GENERAL NOTES

CODES AND STANDARDS:

A. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 2019 OREGON STRUCTURAL SPECIALTY CODE AND 2018 EDITION INTERNATIONAL BUILDING CODE INCLUDING REFERENCE STANDARDS LISTED BELOW:
- AMERICAN NATIONAL STANDARDS INSTITUTE/AMERICAN SOCIETY OF CIVIL ENGINEERS - (ANSI/ASCE 7-16)
- AMERICAN CONCRETE INSTITUTE (ACI 301 - 2016, ACI 318 - 2014)
- NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (NDS - 2018)

DESIGN LOADS:

A. WIND DESIGN DATA:
WIND SPEED, 3 SEC. GUST = 98 mph
EXPOSURE = "B"
RISK CATEGORY II
MWFRS - DIRECTIONAL PROCEDURE: (ASCE 7-16 CH. 27)
K_d = 0.85
G = 0.85
K_{zt} = 1.0

ULTIMATE DESIGN WIND PRESSURE (1.0W) BASED ON 10 SF AREA AND MAY BE ADJUSTED AS REQUIRED PER ASCE7 FOR LARGER AREAS.

B. SEISMIC DESIGN DATA:
S_S = 0.831 S_1 = 0.418
SITE CLASS = C
S_{DS} = 0.665 S_{D1} = 0.418
SEISMIC DESIGN CATEGORY D
EQUIVALENT LATERAL FORCE ANALYSIS
RISK CATEGORY = II

C. IMPORTANCE FACTORS:
SEISMIC (I_E) = 1.0

GENERAL REQUIREMENTS:

A. IT IS THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR TO OBTAIN APPROPRIATE APPROVALS AND NECESSARY PERMITS FROM CITY, COUNTY, STATE, OR FEDERAL AGENCIES, AS REQUIRED.
B. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION METHODS, TECHNIQUES, SEQUENCING, AND SAFETY REQUIRED TO COMPLETE CONSTRUCTION.
C. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND DETAILS PRIOR TO PROCEEDING WITH CONSTRUCTION. ALL DISCREPANCIES SHALL BE APPROVED BY THE ENGINEER OF RECORD.
D. CONTRACTOR SHALL VERIFY ALL REQUIRED PENETRATIONS ON MECHANICAL AND ELECTRICAL PLANS. ALL DIMENSIONS SHALL BE FIELD VERIFIED AS EARLY AS POSSIBLE.
E. CONTRACTOR SHALL THOROUGHLY REVIEW AND REDLINE ALL SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE ENGINEER. SUBMIT SHOP DRAWINGS IN A TIMELY FASHION TO ALLOW 10 BUSINESS DAYS FOR REVIEW BY DESIGN TEAM. ALL MODIFICATIONS OR COMMENTS MADE DURING REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS OR SPECIFICATIONS.

STRUCTURAL INSPECTION AND TESTING:

A. CONTRACTOR SHALL PROVIDE WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK AS REQUIRED BY OSSC SECTION 1704.2.3.
B. ALL CONSTRUCTION SHALL BE INSPECTED IN CONFORMANCE WITH THE OREGON STRUCTURAL SPECIALTY CODE.
C. ALL ITEMS NOTED AS REQUIRING SPECIAL INSPECTION PER THE OREGON STRUCTURAL SPECIALTY CODE IN ACCORDANCE WITH SECTION 1705, SHALL BE PERFORMED BY A QUALIFIED PERSON WHO CAN DEMONSTRATE COMPETENCE FOR THE PARTICULAR TYPE OF CONSTRUCTION BEING INSPECTED. THE SPECIAL INSPECTIONS SHALL BE PERFORMED IN ADDITION TO THE INSPECTIONS REQUIRED BY THE OREGON STRUCTURAL SPECIALTY CODE, THE PLANS AND SPECIFICATIONS, THE ARCHITECT OF RECORD, AND THE BUILDING OFFICIALS.

REQUIRED SPECIAL INSPECTIONS

DESCRIPTION OF WORK IBC SECTION 1704	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS[3]	PERIODIC[3]	
CONCRETE (1705.3)			
REINFORCING PLACEMENT		X	
ANCHOR BOLTS & INSERTS		X	
PREPARATION OF TEST SPECIMENS	X		F'_c=2500 psi
CONCRETE PLACEMENT	X		
POST INSTALLED ANCHORS (1705.1.1 & TABLE 1705.3 (4))			
ADHESIVE ANCHOR INSTALLATION		X	REF. NOTE 4
MECHANICAL ANCHOR INSTALLATION		X	REF. NOTE 4

1. THE ITEMS MARKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH OSSC SECTION 1705 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE MATERIAL SAMPLING AND TESTING SECTION, THE PROJECT SPECIFICATIONS AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET THE PROJECT SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS.
2. SPECIAL INSPECTION IS NOT REQUIRED FOR WORK PERFORMED BY AN APPROVED FABRICATOR PER OSSC SECTION 1704.2.5.1.
3. CONTINUOUS SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON THE SITE AT ALL TIMES OBSERVING THE WORK REQUIRING THE SPECIAL INSPECTION. PERIODIC SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON THE SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE.
4. POST INSTALLED ANCHORS REQUIRE PERIODIC INSPECTION (OSSC TABLE 1705.3) UNLESS A MORE STRINGENT REQUIREMENT IS IMPOSED BY THE INDIVIDUAL ANCHOR'S RESEARCH REPORT.

D. OWNER OR OWNERS REPRESENTATIVE TO RETAIN AN APPROVED SPECIAL INSPECTOR TO OBSERVE AND APPROVE ALL REQUIRED SPECIAL INSPECTION ITEMS.
E. SPECIAL INSPECTION REPORTS TO BE PROVIDED TO THE BUILDING OFFICIAL & DESIGN PROFESSIONALS IN A TIMELY MANNER AND IN ACCORDANCE WITH OSSC SECTION 1704.2.4.

FOUNDATIONS:

A. ALL FOOTINGS TO REST ON FIRM, UNDISTURBED SOIL, OR STRUCTURAL FILL, FREE OF ORGANIC MATERIAL, AND CAPABLE OF SUPPORTING A MINIMUM ALLOWABLE BEARING PRESSURE OF 1,500 psf. UNDER COMBINED DEAD AND LIVE LOADS.
B. ALL SLABS-ON-GRADE SHALL BE UNDERLAIN BY A MINIMUM OF 6" OF FREE- DRAINING (LESS THAN 5% PASSING THE NO. 200 SIEVE), WELL GRADED, CRUSHED ROCK. THE BASE COURSE MATERIALS SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.

CONCRETE:

A. ALL CONCRETE WORK SHALL CONFORM TO OSSC CHAPTER 19, "CONCRETE," ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE," ACI 117, "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."
B. CONCRETE MIX DESIGNS SHALL BE AS FOLLOWS:

LOCATION	MAXIMUM AGGREGATE	MAXIMUM WATER/CEMENT RATIO	MINIMUM COMPRESSIVE STRENGTH (F'_c)	NOTES
EXTERIOR SLABS ON GRADE	1½"	.46	3,000	1
CDF	¾"	.50	500	

NOTES:
1. THIS MIX SHALL BE AIR-ENTRAINED WITH AN AIR CONTENT OF 5% ±1%.
2. THIS MIX SHALL HAVE A SHRINKAGE LIMIT OF 0.045% AT 28-DAYS.

C. PORTLAND CEMENT CONTENT MAY BE REPLACED WITH UP TO 25% FLY ASH CONFORMING TO ASTM C618 (INCLUDING TABLE 2A) TYPE F OR TYPE C, PROVIDED THAT MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.
D. PORTLAND CEMENT CONTENT MAY BE REPLACED WITH UP TO 30% SLAG CEMENT CONFORMING TO ASTM C989, PROVIDED THAT MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.
E. CONTRACTOR SHALL SUBMIT A COPY OF EACH CONCRETE MIX DESIGN AND (30) 28-DAY BREAK TEST RECORDS TO ENGINEER MINIMUM TWO WEEKS PRIOR TO DELIVERY TO JOB SITE.
F. NO WATER SHALL BE ADDED IN FIELD UNLESS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER AS A PROPORTION ALLOTTED WITHIN APPROVED CONCRETE MIX DESIGN.
G. WATER REDUCING ADMIXTURES CONFORMING TO ASTM C494 MAY BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE INCORPORATED IN THE CONCRETE MIX DESIGN SUBMITTAL.
H. SLUMP REQUIRED FOR PROPER PLACEMENT SHALL BE DETERMINED BY THE CONTRACTOR AND SUPPLIER BASE UPON DELIVERY TIME AND METHOD OF PLACEMENT AND INCLUDED IN THE MIX DESIGN SUBMITTAL INCLUDING INFLUENCE OF ADDITIVES.
I. ALL CONCRETE SHALL BE REINFORCED UNLESS NOTED OTHERWISE IN PLANS AND DETAILS. WHERE REINFORCING IS NOT SPECIFICALLY INDICATED, PROVIDE REINFORCING AS SHOWN IN SIMILAR DETAILS. VERIFY PLACEMENT WITH ENGINEER.
J. FIBROUS REINFORCEMENT SHALL BE USED WHERE NOTED IN THE CONSTRUCTION DOCUMENTS OR AS A SUBSTITUTION REQUESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. FIBER TYPE AND DOSAGE SHALL BE ADDED TO THE CONCRETE, MIX AND FINISHED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
K. WHERE CONCRETE IS CAST AGAINST EXISTING OR PREVIOUSLY CURED CONCRETE, ROUGHEN CONTACT SURFACES TO ¼" AMPLITUDE AND CLEAN SURFACE OF LAITANCE, FOREIGN MATTER AND LOOSE PARTICLES.

REINFORCING STEEL:

A. ALL REINFORCING STEEL SHALL BE BILLET STEEL DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60, EXCEPT USE ASTM A706, GRADE 60 BARS WHERE WELDING IS REQUIRED. (NO. 3 BARS MAY BE GRADE 40). SUBMIT MILL CERTIFICATES FOR ALL BARS REQUIRING WELDING.
B. FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CRSI MSP-1-16 "MANUAL OF STANDARD PRACTICE" AND CHAPTER 25 OF ACI 318 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
C. ALL CONCRETE SLAB REINFORCING STEEL SHALL BE SUPPORTED AT THE REQUIRED HEIGHTS BY APPROVED BOLSTERS PRIOR TO POURING SLAB CONCRETE.
D. REINFORCING STEEL LAP SPLICES NOT OTHERWISE INDICATED SHALL BE ACI STANDARD CLASS B SPLICES STAGGERED BETWEEN ADJACENT BARS ONE LAP LENGTH MINIMUM.

BAR SIZE "D"	DEVELOPMENT FACTOR	DEVELOPMENT LENGTH	CLASS B LAP SPLICE LENGTH	
			BOTTOM BAR	TOP BAR
#3	48 x D	18"	23.4"	30.4"
#4	48 x D	24"	31.2"	40.6"
#5	48 x D	30"	39"	50.7"
#6	48 x D	36"	46.8"	60.8"
#7	60 x D	52.5"	68.3"	88.7"
#8	60 x D	60"	78"	101.4"

E. PROVIDE CORNER BARS SAME SIZE AND SPACING AS HORIZONTAL BARS AND PROJECT 48 DIAMETERS EACH WAY OR 2'-0" X 2'-0" MINIMUM UNLESS DETAILED OTHERWISE.

REINFORCING PROTECTION:

A. CONCRETE DEPOSITED AGAINST EARTH: 3 INCHES.
B. CONCRETE FORMED SURFACES EXPOSED TO GROUND AND WEATHER:
#5 AND SMALLER BAR - 1½ INCHES
#6 AND LARGER BAR - 2 INCHES
C. CONCRETE SURFACES NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:
#11 AND SMALLER BAR - ¾ INCHES
D. SLABS = ¾ INCHES

STRUCTURAL WOOD:

A. ALL STRUCTURAL WOOD MEMBERS SHALL BE COAST REGION DOUGLAS FIR NO.2 OR BETTER GRADE AS NOTED IN NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENINGS, UNLESS NOTED OTHERWISE. ALL POSTS SHALL BE DOUGLAS FIR #1 OR BETTER.
B. ALL STUDS TO BE DOUGLAS FIR #2 OR BETTER AS NOTED IN NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER.
C. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL BOLTS, AND PLATES AS REQUIRED TO COMPLETE THE JOB.
D. WASHERS SHALL BE USED UNDER ALL BOLT HEADS AND NUTS BEARING ON WOOD.
E. ALL WOOD MEMBERS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED.
F. ALL NAILING NOT SHOWN SHALL BE AS CALLED FOR IN OSSC TABLE 2304.10.1 FASTENING SCHEDULE.
G. ALL NAILING INTO TREATED LUMBER SHALL BE GALVANIZED.

ACCEPTABLE POST INSTALLED ANCHOR PRODUCTS:

A. THE FOLLOWING ANCHOR PRODUCTS HAVE BEEN APPROVED BY THE ICC FOR USE IN CRACKED CONCRETE. THIS LIST IS PROVIDED FOR THE CONTRACTOR TO USE AS A RESOURCE FOR ALTERNATE MANUFACTURERS AND ANCHOR TYPES. IF AN ALTERNATE IS DESIRED FROM THIS LIST, THE CONTRACTOR IS TO NOTIFY THE E.O.R. SO THAT PROPER SIZE AND EMBEDMENT MAY BE SPECIFIED.
B. LISTED ANCHORS MAY NOT BE AN EQUIVALENT TO THOSE SPECIFIED IN THE PLANS.

SCREW ANCHORS:
- HILTI KWIK HUS-EZ (KH-EZ) SCREW ANCHOR
- SIMPSON TITEN HD SCREW ANCHOR
- DEWALT SCREW-BOLT + SCREW ANCHOR

WOOD SURFACE PROTECTIVE COATING:

A. PROVIDE A PENETRATING COAT OF WOOD PROTECTIVE SEALER PER MANUFACTURES SPECIFICATION.
B. PROVIDE TWO COATS PENETRATING STAIN PER MANUFACTURERS SPECIFICATION. SHEEN AND COLOR TO BE APPROVED BY OWNER PRIOR TO PRODUCT APPLICATION.

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DOUGLAS S. WELTZER
EXPIRES: DEC. 31, 2022

DATE SIGNED:

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REVISIONS

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DESIGN: DSM
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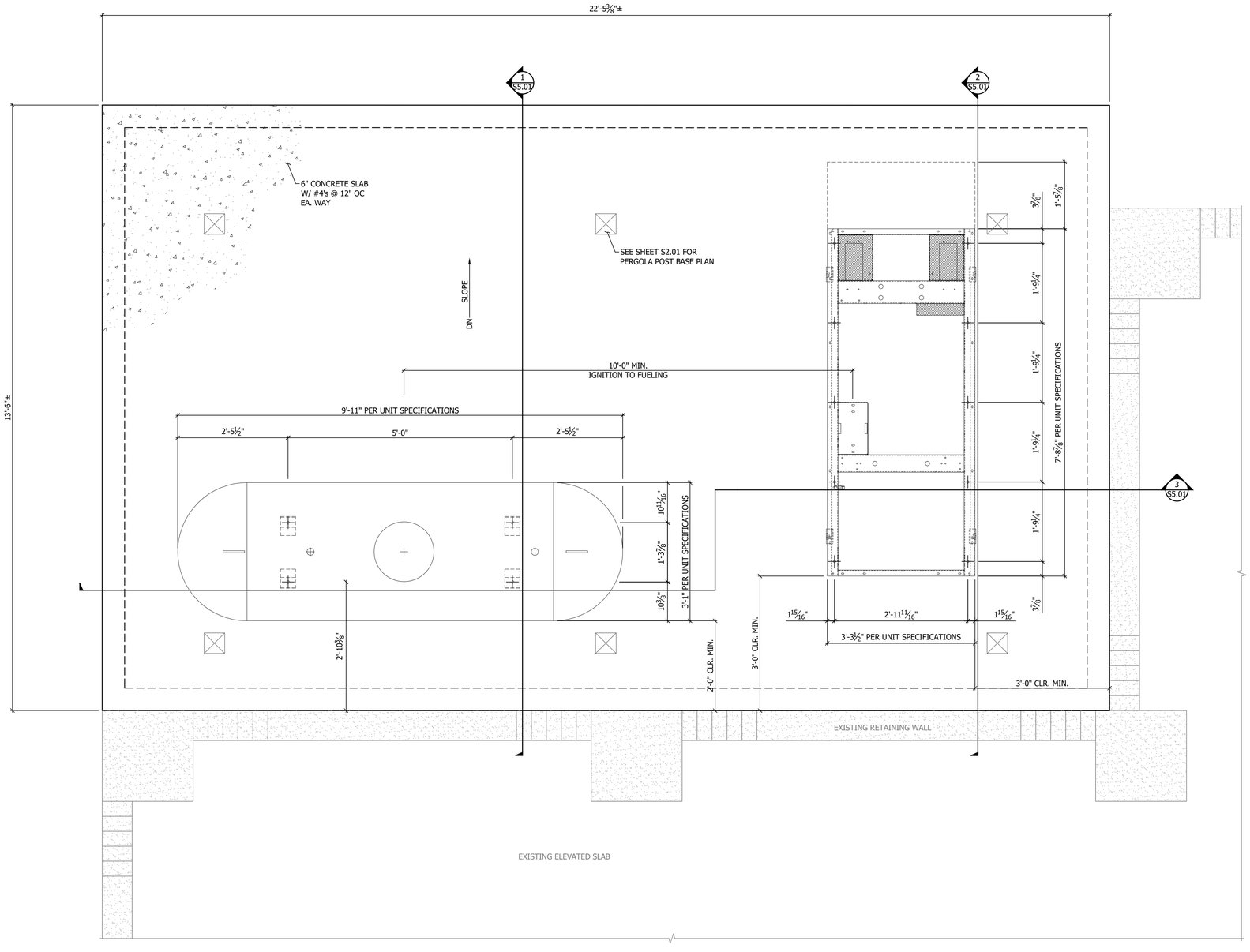
EXTERIOR UTILITY SLAB GENERAL NOTES

SHEET INDEX
S0.01



PROPOSED EXTERIOR UTILITY SLAB PLAN

3/4" = 1'-0"

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EXTERIOR
UTILITY SLAB
FOUNDATION
PLAN

SHEET INDEX

S1.01

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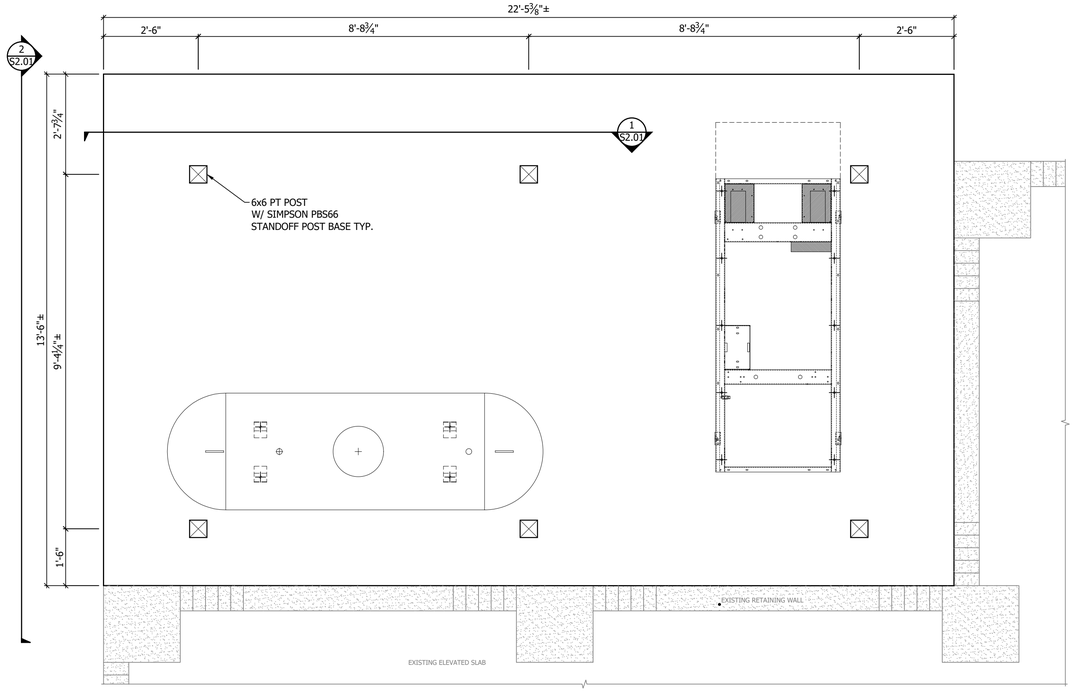
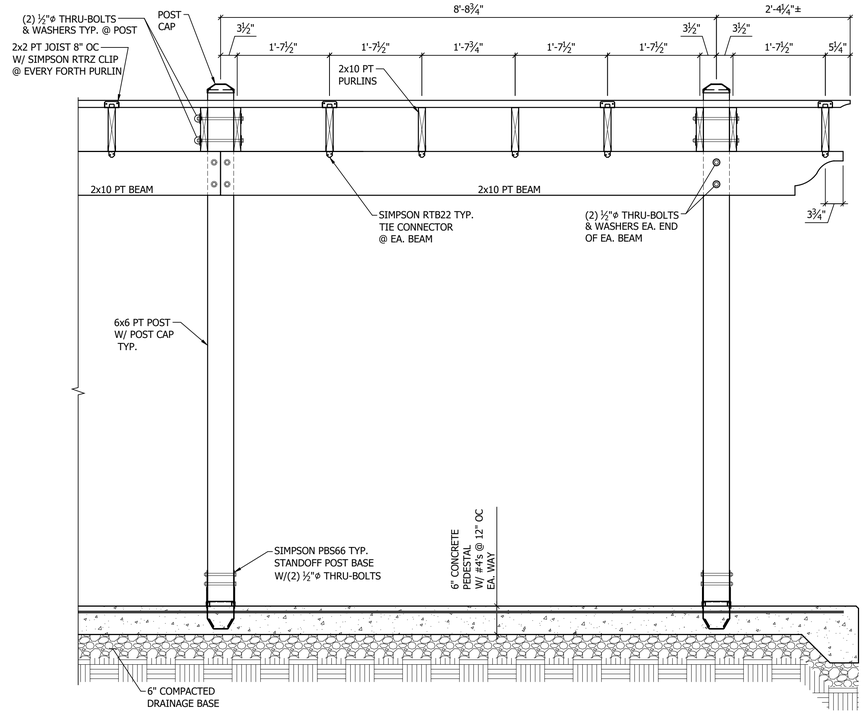


PERGOLA COVER – POST BASE PLAN

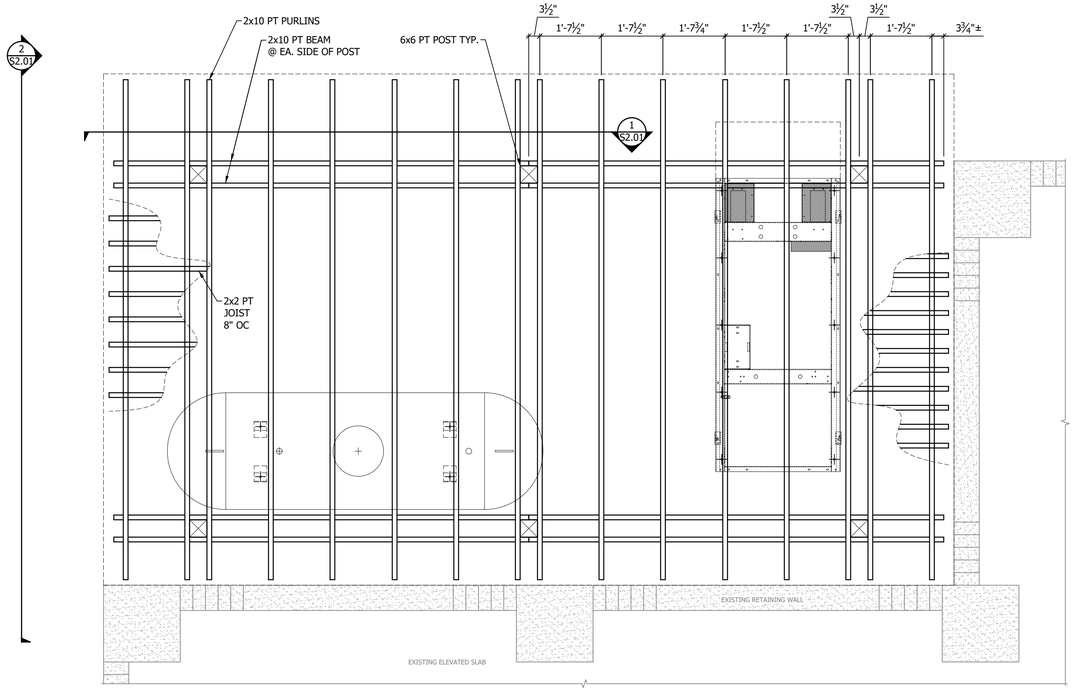
1/2" = 1'–0"



SECTION VIEW

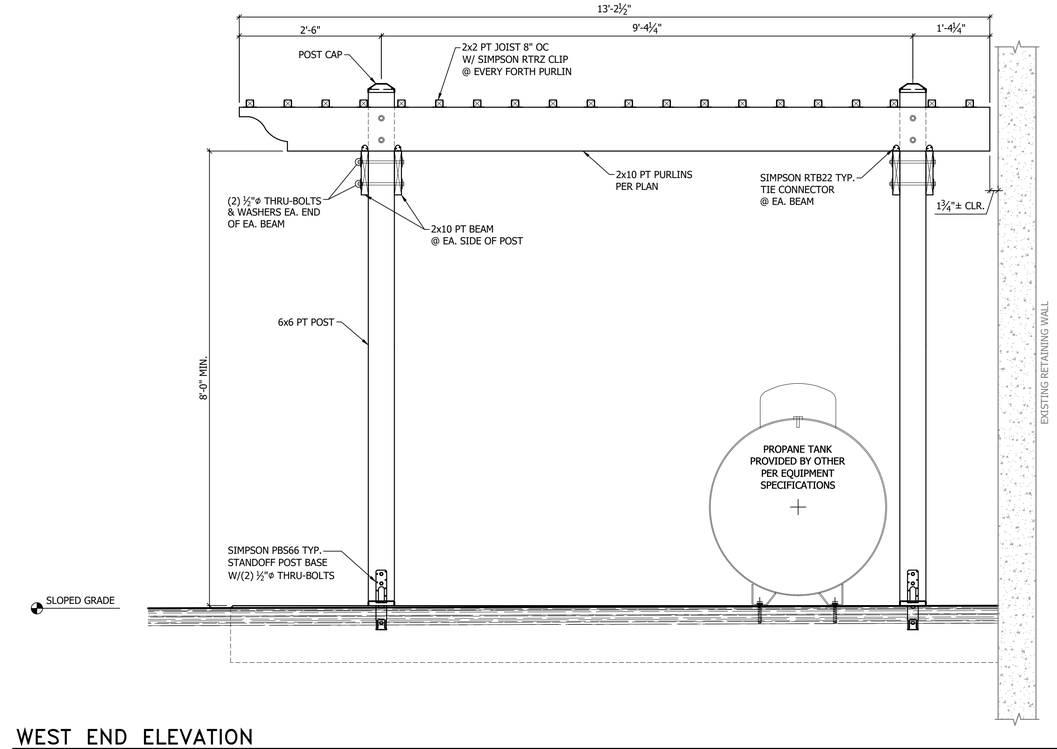
3/4" = 1'–0"

1
S2.01



PERGOLA COVER ROOF PLAN

1/2" = 1'–0"



WEST END ELEVATION

3/4" = 1'–0"

2
S2.01

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EQUIPMENT
PERGOLA
COVER

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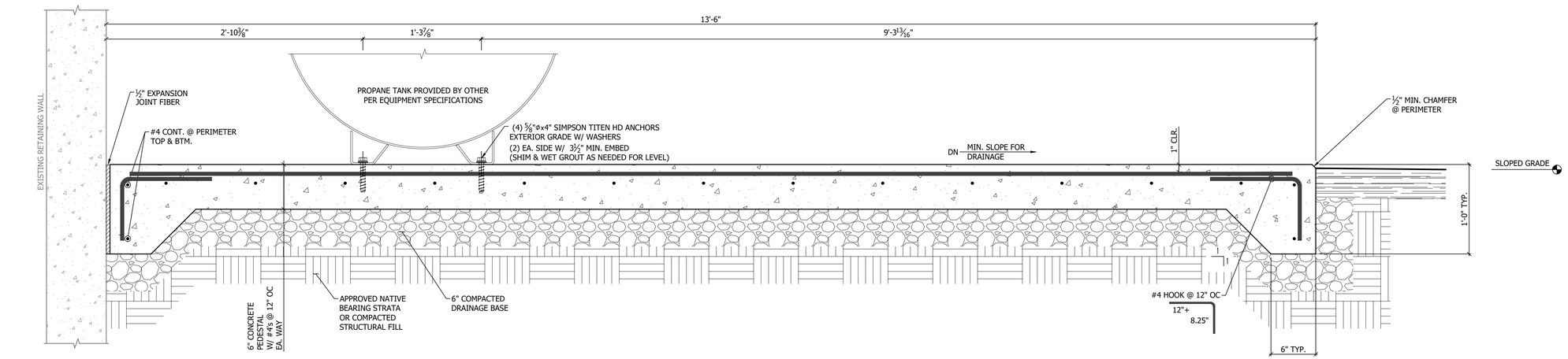
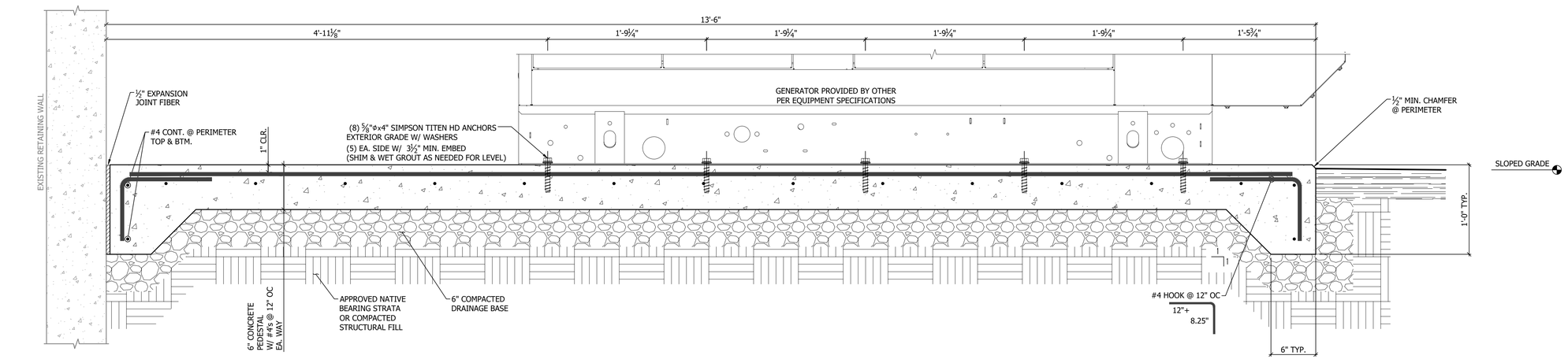


EXTERIOR UTILITY SLAB TRANSVERSE SECTION @ PROPANE TANK

1 1/2" = 1'-0"

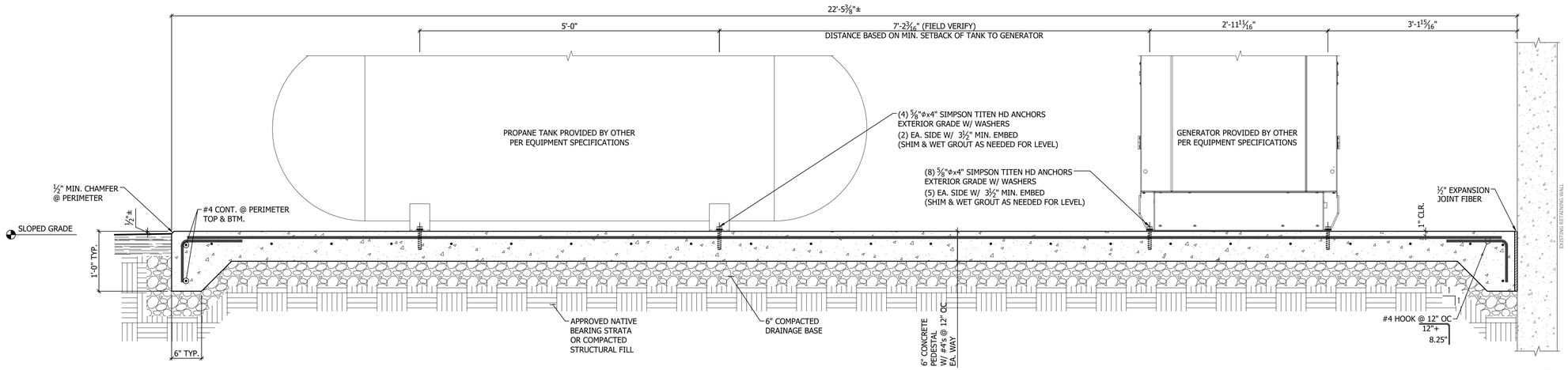
2 S5.01



EXTERIOR UTILITY SLAB TRANSVERSE SECTION @ GENERATOR

1 1/2" = 1'-0"

2 S5.01



EXTERIOR UTILITY SLAB LONGITUDINAL SECTION

1" = 1'-0"

3 S5.01

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EXTERIOR UTILITY SLAB FOUNDATION SECTIONS

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S5.01

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