



NEW CARWASH BUILDING FOR: TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

USE QR CODE FOR MOST
CURRENT PROJECT DRAWINGS.

MODERNWASH
5220 SCOTTSDALE ROAD
BOWLING GREEN, KY 42104
OFFICE - 1.800.511.7208
MODEL:
AXIOM BETA RETAIL TOWER
2023
PLOT DATE: Thursday, June 22, 2023



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ABBREVIATIONS	
A.B.	ANCHOR BOLT
A.F.F.	ABOVE FINISHED FLOOR
ACM	ALUMINUM COMPOSITE PANEL
ACT	ACOUSTICAL CEILING TILE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALUM	ALUMINUM
ASF	ALUMINUM STORE FRONT
AWS	AMERICAN WELDING SOCIETY
C.C.	CENTER TO CENTER
C.J.	CONSTRUCTION JOINT
C.T.	CERAMIC TILE
C.L.	CENTER LINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CONC.	CONCRETE
C.T.F.	CUT TO FIT
CWO	CONFIRM WITH OWNER
CONT.	CONTINUOUS
D.G.A.	DENSE GRADED AGGREGATE
D.S.	DOWN SPOUT
DBL	DOUBLE
DIM	DIMENSION(S)
DTL	DETAIL
E.F.	EXHAUST FAN
E.I.F.S.	EXTERIOR INSULATED FINISH SYSTEM
E.J.	EXPANSION JOINT
EQ	EQUAL
EW	EACH WAY
E.W.C.	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXP.	EXPOSED STRUCTURE ABOVE
FBGS	FIBERGLASS
FCP	FIBER CEMENT PANEL
F.D.	FLOOR DRAIN
F.D.N.	FOUNDATION
F.E.C.	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FG	FLOAT GLASS 1/4"
FG	FINISHED GRADE
FLASH.	FLASHING
F.O.B.	FACE OF BRICK
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
FRP	FIBERGLASS REINFORCED PLASTIC
GA	GAUGE
GL	GLASS (GLAZING)
GWB	GYPSUM WALLBOARD
GWBMR	GYPSUM WALLBOARD - MOISTURE RESISTANT
H.B.	HOSE BIB
HM	HOLLOW METAL
IFG	INSULATED FLOOR GLASS 1"
INSUL.	INSULATION
LAV	LAVATORY
LGM	LIGHT GAUGE METAL
LVL	LAMINATED VENEER LUMBER
M.B.D.	METAL BORON DIOXIDE BOARD
MAX.	MAXIMUM
MFR.	MANUFACTURER
MIN.	MINIMUM
MLP	METAL LINER PANEL
MTL	METAL
N.I.C.	NOT IN CONTRACT
NO. (#)	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.C. H.	ON CENTER HORIZONTAL
O.C.V.	ON CENTER VERTICAL
O.F.C.I.	OWNER FURNISHED CONTRACTOR INSTALLED
O.F.E.	OWNER FURNISHED EQUIPMENT
O.H.	OVER HEAD
OSB	ORIENTED STRAND BOARD
P.	PAINT
P.A.F.	POWDER ACTUATED FASTENER
PC	POLYCARBONATE
PEMB	PRE-ENGINEERED METAL BUILDING
PERF	PERFORATED
PERIM.	PERIMETER
P-LAM	PLASTIC LAMINATE
PLY	PLYWOOD
PNL	PANEL
PRE-ENG	PRE-ENGINEERED
PREFAB	PREFABRICATED
PRE-FIN	PRE-FINISHED
PRE-MFR	PRE-MANUFACTURED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED
PTAC	PACKAGED TERMINAL AIR CONDITIONER
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
RCP	REFLECTED CEILING PLAN
REC.	RECOMMENDED
REQ.	REQUIRED, REQUIREMENTS
RFT	RESILIENT FLOOR TILE
R.R.	RESTROOM
S.B.	SPLASH BLOCK
S.D.	SOAP DISPENSER
SIPS	STRUCTURAL INSULATED PANEL
SF	SQUARE FOOT
S.O.G.	SLAB ON GRADE
SS	STAINLESS STEEL
STL	STEEL
STRUCT.	STRUCTURAL
SYN	SYNTHETIC
TEMP.	TEMPERED
TOS	TOP OF STEEL
TP	TOILET PAPER
TS&P	TAPED, SEALED, & PAINTED
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.C.T.	VENEER COMPOSITION TILE
VEN	VENEER
VENT.	VENTILATED
WD	WOOD
W.W.F.	WELDED WIRE FABRIC
+/-	PLUS OR MINUS

05/03/2023 BUILDING CODE SUMMARY - Missouri City of Lee's Summit, Jackson Co., Missouri 2018 International Building Code NOTES 1. This project shall conform to the latest edition of the 2018 Missouri Building Code, including any local ordinances or other requirements imposed by the Fire Marshall having jurisdiction. 2. The listing below of pertinent Code Sections is not all inclusive, and therefore incumbent upon the General Contractor to assure the project is constructed in full compliance with all applicable codes and ordinances. Further, it is the GC's obligation to notify the architect/owner immediately if any part of the design/material selection/construction documents appear to be inconsistent or non-compliant with the Codes. Failure to do so may incur unforeseen costs of removal and replacement of items at the GC's expense. PROJECT DATA: Project Name: Midwest Car Wash Location: 20 SE Thompson Dr, Lee's Summit, Jackson Co., MO 64081 Owner: Jason Bohmert (Owner's Rep) Midwest Car Wash Group 1st Floor Gross Area: 5,213 SF 1st Floor Occupied Area: 710 SF 2nd Floor Occupied Area: 518 SF Total Occupied Area: 1,228 SF / 150 = 8 persons Non-Occupied (Mechanical) Area: 4,494 SF / 300 = 14 persons Total Gross Area: 5,731 SF (5,213 + 518) Height: 27' - 0" Tunnel Length: 120' Climate Zone: 6A 304.1 B Business Use Group Car Wash 502.1 Address Identification New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of 1/16 inch. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure. Address identification shall be maintained. Table 504.3 Allowable Height = 40' - 0" Use Group B, Construction Type - 5B, Unprotected, Unsprinkled Table 504.4 Allowable Number of Stories = 2 Stories 505.3 Equipment Platforms Equipment platforms in buildings shall not be considered as a portion of the floor below. Such equipment platforms shall not contribute to either the building area or the number of stories as regulated by Section 503.1. The area of the equipment platform shall not be included in determining the fire area in accordance with Section 903. Equipment platforms shall not be a part of any mezzanine and such platforms and the walkways, stairways, alternating tread devices and ladders providing access to an equipment platform shall not serve as a part of the means of egress from the building. 505.3.3 Guards Equipment platforms shall have guards where required by Section 1015.2 Table 506.2 Allowable Area = 9,000 SF Occupancy B, Construction Type - 5B, UnProtected / Not Sprinklered Table 601 Fire Resistance Rating for Building Elements = 0 hours Type 5B - Structural Frame,Walls,Partitions, Floors, Roof Page 1 of 5	05/03/2023 Table 602 Fire Separation Rating based on Fire Separation Distance = 0 Occupancy Group B, Type 5B, Fire Separation Dist. = Greater than 30' Table 705.8 Max Area Exterior Wall Openings based on Fire Separation Distance Fire Separation Dist. Degree of Opening Protection Allowable Area 30' or > Unprotected, Nonsprinklered No Limit Table 803.1.3 Interior Wall and Ceiling Finish Requirements by Occupancy Occupancy Group B, NonSprinklered: Corridors TYPE B: Rooms/Enclosed Spaces TYPE C 903 Automatic Sprinkler Systems - Not Required 903.2.9 Fire Protection for Group S-1 (soap/wash supplies storage areas) An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists: 1. A Group S-1 fire area exceeds 12,000 square feet. 2. A Group S-1 fire area is located more than three stories above grade plane. 3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 24,000 SF. 4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet. 5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 SF. 906.1 Portable Fire Extinguishers - Where Required : 906.1.3 In areas where flammable or combustible liquids are stored, used or dispensed. See Local Fire Marshall for any other required locations. 907.1 Fire Alarm and Detection Systems - Not Required Table 1004.5 Maximum Floor Area per Occupant: Mechanical equipment room, 300 gross sf; Business Areas, 150 gross sf Table 1006.2.1 Spaces with one Exit or Exist Access Doorway Occupancy B Max Occupant Load 49 (W/O Sprinkler) Max Egress Travel 75' 1006.2.2.1 Boiler, Incinerator and Furnace Rooms Two exit access doorways are required in boiler, incinerator and furnace rooms where the area is over 500 square feet (46 m²) and any fuel-fired equipment exceeds 400,000 British thermal units (Btu) (422,000 KJ) input capacity. Where two exit access doorways are required, one is permitted to be a fixed ladder or an alternating tread device. Exit access doorways shall be separated by a horizontal distance equal to one-half the length of the maximum overall diagonal dimension of the room. 1006.3.2 (2) Stories with one Exit or Access to one Exit Occupancy B, Max Occupant Load = 49, Max Egress Travel = 75' 1006.3.3 Single Exits A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists: • The occupant load number of dwelling units and common path of egress travel distance do not exceed the values in Table 1006.3.3.(1) or 1006.3.3.(2). • Rooms, areas and spaces complying with Section 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit or access to a single exit. 1008.2 Illumination Required The means of egress serving a room or space shall be illuminated at all times that the room or space is occupied. 1009.1 Accessible Means of Egress Required Accessible spaces shall be provided with not less than one accessible means of egress. 1010.1.7 Thresholds Thresholds at doorways shall not exceed 3/4 inch (19.1 mm) in height above the finished floor or landing for sliding doors serving dwelling units or 1/2 inch (12.7 mm) above the finished floor or landing for other doors. Raised thresholds and floor level changes greater than 1/4 inch (6.4 mm) at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope). Page 2 of 5	05/03/2023 1011.2 Stairs: Width and Capacity The required capacity of stairways shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches (1118 mm). See Section 1009.3 for accessible means of egress stairways. Exceptions: Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches. 1011.3 Headroom Stairways shall have a headroom clearance of not less than 80 inches (2032 mm) measured vertically from a line connecting the edge of the nosings. Such headroom shall be continuous above the stairway to the point where the line intersects the landing below, one tread depth beyond the bottom riser.The minimum clearance shall be maintained the full width of the stairway and landing. 1011.5.2 Riser Height and Tread Depth Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum.The riser height shall be measured vertically between the nosings of adjacent treads. Rectangular tread depths shall be 11 inches minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's nosing. 1011.5.5.3 Solid Risers Risers shall be solid. 1011.7.1 Stairway Walking Surface The walking surface of treads and landings of a stairway shall not be sloped steeper than one unit vertical in 48 units horizontal (2-percent slope) in any direction. Stairway treads and landings shall have a solid surface. Finish floor surfaces shall be securely attached. 1011.1.1 Handrails Stairways shall have handrails on each side and shall comply with Section 1014. 1011.16 Ladders Permanent ladders shall not serve as a part of the means of egress from occupied spaces within a building. Permanent ladders shall be constructed in accordance with Section 306.5 of the International Mechanical Code. Permanent ladders shall be permitted to provide access to the following areas: 1. Spaces frequented only by personnel for maintenance, repair or monitoring of equipment. 2. Nonoccupiable spaces accessed only by catwalks, crawl spaces, freight elevators or very narrow passageways. 3. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands. 4. Elevated levels in Group U not open to the general public. 5. Nonoccupied roofs that are not required to have stairway access in accordance with Section 1011.12.1. 6. Where permitted to access equipment and appliances in accordance with Section 306.5 of the International Mechanical Code. 1013 Exit Signs 1.Exit signs are not required in rooms or areas that require only one exit or exit access. 2. Main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the building official. Table 1017.2 Exit Access Travel Distance Occupancy B, Without Sprinkler System = 200 feet 1018.3 Aisles in Groups B and M In Group B and M occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served. Exception: Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11 need not exceed 28 inches (711 mm) in width. 1102 Accessibility - Compliance Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1. 1103.2.9 Equipment Spaces Spaces frequented only for maintenance of equipment are not required to comply with this chapter. 1204.3 Artificial Light Artificial light shall be provided that is adequate to provide an average illumination of 10 footcandles (107 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level. Page 3 of 5	05/03/2023 1301.1.1 Energy Efficiency - Criteria Buildings shall be designed and constructed in accordance with the Int'l Energy Cons. Code. 1406.8 Metal Composite Materials Fire resistance rating Where MCM are used on exterior walls required to have a fire-resistance rating in accordance with Section 703, evidence shall be submitted to the building official that the required fire-resistance rating is maintained. Exception: MCM systems not containing foam plastic insulation, which are installed on the outer surface of a fire-resistance-rated exterior wall in a manner such that the attachments do not penetrate through the entire exterior wall assembly, shall not be required to comply with this section. 1406.9 MCM Surface-Burning Characteristics Unless otherwise specified, MCM shall have a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in the maximum thickness intended for use in accordance with ASTM E84 or UL 723. 1407.2 EIFS (Exterior Insulation and Finish Systems)- EIFS shall be constructed such that it meets the performance characteristics required in ASTM E2568. 1407.3 EIFS - Structural Design The underlying structural framing and substrate shall be designed and constructed to resist loads as required by Chapter 16 of 2018 IBC. 1407.4 EIFS - Weather Resistance EIFS shall comply with Section 1402 and shall be designed and constructed to resist wind and rain in accordance with this section and the manufacturer's application instructions. 1407.5 EIFS - Installation Installation of EIFS and EIFS with drainage shall be in accordance with the EIFS manufacturer's instructions. GENERAL EIFS SPECIFICATION EXAMPLE BELOW: 1.1 SECTION REQUIREMENTS A. Comply with EIFS Industry Members Association's (EIMA) "Guideline Specification for Exterior Insulation and Finish Systems (EIFS) Class PB" with impact classification and range per EIMA 101.86 of Standard Impact Resistance: 25-49 inch-lb and High Impact Resistance: 90-150 inch-lb. B. Structural Performance: Engineer, fabricate, and install prefabricated panels to withstand the effects of normal thermal movement, gravity loads, inward- or outward-acting uniform wind velocity pressures, and deflection of less than L/240 of span of framing members. C. Submittals: Product Data and Samples of finishes. 1. For prefabricated panels, submit Shop Drawings and structural analysis data signed and sealed by the qualified professional engineer who was responsible for their preparation. D. Installer Qualifications: Certified in writing by system manufacturer. 2.1 MANUFACTURERS A. Dryvit, Sto or approved equal. 3.1 INSTALLATION A. Comply with system manufacturer's written instructions for installation of system as applicable to each type of substrate indicated. B. 1. Install panels level, plumb, and true to line with no variation in plane or alignment exceeding 1/16 inch and no variation in position exceeding 1/8 inch. 2. Maintain clearance between panels required for installing joint sealants. C. Prepare joints and apply sealants to comply with applicable requirements with Manufacturers specifications. D. Obtain Manufacturers warranty. 1504.1 Wind Resistance Performance Requirements of Roofs Roof decks and roof coverings shall be designed for wind loads in accordance with Chapter 16 and Sections 1504.2, 1504.3 and 1504.4. 1504.3.1 Other Roof Systems Built-up, modified bitumen, fully adhered or mechanically attached single-ply roof systems, metal panel roof systems applied to a solid or closely fitted deck and other types of membrane roof coverings shall be tested in accordance with FM 4474, UL 580 or UL 1897. 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05/03/2023 Table 1505.1 Minimum Roof covering Classification for Types of Construction Construction Type - 5: Roof Class C See Section 1507 for roof requirements including but not limited to slope, support, etc.
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1508.1

Roof Insulation - General
The use of above-deck thermal insulation shall be permitted provided such insulation is covered with an approved roof covering and passes the tests of NFPA 276 or UL 1256 when tested as an assembly.

1512.1

Photovoltaic Panels and Modules
Photovoltaic panels and modules installed upon a roof or as an integral part of a roof assembly shall comply with the requirements of this code and the International Fire Code.

1704.2

Special Inspections and Tests
Where application is made to the *building official* for construction as specified in Section 105, the owner or the owner's authorized agent, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work specified in Section 1705 and identify the approved agencies to the building official.

These special inspections and tests are in addition to the inspections by the *building official* that are identified in Section 110.

Exceptions:
1. Special inspections and tests are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
2. Unless otherwise required by the building official, special inspections and tests are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
3. Special inspections and tests are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.
4. The contractor is permitted to employ the approved agencies where the contractor is also the owner.

2406.4.3

Glazing in Windows
Glazing in an individual fixed or operable panel that meets all of the following conditions shall be considered a hazardous location:

1. The exposed area of an individual pane is greater than 9 square feet (0.84 m²).
2. The bottom edge of the glazing is less than 18 inches (457 mm) above the floor.
3. The top edge of the glazing is greater than 36 inches (914 mm) above the floor.
4. One or more walking surface(s) are within 36 inches (914 mm), measured horizontally and in a straight line, of the plane of the glazing.

2608

Light-Transmitting Plastic Glazing
2608.1 Buildings of Type VB Construction
Openings in the exterior walls of buildings of Type VB construction, where not required to be protected by Section 705, shall be permitted to be glazed or equipped with light-transmitting plastic. Light-transmitting plastic glazing shall comply with Section 2606.

2609

Light-Transmitting Plastic Roof Panels
Light-transmitting plastic roof panels shall comply with this section and Section 2606. Light-transmitting plastic roof panels shall not be installed in Groups H, I-2 and I-3. In all other groups, light-transmitting plastic roof panels shall comply with any one of the following conditions:

1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. The roof construction is not required to have a fire-resistance rating by Table 601.
3. The roof panels meet the requirements for roof coverings in accordance with Chapter 15.

END



ModernWash Project Color Selection Check List
Project Name: Tunnel Vision Car Wash (Midwest) - Lee's Summit
20 SE Thompson Dr, Lee's Summit, 64081

Main Frame RAL: Jet Black (RAL 9005)

Wash Bay Roof: Blue Polycarbonate

Tower Roof: Regal White (Mega-Rib - McElroy)

Pay Canopy Roof: Matte Black (Mega-Rib - McElroy)

Gutter and Downspouts at all locations: Matte Black (McElroy)

Wash Bay + Tower Accent EIFS : Blue (PANTONE 2144C)

Knee Wall & above Wash Bay Glass EIFS: Grey (PANTONE 2331C)

Office + Equipment Tower EIFS: Light Grey (PANTONE 2330C)

Office + Equipment Tower Accent Bands EIFS: Black

Pay Canopy Column-Wrap EIFS: Blue (PANTONE 2144C)

Break Metal Trims Trims: Matte Black (McElroy)

Storefront Polycarbonate: Clear

PVC: White

Equipment Room R-panel Ceiling: White

Liner Panel: White

Wash Bay Louver Color: Grey (PANTONE 2331C)

Equipment Room Louver Color: Blue (PANTONE 2144C)

Stair System: Grey

Ships Ladder: Galvanized

Handrail: Stainless Steel

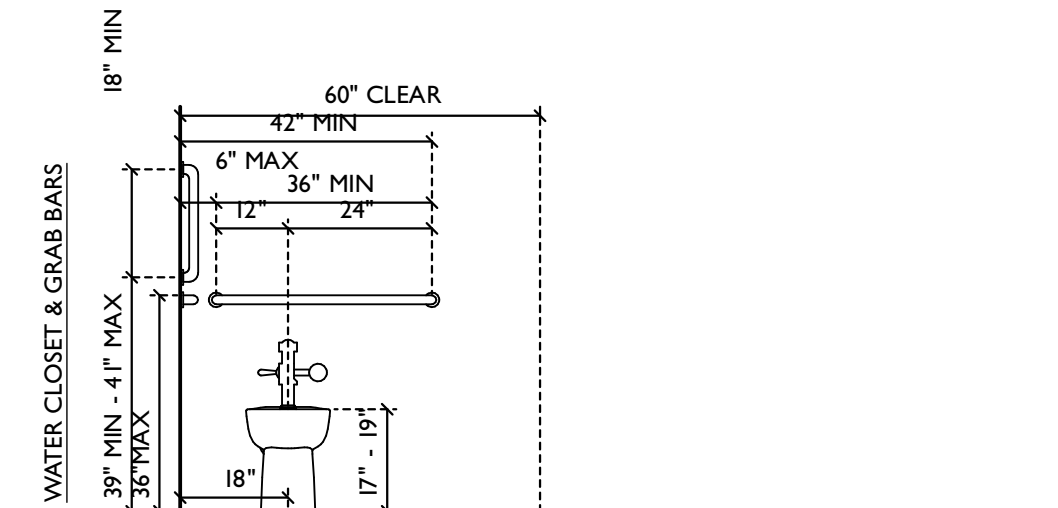
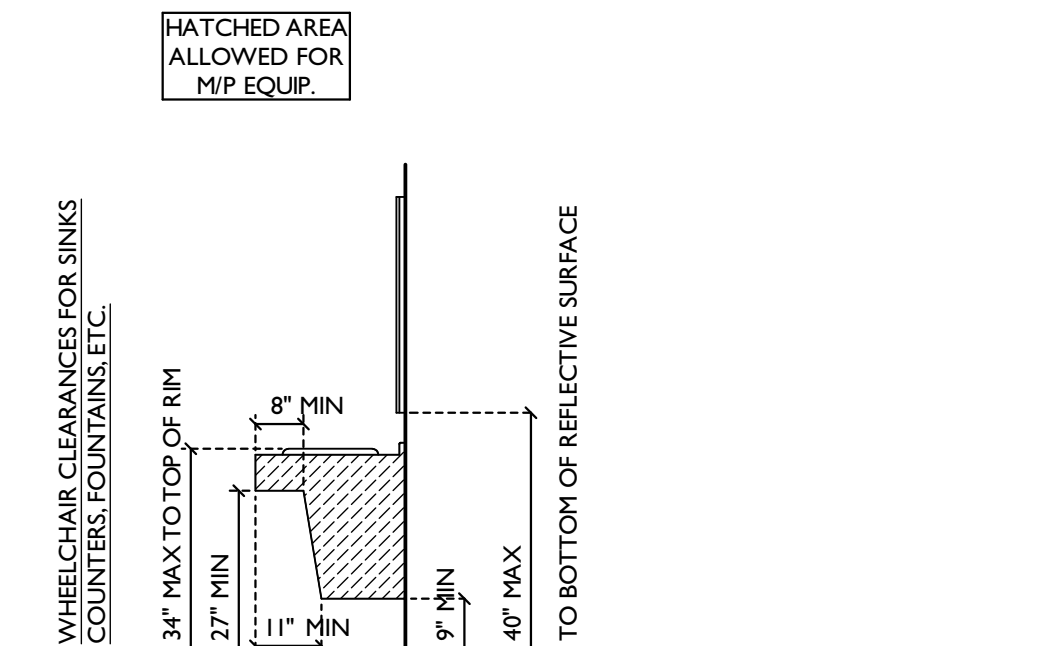
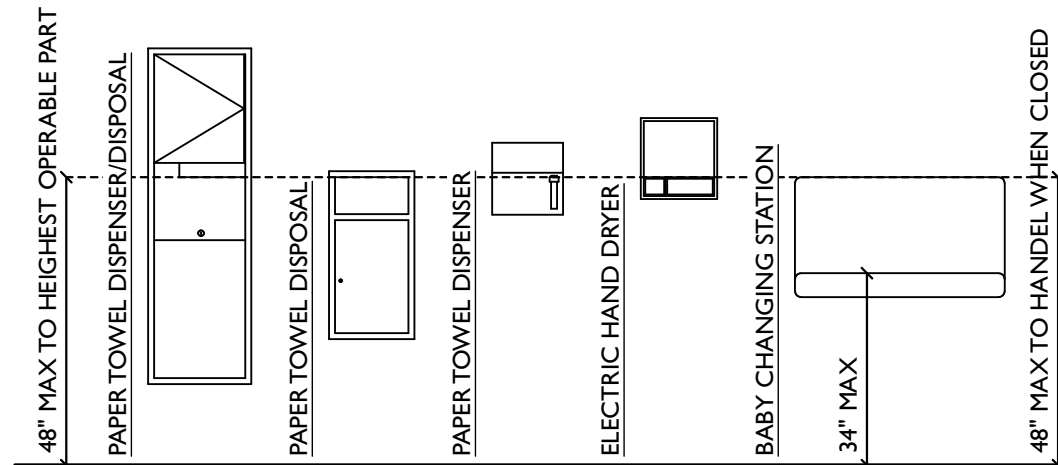
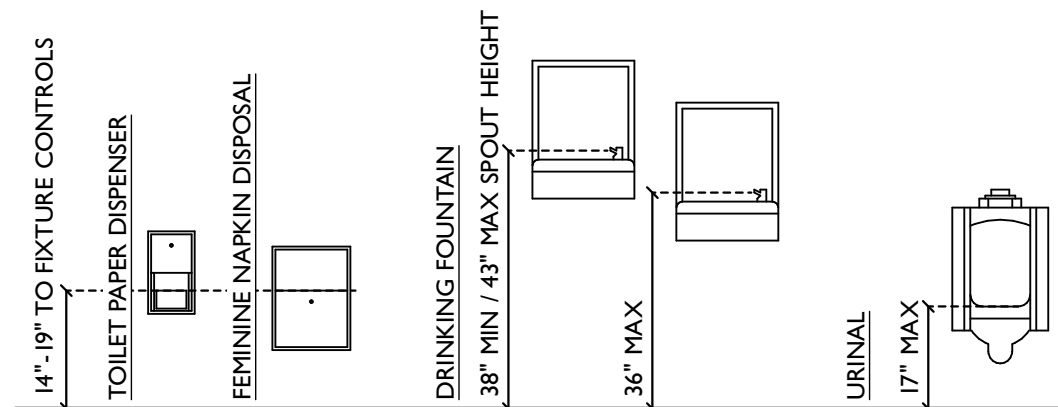
Listed material colors below denote colors represented in the Modernwash renders. Please note colors shown in render may vary depending on monitor or device as well as shadow and light settings. Not all items listed below necessitate the material is included in Modernwash's scope therefore some items may be supplied by others. Confirm materials supplied by modernwash with quote. By signing you give approval to supply the Modernwash materials in the color listed below. Changing color after signing may add additional cost and/or delay.

Color samples provided upon request.

Approved by: Jason Bohnert Date: 4/20/23

Signature: [Signature]

STANDARD ADA REQUIREMENTS



SYMBOLS LEGEND:

1. ZONE/ROOM LABEL
(SEE OCCUPANCY SCHEDULE ON LIFE SAFETY PLAN)
ROOM NAME
ROOM #
AREA
2. DOOR LABEL
(SCHEDULE, SEE MW-7 SHEETS)
PLAN
SECTION/ELEVATION
X
3. WINDOW LABEL
(SCHEDULE, SEE MW-7 SHEETS)
PLAN
SECTION/ELEVATION
WX
4. WALL/PARTITION LABEL
(SEE MW-6.X FOR WALL/SLAB DETAILS)
PLAN
SECTION/ELEVATION
ID
5. SLAB/FLOOR/CEILING LABEL
(SEE FLOOR PLANS)
TYPE
6. ELEVATION MARK
(SEE ELEVATION PLANS)
ELEV.
7. COLUMN LINE
(LOCATION MAY VARY)
A
8. EXTERIOR ELEVATION
(SEE FLOOR PLANS)
A
MW-0.2
9. INTERIOR ELEVATION
(SEE MW-3 SHEETS)
A
D
MW-0.2
B
C
10. BUILDING SECTION
(SEE MW-1 SHEETS)
A
MW-0.2
A
MW-0.2
11. PARTIAL/WALL SECTION
(SEE FLOOR PLANS &/OR SECTIONS)
A
MW-0.2
12. DETAIL/ENLARGEMENT REFERENCE
(LOCATION MAY VARY)
A
MW-0.2
13. REVISION REFERENCE
(SEE SHEET INDEX & REVISION TABLE)
#

REVISIONS

ID	DATE	DESCRIPTION	FOR PERMIT
0	05/03/2023		

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MODERNWASH
5220 SCOTTSDALE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

4 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE
FOR MOST
CURRENT
PROJECT
DRAWINGS.



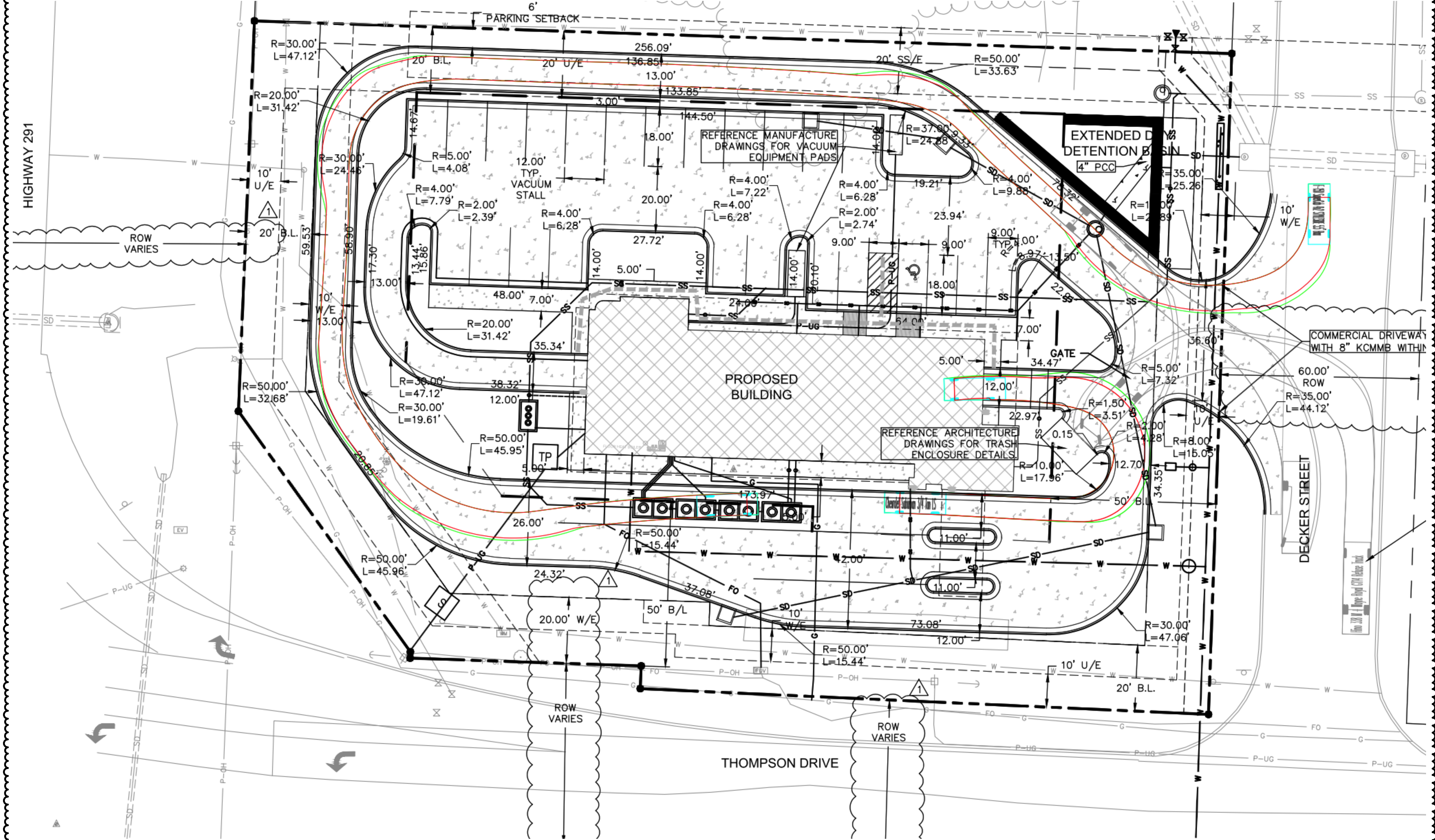
PRELIMINARY

PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

SHEET:

MV-0.4

GENERAL INFORMATION



NOTE:
VEGETATIVE SCREENING SHOULD
BE PROVIDED AROUND GROUND-
MOUNTED UNITS PER CITY
REQUIREMENTS. THE SPACING
BETWEEN THE UNITS AND
PLANTINGS SHOULD BE IN
ACCORDANCE WITH
MANUFACTURER REQUIREMENTS.

NOTE:
THIS SITE DRAWING WAS
PRODUCED BY OLSSON.
IT IS SHOWN ON THIS DRAWING
SET FOR REFERENCE ONLY.
REFER TO CIVIL DRAWINGS FOR
ALL CIVIL INFORMATION.

REVISIONS	
ID	DESCRIPTION
0	FOR PERMIT
1	TRENCH/DRAWING UPDATE

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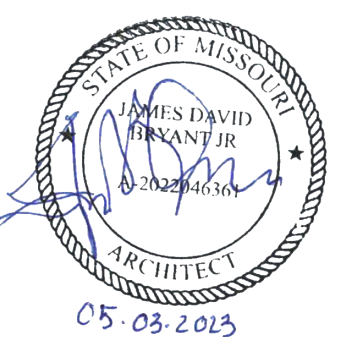
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BOWLING GREEN, KY 42104
MODEL: AXIOM BETA
RETAIL TOWER
2023

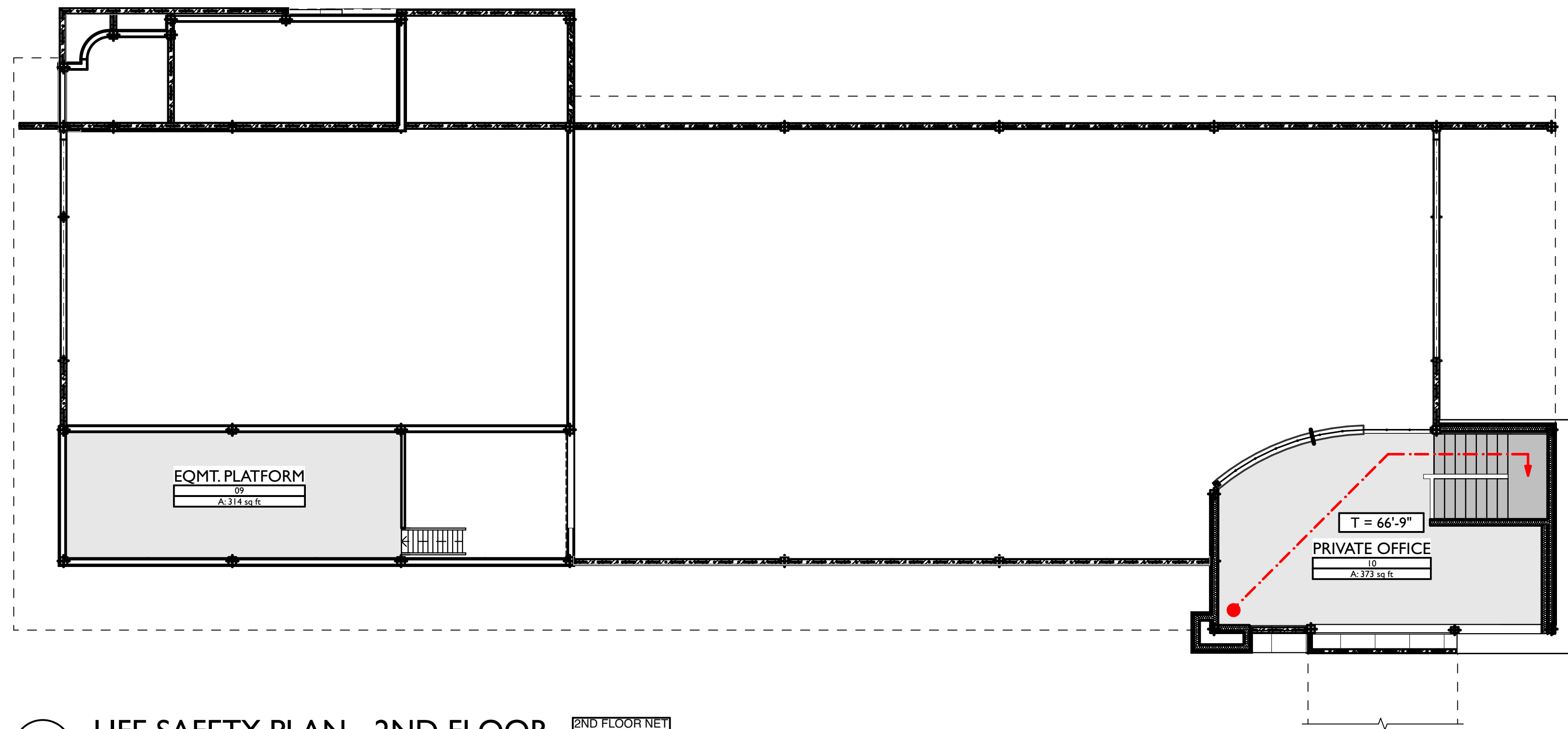
5 OF 39

NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

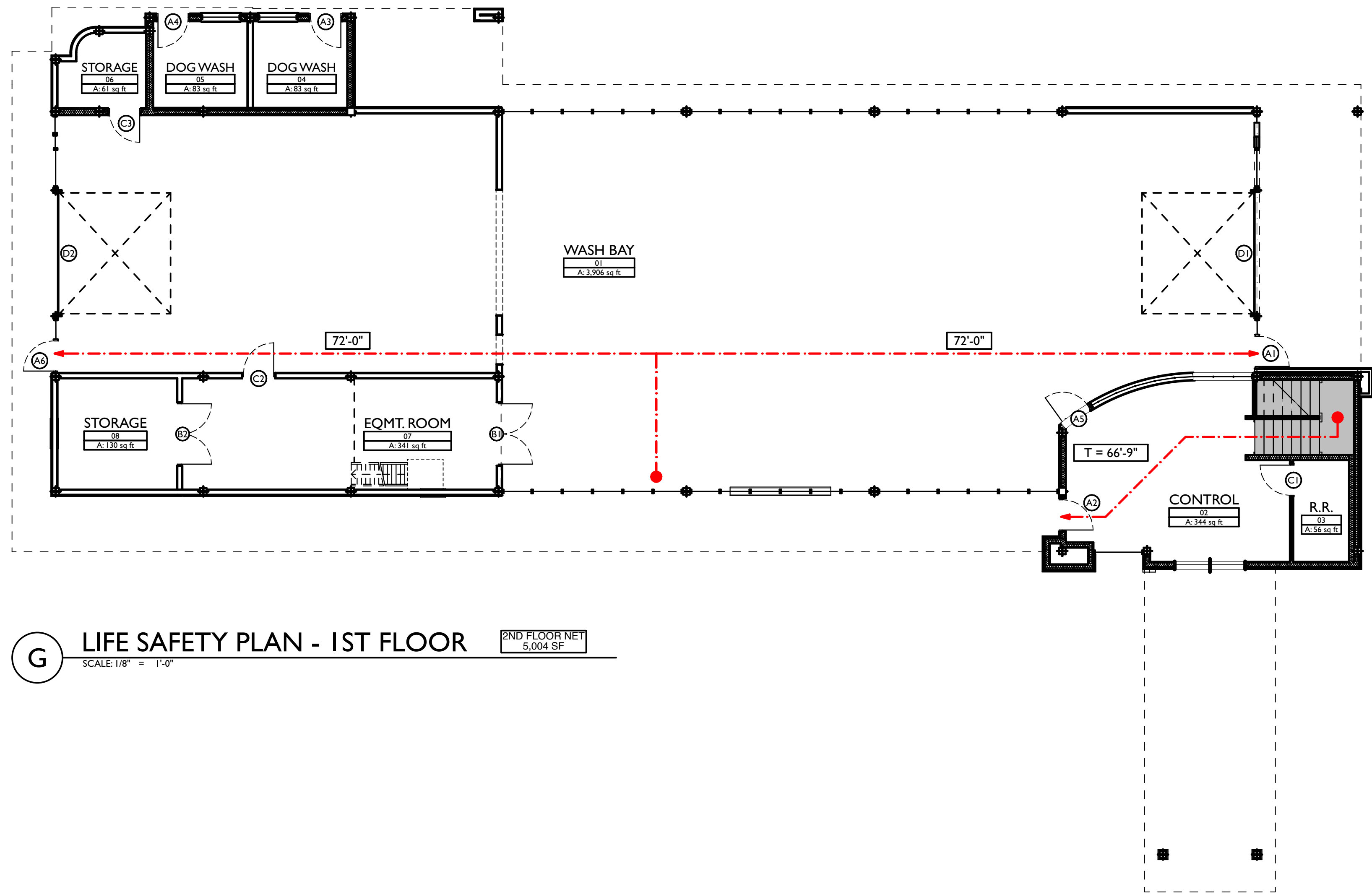


PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

SHEET:
MV-0.5
SITE PLAN

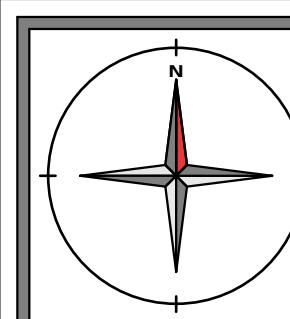


B LIFE SAFETY PLAN - 2ND FLOOR 2ND FLOOR NET 373 SF
SCALE: 1/8" = 1'-0"



G LIFE SAFETY PLAN - 1ST FLOOR 2ND FLOOR NET 5,004 SF
SCALE: 1/8" = 1'-0"

TOTAL BLDG. GROSS
5,722 SF



REVISIONS	
ID	DESCRIPTION
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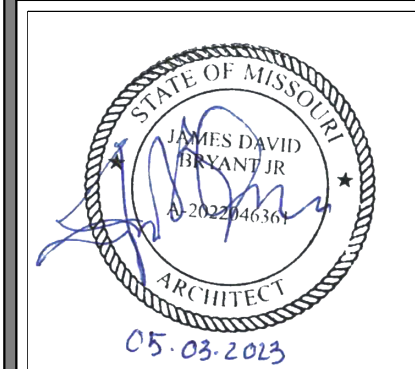
**MODEL: AXIOM BETA
RETAIL TOWER
2023**

6 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

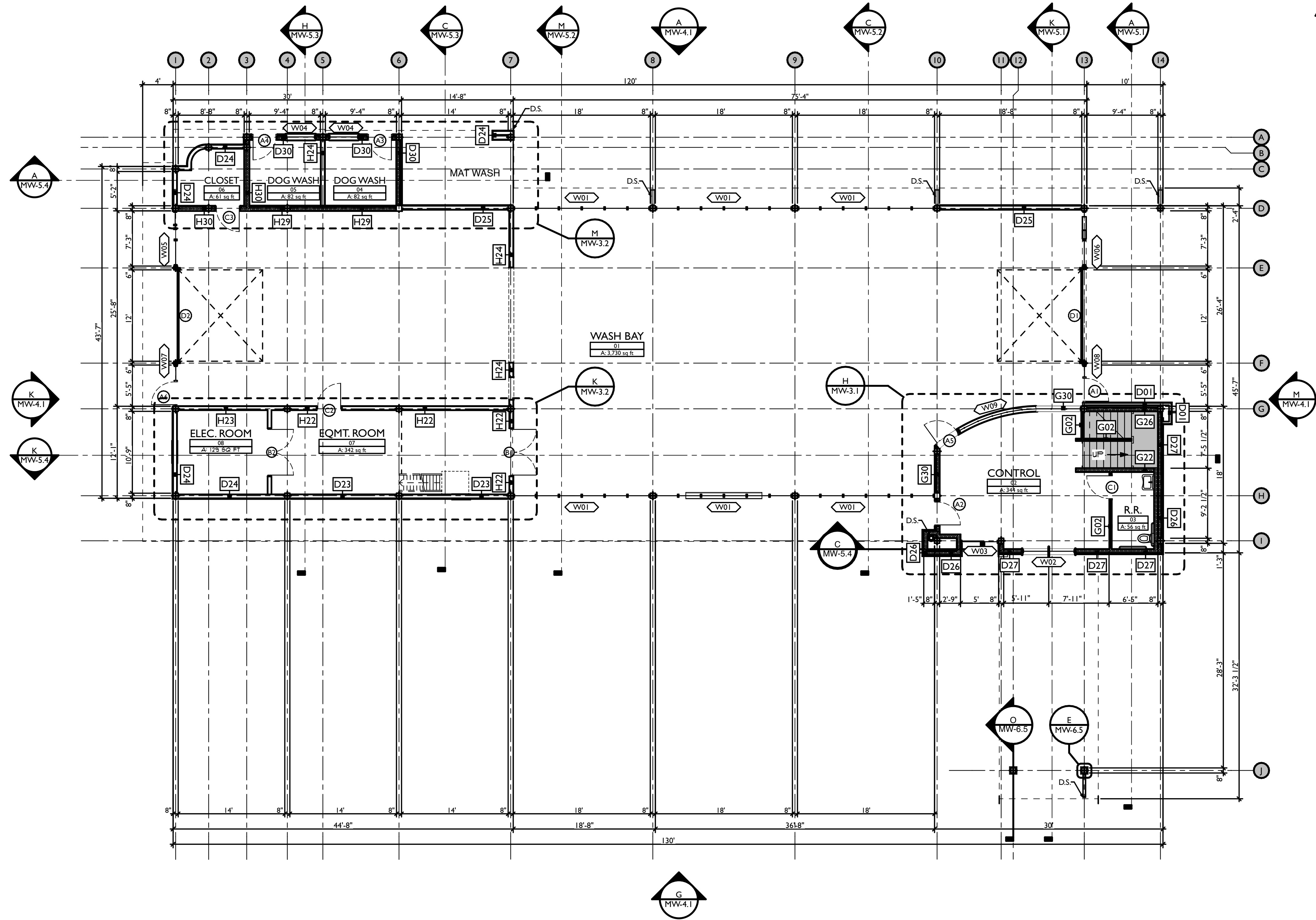


USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: TL

SHEET: **MV-0.6**

LIFE SAFETY PLAN



A 1st FLOOR
SCALE: 1/8" = 1'-0"
FIRST FLOOR GSF
A: 5,213 sq ft

NOTE: AN EPOXY COATING IS TO BE APPLIED ON THE FLOOR OF EACH OF THE FOLLOWING ROOMS:

- 01 - WASH BAY (EXCLUDING TRENCH)
- 02 - CONTROL ROOM
- 03 - R.R.
- 04 - DOG WASH
- 05 - DOG WASH
- 06 - CLOSET
- 07 - EQMT. ROOM
- 08 - ELEC. ROOM

EPOXY FINISH SHOULD BE COORDINATED WITH OWNER.

REVISIONS	
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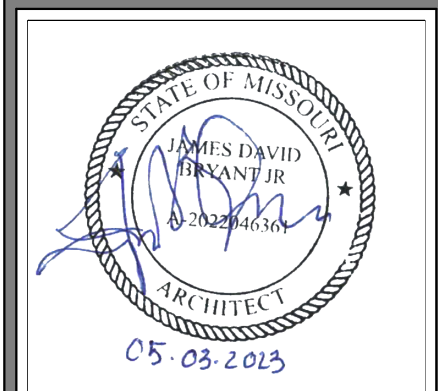


**MODEL: AXIOM BETA
RETAIL TOWER
2023**

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.



PRELIMINARY

PLOT DATE: 6/22/23

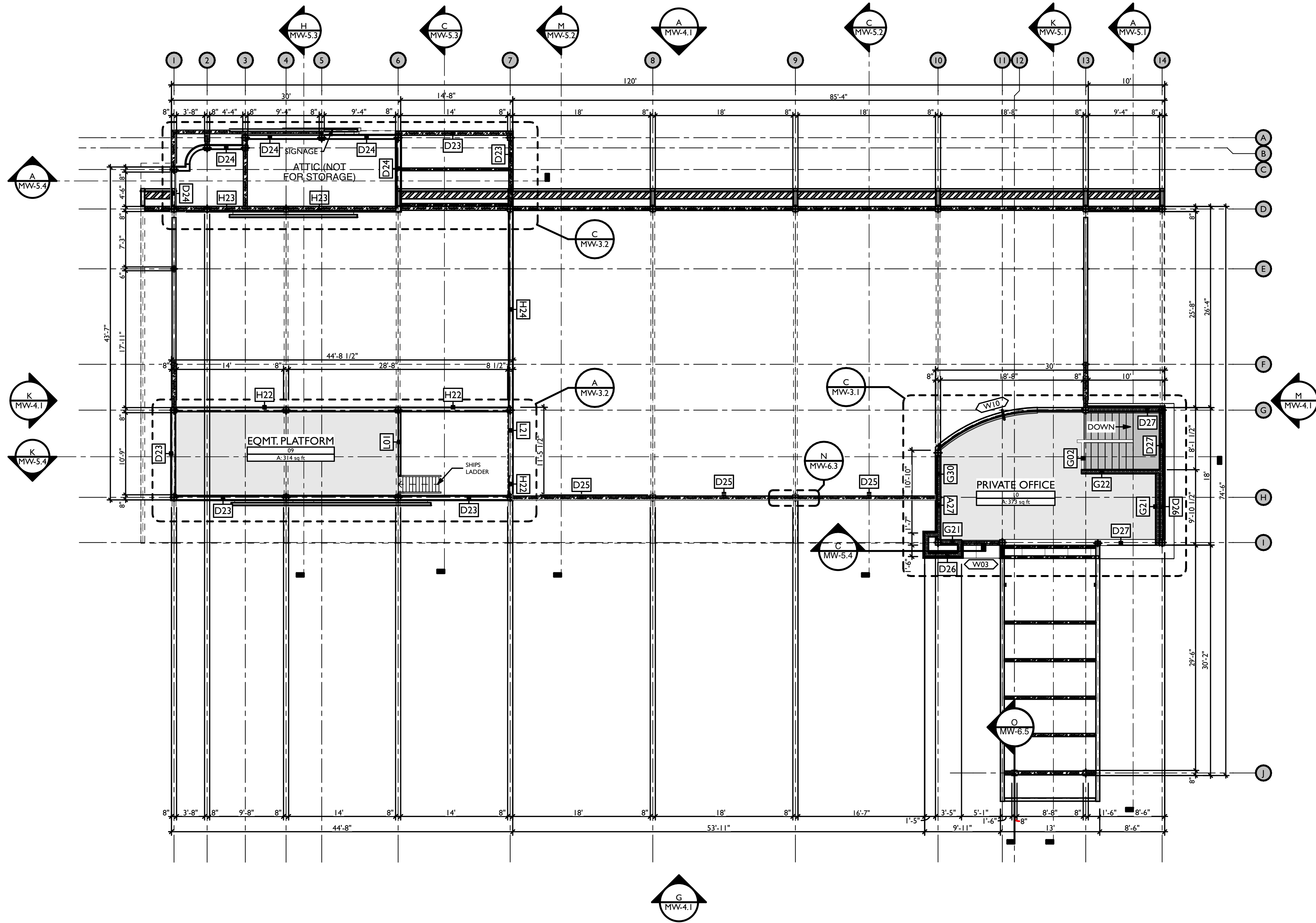
DRAWN BY: EWH, CBH

CHECKED BY: TL

SHEET:

MW-1.1

1st FLOOR PLAN



B 2nd FLOOR
SCALE: 1/8" = 1'-0"
SECOND FLOOR GSF
A: 318 SQ. FT.

REVISIONS	
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**MODEL: AXIOM BETA
RETAIL TOWER
2023**

8 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

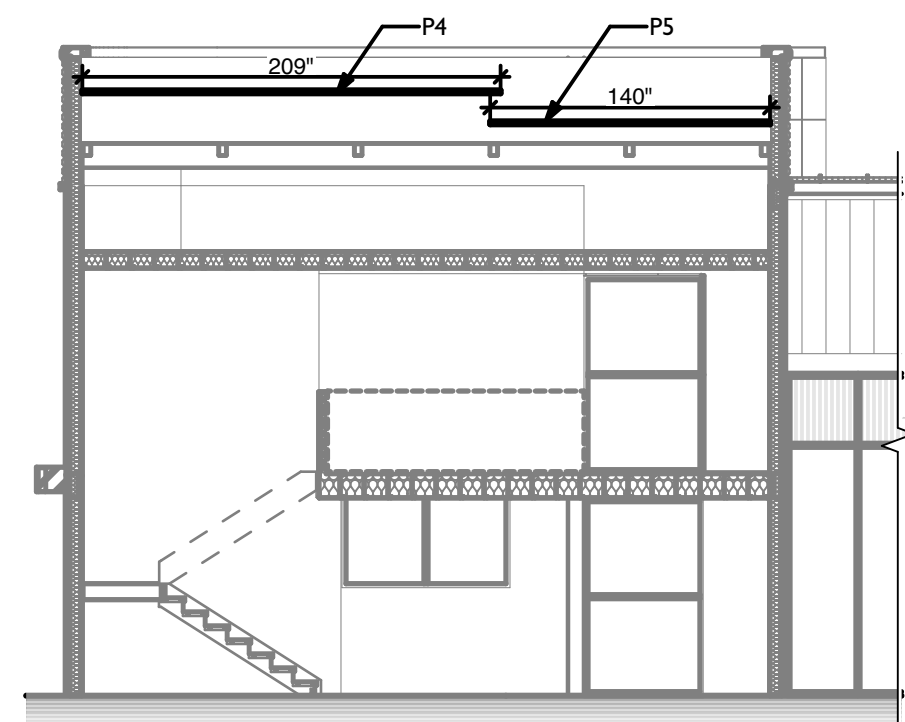
STATE OF MISSOURI
JAMES DAVIS
ARCHITECT
05-08-2023

USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

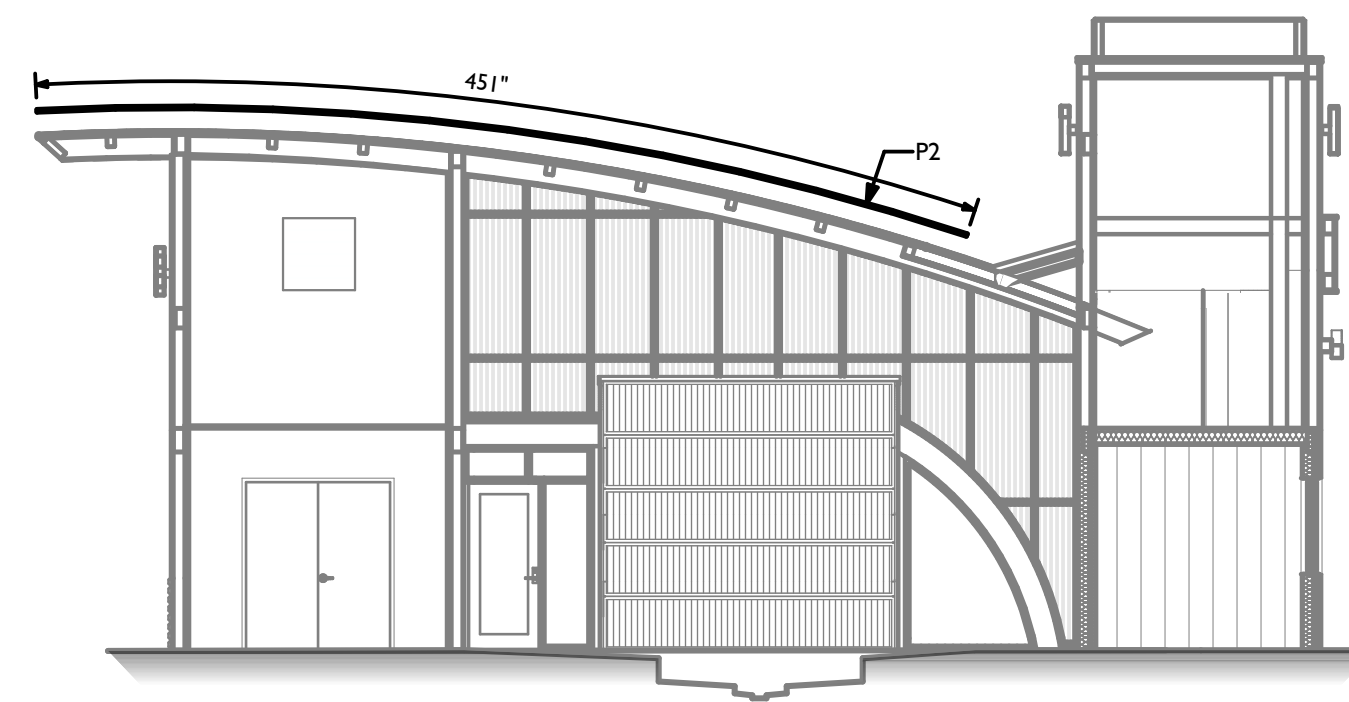
PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: TL

SHEET:
MW-1.2
2nd FLOOR PLAN

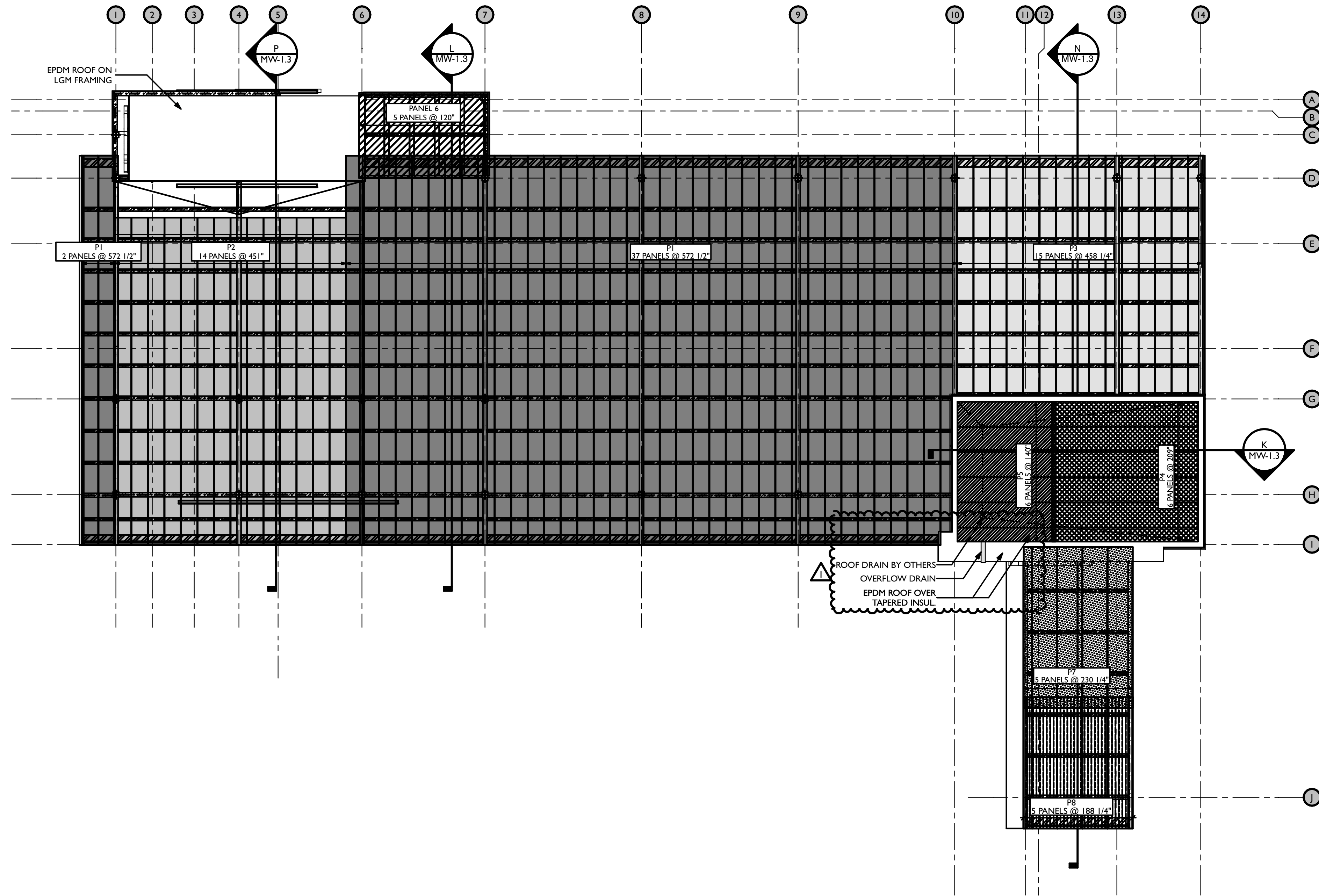
DATE OF CREATION: 09/09/2021 MW JOB #: 2022-21



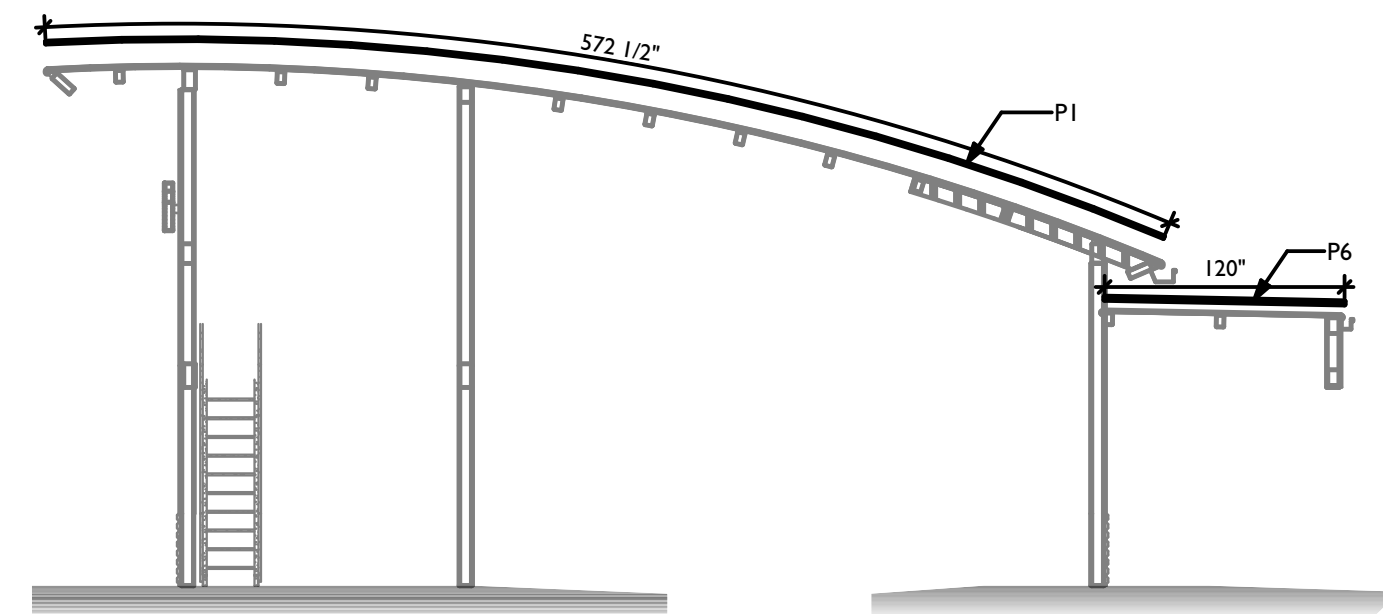
K ROOF SECTION



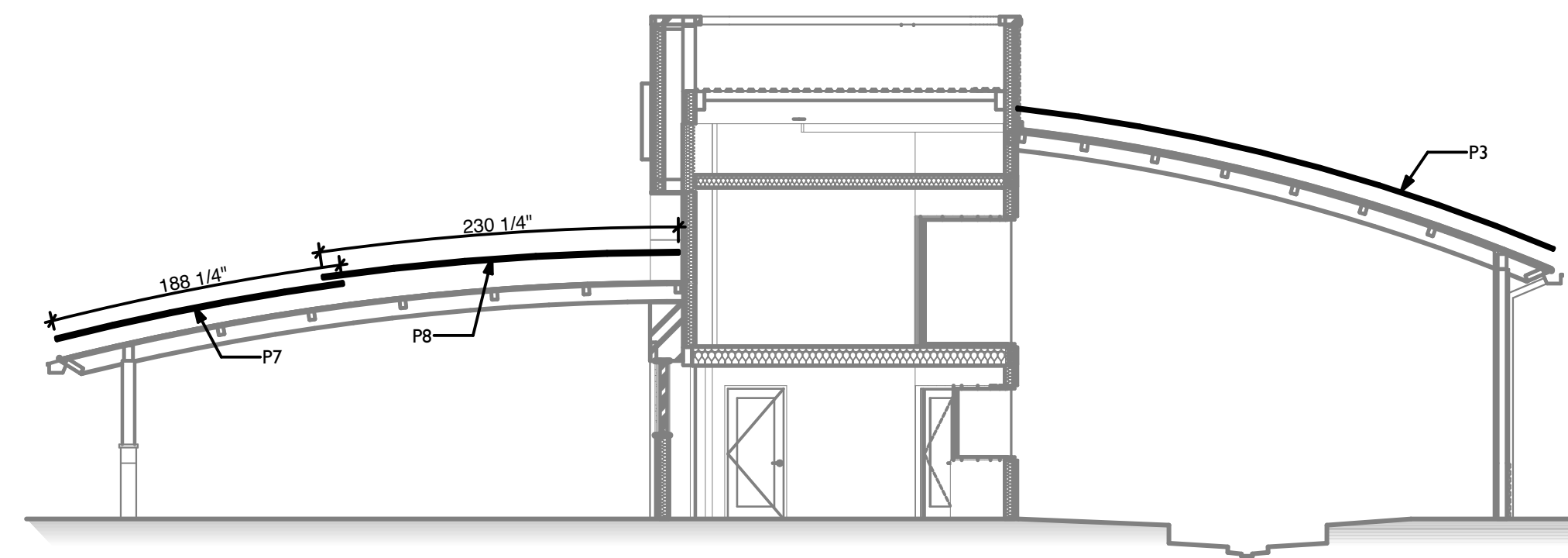
P ROOF SECTION



B ROOF PANEL LAYOUT



L ROOF SECTION



N ROOF SECTION

REVISIONS		
ID	DATE	DESCRIPTION
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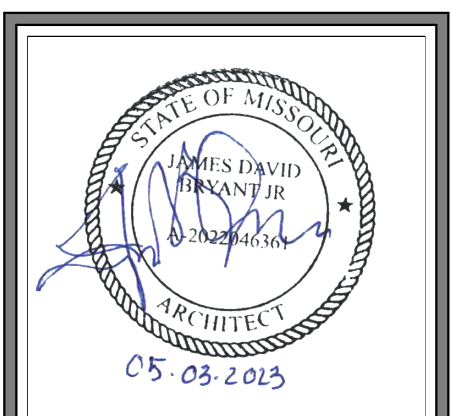
MODEL: AXIOM BETA
RETAIL TOWER
2023

9 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.



PRELIMINARY

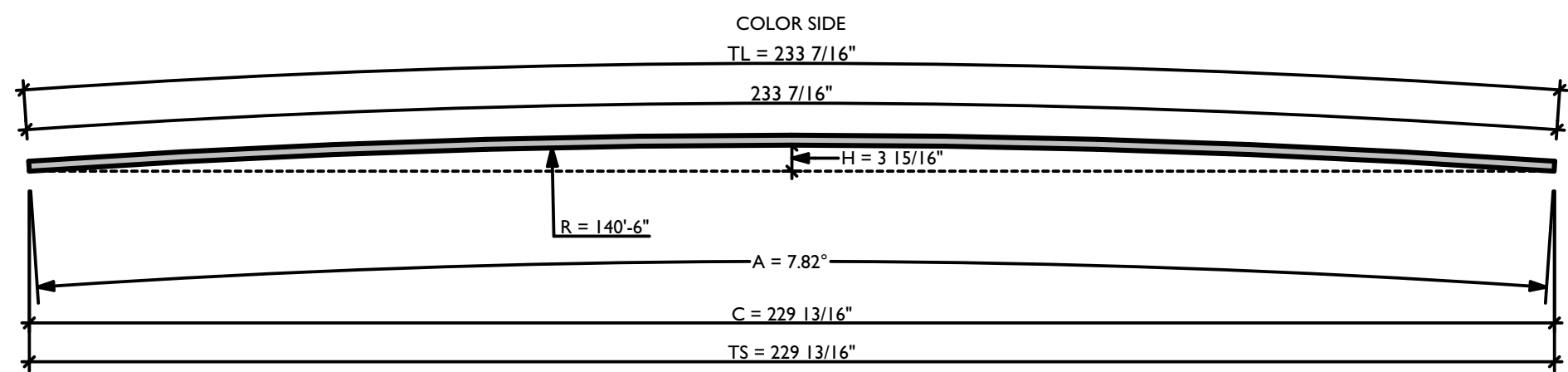
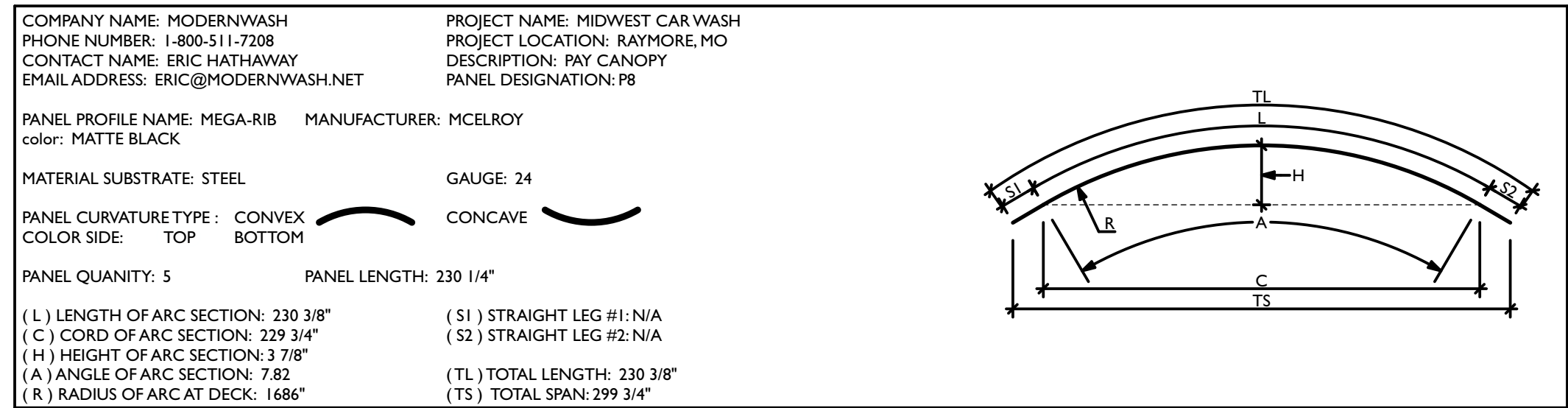
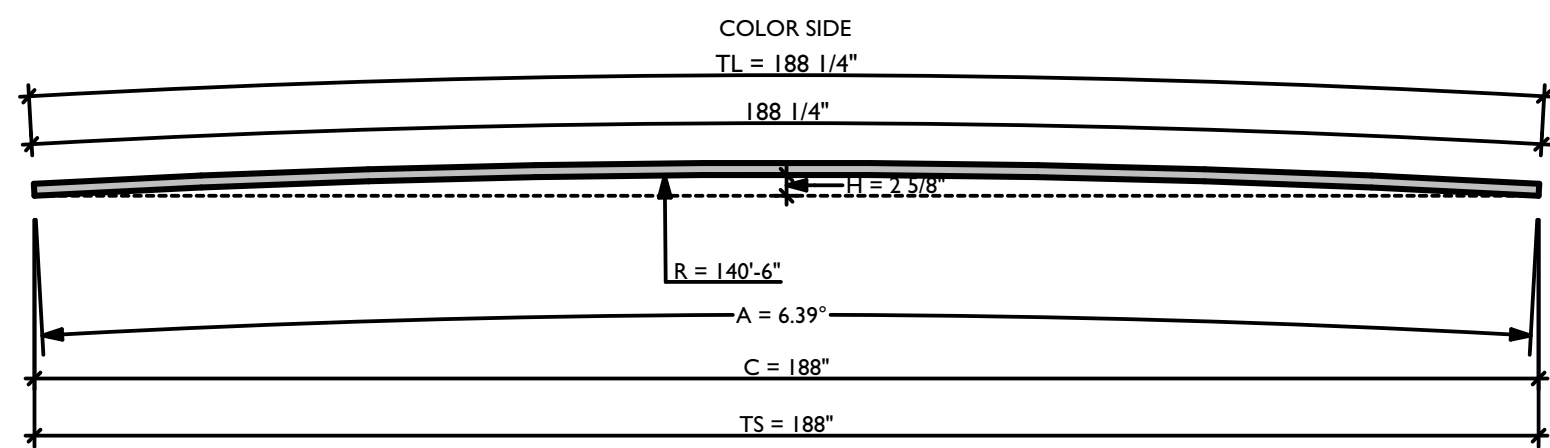
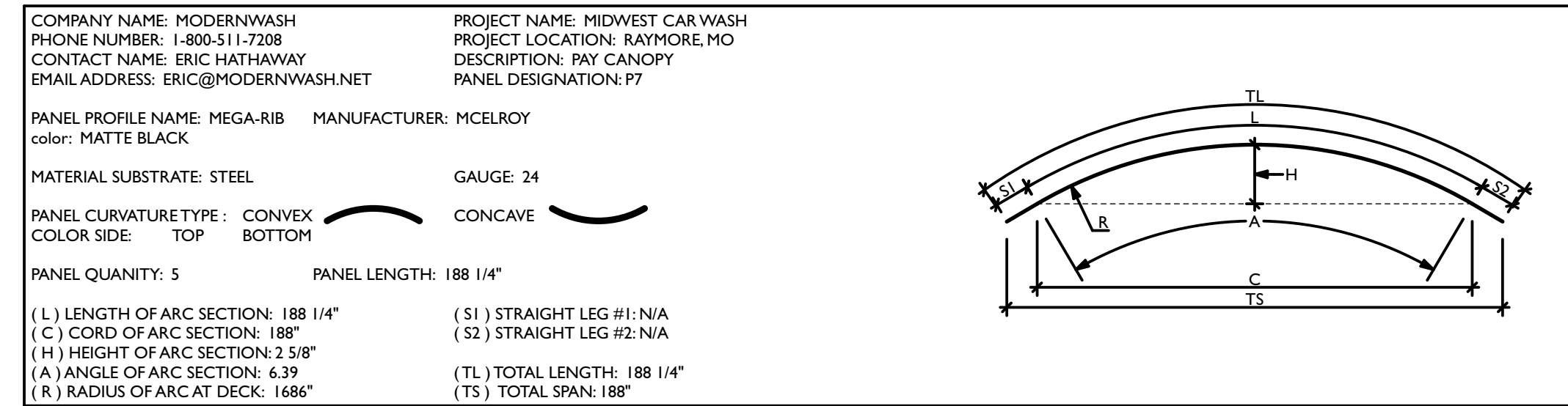
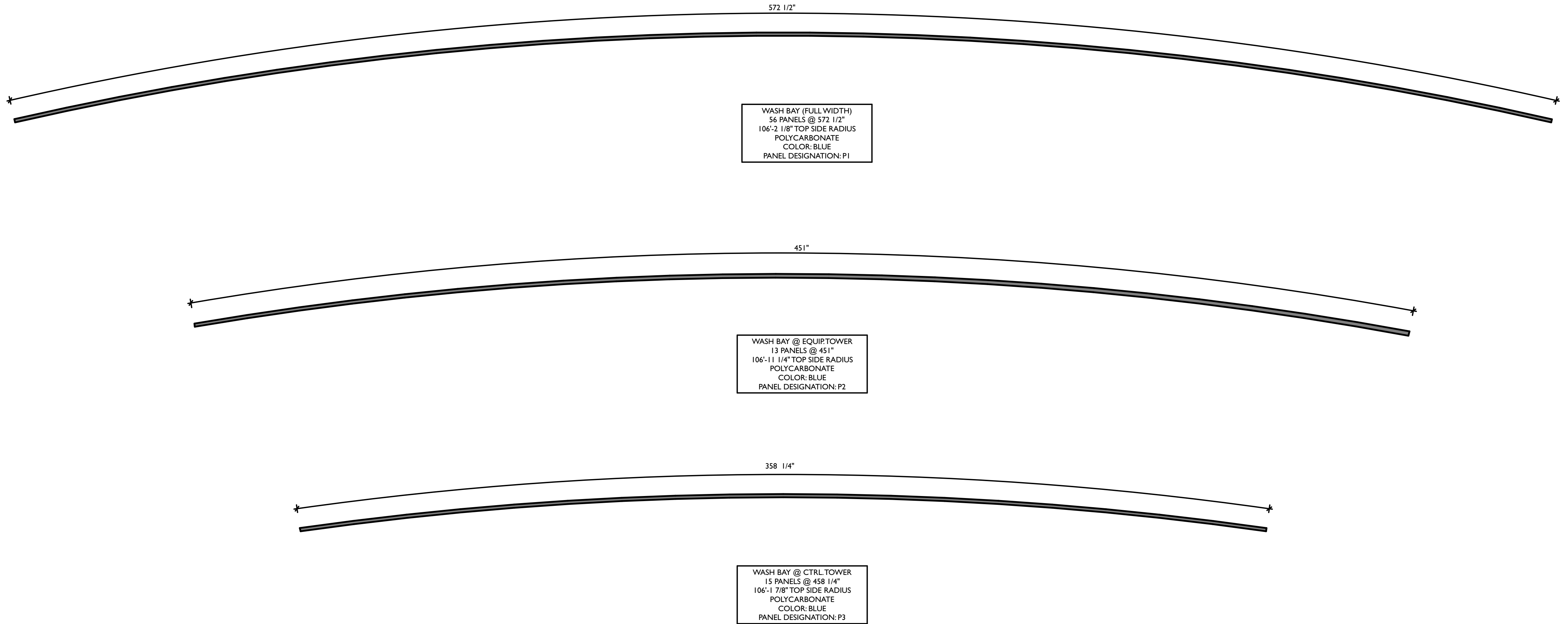
PLOT DATE: 6/22/23

DRAWN BY: EWH, CBH

CHECKED BY: TL

SHEET: MW-I.3

ROOF PLAN



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2022-21_Midwest_Car_Wash_Summit.pdf

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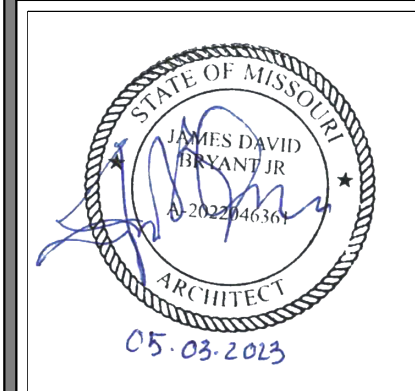
**MODEL: AXIOM BETA
RETAIL TOWER
2023**

10 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

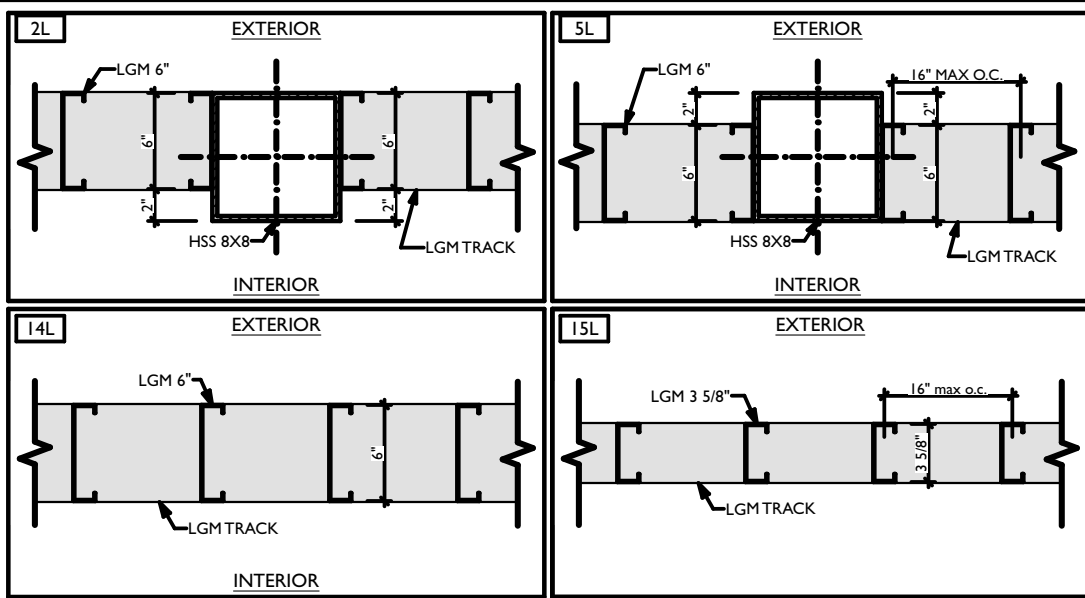
PRELIMINARY

PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

SHEET:

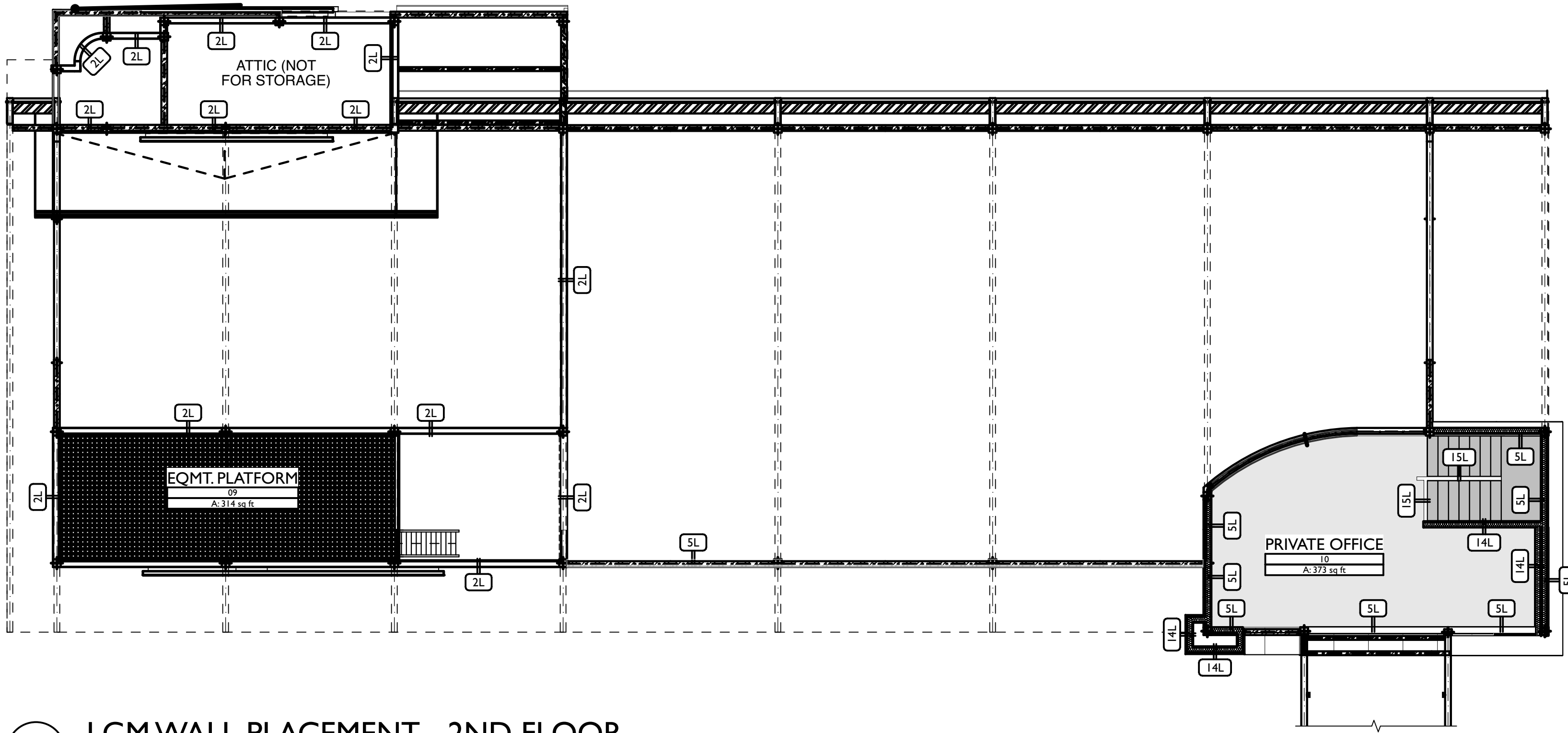
MW-I.4

ROOF PANEL CUTSHEETS

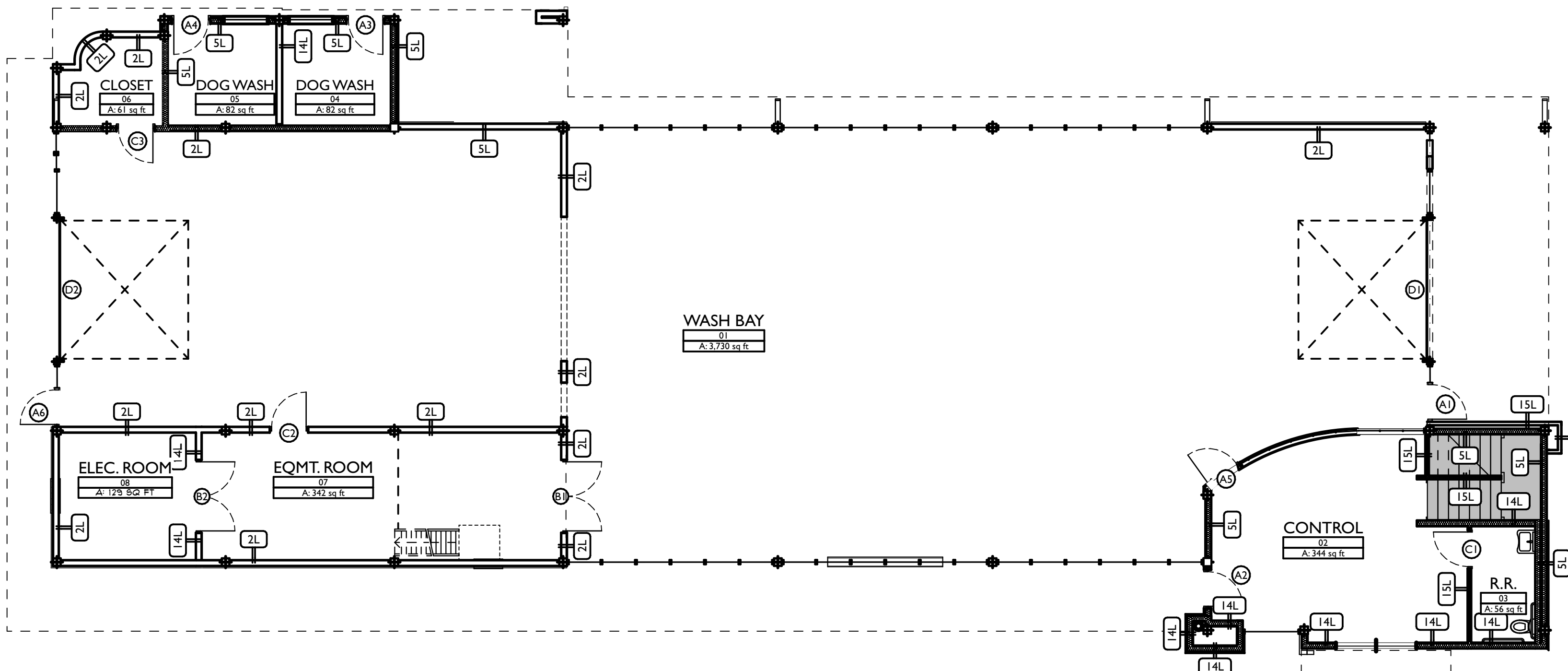


NOTE:
INTERIOR BUILDING WALL PLACEMENT ASSUMES THE WASH BAY IS CONSIDERED TO BE THE EXTERIOR SIDE OF THE WALL.

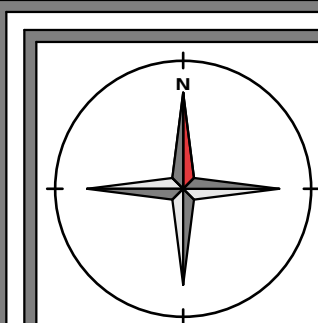
SHEATHING, FINISH, AND INSULATION IS NOT SHOWN FOR CLARITY. SEE WALL TYPE DETAILS FOR ACTUAL WALL COMPOSITION.



B LGM WALL PLACEMENT - 2ND FLOOR
SCALE: 1/8" = 1'-0"



G LGM WALL PLACEMENT - 1ST FLOOR
SCALE: 1/8" = 1'-0"



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MODEL: AXIOM BETA
RETAIL TOWER
2023

11 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

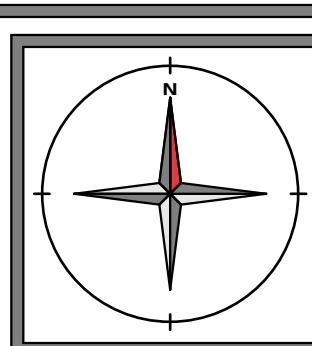
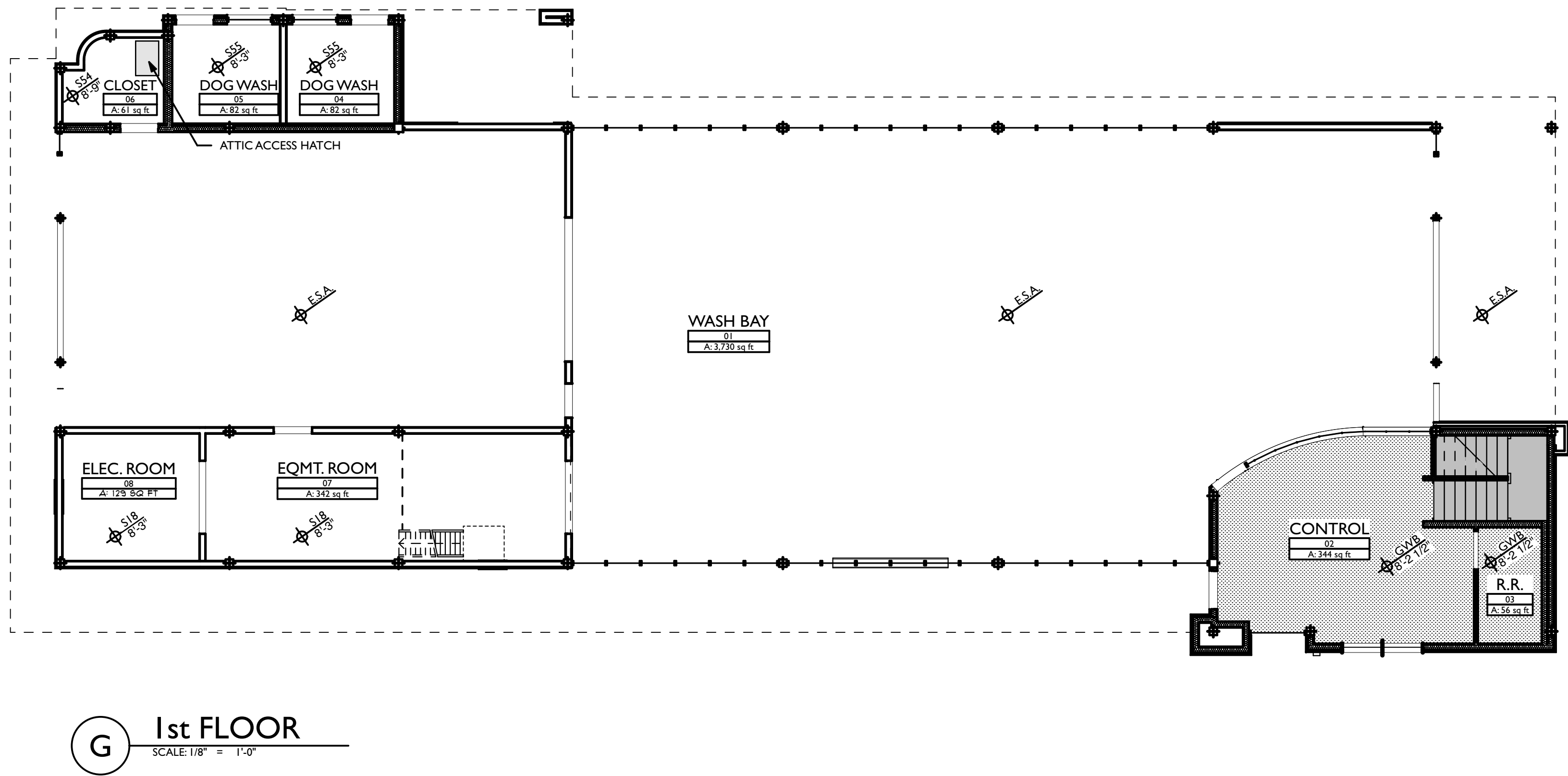
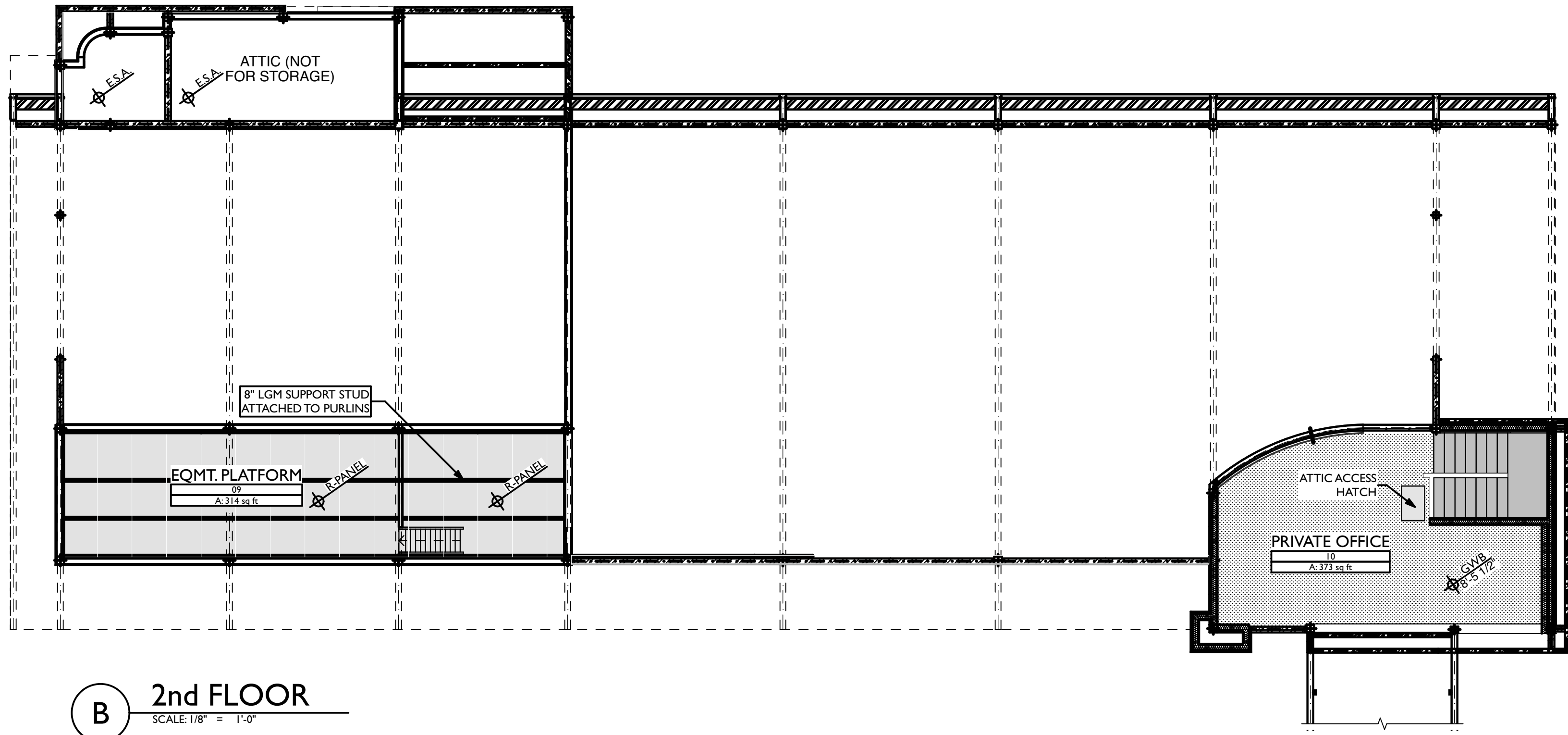


USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.



PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: TL

SHEET:
MW-I.5
LGM WALL PLACEMENT



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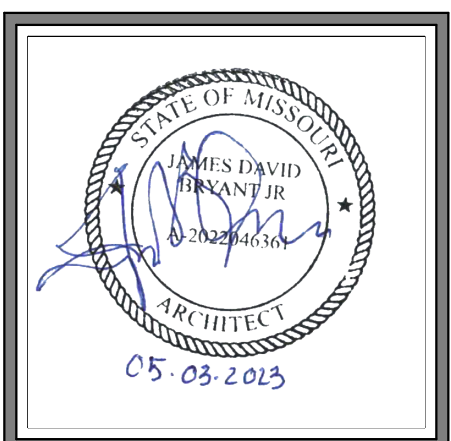
MODEL: AXIOM BETA
RETAIL TOWER
2023

12 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.



PRELIMINARY

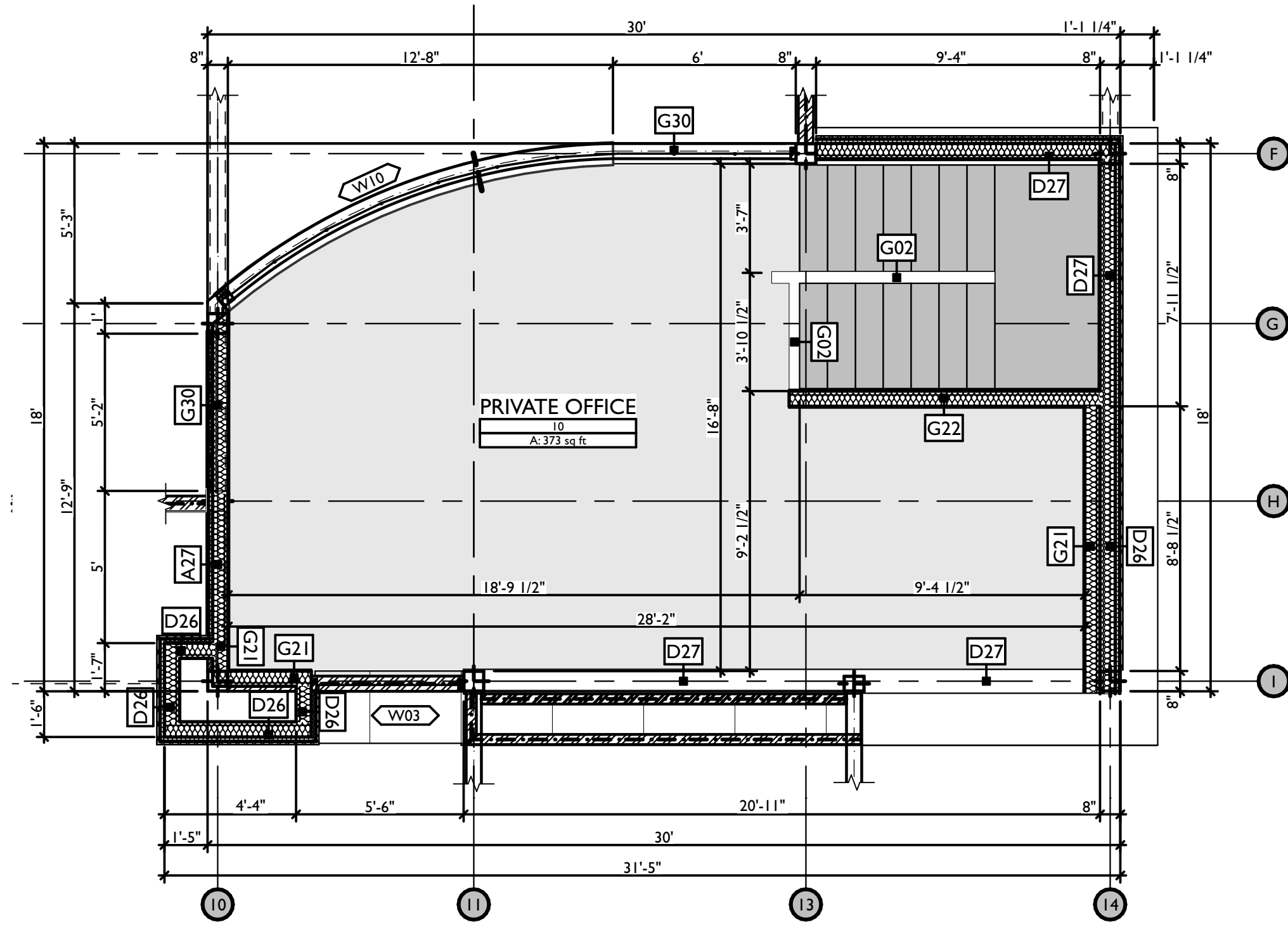
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DRAWN BY: EWH, CBH

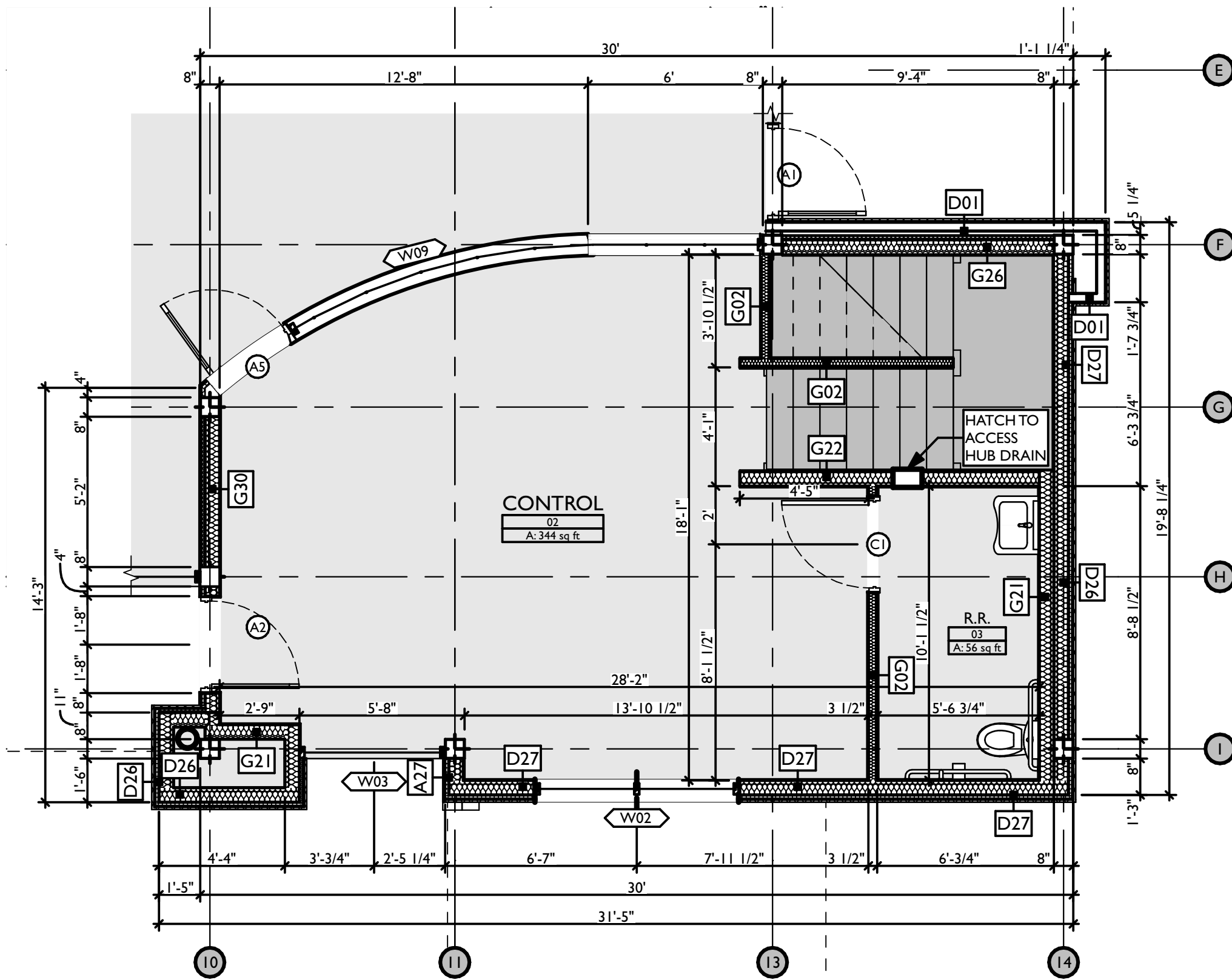
CHECKED BY: TL

SHEET: MW-2.1

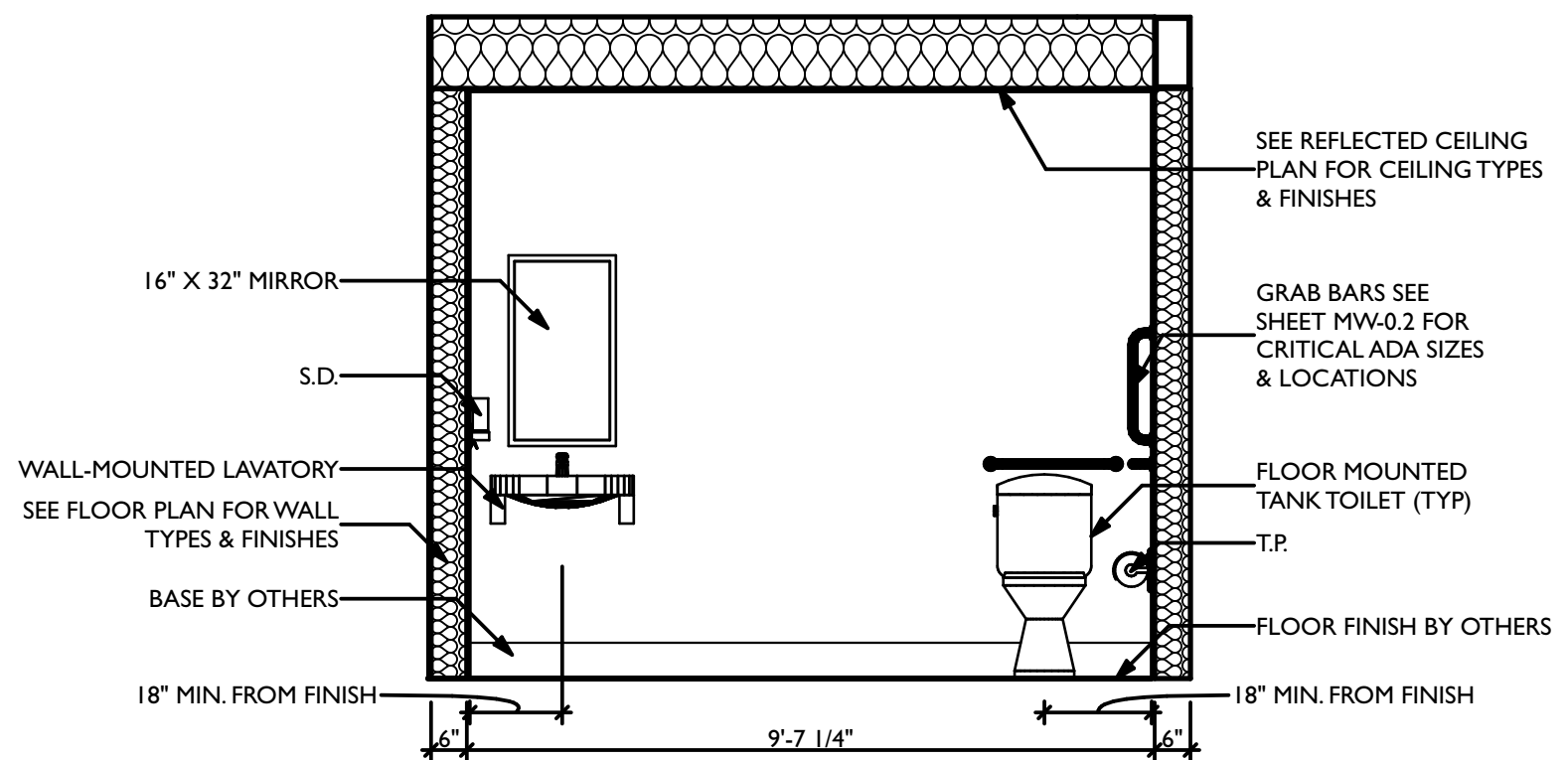
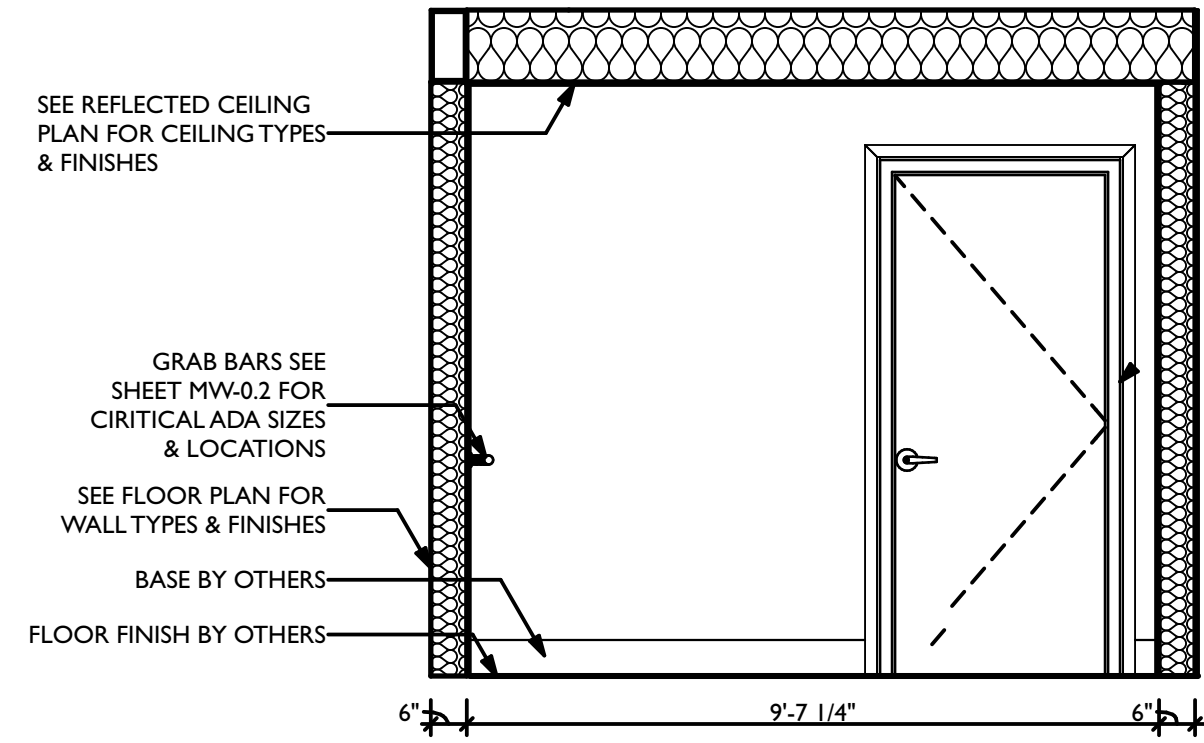
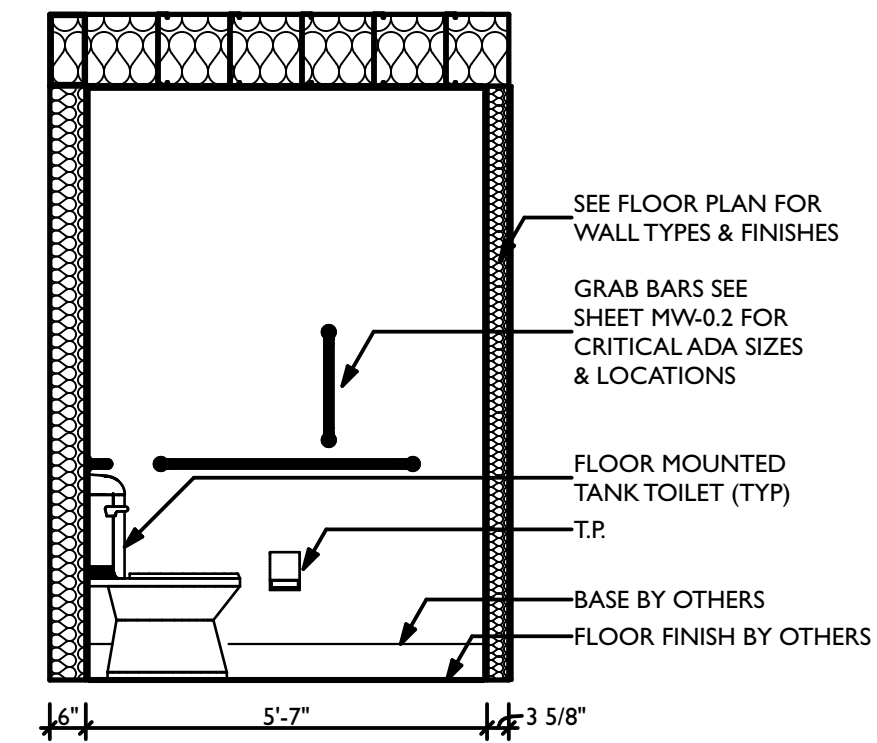
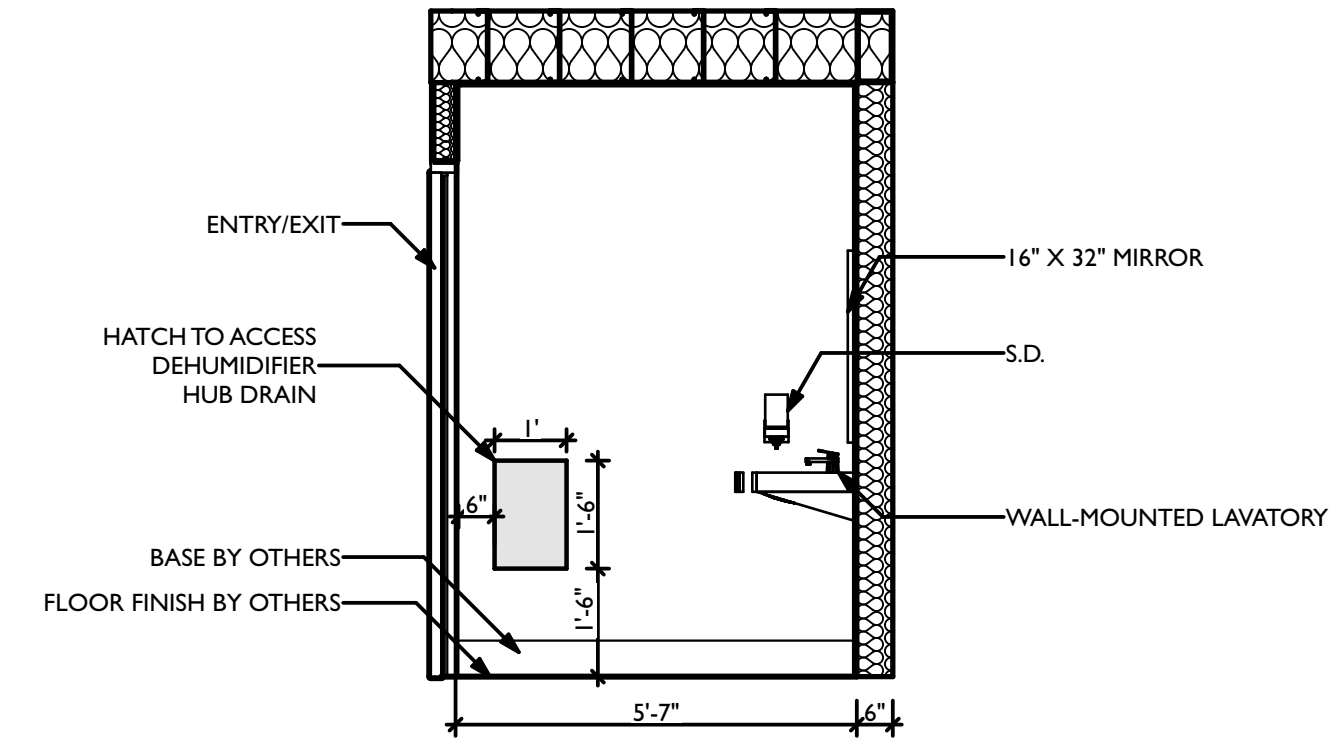
REFLECTED CEILING PLANS



C CONTROL TOWER - 2ND FLOOR
SCALE: 1/4" = 1'-0"



H CONTROL TOWER - 1ST FLOOR
SCALE: 1/4" = 1'-0"



E R.R. ENLARGED ELEVATIONS
SCALE: 3/8" = 1'-0"

REVISIONS		DATE	DESCRIPTION
ID	0	05/03/2023	FOR PERMIT

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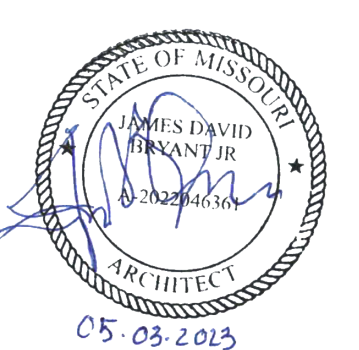
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BOWLING GREEN, KY 42004
MODEL: AXIOM BETA
RETAIL TOWER
2023

13 OF 39

NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

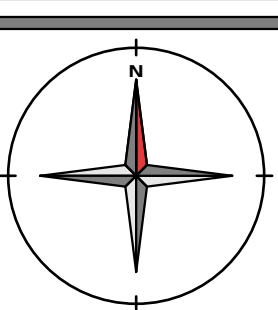


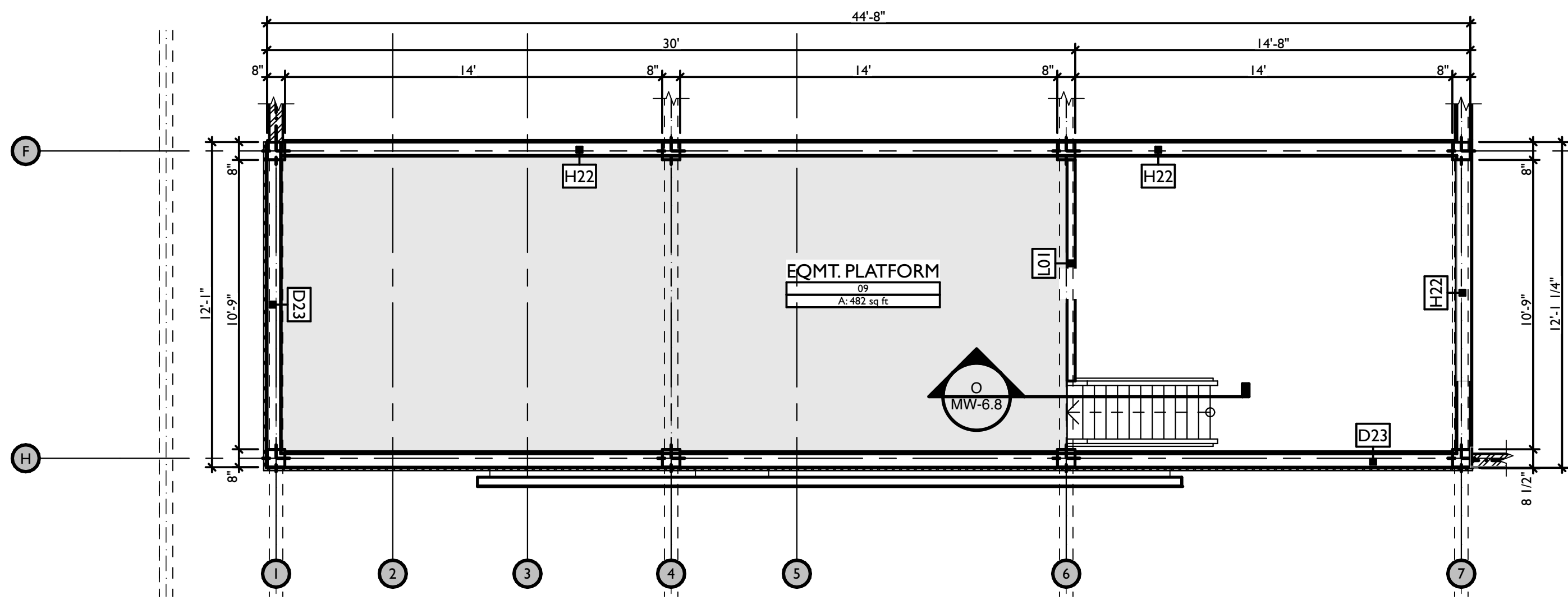
PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: TL

SHEET:

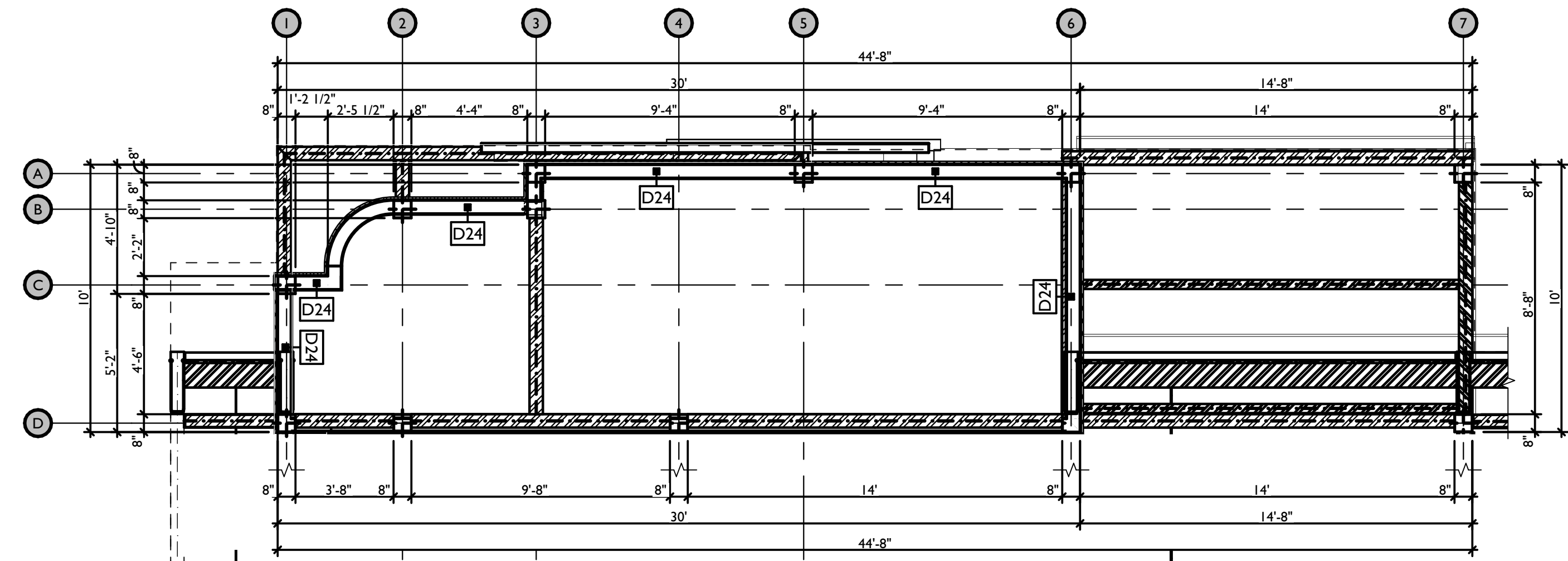
MW-3.1

ENLARGED PLANS

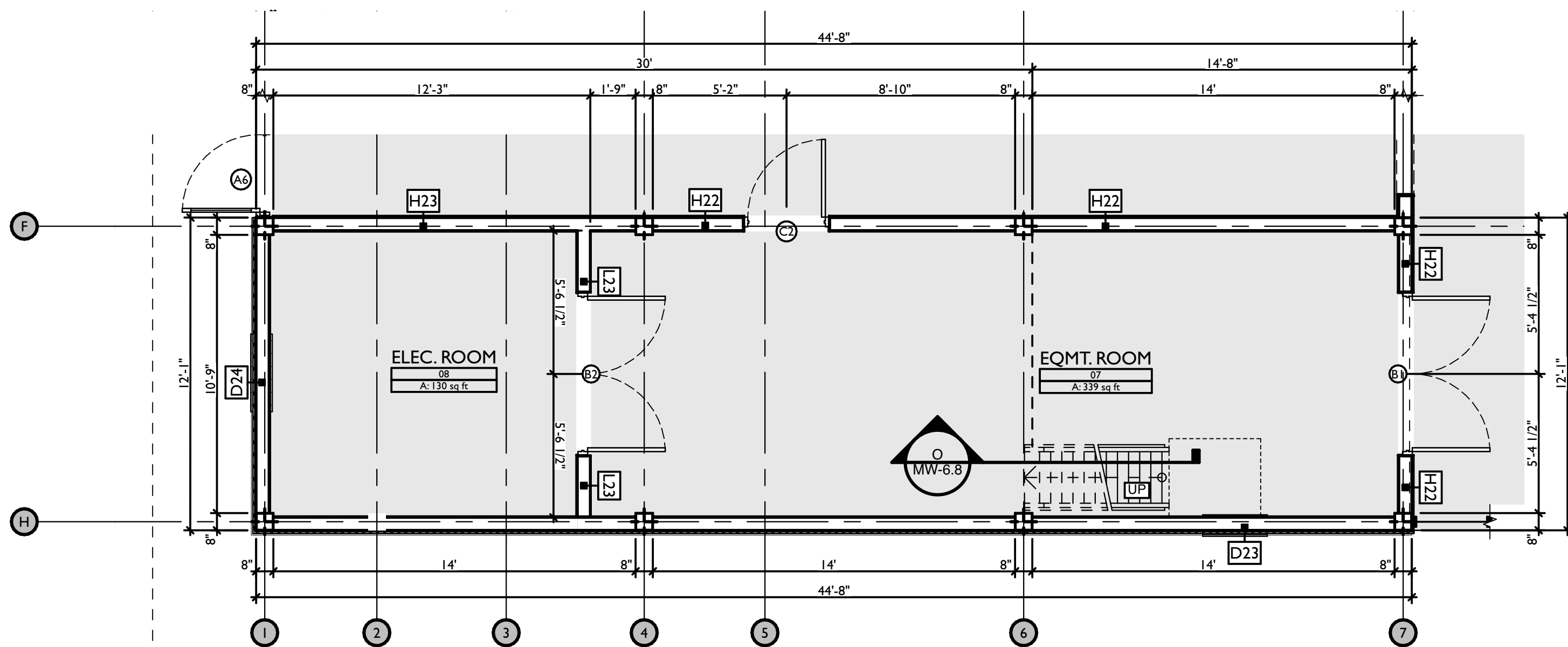




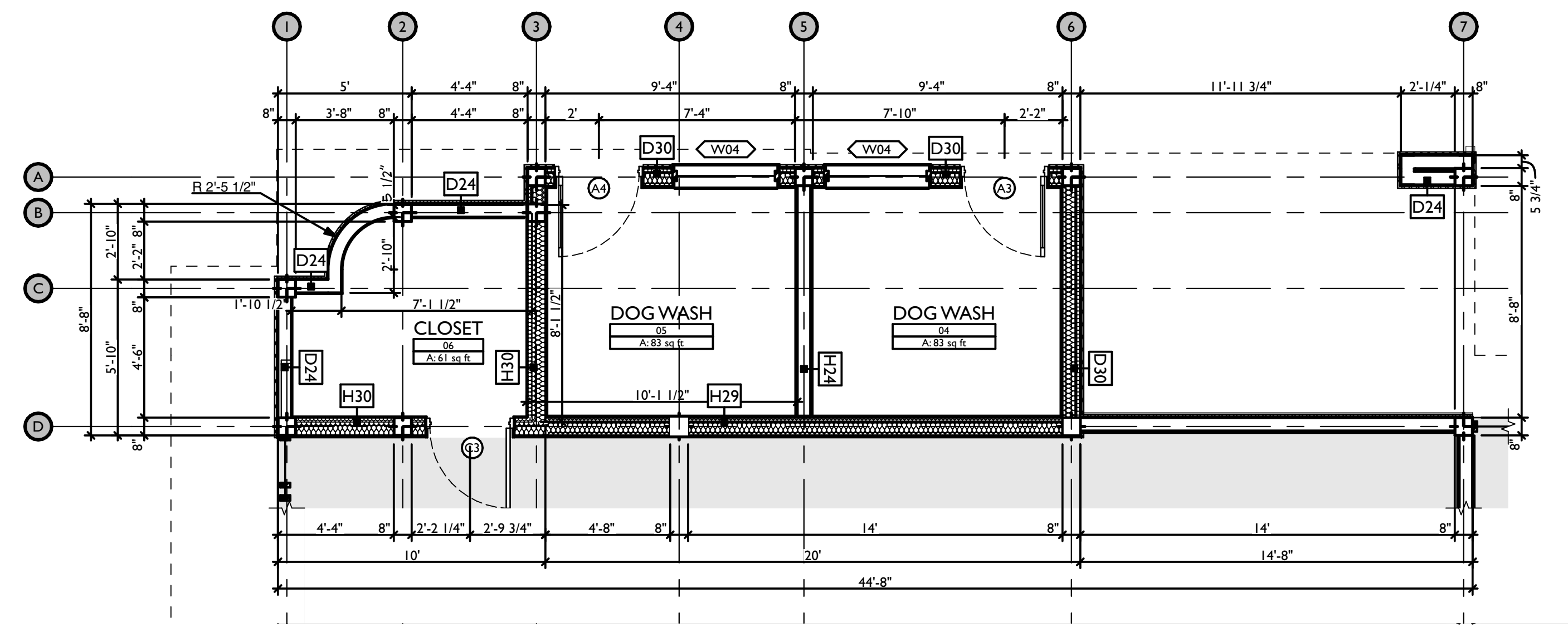
A EQMT. ROOM - PLATFORM
SCALE: 1/4" = 1'-0"



C DOG WASH TOWER - 2ND FLOOR
SCALE: 1/4" = 1'-0"



K EQMT. ROOM - 1ST FLOOR
SCALE: 1/4" = 1'-0"



M DOG WASH TOWER - 1ST FLOOR
SCALE: 1/4" = 1'-0"

REVISIONS

ID	DATE	DESCRIPTION
0	05/03/2023	FOR PERMIT

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MODERNWASH
5220 SCOTTSVILLE ROAD
BOWLING GREEN, KY 42104
**MODEL: AXIOM BETA
RETAIL TOWER
2023**

NEW CAR WASH FOR:
TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

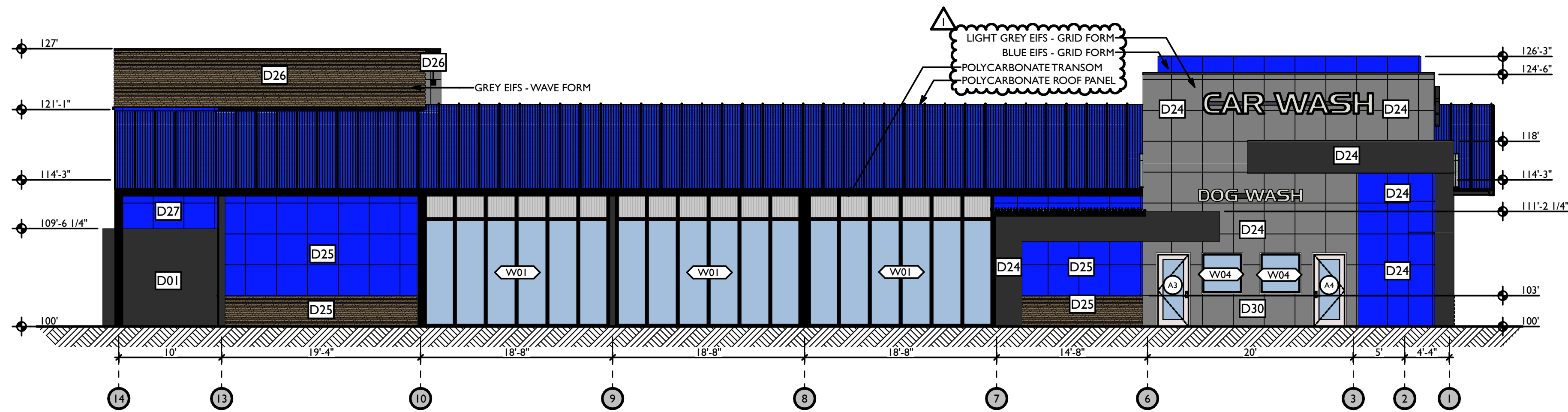


PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

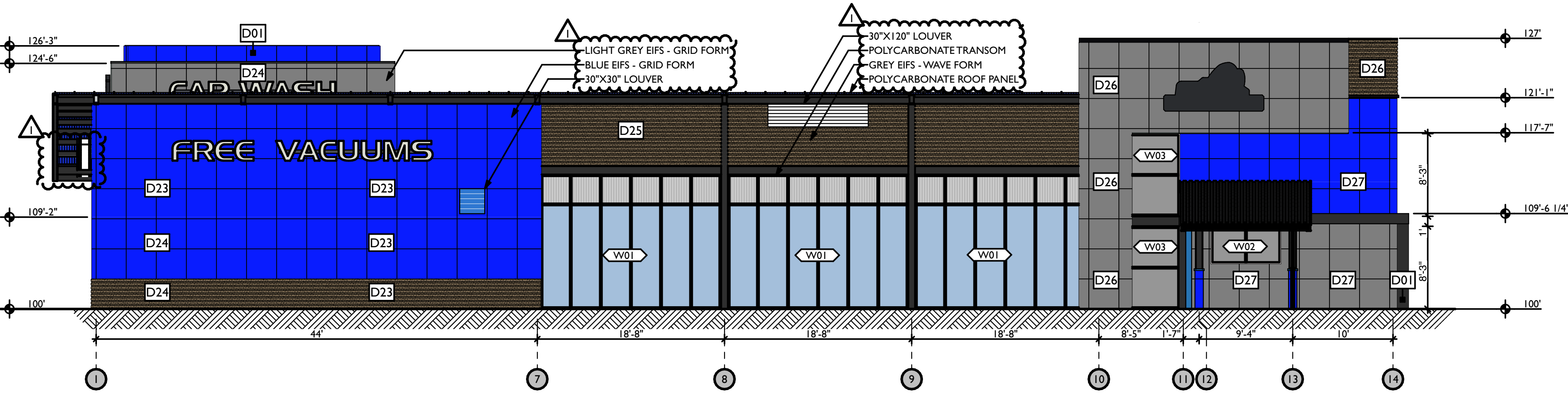
SHEET:

MV-3.2

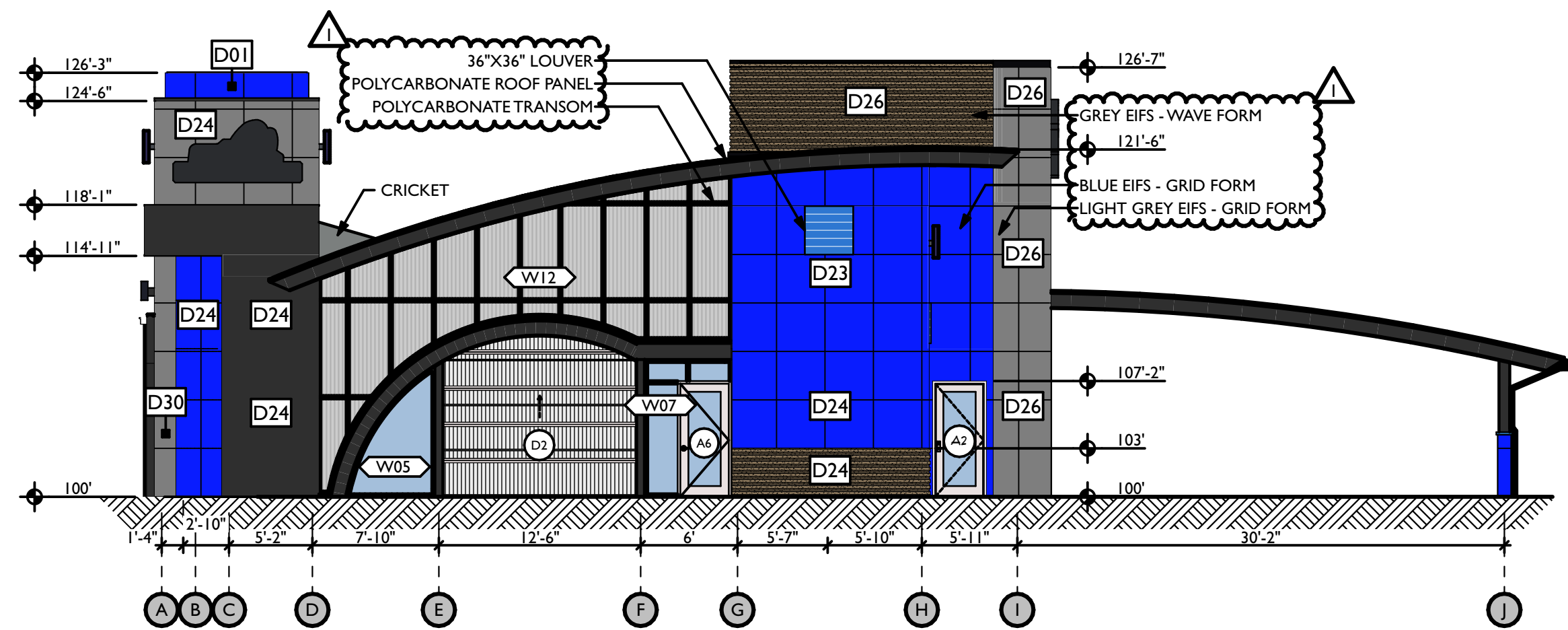
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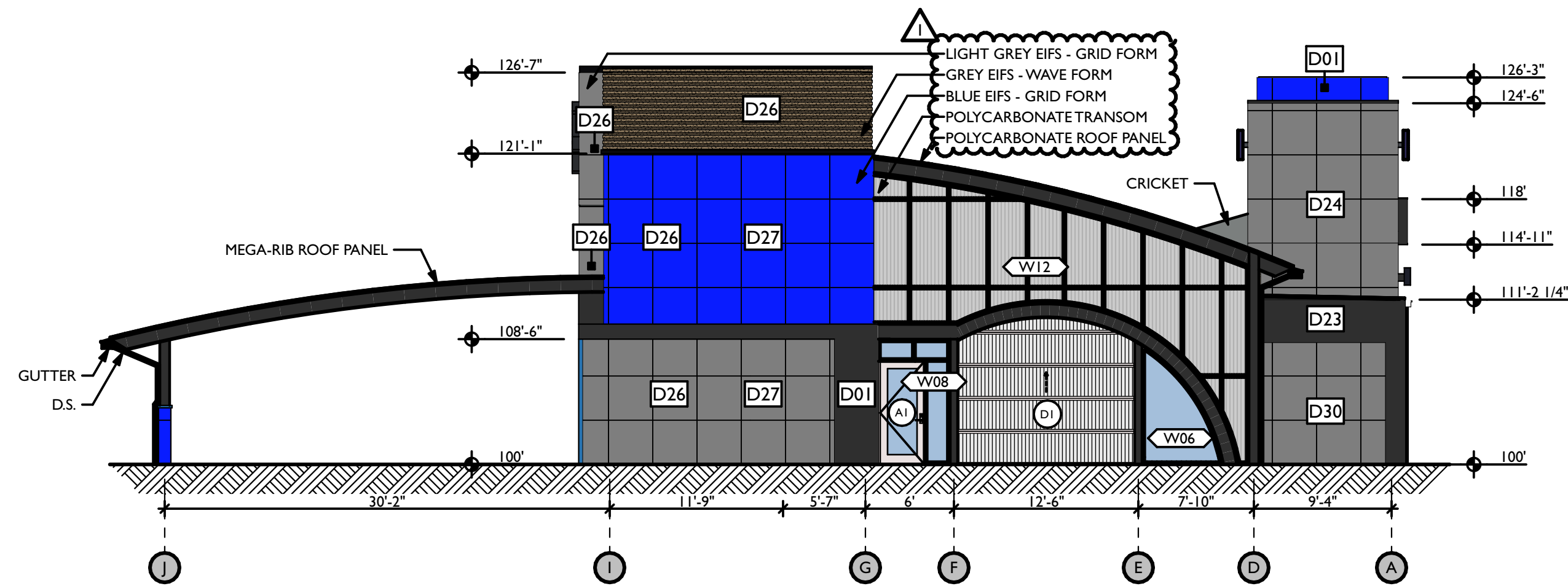
A ELEVATION - NORTH
SCALE: 1/8" = 1'-0"



G ELEVATION - SOUTH
SCALE: 1/8" = 1'-0"



K ELEVATION - WEST
SCALE: 1/8" = 1'-0"



M ELEVATION - EAST
SCALE: 1/8" = 1'-0"

NOTE: EIFS GRID SPACING IN ELEVATIONS IS GENERIC. SEE EIFS LAYOUT FOR FINAL PANEL PLACEMENT & SPACING.

MATERIAL SCHEDULE

	LIGHT GREY EIFS - GRID FORM (PANTONE 2330C)
	BLUE EIFS - GRID FORM (PANTONE 2144C)
	GREY EIFS - WAVE FORM (PANTONE 2330C)
	BLACK EIFS - GRID FORM
	BLUE POLYCARBONATE ROOF
	TRANSLUCENT POLYCARBONATE
	GLASS

REVISIONS

ID	DATE	DESCRIPTION
0	05/03/2023	FOR PERMIT
1	06/09/2023	DRAWING/TRENCH UPDATE

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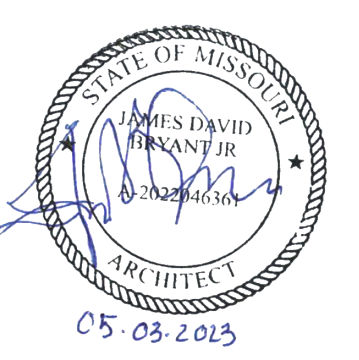


MODERNWASH
5220 SCOTTSDALE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

NEW CAR WASH FOR:
TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

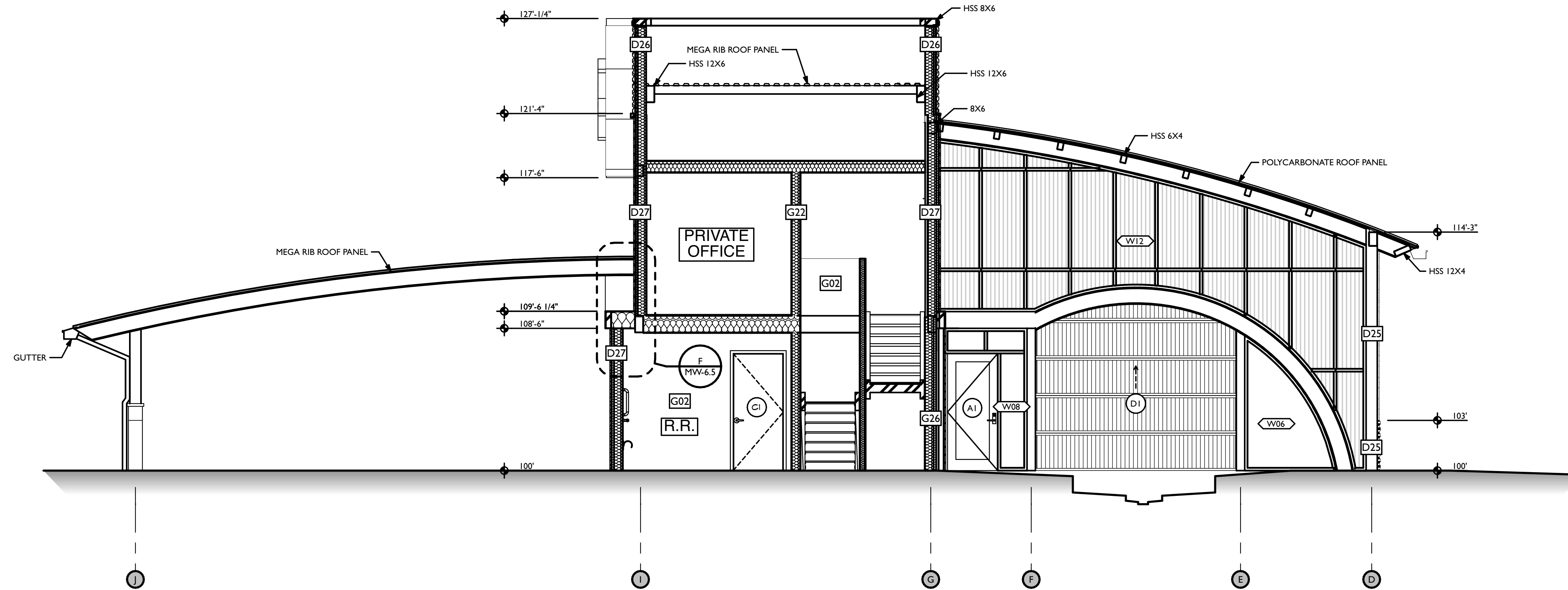


PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

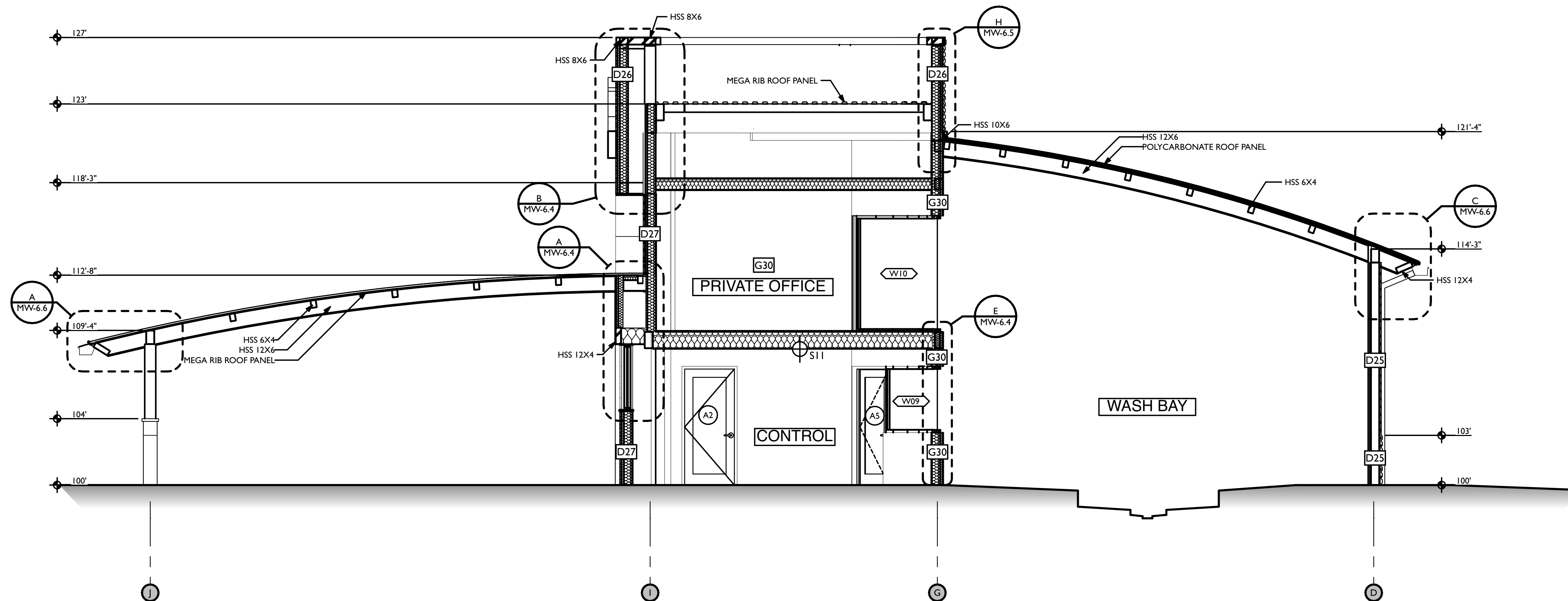
SHEET:

MW-4.1

ELEVATIONS



A SECTION - WASH BAY / CONTROL TOWER
SCALE: 1/4" = 1'-0"



K SECTION - WASH BAY / CONTROL TOWER
SCALE: 1/4" = 1'-0"

REVISIONS	
ID	DESCRIPTION
0	05/03/2023 FOR PERMIT

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BOWLING GREEN, KY 42104
MODEL: AXIOM BETA
RETAIL TOWER
2023

NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



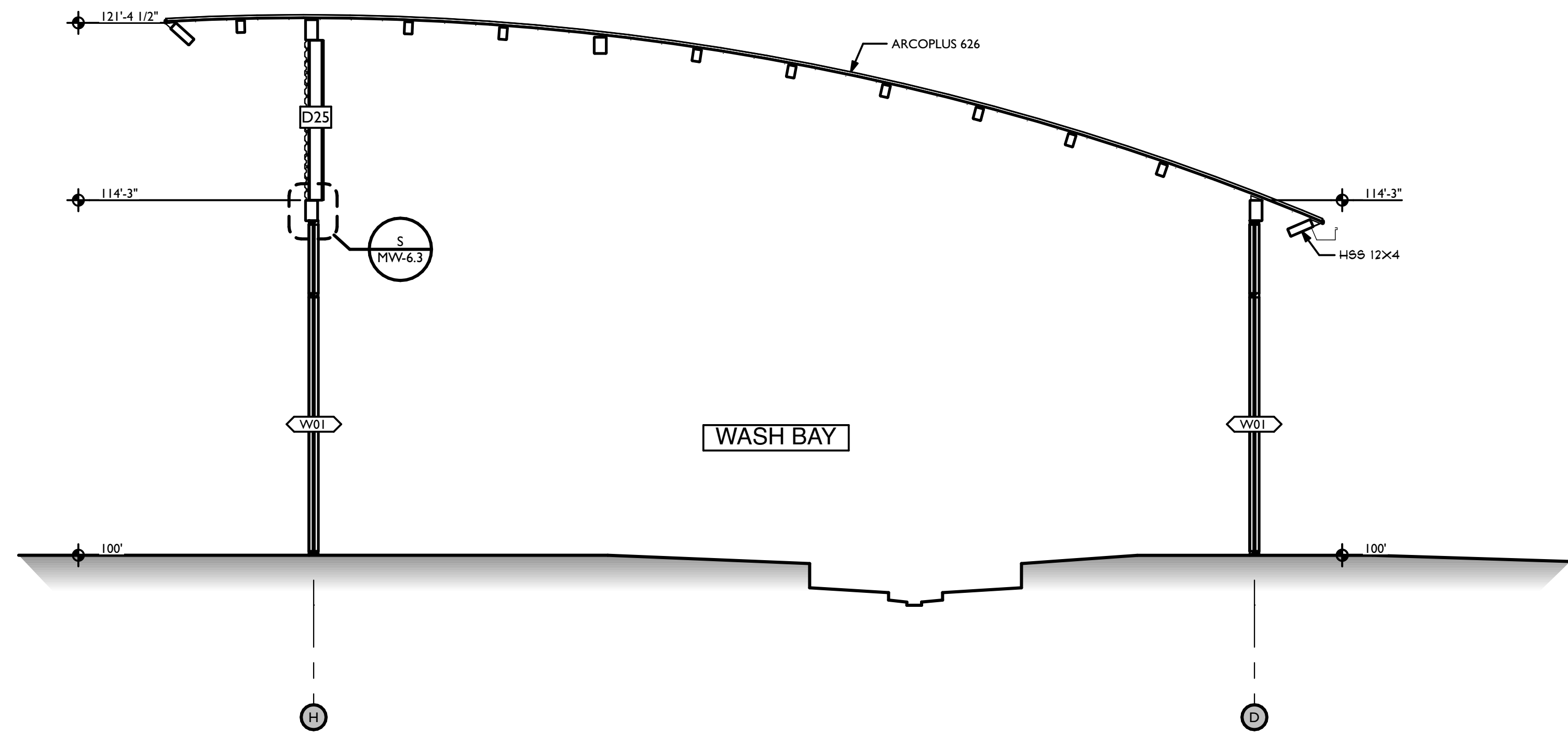
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PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

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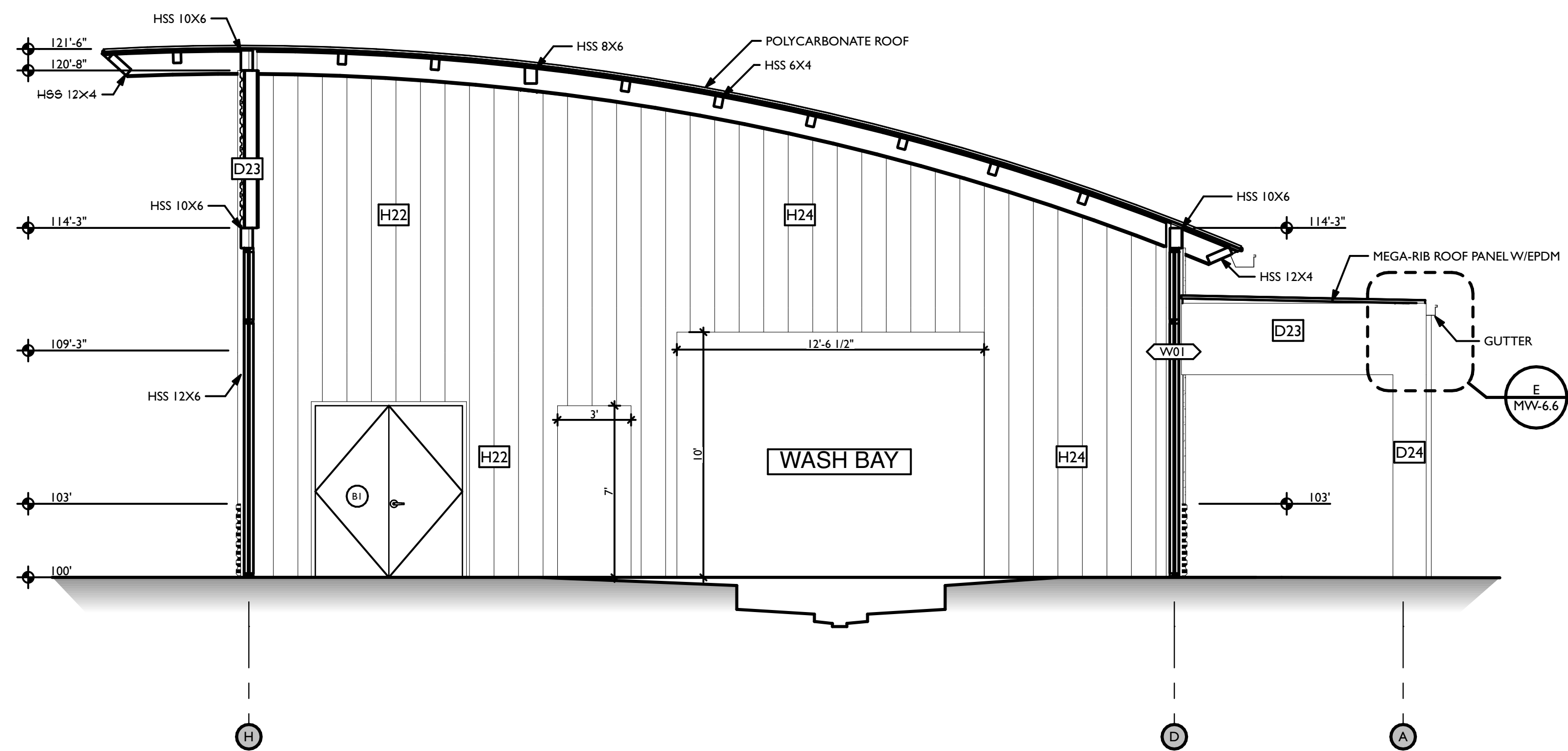
MV-5.1

SECTIONS

DATE OF CREATION: 09/09/21 MW JOB #: 2022-21



C SECTION - WASH BAY
SCALE: 1/4" = 1'-0"



M SECTION - WASH BAY FACING DIVISOR WALL
SCALE: 1/4" = 1'-0"

REVISIONS	
ID	DESCRIPTION
0	05/03/2023 FOR PERMIT

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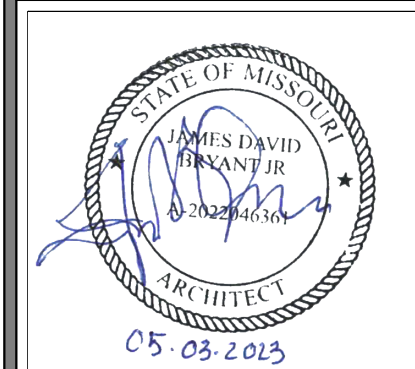
**MODEL: AXIOM BETA
RETAIL TOWER
2023**

17 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

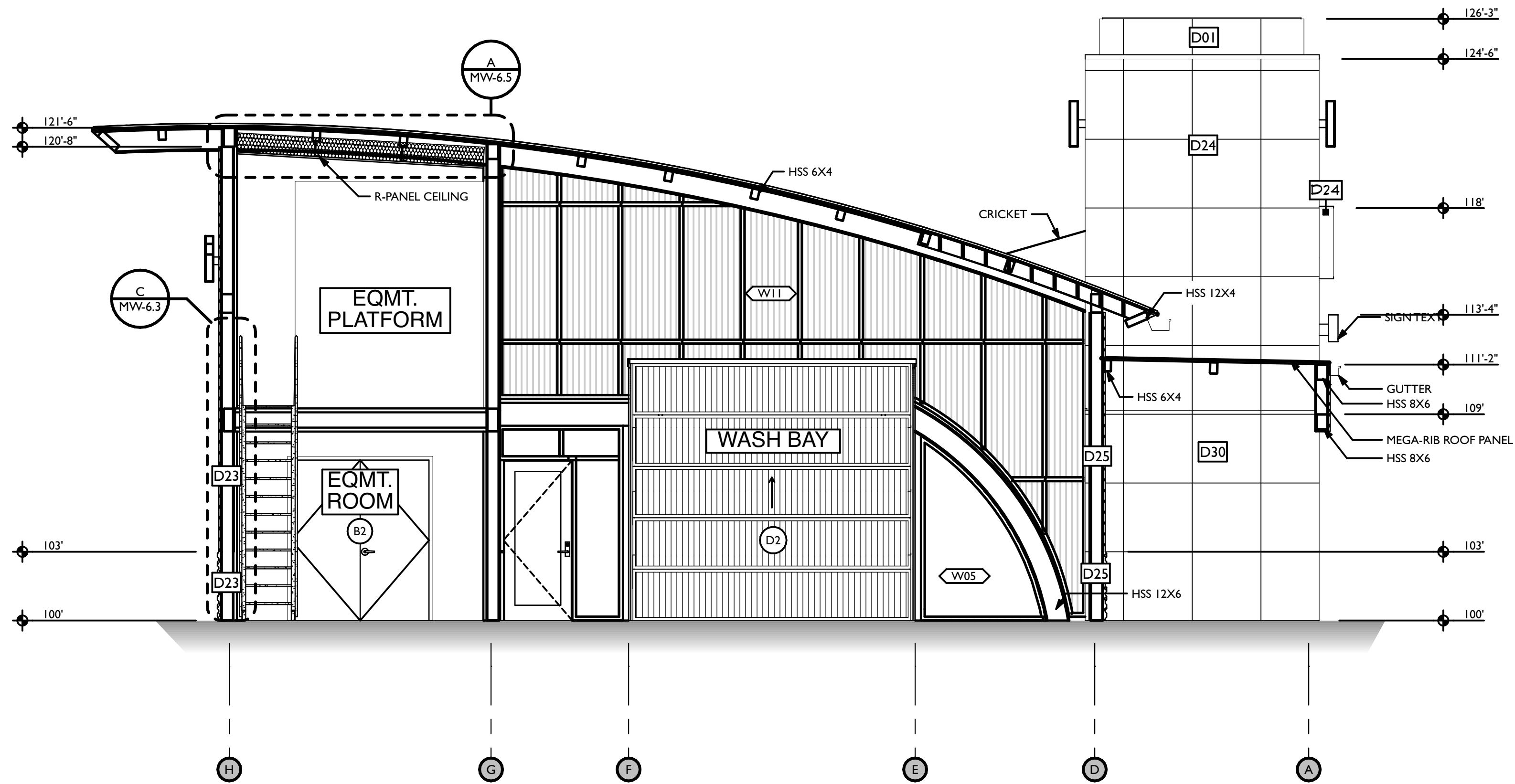
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



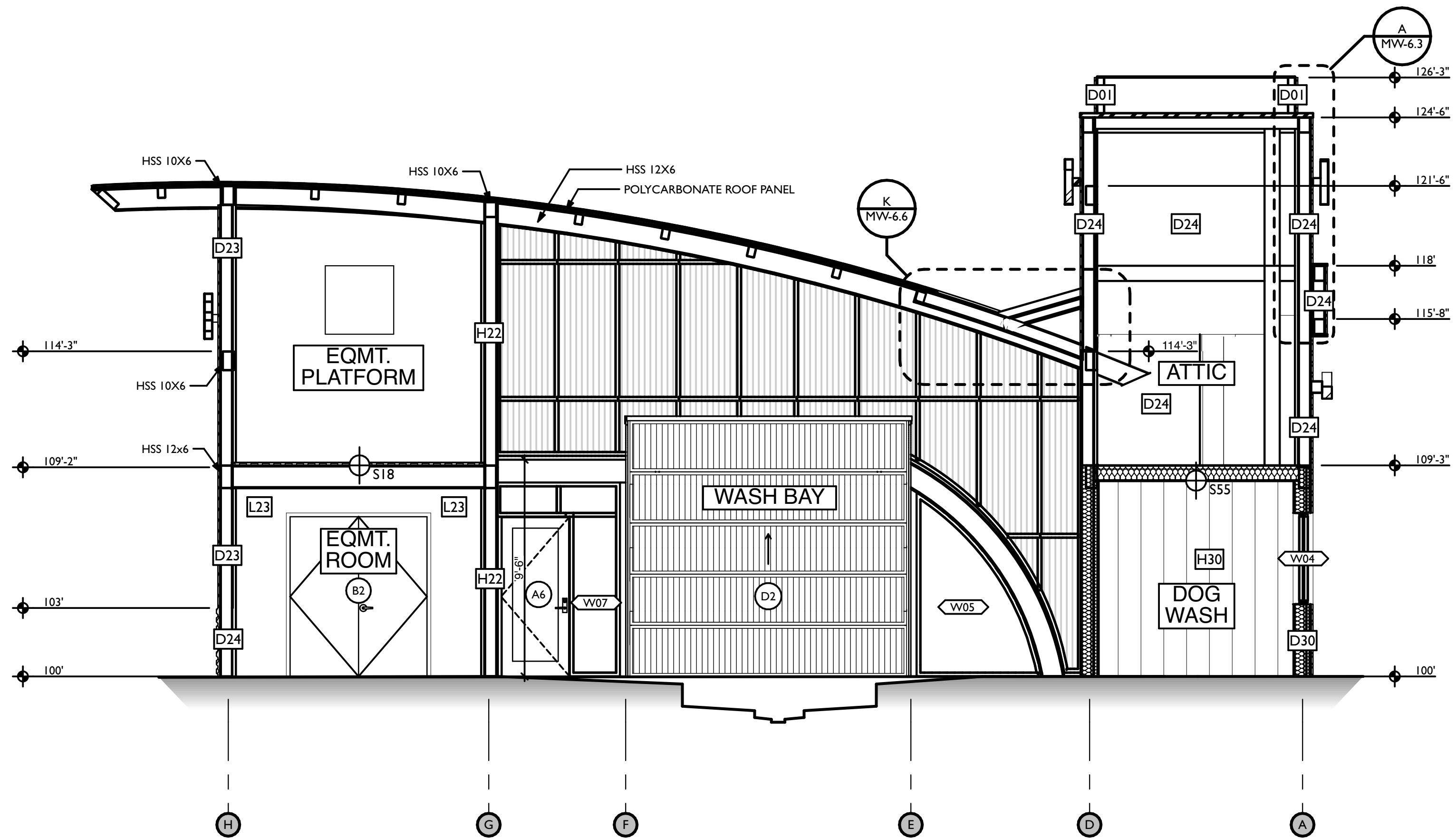
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PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET: MW-5.2
SECTIONS

DATE OF CREATION: 09/09/21 MW JOB #: 2022-21



C SECTION - EQMT. ROOM / WASH BAY
SCALE: 1/4" = 1'-0"



H SECTION - EQMT. ROOM / WASH BAY / DOG WASH
SCALE: 1/4" = 1'-0"

REVISIONS		
ID	DATE	DESCRIPTION
0	05/03/2023	FOR PERMIT

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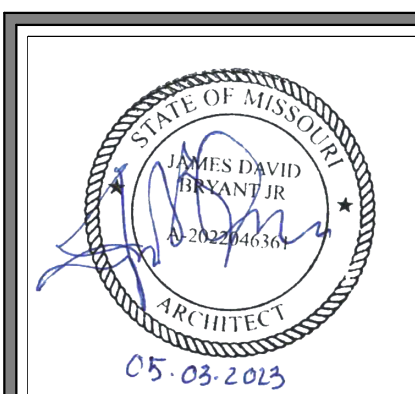
**MODEL: AXIOM BETA
RETAIL TOWER
2023**

18 OF 39

NEW CAR WASH FOR:

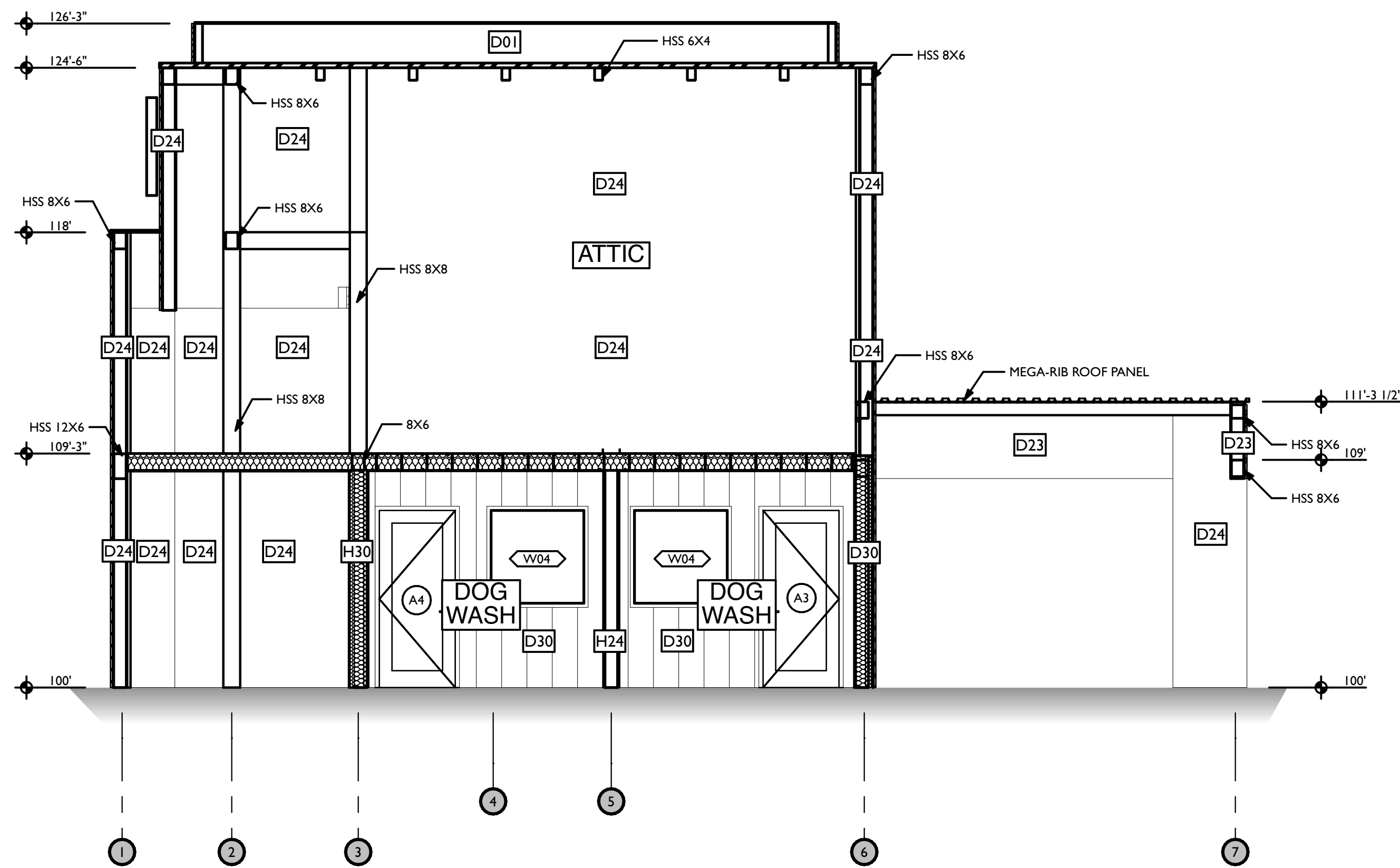
TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

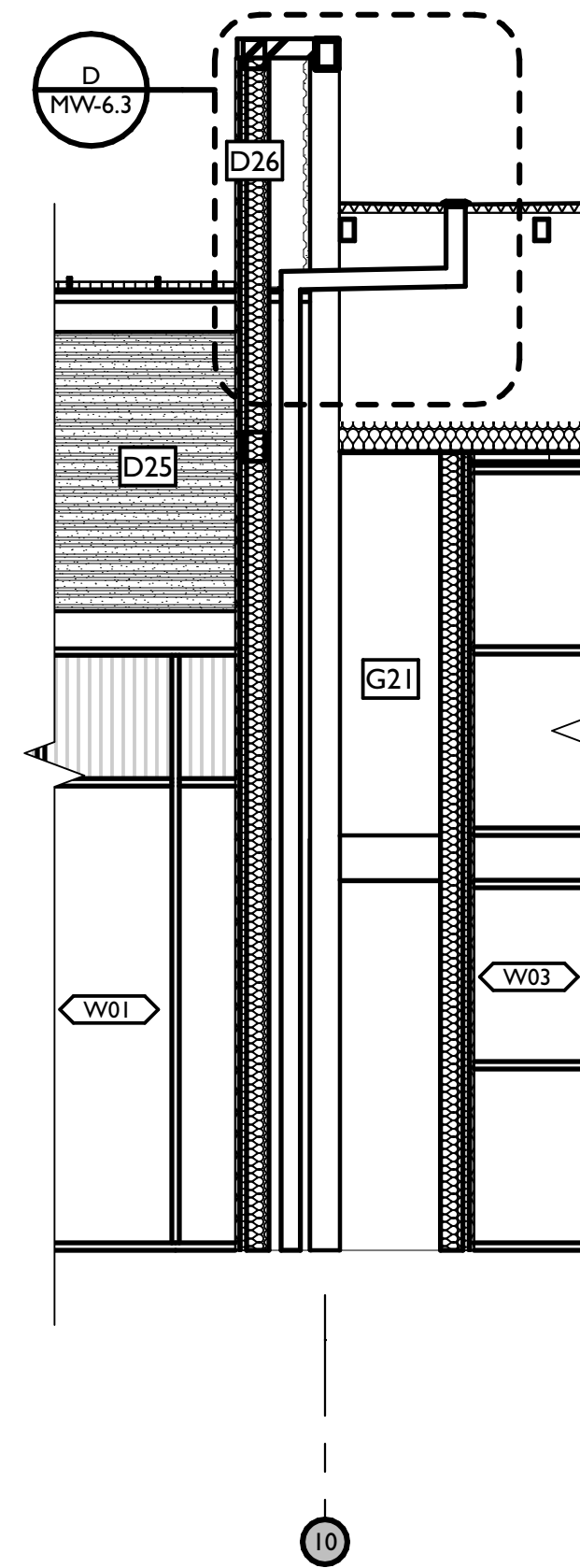


USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

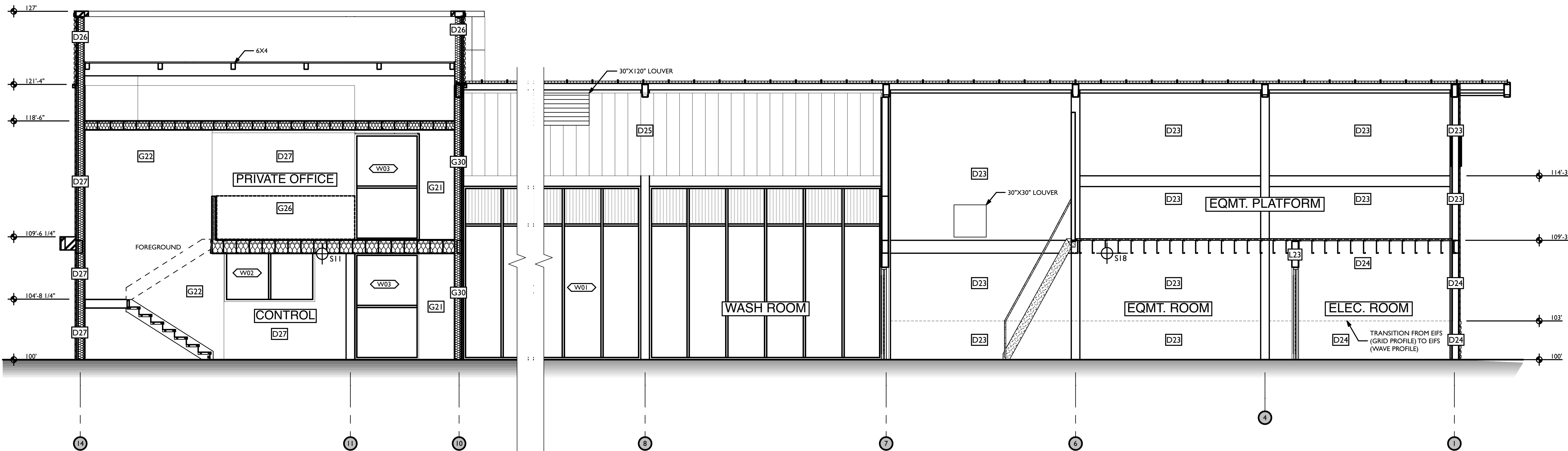
PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET: MW-5.3
SECTIONS



A SECTION - CLOSET / DOG WASH
SCALE: 1/4" = 1'-0"



C SECTION DETAIL - CTRL. TOWER BUMP OUT
SCALE: 1/4" = 1'-0"



K SECTION - CTRL. ROOM / WASH BAY / EQMT. ROOM
SCALE: 1/4" = 1'-0"

REVISIONS		
ID	DATE	DESCRIPTION
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MODERNWASH
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BOWLING GREEN, KY 42104

**MODEL: AXIOM BETA
RETAIL TOWER
2023**

19 OF 39

NEW CAR WASH FOR:

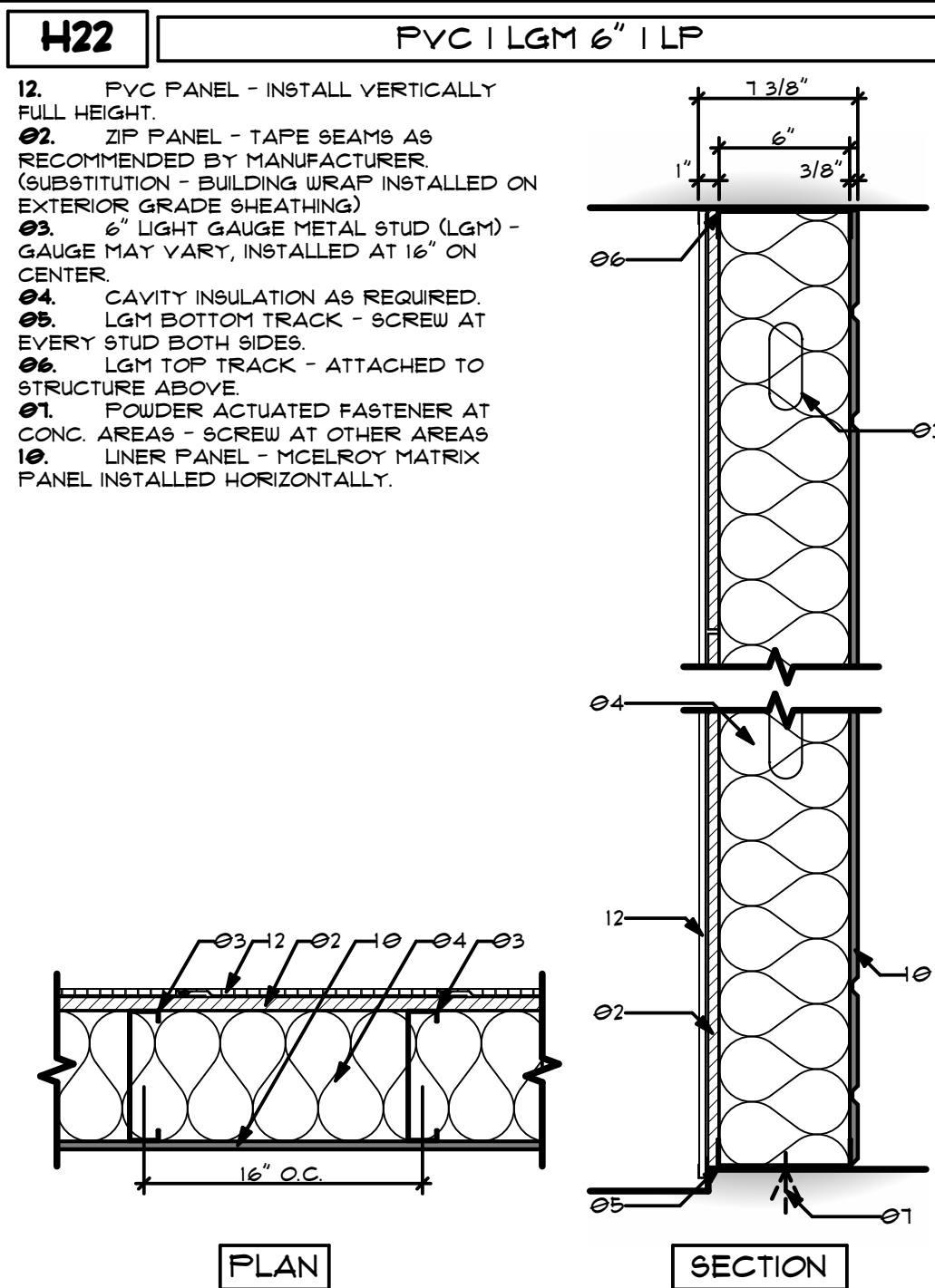
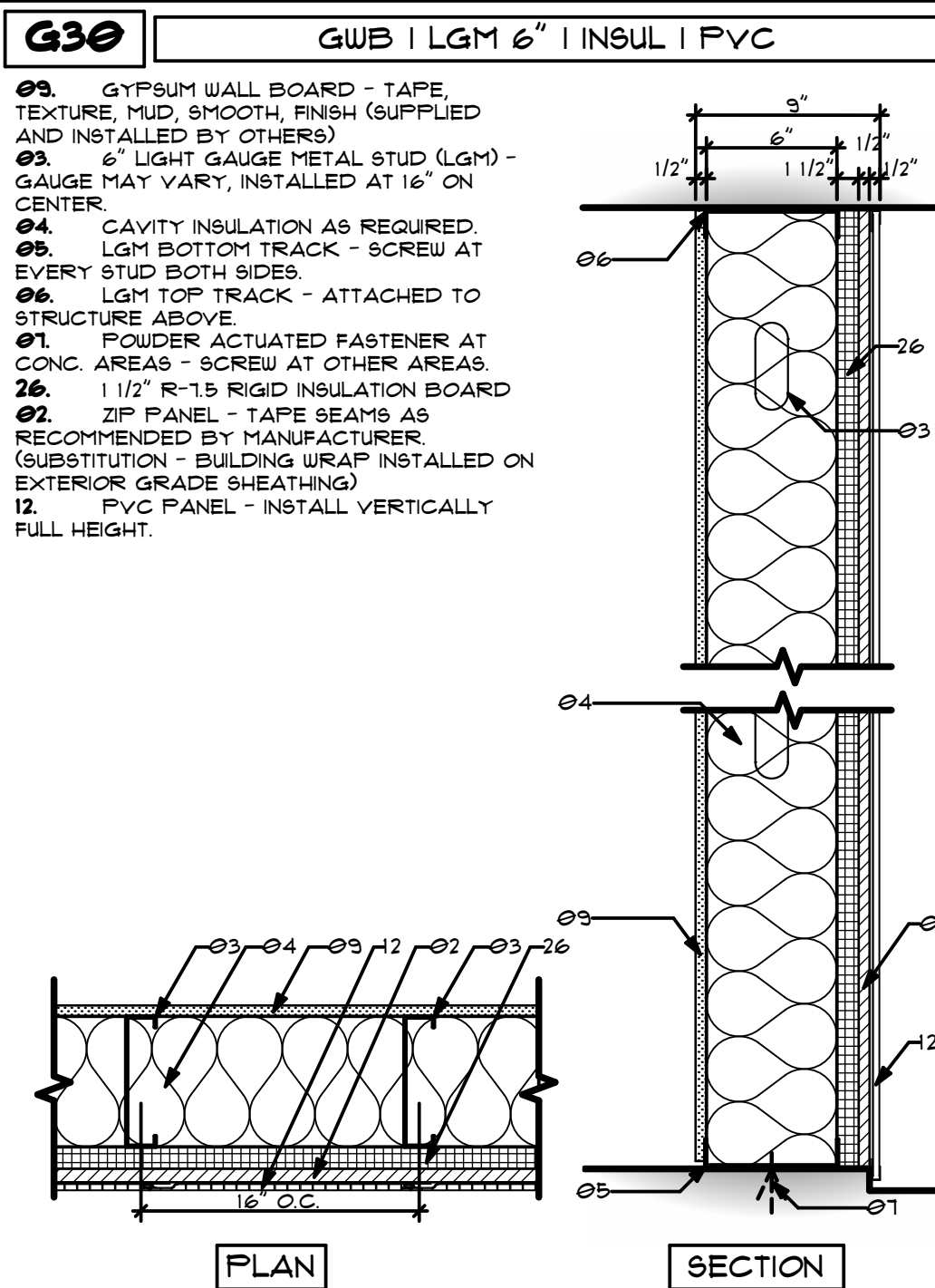
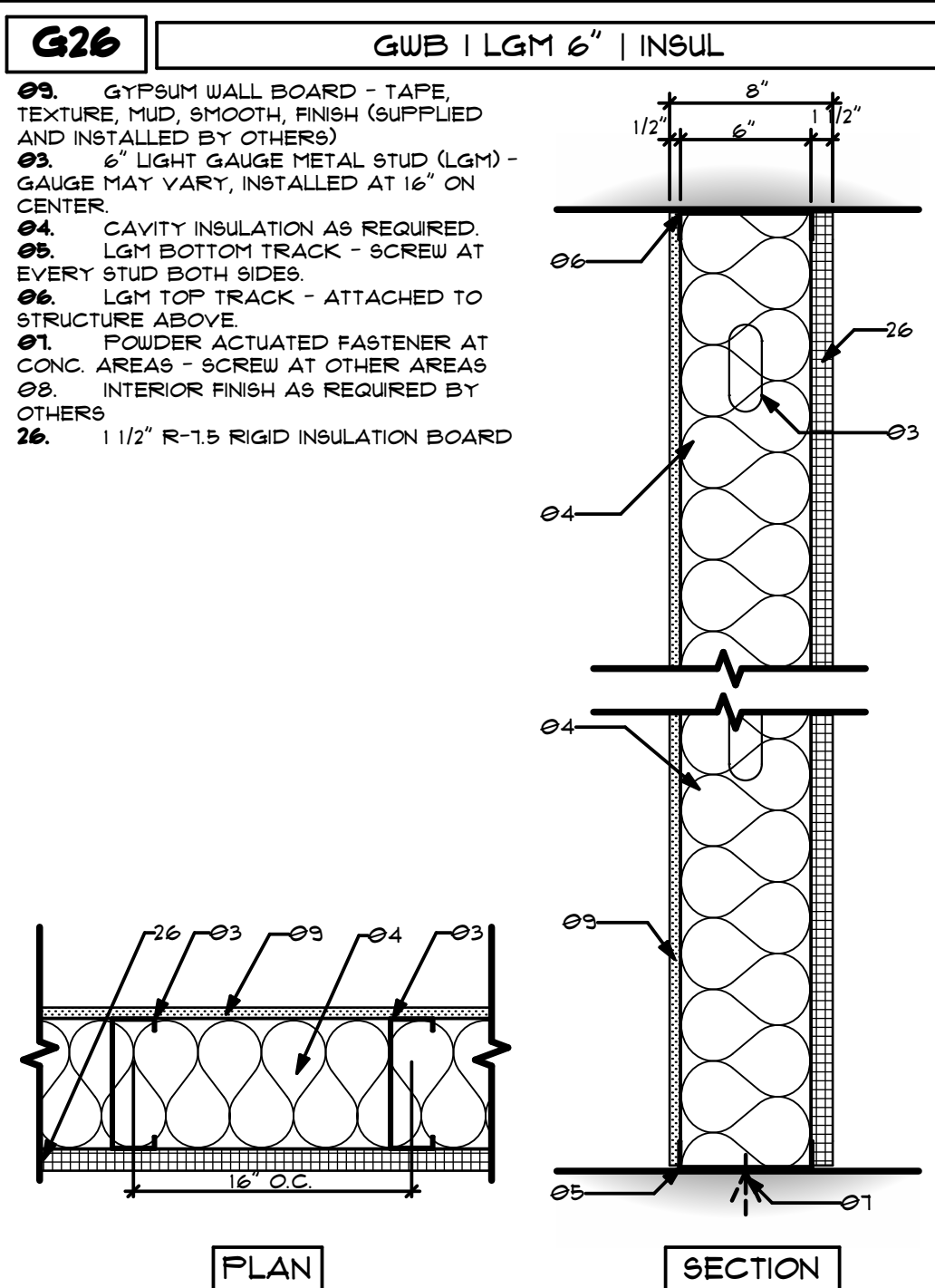
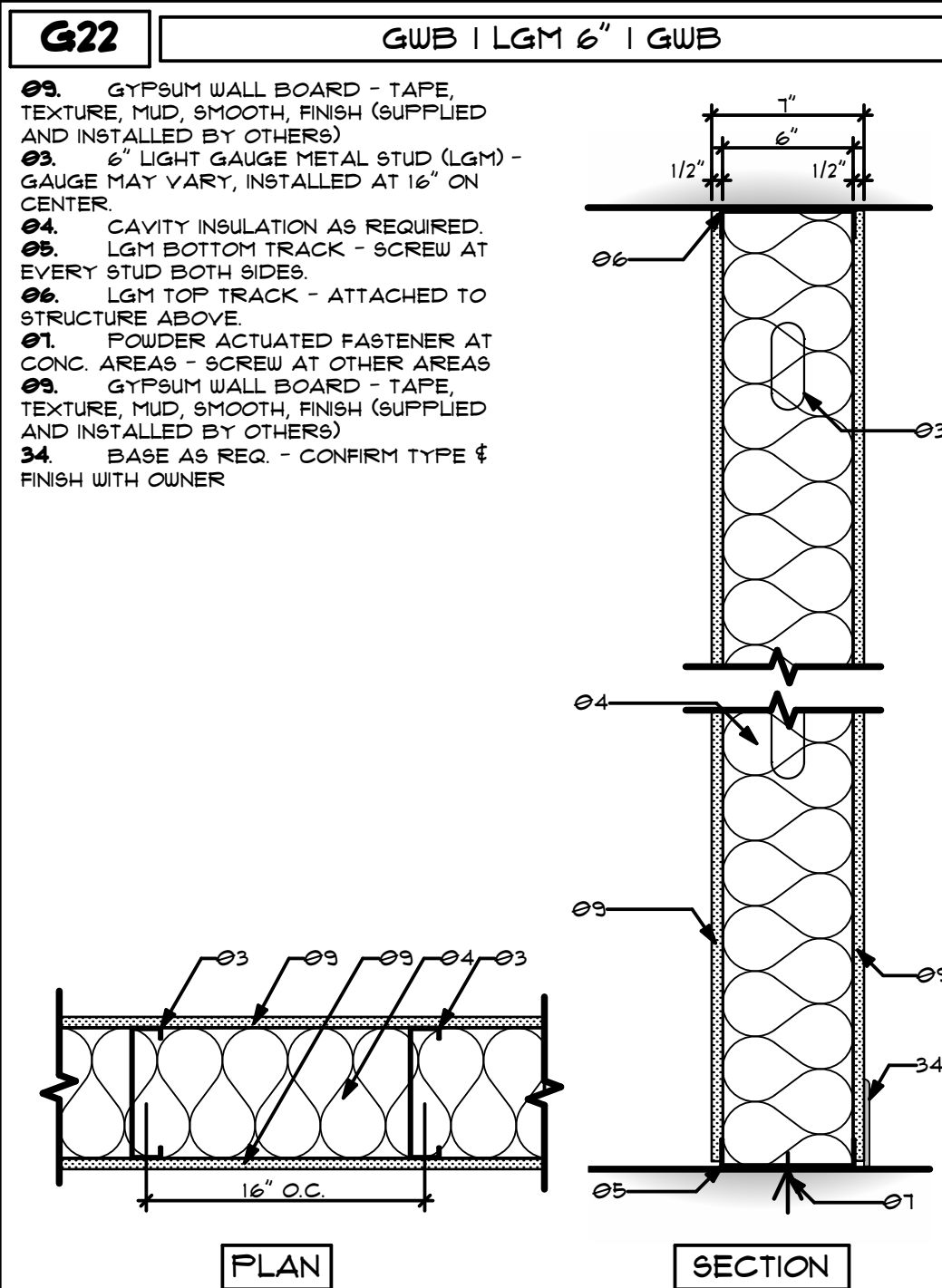
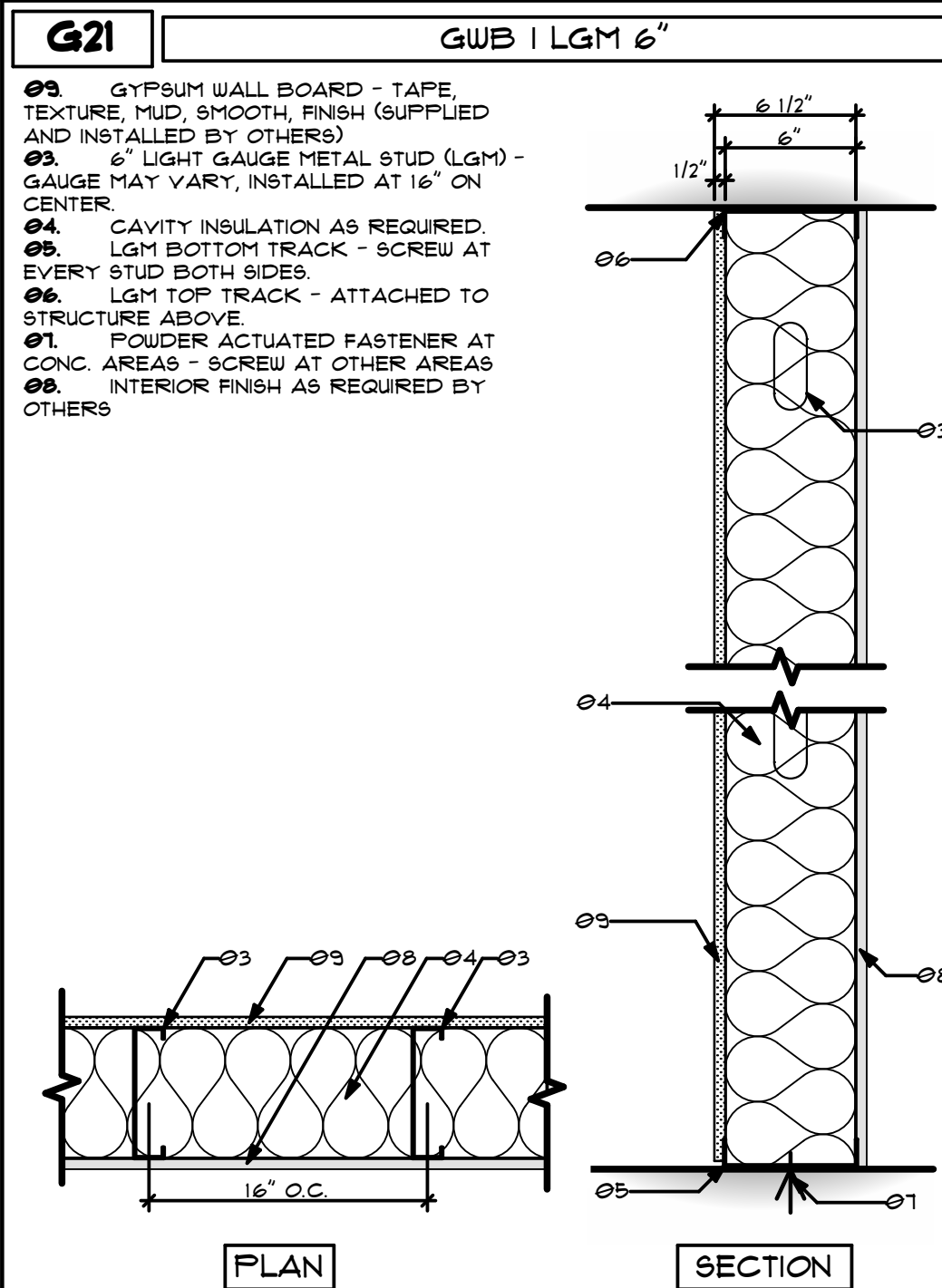
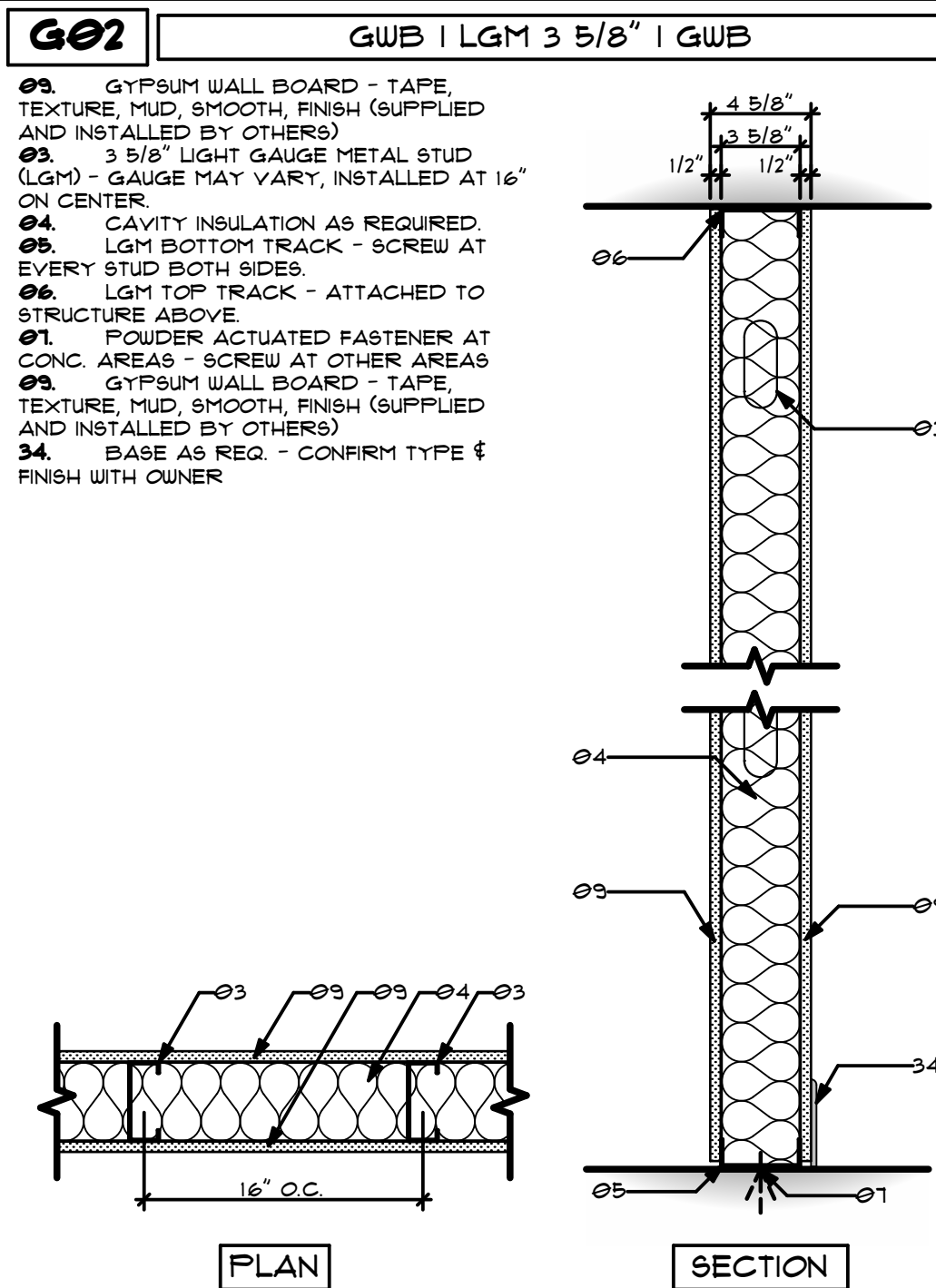
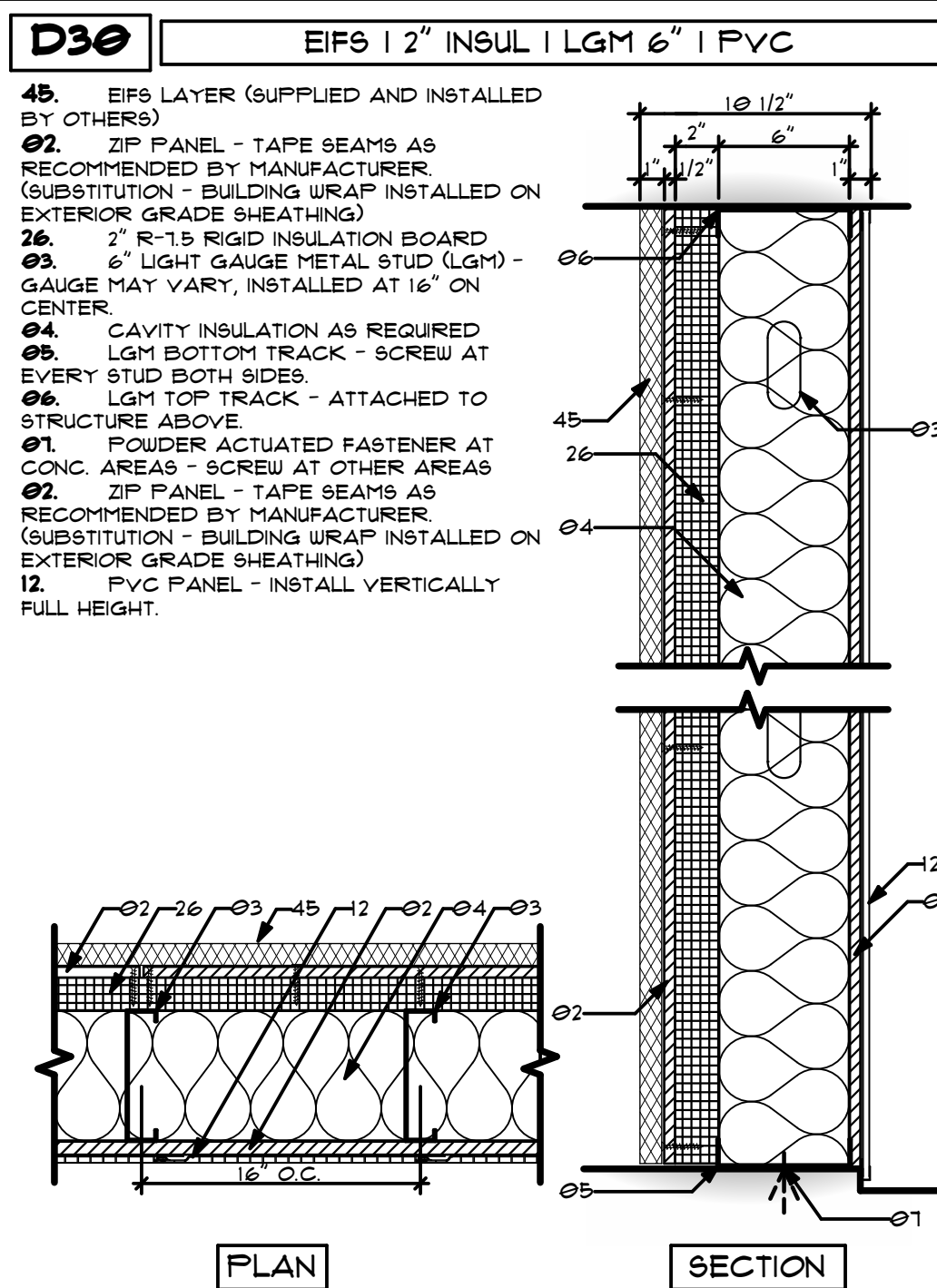
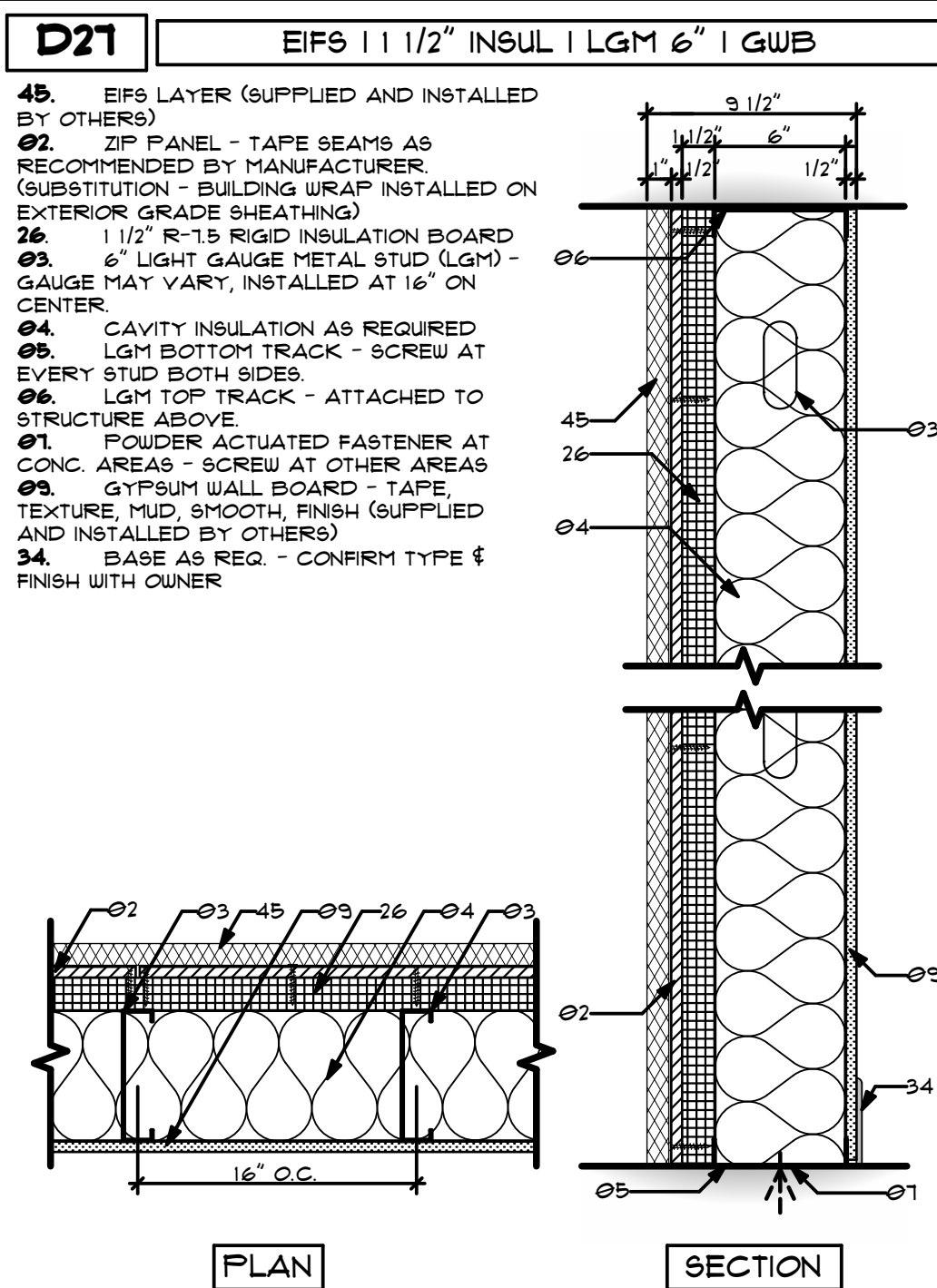
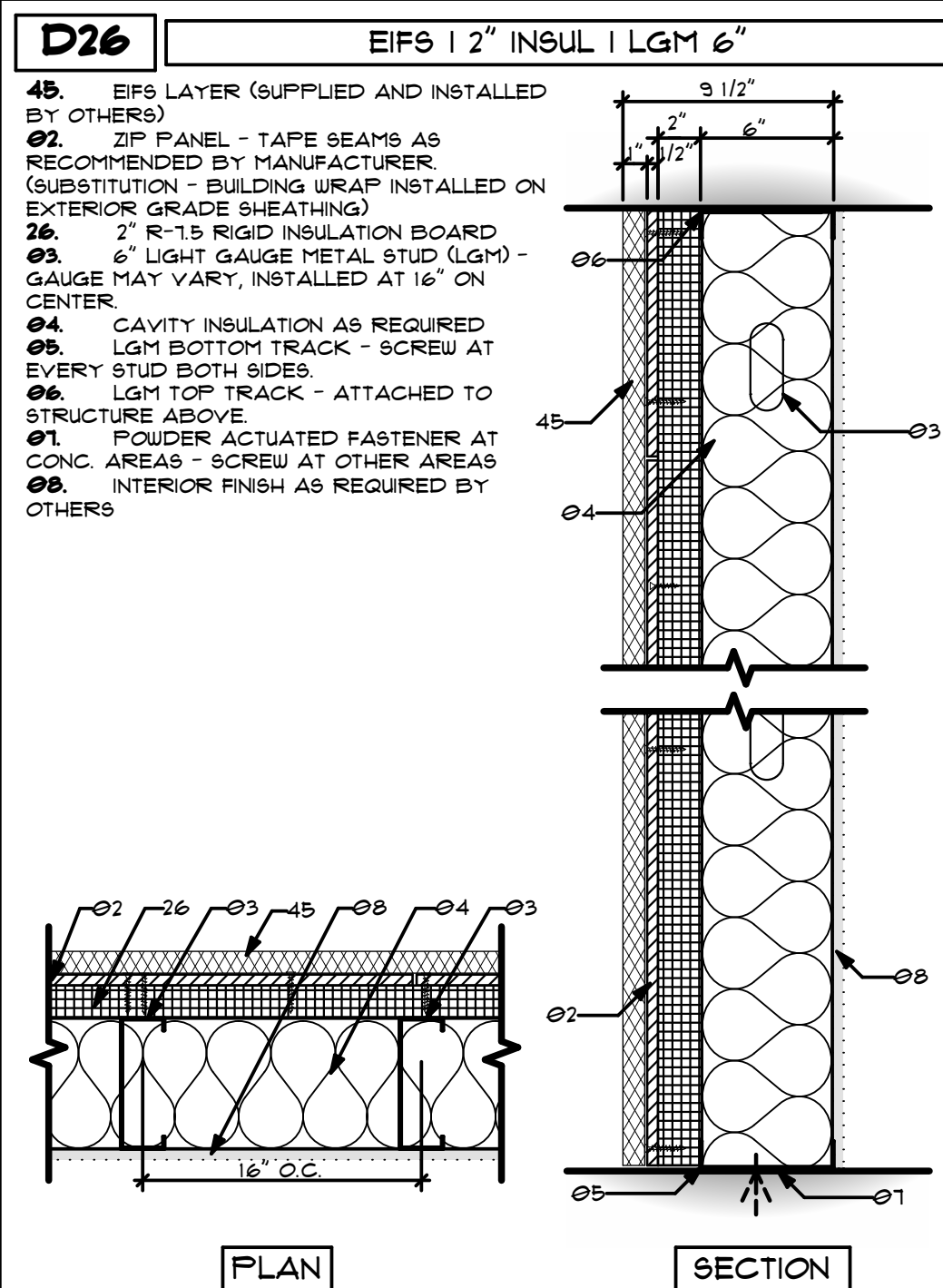
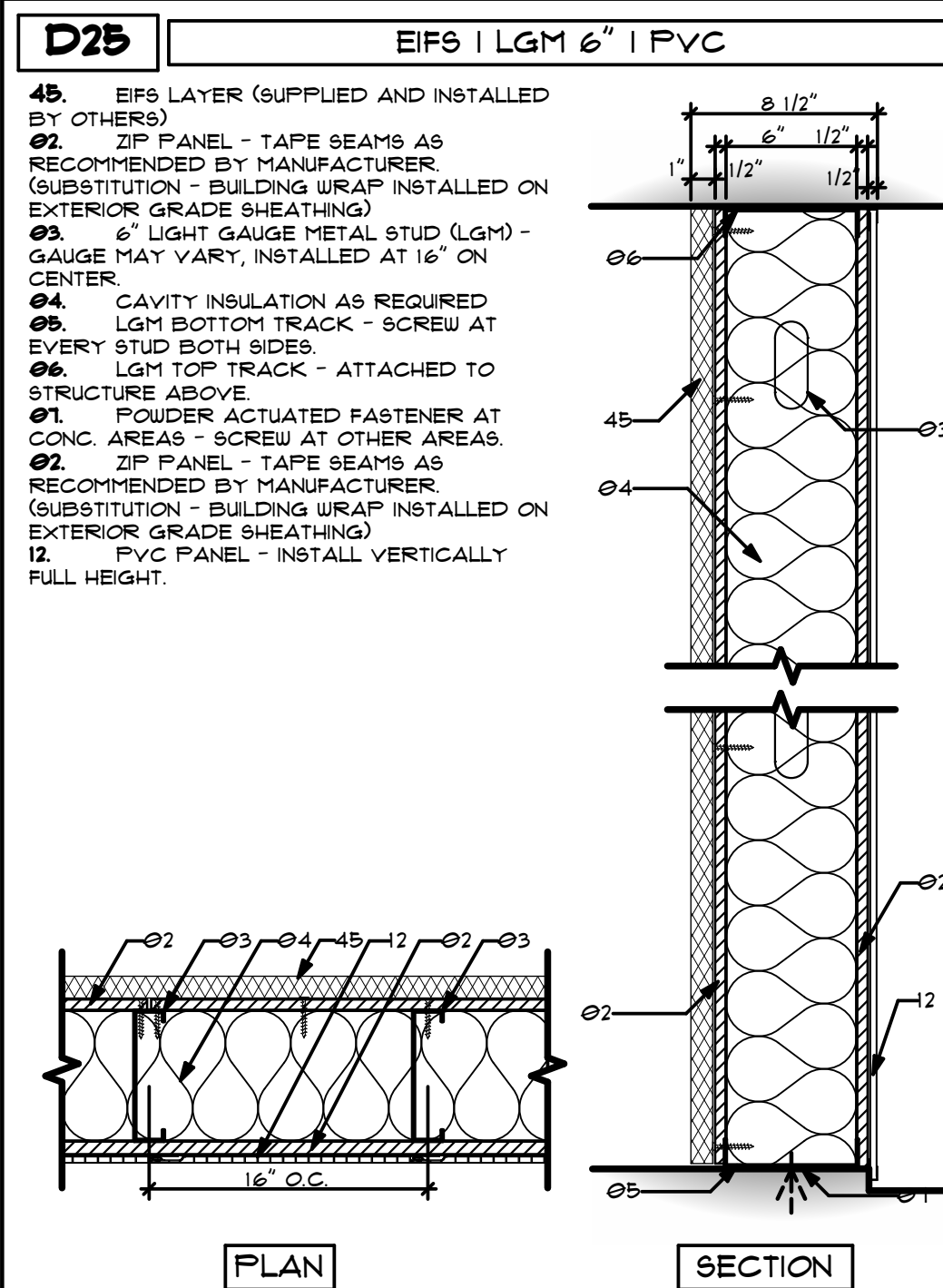
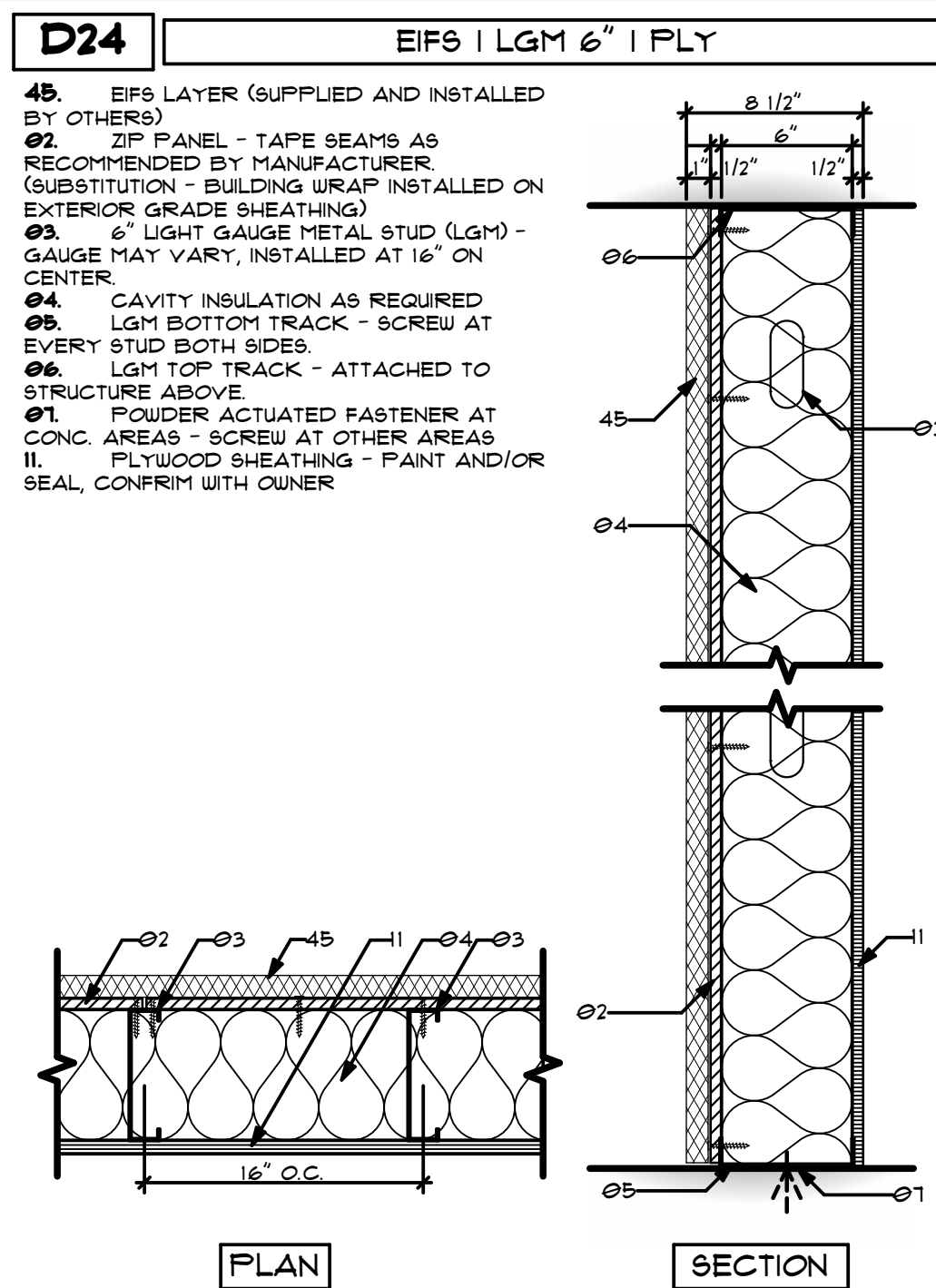
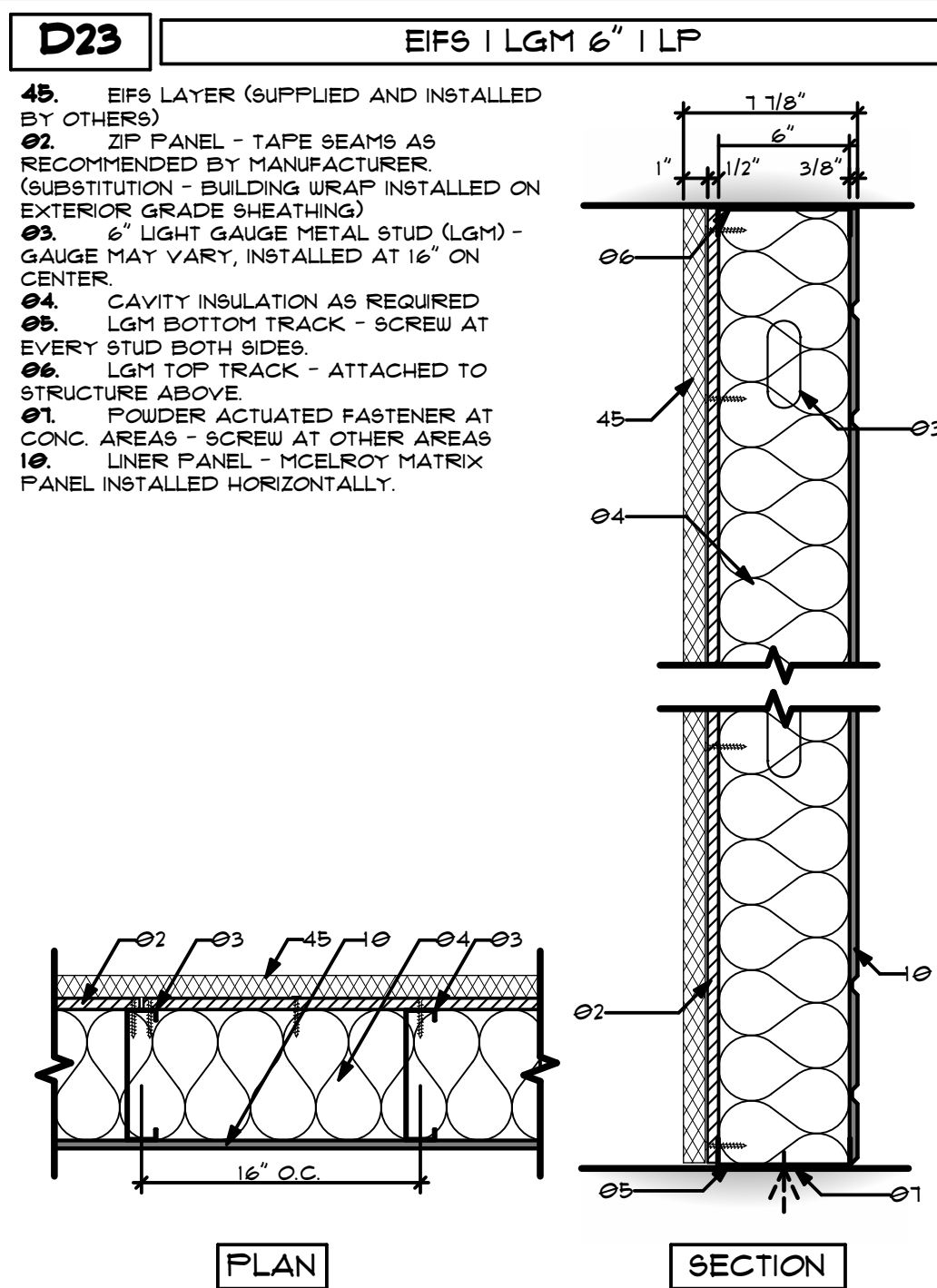
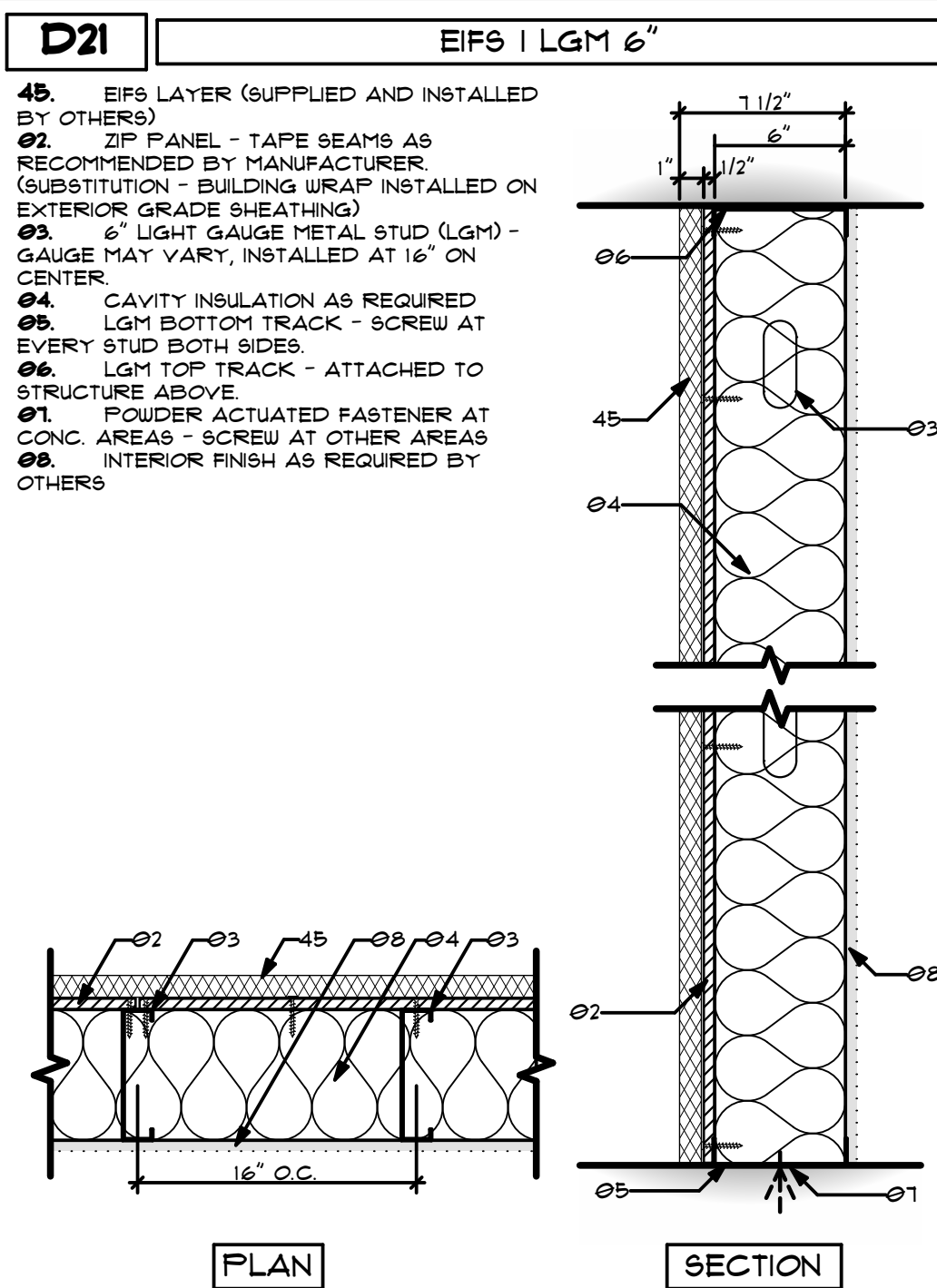
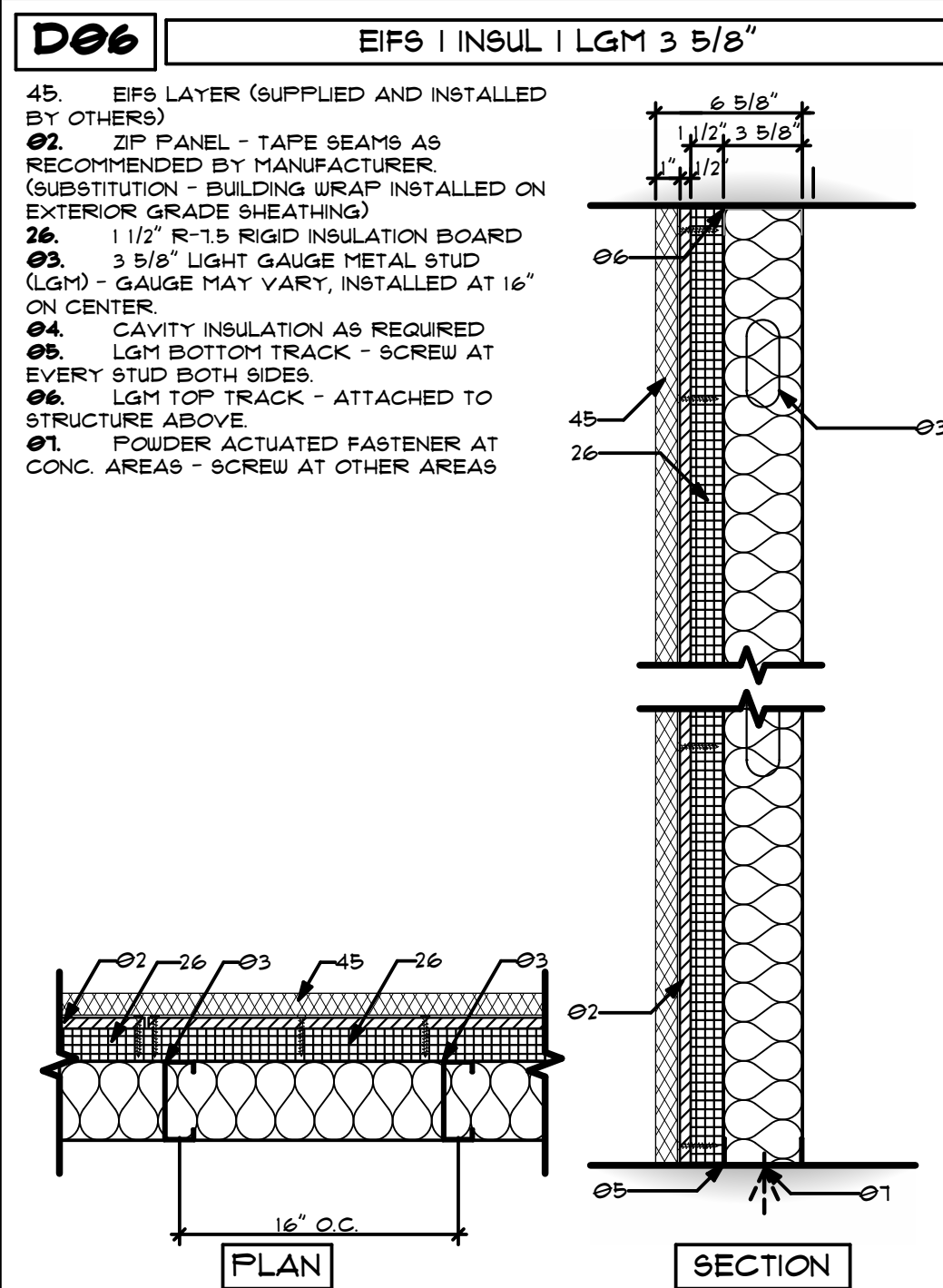
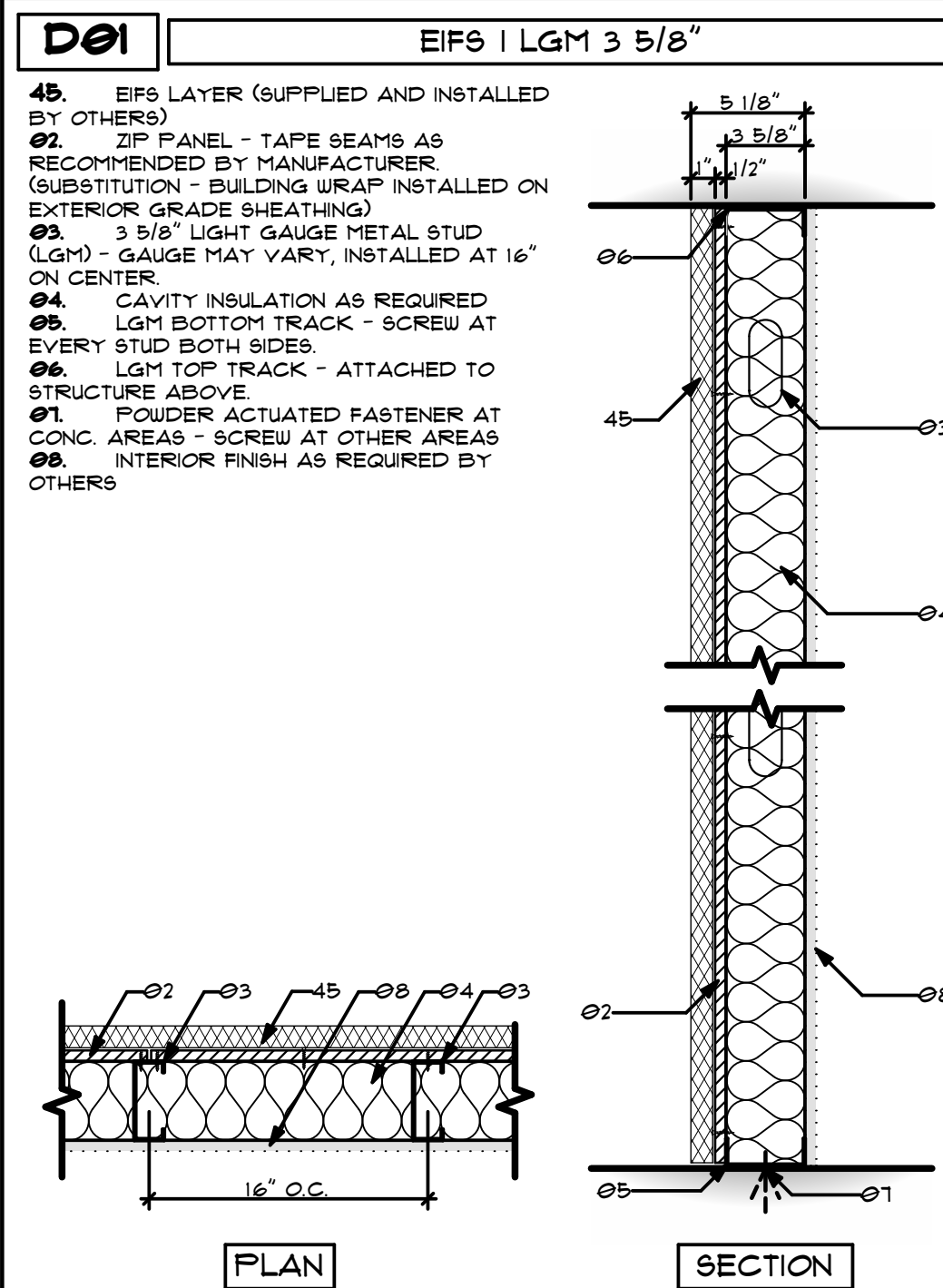
TUNNEL VISION CAR WASH

20 SETHOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET: MW-5.4
SECTIONS



WALL/FLOOR TYPES GENERAL NOTES:

ERECTION AND INSTALLATION BY OTHERS

- NOT ALL NOTES LISTED BELOW APPLY TO EVERY PROJECT.
- NOT ALL WALL TYPES SHOWN MAY BE USED IN THIS PROJECT. CONFIRM TYPE WITH WALL TYPE SYMBOLS ON PLANS AND SECTIONS.
 - ALL FULL HEIGHT LIGHT GAUGE METAL STUD FRAMING SHALL BE BRACED TO THE ROOF STRUCTURE AND SHALL NOT BE FASTENED IN ANY WAY TO THE ROOF PANELS OR DECK.
 - SEE FLOOR PLAN AND SECTION WALL TYPE SYMBOLS FOR WALL LOCATIONS, HEIGHTS, AND ADDITIONAL INFORMATION.
 - TRACK GAUGE TO MATCH STUD GAUGE.
 - IF REQUIRED AND/OR INSTALLED, INSULATION IS TO BE CONTINUOUS FROM FLOOR TO DECK/CEILING ABOVE.
 - FRAMING CONTRACTOR SHALL PROVIDE SOLID BLOCKING CONCEALED IN WALLS AND ROUGH OPENINGS, AS REQUIRED, FOR MILLWORK, SUPPORT, GRAB BARS, CLOSET SHELVING/RODS, TOILET ACCESSORIES, ETC.
 - IF SUSPENDED CEILING IS USED, ALL NON-FULL HEIGHT INTERIOR PARTITIONS ARE TO BE BRACED TO CEILING/FLOOR OR ROOF STRUCTURE ABOVE.
 - ALL SHEATHING/SUBSTRATE IS TO BE INSTALLED BASED ON THE MANUFACTURERS RECOMMENDATIONS. CONFIRM EDGE SPACING WITH MANUFACTURERS SPECIFICATIONS.
 - 1/2" ZIP PANEL IS SHOWN AS SHEATHING ON ALL WALL TYPES AS REQUIRED. THICKNESS AND TYPE OF SHEATHING MAY BE SUBSTITUTED BASED ON LOCAL BUILDING CODES (CONFORM WITH ARCHITECT PRIOR TO MODIFICATION).
 - IF PLYWOOD OR ZIP SHEATHING IS SUBSTITUTED WITH ANOTHER SHEATHING PRODUCT, THEN THE CONTRACTOR IS RESPONSIBLE FOR THE POSSIBLE CHANGE OR MODIFICATION OF THE FINISH MATERIAL ATTACHMENT TO THE SUBSTRATE.
 - ZIP PANELS CONTAIN A BUILT-IN VAPOR BARRIER. INSTALL TAPE, AND SEAL BASED ON MANUFACTURERS INSTALLATION GUIDE AND SPECIFICATIONS.
 - EXTEND PVC PANEL DOWN FAST EDGE OF SLAB. 1" OR MORE RECOMMENDED. 4" MAX.
 - UNLESS OTHERWISE NOTED, ALL LGM WALL STUDS ARE TO BE 18 GA.
 - UNLESS OTHERWISE NOTED, ALL LGM FLOOR/CEILING JOISTS ARE TO BE 12 GA.
 - UNLESS OTHERWISE NOTED, ALL 12" FLOOR JOISTS ARE TO BE ATTACHED TO STEEL FRAME STRUCTURE USING SIMPSON JOIST HANGERS AND/OR BEAR ON A STRUCTURAL WALL.
 - UNLESS OTHERWISE NOTED OR DETAILED, ALL CEILING STRUCTURES ARE TO BE ATTACHED TO THE WALL STRUCTURE BY LIGHT TRACK AND THE AREA ABOVE IS NOT INTENDED FOR STORAGE OR OCCUPIED SPACE.

REVISIONS

DATE

ID

DESCRIPTION

FOR PERMIT

05/03/2023

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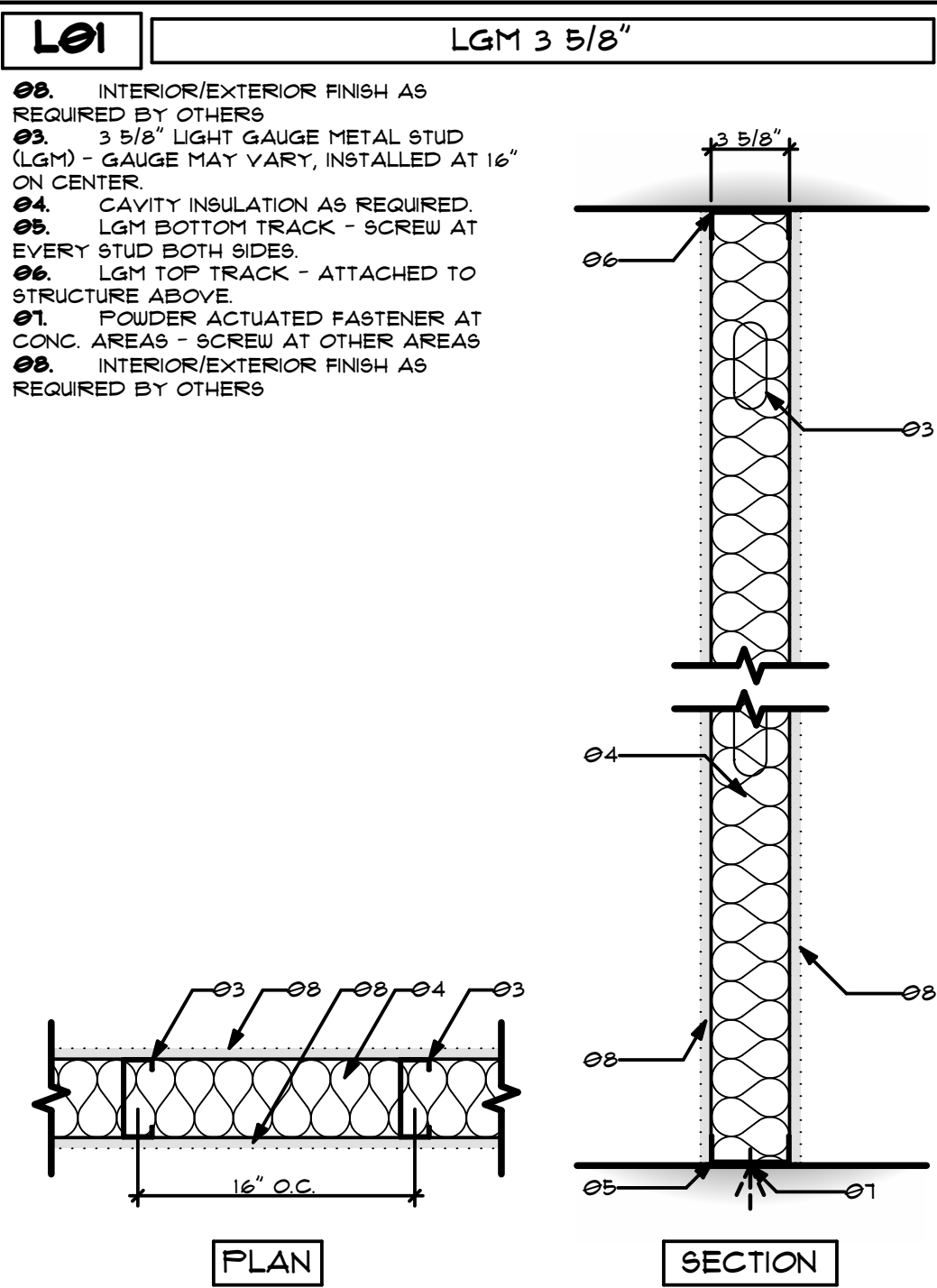
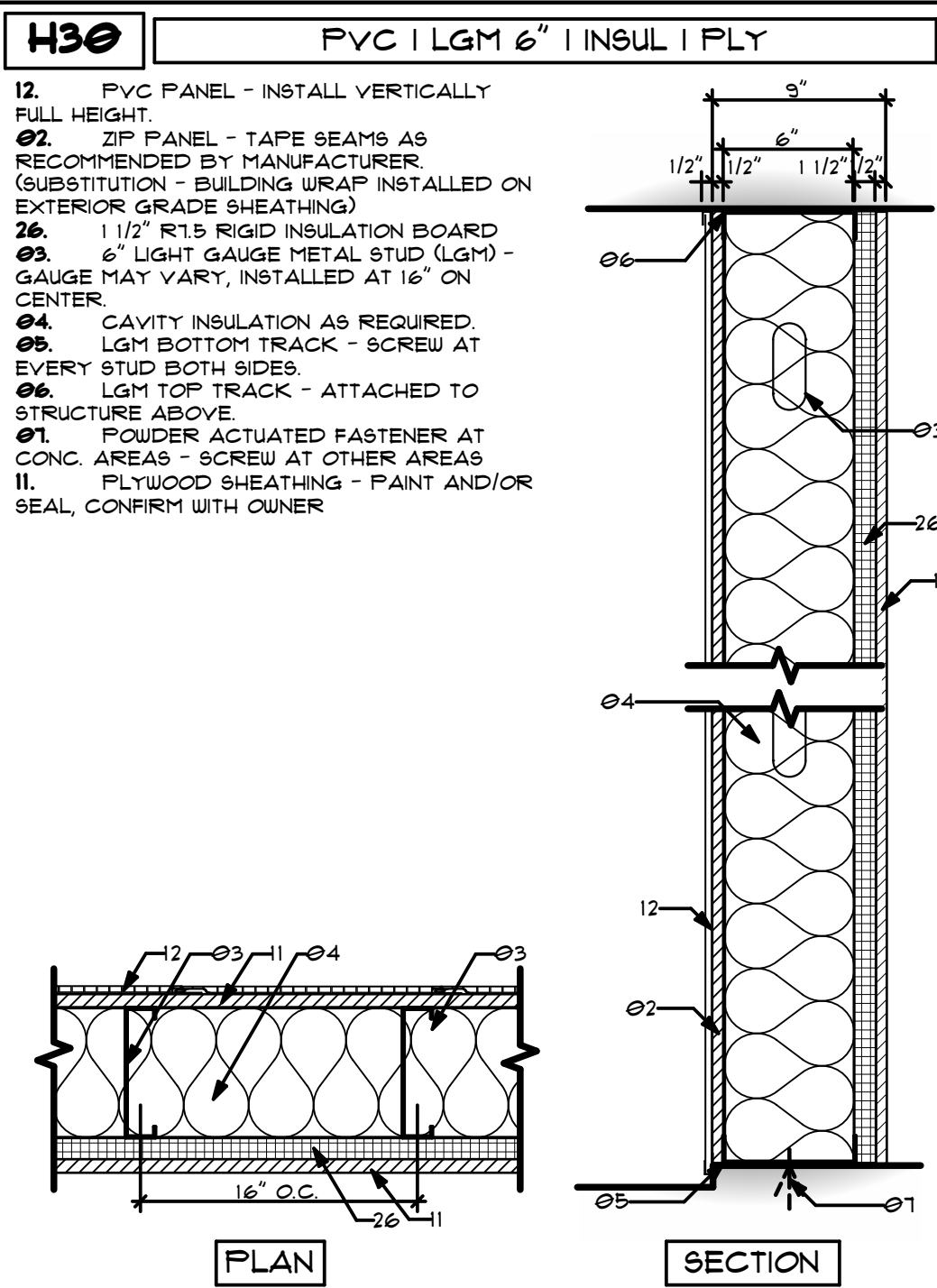
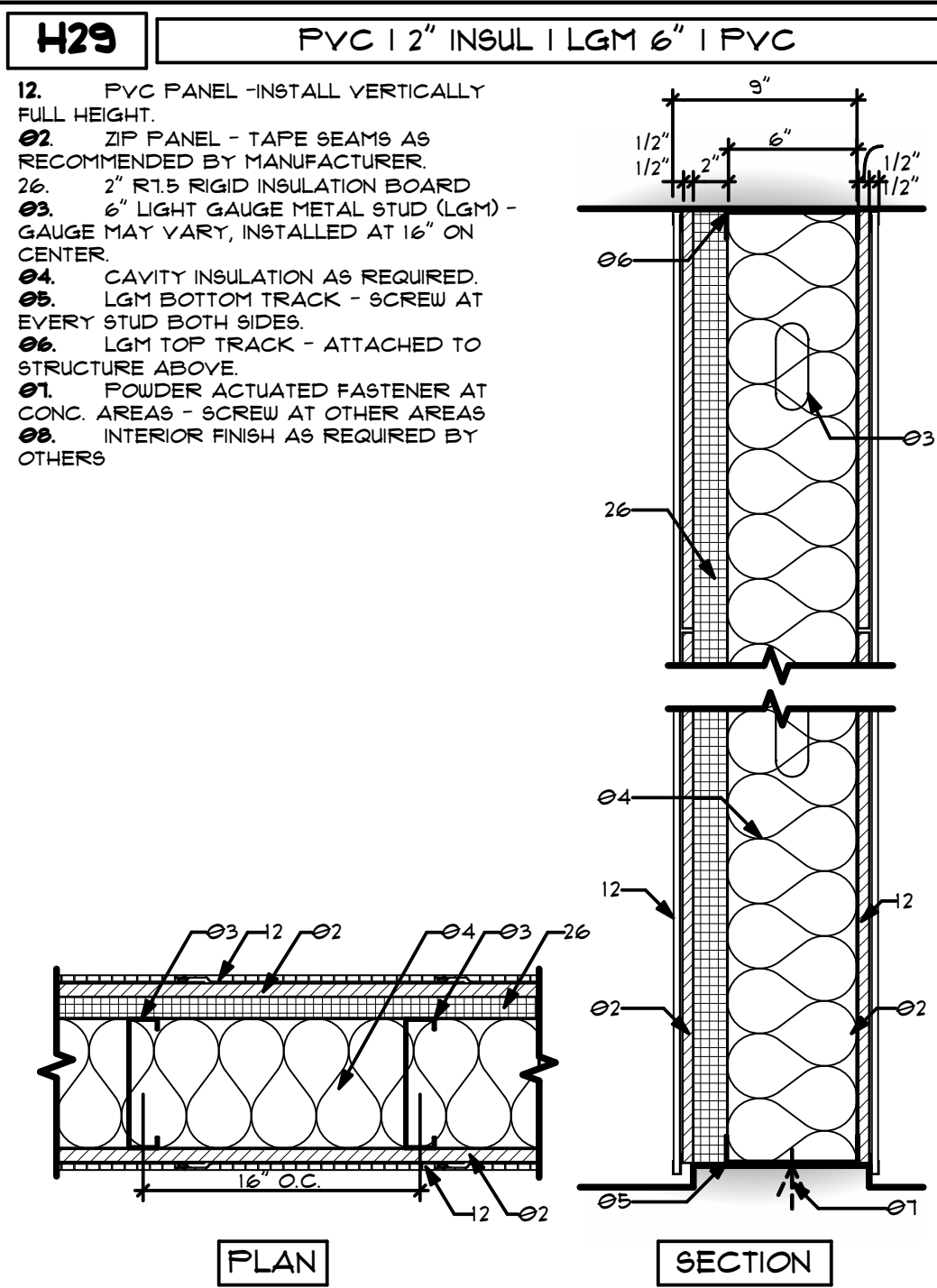
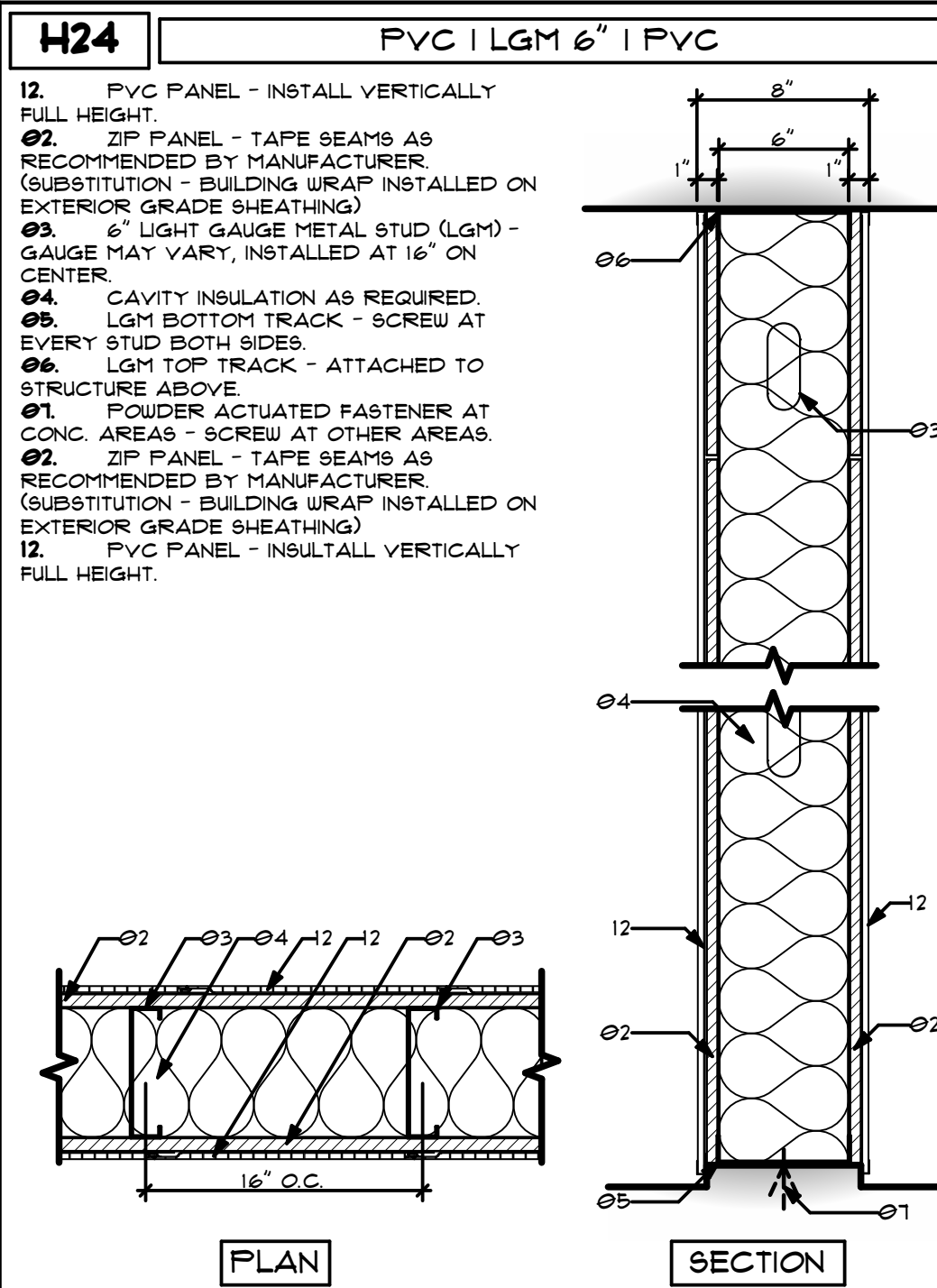
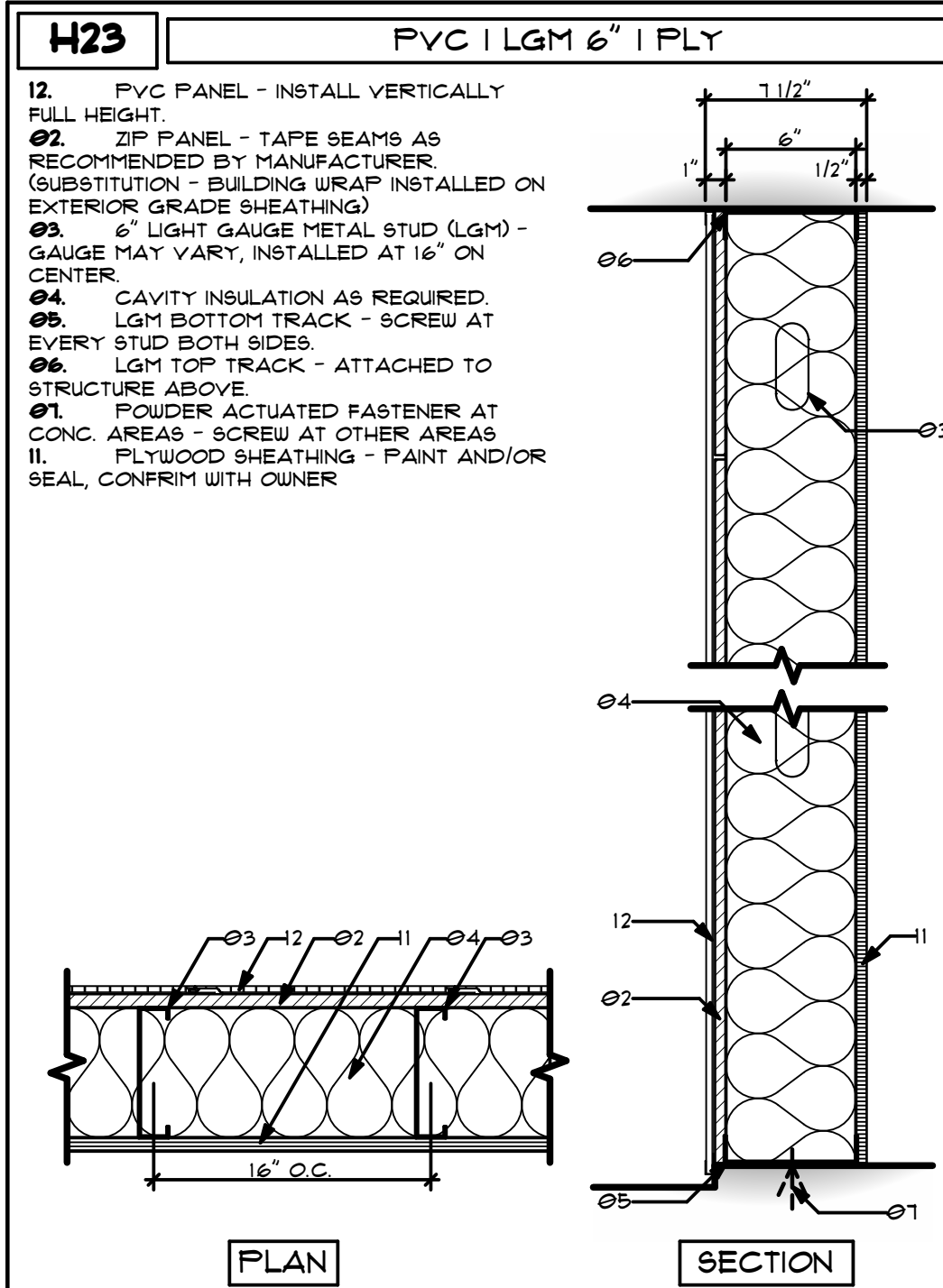
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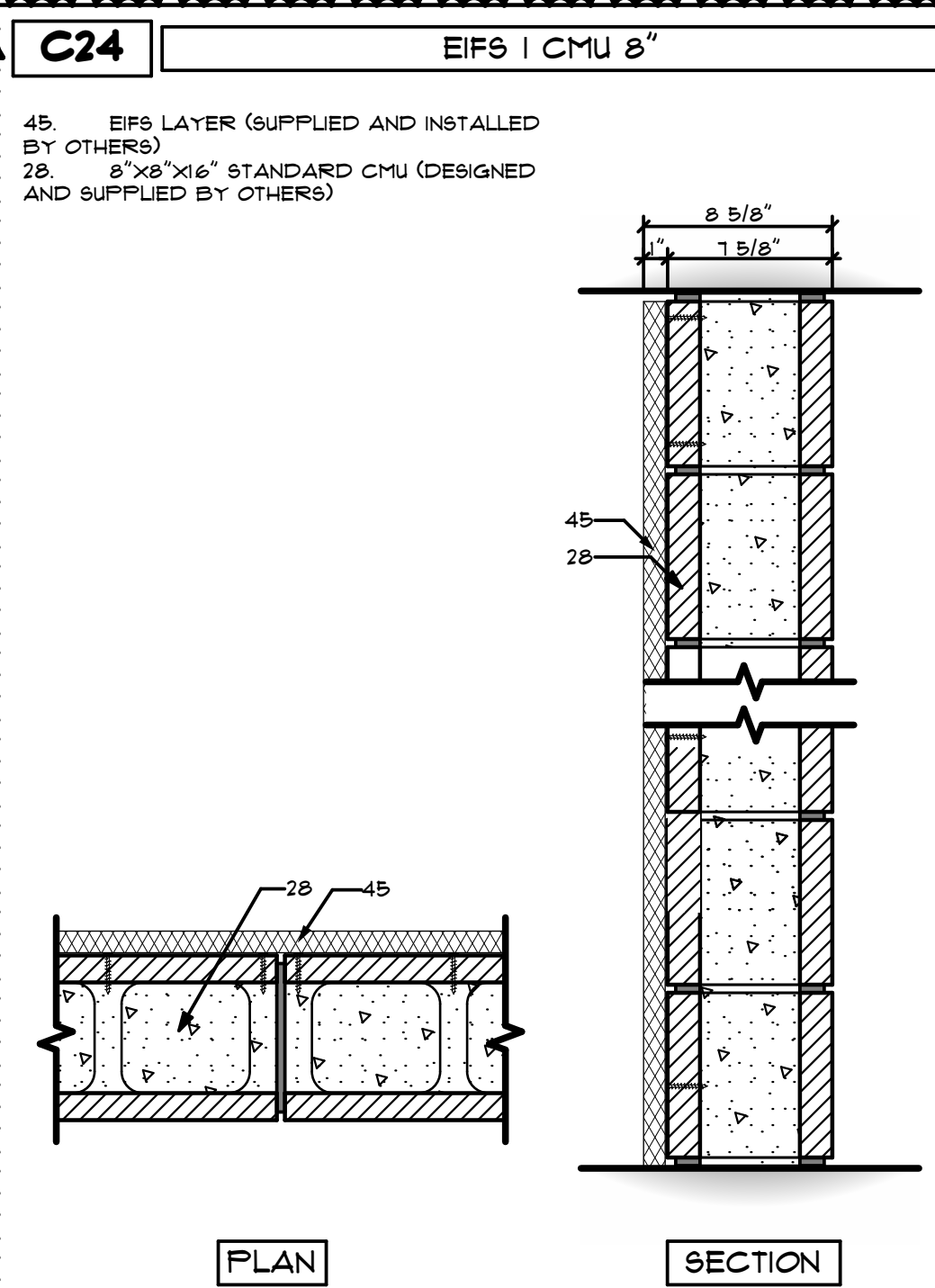
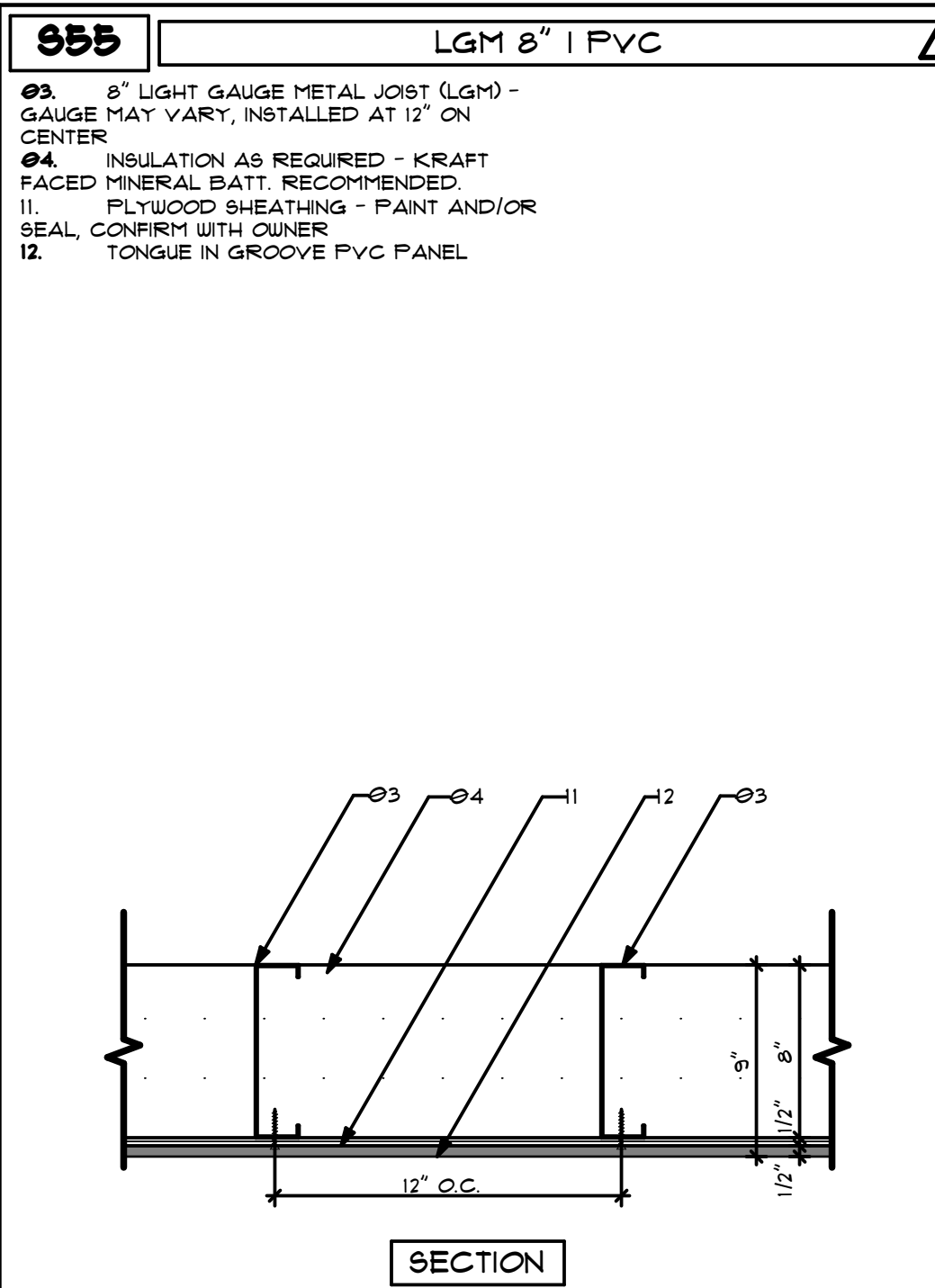
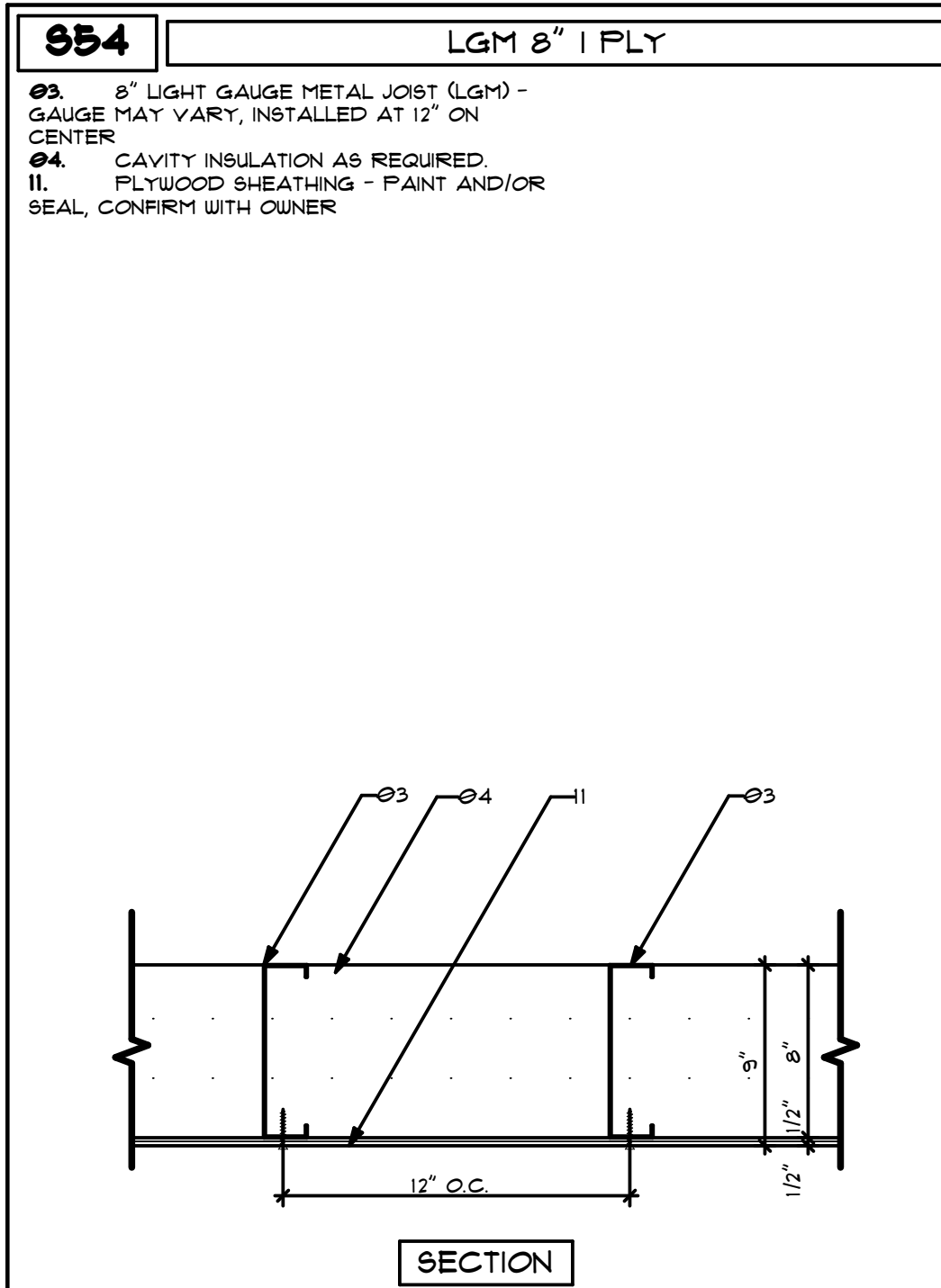
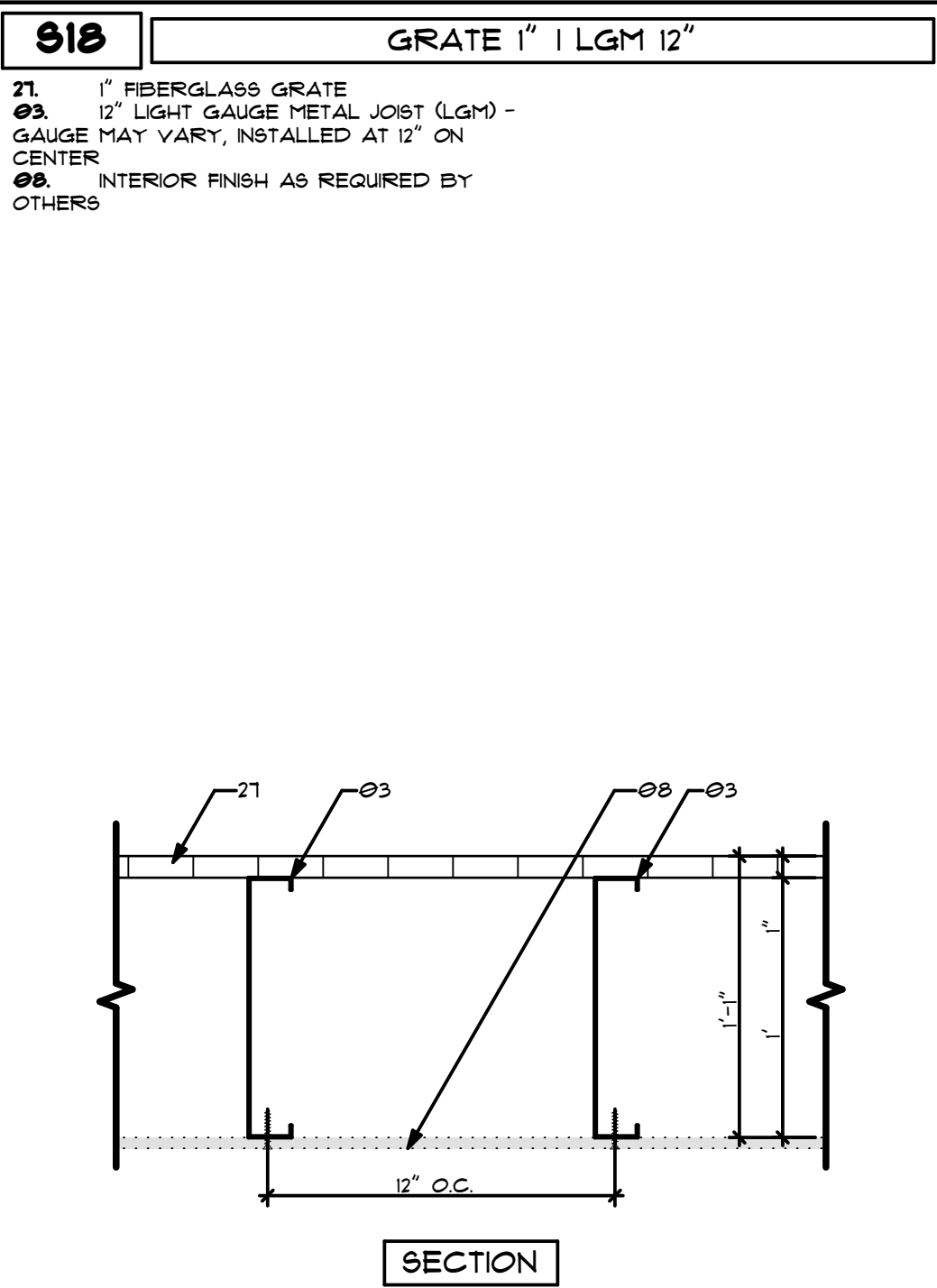
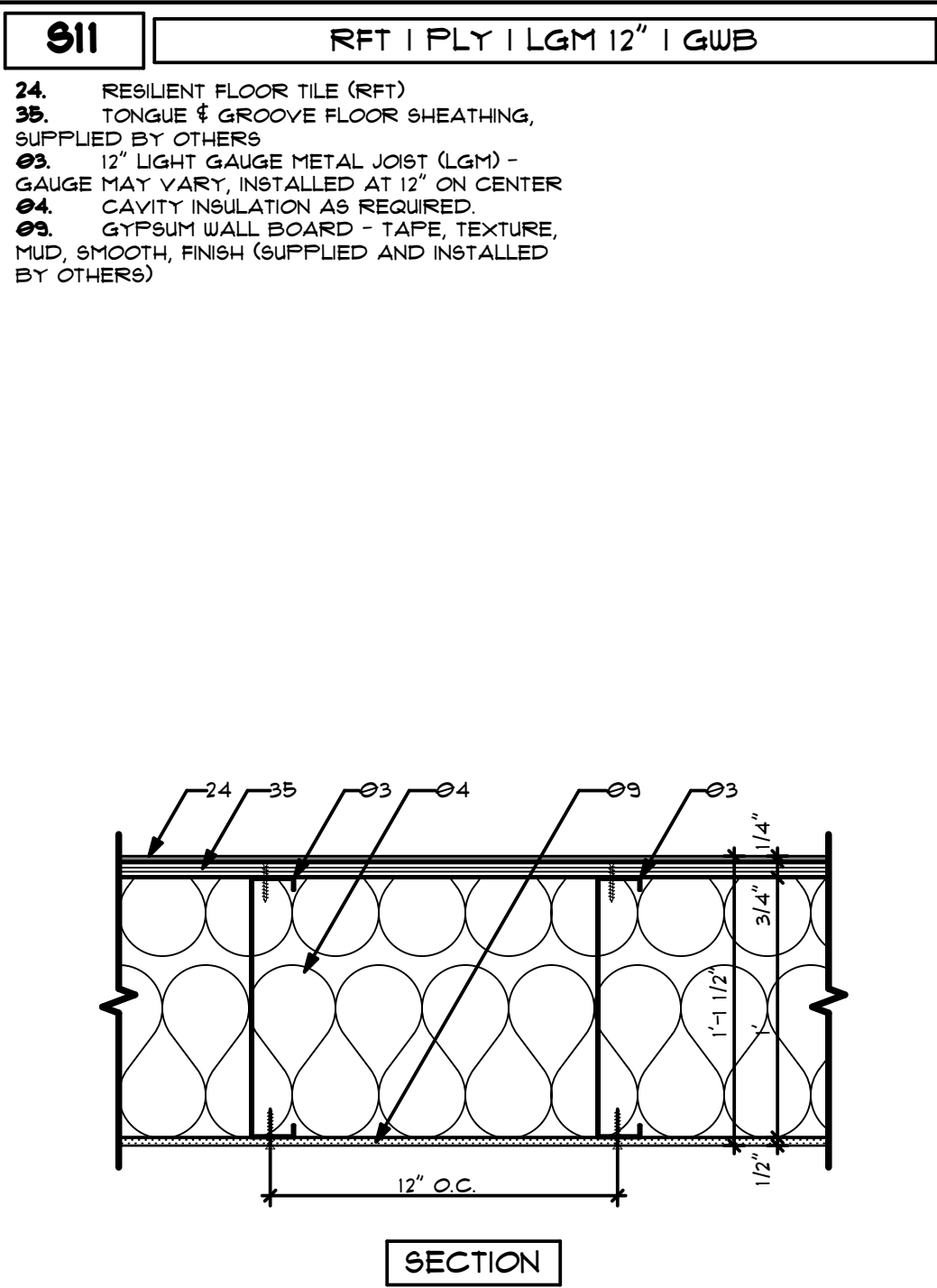
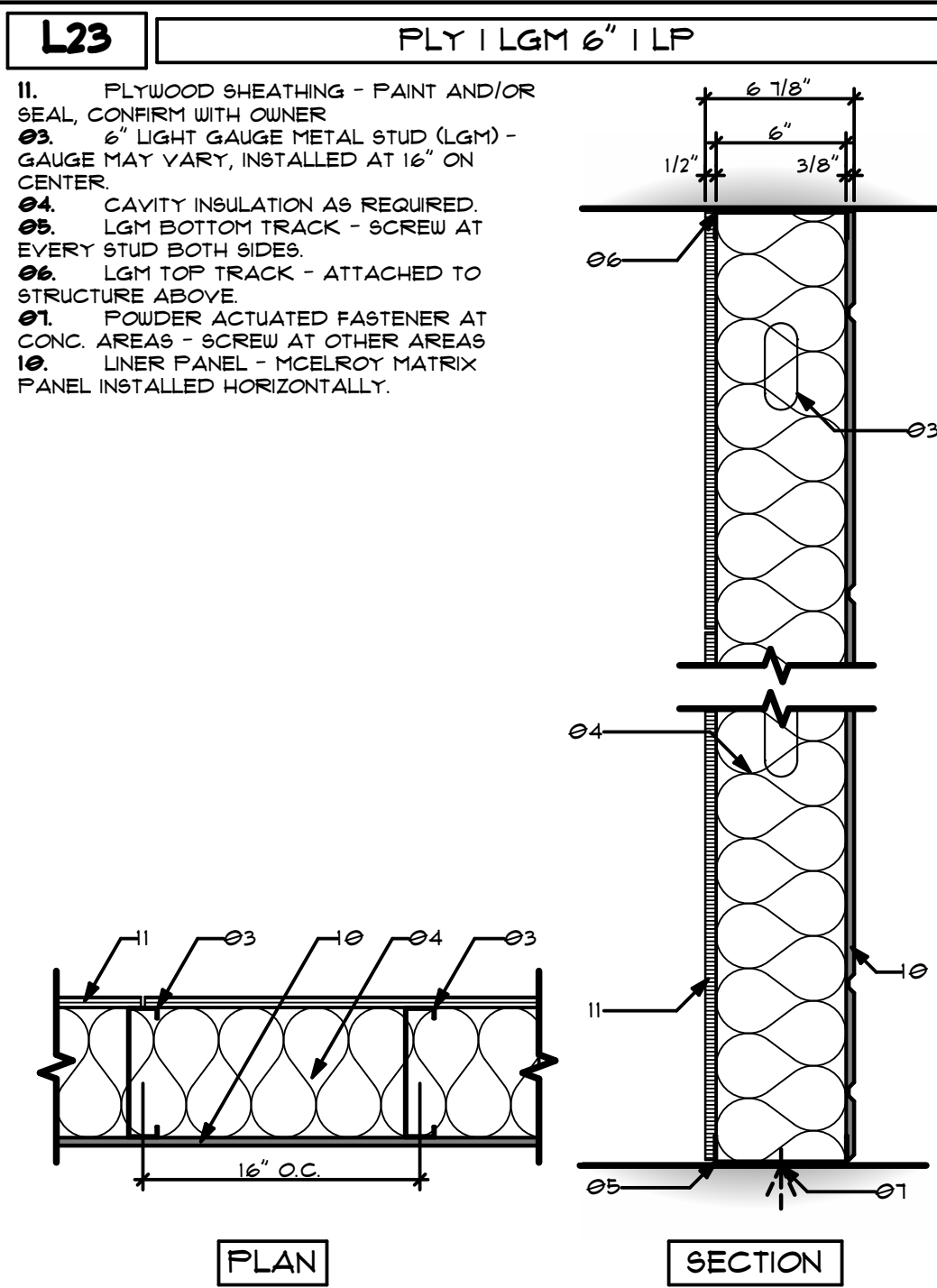
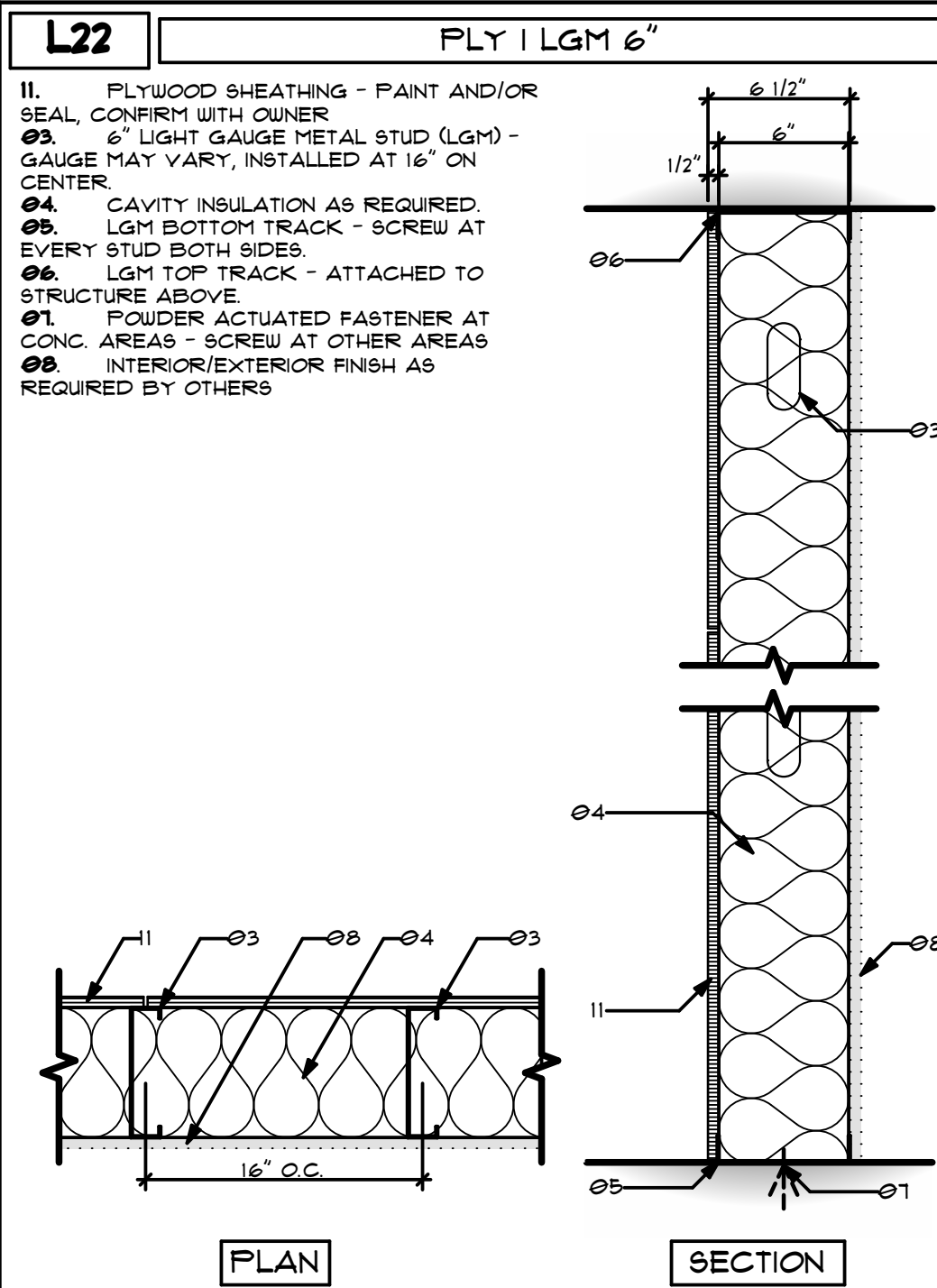
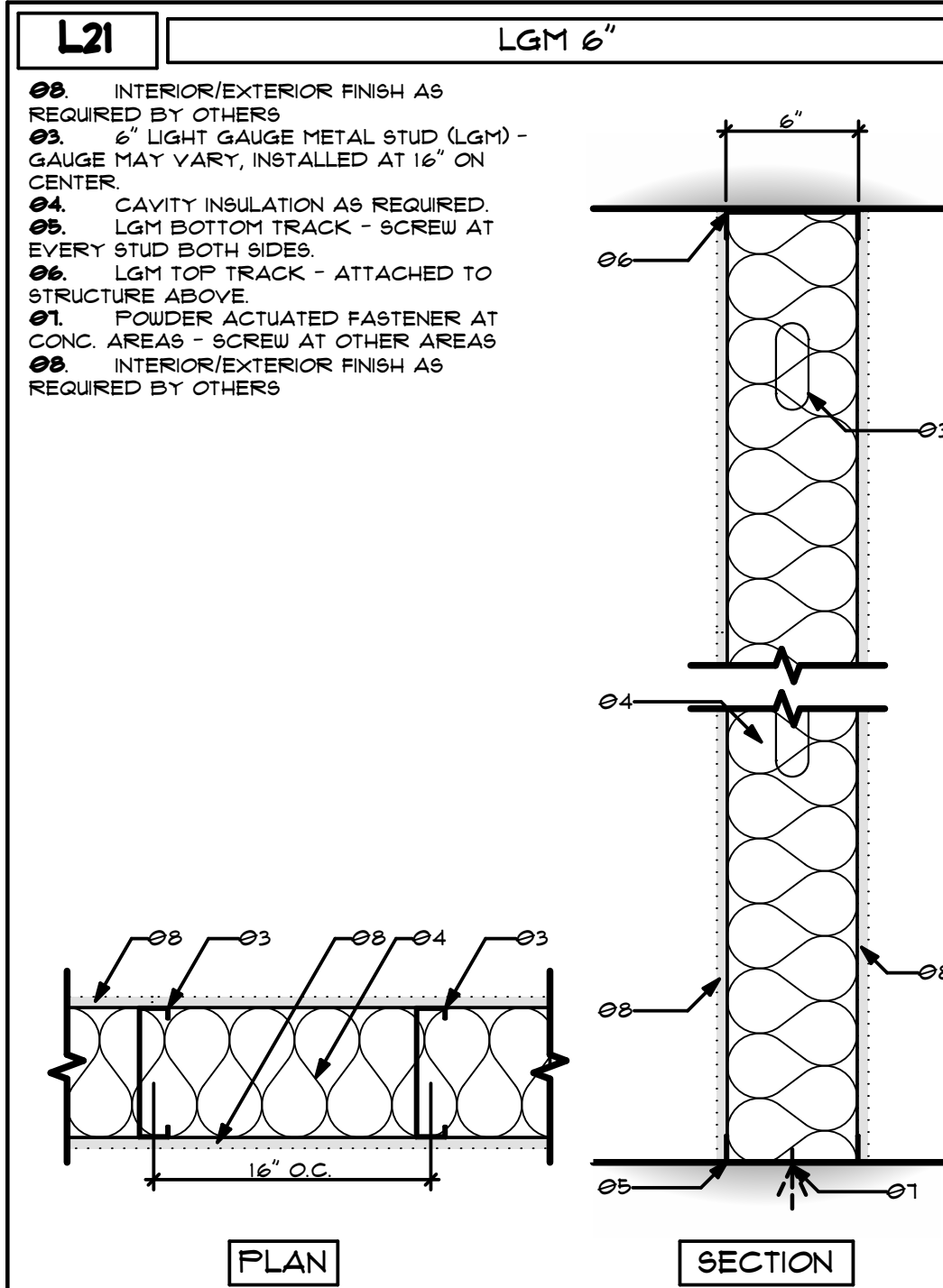


WALL/FLOOR TYPES GENERAL NOTES:

ERECTION AND INSTALLATION BY OTHERS

NOT ALL NOTES LISTED BELOW APPLY TO EVERY PROJECT.

- NOT ALL WALL TYPES SHOWN MAY BE USED IN THIS PROJECT. CONFIRM TYPE WITH WALL TYPE SYMBOLS ON PLANS AND SECTIONS.
- ALL FULL HEIGHT LIGHT GAUGE METAL STUD FRAMING SHALL BE BRACED TO THE ROOF STRUCTURE AND SHALL NOT BE FASTENED IN ANY WAY TO THE ROOF PANELS OR DECK.
- SEE FLOOR PLAN AND SECTION WALL TYPE SYMBOLS FOR WALL LOCATIONS, HEIGHTS, AND ADDITIONAL INFORMATION.
- TRACK GAUGE TO MATCH STUD GAUGE.
- IF REQUIRED AND/OR INSTALLED, INSULATION IS TO BE CONTINUOUS FROM FLOOR TO DECK/CEILING ABOVE.
- FRAMING CONTRACTOR SHALL PROVIDE SOLID BLOCKING CONCEALED IN WALLS AND ROUGH OPENINGS, AS REQUIRED, FOR MILLWORK, SUPPORT, GRAB BARS, CLOSET SHELVING/RODS, TOILET ACCESSORIES, ETC.
- IF SUSPENDED CEILING IS USED, ALL NON-FULL HEIGHT INTERIOR PARTITIONS ARE TO BE BRACED TO CEILING/FLOOR OR ROOF STRUCTURE ABOVE.
- ALL SHEATHING/SUBSTRATE IS TO BE INSTALLED BASED ON THE MANUFACTURERS RECOMMENDATIONS. CONFIRM EDGE SPACING WITH MANUFACTURERS SPECIFICATIONS.
- 1/2" ZIP PANEL IS SHOWN AS SHEATHING ON ALL WALL TYPES AS REQUIRED. THICKNESS AND TYPE OF SHEATHING MAY BE SUBSTITUTED BASED ON LOCAL BUILDING CODES (CONFIRM WITH ARCHITECT PRIOR TO MODIFICATION).
- IF PLYWOOD OR ZIP SHEATHING IS SUBSTITUTED WITH ANOTHER SHEATHING PRODUCT, THEN THE CONTRACTOR IS RESPONSIBLE FOR THE POSSIBLE CHANGE OR MODIFICATION OF THE FINISH MATERIAL ATTACHMENT TO THE SUBSTRATE.
- ZIP PANELS CONTAIN A BUILT-IN VAPOR BARRIER. INSTALL TAPE, AND SEAL BASED ON MANUFACTURERS INSTALLATION GUIDE AND SPECIFICATIONS.
- EXTEND PVC PANEL DOWN FAST EDGE OF SLAB. 1" OR MORE RECOMMENDED. 4" MAX. STUDS ARE TO BE 18 GA.
- UNLESS OTHERWISE NOTED, ALL LGM WALL STUDS ARE TO BE 18 GA.
- UNLESS OTHERWISE NOTED, ALL LGM FLOOR/CEILING JOISTS ARE TO BE 12 GA.
- UNLESS OTHERWISE NOTED, ALL 12" FLOOR JOISTS ARE TO BE ATTACHED TO STEEL FRAME STRUCTURE USING SIMPSON JOIST HANGERS AND/OR BEAR ON A STRUCTURAL WALL.
- UNLESS OTHERWISE NOTED OR DETAILED, ALL CEILING STRUCTURES ARE TO BE ATTACHED TO THE WALL STRUCTURE BY LIGHT TRACK AND THE AREA ABOVE IS NOT INTENDED FOR STORAGE OR OCCUPIED SPACE.



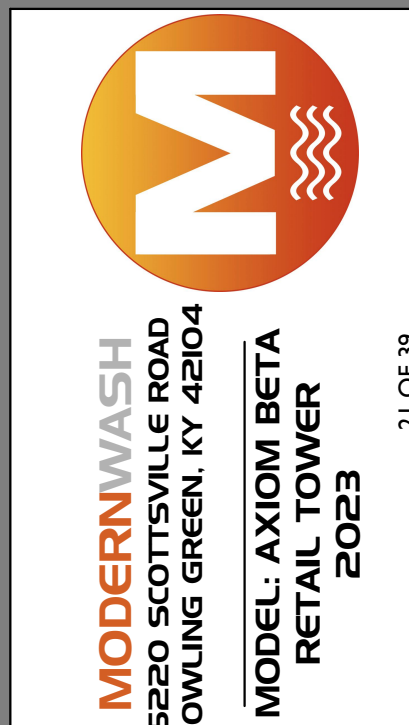
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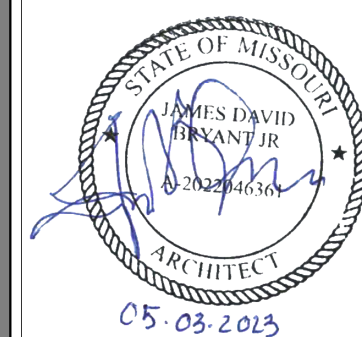
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21 OF 39



NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.



PRELIMINARY

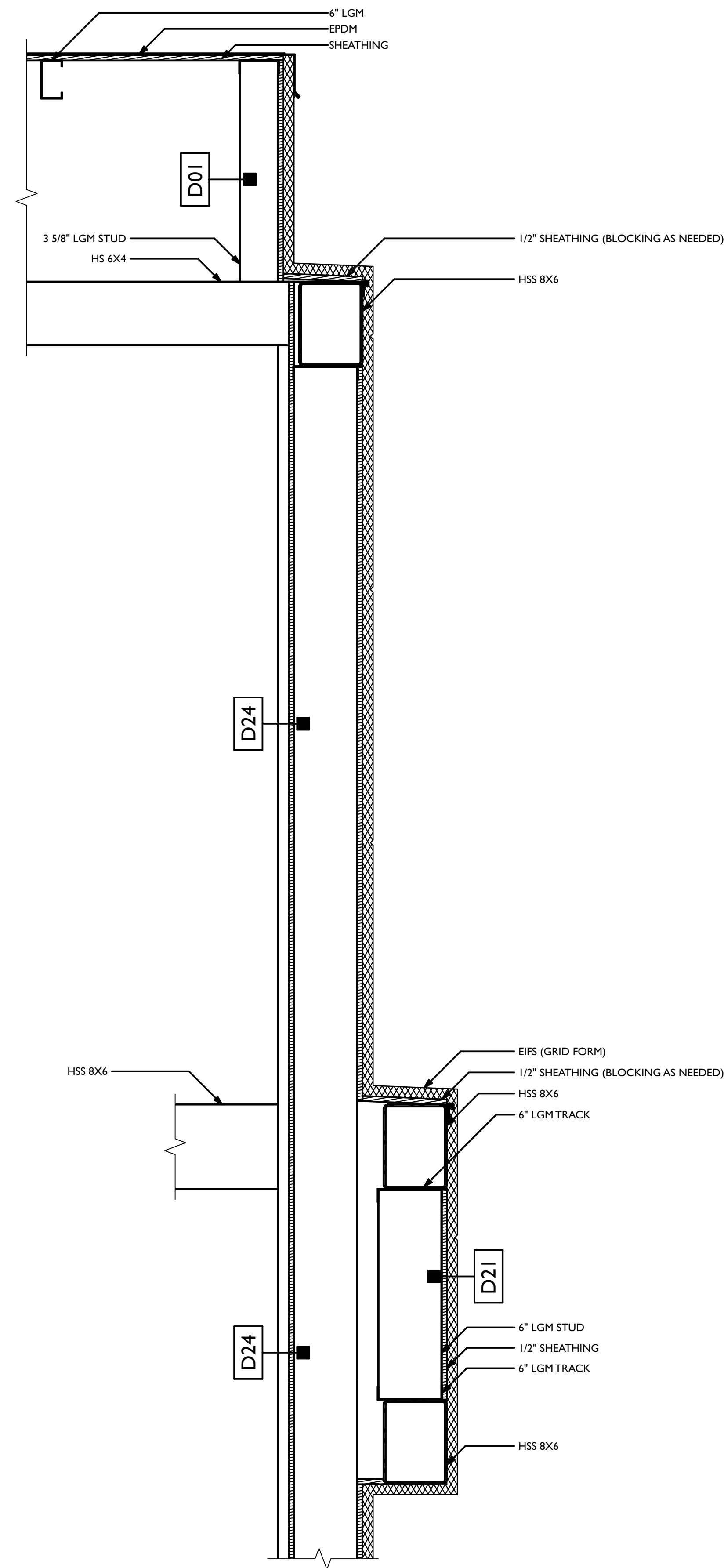
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DRAWN BY: EWH, CBH
CHECKED BY: #####

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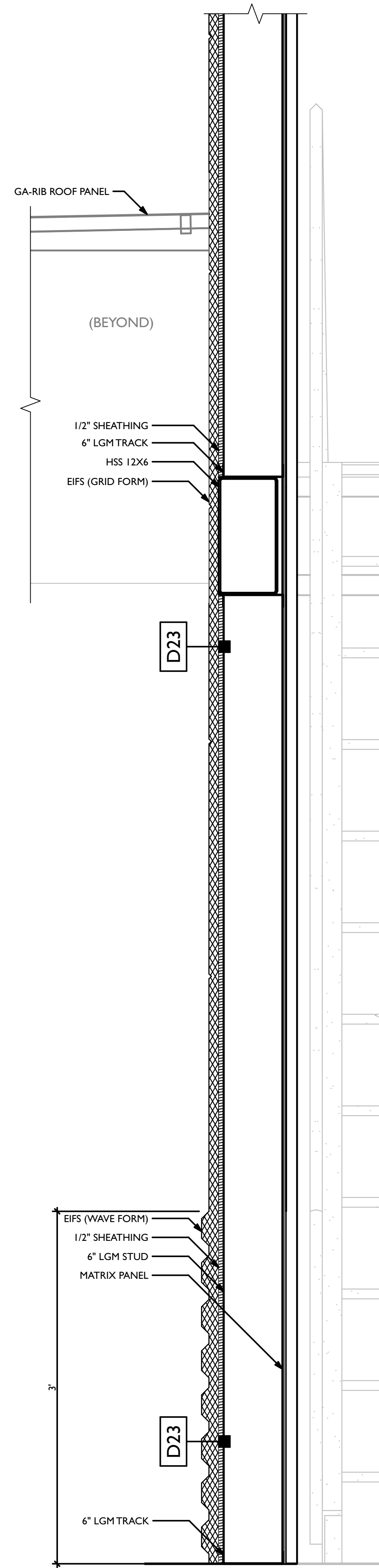
MV-6.2

WALL/SLAB TYPES

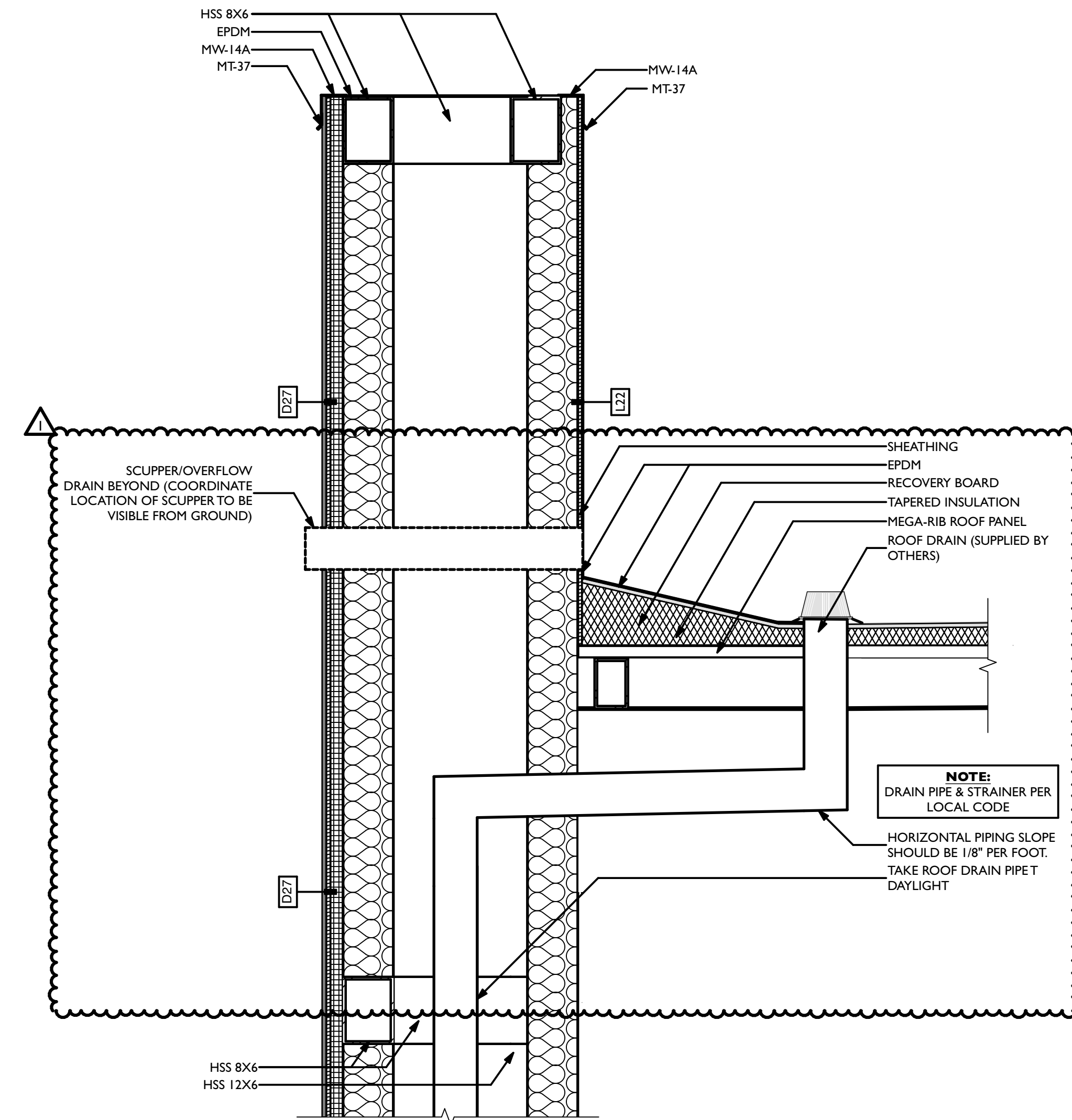
DATE OF CREATION: 09/09/21 MW JOB #: 2022-21



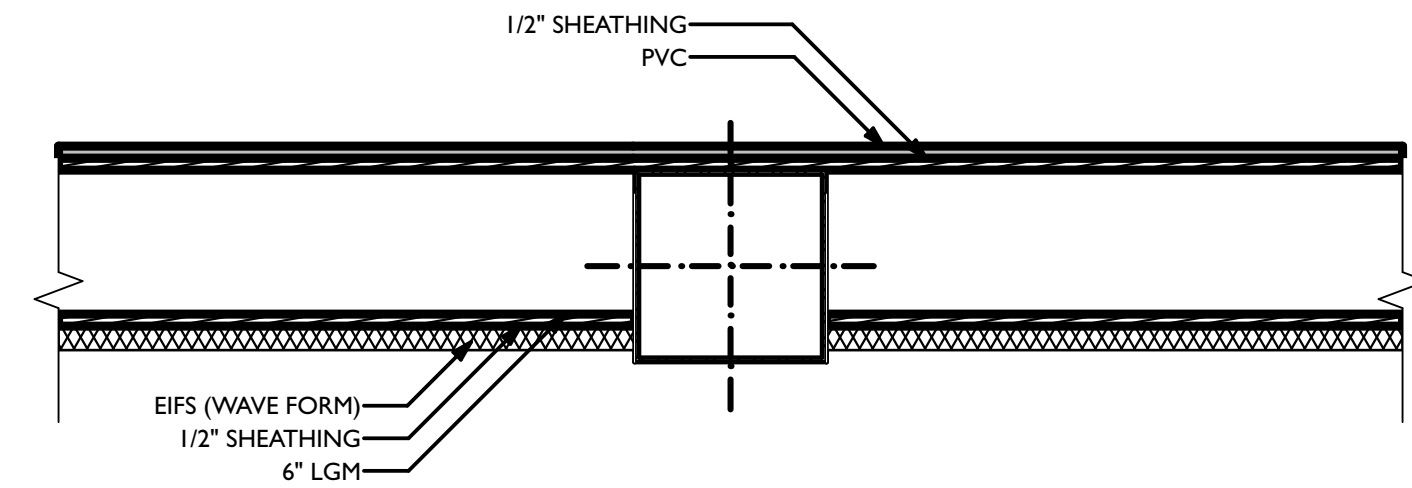
A SECTION DETAIL - EQUIP. TOWER
SCALE: 1 1/2" = 1'-0"



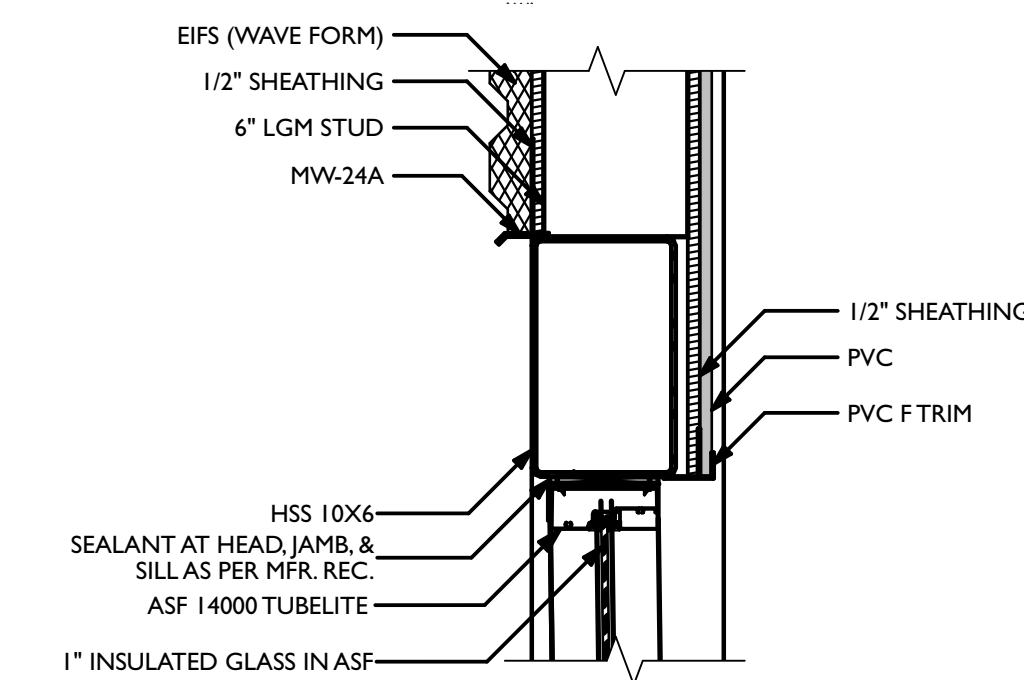
C SECTION DETAIL - CANOPY AT TOWER
SCALE: 1 1/2" = 1'-0"



D SECTION DETAIL - CTRL. TOWER ROOF DRAIN
SCALE: 1" = 1'-0"



N PLAN DETAIL - WAVE AT COLUMN
SCALE: 1 1/2" = 1'-0"



S SECTION DETAIL - PVC AT ASF HEAD
SCALE: 1 1/2" = 1'-0"

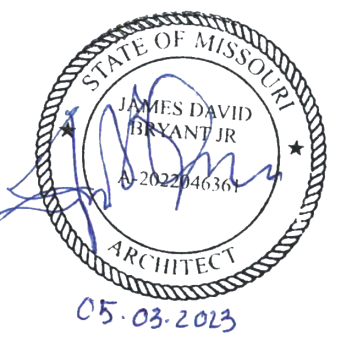
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ID	DATE	FOR PERMIT
0	05/03/2023	DRAWING TRENCH UPDATE
1	06/09/2023	

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NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



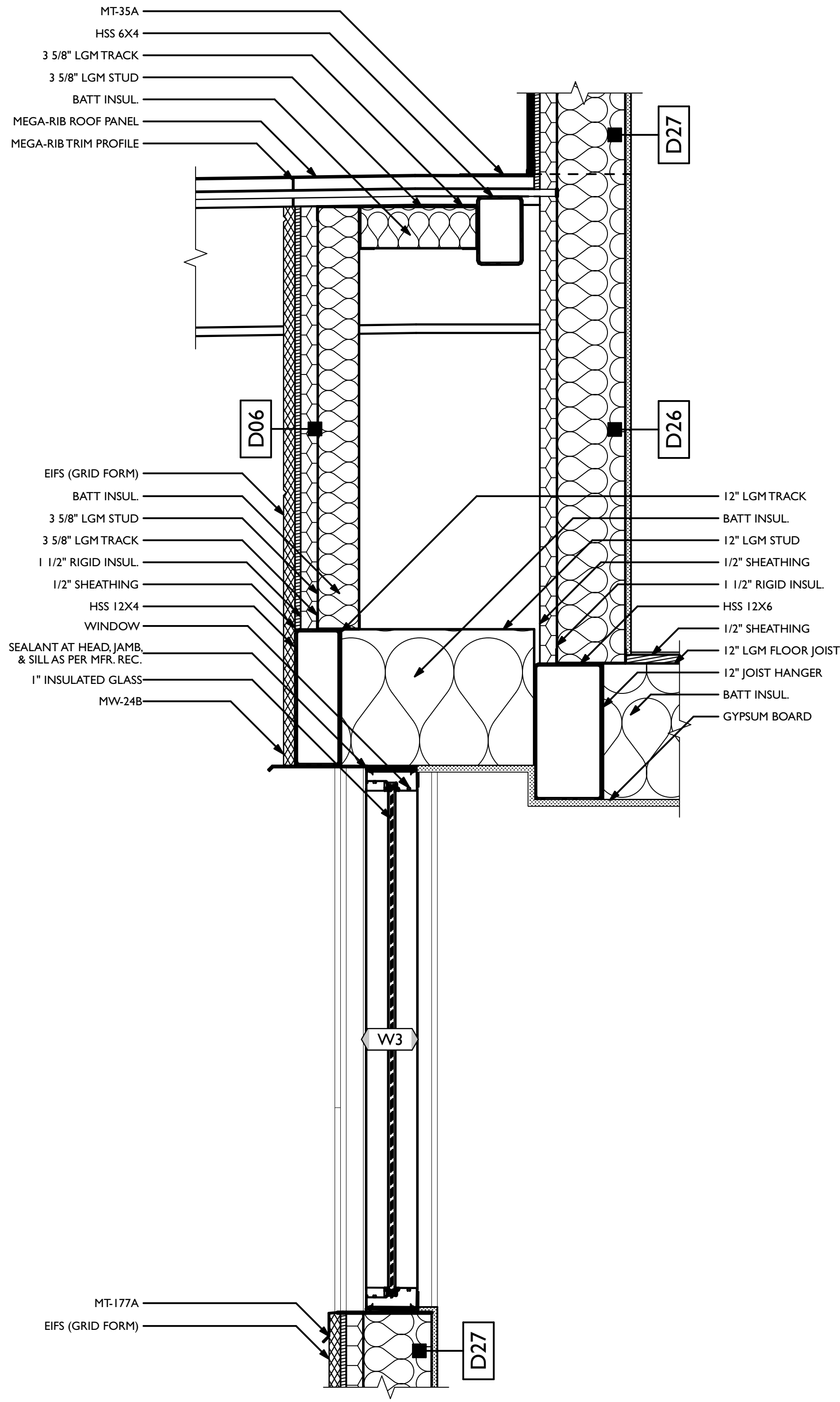
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PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

SHEET: MW-6.3

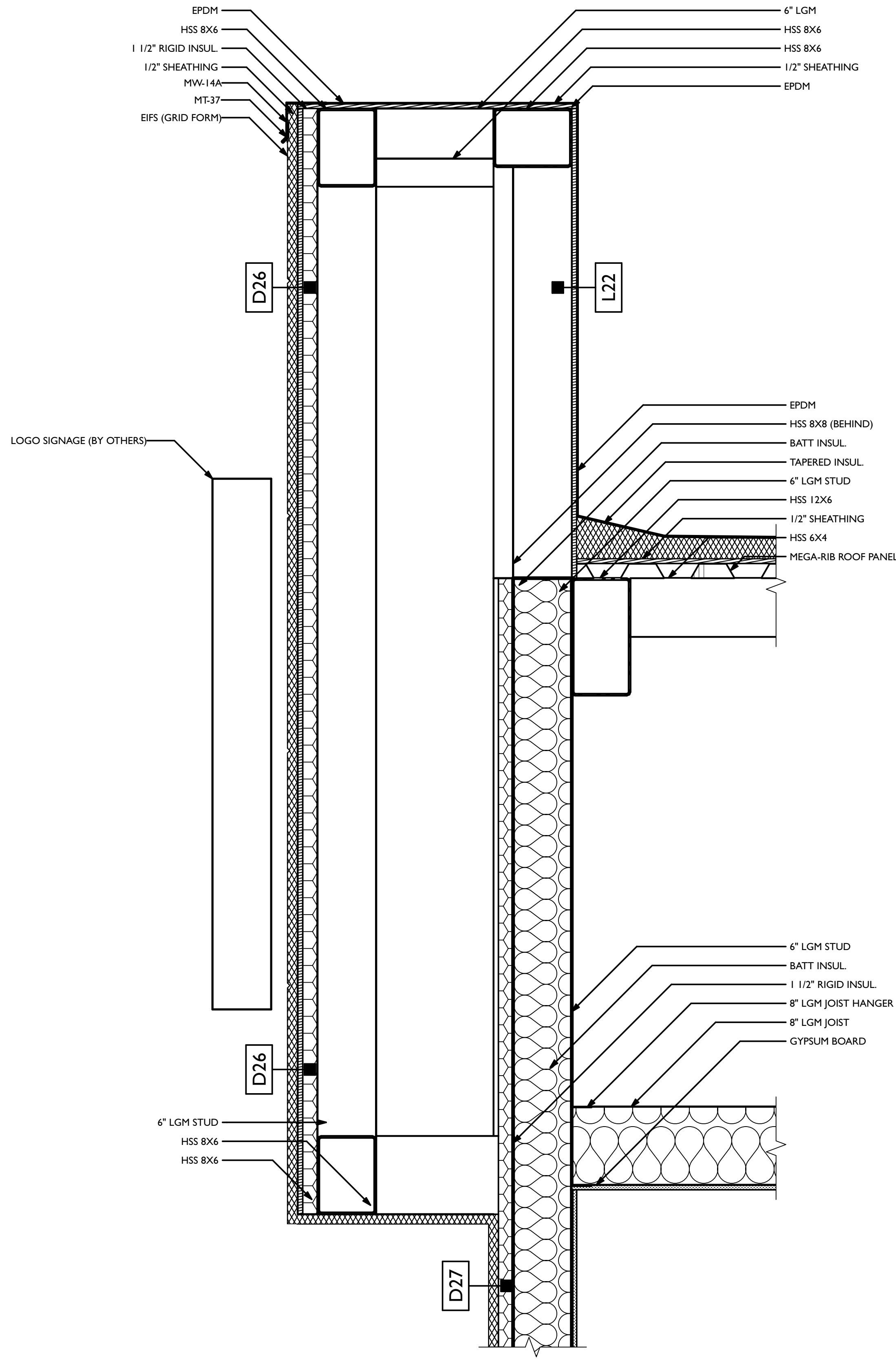
2D/3D DETAILS

DATE OF CREATION: 09/09/21 MW JOB #: 2022-21

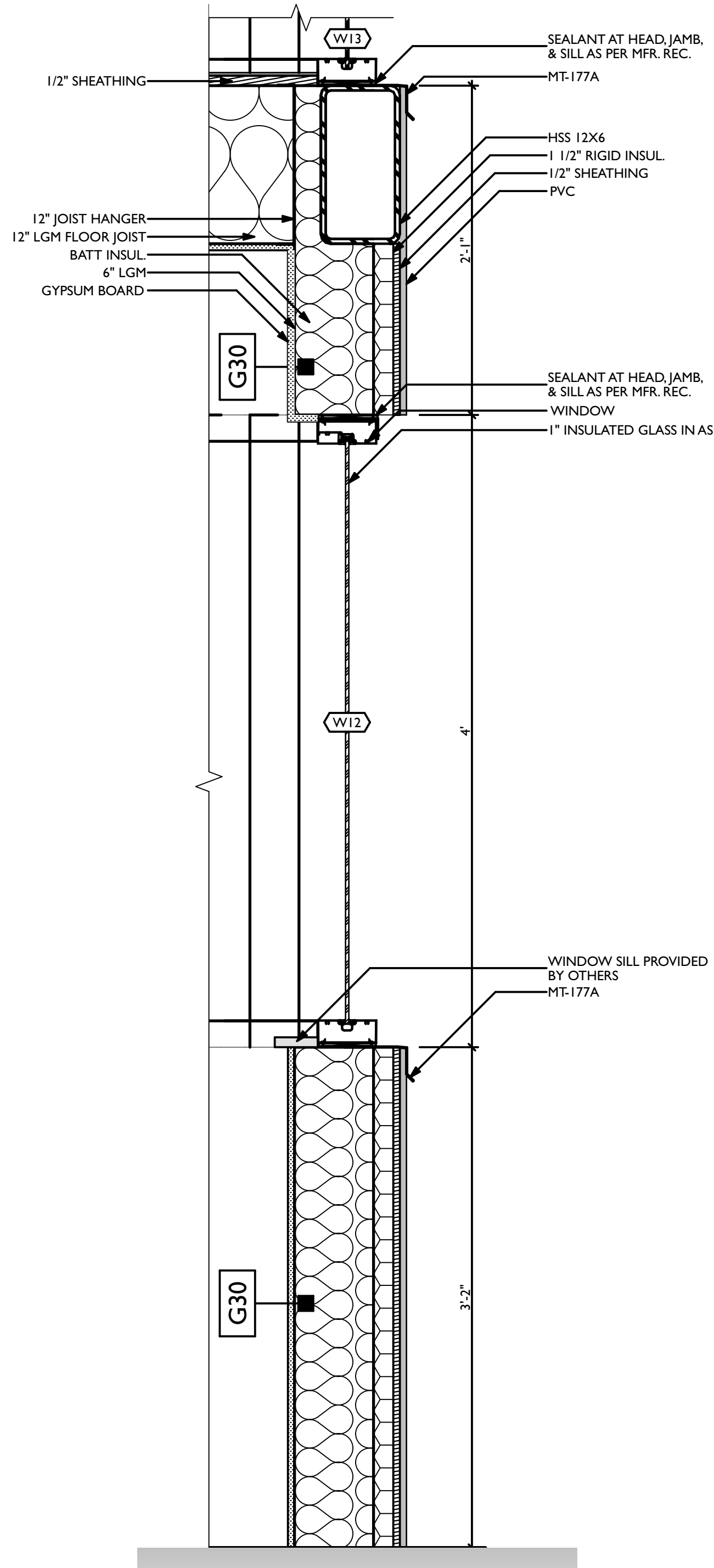
A SECTION DETAIL - CONTROL TOWER
SCALE: 1 1/2" = 1'-0"



B SECTION DETAIL - CONTROL TOWER
SCALE: 1 1/2" = 1'-0"



E SECTION DETAIL - CONTROL TOWER
SCALE: 1 1/2" = 1'-0"



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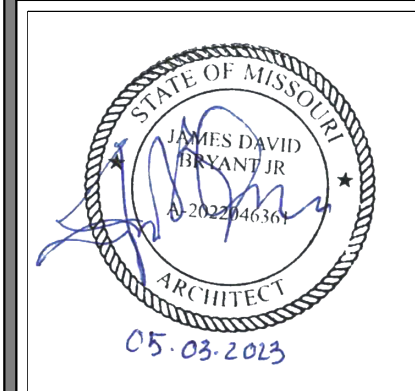
MODERNWASH
5220 SCOTTSVILLE ROAD
BOWLING GREEN, KY 42104

**MODEL: AXIOM BETA
RETAIL TOWER
2023**

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

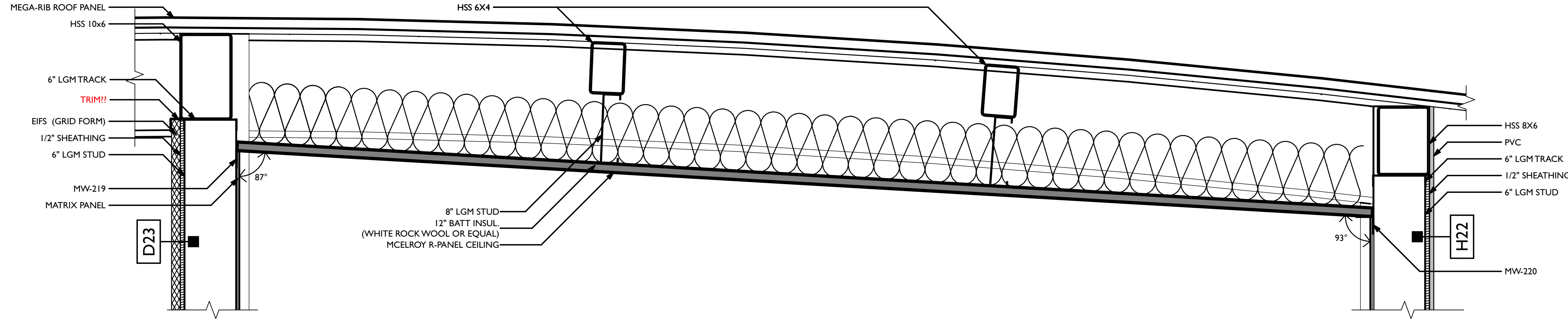
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



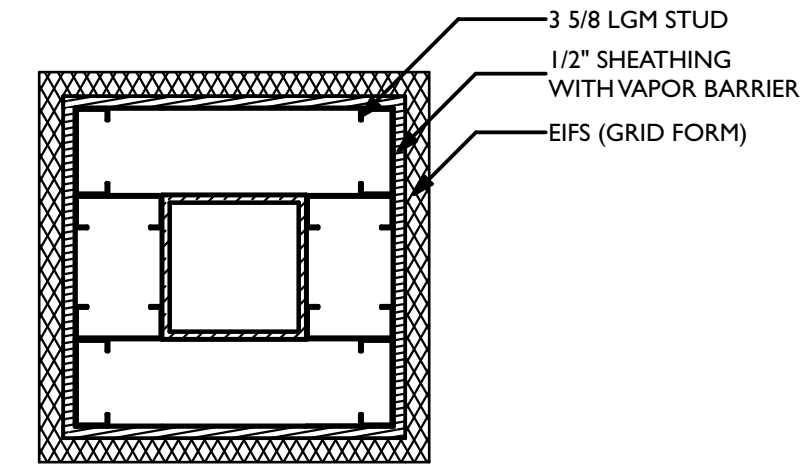
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PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET: MW-6.4
2D/3D DETAILS

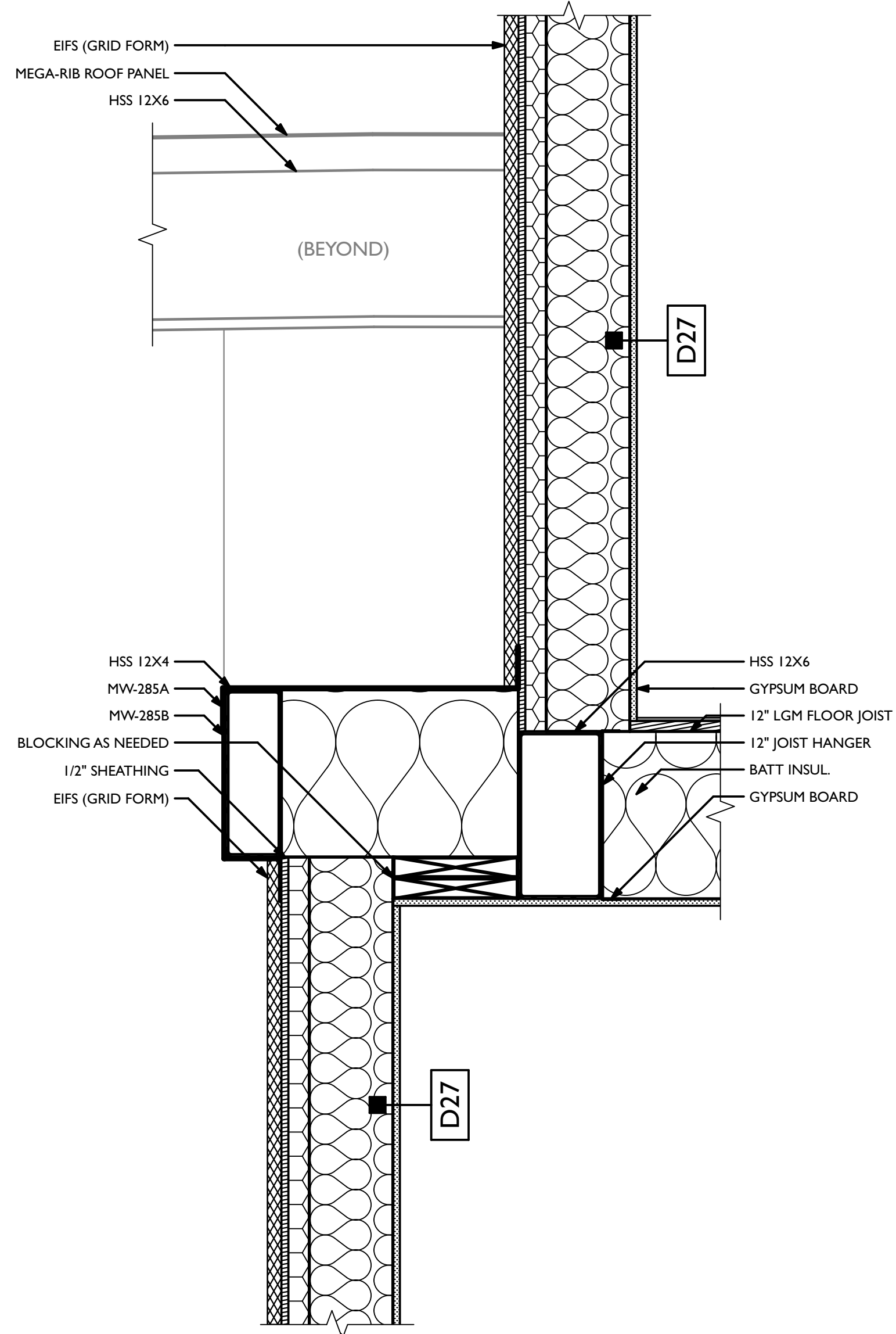
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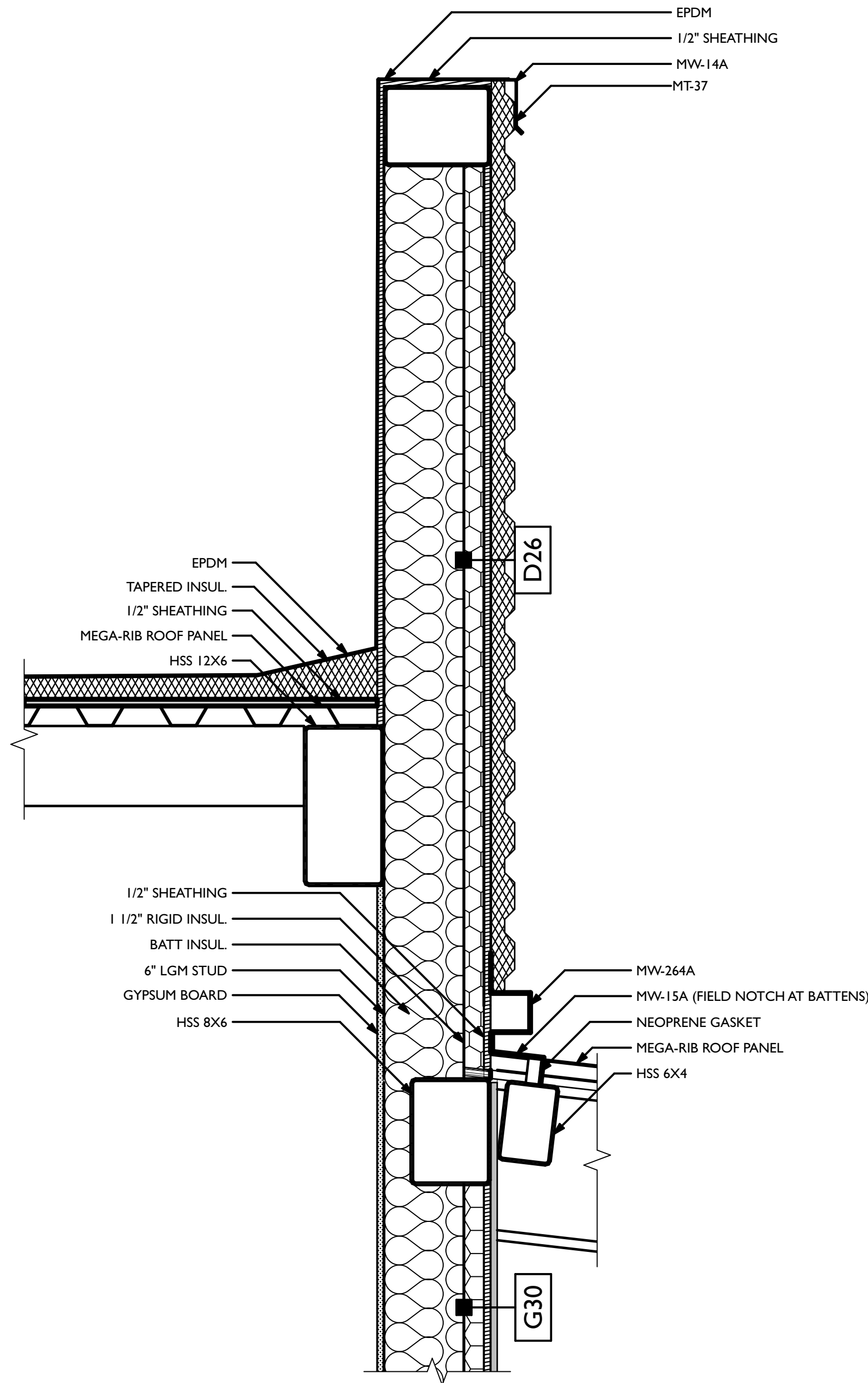
A SECTION DETAIL - EQMT. PLATFORM CEILING
SCALE: 1 1/2" = 1'-0"



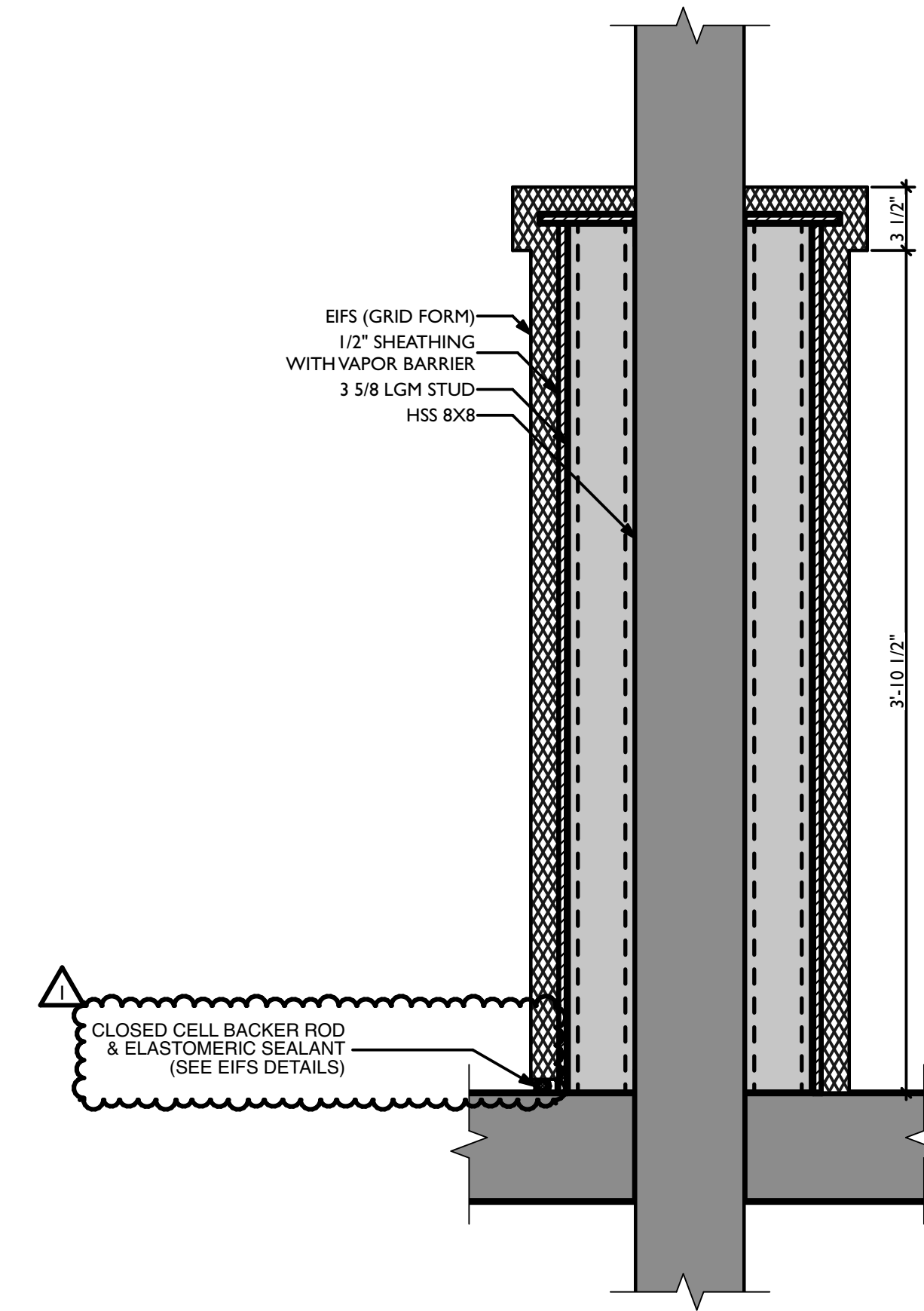
E PLAN DETAIL - COLUMN WRAP
SCALE: 1 1/2" = 1'-0"



F SECTION DETAIL - CONTROL TOWER
SCALE: 1 1/2" = 1'-0"



H SECTION DETAIL - CONTROL TOWER
SCALE: 1 1/2" = 1'-0"



O SECTION DETAIL - COLUMN WRAP
SCALE: 1 1/2" = 1'-0"

REVISIONS		
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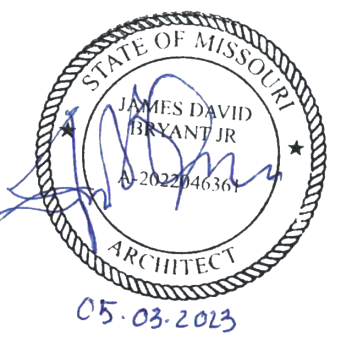
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MODERNWASH
5220 SCOTTSDALE ROAD
BOWLING GREEN, KY 42104
MODEL: AXIOM BETA
RETAIL TOWER
2023

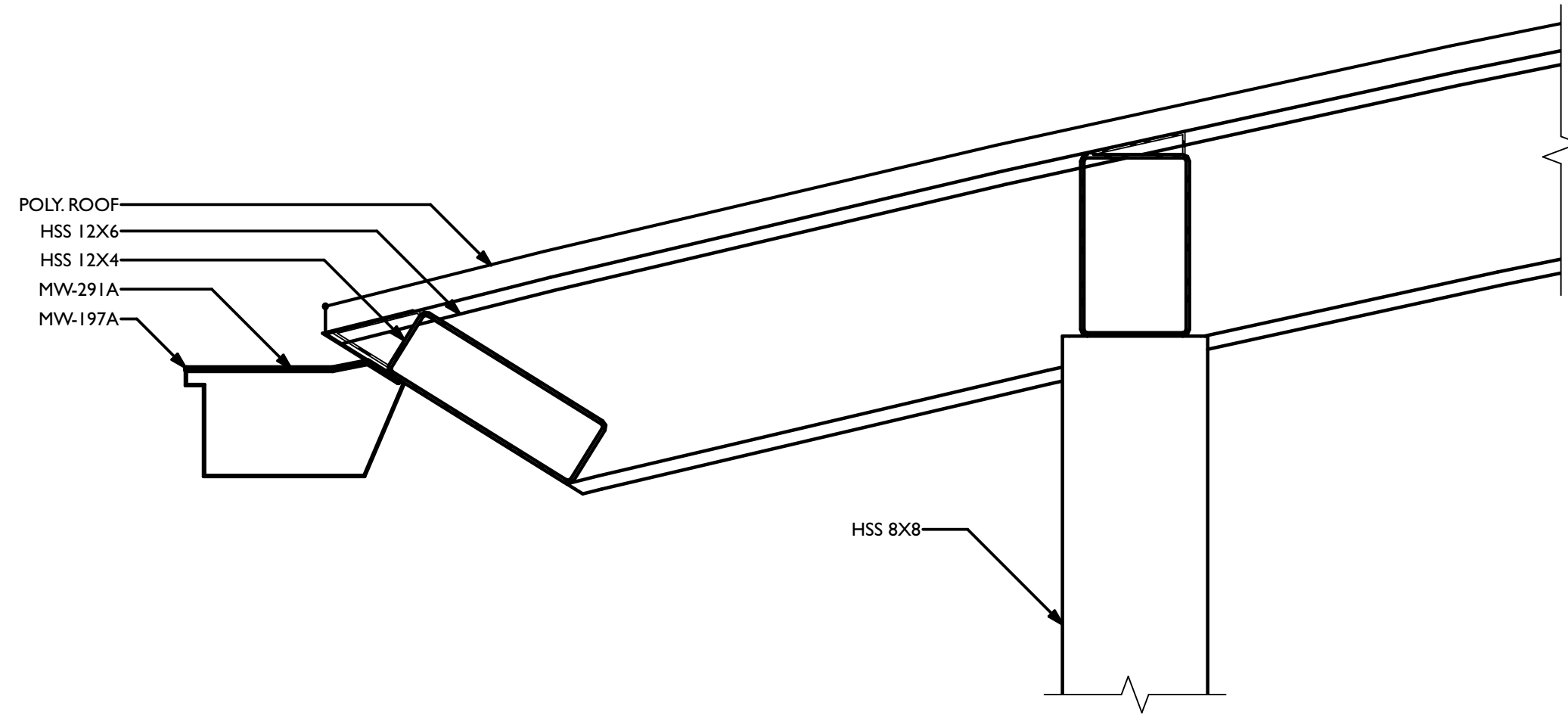
24 OF 39

NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

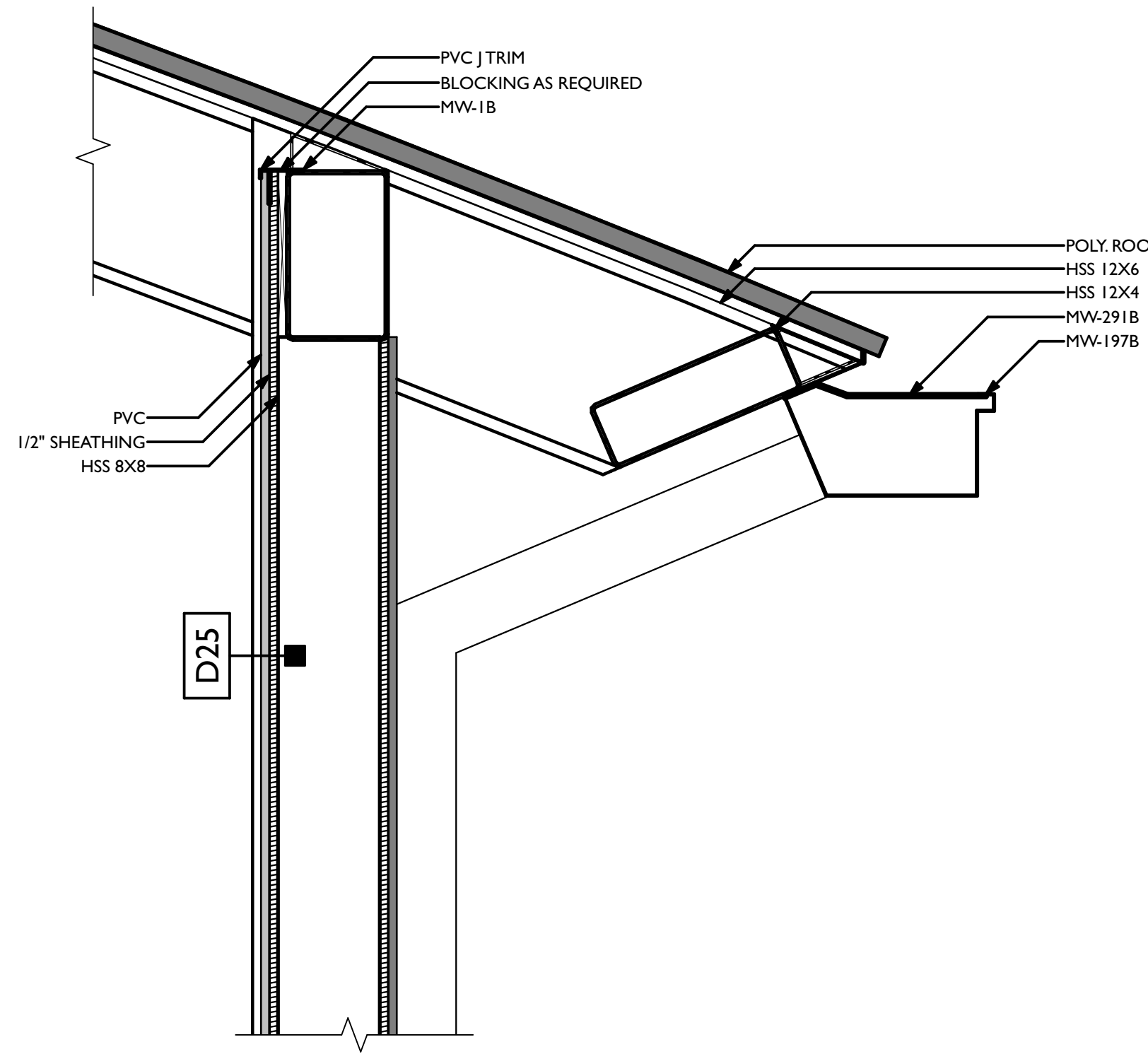


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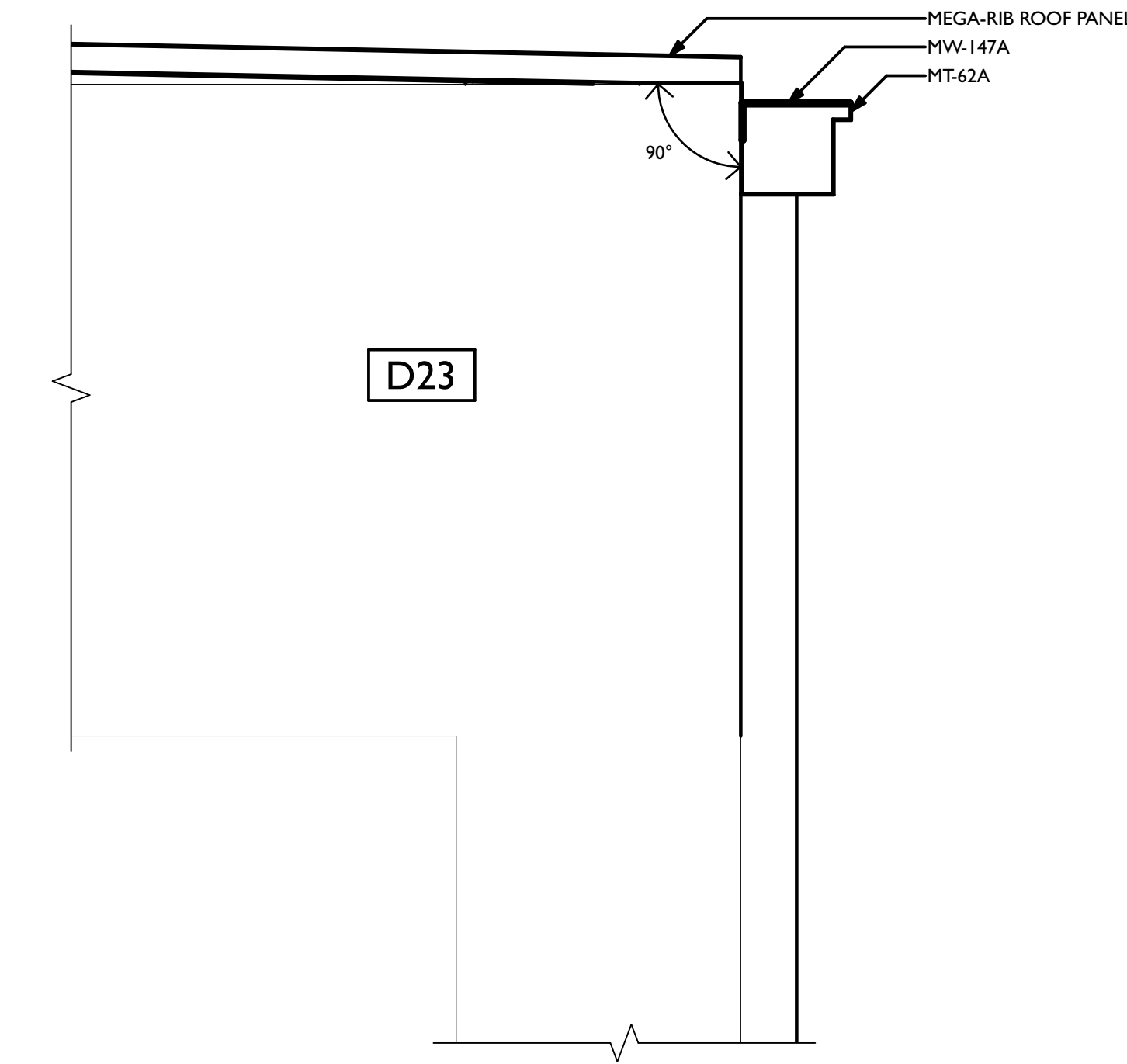
PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET:
MV-6.5
2D/3D DETAILS



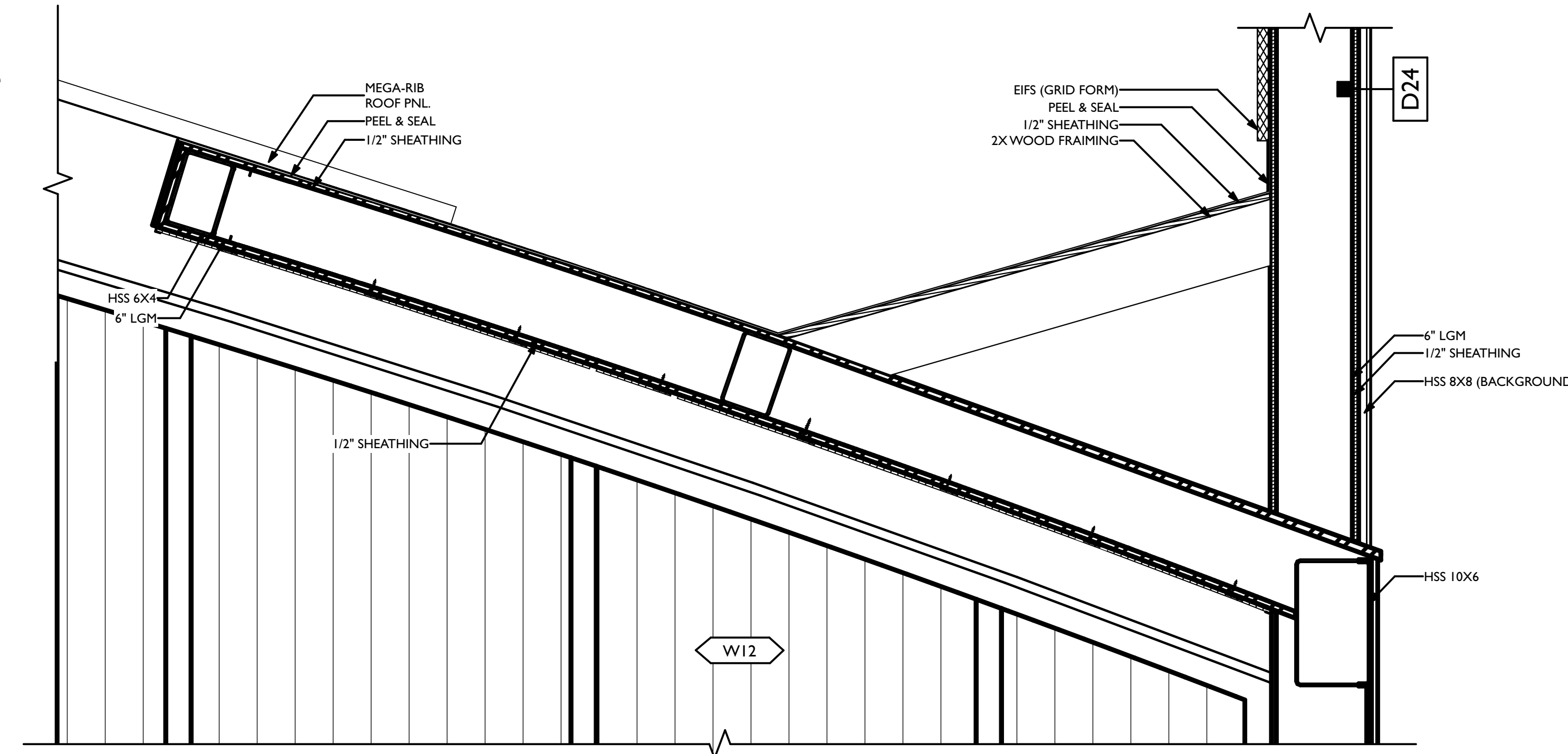
A SECTION DETAIL - PAY CANOPY EAVE
SCALE: 1 1/2" = 1'-0"



C SECTION DETAIL - WASH BAY EAVE
SCALE: 1 1/2" = 1'-0"

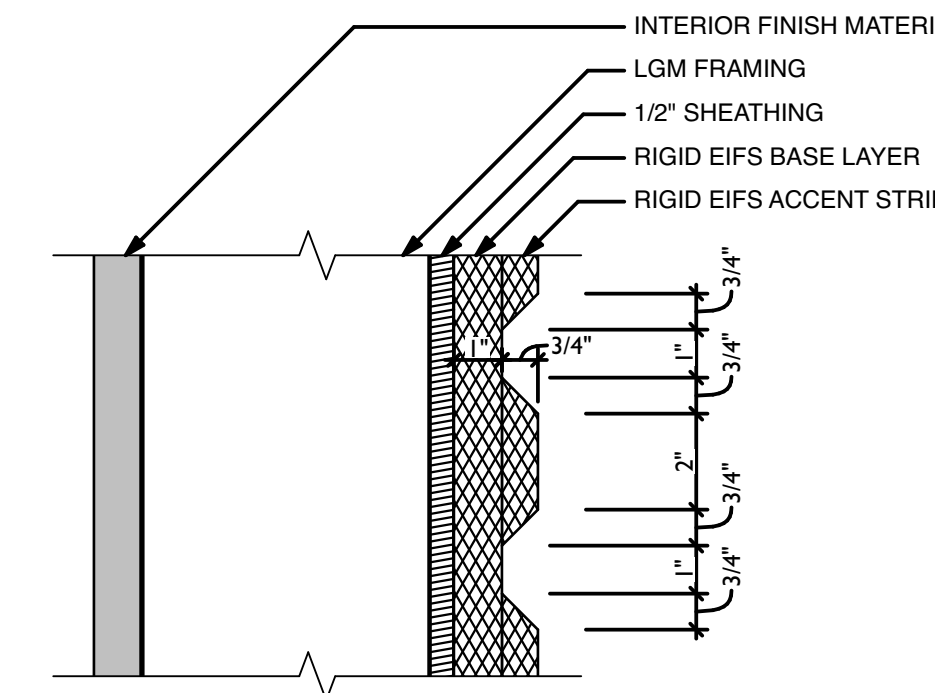


E SECTION DETAIL - DOG WASH CANOPY EAVE
SCALE: 1 1/2" = 1'-0"

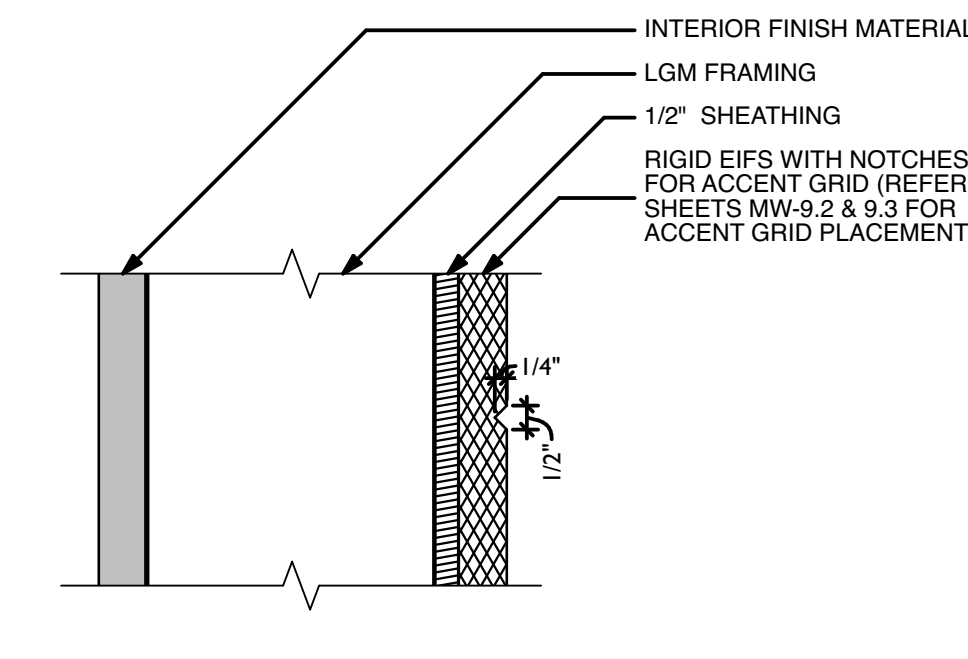


NOTE:
REFER TO SHEET MW-6.11
FOR CRICKET ASSEMBLY

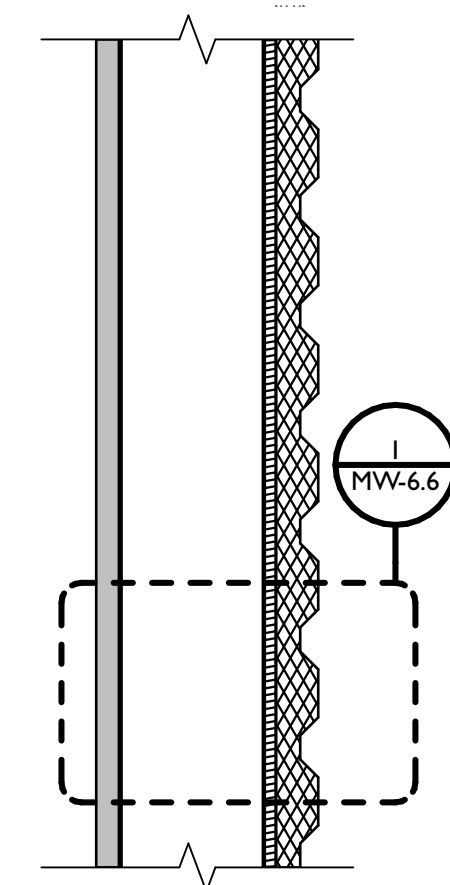
K CRICKET DETAIL
SCALE: 1 1/2" = 1'-0"



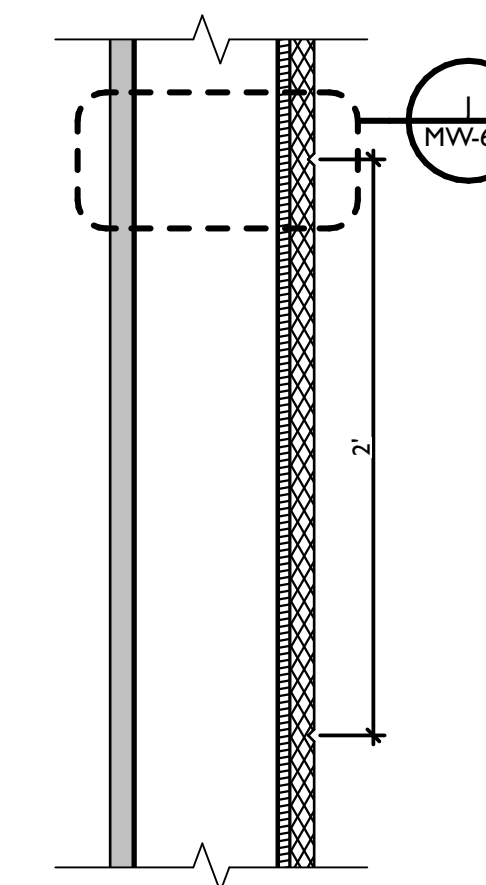
I EIFS GRID LINE ENLARGEMENT
SCALE: 3" = 1'-0"



J EIFS GRID LINE ENLARGEMENT
SCALE: 3" = 1'-0"



N SECTION DETAIL - EIFS (WAVE FORM)
SCALE: 1 1/2" = 1'-0"



O SECTION DETAIL - EIFS (GRID FORM)
SCALE: 1 1/2" = 1'-0"

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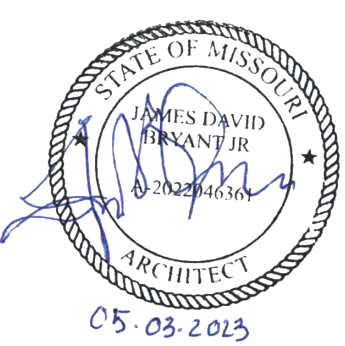
MODERNWASH
5220 SCOTTSDALE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

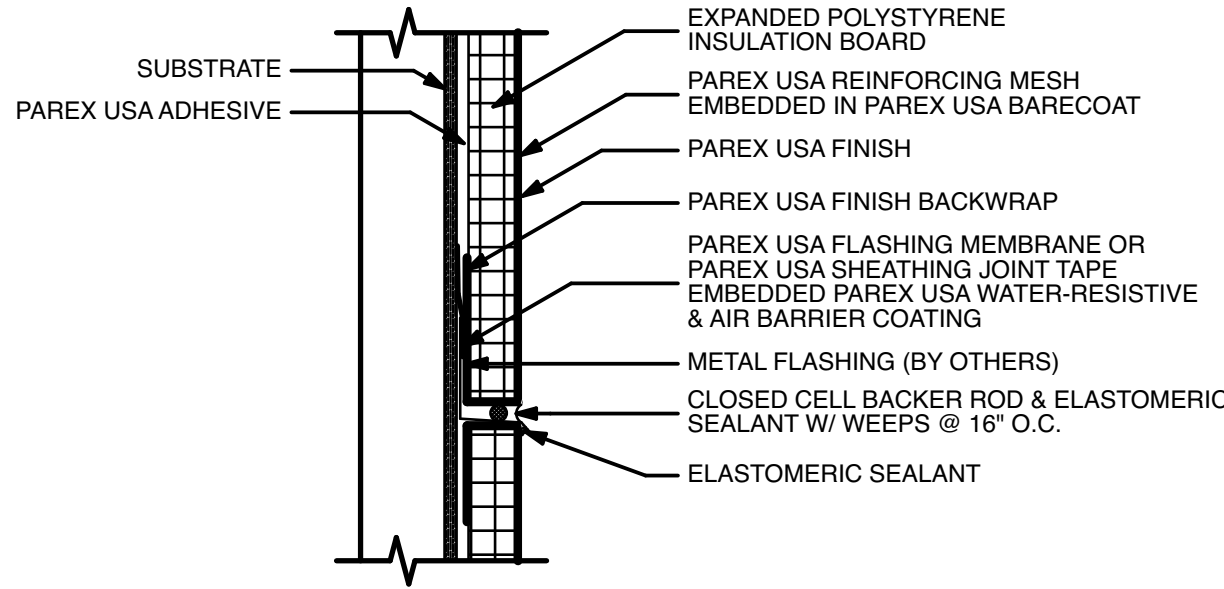


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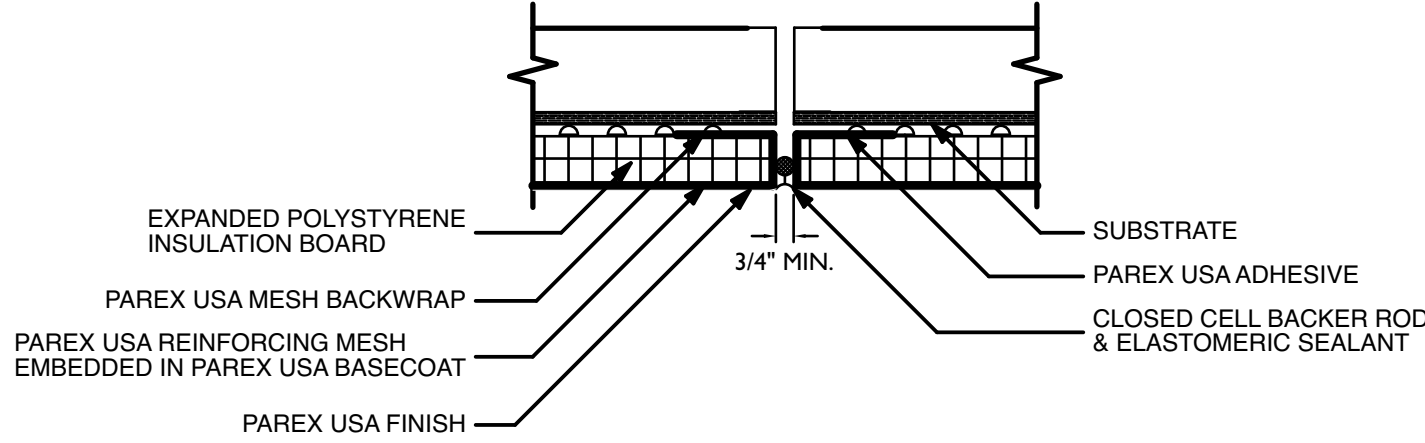
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MW-6.6

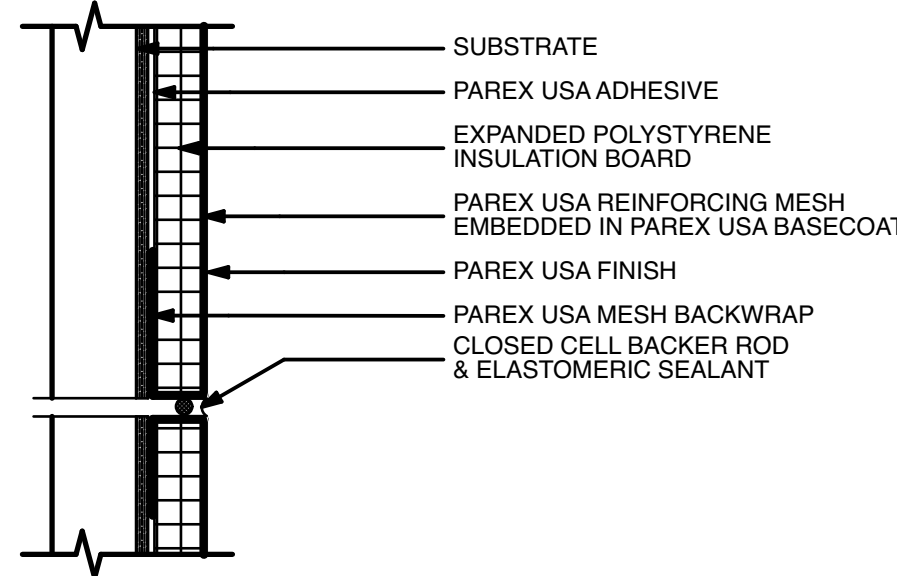
2D/3D DETAILS



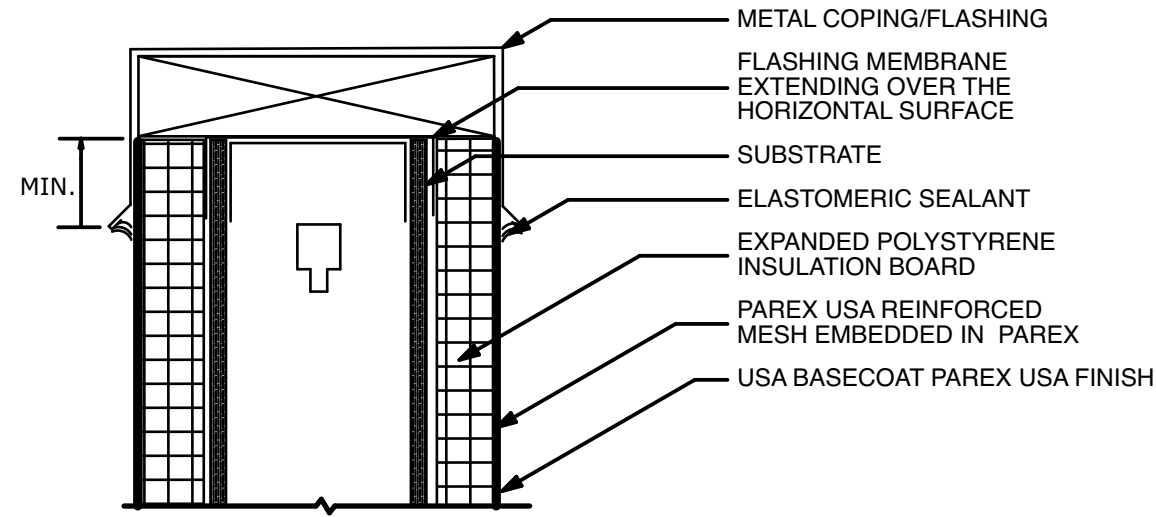
A EIFS - THROUGH SYSTEM FLASHING
SCALE: 1 1/2"= 1'-0"



B EIFS - VERTICAL EXPANSION JOINT
SCALE: 1 1/2"= 1'-0"



C EIFS - HORIZONTAL EXPANSION JOINT
SCALE: 1 1/2"= 1'-0"



E EIFS - PARAPET WALL AT CAP FLASHING
SCALE: 1 1/2"= 1'-0"

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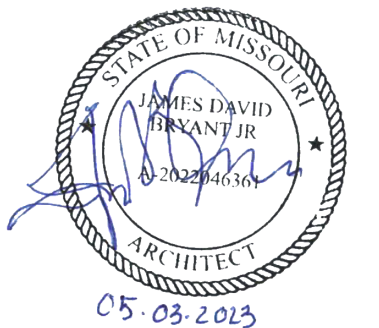
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MODERNWASH
5220 SCOTTSMILLE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

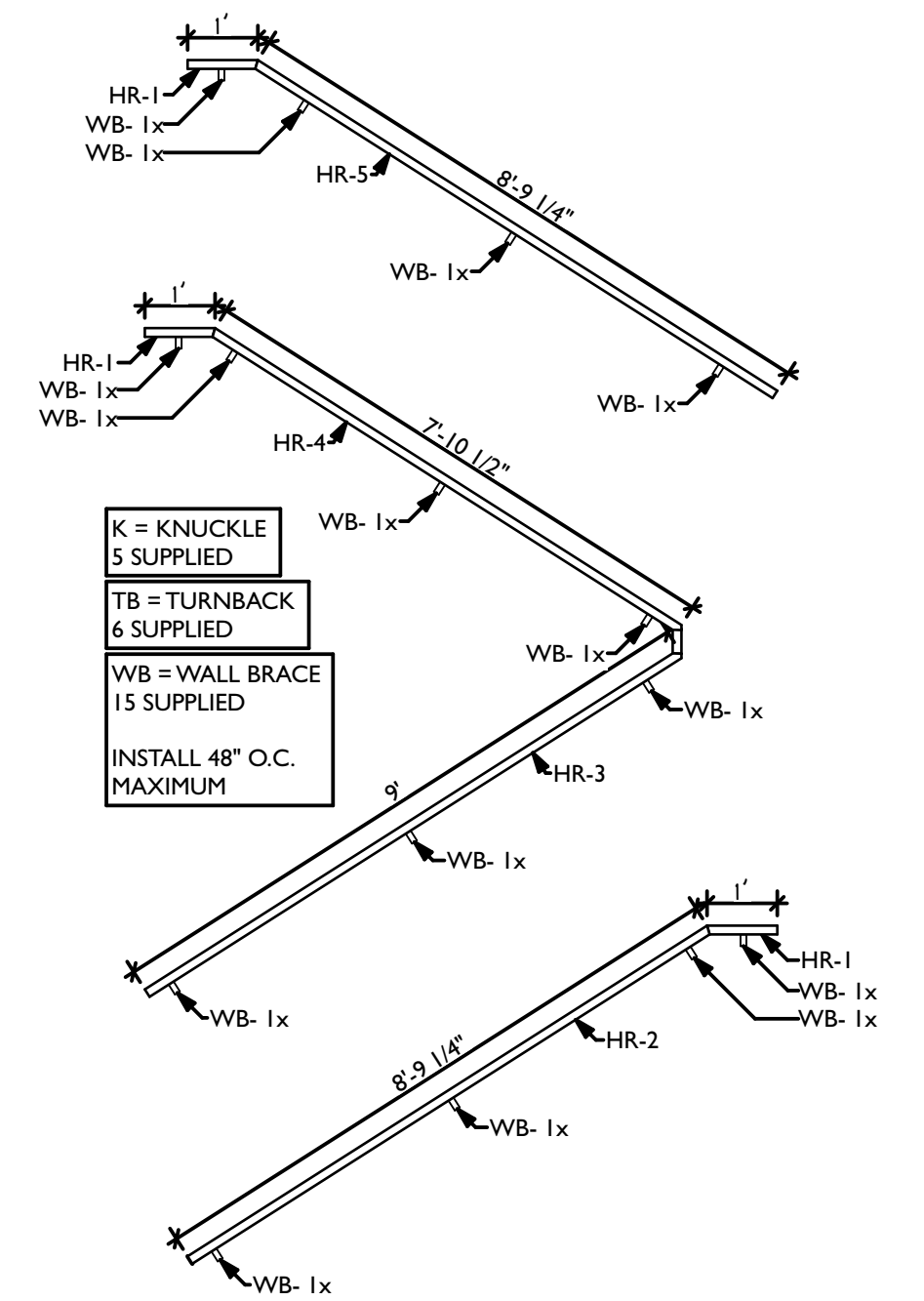


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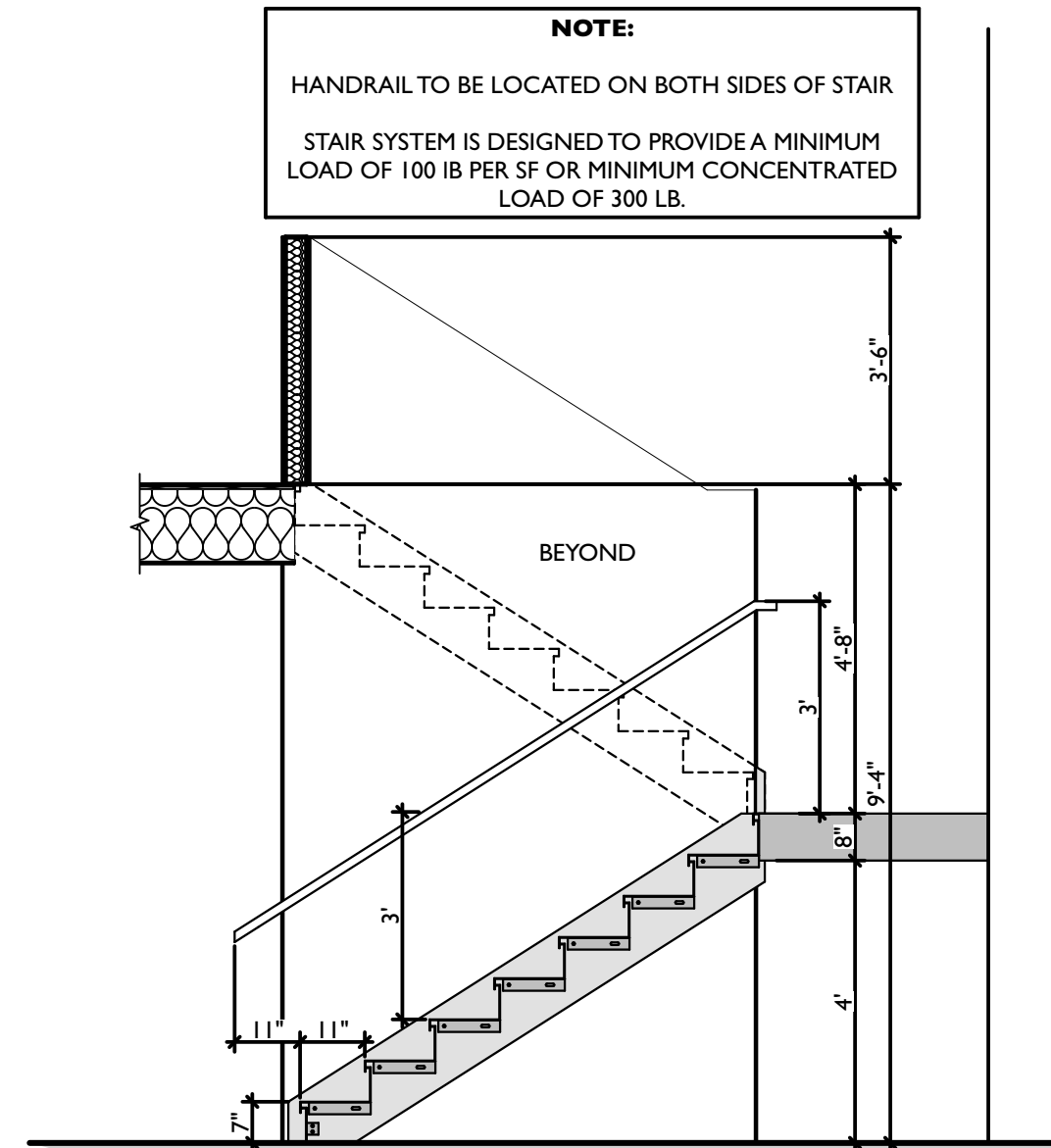
SHEET:

MV-6.7

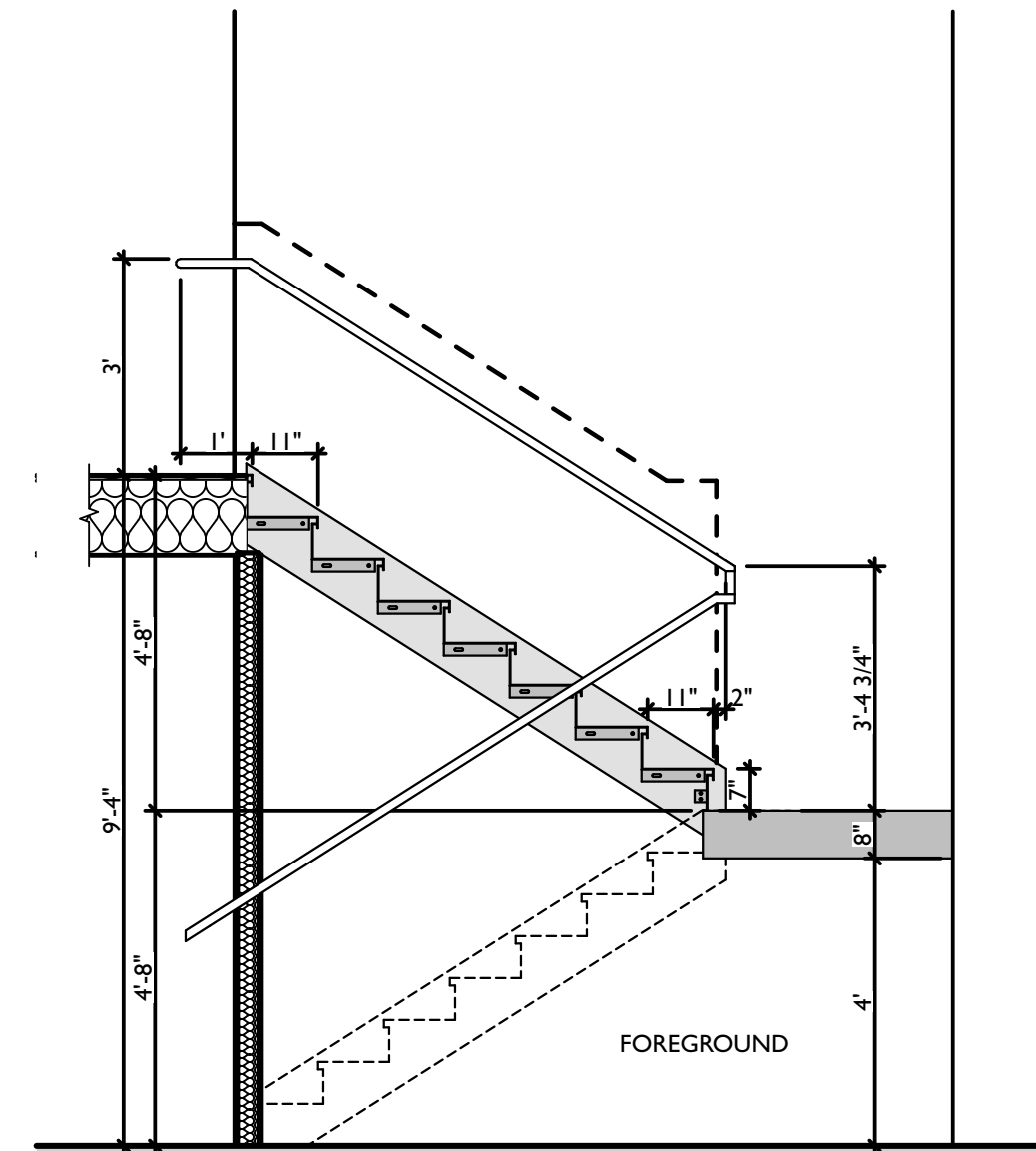
EIFS DETAILS



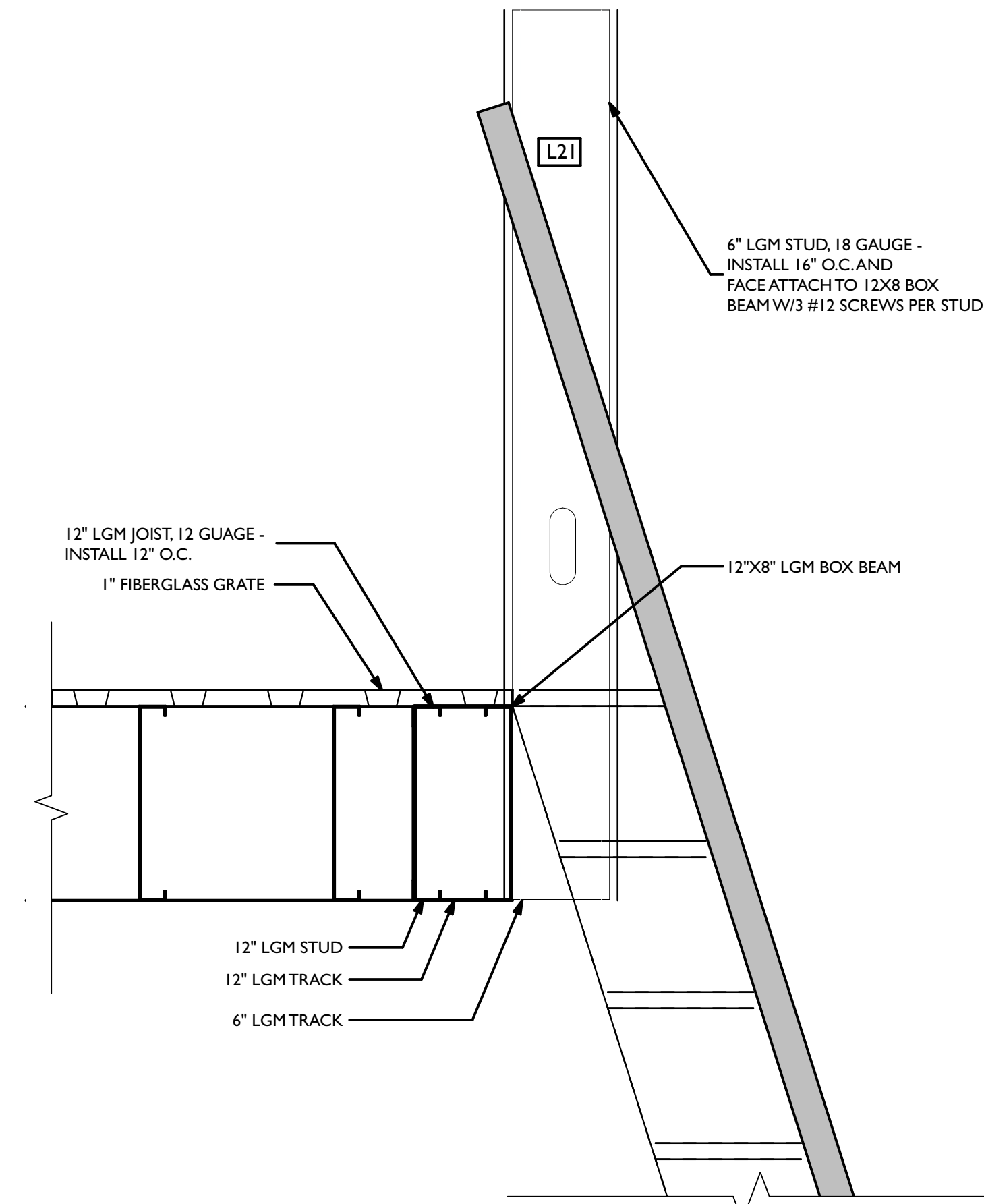
A HANDRAILS & MATERIALS
SCALE: 3/8" = 1'-0"



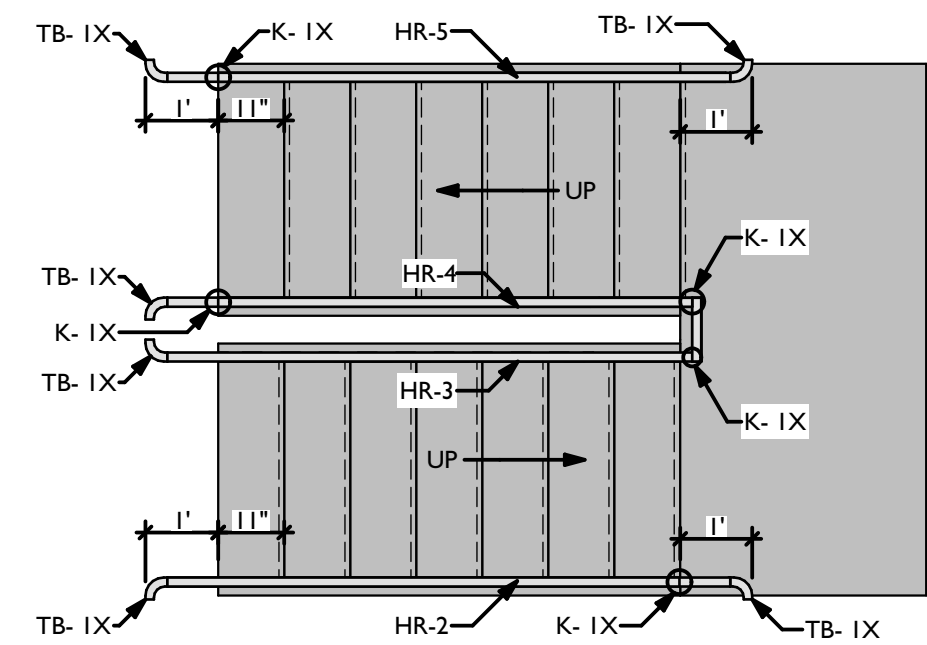
B SECTION - LOWER STAIRS
SCALE: 3/8" = 1'-0"



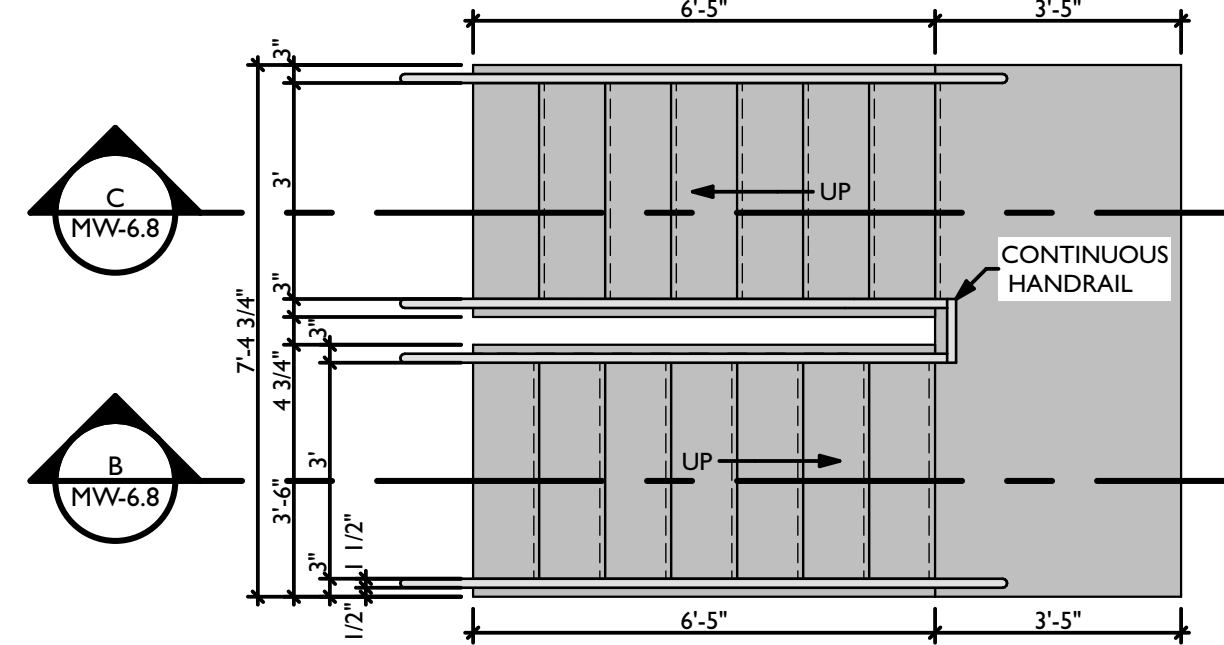
C SECTION - UPPER STAIRS
SCALE: 3/8" = 1'-0"



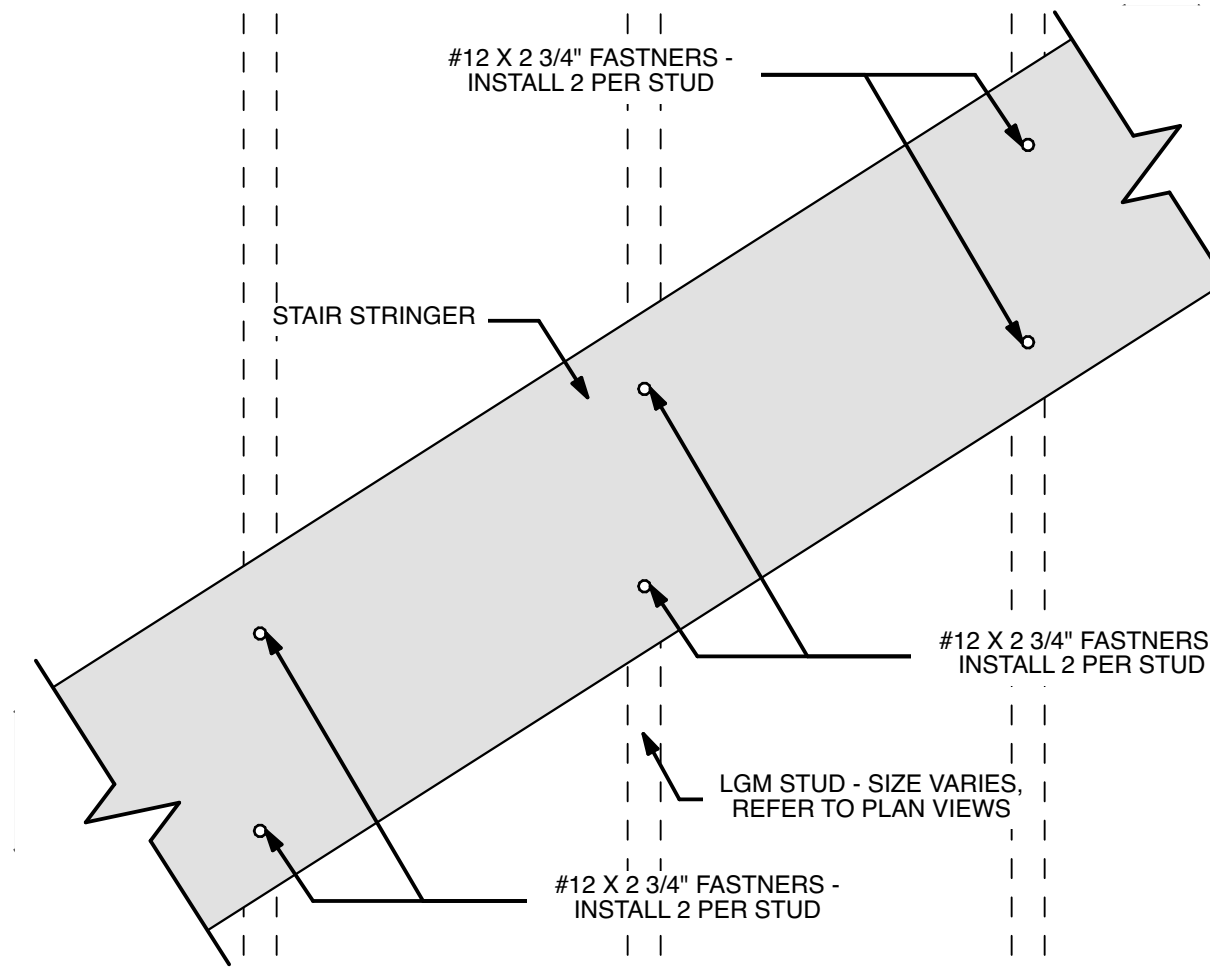
D SECTION DETAIL - HALF WALL AT SHIP'S LADDER
SCALE: 1 1/2" = 1'-0"



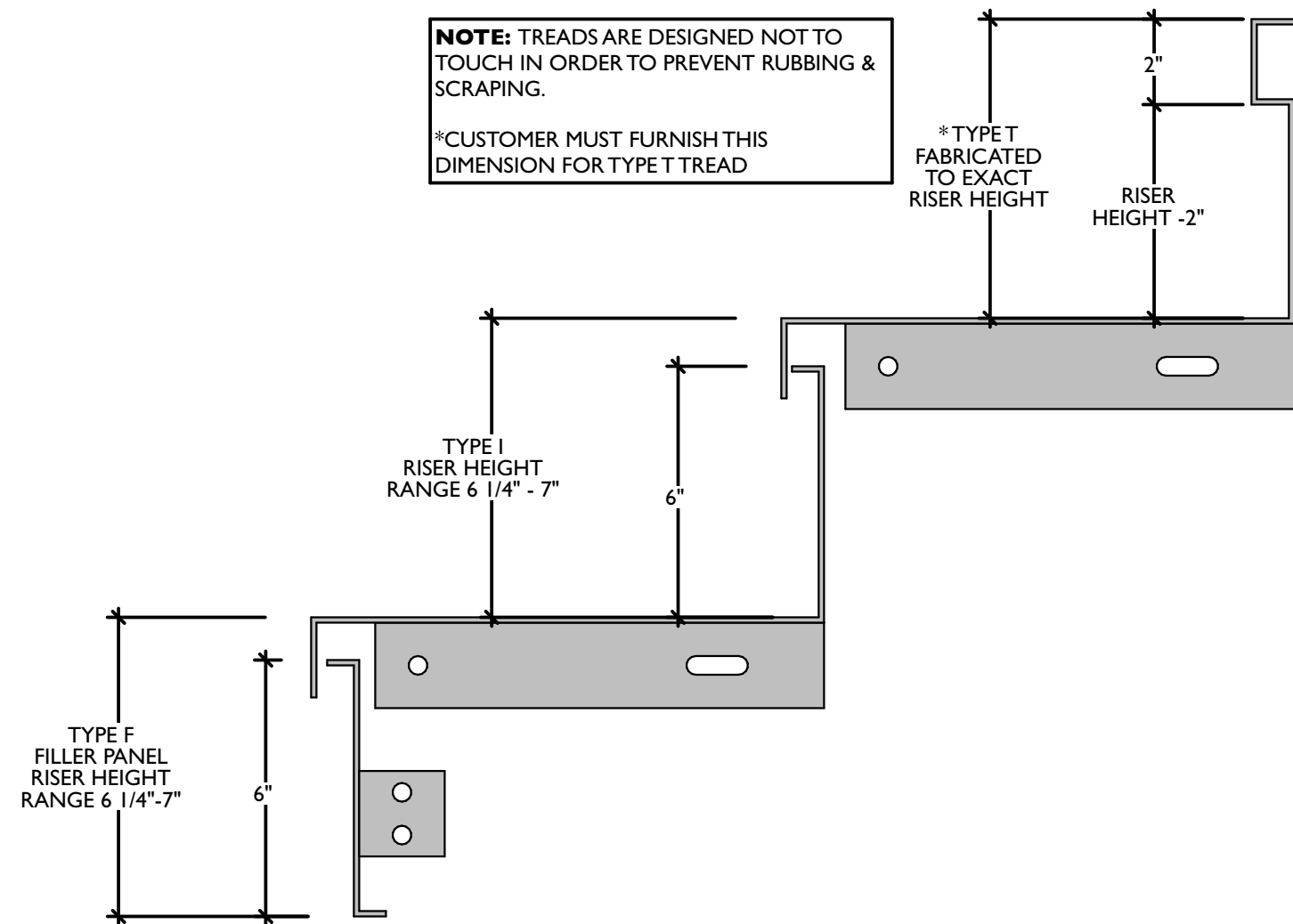
F STAIR MATERIAL PLAN
SCALE: 3/8" = 1'-0"



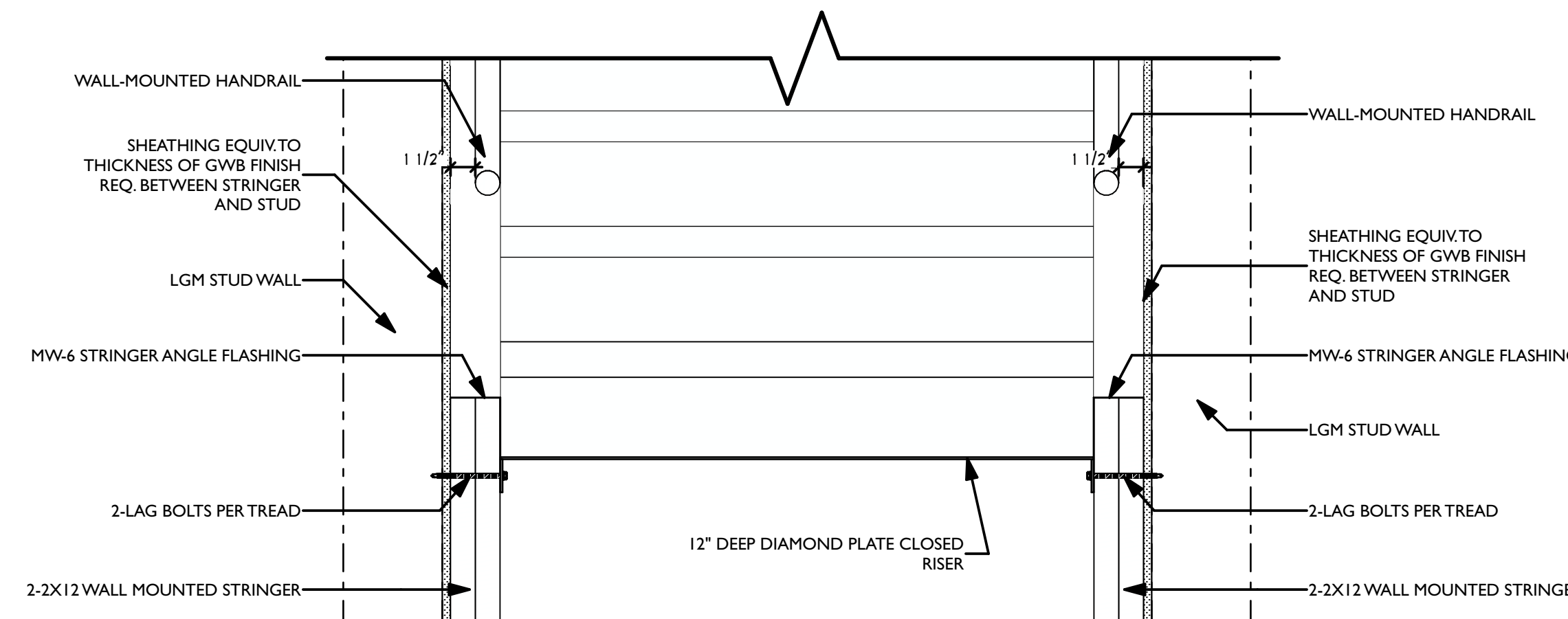
G STAIR PLAN
SCALE: 3/8" = 1'-0"



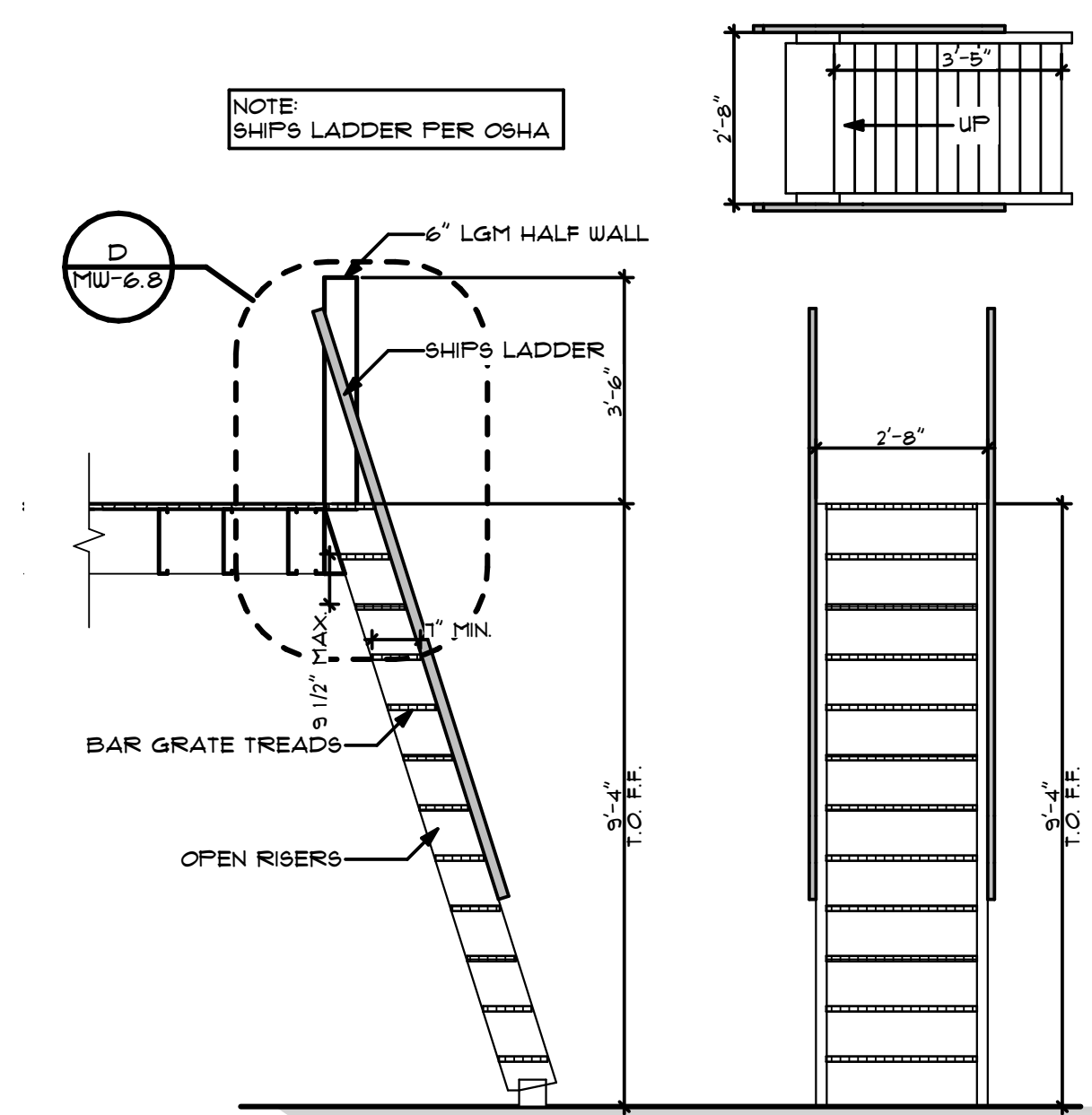
H STAIR STRINGER (TYP.)
SCALE: 1 1/2" = 1'-0"



K SECTION DETAIL - STAIR TREAD
SCALE: 3" = 1'-0"



L SECTION DETAIL - STAIR TREAD
SCALE: 1 1/2" = 1'-0"



O SECTION - SHIP'S LADDER
SCALE: 3/8" = 1'-0"

REVISIONS		
ID	DATE	DESCRIPTION
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2022-23, ModernWash, LLC's Summary

MODERNWASH
5220 SCOTTSMILLE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

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NEW CAR WASH FOR:

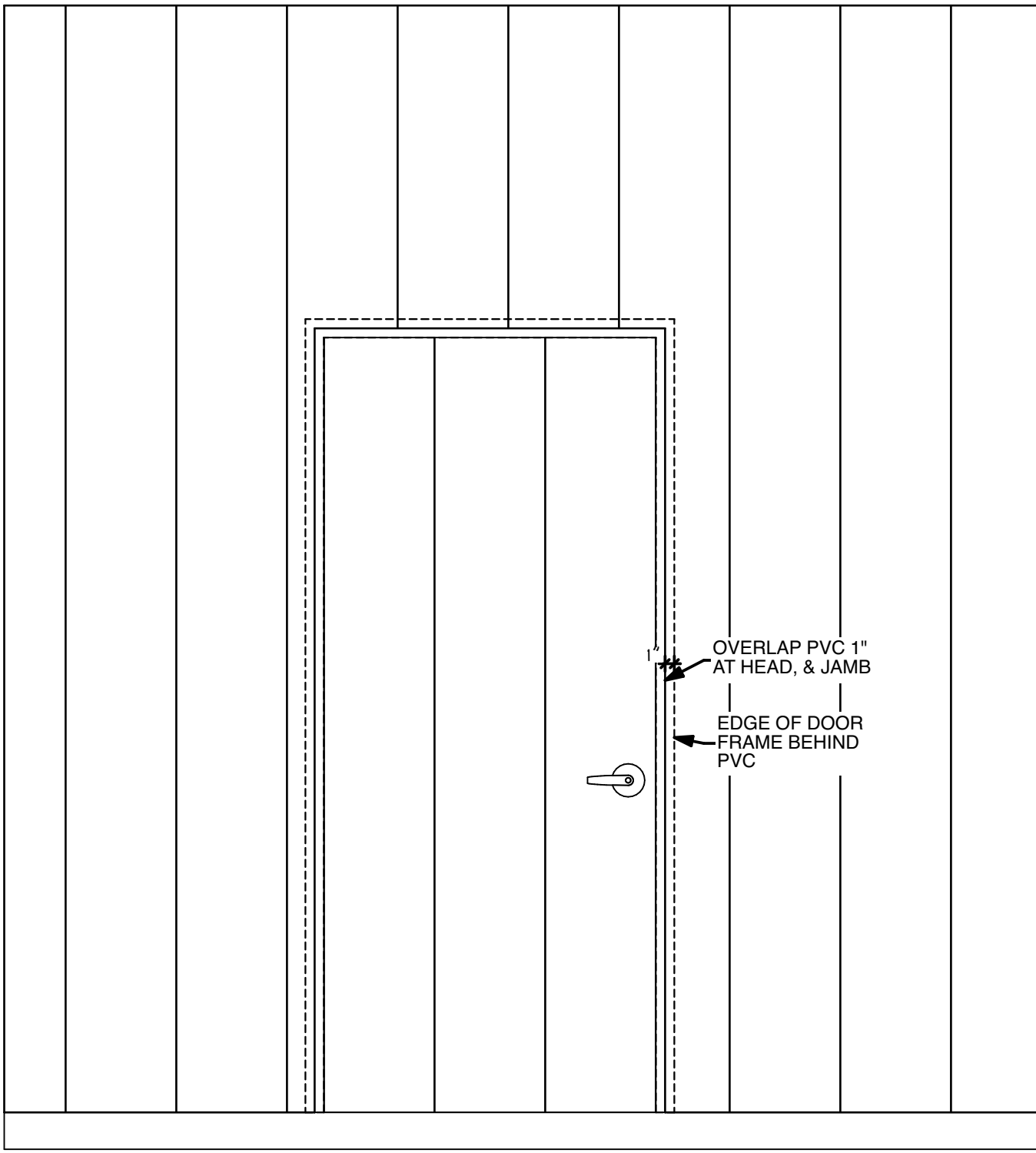
TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

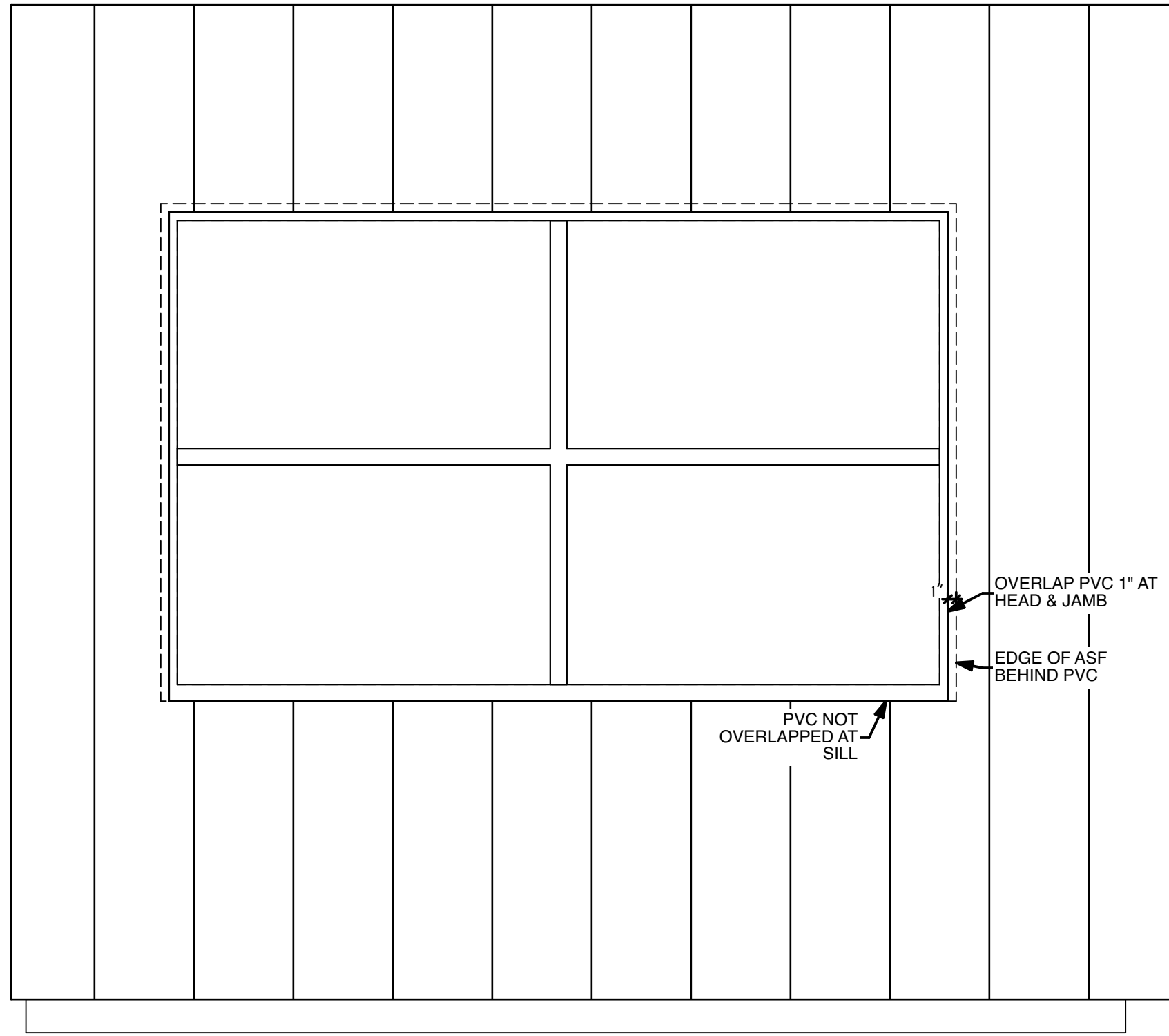
STATE OF MISSOURI
JAMES DAVID
ARCHITECT
05-03-2023

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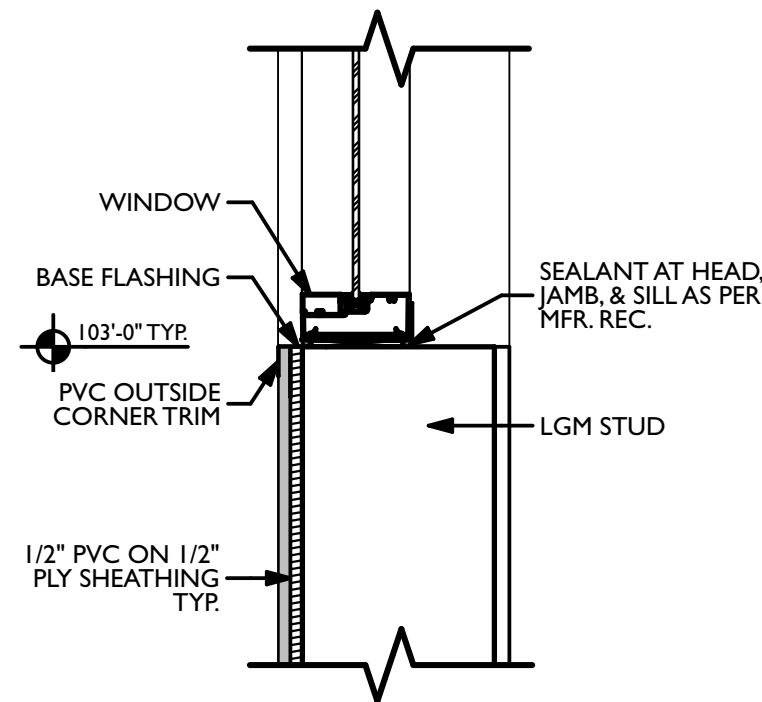
PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET: **MV-6.8**
STAIR DETAILS



A PVC DETAIL
SCALE: 3/4" = 1'-0"

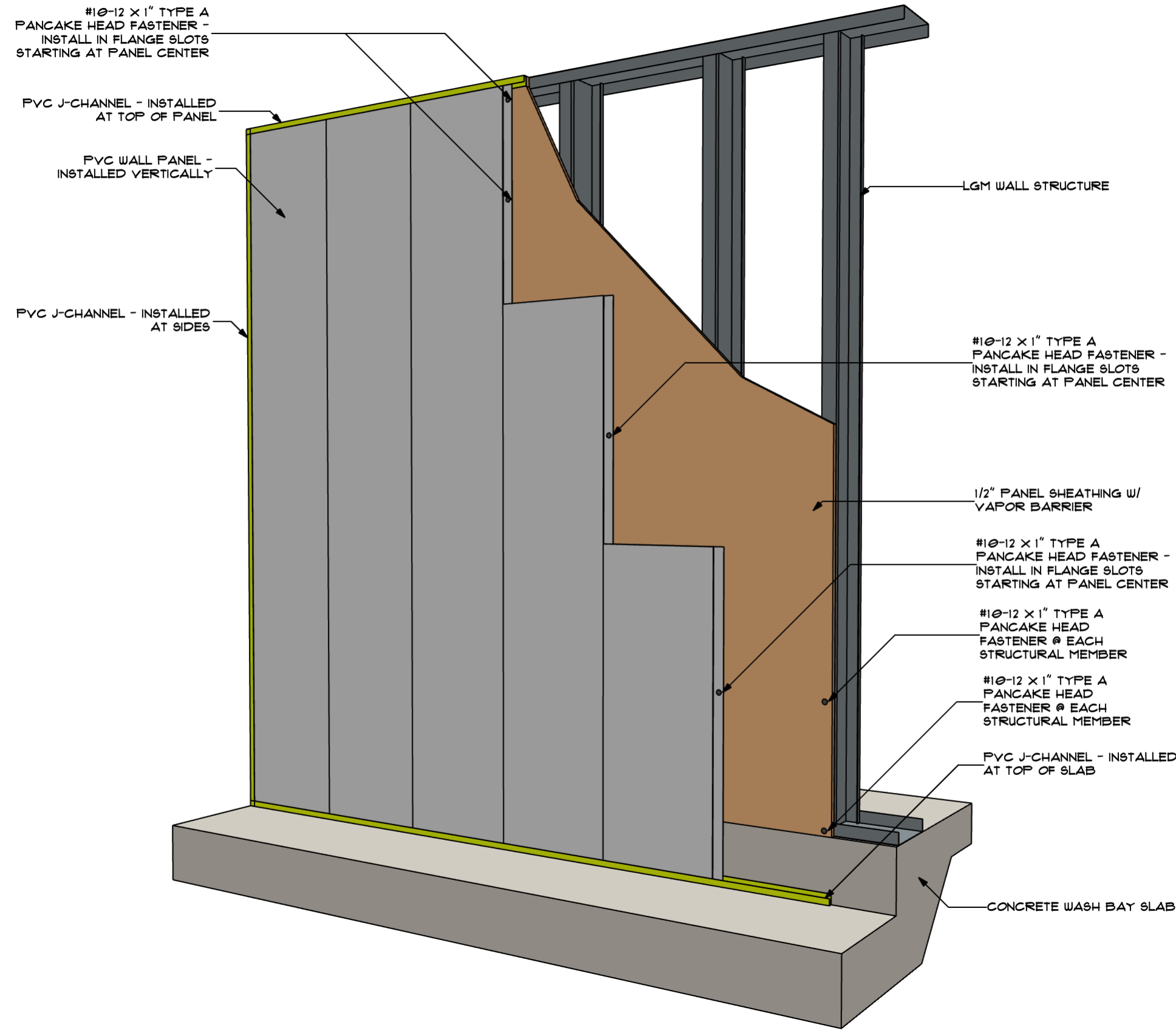


B PVC DETAIL
SCALE: 3/4" = 1'-0"



F PVC DETAIL
SCALE: 1 1/2" = 1'-0"

NOTES:
1. LEAVE A MINIMUM OF 1/4" CLEARANCE AT ENDS OF PANEL & TRIM TO ACCOUNT FOR THERMAL EXPANSION
2. INSTALL WITH A 1/16" GAP BETWEEN VERTICAL SEAMS



D PVC ASSEMBLY DETAIL
NOT TO SCALE

NOTE: DO NOT MECHANICALLY FASTEN THE PVC J-TRIM AT THE TOP OF WALL.

REVISIONS		DESCRIPTION
ID	DATE	FOR PERMIT
0	05/03/2023	

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BOWLING GREEN, KY 42104

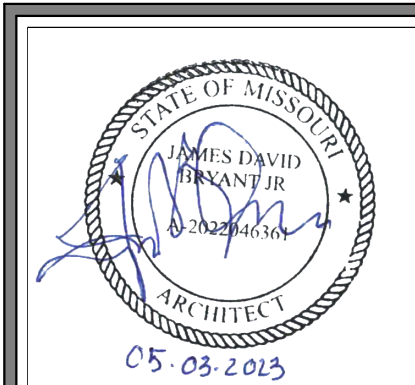


**MODEL: AXIOM BETA
RETAIL TOWER
2023**

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

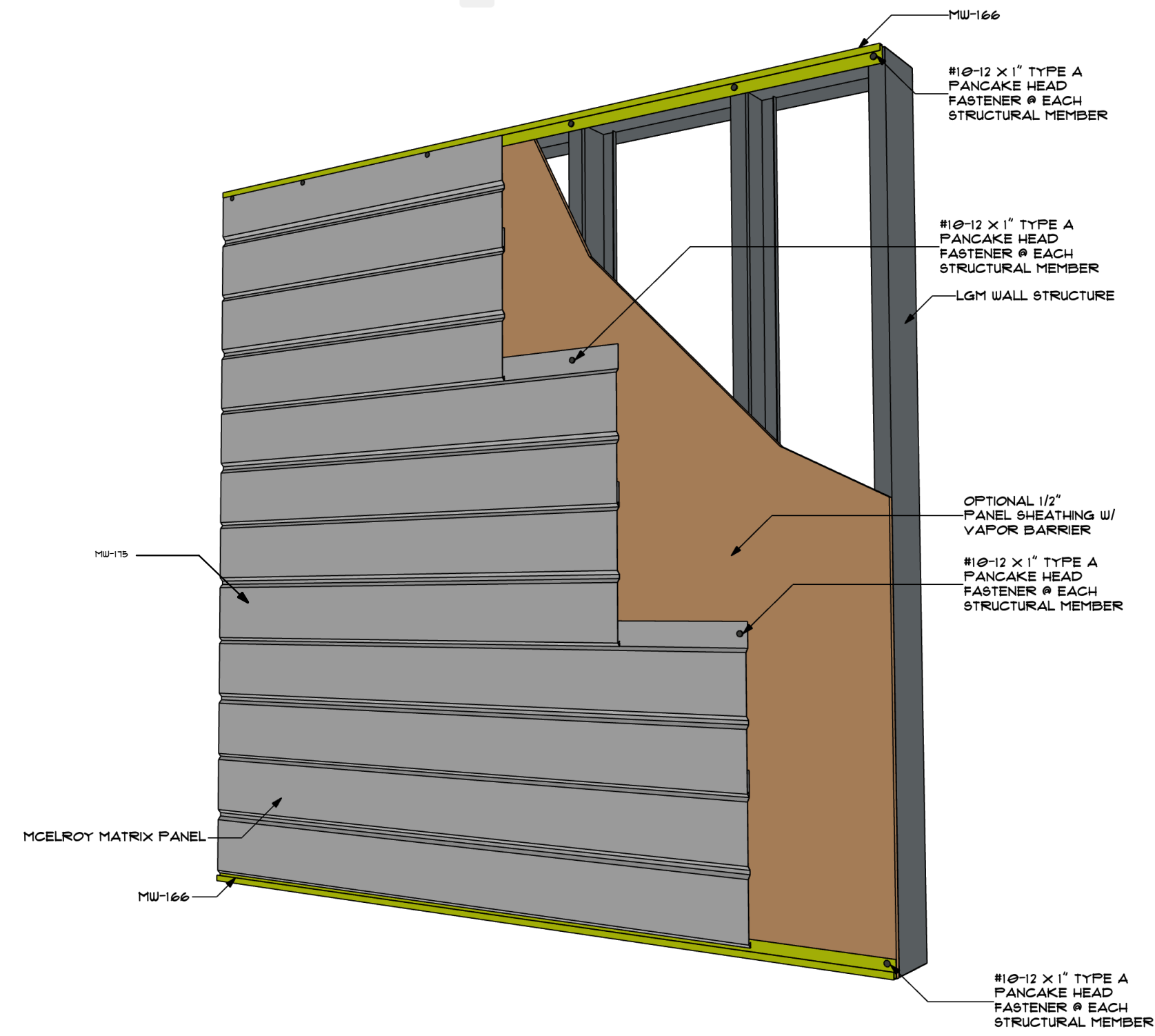


PRELIMINARY

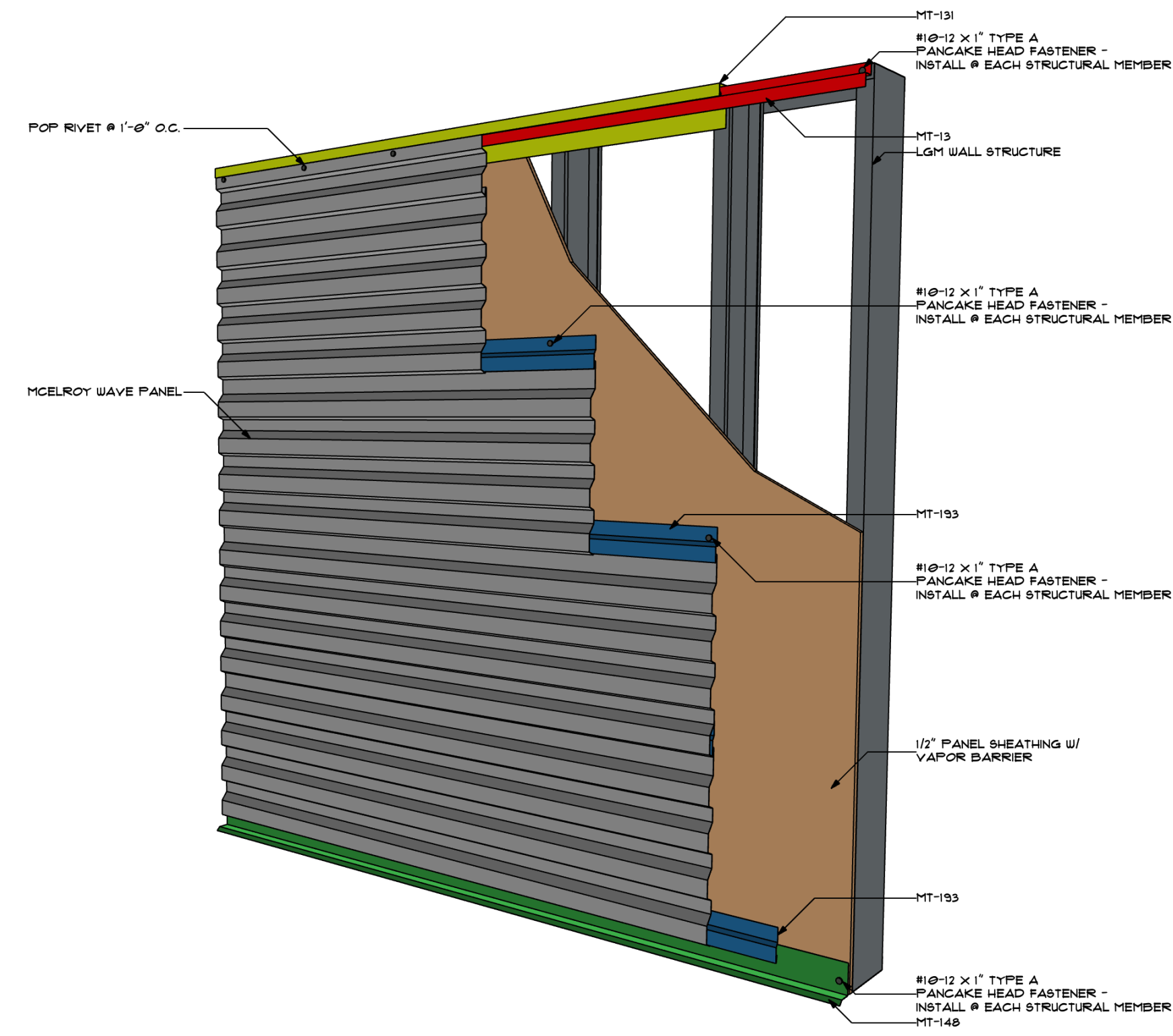
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

SHEET: **MV-6.9**

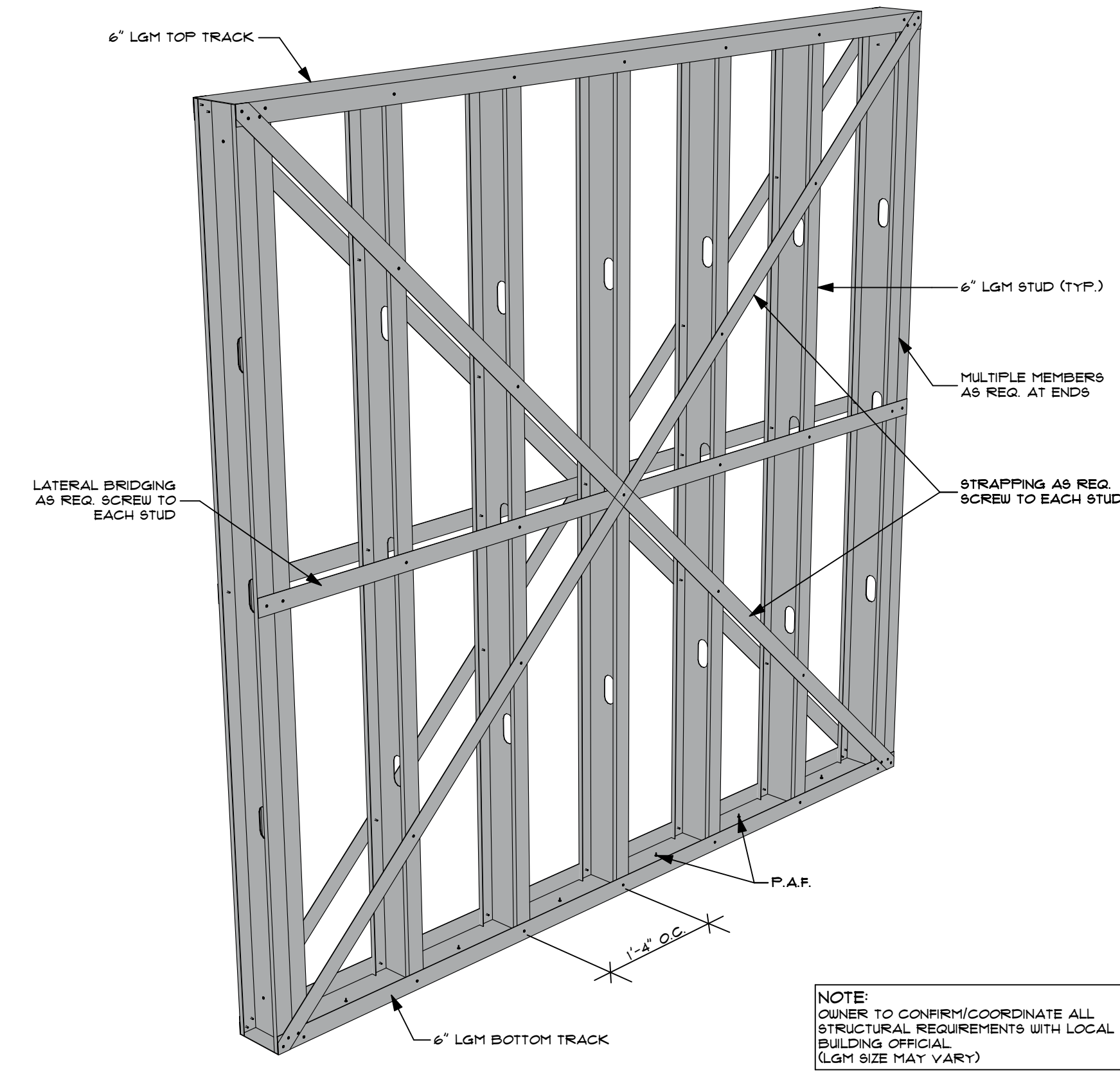
PVC DETAILS



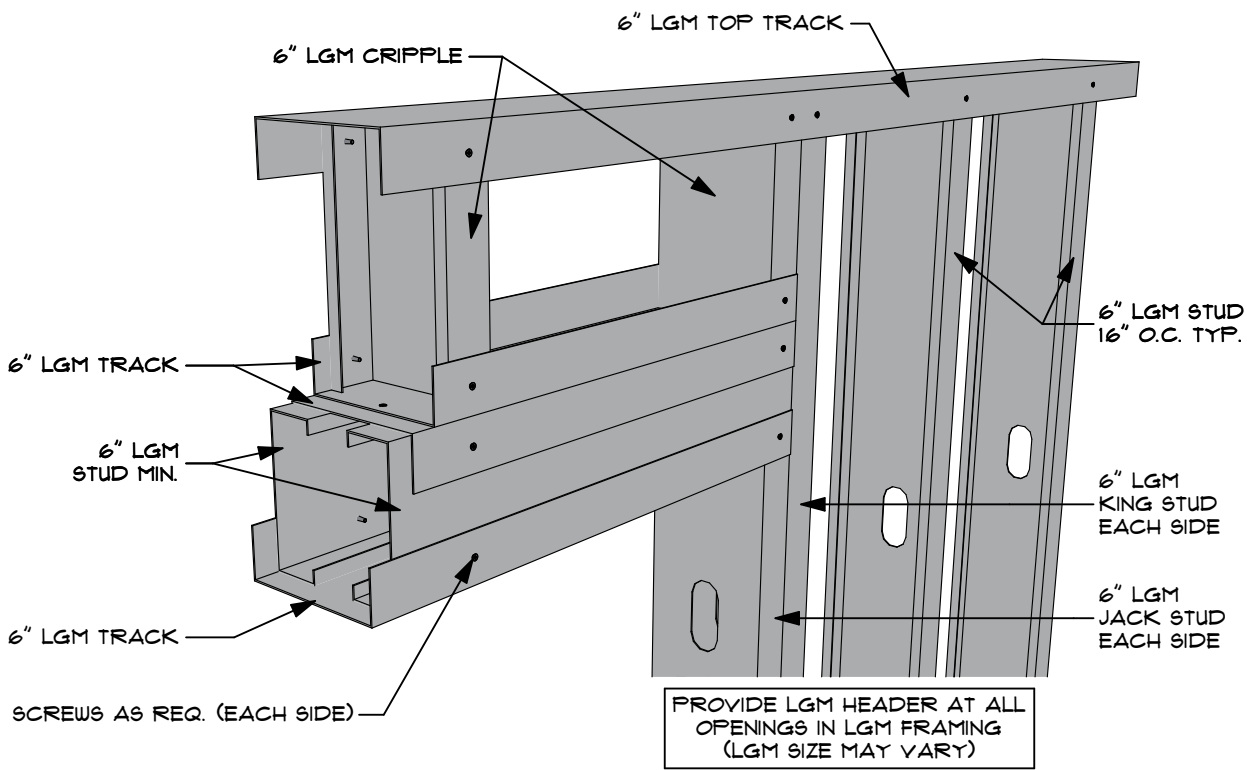
A MATRIX ASSEMBLY DETAIL
NOT TO SCALE



B WAVE ASSEMBLY DETAIL
NOT TO SCALE



D LGM FRAMING
SCALE: 1" = 1'-0"



F LGM HEADER
SCALE: 1" = 1'-0"

REVISIONS	
ID	DESCRIPTION
0	05/03/2023 FOR PERMIT

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BOWLING GREEN, KY 42104

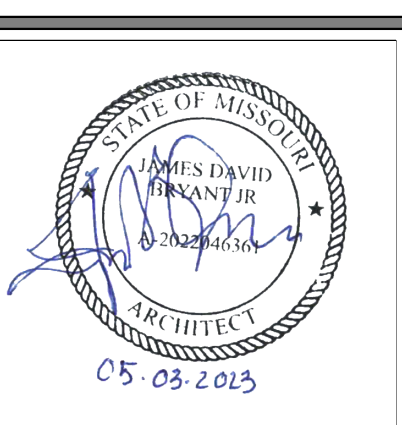
**MODEL: AXIOM BETA
RETAIL TOWER
2023**

29 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



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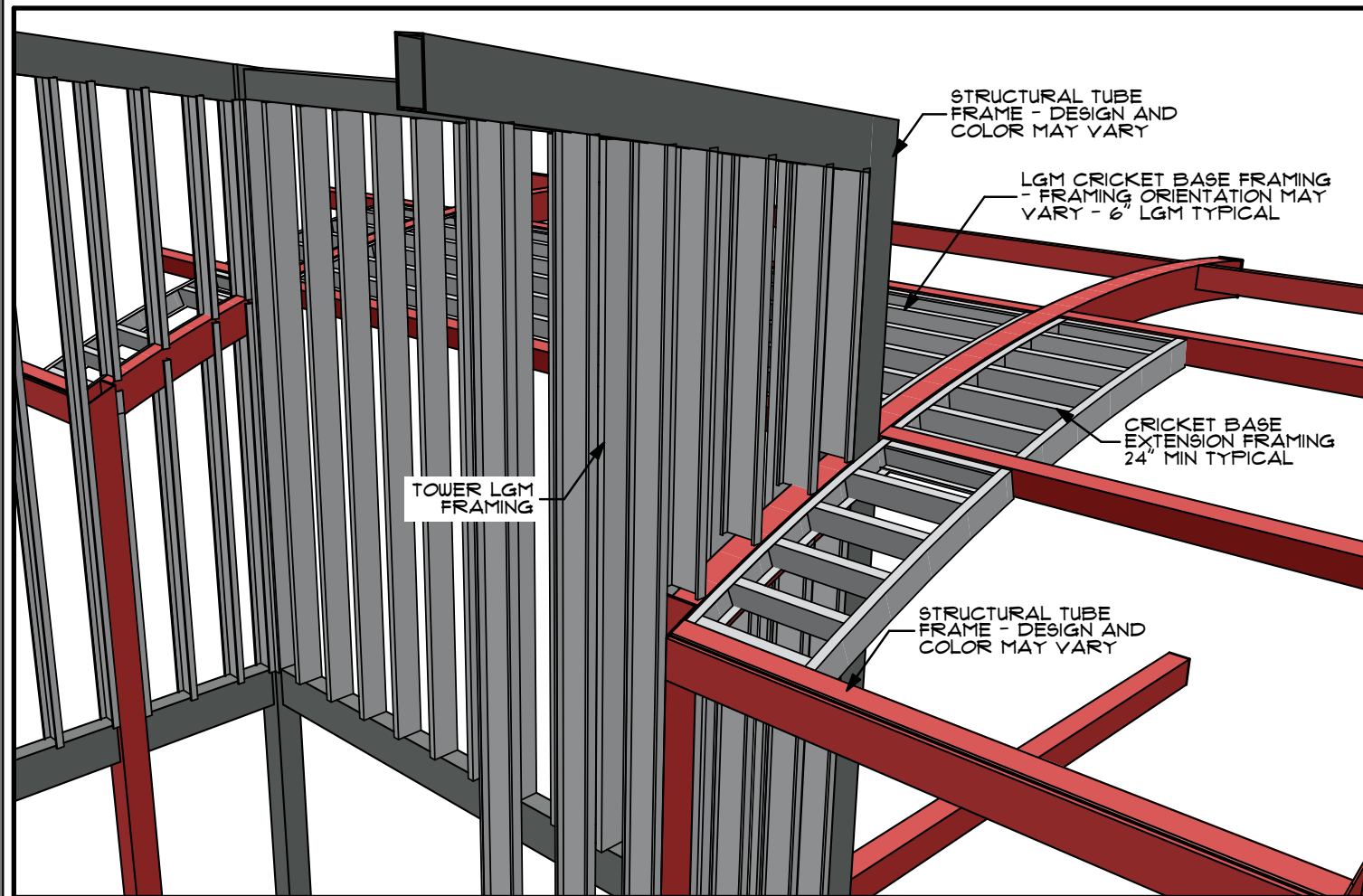
PRELIMINARY

PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

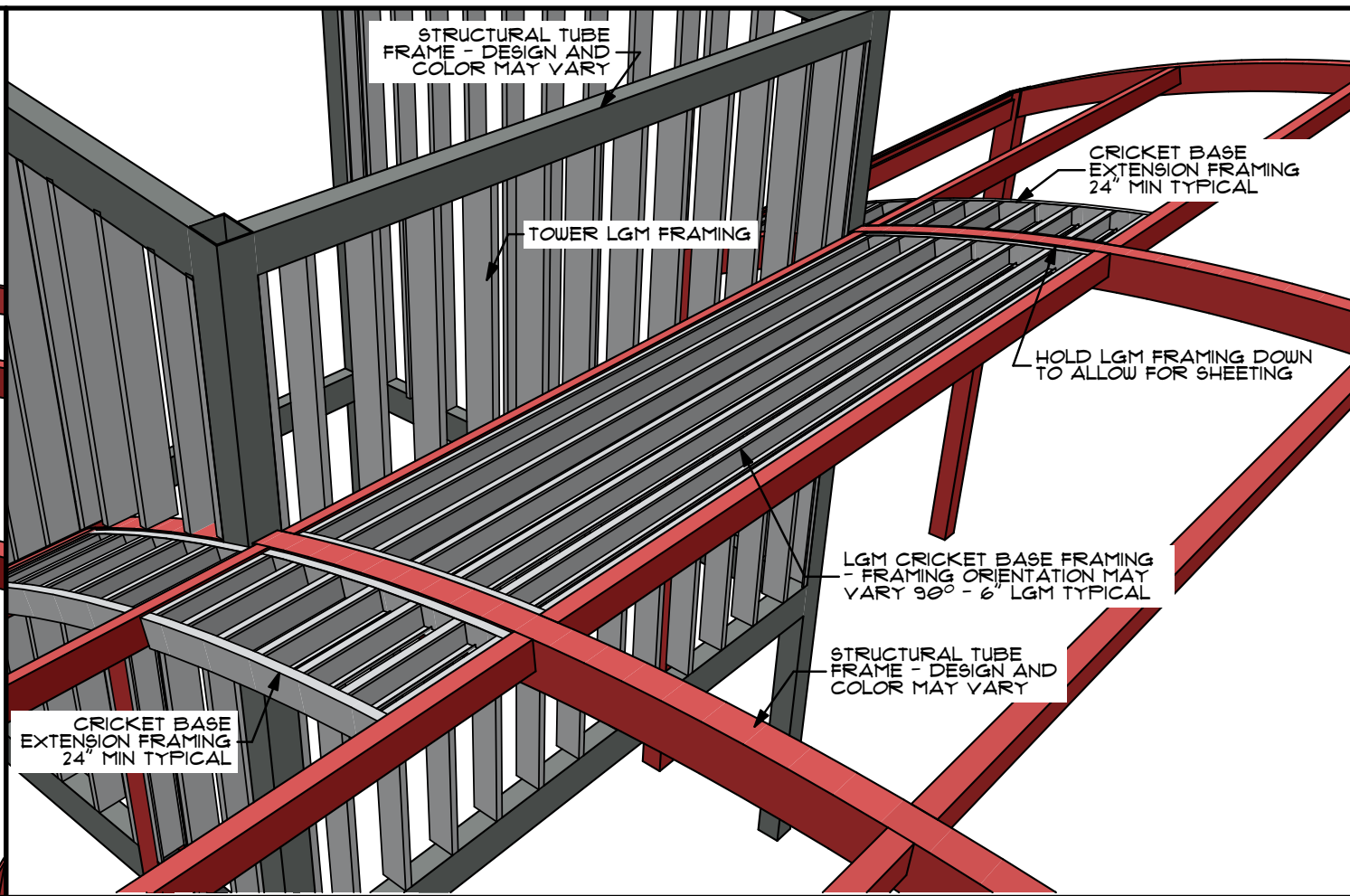
SHEET:

MW-6.10

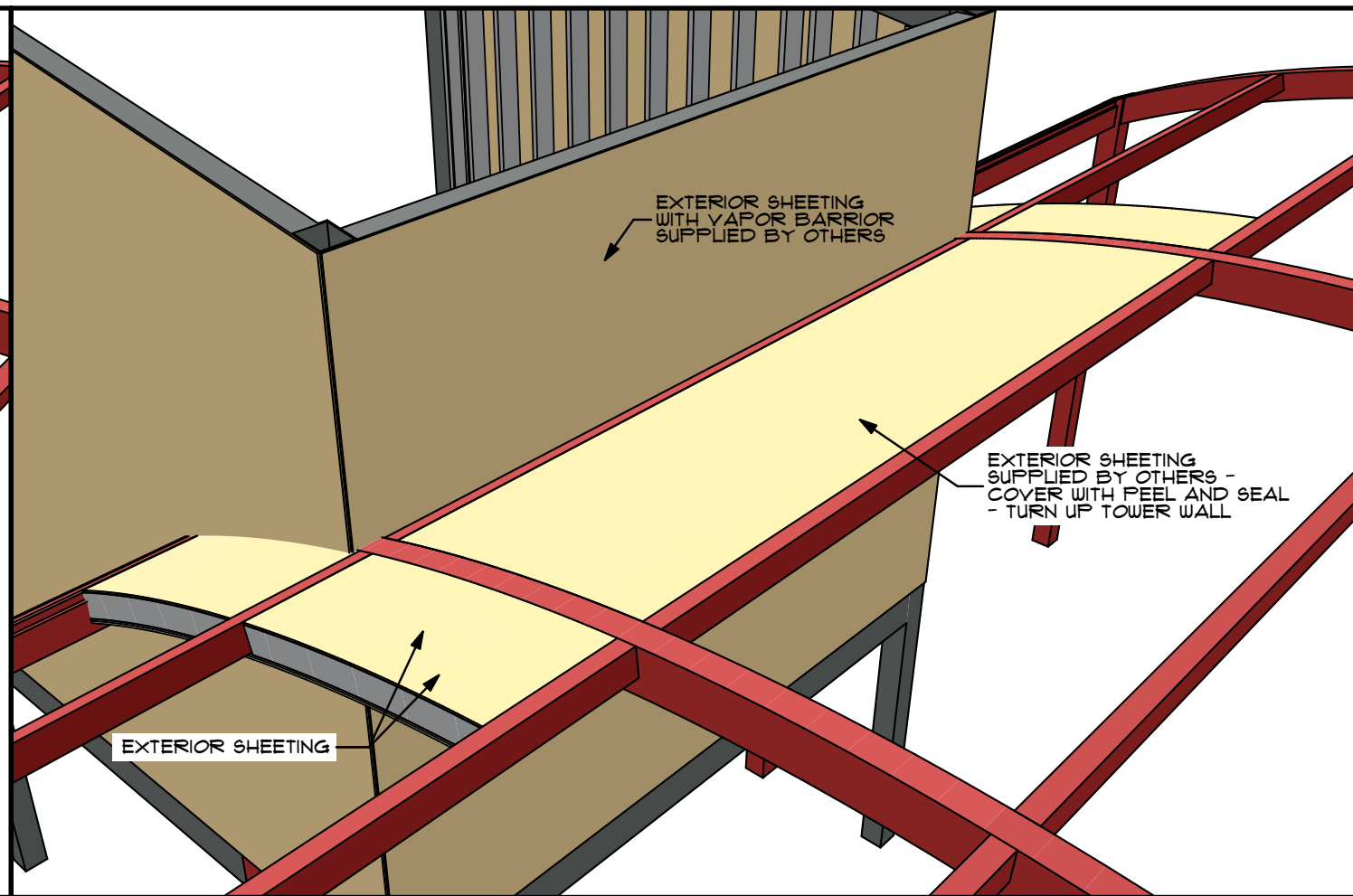
3D PVC & LGM DETAILS



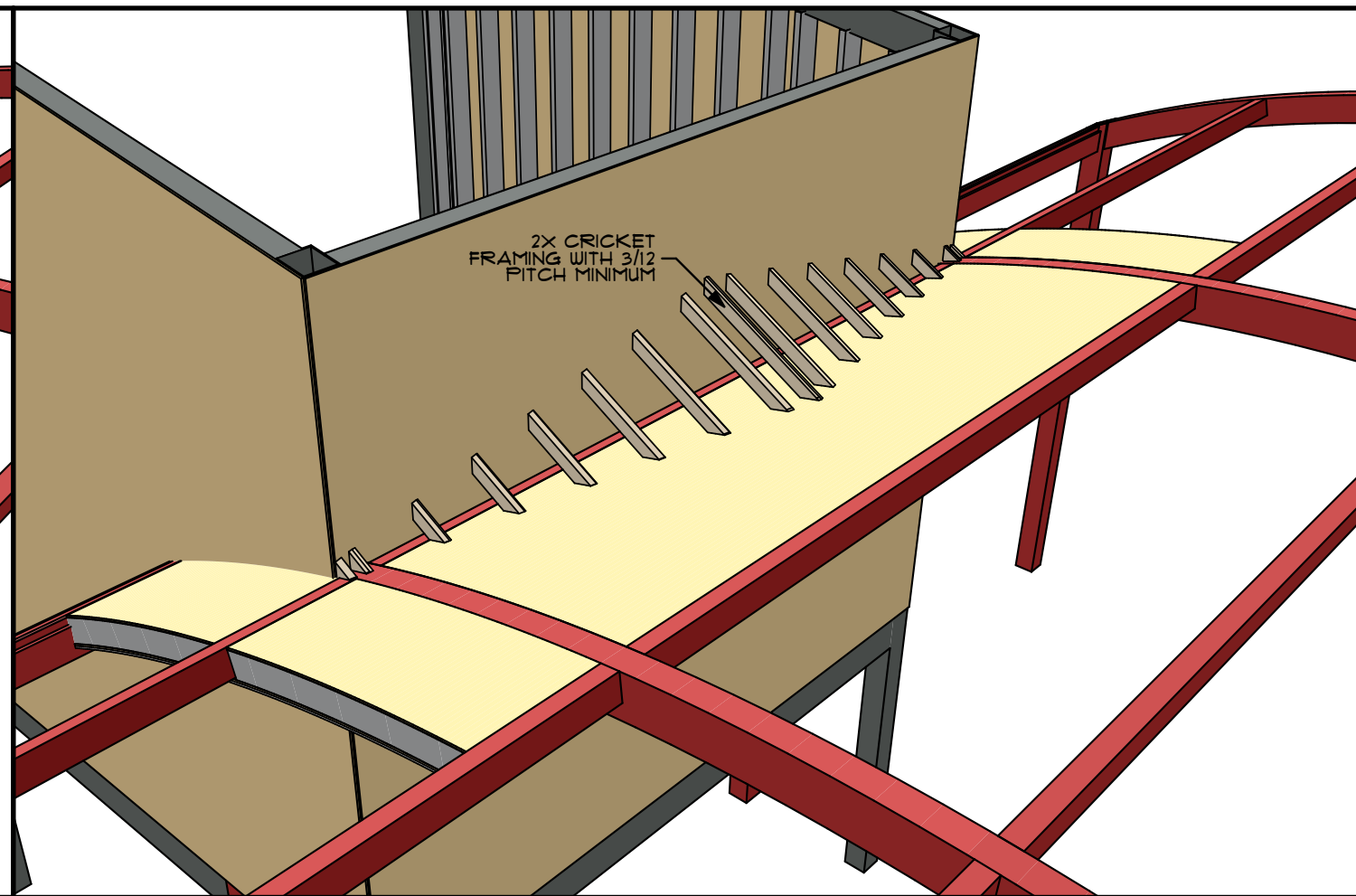
A CRICKET DETAIL - 01



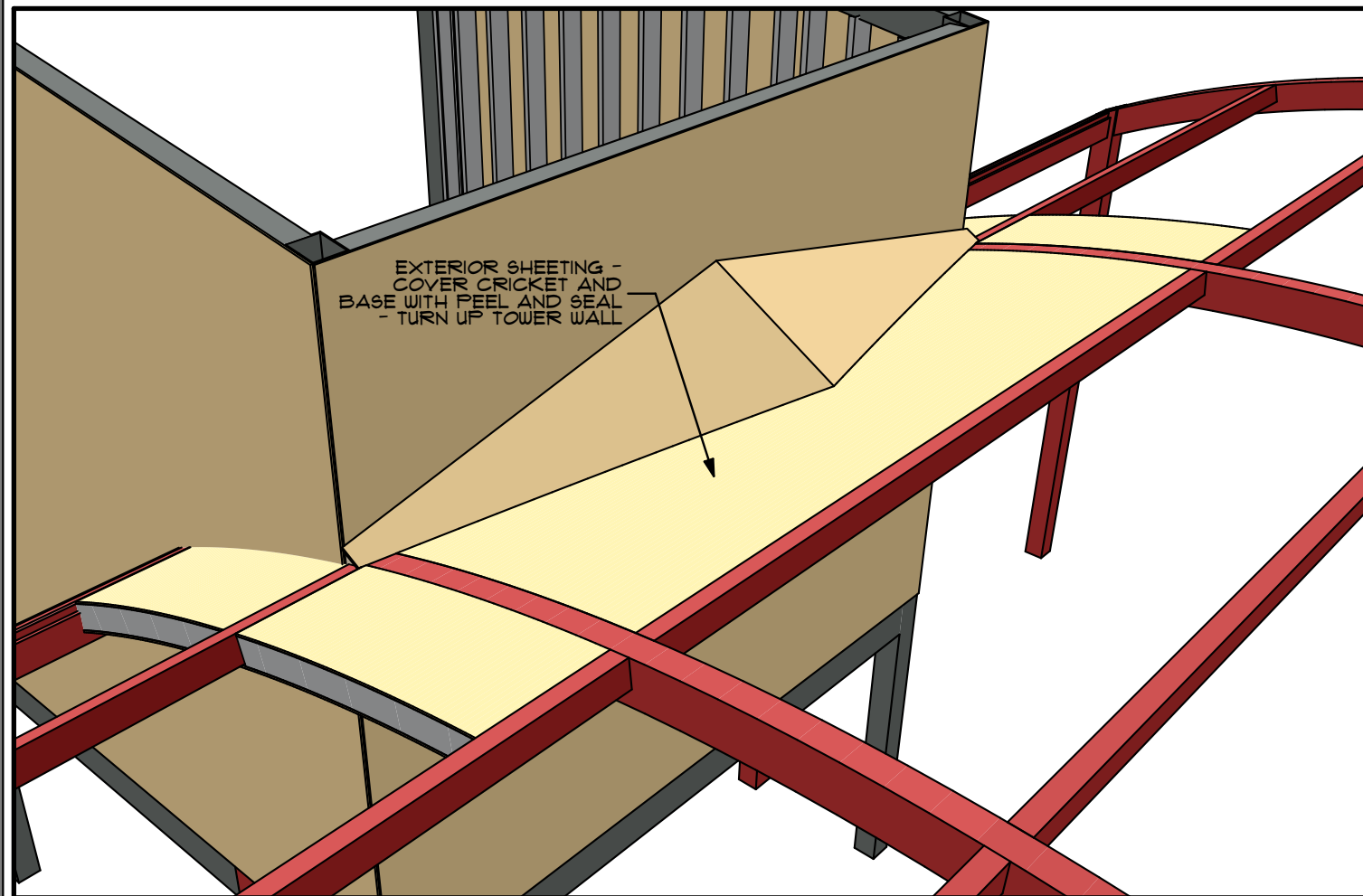
B CRICKET DETAIL - 02



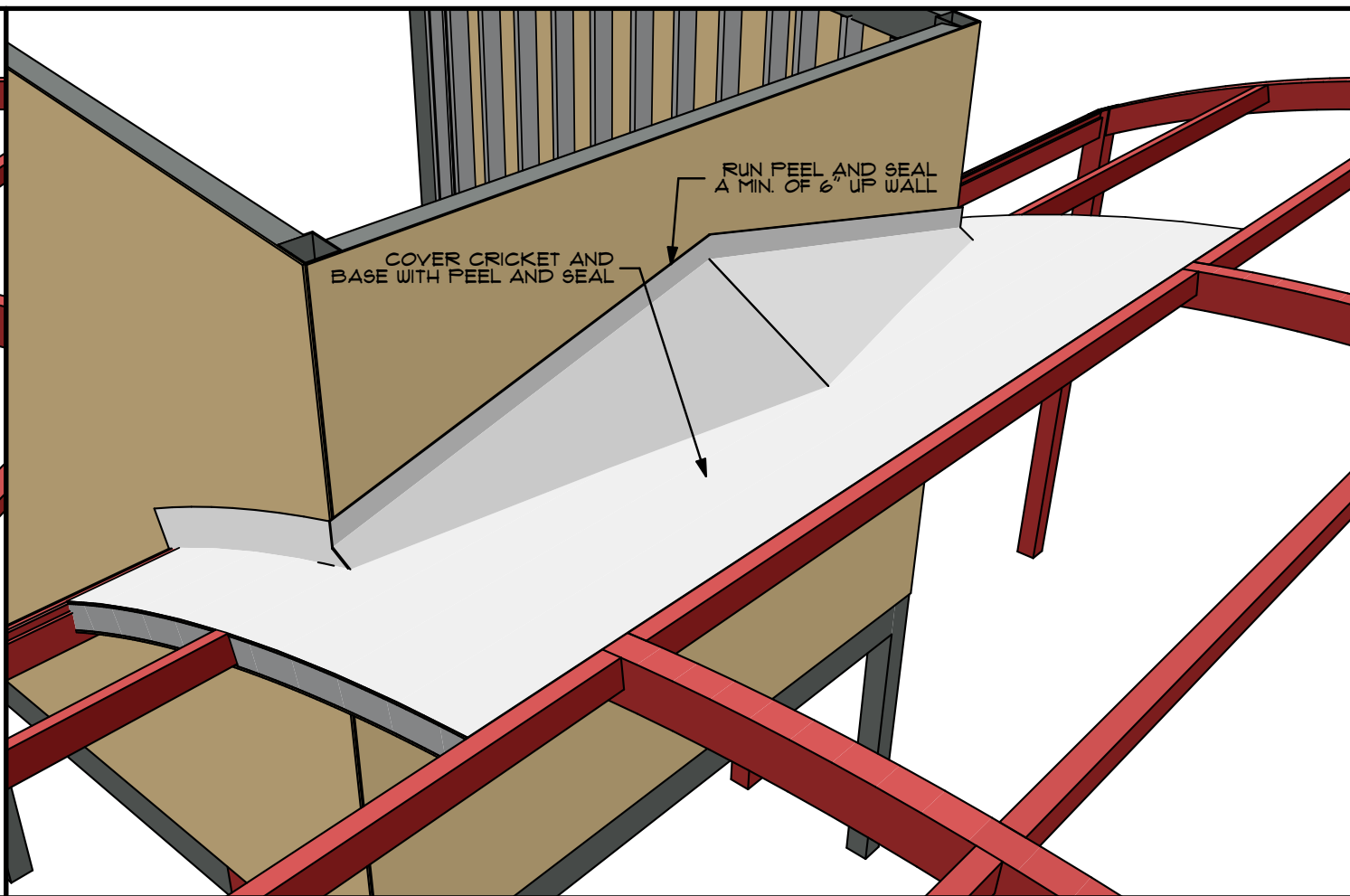
C CRICKET DETAIL - 03



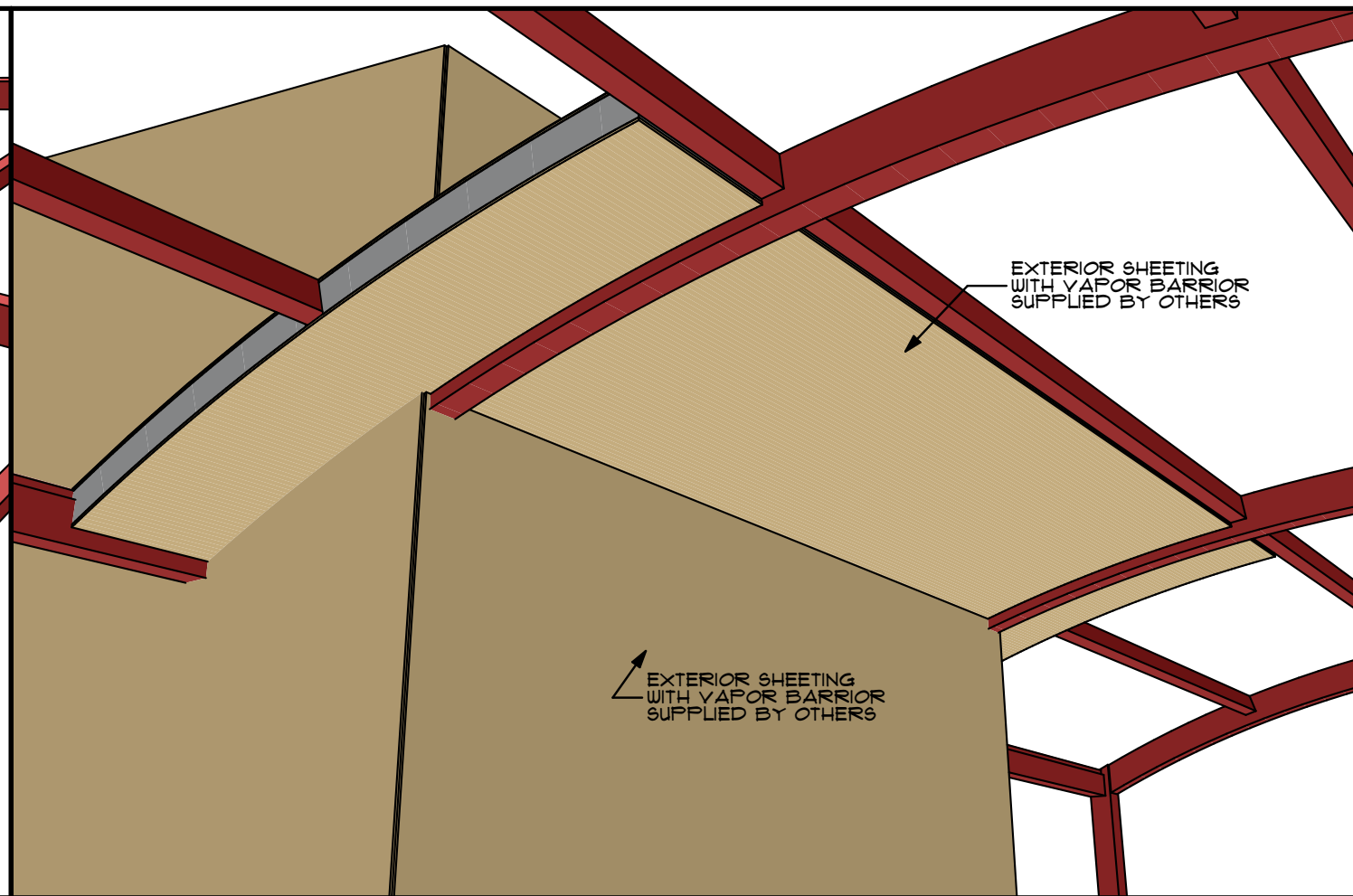
E CRICKET DETAIL - 04



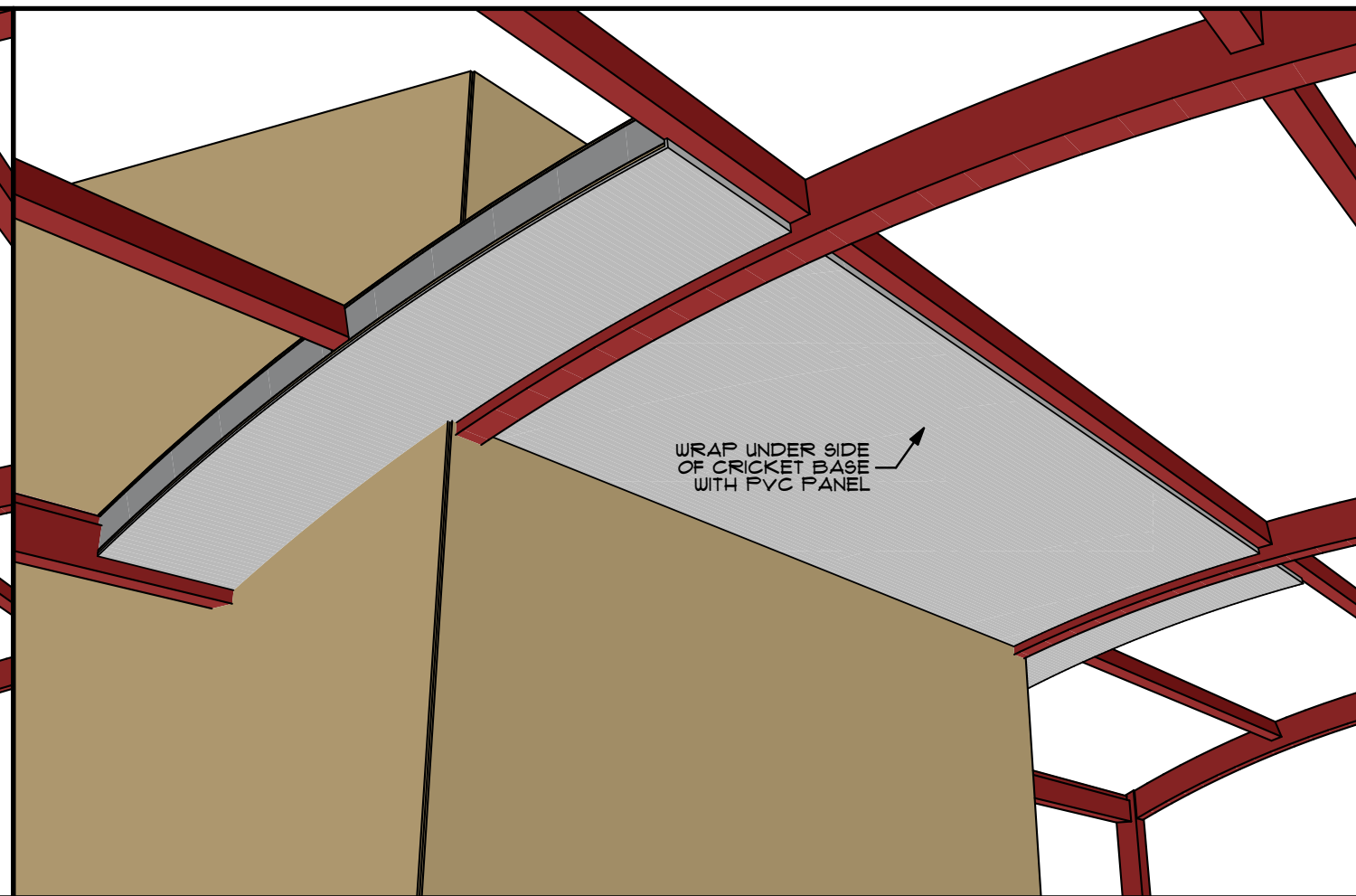
F CRICKET DETAIL - 05



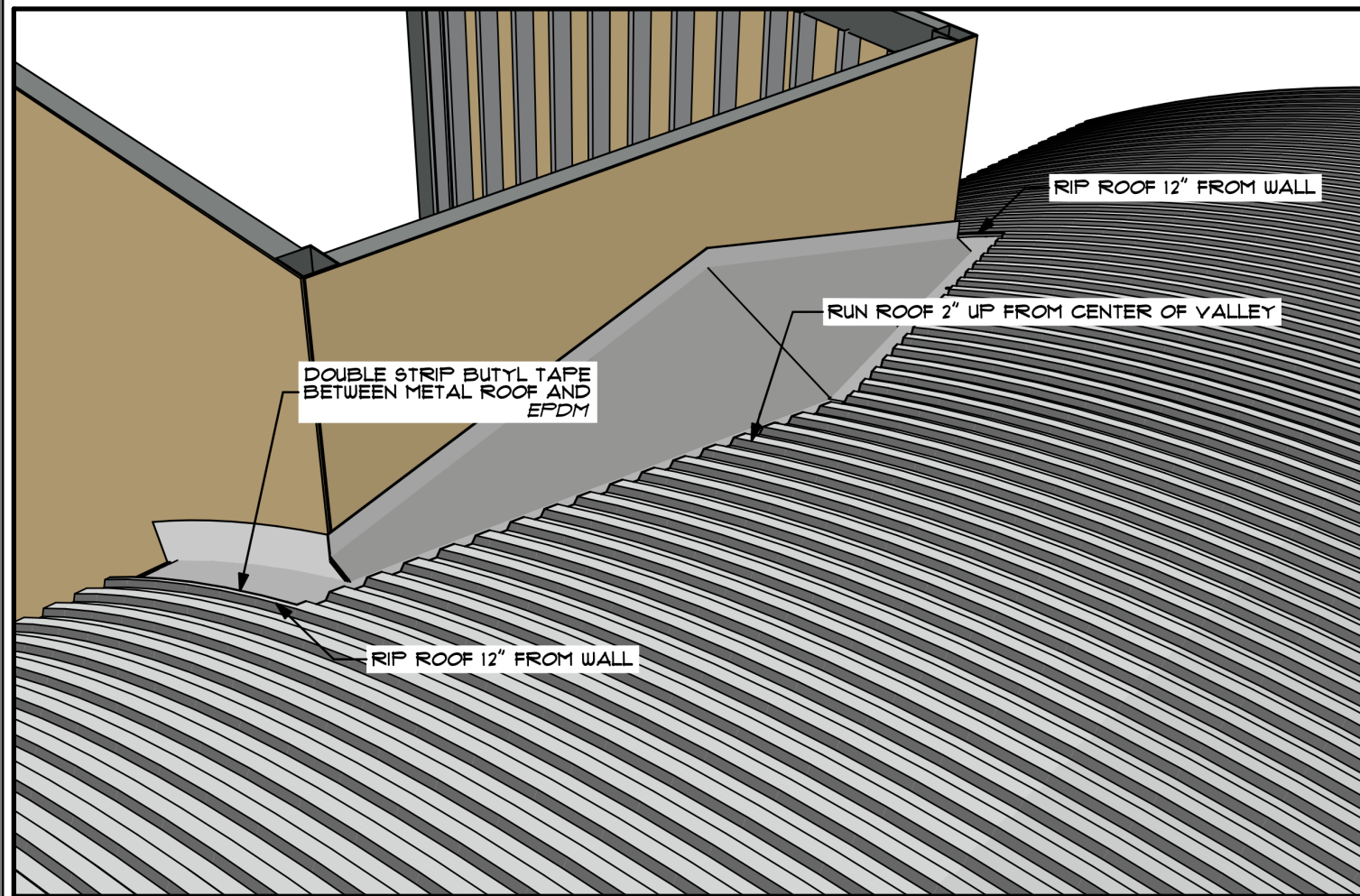
G CRICKET DETAIL - 06



H CRICKET DETAIL - 07



J CRICKET DETAIL - 08



K CRICKET DETAIL - 09

REVISIONS	
ID	DESCRIPTION
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MODERNWASH
5220 SCOTTSVILLE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

30 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

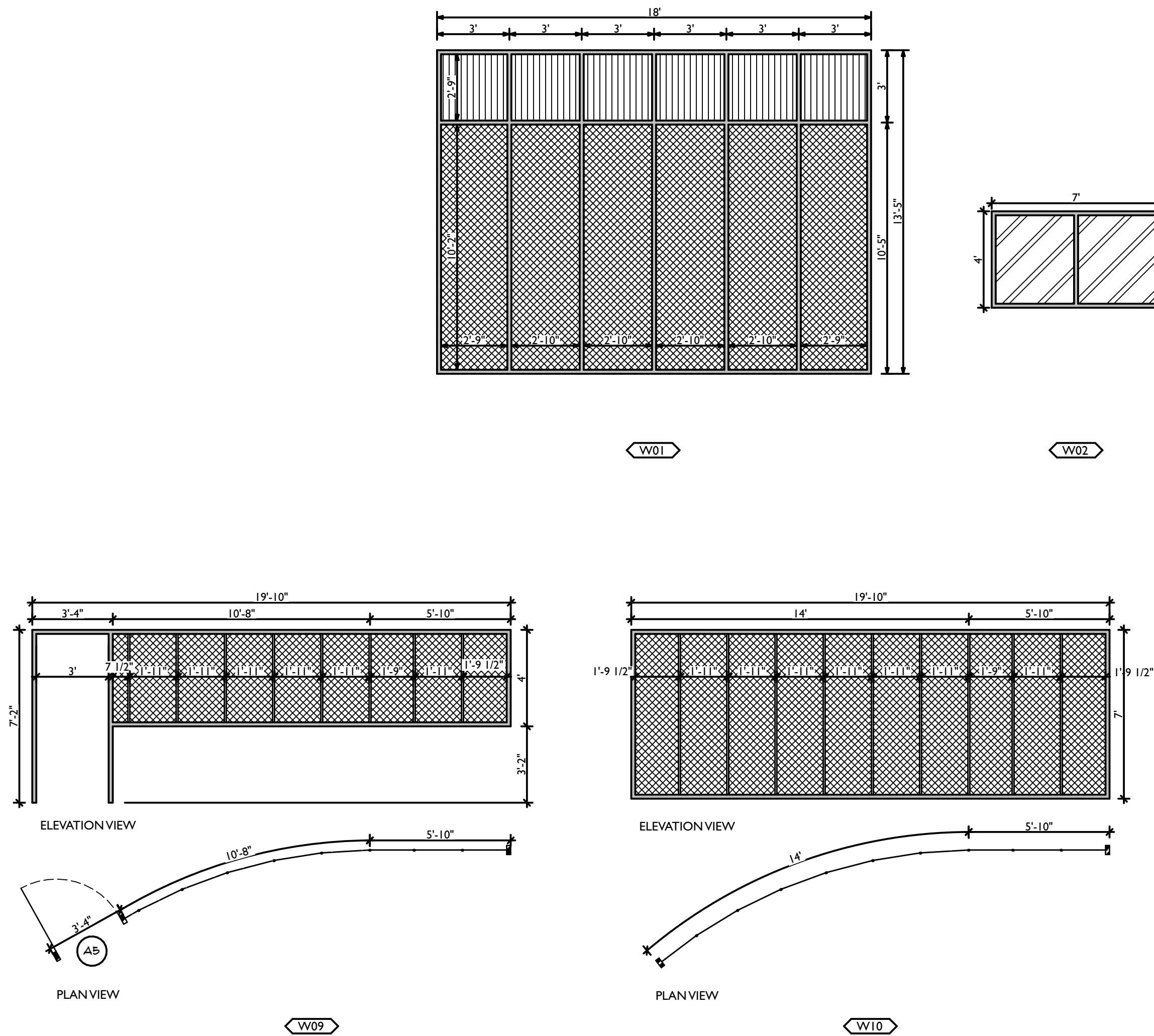
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.



PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET:
MW-6.11
CRICKET DETAILS



LATCHSETS:	DOOR/WINDOW MATERIALS:	DOOR HARDWARE NOTE:	SAFETY GLAZING NOTE:
1. PASSAGE 2. ENTRY 3. STOR/JAN 4. OFFICE 5. PRIVACY 6. KEY & BOLT W/ THUMBTURN 7. PANIC DUMMY HANDLE	ALUM - ALUMINUM ASF - ALUMINUM STORE FRONT FBGS - FIBERGLASS FG - 1/4" FLOAT GLASS HM - HOLLOW METAL IFG - INSUL. 1" FLOAT GLASS PC - MULTI-WALL POLYCARBONATE PVC - POLYVINYL CHLORIDE SFG - SAFETY 1/4" FLOAT GLASS SIFG - SAFETY INSUL. 1" FLOAT GLASS SS - STAINLESS STEEL STL - STEEL WD - WOOD	DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY, OR SPECIAL KNOWLEDGE OR EFFORT. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATION DEVICES SHALL BE ACCESSIBLE AND NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. ALL EGRESS AND PEDESTRIAN DOORS SHALL COMPLY WITH ICC - ANSI 117.1 (CURRENT EDITION).	THE FOLLOWING CONDITIONS REQUIRE TEMPERED SAFETY GLAZING: 1. GLAZING IN DOORS 2. GLAZING WITH THE BOTTOM EDGE LESS THAN 18" ABOVE THR FLOOR. 3. GLAZING ADJACENT & WITHIN 24" OF A DOOR & LESS THAN 60" ABOVE STANDING SURFACE.

DOOR SCHEDULE												
ID	#	DOOR						HW SET	FRAME			NOTES
		PANEL TYPE	W	HT	THK	MATL	GLZ		WDTH	THK	MATL	
A1	1	FULL GLASS	3'	7'	1 3/4"	ALUM	TEMP	2	2"	4 1/2"	ALUM	SUPPLIED BY OTHERS
A2	1	FULL GLASS	3'	7'	1 3/4"	ALUM	TEMP	2	2"	4 1/2"	ALUM	SUPPLIED BY OTHERS
A3	1	FULL GLASS	3'	7'	1 3/4"	ALUM	TEMP	2	2"	4 1/2"	ALUM	SUPPLIED BY OTHERS
A4	1	FULL GLASS	3'	7'	1 3/4"	ALUM	TEMP	2	2"	4 1/2"	ALUM	SUPPLIED BY OTHERS
A5	1	FULL GLASS	3'	7'	1 3/4"	ALUM	TEMP	2	2"	4 1/2"	ALUM	SUPPLIED BY OTHERS
A6	1	FULL GLASS	3'	7'	1 3/4"	ALUM	TEMP	2	2"	4 1/2"	ALUM	SUPPLIED BY OTHERS
B1	1	DOUBLE FLUSH	6'	7'	1 3/4"	SS	---	2	2"	4 1/2"	SS	PROVIDED BY MODERNWASH
B2	1	DOUBLE FLUSH	6'	7'	1 3/4"	HM	---	2	2"	4 1/2"	HM	SUPPLIED BY OTHERS
C1	1	FLUSH	3'	7'	1 3/4"	HM	---	2	2"	4 1/2"	HM	SUPPLIED BY OTHERS
C2	1	FLUSH	3'	7'	1 3/4"	SS	---	2	2"	4 1/2"	SS	PROVIDED BY MODERNWASH
C3	1	FLUSH	3'	7'	1 3/4"	SS	---	2	2"	4 1/2"	SS	PROVIDED BY MODERNWASH
D1	1	OVERHEAD	12'	11'-2"	1 3/4"	ALUM	POLY	---	3"	4"	STL	SUPPLIED BY OTHERS
D2	1	OVERHEAD	12'	11'-2"	1 3/4"	ALUM	POLY	---	3"	4"	STL	SUPPLIED BY OTHERS

DOOR						
TYPE	DOUBLE FLUSH	DOUBLE FLUSH	FLUSH	FLUSH	FULL GLASS	OVERHEAD
VIEW						
DIMS	6'x7'	6'x7'	3'x7'	3'x7'	3'x7'	12'x11'-2"
MATERIAL	HM	SS	HM	SS	ALUM	ALUM
GLAZING	---	---	---	---	TEMP	POLY

WINDOW SCHEDULE				
ID	#	LENGTH	HEIGHT	HOME STORY
W01	6	216.00"	161.20"	1st FLOOR
W02	1	84.00"	48.00"	1st FLOOR
W03	1	60.00"	99.00"	1st FLOOR
W04	1	60.00"	99.00"	2nd FLOOR
W04	2	48.00"	48.00"	1st FLOOR
W05	1	65.55"	96.78"	1st FLOOR
W06	1	65.55"	96.78"	1st FLOOR
W07	1	65.00"	102.00"	1st FLOOR
W08	1	59.02"	102.00"	1st FLOOR
W09	1	NOTE: SEE WINDOW ELEVATIONS FOR JAMBS, HEAD, AND SILL FRAME DIMENSIONS.		1st FLOOR
W10	1	NOTE: SEE WINDOW ELEVATIONS FOR JAMBS, HEAD, AND SILL FRAME DIMENSIONS.		2nd FLOOR
W11	1	308.00"	237.50"	1st FLOOR
W12	2	308.00"	237.50"	1st FLOOR

ACM PNL w/ PVC BACKER	10MM LEXAN THERMOCLEAR GLAZING PNL
1/4" TEMPERED GLASS	INSULATED GLASS

NOTE: STOREFRONT SUPPLIER TO CONFIRM ALL OPENINGS ON SITE.
ACM PANEL WITH PVC BACKER IS SUPPLIED BY MODERNWASH - CUT TO FIT ON SITE.
POLYCARBONATE PANEL TO BE SUPPLIED BY MODERNWASH - CUT TO FIT ON SITE.

REVISIONS		DESCRIPTION
ID	DATE	
0	05/03/2023	FOR PERMIT

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BOWLING GREEN, KY 42104

**MODEL: AXIOM BETA
RETAIL TOWER
2023**

31 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

STATE OF MISSOURI
JAMES DAVID
ARCHITECT
05-03-2023

USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET: MW-7.1
SCHEDULES

Product category: S137 (1-3/8" Flange Structural Stud)
Product name: 3025317-43 (33ksi, CP60) P - Punched
43mils (18ga) Coating: CP60 per ASTM C955
Color coding: Yellow

Geometric Properties
Web depth 3.625 in
Flange width 1.375 in
Stiffening lip 0.375 in
Design thickness 0.0451 in
Yield strength, Fy 33 ksi
Ultimate, Fu 45.0 ksi

Gross Section Properties of Full Section, Strong Axis
Cross sectional area (A) 0.306 in²
Member weight per foot of length 1.04 lbf/ft
Moment of inertia (Ix) 0.616 in⁴
Section modulus (Sx) 0.340 in³
Radius of gyration (Rx) 1.419 in
Gross moment of inertia (Iy) 0.075 in⁴
Gross radius of gyration (Ry) 0.497 in

Effective Section Properties, Strong Axis
Effective Area (Ae) 0.214 in²
Moment of inertia for deflection (Ix) 0.616 in⁴
Section modulus (Sx) 0.340 in³
Allowable bending moment (Ma) 122.50 in-k
Allowable moment based on distortion buckling (Mad) 6.66 in-k
Allowable shear force in web (solid section) 8747 lb
Allowable shear force in web (perforated section) 7411 lb
Unbraced length (Lu) 34.6 in

Torsional Properties
St. Venant torsion constant (J x 1000) 0.207 in⁴
Warping constant (Cw) 0.320 in⁶
Distance from shear center to neutral axis (Xo) -0.693 in
Distance between shear center and web centerline (m) 0.608 in
Radii of gyration (Ro) 1.801 in
Torsional flexural constant (Beta) 0.697

ASTM & Code Standards:

- AISI North American Specification (NASPEC) S100-07 with 2010 supplement
- **LEED v4 MR Credit** - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
- Gross properties are based on the cross section away from the punchouts
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- ClarkDietrich's structural and nonstructural framing comply with the SFA Code Compliance Certification Program, ICC-ES ESR-1166P and ATI CCR6-0206
- For installation & storage information refer to ASTM C1007
- SDS & Product Certification Information is available at www.clarkdietrich.com

Sustainability Credits:
For more details and LEED letters contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED

LEED v4 MR Credit - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
LEED 2009 Credit MR 2 & MR 4 - ClarkDietrich's steel products are 100% recyclable and have a minimum recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at info@clarkdietrich.com (888-437-3244)

Project Information			Contractor Information			Architect Information		
Name:	Address:		Name:	Contact:	Phone:	Name:	Contact:	Phone:
				Fax:			Fax:	

CD-STRS © 06/2014 ClarkDietrich Building Systems

Product category: S137 (1-3/8" Flange Structural Stud)
Product name: 6005317-43 (33ksi, CP60) P - Punched
43mils (18ga) Coating: CP60 per ASTM C955
Color coding: Yellow

Geometric Properties
Web depth 6.000 in
Flange width 1.375 in
Stiffening lip 0.375 in
Design thickness 0.0451 in
Yield strength, Fy 33 ksi
Ultimate, Fu 45.0 ksi

Gross Section Properties of Full Section, Strong Axis
Cross sectional area (A) 0.413 in²
Member weight per foot of length 1.41 lbf/ft
Moment of inertia (Ix) 2.042 in⁴
Section modulus (Sx) 0.681 in³
Radius of gyration (Rx) 2.224 in
Gross moment of inertia (Iy) 0.087 in⁴
Gross radius of gyration (Ry) 0.459 in

Effective Section Properties, Strong Axis
Effective Area (Ae) 0.222 in²
Moment of inertia for deflection (Ix) 2.041 in⁴
Section modulus (Sx) 0.645 in³
Allowable bending moment (Ma) 127.74 in-k
Allowable moment based on distortion buckling (Mad) 11.83 in-k
Allowable shear force in web (solid section) 1416 lb
Allowable shear force in web (perforated section) 1240 lb
Unbraced length (Lu) 33.3 in

Torsional Properties
St. Venant torsion constant (J x 1000) 0.280 in⁴
Warping constant (Cw) 1.214 in⁶
Distance from shear center to neutral axis (Xo) -0.693 in
Distance between shear center and web centerline (m) 0.513 in
Radii of gyration (Ro) 2.406 in
Torsional flexural constant (Beta) 0.890

ASTM & Code Standards:

- AISI North American Specification (NASPEC) S100-07 with 2010 supplement
- **LEED v4 MR Credit** - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
- Gross properties are based on the cross section away from the punchouts
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- ClarkDietrich's structural and nonstructural framing comply with the SFA Code Compliance Certification Program, ICC-ES ESR-1166P and ATI CCR6-0206
- For installation & storage information refer to ASTM C1007
- SDS & Product Certification Information is available at www.clarkdietrich.com

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For more details and LEED letters contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED

LEED v4 MR Credit - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
LEED 2009 Credit MR 2 & MR 4 - ClarkDietrich's steel products are 100% recyclable and have a minimum recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at info@clarkdietrich.com (888-437-3244)

Project Information			Contractor Information			Architect Information		
Name:	Address:		Name:	Contact:	Phone:	Name:	Contact:	Phone:
				Fax:			Fax:	

CD-STRS © 06/2014 ClarkDietrich Building Systems

Product category: S137 (1-3/8" Flange Structural Stud)
Product name: 3025317-43 (33ksi, CP60) P - Punched
43mils (18ga) Coating: CP60 per ASTM C955
Color coding: Yellow

Geometric Properties
Web depth 8.000 in
Flange width 1.375 in
Stiffening lip 0.375 in
Design thickness 0.0451 in
Yield strength, Fy 33 ksi
Ultimate, Fu 45.0 ksi

Gross Section Properties of Full Section, Strong Axis
Cross sectional area (A) 0.503 in²
Member weight per foot of length 1.71 lbf/ft
Moment of inertia (Ix) 4.135 in⁴
Section modulus (Sx) 1.034 in³
Radius of gyration (Rx) 2.868 in
Gross moment of inertia (Iy) 0.093 in⁴
Gross radius of gyration (Ry) 0.430 in

Effective Section Properties, Strong Axis
Effective Area (Ae) 0.224 in²
Moment of inertia for deflection (Ix) 4.001 in⁴
Section modulus (Sx) 0.896 in³
Allowable bending moment (Ma) 137.70 in-k
Allowable moment based on distortion buckling (Mad) 15.78 in-k
Allowable shear force in web (solid section) 1051 lb
Allowable shear force in web (perforated section) 922 lb
Unbraced length (Lu) 32.2 in

Torsional Properties
St. Venant torsion constant (J x 1000) 0.341 in⁴
Warping constant (Cw) 1.214 in⁶
Distance from shear center to neutral axis (Xo) -0.693 in
Distance between shear center and web centerline (m) 0.454 in
Radii of gyration (Ro) 2.979 in
Torsional flexural constant (Beta) 0.947

ASTM & Code Standards:

- AISI North American Specification (NASPEC) S100-07 with 2010 supplement
- **LEED v4 MR Credit** - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
- Gross properties are based on the cross section away from the punchouts
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- ClarkDietrich's structural and nonstructural framing comply with the SFA Code Compliance Certification Program, ICC-ES ESR-1166P and ATI CCR6-0206
- For installation & storage information refer to ASTM C1007
- SDS & Product Certification Information is available at www.clarkdietrich.com

Sustainability Credits:
For more details and LEED letters contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED

LEED v4 MR Credit - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
LEED 2009 Credit MR 2 & MR 4 - ClarkDietrich's steel products are 100% recyclable and have a minimum recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at info@clarkdietrich.com (888-437-3244)

Project Information			Contractor Information			Architect Information		
Name:	Address:		Name:	Contact:	Phone:	Name:	Contact:	Phone:
				Fax:			Fax:	

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Product category: S162 (1-5/8" Flange Structural Stud)
Product name: 12005162-97 (50ksi, CP60) P - Punched
97mils (12ga) Coating: CP60 per ASTM C955
Color coding: Red

Geometric Properties
Web depth 12.000 in
Flange width 1.625 in
Stiffening lip 0.500 in
Design thickness 0.1017 in
Yield strength, Fy 50 ksi
Ultimate, Fu 65.0 ksi

Gross Section Properties of Full Section, Strong Axis
Cross sectional area (A) 1.576 in²
Member weight per foot of length 5.36 lbf/ft
Moment of inertia (Ix) 26.977 in⁴
Section modulus (Sx) 4.496 in³
Radius of gyration (Rx) 4.138 in
Gross moment of inertia (Iy) 0.331 in⁴
Gross radius of gyration (Ry) 0.459 in

Effective Section Properties, Strong Axis
Effective Area (Ae) 0.699 in²
Moment of inertia for deflection (Ix) 26.738 in⁴
Section modulus (Sx) 4.091 in³
Allowable bending moment (Ma) 122.50 in-k
Allowable moment based on distortion buckling (Mad) 111.38 in-k
Allowable shear force in web (solid section) 8147 lb
Allowable shear force in web (perforated section) 7411 lb
Unbraced length (Lu) 29.5 in

Torsional Properties
St. Venant torsion constant (J x 1000) 5.433 in⁴
Warping constant (Cw) 10.331 in⁶
Distance from shear center to neutral axis (Xo) -0.693 in
Distance between shear center and web centerline (m) 0.470 in
Radii of gyration (Ro) 4.220 in
Torsional flexural constant (Beta) 0.973

ASTM & Code Standards:

- AISI North American Specification (NASPEC) S100-12
- **LEED v4 MR Credit** - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
- Gross properties are based on the cross section away from the punchouts
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- ClarkDietrich's structural and nonstructural framing comply with the SFA Code Compliance Certification Program, ICC-ES ESR-1166P and ATI CCR6-0206
- For installation & storage information refer to ASTM C1007
- SDS & Product Certification Information is available at www.clarkdietrich.com

Sustainability Credits:
For more details and LEED letters contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED

LEED v4 MR Credit - Building Product Disclosure and Optimization: EPD (up to 2 points) - Innovation Credit (up to 2 points)
LEED 2009 Credit MR 2 & MR 4 - ClarkDietrich's steel products are 100% recyclable and have a minimum recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at info@clarkdietrich.com (888-437-3244)

Project Information			Contractor Information			Architect Information		
Name:	Address:		Name:	Contact:	Phone:	Name:	Contact:	Phone:
				Fax:			Fax:	

CD-STRS © 06/17 ClarkDietrich Building Systems

SQUARE MOLDED & PULTRUDED FIBERGLASS GRATING LOAD TABLE ISOPHTHALIC POLYESTER RESIN



MOVING OBJECTS EXERT HEAVIER WEIGHT THAN THEIR ACTUAL STANDING WEIGHT

SPAN	FIBERGLASS TYPE	200 LBS	300 LBS	500 LBS	1000 LBS	MAX LOAD
18"	SQUARE MOLDED	0.03	0.05	0.08	0.15	1,733 LBS
24"	PULTRUDED	0.006	0.009	0.015	0.030	2,250 LBS
30"	SQUARE MOLDED	0.07	0.10	0.17	0.350	1,300 LBS
36"	PULTRUDED	0.018	0.027	0.046	0.095	1,700 LBS
42"	SQUARE MOLDED	0.12	0.18	0.300	---	1,033 LBS
48"	PULTRUDED	0.043	0.065	0.108	0.220	1,340 LBS
54"	SQUARE MOLDED	0.21	0.32	0.55	---	867 LBS
60"	PULTRUDED	0.087	0.131	0.218	0.440	1,130 LBS

FLAT TOP LOAD TABLE SIMILAR TO SQUARE MOLDED



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Technical Information

MFMBuilding Products Corp. manufactures a wide range of innovative waterproofing products for the building industry. With more than 50 years of field experience, MFMB products are engineered for superior performance and ease of installation.

DESCRIPTION
Peel & Seal® is a patented laminate of reflective aluminum foil, rugged, cross-linked polymer films, and a thick layer of cellular closed-cell polyurethane. The asphalt compound adheres to most surfaces and substrates around most punchouts, forming a protective waterproof barrier. A high-quality release liner is applied to protect the adhesive surface until installation.

USES
Peel & Seal® may be used anywhere a fast, dependable waterproofing barrier is needed and is ideal for roofing, patching, gutter repair, flashing, and general waterproofing where the membrane will be exposed. Designed for low-slope roof applications, it is ideal for mobile homes, trailers, RVs, and sun rooms. No glue, torches, tapes or fasteners are required - only a utility knife and a large push or hand roller are needed for installation.

FEATURES
• For roofing, waterproofing, patching and repair
• Adheres directly to roof deck or substrate
• Aluminum surface reflects heat lowering utility costs
• Easy to install, low cost and labor saving
• Lightweight and easy to handle
• Tough and durable - puncture and abrasion resistant
• Stretches to allow for building movement and conforms to odd shapes
• Requires no coating or covering for exposure to sunlight

INSTALLATION
This is a summary of how the product is installed. FOLLOW APPLICATION INSTRUCTIONS ON THE CARTON.
General Installation: The surface to receive Peel & Seal® must be clean, smooth, dry and free from oil, grease, solvents or debris - these interfere with proper adhesion. Apply in fair weather at temperatures above 50°F. Minimum slope of 1/2" per foot is required. Not required for areas with ponding water.

Peel & Seal® is easily installed by removing the release liner and pressing into place. Cut to fit with a utility knife. Peel & Seal® is pressure sensitive. Apply maximum pressure uniformly over entire membrane using a large ball or hand roller. Peel & Seal® adheres to the deck and to itself when overlapped. Seams and overlaps must be firmly rolled with a hand roller.

When overlapping, 3" side laps and 6" end laps are required. Masonry, concrete, OSB, weathered wood, and rusted metal should be primed first with an asphalt-based primer. To improve adhesion, use MFMB Spray Adhesive™ as needed. When installing over EPDM, the surface must be primed with "WeatherBond™" Multi-Purpose primer.

When installing over silicone caulks, sealants or petroleum-based materials, allow any solvents to fully cure. Masonry should also be fully cured. Installer is responsible for compatibility with caulks and sealants.

Peel & Seal® is tested to ASTM D 1970 and meets the requirements of ICC-ES AC-75, Florida Building Code FLB 11842.2, FLB 13025.1, FLB 13025.2, has a UL Class "A" Fire Rating, and is Miami-Dade County Approved, Texas Dept. of Insurance FCIS-38.

10-YEAR LIMITED WARRANTY
MFMB Building Products Corp. (MFMB) warrants materials to be free from leaks caused by defects in material or manufacturing for a period of ten (10) years from the date of purchase when applied according to published directions.

For the most current installation instructions, Warranties, Technical Specifications and Approvals, visit www.mfmb.com.

Peel & Seal® is protected by U.S. Patent Nos. 4,936,938; 5,098,759 and 5,142,837. "WeatherBond" is a trademark of WeatherBond.

525 Orange Street, PO Box 340, Coonshoan, Ohio 43812 • Tel 800-882-7663 • Fax 740-422-4161 • www.mfmb.com

TDS-PAS 04/07 Revised 08/13

Connectors for Cold-Formed Steel Construction

S/JCT and S/HJCT Steel-Joist Connectors

The S/JCT and S/HJCT are unique, skewable steel-joist framing connectors that combine strength, versatility and low installed cost. The connectors can be used with CFS headers, wood headers, steel beams (with welds or PAF fasteners) and masonry walls. Installed cost is minimized since these products are easier than using other connectors, simplifying the need for web stiffeners. The connectors also feature horizontal tabs that facilitate top flange alignment and joist support during shear installation.

Material: S/JCT - 68 mil (14 ga) S/HJCT - 57 mil (12 ga)
Finish: Galvanized

Features:
• Uni-directional: Joist can be attached from left or right
• One size fits joists 8" through 14" deep
• Optional holes for additional load capacity
• Simplicity of design
• Quick and easy installation
• Field skewable up to 45° left or right

Installation:
• Attach hanger with specified fasteners. Use round holes for minimum load, use round and triangle holes for maximum load.
• May be used for weld-on applications. The minimum required weld to the top flange is 1/4" x 2 1/2" fillet weld to each side of top flange. Consult the code for specific considerations when welding galvanized steel.
• May be installed using PDAPT-62KP (0.157" x 1/4" powder-actuated fasteners). Steel headers with thicknesses between 1/4" and 1/2" having a minimum Fy = 36 ksi. A Red level (R) or Purple level (P) powder load may be required to achieve specified penetration (p). See illustration on p. 253.

Codes: See p. 11 for Code Reference Key Chart
Ordering Information: The S/JCT is sold in cartons of 50. The S/HJCT is sold in kits as the S/HJCT-KIT and contains five (5) connectors and 350 #14 screws.

Installation:

- Attach hanger with specified fasteners. Use round holes for minimum load, use round and triangle holes for maximum load.
- May be used for weld-on applications. The minimum required weld to the top flange is 1/4" x 2 1/2" fillet weld to each side of top flange. Consult the code for special considerations when welding galvanized steel.
- May be installed using FPD20ATP® (0.157" x 1/4") powder-actuated fasteners. Steel headers with thickness between 1/4" and 1/2" having a minimum F_y = 38 ksi. A P-1 rated (or P Purple) level of powder load may be required to achieve specified penetration (p). See Illustration on p. 223.

Ordering: See p. 11 for Code Reference Key Chart.

Ordering Information: The S/JCT is sold in cartons of 50. The S/HJCT is sold in kits as the S/HJCT Kit and contains five (5) connectors and (95) 3/16" screws.

Model No.	Fasteners			Allowable Load ¹		Code Ref.
	Top	Face	Joist Uprift	Down	Up	
Attached to CFS Header: 54 mil (16 ga) - Straight Hanger						
S/JCT (mm)	(1) #10	(2) #10	(4) #10	940	1,195	
S/JCT (max)	(1) #10	(4) #10	(4) #10	1,435	2,165	
S/HJCT (mm)	(2) #10	(4) #14	(6) #14	1,510	2,920	
S/HJCT (max)	(2) #10	(8) #14	(8) #14	1,670	3,855	
Attached to CFS Header: 54 mil (16 ga) - Skewed Hanger						
S/JCT (mm)	(1) #10	(2) #10	(4) #10	940	1,155	
S/JCT (mm) Skew	(1) #10	(4) #10	(4) #10	940	1,185	
S/HJCT (mm)	(2) #10	(4) #10	(8) #14	1,510	2,305	
Attached to Steel Header - Straight and Skewed Hanger						
S/JCT (mm)	(1) #10	(2) #10	(4) #10	940	1,450	
S/HJCT (mm)	(2) #10	(4) #14	(6) #14	1,510	1,835	
S/HJCT (mm) Skew	(2) 0.157" x 1/4" powder-actuated fastener	(4) #10	(4) #14	1,450	1,980	
Attached to Masonry - Straight and Skewed Hanger						
S/JCT (mm)	(2) 1/4" x 2 1/2" Titen	(4) #14	(4) #14	710	1,475	
S/HJCT (mm) Skew	(2) 1/4" x 2 1/2" Titen	(4) #14	(4) #14	710	1,410	

S/HJCT Installation with a 4x10 Wood Header

1. Allowable loads are based on a minimum of single 54 mil (16 ga.) CFS joint mounted on a 4x10 wood header and are not to be used for other applications without being liberally reduced per Designer's specification.
2. Allowable loads for skewed connections are based on a minimum of single 54 mil (16 ga.) CFS joint mounted on a 4x10 wood header and are not to be used for other applications without being liberally reduced per Designer's specification.

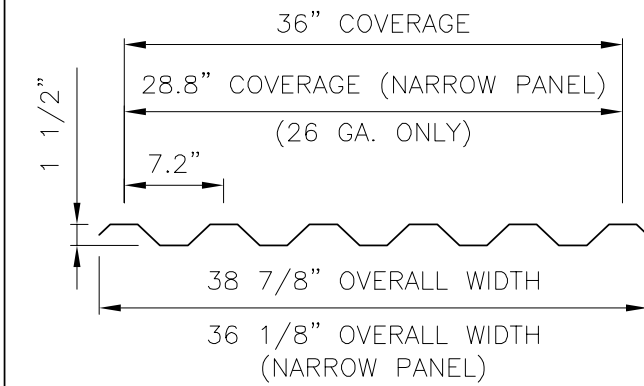
McELROY METAL, INC

www.mcelroymetal.com



Mega-Rib Panel

Product Data



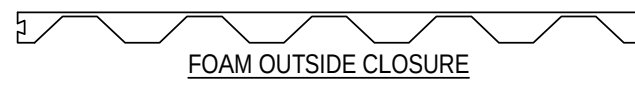
MEGA-RIB PROFILE

NOTE

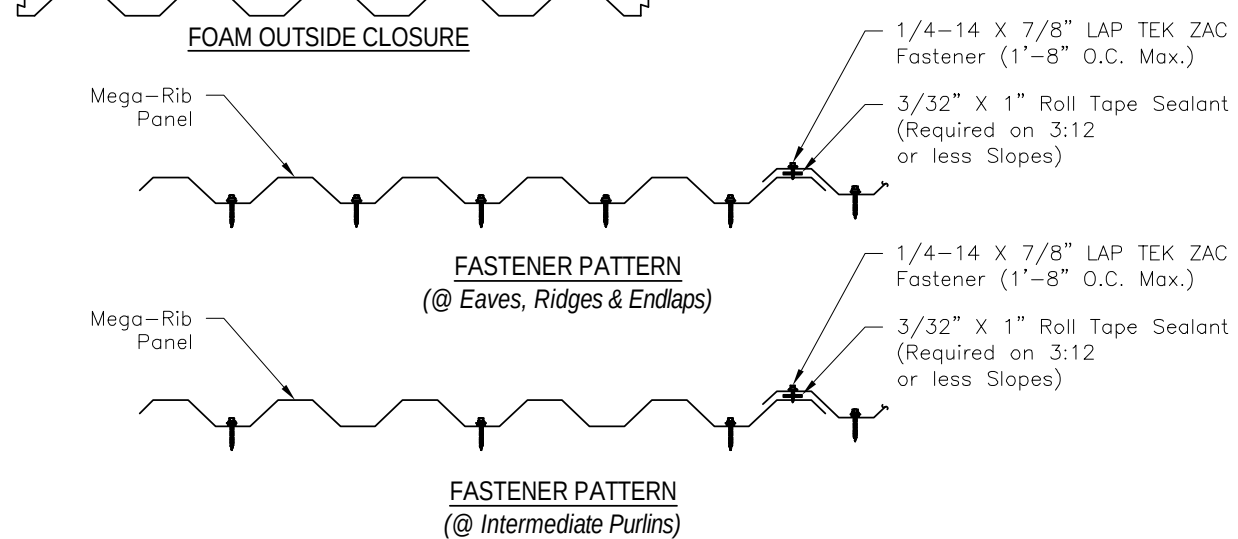
All data represented on this sheet may not be applicable to all widths and gauges. Please contact McElroy Metal for more information.



FOAM INSIDE CLOSURE



FOAM OUTSIDE CLOSURE



Applications
Exposed fastener wall/roof panel used on slopes down to 1:12. Tape sealant is required on seam (side-laps). Standard panel lengths up to 40'. Please inquire for longer lengths.

Substrates
Plywood or Purlins.

Material
Standard - 24 GA. Steel ASTM A792 (50 ksi) AZ55 - Bare
AZ50 - Painted
Optional - 22 GA. Steel ASTM A792 (50 ksi) AZ55 - Bare
AZ50 - Painted
- 18 GA. and 20 GA. Steel ASTM A792 (50 ksi)
AZ50 - painted coil only

Manufacturing
Roll formed in factory.

Finishes
Acrylic Coated Galvalume®
Fluoropolymer (Kynar 500® PVDF resin-based)
Siliconized Polyester and Polyester

Pan Conditions
Oil canning is inherent in all metal panels and is not cause for panel rejection. A signed pan wave acknowledgement will be required for all orders prior to production.

Testing
Uplift: UL 580 Class 90, ASTM E1592
Impact Resistance: UL 2218 Class 4
ICCES Evaluation on 24 GA.
Fire Resistance: UL 263 & UL 790 Class A
Florida Product Approval: FL 1832.8 (non-structural)
FL 1747.6 (structural)
Miami Dade Approval: NOA# 13-0617.21

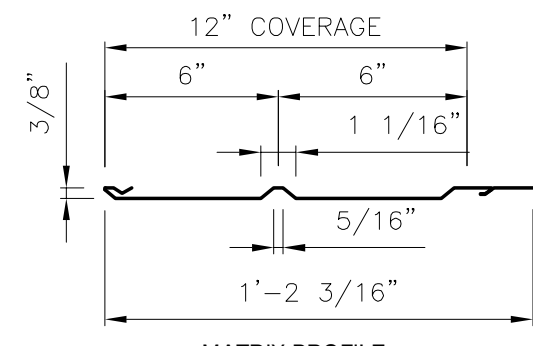
McELROY METAL, INC

www.mcelroymetal.com

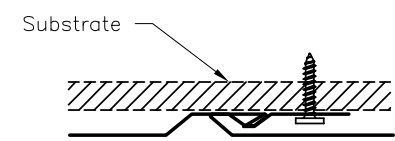


Matrix Soffit Panel

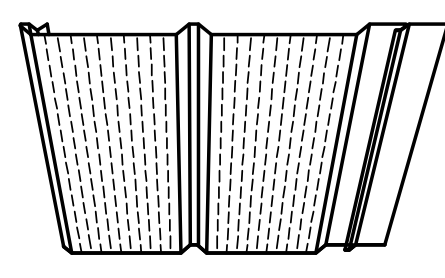
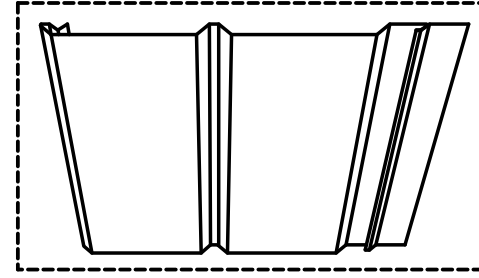
Product Data



MATRIX PROFILE



MATRIX SEAM

VENTED PANEL
(10% Net Free Air)

NON-VENTED PANEL

Applications
Concealed fastener soffit/wall panel. Standard panel lengths from 0'-0" to 25'.

Substrates
Plywood, Hat Section, Mac-Girts, or Wall Girts.

Material
Standard - 24 GA. ASTM A792 (50 ksi steel) AZ55 - Bare
AZ50 - Painted
- 29 GA. ASTM A792 (80 ksi steel) AZ55 - Bare
AZ50 - Painted

Manufacturing
Roll formed in factory. (Marshall Plant Only)

Finishes
Acrylic Coated Galvalume®
Fluoropolymer (Kynar 500® PVDF resin-based)

Pan Conditions
Vented or Non-Vented
Ventilation = 10% Net Free Air
Oil canning is inherent in all metal panels and is not cause for panel rejection. A signed pan wave acknowledgement will be required for all orders prior to production.

Testing
Uplift: ASTM E1592
Testing and Approvals are product specific. Please inquire for details.

REVISIONS

DATE

ID

DESCRIPTION

FOR PERMIT

05/03/2023

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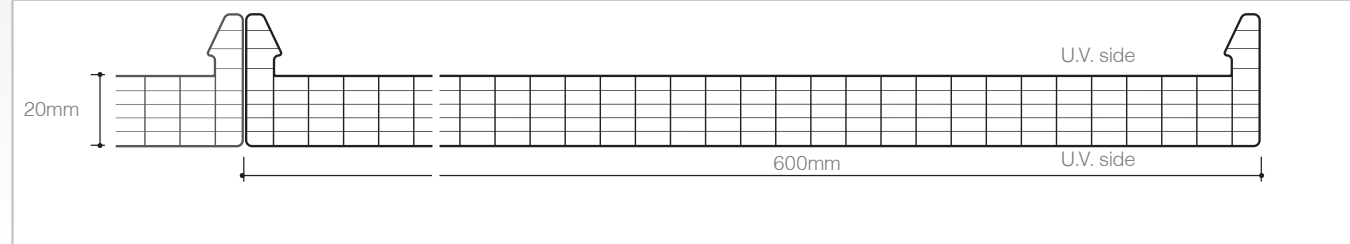
298

2.2
MODULAR
CONNECTOR SYSTEMS

arcoPlus®
Reverso 626



PROFILE



Modular system
of bi-protected
multiwall
polycarbonate for
translucent roofing
applications



LIGHT MANAGEMENT



PRODUCT AVAILABLE
WITH IR AND AR TREATMENT

PRODUCTION STANDARDS

thickness	20mm
structure	6 walls
effective modular width	600mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	1.7 W/m²K
Acoustic insulation	20 dB
Linear thermal expansion	0.065mm/m°C
Temperature range	-40°C +120°C
UV rays protection	2 sides Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

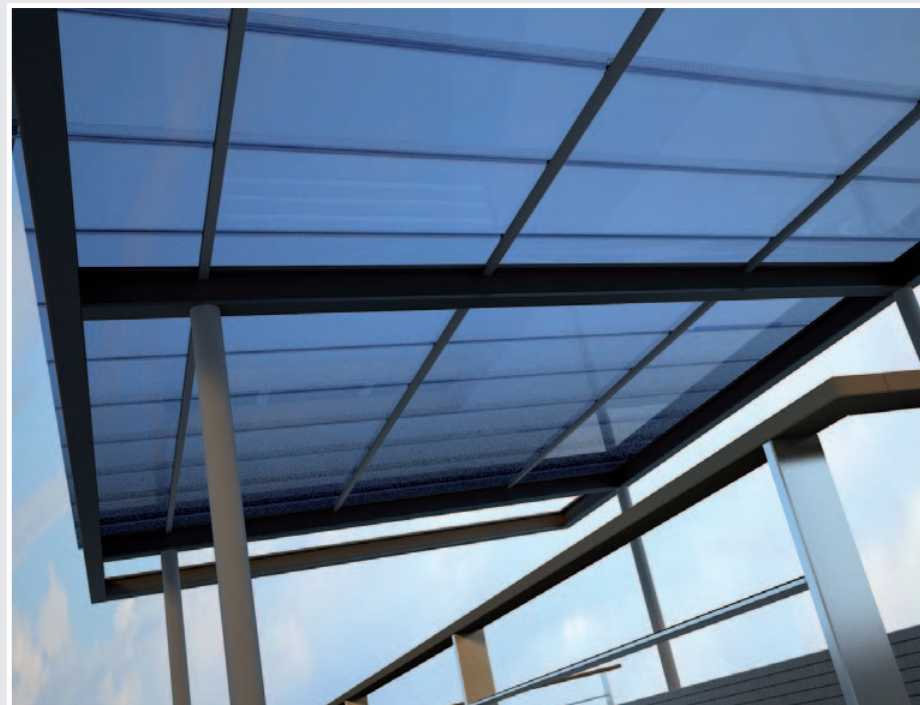
arcoPlus®626 reverso is a modular system of coextruded six-wall polycarbonate panels with a thickness of 20mm. These are fixed to the existing structure using specific anchor brackets. The panels are joined together by a protected polycarbonate cover plate assembled using a click-on system, or by an aluminium connector, for a perfectly watertight seal.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Bendability R.min=2,5m

APPLICATIONS

- Roofing
- Curved roofing
- Bardages verticaux



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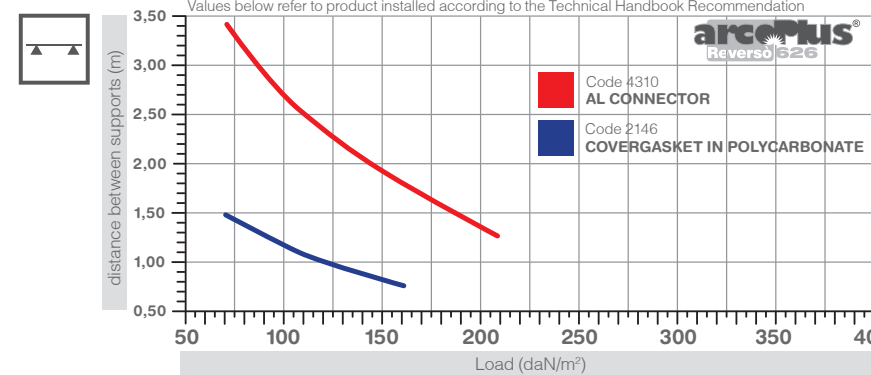
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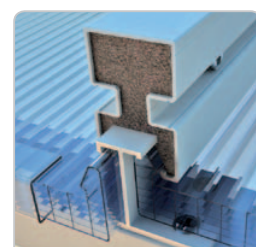
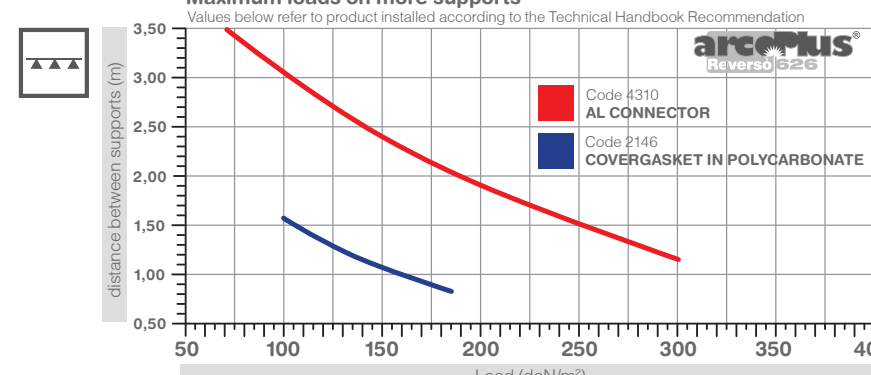


FLAT SYSTEM
LOAD RESISTANCE

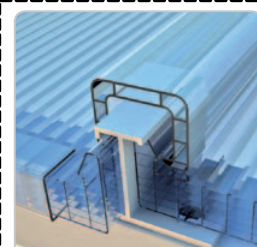
Maximum loads on two supports



Maximum loads on more supports



SYSTEM WITH ALUMINIUM
CONNECTOR CODE 4310



SYSTEM WITH POLYCARBONATE
COVERGASKET CODE 2146

EASY AND LOW-COST
INSTALLATION

To ensure compliance with snow load and negative wind load resistance requirements, anchor brackets should be fitted for each purlin. The polycarbonate panels are fastened to the underlying structure using specific brackets, which must be anchored to the purlins using suitable self-drilling/self-tapping screws (on

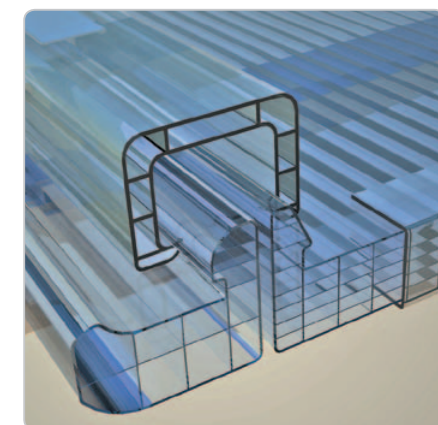
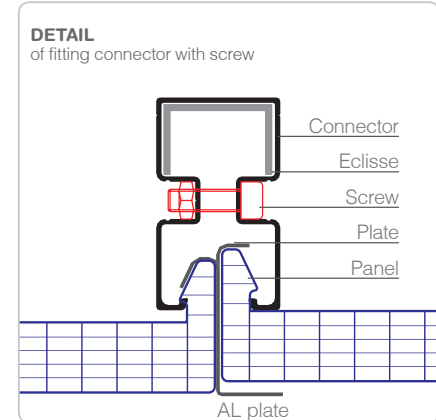
metal structures) and tap bolts (for wooden structures). These screws and bolts are not supplied. Different connector profiles can be used, depending on the required load specifications.

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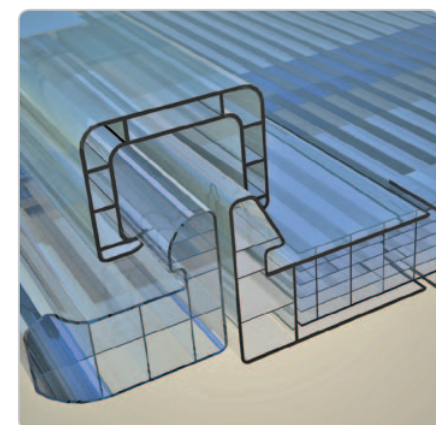


COMPLETE
ROOFING SYSTEM

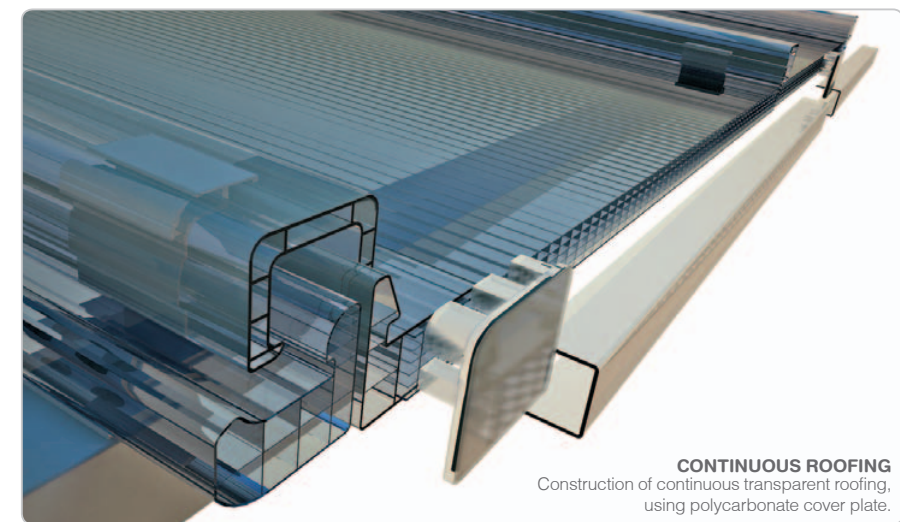
Modular multiwall polycarbonate panels for the construction of flat or curved roofing. The panels are anchored to the supporting structure using specific aluminium brackets to guarantee load strength. Depending on the load capacity values required, or the distance between the purlins of the underlying structures, either polycarbonate cover plates can be used or, for greater strength, aluminium connectors.



DETAIL OF START PROFILE
Start profile with panel, cover plate, plate and air cell cover profiles.



DETAIL OF END PROFILE
Detail of insertion of section-breaker profile to complete roofing.



CONTINUOUS ROOFING
Construction of continuous transparent roofing using polycarbonate cover plate.

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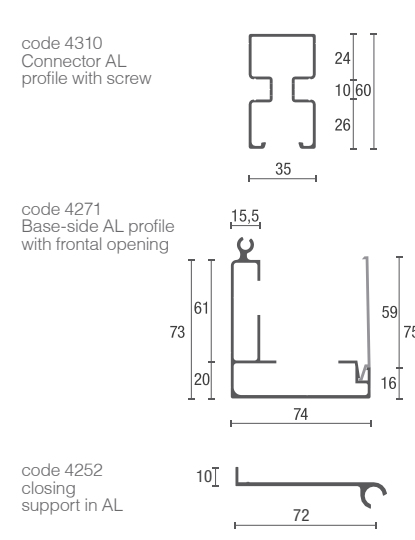
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ACCESSORIES

The arcoPlus® system includes a complete range of accessories to facilitate installation. The air cells of the panels must be sealed using a specific polycarbonate profile or vented aluminium breather tape. This allows correct ventilation and prevents soiling on the inside.

METAL PROFILES



ACCESSORIES



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DELPRO^{1238™}
1638™

INTERLOCKING PVC PANEL

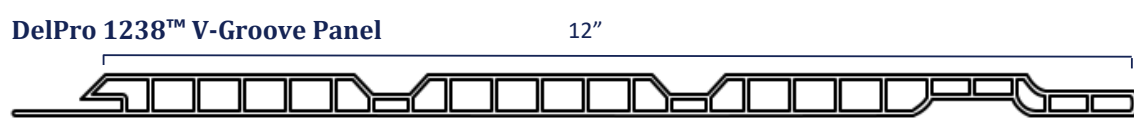
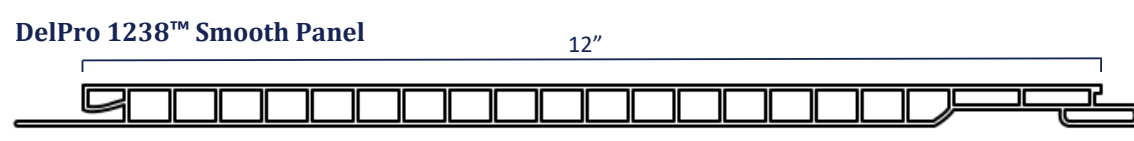
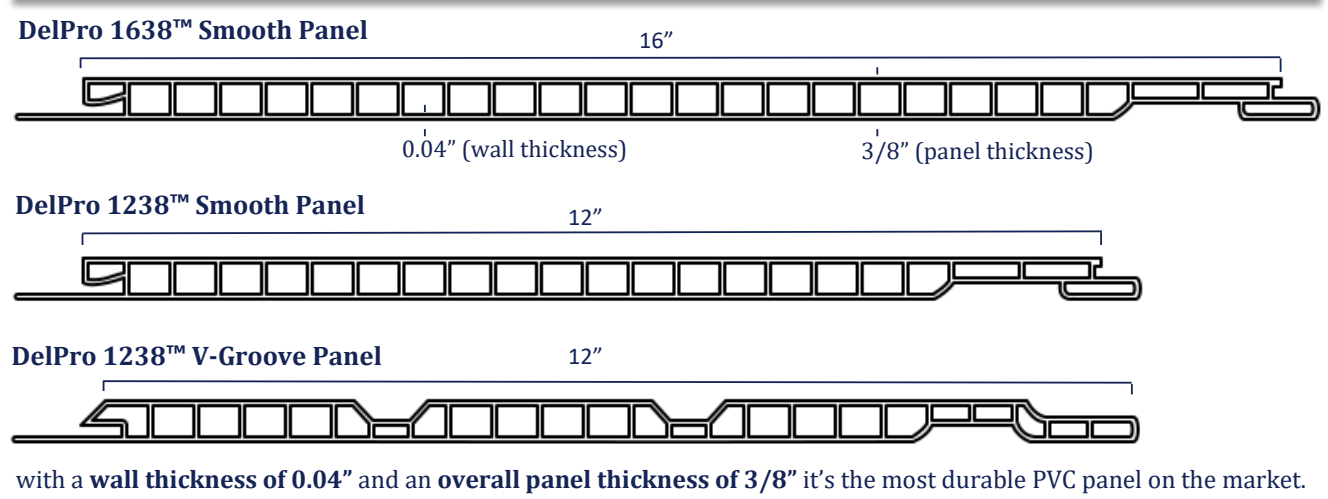
• AGRICULTURAL • INDUSTRIAL • COMMERCIAL • RESIDENTIAL •



• ABOUT DELPRO 1238™ AND DELPRO 1638™ •

- Distinctive Tongue and Groove System
- Quick and Easy Installation
- Low Maintenance
- Easy to Clean
- Economical
- No Painting Required
- Bright White, Extremely Smooth Panels
- Made with 100% Exterior Grade Virgin PVC Formula
- tried and tested for two decades
- CFIA Approved
- Hidden Fastener
- CAN ULC S102.2 Fire Rating Approved
- 12" and 16" Wide Panels
- 25 Year Warranty

• SPECIFICATIONS •



with a wall thickness of 0.04" and an overall panel thickness of 3/8" it's the most durable PVC panel on the market.

INSTALL GUIDE:
ACM/FIBER CEMENT PANELS 1



INSTALL GUIDE:
ACM/FIBER CEMENT PANELS 2

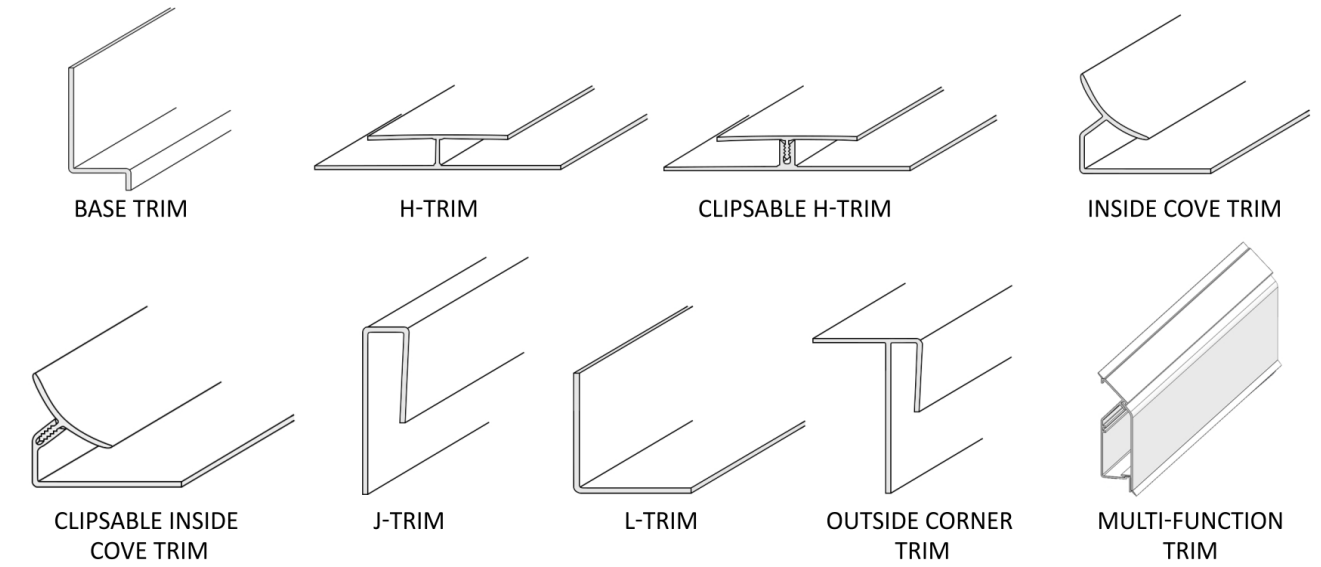


• ENJOY THE **STRENGTH** •

• DISCOVER THE **BEAUTY** •

Our panels provide an efficient and a stylish finish for walls and ceilings. DelPro 1238™ and DelPro 1638™ a durable cladding for walls and ceilings, particularly in damp areas. With a strong resistance to color change and fading, DelPro 1238™ and DelPro 1638™ will neither delaminate, rot, nor absorb water.

• DELPRO 1238™ AND DELPRO 1638™ TRIM •



• WHY A PANEL THICKNESS OF 3/8" IS BETTER THAN 1/2" •

In the PVC wall paneling industry, unlike lumber, thicker is not always better. The interior walls and the space between the front and back wall of the panel, are the weaker parts of the overall design. If you increase this space (the thicker the panel, the more you stretch the interior wall), you have now effectively decreased the overall impact strength of your panel. Therefore, a 3/8" panel is much stronger and longer lasting than a 1/2" panel.

• WHY DELPRO 1238™ AND DELPRO 1638™ AREN'T WIDER THAN 16" •

If you have weight or tension on the panel (insulation or an angled fastener) it creates pressure between both ends and eventually the panel starts to bow or sag. In the PVC paneling industry, it is proven that 16" is the best and maximum width to use. Delpro 1238™ and Delpro 1638™ are easily able to withstand these pressures and will not bow or sag.



Phone: 1-877-553-3632
Fax: 1-877-264-9025

sales@delcan.ca
www.delcanproducts.com

INSTALL GUIDE:
MCELROY METAL WAVE PANELS



INSTALL GUIDE:
PVC PANELS



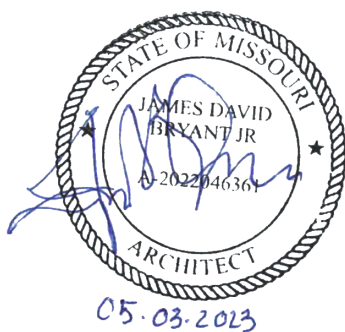
INSTALL GUIDE:
POLYCARBONATE ROOF SYSTEM



NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE
FOR MOST
CURRENT
PROJECT
DRAWINGS.



PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

SHEET:

MW-7.4

MATERIAL SPECS

MT-13

STRETCH OUT: 3"

1" ZEE CLOSURE

MW-1

STRETCH OUT: 5"

CLOSED HEMS
L-TRIM - OUTSIDE (ADJ.)

MW-197

STRETCH OUT: 27 3/4"

GUTTER 5 (ADJ.)

MW-285

STRETCH OUT: 19 1/4"

Z-TRIM (ADJ.)

MT-35

A

STRETCH OUT: 9 1/2"

STANDARD HEADWALL TRIM

MW-14

A

STRETCH OUT: 8 1/2"

DRIP TRIM - TOP OF WALL (ADJ.)

MW-197

B

STRETCH OUT: 27 3/4"

GUTTER 5 (ADJ.)

MW-285

C

STRETCH OUT: 4 1/4"

Z-TRIM (ADJ.)

MT-37

STRETCH OUT: 2"

STANDARD CLEAT

MW-15

A

STRETCH OUT: 7 3/4"

CLOSED HEMS
ANGLED TRANSITION ZEE (ADJ.)

MW-219

A

STRETCH OUT: 7"

CEILING TRIM - HIGH END (ADJ.)

MW-287

A

STRETCH OUT: 11"

OPEN HEM
COLUMN WRAP CAP (ADJ.)

MT-62

A

STRETCH OUT: 24"

GUTTER

MW-24

A

STRETCH OUT: 7 5/8"

CLOSED HEM
DRIP TRIM - PARAPET (ADJ.)

MW-220

A

STRETCH OUT: 7"

CEILING TRIM - LOW END (ADJ.)

MW-291

A

STRETCH OUT: 12"

GUTTER SUPPORT STRAP (ADJ.)

MT-62D

ATTACH MW-147 & MW-166 PRIOR TO INSTALLING GUTTER ON BUILDING.

GUTTER ASSEMBLY DETAIL

MW-24

B

STRETCH OUT: 14 1/8"

CLOSED HEM
DRIP TRIM - PARAPET (ADJ.)

MW-264

A

STRETCH OUT: 12"

VERTICAL BAND TRIM (ADJ.)

MW-291

B

STRETCH OUT: 12"

GUTTER SUPPORT STRAP (ADJ.)

MT-177

A

STRETCH OUT: 7 7/8"

2" SILL TRIM

MW-24

C

STRETCH OUT: 8 5/8"

CLOSED HEM
DRIP TRIM - PARAPET (ADJ.)

MW-175

STRETCH OUT: 2 1/2"

CLOSED HEM
MTSJ - MATRIX SOFFIT J-TRIM

MT-193

STRETCH OUT: 3 5/8"

WAVE CLIP

MW-147

A

STRETCH OUT: 7 1/2"

RUN: 2"
A: 5 1/2"
B: 90°
GUTTER SUPPORT STRAP (ADJ.)

MW-285

A

STRETCH OUT: 26 1/2"

Z-TRIM (ADJ.)

REVISIONS

ID	DATE	DESCRIPTION
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MODERNWASH
5220 SCOTTSDALE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

35 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.

PRELIMINARY

PLOT DATE: 6/22/23

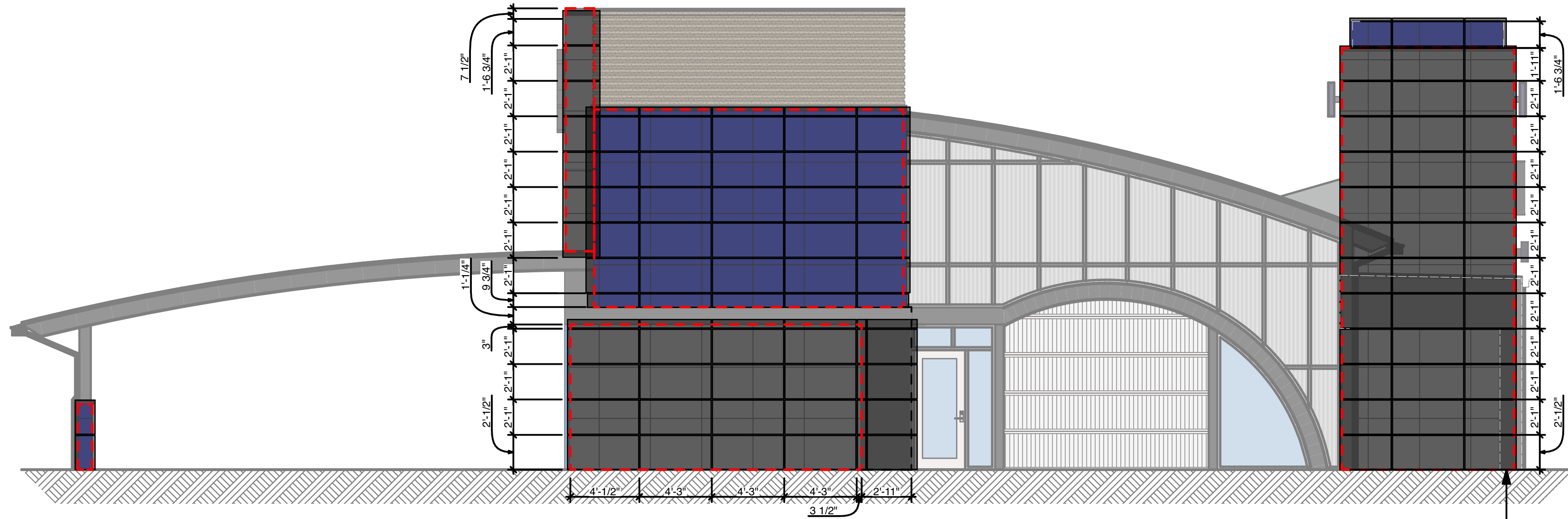
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CHECKED BY: #####

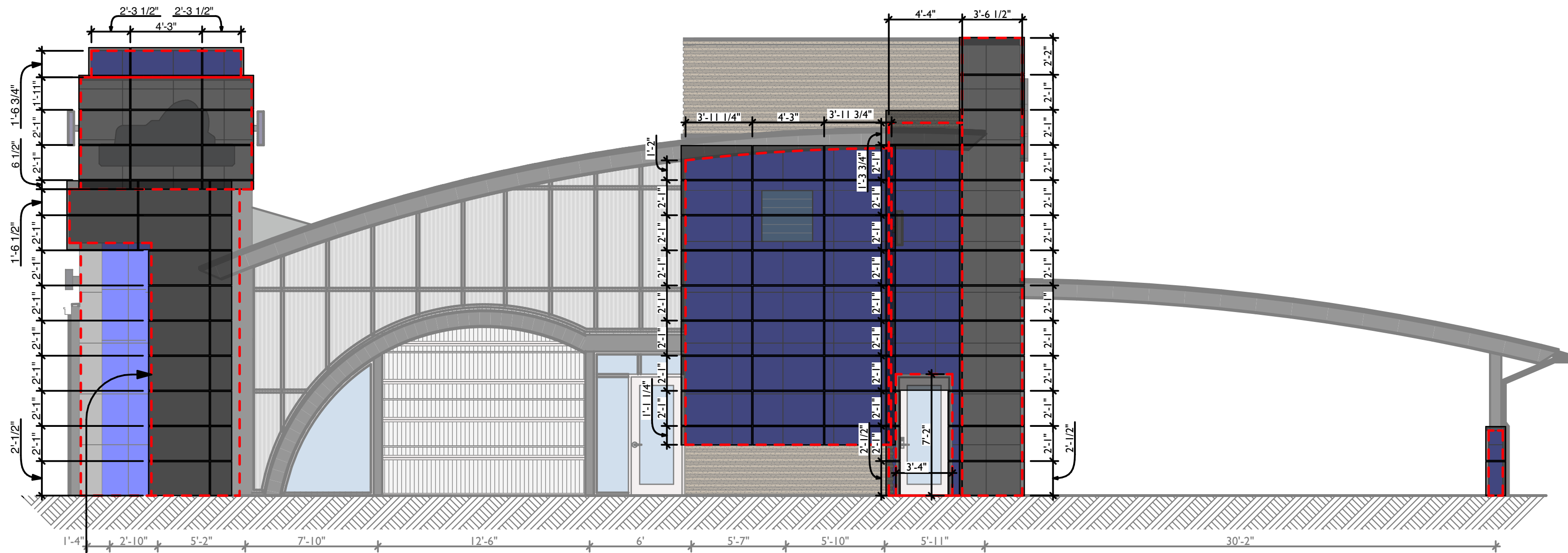
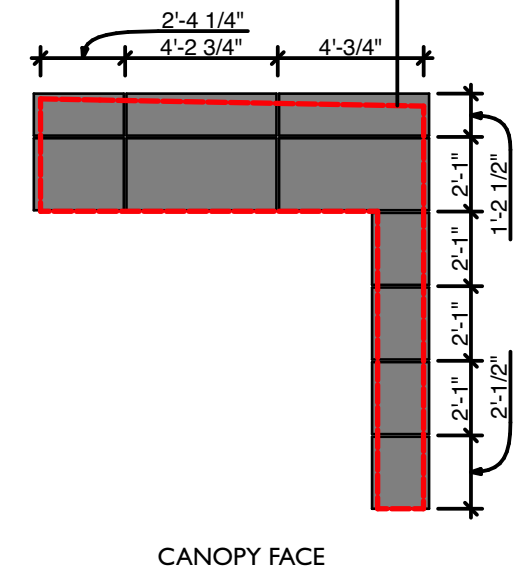
SHEET:

MW-9.1

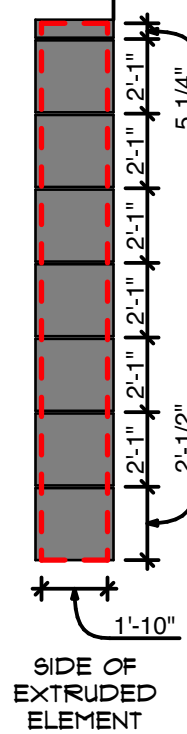
FLASHING/TRIM



B ELEVATION - EAST
SCALE: 3/16" = 1'-0"



F ELEVATION - WEST
SCALE: 3/16" = 1'-0"



REVISIONS		
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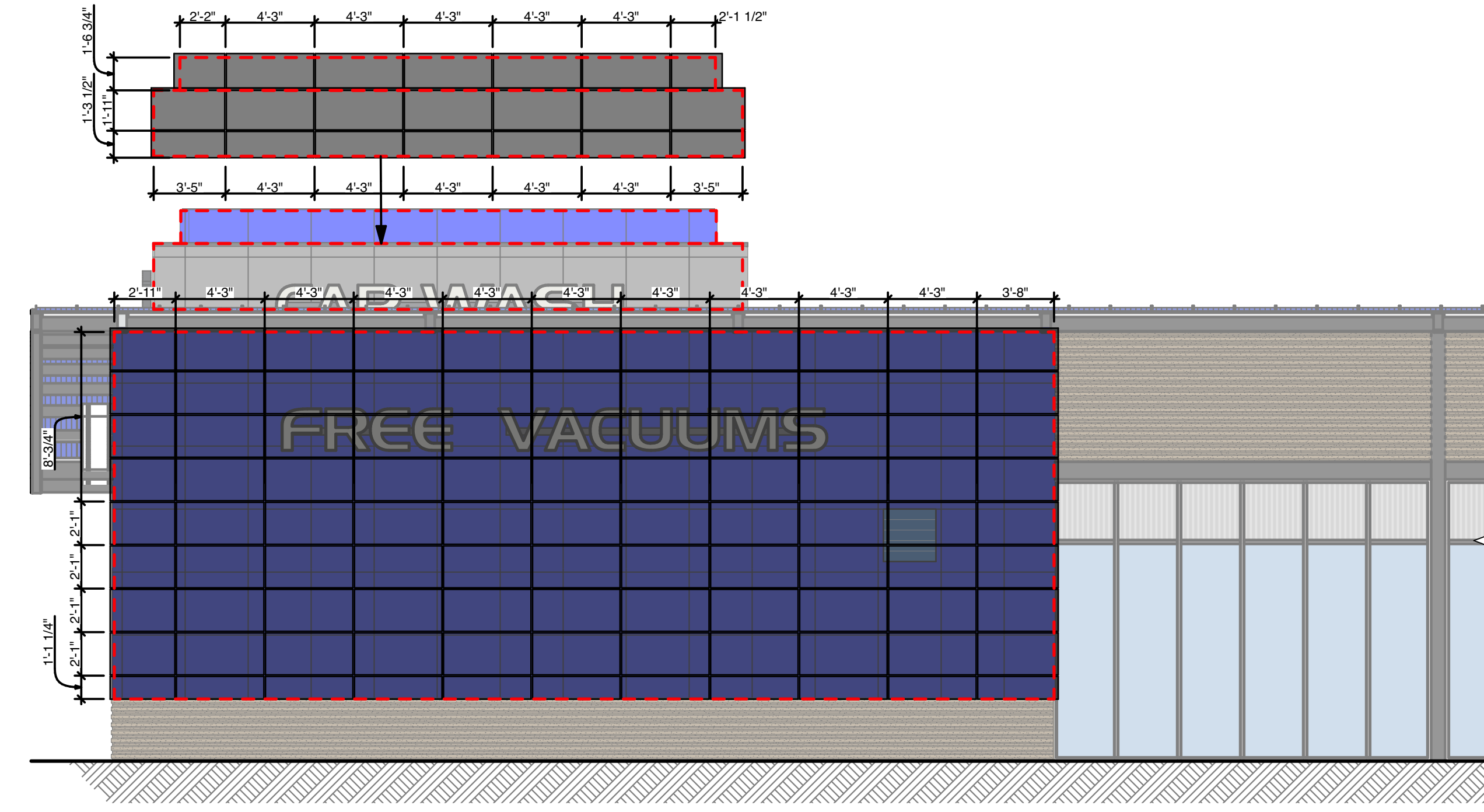


NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

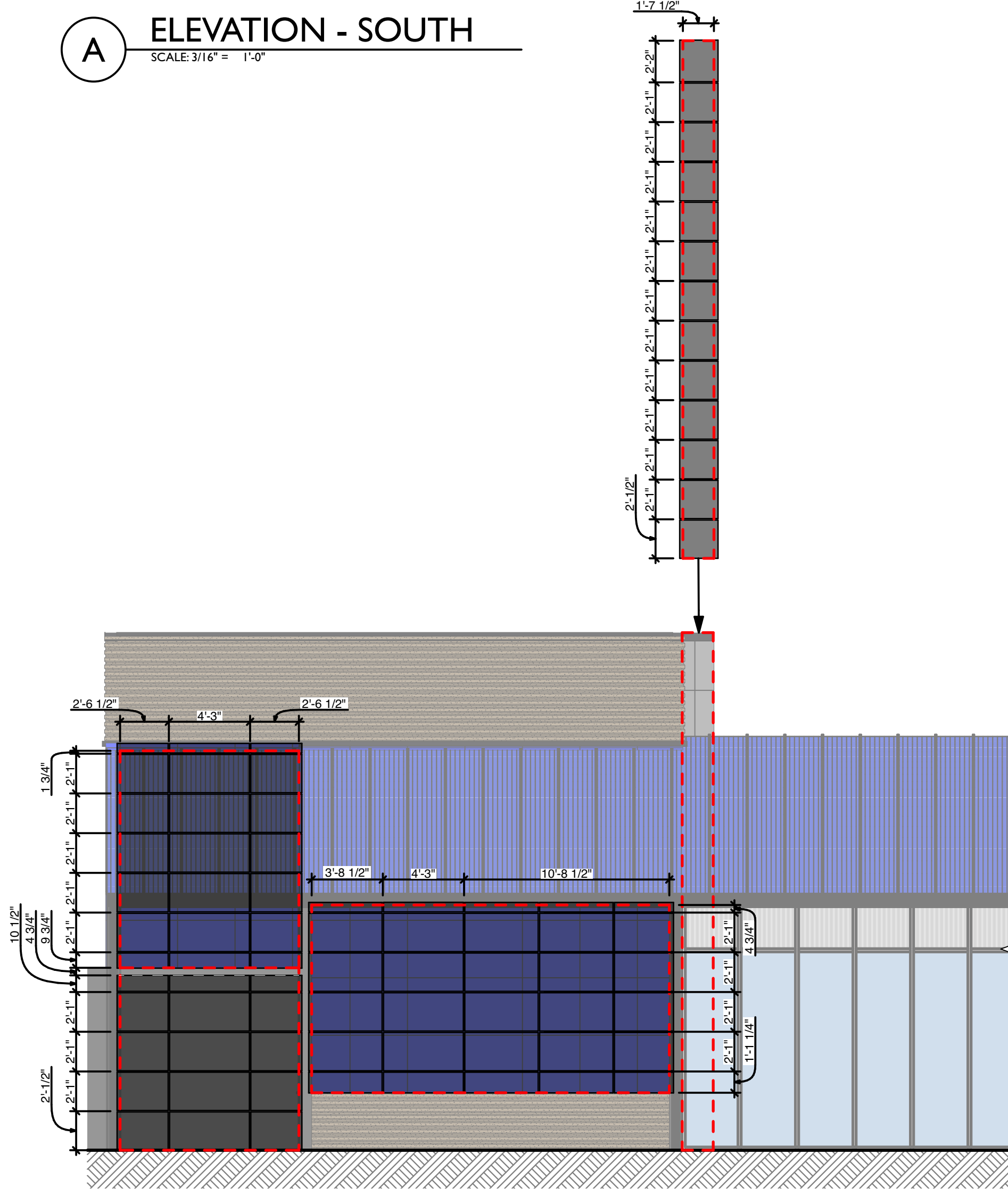
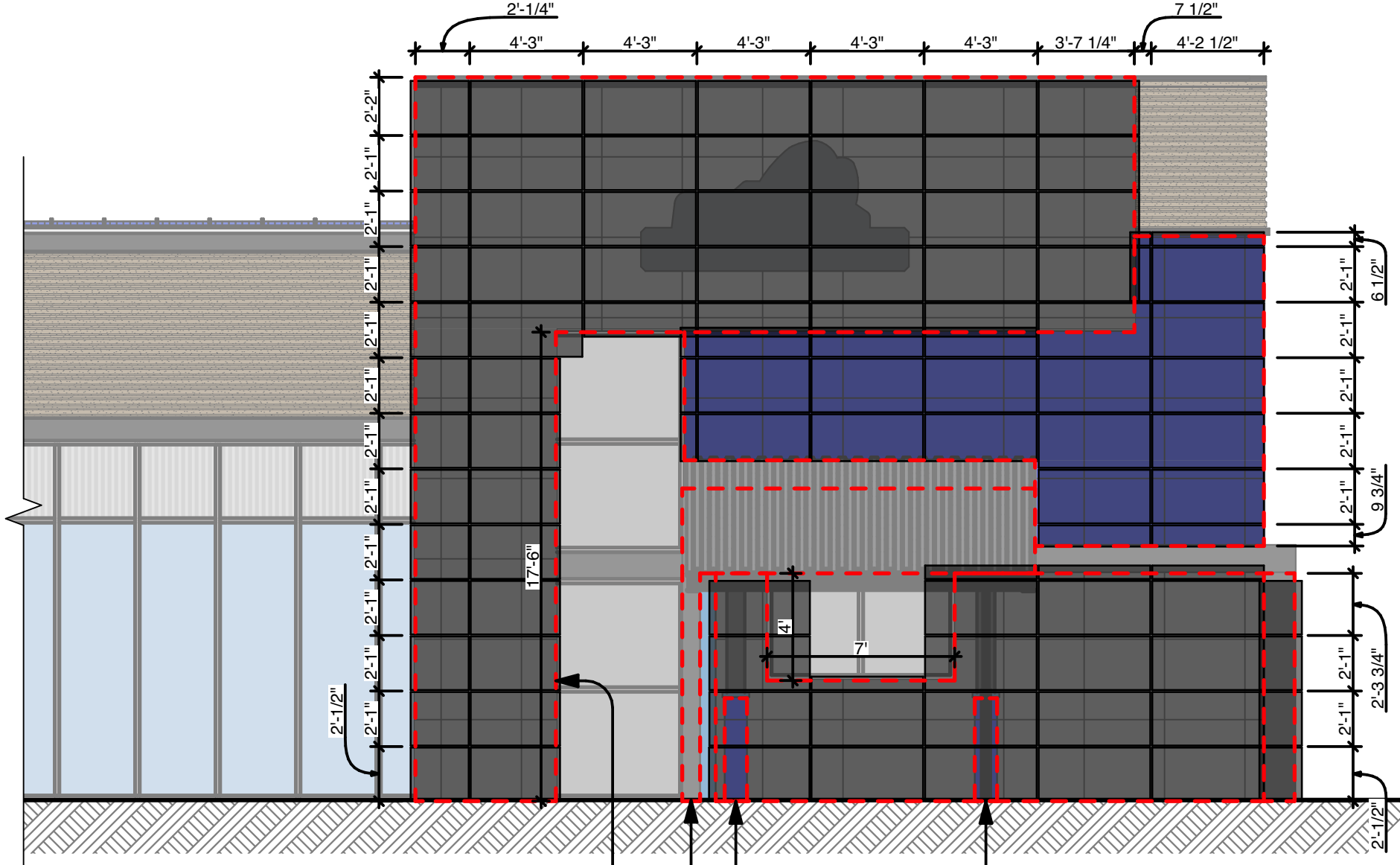


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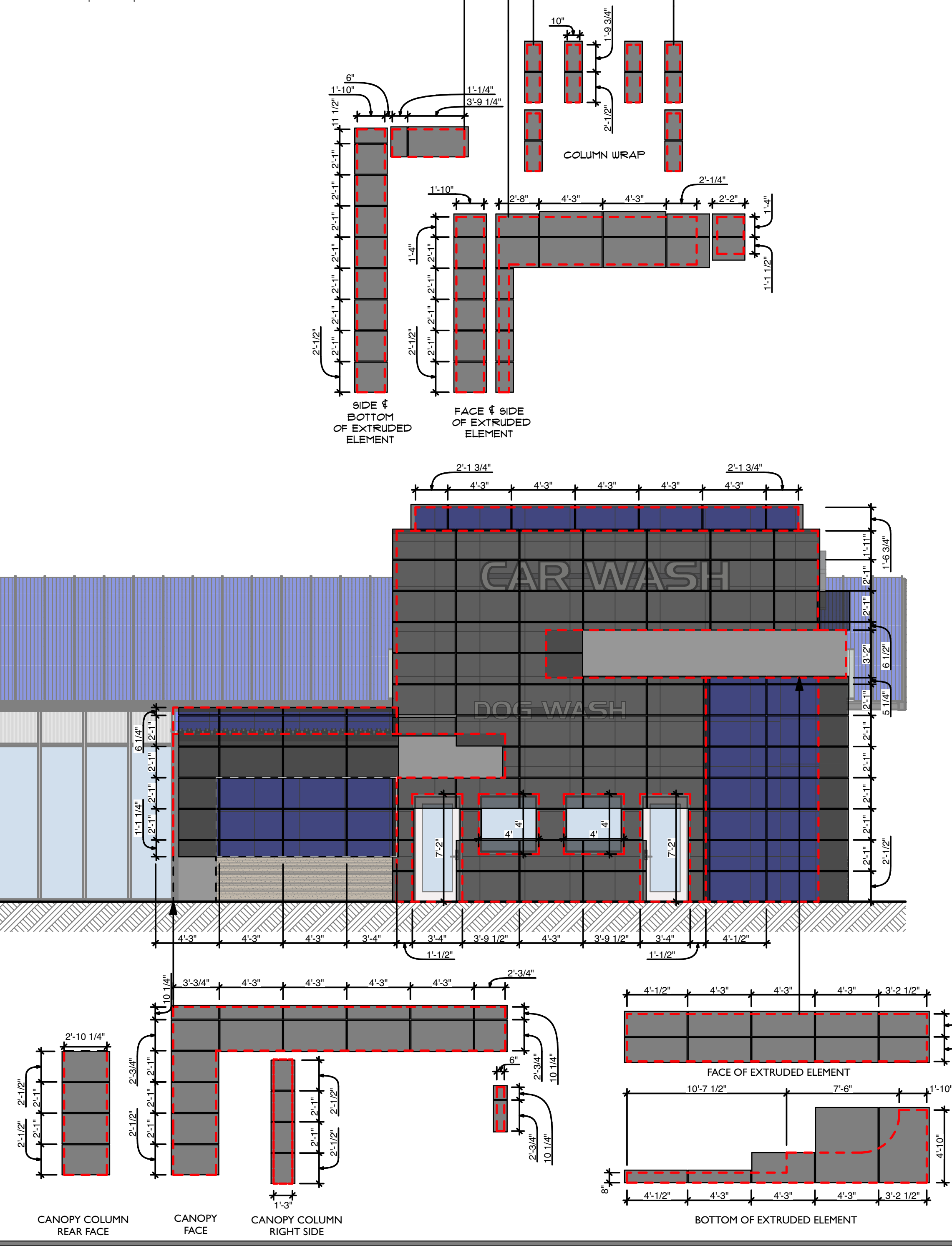
PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
CHECKED BY: #####
SHEET: MW-9.2
EIFS GRID LAYOUT



A ELEVATION - SOUTH
SCALE 3/16" = 1'-0"



K ELEVATION - NORTH
SCALE 3/16" = 1'-0"



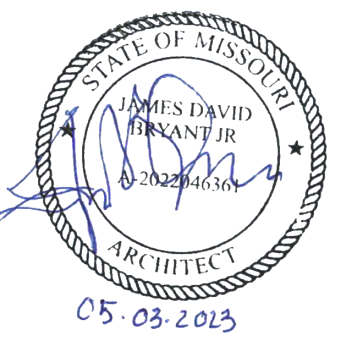
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NEW CAR WASH FOR:
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20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081

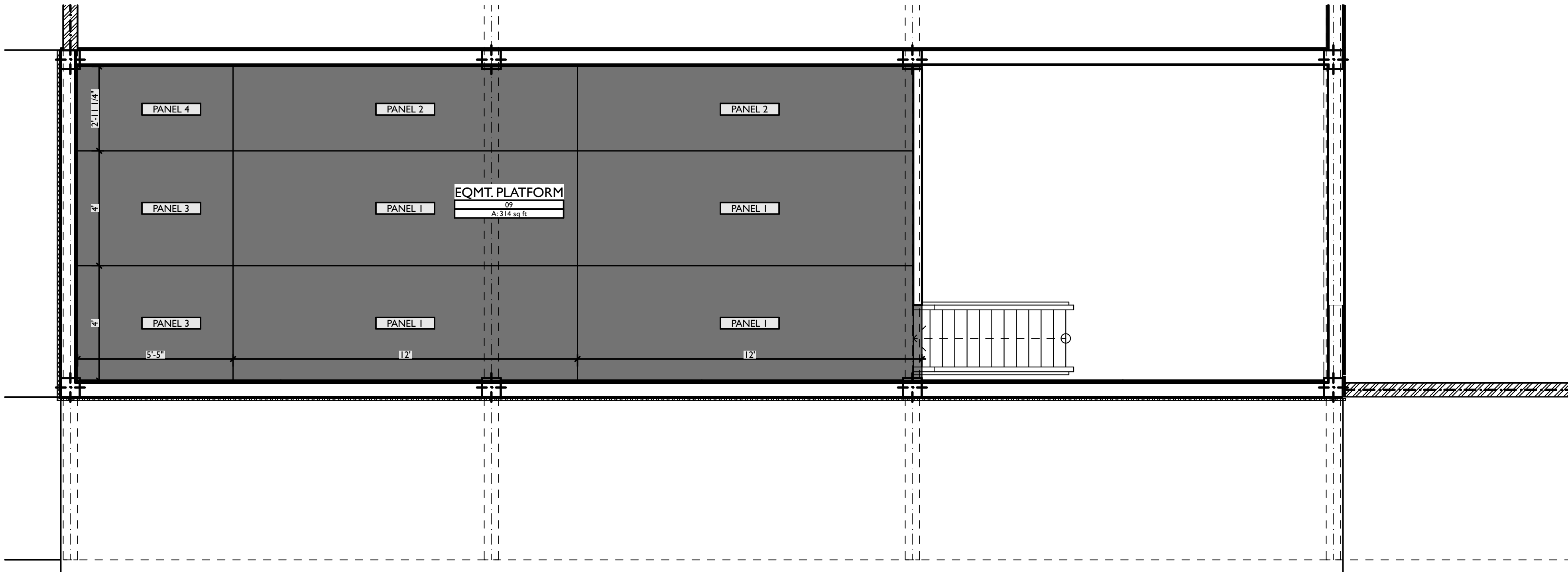


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PRELIMINARY
PLOT DATE: 6/22/23
DRAWN BY: EWH, CBH
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SHEET:
MW-9.3
EIFS GRID LAYOUT

PANEL 1 - 4'X12' - 4 TOTAL
PANEL 2 - 2'-11 1/4" X12'
RIP TO SIZE - 2 TOTAL
PANEL 3 - 4' X 5'-5"
RIP TO SIZE - 2 TOTAL
PANEL 4 - 2'-11 1/4" X 5'-5"
RIP TO SIZE - 1 TOTAL
PANEL CLIPS - INSTALL 4 CLIPS
PER LONG SIDE OF PANEL - 60
SUPPLIED

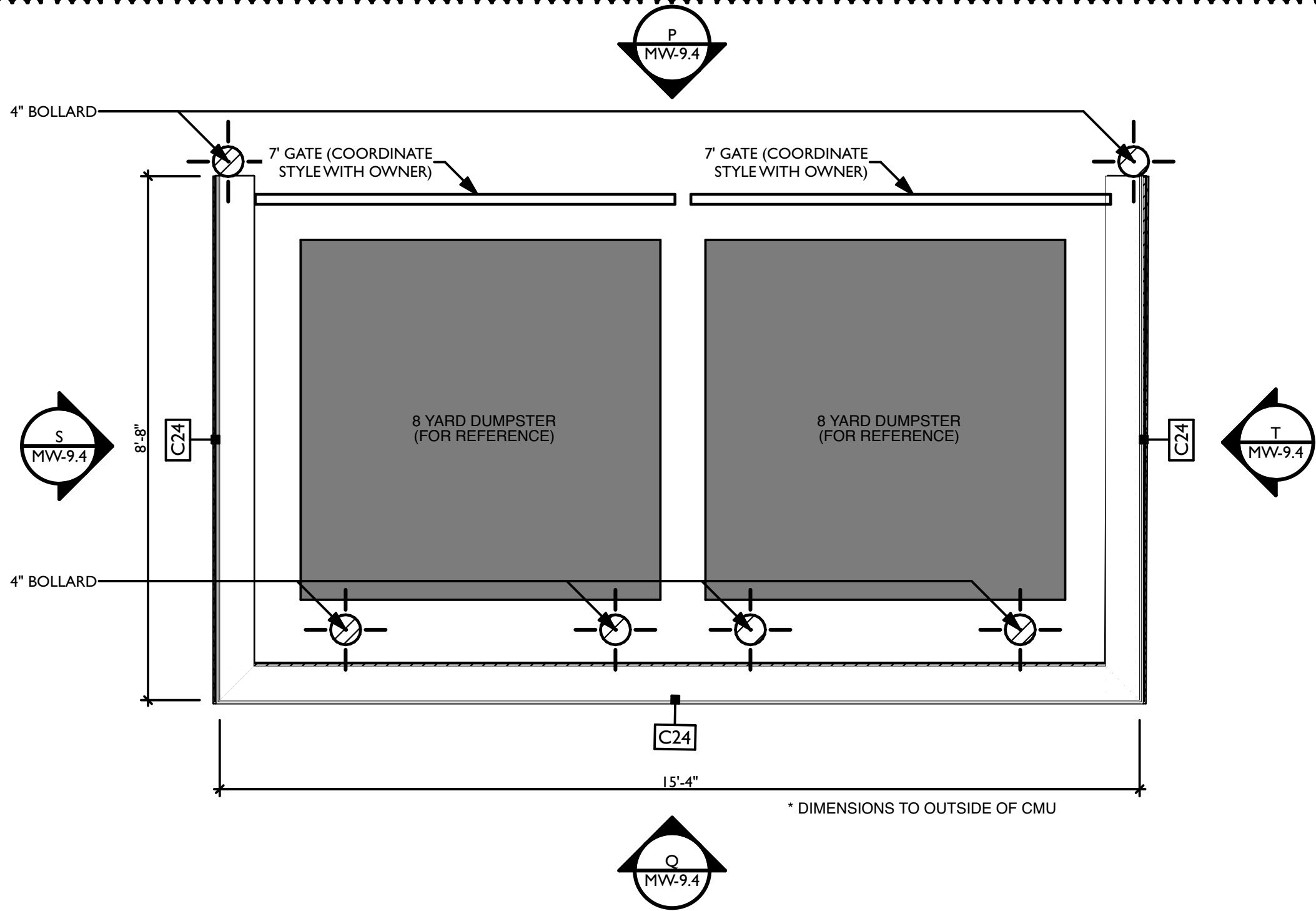
NOTE: PANELS ARE
SUPPLIED IN FULL SIZE.
PANELS 2, 3, AND 4 ARE TO
BE CUT-TO-FIT FROM FULL
SIZE PANELS ON LAYOUT
PROVIDED.



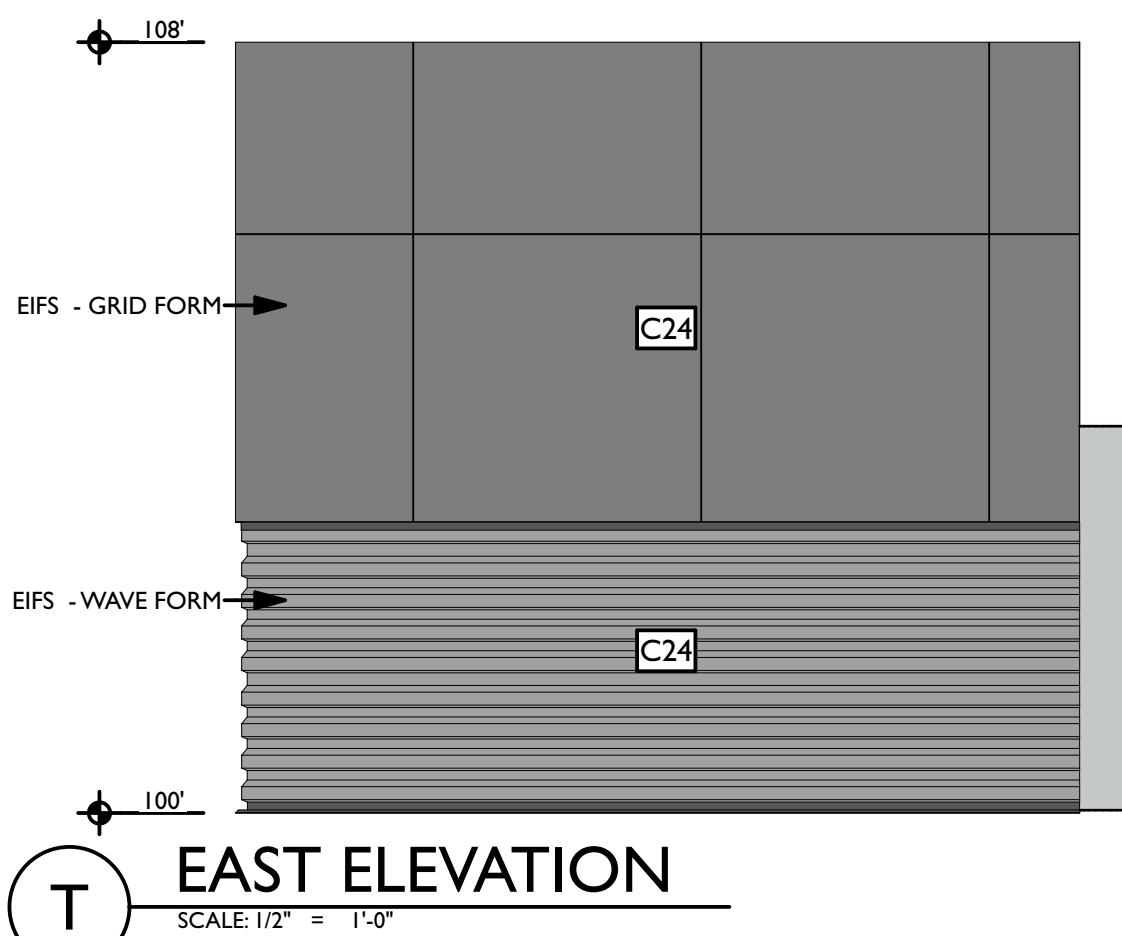
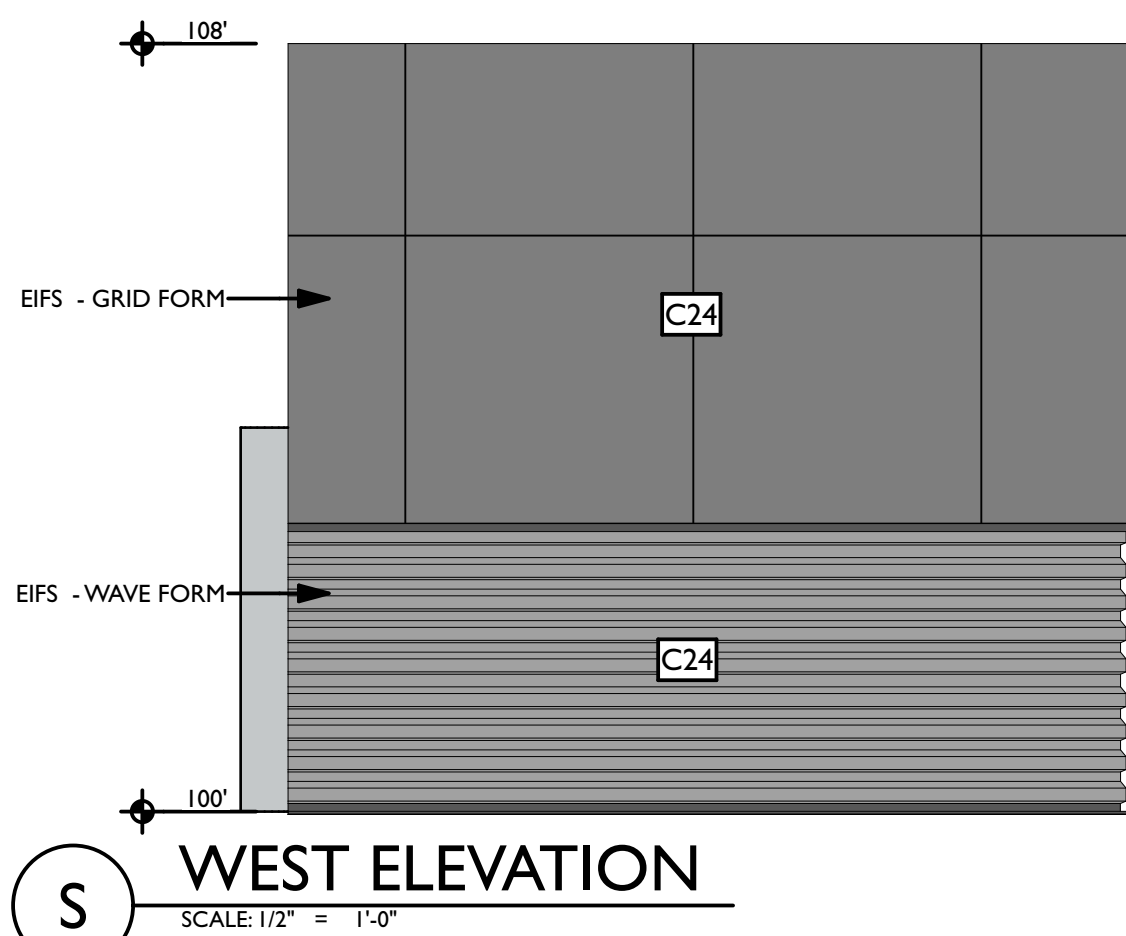
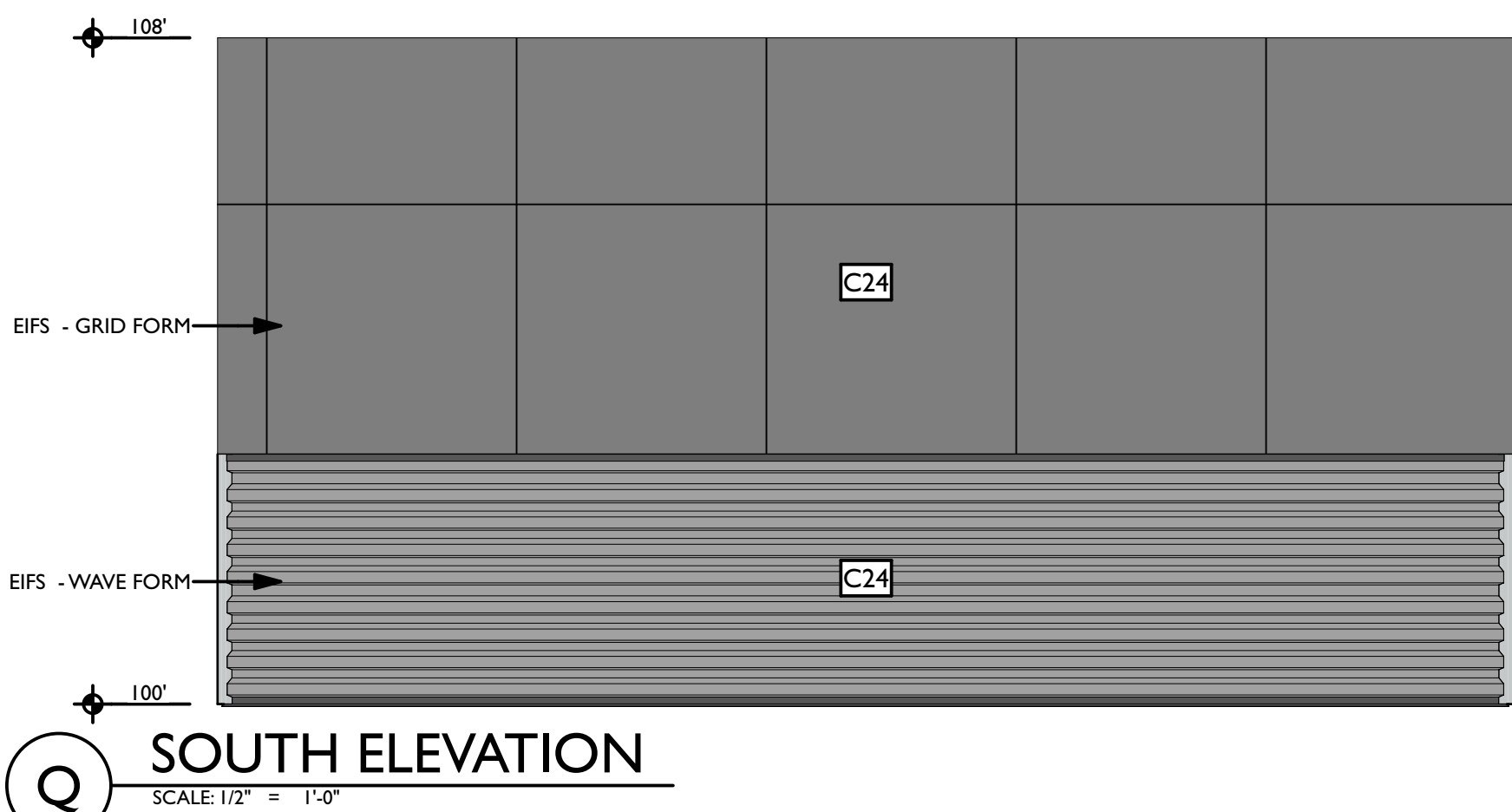
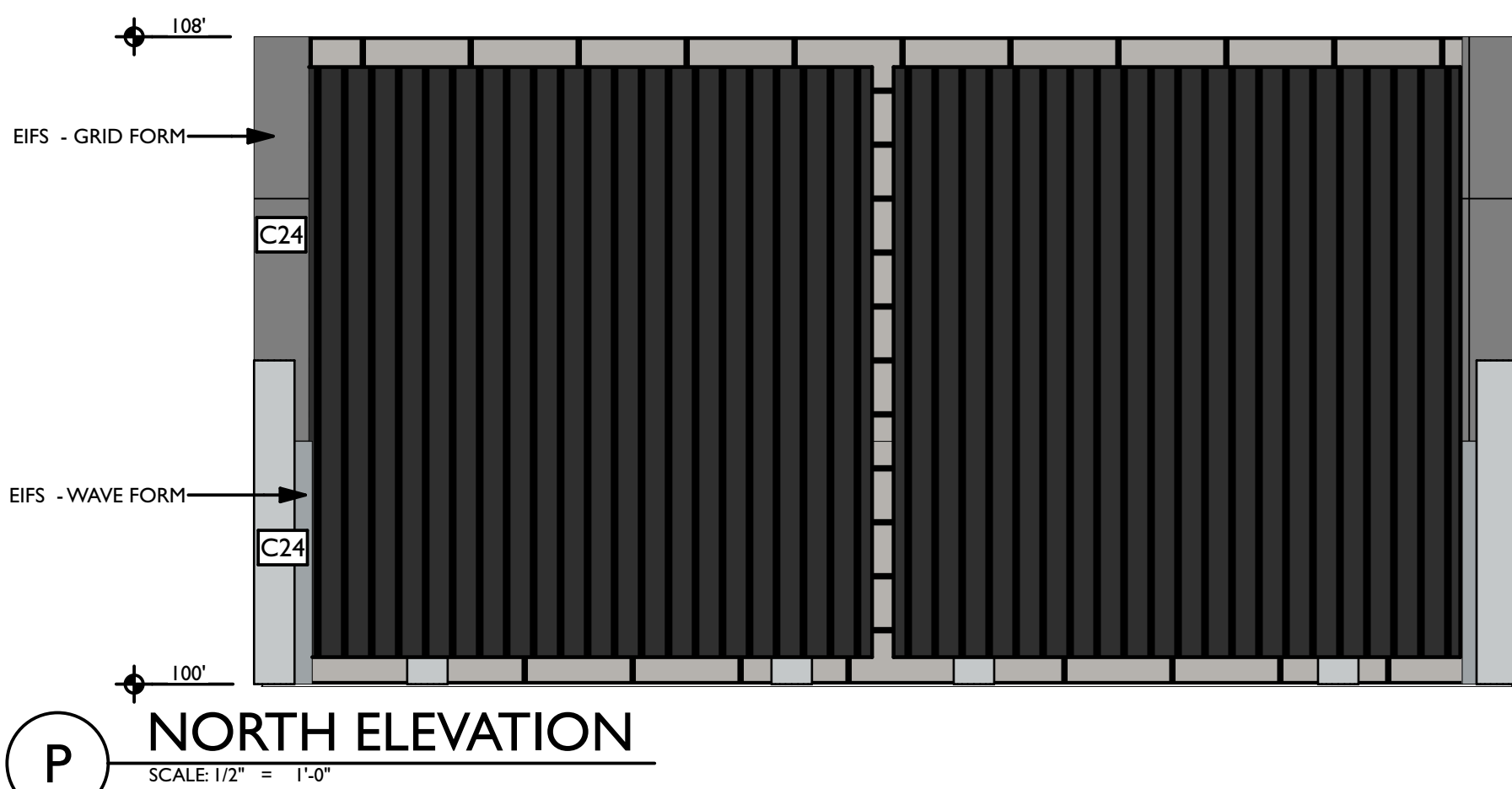
A GRATING LAYOUT - EQUIPMENT PLATFORM

NOTE: ALL COMPONENTS OF THE
TRASH ENCLOSURE ARE TO BE
SUPPLIED BY OTHERS.

REFER TO STRUCTURAL DRAWINGS
FOR CONSTRUCTION OF TRASH
ENCLOSURE.



G PLAN VIEW
SCALE: 1/2" = 1'-0"

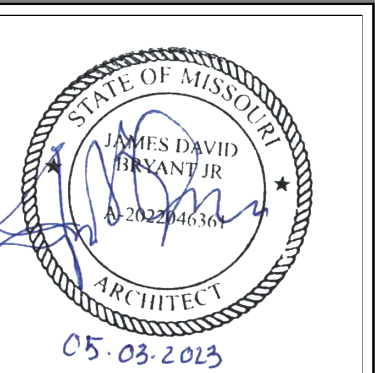


REVISIONS		DESCRIPTION
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1	06/09/2023	

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NEW CAR WASH FOR:
TUNNEL VISION CAR WASH
20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



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PRELIMINARY
PLOT DATE: 6/22/23
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CHECKED BY: #####
SHEET:
MW-9.4
EQUIP GRATING & TRASH
ENCLOSURE LAYOUT

8'-2" 2'-3 1/4" 15'-8 1/4"

2'

FREE VACUUMS

3'-10" 8 1/2" 5'-8"

1'-2"

DOG WASH

6'-1/4" 11 1/2" 9'-8 1/2"

2'

CAR WASH

6'-1/4" 11 1/2" 9'-8 1/2"

2'

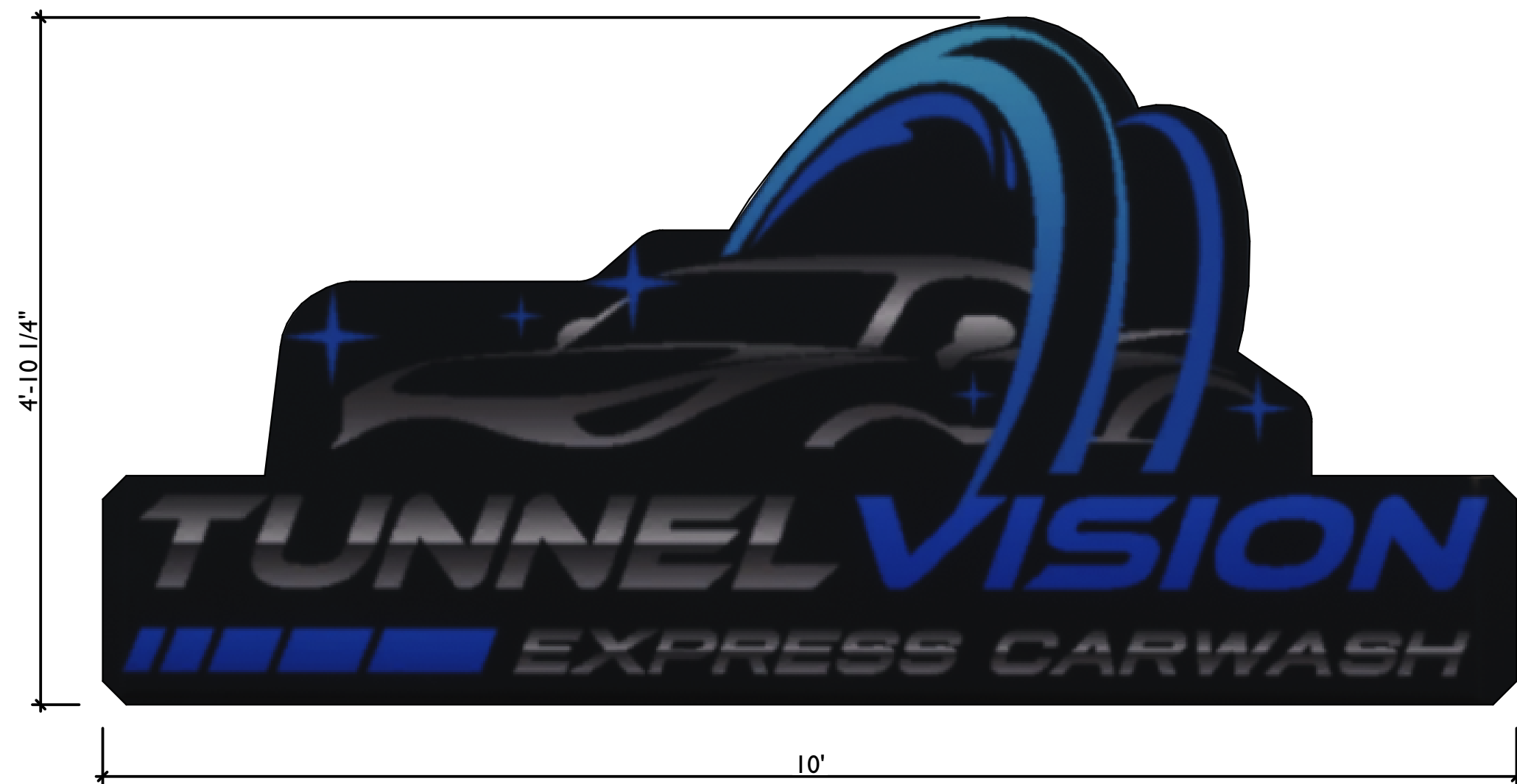
CAR WASH

SIGNAGE COLORS:

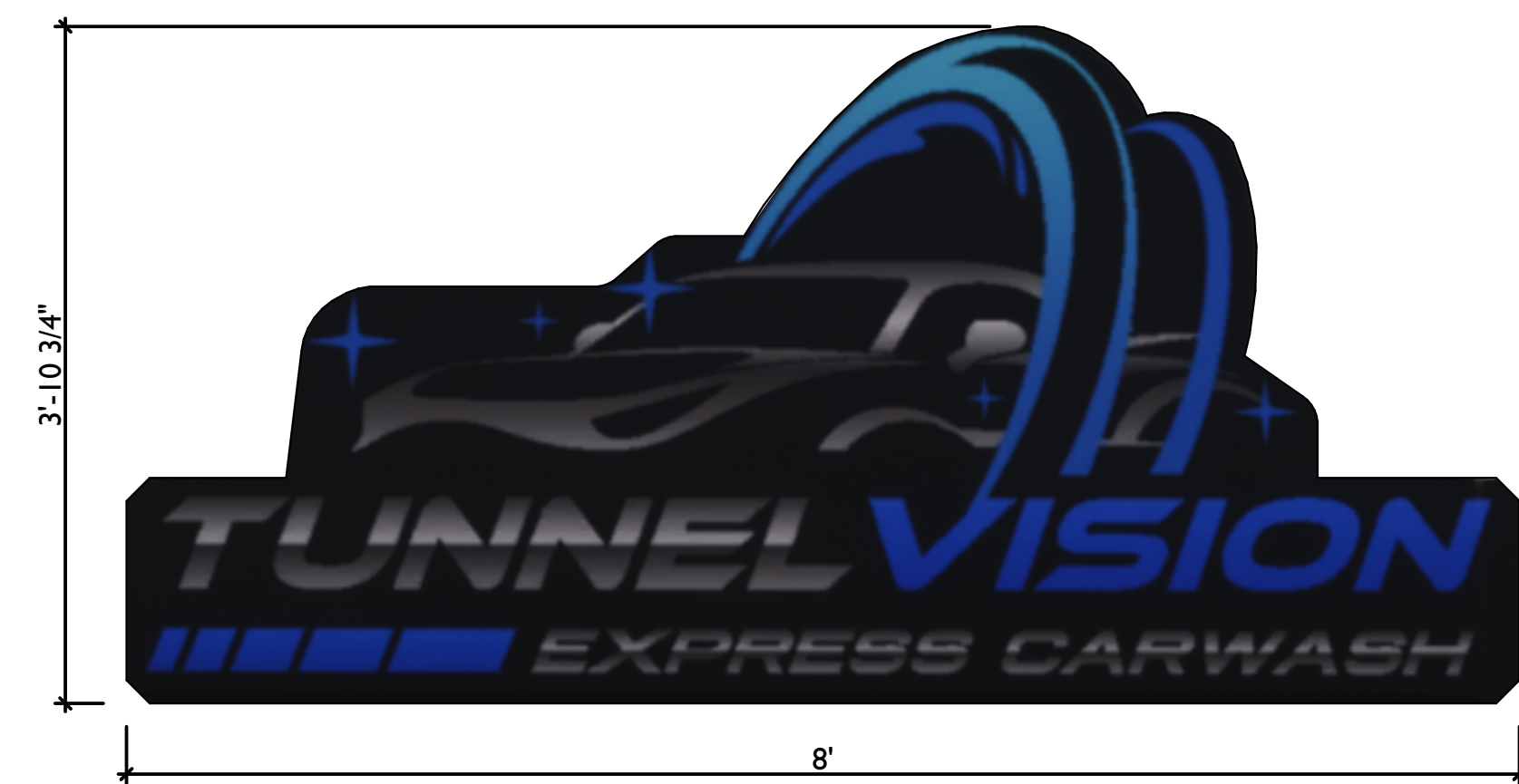
LETTER FACE - WHITE
LETTER SIDES - BLACK
FACEWAY - GREY

A SECTION DETAIL - STAIR TREAD

SCALE: 1" = 1'-0"



NOTE: LOGO SIGNAGE TO BE PROVIDED BY OTHERS



NOTE: LOGO & SITE
RELATED SIGNAGE TO BE
PROVIDED BY OTHERS

REVISIONS		DATE	DESCRIPTION
ID			
0		05/07/2023	FOR PERMIT
1		06/09/2023	DRAWING TRENCH UPDATE

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MODERNWASH
5220 SCOTTSDALE ROAD
BOWLING GREEN, KY 42104

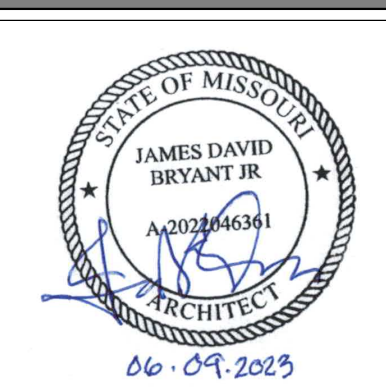
MODEL: AXIOM BETA
RETAIL TOWER
2023

39 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE
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CURRENT
PROJECT
DRAWINGS.



PRELIMINARY

PLOT DATE: 6/22/23

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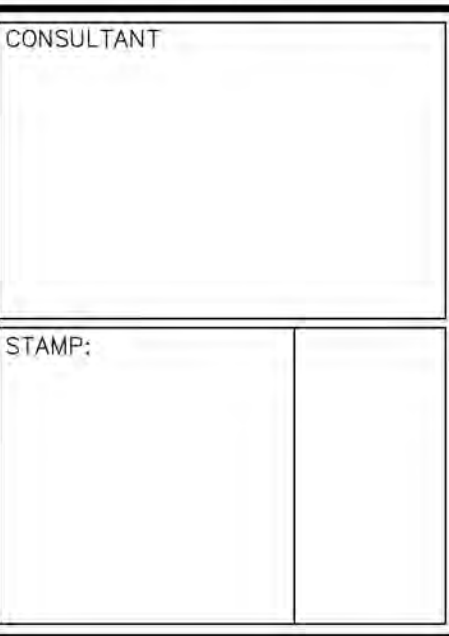
SHEET:

MV-9.5

SIGNAGE

1.0 DESIGN

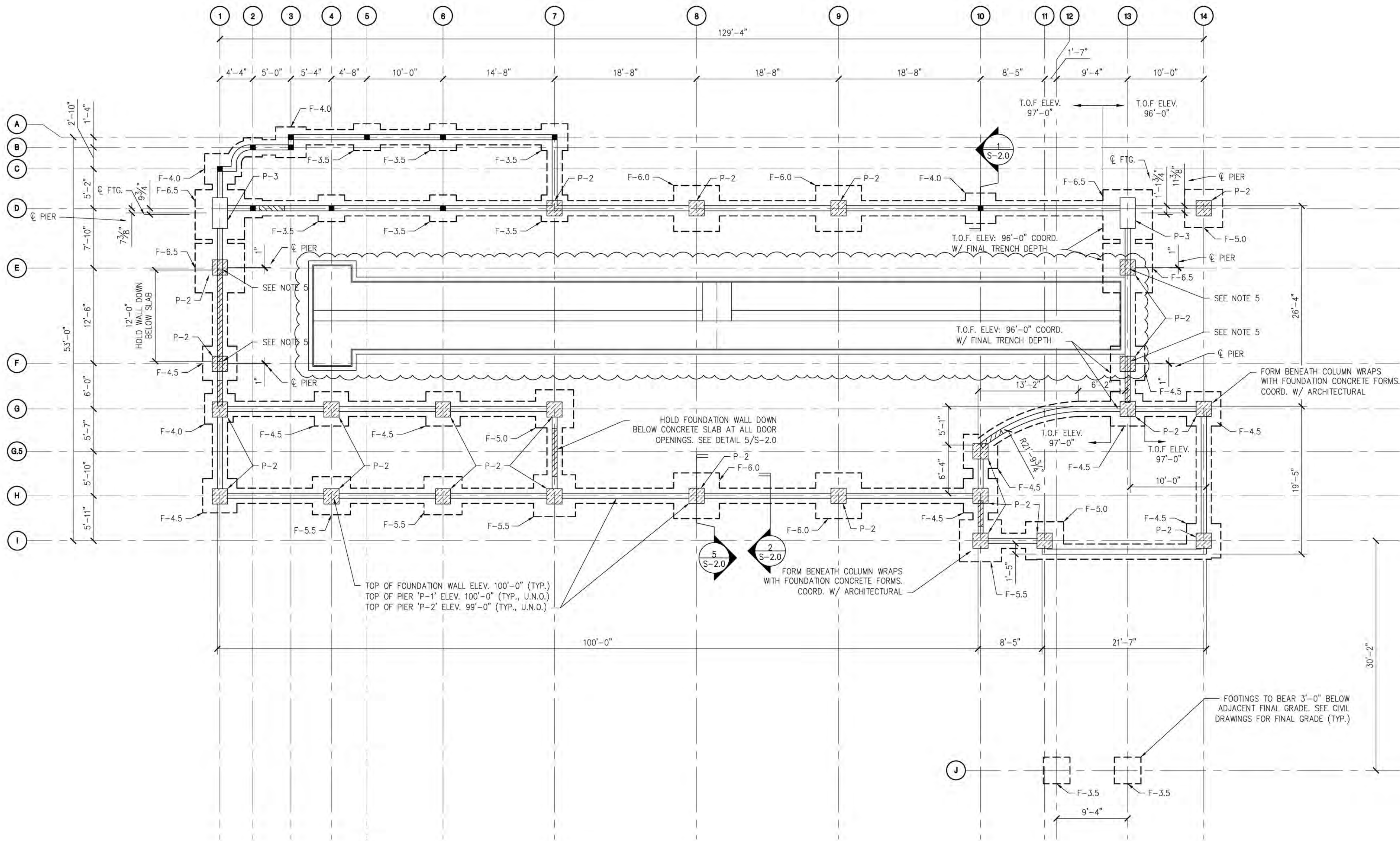
THE SIZE AND OCCUPANCY OF THIS BUILDING MAKE IT SUBJECT TO THE SPECIAL INSPECTION REQUIREMENTS OF CHAPTER 17 OF THE 2018 INTERNATIONAL BUILDING CODE. BASED ON THOSE CODE REQUIREMENTS THE FOLLOWING SPECIAL INSPECTIONS WILL BE REQUIRED:

[illegible]

DRAWINGS FOR: **Midwest Car Wash**
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE: **Structural Notes**

SHEET:
S-0.1



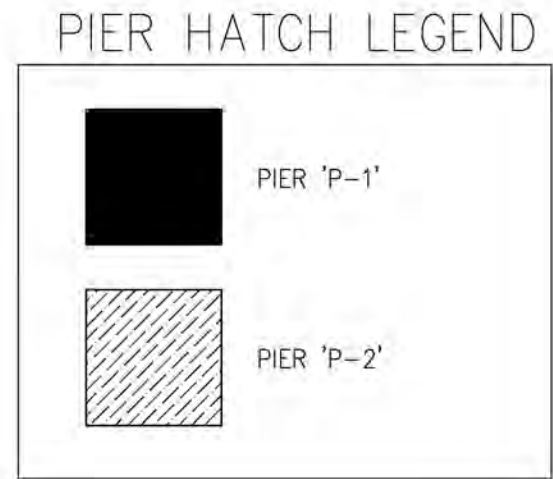
A MAIN BUILDING FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

FOOTING TABLE			
Footings Number	FOOTING SIZE	FOOTING REINFORCEMENT	ANCHOR BOLTS
F-3.5	3'-6"x3'-6"x1'-0"	#5 BARS @ 12" O.C. E.W. AT BOTTOM	SEE PIER TABLE
F-4.0	4'-0"x4'-0"x1'-0"	#5 BARS @ 12" O.C. E.W. AT BOTTOM	SEE PIER TABLE
F-4.5	4'-6"x4'-6"x1'-0"	#5 BARS @ 12" O.C. E.W. AT BOTTOM	SEE PIER TABLE
F-5.0	5'-0"x5'-0"x1'-0"	#5 BARS @ 6" O.C. E.W. AT BOTTOM	SEE PIER TABLE
F-5.5	5'-6"x5'-6"x1'-0"	#5 BARS @ 6" O.C. E.W. AT BOTTOM	SEE PIER TABLE
F-6.0	6'-0"x6'-0"x1'-0"	#5 BARS @ 6" O.C. E.W. AT BOTTOM	SEE PIER TABLE
F-6.5	6'-6"x6'-6"x1'-0"	#5 BARS @ 6" O.C. E.W. AT BOTTOM	SEE PIER TABLE

NOTES:
1. TOP OF FOOTING ELEV. 97'-0", UNLESS NOTED OTHERWISE ON THE PLAN

PIER TABLE			
PIER NUMBER	PIER PLAN SIZE	REINFORCEMENT	COMMENTS
P-1	0'-8"x1'-0"	(4) #4 BARS VERTICAL W/#3 TIES AT 4" O.C.	SEE S-3.0 AND S-3.1 FOR ANCHOR BOLT INFORMATION
P-2	2'-0"x2'-0"	(8) #6 BARS VERTICAL W/#3 TIES AT 10" O.C.	SEE S-3.0 AND S-3.1 FOR ANCHOR BOLT INFORMATION
P-3	2'-0"x4'-0"	(12) #7 BARS VERTICAL W/#3 TIES AT 10" O.C.	ANCHOR BOLTS PER PEMB DRAWINGS

NOTES:
1. ALL PIERS TO BE TYPE P-1, UNLESS NOTED OTHERWISE
2. TOP OF PIER 'P-1' ELEV. 100'-0", UNLESS NOTED OTHERWISE
3. TOP OF PIER 'P-2' ELEV. 99'-0", UNLESS NOTED OTHERWISE
4. TOP OF PIER 'P-3' ELEV. 99'-0", UNLESS NOTED OTHERWISE
5. PIERS 'P-2' SHALL RECEIVE ANCHOR REINFORCEMENT. SEE DETAIL 5/S-2.0



- FOUNDATION NOTES:
- SEE FOOTING AND PIER TABLES AND SHEET S-2.0 FOR FOUNDATION DETAILS.
 - FOOTINGS MUST BEAR A MINIMUM OF 36" BELOW FINAL GRADE U.N.O. ON THE PLAN OR FOOTING SCHEDULE.
 - TOP OF FOUNDATION WALLS ARE AT ELEVATION 100'-0" AND TOP PIERS ARE AT ELEVATION 100'-0", UNLESS NOTED OTHERWISE ON THE PLAN OR PIER TABLE. SEE SHEET S-1.1 FOR TOP OF SLAB INFORMATION. ELEVATIONS ARE REFERENCED TO 100'-0" IN MECHANICAL AND COMMAND ROOMS, SEE CIVIL DRAWINGS FOR ACTUAL ELEVATIONS.
 - ALL DIMENSIONS APPROXIMATE, SEE ARCHITECTURAL DRAWINGS AND PEMB BUILDING DRAWINGS FOR FINAL DIMENSIONS.
 - STEEL COLUMNS AND CONCRETE PIERS ARE NOT CENTERED ON EITHER THE COLUMN LINES OR ON EACH OTHER AT THESE LOCATIONS. CONCRETE PIERS SHALL BE INSTALLED BASED ON DIMENSIONS ON THESE DRAWINGS AND STEEL COLUMNS AND ANCHOR BOLTS SHOULD BE INSTALLED BASED ON DIMENSIONS ON THE STEEL BUILDING DRAWINGS. ALL DIMENSIONS SHOULD BE COORDINATED RELATIVE TO THE COLUMN LINES AS THESE ARE IN THE SAME LOCATION ON BOTH THE FOUNDATION AND STEEL BUILDING DRAWINGS.

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NO.	DESCRIPTION	DATE
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1	TRENCH REVISIONS	06/07/23

1733 Campus Plaza Court, Suite 10
Bowling Green, KY 42101
Phone: 270-798-3022
Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001060956
REGISTERED PROFESSIONAL ENGINEER
06/07/23

CONSULTANT

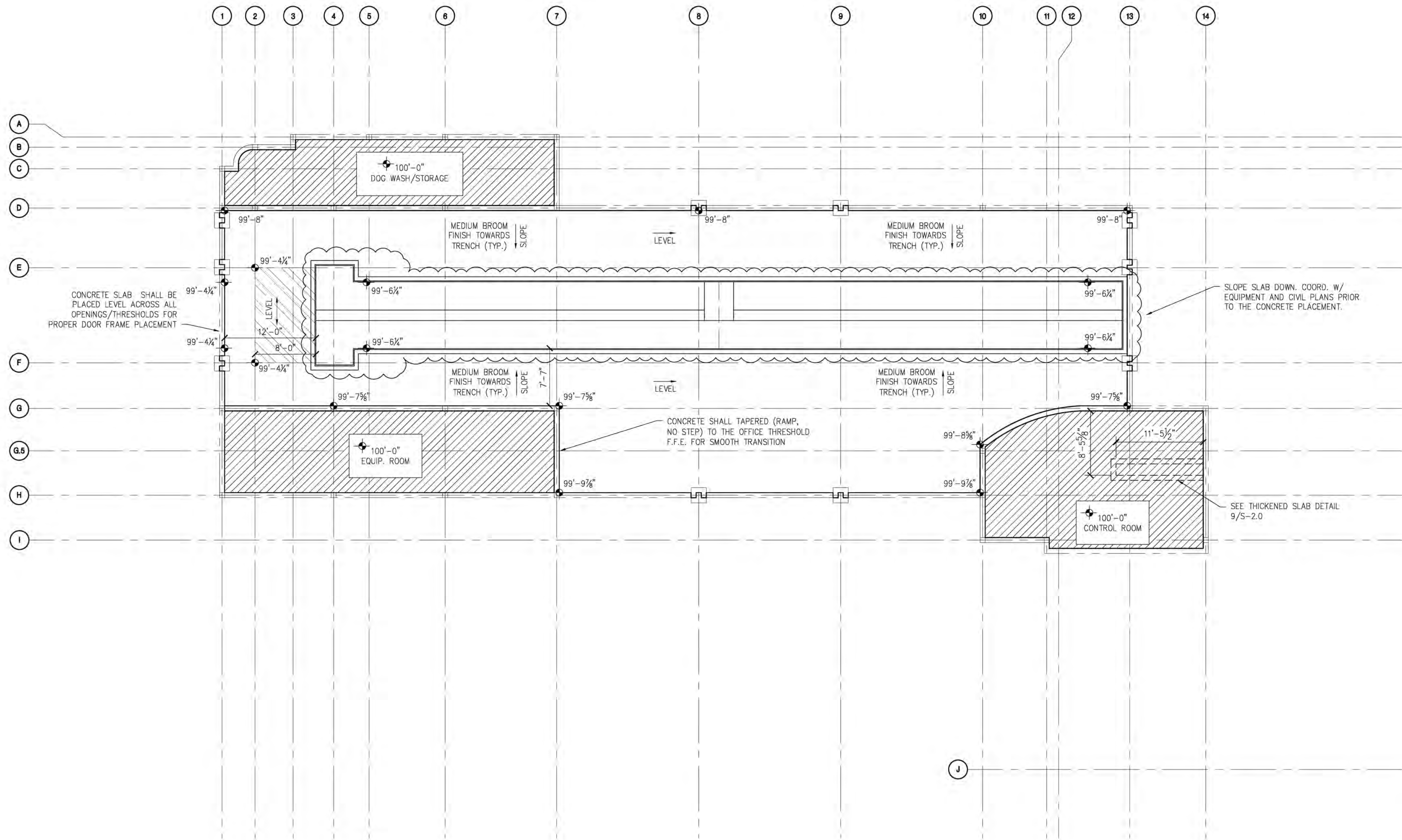
STAMP:

DRAWINGS FOR: Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

PROJECT NUMBER: 23-1014
FILENAME:
SCALE: AS NOTED
PLOT DATE:
DRAWN BY: MKG

SHEET TITLE: Foundation Plan

SHEET: S-1.0



SLAB ELEVATION LEGEND

TOP OF SLAB SPOT ELEVATIONS

AREA WHERE TOP OF SLAB IS ELEV. 100'-0" SEE NOTE 1.B, THIS SHEET

AREA WHERE TOP OF SLAB IS LEVEL IN AT LEAST ONE DIRECTION AT ELEV. INDICATED

A MAIN BUILDING SLAB/TRENCH PLAN

SCALE: 3/16" = 1'-0"

- SLAB/TRENCH NOTES:
- SLABS ON GRADE ARE AS FOLLOWS:
A. WASH BAY SLAB ON GRADE: 6" CONCRETE W/6"x6" W2.9XW2.9 W.W.F. ON 10 MIL VAPOR BARRIER AND 4" COMPACTED STONE BASE. SLAB ELEV. FOR BLDG. REFERENCED TO 100'-0" AT MECH. ROOM, SEE CIVIL FOR ACTUAL ELEVATIONS.
B. ALL OTHER SLABS ON GRADE: 4" CONCRETE W/6"x6" W1.4XW1.4 W.W.F. ON 10 MIL VAPOR BARRIER AND 4" COMPACTED STONE BASE. SLAB ELEV. FOR BLDG. REFERENCED TO 100'-0" AT MECH. ROOM, SEE CIVIL FOR ACTUAL ELEVATIONS.
 - CONSTRUCTION/CONTROL JOINTS SHALL BE A MAX. OF 15'-0" ON CENTER (JOINTS SHALL FOLLOW WALLS WHERE POSSIBLE). JOINTS SHALL BE INSTALLED WITH IN 24 HRS OF CONCRETE PLACEMENT (SEE DET. 4/S-2.0).
 - SEE SHEETS S-2.1 & S-2.2 FOR TRENCH ARRANGEMENT AND DETAILS
 - SEE SHEET S-1.0 FOR DIMENSIONS. ALL DIMENSIONS ARE APPROXIMATE, SEE ARCHITECTURAL DRAWINGS FOR FINAL DIMENSIONS.

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SE Engineering

1733 Campus Plaza Court, Suite 10
Bowling Green, KY 42101
Phone: 270-798-3022
Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2607066956
EXPIRATION DATE: 06/07/23

CONSULTANT

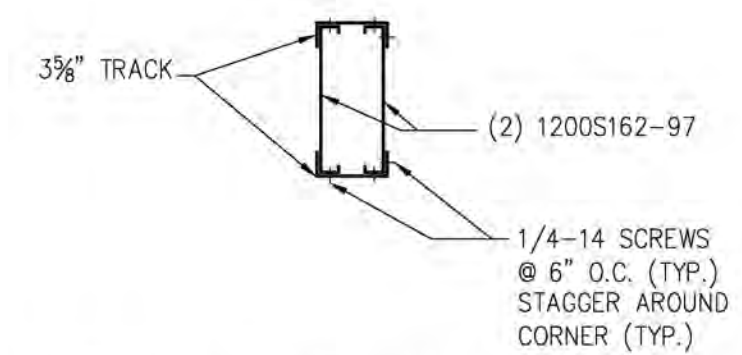
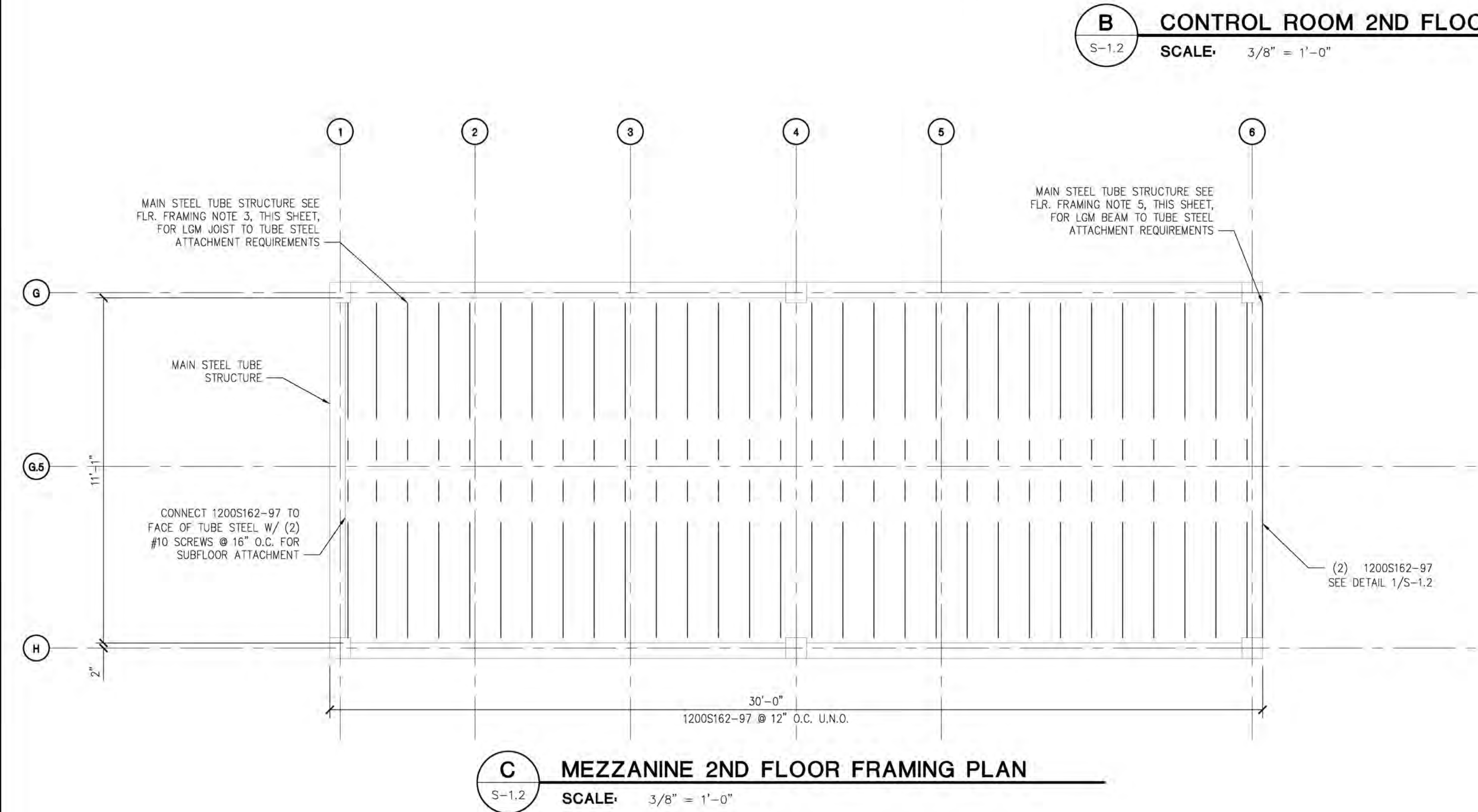
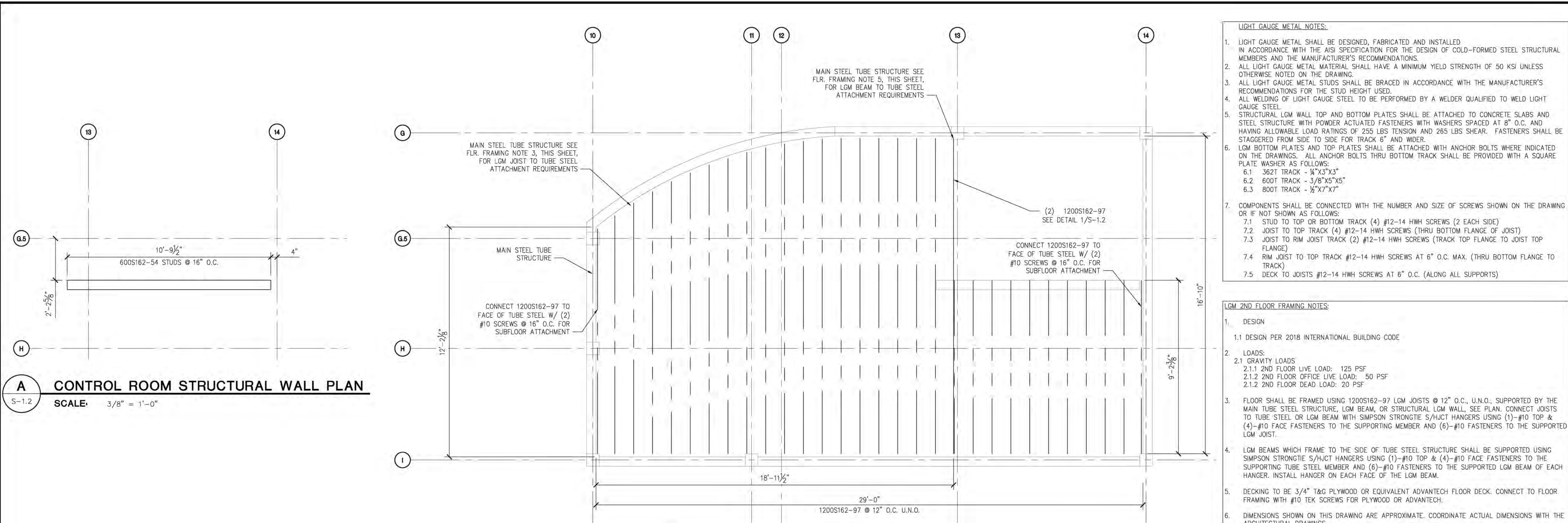
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PROJECT NUMBER: 23-1014
FILENAME:
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PLOT DATE:
DRAWN BY: MKG

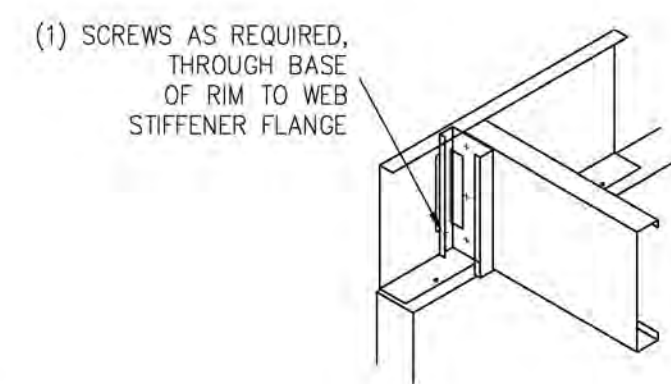
Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

Slab & Trench Plan

SHEET: **S-1.1**



1 **FRAMING DETAIL**
S-1.2 SCALE: 3/4" = 1'-0"



2 **JOIST AT BEARING WALLS**
S-1.2 SCALE: 3/4" = 1'-0"

- LIGHT GAUGE METAL NOTES:**
1. LIGHT GAUGE METAL SHALL BE DESIGNED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS AND THE MANUFACTURER'S RECOMMENDATIONS.
 2. ALL LIGHT GAUGE METAL MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI UNLESS OTHERWISE NOTED ON THE DRAWING.
 3. ALL LIGHT GAUGE METAL STUDS SHALL BE BRACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE STUD HEIGHT USED.
 4. ALL WELDING OF LIGHT GAUGE STEEL TO BE PERFORMED BY A WELDER QUALIFIED TO WELD LIGHT GAUGE STEEL.
 5. STRUCTURAL LGM WALL TOP AND BOTTOM PLATES SHALL BE ATTACHED TO CONCRETE SLABS AND STEEL STRUCTURE WITH POWDER ACTUATED FASTENERS WITH WASHERS SPACED AT 8" O.C. AND HAVING ALLOWABLE LOAD RATINGS OF 255 LBS TENSION AND 265 LBS SHEAR. FASTENERS SHALL BE STAGGERED FROM SIDE TO SIDE FOR TRACK 6" AND WIDER.
 6. LGM BOTTOM PLATES AND TOP PLATES SHALL BE ATTACHED WITH ANCHOR BOLTS WHERE INDICATED ON THE DRAWINGS. ALL ANCHOR BOLTS THRU BOTTOM TRACK SHALL BE PROVIDED WITH A SQUARE PLATE WASHER AS FOLLOWS:
 - 6.1 362T TRACK - 1/4"x3"x3"
 - 6.2 600T TRACK - 3/8"x5"x5"
 - 6.3 800T TRACK - 1/2"x7"x7"
 7. COMPONENTS SHALL BE CONNECTED WITH THE NUMBER AND SIZE OF SCREWS SHOWN ON THE DRAWING OR IF NOT SHOWN AS FOLLOWS:
 - 7.1 STUD TO TOP OR BOTTOM TRACK (4) #12-14 HWH SCREWS (2 EACH SIDE)
 - 7.2 JOIST TO TOP TRACK (4) #12-14 HWH SCREWS (THRU BOTTOM FLANGE OF JOIST)
 - 7.3 JOIST TO RIM JOIST TRACK (2) #12-14 HWH SCREWS (TRACK TOP FLANGE TO JOIST TOP FLANGE)
 - 7.4 RIM JOIST TO TOP TRACK #12-14 HWH SCREWS AT 6" O.C. MAX. (THRU BOTTOM FLANGE TO TRACK)
 - 7.5 DECK TO JOISTS #12-14 HWH SCREWS AT 6" O.C. (ALONG ALL SUPPORTS)

- LGM 2ND FLOOR FRAMING NOTES:**
1. DESIGN
 - 1.1 DESIGN PER 2018 INTERNATIONAL BUILDING CODE
 2. LOADS:
 - 2.1 GRAVITY LOADS
 - 2.1.1 2ND FLOOR LIVE LOAD: 125 PSF
 - 2.1.2 2ND FLOOR OFFICE LIVE LOAD: 50 PSF
 - 2.1.2 2ND FLOOR DEAD LOAD: 20 PSF
 3. FLOOR SHALL BE FRAMED USING 1200S162-97 LGM JOISTS @ 12" O.C., U.N.O., SUPPORTED BY THE MAIN TUBE STEEL STRUCTURE, LGM BEAM, OR STRUCTURAL LGM WALL, SEE PLAN. CONNECT JOISTS TO TUBE STEEL OR LGM BEAM WITH SIMPSON STRONGTIE S/HJCT HANGERS USING (1)-#10 TOP & (4)-#10 FACE FASTENERS TO THE SUPPORTING MEMBER AND (6)-#10 FASTENERS TO THE SUPPORTED LGM JOIST.
 4. LGM BEAMS WHICH FRAME TO THE SIDE OF TUBE STEEL STRUCTURE SHALL BE SUPPORTED USING SIMPSON STRONGTIE S/HJCT HANGERS USING (1)-#10 TOP & (4)-#10 FACE FASTENERS TO THE SUPPORTING TUBE STEEL MEMBER AND (6)-#10 FASTENERS TO THE SUPPORTED LGM BEAM OF EACH HANGER. INSTALL HANGER ON EACH FACE OF THE LGM BEAM.
 5. DECKING TO BE 3/4" T&G PLYWOOD OR EQUIVALENT ADVANTECH FLOOR DECK. CONNECT TO FLOOR FRAMING WITH #10 TEK SCREWS FOR PLYWOOD OR ADVANTECH.
 6. DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. COORDINATE ACTUAL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS.
 7. JOIST SHALL BE BRACED AND BLOCKED AT ALL SUPPORTS AND AT OTHER LOCATIONS WHEN RECOMMENDED BY THE JOIST MANUFACTURER. SOLID BRIDGING SHALL BE PER DETAIL 2/S-2.3
 8. WEB STIFFENERS REQUIRED AT ALL LGM SUPPORT POINTS AND CONCENTRATED LOADS, PER MANUFACTURER'S RECOMMENDATION.
 9. TOP OF LGM JOIST ELEVATION 109'-3", UNLESS NOTED OTHERWISE ON THE PLAN.

- STRUCTURAL LGM WALL NOTES:**
1. WALLS AND OTHER STRUCTURE SHOWN ON THIS DRAWING ARE NECESSARY TO SUPPORT VERTICAL AND LATERAL LOADS. CHANGES TO THESE WALLS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER. FOR OTHER WALLS AND COMPLETE WALL ARRANGEMENT SEE ARCHITECTURAL DRAWINGS.
 2. X-BRACING SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN, OR AT EACH WALL END. X-BRACING SHALL BE PER DETAIL 1/S-2.3
 3. ALL 6" LGM FRAMED WALLS SHOWN ON THIS DRAWING SHALL BE FRAMED USING 600S162-54 STUDS @ 16" O.C. AND 600T150-54 TRACK UNLESS OTHERWISE NOTED.
 4. DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. COORDINATE ACTUAL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
 5. TOP OF LGM STRUCTURAL WALL ELEVATION 108'-3".
 6. FOR TYPICAL ASSEMBLY DETAILS SEE DRAWING S-2.3.
 7. ALL WALL OPENINGS SHALL HAVE A HEADER CONSTRUCTED IN ACCORDANCE WITH THE HEADER TABLE BELOW FOR THE WIDTH OF THE OPENING FRAMED, UNLESS INDICATED OTHERWISE ON THE PLAN. HEADERS SHALL BE CONNECTED AS SHOWN IN DETAIL 6/S-2.3.
 8. ALL WALLS SHALL HAVE BRIDGING INSTALLED PER DETAILS 5/S-2.3 OR 8/S-2.3.

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Engineering

1733 Campus Plaza Court,
Suite 10
Bowling Green, KY 42101
Phone: 270-795-3022
Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER 2001006055
REGISTERED PROFESSIONAL ENGINEER 05/15/23

CONSULTANT

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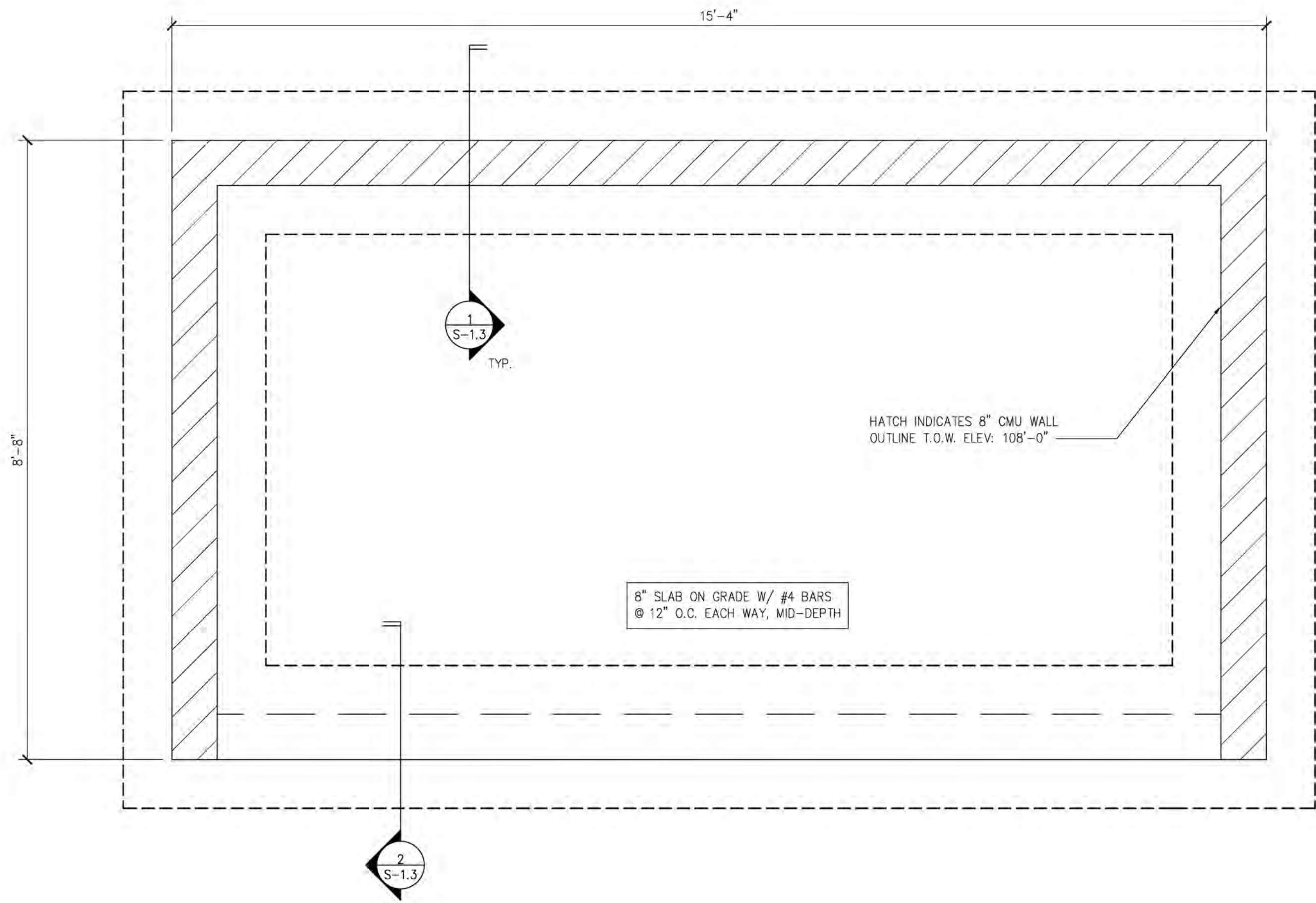
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PLOT DATE:
DRAWN BY: MKG

Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

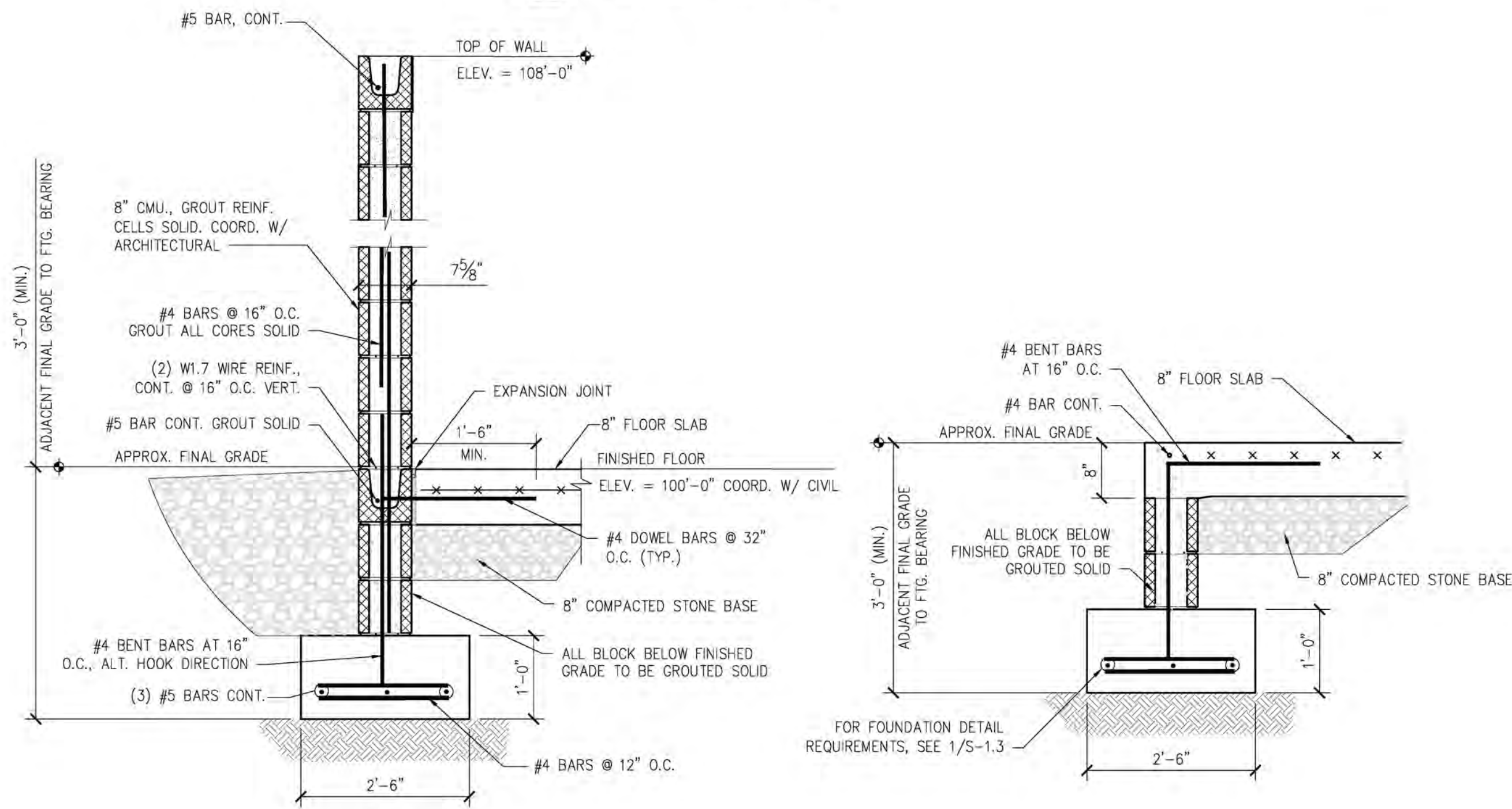
LGM 2nd Floor Framing Plans

SHEET TITLE:

SHEET: S-1.2



A DUMPSTER ENCLOSURE FDN. AND WALL PLAN
S-1.3
SCALE: 1/2" = 1'-0"



1 CMU FDN./WALL DETAIL
S-1.3
SCALE: 3/4" = 1'-0"

2 POUR THRU DETAIL
S-1.3
SCALE: 3/4" = 1'-0"

SLAB NOTES:

- SLABS ON GRADE ARE AS FOLLOWS:
A. DUMPSTER ENCLOSURE SLAB ON GRADE: 8" CONCRETE W/#4 BARS AT 12" O.C., E.W., AND 8" COMPACTED STONE BASE. SLAB ELEV. FOR DUMPSTER SLAB REFERENCED AS 100'-0", SEE CIVIL FOR ACTUAL ELEVATIONS.
- ALL DIMENSIONS ARE APPROXIMATE, SEE ARCHITECTURAL DRAWINGS FOR FINAL DIMENSIONS.

1ST FLOOR STRUCTURAL WALL NOTES:

- WALLS AND OTHER STRUCTURE SHOWN ON THIS DRAWING ARE NECESSARY TO SUPPORT VERTICAL AND LATERAL LOADS. CHANGES TO THESE WALLS OR STRUCTURE SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER. FOR OTHER WALLS AND COMPLETE WALL ARRANGEMENT SEE ARCHITECTURAL DRAWINGS.
- DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. COORDINATE ACTUAL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS.
- TOP OF CMU WALL ELEVATION, SEE PLAN.
- FOR COMPLETE STRUCTURAL NOTES SEE DRAWING S-0.1.

MASONRY NOTES:

- MASONRY:
 - UNITS AND MORTAR:
 - UNIT SHAPES SHALL INCLUDE, BUT NOT BE LIMITED TO, STRETCHER, CORNER, SASH, PLUMBING/CONDUIT, BOND, LINTEL AND BULLNOSE UNITS.
 - HOLLOW LOAD-BEARING UNITS SHALL CONFORM TO ASTM C90 WITH A NOMINAL FACE SIZE OF 8"x16". LIGHT WEIGHT BLOCKS ARE ALLOWED.
 - ALL UNITS SHALL BE LAID IN A RUNNING BOND PATTERN UNLESS NOTED OTHERWISE.
 - ALL MORTAR SHALL CONFORM TO ASTM C270, TYPE S WITH MIN. COMP. STRENGTH OF 1800 PSI.
 - MORTAR SHALL BE APPLIED IN A FULL SHOVEL BED AND BEAD FASHION FOR 3/8" THICK JOINTS, WHICH SHALL BE TOOLED TO A FLUSH PATTERN.
 - GROUT SHALL HAVE A MIN. COMP. STRENGTH OF 2000 PSI.
 - MASONRY REINFORCEMENT:
 - 8" CMU WALLS:
 - HORIZONTAL REINFORCEMENT: (2) W1.7 WIRE REINFORCEMENT AT 16" O.C.
 - 8" DEEP BOND BEAMS WITH (1) #5 BAR CONTINUOUS AT TOP OF WALL, TOP OF OPENING, AND ANY STRUCTURAL BEARING LOCATIONS
 - VERTICAL REINFORCEMENT #4 BARS @ 16" O.C.
 - #4 BAR LAP SPLICES SHALL BE 24" MIN.
 - #5 BAR LAP SPLICES SHALL BE 30" MIN.
 - W1.7 WIRE LAP SPLICES SHALL BE 8" MIN.
 - A VERTICAL BAR EQUAL TO THE SIZE OF THE SPECIFIED VERTICAL BARS SHALL BE PLACED WITHIN 8" OF THE END, CORNER, TEE OR OPENING OF ANY WALL OR FOUNDATION.
 - REINFORCING BARS SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE ASTM A615 OR A706.
 - REINFORCING WIRE SHALL BE ASTM A185.
 - ALL CORES AND VOIDS CONTAINING REINFORCEMENT SHALL BE GROUTED SOLID.
 - EPOXY GROUT FOR MASONRY SHALL BE HILTI HIT-HY70, OR APPROVED EQUIVALENT.

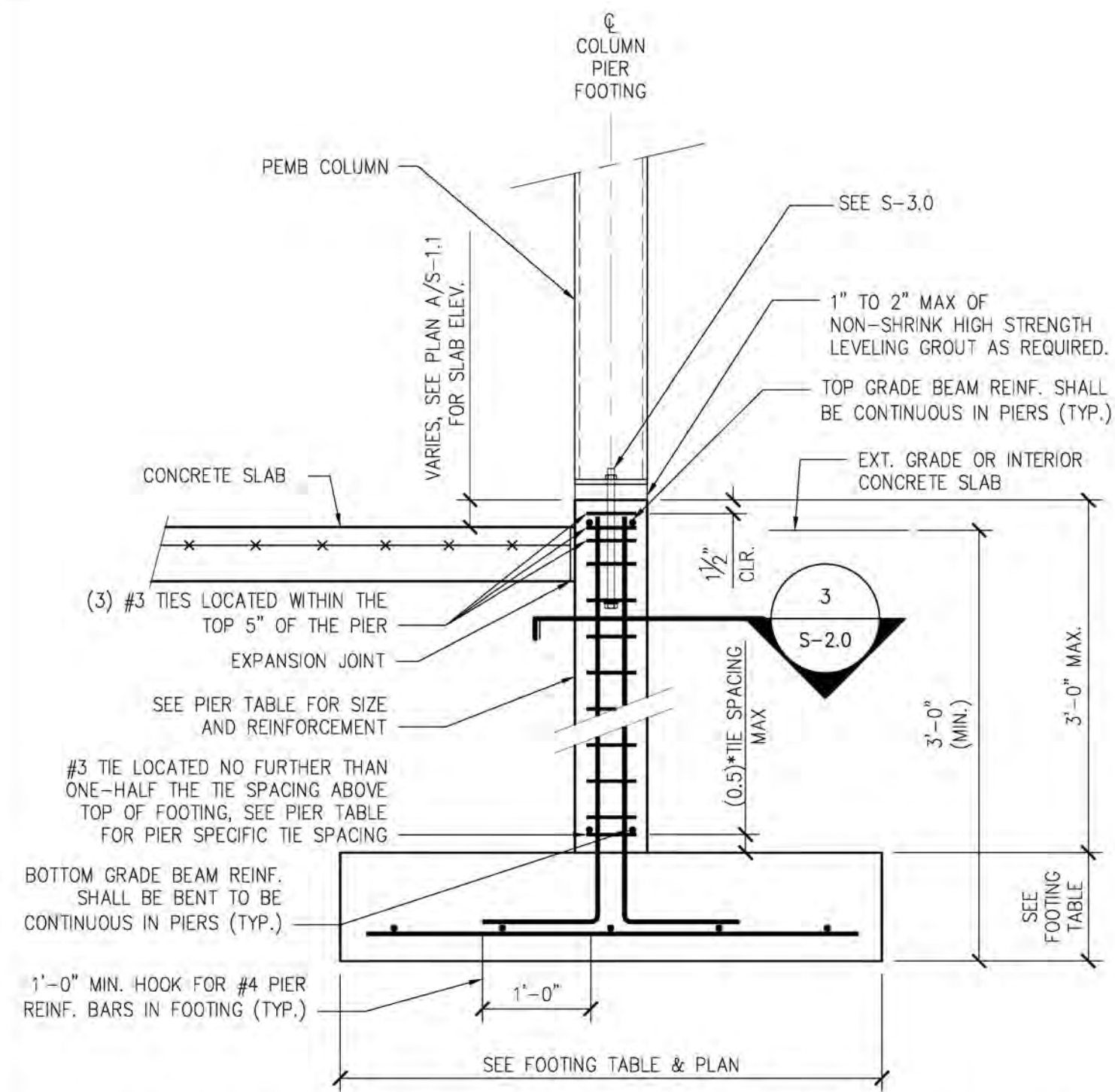
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NO.	DATE	DESCRIPTION
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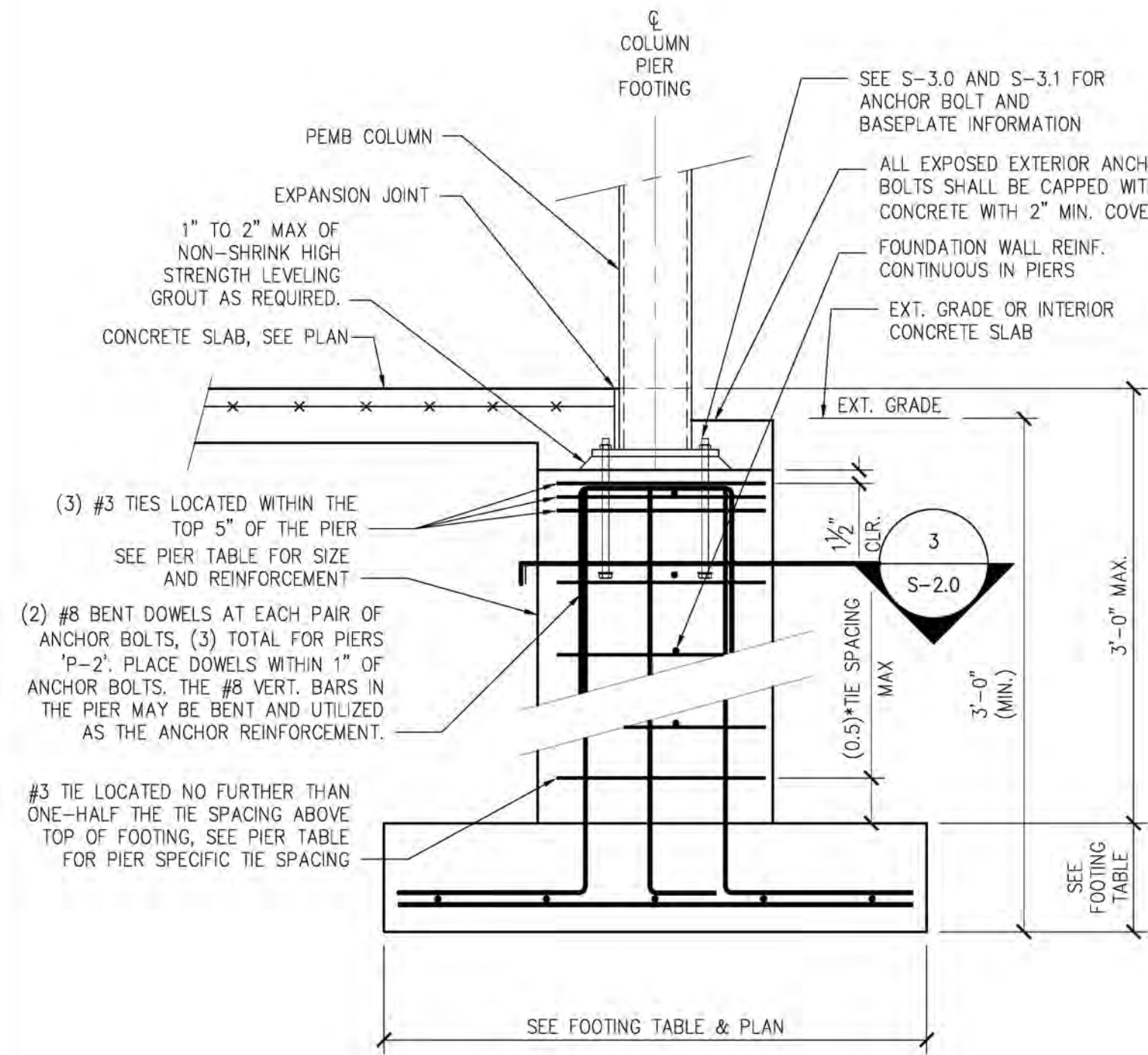


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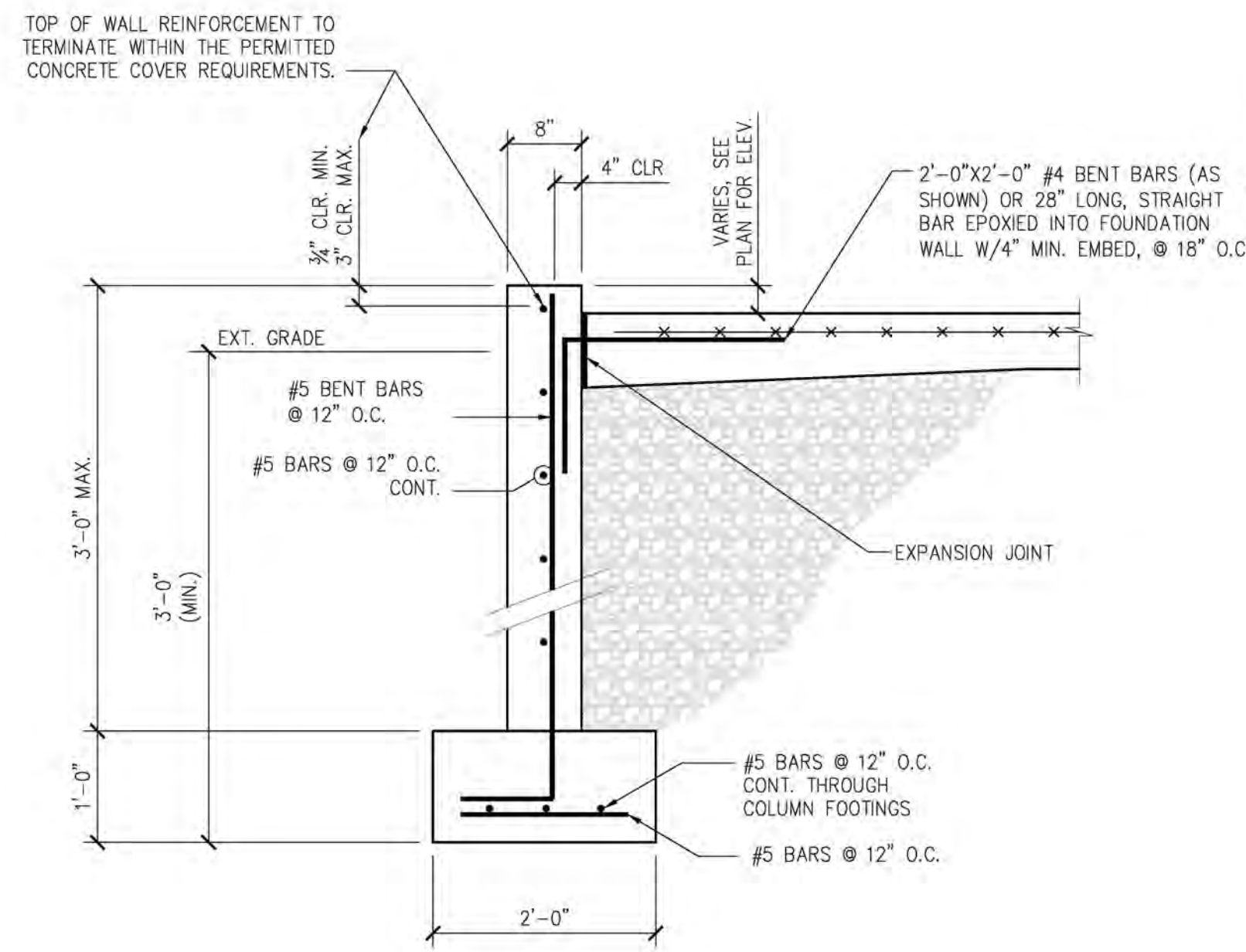
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DRAWINGS FOR: Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081				
SHEET TITLE: Dumpster Enclosure FDN./Framing Plans				
SHEET: S-1.3				



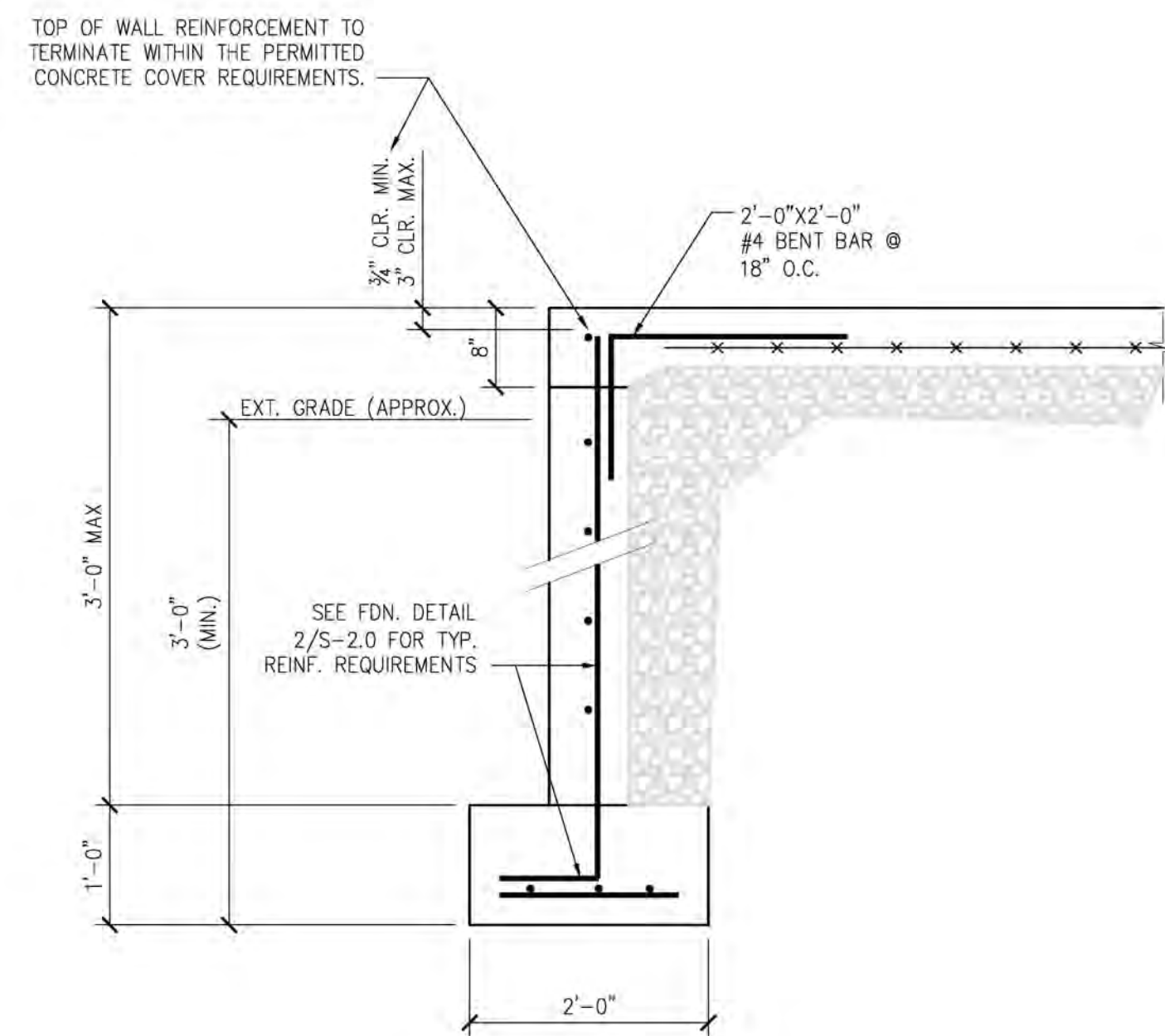
1 TYP. EXTERIOR PIER "P-1" AND FOOTING
S-2.0 SCALE: 3/4" = 1'-0"



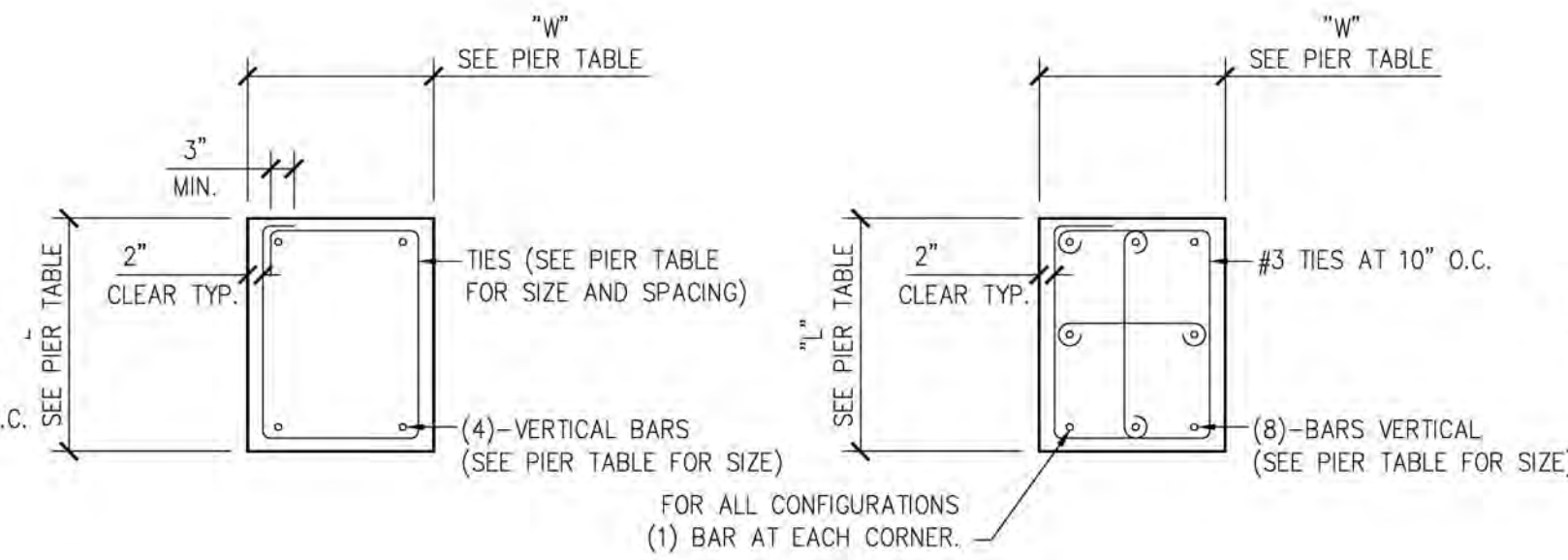
5 TYP. EXTERIOR PIER "P-2" AND FOOTING
S-2.0 SCALE: 3/4" = 1'-0"



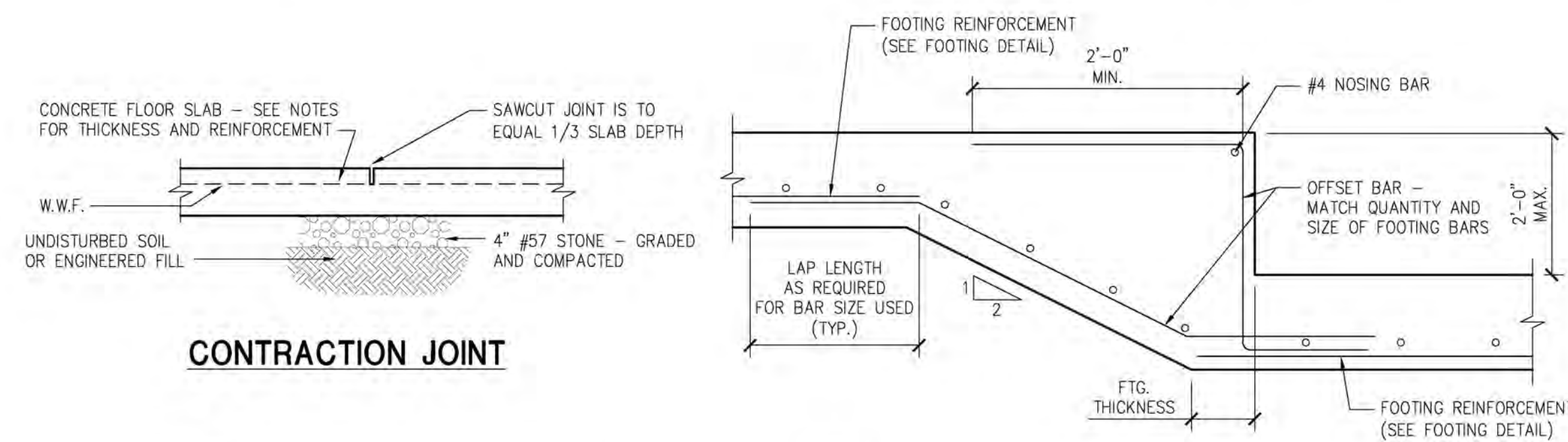
2 FOUNDATION WALL DETAIL
S-2.0 SCALE: 3/4" = 1'-0"



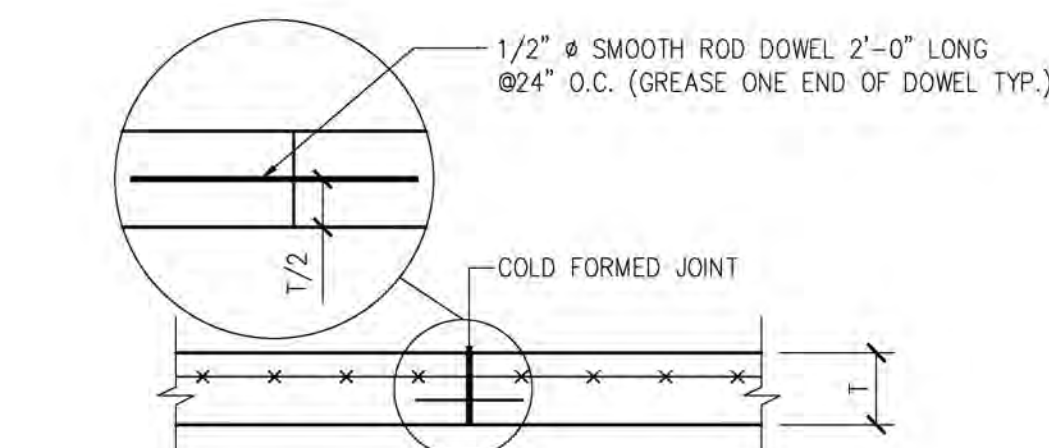
6 OPENING POUR THRU DETAIL
S-2.0 SCALE: 3/4" = 1'-0"



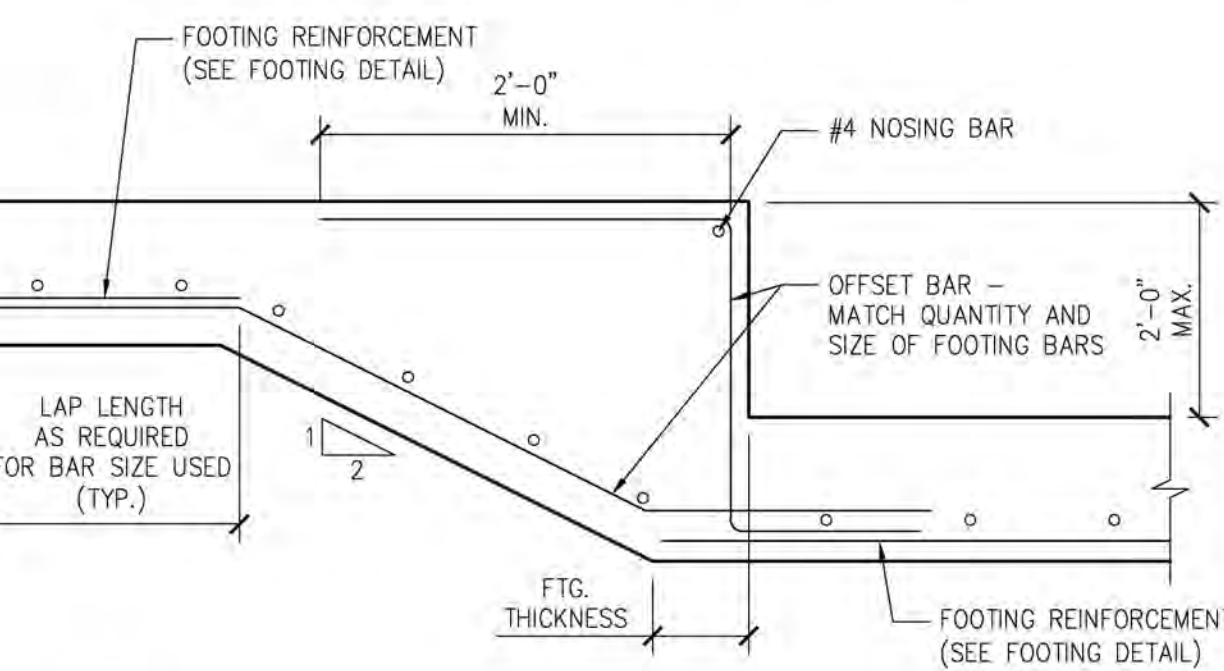
3 PIER DETAILS
S-2.0 SCALE: NONE



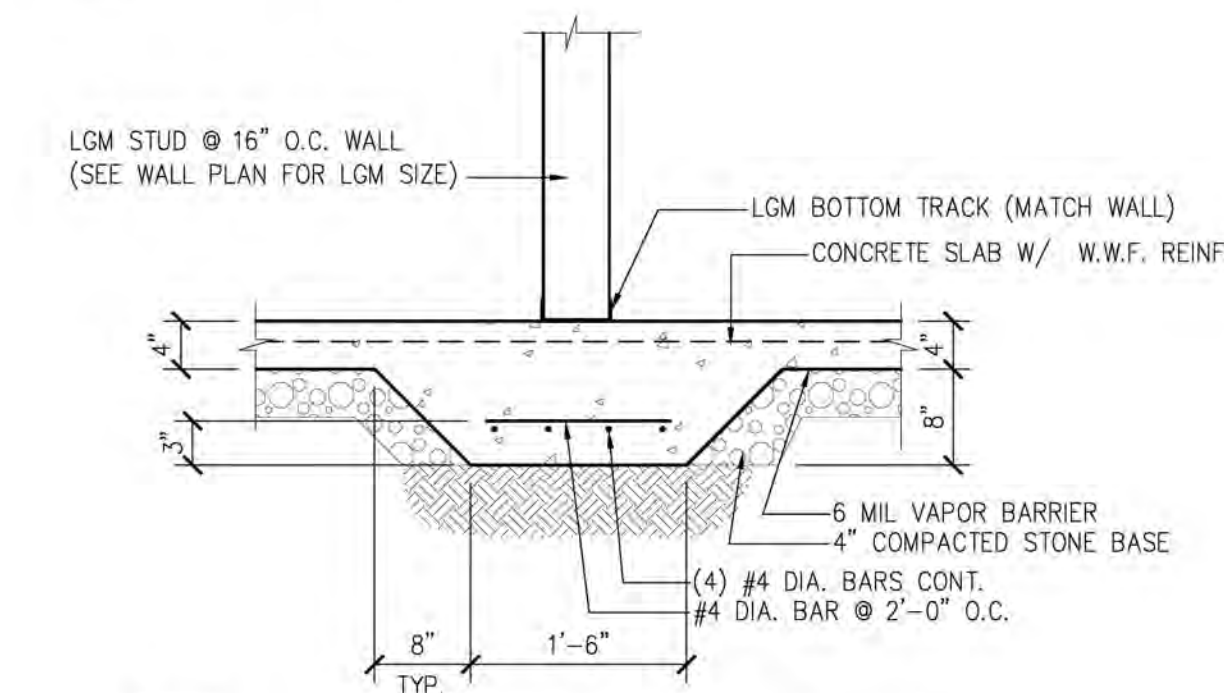
7 INTERIOR CONCRETE SLAB STEP
S-2.0 SCALE: 3/4" = 1'-0"



4 CONCRETE JOINT DETAIL
S-2.0 SCALE: 3/4" = 1'-0"



8 FOOTING STEP DETAIL
S-2.0 SCALE: 3/4" = 1'-0"



9 THICKENED SLAB DETAIL
S-2.0 SCALE: 3/4" = 1'-0"

SLAB CONSTRUCTION JOINT

- NOTES:
- CONTRACTION JOINTS SHALL BE CUT WITHIN 24 HOURS AFTER PLACING FLOOR SLAB.
 - SEE PLAN FOR SLAB THICKNESS AND REINFORCEMENT.

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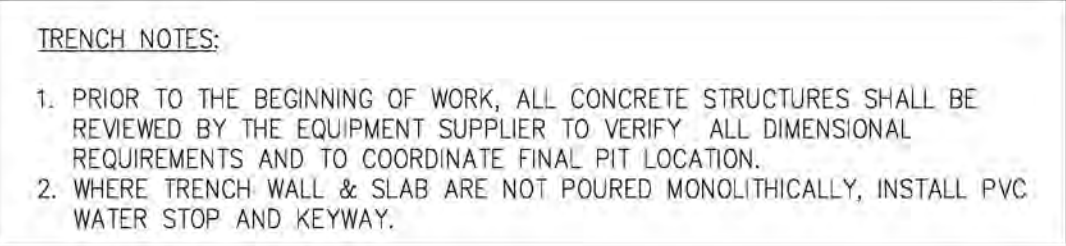


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PROJECT NUMBER: 23-1014
FILENAME:
SCALE: AS NOTED
PLOT DATE:
DRAWN BY: MKG

DRAWINGS FOR: Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081
SHEET TITLE: Structural Details

SHEET: S-2.0



3% GRADE MIN.
(SLOPE DOWN AWAY FROM CONVEYOR PIT FOR 8'-0" MIN.) FOLLOWED BY 5% GRADE MIN. FOR 12'-0", MIN. COORD. W/ EQUIPMENT AND CIVIL DRAWINGS

EXIT

106'-0"
SEE NOTE 1

LEVEL (ENTRANCE TO EXIT)

51'-1"
SEE NOTE 1

4'-0 3/4"
SEE NOTE 1

1'-10 3/4"

2'-9 1/2"
2'-2"
2'-0 1/2"
1'-9 1/4"

3'-10"

2'-8 3/8"
1'-10 3/4"
3'-1 1/4"
3'-8 1/2"

51'-1"
SEE NOTE 1

ENTRANCE

3% GRADE MIN.
(SLOPE EXT. SLAB DOWN TOWARD CONVEYOR PIT) COORD. W/ EQUIPMENT AND CIVIL DRAWINGS

1'-10 3/4"
2'-0 1/2"
2'-2"
2'-9 1/2"

SLOPE DOWN

TRENCH OUTLINE BEYOND

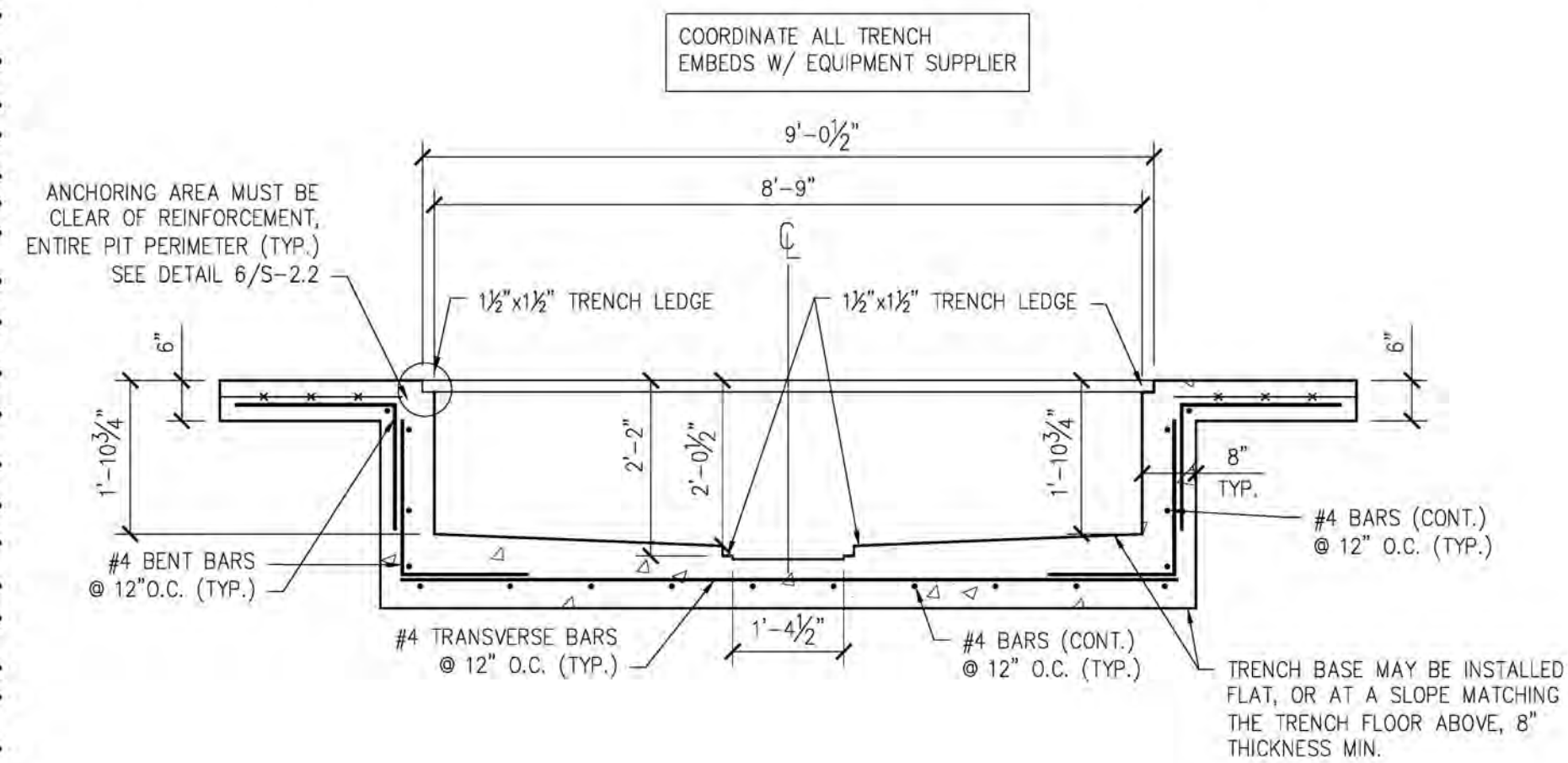
SLOPE TO LOW POINT

SLOPE DOWN

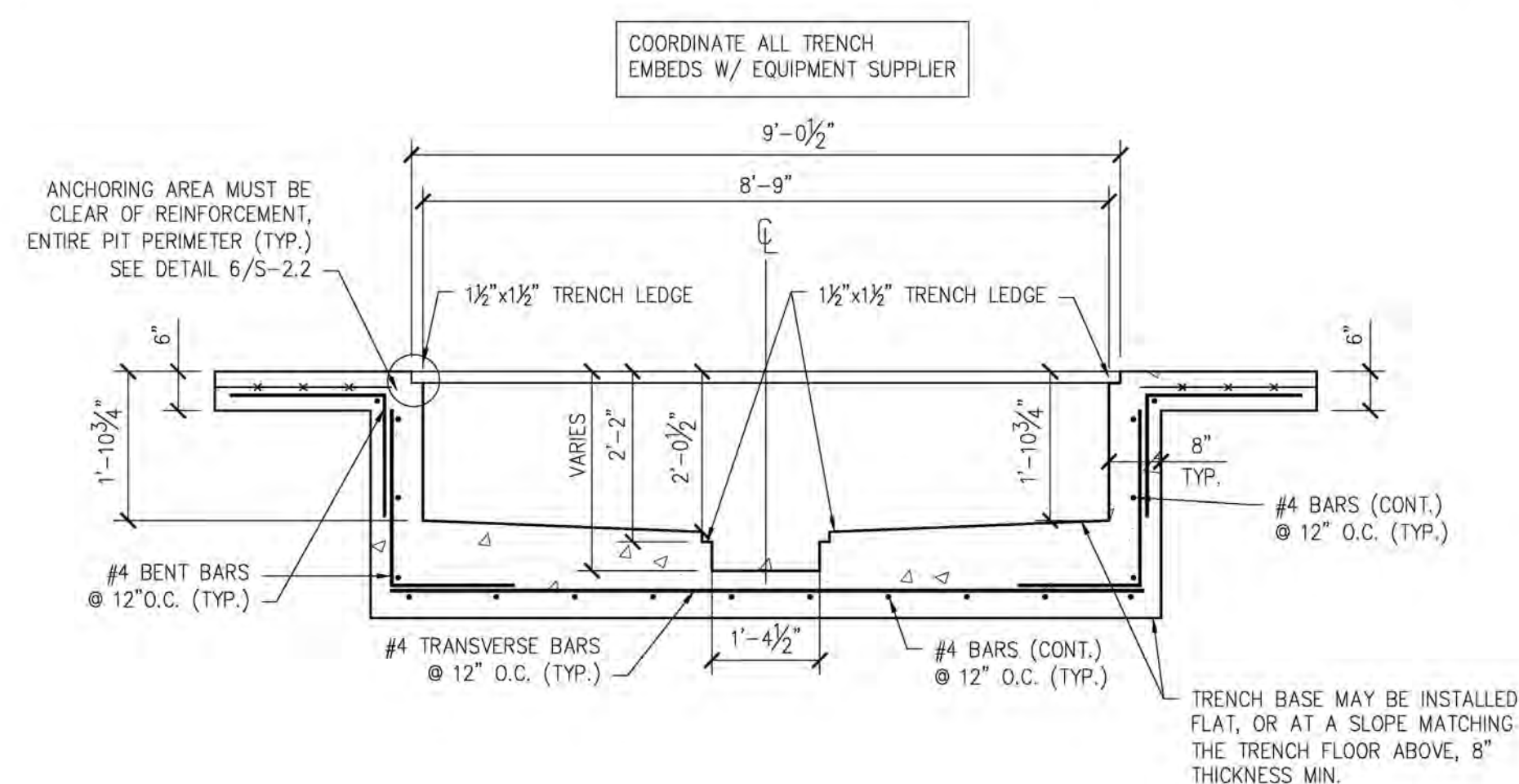
TRENCH NOTES:

1. PRIOR TO THE BEGINNING OF WORK, ALL CONCRETE STRUCTURES SHALL BE REVIEWED BY THE EQUIPMENT SUPPLIER TO VERIFY ALL DIMENSIONAL REQUIREMENTS AND TO COORDINATE FINAL PIT LOCATION.
2. WHERE TRENCH WALL & SLAB ARE NOT POURED MONOLITHICALLY, INSTALL PVC WATER STOP AND KEYWAY.

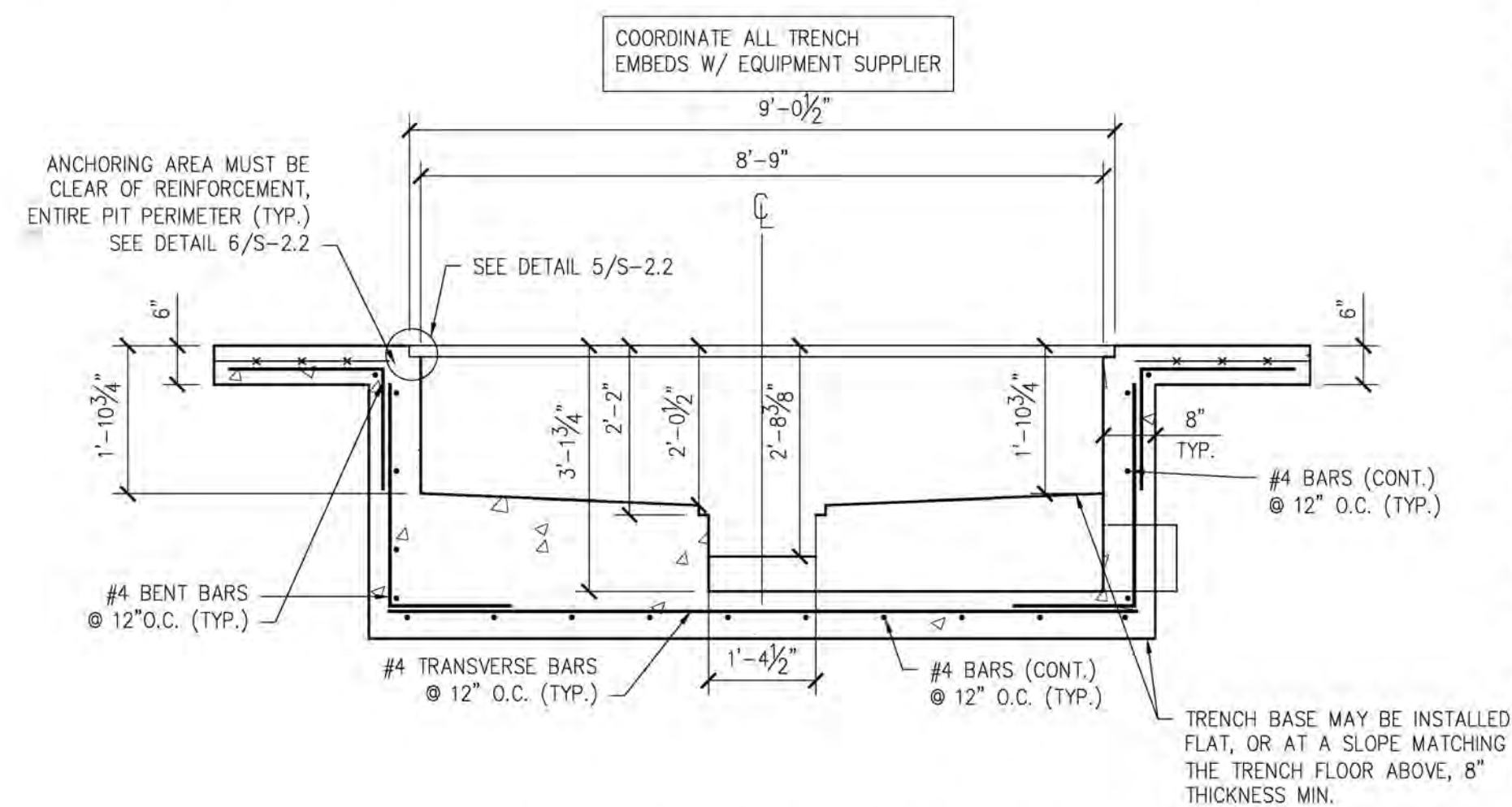
SHEET:
S-2.1



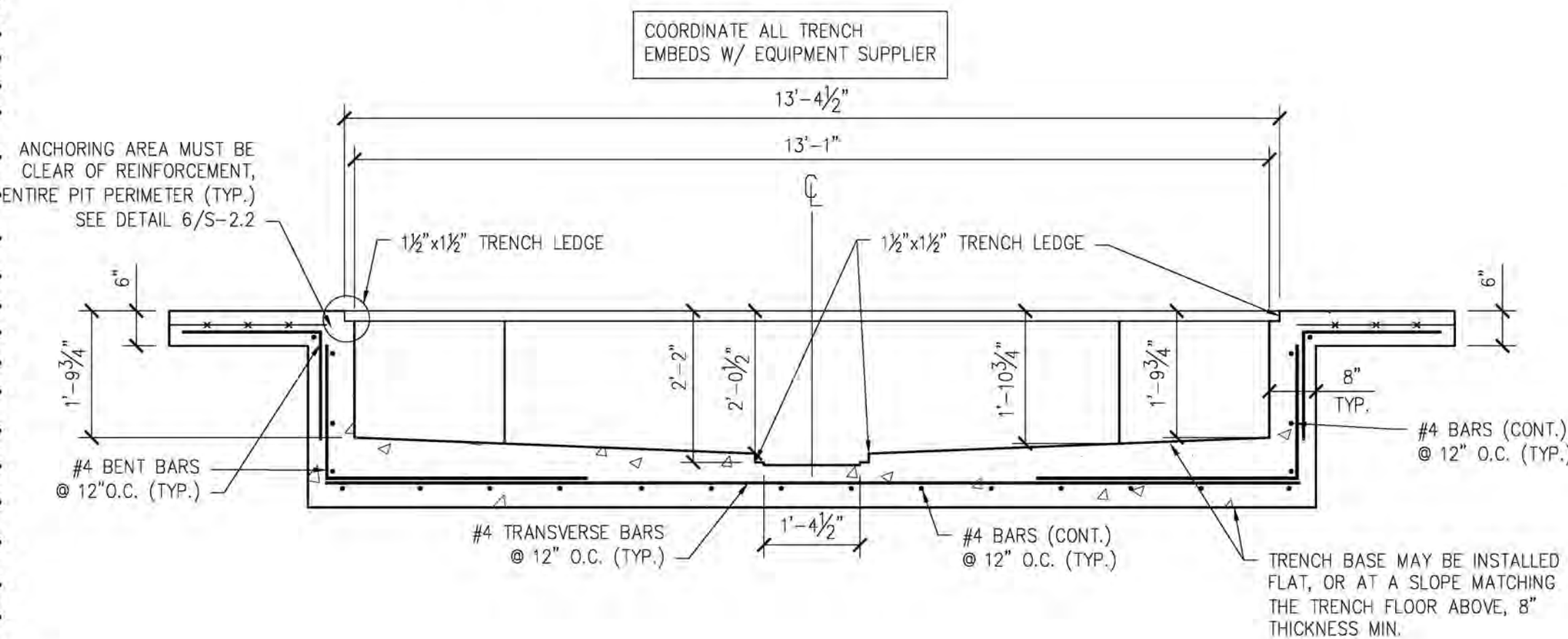
1 ENT. TRENCH DETAIL
S-2.2 SCALE: 1/2"=1'-0"



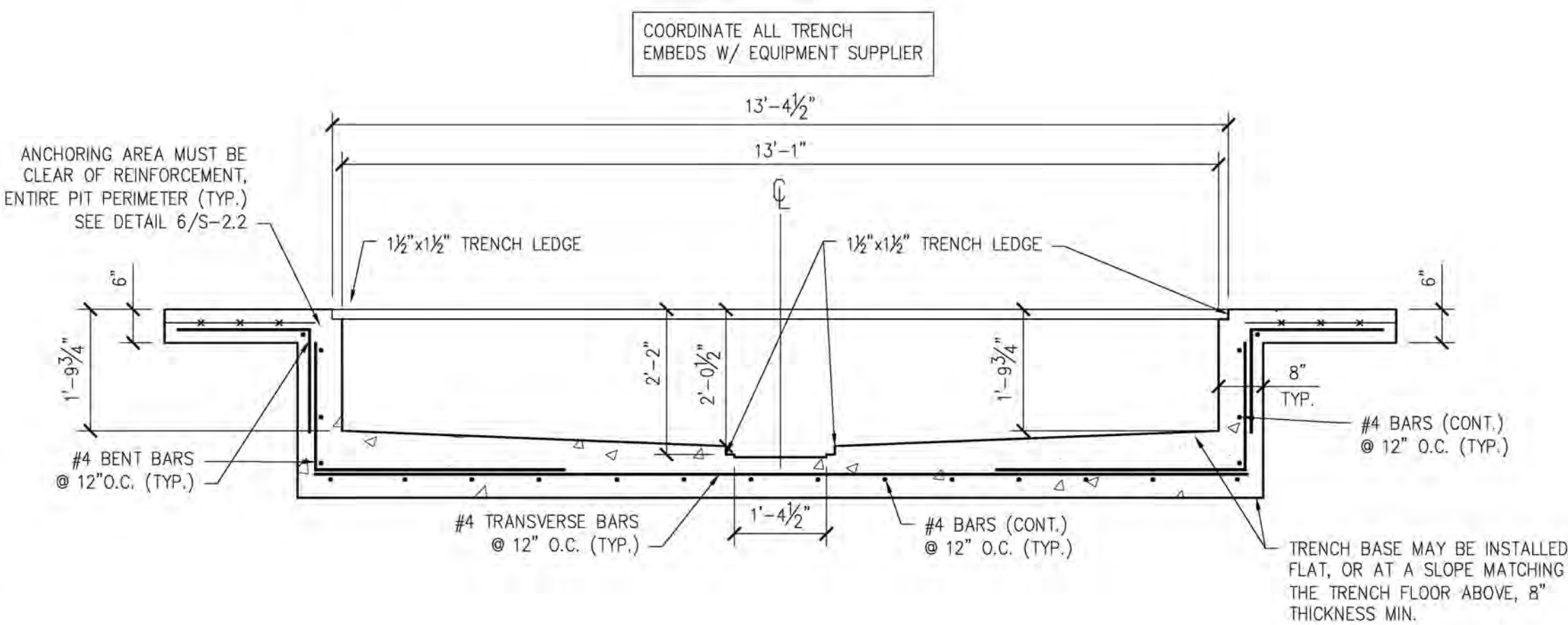
2 VARIABLE TRENCH DETAIL
S-2.2 SCALE: 1/2"=1'-0"



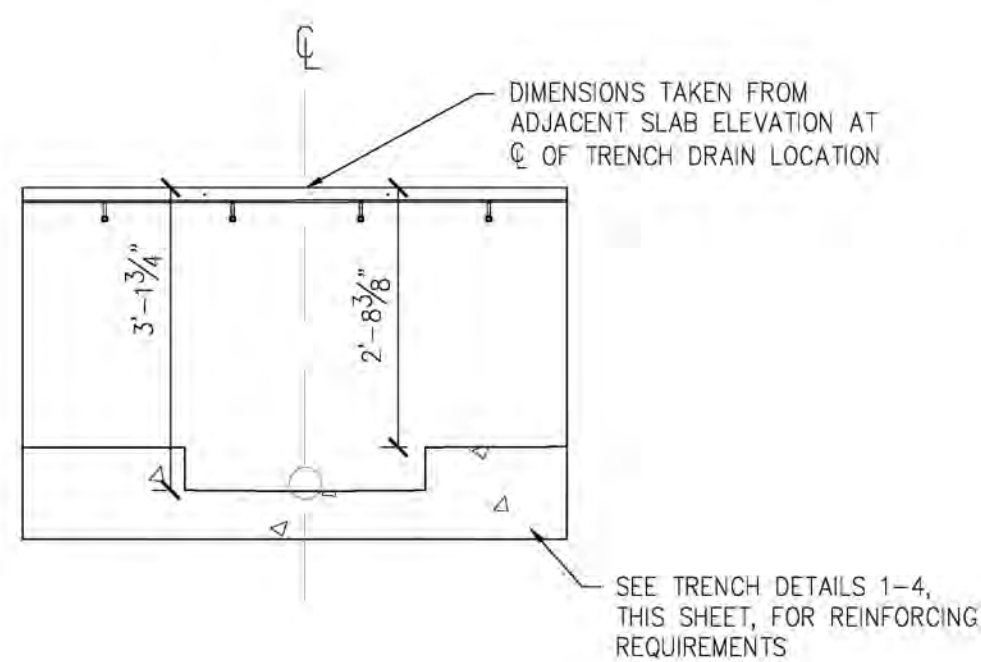
3 TRENCH DETAIL AT DRAIN
S-2.2 SCALE: 1/2"=1'-0"



4 EXT. TRENCH DETAIL
S-2.2 SCALE: 1/2"=1'-0"



5 EXT. TRENCH DETAIL
S-2.2 SCALE: 1/2"=1'-0"



6 LOW TRENCH DETAIL
S-2.2 SCALE: NONE

- TRENCH NOTES:**
1. PRIOR TO THE BEGINNING OF WORK, ALL CONCRETE STRUCTURES SHALL BE REVIEWED BY THE EQUIPMENT SUPPLIER TO VERIFY ALL DIMENSIONAL REQUIREMENTS AND TO COORDINATE FINAL PIT LOCATION.
 2. WHERE TRENCH WALL & SLAB ARE NOT POURED MONOLITHICALLY, INSTALL PVC WATER STOP AND KEYWAY.
 3. SEE STRUCTURAL NOTES ON S-1.0 FOR TYPICAL CONCRETE AND REINFORCING REQUIREMENTS.

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2	06/07/23	TRENCH REVISIONS



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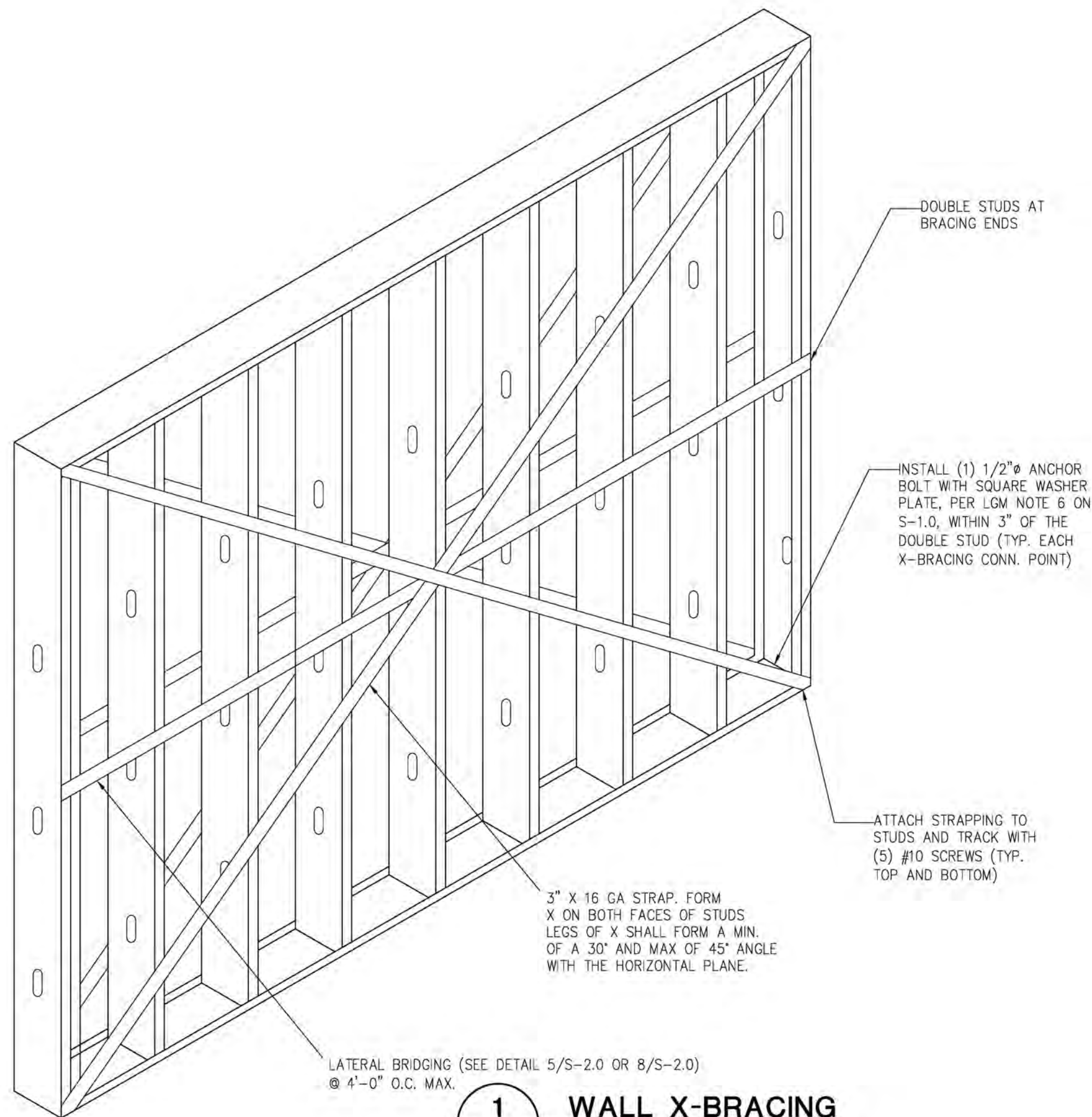
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DRAWINGS FOR: **Midwest Car Wash**
20 SE Thompson Drive
Lee's Summit, MO 64081

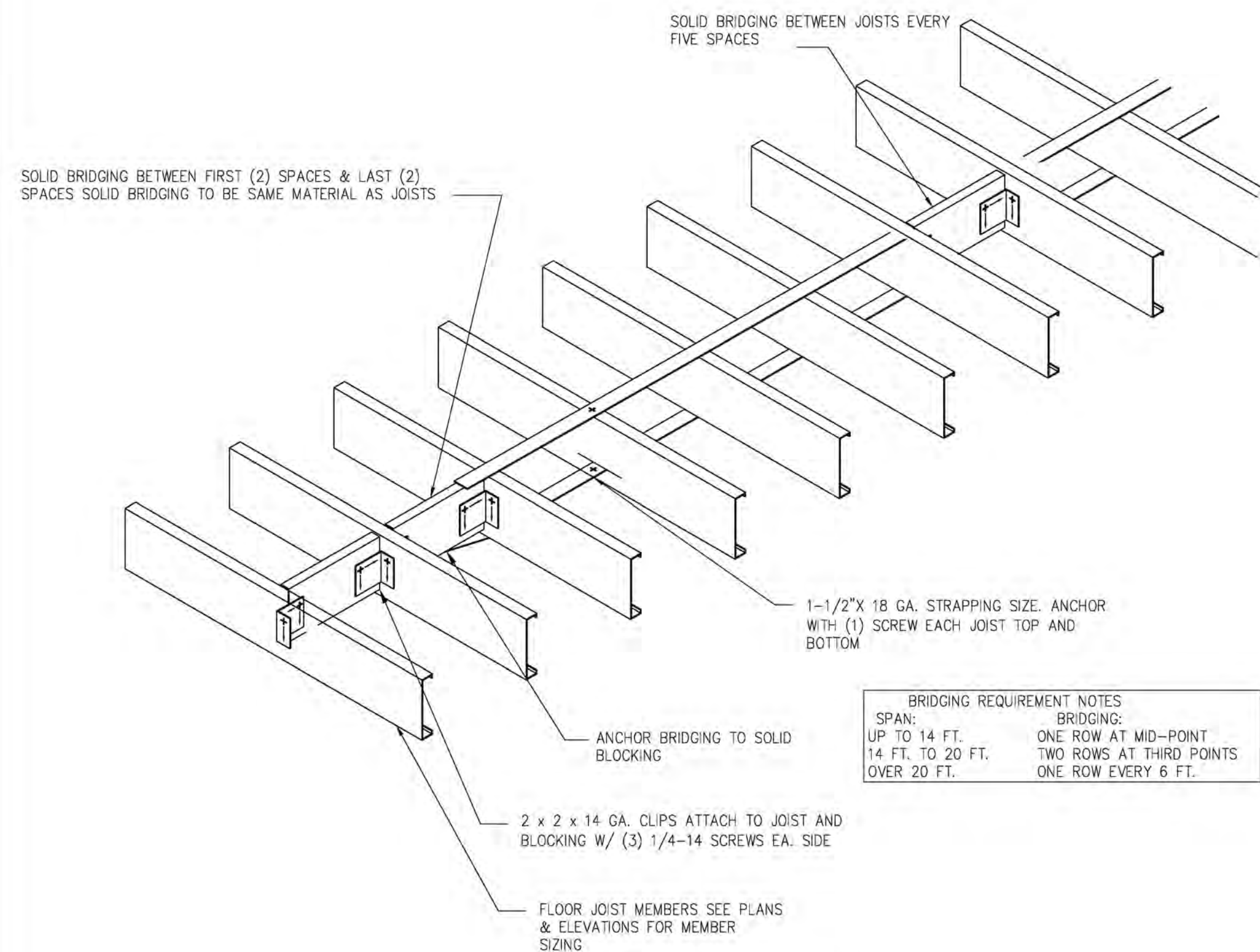
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PROJECT NUMBER: 23-1014
FILENAME:
SCALE: AS NOTED
PLOT DATE:
DRAWN BY: MKG

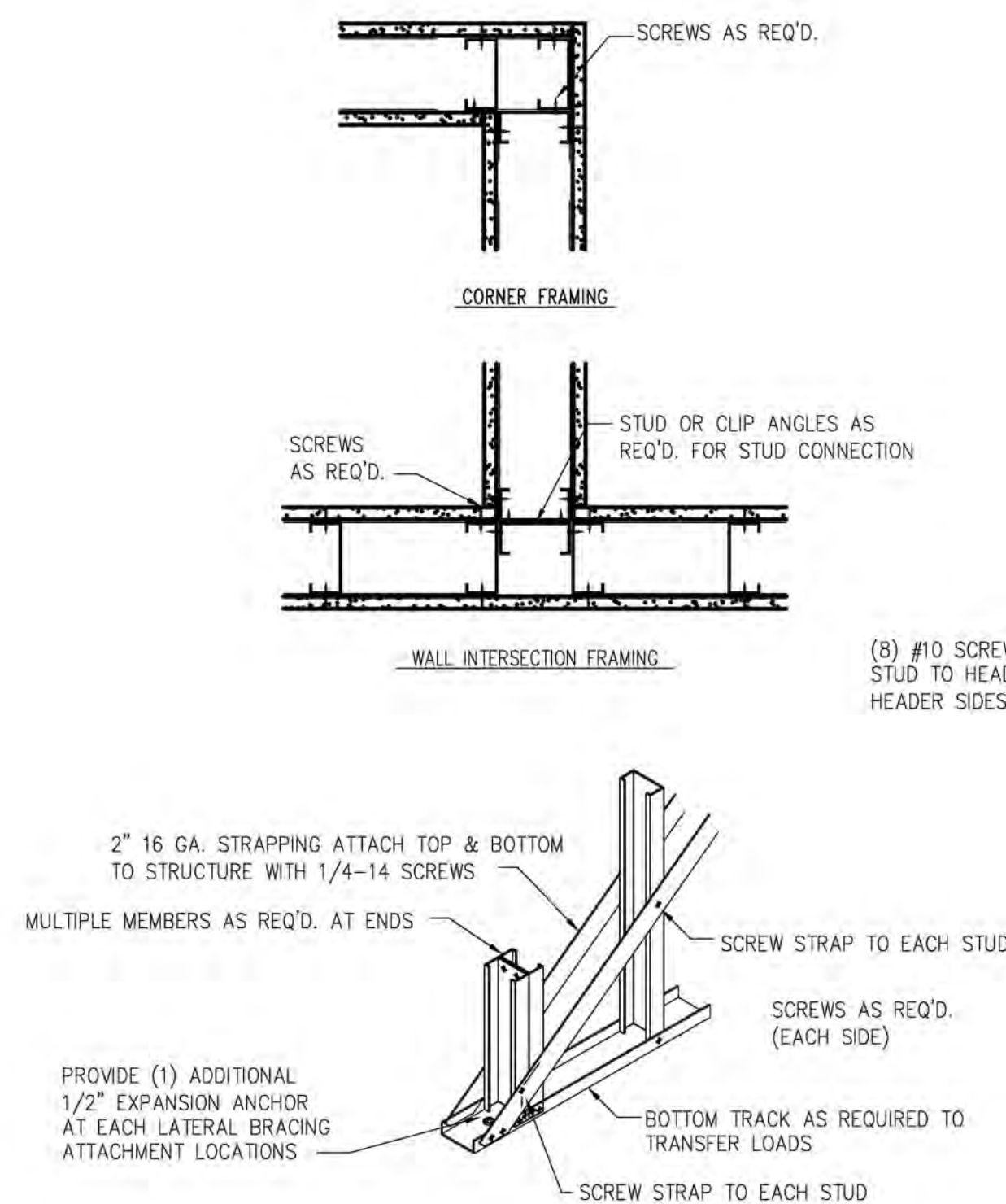
SHEET: **S-2.2**



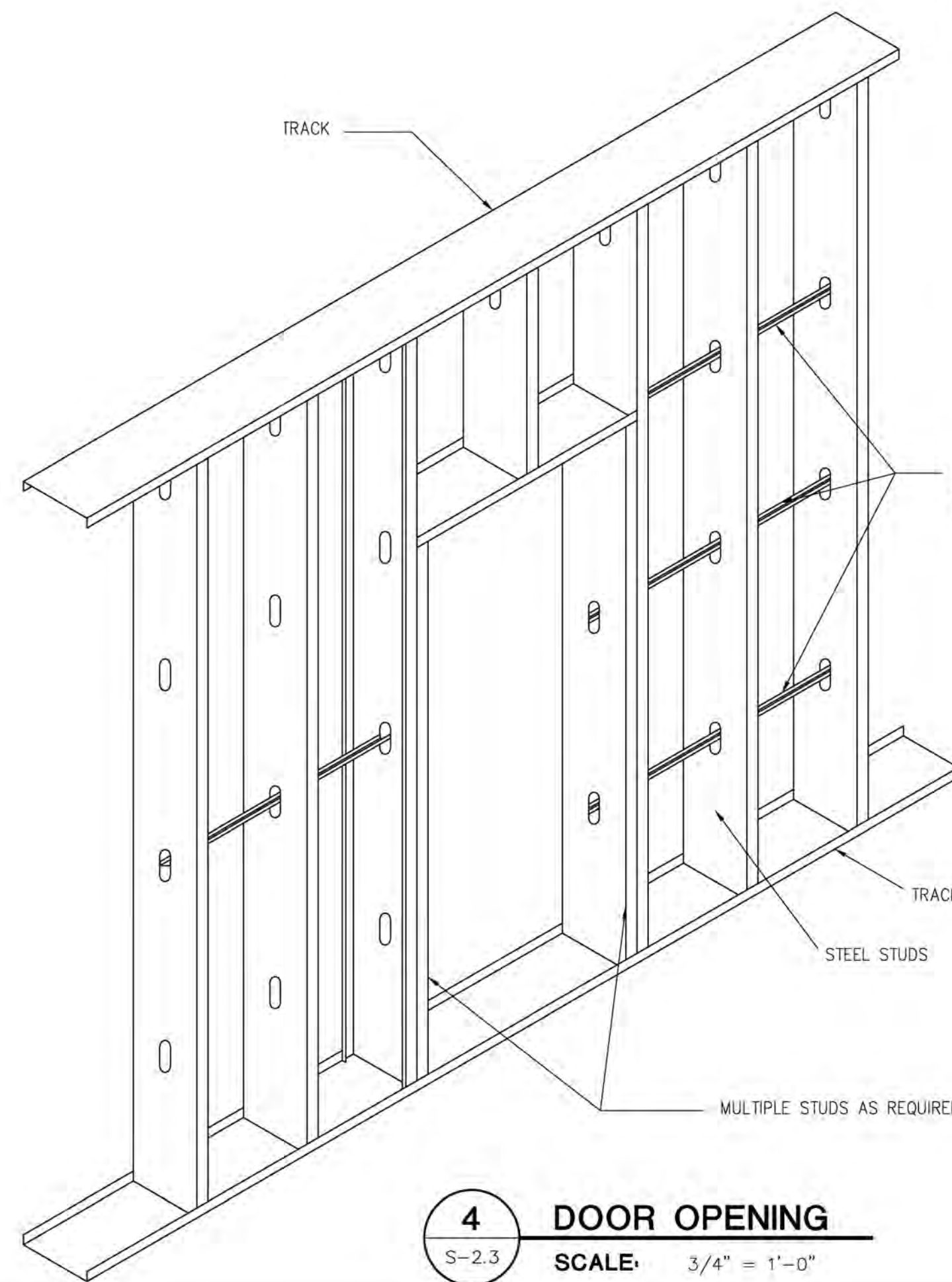
1 WALL X-BRACING
S-2.3 SCALE: 3/4" = 1'-0"



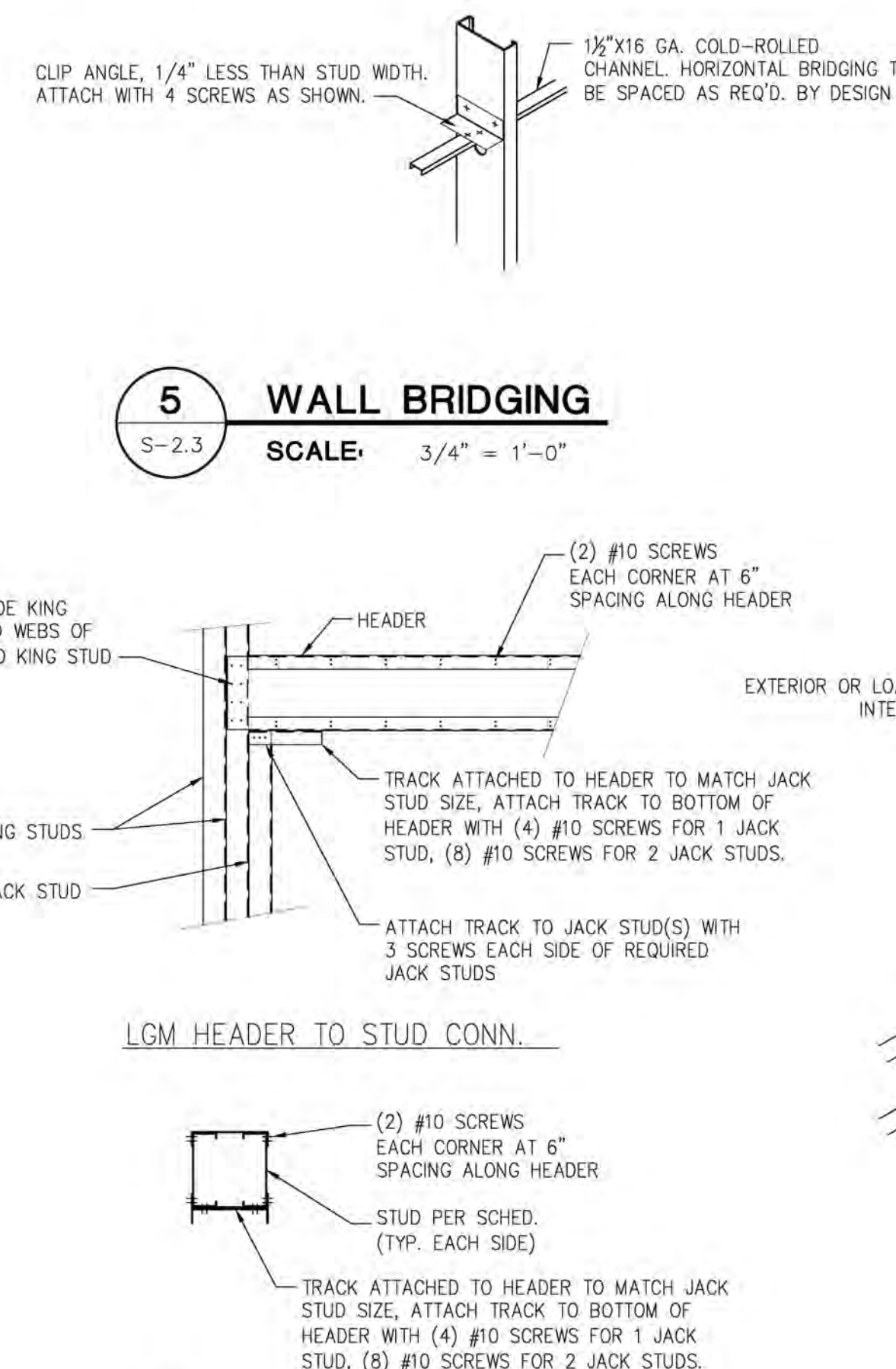
2 JOIST BRIDGING
S-2.3 SCALE: 3/4" = 1'-0"



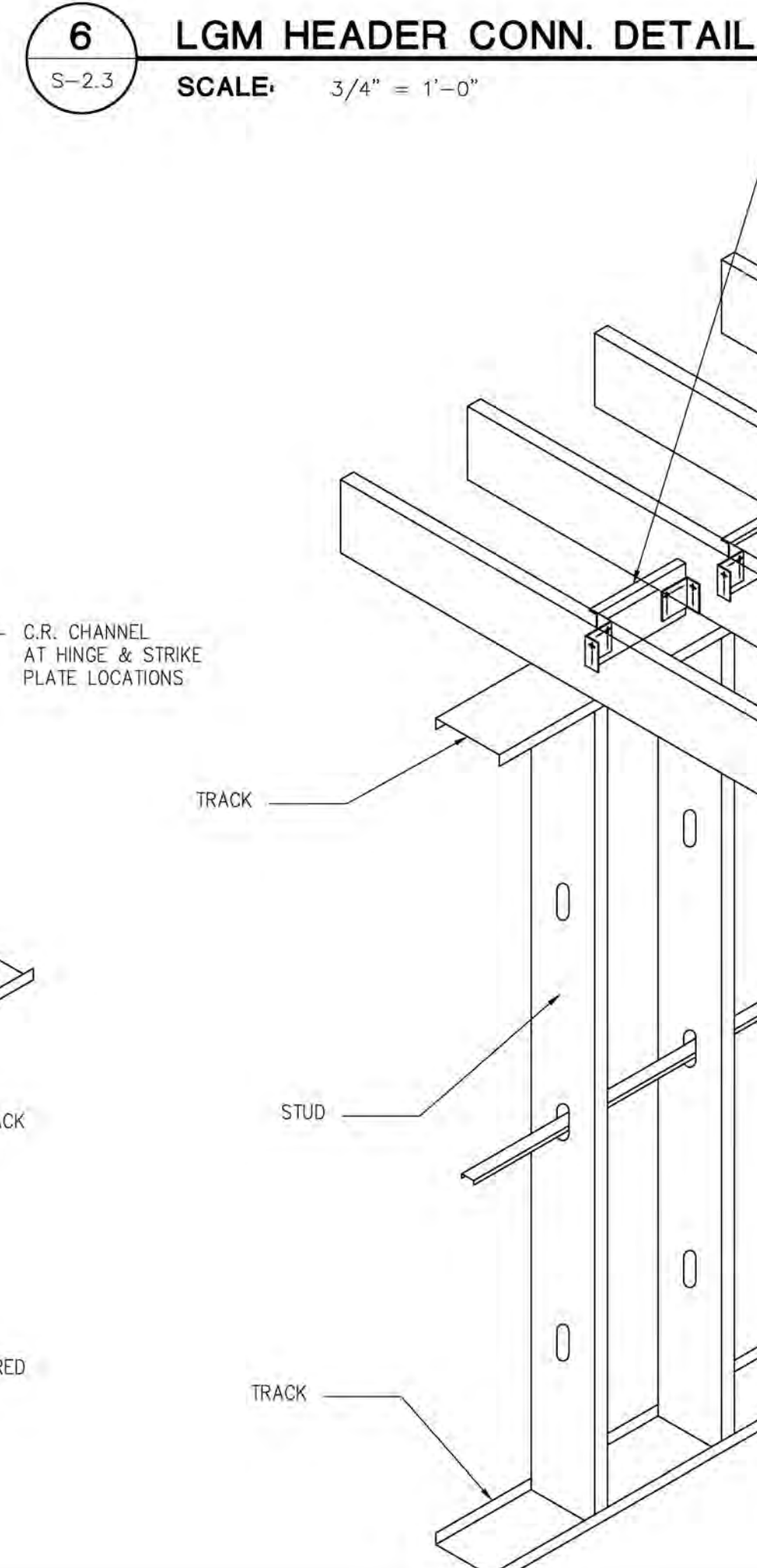
3 INT. FRAMING DETAILS
S-2.3 SCALE: 3/4" = 1'-0"



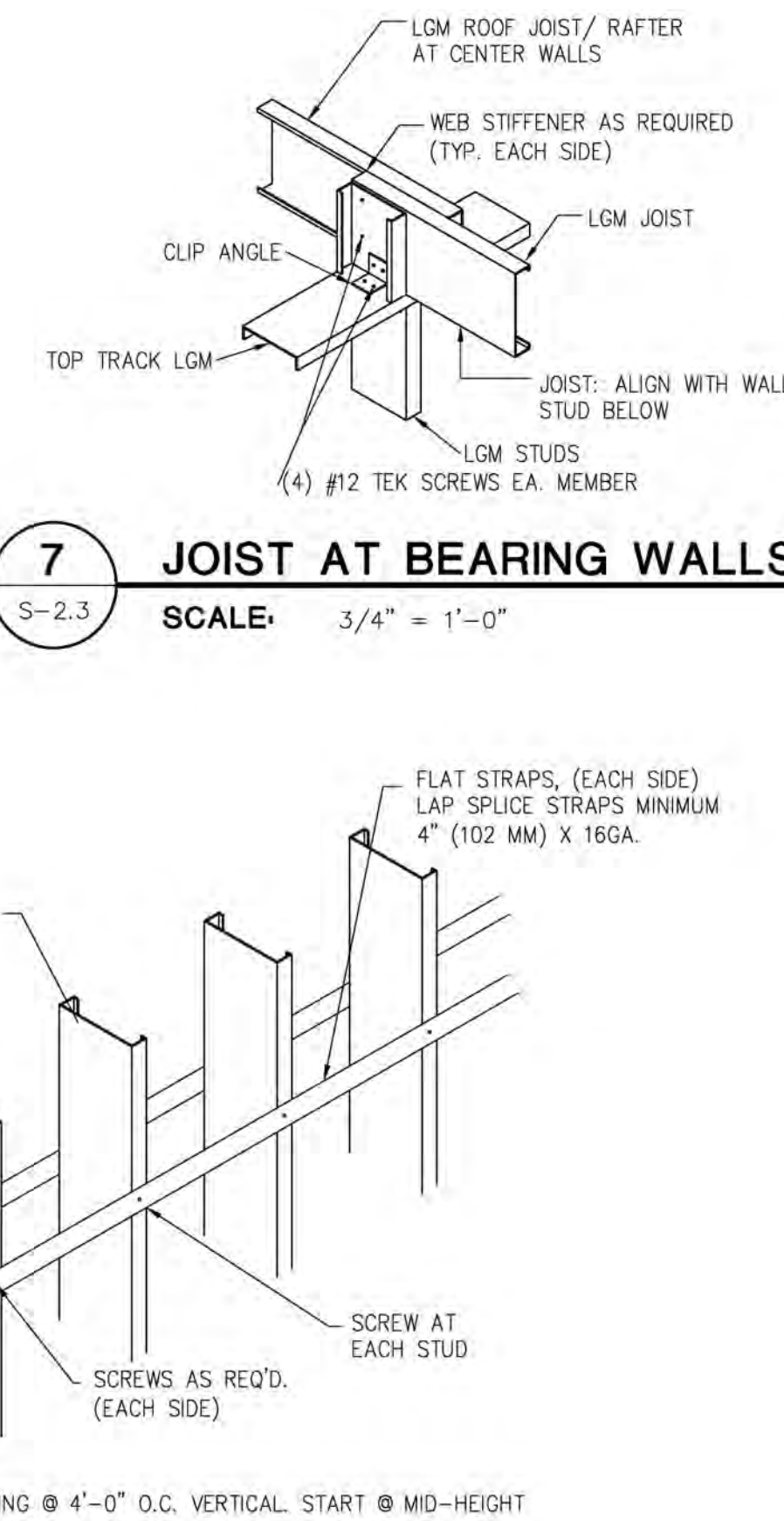
4 DOOR OPENING
S-2.3 SCALE: 3/4" = 1'-0"



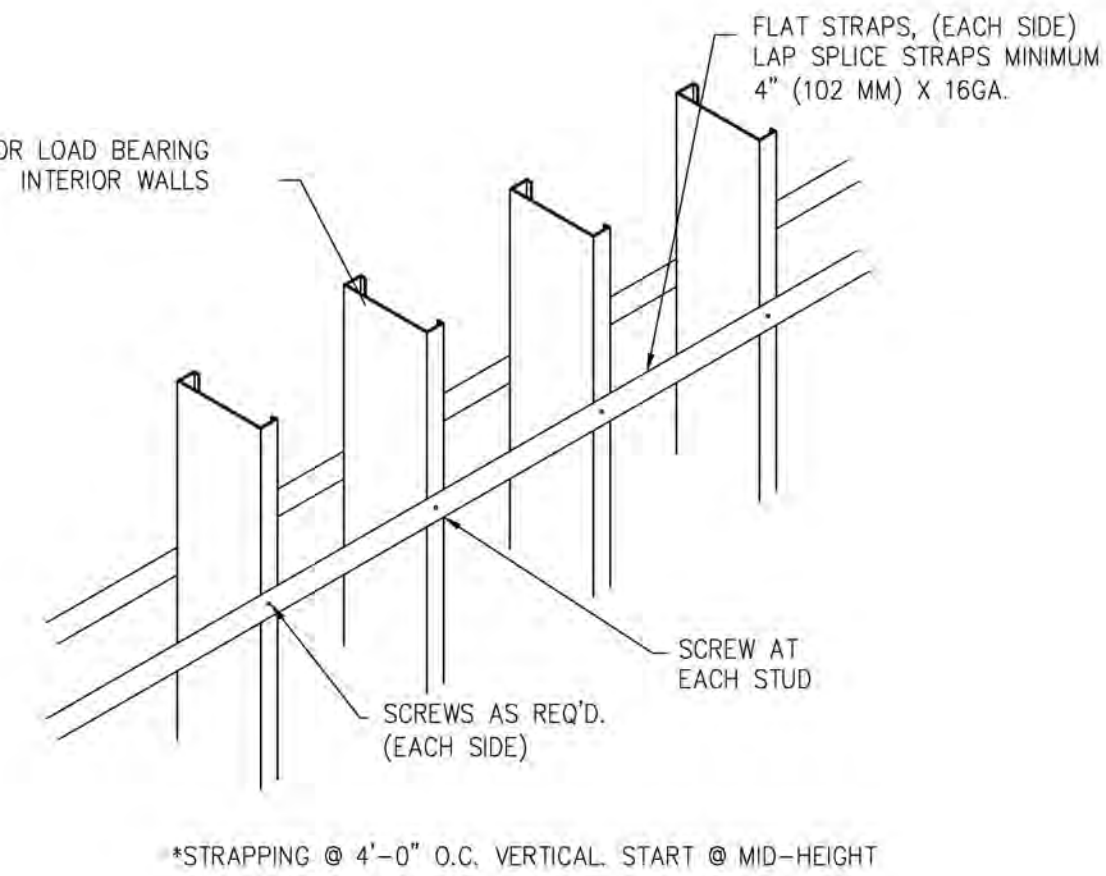
5 WALL BRIDGING
S-2.3 SCALE: 3/4" = 1'-0"



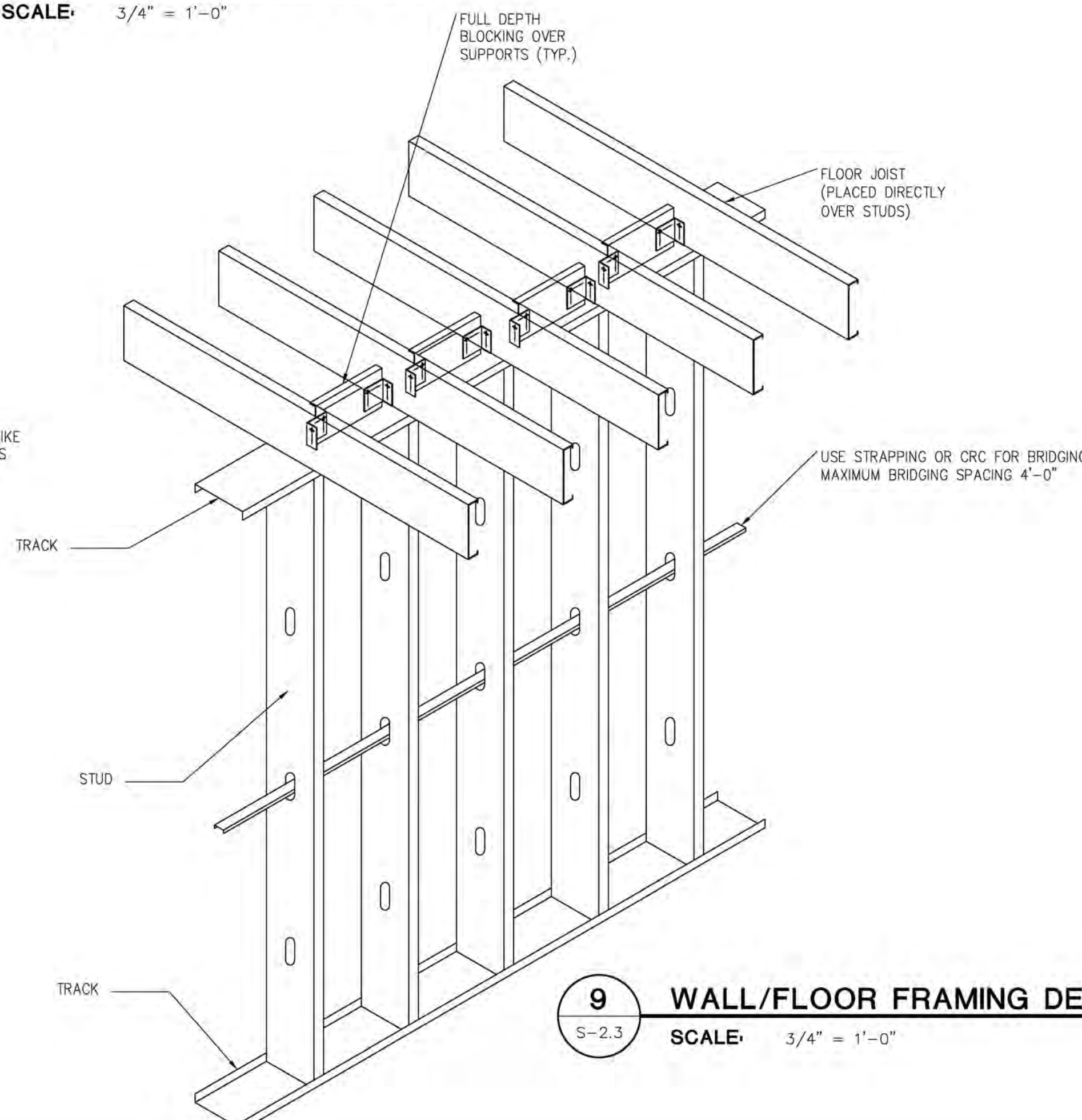
6 LGM HEADER CONN. DETAIL
S-2.3 SCALE: 3/4" = 1'-0"



7 JOIST AT BEARING WALLS
S-2.3 SCALE: 3/4" = 1'-0"



8 STUD STRAPS
S-2.3 SCALE: 3/4" = 1'-0"



9 WALL/FLOOR FRAMING DETAIL
S-2.3 SCALE: 3/4" = 1'-0"

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NO.	DATE	DESCRIPTION
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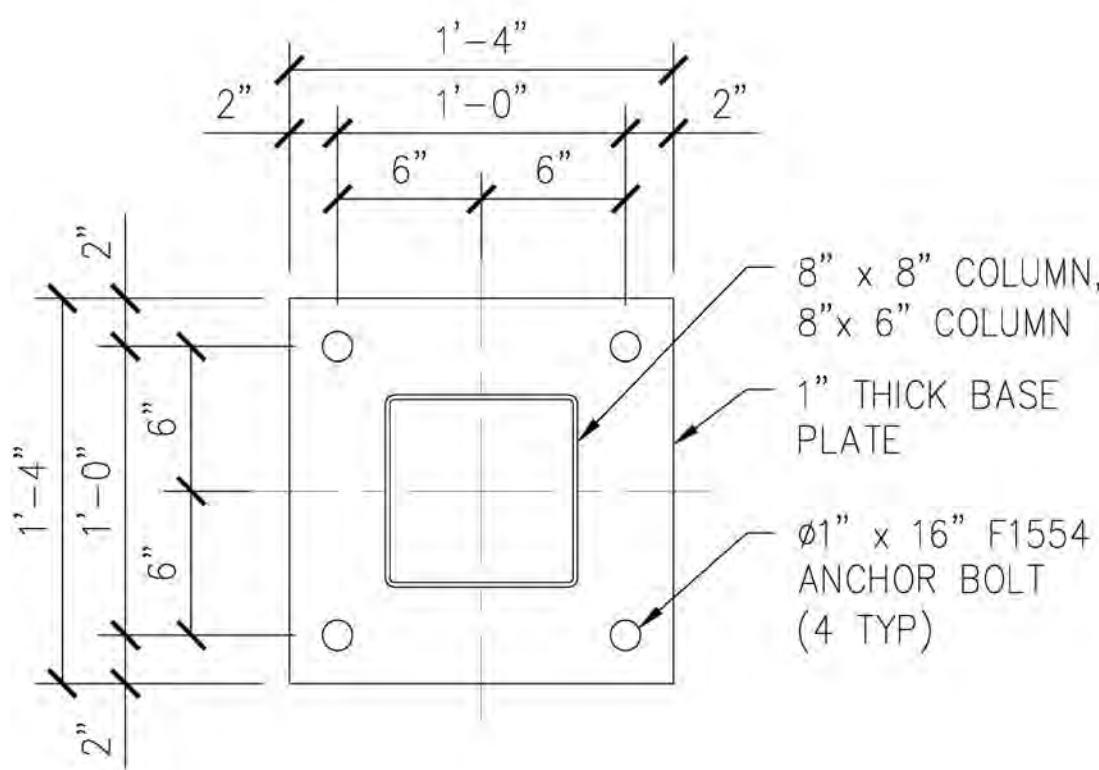
CONSULTANT
STAMP:

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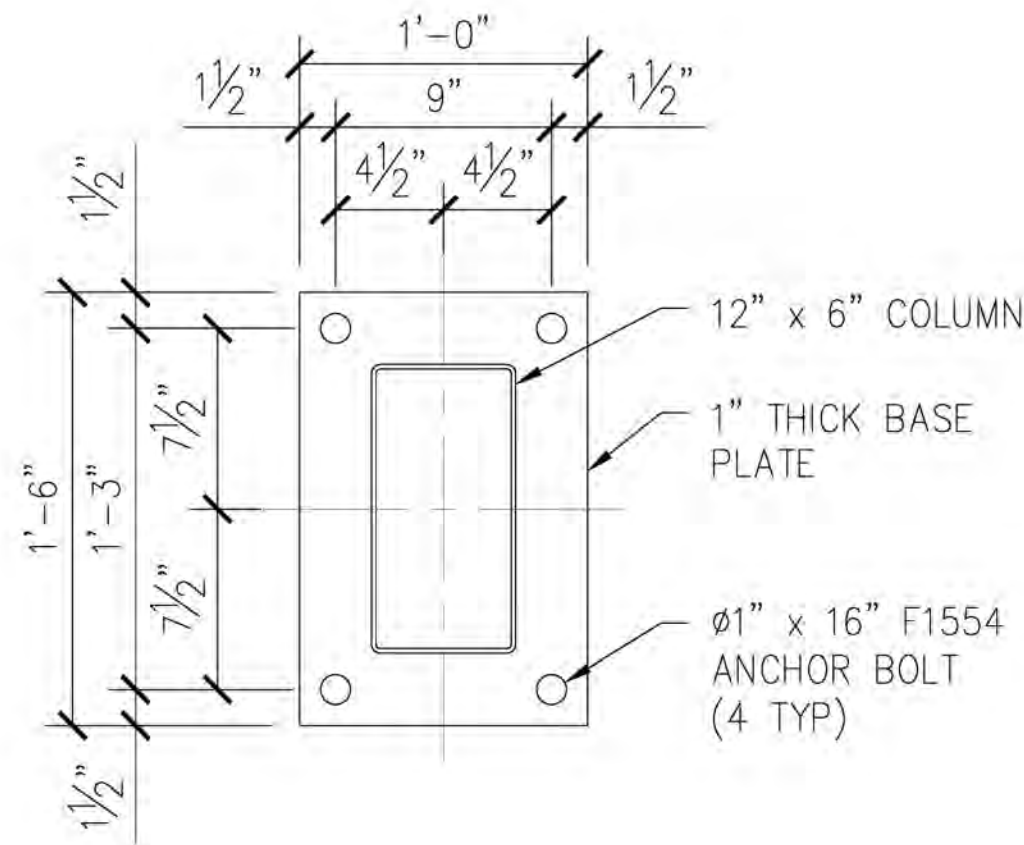
PROJECT NUMBER: 23-1014	DRAWINGS FOR: Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081	SHEET TITLE: Structural Details
FILENAME:		

SCALE: AS NOTED	PLOT DATE:	DRAWN BY: MKG
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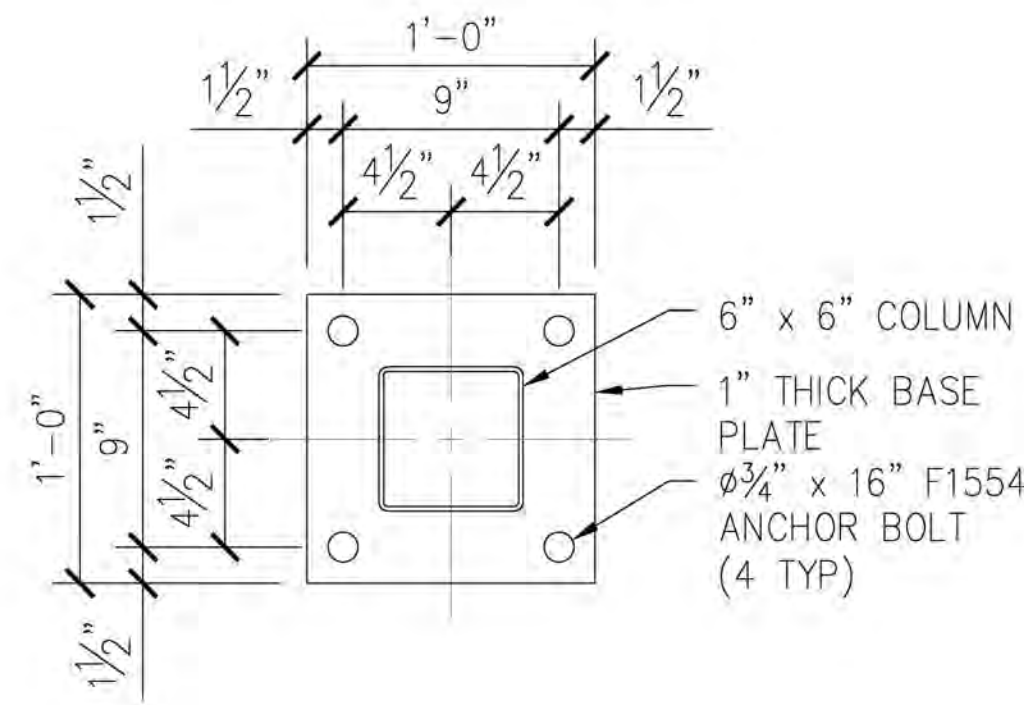
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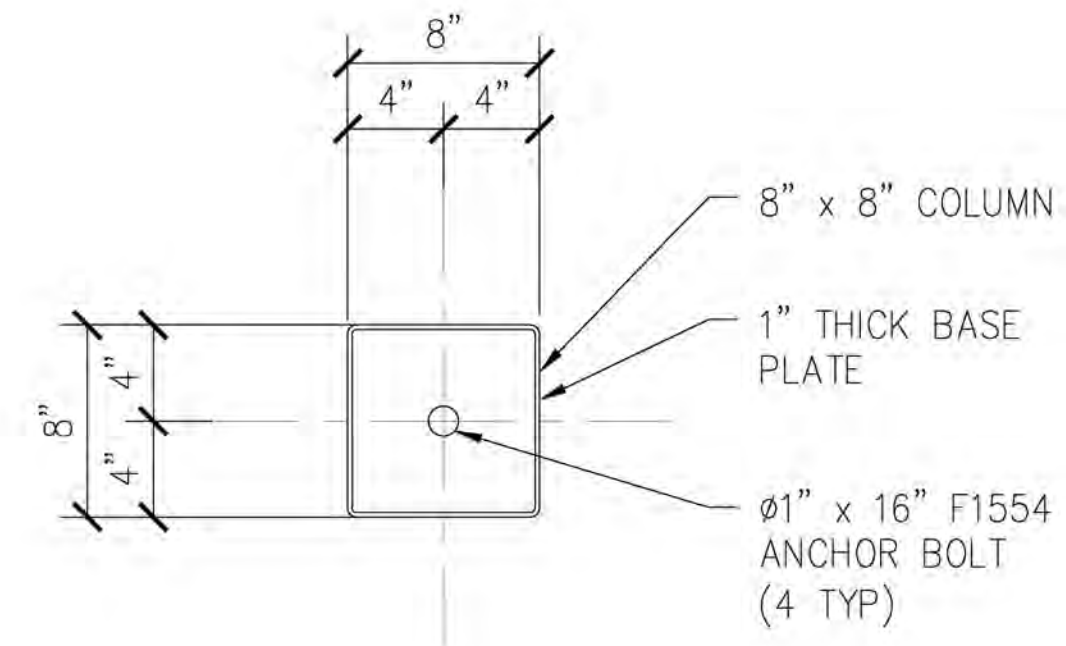
1 BASE PLATE DETAIL (CB1)
S-3.0 SCALE: N.T.S.



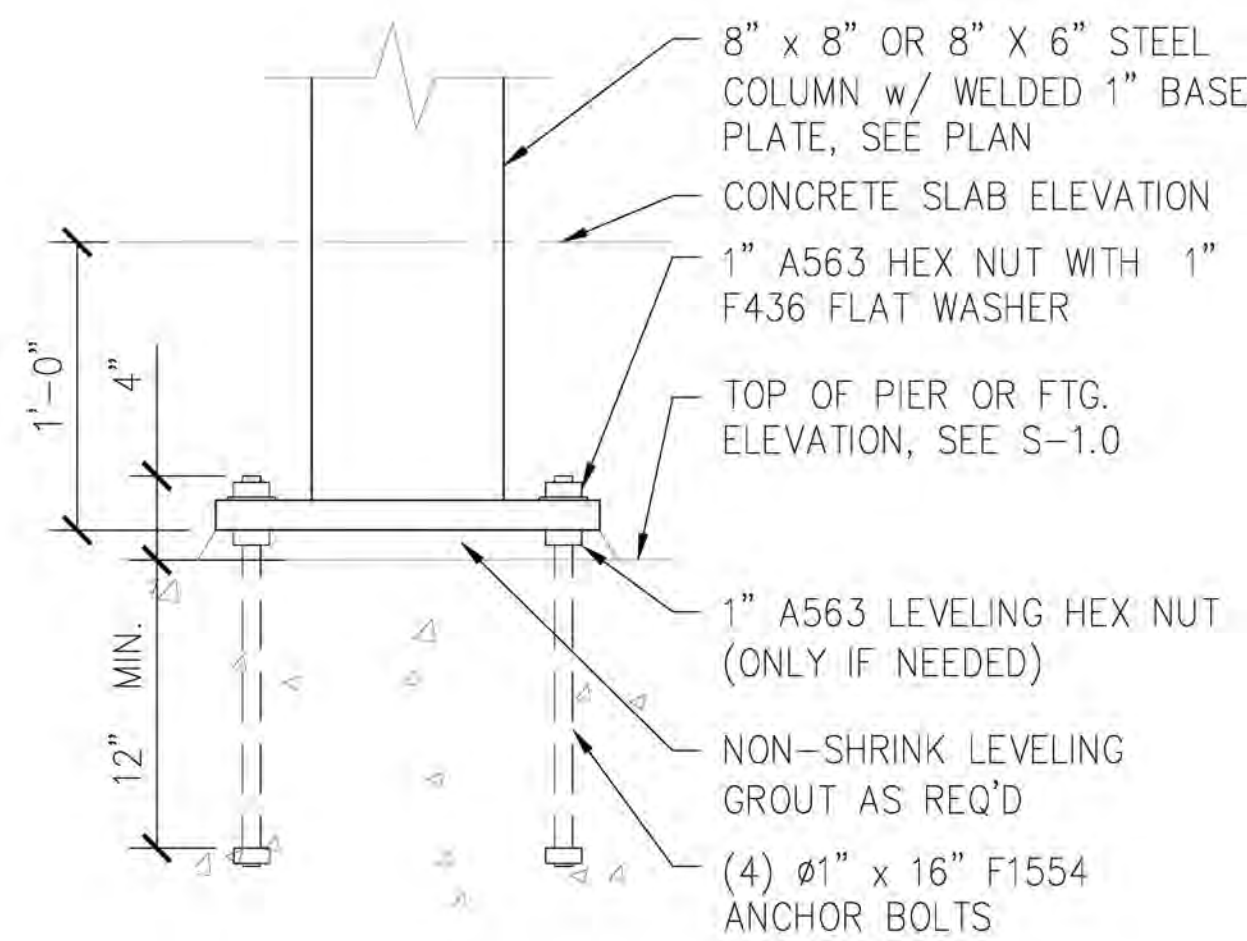
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S-3.0 SCALE: N.T.S.



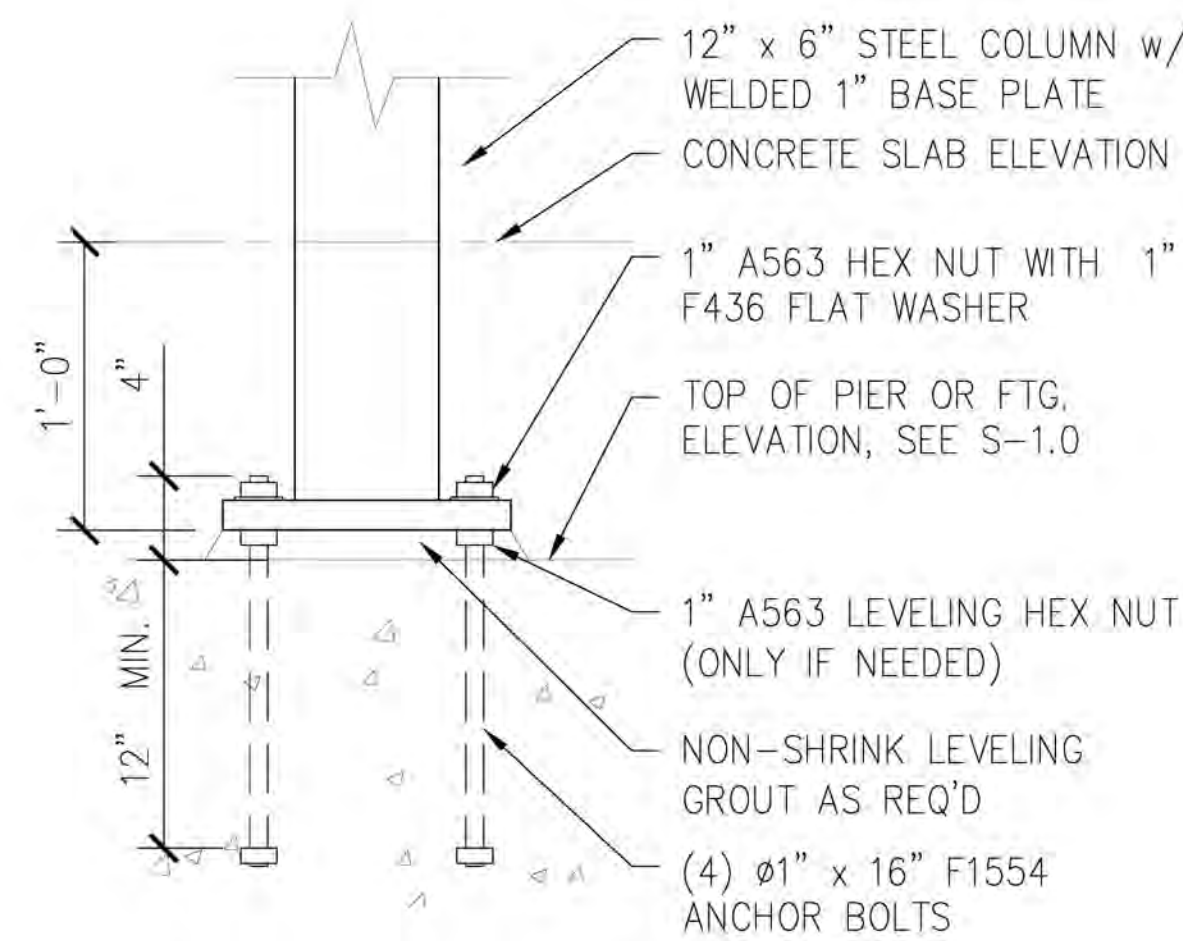
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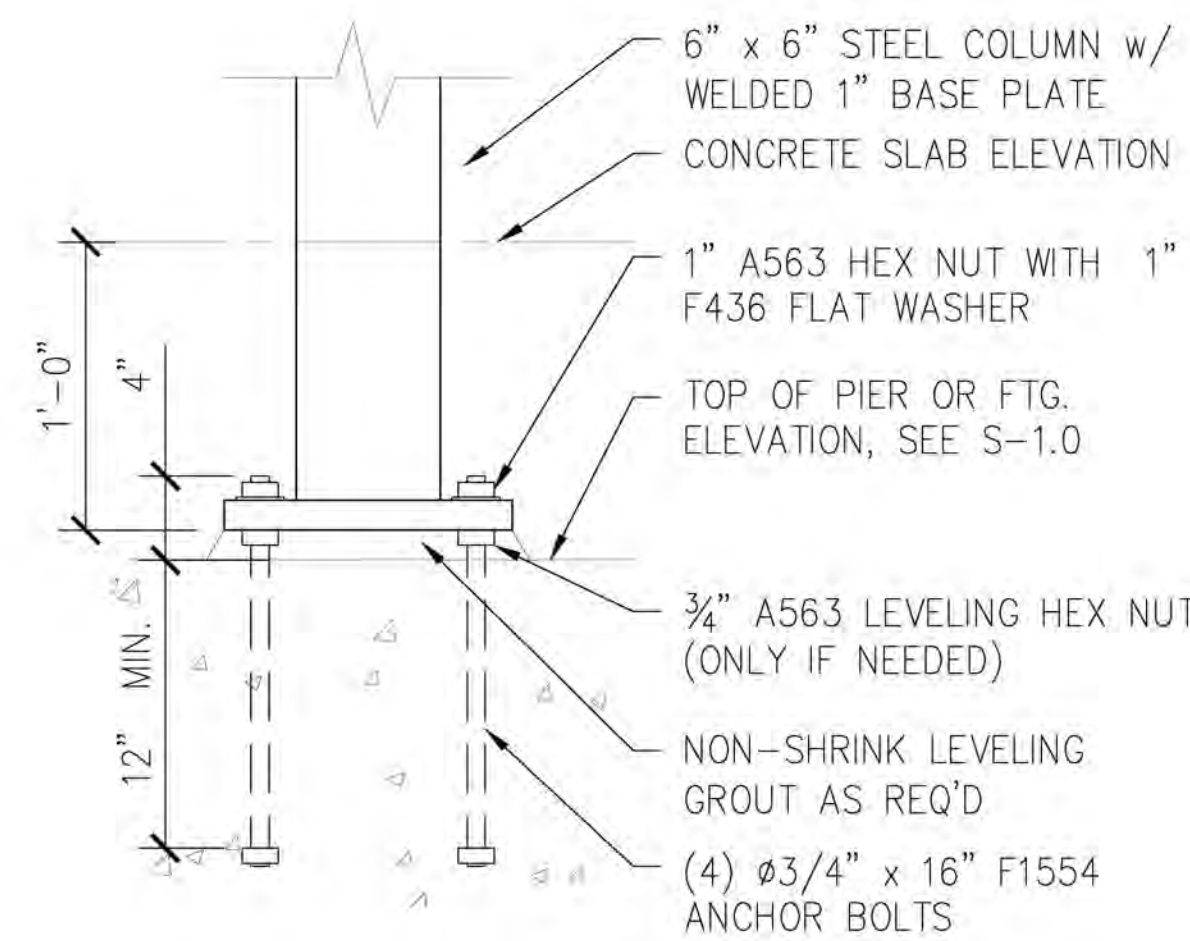
4 BASE PLATE DETAIL (CB4)
S-3.0 SCALE: N.T.S.



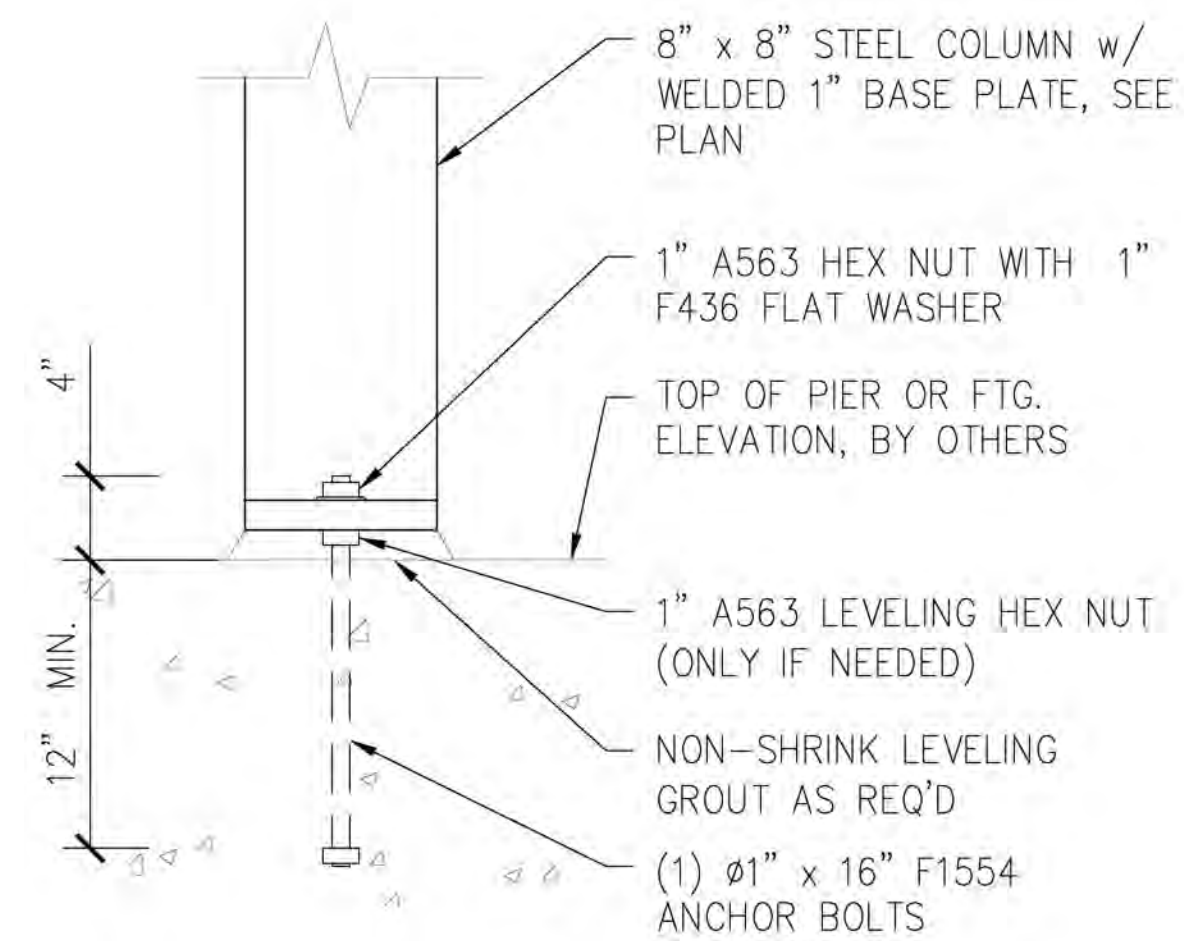
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2A 12\"/>



3A 8\"/>



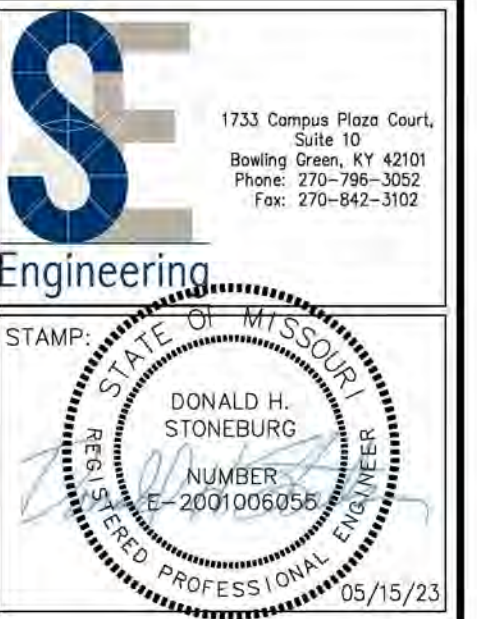
4A 8\"/>

NOTES:

- PRE-ASSEMBLE THE ANCHOR BOLT BRACING TEMPLATES AND SET ASIDE UNTIL CONCRETE FOOTINGS HAVE BEEN POURED.
- ALL FOOTING TOP LEVELS ARE LEVEL AND AT THE SAME ELEVATION UNLESS NOTED OTHERWISE ON S-1.0.
- PLACE ANCHOR BOLT BRACING TEMPLATES INTO WET CONCRETE AND ALIGN BOLTS AS SHOWN IN THE "FOOTING LAYOUT PLAN." POSITION CENTER OF BASE PLATES WITH STRING CENTERLINES USED DURING LAYOUT. CHECK FOR LEVEL SURFACE AND ADJUST AS NECESSARY. IT IS VERY IMPORTANT THAT BOLT ALIGNMENT FOR EACH FOOTING IS PRECISELY ORIENTATED AS SHOWN IN THE "FOOTING LAYOUT PLAN."
- REMOVE AND DISCARD ANCHOR BOLT BRACING TEMPLATES FROM ANCHOR BOLTS ONCE THE CONCRETE HAS HARDENED AND REACHED FULL STRENGTH (48 HOURS MINIMUM). SAVE HEX NUTS TO USE FOR COLUMN ASSEMBLY LATER.
- VERIFY THAT FOOTINGS ARE LEVEL AND UNIFORM ONCE THE CONCRETE HAS SET AND HARDENED. IF FOOTINGS ARE NOT LEVEL WITH EACH OTHER LEVELING NUTS CAN BE USED BELOW THE COLUMN BASE PLATES AND ADJUSTED AS NEEDED TO BRING THE BASE PLATES TO A UNIFORM LEVEL. USE NON-SHRINK GROUT BELOW THE BASE PLATE WHEN USING LEVELING NUTS AND ALLOW GROUT TO HARDEN BEFORE INSTALLING COLUMNS.

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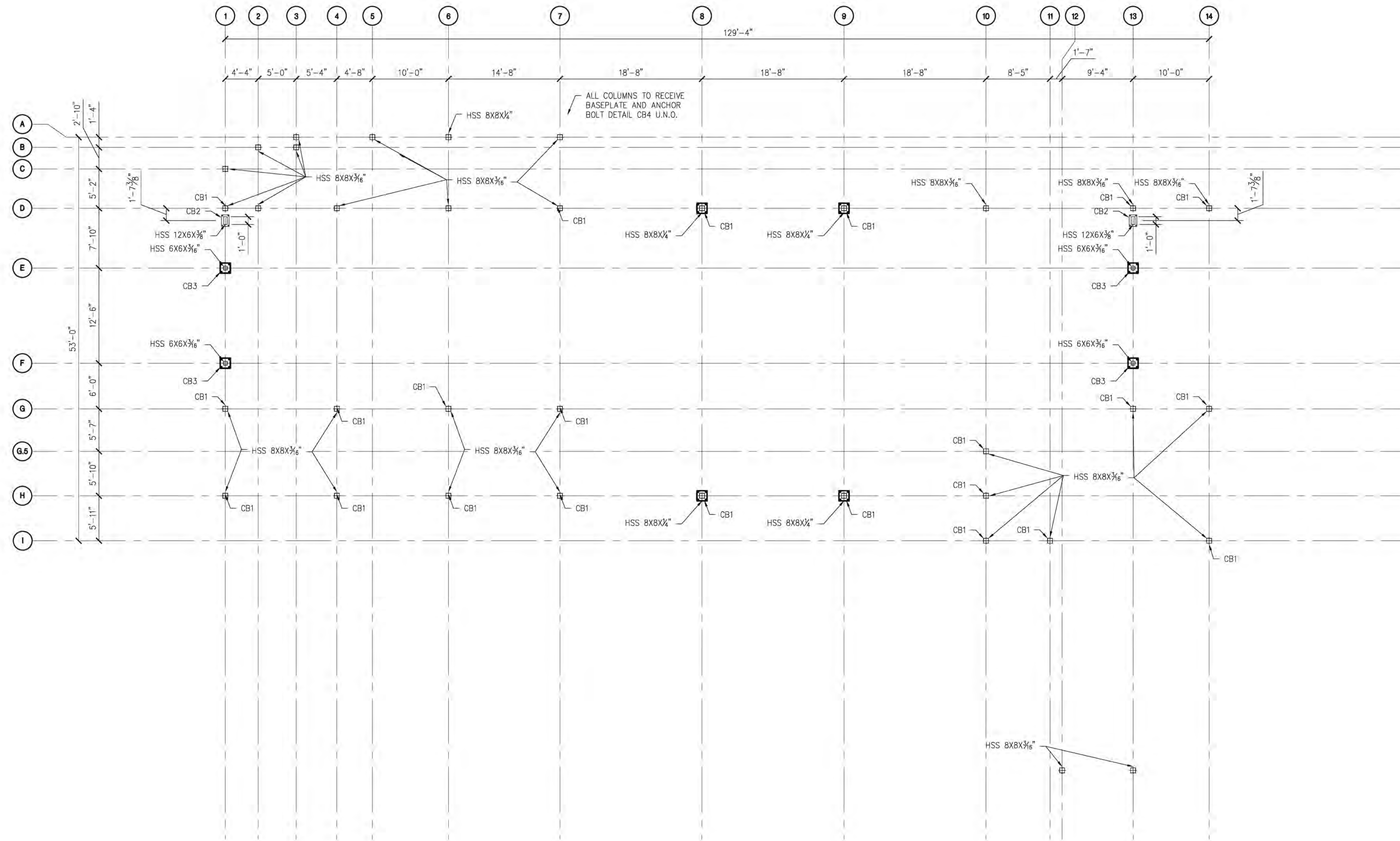


CONSULTANT
STAMP:

Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081	Column Base Plate & Details
---	--

PROJECT NUMBER: 23-1014	SCALE: AS NOTED
FILENAME:	PLOT DATE:
DRAWN BY: MKG	

SHEET:
S-3.0



A COLUMN LAYOUT PLAN
S-3.1 SCALE: 1/8" = 1'-0"

NOTES:
1. REFER TO BASE PLATE DETAILS ON SHEET S-3.0.
2. REFER TO S-1.0 FOR FOUNDATION INFORMATION.

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1733 Campus Plaza Court,
Suite 10
Bowling Green, KY 42101
Phone: 270-795-3022
Fax: 270-842-3102

Engineering

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/15/23

CONSULTANT

STAMP:

DRAWINGS FOR:
Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:
Column Layout Plan

PROJECT NUMBER:
23-1014

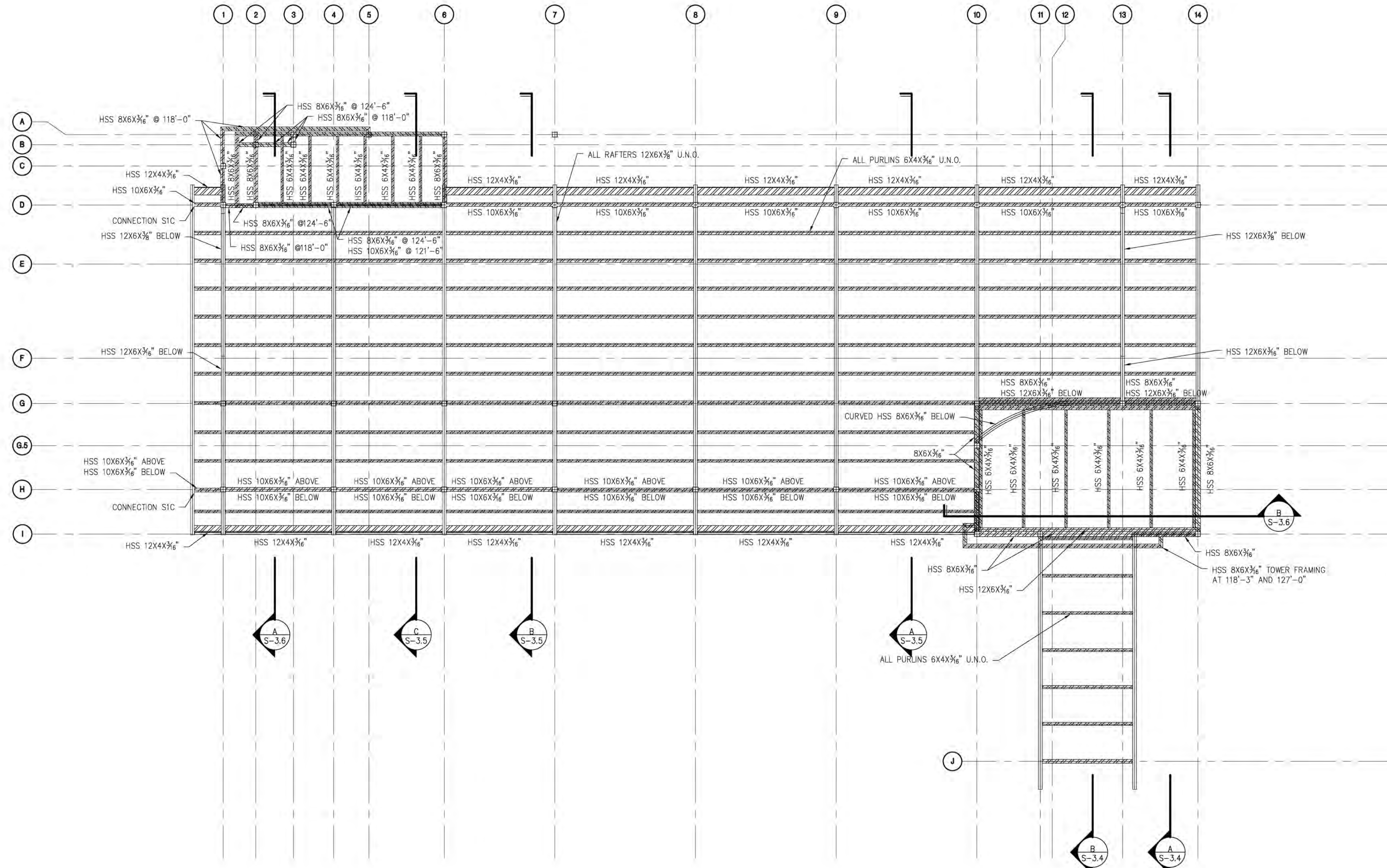
FILENAME:

SCALE:
AS NOTED

PLOT DATE:

DRAWN BY:
MKC

SHEET:
S-3.1



A STEEL FRAMING PLAN
S-3.2 SCALE: 1/8" = 1'-0"

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1	DESIGN	05/15/23	DHS	
2	FOR CONSTRUCTION			

S.E. Engineering
1733 Campus Plaza Court,
Suite 10
Bowling Green, KY 42101
Phone: 270-796-3022
Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/15/23

CONSULTANT

STAMP:

DRAWINGS FOR:
Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:
Steel Framing Plan

PROJECT NUMBER:
23-1014

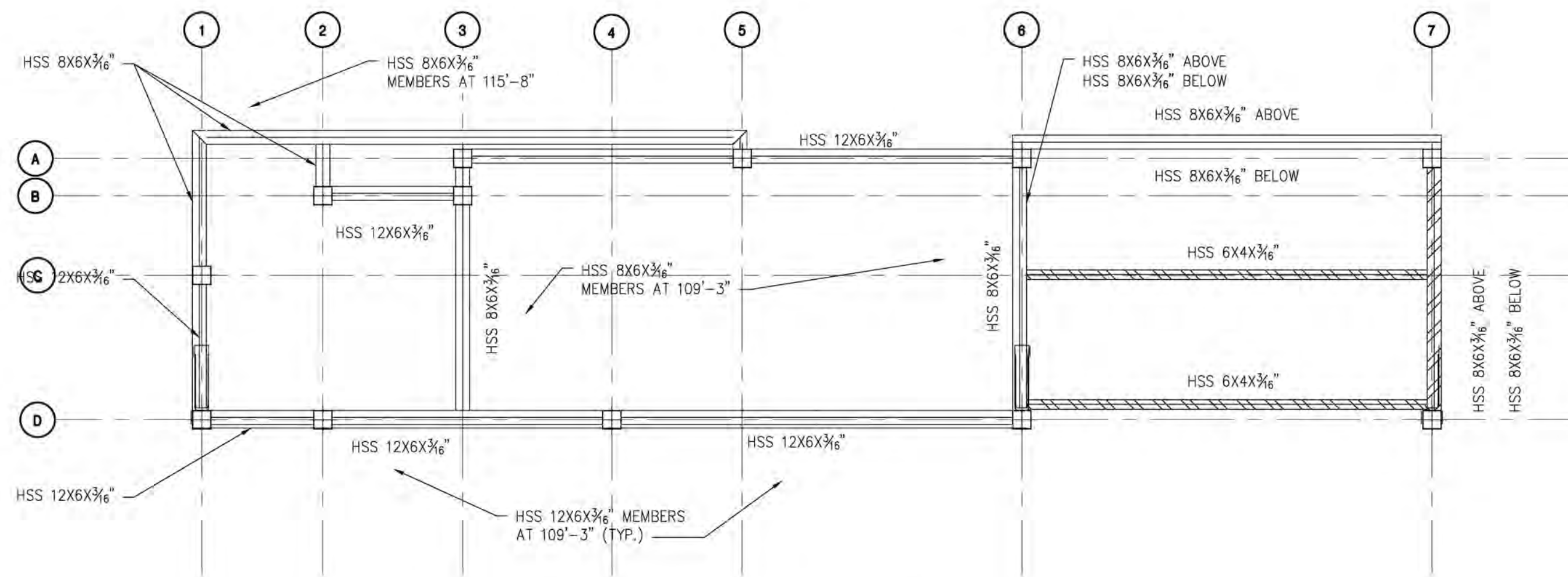
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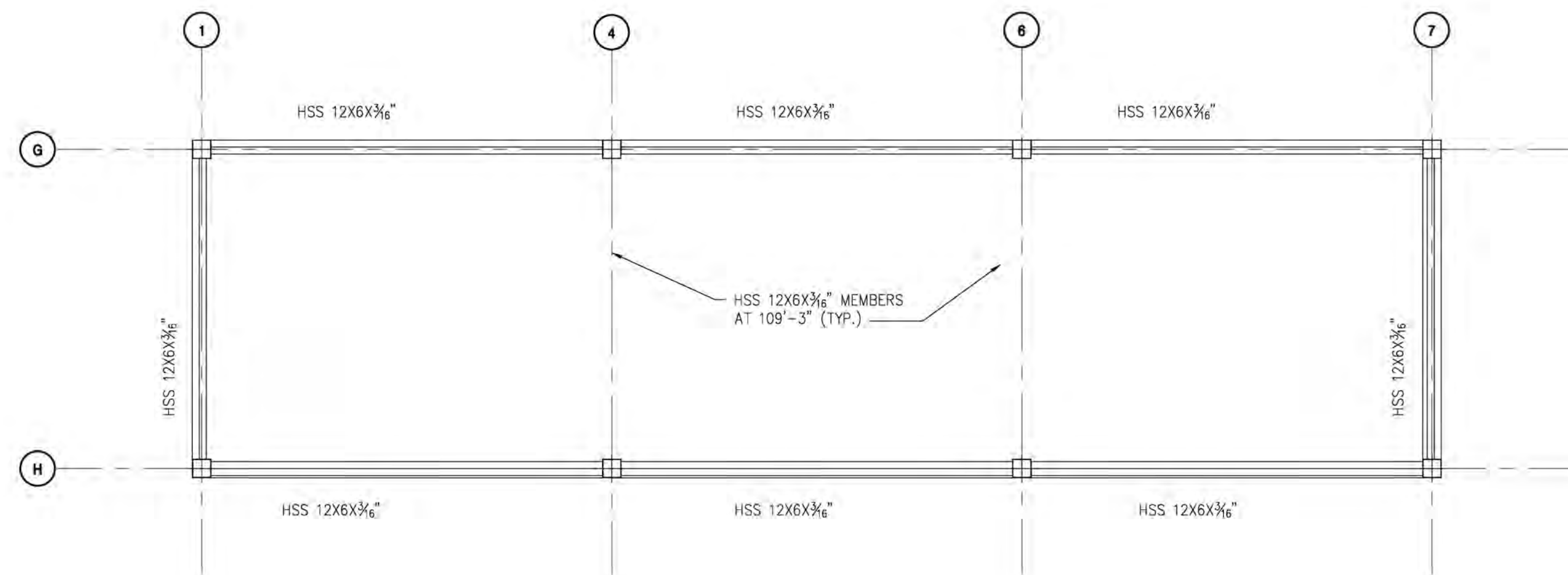
PLOT DATE:

DRAWN BY:
MKG

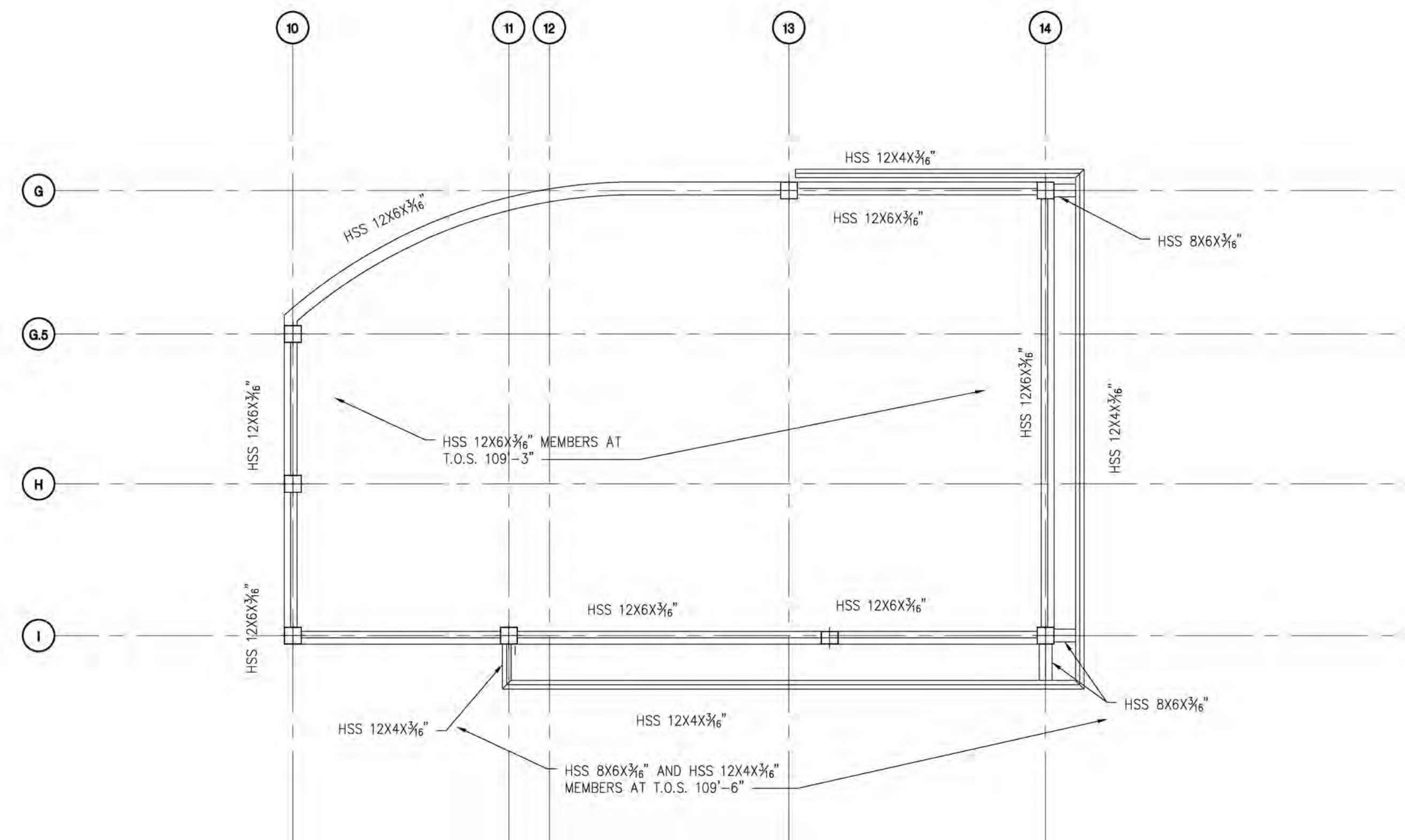
SHEET:
S-3.2



A TOWER FRAMING PLAN
S-3.3 SCALE: 1/4" = 1'-0"



C EQUIPMENT ROOM FRAMING PLAN
S-3.3 SCALE: 1/4" = 1'-0"



B OFFICE TOWER FRAMING PLAN
S-3.3 SCALE: 1/4" = 1'-0"

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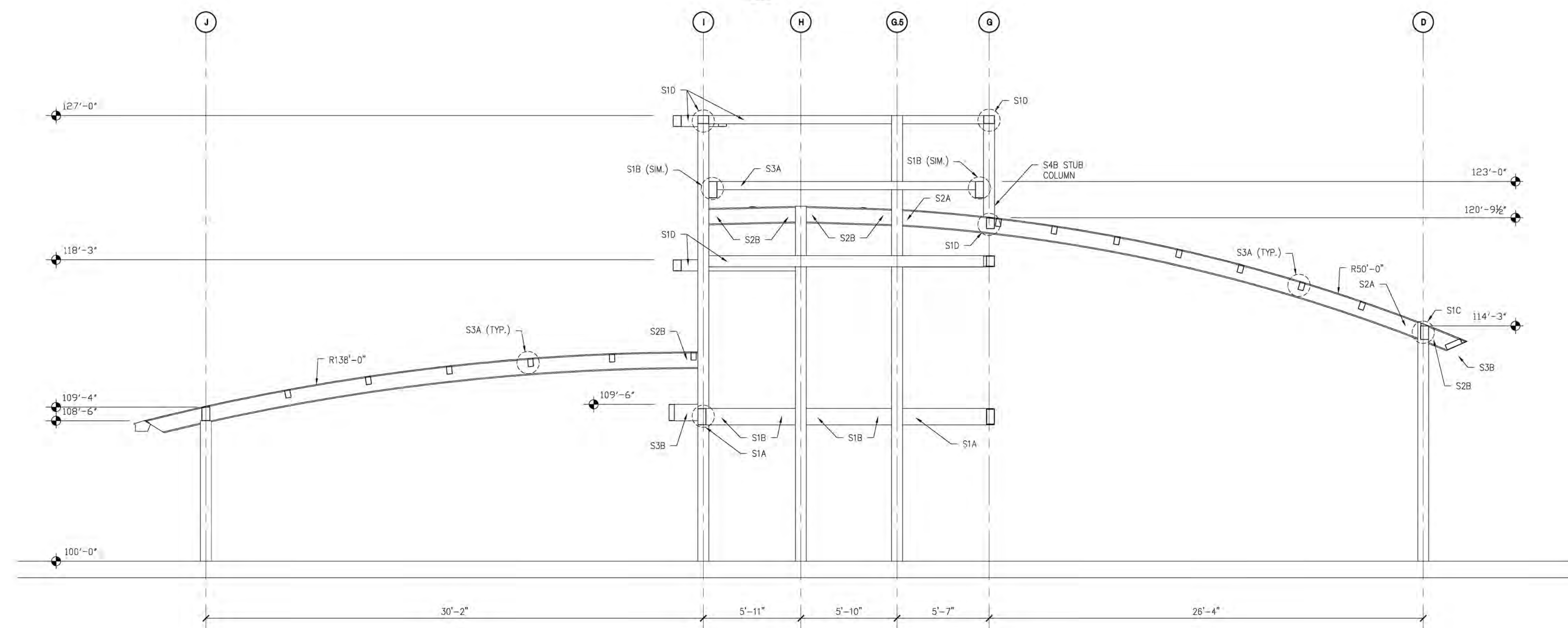
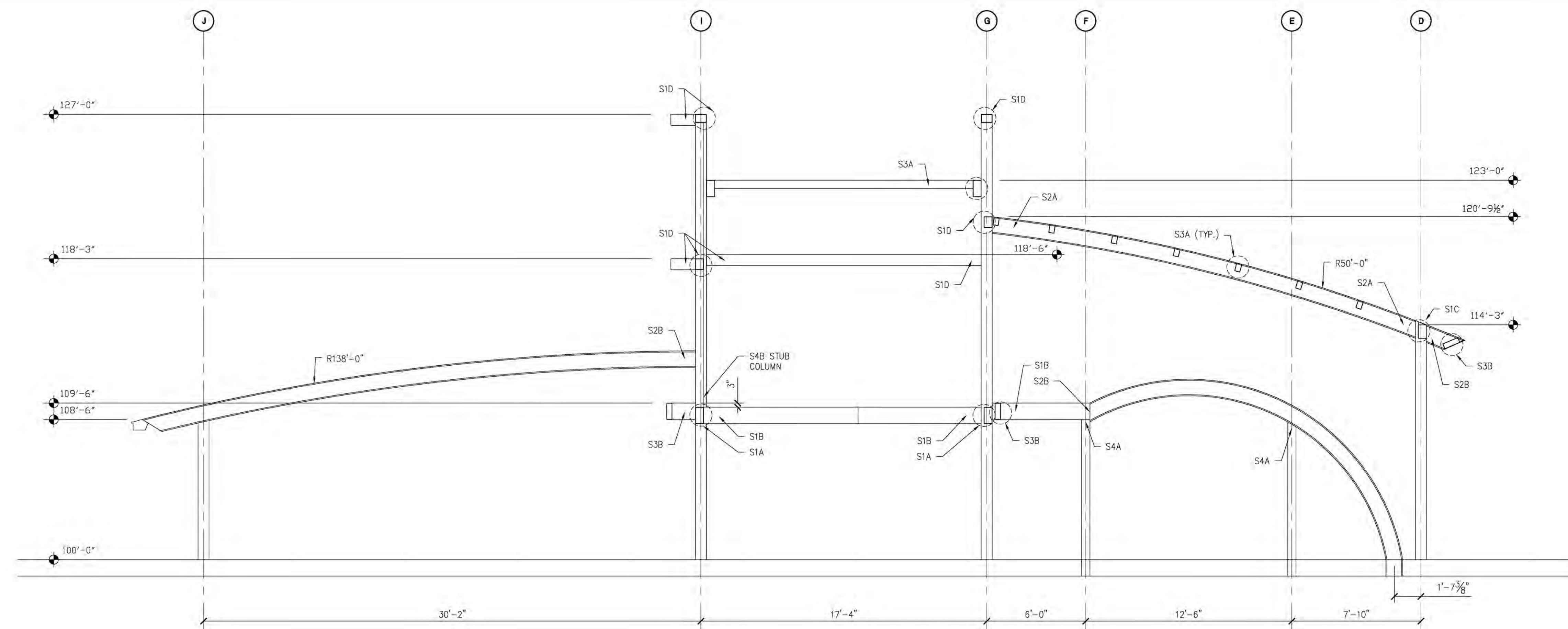


CONSULTANT
STAMP:

PROJECT NUMBER: 23-1014	FILENAME:	SCALE: AS NOTED	PLOT DATE:	DRAWN BY: MKG
DRAWINGS FOR: Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081				
SHEET TITLE: Steel Framing Plan				

PROJECT NUMBER: 23-1014	FILENAME:	SCALE: AS NOTED	PLOT DATE:	DRAWN BY: MKG
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SHEET:
S-3.3



NOTE: SEE SHEET S-3.7 FOR CONNECTION REQUIREMENTS

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CONSULTANT

STAMP:

Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

Framing Sections

PROJECT NUMBER:
23-101423-10
FILE NAME:

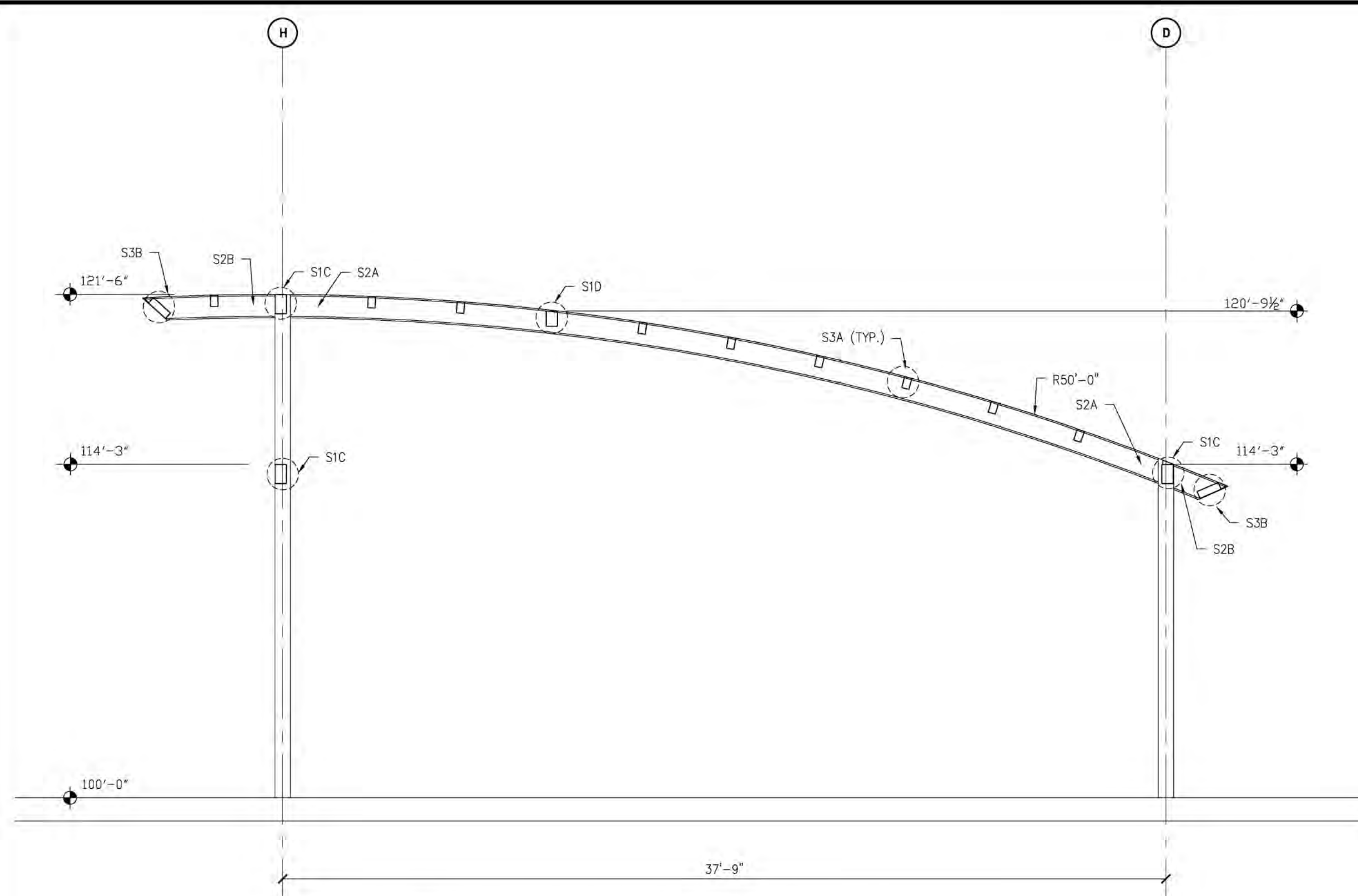
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PLOT DATE:

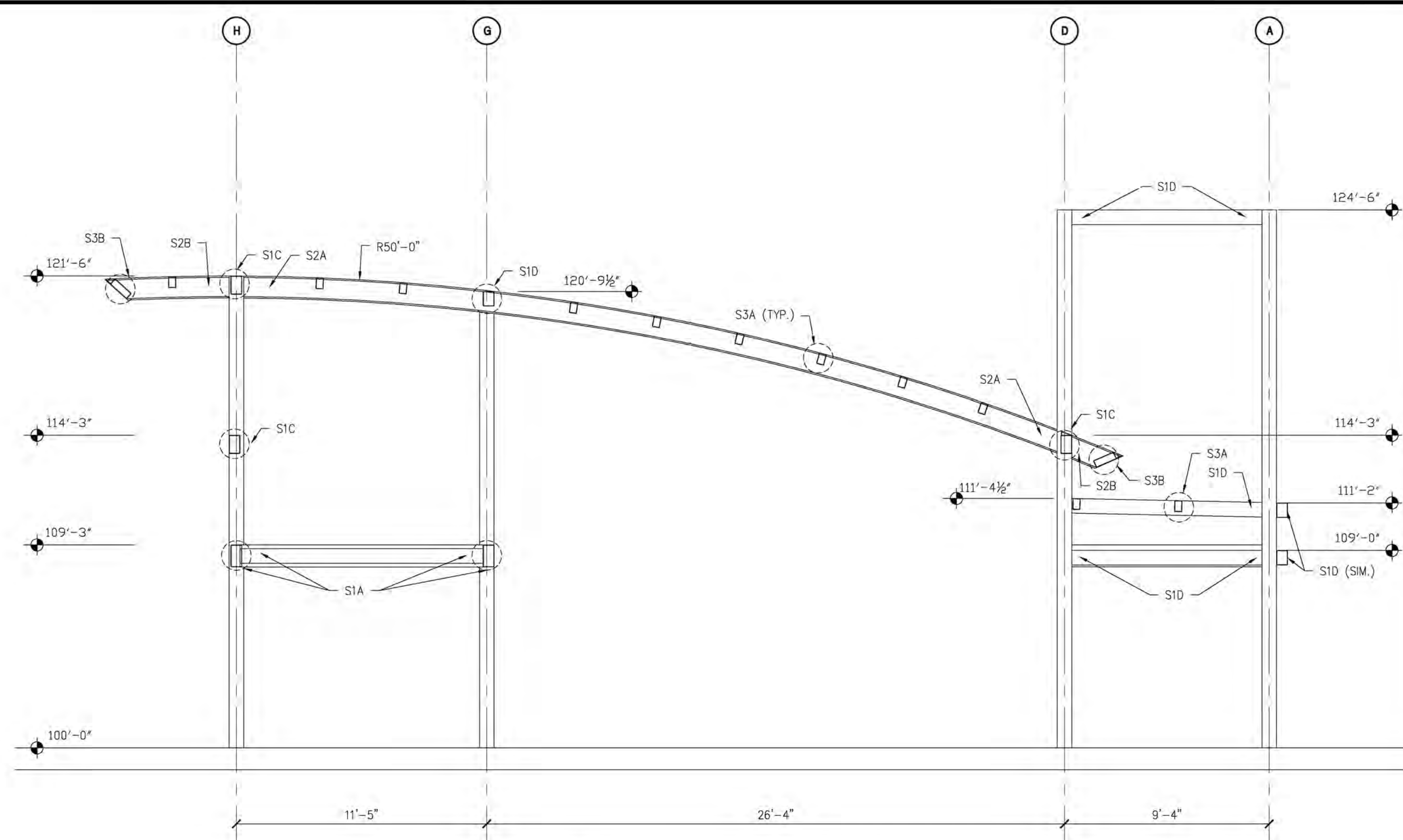
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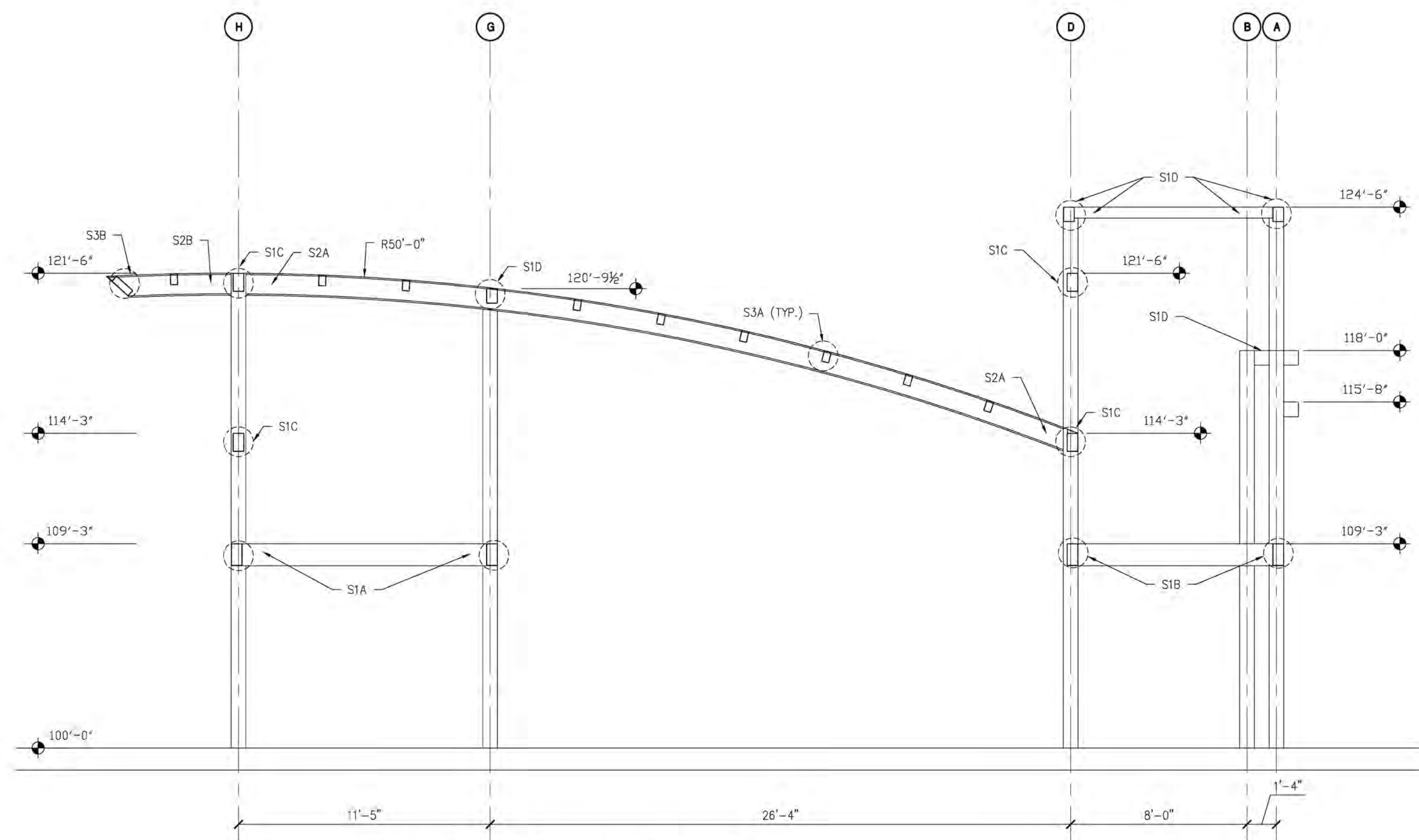
S-3.4



A SECTION NEAR COL. LINE 9
S-3.5 SCALE: 1/4" = 1'-0"



B SECTION NEAR COL. LINE 6
S-3.5 SCALE: 1/4" = 1'-0"



C SECTION NEAR COL. LINE 5
S-3.5 SCALE: 1/4" = 1'-0"

NOTE: SEE SHEET S-3.7 FOR CONNECTION REQUIREMENTS

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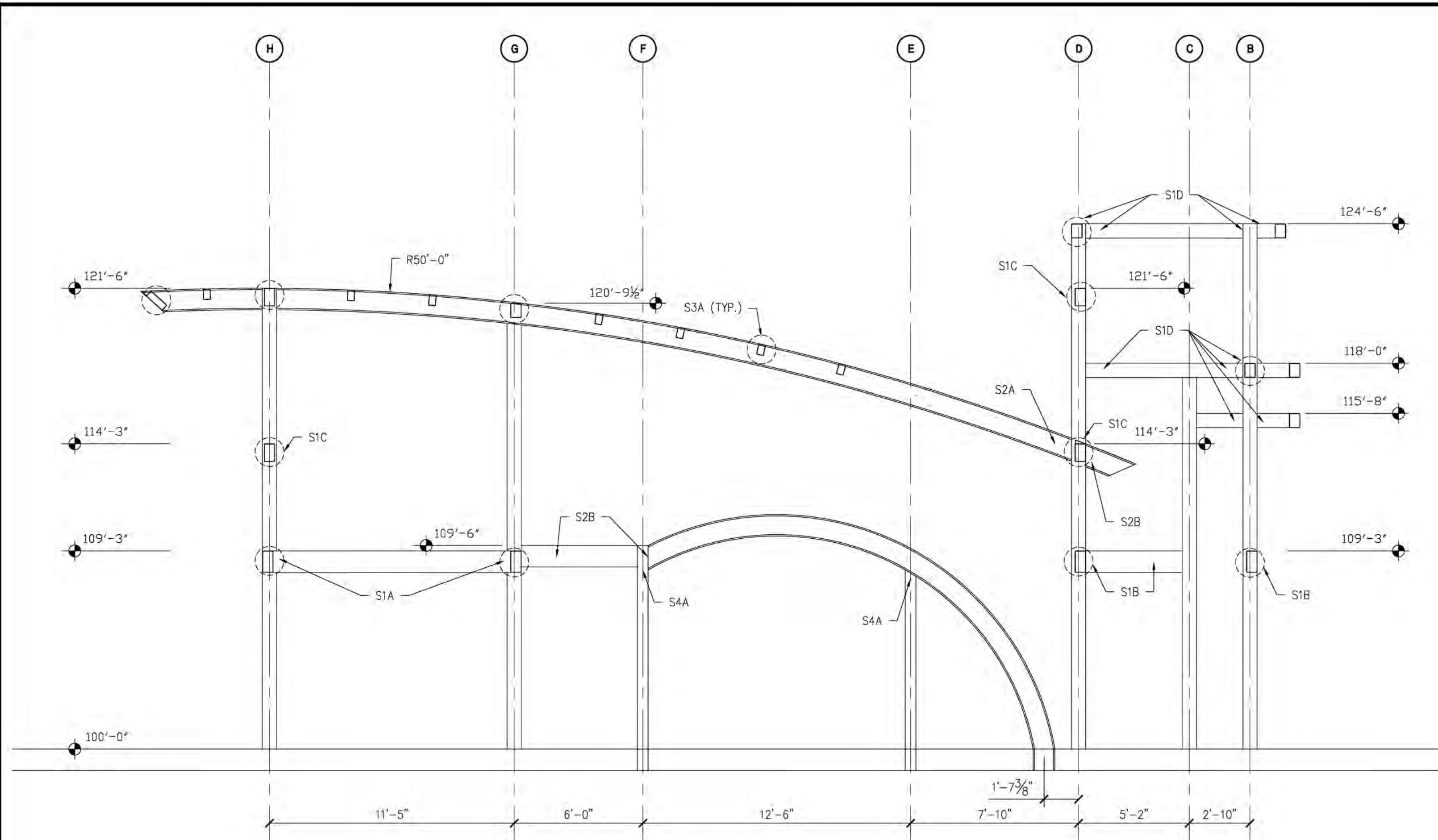
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PROJECT NUMBER: 23-1014
FILENAME:
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PLOT DATE:
DRAWN BY: MKG

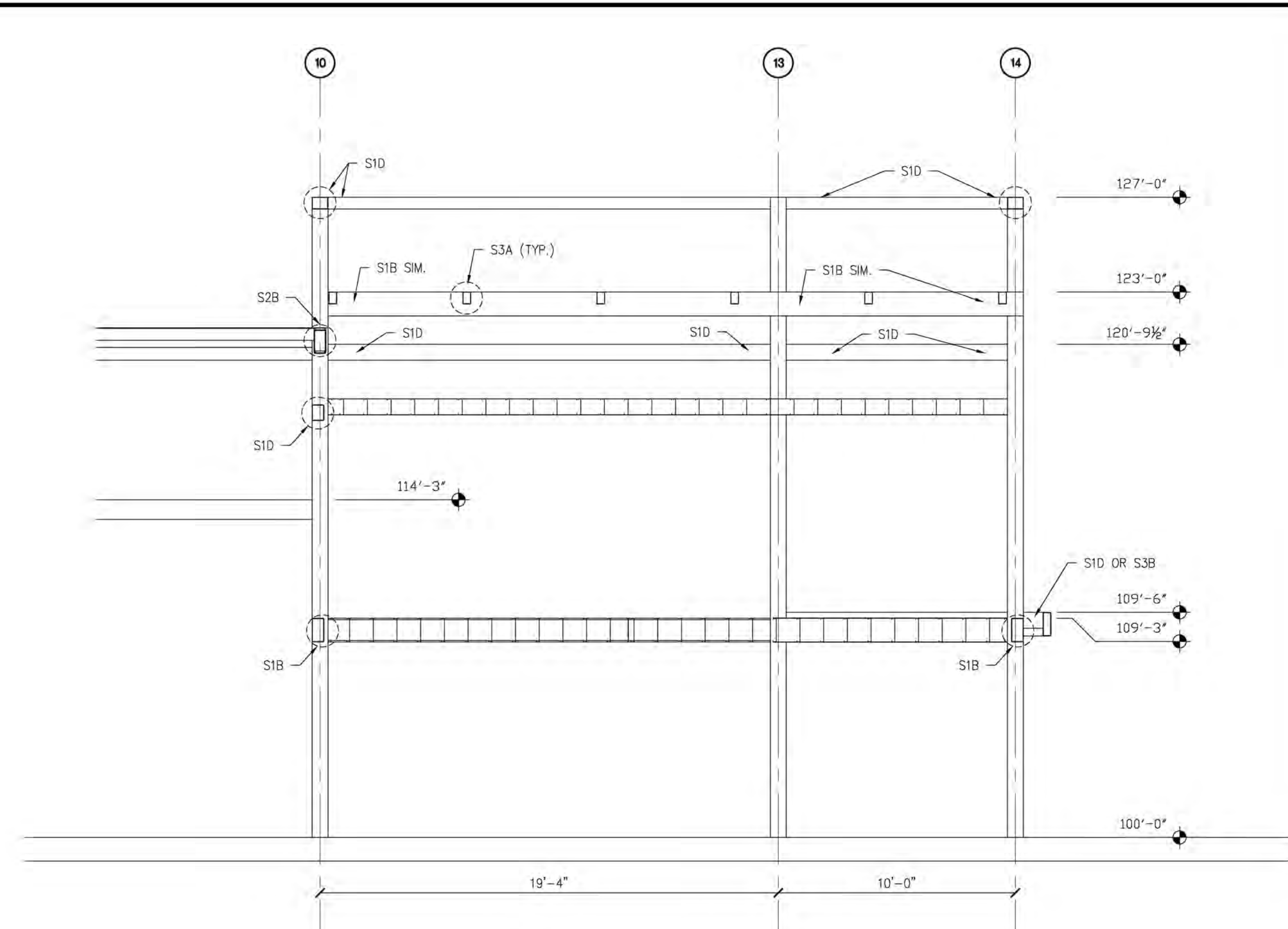
DRAWINGS FOR: Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE: Framing Sections

SHEET: S-3.5



A SECTION NEAR COL. LINE 2
S-3.6 SCALE: 1/4" = 1'-0"



B SECTION NEAR COL. LINE H
S-3.6 SCALE: 1/4" = 1'-0"

NOTE: SEE SHEET S-3.7 FOR CONNECTION REQUIREMENTS

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NO.	DESCRIPTION	DATE	BY	CHKD.
1	FOR CONSTRUCTION	05/15/23		

S.E. Engineering
1733 Campus Plaza Court, Suite 10
Bowling Green, KY 42101
Phone: 270-798-3022 Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/15/23

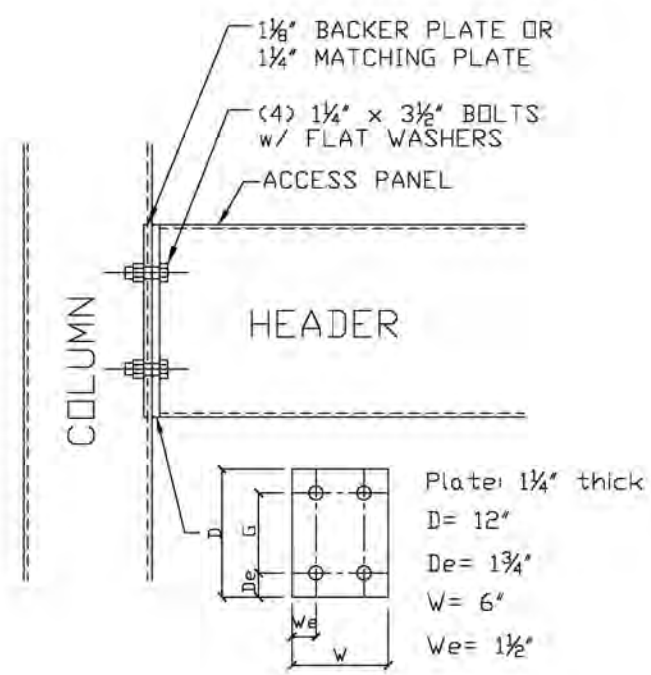
CONSULTANT

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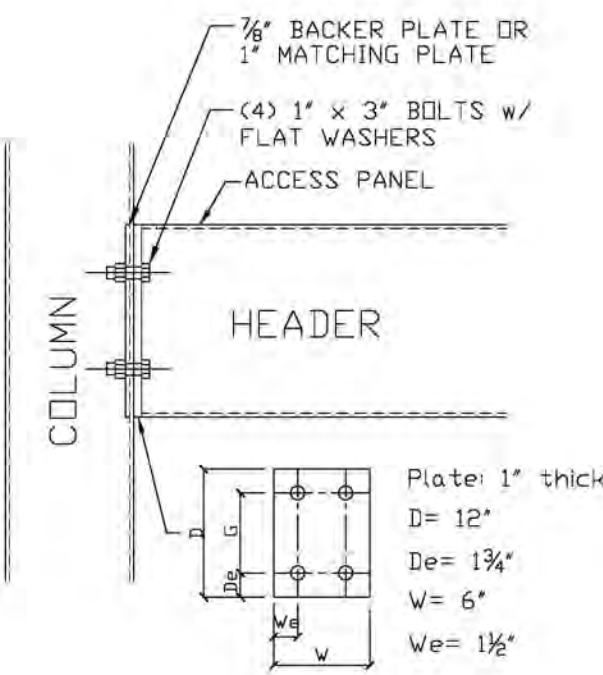
PROJECT NUMBER: 23-1014
FILENAME:
SCALE: AS NOTED
PLOT DATE:
DRAWN BY: MKG

DRAWINGS FOR: **Midwest Car Wash**
20 SE Thompson Drive
Lee's Summit, MO 64081

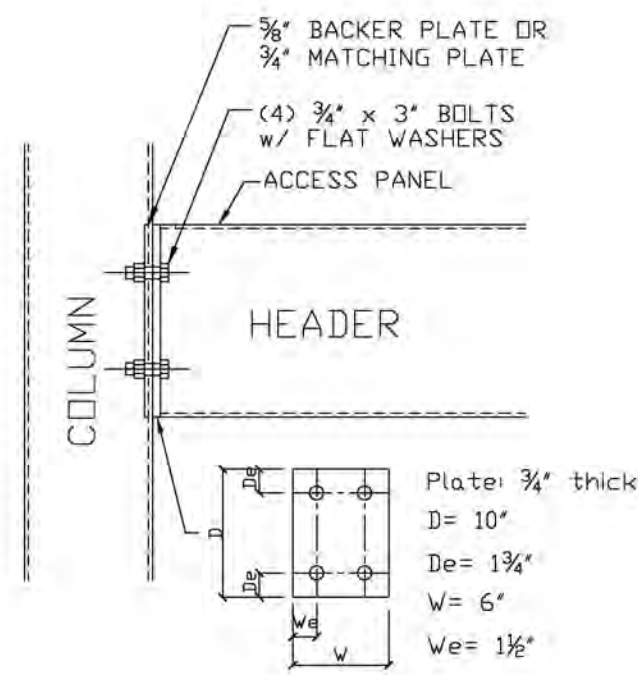
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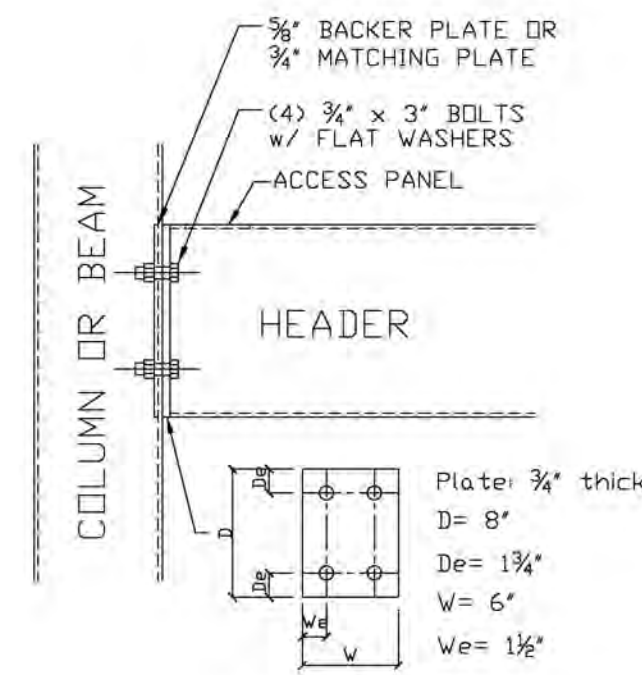
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S-3.7 SCALE: N.T.S.



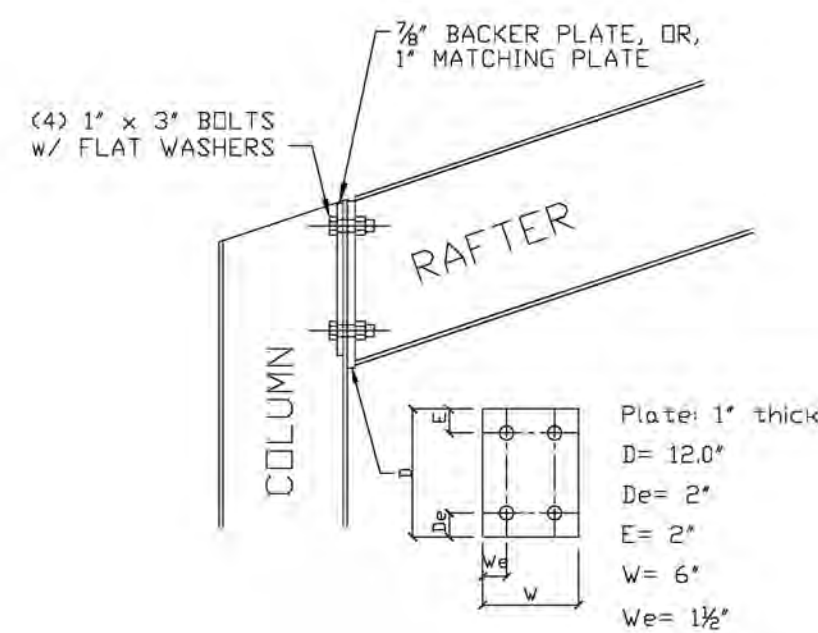
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S-3.7 SCALE: N.T.S.



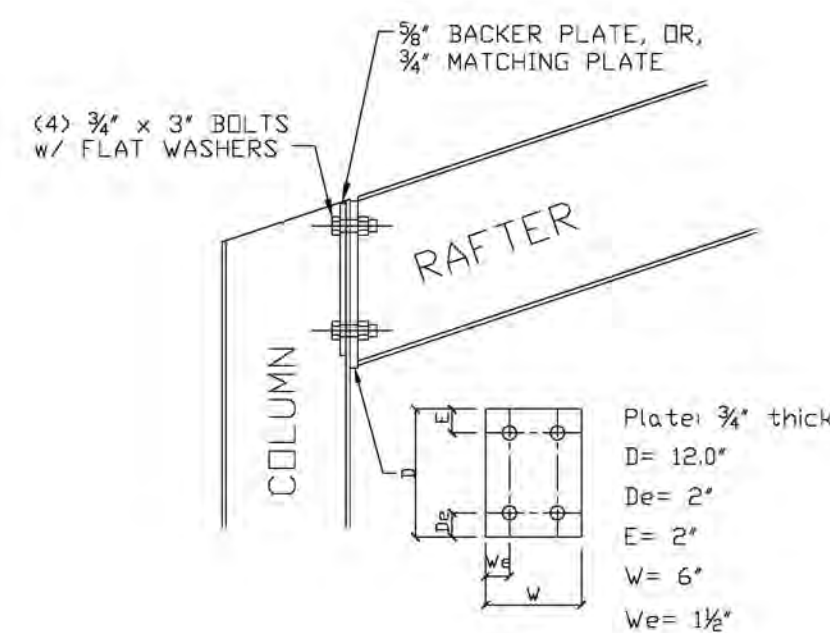
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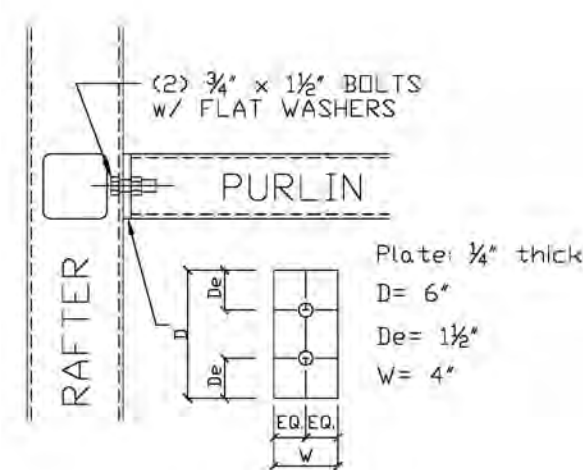
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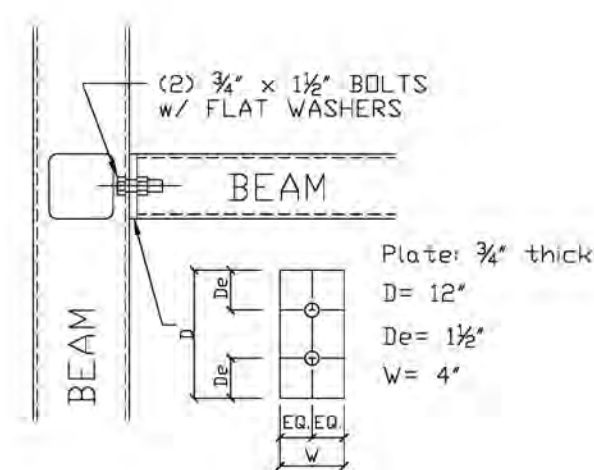
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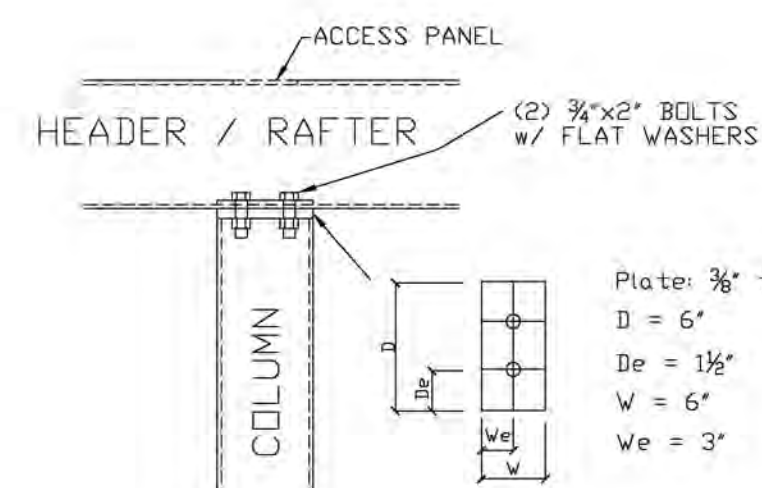
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S-3.7 SCALE: N.T.S.



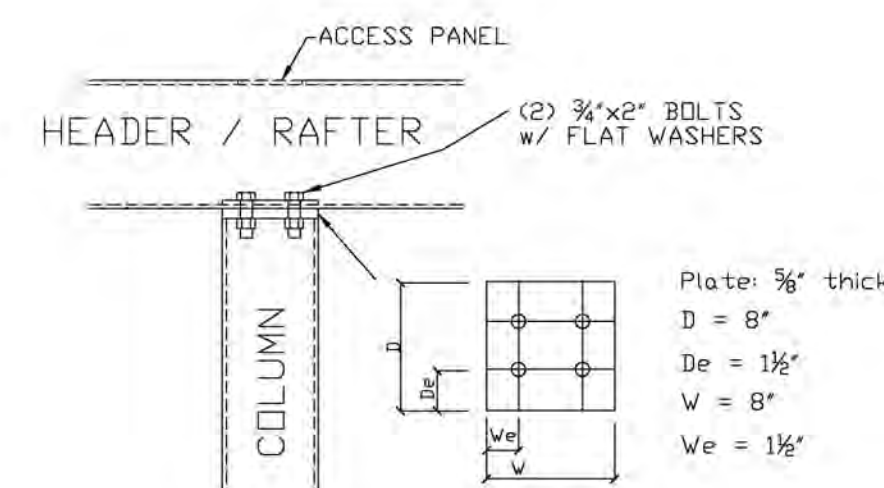
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S-3.7 SCALE: N.T.S.



H CONNECTION DETAIL-S3B
S-3.7 SCALE: N.T.S.



J CONNECTION DETAIL-S4A
S-3.7 SCALE: N.T.S.



K CONNECTION DETAIL-S4B
S-3.7 SCALE: N.T.S.

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CONSULTANT

STAMP:

Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

Framing Details

PROJECT NUMBER: 23-1014
FILENAME:
SCALE: AS NOTED
PLOT DATE:
DRAWN BY: MKG

SHEET: **S-3.7**

TABLE NOTES:	
1.	BASED ON 2018 INTERNATIONAL MECHANICAL CODE TABLE 403.3.1.1
2.	OUTSIDE AIR REQUIREMENT IS SATISFIED BY SECTION 402: NATURAL VENTILATION.
3.	MECHANICAL VENTILATION PER SECTION SECTION 403.

SPLIT SYSTEM HVAC UNIT SCHEDULE															
INDOOR UNIT									OUTDOOR UNITS						
MARK	NOM. CAP. (TONS)	CFM	MAKE	MODEL NUMBER	ORIENTATION	VOLTAGE	MCA/MOCP	CONDENSATE DRAIN	MARK	MAKE	MODEL NUMBER	VOLTAGE	MCA/MOCP	ACCESSORIES	NOTES
AHU-1A	1.5	306-635	CARRIER	40MAHBQ18XA3	WALL MOUNT	208-230/1/60	POWERED FROM HP-1	5/8"	HP-1	CARRIER	38MGBHQ30DA3	208-230/1/60	25/30	1,2	1,2,3,4,5
AHU-1B	1	280-400	CARRIER	40MBC12--3	CEILING HUNG	208-230/1/60	POWERED FROM HP-1	5/8"							
AHU-2A	0.75	176-382	CARRIER	40MAHBQ09XA3	WALL MOUNT	208-230/1/60	POWERED FROM HP-2	5/8"	HP-2	CARRIER	38MGRBQ18BA3	208-230/1/60	18/20	1,3	1,2,3,4,5
AHU-2B	0.75	176-382	CARRIER	40MAHBQ09XA3	WALL MOUNT	208-230/1/60	POWERED FROM HP-2	5/8"							
ACCESSORIES:									NOTES:						
1. PROVIDE 7 YEAR COMPRESSOR WARRANTY.									1. ROUTE CONDENSATE DRAIN TO NEAREST SINK TRAP, FLOOR DRAIN, HUB DRAIN, OR EXTERIOR.						
2. WIRELESS REMOTE THERMOSTAT AND LOCATE ON WALL AS SHOWN ON DRAWINGS.									2. PROVIDE 4" THICK CONCRETE PAD FOR OUTDOOR UNITS.						
3. WIRED REMOTE THERMOSTAT W/ LOCKABLE COVER LOCATED ON WALL AS SHOWN ON DWGS.									3. ROUTE REFRIGERANT PIPING FROM OUTDOOR UNITS TO INDOOR UNIT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS ROUTE UNDERGROUND IN PVC SLEEVE AS REQUIRED.						
									4. MANUFACTURER SPECIFIED IS TO ESTABLISH MINIMUM STANDARD FOR EQUIPMENT. EQUIPMENT OF OTHER MANUFACTURERS MEETING THESE STANDARDS, INCLUDING ENERGY EFFICIENCY ARE ACCEPTABLE.						
									5. OUTDOOR UNIT SHALL BE MOUNTED AT LEAST 2" ABOVE ANTICIPATED SNOW DEPTH, AS SPECIFIED BY THE MFG.						

GRILLS AND DAMPERS SCHEDULE					
MARK	SERVICE	SIZE	LOCATION	PROVIDED BY	REMARKS
E-1	EXHAUST	12"X12"	CEILING	GENERAL CONTRACTOR	INCLUDED WITH EXHAUST FAN EF-1
E-2	EXHAUST	120"X30"	EXTERIOR WALL, SEE MW-4.1	MODERN WASH	"RUSKIN ELM6DW" DRAINABLE ADJUSTABLE ALUMINUM LOUVER, CHAIN OPERATOR
E-3	EXHAUST	30"X30"	EXTERIOR WALL, TOP 12"-0" AFF	GENERAL CONTRACTOR	"RUSKIN ELM6DW" DRAINABLE ADJUSTABLE ALUMINUM LOUVER, CHAIN OPERATOR
E-4	EXHAUST	12"X12"	CEILING	GENERAL CONTRACTOR	INCLUDED WITH EXHAUST FAN EF-4
E-5	EXHAUST	12"X12"	CEILING	GENERAL CONTRACTOR	INCLUDED WITH EXHAUST FAN EF-5
L-1	OUTSIDE AIR	36"X36"	EXTERIOR WALL, TOP 18'-0" AFF	GENERAL CONTRACTOR	"RUSKIN ELM6DW" DRAINABLE ADJUSTABLE ALUMINUM LOUVER, CHAIN OPERATOR

EXHAUST FANS SCHEDULE			
MARK	AIR FLOW	POWER	REMARKS
EF-1	70 CFM	120 V/60	W/ GRILL, CEILING MOUNT, SWITCH WITH LIGHT
EF-2	3600 CFM	120 V/60	PROVIDED BY MODERN WASH, SWITCH AS SHOWN ON PLANS
EF-3	3600 CFM	120 V/60	'CANARM P24-ZG' PANEL FAN, CONTROL BY SWITCH
EF-4	75 CFM	120 V/60	W/ GRILL, CEILING MOUNT, SWITCH WITH LIGHT
EF-5	75 CFM	120 V/60	W/ GRILL, CEILING MOUNT, SWITCH WITH LIGHT

GAS-FIRED HEATER SCHEDULE										
MARK	TYPE	MANUFACTURER	MODEL	FUEL	INPUT	OUTPUT	ELECTRICAL	MOUNTING HEIGHT	HEATER LENGTH	NOTES
UH-1	UNIT HEATER	MODINE	HD84550111NBAN	NATURAL GAS	45,000 BTUH	36,900 BTUH	115V/1PH	MAX. MOUNTING HEIGHT OF 10'-0" AFF	N/A	1,2
RH-1	RADIANT HEATER	REZNOR	VCSN125A	NATURAL GAS	125,000 BTUH	-	115V/1PH	MOUNT 12'-0", BUT AT LEAST 1'-8" BELOW CEILING	50 FEET	1,2
RH-2	RADIANT HEATER	REZNOR	VCSN80A	NATURAL GAS	80,000 BTUH	-	115V/1PH	MOUNT 16'-0", BUT AT LEAST 1'-8" BELOW CEILING	30 FEET	1,2
RH-3	RADIANT HEATER	REZNOR	VCSN80A	NATURAL GAS	80,000 BTUH	-	115V/1PH	MOUNT 12'-0", BUT AT LEAST 1'-8" BELOW CEILING	30 FEET	1,2

NOTES:

1. PROVIDE WITH T-STAT AT 55 DEG F MAXIMUM SETPOINT.
2. FOLLOW ALL MFG. RECOMMENDED CLEARANCES AND REQUIREMENTS.

ELECTRIC HEATER SCHEDULE					
MARK	TYPE	MFG.	MODEL	POWER	NOTES
EH-1	CEILING HUNG	MODINE	HER 30C 1101	208V / 3000W	3,4
EH-2	WALL MOUNT	QMARK	CWH1151DSAF	120V / 1500W	1,2

NOTES:

1. PROVIDE W/ UNIT MOUNTED T-STAT.
2. MOUNT BOTTOM OF UNIT 1'-0" A.F.F.
3. MOUNT TOP OF UNIT 8'-0" A.F.F., BUT AT LEAST 12" BELOW CEILING.
4. PROVIDE WITH T-STAT AT 55 DEG F MAXIMUM SETPOINT.

INLINE DUCT FAN SCHEDULE			
MARK	AIR FLOW	POWER	REMARKS
IF-1	35 CFM	115/1/60	GREENHECK SQ-60HP-VG/E

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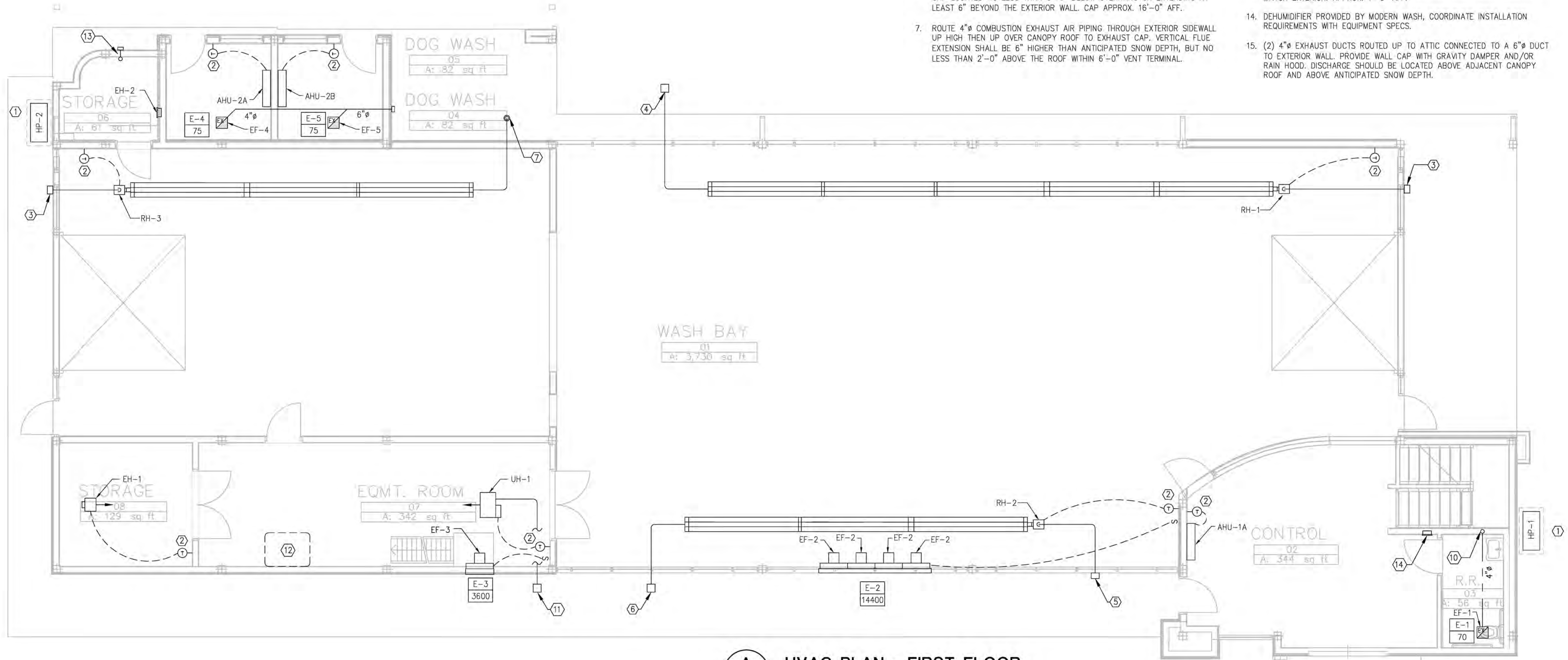
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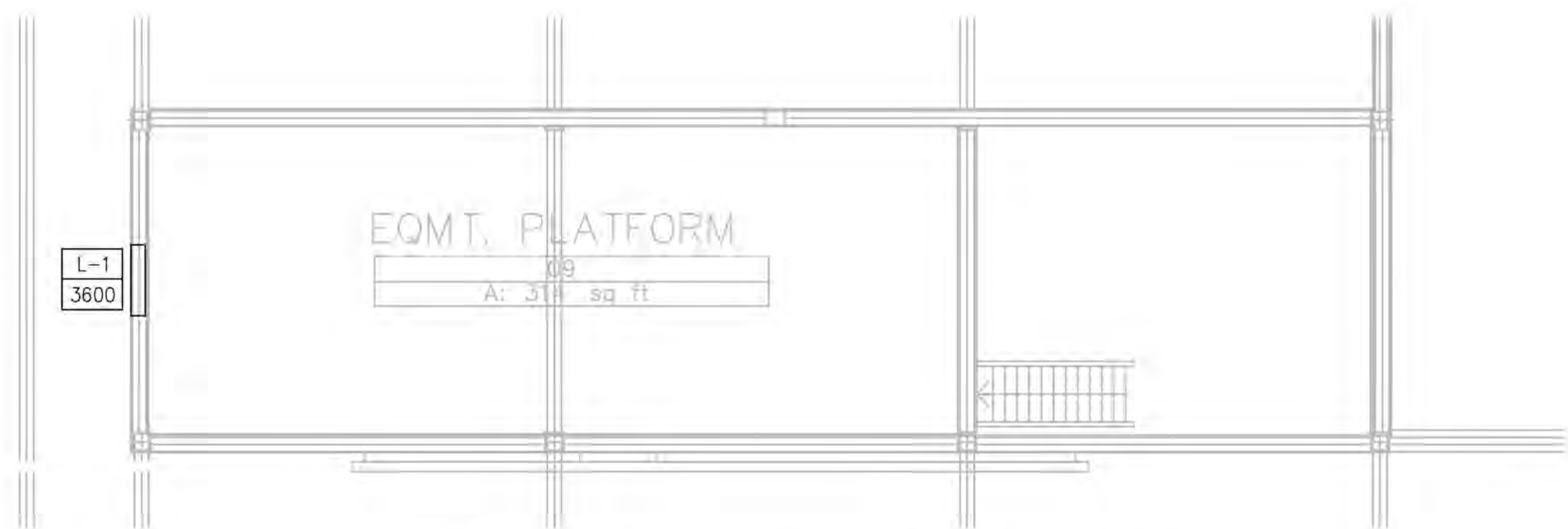
DRAWINGS FOR: Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081 SHEET TITLE: Mechanical Schedules			
PROJECT NUMBER: 23-1014	FILENAME:	SCALE: AS NOTED	PLOT DATE: 05/05/23
DRAWN BY: IBT		SHEET: M-0.2	

HVAC PLAN KEY NOTES:

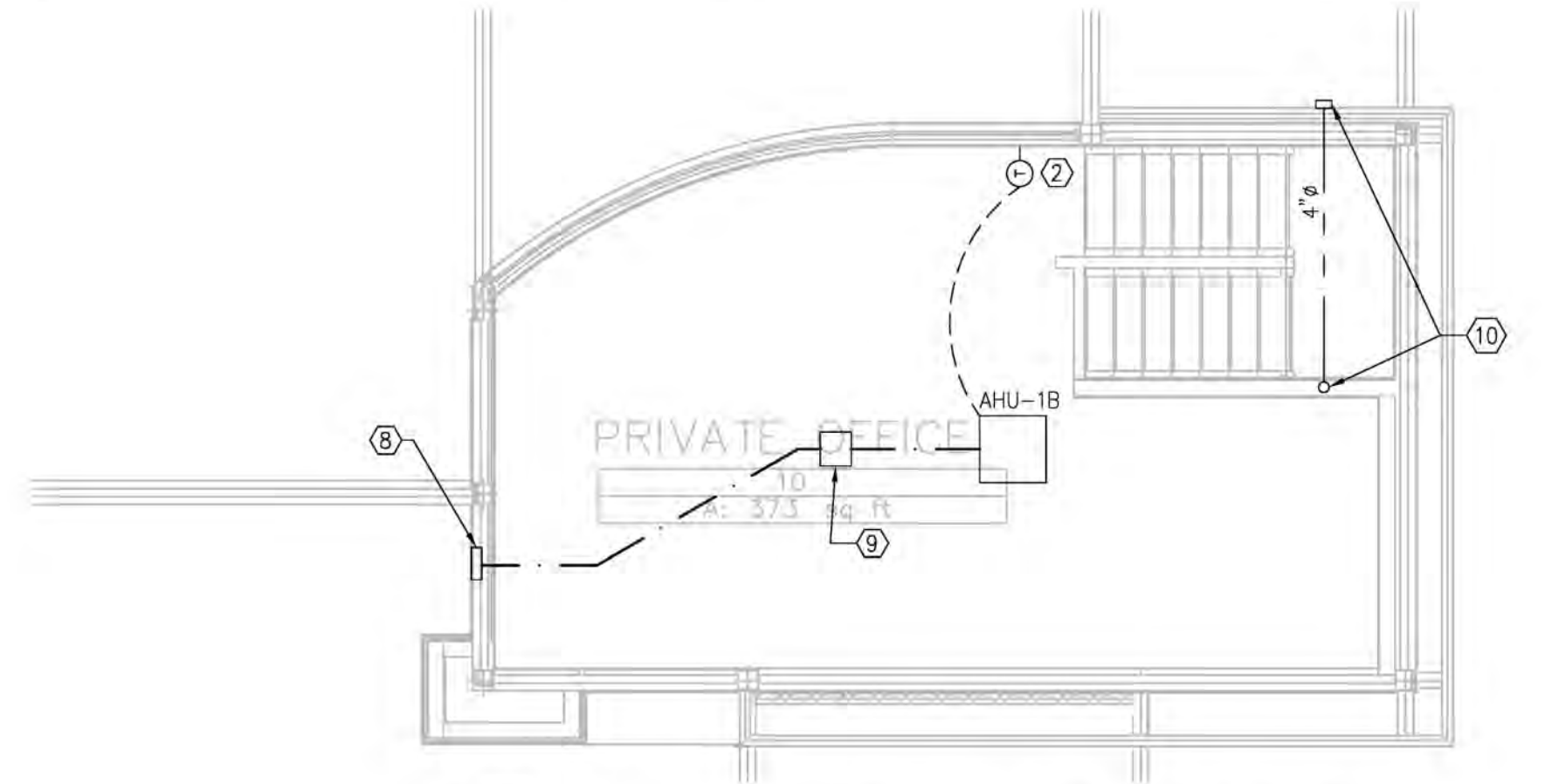
1. PROVIDE 4" CONCRETE PAD FOR HP-1. TO BE LOCATED IN LANDSCAPE AREA ON STAND AT LEAST 6" ABOVE ANTICIPATED SNOW DEPTH. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
2. THERMOSTAT. CONFIRM FINAL LOCATION W/ OWNER PRIOR TO ROUGH-IN.
3. ROUTE 4" COMBUSTION AIR SUPPLY PIPING THRU SIDEWALL, TO INTAKE CAP WITH RAINHOOD AND BIRD SCREEN APPROX. 12'-0" AFF.
4. ROUTE 4" COMBUSTION EXHAUST AIR PIPING TO SIDEWALL, TO EXHAUST CAP LOCATED NO LESS THAN 3'-0" BELOW OVERHANG OR EXTENDING AT LEAST 6" BEYOND THE EXTERIOR WALL. CAP APPROX. 12'-0" AFF.
5. ROUTE 4" COMBUSTION AIR SUPPLY PIPING THRU SIDEWALL, TO INTAKE CAP WITH RAINHOOD AND BIRD SCREEN APPROX. 16'-0" AFF.
6. ROUTE 4" COMBUSTION EXHAUST AIR PIPING TO SIDEWALL, TO EXHAUST CAP LOCATED NO LESS THAN 3'-0" BELOW OVERHANG OR EXTENDING AT LEAST 6" BEYOND THE EXTERIOR WALL. CAP APPROX. 16'-0" AFF.
7. ROUTE 4" COMBUSTION EXHAUST AIR PIPING THROUGH EXTERIOR SIDEWALL UP HIGH THEN UP OVER CANOPY ROOF TO EXHAUST CAP. VERTICAL FLUE EXTENSION SHALL BE 6" HIGHER THAN ANTICIPATED SNOW DEPTH, BUT NO LESS THAN 2'-0" ABOVE THE ROOF WITHIN 6'-0" VENT TERMINAL.
8. FRESH AIR INTAKE HOOD W/ INSECT SCREEN. PAINT TO MATCH EXTERIOR. ROUTE 35 CFM OUTSIDE AIR TO FRESH AIR INTAKE ON AHU-1B.
9. IF-1 TO BE ACTIVATED WHEN ASSOCIATED AIR HANDLER IS OPERATING. UTILIZE OPTIONAL DRY CONTACTS ON THE AIR HANDLER. CONTRACTOR TO PROVIDE AND INSTALL RELAY, CONTROL WIRING, AND POWER AS REQUIRED.
10. 4" EXHAUST DUCT ROUTED UP THRU 2ND FLOOR CEILING AND TO EXTERIOR WALL. PROVIDE WALL CAP WITH GRAVITY DAMPER AND/OR RAIN HOOD.
11. ROUTE 3" COMBUSTION EXHAUST PIPING TO SIDEWALL, TO EXHAUST CAP LOCATED NO LESS THAN 2'-0" BELOW OVERHANG OR EXTENDING AT LEAST 6" BEYOND THE EXTERIOR WALL. CAP APPROX. 10'-0" AFF.
12. PROVIDE (2) 4" INTAKE/EXHAUST PIPES THRU SIDEWALL FOR DE-ICE BOILER SYSTEM. SEE VENDOR DRAWINGS FOR VENTING DETAILS/REQUIREMENTS.
13. ROUTE 4" DRYER VENT FOR DRYER TO EXTERIOR. PAINT VENT HOOD TO MATCH EXTERIOR. APPROX. 1'-0" AFF.
14. DEHUMIDIFIER PROVIDED BY MODERN WASH, COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT SPECS.
15. (2) 4" EXHAUST DUCTS ROUTED UP TO ATTIC CONNECTED TO A 6" DUCT TO EXTERIOR WALL. PROVIDE WALL CAP WITH GRAVITY DAMPER AND/OR RAIN HOOD. DISCHARGE SHOULD BE LOCATED ABOVE ADJACENT CANOPY ROOF AND ABOVE ANTICIPATED SNOW DEPTH.



A HVAC PLAN - FIRST FLOOR
SCALE: 3/16" = 1'-0"



B HVAC PLAN - EQUIPMENT PLATFORM
SCALE: 3/16" = 1'-0"



C HVAC PLAN - 2ND FLOOR OFFICE
SCALE: 3/16" = 1'-0"

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NO.	DESCRIPTION	DATE	FOR CONSTRUCTION
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PROJECT NUMBER: 23-1014	FILENAME:	SCALE: AS NOTED	PLOT DATE: 05/05/23	DRAWN BY: IBT
DRAWINGS FOR: Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081				
SHEET TITLE: Mechanical Plan				
SHEET: M-1.0				

ELECTRICAL GENERAL NOTES:

1. PROTECT MOTORS ½ H.P. OR LESS W/BUSSMAN "SSU" UNIT, FUSED AS REQUIRED BY THE 2017 N.E.C. (120 ONLY).
2. TO AVOID SOUND TRANSMISSION BETWEEN ROOMS, DO NO USE "THRU-THE-WALL" OUTLET BOXES, STAGGER BOXES. MOUNT OUTLET BOXES W/ONE STUD BETWEEN THEM.
3. JUNCTIONS FOR DATA, TELEPHONE OR T.V. OUTLETS SHALL BE SINGLE GANG BOXES.
4. LEAVE PULL CORDS OR CABLES IN ALL EMPTY CONDUITS W/CONNECTORS OR BUSHINGS AT BOTH ENDS.
5. PROVIDE SEPARATE NEUTRALS FOR EACH 20A 120V G.F.I. CIRCUIT. INCREASE NEUTRAL ONE WIRE SIZE FOR COMBINED BRANCH CIRCUITS.
6. THE CONTRACTOR SHALL NOTE THAT THE DRAWINGS INDICATE ONLY THE EXTENT DIAGRAMMATICALLY OF THE WORK INTENDED TO BE PERFORMED. WORK INTENDED, HAVING MINOR DETAILS OBVIOUSLY OMITTED SHALL BE FURNISHED & INSTALLED COMPLETE TO PERFORM THE PROPER FUNCTIONS OF THE ELECTRICAL SYSTEMS INTENDED.
7. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR, CARWASH INSTALLER, AND EQUIPMENT PROVIDER TO COORDINATE W/ALL OTHER TRADES ANY CHANGES IN THE ORIGINAL DRAWINGS OR SPECS. THIS SHALL INCLUDE NO. OR SIZE OF STARTERS, DISCONNECT SWITCHES, FUSES, BREAKERS, CONDUCTORS & CONDUIT.
8. PRIOR TO ELECTRICAL ROUGH-IN, THE ELECTRICAL CONTRACTOR, CARWASH INSTALLER, AND EQUIPMENT PROVIDER MUST HAVE AN APPROVED SET OF MECHANICAL SHOP DRAWINGS. COORDINATE THESE DRAWINGS W/THE MECHANICAL CONTRACTOR AND THE ELECTRICAL ENGINEER. AS A RESULT OF THIS COORDINATION, MINOR CHANGES TO THE ELECTRICAL SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AT NO ADDED EXPENSE TO THE OWNER.
9. SYSTEM MANUFACTURERS, (SUCH AS FIRE ALARM, SECURITY, SOUND, T.V., ETC.) SHALL FURNISH ONE LINE DIAGRAM INDICATING NO. AND SIZE OF CONDUCTORS, CONDUITS AND DEVICES ALONG W/EACH COPY OF THE SHOP DRAWINGS. ALL ELECTRICAL SYSTEMS IN THE WASH TUNNEL SHALL BE IN PVC BOXES AND CONDUIT. ALL OTHER ELECTRICAL SYSTEMS SHALL BE IN METALLIC CONDUIT UNLESS OTHERWISE NOTED.
10. TOP OF LIGHT SWITCHES SHALL BE AT 48" A.F.F., UNLESS NOTED OTHERWISE.
11. BOTTOM OF RECEPTACLES IN WASH TUNNEL SHALL BE AT 48" A.F.F. FOR ALL OTHER LOCATIONS, BOTTOM OF RECEPTACLES SHALL BE AT 18" A.F.F., UNLESS NOTED OTHERWISE. RECEPTACLES SHOWN AT COUNTERS SHALL BE AT HEIGHT INDICATED IN EQUIPMENT SCHEDULE.
12. COORDINATE FINAL LOCATIONS OF CAMERA'S, MONITORS, TV JACKS, TELEPHONE JACKS AND DATA JACKS WITH THE OWNER, CARWASH INSTALLER, AND EQUIPMENT PROVIDER PRIOR TO CONDUIT ROUGH-IN.
13. ALL EXIT & EMERGENCY LIGHTS SHALL BE POWERED FROM LOCAL CIRCUITS.
14. ALL EQUIPMENT SHALL BE LABELED FOR ARC FLASH HAZARD IN ACCORDANCE WITH THE 2017 NEC REQUIREMENTS.
15. EQUIPMENT GROUND-Fault PROTECTION SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE 2017 NEC CODE.
16. ALL RECEPTACLES AND LIGHT FIXTURES IN DAMP OR WET LOCATIONS MUST BE PROTECTED PER THE REQUIREMENTS OF THE NEC.
17. ALL ELECTRICAL WIRING CONDUITS PENETRATING THE CONVEYOR TRENCH MUST BE LOCATED 16" BELOW FINISHED FLOOR.
18. ALL STUB-UPS MUST BE 1" FORM WALL UNLESS OTHERWISE INDICATED.
19. DO NOT DRILL THROUGH OR PIERCE THE TOP OF THE MCC CABINET.

ELECTRICAL SPECIFICATIONS:

1. ALL WIRING SHALL CONFORM TO THE 2017 NATIONAL ELECTRICAL CODE AND APPLICABLE STATE AND LOCAL CODES.
2. PROVIDE GROUNDING AS REQUIRED BY THE 2017 NATIONAL ELECTRICAL CODE.
3. ALL MATERIAL SHALL BE SPECIFICATION GRADE AND DESIGNED FOR THE INTENDED USE. COLORS SHALL BE SELECTED BY THE OWNER.
4. THE CONTRACTOR SHALL GUARANTEE THE ENTIRE ELECTRICAL SYSTEM TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
5. AS FAR AS PRACTICAL, RUN ALL WIRING CONCEALED. WHERE IT MUST BE RUN EXPOSED THE WIRING SHALL BE PARALLEL TO THE BUILDING LINES IN A NEAT WORKMANLIKE MANNER.
6. 120V AND UP: WIRING SHALL BE #12 THHN/THWN MINIMUM RUN IN ELECTRICAL METALLIC TUBING (PVC IN WASH TUNNEL) USING COMPRESSION FITTINGS. BELOW 120V: WIRING SHALL BE #18 THHN/THWN MINIMUM RUN IN ELECTRICAL METALLIC TUBING (PVC IN WASH TUNNEL) USING COMPRESSION FITTINGS.
7. USE ONLY STRANDED COPPER WIRE (MIN 75 DEG C CU WIRE).
8. ALL CONDUCTORS SHALL HAVE A MINIMUM VOLTAGE RATING OF 600V.
9. USE THWN IN ALL WET OR DAMP LOCATIONS AND TYPE THHN IN ALL DRY LOCATIONS.
10. ALL WIRE CONNECTIONS FOR 3 PHASE MOTORS SHALL USE UL LISTED SPLIT BOLT CONNECTORS APPROVED BY N.E.C. AND EQUIPMENT MANUFACTURER/SUPPLIER.
11. LABEL ALL CONTROL WIRES WITH TERMINAL NUMBERS ON BOTH ENDS.
12. NO ROMEX, BX, MC, ETC. SHALL BE PERMITTED.
13. LIGHT FIXTURES SHALL BE PROVIDED WITH ENERGY SAVING LAMPS.
14. ALL STRUT, CLAMPS, AND FASTENERS UTILIZED WITHIN THE TUNNEL MUST BE MADE OF A NON-CORROSIVE MATERIAL. STRUTS SHALL BE ALUMINUM, STAINLESS STEEL OR FIBERGLASS. CLAMPS SHALL BE STAINLESS STEEL, PVC, OR COMPOSITE. ALL FASTENERS SHALL BE STAINLESS STEEL.
15. ALL CONDUCTORS FROM VARIABLE FREQUENCY DRIVES TO MOTORS MUST BE VFD RATED, BELDEN 29502, 29503, 29504, OR 29505 MULTI-CONDUCTOR SHIELED CABLES.
16. EVERY MOTOR FED FROM A VFD MUST HAVE ITS OWN DEDICATED CONDUIT. CONDUCTORS USED TO FEED MOTORS MUST BE RATED FOR USE WITH VFD'S.

THREE PHASE PANEL FEEDERS

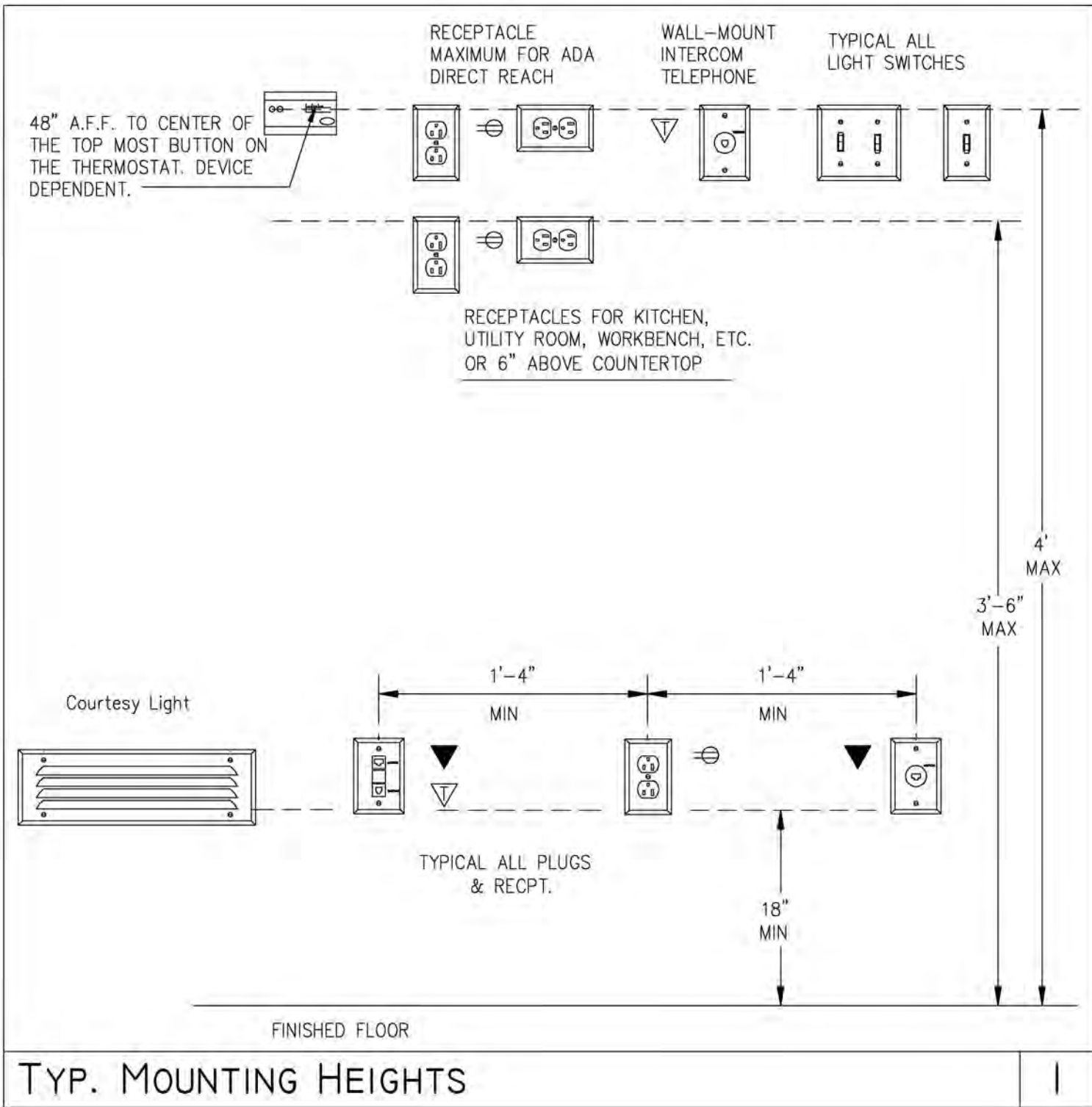
30A — (3) * 10THHN, (1) * 8 NEUTRAL & (1) * 10 GR 3/4" C.
60A — (3) * 6THHN, (1) * 4 NEUTRAL & (1) * 10 GR 1" C.
100A — (3) * 3THHN, (1) * 2 NEUTRAL & (1) * 8 GR 1 1/2" C.
150A — (3) 10THHN, (1) 2/0 NEUTRAL & (1) * 6 GR 2" C.
200A — (3) 3/0THHN, (1) 4/0 NEUTRAL & (1) * 6 GR 2" C.
400A — (4) 500MCMTHHN & (1) * 3 GR 3 1/2" C.
600A — 2- 3" C., EA. W/ (4) 350MCMTHHN & (1) * 1 GR.
800A — 2- 3 1/2" C., EA. W/ (4) 500MCMTHHN & (1) 1/0 GR.
1000A — 2- 4" C., EA. W/ (4) 750MCMTHHN & (1) 2/0 GR.
1200A — 3- 3 1/2" C., EA. W/ (4) 600MCMTHHN & (1) 3/0 GR.

*SIZES BASED ON COPPER WIRE

THREE PHASE EQUIP. FEEDERS

30A — (4) * 10THHN & (1) * 10 GR 3/4" C.
60A — (4) * 6THHN & (1) * 10 GR 1" C.
100A — (4) * 3THHN & (1) * 8 GR 1 1/4" C.
150A — (4) 1/0THHN & (1) * 6 GR 2" C.
200A — (4) 3/0THHN & (1) * 6 GR 2" C.
300A — (4) 350MCMTHHN & (1) * 4 GR 3" C.
400A — (4) 500MCMTHHN & (1) * 3 GR 3 1/2" C.
600A — 2- 3" C., EA. W/ (4) 350MCMTHHN & (1) * 1 GR.

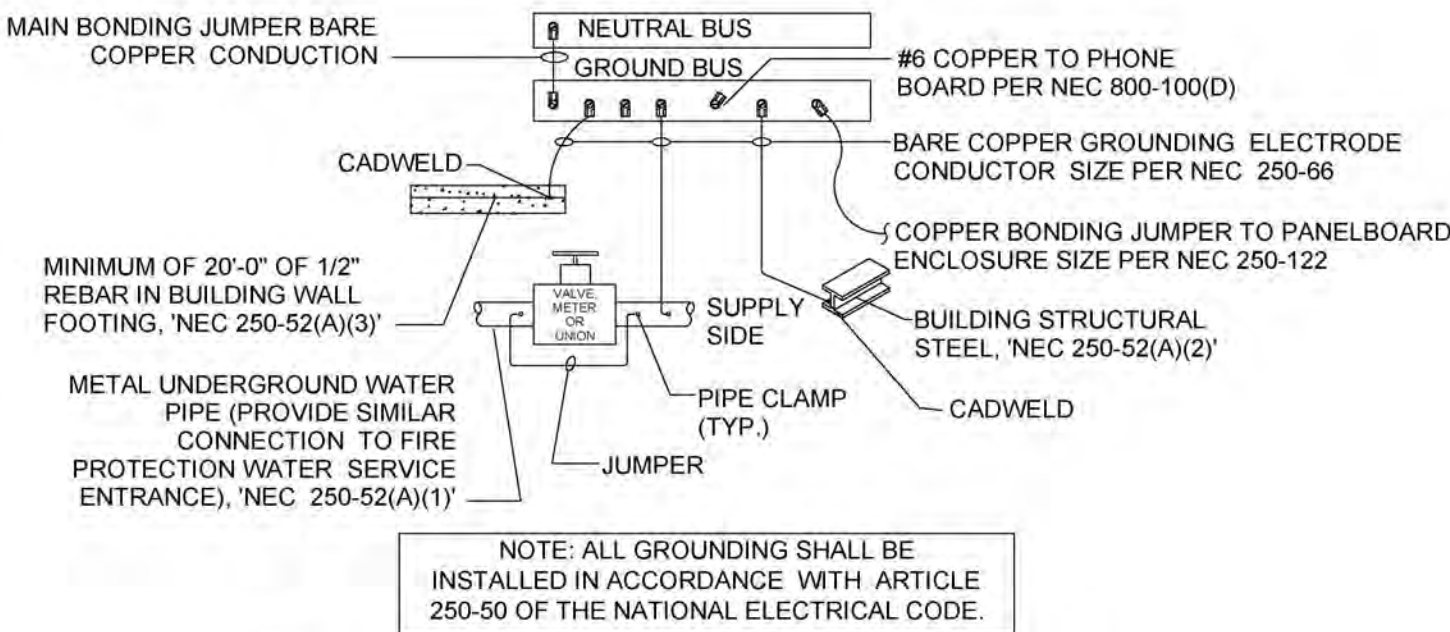
*SIZES BASED ON COPPER WIRE



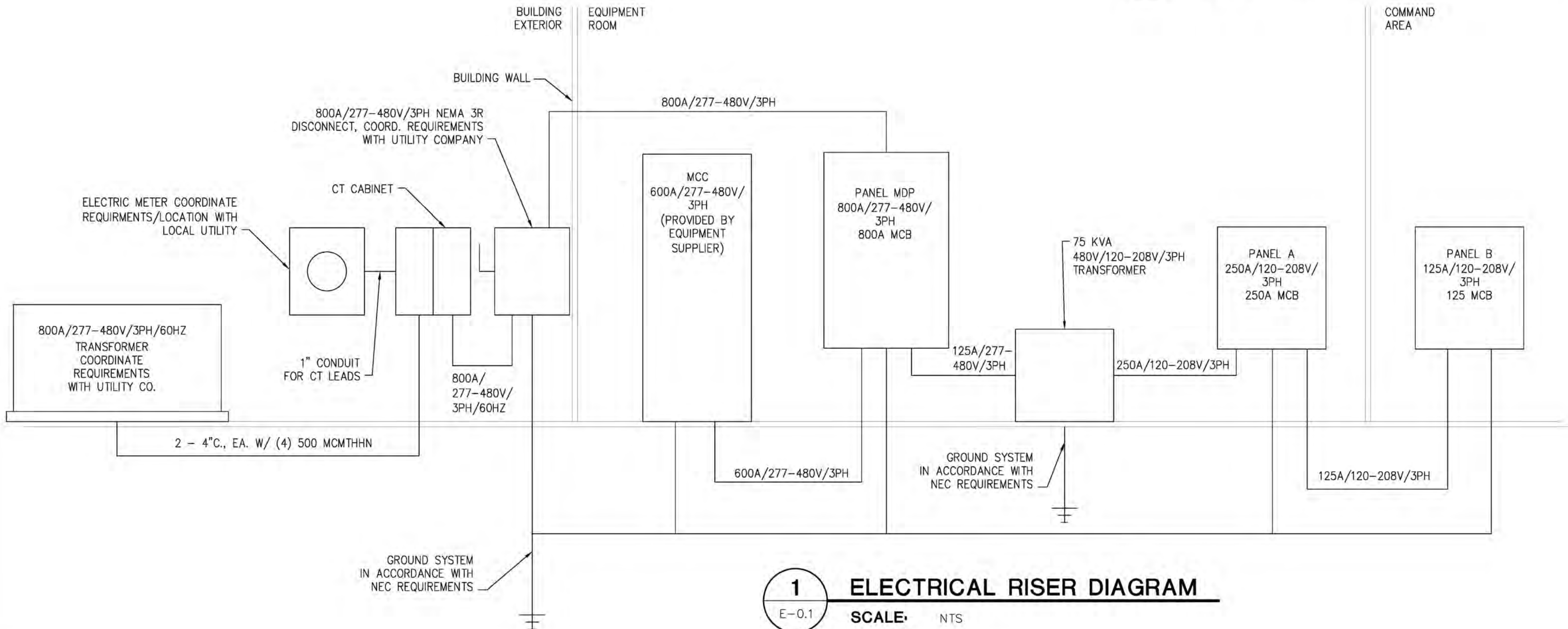
LEGEND



NOTE: GROUND BUS AND NEUTRAL BUS MAY BE ONE CONTINUOUS BUS AS ALLOWED BY THE NATIONAL ELECTRICAL CODE.



2 TYPICAL GROUNDING DETAIL
SCALE: 1/8" = 1'-0"



1 ELECTRICAL RISER DIAGRAM
SCALE: NTS

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NO.	DATE	DESCRIPTION
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PROJECT NUMBER: 23-1014	FILENAME:	SCALE: AS NOTED	PLOT DATE: 05/05/23	DRAWN BY: IBT
DRAWINGS FOR: Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081				
SHEET TITLE: Electrical Notes & Details				
SHEET: E-0.1				

ITEM #	WASH BAY EQUIPMENT
01	CONVEYOR - DUAL BELT MCE
02	EMERGENCY STOP BUTTONS
03	EMERGENCY STOP BUTTONS
04	BUG PREP GUNS
05	MICROLOGIC PBS
06	GRAND ENTRY PHANTOM ARCH
07	IR-110-2
08	DRB ULTRASONIC SENSOR
09	SIDE BLASTER - SB-900-FF
10	FOAM PHANTOM ARCH
11	BW100-P
12	EVOLUTION TOP REACH
13	CTA
14	RS1000 - 94 INCH TOP BRUSH
15	CTA
16	CABLE TRAY - RW200S
17	RS301 - HIGH SIDE WASHERS
18	RS400 - 45" LOW SIDE WASHER QP
19	RS701 - LONG ARMS WRAP
20	CABLE TRAY - RW200S
21	RS400 - 30" LOW SIDE WASHER QP
22	RS701 - LONG ARMS WRAP
23	RW-100
24	MAGNUM FORCE - 5 HEADS
25	CERAMIC PUNCH ARCH
26	RS550 - SUPERSONIC
27	RS1000 - 94 INCH TOP BRUSH
28	EVOLUTION TOP REACH
29	WARNING HORN
30	EMERGENCY STOP BUTTONS
31	SHIELD PHANTOM ARCH
32	DRY PHANTOM ARCH
33	RAIN BAR - RW112
34	X-WIDE PROBUILD ARCH
35	X-WIDE PROBUILD ARCH
36	X-WIDE PROBUILD ARCH
38	EVOLUTION SHINE
39	EMERGENCY STOP BUTTONS
40	MT2500 - 9' BRUSH IBA GLOSS BOSS
41	ANTI COLLISION PAD
42	EMERGENCY STOP BUTTONS
43	EMERGENCY STOP BUTTONS
44	TRAFFIC LIGHT - 2SECTIONS

ITEM #	BACKROOM EQUIPMENT
A	PARTS CABINET
B	SDP - ELECTRICAL PANEL
C	STX - TRANSFORMER
D	MDP - ELECTRICAL PANEL
E	LED POWER SOURCE PANEL
F	MASTER CONTROL CENTER
G	EVOLUTION SHINE PANEL
H	EVO. SHINE AIR CONTROL PANEL
I	DOSATRON CHEMICAL PANEL
J	EVO. SHINE SHINE RINSE PUMP
K	R.O. CARBON TANK
L	E3-15000 - R.O. SYSTEM
M	R.O. REPRESS. PUMP - PC3HP3
N	R.O. REJECT PUMP
O	R.O. TANK
P	R.O. TANK
Q	REJECT TANK
R	PW350-5M120 - RECLAIM SYSTEM
S	DE-ICE SYSTEM
T	BOOSTER PUMP
U	WATER MAIN / BACKFLOW PREVENTER - BY OTHERS
V	WATER SOFTENER - BY OTHERS
W	ACCU-PUMP
X	CAROLINA PRIDE SCC 10 PORT
Y	CAROLINA PRIDE SPARE PUMP
Z	CAROLINA PRIDE SCC 10 PORT
AA	ACCU-PUMP
AB	AIR COMPRESSORS
AC	AIR DRYER
AD	ACCU-SHINE
AE	FLIP NOZZLE AIR PANEL
AF	FLIP NOZZLE AIR PANEL
AG	POWERLOCK
AH	POWERLOCK
AI	CP 5 PORT WATER DIST. PANEL 2
AJ	CP 7 PORT WATER DIST. PANEL 1
AK	HYDRAULIC PP
AL	M3500R - 25HP PUMP
AM	M2000R - 15HP PUMP
AN	HYDRAFUSE
AO	AIR DISTRIBUTION PANEL SECONDARY
AP	BACKROOM TRENCH - HUB DRAIN

ITEM #	EQUIPMENT	ITEM #	EQUIPMENT
04	BUG PREP GUNS	25-c	WAX BATH
06-a	LED RGB LIGHT	28-a	RAIN BAR - RABS
06-b	CONTROL SIGNAL WIRES	31-a	LED BLUE LIGHT
10-a	LED GREEN LIGHT	31-b	FULL BODY
10-b	PRESOAK 1 SIDE	32-a	RED LED LIGHTS
10-c	PRESOAK 1 TOP	32-b	MIRROR RINSE
10-d	PRESOAK 2 REAR	33	RAIN BAR - RW112
10-e	PRESOAK BATH	34-d	FUSION DRY LED TUBE
12-a	TOP BRUSH LUBE 1	35-e	FUSION DRY LED TUBE
13	CTA	36-e	FUSION DRY LED TUBE
15	CTA	37	LIGHT TUBE KIT
16-a	LED RGB LIGHT		
16-b	BOOMERANG - SINGLE SET		
20-a	LED RGB LIGHT		
20-b	TOP BRUSH LUBE 2		
20-c	FOAMING RAIN BAR - FRABT		
22-i	BOOMERANG - SINGLE SET		
25-a	LED RGBW LIGHT		
25-b	LOW PH WHITE FOAM		

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STAMP:

STATE OF MISSOURI

DONALD H. STONEBURG

NUMBER: 2001006055

REGISTERED PROFESSIONAL ENGINEER

05/05/23

CONSULTANT

STAMP:

DRAWINGS FOR: Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE: Equipment Schedules

PROJECT NUMBER: 23-1014

FILENAME:

SCALE: AS NOTED

PLOT DATE: 05/05/23

DRAWN BY: IBT

SHEET:

E-0.2

SOURCE	ITEM #	EQUIPMENT DESCRIPTION	MODEL	VOLTS (V)	HP	AMP (A)	PHASE	WIRE SIZE	EQUIPMENT SUPPLIED BY	EQUIPMENT ERECTED BY	TERMINATED & WIRED BY	NOTES
F	42	EMERGENCY STOP BUTTONS	-	24	-	-	-	2/C#18AWG	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN TO RUN HOME RUN CABLES FROM EACH EMERGENCY STOP BUTTON TO TC.
F	43	EMERGENCY STOP BUTTONS	-	24	-	-	-	2/C#18AWG	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN TO RUN HOME RUN CABLES FROM EACH EMERGENCY STOP BUTTON TO TC.
F	44	TRAFFIC COMMANDER 2SECTIONS	-	100-240	-	2X 12	1	5/C#14AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
C	B	SECONDARY PANEL - BY OTHERS	SDP	208 / 120	-	TBD	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-
N/A	B-a	VFD	-	-	-	-	-	-	-	-	-	-
N/A	B-b	STARTER	-	-	-	-	-	-	-	-	-	-
D	C	SECONDARY DISTRIBUTION TRANSFORMER - BY OTHERS	STX	460 : 110 / 208	-	TBD	3	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-
N/A	D	MAIN ELECTRICAL PANEL - BY OTHERS	MDP	460	-	TBD	3	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	CONNECTED TO CAR WASHES MAIN POWER SOURCE.
N/A	D-a	VFD	-	-	-	-	-	-	-	-	-	-
N/A	D-b	STARTER	-	-	-	-	-	-	-	-	-	-
B	E	G&G PANEL	-	110	-	TBD	3	SEE NOTES	C.W.I.	ELECTRICIAN	ELECTRICIAN	SEE MANUFACTURER'S WIRING & POWER REQUIREMENTS.
D	F	MASTER CONTROL CENTER	MCC	460	-	TBD	3	TBD	C.W.I.	ELECTRICIAN	ELECTRICIAN	-
N/A	F-a	VFD	-	-	-	-	-	-	-	-	-	-
N/A	F-b	STARTER	-	-	-	-	-	-	-	-	-	-
D	G	EVOLUTION SHINE ELECTRICAL PANEL	-	460	-	TBD	3	TBD	C.W.I.	ELECTRICIAN	ELECTRICIAN	-
N/A	G-a	VFD	-	-	-	-	-	-	-	-	-	-
-	H	EVOLUTION SHINE AIR CONTROL PANEL	-	-	-	-	-	-	-	-	-	-
G	H-a	CONTROL	-	24 / 110	-	-	1	4/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	I	DOSATRON CHEMICAL PANEL	-	-	-	-	-	-	-	-	-	-
G	I-a	PUMP	-	24 / 110	-	-	1	3/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	J	EVOLUTION SHINE RINSE PUMP	-	-	-	-	-	-	-	-	-	-
G-a	J-a	PUMP	-	208	1.5	6.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
-	K	R.O. CARBON TANK	-	-	-	-	-	-	-	-	-	-
B	K-a	CONTROL	-	110	-	~1	1	3/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	THE AMPACITY LISTED IS ESTIMATED. ELECTRICIAN TO CONFIRM AMPACITY.
-	L	R.O. SYSTEM	E3-15000	-	-	-	-	-	-	-	-	-
B-b	L-a	MOTOR/POWER	-	208	3	10.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
-	M	R.O. REPRESSURIZATION PUMP	PC3HP3	-	-	-	-	-	-	-	-	-
B-b	M-a	MOTOR	-	208	3	10.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
-	N	R.O. REJECT REPRESS. PUMP - BY OTHERS	-	-	-	-	-	-	-	-	-	-
B-b	N-a	MOTOR	-	208	3	10.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
F	N-b	CONTROL SIGNAL WIRES	-	24 / 110	-	-	1	4/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	O	R.O. STORAGE TANK	-	-	-	-	-	-	-	-	-	-
M	O-a	LOW LEVEL SAFETY FLOAT	-	24	-	-	-	3/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
L	O-b	ACTIVATION FLOAT	-	24	-	-	-	2/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	P	R.O. STORAGE TANK	-	-	-	-	-	-	-	-	-	-
M	P-a	LOW LEVEL SAFETY FLOAT	-	24	-	-	-	3/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
L	P-b	ACTIVATION FLOAT	-	24	-	-	-	2/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	Q	R.O. REJECT TANK	-	-	-	-	-	-	-	-	-	-
N	Q-a	LOW LEVEL SAFETY FLOAT	-	24	-	-	-	3/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
N	Q-b	ACTIVATION FLOAT	-	24	-	-	-	2/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	R	RECLAIM SYSTEM	PW350-5M120	-	-	-	-	-	-	-	-	-
B-b	R-a	MOTOR	-	208	5	17.5	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 25A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
F	R-b	RECLAIM SYSTEM - CONTROL POWER	-	110	-	SEE NOTE	1	3/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	REQUIRES A 1PH 110VAC 20A CIRCUIT FOR PLC & OZONE CONTROL POWER.
F	R-c	RECLAIM SYSTEM - CONTROL SIGNAL WIRE	-	110	-	SEE NOTE	1	6/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	REQUIRES 6/C#18AWG CONTROL WIRES FROM TC.
F	R-d	RECLAIM SYSTEM - UNDERGROUND FLOAT CONTROLS	-	110	-	SEE NOTE	1	4/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	1" CONDUIT & 4/C#18AWG WIRED TO A WATERTIGHT JUCTION BOX FROM THE LAST UNDERGROUND TANK TO THE RECLAIM SYSTEM FOR THE FLOAT CONTROLS.
-	T	BOOSTER PUMP	-	-	-	-	-	-	-	-	-	-
B	T-a	MOTOR	-	208	2	7.5	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
F	T-b	CONTROL SIGNAL WIRES	-	24 / 110	-	-	1	4/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	V	WATER SOFTENER - BY OTHERS	-	-	-	-	-	-	-	-	-	-
B	V-b	POWER	-	TBD	-	SEE NOTE	1	TBD	C.W.I.	C.W.I.	ELECTRICIAN	SEE MANUFACTURER'S SPECIFICATIONS FOR WIRING & POWER REQUIREMENTS.
-	W	ACCU-PUMP	-	-	-	-	-	-	-	-	-	-
F	W-a	CONTROL	-	110	-	-	1	TBD	C.W.I.	C.W.I.	ELECTRICIAN	SEE MANUFACTURER'S POWER REQUIREMENTS. ELECTRICIAN TO SUPPLY & INSTALL A 15A OUTLET.
F	X	CAROLINA PRIDE SCC 10 PORT	-	24	-	~3	1	TBD	C.W.I.	C.W.I.	ELECTRICIAN	CONNECT SUPPLIED HOMERUN CABLES BACK TO MCC.
B	X-a	PUMP	-	208	3	10.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
-	Y	CAROLINA PRIDE SPARE PUMP	-	-	-	-	-	-	-	-	-	-
B	Y-a	PUMP	-	208	3	10.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
F	Z	CAROLINA PRIDE SCC 10 PORT	-	24	-	~3	1	TBD	C.W.I.	C.W.I.	ELECTRICIAN	CONNECT SUPPLIED HOMERUN CABLES BACK TO MCC.
B	Z-a	PUMP	-	208	3	10.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 3PH 208VAC 15A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
-	AA	ACCU-PUMP	-	-	-	-	-	-	-	-	-	-
F	AA-a	CONTROL	-	110	-	-	1	TBD	C.W.I.	C.W.I.	ELECTRICIAN	SEE MANUFACTURER'S POWER REQUIREMENTS. ELECTRICIAN TO SUPPLY & INSTALL A 15A OUTLET.
-	AB	AIR COMPRESSORS	-	-	-	-	-	-	-	-	-	-
B-b	AB-a	MOTOR	-	208	10	30.8	3	4/C#8AWG	C.W.I.	C.W.I.	ELECTRICIAN	THE AMPACITY LISTED IS ESTIMATED. ELECTRICIAN TO CONFIRM AMPACITY.
B-b	AB-b	MOTOR	-	208	10	30.8	3	4/C#8AWG	C.W.I.	C.W.I.	ELECTRICIAN	THE AMPACITY LISTED IS ESTIMATED. ELECTRICIAN TO CONFIRM AMPACITY.
-	AC	AIR DRYER	-	-	-	-	-	-	-	-	-	-
B	AC-a	POWER	-	110	1/3	~7.2	1	3/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	TYPICALLY REQUIRES A 1PH 110VAC 20A CIRCUIT. ELECTRICIAN TO CONFIRM AMPACITY.
-	AD	ACCU-SHINE	-	-	-	-	-	-	-	-	-	-
F	AD-a	CONTROL	-	110	-	-	1	TBD	OTHERS	OTHERS	ELECTRICIAN	SEE MANUFACTURER'S POWER REQUIREMENTS. ELECTRICIAN TO SUPPLY & INSTALL A 15A OUTLET.
-	AE	FLIP NOZZLE AIR PANEL	-	-	-	-	-	-	-	-	-	-
F	AE-a	CONTROL	-	24 / 110	-	-	1	4/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	AF	FLIP NOZZLE AIR PANEL	-	-	-	-	-	-	-	-	-	-
F	AF-a	CONTROL	-	24 / 110	-	-	1	4/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	AG	POWERLOCK PANEL	-	-	-	-	-	-	-	-	-	-
F	AG-a	CONTROL	-	24 / 110	-	-	1	25/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	AH	POWERLOCK PANEL	-	-	-	-	-	-	-	-	-	-
F	AH-a	CONTROL	-	24 / 110	-	-	1	25/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
F	AI	CAROLINA PRIDE - 5 PORT WATER DIST. PANEL 2	5 PORT	24 / 110	-	-	1	25/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
F	AJ	CAROLINA PRIDE - 7 PORT WATER DIST. PANEL 1	7 PORT	24 / 110	-	-	1	25/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-

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NO. DRAWN BY	DATE	DESCRIPTION
0	05/05/23	FOR CONSTRUCTION



1733 Campus Plaza Court,
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Bowling Green, KY 42101
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Fax: 270-842-3102

STAMP: STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

CONSULTANT
STAMP:

DRAWINGS FOR:

Midwest Car Wash

20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:

Electrical Equip-
ment Schedule

PROJECT NUMBER:
23-1014

FILENAME:

SCALE:
AS NOTED

PLOT DATE:
05/05/23

DRAWN BY:
IBT

SHEET:
E-0.4

SOURCE	ITEM #	EQUIPMENT DESCRIPTION	MODEL	VOLTS (V)	HP	AMP (A)	PHASE	WIRE SIZE	EQUIPMENT SUPPLIED BY	EQUIPMENT ERECTED BY	TERMINATED & WIRED BY	NOTES
-	AK	HYDRAULIC POWERPACK	-	-	-	-	-	-	-	-	-	-
F-b	AK-a	MOTOR	-	460	5	7.6	3	4/C#12AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
F	AK-b	LOW OIL LEVEL SENSOR	-	24	-	-	1	2/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
F	AK-c	CONTROL SIGNAL WIRES	-	24 / 110	-	-	1	4/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	AL	MAGNUM HIGH PRESSURE PUMP 25HP	M3500R	-	-	-	-	-	-	-	-	-
F-b	AL-a	PUMP	-	460	25	34	3	4/C#8AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
F	AL-c	LOW WATER LEVEL SENSOR	-	24	-	-	1	2/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	AM	MAGNUM HIGH PRESSURE PUMP 15HP	M2000R	-	-	-	-	-	-	-	-	-
F-b	AM-a	PUMP	-	460	15	21	3	4/C#10AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
F	AM-c	LOW WATER LEVEL SENSOR	-	24	-	-	1	2/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	AN	HYDRAFUSE - DOUBLE PUMP - NON-FOAMING	-	-	-	-	-	-	-	-	-	-
F	AN-a	CONTROL	-	24 / 110	-	-	1	3/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
-	AO	AIR DISTRIBUTION PANEL SECONDARY	-	-	-	-	-	-	-	-	-	-
F	AO-a	CONTROL	-	24 / 110	-	-	1	25/C#18AWG	C.W.I.	C.W.I.	ELECTRICIAN	-
SOURCE	ITEM #	EQUIPMENT DESCRIPTION	MODEL	-	-	-	CONDUIT SIZE (in)	CONDUIT SUPPLIED BY	CONDUIT RAN BY	TERMINATED & WIRED BY	-	NOTES
-	01	CONVEYOR - DUAL BELT MCE	-	-	-	-	-	-	-	-	-	-
F	01-a	SPARE CONDUIT	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	SPARE ELECTRICAL CONDUIT.
F-a	01-b	EXIT CONVEYOR MOTOR & CONDUIT	-	-	-	-	2 1/2"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
F	01-c	SENSOR WIRES CONDUIT & SPARE	-	-	-	-	1"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
F	01-d	SENSOR WIRES CONDUIT & SPARE	-	-	-	-	1"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	SPARE ELECTRICAL CONDUIT.
F	07	DOUBLE PHOTO EYES	IR-110-2	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
F	07-a	PHOTO EYES FOR TIRE DETECTION	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
F	41	ANTI COLLISION PAD	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
C	B	SECONDARY PANEL - BY OTHERS	SDP	-	-	-	3	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
N/A	B-a	VFD	-	-	-	-	-	-	-	-	-	-
N/A	B-b	STARTER	-	-	-	-	-	-	-	-	-	-
D	C	SECONDARY DISTRIBUTION TRANSFORMER - BY OTHERS	STX	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
N/A	D	MAIN ELECTRICAL PANEL - BY OTHERS	MDP	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
N/A	D-a	VFD	-	-	-	-	-	-	-	-	-	-
N/A	D-b	STARTER	-	-	-	-	-	-	-	-	-	-
B	E	G&G PANEL	-	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
D	F	MASTER CONTROL CENTER	MCC	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
N/A	F-a	VFD	-	-	-	-	-	-	-	-	-	-
N/A	F-b	STARTER	-	-	-	-	-	-	-	-	-	-
D	G	EVOLUTION SHINE ELECTRICAL PANEL	-	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
N/A	G-a	VFD	-	-	-	-	-	-	-	-	-	-
-	K	R.O. CARBON TANK	-	-	-	-	-	-	-	-	-	-
B	K-a	CONTROL	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	L	R.O. SYSTEM	E3-15000	-	-	-	-	-	-	-	-	-
B-b	L-a	MOTOR/POWER	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	M	R.O. REPRESSURIZATION PUMP	PC3HP3	-	-	-	-	-	-	-	-	-
B-b	M-a	MOTOR	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	N	R.O. REJECT REPRESS. PUMP - BY OTHERS	-	-	-	-	-	-	-	-	-	-
B-b	N-a	MOTOR	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
F	N-b	CONTROL SIGNAL WIRES	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	R	RECLAIM SYSTEM	PW350-5M120	-	-	-	-	-	-	-	-	-
B-b	R-a	MOTOR	-	-	-	-	3/4"	-	-	-	-	-
F	R-b	RECLAIM SYSTEM - CONTROL POWER	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
F	R-c	RECLAIM SYSTEM - CONTROL SIGNAL WIRE	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
F	R-d	RECLAIM SYSTEM - UNDERGROUND FLOAT CONTROLS	-	-	-	-	1"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	T	BOOSTER PUMP	-	-	-	-	-	-	-	-	-	-
B	T-a	MOTOR	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	V	WATER SOFTENER - BY OTHERS	-	-	-	-	-	-	-	-	-	-
B	V-b	POWER	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	W	ACCU-PUMP	-	-	-	-	-	-	-	-	-	-
F	W-a	CONTROL	-	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	SEE MANUFACTURER'S POWER REQUIREMENTS.
-	AA	ACCU-PUMP	-	-	-	-	-	-	-	-	-	-
F	AA-a	CONTROL	-	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	SEE MANUFACTURER'S POWER REQUIREMENTS.
-	AB	AIR COMPRESSORS	-	-	-	-	-	-	-	-	-	-
B-b	AB-a	MOTOR	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
B-b	AB-b	MOTOR	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	AC	AIR DRYER	-	-	-	-	-	-	-	-	-	-
B	AC-a	POWER	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	AD	ACCU-SHINE	-	-	-	-	-	-	-	-	-	-
F	AD-a	CONTROL	-	-	-	-	TBD	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	SEE MANUFACTURER'S POWER REQUIREMENTS.
-	AG	POWERLOCK PANEL	-	-	-	-	-	-	-	-	-	-
F	AG-a	CONTROL	-	-	-	-	1"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	AH	POWERLOCK PANEL	-	-	-	-	-	-	-	-	-	-
F	AH-a	CONTROL	-	-	-	-	1"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	AK	HYDRAULIC POWERPACK	-	-	-	-	-	-	-	-	-	-
F-b	AK-a	MOTOR	-	-	-	-	3/4"	-	-	-	-	-
-	AL	MAGNUM HIGH PRESSURE PUMP 25HP	M3500R	-	-	-	-	-	-	-	-	-
F-b	AL-a	PUMP	-	-	-	-	1"	-	-	-	-	-
-	AM	MAGNUM HIGH PRESSURE PUMP 15HP	M2000R	-	-	-	-	-	-	-	-	-
F-b	AM-a	PUMP	-	-	-	-	3/4"	-	-	-	-	-
-	AN	HYDRAFUSE - DOUBLE PUMP - NON-FOAMING	-	-	-	-	-	-	-	-	-	-
F	AN-a	CONTROL	-	-	-	-	3/4"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-
-	AO	AIR DISTRIBUTION PANEL SECONDARY	-	-	-	-	-	-	-	-	-	-
F	AO-a	CONTROL	-	-	-	-	1"	ELECTRICIAN	ELECTRICIAN	ELECTRICIAN	-	-

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US DRAWN BY: CHECKED BY: DATE: 05/05/23 FOR CONSTRUCTION: DIS: IBT



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Bowling Green, KY 42101
Phone: 270-798-3052
Fax: 270-842-3102

STAMP: STATE OF MISSOURI
DONALD H. STONEBURG
REGISTERED PROFESSIONAL ENGINEER
NUMBER: 2001006055
EXPIRATION: 05/05/23

CONSULTANT:

STAMP:

DRAWINGS FOR: Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

PROJECT NUMBER: 23-1014
FILENAME:

SCALE: AS NOTED
PLOT DATE: 05/05/23
DRAWN BY: IBT

SHEET TITLE: Electrical Equipment Schedule

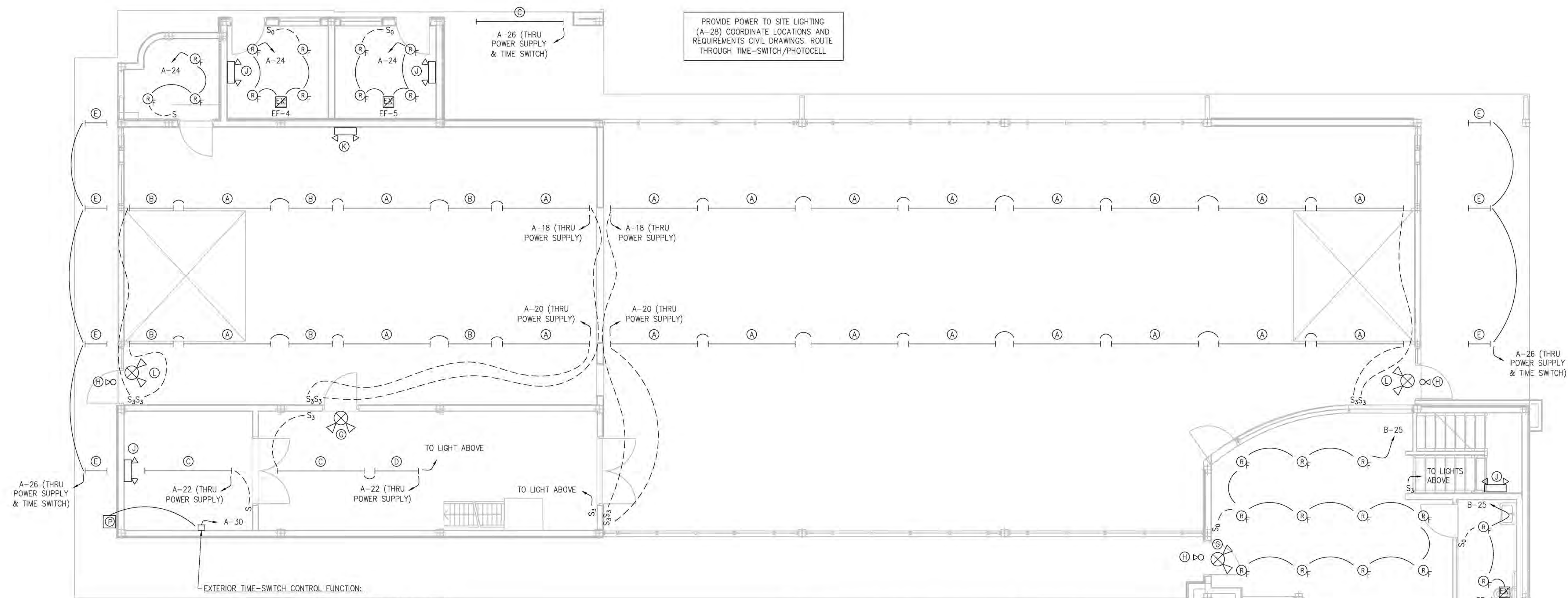
SHEET: E-0.5

NOTES	MOUNTING: SURFACE					277/480	3-PHASE, 4W			PANEL MDP				CAPACITY: 800A					V. DROP: 0.13%					NOTES
	LOCATION: ELECTRICAL ROOM										DEMAND LOAD: 596A				AV. FAULT: 44,715 A									
	CKT	LTG	REC	HVAC	MISC	MOT	DESCRIPTION		AMP	POLE	Φ	AMP	POLE	DESCRIPTION		LTG	REC	HVAC	MISC	MOT	CKT			
A	1					95.5	MCC (F)		600	3	A B C	125	3	TRANSFORMER - PANEL A (C)		1.3	1.9	10.2	6.9	0.2	2			
	3					95.5											0.9	2.6	5.2	10.2	0.1	4		
	5					95.5											0.8	1.5	2.0	14.4	0.8	6		
A	7					0.8	EVOLUTION SHINERINSE PUMP (J)		20	3	A B C	20	3	R.O. SYSTEM (L)							1.3	8		
	9					0.8															1.3	10		
	11					0.8															1.3	12		
A	13					1.3	R.O. REPRESSURIZATION PUMP (M)		20	3	A B C	20	3	R.O. REJECT REPRESS. PUMP (N)							1.3	14		
	15					1.3															1.3	16		
	17					1.3															1.3	18		
A	19					2.1	RECLAIM SYSTEM (R)		30	3	A B C	20	3	BOOSTER PUMP (T)							0.9	20		
	21					2.1															0.9	22		
	23					2.1															0.9	24		
A	25					1.3	CAROLINA PRIDE SCC 10 PORT (X)		20	3	A B C	20	3	CAROLINA PRIDE SPARE PUMP (Y)							1.3	26		
	27					1.3															1.3	28		
	29					1.3															1.3	30		
A	31					1.3	CAROLINA PRIDE SCC 10 PORT (Z)		20	3	A B C	SPACE									32			
	33					1.3														34				
	35					1.3														36				
A	37					3.7	AIR COMPRESSOR (AB)		40	3	A B C	40	3	AIR COMPRESSOR (AB)							3.7	38		
	39					3.7															3.7	40		
	41					3.7															3.7	42		
A	43					20.4	VACUUM VFD (60 HP)		100	3	A B C	50	3	VACUUM VFD (30 HP)							10.6	44		
	45					20.4															10.6	46		
	47					20.4															10.6	48		
	49						SPACE				A B C	SPACE									50			
	51																		52					
	53																		54					

PHASE BALANCE			LOAD TYPE		CONNECTED	DEMAND	DEMAND FORMULA		TOTAL LOAD	
Φ	LOAD	%	RECEPTACLE		3.0 KVA	6.0 KVA	LOAD X 100% NEC 220.42		CONNECTED	DEMAND
A	166.0 KVA	34%	HVAC		6.0 KVA	17.4 KVA	10KVA + 50% REMAINDER NEC 220.44		495.4 KVA	495.4 KVA
B	164.5 KVA	33%	MISC		31.4 KVA	17.4 KVA	LOAD X 100% (USED MCA IN CALCULATION)		595.9A	595.9A
C	165.0 KVA	33%	MOTOR		437.6 KVA	31.4 KVA	LOAD X 100% (USED MCA IN CALCULATION)		FILENAME:	

NOTES:
A. COORDINATE FINAL BREAKER SIZE WITH EQUIPMENT SPECS.
GENERAL: THE LETTER/NUMBER IN PARENTHESES CORRESPONDS TO THE ITEM # ON SHEET E-0.3 & E-0.4

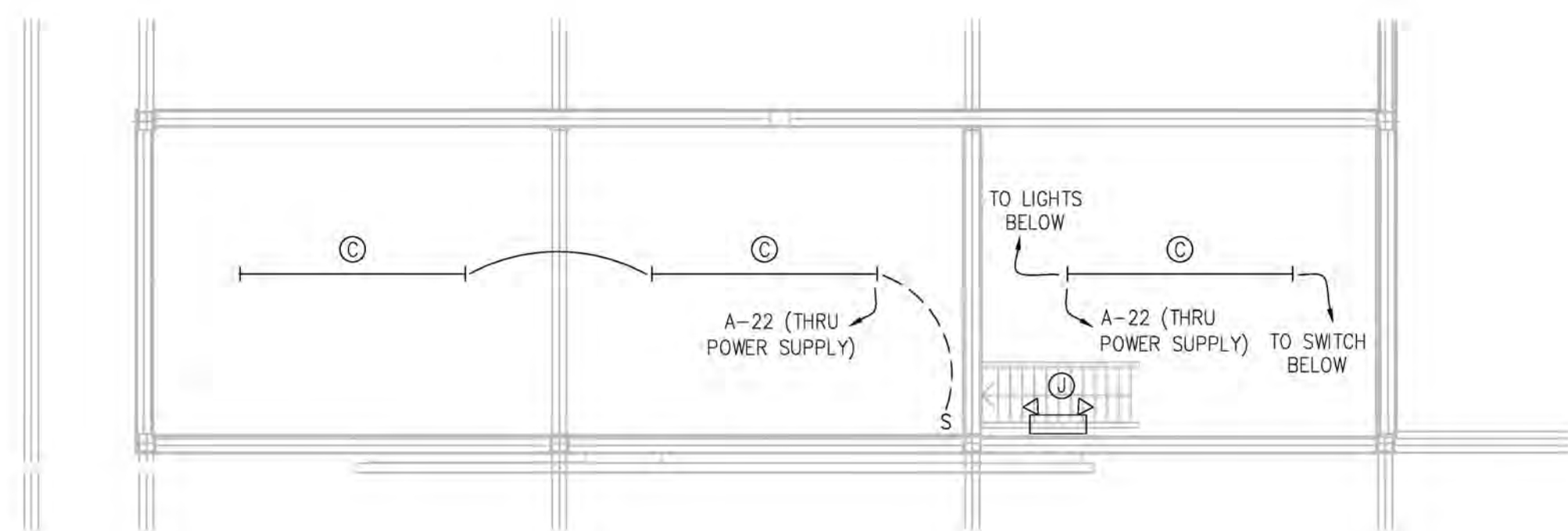
NOTES	MOUNTING: SURFACE					277/480	3-PHASE, 4W	PANEL MCC					CAPACITY: 600A					V. DROP: 0.07%					NOTES			
	LOCATION: ELECTRICAL ROOM										MLO					DEMAND LOAD: 345A					AV. FAULT: 41,752 A					
	CKT	LTG	REC	HVAC	MISC	MOT	DESCRIPTION		AMP	POLE	Φ	AMP	POLE	DESCRIPTION		LTG	REC	HVAC	MISC	MOT	CKT					
	1					3.7	CONVEYOR MOTOR (#01)		3	A	B	C	3	TOP BRUSH (#14)							0.8	2				
	3					3.7															0.8	4				
	5					3.7															0.8	6				
	7					0.8	HIGH SIDE WASHER DS (#17)	3	B	A	C	3	HIGH SIDE WASHER PS (#17)							0.8	8					
	9					0.8														0.8	10					
	11					0.8														0.8	12					
	13					0.8	LOW SIDE WASHER DS (#18)	3	B	A	C	3	LOW SIDE WASHER PS (#18)							0.8	14					
	15					0.8														0.8	16					
	17					0.8														0.8	18					
	19					0.8	SUPERFLEX WRAP AROUND DS (#19)	3	A	B	C	3	SUPERFLEX WRAP AROUND PS (#19)							0.8	20					
	21					0.8														0.8	22					
	23					0.8														0.8	24					
	25					0.8	LOW SIDE WASHER DS (#21)	3	A	B	C	3	LOW SIDE WASHER PS (#21)							0.8	26					
	27					0.8														0.8	28					
	29					0.8														0.8	30					
	31					0.8	SUPERFLEX WRAP AROUND DS (#22)	3	A	B	C	3	SUPERFLEX WRAP AROUND PS (#22)							0.8	32					
	33					0.8														0.8	34					
	35					0.8														0.8	36					
	37					0.8	SUPERSONIC WHEEL WASHER DS (#26)	3	A	B	C	3	SUPERSONIC WHEEL WASHER PS (#26)							0.8	38					
	39					0.8														0.8	40					
	41					0.8														0.8	42					
	43					0.8	TOP BRUSH (#27)	3	A	B	C	3	TECH 21 PRODUCER: POWERLOCK (#34)							5.6	44					
	45					0.8														5.6	46					
	47					0.8														5.6	48					
	49					5.6	TECH 21 PRODUCER: POWERLOCK (#34)	3	A	B	C	3	TECH 21 PRODUCER: POWERLOCK (#34)							5.6	50					
	51					5.6														5.6	52					
	53					5.6														5.6	54					
	55					5.6	TECH 21 PRODUCER: POWERLOCK (#35)	3	A	B	C	3	TECH 21 PRODUCER: POWERLOCK (#35)							5.6	56					
	57					5.6														5.6	58					
	59					5.6														5.6	60					
	61					5.6	IDC PRODUCER: POWERLOCK (#35)	3	A	B	C	3	IDC PRODUCER: POWERLOCK (#35)							5.6	62					
	63					5.6														5.6	64					
	65					5.6														5.6	66					
	67					5.6	TECH 21 PRODUCER: PWR-LOCK & FLIP NOZZ. (#36)	3	A	B	C	3	TECH 21 PRODUCER: PWR-LOCK & FLIP NOZZ. (#36)							5.6	68					
	69					5.6														5.6	70					
	71					5.6														5.6	72					
	73					5.6	IDC PRODUCER: POWERLOCK (#38)	3	A	B	C	3	IDC PRODUCER: POWERLOCK (#38)							5.6	74					
	75					5.6														5.6	76					
	77					5.6														5.6	78					
	79					0.8	EVOLUTION SHINE (#38)	3	A	B	C	3	GLOSS BOSS DS (#40)							0.8	80					
	81					0.8														0.8	82					
	83					0.8														0.8	84					
	85					0.8	GLOSS BOSS PS (#40)	3	A	B	C	3	HYDRAULIC POWERPACK (AK)							2.0	86					
	87					0.8														2.0	88					
	89					0.8														2.0	90					
	91					9.0	MAGNUM HIGH PRESSURE PUMP (AL)	3	A	B	C	3	MAGNUM HIGH PRESSURE PUMP (AM)							5.6	92					
	93					9.0														5.6	94					
	95					9.0														5.6	96					



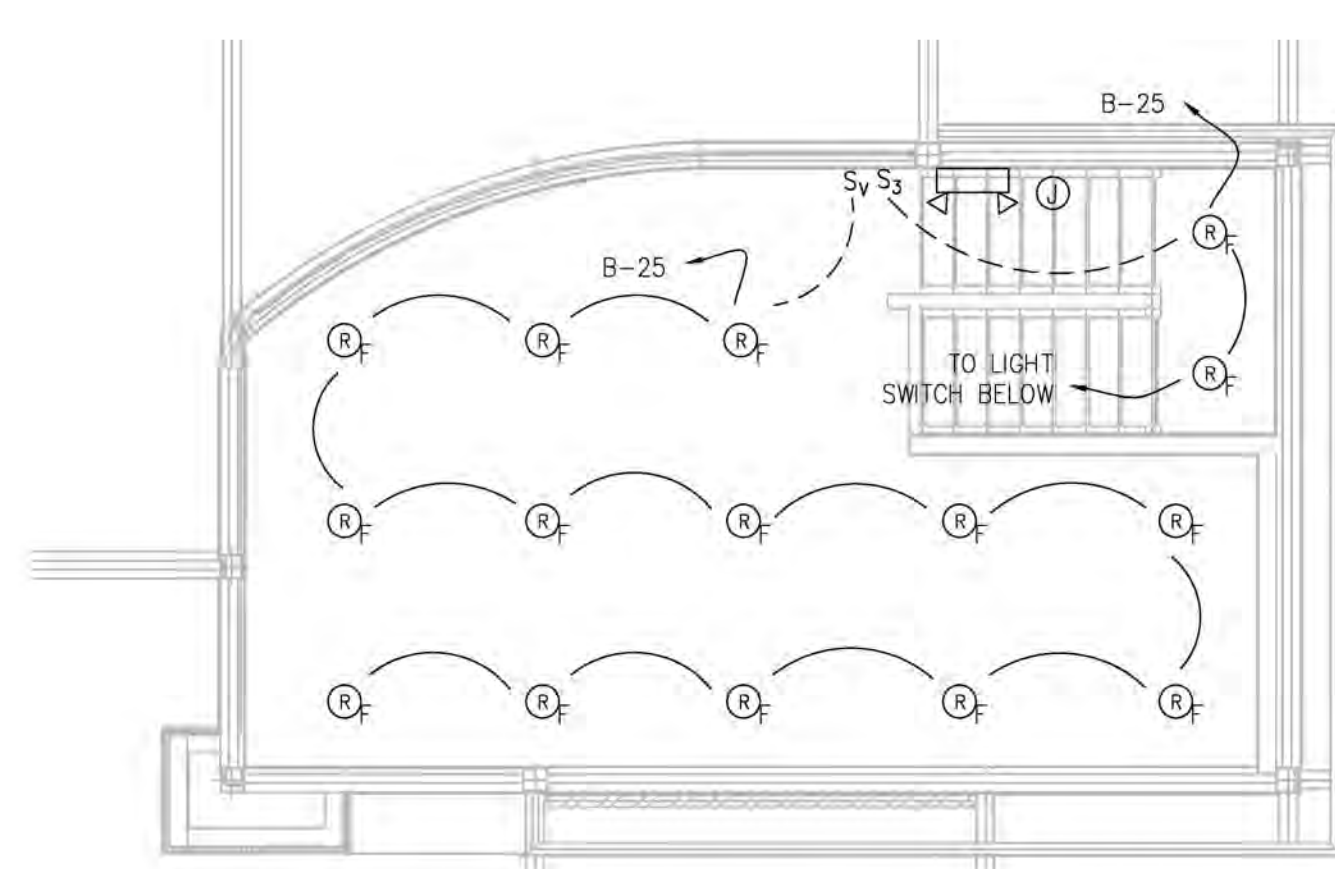
EXTERIOR TIME-SWITCH CONTROL FUNCTION:
TIME-SWITCH CONTROL SHALL PROVIDE THE FOLLOWING FUNCTIONS:

1. CAPABLE OF BEING SET FOR SEVEN DIFFERENT DAY TYPES PER WEEK.
2. CAPABLE OF INCORPORATING AN AUTOMATIC HOLIDAY SETBACK FEATURE.
3. BACKUP CAPABILITIES THAT PREVENT THE LOSS OF PROGRAM AND TIME SETTINGS FOR NOT LESS THAN 10 HOURS, IF POWER IS INTERRUPTED.

A LIGHTING PLAN - FIRST FLOOR
E-1.0 SCALE: 3/16" = 1'-0"



B LIGHTING PLAN - EQUIPMENT PLATFORM
E-1.0 SCALE: 3/16" = 1'-0"



C LIGHTING PLAN - 2ND FLOOR OFFICE
E-1.0 SCALE: 3/16" = 1'-0"

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SE Engineering
1733 Campus Plaza Court, Suite 101
Bowling Green, KY 42101
Phone: 270-798-3022
Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

CONSULTANT
STAMP:

DRAWINGS FOR: **Midwest Car Wash**
20 SE Thompson Drive
Lee's Summit, MO 64081

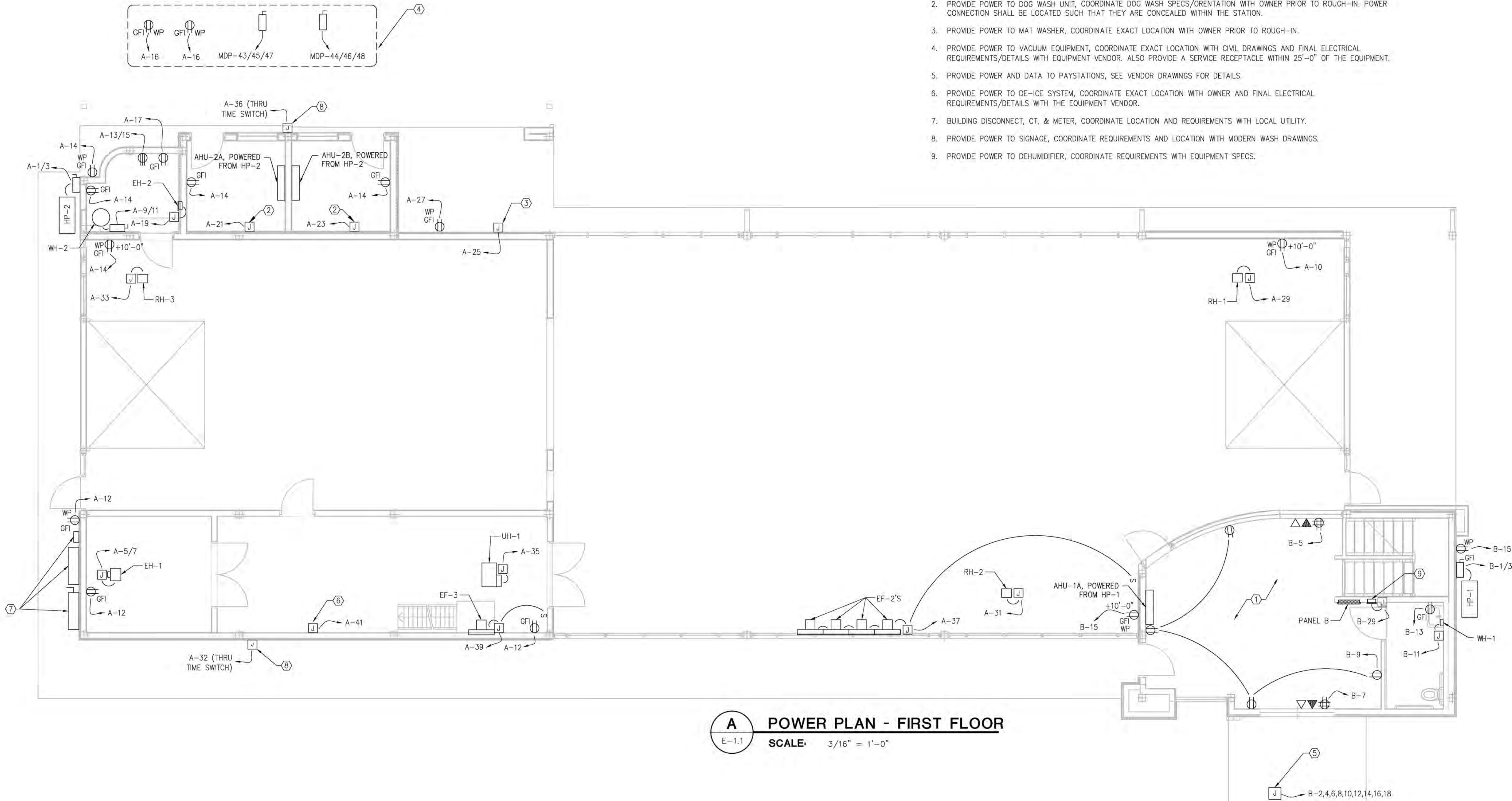
SHEET TITLE: **Lighting Plan**

PROJECT NUMBER: 23-1014
FILENAME:
SCALE: AS NOTED
PLOT DATE: 05/05/23
DRAWN BY: IBT

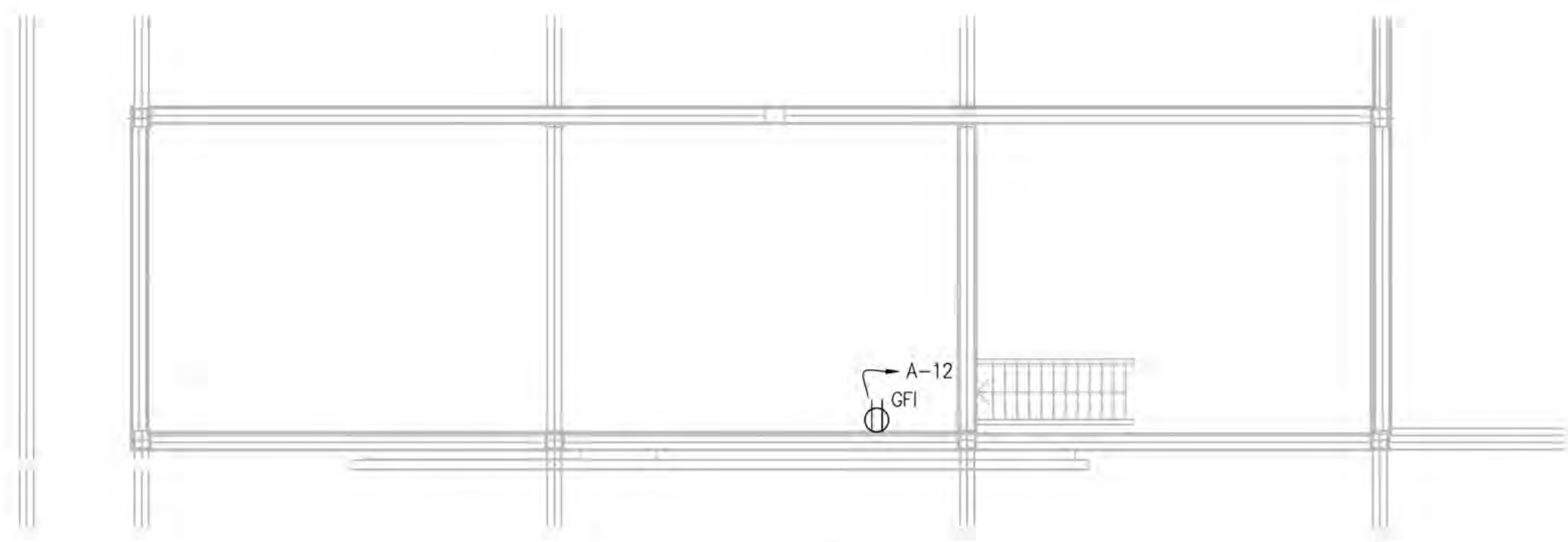
SHEET: **E-1.0**

POWER PLAN KEY NOTES:

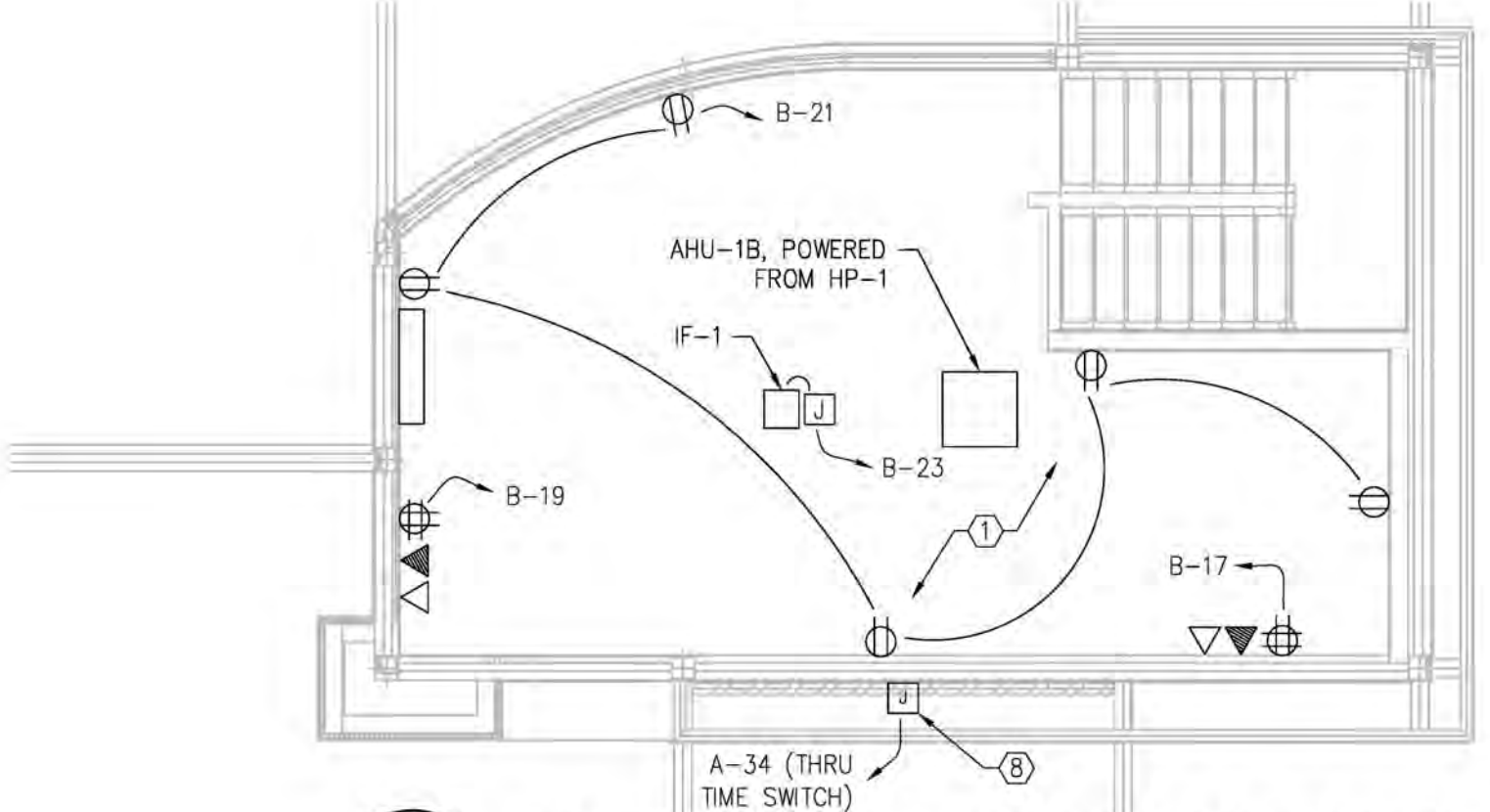
1. COORDINATE FINAL RECEPTACLE/DATA QUANTITIES AND LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
2. PROVIDE POWER TO DOG WASH UNIT, COORDINATE DOG WASH SPECS/ORENTATION WITH OWNER PRIOR TO ROUGH-IN. POWER CONNECTION SHALL BE LOCATED SUCH THAT THEY ARE CONCEALED WITHIN THE STATION.
3. PROVIDE POWER TO MAT WASHER, COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
4. PROVIDE POWER TO VACUUM EQUIPMENT, COORDINATE EXACT LOCATION WITH CIVIL DRAWINGS AND FINAL ELECTRICAL REQUIREMENTS/DETAILS WITH EQUIPMENT VENDOR. ALSO PROVIDE A SERVICE RECEPTACLE WITHIN 25'-0" OF THE EQUIPMENT.
5. PROVIDE POWER AND DATA TO PAYSTATIONS, SEE VENDOR DRAWINGS FOR DETAILS.
6. PROVIDE POWER TO DE-ICE SYSTEM, COORDINATE EXACT LOCATION WITH OWNER AND FINAL ELECTRICAL REQUIREMENTS/DETAILS WITH THE EQUIPMENT VENDOR.
7. BUILDING DISCONNECT, CT, & METER, COORDINATE LOCATION AND REQUIREMENTS WITH LOCAL UTILITY.
8. PROVIDE POWER TO SIGNAGE, COORDINATE REQUIREMENTS AND LOCATION WITH MODERN WASH DRAWINGS.
9. PROVIDE POWER TO DEHUMIDIFIER, COORDINATE REQUIREMENTS WITH EQUIPMENT SPECS.



A POWER PLAN - FIRST FLOOR
E-1.1 SCALE: 3/16" = 1'-0"



B POWER PLAN - EQUIPMENT PLATFORM
E-1.1 SCALE: 3/16" = 1'-0"



C POWER PLAN - 2ND FLOOR OFFICE
E-1.1 SCALE: 3/16" = 1'-0"

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Suite 10
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Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

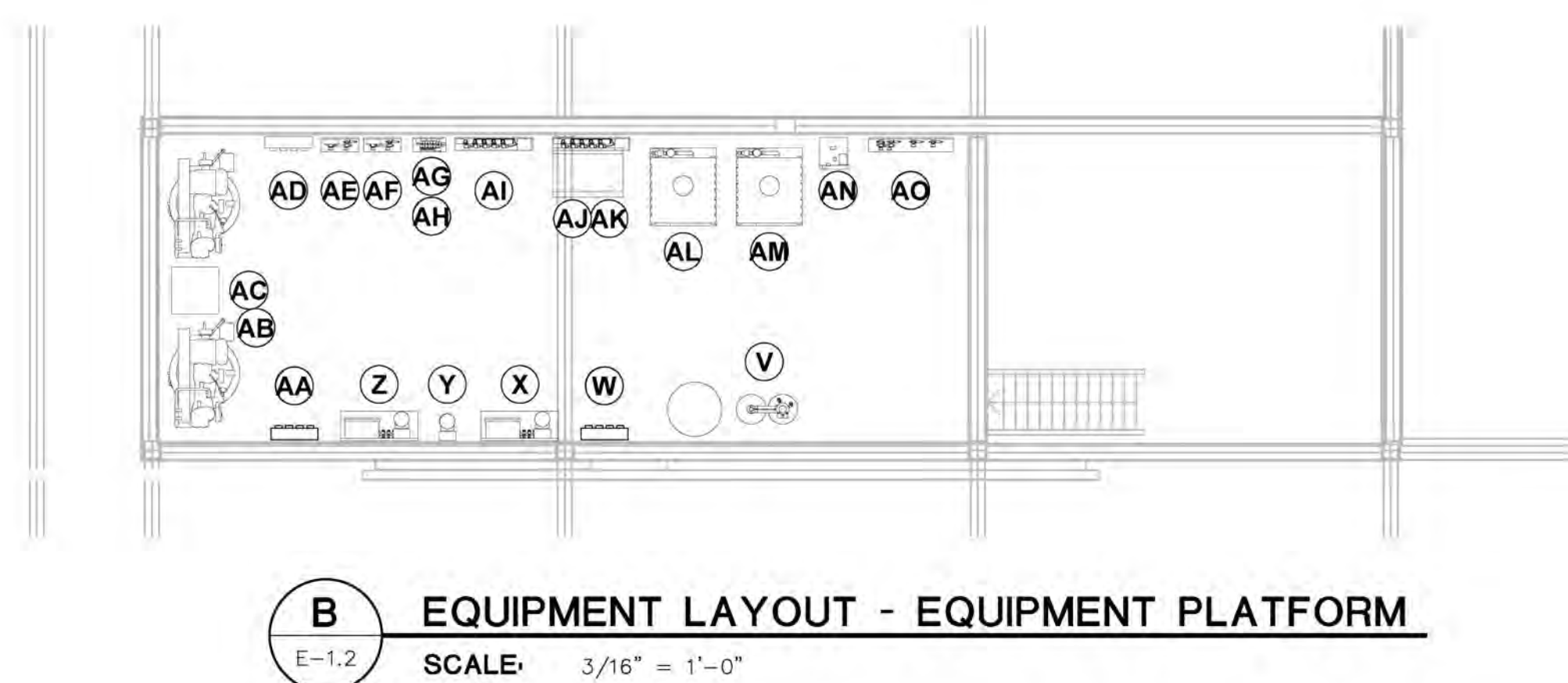
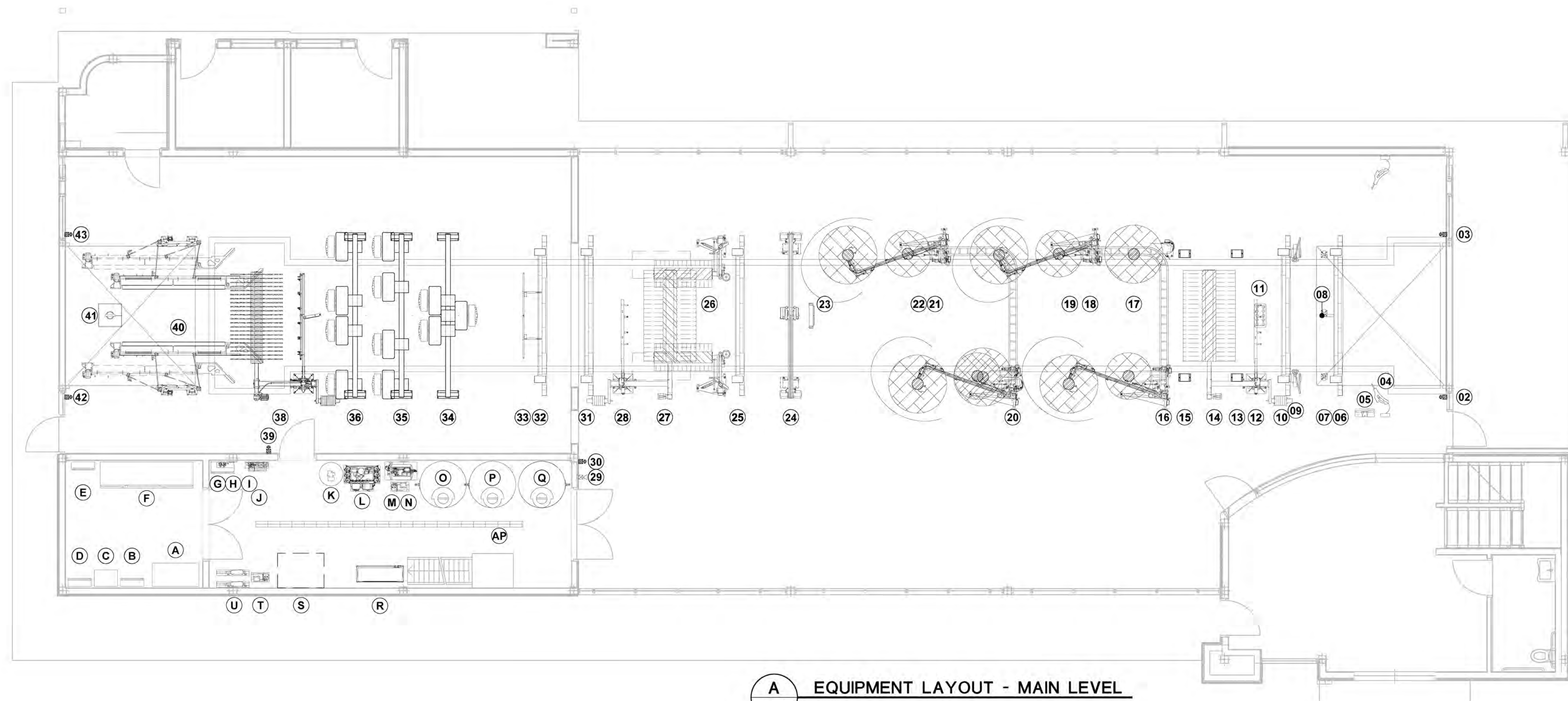
CONSULTANT
STAMP:

DRAWINGS FOR:
Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:
Power Plan - Building

PROJECT NUMBER: 23-1014	SCALE: AS NOTED
FILENAME:	PLOT DATE: 05/05/23
DRAWN BY: IBT	

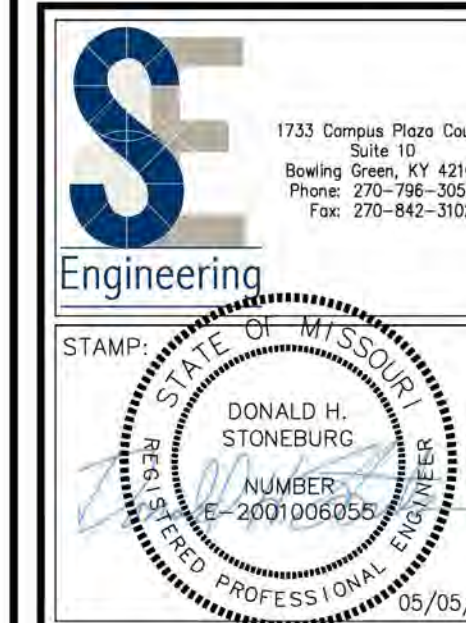
SHEET:
E-1.1



EQUIPMENT LAYOUT GENERAL NOTES:

1. SEE EQUIPMENT SCHEDULE ON SHEET E-0.2 FOR EQUIPMENT IDENTIFICATION.

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[illegible]

CONSULTANT

STAMP:

Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

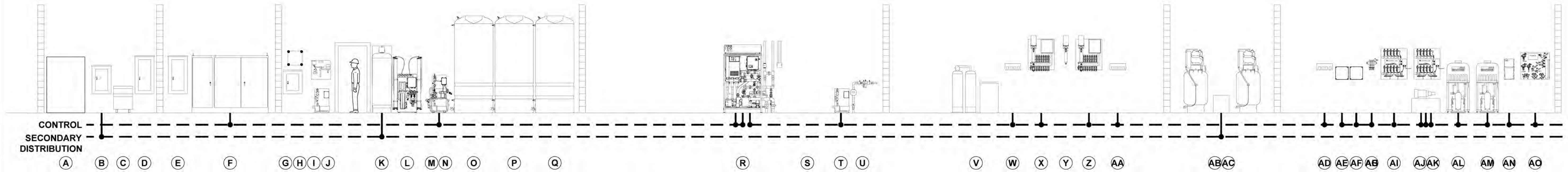
HEET TITLE:

Equipment Layout

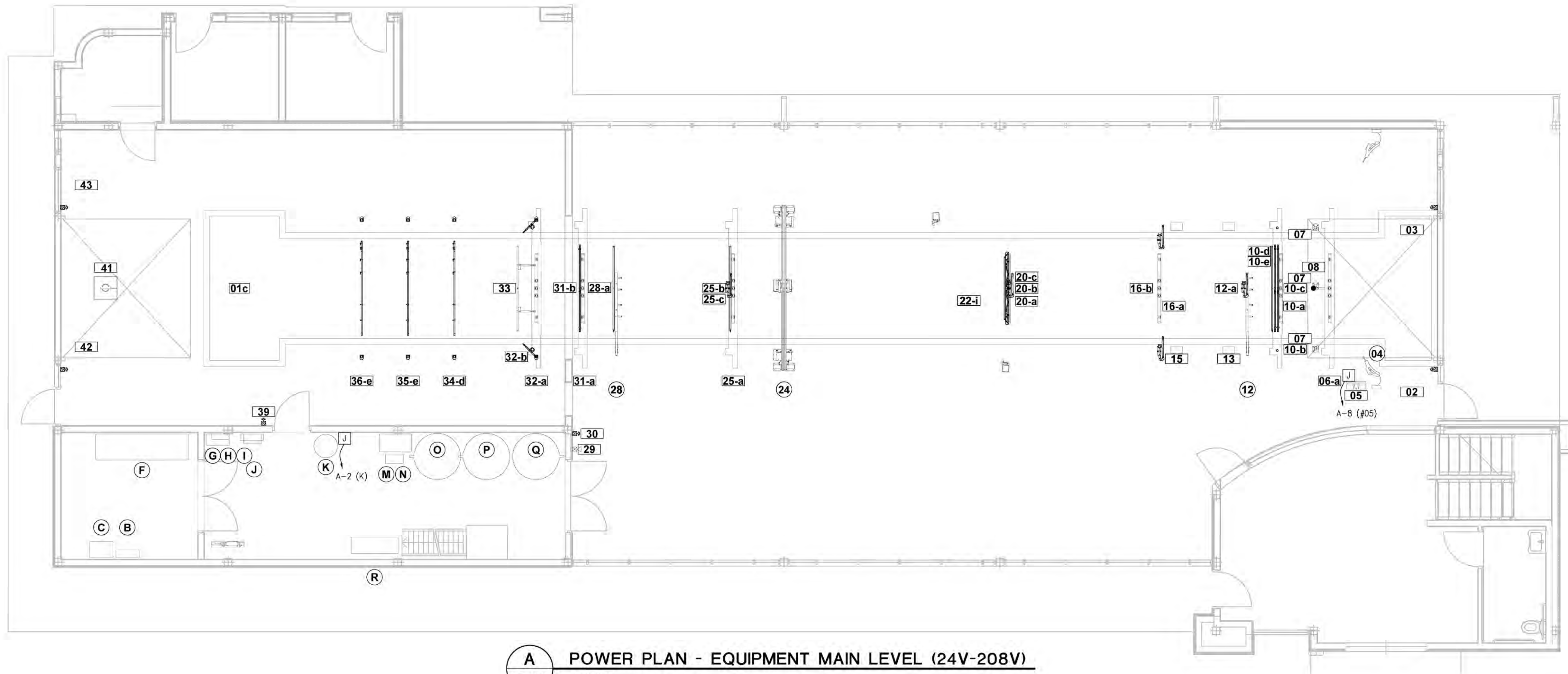
PROJECT NUMBER:	23-1014
FILENAME:	
SCALE:	AS NOTED
PLOT DATE:	05/05/23
DRAWN BY:	

SHEET:

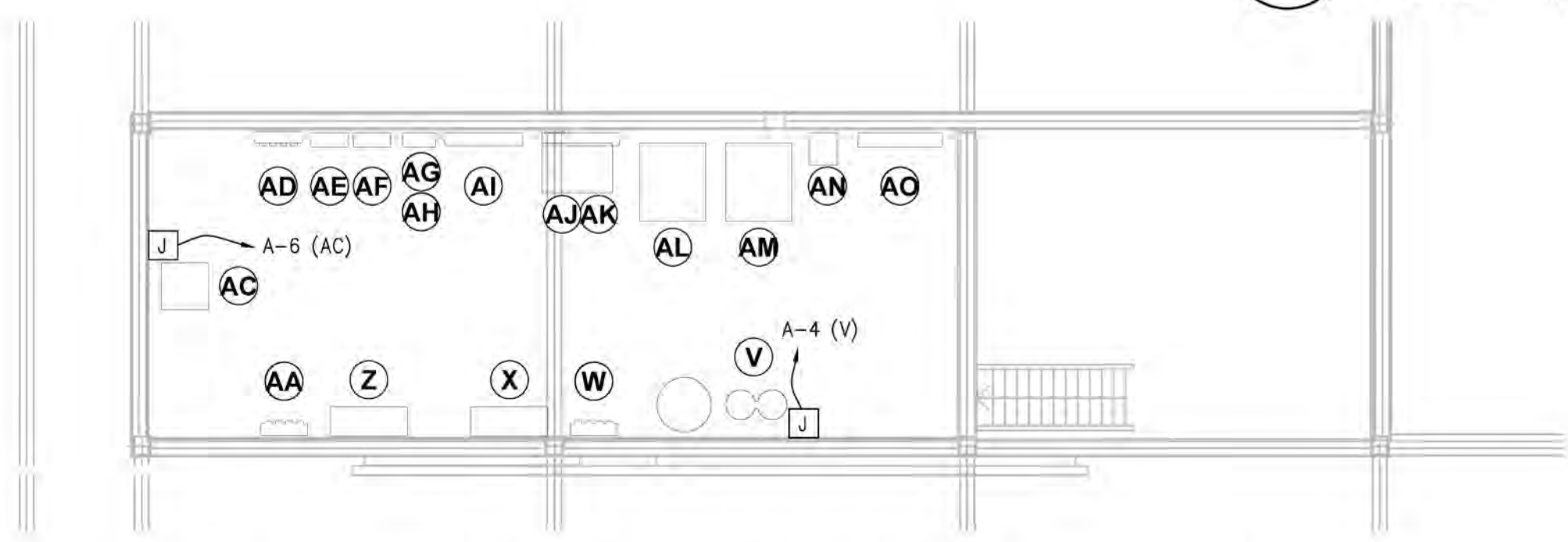
E-1.2



1 POWER PLAN - EQUIPMENT ELEVATIONS (24V-208V)
E-1.3 SCALE: N.T.S.



A POWER PLAN - EQUIPMENT MAIN LEVEL (24V-208V)
E-1.3 SCALE: 3/16" = 1'-0"



B POWER PLAN - EQUIPMENT PLATFORM (24V-208V)
E-1.3 SCALE: 3/16" = 1'-0"

EQUIPMENT POWER (24-208V) GENERAL NOTES:

- SEE EQUIPMENT SCHEDULE ON SHEET E-0.2 FOR EQUIPMENT IDENTIFICATION.
- SEE EQUIPMENT SCHEDULE ON SHEET E-0.3 & E-0.4 FOR A COMPLETE LIST OF CONDUITS AND WIRE RUNS FOR EQUIPMENT SHOWN ON PLANS. ELECTRICAL CONTRACTOR SHALL REVIEW ALL EQUIPMENT VENDOR ELECTRICAL DRAWINGS PRIOR TO SUBMITTING BIDS AND DURING CONSTRUCTION FOR EXACT ELECTRICAL REQUIREMENTS. THESE ELECTRICAL CONSTRUCTION DOCUMENT MAY NOT SHOW ALL REQUIRED LINE VOLTAGE WIRING, LOW VOLTAGE WIRING, AND CONDUIT/RACEWAY SYSTEMS. VERIFY WITH EQUIPMENT INSTALLATION MANUALS PRIOR TO BEGINNING INSTALLATION.

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SE Engineering
1733 Campus Plaza Court, Suite 10
Bowling Green, KY 42101
Phone: 270-798-3052
Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

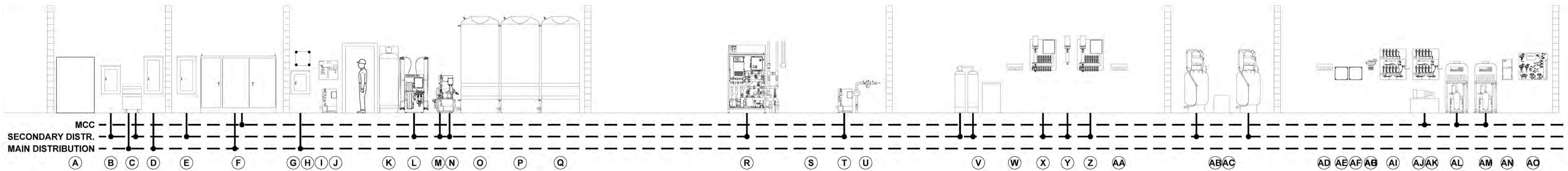
CONSULTANT
STAMP:

PROJECT FOR: **Midwest Car Wash**
20 SE Thompson Drive
Lee's Summit, MO 64081

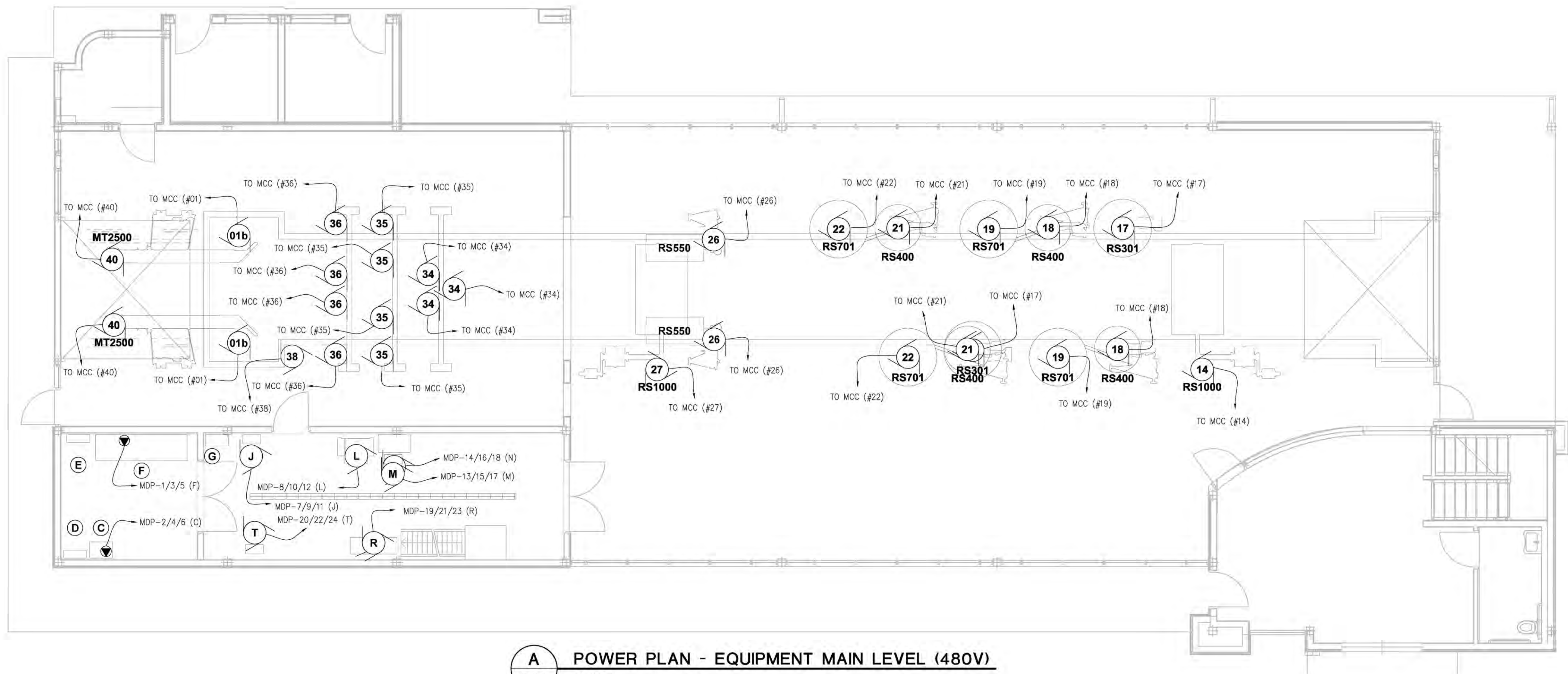
SHEET TITLE: **Power Plan - Equip. (24V-208V)**

PROJECT NUMBER: 23-1014	SCALE: AS NOTED
FILENAME:	PLOT DATE: 05/05/23
DRAWN BY: IBT	

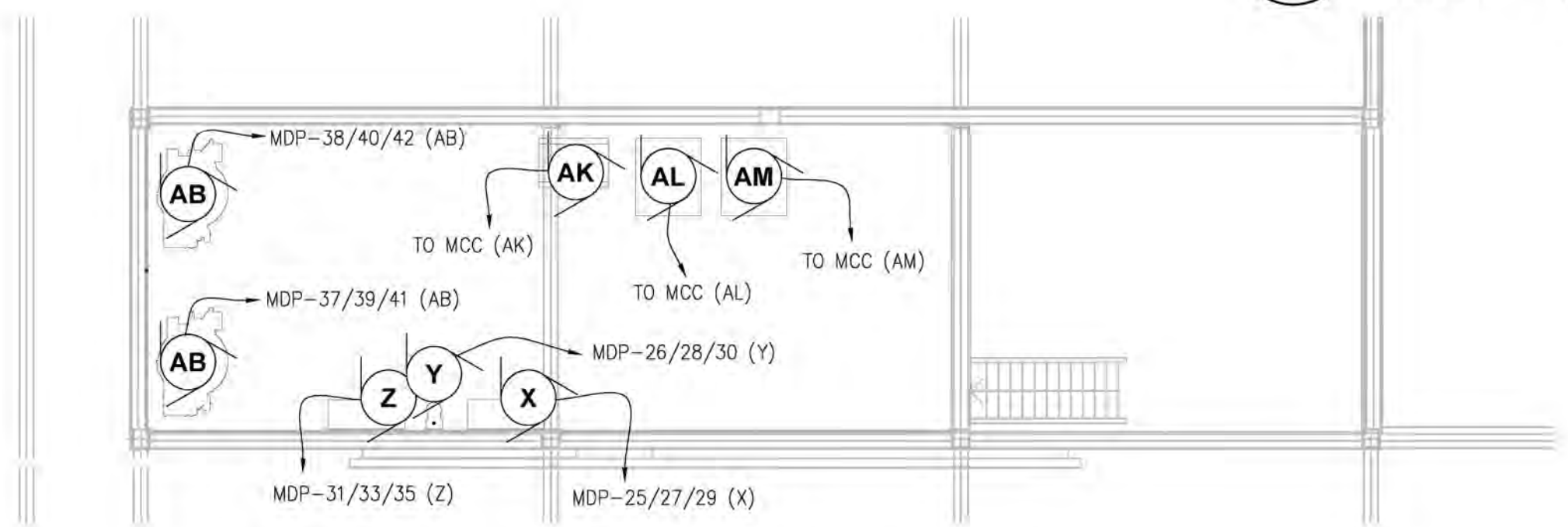
SHEET: **E-1.3**



1 POWER PLAN - EQUIPMENT ELEVATIONS (480V)
E-1.4 SCALE: N.T.S.



A POWER PLAN - EQUIPMENT MAIN LEVEL (480V)
E-1.4 SCALE: 3/16" = 1'-0"



B POWER PLAN - EQUIPMENT PLATFORM (480V)
E-1.4 SCALE: 3/16" = 1'-0"

EQUIPMENT POWER (480V) GENERAL NOTES:

1. SEE EQUIPMENT SCHEDULE ON SHEET E-0.3 & E-0.4 FOR A COMPLETE LIST OF CONDUITS AND WIRE RUNS FOR EQUIPMENT SHOWN ON PLANS. ELECTRICAL CONTRACTOR SHALL REVIEW ALL EQUIPMENT VENDOR ELECTRICAL DRAWINGS PRIOR TO SUBMITTING BIDS AND DURING CONSTRUCTION FOR EXACT ELECTRICAL REQUIREMENTS. THESE ELECTRICAL CONSTRUCTION DOCUMENT MAY NOT SHOW ALL REQUIRED LINE VOLTAGE WIRING, LOW VOLTAGE WIRING, AND CONDUIT/RACEWAY SYSTEMS. VERIFY WITH EQUIPMENT INSTALLATION MANUALS PRIOR TO BEGINNING INSTALLATION.

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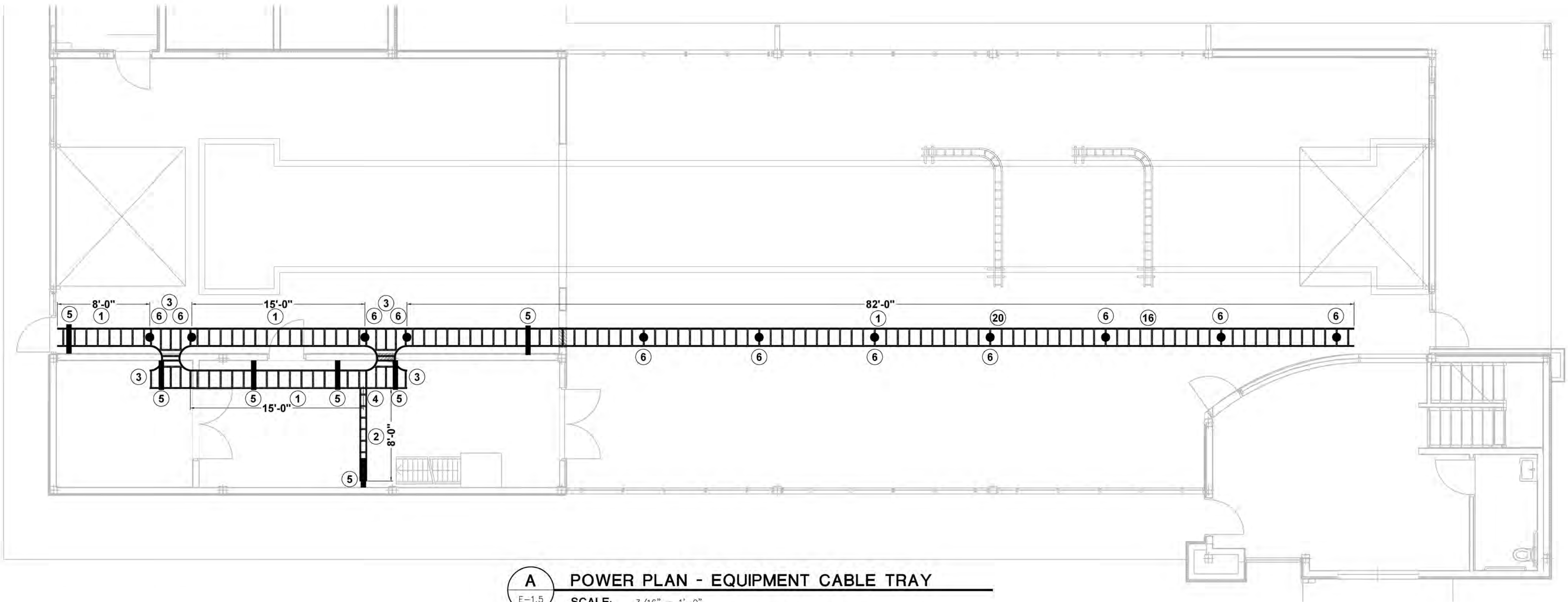


CONSULTANT
STAMP:

DRAWINGS FOR:	Midwest Car Wash 20 SE Thompson Drive Lee's Summit, MO 64081
SHEET TITLE:	Power Plan - Equipment (480V)

PROJECT NUMBER:	23-1014
FILENAME:	
SCALE:	AS NOTED
PLOT DATE:	05/05/23
DRAWN BY:	IBT

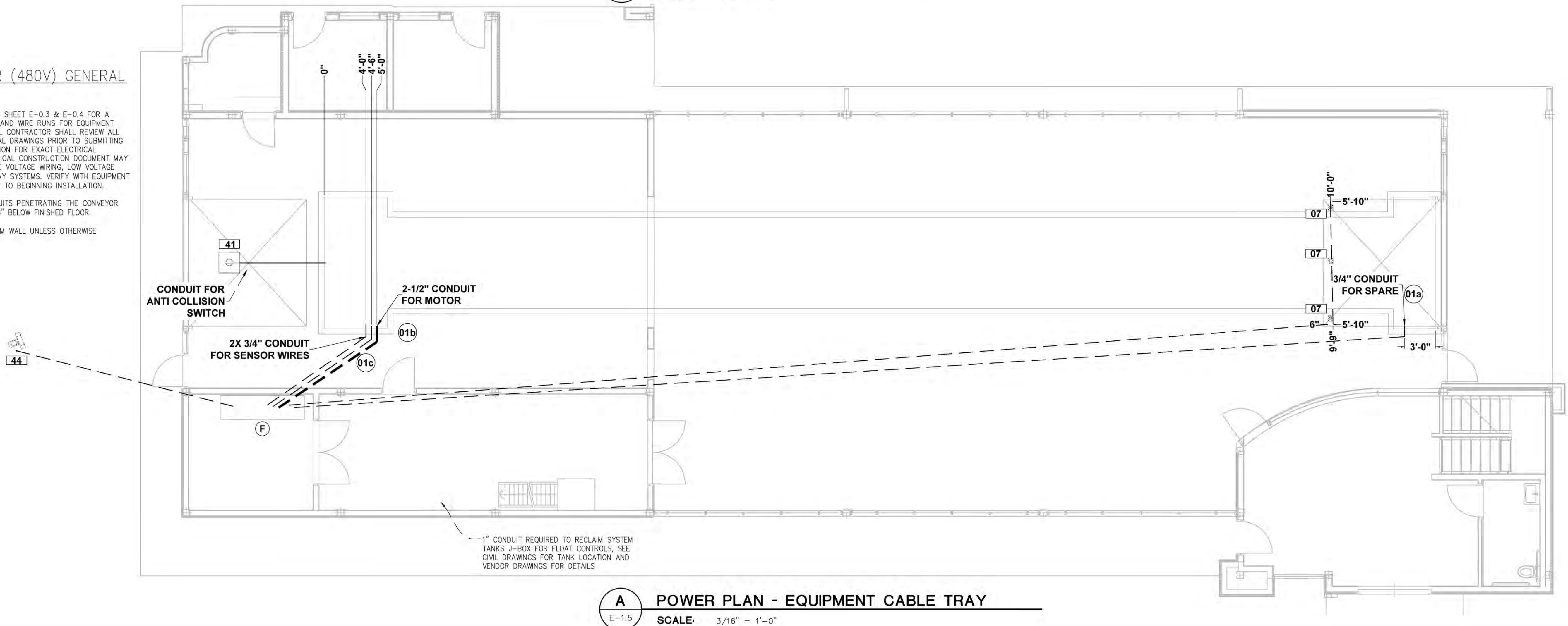
SHEET:
E-1.4



A POWER PLAN - EQUIPMENT CABLE TRAY
E-1.5
SCALE: 3/16" = 1'-0"

EQUIPMENT POWER (480V) GENERAL NOTES:

1. SEE EQUIPMENT SCHEDULE ON SHEET E-0.3 & E-0.4 FOR A COMPLETE LIST OF CONDUITS AND WIRE RUNS FOR EQUIPMENT SHOWN ON PLANS. ELECTRICAL CONTRACTOR SHALL REVIEW ALL EQUIPMENT VENDOR ELECTRICAL DRAWINGS PRIOR TO SUBMITTING BIDS AND DURING CONSTRUCTION FOR EXACT ELECTRICAL REQUIREMENTS. THESE ELECTRICAL CONSTRUCTION DOCUMENT MAY NOT SHOW ALL REQUIRED LINE VOLTAGE WIRING, LOW VOLTAGE WIRING, AND CONDUIT/RACEWAY SYSTEMS. VERIFY WITH EQUIPMENT INSTALLATION MANUALS PRIOR TO BEGINNING INSTALLATION.
2. ALL ELECTRICAL WIRING CONDUITS PENETRATING THE CONVEYOR TRENCH MUST BE LOCATED 16" BELOW FINISHED FLOOR.
3. ALL STUB-UPS TO BE 1" FROM WALL UNLESS OTHERWISE INDICATED.



A POWER PLAN - EQUIPMENT CABLE TRAY
E-1.5
SCALE: 3/16" = 1'-0"

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SE Engineering
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Phone: 270-798-3052
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STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

CONSULTANT

STAMP:

PROJECT NUMBER: 23-1014
FILENAME:
SCALE: AS NOTED
PLOT DATE: 05/05/23
DRAWN BY: IBT

DRAWINGS FOR: Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE: Power Plan - Equip. O.H & U.G.

SHEET: **E-1.5**

INSTALLATION NOTES:

- ALL WATER SUPPLY PIPING SHALL BE AS SHOWN ON THE PLANS AND SHALL BE ROUTED UNDER SLAB, IN WALLS OR CABINETS TO REQUIRED LOCATIONS, EXCEPT WHERE NOTED AS OVERHEAD.
- ALL INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MATERIAL NOTES AND 2018 INTERNATIONAL PLUMBING CODE.
- ALL HOT WATER PIPING SHALL BE INSULATED WITH MIN. 1" FIBERGLASS INSULATION. ALL COLD WATER PIPING IN UNCONDITIONED SPACE SHALL BE INSULATED WITH MIN. 1" FIBERGLASS INSULATION.
- INSTALL STOPS IN SUPPLY TO ALL FIXTURES.
- INSTALL PROPER VALVES AT ALL EQUIPMENT.
- ALL VENTS, CLEANOUTS, AND PLUMBING AS REQUIRED BY STATE PLUMBING CODE.
- PIPING TO BE CONCEALED IN ALL FINISHED AREAS.
- CONTRACTOR TO VERIFY ALL DIMENSIONS BEFORE STARTING WORK.
- ALL EQUIPMENT INSTALLED AS PER CERTIFIED SHOP DRAWING FROM MANUFACTURER.
- PROVIDE ACCESS PANELS FOR CONCEALED VALVES.
- AIR CHAMBER AT EACH FIXTURE TO PREVENT WATER HAMMER.
- FIXTURES SHOWN ARE AN INDICATION OF INTENDED QUALITY. OWNER MAY SELECT OTHER FIXTURES AT THEIR DISCRETION.
- CONTRACTOR SHALL PROVIDE A 1 YEAR WARRANTY ON PARTS AND LABOR FOR ALL WORK PROVIDED. WARRANTY SHALL COMMENCE UPON FINAL ACCEPTANCE.
- PROVIDE DIRT LEG EQUAL TO THE GAS SUPPLY PIPE SIZE AT EACH PIECE OF EQUIPMENT.
- SLEEVE LINES SHALL BE RAN WITH 90 DEGREES SWEEPS.
- PROVIDE FLOOR DRAIN AND HUB DRAIN TRAP SEALS OR TRAP PRIMERS AS REQUIRED BY LOCAL CODES.
- THESE DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR PLUMBING EQUIPMENT AND PIPING SHALL BE CHECKED AND COORDINATED WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. NOTIFY ENGINEER OF ANY MAJOR DEVIATIONS.

MATERIALS

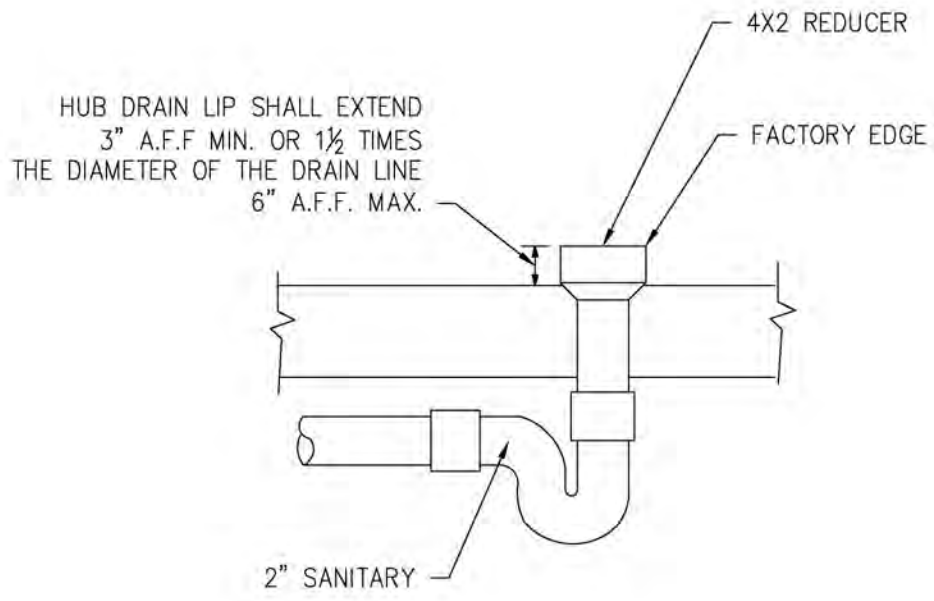
DOMESTIC WATER PIPE – TYPE L COPPER, SCH. 80 PVC OR PEX
WASTE AND VENT PIPING – SCHEDULE 40 PVC
GAS PIPING – INDOOR – BLACK STEEL SCHEDULE. 40.
GAS PIPING – OUTDOOR ABOVE GRADE – PAINTED BLACK STEEL SCH. 40.
GAS PIPING – BURIED – POLYETHYLENE QUALIFIED FOR GAS SERVICE.

GENERAL MATERIAL NOTES:

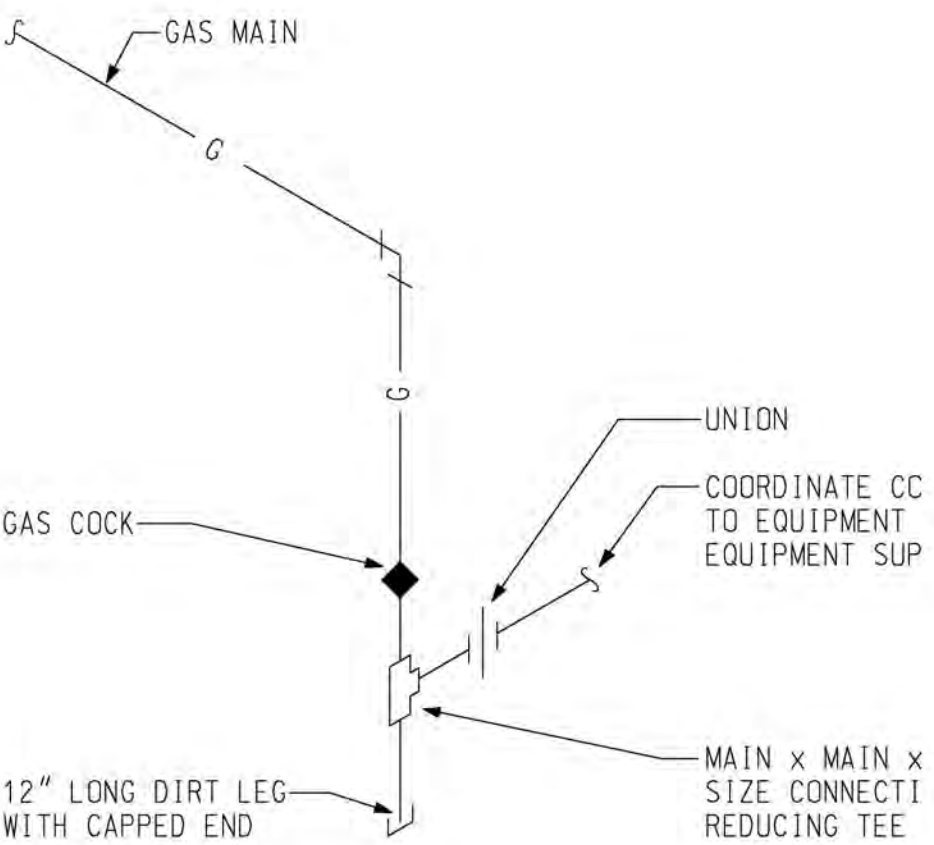
COPPER PIPE FITTINGS SHALL BE WROT COPPER, SOCKET TYPE, MIL-F-1183 WITH 95/5 SOLDER OR "NO LEAD" SOLDER FOR POTABLE WATER.

PVC PIPE FITTINGS 4" AND SMALLER SHALL BE ASTM D-1785, TYPE 1, GRADE 1, SOCKET TYPE WITH ASTM D-2564 SOLVENT CEMENT.

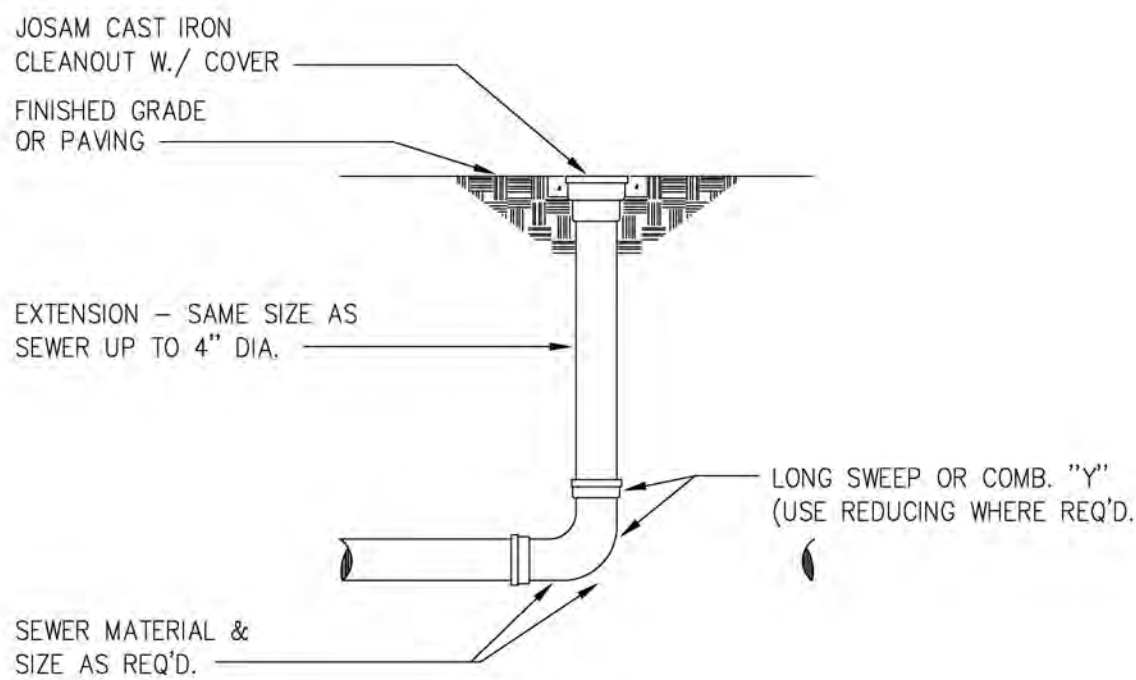
DIELECTRIC UNIONS OR FLANGED UNIONS SHALL BE USED WHEN JOINING DISSIMILAR PIPE MATERIAL.



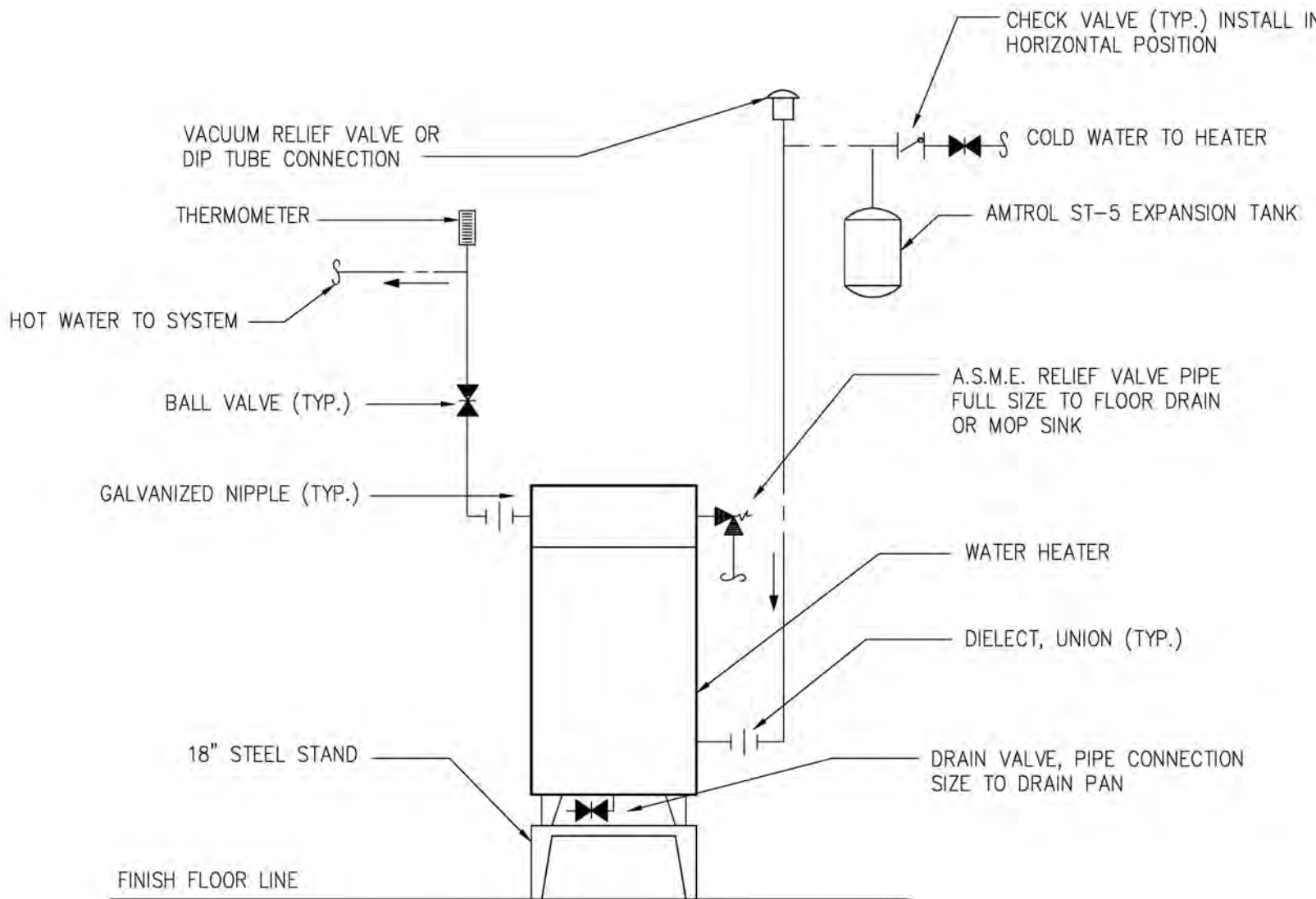
1 HUB DRAIN DETAIL
SCALE: NONE
P-0.1



2 GAS CONNECTION DETAIL
SCALE: NONE
P-0.1



3 EXTERIOR CLEAN-OUT DETAIL
SCALE: NONE
P-0.1



4 TYP. ELECTRIC WATER HEATER DETAIL
SCALE: NONE
P-0.1

PLUMBING FIXTURE SCHEDULE	
ITEM	DESCRIPTION
DW-1	DOG WASH DRAIN REFER TO MFG. SPECS FOR DETAILS
FD-1	FLOOR DRAIN PROFLO, MODEL PF42927 3-1/2" IPS BARREL THREADS, ANTI-SKID SURFACE INCLUDES 5-3/4" BRASS COVER WITH 6" BRASS RING
FHB-1	FREEZELESS HOSE BIB ZURN Z1300
HD-1	HUB DRAIN SEE DETAIL '1/P-0.1'
LAV-1	WALL-MOUNT LAVATORY BOWL, ADA (0.5 GPM) AMERICAN STANDARD 0355.012 AMERICAN STANDARD 7385.004-F05 FAUCET PROVIDE WATER STOPS, SUPPLIES, GRID DRAIN, P-TRAP, ESCUTCHEONS, PIPE GUARD, ETC. TO ENSURE A COMPLETE INSTALLATION
RPZ-1	2" REDUCED PRESSURE PRINCIPLE ASSEMBLY ZURN 375XL-SAG
RPZ-2	1" REDUCED PRESSURE PRINCIPLE ASSEMBLY ZURN 375XL-SAG
TD-1	4" PRECAST TRENCH DRAIN (12'-0" LONG) W/ 5" DUCTILE IRON GRATE DURA TRENCH DTPF4-HDGS08ZSA DURA TRENCH 05C24DI
TD-2	4" PRECAST TRENCH DRAIN (24'-0" LONG) W/ 5" DUCTILE IRON GRATE DURA TRENCH DTPF4-HDGS08ZSA DURA TRENCH 05C24DI
WC-1	TWO-PIECE ELONGATED ADA TANK TOILET (1.28 GPF) AMERICAN STANDARD 215AA.104 PROFLO, MODEL PFTSCOF2000WH SEAT TRIP LEVER ON OPEN SIDE PROVIDE WATER STOP, SUPPLY, ESCUTCHEON, WAX RING, ETC. TO ENSURE A COMPLETE INSTALLATION
WM-1	WASHING MACHINE BOX (2) 3/4" WATER CONNECTIONS & 2" DRAIN COORDINATE REQUIREMENTS WITH MFG.

ELECTRIC WATER HEATER SCHEDULE					
Item No.	Manuf.	Model No.	Volt/Ph	Amps	Remarks
WH-1	AQUA POWER	AQM 3-1	120V	25	POINT OF USE
WH-2	A.O. Smith	PNT-90	208V	22	SEE DETAIL '4/P-0.1'

GAS FIXTURE SCHEDULE				
EQUIPMENT TAGS	GAS LINE SIZE (INCH)	LOAD (MBH)	MIN. GAS PRESSURE	MAX. GAS PRESSURE
UH-1	3/4"	45	6" W.C.	14" W.C.
RH-1	1"	125	5" W.C.	14" W.C.
RH-2	1"	80	5" W.C.	14" W.C.
RH-3	1"	80	5" W.C.	14" W.C.
DE-ICE	1"	600	4" W.C.	14" W.C.
TOTAL:		930	6"W.C.	14"W.C.

INLET GAS PRESSURE @ 7" W.C., SIZED FOR 0.5" W.C. PRESSURE DROP.

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US DRAWN BY	CHECKED BY	DATE	DESCRIPTION
0	IBT	05/05/23	FOR CONSTRUCTION



1733 Campus Plaza Court,
Suite 10
Bowling Green, KY 42101
Phone: 270-798-3052
Fax: 270-842-3102

STAMP:

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2601006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

CONSULTANT
STAMP:

DRAWINGS FOR:

Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:

Plumbing Notes,
Details, & Schedules

PROJECT NUMBER: 23-1014	SCALE: AS NOTED
FILENAME:	PLOT DATE: 05/05/23
DRAWN BY: IBT	

SHEET:

P-0.1

SOURCE	ITEM #	EQUIPMENT DESCRIPTION	MODEL	SIZE	QUANTITY	INITIAL PSI	GPM	PLUMBING TYPE	EQUIPMENT SUPPLIED BY	EQUIPMENT ERECTED BY	TERMINATED & PLUMBED BY	WATER NOTES
-	01	CONVEYOR - DUAL BELT MCE	-	-	-	-	-	-	-	-	-	-
N/A	01-e	SPARE AIR & WATER LINES	-	-	-	-	-	-	-	-	-	-
N/A	01-f	SPARE AIR & WATER LINES	-	-	-	-	-	-	-	-	-	-
N/A	01-g	SPARE AIR & WATER LINES	-	-	-	-	-	-	-	-	-	-
N/A	01-h	SPARE AIR & WATER LINES	-	-	-	-	-	-	-	-	-	-
N/A	01-i	SPARE AIR & WATER LINES	-	-	-	-	-	-	-	-	-	-
AN	04	BUG PREP GUNS	-	3/8"	2	100	8	POLY	C.W.I.	C.W.I.	C.W.I.	-
AM	09	SIDE BLASTER - 9 NOZZLES WITH FOLLOWING FEATURE	SB-900-FF	1"	1-2	600-1000	27	HP HOSE	C.W.I.	C.W.I.	C.W.I.	3/4" SUPPLY LINE UP TO 50' & 1" SUPPLY LINE OVER 50'.
-	10	FOAM PHANTOM - FULLY ILLUMINATED ECLIPSE APPLICATION ARCH	-	-	-	-	-	-	-	-	-	-
X / Z	10-b	PRESOAK 1 SIDE	SFTK	1/2"	2	40-80	5-10	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	10-c	PRESOAK 1 TOP	TOPFK	1/2"	1	40-80	5	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	10-d	PRESOAK 2 REAR	SFTK	1/2"	1	40-80	5	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	10-e	PRESOAK BATH	RABS	1/2"	1	40-80	3	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	11	BUMPER PRE-SOAK	BW100-P	1/2"	2	40-80	3	POLY	C.W.I.	C.W.I.	C.W.I.	-
-	12	EVOLUTION TOP REACH	ETR	-	-	-	-	-	-	-	-	-
X / Z	12-a	TOP BRUSH LUBE 1	BFBSINGLE	1/2"	1	40-80	1	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	13	CHEMICAL TIRE APPLICATOR - WHEEL RITE PRECISION	CTA	3/8"	1-2	40-80	4	POLY	C.W.I.	C.W.I.	C.W.I.	-
AI	14	TOP BRUSH WITH 94 INCH CORE	RS1000	3/8"	1	40-80	2	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	15	CHEMICAL TIRE APPLICATOR - WHEEL RITE PRECISION	CTA	3/8"	1-2	40-80	4	POLY	C.W.I.	C.W.I.	C.W.I.	-
-	16	CABLE TRAY	RW200S	-	-	-	-	-	-	-	-	-
X / Z	16-b	BOOMERANG FOAMERS - SINGLE SET	BFB2	1/2"	2	40-80	2	POLY	C.W.I.	C.W.I.	C.W.I.	-
AJ	17	HIGH SIDE WASHERS	RS301	1/2"	1-2	40-80	4.8	POLY	C.W.I.	C.W.I.	C.W.I.	-
AJ	18	LOW SIDE WASHER WITH 45" CORE - QUADPACK	RS400	1/2"	1-2	40-80	4.8	POLY	C.W.I.	C.W.I.	C.W.I.	-
AJ	19	SUPERFLEX WRAP AROUND - LONG ARMS	RS701	1/2"	1-2	40-80	3.2	POLY	C.W.I.	C.W.I.	C.W.I.	-
-	20	CABLE TRAY	RW200S	-	-	-	-	-	-	-	-	-
X / Z	20-b	TOP BRUSH LUBE 2	BFBSINGLE	1/2"	1	40-80	1	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	20-c	RAIN BAR - TRIPLE HOLE PATTERN WITH SINGLE FOAM GENERATOR	FRABT	1/2"	1	40-80	8	POLY	C.W.I.	C.W.I.	C.W.I.	-
AJ	21	LOW SIDE WASHER WITH 30" CORE - QUADPACK	RS400	1/2"	1-2	40-80	4.8	POLY	C.W.I.	C.W.I.	C.W.I.	-
AJ	22	SUPERFLEX WRAP AROUND - LONG ARMS	RS701	1/2"	1-2	40-80	3.2	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	22-i	BOOMERANG FOAMERS - SINGLE SET	BFB2	1/2"	2	40-80	2	POLY	C.W.I.	C.W.I.	C.W.I.	-
AJ	23	LOW PRESSURE UNDERCARRIAGE SPRAY	RW-100	3/4"	1	40-80	9	LP HOSE	C.W.I.	C.W.I.	C.W.I.	-
AK	24	MAGNUM FORCE - OSCILLATING ARCH WITH 5 HEADS	-	1/2"	6	800-900	6	SS JIC	C.W.I.	C.W.I.	C.W.I.	RUN 6X 1/2" STAINLESS STEEL JIC HYDRAULIC LINES TO HYDRAULIC POWERPACK.
AL	24-a	BASKET NOZZLES	-	1"	1	600-1000	30	HP HOSE	C.W.I.	C.W.I.	C.W.I.	3/4" SUPPLY LINE UP TO 50' & 1" SUPPLY LINE OVER 50'.
-	25	CERAMIC PUNCH ARCH	-	-	-	-	-	-	-	-	-	-
X / Z	25-b	LOW PH WHITE FOAM	BFBSINGLE	1/2"	1	40-80	1	POLY	C.W.I.	C.W.I.	C.W.I.	-
X / Z	25-c	WAX BATH	RABS	1/2"	1	40-80	3	POLY	C.W.I.	C.W.I.	C.W.I.	-
AI	26	SUPERSONIC WHEEL WASHER	RS550	1/2"	1-2	40-80	4	POLY	C.W.I.	C.W.I.	C.W.I.	-
AI	27	TOP BRUSH WITH 94 INCH CORE	RS1000	3/8"	1	40-80	2	POLY	C.W.I.	C.W.I.	C.W.I.	-
-	28	EVOLUTION TOP REACH	ETR	-	-	-	-	-	-	-	-	-
N	28-a	RAIN BAR - SINGLE HOLE PATTERN	RABS	1/2"	1	40-80	3	POLY	C.W.I.	C.W.I.	C.W.I.	-
-	31	SHIELD PHANTOM - FULLY ILLUMINATED ECLIPSE APPLICATION ARCH	-	-	-	-	-	-	-	-	-	-
X / Z	31-b	FULL BODY	SFTK	1/2"	1	40-80	5	POLY	C.W.I.	C.W.I.	C.W.I.	-
-	32	DRY PHANTOM - FULLY ILLUMINATED ECLIPSE APPLICATION ARCH	-	-	-	-	-	-	-	-	-	-
M	32-b	MIRROR RINSE	-	1/2"	1-2	40-80	TBD	POLY	C.W.I.	C.W.I.	C.W.I.	-
M	33	RAIN BAR	RW112	3/4"	1	40-80	6-12	LP HOSE	C.W.I.	C.W.I.	C.W.I.	-
AD	40	GLOSS BOSS 9" FOR IN BAY AUTOMATIC	MT2500	3/8"	4	-	<1	POLY	C.W.I.	C.W.I.	C.W.I.	-
-	I	DOSATRON CHEMICAL PANEL	-	-	-	-	-	-	-	-	-	-
T / V	I-a	PUMP	-	3/4" + 1/4"	2	4.3-85	.05-14	CU PIPE / POLY	C.W.I.	C.W.I.	PLUMBER	REQUIRES 3/4" CU PIPE AND 1/4" POLY TUBE FROM CHEMICAL BARREL
T	J	EVOLUTION SHINE RINSE PUMP	-	1"	1	30	30	LP HOSE	C.W.I.	C.W.I.	PLUMBER	-
N/A	K	R.O. CARBON TANK	-	TBD	TBD	TBD	TBD	CU PIPE / LP HOSE	C.W.I.	C.W.I.	PLUMBER	-
V	L	R.O. SYSTEM	E3-15000	1 1/2"	1	40	15	CU PIPE	C.W.I.	C.W.I.	PLUMBER	FOR ADDITIONAL PLUMBING REQUIREMENTS SEE R/O STORAGE TANKS AND PUMPS FOR DETAILS.
V / O / P	M	R.O. REPRESSURIZATION PUMP	PC3HP3	1"	2	150	27	CU PIPE / LP HOSE	C.W.I.	C.W.I.	PLUMBER	CONNECT THE SUPPLIED LP HOSE IN FROM THE R.O. TANK & REQUIRES A CU PIPE FOR SUPPLY BYPASS.
AP	M-b	DRAIN / OVERFLOW	-	1"	1	-	-	LP HOSE	C.W.I.	C.W.I.	PLUMBER	DRAIN RAN TO THE BACKROOM TRENCH FOR REGENERATION / OVERFLOW.
Q	N	R.O. REJECT REPRESS. PUMP - BY OTHERS	-	1 1/4"	1	40	50	LP HOSE	C.W.I.	C.W.I.	PLUMBER	-
L	O	R.O. STORAGE TANK	-	3/4"	1	-	-	LP HOSE	C.W.I.	C.W.I.	C.W.I.	-
AP	O-c	DRAIN / OVERFLOW	-	3/4"	1	-	-	LP HOSE	PLUMBER	PLUMBER	PLUMBER	DRAIN RAN TO THE BACKROOM TRENCH FOR REGENERATION / OVERFLOW.
L	P	R.O. STORAGE TANK	-	3/4"	1	-	-	LP HOSE	C.W.I.	C.W.I.	C.W.I.	-
AP	P-c	DRAIN / OVERFLOW	-	3/4"	1	-	-	LP HOSE	PLUMBER	PLUMBER	PLUMBER	DRAIN RAN TO THE BACKROOM TRENCH FOR REGENERATION / OVERFLOW.
L / V	Q	R.O. REJECT TANK	-	3/4" + 1"	3	-	-	CU PIPE / LP HOSE	C.W.I.	C.W.I.	PLUMBER	REQUIRES 3/4" LP HOSE FROM THE R.O. SYSTEM AND 1" CU PIPE FOR FILL.
AP	Q-c	DRAIN / OVERFLOW	-	1"	1	-	-	LP HOSE	PLUMBER	PLUMBER	PLUMBER	DRAIN RAN TO THE BACKROOM TRENCH FOR REGENERATION / OVERFLOW.
T	R	RECLAIM SYSTEM	PW350-5M120	SEE NOTE	5-7	40-80	120	CU PIPE	C.W.I.	C.W.I.	PLUMBER	UNDERGROUND TANKS REQUIRE SCHEDULE 80 PVC PIPES FOR: 2X 3" SUCTION LINES WITH CHECK VALVES, 1" RECIRCULATION LINE, & 1 1/2" UNDERFLOW LINE. 2" CU PIPE IN WITH 2" CHECK VALVE FOR CITY WATER BYPASS & 2" LINE FOR TREATED WATER OUTPUT. SEE AQUALINK IF APPLICABLE FOR ADDITIONAL REQUIREMENTS. OPTIONAL TRENCH FLUSH REQUIRES 2X 1 1/2" LINES RAN TO ENTRANCE & EXIT OF TRENCH.
U	T	BOOSTER PUMP	-	2"	1	40-80	TBD	CU PIPE	C.W.I.	C.W.I.	PLUMBER	-
N/A	U	WATER MAIN / BACKFLOW PREVENTER - BY OTHERS	-	2"	1	40-80	TBD	CU PIPE	PLUMBER	PLUMBER	PLUMBER	-
T	V	WATER SOFTENER - BY OTHERS	-	TBD	TBD	TBD	TBD	CU PIPE / LP HOSE	C.W.I.	C.W.I.	PLUMBER	REQUIRES A CU PIPE IN & OUT AND A LP HOSE CONNECTED STRAIGHT TO THE SEWER DRAIN.
AP	V-a	REGENERATION / OVERFLOW	-	2" + 1/2"	2	-	4.3	SCH 40 / LP HOSE	C.W.I.	C.W.I.	PLUMBER	DRAIN RAN TO THE BACKROOM TRENCH FOR REGENERATION / OVERFLOW.
N/A	W	ACCU-PUMP	-	TBD	4	N/A	TBD	POLY	C.W.I.	C.W.I.	PLUMBER	CONNECTED TO CHEMICAL BARREL
X-a	X	CAROLINA PRIDE SCC 10 PORT	-	1"	1	10-80	TBD	HP HOSE	C.W.I.	C.W.I.	PLUMBER	CONNECT THE SUPPLIED 1/2" HP HOSE FROM PUMP TO PANELS
V	X-b	SUPPLY	-	1"	1	40-80	20	CU PIPE	C.W.I.	C.W.I.	PLUMBER	-
Z-a	Z	CAROLINA PRIDE SCC 10 PORT	-	1"	1	10-80	TBD	HP HOSE	C.W.I.	C.W.I.	PLUMBER	CONNECT THE SUPPLIED 1/2" HP HOSE FROM PUMP TO PANELS
V	Z-b	SUPPLY	-	1"	1	40-80	20	CU PIPE	C.W.I.	C.W.I.	PLUMBER	-
N/A	AA	ACCU-PUMP	-	TBD	4	N/A	TBD	POLY	C.W.I.	C.W.I.	PLUMBER	CONNECTED TO CHEMICAL BARREL
-	AB	AIR COMPRESSORS	-	-	-	-	-	-	-	-	-	-
AP	AB-c	CONDENSATION RUNOFF	-	-	-	-	-	-	-	-	-	-
N/A	AD	ACCU-SHINE	-	TBD	4	N/A	TBD	POLY	C.W.I.	C.W.I.	C.W.I.	CONNECTED TO CHEMICAL BARREL

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NO	DRAWN BY	CHECKED BY	DATE	DESCRIPTION
0	IBT	IBT	05/05/23	FOR CONSTRUCTION



CONSULTANT

STAMP:

PROJECT NUMBER: 23-1014

FILENAME:

SCALE: AS NOTED

PLOT DATE: 05/05/23

DRAWN BY: IBT

DRAWINGS FOR:

Midwest Car Wash

20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:

Water Equipment Schedule

SHEET:

P-0.2

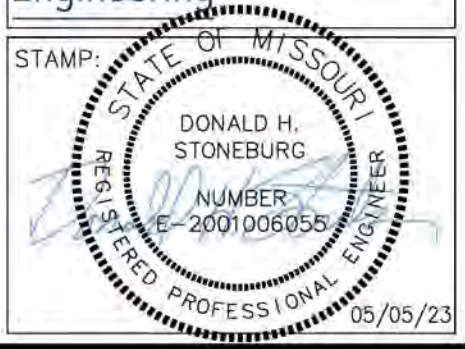
SOURCE	ITEM #	EQUIPMENT DESCRIPTION	MODEL	SIZE	QUANTITY	PLUMBING TYPE	COLOR	INITIAL PSI	EQUIPMENT SUPPLIED BY	EQUIPMENT ERECTED BY	TERMINATED & PLUMBED BY	AIR NOTES
AO	40	GLOSS BOSS 9' FOR IN BAY AUTOMATIC	MT2500	1/4"	3-4	POLY	BLACK	40-100	C.W.I.	C.W.I.	C.W.I.	-
AO	40-c	DS BRUSHES - EXTEND PRESSURE	-	1/4"	1	POLY	RED	4-7	C.W.I.	C.W.I.	C.W.I.	-
AO	40-d	PS BRUSHES - EXTEND PRESSURE	-	1/4"	1	POLY	RED	9-12	C.W.I.	C.W.I.	C.W.I.	-
AB	H	EVOLUTION SHINE AIR CONTROL PANEL	-	1/2"	1	CU PIPE	-	80-100	C.W.I.	C.W.I.	PLUMBER	-
AB	X	CAROLINA PRIDE SCC 10 PORT	-	1/2"	2	CU PIPE	-	80-100	C.W.I.	C.W.I.	PLUMBER	-
AB	Z	CAROLINA PRIDE SCC 10 PORT	-	1/2"	2	CU PIPE	-	80-100	C.W.I.	C.W.I.	PLUMBER	-
-	AB	AIR COMPRESSORS	-	-	-	-	-	-	-	-	-	-
N/A	AB-d	AIR OUTLET	-	3/4"	1	HP HOSE	-	175	C.W.I.	C.W.I.	PLUMBER	HP HOSE REQUIRED TO AIR DRYER OR BALL VALVE.
N/A	AB-e	AIR OUTLET	-	3/4"	1	HP HOSE	-	175	C.W.I.	C.W.I.	PLUMBER	HP HOSE REQUIRED TO AIR DRYER OR BALL VALVE.
AB	AC	AIR DRYER	-	3/4"	1	CU PIPE	-	150-200	C.W.I.	C.W.I.	PLUMBER	-
N/A	AE	FLIP NOZZLE AIR PANEL	-	3/8"	1	POLY	BLACK	50-100	C.W.I.	C.W.I.	C.W.I.	-
AB	AF	FLIP NOZZLE AIR PANEL	-	3/8"	1	CU PIPE	-	50-100	C.W.I.	C.W.I.	C.W.I.	-
AB	AG	POWERLOCK PANEL	-	3/8"	1	CU PIPE	-	50-100	C.W.I.	C.W.I.	PLUMBER	-
AB	AH	POWERLOCK PANEL	-	3/8"	1	CU PIPE	-	50-100	C.W.I.	C.W.I.	PLUMBER	-
AB	AN	HYDRAFUSE - DOUBLE PUMP - NON-FOAMING	-	1/2"	1	CU PIPE	-	20-25	C.W.I.	C.W.I.	PLUMBER	-
AB	AO	AIR DISTRIBUTION PANEL SECONDARY	-	1/2"	1	CU PIPE	-	80-100	C.W.I.	C.W.I.	PLUMBER	-
SOURCE	ITEM #	EQUIPMENT DESCRIPTION	MODEL	SIZE	QUANTITY	-	-	PLUMBING TYPE	-	CHASEWAY SUPPLIED BY	CHASEWAY RAN BY	AIR NOTES
AO	09	SIDE BLASTER - 9 NOZZLES WITH FOLLOWING FEATURE	SB-900-FF	4"	1	-	-	SCH 40	-	PLUMBER	PLUMBER	-
AO	09-a	EXTEND PRESSURE	-	2"	1	-	-	SCH 40	-	PLUMBER	PLUMBER	-
AO	09-b	RETRACT PRESSURE	-	2"	1	-	-	SCH 40	-	PLUMBER	PLUMBER	-
X / Z	11	BUMPER PRE-SOAK	BW100-P	2"	1	-	-	SCH 40	-	PLUMBER	PLUMBER	-
X / Z	13	CHEMICAL TIRE APPLICATOR - WHEEL RITE PRECISION	CTA	2"	1	-	-	SCH 40	-	PLUMBER	PLUMBER	-
X / Z	15	CHEMICAL TIRE APPLICATOR - WHEEL RITE PRECISION	CTA	2"	1	-	-	SCH 40	-	PLUMBER	PLUMBER	-

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NO. DRAWN BY	DATE	DESCRIPTION	FOR CONSTRUCTION
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1733 Campus Plaza Court,
Suite 10
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Phone: 270-798-3052
Fax: 270-842-3102

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CONSULTANT

STAMP:

DRAWINGS FOR:
Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:
Air Equipment
Schedule

PROJECT NUMBER:
23-1014

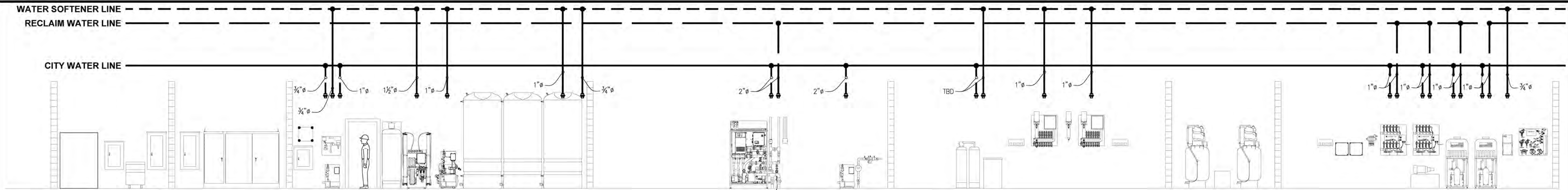
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PLOT DATE:
05/05/23

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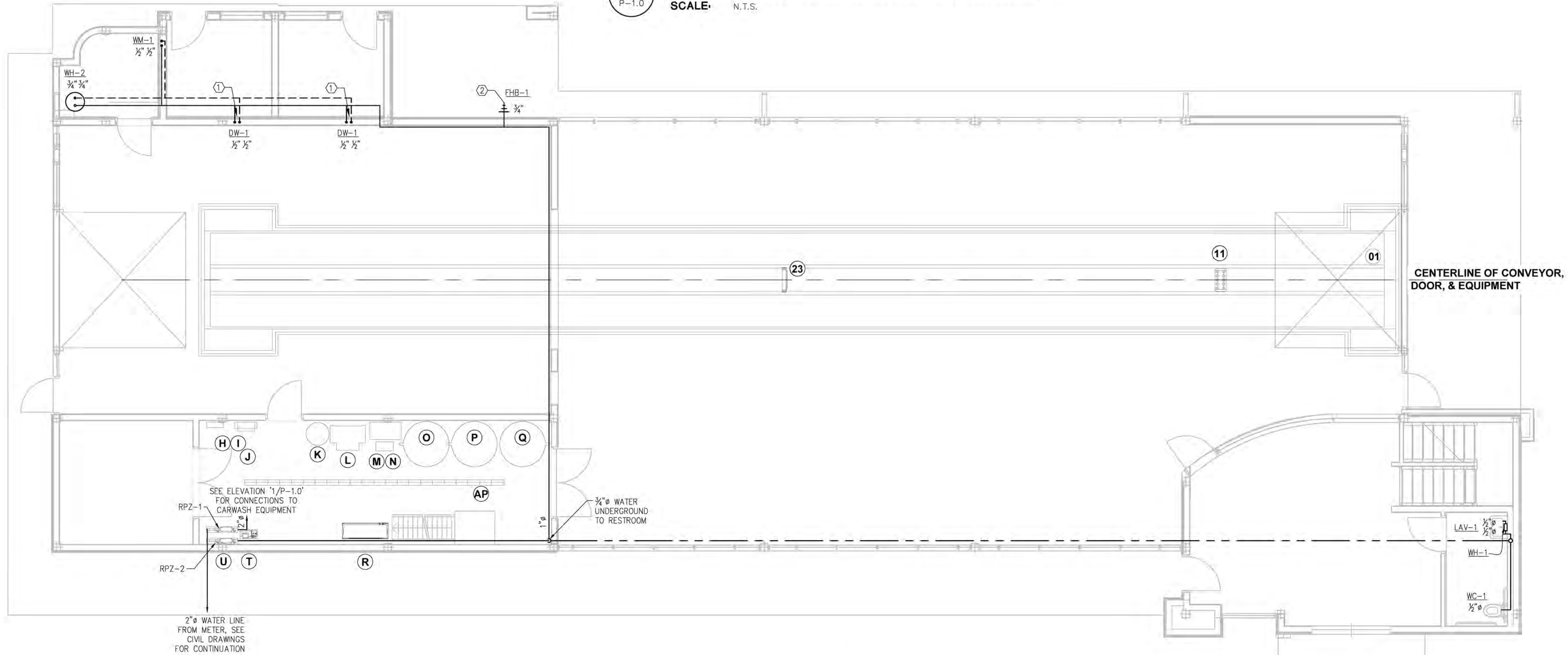
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P-0.5



REFER TO MANUFACTURER'S DRAWINGS
FOR PIPE STUB UPS AT RECLAIM SYSTEM.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO

1 WATER PLAN - EQUIPMENT ELEVATIONS
P-1.0 SCALE: N.T.S.



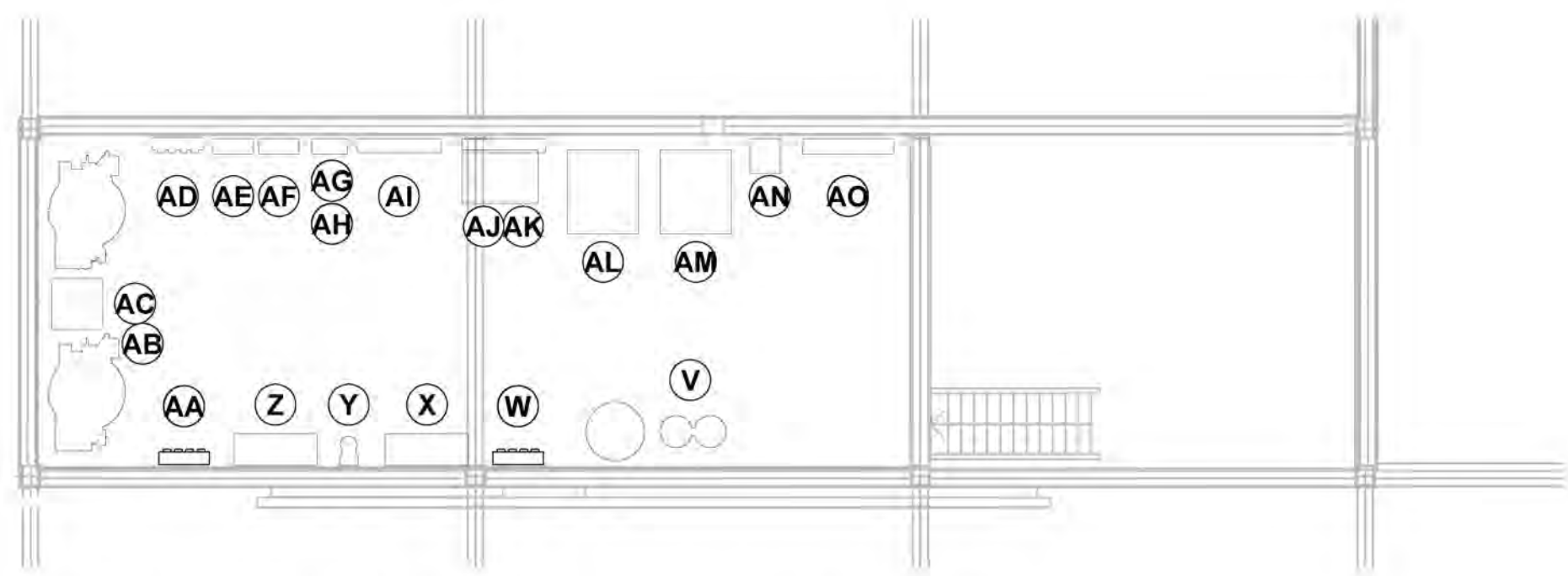
A WATER PLAN - FIRST FLOOR
P-1.0 SCALE: 3/16" = 1'-0"

WATER PLAN KEY NOTES:

1. PROVIDE 1/2" BALL VALVES FOR HOT/COLD WATER CONNECTIONS FOR DOG WASH STATION. COORDINATE DOG WASH SPECS/ORIENTATION WITH OWNER PRIOR TO ROUGH-IN. BALL VALVES SHALL BE LOCATED SUCH THAT THEY ARE CONCEALED WITHIN THE STATION.
2. PROVIDE WATER CONNECTION TO MAT WASHER. COORDINATE SPECS/LOCATION WITH OWNER PRIOR TO ROUGH-IN.

EQUIPMENT WATER PLAN GENERAL NOTES:

1. SHEET SHEET P-0.2 & P-0.3 FOR WATER EQUIPMENT SCHEDULE.
2. THE PLUMBER IS RESPONSIBLE FOR THE EQUIPMENT SUPPLY AND INSTALLATION OF THE FOLLOWING:
 - 2.1. WATER MAIN SHUTOFF AND BACKFLOW PREVENTER
 - 2.2. ALL THE HARD PLUMBING FOR THE MECHANICAL ROOM EQUIPMENT
 - 2.3. WASH BAY EQUIPMENT STUB UPS
3. IN ADDITION TO THE ABOVE, THE PLUMBING MUST PROVIDE ANY OTHER PLUMBING COMPONENTS THAT ARE REQUIRED TO FACILITATE THE EQUIPMENT PLUMBING CONNECTIONS, IN ORDER TO COMPLETE THE INSTALLATION TO THE ACCEPTABLE LOCAL AND STATE PLUMBING CODE REQUIREMENTS.



B WATER PLAN - EQUIPMENT PLATFORM
P-1.0 SCALE: 3/16" = 1'-0"

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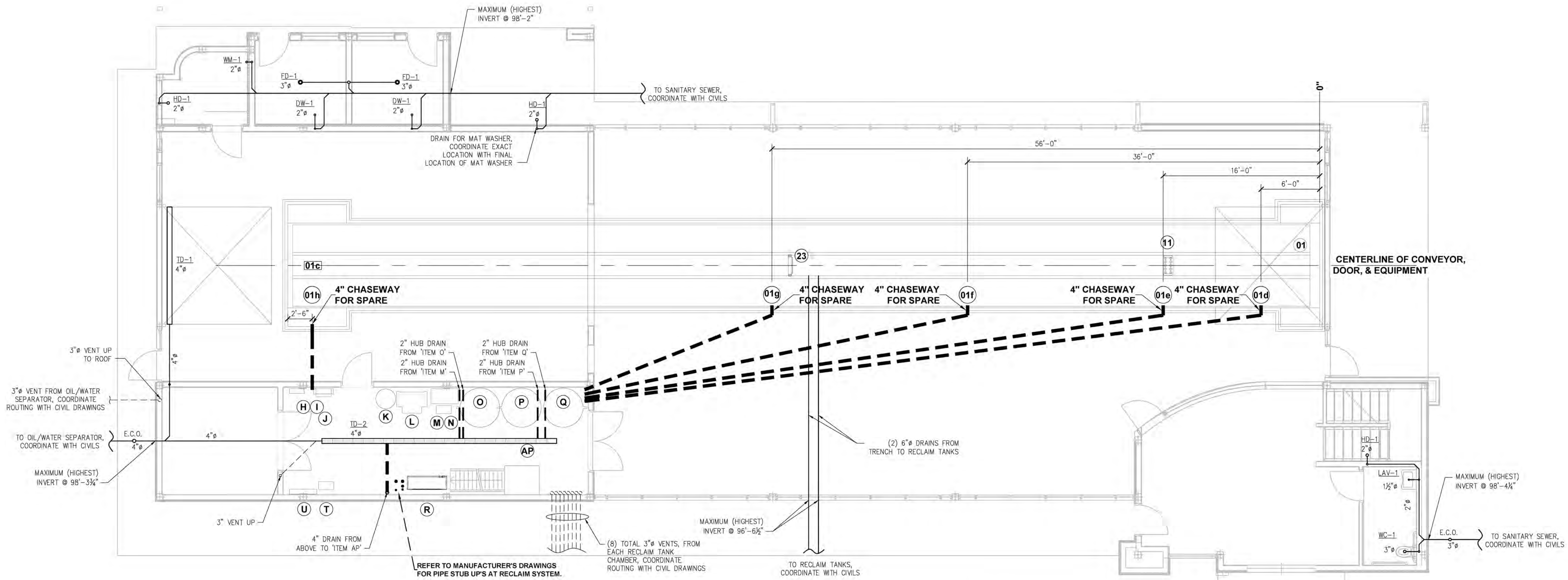
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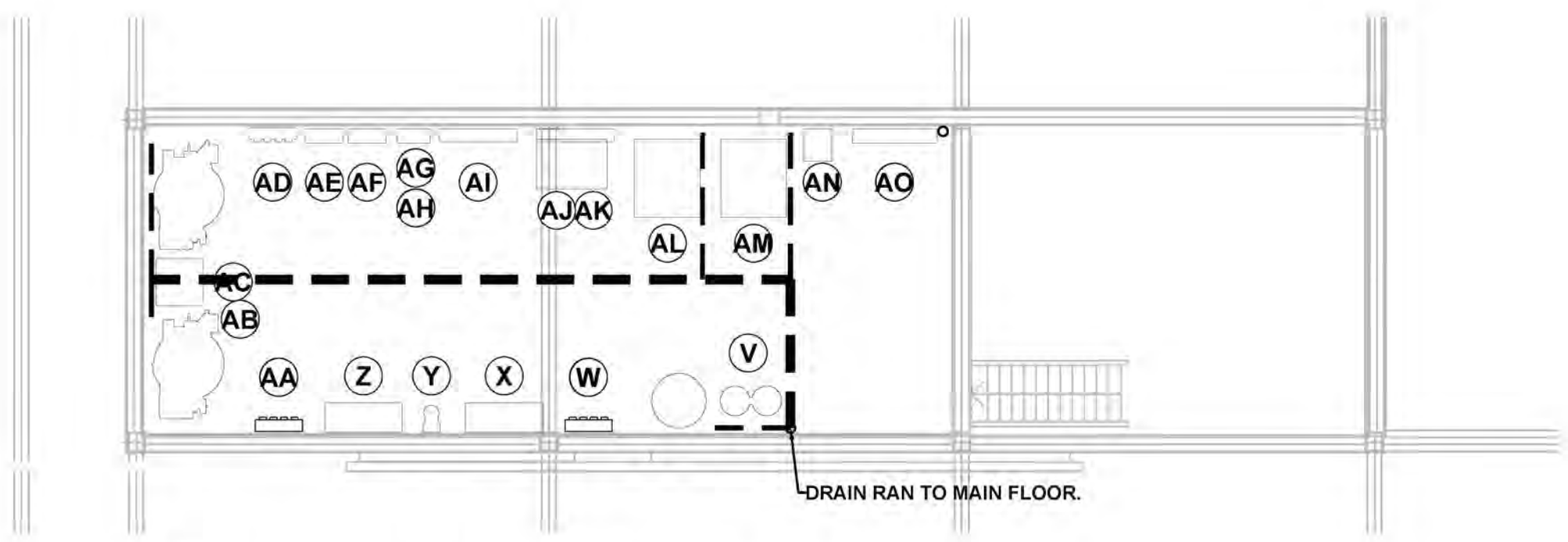
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FILENAME:
SCALE: AS NOTED
PLOT DATE: 05/05/23
DRAWN BY: IBT

SHEET TITLE:
Water Plan

SHEET:
P-1.0



A DWV AND CHASE PLAN - MAIN LEVEL
 P-1.1 SCALE: 3/16" = 1'-0"



B DWV PLAN - EQUIPMENT PLATFORM
 P-1.1 SCALE: 3/16" = 1'-0"

EQUIPMENT DWV AND CHASE GENERAL NOTES:

1. SHEET SHEET P-0.2 & P-0.3 FOR WATER EQUIPMENT SCHEDULE.
2. THE PLUMBER IS RESPONSIBLE FOR THE EQUIPMENT SUPPLY AND INSTALLATION OF THE FOLLOWING:
 - 2.1. WATER MAIN SHUTOFF AND BACKFLOW PREVENTER
 - 2.2. ALL THE HARD PLUMBING FOR THE MECHANICAL ROOM EQUIPMENT
 - 2.3. WASH BAY EQUIPMENT STUB UPS
3. IN ADDITION TO THE ABOVE, THE PLUMBING MUST PROVIDE ANY OTHER PLUMBING COMPONENTS THAT ARE REQUIRED TO FACILITATE THE EQUIPMENT PLUMBING CONNECTIONS, IN ORDER TO COMPLETE THE INSTALLATION TO THE ACCEPTABLE LOCAL AND STATE PLUMBING CODE REQUIREMENTS.

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SE Engineering
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 Fax: 270-842-3102

STATE OF MISSOURI
 DONALD H. STONEBURG
 NUMBER: 2001006055
 EXPIRATION DATE: 05/05/23

CONSULTANT

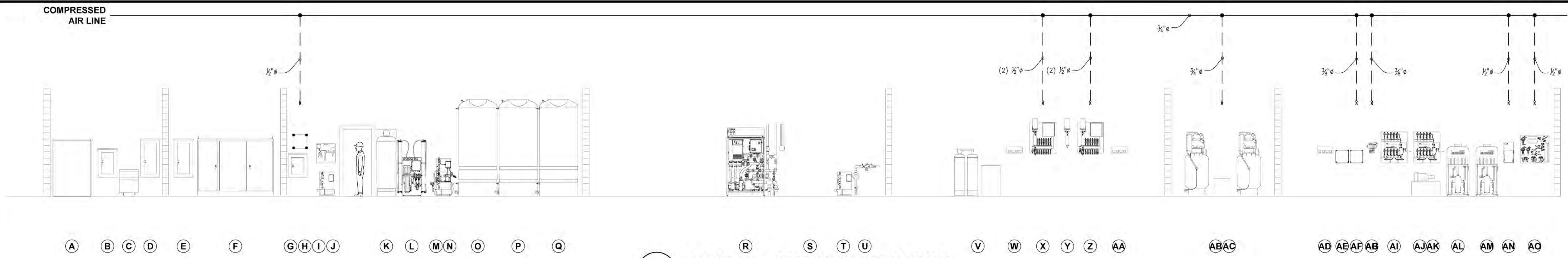
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PROJECT NUMBER: 23-1014
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 PLOT DATE: 05/05/23
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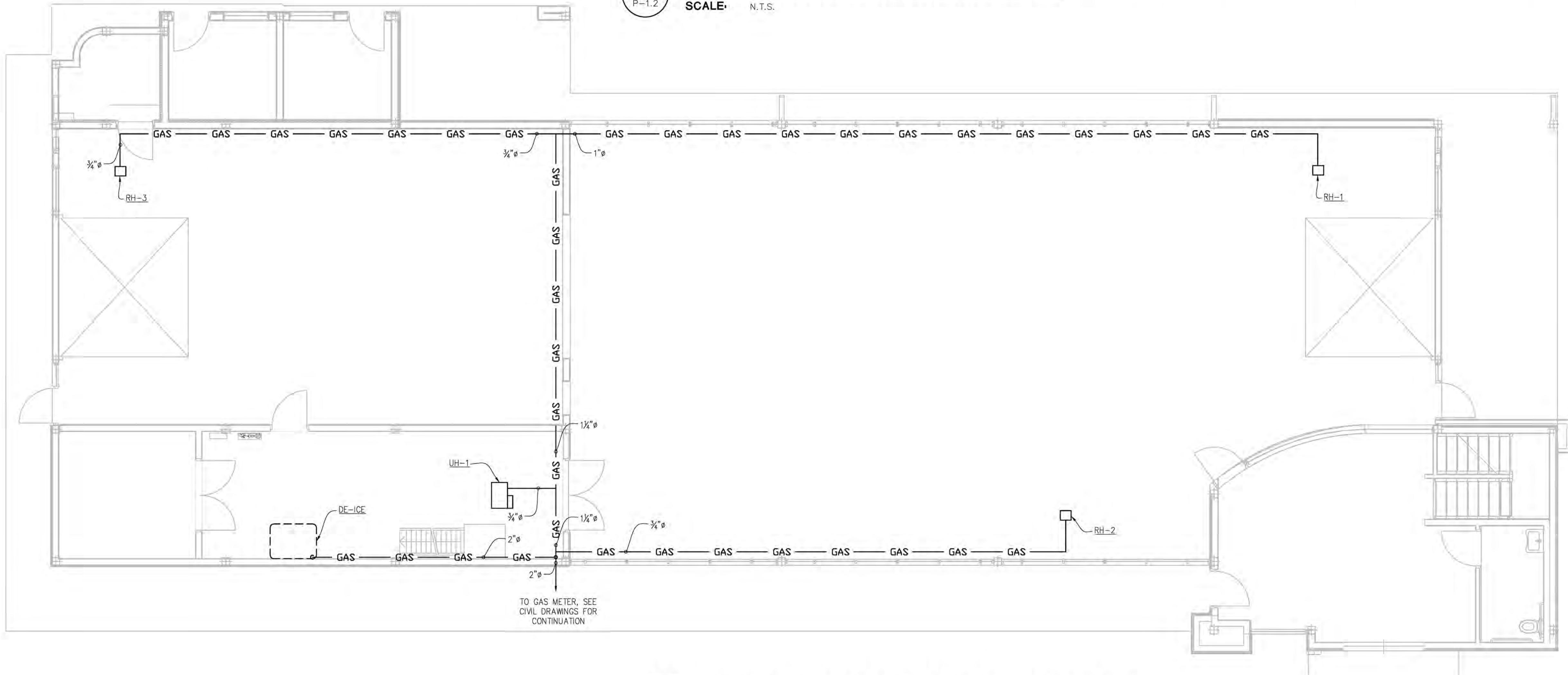
Midwest Car Wash
 20 SE Thompson Drive
 Lee's Summit, MO 64081

DWV & Chase Plan

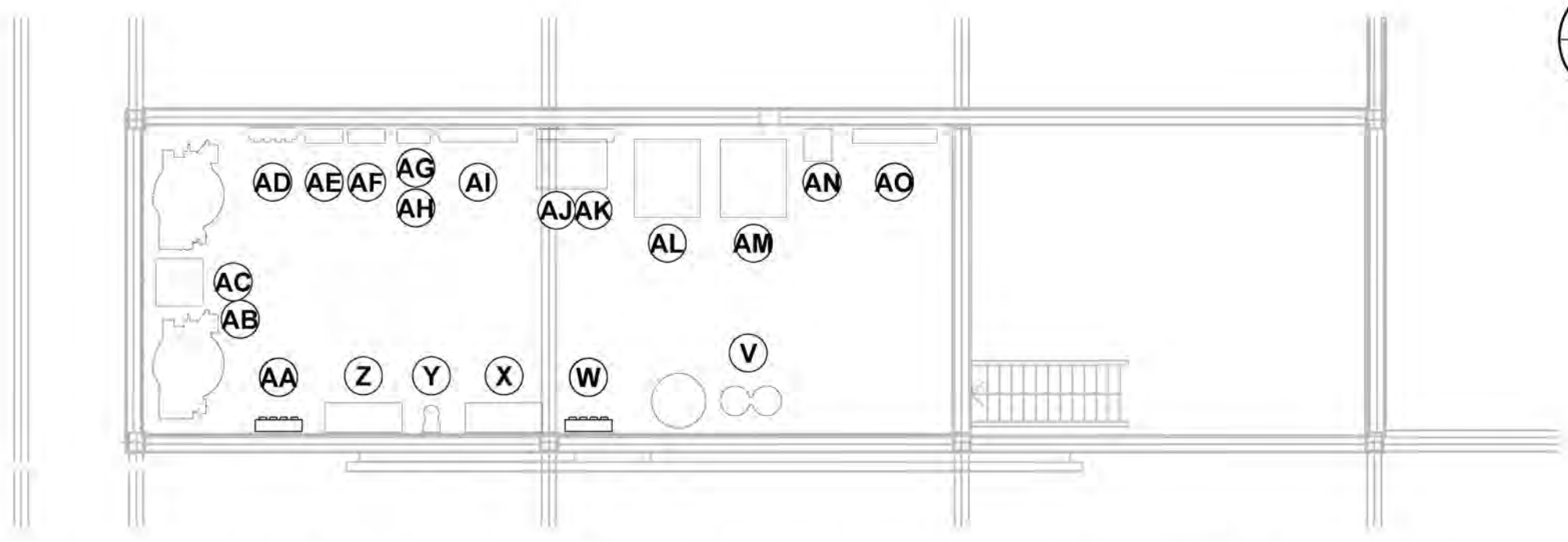
SHEET: **P-1.1**



1
P-1.2
AIR PLAN - EQUIPMENT ELEVATIONS
SCALE: N.T.S.



A
P-1.2
COMPRESSED AIR AND GAS PLAN - MAIN LEVEL
SCALE: 3/16" = 1'-0"



B
P-1.2
COMPRESSED AIR AND GAS PLAN - EQUIPMENT PLATFORM
SCALE: 3/16" = 1'-0"

- EQUIPMENT COMPRESSED AIR PLAN GENERAL NOTES:
- SHEET SHEET P-0.4 & P-0.5 FOR AIR EQUIPMENT SCHEDULE.
 - THE PLUMBER IS RESPONSIBLE FOR THE EQUIPMENT SUPPLY AND INSTALLATION OF THE FOLLOWING:
 - ALL THE HARD PLUMBING FOR THE MECHANICAL ROOM EQUIPMENT
 - ALL THE CONVEYOR TRENCH AND THE CORRELATOR PIT PENETRATIONS
 - WASH BAY EQUIPMENT STUB UPS
 - IN ADDITION TO THE ABOVE, THE PLUMBING MUST PROVIDE ANY OTHER PLUMBING COMPONENTS THAT ARE REQUIRED TO FACILITATE THE EQUIPMENT PLUMBING CONNECTIONS, IN ORDER TO COMPLETE THE INSTALLATION TO THE ACCEPTABLE LOCAL AND STATE PLUMBING CODE REQUIREMENTS.

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Fax: 270-842-3102

STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

CONSULTANT

STAMP:

DRAWINGS FOR:
Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE:
Compressed Air & Gas Plan

PROJECT NUMBER:
23-1014

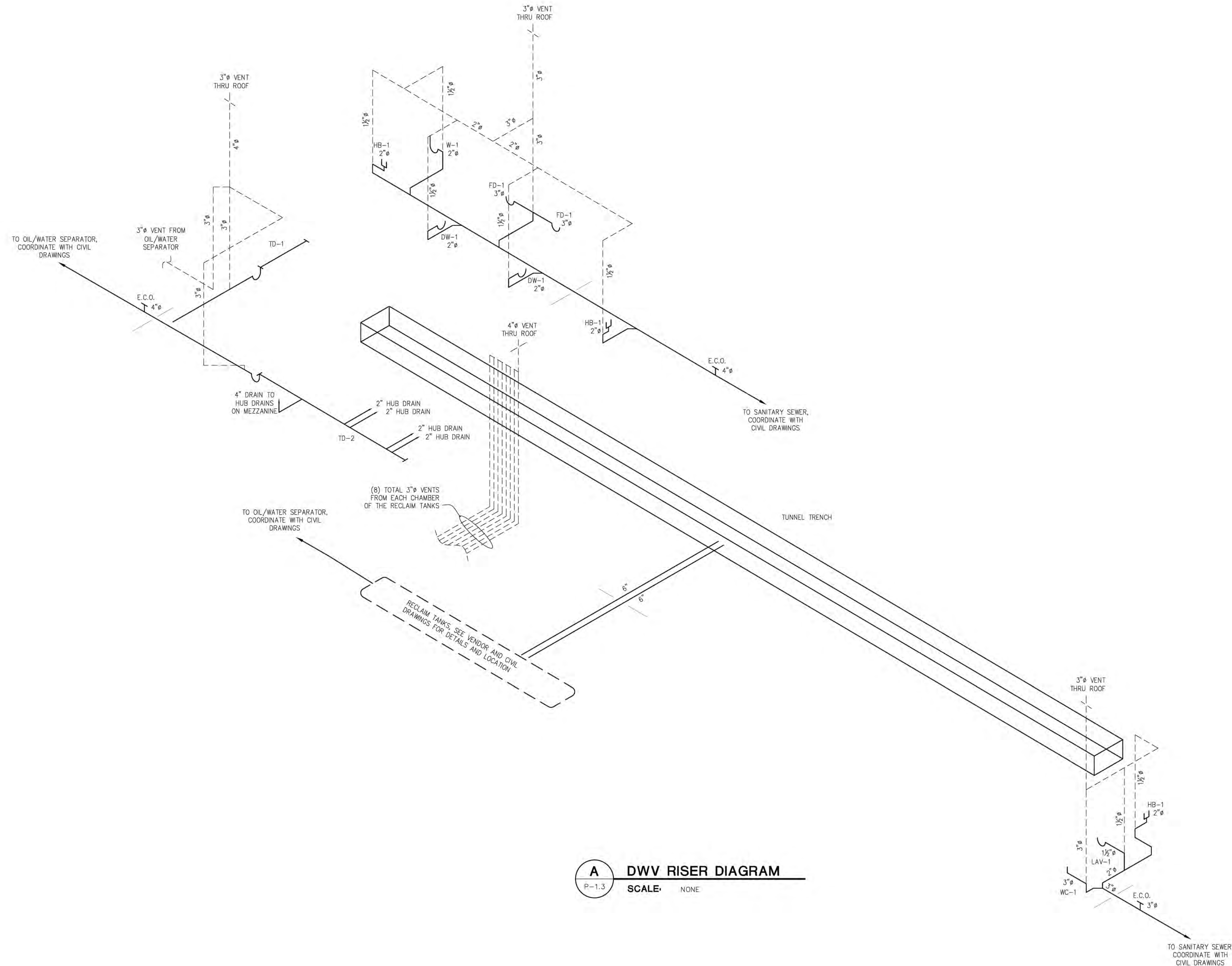
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SCALE:
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PLOT DATE:
05/05/23

DRAWN BY:
IBT

SHEET:
P-1.2



A DWV RISER DIAGRAM
P-1.3 SCALE: NONE

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STATE OF MISSOURI
DONALD H. STONEBURG
NUMBER: 2001006055
REGISTERED PROFESSIONAL ENGINEER
05/05/23

CONSULTANT

STAMP:

PROJECT NUMBER: 23-1014
FILENAME:

SCALE: AS NOTED
PLOT DATE: 05/05/23
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DRAWINGS FOR: Midwest Car Wash
20 SE Thompson Drive
Lee's Summit, MO 64081

SHEET TITLE: DWV Riser Diagram

SHEET: P-1.3