

# CITY OF KALAMAZOO SCALE PROJECT

## CITY OF KALAMAZOO Kalamazoo, Michigan CONSTRUCTION DOCUMENTS

### DESIGN TEAM

#### ARCHITECT/ENGINEER

**TowerPinkster**  
Architecture · Engineering · Interiors

242 E. KALAMAZOO AVE, SUITE 100  
KALAMAZOO, MICHIGAN 49007  
PHONE: 269.343.6133  
FAX: 269.343.6633

#### CIVIL CONSULTANT

**HS**  
hurley & stewart

2800 S. 11TH STREET  
KALAMAZOO, MI 49009  
PHONE: 269.552.4960

### REFERENCED CODES

BUILDING: 2015 MICHIGAN BUILDING CODE AND 2012 NFPA 101 LIFE SAFETY CODE  
ENERGY: 2015 MICHIGAN ENERGY CODE  
PLUMBING: 2018 MICHIGAN PLUMBING CODE  
MECHANICAL: 2015 MICHIGAN MECHANICAL CODE  
FUEL GAS: (IFGC) 2015 INTERNATIONAL FUEL GAS CODE  
ELECTRICAL: 2017 NATIONAL ELECTRICAL CODE WITH MICHIGAN AMENDMENTS  
BARRIER-FREE: 2015 MICHIGAN BUILDING CODE AND 2009 ICC & C A117.1  
USE GROUP: U  
CONSTRUCTION TYPE: IIIB  
AUTOMATIC SPRINKLERS: NO

#### PROJECT AREA

TOTAL FINISHED PROJECT: 3,459 SQ. FT.

### DRAWING INDEX

GENERAL  
G 001 COVER SHEET  
G 003 INTERIOR PARTITION TYPES & DEVICE ALIGNMENT GUIDELINES

CIVIL  
C 100 SITE LAYOUT PLAN

STRUCTURAL  
S 001 SPECIAL INSPECTION  
S 101 OVERALL FOUNDATION PLAN  
S 301 DETAILS

ARCHITECTURAL  
A 101 FIRST FLOOR PLAN, ROOF PLAN & INTERIOR FLOOR PLAN  
A 301 EXTERIOR ELEVATIONS & BUILDING SECTIONS  
A 321 WALL SECTIONS

ELECTRICAL SITE  
ES 101 ELECTRICAL SITE PLAN

ELECTRICAL  
E 101 FIRST FLOOR POWER PLAN

TECHNOLOGY  
T 101 FIRST FLOOR TECHNOLOGY PLAN  
T 401 TECHNOLOGY DETAILS

### SITE ADDRESS

CITY OF KALAMAZOO WATER RECLAMATION  
1415 HARRISON STREET  
KALAMAZOO, MICHIGAN 49007

**TowerPinkster**  
Architecture · Engineering · Interiors

ISSUED FOR DATE

PROJECT TITLE  
CITY OF KALAMAZOO SCALE

OWNER  
CITY OF KALAMAZOO

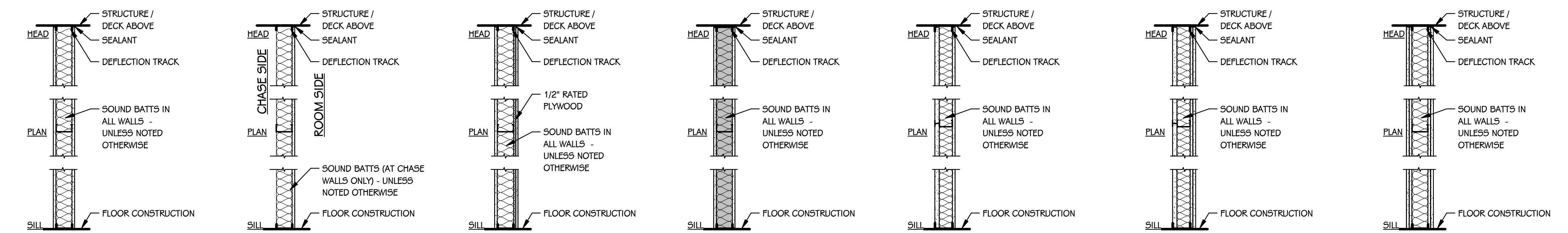
Kalamazoo, Michigan

DATE  
APRIL 14, 2023

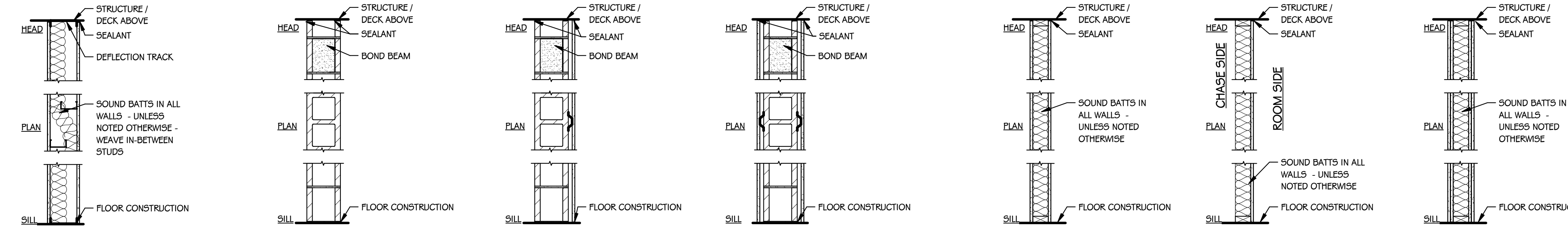
SHEET TITLE  
COVER SHEET

SHEET NUMBER  
G 001  
21-203.00

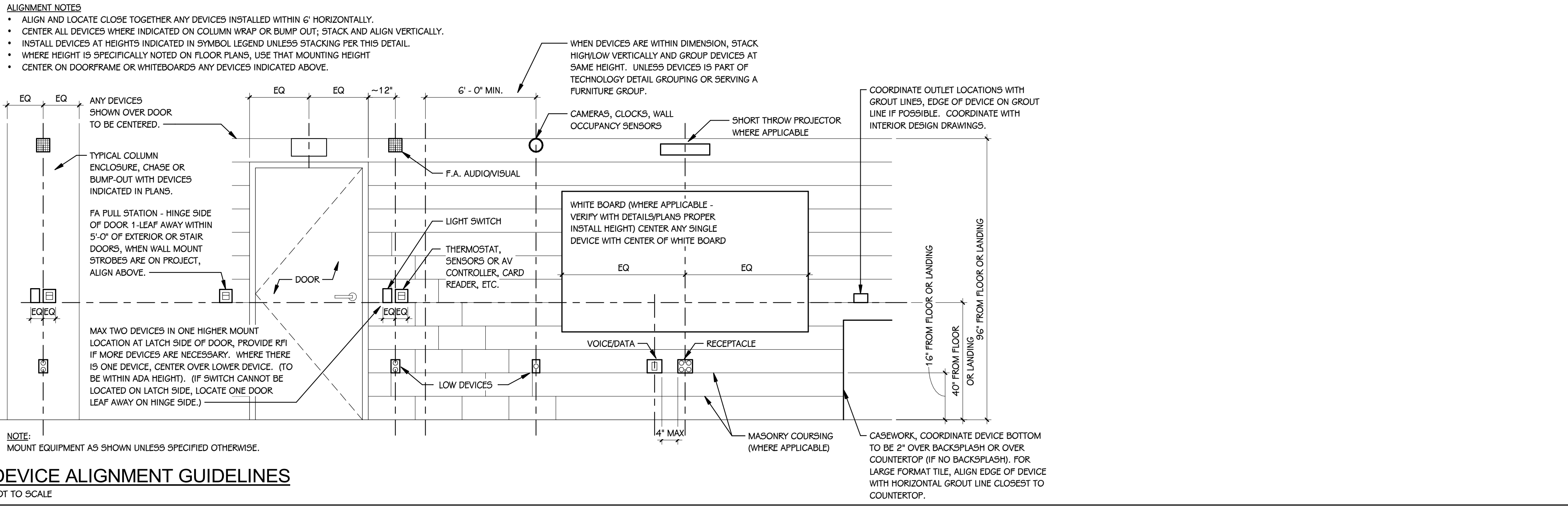
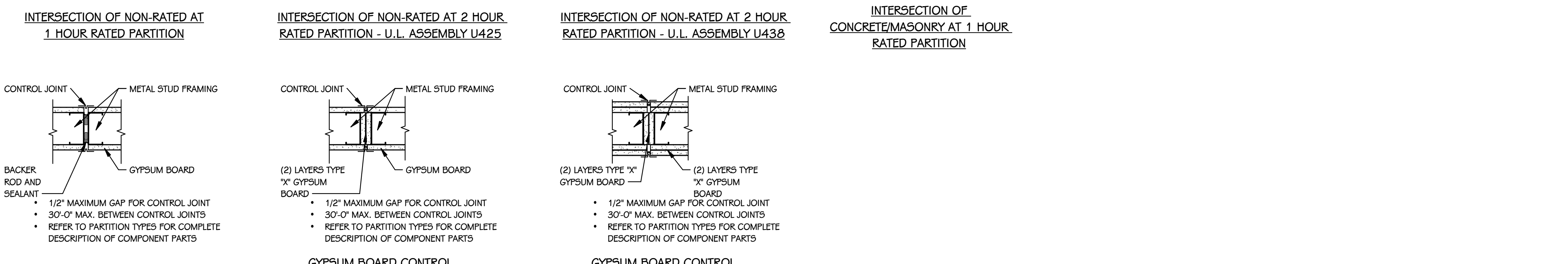
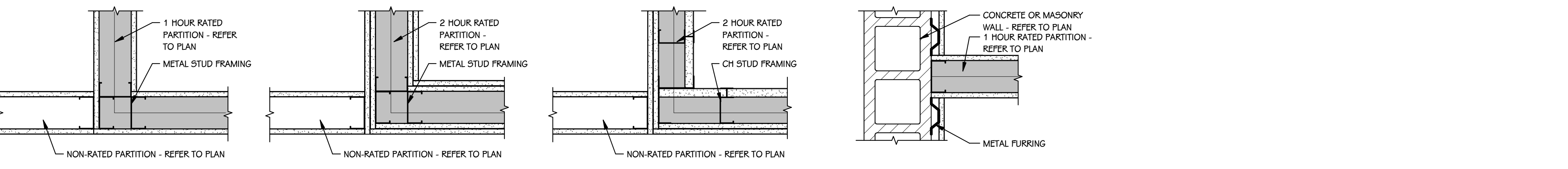
**TowerPinkster**  
Architecture · Engineering · Interiors  
© 2023 ALL RIGHTS RESERVED



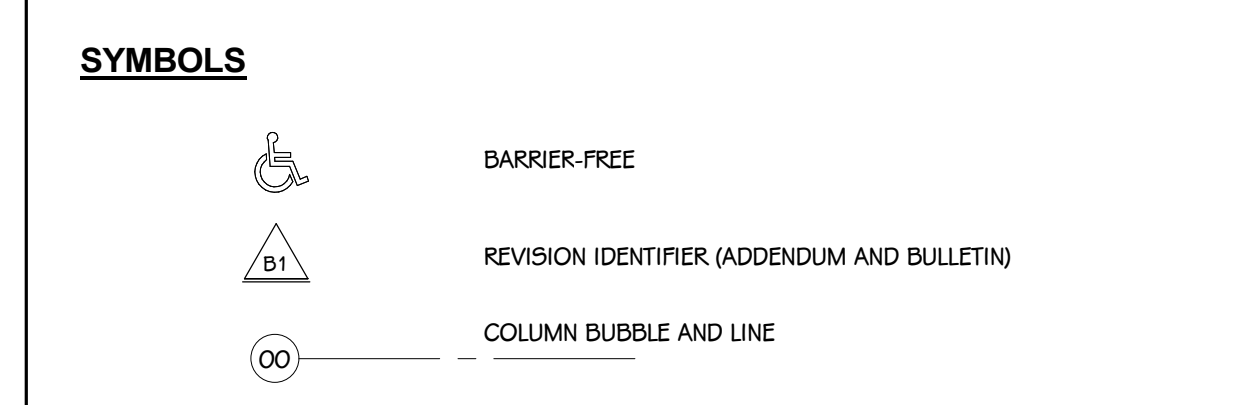
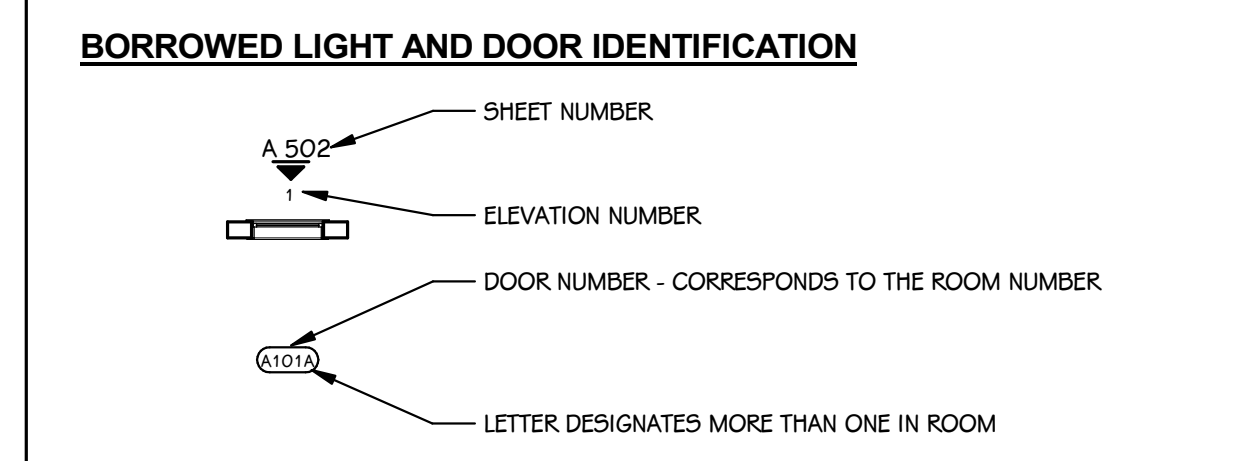
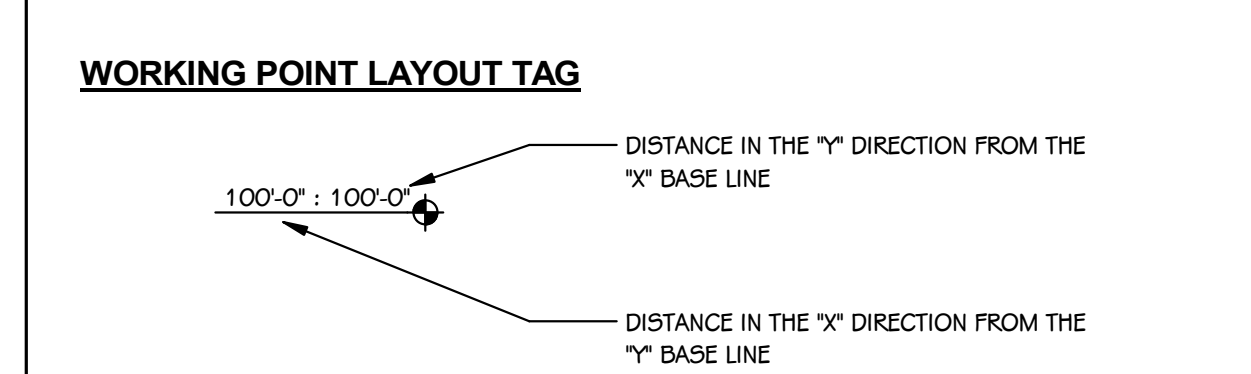
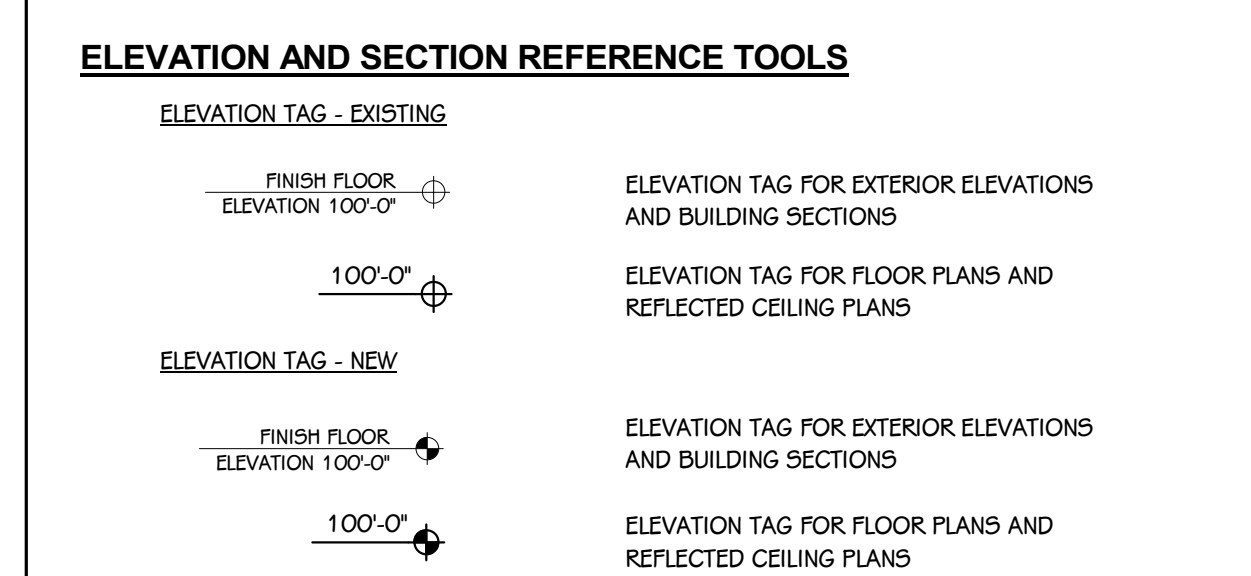
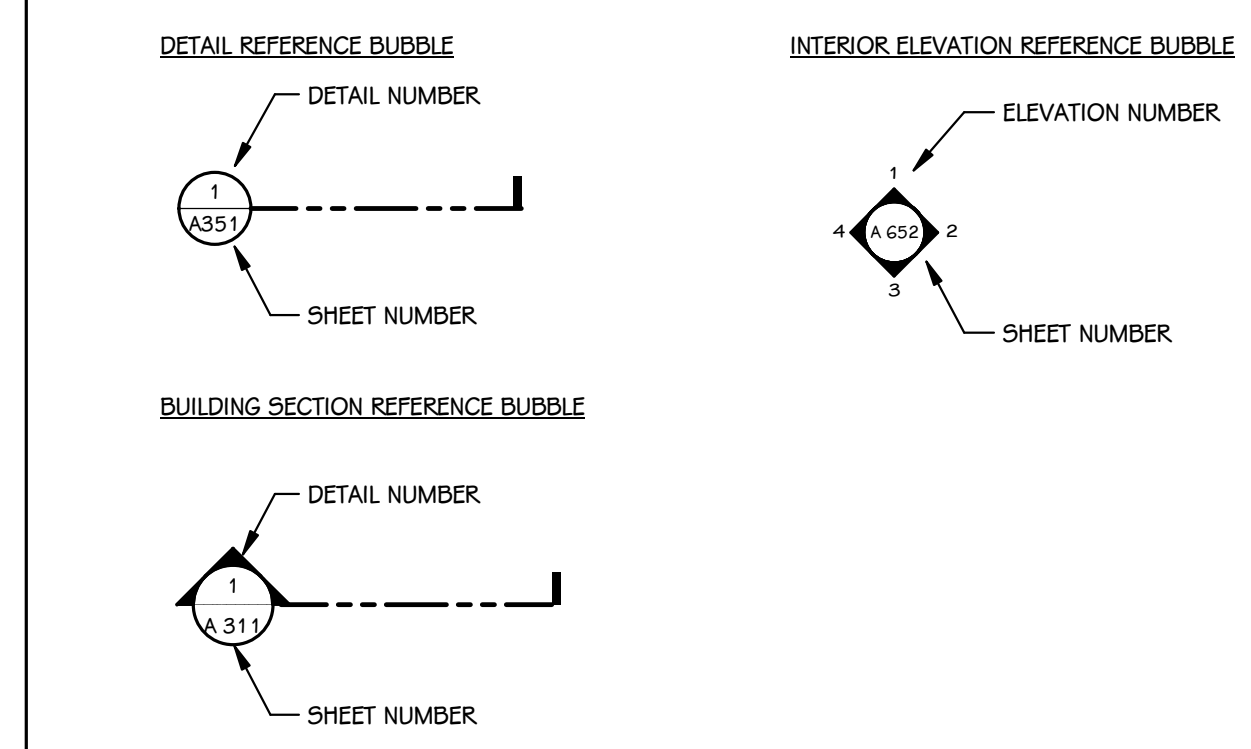
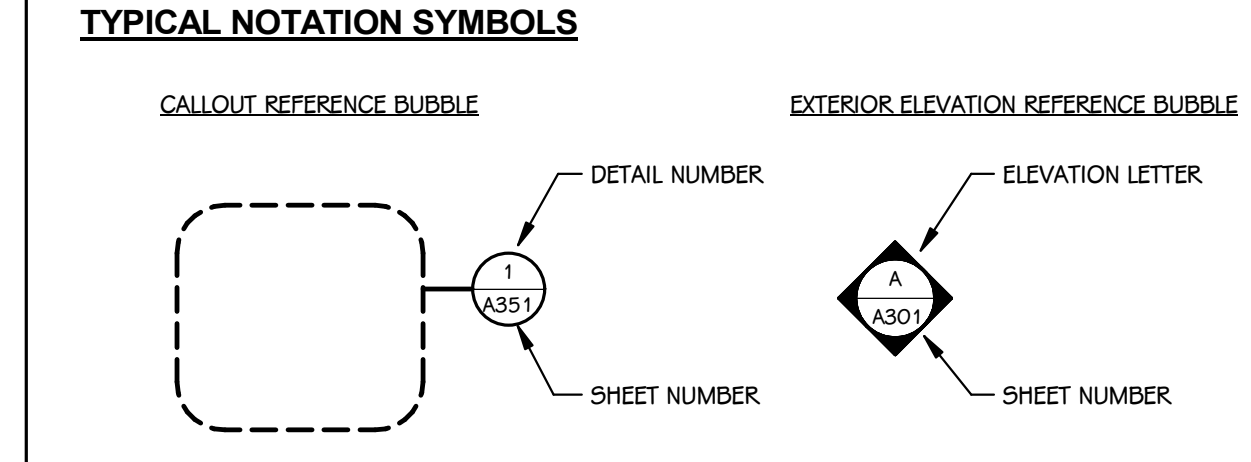
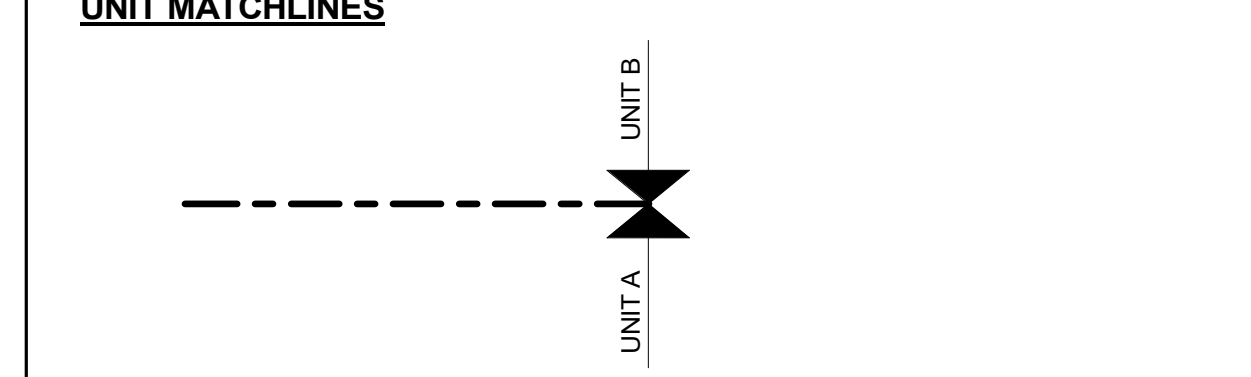
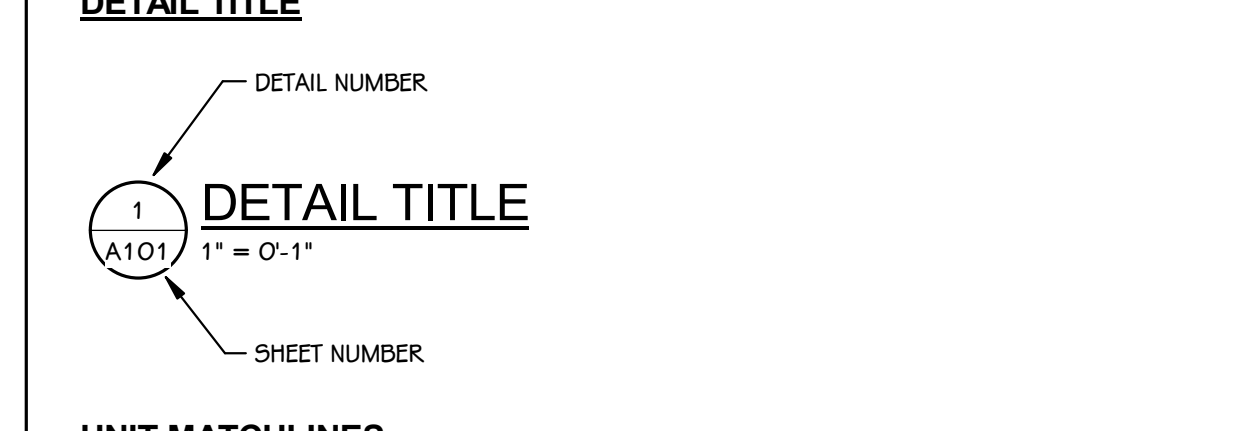
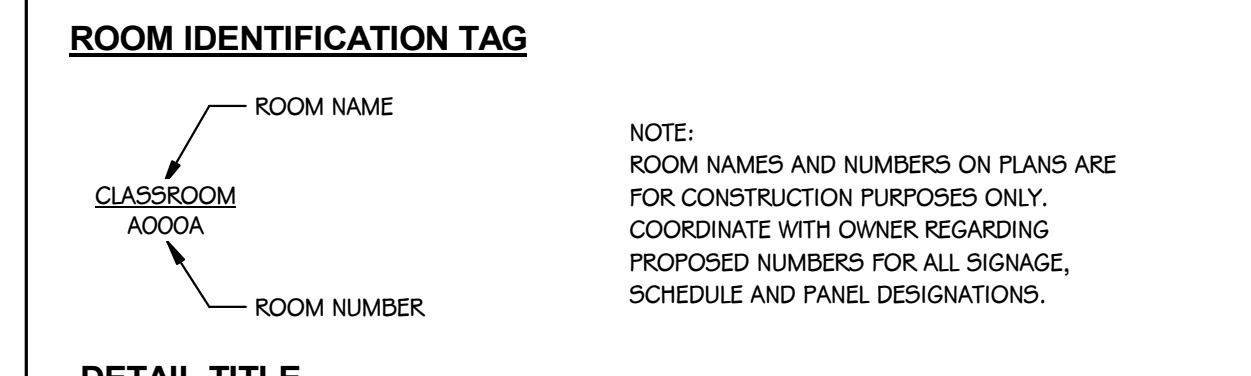
**METAL STUD WALL**      **METAL STUD CHASE WALL OR FURRING**      **METAL STUD WALL WITH PLYWOOD BACKING**      **STRUCTURAL METAL STUD WALL**      **METAL STUD CHASE WALL (1 HOUR FIRE) U.L. ASSEMBLY U415**      **METAL STUD CHASE WALL (2 HOUR FIRE) U.L. ASSEMBLY U438**      **METAL STUD WALL (2 HOUR FIRE) U.L. ASSEMBLY U425**



**METAL STUD SOUND WALL**      **CMU WALL U.L. ASSEMBLY - U905 (1 HOUR AND 2 HOUR)**      **CMU WALL WITH FURRING**      **CMU WALL WITH FURRING BOTH SIDES**      **WOOD STUD WALL**      **WOOD STUD CHASE WALL**      **WOOD STUD WALL (2 HOUR FIRE) U.L. ASSEMBLY U301**



**TYPICAL SYMBOLS & REFERENCES**



**GENERAL PARTITION NOTES**

- NOT ALL WALL TYPES MAY BE USED ON PROJECT.
- REFER TO CODE COMPLIANCE PLANS FOR LOCATIONS OF SMOKE AND FIRE-RATED PARTITIONS.
- ALL PARTITIONS EXTEND TO BOTTOM OF STRUCTURE, UNLESS NOTED OTHERWISE.
- LINE OF STRUCTURE/DECK AS SHOWN AT THE HEAD CONDITION OF EACH PARTITION TYPE IS DIAGRAMMATIC ONLY AND DOES NOT INDICATE EXACT CONSTRUCTION CONDITIONS. TERMINATE RATED PARTITIONS AT UNDERSIDE OF STRUCTURAL DECK TO MAINTAIN RATING. PROVIDE APPROPRIATE FRAMING AND GYPSUM BOARD TO OFFSET AROUND STRUCTURE OR OTHER OBSTRUCTIONS, SUCH AS PIPING OR DUCTWORK.
- PARTITIONS MAY TERMINATE AT STRUCTURAL MEMBERS WITH A RATING GREATER THAN OR EQUAL THE PARTITION, PROVIDED THAT RATING IS CONTINUOUS TO STRUCTURAL DECK ABOVE.
- NON-RATED PARTITIONS THAT EXTEND TO STRUCTURE SHALL TERMINATE AT UNDERSIDE OF STRUCTURAL DECK TO MAINTAIN A CONTINUOUS PLANE OF GYPSUM BOARD AS A NOISE, SMOKE OR OTHER TYPE OF BARRIER.
- ALL PARTITIONS EXTENDING TO STRUCTURE ABOVE SHALL TERMINATE WITH DEFLECTION TRACK - SEE TYPICAL DETAILS ON THIS SHEET.
- ALL GYPSUM BOARD PARTITIONS NOT EXTENDING TO THE STRUCTURE MUST BE BRACED.
- UL DESIGN NUMBERS REFER TO THE FIRE RESISTANCE DIRECTORY; UNDERWRITERS LABORATORY, LATEST EDITION.
- MISCELLANEOUS FURRING AROUND COLUMNS TO BE 5/8" GYPSUM BOARD ON 1 1/2" STUDS, UNLESS NOTED OTHERWISE.
- FIRE-RATED PARTITIONS TO HAVE FIRE-STOPPING SEALANTS AT HEAD, SILL, JUNCTURE WITH DISSIMILAR MATERIALS, ETC. AND AROUND ALL PENETRATIONS AND OPENINGS.
- CONSTRUCT ALL PARTITIONS WITH SOUND ATTENUATION BATTS WITH THE FOLLOWING SOUND BATT THICKNESS: 2 1/2" OR LESS METAL STUD - 1 1/2" THICKNESS, 3 5/8" OR LARGER METAL STUD - 3" THICKNESS. UNLESS NOTED OTHERWISE.

**METAL STUD/FURRING, CH STUD AND WOOD STUD KEY**

METAL STUD/FURRING	
DESIGNATION	SIZE
A	GYPSUM BOARD DIRECT APPLIED TO CMU
B	7/8"
C	1 1/2"
D	1 5/8"
E	2 1/2"
F	3 1/2"
G	3 5/8"
H	4"
J	5 1/2"
K	6"
L	8"
M	10"
N	12"
P	(OPEN)
Q	(OPEN)

CH STUD	
DESIGNATION	SIZE
R	2 1/2"
S	4"
T	6"

WOOD STUD	
DESIGNATION	SIZE
U	2x4"
V	2x6"
W	2x8"

**PARTITION TYPE TAG (REFER TO FLOOR PLANS)**

PARTITION TYPE NUMBER

METAL STUD, FURRING OR CH STUD FRAMING LETTER

FIRE-RATING, IF REQUIRED

**GENERAL NOTES - ARCHITECTURAL**

- THE OWNER RESERVES THE RIGHT TO REMOVE ANY ITEM FROM THE PROJECT PRIOR TO COMMENCEMENT OF CONTRACTED DEMOLITION WORK.
- ALL EXISTING CONDITIONS SHOULD BE FIELD VERIFIED BEFORE WORK BEGINS.
- DIMENSIONS GIVEN ARE ACTUAL AND ARE TO THE FACE OF MASONRY UNITS OR TO THE FACE OF STUD FRAMING, UNLESS NOTED OTHERWISE.
- DETAILS SHOWN ILLUSTRATE DESIGN INTENT, NOT ALL POSSIBLE CONDITIONS. FOR CONDITIONS NOT SHOWN, USE DETAILS CLOSEST TO CONDITION IN QUESTION.
- EXTEND ALL INTERIOR WALL PARTITIONS FROM FLOOR TO STRUCTURE/DECK ABOVE UNLESS NOTED OR DETAILED OTHERWISE.
- WITHIN BUILDING INTERIOR PROVIDE BULLNOSE BLOCK IN CMU WALL ASSEMBLIES AT ALL EXPOSED OUTSIDE CORNERS, INCLUDING WINDOW AND DOOR JAMBS, UNLESS NOTED OR DETAILED OTHERWISE. PROVIDE SQUARE OUTSIDE CORNERS AT ALL LOCATIONS FINISHED WITH WALL TILE, REFER TO FINISH PLANS (A600 SHEETS) FOR LOCATIONS.
- TOOTH-IN MASONRY AT NEW OPENINGS IN EXISTING WALLS.
- TOOTH-IN NEW MASONRY INFILL INTO EXISTING OPENINGS AT ALL BULLNOSE BLOCK LOCATIONS.
- STUD WALLS SPANNING OVER 12'-0" IN HEIGHT SHALL BE A MINIMUM OF 20 GAGE.
- STUD WALL SUPPORTING WALL CABINETS SHALL BE A MINIMUM OF 20 GAGE.
- DOORS ARE TO BE 4" FROM CORNER OF ROOM, UNLESS NOTED OR DIMENSIONED OTHERWISE.
- FIRESTOP ALL INTERCONNECTIONS BETWEEN VERTICAL AND HORIZONTAL SPACES AND CONCEALED WALL SPACES AT CEILING, FLOOR AND ROOF LEVELS.
- FIRESEAL ALL PENETRATIONS, SUCH AS, PIPES, DUCTS, CONDUITS, ETC. THROUGH FIRE AND/OR SMOKE RATED ASSEMBLIES.
- FOR CONTROL JOINT (C.J.) LOCATIONS REFER TO EXTERIOR ELEVATIONS AND/OR FLOOR PLANS.
- PAINT ALL ELECTRICAL PANEL COVERS AND ACCESS PANELS TO MATCH ADJACENT FINISHES. USING OIL-BASED PAINT, NOT LATEX WALL PAINT.
- PROVIDE WOOD BLOCKING IN WALLS THAT REQUIRE WALL MOUNTED EQUIPMENT OR ACCESSORIES. COORDINATE WITH EQUIPMENT OR ACCESSORY MANUFACTURER.
- PROVIDE ALL ASSOCIATED CURBS FOR ROOF TOP EQUIPMENT AND MECHANICAL ROOF TOP UNITS. LARGE VOIDS BELOW THE AIR HANDLING UNITS SHALL BE FILLED WITH INSULATION AS SPECIFIED FOR NOISE CONTROL.
- ALL EXISTING ROOF TOP PENETRATIONS BEING REMOVED REQUIRE ROOF PATCHING TO MATCH EXISTING ADJACENT.



**GENERAL NOTES**

- CONTRACTOR SHALL SALVAGE AND RESPREAD EXISTING TOPSOIL, PROVIDE CLASS A SEEDING - 200#/ACRE, CHEMICAL FERTILIZER NUTRIENT - 240#/ACRE, MULCH - 27/ACRE TO ALL DISTURBED AREAS NOT PAVED TO BE INCLUDED IN SITE IMPROVEMENTS. CONTRACTOR TO HAND RAKE TOPSOIL IN ALL LAWN AREAS & REMOVE STONES LARGER THAN 1/2" BEFORE SEEDING. ALL SLOPES 1:3 OR STEEPER SHALL BE PROTECTED WITH MULCH BLANKETS.
- EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AND THE CITY OF KALAMAZOO REQUIREMENTS AND SPECIFICATIONS.
- ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT THE TIME OF CONSTRUCTION.
- ANY BITUMINOUS OR CONCRETE PAVEMENT, SANITARY SEWER, SANITARY SEWER SERVICE LEADS, OR STORM SEWER, WHICH IS DAMAGED BY THE CONTRACTOR DURING HIS OPERATIONS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- SITE CONTRACTOR SHALL REMOVE AND STOCKPILE ALL TOPSOIL AND BLACK ORGANIC SOILS ON-SITE TO BE USED IN THE RE-GRADING OF LANDSCAPE AREAS. THIS MATERIAL IS NOT TO BE USED FOR FILL OR PAVEMENT SUBBASE. REMOVAL OF ANY EXCESS SOIL OFF-SITE TO CITY OF KALAMAZOO NAZARETH SITE, ADDRESS 311 NAZARETH ROAD, SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ALL EXISTING TREES, STUMPS AND BRUSH FROM THE SITE AS NECESSARY TO THE CITY OF KALAMAZOO NAZARETH SITE, ADDRESS 311 NAZARETH ROAD, TO CONSTRUCT IMPROVEMENTS.
- ALL GRANULAR FILL UNDER THE INFLUENCE OF THE ROADWAY AND PROCESSED ROAD GRAVEL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.

**REMOVAL NOTES**

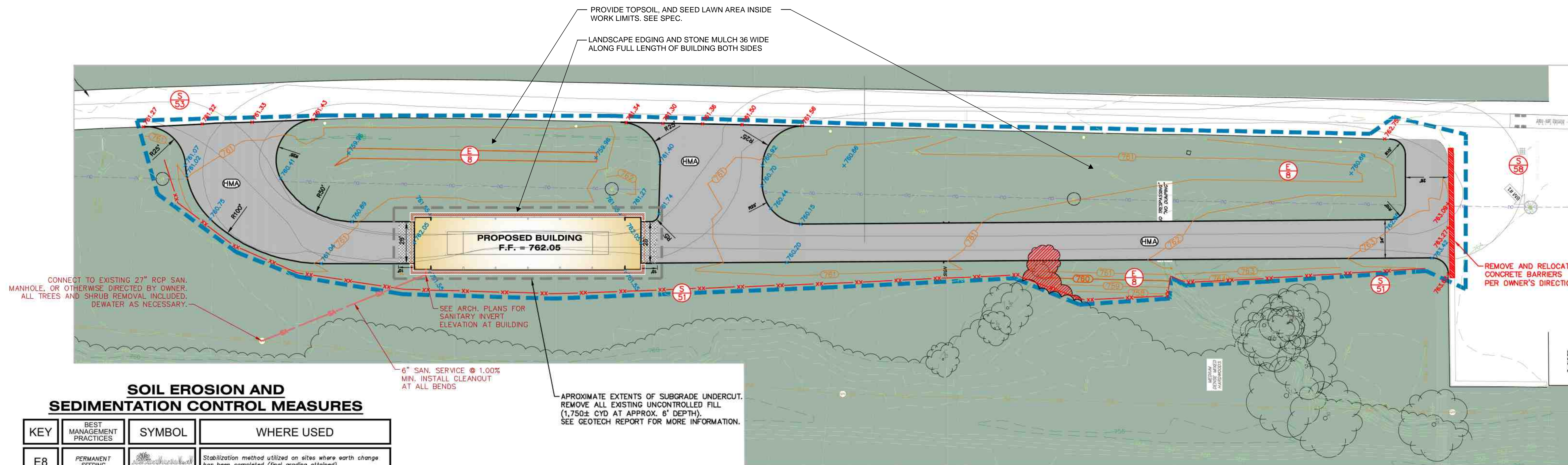
- ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED OF AT THE CITY OF KALAMAZOO NAZARETH SITE, ADDRESS 311 NAZARETH ROAD. NO STOCKPILE OR BURNING OF DEBRIS IS ALLOWED.
- COMPLY WITH ALL ASPECTS OF THE SOIL EROSION CONTROL PERMIT AS ISSUED BY CITY OF KALAMAZOO. ALL TEMPORARY CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION.
- ALL REMOVALS SHALL BE TO THE LIMITS INDICATED ABOVE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
- REMOVE, STORE, AND RESET ANY EXISTING SIGNS AS DIRECTED BY THE ENGINEER/OWNER.
- REVIEW CLEARING LIMITS WITH OWNER PRIOR TO COMMENCING WORK. PRESERVE TREES WHERE INDICATED.
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

**GRADING NOTES**

- MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN. MATCH AT 1 ON 4 IF NOT LABELED.
- ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE NOTED.
- ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO MASS GRADING.
- ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
- REMOVE AND REPLACE WITH CONTROLLED FILL ANY AREAS THAT HAVE BEEN SOFTENED BY RAINS, FREEZING, CONSTRUCTION EQUIPMENT, ETC.
- ALL GRANULAR FILL UNDER THE INFLUENCE OF THE PAVEMENT AND BUILDING GRAVEL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- ALL COMPACTION SHALL BE ACCOMPLISHED BY PLACING THE FILL IN 12" LOOSE LIFTS AND MECHANICALLY COMPACTING EACH LIFT TO AT LEAST THE SPECIFIED MINIMUM DRY DENSITY. FIELD DENSITY TESTS SHOULD BE PERFORMED ON EACH LIFT AS NECESSARY TO ENSURE THAT ADEQUATE MOISTURE CONDITIONS AND COMPACTION ARE BEING ACHIEVED.
- CONTRACTOR RESPONSIBLE FOR VERIFYING EARTHWORK CALCULATIONS PRIOR TO COMMENCING WORK. NO EXTRA EARTHWORK WILL BE PAID FOR ONCE EARTHWORK HAS BEGUN. ANY DISCREPANCIES WITH THE EARTHWORK CALCULATIONS SHALL BE REVIEWED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

**SITE LEGEND**

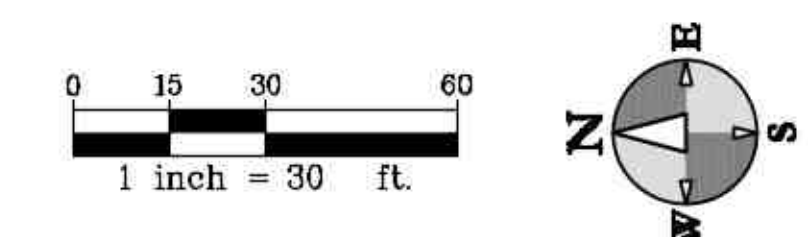
- HMA PAVEMENT
- TREE REMOVAL
- PROPOSED BUILDING
- HEAVY DUTY HMA PAVEMENT
- LIMITS OF CONSTRUCTION
- HEAVY-DUTY CONCRETE PAVEMENT
- PROPOSED CONTOUR 5-FT
- PROPOSED CONTOUR NORMAL
- EXISTING CONTOUR 5-FT
- EXISTING CONTOUR NORMAL
- PROPOSED SPOT GRADE
- EXISTING SPOT GRADE
- PROPOSED SILT FENCE
- BENCH MARK
- SOIL EROSION MEASURE
- SEDIMENT CONTROL MEASURE



**SOIL EROSION AND SEDIMENTATION CONTROL MEASURES**

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.

**SEE SME "GEOTECHNICAL EVALUATION REPORT - REVISED", DATED JANUARY 6, 2023 (PROJECT # 089338.00) FOR PAVEMENT CROSS SECTIONS AND SITE PREPARATION REQUIREMENTS.**



ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

ISSUED FOR DATE

PROJECT TITLE  
CITY OF KALAMAZOO SCALE

OWNER  
CITY OF KALAMAZOO

Kalamazoo, Michigan

SHEET TITLE  
SITE LAYOUT/GRADING/UTILITY PLAN

DATE  
APRIL 14, 2023

SHEET NUMBER  
C-100  
21-203-00



**TABLE 1**

SYSTEM OR MANUAL	REQUIRED GEOTECHNICAL SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	INSPECTION		
			CONTINUOUS	PERIODIC	
SOILS					
GEOTECHNICAL INVESTIGATIONS	1803				GEOTECHNICAL INVESTIGATION SHALL INCLUDE ITEMS OF SPECIAL INSPECTION AND TESTING AS NOTED IN TABLE 4 OF THE GUIDELINES
VERIFY FOOTING BEARING CAPACITY AND SUBGRADE PREPARATION FOR FILLS				X	BY THE GEOTECHNICAL ENGINEER
FILL MATERIAL VERIFICATION	TABLE 1705.6		X		
FILL PLACEMENT & COMPACTION			X		
LIFT THICKNESS			X		
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	TABLE 1705.6			X	BY THE GEOTECHNICAL ENGINEER
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	TABLE 1705.6			X	
PERFORM CLASSIFICATION OF COMPACTED FILL MATERIALS	TABLE 1705.6 1803.5.1			X	
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	TABLE 1705.6		X		BY THE GEOTECHNICAL ENGINEER
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	TABLE 1705.6			X	

**TABLE 2**

SYSTEM OR MANUAL	REQUIRED TESTING SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	TESTING		
			CONTINUOUS	PERIODIC	
GEOTECHNICAL					
GEOTECHNICAL ENGINEER TO PERFORM TESTING OF COMPACTED FILL MATERIALS	1803				TESTING PER GEOTECHNICAL REPORT
FILL IN PLACE DENSITY OR PREPARED SUBGRADE DENSITY		VARIABLES; MINIMUM PER IBC APPENDIX J107.5		X	BY THE GEOTECHNICAL ENGINEER
MATERIAL VERIFICATION	1705.6	VARIABLES; CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		X	BY THE GEOTECHNICAL ENGINEER

GENERAL NOTES - QUALITY ASSURANCE PLAN

- GENERAL NOTES
  - THE QUALITY ASSURANCE PLAN DRAWINGS PROVIDE PROJECT COMPLIANCE WITH THE PROVISIONS.
  - FOR ADDITIONAL REQUIREMENTS, REFER TO PROJECT SPECIFICATIONS, INCLUDING
    - CONTRACTOR'S REQUIREMENTS TO PROVIDE ACCESS TO THE WORK FOR REQUIRED INSPECTIONS, AND TO PROVIDE NOTICE OF REQUIRED INSPECTIONS AND STRUCTURAL OBSERVATION.
    - CONTRACTOR'S STATEMENT OF RESPONSIBILITY FOR WORK TO BE PERFORMED ON SYSTEMS DESIGNATED UNDER THE QUALITY ASSURANCE PLAN FOR WIND OR SEISMIC RESISTANCE.
    - DEFINITIONS AND TECHNOLOGY USED IN THIS PLAN.
- SPECIAL INSPECTION
  - SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE TOGETHER WITH LOCAL AND STATE AMENDMENTS. REFER TO THE TABLES CONTAINED ON THE GENERAL SHEETS FOR PROJECT SPECIFIC INSPECTION TYPES.
  - SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY. INSPECTORS FOR EACH SYSTEM AND MATERIAL SHALL BE INTERNATIONAL CODE COUNCIL (ICC) CERTIFIED OR OTHERWISE APPROVED BY THE BUILDING OFFICIAL.
  - THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONTRACT DOCUMENTS AND SUBMIT RECORDS OF INSPECTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
  - SPECIAL INSPECTION AND ASSOCIATED TESTING REPORTS SHALL BE SUBMITTED TO THE ENGINEER, CONTRACTOR, BUILDING OFFICIAL, AND OWNER WITHIN ONE WEEK OF INSPECTION OR WITHIN ONE WEEK OF TEST COMPLETION. INSPECTIONS FOR WHICH REPORTING SHALL BE REQUIRED ARE NOTED IN THE TABLE CONTAINED ON THIS PLAN.
  - SEE TABLES FOR INSPECTION AND TESTING REQUIREMENTS.
  - SEE PROJECT SPECIFICATIONS AND REFERENCED STANDARDS FOR FREQUENCY OF TESTING.
  - AT THE CONCLUSION OF CONSTRUCTION, A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF PREVIOUSLY NOTED DISCREPANCIES SHALL BE SUBMITTED.
- STRUCTURAL OBSERVATION
  - STRUCTURAL OBSERVATION SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE TOGETHER WITH LOCAL AND STATE AMENDMENTS. REFER TO PROJECT SPECIFIC NOTES ON THIS SHEET.
  - ON-SITE STRUCTURAL OBSERVATION WILL BE PERFORMED AT LEAST ONCE A MONTH, PLUS AT COMPLETION, FOR EACH IDENTIFIED SEISMIC FORCE OR WIND FORCE RESISTING SYSTEM IDENTIFIED, INCLUDING FOUNDATIONS AND CONNECTIONS.
  - STRUCTURAL OBSERVATION WILL BE PERFORMED BY THE REGISTERED PROJECT DESIGN PROFESSIONAL FOR ALL GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR ANY REQUIRED SPECIAL INSPECTIONS OR INSPECTIONS BY THE BUILDING OFFICIAL.
  - STRUCTURAL OBSERVATION REPORTS, NOTING ANY DEFICIENCIES, WILL BE DELIVERED TO THE CONTRACTOR, BUILDING OFFICIAL, AND OWNER WITHIN ONE WEEK OF THE OBSERVATION. THE CONTRACTOR WILL BE NOTIFIED ON SITE BY PHONE WITHIN 24 HOURS UPON FINDING DEFICIENCIES.
  - AT THE CONCLUSION OF CONSTRUCTION, A WRITTEN STATEMENT WILL BE PROVIDED TO VERIFY THAT THE STRUCTURAL OBSERVATION SITE VISITS WERE MADE WHETHER THERE REMAIN ANY STRUCTURAL DEFICIENCIES THAT HAVE NOT BEEN RESOLVED.
  - STRUCTURAL OBSERVATION SHALL INCLUDE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM FOR EACH STRUCTURE CONTAINED IN THE WORK. THE CONTRACTOR SHALL SCHEDULE AND FACILITATE STRUCTURAL OBSERVATION INCLUDING THE FOLLOWING:
    - STEEL COLUMNS & FRAMING
    - STEEL DECK WELDING AND OTHER CONNECTIONS PRIOR TO INSTALLATION OF ROOFING
    - STEEL COLLECTOR CONNECTIONS PRIOR TO COVER
    - ALL OTHER WALL ANCHORAGE CONNECTIONS FOR MATERIAL NOT SPECIFICALLY IDENTIFIED
    - FOUNDATION REINFORCING STEEL, WATERSTOPS, EMBEDS, AND SIMILAR ITEMS PRIOR TO CONCRETE PLACEMENT
    - CONCRETE WALL REINFORCING PRIOR TO CONCRETE PLACEMENT
    - WALL TO FOUNDATION CONNECTIONS PRIOR TO FORM CLOSURE OR CLADDING COVER FOR ALL MATERIALS
    - SYSTEM CONNECTION EMBEDS PRIOR TO GROUT OR CONCRETE PLACEMENT
    - CONCRETE WALL TO FLOOR AND ROOF CONNECTIONS PRIOR TO CLADDING INSTALLATION OR OTHER COVER

**TABLE 1**

SYSTEM OR MANUAL	REQUIRED STRUCTURAL SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	INSPECTION		
			CONTINUOUS	PERIODIC	
FABRICATORS					
FABRICATORS	1704.2			X	SPECIAL INSPECTIONS APPLY TO VERIFICATION OF DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES INCLUDING REVIEW FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS
CONCRETE					
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	1909.1	ACI: 3.8.7, 8.1.3, 21.2.8, D9.2		X	
REINFORCING STEEL PLACEMENT	1704.4 1910.4 1901.3.2	ACI 318: 3.5 ACI 318: 7.1-7.7 ACI 318: 1.3.2.C		X	TOLERANCES AND REINFORCING PLACEMENT PER ACI 7.5; SPACING LIMITS FOR REINFORCING ACI 7.6
WELDING REINFORCING STEEL	1704.3.1, 1903.1	ACI 318: 3.5.2 AWS D1.4	X		REFER TO STEEL FOR ADDITIONAL WELDING REQUIREMENTS TABLE 1704.3, ITEM 5b
PLACEMENT OF BOLTS INSTALLED IN CONCRETE	TABLE 1704.4 1909.1	ACI 318: 1.3.2.C ACI 318: 8.1.3 ACI 318: 21.1.8	X		ALL BOLTS VISUALLY INSPECTED
VERIFY USE OF REQUIRED MIX DESIGN(S)	TABLE 1704.4 1904 1901.4.1	ACI 318: 4.1-4.4 5.2-5.4		X	
CONCRETE PLACEMENT	TABLE 1704.4	ACI 318: 1.3.2.D, 5.9-5.10	X		
CONCRETE CURING	TABLE 1704.4	ACI 318: 1.3.2.D, 5.11-5.13		X	
VERIFICATION OF FORMWORK	TABLE 1704.4	ACI 318: 6.1.1		X	SPECIAL INSPECTIONS APPLY TO SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED

**TABLE 2**

SYSTEM OR MANUAL	REQUIRED STRUCTURAL SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	INSPECTION		
			CONTINUOUS	PERIODIC	
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION					
INSPECTION OF ANCHOR POST-INSTALLATION IN HARDENED CONCRETE MEMBERS,	1705.3	ACI 318: D9.2.4  ACI 318: D9.2	X		a. WHERE APPLICABLE, SEE ALSO SECTION 1705.11, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.  b. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH D9.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES, WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED. SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.				X	
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a.				X	
POST INSTALLED CONCRETE ANCHORS					
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	1909.1	ICC EVALUATION REPORT ACI 318: 3.8.7, 8.1.3, 21.2.8, D9.2	SEE REMARKS	X	SPECIAL INSPECTIONS APPLY TO ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, ADHESIVE EXPIRATION DATE, ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE ANCHORS TO BE INSTALLED AND INSPECTED PER MANUFACTURER'S PRODUCT EVALUATION REPORT
SUSPENDED CEILING SYSTEM					
SUSPENDED CEILING SYSTEMS	808.1.1	ASTM C635 ASTM C636	SEE REMARKS	X	SUSPENDED CEILING TO BE INSTALLED AND INSPECTED PER MANUFACTURER'S PRODUCT EVALUATION REPORT

**TABLE 3**

SYSTEM OR MANUAL	REQUIRED TESTING SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	TESTING		
			CONTINUOUS	PERIODIC	
CONCRETE					
CONCRETE STRENGTH	TABLE 1704.4 1903 1905	ASTM C39		EACH 150 CY NOR LESS THAN EACH 5000 SF OF SLAB OR WALL PLACED EACH DAY	FABRICATE SPECIMENS AT TIME FRESH CONCRETE IS PLACED
CONCRETE SLUMP		ASTM C143			
CONCRETE AIR CONTENT		ASTM C231			
CONCRETE TEMPERATURE		ASTM C1064			

**TABLE 1**

SYSTEM OR MANUAL	REQUIRED STRUCTURAL SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	INSPECTION		
			CONTINUOUS	PERIODIC	
STEEL					
FABRICATION OF STRUCTURAL ELEMENTS	1704.2			X	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS
MATERIAL VERIFICATION OF STRUCTURAL STEEL AND VERIFICATION MARKINGS AND COLD FORMED STEEL DECK	1704.3 2203.1	ASTM A6, ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS, AISC 360 A3.1, N5, N6		X	CERTIFIED MILL TEST REPORTS
MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, WASHERS, AND VERIFICATION MARKINGS	1704.3	ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS RCSC 2.1		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS	1704.3	AISC 360 A3.4 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF WELD FILLER METALS AND IDENTIFICATION MARKINGS	1704.3.1	AISC 360 A3.5, N5.4 APPLICABLE AWS A5 DOCUMENTS		X	MANUFACTURER'S CERTIFICATE OF COMPLIANCE
VERIFYING USE OF PROPER WPS'S				X	COPY OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER QUALIFICATIONS				X	COPY OF QUALIFICATION CARDS
COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	1704.3.1	AWS D1.1 SECTION 6	X		
MULTIPASS FILLET WELDS			X		
SINGLE PASS FILLET WELDS GREATER THAN 5/16"	1704.3.1	AISC 360-N5, AWS D1.1, SECTION 6	X		ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
PLUG AND SLOT WELDS	TABLE 1704.3		X		
SINGLE PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"				X	
INSTALLATION OF ROOF DECKING	TABLE 1704.3 1704.15	AISC 360-N6, ICC EVALUATION REPORT		X	SPECIAL INSPECTIONS APPLY TO DECKING TYPE, DEPTH AND GAGE, POWER ACTUATED FASTENERS, SCREWS, PROPRIETARY SIDE SEAM ATTACHMENTS, BUTTON PUNCHES AND SHEAR CONNECTORS
FLOOR AND ROOF DECK WELDS		AISC 360-N6, AWS D1.3 SECTION 7		X	ALL WELDS INSPECTED PER AWS D1.3 7.1
WELDING STUDS EXCEPT AS NOTED OTHERWISE	TABLE 1704.3	AISC 360-N6, AWS D1.1 SECTION 7	X		ALL WELDS VISUALLY INSPECTED PER AWS D1.1 7.8.1
WELDING STUDS IN RAFTING DIAPHRAGMS				X	
WELDING STAIR AND STAIRWAY SYSTEMS		AISC 360-N5, AWS D1.1 SECTION 6		X	ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
SMUG TIGHT HIGH STRENGTH BOLT INSTALLATION				X	ALL CONNECTIONS INSPECTED AND VERIFIED SNUG
PRETENSIONED HIGH STRENGTH BOLT INSTALLATION USING TURN-OF-THE-NUT METHOD WITH MATCH MARKING, DIRECT TENSION INDICATOR METHOD, OR TWIST-OFF TYPE TENSION CONTROL BOLT METHOD	TABLE 1704.3	AISC 360-N5 G, RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 9		X	ALL CONNECTIONS INSPECTED, CONNECTIONS USING DIRECT TENSION INDICATORS, ALL BOLTS SHALL BE INSPECTED AFTER SLUGGING AND AFTER RETENSIONING
PRETENSIONED HIGH STRENGTH BOLT INSTALLATION USING TURN-OF-THE-NUT METHOD WITHOUT MATCH MARKING OR CALIBRATED WRENCH METHOD OR TENSIONING OF SLIP CRITICAL CONNECTIONS				X	ALL CONNECTIONS INSPECTED
VERIFICATION OF FRAME JOINT DETAILS INCLUDING MEMBER AND COMPONENT LOCATIONS, BRACING, AND STIFFENERS	1704.3.2	AISC 360-N5		X	
MATERIAL VERIFICATION OF REINFORCING STEEL FOR WELDING	TABLE 1704.3, 1705.2.2.1.2	ACI 318: 3.5.2 AWS D1.4		X	CERTIFIED MILL TEST REPORTS
WELDING REINFORCING EXCEPT AS NOTED OTHERWISE				X	
WELDING SHEAR REINFORCEMENT				X	ALL WELDS VISUALLY INSPECTED PER AWS D1.4.7.5

**TABLE 2**

SYSTEM OR MANUAL	REQUIRED TESTING SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	TESTING		
			CONTINUOUS	PERIODIC	
STEEL					
MAGNETIC PARTICLE (MT) AND ULTRASONIC (UT) TESTING OF WELDS	1704.3.1.1	MT - AWS D1.1 6.14.4, UT - AWS D1.1 6.13.4 & 6.14.3, AISC 360-N5			PER DRAWINGS
PRE-INSTALLATION VERIFICATION OF PRETENSIONED HIGH STRENGTH BOLTS	1704.3.3	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A 490 BOLTS SECTION 7, AISC 360-N5 G			EACH COMBINATION OF DIAMETER, LENGTH, GRADE, AND LOT TO BE USED IN THE WORK

**TABLE 3**

SYSTEM OR MANUAL	REQUIRED TESTING FOR SEISMIC RESISTANCE SPECIAL INSPECTIONS				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	TESTING		
			CONTINUOUS	PERIODIC	
STEEL					
UT OF BASE METAL THICKER THAN 1-1/2" SUBJECT TO THROUGH - THICKNESS WELD SHRINKAGE STRAINS	1705.12.2	AISC 341 - J6 AWS D1.1 6.13 & 6.14.3		BEHIND AND ADJACENT TO EACH WELD	IBC 1707.2 AND 1706.3 REQUIRE SPECIAL INSPECTIONS AND RELATED TESTING FOR STRUCTURAL STEEL FOR THE SEISMIC FORCE RESISTING SYSTEM TO COMPLY WITH THE QUALITY ASSURANCE PLAN REQUIREMENTS OF AISC341. THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE SPECIFIES THE QA PLAN WHICH SHOULD BE PROVIDED TO THE CONTRACTOR AS PART OF THE BID DOCUMENTS AND SHOULD BE CLEARLY IDENTIFIED AS SUCH. AISC RECOMMENDS THAT AISC 341 APPENDIX O, "QUALITY ASSURANCE PLAN," BE ADOPTED. AISC 341 INCLUDES COMMENTARY WHICH WILL BE HELPFUL TO ENGINEERS SPECIFYING PROJECT QA PLANS.
MT OF K-AREA OF ROLLED WIDE FLANGE COLUMN WEBS ADJACENT TO DOUBLER/CONTINUITY PLATE WELDS	1705.12.2	AISC 341 - J6 AWS D1.1 6.14.4		EACH PLATE LOCATION	
MAGNETIC PARTICLE (MT) AND ULTRASONIC (UT) TESTING OF COMPLETE JOINT PENETRATION GROOVE (CJP) WELDS IN MATERIALS 5/16" THICK AND GREATER	1705.12.2	AISC 341 - J6 MT - AWS D1.1 6.14.4 UT - AWS D1.1 6.13 & 6.14.3		UT 100% OF WELDS MT 25% OF WELDS REFER TO DRAWINGS FOR LOCATIONS	
MT OF THERMALLY CUT SURFACES OF BEAM COPIES AND ACCESS HOLES AT WELDED SPLICES AND CONNECTIONS WHEN THE FLANGE THICKNESS EXCEEDS 1 1/2" FOR ROLLED SHAPES OR THE WEB THICKNESS EXCEEDS 1 1/2" FOR BUILT-UP SHAPES	1705.12.2	AISC 341 - J6 AWS D1.1 6.14.4		EACH LOCATION	
MT OF THE ENDS OF FLANGE WELDS FROM WHICH WELD TABS HAVE BEEN REMOVED	1705.12.2	AISC 341 - J6 AWS D1.1 6.14.4		EACH LOCATION	
ARCHITECTURAL, MECHANICAL AND ELECTRICAL					
COMPONENT TESTING INCLUDING MOUNTING SYSTEMS OR ANCHORAGE IF CERTIFICATES OF COMPLIANCE ARE NOT AVAILABLE	1705.12.3	ASCE - SECTION 13.2.1, 13.2.2		X	

ISSUED FOR DATE

PROJECT TITLE  
CITY OF KALAMAZOO SCALE

OWNER  
CITY OF KALAMAZOO

SHEET TITLE  
SPECIAL INSPECTION

Kalamazoo, Michigan

DATE  
APRIL 14, 2023

SHEET NUMBER  
S 001  
21-203.00

**STRUCTURAL DESIGN CRITERIA**

- GOVERNING CODE MICHIGAN BUILDING CODE (MBC), 2015 EDITION
- BUILDING RISK CATEGORY II
- DESIGN SOIL BEARING PRESSURE 3000 PSF
- MATERIAL STRENGTHS

**STRUCTURAL STEEL:**  
 ASTM A992 (F<sub>y</sub> = 50 KSI) ROLLED STEEL SHAPES UNLESS NOTED ON THE DRAWINGS.  
 ASTM A36 (F<sub>y</sub> = 36 KSI) ROLLED STEEL PLATES, CHANNELS, ANGLES, BARS, AND RODS AS NOTED ON THE DRAWINGS.  
 ASTM A53, GRADE B STEEL PIPE  
 ASTM A500, GRADE C RECTANGULAR AND ROUND HSS

**REINFORCING STEEL:**  
 ASTM A615, GRADE 60

**CONCRETE:**  
 4000 PSI FOR ALL CONCRETE UNLESS SPECIFICALLY NOTED OTHERWISE.

**5. DEAD LOADS**  
 ROOF - PRE-ENGINEERED METAL BUILDING

ROOFING AS DETERMINED BY METAL BUILDING SUPPLIER  
 METAL DECK AS DETERMINED BY METAL BUILDING SUPPLIER  
 FRAMING AS DETERMINED BY METAL BUILDING SUPPLIER  
 COLLATERAL (MEFP, FIRE SPRINKLER AND CEILING) 5 PSF  
 TOTAL ROOF DEAD LOAD AS DETERMINED BY METAL BUILDING SUPPLIER

**6. LIVE LOADS**  
 ROOF 20 PSF

LIVE LOAD REDUCTIONS SHALL BE COMPUTED IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE. ROOF LIVE LOADS ARE NON-REDUCIBLE.

**7. DESIGN SNOW LOAD AND SNOW DRIFTING PARAMETERS ARE AS FOLLOWS:**

GROUND SNOW LOAD (P<sub>g</sub>) 35 PSF  
 FLAT ROOF SNOW LOAD (P<sub>f</sub>) 30 PSF + DRIFT  
 SNOW EXPOSURE FACTOR (C<sub>e</sub>) 1.0  
 SNOW THERMAL FACTOR (C<sub>t</sub>) 1.2  
 SNOW LOAD IMPORTANCE FACTOR 1.0  
 MINIMUM ROOF LIVE LOAD USED IN DESIGN 30 PSF

**8. WIND LOAD DESIGN PARAMETERS ARE AS FOLLOWS:**

BASIC WIND SPEED (V), (3 SECOND GUST) 115 MPH  
 WIND EXPOSURE CATEGORY C  
 INTERNAL PRESSURE COEFFICIENT ±0.18

**GENERAL CONDITIONS**

- COORDINATE WITH ALL DRAWINGS FOR PERTINENT INFORMATION RELATED TO THE STRUCTURAL WORK. ANY CHANGES TO THE STRUCTURAL SYSTEMS SHALL BE RE-DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AT NO COST TO THE OWNER OR A/E AND SUBMITTED TO THE A/E FOR REVIEW. SUBMITTAL SHALL BE ACKNOWLEDGED IN WRITING BEFORE BEGINNING CONSTRUCTION.
- EQUIPMENT FRAMING LOADS, OPENINGS, AND STRUCTURE, IN ANY WAY RELATED TO HVAC, FUMING, PROCESS, ELECTRICAL, ELEVATOR, OR ESCALATOR REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN APPROVAL OF THE PERTINENT TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN THESE REQUIREMENTS SHALL BE BORNE BY THE APPROPRIATE CONTRACTOR.
- IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURE AND SEQUENCES TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, SHORING, GUYS, OR TIE-DOWNS THAT MAY BE NECESSARY.
- THE STRUCTURE HAS BEEN DESIGNED FOR THE UNIFORM LOADS INDICATED IN ADDITION TO THE CONCENTRATED LOADS REQUIRED BY THE BUILDING CODE. THE STRUCTURAL DESIGN IS BASED SOLELY ON THE BUILDING IN ITS COMPLETED STATE. CONTRACTORS AND THEIR SUB-CONTRACTORS SHALL TAKE NECESSARY PRECAUTIONS TO WITHSTAND ALL HORIZONTAL AND VERTICAL LOADINGS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION PRIOR TO COMPLETION OF THE BUILDING. SUCH CONSTRUCTION LOADINGS INCLUDE, BUT ARE NOT LIMITED TO, LOADS FROM CRANES, LIFTS, DOLLIES, AND HOISTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE EVALUATION OF THE IMPACT OF SUCH LOADS ON THE STRUCTURE AND PROVIDING TEMPORARY SHORING, BRACING, OR REINFORCEMENT AS REQUIRED.
- SEE THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR AND SHALL CONFORM TO THOSE SHOWN ON THE ARCHITECTURAL DRAWINGS. REPORT ALL DISCREPANCIES TO THE A/E FOR RESOLUTION BEFORE PROCEEDING.
- THE CONTRACTOR SHALL SUPPORT, BRACE, AND SECURE EXISTING STRUCTURES AS REQUIRED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF EXISTING STRUCTURES DURING CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION PRIOR TO FINAL DETAILING AND FABRICATION OF NEW STRUCTURAL ELEMENTS.

**CAST-IN-PLACE CONCRETE**

- CAST-IN-PLACE CONCRETE WORK SHALL CONFORM TO THE PROJECT MANUAL AND AMERICAN CONCRETE INSTITUTE CODES AND STANDARDS, INCLUDING, BUT NOT LIMITED TO, ACI 301, ACI 315, AND ACI 318.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 DELIVERED IN FLAT SHEETS.
- THE CONTRACTOR SHALL REVIEW ALL DRAWINGS FOR SIZE AND LOCATION OF ALL EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, OPENINGS, ETC. REQUIRED BY OTHER TRADES. RECONCILE THEIR EXACT SIZES AND LOCATIONS BEFORE PROCEEDING WITH THE WORK. ALL ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF CONCRETE. SECURE THE APPROVAL OF THE STRUCTURAL ENGINEER PRIOR TO PLACING OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT CORE DRILL THROUGH BEAMS, JOISTS, GIRDERS, OR WALLS. NO CONDUIT SHALL BE PLACED IN CONCRETE SLABS OR BEAMS UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

4. BACKFILL AGAINST WALLS SHALL NOT BE PLACED UNTIL THE FLOOR CONSTRUCTION AT THE FIRST FLOOR HAS BEEN COMPLETED TO BRACE THE WALL. AT THE CONTRACTOR'S OPTION, WALLS MAY BE BRACED AND BACKFILL INSTALLED. ANY SUCH BRACING SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL THE FIRST FLOOR IS COMPLETED AND CONTINUOUSLY CONNECTED TO THE WALL.

5. WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, THE LENGTH OF ANY HOOK, IF REQUIRED, IS NOT INCLUDED. USE STANDARD 90° BAR HOOK UNO.

6. THE CONTRACTOR SHALL PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS, AND WALLS UNO INDICATED ON THE ARCHITECTURAL DRAWINGS. MINIMUM CLEARANCES FOR REINFORCING STEEL SHALL CONFORM WITH THE TYPICAL REINFORCING BAR CLEARANCE TABLE.

7. THE HARDENED CONCRETE OF HORIZONTAL CONSTRUCTION JOINTS SHALL BE DAMPENED AND THEN THOROUGHLY COVERED WITH A COAT OF CEMENT GROUT OF SIMILAR PROPORTIONS TO THE MORTAR IN THE CONCRETE. THE FRESH CONCRETE SHALL BE PLACED BEFORE THE GROUT HAS ATTAINED ITS INITIAL SET.

8. THE HARDENED CONCRETE OF CONSTRUCTION JOINTS SHALL BE THOROUGHLY COATED WITH A BONDING AGENT (SIKA ARMATEC 110 OR EQVAL).

9. WELDING OF REINFORCING STEEL IS NOT PERMITTED.

10. COMPLY WITH THE ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF SPECIAL FINISHES OR TREATMENTS TO EXPOSED CONCRETE.

11. LAP WELDED WIRE FABRIC 1 SPACE (2 CROSS WIRES) + 2" AT ALL EDGES AND ENDS OF SHEETS.

12. REINFORCING BAR LAP SPLICES AND ANCHORAGE LENGTHS SHALL CONFORM WITH "MINIMUM LAP SPLICE AND ANCHORAGE DIMENSION TABLE"

**FOUNDATIONS**

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE SUBSURFACE INVESTIGATION REPORT BY SME DATED AUGUST 22, 2022. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SURVEY AND SUBSURFACE INVESTIGATION REPORT PRIOR TO BIDDING AND BEFORE BEGINNING CONSTRUCTION.

2. THE SUBSURFACE INVESTIGATION IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. FURTHERMORE, NO WARRANTY IS MADE BY THE OWNER WITH REGARD TO COMPLETENESS AND ACCURACY OF SUBSURFACE INVESTIGATION DATA, STATEMENTS, AND INTERPRETATIONS GIVEN IN REPORT.

3. NOTIFY THE A/E AS SOON AS POSSIBLE OF ANY UNUSUAL SOIL CONDITIONS OR SOIL CONDITIONS AT VARIANCE WITH TEST BORINGS, SUCH AS UNEXPECTED SPRING OR SEEPAGE WATER, MATERIAL DIFFERING FROM TEST BORINGS, OR SOIL OF QUESTIONABLE BEARING CAPACITY.

4. SET FOUNDATIONS AT THE ELEVATIONS SHOWN ON THE DRAWINGS ON FIRM SUBGRADE PREPARED PER THE EARTHWORK SPECIFICATIONS. VERIFY THAT EACH FOOTING IS BEARING ON MATERIAL WITH THE DESIGN BEARING CAPACITY PER THE SUBSURFACE INVESTIGATIVE REPORT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND FINAL CLEARANCE OF ANY REQUIRED NEEDLING, UNDERPINNING, SHORING, OR BRACING OF EXISTING STRUCTURES.

CONCRETE MINIMUM LAP SPLICE AND ANCHORAGE DIMENSION TABLE					
(4000 PSI CONCRETE)			(3000 PSI CONCRETE)		
BAR SIZE	TOP BARS	OTHER BARS	BAR SIZE	TOP BARS	OTHER BARS
#3	15"	12"	#3	18"	14"
#4	20"	16"	#4	23"	18"
#5	25"	19"	#5	29"	22"
#6	30"	23"	#6	35"	27"
#7	44"	34"	#7	50"	39"
#8	50"	38"	#8	57"	44"
#9	56"	43"	#9	63"	50"
#10	63"	49"	#10	73"	56"
#11	70"	54"	#11	81"	62"

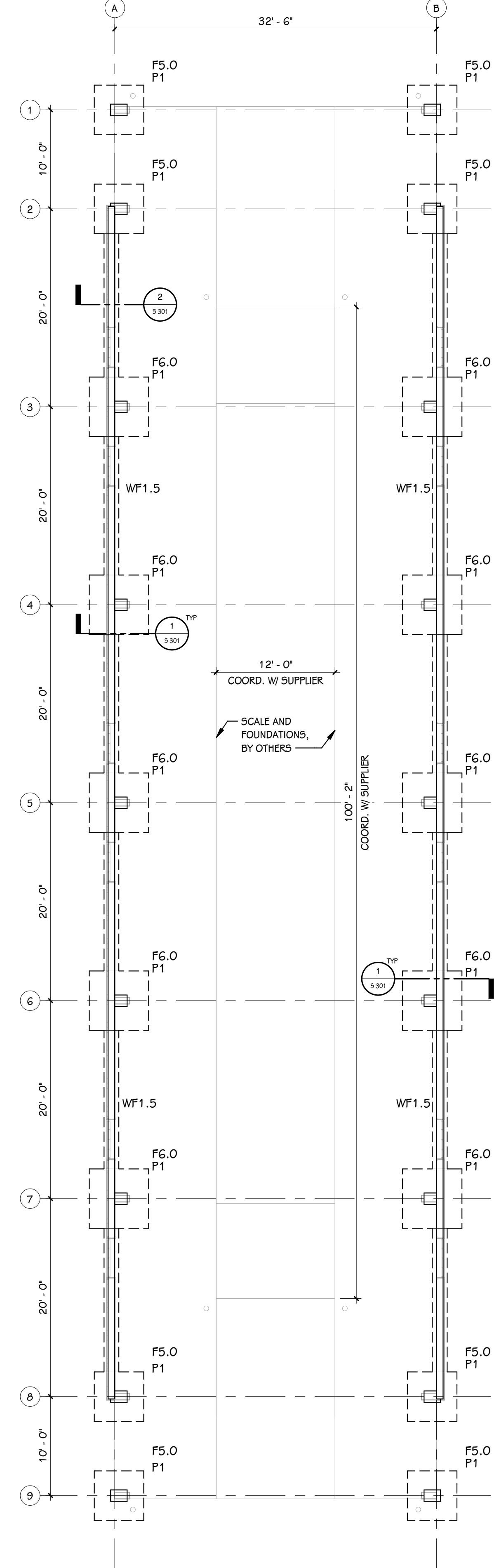
- NOTES:
- LAP LENGTHS SHALL BE 1.3 TIMES DEVELOPMENT LENGTH.
  - FOR EPOXY COATED REINFORCING MULTIPLY THE TABLE VALUES ABOVE BY 1.5.
  - (MC) DENOTES MECHANICAL COUPLER DEVELOPING 125% OF THE BAR YIELD STRENGTH. NO OTHER SPLICE WILL BE ACCEPTED.
  - WHEN LAPPING TWO DIFFERENT SIZE BARS, USE THE LAP DIMENSION OF THE SMALLER BAR OR THE ANCHORAGE DIMENSION OF THE LARGER BARS, USE WHICHEVER DIMENSION IS LARGER.
  - TOP BARS SHALL BE DEFINED AS BEAM AND SLAB HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE TOP REINFORCEMENT. HORIZONTAL REINFORCING IN WALLS SHALL BE CONSIDERED TOP BARS.

**METAL BUILDING SYSTEMS**

1. THE METAL BUILDING MANUFACTURER SHALL SUBMIT DRAWINGS, CALCULATIONS, AND FOUNDATION REACTIONS FOR THE METAL BUILDING, SEALED BY THE LICENSED DESIGN PROFESSIONAL RESPONSIBLE FOR THEIR PREPARATION, TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO THE START OF FOUNDATION CONSTRUCTION.

2. WHEN MODIFICATIONS TO THE METAL BUILDING ARE PROPOSED AFTER THE PREPARATION OF SEALED DRAWINGS, CALCULATIONS, AND FOUNDATION REACTIONS, WRITTEN AUTHORIZATION BY THE LICENSED DESIGN PROFESSIONAL RESPONSIBLE FOR THE ENGINEERING OF THE METAL BUILDING SYSTEM MUST BE OBTAINED AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PERFORMING THE PROPOSED MODIFICATION.

3. ALL METAL BUILDING FRAMING AND GIRTS/PULINS TO BE HOT-DIP GALVANIZED.



PER GEOTECHNICAL REPORT EXISTING FILL MATERIAL ENCOUNTERED BETWEEN 3' AND 6'. TO BE REMOVED WITHIN ENTIRE BUILDING PERIMETER AND MIN. 9'-0" BEYOND THE LIMITS OF PERIMETER FOOTINGS. ENGINEERED FILL TO BE PLACED BELOW ENTIRE FOOTPRINT OF BUILDING. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

PIER AND FOUNDATIONS ARE DESIGNED BASED ON PRELIMINARY INFORMATION. FINAL BUILDING REACTIONS ARE TO BE SUBMITTED AND REVIEWED BY EOR PRIOR TO PLACING ANY FOUNDATIONS.

ALL PRE-ENGINEERED BUILDING FRAMING AND GIRTS/PULINS TO BE HOT-DIP GALVANIZED.

**PLAN NOTES - FOUNDATION**

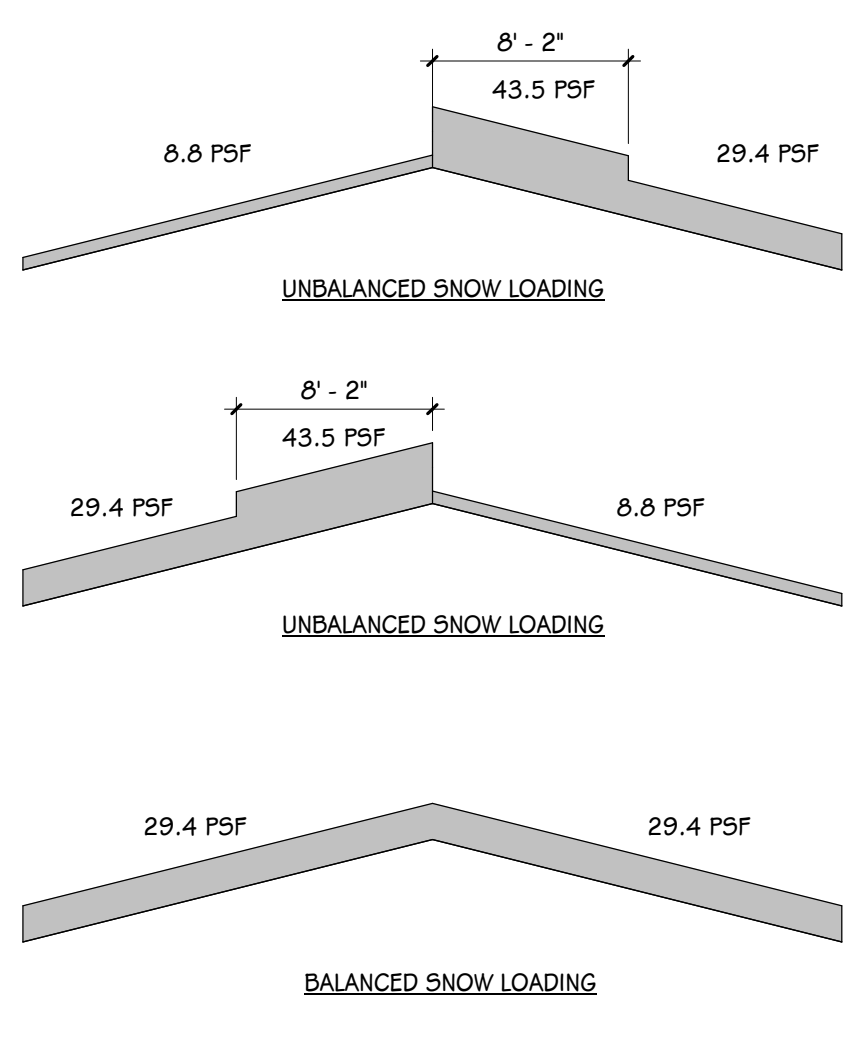
- SLAB ON GRADE SHALL BE 9" CONCRETE SLAB W/ 6x6 - W2.9 x W2.9 W/WF ON 4" COMPACTED MDOT CLASS II SAND. SEE TYPICAL SLAB ON GRADE DETAIL FOR ADDITIONAL INFORMATION. CONTROL JOINTS TO BE PLACED AT 15' O.C. MAXIMUM.
- TOP OF SLAB-ON-GRADE ELEVATION = 100' - 0", UNO.
- TOP OF PIER ELEVATION = 99'-0", UNO.
- TOP OF FOUNDATION WALL ELEVATION = 100' - 8", UNO.
- TOP OF FOOTING ELEVATION = 97'-0" UNO. ALL EXTERIOR FOOTINGS TO EXTEND A MINIMUM OF 3'-6" BELOW FINISHED GRADE.
- SEE GENERAL NOTES FOR DESIGN SOIL BEARING CAPACITY.
- REINFORCING SHOWN ON PLAN IS IN ADDITION TO REINFORCING SHOWN IN SECTIONS, DETAILS, AND SCHEDULES.
- SEE ARCHITECTURAL DRAWINGS FOR INTERIOR WALL DIMENSIONS.
- VERIFY LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC. WITH ARCHITECTURAL DRAWINGS BEFORE PLACING FOUNDATIONS.
- COORDINATE WITH ALL DRAWINGS FOR LOCATION OF OPENINGS, SLEEVES, AND UNDER FLOOR PIPES, CONDUITS, DRAINS, DEPRESSIONS, ETC.

ISOLATED FOOTING SCHEDULE					
MARK	THICKNESS (T)	WIDTH (W)	LENGTH (L)	FOOTING REINFORCING	REMARKS
F5.0	14"	5'-0"	5'-0"	(5) #5 EA. WAY TOP & BOT	
F6.0	14"	6'-0"	6'-0"	(6) #5 EA. WAY TOP & BOT.	

WALL FOOTING SCHEDULE				
MARK	HEIGHT	WIDTH	LONGITUDINAL REINFORCING	TRANSVERSE REINFORCEMENT
WF1.5	12"	1'-6"	(2) #4	NA

CONCRETE REINFORCING CLEAR COVER REQUIREMENTS	
CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	3"
CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	1-1/2"
#5 BAR AND SMALLER	2"
#6 BAR AND LARGER	2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	3/4"
SLABS, JOISTS, AND WALLS (NOT LARGER THAN #11 BAR)	1-1/2"
BEAMS, COLUMNS, PIERS	1-1/2"

NOTE:  
 CLEAR COVER DIMENSIONS LISTED ARE CODE REQUIRED MINIMUMS. PROVIDE GREATER COVER WHERE SPECIFICALLY REQUIRED BY DETAILS.



**UNBALANCED SNOW LOAD DIAGRAM**  
 SCALE: NONE

**FOUNDATION PLAN**  
 1/8" = 1'-0"

ISSUED FOR DATE

PROJECT TITLE  
 CITY OF KALAMAZOO SCALE

OWNER  
 CITY OF KALAMAZOO

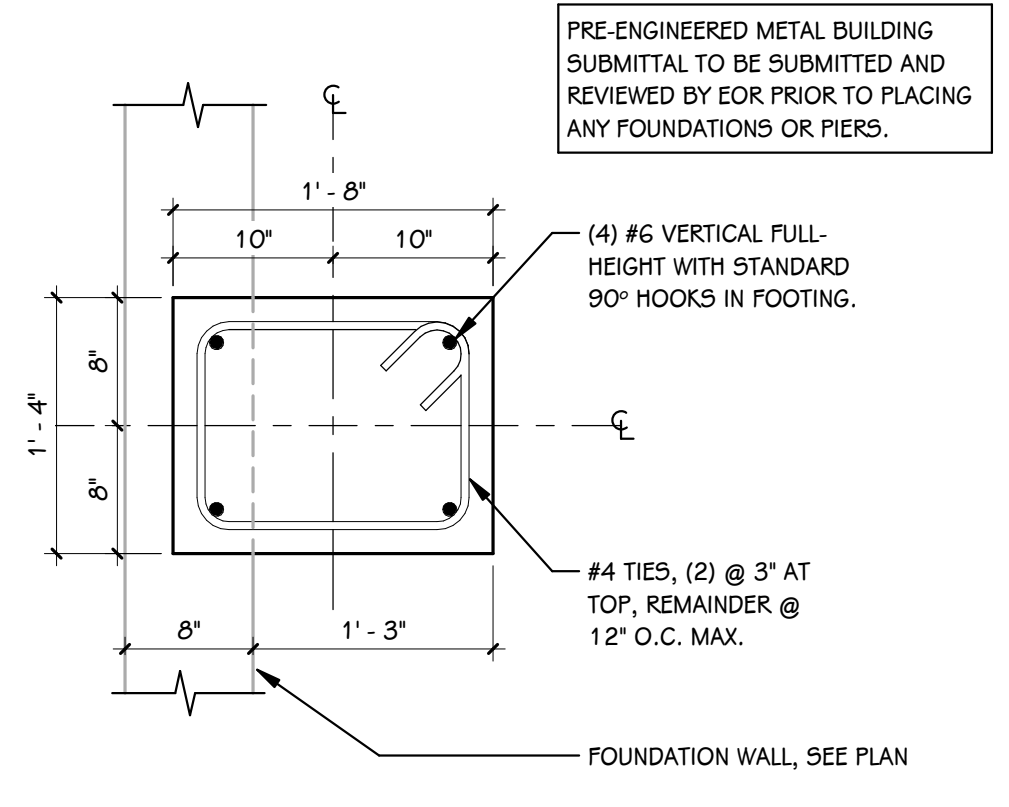
SHEET TITLE  
 OVERALL FOUNDATION PLAN

Kalamazoo, Michigan

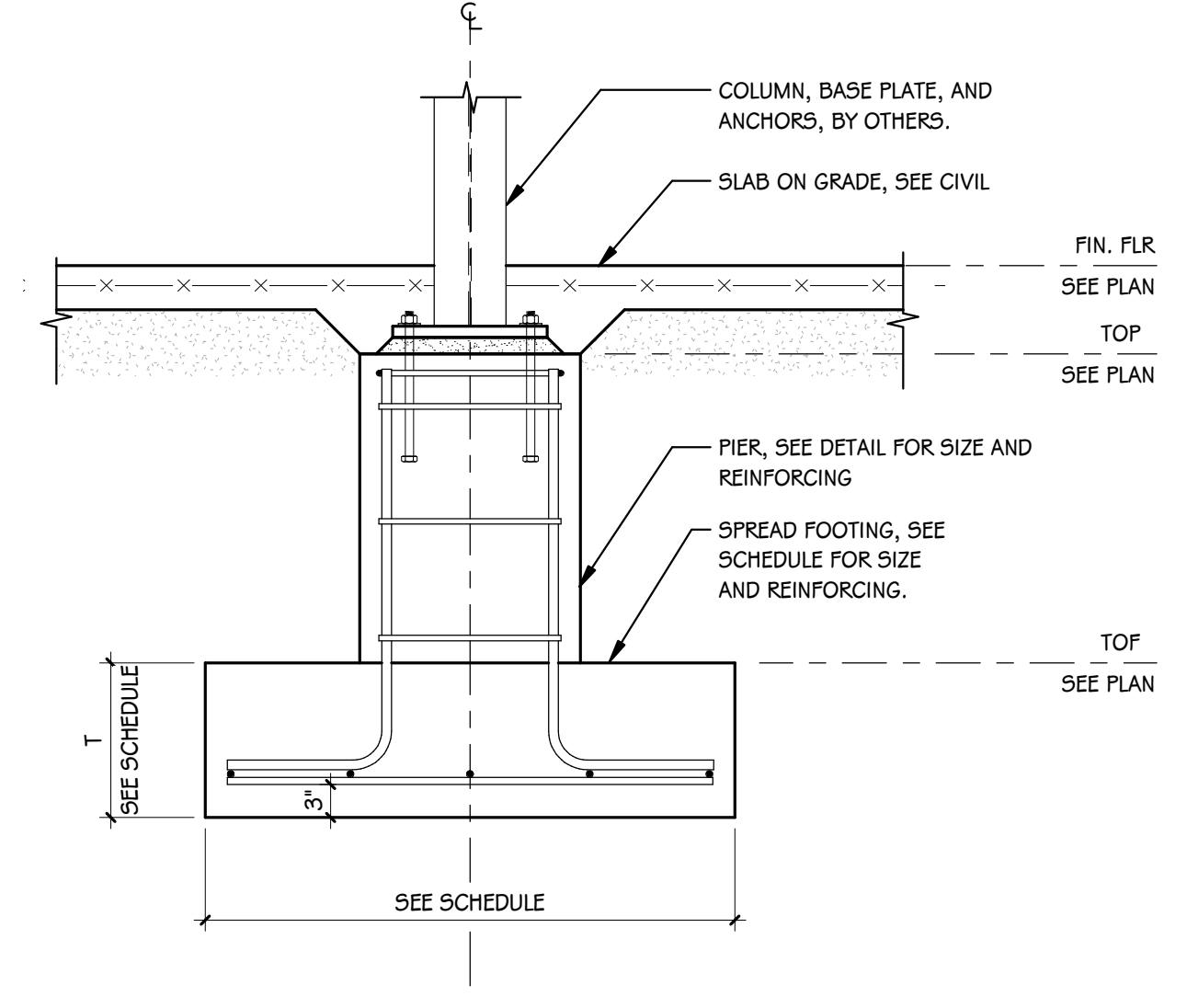
DATE  
 APRIL 14, 2023

SHEET NUMBER  
**S 101**  
 21-203.00

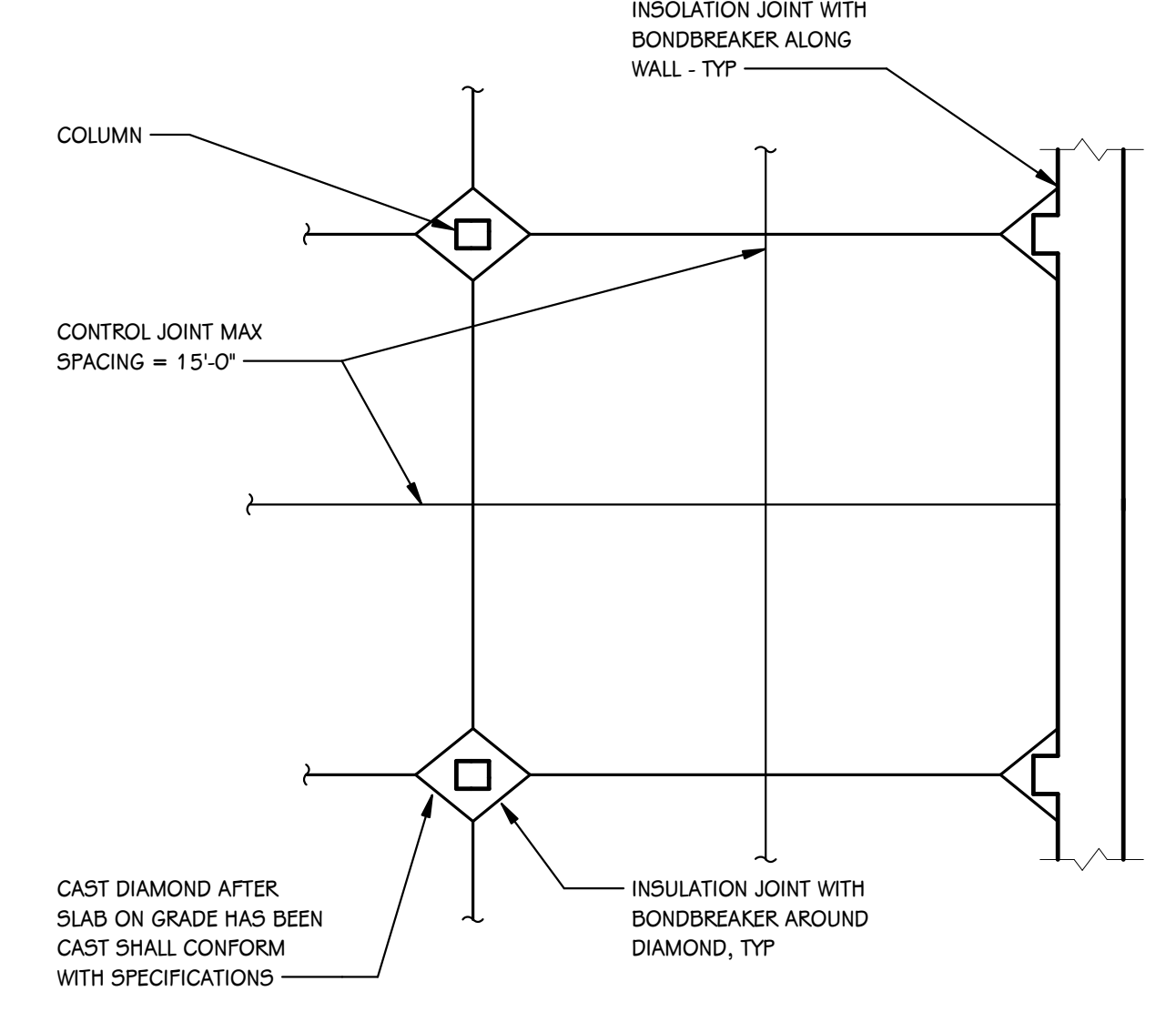




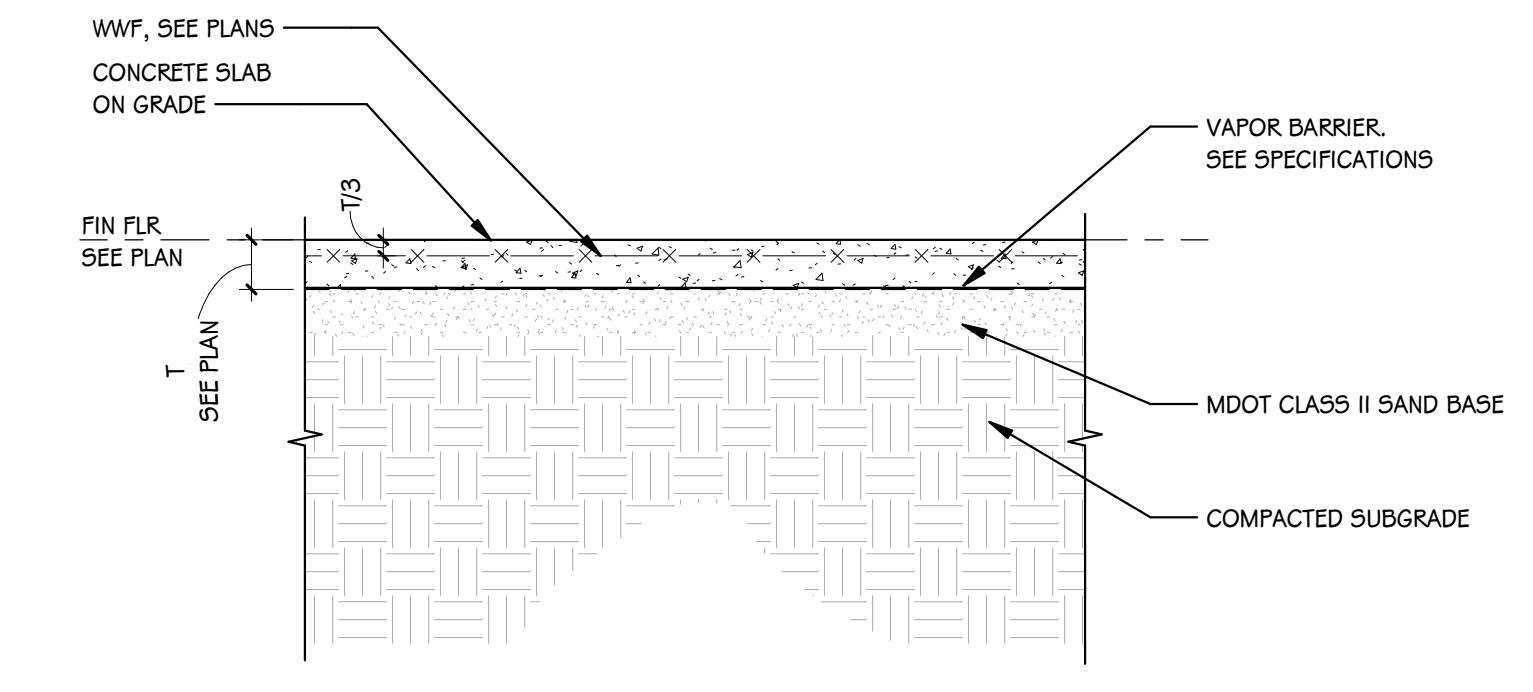
**TYPICAL PIER P1**  
SCALE: NONE



**TYPICAL PIER AND SPREAD FOOTING**  
SCALE: NONE

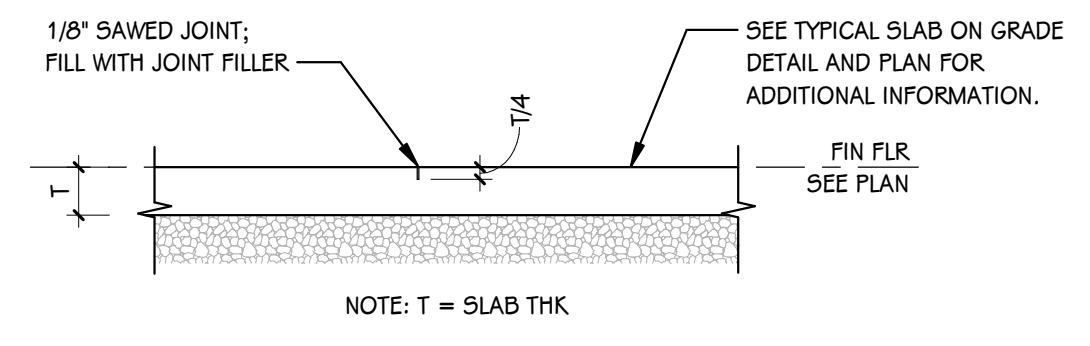


**TYPICAL SOG JOINT PATTERN**  
SCALE: NONE

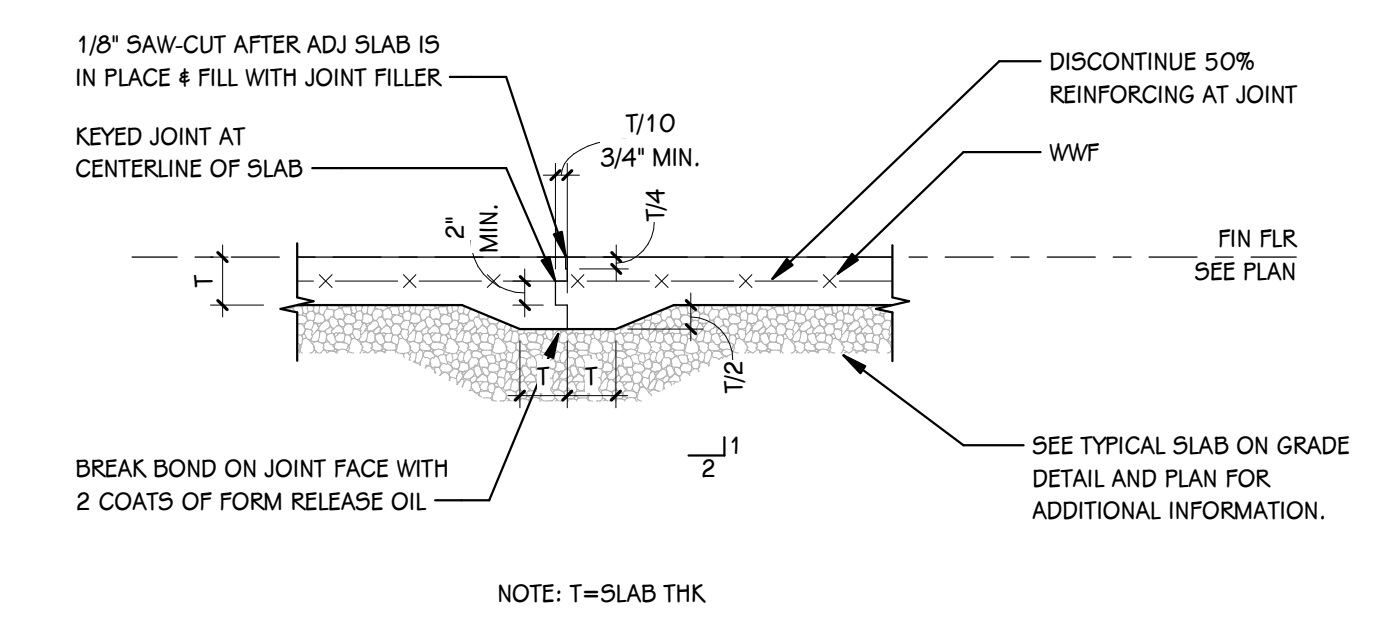


- NOTES:
- SUBGRADE SHALL BE PREPARED PER THE GEOTECHNICAL REPORT PRIOR TO SLAB PLACEMENT. UNSUITABLE SUBGRADE SHALL BE REMOVED AND REPLACED WITH AN ENGINEERED FILL OR ADEQUATE BORROW MATERIAL AND COMPACTED PER THE EARTHWORK SPECIFICATIONS AND GEOTECHNICAL REPORT RECOMMENDATIONS.
  - SEE GEOTECHNICAL REPORT FOR ADDITIONAL SUBGRADE PREPARATION REQUIREMENTS.
  - SLAB SHALL BE PLACED A MINIMUM OF 90 DAYS PRIOR TO INSTALLATION OF FLOOR FINISHES.
  - WET CURE ALL SLABS ON GRADE, REFER TO SPECIFICATIONS.

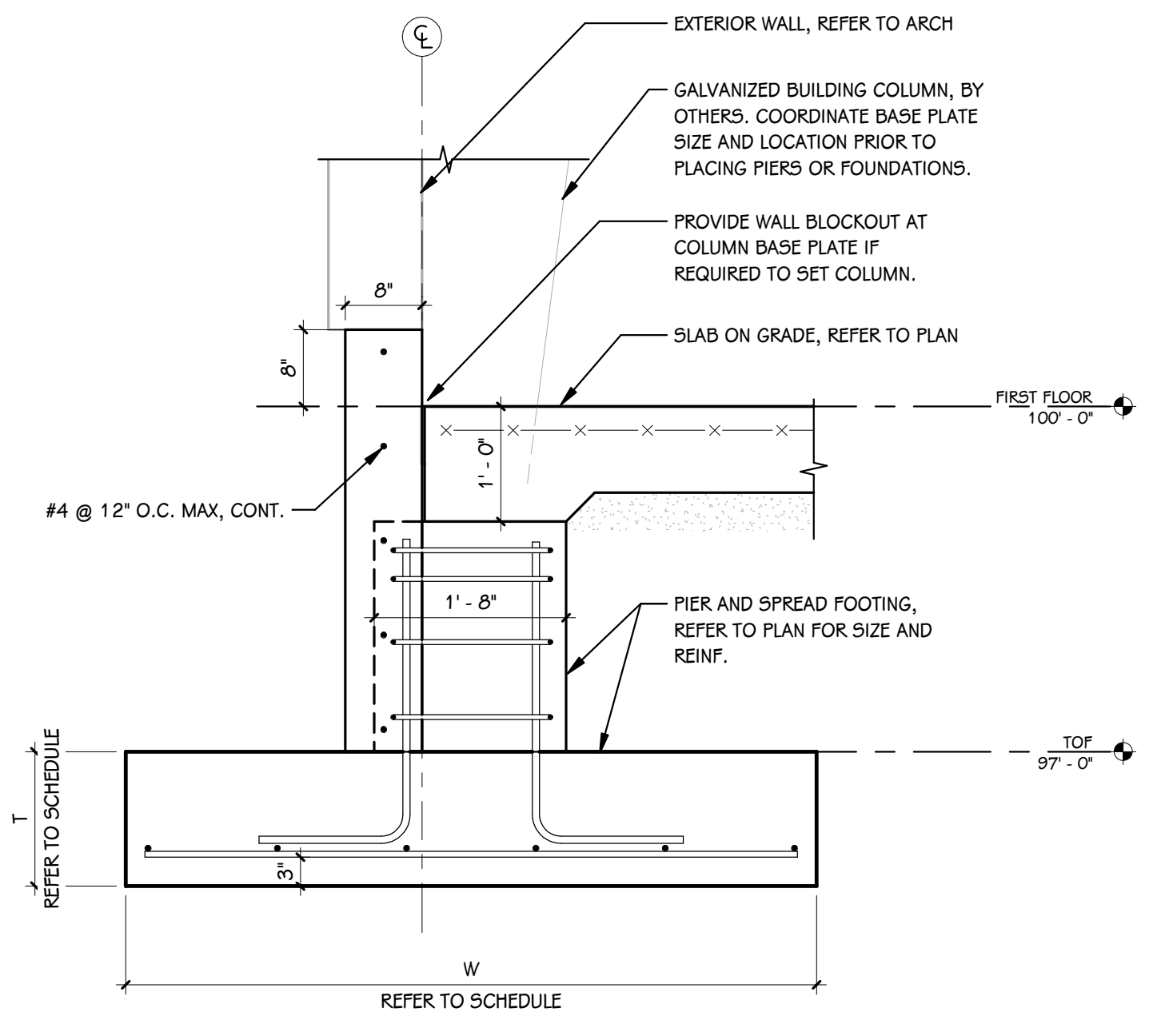
**TYPICAL SOG CONSTRUCTION**  
SCALE: NONE



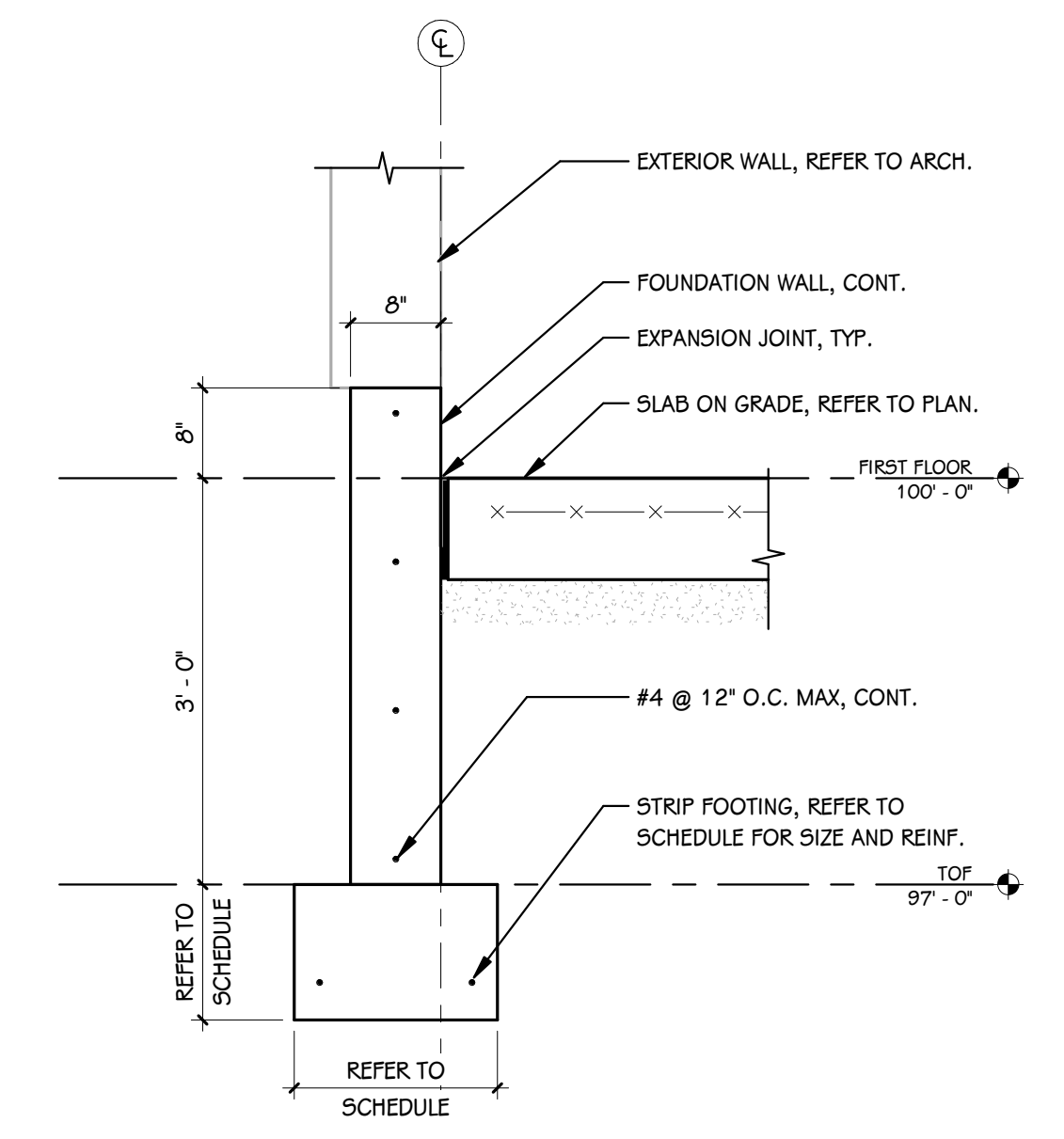
**TYPICAL SOG CONTROL JOINT**  
SCALE: NONE



**TYPICAL SOG CONSTRUCTION JOINT**  
SCALE: NONE



**1 DETAIL**  
3/31 3/4" = 1'-0"



**2 DETAIL**  
3/31 3/4" = 1'-0"

ISSUED FOR DATE

PROJECT TITLE  
CITY OF KALAMAZOO SCALE

OWNER  
CITY OF KALAMAZOO

Kalamazoo, Michigan

SHEET TITLE  
DETAILS

DATE  
APRIL 14, 2023

SHEET NUMBER  
S 301  
21-203.00

- GENERAL NOTES**
- REFER TO CODE COMPLIANCE PLAN FOR WALL RATING LINES.
  - REFER TO FLOOR FINISH PLANS FOR INTERIOR ELEVATION CALLOUTS.
  - REFER TO SHEET A 501 FOR WALL AND CEILING ACCESS PANEL INFORMATION.

- FINISH PLAN KEY**
- WALL FINISH (P.#) → REFER TO MATERIAL SELECTION SCHEDULE FOR FINISH INFORMATION
  - FLOOR BASE (FB.#)
  - FLOOR FINISH (CFT.#)
  - COUNTER FINISH (PL.#)
  - CABINET FINISH (BASE AND UPPER) (PL.#)
  - INDICATES EXTENT OF ATYPICAL FINISH (P.#)
  - INDICATES FLOOR MATERIAL TRANSITION (VCT, CFT) → NOTE: REFER TO MATERIAL SELECTION SCHEDULE REMARKS FOR FLOOR TRANSITION TYPE
  - INDICATES MULTIPLE MATERIAL TYPES ON A SURFACE. REFER TO DETAIL OR ELEVATIONS. (MULTI)
  - INDICATES MATERIAL PATTERN. REFER TO DETAILS. (-P)

- GENERAL NOTES - INTERIORS**
- REFER TO ARCHITECTURAL FLOOR PLANS AND SPECIFICATION FOR ADDITIONAL INFORMATION ON CONSTRUCTION MATERIALS.
  - FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.
  - CASEWORK, FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.
  - WALL MOUNTED DIFFUSERS, GRILLES, ACCESS PANELS, ELECTRICAL PANELS, ETC. ARE TO BE PAINTED WITH AN OIL-BASED PAINT TO MATCH THE ADJACENT WALL FINISH.
  - ALL EXPOSED COLUMNS TO BE PAINTED P-1.

ISSUED FOR DATE

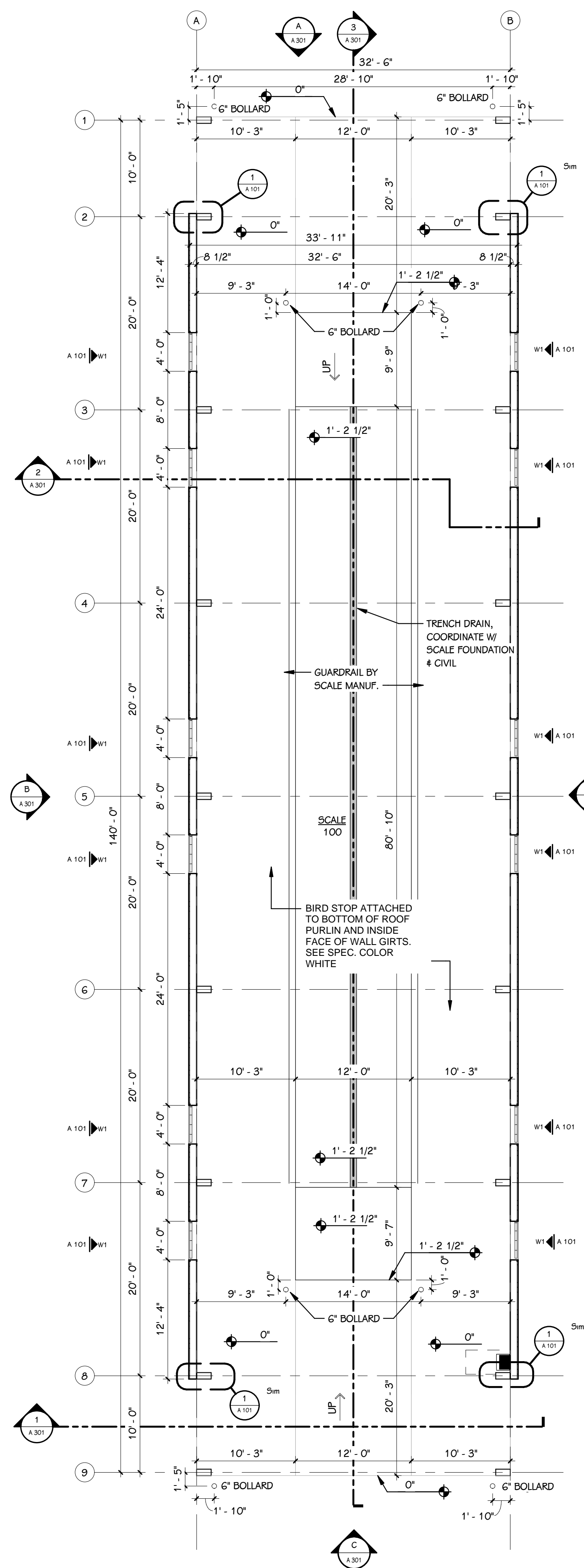
PROJECT TITLE  
CITY OF KALAMAZOO SCALE

OWNER  
CITY OF KALAMAZOO

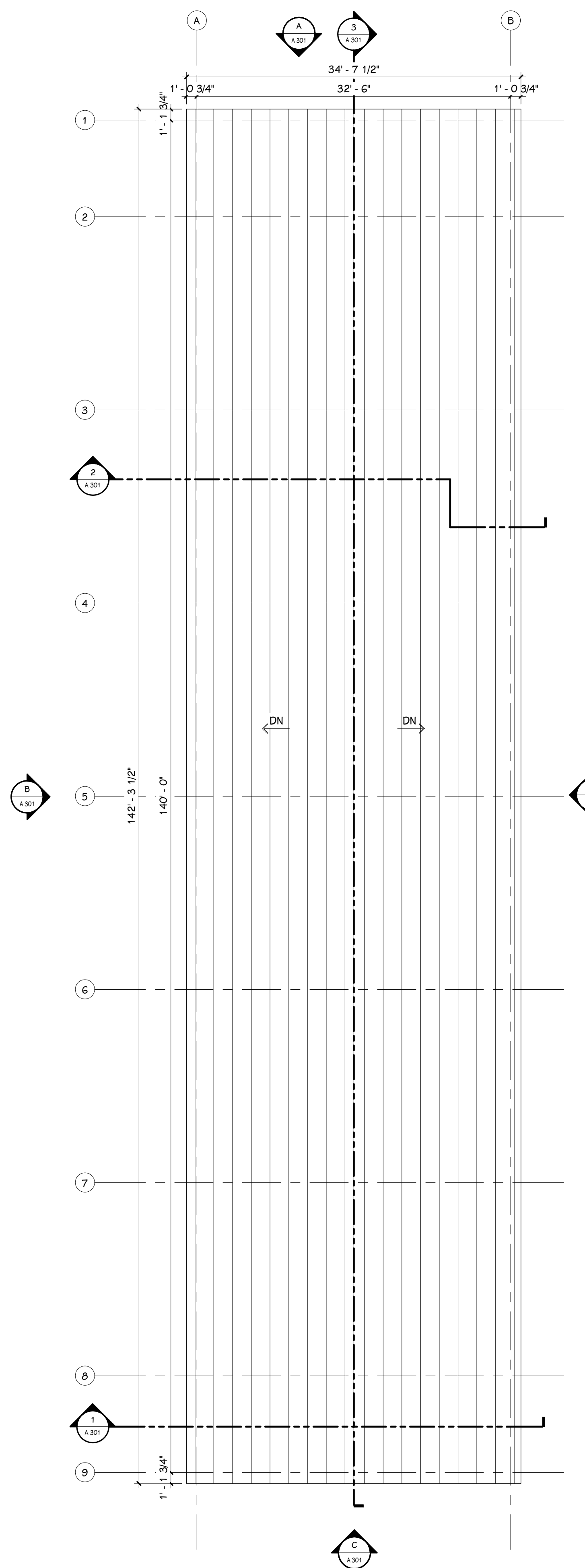
SHEET TITLE  
FIRST FLOOR PLAN, ROOF PLAN & INTERIOR FLOOR PLAN

Kalamazoo, Michigan

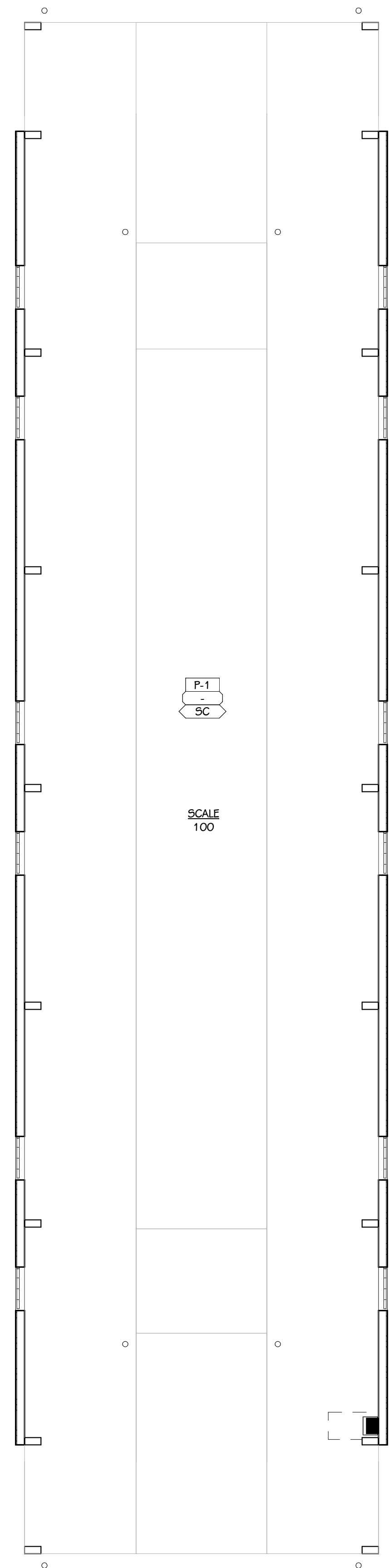
SHEET NUMBER  
**A 101**  
DATE  
APRIL 14, 2023  
21-203.00



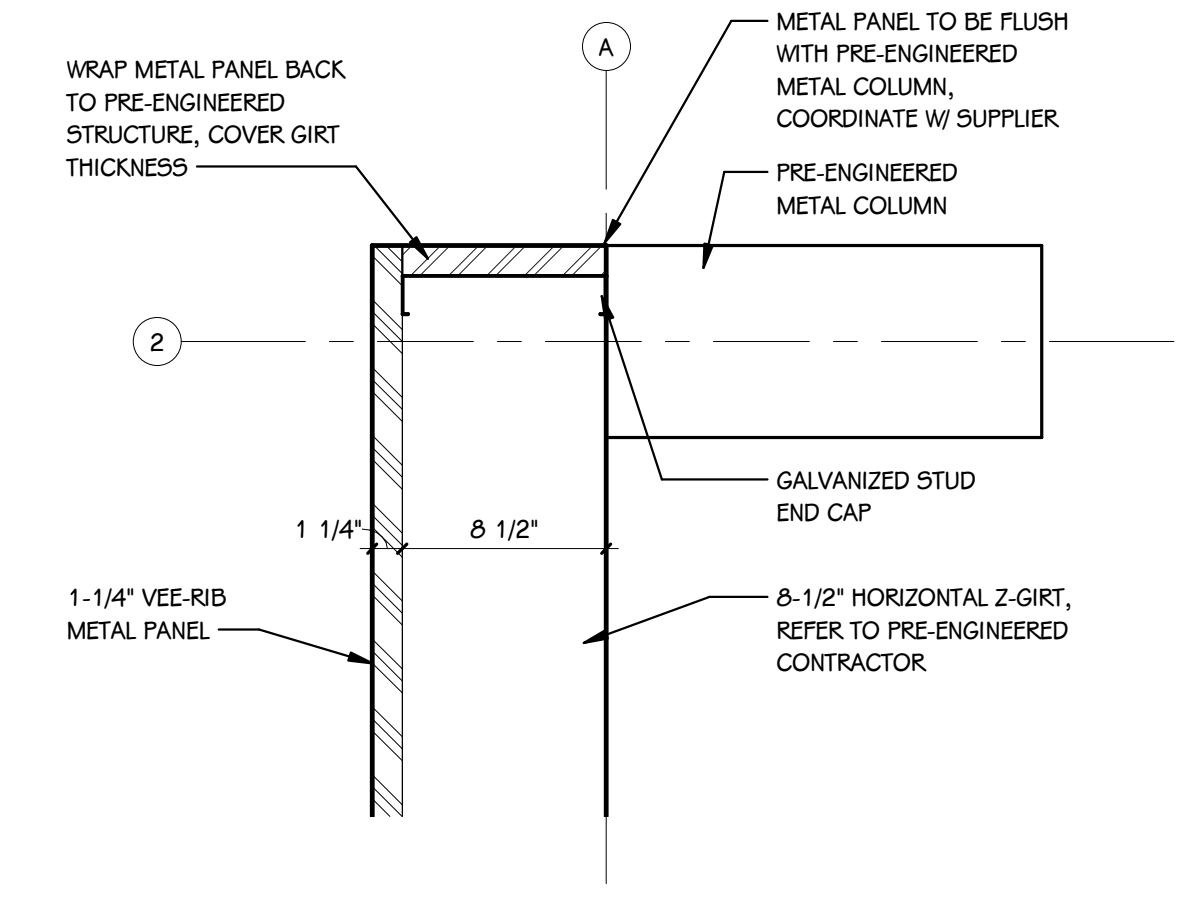
**FIRST FLOOR PLAN**  
1/8" = 1'-0"



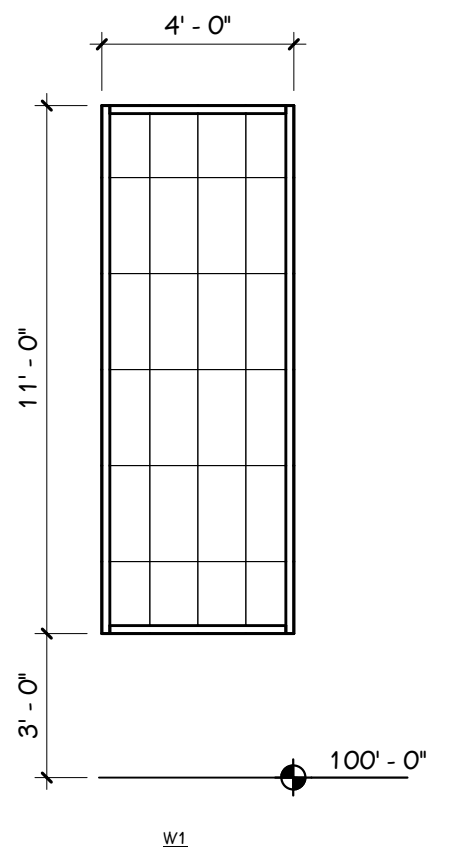
**ROOF PLAN**  
1/8" = 1'-0"



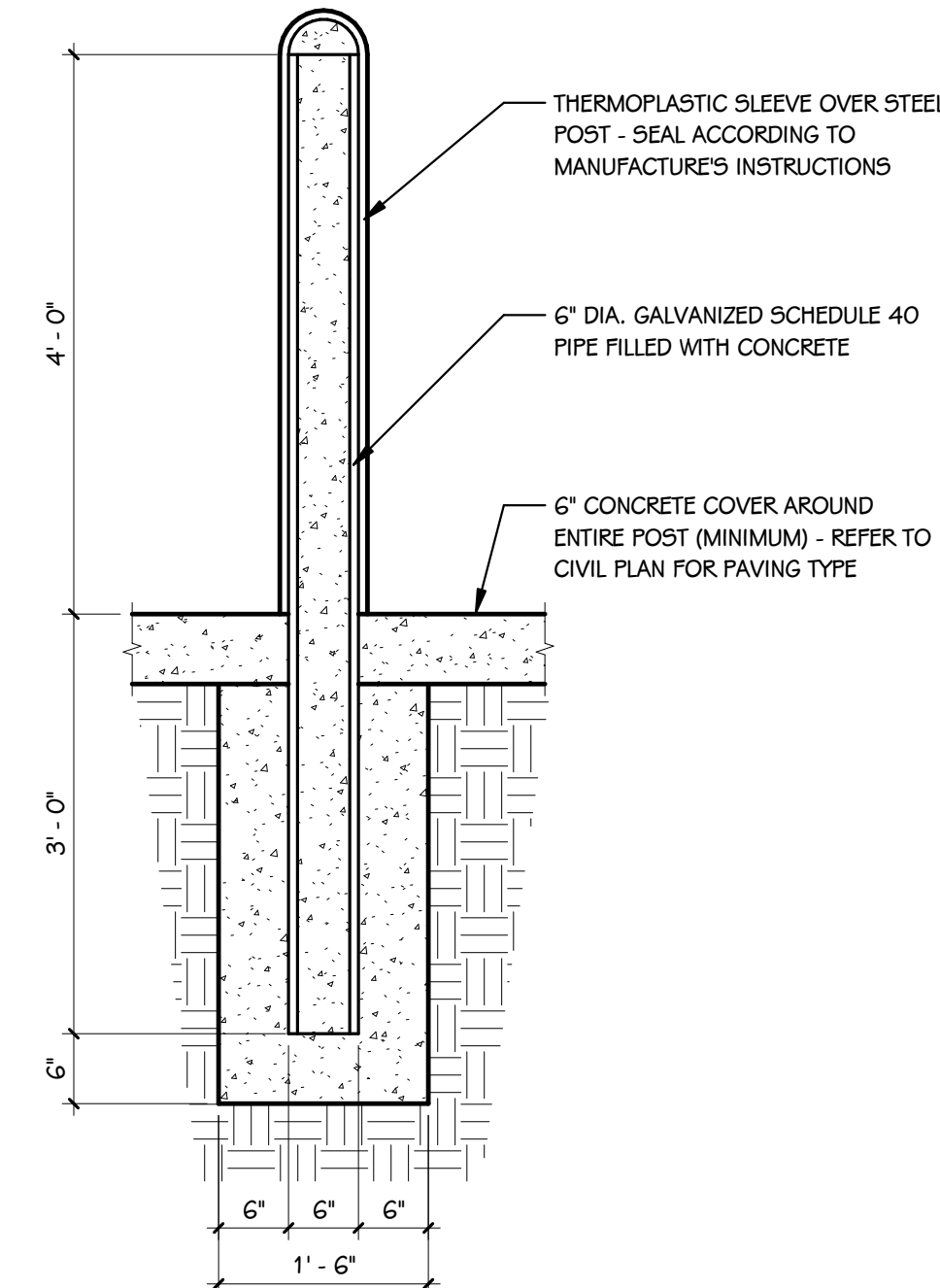
**FIRST FLOOR FINISH PLAN**  
1/8" = 1'-0"



**ENLARGED PLAN DETAIL**  
1 1/2" = 1'-0"



**WINDOW ELEVATION**  
1/4" = 1'-0"

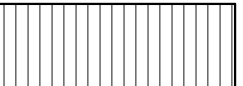



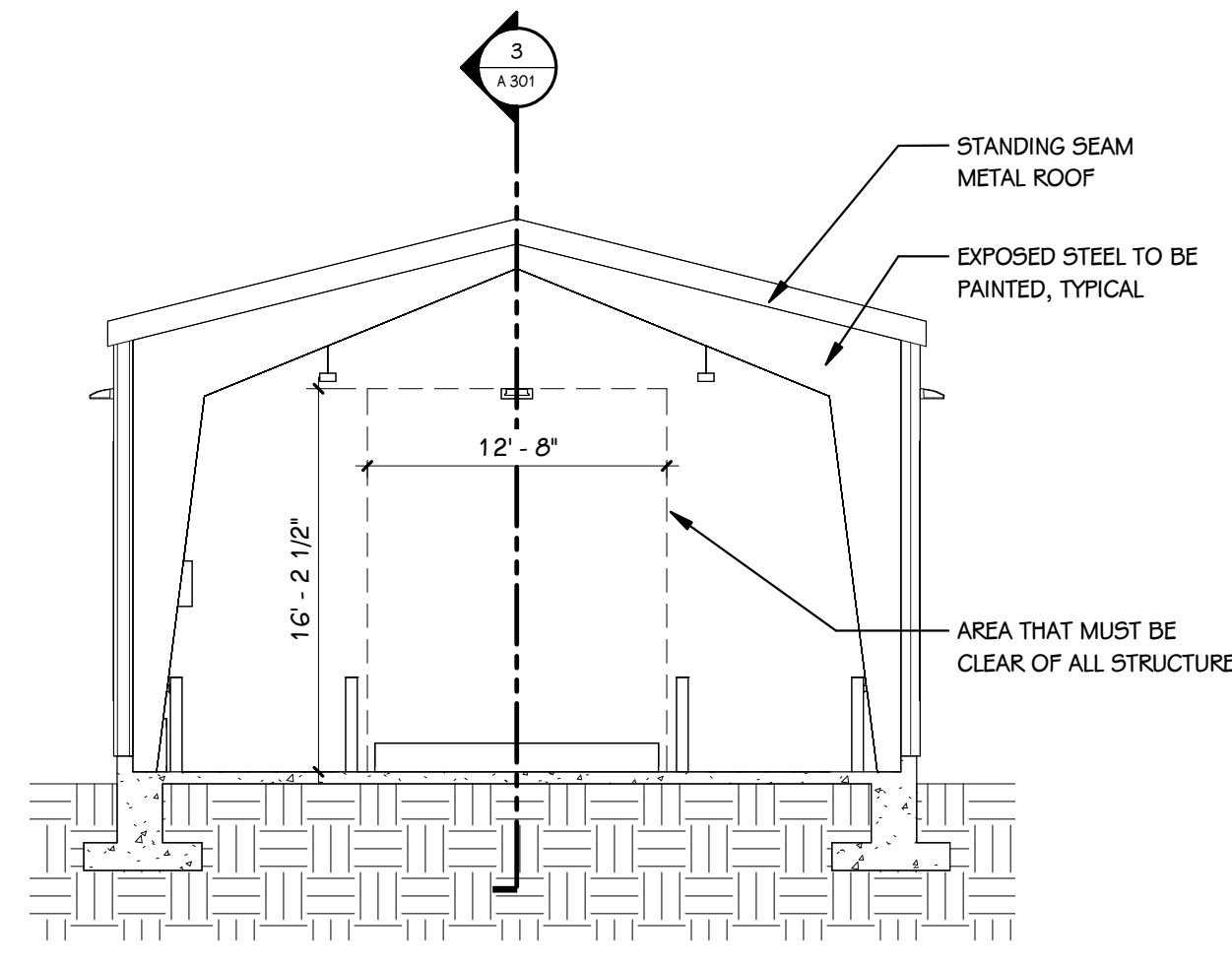
**BOLLARD SECTION**  
3/4" = 1'-0"

**MATERIAL SELECTION SCHEDULE**

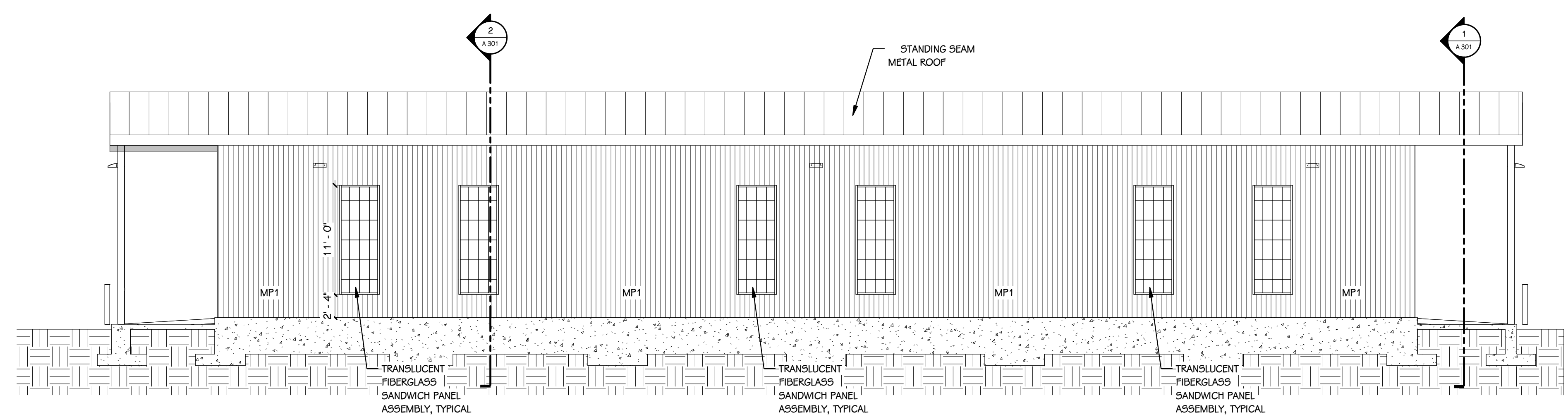
ABBREV	ITEM	MANUFACTURER	PATTERN	COLOR	PRODUCT NO.	SIZE	SINGLE SOURCE	BASIS OF DESIGN	ADDITIONAL MANUFACTURERS	REMARKS
P-1	PAINT	SHERWIN WILLIAMS	--	RESERVED WHITE	SW 7056	--	--	--	--	ALL EXPOSED PRE-ENGINEERED COMPONENTS & GALVANIZED STEEL COMPONENTS REFER TO SPECIFICATION
SC	SEALED CONCRETE	--	--	--	--	--	--	--	--	REFER TO SPECIFICATION

**GENERAL NOTES:**  
 - NO COMPARABLE PRODUCTS WILL BE REVIEWED FOR PRODUCTS DESIGNATED AS SINGLE SOURCE.  
 - COMPARABLE PRODUCTS WILL BE REVIEWED FOR ITEMS LISTED AS BASIS OF DESIGN. COMPARABLE PRODUCTS ARE REQUIRED TO MEET ANY MINIMUM PERFORMANCE REQUIREMENTS LISTED IN REMARKS AND DESIGN ATTRIBUTES OF SPECIFIED PRODUCT.  
 - REFER TO PRODUCT SPECIFICATION FOR TRIMS AND ACCESSORIES ASSOCIATED WITH SPECIFIED PRODUCTS ABOVE.

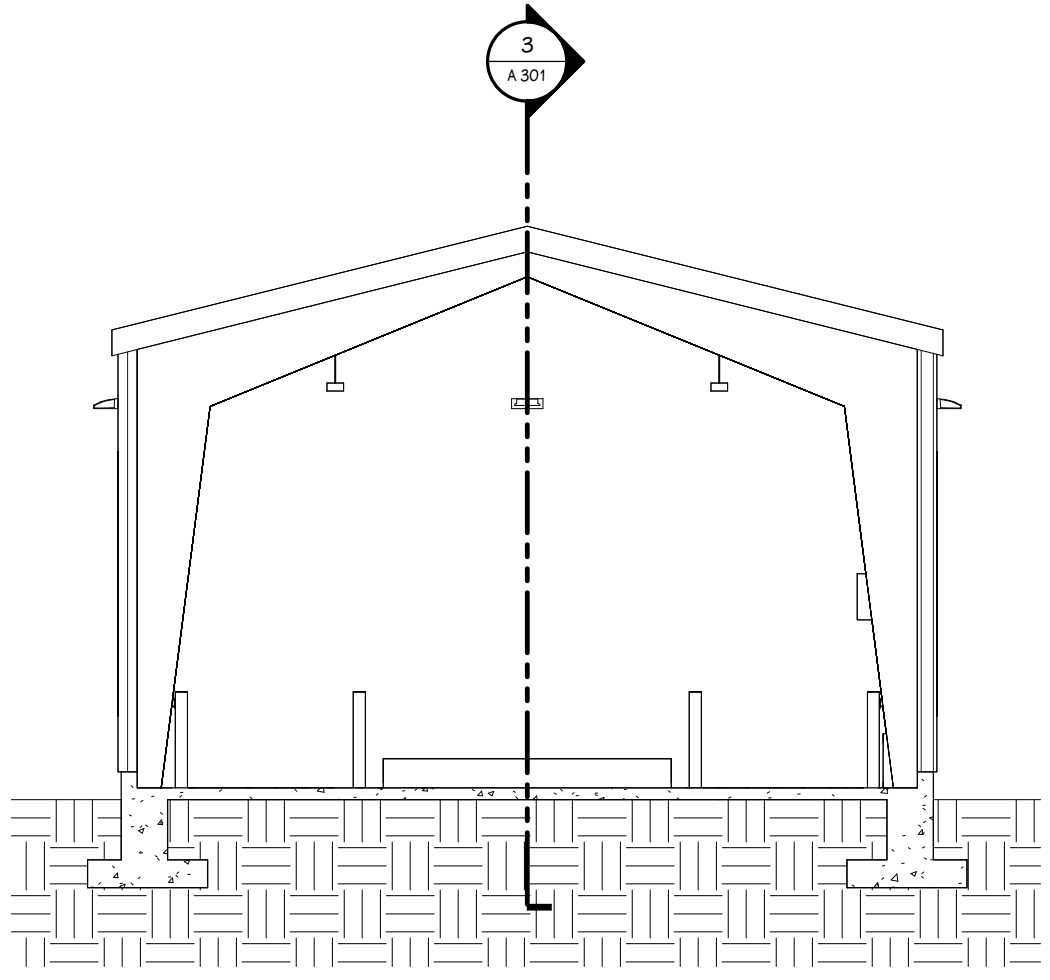
EXTERIOR ELEVATION KEY	
	METAL PANEL 1, COLOR: COOL STRAW GOLD
	STANDING SEAM METAL ROOF, COLOR: GALVALUME



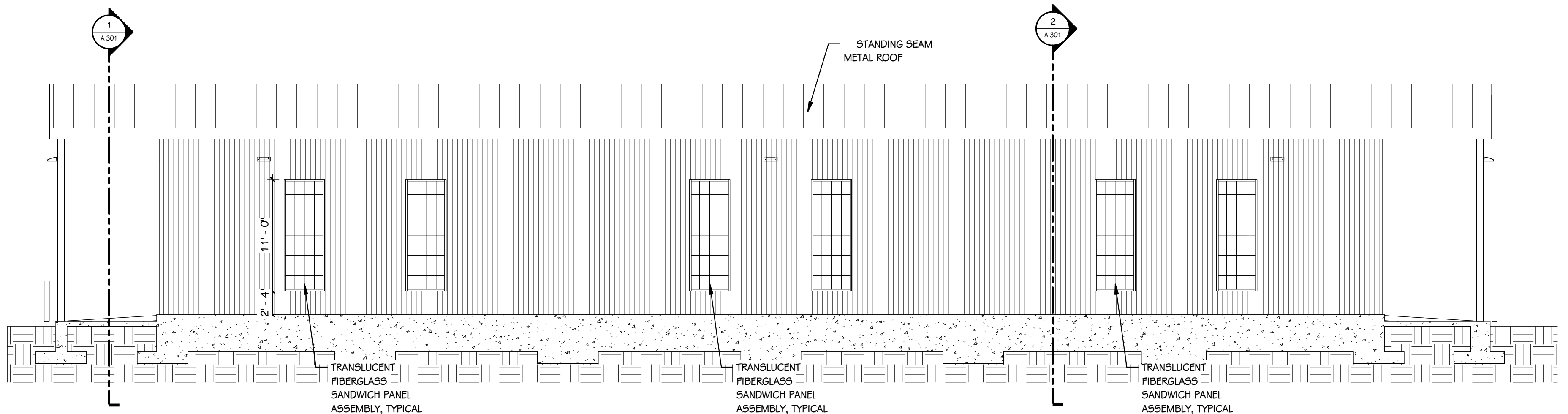
**A NORTH ELEVATION**  
1/8" = 1'-0"



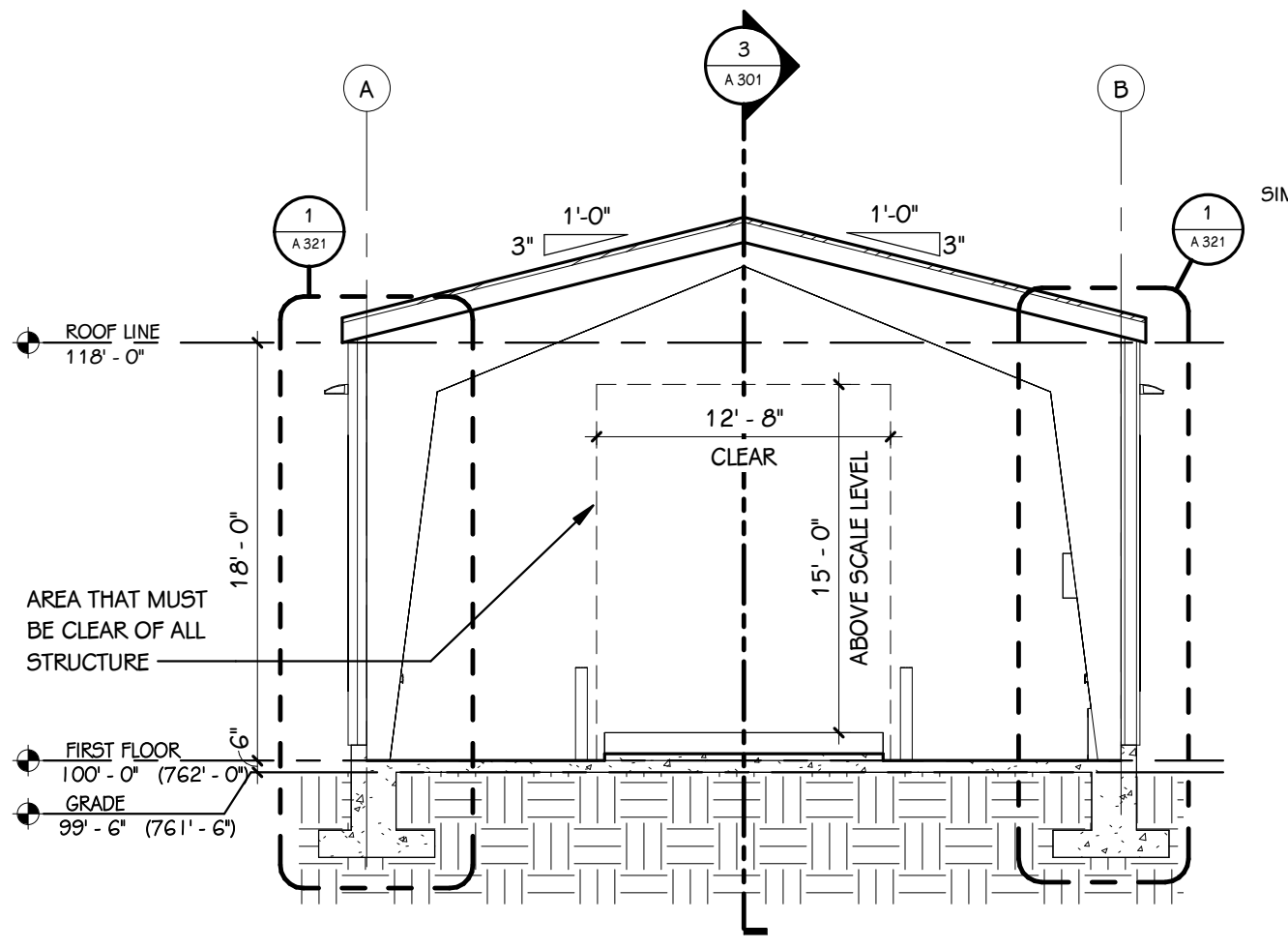
**B WEST ELEVATION**  
1/8" = 1'-0"



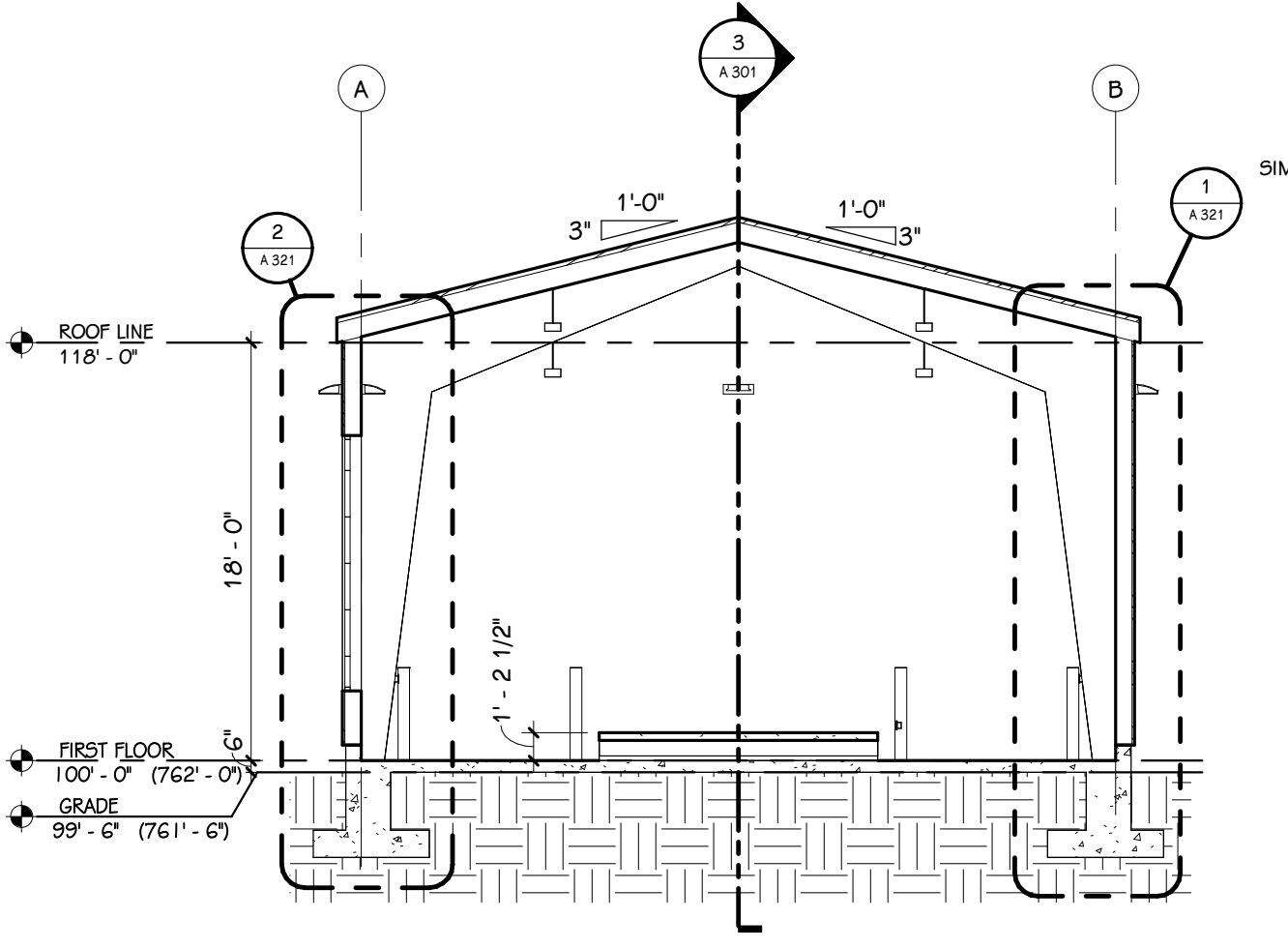
**C SOUTH ELEVATION**  
1/8" = 1'-0"



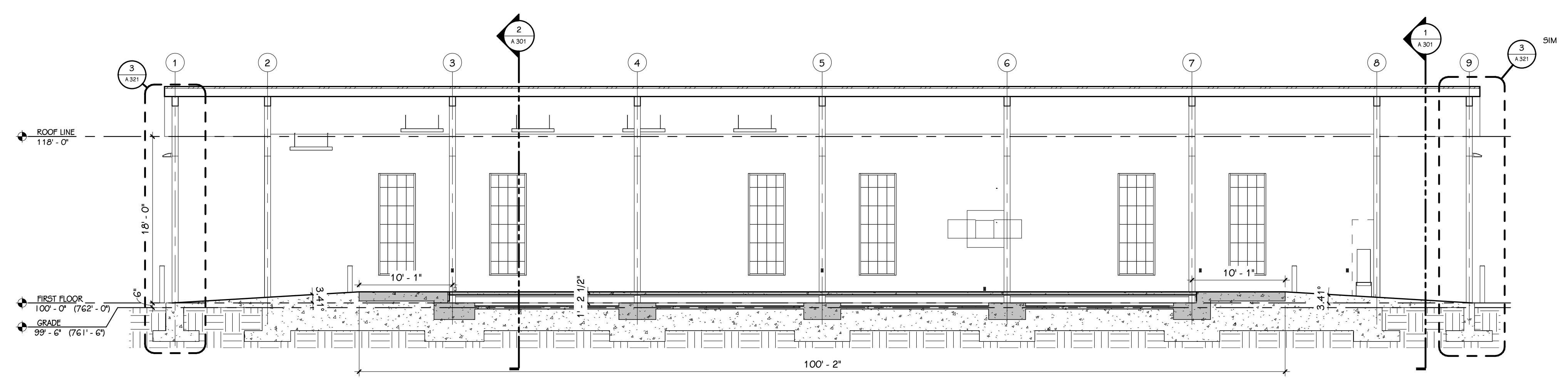
**D EAST ELEVATION**  
1/8" = 1'-0"



**1 BUILDING SECTION**  
1/8" = 1'-0"



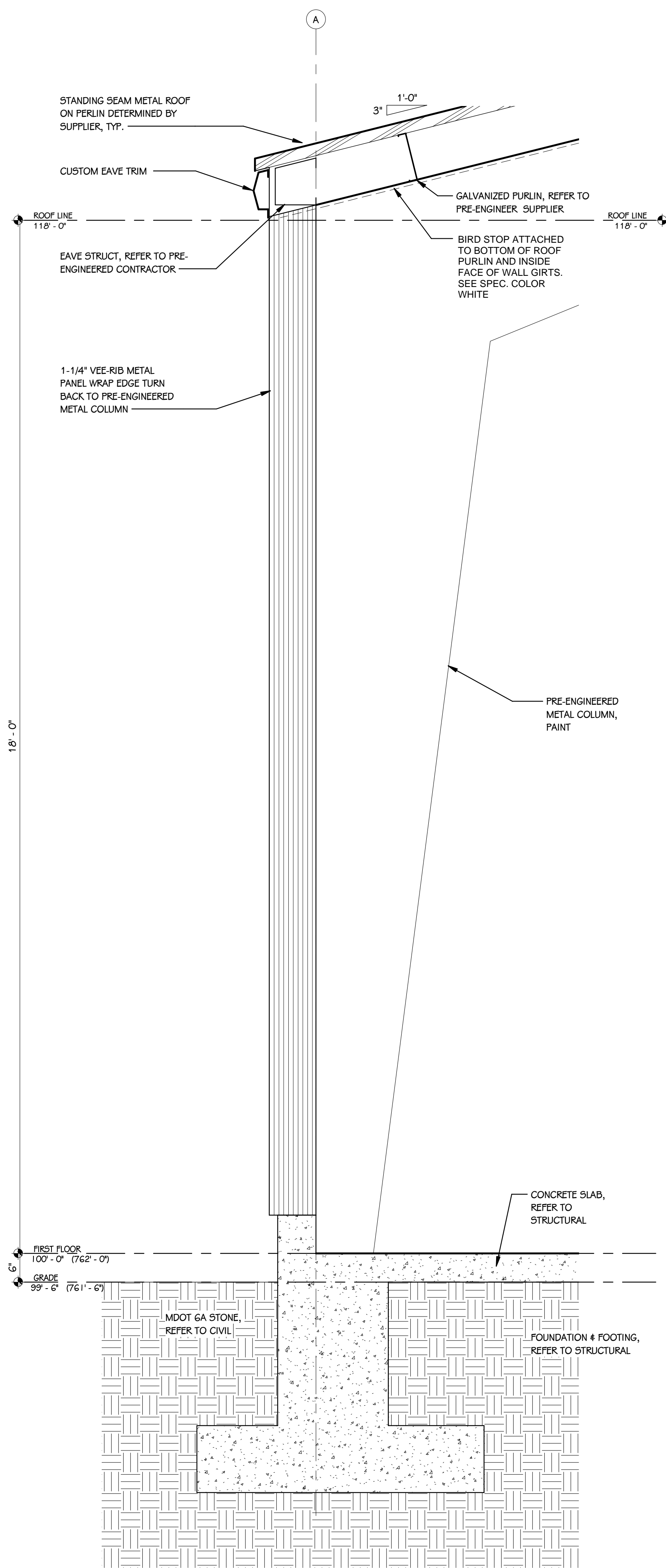
**2 BUILDING SECTION**  
1/8" = 1'-0"



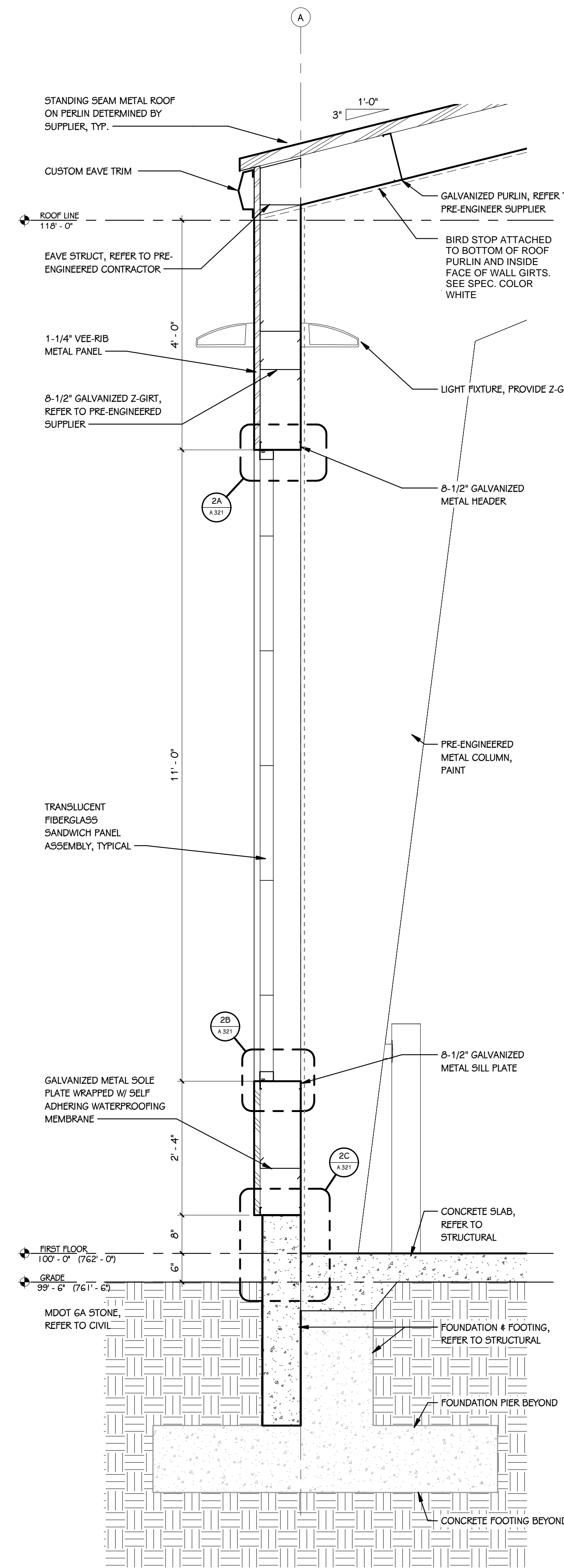
**3 BUILDING SECTION**  
1/8" = 1'-0"

**PROJECT TITLE**  
 CITY OF KALAMAZOO SCALE  
  
**OWNER**  
 CITY OF KALAMAZOO  
 Kalamazoo, Michigan  
  
**SHEET TITLE**  
 EXTERIOR ELEVATIONS & BUILDING SECTIONS  
  
**DATE**  
 APRIL 14, 2023  
  
**SHEET NUMBER**  
 A 301  
 21-203.00  
  
**ISSUED FOR** \_\_\_\_\_ **DATE** \_\_\_\_\_  
  
**© 2023 ALL RIGHTS RESERVED**  
 TowerPinkster  
 Architecture · Engineering · Interiors  
 TOWERPINKSTER.COM

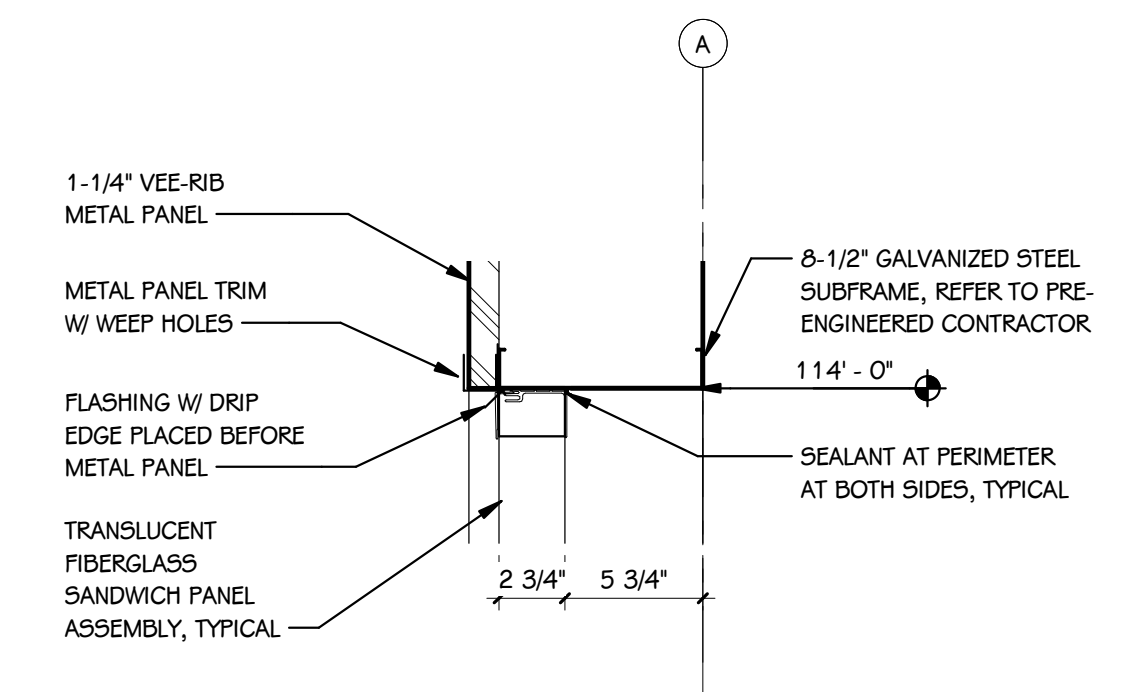




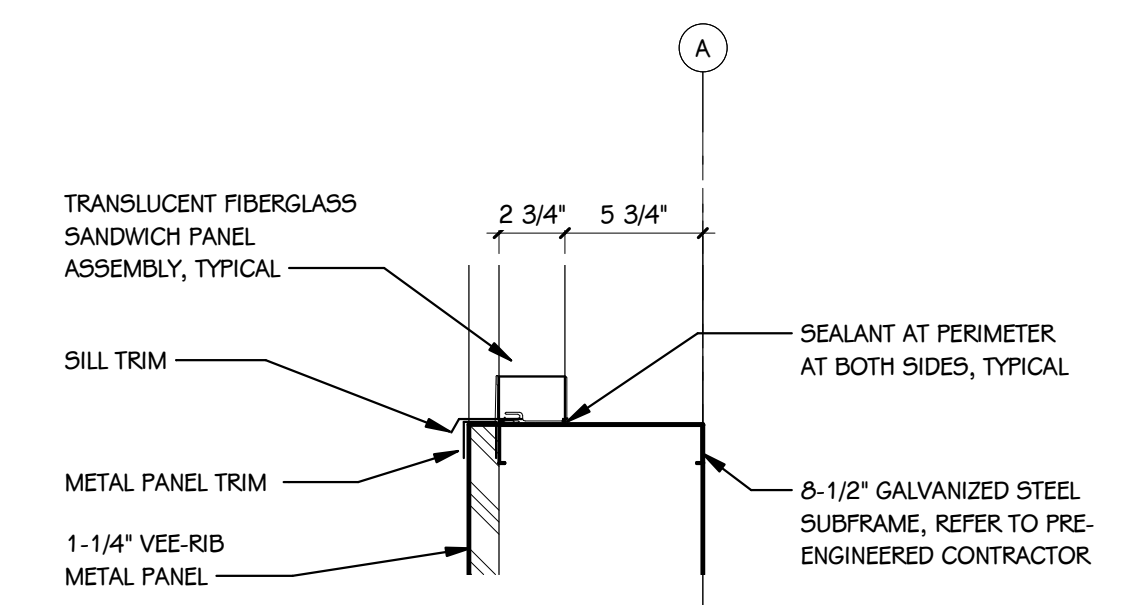
**1 WALL SECTIONS**  
A.321 3/4" = 1'-0"



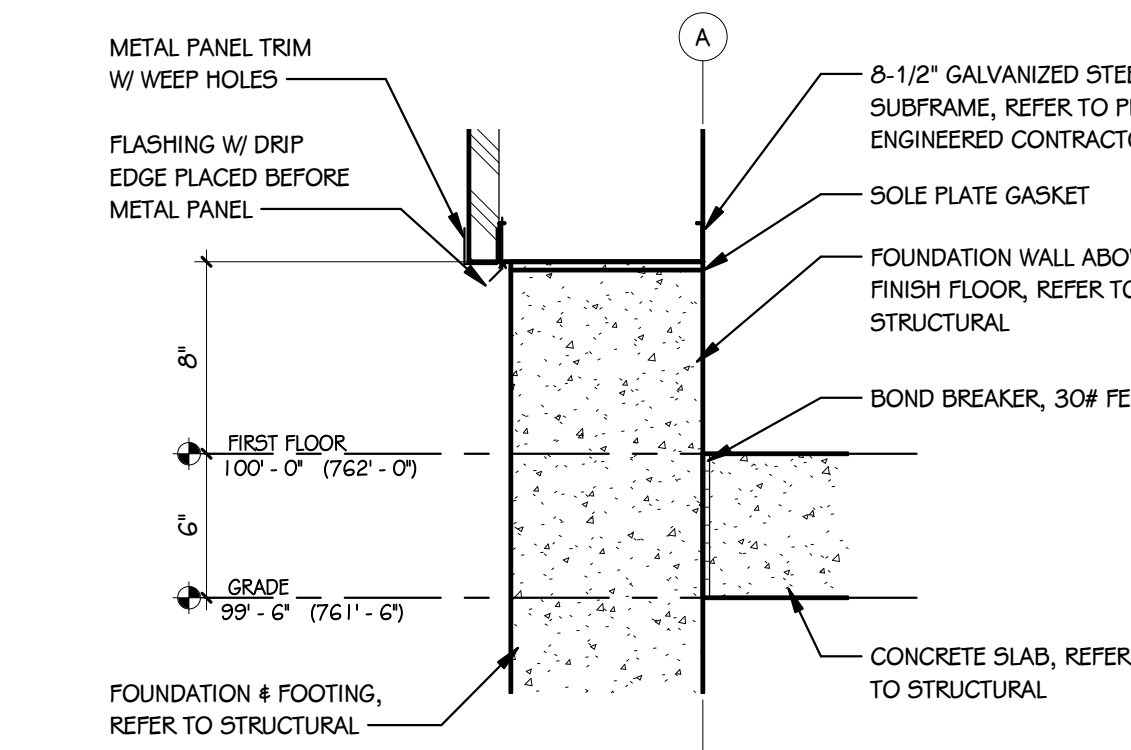
**2 WALL SECTIONS**  
A.321 3/4" = 1'-0"



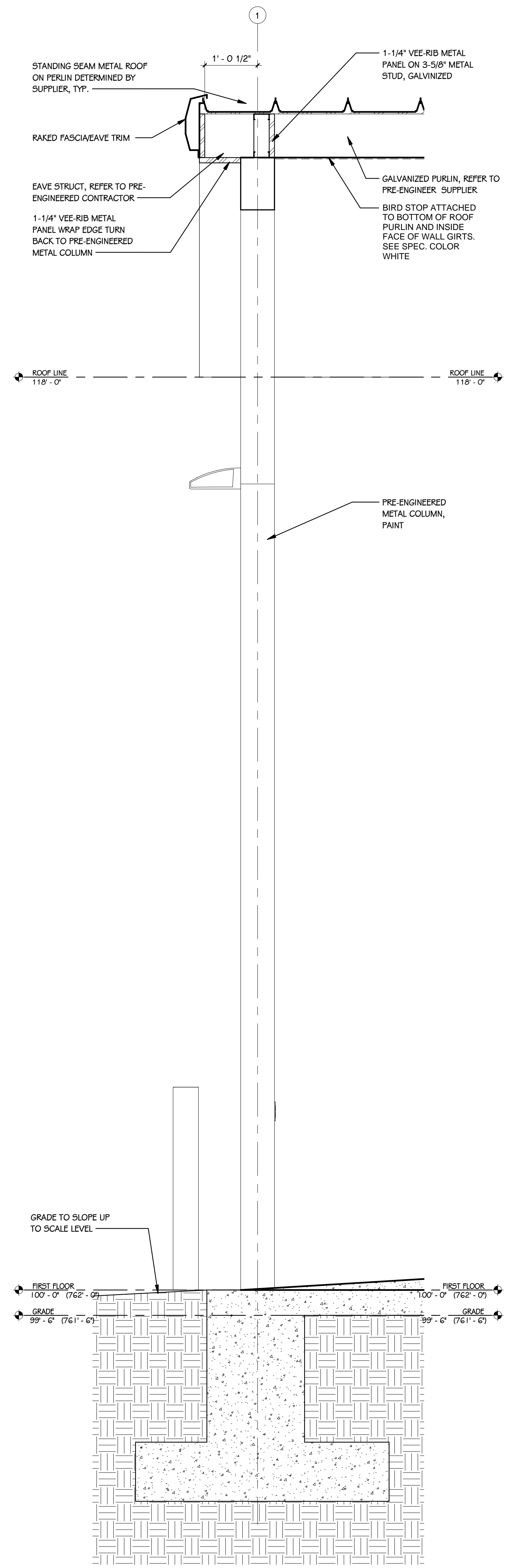
**2A ENLARGED DETAIL**  
A.321 1 1/2" = 1'-0"



**2B ENLARGED DETAIL**  
A.321 1 1/2" = 1'-0"



**2C ENLARGED DETAIL**  
A.321 1 1/2" = 1'-0"



**3 WALL SECTION**  
A.321 3/4" = 1'-0"

ISSUED FOR DATE

PROJECT TITLE  
 CITY OF KALAMAZOO SCALE

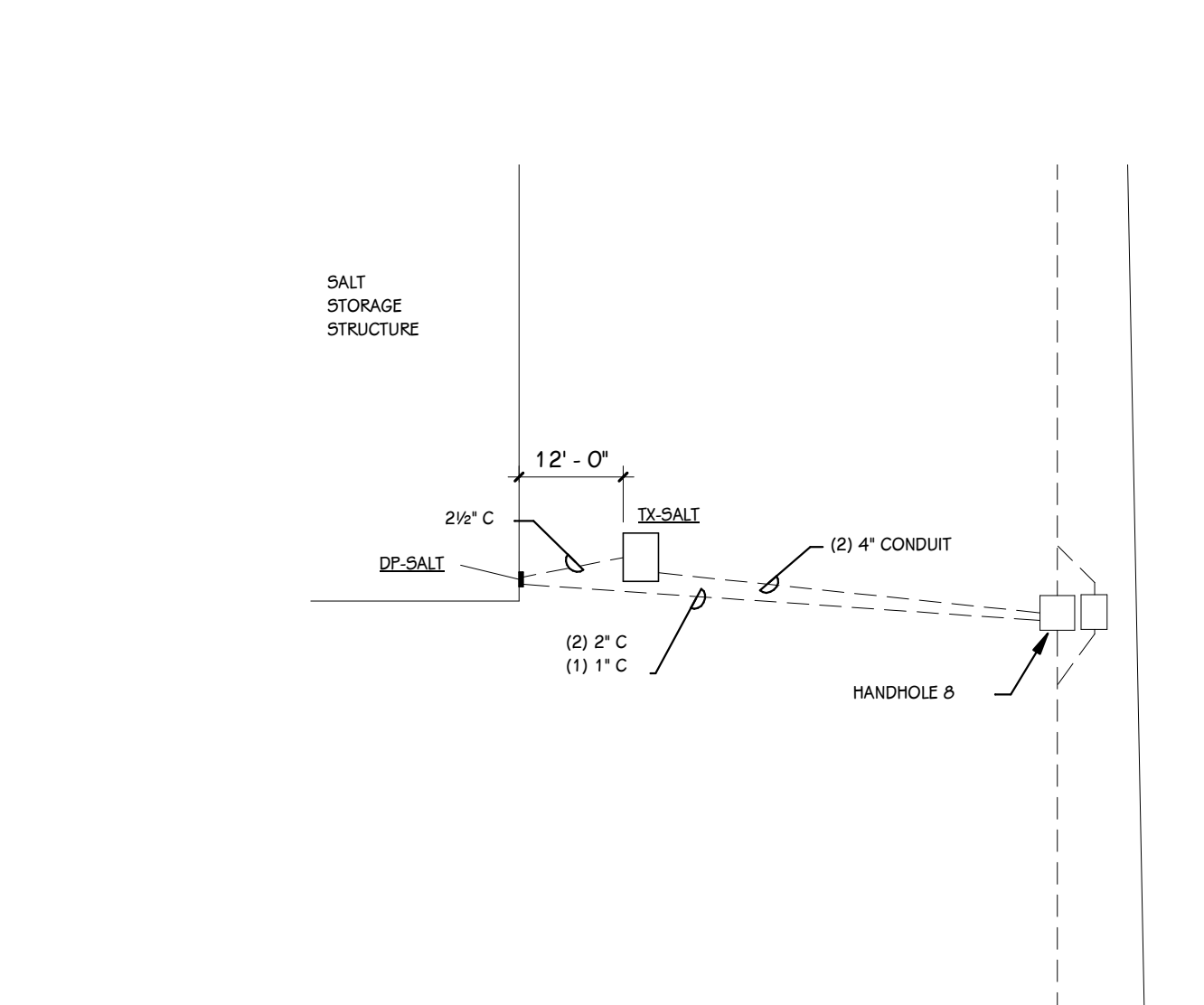
OWNER  
 CITY OF KALAMAZOO

Kalamazoo, Michigan

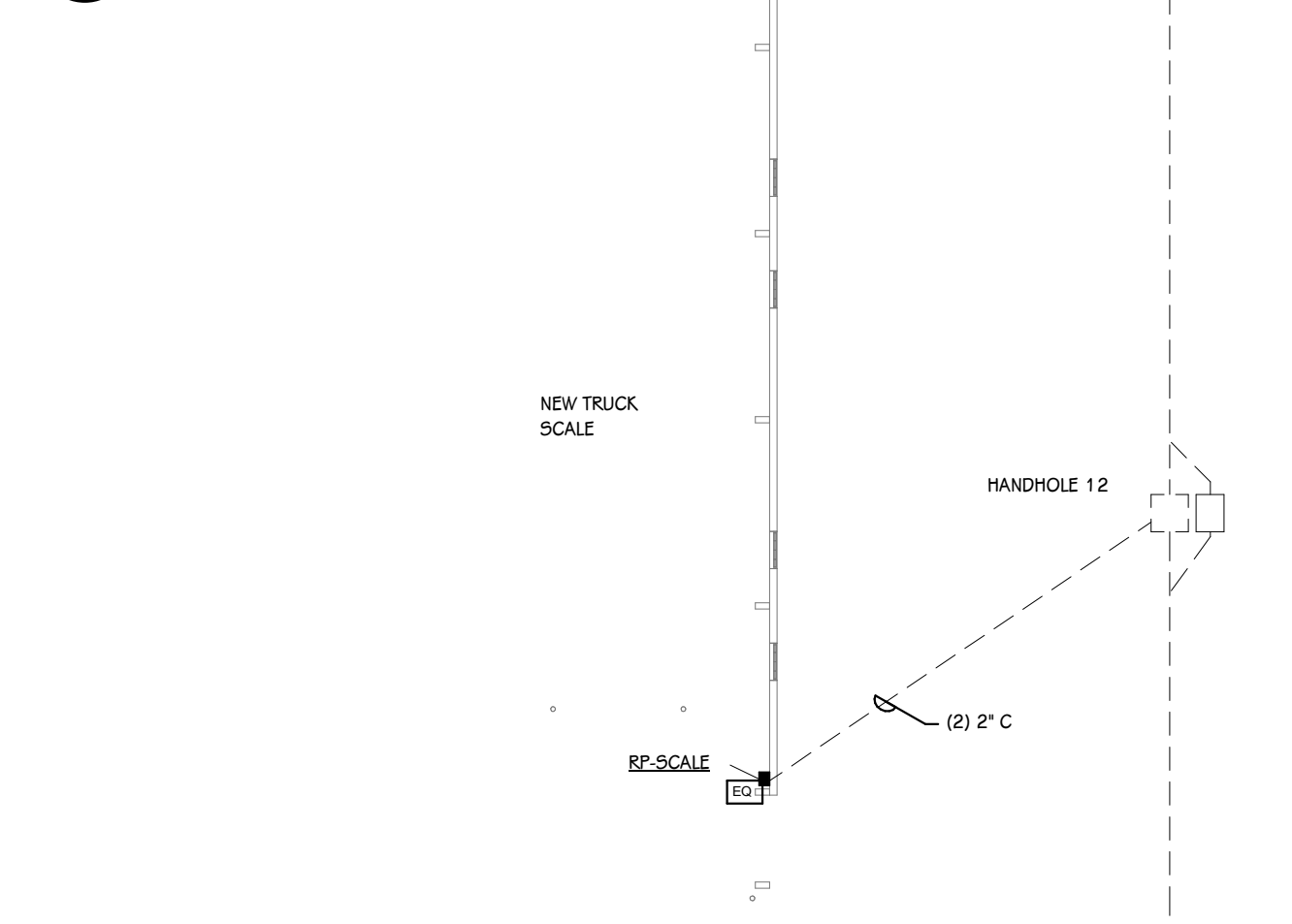
SHEET TITLE  
 WALL SECTIONS

DATE  
 APRIL 14, 2023  
 SHEET NUMBER  
**A 321**  
 21-203.00

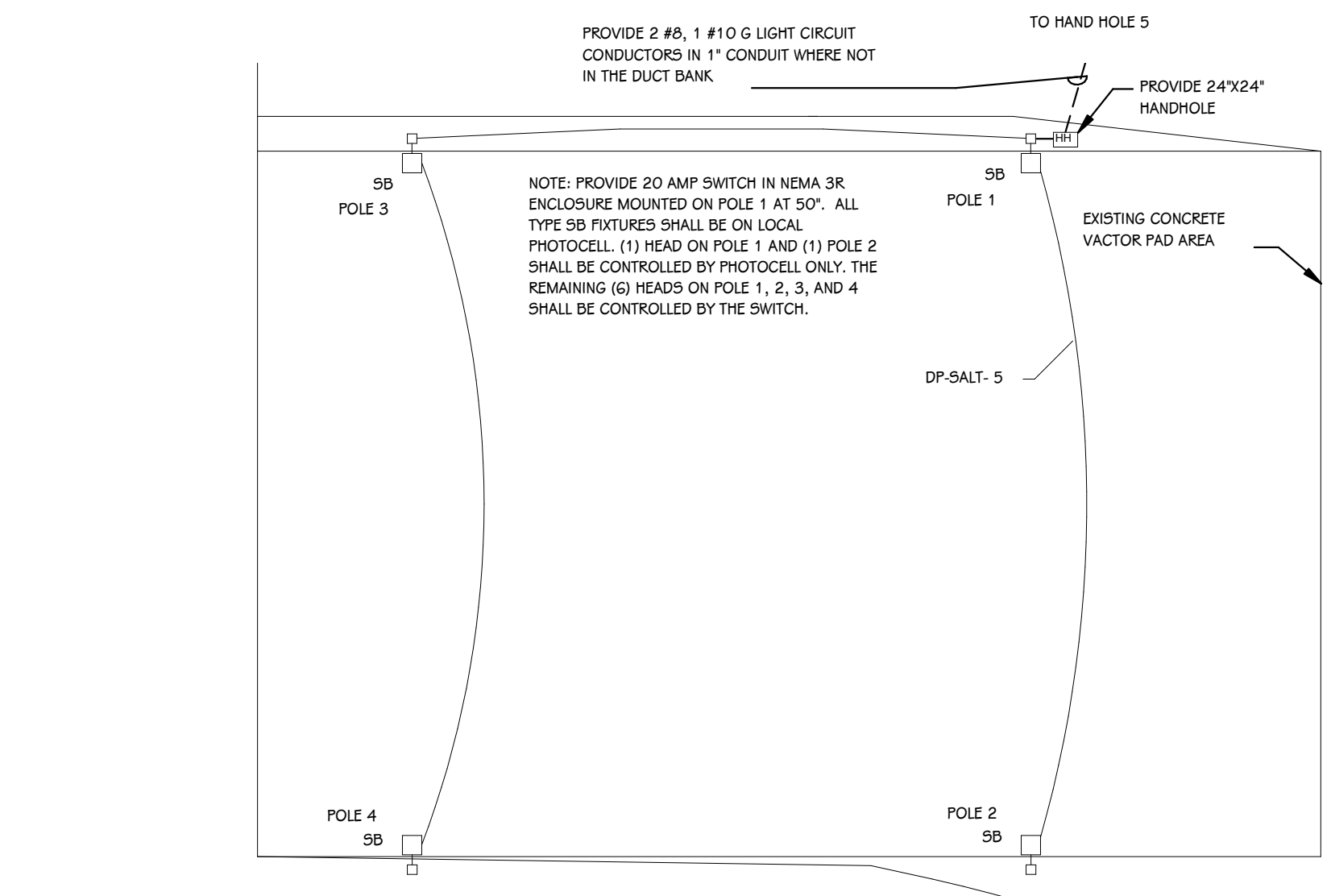




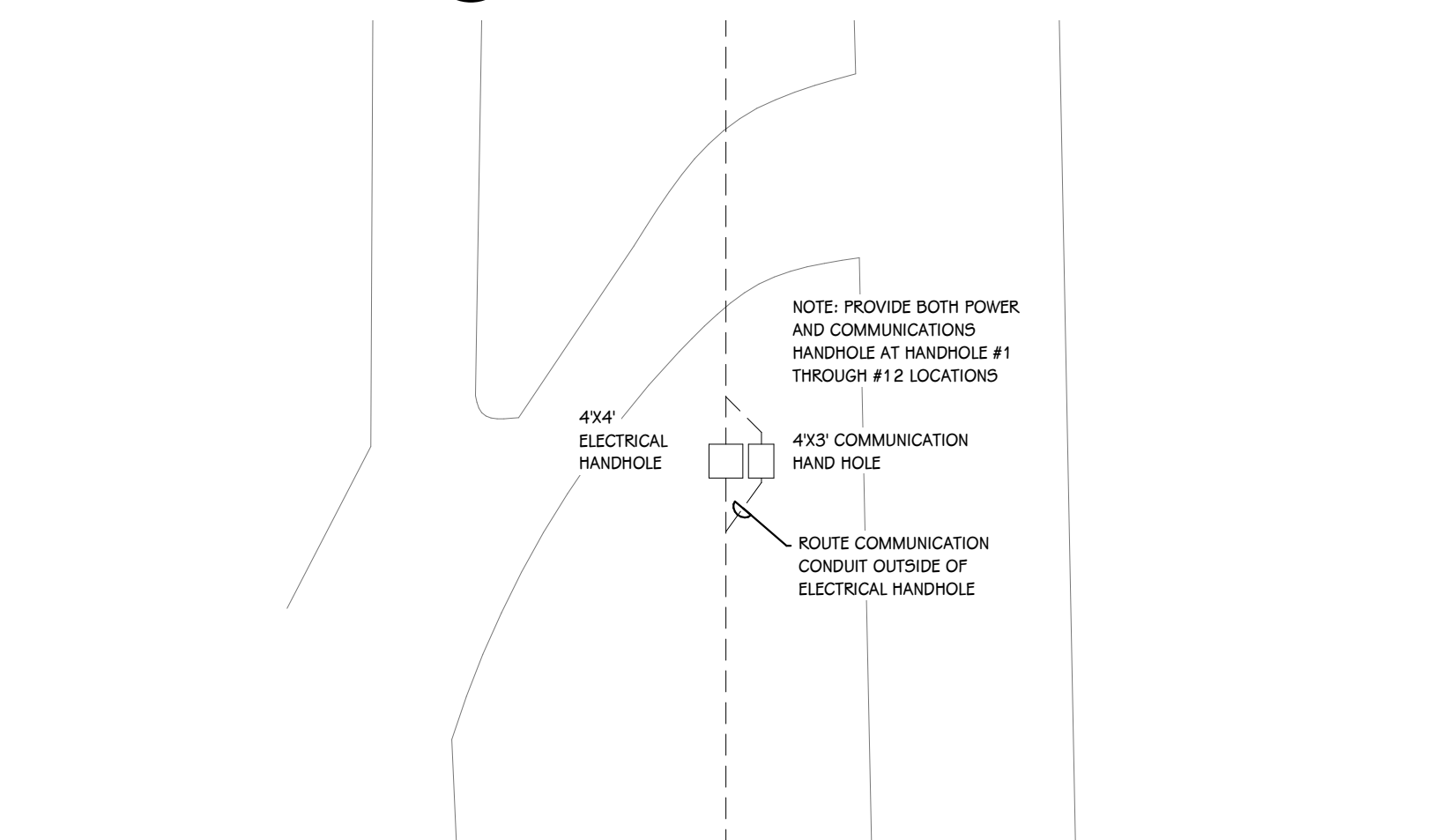
4 PAD MOUNT TRANSFORMER AND PANEL AT SALT STORAGE  
1" = 20'-0"



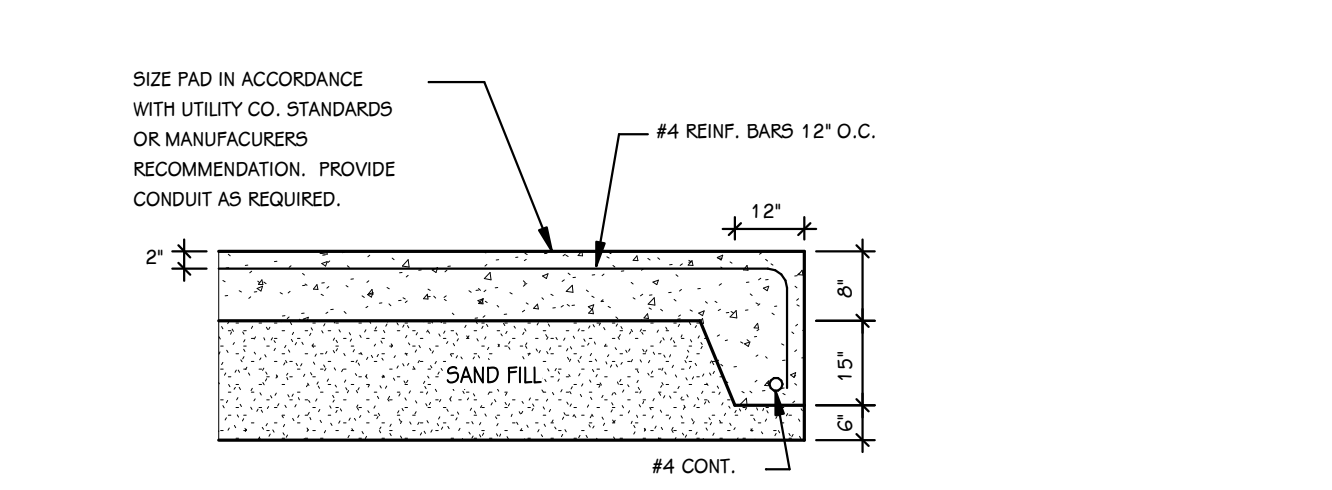
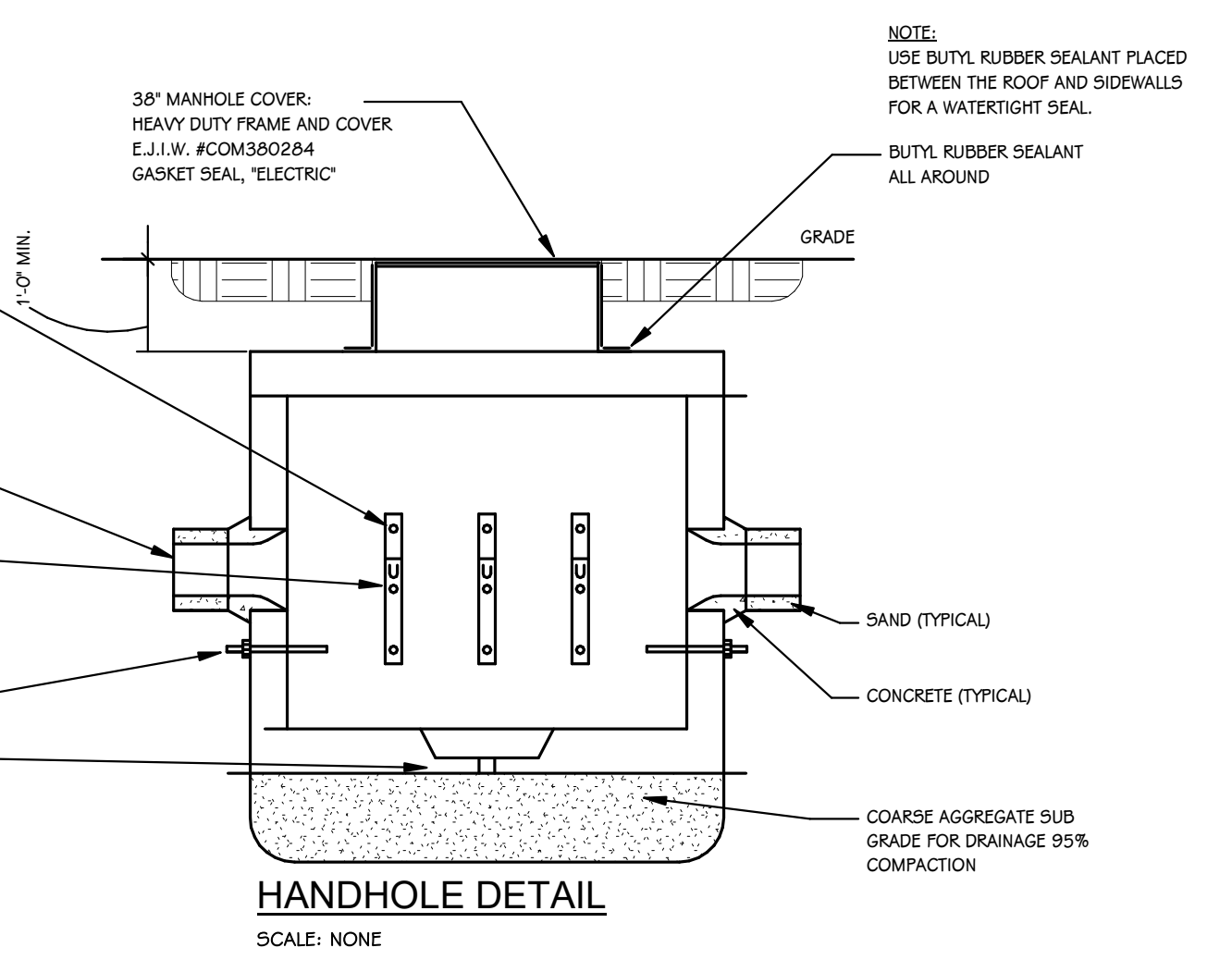
2 TRUCK SCALE PANEL RP-SCALE  
1" = 20'-0"



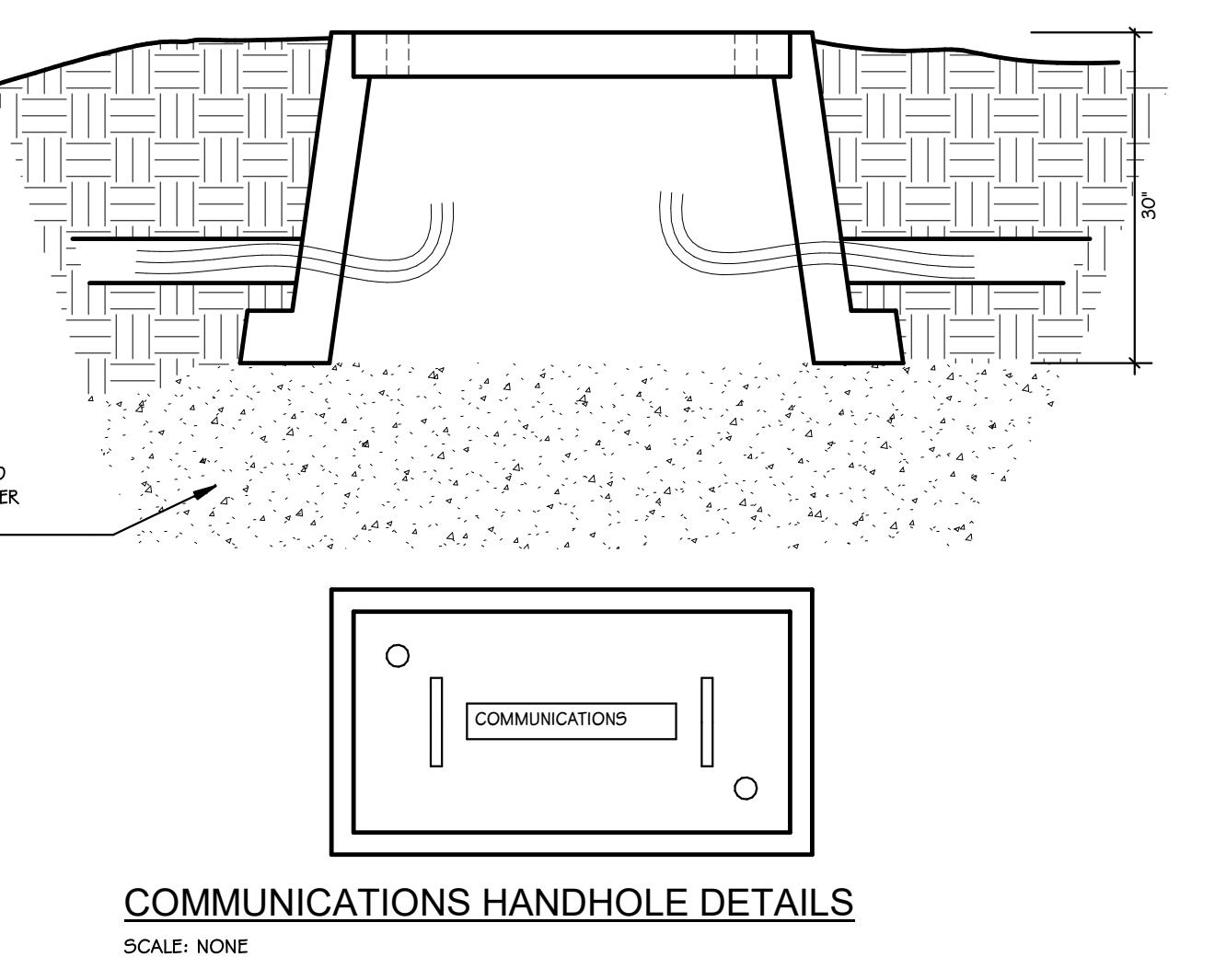
1 VECTOR PAD LIGHTING PLAN  
1" = 20'-0"



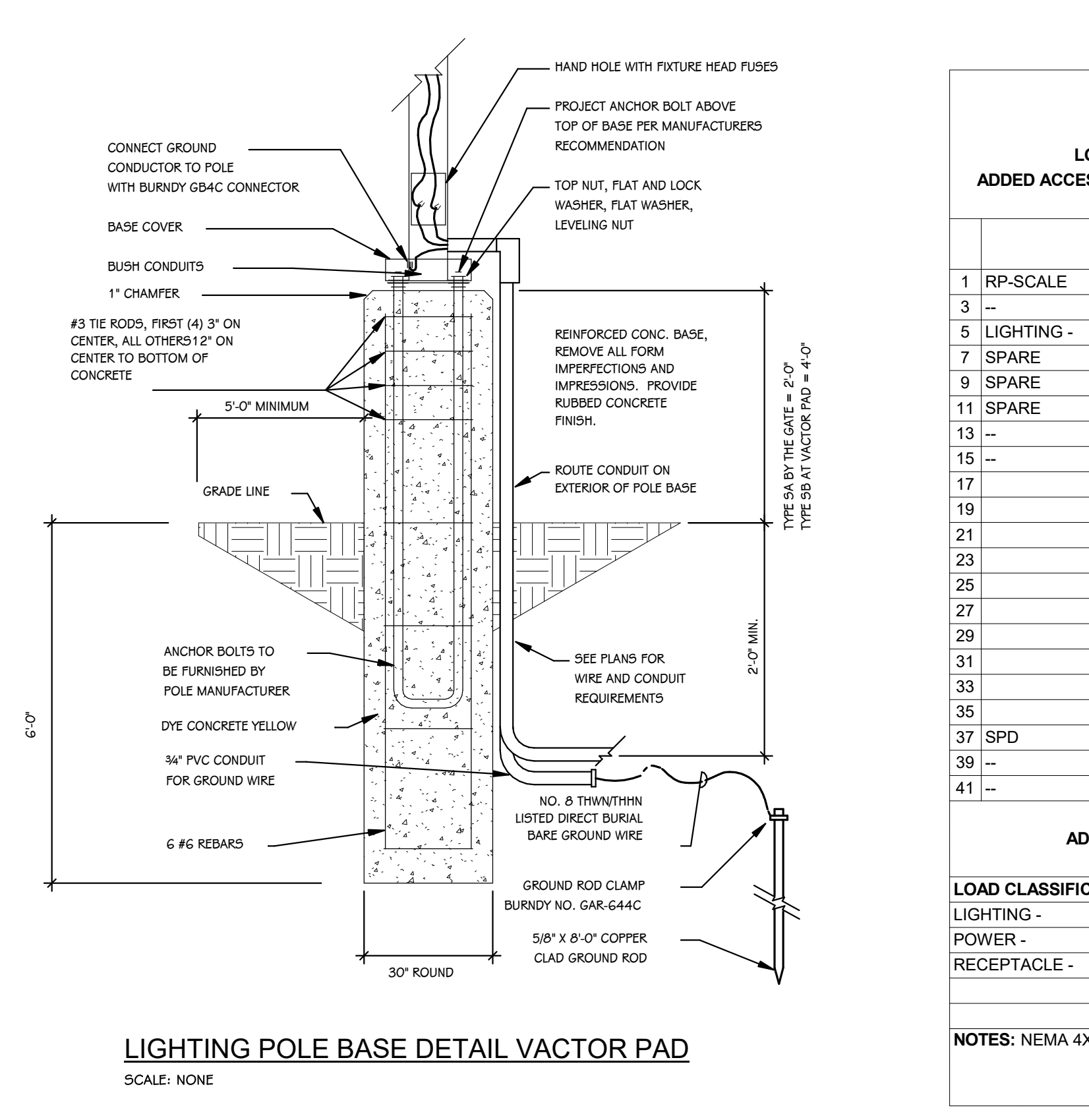
3 TYPICAL ELECTRICAL AND EXISTING COMMUNICATION HAND HOLE DETAIL  
1" = 20'-0"



6 OUTDOOR GENERATOR/TRANSFORMER PAD  
SCALE: NONE



7 COMMUNICATIONS HANDHOLE DETAILS  
SCALE: NONE



8 LIGHTING POLE BASE DETAIL VECTOR PAD  
SCALE: NONE

**Precast Concrete**  
**48" x 48" x 48" Electrical Handhole**

Weight: 8,800 lbs

**Standard Features**

- 4500 PSI Concrete @ 28 Days
- Design for H-20 Traffic Loading
- Galvanized Pulling Irons
- 12" Dia. Sump
- 3" Threaded Inserts
- Manufactured in NPCA Certified Plant

**Standard Options**

- Cast Iron Frame and Cover
- 6" & 12" Precast Adjustment Rings
- (32) 4" & 6" Dia. Duct Terminators
- Cover Lettering Options Available

**NPCA**  
CERTIFIED PLANT

**QPI**  
PRECAST & SUPPLY

T: 269-342-0539  
F: 269-344-4810  
qualityprecastinc.com

7800 ADOBE RD.  
KALAMAZOO, MI

**ELECTRICAL TRANSFORMER SCHEDULE**

TRANSFORMER NAME	FED FROM	SIZE	PRIMARY VOLTAGE (V)	BREAKER / POLES	# OF SETS	PRIMARY FEEDER			NOTES
						WIRE	GROUND	PVC	
TX-SALT	PMH-12	150 kVA	4800 V	25 A / 3	1 SET	3 #2	#6 GND.	2" PVC*	1, 2, 3

NOTES:  
1. PROVIDE 5 KV CABLE FOR FEEDER, THIN GROUND WIRE  
2. PROVIDE INTERNAL FISHING  
3. PROVIDE LOOP FEED AT PRIMARY CONNECTION.

**SITE LIGHT FIXTURE SCHEDULE**

TYPE	DESCRIPTION	MOUNTING	WATTS	MANUFACTURER	NOTES
SA	LED STREET LIGHT	30' POLE	122 VA	CREE: XSPMD-D-HT-2ME-12L-40K7-JUL-BZ-N	1, 2, 3
SB	DUAL HEAD LED FLOOD LIGHT	30' POLE	144 VA	(2) CREE: OSGM-B-11L-40K7-SS-UL-BZ-UD HEADS W/ PD-2A DUAL HEAD TENON MOUNT	1, 2, 4

1. ALL LED FIXTURES TO HAVE WARRANTY TO MEET OR EXCEED WARRANTY INCLUDED IN BASIS OF DESIGN. FIXTURES LISTED AS EQUALS SHALL MEET DELIVERED LUMENS, CRI, EFFICACY AND OPTIONS OF THAT SPECIFIED. REFER TO SPECIFICATIONS 265100 AND 265600 FOR ADDITIONAL REQUIREMENTS.  
2. THE MOUNTING DESCRIPTION IS GENERAL. REFER TO SHOP DRAWINGS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SPECIFIC MOUNTING DETAILS.  
3. SQUARE STRAIGHT STEEL POLE. PROVIDE 6" MAST ARM W/ 2" O.D. TENON. VERIFY WITH FIXTURE SHOP DRAWINGS. MATCH FIXTURE COLOR. PROVIDE 7-PIN DUSK TO DAWN PHOTOCELL MATCHING FIXTURE RECEPTACLE.  
4. SQUARE STRAIGHT STEEL POLE. PROVIDE DUAL HEAD TENON MOUNT. VERIFY WITH FIXTURE SHOP DRAWINGS. MATCH FIXTURE COLOR. PROVIDE 7-PIN DUSK TO DAWN PHOTOCELL MATCHING FIXTURE RECEPTACLE.

**PANELBOARD " DP-SALT" LOAD SCHEDULE**

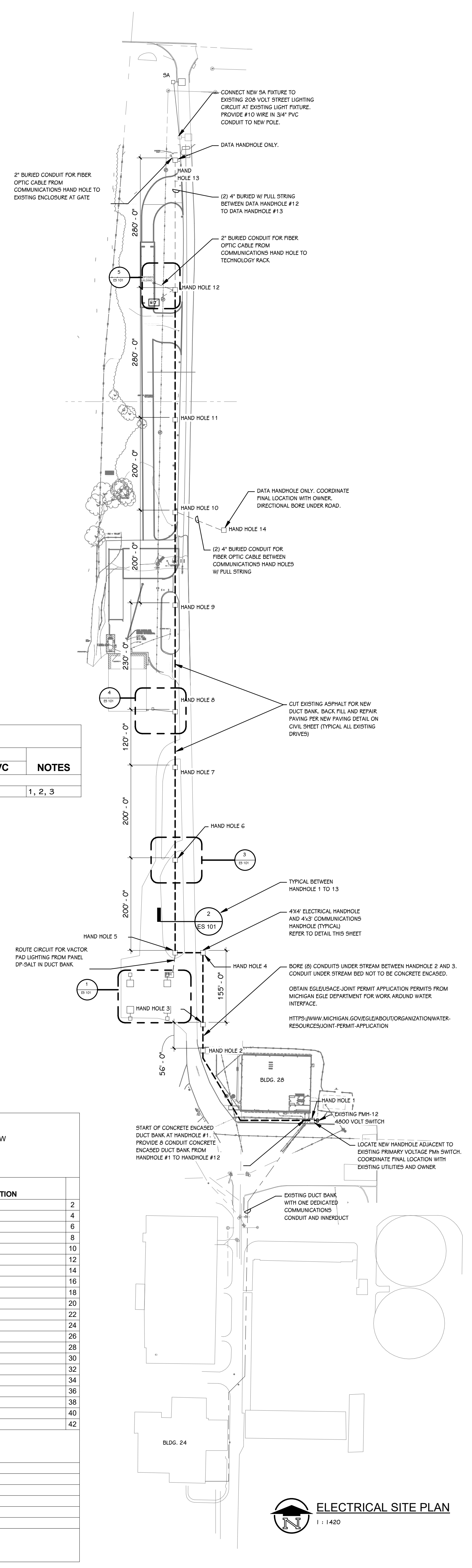
PANEL: DP-SALT  
LOCATION: FIRST FLOOR  
ADDED ACCESSORIES: SPD

MOUNTING: SURFACE  
AMPS: 225 A MB, ULSE RATED  
FEED-THRU LUGS... No

VOLTAGE: 480/277V, 3PH, 4W  
FED FROM: TX-SALT  
A.I.C. VALUE: 25 KAIC

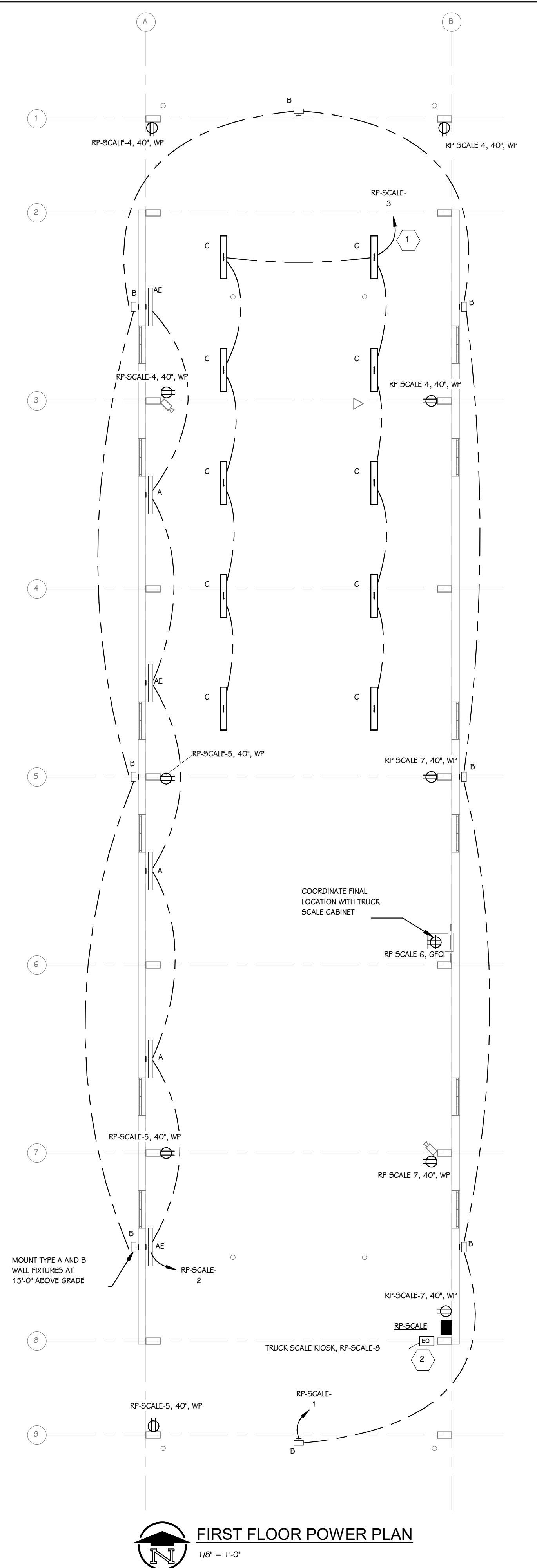
CIRCUIT DESCRIPTION	TRIP (A)	POLES	A (VA)			B (VA)			C (VA)			TRIP (A)	CIRCUIT DESCRIPTION	
			0	2162	0	2410	0	576	0	0	0			1
1 RP-SCALE	40	2	2162	0	2410	0	576	0	0	0	1	20	2	
3 -	-	-	-	-	-	-	-	-	-	-	-	-	4	
5 LIGHTING -	20	1	0	0	0	0	0	0	0	0	1	20	6	
7 SPARE	20	1	0	0	0	0	0	0	0	0	1	20	8	
9 SPARE	20	1	0	0	0	0	0	0	0	0	1	20	10	
11 SPARE	20	3	0	0	0	0	0	0	0	0	1	20	12	
13 -	-	-	-	-	-	-	-	-	-	-	-	-	14	
15 -	-	-	-	-	-	-	-	-	-	-	-	-	16	
17 -	-	-	-	-	-	-	-	-	-	-	-	-	18	
19 -	-	-	-	-	-	-	-	-	-	-	-	-	20	
21 -	-	-	-	-	-	-	-	-	-	-	-	-	22	
23 -	-	-	-	-	-	-	-	-	-	-	-	-	24	
25 -	-	-	-	-	-	-	-	-	-	-	-	-	26	
27 -	-	-	-	-	-	-	-	-	-	-	-	-	28	
29 -	-	-	-	-	-	-	-	-	-	-	-	-	30	
31 -	-	-	-	-	-	-	-	-	-	-	-	-	32	
33 -	-	-	-	-	-	-	-	-	-	-	-	-	34	
35 -	-	-	-	-	-	-	-	-	-	-	-	-	36	
37 SPD	100	3	0	0	0	0	0	0	0	0	1	20	38	
39 -	-	-	-	-	-	-	-	-	-	-	-	-	40	
41 -	-	-	-	-	-	-	-	-	-	-	-	-	42	
TOTAL LOAD:			2162 VA	2410 VA	576 VA									
ADDITIONAL FEED THRU LUGS LOAD (IF APPLICABLE):			0 VA	0 VA	0 VA									
TOTAL AMPS:			9 A	10 A	2 A									
LOAD CLASSIFICATION			CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND									
LIGHTING -			2848 VA	100.00%	2848 VA									
POWER -			0 VA	0.00%	0 VA									
RECEPTACLE -			2300 VA	100.00%	2300 VA									
						TOTAL CONNECTED LOAD:			5148 VA					
						TOTAL ESTIMATED DEMAND:			5148 VA					
						TOTAL CONNECTED LOAD (A):			6 A					
						TOTAL ESTIMATED DEMAND (A):			6 A					

NOTES: NEMA 4X ENCLOSURE, ULSE



ELECTRICAL SITE PLAN  
1" = 1/480"

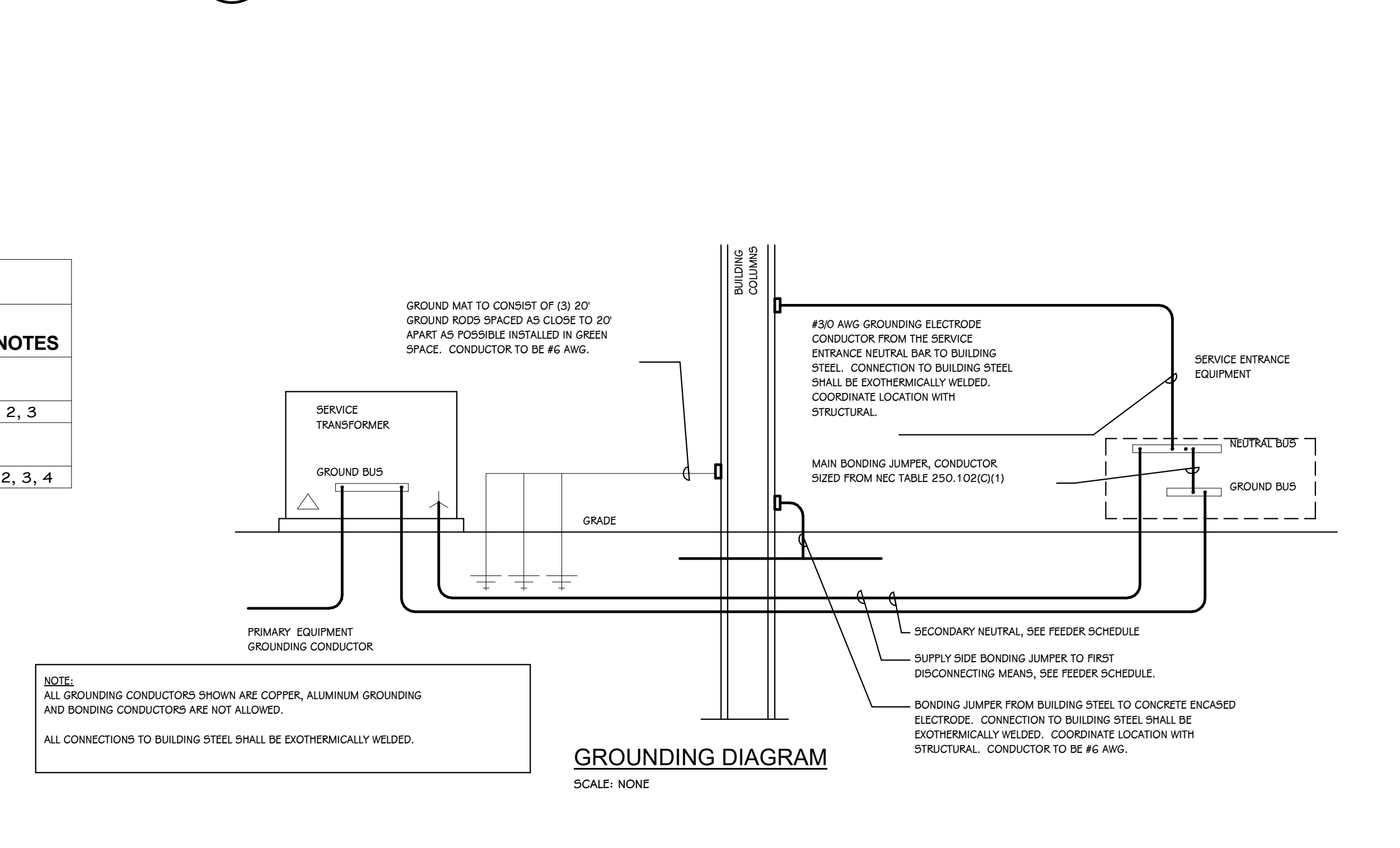




**FIRST FLOOR POWER PLAN**  
SCALE: 1/8" = 1'-0"

- GENERAL ELECTRICAL NOTES**
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR NEW WORK OR WHERE DEVICES ARE REMOVED AND NOT REPLACED.
  - PATCH ALL PENETRATIONS AS REQUIRED TO MAINTAIN FIRE RATING.
  - REFER TO SECTIONS, ARCHITECTURAL ELEVATIONS AND RELATED DRAWINGS FOR EXACT DEVICE LOCATIONS AND MOUNTING HEIGHTS.
  - ALL CONDUITS SHALL RUN AS NEAR TO DECK AS PERMITTED BY CODE.
  - ALL OUTDOOR RECEPTACLE AND ANY OTHER REQUIRED BY 201.8B TO BE GFCI PROTECTED PER NEC REQUIREMENTS.
  - ALL LOW VOLTAGE CABLING SHALL BE RUN IN CONDUIT.
  - ALL CONDUITS SHALL ENTER/EXIT THE BUILDING BELOW GRADE. PROVIDE TRENCHING AND DIRECTIONAL BORING AS REQUIRED. CUT AND PATCH AS REQUIRED. NO EXPOSED CONDUIT SHALL BE ALLOWED ON EXTERIOR OF BUILDING.
  - REFER TO T SHEET FOR ADDITIONAL ROUGH-IN REQUIREMENTS.
  - ALL POWER AND LOW-VOLTAGE CABLING SHALL BE IN PVC CONDUIT ABOVE GRADE. MOUNT CONDUIT TIGHT TO STRUCTURE.
- ELECTRICAL KEYED NOTES**
- PROVIDE 120 VOLT 20 AMP CONTACTOR AND 120 VOLT BUTTON TYPE PHOTOCELL AND NORMALLY CLOSED CONTACTOR TO CONTROL TYPE C FIXTURES. TYPE C FIXTURE SHALL ONLY BE ON DURING DAYTIME. PHOTOCELL TO OPEN THE CONTACTOR DURING NIGHT TIME HOURS. MOUNT PHOTOCELL ON NORTH FACE OF BUILDING.
  - ROUTE HARDWIRE 20 AMP 120V VOLT CIRCUIT BELOW GRADE INTO TRUCK SCALE KIOSK. COORDINATE FINAL CONNECTION WITH SCALE VENDOR.

- LIGHTING SYMBOLS**
- WALL MTD. LIGHT FIXTURE
  - DOWNLIGHT FIXTURE
  - PHOTOCONTROL
- RECEPTACLE SYMBOLS**
- DUPLEX RECEPTACLE
  - DUPLEX RECEPTACLE - WET LOCATION ENCLOSURE WITH GFI
  - RECEPTACLE VARIATIONS - HEIGHT PER ABOVE UNLESS INDICATED ON DRAWINGS.
  - DOUBLE DUPLEX RECEPTACLE
  - DUPLEX RECEPTACLE - WITH GFI
- POWER SYMBOLS**
- PANELBOARD
  - DISTRIBUTION PANELBOARD
  - ELECTRICAL EQUIPMENT CONNECTION - REFER TO CONNECTION SCHEDULES FOR FEEDER SIZE, BREAKERS, DISCONNECT MEANS ETC.
  - FUSE
  - CIRCUIT BREAKER
  - CIRCUIT BREAKER - ELECTRONIC TRIP
  - SWITCH
  - LIGHTING CONTACTOR
  - SYSTEM GROUND - REFER TO SPECIFICATIONS
  - TRANSFORMER
  - FLESH IN-GRADE HAND HOLE
- POWER SYMBOLS MOUNTING HEIGHTS**
- PANELBOARD: 72" TO TOP
  - DISTRIBUTION PANELBOARD: 72" TO TOP
- NOTES:**
- MOUNT DEVICES AT HEIGHTS INDICATED UNLESS INDICATED OTHERWISE ON PLANS. HEIGHTS ARE TO BOTTOM OF DEVICE.



**GROUNDING DIAGRAM**  
SCALE: NONE

**PANELBOARD "RP-SCALE" LOAD SCHEDULE**

PANEL: RP-SCALE MOUNTING: SURFACE  
LOCATION: FIRST FLOOR AMPS: 70 A MB, ULSE RATED VOLTAGE: 120/240V, 1PH, 3W  
ADDED ACCESSORIES: SPD FEED THRU LUGS... No FED FROM: DP-SALT A.I.C. VALUE: PER MANUFACTURER

CIRCUIT DESCRIPTION	TRIP (A)	POLES	A (VA)		B (VA)		POLES	TRIP (A)	CIRCUIT DESCRIPTION	
			1	2	1	2				
1 LIGHTING - SCALE BLDG	20	1	432	890			1	20	LIGHTING - SCALE BLDG	2
3 LIGHTING - SCALE BLDG	20	1			1150	720	1	20	RECEPTACLE - SCALE BLDG	4
5 RECEPTACLE - SCALE BLDG	20	1	540	500			1	20	RECEPTACLE - SCALE BLDG	6
7 RECEPTACLE - SCALE BLDG	20	1			540	0	1	20	POWER - TRUCK SCALE KIOSK	8
9 SPARE	20	1	0	0			1	20	SPARE	10
11 SPARE	20	1	0	0	0	0	1	20	SPARE	12
13 SPARE	20	1	0	0			1	20	SPARE	14
15 SPARE	20	1	0	0	0	0	1	20	SPARE	16
17 SPARE	20	1	0	0			1	20	SPARE	18
19										20
21										22
23										24
25 SPD	100	2	0							26
27										28
<b>TOTAL LOAD:</b>			2162 VA		2410 VA					
<b>ADDITIONAL FEED THRU LUGS LOAD (IF APPLICABLE):</b>			0 VA		0 VA					
<b>TOTAL AMPS:</b>			18 A		20 A					

**LOAD CLASSIFICATION**

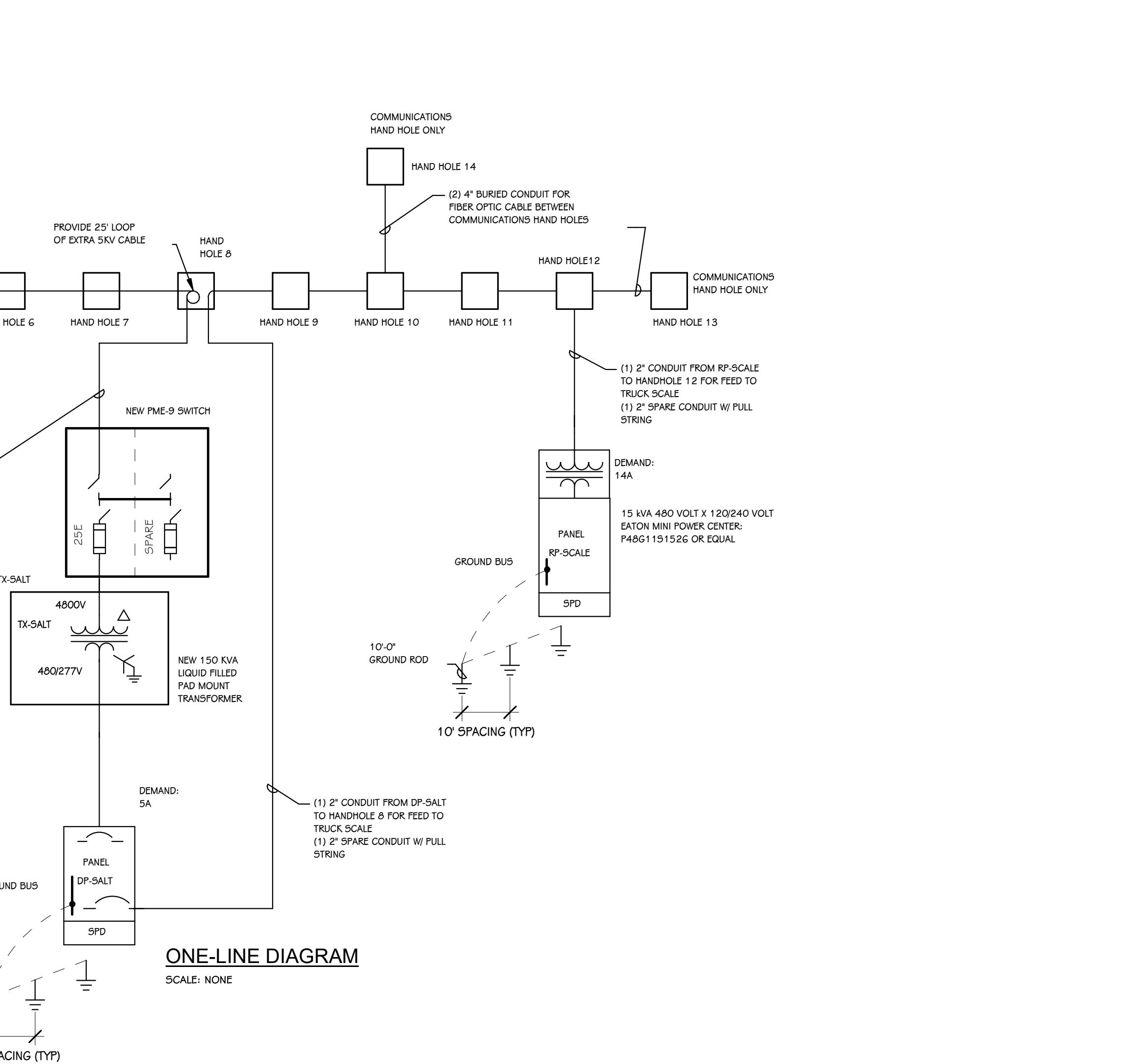
LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
LIGHTING -	2272 VA	100.00%	2272 VA	TOTAL CONNECTED LOAD: 4572 VA
POWER -	0 VA	0.00%	0 VA	TOTAL ESTIMATED DEMAND: 4572 VA
RECEPTACLE -	2300 VA	100.00%	2300 VA	TOTAL ESTIMATED DEMAND... 19 A

**NOTES:** NEMA 3R ENCLOSURE, ULSE  
RECEPTACLE DEMAND FACTOR = FIRST 10KVA X 100% + 50% OF REMAINDER

**LIGHT FIXTURE SCHEDULE**

TYPE	Description	MOUNTING	DRIVER	WATTS	MANUFACTURER	NOTES
A	LED VAPOR TIGHT	WALL	0-10V	115 VA	LITHONIA: VAP-15000LM-FST-MD-MVOLT-G210-40K-80CRI-5MB EQUAL BY CREE	1, 2
AE	LED VAPOR TIGHT	WALL	0-10V	115 VA	LITHONIA: VAP-15000LM-FST-MD-MVOLT-G210-40K-80CRI-5MB-BSL722C EQUAL BY CREE	1, 2, 3
B	LED WALL PACK	WALL	0-10V	54 VA	LITHONIA: TWFX2-LED-P4-40K-MVOLT-PE-DBLXD EQUAL BY CREE	1, 2
C	PENDANT LINEAR	CHAIN	0-10V	115 VA	LITHONIA: VAP-15000LM-FST-MD-MVOLT-G210-40K-80CRI-CMB-HC3G EQUAL BY CREE	1, 2

- ALL LED FIXTURES TO HAVE WARRANTY TO MEET OR EXCEED WARRANTY INCLUDED IN BASIS OF DESIGN. FIXTURES LISTED AS EQUALS SHALL MEET DELIVERED LUMENS, CRI, EFFICACY AND OPTIONS OF THAT SPECIFIED. REFER TO SPECIFICATIONS 265100 AND 265600 FOR ADDITIONAL REQUIREMENTS.
- THE MOUNTING DESCRIPTION IS GENERAL. REFER TO SHOP DRAWINGS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SPECIFIC MOUNTING DETAILS.
- PROVIDE SEPARATE UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT TO BATTERY FIXTURES. WIRE FIXTURE TO TURN "ON" WHEN POWER FAILS.



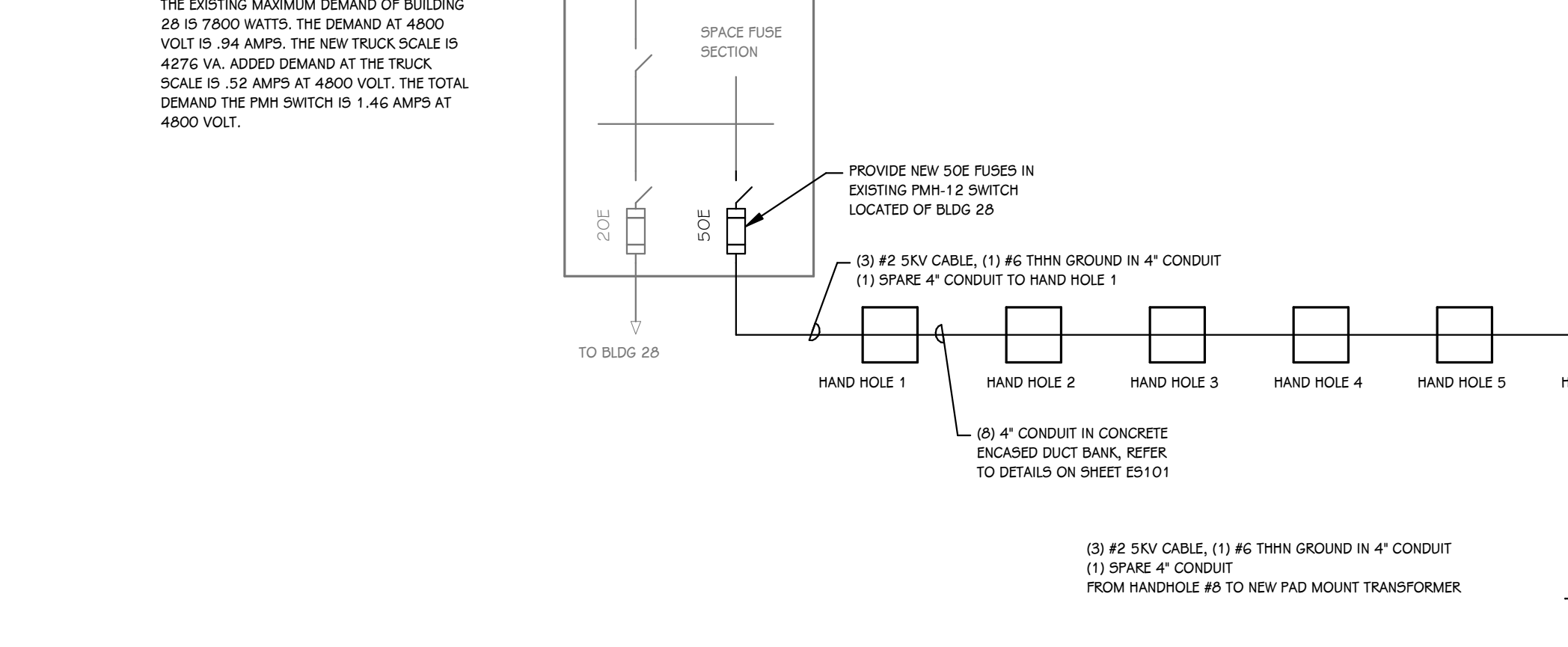
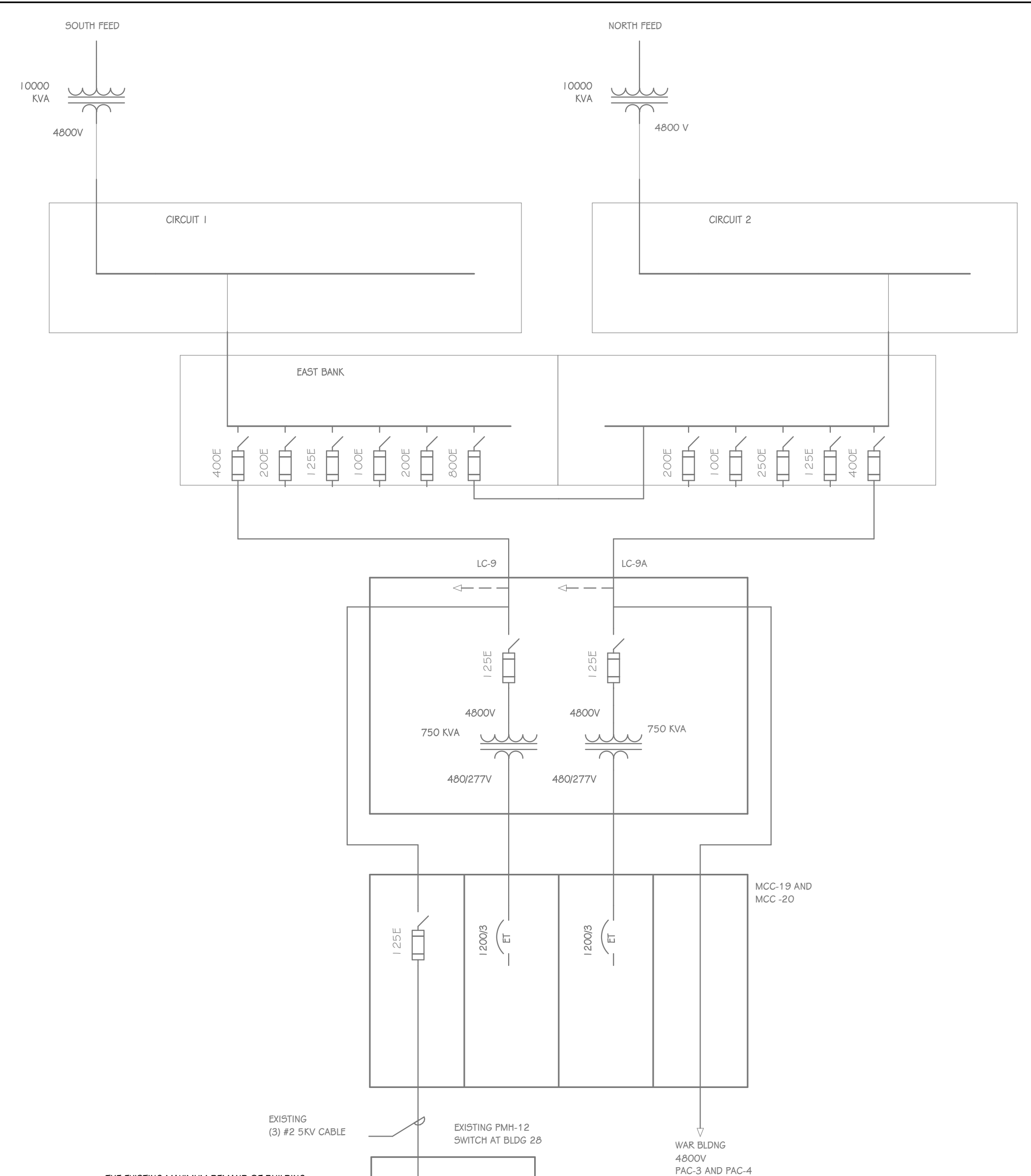
**ONE-LINE DIAGRAM**  
SCALE: NONE

**ELECTRICAL PANEL FEEDER SCHEDULE**

DESCRIPTION	FED FROM	CURRENT (FLA)	BREAKER / POLES	# OF SETS	FEEDER		NOTES
					WIRE	GROUND	
480 V DP-SALT	TX-SALT	6 A	225 A / 3	1 SET	4 #4/0	#2 G.E.C.	1, 2, 3
480 V RP-SCALE	DP-SALT	10 A	40 A / 2	1 SET	3 #1	#6 G.E.C.	1, 2, 3, 4

GENERAL: CONDUIT SIZES BASED ON EMT. UPSIZE AS REQUIRED WHERE PVC OR GALVANIZED IS USED OR REQUIRED PER SPECIFICATIONS.

- COPPER CONDUCTORS (UNLESS OTHERWISE INDICATED WITH AN "AL" FOR ALUMINUM)
- G.E.C. = GROUNDING ELECTRODE CONDUCTOR FOR SEPARATELY DERIVED SYSTEM (PER SET, USE EQUIVALENT CML AND GEC FROM 250.66)
- GND. = EQUIPMENT GROUNDING CONDUCTOR (E.G.C.)
- ROUTE FEEDER THROUGH NEW DUCT BANK

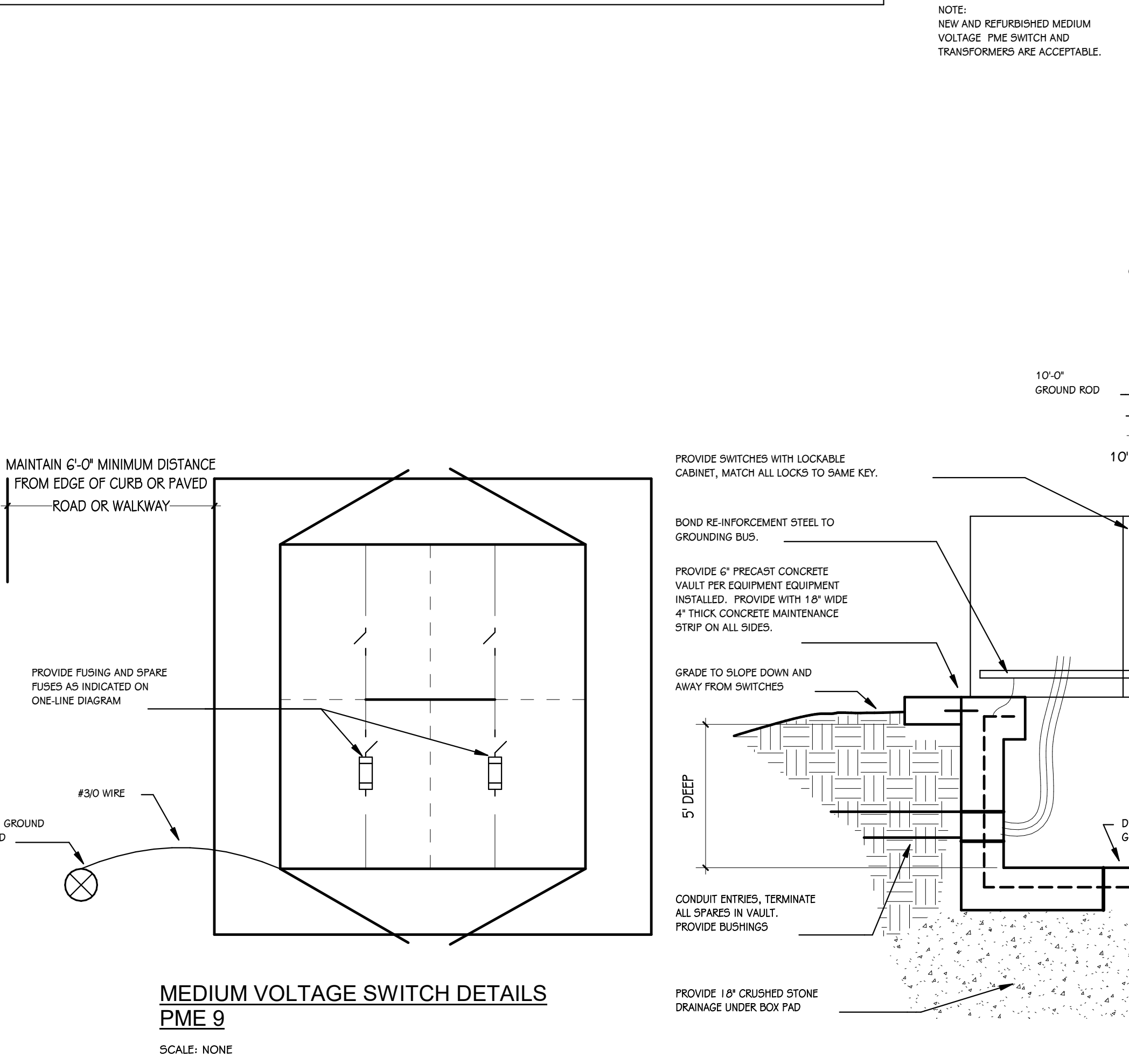


**MEDIUM VOLTAGE SWITCH DETAILS**  
PME 9  
SCALE: NONE

**SERVICE ENTRANCE SPD SCHEDULE**

VOLTAGE	SWITCHBOARD	AMPS	RAYOVON SPD MODEL	UL955 RATING	PROTECTION MODES	MAX W/RT	MIN BREAKER
120/240V Wye	Up to 2000A	320-32-N3-7-04-A-1	140A	Mode	L,N,L,G,N,G	40	100A
480/277V Wye	Up to 2000A	277-3Y-N3-7-04-C-1	140A	Mode	L,N,L,G,N,G	40	100A

\*FOR ALL SERVICE ENTRANCE, GENERATOR ENTRANCE AND OTHER HIGH RISK ELECTRICAL ENTRANCES/DEVICES. ALL SERVICE ENTRANCE DEVICES TO HAVE TIME STAMP EVENT MONITORING. MOUNT DEVICES WITHIN 10' OF PANEL/SWITCHBOARD BUS.

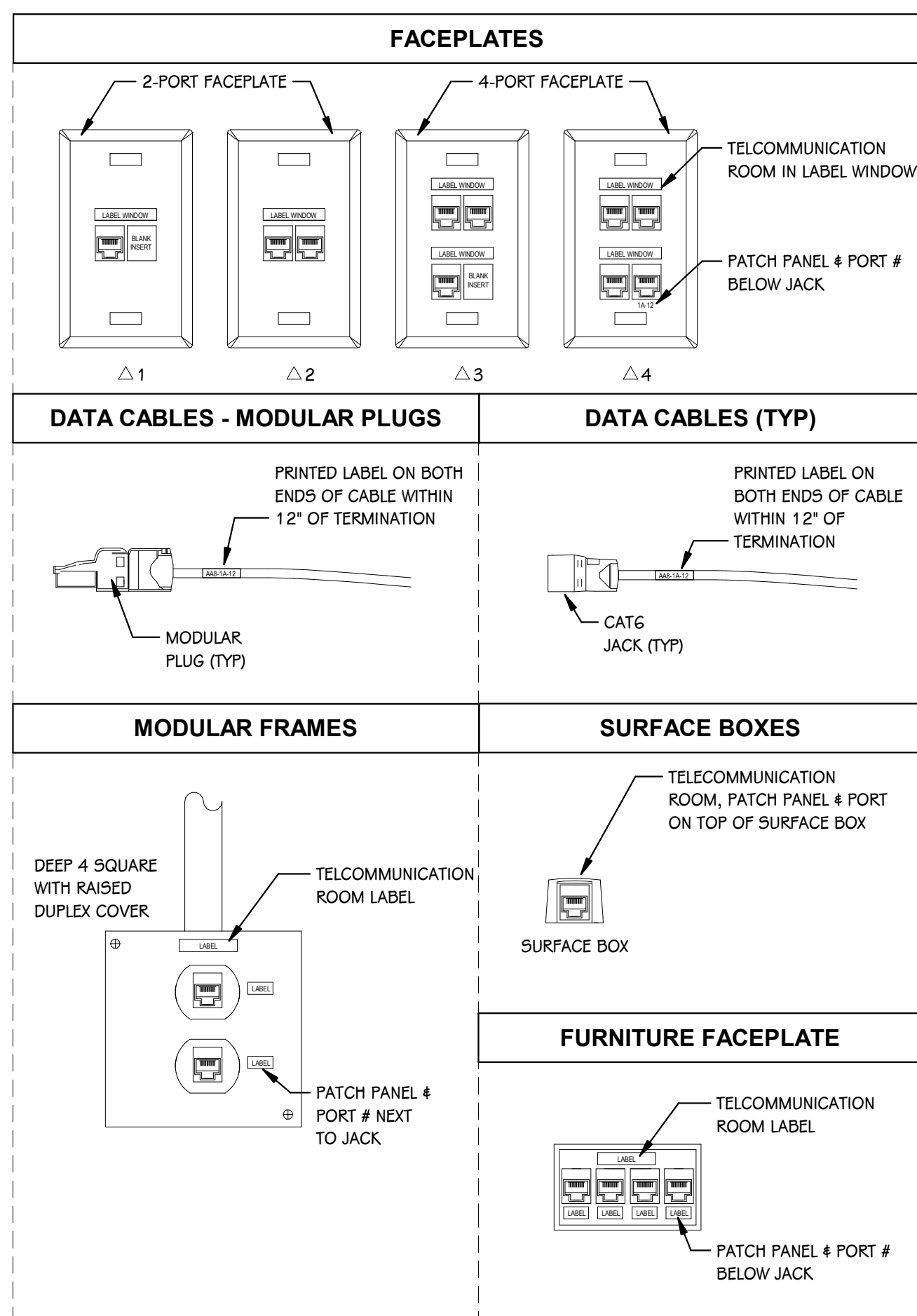


SCALE: NONE

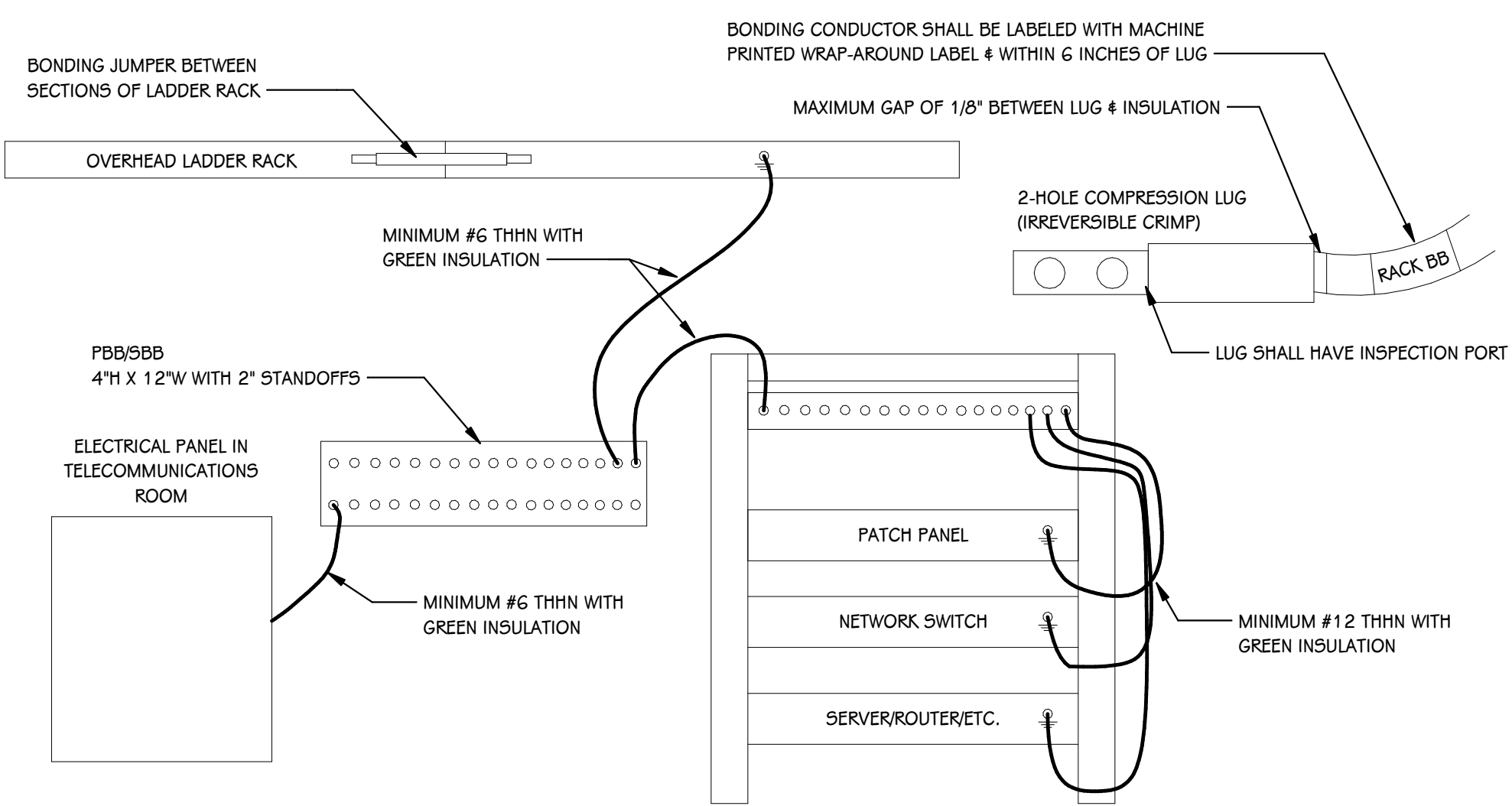


## STRUCTURED CABLING SCHEDULE

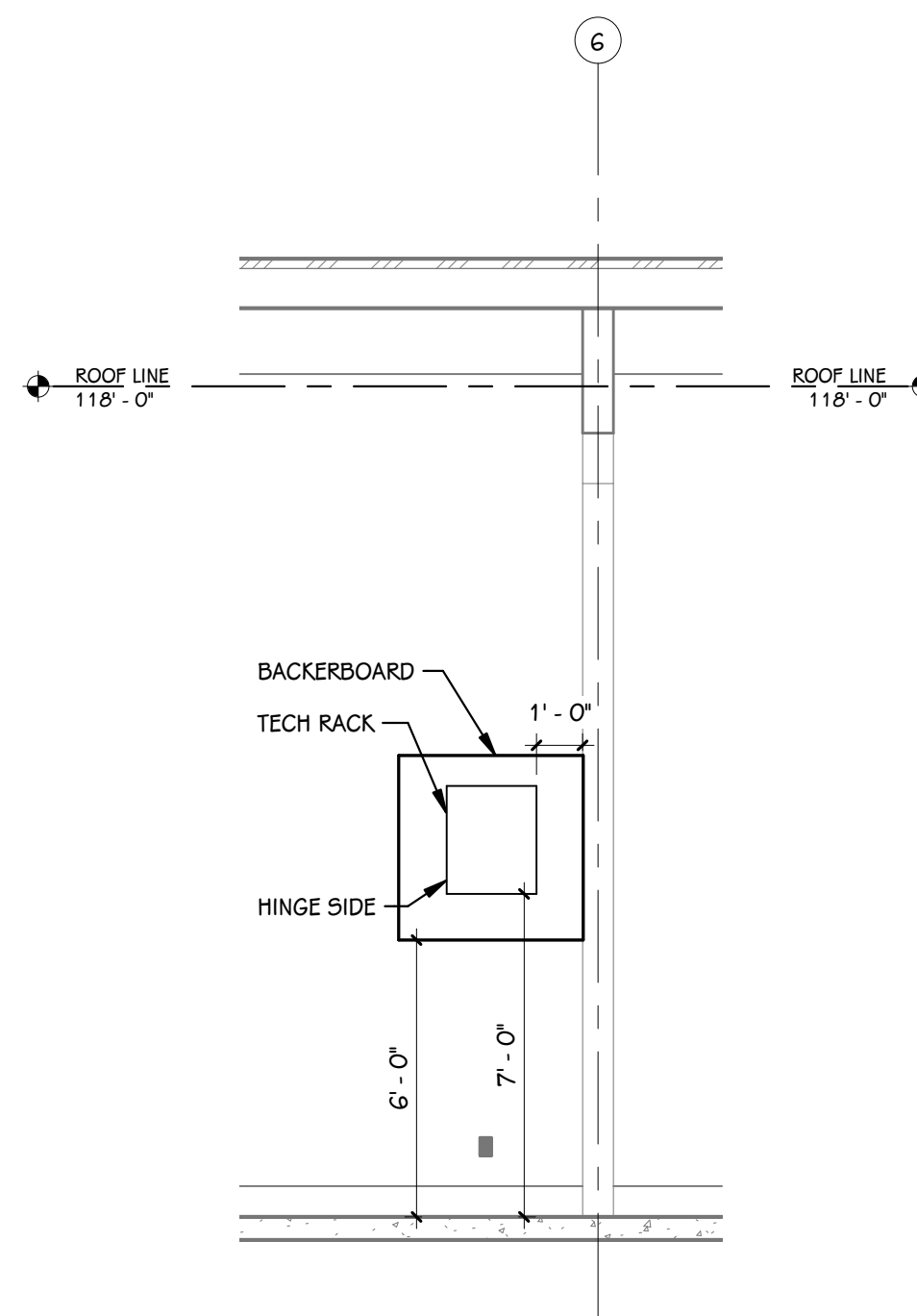
DESCRIPTION	ENVIRONMENTAL SPACE	COLOR	PERFORMANCE LEVEL	MANUFACTURER	MFG. PART NUMBER	PURPOSE	CABLING NOTES
CABLE	PLENUM	WHITE	CAT6	GENERAL CABLE	7131801	ALL INDOOR DATA CONNECTIONS	
CABLE	INDOOR/OUTDOOR	BLACK	CAT6	MOHAWK	M58772	CABLES THAT WILL BE INSTALLED OUTSIDE	
JACK MODULE	NA	RED	CAT6	PANDUIT	CJ68BTGRD	COPPER BACKBONE	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	ORANGE	CAT6	PANDUIT	CJ68BTGOR	RESERVED	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	YELLOW	CAT6	PANDUIT	CJ68BTGYL	WIRELESS ACCESS POINT FACILITIES	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	GREEN	CAT6	PANDUIT	CJ68BTGGR	FACILITIES	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	BLUE	CAT6	PANDUIT	CJ68BTGBU	SPECIAL NETWORK	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	VIOLET	CAT6	PANDUIT	CJ68BTGVL	SECURITY CAMERAS	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	BLACK	CAT6	PANDUIT	CJ68BTGBL	RESERVED	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	GREY	CAT6	PANDUIT	CJ68BTGIG	POTS LINE	INSTALL ON EACH END OF INSTALLED CABLE
JACK MODULE	NA	IVORY, WHITE OR OFF-WHITE	CAT6	PANDUIT	CJ68BTG**	GENERAL DATA & IP PHONES	INSTALL ON EACH END OF INSTALLED CABLE
1-PORT FACEPLATE (PLASTIC)	NA	SEE NOTES	NA	PANDUIT	CFPL1**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
2-PORT FACEPLATE (PLASTIC)	NA	SEE NOTES	NA	PANDUIT	CFPL2**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
2-PORT FACEPLATE (STAINLESS STEEL)	NA	SEE NOTES	NA	PANDUIT	CFPL2S**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
3-PORT FACEPLATE (PLASTIC)	NA	SEE NOTES	NA	PANDUIT	CFPL3**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
4-PORT FACEPLATE (PLASTIC)	NA	SEE NOTES	NA	PANDUIT	CFPL4**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
4-PORT FACEPLATE (STAINLESS STEEL)	NA	SEE NOTES	NA	PANDUIT	CFPL4S**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
6-PORT FACEPLATE (PLASTIC)	NA	SEE NOTES	NA	PANDUIT	CFPL6**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
6-PORT FACEPLATE (STAINLESS STEEL)	NA	SEE NOTES	NA	PANDUIT	CFPL6S**Y		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
10-PORT FACEPLATE, 2-GANG (PLASTIC)	NA	SEE NOTES	NA	PANDUIT	CFPL10**2GY		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
10-PORT FACEPLATE, 2-GANG (STAINLESS STEEL)	NA	SEE NOTES	NA	PANDUIT	CFPL10S**2GY		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
1-PORT SURFACE BOX	PLENUM	SEE NOTES	NA	PANDUIT	CBX1**A		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
2-PORT SURFACE BOX	PLENUM	SEE NOTES	NA	PANDUIT	CBX2**A		COLOR & MATERIAL SHALL MATCH ELECTRICAL DEVICES WITHIN SAME SPACE
PATCH CABLE	PLENUM	MATCH JACK MODULE COLOR	CAT6	PANDUIT	UPP**10	ALL DATA CONNECTIONS IN PLENUM SPACE	LENGTH = 10FT (PROVIDE/INSTALL 1 PER INSTALLED CABLE)
PATCH CABLE	RISER	WHITE	CAT6	PANDUIT	UTP289P1	CROSS-CONNECT BETWEEN PATCH PANEL AND NETWORK SWITCH	LENGTH = 1 FT (PROVIDE/INSTALL 1 PER INSTALLED CABLE)
PATCH CABLE	RISER	WHITE	CAT6	PANDUIT	UTP5F10Y	CONNECTION AT WORKSTATION/DEVICE	LENGTH = 10FT (PROVIDE/INSTALL 1 PER INSTALLED CABLE)



**TYPICAL LABELING DETAIL**  
SCALE: NONE



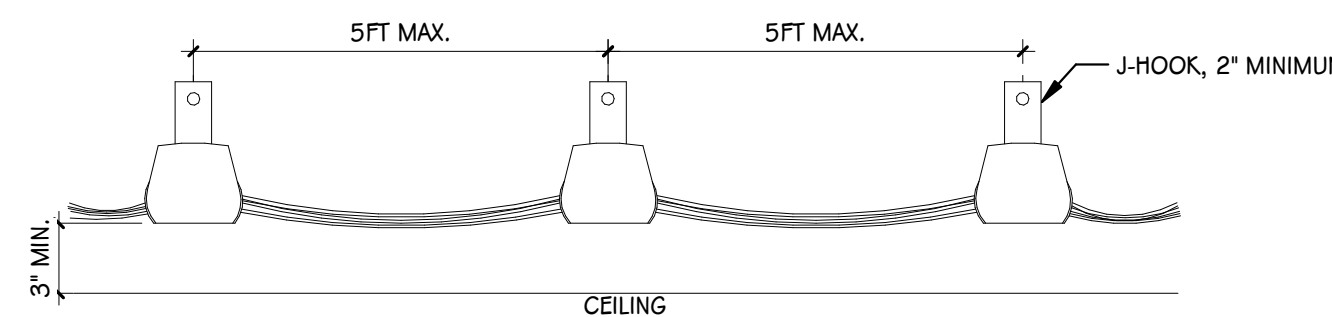
**TELECOMMUNICATION ROOM BONDING DETAIL**  
SCALE: NONE



**SCALE BUILDING DATA RACK ELEVATION VIEW**  
1/4" = 1'-0"

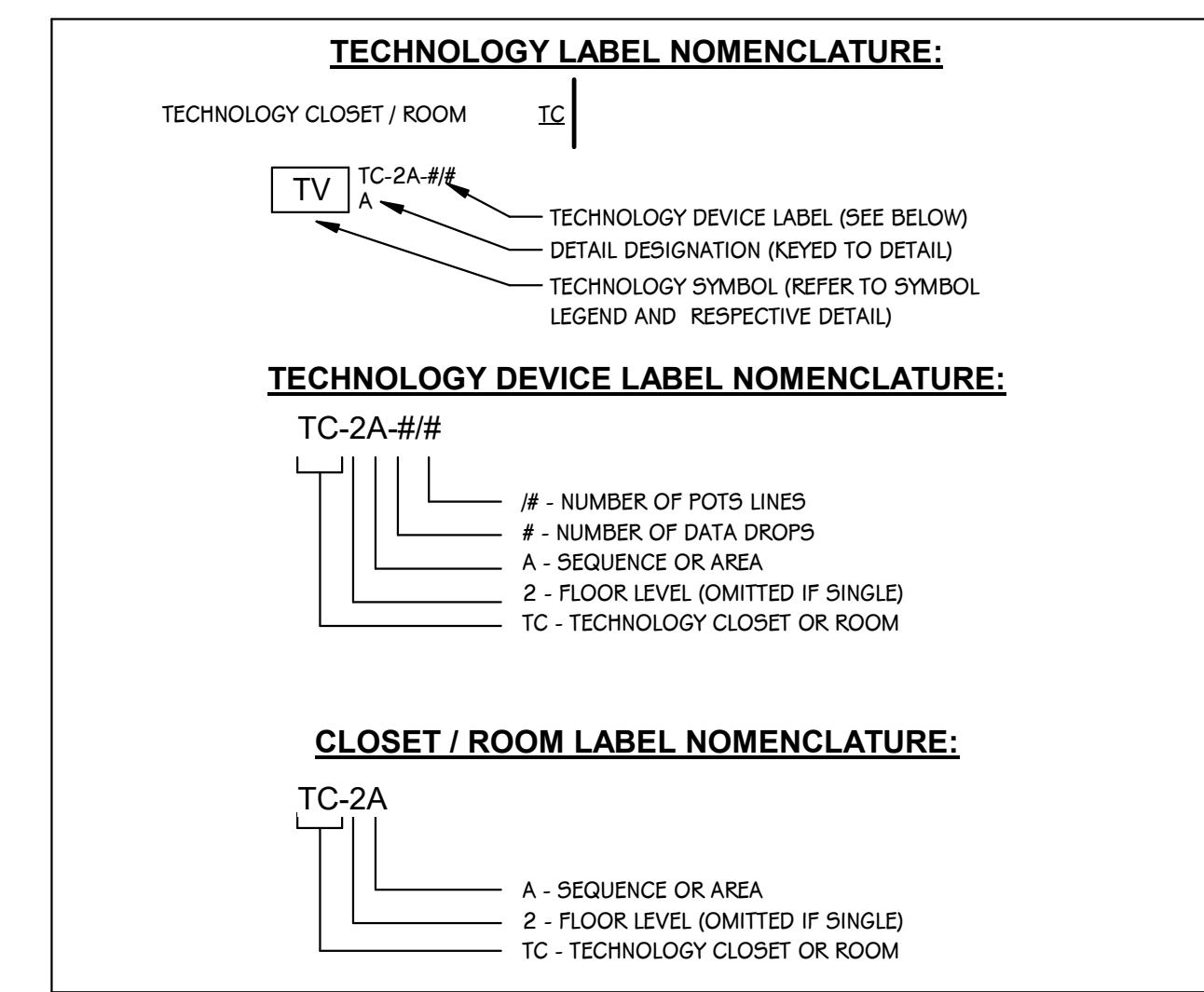
12	FIBER ENCLOSURE (SEE DETAILS ON T40.1)	12
11	VENT PANEL	11
10	MIDDLE ATLANTIC PRODUCTS - VTF I	10
9	POWER DISTRIBUTION (BY OWNER)	9
8	VENT PANEL	8
7	MIDDLE ATLANTIC PRODUCTS - VTF I	7
6	RACK MOUNT DIN RAIL	6
5	STARTECH ADJDKIT (FOR OWNER NETWORK SWITCH & POWER SUPPLY)	5
4	PATCH PANEL	4
3	PANDUIT - CFPL24MGBLY	3
2	VENT PANEL	2
1	MIDDLE ATLANTIC PRODUCTS - VTF I	1
	LIPS (BY OWNER)	

**WALL-MOUNT DATA RACK DETAIL**  
SCALE: NONE

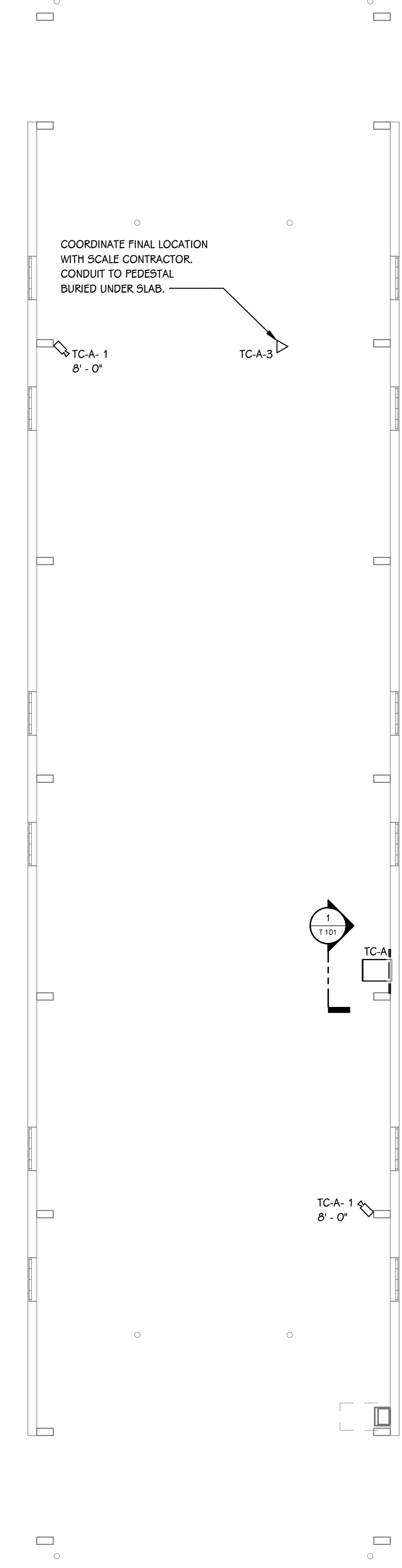


**CABLE SUPPORT DETAIL**  
SCALE: NONE

**FIRST FLOOR TECHNOLOGY PLAN**  
1/8" = 1'-0"



**SYMBOL DESIGNATOR**  
SCALE: NONE



**GENERAL TECHNOLOGY NOTES**

- TECHNOLOGY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR NEW WORK OR WHERE DEVICES ARE REMOVED AND NOT REPLACED.
- TECHNOLOGY CONTRACTOR SHALL COORDINATE WITH G SERIES SHEETS DEVICE COORDINATION DETAIL. DEVICES ARE TO ALIGN VERTICALLY AND HORIZONTALLY AND FOLLOW THE RULES OF THIS DETAIL CONSISTENTLY. A PRE-INSTALL DEVICE COORDINATION MEETING FOR DEVICE FINISHES AND LAYOUT MAY BE REQUIRED IN THE SPECIFICATION FOR THIS PROJECT.
- REFER TO TECHNOLOGY, ELECTRICAL AND ARCHITECTURAL DETAILS AND ELEVATIONS FOR SYMBOL, INFORMATION AND ELEVATION DETAIL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROJECT PHASING. TEMPORARY WIRING TO KEEP SYSTEMS RUNNING SHALL BE PROVIDED AS REQUIRED WHILE BUILDING IS OCCUPIED BETWEEN PHASES OF CONSTRUCTION.

**STRUCTURED CABLING MOUNTING HEIGHTS**

SYMBOL	DESCRIPTION	HEIGHT
□	DATAVOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB	16"
□	DATAVOICE OUTLET - 4 SQ BOX, 5G COVER, SURFACE #MM500	16"
□	DATAVOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB 4" ABOVE BACKSPASH	16"
□	SECURITY CONTROLS PATHWAY - 4 SQ BOX, 5G COVER WITH BRUSH PLATE, 1" CONDUIT STUB	16"
□	WIRELESS ACCESS POINT (REFER TO DETAILS)	
□	GROUNDING BUS BAR WITH DEDICATED GROUND, (REFER TO DETAILS)	
□	CABLE TRAY, (12"x4" UNLESS NOTED OTHERWISE)	
□	NETWORK COMMUNICATION RACK - FLOOR STANDING 3' CLEAR ON BOTH SIDES	
□	4"x8"x3/4" FIRE-RATED PLYWOOD, A/C FINISH, MOUNT VERTICALLY	12"
□	CONDUIT SLEEVE IN ACCESSIBLE CEILING	
□	2" CONDUIT UNLESS NOTED OTHERWISE, ONLY SHOWN ON PLANS INDICATING SPECIFIC CONDITIONS, REFER TO GENERAL NOTES FOR SLEEVES THAT ARE REQUIRED INTO ALL SPACES)	

**SECURITY SYMBOLS**

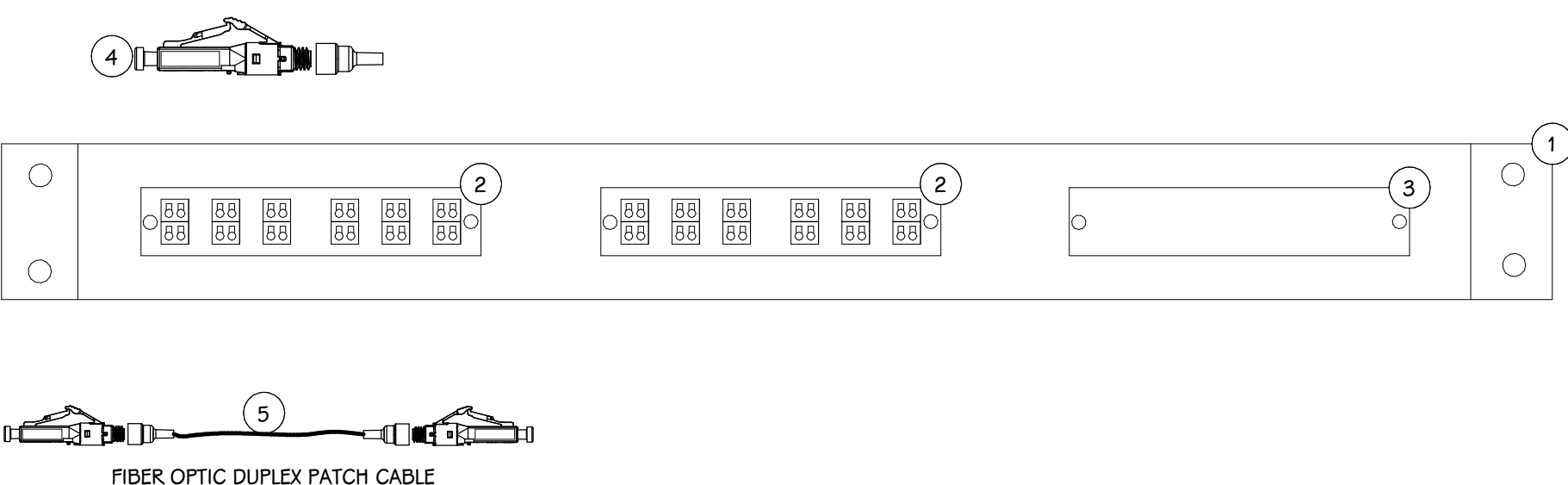
□	SECURITY CAMERA - WALL
□	SECURITY CAMERA - CEILING
□	ACCESS CONTROL PANEL (REFER TO DETAILS)

**NOTES:**

MOUNT DEVICES AT HEIGHTS INDICATED UNLESS INDICATED OTHERWISE ON PLANS. HEIGHTS ARE TO BOTTOM OF DEVICE.

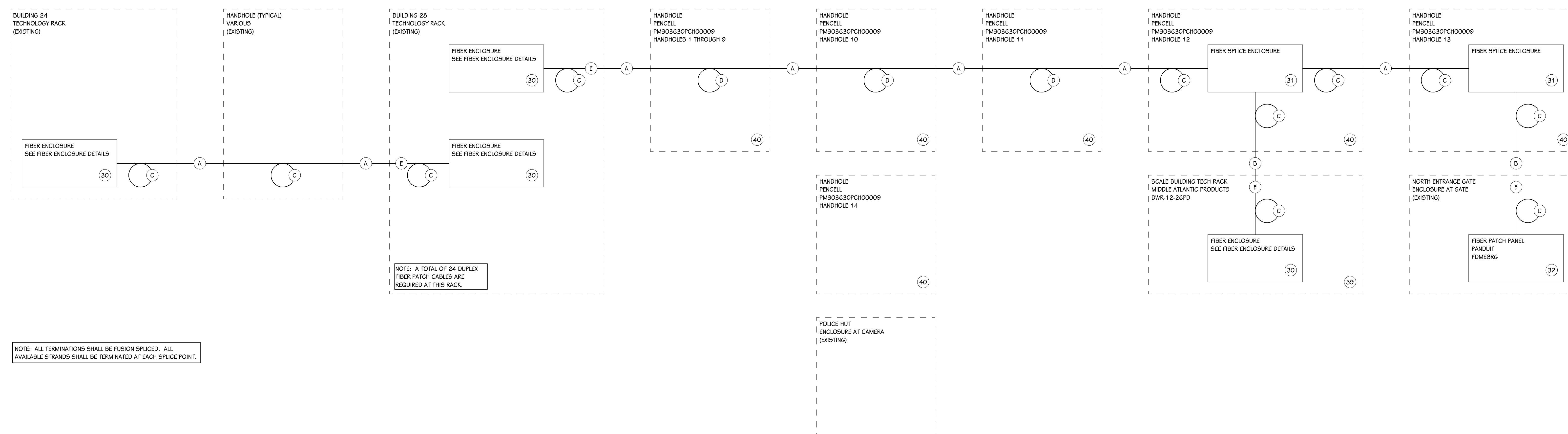


FIBER ENCLOSURE SCHEDULE				
KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
1	FIBER ENCLOSURE	PANDUIT	FRME1U	
2	FIBER ADAPTER PANEL	PANDUIT	FAP12WBUDLCZ	PROVIDE A QUANTITY OF (12) PATCH CABLES FOR EACH FIBER ADAPTER PANEL
3	FIBER ADAPTER BLANK	PANDUIT	FAPB	
4	FIBER OPTIC TERMINATIONS	PANDUIT	FLCS2/SOCU9BU	TERMINATE ALL STRANDS WITH FUSION SPLICE-ON CONNECTORS
5	FIBER OPTIC DUPLEX PATCH CABLE	PANDUIT	F92ERLNLNSNM001	



**FIBER ENCLOSURE DETAIL**  
 SCALE: NONE

FIBER EQUIPMENT SCHEDULE				
KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
30	FIBER ENCLOSURE	SEE FIBER ENCLOSURE DETAILS		
31	FIBER SPLICE ENCLOSURE			WEATHERPROOF SPLICE ENCLOSURE CAPABLE OF SUPPORTING AT LEAST 48 STRANDS
32	FIBER PATCH PANEL	PANDUIT	FDME8RG	WITH (3) PANDUIT CMDSLCZBU
39	SCALE BUILDING TECH RACK	MIDDLE ATLANTIC PRODUCTS	DWR-12-26PD	
40	HANDHOLE	PENCELL	PM303630PCH00009	
A	48-STRAND SINGLE MODE FIBER	GENERAL CABLE	AT0484M1D-DT	
B	6-STRAND SINGLE MODE FIBER	GENERAL CABLE	AT0064UNU-DT	
C	20 FOOT SERVICE LOOP			
D	40 FOOT SERVICE LOOP			
E	INNERDUCT	CARLON	CH41C-***	*** DENOTES LENGTH. FIELD VERIFY LENGTH



NOTE: ALL TERMINATIONS SHALL BE FUSION SPLICED. ALL AVAILABLE STRANDS SHALL BE TERMINATED AT EACH SPLICE POINT.

NOTE: A TOTAL OF 24 DUPLEX FIBER PATCH CABLES ARE REQUIRED AT THIS RACK.

**FIBER ROUTING DIAGRAM**  
 SCALE: NONE

ISSUED FOR \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT TITLE  
 CITY OF KALAMAZOO SCALE

OWNER  
 CITY OF KALAMAZOO

SHEET TITLE  
 TECHNOLOGY DETAILS

Kalamazoo, Michigan

DATE  
 APRIL 14, 2023

SHEET NUMBER  
**T 401**  
 21-203.00