OREGON FIRE & RESCUE DEPARTMENT
5002 Seaman Road
Oregon, Ohio 43616
(419) 698-7020
FAX (419) 698-7101

July 15, 2021

ADDENDUM No. 4

Oregon Central Fire Station

BIDS TO BE OPENED: Tuesday, July 20th, 2021 at 2:00PM

Plan holders of the Oregon Fire Station Project are hereby notified of the following amendments to the Contract Documents. The following additions, alterations, deletions and/or clarifications shall be part of the bid specifications as much as if they were originally included in the Contract Documents. This Addendum No. 4 is hereby made a part of the Contract Documents and must be receipted for on the proposal form.

NOTE: Addenda are emailed only to official plan holders who obtained plans and specifications from the Newfax Corporation, Inc., who is responsible for distribution of said plans and specifications. Each Prime Contractor is responsible for notifying subcontractors of any addenda issued.

CONTRACT CHANGES

1) **Specification 03 30 00-6 Cast-N Place Concrete**
   - Polypropylene fiber as secondary reinforcement is not required.

2) **Specification 04 20 00 Unit Masonry**
   - Under 2.2.A.1 Remove reference to "Modular Brick" and include "Utility Brick; All brick on the project is to be utility brick.

3) **Specification 07 46 46 Fiber Cement Trim**
   - Under 2. PART 2 PRODUCTS add the following subsection:
     2.4 APPORVED MATERIAL ALTERNATIVE
     A. Contractor has the choice to use exterior synthetic trim as manufactured Boral, Azek, and CertainTeed in lieu of fiber cement trim. All trim is to be caulked and painted per manufacturers recommendations.
     1. For trim on sides of canopies and as indicated on drawings for exterior trim
        Boral Kleer trimboard, sizes vary, see drawings.
     2, For crown molding on tower (detail F3.1/A3.2 on sheet A3.2) and elevations.
        Boral Kleer 7 ½" crown moulding #5041C16 (or approved equal)
     3, For sheet material on sides of canopies
        Boral Kleer Sheets ¾" thick

4) **Specification 08 36 00 Sectional Doors**
   - Under 2.2 STEEL INSULATED SETION DOORS (type F and H) make the following modifications to subsection B. Door Assembly. 1) 2 inches and 7) Thermal values: R-value of 17.5

5) **Specification 28 23 00 Video Surveillance**
   - Under 2.1.AA Digital Watchdog is an approved manufacturer as long as they abide by all specifications and project requirements.

6) **Drawing C-108**
   - See attached revised drawing C-108 for waterline updates to the 2" waterline service and 6" fire line.
   - See attached revised drawing C-108 for updates regarding storm sewer connection, catch basin adjustment and curb ramp alignment.

7) **Drawing C-109**
   - See attached revised drawing C-109 for updates regarding catch basin adjustment and curb ramp alignment.

8) **Drawing A1.1- Ground Floor Plan**
   - Change size of room 150.

9) **Drawing A7.1- Building Sections**
   - Change roof of shelter area from 8" precast hollowcore planks+ 2" topping to a 14" deep cast-in-place
   - Concrete slab reinforced as shown on sections E2.0/S5.0 & F2.0/S5.0.
   - Provide 3/8" isolation joints between shelter masonry walls and adjacent host building walls.
   - Provide (3) W8X24 beams as shown on mezzanine framing plan and section N2.0/S5.0

10) **Drawing A7.3- Building Sections**
   - Change roof of shelter area from 8" precast hollowcore planks+ 2" topping to a 14" deep cast-in-place
   - Concrete slab reinforced as shown on sections E2.0/S5.0 & F2.0/S5.0.
   - Provide 3/8" isolation joints between shelter masonry walls and adjacent host building walls.
   - Provide (3) W8X24 beams as shown on mezzanine framing plan and section N2.0/S5.0

11) **Drawing A8.1- Wall Sections**
   - Change roof of shelter area from 8" precast hollowcore planks+ 2" topping to a 14" deep cast-in-place
   - Concrete slab reinforced as shown on sections E2.0/S5.0 & F2.0/S5.0.
   - Provide 3/8" isolation joints between shelter masonry walls and adjacent host building walls.
   - Provide (3) W8X24 beams as shown on mezzanine framing plan and section N2.0/S5.0

12) **Drawing A8.3- Wall Sections**
   - Change roof of shelter area from 8" precast hollowcore planks+ 2" topping to a 14" deep cast-in-place
   - Concrete slab reinforced as shown on sections E2.0/S5.0 & F2.0/S5.0.
   - Provide 3/8" isolation joints between shelter masonry walls and adjacent host building walls.
   - Provide (3) W8X24 beams as shown on mezzanine framing plan and section N2.0/S5.0

13) **Drawing A8.8 - Details**
   - See attached revised drawing A8.8 for updated island details.

14) **Drawing A8.10 - Column Detail**
   - See attached revised drawing A8.10 for updated column detail N1.1/A8.10.

15) **Drawing S1.0- Structural notes and special inspection**
   - Shelter wind pressure on wall and roof components and cladding has been added.
   - Special inspection to include inspection of form work for the shelter roof cast in place concrete slab.

- Special inspection to include inspections of all shelter openings including doors, mechanical protective devices etc.

16) Drawing S1.1 & S3.0 - Foundation Plan

- Change shelter walls rebar to #4 @ 8" o/c with fully grouted cores and change foundation Sections as shown on revised details H1.1/S3.0 & J1.1/S3.0.

17) Drawing S2.0 & S5.0 – Mezzanine and Storm Shelter Framing Plan

- Change roof of shelter area from 8" precast hollowcore planks+ 2" topping to a 14" deep cast-in-place
- Concrete slab reinforced as shown on sections E2.0/S5.0 & F2.0/S5.0.
- Provide 3/8" isolation joints between shelter masonry walls and adjacent host building walls.
- Provide (3) W8X24 beams as shown on mezzanine framing plan and section N2.0/S5.0

18) Drawings M1.1 & M2.0 - HVAC Louver L-3

- Change Louver model #to Greenheck #AFL-501. UL Classified Wind-Storm Rated Assembly in accordance with FEMA Guidelines P-320 (2014) and P-361 (2015), and ICC 500 (2014) to static and cyclical design pressures of positive/negative 250 PSF and debris impact of a 15 lb 2x4 traveling at 100 MPH.

19) ATTACHMENTS:

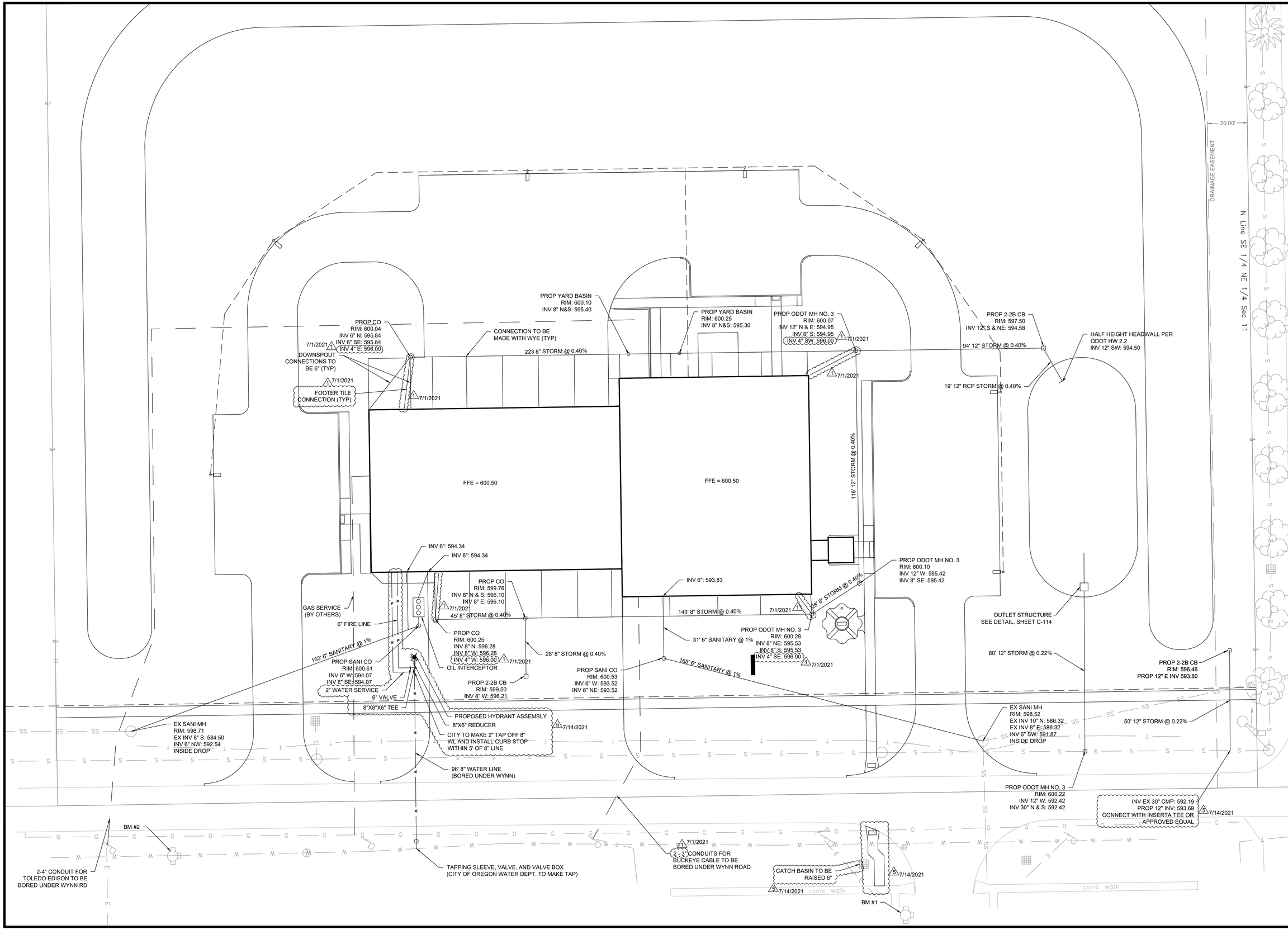
- Revised Drawing C-108
- Revised Drawing C-109
- Revised Drawing A1.1
- Revised Drawing A7.1
- Revised Drawing A7.3
- Revised Drawing A8.1
- Revised Drawing A8.3
- Revised Drawing A8.8
- Revised Drawing A8.10
- Revised Drawing S1.0
- Revised Drawing S1.1
- Revised Drawing S2.0
- Revised Drawing S3.0
- Revised Drawing S5.0
- Revised Drawing M1.1
- Revised Drawing M2.0

ANSWERS TO SUBMITTED QUESTIONS

1) ***Bidder Question:*** *Details on C-104 show all contraction joints filled with joint sealant at the exterior paving. Are all exterior sawcut joints to be sealed?*

   Architect/Engineer Response: Exterior saw cut contraction joints are not required to be sealed.

*** * * END OF ADDENDUM NO. 4 * * ***



SCALE
1" = 20'

REVISIONS
#1 - 7/1/2021
#5 - 7/14/2021

DRAWN
BEB

CHECKED
RMS

DATE
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

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

DRAINAGE EASEMENT

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

5. 7/14/2021

CATCH BASIN TO BE RAISED 6". SWALE TO BE FILLED AS NECESSARY TO DRAIN.

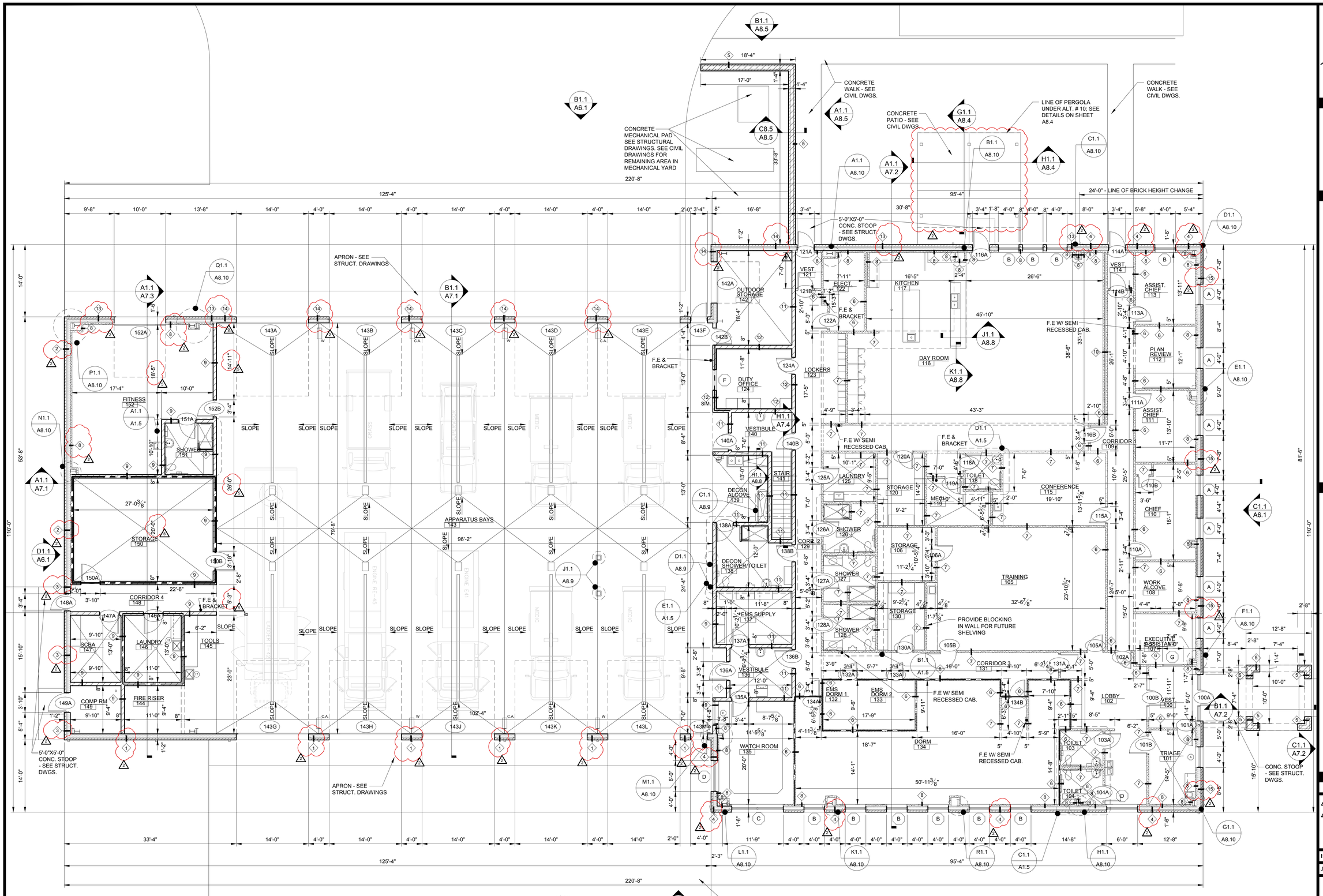
ADA RAMP DETAIL

SCALE 1" = 20'	REVISIONS #5 - 7/14/2021
DRAWN BEB	CHECKED RMS
DATE 3/18/2021	

GRADING PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-109



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 419.893.9027 F 419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE

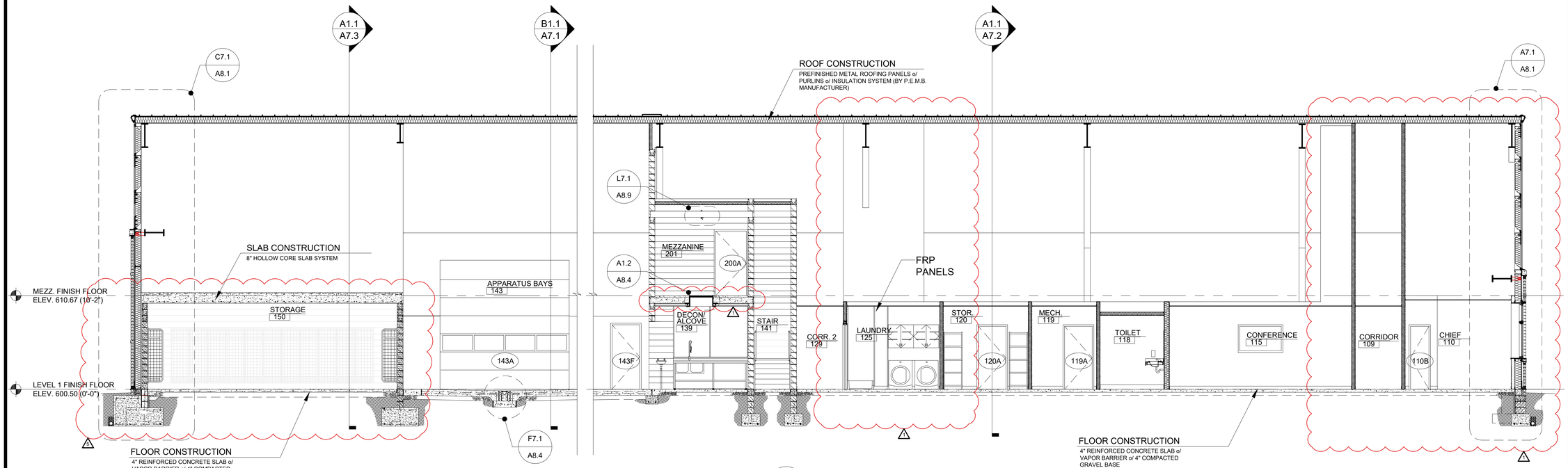
1	2021-07-07
2	2021-07-14

ISSUE DATE: 06/17/21

JOB NUMBER: 201296

CONSTRUCTION DOCUMENTS

A1.1



A1.1 / A7.1 BUILDING SECTION
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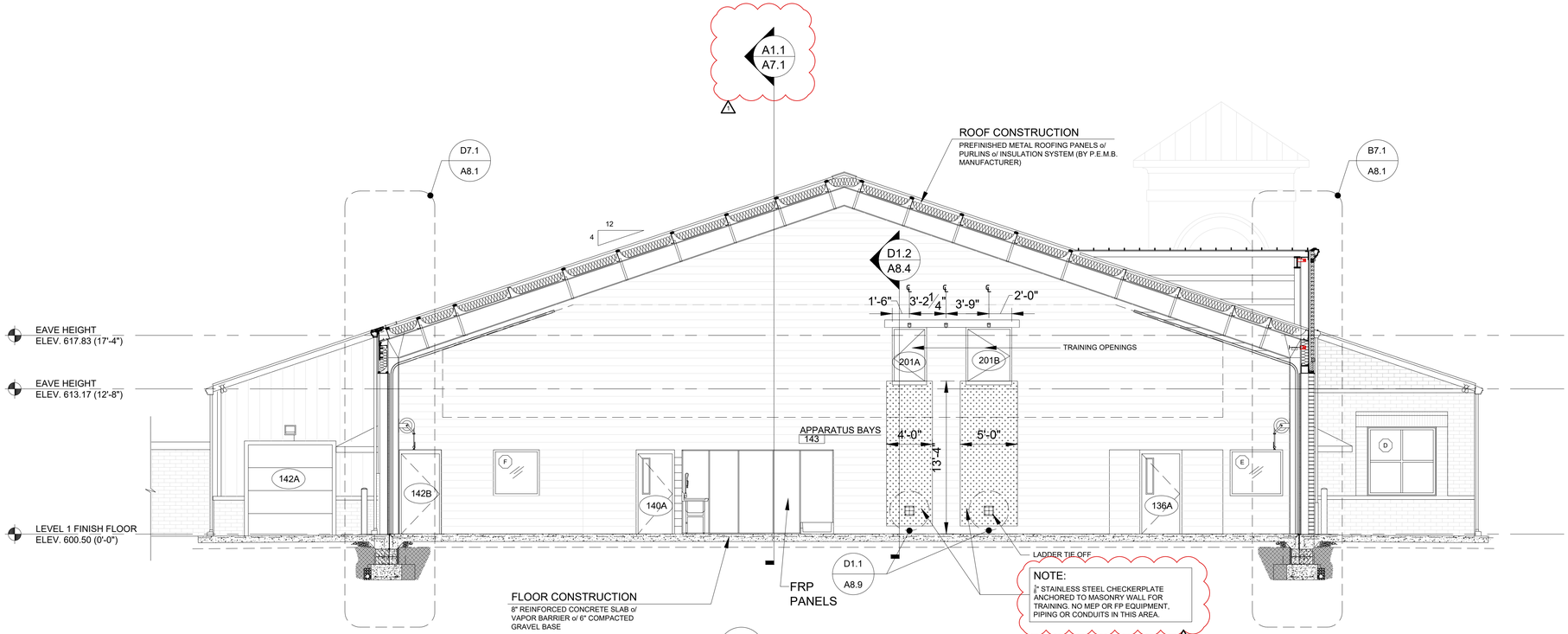

B1.1 / A7.1 BUILDING SECTION
SCALE: 3/16"=1'-0"

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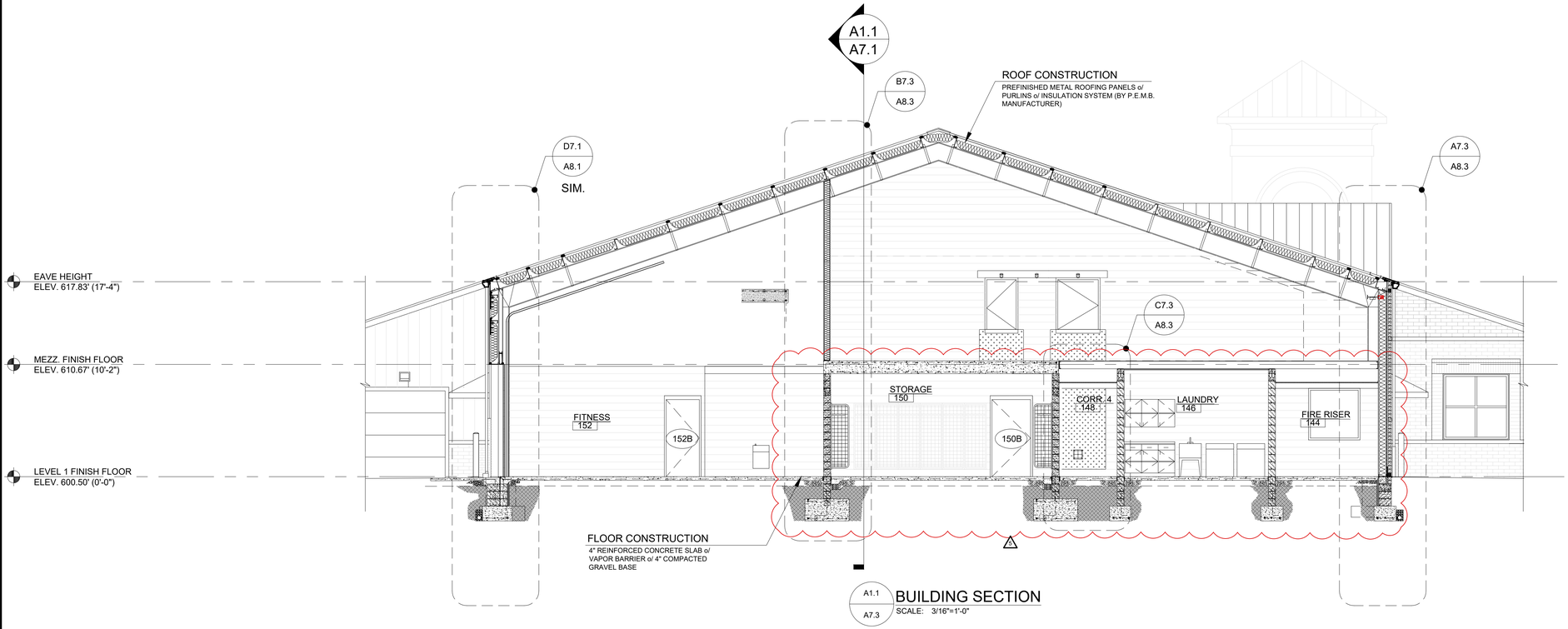
CONSTRUCTION DOCUMENTS

A7.1



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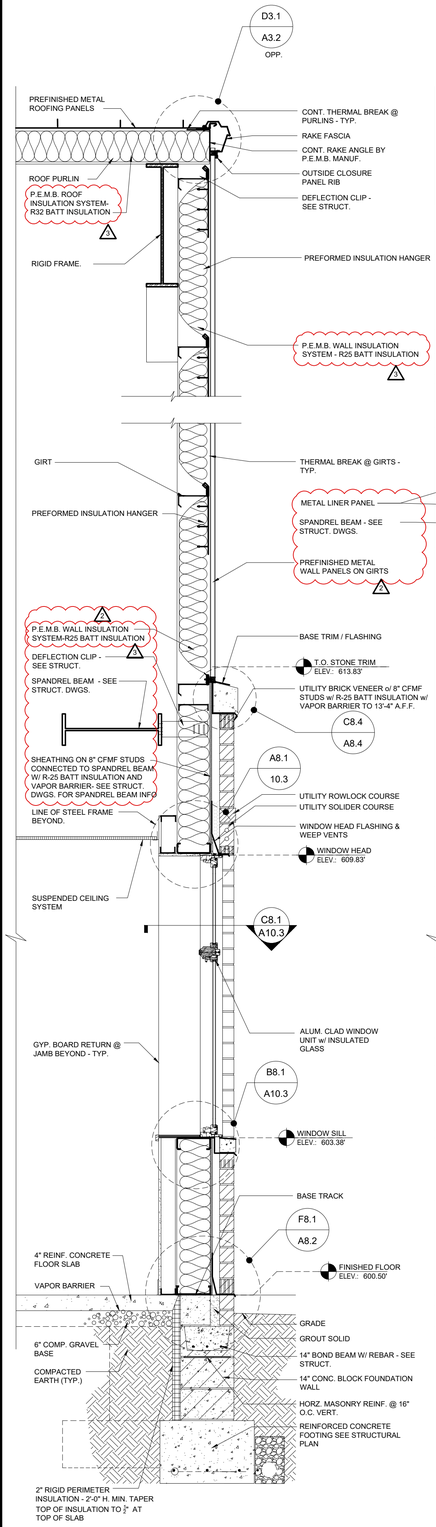
CONSTRUCTION DOCUMENTS

A7.3



A7.1 / A8.1 WALL SECTION
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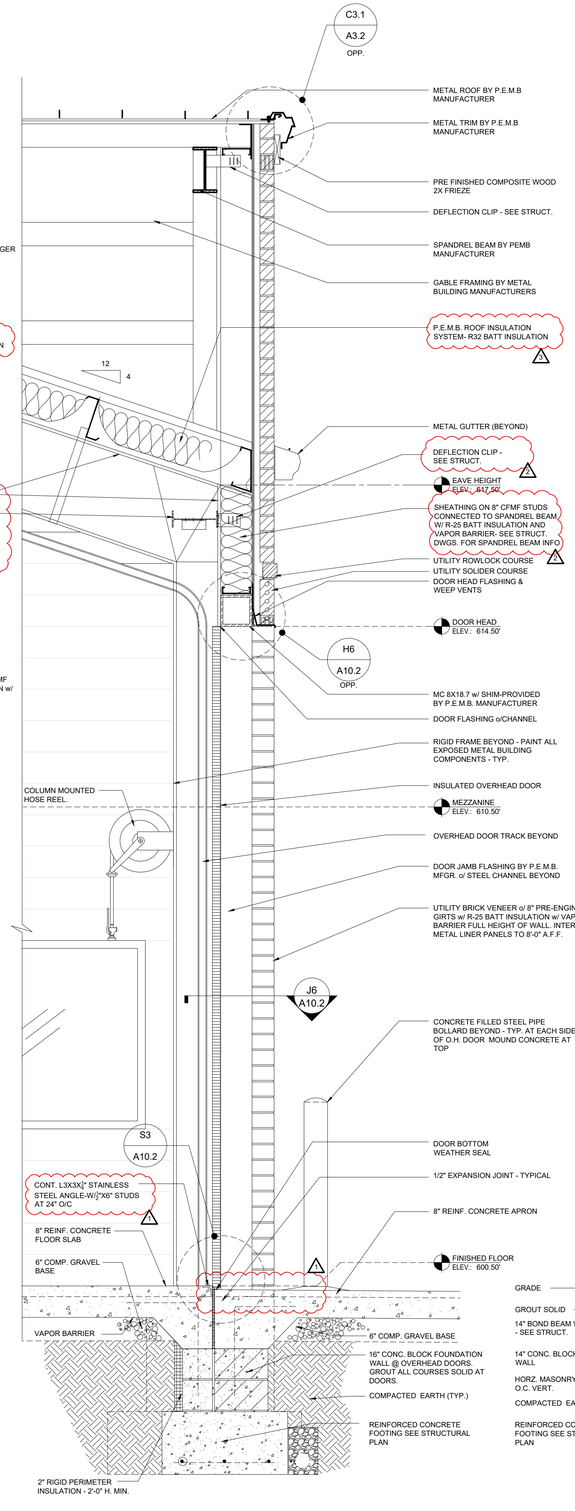

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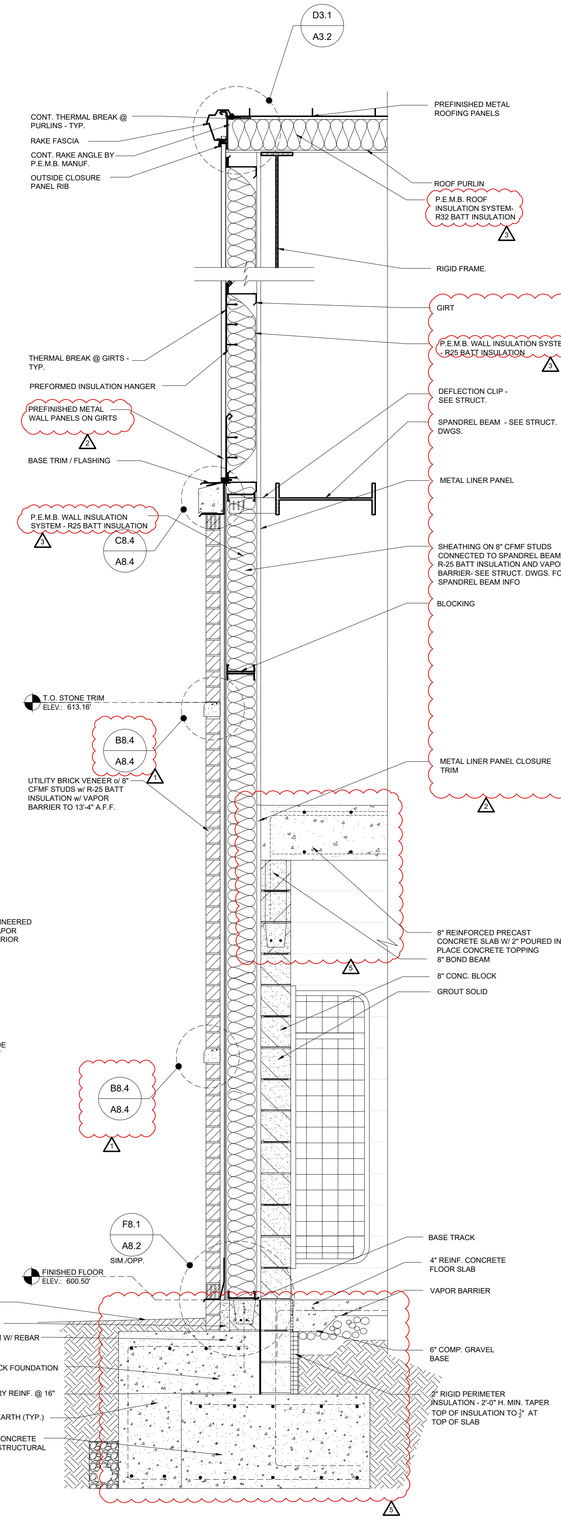

C7.1 / A8.1 WALL SECTION
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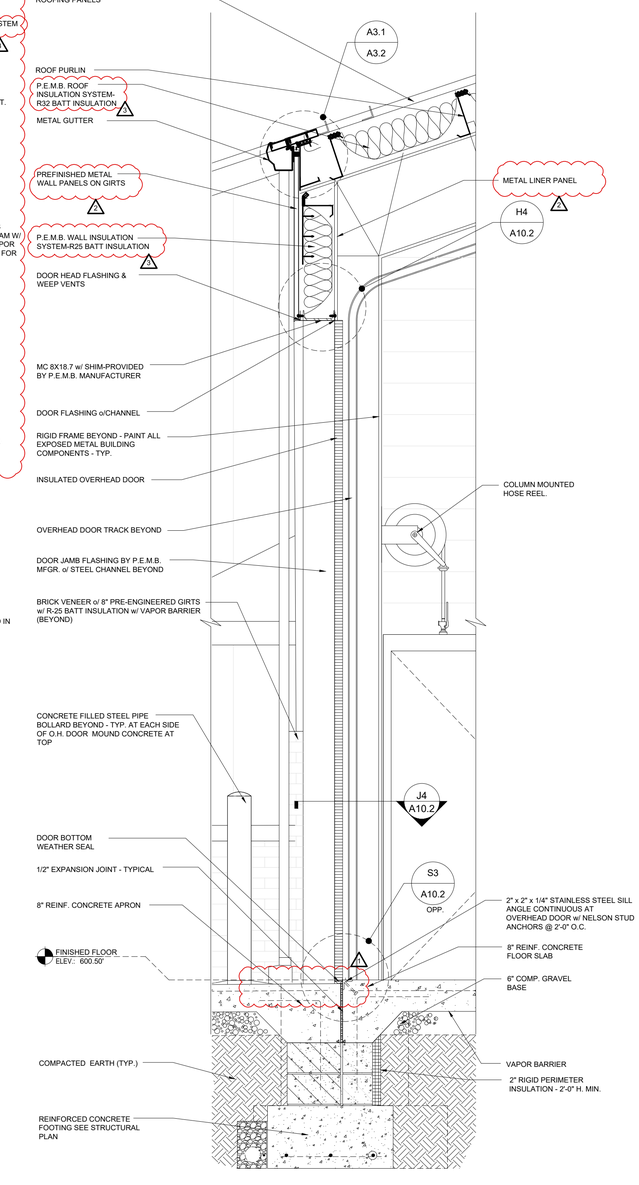

D7.1 / A8.1 WALL SECTION
SCALE: 3/4"=1'-0"

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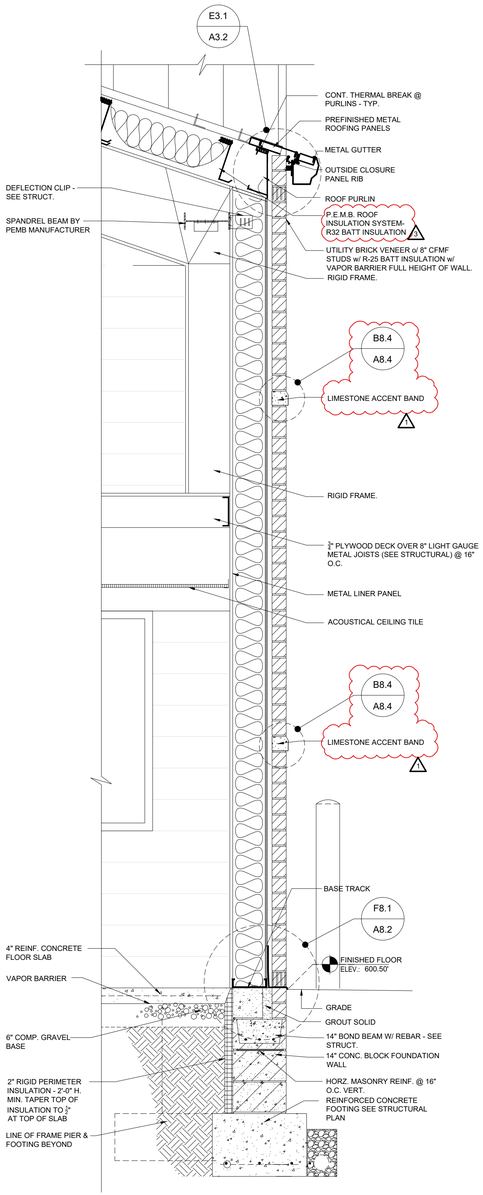
CONSTRUCTION DOCUMENTS

A8.1



A7.3 / A8.3 WALL SECTION
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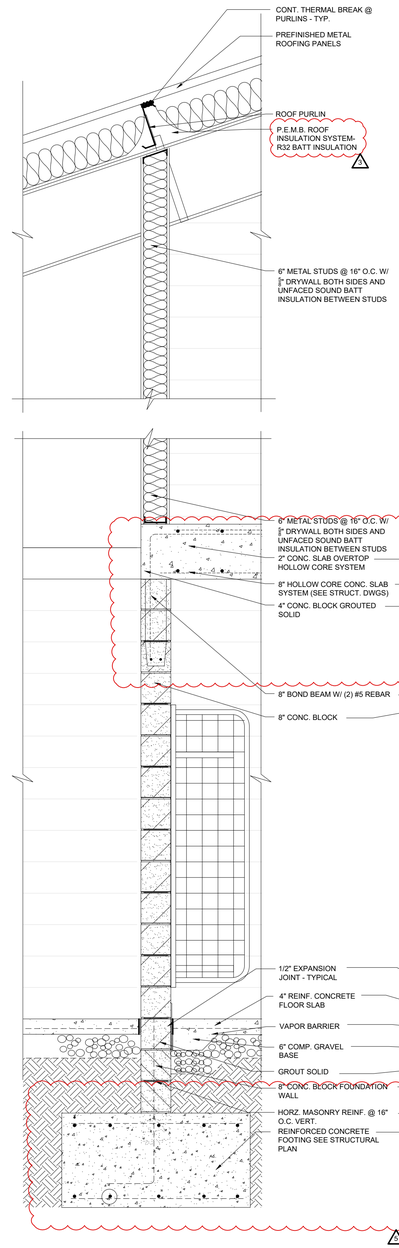

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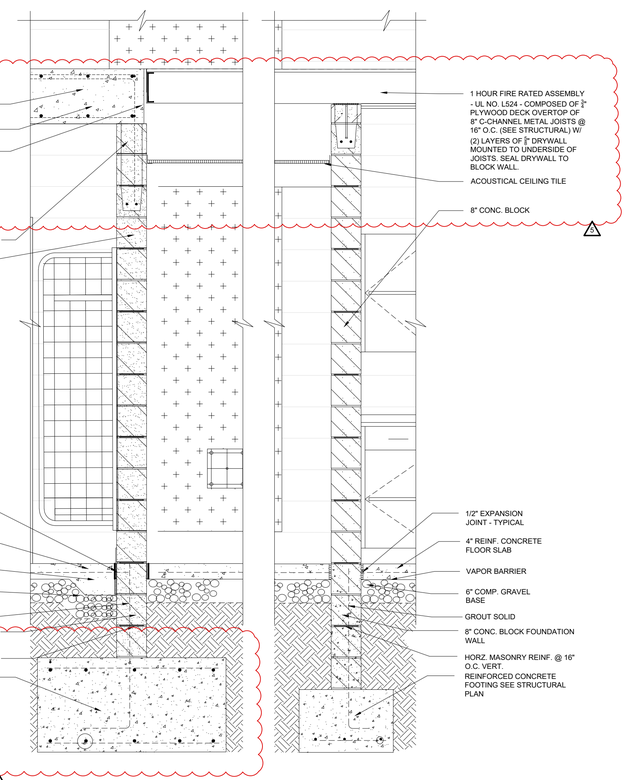

C7.3 / A8.3 WALL SECTION
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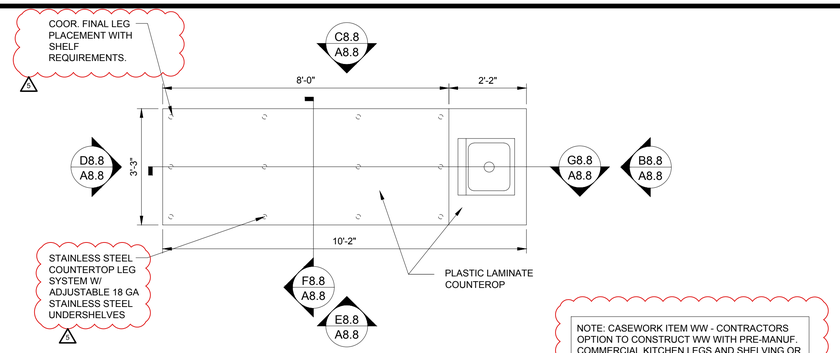
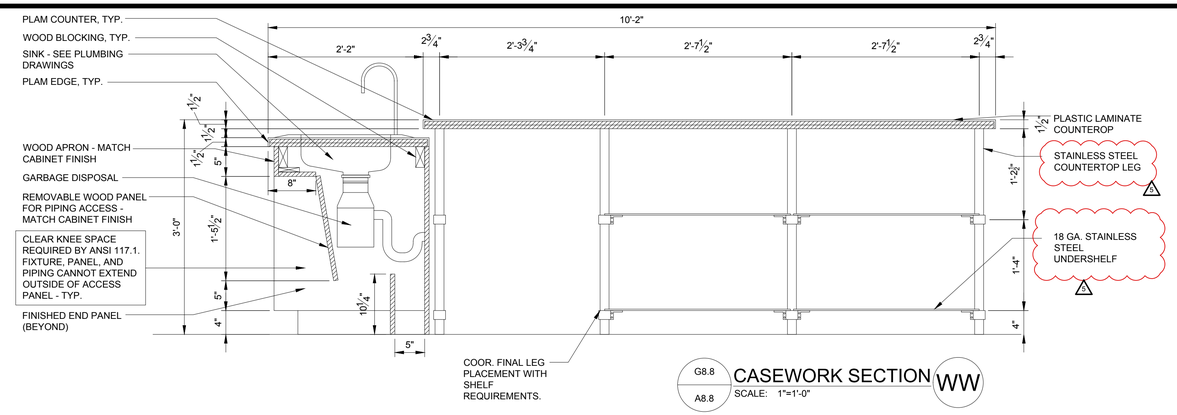
CONSTRUCTION DOCUMENTS

A8.3



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

NOTE: CASEWORK ITEM WW - CONTRACTORS OPTION TO CONSTRUCT WW WITH PRE-MANUF. COMMERCIAL KITCHEN LEGS AND SHELVING OR CUSTOM STAINLESS STEEL LEGS AND SHELVING. FINAL LEG COUNT AND PLACEMENT TO BE COOR. WITH SHELVING SUPPORT REQUIREMENTS.



G8.8 / A8.8 CASEWORK SECTION WW
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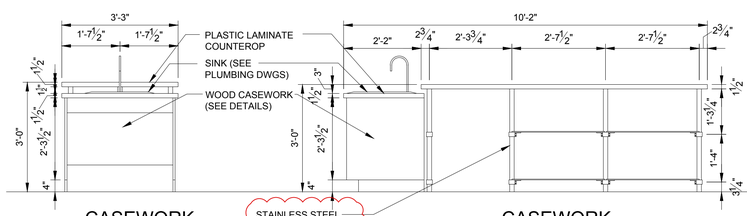

B8.8 / A8.8 CASEWORK ELEVATION WW
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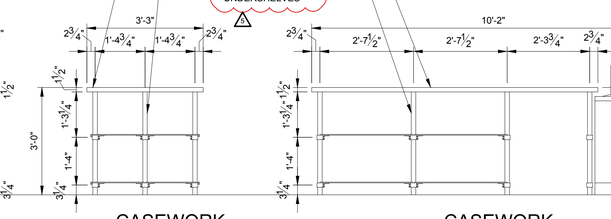
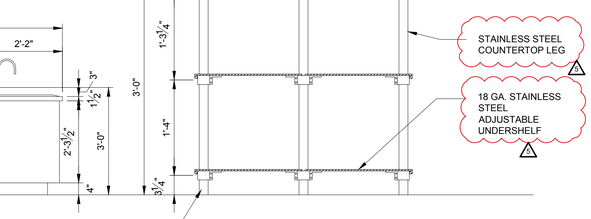


C8.8 / A8.8 CASEWORK ELEVATION WW
SCALE: 1/2"=1'-0"

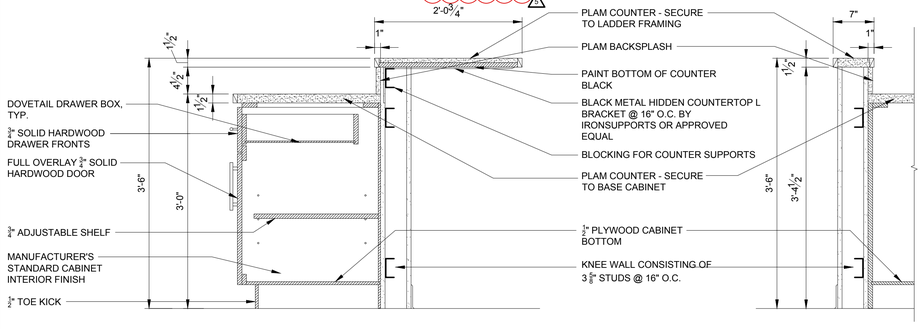
D8.8 / A8.8 CASEWORK ELEVATION WW
SCALE: 1/2"=1'-0"



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

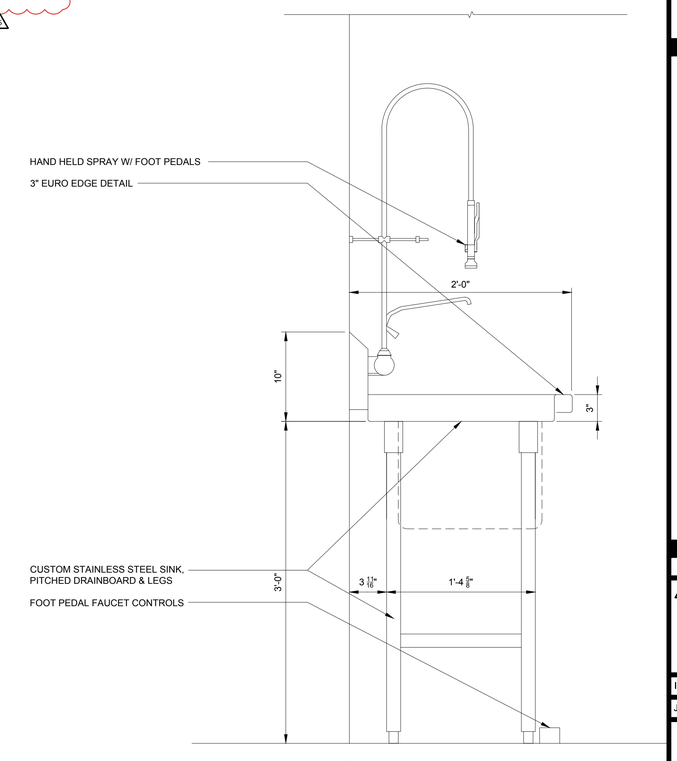
COOR. FINAL LEG PLACEMENT WITH SHELF REQUIREMENTS.

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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REVISION SCHEDULE

1	2021-07-14

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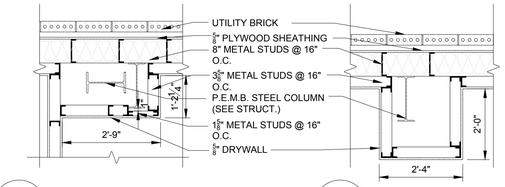
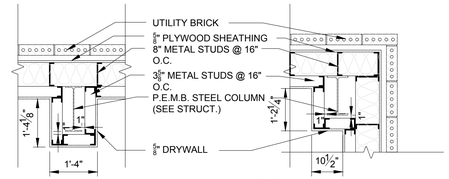
A8.8



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
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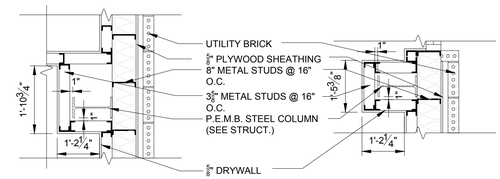
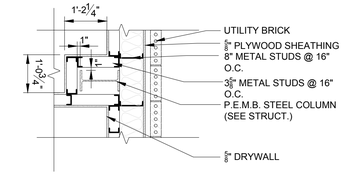
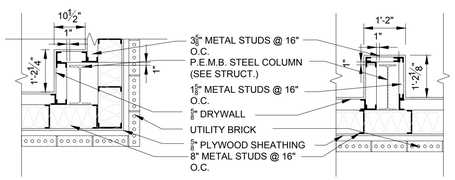


E1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

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

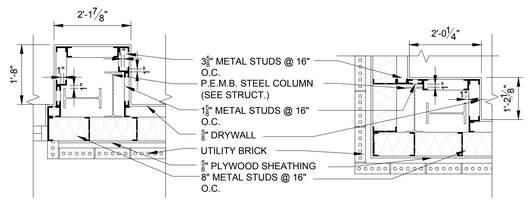


G1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"



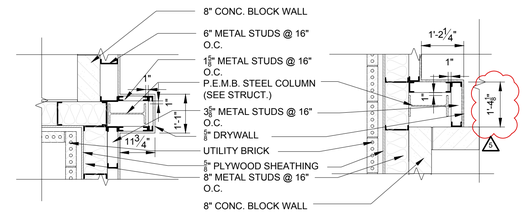
H1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

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



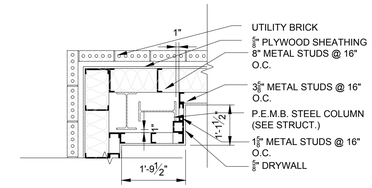
K1.1 / A8.10 COLUMN DETAIL
SCALE: 1/2"=1'-0"

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
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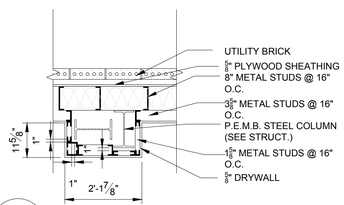

Q1.1 / A8.10 COLUMN DETAIL
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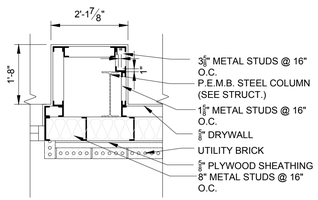

R1.1 / A8.10 COLUMN DETAIL
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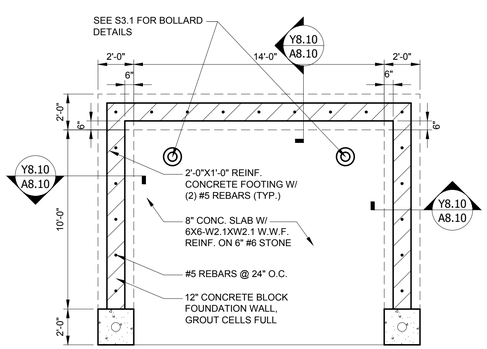
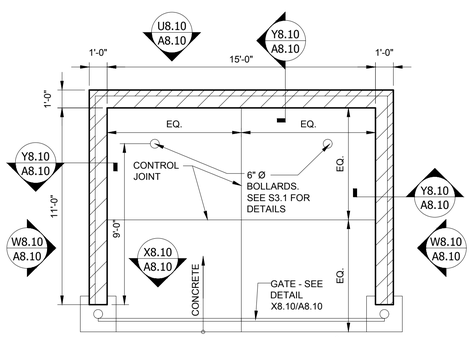


S8.10 / A8.10 FOUNDATION PLAN SEE CIVIL DWGS. FOR LOCATION ON SITE
SCALE: 1/4"=1'-0"



T8.10 / A8.10 FLOOR PLAN
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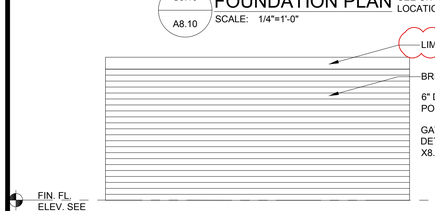
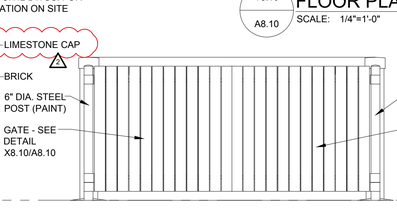


U8.10 / A8.10 ELEVATION
SCALE: 1/4"=1'-0"



V8.10 / A8.10 ELEVATION
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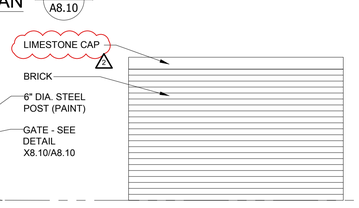

W8.10 / A8.10 ELEVATION (2 SIDES)
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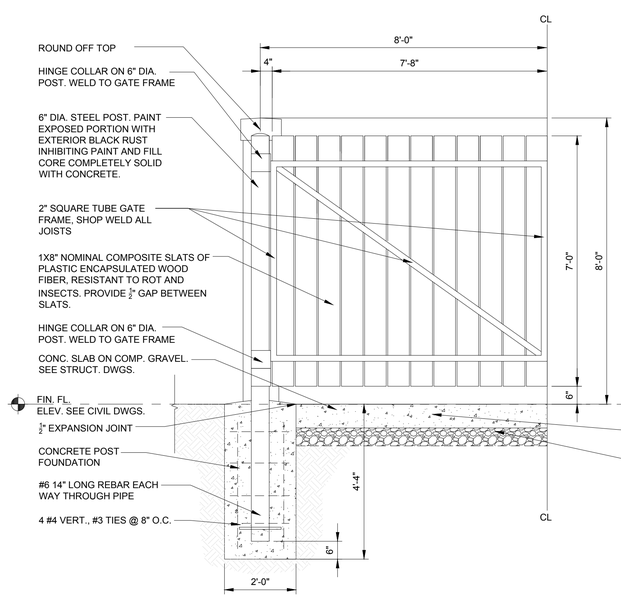

X8.10 / A8.10 GATE POST DETAIL
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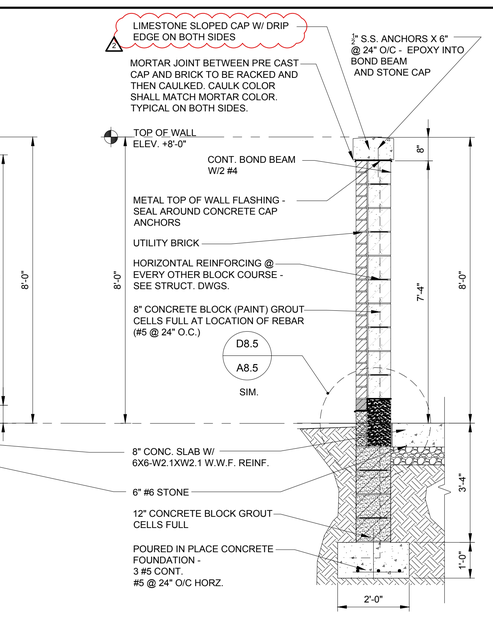

Y8.10 / A8.10 WALL SECTION
SCALE: 1/2"=1'-0"

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-419.893.9027 | F-419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE

1	2021-07-07
2	2021-07-14

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

A8.10

SPECIAL INSPECTIONS:

1) PURSUANT TO CHAPTER 17 (SPECIAL INSPECTION & TESTING) OF THE OHIO BUILDING CODE OBC 2017, IN ADDITION TO THE REGULAR INSPECTIONS THE 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

4) CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH ANY ADDITIONAL TESTS OR RE-TESTING REQUIRED DUE TO ANY SAMPLES AND/OR TESTS PRODUCING UNACCEPTABLE RESULTS

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
	FORM WORK FOR STORM SHELTER ROOF SLAB			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
7	SHELTER OPENINGS			
	DOOR FRAME, JAMS, ANCHORAGE, SILLS			X
	MECHANICAL OPENINGS PROTECTIVE DEVICES AND ANCHORAGE			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
LGMF = LIGHT GAUGE METAL FRAMING
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
(fm = 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
MEZZANINE (LGMF AREA) -	50 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)
LAYDOWN LOADS : + 40 PSF (2 X HOST BUILDING ROOF ABOVE - PEMB+ MEP)
+ 40 PSF (2X ADJACENT HOST BUILDING WALL - PEMB)
180 PSF (APPROXIMATE TOTAL LIVE LOAD)
- ROOF DEAD LOAD = 87 PSF (MEZZ. FLOOR -8" PRECAST PLANKS + 2" TOPPING)
+ 6 PSF (CEILING + MEP)
93 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

MAX. WIND PRESSURE ON WALL AND ROOF COMPONENTS & CLADDING (C&C):
WALL COMPONENT -(AT MAIN), p = -124.69 PSF OR +124.69 PSF
(AT CORNERS), p = -228.59 PSF OR +124.69 PSF
ROOF COMPONENT -(AT MAIN), p = -182.34 PSF
(AT EDGES), p = -286.25 PSF
(AT CORNERS), p = -390.16 PSF

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

STATE OF OHIO
KENT D. TA 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.
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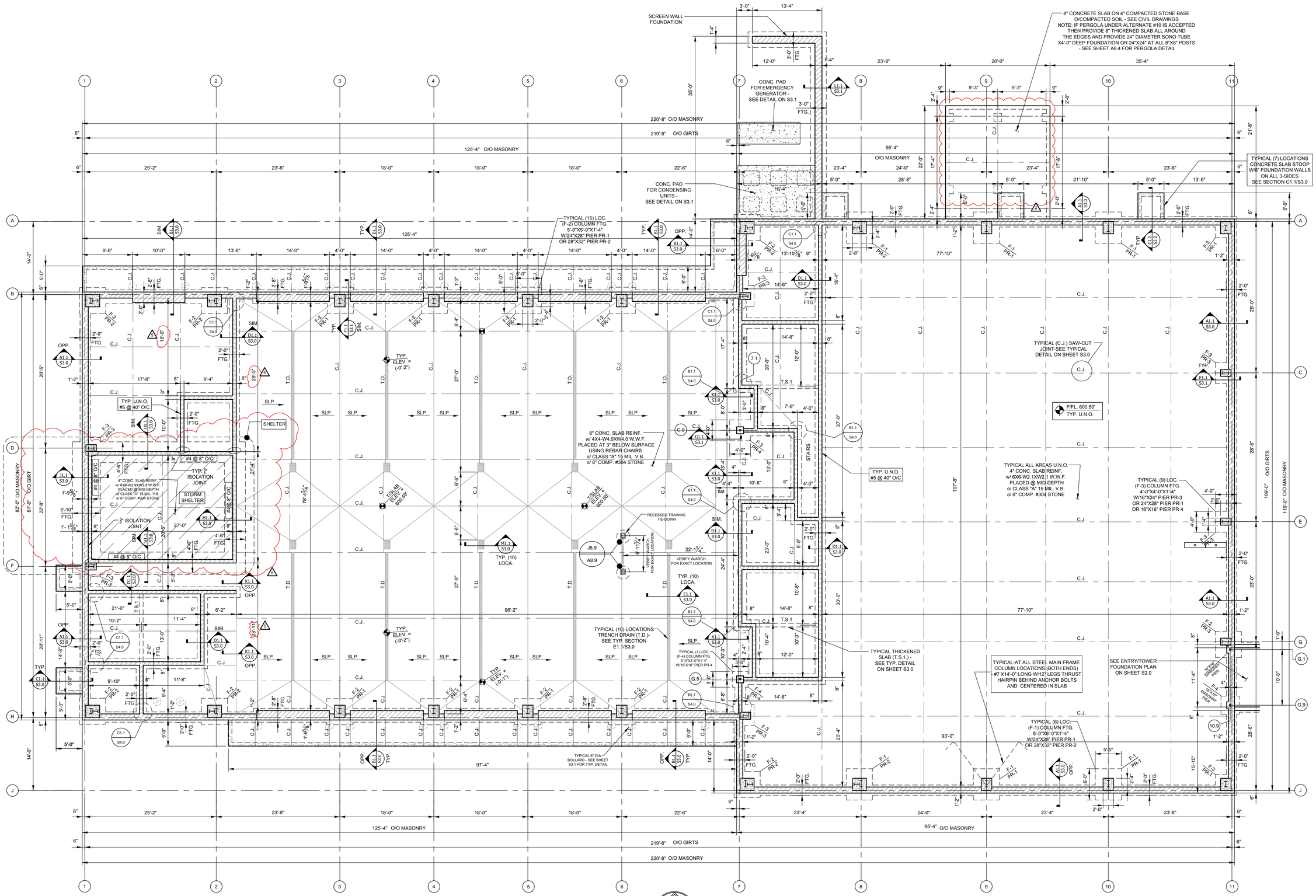
REVISION SCHEDULE
1 07-14-2021

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

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architecture & engineering, inc.
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1	2021-07-07
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ISSUE DATE: 06/17/21

JOB NUMBER: 201296

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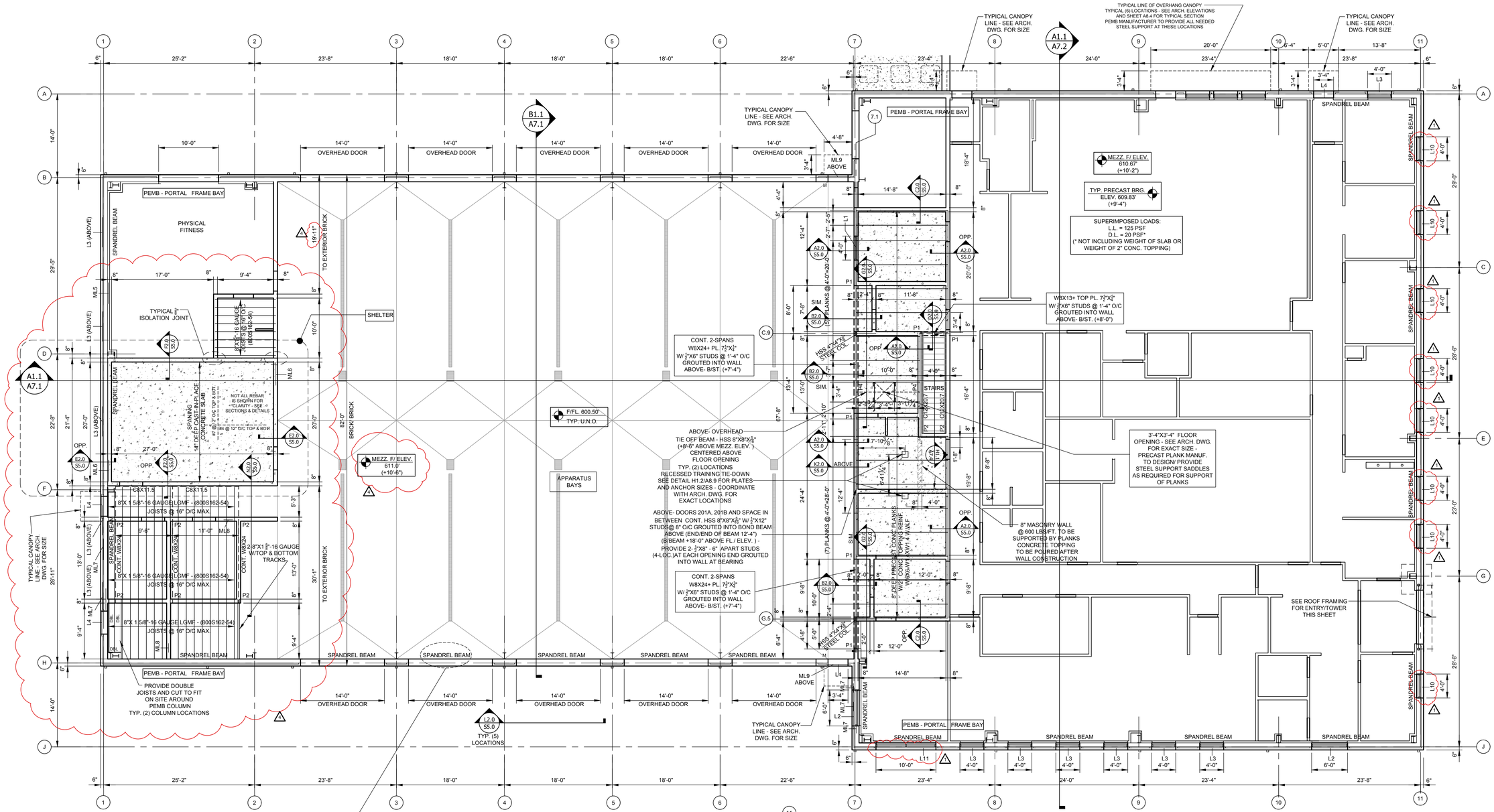
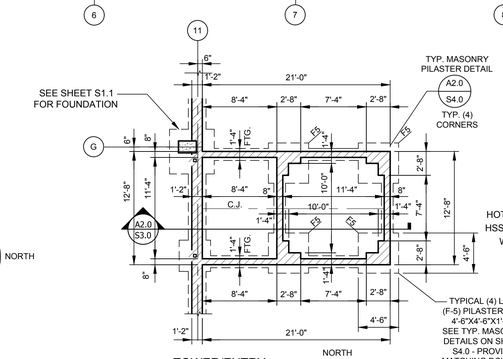
S1.1



MEZZANINE AND STORM SHELTER FRAMING PLANS

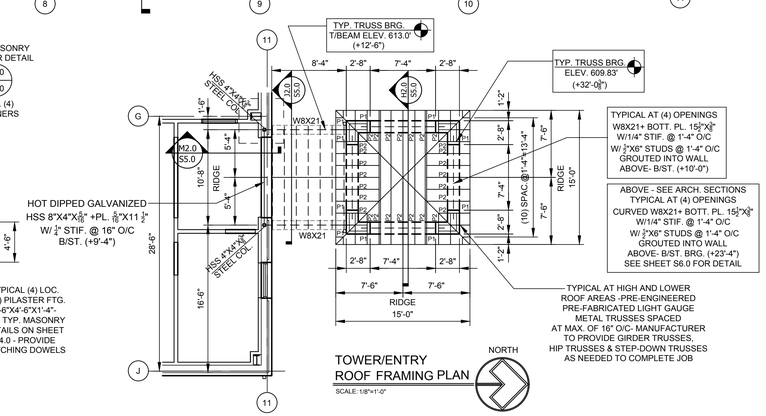
SCALE: 1/8"=1'-0"

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"

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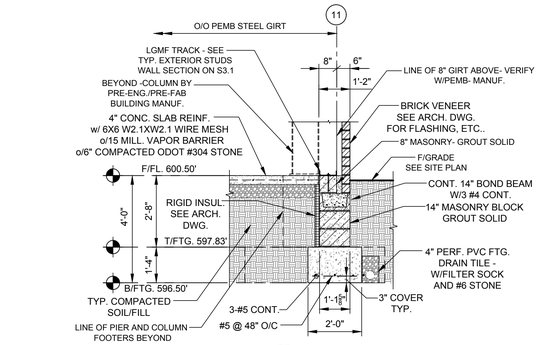
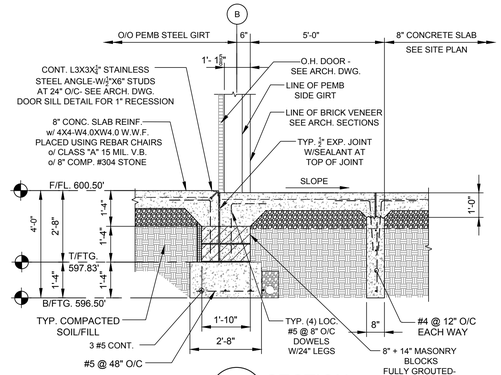
S2.0



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



B1.1 / S3.0 SECTION
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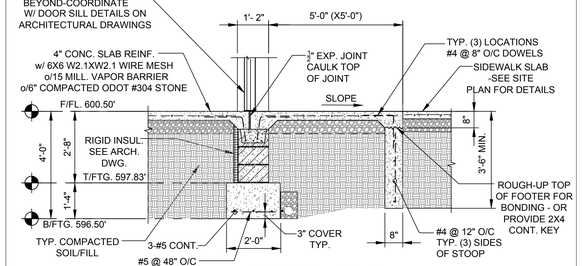
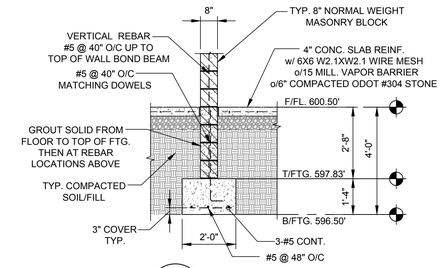
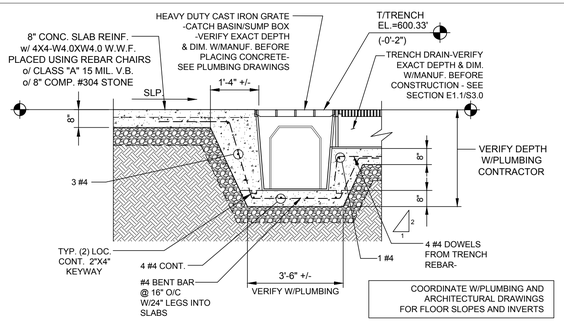


TYP. STOOP FOOTING

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

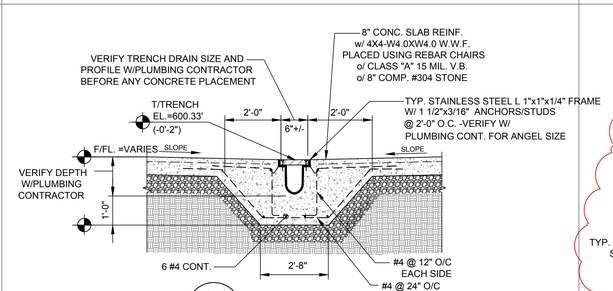


D1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



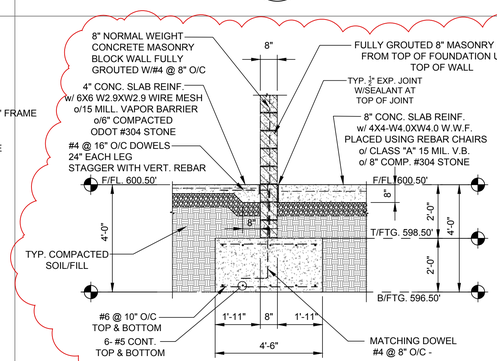
TYP. CATCH BASIN/TRENCH DRAIN

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

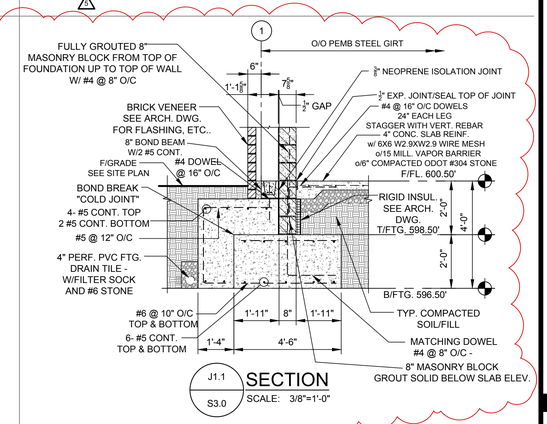


E1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"

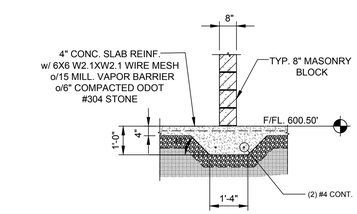
COORDINATE W/PLUMBING AND ARCHITECTURAL DRAWINGS FOR FLOOR SLOPES AND INVERTS



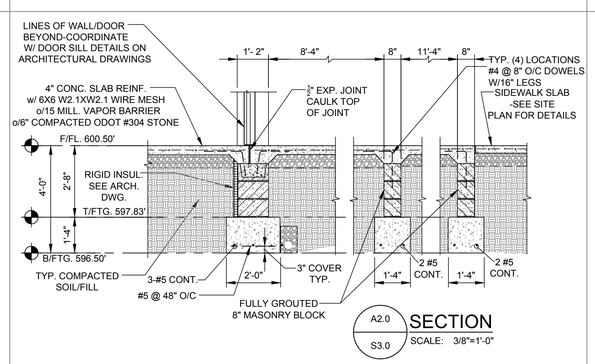
H1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



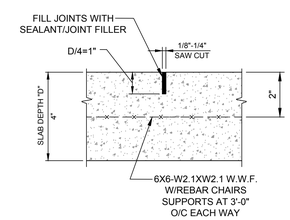
J1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



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

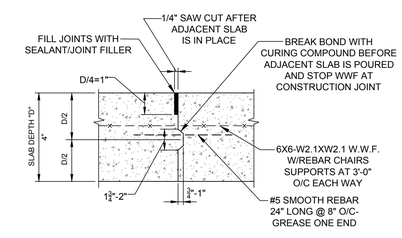


A2.0 / S3.0 SECTION
SCALE: 3/8"=1'-0"



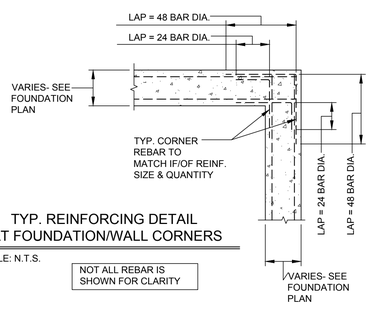
TYP. 4" CONC. SLAB CONTROL JOINT
N.T.S.

SAW CUT JOINT WITHIN 12 HOURS OF CONCRETE SETTING UP



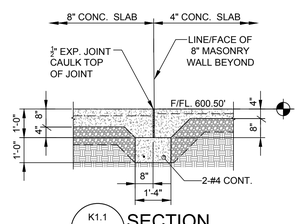
TYP. 4" CONC. SLAB CONSTRUCTION JOINT
N.T.S.

USE BETWEEN CONCRETE POURS AS REQUIRED

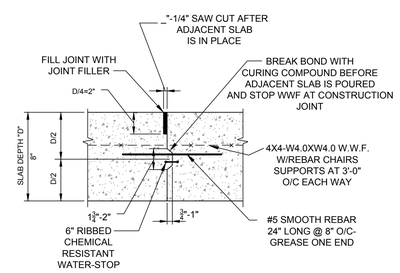


TYP. REINFORCING DETAIL AT FOUNDATION/WALL CORNERS
SCALE: N.T.S.

NOT ALL REBAR IS SHOWN FOR CLARITY

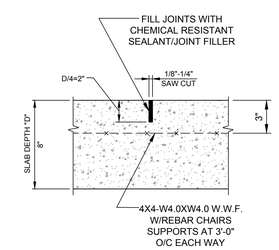


K1.1 / S3.0 SECTION
SCALE: 3/8"=1'-0"



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

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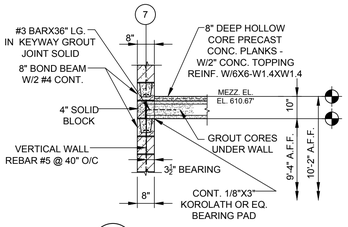
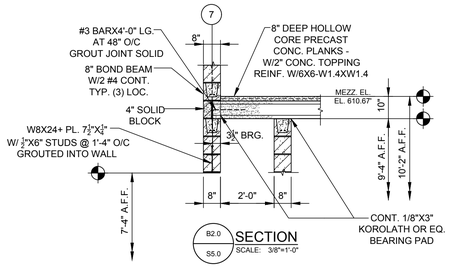
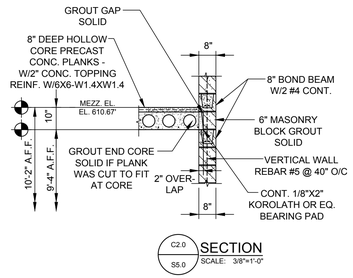
S3.0



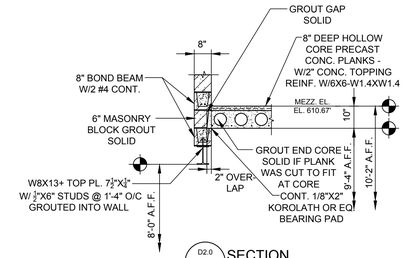
A2.0 / S5.0 SECTION
SCALE: 3/8"=1'-0"



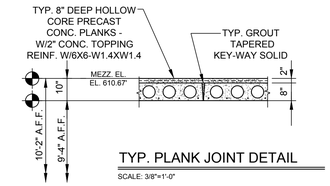
B2.0 / S5.0 SECTION
SCALE: 3/8"=1'-0"



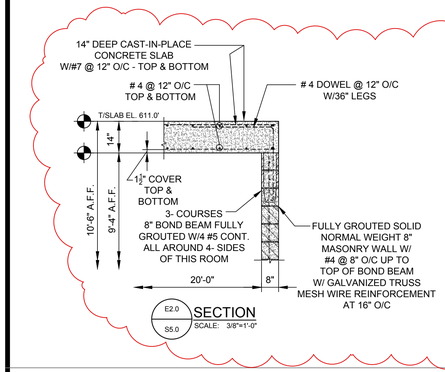
C2.0 / S5.0 SECTION
SCALE: 3/8"=1'-0"



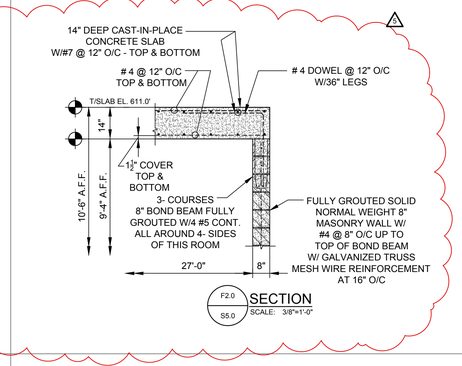
D2.0 / S5.0 SECTION
SCALE: 3/8"=1'-0"



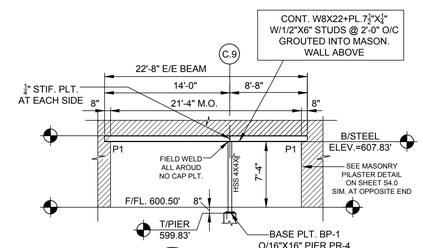
TYP. PLANK JOINT DETAIL
SCALE: 3/8"=1'-0"



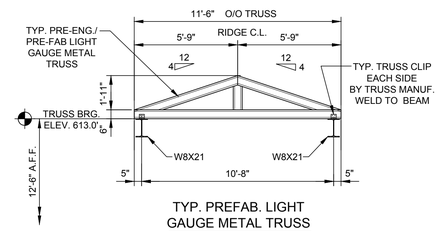
E2.0 / S5.0 SECTION
SCALE: 3/8"=1'-0"



F2.0 / S5.0 SECTION
SCALE: 3/8"=1'-0"

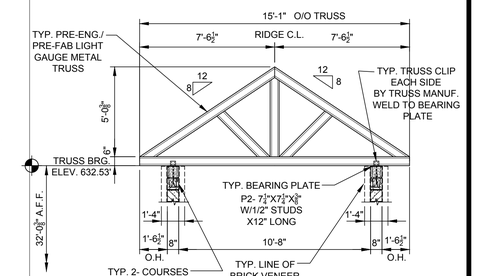


G2.0 / S5.0 SECTION
SCALE: 1/8"=1'-0"



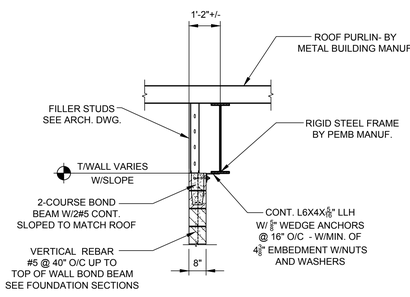
TYP. PREFAB. LIGHT GAUGE METAL TRUSS

J2.0 / S5.0 SECTION
SCALE: 1/4"=1'-0"



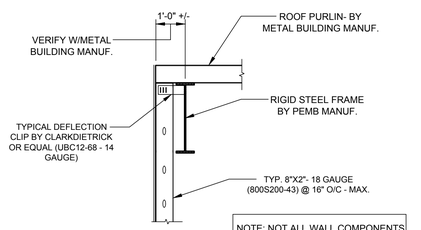
TYP. PREFAB. LIGHT GAUGE METAL TRUSS

H2.0 / S5.0 SECTION
SCALE: 1/4"=1'-0"



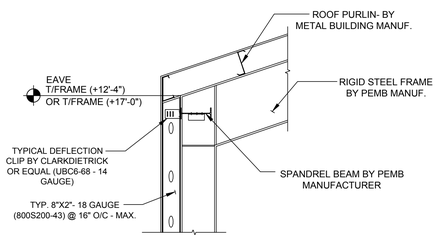
TYPICAL SECTION
SCALE: 1/4"=1'-0"

NOTE: NOT ALL WALL COMPONENTS ARE SHOWN FOR CLARITY - SEE ARCH. SECTIONS AND ROOF DETAILS FOR MORE INFO



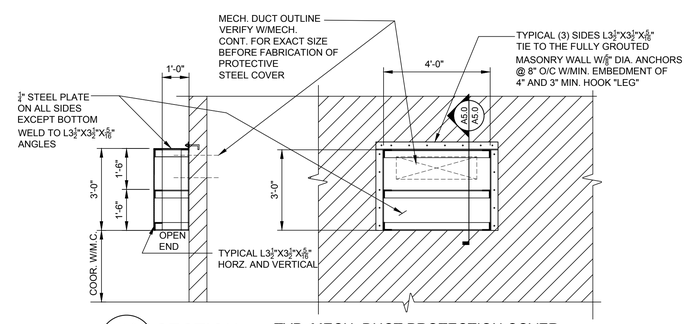
TYP. SUPPORT AT TOP OF LGMF STUD WALL
SCALE : N.T.S.

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.

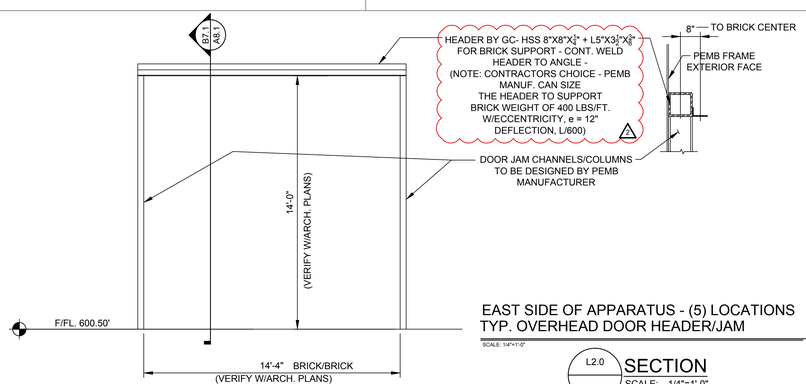
NOTE: NOT ALL WALL COMPONENTS ARE SHOWN FOR CLARITY - SEE ARCH. SECTIONS AND ROOF DETAILS FOR MORE INFO



A5.0 / A5.0 SECTION
SCALE: 3/8"=1'-0"

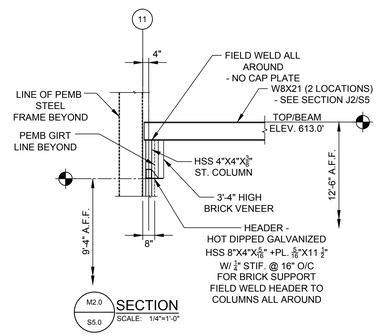
TYP. MECH. DUCT PROTECTION COVER
SCALE: 3/8"=1'-0"

TYPICAL (2) LOC. - SEE MECH. DWG. FOR LOCACTION

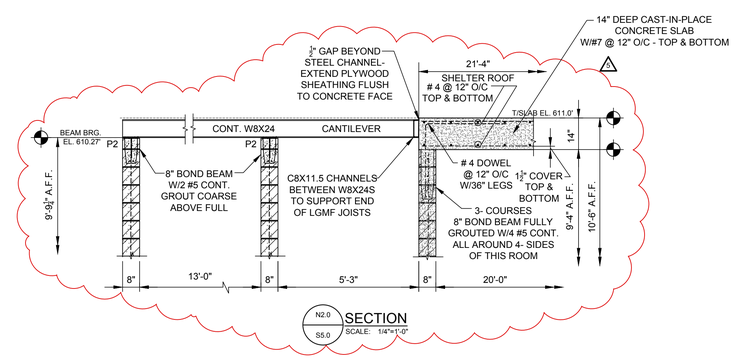


EAST SIDE OF APPARATUS - (5) LOCATIONS
TYP. OVERHEAD DOOR HEADER/JAM
SCALE: 1/4"=1'-0"

L2.0 / A5.0 SECTION
SCALE: 1/4"=1'-0"



M2.0 / S5.0 SECTION
SCALE: 1/4"=1'-0"



N2.0 / S5.0 SECTION
SCALE: 1/4"=1'-0"

STATE OF OHIO
KENT 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

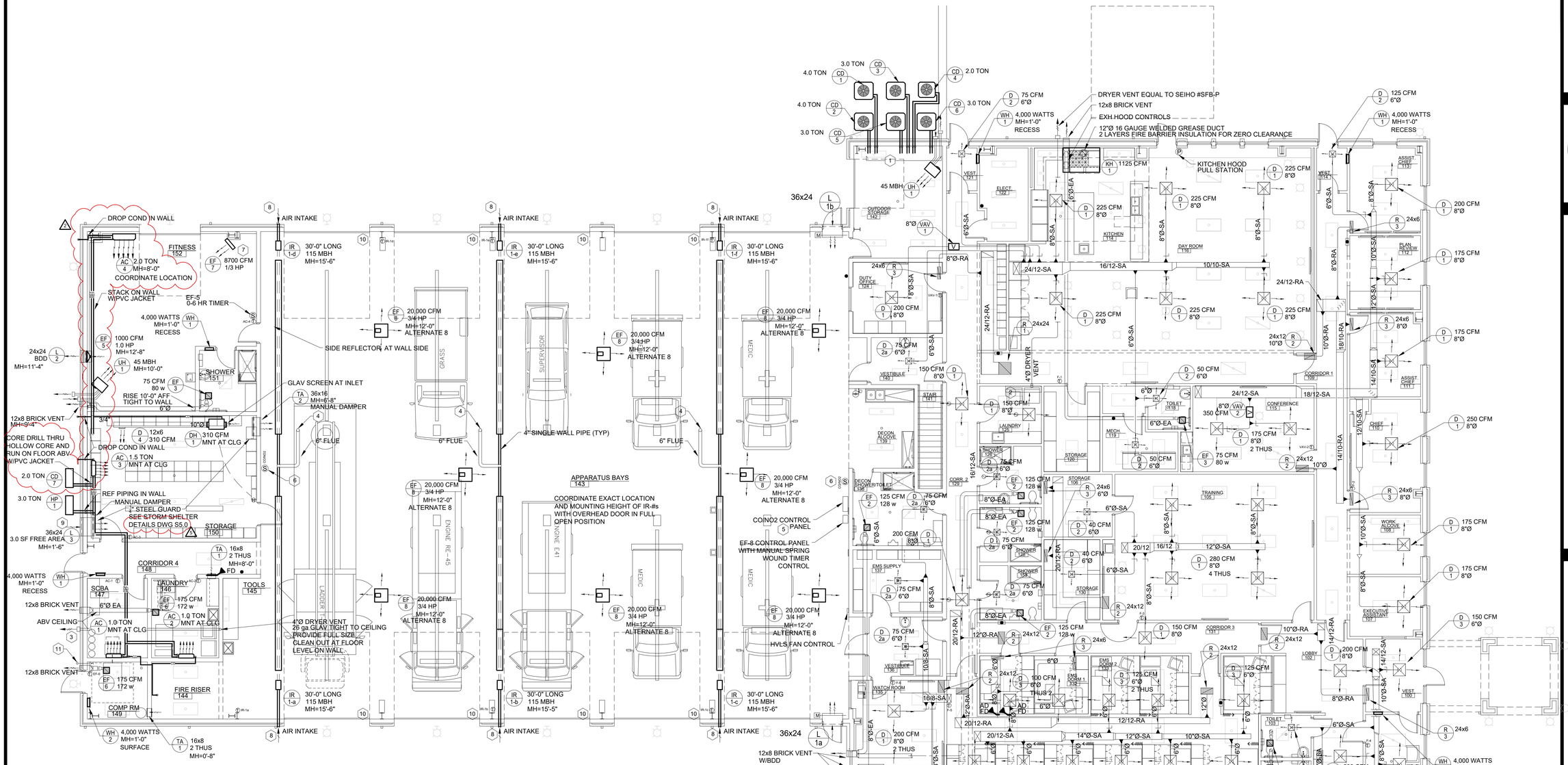
BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., MAUMEE, OH 43537 | P:419.893.9027 F:419.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE

1	2021-07-07
2	2021-07-14

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

S5.0



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 AFL-507. STATIONARY BLADE EXTRUDED ALUMINUM LOUVER DESIGNED TO PROTECT AIR INTAKE AND EXHAUST OPENINGS IN BUILDING EXTERIOR WALLS. LOUVER DESIGNED TO PROTECT EXTERIOR WALL PENETRATIONS ON FEMA 361 OR FEMA 320 COMPLIANT STORM SHELTERS OR SAFE ROOMS. DESIGN PRESSURES OF POSITIVE/NEGATIVE 250 PSF AND DEBRIS IMPACT OF A 15 LB 2X4 TRAVELING AT 100 MPH. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTION FOR FLUSH MOUNT. △3
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
68646
REGISTERED
PROFESSIONAL ENGINEER
SIGNATURE DATE 06/17/21

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M1.1

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
- EQUAL BY DETROIT RADIANT, SOLARONICS OR REZNOR
- PROVIDE SIDE REFLECTOR AT IR-1d

DIFFUSER, LOUVER & GRILLE SCHEDULE

MARK NO.	MAX CFM	STATIC PRESS. (IN H2O)	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		BY ARCH	-	-	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 AFL-501	MANUAL INSULATED DAMPER FEMA 361 LOUVER
L-4	6000	.10	-	48"Ø			-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
L-5	-	-	-	70x30	TRIANGLE		-	-	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	(3) 12x8 BRICK VENT W/BDD
EF-3	75	.250	80w	115-1Ø	BDD	SP-B110	1.5	(1) 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, REFRESH FANS 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	2-STAGE					
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	4TTA7048	2	17.0	4.0	208-3Ø	18 AMPS	30 AMPS	308 LBS
CD-2	4TTA7048	2	17.0	4.0	208-3Ø	18 AMPS	30 AMPS	308 LBS
CD-3	4TTA7036	2	17.0	3.0	208-3Ø	15 AMPS	25 AMPS	283 LBS
CD-4	4TTR7024	2	17.0	2.0	208-1Ø	15 AMPS	25 AMPS	190 LBS
CD-5	4TTA7036	2	17.0	3.0	208-3Ø	15 AMPS	25 AMPS	283 LBS
CD-6	4TTA7024	2	17.0	3.0	208-3Ø	15 AMPS	25 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	VCCF	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 / COP	DESCRIPTION DAIKIN	REMARKS
AC-1	12.0	14.7	290/180	208-1Ø	0.4 A	15 A	-	FTXS-12LVJU	WALL CASSETTE
AC-2	12.0	14.7	290/180		0.4 A	15 A	-	FTXS-12LVJU	WALL CASSETTE
AC-3	18.0	20.0	500/400		0.5 A	15 A	-	FTXS-18LVJU	WALL CASSETTE
HP-1	34.4	36.6	-		32.5 A	35 A	21.7/4.26	4MXL36TVJU	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/5°F WB
- COOLING: INDOOR: 80°F DB/67°F WB: OUTDOOR: 95°F DB/75°F WB
- EQUAL BY LG OR TRANE

AC MINI SPLIT SYSTEM

MARK	AC-4/CD-7
MAKE	DAIKIN
MODEL-IN/OUT	FTKB24AXVJU / RKB24AXVJU
ELECTRICAL	208V-1Ø
MCA	13.2
MOP	20 A
COOL CAP	22,000 BTU
EER/SEER	11.0/17
HEAT CAP	-
OPTIONS	HARD WIRED T-STAT

- 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

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