ABBREVIATIONS

ACOUST.	ACOUSTIC
ADJ.	ADJACENT
A.F.F.	ABOVE FINISH FLOOR
ALT.	ALTERNATE
ALUM.	ALUMINUM
ARCH.	ARCHITECTURAL
A.V.S.	ACID VENT STACK
B/BRG	BEAM BEARING
BRG	BEARING
B/FTG	BOTTOM OF FOOTING
BOT.	BOTTOM
C.B.	CATCH BASIN
C.L.	CENTER LINE
CLG.	CEILING
COMP.	COMPACTED
CMU	CONCRETE MASONRY UNIT
CONC.	CONCRETE
CONT.	CONTINUOUS
COORD.	COORDINATE
CW.	COLD WATER
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
DISP	DISPENSER
DN.	DOWN
D.S	DOWNSPOUT
DWG.	DRAWING
EA.	EACH
E.C.	ELECTRICAL CONTRACTOR
E.J.	EXPANSION JOINT
E/S	EACH SIDE
ELEC.	ELECTRIC
ELEM.	ELEMENTARY
ELEV. (EL.)	ELEVATION
EQ.	EQUAL
EXP.	EXPANSION
EXT.	EXISTING
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F/FLR	FINISH FLOOR
FIN.	FINISH
FL.	FLOOR
FND.	FOUNDATION
F.R.	FIRE RATED
FT.	FEET
GA.	GAUGE
GAL./GALV.	GALVANIZED
G.C.	GENERAL CONTRACTOR
H.C.	HANDICAP
H.R.	HOUR
HORIZ.	HORIZONTAL
H.M.	HOLLOW METAL
HW.	HOT WATER
IN/IN	INSIDE TO INSIDE
INSUL.	INSULATION
INV.	INVERT
I.R.	IMPACT RESISTANT
MANUF.	MANUFACTURED
MAX.	MAXIMUM
M.C.	MECHANICAL CONTRACTOR
MIN.	MINIMUM
M.O.	MASONARY OPENING
MTL.	METAL
N.I.C	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTER DIAMETER
O/O	OUTSIDE TO OUTSIDE
OPP.	OPPOSITE HAND
P.C.	PLUMBING CONTRACTOR
PL. (PLT)	PLATE
POLY.	POLYISOCYANURATE
PREFAB.	PREFABRICATED
RAD.	RADIUS
REINF.	REINFORCED
REQD.	REQUIRED
RM.	ROOM
SHT.	SHEET
SIM.	SIMILAR
SL. (SLP.)	SLOPE
SQ.	SQUARE
STL.	STEEL
STP. FTG.	STEP FOOTING
STRUCT.	STRUCTURE
T&B	TOP AND BOTTOM
TEMP.	TEMPERED
T/FTG.	TOP OF FOOTING
THK.	THICK
T/ST.	TOP OF STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.S.	VENT STACK
WD.	WOOD
W.W.F.	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT

ALTERNATES

1) SITE IRRIGATION
2) SITE MEMORIAL
3) DIGITAL SIGNAGE
4) EPOXY FLOORING IN APPARATUS BAY
5) RIVER ROCK
6) STAINLESS STEEL COUNTERTOP IN KITCHEN 117
7) QUARTZ COUNTERTOP IN KITCHEN 117
8) APPARATUS BAY AIR PURIFIERS
9) INTEGRAL BLINDS IN WINDOWS
10) PERGOLA
11) CONCRETE PAVING
12) DIESEL GENERATOR

CONSTRUCTION DOCUMENTS

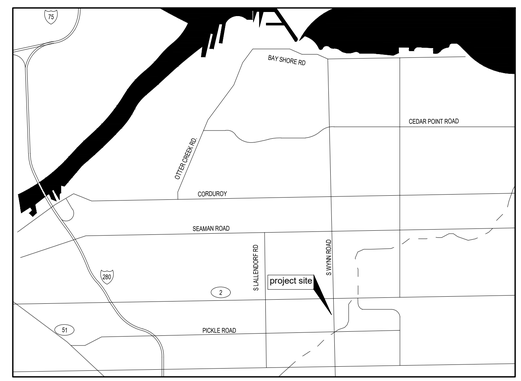
NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD

OREGON, OHIO

VICINITY MAP

NORTH

SCALE: N.T.S.



LOCATION MAP

NORTH

SCALE: N.T.S.

GENERAL NOTES

1. ALL CONTRACTORS TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE BEFORE WORK IS STARTED. INFORMATION ON THESE DRAWINGS ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTORS FOR BIDDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER NOTIFICATION OF ALL DISCREPANCIES. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. ALL DIMENSIONS ARE FROM FACE OF DRYWALL WALL UNLESS NOTED OTHERWISE.
3. PROVIDE ANY EXTRA MISC. STRUCTURE AND FASTENERS NEEDED TO SUPPORT ALL FIXTURES, EQUIPMENT, WALL AND CEILING PANELS, ETC.
4. CAULK THE TOP OF ALL FLOOR SLAB ISOLATION, EXPANSION, OR CONSTRUCTION JOINTS.
5. DO NOT DISASSEMBLE THIS SET. COVER SHEET IS A MASTER INDEX, SYMBOLS AND OTHER ITEMS MAY BE INCLUDED ON ADDITIONAL SHEETS.
6. GENERAL CONTRACTOR TO PROVIDE DUMPSTER AND DISPOSE OF ALL WASTE ASSOCIATED WITH THIS PROJECT UNLESS NOTED OTHERWISE ON THESE DRAWINGS.
7. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH STANDARDS OF BEST PRACTICE BY WORKERS SKILLED IN THEIR RESPECTIVE TRADES.
8. THESE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND THE TYPE OF STRUCTURAL, MECHANICAL, ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
9. PROVIDE DRYWALL CONTROL JOINTS AT A MAXIMUM SPACING OF 30'-0" IN ANY DIRECTION, AND AT ALL JAMB STUDS AT ALL OPENINGS (TYP.)
10. QUANTITIES ON THESE DRAWINGS ARE SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR TO FIELD VERIFY ALL QUANTITIES AND DIMENSIONS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.
11. COORDINATE PLUMBING ROUGH-INS, SINK SIZES & LOCATION OF SINKS W/ CABINET INSTALLER.
12. COORD. W/ MECHANICAL SUBCONTRACTOR AND PROVIDE ALL MECH. OPENINGS IN STUD WALLS (W/ STRUCT. HEADERS AS REQUIRED), JOISTS, MASONRY WALLS, ETC.
13. ALL MECH. GRILLS ARE TO BE PAINTED.
14. ALL DRYWALL SOFFITS & BULKHEADS ARE TO BE PAINTED.
15. CONTRACTOR TO SEAL ALL UTILITY PENETRATIONS THROUGH WALLS.
16. NO EXPOSED SURFACE MOUNTED CONDUIT, RACEWAYS, ETC. ARE TO BE UTILIZED ON THIS PROJECT. ALL RUNS SHALL BE CONCEALED WITHIN WALL.
17. DO NOT SCALE OFF DRAWINGS FOR MATERIAL TAKE OFFS, ETC. USE ONLY DIMENSIONS SHOWN.
18. ALL NOTES ON ARCHITECTURAL DRAWINGS REFER TO NEW CONSTRUCTION OR MATERIALS. EXISTING MATERIALS AND CONSTRUCTION ARE SPECIFICALLY CALLED OUT AS EXISTING.
19. PROVIDE ALL 2x F.T. BLOCKING IN WALLS FOR ALL ITEMS SUCH AS BUT NOT LIMITED TO TECH CABINETS, PLYWOOD, ETC. G.C. TO COORDINATE LOCATION OF BLOCKING W/ OWNER.
20. ALL NEW WALLS ARE TO BE SECURELY BRACED TO STRUCTURE ABOVE FOR SUPPORT.
21. DOOR AND WINDOW OPENINGS SHOWN ARE SIZES OF DOORS AND WINDOWS. CONTRACTOR IS TO DETERMINE SIZE OF REQUIRED ROUGH OPENING. VERIFY ROUGH OPENING WITH MANUFACTURE.
22. PROVIDE ALL OPENINGS INCLUDING REQUIRED STRUCTURAL LINTELS IN ALL WALLS AS REQUIRED TO FACILITATE UTILITIES INCLUDING BUT NOT LIMITED TO DUCTWORK, CONDUIT, WIRE TRAYS, ETC. COORDINATE WITH ALL TRADES AS REQUIRED.
23. SLOPE ALL EXTERIOR CONCRETE AWAY FROM THE BUILDING A MAXIMUM OF $\frac{1}{4}$" PER 12".
24. TAPE ALL SEAMS AND PENETRATIONS IN VAPOR BARRIER AND AIR BARRIER.
25. ALL EXTERIOR CONCRETE STOOPS SHALL CONFORM TO ADA REQUIREMENTS.

REVISION KEY

SYMBOL	DATE	DESCRIPTION
△	-	-

LIST OF DRAWINGS

TS1 - TITLE SHEET
TS2 - RENDERINGS

LS1 - LIFE SAFETY AND CODE INFORMATION
LS2 - UL DETAILS
LS3 - UL DETAILS

C-100 - CIVIL TITLE SHEET
C-101 - GENERAL NOTES
C-102 - GENERAL NOTES
C-103 - DETAILS AND TYPICAL SECTIONS
C-104 - DETAILS AND TYPICAL SECTIONS
C-105 - LEGAL DESCRIPTION
C-106 - EXISTING CONDITIONS
C-107 - SITE PLAN
C-108 - UTILITY PLAN
C-109 - GRADING PLAN
C-110 - LANDSCAPE PLAN
C-111 - LANDSCAPE DETAILS
C-112 - IRRIGATION PLAN
C-113 - SWPPP PLAN
C-114 - SWPPP PLAN
C-115 - SWPPP PLAN

A1.1 - GROUND FLOOR PLAN
A1.2 - MEZZANINE PLAN
A1.3 - GROUND FLOOR EQUIPMENT PLAN
A1.5 - ENLARGED RESTROOM PLANS
A2.1 - GROUND FLOOR REFLECTED CEILING PLAN
A2.2 - MEZZANINE REFLECTED CEILING PLAN
A3.1 - ROOF PLAN
A3.2 - ROOF DETAILS
A4.1 - ROOM FINISH SCHEDULE

A6.1 - BUILDING ELEVATIONS
A7.1 - BUILDING SECTIONS
A7.2 - BUILDING SECTIONS
A7.3 - BUILDING SECTIONS
A7.4 - STAIR DETAILS
A8.1 - WALL SECTIONS
A8.2 - WALL SECTIONS
A8.3 - WALL SECTIONS
A8.4 - DETAILS
A8.5 - DETAILS
A8.6 - DETAILS
A8.7 - DETAILS
A8.8 - DETAILS
A8.9 - DETAILS
A8.10 - DETAILS
A9.1 - LEVEL 1 INTERIOR FLOOR PLAN
A9.2 - RESTROOM ELEVATIONS
A9.3 - INTERIOR ELEVATIONS
A9.4 - INTERIOR ELEVATIONS
A10.1 - DOOR SCHEDULE
A10.2 - DOOR DETAILS
A10.3 - WINDOW ELEVATIONS AND DETAILS

S1.0 - STRUCTURAL GENERAL NOTES
S1.1 - FOUNDATION PLAN
S2.0 - FOUNDATION SECTIONS AND DETAILS
S3.0 - SECOND FLOOR FRAMING PLAN
S3.1 - ROOF FRAMING PLAN
S4.0 - STRUCTURAL DETAILS AND SECTIONS
S5.0 - MEZZANINE SECTIONS AND DETAILS
S6.0 - LINTEL SCHEDULES AND DETAILS

M1.1 - FIRST FLOOR HVAC PLAN
M1.2 - SECOND FLOOR HVAC PLAN
M1.3 - DETAILS
M2.0 - HVAC NOTES AND DETAILS

P1.1 - FIRST FLOOR PLUMBING PLAN
P1.2 - SECOND FLOOR PLUMBING PLAN
P2.0 - ISOMETRICS

FP1.1 - FIRST FLOOR FIRE PROTECTION PLAN
FP1.2 - SECOND FLOOR FIRE PROTECTION PLAN

ESP1.1 - ELECTRICAL SITE PLAN
ESP1.2 - PHOTOMETRIC SITE PLAN

E0.1 - SCHEDULES
E0.2 - SCHEDULES AND DETAILS
E1.1 - FIRST FLOOR LIGHTING PLAN
E1.2 - SECOND FLOOR LIGHTING PLAN
E2.1 - FIRST FLOOR ELECTRICAL PLAN
E2.2 - SECOND FLOOR ELECTRICAL PLAN
E3.1 - LIGHTNING PROTECTION PLAN
E4.1 - SINGLE LINE DIAGRAM
E4.2 - PANEL SCHEDULES

T0.1 - SYSTEMS LEGENDS AND DETIALS
T1.1 - FIRST FLOOR SYSTEMS PLAN
T1.2 - SECOND FLOOR SYSTEMS PLAN

GENERAL INFORMATION

OWNER:
OREGON FIRE DEPARTMENT
5002 SEAMAN ROAD
OREGON, OHIO 43616

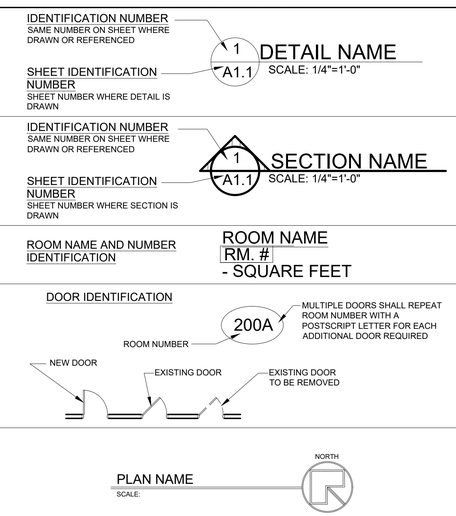
SITE
1040 SOUTH WYNN ROAD
OREGON, OHIO 43616

ARCHITECT & ENGINEER:
BUEHRER GROUP
ARCHITECTURE & ENGINEERING, INC.
314 CONANT STREET
MAUMEE, OHIO 43537
(419) 893-9021
ATTN: MICHAEL ROWE
MICHAEL@BUEHRERGROUP.COM

FIRE STATION CONSULTANT:
MULL & WEITHMAN ARCHITECTS, INC.
4525 INDIANOLA AVE.
COLUMBUS, OHIO 43214
(614) 267-6960

CIVIL ENGINEERING:
CITY OF OREGON DEPT. OF PUBLIC SERVICE
5330 SEAMAN ROAD
OREGON, OHIO 43616
(419) 698-7047

REFERENCE SYMBOLS



STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9021 F 419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE

ISSUE DATE: 06/17/21

JOB NUMBER: 201296

CONSTRUCTION DOCUMENTS

TS1

VIEW FROM NORTH EAST

SCALE: NOT TO SCALE

VIEW FROM NORTH WEST

SCALE: NOT TO SCALE

VIEW FROM SOUTH EAST

SCALE: NOT TO SCALE

VIEW FROM SOUTH WEST

SCALE: NOT TO SCALE

STATE OF OHIO
KENT D. BUEHRER
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REVISION SCHEDULE

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ISSUE DATE: 06/17/21

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CONSTRUCTION DOCUMENTS

TS2

BUILDING CODE DATA (2017 OBC)

BUILDING SUMMARY: NEW FIRE STATION BUILDING FOR OREGON OHIO. THE BUILDING WILL BE FULLY SPRINKLED.

APPLICABLE CODES: 2017 OBC, 2017 OMC, 2017 NEC, 2017 OPC, ANSI A117.1-2017, 2017 OHIO FIRE CODE

USE GROUPS (OBC CHAPTER 3):
B - FIRE ADMINISTRATIVE OFFICES AND SUPPORT AREAS
R2 - RESIDENTIAL DORMITORY AND SUPPORT SPACES
S2 - LOW HAZARD STORAGE APPARATUS BAYS

TYPE OF CONSTRUCTION (OBC CHAPTER 6):
VB - NEW CONSTRUCTION

TOTAL BUILDING AREA (OBC 502):

FIRST FLOOR	20,764 SF
MEZZANINE	904 SF
TOTAL AREA	21,668 SF

ALLOWABLE AREAS (OBC TABLE 506.2):
B = 27,000 S.F., 3 STORIES, 60 FEET
R2 = 21,000 S.F., 3 STORIES, 60 FEET
S-2 = 40,500 S.F., 3 STORIES, 60 FEET
20,764 SF IS UNDER THE ALLOWABLE 21,000SF

OCCUPANT LOADS (OBC 1004):
B = 8,218 SF / 100 = 82.18 OCCUPANTS
R2 = 3,146 SF / 200 = 15.73 OCCUPANTS
S2 = 10,304 SF / 200 = 51.52 OCCUPANTS
TOTAL OCCUPANCY = 149.43 OCCUPANTS

FIRE SUPPRESSION:
AUTOMATIC SPRINKLER SYSTEM COMPLYING WITH NFPA 13, WILL BE INSTALLED THROUGHOUT THE BUILDING

FIRE ALARM:
A FIRE ALARM AND DETECTION SYSTEM WILL BE PROVIDED AS PART OF THIS PROJECT. THE FIRE ALARM AND DETECTION SYSTEM WILL MEET THE PROVISIONS OF THIS SECTION AND THE CURRENT NFPA 72 STANDARD.

STRUCTURAL DESIGN LOADS:
SEE STRUCTURAL DRAWINGS

MAXIMUM ALLOWABLE TRAVEL DISTANCE (OBC TABLE 1017.2):
USE GROUP B = 200'
NOTE: ACTUAL MAX. COMMON PATH OF EGRESS TRAVEL IS LESS THAN 200'

EXITS:
2 MEANS OF EGRESS REQUIRED PER TABLE 1006.3.1 (BASED ON OCCUPANTS LOAD)
NOTE: 2 MEANS OF EGRESS PROVIDED

CORRIDORS:
B AND S2 = 0 HOUR WITH SPRINKLER SYSTEM
R2 = ½ HOUR WITH SPRINKLER SYSTEM

PLUMBING FIXTURES (OBC TABLE 2902.1):

	W.C.	LAV.	D.F.	S.S.
REQUIRED	2 EA. MEN/WOMEN	2 EA. MEN/WOMEN	2	1
PROVIDED	2.5 EA. MEN/WOMEN	2.5 EA. MEN/WOMEN	3	3

SPECIAL REQUIREMENTS CH. 4:
420.2 SEPARATION WALLS. WALLS SEPARATING SLEEPING UNITS IN THE SAME BUILDING AND WALL SEPARATING SLEEPING UNITS FROM OTHER OCCUPANCIES IN THE SAME BUILDING SHALL BE CONSTRUCTED AS FIRE PARTITIONS (709)

423 CRITICAL EMERGENCY OPERATIONS. 911 CALL STATION, FIRE, RESCUE, AMBULANCE AND POLICE STATIONS SHALL HAVE A STORM SHELTER CONSTRUCTED IN ACCORDANCE WITH ICC 500.

COEFFICIENTS OF HEAT TRANSMISSION

BRICK VENEER WALLS (DRYWALL INTERIOR):

COMPONENTS:	R VALUE:
INSIDE SURFACE (STILL AIR)	R=0.68
5/8" GYPSUM BOARD	R=0.56
VAPOR BARRIER	R=0.00
R25 BATT INSULATION BETWEEN PEMB	R=25.00
5/8" EXTERIOR SHEATHING	R=0.74
WEATHER BARRIER	R=0.00
1" AIR SPACE	R=0.68
4" UTILITY BRICK	R=0.44
OUTSIDE SURFACE (15 MPH WIND)	R=0.17
TOTAL:	R=28.27

$U = \frac{1}{R} = \frac{1}{28.27} = 0.0353 \ \frac{BTU}{h\text{-}ft\text{-}F}$

METAL PANEL WALLS (DRYWALL INTERIOR):

COMPONENTS:	R VALUE:
INSIDE SURFACE (STILL AIR)	R=0.68
5/8" GYPSUM BOARD	R=0.56
VAPOR BARRIER	R=0.00
R25 BATT INSULATION BETWEEN PEMB	R=25.00
5/8" EXTERIOR SHEATHING	R=0.74
WEATHER BARRIER	R=0.00
METAL SIDING	R=0.61
OUTSIDE SURFACE (15 MPH WIND)	R=0.17
TOTAL:	R=27.76

$U = \frac{1}{R} = \frac{1}{27.76} = 0.0360 \ \frac{BTU}{h\text{-}ft\text{-}F}$

BRICK VENEER WALLS (METAL PANEL INTERIOR):

COMPONENTS:	R VALUE:
INSIDE SURFACE (STILL AIR)	R=0.68
METAL LINER PANEL	R=0.61
VAPOR BARRIER	R=0.00
R25 BATT INSULATION BETWEEN PEMB	R=25.00
5/8" EXTERIOR SHEATHING	R=0.74
WEATHER BARRIER	R=0.00
1" AIR SPACE	R=0.68
4" UTILITY BRICK	R=0.44
OUTSIDE SURFACE (15 MPH WIND)	R=0.17
TOTAL:	R=28.32

$U = \frac{1}{R} = \frac{1}{28.32} = 0.0353 \ \frac{BTU}{h\text{-}ft\text{-}F}$

METAL PANEL WALLS (METAL PANEL INTERIOR):

COMPONENTS:	R VALUE:
INSIDE SURFACE (STILL AIR)	R=0.68
METAL LINER PANEL	R=0.61
VAPOR BARRIER	R=0.00
R25 BATT INSULATION BETWEEN PEMB	R=25.00
5/8" EXTERIOR SHEATHING	R=0.74
WEATHER BARRIER	R=0.00
METAL SIDING	R=0.61
OUTSIDE SURFACE (15 MPH WIND)	R=0.17
TOTAL:	R=27.81

$U = \frac{1}{R} = \frac{1}{27.81} = 0.0360 \ \frac{BTU}{h\text{-}ft\text{-}F}$

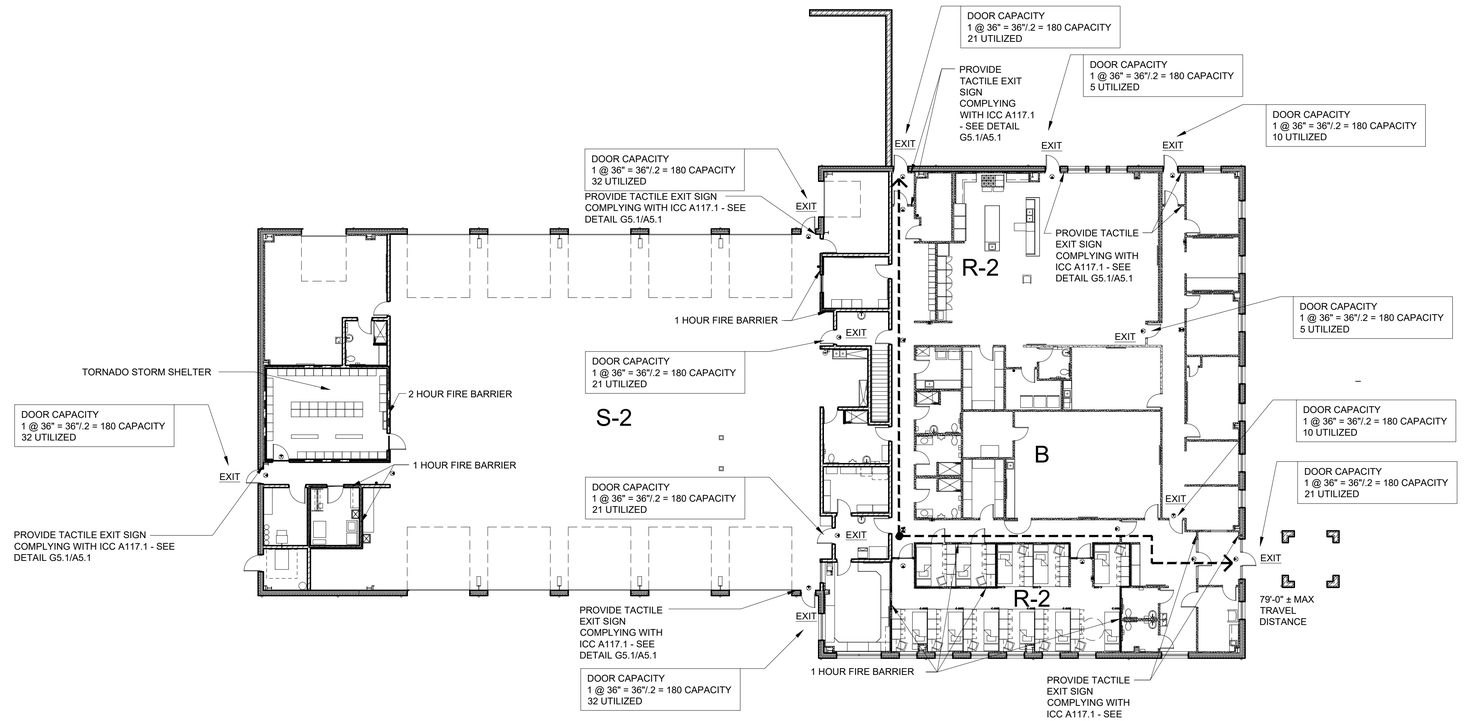
ROOF:

COMPONENTS:	R VALUE:
METAL LINER PANEL	R=0.61
R32 BATT INSULATION (BETWEEN PURLINS)	R=32.0
STRUCTURAL STEEL	R=0.00
METAL ROOFING	R=0.00
OUTSIDE SURFACE (STILL AIR)	R=0.17
TOTAL:	R=32.78

$U = \frac{1}{R} = \frac{1}{32.78} = 0.031 \ \frac{BTU}{h\text{-}ft\text{-}F}$

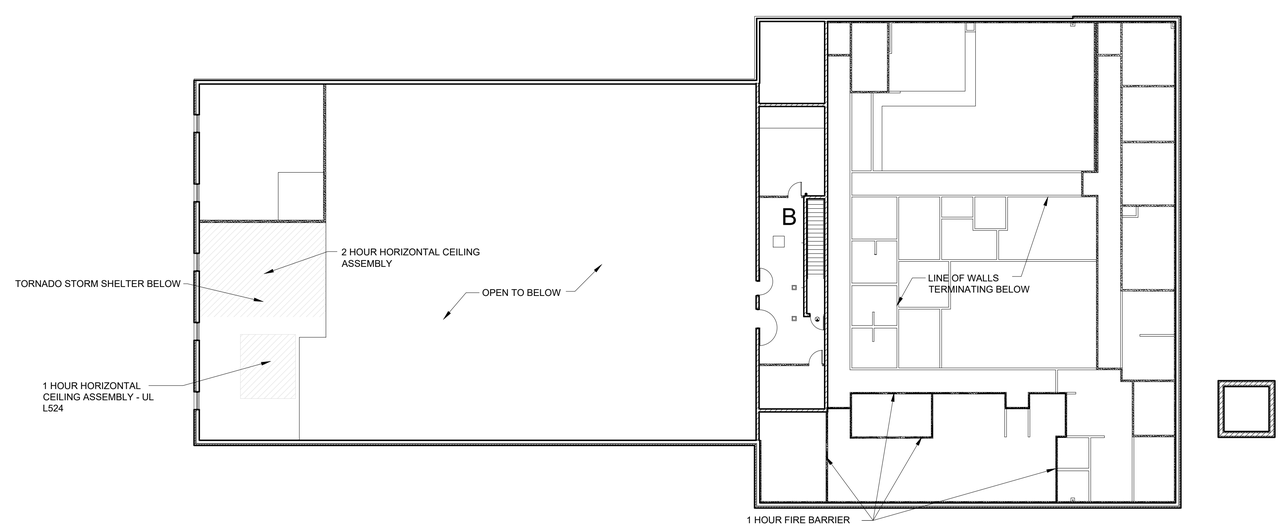
FIRE RATING LEGEND

WALL TYPE	DESCRIPTION
	1 HOUR FIRE BARRIER
	2 HOUR FIRE RESISTANCE RATING
	2 HOUR FIREWALL



GROUND FLOOR
CODE COMPLIANCE PLAN
SCALE: 1/16"=1'-0"

NORTH



MEZZANINE
CODE COMPLIANCE PLAN
SCALE: 1/16"=1'-0"

NORTH

STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
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REVISION SCHEDULE
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ISSUE DATE: 06/17/21
JOB NUMBER: 201296
CONSTRUCTION DOCUMENTS

LS1

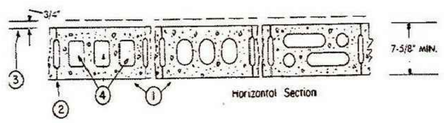
2 HOUR INTERIOR WALL (MASONRY) FIRE BARRIER DESIGN

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

Design No. U905

March 17, 2004



Bearing Wall Rating — 2 HR.
Nonbearing Wall Rating — 2 HR
Load Restricted for Canadian Applications — See Guide BXUV7

1. Concrete Blocks* — Various designs. Classification D-2 (2 hr).
See Concrete Blocks category for list of eligible manufacturers.

2. Mortar — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. Portland Cement Stucco or Gypsum Plaster — Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. Loose Masonry Fill — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. Foamed Plastic* — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

THE DOW CHEMICAL CO — Type Thermax

*Bearing the UL Classification Mark

1 HOUR INTERIOR WALL (MASONRY) FIRE BARRIER DESIGN

BXUV - Fire Resistance Ratings - ANSI/UL 263
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
See General Information for Fire-resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

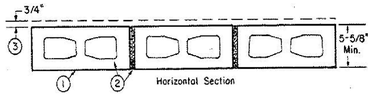
Design No. U906

March 11, 2016
Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR.

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. Concrete Blocks* — Nominal 6 by 8 by 16 in, hollow or solid. Various designs. Classification (2 hr). See Concrete Blocks category for list of eligible manufacturers.
ANCHOR CONCRETE PRODUCTS INC
GAGNE & SON CONCRETE BLOCK INC
GLENWOOD MASONRY PRODUCTS
Allowable compressive stress of 57% of max allowable compressive stress in accordance with the empirical design method.

OLDCASTLE APG SOUTH INC, DBA ADAMS PRODUCTS
WESTBROOK CONCRETE BLOCK CO INC
Allowable compressive stress of 75.6% of max allowable compressive stress in accordance with the empirical design method.

2. Mortar — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. Portland Cement Stucco or Gypsum Plaster — Add 1/2 hr to Classification if used. Attached to concrete blocks (Item 1). - NOT USED

4. Foamed Plastic* — (Optional-Not Shown) — NOT USED.

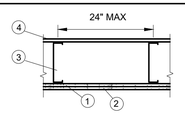
4A. Building Units — NOT USED.

* 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 2016-03-11

NOTE: USE LOWEST FIRE RATING DESIGN SHOWN ABOVE (2 HR.) FOR ALL INTERIOR WALL (MASONRY) 1 HR. FIRE BARRIER LOCATIONS.

FLOOR / CEILING DETAIL



Design No. GA FC 4505
UL DESIGN L524

1 HOUR FLOOR / CEILING SYSTEM

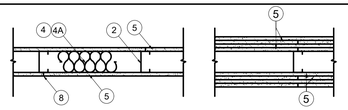
1. BASE LAYER — $\frac{3}{8}$" PROPRIETARY TYPE X GYPSUM WALL BOARD APPLIED AT RIGHT ANGLES TO CHANNEL SHAPED, MINIMUM 7" DEEP, 18 GAGE GALVANIZED STEEL JOISTS 24" O.C. WITH 1" TYPE S-12 DRYWALL SCREWS 8" O.C. AT BUTT JOINTS AND 12" O.C. AT INTERMEDIATE JOISTS.

2. FACE LAYER — $\frac{5}{8}$" PROPRIETARY TYPE X DRYWALL APPLIED AT RIGHT ANGLES TO JOIST WITH 1 5/8" TYPE G DRYWALL SCREWS AT BUTT JOINTS BETWEEN JOISTS AND 1 }" TYPE S-12 DRYWALL SCREWS 12" O.C. AT INTERMEDIATE JOISTS. JOINTS OFFSET FROM BASE LAYER JOINTS.

3. JOISTS - MINIMUM 7" DEEP, 18 GAGE GALVANIZED STEEL JOISTS 24" O.C.

3. SUBFLOOR — 3/4" T & G EDGE PLYWOOD FLOOR APPLIED AT RIGHT ANGLES TO JOISTS WITH 1 $\frac{5}{16}$" NO. 6-20 S-12 POINT SCREWS 6" O.C. AT FLOOR PERIMETER AND END JOINTS AND 10" AT INTERMEDIATE JOISTS.

UL WALL DETAIL



Design No. U419
Nonbearing Wall Ratings - 1, 2, 3 or 4 Hr

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 2B, PROPRIETARY CHANNEL SHAPED RUNNERS, 3-5/8 IN. DEEP ATTACHED TO FLOOR AND CEILING WITH FASTENERS 24 IN. OC MAX.

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.

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, 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. BATTS AND BLANKETS* — FOR USE WITH ITEM 5K. 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.
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. 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.	NO. OF LAYERS & THKNS OF PANEL	MIN THKNS OF INSULATION
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.

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.

6. FASTENERS — (NOT SHOWN) — FOR USE WITH ITEMS 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. 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.

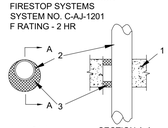
FURRING CHANNELS — (OPTIONAL, NOT SHOWN, FOR SINGLE OR DOUBLE LAYER SYSTEMS) — RESILIENT FURRING CHANNELS FABRICATED FROM MIN 25 MSG CORROSION-PROTECTED STEEL, SPACED VERTICALLY A MAX OF 24 IN. OC. FLANGE PORTION ATTACHED TO EACH INTERSECTING STUD WITH 1/2 IN. LONG TYPE S-12 STEEL SCREWS. NOT FOR USE WITH ITEM 5A AND 5E.
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. NOT FOR USE WITH ITEM 5A AND 5E.
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.

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. CAULKING AND SEALANTS* — (OPTIONAL, NOT SHOWN) — A BEAD OF ACOUSTICAL SEALANT APPLIED AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.

UL FLOOR / CEILING PENETRATION DETAIL

THROUGH-PENETRATION
FIRESTOP SYSTEMS
SYSTEM NO. CAJ-1201
F RATING - 2 HR



FIRE STOPPING DETAIL
NO SCALE
(TYPICAL OF ALL PENETRATIONS, NEW OR EXISTING, THRU FIRE RATED ASSEMBLIES.

1. FLOOR OR WALL ASSEMBLY - MIN. 4\ IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY U.L. CLASSIFIED CONCRETE BLOCKS*. MAX. DIAM. OF OPENING IS 6 IN.

2. THROUGH-PENETRANT - ONE METALLIC PIPE CONDUIT OR TUBING INSTALLED EITHER CENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN. 0 IN. TO MAX. 1\ IN. PIPE, CONDUIT, OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES OF PIPE, CONDUIT OR TUBING MAY BE USED:
A. STEEL PIPE - NOM. 4 IN. DIAM. (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.
B. COPPER TUBING - NOM. 3 IN. DIAM. (OR SMALLER) TYPE L (OR HEAVIER) COPPER PIPE.
C. COPPER PIPE - NOM. 3 IN. DIAM. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
D. CONDUIT - NOM. 4 IN. DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT) OR STEEL CONDUIT.

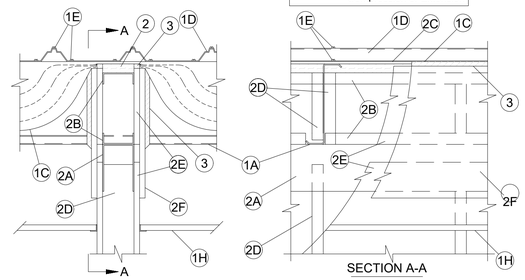
3. FILL, VOID OR CAVITY MATERIAL* - SEALANT - MIN 1| IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF FLOOR OR WALL.

*BEARING THE U.L. CLASSIFICATION MARKING

UL TOP OF WALL DETAIL

System No. HW-D-0529

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 1 Hr (See Item 2)	F Rating — 1 Hr
Nominal Joint Width - 2 In.	FT Rating — 1 Hr
Class II Movement Capabilities - 100% Compression or Extension	FH Rating — 1 Hr
	FTH Rating — 1 Hr
	Nominal Joint Width - 2 In.
	Class II Movement Capabilities — 100% Compression or Extension



1. Roof-Ceiling Assembly — The fire rated roof-ceiling assembly shall be constructed of the materials and in the manner described in the individual P200 or P500 Series Roof-Ceiling Designs in the UL Fire Resistance Directory and shall include the following construction features:
A. Purlin — Min 16 ga coated steel. Max spacing as specified in the individual Roof-Ceiling Design.
B. Lateral Bracing — (Not Shown) - As required.
C. Batts and Blankets* - Insulation — Any faced compressible glass-fiber blanket insulation having a min 6 in. (152 mm) thickness before compression and a min density of 0.6 pcf (9.6 kg/m3). Insulation draped over purlins prior to installation of panel clips (Item 1F) and/or metal roof deck panels (Item 1D). Side edges of the batts shall be butted or overlapped a max of 3 in. (76 mm).
See Batts and Blankets (BZJZ) category in the UL Fire Resistance Directory or Batts and Blankets (BKNV) category in the UL Building Materials Directory for names of manufacturers.
D. Metal Roof Deck Panels* — Min 26 ga coated steel. Panels continuous over two or more spans. Roof panel end laps, if required, centered over purlins with min 3 in. (76 mm) panel overlap as specified in the individual Roof-Ceiling Design. A line of tube sealant or tape sealant may be used at panel end and side laps.
See Metal Roof Deck Panels (TJPV) category in the UL Roofing Materials and Systems Directory for names of manufacturers.
E. Fasteners — Fasteners used for panel-to-purlin and panel-to-panel connections to be self-tapping, hex-head, plated steel or stainless steel screws with either an integral or a separate steel washer fitted with a compressible sealing washer. Fastener type, length, pilot hole diam and spacing to be as specified in the individual Roof-Ceiling Design.
F. Roof Deck Fasteners* - Panel Clips — (Not Shown) - Panel clips used for panel-to-purlin connections to be secured to purlin through insulation as specified in the individual Roof-Ceiling Design.
See Roof Deck Fasteners (TLSX) category in the UL Roofing Materials and Systems Directory for names of manufacturers.
G. Thermal Spacer Blocks — (Not Shown) - Expanded polystyrene strips cut to fit between panel clips (Item 1F) as specified in the individual Roof-Ceiling Design. Thermal spacer blocks, when used, are to be installed between insulation (Item 1C) and metal roof deck panels (Item 1D) over purlins.
H. Ceiling Membrane — The Steel Framing Members*, Acoustical Material*, Gypsum Board* and other ceiling membrane components shall be as specified in the individual Roof-Ceiling Design.
2. Wall Assembly — The 1 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified 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. Ceiling Deflection Channel — U-shaped channel formed from min 16 ga steel sized to accommodate steel studs (Item 2D) and provided with 5 in. (127 mm) flanges. Deflection channel installed perpendicular to purlins and secured to bottom flange of purlins with min No. 14 self-tapping, hex-head, plated steel or stainless steel screws.
B. Steel Floor and Ceiling Runners — Floor runner of the wall assembly and the floor and ceiling runners of the cripple wall above the wall assembly shall consist of min 1-1/4 in. (32 mm) deep min 25 ga galv steel channels sized to accommodate steel studs (Item 2D). Floor runner of cripple wall aligned with and screw-attached to top of ceiling deflection channel. Ceiling runner of cripple wall installed to compress insulation (Item 1C) to min thickness of 3/8 in. (10 mm) by wedging lengths of stud (Item 2D) between the runners. Steel studs of cripple wall attached to each side of purlin web and to floor and ceiling runners with steel screws.
C. Batts and Blankets* - Packing Material — Unfaced compressible mineral wool batt insulation having a nom 2 in. (51 mm) thickness before compression and a nom density of 4 pcf (64 kg/m3). Strips of nom 2 in. (51 mm) thick batt cut to width of cripple wall ceiling runner and compressed min 50 percent in thickness between cripple wall ceiling runner and insulation (Item 1C). Compression of mineral wool batt packing material to result in compression of insulation (Item 1C) to nominal 3/8 in. (10 mm) thickness.
See Batts and Blankets (BZJZ) category in the UL Fire Resistance Directory or Batts and Blankets (BKNV)category in the UL Building Materials Directory for names of manufacturers.
D. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut max 2 in. (51 mm) less in length than assembly height beneath purlins with bottom nesting in and resting on the floor runner and with top nesting in ceiling deflection channel without attachment. Stud spacing not to exceed 24 in. (610 mm) O.C. Studs of cripple wall cut to length as required to compress packing material (Item 2C) and insulation (Item 1C) to min thicknesses of 1 in. (25 mm) and 3/8 in. (10 mm), respectively. Studs spaced max 24 in. (610 mm) OC.
E. Gypsum Board* — Min 5/8 in. (16 mm) thick gypsum board sheets installed on each side of wall. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 2 in. wide gap shall be maintained between the gypsum board of the wall assembly below the purlin and the gypsum board of the cripple wall. Top edge of gypsum board of wall assembly to be max 2 in. (51 mm) below top of ceiling deflection channel. Bottom edge of gypsum board of cripple wall to be flush with top of ceiling deflection channel. Screws securing gypsum board to steel studs of wall assembly to be located 2-1/4 in. to 2-1/2 in. (57 to 64 mm) below flange of ceiling deflection channel. Screws securing gypsum board of cripple wall to be driven into studs and runners of cripple wall. No screws are to be driven into flanges of ceiling deflection channel.
F. Gypsum Board* — Min 5/8 in. (16 mm) thick "rip strip" of gypsum board installed to cover first layer of gypsum board on cripple wall and to lap min 3 in. (76 mm) onto gypsum board of wall assembly on each side of wall. The "rip strip" of gypsum board is to be the same material used for the wall assembly and is to be secured to the studs and runners of the cripple wall. No screws are to be driven into flanges of ceiling deflection channel. Joints of "rip strip" to be offset from joints of gypsum board on wall assembly.
board on wall assembly. Max separation between top of wall assembly gypsum board and bottom of cripple wall gypsum board (at time of installation of joint system) is 2 in. (51 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material installed to fill any gap between top of cripple wall gypsum board and insulation (Item 1C) on each side of the wall. Additional sealant installed to fill annular space between purlin and gypsum board "rip strip" (Item 2F) on both sides of wall. Additional nom 1/2 in. (13 mm) diam bead of sealant to be applied around perimeter of purlin at its interface with the "rip strip" on each side of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S, CFS-S SIL GG, CP606, FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

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

UL TOP OF WALL DETAIL

Design No. P265
BXUV.P265
Fire-resistance Ratings - ANSI/UL 263

Page Bottom

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

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

Design No. P265

December 13, 2013

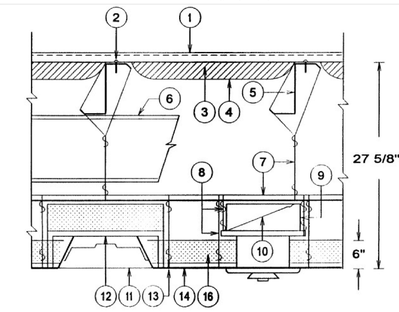
Restrained Assembly Rating — 1 and 1-1/2 Hr (See Item 3)

Unrestrained Assembly Rating — 1 and 1-1/2 Hr (See Item 3)

Unrestrained Beam Rating — 1-1/2 Hr

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. **Metal Roof Deck Panels*** — No. 26 MSG min galv or painted steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped a min of 4 in. A line of sealant or tape sealant may be used at panel side and end laps. See Roofing Materials and Systems Directory-Metal Roof Deck Panels (TPJV) category for names of manufacturers.

2. **Panel Fasteners —** As specified in the respective Classified Roof Deck Construction Number for the Metal Roof Deck Panel and the type of purlin.

3. **Batts and Blankets* —** For the 1 h ratings, faced compressible min 3, max 4 in. thick glass fiber batt insulation, weighing between 0.6 and 0.7 pcf. Installed at the bottom side of the roof deck panels and supported by the steel mesh Item 4. For 1-1/2 h Restrained and Unrestrained Assembly ratings, the thickness of the glass fiber batt insulation shall be 4 in. and the side edges of the batts must be overlapped a min 2 in. Any glass fiber batt material bearing the UL Classification marking. See **Batts and Blankets*** (BZJZ) Category in **Fire Resistance Directory** or **Batts and Blankets*** (BKNV) in **Building Materials Directory** for list of Classified companies.

4. **Steel Mesh —** Hexagonal shaped wire mesh, with 1 in. wide openings, made from No. 20 ga galv steel wire. Draped over purlins under Insulation Item 3.

5. **Steel Roof Purlins —** C- or Z-shaped, min 8 in. deep, weighing min 2.9 lb per lineal ft made from min No. 16 MSG galv or painted steel. Spaced max 60 in. OC. Purlins may be stiffened at the supports if required per structural design.

5A. **(Not Shown) —** As an alternate to Item 5, 10K, min size joist may be used. Spaced max 60 in. OC. Joist must be bridged in accordance with SJI specifications. Min cross sectional area of steel for top and bottom horizontal bridging is 0.5 in.^{2}/sq. Min cross sectional area of steel for diagonal member bridging is 1.13 in.^{2}/sq. Special bracing may be required if assembly is also Classified for Uplift Construction.

6. **Beam —** Steel beam sections min 8 in. deep, designed as structural supports to the roof purlins. Min weight of steel beam is 2.9 lb per lineal ft.

7. **Cold Rolled Channels —** No. 16 MSG cold-rolled steel channels, 1-1/2 in. deep min, with 9/16 in. flanges. Installed perpendicular to the purlins, spaced 24 in. O.C. and located as needed to support the ceiling. Cold-rolled channels supported by No. 12 SWG steel hanger wires; twist-tied to steel roof purlins. Hanger wire attachment to purlins not to exceed 60 in. O.C. along cold-rolled channel, and located at ends of cold-rolled channels at walls.

8. **Hanger Wire —** No. 12 SWG galv steel wire, twist-tied to cold-rolled channels. Hanger wires shall be spaced 48 in. O.C. along main runners adjacent to intersections with cross tees, with additional wires located adjacent to main runner splices. One hanger wire is required at first hole of main runner web outside of the fixture grid module at each corner of light fixture, and at midspan of all 4 ft cross tees.

9. **Air Duct —** Min 0.023 in. thick (24 gauge) galv steel. Total area of duct openings per 100 sq ft of ceiling area not to exceed 576 sq in. with area of ind. duct openings not to exceed 576 sq in. Max dimension of openings 30 in. Inside and outside faces of duct outlet throat protected with 1/16 in. thick ceramic fiber paper laminated to the metal. Duct supported by 1-1/2 in. deep, min 0.053 in. thick (16 gauge) cold-rolled steel channels spaced not over 48 in. O.C. suspended by 12 SWG galv steel wire.

10. **Damper —** Min 0.056 in. (16 gauge) galv steel, sized to overlap duct opening 2 in. min. Protected on both sides with 1/16 in. thick ceramic fiber paper laminated to the metal and held open with a Fusible Link (Bearing the UL Listing Mark). In lieu of the damper described above, Duct Outlet Protection System A, as described in the General Information Section may be used with steel ducts.

11. **Fixtures, Recessed Light —** (Bearing the UL Listing Mark). Fluorescent lamp type, sheet housing, nom 2 by 4 ft size. Fixtures spaced so their area does not exceed 24 sq ft per 100 sq ft of ceiling area. Wired in conformance with the National Electric Code.

12. **Fixture Protection — Acoustical Material* —** Cut to form a five sided enclosure, trapezoidal in cross-section. The fixture protection consists of 23-3/4 by 47-3/4 in. by 5/8 or 3/4 in. by 5/8 or 3/4 in. thick top piece; two 8-7/8 by 47-3/4 in. by 5/8 or 3/4 in. thick side pieces, and two 5-7/8 by 23-3/4 in. by 5/8 or 3/4 in. thick end pieces. The side pieces and top pieces are laid in place and each end piece attached to the top piece with three 8d nails spaced 8 in. O.C.

ARMSTRONG WORLD INDUSTRIES INC — 5/8 in. Type PC; 5/8 in. or 3/4 in. Type P

13. **Steel Framing Members* —** Main runners nom 12 ft long spaced 4 ft OC. Cross tees nom 4 ft long installed perpendicular to main runners and spaced 2 ft OC. For nom 24 by 24 in. panels, cross tees nom 2 ft long installed perpendicular to 4 ft cross tees and spaced 4 ft OC.

ARMSTRONG WORLD INDUSTRIES INC — Type AFG

13A. **Steel Framing Members* —** For use with nom 600 by 600 or 1200 mm metric size panels described under Item 14 main runners nom 3600 mm long spaced 1200 mm OC. Cross tees nom 1200 mm long installed perpendicular to main runners and spaced 600 mm OC. For nom 600 by 600 mm panels, cross tees nom 600 mm long installed perpendicular to 1200 mm cross tees and spaced 1200 mm OC.

ARMSTRONG WORLD INDUSTRIES INC — Type AFG

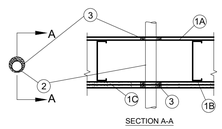
14. **Acoustical Material* —** Nom 24 by 24 or 48 in. by 5/8 or 3/4 in. thick lay-in panels. Border panels supported at walls by min 0.016 in. thick (26 gauge) painted steel angles with 7/8 in. legs. (S) = Surface perforations.

ARMSTRONG WORLD INDUSTRIES INC — 3/4 in. Type P (S) or 5/8 in. Type PC(S).

Nom 600 by 600 or 1200 mm by 19 mm thick Type P (S) or 15 mm thick Type PC (S). These metric size panels may only be used with metric size grid described under Item 13A.

14A. **Acoustical Materials* - Antenna Panel —** (Optional, Not Shown) - Nom 24 by 24 in. lay-in panel with integral high frequency antennae. Thickness, type and edge detail of antenna panel to match surrounding acoustical ceiling panels. Antenna panel to be installed in accordance with accompanying instructions. A

FLOOR / CEILING PENETRATION DETAIL



SYSTEM NO. F-C-1059

ANSI/UL1479 (ASTM E814)
F Rating — 1 and 2 Hr
T Rating — 1 and 2 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — 4 CFM/sq ft
W Rating — Class 1 (See Item 4)

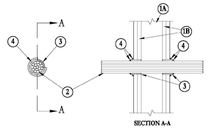
1. FLOOR-CEILING ASSEMBLY — THE 1 OR 2 HR FIRE-RATED SOLID OR TRUSSED LUMBER JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE F, FH RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE RATING OF THE FLOOR-CEILING AND WALL ASSEMBLIES. THE T, FT AND FTH RATING OF THE FIRESTOP SYSTEM IS 0 HR FOR 1 HR RATED FLOOR CEILING ASSEMBLY AND 1/2 HR FOR 2 HR RATED FLOOR CEILING ASSEMBLY. THE GENERAL CONSTRUCTION FEATURES OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
A. FLOORING SYSTEM — LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIAM OF OPENING SHALL BE 7-5/8 IN. (194 MM).
B. WOOD JOISTS* — NOM 10 IN (254 MM) DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED.
C. GYPSUM BOARD* — THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIAM OF OPENING SHALL BE 7-5/8 IN. (194 MM).
D. FURRING CHANNELS — (NOT SHOWN) (AS REQUIRED) RESILIENT GALVANIZED STEEL FURRING INSTALLED IN ACCORDANCE WITH THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES DESIGNS IN THE FIRE RESISTANCE DIRECTORY.
1.1 CHASE WALL — (NOT SHOWN, OPTIONAL)—THE THROUGH PENETRANTS (ITEM 2) MAY BE ROUTED THROUGH A 1 OR 2 HR FIRE-RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM WALLBOARD CHASE WALL HAVING A FIRE RATING CONSISTENT WITH THAT OF THE FLOOR-CEILING ASSEMBLY. THE CHASE WALL SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES :
A. STUDS — NOM 2 BY 8 IN. (51 BY 203 MM) LUMBER OR DOUBLE NOM 2 BY 6 IN. (51 BY 152 MM) LUMBER STUDS.
B. SOLE PLATE — NOM 2 BY 8 IN. (51 BY 203 MM) LUMBER OR PARALLEL 2 BY 6 IN. (51 BY 152 MM) LUMBER PLATES, TIGHTLY BUTTED. MAX DIAM OF OPENING SHALL BE 7-5/8 IN. (194 MM).
C. TOP PLATE — THE DOUBLE TOP PLATE SHALL CONSIST OF TWO NOM 2 BY 8 IN. (51 BY 203 MM) LUMBER PLATES OR TWO SETS OF NOM 2 BY 6 IN. (51 BY 152 MM) LUMBER PLATES TIGHTLY BUTTED. MAX DIAM OF OPENING IS 7-5/8 IN. (194 MM).
D. GYPSUM BOARD* — THICKNESS, TYPE, NUMBER OR LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGNS.
2. THROUGH PENETRANTS — ONE METALLIC TUBING, PIPE OR CONDUIT TO BE INSTALLED CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF OPENING TO BE MIN 1/4 IN. (6 MM) AND MAX 3/4 IN. (19 MM). PIPE, TUBING OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, TUBING OR CONDUIT MAY BE USED:
A. STEEL PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
B. IRON PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) CAST OR DUCTILE PIPE.
C. CONDUIT — NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT.
D. STEEL FLEXIBLE METAL CONDUIT + — NOM 2 IN. (51 MM) DIAM (OR SMALLER) STEEL FLEXIBLE METAL CONDUIT. SEE FLEXIBLE METAL CONDUIT (DXUZ) CATEGORY IN THE ELECTRICAL CONSTRUCTION MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS.

3. FILL, VOID OR CAVITY MATERIAL*—SEALANT — MIN 5/8 IN. (16 MM) OR 1-1/4 IN. (32 MM) THICKNESS OF SEALANT APPLIED WITHIN ANNULAR SPACE, FLUSH WITH THE BOTTOM SURFACE OF GYPSUM WALLBOARD OR LOWER TOP PLATE FOR 1 AND 2 HR FLOORS RESPECTIVELY. MIN. 3/4 IN. (19 MM) THICKNESS OF SEALANT APPLIED WITHIN ANNULAR SPACE, FLUSH WITH TOP SURFACE OF FLOOR OR SOLE PLATE.
HILTI INC — FS-ONE SEALANT OR FS-ONE MAX INTUMESCENT SEALANT

1 HOUR FIRE RATED WALL PENETRATION DESIGN (GYP. BD. FOR WIRE BUNDLE)

System No. W-L-3030

May 19, 2005
(Formerly System No. 571)
F Ratings – 1 and 2 Hr (See Item 1)
T Rating – 1/2 Hr
L Rating At Ambient – 76 CFM/sq ft (See Item 4)
L Rating At 400 F – 7 CFM/sq ft (See Item 4)



1. Wall Assembly – The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs – Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 in. by 4 in. (51 mm by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 in. by 4 in. (51 mm by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* – Nom 5/8 in. (16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum board type, number of layers and sheet orientation shall be as specified in the individual Wall and Partition Design. Diam of circular cutout in gypsum board layers on each side of wall to be 1/2 in. to 3/4 in. (13 mm to 19 mm) larger than diam of tight cable bundle (Item 2). Max diam of cutouts is 4-1/2 in. (114 mm).

   The hourly F Rating of the firestop system is 1 hr when installed in a 1 hr fire rated wall and 2 hr when installed in a 2 hr fire rated wall.

2. Cables – Max 4 in. (102 mm) diam tight bundle of cables centered in circular cutouts in gypsum board and rigidly supported on both sides of wall assembly. Any combination of the following types and sizes of copper conductor cables may be used:
   A. Max 350 kcmil single-conductor power cables; cross-linked polyethylene (XLPE) or polyvinyl chloride (PVC) insulation.
   B. Max 7/C No. 12 AWG cables; PVC insulation and jacket.
   C. Max 3/C No. 2/0 AWG multi conductor power and control cables; XLPE or PVC insulation, XLPE or (PVC) jacket.
   D. Max 200 pair No. 24 AWG telecommunication cables; PVC insulation and jacket.
   E. Max 6/94 Fiber Optic (F.O.) cable; PVC insulation and jacket.

3. Fill, Void or Cavity Material* – Wrap Strip – Nom 1/4 in. (6 mm) thick intumescent elastomeric material faced on one side with aluminum foil, supplied in nom 2 in. (51 mm) wide strips. Nom 2 in. (51 mm) wide strip tightly-wrapped around cable bundle (foil side out) with seam butted. Wrap strip layer securely bound with steel wire tie and slid into annular space approx 1-1/4 in. (32 mm) such that approx 3/4 in. (19 mm) of the wrap strip width protrudes from the wall surface on each side of the assembly.
   3M COMPANY – FS-195+

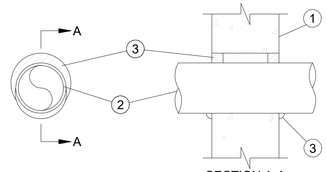
4. Fill, Void or Cavity Materials* – Caulk, Sealant or Putty – Min 1/4 in. (6 mm) diam continuous bead of caulk or putty applied to the wrap strip/wall interface and to the exposed edge of the wrap strip approximate 3/4 in. (19 mm) from the wall surface on each side of wall assembly. Caulk or putty to be forced into the interstices of the cable bundle to the max extent possible within the confines of the wrap strip on each side of the wall assembly.
   3M COMPANY – CP 25WB+, IC 15WB+, FireDam 150+ caulk, FB-3000 WT sealant or MP+ Stix putty

(Note: L Ratings apply only when CP 25WB+ caulk or FB-3000 WT is used.)
*Bearing the UL Classification Marking

UL WALL PENETRATION DETAIL (MASONRY WALL)

System No. W-J-1226

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1, 2, 3 and 4 Hr (See Item 3)	F Ratings — 1, 2, 3 and 4 Hr (See Item 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/Sq Ft	FH Ratings — 1, 2, 3 and 4 Hr (See Item 3)
L Rating At 400 F — 4 CFM/Sq Ft	FTH Rating — 0 Hr
	L Rating At Ambient — Less Than 1 CFM/Sq Ft
	L Rating At 400 F — 4 CFM/Sq Ft



SECTION A-A

1. Wall Assembly — Min 6 in. (152 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 5-3/4 in. (146 mm).
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrant — One metallic pipe, conduit or tube to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe, conduit or tube and periphery of opening shall be min 0 in. (point contact) to max 7/8 in. (22 mm). Pipe, conduit or tube to be rigidly supported on both sides of wall assembly.
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) rigid steel conduit.
   D. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic conduit.
   E. Copper Tubing — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
   F. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material — Sealant* — Fill material applied within annulus, flush with both surfaces of wall. Type and thickness of sealant is dependent on F and FH Ratings as indicated in Table below. An additional 1/2 in. (13 mm) diameter bead of sealant applied at penetrant/gypsum board interface at point contact location on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE, CP 606 Sealant or FS-ONE MAX Intumescent Sealant

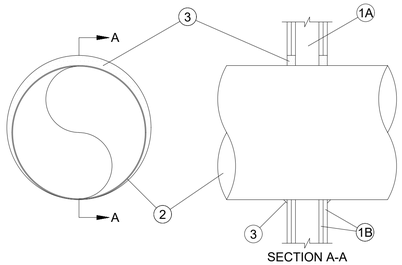
F, FH Ratings hr	Sealant Type	Sealant Thickness, In. (mm)
1, 2	FS-ONE or CP 606	5/8 (16)
3	FS-ONE or CP 606	1 (25)
4	FS-ONE	1 (25)

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

UL WALL PENETRATION DETAIL

System No. W-L-7042

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings - 1 and 2 Hr (See Items 1 and 3)	F Ratings - 1 and 2 Hr (See Items 1 and 3)
T Rating - 0 Hr	FT Rating - 0 Hr
	FH Ratings - 1 and 2 Hr (See Items 1 and 3)
	FTH Rating - 0 Hr



SECTION A-A

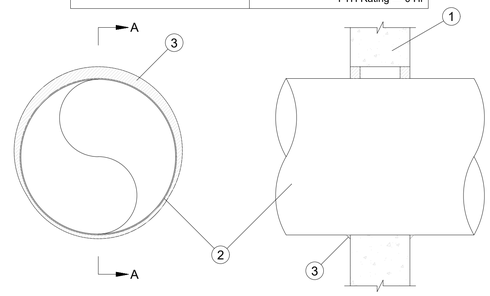
1. Wall Assembly — The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced 24 in. (610 mm) OC.
   B. Gypsum Board* — For 1 hr assembly, one layer of min 5/8 in. (16 mm) thick wallboard as required in the individual Wall and Partition Design. For 2 hr assembly, two layers of min 5/8 in. (16 mm) thick wallboard as required in the individual Wall and Partition Design. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls and 21-3/4 in. (552 mm) for steel stud walls.
   The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — Galv steel duct to be installed concentrically or eccentrically within the firestop system. The annular space between the duct and periphery of opening shall be 0 in. (0 mm, point contact) and max 1-1/2 in. (64 mm) Duct to be rigidly supported on both sides of wall assembly.
   A. Spiral Wound HVAC Duct — Nom 20 in. (502 mm) diam (or smaller) No. 24 MSG (or heavier) galv steel spiral wound duct.
   B. Sheet Metal Duct — Nom 12 in. (305 mm) diam (or smaller) No. 28 MSG (or heavier) galv sheet steel duct.
3. Fill, Void or Cavity Material*—Sealant — Min 5/8 in. (16 mm) and 1-1/4 in. (32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly for 1 or 2 hr rated walls, respectively. At the point contact location between duct and wallboard, a min 1/2 in. (13 mm) diam bead of sealant shall be applied at the wallboard/duct interface on both surfaces of wall assembly.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant, FS-ONE Sealant, FS-ONE MAX Intumescent Sealant or CP606 Flexible Firestop Sealant

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

UL WALL PENETRATION DETAIL (MASONRY WALL)

System No. W-J-7022

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 & 2 Hr (See Items 1 and 3)	F Ratings — 1 & 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating— 0 Hr
	FH Ratings — 1 & 2 Hr (See Items 1 and 3)
	FTH Rating — 0 Hr



SECTION A-A

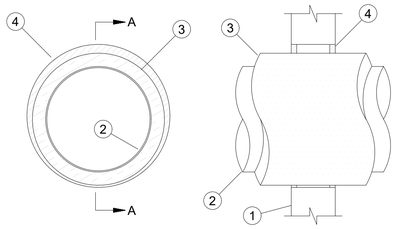
1. Wall Assembly — Min 4-3/4 in. and 6 in. (121 and 152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete for 1 and 2 hr ratings , respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 21- 1/2 in (546 mm).
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrant — Nom galv steel duct to be installed concentrically or eccentrically within the firestop system. The annular space between duct and periphery of opening shall be min 0 in. (point contact) and max 1-1/2 in. (38 mm). Duct to be rigidly supported on both sides of wall assembly.
   A. Spiral Wound HVAC Duct — Nom 20 in. (508 mm) diam (or smaller) No. 24 MSG (or heavier) galv steel spiral wound duct.
   A. Sheet Metal Duct — Nom 12 in.(305 mm) diam (or smaller) No. 28 MSG (or heavier) galv sheet steel duct.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. and 1-1/4 in. (16 and 32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly for 1 or 2 hr F Ratings, respectively. At the point contact location between duct and periphery of opening, a min 1/2 in. (13 mm) diam bead of sealant shall be applied at the periphery/duct interface on both surfaces of wall assembly.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 601S Elastomeric Firestop Sealant, CFS-S SIL GG Sealant, FS-ONE Sealant, FS-ONE MAX Intumescent Sealant or CP606 Flexible Firestop Sealant

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

UL WALL PENETRATION DETAIL (MASONRY WALL)

System No. W-J-7124

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 4)	F Ratings — 1 and 2 Hr (See Item 4)
T Rating — 1/2 Hr	FT Rating — 1/2 Hr
	FH Ratings — 1 and 2 Hr (See Item 4)
	FTH Rating — 1/2 Hr



SECTION A-A

1. Wall Assembly — Min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 23-1/2 in. (597 mm).
   See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
2. Steel Duct — Galv steel duct to be installed concentrically or eccentrically within the firestop system. Duct to be rigidly supported on both sides of wall assembly.
   A. Spiral Wound HVAC Duct — Nom 20 in. (508 mm) diam (or smaller) No. 24 MSG (or heavier) galv steel spriral wound duct.
   B. Sheet Metal Duct — Nom 12 in. (305 mm) diam (or smaller) No. 28 MSG (or heavier) galv sheet steel duct.
3. Duct Insulation* — Nom 1-1/2 in. (38 mm) thick glass fiber batt or blanket (min 3/4 pcf or 56 kg/m3) jacketed on the outside with a foil-scrim-kraft facing. Longitudinal and transverse joints sealed with aluminum foil tape. During the installation of the fill material, the batt or blanket shall be compressed 50% such that the annular space within the firestop system shall be min 1/4 in. (6 mm) to max 1 in. (25 mm).
   See Batts and Blankets - (BKNV) category in the Building Materials Directory for names of manufacturers. Any batt or blanket meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index 50 or less may be used.
4. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall for 1 or 2 hr F and FH Rating, respectively.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

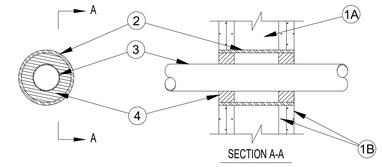
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

NOTE: USE ALSO FOR ALL INTERIOR WALL (MASONRY) 1 HR. FIRE BARRIER LOCATIONS.

UL WALL PENETRATION DETAIL

System No. W-L-2075

F Ratings - 1 & 2 Hr (See Item 4)
T Ratings - 0 and 2 Hr (see Item 4)
L Rating At Ambient - Less Than 1 CFM/Sq Ft L Rating At 400 F - 4 CFM/Sq Ft



1. Floor or Wall Assembly -- The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs -- Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.
   B. Gypsum Board* -- Nom 5/8 in. thick gypsum wallboard, as specified in the individual Wall and Partition Design. Max diam of opening is 4 in.
2. Metallic Sleeve -- (Optional) -- Nom 4 in. diam (or smaller) Schedule 40 (or thinner) steel pipe cast into wall assembly with joint compound and installed flush with wall surfaces.
3. Electrical Nonmetallic Tubing+ -- Nom 2 in. diam (or smaller) corrugated wall electrical nonmetallic tubing (ENT) constructed of polyvinyl chloride (PVC). Tubing to be rigidly supported on both sides of wall assembly. A nom annular space of 3/4 in. is required within the firestop system.
See Electrical Nonmetallic Tubing (FKHU) category in the Electrical Construction Materials Directory for names of manufacturers.
4. Fill, Void or Cavity Material* -- Sealant -- Installed symmetrically on both sides of the wall. The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed. Fill material applied within the annulus, flush with each end of the steel sleeve at the thickness shown in the table below:

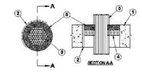
F Rating Hr	T Rating Hr	Fill Mtl Depth In.
1	0	5/8
2	2	1-1/4

HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC -- FS-One Sealant
+Bearing the UL Listing Mark
*Bearing the UL Classification Marking

UL FLOOR/CEILING PENETRATION DETAIL

System No. C-AJ-3030

March 05, 2007
F Ratings – 1-1/2, 2 and 3 Hr (See Item 5)
T Rating – 0 Hr
L Rating At Ambient – 129 CFM/sq ft
L Rating At 400 F – 92 CFM/sq ft



1. Floor or Wall Assembly – Min 2-1/2 in. (64 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 8 in. (203 mm).
   See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Sleeve – Nom 8 in. (203 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe or nom 6 in. (152 mm) diam (or smaller) Schedule 40 polyvinyl chloride (PVC) pipe cast into floor or wall assembly. Sleeve to be flush with or project max 2 in. (51 mm) from top surface of floor or both surfaces of wall. When PVC sleeve is used, max cable conductor size is No. 12 AWG. As an alternate, nom 8 in. (203mm) diam (or smaller) sleeve fabricated from nom 0.019 in. (0.48 mm) thick galv steel cast or grouted into floor or wall assembly flush with floor or wall surfaces.
3. Cables – Aggregate cross-sectional area of cables to be min 10 percent to max 40 percent of the cross-sectional area of the opening. Cables to be rigidly supported on both sides of the floor or wall assembly. Any combination of the following types and sizes of cables may be used:
   A. Max 1000 kcmil single-conductor copper or aluminum power cable; cross-linked polyethylene insulation.
   B. Max No. 2/0 AWG multiconductor copper or aluminum power cables; cross-linked polyethylene, polyvinyl chloride, neoprene rubber, hypalon or silicone rubber insulation and jacket materials.
   C. Max No. 12 AWG multiconductor copper control cables; cross-linked polyethylene, polyvinyl chloride, neoprene rubber, hypalon or silicone rubber insulation and jacket materials.
   D. Max 400 pair No. 24 AWG copper telephone cables; polyvinyl chloride insulation and jacket materials.
   E. Multiple fiber optical communication cable jacketed with PVC and having a max outside diam of $\frac{3}{8}$ in.
   F. Max 200 pair No. 22 AWG (or smaller) copper conductor with polyvinyl chloride (PVC) insulation and jacketing material.
   G. Max 3/C No. 3/0 AWG (or smaller) copper or aluminum conductor SER cables with PVC insulation and jacket.
   H. Max 3/C No. 2/0 AWG (or smaller) copper conductor PVC jacketed aluminum clad or steel clad TECK 90 cable.
   I. Max 3/C with ground No. 8 AWG (or smaller) copper conductor NM cable with PVC insulation and jacket.
   J. RG/U coaxial cable with fluorinated ethylene (FE) or PVC insulation and jacket.
   K. Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with Hylar jacket and insulation.
   L. Max 3/C No. 12 AWG (or smaller) MC (BX) copper cable with polyvinyl chloride insulation and jacket materials.
   M. Through Penetrating Product* – Any cables, Armored Cable+ or Metal Clad Cable+ currently Classified under the Through Penetrating Product category. See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers
4. Packing Material – Min 1 in. (25 mm) thickness of 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or sleeve or from both surfaces of wall or ends of sleeve as required to accommodate the required thickness of fill material (Item 5).

5. Fill, Void or Cavity Material* – Caulk or Sealant – Applied to fill the through opening to a min thickness of 1 in. (25 mm) flush with the top surface of the floor or sleeve or both surfaces of wall or ends of sleeve. Caulk to be forced into interstices of cable group to max extent possible. F Rating of firestop systems is dependent upon the through opening size, the thickness of the concrete, the sleeve type and percent cable fill, as tabulated below:

Max Through Opening Diam In. (mm)	Min Concrete Thkns In. (mm)	Sleeve Type	% Cable Fill	F Rating Hr
6 (152)	2-1/2 (64)	PVC	10-15	3
6 (152)	4-1/2 (114)	PVC	10-40	3
6 (152)	4-1/2 (114)	None	10-40	3
6 (152)	4-1/2 (114)	Steel	10-40	3
8 (203)	2-1/2 (64)	None	10-15	3
8 (203)	2-1/2 (64)	Steel	10-15	3
8 (203)	4-1/2 (114)	Steel	10-22	3

3M COMPANY – CP 25WB+ caulk or FB-3000 WT sealant.

*Bearing the UL Classification Marking

NOTE: USE ALSO FOR ALL INTERIOR WALL (MASONRY) 1 HR. FIRE BARRIER LOCATIONS.

STATE OF OHIO
KENT D. BUEHRER
11087
KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9021 F 419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE
1 -

ISSUE DATE: 06/17/21
JOB NUMBER: 201296
CONSTRUCTION DOCUMENTS

LS3

CENTRAL FIRE STATION
1040 S WYNN ROAD

CITY OF OREGON
LUCAS COUNTY, OHIO
2021

INDEX OF SHEETS

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SPECIFICATION

ALL MATERIAL AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS INCLUDED WITHIN THE CONTRACT DOCUMENTS.

EXCEPT AS MODIFIED BY THESE PLANS AND THE DETAILED SPECIFICATIONS PERTAINING THERETO, THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2019, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS AS MAY BE IN EFFECT 14 CALENDAR DAYS PRIOR TO AWARD OF CONTRACT, SHALL GOVERN THIS IMPROVEMENT.

PLANS PREPARED BY :

CITY OF OREGON
DEPARTMENT OF PUBLIC SERVICE
5330 SEAMAN ROAD
OREGON, OHIO 43616

ENGINEERS SEAL:
STATE OF OHIO
BROOKE E. BINIKER
E-82360
REGISTERED
PROFESSIONAL ENGINEER
SIGNED:
DATE: 6/17/2021

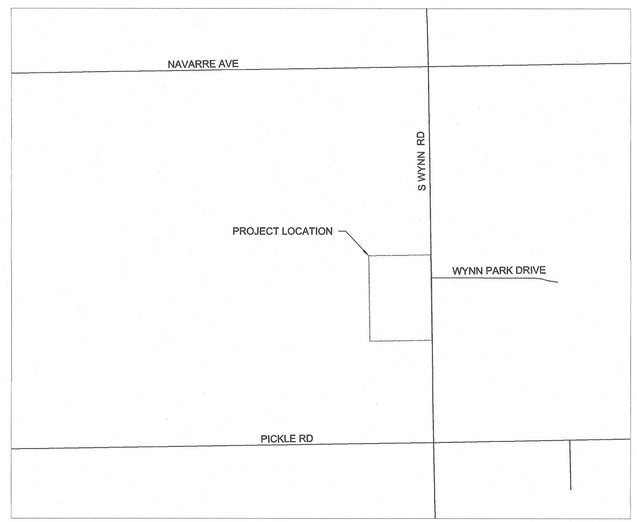
ENGINEERS SEAL:
STATE OF OHIO
RODNEY M. SHULTZ
E-63362
REGISTERED
PROFESSIONAL ENGINEER
SIGNED:
DATE: 6-17-2021

APPROVED BY :

6/17/21

PAUL ROMAN, P.E. DATE
CITY OF OREGON – PUBLIC SERVICE DIRECTOR

CITY OF OREGON
MUNICIPAL BUILDING
5330 SEAMAN ROAD



UNDERGROUND UTILITIES

TWO WORKING DAYS
BEFORE YOU DIG
Call 1-800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW FIRE STATION AND ASSOCIATED UTILITY INSTALLATION, PAVEMENT, BUFFER MOUNDING, AND A WATER QUALITY POND.

UTILITES

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING OWNERS OF UTILITIES FOR VERIFICATIONS OF LOCATIONS AND ANY REQUIRED RELOCATIONS OR TEMPORARY SERVICE INTERRUPTIONS:

OREGON WATER DEPARTMENT
5330 SEAMAN ROAD
OREGON, OHIO 43616
MS. MARY WOLF, SUPERINTENDENT
(419) 698-7038

OREGON STREET DEPARTMENT
5330 SEAMAN ROAD
OREGON, OHIO 43616
MR. KEITH HENNINGER, SUPERINTENDENT
(419) 698-7018

BUCKEYE BROADBAND
2700 OREGON ROAD
NORTHWOOD, OHIO 43619
(419) 724-3713

TOLEDO EDISON
6099 ANGOLA ROAD
HOLLAND, OHIO 43528
MR. RANDY SWOPE
(419) 249-5218

COLUMBIA GAS OF OHIO
3222 CENTRAL AVENUE
TOLEDO, OHIO 43606
MR. TOM JADLOS
(419) 539-6065

AT&T OHIO
130 NORTH ERIE STREET, RM-714
TOLEDO, OHIO 43604
MR. DAN CIEPLY
(419) 245-5007

BENCH MARK DATA

BENCH MARK NO. 1
TOP CENTER OF FIRE HYDRANT
ELEVATION. . . . . 601.55 (NAVD 88)

BENCH MARK NO. 2
TOP CENTER OF FIRE HYDRANT
ELEVATION. . . . . 602.88 (NAVD 88)

SCALE

DRAWN BEB
CHECKED RMS
DATE 3/18/2021

CITY OF OREGON
CENTRAL FIRE STATION

C-100

GENERAL

SPECIFICATIONS
EXCEPT AS MODIFIED BY THESE PLANS AND THE DETAIL SPECIFICATIONS PERTAINING THERETO, ALL WORK THIS PROJECT SHALL BE GOVERNED BY THE OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS, DATED JANUARY 1, 2019 AND BY SUCH SUPPLEMENTAL SPECIFICATIONS AS MAY BE IN EFFECT FOURTEEN (14) CALENDAR DAYS PRIOR TO AWARD OF THIS CONTRACT, IN THE AFORESAID STATE SPECIFICATIONS, THE WORDS "STATE," "DIRECTOR," AND "ENGINEER" SHALL BE HELD TO MEAN THE SERVICE DIRECTOR, CITY OF OREGON, OR HIS DULY APPOINTED REPRESENTATIVE.

A PRECONSTRUCTION CONFERENCE SHALL BE SCHEDULED BY THE CONTRACTOR WITH THE CITY OF OREGON DEPARTMENT OF PUBLIC SERVICE. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION AT THE TIME OF THE PRECONSTRUCTION CONFERENCE.
- CERTIFICATES OF INSURANCE
- SHOP DRAWING SUBMITTAL FOR ALL MATERIAL AND EQUIPMENT
- MAXIMUM OF 6 COPIES (2 COPIES FOR CITY)
- PROJECT SCHEDULE
- CONTRACTOR PROJECT REPRESENTATIVE
- CONTRACTOR 24–HOUR EMERGENCY CONTACT NUMBERS
- HAUL ROUTES

SAFETY REQUIREMENTS
THE CONTRACTOR SHALL AT ALL TIMES FOLLOW STATE AND LOCAL SAFETY REQUIREMENTS DURING CONSTRUCTION OF THIS PROJECT. SPECIAL CARE SHALL BE TAKEN DURING ALL TRENCHING OPERATIONS. SHEETING, BRACING, CRIBBING, ETC. SHALL BE INSTALLED AS REQUIRED TO PROVIDE MAXIMUM SAFETY TO THE WORKERS IN FULL COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

INSURANCE
NO CONTRACTOR OR SUBCONTRACTOR SHALL START ANY WORK UNTIL THE APPROVED CERTIFICATE OF LIABILITY IS FILED WITH THE CITY OF OREGON NAMING THE CITY OF OREGON AS INSURED.

EXISTING SURVEY POINTS
SURVEY MONUMENTS, PROPERTY PINS, BENCHMARKS AND EXISTING CONTROL POINTS DAMAGED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED BY AN OHIO REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE. SHOULD THE CONTRACTOR FAIL TO REPLACE THESE POINTS THE OWNER SHALL REPLACE THEM AT THE CONTRACTOR'S EXPENSE AFTER THREE WEEKS NOTICE.

REMOVAL ITEMS
PAYMENT FOR REMOVAL OF ALL EXISTING OBSTRUCTIONS WHICH ARE NOT ITEMIZED FOR PAYMENT AND WHICH WOULD NORMALLY BE REMOVED FOR THE INSTALLATION OF NEW WORK SHALL BE INCLUDED IN THE BID FOR THE PERTINENT ITEM OF WORK.

CONSTRUCTION NOISE
ALL LAND USES AND ACTIVITIES ADJACENT TO THIS PROJECT MAY BE AFFECTED BY NOISE DURING CONSTRUCTION OF THIS PROJECT. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER OPERATED CONSTRUCTION TYPE DEVICE SHALL NOT BE OPERATED BETWEEN 9:00 P.M. AND 7:00 A.M. IN ADDITION, ANY POWER OPERATED CONSTRUCTION TYPE DEVICE SHALL NOT BE OPERATED IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

HAUL ROUTES
ALL HAUL ROADS AND STREETS WITHIN THE PROJECT LIMITS ON WHICH TRAFFIC IS TO BE MAINTAINED SHALL BE KEPT RELATIVELY FREE FROM DUST AND DIRT TO THE SATISFACTION OF THE CONSTRUCTION ENGINEER. IF THEY ARE NOT MAINTAINED TO THE SATISFACTION OF THE CONSTRUCTION ENGINEER, HE MAY REQUIRE THE USE OF MECHANICAL CLEANING EQUIPMENT TO REMOVE DUST AND PARTICLES FROM THE ROADWAY SURFACE AND MINIMIZE THE CHANCE OF SUCH PARTICLES FROM BECOMING AIR–BORNE.

ACCESS
THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION PHASES AND OPERATIONS IN A MANNER THAT PROVIDES ACCESS TO PROPERTY OWNERS AND/OR TENANTS AFFECTED BY THE WORK AT ALL TIMES, UNLESS OTHERWISE AGREED TO BY THE OWNER/TENANT.

UTILITIES
THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT BUT THE CITY OF OREGON DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE LOCATION OF ALL EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE APPROXIMATE. DETERMINATION OF THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CONTENTS OF THE CONDUIT THROUGH THE UTILITY OWNER PRIOR TO BID. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UTILITIES CAUSED BY HIS OPERATIONS. THE OWNER SHALL NOT BE RESPONSIBLE FOR DELAYS DUE TO ABANDONED UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE–ESTABLISHING/REPAIRING ANY SERVICES THAT MAY BE DAMAGED DURING CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE TO SUPPORT AND PROTECT ALL UTILITIES EXPOSED DURING ANY EXCAVATION PERFORMED AS A RESULT OF THIS PROJECT.

ABOVE GROUND (AERIAL) UTILITIES, INCLUDING POWER, TELEPHONE AND CABLE TELEVISION, SHALL REMAIN IN SERVICE AT ALL TIMES. ANY ANTICIPATED DISRUPTION OF SERVICE SHALL BE WITH FULL KNOWLEDGE OF THE UTILITY COMPANY AND REQUIRED ADVANCE NOTICE TO AFFECTED USERS. REMOVAL OF GUY WIRES, SAFETY INSULATING OR WIRES AND HOLDING POLES SHALL BE DONE AS REQUIRED TO COMPLETE THE WORK, SHALL BE AGREED UPON BY THE UTILITY COMPANY AND THE CONTRACTOR, ARBITRARY DISRUPTION OF UNDERGROUND AND AERIAL UTILITY SERVICES WILL NOT BE PERMITTED.

THE FOLLOWING IS A LIST OF UTILITIES THAT ARE KNOWN TO BE WITHIN THE LIMITS OF CONSTRUCTION (NOT ALL MAY APPLY):

BUCKEYE BROADBAND
2700 OREGON ROAD
NORTHWOOD, OHIO 43619
(419) 724–3713

COLUMBIA GAS OF OHIO, INC.
3222 CENTRAL AVENUE
TOLEDO, OHIO 43606
(419) 539–6065

AT&T OHIO
130 NORTH ERIE STREET, ROOM 714
TOLEDO, OHIO 43604
(419) 245–5007

TOLEDO EDISON COMPANY
6099 ANGOLA
HOLLAND, OHIO 43528
(419) 249–5218

CITY OF OREGON
5330 SEAMAN ROAD
OREGON, OHIO 43616
(419) 698–7047 (SERVICE DEPT.)
(419) 698–7016 (STREET DEPT.)
(419) 698–7038 (WATER DEPT.)

UTILITY NOTIFICATION
THE CONTRACTOR SHALL NOTIFY ALL INVOLVED UTILITY COMPANIES AT LEAST FIVE (5) WORKING DAYS BEFORE ANY CONSTRUCTION WORK IS PERFORMED.

THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING WORK, AT (800) 362–2764. NON–MEMBERS MUST BE CONTRACTED SEPARATELY.

UTILITY RELOCATIONS
ALL EXPENSES IN RELOCATING THE AFFECTED UTILITY LINES SHALL BE BORNE BY OWNERS. THE CONTRACTOR AND THE OWNERS ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

BUCKEYE BROADBAND REQUIREMENTS
CONDUIT FOR BUCKEYE BROADBAND SHALL BE 4" SCHEDULE 40 PVC BURIED MINIMUM 36" DEEP. 36" SWEEPS SHALL BE USED FOR TURNS AND COMING UP OUT OF THE GROUND. STUB AND CAP CONDUIT 6"–10" ABOVE GRADE AT THE POLE. PLACE PULL STRING.

CONSTRUCTION LAYOUT STAKING
THIS WORK SHALL BE EXECUTED IN ACCORDANCE WITH ITEM 623 OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS EXCEPT AS MODIFIED BY THE FOLLOWING:

LAND SURVEY MONUMENTS, SECTION CORNERS, BENCHMARKS, PROPERTY CORNERS, ENGINEERING SURVEY MARKERS AND ANY OTHER CONTROL POINTS SHALL BE PROTECTED AND PRESERVED IN ACCORDANCE WITH SECTION 107.12 AND THE FOLLOWING:

1) BEFORE ANY CONTROL POINTS ARE DISTURBED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT, SUFFICIENT REFERENCE MEASUREMENTS SHALL BE MADE TO INSURE PROPERTY LOCATION OF THE POINT WHEN IT IS RE–ESTABLISHED.

2) PLAN ELEVATIONS OF SITE BENCH MARKS AND REFERENCES FOR THE CENTERLINE OF SURVEY CONTROL POINTS SHALL BE VERIFIED PRIOR TO CONSTRUCTION OF THIS PROJECT. CENTERLINE SURVEY CONTROL POINTS SHALL BE RE–ESTABLISHED IF REQUIRED AND CENTERLINE OF CONSTRUCTION ESTABLISHED. ADDITIONAL SITE BENCH MARKS SHALL BE ESTABLISHED IF REQUIRED.

3) THE CONTRACTOR SHALL PROVIDE A REGISTERED LAND SURVEYOR TO PERFORM THE ABOVE DESCRIBED WORK. THE SURVEYOR TO PERFORM THE ABOVE DESCRIBED WORK. THE SURVEYOR SHALL MAKE A WRITTEN RECORD CLEARLY IDENTIFYING CONTROL, REFERENCE OR BENCH MARK POINTS AND MEASUREMENTS TO THESE POINTS AND SHALL PROVIDE A COPY OF THIS RECORD TO THE CITY OF OREGON.

4) IF VERIFICATION OF CONTROL POINTS OR REFERENCE MEASUREMENTS ARE NOT ACCOMPLISHED TO THE SATISFACTION OF THE ENGINEER, THE ENGINEER WILL PROMPTLY NOTIFY THE CONTRACTOR OF THE NATURE OF THE PROBLEM. IF THE PROBLEM IS NOT ATTENDED TO PROMPTLY, THE CITY WILL TAKE THE NECESSARY ACTION TO CORRECT THE PROBLEM WITH THE COST OF SUCH SERVICE DEDUCTED FROM ANY MONIES DUE TO THE CONTRACTOR.

PAYMENT FOR PRESERVING CONTROL POINTS IN ACCORDANCE WITH THE ABOVE STATED STIPULATIONS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES.

DRIVEWAY REQUIREMENTS
THE CONCRETE DRIVEWAYS SHALL HAVE A 1 INCH LIP WHERE THE CONCRETE MEETS THE ASPHALT AT WYNN ROAD.

ADA RAMPS
ADA RAMPS SHALL BE PER ODOT ITEM 608 AND ODOT SCD BP–7.1.

DRAINAGE

ALL PIPE MUST HAVE BELL AND SPIGOT JOINTS

REVIEW OF DRAINAGE FACILITIES
BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE, REPRESENTATIVES OF THE CITY OF OREGON AND THE CONTRACTOR SHALL MAKE AND INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS.

ALL CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED.

ALL EXISTING SEWERS INSPECTED INITIALLY SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLE COMPARABLE TO WHAT WAS DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE PROJECT ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT SS 811 CONDUIT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES
WHERE PLANS PROVIDE FOR A CONDUIT TO BE CONNECTED TO, CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE PROJECT ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT SS 811 CONDUIT ITEM.

MAINTENANCE OF SEWER FLOWS
THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SUCH THAT THE FLOW OF ALL SEWERS WHICH ARE TO REMAIN IN SERVICE SHALL BE MAINTAINED AT ALL TIMES. ANY ADDITIONAL COST OR LABOR INVOLVED IN MAINTAINING THIS FLOW, BY PUMPING OR ANY OTHER APPROVED METHOD, SHALL BE INCLUDED WITHIN THE CONTRACT PRICE, FOR THE PERTINENT SS 811 CONDUIT ITEM.

MAINTAINING TRAFFIC
METHODS OF MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ITEM 614, THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (THE OHIO MANUAL) AND THE FOLLOWING:

THE CONTRACTOR SHALL SUBMIT, TO THE CITY OF OREGON, A DESCRIPTION OF THE PROPOSED SEQUENCE OF CONSTRUCTION OPERATIONS FOR REVIEW AND APPROVAL, A MINIMUM OF 10 WORKING DAYS PRIOR TO STARTING THE WORK. THE SEQUENCE OF CONSTRUCTION SHALL REFLECT ABSOLUTE MINIMUM DURATIONS FOR TEMPORARY TRAFFIC LANE USE.

WHEN NECESSITATED BY CONSTRUCTION ONE–WAY TRAFFIC FLOW MAY BE WHERE CONSTRUCTION ACTIVITIES INDICATED IN THE PLANS NECESSITATE LANE CLOSURES, THE CONTRACTOR SHALL PLAN TO COORDINATE THESE ACTIVITIES SO AS TO MINIMIZE THE OCCURRENCE AND DURATION OF ANY DISRUPTION TO TYPICAL TRAFFIC FLOW CONDITIONS. THE CONTRACTOR IS HEREBY ADVISED THAT THE PROXIMITY OF SCHOOLS IN THE PROJECT VICINITY NECESSITATES THE MINIMAL DISRUPTION TO SCHOOL CONSTITUENTS. IN ADDITION TO STANDARDS AND CUSTOMARY PRACTICES, PARTICULAR CONSIDERATION FOR THIS WILL BE REQUIRED FOR CITY OF OREGON APPROVAL OF CONTRACTOR PROPOSED SEQUENCES OF CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL MEASURES.

A TRAFFIC LANE AT LEAST (9) FEET WIDE SHALL BE PROVIDED WITH TRAFFIC FLOW CONTROLLED BY AT LEAST TWO FLAGGERS. IN NO CASE WILL ONE–WAY FLOW BE PERMITTED UNTIL ADEQUATE TRAFFIC CONTROL DEVICES AND FLAGGERS ARE IN PLACE AND APPROVED BY THE PROJECT ENGINEER. THE ONE–WAY TRAFFIC OPERATION SHALL BE LIMITED TO DAY LIGHT HOURS ONLY. THE ROAD SHALL BE REOPENED TO TWO WAY TRAFFIC FLOW AT NIGHT AND AT ALL TIMES WHEN THE CONTRACTOR IS NOT WORKING SUCH AS WEEKENDS, HOLIDAYS, OR WHEN WORK IS SUSPENDED DUE TO WEATHER CONDITIONS.

DRIVEWAY ACCESS SHALL BE MAINTAINED AT ALL PERIODS OF CONSTRUCTION BY USE OF THE EXISTING AND PROPOSED PAVEMENT, BERMS OR SHOULDERS TO THE SATISFACTION OF THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE EACH PROPERTY OWNER A MINIMUM OF FORTY–EIGHT (48) HOUR NOTICE WHEN ACCESS TO THEIR DRIVEWAY(S) WILL BE RESTRICTED DUE TO CONSTRUCTION.

PROTECTION AND RESTORATION OF PROPERTY
THE CONTRACTOR SHALL COMPLY WITH STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 107.10 WITH RESPECT TO THE PRESERVATION OF ADJACENT PROPERTY DURING THE CONSTRUCTION PROCESS.

ALL EXISTING FEATURES DISTURBED DUE TO CONSTRUCTION SUCH AS PAVEMENTS, DRIVEWAYS, PARKING AREAS, CURBS, GUTTERS, CATCH BASINS, HEADWALLS, DRAINS, FIELD TILES, CONDUIT PIPES, CABLES, FENCES, GRASSED AREAS, AND OTHER EXISTING FACILITIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IN ACCORDANCE WITH ANY APPLICABLE ODOT AND CITY OF OREGON SPECIFICATIONS AND THE TO THE SATISFACTION OF THE CITY OF OREGON.

ALL DISTURBED LAWN AREAS, UNLESS OTHERWISE SPECIFIED, SHALL BE PREPARED, SEEDED, FERTILIZED AND MULCHED ACCORDING TO ODOT 659. THE SEED MIXTURE SHALL BE PER ODOT CLASS 1.

EXISTING MAIL BOXES AND TRAFFIC SIGNS IN THE LINE OF CONSTRUCTION SHALL BE REMOVED AND ERECTED IN TEMPORARY LOCATIONS IN A MANNER SATISFACTORY TO OWNER, AND AFTER COMPLETION OF CONSTRUCTION, MOVED TO AND RE–ERECTED IN THEIR ORIGINAL LOCATIONS OR NEW LOCATIONS SATISFACTORY TO OWNER.

WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THESE CONTRACT DOCUMENTS AND, WHERE NOT INCLUDED HEREIN, THE REQUIREMENTS OF APPLICABLE ODOT ITEMS AS APPROVED BY ENGINEER.

IN ANY EVENT, CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY CAUSED BY MOVEMENT OF EQUIPMENT OR BY OTHER OPERATIONS AND SHALL REPAIR OR REPLACE ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS OPERATIONS.

CONSIDER THE COST OF THIS WORK AS INCIDENTAL TO THE PROJECT AND SHALL BE INCLUDED IN THE COST OF PERTINENT PAY ITEMS.

WATER MAINS AND SERVICES

ONLY THE CITY OF OREGON MAY OPERATE VALVES

WATERLINE SHALL BE INSTALLED, TESTED, AND STERILIZED UNDER THE DIRECT SUPERVISION OF THE CITY OF OREGON DIVISION OF WATER. NO DEVIATION FROM THESE SPECIFICATIONS WILL BE PERMITTED.

PVC WATERLINE AND FITTINGS

THE SPECIFICATIONS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE (AMERICAN WATER WORKS ASSOCIATION), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND THE AMERICAN SOCIETY OF TESTING AND MATERIALS HEREIN REFERRED TO FOR WATER SERVICE MAIN PIPE GATE VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES, UNLESS OTHERWISE NOTED, SHALL BE THE LAST SPECIFICATIONS AND PIPE LAYING, PVC PIPE SHALL BE DR 18, PR 235.

ALL PIPE FITTINGS AND SPECIALS SHALL BE LAID IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND WITH AWWA C600 AND NFPA.

PIPE INTERIORS SHALL BE THOROUGHLY CLEANED OF DIRT AND FOREIGN MATTER BEFORE LAYING, BY BRUSHING, SWABBING, PRESSURE WASHING OR OTHER METHOD APPROVED BY THE CITY ENGINEER, AND MEANS SHALL BE PROVIDED TO PREVENT ENTRY OF DIRT OR FOREIGN MATERIAL DURING THE PROGRESS OF INSTALLATION.

ALL FITTINGS SHALL BE DUCTILE IRON IN CONFORMANCE WITH AWWA C110 OR AWWA C153. ALL FITTINGS SHALL BE RATED FOR 350 PSI WORKING PRESSURE, HAVE MECHANICAL JOINTS AND BE COATED AND CEMENT–MORTAR LINED IN ACCORDANCE WITH THE DIP SPECIFICATIONS.

PVC WATERLINE AND FITTINGS (CONTINUED)
1. PIPE 12 INCH AND SMALLER: AWWA C900, 14 INCH AND LARGER: AWWA C905 AS MODIFIED HEREIN OR UNLESS OTHERWISE INDICATED ELSEWHERE IN CONTRACT DOCUMENTS, SUITABLE FOR POTABLE WATER USE.
A) CLASS AND THICKNESS: DR18 OR AS NOTED ON THE DRAWINGS, WITH DIP EQUIVALENT OUTER DIAMETERS.
B) POTABLE WATER USE: NSF61
C) PIPE MARKINGS: AWWA C900 AND AWWA C905
D) JOINING PIPES: UTILIZE ELASTOMERIC GASKET PUSH ON JOINTS FOLLOWING AWWA C900 AND C905
E) APPROVED MANUFACTURERS:
IPEX.
UPONOR ETI.
JM EAGLE OR APPROVED EQUAL

2. FITTINGS:
A) DUCTILE IRON SPECIFIED HEREIN.
B) PUSH–ON RUBBER GASKETED JOINTS: INJECTION–MOLDED MEETING AWWA C907, CLASS 150, OR FABRICATED MEETING AWWA C900, CLASS 200 OR AWWA C905, CLASS 235.
C) APPROVED MANUFACTURERS:
HARRINGTON CORPORATION (HARCO), MULTIFITTINGS.
FREEDOM PLASTICS OR APPROVED EQUAL

3. SERVICE SADDLES:
A) GENERAL:
1) USE FOR 2 INCH AND SMALLER CONNECTIONS.
2) MANUFACTURE SADDLES WITH CLAMPS FOR UNDERGROUND SERVICES:
A. RATED FOR MINIMUM SERVICE OF 150 PSI
B. PROVIDE FULL SUPPORT AROUND THE CIRCUMFERENCE OF PIPE.
C. DO NOT DISTORT, SCRATCH, OR DAMAGE PIPE WHEN TIGHTENED.
D. CONTAINS THICK TAPPING BOSS, WHICH HAS BEEN PRECISION–MACHINED WITH FULL–LENGTH THREADS FOR WATERTIGHT CONNECTION THAT RESISTS PULLOUT.
E. THREADS: AWWA C800 WITH STANDARD CORPORATION STOP THREAD.
F. BRASS OR BRONZE ALLOY MEETING ASTM B62 OR B584 AND AWWA C800
G. CASTINGS:
(1) UNIFORM QUALITY, TRUE TO PATTERN, OF EVEN GRAIN, SOUND AND SMOOTH, AND WITHOUT COLD SHUTS, SWELLS, SCALES, BLISTERS, SAND HOLES, CRACKS OR OTHER DEFECTS.
(2) SURFACES: SMOOTH WITH NO BURNT–ON SAND.
H. USE WATERTIGHT GASKETS OF BUNA–N RUBBER MEETING ASTM D2000 OR NITRITE AROUND TOP.

B) SADDLES FOR PVC AWWA C900 AND C905 PIPE:
1) USE TAPPING SADDLE MANUFACTURED SPECIFICALLY FOR AWWA C900 AND C905 PVC PIPE WITH STAINLESS STEEL WIDE BAND STRAPS, NUTS AND WASHERS
2) APPROVED MANUFACTURERS AND MODELS:
A. FORD METER BOX CO., INC. 202BS
B. SMITH BLAIR, INC., 325.
C. MUELLER COMPANY SERIES DR2S
D. OR APPROVED EQUAL

ALL PVC PIPE USED THROUGHOUT THIS PROJECT SHALL CONFORM TO AWWA C900 DR18 (PR 235PSI) SPECIFICATION, WITH GASKETS MEETING ASTM F477, AND JOINTS IN COMPLIANCE WITH ASTM D3139.

CONTRACTOR TO INSTALL PVC PIPE IN STRICT ACCORDANCE WITH: AWWA C605 AND AWWA M 23 LATEST REVISIONS THEREOF. IF ANY OF THESE DOCUMENTS ARE FOUND TO CONFLICT, THE MOST RESTRICTIVE OF THE REQUIREMENTS SHALL BE MET. PARTICULAR ATTENTION SHALL BE PAID TO THE FOLLOWING ITEMS FROM THESE REFERENCES:

1. ANY SCRATCH OR GOUGE IN THE PIPE THAT IS MEASURED AS 10% OR MORE OF THE WALL SHALL BE CAUSE FOR REJECTION OF THAT PIPE. FOR 8 INCH DR 18 THIS EQUALS 0.0503 INCH, AND FOR 8 INCH DR 14 EQUAL 0.0646 INCH, 12–INCH DR14 EQUALS 0.0943 INCH ETC.
2. SPECIAL CARE SHALL BE TAKEN IN HANDLING OF PVC PIPE IN COLD WEATHER (40 OR LESS) OR WARM WEATHER (73.4 OR MORE)
3. NO PIPE SHOWING EVIDENCE OF SUN BURNING SHALL BE INSTALLED
4. ANY/ALL DEFLECTIONS SHALL BE MADE PER THE MANUFACTURE'S RECOMMENDATIONS AND/OR STANDARDS
5. PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C605, INCLUDING A MINIMUM OF 4 INCHES OF BEDDING, BACKFILL AROUND THE PIPE AND TO A HEIGHT OF MINIMUM ONE FOOT OVER THE PIPE WITH 1/2–INCH AND LESS CRUSHED STONE OR PEA GRAVEL. THIS BACKFILL SHALL BE COMPACTED IN 8–INCH LIFTS.
6. ALL FITTINGS, VALVES, FIRE HYDRANTS AND OTHER IRON APPURTENANCES, AS WELL AS ANY NUTS AND BOLTS, SHALL BE PROTECTED FROM CORROSION WITH TWO LAYERS OF POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH AWWA C105 INSTALLED WITH ENOUGH TAPE SO AS TO HOLD THE POLYETHYLENE MATERIALS IN PLACE DURING THE BACKFILLING PROCESS.
7. THRUST BLOCKS SHALL BE INSTALLED ON ALL FITTINGS, VALVES, FIRE HYDRANTS, ETC. ASSOCIATED WITH THE USE OF PVC PIPE. NO RESTRAINT DEVICES SHALL BE ALLOWED ON PVC PIPE AS THESE MAY CUT INTO THE PIPE WALL RESULTING IN SCRATCHING OR GOUGING WHICH WILL REDUCE THE SURGE RESISTANCE OF THE PIPE.
8. CONTRACTOR SHALL FOLLOW ALL APPROPRIATE GUIDELINES WITH REGARD TO SAFELY TAPPING PRESSURIZED PVC PIPE. CONTRACTOR ASSUMES ALL LIABILITY RELATIVE TO SAFETY AND INJURY RESULTING FROM TAPPING PVC PIPE.
9. ALL FITTINGS, VALVES, FIRE HYDRANTS, ETC. SHALL BE SUPPORTED SUCH THAT THE WEIGHT OF SUCH APPURTENANCE WILL NOT BE TRANSFERRED TO THE ADJOINING PVC PIPE.

RESTRAINED JOINT (RJ) PVC WATERLINE
THE SPECIFICATIONS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE (AMERICAN WATER WORKS ASSOCIATION), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND THE AMERICAN SOCIETY OF TESTING AND MATERIALS HEREIN REFERRED TO FOR WATER SERVICE MAIN PIPE GATE VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES, UNLESS OTHERWISE NOTED, SHALL BE THE LAST SPECIFICATIONS AND PIPE LAYING, RESTRAINED JOINT (RJ) PVC PRESSURE PIPE SHALL BE DR 18, CLASS 235, AWWA C900.

THE RJ PVC PRESSURE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH THE DIMENSIONS, MATERIALS, QUALITY CONTROL, AND MARKING SPECIFICATIONS FOUND IN AWWA C900. THE PVC PIPE AND COUPLING MATERIAL CONFORMS TO A MINIMUM CELL CLASS OF 12454 AS DEFINED BY ASTM D1784. THE PIPE AND COUPLING COMPOUNDS ARE LISTED IN PPI TR–4 AS A STANDARD GRADE MATERIAL WITH A HYDROSTATIC DESIGN BASIS (HDB) OF 4000 PSI. THE STANDARD PIPE LAYING LENGTH IS 20 FEET.

THE RJ PRESSURE PVC PIPE AND COUPLING SYSTEM PROVIDES A RESTRAINED JOINT BY UTILIZING PRECISION–MACHINED GROOVES ON THE PIPE SPIGOT ENDS AND IN THE COUPLING. WHEN ASSEMBLED, SPLINES ARE INSERTED THROUGH ENTRY HOLES IN THE COUPLING, RESULTING IN A CONTINUOUS CIRCUMFERENTIAL RESTRAINED JOINT THAT LOCKS THE PIPE AND COUPLING TOGETHER. FLEXIBLE ELASTOMERIC GASKETS LOCATED IN GROOVES ON BOTH SIDES OF THE COUPLING PROVIDE A HYDRAULIC PRESSURE SEAL.

THE RJ PRESSURE PVC PIPE JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3139. ALL PRODUCTS ARE SUPPLIED WITH ISOPRENE/STYRENE–BUTADIENE RUBBER BLEND (IR/SBR) GASKETS. ALL GASKET MATERIAL OPTIONS SHALL MEET THE REQUIREMENTS OF ASTM F477.

ALL PIPE FITTINGS AND SPECIALS SHALL BE LAID IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND WITH AWWA C605 AND NFPA.

PIPE INTERIORS SHALL BE THOROUGHLY CLEANED OF DIRT AND FOREIGN MATTER BEFORE LAYING, BY BRUSHING, SWABBING, PRESSURE WASHING OR OTHER METHOD APPROVED BY THE CITY ENGINEER, AND MEANS SHALL BE PROVIDED TO PREVENT ENTRY OF DIRT OR FOREIGN MATERIAL DURING THE PROGRESS OF INSTALLATION.

TRACER TAPE/WIRE
THE CONTRACTOR SHALL FURNISH AND INSTALL DURING BACKFILL OPERATION FOR THE WATERLINE, 2 INCH IN WIDTH PRINTED POLYETHYLENE BLUE (WATER) TAPE. THIS IS TO BE PLACED THREE (3) FEET ABOVE THE CROWN OF THE PIPE.

NO SEPARATE OR EXTRA PAYMENT WILL BE MADE FOR THE FURNISHING AND INSTALLATION OF THE MARKER TAPE AND ALL COSTS SHALL BE INCLUDED FOR PAYMENT UNDER THE APPLICABLE BID ITEM(S) TO WHICH IT IS RELATED.

ALL DETECTABLE TRACING WIRE SHALL BE INSTALLED WITH PVC WATER MAINS. THE WIRE SHALL BE INSULATED NO. 12 COPPER ELECTRICAL WIRE (THW). SPLICES IN TRACKING WIRE SHALL BE MADE WITH SHRINK TYPE BUTT–END ELECTRICAL CONNECTORS. AFTER INSTALLATION, THE TRACER WIRE SHALL BE TESTED FOR CONTINUITY BETWEEN ALL ACCESS POINTS TO THE TRACER WIRE, SUCH AS FIRE HYDRANTS, VALVES BOXES, ETC. ANY DISCONTINUITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

THE TRACING WIRE SHALL BE CONNECTED TO EACH VALVE AND SHALL BE PLACED UNDER THE PIPE.

SCALE

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

GENERAL NOTES

CITY OF OREGON
CENTRAL FIRE STATION

C–101

MECHANICAL JOINT RESTRAINT

RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND TO THE LENGTHS, IN FEET, IN ACCORDANCE WITH MANUFACTURES'S RECOMMENDATIONS AND NFPA STANDARD.

ALL NUTS AND BOLTS SHALL BE 316 STAINLESS STEEL OR EQUAL.

THRUST BLOCKING AS A MEANS OF JOINT RESTRAINT WILL NOT BE PERMITTED UNLESS OTHERWISE STATED,

PIPE SHALL BE ANCHORED AT DEAD ENDS, BENDS, TEES, VALVES AND OTHER FITTINGS REQUIRING RESTRAINT BY MEANS OF MECHANICAL JOINT RESTRAINT. MECHANICAL JOINT RESTRAINT SHALL BE INCORPORATED IN THE DESIGN OF THE FOLLOWER GLAND AND SHALL INCLUDE A RESTRAINING MECHANISM WHICH, WHEN ACTUATED, IMPARTS MULTIPLE WEDGING ACTION AGAINST THE PIPE, INCREASING ITS RESISTANCE AS THE PRESSURE INCREASES. FLEXIBILITY OF THE JOINT SHALL BE MAINTAINED AFTER BURIAL. GLANDS SHALL BE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A 536–80. RESTRAINING DEVICES SHALL BE OF DUCTILE IRON HEAT TREATED TO A MINIMUM HARDNESS OF 370 BHN. DIMENSIONS OF THE GLAND SHALL BE SUCH THAT IT CAN BE USED WITH THE STANDARDIZED MECHANICAL JOINT BELL AND TEE–HEAD BOLTS CONFORMING TO ANSI/AWWA A21.11 AND ANSI/AWWA C153/A21.53 OF LATEST REVISION. TWIST–OFF NUTS SHALL BE USED TO INSURE PROPER ACTUATING OF THE RESTRAINING DEVICES. THE MECHANICAL JOINT RESTRAINT DEVICE SHALL HAVE A WORKING PRESSURE OF AT LEAST 250 PSI WITH A MINIMUM SAFETY FACTOR OF 2:1.

VALVES AND APPURTENANCES – GENERAL

THIS ITEM COVERS GATE VALVES AND TAPPING SLEEVES AND VALVES WHICH MAY BE REQUIRED IN CONNECTION WITH THE INSTALLATION OF THE WATER MAINS. ALL VALVES SHALL BE PROVIDED WITH A VALVE BOX OR SHALL BE INSTALLED WITHIN A MANHOLE AS SUBSEQUENTLY SPECIFIED. VALVES INSTALLED WITH CLASS 52 DUCTILE PIPE SHALL BE WRAPPED AS PREVIOUSLY SPECIFIED.

GATE VALVES

GATE VALVES SHALL BE IRON BODY, BRONZE MOUNTED, DOUBLE DISC, PARALLEL SEAT TYPE MEETING THE REQUIREMENTS OF AWWA C500, OR IRON BODY RESILIENT SEAT TYPE MEETING THE REQUIREMENTS OF AWWA C509. VALVES SHALL BE DESIGNED FOR A WORKING WATER PRESSURE OF 200 PSI AND SHALL BE OF THE NON–RISING STEM TYPE WITH A STANDARD AWWA NUT. THE MANUFACTURER SHALL FURNISH AN AFFIDAVIT INDICATING THAT ALL TESTS AND PROVISIONS OF THE APPLICABLE STANDARD HAVE BEEN MET. VALVES SHALL HAVE MECHANICAL JOINT ENDS. STEM SEALS SHALL CONSIST OF AT LEAST TWO "O" RINGS. VALVES SHALL OPEN BY TURNING TO THE RIGHT (CLOCKWISE). IF REQUIRED, OPERATORS SHALL BE PROVIDED WITH EXTENSION STEMS SUCH THAT THE OPERATING NUT TERMINATES APPROXIMATELY 4 FEET BELOW GRADE. EXTENSION STEMS SHALL BE CENTERED IN THE VALVE BOXES BY APPROVED STEM GUIDES. VALVES SHALL BE SET PLUMB, WITH THE VALVE BOX ACCURATELY CENTERED OVER THE VALVE. THE FOLLOWING MAKES AND MODELS OF VALVES WILL BE PERMITTED:

AMERICAN FLOW CONTROL –– SERIES 500
KENNEDY –– 4571–R
MUELLER –– A2360

ALL FITTINGS SHALL BE DUCTILE IRON, SHALL CONFORM TO AWWA C110 AND C153 AND SHALL BE OF MECHANICAL JOINT OR PUSH–ON TYPE.

ONLY THE CITY OF OREGON MAY OPERATE VALVES.

TAPPING VALVES

TAPPING SLEEVES AND VALVES SHALL BE FURNISHED BY THE CONTRACTOR. THE TAPPING SLEEVE AND VALVE WILL BE INSTALLED BY THE CITY OF OREGON. ALL EXCAVATION AND BACKFILL WILL BE PERFORMED BY THE CONTRACTOR.

A. INSTALLATION REQUIREMENTS – THE EXISTING WATER MAIN INTO WHICH A PRESSURE CONNECTION IS TO BE MADE CANNOT BE SHUT DOWN OR TAKEN OUT OF SERVICE. THE INSTALLATION SHALL BE MADE BY PERSONNEL SKILLED AND EXPERIENCED IN THE MAKING OF PRESSURE TAPS. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE SELECTION AND ADJUSTMENT OF DRILLING EQUIPMENT AS WELL AS IN THE INSTALLATION, INSPECTION AND CUTTING PROCEDURES. PRIOR TO ORDERING ANY TAPPING SLEEVE ASSEMBLY, THE CONTRACTOR SHALL EXPOSE A SECTION OF THE EXISTING MAIN AND VERIFY THE CIRCUMFERENCE OF THE PIPE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, PROPER ASSEMBLY, ALIGNMENT AND FITTING OF THE TAPPING SLEEVE AND VALVE TO THE MAIN. IN THE EVENT OF ANY MISMATCH OF ANY PURCHASED MATERIALS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REFIT THEM IN THE FIELD OR TO MAKE THE NECESSARY ARRANGEMENTS WITH THE MANUFACTURER FOR FACTORY REFIT.

THE SEVERED SECTION OF WATER MAINS SHALL BE REMOVED THROUGH THE TAPPING VALVE AND GIVEN TO THE CITY OR THEIR ENGINEER AS PROOF OF SATISFACTORY EXECUTION OF THE OPERATION. THE ENGINEER, AT HIS OPTION, MAY RETAIN THE COUPON FOR SUCH ANALYSIS OR TESTS AS ARE NECESSARY TO EVALUATE THE CONDITION OF THE EXISTING WATER MAIN, WATER TREATMENT, DEPOSITS, ETC.

THE CITY OF OREGON, DIVISION OF WATER, HAS THE NECESSARY EQUIPMENT AND EXPERIENCED PERSONNEL TO MAKE PRESSURE TAPS AND WILL PERFORM SAME AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.

B. TAPPING SLEEVES – TAPPING SLEEVES SHALL BE MADE IN TWO HALVES FOR ASSEMBLY AROUND THE MAINS. GASKETS SHALL EXTEND THE ENTIRE LENGTH OF THE SLEEVES TO FORM WATERTIGHT JOINTS WHEN THE SIDE BOLTS ARE TIGHTENED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. BRANCH FLANGES SHALL HAVE FEMALE FACES TO ACCOMMODATE MALE FACES OF TAPPING VALVES.

C. TAPPING VALVES – TAPPING VALVES SHALL BE GATE VALVES AS PREVIOUSLY SPECIFIED, EXCEPT AS MODIFIED BY THE FOLLOWING SUPPLEMENTARY REQUIREMENTS:

TAPPING VALVES SHALL BE OF THE CAST IRON BODY, RESILIENT SEAT TYPE, MEETING THE REQUIREMENTS OF AWWA C509–LATEST REVISION.

VALVE OUTLETS SHALL BE MECHANICAL JOINT IN COMPLIANCE WITH AWWA C111. THE CYLINDRICAL SECTION OF THE INTERIOR ANNULAR RECESS OF THE BELL SHALL BE MACHINED WITH THE BORE THROUGH THE SEAT RINGS TO PROVIDE ALIGNMENT FOR THE DRILLING MACHINE.

VALVE LOCATION AND SETTING

MAIN LINE VALVES SHALL BE INSTALLED AT INTERSECTIONS SO AS TO BE ABLE TO ISOLATE THE LINE AND PREVENT BACK FEET AND AT INTERVALS AS SHOWN ON THE PLANS. A GATE (WATCH) VALVE SHALL BE INSTALLED WITH EACH FIRE HYDRANT AS SUBSEQUENTLY SPECIFIED.

MAIN LINE VALVES INSTALLED IN EXISTING OR PROPOSED PAVED AREAS OR AS OTHERWISE REQUIRED BY THE CITY SHALL BE INSTALLED IN MANHOLES. VALVES INSTALLED AT ALL OTHER LOCATIONS SHALL BE WITH A VALVE BOX AS SUBSEQUENTLY SPECIFIED. VALVES SHALL SET PLUMB WITH THE MANHOLE ACCURATELY CENTERED OVER THE VALVE AND WITH THE TOP OF THE MANHOLE COVER FLUSH WITH THE SURFACE OF THE GROUND OR PAVEMENT.

WATCH VALVES INSTALLED WITH FIRE HYDRANTS AND ALL OTHER MAIN LINE VALVES SHALL BE INSTALLED WITH VALVE BOXES. VALVES SHALL BE SET PLUMB WITH VALVE BOX CENTERED OVER THE VALVE AND WITH THE TOP OF THE BOX FLUSH WITH THE SURFACE OF THE GROUND OR PAVEMENT.

VALVE BOXES

VALVE BOXES SHALL BE CONSTRUCTED OF A GOOD GRADE OF CAST IRON; SHALL BE COATED; SHALL BE OF THE THREE PIECE SCREW TYPE; SHALL HAVE A 5 1/4 INCH SHAFT; AND SHALL BE PROVIDED WITH A HEAVY NEED FITTING COVER HAVING THE WORD "WATER" CAST ON THE TOP. BASES SHALL COVER THE ENTIRE BONNET SECTION OF THE VALVE. BOXES SHALL CORRECTLY SET ON VALVE BODY AND SHALL EXTEND TO THE GROUND ELEVATION WITH SUFFICIENT LENGTH FOR EACH SECTION TO BE PROPERLY ENGAGED.

VALVE MANHOLES

ALL MAIN LINE VALVES SHALL BE ENCLOSED IN STANDARD VALVE MANHOLES AS SHOWN IN ATTACHED DETAILS. MANHOLES SHALL BE CONSTRUCTED OF EITHER APPROVED SOLID CONCRETE (CIRCULAR) BLOCK OR APPROVED PRECAST MANHOLE SECTIONS MEETING ASTM C–478. MANHOLE WALLS SHALL REST ON A CLASS 1 REINFORCED CONCRETE OR BERM STONE (ODOT ITEM 411) FOUNDATION AS SHOWN. IF BLOCK IS USED, A 1/2" COAT OF CEMENT MORTAR, INSIDE AND OUT, MUST BE PROVIDED. WHERE PIPE PASSES THROUGH THE WALLS PROVIDE A GASKETED FLEXIBLE WATERTIGHT CONNECTION (KOR–N–SEAL, OR EQUAL), OR 1/2" JUTE ROPING OR NEOPRENE GASKET MATERIAL.

WHERE SPECIFIED, MANHOLE STEPS MEETING ASTM C–478 SHALL BE PROVIDED AND SHALL BE OF ALUMINUM OR REINFORCED POLYPROPYLENE.

FOR PRECAST SECTIONS, TOPS SHALL BE OF THE ECCENTRIC OR FLAT SLAB TYPE AND SHALL BE CONSTRUCTED OF CLASS 1 REINFORCED CONCRETE. IF PRECAST SECTIONS ARE USED, A MINIMUM OF 6" OF ADJUSTING RINGS MUST BE PROVIDED.

VALVES MUST BE POSITIONED INSIDE MANHOLE SO AS TO ALLOW UNOBSTRUCTED ACCESS TO VALVE OPERATING NUT WITH VALVE WRENCH.

VALVE MANHOLE CASTINGS

VALVE MANHOLE FRAMES AND COVERS SHALL BE 22 INCH NEENAH R–1771, OR APPROVED EQUAL, ASTM–A48 WITH INTERCHANGEABLE PIECES AND MACHINED HORIZONTAL BEARING SURFACES.

IF CASTINGS ARE DELIVERED TO THE JOB UNPAINTED, THEY SHALL BE GIVEN ONE COAT OF ASPHALT VARNISH OR COAL–TAR PITCH PAINT BY THE CONTRACTOR.

MANHOLE/HYDRANT GRADES

CONTRACTOR SHALL ADJUST MANHOLE RIM GRADES AS SHOWN ON DRAWINGS TO ACTUAL SURROUNDING GRADE OR AS DIRECTED BY THE ENGINEER. NO ACTUAL PAYMENT IS ALLOWED FOR THESE ADJUSTMENTS.

FIRE HYDRANTS AND APPURTENANCES – GENERAL

THIS ITEM COVERS FIRE HYDRANTS, WATCH VALVES AND VALVE BOXES, HYDRANT TEES, ANCHORING FITTINGS AND ANCHORING PIPE WHICH MAY BE REQUIRED IN CONNECTION WITH THE INSTALLATION OF THE WATER MAINS. HYDRANTS IN NEW SUBDIVISIONS SHALL BE 4–FOOT UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE DIRECTOR OF PUBLIC SERVICE. FIRE HYDRANTS AND APPURTENANCES WHEN INSTALLED WITH CLASS 52 DUCTILE PIPE SHALL BE WRAPPED AS PREVIOUSLY SPECIFIED.

FIRE HYDRANTS

FIRE HYDRANTS SHALL BE OF THE COMPRESSION TYPE, OPENING AGAINST AND CLOSING WITH THE WATER PRESSURE IN THE MAIN, HAVING A 5–1/4 INCH VALVE OPENING, TWO 2–1/2 INCH HOSE NOZZLES (2.984 INCHES O.D., 8 THREADS PER INCH). HYDRANTS SHALL CONFORM TO AWWA C502, LATEST REVISION. THE MANUFACTURER SHALL FURNISH AN AFFIDAVIT INDICATING THAT ALL TESTS AND PROVISIONS OF AWWA C502 HAVE BEEN MET.

THE FOLLOWING MAKES AND MODELS OF HYDRANTS WILL BE PERMITTED:

AMERICAN–DARLING	B–84–B
KENNEDY	K–81A
MUELLER	A–423, SUPER CENTURION 200

THE HYDRANT BARREL SHALL HAVE AN INSIDE DIAMETER OF NOT LESS THAN 6 INCHES AND SHALL BE IN TWO PARTS FASTENED TOGETHER WITH A FRANGIBLE SECTION LOCATED JUST ABOVE GROUND LINE. THE HYDRANT STEM SHALL HAVE A BREAKABLE COUPLING IN THE SAME PLANE AS THE FRANGIBLE SECTION. STEM SHALL TERMINATE AND 1.50 INCHES POINT TO FLAT. SEALS SHALL BE RUBBER O–RINGS. HYDRANTS SHALL BE SUITABLE FOR SETTING IN TRENCHES OF THE DEPTHS SHOWN OR AS REQUIRED. THE HYDRANTS SHALL BE DESIGNED SO THAT WHEN PROPERLY OPERATED WATER HAMMER WILL BE PREVENTED. HYDRANTS SHALL BE FURNISHED WITH A POSITIVE–OPERATING DRAIN VALVE AND SHALL BE FURNISHED WITH A 6 INCH MECHANICAL JOINT BASE. HYDRANTS SHALL OPEN BY TURNING TO THE LEFT (COUNTER–CLOCKWISE).

THE CONTRACTOR SHALL VERIFY THAT THE HYDRANT FURNISHED AND THAT THE HYDRANT PUMPER NOZZLE WITH 5 INCH STORZ FITTING, OPERATING NUT, OUTLET NOZZLE CAP NUTS AND HOSE THREADS CONFORM TO THOSE IN THE SYSTEM BEFORE NEW HYDRANTS ARE SHIPPED.

EACH HYDRANT EXTERIOR, IN ADDITION TO FINISHING AS REQUIRED BY AWWA C502, SHALL BE GIVEN ONE FIELD COAT OF ASPHALT VARNISH AFTER ERECTION AND BEFORE BACKFILLING FROM GROUND LEVEL DOWN. THAT PART OF THE HYDRANT EXTERIOR ABOVE GROUND LEVEL SHALL BE FIELD PAINTED WITH TWO COATS OF PAINT AS REQUIRED BY THE OWNER AFTER BACKFILLING IS COMPLETE.

BONNET, 3 CAPS AND CHAINS – BLACK ENAMEL, GLIDDEN 4551, ICI DEVOE #43089990, OR CITY APPROVED EQUAL.

BARREL – MEDIUM YELLOW ENAMEL, GLIDDEN 4560, ICI DEVOE #43088600, OR CITY APPROVED EQUAL.

PROTECTION AND PAINTING

ALL IRON PARTS OF VALVES AND ACCESSORIES SHALL BE PAINTED BEFORE LEAVING THE SHOP WITH TWO COATS OF ACCEPTABLE HIGH GRADE BITUMINOUS PAINT.

THE VALVES SHALL BE PROTECTED AT ALL TIMES FROM RUST OR DAMAGES, BOTH BEFORE AND AFTER INSTALLATION, UNTIL THE COMPLETION OF THE CONTRACT.

WATCH VALVES AND VALVE BOXES

EACH HYDRANT SHALL BE CONTROLLED BY A WATCH VALVE WHICH SHALL BE A 6–INCH GATE VALVE AS PREVIOUSLY SPECIFIED IN PARAGRAPH 2.2, EXCEPT THE VALVES SHALL HAVE MECHANICAL JOINT ENDS FOR RECEIVING THE SPIGOT ENDS OF 6–INCH ANCHORING FITTINGS AND/OR ANCHORING PIPE. EACH VALVE SHALL BE INSTALLED COMPLETE WITH A VALVE BOX AS PREVIOUSLY SPECIFIED IN PARAGRAPH 2.5.

VALVE BOXES SHALL BE CONSTRUCTED OF A GOOD GRADE OF CAST IRON; SHALL BE COATED; SHALL BE OF THE THREE PIECE SCREW TYPE; SHALL HAVE A 5–1/4 INCH SHAFT; AND SHALL BE PROVIDED WITH A HEAVY NEAT FITTING COVER HAVING THE WORD "WATER" CAST ON THE TOP.

HYDRANT ANCHORING

EACH HYDRANT CONNECTION TO THE MAINS SHALL BE MADE BY MEANS OF ANCHORING PIPE AND ANCHORING FITTINGS AS SHOWN ON THE DETAILS HEREIN. ALL ANCHORING PIPE AND ANCHORING FITTINGS SHALL BE AS MANUFACTURED BY CLOW CORPORATION OR CITY APPROVED EQUAL.

HYDRANT INSTALLATION

HYDRANTS SHALL BE SET PLUMB AND TO THE GRADE OF THE CURB, STREET, ALLEY, HIGHWAY OR RIGHT–OF–WAY AT THE DIRECTION OF THE CITY OR THEIR ENGINEER AND SHALL BE OF THE OVER MAIN TYPE OR OFFSET TYPE AS SUBSEQUENTLY SPECIFIED. PUMPER NOZZLE SHALL ALWAYS BE SET TOWARD THE MIDDLE LINE OF THE STREET, HIGHWAY OR RIGHT–OF–WAY. EXCAVATION FOR HYDRANTS SHALL FIRST BE BACKFILLED WITH NO. 6 STONE TO A MINIMUM DEPTH OF TWO FEET AS SHOWN ON THE PLANS. REMAINDER OF EXCAVATION SHALL THEN BE BACKFILLED AS PREVIOUSLY SPECIFIED FOR PIPE LAYING.

FOR THE OVER THE MAIN TYPE, THE HYDRANT BASE SHALL REST ON A CREOSOTED WOOD TIMBER SUPPORTED BY TWO VERTICAL BLOCKS. THE TIMBER SHALL BE THE LARGEST NOMINAL SIZE SQUARE TIMBER WHICH WILL FIT BETWEEN THE HYDRANT BASE AND THE TOP OF THE MAIN, WITH THE BLOCKS TO BE THE SAME SIZE. THE HORIZONTAL TIMBER SHALL BE SPIKED TO THE VERTICAL BLOCKS TO PREVENT THE MOVEMENT OF SAME DURING SUBSEQUENT BACKFILLING OPERATIONS. EACH HYDRANT SETTING SHALL CONSIST OF A TEE, CLOW F–288 AND AN ANCHORING ELBOW CLOW F–1218 OR CITY APPROVED EQUAL, SET VERTICAL AND TIED SECURELY TO THE WATCH VALVE AND HYDRANT WITH ONE MINIMUM THREE FOOT LONG PIECE OF ANCHORING PIPE, CLOW F–1216 OR CITY APPROVED EQUAL. SEE DETAIL 4.

FOR THE OFFSET TYPE, THE HYDRANT BASE SHALL BE PROVIDED WITH A FOUNDATION SLAB OF CLASS I CONCRETE, 18–INCHE SQUARE AND AT LEAST 6–INCHES THICK. EACH HYDRANT CONNECTION TO THE MAIN SHALL BE MADE BY MEANS OF AN ANCHORING TEE, CLOW F–1217 OR APPROVED EQUAL, TIED SECURELY TO THE WATCH VALVE AND HYDRANT WITH THE REQUIRED LENGTHS OF ANCHORING PIPE, CLOW F–1216 OR CITY APPROVED EQUAL. SEE DETAIL 5.

ANCHORS AND SUPPORTS

REINFORCED CONCRETE ANCHORS AND SUPPORTS (THRUST BLOCK) SHALL BE PROVIDED AT ALL FITTINGS, VALVES OR CHANGES IN DIRECTION OF THE PIPE. THEY SHALL BE CONSTRUCTED OF CLASS I CONCRETE, AS SHOWN ON DETAIL SHEET, AND SHALL BE PLACED AGAINST FIRM UNDISTURBED SOIL. ALL PLUG OR CAPS SHALL BE SECURELY STRAPPED OR BLOCKED.

INSTALLATION

ALL PIPE AND APPURTENANCES SHALL BE INSTALLED TRUE TO LINE, GRADE, AND LOCATION WITH JOINTS CENTERED; SPIGOTS HOME; PROPER SUPPORT AND BLOCKING PROVIDED; AND ALL VALVE STEMS PLUMB. CARE SHALL BE USED TO LAY THE PIPE SO THAT IT IS SUPPORTED BY THE FULL LENGTH OF THE BARREL. THE PIPE SHALL HAVE APPROXIMATELY 4' OF COVER. WHERE CONFLICTS OCCUR WITH OTHER UTILITIES A MINIMUM OF 18–INCH VERTICAL SEPARATION IS REQUIRED. WHERE SPECIAL CONDITIONS WARRANT, THE DEPTH OF COVER MAY BE CHANGED. ALL TRENCHES AND EXCAVATIONS SHALL BE BACKFILLED IMMEDIATELY AFTER PIPE IS LAID THEREAF" NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONES, ROCK OR PIECES OF MASONRY, FROZEN EARTH, DEBRIS OF EARTH WITH AN EXCEPTIONALLY HIGH VOID CONTENT. TRENCHES OUTSIDE THE LIMITS OF 5 FEET FROM THE EDGE OF PAVEMENT SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL A MINIMUM OF 12 INCHES ABOVE THE TOP OF THE PIPE. THE REMAINDER OF THE TRENCH MAY BE FILLED WITH EXCAVATED MATERIAL, INSOFAR AS IT IS OF SUITABLE CHARACTER.

ALL PIPES SHALL BE THOROUGHLY CLEANED INSIDE AND OUTSIDE BEFORE BEING LOWERED INTO THE TRENCH; SHALL BE KEPT CLEAN DURING AND AFTER LAYING; AND THE END OF THE PIPE SHALL BE PLUGGED TO EXCLUDE WATER, ANIMALS OR OTHER MATTER WHEN PIPE LAYING IS STOPPED FOR ANY REASON.

BACKFILLING

ALL TRENCHES AND EXCAVATIONS SHALL BE BACKFILLED IMMEDIATELY AFTER PIPE IS LAID THEREIN, NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONES, ROCK OR PIECES OF MASONRY, FROZEN EARTH, DEBRIS OR EARTH WITH AN EXCEPTIONALLY HIGH VOID CONTENT. TRENCHES OUTSIDE THE LIMITS OF 5 FEET FROM THE EDGE OF PAVEMENT, PAVED OR STONE BERM OR BACK OF CURB SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL A MINIMUM OF 12 INCHES ABOVE THE TOP OF THE PIPE. THE REMAINDER OF THE TRENCH MAY BE FILLED WITH EXCAVATED MATERIAL, INSOFAR AS IT IS OF SUITABLE CHARACTER. TRENCHES WITHIN 5 FEET OF BACK OF THE CURB, EDGE OF PAVEMENT OR EDGE OF PAVED OR STONE BERM SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL TO THE PAVEMENT SUBGRADE. GRANULAR BACKFILL SHALL CONFORM TO THE GRADATION REQUIREMENTS OF THE CURRENT SPECIFICATIONS FOR ITEM 703.11, TYPE 1, (304 ONLY) OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS, STATE OF OHIO, DEPARTMENT OF TRANSPORTATION. (MAX. DRY DENSITY EXCEEDING 105LBS. PER CUBIC FEET AND COMPACTION TO 100% OF THE STANDARD PROCTOR TEST). GRANULAR MATERIAL MAY BE COMPACTED WITH WATER IF SATISFACTORY DRAINAGE IS PROVIDED FOR THE EXCESS WATER. WHEN COMPACTING WITH WATER, THE GRANULAR MATERIAL MAY BE PLACED IN LAYERS NOT TO EXCEED 8 INCHES LOOSE DEPTH AND EACH LAYER THOROUGHLY SATURATED WITH WATER BY FLOODING OR JETTING. PRIOR TO THE PLACEMENT OF SOIL OVER THE GRANULAR MATERIAL, THE EXCESS WATER SHOULD BE DRAINED.

PRESSURE AND LEAKAGE TESTING

THE CONTRACTOR SHALL MAKE PRESSURE AND LEAKAGE TESTS OF ALL PIPE LINES ACCORDANCE WITH AWWA C600 LATEST REVISION UNLESS OTHERWISE DIRECTED BY THE CITY OF OREGON.

PRESSURE TESTS SHALL BE MADE IN ALL PIPE LINES OR VALVED SECTIONS THEREOF, AS DIRECTED. THE CONTRACTOR SHALL FURNISH THE PUMP, PIPE CONNECTIONS, TAPS, GAUGES AND ALL OTHER APPARATUS FOR MAKING THE TEST. BEFORE TESTING OF THE MAIN, THE CONTRACTOR SHALL FLUSH THE MAIN UNDER THE CITY OF OREGON DIRECTION TO EXPEL ANY WATER, DIRT, CHLORINE, ETC.

THE COST OF FURNISHING ALL MATERIAL, LABOR, EQUIPMENT AND THE TOTAL VOLUME OF WATER FOR TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT CONDUIT ITEM.

DISINFECTION

THE CONTRACTOR SHALL CHLORINATE ALL PIPE LINES, AND THIS SHALL BE DONE PRIOR TO PRESSURE TESTING UNLESS OTHERWISE DIRECTED BY THE CITY. DISINFECTION SHALL MEET OR EXCEED AWWA C651.

THE COST TO COMPLETE SUCH WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT CONDUIT ITEM.

OHIO E.P.A. REQUIREMENTS

THE OHIO ENVIRONMENTAL PROTECTION AGENCY REQUIRES A CONFORMANCE TO THE 2012 EDITION OF "TEN STATES SANDARDS." THIS STANDARD SHALL BE EQUALLED OR EXCEEDED FOR WATERLINES. SPECIAL ATTENTION SHALL BE GIVEN TO THE FOLLOWING SECTIONS OF PART 8.

8.1.1	MATERIALS CONFORM TO AWWA STANDARDS
8.2.2	MINIMUM 6" DIAMETER FIRE PROTECTION
8.4.4	HYDRANT DRAINAGE
8.7.3	COVER
8.7.6	PRESSURE TESTING AWWA C–600*
8.7.7	DISINFECTION AWWA C–651*
8.8.2	10' HORIZONTAL SEPARATION WATER MAIN/SEWER
8.8.3	18" VERTICAL SEPARATION WATER MAIN/SEWER
8.8.6	NO ENTRY AND/OR CONTACT WITH SEWER MANHOLE

*NOTE: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THIS TEST PROPERLY AND THEIR RESPONSIBILITY FOR ADEQUATE SUPERVISION AND APPROVAL RESTS WITH THE APPROPRIATE GOVERNMENTAL AGENCY. ANY DEVIATION FROM THE ABOVE WILL NOT BE PERMITTED UNLESS SPECIFICALLY INCLUDED IN THE GENERAL NOTES OR OTHERWISE SHOWN ON THESE PLANS.

IN CASES WHERE ONE AND/OR MORE OF THE ABOVE MENTIONED OHIO E.P.A. STANDARDS FALL SHORT OF THE CITY OF OREGON, WATER DEPARTMENT, THE LATTER SHALL GOVERN.

SANITARY SEWER

SANITARY SEWER PIPE

4"–15" SANITARY SEWER SHALL BE PVC CONFORMING TO ASTM D–3034 WITH JOINTS CONFORMING TO ASTM D–3212, SDR–35 MINIMUM.

18" AND LARGER SANITARY SEWER SHALL BE PVC CONFORMING TO ASTM F–679 WITH JOINTS CONFORMING TO ASTM D–3212, SDR–35 MINIMUM.

QUANTITIES FOR BENDS, TEES, WYES, PLUGS AND OTHER FITTINGS ARE SHOWN ON THE PLANS FOR THE CONVENIENCE OF THE CONTRACTOR. THE COST OF ALL FITTINGS SHALL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT CONDUIT ITEM. THE COST OF ALL BEDDING, SPECIAL BACKFILL, CDF BACKFILL AND PAVEMENT REPLACEMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SANITARY SEWER PIPE.

SEWER–WATER LINE SEPARATION

SANITARY SEWER AND MANHOLE INSTALLATIONS SHALL BE LAID AT LEAST 10 FEET APART HORIZONTALLY AND HAVE 18" OF SEPARATION VERTICALLY.

INSTALLATION

THE PIPE SHALL BE LAID ON A PROPERLY SHAPED AND FIRM BEDDING OF THE TYPE SPECIFIED AND MEETING THE REQUIREMENTS OF ITEM 603.04. WHERE CONDITIONS WARRANT, UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH EITHER NO. 57 OR NO. 67 STONE.

ALL PIPE AND APPURTENANCES SHALL BE INSTALLED TRUE TO LINE, GRADE AND LOCATION; WITH JOINTS CENTERED, SPIGOTS HOME AND PROPER SUPPORT AND BLOCKING PROVIDED. CARE SHALL BE TAKEN TO LAY THE PIPE SO THAT IT IS SUPPORTED AND BEDDED THE FULL LENGTH OF THE BARREL.

WHEN NO BEDDING IS SPECIFIED, THE REQUIREMENTS FOR CLASS 'B' BEDDING SHALL APPLY.

CONNECTIONS TO EXISTING SEWERS

WHERE THE PLANS PROVIDE FOR THE PROPOSED CONDUIT TO BE CONNECTED TO OR TO CROSS EITHER OVER OR UNDER AND EXISTING SEWER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE THE EXISTING PIPE AS TO BOTH LINE AND GRADE BEFORE THEY START CONSTRUCTION OF THE PROPOSED SEWER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING SEWERS RESULTING FROM HIS OPERATION OR NEGLIGENCE.

BACKFILLING

ALL TRENCH AND EXCAVATIONS SHALL BE BACKFILLED IMMEDIATELY AFTER PIPE IS LAID THEREIN. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS LARGE STONES, ROCKS OR PIECES OF MASONRY, FROZEN EARTH, DEBRIS, OR EARTH WITH A HIGH VOID CONTENT.

TRENCHES OUTSIDE THE LIMITS OF 5' FROM THE BACK OF CURB OR EDGE OF PAVEMENT (TYPE C CONDUIT) SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL A MINIMUM OF 12" ABOVE THE TOP OF THE PIPE. THE REMAINDER OF THE TRENCH MAY BE FILLED WITH EXCAVATED MATERIAL, AS IT IS OF SUITABLE CHARACTER.

TRENCHES UNDER PAVEMENT OR WITHIN 5' FROM THE BACK OF CURB OR EDGE OF PAVEMENT (TYPE B CONDUIT) SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL TO THE PAVEMENT SUBGRADE. GRANULAR BACKFILL MATERIAL SHALL CONFORM TO ODOT 304, OR AS MODIFIED BY THE CITY OF OREGON. COMPACTION OF GRANULAR SHALL BE 98% OF STANDARD PROCTOR.

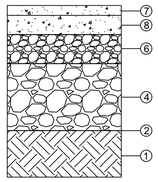
SCALE

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

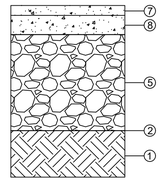
GENERAL NOTES

CITY OF OREGON
CENTRAL FIRE STATION

C–102



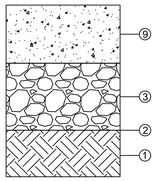
HEAVY DUTY ASPHALT



LIGHT DUTY ASPHALT

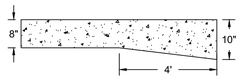
ASPHALT PAVEMENT SECTIONS

NTS



CONCRETE PAVEMENT SECTION

NTS



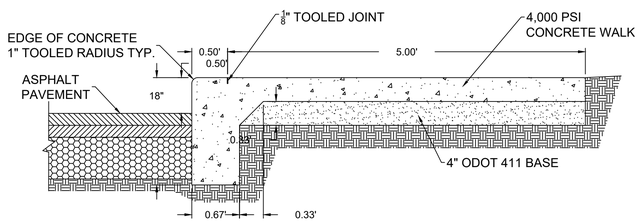
CONCRETE PAVEMENT THICKENED EDGE

NTS

LEGEND

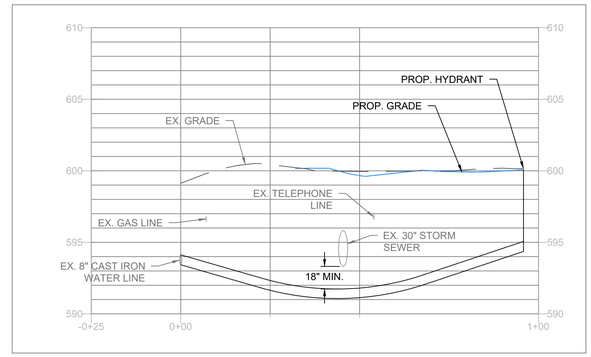
1. EX. SOIL
2. ITEM 204 - SUBGRADE COMPACTION
3. ITEM 304 - 4" AGGREGATE BASE
4. ITEM 304 - 8" AGGREGATE BASE
5. ITEM 304 - 12" AGGREGATE BASE
6. ITEM 301 - 4" ASPHALT CONCRETE BASE
7. ITEM 441 - 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG64-22
8. ITEM 441 - 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448)
9. ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT WITH THICKENED EDGE

*ALTERNATE BID #11 TO BE ALL CONCRETE PAVEMENT. HEAVY DUTY ASPHALT SECTIONS TO MATCH CONCRETE PAVEMENT SECTION. LIGHT DUTY ASPHALT SECTIONS TO BE 4.5" ITEM 452 NON-REINFORCED CONCRETE PAVEMENT WITH THICKENED EDGE WITH 4" ITEM 304 AGGREGATE BASE.



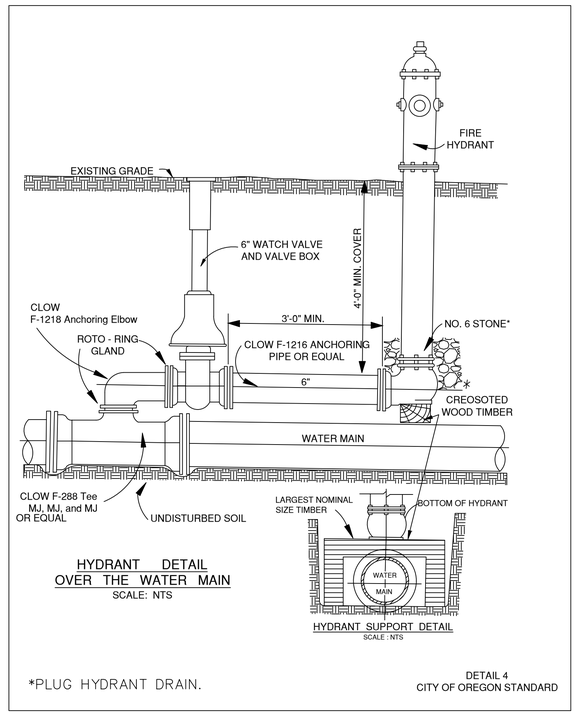
INTEGRAL CONCRETE CURB & WALK

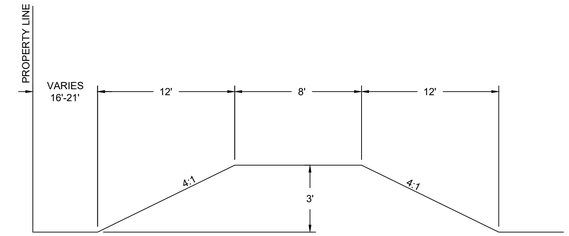
NOT TO SCALE



WYNN ROAD WATER LINE BORE

SCALE: 1"=20' H, 1" =5' V

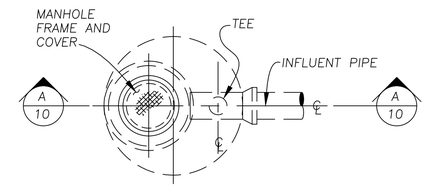




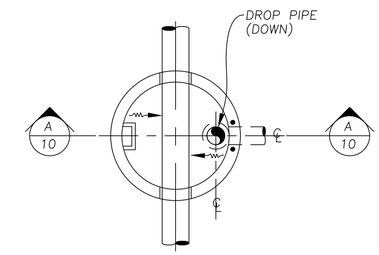
MOUND SECTION

NTS

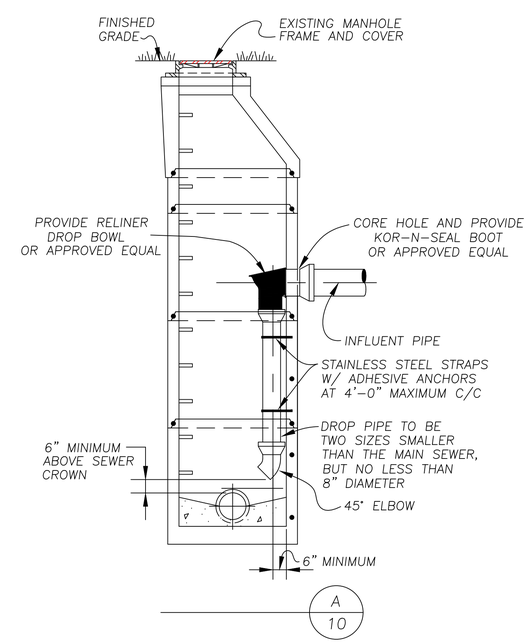
*MOUND MAY BE RAISED OR LOWERED TO BALANCE SITE



PLAN

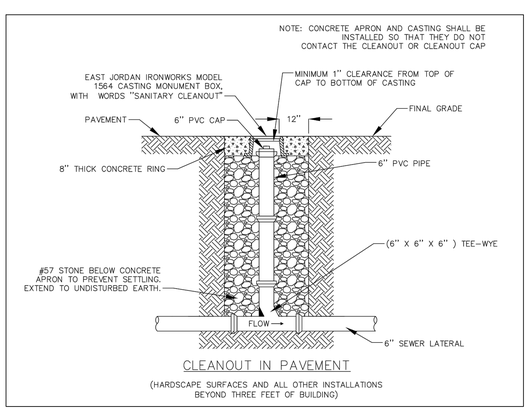


SECTION PLAN



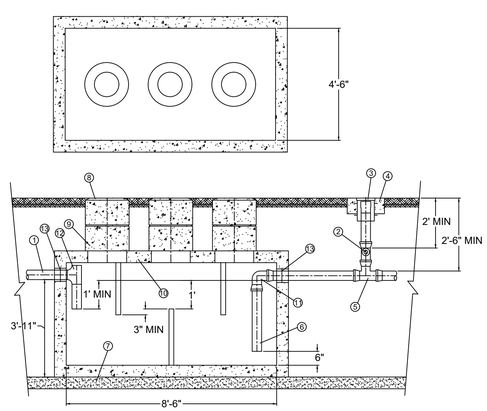
DROP CONNECTION INSIDE
FOR EXISTING MANHOLES

NTS



CLEANOUT IN PAVEMENT

(HARDSCAPE SURFACES AND ALL OTHER INSTALLATIONS
BEYOND THREE FEET OF BUILDING)



ITEM	DESCRIPTION
1	6" INLET PIPE
2	6"X3" TEE WITH 3" PIPE TO BUILDING VENT
3	CLEAN OUT CAP EAST JORDAN IRONWORKS MODEL 1564
4	CONCRETE PAD
5	6"X6" VENT (STRAIGHT) TEE
6	6" OUTLET
7	4" - 6" GRAVEL BEDDING
8	HEAVY DUTY CAST IRON FRAME AND COVER
9	CONCRETE ADJUSTMENT RINGS
10	REINFORCE AS REQUIRED FOR SERVICE CONDITIONS
11	6" 90°
12	6" TEE
13	A-LOK OR PRESS SEAL PSX PIPE/WALL CONNECTOR

NOTES:

1. THREE COVERS AND RISERS SHOWN. TWO COVERS AND RISERS CENTERED OVER UPPER TWO BAFFLES ARE OPTIONAL.
2. INTERCEPTOR SIZE - 1500 GAL MINIMUM
3. ALL JOINTS AT THE FRAME & COVER, CONCRETE ADJUSTMENT RINGS AND THE LID OF THE INTERCEPTOR SHALL BE SEALED WITH A MINIMUM OF TWO (2) ROWS OF 3/4 TO 1 INCH PREFORMED BITUMASTIC JOINT SEALER AND A 6" BUTYL JOINT WRAP AROUND SLEEVE (EZ WRAP). THE ENDS OF THE 6" EZ WRAP SHALL OVERLAP BY 12".

SAND AND OIL INTERCEPTOR, APP

NTS

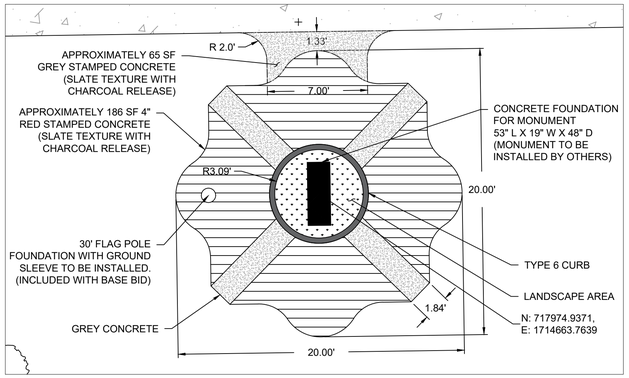
SCALE

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

DETAILS

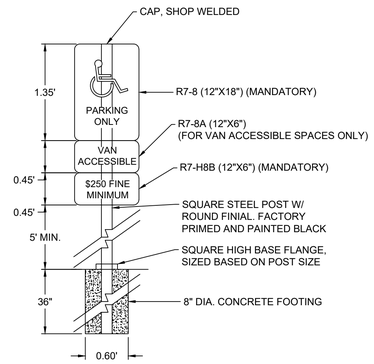
CITY OF OREGON
CENTRAL FIRE STATION

C-103

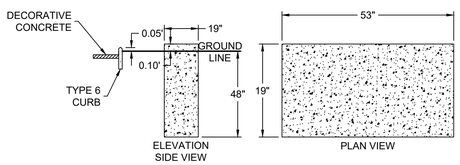


MEMORIAL DETAILS (ALTERNATE BID #2)

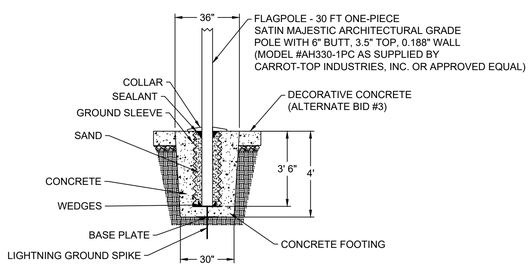
SCALE: 1"=5' H



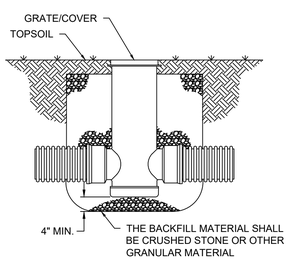
ADA PARKING SIGNS



MONUMENT FOUNDATION (ALTERNATE BID #2)



FLAG POLE FOUNDATION (BASE BID)



YARD BASIN

NTS

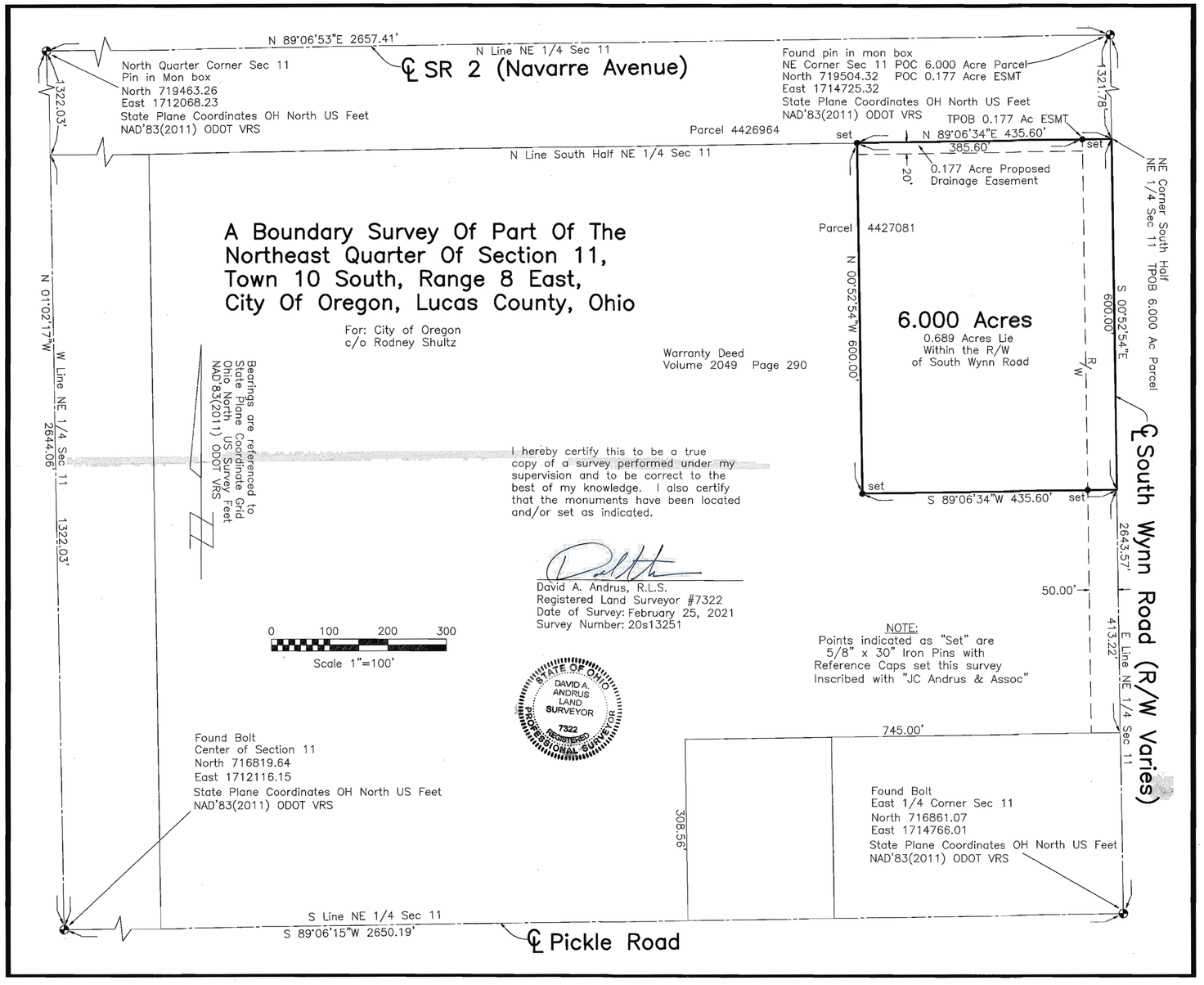
SCALE

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

DETAILS

CITY OF OREGON
CENTRAL FIRE STATION

C-104



SHEET	
1 OF 1	

JOB NUMBER:	20S13251
DWG NAME:	20S13251
PLOT DATE:	2/25/21
DRAWN BY:	DAA

J. C. ANDRUS & ASSOCIATES, INC.
ENGINEERS – SURVEYORS – PLANNERS
5241 SECOR ROAD SUITE A TOLEDO, OHIO 43623
(419) 248-3737 (800) 669-5315 FAX (419) 248-1099

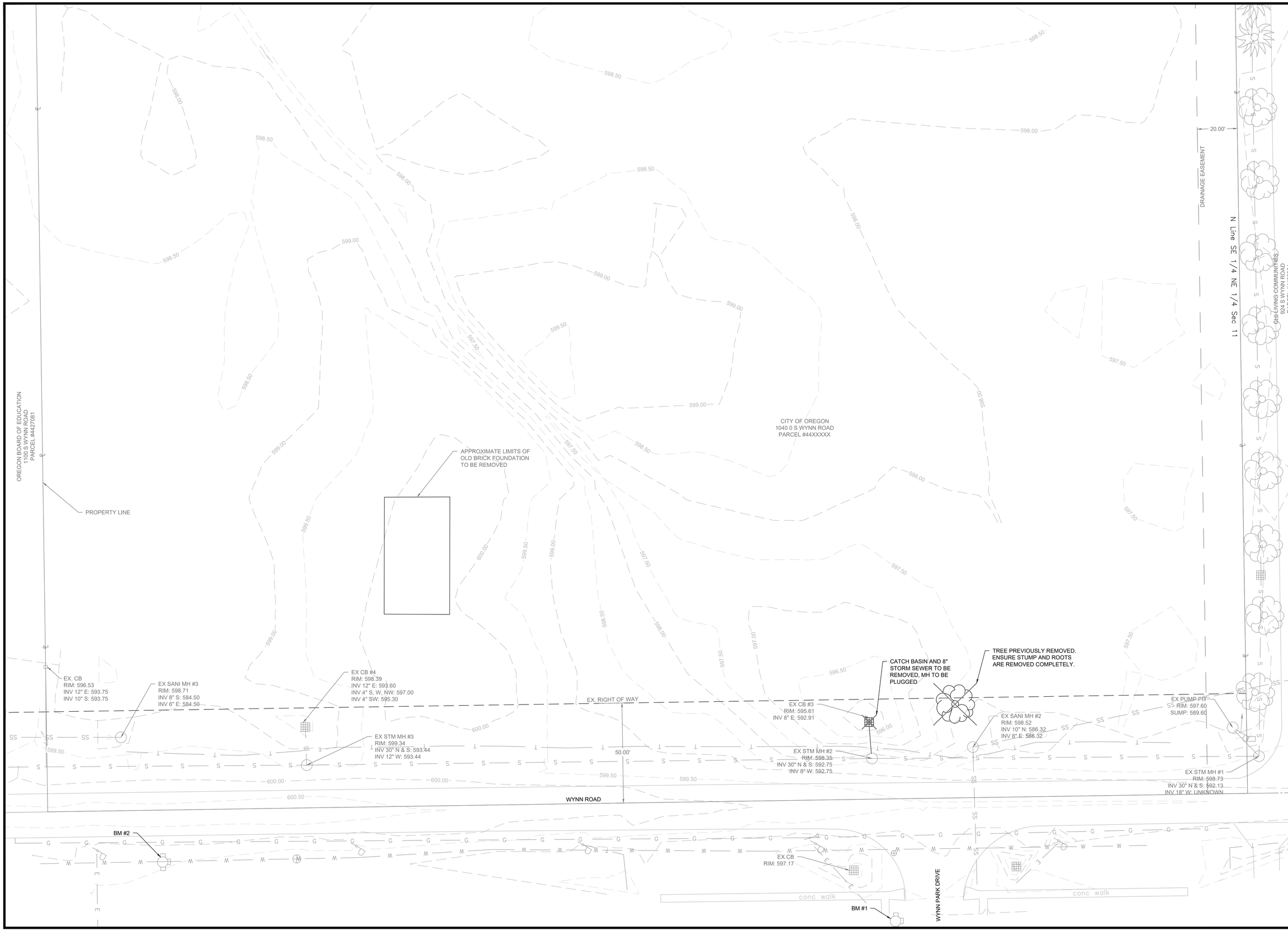
DATE	BY	DRAWING REVISIONS DESCRIPTION

SCALE	
DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

LEGAL DESCRIPTION

CITY OF OREGON
CENTRAL FIRE STATION

C-105



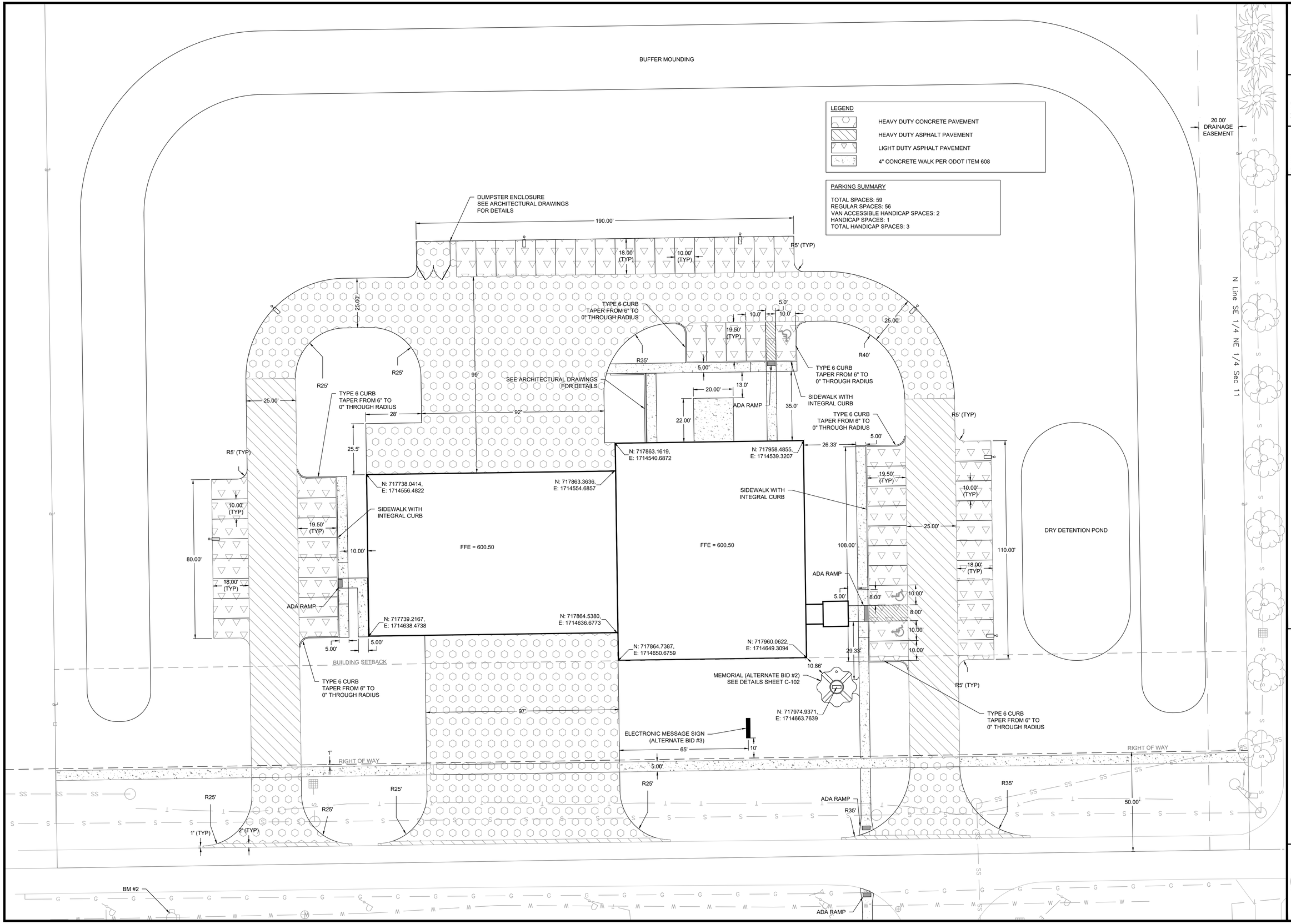
SCALE
1" = 20'

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

EXISTING CONDITIONS

CITY OF OREGON
CENTRAL FIRE STATION

C-106



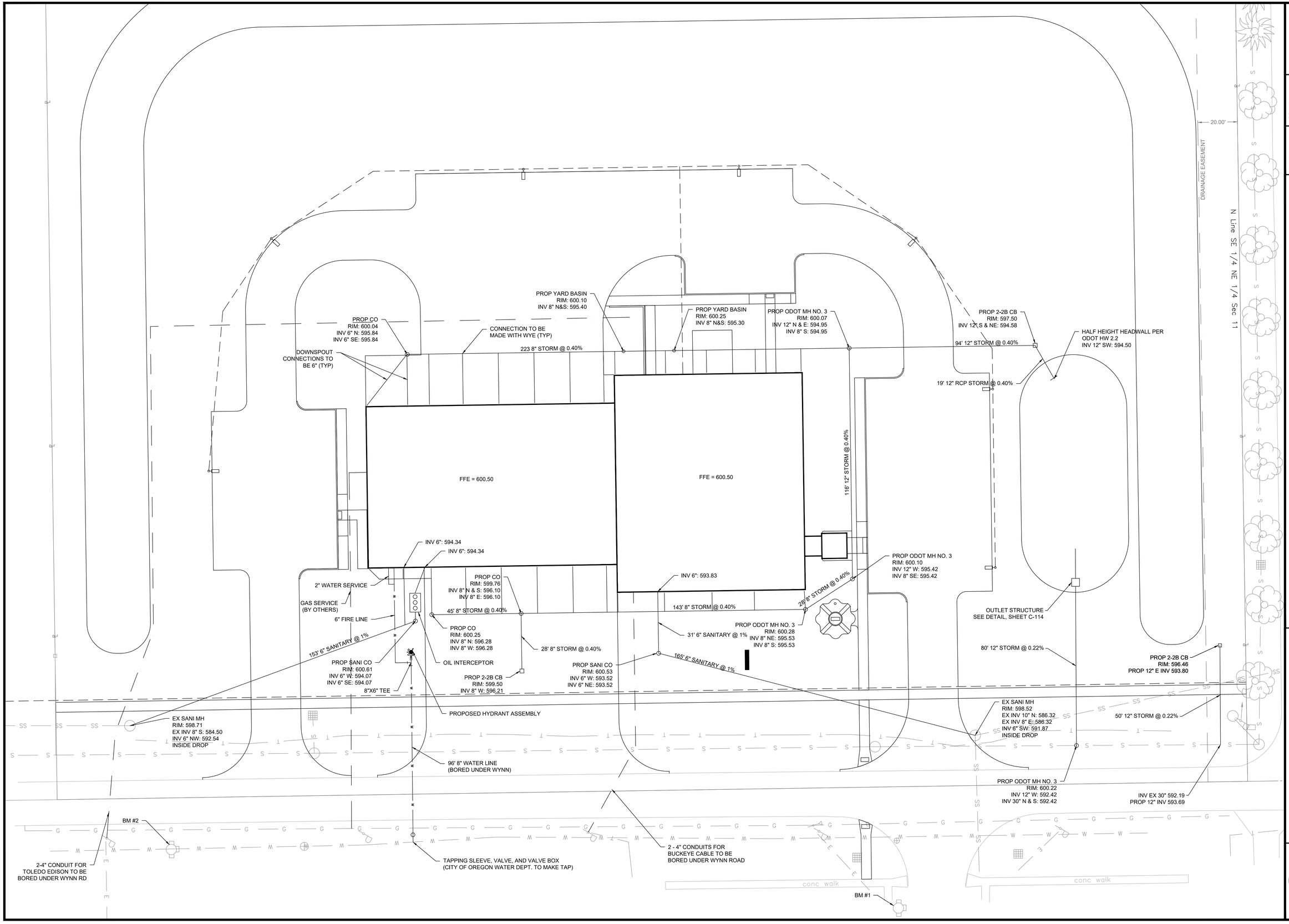
SCALE 1" = 20'

DRAWN	CHECKED	DATE
BEB	RMS	3/18/2021

SITE PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-107



SCALE
1" = 20'

DRAWN	CHECKED	DATE
BEB	RMS	3/18/2021

UTILITY PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-108

CUT / FILL VOLUMES

CUT: 2836 CY
FILL: 6677 CY
TOTAL: 3840 CY FILL

*EARTHWORK CALCULATED FROM FINISH GRADE TO EXISTING GRADE
**UNADJUSTED QUANTITIES DO NOT TAKE INTO ACCOUNT COMPACTION
***THE INTENTION IS TO RAISE OR LOWER THE BUFFER MOUNDING AS NECESSARY TO BALANCE THE SITE

SWALE AT 0.25%

FFE = 600.50

FFE = 600.50

DRAINAGE EASEMENT

N Line SE 1/4 NE 1/4 Sec 11

EX. CB
RIM: 596.53
INV 12" E: 593.75
INV 10" S: 593.75

PROP 2-2B CB
RIM: 596.46
PROP 12" E INV 593.80

SANITARY MH ADJUSTED TO GRADE (RAISED APPROX 8")

CB ADJUSTED TO GRADE (RAISED APPROX 9")

STORM MH ADJUSTED TO GRADE (RAISED APPROX 5.5")

SANITARY MH ADJUSTED TO GRADE (RAISED APPROX 5")

STORM MH ADJUSTED TO GRADE (RAISED MANHOLE 5") INSTALL OPEN GRATE

SEE ADA RAMP DETAIL, THIS SHEET

BM #2

BM #1

CATCH BASIN TO BE RAISED 1'. SWALE TO BE FILLED TO DRAIN.

ADA RAMP DETAIL

SCALE 1" = 20'

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

GRADING PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-109

Plant List

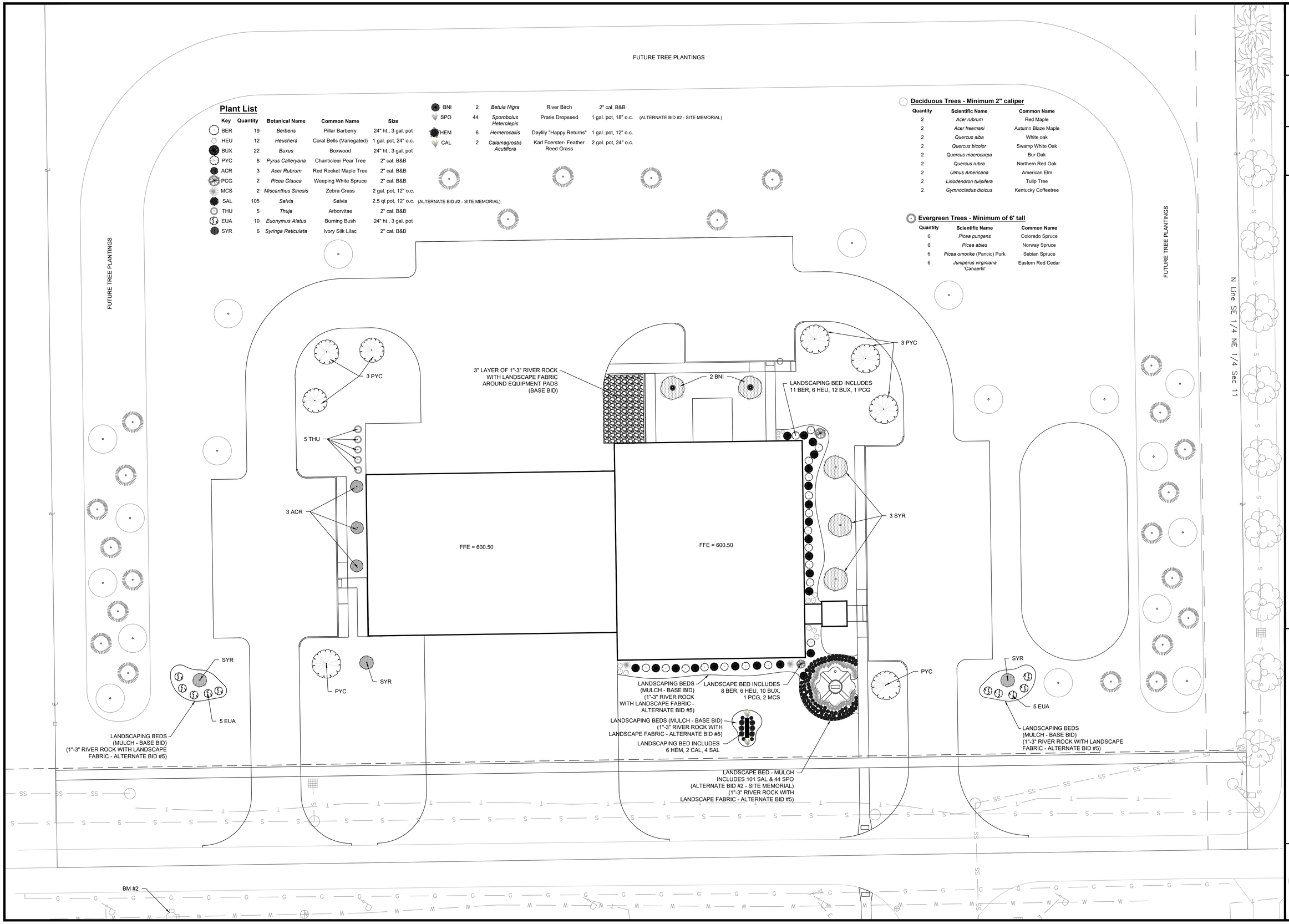
Key	Quantity	Botanical Name	Common Name	Size
BER	19	*Berberis*	Pillar Barberry	24" ht., 3 gal. pot
HEU	12	*Heuchera*	Coral Bells (Variegated)	1 gal. pot, 24" o.c.
BUX	22	*Buxus*	Boxwood	24" ht., 3 gal. pot
PYC	8	*Pyrus Calleryana*	Chanticleer Pear Tree	2" cal. B&B
ACR	3	*Acer Rubrum*	Red Rocket Maple Tree	2" cal. B&B
PCG	2	*Picea Glauca*	Weeping White Spruce	2" cal. B&B
MCS	2	*Miscanthus Sinesis*	Zebra Grass	2 gal. pot, 12" o.c.
SAL	105	*Salvia*	Salvia	2.5 qt pot, 12" o.c. (ALTERNATE BID #2 - SITE MEMORIAL)
THU	5	*Thuja*	Arborvitae	2" cal. B&B
EUA	10	*Euonymus Alatus*	Burning Bush	24" ht., 3 gal. pot
SYR	6	*Syringa Reticulata*	Ivory Silk Lilac	2" cal. B&B
BNI	2	*Betula Nigra*	River Birch	2" cal. B&B
SPO	44	*Sporobolus Heterolepis*	Prarie Dropseed	1 gal. pot, 18" o.c. (ALTERNATE BID #2 - SITE MEMORIAL)
HEM	6	*Hemerocallis*	Daylily "Happy Returns"	1 gal. pot, 12" o.c.
CAL	2	*Calamagrostis Acutiflora*	Karl Foerster- Feather Reed Grass	2 gal. pot, 24" o.c.

Deciduous Trees - Minimum 2" caliper

Quantity	Scientific Name	Common Name
2	*Acer rubrum*	Red Maple
2	*Acer freemani*	Autumn Blaze Maple
2	*Quercus alba*	White oak
2	*Quercus bicolor*	Swamp White Oak
2	*Quercus macrocarpa*	Bur Oak
2	*Quercus rubra*	Northern Red Oak
2	*Ulmus Americana*	American Elm
2	*Liriodendron tulipifera*	Tulip Tree
2	*Gymnocladus dioicus*	Kentucky Coffeetree

Evergreen Trees - Minimum of 6' tall

Quantity	Scientific Name	Common Name
6	*Picea pungens*	Colorado Spruce
6	*Picea abies*	Norway Spruce
6	*Picea omorike* (Pancic) Purk	Sebian Spruce
6	*Juniperus virginiana* 'Canaertii'	Eastern Red Cedar



SCALE 1" = 20'

DRAWN BEB

CHECKED RMS

DATE 3/18/2021

LANDSCAPE PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-110

LANDSCAPING NOTES

DESCRIPTION. THIS WORK CONSISTS OF FURNISHING AND PLANTING TREES, SHRUBS, VINES, AND OTHER MATERIALS.

PLANT MATERIALS. PLANT MATERIALS INCLUDE ALL TREES, SHRUBS, VINES, AND PLANTS REQUIRED FOR THE PROJECT. ENSURE THAT ALL PLANT MATERIALS CONFORM TO THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

ENSURE THAT ALL PLANTS ARE HEALTHY REPRESENTATIVES, TYPICAL OF THEIR SPECIES OR VARIETY, AND EXHIBIT A NORMAL HABIT OF GROWTH. ENSURE THAT ALL PLANTS ARE HARDY UNDER CLIMATIC CONDITIONS AND GROW IN THE SAME HARDINESS ZONE OR COLDER AS THE ONE IN WHICH THE PROJECT IS LOCATED.

LABELING. ATTACH LEGIBLE LABELS TO ALL SPECIMENS, OR BOXES, BUNDLES, AND OTHER CONTAINERS, INDICATING DETAILED INFORMATION COVERING THE BOTANICAL GENUS AND THE SPECIES NAME, THE COMMON NAME, THE SIZE OR AGE OF EACH SPECIES OR VARIETY, AND THE QUANTITY CONTAINED IN THE INDIVIDUAL BUNDLES, BOXES, AND BALES. REMOVE ALL LABELS BEFORE THE COMPLETION OF THE ESTABLISHMENT PERIOD.

INSPECTION. THE ENGINEER WILL INSPECT AND SEAL ALL PLANT MATERIALS ON THE PROJECT SITE WITH DEPARTMENT SEALS BEFORE USE OR PLANTING. THE ENGINEER WILL INSPECT ALL PLANTS TO ENSURE THEY ARE HEALTHY, VIGOROUS, AND FREE FROM HARMFUL DEFECTS, DECAY, DISFIGURED STEMS AND ROOTS, PLANT DISEASES, AND INSECT PESTS.

THE DEPARTMENT WILL GIVE FINAL ACCEPTANCE OF ALL PLANT MATERIALS ONLY AFTER THE MATERIALS ARE PLANTED AND HAVE MET ALL THE REQUIREMENTS OF THIS ITEM. REMOVE THE DEPARTMENT SEALS FROM THE PLANT MATERIALS AFTER THE FINAL INSPECTION.

LOCATION AND SOURCE OF SUPPLY. SUPPLY THE ENGINEER WITH COMPLETE AND DETAILED INFORMATION CONCERNING THE SOURCE OF SUPPLY FOR EACH ITEM OF REQUIRED PLANT MATERIAL WITHIN 15 DAYS AFTER RECEIVING THE NOTICE OF AWARD OF THE CONTRACT.

SCHEDULING. DIG AND PLANT ALL PLANTS AFTER SEPTEMBER 15 AND BEFORE JUNE 1. PLANT REPLACEMENT PLANTS AFTER SEPTEMBER 15 AND BEFORE JUNE 1. WATER ACCORDING TO ITEM 662.

TRANSPORTATION, STORAGE, AND HANDLING. TRANSPORT ALL PLANTS FROM NURSERY SOURCES TO THE PROJECT SITE WITH THE ENTIRE LOAD COMPLETELY COVERED FOR PROTECTION FROM DRYING WINDS.

THOROUGHLY WATER ALL PLANTS THAT CANNOT BE IMMEDIATELY PLANTED SO AS TO KEEP THE ROOTS CONTINUALLY MOIST. THE ENGINEER MAY REJECT PLANTS THAT ARE NOT ADEQUATELY PROTECTED DURING TRANSPORTATION AND STORAGE. HANDLE ALL PLANT MATERIALS BY THE ROOT BALL OR CONTAINER.

LAYOUT OF PLANT MATERIALS. BEFORE DIGGING, USE SUITABLE STAKING TO LAY OUT THE LOCATIONS OF ALL PLANTING HOLES AND BEDS. OBTAIN THE ENGINEER'S APPROVAL OF THESE LOCATIONS BEFORE DIGGING.

PLANTING HOLES. DIG PLANTING HOLES THAT HAVE VERTICAL SIDES AND FLAT BOTTOMS. IF SETTING TREES AND SHRUBS AT GRADE, DIG THE PLANTING HOLES TO A DIAMETER 18 INCHES (450 MM) GREATER THAN THE ROOT STRUCTURE (EARTH BALL). SEE 661.12 FOR DEPTH OF PLANTING.

DIG PLANTING HOLES FOR VINES AND PERENNIALS TO A MINIMUM DEPTH AND DIAMETER OF 6 INCHES (150 MM). MAKE PLANTING HOLES FOR ROOTED CUTTINGS AND TREE SEEDLINGS LARGE ENOUGH TO ACCOMMODATE THE ROOT SYSTEM.

LANDSCAPING BEDS. LANDSCAPE BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A DEPTH OF TWELVE INCHES TO EIGHTEEN INCHES (12"-18") AND BACKFILLED WITH GOOD, MEDIUM-TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY LOAM). ADD FOUR INCHES TO SIX INCHES (4"-6") OF TOPSOIL OVER THE FILL MATERIAL AND CROWN A MINIMUM OF SIX INCHES (6") ABOVE THE TOP OF CURBS AND/OR WALKS AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON LANDSCAPE PLAN.

EDGING SHALL CONSIST OF $\frac{3}{16}$" X 4" STEEL OR ALUMINUM EDGING MATERAIL.

BACKFILL MIX. FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF THE FOLLOWING:

A. ONE PART EXCAVATED SOIL.

B. ONE PART SPHAGNUM PEAT MOSS, SHREDDED PINE BARK, OR EPA RATED CLASS IV COMPOST.

C. ONE PART SAND.

D. A SLOW RELEASE COMMERCIAL FERTILIZER (0-20-20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD TO THE BACKFILL MIX.

DO NOT USE BACKFILL MIX IN A FROZEN OR MUDDY CONDITION. MIX BACKFILL ON THE PROJECT SITE.

PLANTING. SET PLANTS IN THE PLANTING HOLES AT A LEVEL SUCH THAT THE TOP OF THE ROOT STRUCTURE IS 1 INCH ABOVE THE SURROUNDING SOIL. SET EACH PLANT IN THE CENTER OF THE PLANTING HOLE, PLUMB, AND STRAIGHT.

IF THE ENGINEER DETERMINES THAT EXISTING SOILS ARE COMPACTED OR POORLY DRAINED, SET THE TREES AND SHRUBS WITH HALF OF THE ROOT STRUCTURE ABOVE THE EXISTING SOIL LEVEL. ADD BACKFILL MIX AROUND THE ROOT STRUCTURE SO THAT THE EDGES OF THE ROOT STRUCTURE ARE COVERED BY A MINIMUM OF 12 INCHES.

REMOVE ALL TWINE, BAGS, AND ROPING BEFORE BACKFILLING THE PLANTING HOLE. REMOVE THE TOP ONE-THIRD OF THE WIRE FROM ROOT BALLS HAVING WIRE BASKETS. REMOVE ALL ROT-PROOF BURLAP.

BACKFILL THE PLANTING HOLE WITH THE BACKFILL MIX. FILL THE HOLE GRADUALLY AND SETTLE THE BACKFILL WITH WATER TO THE TOP OF THE ROOT STRUCTURE. DO NOT FILL AROUND THE TRUNKS OR STEMS. SET BALLED AND BURLAPED, OR CONTAINERIZED STOCK AS SPECIFIED. SET GROUNDCOVERS AND VINES AS SHOWN ON THE PLANS. DO NOT PLANT GROUNDCOVERS AND VINES CLOSER THAN 12 INCHES TO TREE TRUNKS AND SHRUB STEMS OR WITHIN 6 INCHES OF THE EDGE OF PLANTING BEDS. BEFORE PLANTING SEEDLINGS, REMOVE ALL GRASS AND WEEDS BY SCALPING AN AREA THAT HAS A MINIMUM DIAMETER OF 12 INCHES. PLANT SEEDLINGS IN THE CENTER OF THE SCALPED AREA USING A SPADE OR PLANTING BAR.

TOPSOIL SHALL BE EVENLY DISTRIBUTED AND FINE GRADED OVER ALL AREAS TO RECEIVE LAWNS AT UNIFORM DEPTH OF FOUR INCHES (4"AFTER SETTLEMENT).

MULCH. SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH THESE AREAS WITH A 4-INCH LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE AND SIZE. USE SHREDDED BARK AGED AT LEAST ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS, MULCH TO A DEPTH OF 4 INCHES, AND WATER THOROUGHLY.

AFTER MULCHING AND BEFORE WATERING, ADD A SLOW RELEASE COMMERCIAL FERTILIZER (12-12-12 OR EQUAL), IN GRANULAR FORM, TO THE TOP OF THE MULCH AT A RATE OF 5 POUNDS PER 100 SQUARE FEET. DO NOT ALLOW THE FERTILIZER TO CONTACT THE STEMS, TRUNK, BRANCHES, OR LEAVES OF THE PLANTS.

PRUNING. TO BALANCE THE LOSS OF ROOTS AFTER PLANTING, PRUNE THE BRANCHES OF DECIDUOUS PLANTS TO PRESERVE THE NATURAL CHARACTERISTICS OF THE SPECIES, FOLLOWING STANDARD HORTICULTURAL PRACTICES. REMOVE BROKEN, DAMAGED, AND UNSYMMETRICAL BRANCHES AND OTHER GROWTH TO ENSURE HEALTHY AND SYMMETRICAL GROWTH OF NEW WOOD. DO NOT TRIM THE CENTRAL LEADER OF THE TREES.

BRACING. BRACE ALL TREES BY STAKING AS SHOWN ON THE ODOT STANDARD CONSTRUCTION DRAWING LA-1.2.

PERIOD OF ESTABLISHMENT. BEFORE FINAL INSPECTION, PLACE ALL PLANTS AND CARE FOR THEM FOR A PERIOD OF ESTABLISHMENT. THE PERIOD OF ESTABLISHMENT BEGINS IMMEDIATELY UPON COMPLETION OF THE PLANTING OPERATIONS AND CONTINUES UNTIL OCTOBER 1. THE MINIMUM PERIOD OF ESTABLISHMENT IS ONE GROWING SEASON, JUNE 1 THROUGH OCTOBER 1.

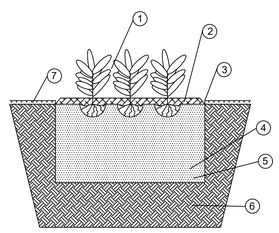
DURING THE PERIOD OF ESTABLISHMENT, FOLLOW STANDARD HORTICULTURAL PRACTICES TO ENSURE THE VIGOR AND GROWTH OF THE TRANSPLANTED MATERIAL. WATER, REMULCH, RESTAKE, GUY, AND CULTIVATE AS NECESSARY. PERFORM AT LEAST TWO WEEDING AND MOWING PROGRAMS (AROUND TREES, GUY STAKES, SHRUBS, AND BED EDGES) OF SUCH INTENSITY AS TO COMPLETELY RID THE PLANTED AND MULCHED AREAS OF WEEDS AND GRASSES. BEGIN THE FIRST PROGRAM ON OR ABOUT JUNE 15 AND THE SECOND APPROXIMATELY 8 WEEKS LATER.

ON OR ABOUT SEPTEMBER 15, THE ENGINEER WILL INSPECT THE PLANTING AND SUPPLY THE CONTRACTOR WITH A LIST OF MISSING AND DEAD PLANTS AND THOSE THAT HAVE DIED BACK BEYOND NORMAL PRUNING LINES. REPLANT AS REQUIRED ACCORDING TO THE SPECIFICATIONS OF THE ORIGINAL MATERIAL. REPLACEMENT PLANTS ARE SUBJECT TO A NEW PERIOD OF ESTABLISHMENT. IMMEDIATELY REPLACE PLANTS PLANTED INITIALLY IN THE FALL THAT HAVE DIED BEFORE THE SPRING PLANTING SEASON. CARE FOR THE REPLACEMENT PLANTS DURING THE NEW ESTABLISHMENT PERIOD.

REMOVAL OF STAKES AND WRAPPING. REMOVE ALL STAKES, GUY WIRES, AND WRAPPING MATERIAL FROM ALL PLANTS JUST BEFORE THE FINAL INSPECTION, WITH THE EXCEPTION OF THE REPLACEMENT PLANTINGS THAT HAVE NOT BEEN IN PLACE FOR A FULL GROWING SEASON. TAKE OWNERSHIP OF REMOVED ITEMS. USE ALL SUITABLE MATERIAL IN THE WORK.

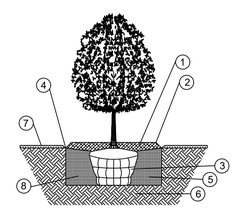
GUARANTEE

CONTRACTOR AGREES TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR. AT THAT TIME, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT FOR A FINAL INSPECTION. PLANT MATERIAL WITH TWENTY-FIVE PERCENT (25%) DIE BACK, AS DETERMINED BY THE OWNER'S REPRESENTATIVE SHALL BE REPLACED. THIS GUARANTEE INCLUDES THE FURNISHING OF NEW PLANTS SHALL ALSO BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR.



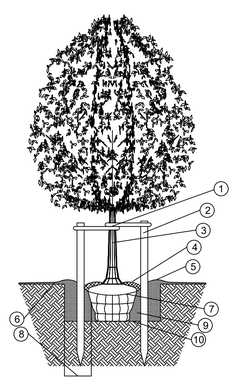
LANDSCAPE BEDS

1. SEE PLANT LIST FOR SPACING DISTANCE
2. SHREDDED HARDWOOD BARK OF A NATURAL COLOR MULCH AT 4" MIN. DEPTH
3. $\frac{3}{16}$" X 4" STEEL OR ALUMINUM EDGING MATERAIL
4. EXCAVATE PLANTING BED AND BACKFILL WITH PREPARED PLANTING MIX AT A 12"-18" DEPTH
5. PLANTING MIX PER NOTES
6. UNDISTURBED SUBGRADE
7. LAWN



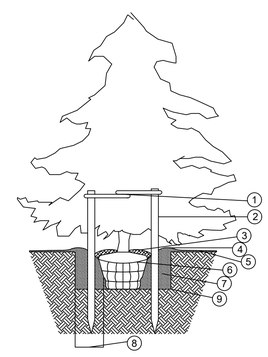
SHRUB

1. SHREDDED BARK MULCH AT 4" MINIMUM DEPTH. MULCH SHALL BE NATURAL IN COLOR.
2. FORM A SAUCER WITH MULCH AND SOIL AROUND THE SHRUB BED.
3. CUT AND REMOVE BURLAP AND BINDINGS FROM THE TOP ONE-THIRD OF THE ROOTBALL.
4. EDGING OR SPADED EDGE
5. EXCAVATE PLANTING HOLE AND BACKFILL WITH PREPARED PLANTING MIX.
6. UNDISTURBED SUBGRADE.
7. LAWN.
8. SCARIFY SUBGRADE.



DECIDUOUS TREE

1. STAKE TREE JUST BELOW FIRST BRANCH USING 2"-3" WIDE BELT-LIKE MATERIAL OF NYLON, PLASTIC, OR OTHER ACCEPTABLE MATERIAL. (NO WIRE OR HOSE TO BE USED TO GUY TREES.) 3 GUYS EVENLY SPACED PER TREE. REMOVE AFTER 1 WINTER SEASON.
2. 2x2 HARDWOOD STAKES. POSITION 6"-8" OUTSIDE OF ROOTBALL AND EXTEND 18" BELOW TREE PIT INTO UNDISTURBED SOIL.
3. APPLY TREE WRAP AND SECURE WITH A BIODEGRADABLE MATERIAL AT TOP AND BOTTOM. REMOVE AFTER 1 WINTER.
4. SHREDDED BARK MULCH OF A NATURAL COLOR AT 4" MINIMUM DEPTH. LEAVE A 3" CIRCLE OF BARE SOIL AT THE BASE OF THE TREE.
5. MOUND TO FORM TREE SAUCER.
6. FINISH GRADE SLOPED AWAY FROM TREE.
7. CUT AND REMOVE WIRE, BURLAP, AND BINDINGS FROM THE TOP ONE-THIRD OF THE ROOTBALL.
8. WIDTH OF ROOTBALL ON EACH SIDE.
9. PLANTING MIX SHALL BE AMENDED PER SITE CONDITIONS AND PLANT REQUIREMENTS.
10. SCARIFY BOTTOM AND SIDES OF PLANTING PIT TO 4" DEPTH.



EVERGREEN TREE

1. STAKE TREE AS INDICATED USING 2"-3" WIDE BELT-LIKE MATERIAL OF NYLON, PLASTIC, OR OTHER ACCEPTABLE MATERIAL. (NO WIRE OR HOSE TO BE USED TO GUY TREES.) 3 GUYS EVENLY SPACED PER TREE. REMOVE AFTER 1 WINTER SEASON.
2. 2x2 HARDWOOD STAKES. POSITION 6"-8" OUTSIDE OF ROOTBALL AND EXTEND 18" BELOW TREE PIT INTO UNDISTURBED SOIL.
3. SHREDDED BARK MULCH OF A NATURAL COLOR AT 4" MINIMUM DEPTH. LEAVE A 3" CIRCLE OF BARE SOIL AT THE BASE OF THE TREE.
4. MOUND TO FORM TREE SAUCER.
5. FINISH GRADE SLOPED AWAY FROM TREE.
6. CUT AND REMOVE WIRE, BURLAP, AND BINDINGS FROM THE TOP ONE-THIRD OF THE ROOTBALL.
7. PLANTING MIX SHALL BE AMMENDED PER SITE CONDITIONS AND PLANT REQUIREMENTS.
8. WIDTH OF ROOTBALL ON EACH SIDE.
9. SCARIFY BOTTOM AND SIDES OF PLANTING PIT TO 4" DEPTH.

SCALE

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

LANDSCAPE DETAILS

CITY OF OREGON
CENTRAL FIRE STATION

C-111

COMPLETE IRRIGATION SYSTEM

A. DESCRIPTION

THIS WORKS CONSISTS OF FURNISHING AND INSTALLING A COMPLETE IRRIGATION SYSTEM DESIGN AND INSTALLATION. DESIGN WILL INCLUDE PLANS, DETAILS, AND SHOP DRAWINGS FOR ENGINEER'S REVIEW. INSTALLATION WILL INCLUDE METER SOURCE MANHOLES AND ALL IRRIGATION AND SUPPLEMENTAL EQUIPMENT.

PLANS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTAL CONDITIONS AND SPECIFICATION SECTIONS, APPLY TO THE WORK OF THIS SECTION.

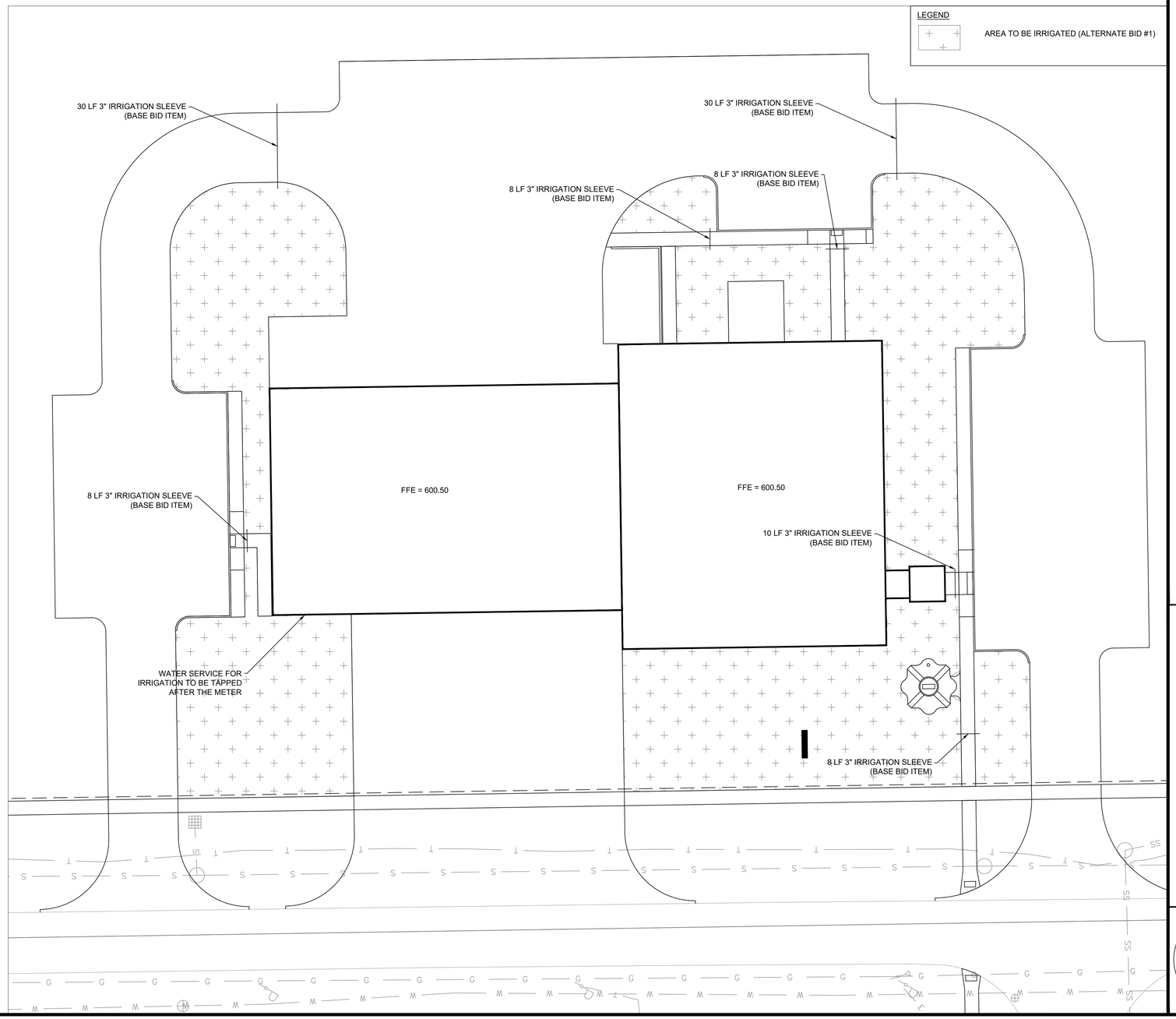
ANY NECESSARY CHANGES IN THE DESIGN DUE TO THE SITE CONDITIONS REQUIRE A WRITTEN AUTHORIZATION BY THE ENGINEER PRIOR TO INSTALLATION.

B. MATERIALS

ALL MATERIALS MUST BE AS SPECIFIED AND DETAILED ON THE PLANS PROVIDED BY THE IRRIGATION CONTRACTOR.

IRRIGATION PRODUCTS MUST BE BY A SINGLE MANUFACTURER. ALL IRRIGATION SYSTEM COMPONENTS MUST BE SUPPLIED BY THE REGIONALLY AUTHORIZED DISTRIBUTORS TO PROVIDE SINGLE SOURCE RESPONSIBILITY FOR WARRANTY, SERVICE, AND OPERATIONS TO CONFORM TO SPECIFICATIONS IN ALL RESPECTS.

ALL IRRIGATION EQUIPMENT FOR THE PROJECT MUST BE MANUFACTURED BY RAINBIRD OR APPROVED EQUAL.



SCALE 1" = 20'

DRAWN	CHECKED	DATE
BEB	RMS	3/18/2021

IRRIGATION PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-112

SWPPP NOTES

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW FIRE STATION INCLUDING ASSOCIATED PAVEMENT, UTILITIES, AND STORMWATER CONTROLS.

AREA DISTURBED
6.00 ACRES

RUNOFF COEFFICIENTS
PRE–CONSTRUCTION: 0.15
POST CONSTRUCTION: 0.37

IMPERVIOUS AREA
PRE–CONSTRUCTION: 0.00 ACRES
POST–CONSTRUCTION: 1.59 ACRES

EXISTING SOILS INFORMATION
THE EXISTING SOILS, PER THE NATURAL RESOURCES CONSERVATION SERVICE'S WEB SOIL SURVEY, ARE 42% FULTON SILTY CLAY LOAM AND 58% LATTY SILTY CLAY.

LATTY SILTY CLAY IS VERY POORLY DRAINED WITH A HIGH WATER TABLE. FULTON SILTY CLAY LOAM IS SOMEWHAT POORLY DRAINED.

ADJACENT AREAS
STORM WATER FROM THE PROJECT DISCHARGES TO THE EXISTING STORM SEWER ALONG WYNN ROAD, TO THE NAVARRE AVENUE STORM SEWER, TO WOLF CREEK AND ULTIMATELY TO MAUMEE BAY.

SEQUENCE OF CONSTRUCTION
1. INSTALL SILT FENCE AND INLET PROTECTION PRIOR TO ALL SOIL DISTURBANCES.
2. CLEAR THE SITE, LEAVING THE PERIMETER GROUND COVER UNDISTURBED AS MUCH AS POSSIBLE.
3. INSTALL SANITARY SEWER AND WATER LINE.
4. INSTALL DRY DETENTION POND, SWALES, AND STORM SEWERS.
5. PLACE INLET PROTECTION ON ALL NEW CATCH BASINS AS THEY ARE INSTALLED.
6. CONSTRUCT BUILDING AND PAVEMENT.
7. AFTER SITE REACHES FINAL GRADE, SEED AND MULCH.
8. REMOVE TEMPORARY EROSION CONTROL MEASURES UPON ACHIEVEMENT OF 70 PERCENT VEGETATION COVER. STABILIZE ANY DISTURBANCES ASSOCIATED WITH THE REMOVAL OF THE TEMPORARY EROSION CONTROL MEASURES.

NOTES
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF OREGON EROSION CONTROL MEASURES. TEMPORARY EROSION CONTROL SHALL CONFORM TO OHIO EPA PERMIT NO: OHC000005. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS & SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006), OR MOST CURRENT.

2. THE EROSION CONTROL MEASURES DESCRIBED HEREIN ARE TYPICAL. THE CONTRACTOR SHALL USE THIS PLAN AS A GUIDE TO CONTROL EROSION. IN THE EVENT OF ADVERSE WEATHER CONDITIONS, ETC. ADDITIONAL MEASURES SHALL BE TAKEN TO ESTABLISH AND MAINTAIN PROTECTIVE VEGETATION.

3. THIS WORK CONSISTS OF LOCATING, FURNISHING, INSTALLING, AND MAINTAINING TEMPORARY SEDIMENT AND EROSION CONTROL BEST MANAGEMENT PRACTICES FOR EARTH DISTURBING ACTIVITY AREAS, DEVELOPING A STORM WATER POLLUTION PREVENTION PLAN, AND FILING A CO–PERMITTE FORM AS REQUIRED. WORK SHALL NOT COMMENCE UNTIL A COPY OF THE OHIO EPA LETTER GRANTING COVERAGE, FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) HAS BEEN SUBMITTED TO THE LOCAL MUNICIPALITY.

4. CONTRACTOR SHALL INSTALL A RAIN GAUGE IN AN OPEN AREA PRIOR TO COMMENCING CONSTRUCTION. RAIN GAUGE SHALL BE EMPTIED AT THE BEGINNING OF EACH WORKING DAY AND MEASUREMENTS OF 0.5 INCHES OR GREATER SHALL BE RECORDED IN THE EROSION CONTROL INSPECTION LOG.

5. ALL SWPPP ITEMS MUST BE INSTALLED AND INSPECTED BY THE CITY OF OREGON PRIOR TO ANY EARTH MOVING OPERATIONS.

6. AT THE PRECONSTRUCTION MEETING, SUBMIT THE NAME OF THE QUALIFIED INSPECTION PERSONNEL RESPONSIBLE FOR CONDUCTING THE WEEKLY AND EVENT EROSION CONTROL INSPECTIONS OF THE CONSTRUCTION SITE.

7. CONTINUOUS MAINTENANCE WILL BE REQUIRED AS NECESSARY UNTIL PERMANENT, STABLE VEGETATIVE COVER HAS BEEN ESTABLISHED AND EROSION HAS BEEN CONTROLLED. THIS INCLUDES BUT IS NOT LIMITED TO: RESEEDING, MULCHING, EARTH FILLING, ETC.

8. DISTURBED AREAS SHALL BE KEPT TO A MINIMUM WITH RESPECT TO AREAS EXPOSED AND TIME OF EXPOSURE.

9. TO ASSIST ON EROSION CONTROL, ALL TREES AND VEGETATION OUTSIDE OF GRADED AREAS SHALL REMAIN.

10. SEDIMENT PONDS/TRAPS AND PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.

11. SILT FENCE FABRIC SHALL BE EXXON GTF–100S OR APPROVED EQUAL.

12. TEMPORARY STABILIZATION (SEEDING AND/OR MULCHING) TO DISTURBED AREAS MUST BE APPLIED: 1) WITHIN 7 DAYS OF LAST DISTURBANCE ON ANY AREA THAT WILL LIE DORMANT FOR 21 DAYS OR LONGER. (IN THE CASE OF A RESIDENTIAL SUBDIVISION, AT LEAST 7 DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT); 2) WITHIN 2 DAYS ON ANY AREA WITHIN 50 FT. OF A STREAM; AND 3) PRIOR TO THE ONSET OF WINTER IN THOSE AREAS THAT WILL BE IDLE OVER WINTER. PERMANENT STABILIZATION TO DISTURBED AREAS MUST BE APPLIED TO ANY AREA: 1) WITHIN 7 DAYS OF REACHING FINAL GRADE; 2) WITHIN 7 DAYS FOR AREAS THAT WILL LIE DORMANT FOR 1 YEAR OR MORE, OR 3) WITHIN 2 DAYS OF REACHING FINAL GRADE WITHIN 50 FT. OF A STREAM. DISTURBED AREAS SHALL BE STABILIZED WITH SEEDING OR MULCHING OR OTHER APPROPRIATE MEANS.

13. WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON–VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED.

14. THE ESTABLISHMENT OF PERMANENT GROUND COVER SHALL BE PER SEEDING AND MULCHING NOTES.

15. FINAL SITE STABILIZATION IS CONSIDERED ACHIEVED ONCE ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES ARE REMOVED AND DISPOSED OF AND ALL TRAPPED SEDIMENT HAS BEEN PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.

16. IF SMALL RILLS OR GULLIES DEVELOP, TEMPORARY DIVERSIONS OF EARTH FILL OR STRAW BALES SHOULD BE INSTALLED UNTIL SATISFACTORY SEEDING IS ESTABLISHED.

17. EROSION CONTROL BLANKETS WITH MATTING WILL BE USED ON DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES GREATER THAN 6% GRADE.

18. THE CONTRACTOR SHALL PROVIDE REGULAR INSPECTION AND MAINTENANCE FOR ALL EROSION CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. INSPECTIONS MUST BE MADE BY QUALIFIED INSPECTION PERSONNEL A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GRATER THAT 0.5 INCHES IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE, AND CORRECTIVE MEASURES TAKEN. INSPECTION RECORDS SHALL BE KEPT FOR 3 YEARS AFTER TERMINATION OF CONSTRUCTION ACTIVITIES.

19. NON–SEDIMENT POND BMPS SHALL BE REPAIRED WITHIN 3 DAYS OF INSPECTION. SEDIMENT POND BMPS SHALL BE REPAIRED OR CLEANED OUT WITHIN 10 DAYS OF INSPECTION. BMPS NOT MEETING THEIR INTENDED FUNCTION OR MISSING SHALL BE REPAIRED OR REPLACED WITHIN 10 DAYS.

20. ONCE THE CONSTRUCTION ACTIVITY IS COMPLETED, SUBMIT A COPY OF THE NOTICE OF TERMINATION (N.O.T.) WITHIN 45 DAYS AFTER SITE STABILIZATION HAS BEEN ACHIEVED.

21. ADJACENT ROADS SHALL BE KEPT FREE OF DIRT AND DEBRIS AT ALL TIMES.

22. CONTAINERS SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK–PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.

23. AREA SHALL BE DESIGNATED BY CONTRACTOR AND SHOWN ON SWPPP MAP FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZER, LIME, ASPHALT, OR CONCRETE. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREAS.

24. EQUIPMENT FUELING AND MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY.

25. A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE–GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE–GROUND STORAGE OF 1,330 GALLONS OF BELOW–GROUND STORAGE OF 4,200 GALLONS OF FUEL.

26. ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED OF IN AN EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES.

27. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. IT IS PROHIBITED TO BURN, BURY, OR POUR ONTO THE GROUND OR INTO A STORM WATER CONVEYANCE ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, HYDRAULIC FLUID, USED MOTOR OIL, ANTIFREEZE, CEMENT CURING COMPOUNDS, AND OTHER SUCH HAZARDOUS WASTES. ANY RINSE WATERS CONTAINING SUCH MATERIALS ARE PROHIBITED BEING PLACED WHERE THEY MAY ENTER DRAINAGEWAYS. WASH OUT OF CEMENT TRUCKS SHOULD OCCUR ON A DIKED, DESIGNATED AREA, AWAY FROM ANY CONVEYANCE CHANNEL. STORAGE TANKS, EQUIPMENT MAINTENANCE, AND CHEMICAL MIXING SHOULD BE LOCATED IN DIKED AREAS AWAY FROM DRAINAGE CHANNELS.

28. OFF–SITE VEHICLE TRACKING OF SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLAN.

29. ALL STORAGE TANKS, EQUIPMENT MAINTENANCE AND CHEMICAL MIXING SHALL BE LOCATED/COMPLETED IN DIKED AREAS AWAY FROM DRAINAGE CHANNELS.

30. SPILLS OF LESS THAN 25 GALLONS OF PETROLEUM PRODUCT AND SOIL FOUND TO BE CONTAMINATED SHALL BE PROPERLY DISPOSED OFF–SITE AT AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR A HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY PER LOCAL, STATE AND FEDERAL REGULATIONS.

31. PETROLEUM PRODUCT SPILLS OF 25 GALLONS OR GREATER AND ALL SPILLS WHICH RESULT IN CONTACT WITH WATERS OF THE STATE SHALL BE REPORTED TO THE OHIO EPA'S SPILL HOTLINE (1–800–282–9378), THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE DISCOVERY OF A RELEASE.

32. PROTECTED STORAGE AREAS FOR CONSTRUCTION MATERIALS ARE SUGGESTED AND CONTRACTOR SHALL INDICATE LOCATION ON PLANS.

TEMPORARY EROSION CONTROL
THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROL MEASURES, AS NECESSARY, IN ACCORDANCE WITH THE OHIO RAINWATER AND LAND DEVELOPMENT (CURRENT EDITION). ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF OREGON EROSION CONTROL MEASURES AND SHALL CONFORM TO ODOT ITEM 832, TEMPORARY SOIL EROSION AND SEDIMENT CONTROL.

THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE. APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.

TEMPORARY EROSION CONTROL SHALL CONSIST OF, BUT NOT BE LIMITED TO, CONSTRUCTING SUCH FACILITIES AND TAKING SUCH MEASURES AS ARE NECESSARY TO PREVENT, CONTROL AND ABATE WATER, MUD AND EROSION DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT.

ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.

BMPS SHALL BE MAINTAINED AT ALL TIMES. IN ADDITION, BMPS SHALL BE INSPECTED PRIOR TO PREDICTED STORM EVENTS AND FOLLOWING STORM EVENTS.

GRASS SEED
GRASS SEED SHALL BE 'WESTERN HOME' FROM TITGEMEIER'S OR APPROVED EQUAL. PERMANENT SEEDING OF MOUNDS AND SWALES SHALL BE COMPLETED BY OCTOBER 15, 2021.

ITEM 832 STORM WATER POLLUTION PREVENTION PLAN, AS PER PLAN
THE CONTRACTOR SHALL PREPARE A SWPPP PER ODOT SS 832.09. THE BID FOR THE SWPPP SHALL INCLUDE ALL WORK ASSOCIATED WITH DEVELOPMENT, DESIGN, NPDES REQUIRED INSPECTION, MODIFICATION, REVISION, UPDATES, AMENDMENTS, AND REPORTING RELATED TO THE SWPPP.

THE SWPPP MAY BE PREPARED BY EITHER A QUALIFIED PROFESSIONAL ENGINEER OR A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC).

SPECIFICATIONS FOR DEWATERING

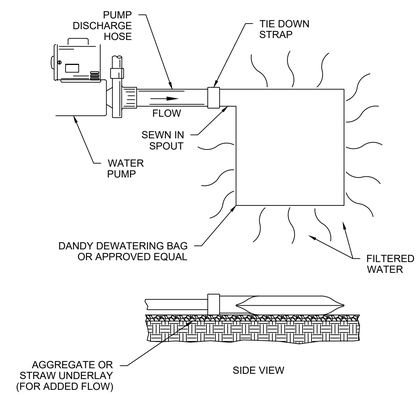
ANY DEWATERING OF CONSTRUCTION WATER SHALL BE COMPLETED THROUGH A DEWATERING BAG TO A CITY APPROVED OUTLET. OUTLETS SHALL BE PROTECTED FROM SCOUR BY RIPRAP PROTECTION, FABRIC LINER, OR OTHER ACCEPTABLE METHOD OF PROTECTION.

"DANDY DEWATERING BAG" OR APPROVED EQUAL INSTALLATION

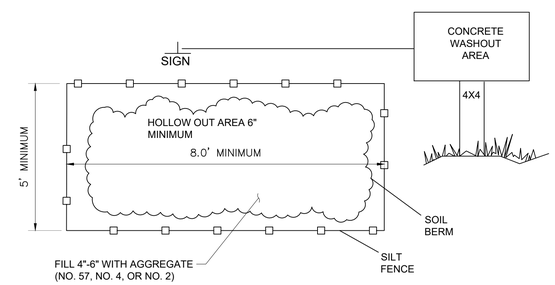
1. LIFTING STRAPS (NOT INCLUDED) SHOULD BE PLACED UNDER THE UNIT TO FACILITATE REMOVAL AFTER USE.
2. UNFOLD "DANDY DEWATERING BAG" ON A STABILIZED AREA OVER DENSE VEGETATION, STRAW, OR GRAVEL (IF AN INCREASED DRAINAGE SURFACE IS NEEDED) OR AS DETAILED IN PLANS.
3. INSERT DISCHARGE HOSE FROM PUMP INTO "DANDY DEWATERING BAG" A MINIMUM OF SIX IN. AND TIGHTLY SECURE WITH ATTACHED STRAP TO PREVENT WATER FORM FLOWING OUT OF THE UNIT WITHOUT BEING FILTERED.

"DANDY DEWATERING BAG" OR APPROVED EQUAL MAINTENANCE
REPLACE THE UNIT WHEN 1/2 FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE FLOW RATE OF THE PUMP DISCHARGE TO AN IMPRACTICAL RATE.

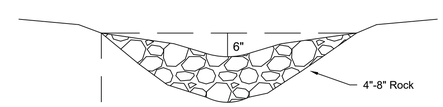
REMOVE AND DISPOSE OF THE SEDIMENT IN A MANNER SATISFACTORY TO THE ENGINEER/INSPECTOR OR IN ONE OF THE FOLLOWING WAYS:
A. REMOVE THE UNIT AND SEDIMENT FROM ENVIRONMENTALLY SENSITIVE AREAS AND WATERWAYS. AT THE APPROVED DISPOSAL SITE, SLIT THE UNIT; REMOVE THE SEDIMENT AND GRADE SMOOTHLY INTO THE EXISTING TOPOGRAPHY. DISPOSE OF UNIT NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.
B. BURY UNIT ON SITE; REMOVE ANY VISIBLE FABRIC AND SEED.



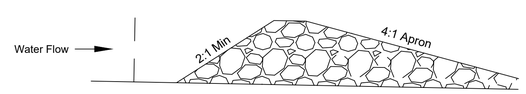
DANDY DEWATERING BAG
NTS



CONCRETE WASHOUT
NTS



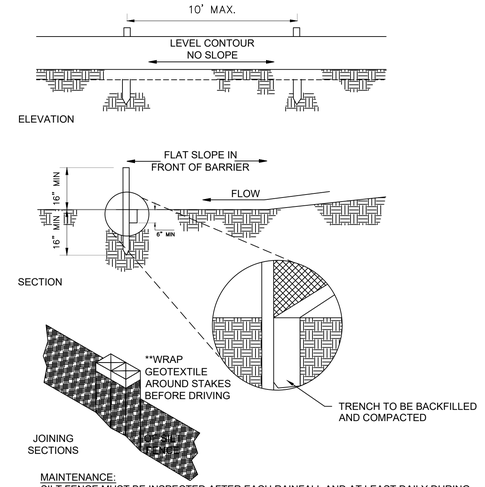
CROSS SECTION



PROFILE

ROCK CHECK MATERIALS: FURNISH MATERIAL CONFORMING TO ITEM 601 - ROCK CHANNEL PROTECTION, TYPE C OR D, WITHOUT FILTER.

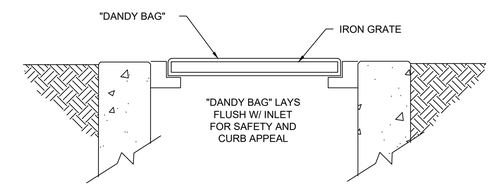
ROCK CHECK DAM
NTS



MAINTENANCE:
SILT FENCE MUST BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. SILT FENCE FOUND DAMAGED OR IMPROPERLY INSTALLED SHALL BE REPLACED OR REPAIRED.

SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE SILT FENCE..

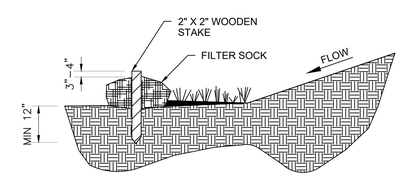
SILT FENCE
NTS



MAINTENANCE:
REMOVE DRIED SEDIMENT FROM SURFACE OF UNIT WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED.

TO INSPECT CATCH BASIN: REMOVE UNIT WITH GRATE INSIDE, INSPECT CATCH BASIN AND REPLACE UNIT.

INLET PROTECTION, APP
NTS



INSTALLATION:
FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MID-SLOPE. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

MAINTENANCE:
ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE SOCK. WHERE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE. REMOVAL - FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH AS WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.

FILTER SOCK
NTS

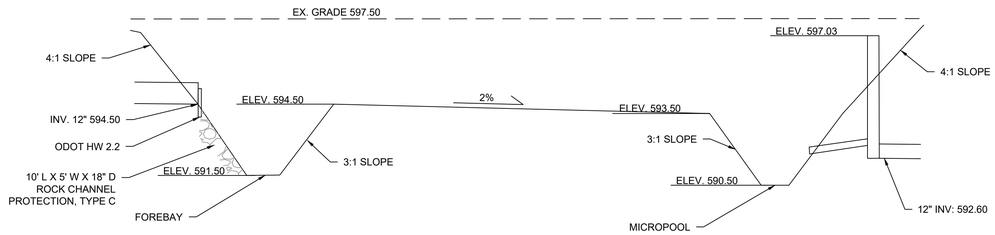
SCALE

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

SWPPP NOTES

CITY OF OREGON
CENTRAL FIRE STATION

C–113



DETENTION POND PROFILE
NTS

DETENTION POND DATA:

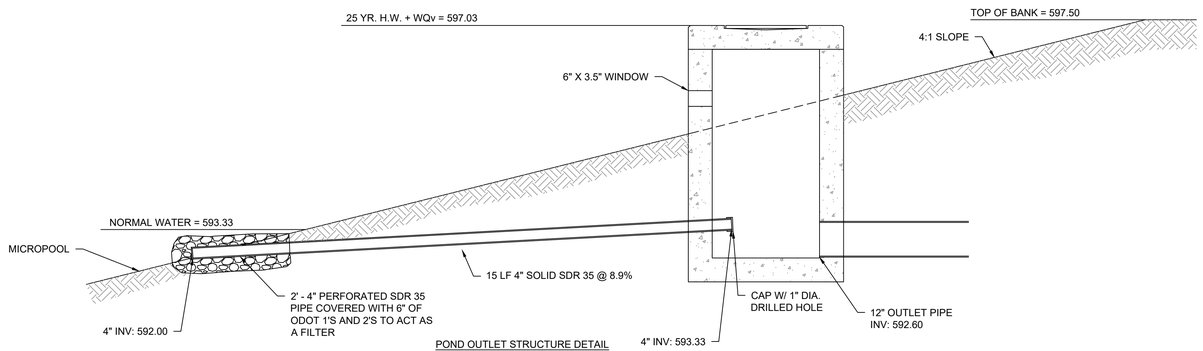
WQv REQUIRED: 5133 CF
WQv PROVIDED: 5133 CF

25 YEAR DETENTION VOLUME REQUIRED: 13053 CF
25 YEAR DETENTION VOLUME PROVIDED: 13053 CF

TOTAL VOLUME REQUIRED: 18186 CF
TOTAL VOLUME PROVIDED: 18186 CF

FOREBAY VOLUME PROVIDED: 250 CF

MICROPOOL VOLUME REQUIRED: 513 CF
MICROPOOL VOLUME PROVIDED: 513 CF



POND OUTLET STRUCTURE DETAIL
NTS

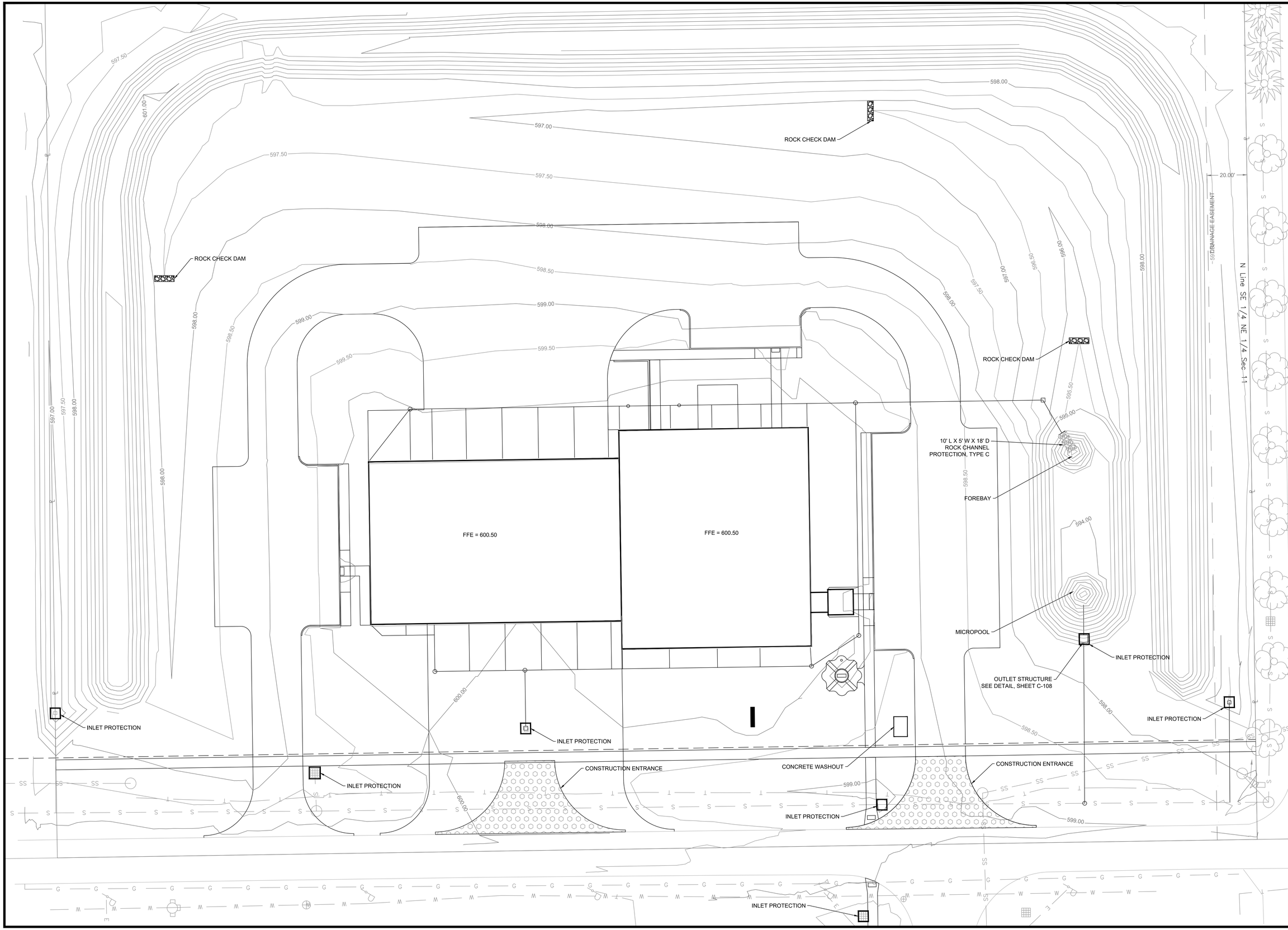
SCALE

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

SWPPP DETAILS

CITY OF OREGON
CENTRAL FIRE STATION

C-114



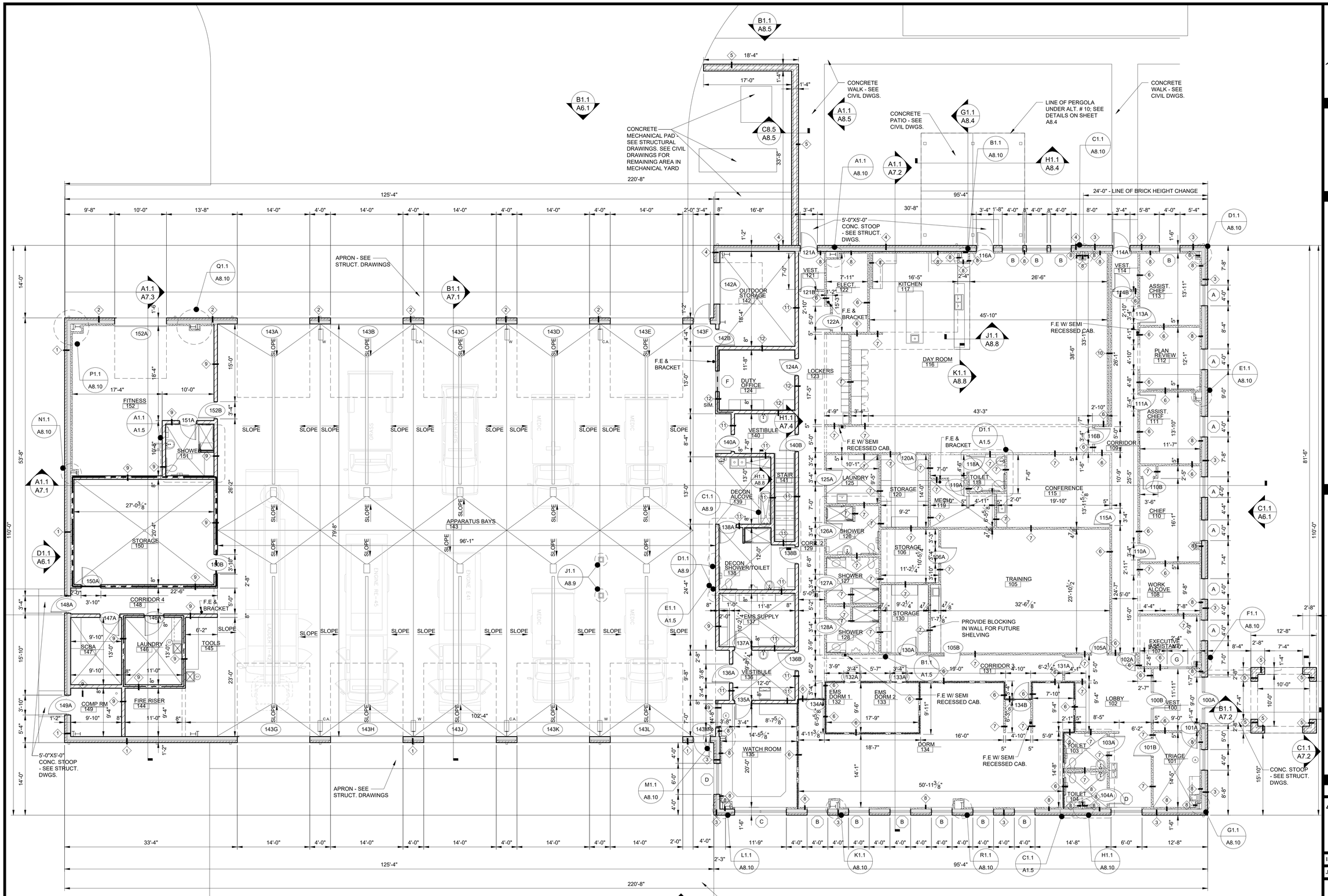
SCALE
1" = 20'

DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021

SWPPP PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-115



LEVEL 1 FLOOR PLAN

SCALE: 1/8"=1'-0"

STATE OF OHIO
KENT D. BUEHRER
11087

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9021 F 419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE

1	-

ISSUE DATE: 06/17/21

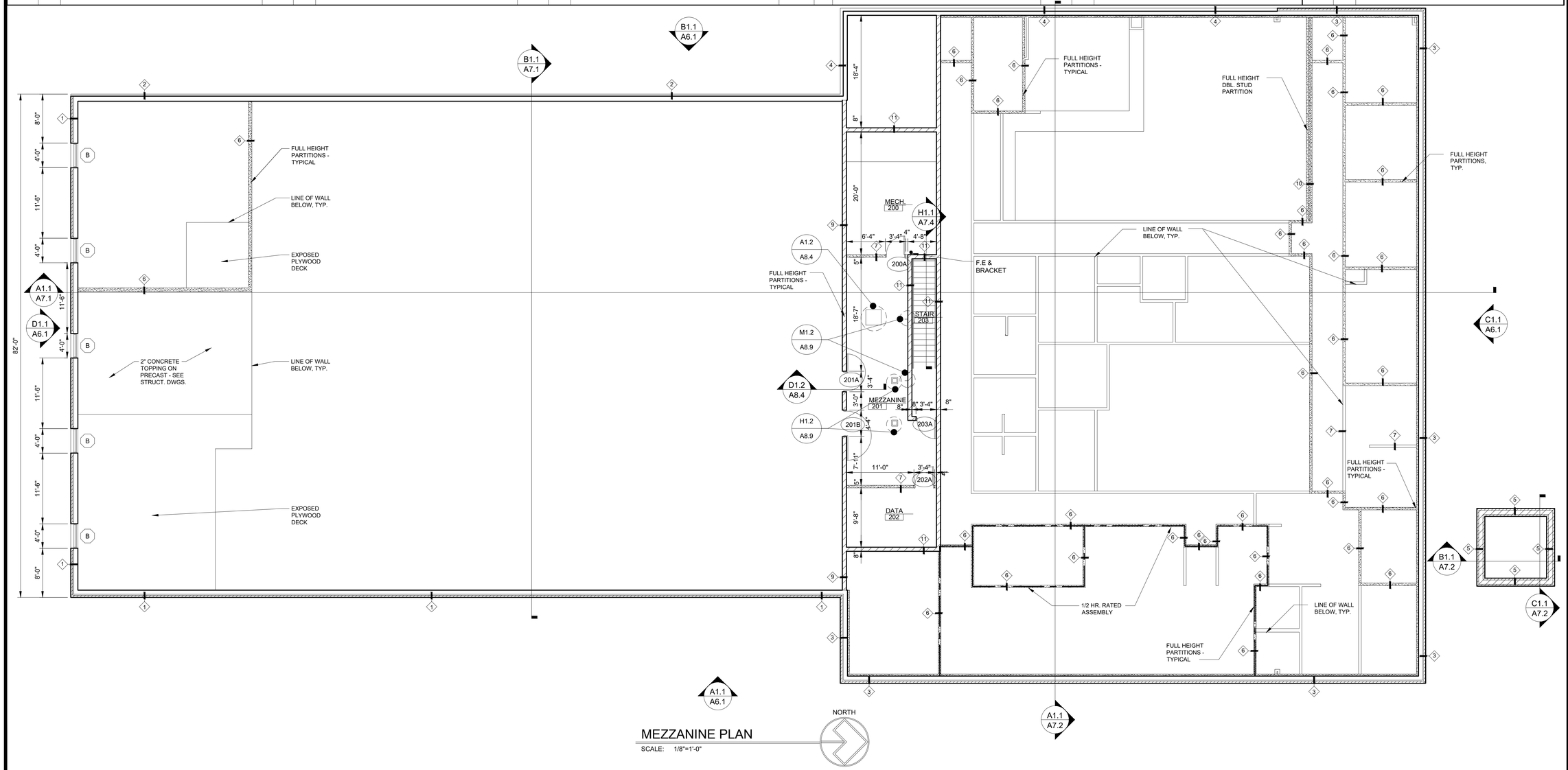
JOB NUMBER: 201296

CONSTRUCTION DOCUMENTS

A1.1

WALL TYPE LEGEND

WALL TYPE	DESCRIPTION
WALL TYPE 1	METAL LINER PANEL ON 4 MIL. VAPOR BARRIER ON INTERIOR SIDE OF 8" MTL. STUDS @ 16" O.C. U.N.O. W/ R-25 UNFACED BATT INSUL. BETWEEN STUDS AND 5/8" PLYWOOD SHEATHING, WEATHER BARRIER, 1½" AIR SPACE, AND MODULAR BRICK ON EXTERIOR SIDE OF STUDS TO BTM OF EAVE. NOMINAL WALL THICKNESS 1'-2", ACTUAL WALL THICKNESS 1'-2 1/4"
WALL TYPE 2	METAL LINER PANEL ON 4 MIL. VAPOR BARRIER ON INTERIOR SIDE OF 8" MTL. STUDS @ 16" O.C. U.N.O. W/ R-25 UNFACED BATT INSUL. BETWEEN STUDS AND 5/8" PLYWOOD SHEATHING, WEATHER BARRIER, 1½" AIR SPACE, AND MODULAR BRICK ON EXTERIOR SIDE OF STUDS TO 5'-4" A.F.F. W/ METAL PANEL ABOVE TO BTM OF EAVE. NOMINAL WALL THICKNESS 1'-2", ACTUAL WALL THICKNESS 1'-2 1/4"
WALL TYPE 3	4 MIL. VAPOR BARRIER ON INTERIOR SIDE OF 8" MTL. STUDS @ 16" O.C. U.N.O. W/ R-25 UNFACED BATT INSUL. BETWEEN STUDS AND 5/8" PLYWOOD SHEATHING, WEATHER BARRIER, 1½" AIR SPACE, AND MODULAR BRICK ON EXTERIOR SIDE OF STUDS TO BTM. OF EAVE. NOMINAL WALL THICKNESS 1'-2", ACTUAL WALL THICKNESS 1'-1 3/4"
WALL TYPE 4	4 MIL. VAPOR BARRIER ON INTERIOR SIDE OF 8" MTL. STUDS @ 16" O.C. U.N.O. W/ R-25 UNFACED BATT INSUL. BETWEEN STUDS AND 5/8" PLYWOOD SHEATHING, WEATHER BARRIER, 1½" AIR SPACE, AND MODULAR BRICK TO 3'-4" A.F.F. W/ METAL PANEL ABOVE TO BTM OF EAVE ON EXTERIOR SIDE OF STUDS. NOMINAL WALL THICKNESS 1'-2", ACTUAL WALL THICKNESS 1'-1 3/4"
WALL TYPE 5	8" CONCRETE BLOCK WALL W/ AIR SPACE AND BRICK VENEER ON BOTH SIDES. NOMINAL WALL THICKNESS 1'-4", ACTUAL WALL THICKNESS 1'-3 5/8".
WALL TYPE 6	5/8" GYPSUM BOARD ON BOTH SIDES OF 3 5/8" METAL STUDS @ 16" O.C. U.N.O. W/ 3 1/2" SOUND ATTENUATION BLANKET INSULATION BETWEEN STUDS, NOMINAL WALL THICKNESS 5", ACTUAL WALL THICKNESS 4 7/8". DRYWALL TO EXTEND TO BOTTOM OF DECK ABOVE U.N.O. STUDS TO GO TO STRUCTURE ABOVE OR BE BRACED AS REQUIRED.
WALL TYPE 7	5/8" GYPSUM BOARD ON BOTH SIDES OF 3 5/8" OR 6" METAL STUDS @ 16" O.C. U.N.O. W/ 3 1/2" OR 6" SOUND ATTENUATION BLANKET INSULATION BETWEEN STUDS, NOMINAL WALL THICKNESS 5" OR 7", ACTUAL WALL THICKNESS 4 7/8" OR 7¼". DRYWALL TO EXTEND TO 6" ABOVE ADJACENT CEILING U.N.O.
WALL TYPE 8	5/8" GYPSUM BOARD ON INTERIOR SIDE OF 3 5/8" METAL STUDS @ 16" O.C. U.N.O., NOMINAL WALL THICKNESS 4", ACTUAL WALL THICKNESS 4 1/4". WALL TO EXTEND TO 6" ABOVE ADJACENT CEILING
WALL TYPE 9	8" CONC. BLOCK FULL HEIGHT PARTITION. WALL TO GO TO BOTTOM OF ROOF SYSTEM. SEE REFLECTED CEILING PLAN AND SECTIONS.
WALL TYPE 10	5/8" GYPSUM BOARD ON BOTH SIDES OF (2) LAYERS OF 3 5/8" METAL STUDS @ 16" O.C. U.N.O. W/ 3 1/2" SOUND ATTENUATION BLANKET INSULATION BETWEEN EACH LAYER OF STUDS, NOMINAL WALL THICKNESS 11", ACTUAL WALL THICKNESS 11¼". DRYWALL TO EXTEND TO BTM. OF DECK
WALL TYPE 11	8" CONC. BLOCK PARTITION. WALL TO EXTEND TO 1 COURSE ABOVE ADJACENT CEILING SYSTEM OR BOTTOM OF FLOOR DECK. SEE REFLECTED CEILING PLAN AND SECTIONS.
WALL TYPE 12	8" CONC. BLOCK PARTITION W/ 5/8" DRYWALL LAMINATED TO OFFICE SIDE OF WALL. WALL TO EXTEND TO 1 COURSE ABOVE ADJACENT CEILING SYSTEM OR BOTTOM OF FLOOR DECK. SEE REFLECTED CEILING PLAN AND SECTIONS.



MEZZANINE PLAN

SCALE: 1/8"=1'-0"

STATE OF OHIO
KENT D. BUEHRER
11087
KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
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REVISION SCHEDULE

1	-

ISSUE DATE: 06/17/21

JOB NUMBER: 201296

CONSTRUCTION DOCUMENTS

A1.2

EQUIPMENT CODED NOTES

3. COMPUTER WORKSTATION BY OWNER - TYPICAL.

4. FURNITURE BY OTHERS - TYPICAL.

6. MULTI-FUNCTION COPY, SCAN, FAX & PRINTER BY OWNER.

25. REFRIGERATOR / FREEZER w/ BUILT-IN ICE MAKER. FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

26. GAS RANGE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

28. DISHWASHER FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

29. GAS GRILLE BY OWNER AND INSTALLED BY CONTRACTOR.

30. PLUMBED COFFEE MAKER BY OWNER & INSTALLED BY CONTRACTOR.

31. MICROWAVE BY OWNER & INSTALLED BY CONTRACTOR.

33. UNDERCOUNTER REFRIGERAOTR. SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR

34. UNDERCOUNTER ICEMAKER. SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR

35. VENDING MACHINE BY OWNER. SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR

36. ICE MAKER. SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR

41. HOSE STORAGE RACK BY OWNER.

45. GLOVE DISPENSER BY OWNER

49. WASTE RECEPTACLE BY OWNER.

50. SHARPS CONTAINER. SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR.

53. TURNOUT GEAR LOCKERS FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

54. MOBILE TURNOUT GEAR LOCKERS FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

55. TURNOUT GEAR WASHER / EXTRACTOR FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

57. WASHING MACHINE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

58. ELECTRIC DRYER FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

60. FLAMMABLE STORAGE CABINET w/ SELF CLOSING DOORS BY OTHERS

61. THE CONTRACTOR SHALL HIRE BREATHING AIR SYSTEMS TO REMOVE AND RELOCATE THE EXISTING SCBA FILL COMPRESSOR SYSTEM FROM EXISTING FIRE STATION. BREATHING AIR SYSTEMS, 8855 EAST BROAD ST, REYNOLDSBURG, OH 43068. PATRICK LINN @ 800-937-2479 EXT 6015 OR CELL @ 614-309-8793. BREATHING AIR SHALL INSTALL ALL REQUIRED 6000 PSI INTERCONNECTING TUBING INCLUDING A SEPARATE AIR DROP NEAR WORK BENCH FOR MISC FILLING AND CERTIFY PROPER OPERATION OF RELOCATED SYSTEM.

BUILDING CONTRACTOR IS RESPONSIBLE FOR VENTILATION OF COMPRESSOR RM AND ALL REQUIRED ELECTRICAL WIRING, SEE MECHANICAL AND ELECTRICAL DRAWINGS. CONTRACTOR TO PROVIDE 4" SLEEVE THROUGH MASONRY WALL FOR INTERCONNECTING TUBING THRU MASONRY WALL OF COMPRESSOR ROOM TO SCBA.

63. EXISTING BOTTLE STORAGE SYSTEM TO BE RELOCATED BY BREATHING AIR SYSTEMS.

64. FUTURE EMS VENDING MACHINE BY OWNER.

65. LOCKABLE DRUG CABINET FURNISHED BY OWNER & INSTALLED BY CONTRACTOR.

66. WALL MOUNTED FLAT PANEL TV / MONITOR SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR. (PROVIDE BLOCKING)

67. STORAGE CABINET BY OWNER.

68. ELLIPTICAL MACHINE BY OWNER.

69. TREADMILL BY OWNER.

70. CABLE MACHINE MACHINE BY OWNER.

71. LEG PRESS BY OWNER.

72. BENCH BY OWNER.

73. WEIGHT RACK BY OWNER.

74. SQUAT / PRESS RACK BY OWNER.

75. CURL BENCH BY OWNER.

76. UNIVERSAL MACHINE BY OWNER

77. BIKE MACHINE BY OWNER

78. LEG CURL MACHINE

79. AIR COMPRESSOR BY CONTRACTOR , SEE PLUMB. DWGS.

80. PPE DRYING CABINET. BY OWNER

81. CORE MACHINE BY OWNER

97. BOOT WASH BY OWNER.

106. INFORMATION CENTER BY OTHERS. INSTALLED BY CONTRACTOR

111. 6' LONG LOOSE LOCKER BENCH BY OTHERS

113. CEILING MOUNTED FIRE LADDER POT RACK BY OWNER AND INSTALLED BY CONTRACTOR.

114. DETERGENT / CHEMICAL DISTRIBUTION SYSTEM (BY OWNER)

118. CHEMICAL DISTRIBUTION CENTER (BY OWNER)

119. 4 DRAWER FILING CABINET (BY OWNER)

120. FUTURE FREEZER (BY OWNER)

123. DAY ROOM LOUNGE CHAIR (BY OTHERS)

124. CAD MONITOR PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR (PROVIDE BLOCKING)

125. FUTURE DIGITAL DISPLAY LOCATION(PROVIDE BLOCKING)

127 . KNOX BOX BY CONTRACTOR

128. MASK DISPENSER BY OWNER (PROVIDE BLOCKING)

129. STRIKER COT BY OWNER

130. WALL RING CUTTER BY OWNER (PROVIDE BLOCKING)

131. PORTABLE STORM SHELTER WATER CLOSET BY OWNER

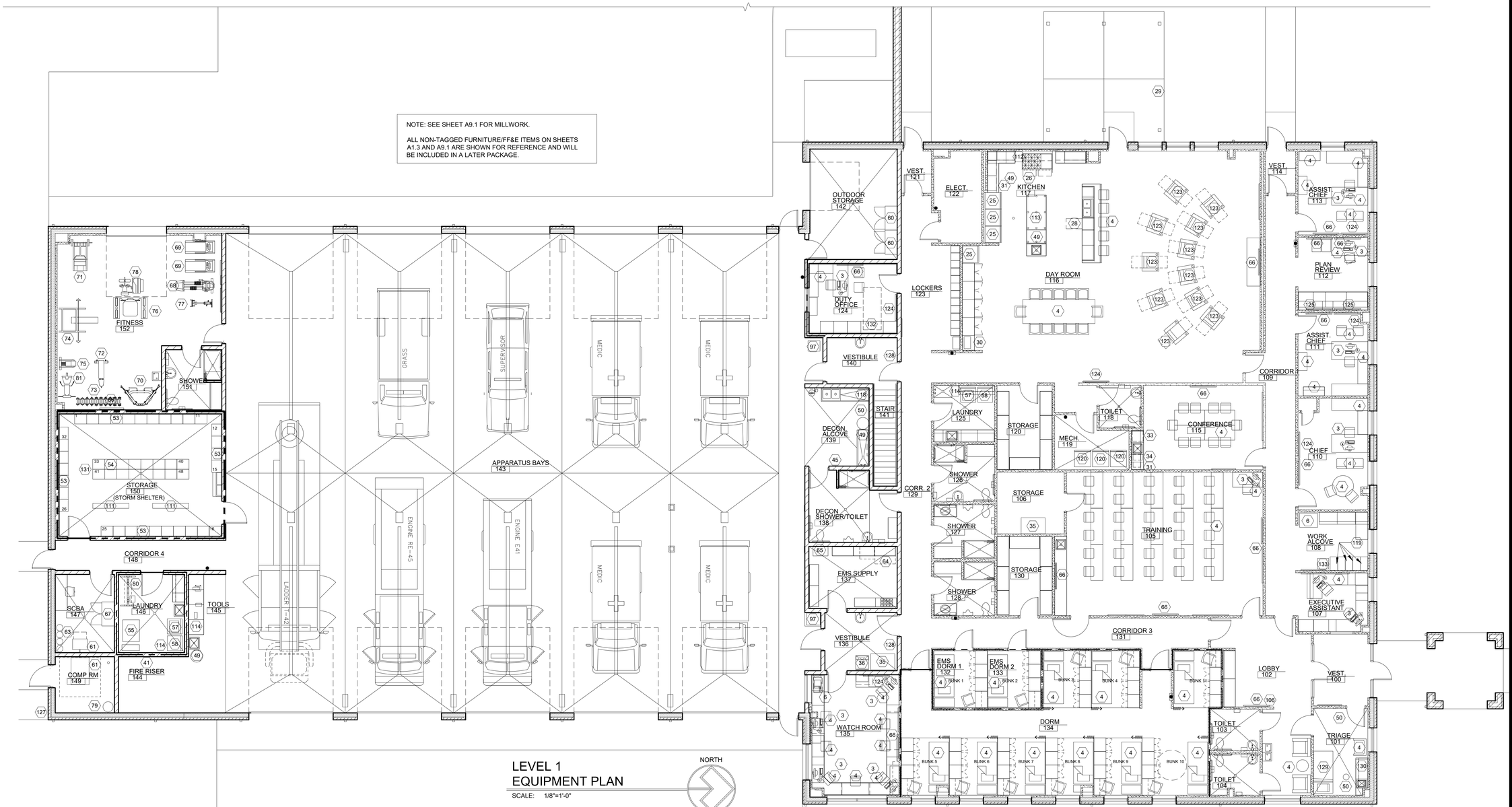
132. MURPHY BED - SEE SPEC SECTION 12 50 00

133. FREESTANDING SHREDDER BY OWNER (EXISTING)

NOTE: ALL EQUIPMENT TO INCLUDE APPROPRIATE BLOCKING BY CONTRACTOR REGARDLESS OF IF THE EQUIPMENT IS INSTALLED BY THE OWNER OR CONTRACTOR

NOTE: SEE SHEET A9.1 FOR MILLWORK.

ALL NON-TAGGED FURNITURE/FF&E ITEMS ON SHEETS A1.3 AND A9.1 ARE SHOWN FOR REFERENCE AND WILL BE INCLUDED IN A LATER PACKAGE.



LEVEL 1
EQUIPMENT PLAN
SCALE: 1/8"=1'-0"

NORTH

STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
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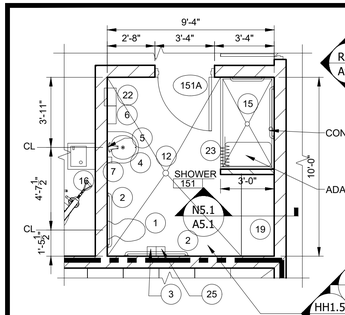
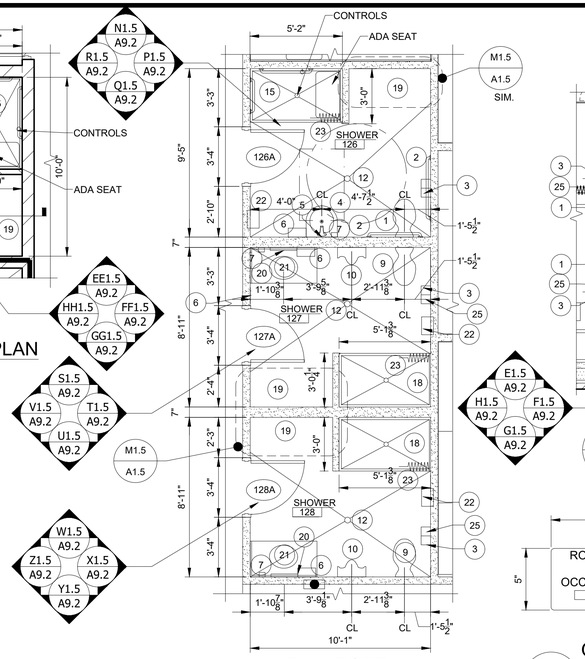
CONSTRUCTION DOCUMENTS

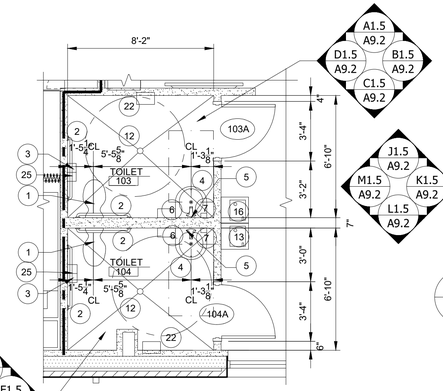
A1.3



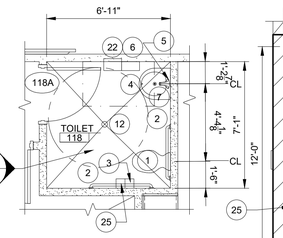
A1.1 / A1.5 ENLARGED RESTROOM PLAN
SCALE: 1/4"=1'-0"



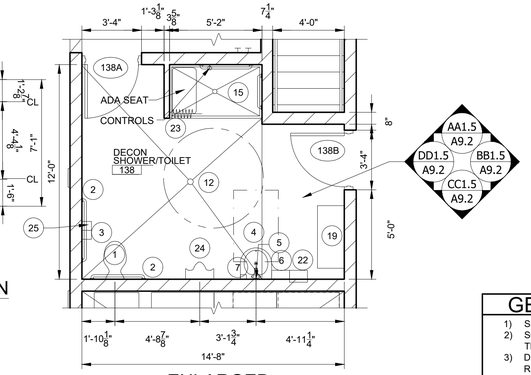
B1.1 / A1.5 ENLARGED RESTROOM PLAN
SCALE: 1/4"=1'-0"



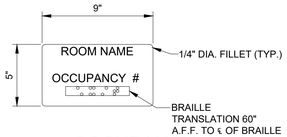
C1.1 / A1.5 ENLARGED RESTROOM PLAN
SCALE: C1.1



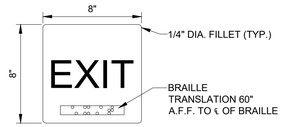
D1.1 / A1.5 ENLARGED RESTROOM PLAN
SCALE: 1/4"=1'-0"



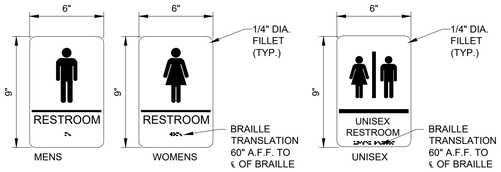
E1.1 / A1.5 ENLARGED RESTROOM PLAN
SCALE: 1/4"=1'-0"



F5.1 / A5.1 OCCUPANCY SIGN DETAIL
SCALE: 2"=1'-0"

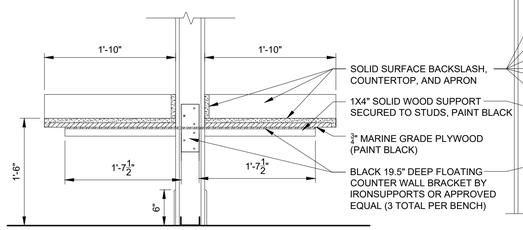


G5.1 / A5.1 TACTILE "EXIT" SIGN DETAIL
SCALE: 2"=1'-0"

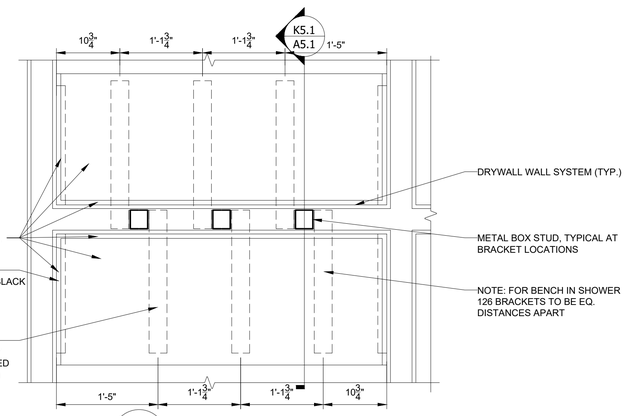


H5.1 / A5.1 TACTILE RESTROOM SIGN DETAIL
SCALE: 2"=1'-0"

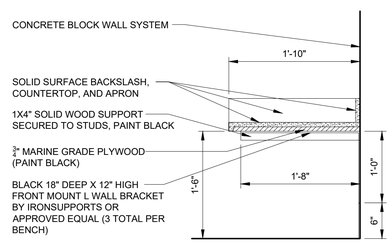
J5.1 / A5.1 TACTILE UNISEX RESTROOM SIGN DETAIL
SCALE: 2"=1'-0"



K5.1 / A5.1 BENCH SECTION
SCALE: 1"=1'-0"



M5.1 / A5.1 BENCH PLAN
SCALE: 1"=1'-0"



N5.1 / A5.1 BENCH SECTION
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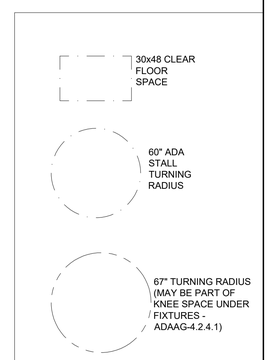
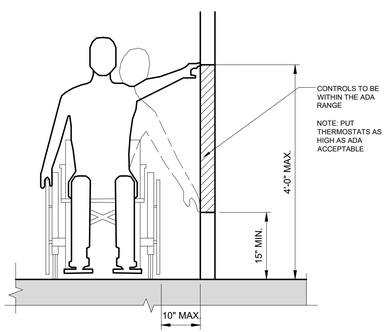


GENERAL RESTROOM NOTES

1) SLOPE RESTROOM FLOORS TO FLOOR DRAIN
2) SOAP DISPENSERS ARE TO BE PLACED SO THAT THEY DROP ON THE SINK AND NOT THE FLOOR. TYPICAL IN ALL RESTROOMS.
3) DRYWALL IN TOILET AND SHOWER ROOMS TO BE MOISTURE RESISTANT DRYWALL. SEE SPECIFICATION SECTION 09 21 16.

KEYED FIXTURES & EQUIPMENT:

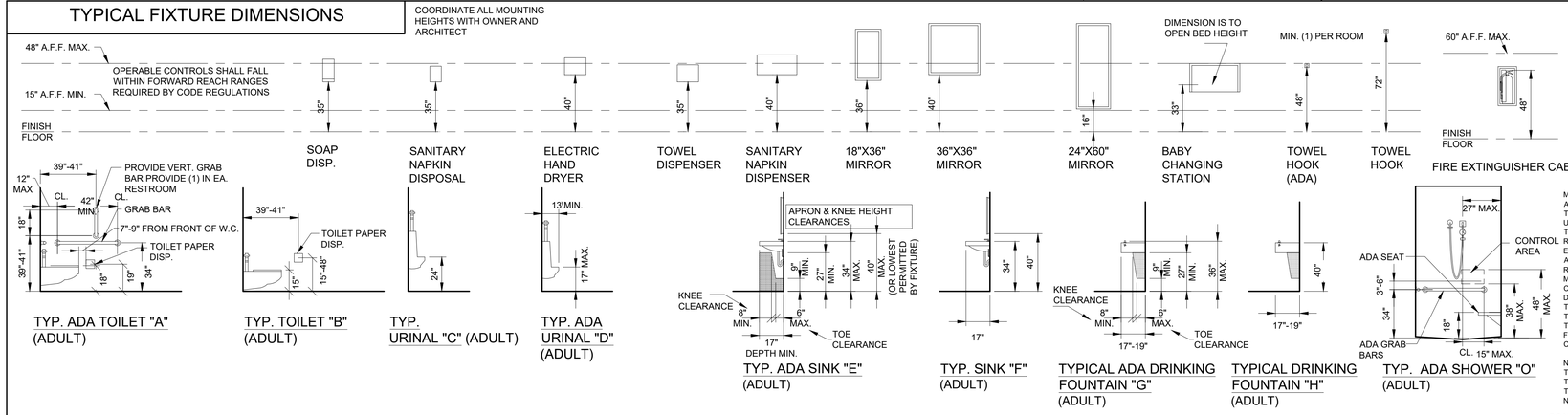
1. ACCESSIBLE TOILET "A"- SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
2. GRAB BARS - SEE TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND NOTES ON THIS SHEET. REAR GRAB BAR SHALL BE 36" MINIMUM IN LENGTH, AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON THE SIDE CLOSEST TO THE WALL AND 24" MINIMUM ON THE TRANSFER SIDE. (SUPPLY NAILERS IN WALL AS REQUIRED)
3. TOILET TISSUE DISPENSER. PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR (SUPPLY NAILERS IN WALL AS REQUIRED)
4. ACCESSIBLE WALL MOUNTED SINK "E". - SEE TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND NOTES ON THIS SHEET (SEE PLUMBING DRAWING FOR FIXTURE INFORMATION) (SUPPLY NAILERS IN WALL AS REQUIRED)
5. 18"X36" MIRROR
6. PAPER TOWEL DISPENSER PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR (SUPPLY NAILERS IN WALL AS REQUIRED)
7. SOAP DISPENSER. PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR (SUPPLY NAILERS IN WALL AS REQUIRED)
8. NOT USED
9. ADULT TOILET "B" - SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
10. URINAL "C" - SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
11. NOT USED
12. FLOOR DRAIN (FLOOR SLOPED TO DRAIN) -SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
13. ADA ACCESSIBLE DRINKING FOUNTAIN "G" -SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
14. NOT USED
15. ADA SHOWER 'O'
16. DRINKING FOUNTAIN "H" -SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
17. MOP SINK - SEE DRAWING A1.1 FOR LOCATIONS -SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
18. STANDARD SHOWER 'P'
19. MILLWORK BENCH, SEE ELEVATION ON DRAWING A9.2.
20. 36"X36" MIRROR
21. PLASTIC LAMINATE BASE CABINET W/ SOLID SURFACE COUNTER TOP AND SINK BOWL
22. ELECTRIC HAND DRIERS - COORDINATE WITH ELECTRICAL DRAWINGS.
23. SHOWER CURTAIN, SEE SPECS.
24. ADA URINAL 'D' - SEE PLUMBING DRAWINGS FOR MORE INFORMATION
25. SANITARY NAPKIN DISPOSAL



L5.1 / A5.1 TYPICAL ADA REACH DETAIL
SCALE: N.T.S.

TYPICAL FIXTURE DIMENSIONS

COORDINATE ALL MOUNTING HEIGHTS WITH OWNER AND ARCHITECT



MOUNTING HEIGHTS ADA GUIDELINES SPECIFY THAT FOR AN UNOBSTRUCTED APPROACH, THE MAXIMUM FORWARD REACH TO THE FIRE EXTINGUISHER HANDLE IS 48" A.F.F.. THE MAXIMUM SIDE REACH 54". THE ACTUAL MOUNTING HEIGHTS FOR CABINETS CAN BE DETERMINED BY REVIEWING THE EXACT DIMENSIONS OF THE SPECIFIED CABINET AND THE POSITIONING OF THE FIRE EQUIPMENT WITHIN THE CABINET.

NFPA GUIDELINES STATE THAT THE DISTANCE FROM THE FLOOR TO THE TOP OF THE FIRE EXTINGUISHER BE NO MORE THAN 5'-0".

SCALE: 1 1/2"-1'-0"

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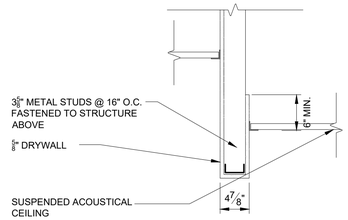
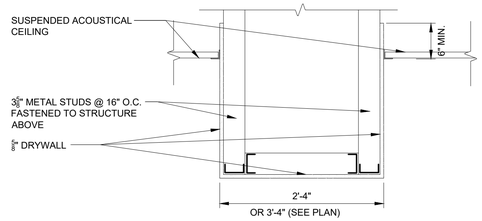
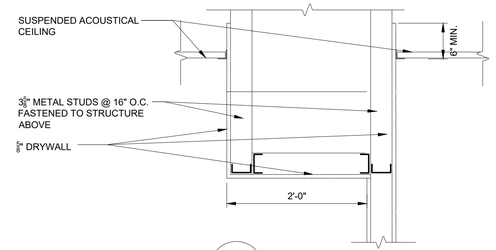
A1.5



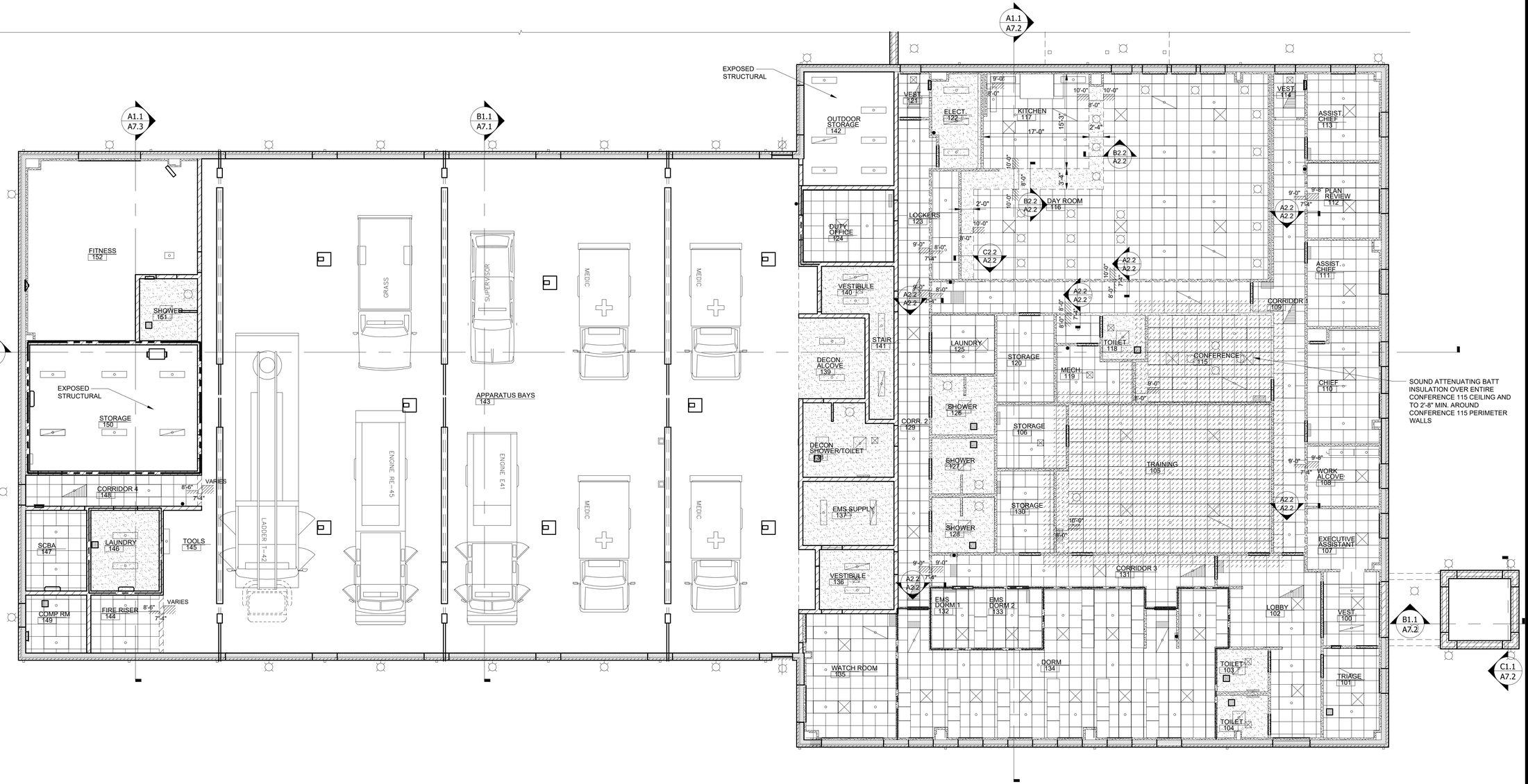
A2.2 / A2.2 SOFFIT DETAIL
SCALE: 1"=1'-0"



B2.2 / A2.2 SOFFIT DETAIL
SCALE: 1"=1'-0"



C2.2 / A2.2 SOFFIT DETAIL
SCALE: 1"=1'-0"



GROUND FLOOR
REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0"

NORTH

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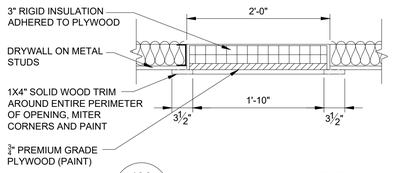
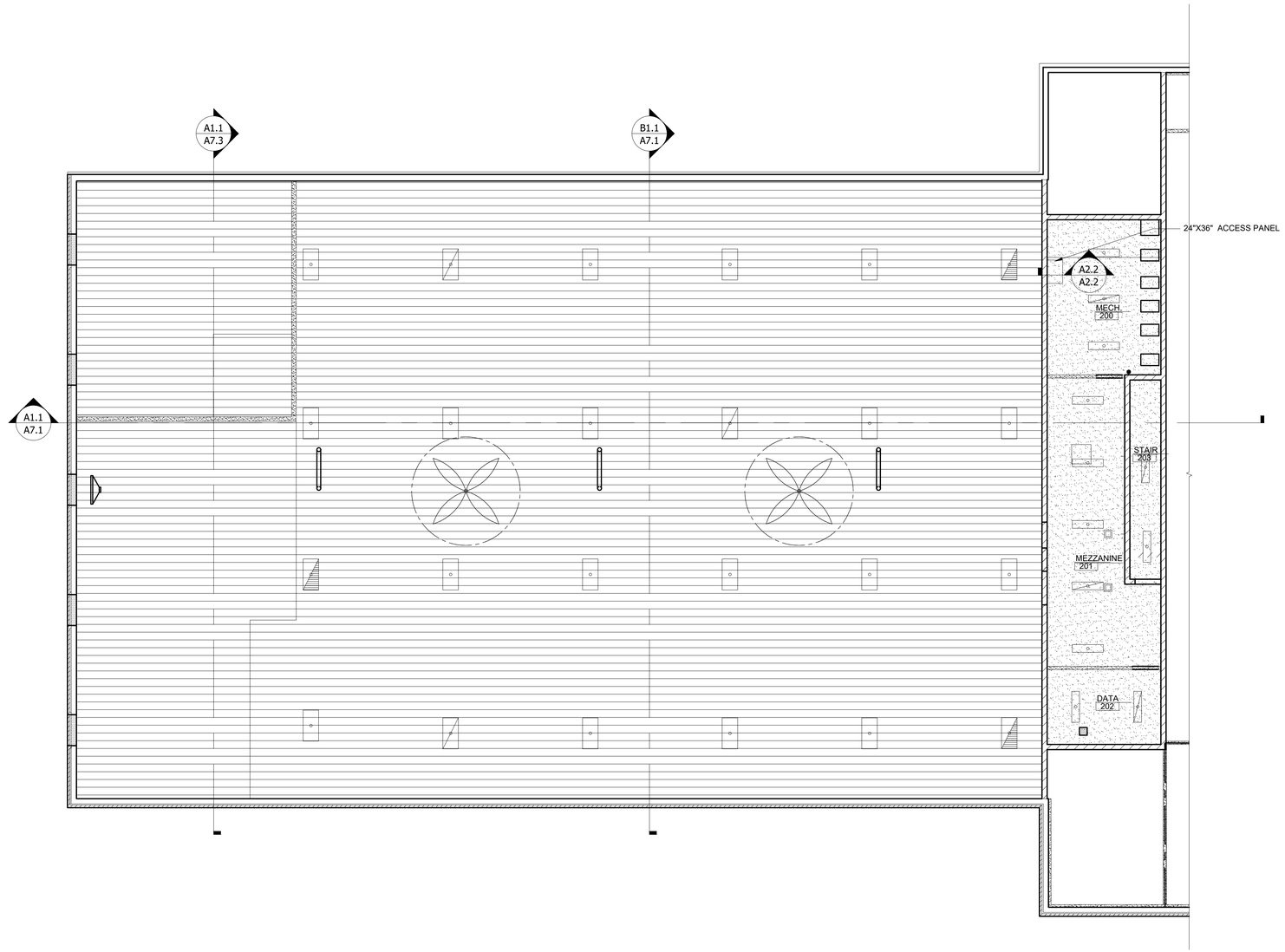
A2.1



A2.2 / A2.2 ACCESS PANEL DETAIL

SCALE: 1"=1'-0"



MEZZANINE
REFLECTED CEILING PLAN

SCALE: 1/8"=1'-0"

NORTH

REFLECTED CEILING NOTES

1. ALLOW FOR ROOF STRUCTURE DEFLECTION AT METAL STUD AND DRYWALL WALLS WHERE METAL STUD AND DRYWALL WALLS EXTEND UP TO OR ARE BRACED TO ROOF STRUCTURE.

2. FIRE PROTECTION CONTRACTOR TO COORDINATE LOCATION OF SPRINKLER HEAD/LINE LOCATIONS W/ ALL OTHER CONTRACTORS. LOCATE HEADS IN THE CENTER OF CEILING TILES.

3. SEE "ROOM FINISH SCHEDULE" ON DWG. A100.1 FOR CEILING HEIGHTS

4. ALL EXPOSED ITEMS AND MATERIALS INCLUDING BUT NOT LIMITED TO STEEL STRUCTURE, SUPPORTS, FASTENERS, DUCTS, CONDUITS, PIPING, ETC. TO BE PAINTED.

REFLECTED CEILING LEGEND

	2' X 4' LED LIGHT FIXTURE	WAP	WIRELESS ACCESS
	1' x 4' LED LIGHT FIXTURE	CLK	DIGITAL CLOCK
	2'X 2' LED LIGHT FIXTURE		SPRINKLER HEAD (EXACT LOCATION MAY VARY)
	LED DOWN LIGHT FIXTURE -SEE ELECTRICAL LIGHTING PLAN		SPRINKLER ABOVE CEILING PANELS
	EXIT SIGNS		UPRIGHT PENDANT SPRINKLER W/ WIRE GUARD (EXACT LOCATION MAY VARY)
OR	OCCUPANCY SENSOR		AIR SUPPLY GRILLE
	PHOTOSENSOR		LINEAR AIR SUPPLY GRILLE
SM	CEILING MOUNTED SMOKE DETECTOR		RETURN AIR GRILLE
			RADIANT CEILING PANELS
	SUSPENDED CEILING	LS OR DQ	RECESSED CEILING SPEAKER
	DRYWALL CEILING	OR	SURFACE MOUNTED SPEAKERS
	BATT INSULATION TO 2'-8" OFF FACE OF EACH WALL WHERE SHOWN OR OVER FULL FIELD OF CEILING, ABOVE ACOUSTICAL CEILING, TYP. (DO NOT PUT OVER LIGHT FIXTURES OR GRILLES)		SECURITY CAMERA MOUNTED IN CEILING
		A	SECURITY SYSTEM SOUNDER
	CEILING FAN	F	FIRE ALARM HORN AND STROBE
			SUSPENDED LIGHT FIXTURE
			METAL LINER PANEL CEILING SYSTEM

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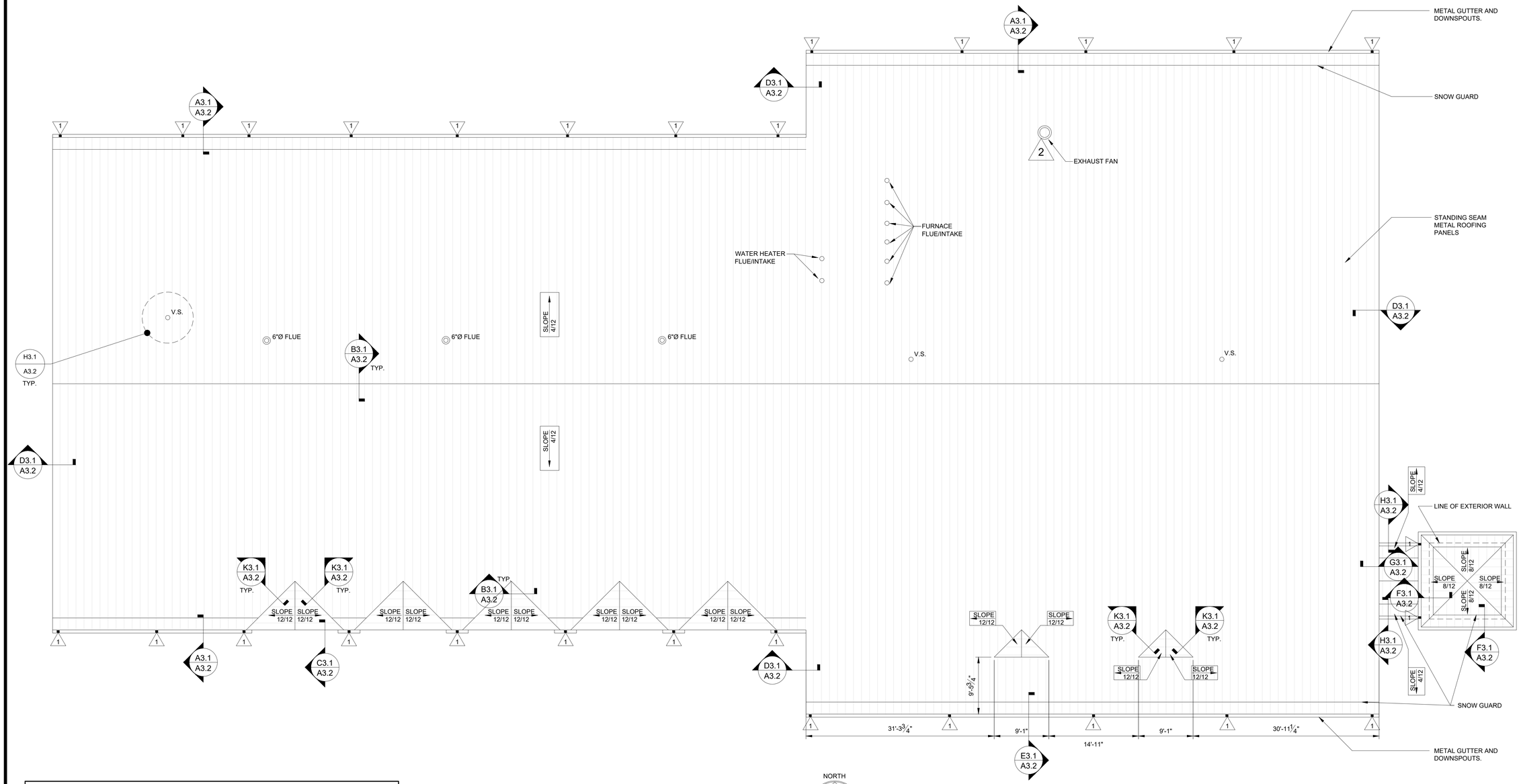
A2.2



ROOF PLAN

SCALE: 1/8"=1'-0"

ROOF NOTES

1. PREENGINEERED METAL BUILDING ROOF DETAILS MAY VARY BASED ON PREENGINEERED METAL BUILDING MANUFACTURER. COORDINATE ALL DETAILS WITH METAL BUILDING MANUFACTURER.

2. PROVIDE INTERMETALIC SEPARATION WHERE REQ'D

3. ALL FASTENERS THAT PENETRATE FLASHING TO BE SELF SEALING TYPE.

4. PROVIDE INSULATION BLOCKS (THERMAL SPACERS) UNDER ROOF PANELS AND AS NEEDED TO PROVIDED THERMAL PERFORMANCE REQUIRED BY THE LATEST VERSION OF ASHRAE 90.1 (TYP.)

5. PROVIDE INSULATION SUPPORT STRAPS, METAL FURRING STRIPS, ETC. AS REQUIRED TO HOLD INSULATION IN PLACE WHEREVER STUD WALLS DON'T HAVE SHEATHING ON ONE OR BOTH SIDES.

6. SEE SPECIFICATIONS FOR METAL SIDING AND METAL TRIM GAUGE REQUIREMENTS.

7. ALL FASTENERS, INCLUDING BUT NOT LIMITED TO RIVETS AND SCREWS, ARE TO BE STAINLESS STEEL AND COLORED TO MATCH ADJACENT METAL COLOR.

8. TAPE ALL SEAMS AND PENETRATIONS IN VAPOR BARRIER AND AIR BARRIERS.

9. ALL ROOF PANELS SHALL BE CONTINUOUS FROM EAVE TO RIDGE. LAP JOINTS WILL NOT BE ACCEPTED.

10. DO NOT INSTALL ANY VINYL FACED BATT INSULATION WITH TEARS IN THE VINYL. ANY TEARS THAT OCCUR AFTER THE INSULATION IS INSTALLED SHALL BE TAPED AND SEALED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.

11. KEEP ALL ROOF PENETRATIONS TO A MINIMUM

12. COORDINATE DOWNSPOUT LOCATIONS WITH ELEVATIONS

13. ALLOW FOR ROOF STRUCTURE DEFLECTION AT METAL STUD AND DRYWALL WALLS WHERE METAL STUD AND DRYWALL WALLS EXTEND UP TO OR ARE BRACED TO ROOF STRUCTURE

14. PRE-ENGINEERED METAL BUILDING MANUFACTURER TO ALLOW FOR EXPANSION AND CONTRACTION AT BUILDING CONNECTION LOCATIONS

ROOF TAGS

1	5" DOWNSPOUT	V.S.	VENT STACK
2	MECHANICAL EXHAUST HOOD & CURB - ALL LOCATIONS MAY NOT BE SHOWN - COORDINATE WITH MECH. DRAWINGS.	E.F.	EXHAUST FAN

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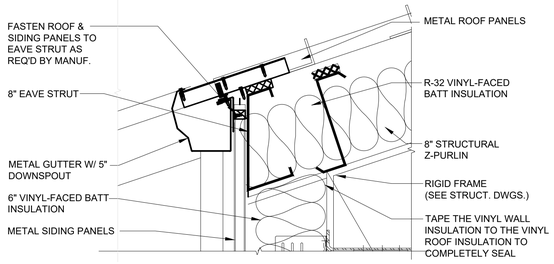
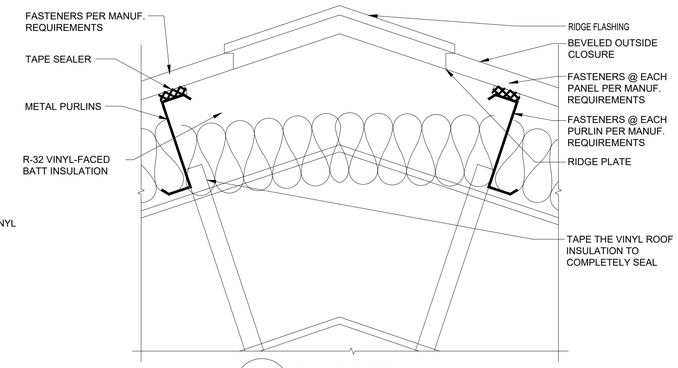
CONSTRUCTION DOCUMENTS

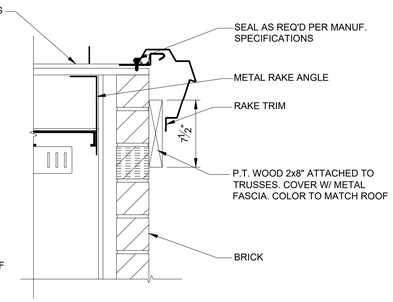
A3.1



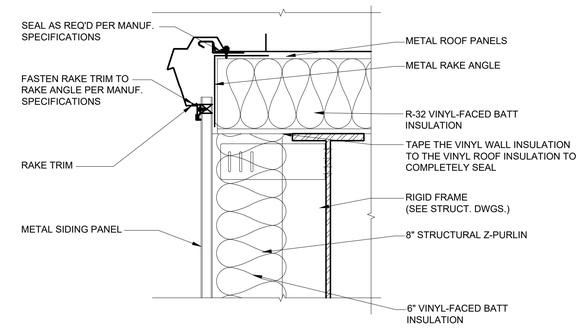
A3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



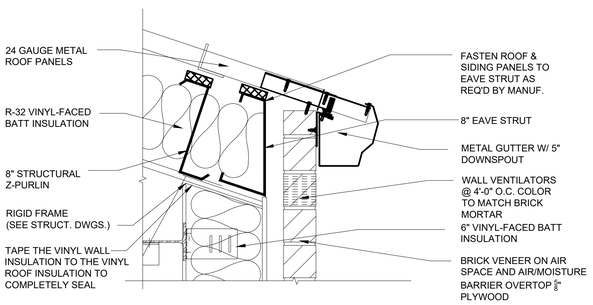
B3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



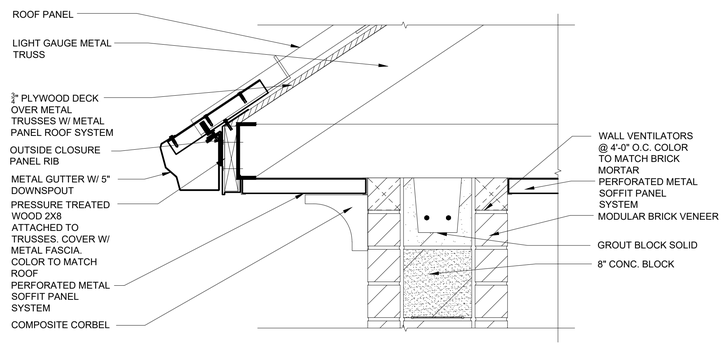
C3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



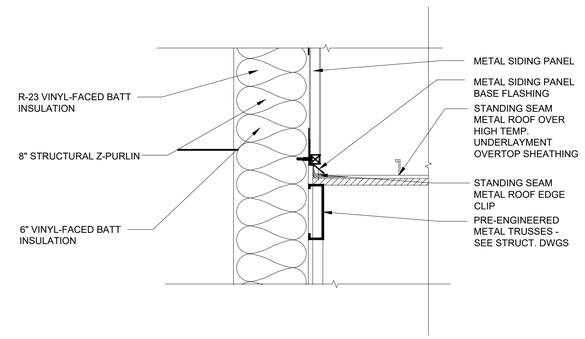
D3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



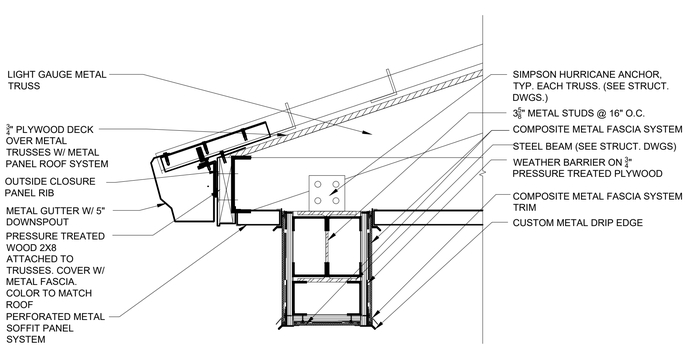
E3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



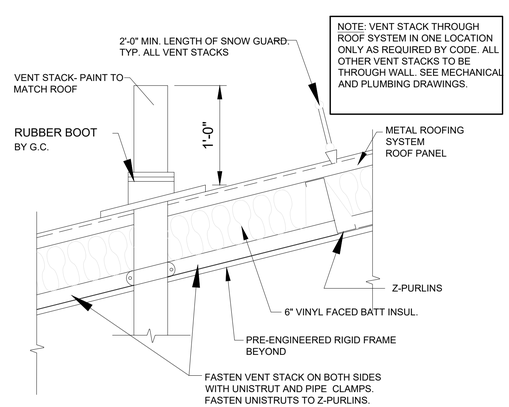
F3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



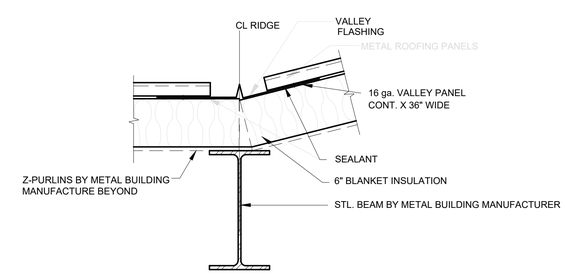
G3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



H3.1 / A3.2 ROOF DETAIL
SCALE: 1 1/2"=1'-0"



J3.1 / A3.2 VENT STACK DETAIL
SCALE: N.T.S.



K3.1 / A3.2 ROOF DETAIL
SCALE: 1"=1'-0"

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1040 S. WYNN ROAD
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A3.2

ROOM FINISH SCHEDULE

ROOM		FLOOR								BASE					WALLS						CEILING							REMARKS
		EPOXY SYSTEM #1	VINYL COMP. TILE	SEALED CONCRETE	PORCELAIN TILE	CARPET TILE	ATHLETIC FLOORING	WALK-OFF CARPET TILE	EPOXY SYSTEM #2 - ALTERNATE	4" RUBBER BASE	PORCELAIN TILE	EP1/OXY BASE #1	NO BASE	EPOXY BASE #2 - ALTERNATE	EPOXY PAINT	GYP. BOARD - PAINT	CONC. BLOCK - PAINT	CONC. BLOCK - EP1/OXY PAINT	METAL LINER PANEL (TO 8'-0")	FRP PANEL	2x2 ACOUSTICAL TILE - A1	2x2 ACOUSTICAL TILE - A2	METAL LINER PANEL	EXPOSED CONST. - PAINT	EPOXY PAINT	SUSPENDED M.R. GYP. BD. - PT.		
No.	NAME	EP1	V	SC	P	C	AF	W	EP2	R	P	EP1	NB	EP2	EP	GP	CP	CE	LP	FRP	A1	A2	LP	EX	EP	GP	HGT.	
GROUND FLOOR																												
100	VESTIBULE							W		R						GP					A1						9'-0"	
101	TRIAGE	EP1										EP1				GP					A1						9'-8"	
102	LOBBY	EP1										EP1				GP					A1						9'-0"	
103	TOILET	EP1										EP1			EP											GP	8'-0"	
104	TOILET	EP1										EP1			EP											GP	8'-0"	
105	TRAINING ROOM					C				R						GP					A1						10'-0"	
106	STORAGE					C				R						GP					A1						9'-0"	
107	EXECUTVE ASSISTANT					C				R						GP					A1						9'-8"	
108	WORK ALCOVE					C				R						GP					A1						9'-8"	
109	CORRIDOR 1					C				R						GP					A1						9'-0"	
110	CHIEF					C				R						GP					A1						9'-8"	
111	ASSISTANT CHIEF					C				R						GP					A1						9'-8"	
112	PLAN REVIEW					C				R						GP					A1						9'-8"	
113	ASSISTANT CHIEF					C				R						GP					A1						9'-8"	
114	VESTIBULE							W		R						GP					A1						9'-0"	
115	CONFERENCE					C				R						GP					A1						9'-0"	
116	DAYROOM	EP1				C				R		EP1				GP					A1						10'-0"	BASE: EP ON EAST SIDE ALONG WALK THROUGH SEE NOTE ON A9.1 AND A9.3
117	KITCHEN	EP1								R		EP1			EP	GP					A1	A2					10'-0"	
118	TOILET	EP1										EP1			EP											GP	8'-0"	
119	MECHANICAL			SC						R						GP					A1						9'-0"	
120	STORAGE			SC						R						GP					A1						9'-0"	
121	VESTIBULE							W		R						GP					A1						9'-0"	
122	ELECTRICAL			SC						R						GP										GP	9'-0"	
123	LOCKERS	EP1										EP1				GP					A1						9'-0"	
124	DUTY OFFICE					C				R						GP					A1						8'-0"	LAMINATE GYP. BOARD o/ CMU WALLS.
125	LAUNDRY	EP1										EP1				GP				FRP	A1						9'-0"	FRP @ MOP SINK
126	SHOWER				P						P				EP											GP	9'-0"	EPOXY GROUT
127	SHOWER				P						P				EP											GP	9'-0"	EPOXY GROUT
128	SHOWER				P						P				EP											GP	9'-0"	EPOXY GROUT
129	CORRIDOR 2	EP1										EP1				GP	CP				A1						9'-0"	
130	STORAGE			SC						R						GP					A1						9'-0"	
131	CORRIDOR 3	EP1										EP1				GP					A1						9'-0"	
132	EMS DORM 1					C				R						GP					A1						9'-0"	
133	EMS DORM 2					C				R						GP					A1						9'-0"	
134	DORM	EP1				C				R						GP					A1						9'-8"	
135	WATCHROOM	EP1										EP1				GP					A1						10'-0"	
136	VESTIBULE	EP1										EP1						CE								GP	9'-0"	WALK OFF MATS BY OWNER
137	EMS SUPPLY	EP1										EP1						CE								GP	8'-0"	
138	DECON SHOWER /TOILET			SC					EP2	R				EP2				CE								GP	9'-4"	6" RUBBER BASE
139	DECON ALCOVE			SC					EP2	R				EP2						FRP						GP	9'-4"	
140	VESTIBULE	EP1										EP1						CE								GP	9'-0"	WALK OFF MATS BY OWNER
141	STAIR			SC						R								CE								GP	20'-0"	
142	OUTDOOR STORAGE			SC						R									LP					EX			VARIES	
143	APPARATUS BAYS			SC					EP2	R				EP2				CE	LP				LP	EX			VARIES	ALT. FOR EPOXY SYSTEM FLOOR AND BASE
144	FIRE RISER			SC					EP2	R				EP2				CE	LP		A1						8'-6"	
145	TOOLS			SC					EP2	R				EP2				CE					LP	EX			VARIES	
146	LAUNDRY			SC						R								CE								GP	9'-2"	
147	SCBA			SC						R								CE	LP		A1						9'-2"	
148	CORRIDOR 4			SC					EP2	R				EP2				CE	LP		A1						8'-6"	
149	COMPRESSOR ROOM			SC						R								CE	LP		A1						8'-6"	
150	STORAGE			SC						R								CE						EX			9'-4"	
151	SHOWER	EP1										EP1			EP											GP	8'-6"	
152	FITNESS						AF			R					EP	GP		CE					LP	EX			VARIES	
MEZZANINE																												
200	MECH.			SC						R					EP	GP		CE								GP	9'-0"	
201	MEZZANINE			SC						R					EP	GP		CE								GP	9'-10"	
202	DATA			SC						R					EP	GP		CE								GP	9'-0"	
203	STAIR			SC						R								CE								GP	9'-0"	

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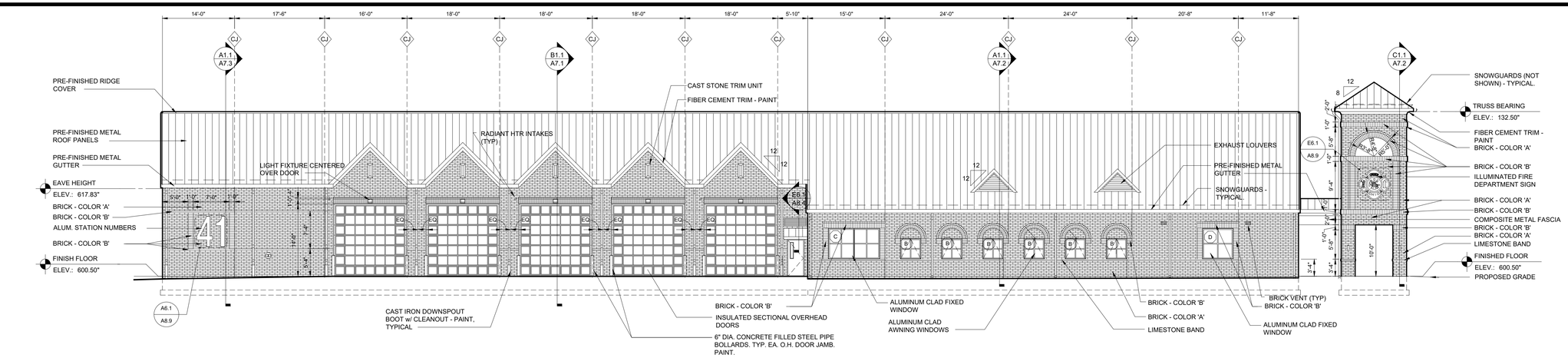
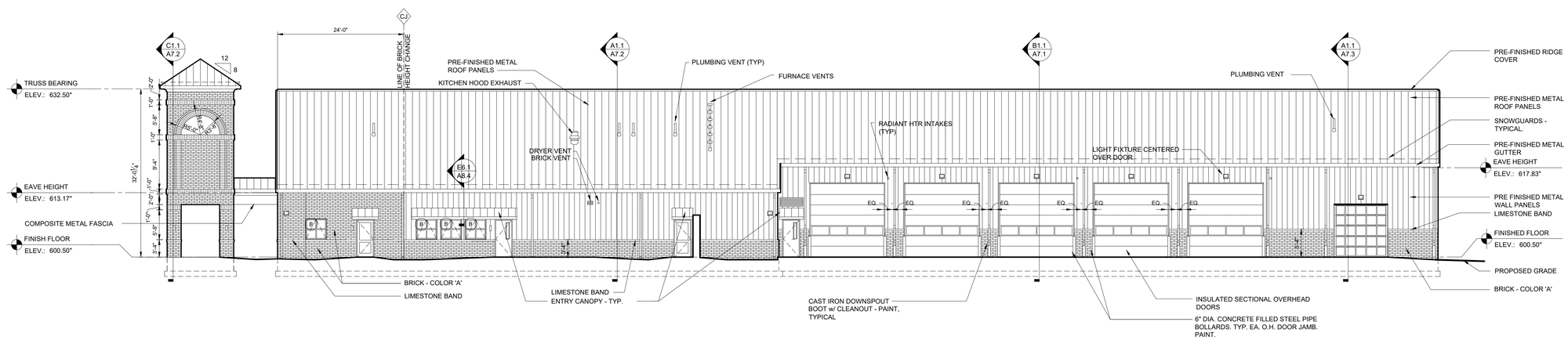
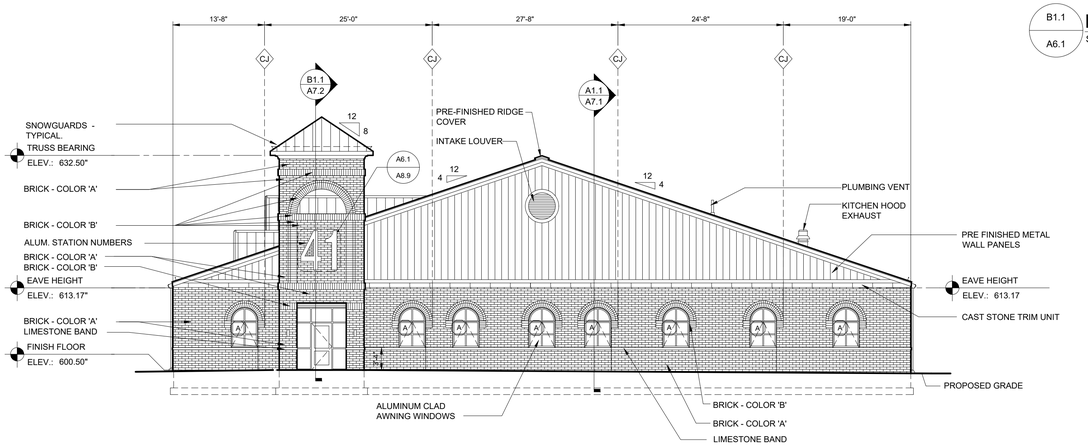
A4.1



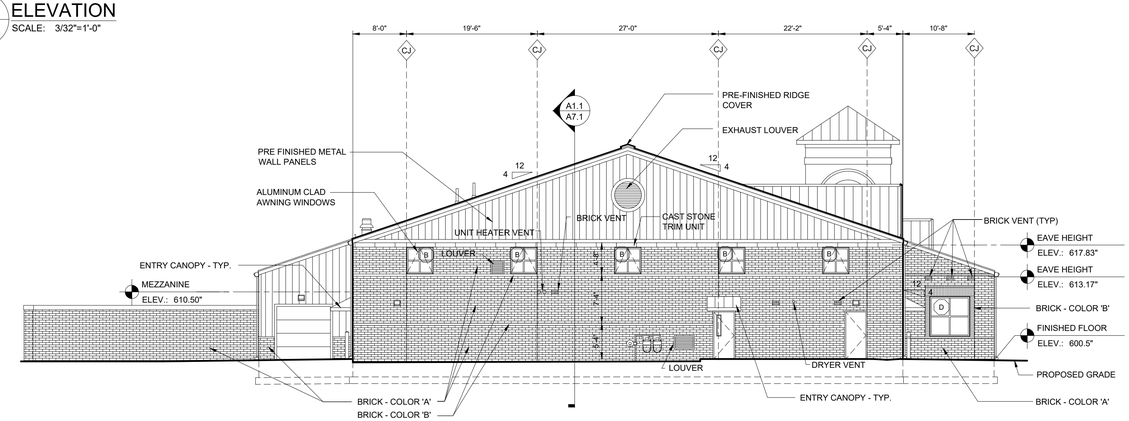
A1.1 / A6.1 ELEVATION
SCALE: 3/32"=1'-0"



B1.1 / A6.1 ELEVATION
SCALE: 3/32"=1'-0"



C1.1 / A6.1 ELEVATION
SCALE: 3/32"=1'-0"



D1.1 / A6.1 ELEVATION
SCALE: 3/32"=1'-0"

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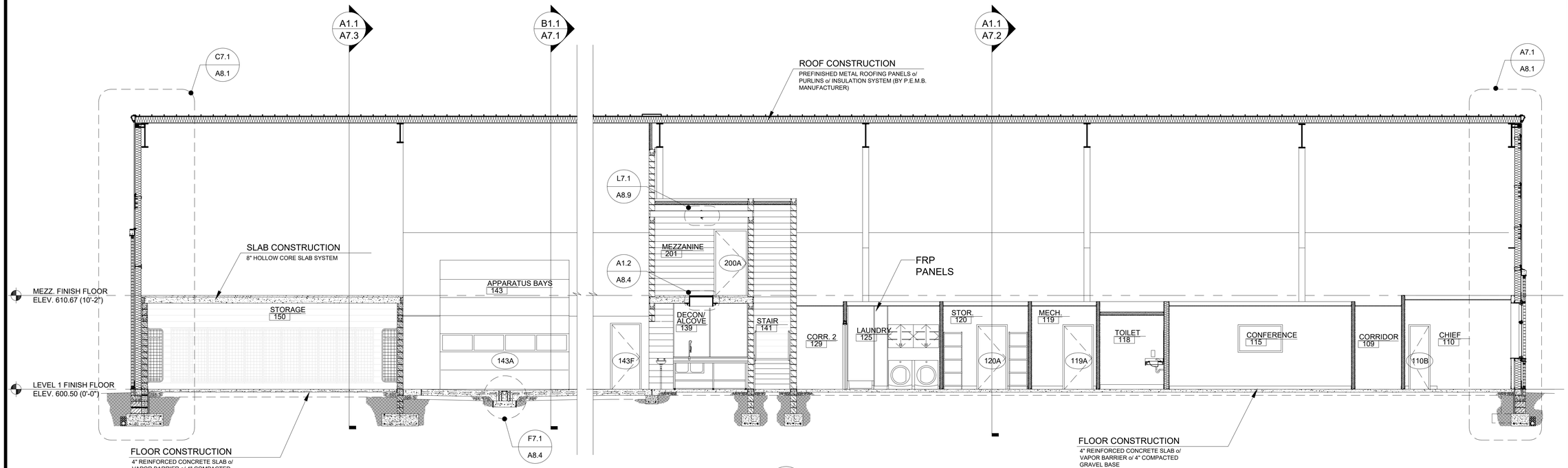
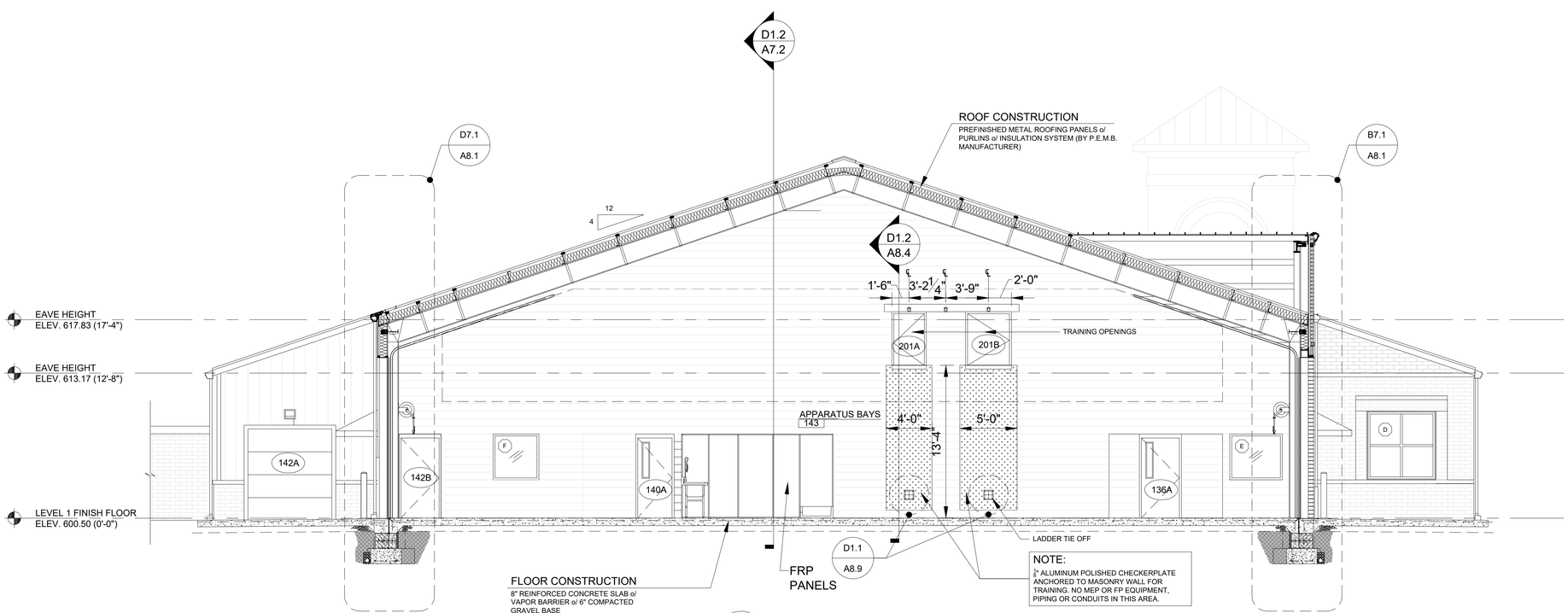
A6.1



A1.1 / A7.1 BUILDING SECTION
SCALE: 3/16"=1'-0"



B1.1 / A7.1 BUILDING SECTION
SCALE: 3/16"=1'-0"

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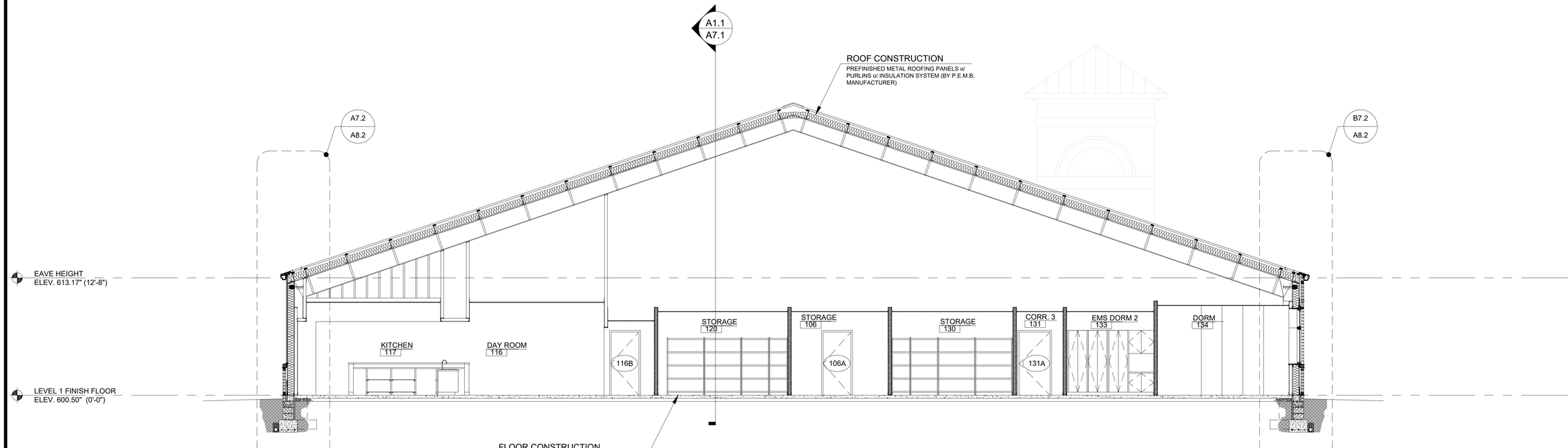
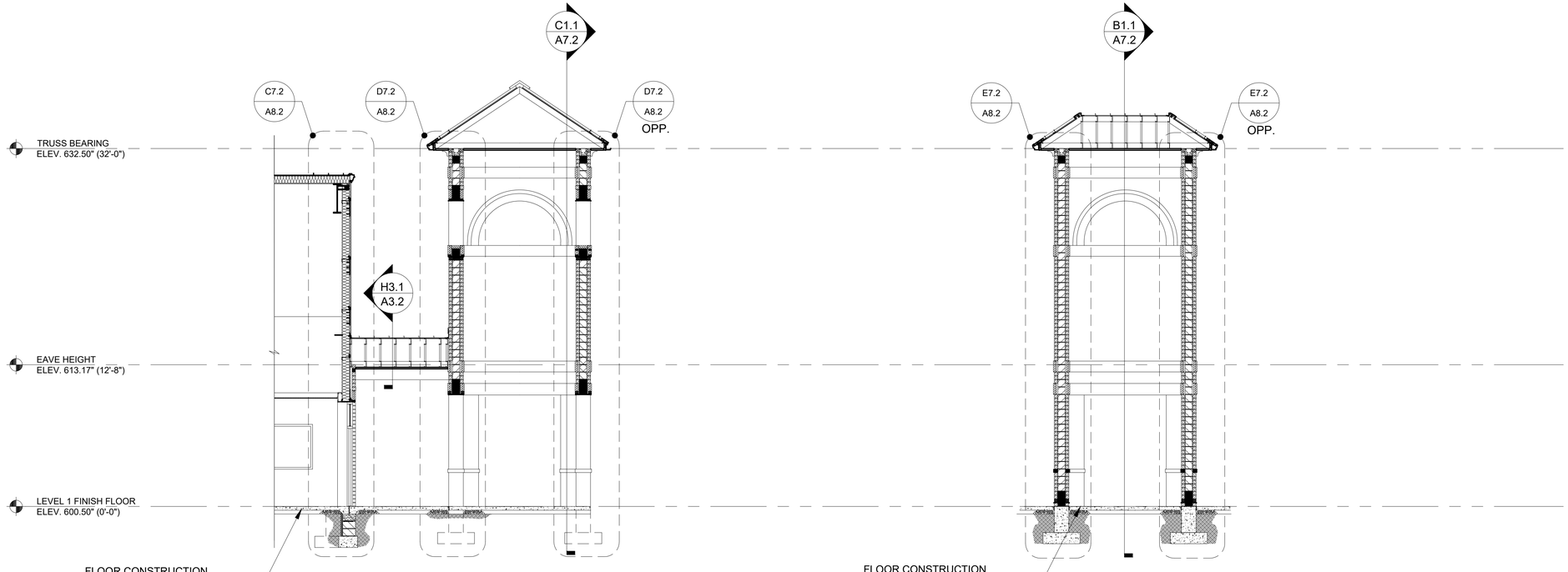
A7.1



A1.1 / A7.2 BUILDING SECTION
SCALE: 3/16"=1'-0"



B1.1 / A7.2 BUILDING SECTION
SCALE: 3/16"=1'-0"

C1.1 / A7.2 BUILDING SECTION
SCALE: 3/16"=1'-0"

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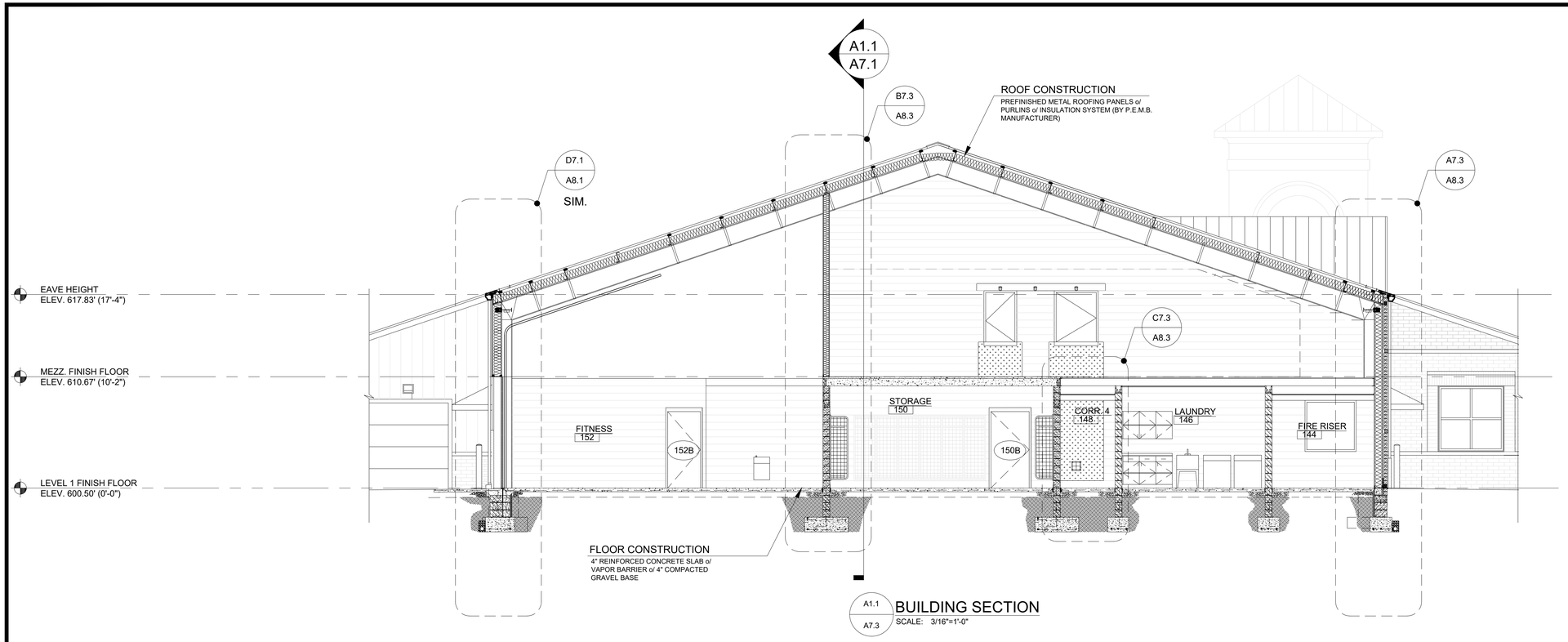
A7.2



A1.1 / A7.3 BUILDING SECTION
SCALE: 3/16"=1'-0"

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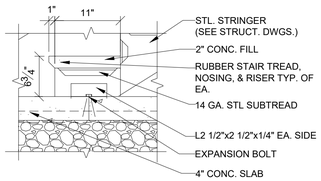
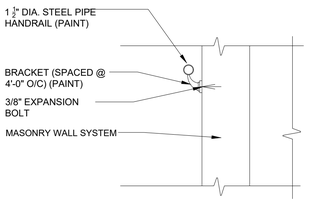
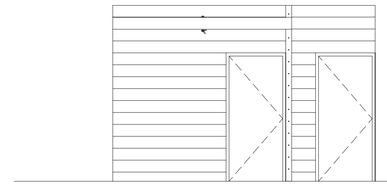
A7.3



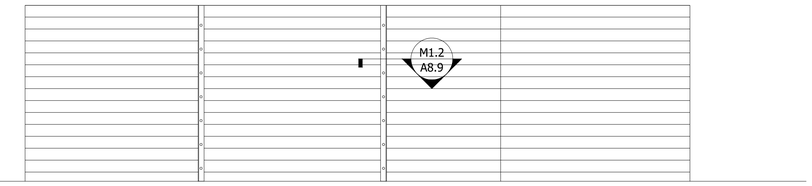
A7.4 / A7.4 STAIR SECTION
SCALE: 1"=1'-0"



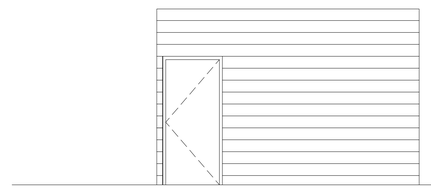
B7.4 / A7.4 RAILING DETAIL
SCALE: 1"=1'-0"



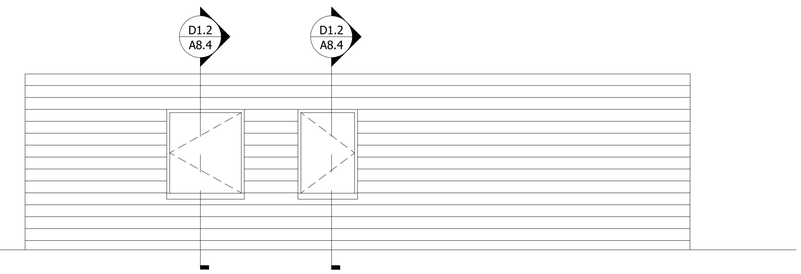
C7.4 / A7.4 MEZZANINE INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



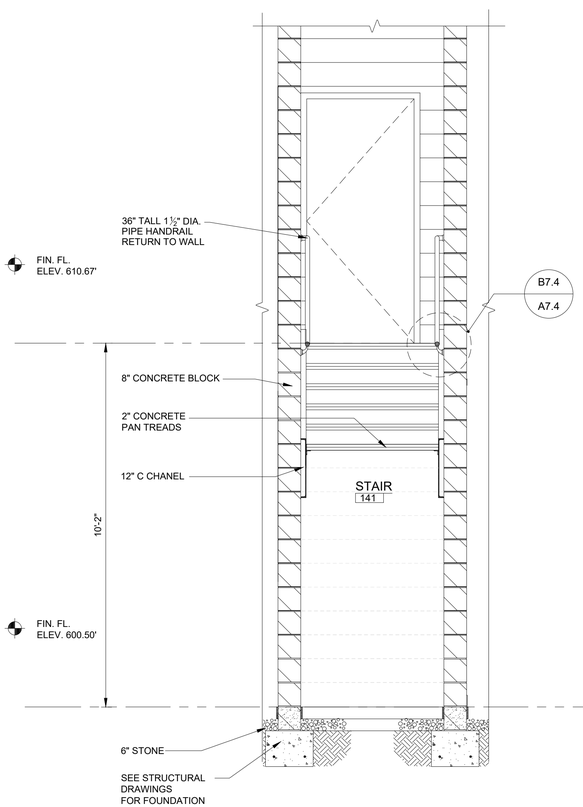
D7.4 / A7.4 MEZZANINE INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



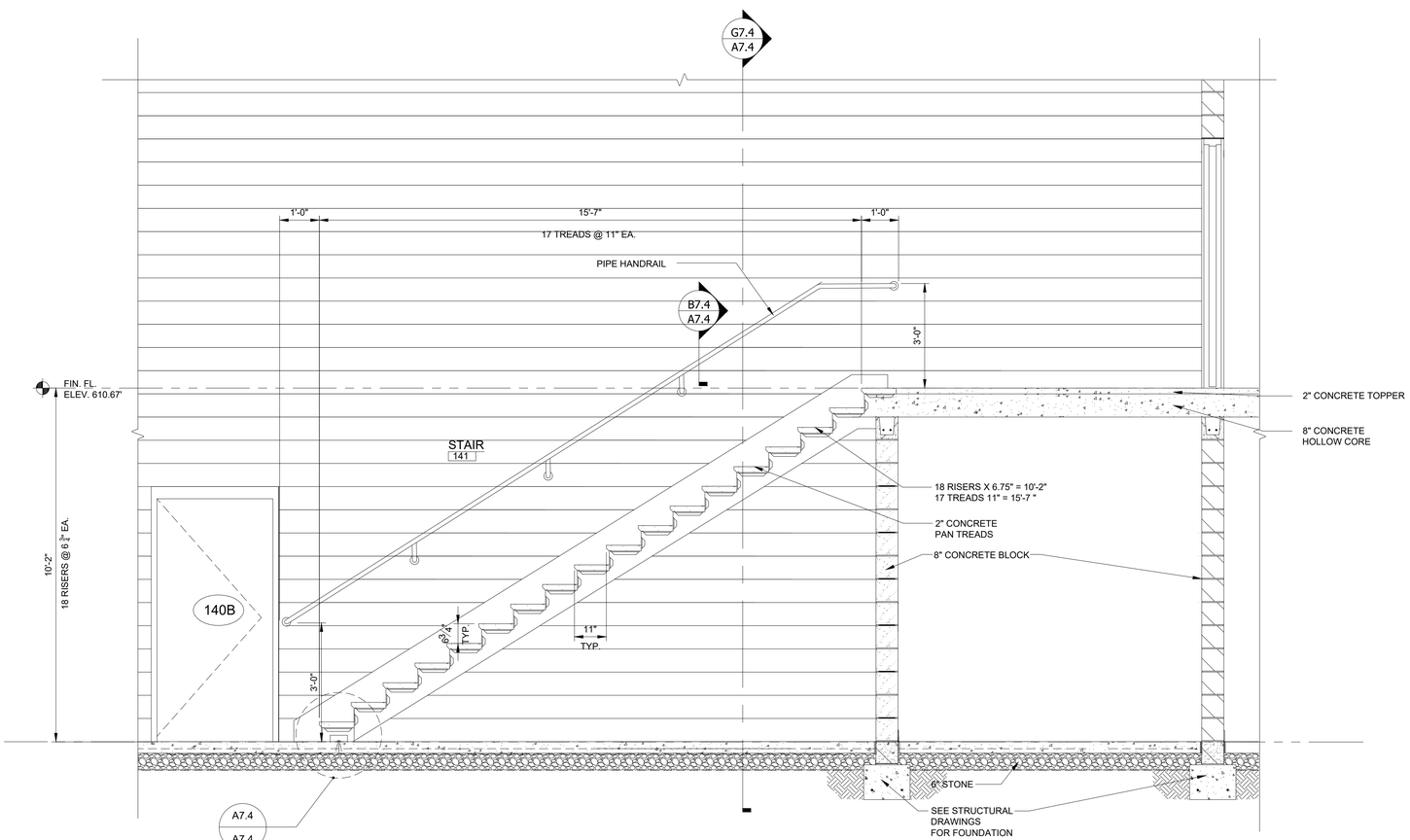
E7.4 / A7.4 MEZZANINE INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



F7.4 / A7.4 MEZZANINE INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



G7.4 / A7.4 STAIR SECTION
SCALE: 1/2"=1'-0"



H1.1 / A7.4 STAIR SECTION
SCALE: 1/2"=1'-0"

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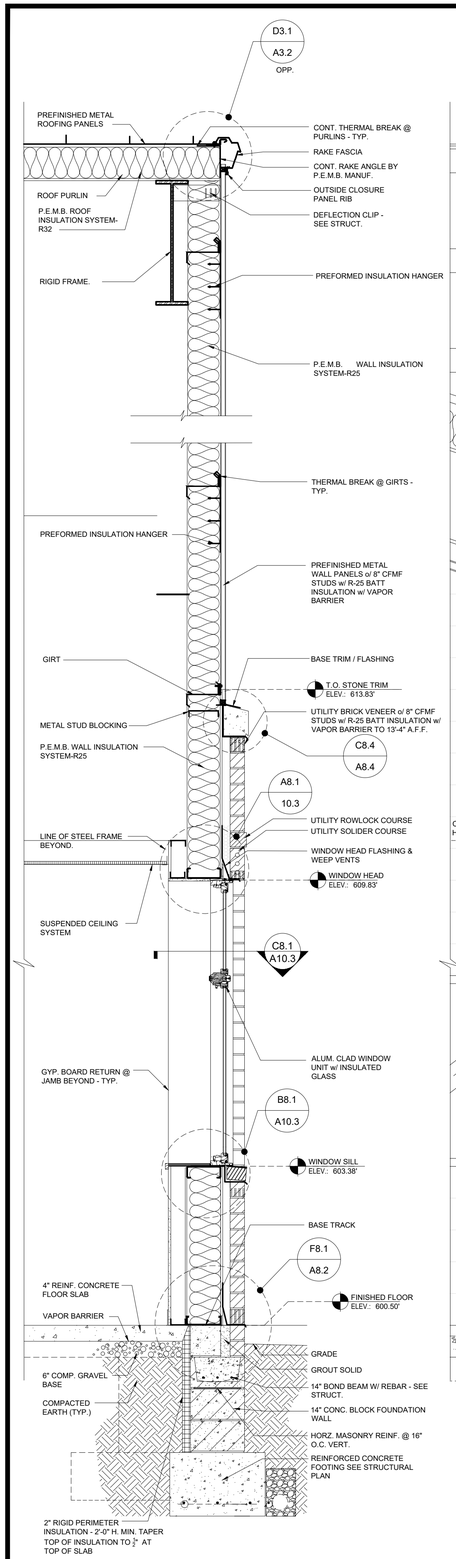
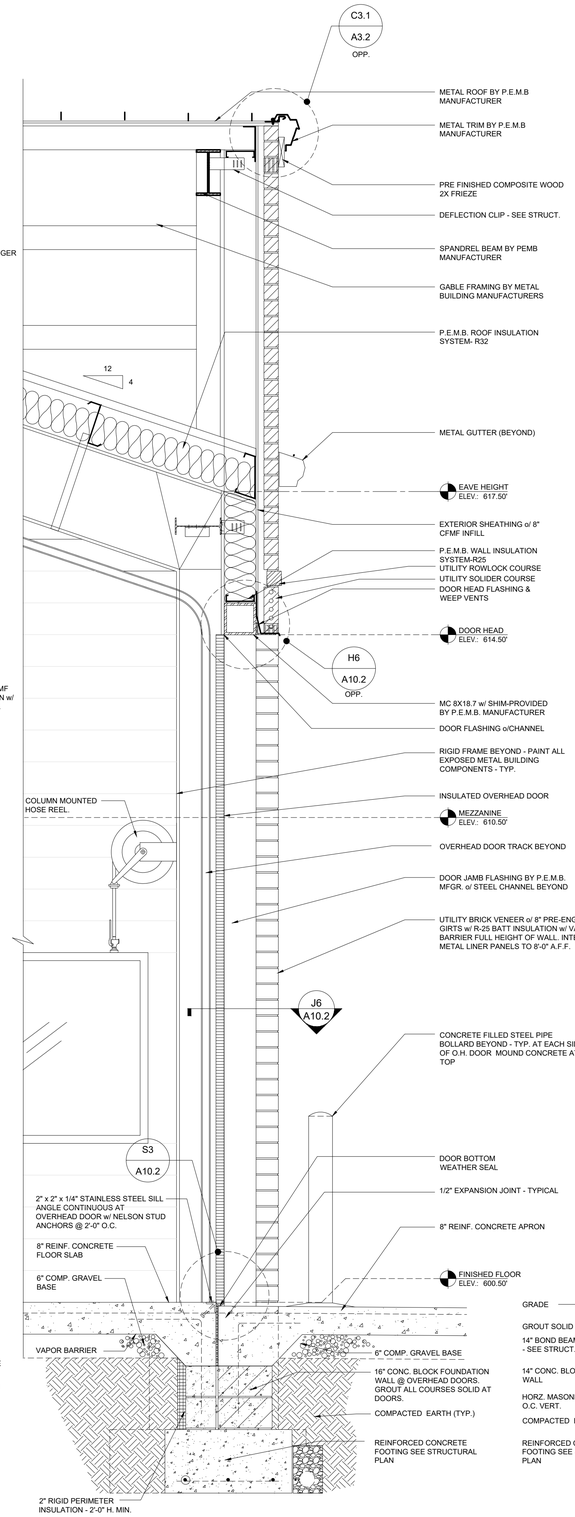
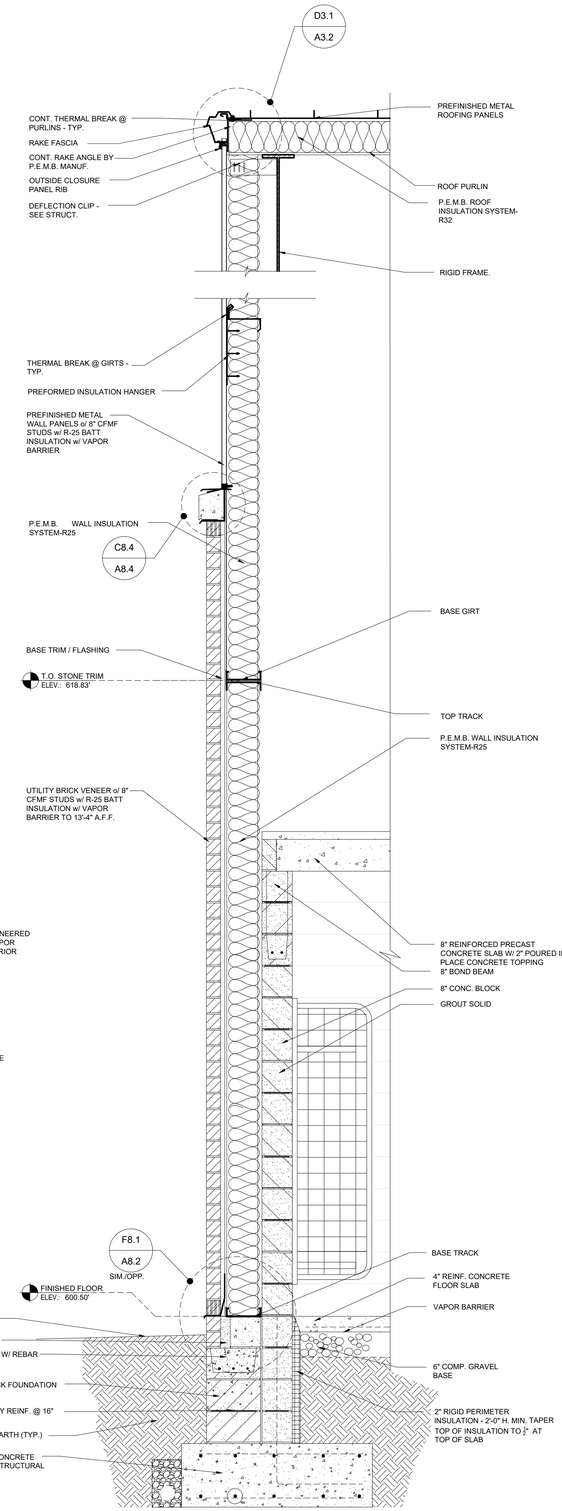
A7.4



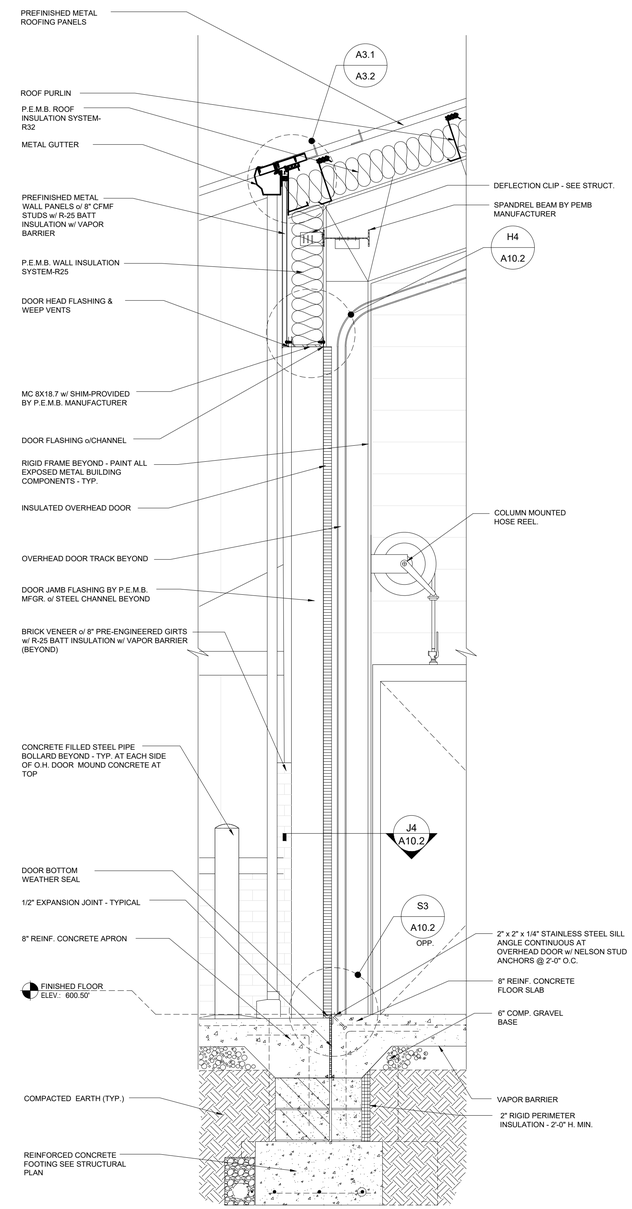
A7.1 / A8.1 **WALL SECTION**
SCALE: 3/4"=1'-0"



B7.1 / A8.1 **WALL SECTION**
SCALE: 3/4"=1'-0"



C7.1 / A8.1 **WALL SECTION**
SCALE: 3/4"=1'-0"



D7.1 / A8.1 **WALL SECTION**
SCALE: 3/4"=1'-0"

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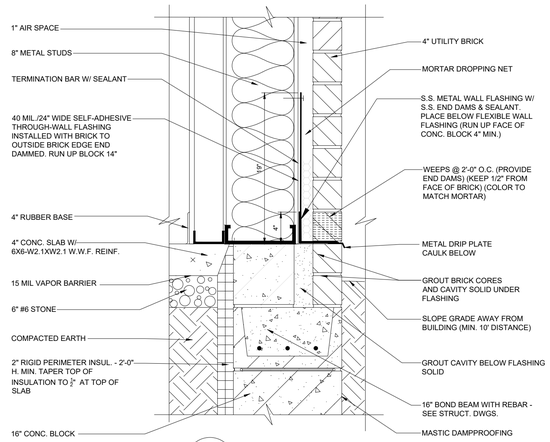
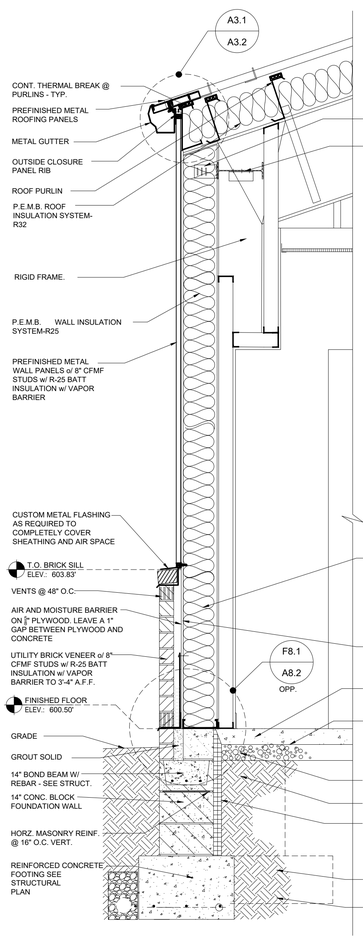
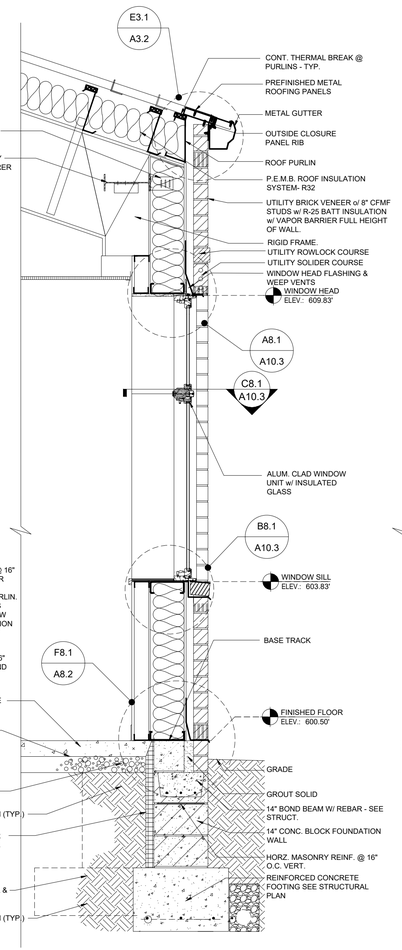
A8.1



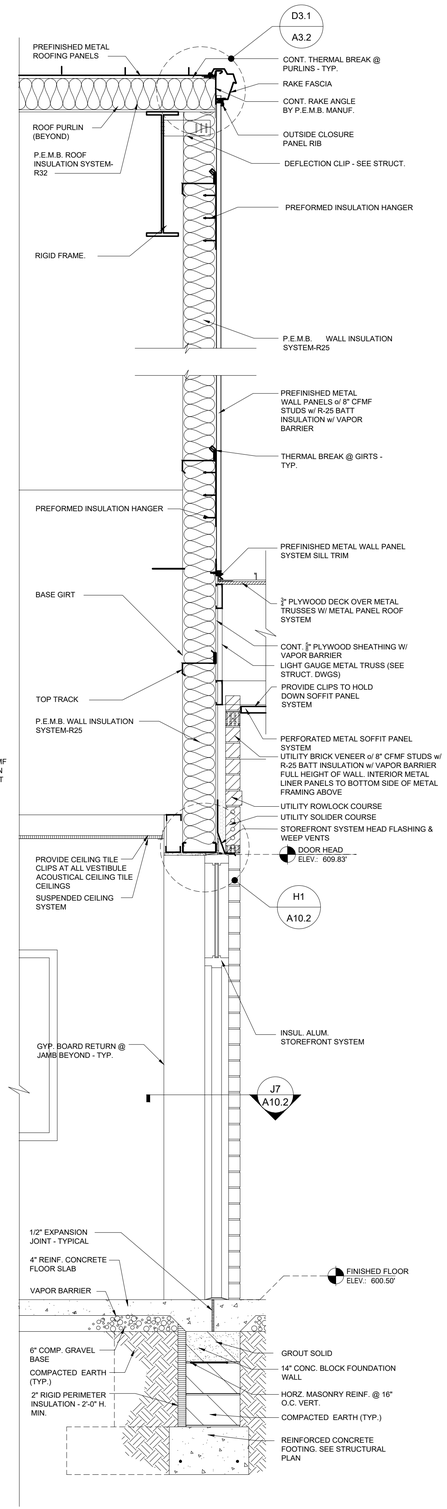
F8.1 / A8.2 **WALL DETAIL**
SCALE: 1 1/2"=1'-0"



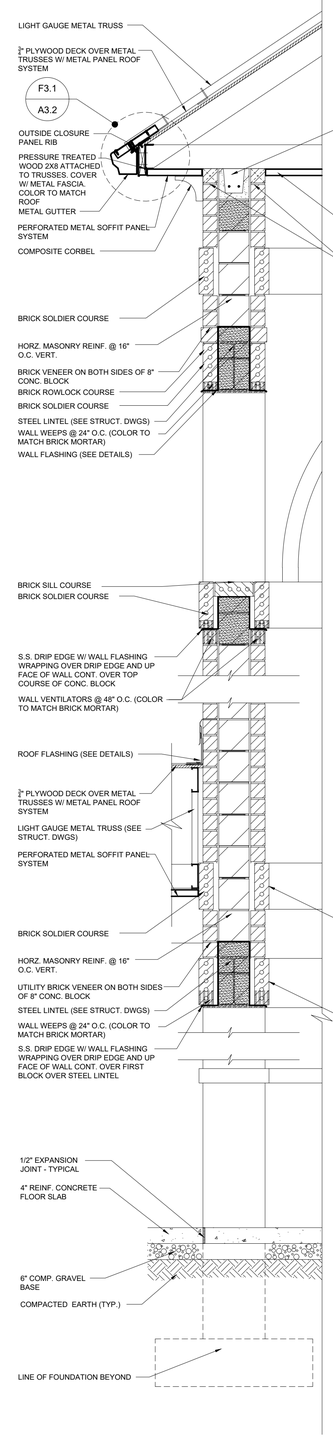
A7.2 / A8.2 **WALL SECTION**
SCALE: 3/4"=1'-0"



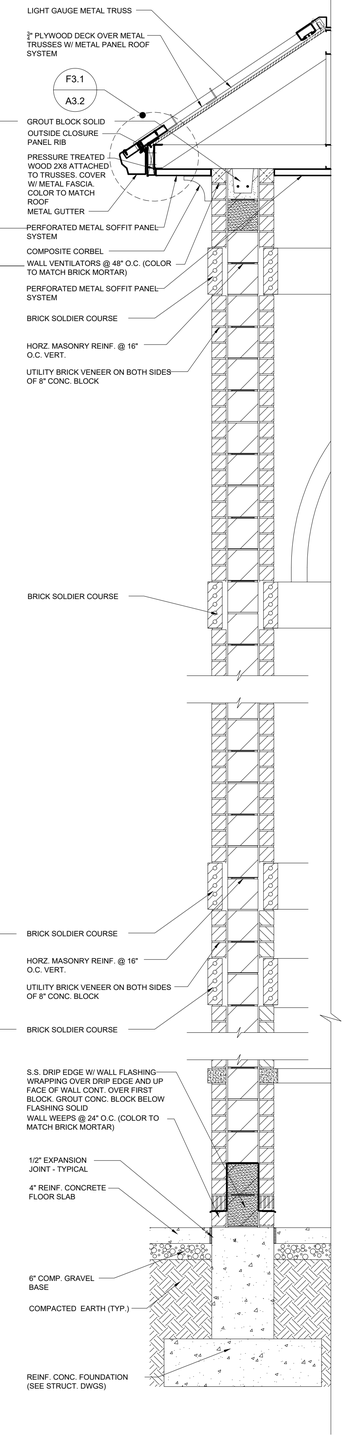
B7.2 / A8.2 **WALL SECTION**
SCALE: 3/4"=1'-0"



C7.2 / A8.2 **WALL SECTION**
SCALE: 3/4"=1'-0"



D7.2 / A8.2 **WALL SECTION**
SCALE: 3/4"=1'-0"



E7.2 / A8.2 **WALL SECTION**
SCALE: 3/4"=1'-0"

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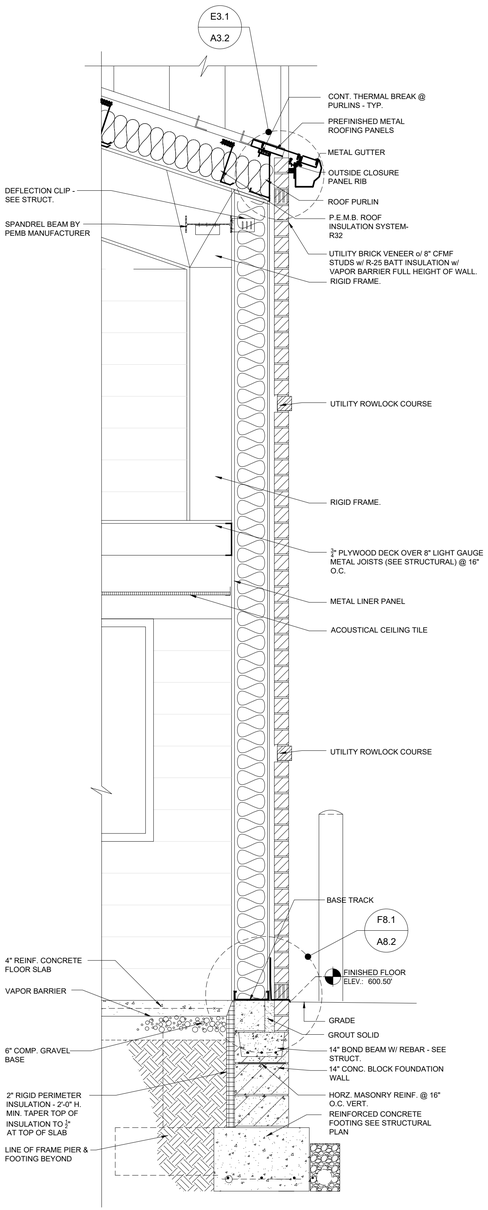
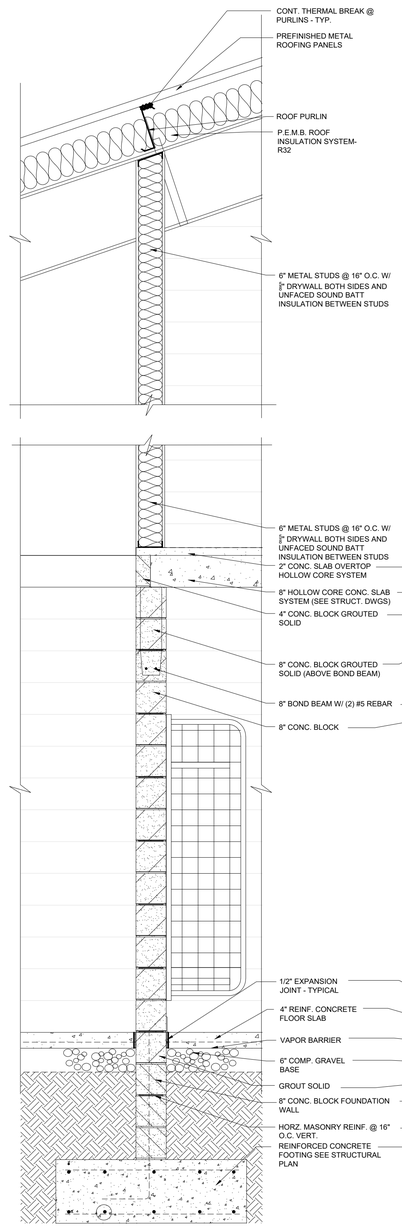
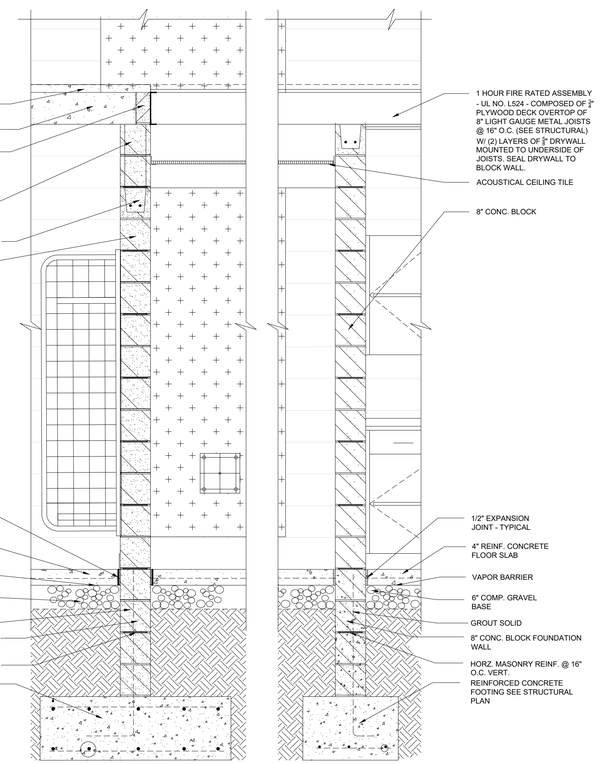
A8.2



A7.3 / A8.3 WALL SECTION
SCALE: 3/4"=1'-0"



B7.3 / A8.3 WALL SECTION
SCALE: 3/4"=1'-0"



C7.3 / A8.3 WALL SECTION
SCALE: 3/4"=1'-0"

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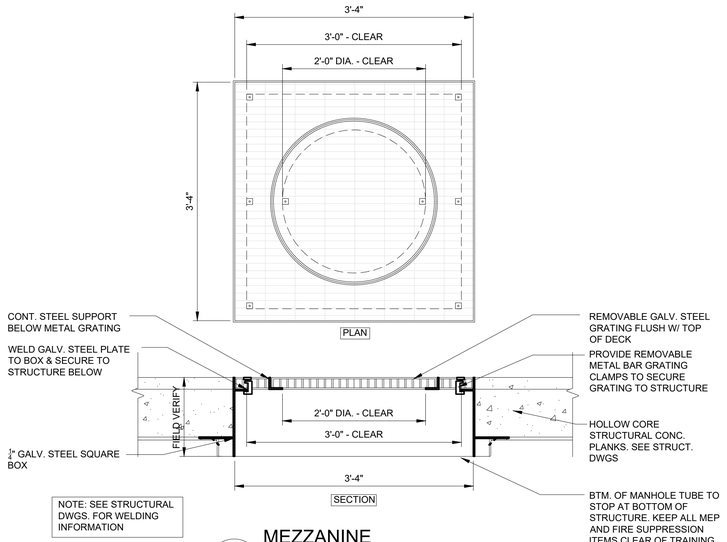
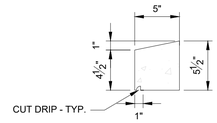
A8.3

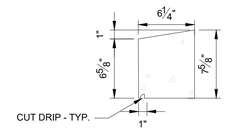


NOTE: SEE STRUCTURAL DWGS. FOR WELDING INFORMATION

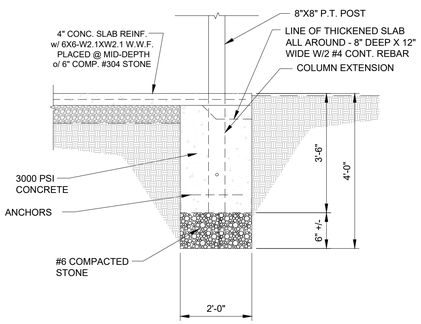
A1.2 / A8.4 MEZZANINE FLOOR OPENING DETAIL
SCALE: 1"=1'-0"

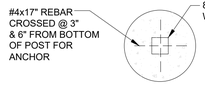


B8.4 / A8.4 TYPICAL WINDOW SILL CUT STONE PROFILE
SCALE: 1 1/2"=1'-0"



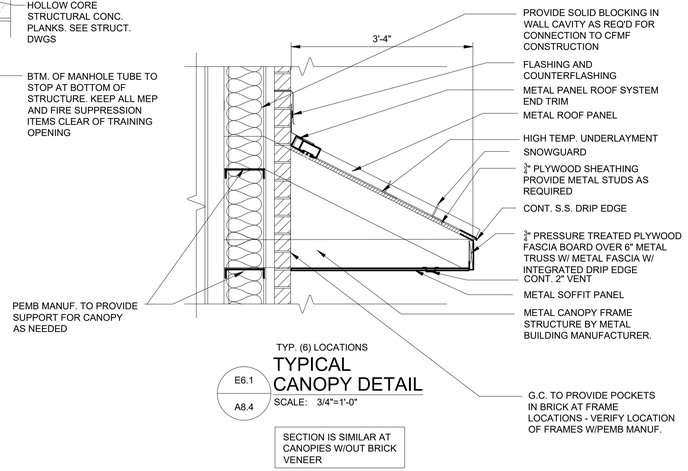
C8.4 / A8.4 WATERTABLE CUT STONE PROFILE
SCALE: 1 1/2"=1'-0"





PLAN

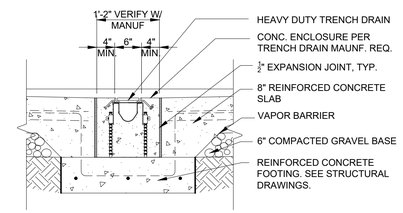
TYPICAL PERGOLA COLUMN FOUNDATION DETAIL
SCALE: N.T.S.



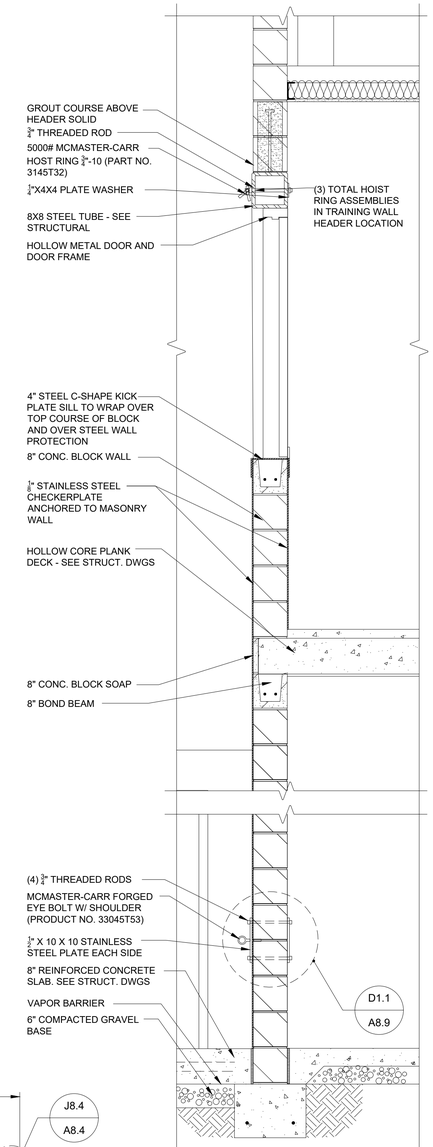
TYP. (6) LOCATIONS

E6.1 / A8.4 TYPICAL CANOPY DETAIL
SCALE: 3/4"=1'-0"

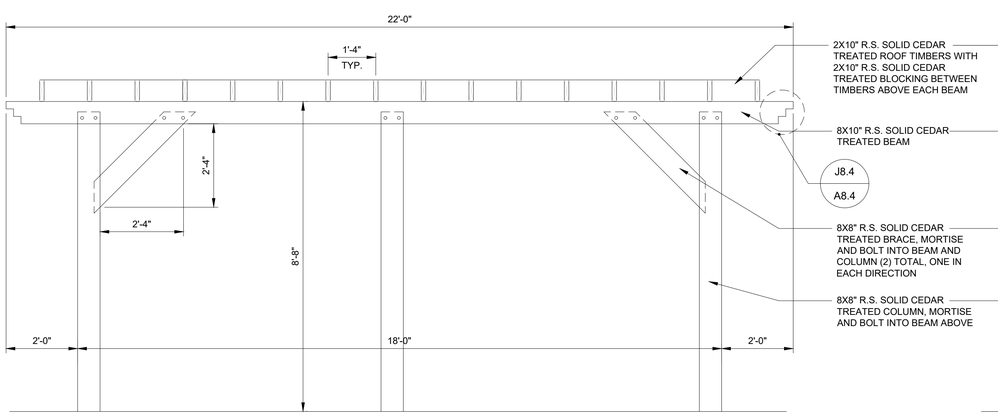
SECTION IS SIMILAR AT CANOPIES W/OUT BRICK VENEER



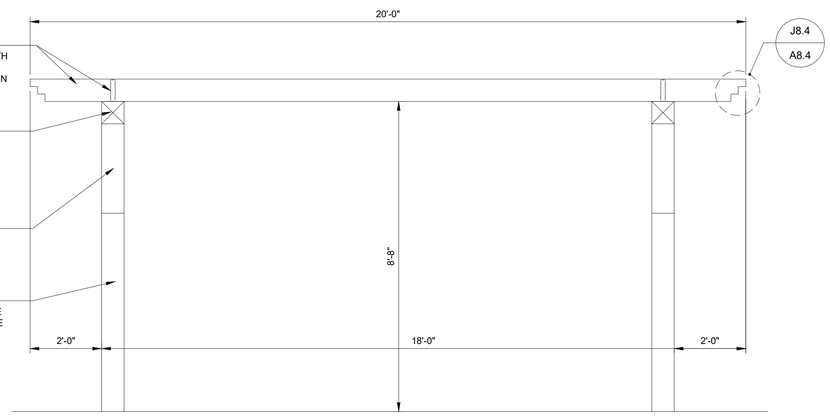
F7.1 / A8.4 TYPICAL TRENCH DRAIN DETAIL
SCALE: 3/4"=1'-0"



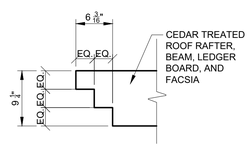
D1.2 / A8.4 TRAINING WALL DETAIL
SCALE: 3/4"=1'-0"



G1.1 / A8.4 PERGOLA DETAIL
SCALE: 1/2"=1'-0"



H1.1 / A8.4 PERGOLA DETAIL
SCALE: 1/2"=1'-0"



J8.4 / A8.4 PERGOLA DETAIL
SCALE: 1"=1'-0"

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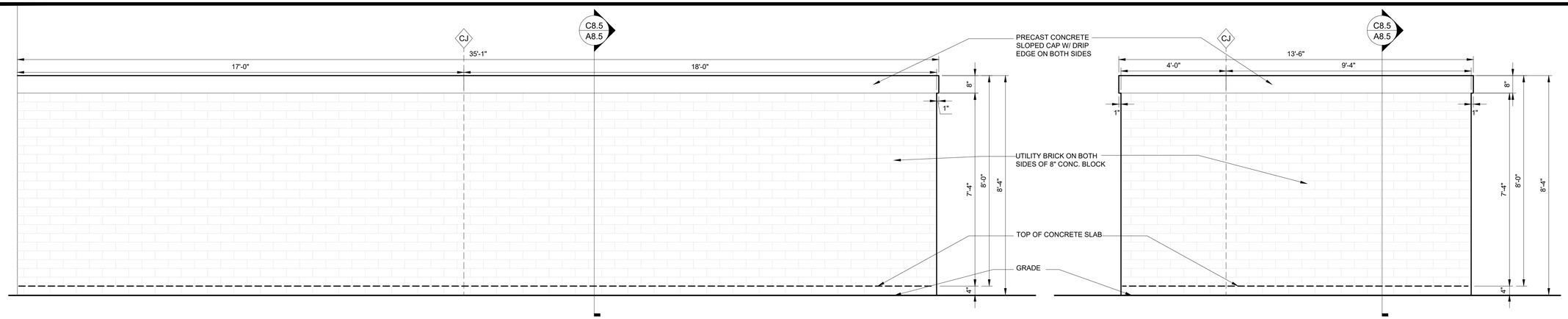
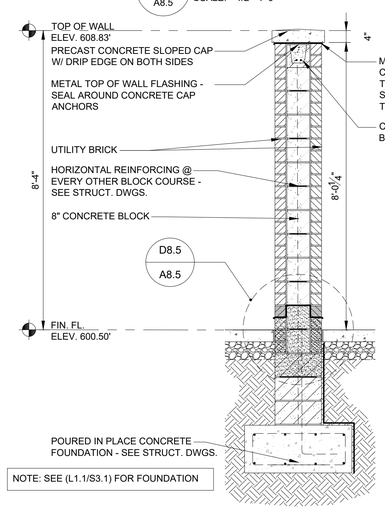
A8.4



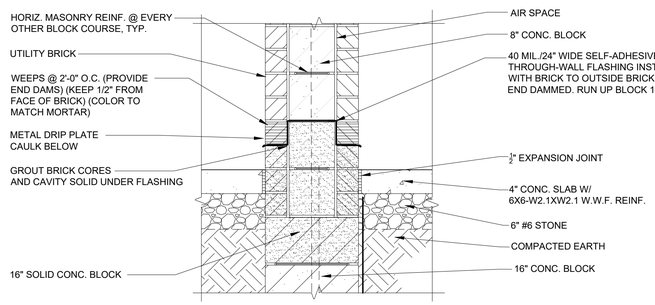
A1.1 / A8.5 SCREEN WALL NORTH ELEVATION
SCALE: 1/2"=1'-0"

B1.1 / A8.5 SCREEN WALL WEST ELEVATION
SCALE: 1/2"=1'-0"

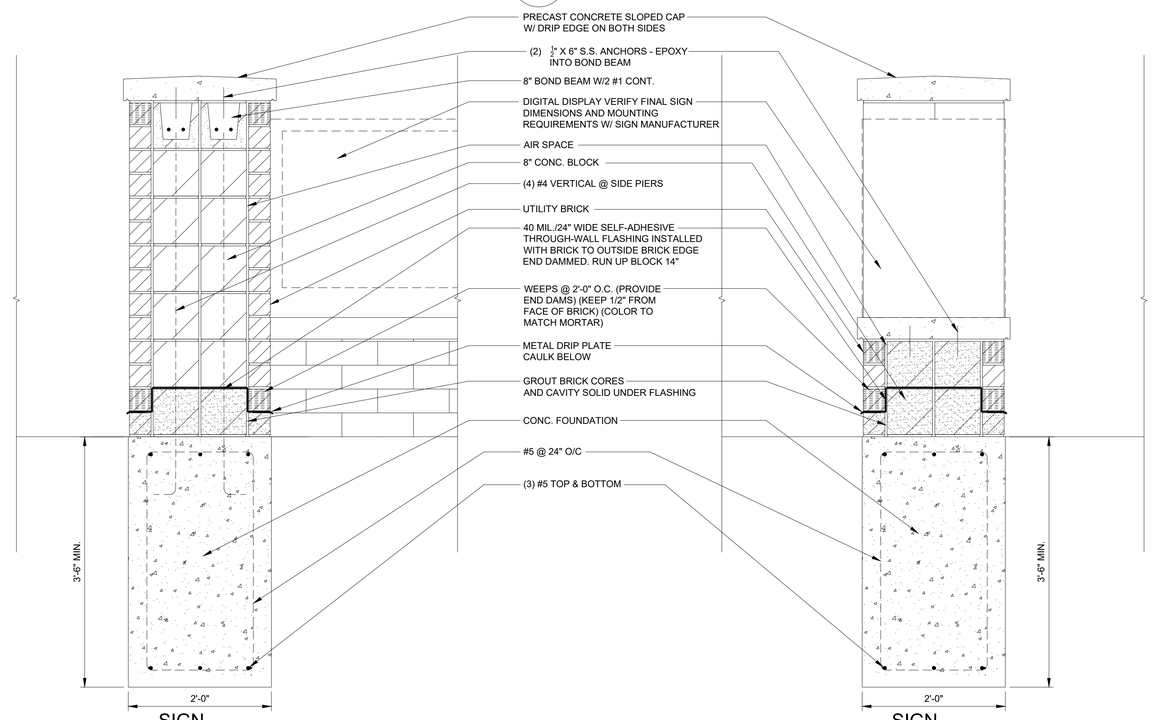


NOTE: SEE (L1.1/S3.1) FOR FOUNDATION

C8.5 / A8.5 WALL SECTION
SCALE: 1/2"=1'-0"

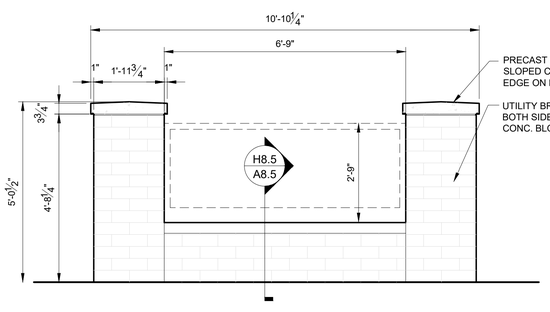


D8.5 / A8.5 WALL DETAIL
SCALE: 1"=1'-0"

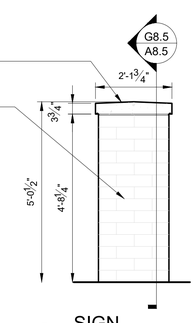


G8.5 / A8.5 SIGN DISPLAY SECTION
SCALE: 1"=1'-0"

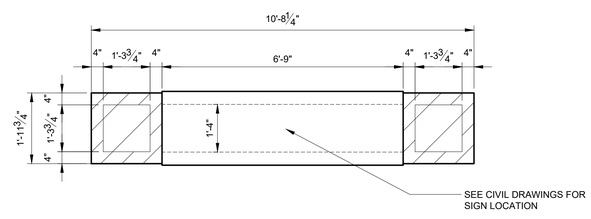
H8.5 / A8.5 SIGN DISPLAY SECTION
SCALE: 1"=1'-0"



E8.5 / A8.5 SIGN DISPLAY ELEVATION
SCALE: 1/2"=1'-0"



F8.5 / A8.5 SIGN DISPLAY ELEVATION
SCALE: 1/2"=1'-0"



G8.5 / A8.5 SIGN DISPLAY PLAN
SCALE: 1/2"=1'-0"

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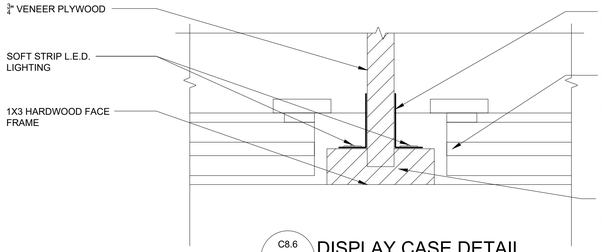
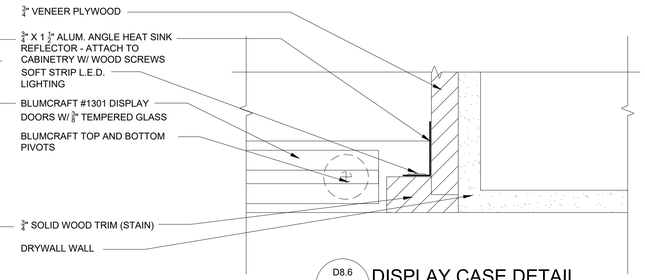
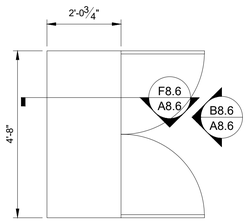
A8.5



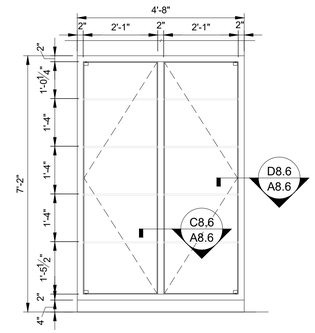
C8.6 / A8.6 DISPLAY CASE DETAIL
SCALE: 6"=1'-0"



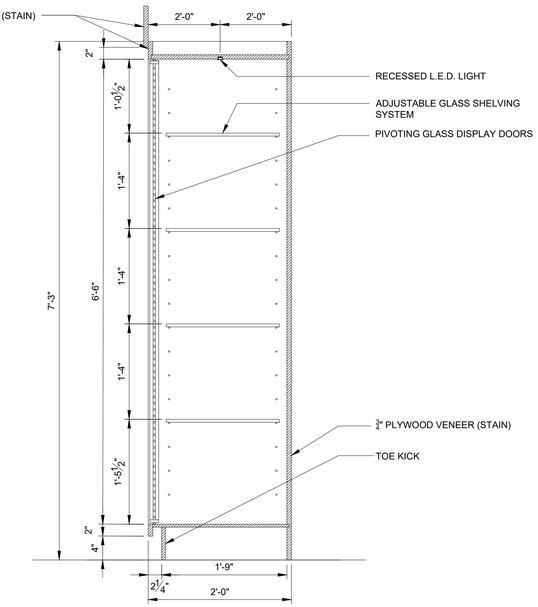
D8.6 / A8.6 DISPLAY CASE DETAIL
SCALE: 6"=1'-0"



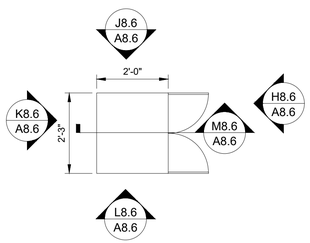
A8.6 / A8.6 CASEWORK PLAN RR
SCALE: 1/2"=1'-0"



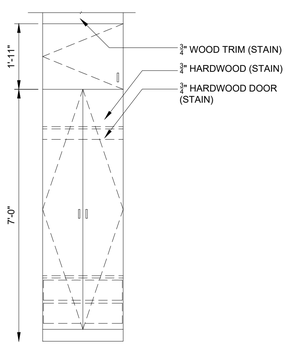
B8.6 / A8.6 CASEWORK ELEVATION RR
SCALE: 1/2"=1'-0"



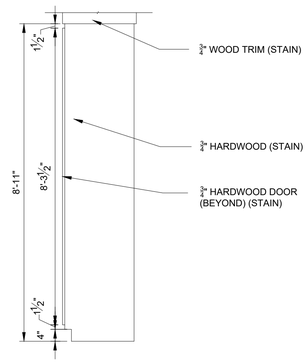
F8.6 / A8.6 CASEWORK SECTION RR
SCALE: 1"=1'-0"



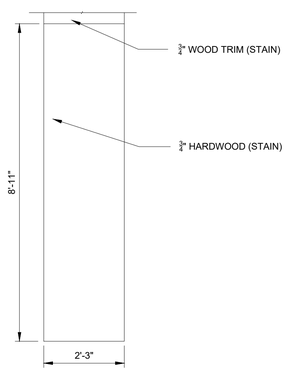
G8.6 / A8.6 CASEWORK PLAN TT
SCALE: 1/2"=1'-0"



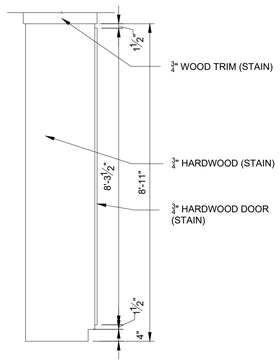
H8.6 / A8.6 CASEWORK ELEVATION TT
SCALE: 1/2"=1'-0"



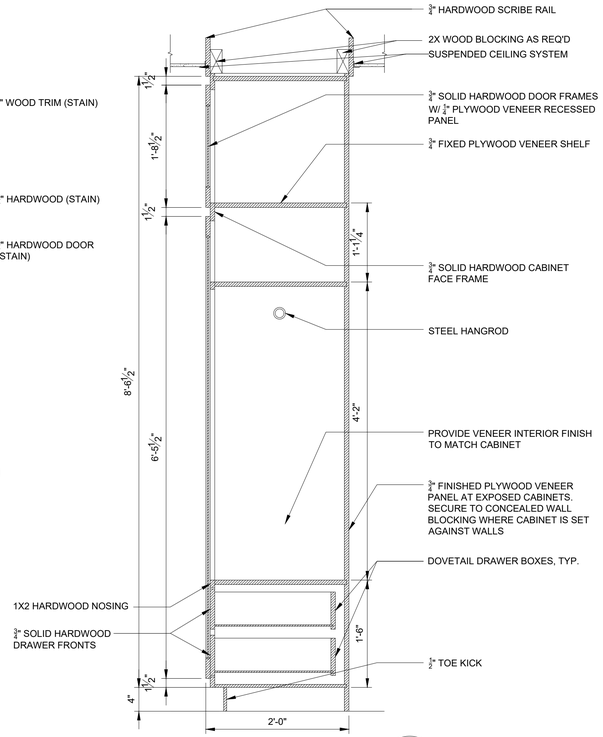
J8.6 / A8.6 CASEWORK ELEVATION TT
SCALE: 1/2"=1'-0"



K8.6 / A8.6 CASEWORK ELEVATION TT
SCALE: 1/2"=1'-0"



L8.6 / A8.6 CASEWORK ELEVATION TT
SCALE: 1/2"=1'-0"



M8.6 / A8.6 CASEWORK SECTION TT
SCALE: 1"=1'-0"

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11087
REGISTERED ARCHITECT

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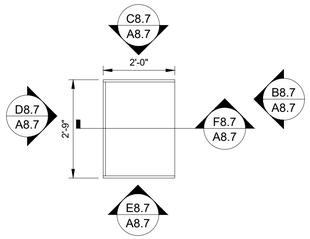
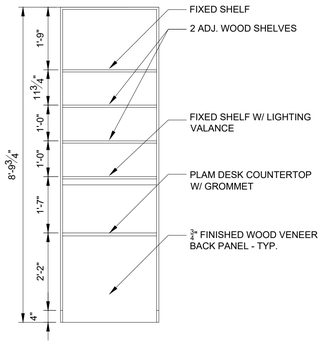
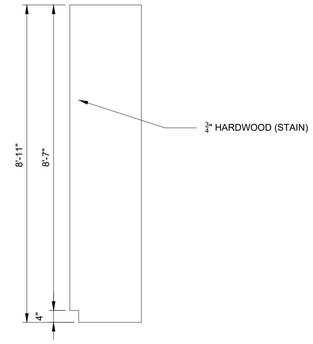
A8.6



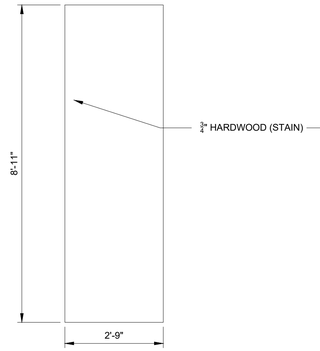
A8.7 / A8.7 CASEWORK PLAN UU
SCALE: 1/2"=1'-0"



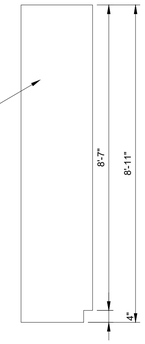
B8.7 / A8.7 CASEWORK ELEVATION UU
SCALE: 1/2"=1'-0"



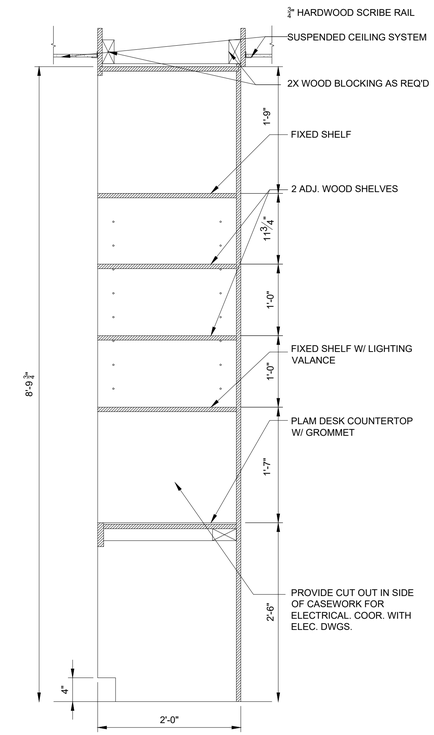
C8.7 / A8.7 CASEWORK ELEVATION UU
SCALE: 1/2"=1'-0"



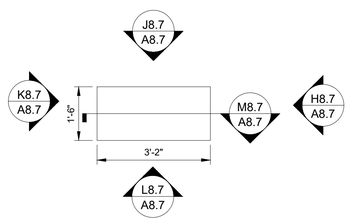
D8.7 / A8.7 CASEWORK ELEVATION UU
SCALE: 1/2"=1'-0"



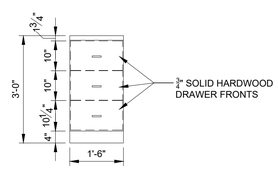
E8.7 / A8.7 CASEWORK ELEVATION UU
SCALE: 1/2"=1'-0"



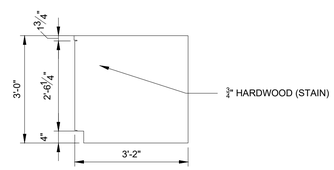
F8.7 / A8.7 CASEWORK SECTION UU
SCALE: 1"=1'-0"



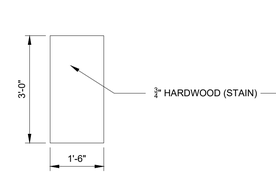
G8.7 / A8.7 CASEWORK PLAN V V
SCALE: 1/2"=1'-0"



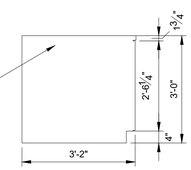
H8.7 / A8.7 CASEWORK ELEVATION V V
SCALE: 1/2"=1'-0"



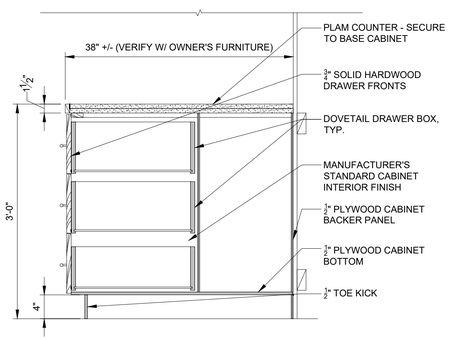
J8.7 / A8.7 CASEWORK ELEVATION V V
SCALE: 1/2"=1'-0"



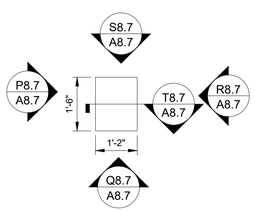
K8.7 / A8.7 CASEWORK ELEVATION V V
SCALE: 1/2"=1'-0"



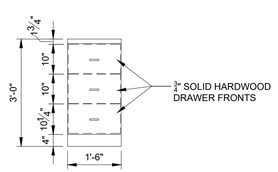
L8.7 / A8.7 CASEWORK ELEVATION V V
SCALE: 1/2"=1'-0"



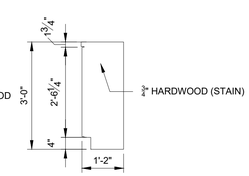
M8.7 / A8.7 CASEWORK SECTION V V
SCALE: 1"=1'-0"



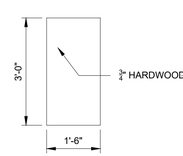
N8.7 / A8.7 CASEWORK PLAN XX
SCALE: 1/2"=1'-0"



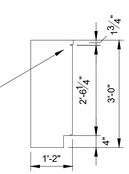
P8.7 / A8.7 CASEWORK ELEVATION XX
SCALE: 1/2"=1'-0"



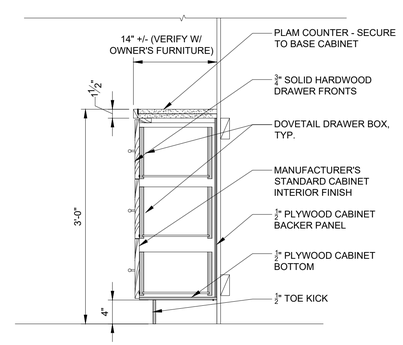
Q8.7 / A8.7 CASEWORK ELEVATION XX
SCALE: 1/2"=1'-0"



R8.7 / A8.7 CASEWORK ELEVATION XX
SCALE: 1/2"=1'-0"



S8.7 / A8.7 CASEWORK ELEVATION XX
SCALE: 1/2"=1'-0"



T8.7 / A8.7 CASEWORK SECTION XX
SCALE: 1"=1'-0"

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KENT D. BUEHRER, LICENSE #11087
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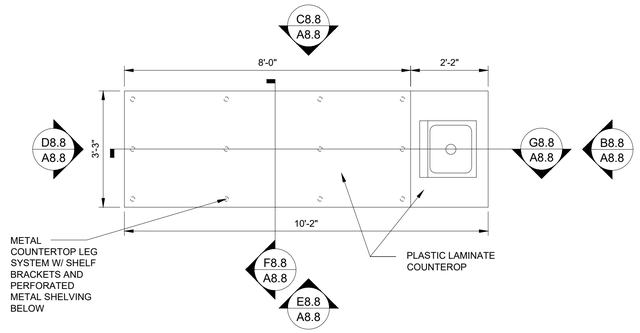
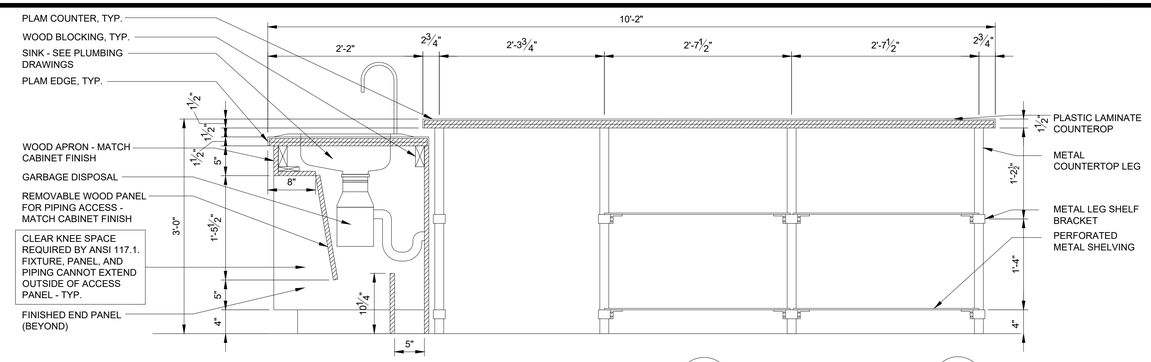
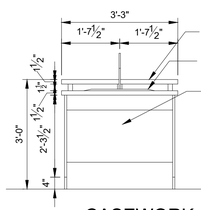
A8.7



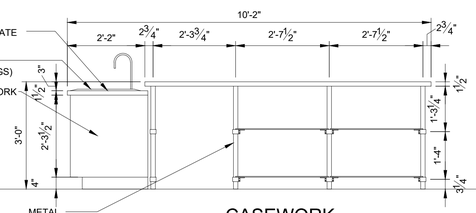
A8.8 / A8.8 CASEWORK PLAN WW
SCALE: 1/2"=1'-0"



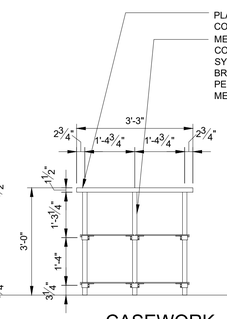
G8.8 / A8.8 CASEWORK SECTION WW
SCALE: 1"=1'-0"



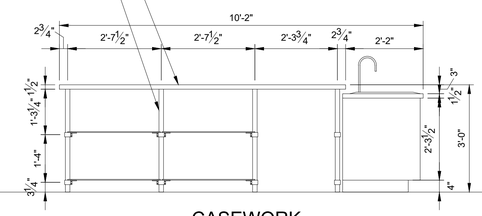
B8.8 / A8.8 CASEWORK ELEVATION WW
SCALE: 1/2"=1'-0"



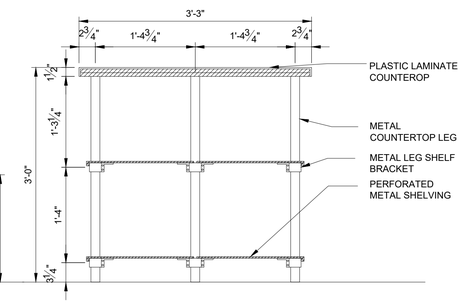
C8.8 / A8.8 CASEWORK ELEVATION WW
SCALE: 1/2"=1'-0"



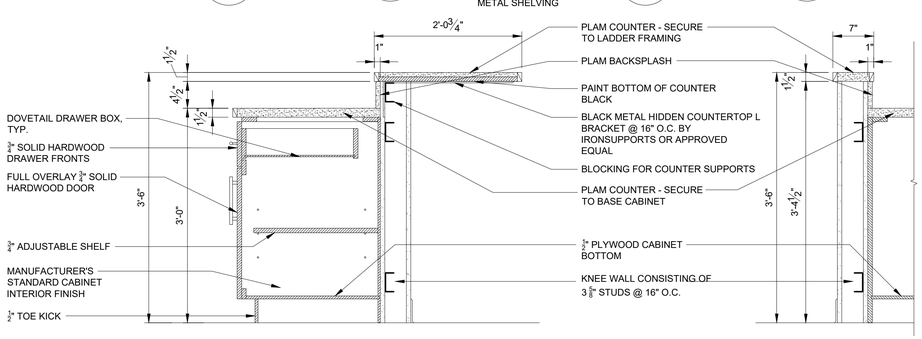
D8.8 / A8.8 CASEWORK ELEVATION WW
SCALE: 1/2"=1'-0"



E8.8 / A8.8 CASEWORK ELEVATION WW
SCALE: 1/2"=1'-0"

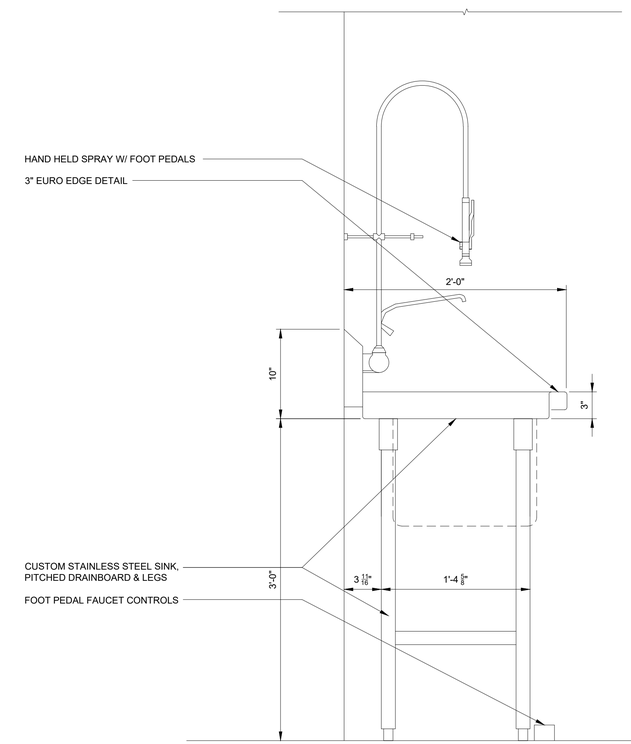


F8.8 / A8.8 CASEWORK SECTION WW
SCALE: 1/2"=1'-0"



J1.1 / A8.8 WALL SECTION
SCALE: 1"=1'-0"

K1.1 / A8.8 WALL SECTION
SCALE: 1"=1'-0"



H1.1 / A8.8 CUSTOM SINK SECTION
SCALE: 1 1/2"=1'-0"

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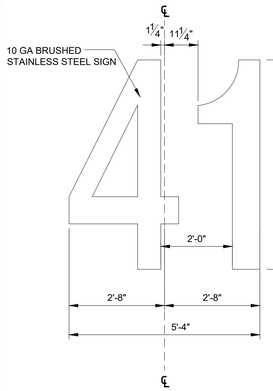
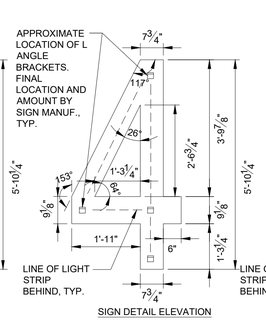
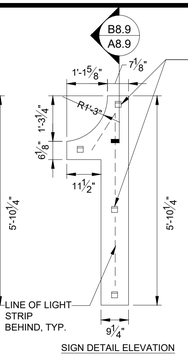
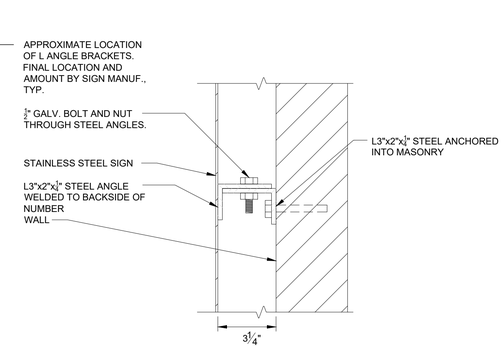
A8.8



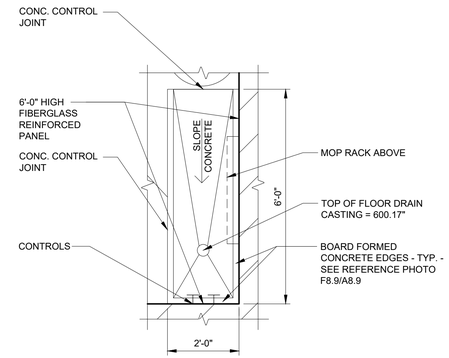




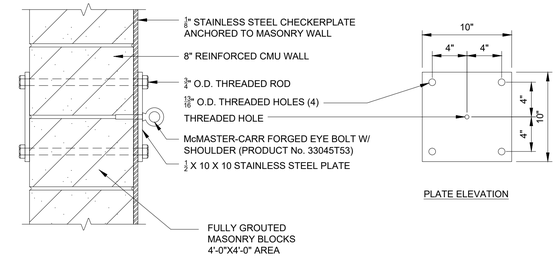
A6.1 / A8.9 **SIGN DETAIL**
SCALE: 1/2"=1'-0"



B8.9 / A8.9 **TYP. SIGN MOUNTING BRACKET DETAIL**
SCALE: 3"=1'-0"

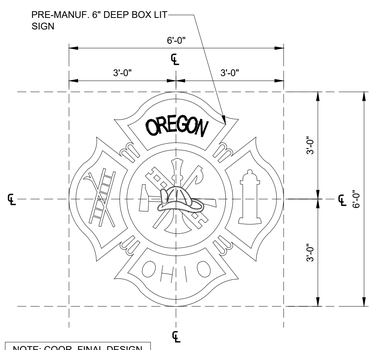


C1.1 / A8.9 **TYP. RECESSED MOP BASIN DETAIL**
SCALE: 1/2"=1'-0"



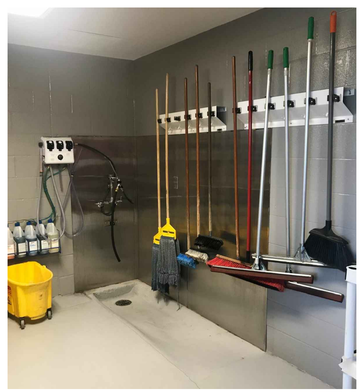
NOTE: SEE MASONRY DETAIL ON SHEET (S4.0)

D1.1 / A8.9 **LADDER TIE OFF DETAIL**
SCALE: 1 1/2"=1'-0"

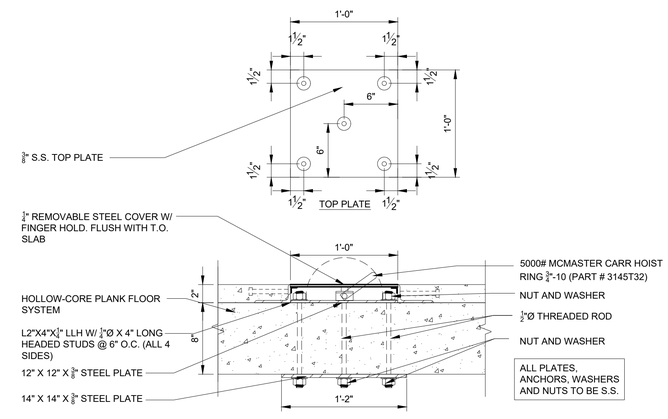


NOTE: COOR. FINAL DESIGN OF SIGN WITH OWNER

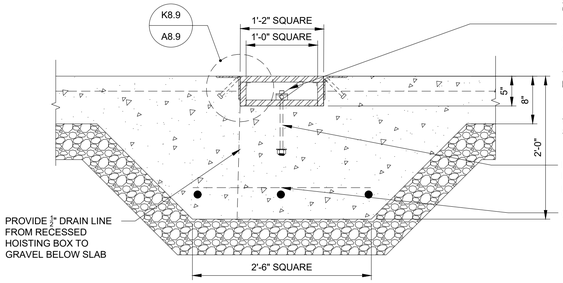
E6.1 / A8.9 **SIGN DETAIL**
SCALE: 1/2"=1'-0"



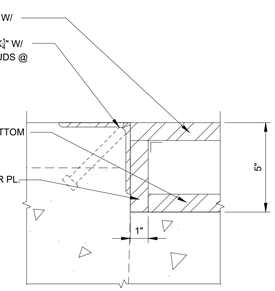
F8.9 / A8.9 **REFERENCE PHOTO**
SCALE: N.T.S.
FOR REFERENCE PURPOSES ONLY



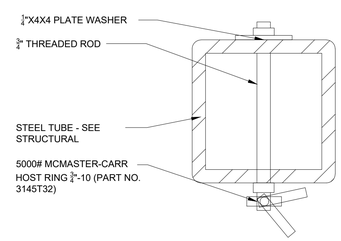
H1.2 / A8.9 **RECESSED TRAINING TIE DOWN DETAIL @ HOLLOW CORE**
SCALE: 1 1/2"=1'-0"



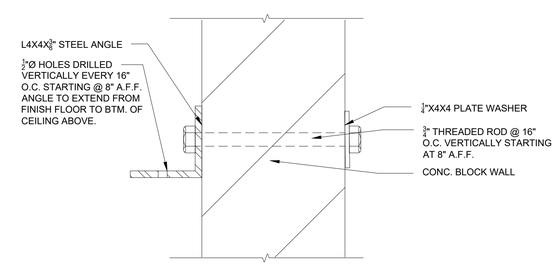
J1.1 / A8.9 **RECESSED TRAINING TIE DOWN DETAIL @ SLAB**
SCALE: 1"=1'-0"



K8.9 / A8.9 **RECESSED TRAINING TIE DOWN DETAIL @ SLAB**
SCALE: 3"=1'-0"



L7.1 / A8.9 **OVERHEAD TIE OFF DETAIL @ MEZZANINE OPENING**
SCALE: 3"=1'-0"



M1.2 / A8.9 **VERTICAL WALL TIE OFF DETAIL @ MEZZANINE**
SCALE: 3"=1'-0"

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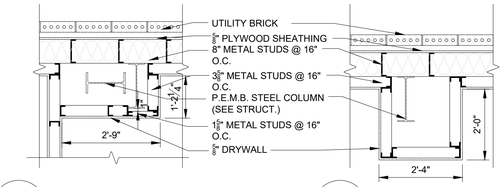
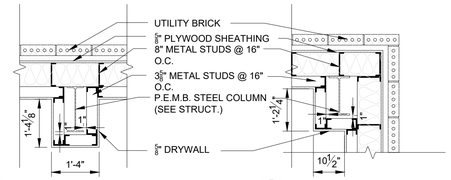
A8.9



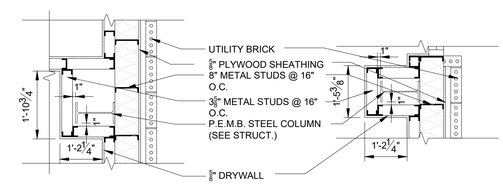
A1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

B1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



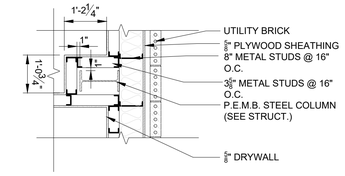
C1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

D1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

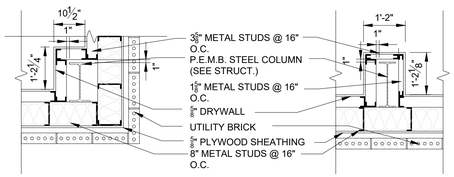


E1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

F1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

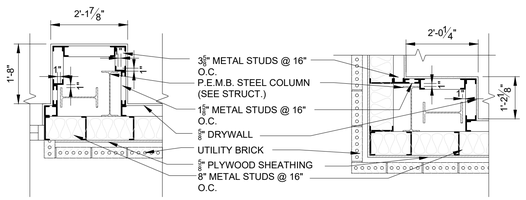


G1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



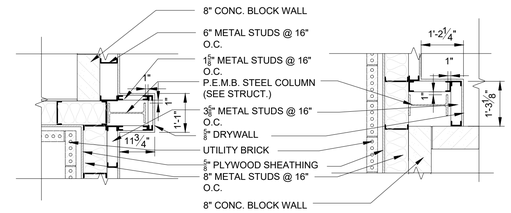
H1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

J1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



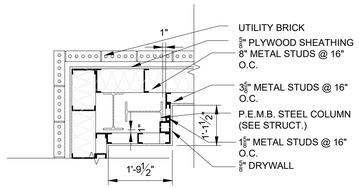
K1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

L1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

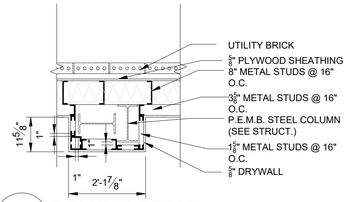


M1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

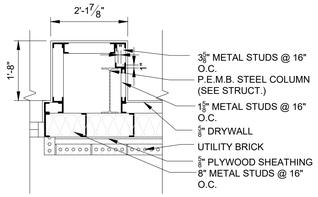
N1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



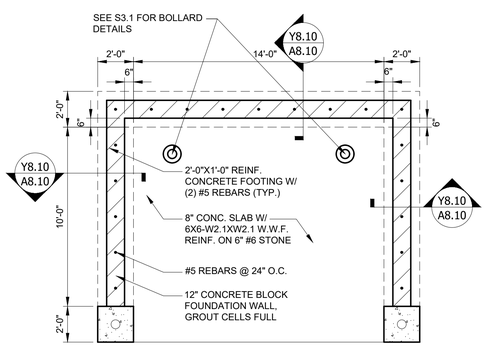
P1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



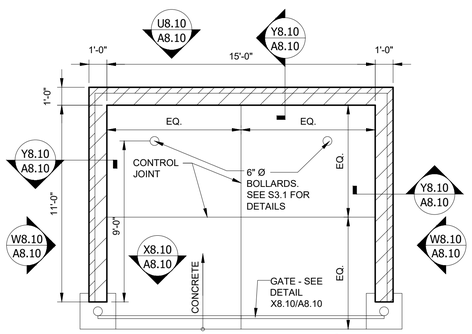
Q1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



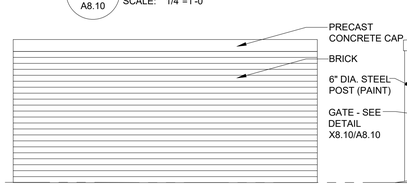
R1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



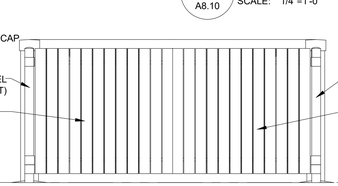
S8.10 / A8.10 FOUNDATION PLAN SEE CIVIL DWGS. FOR LOCATION ON SITE
SCALE: 1/4"=1'-0"



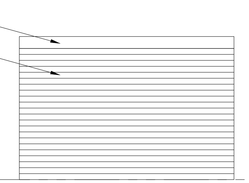
T8.10 / A8.10 FLOOR PLAN
SCALE: 1/4"=1'-0"



U8.10 / A8.10 ELEVATION
SCALE: 1/4"=1'-0"

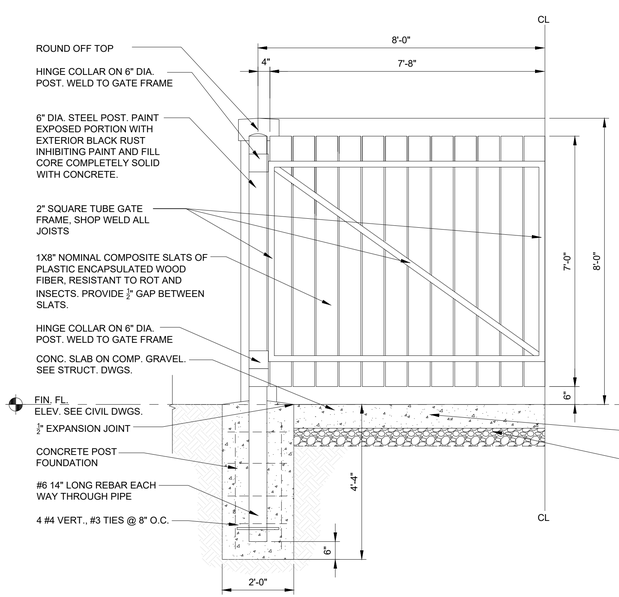


V8.10 / A8.10 ELEVATION
SCALE: 1/4"=1'-0"

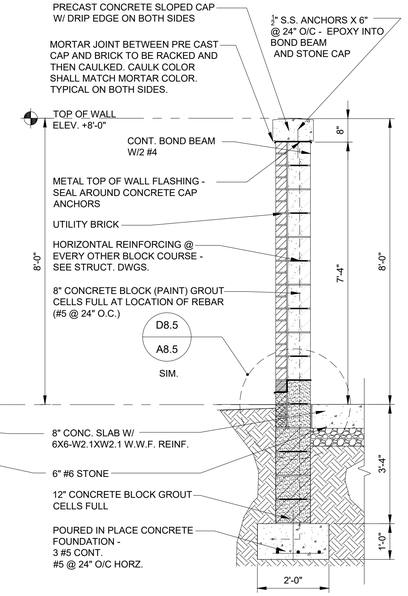


W8.10 / A8.10 ELEVATION (2 SIDES)
SCALE: 1/4"=1'-0"

FIN. FL. ELEV. SEE CIVIL DWGS.



X8.10 / A8.10 GATE POST DETAIL
SCALE: 1/2"=1'-0"



Y8.10 / A8.10 WALL SECTION
SCALE: 1/2"=1'-0"

STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9021 F 419.893.9021 | BUEHRERGROUP.COM

REVISION SCHEDULE

1	-

ISSUE DATE: 06/17/21
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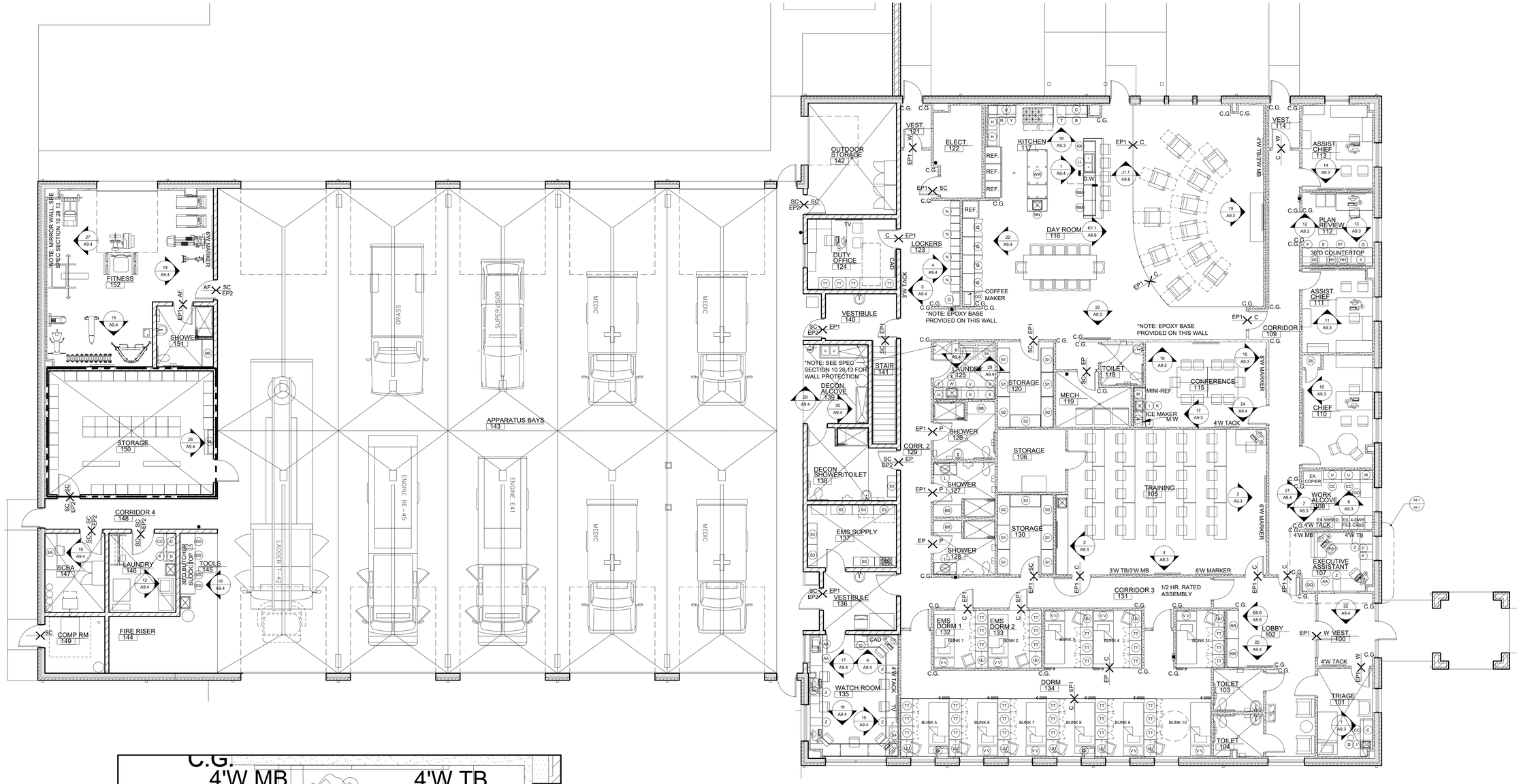
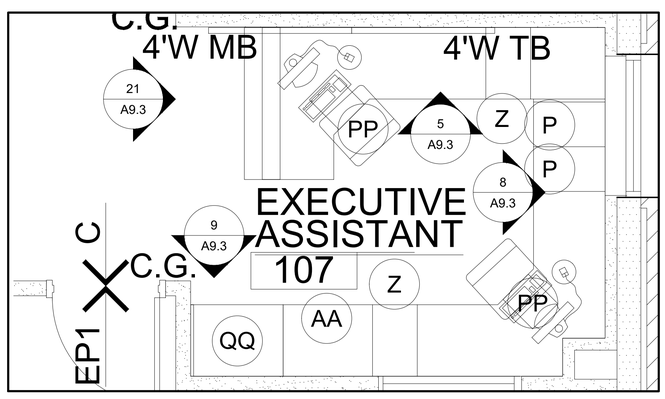
CONSTRUCTION DOCUMENTS

A8.10



LEVEL 1
INTERIOR DESIGN PLAN
SCALE: 1/8"=1'-0"

NORTH



A9.1 / A9.1 ENLARGED PARTIAL INTERIOR DESIGN PLAN
SCALE: 1/2"=1'-0"

TAG LEGEND

TAG	TYPE
EP1	EPOXY SYSTEM #1
EP2	EPOXY SYSTEM #2 - ALT.
SC	SEALED CONCRETE
P	PORCELAIN TILE
C	CARPET TILE
AF	ATHLETIC FLOORING
W	WALK-OFF CARPET TILE
C.G.	CORNER GUARD

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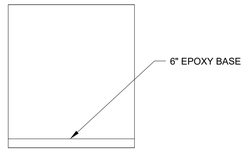
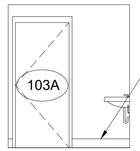
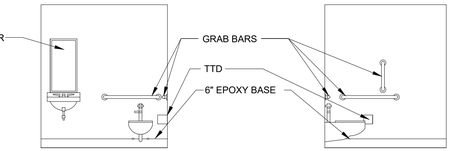
A9.1



A1.5 / A9.2 TOILET 103 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

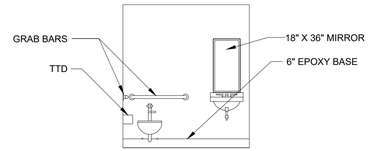


B1.5 / A9.2 TOILET 103 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

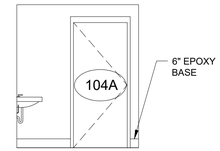


C1.5 / A9.2 TOILET 103 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

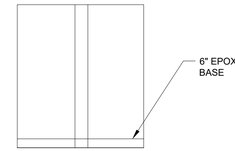
D1.5 / A9.2 TOILET 103 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



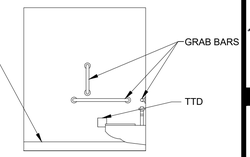
E1.5 / A9.2 TOILET 104 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



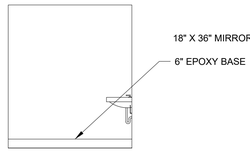
F1.5 / A9.2 TOILET 104 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



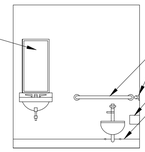
G1.5 / A9.2 TOILET 104 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



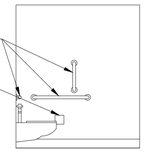
H1.5 / A9.2 TOILET 104 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



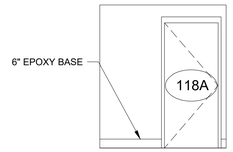
J1.5 / A9.2 TOILET 118 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



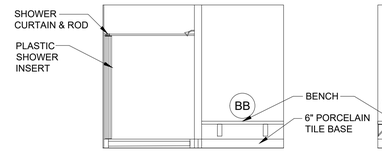
K1.5 / A9.2 TOILET 118 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



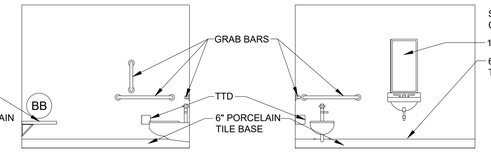
L1.5 / A9.2 TOILET 118 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



M1.5 / A9.2 TOILET 118 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

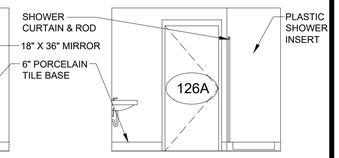


N1.5 / A9.2 SHOWER 126 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

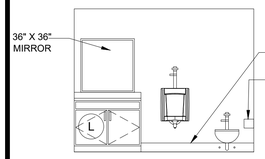


P1.5 / A9.2 SHOWER 126 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

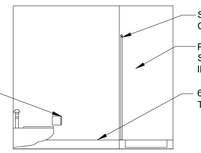
Q1.5 / A9.2 SHOWER 126 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



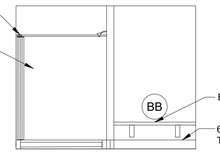
R1.5 / A9.2 SHOWER 126 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



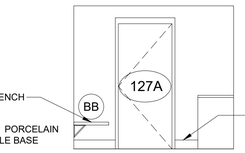
S1.5 / A9.2 SHOWER 127 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



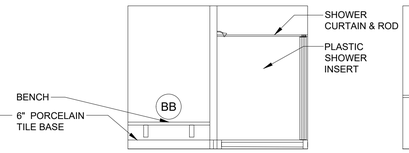
T1.5 / A9.2 SHOWER 127 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



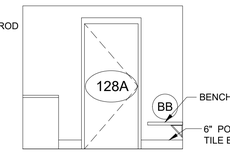
U1.5 / A9.2 SHOWER 127 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



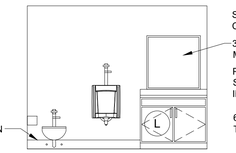
V1.5 / A9.2 SHOWER 127 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



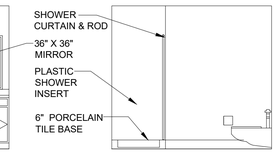
W1.5 / A9.2 SHOWER 128 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



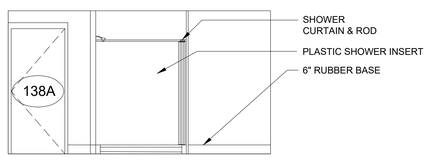
X1.5 / A9.2 SHOWER 128 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



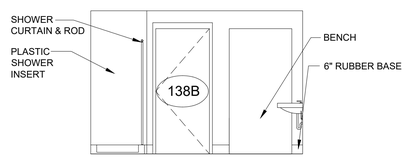
Y1.5 / A9.2 SHOWER 128 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



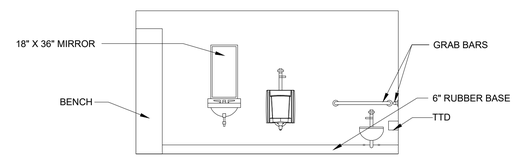
Z1.5 / A9.2 SHOWER 128 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



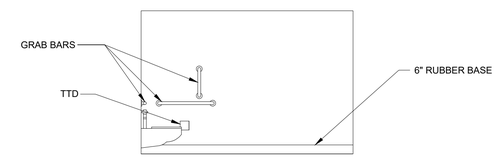
AA1.5 / A9.2 DECON SHOWER/TOILET 138 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



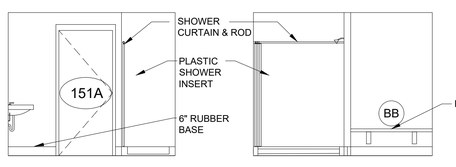
BB1.5 / A9.2 DECON SHOWER/TOILET 138 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



CC1.5 / A9.2 DECON SHOWER/TOILET 138 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

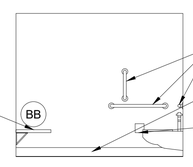


DD1.5 / A9.2 DECON SHOWER/TOILET 138 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

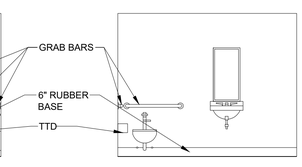


EE1.5 / A9.2 SHOWER 151 EAST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

FF1.5 / A9.2 SHOWER 151 SOUTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



GG1.5 / A9.2 SHOWER 151 WEST INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



HH1.5 / A9.2 SHOWER 151 NORTH INTERIOR ELEVATION
SCALE: 1/4"=1'-0"

STATE OF OHIO
KENT D. BUEHRER
11087
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REVISION SCHEDULE

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ISSUE DATE: 06/17/21
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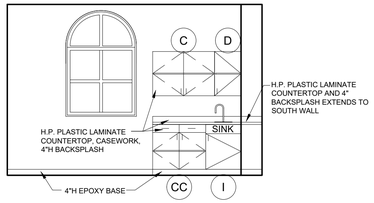
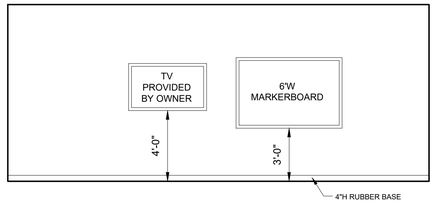
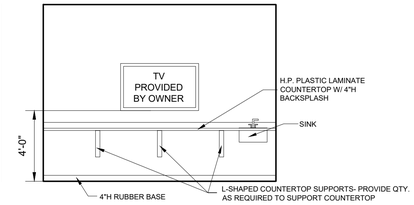
A9.2



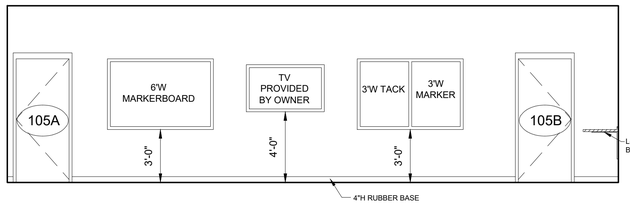
1 A9.3 TRIAGE 101
SCALE: 1/4"=1'-0"



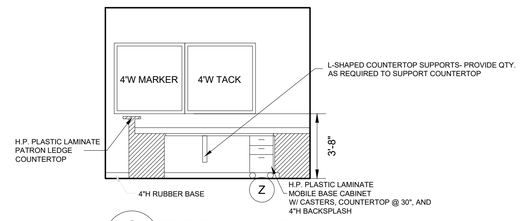
2 A9.3 TRAINING 105
SCALE: 1/4"=1'-0"



3 A9.3 TRAINING 105
SCALE: 1/4"=1'-0"



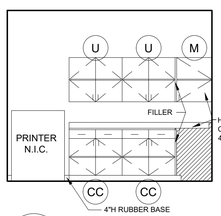
4 A9.3 TRAINING 105
SCALE: 1/4"=1'-0"



5 A9.3 EXEC. ASSIST. 107
SCALE: 1/4"=1'-0"

CASEWORK LEGEND

A — STEVENS ADVANTAGE - 10477 SINK BASE CABINET - LOCKABLE (1) DOOR, FALSE FRONT, REMOVABLE BACK 18"W x 24"D x 35"H	O — STEVENS ADVANTAGE - 15250 MML BOX - OPEN SHELVES (24) COMPARTMENTS 24"W x 14"D x 47"H	CC — STEVENS ADVANTAGE - 10432 BASE CABINET - LOCKABLE (2) DOORS, (2) DRAWERS, (1) ADJ. SHELF 36"W x 24"D x 35"H	QQ — STEVENS ADVANTAGE - 25657 WARDROBE CABINET - LOCKABLE (2) DOORS, (3) DRAWERS, (3) ADJ. SHELVES, (1) HANGER BAR 30"W x 24"D x 84"H
B — STEVENS ADVANTAGE - 10432 BASE CABINET - LOCKABLE (2) DOORS, (2) DRAWERS, (1) ADJ. SHELF 42"W x 24"D x 35"H	P — STEVENS ADVANTAGE - 10329 BASE - FIXED PED (2) FILE DRAWERS 15"W x 24"D x 29"H	DD — STEVENS ADVANTAGE - 10431 BASE CABINET - LOCKABLE NO DOORS, (2) DRAWERS, (1) ADJ. SHELF 30"W x 29"D x 35"H	RR — BUILT-IN DISPLAY CASES SEE DETAIL SHEET A8.6
C — STEVENS ADVANTAGE - 15129 WALL CABINET - LOCKABLE (2) DOORS, (1) ADJ. SHELF 42"W x 18"D x 30"H	Q — STEVENS ADVANTAGE - 24129 PANTRY CABINET - LOCKABLE (2) DOORS, (5) ADJ. SHELVES 36"W x 24"D x 84"H	EE — BUTCHER BLOCK COUNTERTOP STEEL FRAME (1) SHELF 72"W x 24"D x 36"H	SS — NOT USED
D — STEVENS ADVANTAGE - 15120 WALL CABINET - LOCKABLE (1) DOOR, (1) ADJ. SHELF 18"W x 18"D x 30"H	R — STEVENS ADVANTAGE - 10129 BASE CABINET - LOCKABLE (2) DOORS, (1) ADJ. SHELF 36"W x 24"D x 35"H	FF — STEVENS ADVANTAGE - 10402 FLAT FILE BASE CABINET - LOCKABLE (8) DRAWERS 42"W x 29"D x 41"H	TT — WARDROBE CASEWORK SEE DETAIL SHEET A8.6
E — STEVENS ADVANTAGE - 10220 BASE CABINET - CUBICLE SHELVES NO DOORS, (6) ADJ. SHELVES 24"W x 29"D x 41"H	S — STEVENS ADVANTAGE - 15101 WALL CABINET NO DOORS, (1) ADJ. SHELF 33"W x 18"D x 30"H	GG — STEVENS ADVANTAGE - 15239 - MODIFIED WALL CABINET - CUBICLE SHELVES (4) ADJ. SHELVES 48"W x 18"D x 18"H	UU — DESK AND SHELVING SEE DETAIL SHEET A8.7
F — STEVENS ADVANTAGE - 10226 BASE CABINET - CUBICLE SHELVES NO DOORS, (9) ADJ. SHELVES 30"W x 29"D x 41"H	T — STEVENS ADVANTAGE - 10421 BASE CABINET - LOCKABLE (3) EQUAL DRAWERS 18"W x 24"D x 35"H	HH — STEVENS ADVANTAGE - 15220 - MODIFIED WALL CABINET - CUBICLE SHELVES (2) ADJ. SHELVES 21"W x 18"D x 18"H	V V — HEADBOARD SEE DETAIL SHEET A8.7
G — STEVENS ADVANTAGE - 10236 BASE CABINET - CUBICLE SHELVES NO DOORS, (9) ADJ. SHELVES 42"W x 29"D x 41"H	U — STEVENS ADVANTAGE - 15129 WALL CABINET - LOCKABLE (2) DOOR, (1) ADJ. SHELF 36"W x 18"D x 30"H	I I — STEVENS ADVANTAGE - 15226 - MODIFIED WALL CABINET - CUBICLE SHELVES (3) ADJ. SHELVES 48"W x 18"D x 18"H	WW — KITCHEN ISLAND CASEWORK AND COUNTERTOP SEE DETAIL SHEET A8.6
H — STEVENS ADVANTAGE - 15129 WALL CABINET - LOCKABLE (2) DOORS, (1) ADJ. SHELF 30"W x 18"D x 30"H	V — STEVENS ADVANTAGE - 10432 BASE CABINET - LOCKABLE (2) DOORS, (2) DRAWERS, (1) ADJ. SHELF 33"W x 24"D x 35"H	JJ — STEVENS ADVANTAGE - 15101 WALL CABINET NO DOORS, (1) ADJ. SHELF 18"W x 18"D x 30"H	XX — HEADBOARD - MODIFIED SEE DETAIL SHEET A
I — STEVENS ADVANTAGE - 10478 SINK BASE CABINET - LOCKABLE (1) DOOR, FALSE FRONT, REMOVABLE BACK 24"W x 24"D x 35"H	W — STEVENS ADVANTAGE - 10479 SINK BASE CABINET (2) DOORS, FALSE FRONT, REMOVABLE BACK 36"W x 24"D x 35"H	KK — STEVENS ADVANTAGE - 10332 BASE CABINET - LOCKABLE (3) EQUAL DRAWERS 21"W x 24"D x 35"H	
J — STEVENS ADVANTAGE - 10120 BASE CABINET - LOCKABLE (1) DOOR, (1) ADJ. SHELF 15"W x 24"D x 35"H	X — STEVENS ADVANTAGE - 15101 WALL CABINET NO DOORS, (1) ADJ. SHELF 36"W x 18"D x 25"H	LL — STEVENS ADVANTAGE - 10479 SINK BASE CABINET - LOCKABLE (2) DOORS, FALSE FRONT, REMOVABLE BACK 42"W x 24"D x 35"H	S1 — METAL SHELVING 48"W x 24"D x 84"H SEE SPEC SECTION 10 56 13
K — STEVENS ADVANTAGE - 15129 WALL CABINET - LOCKABLE (2) DOORS, (1) ADJ. SHELF 24"W x 18"D x 30"H	Y — STEVENS ADVANTAGE - 10421 BASE CABINET - LOCKABLE (1) DOOR, (1) DRAWER, (1) ADJ. SHELF 18"W x 24"D x 35"H	MM — STEVENS ADVANTAGE - 10129 BASE CABINET - LOCKABLE (2) DOORS, (1) ADJ. SHELF 30"W x 24"D x 35"H	S2 — METAL SHELVING 60"W x 24"D x 84"H SEE SPEC SECTION 10 56 13
L — STEVENS ADVANTAGE - 10479 SINK BASE CABINET - LOCKABLE (2) DOORS, FALSE FRONT, REMOVABLE BACK 45"W x 24"D x 35"H	Z — STEVENS ADVANTAGE MOBILE PED (2) LETTER DRAWERS, (1) FILE DRAWER 15"W x 24"D x 35"H	NN — STEVENS ADVANTAGE - 10479 ADA SINK BASE CABINET - LOCKABLE (2) DOORS, FALSE FRONT, REMOVABLE BACK 39"W x 24"D x 32"H	S3 — METAL SHELVING 42"W x 18"D x 84"H SEE SPEC SECTION 10 56 13
M — STEVENS ADVANTAGE - 15121 WALL CABINET - LOCKABLE (1) DOOR, (1) ADJ. SHELF 24"W x 18"D x 30"H	AA — STEVENS ADVANTAGE - 10129 BASE CABINET - LOCKABLE (2) DOOR, (1) ADJ. SHELF 30"W x 24"D x 29"H	OO — STEVENS ADVANTAGE - 10432 BASE CABINET - LOCKABLE (2) DOORS, (2) DRAWERS, (1) ADJ. SHELF 30"W x 24"D x 35"H	S4 — WALL STANDARDS AND BRACKETS SEE SPEC SECTION 10 56 17
N — STEVENS ADVANTAGE - 62143 LOCKERS - FLAT TOP (3) 14" LOCKERS, (1) FIXED SHELF, OPEN FRONT 45"W x 18"D x 59"H	BB — BUILT-IN BENCH - FIT IN NOOK BY SHOWERS 54"W x 24"D OR 56"W X 24"D	PP — STEVENS ADVANTAGE - 10879 PENCIL DRAWER COMPARTMENT TRAY 12"W x 14"D	S5 — ROD AND SHELF SEE SPEC SECTION 10 56 13



6 A9.3 WORK ALCOVE 108
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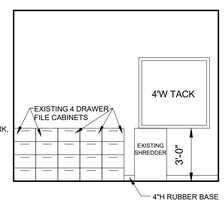

7 A9.3 WORK ALCOVE 108
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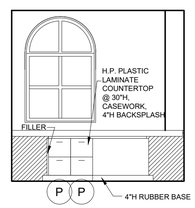

8 A9.3 EXEC. ASSIST. 107
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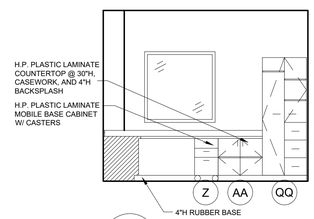

9 A9.3 EXEC. ASSIST. 107
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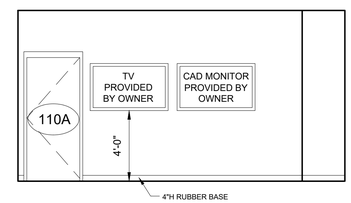

10 A9.3 CHIEF 110
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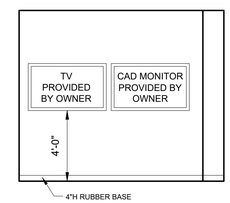

11 A9.3 ASSIST. CHIEF 111
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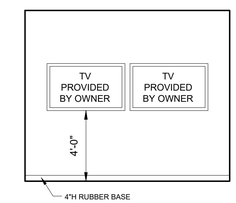

12 A9.3 PLAN REVIEW 112
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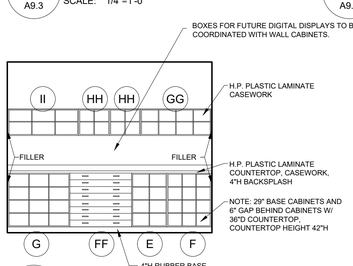

13 A9.3 PLAN REVIEW 112
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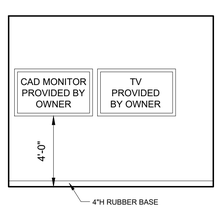

14 A9.3 ASSIST. CHIEF 113
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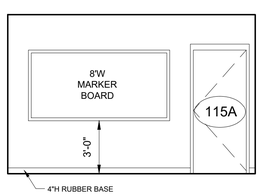

15 A9.3 CONF. 115
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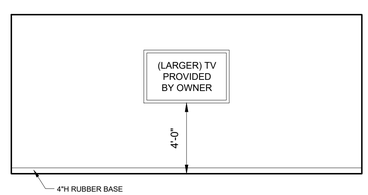

16 A9.3 CONF. 115
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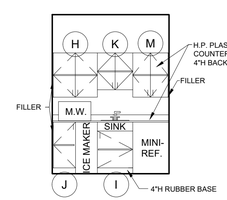

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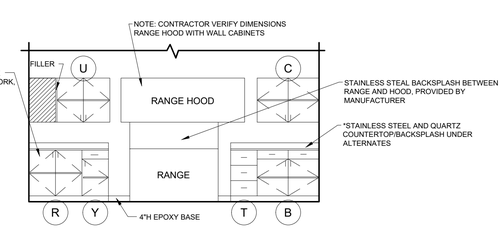

18 A9.3 KITCHEN 117
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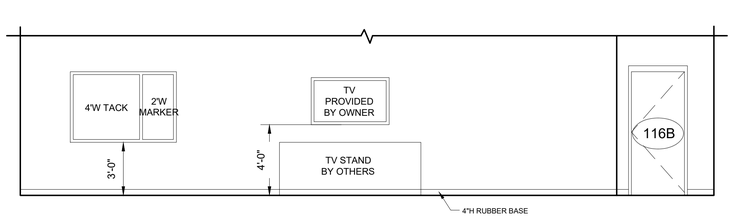

19 A9.3 DAY ROOM 116
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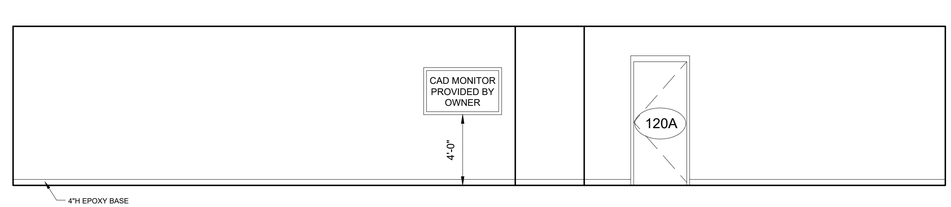

20 A9.3 DAY ROOM 116
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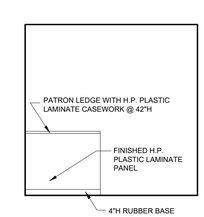


21 A9.3 EXEC. ASSIST. 107
SCALE: 1/4"=1'-0"

STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

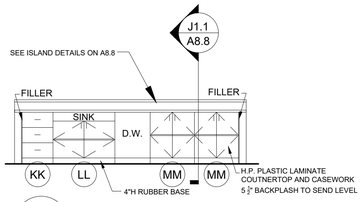
NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9021 F 419.893.9027 I BUEHRERGROUP.COM

REVISION SCHEDULE
1 -

ISSUE DATE: 06/17/21
JOB NUMBER: 201296
CONSTRUCTION DOCUMENTS

A9.3



1 A9.4 KITCHEN 117
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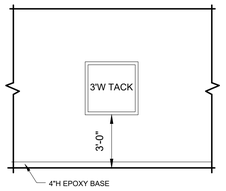

3 A9.4 LOCKERS 123
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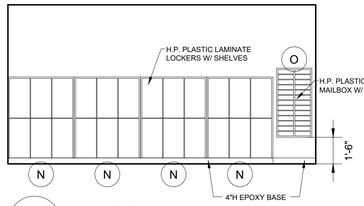

4 A9.4 LOCKERS 123
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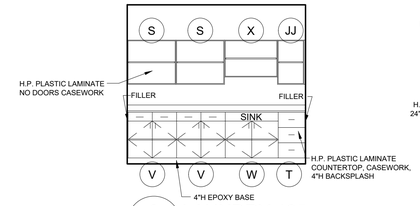

6 A9.4 LAUNDRY 125
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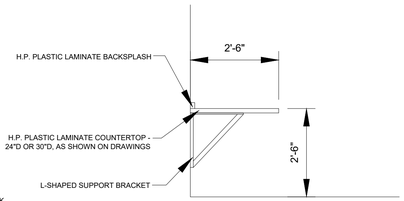

8 A9.4 OFFICE BUILT-INS COUNTERTOP SECTION
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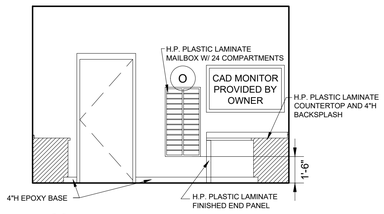

9 A9.4 WATCH ROOM 135
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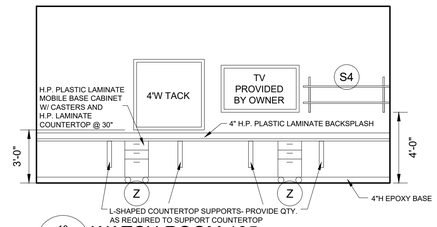

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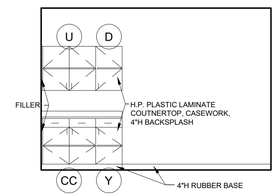

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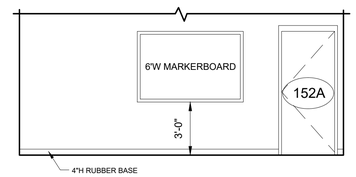

14 A9.4 FITNESS 152
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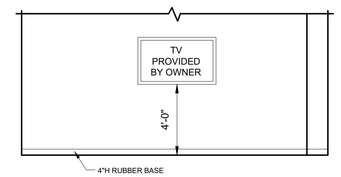

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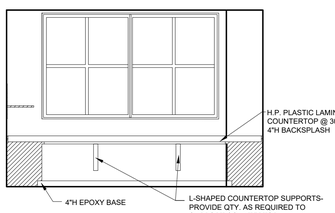

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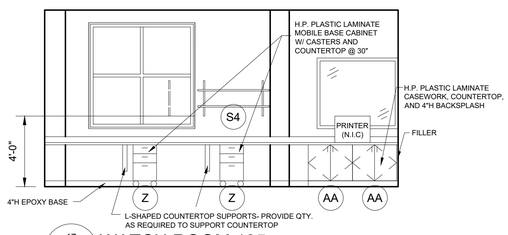

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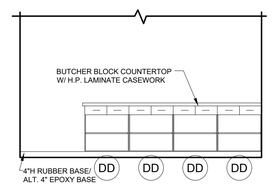

18 A9.4 TOOLS 145
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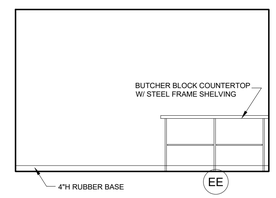

19 A9.4 SCBA 147
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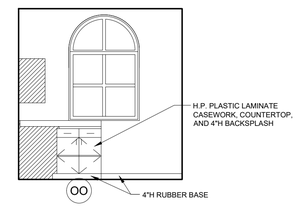
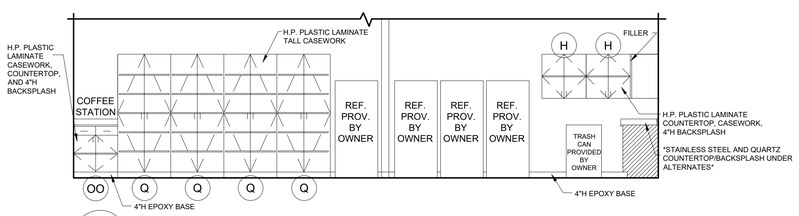
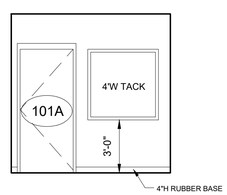


21 A9.4 WORK ALCOVE 108
SCALE: 1/4"=1'-0"



22 A9.4 DAY ROOM 116/KITCHEN 117
SCALE: 1/4"=1'-0"



23 A9.4 VEST. 100
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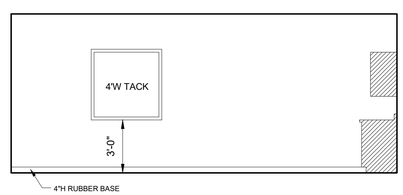

24 A9.4 CONF. 115
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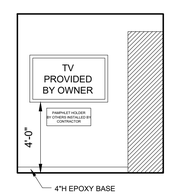

25 A9.4 LOBBY 102
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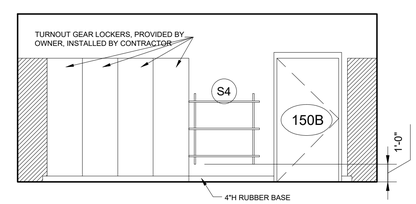

26 A9.4 STORAGE 150
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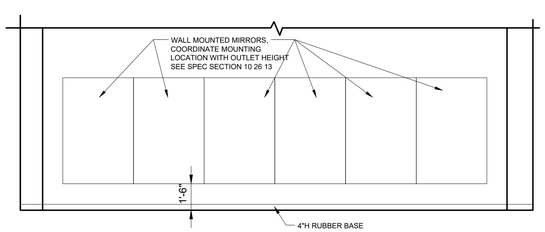

27 A9.4 FITNESS 152
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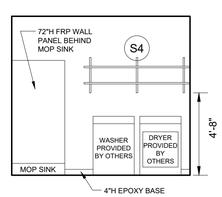
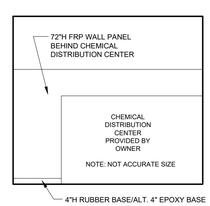
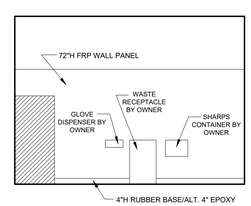


28 A9.4 LAUNDRY 125
SCALE: 1/4"=1'-0"



29 A9.4 DECON ALCOVE 139
SCALE: 1/4"=1'-0"



30 A9.4 DECON ALCOVE 139
SCALE: 1/4"=1'-0"

STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

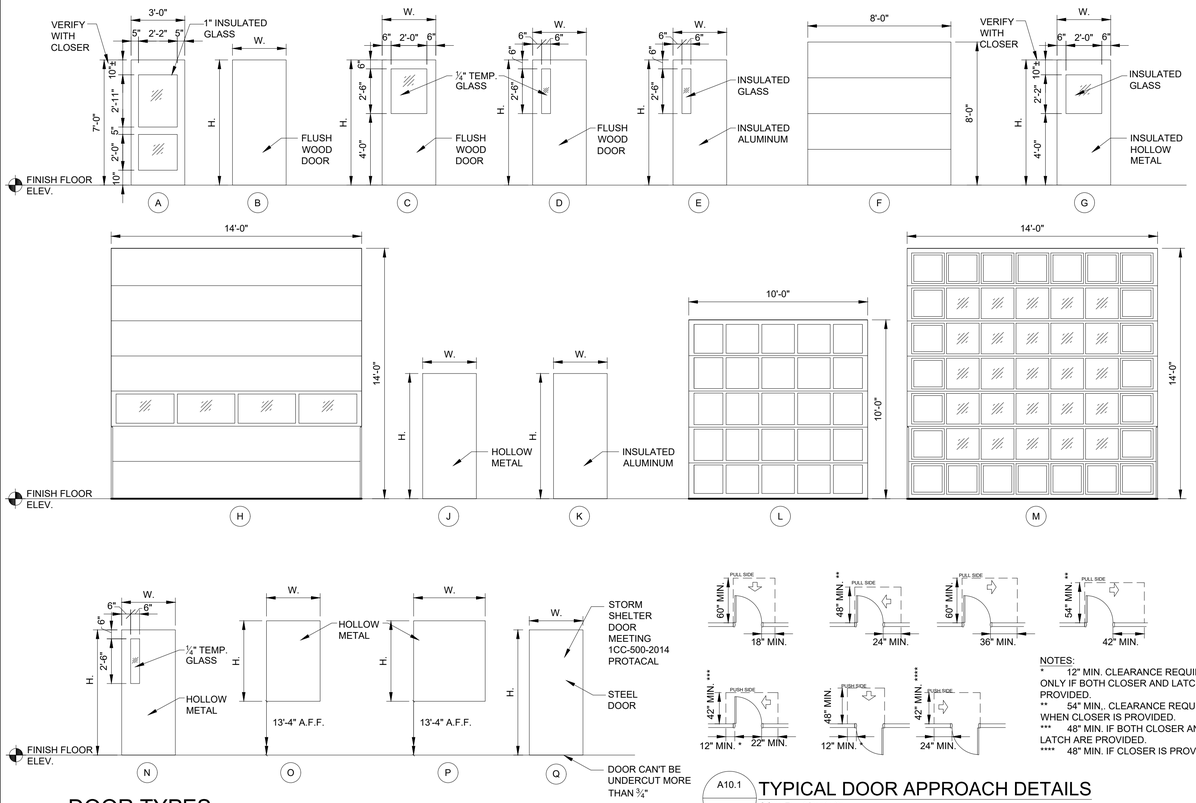
NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P:419.893.9027 F:419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE
1 -

ISSUE DATE: 06/17/21
JOB NUMBER: 201296
CONSTRUCTION DOCUMENTS

A9.4



DOOR TYPES

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

NOTES:

* 12" MIN. CLEARANCE REQUIRED ONLY IF BOTH CLOSER AND LATCH ARE PROVIDED.

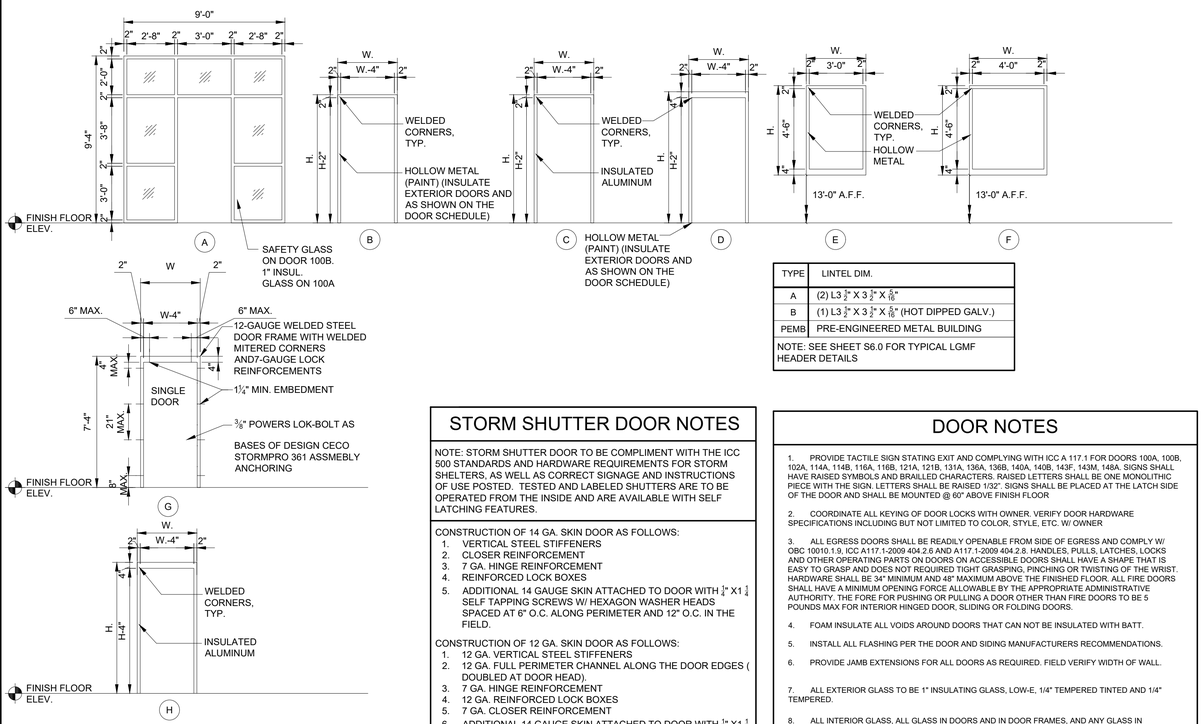
** 54" MIN., CLEARANCE REQUIRED WHEN CLOSER IS PROVIDED.

*** 48" MIN. IF BOTH CLOSER AND LATCH ARE PROVIDED.

**** 48" MIN. IF CLOSER IS PROVIDED.

A10.1 / A10.1 TYPICAL DOOR APPROACH DETAILS

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



FRAME TYPES

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

TYPE	LINTEL DIM.
A	(2) L3 $\frac{1}{2}$" X 3 $\frac{1}{2}$" X $\frac{5}{16}$"
B	(1) L3 $\frac{1}{2}$" X 3 $\frac{1}{2}$" X $\frac{5}{16}$" (HOT DIPPED GALV.)
PEMB	PRE-ENGINEERED METAL BUILDING

NOTE: SEE SHEET S6.0 FOR TYPICAL LGMF HEADER DETAILS

STORM SHUTTER DOOR NOTES

NOTE: STORM SHUTTER DOOR TO BE COMPLIMENT WITH THE ICC 500 STANDARDS AND HARDWARE REQUIREMENTS FOR STORM SHELTERS, AS WELL AS CORRECT SIGNAGE AND INSTRUCTIONS OF USE POSTED. TESTED AND LABELED SHUTTERS ARE TO BE OPERATED FROM THE INSIDE AND ARE AVAILABLE WITH SELF LATCHING FEATURES.

CONSTRUCTION OF 14 GA. SKIN DOOR AS FOLLOWS:

1. VERTICAL STEEL STIFFENERS
2. CLOSER REINFORCEMENT
3. 7 GA. HINGE REINFORCEMENT
4. REINFORCED LOCK BOXES
5. ADDITIONAL 14 GAUGE SKIN ATTACHED TO DOOR WITH $\frac{1}{4}$" X1 $\frac{1}{4}$" SELF TAPPING SCREWS W/ HEXAGON WASHER HEADS SPACED AT 6" O.C. ALONG PERIMETER AND 12" O.C. IN THE FIELD.

CONSTRUCTION OF 12 GA. SKIN DOOR AS FOLLOWS:

1. 12 GA. VERTICAL STEEL STIFFENERS
2. 12 GA. FULL PERIMETER CHANNEL ALONG THE DOOR EDGES (DOUBLED AT DOOR HEAD).
3. 7 GA. HINGE REINFORCEMENT
4. 12 GA. REINFORCED LOCK BOXES
5. 7 GA. CLOSER REINFORCEMENT
6. ADDITIONAL 14 GAUGE SKIN ATTACHED TO DOOR WITH $\frac{1}{4}$" X1 $\frac{1}{4}$" SELF TAPPING SCREWS W/ HEXAGON WASHER HEADS SPACED AT 6" O.C. ALONG PERIMETER AND 12" O.C. IN THE FIELD.

DOOR NOTES

1. PROVIDE TACTILE SIGN STATING EXIT AND COMPLYING WITH ICC A 117.1 FOR DOORS 100A, 100B, 102A, 114A, 114B, 116A, 116B, 121A, 121B, 131A, 136A, 136B, 140A, 140B, 143F, 143M, 148A. SIGNS SHALL HAVE RAISED SYMBOLS AND BRAILLED CHARACTERS. RAISED LETTERS SHALL BE ONE MONOLITHIC PIECE WITH THE SIGN. LETTERS SHALL BE RAISED 1/32". SIGNS SHALL BE PLACED AT THE LATCH SIDE OF THE DOOR AND SHALL BE MOUNTED @ 60" ABOVE FINISH FLOOR

2. COORDINATE ALL KEYING OF DOOR LOCKS WITH OWNER. VERIFY DOOR HARDWARE SPECIFICATIONS INCLUDING BUT NOT LIMITED TO COLOR, STYLE, ETC. W/ OWNER

3. ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM SIDE OF EGRESS AND COMPLY W/ OBC 10010.1.9, ICC A117.1-2009 404.2.6 AND A117.1-2009 404.2.8. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING PARTS ON DOORS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP AND DOES NOT REQUIRED TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FINISHED FLOOR. ALL FIRE DOORS SHALL HAVE A MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORE FOR PUSHING OR PULLING A DOOR OTHER THAN FIRE DOORS TO BE 5 POUNDS MAX FOR INTERIOR HINGED DOOR, SLIDING OR FOLDING DOORS.

4. FOAM INSULATE ALL VOIDS AROUND DOORS THAT CAN NOT BE INSULATED WITH BATT.

5. INSTALL ALL FLASHING PER THE DOOR AND SIDING MANUFACTURERS RECOMMENDATIONS.

6. PROVIDE JAMB EXTENSIONS FOR ALL DOORS AS REQUIRED. FIELD VERIFY WIDTH OF WALL.

7. ALL EXTERIOR GLASS TO BE 1" INSULATING GLASS, LOW-E, 1/4" TEMPERED TINTED AND 1/4" TEMPERED.

8. ALL INTERIOR GLASS, ALL GLASS IN DOORS AND IN DOOR FRAMES, AND ANY GLASS IN HAZARDOUS LOCATIONS AS DEFINED IN OBC SECTION 2404.01 TO BE 1/4" TEMPERED GLASS AND COMPLY WITH OBC SECTION 2406.1 THROUGH 2406.1.4.

10. FIRE PROTECTION RATED GLAZING SHALL MEET SECTION 715.

DOOR SCHEDULE

OPENING No.	DOOR SIZE W	DOOR SIZE H	DOOR SIZE T	DOOR TYPE	LOUVER W	LOUVER H	DOOR MATERIAL/ FINISH	FRAME SIZE W	FRAME SIZE H	FRAME TYPE	FRAME MATERIAL/ FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	OPENING U.L. LABEL	OPENING HAND	HARDWARE SET No.	HARDWARE KEYSIDE RM. No.	LINTEL MARK	REMARKS
100A	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	9'-0"	9'-4"	A	INSULATED ALUMINUM	H1/10.2	J7/A10.2	S1/10.2	-	LHR	1	EXTERIOR	SEE STRUCT. -	
100B	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	9'-0"	9'-4"	A	INSULATED ALUMINUM	H2/10.2	J2/A10.2	-	-	LHR	2	100	-	SAFETY GLAZING
101A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	3	100	-	INCLUDE BLANK HDWE. ON VEST#100 SIDE
101B	3'-4"	7'-0"	1 3/4"	B	-	-	WOOD	3'-8"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	4	102	-	
102A	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	5	102	-	
103A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	6	102	-	
104A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	6	102	-	
105A	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	4	102	-	
105B	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	7	131	-	180 DEGREE DOOR
106A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	7	105	-	SOUND SEALS FOR VENDING AREA
110A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	8	109	-	
110B	2'-0"	7'-0"	1 3/4"	B	-	-	WOOD	2'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	7	110	-	
111A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	4	109	-	
113A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	4	109	-	
114A	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-4"	H	INSULATED ALUMINUM	H1/10.2	J7/A10.2	S2/10.2	-	RHR	9	EXTERIOR	SEE STRUCT. -	
114B	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H2/10.2	J2/A10.2	-	-	RHR	10	114	-	
115A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	8	109	-	
116A	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H5/10.2	J7/A10.2 LC J8/A10.2 HI	S2/10.2	-	RHR	11	EXTERIOR	SEE STRUCT. -	TINTED GLASS - SEE SPECS FOR TINT
116B	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	4	109	-	
118A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	6	116	-	
119A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	7	116	-	-
120A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	7	116	-	
121A	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H5/10.2	J7/A10.2 LC J8/A10.2 HI	S2/10.2	-	RHR	9	EXTERIOR	B	
121B	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H2/10.2	J2/A10.2	-	-	RHR	10	121	-	
122A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	12	123	-	-
124A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-4"	B	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	4	123	B	
125A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	7	129	-	-
126A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	6	129	-	-
127A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	6	129	-	-
128A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	6	129	-	-
130A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	7	131	-	
131A	3'-4"	7'-0"	1 3/4"	C	-	-	WOOD	3'-8"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	13	102	-	
132A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	45	LHR	14	131	B	
133A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	45	LHR	14	131	-	
134A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	45	LHR	14	129	-	
134B	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	45	LHR	14	131	-	
135A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	4	136	A	
136A	3'-4"	7'-0"	1 3/4"	G	-	-	INSULATED HOLLOW METAL	3'-8"	7'-4"	D	INSULATED HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RHR	5	143	A	
136B	3'-4"	7'-0"	1 3/4"	C	-	-	WOOD	3'-8"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	7	131	A	
137A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	5	136	A	
138A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	21	139	A	
138B	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-4	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	6	129	A	
140A	3'-0"	7'-0"	1 3/4"	G	-	-	INSULATED HOLLOW METAL	3'-4"	7'-4"	D	INSULATED HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RHR	5	143	A	
140B	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	7	129	A	
142A	8'-0"	8'-0"	1 3/4"	F	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	
142B	3'-0"	7'-0"	1 3/4"	J	-	-	INSULATED HOLLOW METAL	3'-4"	7'-4"	D	INSULATED HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	7	143	A	
143A	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143B	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143C	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143D	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143E	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143F	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H5/10.2	J1/A10.2 LC J5/A10.2 UP	S2/10.2	-	LHR	11	EXTERIOR	SEE PEMB -	
143G	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143H	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143J	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143K	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143L	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
143M	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H1/10.2 SIM.	J7/A10.2 SIM.	S2/10.2	-	RHR	11	EXTERIOR	B	
146A	3'-6"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-10"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	20	RH	7	148	A	
147A	3'-6"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-10"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	7	148	A	
148A	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-4"	H	INSULATED ALUMINUM	H1	J1/A10.2	S2/10.2	-	RHR	9	EXTERIOR	B	
149A	3'-6"	7'-0"	1 3/4"	K	-	-	INSULATED ALUMINUM	3'-10"	7'-4"	H	INSULATED ALUMINUM	H1	J1/A10.2	S2/10.2	-	RHR	16	EXTERIOR	B	
150A	3'-6"	7'-0"	1 3/4"	Q	-	-	STEEL	3'-10"	7'-4"	G	HOLLOW METAL	H7/10.2	J9/A10.2	-	SEE NOTES	LH	17	143/150	A	STORM SHELTER DOOR ICC-500-2014 STANDARDS PROVIDE SIGN - SEE DEATIL H10.3/A10.3
150B	3'-6"	7'-0"	1 3/4"	Q	-	-	STEEL	3'-10"	7'-4"	G	HOLLOW METAL	H7/10.2	J9/A10.2	-	SEE NOTES	LHR	17	148/150	A	STORM SHELTER DOOR ICC-500-2014 STANDARDS PROVIDE SIGN - SEE DEATIL H10.3/A10.3
151A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	6	152	A	
152A	10'-0"	10'-0"	1 3/4"	L	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H4/10.2	J4/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB -	OVERHEAD DOOR
152B	3'-0"	7'-0"	1 3/4"	N	-	-	HOLLOW METAL	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	7	143	A	
200A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	19	201	-	
201A	3'-0"	4'-6"	1 3/4"	O	-	-	HOLLOW METAL	3'-4"	5'-0"	E	HOLLOW METAL	H3/10.2 SIM.	J3/A10.2	-	-	RHR	18	201	A	WITH HOLD OPEN
201B	4'-0"	4-6"	1 3/4"	P	-	-	HOLLOW METAL	4'-4"	5'-0"	F	HOLLOW METAL	H3/10.2 SIM.	J3/A10.2	-	-	LHR	18	201	A	WITH HOLD OPEN
202A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	19	201	-	
203A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-2"	B	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RHR	20	203	A	

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

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REVISION SCHEDULE

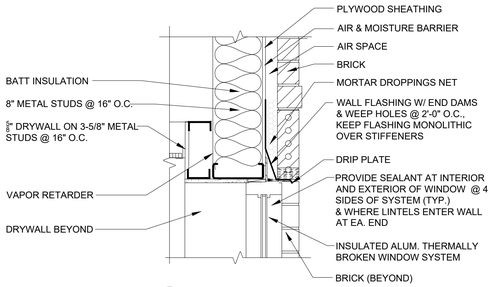
1	-

ISSUE DATE: 06/17/21

JOB NUMBER: 201296

CONSTRUCTION DOCUMENTS

A10.1



H1 / A10.2 HEAD DETAIL
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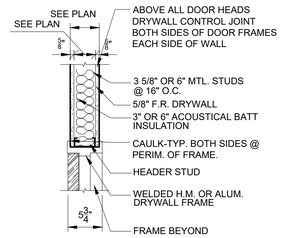

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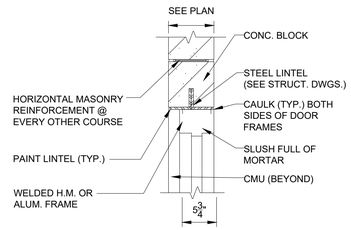

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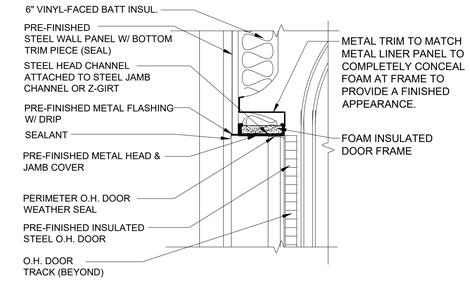

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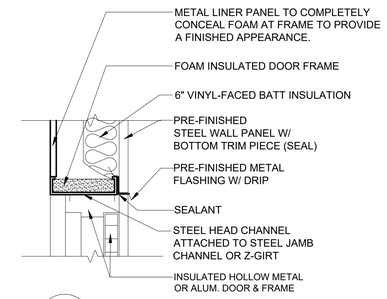

H5 / A10.2 HEAD DETAIL
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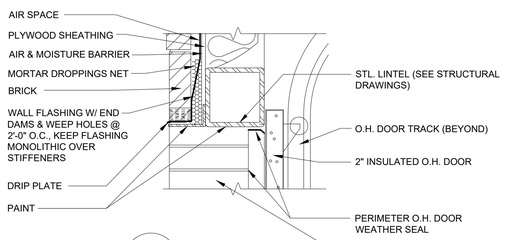

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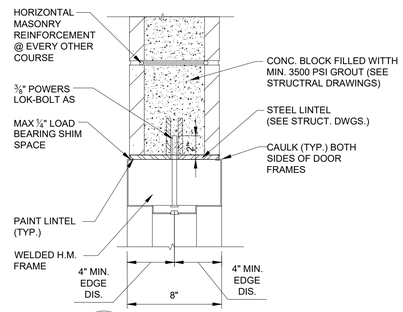

H7 / A10.2 HEAD DETAIL
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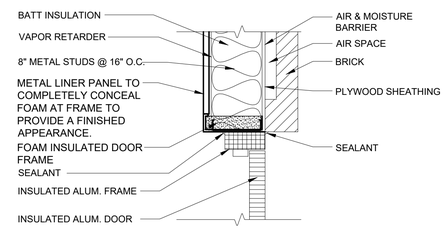

J1 / A10.2 JAMB DETAIL
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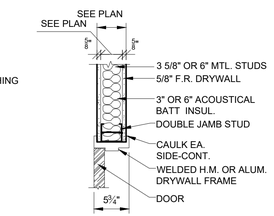

J2 / A10.2 JAMB DETAIL
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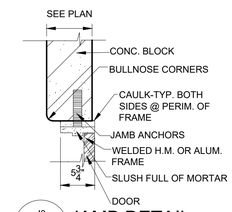

J3 / A10.2 JAMB DETAIL
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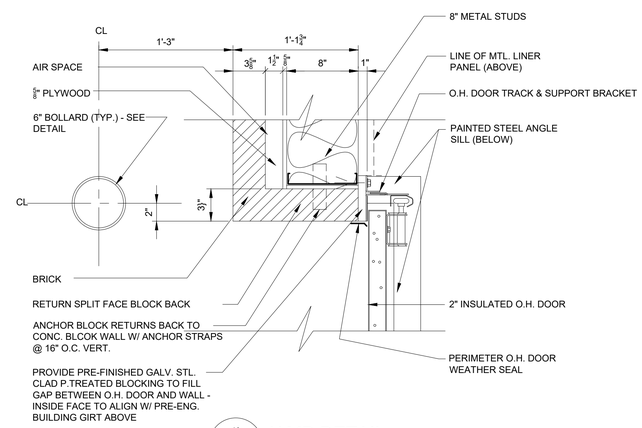

J6 / A10.2 JAMB DETAIL
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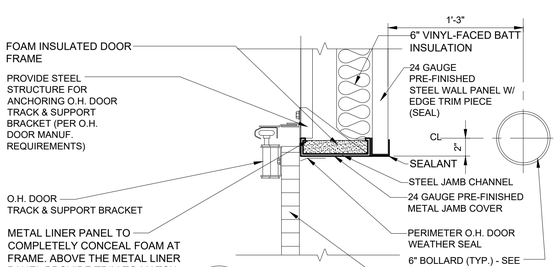

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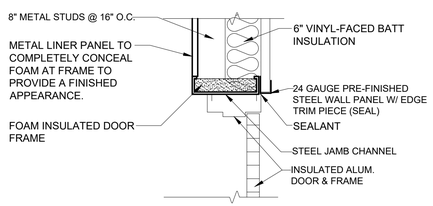

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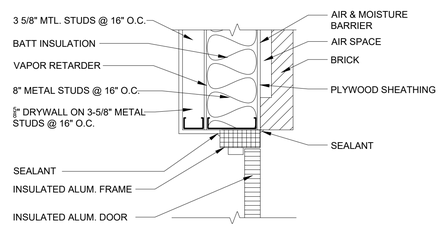

J7 / A10.2 JAMB DETAIL
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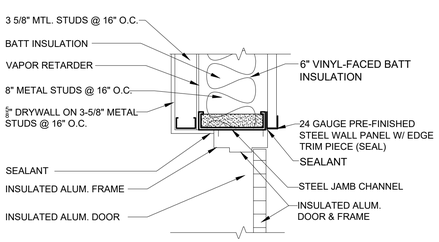

J8 / A10.2 JAMB DETAIL
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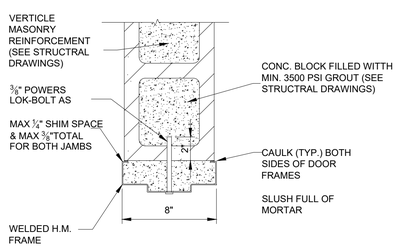
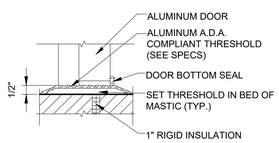
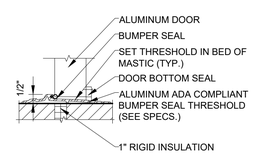


J9 / A10.2 JAMB DETAIL
SCALE: 1 1/2"=1'-0"



S1 / A10.2 SILL DETAIL
SCALE: 3"=1'-0"



S2 / A10.2 SILL DETAIL
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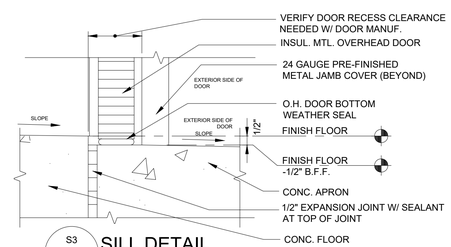

S3 / A10.2 SILL DETAIL
SCALE: 3"=1'-0"

DOOR DETAILS

SEE ELEVATIONS & SCHEDULE ON SHEET A10.1

STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
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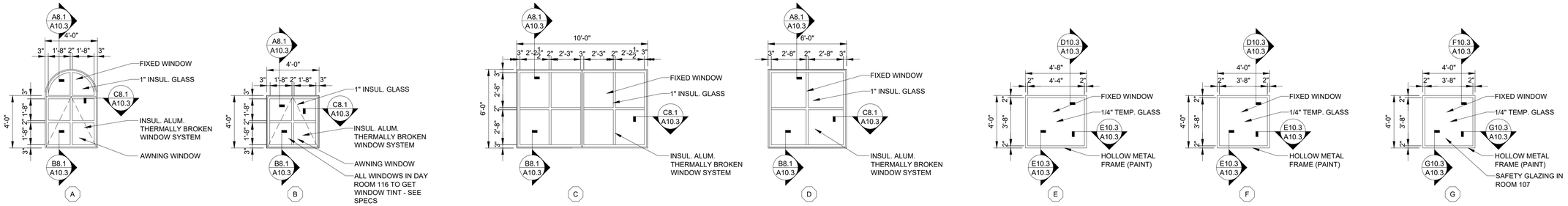
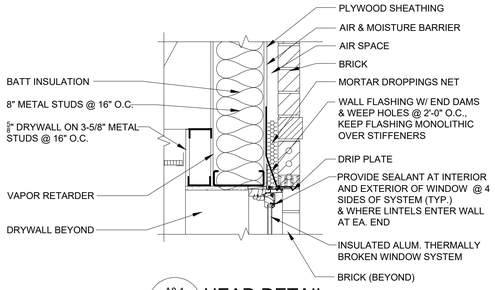
CONSTRUCTION DOCUMENTS

A10.2

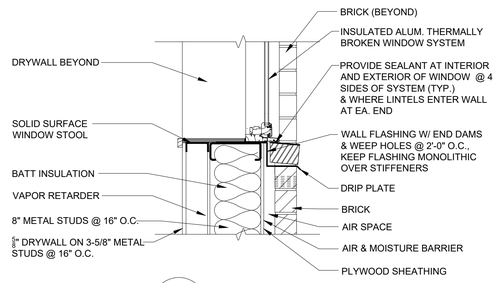


WINDOW ELEVATIONS

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



A8.1 / A10.3 HEAD DETAIL
SCALE: 1"=1'-0"



B8.1 / A10.3 SILL DETAIL
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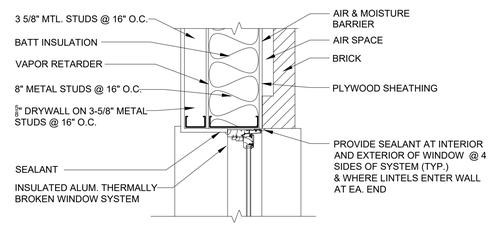
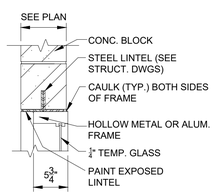


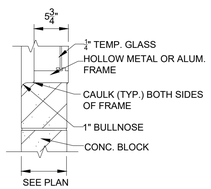
C8.1 / A10.3 JAMB DETAIL
SCALE: 1"=1'-0"

WINDOW NOTES

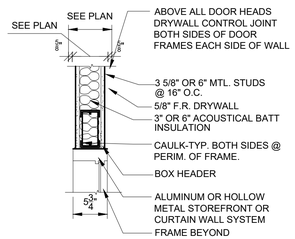
1. PROVIDE INTERMETALIC SEPARATION WHERE REQ'D
2. COLOR ALL WALL VENTILATORS AND WALL WEEPS TO MATCH COLOR OF MORTAR.
3. SEAL W/ CAULK OR TAPE ALL RIGID INSULATION JOINTS
4. KEEP ALL FLASHING MONOLITHIC OVER LINTEL STIFFENERS
5. SPRAY FOAM INSULATE ALL EXTERIOR WINDOW FRAMES TYP.



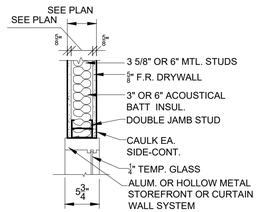
D10.3 / A10.3 HEAD DETAIL
SCALE: 1"=1'-0"



E10.3 / A10.3 SILL AND JAMB DETAIL
SCALE: 1"=1'-0"



F10.3 / A10.3 HEAD DETAIL
SCALE: 1"=1'-0"



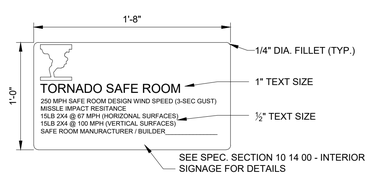
G10.3 / A10.3 SILL AND JAMB DETAIL
SCALE: 1"=1'-0"

ALTERNATE 9

UNDER ALTERNATE #9 PROVIDE INTEGRAL BLINDS FOR ALL EXTERIOR WINDOWS

WINDOW DETAILS

SCALE: 1"=1'-0"



H10.3 / H10.3 TORNADO SAFE ROOM SIGN DETAIL
SCALE: 1 1/2"=1'-0"

STORM SHUTTER SIGN NOTES

SIGNAGE CRITERIA (REFERENCE ICC-500)
1. INSTALL PLAQUE, SIGN, OR OTHER MARKING TO CLEARLY IDENTIFY:
1.1. 250 MPH, 3-SECOND GUST SAFE ROOM DESIGN WIND SPEED
1.2. MISSLE IMPACT RESISTANCE RATING FOR:
1.2.1. 15-LB. 2X4 TRAVELING HORIZANTALLY AT 100 MPH.
1.2.2. 15-LB. 2X4 TRAVELING VERTICALLY AT 67 MPH.
1.2.3. NAME OF DOOR MANUFACTURE
2. THE SIGN SHALL BE MOUNTED ON THE INSIDE WALL OF THE SHELTESPACE IN A PROMINENT LOCATION 60" ABOVE THE FLOOR.

STATE OF OHIO
KENT D. BUEHRER
11087
REGISTERED ARCHITECT

KENT D. BUEHRER, LICENSE #11087
EXPIRATION DATE 12/31/21
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CONSTRUCTION DOCUMENTS

A10.3

SPECIAL INSPECTIONS:

1) PURSUANT TO CHAPTER 17 (SPECIAL INSPECTION & TESTING) OF THE OHIO BUILDING CODE OBC 2017, IN ADDITION TO THE REGULAR INSPECTIONS GENERAL CONTRACTOR ON BEHALF OF OWNER WILL RETAIN A TESTING AGENCY TO PERFORM SPECIAL INSPECTIONS ON THE ITEMS LISTED IN THE TABLE BELOW. CONTRACTOR TO PROVIDE ACCESS AND HAVE WORK AREAS READY FOR INSPECTION AS NEEDED.

2) TESTING AGENCY TO SUBMIT A LIST OF THEIR QUALIFIED SPECIAL INSPECTORS AND THEIR RESUMES AND/OR CERTIFICATION TO THE ARCHITECT/ENGINEER OF RECORD TO FILE WITH THE PLAN APPROVAL APPLICATION.

3) INSPECTIONS SHALL NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY FOR THE ACCURACY OF THE WORK AND ALL OF ITS DETAILS

SCHEDULE OF SPECIAL INSPECTION

NO.	ITEM	REQUIRED	CONTINUOUS INSPECTION	PERIODIC INSPECTION
1	FABRICATORS -OBC 1705.2			
	FABRICATOR CERTIFICATION	X		
	MATERIAL CERTIFICATION	X		
2	CONCRETE CONSTRUCTION -OBC 1705.3			
	REINFORCING STEEL PLACEMENT			X
	CONCRETE PLACEMENT			X
	SAMPLING AND CONCRETE TESTING			X
	CONCRETE CURING TEMPERATURE AND TECHNIQUES			X
	ANCHOR RODS SIZE, POSITIONING AND EMBEDMENT			X
3	STRUCTURAL STEEL -OBC 1705.2			
	STRUCTURAL STEEL JOINTS			X
	HIGH STRENGTH BOLTS			X
	STRUCTURAL STEEL MATERIALS			X
	STRUCTURAL STEEL WELDING			X
4	MASONRY CONSTRUCTION -OBC 1705.4			
	MASONRY MORTAR JOINT			X
	MASONRY REINFORCEMENT AND CONNECTORS			X
	MASONRY GROUTING			X
	MASONRY ANCHORS AND TIES			X
6	SOILS AND FOUNDATION -OBC 1705.6			
	SITE PREPARATION AND REMOVAL OF UNSUITABLE MATERIALS			X
	COMPACTED FILL MATERIALS, LIFT THICKNESS, DENSITY			X
	SOIL LOAD BEARING CAPACITY			X

GENERAL NOTES:

1. COORDINATE w/ ARCHITECTURAL FLOOR PLANS AND SECTIONS FOR ANY SLAB RECESSES REQUIRED FOR DOOR MATS, FLOORING, ETC...
2. VERIFY LOCATIONS OF COLUMNS, WALLS, ETC. WITH THE ARCHITECTURAL DWG. BEFORE PLACING ANY FOUNDATIONS
3. INSTALL SLEEVES THRU BLOCKS FOR ALL UNDERGROUND PIPES. SLEEVES TO BE PROVIDED BY THE REQUIRED CONTRACTOR.
4. SAW CUT FLOOR SLABS INTO SECTIONS NOT GREATER THAN 15'-0"X15'-0". PROVIDE DIAMOND CUT AROUND ALL COLUMN LOCATIONS
5. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MISC. CONCRETE PADS REQUIRED FOR INTERIOR MECHANICAL AND ELECTRICAL EQUIPMENTS.

NOTE: GENERAL CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE SEQUENCE OF ERECTION PROCEDURES AND BRACING (SHORING) OF WALLS, FLOORS, ROOFS AND STRUCTURAL MEMBERS (BEAMS, COLUMNS, TRUSSES,ETC.) TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION TO COMPLETE THE PROJECT ACCORDING TO THE DRAWINGS AND SPECIFICATIONS

STRUCTURAL LEGEND

B/BRG. = BEAM BEARING
BP# = BASE PLATE
BRG. = BEARING
B/S = BOTH SIDES
B/FTG. = BOTTOM OF FOOTING
CL/CL = CENTER TO CENTER
C.M.U. = CONCRETE MASONRY UNIT
CONC. = CONCRETE
CONT. = CONTINUOUS
COOR. = COORDINATE

DIA. or ~ = DIAMETER
DEMO = DEMOLITION
E/S = EACH SIDE
E.C. = ELECTRICAL CONTRACTOR
ELEV. = ELEVATION
EQ. = EQUAL
F# = COLUMN FOOTING NUMBER
F/FLR. = FINISH FLOOR
FND. = FOUNDATION
GA. = GAUGE

GALV. = GALVINIZED
G.C. = GENERAL CONTRACTOR
I.C.F. = INSULATED CONCRETE FORMS
IN/IN = INSIDE TO INSIDE
PRE-FAB LGST= PRE-FABRICATED LIGHT GAUGE STEEL TRUSS
M.C. = MECHANICAL CONTRACTOR
MTL. = METAL
MISC. = MISCELLANOUS
M.O. = MASONRY OPENING
PL. = PLATE

P.C. = PLUMBING CONTRACTOR
PR# = CONC. PIER #
O.C. = ON CENTER
O/O = OUTSIDE TO OUTSIDE
O.H. = OVER HANG
REINF. = REINFORCED
SLP. = SLOPE
ST. = STEEL

STP. FTG. = STEP FOOTING
T&B = TOP AND BOTTOM
T/FTG. = TOP OF FOOTING
T/ST. = TOP OF STEEL
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE
W.W.F. = WELDED WIRE FABRIC
W/ = WITH
W/O = WITHOUT

PRE-ENGINEERED METAL BUILDING (PEMB) NOTES:

1. THE ENTIRE PRE-ENGINEERED METAL BUILDING SYSTEM SHALL BE DESIGNED BY THE METAL BUILDING MANUFACTURER IN CONFORMANCE WITH THE LATEST OHIO BUILDING CODE (OBC-2017/IBC-2015)
2. UNLESS-NOTED OTHERWISE, IT IS THE PRE-ENGINEERED METAL BUILDING MANUFACTURER'S RESPONSIBILITY TO DESIGN THE COMPLETE BUILDING SYSTEM (STEEL FRAMING, PURLINS, GIRTS, BRACING , STRAPPING,CONNECTIONS, ROOFING, COMPONENTS, ATTACHMENTS, ETC. ALL STRUCTURAL MEMBERS SHALL BE DESIGNATED WITH THE MANUFACTURER'S PART NUMBER ACCORDING TO SECTION 106.1.1.12 OBC
3. THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS OF THE ENTIRE METAL BUILDING SYSTEM FOR REVIEW BEARING THE SEAL OF AN OHIO REGISTERED ENGINEER. FINAL SEALED DRAWINGS WILL BE SUBMITTED TO PLAN EXAMINER
4. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE FOUNDATION DRAWINGS WITH THE METAL BUILDING SYSTEM DRAWINGS TO INSURE PROPER PLACEMENT
5. THE SIZE, NUMBER AND PLACEMENT PATTERN OF ALL ANCHOR BOLTS SHALL BE DETERMINED BY THE PRE-ENGINEERED BUILDING MANUFACTURER. ANCHOR BOLTS EMBEDMENTS ARE INDICATED ON SHEET (S3.1).
6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL TEMPORARY GUYING AND BRACING NEEDED TO COMPLETE JOB.
7. THE PRE-ENGINEERED BUILDING MANUFACTURER SHALL BE A MEMBER OF THE MBMA (METAL BUILDING MANUFACTURER ASSOCIATION)
8. CONTRACTOR SHALL SUBMIT FINAL METAL BUILDINGS COLUMN LOADS/REACTIONS FOR STRUCTURAL ENGINEER REVIEW BEFORE CONSTRUCTION AND POURING ANY CONCRETE.
9. DESIGN FOR SNOW DRIFT LOADS FROM HIGHER ROOF AREAS AND AT VALLEYS. SNOW IMPORTANCE FACTOR, Is = 1.20
11. ULTIMATE WIND SPEED, Vult = 120 MPH, BUILDING RISK CATEGORY-IV, EXPOSURE CATEGORY "C"
13. SEE SEISMIC LOCATION DESIGN DATA SHOWN ON THIS SHEET.
14. DESIGN THE BUILDING FOR A MINIMUM COLLATERAL LOAD OF 5 PSF
15. ALL FRAME COLUMNS TO BE STRAIGHT AND NOT TAPERED.
16. GENERAL CONTRACTOR TO COORDINATE ALL CONNECTIONS TO THE PEMB FRAMES WITH PEMB MANUF. PRIOR TO FABRICATION AND OR/ERECTION.
17. GABLE ROOF TYPE - ROOF SLOPES - 4/12 BOTH SIDES FOR MAIN FRAMES AND 12/ 12 FOR DORMERS AND EXHAUST LOUVERS - SEE SHEET A6.1
18. EAVE HEIGHT - T/FRAME @ 17'-0" ABOVE F/FLOOR ELEVATION AT APPARATUS AREA EAVE HEIGHT - T/FRAME @ 12'-4" ABOVE F/FLOOR ELEVATION AT OFFICE AREA
19. PROVIDE FRAME EXTENSION AT EAVES FOR SUPPORT OF EAVE PURLINS
20. PROVIDE FRAMING FOR ALL DORMERS, EXHAUST LOUVERS, OVERHEAD DOORS, AND CANOPIES, ETC. AS SHOWN ON THE ARCHITECTURAL ELEVATIONS AND SECTIONS - SEE SHEET A6.1, A8.4
21. PROVIDE SPANDREL "SIDE" FOR SUPPORT OF TOP OF METAL STUD WALL SEE SHEET S2.0.
22. PROVIDE MISC STEEL FOR SUPPORT OF ALL OVER-HEAD DOORS IN OPEN POSITION.
23. SEE SHEET S2.1 FOR PORTAL FRAME LOCATIONS AND MISC. PEMB NOTES.
24. SEE SHEET S5.0 FOR MISC. LGMF SUPPORT AT EAVES OF PEMB.

CONCRETE CONSTRUCTION NOTES

1) ALL CONCRETE SHALL COMPLY WITH SPECIFICATIONS AND STD 6"X12" CYLINDERS SHALL TEST 4000 psi MINIMUM AT AGE OF 28 DAYS, FOR FLOORS AND 3000 PSI FOR FOOTINGS.
2) EXTERIOR CONCRETE WALKS AND CURBS SHALL COMPLY WITH SPECIFICATIONS AND STD 6"X12" CYLINDERS SHALL TEST 4000 PSI MINIMUM AT AGE OF 28 DAYS. WALKS SHALL BE 4" THICK AND HAVE 6"x6" -W2.1XW2.1 WELDED WIRE FABRIC PLACED AT MID DEPTH.
3) REINFORCING BARS, UNLESS OTHERWISE SPECIFIED, SHALL MEET THE LATEST ASTM A615 GRADE 60. BARS TO BE PLACED PER LATEST ACI STANDARDS.
4) WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185, AND SHALL BE FURNISHED AND PLACED IN FLAT SHEETS.
5) MINIMUM CONCRETE COVERS FOR REINFORCING BARS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
   CONCRETE SLABS AND JOISTS 3/4"
   CONCRETE BEAMS, GIRDERS AND COLUMNS 1-1/2"
   FORMED SURFACED EXPOSED TO WEATHER 1-1/2" FOR #5 BARS AND SMALLER
   ON EARTH 2" FOR # 6 AND LARGER
   CONCRETE DEPOSITED AGAINST GROUND 3"
6) WIRE FABRIC REINFORCING SHALL LAP ONE FULL MESH AT SIDES AND END LAPS AND SHALL BE WIRED TOGETHER AT LAPS.
7) SLABS SHALL HAVE OPENINGS VERIFIED BY MECHANICAL AND ELECTRICAL CONTRACTORS BEFORE PLACING REINFORCING AND CONCRETE.
8) CONCRETE SLABS ON GROUND SHALL BE PLACED ON BASE PER SPECIFICATIONS.
9) CONCRETE DESIGN AND REINFORCING IS BASED ON "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-2014)
11) ALL INTERIOR U.N.O.CONCRETE SLABS ON GRADE SHALL BE 4" THICK REINFORCED WITH W/6X6-W2.1XW2.1 WWF PLACED AT MID DEPTH USING REBAR CHAIRS AT A MAXIMUM OF 3' O/C. FLOATING MESH IN PLACE OR PULLING MESH UP WILL NOT BE ACCEPTABLE.
12) WHERE CONTINUOUS BARS ARE CALLED FOR, THEY SHALL BE RUN CONTINUOUSLY AROUND CORNERS AND LAPPED AT NECESSARY SPLICES, AND HOOKED AT DISCONTINUOUS ENDS.
13) WALLS, PIERS, AND COLUMNS SHALL BE DOWELED TO FOOTINGS. WALL FOOTINGS AND CONCRETE COLUMN DOWELS SHALL BE SAME SIZE AS WALL AND COLUMN VERTICALS.
14) LAP ALL BARS SPLICES 24 BAR DIAMETERS MINIMUM (UNLESS OTHERWISE CALLED FOR) BUT NOT LESS THAN 12".

FOUNDATION AND SOIL NOTES

1. ANY STRUCTURAL FILL PLACED BELOW FOUNDATION AND SLAB ON GRADE SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY.
2. STRUCTURAL FILL SHOULD BE PLACED IN LIFTS OF 6 TO 8 INCHES LOOSE MEASURE, IF HAND-OPERATED COMPACTION EQUIPMENT IS USED, THE LEFT THICKNESS SHALL BE REDUCED TO 3 TO 4 INCHES.
3. THE CONTRACTOR SHALL MEET ALL OSHA EXCAVATIONS AND AND TRENCH SAFETY STANDARDS SLOPE HEIGHTS, SLOPE INCLINATION, ETC..
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS, METHODS AND SEQUENCE OF CONSTRUCTION OPERATION.
5. PROTECT BOTTOM OF FOUNDATIONS AGAINST FREEZING. WATER SHOULD NOT BE ALLOWED TO POND IN THE EXCAVATION.
6. COORDINATE WITH SITE/CIVIL DRAWINGS FOR ALL UNDERGROUND UTILITY LINES LOCATIONS BEFORE EXCAVATIONS OR POURING CONCRETE .
7. PROVIDE A BALANCED BACKFILL AGAINST FOUNDATION WALLS TO ELIMINATE ANY LATERAL LOADS OR PROVIDE LATERAL SUPPORT AS NEEDED
8. FROST DEPTH AT A MINIMUM OF 3'-6" (42")
9. GENERAL CONTRACTOR TO REVIEW SOIL REPORT PREPARED BY BOWSER-MORNER DATED 04/20/2021 FOR RECOMMENDATION ON SITE AND SUBGRADE SOIL CONDITION AND PREPARATION.
10. ANY SOFT SOIL OR LOOSE SOIL ZONES ENCOUNTERED AT THE BOTTOM OF THE FOOTING EXCAVATION SHALL BE REMOVED DOWN TO GOOD NATURAL SOILS AND REPLACED WITH COMPACTED ODOT #304 STONE STRUCTURAL FILL OR WITH LEAN CONCRETE

STRUCTURAL STEEL CONSTRUCTION NOTES

1) DESIGN, FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE LATEST (A.I.S.C) ASD EDITION AND SPECIFICATIONS AS REFERENCED IN THE 2017 OHIO BUILDING CODE.
2) FIELD BOLTS SHALL BE 3/4" DIA. STD. MACHINE BOLTS CONFORMING TO A.S.T.M. A325 UNLESS OTHERWISE NOTED.
3) PROVIDE ALL BOLTS, ANCHORS, STRAPS, FASTENERS, AND SIMILAR ITEMS AS SHOWN ON THE DRAWINGS OR REQUIRED TO COMPLETE THE INTENDED WORK.
4) ALL W SHAPES STEEL FRAMING SHALL BE FABRICATED FROM (ASTM A992 - FY= 50 KSI)
   ALL M, MC, S, C, ANGLES, PLATES AND BARS FROM (A36 STEEL).
   ALL SQUARE & RECTANGULAR HSS TUBING - A500 GRADE B (FY = 46 KSI).
   ALL ROUND SHAPES HSS TUBING - A500 GRADE B (FY = 42 KSI)
   ALL ANCHOR RODS FOR BASE PLATES - ASTM F1554 GRADE 36 U.N.O.
5) ALL WELDING ELECTRODES SHALL BE E-70XX AND IN ACCORDANCE WITH AMERICAN WELDING SOCIETY AWS D1.1
6) ALL L'S , PL'S AND FLANGES CARRYING WALLS EXPOSED TO VIEW SHALL BE COPED FOR MORTAR COVER.
7) ALL STEEL WORK, BEFORE LEAVING SHOP TO HAVE TWO GOOD COAT OF PAINT
8) PROVIDE AND INSTALL ANY MISC. SCREED ANGLES FOR SUPPORT OF ROOF OR FLOOR OPENINGS AND SLAB EDGES WHERE REQUIRED.
9) DO NOT CUT IN FIELD OR MODIFY ANY STRUCTURAL STEEL MEMBER WITHOUT APPROVAL FROM ENGINEER

COLD-FORMED METAL FRAMING CONSTRUCTION NOTES:

1. PROVIDE THE MANUFACTURER'S STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM.
2. UNLESS NOTED OTHERWISE, INSTALL THE METAL FRAMING IN ACCORDANCE WITH THE MANUFACTURE'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
3. PROVIDE BRIDGING FOR STUDS AT A MAXIMUM SPACING NOT TO EXCEED 4'-0". ALL BRIDGING SHALL BE INSTALLED PRIOR TO THE ADDITION OF ANY LOADING CONNECT BRIDGING TO EACH MEMBER BY CLIP ANGLES OR OTHER APPROVED METHOD PER MANUFACTURER'S REQUIREMENTS.
4. THE GAUGE OF ALL TRACKS SHALL BE NO LIGHTER THAN THE FRAMING BEING CONNECTED. UNLESS NOTED OTHERWISE, FOR PARTITION WALLS CONNECT TRACKS TO CONCRETE WITH HILTI OR APPROVED EQUAL 0.205" DIAMETER POWER DRIVEN FASTENING (WITH 1.25" EMBEDMENT) AT 16" O/C.
5. ALL FRAMING MEMBERS SHALL BE GALVANIZED WITH A G-90 COATING.
6. ALL COLD FORMED STEEL FRAMING MEMBERS, THEIR DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO THE LATEST AISI DESIGN CODE AND SPECIFICATIONS.
7. ALL FRAMING MEMBERS SHALL BE FORMED FROM STEEL CONFORMING TO ASTM A446 WITH A MINIMUM YIELD STRENGTH, FY = 50 KSI
8. PROVIDE DIAGONAL 4" STUD BRACE AT EACH WALL END CORNER, DOOR LOCATIONS AND AT A MAXIMUM OF 6'-4" IN BETWEEN FROM TOP TRACK TO BOTTOM OF ROOF STEEL JOISTS
9. PROVIDE DIAGONAL 4" STUD BRACING @ 45° AT ALL WALL CORNERS FLAT IN PLANE OF TOP OF WALL.
10. THE GENERAL CONTRACTOR SHALL SUBMIT FOR APPROVALTHE MANUFACTURER'S PRODUCT DATA AND THE LATEST TECHNICAL DATA.
11. G.C. TO PROVIDE AND INSTALL BACKING PLATE "DANBACK FLEXIBLE WOOD BACKING PLATE" OR APPROVED EQUAL AT ALL HANDRAILS, SHELVES, CABINETS AND OTHER WALL FIXTURES BEING ATTACHED AND/OR BUILT-IN BY OTHER TRADES.
12. AT TOP OF WALL INTERSECTIONS AND CORNERS LAP JOINTS AND COPE FLANGES OF TRACKS AND CONNECT W/(4)-#10 SCREWS.
13. GENERAL CONTRACTOR TO PROVIDE AND INSTALL ALL TEMPORARY AND PERMENANT BRACING REQUIRED TO COMPLETE JOB.
14. PROVIDE SOLID BLOCKING AT AT EACH END OF WALL OPENINGS AND INTERMITTENTLY AT 10'-0" MAX.
15. TOUCH UP ALL WELDS WITH ZINC-RICH PAINT.

MASONRY CONSTRUCTION NOTES

1) MASONRY DESIGN IS BASED ON "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-2016)
2) HOLLOW CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF (2,000 PSI) AND MASONRY STRENGTH OF A MINIMUM, (f'm'=2,000 PSI) AND MEETS ASTM C-90 REQUIREMENTS
3) MORTAR SHALL MEET REQUIREMENTS OF ASTM C-270 TYPE "S" 1,800 PSI TEST AT 28 DAYS.
4) USE COARSE GROUT FOR FILLING CONCRETE MASONRY UNITS, 2,500 PSI TEST 28 DAYS.
5) USE SOLID OR CONCRETE FILLED MASONRY UNITS ALL MEMBERS BEARING MASONRY. USE HOLLOW MASONRY UNITS FILLED WITH CONCRETE FOR WALLS RECEIVING ANCHORS.
6) NO CHASES, RISERS, CONDUITS, OR TOOTHING IN MASONRY WALLS SHALL OCCUR WITHIN 2'-0 OF A BEARING OR OTHER LOAD CONCENTRATION.
7) DO NOT LAY MASONRY IN FREEZING WEATHER UNLESS SUITABLE MEANS ARE PROVIDED TO HEAT MATERIALS PROTECT WORK FROM COLD AND FROST AND INSURE MORTAR WILL CURE WITHOUT FREEZING.
8) MASONRY WALLS SHALL HAVE HORIZONTAL WIRE REINFORCING AT 16" VERTICAL CENTERS EQUAL TO LADDER TYPE AS MADE BY HOHMANN & BERNARD INC. OR EQUAL. COMPLYING WITH ASTM A951
9) MASONRY CORNERS SHALL HAVE HORIZONTAL CORNER REINFORCING AT 16" VERTICAL CENTERS EQUAL TO LADDER/CORNER TYPE AS MADE BY HOHMANN & BERNARD INC. OR EQ. COMPLYING WITH ASTM A951
10) PROVIDE LAP LENGTHS AT SPLICES EQUALS TO VALUES SHOWN IN THE LAP SPLICE TABLE ON THIS SHEET.
11) MASONRY WALLS SHALL BE SOLID GROUTED UNDER ALL COLUMN BEARING POINTS AND AT THE END OF ALL BEAMS 6' AND LONGER. TWO 8" CORES SIDE BY SIDE SHALL BE SOLID GROUTED WITH 1-#5 REBAR IN EACH CORE. GROUT CORE SOLID FROM FOUNDATION TO BEARING POINT.
12) DOWEL #3X12" LONG REBAR EVERY OTHER COURSE TO TIE MASONRY TO ALL CONCRETE PIERS
13) TIE ALL MASONRY WALLS TO STEEL COLUMNS WITH ADJUSTABLE 1/4" DIAM. TIESX9" STRAPS WITH 3/16" DIAMETER TRIANGULAR TIES AT 16" O/C.
14) THE BEARING OF AT LEAST ONE END OF DOOR AND WINDOW LINTELS SHOULD BE BUILT TO SLIDE. PLASTIC OR BITUMINOUS SHEETS OR EQUAL MATERIALS SHOULD BE USED FOR A SLIP PLATE. IF STEEL BEARING PLATES ARE USED, ONE END NOT TO BE WELDED.
15) PROVIDE VERTICAL REINFORCING BARS AS CALLED FOR ON THE PLANS. PROVIDE #4 BAR AT ALL CORNERS AND AT EACH SIDE OF CONTROL JOINTS.
16) PILASTERS AND MASONRY PIERS TO BE LAID UP SIMULTANEOUSLY AND BONDED INTO ADJOINING MASONRY
17) THE TOP MASONRY COURSE OF ALL WALLS TO BE A BOND BEAM REINFORCED W/2#5 CONTINUOUS REBAR.
18) GROUT FULL MASONRY BLOCK AT ALL WINDOW AND LOUVER SILLS.
19) BEARING WALLS CORNERS SHALL BE BUILT IN RUNNING BOND. SEE TYPICAL MASONRY BOND BEAM DETAILS.
19) VERTICAL REBAR IN MASONRY TO BE HELD IN PLACE USING HOT DIPPED GALVANIZED 9 GAUGE REBAR POSITIONERS BY HOHMANN & BARNARD,INC. OR APPROVED EQUAL.
19) PROVIDE HOT-DIPPED GALVANIZED TIES BETWEEN ALL MASONRY BLOCKS AND STEEL BEAMS WEBS.

REBAR LAP SPLICE LENGTHS IN MASONRY WALLS
(f'm = 1500 PSI & Grade 60 Rebar-Rebar located at center of block)

BAR SIZE	6" CMU	8" CMU	10" CMU	12" CMU	16" CMU
#4	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
#5	2'-8"	3'-0"	3'-0"	3'-0"	3'-0"
#6	-	3'-7"	3'-4"	3'-4"	3'-4"

NOTE: SPLICE LENGTHS GREATER THAN 5'-0" (60") REQUIRE HIGH LIFT GROUTING
NOTE: VALUES IN THE TABLE ABOVE DOES NOT APPLY TO EPOXY COATED BARS WHICH MAY NEED TO BE INCREASED BY AT LEAST 50%

GENERAL STRUCTURAL NOTES

GOVERNING CODE: OHIO BUILDING CODE, OBC-2017 (BASED ON INTERNATIONAL BUILDING CODE, IBC-2015) THE INTERNATIONAL CODE COUNCIL, ICC 500-2014 (SHELTER)

PROJECT LOCATION: 1040 SOUTH WYNN ROAD, OREGON, LUCAS COUNTY, OHIO 43616

1) FOUNDATIONS ARE BASED ON A SAFE CARRYING CAPACITY OF 3,000 PSF FOR SPREAD FOOTINGS AND CONTINUOUS WALL FOOTINGS BASED ON SOIL INVESTIGATION AND REPORT BY BOWSER-MORNER DATED 4/20/2021 AFTER EXCAVATION IS COMPLETED AND BEFORE ANY FOUNDATIONS ARE CONSTRUCTED, CONTRACTOR SHALL COMPACT AND EXAMINE THE SOIL. IF THERE IS DOUBT ABOUT ITS ABILITY TO CARRY THIS AMOUNT OF LOAD HE SHALL BRING TO THE ATTENTION OF THE ENGINEER/ARCHITECT.

2) DESIGN LIVE LOADS: ROOF 20 PSF (minimum)
   MEZZANINE - 125 PSF
   STAIRS + LANDING - 100 PSF

NOTE: SEE PEMB MANUFACTURER SHOP DRAWINGS FOR THE PEMB DESIGN LOADS

3) SNOW DESIGN DATA (FOR AREAS NOT INCLUDED IN THE PEMB)
   (A) Pg =20 PSF (GROUND SNOW LOAD)
   (B) Pf (min.)=20.0 PSF (SNOW LOAD "LOW SLOPE ROOF")
   (C) Ce= 0.9 (SNOW EXPOSURE FACTOR - FULLY EXPOSED)
   (D) Ct= 1.0 (SNOW THERMAL FACTOR)
   (E) Is= 1.2 (SNOW IMPORTANCE FACTOR)
   (F) SNOW DRIFT LOADS WERE INCLUDED IN THE DESIGN (Max. Snow Drift Load , Pd = 75.95 PSF , Wd= 18.30')

4) WIND DESIGN DATA (FOR AREAS NOT INCLUDED IN THE PEMB)
   (A) WIND SPEED - Vult. = 120 MPH
   (B) BUILDING RISK CATEGORY-IV
   (C) EXPOSURE CATEGORY "C"
   (D) GCpi= +/- 0.18 (INTERNAL PRESSURE COEFFICIENT)
   (E) MAX. VELOCITY PRESSURE, qh= + 31.79 PSF
   (F) MAX. WALL COMPONENTS & CLADDING DESIGN PRESSURE:
      (AT MAIN), p = -40.70 PSF OR +37.52 PSF
      (AT CORNERS), p = -50.23 PSF OR +37.52 PSF
   (G) MAX. ROOF COMPONENTS & CLADDING DESIGN PRESSURE:
      (AT EDGES), p = -43.88 PSF OR +34.34 PSF
      (AT CORNERS), p = -43.88 PSF OR +34.34 PSF
   NOTE: (-) INDICATES WIND PRESSURE ACTING AWAY FROM THE SURFACE
   (+) INDICATES WIND PRESSURE ACTING TOWARD THE SURFACE

5) SEISMIC DESIGN DATA:
   (A) BUILDING OCCUPANCY RISK CATEGORY IV
   (B) SEISMIC IMPORTANCE FACTOR, Ie = 1.5
   (C) MAPPED SPECTRAL RESPONSE ACCELERATIONS:
      Ss (Short period)= 0.123 g
      S1 (1-Second period) = 0.054g
   (D) SPECTRAL RESPONSE COEFFICIENTS:
      Sds (Short period) = 0.098 g
      Sd1 (1-Second period) = 0.061 g
   (E) SITE CLASS "C"- BASED ON BOWSER-MORNER SOIL REPORT DATED 04/20/2021 INVESTIGATION INCLUDED SEISMIC SHEAR WAVE VELOCITY TESTING FOR THE SITE
   (F) SEISMIC DESIGN CATEGORY "A"
   (G) BASIC SEISMIC-FORCE RESISTING SYSTEM:
      -BEARING WALL SYSTEM (ORDINARY REINFORCED MASONRY SHEAR WALLS)
      - SEISMIC RESPONSE COEFFICIENT,Cs=0.084
      - RESPONSE MODIFICATION FACTOR, R=2
   (H) ANALYSIS PROCEDURE:
      -EQUIVALENT LATERAL FORCE PROCEDURE

6) THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED. IT IS THE GENERAL CONTRACTOR RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION

(TORNADO SHELTER)

GOVERNING CODE: OHIO BUILDING CODE, OBC-2017 (BASED ON INTERNATIONAL BUILDING CODE, IBC-2015) THE INTERNATIONAL CODE COUNCIL, ICC 500-2014 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI 7-2010

1) TYPE OF SHELTER : TORNADO SHELTER
2) FOUNDATIONS ARE BASED ON A SAFE CARRYING CAPACITY OF 3,000 PSF
3) SHELTER WILL BE CONSTRUCTED WITHIN AN AREA NOT SUSCEPTIBLE TO FLOODING
4) MEAN ROOF HEIGHT = 10'-2" (TOP OF MEZZ. ELEV.)
5) DESIGN LOADS:
   - ROOF LIVE LOAD = 100 PSF (W/NO REDUCTION)
   - ROOF DEAD LOAD = 87 PSF (MEZZ. FLOOR -8" PRECAST PLANKS + 2" TOPPING)
      + 6 PSF (CEILING + MEP)
      + 40 PSF (2 X HOST BUILDING ROOF ABOVE - PEMB+ MEP)
      + 40 PSF (2X ADJACENT HOST BUILDING WALL - PEMB)
      173 PSF (APPROXIMATE TOTAL DEAD LOAD)
6) WIND LOAD DESIGN DATA:
   - BUILDING RISK CATEGORY-IV
   - WIND EXPOSURE CATEGORY "C"
   - DESIGN WIND SPEED - 250 MPH
   - INTERNAL PRESSURE COEFFICIENT, GCpi= +/- 0.55 (ENCLOSED)

   MAX. WIND PRESSURE ON MAIN WIND FORCE RESISTING SYSTEM (MWFRS):
   WALL, p = +115.45 PSF OR -89.47 PSF
   ROOF, p = +115.45 PSF OR -109.10 PSF

   NOTES:
   - (+) POSITIVE PRESSURE ACT TOWARD THE BUILDING SURFACE.
   - (-) NEGATIVE PRESSURE ACT AWAY FROM THE BUILDING SURFACE.

STATE OF OHIO
VINCENT D. BUEHRER
54249
REGISTERED
PROFESSIONAL ENGINEER
SIGNATURE DATE 06/17/21

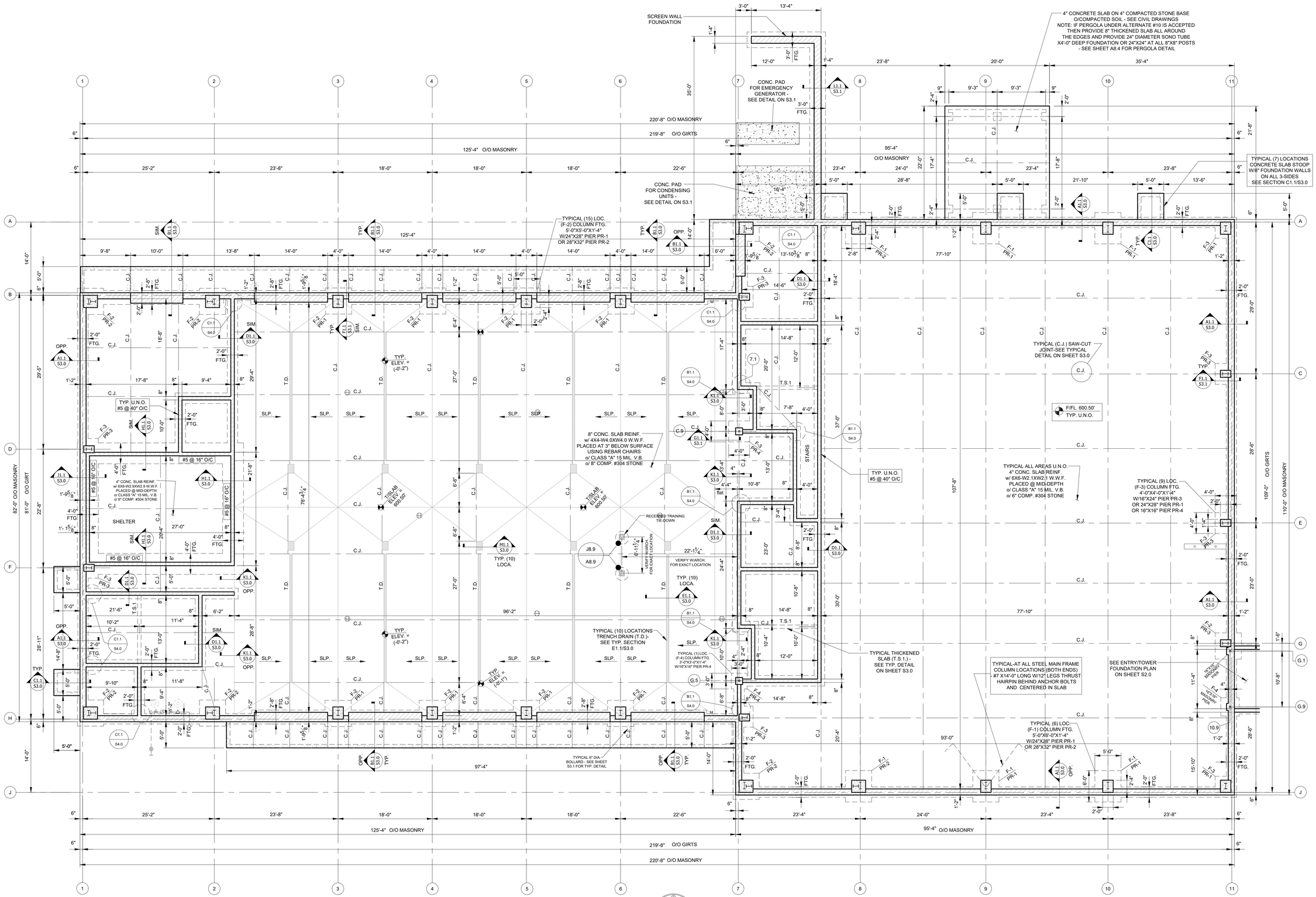
NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9027 F 419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE
1 -

ISSUE DATE: 06/17/21
JOB NUMBER: 201296
CONSTRUCTION DOCUMENTS

S1.0



LEGEND:
#X @ XX" O/C — VERTICAL REBAR & SPACING FROM FOUNDATION UP TO TOP OF WALL AT ROOF LEVEL - SEE FOUNDATION SECTIONS AND TYP. MASONRY DETAIL ON SHEET S2.1

FOUNDATION PLAN

SCALE: 1/8"=1'-0"

NORTH

NOTE: FOR COLUMN FOOTER, BASE PLATES AND PIER DETAILS SEE SHEET S3.1

STATE OF OHIO — VINCENT D. BUEHRER 54249 — REGISTERED PROFESSIONAL ENGINEER

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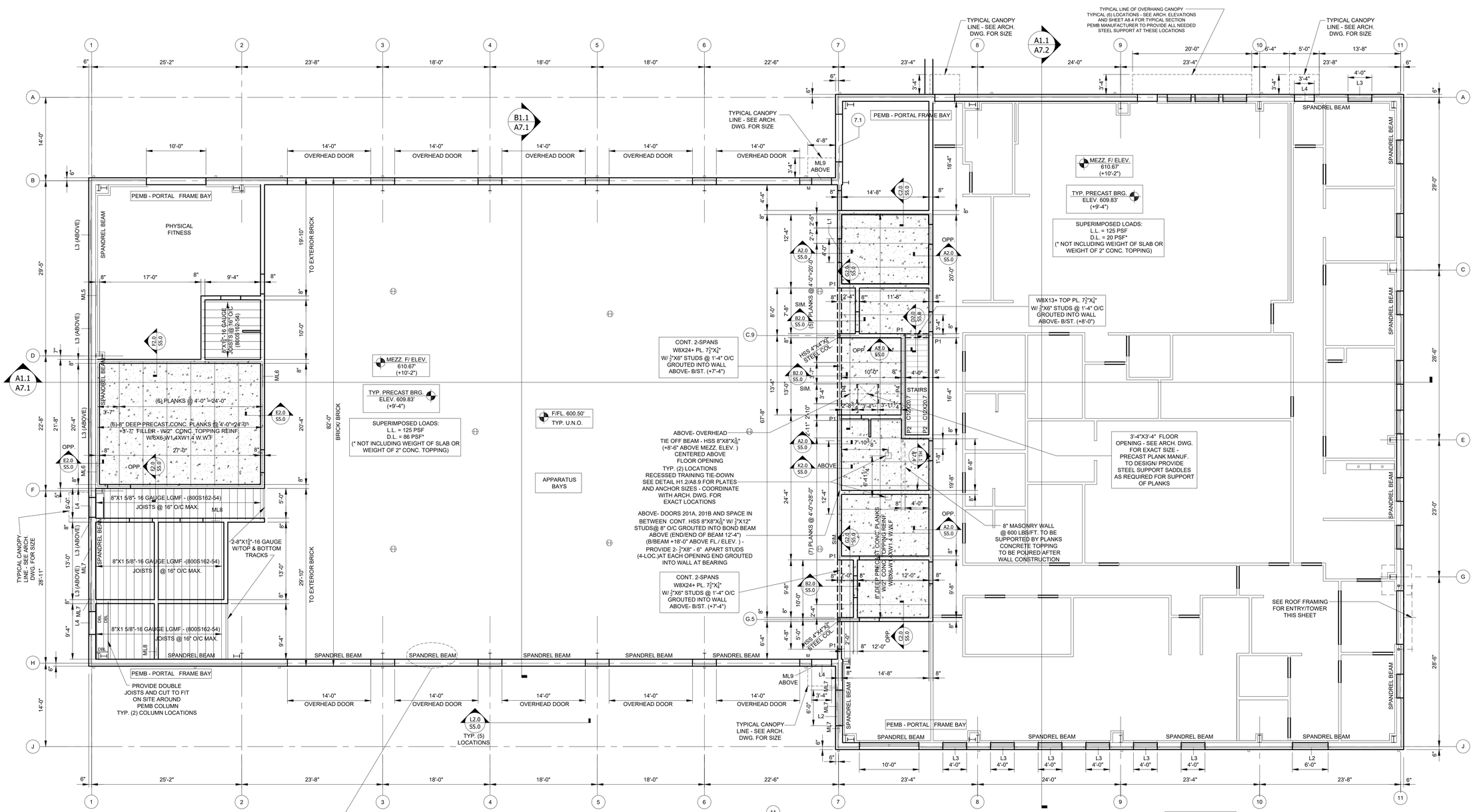
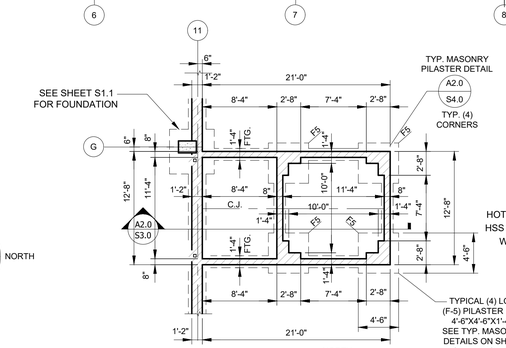


MEZZANINE AND STORM SHELTER FRAMING PLANS

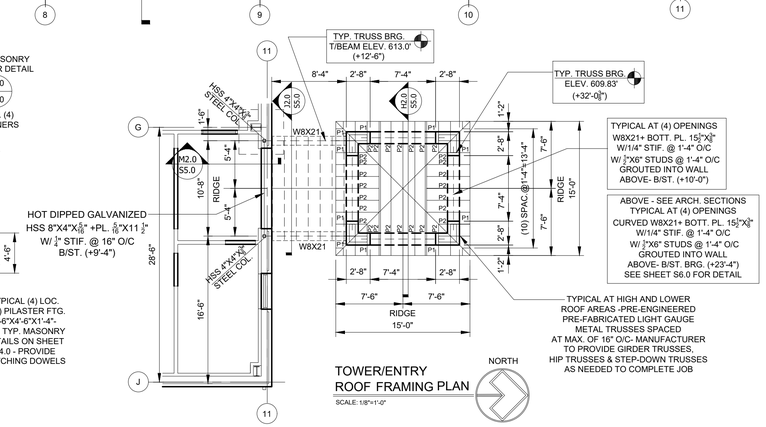
SCALE: 1/8"=1'-0"

NOTE: FOR BEARING PLATE SIZES AND LINTEL SIZED SEE SCHEDULES ON SHEET S6.0



TOWER/ENTRY FOUNDATION PLAN

SCALE: 1/8"=1'-0"



TOWER/ENTRY ROOF FRAMING PLAN

SCALE: 1/8"=1'-0"

STATE OF OHIO
KENT D. BUEHRER
54249
REGISTERED
PROFESSIONAL ENGINEER

SIGNATURE DATE 06/17/21

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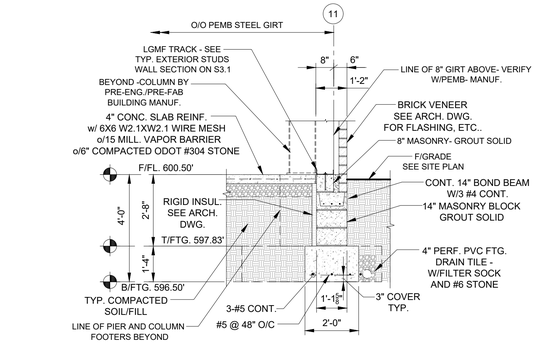
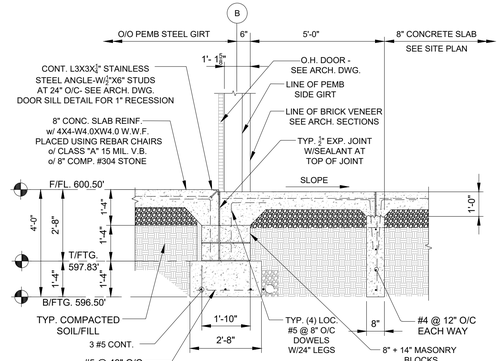
CONSTRUCTION DOCUMENTS

S2.0



A1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



B1.1 / S3.0 SECTION
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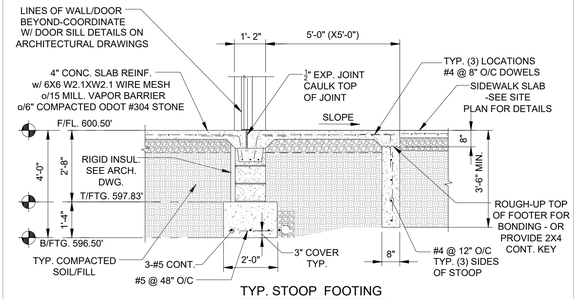
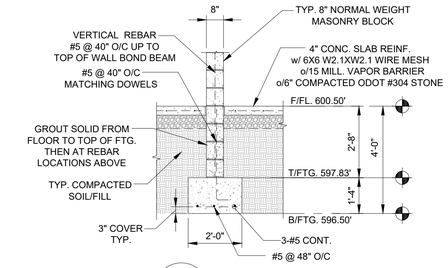
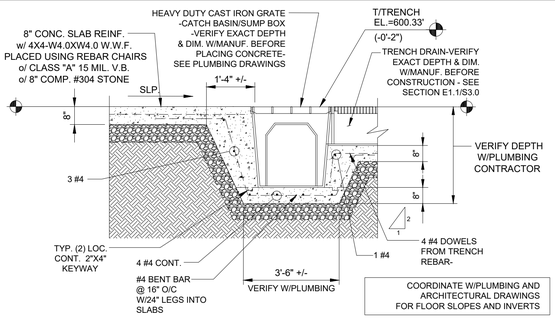


TYP. STOOP FOOTING

C1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"

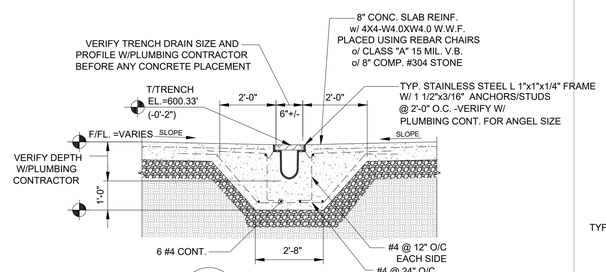


D1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"

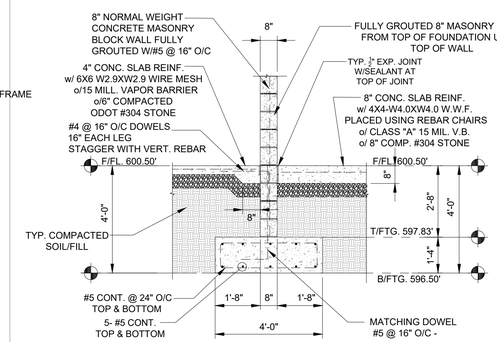


TYP. CATCH BASIN/TRENCH DRAIN

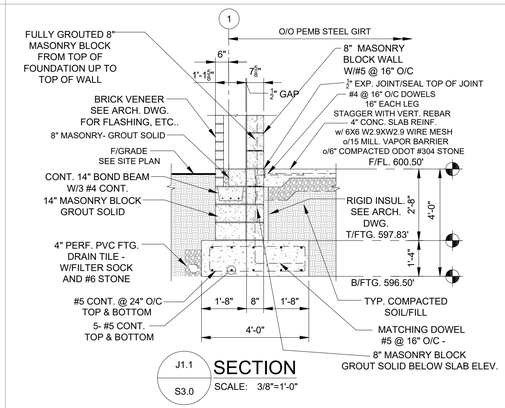
M1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



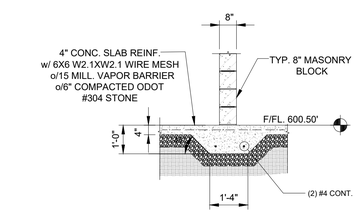
E1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



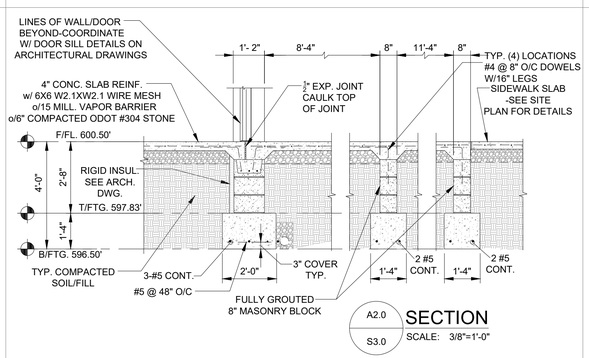
H1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



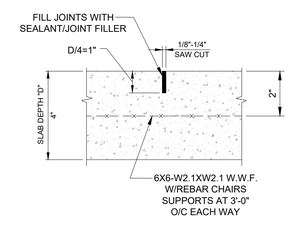
J1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



TYP. THICKENED SLAB (T.S.1)
SCALE: NONE

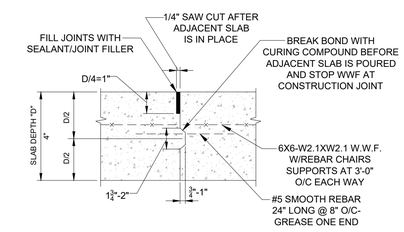


A2.0 / S3.0 SECTION
SCALE: 3/8"=1'-0"



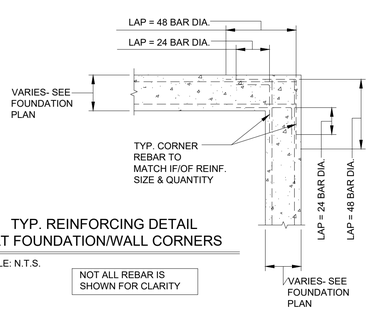
TYP. 4" CONC. SLAB CONTROL JOINT
N.T.S.

SAW CUT JOINT WITHIN 12 HOURS OF CONCRETE SETTING UP



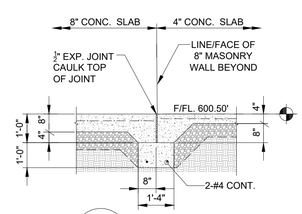
TYP. 4" CONC. SLAB CONSTRUCTION JOINT
N.T.S.

USE BETWEEN CONCRETE POURS AS REQUIRED

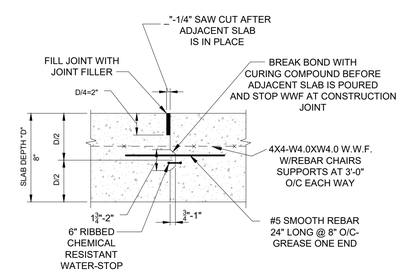


TYP. REINFORCING DETAIL AT FOUNDATION/WALL CORNERS
SCALE: N.T.S.

NOT ALL REBAR IS SHOWN FOR CLARITY

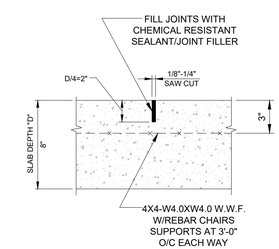


K1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



TYP. (8") SLAB CONSTRUCTION JOINT
N.T.S.

USE BETWEEN CONCRETE POURS AS REQUIRED



TYP. (8") CONC. SLAB "SAW-CUT" CONTROL JOINT
N.T.S.

SAW CUT JOINT WITHIN 12 HOURS OF CONCRETE SETTING UP

STATE OF OHIO
VINCENT D. BUEHRER
54249
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9027 | F 419.893.9027 | BUEHRERGROUP.COM

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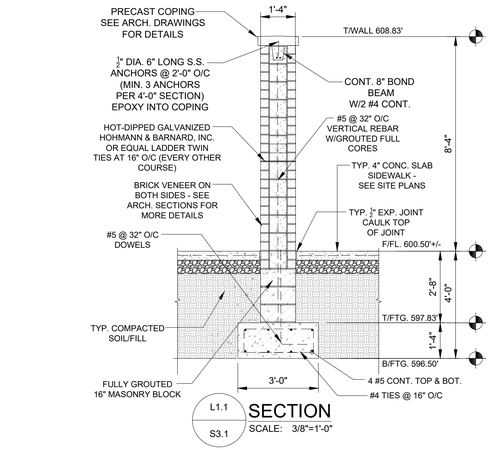
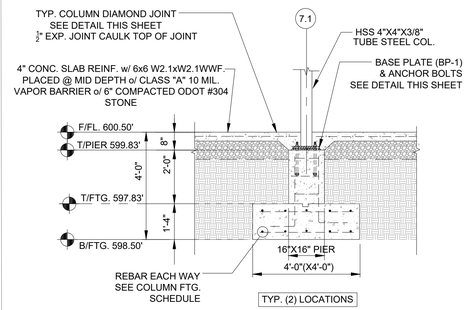
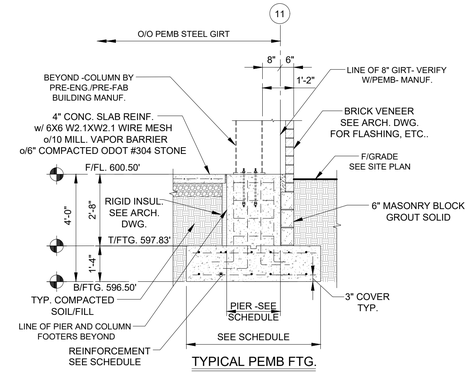
S3.0



L1.1 / S3.1 SECTION
SCALE: 3/8"=1'-0"



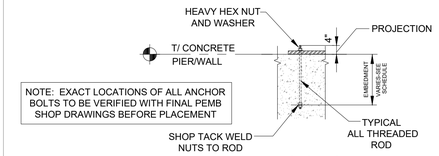
G1.1 / S3.1 SECTION
SCALE: 3/8"=1'-0"



TYPICAL PEMB FTG.

F1.1 / S3.1 SECTION
SCALE: 3/8"=1'-0"

NOTE: SECTION IS SIMILAR WITH 8" CONC. SLAB



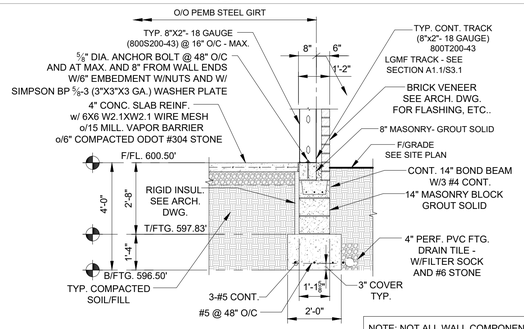
NOTE: EXACT LOCATIONS OF ALL ANCHOR BOLTS TO BE VERIFIED WITH FINAL PEMB SHOP DRAWINGS BEFORE PLACEMENT

TYP. ANCHOR BOLT DETAIL
SCALE: N.T.S.

ANCHOR BOLT SCHEDULE

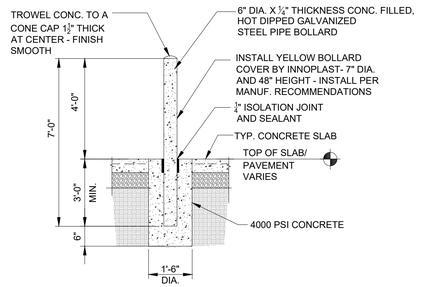
SIZE	EMBED. LENGTH	PROJECTION	TOTAL LENGTH
5/8"	9"	4" FROM BOTTOM OF BASE PLATE	12"
3/4"	13"	4" FROM BOTTOM OF BASE PLATE	20"
1"	15"	4" FROM BOTTOM OF BASE PLATE	22"

-ALL ANCHOR BOLTS TO MEET OR EXCEED ASTM F1554 GRADE A36
-ALL ANCHOR BOLTS TO HAVE HEAVY HEX NUTS & WASHERS
-ALL ANCHOR BOLTS, NUTS, WASHERS TO BE HOT DIPPED GALVANIZED
- ALL ANCHOR BOLTS SHALL BE SET USING A TEMPLATE WITH 1/8" TOLERANCE IN ANY DIRECTION MATCHING SPACING SHOWN ON THE BASE PLATE DETAILS OF THE PRE-ENGINEERED METAL BUILDING DRAWINGS



TYPICAL EXTERIOR LGMF STUDS WALL SECTION
SCALE: 3/8"=1'-0"

NOTE: NOT ALL WALL COMPONENTS ARE SHOWN FOR CLARITY - SEE ARCHITECTURAL SECTIONS FOR MORE DETAILS



TYPICAL 6" BOLLARD DETAIL
SCALE: N.T.S.

NOTE: SEE SITE PLANS, FLOOR PLANS, FOUNDATION PLANS FOR LOCATIONS AND NUMBER OF BOLLARDS NEEDED- G.C. TO SUPPLY AND INSTALL ANY REQUIRED BOLLARD THAT MAY NOT BE SHOWN ON PLANS TO COMPLETE JOB

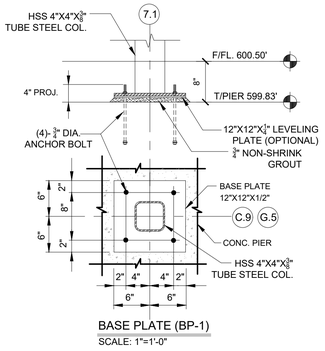
COLUMN FOOTING SCHEDULE

MARK	QUANTITY	SIZE AxBxT	REINFORCING	BOTTOM ELEVATION
F1	6	5'-0"X6'-0"X1'-4"	6#5 EACH WAY TOP & BOTTOM	596.50' (-4'-0")
F2	15	5'-0"X5'-0"X1'-4"	6#5 EACH WAY TOP & BOTTOM	596.50' (-4'-0")
F3	9	4'-0"X4'-0"X1'-4"	5#5 EACH WAY TOP & BOTTOM	96.0' (-4'-0")
F4	2	3'-0"X3'-0"X1'-4"	4#5 EACH WAY TOP & BOTTOM	96.0' (-4'-0")
F5	4	4'-6"X4'-6"X1'-4"	5#5 EACH WAY TOP & BOTTOM	96.0' (-4'-0")

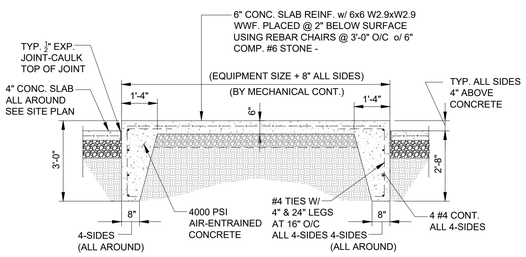
PIER SCHEDULE

MARK	QUANTITY	SIZE axb	MAIN REINFORCING	TIES	TOP ELEVATION
PR-1	14	24"X28"	14 #5	#4@8" O.C.	600.50' (-0'-0")
PR-2	8	28"X32"	16 #5	#4@8" O.C.	600.50' (-0'-0")
PR-3	7	16"X24"	10 #5	#4@8" O.C.	600.50' (-0'-0")
PR-4	2	16"X16"	8 #5	#4@8" O.C.	599.83' (-0'-8")

NOTE: GENERAL CONTRACTOR TO SUBMIT FINAL COLUMN REACTIONS FROM PEMB MANUFACTURER TO EOR BEFORE INSTALLING ANY COLUMN FOOTERS OR PIERS TO INSURE CORRECT SIZES

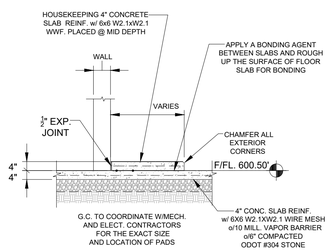


BASE PLATE (BP-1)
SCALE: 1"=1'-0"

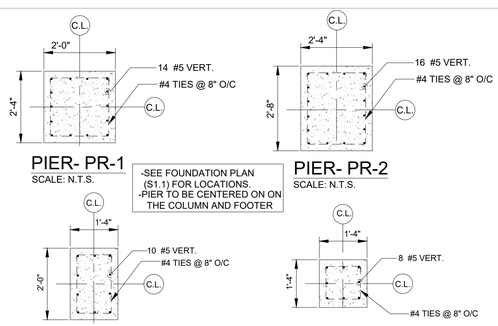


EXTERIOR MECHANICAL UNIT
CONCRETE SUPPORT PAD (ONE PAD FOR ALL 6 CD UNITS)
SCALE: 3/8"=1'-0"

COORDINATE WITH ELECTRICAL AND MECHANICAL DRAWINGS FOR EQUIPMENT SIZE AND EXACT LOCATION BEFORE PLACING ANY CONCRETE



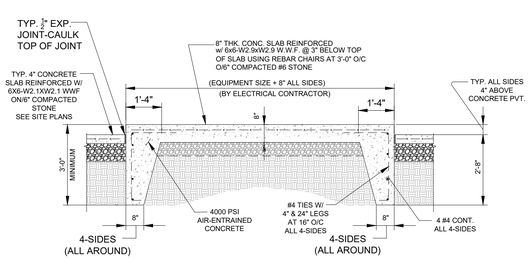
TYPICAL INTERIOR HOUSEKEEPING CONCRETE PAD DETAIL
SCALE: N.T.S.



BASE PLATE SCHEDULE

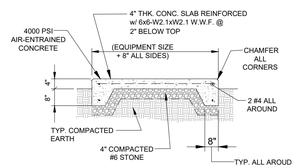
MARK	COLUMN SIZE	BASE PLATE SIZE	QUANTITY	ANCHOR BOLT SIZE	LEVELING PLATE
BP-1	HSS 4"X4"X3/8"	12"X12"X1/2"	4	4- 3/4" DIA.X12"	12"x12"x1/4"

NOTE: SEE SHEET S4.0 FOR MASONRY PIERS

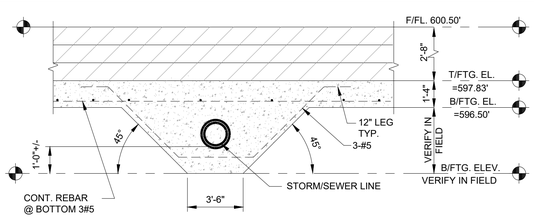


EMERGENCY GENERATOR
CONCRETE SUPPORT PAD
SCALE: 3/8"=1'-0"

COORDINATE WITH ELECTRICAL DRAWINGS FOR EQUIPMENT SIZE AND EXACT LOCATION BEFORE PLACING ANY CONCRETE- SEE ELECTRICAL SITE PLAN



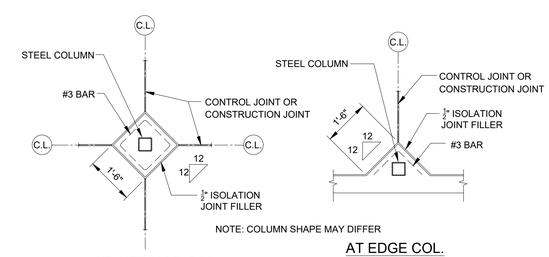
TYP. MISC. EXTERIOR CONCRETE
EQUIP. SUPPORT PAD
SCALE: N.T.S.
(VERIFY SIZES, LOCATIONS WITH MECHANICAL & ELECTRICAL CONTRACTORS)



TYPICAL WALL FTG. @ STORM OR SEWER LINES
SCALE: 3/8"=1'-0"

NOTE: IF PIPE INVERT ELEVATIONS ABOVE THE TOP OF FTG. THEN G.C. TO PROVIDE AND INSTALL SLEEVE AND/OR LINTEL ABOVE PIPE.

NOTE: G.C. TO PROVIDE AND INSTALL SLEEVES THRU WALLS FOR ALL UNDERGROUND PIPES. SLEEVES TO HAVE AN I.D. OF A MIN. OF 3" LARGER THAN THE SIZE OF PIPE-SEAL SPACE WITH FOAM, CAULK OR GASKET- COORDINATE WITH PLUMBING AND SITE DRAWINGS



TYP. SAW CUT/JOINT @ COLUMNS
SCALE: NONE

STATE OF OHIO
BRENT D. BUEHRER
54249
REGISTERED
PROFESSIONAL ENGINEER
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

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314 CONANT ST., MAUMEE, OH 43537 | P:419.893.9027 F:419.893.9027 | BUEHRERGROUP.COM

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ISSUE DATE: 06/17/21
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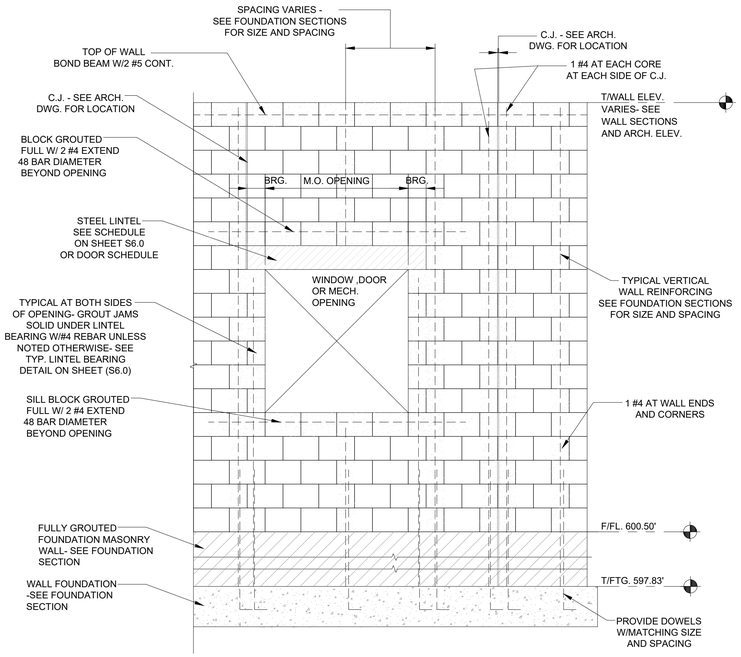
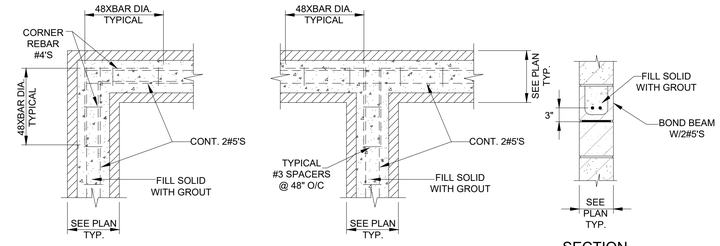
S3.1



TYPICAL MASONRY WALL REONFORCING ELEVATION

SCALE: N.T.S

NOTE: HORIZONTAL WALL REINFORCING NOT SHOWN FOR CLARITY



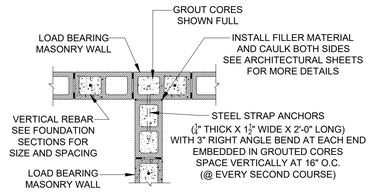
PLAN @ CORNER

PLAN @ INTERSECTION

SECTION

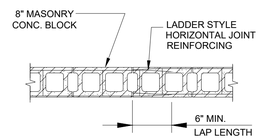
TYPICAL BOND BEAM REINFORCING DETAILS

SCALE: N.T.S.



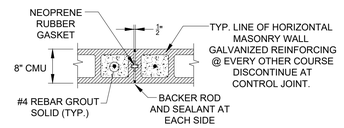
LOAD BEARING WALL TO LOAD BEARING WALL TYPICAL CONNECTION DETAIL

SCALE: N.T.S.



HORIZONTAL JOINT REINFORCING DETAIL

SCALE: N.T.S.

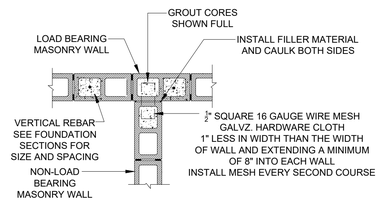


MASONRY WALL CONTROL JOINT DETAIL

CJ

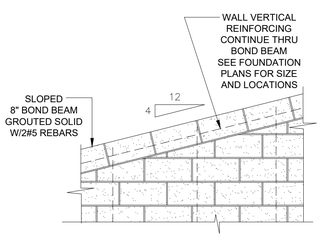
SCALE: N.T.S.

SEE ARCHITECTURAL ELEVATIONS FOR CONTROL JOINT LOCATIONS



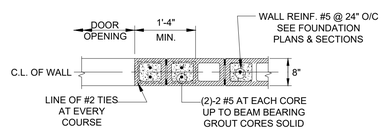
LOAD BEARING WALL TO NON-LOAD BEARING WALL TYPICAL CONNECTION DETAIL

SCALEL: N.T.S.



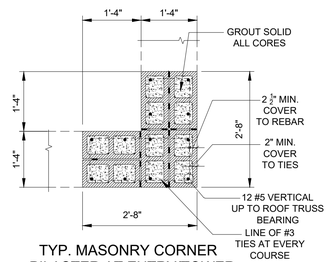
TYPICAL GABLED WALL BOND BEAM DETAIL AT APPARATUS/MEZZ.

SCALE: N.T.S.



TYP. MASONRY REINF. AT SHELTER DOOR OPENINGS

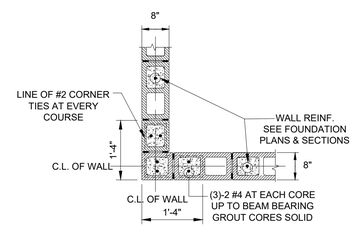
SCALE: N.T.S.



TYP. MASONRY CORNER PILASTER AT ENTRY/TOWER

SCALE: N.T.S.

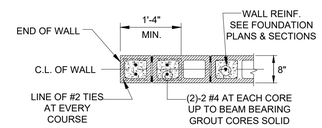
A2.0 / S4.0 DETAIL SCALE: N.T.S.



TYP. REINF. AT BEAM ENDS CORNER MASONRY PILASTER

SCALE: N.T.S.

B1.1 / S4.0 DETAIL SCALE: N.T.S.

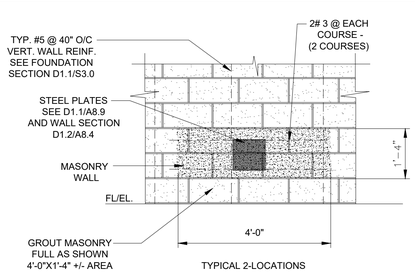


TYP. MASONRY REINF. AT BEAM BEARING / MASONRY PILASTER

SCALE: N.T.S.

NOTE; OPPOSITE END OF OPENING IS SIMILAR OR MASONRY PIER (MPR-1 OR MPR-2)

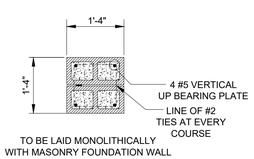
C1.1 / S4.0 DETAIL SCALE: N.T.S.



MASONRY WALL REINF. AT LADDER TIE OFF

SCALE: N.T.S.

SEE PLATE DETAIL ON D1.1/A8.9



TYP. MASONRY PIER AT COLUMNS G.1/10.9 & G.9/10.9

SCALE: N.T.S.

SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION FOR OREGON FIRE DEPARTMENT 1040 S. WYNN ROAD

OREGON, OHIO

BUEHRERGROUP architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9027 | F 419.893.9021 | BUEHRERGROUP.COM

REVISION SCHEDULE

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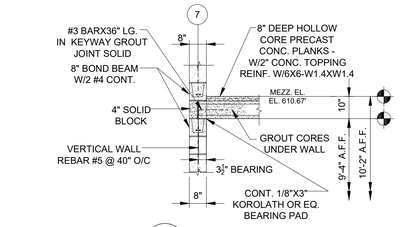
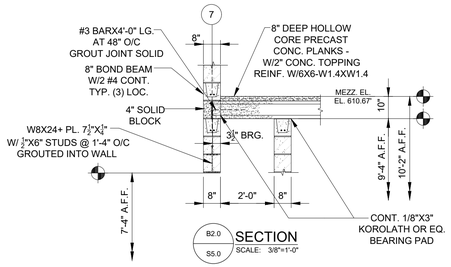
CONSTRUCTION DOCUMENTS

S4.0



A2.0 / S5.0 SECTION
SCALE: 3/8"=1'-0"



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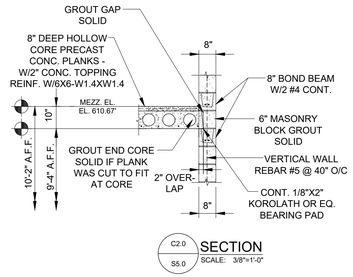

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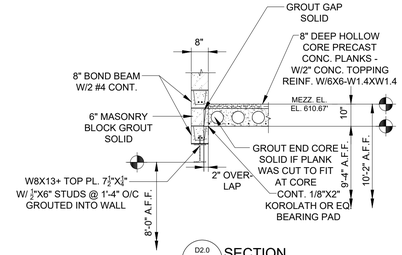

D2.0 / S5.0 SECTION
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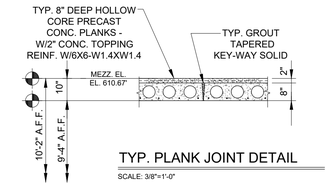

TYP. PLANK JOINT DETAIL
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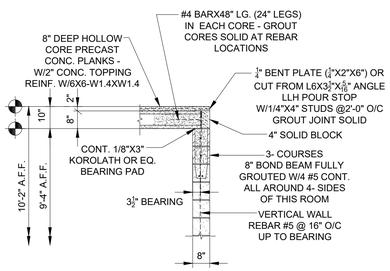

E2.0 / S5.0 SECTION
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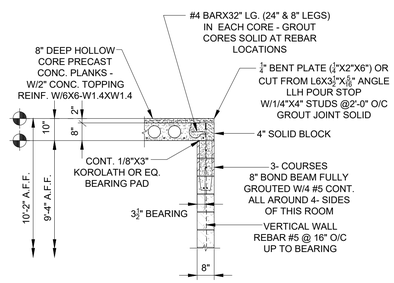

F2.0 / S5.0 SECTION
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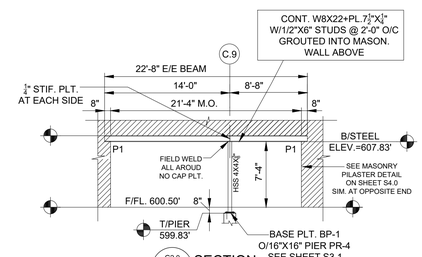

G2.0 / S5.0 SECTION
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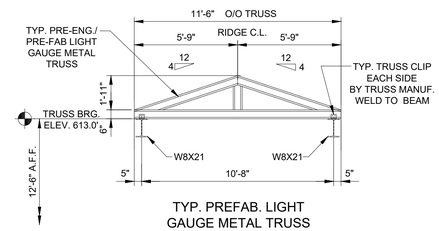
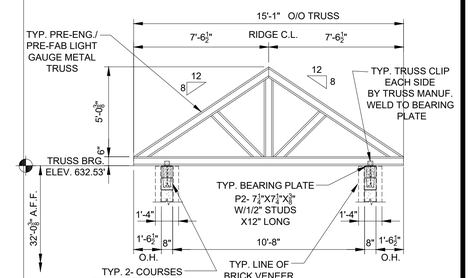


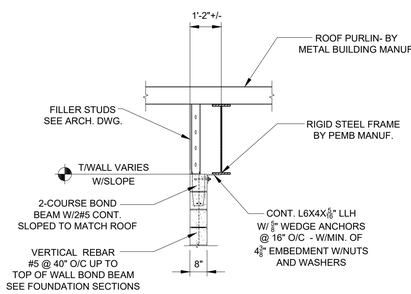
TYP. PREFAB. LIGHT GAUGE METAL TRUSS

J2.0 / S5.0 SECTION
SCALE: 1/4"=1'-0"



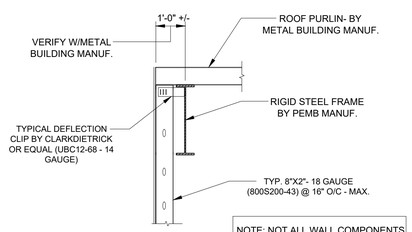
TYP. PREFAB. LIGHT GAUGE METAL TRUSS

H2.0 / S5.0 SECTION
SCALE: 1/4"=1'-0"



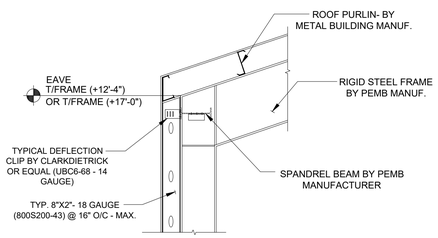
TYPICAL SECTION
SCALE: 1/4"=1'-0"

NOTE: NOT ALL WALL COMPONENTS ARE SHOWN FOR CLARITY - SEE ARCH. SECTIONS AND ROOF DETAILS FOR MORE INFO



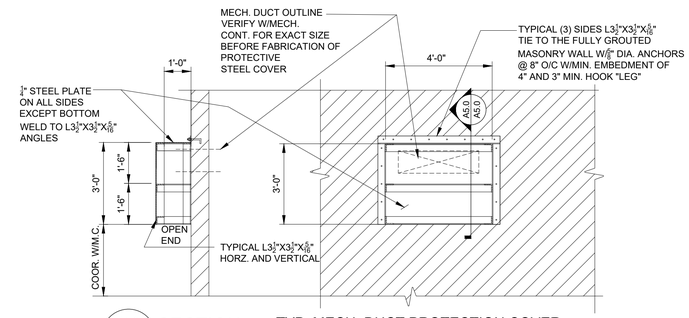
TYP. SUPPORT AT TOP OF LGMF STUD WALL
SCALE : N.T.S.

NOTE: NOT ALL WALL COMPONENTS ARE SHOWN FOR CLARITY - SEE ARCH. SECTIONS AND ROOF DETAILS FOR MORE INFO



TYP. SUPPORT AT TOP OF LGMF STUD WALL AT SPANDREL BEAM
SCALE : N.T.S.

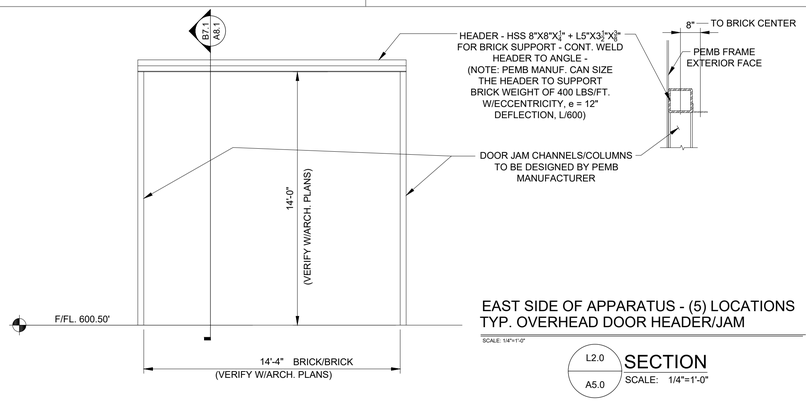
NOTE: NOT ALL WALL COMPONENTS ARE SHOWN FOR CLARITY - SEE ARCH. SECTIONS AND ROOF DETAILS FOR MORE INFO



A5.0 / A5.0 SECTION
SCALE: 3/8"=1'-0"

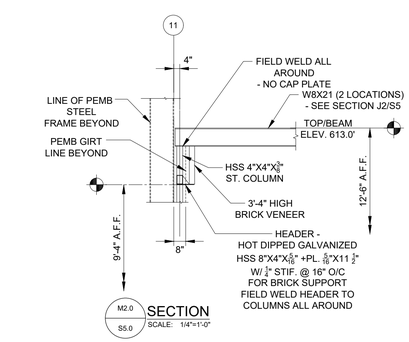
TYP. MECH. DUCT PROTECTION COVER
SCALE: 3/8"=1'-0"

TYPICAL (2) LOC. - SEE MECH. DWG. FOR LOCACTION



EAST SIDE OF APPARATUS - (5) LOCATIONS
TYP. OVERHEAD DOOR HEADER/JAM
SCALE: 1/4"=1'-0"

L2.0 / A5.0 SECTION
SCALE: 1/4"=1'-0"



M2.0 / S5.0 SECTION
SCALE: 1/4"=1'-0"

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FOR
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OREGON, OHIO

STATE OF OHIO
KENT D. BUEHRER
54249
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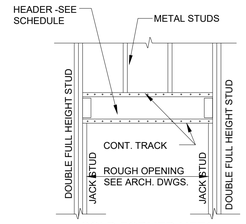
COLD-FORMED METAL HEADER SCHEDULE

MARK	OPENING	QUANTITY	TYPE	GAUGE	WALL STUD THICKNESS	JAMB STUDS		SECTION	LOCATION
						JACK	FULL-HT.		
MISC. OPENINGS DOORS WINDOWS IN NON-LOAD BEARING WALLS	UP TO 5'-4"	SEE FLOOR PLAN	(2)-4"x1 5/8"+TOP/BOT TRACKS (2-800S162-43)	18 GA.	4", 6", 8"	SINGLE	SINGLE		SEE DOOR SCHEDULE AND FLOOR PLANS
	5'-6" TO 7'-4"	SEE FLOOR PLAN	(2)-10"x1 5/8"+TOP/BOT TRACKS (2-1000S162-43)	18 GA.	4", 6", 8"	SINGLE	SINGLE		SEE DOOR SCHEDULE AND FLOOR PLANS
	7'-6" TO 10'-0"	SEE FLOOR PLAN	(2)-12"x1 5/8"+TOP/BOT TRACKS (2-1200S162-43)	18 GA.	4", 6", 8"	DOUBLE	SINGLE		SEE DOOR SCHEDULE AND FLOOR PLANS
	NOTE : TOP AND BOTTOM TRACK TO MATCH WALL THICKNESS AND GAUGE								

NOTES: 1. COORDINATE WITH DOOR AND WINDOW ELEVATIONS FOR EXACT SIZE OF OPENINGS.
2. COORDINATE WITH TYPICAL COLD FORMED WALL DETAILS FOR BRACING AND CONSTRUCTION
3. ALL HEADER TRACKS AND STUDS MUST SPAN THE ENTIRE OPENING WITH OUT ANY SLPICES



COLD-FORMED METAL TYPICAL FRAMED OPENING

N.T.S.

JAMB/COLUMN STUDS TO BE SAME AS WALL STUDS SIZES AND GAUGE

CFMF - MEMBER LEGEND

1000S162-54

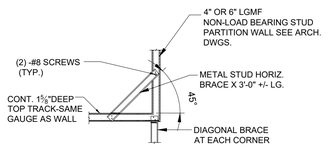
- THICKNESS MILLS (16 GAUGE)
- FLANGE WIDTH IN INCHES (1 5/8")
- MEMBER TYPE - S=STUDS, T=TRACK
- MEMBER DEPTH IN INCHES- 1000=10", 600=6", 800=8"

CONVERSION CHART MILS TO GAUGE	
MILS	GAUGE
33	20 GA.
43	18 GA.
54	16 GA.
68	14 GA.
97	12 GA.

NOTE: QUANTITIES OF WINDOW & MISC. LINTELS, MECH. LINTELS AND BEARING PLATES ARE GIVEN AS AN AID TO THE CONTRACTOR.
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE QUANTITIES FOR BIDDING AND CONSTRUCTION. AND TO SUPPLY AND INSTALL NEEDED MISC. STEEL TO COMPLETE JOB

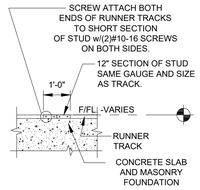
BEARING PLATE SCHEDULE

MARK	SIZE	QUANTITY	STUDS SIZE	LEVELING PLATE	NOTES
P1	6 1/2"X8"X3/8"	15	1/2" ANCHORS	NONE	SLOTTED FOR (2)-1/2" DIA. ANCHOR BOLTS - EMBED A MIN. OF 8"
P2	7 1/4"X7 1/4"X3/8"	30	2-(1/2" DIA.)X12"	NONE	
P3	7 1/2"X12"X3/8"	8	1/2" ANCHORS	NONE	SLOTTED FOR (2)-1/2" DIA. ANCHOR BOLTS - EMBED A MIN. OF 8"
P4	16"X6"X3/8"	2	2-(1/2" DIA.)X12"	NONE	FOR TIE-OFF BEAM ABOVE MEZZ.



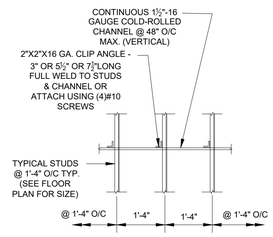
PLAN- PARTITION WALL TYPICAL DIAGONAL BRACE

N.T.S.



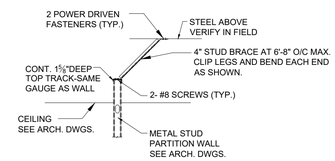
TYPICAL BOTTOM TRACK SPLICE

N.T.S.



TYPICAL STUD WALL LATERAL BRIDGING

N.T.S.



PARTITION WALL TYPICAL DIAGONAL BRACE

N.T.S.

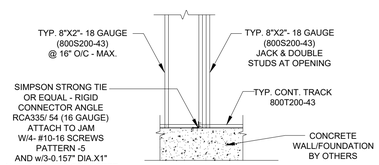
WINDOW, MECH. AND MISC. LINTEL SCHEDULE

MARK	TYPE	MASONRY OPENING	BEARING LENGTH	TOTAL LENGTH	QUANTITY	WALL THICKNESS	LOCATION	CONFIGURATION
L1	(2)-L4"X3"X¼" LLV	4'-0"	8"	5'-4"	1	8"	WINDOW IN DUTY OFFICE 124	
L2	HOT-DIPPED GALVANIZED (1)-L6"X3"X¼" LLV	6'-0"	8"	7'-4"	2	4"	WINDOW IN EAST WALL & RM. 135	
L3	HOT-DIPPED GALVANIZED (1)-L4"X3"X¼" LLV	4'-0"	8"	5'-4"	12	4"	WINDOWS IN EAST & SOUTH WALLS & RM.113	
L4	HOT-DIPPED GALVANIZED (1)-L4"X3"X¼" LLV	3'-4"	8"	4'-8"	4	4"	EXTERIOR DOORS 114A 143M, 148A, 148A	
ML5	HOT-DIPPED GALVANIZED (1)-L4"X3"X¼" LLV	2'-0"	8"	3'-4"	1	4"	MECHANICAL LOUVER IN SOUTH WALL	
ML6	(2)-L4"X3"X¼" LLV	3'-0"	8"	4'-4"	2	8	MECHANICAL OPENINGS IN STORAGE 150	
ML7	HOT-DIPPED GALVANIZED (1)-L4"X3"X¼" LLV	1'-0"	6"	2'-0"	5	4"	BRICK VENTS IN SOUTH WALL RM. 149, 147,135	
ML8	(2)-L4"X3"X¼" LLV	1'-4"	8"	2'-8"	2	8	MECHANICAL TA IN RM. 149 & 146	
ML9	HOT-DIPPED GALVANIZED (1)-L4"X3"X¼" LLV	3'-0"	8"	4'-4"	4	4"	MECHANICAL LOUVER IN EASTWEST WALLS	

LINTELS NOTES:

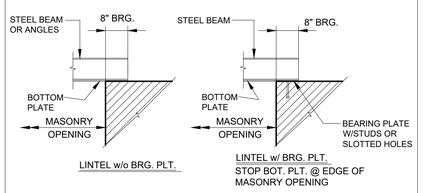
1) G.C. TO SUPPLY AND INSTALL ANY MISC. LINTEL NOT SHOWN IN THE SCHEDULES ABOVE TO COMPLETE JOB.
2) LINTELS w/(*) TO HAVE 1/2" DIA. X8" STUDS @ 2'-0" O/C WELDED TO TOP OF BEAM AND GROUTED INTO MASONRY WALL ABOVE
3) ALL LINTELS EXPOSED TO WEATHER TO BE HOT DIPPED GALVANIZED
4) ALL BEAMS TO BE CENTERED ON THE MASONRY BLOCK WALLS THEY ARE SUPPORTING
5) SEE DOOR SCHEDULE ON SHEET (A10.1) FOR INTERIOR DOOR LINTELS

NOTE: FOR MISC. STEEL LINTELS NOT SHOWN IN THE SCHEDULES ABOVE- USE (1) L3½"X3½"X5/16" FOR EVERY 4" OF WALL THICKNESS OF UP TO 4'-0" WIDE OPENINGS. PROVIDE A MIN. OF 6" BEARING AT EACH END. ALL EXTERIOR LINTELS TO BE HOT-DIPPED GALVANIZED



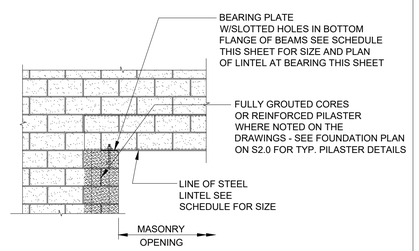
EXTERIOR DOORS TYPICAL BASE OF JAM DETAIL

N.T.S.



TYPICAL BEAM LINTEL DETAILS

SCALE: N.T.S.



TYPICAL LINTEL BEARING DETAIL

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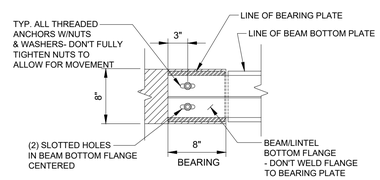
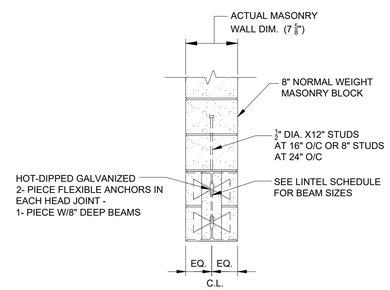


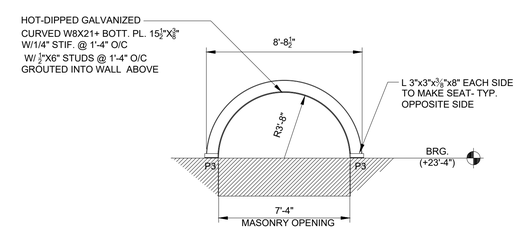
TYP. PLAN OF LINTEL/BEARING BEARING PLATE ON 8" MASONRY

SCALE: NONE



TYPICAL LINTEL DETAILS

SCALE: N.T.S.



TOWER-ENTRY CURVED BEAM DETAIL

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

TYPICAL (4) LOCATIONS

STATE OF OHIO
KENT D. BUEHRER
54249
REGISTERED
PROFESSIONAL ENGINEER

SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
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1040 S. WYNN ROAD
OREGON, OHIO

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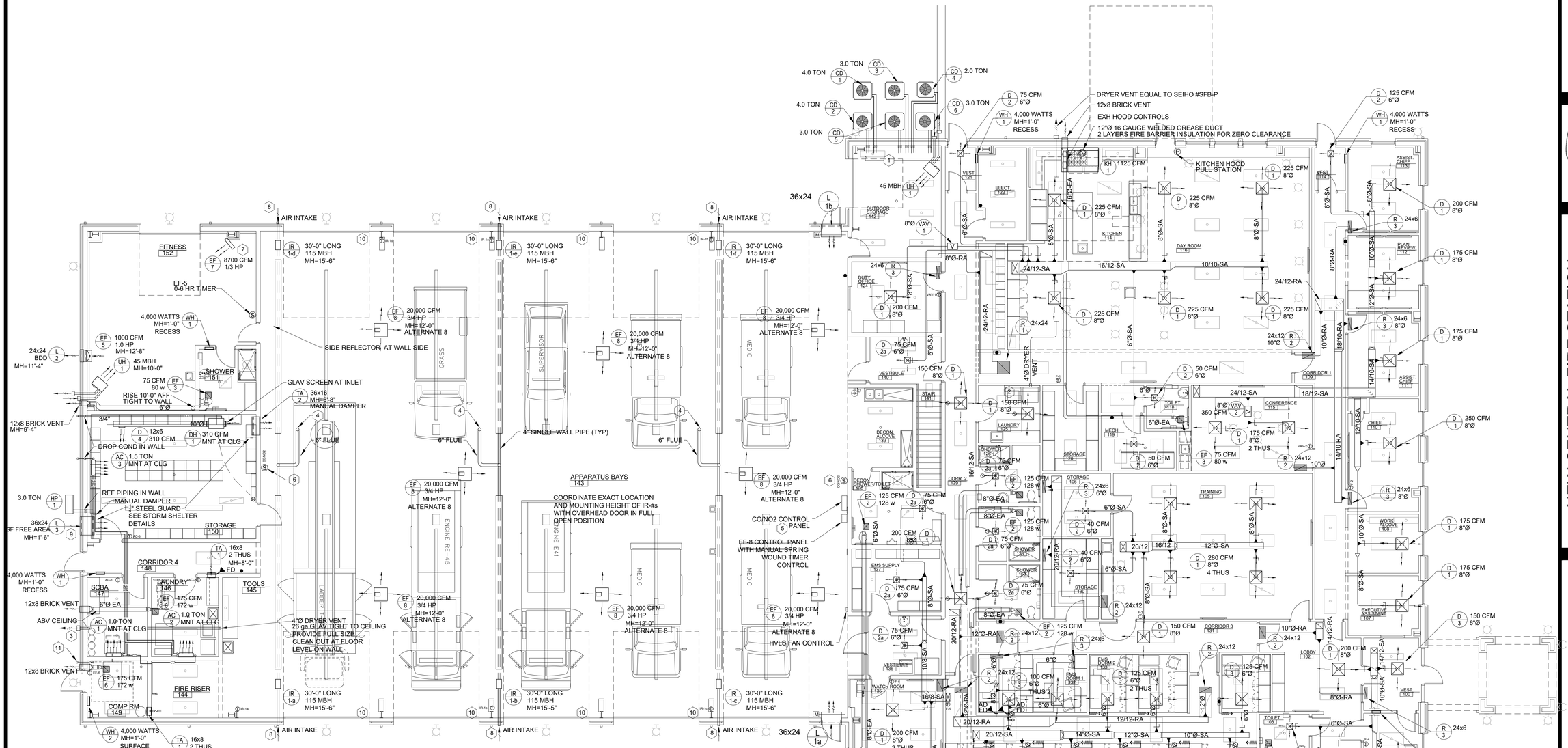

KEYED NOTES

1. ROUTE REFRIGERANT PIPING THRU WALL. SEAL WEATHER TIGHT. RISE ON INSIDE WALL AND INSTALL ALUM JACKET FROM FLOOR TO CEILING TO PROTECT PIPING. ROUTE TO RESPECTIVE UNIT. VERIFY ALL REFRIGERANT PIPE SIZE WITH MNF.
2. 4" OVAL DRYER VENT IN WALL WITH 4" Ø INLET AT WALL. COORDINATE M.H. WITH OWNER PURCHASED EQUIPMENT. VENT MATERIAL SHALL BE 4" ALUMINUM MIN 26 GAUGE. SEAL AND TAPE WITH METALLIC TAPE. NO FASTENERS PERMITTED. DUCT SHALL BE SUPPORTED AT 4'-0" INTERVALS WITH 1"X22 GA METAL STRAPS SECURED TO STRUCTURE ABOVE. DO NOT PENETRATE DUCT WITH FASTENERS.INSTALL PERMANENT STENCILED SIGN STATING "DRYER VENT TOTAL EQUIVALENT LENGTH 65 FEET INCLUDING 5 FEET EQUIVALENT LENGTH FOR ELBOWS.. INSTALL DRYER RATED FOR LONG VENT SYSTEM ONLY". PROVIDE FULL SIZE CLEAN OUT AT FLOOR LEVEL ON WALL.
3. TERMINATE WITH EQUAL TO 4"Ø ALUMINUM DRYER VENT EQUAL TO SEIHO MODEL SFB-P. VENT MATERIAL SHALL BE 4" ALUMINUM MIN 26 GAUGE. SEAL AND TAPE WITH METALLIC TAPE. NO FASTENERS PERMITTED. DUCT SHALL BE SUPPORTED AT 4'-0" INTERVALS WITH 1"x22 ga METAL STRAPS SECURED TO STRUCTURE ABOVE. DO NOT PENETRATE DUCT WITH FASTENERS. TOTAL EQUIVALENT LENGTH 35 FEET INCLUDING 5 FEET EQUIVALENT LENGTH FOR ELBOWS.
4. 6" Ø SINGLE WALL VENT PIPE UP THRU ROOF WITH THIMBLE THRU ROOF. TERMINATE 2'-0" ABOVE ROOF WITH 8" VENT CAP.
5. ENERGIZE EF-4 WITH CO/NO2 DETECTION ALARM. OPEN L-1a & L-1b DAMPER WITH EF-4 OPERATION. INSTALL ADDITIONAL CONTROLS/CONTACTS ADJACENT TO CONTROL BOX FOR SIMPLE MANUAL OPERATION OF EF-4.
6. MOUNT CO/N02 SENSORS IN STRICT ACCORDANCE WITH MNF INSTRUCTIONS. INSTALL CONDUIT IN WALL.
7. MOUNT CIRCULATION 45 LB FAN ON WALL WITH STEEL AS REQUIRED. COORDINATE WITH OWNER FOR EXACT LOCATION.
8. AIR INTAKES EQUAL TO SEIHO MODEL SFX-S 4" Ø STAINLESS STEEL. COORDINATE WITH DOWNSPOUTS.
9. EQUAL TO GREENHECK MODEL ESDE-635-50. STATIONARY DRAINABLE BLADE EXTRUDED ALUMINUM LOUVER DESIGNED TO PROTECT AIR INTAKE AND EXHAUST OPENINGS IN BUILDING EXTERIOR WALLS. ESD-635DE IS TESTED IN ACCORDANCE WITH AMCA 500-L AIR PERFORMANCE AND WATER PENETRATION. ESD-635DE IS TESTED IN ACCORDANCE WITH AMCA 540 TEST METHOD FOR LOUVERS IMPACTED BY WIND BORNE DEBRIS (BASIC PROTECTION, MISSILE LEVEL D).
10. TRACK MOUNT SWITCH SUPPLIED WITH EF-8 SYSTEM TO ENERGIZE EF-8. ALTERNATE #8
11. 3" SOLDERED COPPER PIPING W/GOOSE NECK AND SS SCREEN COVER TO 2'-0" ABV GRADE. ROUTE TO COMPRESSOR WITH 2" CONNECTION. INSTALL TEE WITH 2" LONG DIRT LEG AND DRAIN VALVE.

MECHANICAL
FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"

NORTH

STATE OF OHIO
CHRISTOPHER J. GAFFNEY
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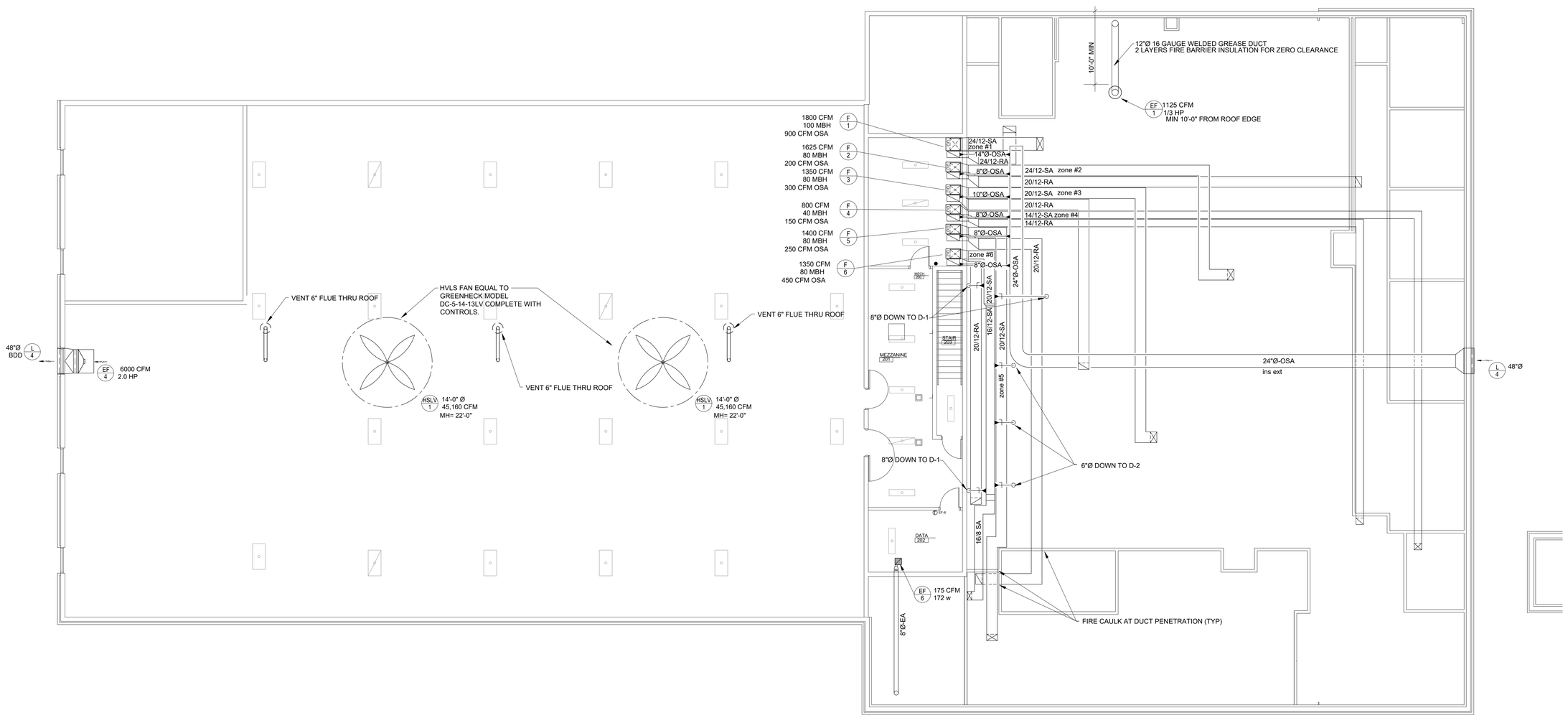
M1.1



MECHANICAL
SECOND FLOOR PLAN

SCALE: 1/8"=1'-0"

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PROFESSIONAL ENGINEER
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P 419.893.9021 F 419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE

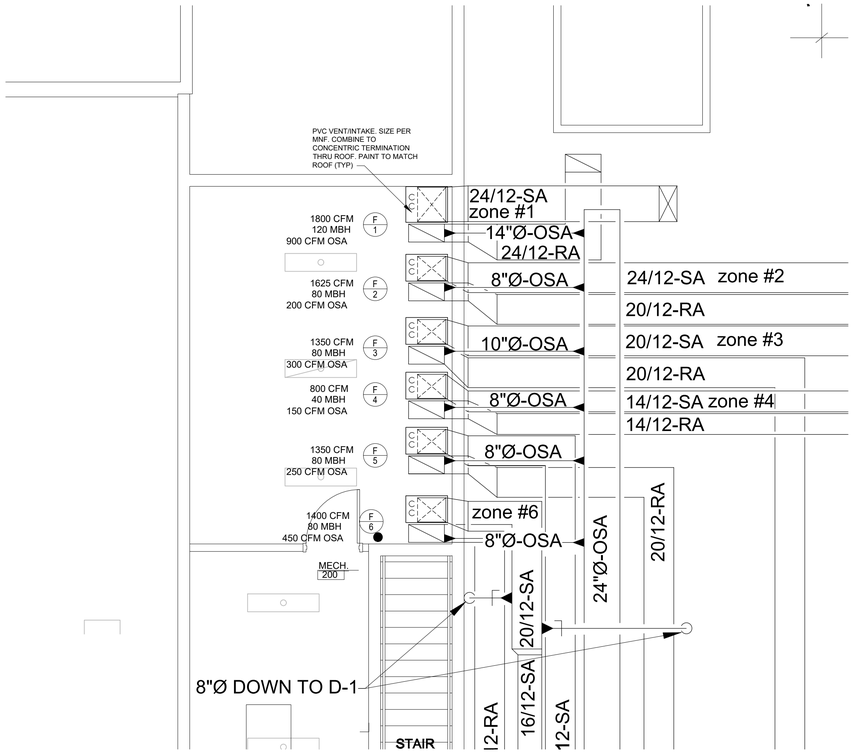
1	-

ISSUE DATE: 06/17/21

JOB NUMBER: 201296

CONSTRUCTION DOCUMENTS

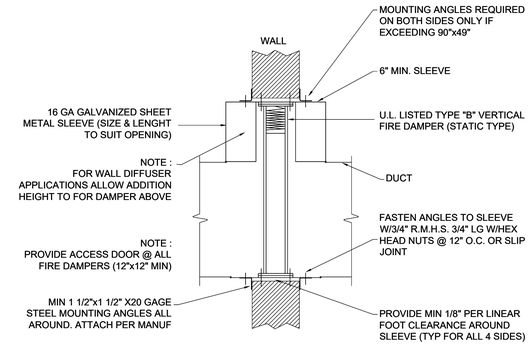
M1.2



MECHANICAL ROOM SECOND FLOOR PLAN

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

NORTH



TYPE "B" VERTICAL FIRE DAMPER DETAIL

NO SCALE

FIRE DAMPER NOTES:

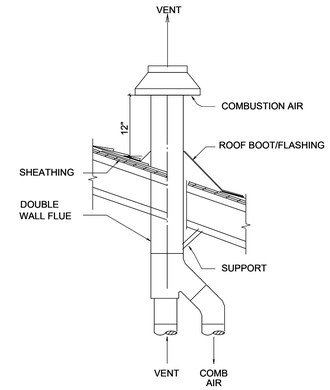
1.) FRAME, BLADES, AND COLLAR SHALL BE GALVANIZED STEEL CONSTRUCTION. COLLAR SHALL BE Min. EQUAL TO GAGE OF SHEET METAL CONNECTED TO IT

2.) FOLLOW MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLATION OF TYPE-"B" EXTERNAL CURTAIN FIRE DAMPERS and/or TYPE-"A" INTERNAL CURTAIN FIRE DAMPERS.

3.) DO NOT SEAL AROUND RETAINING ANGLES w FIRESTOP CAULKS and/or PUTTYS. DO NOT FILL ANNULAR SPACE (EXPANSION VOID) w FIRESTOP MATERIAL.

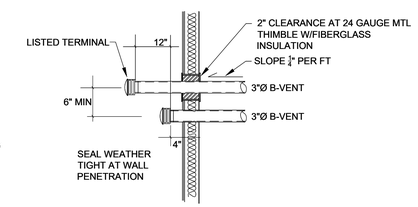
4.) HORIZONTAL INSTALLATION SIMILAR, c/w STAINLESS STEEL CLOSURE SPRING.

5.) SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.



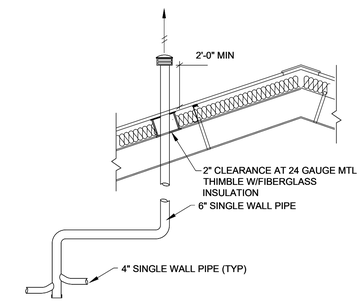
CONCENTRIC VENT THRU ROOF DETAIL

NO SCALE



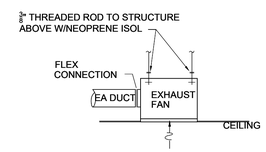
UH FLUE DETAIL

NTS



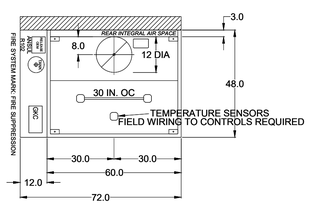
RADIANT TUBE COMMON VERTICAL VENT DETAIL

NO SCALE



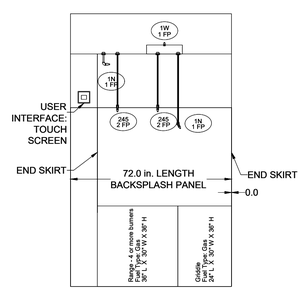
TYPICAL EXHAUST FAN DETAIL

NO SCALE

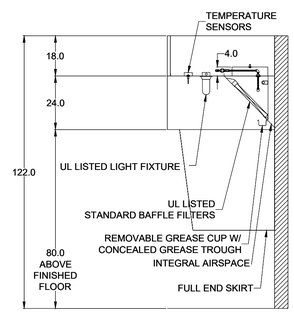


KITCHEN HOOD PLAN

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



ELEVATION VIEW



SECTION VIEW

KITCHEN HOOD ELEVATION

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

HOOD INFORMATION

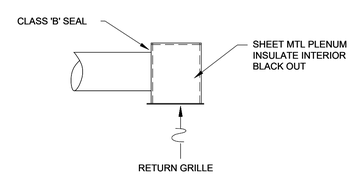
HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.) LENGTH	WIDTH	HEIGHT	HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST TOTAL CFM	COLLAR(S) WIDTH	LENGTH	DIA.	CFM	S.P.	SUPPLY MUA CFM	AC CFM	TOTAL WEIGHT LBS.	SECTION LOCATION
1	HOOD	GHEW-60-S	60	48	24	430 SS WHERE EXPOSED	HEAVY	1125			16	1125	0.211			175	SINGLE

HOOD INFORMATION

HOOD NO.	MARK	LIGHTING DETAILS FIXTURE TYPE BULB / LAMP INFO	QTY	FOOT CANDLES	GREASE FILTRATION DETAILS TYPE / MODEL MATERIAL	QTY	SIZE (IN.) L	H	UTILITY CABINET(S) LOCATION	FIRE SYSTEM TYPE	SIZE	CONTROLS MODEL	INTERFACE
1	HOOD	INCANDESCENT (GLOBE) 100W A19 (BULBS NOT INCL.)	2	39.52	BAFFLE STAINLESS STEEL	0	16	20	LEFT	ANSUL R102	3	GKC	TOUCHSCREEN
						3	20						

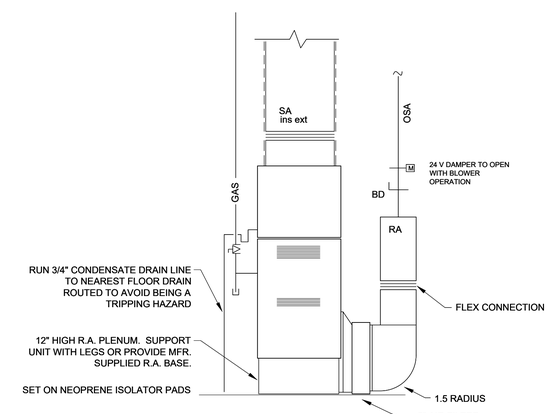
HOOD OPTIONS

UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #MH11726
BACK INTEGRAL AIR SPACE - 3 IN WIDE
18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLAR(S)
LEFT FULL END SKIRT - 45 IN HIGH 42.50 IN TOP WIDTH 36.5 IN BOTTOM WIDTH
RIGHT FULL END SKIRT - 45 IN HIGH 42.50 IN TOP WIDTH 36.5 IN BOTTOM WIDTH
BACKSPLASH 80.00 IN HIGH 72.00 IN LONG
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



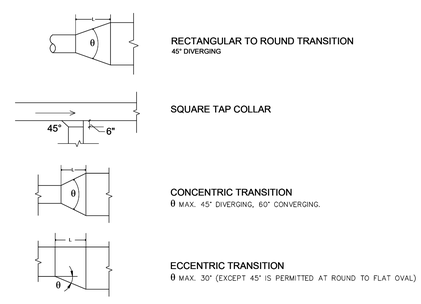
RETURN AIR GRILLE DETAIL

NO SCALE



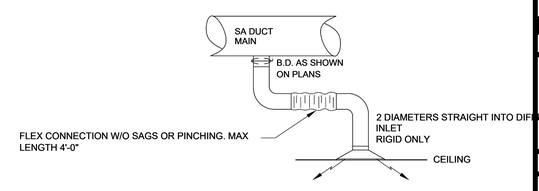
FURNACE DETAIL

NO SCALE



DUCT TRANSITIONS & CONNECTIONS

NO SCALE



TYPICAL DIFFUSER CONNECTION

NO SCALE

STATE OF OHIO
CHRISTOPHER J. GAFFNEY
68646
REGISTERED
PROFESSIONAL ENGINEER
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ELECTRIC WALL HEATER SCHEDULE

MARK NO.	BTU	WATTS	AMPS	ELECT.	TYPE	DESCRIPTION Q-MARK	COMMENTS
WH-1	13,650	4,000	19.5	208-1P	WALL	SSHO4008	2" SEMI RECESSED
WH-2	13,650	4,000	19.5	208-1P	WALL	SSHO4008	SURFACE

- BUILT-IN ELECTRONIC DIGITAL LCD TOUCH SCREEN DISPLAY
- EQUAL BY MARKEL OR WARREN

RADIANT HEATERS

MARK NO.	ROBERTS GORDON MODEL	MBH MIN/MAX	REFLECTOR	ELECT.	AMPS	TUBE LENGTH	WEIGHT LBS	ACCESSORIES
IR-1a-f	CTH3-115 MODULATING	75/115	HIGH EFFICIENCY	115-1Ø	1.3 A	31 FT	167 lbs	AIR INLET/OUTLET HIGH EFF REFLECTOR PROGRAMMABLE T-STAT WITH PASSWORD

- HANG ON CHAIN AS RECOMMENDED BY MANUFACTURER
- PROVIDE INSULATED BASE FOR ALL THERMOSTATS
- PROVIDE SIDE REFLECTOR AT IR-1d
- EQUAL BY DETROIT RADIANT, SOLARONICS OR REZNOR

DIFFUSER, LOUVER & GRILLE SCHEDULE

MARK NO.	MAX CFM	STATIC PRESS. (IN H 2O)	DAMP.	NECK SIZE	AIR PATTERN	FINISH	THROW (FT)	N.C.	DESCRIPTION PRICE	COMMENTS
D-1	300	.12	-	8"Ø	4-WAY	WHT	12-20	25	SMD 24x24 face	INSULATE BACK OF PAN LOUVERED FACE
D-2	150	.09	-	6"Ø	4-WAY		4-10	20	SMD 12x12 face	INSULATE BACK OF PAN
D-2a	150	.09	VOL	6"Ø	4-WAY		4-10	20	SMD 12x12 face	INSULATE BACK OF PAN PLASTER FRAME
D-3	150	.12	-	6"Ø	4-WAY		8-18	25	SMD 24x24 face	INSULATE BACK OF PAN LOUVERED FACE
D-4	310	.05	-	12x6	ADJ		14-26	25	620	ALUMINUM DUCT MOUNT
R-1	2000	.03	-	24x24	-	WHT	-	25	80-TSF	EGG CRATE
R-2	1000	.03	-	24x12	-		-	25	80-TSF	EGG CRATE
R-3	450	.03	-	24x6	-		-	25	80-TSF	EGG CRATE
L-1	3000	.17	-	36x24		STANDARD	-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
L-2	1000	.05	-	24x24			-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
L-3	-	-	MANUAL	36x24			-	-	GREENHECK ESDE-635-50	MANUAL INSULATED DAMPER
L-4	6000	.10	-	48"Ø			-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
TA-1	200	.05	-	16x8	-	WHT	-	20	535	WITH 1 1/2 HR FIRE DAMPER
TA-2	-	-	-	36x16	-	WHT	-	-	535	-

- THROWS ARE SHOWN FROM 150 fpm TO 50 fpm

FAN SCHEDULE

MARK NO.	CFM	S.P. (IN H2O)	HP	ELECT.	DAMPER	DESCRIPTION GREENHECK	INLET SONES	COMMENTS
EF-1	1125	0.75	1/3	208-3Ø	-	CUBE-100-3	10.7	W/SLOPED ROOF CURB KITCHEN HOOD EXHAUST
EF-2	125	.250	128w	115-1Ø	BDD	SP-B150	3.5	12x8 BRICK VENT W/BDD
EF-3	75	.250	80w	115-1Ø	BDD	SP-B110	1.5	12x8 BRICK VENT W/BDD
EF-4	6000	.250	2.0	208-3Ø	BDD	AER-E30C-1225-VG	1.0	DIRECT DRIVE VARI-GREENE GUARD & WALL HOUSING
EF-5	1000	.125	1.0	115-1Ø	BDD	AER-E30C-605-VG	4.7	DIRECT DRIVE VARIGREENE GUARD & WALL HOUSING 0-6 HR TIMER
EF-6	175	.250	172w	115-1Ø	BDD	SP-B200	4.5	12x8 BRICK VENT W/BDD (2) THERMOSTATS
EF-7	8700	0	1/3	115-1Ø	-	30" AIR KING 3 SPEED	-	WALL MOUNT KIT, OSCILLATING 45 LBS
EF-8	20,000	0	3/4	115-1Ø	-	AIRVAC 911	-	WALL MOUNT CONTROL PANEL MANUAL OPERATION EQUAL BY MAGNEGRIP ALTERNATE 8

- EQUAL BY ACME, PENN OR COOK

HVLS FAN SCHEDULE

MARK NO.	SIZE	CFM	HP	ELECT.	DESCRIPTION GREENHECK	WEIGHT LBS	COMMENTS
HVLS-1	14'-0"	45,160	175 w	115-1Ø	DC-5-14-13LV	122	6'-0" DROP LENGTH, DISCONNECT, MILL FINISH-FLAT BLACK FINISH PER OWNER TOUCH SCREEN CONTROLLER

- EQUAL BY BIG ASS FAN OR SKY BLADE

UNIT HEATER SCHEDULE

MARK NO.	MBH IN	MBH OUT	EFF	CFM	HP	ELECT.	MCA	FLUE	COMB	WEIGHT	DESCRIPTION MODINE	COMMENTS
UH-1	45	36.9	83%	725	1/15	115-1Ø	-	3"	3"	60 LBS	HDS-45	POWER VENTED, SEPARATED COMBUSTION THERMOSTAT PROPANE

- EQUAL BY TRANE OR REZNORE

MINIMUM OUTSIDE AIR CALCULATIONS
ASHRAE STD. 62.1-2010 COMPLIANCE
MULTIPLE ZONE SYSTEM W/O ZONE LEVEL RECIRCULATION

ZONE	F-1	F-2	F-3	F-4	F-5	F-6
OCCUPANCY CATEGORY	OFFICE BREAK RM	OFFICE SPACE	MULTI-PURPOSE ASSEMBLY	OFFICE SPACE	BARRACKS SLEEPING AREA	OFFICE SPACE
SUPPLY AIR VOLUME	1800 CFM	1625 CFM	1350 CFM	800 CFM	1400 CFM	1350 CFM
PEOPLE OUTDOOR AIR RATE (CFM/PERSON) (Rp)	5.0 CFM	5.0 CFM	7.5 CFM	5.0 CFM	5.0 CFM	5.0 CFM
AREA OUTDOOR AIR RATE (CFM/SQ. FT.) (Ra)	0.12	0.06	0.06	0.06	0.06	0.06
AREA (SQ. FT.) (Az)	2000 SF	970 SF	800 SF	850 SF	1275 SF	290 SF
CALCULATED OCCUPANCY (NUMBER OF PEOPLE) (Pz)	10 PPL	10 PPL	20 PPL	4 PPL	11 PPL	3 PPL
ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez)	0.8	0.8	0.8	0.8	0.8	0.8
PEOPLE OUTDOOR AIR (Rp x Ap)	50 CFM	75 CFM	180 CFM	20 CFM	55 CFM	15 CFM
AREA OUTDOOR AIR (Ra x Az)	240 SF	77 CFM	48 CFM	51 CFM	77 CFM	77 CFM
BREATHING ZONE OUTDOOR AIR (Ra+Az)	290 SF	152 CFM	228 CFM	71 CFM	132 CFM	92 CFM
ZONE OUTDOOR AIR FLOW (Voz)	363 CFM	189 CFM	285 CFM	89 CFM	164 CFM	114 CFM
DESIGN OUTDOOR AIR FLOW	900 CFM	200 CFM	300 CFM	150 CFM	250 CFM	450 CFM

AIR BALANCE SCHEDULE

SERVING ZONE	SA CFM	ZONE EXH CFM	MIN OSA CFM	ZONE PRESSURE
F-1	1800	1200	900	NEG
F-2	1625	0	200	POS
F-3	1350	0	300	POS
F-4	800	325	150	NEG
F-5	1400	0	250	POS
F-6	1350	500	450	NEG
TOTAL	8325	2025	2250	POS

- ALL EXHAUST FANS RUNNING

DEHUMIDIFIER SCHEDULE

MARK NO.	CFM	ESP	INLET/OUTLET SIZE	DESCRIPTION (APRILAIRE)	VOLT	AMPS	COMMENTS
DH-1	310	0.2	10"Ø	1870	120-1Ø	8.3	PLUG AND CORD 130 PINT/DAY

FURNACE SCHEDULE

MARK NO.	F-1	F-2	F-3	F-4	F-5	F-6
TYPE	UP FLOW	UP FLOW	UP FLOW	UP FLOW	UP FLOW	UP FLOW
MODEL	S9X2C120U5PSB	S9X1B080U4PSB	S9X1B080U4PSB	S9V2B040UPSBA	S9X1B080U4PSB	S9X1B080U4PSB
FUEL	NAT GAS	NAT GAS	NAT GAS	NAT GAS	NAT GAS	NAT GAS
MFG	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
APROX WEIGHT	215 LBS	188 LBS	188 LBS	154 LBS	188 LBS	188 LBS
FAN PERFORMANCE						
TYPE	ECM	ECM	ECM	ECM	ECM	ECM
CFM@0.5 wg	1800 CFM	1625 CFM	1350 CFM	800 CFM	1400 CFM	1350 CFM
E.S.P.	0.50	0.50	0.50	0.50	0.50	0.50
MOTOR H.P.	1.0 HP	1.0 HP	3/4 HP	1/2	3/4 HP	3/4 HP
VOLTAGE	115-1Ø	115-1Ø	115-1Ø	115-1Ø	115-1Ø	115-1Ø
FLA	14.4 AMPS	14.4 AMPS	10.3 AMPS	9.3 AMPS	10.3 AMPS	10.3 AMPS
COOLING COILS						
TONS	4.0	4.0	3.0	2.0	3.0	3.0
COIL	MATCH TO CD	MATCH TO CD	MATCH TO CD	MATCH TO CD	MATCH TO CD	MATCH TO CD
HEAT EXCHANGER STAINLESS STEEL	MODULATING					
AFUE	96.0%	96.0%	96.0%	95.0%	96.0%	96.0%
FLUE/INTAKE	3"Ø	3"Ø	3"Ø	3"Ø	3"Ø	3"Ø
TEMP RISE	55°F	51°F	51°F	45°F	51°F	51°F
INPUT MBH	120 MBH	80 MBH	80 MBH	40 MBH	80 MBH	80 MBH
OUTPUT MBH	107 MBH	75 MBH	75 MBH	38 MBH	75 MBH	75 MBH
MISC.						
FILTERS	TRANE PERF FIT 5" MERV 8					
FLUE /INTAKE	CONCENTRIC					
THERMOSTAT	TOUCH SCREEN 4H/2C DEHUMID					
MIN OSA	AS NOTED AT TAG					

- WITH HUMIDITY SENSOR
- SET ON RIBBED OR WAFFLED NEOPRENE PAD
- EQUAL BY DAKIN, LENNOX or YORK

AIR COOLED CONDENSING UNIT SCHEDULE (TRANE)

MARK	MODEL	STAGES	SEER	TONS	ELECT.	MCA	FUSE	OPERATING WEIGHT
CD-1	4TTR7048	2	17.5	4.0	208-1Ø	28 AMPS	45 AMPS	308 LBS
CD-2	4TTR7048	2	17.0	4.0	208-1Ø	28 AMPS	45 AMPS	308 LBS
CD-3	4TTA7036	2	17.0	3.0	208-1Ø	24 AMPS	35 AMPS	283 LBS
CD-4	4TTR6024	2	17.0	2.0	208-1Ø	14 AMPS	25 AMPS	190 LBS
CD-5	4TTR7036	2	17.0	3.0	208-3Ø	15 AMPS	25 AMPS	283 LBS
CD-6	4TTR6024	2	17.0	3.0	208-3Ø	24 AMPS	35 AMPS	283 LBS

- SUPPLY W/ RUBBER ISOLATOR KIT & ANTI SHORT CYCLE TIMER
- EQUAL BY DAKIN or YORK

VAV BOX SCHEDULE

MARK NO.	CFM	DISCH NC LEVEL	INLET SIZE	DESCRIPTION (TRANE)	CLG CFM	HTG CFM	MIN CFM	COMMENTS
VAV-1	200	15	8"Ø	VCCF	100%	50%	30%	24 V THERMOSTAT
VAV-2	350	15	8"Ø		100%	50%	30%	24 V THERMOSTAT

- PROVIDE UNIT-MOUNTED CONTROL POWER TRANSFORMER AND DISCONNECT
- EQUAL BY ETI , ENVIRO-TEC OR KRUEGER

HEAT PUMP VRV SCHEDULE

MARK NO.	CLG MBH	HTG MBH	CFM	ELECT	POWER MCA	POWER MOP	SEER / HSPF	DESCRIPTION DAIKIN	REMARKS
AC-1	12.0	14.7	290/180	208-1Ø	0.4 A	15 A	-	FXAQ-12PVJU	WALL CASSETTE
AC-2	12.0	14.7	290/180		0.4 A	15 A	-	FXAQ-12PVJU	WALL CASSETTE
AC-3	18.0	20.0	500/400		0.5 A	15 A	-	FXAQ-18VJU	WALL CASSETTE
HP-1	38.0	43.0	-		23.9 A	25 A	17.7/12.2	RXLQ96TAYDU	SET ON 4" SNOW LEGS

- HARD WIRED T-STAT
- CONDENSATE PUMP
- LOW AMBIENT OPERATION (wind baffel)
- PIPE COVER SYSTEM
- REFRIGERANT PIPE SIZE PER MANUFACTURER
- HEATING: INDOOR: 70°F DB/60°F WB: OUTDOOR: 2°F DB/1°F WB
- COOLING: INDOOR: 80°F DB/67°F WB: OUTDOOR: 95°F DB/75°F WB
- EQUAL BY LG OR TRANE

LEGEND

F-4 ①	THERMOSTAT AND DEVICE CONTROLLED WITH LOCKING THERMOSTAT GUARD
TI	TENNANT IMPROVEMENTS CONTRACTOR
RA	RETURN AIR
SA	SUPPLY AIR
EA	EXHAUST AIR
OSA	OUT SIDE AIR
TA	TRANSFER AIR
E.C.	ELECTRIC CONTRACTOR
	RETURN AIR
	EXHAUST AIR
	OUTSIDE INTAKE AIR
	SUPPLY AIR
24/12	DUCT SIZE (WIDTH/HEIGHT)
ins int	INSULATE INTERIOR OF DUCT
ins ext	INSULATE EXTERIOR OF DUCT
M	MOTOR OPERATED DAMPER
BD	BALANCE DAMPER
	RETURN/EXH AIR
	SUPPLY AIR
	DUCT AIR TURNING VANES
	FLEXIBLE CONNECTION
SD	FIRE/SMOKE DAMPER
FD	90 MIN FIRE DAMPER
AD	ACCESS DOOR IN DUCT

STATE OF OHIO
CHRISTOPHER J. GAFFNEY
68646
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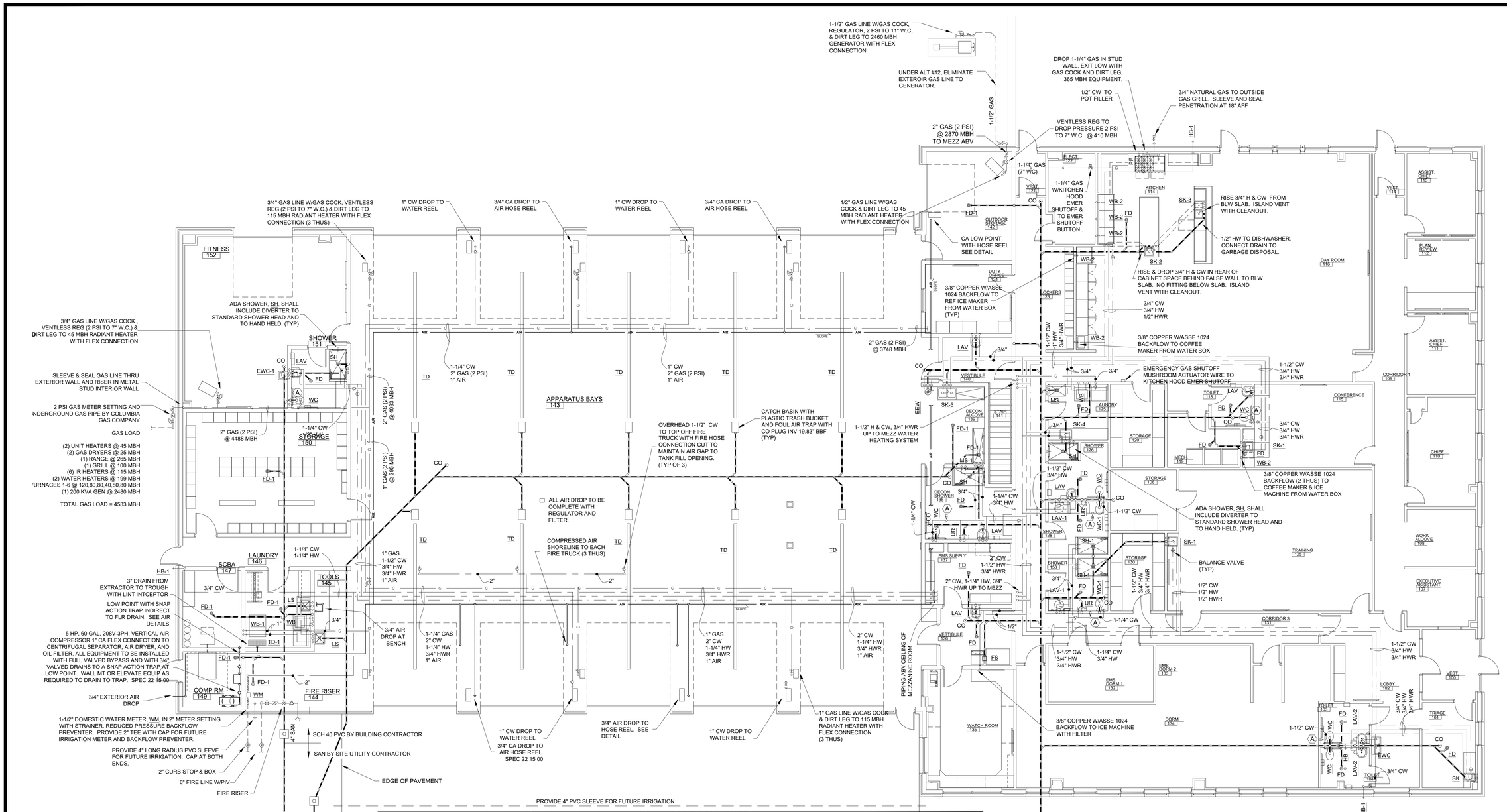
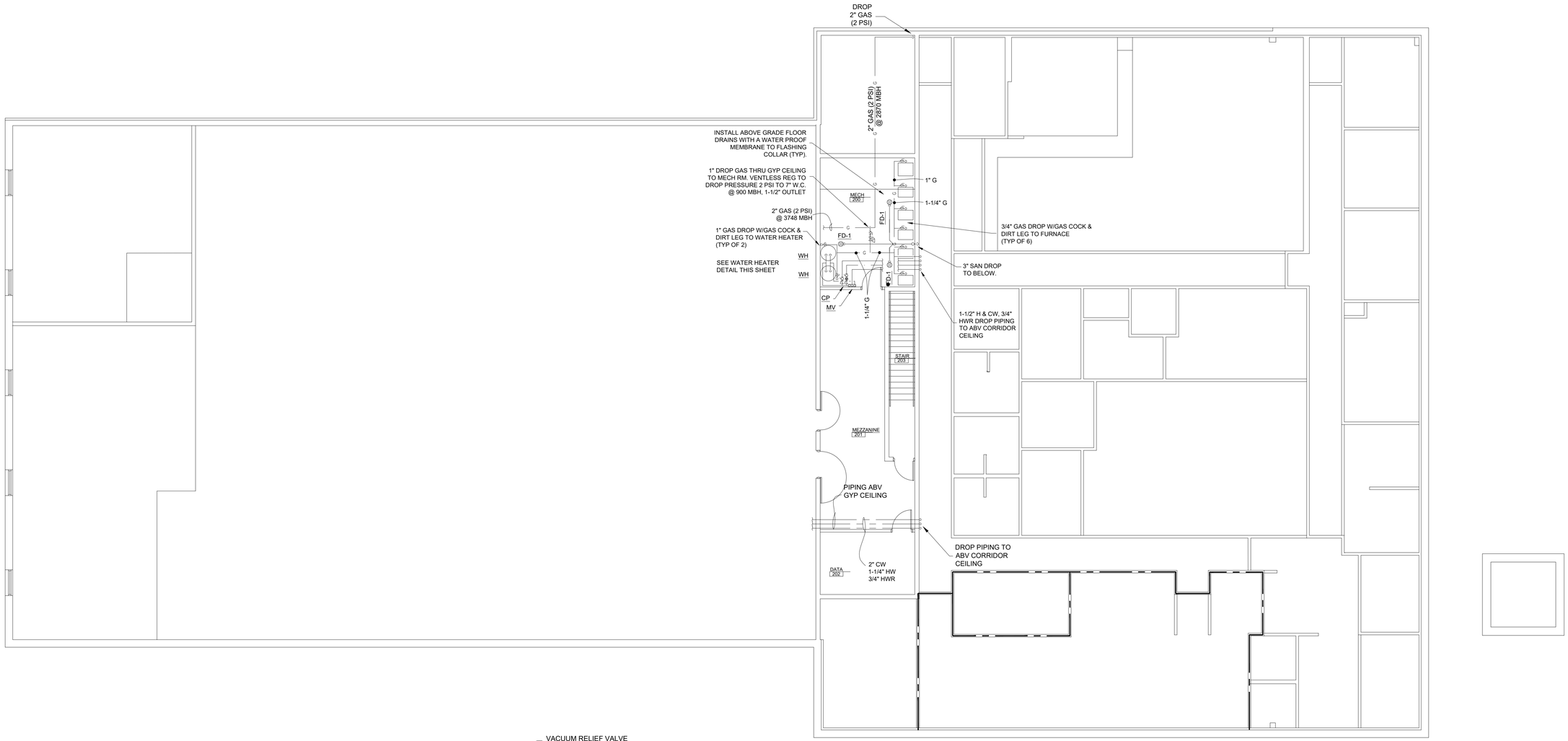
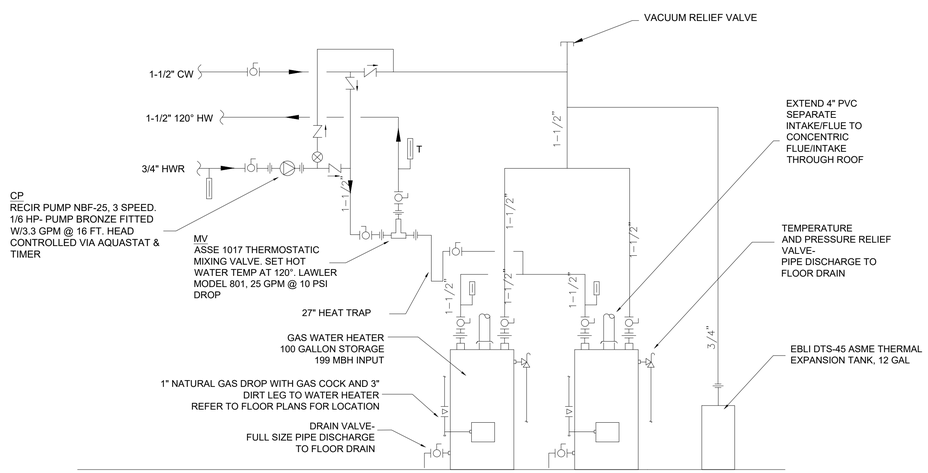

1-1/2" GAS LINE W/GAS COCK, REGULATOR, 2 PSI TO 11" W.C, & DIRT LEG TO 2460 MBH GENERATOR WITH FLEX CONNECTION
UNDER ALT #12, ELIMINATE EXTERIOR GAS LINE TO GENERATOR.
DROP 1-1/4" GAS IN STUD WALL, EXIT LOW WITH GAS COCK AND DIRT LEG, 365 MBH EQUIPMENT.
1/2" CW TO POT FILLER
3/4" NATURAL GAS TO OUTSIDE GAS GRILL. SLEEVE AND SEAL PENETRATION AT 18" AFF
2" GAS (2 PSI) @ 2870 MBH TO MEZZ ABV
VENTLESS REG TO DROP PRESSURE 2 PSI TO 7" W.C. @ 410 MBH
1-1/4" GAS (7" WC)
1-1/4" GAS W/KITCHEN HOOD EMER SHUTOFF & TO EMER SHUTOFF BUTTON .
RISE 3/4" H & CW FROM BLW SLAB. ISLAND VENT WITH CLEANOUT.
1/2" HW TO DISHWASHER. CONNECT DRAIN TO GARBAGE DISPOSAL.
RISE & DROP 3/4" H & CW IN REAR OF CABINET SPACE BEHIND FALSE WALL TO BLW SLAB. NO FITTING BELOW SLAB. ISLAND VENT WITH CLEANOUT.
3/4" CW
3/4" HW
1/2" HWR
3/8" COPPER W/ASSE 1024 BACKFLOW TO COFFEE MAKER FROM WATER BOX
EMERGENCY GAS SHUTOFF MUSHROOM ACTUATOR WIRE TO KITCHEN HOOD EMER SHUTOFF
1-1/2" CW
3/4" HW
3/4" HWR
3/8" COPPER W/ASSE 1024 BACKFLOW (2 THUS) TO COFFEE MAKER & ICE MACHINE FROM WATER BOX
ADA SHOWER, SH, SHALL INCLUDE DIVERTER TO STANDARD SHOWER HEAD AND TO HAND HELD. (TYP)
BALANCE VALVE (TYP)
1/2" CW
1/2" HW
1/2" HWR
1-1/4" CW
3/4" HW
3/4" HWR
3/8" COPPER W/ASSE 1024 BACKFLOW TO ICE MACHINE WITH FILTER
3/4" CW
3/4" HW
3/4" HWR
1-1/2" CW
3/4" HW
3/4" HWR
1-1/2" CW
3/4" HW
3/4" HWR
1-1/2" CW
3/4" HW
3/4" HWR
1-1/2" CW
3/4" HW
3/4" HWR
1-1/2" CW
3/4" HW
3/4" HWR
1-1/4" CW
3/4" HW
1-1/2" CW
1-1/4" CW
3/4" HW
1-1/4" CW
3/4" HW
1-1/4" CW
3/4" H

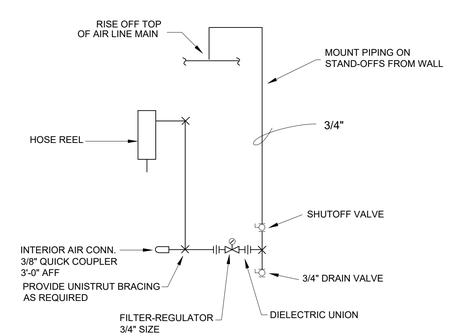




HOT WATER HEATER DETAIL

NO SCALE

NOTE: COORDINATE SELECTION OF QUICK COUPLERS WITH OWNER TO ASSURE COMPATIBILITY WITH AIR OPERATED EQUIPMENT



MOUNT COMPRESSED AIR PIPING APPROXIMATELY 3" OFF WALL. PIPING SHALL BE SECURELY MOUNTED TO COLUMN OR WALL STRUCTURE (NOT TO WALL PANEL ONLY). RIGIDLY MOUNT AIR LINE REGULATOR PARALLEL TO WALL. TURN QUICK AIR COUPLER TO BE PERPENDICULAR TO AND CLOSE TO WALL. AIR REGULATOR MUST BE THREADED ON BEFORE FINAL PIPING IS MADE.

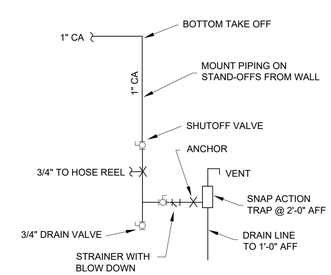
HOSE REEL OR AIR DROP DETAIL

SCALE: NONE

PLUMBING MEZZANINE PLAN

SCALE: 1/8"=1'-0"

NORTH



LOW POINT/COMPRESSED AIR DROP DETAIL

SCALE: NONE

STATE OF OHIO
GAFFNEY
68646
REGISTERED
PROFESSIONAL ENGINEER

SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD

OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
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CONSTRUCTION DOCUMENTS

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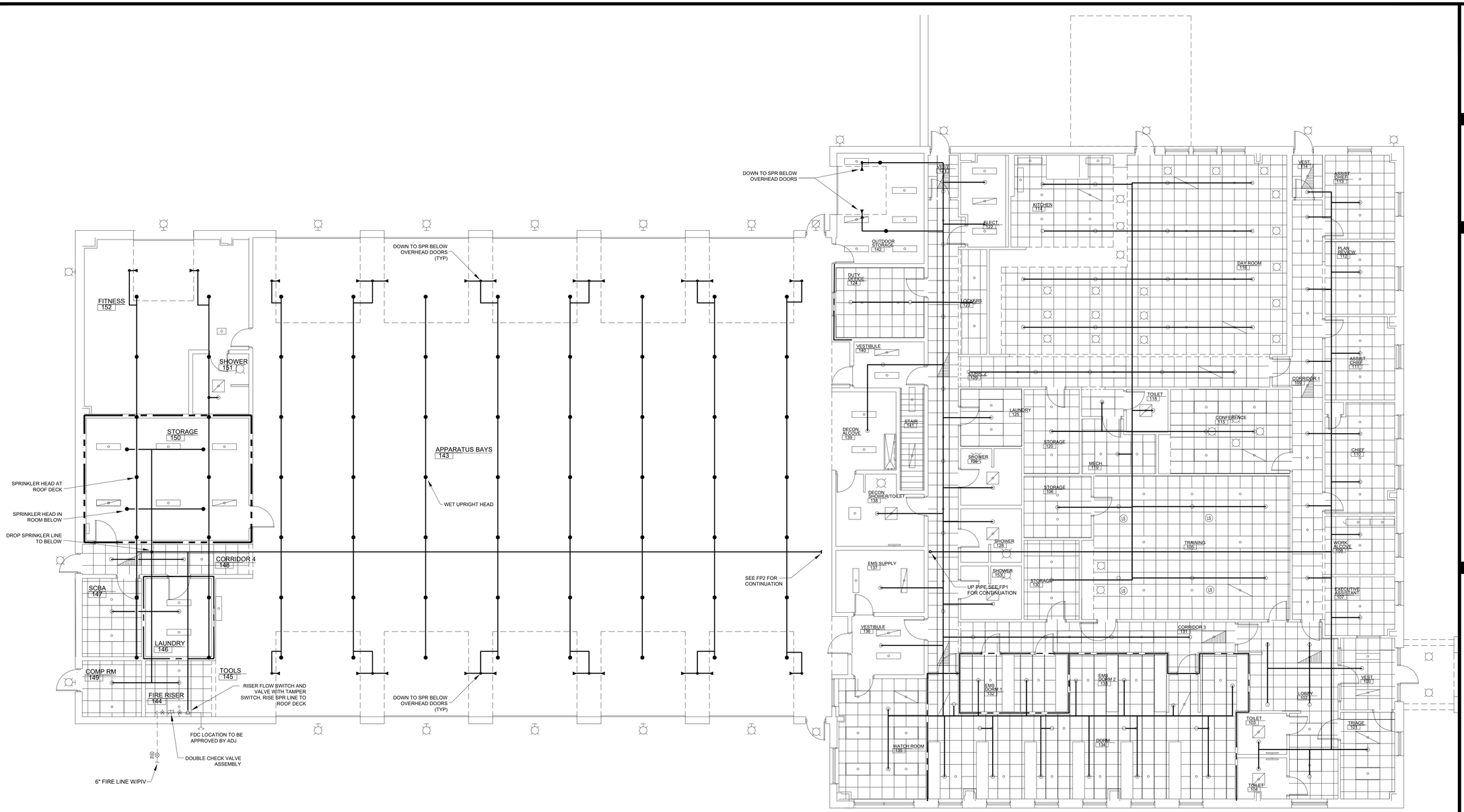
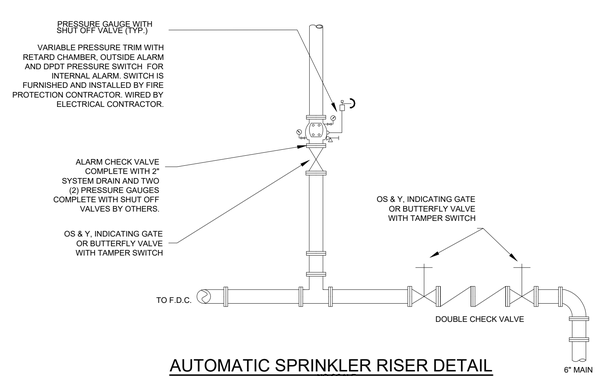


FIRE PROTECTION FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

NORTH



AUTOMATIC SPRINKLER RISER DETAIL

NO SCALE

GENERAL NOTES FOR FIRE PROTECTION

- FLOW TEST RESULTS (6-1-2021)
  STATIC= 60 psi
  RESIDUAL= 50 psi @ 1190 GPM
- CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL HEADS AND MATERIAL NOT SHOWN ON THIS DRAWING FOR FIRE PROTECTION SYSTEM TO BE IN ACCORDANCE WITH NFPA 13
- ALL PENETRATIONS THROUGH FIRE RATED WALLS ARE TO BE FIRE SEALED

LEGEND

- NEW SPR LINE
- SIDEWALL SPRINKLER HEAD
- BRASS UPRIGHT SPRINKLER HEAD
- FLUSH PENDENT HEAD W/ POP OFF COVER
- LIGHT FIXTURE
- RETURN AIR GRILLE
- DIFFUSER
- CENTER HEADS IN TILE
- ELECTRICAL PANELS (NO SPR. LINES OVER)

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FIRE PROTECTION
MEZZANINE PLAN

SCALE: 1/8"=1'-0"

LEGEND

- NEW SPR LINE
- SIDEWALL SPRINKLER HEAD
- BRASS UPRIGHT SPRINKLER HEAD
- FLUSH PENDENT HEAD W/ POP OFF COVER

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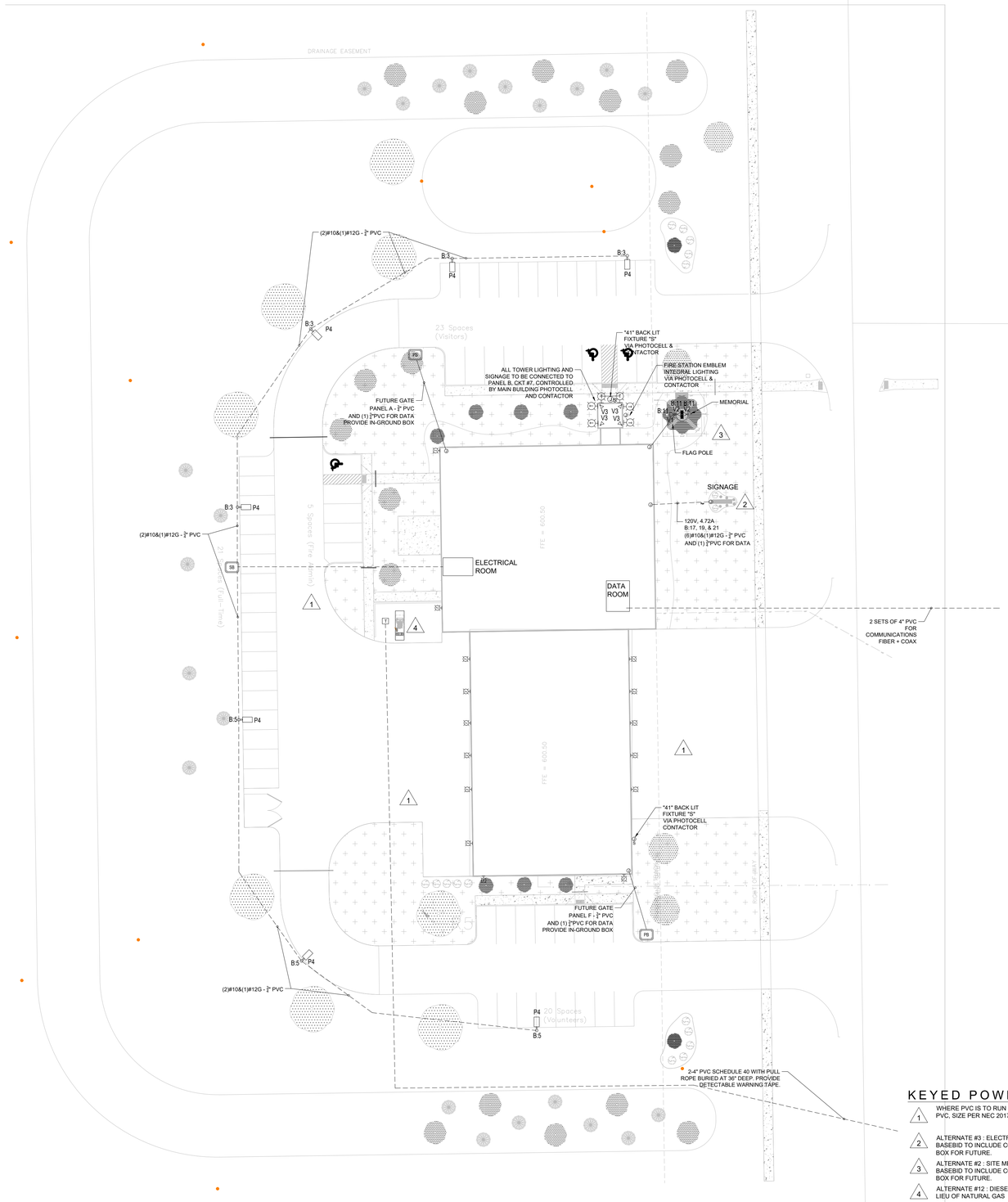

KEYED POWER NOTES

1. WHERE PVC IS TO RUN UNDER TRUCK BAY & APRON, PROVIDE SCHEDULE 80 PVC, SIZE PER NEC 2017.
2. ALTERNATE #3 : ELECTRONIC MESSAGING BOARD . BASEBID TO INCLUDE CONDUIT & CONDUCTORS, PROVIDE WEATHER TIGHT BOX FOR FUTURE.
3. ALTERNATE #2 : SITE MEMORIAL BASEBID TO INCLUDE CONDUIT & CONDUCTORS, PROVIDE WEATHER TIGHT BOX FOR FUTURE.
4. ALTERNATE #12 : DIESEL GAS GENERATOR IN LIEU OF NATURAL GAS

NORTH

ELECTRICAL SITE PLAN

SCALE: 1"=30'-0"

STATE OF OHIO
VINCENT D. BUEHRER
54249
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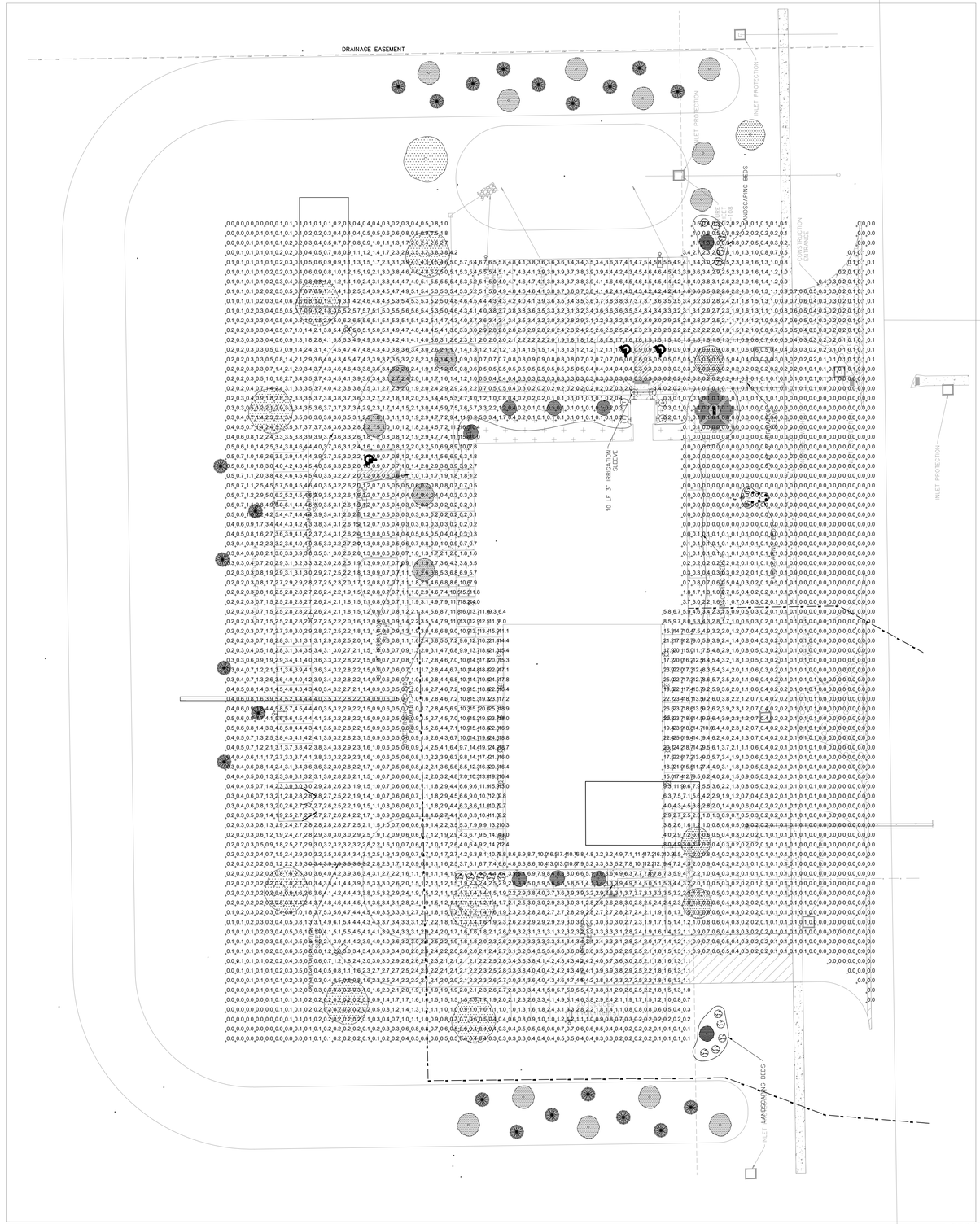

PHOTOMETRIC SITE PLAN

SCALE: 1"=30'-0"

NORTH

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ESP1.2

ELECTRICAL LEGEND

NEW DUPLEX CONV. OUTLET 20A - 125V 3 WIRE GROUND TYPE. MH = 16" OR "C" DENOTES 6" ABOVE COUNTER, UNLESS OTHERWISE NOTED. COLOR OF DEVICES TO BE DETERMINED BY OWNER INSIDE A STAINLESS STEEL COVER PLATE. AVOID CONFLICTS WITH CASEWORK. OUTLETS WIRED TO AN EMERGENCY CIRCUIT SHALL BE RED IN COLOR.

HUBBELL	HBL5362x
P & S	5362-Ax
COOPER	AH5362x

D — SAME AS ABOVE WITH 2 OUTLETS IN ONE DOUBLE DUPLEX BACK BOX.

TV / CAD DISPLAY — SAME AS DOUBLE DUPLEX OUTLET BUT FOR T.V OR CAD MONITOR. COORDINATE MOUNTING HEIGHT WITH BRACKET LOCATION.

DUPLEX SURGE SUPPRESSION OUTLET - 20A - 125V - 3 WIRE GROUND - -FLUSH MTD. MH = 16" OR "C" DENOTES 6" ABOVE COUNTER, UNLESS OTHERWISE NOTED. COLOR OF DEVICES TO BE DETERMINED BY OWNER INSIDE A STAINLESS STEEL COVER PLATE. OUTLETS ON EMERGENCY CIRCUIT SHALL BE RED IN COLOR.

HUBBELL	HBL5362xSA
P & S	TR5362xSP
COOPER	5362xS

GFI — DUPLEX GFI OUTLET - 20A - 125V - 3 WIRE GROUND FAULT INTERRUPTER TYPE - FLUSH MTD. MH = 48" OR "C" DENOTES 6" ABOVE COUNTER, UNLESS OTHERWISE NOTED. COLOR OF DEVICES TO BE DETERMINED BY OWNER INSIDE A STAINLESS STEEL COVER PLATE.

HUBBELL	GFR5362SGx
P & S	2095x

ER — SAME AS GFI, BUT FOR ELECTRIC WATER COOLER. VERIFY SPECIAL MOUNTING HEIGHT WITH PLUMBING CONTRACTOR.

WP — DUPLEX GFI, WEATHER-RESISTANT, TAMPER-RESISTANT OUTLET - 20A - 125V - 3 WIRE GROUND FAULT INTERRUPTER TYPE, FLUSH VERTICAL MOUNTED IN METAL WEATHER-RESISTANT IN-USE COVER. MH=2'-0", UNLESS OTHERWISE NOTED.

HUBBELL	GF5362SGx / WP8E
P & S	2095TRWRx / CA26WV
COOPER	TWRVGF20 / WIUMH-1

20A — RECEPTACLE 50A - 125/250V - 3 POLE - 4 WIRE GROUND TYPE WITH STAINLESS STEEL COVER PLATE. MH=48" UNLESS OTHERWISE NOTED. FIELD VERIFY PROPER NEMA CONFIGURATION.

HUBBELL	HBL9450A
P & S	3894

60A — RECEPTACLE 60A - 125/250V - 3 POLE - 4 WIRE GROUND TYPE WITH STAINLESS STEEL COVER PLATE. MH=16" UNLESS OTHERWISE NOTED. FIELD VERIFY PROPER NEMA CONFIGURATION.

HUBBELL	HBL9460A

USB — USB DUPLEX OUTLET - 20A - 125V 3-WIRE GROUND TYPE. ONE USB "A" STYLE, ONE USB "C" STYLE 5A CHARGING OUTLETS PLUS TWO 20A TAMPER-RESISTANT RECEPTACLES. COMPATIBLE WITH USB 2.0 & 3.0 DEVICES.

HUBBELL	USB20AC5WWR

3-A — DUPLEX TAMPER-RESISTANT OUTLET - 20A - 125V - 3 WIRE GROUND TYPE - FLUSH MTD. MH = 16" OR "C" DENOTES 6" ABOVE COUNTER, UNLESS OTHERWISE NOTED.

HUBBELL	BR20xTR
P & S	TR20x
COOPER	TRBR20x

SURFACE MOUNT METALLIC PEDESTAL BOX FOR EXTERIOR. PROVIDE GFI RECEPTACLE AND WEATHER PROOF ENCLOSURE.

HUBBELL	SA668

S_T — 0-6 HOUR IN WALL TIME SWITCH - 120V - 1 POLE WITH OVERLOAD. MH=4'-0".

TORK	C506H
INTERMATIC	FF36H

S_U — FUSED SWITCH - 15A - 125V. PROVIDE HANDY BOX & TYPE-T 15A FUSE AS REQUIRED.

BUSSMAN SSU

S_M -AND- $S_{M\ WP}$ — MANUAL MOTOR STARTER - 120V - 1 POLE WITH OVERLOAD AND PILOT LIGHT. MH = 5'-0". FLUSH MOUNTED IN FINISHED SPACES. "WP" DENOTES TO PROVIDE WEATHER-PROOF SWITCH COVER EQUAL TO BELL #5141-0 FOR SINGLE GANG AND #5125-0 FOR 2-GANG.

SQUARE D	CLASS 8910
GE	TYPE CR101
SIEMENS	SMF

R — 45' WHITE INDUSTRIAL CORD REEL W/ QUICK ATTACH MOUNTING BRACKET W/ 20A RATED CONNECTOR AND GFCI MODULE, EQUAL TO HUBBELL #HBL45 W/ CONNECTOR HBL5369C

NEW CONDUIT RUN IN CEILING OR WALLS, WITH NUMBER OF CONDUCTORS NOTED.

NEW CONDUIT RUN UNDERGROUND. NUMBER OF CONDUCTORS NOTED.

— s — NEW STANDY-BY CONDUIT RUN. NUMBER OF CONDUCTORS NOTED.

NEW EMERGENCY CONDUIT RUN. NUMBER OF CONDUCTORS NOTED.

MOTOR BY OTHERS. FUNCTION, VOLTAGE AND SIZE AS NOTED.

FRACTIONAL HORSEPOWER MOTOR BY M.C.

BUILT-IN CONTROLLER SUPPLIED BY OTHERS UNLESS NOTED OTHERWISE. POWER WIRING BY ELECTRICAL CONTRACTOR.

COMBINATION MAGNETIC MOTOR STARTER AND FUSIBLE DISCONNECT 208V - 3 POLE WITH OVERLOAD. PILOT LIGHT AND 120V CONTROL TRANSFORMER.

GENERAL ELECTRIC	TYPE CR308
SQUARE D	CLASS 8538

SAFETY SWITCH - SIZE AS NOTED ("3R" RAIN TIGHT, "NF" NON-FUSED, "4" STAINLESS STEEL)

JUNCTION BOX, ELECTRICAL CONNECTION.

PB — IN GROUND FLUSH MOUNTED PULL BOX - SIZE AS REQUIRED. OPEN BOTTOM COVER TO READ 'ELECTRIC', 'COMMUNICATIONS', OR 'LIGHTING'. GREEN IN COLOR.

SB — IN GROUND FLUSH MOUNTED SPLICE BOX - SIZE AS REQUIRED. OPEN BOTTOM COVER TO READ 'ELECTRIC', 'COMMUNICATIONS', OR 'LIGHTING'. GREEN IN COLOR.

$\frac{3}{4}$" X 10'-0" COPPERWELD GROUND ROD.

FACP — SURFACE MOUNTED FIRE ALARM CONTROL PANEL

RECESSED POWER PANEL- 120/208V-3ϕ-4W. SEE SPECS.

SURFACE MOUNTED POWER PANEL - 120/208V-3ϕ-4W.

MDP — MAIN DISTRIBUTION SWITCHBOARD - 120/208V-3ϕ-4W. SEE SPECS.

ATS — AUTOMATIC TRANSFER SWITCH - 120/208V-3ϕ-4W. SEE SPECS.

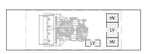
SP — EXTERNALLY MOUNTED SURGE PROTECTIVE DEVICE - 120/208V-3ϕ-4W - 120 kA PEAK SURGE CURRENT RATING PER PHASE.

CT — CT CABINET, BY UTILITY COMPANY.

ELECTRIC METER BY UTILITY COMPANY

UTILITY PAD MOUNTED TRANSFORMER

200KW GENERATOR, NATURAL GAS



LIGHTING CONTROLS

S -AND- S_{WP} — LOCAL SWITCH - 1 POLE - 20A - 125/277V WITH STAINLESS STEEL COVER PLATE. MH = 4'-0". "WP" DENOTES TO PROVIDE WEATHER-PROOF SWITCH COVER EQUAL TO BELL #5141-0 FOR SINGLE GANG AND #5125-0 FOR 2-GANG.

HUBBELL	HBL1221x
P & S	PS20AC1-x
COOPER	AH1221x
LEVITON	1221-7x

S_3 -AND- $S_{3\ WP}$ — LOCAL SWITCH - 3 WAY - 20A - 125/277V WITH STAINLESS STEEL COVER PLATE. MH=4'-0". "WP" DENOTES TO PROVIDE WEATHER-PROOF SWITCH COVER EQUAL TO BELL #5141-0 FOR SINGLE GANG AND #5125-0 FOR 2-GANG.

HUBBELL	HBL1223x
P & S	PS20AC3-x
COOPER	AH1223x
LEVITON	1223-7x

S_O — DUAL TECHNOLOGY OCCUPANCY SENSOR WALL SWITCH - 1000W - 120/277V WITH STAINLESS STEEL COVER PLATE. MH=4'-0"

HUBBELL	AD2000x1
P & S	WDT100x
WATT STOPPER	DW-100-x
SENSORSWITCH	WSD PDT x

S_D — LOCAL DIMMER SWITCH - 0-10V DIMMING. DIMMING CONTROL FOR TYPE "W" FIXTURES WITH STAINLESS STEEL COVER PLATE.

SYNERGY	ISD BC 120/277 WH
LEVITON	ILLUMATECH-IP710-DLX
LUTRON	NOVA T - NTFTV-WH + PP-120H

S_{LV} — LOCAL LOW VOLTAGE WALL SWITCH W/ 1 BUTTON - 24VDC WITH COVER PLATE TO BE CONNECTED TO LOW VOLTAGE ROOM CONTROLLER VIA CAT5E CABLING. MH=4'-0"

WATTSTOPPER LMSW-101-X
OR APPROVED EQUAL COMPATIBLE WITH LIGHTING CONTROLLER & FIXTURES

S_{DLV} — LOCAL DIMMING SWITCH - 24VDC WITH COVER PLATE TO BE CONNECTED TO LOW VOLTAGE ROOM CONTROLLER VIA CAT5E CABLING. MH=4'-0"

WATTSTOPPER LMDW-101-X
OR APPROVED EQUAL COMPATIBLE WITH LIGHTING CONTROLLER & FIXTURES

S_{DDLV} — DUAL TECHNOLOGY OCCUPANCY SENSOR WALL SWITCH W/ LED DRIVER DIMMING (0-10V) CONTROL - 24VDC WITH COVER PLATE TO BE CONNECTED TO LOW VOLTAGE ROOM CONTROLLER VIA CAT5E CABLING. MH=4'-0"

WATTSTOPPER LMDW-102-X
OR APPROVED EQUAL COMPATIBLE WITH LIGHTING CONTROLLER & FIXTURES

S_{FAN} — VARIABLE SPEED FAN SWITCH - 15A - 120V WITH COVER PLATE. MH=4'-0". SWITCH BY MANUFACTURER

OCCUPANCY SENSOR CONTROL UNIT / POWER PACK - 120/277V - MOUNT ABOVE CEILING IN NEMA 1 ENCLOSURE. SEE SPECS.

WATT STOPPER BZ-150
HUBBELL CU300HD
SENSORSWITCH PP-20

DUAL TECHNOLOGY PIR / ULTRASONIC OCCUPANCY SENSOR RECESSED IN CEILING - 24VDC. SEE SPECS. COVERS UP TO 1,000 FT.^{2} WITH 360° FIELD OF VIEW. EQUIP WITH LOW-VOLTAGE POWER PACK.

GREENGATE	QAC-DT-1000
SENSOR SWITCH	RM PDT 9
WATTSTOPPER	DT-300

DUAL TECHNOLOGY PIR / ULTRASONIC OCCUPANCY SENSOR CORNER MOUNTED - 24VDC. SEE SPECS. COVERS UP TO 1,200 FT.^{2} WITH 120° FIELD OF VIEW. EQUIP WITH LOW-VOLTAGE POWER PACK.

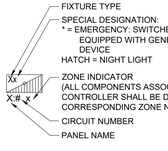
GREENGATE	QAWC-DT-120W
SENSOR SWITCH	WV PDT 16
WATTSTOPPER	DT-200

EXTERIOR PHOTOCELL - EXTERIOR LIGHT CONTROL - 120V. 3/4" CONDUIT MOUNTING. HD DIE-CAST ZINC HOUSING & GASKETED FOR WEATHER-RESISTANCE.

TORK 2101

WALL MOUNTED 90 MINUTE BATTERY INVERTER - 500W - INPUT: 120/277V, OUTPUT: 120/277V. FOR LED EMERGENCY LIGHTING.
IOTA IIS 500 LED

TYPICAL LIGHT DESIGNATION



LIGHT FIXTURE SCHEDULE

LED FIXTURE 1-25W-6"-LED-120V RECESSED 6" DIMMABLE (0-10V) LED DOWNLIGHT - MATTE WHITE - 1000 LUMENS - 4000K. WET LOCATION LISTED. NEW CONSTRUCTION HOUSING.

LITHONIA	LDN6 40/10 LO6 WR 120
PRESCOLITE	LC6SL-6LCSL10408WHWT
HALO	ML5609840 + 693WB

T / A — LED FIXTURE 1-17W-24"-LED-120V SURFACE MOUNTED DIMMABLE (0-10V) LED DOWNLIGHT.

LIGHTOLIER	FMVCSL-24IN-MVOLT-40K-90CRI-BN
DAY-BRITE	TAB2L-120V-SWH
OR APPROVED EQUAL	

B — LED FIXTURE 1-30W-24"-LED-120V RECESSED 2' x 2' DIMMABLE (0-10V) LED FLAT PANEL TROFFER - 4000K - FOR GRID TYPE CEILING. EQUIP WITH LED DRIVER."Be" DENOTES FIXTURE IS TO BE EQUIPPED WITH A GTD.

LITHONIA	EPANL 2x2 3400LM 80CRI 40K MIN10 ZT MVOLT
METALUX	22FP3240C
HUBBELL	CFP22-3340

C — LED FIXTURE 1-50W-48"-LED-120V 1' X 4' LED WRAPAROUND - ¼" THICK CURVED ACRYLIC PRISMATIC LENS. 4000K. WET LOCATION LISTED.

METALUX	4VT2-LD4-4-DR-UNV-L840-CD1-WL-U
LITHONIA	VAP 4000LM FST MD MVOLT GZ10 40K 80CRI
HUBBELL	LXEM4-40ML-RFA-EU

D -AND- De — LED FIXTURE 1-40W-48"-LED-120V RECESSED 2' x 4' TROFFER - HINGED REGRESSED ALUMINUM DOOR - 1/8" THICK ACRYLIC PRISMATIC LENS. - FOR GRID TYPE CEILING. EQUIP WITH LED DRIVER. "De" DENOTES FIXTURE IS TO BE EQUIPPED WITH A GTD. 4000K.

D — NL

LITHONIA	2GTL 4 40L EZ1 L840
DAY-BRITE	2TG32L840-4-FS-02F-UNV-DIM
METALUX	24GR-LD4-40-F1-UNV-L840-CD1-U (#ACTF140)

F -AND- Fe — LED FIXTURE 1-40W-48"-LED-120V 1' X 4' LED WRAPAROUND - 1/8" THICK CURVED ACRYLIC PRISMATIC LENS. "Fe" DENOTES FIXTURE IS TO BE EQUIPPED WITH A GTD. 4000K. PROVIDE & COORDINATE ALL MOUNTING ACCESSORIES FOR SPECIFIC APPLICATIONS, SUCH AS, GRID CEILINGS, SUSPENDED, SURFACE, AND WALL MOUNTED.

F — NL

LITHONIA	STL4 40L EZ1 LP840
DAY-BRITE	OWL440L840UNIV
METALUX	4WNLED LD141 F UNV L840 CD1

G — LED FIXTURE 1-13W-24"-LED-120V UNDERCABINET LIGHT FIXTURE. EQUIP WITH LED DRIVER. PROVIDE FIXTURES, END TO END, IN 24" INTERVALS. PROVIDE ALL NECESSARY ACCESSORIES FOR A COMPLETE AND CLEAN INSTALLATION.

LITHONIA	RAZ24
DAY-BRITE	LINCS100-L28
HALO	HU1048D940P

H -AND- He — LED FIXTURE 1-154W-48"-LED-120V SURFACE MOUNTED 2' x 4' HIGH-BAY TROFFER. MOUNT FIXTURE TO UNDERSIDE OF ROOF PURLINS. EQUIP WITH ELECTRONIC DRIVER. "He" DENOTES FIXTURE IS TO BE EQUIPPED WITH A GTD. 4000K.

H — NL

LITHONIA	IBL 24L WD LP840 / LA0ZU
DAY-BRITE	FBX24LL40UNVW / MD360
METALUX	HBLED-LED4-24-W-UNV-L840-ED2 / 360^ MMS (120V)

J -AND- Je — LED FIXTURE - 1-125W-18"-LED-120V 12" x 18" HIGH BAY MOUNTED TROFFER. - HIGH-IMPACT POLYCARBONATE LENS. WIDE DISTRIBUTION - 4000K.

METALUX	VHBLED LD1 15 W UNV L840 CD U + VHB-WG
LITHONIA	IBHST 15000LM SD080 MD MVOLT 0Z10 40K 80CRI WH + WGIBH
DAY-BRITE	FBX 15L L 40 UNV W WT + WG-FBX-2N

L — LED FIXTURE 1-3W/ft-LED-24VDC DIMMABLE (0-10V) 24VDC LED TAPE LIGHT WITH SURFACE MOUNTED SLIM ALUMINUM CHANNEL WITH SQUARE PVC END CAPS, AND FROSTED COVER LENS. SUITABLE FOR WET & DRY LOCATIONS. LED TAPE FIELD CUTTABLE EVERY 2 INCHES AND ALUMINUM CHANNEL IS FIELD CUTTABLE. 4100K / 90+ CRI. PROVIDE ALL NECESSARY ACCESSORIES FOR A COMPLETE AND CLEAN INSTALLATION. EQUAL BY OTHERS AS APPROVED BY ENGINEER.

LED TAPE LIGHT

ACOLYTE LED	RBM-24-3.0-40
DIODE LED	DI-24V-BL42-90xx

ALUMINUM CHANNEL

ACOLYTE LED	CH-AS1-xx-C
DIODE LED	DI-CPCHA-SL96 (CUT-TO-LENGTH)

LED DRIVER

ACOLYTE LED	DRV-W-24-100-PHL
DIODE LED	DI-0954

M — LED FIXTURE 1-40W-48"-LED-120V WALL MOUNT LIGHT FIXTURE. EQUIP WITH LED DRIVER. 4000K. PROVIDE ALL NECESSARY ACCESSORIES FOR A COMPLETE AND CLEAN INSTALLATION.

LITHONIA	WL4 40L EZ1 LP840
DAY-BRITE	APPROVED EQUAL
METALUX	APPROVED EQUAL

P4 — OUTDOOR LED - 1-107W-15\"-LED-120V - SINGLE BRONZE HEAD POLE MOUNTED AREA SITE LIGHTING FIXTURE WITH TYPE III DISTRIBUTION WITH SPILL CONTROL. PROVIDE 20'-0" BRONZE ROUND TAPERED ALUMINUM POLE, WITH VIBRATION DAMPER, WITH A 3'-0" CONCRETE BASE - GIVING A TOTAL MOUNTING HEIGHT OF 23'-0". PROVIDE LED DRIVER. 5000°K. TO BE CONTROLLED BY EXTERIOR LIGHTING CONTROLS.

COOPER	GLEON AE 02 LED E1 SL3 BZ / RTA4L20AFx1-DV
LITHONIA	DSX2 LED P3 50K T3S MVOLT RPA DDBXD / RTA205Gx-FBC-VD DDB
PHILIPS	P21-A1-1-3-105LA-NW-UNV-BRP / TRACB20HD1BRP-VDA

R -AND- Re — LED FIXTURE 1-25W-6"-LED-120V RECESSED 6" LED DOWNLIGHT FOR GRID TYPE CEILING - MATTE WHITE - "Re" DENOTES FIXTURE IS TO BE EQUIPPED WITH A GTD. 4000K.

LITHONIA	LDN6 40/10 LO6 WR 120
DAY-BRITE	1101LED09N4011176WH
HALO	PD612ED010-PDM6840-61VWB

S — OUTDOOR LED - 1-4W PER FT--LED-120V. LED TAPE FIXTURE. SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION. 5000K. COORDINATE LENGTHS WITH SIGNAGE PRIOR TO ORDERING, NOT FIELD CUTTABLE. IP65 RATED, USE ADHESIVE MOUNTING OPTION.

LLI	LLI-LAC4.0W-65-42K-120V-80-XX
OR APPROVED EQUAL	

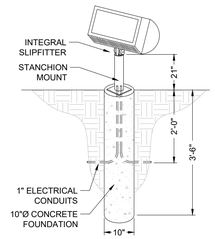
OUTDOOR LED - 1-15W-18"-LED-120V.5000K. WALL MOUNTED LED UP/DOWN CYLINDER LIGHT FIXTURE. COLOR TO BE SELECTED BY ARCHITECT.

GOTHEM	INCITO IC04UDWC 50K 07 BR 15D SNTANG SDBR U07LM U15D USNTANG USDBR
TERON LTG	PORTER BFP PTR L16 120V BK 50K

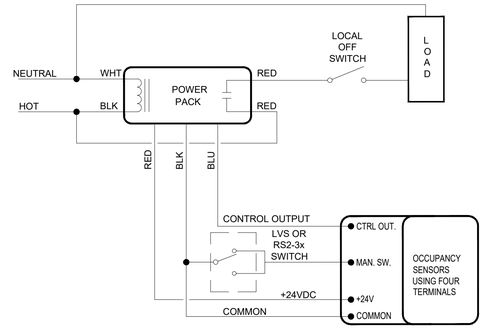
LED DESK LAMP - 1-12W-16.93"-7.09"-7.09"-LED-120V

TAOTRONICS	TT-DL13
ASTRO	ENNA 1058093
ARCHLIT	LTASK 30 A1 WH A

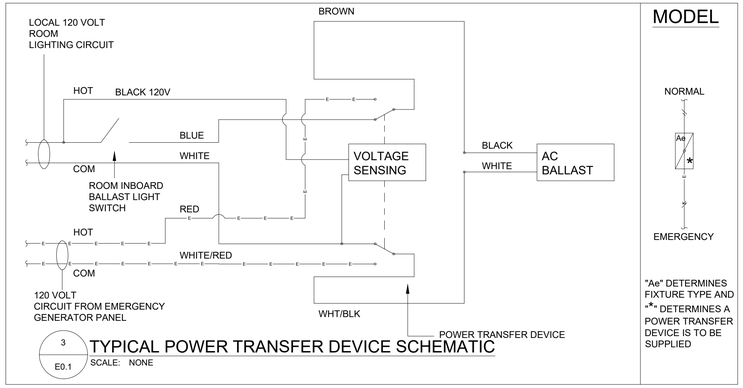
OR APPROVED EQUAL BY OTHERS.



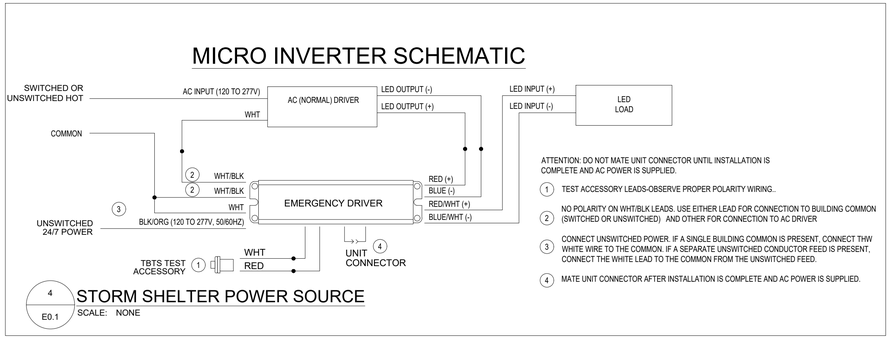
1 / E0.1 FLOOD LIGHT MOUNTING DETAIL
SCALE: NONE



2 / E0.1 OCCUPANCY SENSOR SCHEMATIC
SCALE: NONE



3 / E0.1 TYPICAL POWER TRANSFER DEVICE SCHEMATIC
SCALE: NONE



4 / E0.1 STORM SHELTER POWER SOURCE
SCALE: NONE

V1 — OUTDOOR LED - 1-17.6W-8 7/8"-LED-120V. KNUCKLE OR STANCHION WITH SLIPFITTER MOUNTED FLOODLIGHT FIXTURE. 5000K. SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION. COLOR TO BE SELECTED BY ARCHITECT.

LUMARK	TCRL20S-WH-7050
LITHONIA	DSXF2 LED P1 50K NSP MVOLT THK
OR APPROVED EQUAL	

V2 — OUTDOOR LED - 1-12W-8 7/8"-LED-120V, KNUCKLE OR STANCHION WITH SLIPFITTER MOUNTED FLOODLIGHT FIXTURE. 5000K. SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION. COLOR TO BE SELECTED BY ARCHITECT.

LUMARK	TCRL15S-WH-7050
LITHONIA	DSXF2 LED P1 50K MSP MVOLT THK
OR APPROVED EQUAL	

V3 — OUTDOOR LED - 1-25.1W-8 7/8"-LED-120V. KNUCKLE OR STANCHION WITH SLIPFITTER MOUNTED FLOODLIGHT FIXTURE. 5000K. SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION. COLOR TO BE SELECTED BY ARCHITECT.

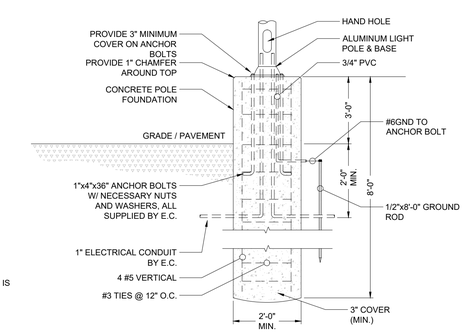
LUMARK	TCRL26S-WH-7050
LITHONIA	DSXF2 LED P1 50K FL MVOLT THK
OR APPROVED EQUAL	

Ze -AND- Ze — OUTDOOR LED - 1-109W-18"-LED-120V. WALL MOUNTED LED LIGHT FIXTURE. FORWARD THROW DISTRIBUTION. 5000K. SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION. COLOR TO BE SELECTED BY ARCHITECT. "Ze" DENOTES FIXTURE IS TO BE EQUIPPED WITH A GTD.

LITHONIA	DSXW2 LED 30C 1000 50K TFTM MVOLT
OR APPROVED EQUAL	

LED EXIT SIGN WITH 6" RED LETTERS IN WHITE PLASTIC HOUSING, MOUNTING AND ARROWS AS SHOWN. DIFFUSE LENS. CENTER ABOVE DOORS. ALL EXIT SIGNS - PROVIDE A 90 MINUTE BATTERY BACK UP UNIT.

LITHONIA	LQM S W R 120/277
CHLORIDE	SA1RW
SURE-LITES	APX6R



5 / E0.1 POLE BASE DETAIL
SCALE: NONE

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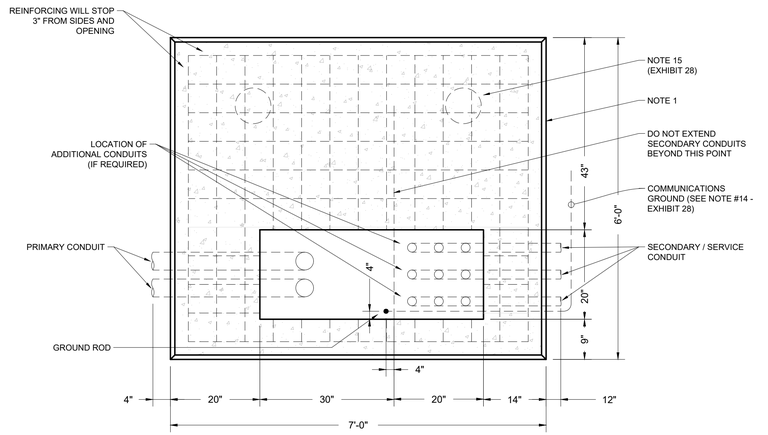
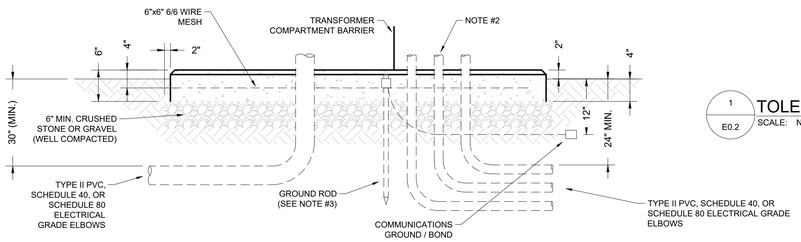
E0.1



NOTES (EXHIBIT 28):

1. CUSTOMER SHALL CONTACT THE COMPANY PRIOR TO BEGINNING WORK TO DISCUSS THE DETAILS OF TRANSFORMER FOUNDATION POSITION AND ORIENTATION, WORKING CLEARANCES, BARRIER PROTECTION, CONSTRUCTION SPECIFICATIONS, AND INSPECTION PROCEDURES. THE CUSTOMER IS RESPONSIBLE FOR INSTALLING, OWNING, AND MAINTAINING THE TRANSFORMER FOUNDATION AND KEEP THE AREA ABOVE THE TRANSFORMER CLEAR OF OBSTRUCTIONS THAT MAY BLOCK THE USE OF COMPANY VEHICLES (E.G., CRANE ACCESS TO THE TRANSFORMER).
2. INSTALL ALL CONDUITS BEFORE PLACING PAD. CONDUITS SHOULD NOT BE PLACED UNDER SECTIONS OF PAD SUPPORTING TRANSFORMER SO THAT ORIGINAL GROUND WILL NOT BE DISTURBED.
3. CONDUIT SHALL BE RIGID TYPE II PVC, SCHEDULE 40 PVC, OR SCHEDULE 80 PVC.
4. BACKFILL SHALL BE CLEAN GRANULAR SOIL, FREE OF LARGE STONES AND PERISHABLE MATERIAL. ALL BACKFILL SHALL BE SPREAD AND COMPACTED IN MAXIMUM LAYERS OF 8 INCHES.
5. THOROUGHLY COMPACT BASE CRUSHED STONE OR GRAVEL.
6. CONCRETE PAD MAY BE POURED-IN-PLACE OR MAY BE PRECAST (4,000 MIN. PSI CONCRETE).
7. TO PREVENT WATER MIGRATION FROM CONCRETE WHEN POURING, PLACE WATERPROOF MEMBRANE ON CRUSHED STONE OR GRAVEL BEFORE POURING CONCRETE.
8. REINFORCING WIRE MESH SHALL CONFORM TO ASTM DESIGNATION A185.
9. CEMENT TO BE 1 OR 1-A AND MEETING ASTM DESIGNATIONS C-150 AND C-175, RESPECTIVELY.
10. POURED PAD CONCRETE TO DEVELOP MINIMUM 4,000 PSI AT 28 DAYS AGE, CONTAIN MINIMUM OF 5.5 BAGS OF CEMENT PER CUBIC YARD AND MAXIMUM 6 GALLONS OF WATER PER 94-POUND BAG OF CEMENT, AND CONFORM TO ASTM DESIGNATION C-94. FOURTEEN (14) DAYS MINIMUM DRYING TIME BEFORE TRANSFORMER IS SET, THE VOLUME OF CONCRETE IS APPROXIMATELY 0.7 CUBIC YARDS. FOR EXHIBIT 27, THE VOLUME OF CONCRETE IS APPROXIMATELY 1.7 CUBIC YARDS.
11. SEAL ALL OPENINGS AROUND CONDUITS WITH GROUT, CAP ALL SPARE CONDUITS TO PREVENT ENTRY OF RODENTS AND ANIMALS INTO TRANSFORMER COMPARTMENT.
12. IF CONDUIT EXTENDS INTO BUILDING, IT SHALL BE SEALED (PER NEC) AT BUILDING END TO PREVENT GAS FROM ENTERING BUILDING THROUGH THE CONDUIT.
13. WHERE DAMAGE TO TRANSFORMER BY VEHICLES IS POSSIBLE, TRANSFORMER SHALL BE PROTECTED BY APPROPRIATE BARRIERS. SEE EXHIBIT 30. CUSTOMER SHALL CONTACT COMPANY FOR DETAILS.
14. COMMUNICATIONS GROUND - BONDING OF ALL COMMUNICATIONS EQUIPMENT (TELEPHONE, CATV, ETC.) THAT ARE WITHIN 6 FEET OF THE PAD IS REQUIRED. CONNECTION FOR COMMUNICATIONS GROUND SHALL BE MINIMUM #6 SOLID COPPER WIRE, THAT IS ATTACHED DIRECTLY TO GROUND ROD, AND EXTENDS 12 INCHES BEYOND THE EDGE OF THE CONCRETE FOUNDATION PAD.
15. IN AREAS WHERE SETTLING MAY OCCUR, INSTALL THREE (3) CONCRETE PIERS, 8-INCH MINIMUM DIAMETER, 36 INCHES DEEP, IN A TRIANGULAR CONFIGURATION UNDER FOUNDATION. CUSTOMER SHALL CONTACT COMPANY FOR DETAILS.

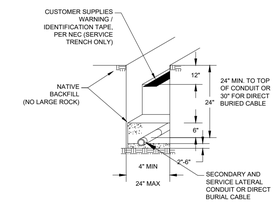


1 / E0.2 TOLEDO EDISON TRANSFORMER PAD DETAIL
SCALE: NONE

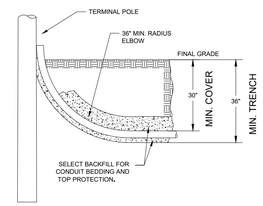
NOTES:

1. REFER TO EXHIBIT #28 FOR CONCRETE PAD FOUNDATION, PAD-MOUNTED TRANSFORMER GENERAL NOTES.
2. SECONDARY CONDUITS SHOULD NOT EXTEND MORE THAN 2 INCHES (MAXIMUM) ABOVE THE TOP OF THE FOUNDATION. PRIMARY CONDUITS SHOULD BE CUT OFF 2 INCHES BELOW THE TOP OF THE FOUNDATION TO ALLOW FOR TERMINATING THE CABLES.
3. CUSTOMER SHALL FURNISH AND INSTALL ONE 5/8-INCH DIAMETER x 8-FOOT GROUND ROD, DRIVEN A MINIMUM OF 7-1/2 FEET DEEP, GROUNDING CONNECTIONS, AND #6 AWG COPPER COMMUNICATIONS GROUND WIRE (MINIMUM LENGTH OF WIRE REQUIRED - 7-1/2 FEET).
4. SEE EXHIBIT 22 FOR CLEARANCE FROM THE BUILDING WALL OR OTHER PARTS OF BUILDING.

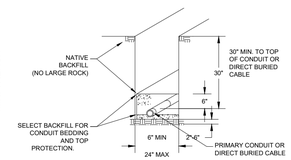
SECONDARY / SERVICE LATERAL TRENCH



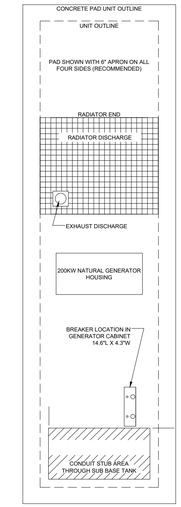
PRIMARY CONDUIT AT POLE



PRIMARY TRENCH

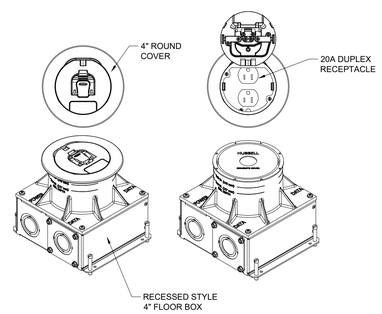


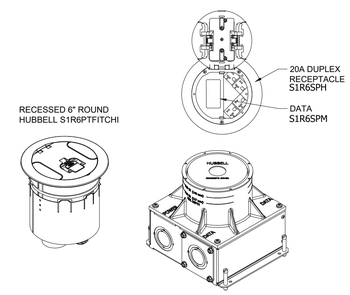
2 / E0.2 TRENCH DETAILS
SCALE: NONE



3 / E0.2 GENERATOR PAD DETAIL
SCALE: NONE

NOTE: IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY EXACT DIMENSIONS WITH MANUFACTURERS REQUIREMENTS.



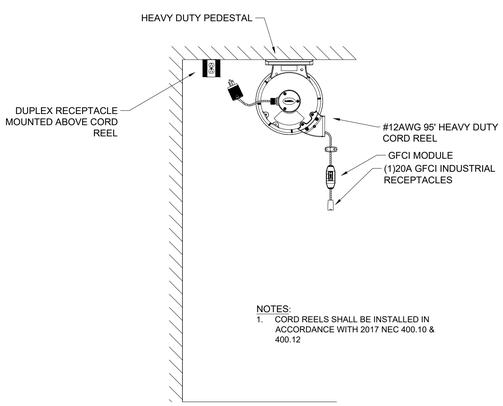


OR APPROVED EQUAL BY OTHERS

4A / E0.2 FLOOR BOX DETAIL #FB1 FB1
SCALE: NONE

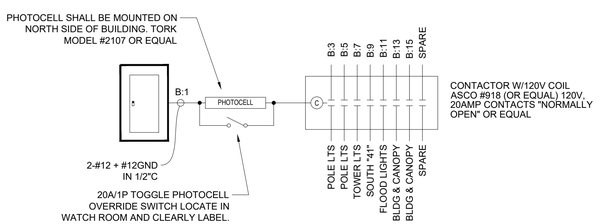
OR APPROVED EQUAL BY OTHERS

4B / E0.2 FLOOR BOX DETAIL #FB2 FB2
SCALE: NONE

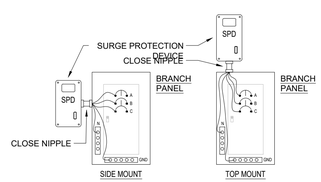


NOTES:
1. CORD REELS SHALL BE INSTALLED IN ACCORDANCE WITH 2017 NEC 400.10 & 400.12

5 / E0.2 TYPICAL HANGING RECEPTCLE DETAIL
SCALE: NONE



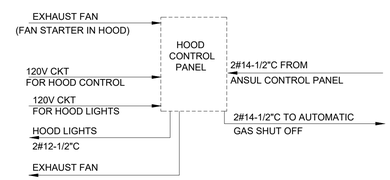
6 / E0.2 EXTERIOR LIGHTING DIAGRAM
SCALE: NONE



NOTES:

1. CIRCUIT BREAKERS FEEDING SURGE PROTECTIVE DEVICE SHALL BE INSTALLED DIRECTLY ACROSS FROM THE CONDUIT NIPPLE CONNECTION THE PANEL AND SURGE PROTECTIVE DEVICE. CIRCUIT BREAKERS SHALL BE LOCATED WITHIN PANEL AS REQUIRED TO ACCOMMODATE THIS INSTALLATION
2. PHASE, NEUTRAL, AND GROUND CONDUCTORS SHALL BE INSTALLED WITH THE SHORTEST LENGTH POSSIBLE WITH THE NEUTRAL AND GROUND CONNECTION BEING MADE IN CLOSE PROXIMITY TO THE FEEDER CIRCUIT BREAKER. THE CONDUCTORS SHALL BE INSTALLED TWISTED TOGETHER.
3. BOTH SIDE AND TOP MOUNTING OF THE SURGE PROTECTIVE DEVICE ARE ACCEPTABLE. CONTRACTOR SHALL FIELD VERIFY BEST LOCATION WITH PANEL LAYOUT.

7 / E0.2 SURGE SUPPRESSION PROTECTIVE DEVICE
SCALE: NONE



SCHEMATIC WIRING DIAGRAM

8 / E0.2 HOOD CONTROL PANEL
SCALE: NONE

NOTE: IN CASE OF FIRE IN HOOD, EXHAUST FAN SHALL RUN. UPON ANSUL INITIATION ALL ELECTRICAL AND GAS CONNECTIONS TO KITCHEN EQUIPMENT, AND HOOD LIGHTING, UNDER HOOD TO SHUT DOWN VIA SHUNT TRIP BREAKER. VERIFY REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION AND PROVIDE ALL WIRING, RELAYS, ETC. FOR A COMPLETE AND WORKING SYSTEM.

STATE OF OHIO
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SIGNATURE DATE 06/17/21

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CONSTRUCTION DOCUMENTS

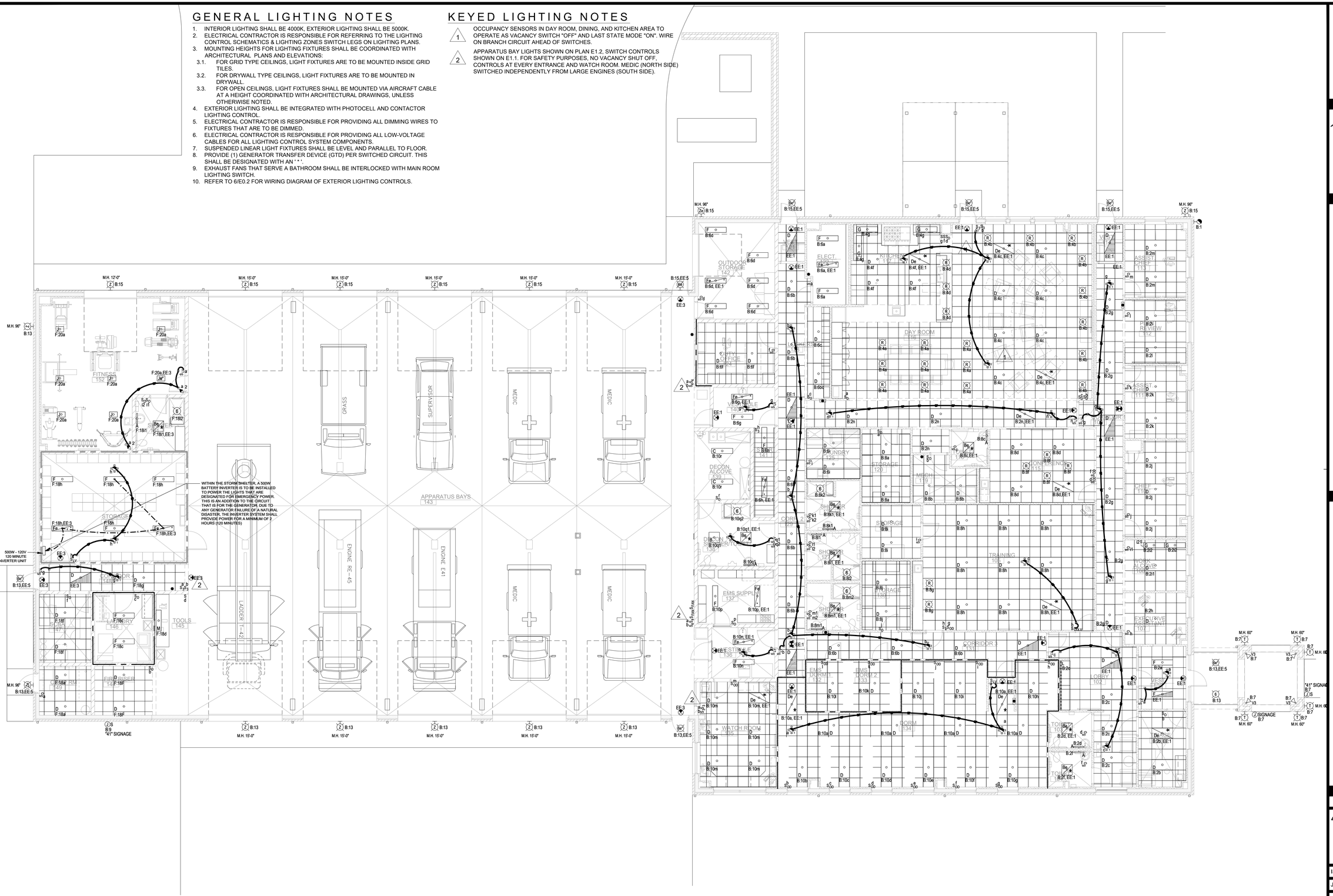
E0.2

GENERAL LIGHTING NOTES

1. INTERIOR LIGHTING SHALL BE 4000K, EXTERIOR LIGHTING SHALL BE 5000K.
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REFERRING TO THE LIGHTING CONTROL SCHEMATICS & LIGHTING ZONES SWITCH LEGS ON LIGHTING PLANS.
3. MOUNTING HEIGHTS FOR LIGHTING FIXTURES SHALL BE COORDINATED WITH ARCHITECTURAL PLANS AND ELEVATIONS:
   - 3.1. FOR GRID TYPE CEILINGS, LIGHT FIXTURES ARE TO BE MOUNTED INSIDE GRID TILES.
   - 3.2. FOR DRYWALL TYPE CEILINGS, LIGHT FIXTURES ARE TO BE MOUNTED IN DRYWALL.
   - 3.3. FOR OPEN CEILINGS, LIGHT FIXTURES SHALL BE MOUNTED VIA AIRCRAFT CABLE AT A HEIGHT COORDINATED WITH ARCHITECTURAL DRAWINGS, UNLESS OTHERWISE NOTED.
4. EXTERIOR LIGHTING SHALL BE INTEGRATED WITH PHOTOCELL AND CONTACTOR LIGHTING CONTROL.
5. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL DIMMING WIRES TO FIXTURES THAT ARE TO BE DIMMED.
6. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LOW-VOLTAGE CABLES FOR ALL LIGHTING CONTROL SYSTEM COMPONENTS.
7. SUSPENDED LINEAR LIGHT FIXTURES SHALL BE LEVEL AND PARALLEL TO FLOOR.
8. PROVIDE (1) GENERATOR TRANSFER DEVICE (GTD) PER SWITCHED CIRCUIT. THIS SHALL BE DESIGNATED WITH AN ' * '.
9. EXHAUST FANS THAT SERVE A BATHROOM SHALL BE INTERLOCKED WITH MAIN ROOM LIGHTING SWITCH.
10. REFER TO 9/E0.2 FOR WIRING DIAGRAM OF EXTERIOR LIGHTING CONTROLS.

KEYED LIGHTING NOTES

1. OCCUPANCY SENSORS IN DAY ROOM, DINING, AND KITCHEN AREA TO OPERATE AS VACANCY SWITCH "OFF" AND LAST STATE MODE "ON". WIRE ON BRANCH CIRCUIT AHEAD OF SWITCHES.
2. APPARATUS BAY LIGHTS SHOWN ON PLAN E1.2, SWITCH CONTROLS SHOWN ON E1.1. FOR SAFETY PURPOSES, NO VACANCY SHUT OFF, CONTROLS AT EVERY ENTRANCE AND WATCH ROOM. MEDIC (NORTH SIDE) SWITCHED INDEPENDENTLY FROM LARGE ENGINES (SOUTH SIDE).



LIGHTING FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

NORTH

STATE OF OHIO
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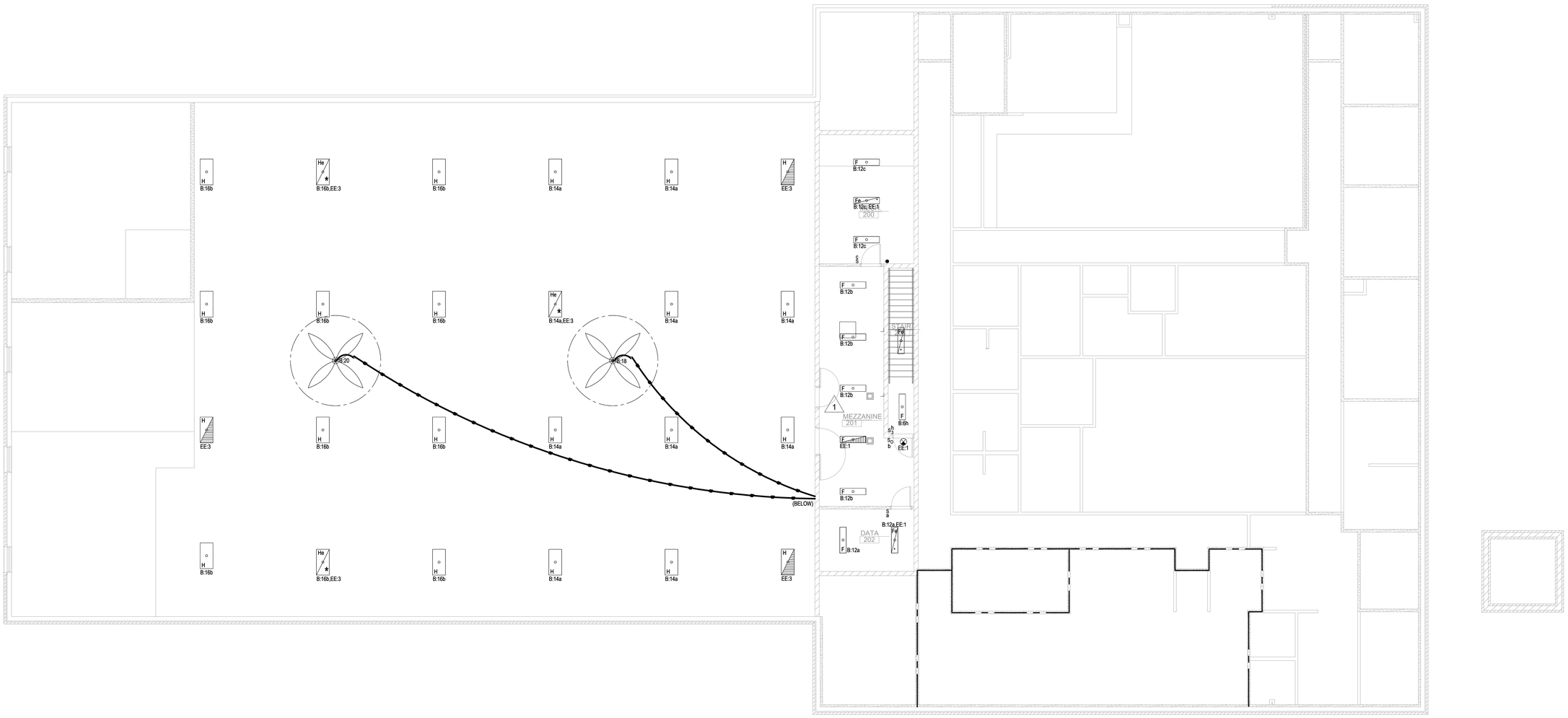
E1.1

KEYED LIGHTING NOTES

1. FIELD VERIFY PLACEMENT OF ALL LIGHTS & DEVICES IN MEZZANINE WITH OWNER FOR TRAINING PURPOSES.



LIGHTING
SECOND FLOOR PLAN

SCALE: 1/8"=1'-0"

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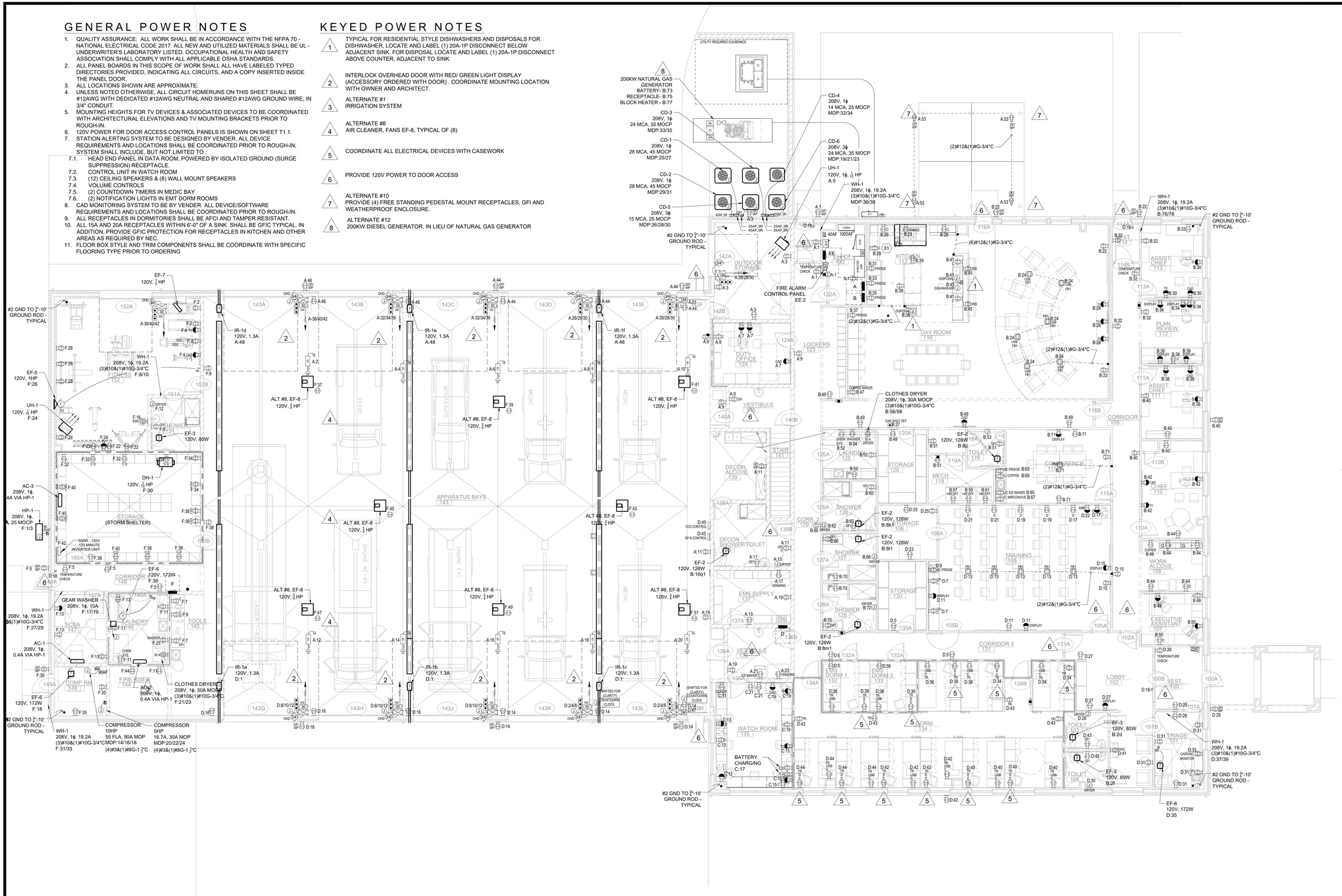
E1.2

GENERAL POWER NOTES

1. QUALITY ASSURANCE: ALL WORK SHALL BE IN ACCORDANCE WITH THE NFPA 70 - NATIONAL ELECTRICAL CODE 2017. ALL NEW AND UTILIZED MATERIALS SHALL BE UL - UNDERWRITER'S LABORATORY LISTED. OCCUPATIONAL HEALTH AND SAFETY ASSOCIATION SHALL COMPLY WITH ALL APPLICABLE OSHA STANDARDS.
2. ALL PANEL BOARDS IN THIS SCOPE OF WORK SHALL ALL HAVE LABELED TYPED DIRECTORIES PROVIDED, INDICATING ALL CIRCUITS, AND A COPY INSERTED INSIDE THE PANEL DOOR.
3. ALL LOCATIONS SHOWN ARE APPROXIMATE.
4. UNLESS NOTED OTHERWISE, ALL CIRCUIT HOMERUNS ON THIS SHEET SHALL BE #12AWG WITH DEDICATED #12AWG NEUTRAL AND SHARED #12AWG GROUND WIRE, IN 3/4" CONDUIT.
5. MOUNTING HEIGHTS FOR TV DEVICES & ASSOCIATED DEVICES TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND TV MOUNTING BRACKETS PRIOR TO ROUGH-IN.
6. 120V POWER FOR DOOR ACCESS CONTROL PANELS IS SHOWN ON SHEET T1.1.
7. STATION ALERTING SYSTEM TO BE DESIGNED BY VENDER. ALL DEVICE REQUIREMENTS AND LOCATIONS SHALL BE COORDINATED PRIOR TO ROUGH-IN. SYSTEM SHALL INCLUDE, BUT NOT LIMITED TO :
   - 7.1. HEAD END PANEL IN DATA ROOM, POWERED BY ISOLATED GROUND (SURGE SUPPRESSION) RECEPTACLE.
   - 7.2. CONTROL UNIT IN WATCH ROOM
   - 7.3. (12) CEILING SPEAKERS & (8) WALL MOUNT SPEAKERS
   - 7.4. VOLUME CONTROLS
   - 7.5. (2) COUNTDOWN TIMERS IN MEDIC BAY
   - 7.6. (2) NOTIFICATION LIGHTS IN EMT DORM ROOMS
8. CAD MONITORING SYSTEM TO BE BY VENDER. ALL DEVICE/SOFTWARE REQUIREMENTS AND LOCATIONS SHALL BE COORDINATED PRIOR TO ROUGH-IN.
9. ALL RECEPTACLES IN DORMITORIES SHALL BE AFCI AND TAMPER RESISTANT.
10. ALL 15A AND 20A RECEPTACLES WITHIN 6'-0" OF A SINK SHALL BE GFIC TYPICAL. IN ADDITION, PROVIDE GFIC PROTECTION FOR RECEPTACLES IN KITCHEN AND OTHER AREAS AS REQUIRED BY NEC.
11. FLOOR BOX STYLE AND TRIM COMPONENTS SHALL BE COORDINATE WITH SPECIFIC FLOORING TYPE PRIOR TO ORDERING

KEYED POWER NOTES

1. TYPICAL FOR RESIDENTIAL STYLE DISHWASHERS AND DISPOSALS FOR DISHWASHER, LOCATE AND LABEL (1) 20A-1P DISCONNECT BELOW ADJACENT SINK. FOR DISPOSAL LOCATE AND LABEL (1) 20A-1P DISCONNECT ABOVE COUNTER, ADJACENT TO SINK
2. INTERLOCK OVERHEAD DOOR WITH RED/ GREEN LIGHT DISPLAY (ACCESSORY ORDERED WITH DOOR) . COORDINATE MOUNTING LOCATION WITH OWNER AND ARCHITECT.
3. ALTERNATE #1 IRRIGATION SYSTEM
4. ALTERNATE #8 AIR CLEANER, FANS EF-8, TYPICAL OF (8)
5. COORDINATE ALL ELECTRICAL DEVICES WITH CASEWORK
6. PROVIDE 120V POWER TO DOOR ACCESS
7. ALTERNATE #10 PROVIDE (4) FREE STANDING PEDESTAL MOUNT RECEPTACLES, GFI AND WEATHERPROOF ENCLOSURE.
8. ALTERNATE #12 200KW DIESEL GENERATOR, IN LIEU OF NATURAL GAS GENERATOR



ELECTRICAL POWER
FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

NORTH

STATE OF OHIO
VINCENT D. BUEHRER
54249
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

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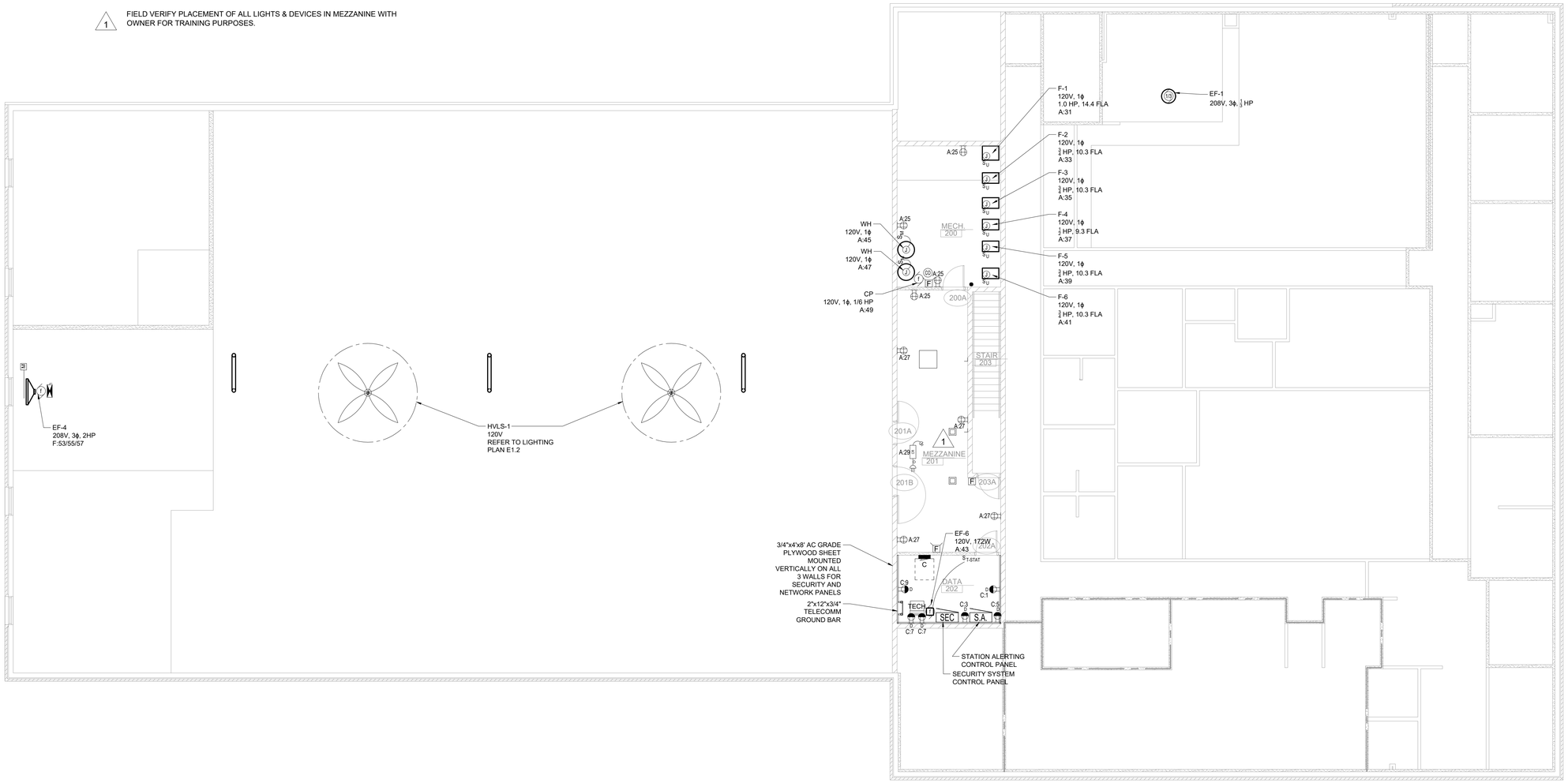
CONSTRUCTION DOCUMENTS

E2.1

KEYED POWER NOTES

1. FIELD VERIFY PLACEMENT OF ALL LIGHTS & DEVICES IN MEZZANINE WITH OWNER FOR TRAINING PURPOSES.



ELECTRICAL POWER
SECOND FLOOR
PARTIAL PLAN

SCALE: 1/8"=1'-0"

NORTH

STATE OF OHIO
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54249
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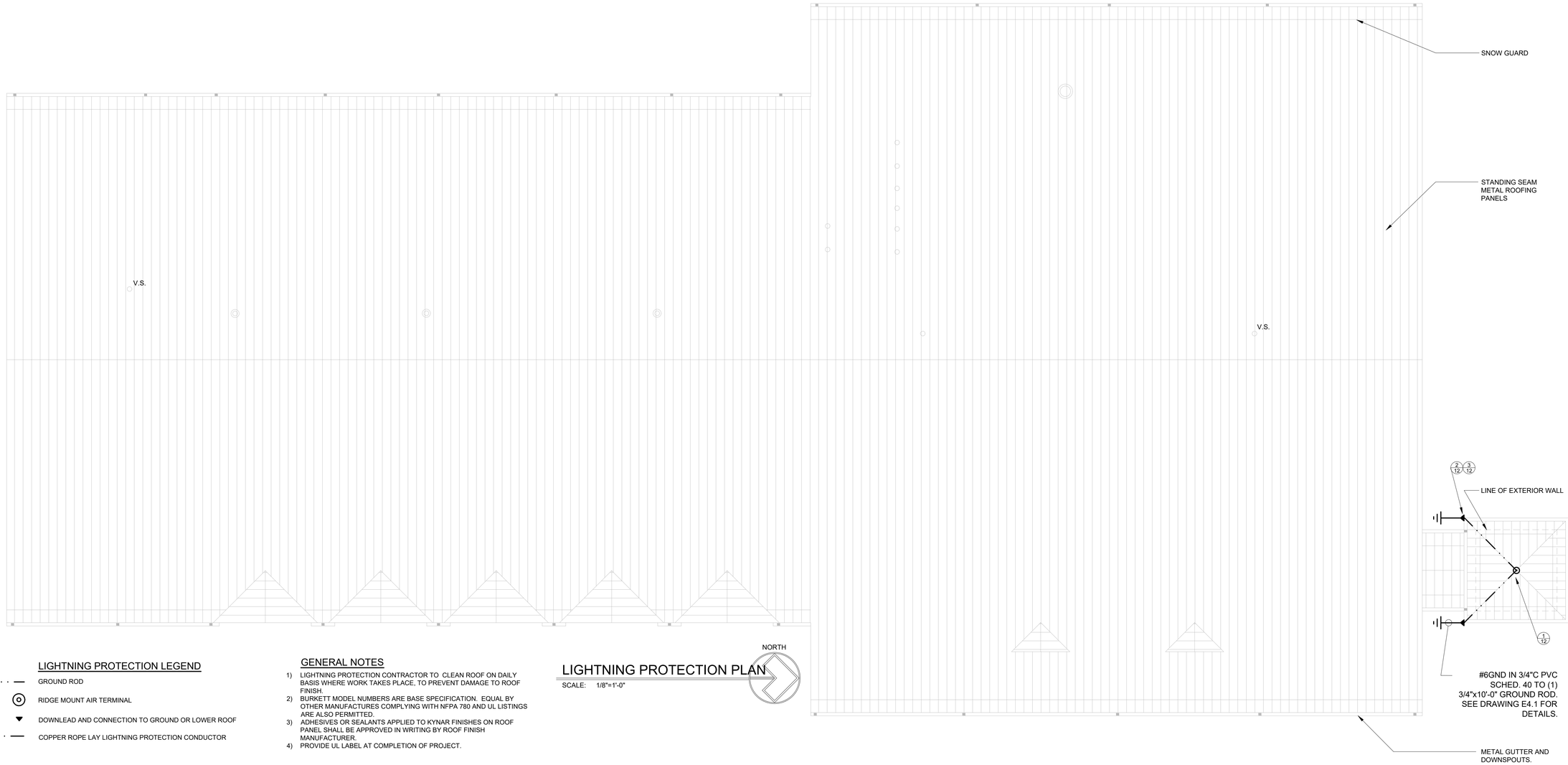
E2.2



LIGHTNING PROTECTION LEGEND

- GROUND ROD
- RIDGE MOUNT AIR TERMINAL
- DOWNLEAD AND CONNECTION TO GROUND OR LOWER ROOF
- COPPER ROPE LAY LIGHTNING PROTECTION CONDUCTOR

GENERAL NOTES

1) LIGHTNING PROTECTION CONTRACTOR TO CLEAN ROOF ON DAILY BASIS WHERE WORK TAKES PLACE, TO PREVENT DAMAGE TO ROOF FINISH.
2) BURKETT MODEL NUMBERS ARE BASE SPECIFICATION. EQUAL BY OTHER MANUFACTURES COMPLYING WITH NFPA 780 AND UL LISTINGS ARE ALSO PERMITTED.
3) ADHESIVES OR SEALANTS APPLIED TO KYNAR FINISHES ON ROOF PANEL SHALL BE APPROVED IN WRITING BY ROOF FINISH MANUFACTURER.
4) PROVIDE UL LABEL AT COMPLETION OF PROJECT.

LIGHTNING PROTECTION PLAN

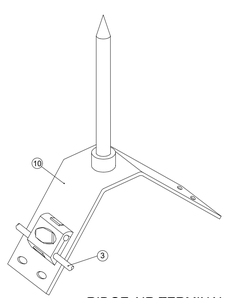
SCALE: 1/8"=1'-0"

NORTH

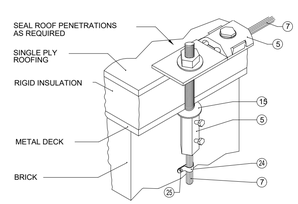
MATERIALS LIST

(NOT ALL MATERIALS MAY BE USED)

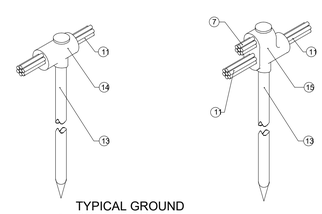
1. BURKETT #104B 3/8"x18" BARE COPPER OR 1/2"x18" ALUMINUM AIR TERMINAL
2. BURKETT #505-3F5F COPPER AIR TERMINAL SWIVEL ADAPTER
3. BURKETT #28R COPPER ROPE LAY LIGHTNING PROTECTION CONDUCTOR
4. BURKETT #1007 CAST BRONZE UNIVERSAL PARALLEL CABLE CONNECTOR
5. BURKETT #1205 3/4"x10' COPPER-CLAD STEEL GROUND ROD
6. BURKETT TYPE LR17 #19 PASS THROUGH & #28 TERMINAL TO GROUND ROD
7. BURKETT #1007-38X CABLE SPLICER
8. 8 SQ.IN. STEEL BACK, CAST BRONZE BONDING PLATE WITH CABLE CONNECTOR
9. BURKETT #MGB-6 CAST BRONZE MINIATURE CABLE BOND CONNECTOR
10. BURKETT #PB-SS-1 TYPE COPPER STRIP BASE, FOR 3/8" THREADED AIR TERMINAL
11. BURKETT #1112 HORIZONTAL THRU WALL CABLE CONNECTOR



1 / E3.1 RIDGE AIR TERMINAL
NOT TO SCALE



2 / E3.1 DOWN WALL CONNECTOR
NOT TO SCALE



3 / E3.1 TYPICAL GROUND CONNECTION
NOT TO SCALE

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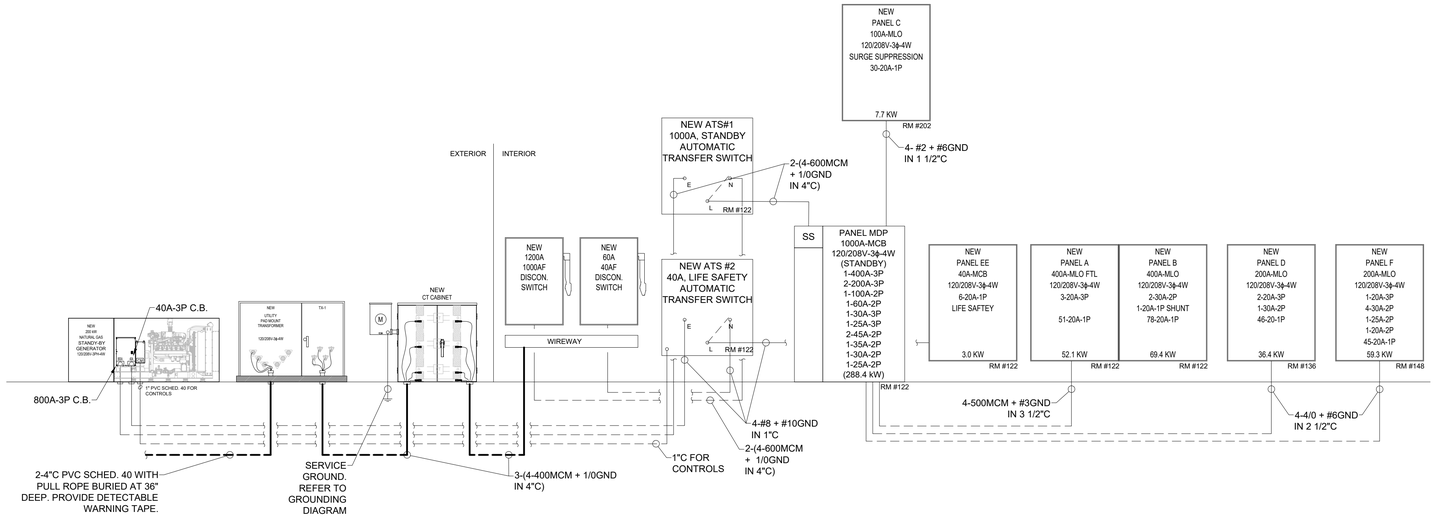
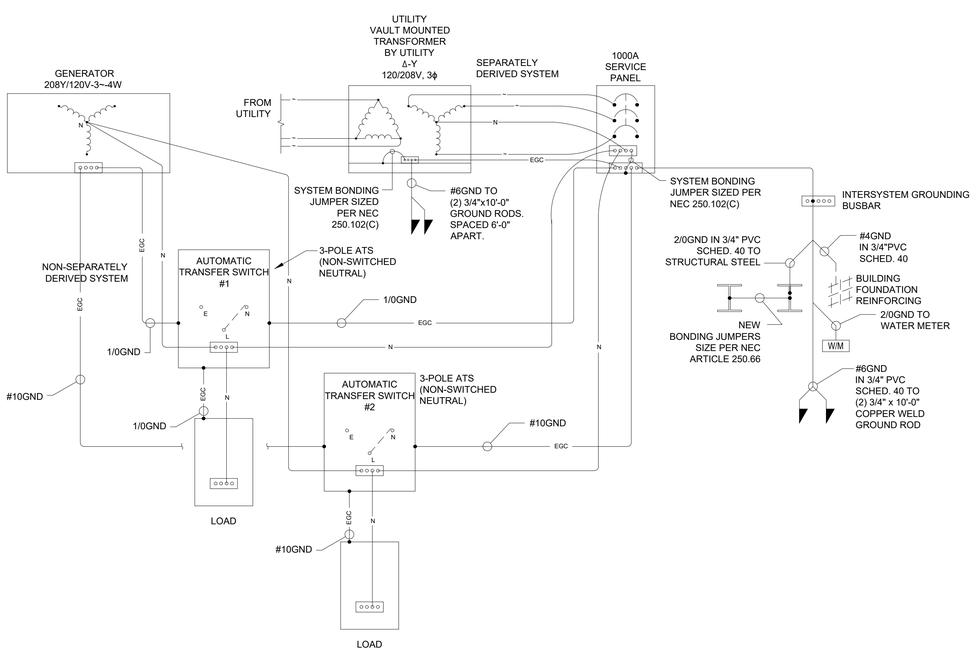
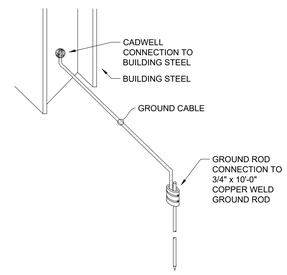
E3.1



SINGLE LINE DIAGRAM - 800A -120/208V-3ϕ-4W 60Hz



GROUNDING DIAGRAM



GROUND ROD TO STRUCTURAL STEEL

GROUNDING NOTES:

1. CONNECT THE SERVICE NEUTRAL CONDUCTOR ACCORDING TO NEC 250.24(A)(1), AND AS IDENTIFIED IN NEC 250.26.
2. IF AN OUTDOOR TRANSFORMER IS SUPPLYING SERVICE TO THE BUILDING, AT LEAST ONE ADDITIONAL GROUNDING CONNECTION SHALL BE MADE FROM THE GROUNDED SERVICE CONDUCTOR TO A GROUNDING ELECTRODE PER NEC 250.24(A)(2).
3. THE MAIN BONDING JUMPER AS WELL AS THE SYSTEM BONDING JUMPER AS IDENTIFIED BY 205.28 SHALL BE SIZED PER 250.102(C)(1).
4. WHEN GROUNDING A SEPARATELY DERIVED SYSTEM FOR A GROUNDED SYSTEM, ALL GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH 250.30(A).
5. PER NEC 250.52, ELECTRODES PERMITTED FOR GROUNDING INCLUDE: METAL UNDERGROUND WATER PIPE, THE METAL FRAME OF THE BUILDING OR STRUCTURE, AND CONCRETE ENCASED ELECTRODES.
   5.1. WHEN USING THE METAL UNDERGROUND WATER PIPE AS THE GROUNDING ELECTRODE, THE BONDING SHALL BE MADE WITHIN THE FIRST 5 FEET OF ENTERING THE BUILDING.
6. IF A SINGLE GROUND ROD IS BEING USED AS A SUPPLEMENTAL ELECTRODE TO A METAL UNDERGROUND WATER PIPE PER 250.53(D)(2) AND HAS A RESISTANCE OF LESS THAN 25Ω, THEN A SUPPLEMENTAL GROUND ROD IS REQUIRED AND BE SPACED AT 6' APART PER NEC 250.53(A) EXCEPTION AND 250.53(B).
7. THE BONDING JUMPER USED TO CONNECT THE GROUNDING ELECTRODES TOGETHER SHALL BE SIZED PER TABLE 250.66.
   7.1. THE BONDING JUMPER WHERE CONNECTED TO THE SUPPLEMENTAL GROUND ROD IS NOT REQUIRED TO BE LARGER THAN #6 AWG CU OR #4 AWG AL.
8. GROUNDING ELECTRODE CONDUCTOR(S) AND BONDING JUMPERS INTERCONNECTING GROUNDING ELECTRODES SHALL BE INSTALLED IN ACCORDANCE WITH 250.64(F)(1),(2), OR (3).
   8.1. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE PERMITTED TO BE RUN TO ONE OR MORE GROUNDING ELECTRODE(S) INDIVIDUALLY.
   8.2. BONDING JUMPER(S) FROM GROUNDING ELECTRODE(S) SHALL BE PERMITTED TO BE CONNECTED TO AN ALUMINUM OR COPPER BUS BAR NOT LESS THAN 1/4" x 2" AND FASTENED SECURELY TO AN ACCESSIBLE LOCATION.

MAIN DISTRIBUTION PANEL "MDP"

MAINS:	1000	A MLO	**V:**	120/208V		3	**PH.**	4	**WIRE**				
MOUNTING:	SURFACE		**LOCATION:**		ELEC #122				**FED FROM:**		MAIN DISC. VIA ATS #1		
	LOAD				**AMPS**	**CKT**	**CKT**	**AMPS**				**LOAD**	
DESCRIPTION	**TYPE**	**A**	**B**	**C**	**POLE**	**#**	**#**	**POLE**	**A**	**B**	**C**	**TYPE**	**DESCRIPTION**
PANEL A & B		41588				**1**	**2**		3000				
			39519		400	**3**	**4**	100		2000			PANEL C
				40419		**5**	**6**				2700		
PANEL D		14491				**7**	**8**		21871				
			10498		200	**9**	**10**	200		20533			PANEL F
				11398		**11**	**12**				16943		
SURGE SUPPRESSION						**13**	**14**		6605				
					60	**15**	**16**	90		6605		M	COMPRESSOR (10 HP)
						17	**18**				6605		
CD-6		2882				**19**	**20**		2005				
	HVAC		2882		35	**21**	**22**	30		2005		M	COMPRESSOR (5 HP)
				2882		**23**	**24**				2005		
CD-1	HVAC	2912			45	**25**	**26**	25	1801				
			2912			**27**	**28**			1801		HVAC	CD-5
CD-2	HVAC			2912	45	**29**	**30**				1801		
		2912				**31**	**32**	25	1456			HVAC	CD-4
CD-3	HVAC		2496		35	**33**	**34**			1456			
				2496		**35**	**36**	30			1997	EH	WH-1
						37	**38**		1997				
						39	**40**						
						41	**42**						
SUBTOTAL #1		64786	58308	60108					38735	34401	32051		**SUBTOTAL #2**
SUBTOTAL #1 + #2		**103521**	**92708**	**92159**									
TOTAL PANEL LOAD:	288.4	KW		800.5	**AMPS**						**DEMANDED:**	784.2	A MINIMUM FEEDER

	Total Connected Load			Demand %		Demand Load	
RECEPTACLES	47.7			100%		47.7	
RECEPTACLES	52.3			50%		26.2	
LIGHTING	15.1			100%		15.1	
MOTORS	26.7			100%		26.7	
KITCHEN	19.9			65%		12.9	
WATER & ELEC HEAT	43.9			100%		43.9	
HVAC	62.9			100%		62.9	
LARGEST MTR	19.8			125%		24.8	
	288.3	kw				260.1	kw
	800.3	Amps @ 208V				722.1	Amps @ 208V
Continuous	89.5	x		125%		111.9	kw
Non-continuous	170.6	x		100%		170.6	kw
						282.5	kw
						784.2	Amps @ 208V
						Minimum feeder size	

LOAD TYPE LEGEND

R - RECEPTACLE
L - LIGHTING
K - KITCHEN EQUIPMENT
EH - ELECTRIC HEAT
H - HVAC
M - LARGEST MOTOR

CIRCUIT BREAKER DESIGNATIONS (TYP)

"G" INDICATES GFIC
"ST" INDICATES SHUNT TRIP DEIVCE
"L" INDICATES RED, LOCK-ON BREAKER

MDP

STATE OF OHIO
KENT D. BUEHRER
54249
REGISTERED
PROFESSIONAL ENGINEER
SIGNATURE DATE 06/17/21

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FOR
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E4.1

PANEL "A"

MAINS:	400	A MLO	**V:**	120/208V		3	**PH.**	4	**WIRE**		FEED THRU LUG	
MOUNTING:	SURFACE		**LOCATION:**		ELEC #122				**FED FROM:**		MDP	
	LOAD				**AMPS**	**CKT**	**CKT**	**AMPS**			**LOAD**	
DESCRIPTION	**TYPE**	**A**	**B**	**C**	**POLE**	**#**	**#**	**POLE**	**A**	**B**	**C**	**TYPE**	**DESCRIPTION**
ELEC RM RECEPT	R	1000			20	1	2	20	1800			R	SHORE PWR
RECEPTACLES	R		800		20	3	4	20		1800		R	SHORE PWR
UH-1	EH			100	20	5	6	20			1800	R	SHORE PWR
DUTY OFFICE	R	800			20	7	8	20	1800			R	SHORE PWR
RECEPTACLES	R		1000		20	9	10	20		1800		R	SHORE PWR
RECEPTACLES	R			800	20	11	12	20			1800	R	SHORE PWR
HAND DRYER	EH	1725			20	13	14	20	1800			R	SHORE PWR
SPARE					20	15	16	20		1800		R	SHORE PWR
EMS VENDING	R			1000	20	17	18	20			1800	R	SHORE PWR
RECEPTACLES	R	800			20	19	20	20	1800			R	SHORE PWR
ICE MAKER	K		1000		20	21	22	20					SPARE
VENDING	K			1000	20	23	24	20					SPARE
MEZZ RECEPTACLES	R	800			20	25	26	20	1261			M	OHD #142A, #143E & #143D
MEZZ RECEPTACLES	R		800		20	27	28			1261			
MEZZ CORD REEL	R			200	20	29	30				1261		
F-1	HVAC	1728			20	31	32	20	841			M	OHD #143B & 143C
F-2	HVAC		1236		20	33	34			841			
F-3	HVAC			1236	20	35	36				841		
F-4	HVAC	1116			20	37	38	20	841			M	OHD #143A & 152A
F-5	HVAC		1236		20	39	40			841			
F-6	HVAC			1236	20	41	42				841		
EF-6	HVAC	172			20	43	44	20	1000			R	RECEPTACLES
HOT WATER HEATER	R		1000		20	45	46	20		600		R	RECEPTACLES
HOT WATER HEATER	R			1000	20	47	48	20			468	HVAC	IR-d, IR-e, IR-f
CP-1	M	528			20	49	50	20					SPARE
MOTORIZED DAMPER	M		100		20	51	52	20					SPARE
PERGOLA	R			800	20	53	54	20					SPARE
FUTURE GATE					20	55	56	20					SPARE
SPARE					20	57	58	20					SPARE
SPARE					20	59	60	20					SPARE
SPACE						61	62						SPACE
SPACE						63	64						SPACE
SPACE						65	66						SPACE
SPACE						67	68						SPACE
SPACE						69	70						SPACE
SPACE						71	72						SPACE
SPACE						73	74						SPACE
SPACE						75	76						SPACE
SPACE						77	78						SPACE
SPACE						79	80						SPACE
SPACE						81	82						SPACE
SPACE						83	84						SPACE
SUBTOTAL #1		8669	7172	7372					11142	8942	8810		**SUBTOTAL #2**
SUBTOTAL #1,#2 &B		**19811**	**16114**	**16182**									
TOTAL PANEL LOAD:	52.1	KW		144.6	**AMPS**						**DEMANDED:**	302.9	A MINIMUM FEEDER

PANEL "B"

MAINS:	400	A MLO	**V:**	120/208V		3	**PH.**	4	**WIRE**			
MOUNTING:	SURFACE		**LOCATION:**		ELEC #122				**FED FROM:**		MDP VIA A	
	LOAD				**AMPS**	**CKT**	**CKT**	**AMPS**			**LOAD**	
DESCRIPTION	**TYPE**	**A**	**B**	**C**	**POLE**	**#**	**#**	**POLE**	**A**	**B**	**C**	**TYPE**	**DESCRIPTION**
P.C. & CONTACTOR	R	200			20	1	2	20	1152			L	LIGHTS
EXT. POLE LIGHTS	L		868		20	3	4	20		1058		L	LIGHTS
EXT. POLE LIGHTS	L			651	20	5	6	20			1000	L	LIGHTS
EXT TOWER LTS	L	590			20	7	8	20	1373			L	LIGHTS
EXT. SOUTH "41"	L		200		20	9	10	20		1282		L	LIGHTS
EXT. FLOOD LTS	L			48	20	11	12	20			300	L	LIGHTS
EXT. BLDG &CANOPY	L	831			20	13	14	20	1540			L	HIGH BAY LTS NORTH
EXT. BLDG &CANOPY	L		940		20	15	16	20		1694		L	HIGH BAY LTS SOUTH
ELECTRONIC SIGN	R			566	20	17	18	20			1000	HVAC	LARGE FANS
ELECTRONIC SIGN	R	566			20	19	20	20	1000			HVAC	LARGE FANS
ELECTRONIC SIGN	R		566		20	21	22	20		1200		R	RECEPTACLES
GAS RANGE SHUNT TRIP	K			200	20 ST	23	24	20			1200	R	FLOOR BOXES
						25	26	20	1000			R	80" TV
HOOD &GAS SHUTOFF	K		400		20	27	28	20		800		R	MEDIA CENTER
KITCHEN RECEPT	K			600	20G	29	30	20			800	R	ASSIST CHIEF 113
FRIDGE	K	1500			20G	31	32	20	800			R	ASSIST CHIEF 113
FRIDGE	K		1500		20G	33	34	20		800		R	PLAN REVIEW 112
FRIDGE	K			1500	20G	35	36	20			600	R	PLAN REVIEW 112
FRIDGE	K	1500			20G	37	38	20	800			R	ASSIST CHIEF 111
DISPOSAL &OUTLETS	K		900		20G	39	40	20		1000		R	ASSIST CHIEF 111
DISPOSAL &OUTLETS	K			900	20G	41	42	20			800	R	CHIEF 110
DISHWASHER	K	600			20G	43	44	20	1000			R	WORK ALCOVE
USB OUTLETS	K		400		20G	45	46	20		1500		R	COPIER
COFFEE MAKER	K			500	20G	47	48	20			600	R	EXEC ASSIST 107
RECEPTACLES	R	1000			20	49	50	20	600			R	EXEC ASSIST 107
RECEPTACLES	R		600		20	51	52	20		600		R	CHEM SYS & RECEPT
HAND DRYER	EH			1725	20	53	54	20			1500	R	WASHER
SPARE					20	55	56	30	1500			EH	DRYER
FREEZER	K		1800		20G	57	58			1500			
FREEZER	K			1800	20G	59	60	20			800	R	RECEPTACLES
FREEZER	K	1800			20G	61	62	20	1725			EH	HAND DRYER
UC FRIDGE	K		500		20G	63	64	20					SPARE
UC ICE MAKER	K			500	20G	65	66	20			1725	EH	HAND DRYER
MICROWAVE	K	500			20G	67	68	20					SPARE
COFFEE MAKER	K		500		20G	69	70	20		600		R	RECEPTACLES
RECEPTACLES	R			1000	20	71	72	20			1725	EH	HAND DRYER
GEN. BATTERY	R	200			20	73	74	20					SPARE
GEN. RECEPT	R		200		20	75	76	30		1997		EH	WH-1
GEN. BLOCK HTR	R			200	20	77	78				1997		
SPARE					20	79	80	20					SPARE
SPARE					20	81	82	20					SPARE
SPARE					20	83	84	20					SPARE
SUBTOTAL #1		9287	9374	10190					12490	14031	14047		**SUBTOTAL #2**
SUBTOTAL #1 + #2		**21777**	**23405**	**24237**									
TOTAL PANEL LOAD:	69.4	KW		192.7	**AMPS**						**DEMANDED:**	175.0	A MINIMUM FEEDER

PANEL "C"

MAINS:	100	A MLO	**V:**	120/208V		3	**PH.**	4	**WIRE**		SURGE SUPPRESSION	
MOUNTING:	SURFACE		**LOCATION:**		DATA #202				**FED FROM:**		MDP	
	LOAD				**AMPS**	**CKT**	**CKT**	**AMPS**			**LOAD**	
DESCRIPTION	**TYPE**	**A**	**B**	**C**	**POLE**	**#**	**#**	**POLE**	**A**	**B**	**C**	**TYPE**	**DESCRIPTION**
ACCESS CTRL PNL	R	400			20	1	2	30					SURGE SUPPRESSION
SECURITY CTRL PNL	R		400		20	3	4						
ALERTING CTRL PNL	R			400	20	5	6	20					SPARE
TECH RACK	R	800			20	7	8	20					SPARE
RECEPTACLES	R		400		20	9	10	20					SPARE
COPIER	R			1500	20	11	12	20					SPARE
RECEPTACLES	R	1000			20	13	14	20					SPARE
RECEPTACLES	R		800		20	15	16	20					SPARE
BATTERY CHARGING	R			800	20	17	18	20					SPARE
RECEPTACLES	R	800			20	19	20	20					SPARE
RECEPTACLES	R		400		20	21	22	20					SPARE
SPARE					20	23	24	20					SPARE
SPARE					20	25	26	20					SPARE
SPARE					20	27	28	20					SPARE
SPARE					20	29	30	20					SPARE
SUBTOTAL #1		3000	2000	2700					0	0	0		**SUBTOTAL #2**
SUBTOTAL #1 + #2		**3000**	**2000**	**2700**									
TOTAL PANEL LOAD:	7.7	KW		21.4	**AMPS**						**DEMANDED:**	26.7	A MINIMUM FEEDER

PANEL "F"

MAINS:	200	A MLO	**V:**	120/208V		3	**PH.**	4	**WIRE**			
MOUNTING:	SURFACE		**LOCATION:**		CORRIDOR #148				**FED FROM:**		MDP	
	LOAD				**AMPS**	**CKT**	**CKT**	**AMPS**			**LOAD**	
DESCRIPTION	**TYPE**	**A**	**B**	**C**	**POLE**	**#**	**#**	**POLE**	**A**	**B**	**C**	**TYPE**	**DESCRIPTION**
HP-1	HVAC	2486			25	1	2	20	600			R	FITNESS
			2486			3	4	20		400		R	RECEPTACLES
RECEPTACLES	R			800	20	5	6	20			400	R	RECEPTACLES
TOOLS	R	400			20	7	8	30	1997			EH	WH-1
TOOLS	R		400		20	9	10			1997			
RECEPTACLES	R			800	20	11	12	20			1725	EH	HAND DRYER
RECEPTACLES	R	800			20	13	14	20					SPARE
RECEPTACLES	R				20	15	16	20		500		R	EWC
GEAR WASHER	R			1040	20	17	18	20			712	L	LIGHTS
		1040				19	20	20	875			L	FITNESS LIGHTS
DRYER	EH		1500		30	21	22	20		600		R	RECEPTACLES
				1500		23	24	20			500	R	RECEPT &UH-1
WASHER	R	1500			20	25	26	20	1920			HVAC	EF-5
WH	EH		1997		30	27	28	20		600		R	RECEPTACLES
				1997		29	30	20			1168	R	DH-1 & EF-6
WH	EH	1997			30	31	32	20	1000			R	RECEPTACLES
			1997			33	34	20		1000		R	RECEPTACLES
RECEPTACLES	R			600	20	35	36	20			800	R	BATTERY CHARGING
EF-8 ALT #8	HVAC	1656			20	37	38	20	1200			R	RECEPTACLES
EF-8 ALT #8	HVAC		1656		20	39	40	20		1200		R	RECEPTACLES
EF-8 ALT #8	HVAC			1656	20	41	42	20			500	R	INVERTER
EF-8 ALT #8	HVAC	1656			20	43	44	20	200			R	FUTURE IRRIGATION
EF-8 ALT #8	HVAC		1656		20	45	46	20					PUMP &
EF-8 ALT #8	HVAC			1656	20	47	48	20					CONTROL PANEL
EF-8 ALT #8	HVAC	1656			20	49	50	20					FUTURE GATE
EF-8 ALT #8	HVAC		1656		20	51	52	20					SPARE
EF-4	HVAC			889	20	53	54	20					SPARE
		889				55	56	20					SPARE
			889			57	58	20					SPARE
EF-8 CONTROL	HVAC			200	20	59	60	20					SPARE
SPACE						61	62						SPACE
SPACE						63	64						SPACE
SPACE						65	66						SPACE
SPACE						67	68						SPACE
SPACE						69	70						SPACE
SPACE						71	72						SPACE
SUBTOTAL #1		14079	14236	11138					7792	6297	5805		**SUBTOTAL #2**
SUBTOTAL #1 + #2		**21871**	**20533**	**16943**									
TOTAL PANEL LOAD:	59.3	KW		164.7	**AMPS**						**DEMANDED:**	165.0	A MINIMUM FEEDER

PANEL "D"

MAINS:	200	A MLO	**V:**	120/208V		3	**PH.**	4	**WIRE**			
MOUNTING:	SURFACE		**LOCATION:**		VESTIBULE #136				**FED FROM:**		MDP	
	LOAD				**AMPS**	**CKT**	**CKT**	**AMPS**			**LOAD**	
DESCRIPTION	**TYPE**	**A**	**B**	**C**	**POLE**	**#**	**#**	**POLE**	**A**	**B**	**C**	**TYPE**	**DESCRIPTION**
IR-a, IR-b, IR-c	HVAC	468			20	1	2	20	841			M	OHD #143L &143k
SPARE					20	3	4			841			
RECEPTACLES	R			800	20	5	6				841		
RECEPTACLES	R	400			20	7	8		1261			M	OHD #143J, 143H &143G
UC FRIDGE	R		500		20	9	10	20		1261			
RECEPTACLES	R			600	20	11	12				1261		
FLOOR RECEPT	R	1000			20	13	14	20	1000			R	RECEPTACLES
RECEPTACLES	R		600		20	15	16	20		800		R	RECEPTACLES
RECEPTACLES	R			800	20	17	18	20			200	R	CITY DOOR ACCESS
RECEPTACLES	R	800			20	19	20	20					SPARE
RECEPTACLES	R		800		20	21	22	20		500		R	TRAINING AMP
VENDING	R			1000	20	23	24	20					SPARE
RECEPTACLES	R	400			20	25	26	20	1725			EH	HAND DRYER
RECEPTACLES	R		600		20	27	28	20					SPARE
RECEPTACLES	R			800	20	29	30	20			1725	EH	HAND DRYER
RECEPTACLES	R	1000			20	31	32	20					SPARE
CARDIAC MONITOR	R		200		20	33	34	20		1000		R	RECEPTACLES
EF-6	HVAC			172	20	35	36	20			1200	R	RECEPTACLES
WH-1	EH	1997			30	37	38	20	1200			R	RECEPTACLES
			1997			39	40	20		1200		R	RECEPTACLES
EWC	R			500	20G	41	42	20			1400	R	RECEPTACLES
RECEPTACLES	R	1200			20	43	44	20	1200			R	RECEPTACLES
C02 CONTROL PNL	R		200		20	45	46	20					SPARE
MOTORIZED DAMPER				100	20	47	48	20					SPARE
SPARE					20	49	50	20					SPARE
SPARE					20	51	52	20					SPARE
SPARE					20	53	54	20					SPARE
SUBTOTAL #1		7265	4897	4772					7226	5601	6626		**SUBTOTAL #2**
SUBTOTAL #1 + #2		**14491**	**10498**	**11398**									
TOTAL PANEL LOAD:	36.4	KW		101.0	**AMPS**						**DEMANDED:**	95.7	A MINIMUM FEEDER

LIFE SAEFTY PANEL "EE"

MAINS:	40	A MLO	**V:**	120/208V		3	**PH.**	4	**WIRE**			
MOUNTING:	SURFACE		**LOCATION:**		ELEC #122				**FED FROM:**		DISCONNECT VIA ATS #2	
	LOAD				**AMPS**	**CKT**	**CKT**	**AMPS**			**LOAD**	
DESCRIPTION	**TYPE**	**A**	**B**	**C**	**POLE**	**#**	**#**	**POLE**	**A**	**B**	**C**	**TYPE**	**DESCRIPTION**
EM LIGHTS & EXITS	L	1040			20	1	2	20L	200				FACP
EM LIGHTS & EXITS	L		1353		20	3	4	20					SPARE
EXTERIOR EM LIGHTS	L			393	20	5	6	20					SPARE
SPACE						7	8						SPACE
SPACE						9	10						SPACE
SPACE						11	12						SPACE
SUBTOTAL #1		1040	1353	393					200	0	0		**SUBTOTAL #2**
SUBTOTAL #1 + #2		**1240**	**1353**	**393**									
TOTAL PANEL LOAD:	3.0	KW		8.3	**AMPS**						**DEMANDED:**	10.4	A MINIMUM FEEDER

A	B	C
D	EE	F

STATE OF OHIO
VINCENT D. BUEHRER
54249
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
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CONSTRUCTION DOCUMENTS

E4.2

FIRE ALARM LEGEND

SEE SPECIFICATIONS FOR ALL DEVICES ON THIS LEGEND.

- F — NEW COMBINATION FIRE ALARM HORN AND STROBE. MH = 6'-8". "WP"- WEATHER PROOF HORN ONLY. "WG" - WIRE GUARD.
- F — NEW FIRE ALARM PULL STATION. MH=4'-0". "WG" - WIRE GUARD.
- S — FIRE ALARM STROBE. MH = 6'-8".
- D — ELECTRIC DOOR HOLD OPEN DEVICE. MH = 6'-8" (APPROX.)
- SM/CO — NEW CEILING MOUNTED COMBO SMOKE AND CARBON MONOXIDE DETECTOR.
- SM — NEW CEILING MOUNTED SMOKE DETECTOR.
- CO — NEW CEILING MOUNTED CARBON MONOXIDE DETECTOR.
- S — CEILING MOUNTED FIRE ALARM STROBE. MH = 6'-8".
- T — SPRINKLER TAMPER SWITCH. (SUPPLIED BY OTHERS, WIRED BY FA CONTRACTOR)
- F — SPRINKLER WATER FLOW SWITCH. (SUPPLIED BY OTHERS, WIRED BY FA CONTRACTOR)
- Z — CONTROL ZONE ADAPTER MODULE (ZAM)
- I — SUPERVISED INDIVIDUAL ADDRESSABLE MODULE (IAM)
- FACP — RECESSED MOUNTED FIRE ALARM CONTROL PANEL
- FACP — SURFACE MOUNTED FIRE ALARM CONTROL PANEL
- FANN — FIRE ALARM ANNUNCIATOR PANEL
- FENX — FIRE ALARM NAC EXTENDER PANEL

SOUND SYSTEMS LEGEND

SEE SPECIFICATIONS FOR ALL DEVICES ON THIS LEGEND.

- LS — CEILING MOUNTED LOUD SPEAKER. SEE SPECS.

COMMUNICATIONS LEGEND

SEE SPECIFICATIONS FOR ALL DEVICES ON THIS LEGEND.

- # — COMBINATION VOICE/DATA JACK. MH=16" UNLESS NOTED OTHERWISE. 1-1½" CONDUIT STUB INTO CEILING SPACE OR EXTEND TO CABLE TRAY AS SHOWN. SEE SCHEDULE BELOW. NO DESIGNATION DENOTES ROUGHIN BOX WITH BLANK COVER AND 1-1½" CONDUIT STUBBED INTO CEILING ABOVE
- COMBINATION VOICE/DATA JACK MOUNTED IN FLOOR POCKET.
- WP — SINGLE DATA DROP FOR WIRELESS ACCESS 6" ABOVE CEILING GRID. TERMINATE IN SURFACE MOUNTED BOX AS A J DROP.
- ¼"x2"X12" GROUNDING BUS BAR
- COAX GROUNDING BLOCK
- FLOOR MOUNTED 2-POST OPEN DATA RACK
- ¾" AC GRADE PLYWOOD TECH BOARD
- CAT6 — CAT6 CABLING.
- HDMI — HDMI CABLING
- COAX — COAX CABLING
- FO — FIBER OPTIC CABLING
- CATV — CATV CABLING

SECURITY SYSTEMS LEGEND

SEE SPECIFICATIONS FOR ALL DEVICES ON THIS LEGEND.

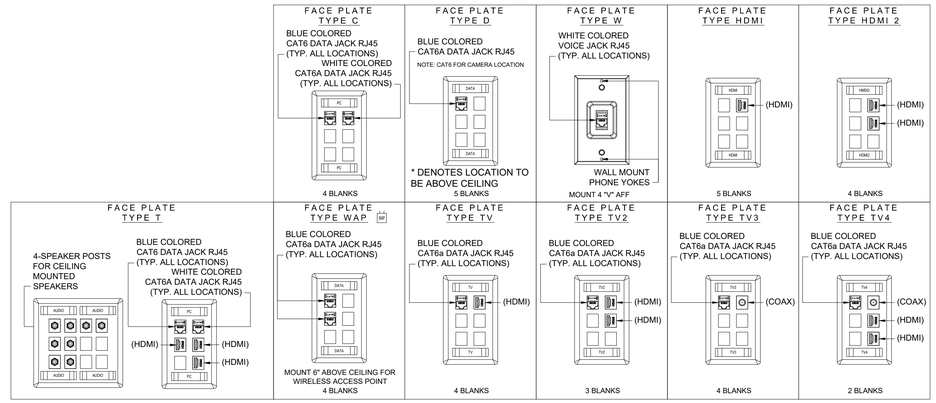
- # — SECURITY CAMERA MOUNTED IN CEILING OR ON WALL AT HEIGHT SHOWN. "WP" DENOTES WEATHER PROOF. "R" DENOTES RECESSED.
- # WP — NEW WEATHER-PROOF CCTV CAMERA FOR SECURITY SYSTEM.
- 360° CAMERA, CEILING MOUNTED
- K — KEYPAD INTEGRAL TO DOOR LOCK BY G.C., POWER FEED BY EC

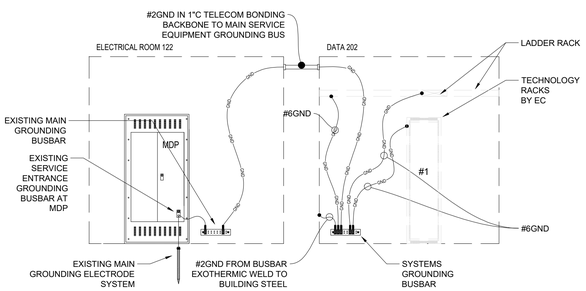
ACCESS CONTROL LEGEND

SEE SPECIFICATIONS FOR ALL DEVICES ON THIS LEGEND.

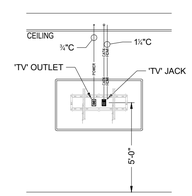
- CR — CARD READER
- ES — NEW ELECTRIC STRIKE
- RX — NEW REQUEST-TO-EXIT
- DA — DOOR ACCESS CONTROL WIRING.

FACEPLATE TYPES



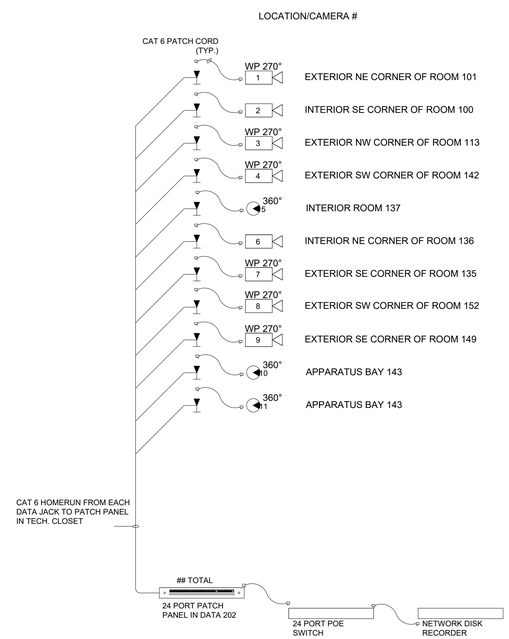


1 / T0.1 SYSTEMS GROUNDING DETAIL
SCALE: NONE

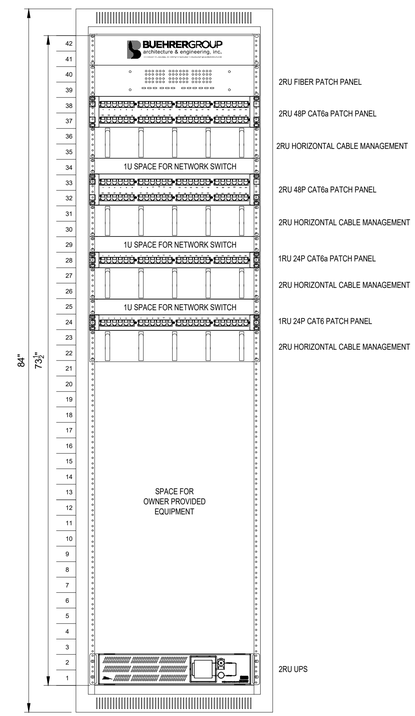


COORD. FINAL HEIGHT W/ OWNER / ARCHITECT PRIOR TO ROUGH-IN

2 / T0.1 TYPICAL TV MOUNT DETAIL
SCALE: NONE



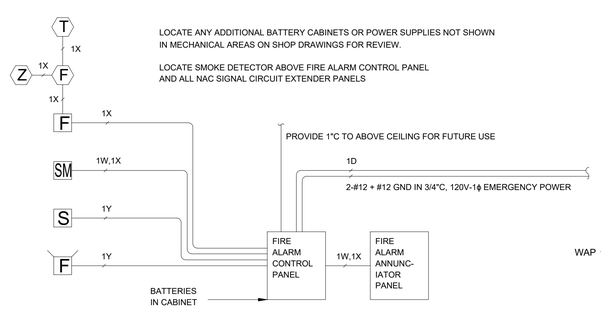
CCTV RISER



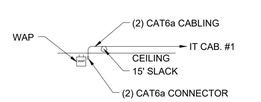
TECH RACK ELEVATION
DATA ROOM 202

WIRING LEGEND

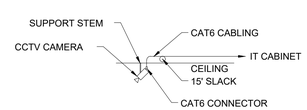
SYMBOL	COLOR	DESCRIPTION
A	-	2 - #14 TWISTED PAIR
C	-	2 - #12 AWG
D	BLUE	CAT6 OR CAT6A - UTP - 4 PAIR PLENUM
S	-	#20 AWG TWISTED PAIR + #22 AWG TWISTED SHIELDED PAIR
T	-	USB CABLE
V	-	RG-6/U, FTG - PLENUM RATED
W	-	2 - #14 AWG, 24 Vdc POWER
X	-	#18 TWISTED PAIR
Y	-	2 - #14 AWG SIGNAL
HDMI	-	HDMI CABLING



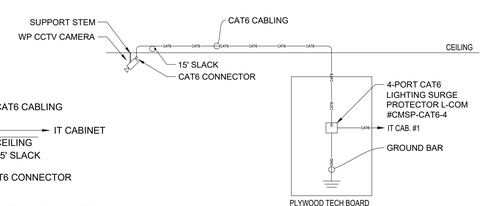
3 / T0.1 "ADDRESSABLE SYSTEM" FIRE ALARM CONNECTIVITY RISER
SCALE: NONE



4 / T0.1 WIRELESS ACCESS POINT (WAP) CABLING DETAILS
SCALE: NONE



5 / T0.1 INDOOR CCTV CAMERA CABLING DETAILS
SCALE: NONE



6 / T0.1 EXTERIOR CCTV CAMERA CABLING DETAILS
SCALE: NONE

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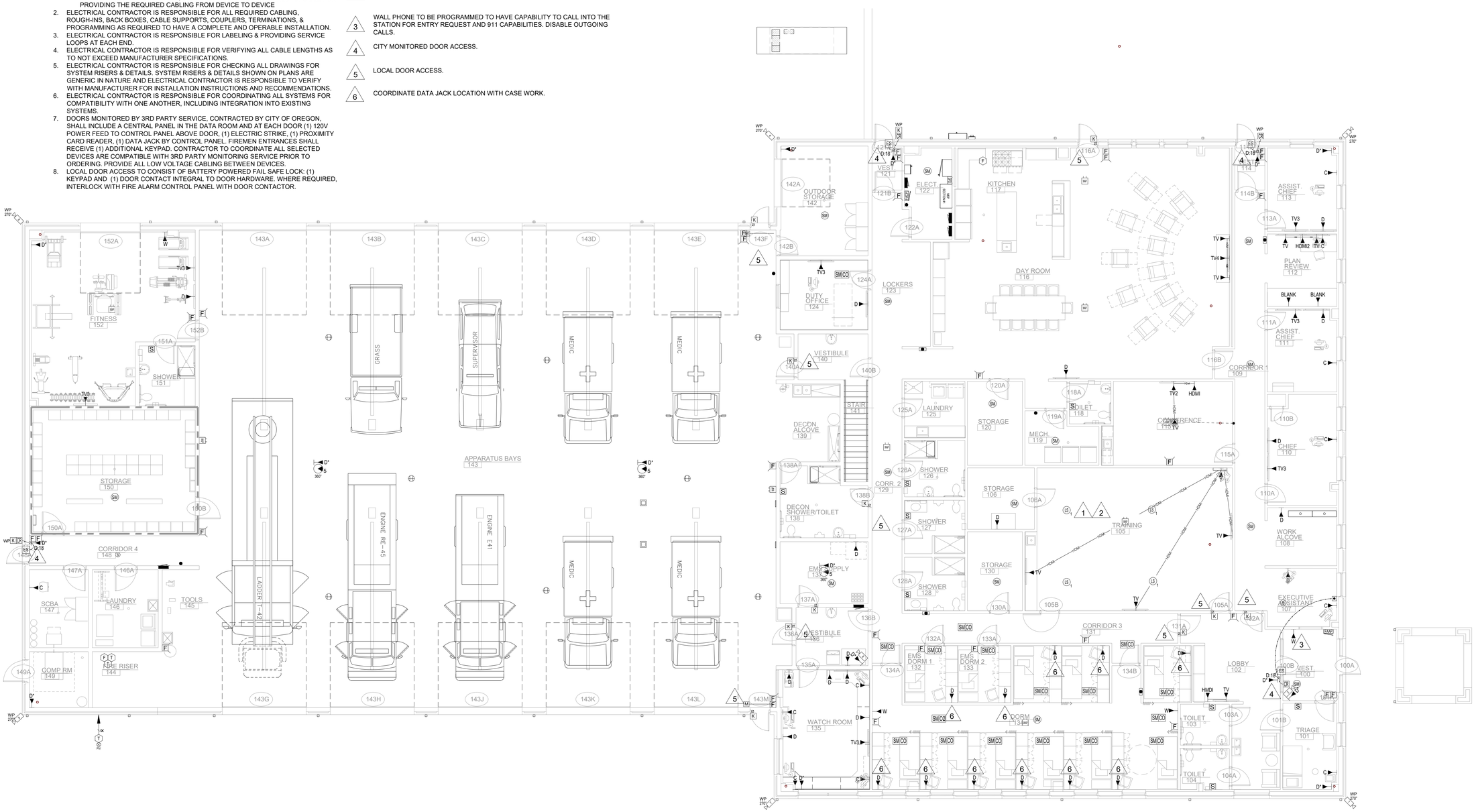
T0.1

GENERAL SYSTEMS NOTES

1. ALL SYSTEMS ARE TO BE HARD-WIRED, UNLESS OTHERWISE NOTED, THIS INCLUDES BUT NOT LIMITED TO:
   - 1.1. FIRE STATION WATCH ROOM SYSTEM EQUIPMENT, CCTV CAMERAS, DATA JACKS, FIRE ALARM SYSTEM, DOOR ACCESS CONTROLS, INTERCOM, WIRELESS ACCESS POINTS, SOUND SYSTEMS, & SECURITY SYSTEMS.
   - 1.2. FOR CLARITY, DRAWINGS ONLY SHOW FINAL LOCATIONS OF DEVICES WHERE CABLING IS TO BE TERMINATED, ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE REQUIRED CABLING FROM DEVICE TO DEVICE
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CABLING, ROUGH-INS, BACK BOXES, CABLE SUPPORTS, COUPLERS, TERMINATIONS, & PROGRAMMING AS REQUIRED TO HAVE A COMPLETE AND OPERABLE INSTALLATION.
3. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR LABELING & PROVIDING SERVICE LOOPS AT EACH END.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CABLE LENGTHS AS TO NOT EXCEED MANUFACTURER SPECIFICATIONS.
5. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL DRAWINGS FOR SYSTEM RISERS & DETAILS. SYSTEM RISERS & DETAILS SHOWN ON PLANS ARE GENERIC IN NATURE AND ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY WITH MANUFACTURER FOR INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.
6. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL SYSTEMS FOR COMPATIBILITY WITH ONE ANOTHER, INCLUDING INTEGRATION INTO EXISTING SYSTEMS.
7. DOORS MONITORED BY 3RD PARTY SERVICE, CONTRACTED BY CITY OF OREGON, SHALL INCLUDE A CENTRAL PANEL IN THE DATA ROOM AND AT EACH DOOR (1) 120V POWER FEED TO CONTROL PANEL ABOVE DOOR, (1) ELECTRIC STRIKE, (1) PROXIMITY CARD READER, (1) DATA JACK BY CONTROL PANEL. FIREMEN ENTRANCES SHALL RECEIVE (1) ADDITIONAL KEYPAD. CONTRACTOR TO COORDINATE ALL SELECTED DEVICES ARE COMPATIBLE WITH 3RD PARTY MONITORING SERVICE PRIOR TO ORDERING. PROVIDE ALL LOW VOLTAGE CABLING BETWEEN DEVICES.
8. LOCAL DOOR ACCESS TO CONSIST OF BATTERY POWERED FAIL SAFE LOCK: (1) KEYPAD AND (1) DOOR CONTACT INTEGRAL TO DOOR HARDWARE, WHERE REQUIRED, INTERLOCK WITH FIRE ALARM CONTROL PANEL WITH DOOR CONTACTOR.

KEYED SYSTEMS NOTES

1. TRAINING ROOM TO HAVE (4) LOCAL SPEAKERS WITH VOLUME CONTROL AT INSTRUCTORS DESK. SPEAKERS TO OUTPUT SOUND FROM PRESENTING COMPUTER
2. TRAINING ROOM TO HAVE (3) MIRRORING DISPLAY MONITORS, DRIVEN BY PC INPUT, CONTROLLED AT TEACHER DESK LOCATION.
3. WALL PHONE TO BE PROGRAMMED TO HAVE CAPABILITY TO CALL INTO THE STATION FOR ENTRY REQUEST AND 911 CAPABILITIES. DISABLE OUTGOING CALLS.
4. CITY MONITORED DOOR ACCESS.
5. LOCAL DOOR ACCESS.
6. COORDINATE DATA JACK LOCATION WITH CASE WORK.



SYSTEMS
FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"

NORTH

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CONSTRUCTION DOCUMENTS

T1.1

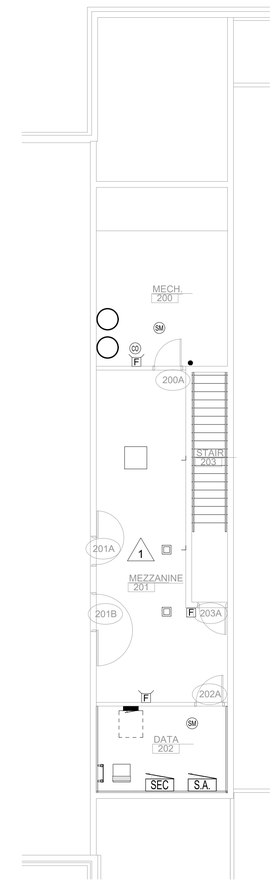
DATA SCHEDULE:

1. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL TYPES AND QUANTITIES OF DATA CONNECTIONS.

ROOM	C	D	T	TV	TV2	TV3	TV 4	W	HDMI	HDMI 2	WAP		
Exterior													
100		1						1					
101	1	1											
102		1		1					1				
103													
104													
105			1	1	1	1			1		1		
106		1											
107	1	1											
108		1											
109													
110	1	1				1							
111	1	1				1							
112	1			2						1			
113	1	2				1							
114		1											
115					1				1		1		
116		1		2			1				2		
117													
118													
119													
120													
121		1											
122													
123											1		
124		1				1							
125													
126													
127													
128													
129													
130													
131													
132		1											
133		1											
134		9						2			1		
135	4	6				1							
136		2											
137		2											
138													
139													
140													
141													
142		1											
143											2		
144													
145													
146													
147	1												
148		1											
149		1											
150													
151													
152		2				1		1			1		
TOTAL	11	40	1	6	2	7	1	4	3	1	9		
												TOTAL	
T.DATA	11	40	1	6	2	7	1	4			18	90	
T.VOICE	11		1									12	
											SUM:	102	

KEYED SYSTEMS NOTES

1. FIELD VERIFY PLACEMENT OF ALL LIGHTS & DEVICES IN MEZZANINE WITH OWNER FOR TRAINING PURPOSES.



ELECTRICAL SYSTEMS
SECOND FLOOR
PARTIAL PLAN

SCALE: 1/8"=1'-0"

NORTH

STATE OF OHIO
VINCENT D. BUEHRER
54249
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PROFESSIONAL ENGINEER

SIGNATURE DATE 06/17/21

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
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REVISION SCHEDULE

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CONSTRUCTION DOCUMENTS

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