

GENERAL STRUCTURAL NOTES

CODE AND DESIGN LOADS

- ALL CONSTRUCTION SHALL CONFORM TO THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE.
- GRAVITY:
DEAD LOAD (SOLAR MODULES + RAILS + MISC. ELECT./HDW.) = 5 PSF
GROUND SNOW LOAD = 30 PSF
- WIND:
BASIC WIND SPEED - 115 MPH (3 SEC GUST.)
RISK CATEGORY - II
EXPOSURE - "C"
DESIGN WIND PRESSURES PER ASCE 7-16, (MWFERS) SECTION 27.3.2 (OPEN BUILDINGS WITH MONOSLOPE, PITCHED, OR TROUGHED FREE ROOFS), (C&C) SECTION 30.7.2 (OPEN BUILDING WITH MONOSLOPE FREE ROOFS)
- SEISMIC: NOT CONSIDERED TO CONTROL DESIGN

GENERAL

- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHOD OR SEQUENCE OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK THAT CONFORMS WITH THE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SAFETY AND HEALTH STANDARDS FOR THE CONSTRUCTION INDUSTRY.
- CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON THE STRUCTURE SO AS NOT TO EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.
- WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.
- ESTABLISH AND VERIFY ELECTRICAL/SOLAR EQUIPMENT WITH APPROPRIATE TRADE. IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO COORDINATE WITH THE SUBCONTRACTORS AND EQUIPMENT SUPPLIERS. EQUIPMENT BEING SUPPORTED BY OR SUSPENDED FROM THE STRUCTURE SHALL BE COORDINATED WITH THE MANUFACTURER. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, RAILS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD THROUGH THE MANUFACTURER.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE SITE CONDITIONS WITH THE DRAWINGS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES AND OMISSIONS SHALL BE RESOLVED WITH THE MANUFACTURER PRIOR TO CONSTRUCTION AND PRIOR TO PROCEEDING. DO NOT USE SCALED DIMENSIONS.
- WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.
- TYPICAL DETAILS MAY OR MAY NOT BE CUT ON THE DRAWINGS, AND DETAILS MAY OR MAY NOT BE CUT AT ALL SPECIFIC LOCATIONS, BUT SHALL APPLY UNLESS NOTED OTHERWISE.
- ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHICH THE PROJECT IS LOCATED.

FOUNDATIONS

- ALL SLABS AND FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED NATIVE SOIL. ALL SOIL BELOW FOOTINGS AND SLABS SHALL BE COMPACTED TO 95% MINIMUM IN ACCORDANCE TO ASTM D698. DESIGN SOIL BEARING PRESSURE = 1500 PSF. LATERAL BEARING PRESSURE = 150 PSF BELOW LOWEST ADJACENT FINISHED GRADE PER MINIMUM VALUES IN I.B.C. TABLE 1804.2.
- ALL CONSTRUCTION SHALL COMPLY WITH THE MINIMUM IBC REQUIREMENTS. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY GEOTECHNICAL ASPECTS OF THIS PROJECT AND THE CONTRACTOR SHALL HIRE A GEOTECHNICAL ENGINEER IF UNUSUAL/UNSUITABLE MATERIAL/SOIL IS DISCOVERED DURING EXCAVATIONS/CONSTRUCTION.
- ABANDONED FOOTINGS, NEW OR EXISTING UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REROUTED OR REMOVED AS COORDINATED WITH THE OWNER

COLD FORMED STEEL FRAMING

- ALL COLD-FORMED STEEL FRAMING SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" BY THE AMERICAN IRON AND STEEL INSTITUTE.
- CEE PURLIN MATERIAL SPECIFICATIONS:
- DESIGNATION SS GRADE 50 CLASS 1 (MIN FY = 50 KSI)
- THICKNESS: 0.1292 IN
- COATING DESIGNATION: G90 GALVINIZATION (ASTM A653)
- ALTERNATE COATING DESIGNATION: G235 GALVINIZATION (ASTM A653) (MATERIAL CERTIFICATION REQUIRED)
- HIGH LOAD PURLIN SPLICE MATERIAL SPECIFICATIONS:
- A-36 HRS P&O PLATE
- THICKNESS: 0.179 IN
- COATING DESIGNATION: POWDER COAT SILVER T37-GR105 (MATERIAL CERTIFICATION REQUIRED)
- PURLIN SPLICE MATERIAL SPECIFICATIONS:
- A-36 HRS P&O PLATE
- THICKNESS: 0.380 IN
- COATING DESIGNATION: POWDER COAT SILVER T37-GR105 (MATERIAL CERTIFICATION REQUIRED)
- CARPORT CANTILEVER MATERIAL SPECIFICATIONS:
- DESIGNATION SS GRADE 50 CLASS 1 (MIN FY = 50 KSI)
- THICKNESS: 0.1090 IN
- COATING DESIGNATION: G90 GALVINIZATION (ASTM A653) (MATERIAL CERTIFICATION REQUIRED)
- TEK SCREW CLAMP MATERIAL SPECIFICATIONS:
- DESIGNATION SS GRADE 50 CLASS 1 (MIN FY = 50 KSI)
- THICKNESS: 0.1090 IN
- COATING DESIGNATION: G90 GALVINIZATION (ASTM A653) (MATERIAL CERTIFICATION REQUIRED)

STRUCTURAL STEEL

- STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO THE LATEST AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- STRUCTURAL PROPERTIES:
WIDE FLANGE SHAPES - ASTM A992 (Fy = 50 KSI)
PLATES - ASTM A572 (Fy = 50 KSI)
STRUCTURAL TUBE SHAPES - ASTM A500, GRADE B (Fy = 46 KSI)
- BOLTS STEEL/STEEL - ASTM A325N. ALL HIGH-STRENGTH BOLTS SHALL BE TIGHTENED TO THE SNUG-TIGHT CONDITION AS DEFINED BY AISC UNLESS NOTED OTHERWISE
- ANCHOR BOLTS (HEAVY SQUARE HEADED) - ASTM F1554 GADE 105 (EMBEDMENT PER FOUNDATION DETAILS)
- BOLTS, ANCHOR BOLTS, ETC., SHALL BE INSTALLED WITH STEEL WASHERS AND TIGHTENED NUTS.
- WELDING ELECTRODES SHALL CONFORM TO AWS D1.1, GRADE E70XX. ALL WELDING SHALL BE DONE BY WELDERS HOLDING VALID CERTIFICATES ISSUED BY AN ACCEPTED TESTING AGENCY AND HAVING CURRENT EXPERIENCE IN TYPE OF WELDS SHOWN ON FABRICATION DRAWINGS. ALL WELDING PER AMERICAN WELDING SOCIETY STANDARDS. ALL WELDS ON FABRICATION DRAWINGS ARE SHOWN AS SHOP WELDS AND SHALL BE SHOWN ON SHOP DRAWINGS. FULL PENETRATION WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.
- DRYPACK FOR COLUMN BASE PLATES AND BEARING PLATES SHALL BE FIVE STAR GROUT OR AN EQUAL NONMETALLIC SHRINKAGE-RESISTANT GROUT WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI.
- ALL HOT ROLLED STRUCTURAL STEEL TO BE HOT DIP GALVANIZED PER ASTM-A-123.
- ALL STEEL HARDWARE TO BE HOT DIP GALVANIZED PER ASTM-A153

CONTINGENCY

- CONTRACTOR SHALL UTILIZE A 5% CONTINGENCY FOR STRUCTURAL STEEL COSTS TO BE USED AT THE DISCRETION OF THE ENGINEER OF RECORD TO ACCOUNT FOR SITE SPECIFIC JURISDICTION REQUIREMENTS. ANY OF THIS CONTINGENCY NOT USED SHALL BE REFUNDED TO THE OWNER PRIOR TO CLOSEOUT OF THE PROJECT.

REINFORCING STEEL

- ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE LATEST EDITIONS OF ACI 318 AND THE CRSI "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION", AND AS MODIFIED BY THE DRAWINGS. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 (Fy = 60 KSI) DEFORMED BARS FOR ALL BARS #5 AND LARGER. ASTM A615, GRADE 40 (Fy = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER. REINFORCING TO BE WELDED SHALL CONFORM TO ASTM A706, GRADE 60 (Fy = 60 KSI) LOW ALLOY DEFORMED BARS. WELDING OF REINFORCING SHALL BE ACCORDING TO AWS D1.4. NO TACK WELDING OF REINFORCING BARS ALLOWED.
- ALL REINFORCING STEEL SHALL BE ACCURATELY PLACED AND SUPPORTED BY GALVANIZED METAL OR PLASTIC CHAIRS, SPACERS OR HANGERS. PROVIDE THE FOLLOWING MINIMUM CLEAR CONCRETE COVERAGE:
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH OR WEATHER - 3" #6 AND LARGER - 2" #5 AND SMALLER - 1 1/2"
ALL OTHERS PER LATEST EDITION OF ACI 318
- REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON CENTERS. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SKEW HOOKS AS REQUIRED FOR CONCRETE COVER. SECURELY TIE ALL BARS IN POSITION BEFORE PLACING CONCRETE. CONCRETE COLUMN DOWEL EMBEDMENT SHALL BE A STANDARD COMPRESSION DOWEL EMBEDMENT LENGTH PER THE LATEST EDITION OF ACI 318.
- REINFORCING BARS NOTED "CONTINUOUS" OR WITH LENGTH NOT SHOWN SHALL BE FULLY CONTINUOUS AND SPLICED ONLY AS SHOWN, OR WHERE APPROVED BY THE ENGINEER.
- REINFORCING BAR HOOKS SHALL BE STANDARD ACI HOOKS UNLESS NOTED OTHERWISE.

CAST-IN-PLACE CONCRETE

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
- ADDITION OF WATER TO THE BATCH FOR MATERIAL WITH INSUFFICIENT SLUMP WILL NOT BE PERMITTED, UNLESS THE SUPPLIER HAS SPECIFICALLY WITHHELD WATER FROM THE BATCH AT THE PLANT. IN SUCH CASE THE MIX DESIGN AND TRUCK TICKET MUST CLEARLY STATE THE MAXIMUM AMOUNT OF WATER THAT CAN BE ADDED TO THE BATCH ON SITE. IN NO CASE SHALL THE DESIGN WATER TO CEMENTITIOUS MATERIAL RATIO BE EXCEEDED.
- CONCRETE SHALL BE READY MIXED CONCRETE IN ACCORDANCE WITH ASTM C94. CONCRETE USE MINIMUM 28 DAY COMP. STRENGTH FOUNDATIONS - 4,000 PSI
- CEMENT SHALL CONFORM TO ASTM C150, TYPE II. AGGREGATE PER ASTM C33. LIGHTWEIGHT AGGREGATE PER ASTM C330. MAXIMUM 5" SLUMP FOR ALL CONCRETE. CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE 8" MAXIMUM SLUMP AT PLACEMENT. MIX DESIGNS SHALL BE DESIGNED BY THE CONCRETE PRODUCTION FACILITY IN ACCORDANCE WITH ACI 301 AND APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
- CONCRETE SHALL BE FREE OF CHLORIDE. WHEN USED, FLY ASH SHALL CONFORM TO ASTM C618, CLASS F. FLY ASH SHALL NOT REPLACE MORE THAN 20% OF CEMENT BY WEIGHT.
- CONCRETE SHALL NOT BE DROPPED MORE THAN FIVE FEET VERTICALLY WITHOUT USE OF TREMIES.
- CONCRETE FOOTINGS MAY BE POURED AGAINST NEAT EXCAVATIONS PROVIDED THAT FOOTING DIMENSION ARE ADHERED TO, AND THE REQUIRED CONCRETE COVERAGE FOR REINFORCING IS MAINTAINED.
- MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED
- CONCRETE WHICH HAS CONTAINED WATER FOR MORE THAN 90 MINUTES (60 MINUTES IF AIR TEMPERATURE EXCEEDS 85DEGREES) SHALL NOT BE USED. RETEMPERING OF CONCRETE AFTER INITIAL SET HAS OCCURRED IS NOT PERMITTED.
- CURE EXPOSED CONCRETE FOR A MINIMUM OF 7 DAYS IN ACCORDANCE WITH ACI 301 PROCEDURES IN ORDER TO PREVENT CRACKING. CURE WITH CURING AND SEALING COMPOUND, MOIST CURING, MOISTURE-RETAINING COVER CURING, OR COMBINATIONS THEREOF. IF CURING COMPOUND IS USED, APPLY AT A RATE SPECIFIED BY THE MANUFACTURER.
- CONCRETE COMPRESSIVE STRENGTH AND SLUMP SHALL BE TESTED PER ASTM C31, C39 AND C143. PROVIDE 3 CYLINDERS PER TEST FOR EACH DAY'S CONCRETE PLACEMENT OR AS DIRECTED BY THE ENGINEER. TEST ONE CYLINDER AT 7 DAYS AND TWO AT 28 DAYS. TESTING SHALL BE DONE BY A QUALIFIED TESTING LABORATORY.
- ALL HOT WEATHER CONCRETING SHALL MEET THE REQUIREMENTS OF ACI 305; AND ACI 306 FOR COLD WEATHER CONCRETING.

SPECIAL INSPECTIONS:

- SPECIAL INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED INSPECTOR AS APPROVED BY THE BUILDING OFFICIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A MINIMUM OF 24 HOURS NOTICE TO THE SPECIAL INSPECTOR AND THE TESTING LABORATORY PRIOR TO BEGINNING ANY WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED.
- SPECIAL INSPECTION IS REQUIRED DURING THE FOLLOWING OPERATIONS PER IBC CHAPTER 17:
 - BY GEOTECHNICAL ENGINEER - GRADING, EXCAVATION AND FILLING: DURING EARTHWORK EXCAVATIONS, GRADING AND FILLING AS REQUIRED TO SATISFY REQUIREMENTS OF IBC CHAPTER 18, INCLUDING PLACEMENT OF ENGINEERED FILL. NOTE: THE GEOTECHNICAL ENGINEER WHO PERFORMED THE GEOTECHNICAL REPORT SHALL PROVIDE THESE INSPECTIONS.
 - WELDING: DURING ALL STRUCTURAL FIELD WELDING AND SHOP WELDING, EXCEPT WELDING PERFORMED IN THE SHOP OF A BUILDING OFFICIAL/ APPROVED FABRICATOR - PERIODIC.
 - ANCHOR BOLTS INSTALLED IN CONCRETE: INSPECT TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE OR INSPECT DURING "WET SET" PLACEMENT IN CONCRETE - CONTINUOUS.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
 - THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
 - THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL.
 - UPON COMPLETION OF THE ASSIGNED WORK, THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

SOLAR DESIGN

- THE ENGINEER OF RECORD FOR THE STRUCTURE SHOWN ON THESE DRAWINGS IS NOT THE SOLAR DESIGN ENGINEER OF RECORD AND ASSUMES NO RESPONSIBILITY FOR ANY ASPECT OF THE SOLAR DESIGN OF.

ELECTRICAL DESIGN

- THE ENGINEER OF RECORD FOR THE STRUCTURE SHOWN ON THESE DRAWINGS IS NOT THE ELECTRICAL ENGINEER OF RECORD AND ASSUMES NO RESPONSIBILITY FOR ANY ASPECT OF THE ELECTRICAL DESIGN.

CIVIL DESIGN

- THE ENGINEER OF RECORD FOR THE STRUCTURE SHOWN ON THESE DRAWINGS IS NOT THE CIVIL ENGINEER OF RECORD AND ASSUMES NO RESPONSIBILITY FOR ANY ASPECT OF THE CIVIL DESIGN OF THE INSTALLATION SITE.

CRITICAL NOTES:

- DO NOT SCALE DRAWINGS. CONTRACTOR TO CONFIRM ALL DIMENSIONS IN THE FIELD PRIOR TO BIDDING AND CONSTRUCTION.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHOD OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT THE STRUCTURE DURING CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, SHORING, BRACING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHORING, BRACING, AND SCAFFOLDING. OBSERVATION VISITS OR SPECIAL INSPECTION TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SITE SAFETY, OR THE SAFETY PRECAUTIONS AND PROGRAMS.

PE STAMP

GENERAL INFORMATION AND SYSTEM DETAILS

GENERAL INFORMATION: SITE ADDRESS:

AZIMUTH:
SYSTEM TYPE:

TOTAL SYSTEM SIZE:
TOTAL # OF MODULES:
MODULE TILT:
N-S SPACING:
E-W GAP BETWEEN MOD.:
E-W GAP BETWEEN ARRAYS:

BUILDING CODES:
STRUCTURAL:
EMBEDMENT:
SOIL CLASS:

LOADS:
DESIGN WIND SPEED:

3 SEC GUST EFFECT:
RISK CATEGORY:
EXPOSURE:
MWFERS WIND LOAD (SOUTH WIND):
PSF
MWFERS WIND LOAD (NORTH WIND):
PSF

DESIGN SNOW LOAD: PSF
MODULE DEAD LOAD: PSF

MANUFACTURER'S TOLERANCES:
LATERAL POST PLACEMENT (X-Z PLANE):
±2.0" FOR TILT ANGLES < 20°
±1.5" FOR TILT ANGLES ≥ 20°
LATERAL POST PLACEMENT (Y-Z PLANE): ±4.0" WITHIN ARRAY
POST HEIGHT VARIATION (X-Y PLANE): ±0.5"
POST VERTICALITY TOLERANCE:
< 2.0° ALL DIRECTIONS
POST ROTATIONAL TOLERANCE:
±5.0°
ARRAY TILT ANGULAR TOLERANCE:
±2.0°

MODULE INFORMATION

MODULE:
MODULE MODEL:
MODULE SIZE:
MODULE WEIGHT:
MODULE OUTPUT:

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CUSTOMER ASSUMES ALL RESPONSIBILITY IN VERIFYING
DESIGN TO ACTUAL CONSTRUCTION CONDITIONS.

REVISION TABLE

REV: - BY: - APP BY: - DATE: -



CLEVELAND, OH
1-(216)-473-5200

CUSTOMER:

PROJECT:

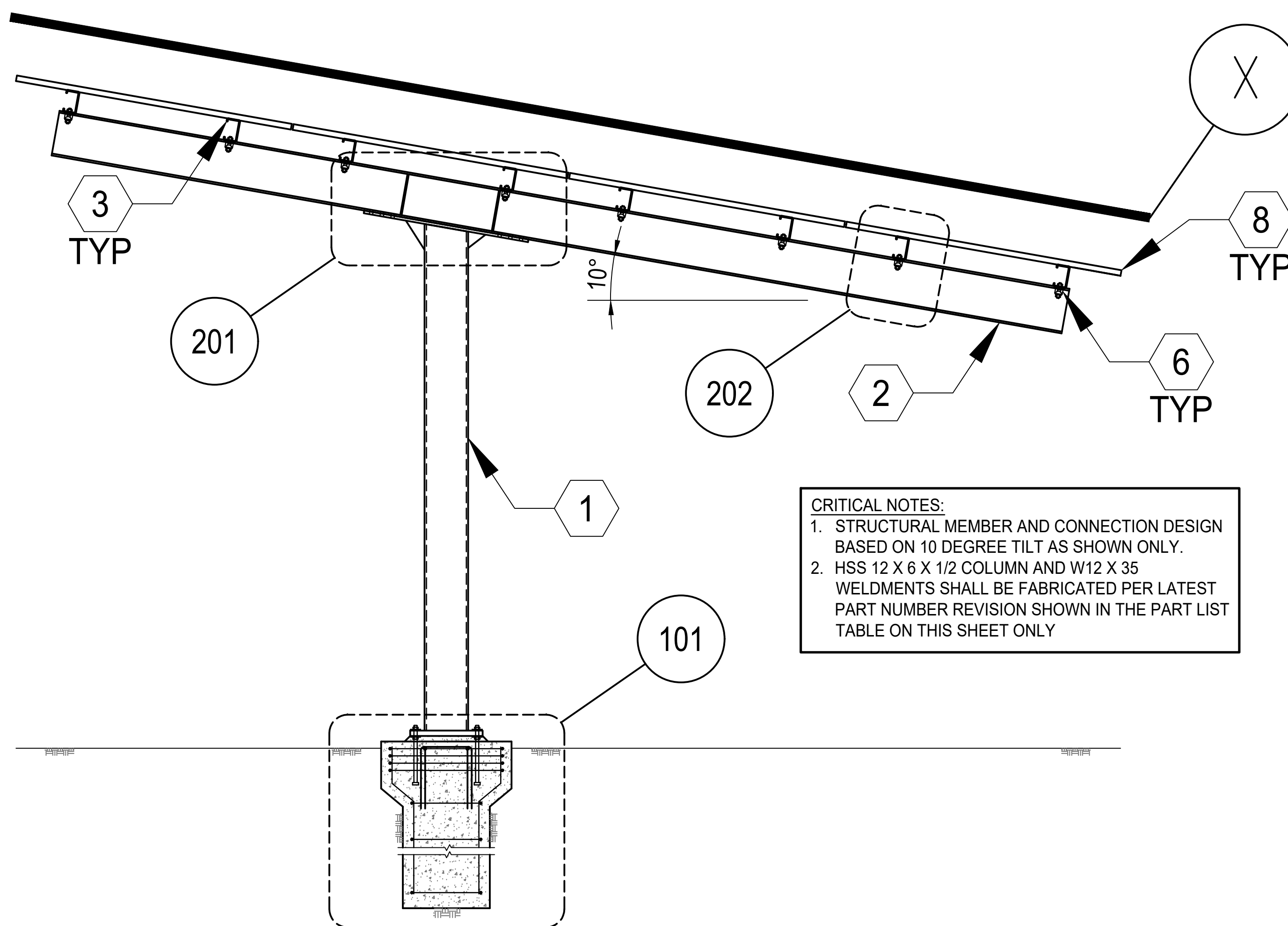
TITLE:
GENERAL STRUCTURAL NOTES

REVISION:	DATE:	DRAWN BY:
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VARIABLES	1	5

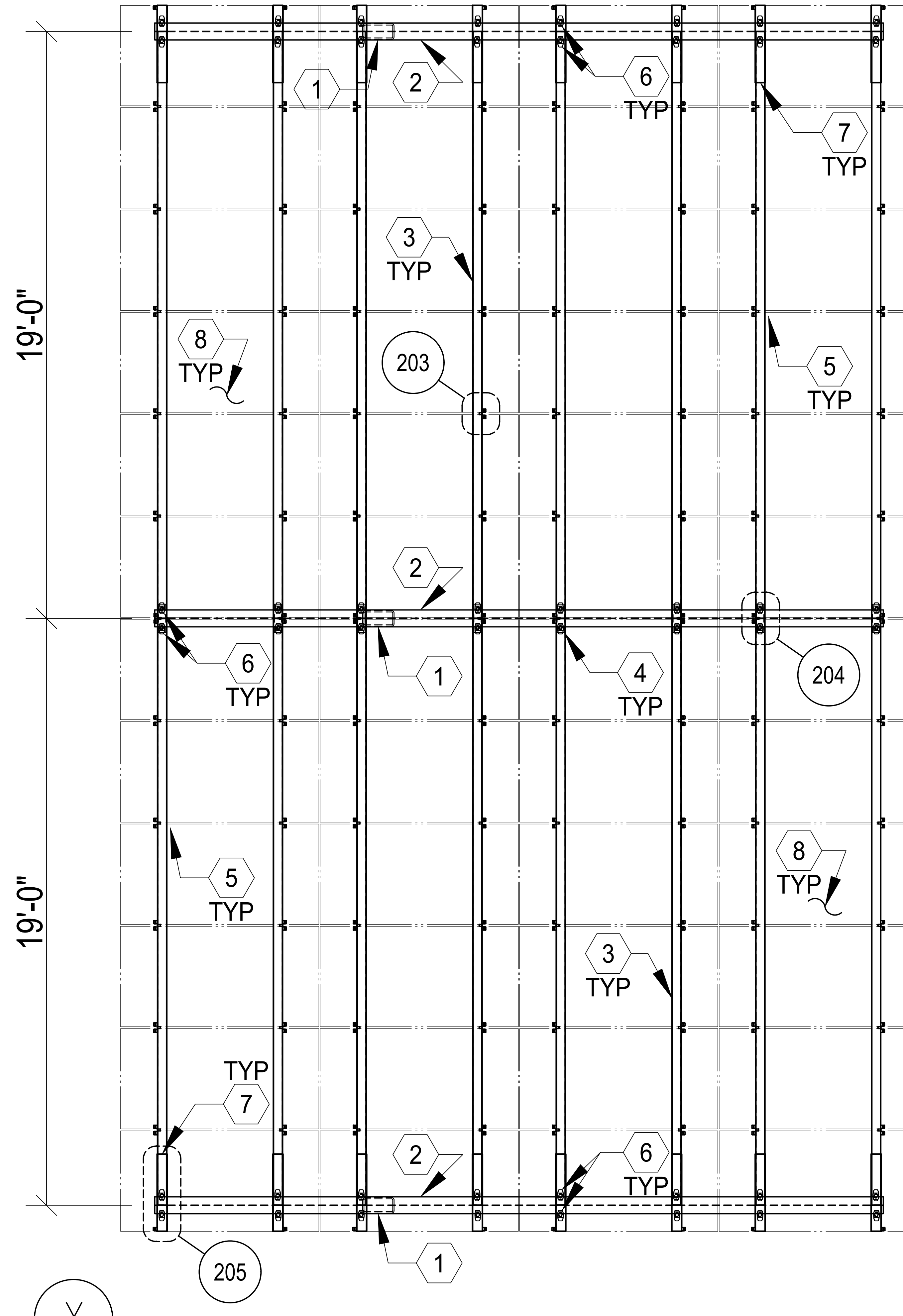
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PARTS LIST			
PART NUMBER	MATERIAL	PART NAME	PLAN NOTE
5801530 (REV B)	ASTM A500, GRADE B (FY = 46KSI)	HSS 12 X 6 X 1/2 COLUMN (WELDMENT)	1
5801500 (REV E)	ASTM A992 (FY = 50KSI)	W12X35 FOR 72 CELL (WELDMENT)*	2
5801540-10G	SS GRADE 50 CLASS 1 (MIN FY = 50KSI)	CEE PURLIN FOR CARPORT	3
5801553	SS GRADE 50 CLASS 1 (MIN FY = 50KSI)	HIGH LOAD PURLIN SPLICE	4
5801546	SS GRADE 50 CLASS 1 (MIN FY = 50KSI)	SELF DRILLING SCREW CLAMP	5
BK1G20	PER MANUFACTURER	3/4" BEAM CLAMP	6
5801545 & 5801547	SS GRADE 50 CLASS 1 (MIN FY = 50KSI) ASTM A36 (FY = 36KSI)	CARPORT CANTILEVER & PURLIN SPLICE	7
-	PER MANUFACTURER	72 CELL MODULE	8

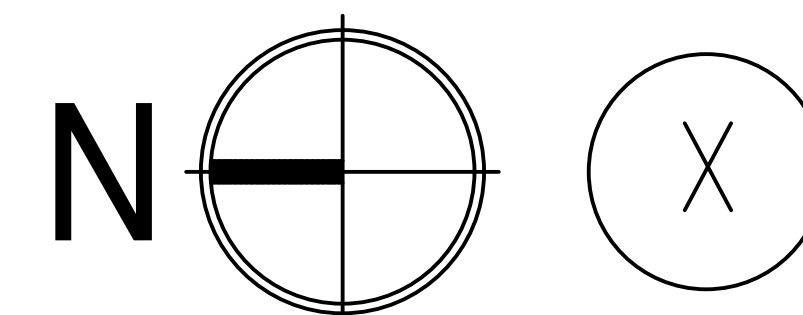
* SHORTER W12X35 FOR 60 CELL (WELDMENT) 5801501 (REV D) ALSO AVAILABLE



CRITICAL NOTES:
 1. STRUCTURAL MEMBER AND CONNECTION DESIGN BASED ON 10 DEGREE TILT AS SHOWN ONLY.
 2. HSS 12 X 6 X 1/2 COLUMN AND W12 X 35 WELDMENTS SHALL BE FABRICATED PER LATEST PART NUMBER REVISION SHOWN IN THE PART LIST TABLE ON THIS SHEET ONLY



CARPORT SECTION VIEW



PE STAMP

GENERAL INFORMATION AND SYSTEM DETAILS

GENERAL INFORMATION:
 SITE ADDRESS:
 AZIMUTH:
 SYSTEM TYPE:

TOTAL SYSTEM SIZE:
 TOTAL # OF MODULES:
 MODULE TILT:
 N-S SPACING:
 E-W GAP BETWEEN MOD.:
 E-W GAP BETWEEN ARRAYS:

BUILDING CODES:
 STRUCTURAL:
 EMBEDMENT:
 SOIL CLASS:

LOADS:
 DESIGN WIND SPEED:
 3 SEC GUST EFFECT:
 RISK CATEGORY:
 EXPOSURE:
 MWFRS WIND LOAD (SOUTH WIND):
 PSF
 MWFRS WIND LOAD (NORTH WIND):
 PSF
 DESIGN SNOW LOAD: PSF
 MODULE DEAD LOAD: PSF

MANUFACTURER'S TOLERANCES:
 LATERAL POST PLACEMENT (X-Z PLANE):
 ±2.0" FOR TILT ANGLES < 20°
 ±1.5" FOR TILT ANGLES ≥ 20°
 LATERAL POST PLACEMENT (Y-Z PLANE): ±4.0" WITHIN ARRAY
 POST HEIGHT VARIATION (X-Y PLANE): ±0.5"
 POST VERTICALITY TOLERANCE: < 2.0° ALL DIRECTIONS
 POST ROTATIONAL TOLERANCE: ±5.0°
 ARRAY TILT ANGULAR TOLERANCE: ±2.0°

MODULE INFORMATION

MODULE:
 MODULE MODEL:
 MODULE SIZE:
 MODULE WEIGHT:
 MODULE OUTPUT:

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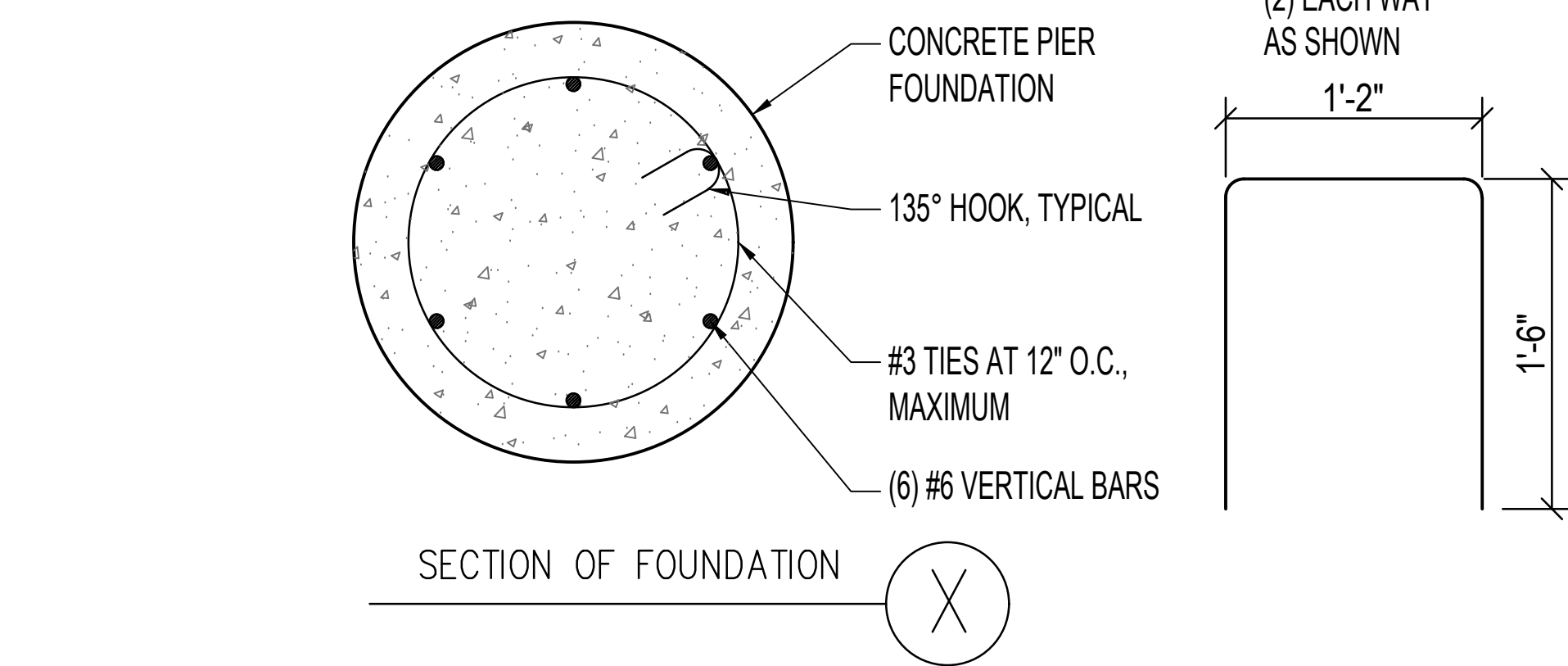
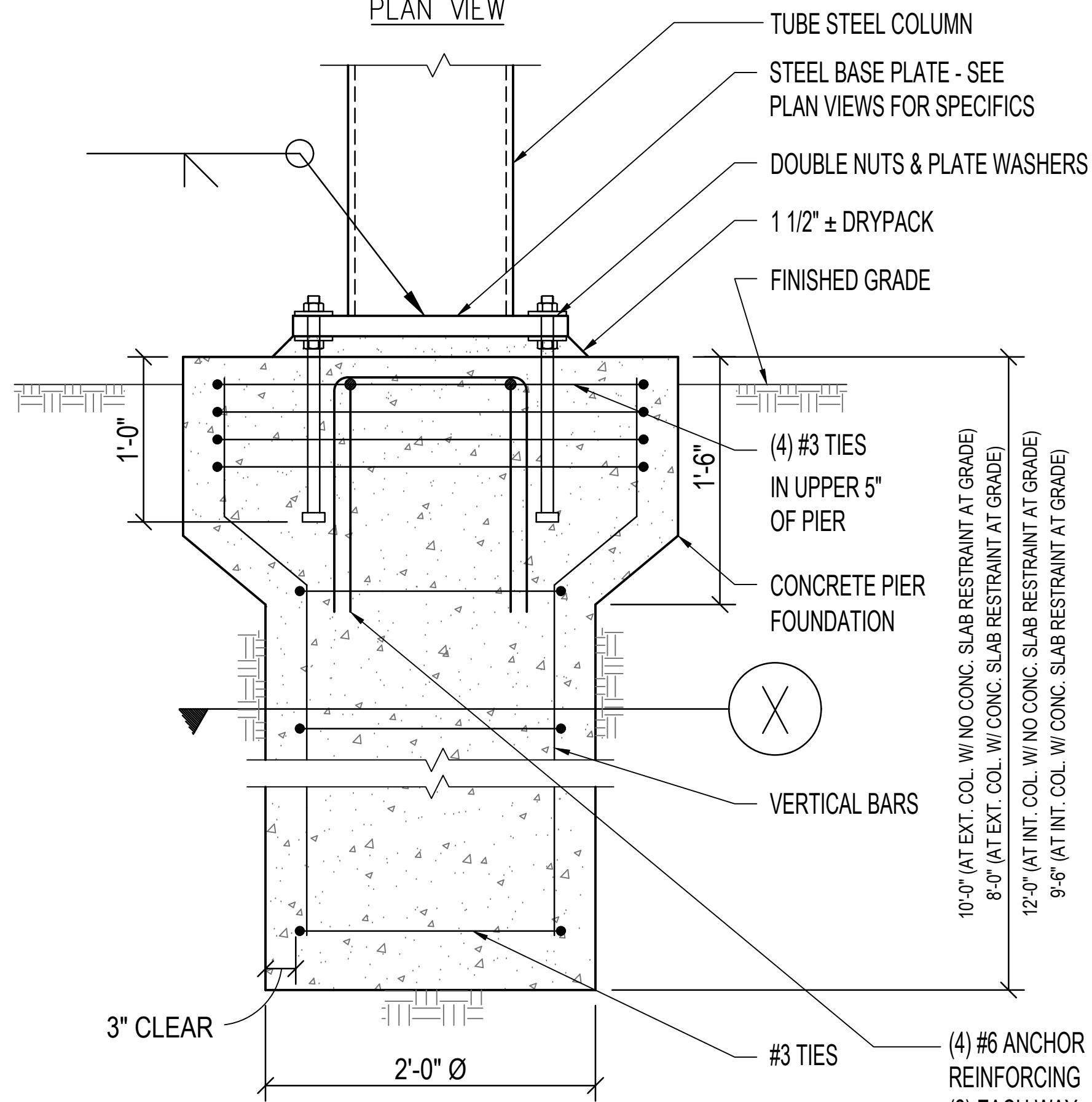
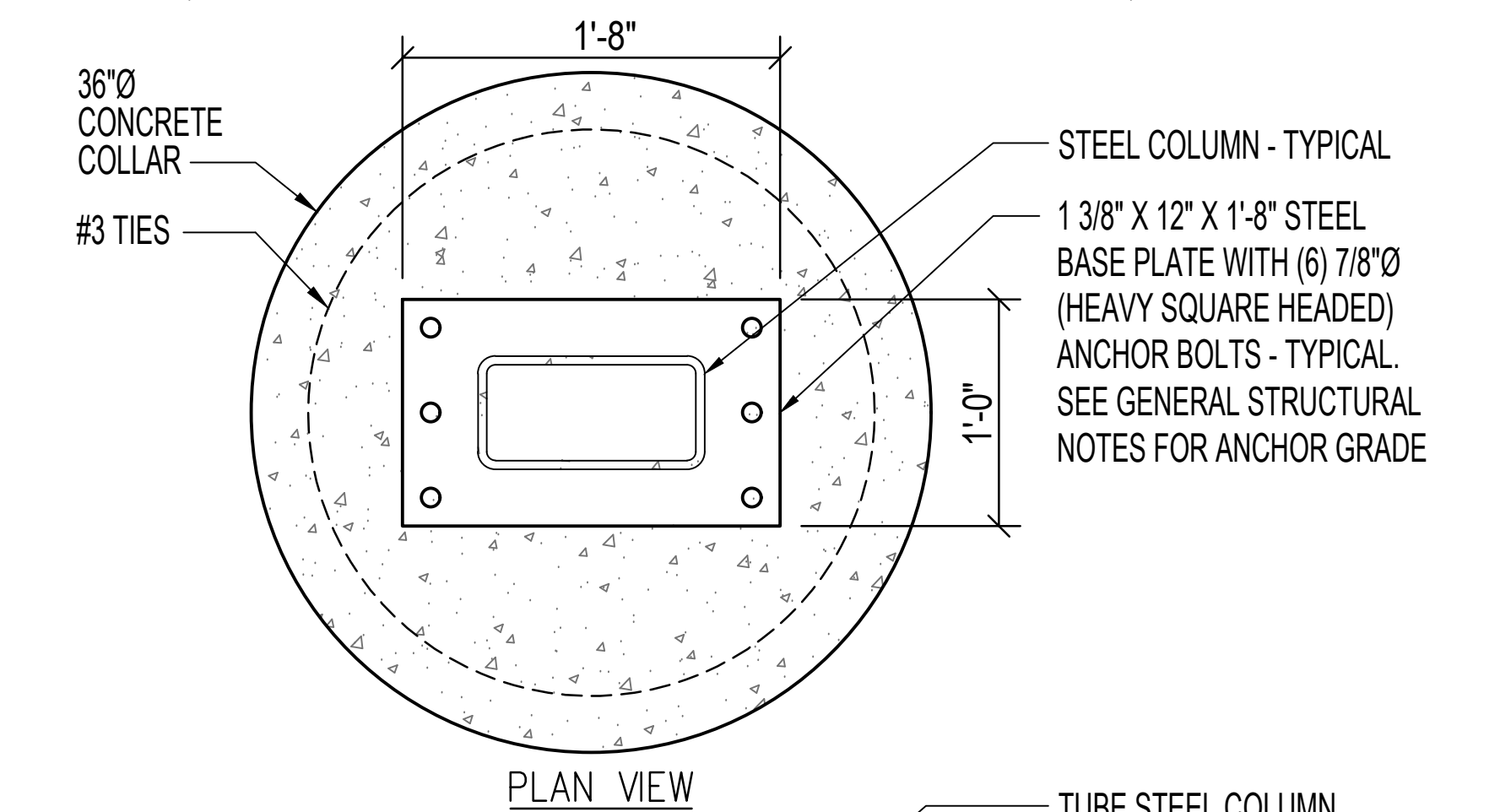
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REV. -	BY: -	APP BY: -	DATE: -

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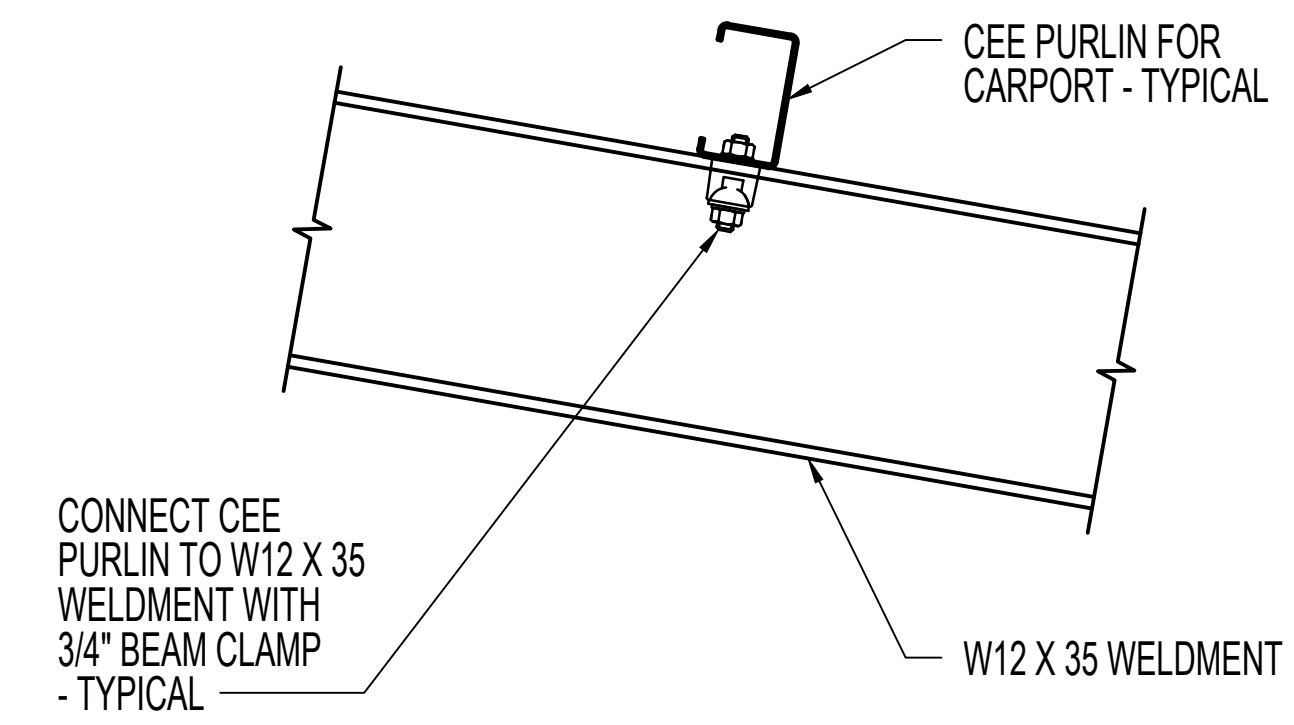
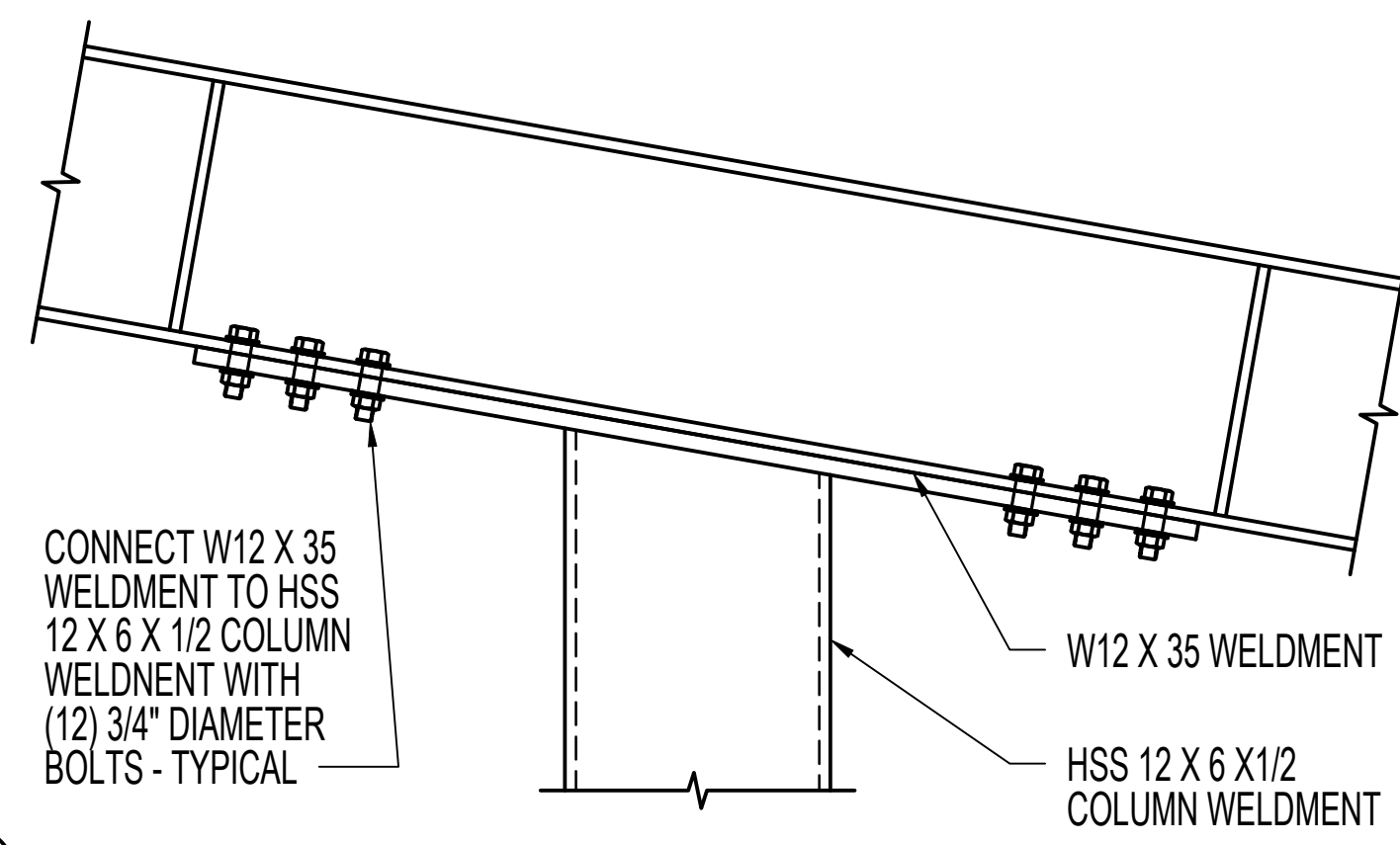
CUSTOMER:
 PROJECT:

TITLE:
 STRUCTURE SECTION & PLAN VIEWS

REVISION:	DATE:	DRAWN BY:
SHEET SIZE:	D-SIZE	ENGINEER/REVIEW:
SCALE:	VARIABLE	ADAM M.
		SHEET: 2 OF 5

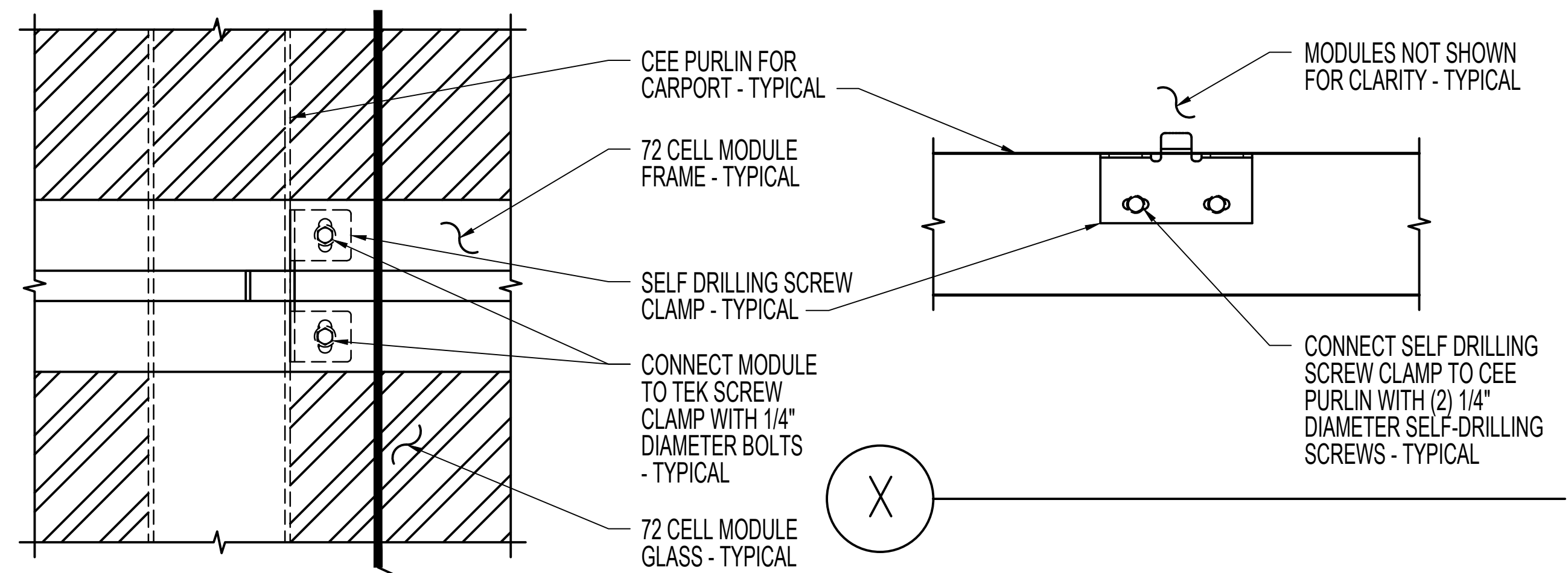


- 1) 7/8"Ø THREADED RODS WITH DOUBLE PLATE WASHERS AND DOUBLE NUTS CAN BE USED IN LIEU OF (HEAVY SQUARE HEADED) ANCHOR BOLTS
 - 2) 36"Ø CONCRETE FOUNDATION CAN BE USED IN LIEU OF 24"Ø. SEE EMBEDMENT DEPTHS BELOW:
9'-0" (AT EXT. COL. W/ NO CONG. SLAB RESTRAINT AT GRADE)
7'-0" (AT EXT. COL. W/ CONG. SLAB RESTRAINT AT GRADE)
10'-6" (AT INT. COL. W/ NO CONG. SLAB RESTRAINT AT GRADE)
8'-6" (AT INT. COL. W/ CONG. SLAB RESTRAINT AT GRADE)
- REINFORCING STEEL REQUIREMENTS FOR 36"Ø:
(8) #6 VERTICAL BARS (IN LIEU OF 6)
#3 TIES ARE REQUIRED TO BE SPACED AT 12" O.C. MAX.

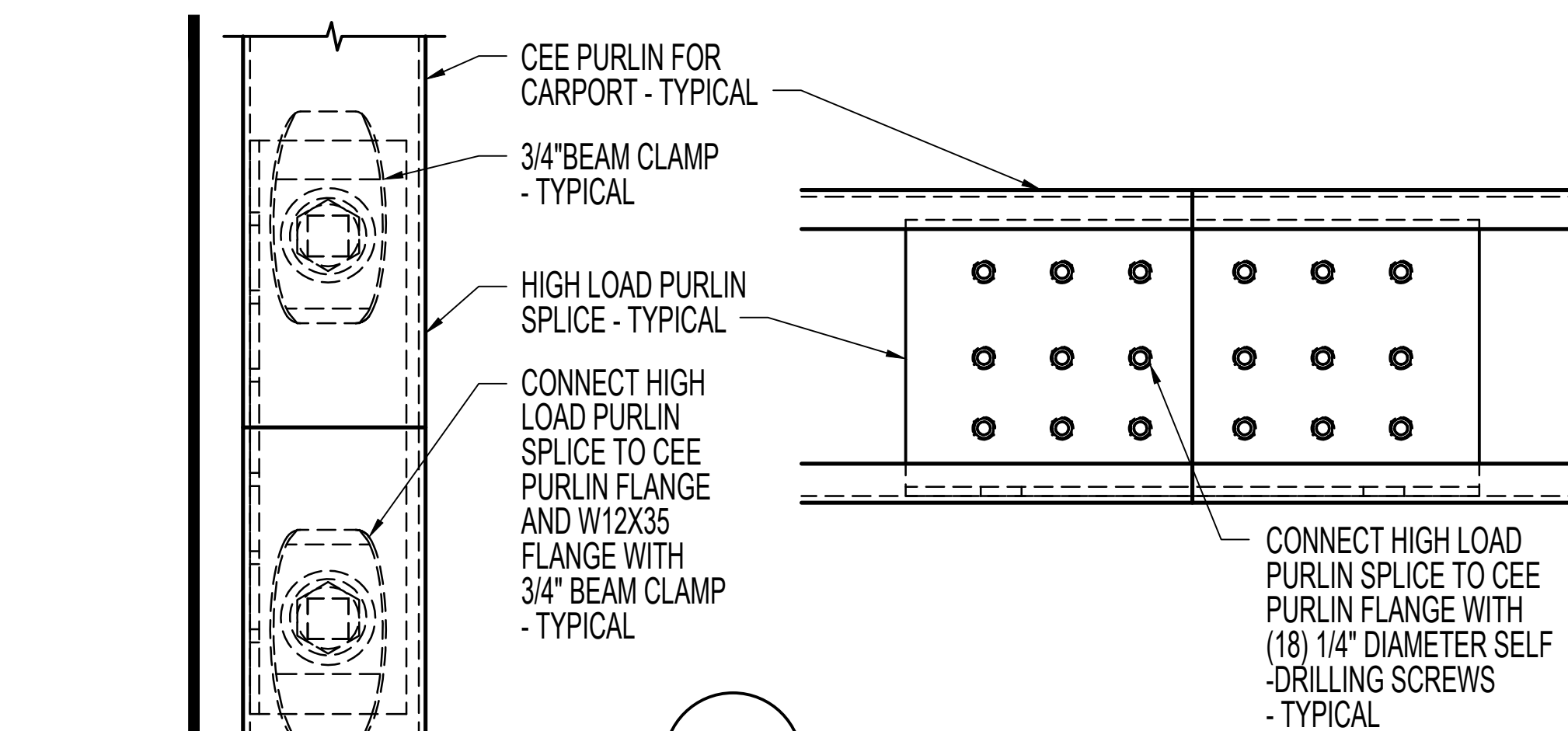


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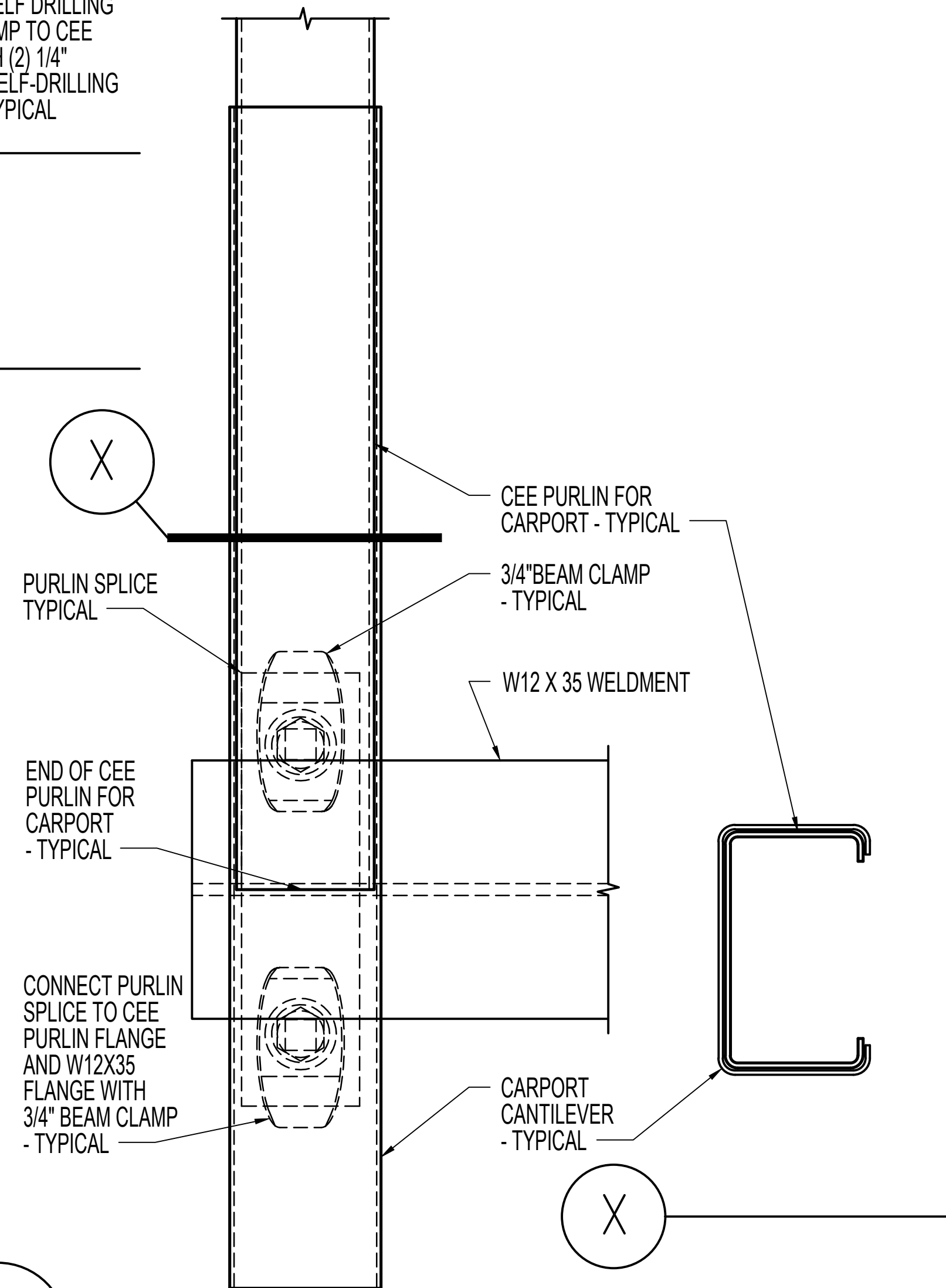
202



203



204



202

101

PE STAMP

GENERAL INFORMATION AND SYSTEM DETAILS

GENERAL INFORMATION:
SITE ADDRESS:
AZIMUTH:
SYSTEM TYPE:
TOTAL SYSTEM SIZE:
TOTAL # OF MODULES:
MODULE TILT:
N-S SPACING:
E-W GAP BETWEEN MOD.:
E-W GAP BETWEEN ARRAYS:
BUILDING CODES:
STRUCTURAL:
EMBEDMENT:
SOIL CLASS:

LOADS:
DESIGN WIND SPEED:
3 SEC GUST EFFECT:
RISK CATEGORY:
EXPOSURE:
MWFRS WIND LOAD (SOUTH WIND):
PSF
MWFRS WIND LOAD (NORTH WIND):
PSF
DESIGN SNOW LOAD: PSF
MODULE DEAD LOAD: PSF

MANUFACTURER'S TOLERANCES:
LATERAL POST PLACEMENT (X-Z PLANE):
±2.0" FOR TILT ANGLES < 20°
±1.5" FOR TILT ANGLES ≥ 20°
LATERAL POST PLACEMENT (Y-Z PLANE): ±4.0" WITHIN ARRAY
POST HEIGHT VARIATION (X-Y PLANE): ±0.5"
POST VERTICALITY TOLERANCE:
< 2.0° ALL DIRECTIONS
POST ROTATIONAL TOLERANCE:
±5.0°
ARRAY TILT ANGULAR TOLERANCE:
±2.0°

MODULE INFORMATION

MODULE:
MODULE MODEL:
MODULE SIZE:
MODULE WEIGHT:
MODULE OUTPUT:

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REVISION TABLE

REV.	BY	APP BY	DATE

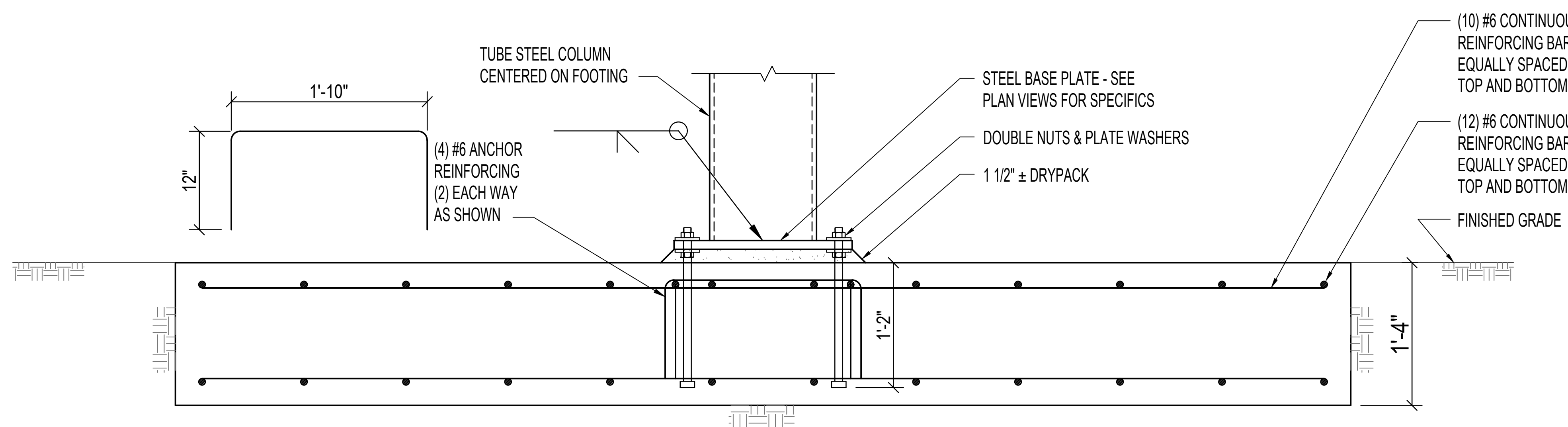
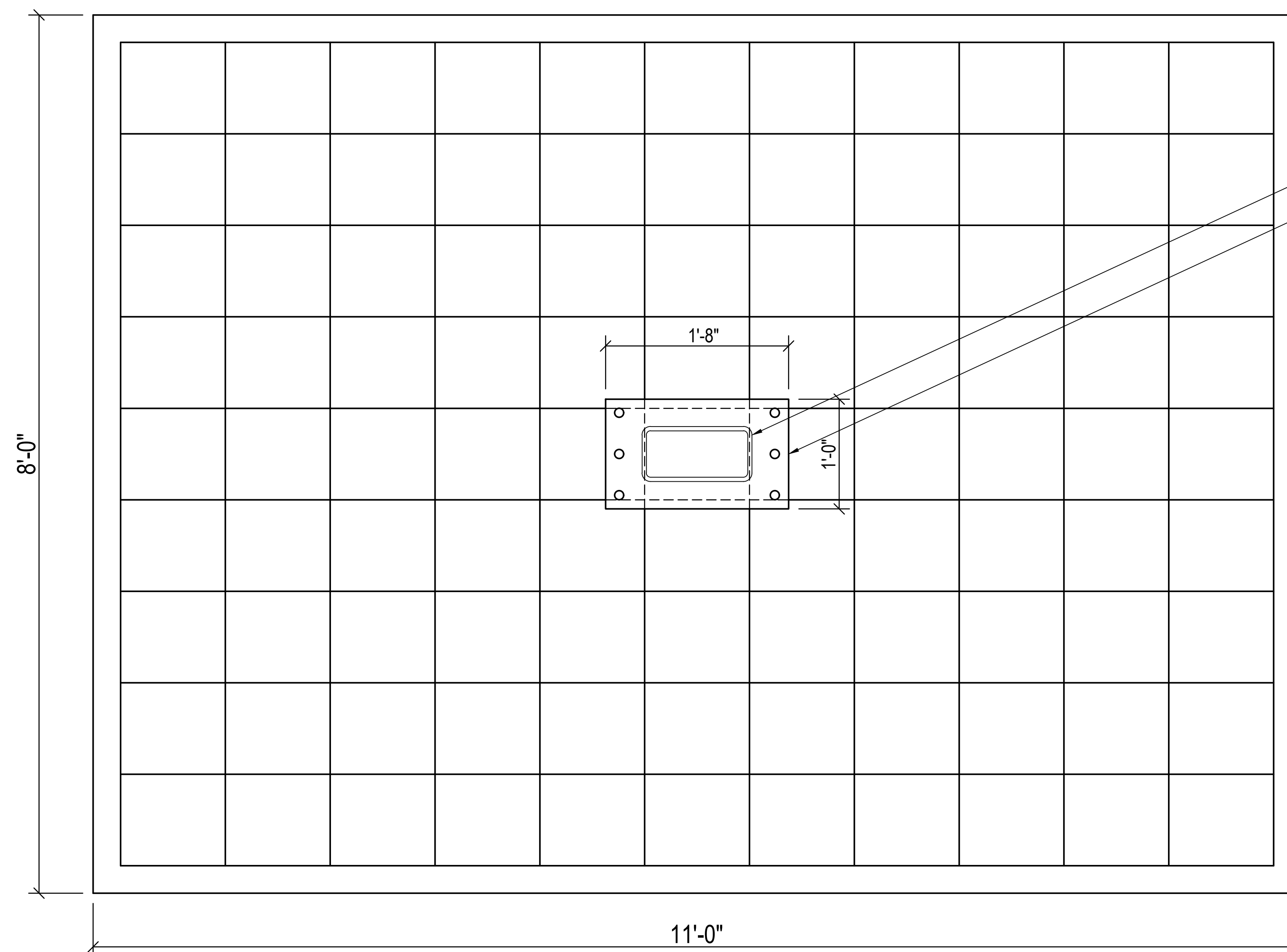
PREFORMED LINE PRODUCTS

CLEVELAND, OH
1-(216)-473-5200

CUSTOMER:
PROJECT:

TITLE: STRUCTURE DETAILS

REVISION:	DATE:	DRAWN BY:
D-SIZE	ADAM M.	
SCALE: VARIES	SHEET: 3	OF: 5



ALT

RECTANGULAR CONCRETE FOOTING OPTION (INTERIOR)

PE STAMP

GENERAL INFORMATION AND SYSTEM DETAILS

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±5.0°

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REVISION TABLE

REV: - BY: - APP BY: - DATE: -

PREFORMED LINE PRODUCTS

CLEVELAND, OH

1-(216)-473-5200

CUSTOMER:

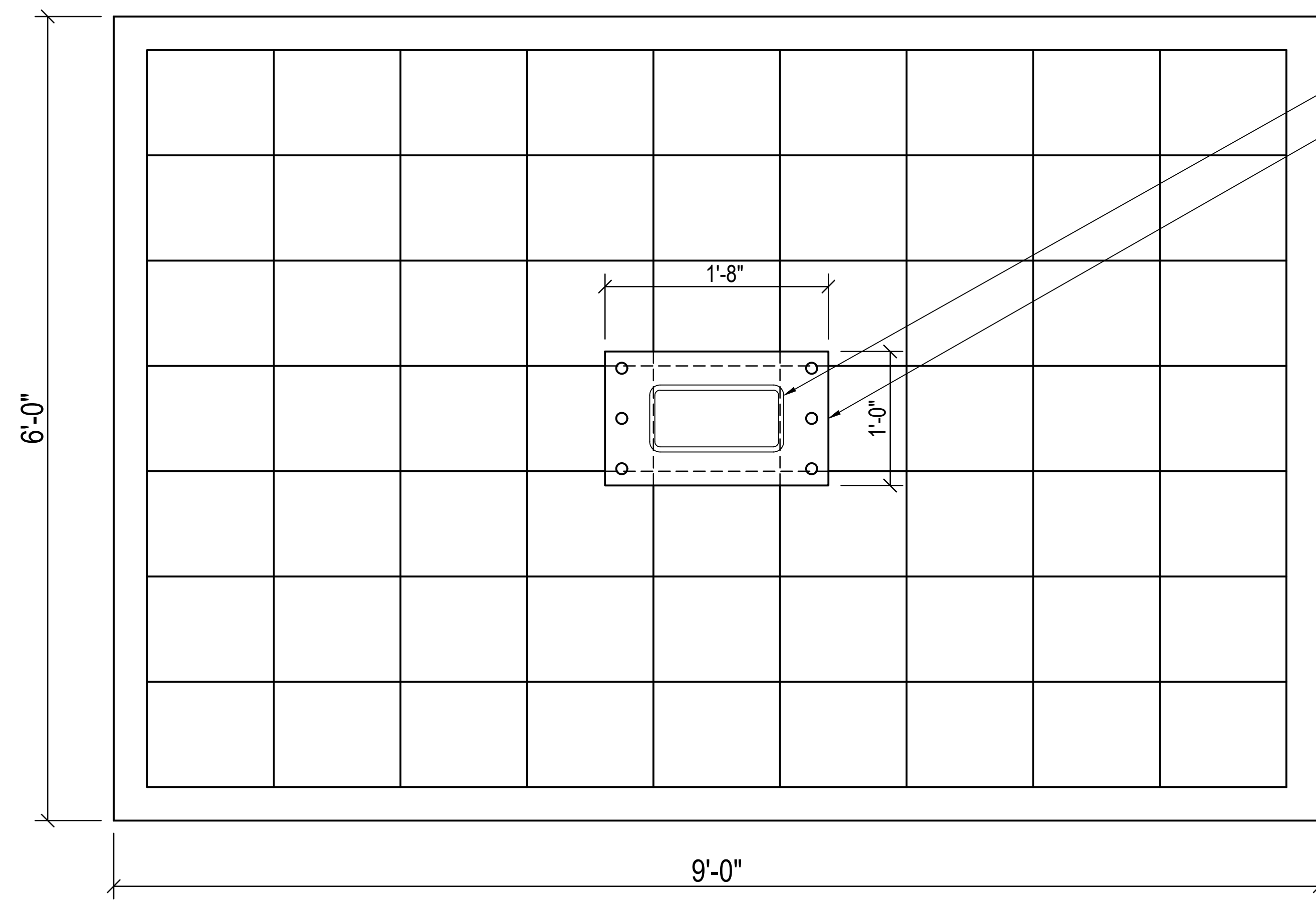
PROJECT:

TITLE: ALTERNATE FOUNDATION

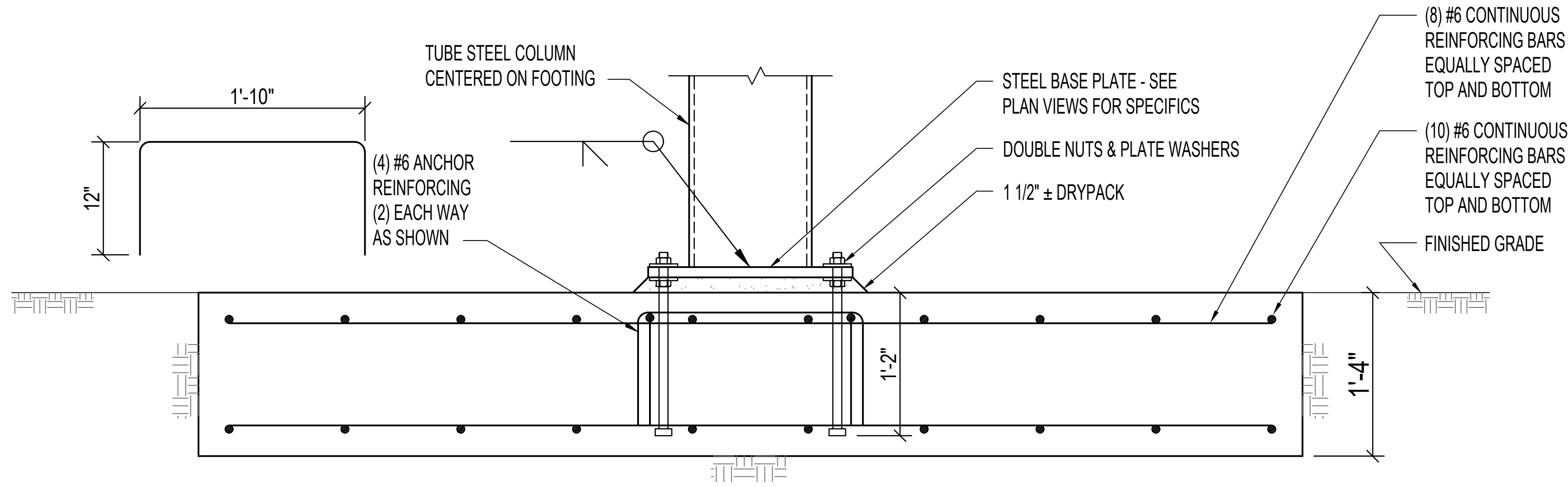
REVISION: DATE: DRAWN BY:

SHEET SIZE: ENGINEER/REVIEW: ADAM M.

SCALE: VARIES SHEET: 4 OF 5



STEEL COLUMN - TYPICAL
 1 3/8" X 12" X 1'-8" STEEL
 BASE PLATE WITH (6) 7/8"Ø
 (HEAVY SQUARE HEADED)
 ANCHOR BOLTS - TYPICAL.
 SEE GENERAL STRUCTURAL
 NOTES FOR ANCHOR GRADE



RECTANGULAR CONCRETE FOOTING OPTION (EXTERIOR)

ALT

PE STAMP

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D-SIZE	ADAM M.	
SCALE:	SHEET:	OF:
VARIABLES	5	5