

VICINITY MAP

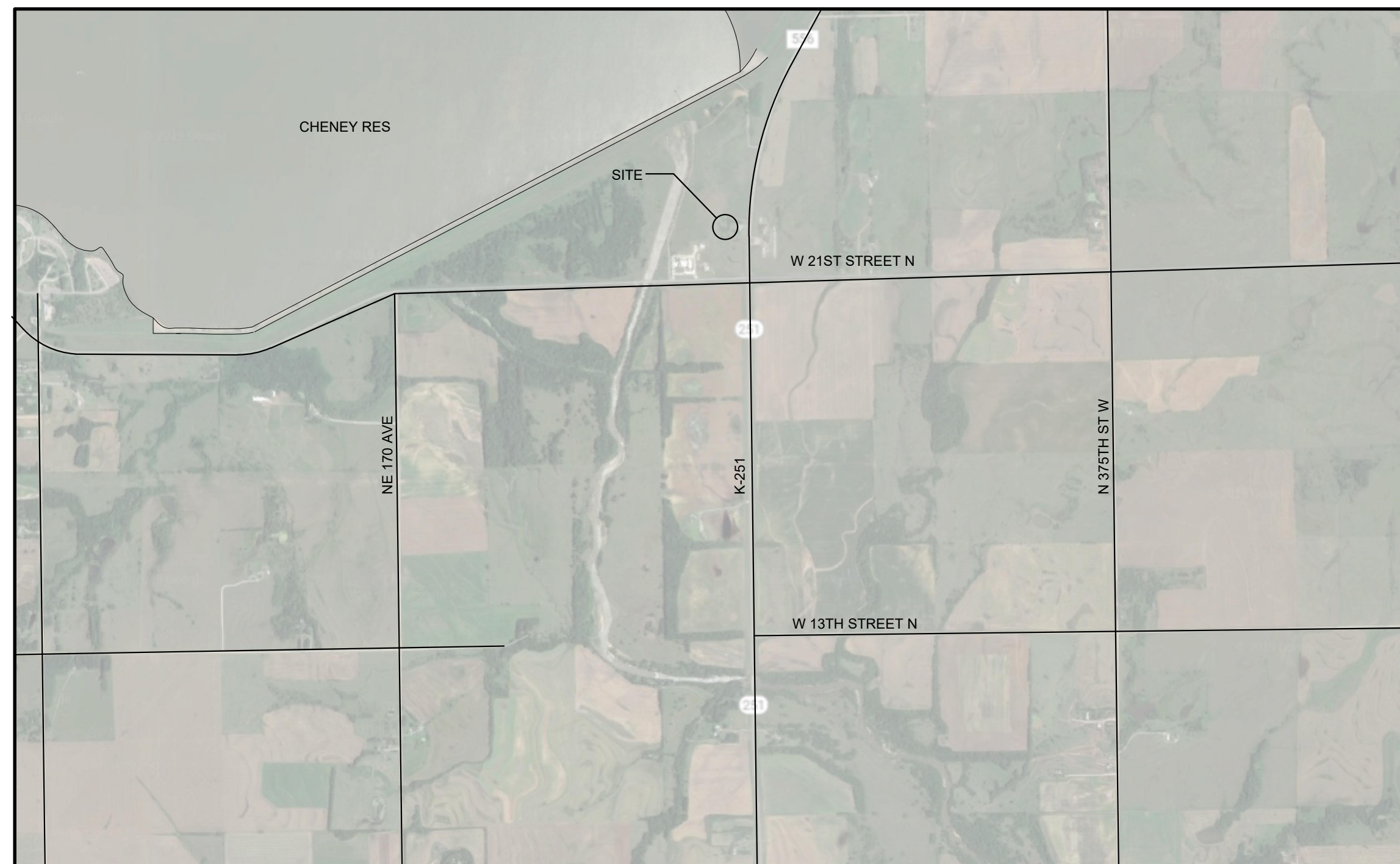
CODES/ DATA

PROJECT TEAM

DRAWING INDEX

17 MAR 20

448-2019-006893 Raw Water Parts Storage Building



VICINITY MAP
NO SCALE

Location Cheney Pump House Storage. 2301 N 391st St W.
 Building 7528-112 WP Cheney Pump House Storage
 Floor 7528-112-01 Storage Building Floor

 Managed by Jeff Myers, CoW Building Services
 Architect: Spangenberg Phillips Time Architecture
 Structural Engineering: PEC

APPLICABLE CODES

2018 INTERNATIONAL BUILDING CODE
 2018 INTERNATIONAL EXISTING BUILDING CODE
 2018 NATIONAL ELECTRICAL CODE
 2006 INTERNATIONAL FIRE CODE
 2018 INTERNATIONAL MECHANICAL CODE
 2018 UNIFORM PLUMBING CODE
 ADA/ABA

OCCUPANCY

U- UTILITY STORAGE

CONSTRUCTION TYPE

TYPE II-B

BUILDING AREA

4500 SF

FIRE SPRINKLERS

NONE

PROJECT DESCRIPTION

NEW STORAGE BUILDING FOR STORAGE OF WATER PIPE REPAIR SECTIONS. BUILDING WILL HAVE NO ELECTRICAL OR MECHANICAL WORK/ SERVICES.

OWNER

CITY OF WICHITA
 CITY HALL
 455 N. MAIN, WICHITA, KS 67202
 TEL: 316.268.4492
 CONTACT: JEFF MYERS

ARCHITECT

SPANGENBERG PHILLIPS TICE ARCHITECTURE
 121 N. MEAD, SUITE 201
 WICHITA, KS 67202
 TEL: 316.267.4002
 FAX: 316.267.1509
 CONTACT: BRAD TEETER
 EMAIL: BT@SPTARCHITECTURE.COM

STRUCTURAL ENGINEER

PROFESSIONAL ENGINEERING CONSULTANTS P.A.
 303 S. TOPEKA
 WICHITA, KS 67202
 TEL: 316.262.2691
 CONTACT: CLAY CLINE
 EMAIL: CLAY.CLINE@PEC1.COM

ARCHITECTURAL

COVER
 AS1 SITE PLAN/ GRADING PLAN
 A1 FLOOR PLAN, ROOF PLAN AND ELEVATIONS
 A2 BUILDING SECTIONS AND WALL SECTIONS
 A3 DETAILS

STRUCTURAL

S1 GENERAL NOTES
 S2 FOUNDATION PLAN & INSPECTION TABLES
 S3 FOUNDATION DETAILS

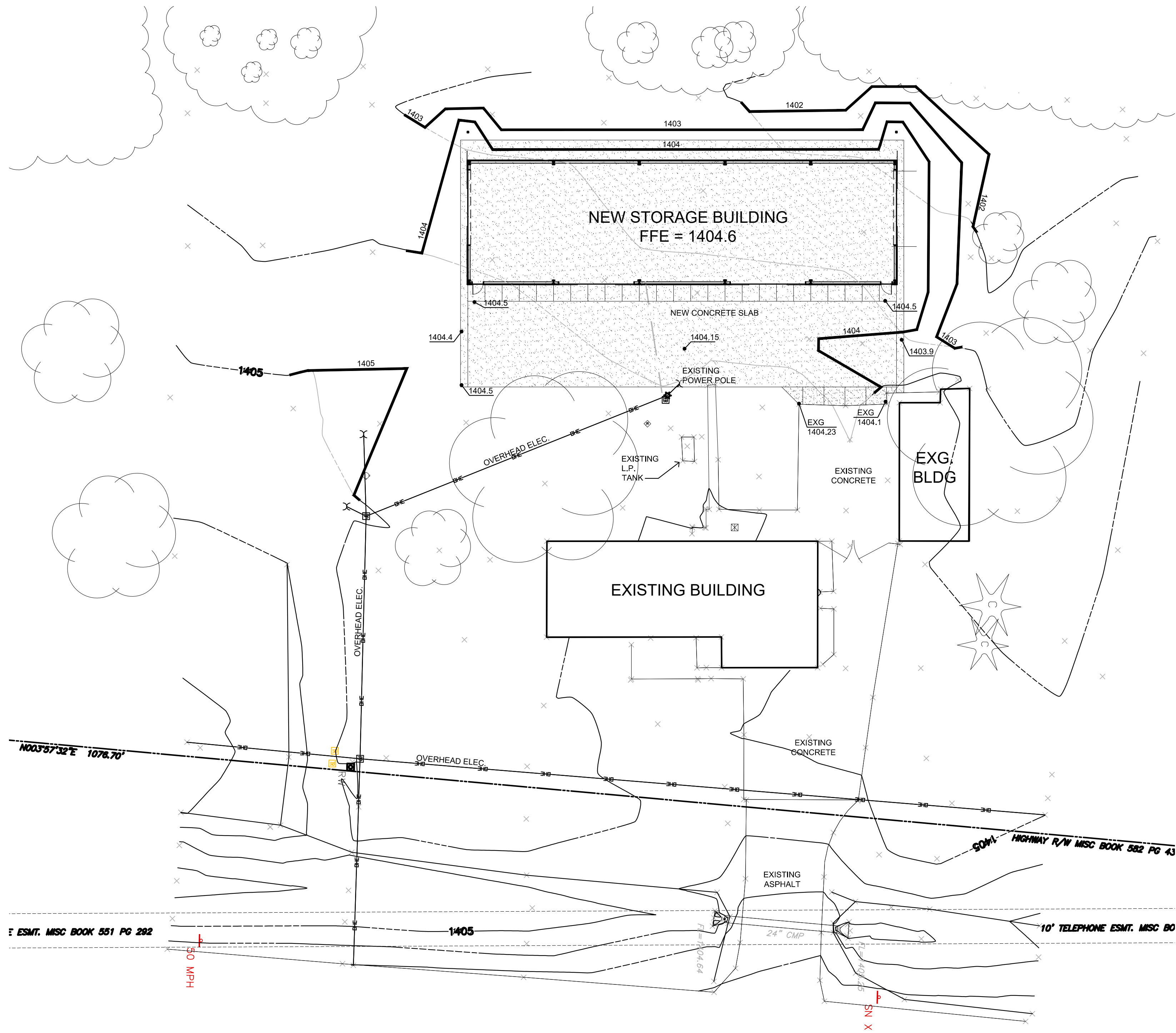
FOR REFERENCE ONLY

SURVEY

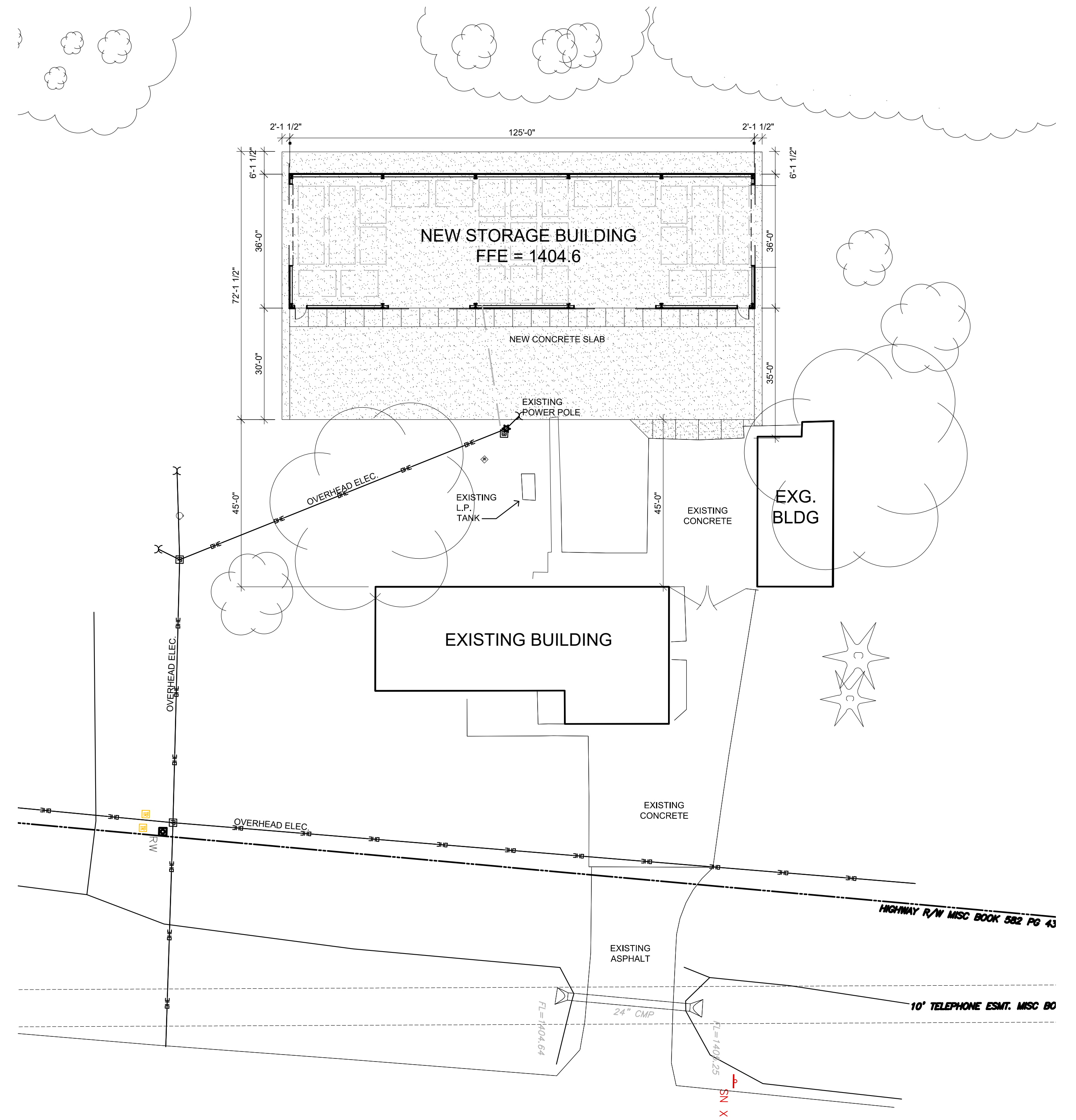
P E R M I T S E T

CITY OF WICHITA
PUMP HOUSE STORAGE
 2301 N. 391ST STREET - CHENEY, KANSAS





1 GRADING PLAN
1"=20'
0 20'



1 SITE PLAN
1"=20'
0 20'



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T 316.267.4002 F 316.267.1509
www.sptarchitecture.com

**CITY OF WICHITA
PUMP HOUSE STORAGE**

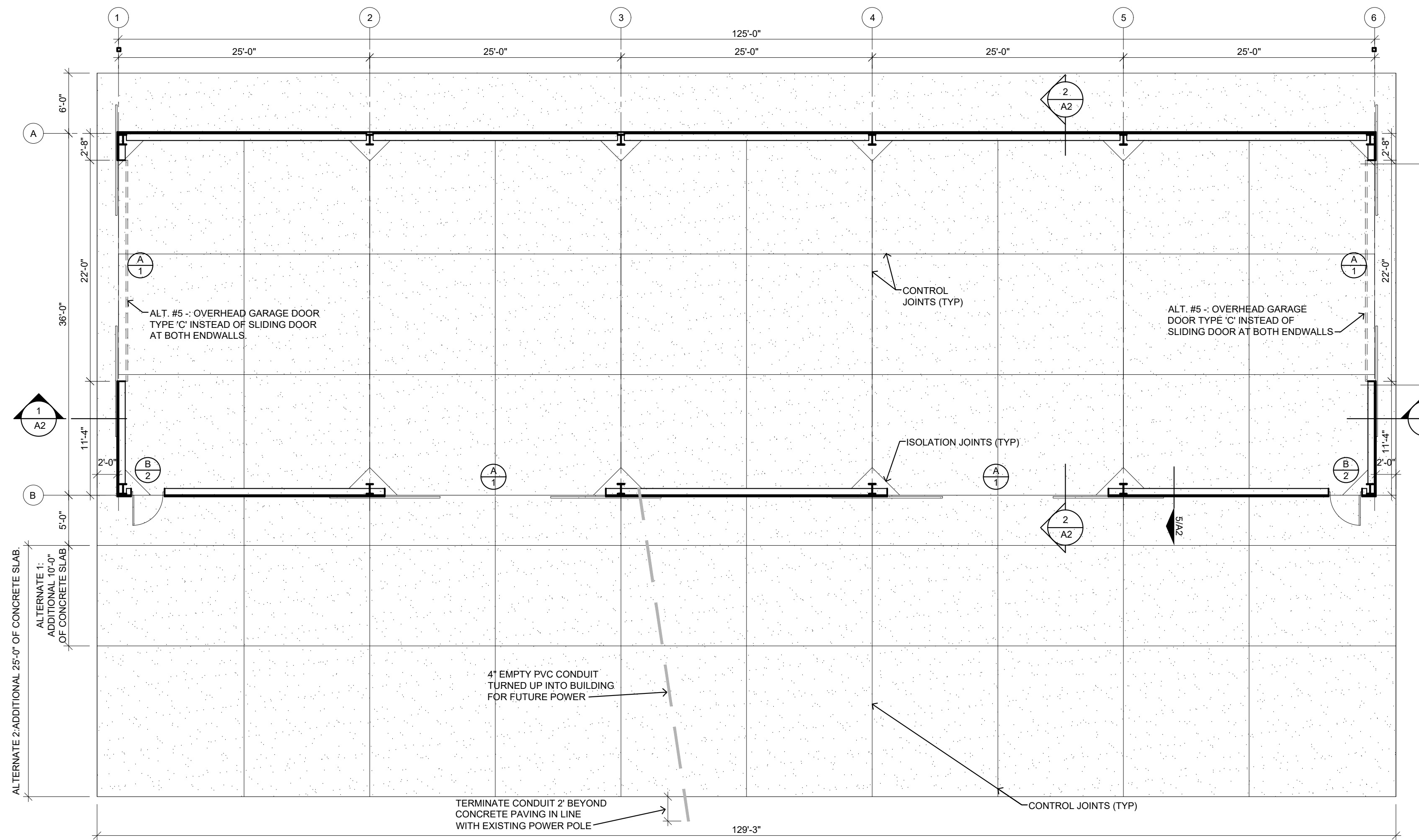
2301 N. 391st Street - Cheney, Ks



PERMIT
17 MAR 2020

SITE PLAN

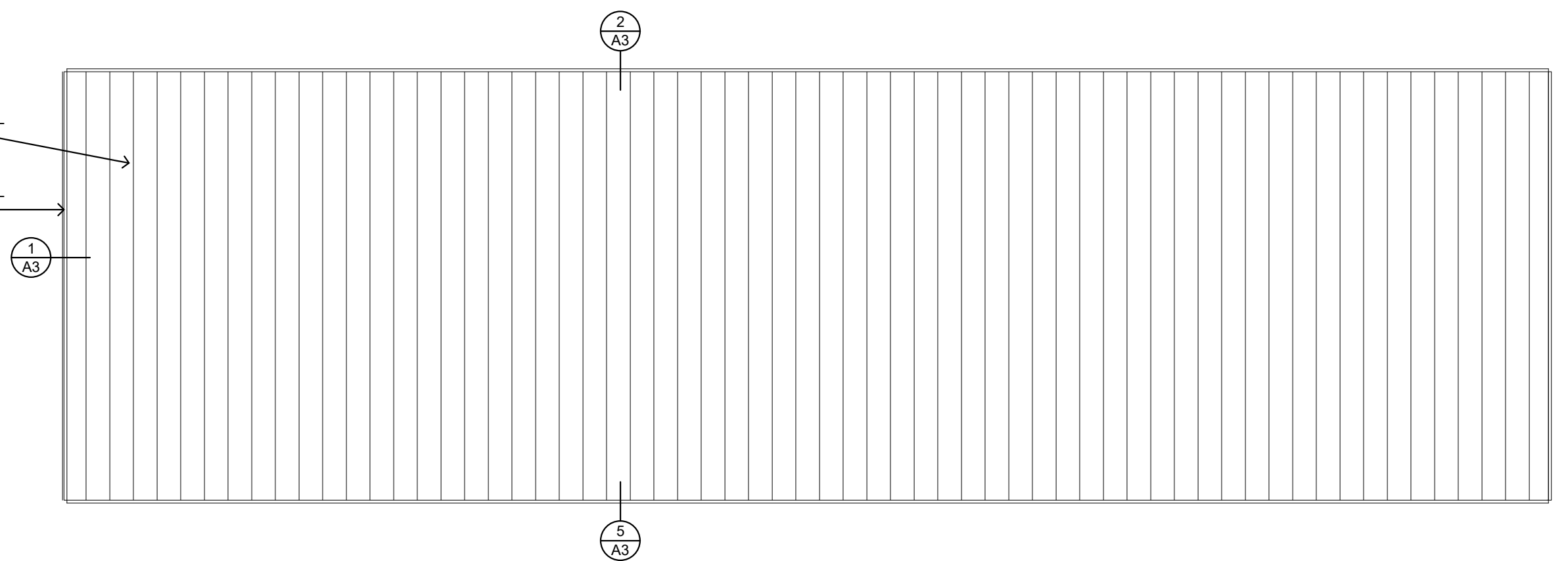
AS1



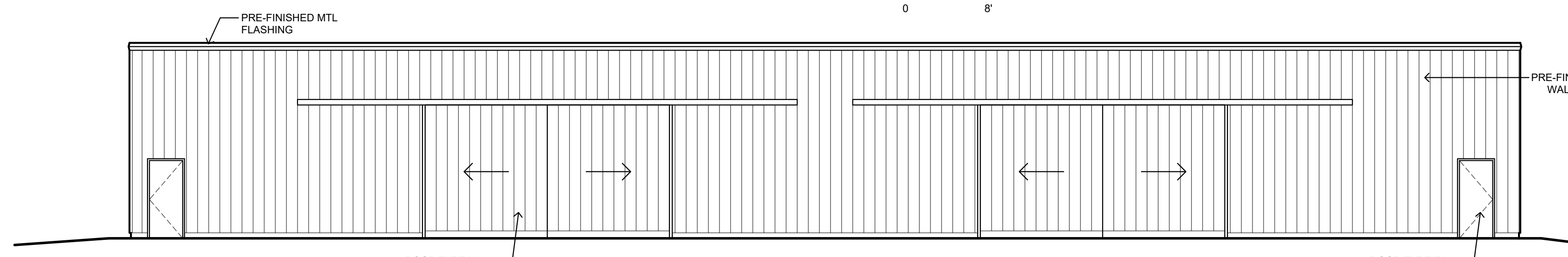
1 FLOOR PLAN
1/8"=1'-0"
0 8'

DOOR & HARDWARE SCHEDULE

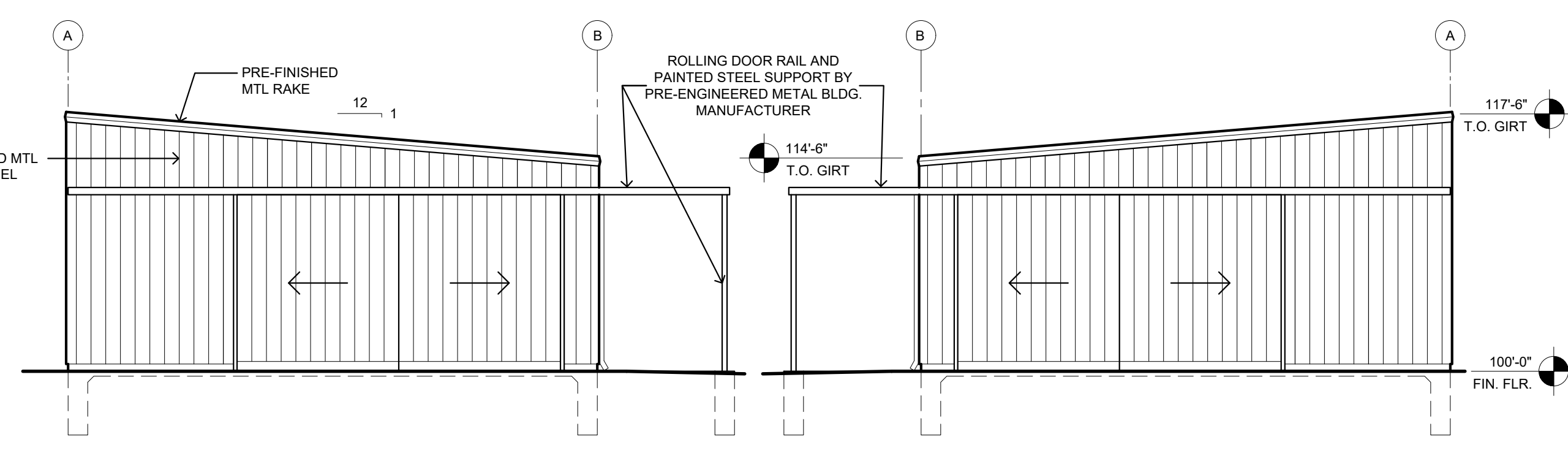
A 1	BIPARTING SLIDING DOORS 22'-0" WIDE X 12'-0" HIGH OPENING HARDWARE BY MTL. BLDG. MFR.
B 2	HOLLOW METAL DOOR & FRAME 3'-0" W X 7'-0" H (1) STOREROOM FUNCTION ADA LEVER LOCKSET (1) 1/2" PAIR BUTT HINGES (1) THRESHOLD (1) SET OF WEATHERSTRIPPING (1) LATCH GUARD
C	OVERHEAD DOOR (RE. ALTERNATE #5) 22'-0" WIDE X 12'-0" HIGH OPENING HARDWARE BY DOOR MANUFACTURER



2 ROOF PLAN
3/32"=1'-0"
0 8'



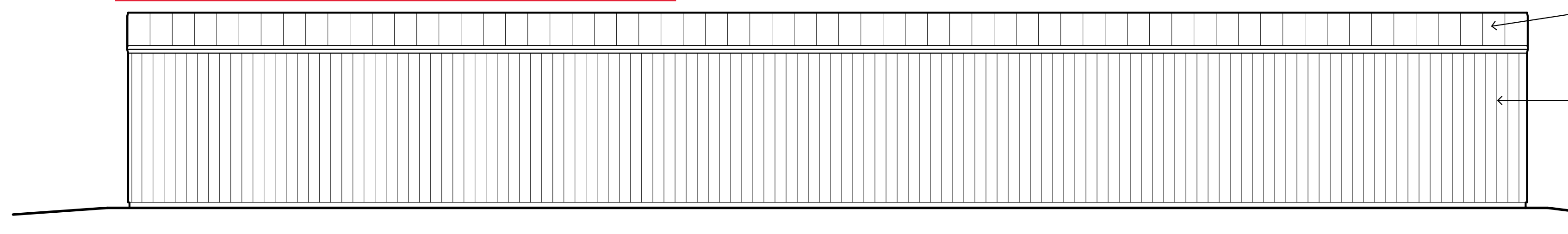
3 EAST ELEVATION
1/8"=1'-0"
0 8'



4 NORTH ELEVATION
1/8"=1'-0"
0 8'

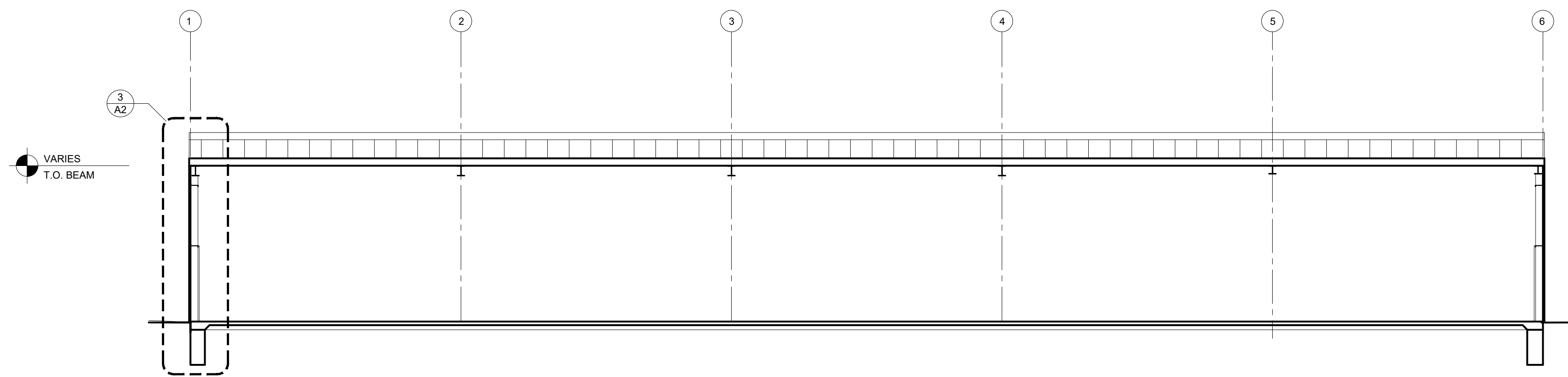
5 SOUTH ELEVATION
1/8"=1'-0"
0 8'

- 7528CPS7580012 Cheney Storage Bldg Concrete Floor and Foundation
- 7528CPS7620001 Cheney Storage Bldg Exterior Walls and Roof of Building
- 7528CPS7690020 Cheney Storage Bldg Sliding Door Panel North Wall
- 7528CPS7690021 Cheney Storage Bldg Sliding Door Panel South Wall
- 7528CPS7690022 Cheney Storage Bldg Sliding Door Panel East Wall
- 7528CPS7690023 Cheney Storage Bldg Sliding Door Panel East Wall
- 7528CPS7690024 Cheney Storage Bldg Single Entry Door, North
- 7528CPS7690025 Cheney Storage Bldg Single Entry Door, South
- 7528CPS2450001 Cheney Storage Bldg 4" conduit/empty

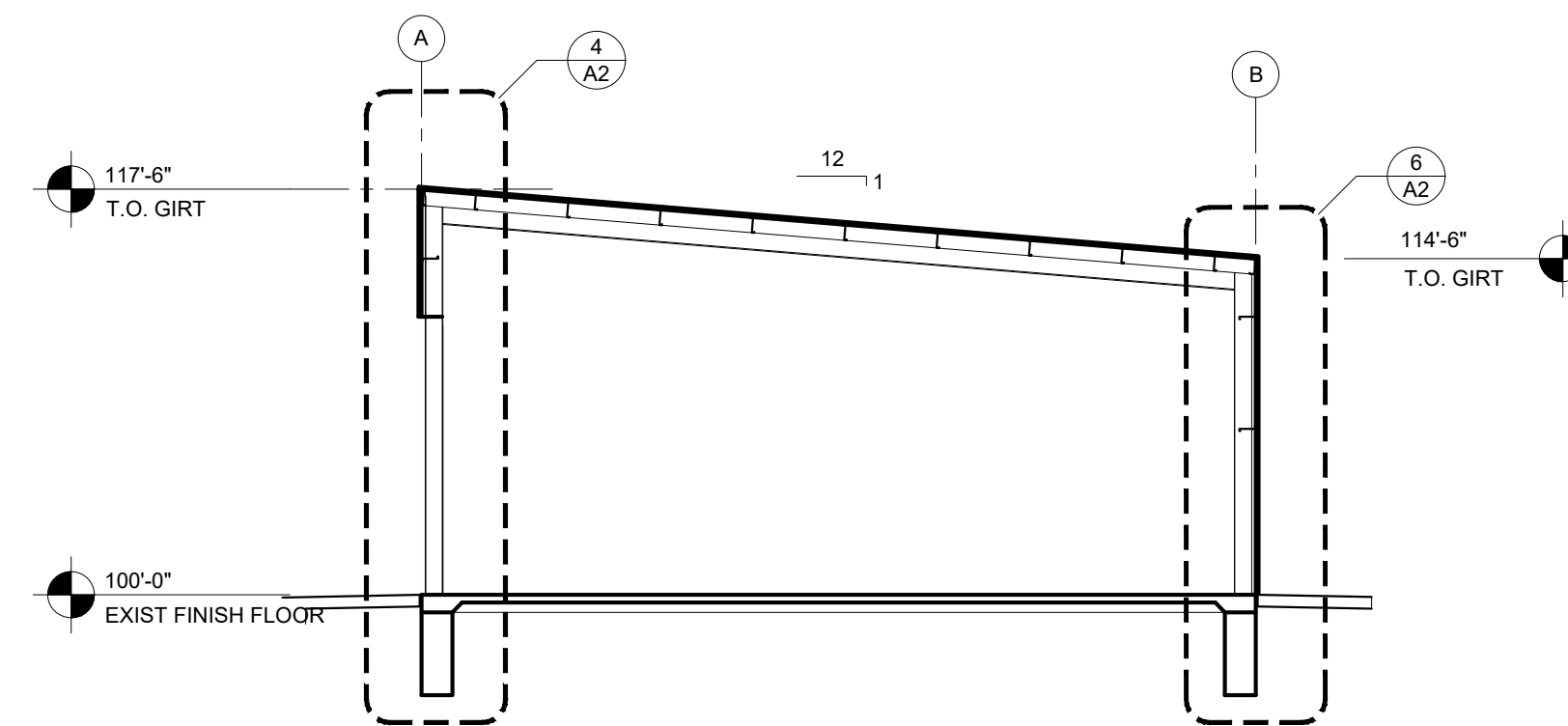


6 WEST ELEVATION
1/8"=1'-0"
0 8'

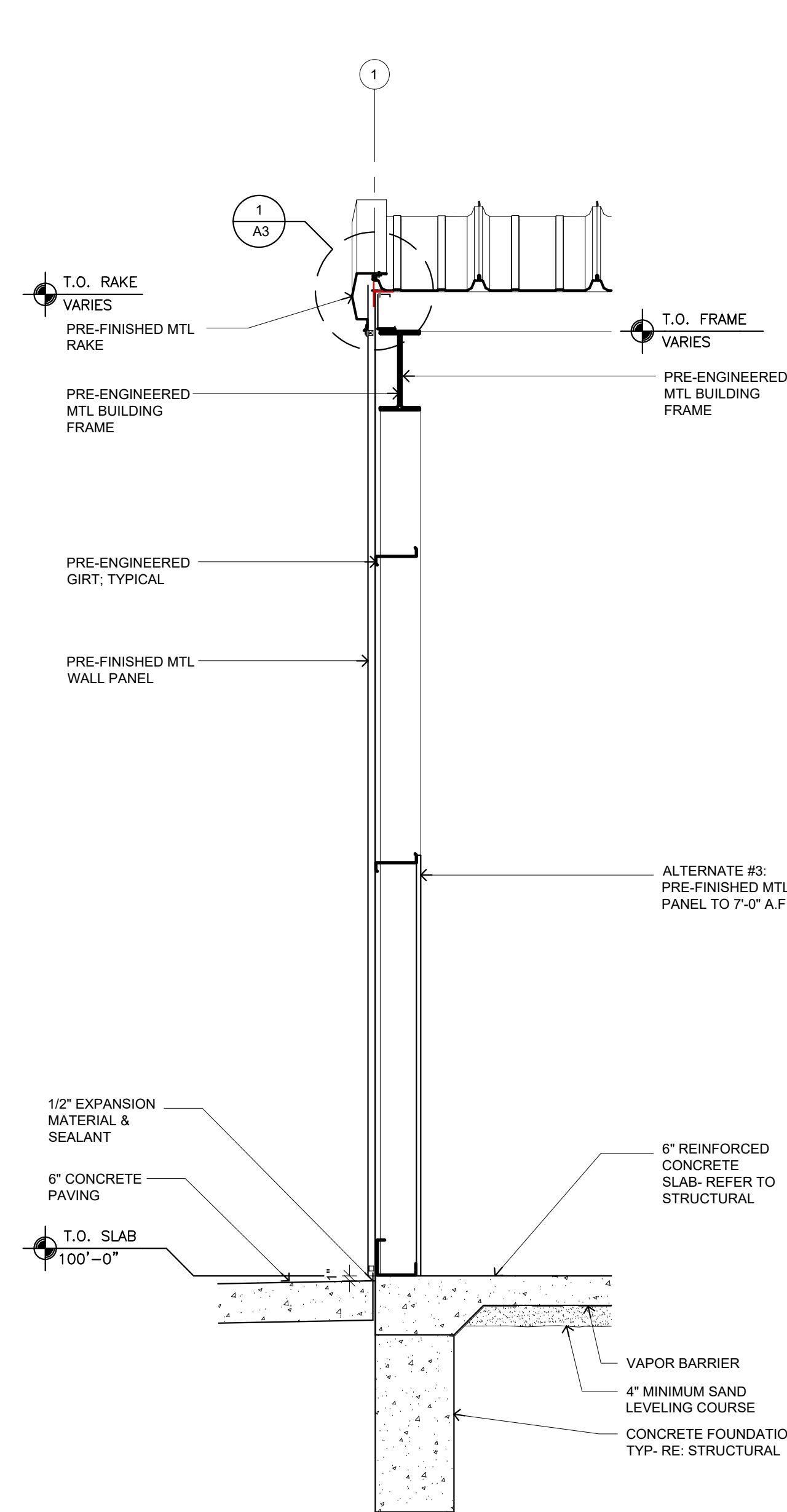




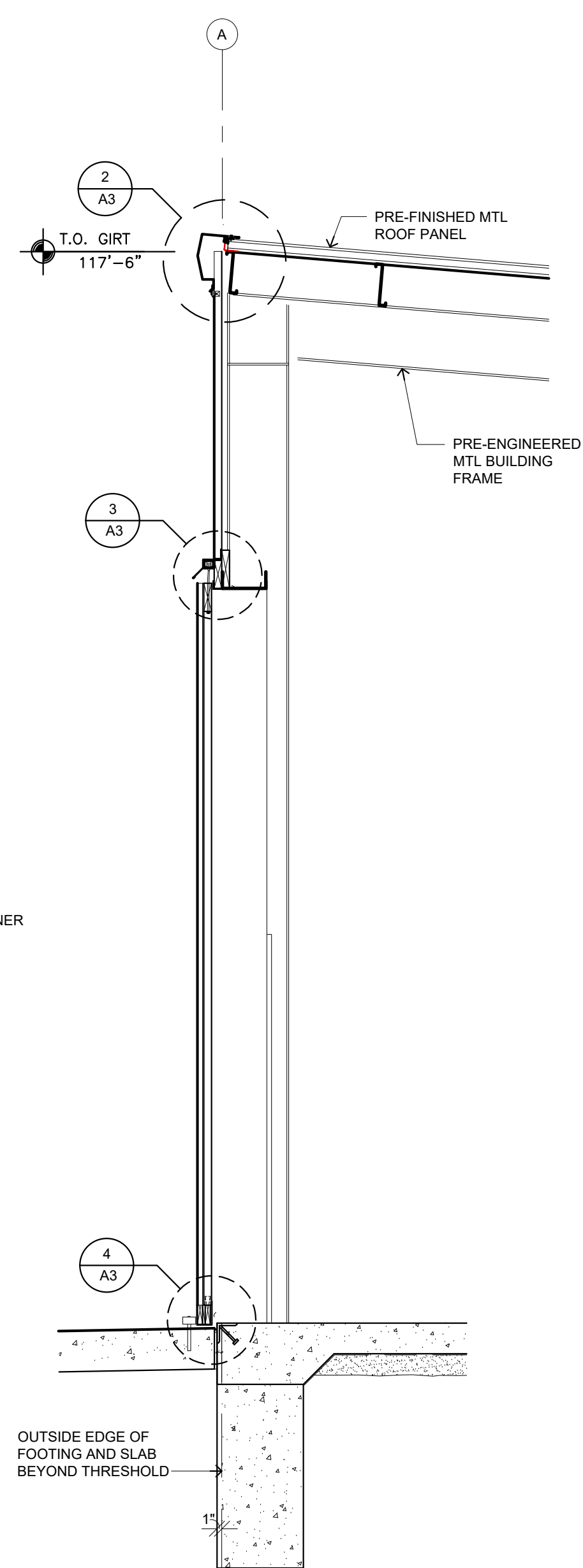
1 BUILDING SECTION
 1/8"=1'-0"
 0 8'



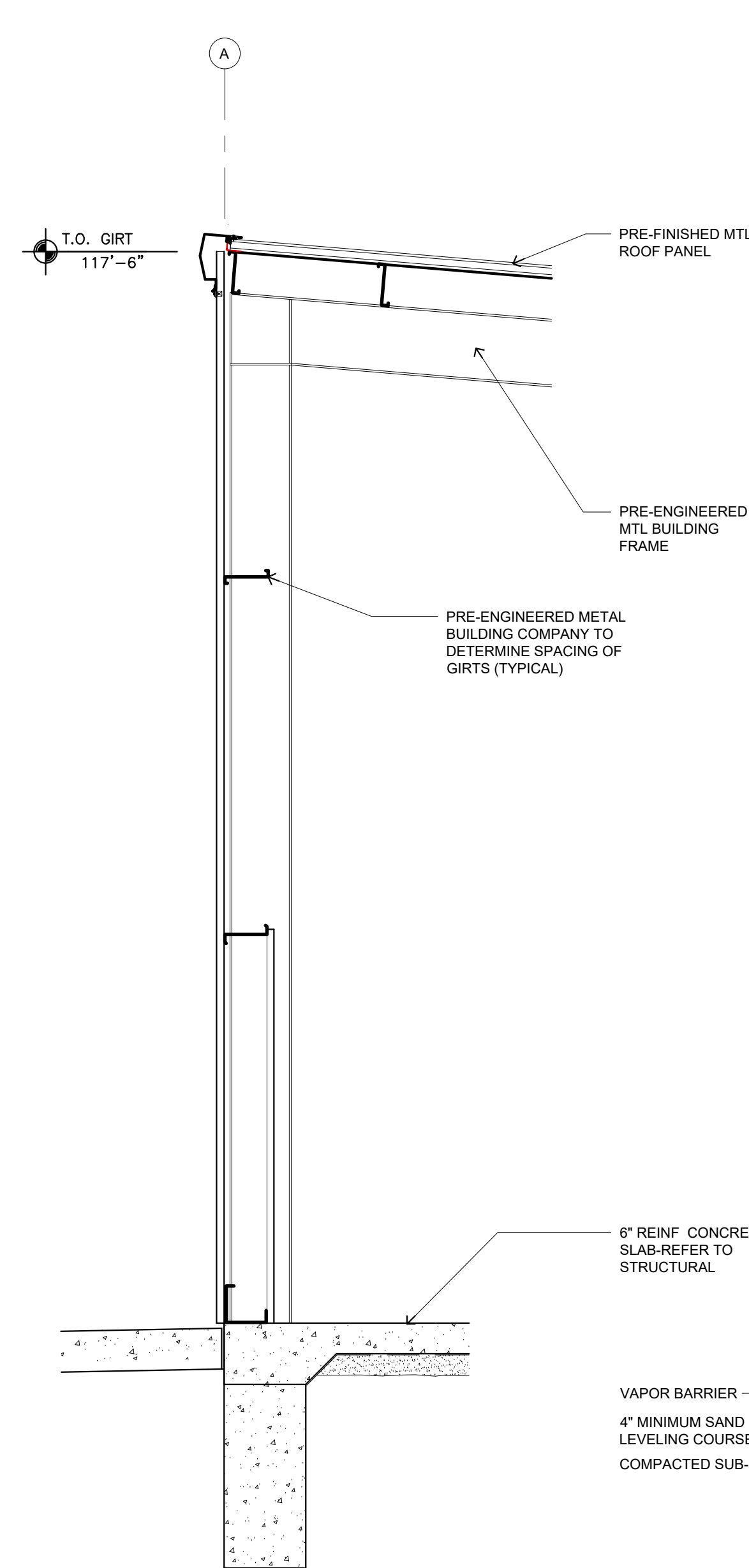
2 BUILDING SECTION
 1/8"=1'-0"
 0 8'



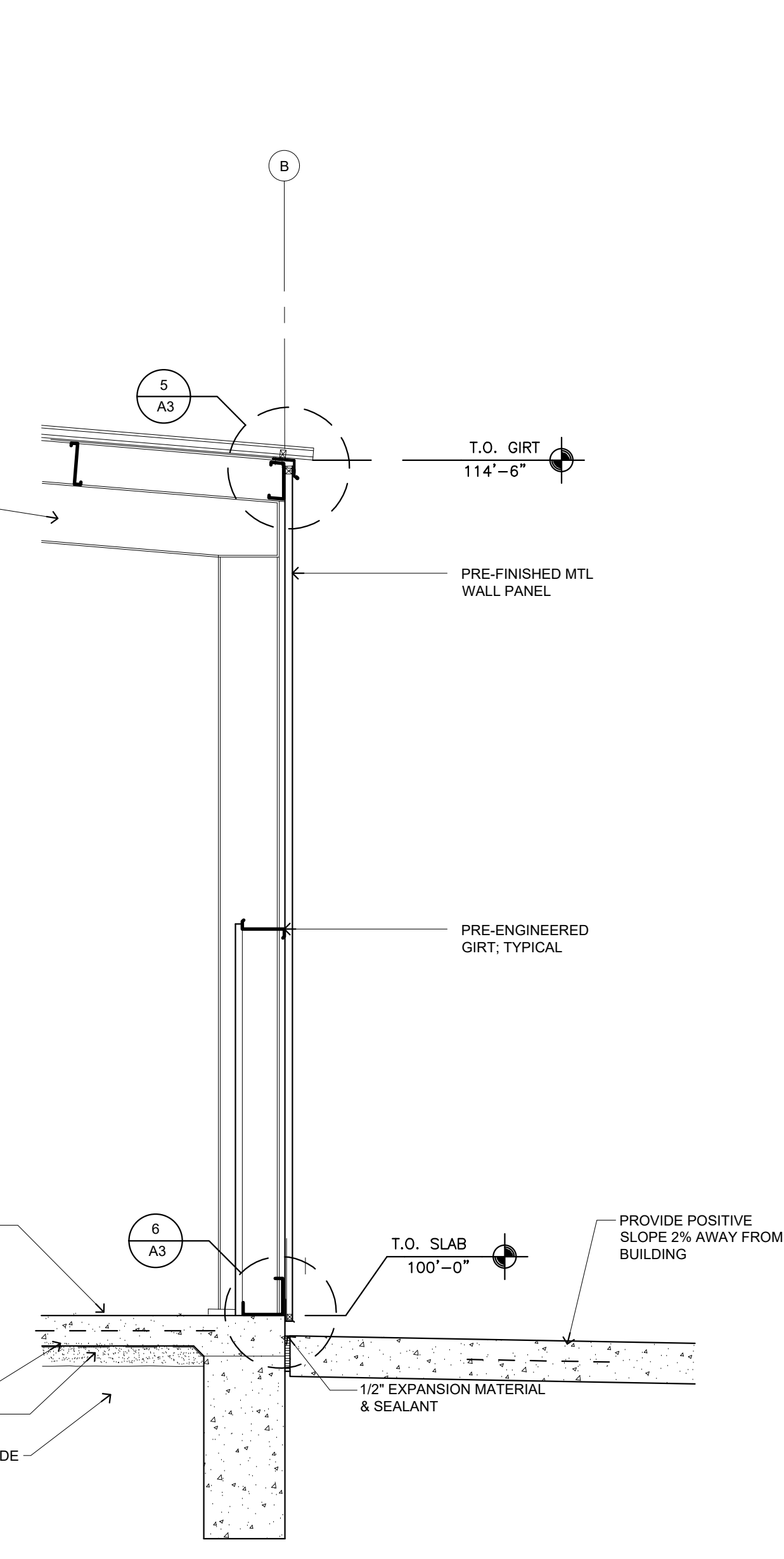
3 WALL SECTION
 1/2"=1'-0"
 0 2'



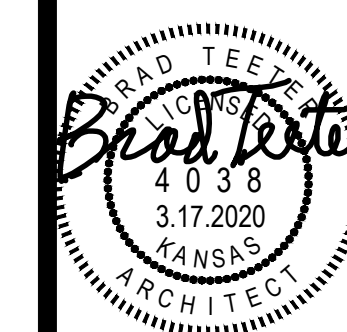
4 WALL SECTION
 1/2"=1'-0"
 0 2'

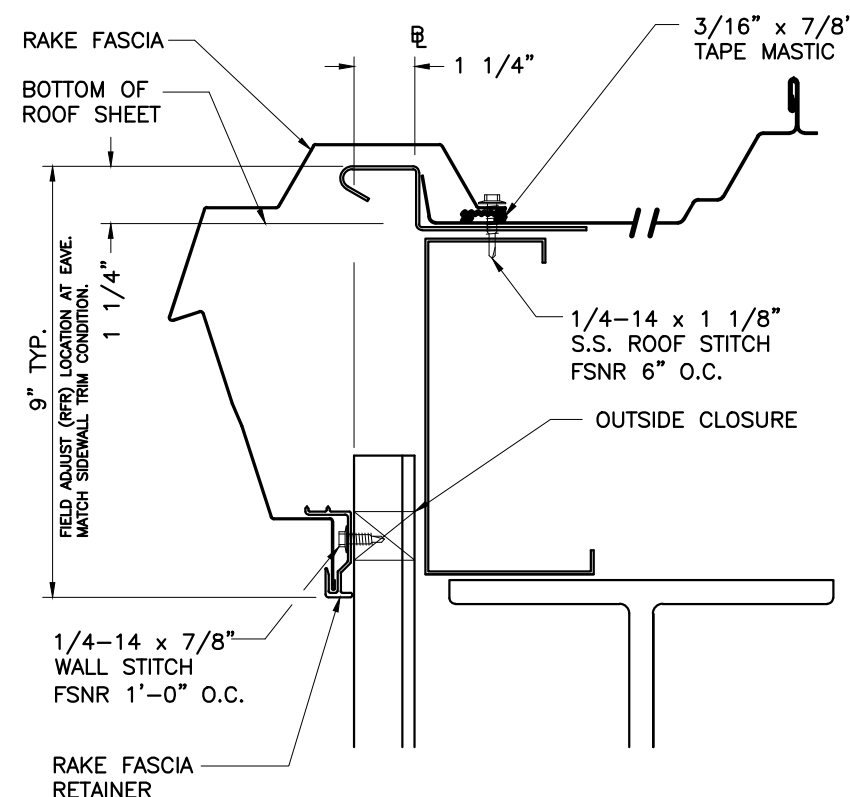


5 WALL SECTION
 1/2"=1'-0"
 0 2'

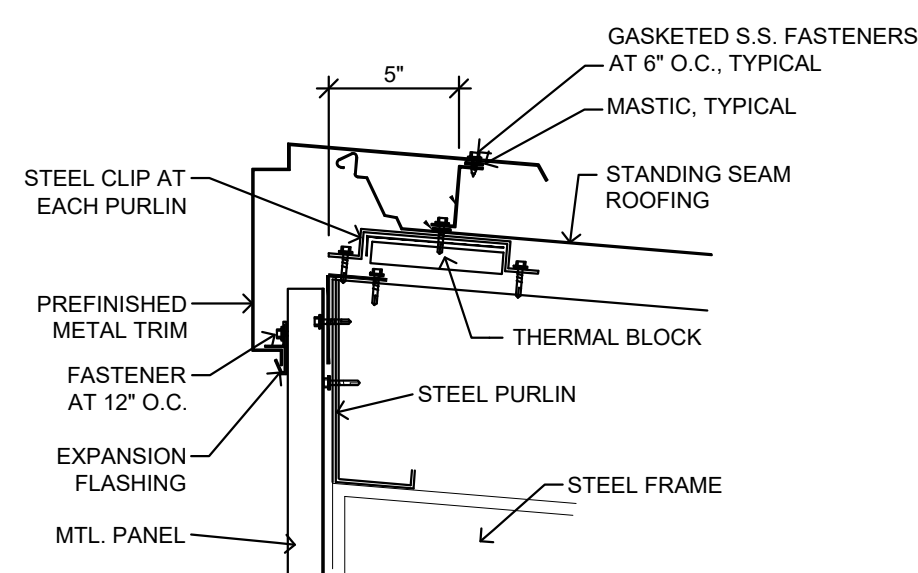


6 WALL SECTION
 1/2"=1'-0"
 0 2'

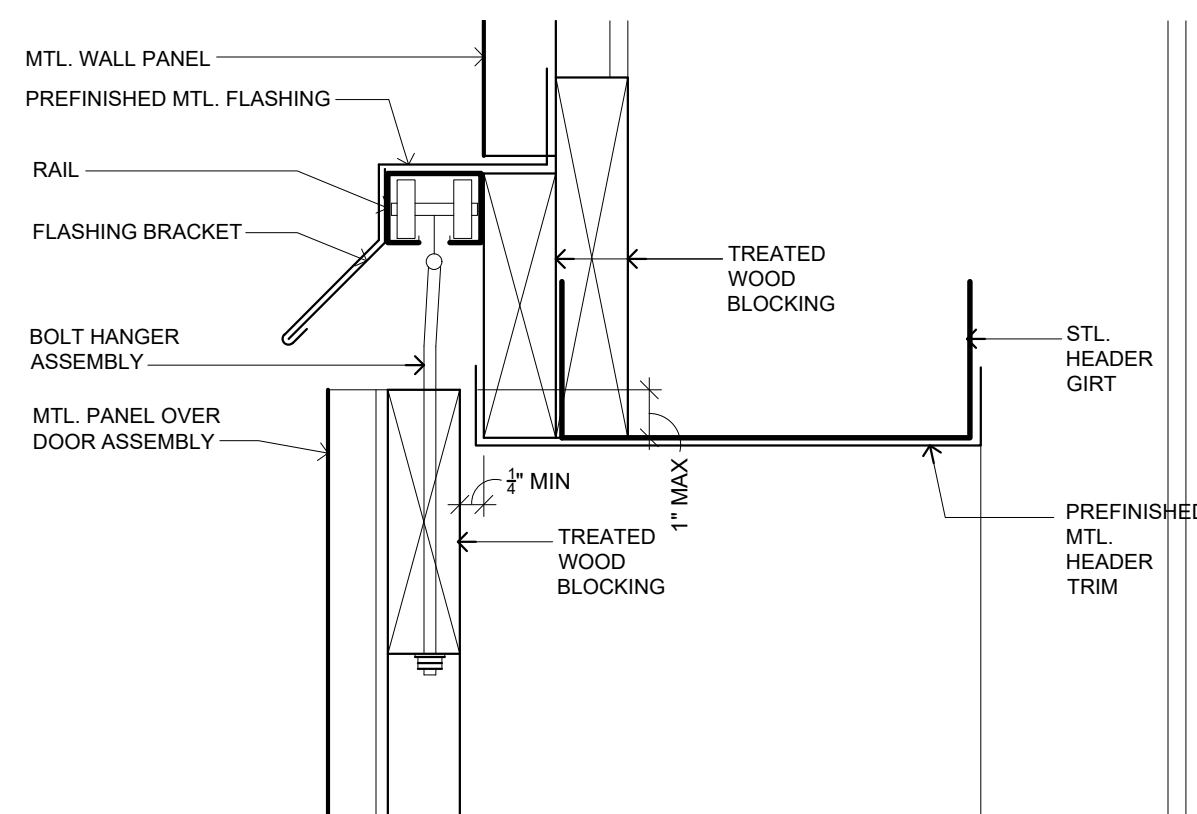




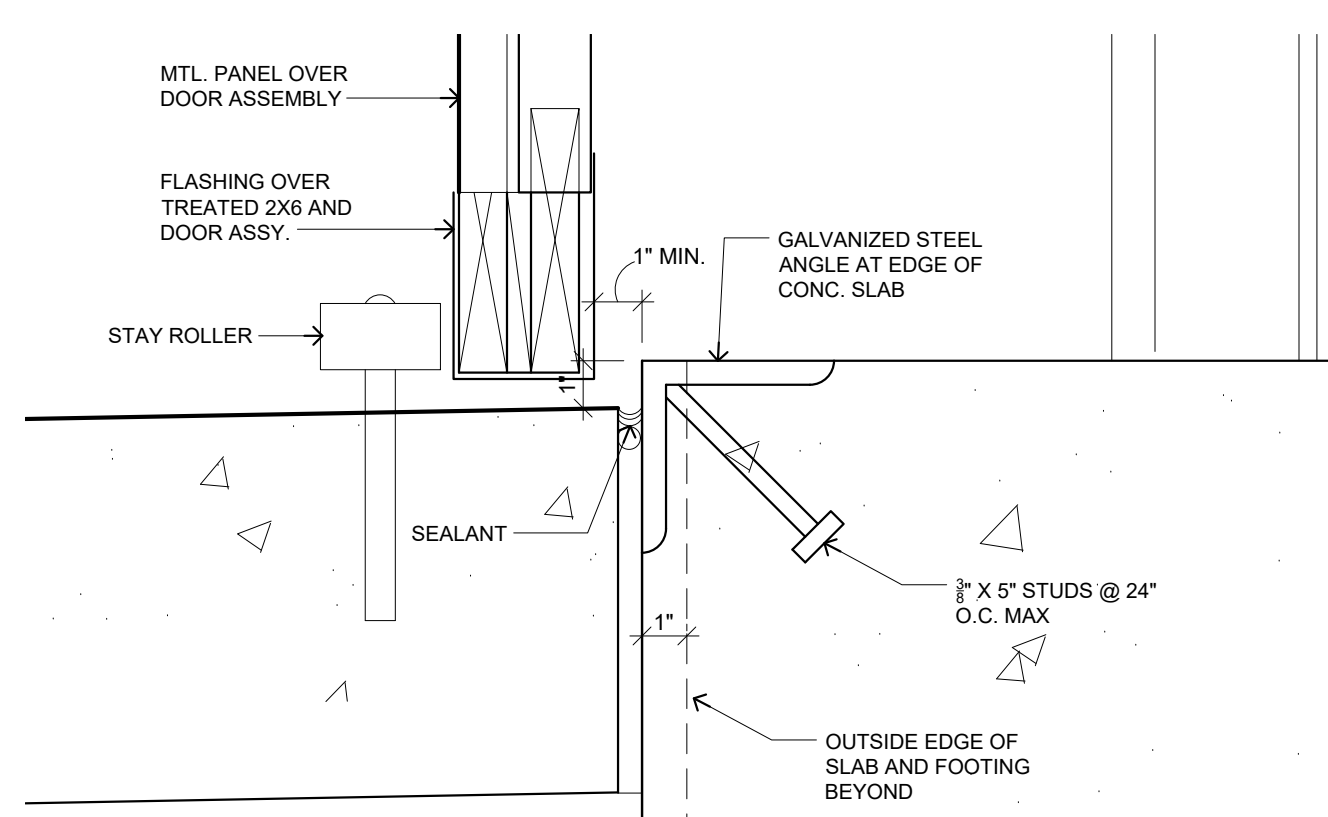
1 RAKE DETAIL
3"=1'-0"
0 4"



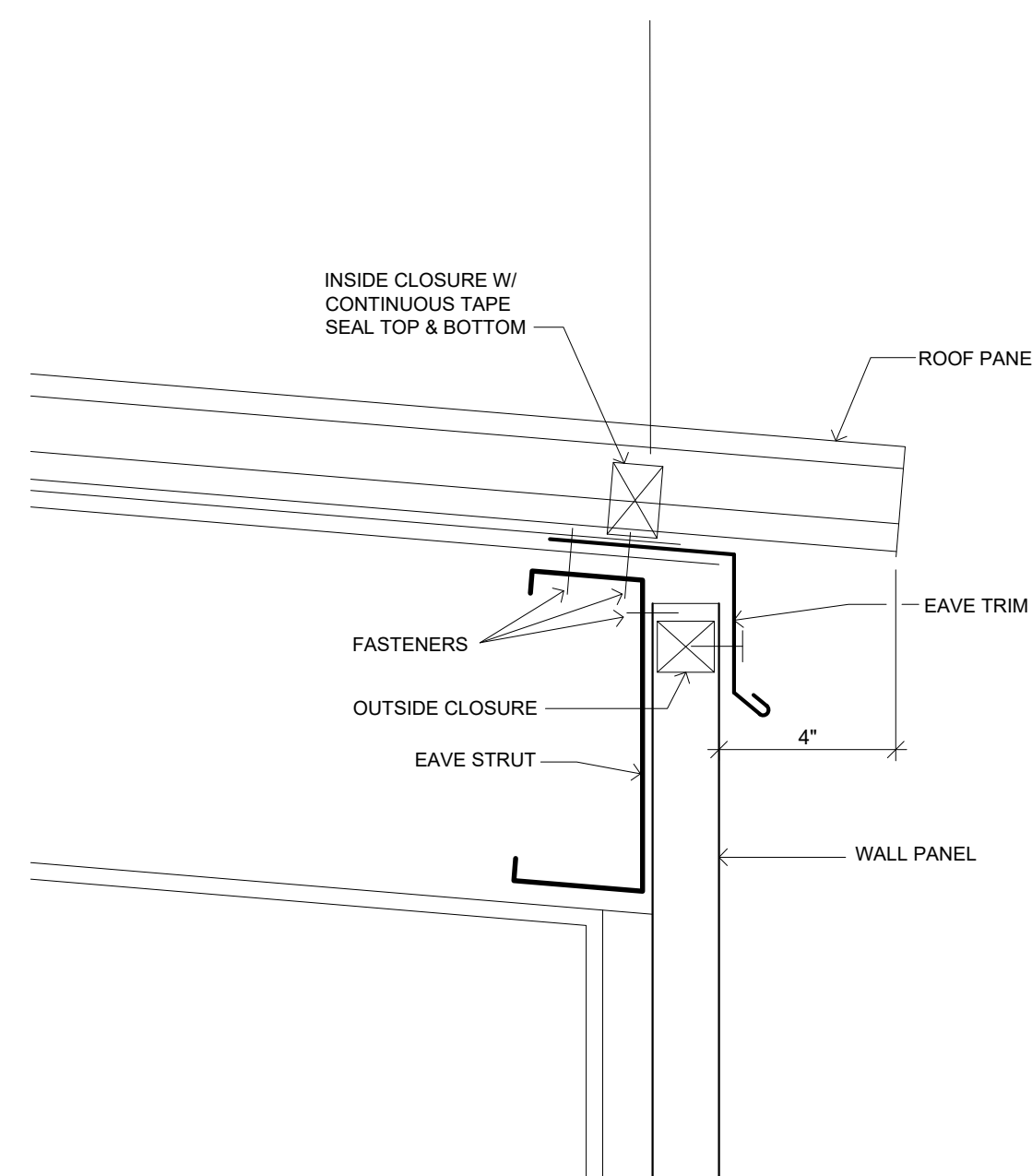
2 HIGH EAVE DETAIL
1 1/2"=1'-0"
0 1'



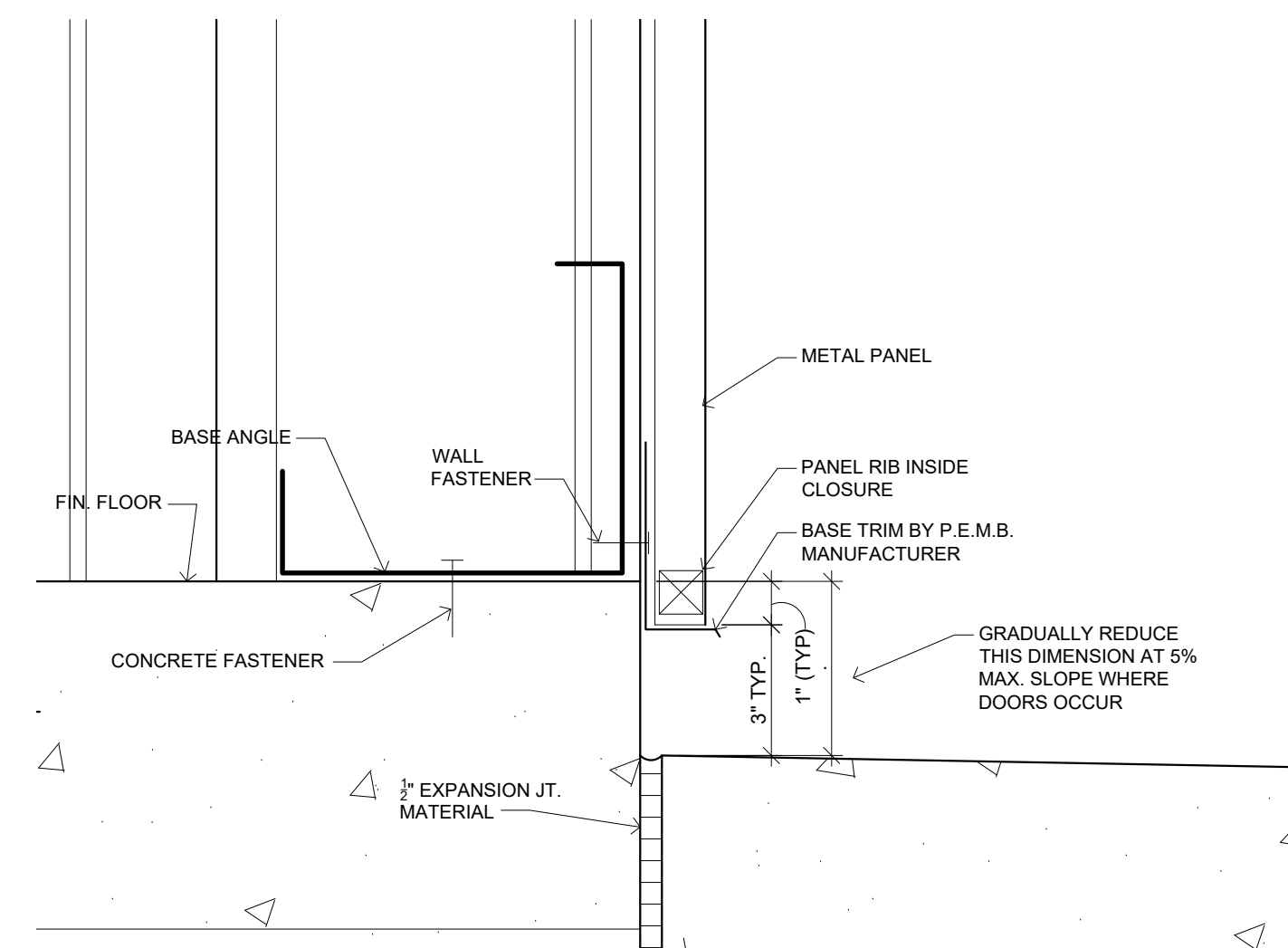
3 SLIDING DOOR HEADER DTL.
3"=1'-0"
0 4"



4 SLIDING DOOR THRESHOLD DTL.
3"=1'-0"
0 4"



5 LOW EAVE DTL.
3"=1'-0"
0 4"



6 BASE DTL.
3"=1'-0"
0 4"



DESIGN CRITERIA

1. BUILDING CODE: INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, INCLUDING LOCAL SUPPLEMENTS. THE STRUCTURE IS CLASSIFIED AS A RISK CATEGORY I FACILITY.

2. DEAD AND LIVE LOADS:

LOCATION	UNIFORM LIVE LOAD	CONCENTRATED LIVE LOAD	TOTAL DEAD LOAD*
SLAB ON GRADE	100 PSF	2000 LB	----
ROOF	20 PSF	----	----

ROOF LIVE LOADS ON SUPPORTING ELEMENTS SHALL NOT BE REDUCED.

* TOTAL DEAD LOAD INCLUDES WEIGHT OF STRUCTURAL ELEMENTS. AN ALLOWANCE OF 5 PSF BEEN INCLUDED FOR METAL BUILDING COLLATERAL LOAD.

3. SNOW LOADS:

GROUND SNOW LOAD:	15 PSF
FLAT ROOF SNOW LOAD:	12 PSF
SNOW EXPOSURE FACTOR:	1.0
SNOW IMPORTANCE FACTOR:	0.8
THERMAL FACTOR:	1.0

DRIFTING OF SNOW AND UNBALANCED SNOW SHALL BE IN ACCORDANCE WITH CODE.

4. WIND:

ULTIMATE DESIGN WIND SPEED, V /uit:	105 MPH (3 SECOND GUST)
NOMINAL DESIGN WIND SPEED, V /asd:	82 MPH (3 SECOND GUST)
WIND EXPOSURE:	C
INTERNAL PRESSURE COEF:	±0.55

COMPONENTS AND CLADDING PRESSURE SHALL BE USED FOR DESIGN OF EXTERIOR WALLS, WINDOWS, DOORS, AND MISCELLANEOUS MATERIALS NOT SPECIFICALLY SHOWN ON THE PLANS.

5. SEISMIC:

SITE CLASS:	D
SEISMIC DESIGN CATEGORY:	B
SEISMIC IMPORTANCE FACTOR:	1.0
Ss:	0.094
S1:	0.053
Sds:	0.101
Sd1:	0.085

CONSTRUCTION DETAILS FOR STRUCTURAL MOVEMENT

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCOMMODATIONS IN GLAZING, ARCHITECTURAL FINISHES, PLUMBING, HVAC, AND ELECTRICAL ELEMENTS TO PREVENT DAMAGE DUE TO DEFLECTION OF ROOF, WALL AND FLOOR MEMBERS.

2. VERTICAL DEFLECTIONS DUE TO GRAVITY LOADS:

PREFAB METAL BUILDING GIRDERS (RIGID FRAMES)	LENGTH IN INCHES/180
PREFAB METAL BUILDING PURLINS	LENGTH IN INCHES/180

3. HORIZONTAL DEFLECTIONS DUE TO WIND (W) OR SEISMIC (E):

PREFAB METAL BUILDING GIRTS	LENGTH IN INCHES/120
PREFAB METAL BUILDING ROOF (FRAME)	HEIGHT IN INCHES/60

*LENGTH IN INCHES/600 FOR BRICK VENEER

DELEGATED ENGINEERING OF STRUCTURAL COMPONENTS & SYSTEMS

1. ALL STRUCTURAL COMPONENTS & SYSTEMS SPECIFIED TO BE DELEGATED SHALL BE DESIGNED AND SEALED BY A SPECIALTY STRUCTURAL ENGINEER (SSE) AND SHALL MEET THE GUIDELINES PUBLISHED BY THE COUNCIL OF AMERICAN STRUCTURAL ENGINEERS (CASE) FOR DELEGATED SPECIALTY STRUCTURAL ENGINEERING.

2. REFERENCE THE GENERAL NOTES & DRAWINGS FOR BUILDING CODE, SERVICE CRITERIA, AND DESIGN LOADS.

3. SUBMITTALS FOR DELEGATED COMPONENTS & SYSTEMS SHALL INCLUDE THE FOLLOWING:

3.A. A FULL DESIGN ANALYSIS, INCLUDING CALCULATIONS FOR GRAVITY AND LATERAL LOADS, WITH A SEALED COVER SHEET IDENTIFYING THE PROJECT NAME AND ADDRESS.

3.B. THE SSE THAT SEALED THE CALCULATIONS SHALL ALSO SEAL THE FABRICATION, PLACING, AND ERECTION PLANS. EACH PLAN SHALL IDENTIFY THE PROJECT NAME AND ADDRESS.

3.C. IF THE SSE THAT SEALED THE CALCULATIONS AND PLANS IS AN EMPLOYEE OF A COMPANY, THE COMPANY'S CERTIFICATE OF AUTHORIZATION NUMBER SHALL BE INCLUDED ON THE SUBMITTALS. BOTH THE SSE SEAL AND THE CERTIFICATE OF AUTHORIZATION SHALL BE ISSUED BY THE STATE IN WHICH THE PROJECT IS LOCATED, INCLUDING PROJECTS ON FEDERAL LAND.

3.D. THE COMPANY THAT EMPLOYS THE SSE SHALL PROVIDE AN INSURANCE CERTIFICATE FOR PROFESSIONAL LIABILITY INSURANCE WITH AN AGGREGATE AMOUNT OF NO LESS THAN TWO MILLION DOLLARS (\$2,000,000). CONTRACTS OR SUB-CONTRACTS FOR THIS PROJECT SHALL NOT INCLUDE A LIMIT OF LIABILITY CLAUSE.

3.E. THE SSE THAT SEALED THE PLANS SHALL INCORPORATE A WRITTEN STATEMENT THAT THE CONTRACT DOCUMENTS CRITERIA HAVE BEEN INCORPORATED INTO THE DESIGN.

4. THE CONTRACTOR SHALL REVIEW THE SUBMITTAL FOR QUANTITIES AND DIMENSIONS AND VERIFY THAT THE ABOVE INFORMATION HAS BEEN INCLUDED IN THE SUBMITTAL.

5. NO SUBMITTAL WILL BE REVIEWED UNLESS ALL OF THE ABOVE INFORMATION IS INCLUDED. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR DELAYS CAUSED BY INCOMPLETE SUBMITTALS.

6. PRE-FABRICATED METAL BUILDING

6.A. THE PRELIMINARY FOUNDATION DESIGN LOADS ARE SHOWN ON THE PLANS. IF THE FINAL CERTIFIED LOADS ARE MORE THAN THE PRELIMINARY LOADS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REDESIGN COST AND THE COST FOR CHANGES TO THE FOUNDATION.

6.B. COLLATERAL DEAD LOAD IS APPLIED ON ALL ROOF MEMBERS INCLUDING PURLINS AND FRAMES. COLLATERAL LOADS SHALL NOT BE USED TO REDUCE WIND LOAD UPLIFT.

6.C. COLUMN BASE PLATES SHALL BE DESIGNED AS "PINNED" TO PROVIDE UNIFORM CONCRETE CONTACT PRESSURE IN ACCORDANCE WITH AISC DESIGN CRITERIA. MINIMUM COLUMN BASE PLATE THICKNESS IS 0.75 INCHES.

6.D. RIGID FRAME MEMBERS SHALL HAVE SOLID FLAT WEBS (CORRUGATED WEBS ARE PROHIBITED) WITH A MINIMUM THICKNESS OF 0.1875" AND SOLID FLAT FLANGES WITH A MINIMUM THICKNESS OF 0.375" AND A MINIMUM WIDTH OF 5.0". END PLATE CONNECTIONS SHALL HAVE A MINIMUM THICKNESS OF 0.75" AND THE BOLTS CONNECTING THE MEMBERS SHALL BE ASTM A325 AND TENSION INDICATING.

6.E. BRACING FOR WIND OR SEISMIC SHALL BE SOLID RODS (CABLE IS NOT ALLOWED).

6.F. THE PRE-FABRICATED METAL BUILDING SYSTEM SHALL BE "FM" APPROVED.

SOIL PREPARATION AND FOUNDATIONS

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENGAGE A LICENSED GEOTECHNICAL ENGINEER TO PERFORM A SUBSURFACE GEOTECHNICAL INVESTIGATION. THE RESULTS OF THE GEOTECHNICAL INVESTIGATION SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. THE GEOTECHNICAL INVESTIGATION MUST, AT THE MINIMUM, PROVIDE THE FOLLOWING:

1.A. SUFFICIENT SOIL BORINGS SHALL BE MADE TO VERIFY THAT THE PRESUMPTIVE SOIL BEARING PRESSURE OF 1,500 PSF IN UNDISTURBED SOILS AND ENGINEERED FILLS USED FOR DESIGN IS SAFE.

1.B. LABORATORY TESTS SHALL BE MADE AS NECESSARY TO VERIFY THAT THE TOTAL SETTLEMENT IS LESS THAN 1" AND THE DIFFERENTIAL SETTLEMENT IS LESS THAN 1/2", NO SHRINK/SWELL POTENTIAL EXISTS, AND THE DEPTH IS ADEQUATE FOR THE SITE.

3. REMOVE TOP SOIL CONTAINING ORGANIC MATERIAL AND PREPARE THE BUILDING PAD IN ACCORDANCE WITH THE CIVIL ENGINEERING PLANS, SPECIFICATIONS, AND GEOTECHNICAL INVESTIGATION.

4. REMOVE SOIL AS REQUIRED TO ALLOW FOR A LOW VOLUME CHANGE ZONE 16" THICK UNDER THE FLOOR SLAB AND DRAINAGE MATERIAL. FILL TO SUBGRADE ELEVATION SHOWN ON THE DRAWINGS WITH NON-EXPANSIVE FILL OR STABILIZED SOIL PER SPECIFICATION.

5. SOIL SUPPORTED FOUNDATIONS:

5.A. DESIGN BEARING PRESSURE (NET) IS 1500 PSF FOR FOUNDATIONS BEARING ON UNDISTURBED SOIL OR APPROVED ENGINEERED FILL MATERIAL. BEARING MATERIALS SHALL BE VERIFIED BY A LICENSED GEOTECHNICAL ENGINEER.

5.B. ALL FOUNDATIONS ARE DESIGNED WITH EARTH FORMED SIDES; THE TOP 71/4" OF THE FOUNDATION SHALL BE FORMED TO THE DESIGN DIMENSION WHEN VISIBLE AFTER CONSTRUCTION IS COMPLETE. THE CONSTRUCTED FOUNDATION DIMENSION SHALL BE NO LESS THAN THE DESIGN DIMENSION, AND NO MORE THAN 6" GREATER THAN THE DESIGN DIMENSION.

6. EXTERIOR SLABS SHALL SLOPE AWAY FROM THE STRUCTURE A MINIMUM OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.

CONCRETE

1. ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318 AND THE BUILDING CODE, AND IN CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."

2. THE CONCRETE REQUIREMENTS ARE:

2.A. CEMENT SHALL BE TYPE I OR II CONFORMING TO ASTM C150. FLY ASH CONFORMING TO ASTM C618 TYPE C OR F MAY BE USED TO REPLACE A MAXIMUM OF 20% OF THE CEMENT BY WEIGHT.

2.B. FINE AGGREGATE FOR LIGHTWEIGHT AND NORMAL WEIGHT CONCRETE SHALL MEET ASTM C33.

2.C. COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33, GRADE 67 OR LARGER. COARSE AGGREGATES SHALL BE NO LESS THAN 50% OF THE TOTAL AGGREGATE BY WEIGHT, UNLESS APPROVED BY THE ENGINEER PRIOR TO MIX DESIGN SUBMITTAL.

2.D. MIX REQUIREMENTS ARE:

LOCATION	MINIMUM F' /c (PSI)	MINIMUM CEM.(PCY)	MAX. W/C RATIO	AIR CONTENT	SLUMP INCHES§
FOUNDATIONS	4000	470	0.45	5%±1%	2-5
INTERIOR SLAB*	4000	564	0.42	3% MAX.	2-5

*SLAB ON GRADE SHALL HAVE A FLEXURAL STRENGTH OF 650 PSI WHERE SUBJECT TO VEHICLE TRAFFIC. §PRIOR TO THE ADDITION OF WATER REDUCING ADMIXTURES, IF APPROVED BY ENGINEER, AFTER ADDITION THE SLUMP MAY NOT EXCEED 8".

F'c SPECIFIED IS BASED ON THE 28 DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH ACI 318 ACCEPTANCE CRITERIA.

3. ADMIXTURES, HARDENERS, & CURING COMPOUNDS

3.A. ALL CONCRETE ADMIXTURES SHALL, WHEN MIXED INTO CONCRETE, BE NON-CHLORIDE AND NON-CHLORIDE FORMING.

3.B. ALL ADMIXTURES MUST CONFORM TO ASTM C-494 AND C-260.

3.C. CONCRETE CURING COMPOUND AND SEALERS SHALL MEET ASTM C-309 TYPE 1 OR 1D.

3.D. USE OF "SELF CONSOLIDATING" CONCRETE MUST BE SUBMITTED FOR APPROVAL WITH THE CONCRETE MIX DESIGN.

3.E. CONCRETE PENETRATING HARDENER SEALERS SHALL BE USED ON ALL EXPOSED INTERIOR CONCRETE FLOORS UNLESS OTHER COATINGS ARE REQUIRED BY THE ARCHITECT.

4. MISCELLANEOUS CONCRETE DETAILS:

4.A. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE THE FORMS OR TOOLED TO 3/4" RADIUS UNLESS NOTED OTHERWISE.

4.B. SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS AND/OR CONTROL JOINTS (SAWN JOINTS) TO DIVIDE THE SLAB INTO PANELS, NOT TO EXCEED 256 SQUARE FEET. THE LONG DIMENSION SHALL NOT EXCEED THE SHORT DIMENSION BY MORE THAN 20%. CONTRACTOR TO SUBMIT PROPOSED LOCATIONS FOR APPROVAL.

4.C. NO ALUMINUM SHALL BE EMBEDDED IN CONCRETE. CONDUITS AND PIPING EMBEDDED IN CONCRETE WALLS, SLABS, OR BEAMS SHALL BE SPACED A MINIMUM OF FOUR DIAMETERS AND THE OUTSIDE DIAMETER SHALL BE LESS THAN 30% OF THE MEMBER THICKNESS AND PLACED BETWEEN LAYERS OF REINFORCING.

CONCRETE REINFORCING

1. MATERIALS	ASTM	GRADE
PLATE & ANGLE:	A36	---
REINFORCING STEEL:	A615	60
WELDED WIRE FABRIC (WWF):	A185	60 (MIN.)
HEADED STUDS:	A108	---
ANCHOR RODS (BOLTS):	F1554	36

2. DETAILS:

2.A. WELDING OF REINFORCING STEEL IS PROHIBITED UNLESS NOTED OTHERWISE. WHEN WELDING IS APPROVED, WELDING SHALL BE IN ACCORDANCE WITH AWS D1.4 "WELDING REINFORCING STEEL, ETC."

2.B. WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS.

2.C. SHOP DRAWINGS SHALL BE SUBMITTED WITH REINFORCING STEEL IN ACCORDANCE WITH ACI 315.

2.D. WHEN MECHANICAL SPLICES ARE INDICATED ON THE PLANS, THE SPLICE SHALL DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE REINFORCING STEEL. REQUESTS BY THE CONTRACTOR FOR MECHANICAL SPLICES MUST BE SUBMITTED IN WRITING.

3. PLACEMENT:

3.A. ALL REINFORCING AND EMBEDMENTS SHALL BE SUPPORTED ON CHAIRS/BOLSTERS TO THE DESIGN DIMENSIONS. SPACING SHALL BE SUFFICIENTLY CLOSE TO PREVENT DISPLACEMENT OR PERMANENT DEFORMATION DUE TO CONCRETE PLACEMENT, FOOT TRAFFIC, OR VIBRATION. "PUDDLING IN" OR "PULLING UP" REINFORCING IS NOT AN ACCEPTABLE METHOD FOR PLACING REINFORCING. CHAIRS/BOLSTERS SHALL HAVE PLASTIC COATED FEET OR BE MADE OF STAINLESS STEEL. CHAIRS/BOLSTERS IN CONTACT WITH EARTH SHALL HAVE BOTTOM PLATES AND BE COATED TO PREVENT CORROSION. ANCHOR RODS SHALL BE HELD IN PLACE WITH TEMPLATES SUFFICIENTLY STRONG TO PREVENT DISPLACEMENT OR TILTING.

3.B. MAINTAIN ACI CLEAR COVER ON REINFORCING AS LISTED BELOW UNLESS NOTED OTHERWISE.

CAST AGAINST EARTH (BOTTOM OR SIDES):	3"
FORMED - EXPOSED TO SOIL, WEATHER OR LIQUIDS	2"
SLABS ON GRADE (FROM TOP OF SLAB):	1.5"

3.C. PROVIDE CORNER BARS OF THE SAME SIZE AND SPACING AS ADJACENT REINFORCING.

3.D. REINFORCING STEEL SHALL BE LAPPED PER TABLE A.

3.E. WELDED WIRE FABRIC SHALL BE LAPPED ONE FULL SQUARE PLUS 2".

CONTRACT/CONSTRUCTION DOCUMENTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A FULL SET OF THE MOST RECENT REVISIONS OF EACH DOCUMENT INCLUDING ALL PLANS, SPECIFICATIONS, ADDENDA, AND SUPPLEMENTAL INSTRUCTIONS.

2. THE CONTRACTOR SHALL REVIEW THE DOCUMENTS PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY MATERIALS FOR CONFLICTS. IF CONFLICTS OCCUR THE CONTRACTOR SHALL USE THE MOST STRINGENT REQUIREMENT OR REQUEST A CLARIFICATION THROUGH A REQUEST FOR INFORMATION (RFI).

3. THE DOCUMENTS MAY NOT BE REPRODUCED IN WHOLE OR IN PART FOR USE ON PROJECTS OTHER THAN IDENTIFIED IN THE TITLE BLOCK. SHOULD THE CONTRACTOR USE THE DOCUMENTS AS A PORTION OF A SHOP DRAWING SUBMITTAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES RESULTING FROM ERRORS IN THE REPRODUCED DOCUMENTS.

4. DETAILS LABELED TYPICAL ARE INTENDED TO REPRESENT A CONDITION THAT OCCURS AT SEVERAL LOCATIONS IN THE PLANS WHETHER OR NOT THE DETAIL IS REFERENCED.

5. DO NOT SCALE THE PLANS AND DETAILS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS.

CONTRACTOR'S RESPONSIBILITY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL SUB-CONTRACTOR SUBMITTALS AND NOTING ALL DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING TO THE ENGINEER FOR REVIEW.

2. SUBSTITUTION REQUESTS SHALL BE SUBMITTED IN WRITING WITH THE COST REDUCTION AMOUNT AND THE SCHEDULE IMPACT FOR THE OWNER. A COMPARISON OF THE DATA WITH THE MATERIAL SPECIFIED INCLUDING CODE APPROVALS SHALL BE PROVIDED.

3. REQUESTS FOR INFORMATION (RFI) SHALL BE SUBMITTED IN WRITING WITH COST, SCHEDULE IMPACT, AND SUGGESTED SOLUTION INCLUDED.

4. DEFECTIVE WORK REPORT (DWR) SHALL BE SUBMITTED TO THE ENGINEER. THE DWR SHALL REPORT THE DEFECT AND PROPOSE A REMEDIATION OF THE DEFECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDIATION OF THE DEFECT INCLUDING ENGINEERING COSTS, IF ANY.

5. WHEN THE CONTRACTOR BECOMES AWARE OF WHAT MAY BE AN UNFORESEEN CONDITION THAT COULD AFFECT COST OR SCHEDULE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING. AFTER REVIEW AND ENGINEER'S DETERMINATION THAT AN UNFORESEEN CONDITION EXISTS, THE CONTRACTOR SHALL SUBMIT A CHANGE ORDER REQUEST FOR APPROVAL WITH BOTH COST AND SCHEDULE IMPACT ATTACHED.

6. THE CONTRACTOR'S SCHEDULE MUST PROVIDE A REASONABLE TIME ALLOWANCE FOR THE ENGINEERING REVIEW AND APPROVAL.

7. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR SITE SAFETY. THE ENGINEER IS RESPONSIBLE FOR FOLLOWING THE CONTRACTOR'S CONSTRUCTION SITE SAFETY INSTRUCTIONS PROVIDED IN WRITING. ALTERNATELY, THE CONTRACTOR SHALL ASSIGN AN ESCORT TO ADVISE THE ENGINEER OF SITE SAFETY ISSUES DURING SITE VISITS. THE ENGINEER'S PURPOSE OF A SITE VISIT IS SOLELY TO BECOME FAMILIAR WITH THE GENERAL PROGRESS AND QUALITY OF THE PROJECT. THE ENGINEER'S SITE VISIT IS NOT A QUALITY CONTROL FUNCTION.

CONSTRUCTION MEANS AND METHODS ISSUES

1. SLAB ON GRADE ARE NOT DESIGNED TO SUPPORT CRANES, FORKLIFTS, TRUCKS, MANLIFTS, OR OTHER CONSTRUCTION RELATED EQUIPMENT UNLESS NOTED AS SUCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF CONSTRUCTION EQUIPMENT CAN BE SAFELY OPERATED ON THESE SLABS AND TO REPAIR ANY DAMAGE THE EQUIPMENT MAY CAUSE.

2. THE CONSTRUCTION DOCUMENTS REPRESENT A STABLE STRUCTURE IN THE COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY BRACING AND/OR SHORES TO SAFELY CONSTRUCT THE BUILDING AND PREVENT DAMAGE DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION THAT MAY AFFECT THE PROJECT AND REPORT DISCREPANCIES TO THE ENGINEER. ANY DIMENSIONS FOR ELEVATIONS THAT IMPACT NEW WORK SHALL BE VERIFIED PRIOR TO FABRICATION OF ANY MATERIAL. EXISTING BUILDING ELEMENTS THAT ARE TO BE ABANDONED THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

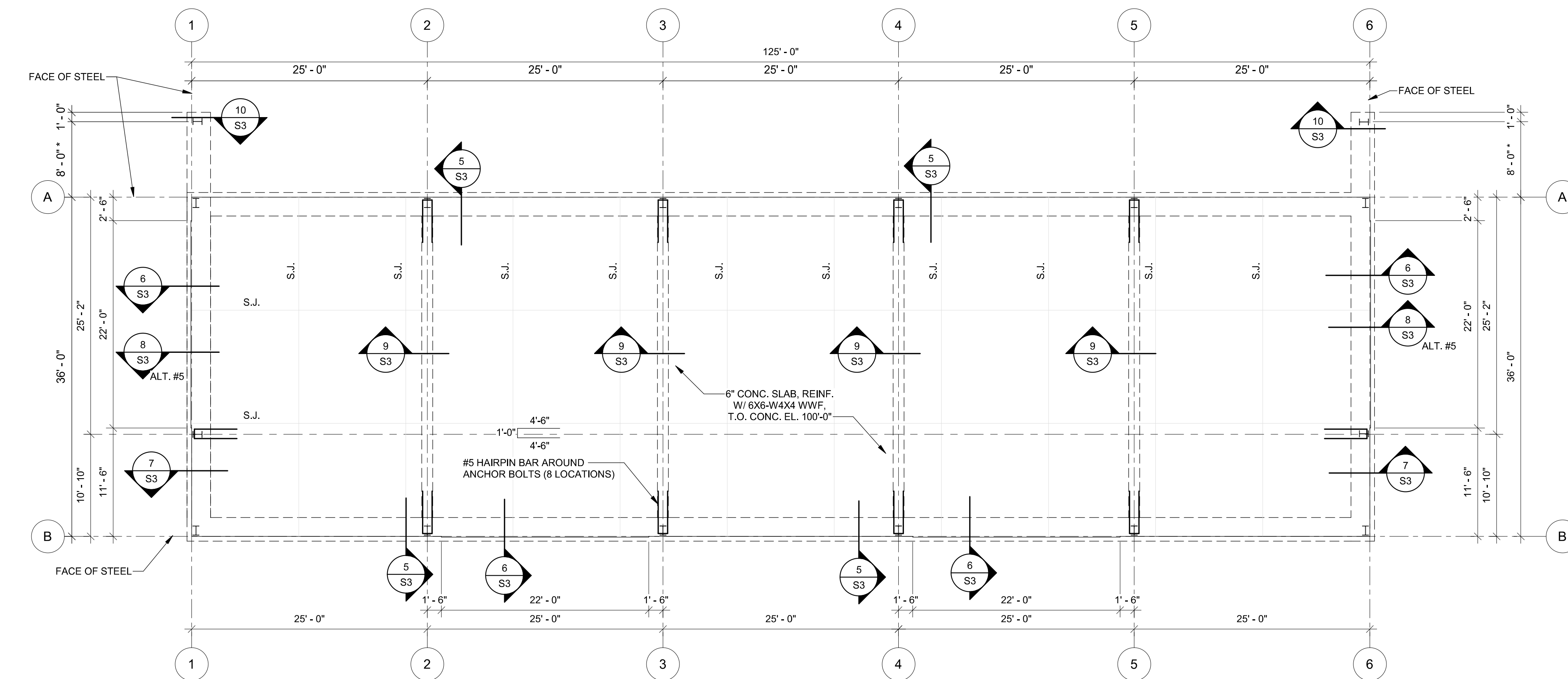
4. WHEN A PIECE OF EQUIPMENT (HVAC, ELECTRICAL, KITCHEN, ETC.) IS PROVIDED THAT IS DIFFERENT THAN THE EQUIPMENT THAT THE STRUCTURE WAS DESIGNED FOR EITHER BY SIZE, WEIGHT OR CONFIGURATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDY OF THE SITUATION. THOSE COSTS SHALL INCLUDE THE ENGINEERING COSTS TO REDESIGN PORTIONS OF THE STRUCTURE TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN AND MATERIALS FOR ATTACHING NON-STRUCTURAL ELEMENTS TO ANY PORTION OF THE STRUCTURE TO RESIST ALL LOADS, INCLUDING SEISMIC, IN A WAY THAT DOES NOT OVERSTRESS STRUCTURAL MEMBERS. NON-STRUCTURAL ELEMENTS CAN BE FOUND IN EACH OF THE OTHER DISCIPLINES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC.).

STRUCTURAL TESTS, INSPECTIONS, AND QUALITY ASSURANCE

1. ALL STRUCTURAL TESTS AND INSPECTIONS SHALL BE PERFORMED PER CHAPTER 17 OF THE BUILDING CODE WITH LOCAL SUPPLEMENTS, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.





METAL BUILDING NOTES:

- VERIFY ALL DIMENSIONS W/ ARCH. & MTL. BLDG. SUPPLIER PRIOR TO CONSTRUCTION
- ASSUMED UNFACTORED COLUMN REACTIONS ARE AS FOLLOW:
 VERTICAL LOADS = 14.0k
 UPLIFT LOAD = -7.0k
 SHEAR LOAD = 6.0k
 (VERIFY COLUMN REACTIONS WITH MTL. BLDG. SUPPLIER)
- G.C. TO COORDINATE FOUNDATION EXTENSION LENGTH WITH PEMB/DOOR MANUFACTURER REQUIREMENTS

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

REQUIRED VERIFICATION & INSPECTION OF SOILS

VERIFICATION AND INSPECTION	FREQUENCY
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Periodic
2. Verify excavations are extended to proper depth and have reached proper material.	Periodic
3. Perform classification and testing of compacted fill materials.	Periodic
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Continuous
5. Prior to placement of compacted fill, observe subgrade and verify that site has been properly prepared.	Periodic

REQUIRED VERIFICATION & INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD	IBC REFERENCE
1. Inspection of reinforcing steel, including prestressing tendons and placement.	Periodic	ACI 318: 3.5, 7.1-7.7	1910.4
2. Inspection of reinforcing steel welding in accordance with Table 1705.2.2, Item 2b.		AWS D1.4 ACI 318: 3.5.2	
3. Inspection of anchors cast in concrete where allowable loads have been increased or where strength design is used.	Periodic	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
4. Inspection of anchors post installed in hardened concrete members.	Periodic	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1
5. Verifying use of required mix design.	Periodic	ACI 318: Ch. 4, 5.2-5.4	1904.2, 1910.2, 1910.3
6. At the time of fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Continuous	ASTM C172, ASTM C31, ACI 318: 5.6, 5.8	1910.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	Continuous	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. Inspection for maintenance of specified curing temperature and techniques.	Periodic	ACI 318: 5.11-5.13	1910.9
9. Inspection of prestressed concrete: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.	Continuous Continuous	ACI 318: 18.20 ACI 318: 18.18.4	
10. Erection of precast concrete members.	Periodic	ACI 318: Ch. 16	
11. Verification of in-situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to removal of shores and forms from beams and structural slabs.	Periodic	ACI 318: 6.2	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	Periodic	ACI 318: 6.1.1	

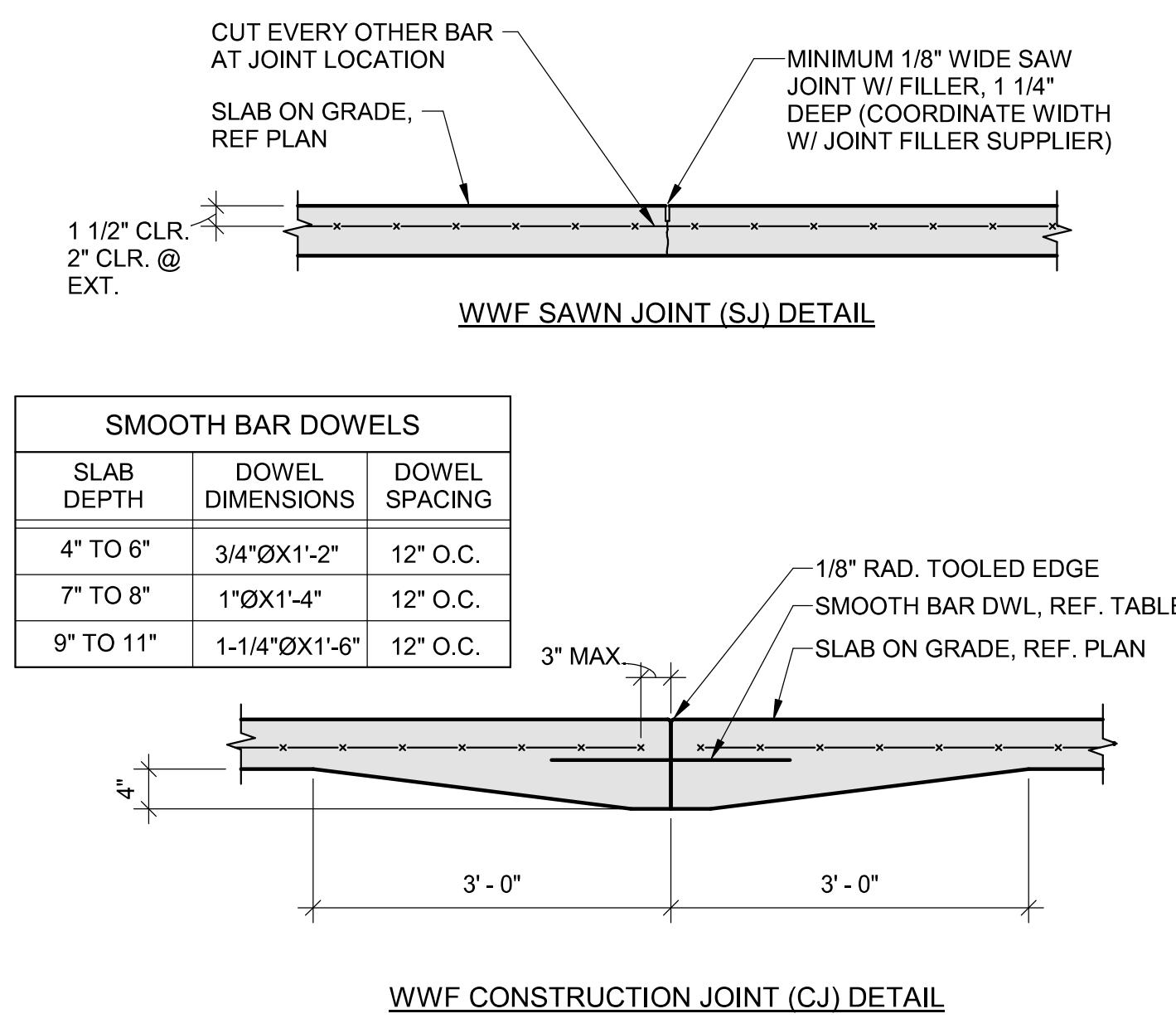
2 CONCRETE REINFORCEMENT LAPS AND EMBEDMENT LENGTHS
fy = 60000 psi f'c = 4000 psi

BAR SIZE (d)	CLEAR SPACING (S) (in.)		EMBEDMENT & CLASS A LAP (in.)				CLASS B LAP (in.)				HOOK EMBED (in.)					
	2d	3d	TOP BAR		OTHER BARSTOP BAR		OTHER BARS		S _{2d}	S _{3d}						
			2d-S<3d	S _{3d}	2d-S<3d	S _{3d}	2d-S<3d	S _{3d}								
3	3/4	1 1/8	1 7/8	28	18	12	21	14	12	36	24	14	28	18	12	8
4	1	1 1/2	2 1/2	37	25	15	28	19	12	48	32	19	37	25	15	10
5	1 1/4	1 7/8	3 1/8	46	31	18	36	24	14	60	40	24	46	31	18	12
6	1 1/2	2 1/4	3 3/4	55	37	22	43	28	17	72	48	29	55	37	22	15
7	1 3/4	2 5/8	4 3/8	81	54	32	62	42	25	105	70	42	81	54	32	18
8	2	3	5	92	62	37	71	47	28	120	80	48	92	62	37	20
9	2 1/4	3 3/8	5 5/8	104	70	42	80	54	32	136	90	54	104	70	42	22
10	2 1/2	3 3/4	6 3/8	117	78	47	90	60	36	153	102	61	117	78	47	25
11	2 7/8	4 1/4	7	130	87	52	100	67	40	170	113	68	130	87	52	27

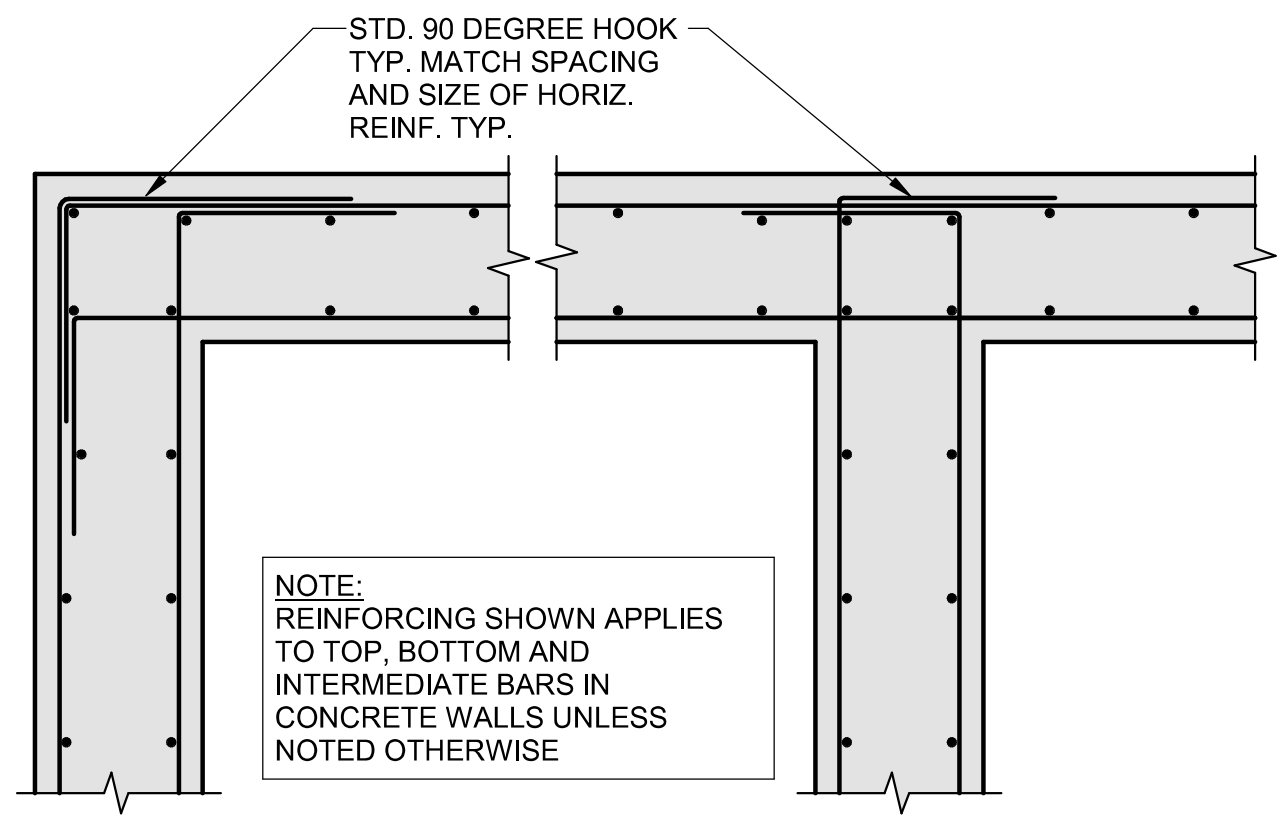
NOTES:

- LENGTHS SHOWN CONFORM WITH NON-SEISMIC PROVISIONS OF ACI 318 FOR UNCOATED BARS.
- BAR CLEAR SPACING IS THE CENTER TO CENTER BAR SPACING MINUS ONE BAR DIAMETER.
- CLASS A LAP LENGTHS APPLY WHEN BAR LAPS ARE STAGGERED TO LAP HALF THE BARS AT THE SAME LOCATION. USE CLASS B LAP FOR ALL OTHER CASES.
- TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST BELOW THE REINFORCEMENT.
- MULTIPLY LAP AND EMBEDMENT LENGTHS GIVEN BY 2.0 FOR BARS WITH CLEAR SPACING OF TWO BAR DIAMETERS OR LESS, OR CONCRETE COVER OF ONE BAR DIAMETER OR LESS.

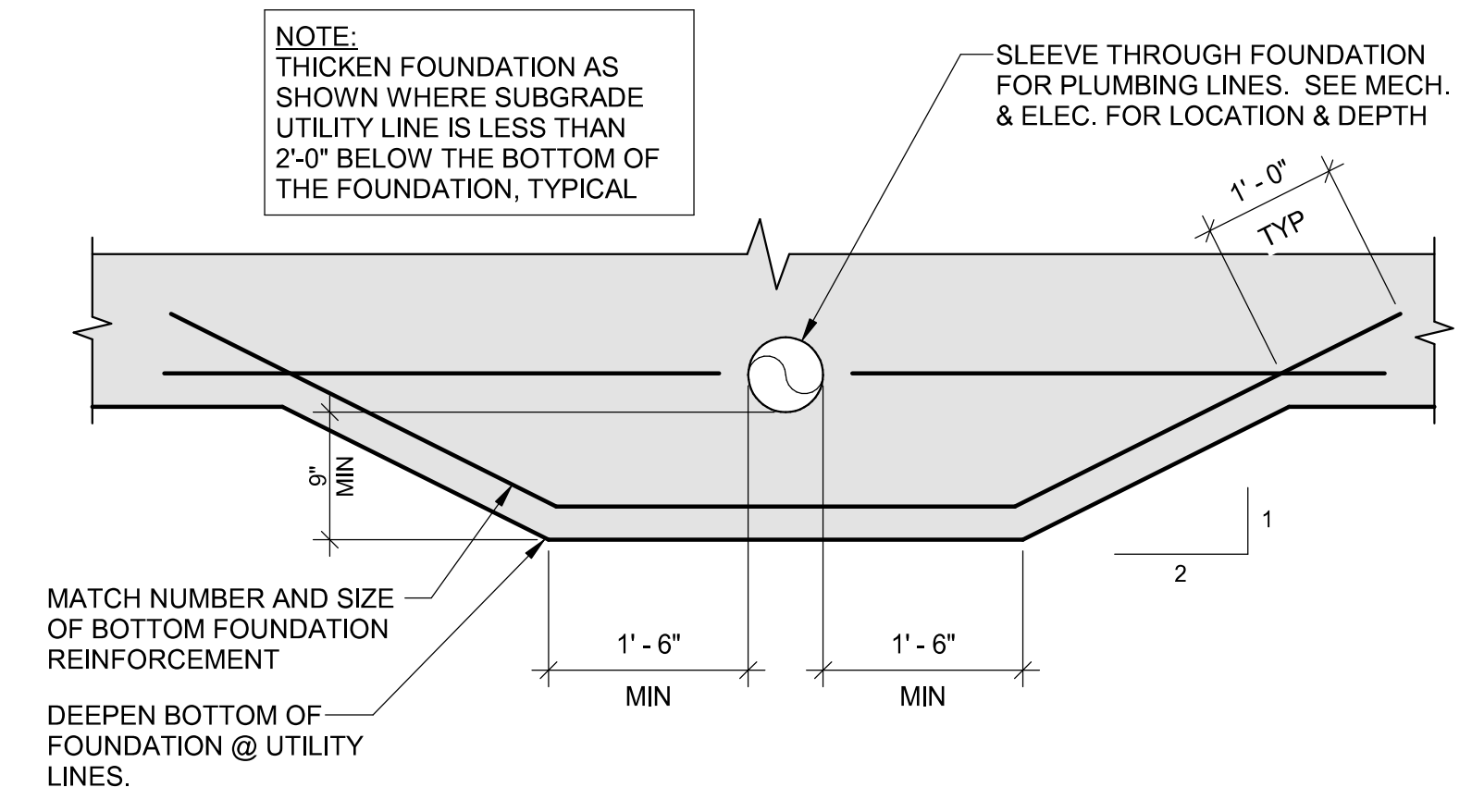
2 LAP TABLE
1/16" = 1'-0"



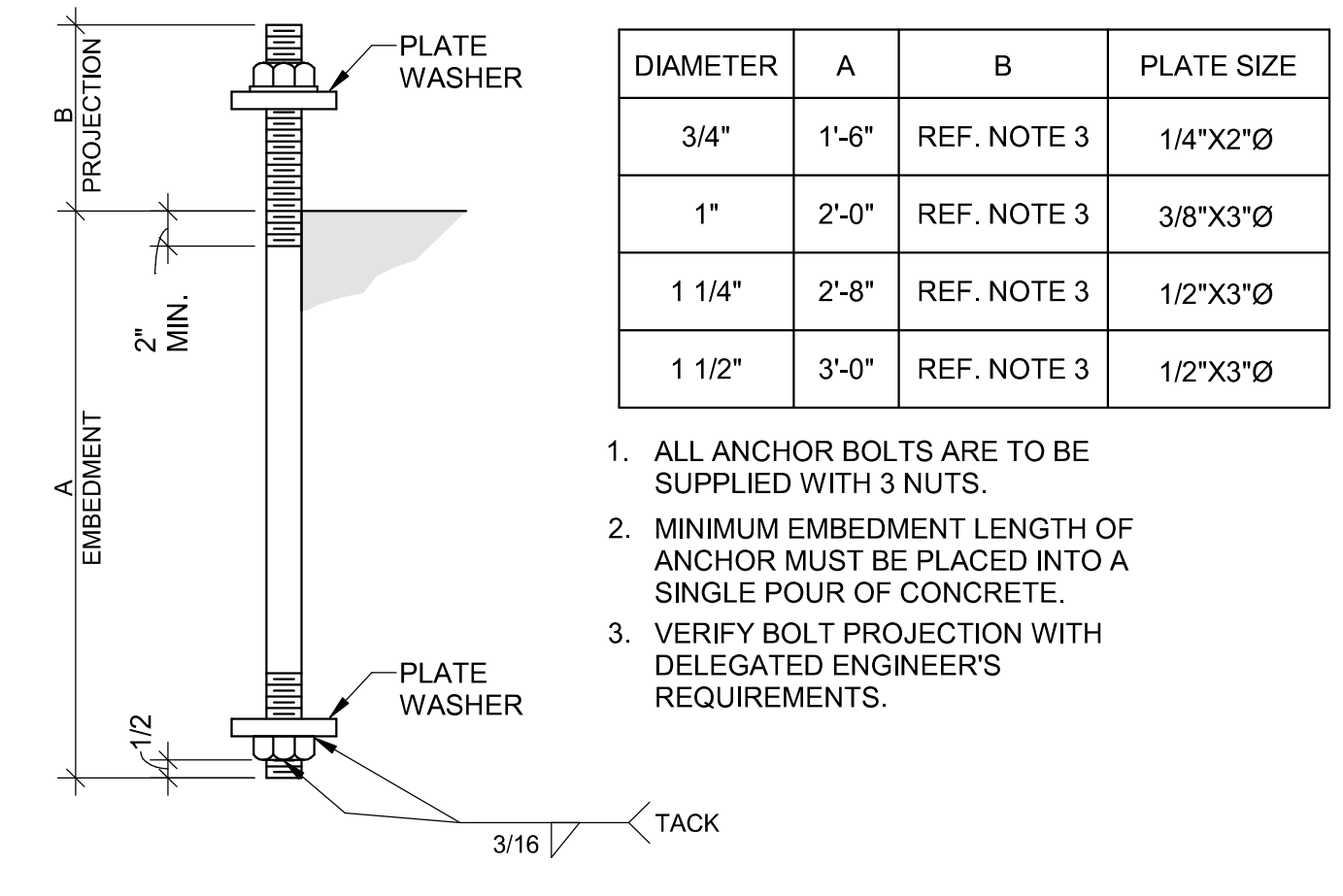
1 TYPICAL SLAB ON GRADE JOINT DETAIL
 S3 NO SCALE



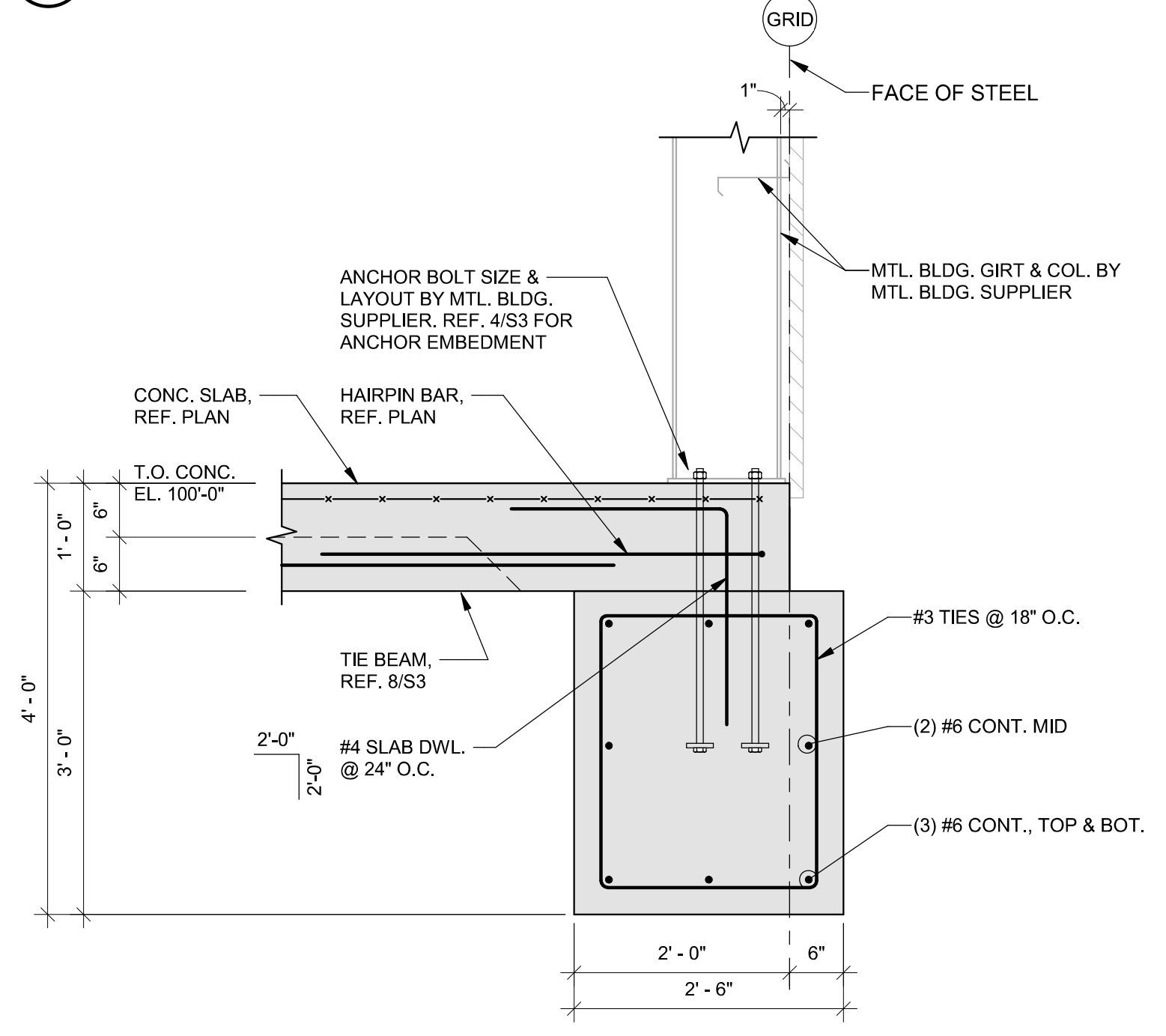
2 TYPICAL CORNER AND INTERSECT. REINF.
 S3 NO SCALE



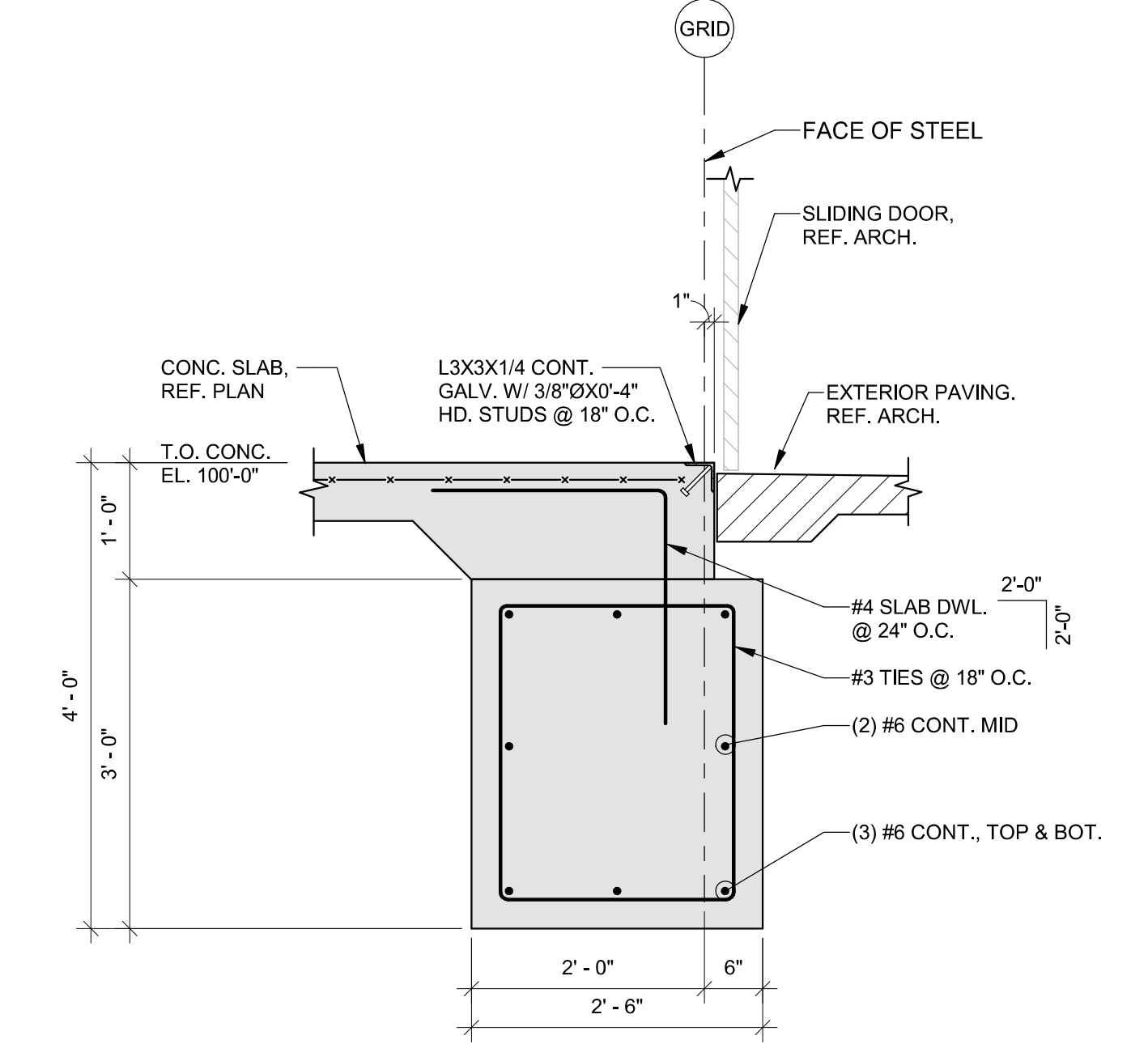
3 TYPICAL THICKENED FOUNDATION DETAIL
 S3 NO SCALE



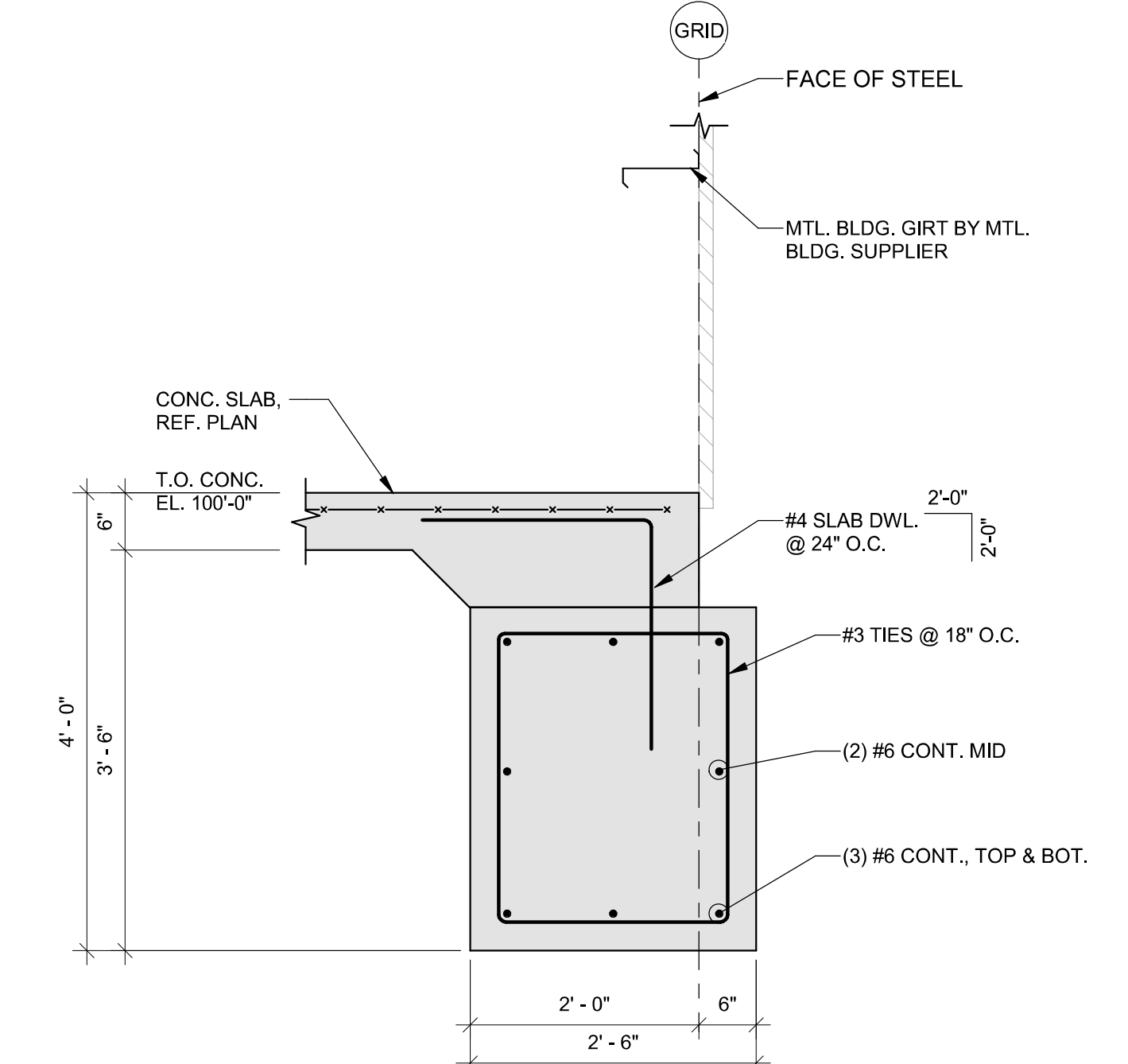
4 P.E.M.B. ANCHOR ROD DETAIL
 S3 3/4" = 1'-0"



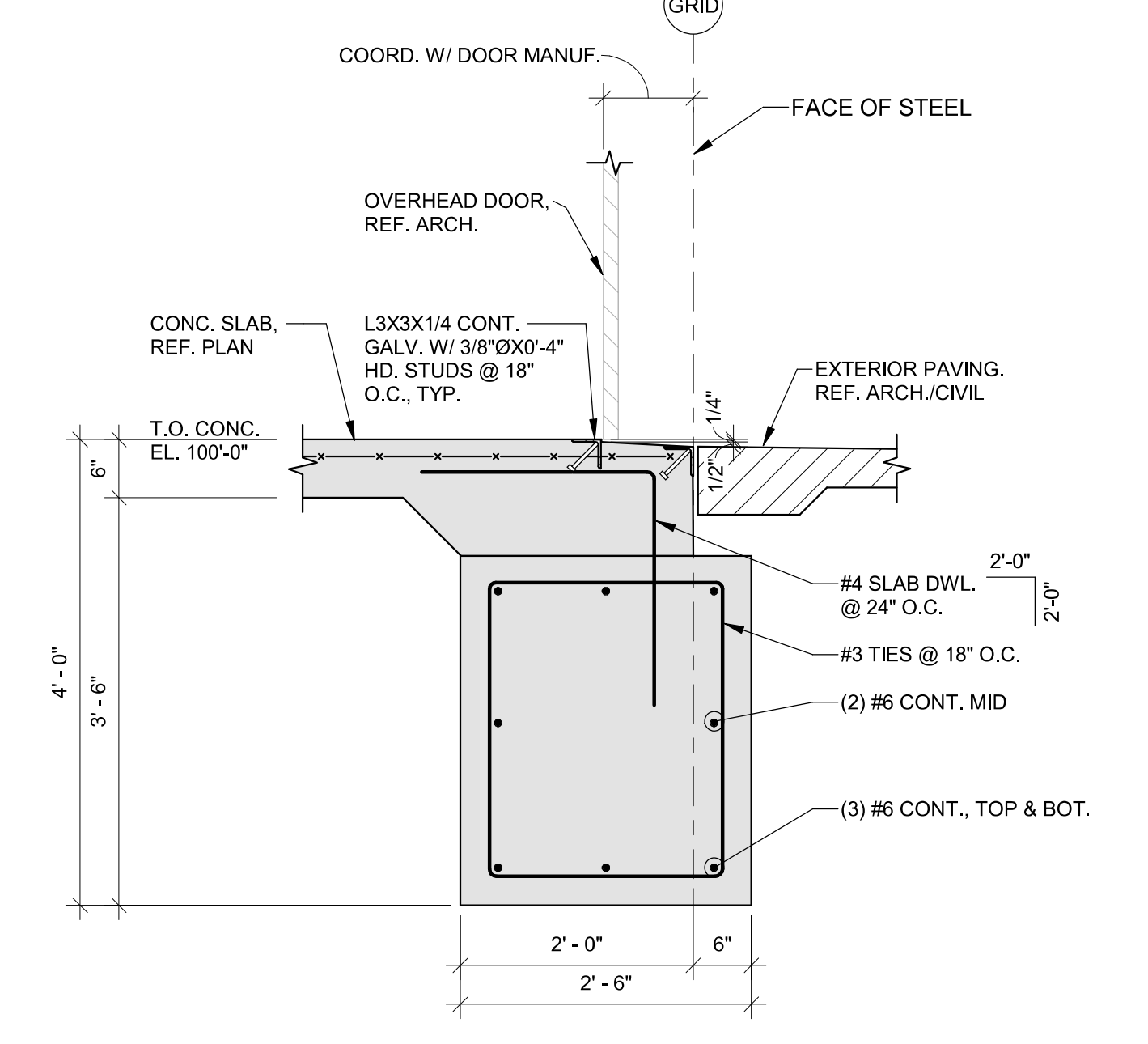
5 MTL. BLDG. COLUMN FOUNDATION
 S3 3/4" = 1'-0"



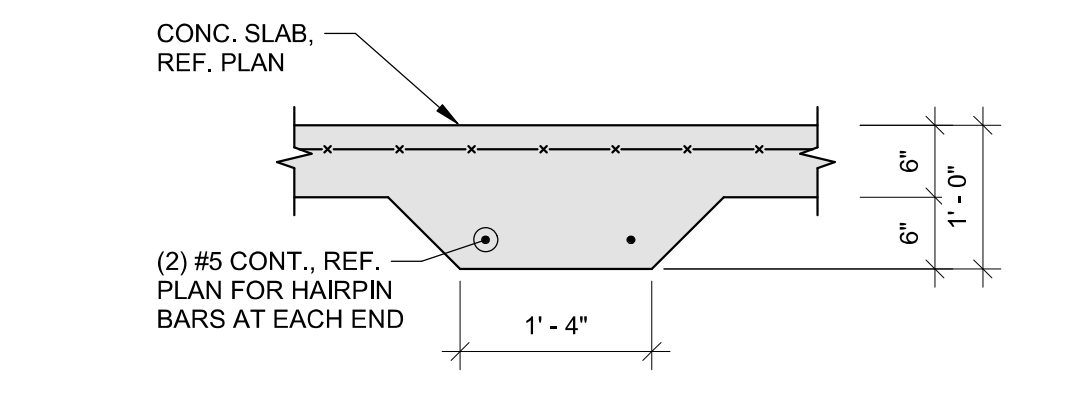
6 SLIDING DOOR FOUNDATION
 S3 3/4" = 1'-0"



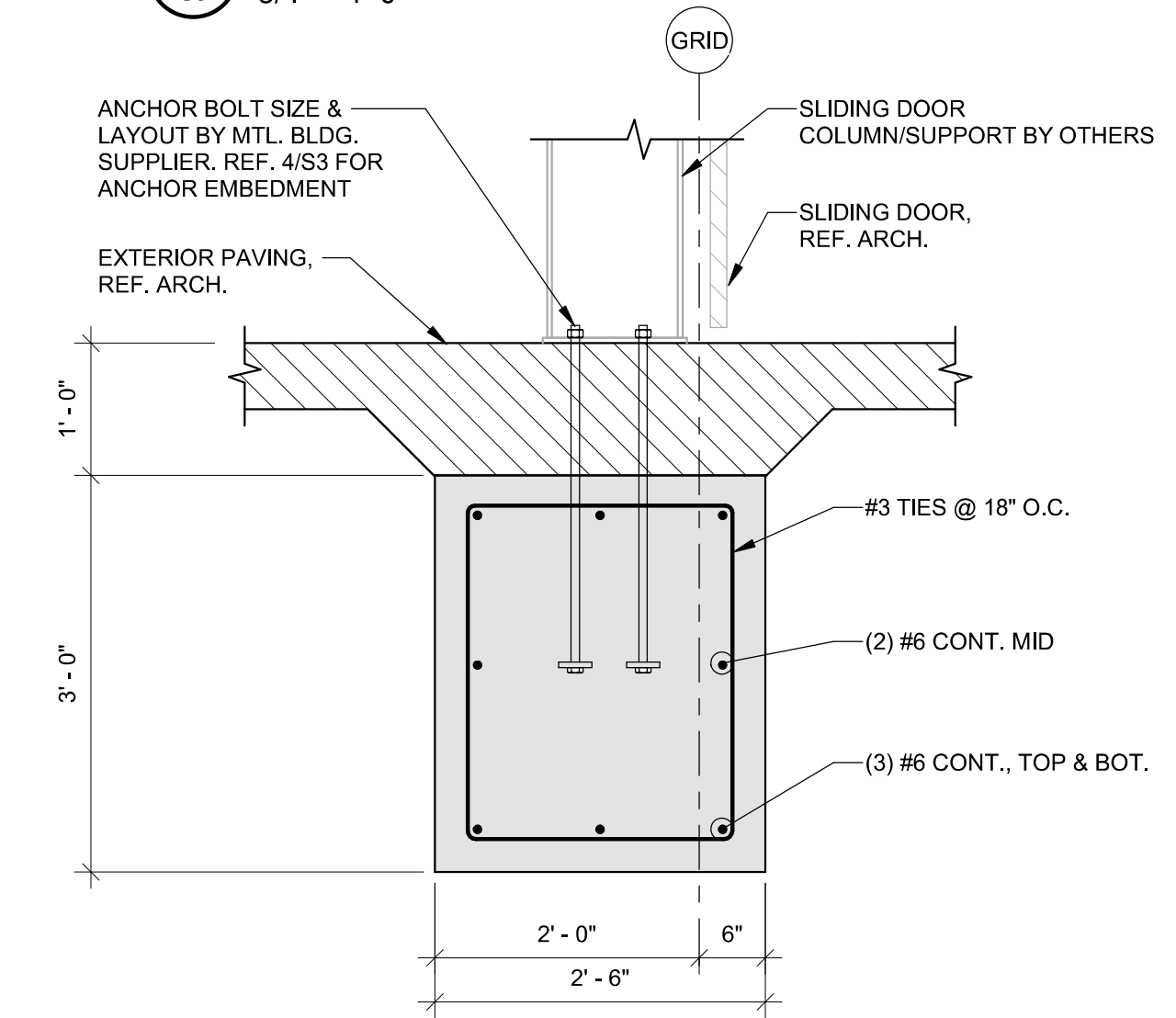
7 SIDE WALL FOUNDATION
 S3 3/4" = 1'-0"



8 ALTERNATE #5 - OVERHEAD DOOR FOUNDATION
 S3 3/4" = 1'-0"

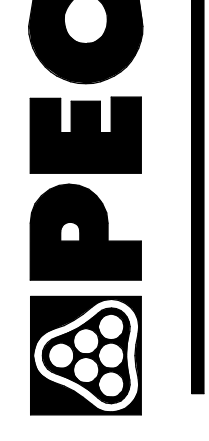


9 TIE BEAM DETAIL
 S3 3/4" = 1'-0"



10 EXTERIOR SLIDING DOOR COLUMN FOUNDATION
 S3 3/4" = 1'-0"

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 303 SOUTH TOPEKA WICHITA, KS 67202
 316-267-2681 www.pec.com



PERMIT SET 3/17/2020
 FOUNDATION DETAILS

S3

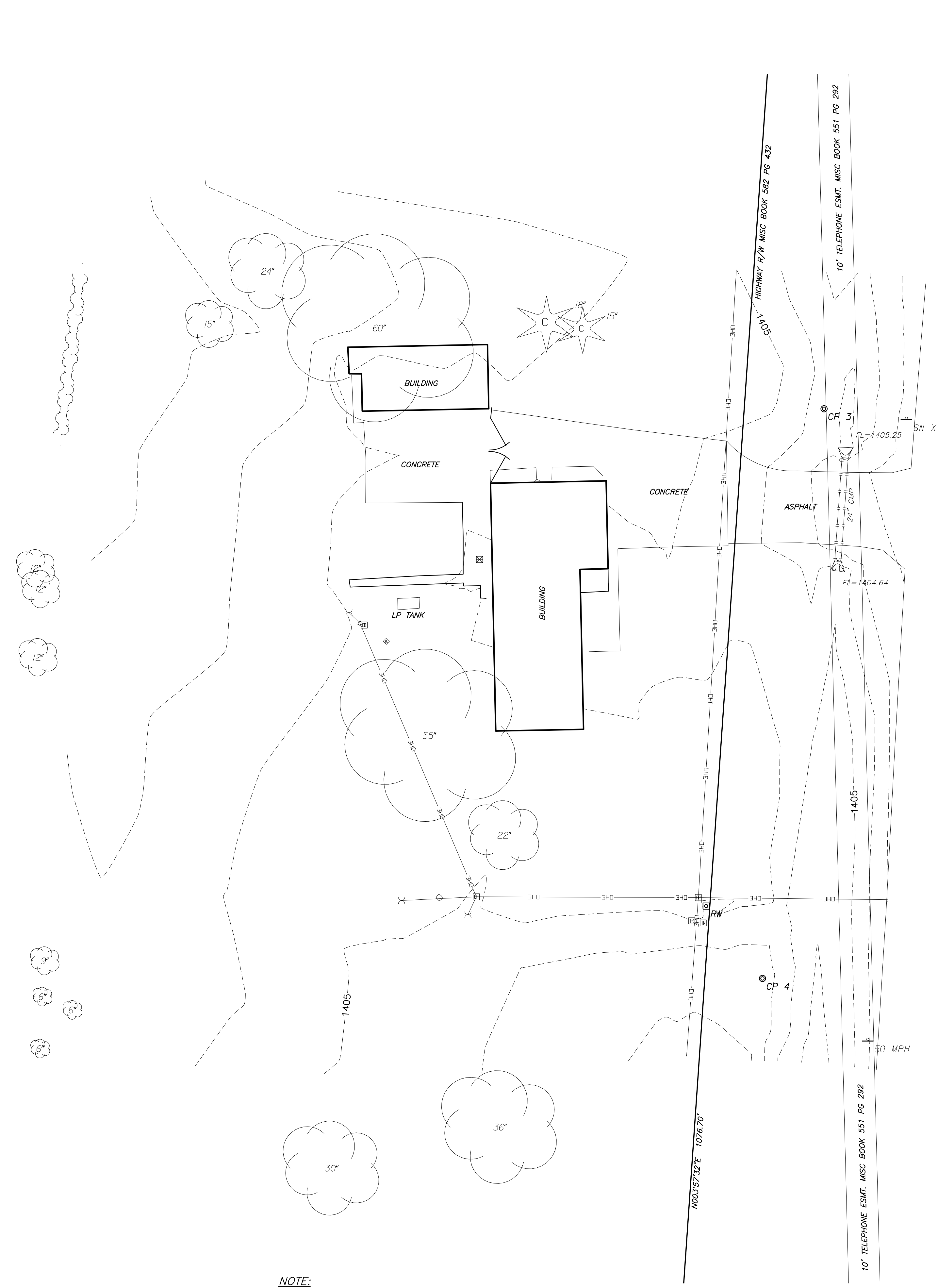
SPANGENBERG PHILLIPS TICE
ARCHITECTURE
 121 N Mead Ste 201 Wichita, KS 67202
 T 316.267.4002 F 316.267.1509
 www.sptarchitecture.com

MICHAEL W. KEMP
 1515
 03/17/2020
 KANSAS
 PROFESSIONAL ENGINEER

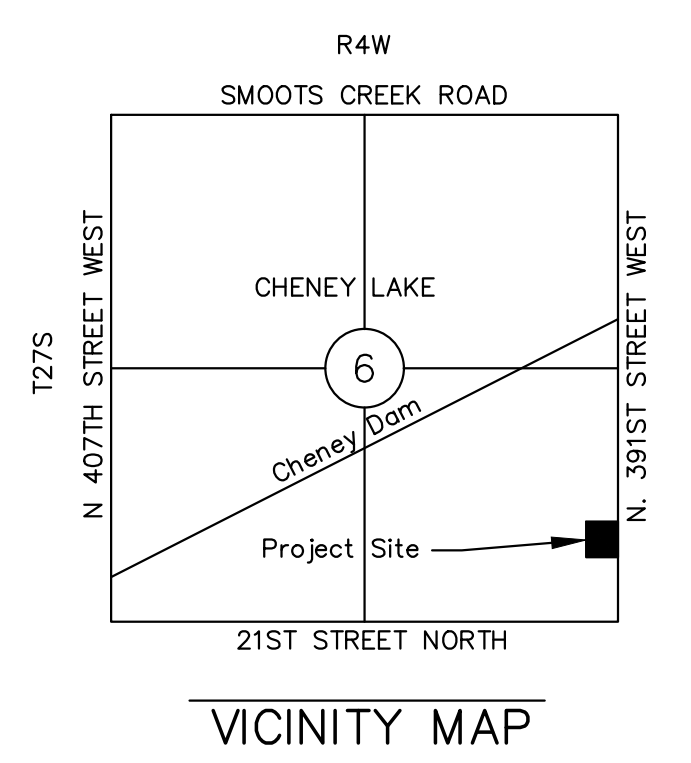
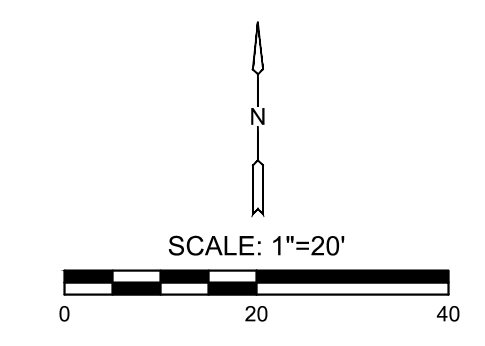
CITY OF WICHITA
PUMP HOUSE STORAGE BUILDING
 2301 N. 391st Street - Cheney, KS

PLOTTED Monday, January 20, 2020 @ 10:11 AM

J:\PROJECTS\2019\191020804_SPT_CHENEY PUMP HOUSE STD\DWG\DWG\TOP\1904 SUR.DWG



NOTE:
There is an overhead electric line and an underground telephone line, located in the field, with no accompanying recorded document in the Title Report.



LEGEND

- - SURVEY MONUMENT
- △ - SECTION CORNER
- ◻ - RIGHT OF WAY MARKER
- ★ - TREE AND DIAMETER
- ⊙ - TREE AND DIAMETER
- SN - SIGN
- |— GATE
- ~ - ROW OF TREES
- X-X- FENCE
- ☐ - TELEPHONE RISER
- ⊕ - POWER POLE AND DEADMAN
- ⊙ - LIGHT POLE
- ⊠ - AIR CONDITIONING UNIT
- ⊞ - ELECTRICAL CONTROL BOX
- DHE - OVERHEAD ELECTRIC LINE
- - WATER SPIGOT
- ⊕ - WATER WELL
- |—|—|— STORM SEWER PIPE

CONTROL
Survey Control

Datum:
The Horizontal Datum is based on the Kansas Coordinate System of 1983(2011), South Zone. Coordinates shown have been modified to the ground using a combined adjustment factor of 1.000123593. State Plane coordinates can be calculated by multiplying the shown values by 0.9998764225.

All elevations shown are based on the NAVD 88 vertical datum.

Control Points (GND):
CP3 / BM
N: 1697527.513 E: 1517882.75 EL: 1406.348
Description of control point: CPA

CP4
N: 1697345.955 E: 1517863.125 EL: 1406.587
Description of control point :CP

CERTIFICATION:
I, Ernest Patrick Fink, a Registered Land Surveyor in the State of Kansas, do hereby certify that a Boundary and Topographic Design Survey was completed for the above described property under my direct supervision on December 4, 2019, and that the accompanying plat is a true and correct representation of the survey to the best of my knowledge. This plat of survey shows platted easements only, from a Title Report provided by Security 1st Title.

The utilities shown on this Survey are based on a Kansas One-Call request, Ticket number 19569853, dated 11/29/2019.

Dated this 20th day of January, 2020

Ernest Patrick Fink, P.S. 1459



TOPOGRAPHIC SURVEY
CHENEY PUMP HOUSE
PHASE NUMBER / ADDRESS

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CHENEY PUMP HOUSE SURVEY

PROJECT NO. 1901020804

DATE 01/20/2020

SCALE 1" = 20'

DESIGNED DRAWN CHECKED
MKEC TLT EPF

ISSUED	01/20/2020	
NO.	REVISION	DATE

SHEET NO.