSING.

D. SEE LARGE SCALE PLANS FOR CIRCUITRY WITHIN TYPICAL SPACES.

E. ALL SPACES ARE TO BE CONTROLLED BY OCCUPANCY OR VACANCY SENSOR UNLESS SPECIFICALLY NOTED OTHERWISE. SEE DETAILS AND NOTES ON SHEET E0.02 FOR ADDITIONAL REQUIREMENTS.

DESIGN DEVELOPMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT!

GEORGIA REGISTERED ARCHITECT Wesley Woodward 12/06/24 WESLEY O. WOODWARD

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REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

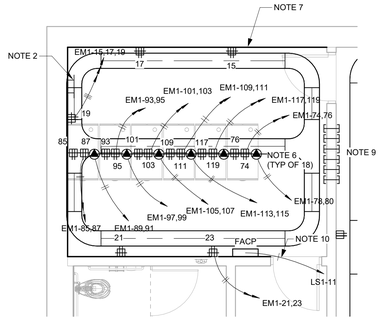
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

FLOOR PLAN - LIGHTING

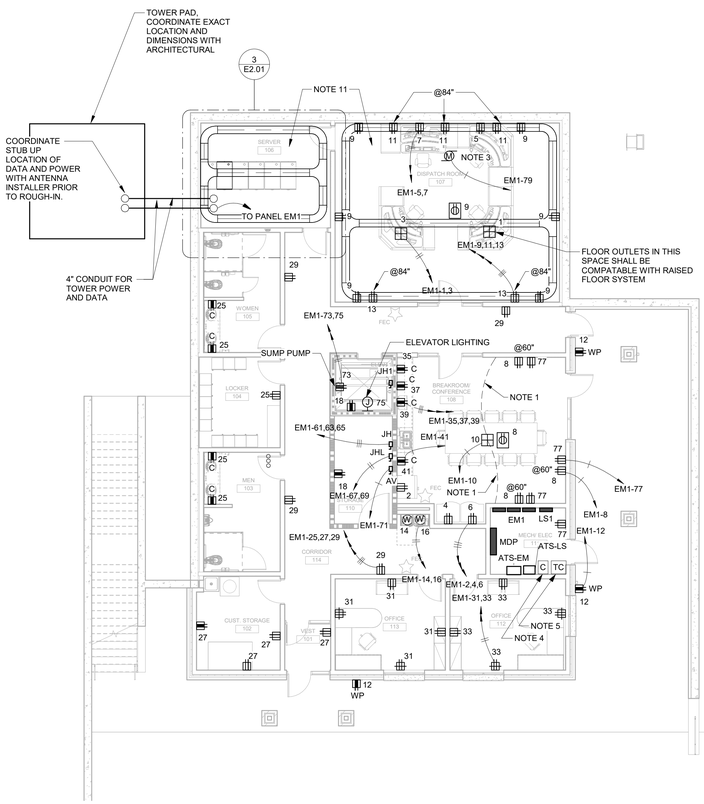
DRAWING NUMBER

E1.01



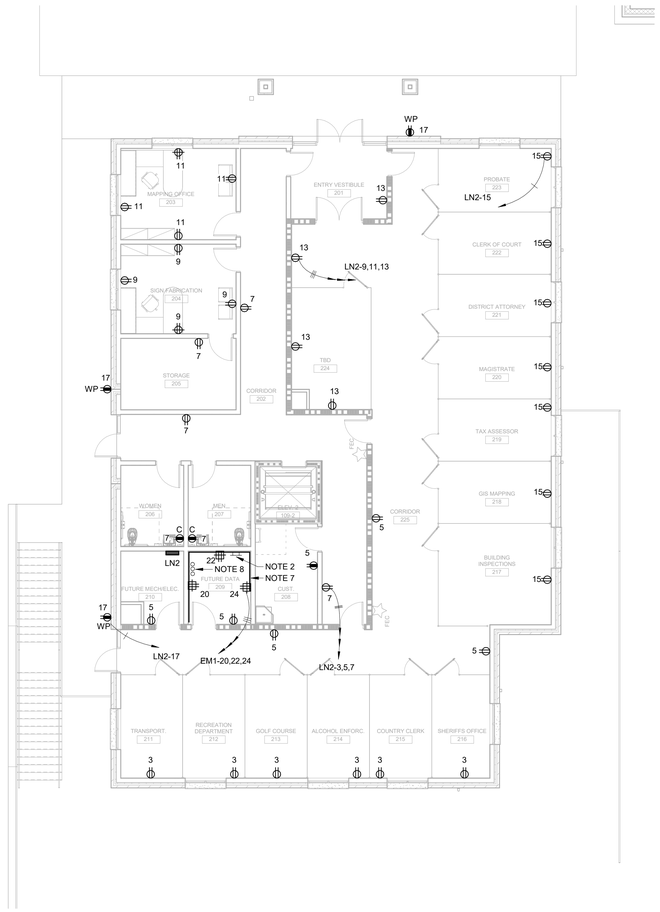
3 E2.01 LARGE SCALE POWER - DATA ROOM

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



1 E2.01 POWER PLAN - LEVEL 1

SCALE: 1/8" = 1'-0"



2 E2.01 POWER PLAN - LEVEL 2

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. THE WORK SHALL COMPLY WITH THE 2020 NATIONAL ELECTRIC CODE (N.E.C.).

B. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR EXACT LOCATIONS OF EQUIPMENT.

C. ALL NEW WIRING AND CONDUIT IS TO BE RUN CONCEALED IN WALLS, CONCEALED ABOVE CEILING, AND/OR CONCEALED BELOW THE FLOOR. ANY FINISH THAT IS CUT OR DEMOLISHED IS TO BE PATCHED AND/OR PAINTED TO MATCH ADJACENT FINISH.

D. WALL JUNCTION BOXES AND CONDUIT FOR THERMOSTATS AND SENSORS SHALL BE PROVIDED -VERIFY EXACT LOCATION WITH MECHANICAL PRIOR TO ROUGH-IN.

E. PROVIDE SUPPORT CHANNEL FRAME FOR MOUNTING DISCONNECTS WHEN WALL MOUNTING IS NOT AVAILABLE. AVOID MOUNTING DIRECTLY ON EQUIPMENT HOUSINGS.

G. DISTANCE LIMITATIONS FOR ALL 120 VOLT, 20A BRANCH CIRCUITS:

   a. CIRCUIT LENGTHS EXCEEDING 70 FEET SHALL CONSIST OF NO. 10 AWG CIRCUIT CONDUCTORS.

   b. CIRCUIT LENGTHS EXCEEDING 115 FEET SHALL CONSIST OF NO. 8 AWG CIRCUIT CONDUCTORS.

   c. CIRCUIT LENGTHS EXCEEDING 180 FEET SHALL CONSIST OF NO. 6 AWG CIRCUIT CONDUCTORS.

   d. CONDUIT SIZE SHALL BE INCREASED ACCORDINGLY.

H. MARK ANY UNUSED CIRCUIT BREAKERS AS SPARES. PROVIDE PANELBOARD DIRECTORIES PER PROJECT SPECIFICATIONS.

I. ALL RECEPTACLES AND DEVICES SHALL BE INSTALLED FLUSH IN WALL UNLESS NOTED OTHERWISE.

NOTES:

1. IN ADDITION TO POWER CIRCUIT SHOWN, EXTEND 1-1/4"C. W/ PULL STRING FROM FLOOR BOX, UP WALL AND INTO ACCESSIBLE CEILING FOR FUTURE NETWORK CABLES.
2. TELECOMMUNICATIONS EQUIPMENT GROUND BUS. SEE DETAIL 9/E0.03.
3. MOTOR FOR MOTORIZED PROJECTOR SCREEN, COORDINATE EXACT LOCATION WITH ARCHITECTURAL/OWNER.
4. 8 POLE ELECTRICALLY HELD LIGHTING CONTACTOR IN NEMA 1 ENCLOSURE COIL OF CONTACTOR TO BE CONTROLLED BY ADJACENT TIMECLOCK.
5. PROVIDE A 4 CIRCUIT DIGITAL ASTRONOMICAL TIMECLOCK WITH BATTERY BACKUP, INTERLOCK TIMECLOCK WITH AN EXTERIOR MOUNTED PHOTOCELL FACING NORTH CLEAR OF MAN-MADE LIGHT SOURCES.
6. MOUNT OUTLETS IN DATA RACK, CONDUIT SHALL COME UP THROUGH THE RAISED FLOOR.
7. PROVIDE PLYWOOD BACKBOARD. SEE 8/E0.03.
8. PROVIDE (3) 4" CONDUIT SLEEVES THROUGH FLOOR TO ABOVE ACCESSIBLE CEILING ON LEVEL 1 FOR LOW VOLTAGE CABLING BETWEEN FLOORS. SEE DETAIL 7/E0.03.
9. PROVIDE (6) - 4" CONDUIT SLEEVES FOR PASSING CABLES BETWEEN SERVER ROOM AND DISPATCH ROOM.
10. LABEL BREKER WITH RED NAMEPLATE "FIRE ALARM CONTROL PANEL". LABEL FIRE ALARM CONTROL PANEL WITH CIRCUIT NUMBER SERVING IT. PROVIDE BREAKER LOCK FOR CIRCUIT BREAKER.
11. SERVER ROOM 106 AND DISPATCH ROOM 107 WILL HAVE COMPUTER ROOM RAISED ACCESS FLOORS. THE METAL COMPONENTS OF THE FLOOR STRUCTURE (PEDESTALS AND STRINGERS) SHALL BE CONNECTED TO THE BUILDING'S GROUNDING ELECTRODE SYSTEM BY BONDING TO THE TELECOMMUNICATIONS EQUIPMENT GROUND BUS IN SERVER ROOM 106 WITH #4 AWG COPPER CONDUCTOR. THE ENTIRE FLOOR SYSTEM SHALL BE BONDED IN A GRID PATTERN AND PER THE MANUFACTURER'S REQUIREMENTS.

Blairsville UNION COUNTY BELIEVE IT

GEORGIA REGISTERED PROFESSIONAL ENGINEER Wesley Wommack 12/06/24 STATE OF GEORGIA

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REVISIONS:

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DATE: 12/06/2024

JOB NO. 624 1109 01

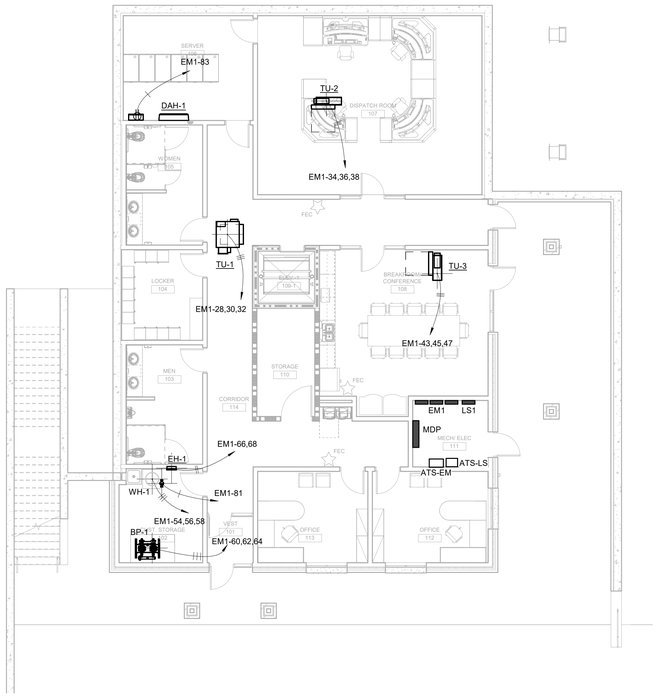
NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

FLOOR PLAN - POWER

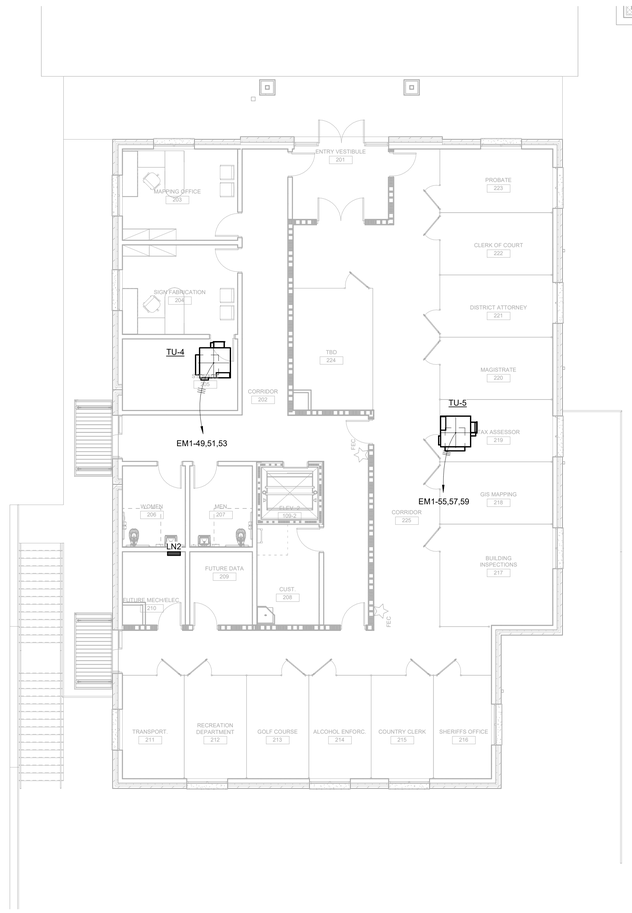
DRAWING NUMBER

E2.01

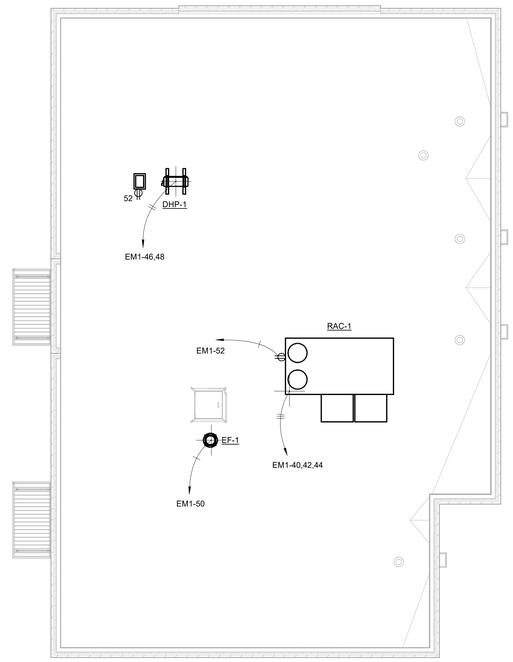
DESIGN DEVELOPMENT PACKAGE



1 E3.01 **MECHANICAL POWER PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"



2 E3.01 **MECHANICAL POWER PLAN - LEVEL 2**
SCALE: 1/8" = 1'-0"



3 E3.01 **MECHANICAL POWER PLAN - ROOF**
SCALE: 1/8" = 1'-0"

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REVISIONS:

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Designer	HJC	WOW

DATE: 12/06/2024

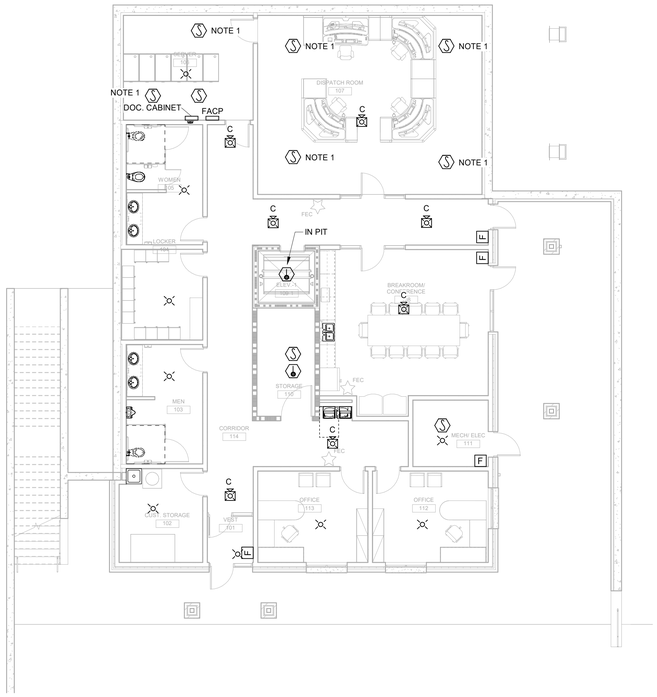
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

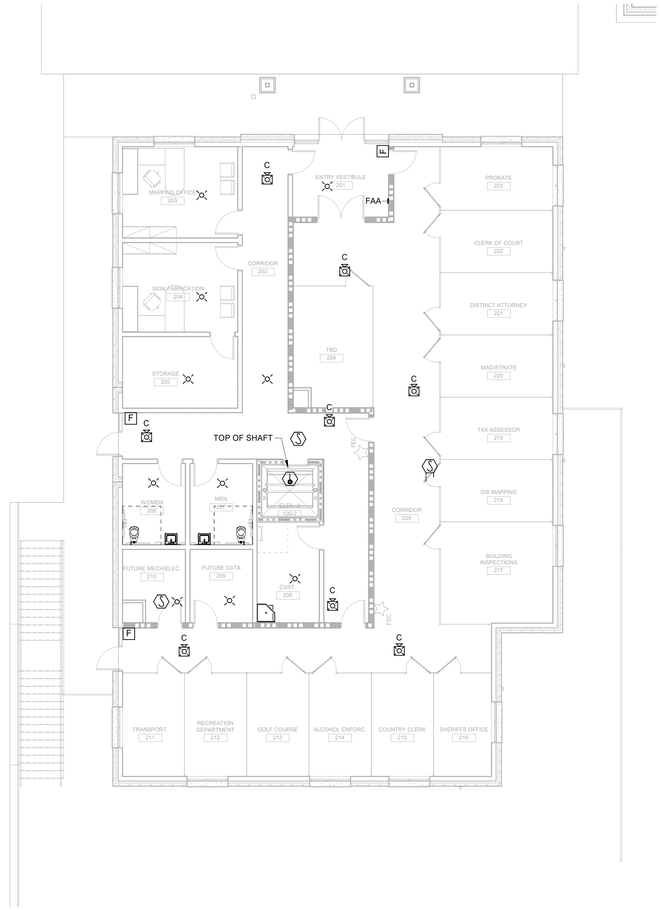
FLOOR PLAN - MECHANICAL POWER

DRAWING NUMBER
E3.01

DESIGN DEVELOPMENT PACKAGE



1 E4.01 **FIRE ALARM PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"



2 E4.01 **FIRE ALARM PLAN - LEVEL 2**
SCALE: 1/8" = 1'-0"

NOTES:

1. PROVIDE SMOKE DETECTOR MOUNTED BELOW RAISED FLOOR.

GENERAL NOTES:

A. CONSULT ARCHITECTURAL DRAWINGS TO DETERMINE EXACT LOCATION FOR MOUNTING MAGNETIC DOOR HOLDERS.

B. ALL HVAC EQUIPMENT PROVIDED WITH DUCT DETECTORS SHALL BE INTERFACED WITH FIRE ALARM SYSTEM TO SHUT DOWN DURING AN ALARM CONDITION. MOUNT DETECTORS ACCORDING TO MECHANICAL SPECIFICATIONS. WHERE MOUNTED ABOVE CEILING PROVIDE REMOTE LED INDICATOR LIGHTS MOUNTED IN CEILING TILE BELOW UNIT.

C. ALL FIRE ALARM CABLING SHALL BE IN CONDUIT.

D. PROVIDE TO THE STATE FIRE MARSHAL'S OFFICE THE FOLLOWING:
1. PLAN VIEW DRAWN TO SCALE.
2. LOW VOLTAGE CONTRACTOR'S NAME, LICENSE NUMBER AND SIGNATURE.
3. EQUIPMENT SUBMITTALS.
4. BATTERY CALCULATIONS.
5. WIRING CLASS.
6. INITIATING/NOTIFICATION DEVICE INFORMATION.

E. MOUNT DETECTOR UPSTREAM OF AIR FLOW FROM SMOKE DAMPERS. INTERLOCK SMOKE DAMPERS WITH FIRE ALARM PANEL. PROVIDE POWER FOR SMOKE DAMPERS AS REQUIRED FROM NEAREST CORRIDOR RECEPTACLE CIRCUIT OR AS INDICATED ON POWER PLANS.

F. PROVIDE FIRE ALARM CONNECTION TO EACH SMOKE DAMPER AND COMBINATION FIRE/SMOKE DAMPER. SEE MECHANICAL PLANS FOR LOCATIONS AND QUANTITIES OF SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS. PROVIDE A DUCT SMOKE DETECTOR AT EACH UNIT.

DESIGN DEVELOPMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

GEORGIA REGISTERED ARCHITECT Wesley Woodward 035624 BLAIRSVILLE, GEORGIA

HUSSEY GAY BELL
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REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

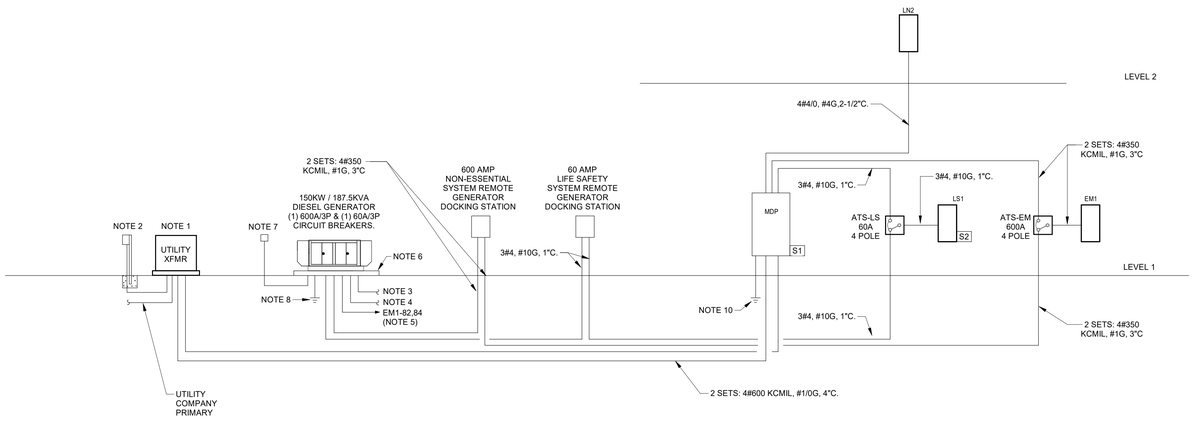
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

FLOOR PLAN - FIRE ALARM SYSTEM

DRAWING NUMBER

E4.01



1 E5.01 **POWER RISER DIAGRAM**
SCALE:NOT TO SCALE

RISER DIAGRAM LEGEND & EQUIPMENT NOTES:

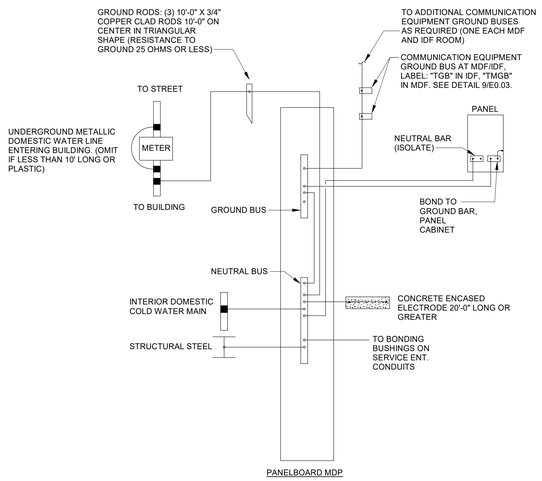
S 1 SURGE PROTECTION DEVICE IN MAIN SERVICE PANEL: PROVIDE 5-#2 CONDUCTORS IN 1- 1 /2" C FROM 100A/3P BREAKER IN SUPPLYING PANEL.

S 2 SURGE PROTECTION DEVICE IN DISTRIBUTION PANELS: PROVIDE 5-#6 CONDUCTORS IN 1" C FROM 60A/3P BREAKER IN SUPPLYING PANEL.

SURGE PROTECTION NOTES:
PROVIDE BREAKERS IN PANELS FOR SPD UNITS WHETHER OR NOT INDICATED ON PANEL SCHEDULE. THERE SHALL BE NO SPLICES IN PANEL, COORDINATE MOUNTING OF TVSS BREAKER PRIOR TO ROUGH IN.

NOTES:

1. UTILITY COMPANY PAD MOUNTED TRANSFORMER SEE SITE PLAN FOR EXACT LOCATION. ELECTRICAL CONTRACTOR TO PROVIDE PAD PER UTILITY COMPANY REQUIREMENTS.
2. METER BASE SUPPLIED BY POWER COMPANY AND INSTALLED BY ELECTRICAL CONTRACTOR.
3. PROVIDE 1" C. TO EACH AUTOMATIC TRANSFER SWITCH FOR CONTROL WIRES. PROVIDE WIRING PER MANUFACTURER'S REQUIREMENTS.
4. PROVIDE 1" C. TO GENERATOR REMOTE ANNUNCIATOR PANEL. PROVIDE WIRING PER MANUFACTURER'S REQUIREMENTS.
5. PROVIDE 5#10, 3/4" C. FOR POWER TO BATTERY CHARGER AND BLOCK HEATER.
6. SEE GENERATOR PAD DETAIL.
7. PAD LOCKABLE STAINLESS STEEL NEMA 4X BOX WITH HINGED GASKETED COVER. THIS BOX SHALL HOUSE BUTTON TO SHUT DOWN EMERGENCY GENERATORS. PROVIDE ENGRAVED LABEL "PUSH BUTTON TO SHUT DOWN GENERATORS." LETTERS SHALL BE WHITE 1/4" HIGH ON RED BACKGROUND. MOUNT 48" AFF. MOUNT ON RACK NEAR GENERATOR.
8. SEE 4-POLE ATS GROUNDING DETAIL, 4/E5.01.
9. PROVIDE ENGRAVED LABEL "SERVICE 2 OF 2". LETTERS SHALL BE WHITE 1/2" HIGH ON BLACK BACKGROUND.
10. SEE SERVICE GROUNDING DETAIL, 2/E5.01.



NOTES: (SERVICE GROUND DETAIL)

A. PROVIDE TAGS AT EACH END OF EACH GROUND ROD, INTERIOR WATER PIPE AND BUILDING STEEL CONNECTION. LABEL END AT CONNECTION AS "SYSTEM GROUND - DO NOT REMOVE." LABEL END SWITCHBOARD MSB TO IDENTIFY OPPOSITE END.

EXAMPLE:
"GROUND RODS", "BUILDING STEEL", ETC.

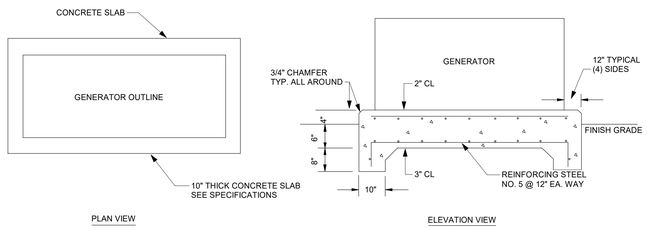
B. ALL ELECTRODE CONNECTIONS SHALL BE ACCESSIBLE. ALL ELECTRODE CONDUCTORS AND JUMPERS SHALL BE NO. 4/0 AWG.

C. CONNECTIONS TO ROD, REINFORCING STEEL BARS, AND STRUCTURAL STEEL SHALL BE EXOTHERMIC WELD TYPE.

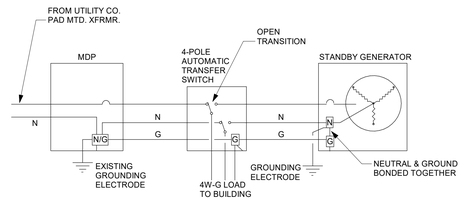
D. CONNECTION TO PIPE ELECTRODES SHALL BE PRESSURE OR CLAMP TYPE.

E. CONNECTION AT COMMUNICATION BUS SHALL BE MECHANICAL LUG TYPE.

2 E5.01 **SERVICE GROUND DETAIL**
SCALE:NOT TO SCALE



3 E5.01 **GENERATOR PAD DETAIL**
SCALE:NOT TO SCALE



4 E5.01 **4-POLE ATS GROUNDING DETAIL**
SCALE:N.T.S.

Blairsville UNION COUNTY BELIEVE IT!
GEORGIA Wesley Woodward 10/06/24 REGISTERED PROFESSIONAL ENGINEER
HUSSEY GAY BELL
Established 1958
3100 Brookstone Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

POWER RISER DIAGRAM & DETAILS

DRAWING NUMBER

E5.01

DESIGN DEVELOPMENT PACKAGE

PANEL: MDP

VOLTAGE: 120/208 WYE
PHASE: 3
WIRES: 4
A.I.C. RATING: 22,000

MAINS RATING: 800 A
MAINS TYPE: BREAKER
FED BY: UTILITY CO. XFMR

LOCATION: MECH/ ELEC 111
MOUNTING: SURFACE
RATING: NEMA 1
TOTAL LOAD: 214332 VA

CKT	TRIP	P	CIRCUIT DESCRIPTION	A		B		C		CIRCUIT DESCRIPTION	P	TRIP	CKT
1				3135	0								2
3	60 A	3	ATS-LS			1585	0			SPARE	3	100 A	4
5								1872	0				6
7				64560	0								8
9	600 A	3	ATS-EM			66566	0			SPARE	3	100 A	10
11								67378	0				12
13				3365	0								14
15	225 A	3	PANEL LN2			3240	0			SPARE	3	60 A	16
17								2700	0				18
19	--	1	SPACE	--	--					SPACE	1	--	20
21	--	1	SPACE			--	--			SPACE	1	--	22
23	--	1	SPACE					--	--	SPACE	1	--	24
25	--	1	SPACE	--	--					SPACE	1	--	26
27	--	1	SPACE			--	--			SPACE	1	--	28
29	--	1	SPACE					--	--	SPACE	1	--	30
31	--	1	SPACE	--	--					SPACE	1	--	32
33	--	1	SPACE			--	--			SPACE	1	--	34
35	--	1	SPACE					--	--	SPACE	1	--	36
37	--	1	SPACE	--	0					SURGE PROTECTION DEVICE	3	100 A	38
39	--	1	SPACE			--	0						40
41	--	1	SPACE					--	0				42
				70994 VA		71391 VA		71950 VA					
				592 A		595 A		600 A					

NOTES: SERVICE ENTRANCE RATED

PANEL: LN2

VOLTAGE: 120/208 WYE
PHASE: 3
WIRES: 4
A.I.C. RATING: 10,000

MAINS RATING: 225 A
MAINS TYPE: MLO
FED BY: MDP

LOCATION: FUTURE MECH/ELEC. 210
MOUNTING: SURFACE
RATING: NEMA 1
TOTAL LOAD: 9305 VA

CKT	TRIP	P	CIRCUIT DESCRIPTION	A		B		C		CIRCUIT DESCRIPTION	P	TRIP	CKT
1	20 A	1	LIGHTING	1565	0					SPARE	1	20 A	2
3	20 A	1	RECEPTACLES			1080	0			SPARE	1	20 A	4
5	20 A	1	RECEPTACLES					1080	0	SPARE	1	20 A	6
7	20 A	1	RECEPTACLES	1080	0					SPARE	1	20 A	8
9	20 A	1	RECEPTACLES			900	0			SPARE	1	20 A	10
11	20 A	1	RECEPTACLES					1080	0	SPARE	1	20 A	12
13	20 A	1	RECEPTACLES	720	0					SPARE	1	20 A	14
15	20 A	1	RECEPTACLES			1260	0			SPARE	1	20 A	16
17	20 A	1	RECEPTACLES					540	0	SPARE	1	20 A	18
19	--	1	SPACE	--	--					SPACE	1	--	20
21	--	1	SPACE			--	--			SPACE	1	--	22
23	--	1	SPACE					--	--	SPACE	1	--	24
25	--	1	SPACE	--	--					SPACE	1	--	26
27	--	1	SPACE			--	--			SPACE	1	--	28
29	--	1	SPACE					--	--	SPACE	1	--	30
31	--	1	SPACE	--	--					SPACE	1	--	32
33	--	1	SPACE			--	--			SPACE	1	--	34
35	--	1	SPACE					--	--	SPACE	1	--	36
37	--	1	SPACE	--	--					SPACE	1	--	38
39	--	1	SPACE			--	--			SPACE	1	--	40
41	--	1	SPACE					--	--	SPACE	1	--	42
				3365 VA		3240 VA		2700 VA					
				29 A		28 A		23 A					

NOTES:

PANEL: LS1

VOLTAGE: 120/208 WYE
PHASE: 3
WIRES: 4
A.I.C. RATING: 10,000

MAINS RATING: 60 A
MAINS TYPE: MLO
FED BY: MDP

LOCATION: MECH/ ELEC 111
MOUNTING: SURFACE
RATING: NEMA 1
TOTAL LOAD: 6556 VA

CKT	TRIP	P	CIRCUIT DESCRIPTION	A		B		C		CIRCUIT DESCRIPTION	P	TRIP	CKT
1	20 A	1	LIGHTING	985	--					SPACE	1	--	2
3	20 A	1	LIGHTING			1240	--			SPACE	1	--	4
5	20 A	1	LIGHTING					372	--	SPACE	1	--	6
7	20 A	1	LIGHTING	731	--					SPACE	1	--	8
9	20 A	1	LIGHTING			345	--			SPACE	1	--	10
11	20 A	1	FACP (RED AND LOCKABLE BKR)					1500	--	SPACE	1	--	12
13	20 A	1	SITE LIGHTING	1500	--					SPACE	1	--	14
15	20 A	1	SPARE			0	--			SPACE	1	--	16
17	20 A	1	SPARE					0	--	SPACE	1	--	18
19	20 A	1	SPARE	0	--					SPACE	1	--	20
21	20 A	1	SPARE			0	--			SPACE	1	--	22
23	20 A	1	SPARE					0	--	SPACE	1	--	24
25	20 A	1	SPARE	0	0								26
27	20 A	1	SPARE			0	0			SURGE PROTECTION DEVICE	3	60 A	28
29	20 A	1	SPARE					0	0				30
				3135 VA		1585 VA		1872 VA					
				26 A		13 A		16 A					

NOTES:

PANEL: EM1

VOLTAGE: 120/208 WYE
PHASE: 3
WIRES: 4
A.I.C. RATING: 10,000

MAINS RATING: 600 A
MAINS TYPE: MLO
FED BY: MDP

LOCATION: MECH/ ELEC 111
MOUNTING: SURFACE
RATING: NEMA 1
TOTAL LOAD: 198503 VA

CKT	TRIP	P	CIRCUIT DESCRIPTION	A		B		C		CIRCUIT DESCRIPTION	P	TRIP	CKT
1	20 A	1	RECEPTACLES	180	180					REFRIGERATOR (GFCI BKR)	1	20 A	2
3	20 A	1	RECEPTACLES			180	180			VENDING	1	20 A	4
5	20 A	1	RECEPTACLES					180	180	VENDING	1	20 A	6
7	20 A	1	RECEPTACLES	180	720					RECEPTACLES	1	20 A	8
9	20 A	1	RECEPTACLES			1260	180			RECEPTACLES	1	20 A	10
11	20 A	1	RECEPTACLES					540	540	RECEPTACLES	1	20 A	12
13	20 A	1	RECEPTACLES	360	180					EWC (GFCI BKR)	1	20 A	14
15	20 A	1	RECEPTACLES			360	180			EWC (GFCI BKR)	1	20 A	16
17	20 A	1	RECEPTACLES					360	360	RECEPTACLES	1	20 A	18
19	20 A	1	RECEPTACLES	360	360					RECEPTACLES	1	20 A	20
21	20 A	1	RECEPTACLES			360	360			RECEPTACLES	1	20 A	22
23	20 A	1	RECEPTACLES					360	360	RECEPTACLES	1	20 A	24
25	20 A	1	RECEPTACLES	900	0					SPARE	1	20 A	26
27	20 A	1	RECEPTACLES			720	4083						28
29	20 A	1	RECEPTACLES					720	4083	TU-1	3	35 A	30
31	20 A	1	RECEPTACLES	1080	4083								32
33	20 A	1	RECEPTACLES			1080	1453						34
35	20 A	1	RECEPTACLES					180	1453	TU-2	3	20 A	36
37	20 A	1	RECEPTACLES	180	1453								38
39	20 A	1	MICROWAVE (GFCI BKR)			180	16572						40
41	20 A	1	RECEPTACLES					180	16572	RAC-1	3	175 A	42
43				1453	16572								44
45	20 A	3	TU-3			1453	3432						46
47								1453	3432	DHP/DAH-1	2	35 A	48
49				5344	264					EF-1	1	20 A	50
51	50 A	3	TU-4			5344	360			SERVICE RECPETACLES	1	20 A	52
53								5344	3465				54
55				5956	3465					WH-1	3	40 A	56
57	50 A	3	TU-5			5956	3465						58
59								5956	2005				60
61				11085	2005					BP-1	3	30 A	62
63	125 A	3	ELEVATOR - JH/JH1 SHUNT TRIP BREAKER			11085	2005						64
65								11085	2402	EH-1	2	30 A	66
67	20 A	2	ELEVATOR JHL	1560	2402								68
69						1560	180			RECEPTACLES	1	20 A	70
71	20 A	1	AV					1800	180	RECEPTACLES	1	20 A	72
73	20 A	1	SUMP PUMP	1500	360					RECEPTACLES	1	20 A	74
75	20 A	1	ELEVATOR LIGHTS			180	360			RECEPTACLES	1	20 A	76
77	20 A	1	RECEPTACLES					720	90	RECEPTACLES	2	20 A	78
79	20 A	1	MOTORIZED PROJECTOR...	500	90								80
81	20 A	1	HWCP-1			480	1500			GENERATOR BATTERY...	1	20 A	82
83	20 A	1	EMCS					180	1500	GENERATOR BLOCK HEATER	1	20 A	84
85	20 A	1	RECEPTACLES	360	347								86
87	20 A	1	RECEPTACLES			360	347			SLIDING GATE	3	20 A	88
89	20 A	2	RECEPTACLES					90	347				90
91				90									92
93	20 A	1	RECEPTACLES			360							94
95	20 A	1	RECEPTACLES					360					96
97	20 A	2	RECEPTACLES	90									98
99						90							100
101	20 A	1	RECEPTACLES					360					102
103	20 A	1	RECEPTACLES	360									104
105	20 A	2	RECEPTACLES			90							106
107								90					108
109	20 A	1	RECEPTACLES	360									110
111	20 A	1	RECEPTACLES			360							112
113	20 A	2	RECEPTACLES					90					114
115				90									116
117	20 A	1	RECEPTACLES			360							118
119	20 A	1	RECEPTACLES					360					120
121	20 A	2	RECEPTACLES	90									122
123						90							124
125													126
				64560 VA		66566 VA		67378 VA					
				538 A		557 A		564 A					

NOTES:

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JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

PANELBOARD SCHEDULES

DRAWING NUMBER

E5.02

DESIGN DEVELOPMENT PACKAGE

LEGEND:

DEVICE IDENTIFIER TAGS:

NUMERAL ADJACENT TO DEVICE DENOTES BRANCH CIRCUIT CONNECTION. IDENTIFIER TAGS ADJACENT TO DEVICES INDICATE:

C	MOUNT ABOVE COUNTERTOP OR BACKSPLASH, 9" ABOVE WORK SURFACE TO CENTER
XX"	MOUNT DEVICE AT HEIGHT INDICATED
WP	PROVIDE WEATHER-PROOF COVER
MF	DEVICE INSTALLED IN MODULAR FURNITURE BASE
TV	MOUNT DEVICE AT 84" AFF, ADJACENT TO TV RECEPTACLE
CCTV	MOUNT DEVICE IN WALL AT 9'-0"AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER. MOUNT DEVICE IN CEILING TILE, WHERE CAMERA IS SHOWN IN CEILING MOUNTED.

TELECOMMUNICATIONS:

OUTLETS SHALL BE INSTALLED AT THE SAME HEIGHT AS CORRESPONDING POWER OUTLETS, UNO.

xD	TELECOMMUNICATIONS OUTLET: x DESIGNATES NUMBER OF RJ-45 JACKS FOR DATA, y DESIGNATES NUMBER OF RJ-45 JACKS FOR PHONE & z DESIGNATES NUMBER OF MTRJ TYPE JACK PAIRS OF FIBER
	3'-6"L x 2'-0"W x 7'-0"H EIA/TIA RACK WITH VERTICAL WIRE MANAGEMENT CHANNELS
	CONDUIT SLEEVE: NUMBER & SIZE, 2-4" TYP., UNO
	COMMUNICATION BACKBOARD: 3/4" THICK TYPE AC PLYWOOD, 8' HIGH, LENGTH AS INDICATED
	CEILING MTD. TELECOMMUNICATION JUNCTION BOX
	CEILING MTD. TELECOMMUNICATION JUNCTION BOX AND CONDUIT ROUGH-IN TO NEAREST ACCESSIBLE CEILING

SECURITY & CAMERA SYSTEMS

COORDINATE MOUNTING HEIGHTS, DEVICE LOCATIONS, & POWER/CONTROL REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND SYSTEM INSTALLER.

	CLOSED CIRCUIT TV CAMERA (FIXED): WALL MOUNTED. PROVIDE (1) CAT 6 DROP AT EACH LOCATION.
	CLOSED CIRCUIT DOME TV CAMERA: CEILING MOUNTED. PROVIDE (1) CAT 6 DROP AT EACH LOCATION.

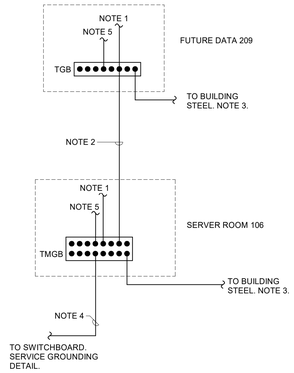
ACCESS CONTROL SYSTEMS

AC	SEE DETAIL 9/T0.02 FOR POWER, POWER DISCONNECT, LOW VOLTAGE CABLING, BOXES AND CONDUIT REQUIREMENTS. REFER TO ARCHITECTURAL PLANS AND DOOR SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
CR	CARD READER

SPEAKER SYSTEM:

COORDINATE MOUNTING HEIGHTS, DEVICE LOCATIONS & POWER/CONTROL REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND SYSTEM INSTALLER.

S S	SPEAKER - SEE DRAWINGS AND SPECIFICATIONS FOR TYPE.



NOTES: (TELECOM GROUNDING & BONDING RISER DIAGRAM)

1. BOND COMMUNICATIONS EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ANSI EIA/TIA 607B GROUNDING AND BONDING STANDARD. BOND RACKS, PROTECTOR MODULES, EQUIPMENT ENCLOSURES, CABLE TRAYS AND METALLIC CONDUITS TO THE TMGB (OR TGB) WITH A MINIMUM OF #6 AWG WITH GREEN THHN INSULATION. REFER TO TBB/GE DISTANCE & SIZING TABLE.
2. TELECOMMUNICATIONS BONDING BACKBONE (TBB). INSTALL PER ANSI EIA/TIA 607-B, SIZE PER TBB/GE TABLE.
3. SIZE BONDING CONDUCTOR TO BUILDING STEEL PER TIA 607-B TBB/GE TABLE ON THIS SHEET.
4. SIZE BONDING CONDUCTOR TO SERVICE ENTRANCE EQUIPMENT GROUND BUS EQUAL TO THE LARGEST TBB CONDUCTOR SIZE USED IN THE BUILDING'S TELECOMMUNICATIONS GROUNDING AND BONDING SYSTEM, PER TIA 607-B TBB/GE TABLE AND RISER DIAGRAM.
5. TELECOMMUNICATIONS BONDING CONDUCTOR TO LOCAL PANELBOARD GROUND BUS. MINIMUM CONDUCTOR SIZE SHALL BE #6 AWG WITH GREEN THHN INSULATION. REFER TO TBB/GE DISTANCE & SIZING TABLE.
6. ALL CONNECTIONS TO TELECOMMUNICATIONS GROUNDING BUS BARS SHALL BE MADE WITH LONG BARREL, TWO-HOLE, COMPRESSION LUGS. MECHANICAL LUGS ARE NOT ACCEPTABLE.
7. PROVIDE A VINYL LABEL FOR EACH CONDUCTOR NOT ORIGINATING IN THE SAME SPACE INDICATING THE PURPOSE AND LOCATION OF THE OTHER END OF THE CONDUCTOR.

TELECOMMUNICATIONS BONDING BACKBONE (TBB) & GROUNDING EQUALIZER (GE) LENGTH VS. SIZE TABLE	
MAXIMUM TBB/GE LENGTH (FEET)	MINIMUM AWG CONDUCTOR
LESS THAN 13 FT.	6
14 - 20 FT.	4
21 - 26 FT.	3
27 - 33 FT.	2
34 - 41 FT.	1
42 - 52 FT.	1/0
53 - 66 FT.	2/0
67 - 84 FT.	3/0
85 - 105 FT.	4/0
106 - 125 FT.	250 kcmil
126 - 150 FT.	300 kcmil
151 - 175 FT.	350 kcmil
176 - 250 FT.	500 kcmil
251 - 300 FT.	600 kcmil
GREATER THAN 301 FT.	750 kcmil

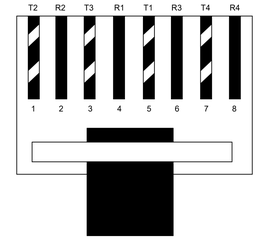
NOTE: ALL CONDUCTORS SHALL HAVE GREEN THHN INSULATION.

1 T0.01 TELECOMMUNICATIONS GROUNDING & BONDING RISER DIAGRAM

SCALE:NOT TO SCALE

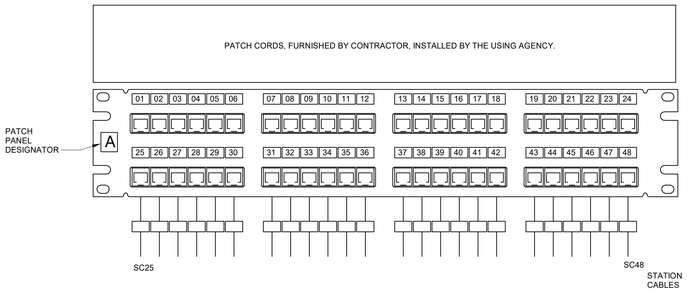
T568-B PINOUT:

1. ORANGE/WHITE
2. ORANGE
3. GREEN/WHITE
4. BLUE
5. BLUE/WHITE
6. GREEN
7. BROWN/WHITE
8. BROWN



2 T0.01 T568-B PINOUT

SCALE:NO SCALE



THIS DETAIL IS NOT INTENDED TO DEFINE OVERALL CABLE QUANTITIES.

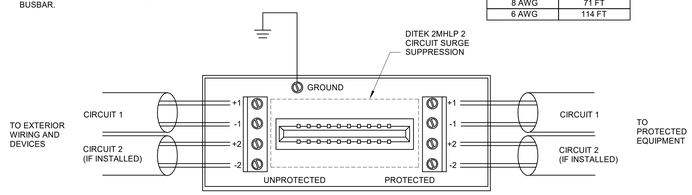
NOTES: (SIGNALING CIRCUIT SURGE PROTECTION DEVICE DETAIL)

A. PROVIDE SURGE PROTECTION DEVICE FOR EACH EXTERIOR LOW VOLTAGE SYSTEMS CIRCUIT.

B. ELECTRICAL CONTRACTOR SHALL PROVIDE GROUNDING CONDUCTOR SIZED PER TABLE FROM SURGE PROTECTION DEVICE LOCATION TO NEAREST INTER-SYSTEM GROUNDING BUSBAR, TELECOMMUNICATIONS GROUNDING BUSBAR, OR PANELBOARD GROUNDING BUSBAR.

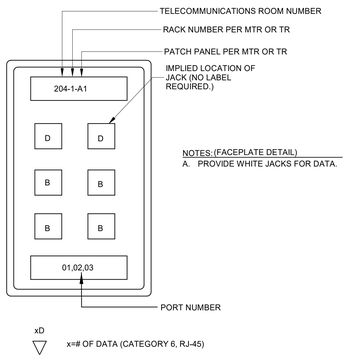
TABLE: GROUNDING CONDUCTOR SIZE

WIRE SIZE	MAX DISTANCE
12 AWG	28 FT
10 AWG	46 FT
8 AWG	71 FT
6 AWG	114 FT



3 T0.01 SIGNALING CIRCUIT SURGE PROTECTION DEVICE

SCALE:NO SCALE



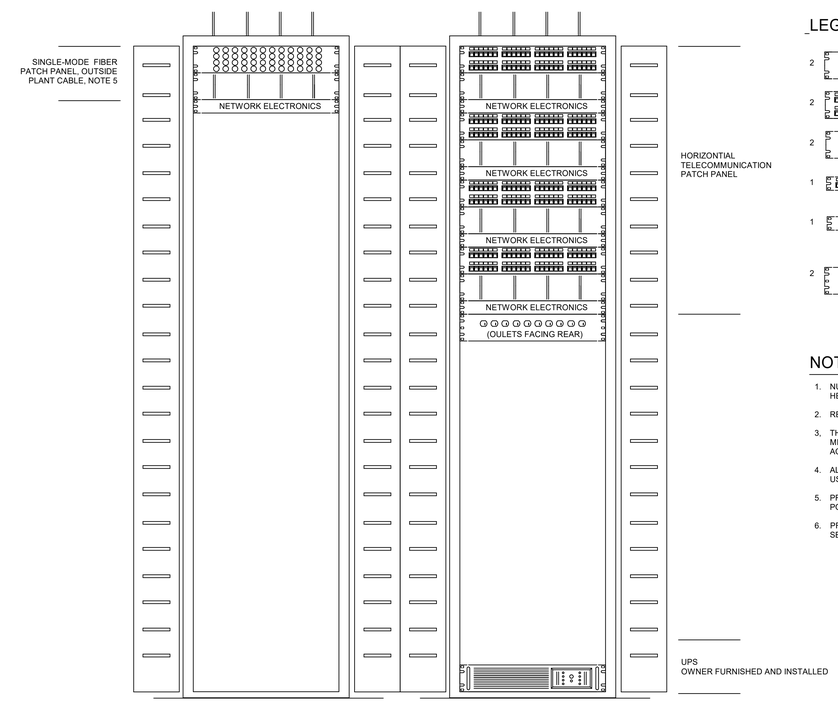
NOTES: (FACEPLATE DETAIL)
A. PROVIDE WHITE JACKS FOR DATA.

5 T0.01 FACEPLATE DETAILS

SCALE:NOT TO SCALE

4 T0.01 LABELS - 48 PORT CAT 6 PATCH PANEL

SCALE:NOT TO SCALE



LEGEND

2	48-PORT FIBER OPTIC PATCH PANEL "LC" CONNECTORS
2	48-PORT CAT 6 PATCH PANEL
2	CABLE MANAGEMENT PANEL
1	24-PORT CAT 6 PATCH PANEL
1	CABLE MANANGEMENT PANEL
2	MULTIOULET STRIP. 10 OUTLETS @ 15A/120V PREWIRED TO A 10' CORE. OVERALL RATING 20A/120V. (OULETS FACING REAR)

NOTES: (RACK ELEVATION LAYOUT DETAIL)

1. NUMERAL SHOWN ADJACENT TO THE LEGEND ITEMS DENOTES HEIGHT IN RACK MOUNTING UNITS, WHERE 1 RMU-1.75".
2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS,
3. THE QUANITY OF COMPONENTS SHOWN IN THE DETAILS IS THE MINIMUM TO BE PROVIDED. IF NECESSARY, INCREASE TO MATCH ACTUAL DEVICE COUNTS.
4. ALL FACEPLATE, PATCH PANELS, AND CABLES SHALL BE LABELED USING LABELING STANDARDS AS DESCRIBED IN SPECIFICATIONS.
5. PROVIDE MODULAR ADAPTOR PANELS W/ LC CONNECTORS (48 PORTS) FOR TERMINATION OF SINGLE MODE CABLE.
6. PROVIDE FLOOR MOUNTED DATA CABINETS PER SPECIFICATIONS. SEE DRAWINGS FOR QUANTITIES.

6 T0.01 RACK ELEVATION LAYOUT

SCALE:NOT TO SCALE

Blairsville UNION COUNTY BELIEVE IT

GEORGIA REGISTERED ARCHITECT Wesley Womack 025624

HUSSEY GAY BELL
Established 1958
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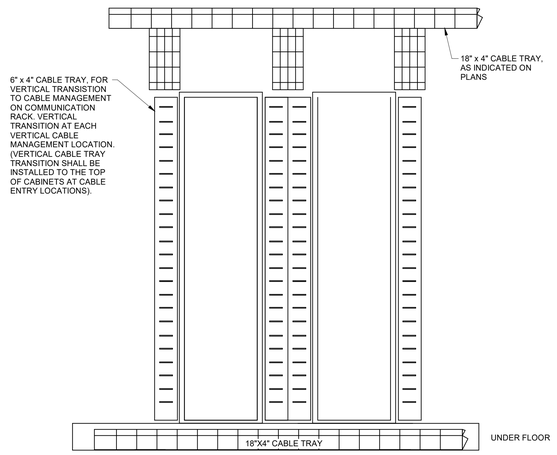
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

TELECOMMUNICIATIONS LEGED & DETAILS

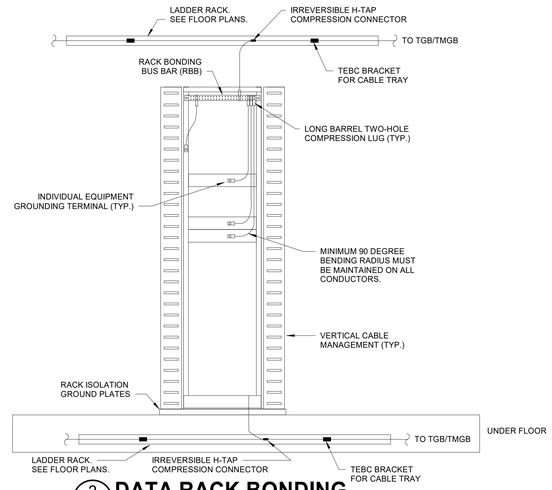
DRAWING NUMBER

T0.01

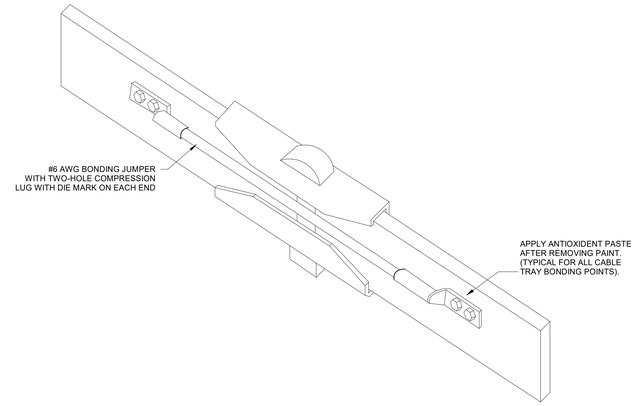
DESIGN DEVELOPMENT PACKAGE



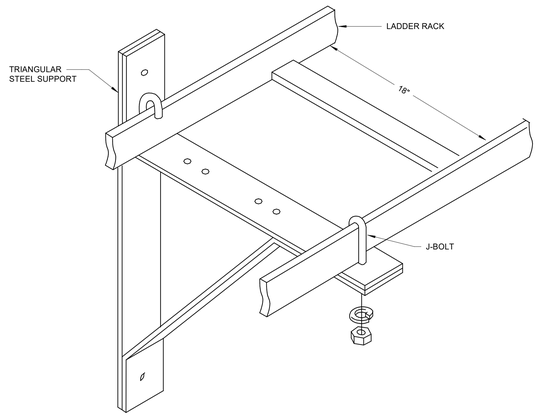
1 T0.02 **RACK/CABLE TRAY DETAIL**
SCALE:NOT TO SCALE



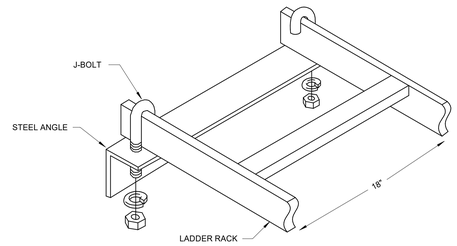
2 T0.02 **DATA RACK BONDING**
SCALE:NO SCALE



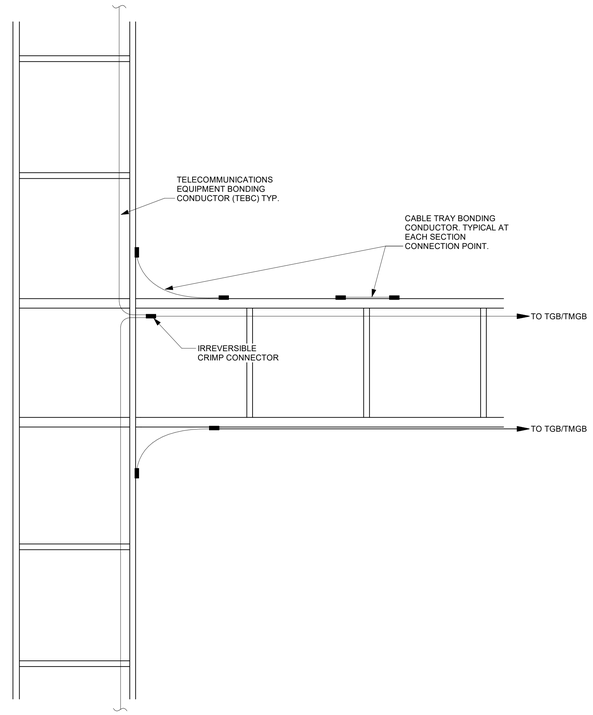
3 T0.02 **CABLE TRAY BONDING JUMPER**
SCALE:NO SCALE



4 T0.02 **LADDER RACK TRIANGULAR WALL SUPPORT**
SCALE:NO SCALE



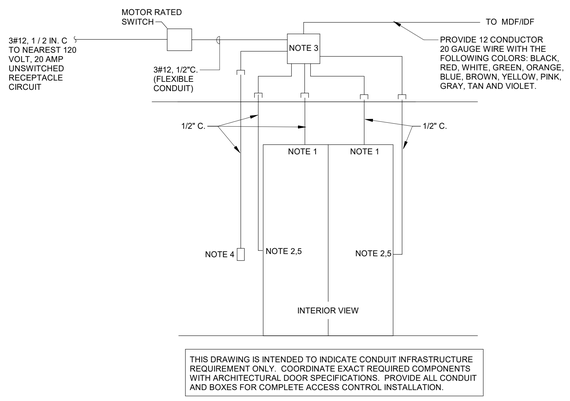
5 T0.02 **LADDER RACK WALL ANGLE SUPPORT**
SCALE:NO SCALE



6 T0.02 **CABLE TRAY/LADDER RACK BONDING**
SCALE:NO SCALE

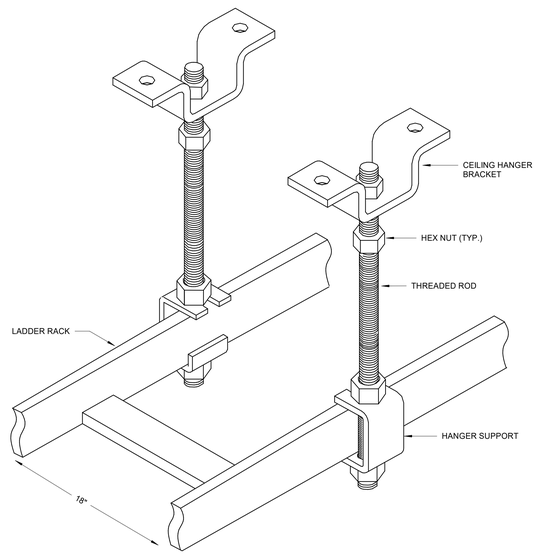
NOTES: (ACCESS CONTROL DETAIL)

1. DOOR POSITION SWITCH
2. CURRENT TRANSFER HINGE
3. POWER SUPPLY
4. CARD READER
5. DELAYED EGRESS SYSTEM - NORMALLY CLOSED FIRE ALARM RELAY REQUIRED, PLUGNPLAY. NORMALLY CLOSED FIRE ALARM RELAY REQUIRED FOR THE DELAYED EGRESS APPLICATION.



THIS DRAWING IS INTENDED TO INDICATE CONDUIT INFRASTRUCTURE REQUIREMENT ONLY. COORDINATE EXACT REQUIRED COMPONENTS WITH ARCHITECTURAL DOOR SPECIFICATIONS. PROVIDE ALL CONDUIT AND BOXES FOR COMPLETE ACCESS CONTROL INSTALLATION.

8 T0.02 **ACCESS CONTROL DOOR DETAIL**
SCALE:NOT TO SCALE



7 T0.02 **LADDER RACK CEILING SUPPORT**
SCALE:NO SCALE

DESIGN DEVELOPMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

GEORGIA REGISTERED ARCHITECT Wesley Womack 12/06/24 WESLEY O. WOMACK

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

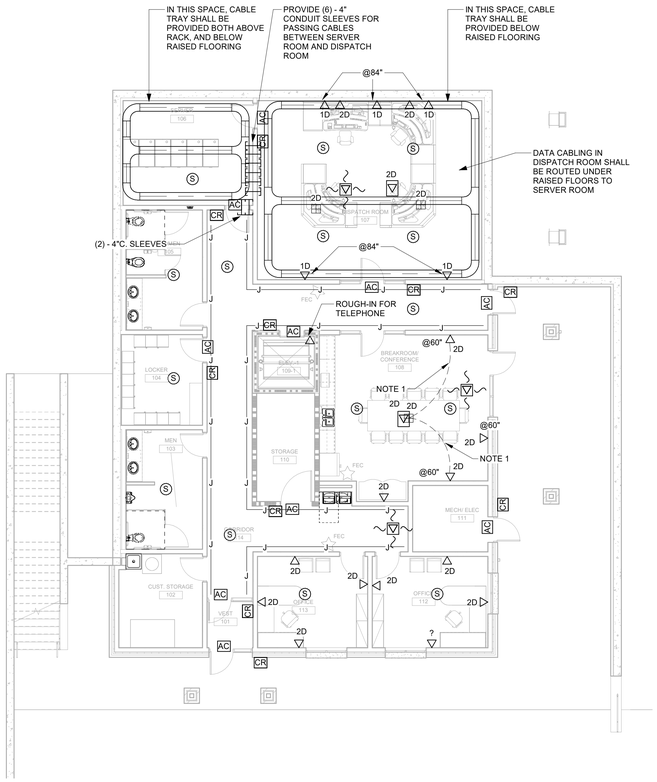
JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

TELECOMMUNICATIONS DETAILS

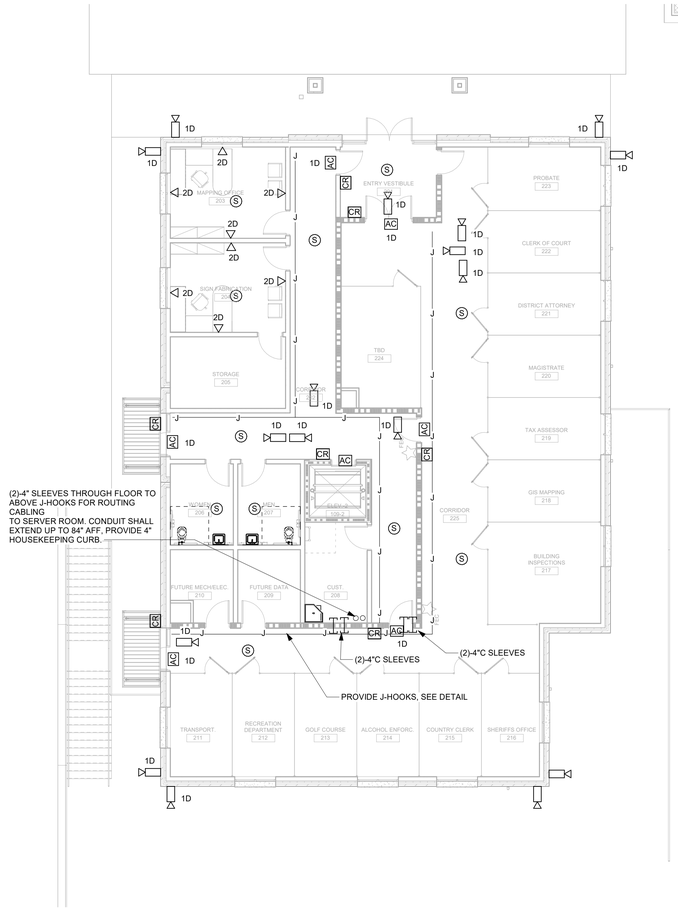
DRAWING NUMBER

T0.02



1 T1.01 TELECOMMUNICATIONS PLAN - LEVEL 1

SCALE: 1/8" = 1'-0"



2 T1.01 TELECOMMUNICATIONS PLAN - LEVEL 2

SCALE: 1/8" = 1'-0"

NOTES: (J-HOOK DETAIL)

A. ALL J-HOOKS SHALL BE SPACED NO MORE THAN 48 INCHES APART AND NO MORE THAN 12 INCHES FROM THE CORNER OF ANY SPACE.

B. PROVIDE J-HOOKS NO MORE THAN 12 INCHES AWAY FROM CONDUIT SLEEVES.

C. WHERE J-HOOKS ARE 2 OR MORE ROWS: SPACING BETWEEN THE ROWS SHALL BE 12 INCHES.

D. CONDUIT SLEEVES SHALL BE AT THE SAME LEVEL AS THE ROWS OF J-HOOKS.

E. FIRE SEAL AROUND ALL CONDUIT SLEEVES AS SHOWN IN CONDUIT PENETRATION DETAILS. SEE ARCHITECTURAL SHEET REQUIRED RATINGS.

F. COORDINATE THE EXACT LEVEL OF J-HOOKS AND CONDUIT SLEEVES WITH OTHER TRADES PRIOR TO ROUGH-IN.

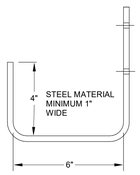
G. J-HOOKS SHALL NOT BE SUPPORTED BY GYPSUM WALL BOARD. J-HOOKS SHALL BE SUPPORTED BY BLOCK WALL OR STUD. SEE ARCHITECTURAL PLAN FOR WALL MATERIALS.

H. ALL CABLING SHALL BE NEATLY BUNDLED UTILIZING VELCRO TIE WRAPS AT MINIMUM 5' INTERVALS.

I. J-HOOKS SHALL SUPPORT CABLING FOR: INTERCOM, DATA, TELEPHONE, CCTV, INTRUSION AND TELEVISION DISTRIBUTION.

J. J-HOOKS SHALL SUPPORT A SINGLE SYSTEM - CABLING SHALL NOT BE INTERMINGLED.

K. PROVIDE QUANTITY OF J-HOOKS AS REQUIRED FOR CABLING NOTED ON DRAWINGS, DO NOT EXCEED J-HOOK CAPACITY.



3 T1.01 J-HOOK DETAIL

SCALE:NOT TO SCALE

NOTES:

1. EXTEND 1-1/4"C. W/ PULL STRING FROM FLOOR BOX, UP WALL AND INTO BOTTOM OF TELECOMMUNICATIONS OUTLET FOR FUTURE AV CABLES.

DESIGN DEVELOPMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT!

GEORGIA REGISTERED PROFESSIONAL ENGINEER Wesley Woodward 12/06/24

HUSSEY GAY BELL

Established 1958

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REVISIONS:

DESIGNED	DRAWN	CHECKED
Designer	HJC	WOW

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

FLOOR PLAN - TELECOMMUNICATION SYSTEMS

DRAWING NUMBER

T1.01

PLUMBING FIXTURE SCHEDULE

ITEM	DESCRIPTION	MINIMUM CONNECTION SIZE (INCHES)				MOUNTING HEIGHT REMARKS (ABOVE FLOOR)
		HOT WATER	COLD WATER	WASTE	VENT	
P-1A	WATER CLOSET	---	1"	3"	1-1/2"	15" RIM HT.
P-1B	WATER CLOSET - H.C.	---	1"	3"	1-1/2"	18" RIM HT.
P-2	URINAL - H.C.	---	3/4"	2"	1-1/2"	17" RIM HT.
P-3A	LAVATORY - H.C.	1/2"	1/2"	1-1/4"	1-1/2"	DROP-IN COUNTERTOP / SINGLE LEVER FAUCET
P-3B	LAVATORY - H.C.	1/2"	1/2"	1-1/4"	1-1/2"	34" RIM HT. / SINGLE LEVER FAUCET
P-4	MOP SINK	1/2"	1/2"	3"	1-1/2"	FLOOR MTD. / 36" FAUCET HT.
P-5	BREAKROOM SINK	1/2"	1/2"	1-1/2"	1-1/2"	COUNTERTOP
P-6	CONDENSATE BOX	---	---	2"	1-1/2"	42" BOX HT.
EWC-1	BILEVEL ELECTRIC WATER COOLER - H.C.	---	1/2"	1-1/2"	1-1/2"	42" & 34" ORIFICE HTS.

DOMESTIC WATER HEATER SCHEDULE

ITEM	CAPACITY	RECOVERY RATE	FIRST HOUR RATING	FUEL	ELECTRICAL CHARACTERISTICS	LOCATION	REMARKS
WH-1	40 GALLONS STORAGE 6.0 KW INPUT	24 GPH @ 100°F RISE	---	ELEC.	SEE ELECTRICAL DWGS.	CUST. STORAGE 102	NON-SIMULTANEOUS ELEMENTS ---

HAMMER ARRESTOR SCHEDULE

ITEM	PDI UNIT	FIXTURE UNIT
HA	A	1-11
HA	B	12-32

PUMP SCHEDULE

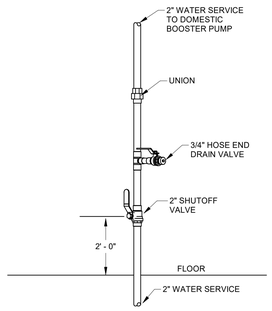
PUMP No.	SERVICE	HP	GPM	DISCH HEAD (FT)	WATER HEATER	ELECTRICAL DATA	REMARKS
BP-1	DOMESTIC WATER BOOSTER	5	60	162	---	SEE ELECTRICAL DWGS.	VARIABLE SPEED DUPLEX PUMPS
HWCP-1	HOT WATER CIRCULATION	1/3	2.0	10	WH-1	SEE ELECTRICAL DWGS.	CONTROLLED BY AQUASTAT
SP-1	SUMP PUMP	1/2	50	14	---	SEE ELECTRICAL DWGS.	ELEVATOR SUMP PUMP W/ OIL MONITORING SYSTEM

GENERAL PLUMBING NOTES

1. ALL SITE UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. VERIFY EXACT LOCATION AND INVERT ELEVATION IN FIELD BEFORE BEGINNING WORK.
2. ALL SUSPENDED PIPING SHALL BE SUPPORTED FROM FLOOR AND/OR ROOF STRUCTURAL MEMBERS. IN NO CASE SHALL PIPING BE SUSPENDED FROM FLOOR OR ROOF DECK LESS THAN 4" THICK CONCRETE.
3. FIRE STOP ALL PENETRATIONS OF FIRE RATED ASSEMBLIES. REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY RATINGS.
4. PIPING INSTALLED IN PLENUM SPACES SHALL MEET ASTM E-84, ASTM E-136, AND UL 723 STANDARDS FOR FLAME SPREAD AND SMOKE GENERATION. COORDINATE PLENUM LOCATIONS WITH MECHANICAL CONTRACTOR.
5. COORDINATE ALL WORK WITH OTHER TRADES.
6. PROVIDE INLINE TRAP SEAL DEVICES ON ALL FLOOR DRAINS NOT PROVIDED WITH TRAP PRIMERS.
7. PROVIDE DRAIN VALVES AT ALL LOW POINTS IN ALL WATER PIPING SYSTEMS.
8. PIPING FROM TRAP PRIMERS TO DRAINS INSTALLED BELOW FLOOR SLAB SHALL BE TYPE L SOFT COPPER TUBING WITH NO JOINTS BELOW THE SLAB.
9. ALL WATER, VENT, STORM, OVERFLOW, COMPRESSED AIR, AND GAS PIPING SHALL BE INSTALLED ABOVE THE CEILING UNLESS NOTED OTHERWISE.
10. ALL SOIL AND WASTE PIPING SHALL BE INSTALLED BELOW THE FLOOR UNLESS NOTED OTHERWISE.
11. PROVIDE CLEANOUTS AT THE BASE OF ALL STORM DRAIN RISERS AND ALL SOIL AND WASTE PIPING OVER ONE STORY IN HEIGHT. ALL WALL CLEANOUTS SHALL BE INSTALLED AT 18" ABOVE FINISHED FLOOR.
12. WALL HYDRANTS SHALL BE MOUNTED 1' - 6" ABOVE FINISHED GRADE.
13. HOSE BIBS SHALL BE MOUNTED 1' - 6" ABOVE FINISHED FLOOR.
14. LOCATE ALL DRAINAGE PIPING AND CLEANOUTS CENTERED IN CORRIDORS UNLESS NOTED OTHERWISE. COORDINATE THE LOCATIONS OF CLEANOUTS WITH FLOOR PATTERN. ALL CLEANOUTS AT THE EXIT OF CORRIDORS SHALL BE TWO-WAY CLEANOUTS.
15. ROUTE DRAIN AND HOT WATER SUPPLY PIPING TO UNDERCOUNTER DISHWASHERS FROM ADJACENT SINKS.
16. ALL VENT TERMINALS SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ANY DOOR, OPERABLE WINDOW, OR FRESH AIR INTAKE.
17. WHERE MOUNTING HEIGHTS OF FIXTURES CONFLICT WITH THE FIXTURE HEIGHTS ON THE ARCHITECTURAL DRAWINGS, THE HEIGHTS SHOWN ON THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE.

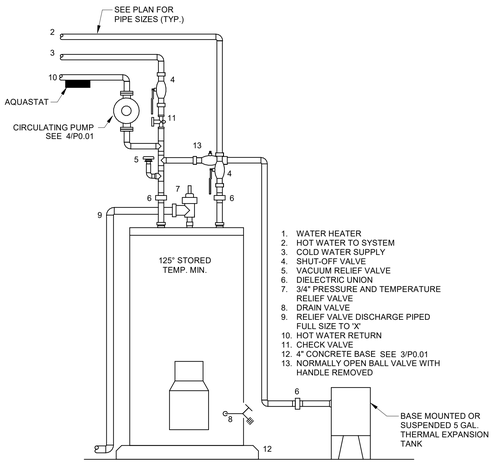
PLUMBING LEGEND

ABBREVIATION	SYMBOL	DESCRIPTION
HWR		HOT WATER RETURN PIPING
H		HOT WATER PIPING
C		COLD WATER PIPING
G	G	GAS PIPING
CA	CA	COMPRESSED AIR PIPING
ST	ST	STORM DRAIN PIPING (ABOVE GROUND)
ST	ST	STORM DRAIN PIPING (BELOW GROUND)
OF	OF	OVERFLOW DRAIN PIPING
W		SOIL AND WASTE PIPING
V		VENT PIPING
GW	GW	GREASE WASTE DRAIN PIPING
		SOLENOID VALVE
		SHUTOFF VALVE
		CHECK VALVE
		THERMOSTATIC BALANCING VALVE
HB/E		HOSE BIB (WALL BOX) FREEZE PROOF
HB/B		HOSE BIB (WALL BOX) NON-FREEZE PROOF
HB/R		ROOF HYDRANT FREEZE PROOF
HB/I		HOSE BIB (INTERIOR)
WCO		WALL CLEANOUT
FCO		FLOOR CLEANOUT
GCO		GRADE CLEANOUT
RD-*		ROOF DRAIN - TYPE
FD-*		FLOOR DRAIN - TYPE
FS-*		FLOOR SINK - TYPE
DSN		DOWNSPOUT NOZZLE
HA-*		WATER HAMMER ARRESTER - TYPE
		CONNECT TO EXISTING
VTR		VENT THROUGH ROOF
VTS		VENT THROUGH SIDEWALL
HWCP	HW	HOT WATER RECIRCULATING PUMP
WH		WATER HEATER
AC		AIR COMPRESSOR
RAD		REFRIGERATED AIR DRYER
AFF		ABOVE FINISHED FLOOR
AFG		ABOVE FINISHED GRADE
B/F		BELOW FLOOR
A/C		ABOVE CEILING
U/G		UNDER GROUND
I.E.		INVERT ELEVATION
GPM		GALLONS PER MINUTE
GPH		GALLONS PER HOUR
TYP.		TYPICAL
T-P		TRAP PRIMER
PSI		POUNDS PER SQUARE INCH
CFH		CUBIC FEET PER HOUR
W.C.		WATER COLUMN
ARCH.		ARCHITECTURAL
DWGS.		DRAWINGS



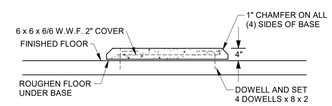
NOTE: DRAIN VALVE IS PROVIDED FOR DRAINING OF THE DOMESTIC WATER SYSTEM FOR MAINTENANCE AND / OR REPAIRS ONLY.

1 P0.01 WATER SERVICE RISER DETAIL
NOT TO SCALE



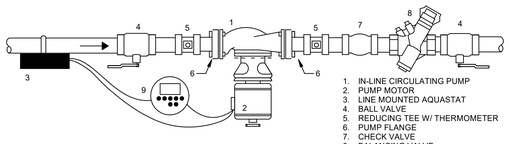
1. WATER HEATER
2. HOT WATER TO SYSTEM
3. COLD WATER SUPPLY
4. SHUT-OFF VALVE
5. VACUUM RELIEF VALVE
6. DIELECTRIC UNION
7. 3/4" PRESSURE AND TEMPERATURE RELIEF VALVE
8. DRAIN VALVE
9. RELIEF VALVE DISCHARGE PIPED FULL SIZE TO 'X'
10. HOT WATER RETURN
11. CHECK VALVE
12. 4" CONCRETE BASE SEE 3/P0.01
13. NORMALLY OPEN BALL VALVE WITH HANDLE REMOVED

2 P0.01 ELECTRIC WATER HEATER DETAIL
NOT TO SCALE



NOTE:
CONCRETE BASE SHALL BE 3" LARGER ALL AROUND THAN THE BASE OF EQUIPMENT BEING SUPPORTED. 4" HIGH BASE SHALL BE PROVIDED FOR 'WH-1 AND BP-1'.

3 P0.01 4" HIGH CONCRETE BASE
NOT TO SCALE

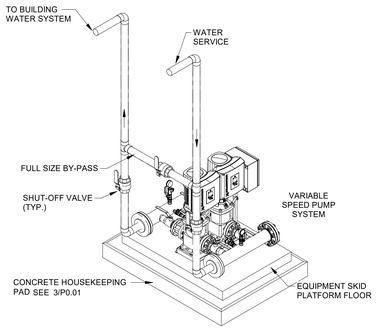


NOTES:
1. THERMOMETERS SHALL BE INSTALLED IN THE VERTICAL POSITION TO BE ABLE TO BE READ FROM THE FLOOR LEVEL OR FROM A LADDER.
2. CIRCULATING PUMPS CONTROLLED BY AQUASTATS, INSTALL AQUASTAT ON AN UNINSULATED SECTION OF PIPING MINIMUM 12" IN LENGTH.
3. INSTALL ALL PIPING ACCESSORIES IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.

1. IN-LINE CIRCULATING PUMP
2. PUMP MOTOR
3. LINE MOUNTED AQUASTAT
4. BALL VALVE
5. REDUCING TEE W/ THERMOMETER
6. PUMP FLANGE
7. CHECK VALVE
8. BALANCING VALVE
9. AQUASTAT TIMER

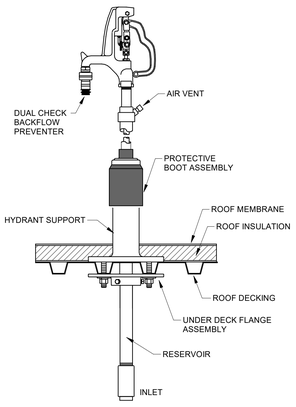
PUMP CONTROLS		
PUMP NO.	PUMP ON	PUMP OFF
HWCP-1	115° F	125° F

4 P0.01 IN-LINE CIRCULATING PUMP
NOT TO SCALE

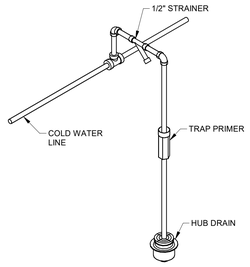


NOTE: SEE PLANS FOR SUCTION AND DISCHARGE SIZES

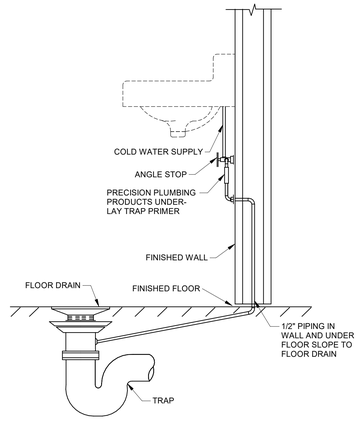
5 P0.01 DOMESTIC BOOSTER PUMP DETAIL
NOT TO SCALE



6 P0.01 ROOF HYDRANT DETAIL
NOT TO SCALE



7 P0.01 TRAP PRIMER DETAIL
NOT TO SCALE



8 P0.01 FD TRAP PRIMER TYPICAL INSTALLATION DETAIL
NOT TO SCALE

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

ROBERT E. LEFORD GEORGIA No. 36840 PROFESSIONAL ENGINEER

HUSSEY GAY BELL
Established 1958
3100 Brockinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
REL	REL	TAB

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

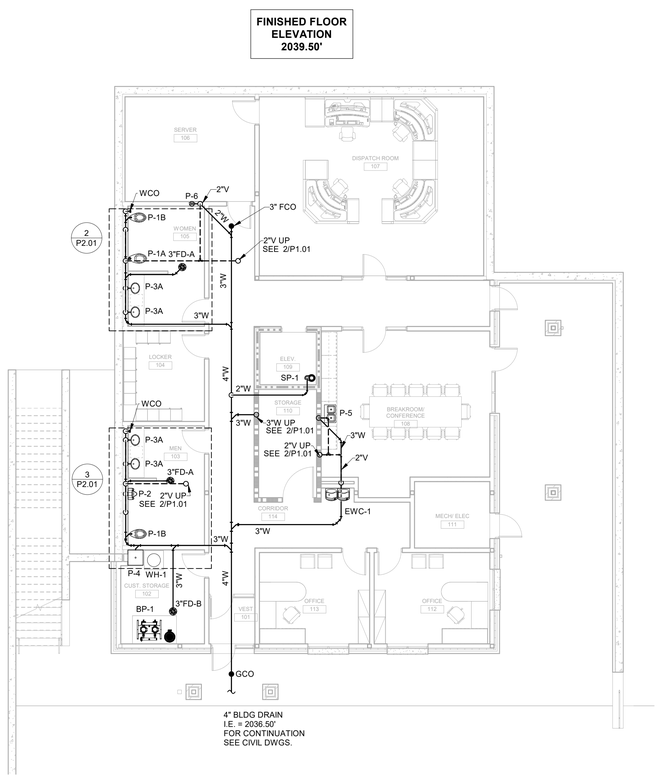
PLUMBING LEGEND & SCHEDULES

DRAWING NUMBER

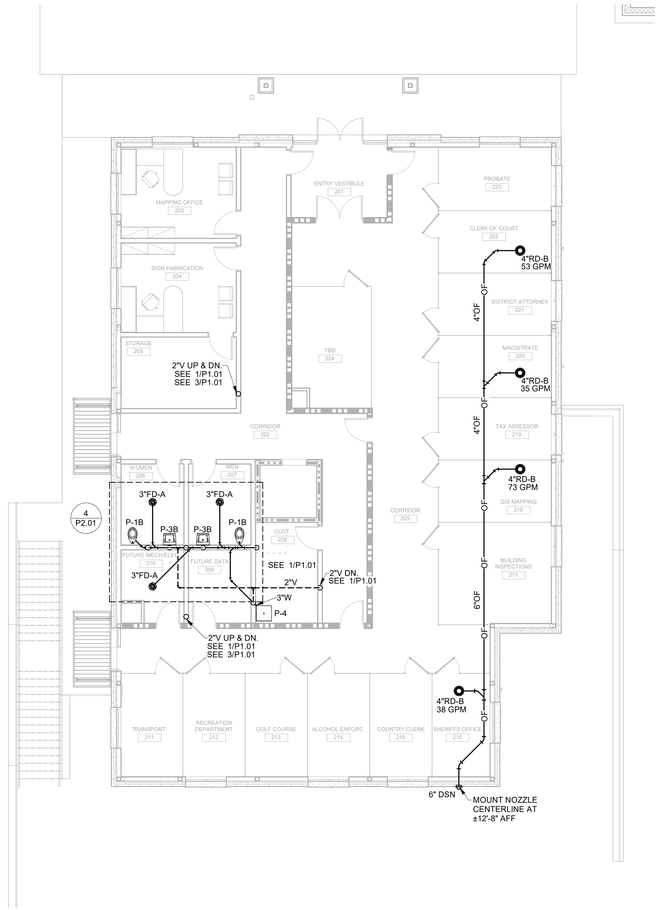
P0.01

GEORGIA DULOHERY, WEEKS & GAGLIANO, INC. No. PEF000182 EXP. 6/30/26 CERTIFICATE OF AUTHORIZATION

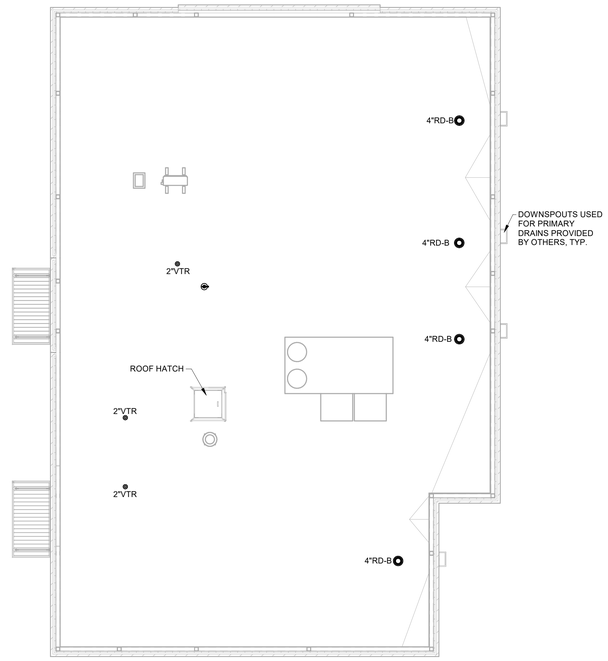
DW DULOHERY WEEKS ENGINEERS



1 DRAINAGE & VENT PLAN - LEVEL 1
P1.01 SCALE: 1/8" = 1'-0"



2 DRAINAGE & VENT PLAN - LEVEL 2
P1.01 SCALE: 1/8" = 1'-0"



3 DRAINAGE & VENT PLAN - ROOF
P1.01 SCALE: 1/8" = 1'-0"

GEORGIA
DULOHERY, WEEKS & GAGLIANO, INC.
No. PEF000182
EXP. 6/30/26
CERTIFICATE OF AUTHORIZATION

DULOHERY WEEKS ENGINEERS

CONSTRUCTION DOCUMENT PACKAGE

Blairsville UNION COUNTY BELIEVE IT

ROBERT E. LAFOND
No. 36640
PROFESSIONAL
12/16/24
ENGINEER

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REVISIONS:

DESIGNED	DRAWN	CHECKED
REL	REL	TAB

DATE: 12/06/2024

JOB NO. 624 1109 01

NEW 911 CENTER FOR UNION COUNTY
UNION COUNTY
507 SHOE FACTORY RD, BLAIRSVILLE, GA 30512

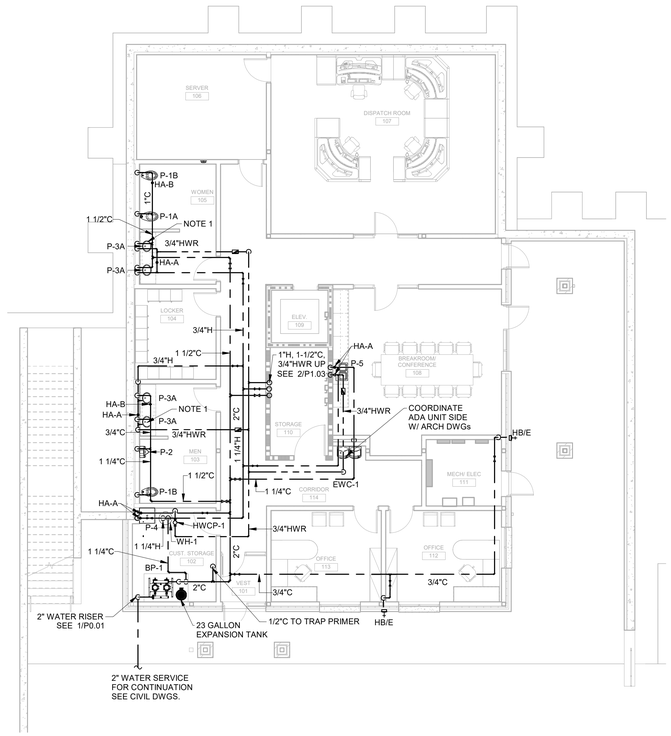
DRAINAGE & VENT PLANS

DRAWING NUMBER

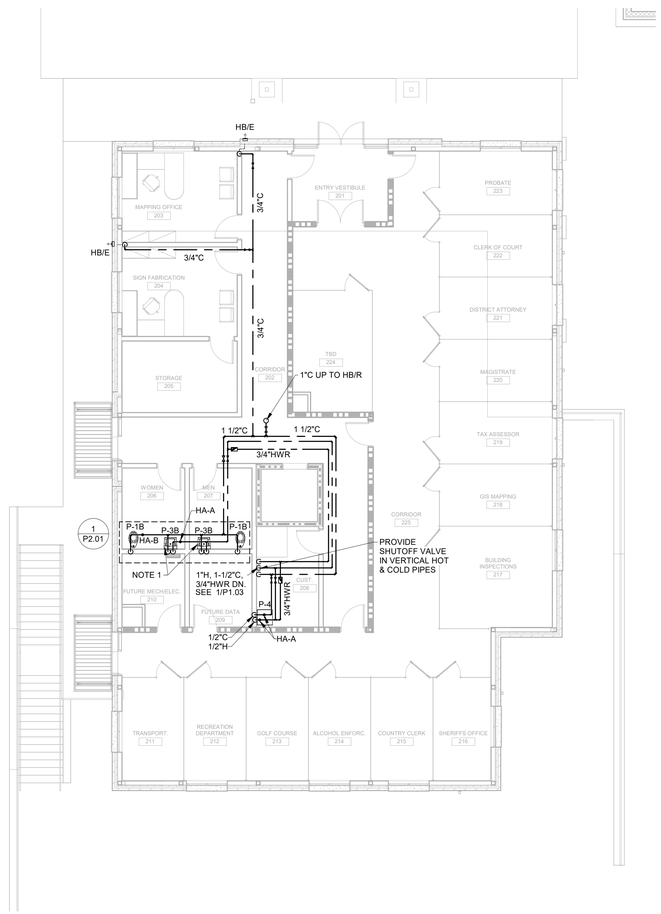
P1.01

SHEET NOTES

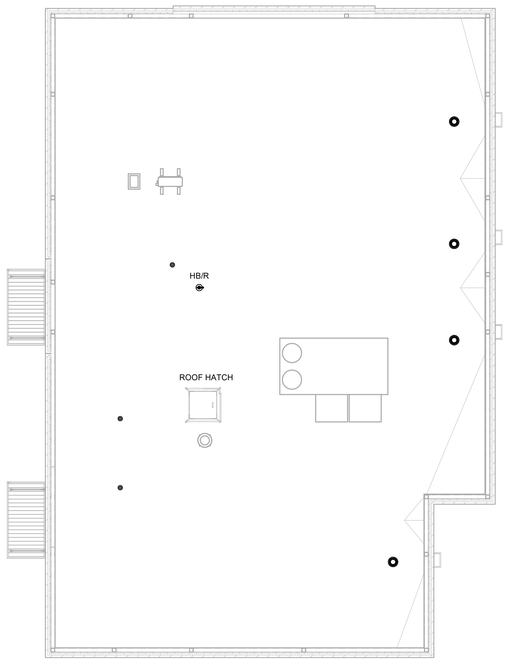
1. PROVIDE TRAP PRIMER CONNECTION THIS LAVATORY. SEE 8/P0.01



1 P1.03 **HOT & COLD WATER PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"



2 P1.03 **HOT & COLD WATER PLAN - LEVEL 2**
SCALE: 1/8" = 1'-0"



3 P1.03 **HOT & COLD WATER PLAN - ROOF**
SCALE: 1/8" = 1'-0"

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CERTIFICATE OF AUTHORIZATION

DULOHERY WEEKS ENGINEERS

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Blairsville UNION COUNTY GEORGIA

GEORGIA
No. 36640
PROFESSIONAL
12/6/24
ENGINEER
ROBERT E. LAFOND

HUSSEY GAY BELL
Established 1958
3100 Breckinridge Blvd., Building 300, Duluth, Georgia 30096 T: 770.923.1600

REVISIONS:

DESIGNED	DRAWN	CHECKED
REL	REL	TAB

DATE: 12/06/2024

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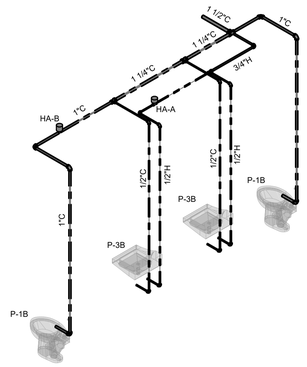
HOT & COLD WATER PLANS

DRAWING NUMBER

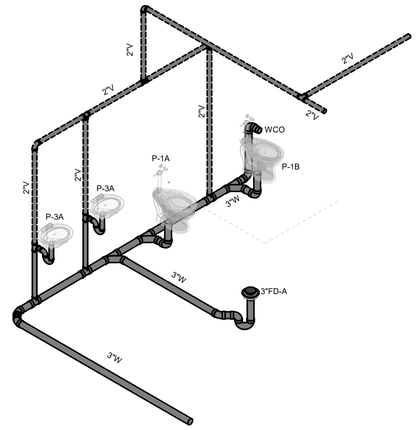
P1.03

SHEET NOTES

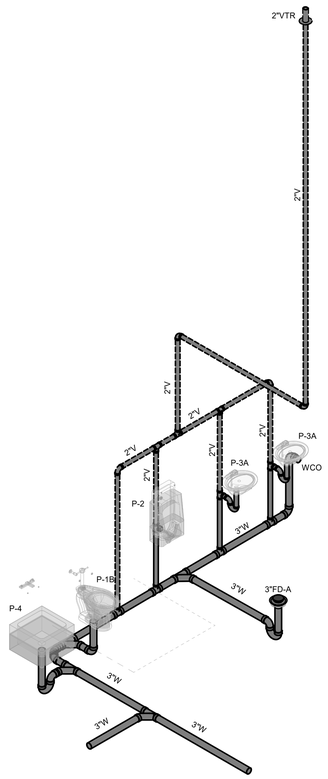
1. ALL VENT PIPING SHALL BE 2" IN SIZE UNLESS NOTED OTHERWISE.



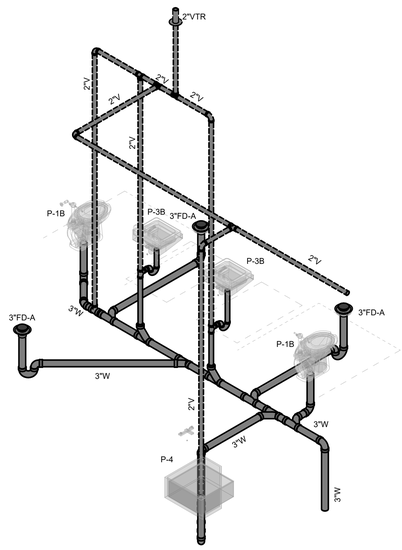
1 P2.01 **WATER RISER 1**
SCALE:



2 P2.01 **DRAINAGE & VENT RISER 1**
SCALE:



3 P2.01 **DRAINAGE & VENT RISER 2**
SCALE:



4 P2.01 **DRAINAGE & VENT RISER 3**
SCALE:

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PLUMBING RISER DIAGRAMS

DRAWING NUMBER

P2.01