



PLANT LIST					
QTY	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	CONDITION	REMARKS
DECIDUOUS TREES					
3	<i>Acer rubrum</i>	Red Maple	60mm	WB	Uniform, symmetrical
1	<i>Acer x freemanii</i> 'Celebration'	Celebration Maple	60mm	WB	Uniform, symmetrical
4	<i>Celtis occidentalis</i>	Common Hackberry	60mm	WB	Uniform, symmetrical
2	<i>Cercis canadensis</i>	Eastern Redbud	45mm	WB	Uniform, symmetrical
1	<i>Juglans nigra</i>	Black Walnut	60mm	WB	Uniform, symmetrical
3	<i>Prunus americana</i>	American Plum	50mm	WB	Uniform, symmetrical
2	<i>Prunus virginiana</i>	Chokecherry	50cm	WB	Uniform, symmetrical
1	<i>Quercus macrocarpa</i>	Burr Oak	60mm	WB	Uniform, symmetrical
17					
CONIFEROUS TREES					
3	<i>Larix laricina</i>	American Larch	175cm	WB	Uniform, symmetrical
3	<i>Picea glauca</i>	White Spruce	200cm	WB	Uniform, symmetrical
3	<i>Thuja occidentalis</i>	Eastern White Cedar	175cm	WB	3000 mm o.c. spacing
9					
DECIDUOUS SHRUBS					
32	<i>Cornus sericea</i>	Red Osier Dogwood	50cm	3 gal	2500mm o.c. spacing
9	<i>Cornus foemina</i>	Swamp Dogwood	50cm	3 gal	2500mm o.c. spacing
5	<i>Sambucus canadensis</i>	American Elderberry	40cm	3 gal	2500mm o.c. spacing
NOTE:					
10	TEN TREES ARE PROPOSED TO BE REMOVED				
26	TWENTY-SIX TREES ARE PROPOSED TO BE PLANTED				

KEY-MAP

LEGEND

EXISTING PROPERTY LINE

SETBACK

TREE PROTECTION FENCE

EXISTING DECIDUOUS TREE TO BE RETAINED

EXISTING CONIFEROUS TREE TO BE RETAINED

PROPOSED DECIDUOUS TREE

PROPOSED CONIFEROUS TREE

PROPOSED STREET TREES BY OTHERS

PROPOSED DECIDUOUS SHRUB

PROPOSED SOD

PROPOSED CONCRETE PAVING (REFER TO CIVIL ENGINEER'S DRAWINGS)

PROPOSED ASPHALT PAVING (REFER TO CIVIL ENGINEER'S DRAWINGS)

CONSERVATION/HAZARD LAND (P5) ZONE

PROPOSED LIGHT STANDARD (REFER TO ELECTRICAL DRAWINGS)

READ THIS DRAWING TOGETHER WITH THE ARBORIST'S TREE PRESERVATION PLAN, DATED JULY 1, 2026.

SOURCE OF BASE INFORMATION:
Site plan provided by Kalos Engineering, project no. 16188, received August 11, 2026.
Servicing and grading plan provided by MTE, project no. 63260_001, received July 14, 2026.

No.	DATE	DESCRIPTION	BY
4	08/20/26	ISSUED FOR PERMIT/TENDER	RG
3	08/11/26	ISSUED FOR SPA	RG
2	03/12/26	ISSUED FOR SPA	LM
1	09/10/25	ISSUED FOR REVIEW	RG

REVISIONS

NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION

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LANDSCAPE ARCHITECTURE ENVIRONMENTAL PLANNING RESOURCE ANALYSIS

LIBURDI AUTOMATION INC.

PROPOSED MANUFACTURING ADDITION

45 INNOVATION DRIVE

File FCSP-25-061

DUNDAS, ONTARIO

PLANTING PLAN

ISSUED FOR PERMIT/TENDER

SCALE: 1:300

CHECKED: MM

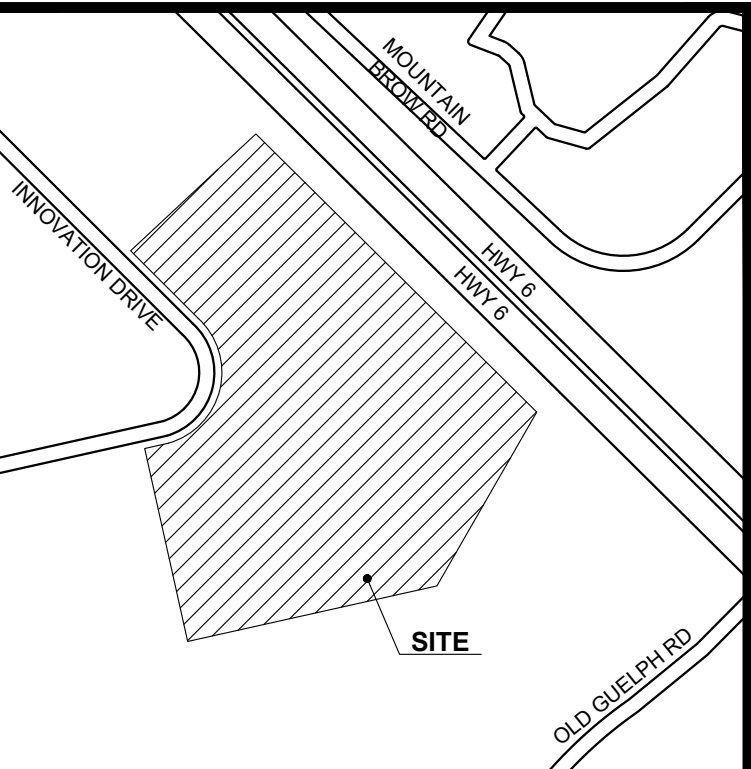
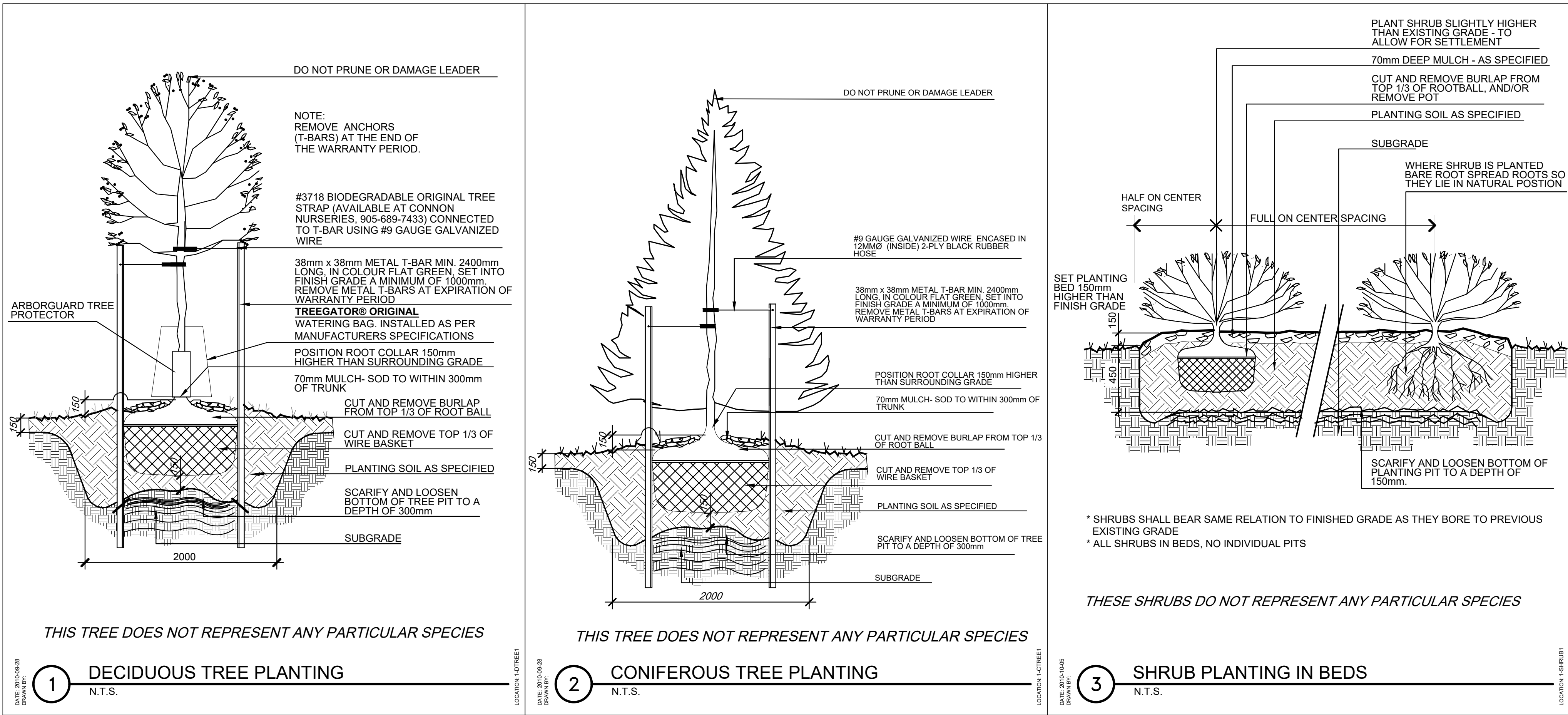
DATE: Aug. 20, 2026

DRAWING: L1

DRAWN: RG

PROJECT: 1676

Issued for Permit/Tender - August 20, 2026



KEY-MAP

LEGEND

SOURCE OF BASE INFORMATION:
Site plan provided by Kalos Engineering, project no. 16168, received August 11, 2026.
Servicing and grading plan provided by MTE, project no. 63260_001, received July 14, 2026.

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LANDSCAPE ARCHITECTURE ENVIRONMENTAL PLANNING RESOURCE ANALYSIS

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PROPOSED MANUFACTURING ADDITION
45 INNOVATION DRIVE
File FCSP-25-061

DUNDAS, ONTARIO

DETAILS

ISSUED FOR PERMIT/TENDER

SCALE : NTS	CHECKED : MM
DATE : Aug. 20, 2026	DRAWING : L2
DRAWN : RG	PROJECT : 1676

GENERAL NOTES

- CHECK ALL DIMENSIONS ON THESE DRAWINGS WITH ALL OTHER DRAWINGS, INCLUDING BUT NOT LIMITED TO: DRAWINGS PREPARED BY ARCHITECTURAL, MECHANICAL OR ELECTRICAL CONSULTANTS. REPORT ANY INCONSISTENCIES TO THE ENGINEER PRIOR TO COMMENCING THE WORK. DO NOT SCALE THE DRAWINGS.
- THE DESIGN LIVE LOADS ARE INDICATED ON THE DRAWINGS. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LIVE LOADS.
- THE COMPLETED STRUCTURE IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING AND ANY OTHER TEMPORARY OR PERMANENT MEASURES AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT OF EXISTING OR ADJACENT STRUCTURES AS REQUIRED. ALL BRACING AND SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
- CONSTRUCTION FEATURES NOT FULLY SHOWN ARE COMPARABLE TO SIMILAR CONDITION DETAILS.
- REFER TO OTHER CONSULTANT DRAWINGS FOR DETAILS OF OPENINGS, PITS, CHAMBERS, AND DEPRESSIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS.
- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST ONTARIO BUILDING CODE, LATEST APPLICABLE REGULATIONS, AND GOOD CONSTRUCTION PRACTICES.
- THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.
- CLARIFY ANY QUERIES WITH THE ENGINEER REGARDING THE INTERPRETATION OF THE DRAWINGS, PRIOR TO THE COMMENCEMENT OF ANY WORK.
- KALOS ENGINEERING INC. PROVIDES GENERAL CONFORMANCE REVIEW ONLY FOR THE WORK SHOWN ON THESE DRAWINGS. THIS REVIEW IS A PERIODIC REVIEW TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY KALOS ENGINEERING INC. THE CONTRACTOR SHALL COORDINATE FIELD REVIEWS WITH KALOS ENGINEERING INC. PRIOR TO CONCERNING THE STRUCTURAL COMPONENTS AS SHOWN ON THESE DRAWINGS. PROVIDE 48 HOURS ADVANCE NOTICE OF EACH REQUIRED FIELD REVIEW. REVIEW BY KALOS ENGINEERING INC. DOES NOT MAKE US GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
- THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISIONS COLUMN FROM THESE DRAWINGS. THE CONTRACTOR SHALL NOT BE USED FOR TENNER UNLESS SO INDICATED IN THE REVISION COLUMN.
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PRECISE LOCATIONS AND ASSEMBLY TYPES OF REQUIRED FIRE RESISTANCE RATINGS. ALL ENGINEERED PRODUCTS SHALL ACCOUNT FOR APPLICABLE LOAD-RESTRICTED ASSEMBLIES.
- DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS OR ELEMENTS WITHOUT WRITTEN CONSENT OF KALOS ENGINEERING INC.

SUBMITTALS

- SUBMIT DETAILED SHOP DRAWINGS FOR ALL STRUCTURAL WORK FOR REVIEW BY THE CONSULTANT INCLUDING, BUT NOT LIMITED TO: GROUND IMPROVEMENT HELICAL PILES, CONCRETE FORMWORK, CONCRETE MIX DESIGN, REINFORCING STEEL, STRUCTURAL STEEL, MISCELLANEOUS METALS, OPEN WEB STEEL JOISTS, STEEL DECK, PRECAST CONCRETE, POKED DELTA BEAMS, COLD-FORMED STEEL, ENGINEERED LUMBER, WOOD TRUSSES, AND TEMPORARY SHORING.
- ALL SUBMITTALS SHALL BEAR THE SEAL AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- THE SCALE OF THE DRAWINGS SHALL BE SUCH THAT THE DETAILS OF THE STRUCTURAL WORK ARE CLEARLY SHOWN, AND IN NO CASE SMALLER THAN 1/4"=1'-0" (1:50).
- THE STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, FOR USE AS SHOP DRAWINGS.
- THE CONTRACTOR SHALL ALLOW FOR A 5 WORKING DAY TURN AROUND TIME FOR THE STRUCTURAL CONSULTANT TO REVIEW THE SHOP DRAWINGS.
- SUBMIT CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO FOR STRUCTURAL WORK IF REQUESTED BY THE CONSULTANT.

CONCRETE NOTES

- ALL STRUCTURAL CONCRETE ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN/CSA A23.3. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD CAN/CSA A23.1.
- MINIMUM CONCRETE STRENGTH AT 28 DAYS SHALL BE:
 - FOOTINGS – 25 MPa TYPE N
 - FOUNDATION WALLS/PIERS – 25 MPa TYPE N
 - INTERIOR SLAB-ON-GRADE – 25 MPa TYPE N
 - CONCRETE TOPPING – 25 MPa TYPE N
 - MAXIMUM AGGREGATE SIZE – 9/16" (14mm)
 - RETAINING WALLS – 35 MPa TYPE N
 - EXTERIOR SLAB ON GRADE – 32 MPa TYPE C2
 - LEAN MIX – 10 MPa TYPE NSUMP SHALL BE 3" ± 1" (75mm ± 25mm) UNLESS OTHERWISE NOTED. SLOPE SHALL BE 3/4" (19mm) MAXIMUM U.N.O. CONTRACTOR TO SUBMIT CONCRETE MIX DESIGN FOR REVIEW.
- THE DEFORMED REINFORCING STEEL SHALL CONFORM TO CSA STANDARD C30.18 GRADE 300R FOR STIRRUPS AND TIES AND GRADE 400R FOR ALL OTHER REINFORCING. ALL REINFORCING HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH A23.1. THE REINFORCING LAP LENGTH SHALL BE "CLASS B" FOR SPLICES UNLESS NOTED OTHERWISE. TYPICAL SPLICE LENGTHS SHALL BE AS FOLLOWS:
 - 15M BARS: 18" (450 mm)
 - 15M BARS: 24" (600 mm)
 - 20M BARS: 30" (750 mm)
 - 25M BARS: 36" (900 mm)
- WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH CSA C30.18. ALL MESH SHALL BE CHAINED PRIOR TO POURING CONCRETE. LIFTING OF THE MESH DURING THE CONCRETE POUR WILL NOT BE PERMITTED. ALL SPLICES SHALL BE A MINIMUM OF TWO CROSSHIRE SPACINGS PLUS 2" (50mm).
- THE REINFORCING COVER FOR CONCRETE SHALL BE:
 - 3" (75mm) FOR CONCRETE AGAINST EARTH
 - 1/2" (40mm) FOR FORMED CONCRETE EXPOSED TO EARTH OR WEATHER WHERE THE REINFORCING BAR IS 15M OR SMALLER
 - 2" (50mm) FOR FORMED CONCRETE EXPOSED TO EARTH OR WEATHER WHERE THE REINFORCING BAR IS 20M OR LARGER
 - 1" (25mm) FOR INTERIOR CONCRETEALL CHAIRS, BOLSTERS, SPACERS AND BAR SUPPORTS SHALL BE IN ACCORDANCE WITH CSA A23.1.
- CONSTRUCT CONCRETE WALLS WITHOUT CONTROL JOISTS UNLESS NOTED OTHERWISE. PROVIDE CHASES AND BEAM POCKETS IN THE INTERIOR FACE OF CONCRETE WALLS AS REQUIRED.
- PROVIDE DOWELS FOR WALLS AND COLUMNS TO SUIT THE REINFORCING IN THE WALL OR COLUMN ABOVE.
- CONCRETE TOPPING DEPTH ON STEEL DECK SHALL BE A MINIMUM OF 3/2" (44mm) FROM TOP OF DECK AND REINFORCED WITH 6-6x 6/8 (152x152 mm) 17/18.7 WELDED WIRE FABRIC. CONFORM WELDED WIRE FABRIC SIZE WITH REQUIRED ULC FIRE RATING ASSEMBLY AS SPECIFIED BY THE ARCHITECT.
- A STEEL TROWEL FINISH SHALL BE PROVIDED FOR ALL INTERIOR SLABS UNLESS NOTED OTHERWISE. A BROOM FINISH SHALL BE PROVIDED FOR ALL EXTERIOR SLABS UNLESS NOTED OTHERWISE.
- CONCRETE SKEELEDING SHALL BE PROVIDED FOR ALL FOOTING, PIER, WALL, COLUMN, AND SLAB POURS.
- CONCRETE SHALL BE PROTECTED AGAINST ADVERSE WEATHER CONDITIONS INCLUDING, BUT NOT LIMITED TO, HIGH WINDS, PRECIPITATION, FREEZING, ABNORMALLY HIGH TEMPERATURES OR TEMPERATURE DIFFERENTIALS, PREMATURE DRYING, AND MOISTURE LOSS IN ACCORDANCE WITH THE REQUIREMENTS OF CAN/CSA A23.1.
- WHEN THE AIR TEMPERATURE IS AT OR ABOVE 27 °C, OR WHEN THERE IS A PROBABILITY OF THE TEMPERATURE RISING TO 27 °C DURING THE PLACING PERIOD, FACILITIES SHALL BE PROVIDED FOR PROTECTION OF THE CONCRETE IN PLACE FROM THE EFFECTS OF HOT AND/OR DRYING WEATHER CONDITIONS FOR THE DURATION OF THE REQUIRED CURING PERIOD. THE REQUIRED CURING PERIOD SHALL BE DETERMINED IN ACCORDANCE WITH CSA A23.1.
- WHEN THE AIR TEMPERATURE IS AT OR BELOW 5 °C, OR WHEN THERE IS A PROBABILITY OF THE TEMPERATURE FALLING BELOW 5 °C WITHIN 24H OF PLACING, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE DURATION OF THE REQUIRED CURING PERIOD. THE REQUIRED CURING PERIOD SHALL BE DETERMINED IN ACCORDANCE WITH CSA A23.1. PROTECTION SHALL BE BY MEANS OF HEATED ENCLOSURES, COVEREDS, INSULATION, OR A SUITABLE COMBINATION OF THESE METHODS.

FOUNDATION NOTES

- FOOTINGS SHALL BEAR ON NATIVE UNDISTURBED SOIL, ENGINEERED FILL AND/OR SOIL STABILIZATION SYSTEM WITH A MINIMUM BEARING RESISTANCE OF:
 - 3130 psf (150 kPa) SLS
 - 4700 psf (225 kPa) ULS
 - BEDROCK – 8000 SLSTHE CONTRACTOR SHALL VERIFY THE BEARING CAPACITY WITH GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE. THE SLAB-ON-GRADE SHALL BEAR ON NATIVE BEDROCK.
- REFER TO GEOTECHNICAL REPORT PREPARED BY MTC CONSULTANTS INC. DATED SEPT. 2025 REPORT No.: 4716-300.
- THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATION OR STEP-DOWN FOOTINGS SHALL NOT EXCEED A RISE OF 7" IN A RUN OF 10. STEP HEIGHT SHALL NOT EXCEED 2'-0" (600mm).
- KEEP EXCAVATIONS DRY BEFORE CONCRETE IS PLACED. REMOVE ALL LOOSE MATERIAL, SOFT SOIL OR WATER PRIOR TO PLACING CONCRETE. PROVIDE A 3" (75mm) MUD MAT FOR ALL FOOTINGS BELOW THE WATER TABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND ASSOCIATED PERMITS AND APPLICATIONS.
- ALL FOOTINGS SHALL BE CENTERED ON THE WALL UNLESS OTHERWISE NOTED.
- THE FOOTING DESIGN IS BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. THE FOOTING DESIGN MAY BE ALTERED DURING CONSTRUCTION IF THE SITE CONDITIONS WARRANT, BUT ONLY WITH THE EXPRESS PERMISSION OF THE ENGINEER.
- THE GENERAL CONTRACTOR SHALL PROVIDE HEATING AND HOARDING AS REQUIRED PER CSA A23.1 AND/OR CSA S24.2 TO PROTECT ALL FOOTINGS, WALLS, AND SLABS AGAINST FROST ACTION DURING CONSTRUCTION. ALL EXTERIOR FOOTINGS SHALL BE FOUNDED BELOW THE FIRST LINE. MINIMUM 4'-0" (1200mm) BELOW GRADE. PROVIDE TEMPORARY HEATING AND HOARDING FOR ALL FOOTINGS FOUNDED ABOVE THE FIRST LINE DURING WINTER CONSTRUCTION.
- DO NOT BACKFILL AGAINST WALLS RETAINING EARTH UNTIL THE ELEMENTS PROVIDING LATERAL SUPPORT ARE COMPLETE. PLACE THE BACKFILL IN A MANNER WHERE THE ELEVATION DIFFERENCE ON EITHER SIDE OF THE WALL IS NO GREATER THAN 1'-6" (450mm). PROVIDE TEMPORARY SHORING AS REQUIRED.
- ALL FILL MATERIALS UNDER FLOOR SLABS ON GRADE SHALL BE MECHANICALLY COMPACTED IN LAYERS TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (SMDND) UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND SIZES OF ALL UNDERGROUND SERVICES AND ADVISE THE ENGINEER AND ARCHITECT OF ANY INTERFERENCES PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION OR EXCAVATION WORKS.
- FOUNDATION WALL HEIGHTS AND COURSING SHALL BE BASED ON THE UNDERSIDE OF FOOTING ELEVATION, THE FOOTING THICKNESS, AND THE GROUND FLOOR FINISHED FLOOR ELEVATION. THIS SHALL BE SUPERSEDED WHERE A TOP OF FOOTING ELEVATION IS SPECIFIED.
- TRENCH AND POUR FOOTINGS SHALL BE PROVIDED BY CAREFULLY TRENCHING THE SOIL AND PLACING CONCRETE DIRECTLY INTO THE EXCAVATED TRENCH. THE GENERAL CONTRACTOR SHALL ACCOUNT FOR ADDITIONAL CONCRETE THAT MAY BE REQUIRED DUE TO SLOUGHING OF THE TRENCH WALLS. THE TOP OF FOOTING ELEVATION FOR EXTERIOR WALLS SHALL BE 2'-8" (800mm) BELOW FINISHED FLOOR ELEVATION UNLESS NOTED OTHERWISE ON THE PLANS. THE TOP OF FOOTING ELEVATION FOR INTERIOR WALLS SHALL BE 2'-0" (600mm) BELOW FFL UNLESS NOTED OTHERWISE ON THE PLANS.

METAL DECK NOTES

- ALL WELDING OF DECK AND ASSOCIATED COMPONENTS SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR AND INSTALLER SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS OF THE CANADIAN WELDING BUREAU (CWB) IN CONFORMANCE WITH CAN/CSA W47.1.
- ALL DECK SHALL BE DESIGNED TO RESIST THE LOADS NOTED ON THE DRAWINGS IN ACCORDANCE WITH PART 4 OF THE LATEST ONTARIO BUILDING CODE. DECK AND FASTENING SHALL HAVE ADEQUATE CAPACITY TO SUPPORT THE DESIGN GRAVITY AND DAUPHRAIN LOADS AS NOTED ON THE DRAWINGS.
- DECK SHALL BE DESIGNED FOR AN UNFACTORED UPLIFT LOAD OF 16.9 psf DECK WITHIN 20.0 ft OF THE BUILDING EDGE SHALL BE DESIGNED FOR AN UNFACTORED UPLIFT LOAD OF 26.1 psf WITHIN 20' OF EDGE.
- DECK SHALL BE 1/2" (38mm) DEEP IN ACCORDANCE WITH CSA S136 AND SHALL BE FABRICATED FROM ASTM A653 S50 OR GRADE 30S GALVANIZED STEEL WITH A Z775 GALVANNEAL OR Z775 GALVANIZED ZINC COATING. THE MINIMUM NOMINAL STEEL CORE THICKNESS SHALL BE 0.76mm (22 ga).
- DECK SHALL BE FASTENED TO THE SUPPORTING STRUCTURE WITH 20mm ARC SPOT WELDS AT NOT LESS THAN 12" (300mm) O.C. (36/4) AT SUPPORTS AND NOT LESS THAN 6" (150mm) O.C. (36/7) WITHIN 10'-0" (3m) OF THE NEAREST BUILDING EDGE. SIDEPLATES SHALL BE CLINCHED AT 24" (600mm) O.C. ALL WELDS SHALL BE TOUCHED UP WITH PRIMER. MECHANICAL FASTENERS MAY ONLY BE USED WITH THE PERMISSION OF THE ENGINEER.
- THE STEEL DECK CONTRACTOR SHALL REINFORCE THE DECK FOR ROOF OPENINGS FROM 6" (150mm) TO 16" (400mm) WIDE AND FOR FLOOR OPENINGS FROM 6" (150mm) TO 12" (300mm) WIDE WITH LIGHT GAUGE METAL ANGLES (MIN. 16 GA).

OPEN WEB STEEL JOIST NOTES

- ALL OPEN WEB STEEL JOISTS SHALL BE DESIGNED AND ERCTED IN ACCORDANCE WITH CAN/CSA S16-14. JOISTS ARE TO BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER TO CARRY THE LOADS AT THE SPANS AND SPACINGS NOTED ON THE DRAWINGS AND IN ACCORDANCE WITH PART 4 OF THE ONTARIO BUILDING CODE. DETAILS AND DESIGNS INCLUDING BRIDGING REQUIREMENTS ARE TO CONFORM TO CAN/CSA S16.
- ALL WELDING OF JOISTS AND ASSOCIATED COMPONENTS SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR AND INSTALLER SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS OF THE CANADIAN WELDING BUREAU (CWB) IN CONFORMANCE WITH CAN/CSA W47.1.
- OWS SHALL BE DESIGNED FOR AN UNFACTORED UPLIFT LOAD OF 16.9 psf OWSI WITHIN 20 ft OF THE BUILDING EDGE SHALL BE DESIGNED FOR AN UNFACTORED UPLIFT LOAD OF 26.1 psf WITHIN 20' OF EDGE.
- PROVIDE THE JOISTS AT ALL COLUMN LOCATIONS.
- DEFLECTION FOR ROOF JOISTS SHALL BE LIMITED TO L/300 AND SHALL BE CALCULATED USING SPECIFIED LOADS UNLESS NOTED OTHERWISE.
- DEFLECTION FOR FLOOR JOISTS SHALL BE LIMITED TO L/360 AND SHALL BE CALCULATED USING SPECIFIED LOADS UNLESS NOTED OTHERWISE.
- PROVIDE 4" (100mm) DEEP JOIST SHOES U.N.O. FOR ALL JOISTS.
- JOIST SHOES SHALL BE DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 1.1 MPa (160 psi) ON MASONRY WALLS.
- NO DRILLING, CUTTING, OR WELDING OF JOISTS OR BRIDGING IS PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER AND THE JOIST DESIGNER.
- ALL JOISTS SHALL BE WELDED TO SUPPORTING MEMBERS AND BEARING PLATES.
- PROVIDE MINIMUM 7"x7/16" (175x175x13mm) BEARING PLATES C/W 20% 3/4" (16mm) DIAMETER 16" (400mm) LONG ANCHOR RODS WITH 2" (50mm) BENT HOOKS FOR ALL JOISTS BEARING ON MASONRY.

MASONRY NOTES

- ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD S304.1. ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA A307 AND ALL MASONRY CONNECTORS, REINFORCING, AND TYING SHALL BE IN ACCORDANCE WITH CSA A370. ALL MORTAR AND GROUT SHALL BE IN ACCORDANCE WITH CAN/CSA M17.1.
- ALL CONCRETE BLOCKS SHALL BE NORMAL WEIGHT TYPE H/15/A/M UNLESS NOTED OTHERWISE. MORTAR SHALL BE TYPE S FOR LOAD-BEARING MASONRY AND TYPE N FOR NON-LOAD-BEARING MASONRY.
- GROUT SHALL CONSIST OF ONE PART PORTLAND CEMENT AND THREE PARTS SAND (MAXIMUM AGGREGATE SIZE SHALL BE 3/4" (10mm) WITH WATER TO PROVIDE A MINIMUM 10 MPa COMPRESSIVE STRENGTH AT 28 DAYS. SLUMP SHALL BE 8" TO 10" (200mm to 250mm).
- GROUTING:
 - a. ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLID.
 - b. ALL MASONRY BELOW BEARING PLATES SHALL BE GROUTED SOLID FULL-HEIGHT.
 - c. ALL BELOW-GRADE MASONRY SHALL BE GROUTED SOLID.
 - d. BOND BEAMS SHALL BE GROUTED SOLID.
 - e. GROUT TWO COURSES SOLID AT EACH FLOOR LEVEL TO SUBCOMMONS LEDGER BOARDS.
- REINFORCING:
 - a. PROVIDE VERTICAL REINFORCING AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS:
 - 8" (190mm) concrete block – 15M VERTICAL AT 32" (800mm) O.C.
 - 10" (240mm) concrete block – 20M VERTICAL AT 24" (600mm) O.C.
 - b. TRIM ALL OPENINGS WITH TWO VERTICAL BARS ON EACH SIDE OF OPENING. BARS SHALL BE PLACED IN THE FIRST TWO CORES ON EACH SIDE OF THE OPENING AND THE BAR SIZE SHALL MATCH THE WALL REINFORCING UNLESS NOTED OTHERWISE.
 - c. PROVIDE FULL-HEIGHT VERTICAL SUPPORT ARE COMPLETE. PLACE THE BEARING PLATES. THE BAR SIZE SHALL MATCH THE WALL REINFORCING.
 - d. HORIZONTAL REINFORCING SHALL BE GALVANIZED HEAVY-DUTY LADDER TYPE IN EVERY SECOND COURSE UNLESS NOTED OTHERWISE ON THE DRAWINGS.
 - e. DO NOT EXTEND HORIZONTAL REINFORCING THROUGH CONTROL JOINTS UNLESS OTHERWISE NOTED.
- FOUNDATION WALL HEIGHTS AND COURSING SHALL BE BASED ON THE UNDERSIDE OF FOOTING ELEVATION, THE FOOTING THICKNESS, AND THE GROUND FLOOR FINISHED FLOOR ELEVATION. THIS SHALL BE SUPERSEDED WHERE A TOP OF FOOTING ELEVATION IS SPECIFIED.
- PROVIDE A 16" (400mm) HIGH BOND BEAM REINFORCED WITH 2-20M BARS IN LOAD-BEARING WALLS BENEATH PRECAST SLABS.
- PROVIDE STEEL LINTELS OVER ALL OPENINGS AND RECESSES INCLUDING OPENINGS FOR MECHANICAL AND ELECTRICAL COMPONENTS. REFER TO THE LINTEL SCHEDULE ON DRAWING SXX FOR DETAILS. ALL EXTERIOR LINTELS TO BE HOT DIP GALVANIZED.
- PROVIDE BEARING PLATES BENEATH ALL BEAMS, JOISTS, AND BEAM LINTELS AND GROUT THE PLATE INTO THE WALL. REFER TO THE BEARING PLATE SCHEDULE ON DRAWING SXX FOR DETAILS.
- BUILD THE MASONRY SOLID AROUND ALL BEAM, LINTEL, AND JOIST POCKETS. LOOSE INFILL BLOCKS IN ABOVE-CEILING SPACES ARE NOT PERMITTED.
- ALL MORTAR JOINTS SHALL BE TOOLED TO PROVIDE A CONCAVE PROFILE UNLESS NOTED OTHERWISE.
- MORTAR JOINTS SHALL BE 3/8" (10mm) THICK. STARTING BED JOINTS ON NON-MASONRY ELEMENTS SHALL BE FROM 1/4" (6mm) TO A MAXIMUM OF 3/4" (19mm) EXCEPT FOR MASONRY VENEER. BUT ON SHELF ANGLES OR LINTELS WHERE THE THICKNESS SHALL BE FROM 0mm TO 1/2" (13mm).
- VERTICAL CONTROL JOINTS SHALL BE PROVIDED AT A MAXIMUM SPACING OF 20'-0" (6m). REFER TO ARCHITECTURAL DRAWING FOR DETAILS AND LOCATIONS.
- THE MASONRY SHALL BE CONSTRUCTED EVENLY WITH MAXIMUM LIFTS OF 48" (1200mm) PER DAY. DO NOT TOOTH AND BOND OR STACK BOND MASONRY. RAKE BACK ENDS OF UNFINISHED WALLS.
- PROTECT TEMPORARY BRACING AS REQUIRED TO SUPPORT THE MASONRY WALLS DURING CONSTRUCTION.
- PROTECT MASONRY WALLS FROM THE ELEMENTS AT ALL TIMES IN ACCORDANCE WITH CSA A371. COLD WEATHER PROTECTION IS REQUIRED BELOW 4°C AND HOT WEATHER PROTECTION IS REQUIRED ABOVE 32°C. ALL BLOCK, BRICK, AND MORTAR AND GROUT COMPONENTS SHALL BE PROTECTED AGAINST PRECIPITATION.
- A WEATHERPROOF MEMBRANE SHALL BE PROVIDED OVER OPEN BLOCK CORES TO PREVENT THE INGRESS OF WATER AND SNOW INTO THE CORES. THE MEMBRANE SHALL EXTEND 24" (600mm) DOWN BOTH SIDES OF THE MASONRY.
- MASONRY PARTITIONS OF HOLLOW UNITS SHALL BE Laterally SUPPORTED TO STRUCTURAL ELEMENTS AT INTERVALS NOT TO EXCEED 7'-0" (2100mm) c/c MAXIMUM.
- ADJUSTABLE VENEER TIES, WHEN USED, SHALL BE CAPABLE OF DEVELOPING COMPRESSIVE AND TENSILE RESTRAINT BETWEEN WYTHES.
- MASONRY VENEER TIES SHALL BE SPACED NOT MORE THAN 2'-8" (800mm) HORIZONTALLY AND 2'-0" (600mm) VERTICALLY IN ACCORDANCE WITH CSA S304.1.

STRUCTURAL STEEL NOTES

- ALL STRUCTURAL STEEL ELEMENTS, INCLUDING DESIGN OF ELEMENTS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH CAN/CSA S16.
- ALL STRUCTURAL STEEL SHALL CONFORM TO CSA G40.21 (300W) EXCEPT W SECTIONS AND PLATES G40.21 (350W), HSS MEMBERS G40.21 (350W) CLASS C, OR ASTM A500 GRADE C, AND BOLTS ASTM F1554 (GR 85 OR GR 95), COLD FORM SECTIONS ASTM A570M GRADE 350M.
- ALL SECTIONS SHALL BE PRIME PAINTED WITH THE SURFACE PREPARATION AND PAINTING PROCEDURES IN ACCORDANCE WITH CAN/CSA S16.10 UNLESS NOTED OTHERWISE. ALL STEEL EXPOSED TO THE EXTERIOR TO BE HOT DIP GALVANIZED. SECTIONS TO RECEIVE SPRAY FIREPROOFING SHALL BE LEFT UNPRIMED. COORDINATE WITH THE ARCHITECTURAL DRAWINGS.
- ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS BY THE CANADIAN WELDING BUREAU IN CONFORMANCE WITH CAN/CSA W47.1.
- DESIGN ALL MOMENT AND SHEAR CONNECTIONS FOR THE FULL CAPACITY OF THE SMALLER MEMBER IN THE CONNECTION UNLESS OTHERWISE NOTED. MOMENT CONNECTIONS SHALL BE PROVIDED FOR MAJOR AND MINOR AXIS BENDING WHERE NOTED. THE STEEL CONTRACTOR SHALL PROVIDE LOCAL REINFORCING OF MEMBERS AS REQUIRED FOR CONNECTION FORCES AS PART OF THE CONNECTION DESIGN.
- PROVIDE MINIMUM BEARING LENGTH OF STEEL MEMBERS AS FOLLOWS:
 - ON MASONRY – 6" (150mm)
 - ON STEEL – 4" (100mm)
 - ON BEARING PLATES – FULL LENGTH OF BEARING PLATE
- THE BASE PLATE AND BEARING PLATE GROUT SHALL BE OF THE CEMENTITIOUS NON-SHRINK TYPE AND SHALL BE A MINIMUM OF 1" (25mm) THICK WITH A COMPRESSION STRENGTH OF 50 MPa AT 28 DAYS.
- FULLY WELD BASE PLATES TO COLUMNS AND PROVIDE MINIMUM 1/4" (6mm) THICK CAP PLATES ON ALL COLUMNS.
- PROVIDE MINIMUM 7"x7/16" (175x175x12mm) BEARING PLATES FOR ALL STRUCTURAL STEEL c/w 2-5/8" (16mm) ANCHORS, 16" (400mm) LONG WITH 2" (50mm) BENT HOOKS UNLESS NOTED OTHERWISE.
- ALL BOLTS SHALL BE TIGHTENED WITH A SUITABLE TORQUE WRENCH IN ACCORDANCE WITH CSA S16.
- ERECT STRUCTURAL STEEL IN ACCORDANCE WITH CSA S16 AND IN CONFORMANCE WITH THE REVERSED DRAWINGS.
- THE STRUCTURAL STEEL CONTRACTOR SHALL SUPPLY ALL LINTELS OVER DOORS, WINDOWS, DUCT AND PIPE PENETRATIONS, AND ALL BEARING PLATES, ANCHOR BOLTS, WALL ANCHORS, SKL ANGLES, TRIMMER ANGLES, AND MASONRY CLIPS ON COLUMNS LOCATED WITHIN MASONRY WALLS.
- THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY SHORING OF ALL FLUSH BEAMS. SHORING SHALL REMAIN IN PLACE UNTIL FLUSH BEAM GROUT HAS FULLY CURED.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND COORDINATING THE STRUCTURAL STEEL SUBMITTALS WITH WORK IN OTHER SPECIFICATION SECTIONS INCLUDING, BUT NOT LIMITED TO, CONCRETE, MASONRY, PRECAST, DELTA BEAMS, METAL DECK, METAL STUDS, COLUMNS, CLT, WOOD FRAMING, AND OWSI.

PRECAST CONCRETE SLAB NOTES

- ALL PRECAST CONCRETE SHALL BE DESIGNED IN ACCORDANCE WITH CSA A23.3 AND SHALL BE CONSTRUCTED AND INSTALLED PER CSA A23.1 AND CSA A23.4. ALL PRECAST CONCRETE SHALL BE DESIGNED BY AN ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ONTARIO.
- PRECAST SLAB LIVE LOAD DEFLECTION SHALL NOT EXCEED L/360 FOR FLOORS AND L/300 FOR ROOFS.
- A RAKED FINISH SHALL BE PROVIDED ON ALL SLABS WHERE A TOPPING IS TO BE PROVIDED. A SMOOTH FINISH SHALL BE PROVIDED ON ALL ROOF SLABS.
- DIFFERENTIAL CAMBER SHALL BE LIMITED SUCH THAT THE APPLICATION OF THE SPECIFIED FLOOR OR ROOF FINISHES IS NOT NEGATIVELY AFFECTED. A CEMENTITIOUS SKIN COAT SHALL BE PROVIDED WHERE REQUIRED TO REDUCE EXCESSIVE DIFFERENTIAL CAMBER.
- A LATER MODIFIED BONDING AGENT SHALL BE PROVIDED ON ALL SLABS PRIOR TO THE APPLICATION OF A TOPPING. REFER TO SPECIFICATION SECTION 03.41 FOR FURTHER DETAILS.
- NOTCHES IN SLABS AT COLUMNS SHALL BE INFILLED WITH 25 MPa CONCRETE AND 15M BARS DRILLED AND EPOXYED INTO ADJACENT SLABS.
- CORE INSULATION SHALL BE PROVIDED BY THE PRECAST MANUFACTURER AT LOCATIONS WHERE CORES ARE TO BE GROUTED SOLID.
- WRITTEN CONFIRMATION SHALL BE PROVIDED FROM THE PRECAST MANUFACTURER PRIOR TO THE USE OF LIFTS OR HEAVY EQUIPMENT ON PRECAST SLABS.
- CONSTRUCTION LOADS ON PRECAST SLABS, INCLUDING TEMPORARY STORAGE LOADS, SHALL NOT EXCEED 20 PSF (1 kPa).
- COORDINATE SITE DRILLED HOLES THROUGH SLABS WITH CONSULTANT DRAWINGS AND CUT OR DRILL HOLES THROUGH SLABS TO ENSURE THAT NO DAMAGE IS CAUSED TO THE SLABS OR REINFORCEMENT.
- ALL FLUSH BEAMS SHALL BE SHORED PRIOR TO AND DURING PRECAST SLAB PLACEMENT. SHORING SHALL REMAIN IN PLACE UNTIL FLUSH BEAMS ARE FULLY GROUTED AND GROUT HAS CURED.
- FOR SLOPED SLABS PROVIDE 1/2" (12mm) NEOPRENE BEARING PADS AT ALL BEARING LOCATIONS. FOR FLAT SLABS PROVIDE 1/8" (3mm) MASONRY BEARING PADS AT ALL BEARING LOCATIONS.
- DESIGN SLABS FOR AN UNFACTORED LINE LOAD OF 10 kN/m AT BLOCK PARTITION WALLS AND PROVIDE SOLID SLABS AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS.
- SOLID SLABS SHALL BE PROVIDED AS REQUIRED AT THE DISCRETION OF THE PRECASTER TO SUPPORT MECHANICAL UNITS, CANTILEVERS, SIDE CANTILEVERS, DAMPHRAIN LOADS, POINT LOADS, LINE LOADS, AND ANY OTHER LOADS NOTED ON THE STRUCTURAL DRAWINGS.

TESTING AND INSPECTIONS

- THIRD-PARTY TESTING AND INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS AND AS NOTED BELOW. TESTING AND INSPECTION REQUIREMENTS NOTED IN THE PROJECT SPECIFICATIONS SHALL SUPERSEDE THE FOLLOWING REQUIREMENTS.
- TESTING OF THE FOOTING SUBGRADE SHALL BE PROVIDED PRIOR TO ALL CONCRETE POURS TO ENSURE CONFORMANCE WITH THE BEARING CAPACITIES NOTED IN THESE PLANS AND IN THE GEOTECHNICAL REPORT. KALOS ENGINEERING INC. SHALL BE NOTIFIED IMMEDIATELY IF EXCAVATIONS ARE REQUIRED TO EXTEND BELOW THE NOTED FOUNDING ELEVATIONS.
- CONCRETE REINFORCING SHALL BE INSPECTED FOR CONFORMANCE TO THE STRUCTURAL DRAWINGS PRIOR TO EVERY CONCRETE POUR.
- COMPRESSION TESTING OF CONCRETE SHALL BE IN ACCORDANCE WITH CSA A23.1. A MINIMUM OF ONE STRENGTH TEST SHALL BE COMPLETED FOR EACH 3531 ft³ (100 m³) OF CONCRETE PLACED AND A MINIMUM OF ONE TEST PER DAY SHALL BE COMPLETED FOR CONCRETE OF A SINGLE MIX DESIGN. TESTS SHALL CONSIST OF ONE SET OF FOUR CYLINDERS.
- THE COMPRESSIVE STRENGTH OF CONCRETE BLOCKS SHALL BE TESTED A MINIMUM OF ONCE PER FLOOR IN ACCORDANCE WITH CSA A165.1. A MINIMUM OF FIVE UNITS OF EACH SIZE OF CONCRETE BLOCK SHALL BE TESTED.
- MORTAR CUBE COMPRESSIVE STRENGTH SHALL BE TESTED AT LEAST ONCE FOR EACH 500 m³ OF MASONRY AND ONCE FOR EACH 250 m³ OF MASONRY FOR A PROJECT HAVING LESS THAN 500 m³ OF MASONRY. FOUR SAMPLES SHALL BE TAKEN FOR EACH TEST.
- GROUT COMPRESSIVE STRENGTH SHALL BE TESTED AT LEAST ONCE FOR EACH 700 ft³ (20 m³) OF GROUT FOR A PROJECT HAVING MORE THAN 700 ft³ (20 m³) OF GROUT AND ONCE FOR EACH 350 ft³ (10 m³) OF GROUT FOR A PROJECT HAVING LESS THAN 700 ft³ (20 m³) OF GROUT. FOUR SAMPLES SHALL BE TAKEN FOR EACH TEST.
- STRUCTURAL STEEL INSPECTIONS AND TESTING SHALL BE AS FOLLOWS:
 - a. INSPECTIONS SHALL BE PERFORMED BY A FIRM CERTIFIED TO CSA W178.1, EXCEPT THAT VISUAL INSPECTION MAY ALSO BE PERFORMED BY PERSONS CERTIFIED TO LEVEL 2 OR 3 OF CSA W178.2.
 - b. INSPECTORS SHALL VERIFY THAT THE ERECTORS ARE CWB CERTIFIED.
 - c. CONNECTIONS SHALL BE INSPECTED FOR CONFORMANCE TO THE ENGINEERED DESIGN DETAILS.
 - d. BOLTED CONNECTIONS SHALL BE INSPECTED IN ACCORDANCE WITH CSA S16. VERIFICATION OF CONNECTION FIT-UP AND BOLT TENSION SHALL BE PROVIDED.
 - e. WELDED CONNECTIONS SHALL BE INSPECTED IN ACCORDANCE WITH CSA S16 AND CSA W59. VISUAL INSPECTIONS SHALL BE PROVIDED TO ENSURE PROPER CONNECTION FIT-UP AND REVIEW OF COMPLETED WELDS.
- INSPECTION FREQUENCY SHALL BE A MINIMUM OF ONCE PER FLOOR OR ONCE PER ERECTION PHASE.
- METAL DECK THICKNESS, COATING GRADE, SPOT WELDS, MECHANICAL FASTENERS, AND CRIMPING SHALL BE INSPECTED BY A CERTIFIED INSPECTOR AT LEAST ONCE PER LEVEL.

COLD-FORMED STEEL FRAMING NOTES

- THESE NOTES APPLY TO THE STEEL STUD FRAMING COMPONENT OF THE EXTERIOR WALL SYSTEM ONLY. ENGINEERED SHOP DRAWINGS SHALL BE PROVIDED.
- THE MINIMUM UNFACTORED DESIGN WIND LOADING IS 25PSF (1.2 kPa) DETERMINED BY O.B.C. REQUIREMENTS AND CAN-S136. DEFLECTION IS LIMITED TO L/360 (L/720 FOR BRICK VENEER).
- THE DESIGN OF THE FRAMING SYSTEM IS BASED ON PUBLISHED STUD SECTION PROPERTIES BY BALLY METAL PRODUCTS LIMITED.
- THE MINIMUM BASE METAL THICKNESS FOR ALL METAL WALL COMPONENTS, EXCLUDING COATINGS, ARE NOTED ON THE DRAWINGS.
- STEEL MEETS THE REQUIREMENTS OF A.S.T.M. A653/A653M SS GRADE 33 (230) FOR 1.22mm (18 GA) MATERIAL AND THINNER, AND S3 GRADE 50 (340) CLASS 1 FOR 1.52mm (16 GA) MATERIAL AND THICKER.
- GALVANIZING TO BE HOT-DIP PROCESS, G90 (Z275).
- MECHANISM OF CONSTRUCTION SHALL BE BY STICK BUILDING ON SITE OR PANELIZED PRE-LOADED WALL PANELS.
- CONNECTIONS SHALL BE ACCOMPLISHED BY SELF DRILLING SCREWS AND OTHER FASTENERS AS SHOWN ON THESE DRAWINGS. PENETRATION BEYOND JOINED MATERIALS SHALL BE NOT LESS THAN THREE EXPOSED THICKNESSES. ALL CONNECTIONS USED IN ASSEMBLIES SHALL BE OF CORROSION RESISTANT MATERIAL COMPATIBLE WITH GALVANIZED COATINGS WITH A MINIMUM COATING THICKNESS OF 0.039mm ZINC OF CADMIUM PLATES. NO BLACK CONNECTORS WILL BE ACCEPTED. SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
- SCREWS COVERED BY SHEATHING MATERIALS SHALL HAVE LOW PROFILE HEADS.
- WIRE TIES IS NOT PERMITTED IN STRUCTURAL APPLICATIONS.
- CUTTING OF STEEL FRAMING MEMBERS SHALL BE BY SAW OR SHEAR. NO TORCH OR MANUAL CUTTING IS PERMITTED.
- SPLICING OF STUDS OR TRACK IS NOT PERMITTED EXCEPT AS NOTED ON DRAWINGS.
- BRIDGING SHALL BE OF SIZE, SPACING AND TYPE SHOWN ON THE DRAWINGS AND SHALL BE INSTALLED SO AS TO PROVIDE RESISTANCE TO MINOR AXIS BENDING AND ROTATION OF STUDS. PROVIDE BRIDGING AT 48" (1200mm) c/c MAXIMUM.
- TEMPORARY BRACING SHALL BE PROVIDED AND LEFT IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.
- STUDS SHALL SEAT INTO TOP AND BOTTOM TRACKS WITH THE GAP BETWEEN THE END OF THE STUD AND WEB OF THE TRACK NOT TO EXCEED 1/8" (3mm).
- VERTICAL ALIGNMENT (PLUMLINESS) OF STUDS SHALL BE WITHIN 1/1000 OF THE SPAN.
- HORIZONTAL ALIGNMENT (LEVELNESS) OF WALLS SHALL BE WITHIN 1/1000 OF THEIR RESPECTIVE LENGTHS.
- SPACING OF STUDS SHALL BE WITHIN 1/8" (3mm) FROM DESIGN SPACING PROVIDED THAT CUMULATIVE ERROR DOES NOT EXCEED THE REQUIREMENTS OF THE FINISHING MATERIALS.

DESIGN LOADS

ROOF LOADS:

DEAD:		
– ROOFING (2 PLY MODIFIED BITUMEN)	3.0 psf	
– 38 STEEL DECK	2.1 psf	
– STRUCTURAL STEEL FRAMING	4.0 psf	
– MAE	3.0 psf	
– SOLAR PANELS	10.0 psf	

TOTAL	29.1 psf	
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SNOW LOAD: 33.42 PSF + SFU

2ND PRECAST FLOOR LOADS:

DEAD:		
– FLOORING	2.0 psf	
– 50 CONCRETE TOPPING	25.0 psf	
– 250 HOLLOW CORE SLAB	74.0 psf	
– STRUCTURAL STEEL FRAMING	4.0 psf	
– MISC. MECH. & ELECTRICAL	3.0 psf	
– CEILING	2.5 psf	
– SPRINKLER	4.0 psf	
– PARTITION	20.0 psf	

TOTAL	134.5 psf	
	ROUNDED 135.0 psf	

LOADING SUMMARY

DESIGN STANDARDS

- ONTARIO BUILDING CODE, 2012, PART 4: STRUCTURAL DESIGN
- CAN/CSA-A23.3-14, DESIGN OF CONCRETE STRUCTURES
- CAN/CSA-A23.4-16, DESIGN OF PRECAST CONCRETE STRUCTURES
- INSULATION & PROTECTION BOARD
- CAN/CSA-S304.1-14, MASONRY DESIGN FOR BUILDINGS
- CAN/CSA-S16-14, LIMIT STATES DESIGN OF STEEL STRUCTURES
- CAN/CSA-S136-16, DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS
- CAN/CSA-086-14, ENGINEERING DESIGN IN WOOD

SNOW, ICE AND RAIN LOADS

APPLIED PER OBC, PART 4, SECTION 4.1.6	1.0 (SLS) 1.0 (ULS)
– IMPORTANCE FACTOR, I _s	1.5 kPa (31.3 PSF)
– GROUND SNOW LOAD, S _g	0.4 kPa (8.35 PSF)
– ASSOCIATED RAIN LOAD, S _r	1.0
– WIND EXPOSURE FACTOR, C _w	1.60 kPa (33.42 PSF)
– ROOF SNOW LOAD, S _s	
– DRIFT LOADS PER CLAUSE 4.1.6.2.8	
– SLOPE FACTORS PER CLAUSE 4.1.6.2.5 (5) TO (7)	

WIND LOADS

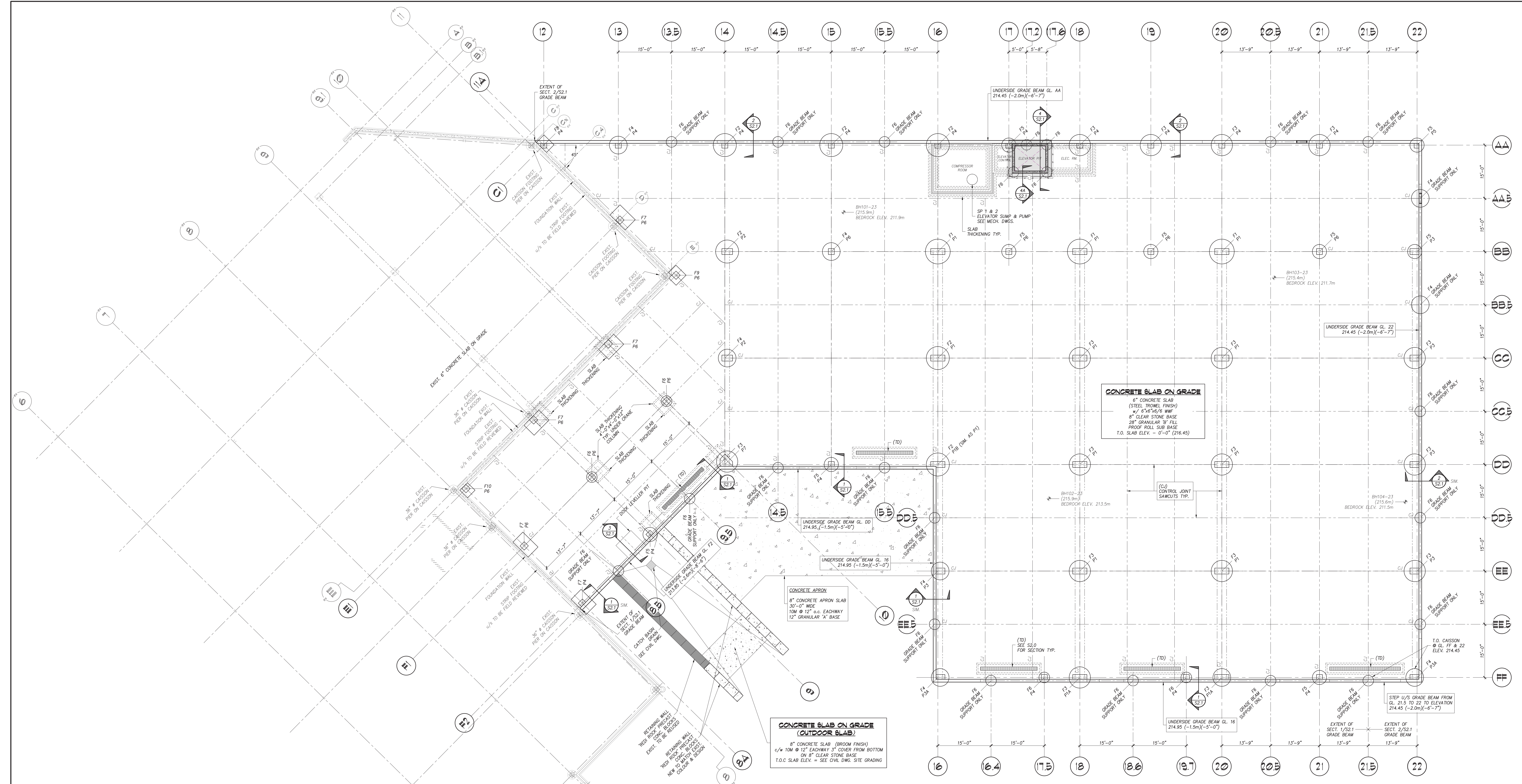
APPLIED PER OBC, PART 4, SECTION 4.1.7	1.0 (SLS) 1.0 (ULS)
– IMPORTANCE FACTOR, I _w	
– REFERENCE VELOCITY PRESSURE FOR STRUCTURAL MEMBERS	
– REFERENCE VELOCITY PRESSURE FOR CLADDING & NON-STRUCTURAL MEMBERS	
– GUST FACTORS C _g	
2.0 FOR WHOLE & MAIN STRUCTURAL MEMBERS	
2.0 FOR SMALL ELEMENTS INCLUDING CLADDING	
2.0 FOR INTERNAL PRESSURES	
– BUILDING INTERNAL PRESSURE CATEGORY 2, PER NBC 2010 STRUCTURAL COMMENTARY (PART 6), COMMENTARY 6	

SEISMIC LOADS

APPLIED PER OBC, PART 4, SECTION 4.1.8	1.0 (ULS)
– IMPORTANCE FACTOR, I _e	
S _e (0.2) 0.26	
S _e (0.5) 0.128	
S _e (1.0) 0.061	
PGA 0.022g	
PGA 0.168	
SOL CLASS: 1.3	

FLOOR LOADS

APPLIED PER OBC, PART 4, TABLE 4.1.5.3	
– GROUND FLOOR	4.8 kPa (100 PSF)
– SECOND FLOOR	4.8 kPa (100 PSF)
– STAIRS	4.8 kPa (100 PSF)
– MEZZANINES	4.8 kPa (100 PSF



FOUNDATION NOTES:

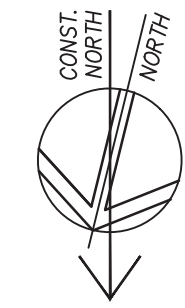
- TOP OF CONCRETE SLAB ON GRADE ELEVATION = 0'-0" (216.45m) UNLESS NOTED OTHERWISE ON FOUNDATION PLAN.
- REFER TO S2.0 FOR TYPICAL FOUNDATION DETAILS, S.O. FOR CONCRETE AND MASONRY NOTES.
- COORDINATE PIER, ANCHOR BOLT LAYOUT WITH COLUMN BASE PLATES.
- ELEVATIONS SHOWN ARE APPROXIMATE ONLY. REFER TO ARCHITECTURAL FLOOR PLAN FOR DRAIN LOCATIONS AND SLOPE TO DRAIN.
- CO-ORDINATE BEARING CAPACITY AT EXISTING UNDERSIDE OF FOOTING LEVEL. PROVIDE UNDERPINNING IF REQUIRED. UNDERPIN EXISTING FOOTING IF BEARING CAPACITY IS NOT REACHED AT SAME ELEVATION AS EXISTING.
- TOP OF FOOTING TO REMAIN CONTINUOUS. DROP U/S OF FOOTING TO SUIT.

EXCAVATION NOTES:

- REMOVE ALL TOPSOIL FROM THE CONSTRUCTION AREA INCLUDING BUILDING ADDITION FOOTPRINT, ALL DRIVEWAYS AND PARKING AREAS (ALLOW 450MM THICKNESS).
- REMOVE ALL SOFT SANDY/SILT LAYER BELOW AND REPLACE LEVEL. ALLOW FOR 300MM THICKNESS REMOVAL AND REPLACEMENT TO BE IN ACCORDANCE WITH GEOTECHNICAL ON-SITE REPRESENTATIVE.
- REMOVE ALL SOIL AND FILL TO A DEPTH OF 3'-0" BELOW FINISHED FLOOR. PROOF ROLL EXCAVATED AREA UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER AND REPLACE ANY SOFT SPOTS WITH GRANULAR B TYPE 1. UNFILL TO UNDERSIDE OF CLEAR STONE LAYER WITH GRANULAR B TYPE 1, COMPACTED TO 98% SPD.
- UNFILL BALANCE OF BUILDING FOOTPRINT WITH GRANULAR B, TYPE 1, COMPACTED TO 98% SPD.
- UNFILL BALANCE OF ROADS UNDER PARKING OR DRIVEWAYS WITH GRANULAR B TYPE 1, COMPACTED TO 98% SPD.
- ASSUME FOUNDING LEVEL OF BEDROCK TO BE 200.5M. QUANTITIES WILL BE ADJUSTED BASED ON UNIT PRICES.

EXISTING DRAWING INFORMATION REFERENCE

EXISTING STRUCTURAL STEEL INFORMATION TAKEN FROM DRAWING BY:
• WATERSEDGE ENGINEERING LTD, 1995, ARCH. PROJECT No. 9444



FOUNDATION PLAN
SCALE 3/32"=1'-0"

FOOTING SCHEDULE

TYPE	SIZE	REINFORCING	TOP FOOTING ELEVATION	NOTES
F1	84" x (7'-0")	22-20M VERT. 15M @ 12" o.c. TIES	-36" (-3'-0")	PIER ON CAISSON
F2	78" x (6'-6")	18-20M VERT. 15M @ 12" o.c. TIES	-60" (-5'-0")	GRADE BEAM & PIER ON CAISSON
F3	72" x (6'-0")	18-20M VERT. 15M @ 12" o.c. TIES	-36" OR -60" (-3'-0" OR -5'-0")	GRADE BEAM / PIER ON CAISSON
F4	60" x (5'-0")	16-20M VERT. 15M @ 12" o.c. TIES	-36" OR -60" (-3'-0" OR -5'-0")	GRADE BEAM / PIER ON CAISSON
F5	48" x (4'-0")	12-20M VERT. 15M @ 12" o.c. TIES	-36" OR -60" (-3'-0" OR -5'-0")	GRADE BEAM / PIER ON CAISSON
F6	36" x (3'-0")	10-20M VERT. 15M @ 12" o.c. TIES	-36" OR -60" (-3'-0" OR -5'-0")	GRADE BEAM / PIER ON CAISSON
F7	72"x48"x16"	6-20M LONG 8-20M SHORT		WRAP OVER EXISTING FOOTING
F8	48"x36"x16"	5-20M LONG 6-20M SHORT		WRAP OVER EXISTING FOOTING
F9	48"x48"x16"	6-20M EACHWAY		WRAP OVER EXISTING FOOTING
F10	36"x36"x16"	5-20M EACHWAY		WRAP OVER EXISTING FOOTING

FOOTING NOTES:
1. 2-15M TOP TIES FOR CAISSON REINFORCEMENT

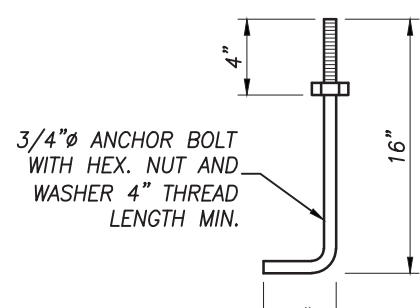
PIER SCHEDULE

TYPE	SIZE	REINFORCING	TOP OF PIER ELEVATION	NOTES
P1	20"x48" (1'-8"x4'-0")	8-25M VERTICAL	-8"	3-10M @ 12" TIES 2-10M TIES @ TOP
P1A	20"x48" (1'-8"x4'-0")	8-25M VERTICAL	-8"	3-10M @ 12" TIES 2-10M TIES @ TOP
P1B	20"x48" (1'-8"x4'-0")	8-25M VERTICAL	-8"	3-10M @ 12" TIES 2-10M TIES @ TOP
P2	20"x36" (1'-8"x3'-0")	6-25M VERTICAL	-8"	2-10M @ 12" TIES 2-10M TIES @ TOP
P3	20"x30" (1'-8"x2'-6")	6-25M VERTICAL	-8"	2-10M @ 12" TIES 2-10M TIES @ TOP
P3A	30"x16" (2'-6"x1'-4")	6-25M VERTICAL	-8"	2-10M @ 12" TIES 2-10M TIES @ TOP
P4	20"x16" (1'-8"x1'-4")	4-25M VERTICAL	-8"	1-10M @ 12" TIES 2-10M TIES @ TOP
P5	16"x16" (1'-4"x1'-4")	4-25M VERTICAL	-8"	1-10M @ 12" TIES 2-10M TIES @ TOP
P6	20"x20" (1'-8"x1'-8")	4-25M VERTICAL	-8"	1-10M @ 12" TIES 2-10M TIES @ TOP
P7	SEE PLAN DETAIL ON S2.2	10-25M VERTICAL	-8"	3-10M @ 12" TIES 2-10M TIES @ TOP 1-10M TIES ALL AROUND

LEGEND	
(C.J.)	SAW CUT CONTROL JOINT
—	FOOTING EXTENTS
↑	STEP DOWN FOOTING
—	WEAVING TILE
—	SLAB-ON-GRADE THICKENING UNDER CONC. BLOCK PARTITION WALL
(B)	8" x STEEL PIPE CONC. FILLED BOLLARD
(TD)	PREFABRICATED TRENCH DRAIN
*	BORERHOLE LOCATION

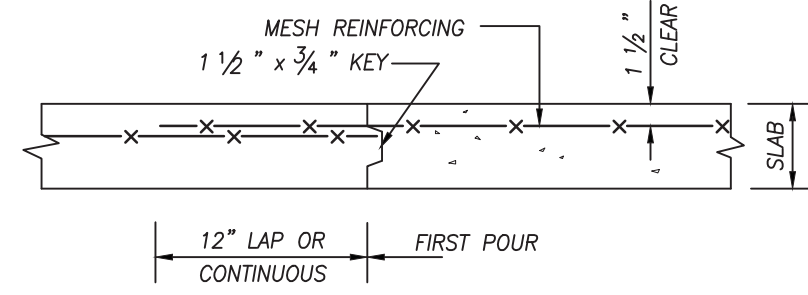
2	26/09/22	ISSUED FOR TENDER
1	26/08/20	ISSUED FOR PERMIT/TENDER
No.	DATE	REVISION
REVISIONS		
300 YORK BLVD. HAMILTON, ONTARIO L8R 3K6 905-333-9119		
LIBURDI AUTOMATION INC.		
PROPOSED MANUFACTURING ADDITION		
45 INNOVATION DRIVE		
DUNDAS ONTARIO		
FOUNDATION PLAN		
DATE APRIL, 2026	DRAWN BY AL	DRAWING No. S1.0
PROJECT No. 18188	CHECKED BY HAPH	

PLOT DATE: 2026/09/22 5:11 PM



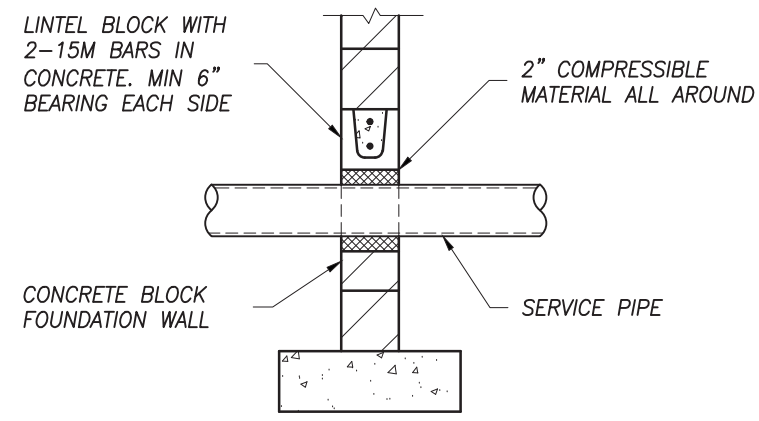
TYPICAL ANCHOR BOLT DETAIL

NOT TO SCALE



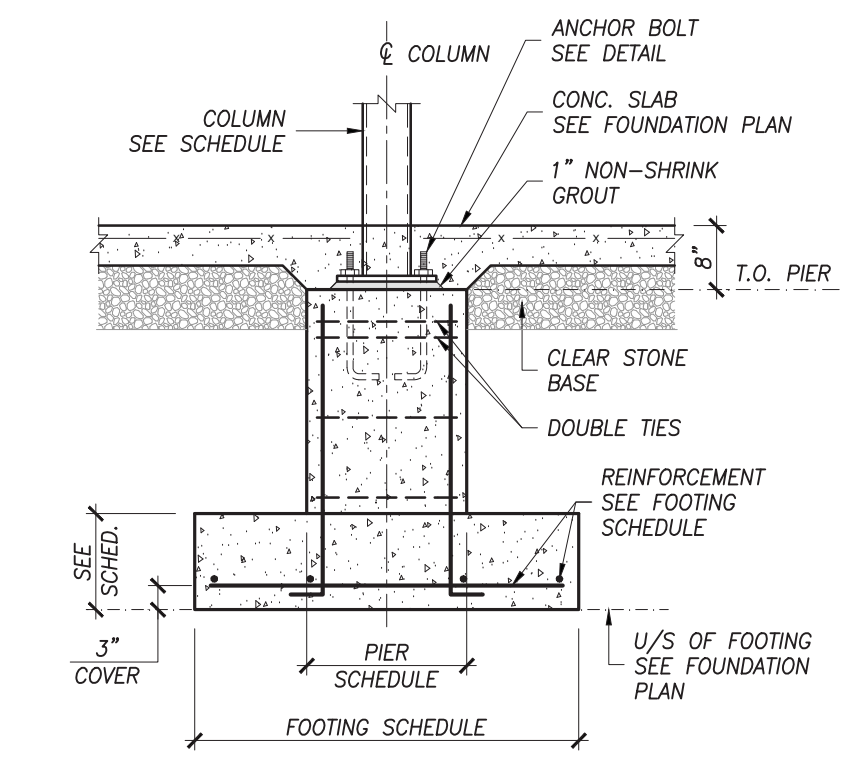
TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT

NOT TO SCALE



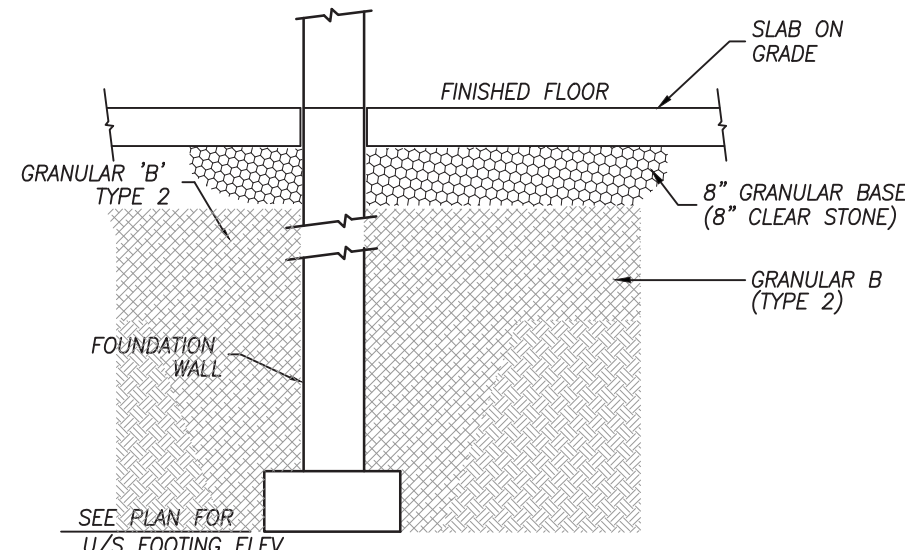
PIPE PENETRATION DETAIL

NOT TO SCALE



COLUMN - PAD FOOTING & PIER

SCALE 1/2"=1'-0"

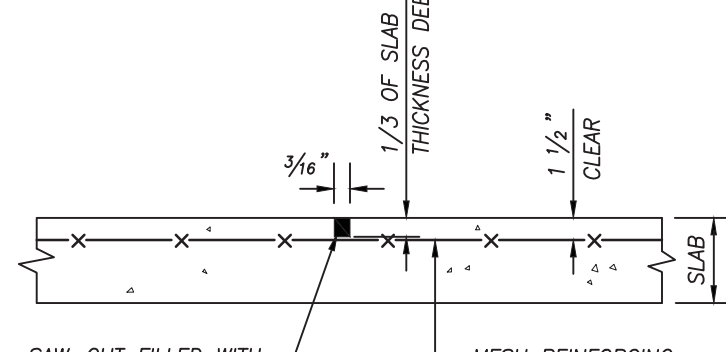


TYPICAL EXCAVATION AND BACKFILL AT FOUNDATION WALLS

NOT TO SCALE

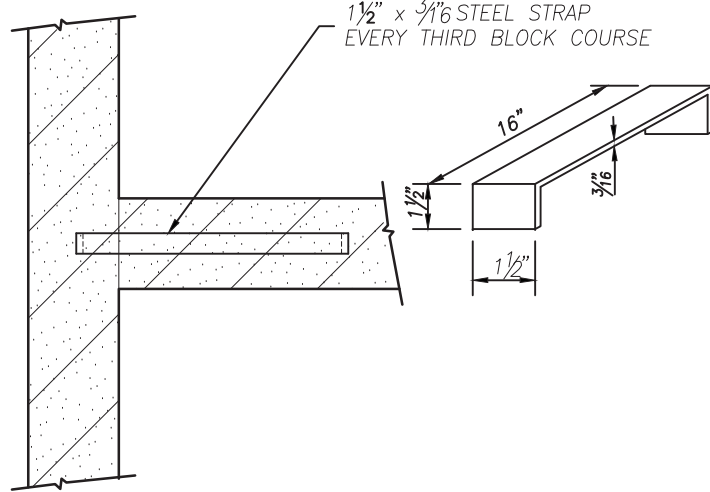
(REQUIRED BOTH SIDES OF ALL INTERIOR AND EXTERIOR FOUNDATION WALLS)
(REINFORCING NOT SHOWN FOR CLARITY)

NOTE: NATIVE SOIL IS UNSUITABLE FOR BACKFILL



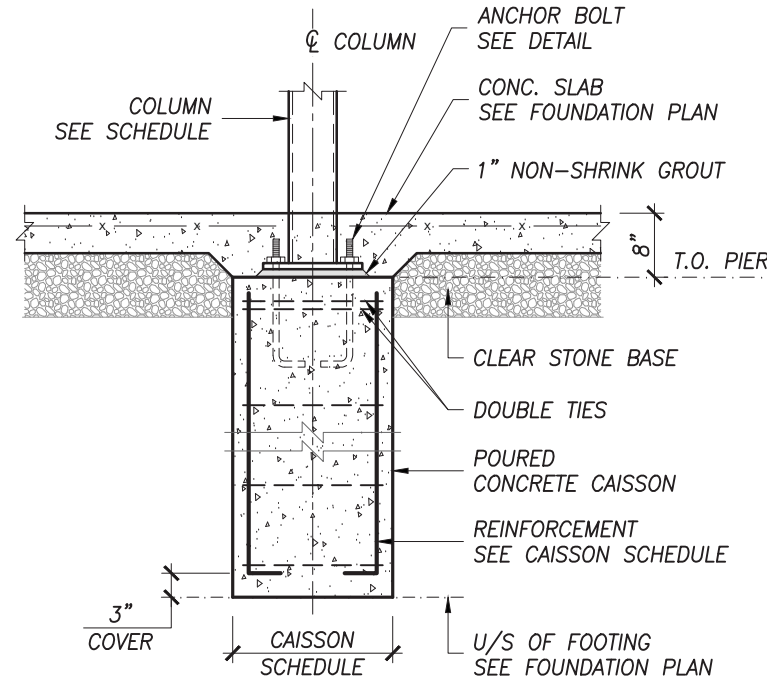
TYPICAL SAW-CUT CONTROL JOINT IN SLAB-ON-GRADE

NOT TO SCALE



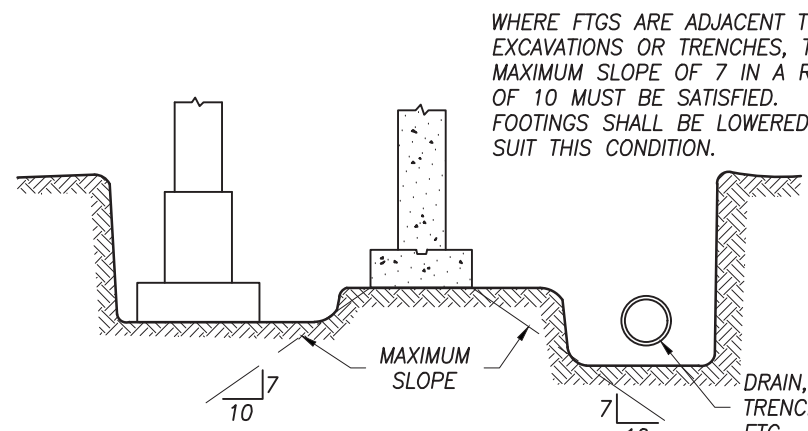
TYPICAL INTERSECTION OF CONCRETE BLOCK WALLS

NOT TO SCALE



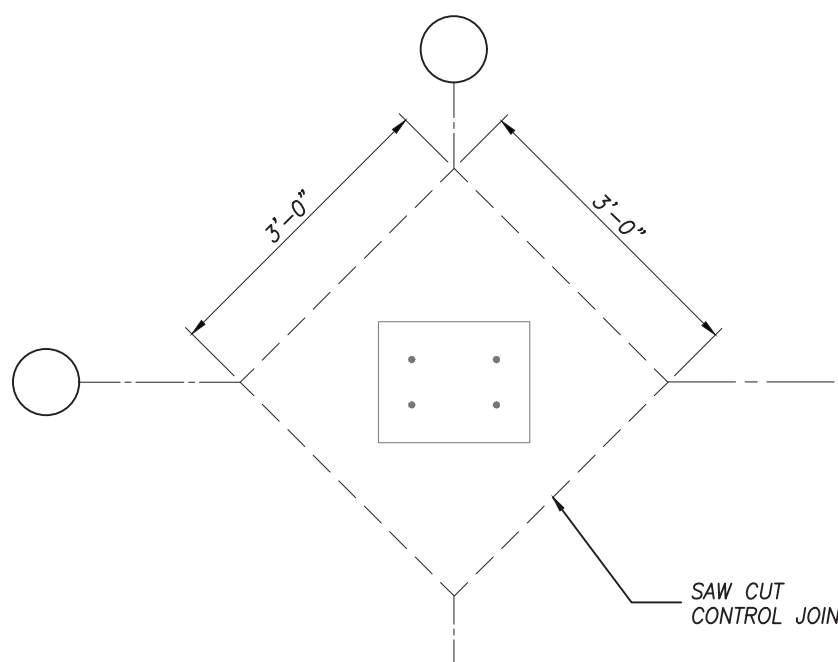
COLUMN - CAISSON FOOTING

SCALE 1/2"=1'-0"



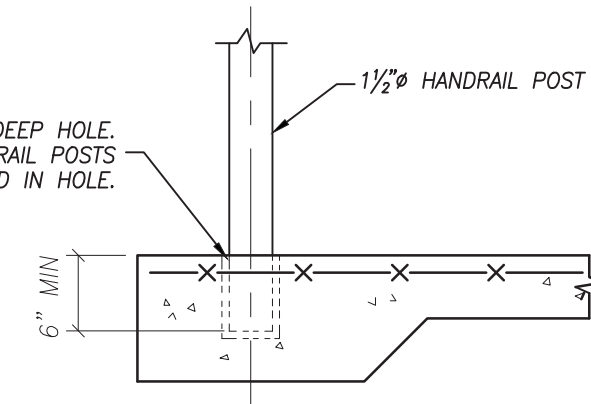
ELEVATIONS OF ADJACENT FOOTINGS AND EXCAVATIONS

NOT TO SCALE



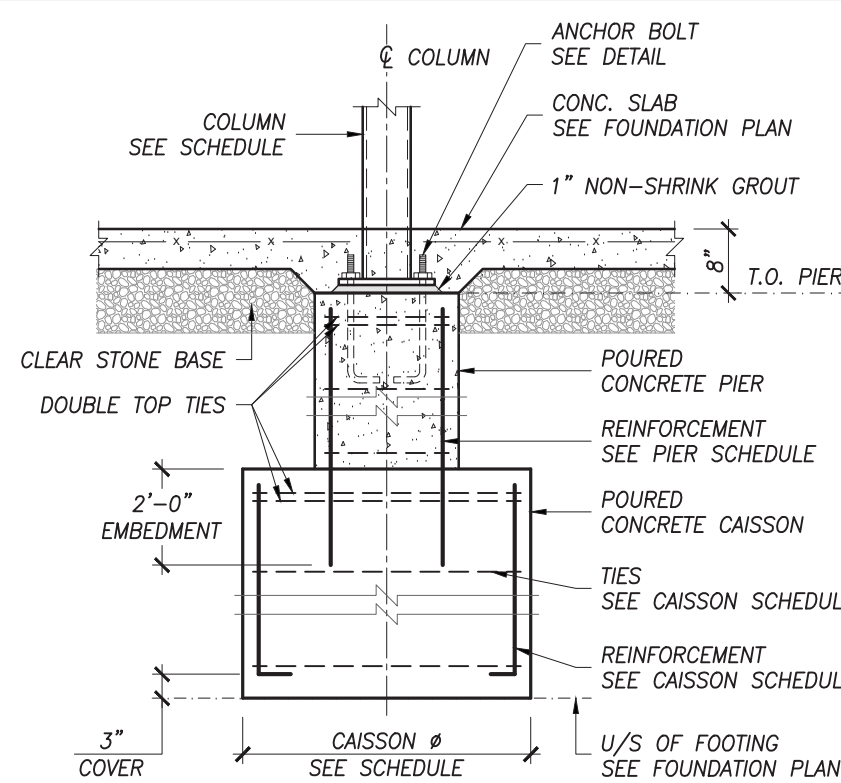
TYPICAL SAW CUT CONTROL JOINT AT COLUMN

NOT TO SCALE



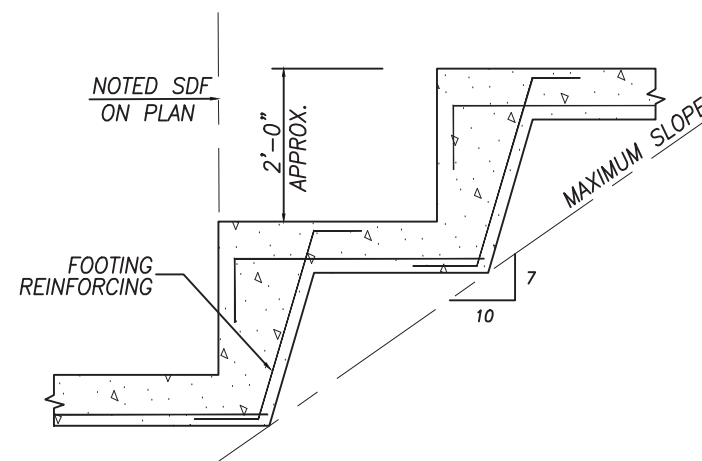
TYPICAL DETAIL FOR HANDRAIL ANCHORAGE

NOT TO SCALE



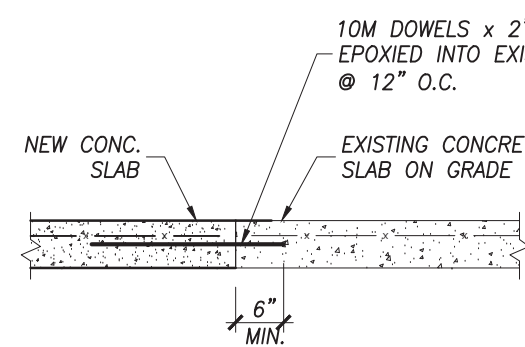
COLUMN - CAISSON FOOTING & PIER

SCALE 1/2"=1'-0"



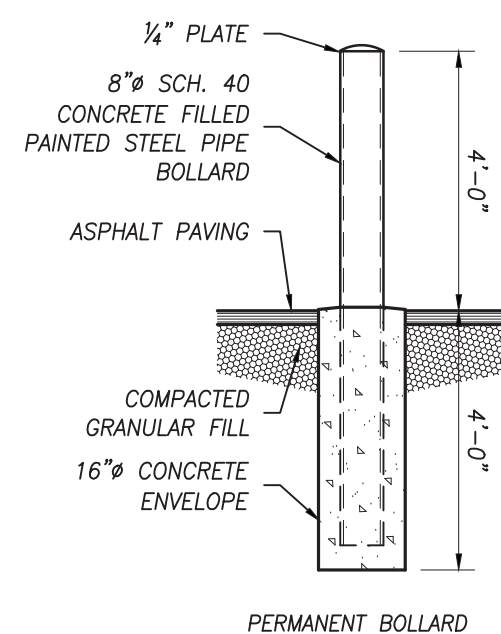
TYPICAL STEPPING OF WALL FOOTING DETAIL

NOT TO SCALE



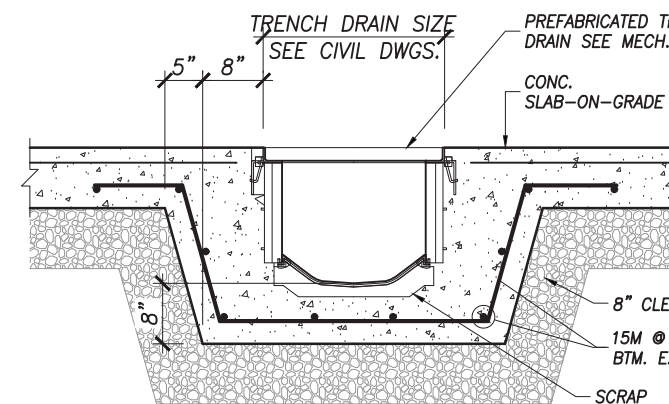
SLAB REPAIR DETAIL

SCALE 1/2"=1'-0"



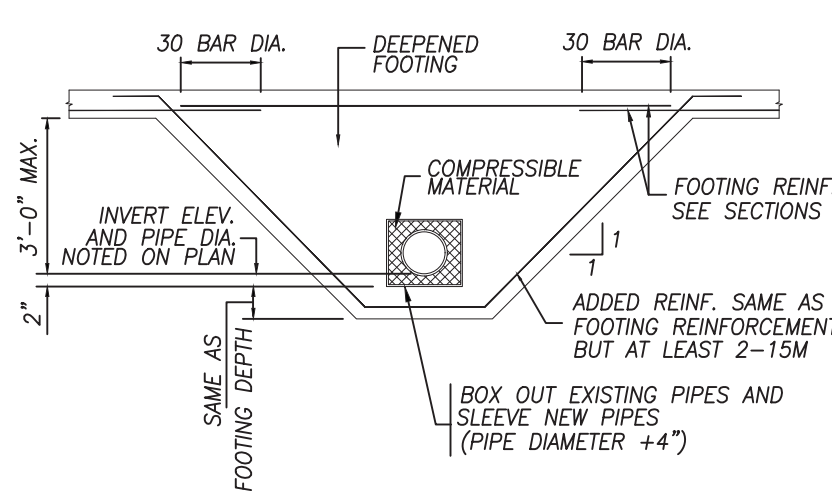
TYPICAL BOLLARD DETAIL

NOT TO SCALE



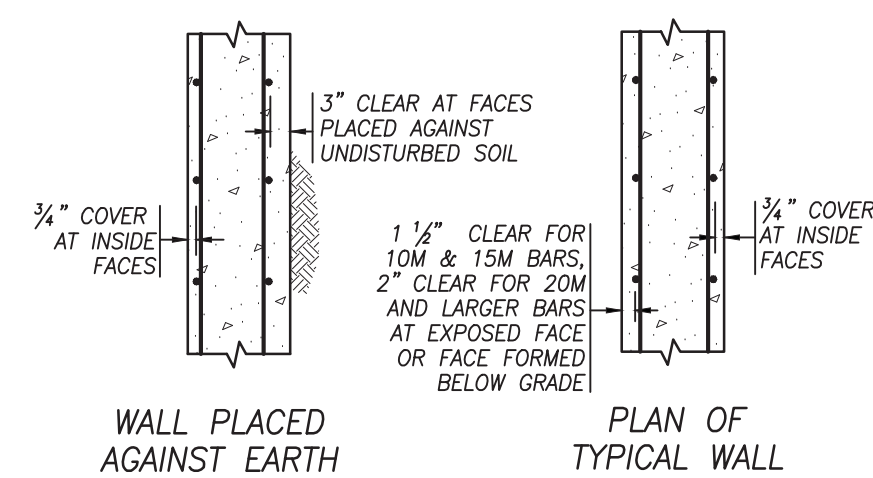
SECTION @ TRENCH DRAIN

SCALE 1/2"=1'-0"



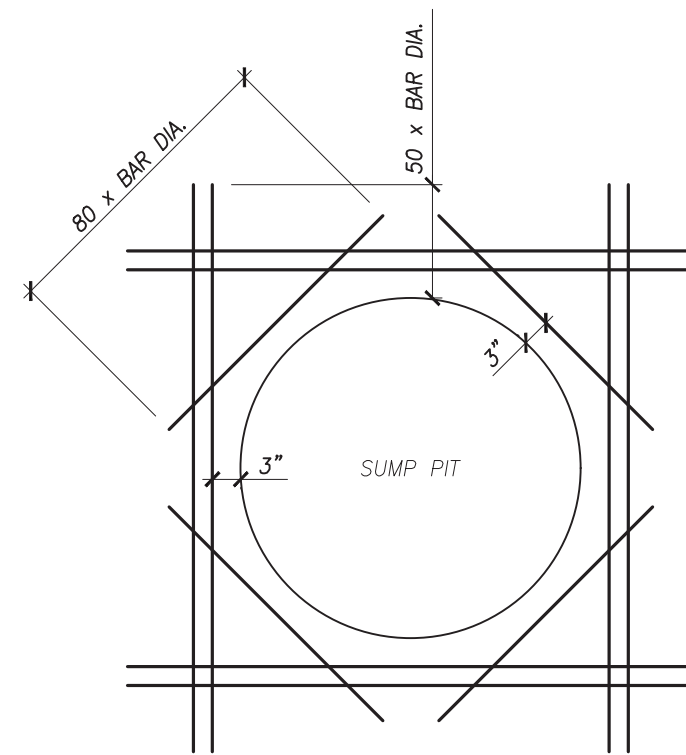
SERVICE PIPE BELOW FOOTING ELEVATION

NOT TO SCALE



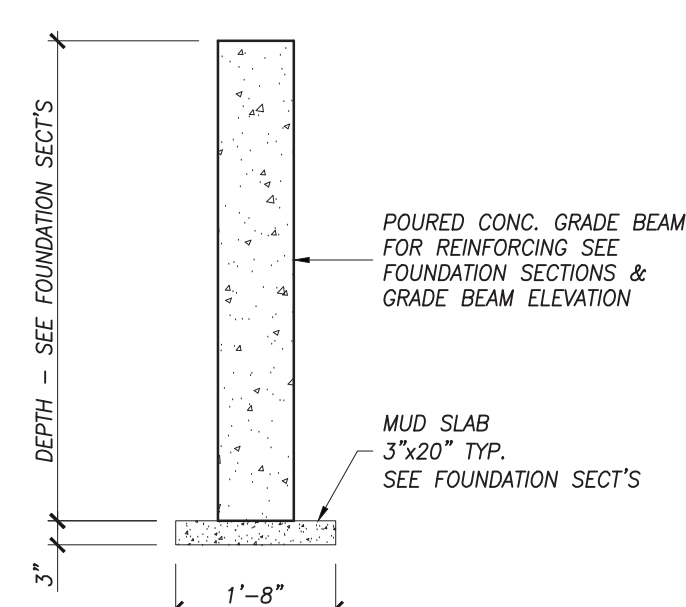
TYPICAL WALL REINFORCING COVER

NOT TO SCALE



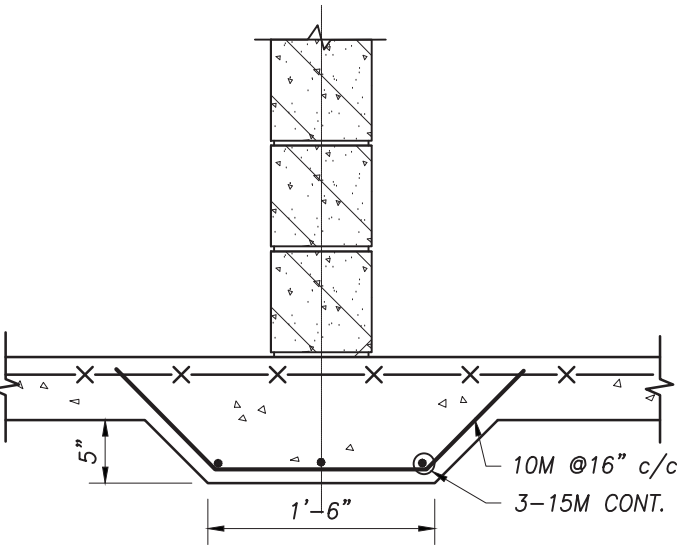
SLAB REINFORCING AROUND SUMP PIT

SCALE 1/2"=1'-0"



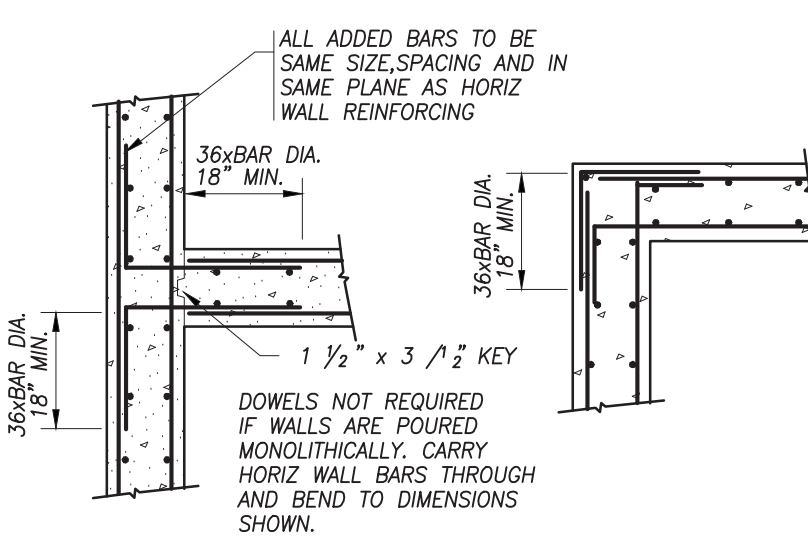
SECTION @ TRENCH DRAIN

SCALE 1/2"=1'-0"



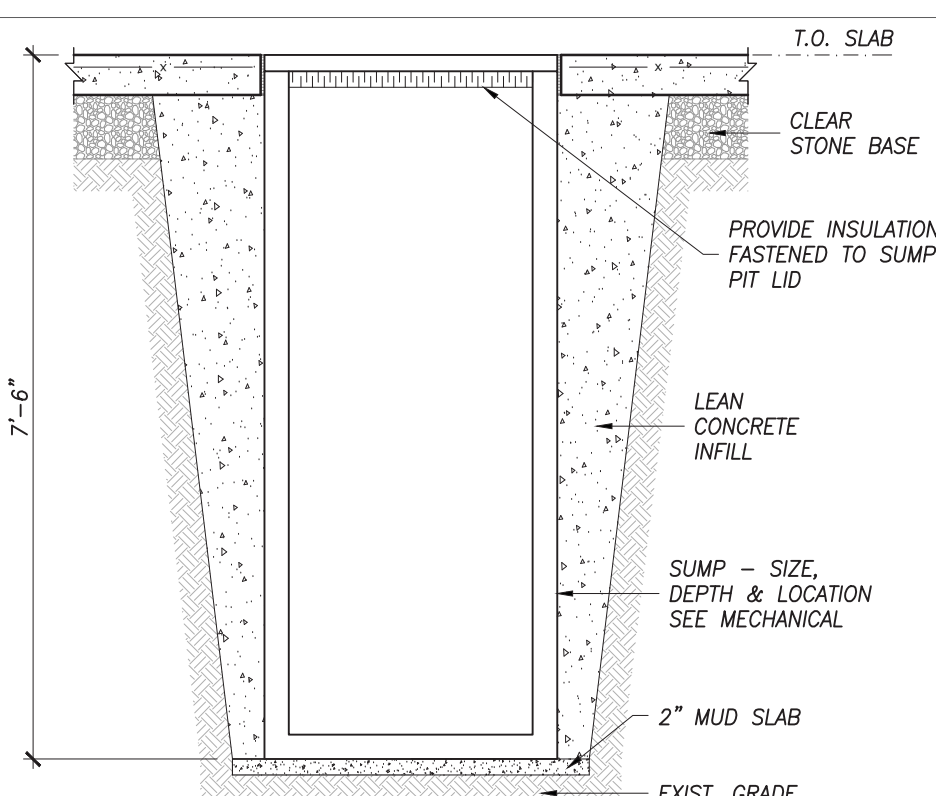
THICKENING OF SLAB-ON-GRADE UNDER PARTITION WALLS

NOT TO SCALE



TYPICAL CORNER DETAILS

NOT TO SCALE



TYPICAL SUMP PIT DETAIL

SCALE 1/2"=1'-0"

No.	DATE	REVISION
2	26/09/22	ISSUED FOR TENDER
1	26/08/20	ISSUED FOR PERMIT/TENDER

REVISIONS



300 YORK BLVD HAMILTON, ONTARIO L8R 3K6 905-333-9119

LIBURDI AUTOMATION INC.
PROPOSED
MANUFACTURING ADDITION

45 INNOVATION DRIVE

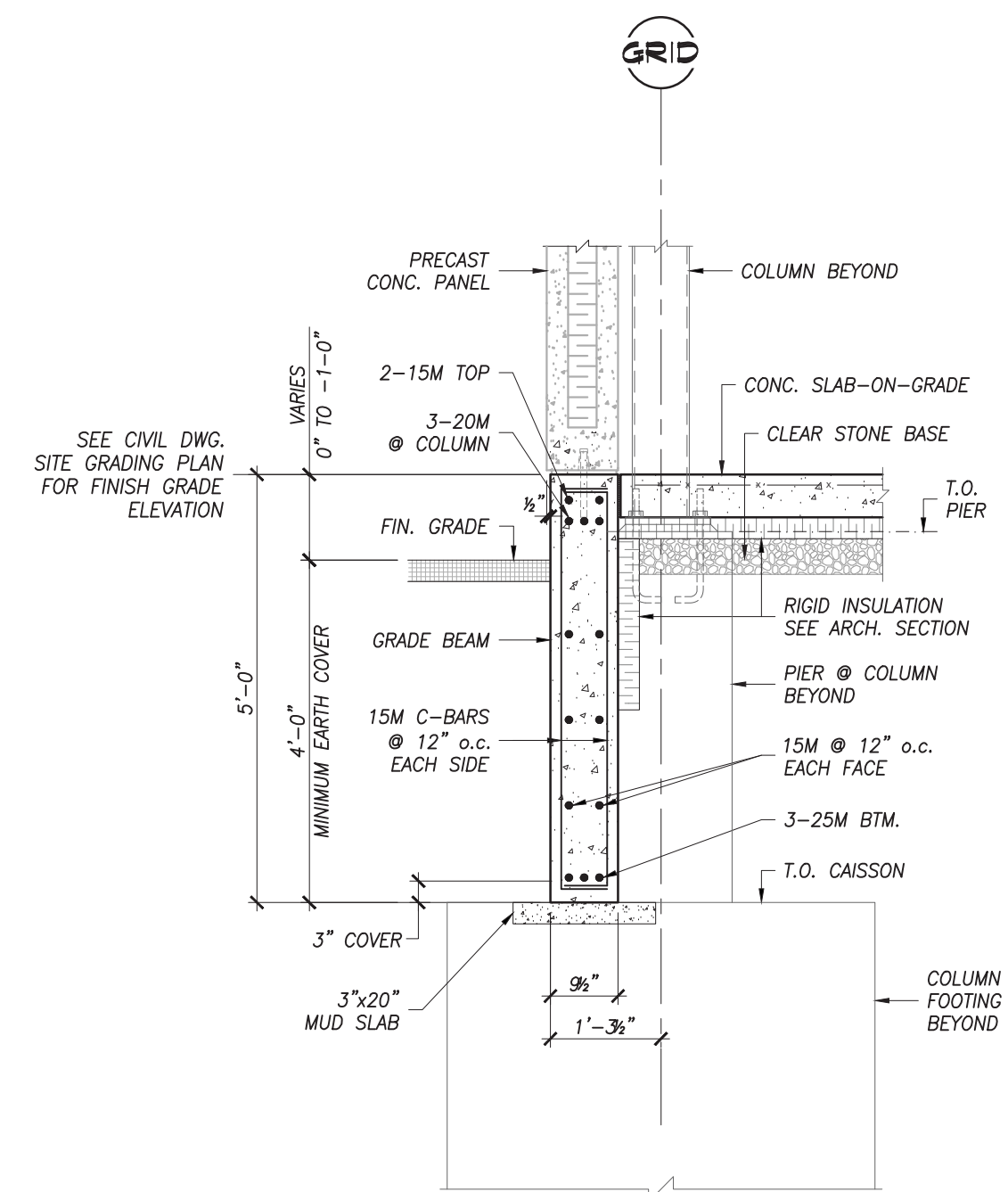
DUNDAS

ONTARIO

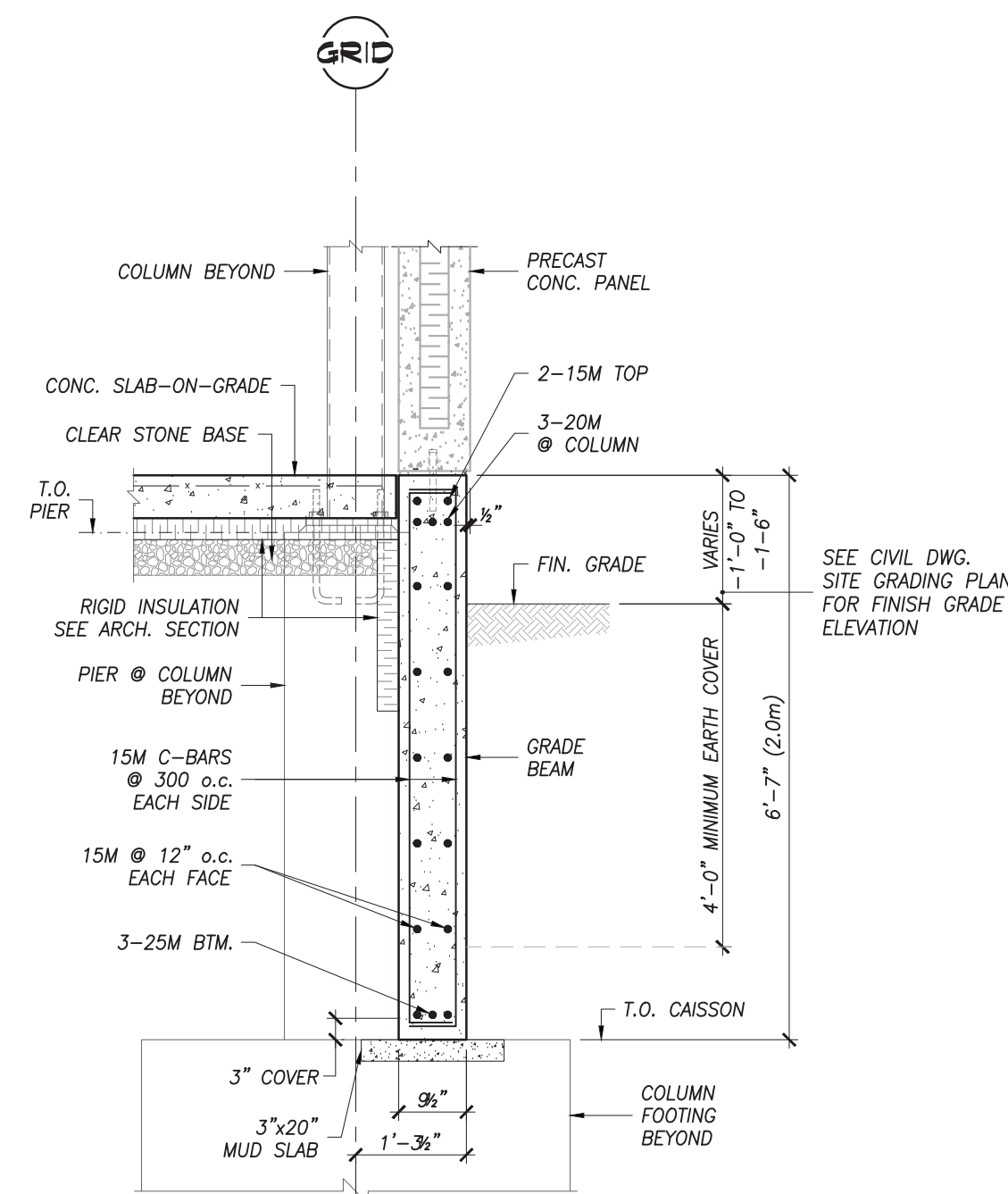
FOUNDATION
SECTIONS & DETAILS

DATE	DRAWN BY	DRAWING No.
APRIL, 2026	AL	S2.0
PROJECT No.	CHECKED BY	
18188	HAPH	

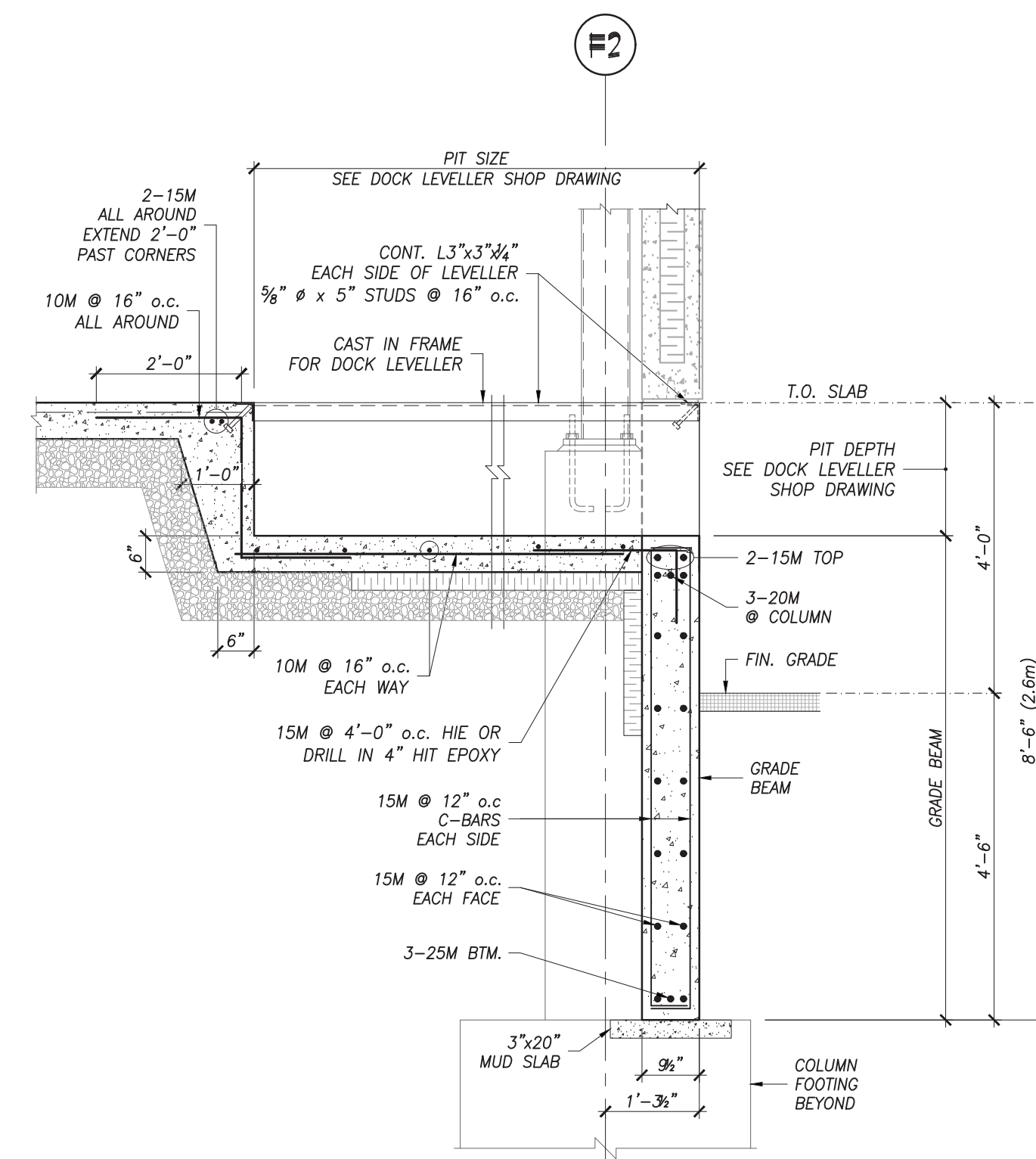




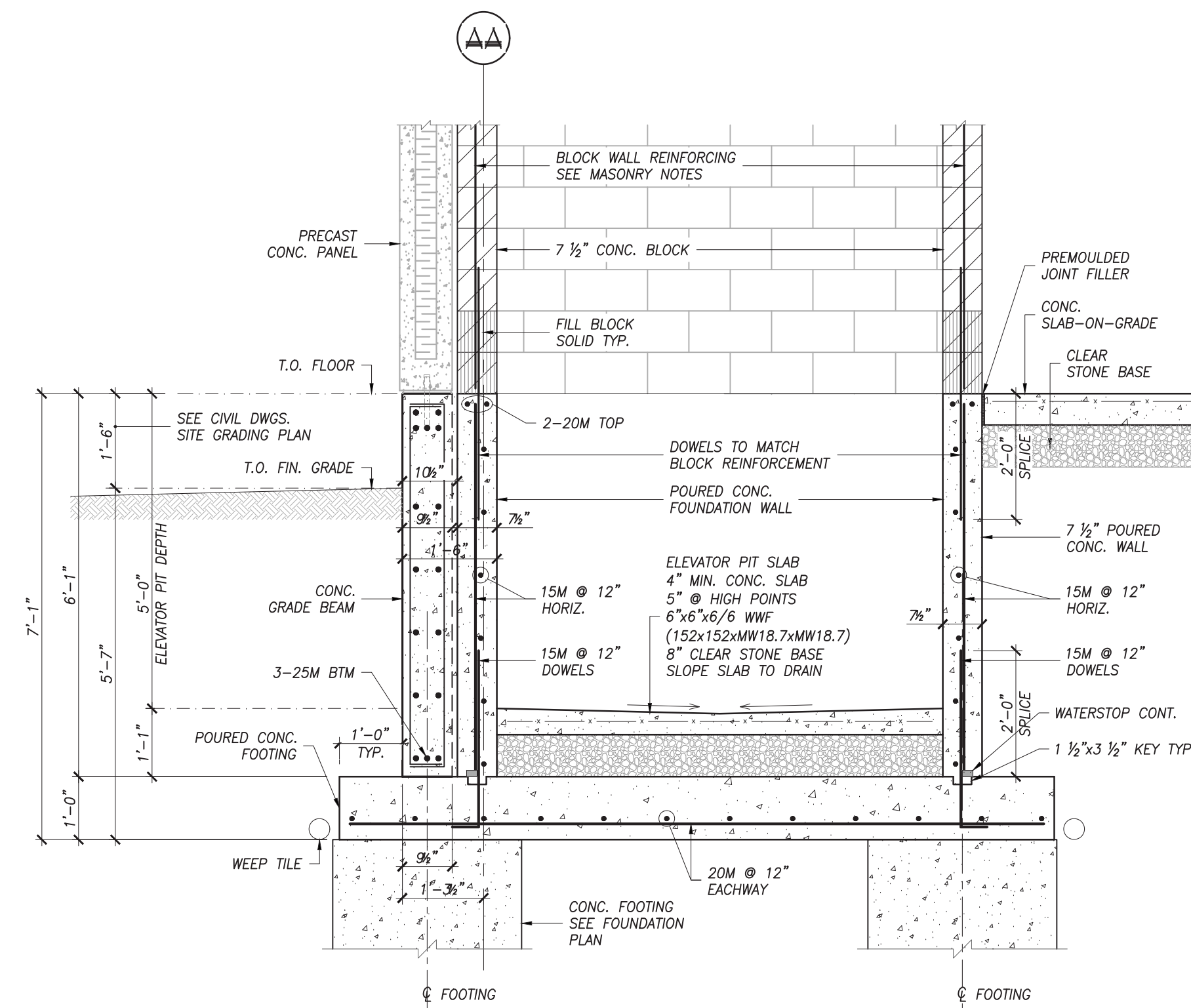
**SECTION
GRADE BEAM - 1**
SCALE: 1/2"=1'-0"



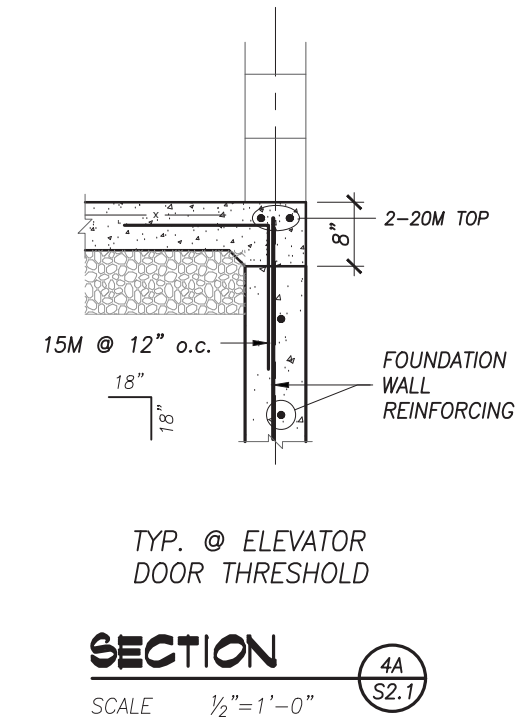
**SECTION
GRADE BEAM - 2**
SCALE: 1/2"=1'-0"



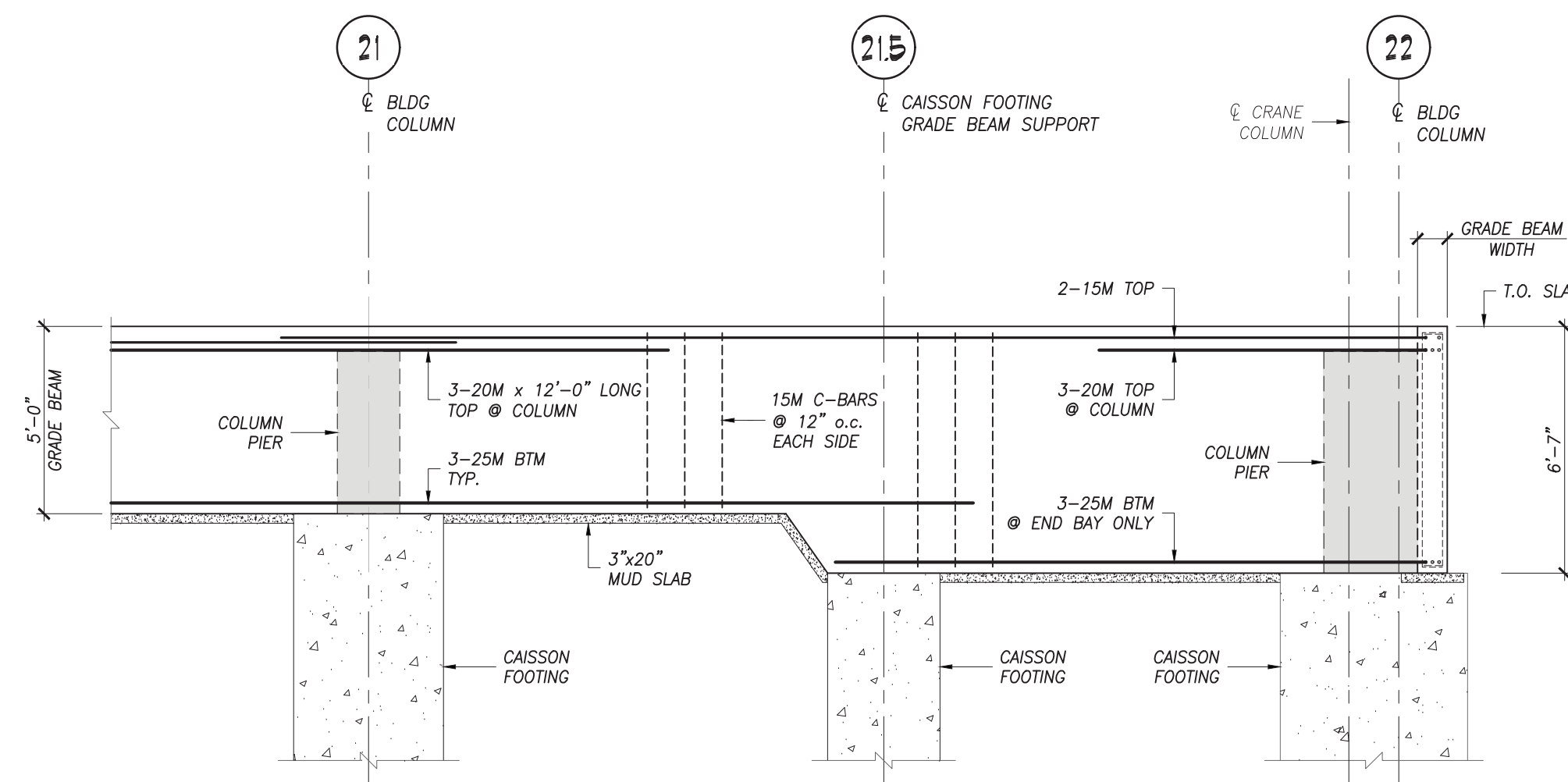
**SECTION
GRADE BEAM @ LOADING DOCK**
SCALE: 1/2"=1'-0"



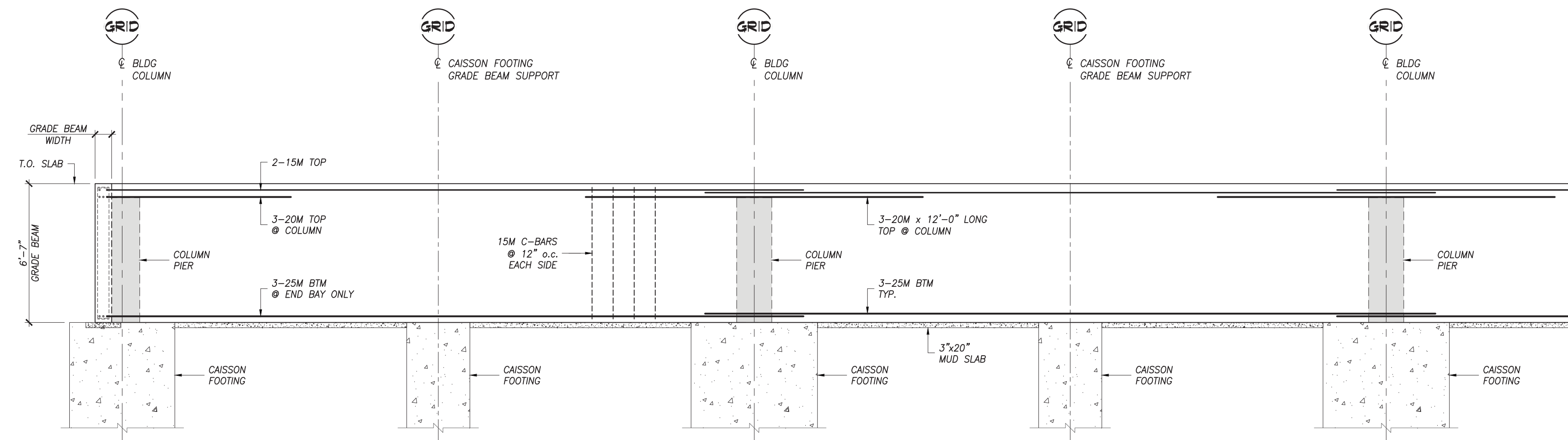
**SECTION
ELEVATOR PIT**
SCALE: 1/2"=1'-0"



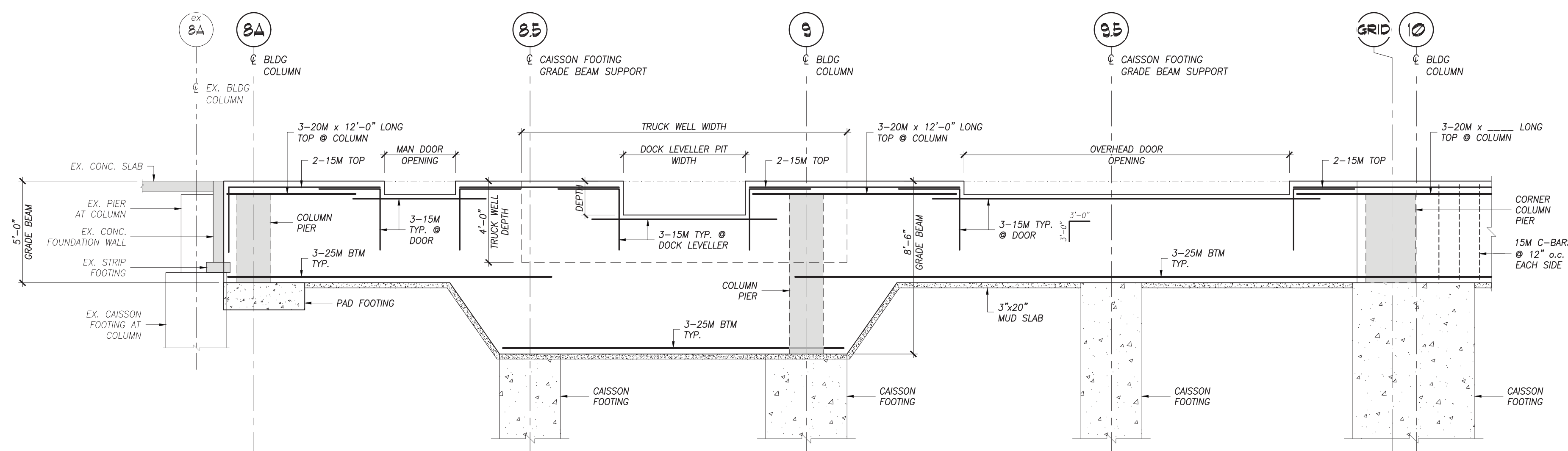
**SECTION
TYP. @ ELEVATOR
DOOR THRESHOLD**
SCALE: 1/2"=1'-0"



PARTIAL GRADE BEAM ELEVATION LINE FF - REINFORCEMENT ARRANGEMENT
SCALE: 1/2"=1'-0"



TYPICAL GRADE BEAM ELEVATION - REINFORCEMENT ARRANGEMENT
SCALE: 1/4"=1'-0"



GRADE BEAM ELEVATION LINE F2 - REINFORCEMENT ARRANGEMENT
SCALE: 1/4"=1'-0"

No.	DATE	REVISION
2	26/09/22	ISSUED FOR TENDER
1	26/08/20	ISSUED FOR PERMIT/TENDER

REVISIONS



300 YORK BLVD. HAMILTON, ONTARIO L8R 3K6 905-333-9119

**LIBURDI AUTOMATION INC.
PROPOSED
MANUFACTURING ADDITION**

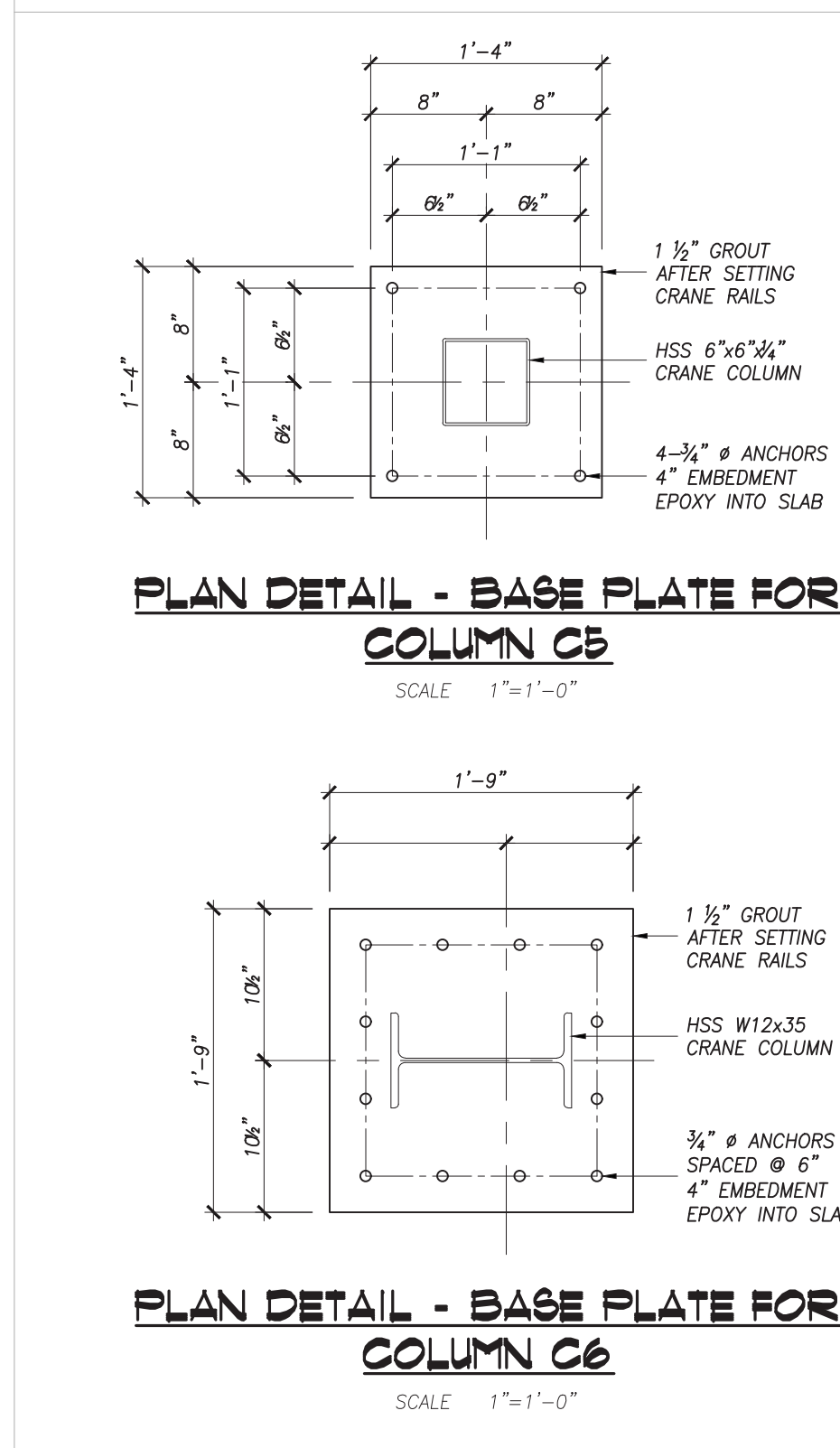
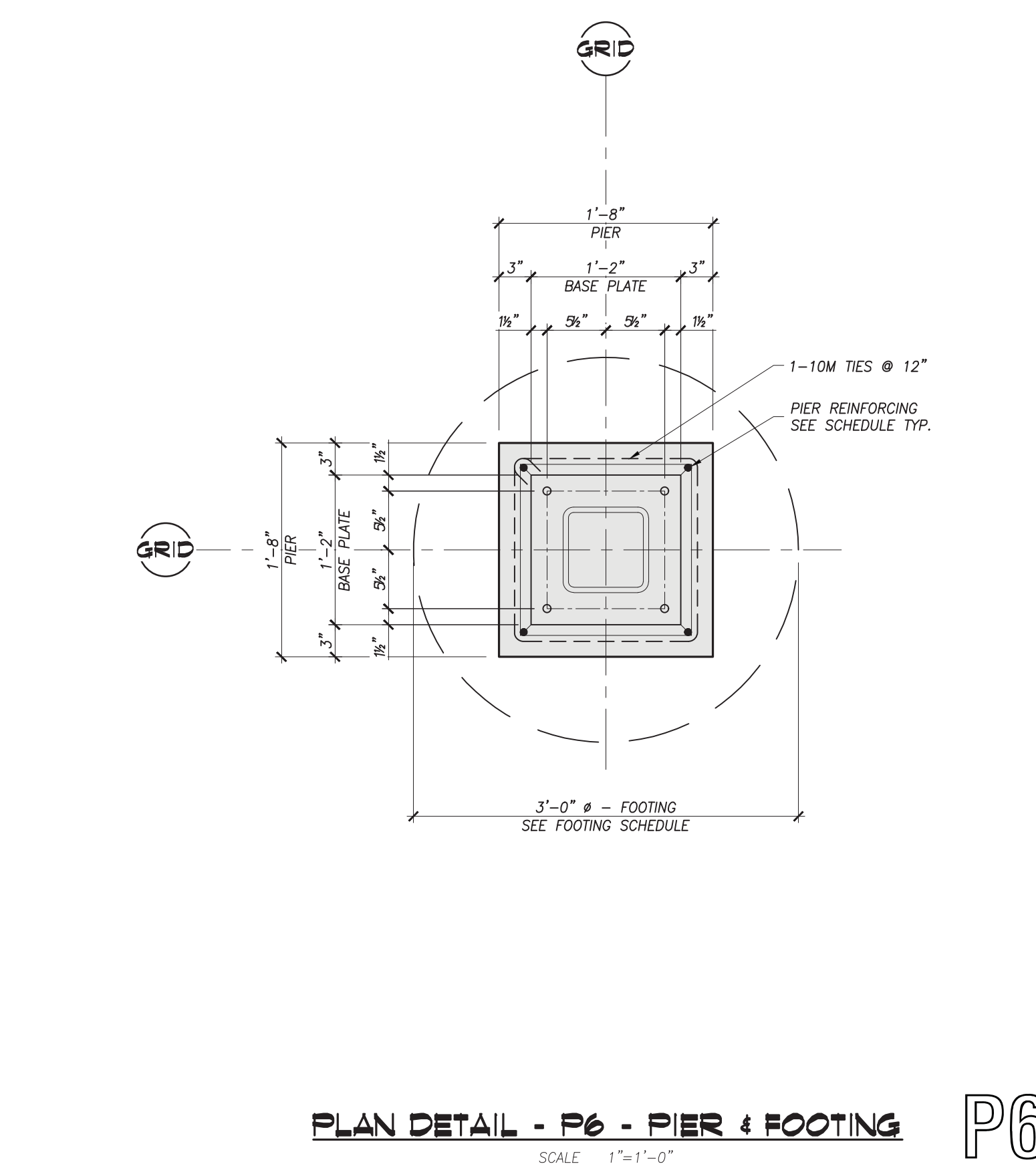
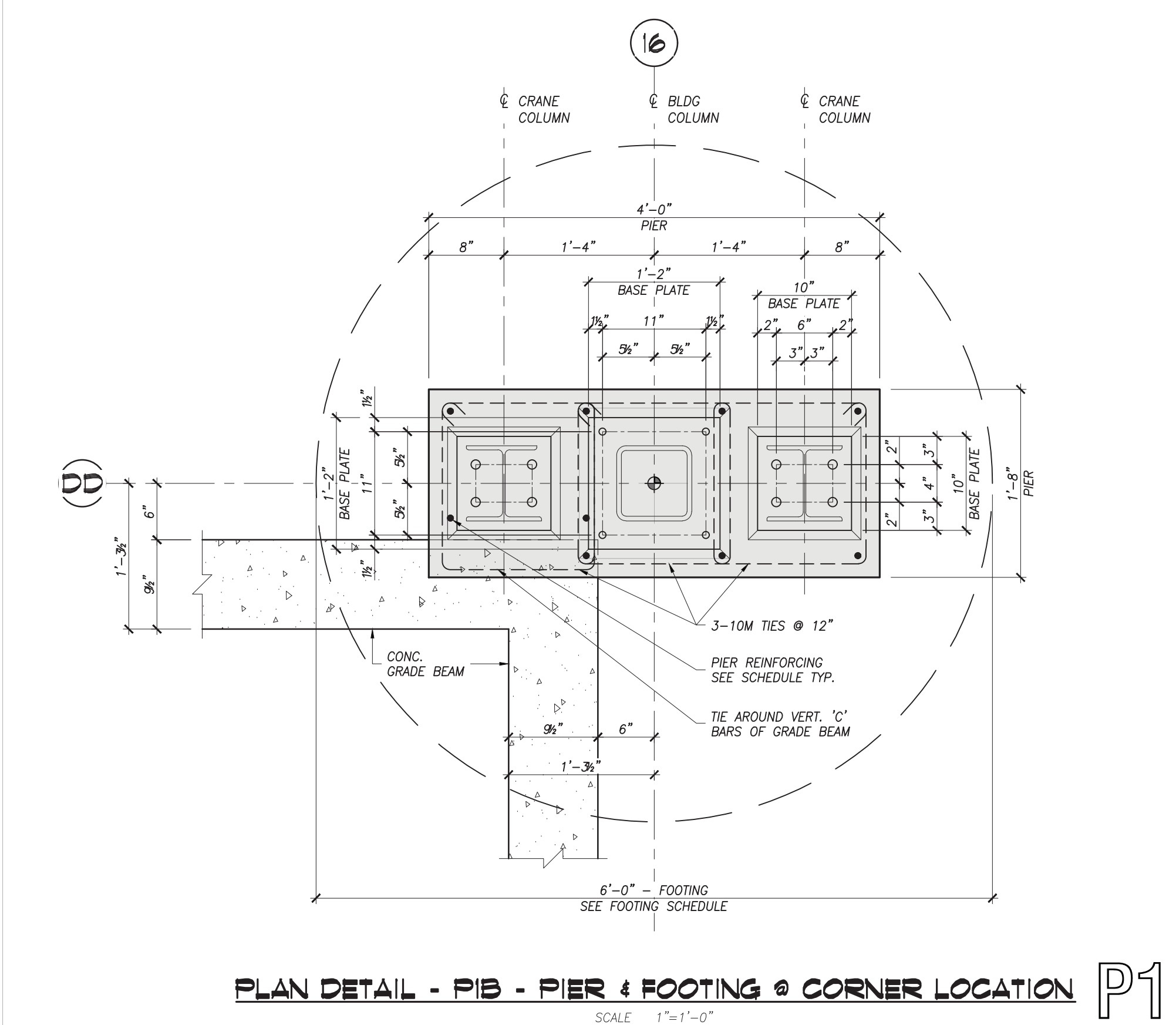
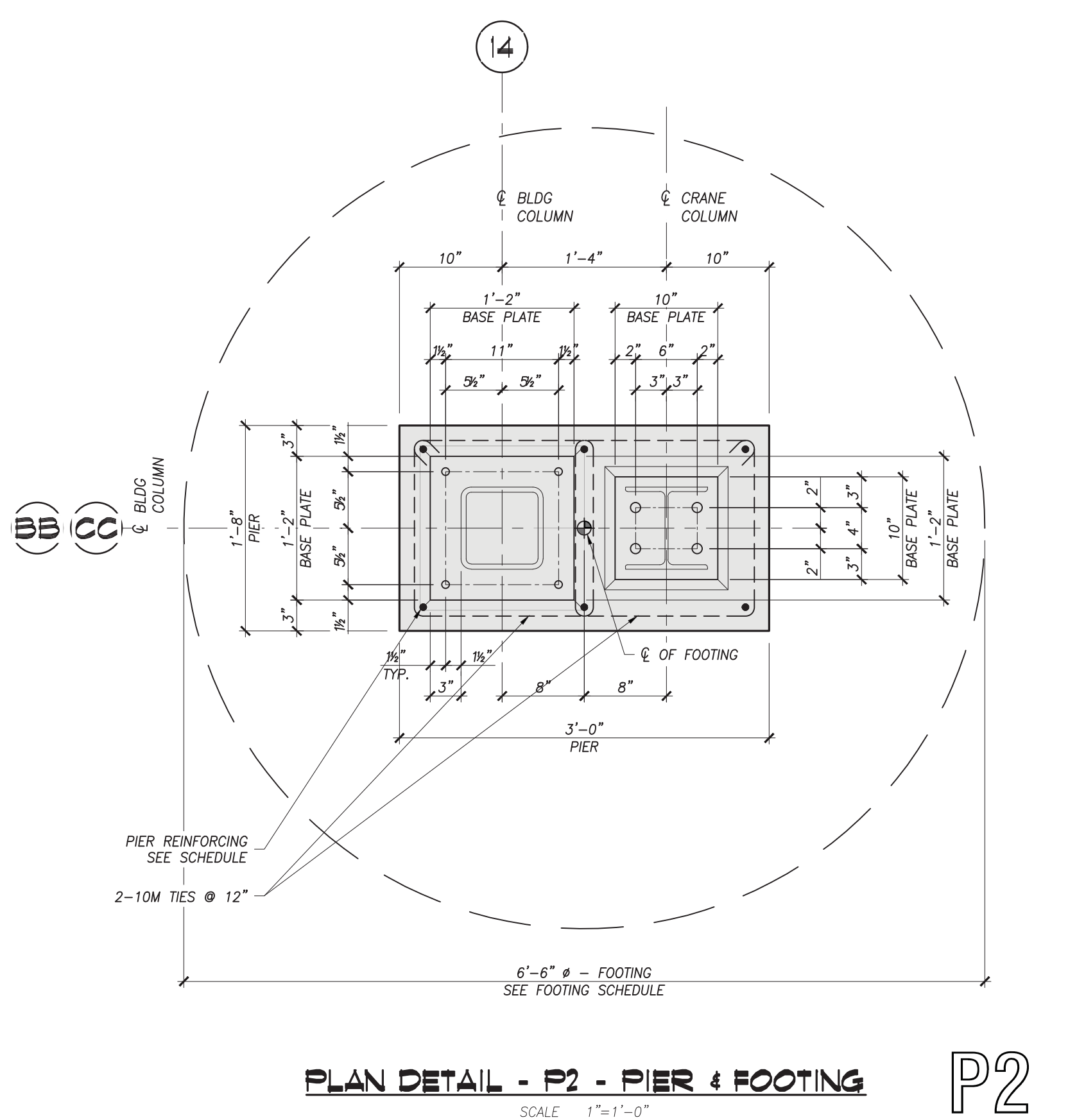
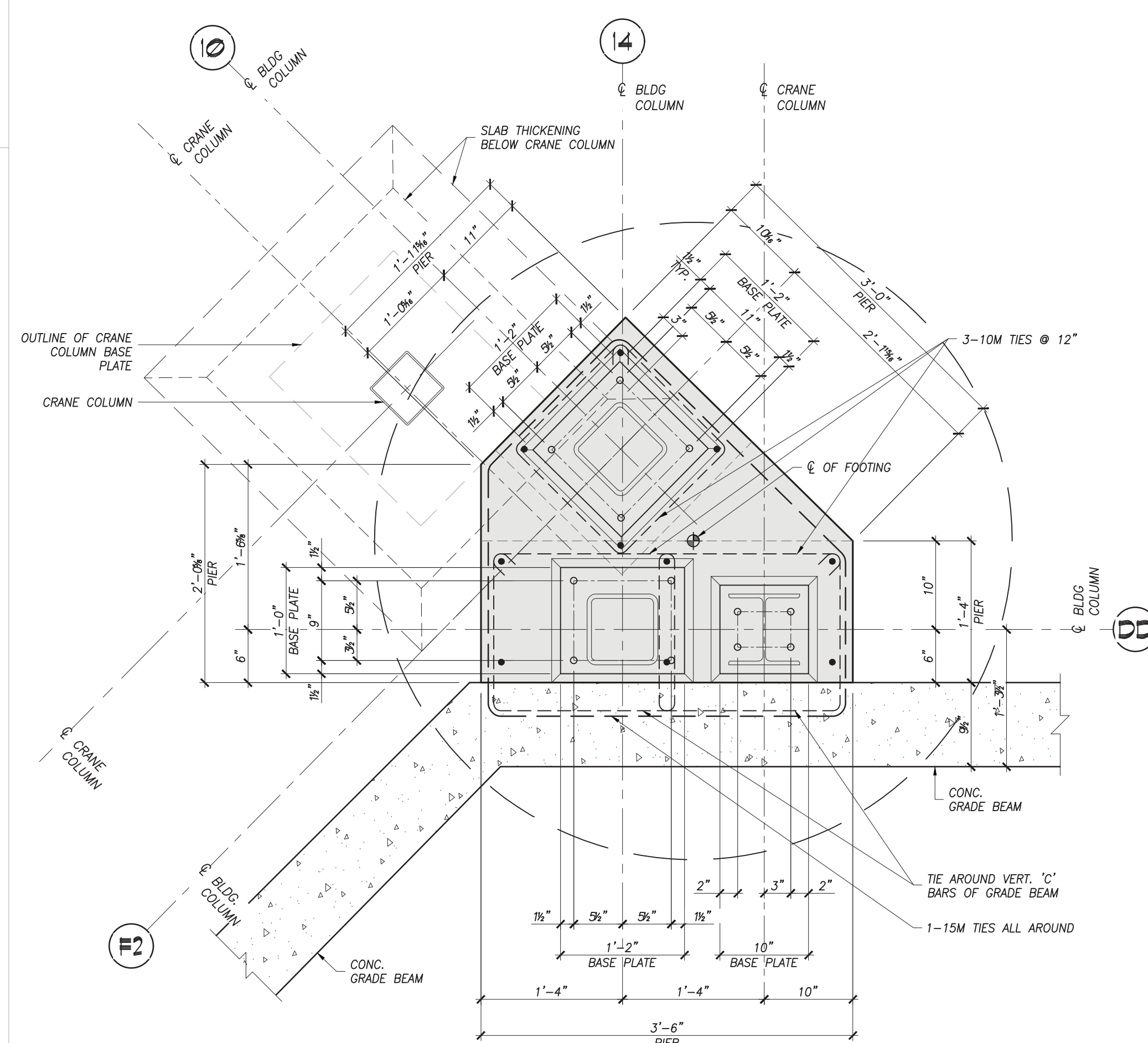
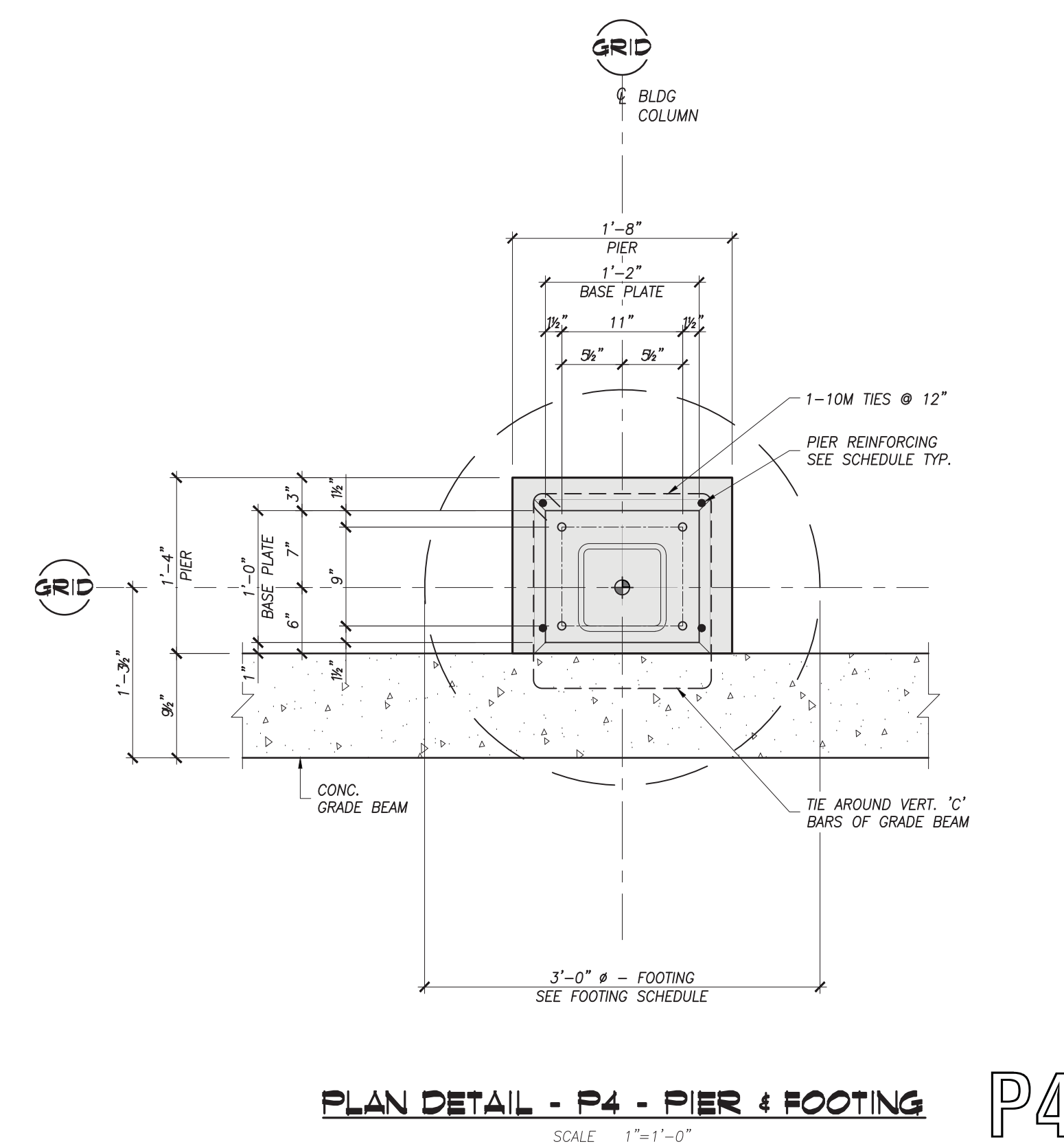
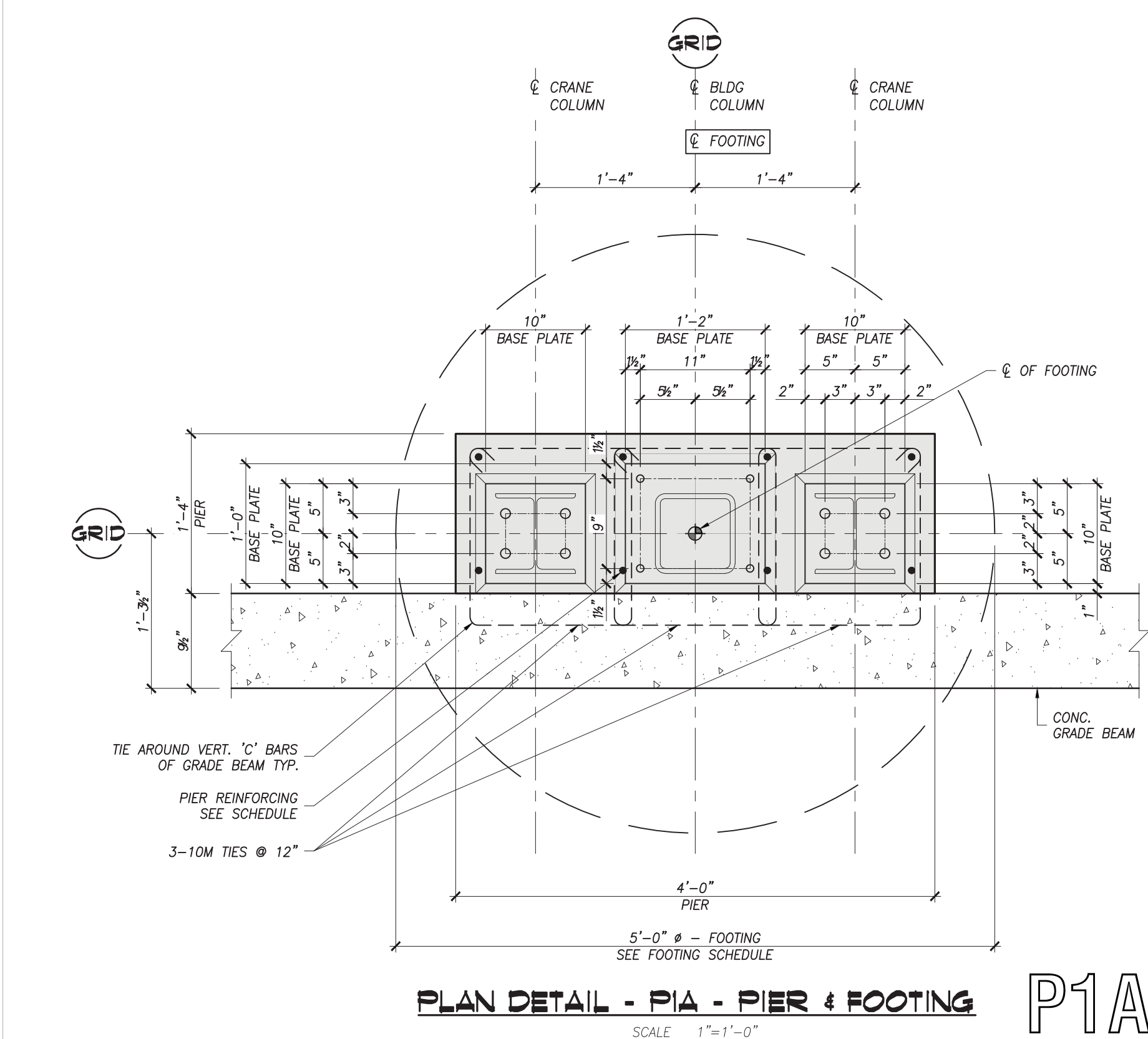
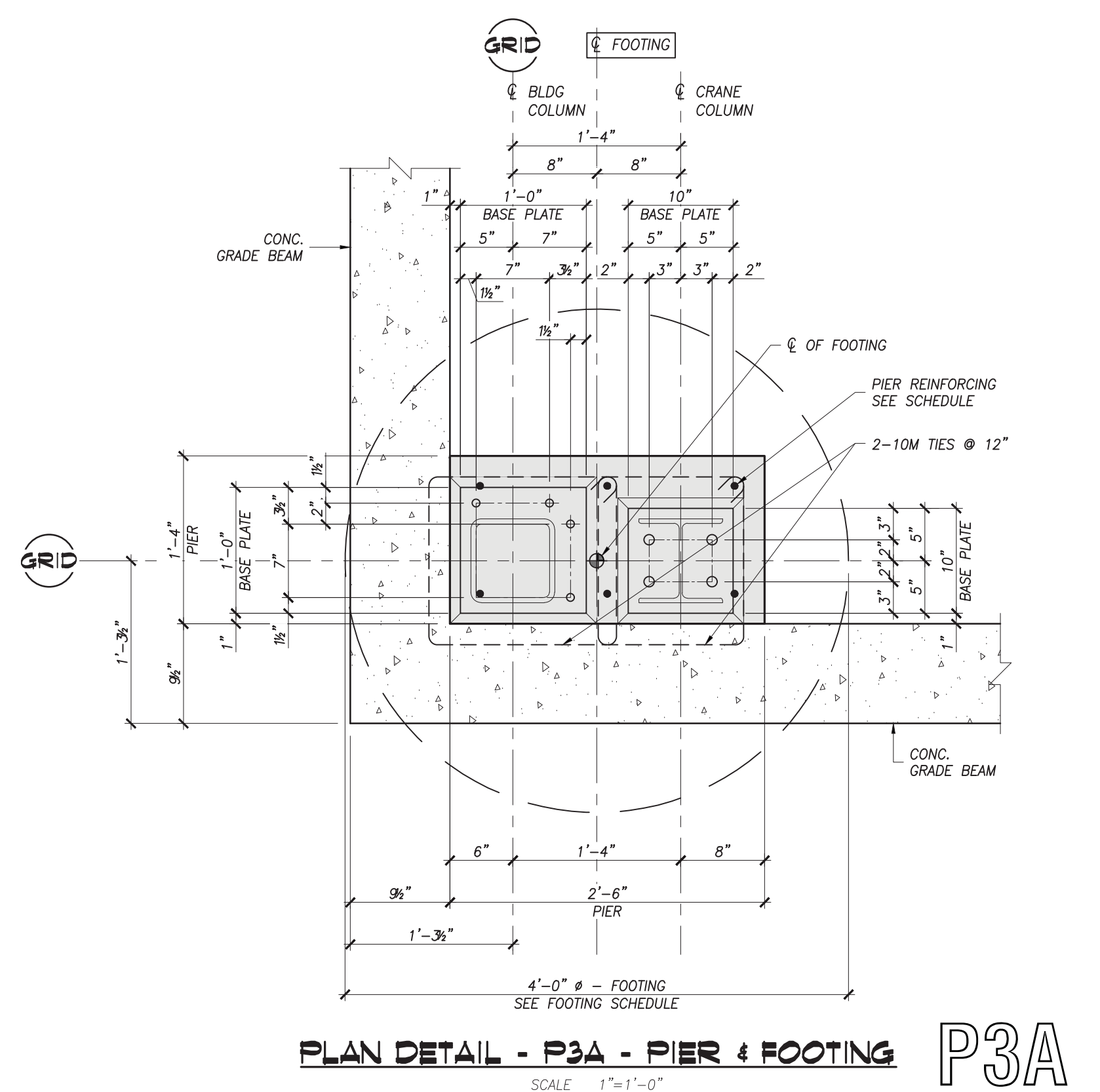
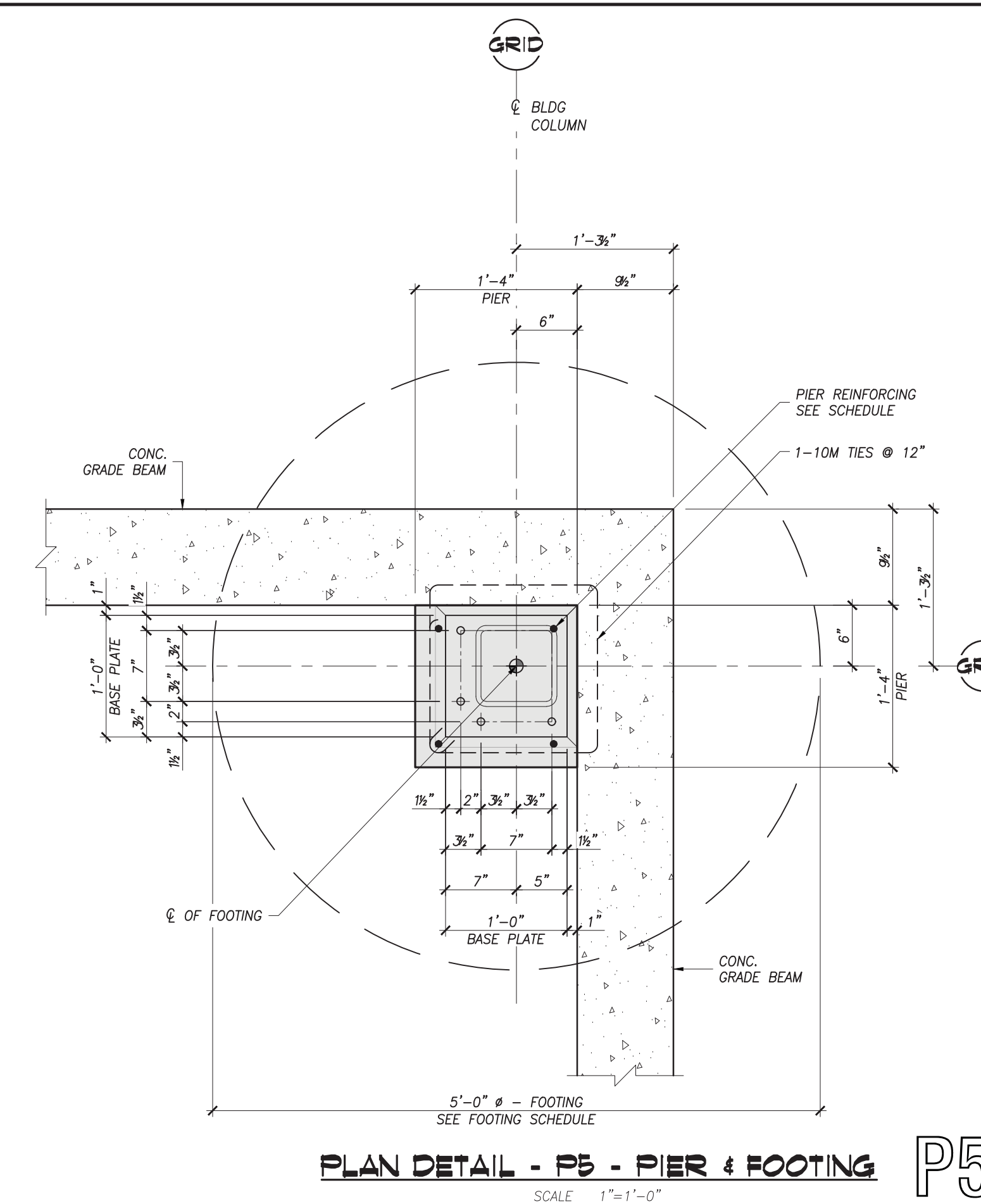
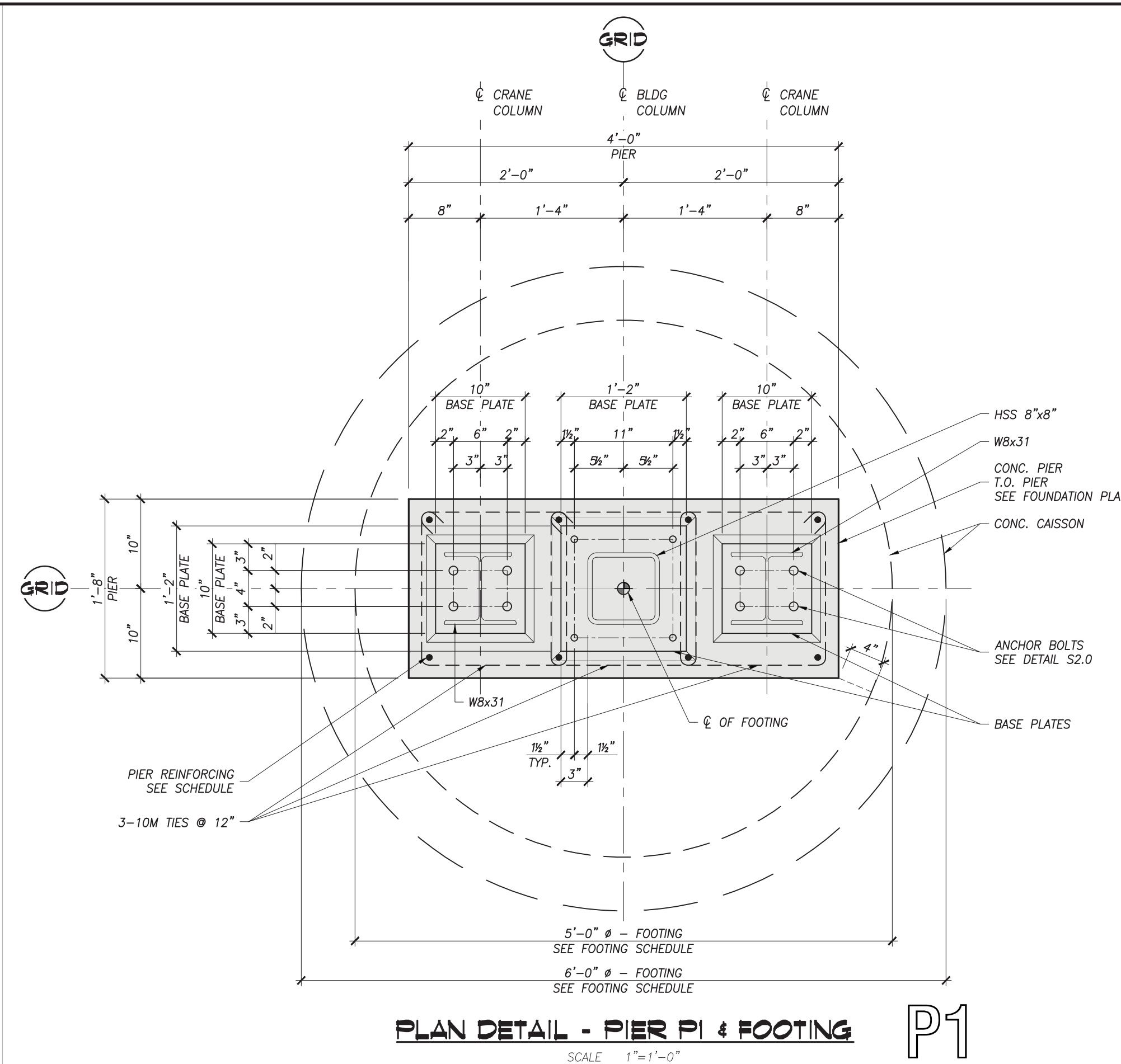
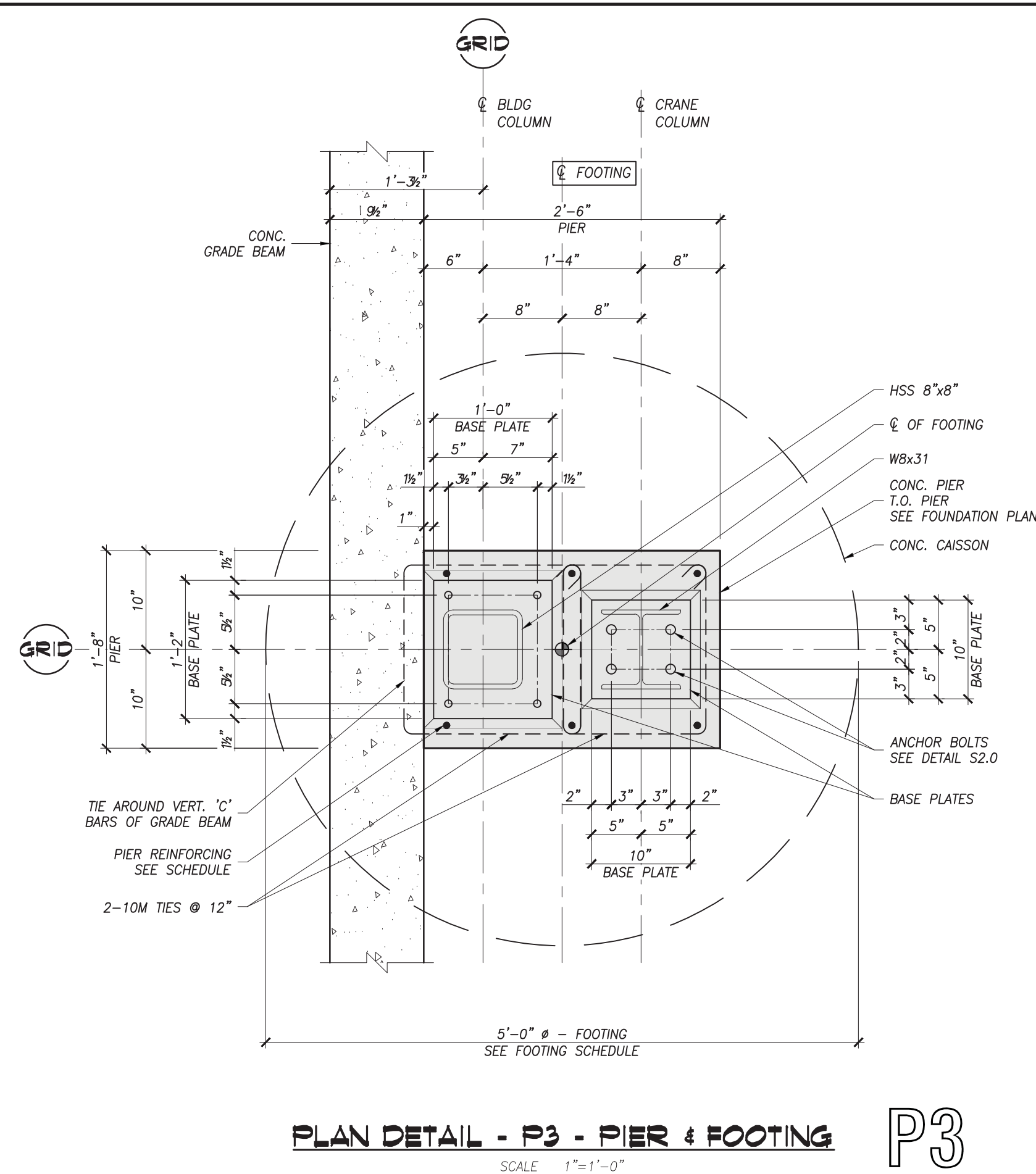
45 INNOVATION DRIVE

DUNDAS ONTARIO

**FOUNDATION SECTION
& GRADE BEAM**

DATE APRIL, 2026	DRAWN BY AL	DRAWING No. S2.1
PROJECT No. 18188	CHECKED BY HAPH	





2	26/09/22	ISSUED FOR TENDER
1	26/08/20	ISSUED FOR PERMIT/TENDER
No.	DATE	REVISION
R E V I S I O N S		



300 YORK BLVD HAMILTON, ONTARIO L8R 3K6 905-333-9119

**LIBURDI AUTOMATION INC.
PROPOSED
MANUFACTURING ADDITION**

45 INNOVATION DRIVE

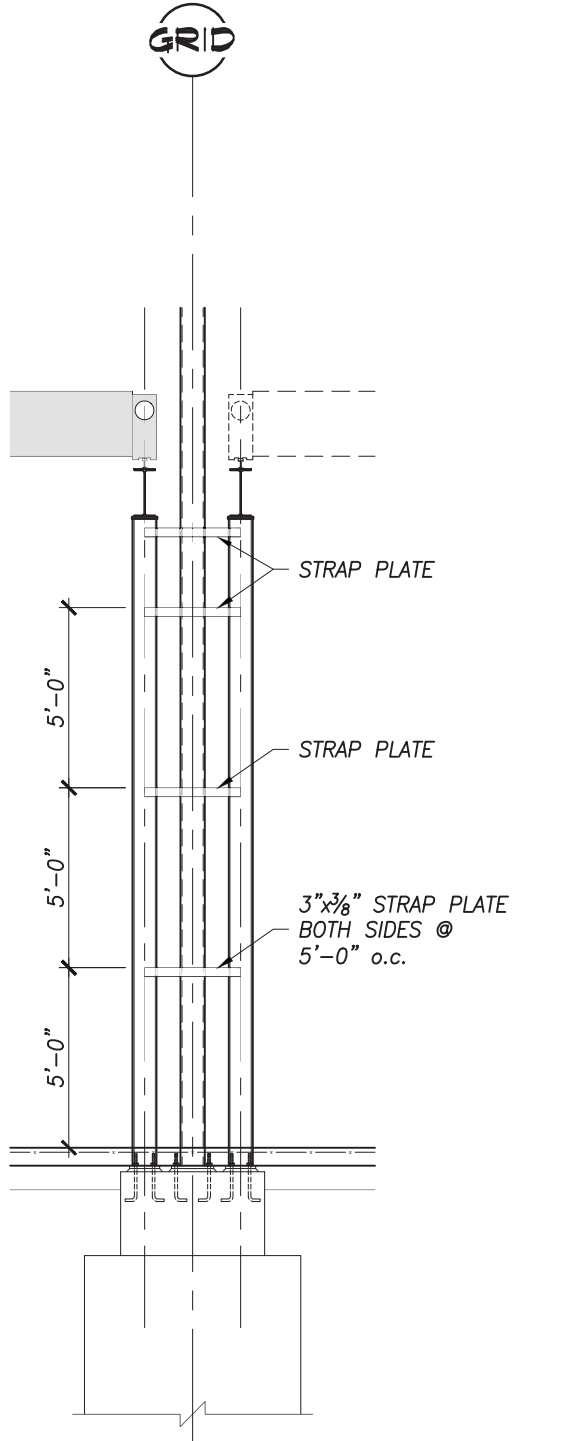
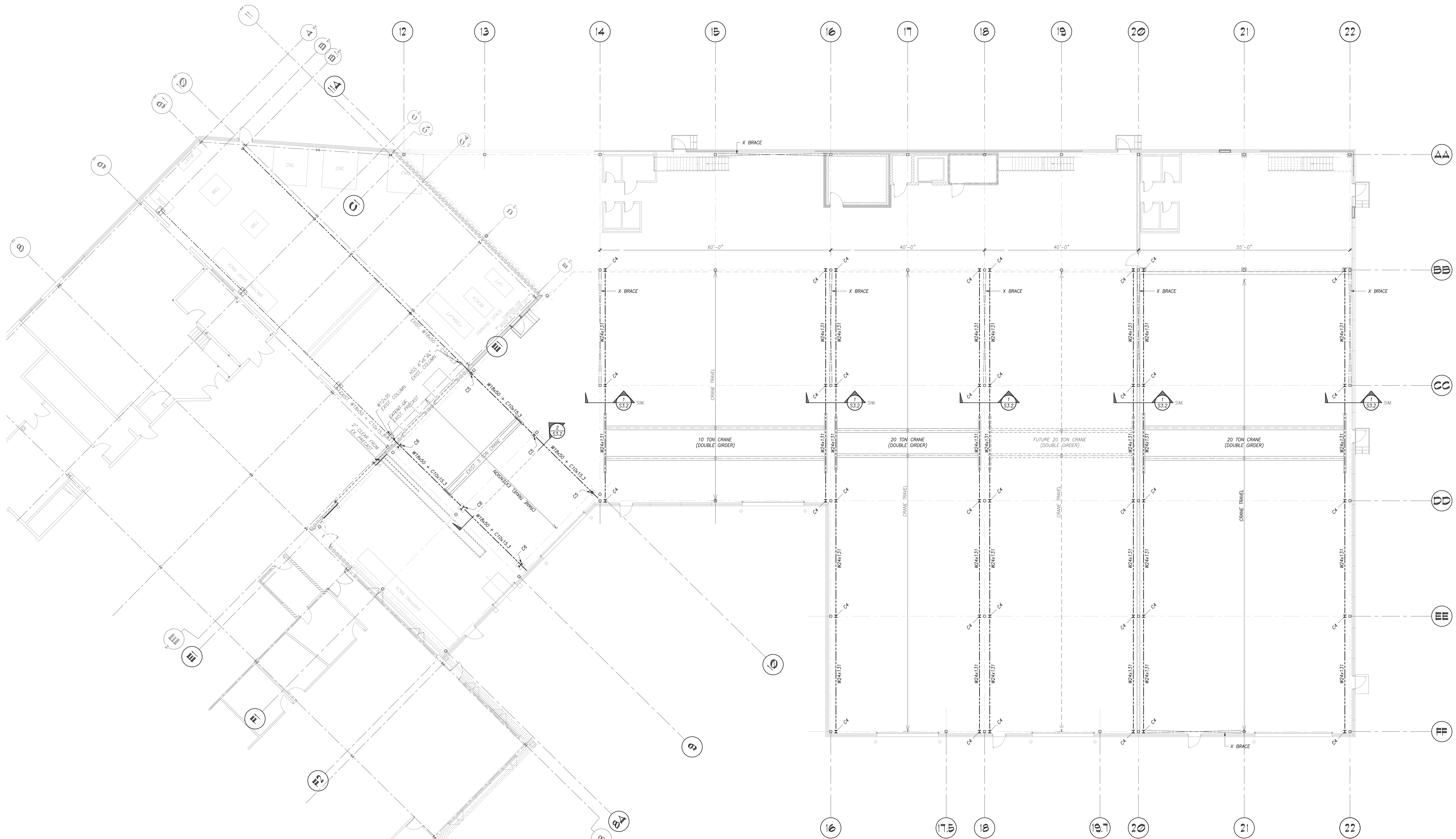
FOUNDATION DETAILS

DATE APRIL, 2026	DRAWN BY AL	DRAWING No. S2.2
PROJECT No. 18188	CHECKED BY HAPH	

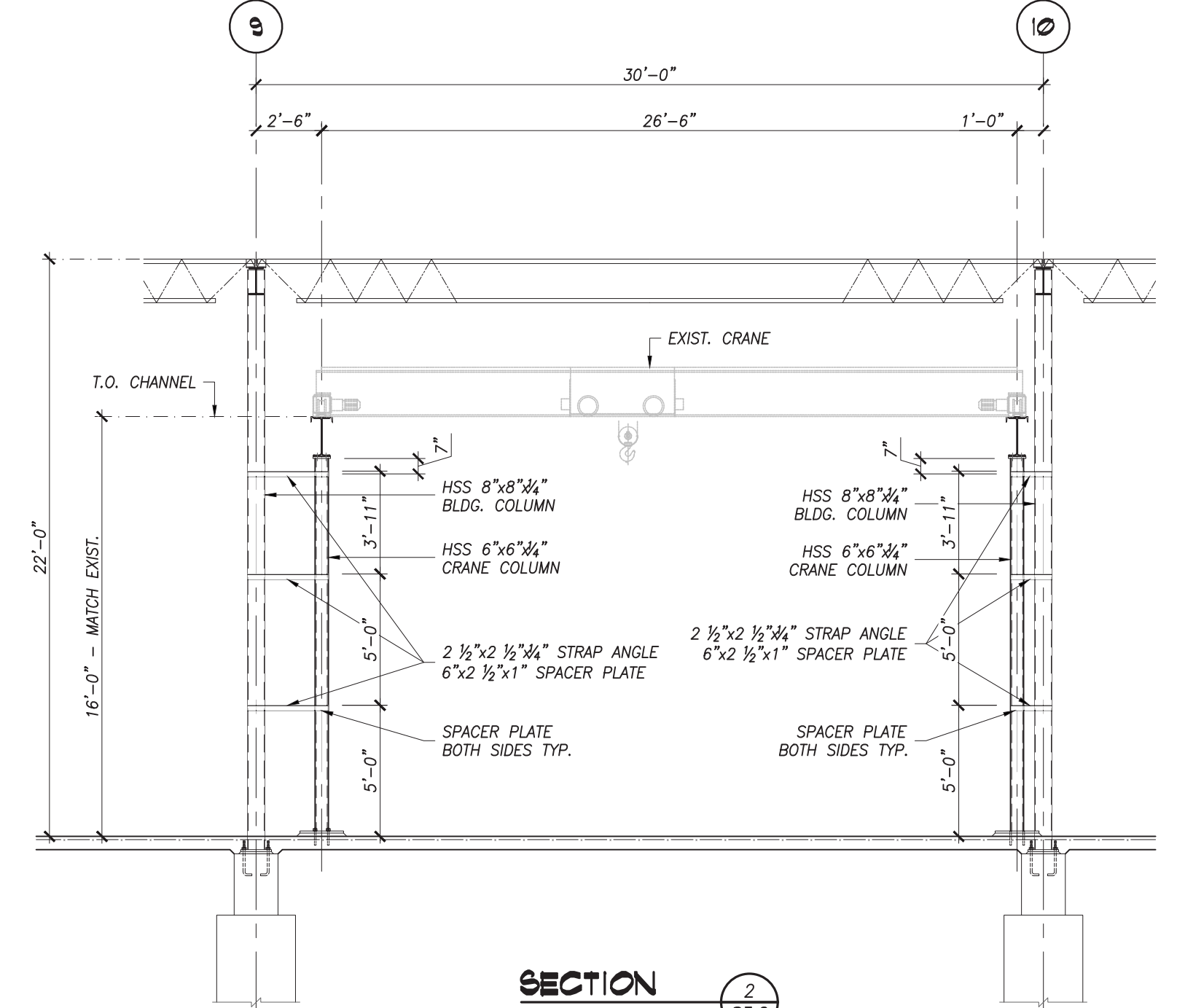
PLOT DATE: 2026/09/22 5:11 PM



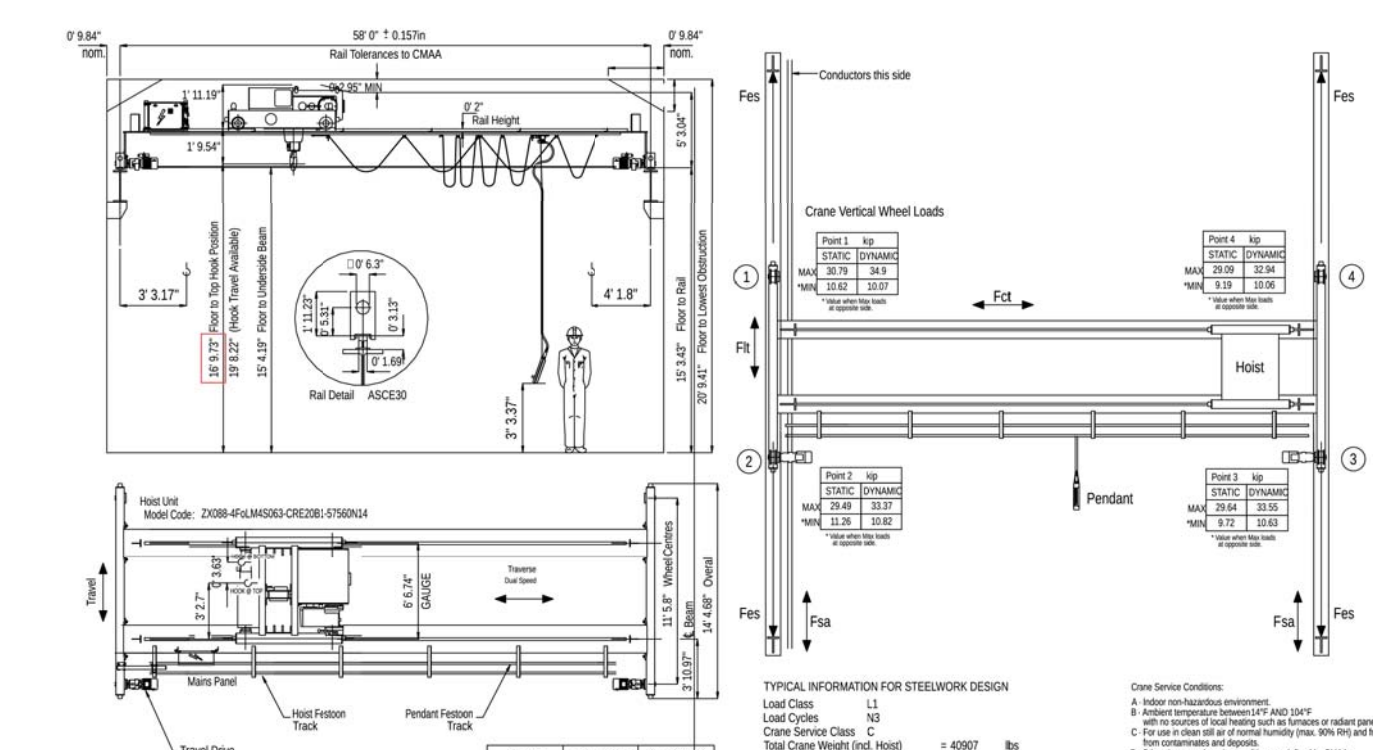
PLOT DATE: 2026/09/22 5:11 PM



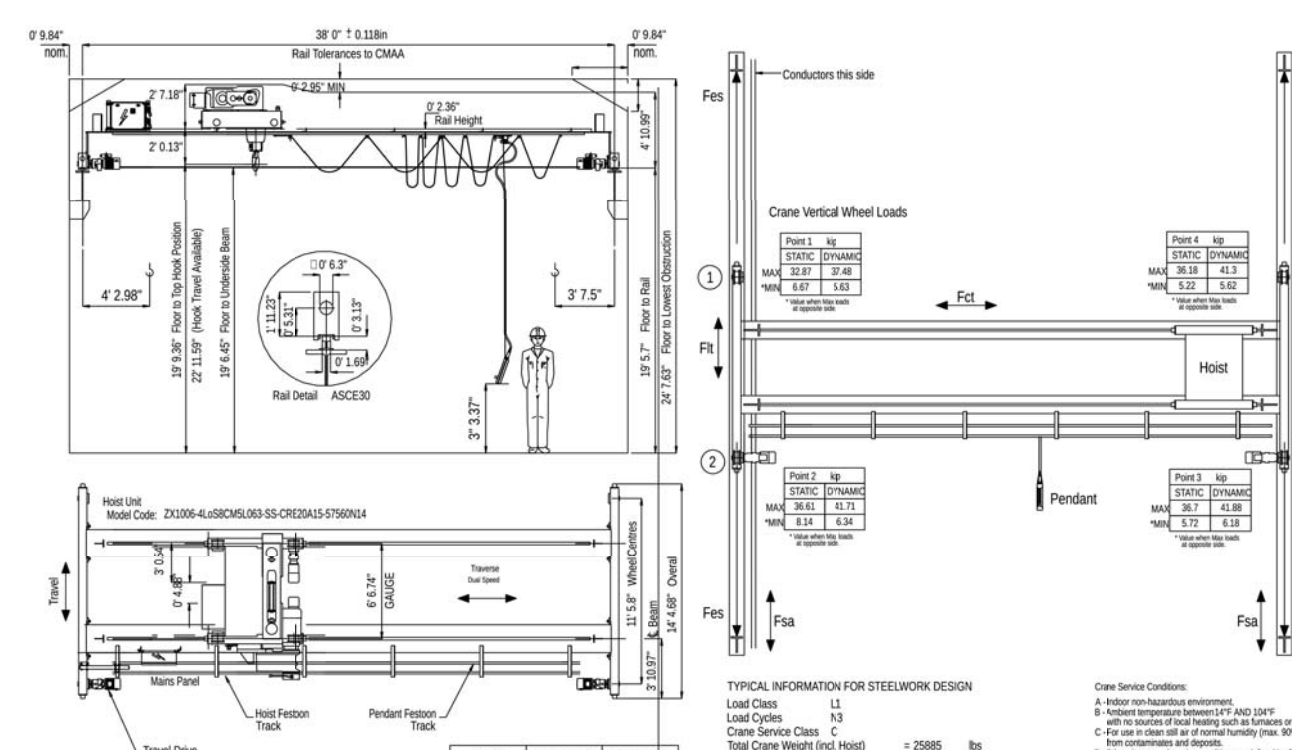
SECTION
SCALE 3/8"=1'-0"



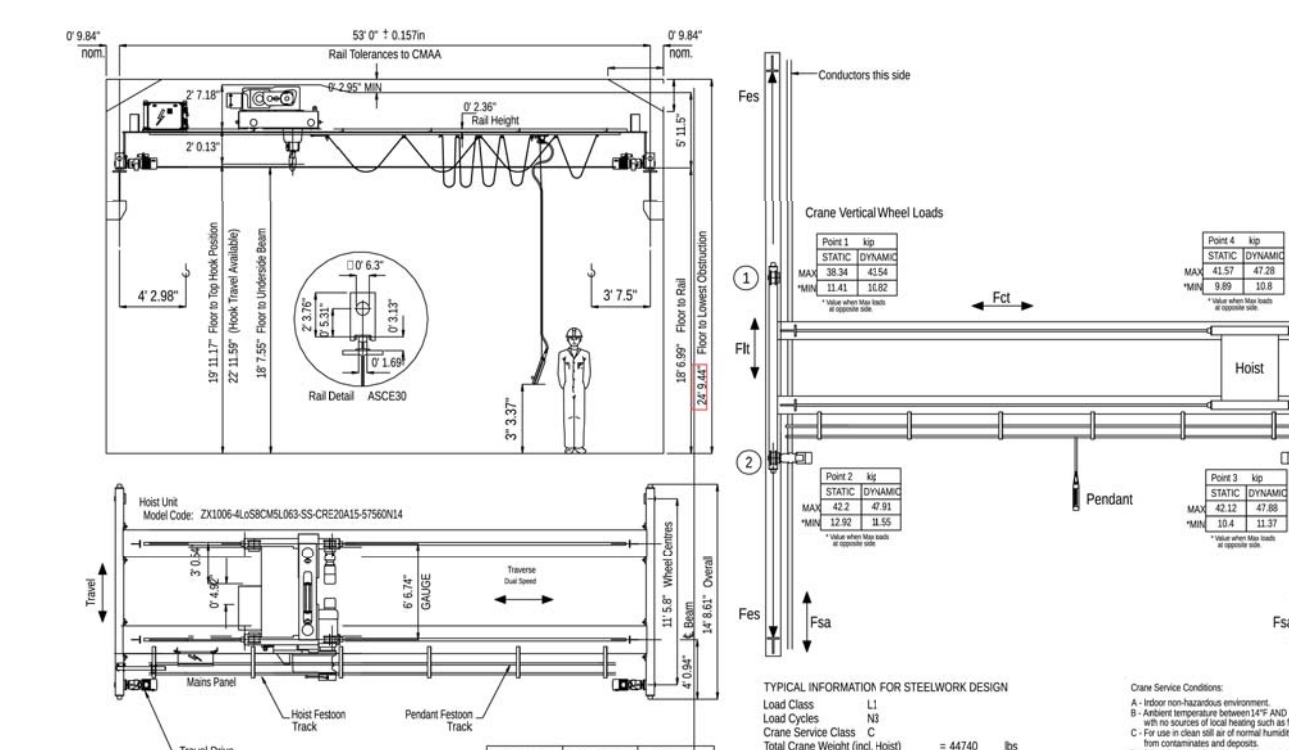
SECTION
SCALE 3/8"=1'-0"



CRANE BETWEEN GRID 14 & 16
ELECTRICAL & LOADING DETAILS



CRANE BETWEEN GRID 16 & 18
ELECTRICAL & LOADING DETAILS



CRANE BETWEEN GRID 20 & 22
ELECTRICAL & LOADING DETAILS

CRANE RUNWAY FRAMING PLAN

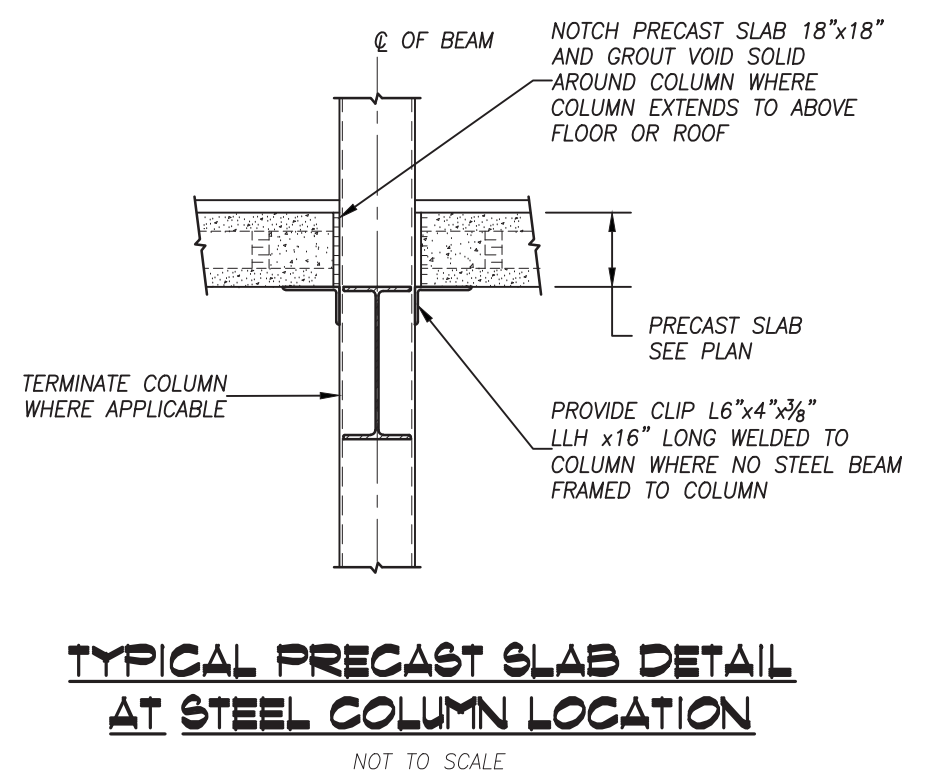
SCALE 3/8"=1'-0"

NOTE :
CRANE INFORMATION IS PRELIMINARY AND TO BE UPDATED
UPON RECEIPT OF FINAL APPROVED SHOP DRAWINGS.



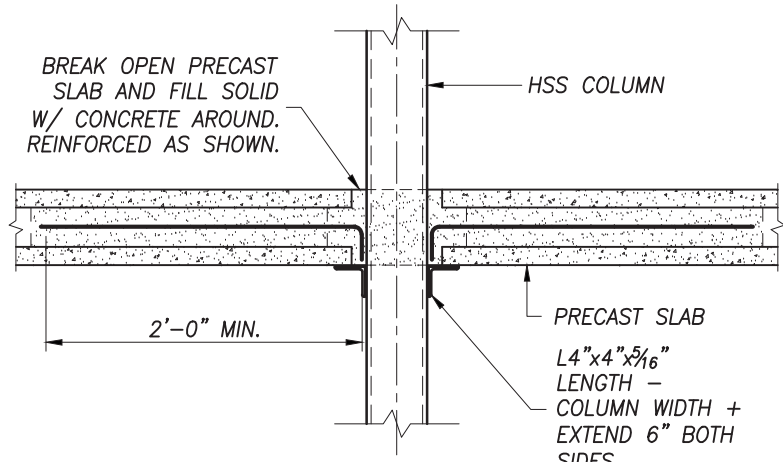
REVISIONS			
No.	DATE	REVISION	
2	26/09/22	ISSUED FOR TENDER	
1	26/08/20	ISSUED FOR PERMIT/TENDER	
LIBURDI AUTOMATION INC. PROPOSED MANUFACTURING ADDITION			
45 INNOVATION DRIVE DUNDAS ONTARIO			
CRANE RUNWAY FRAMING			
DATE APRIL, 2026	DRAWN BY AL	DRAWING No. S3.2	
PROJECT No. 18188	CHECKED BY HAPH		

PLOT DATE: 2026/09/22 5:11 PM



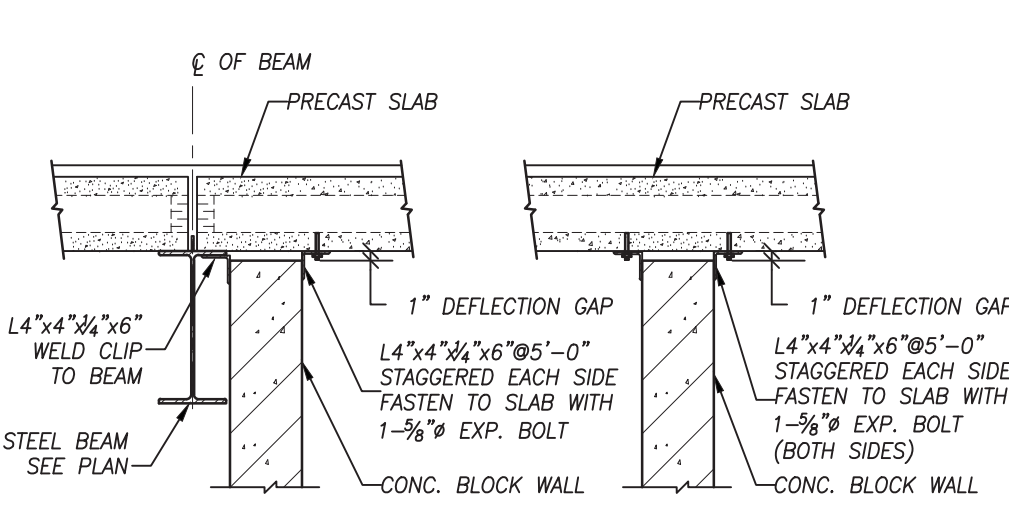
TYPICAL PRECAST SLAB DETAIL AT STEEL COLUMN LOCATION

NOT TO SCALE



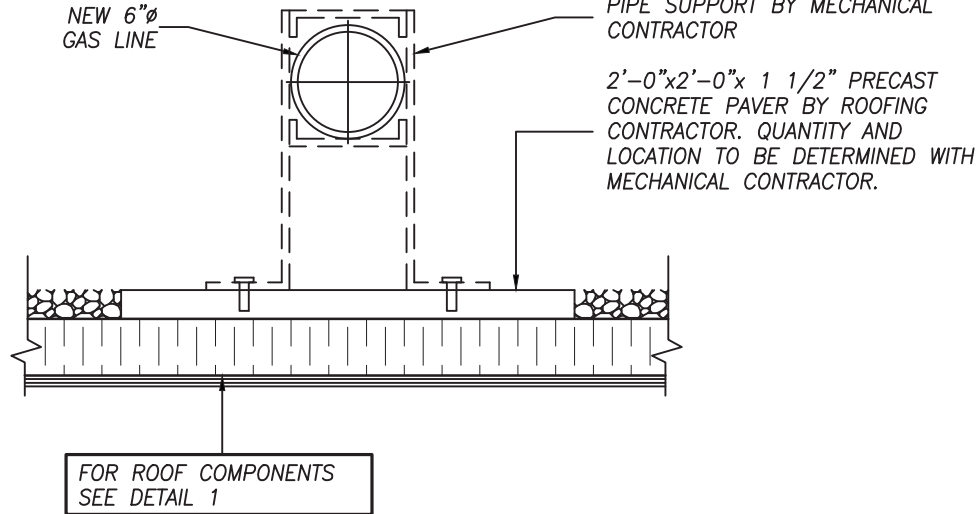
TYPICAL PRECAST DETAIL AT HSS COLUMN

NOT TO SCALE



BRACING OF PARTITION WALLS AT UNDERSIDE OF PRECAST SLAB

NOT TO SCALE



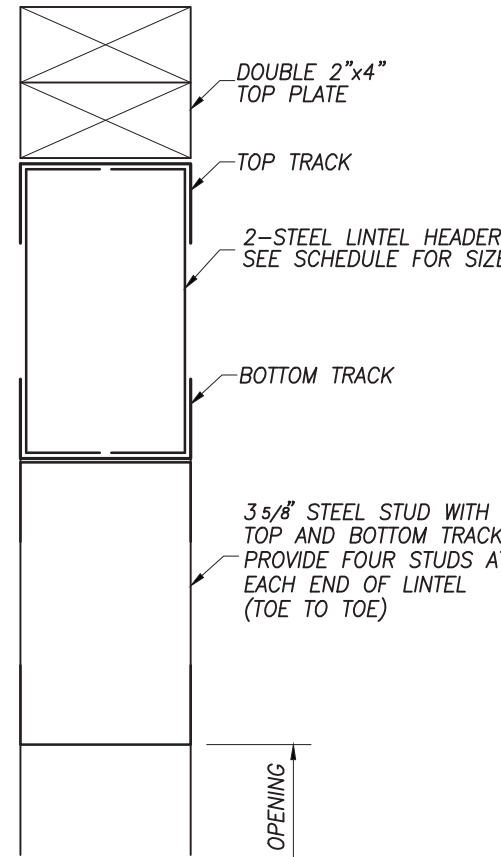
GAS LINE SUPPORT DETAIL

NOT TO SCALE

CLEAR SPAN	HEADER SIZE
UP TO 3'-11"	2-3/8" x 16 ga (0.060")
3'-11" TO 4'-7"	2-4" x 16 ga (0.060")
4'-7" TO 6'-7"	2-6" x 16 ga (0.060")
6'-7" TO 9'-2"	2-8" x 14 ga (0.075")

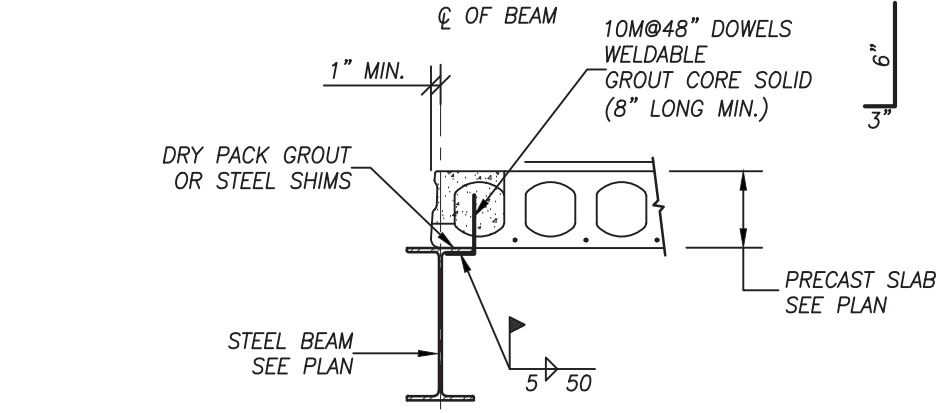
TYPICAL STEEL STUD LINTEL (66L) DETAIL

NOT TO SCALE



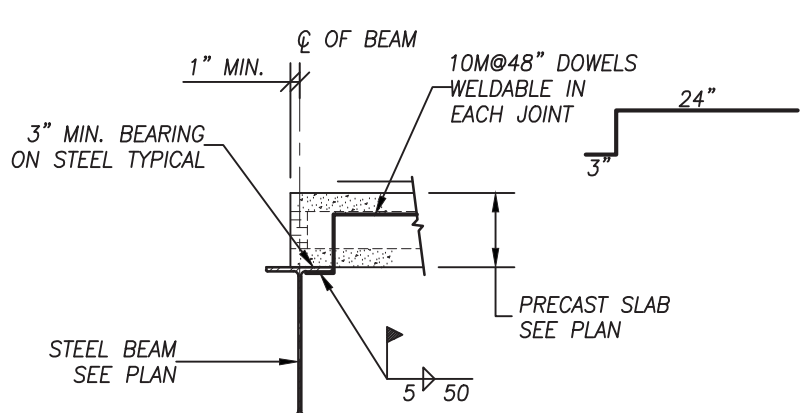
TYPICAL LINTEL SECTION

NOT TO SCALE



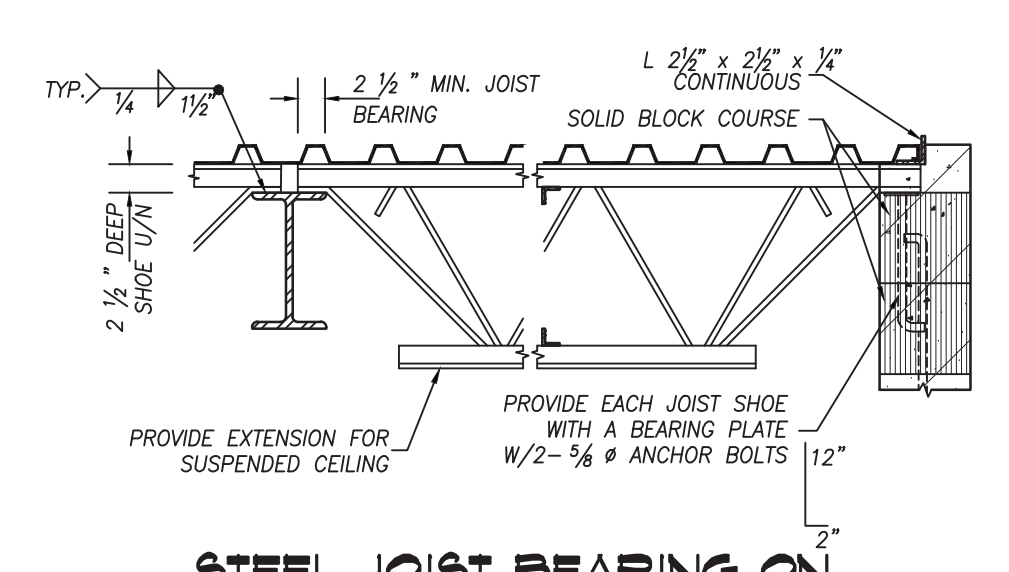
TYPICAL PRECAST SLAB BEARING DETAIL PARALLEL TO STEEL BEAM

NOT TO SCALE



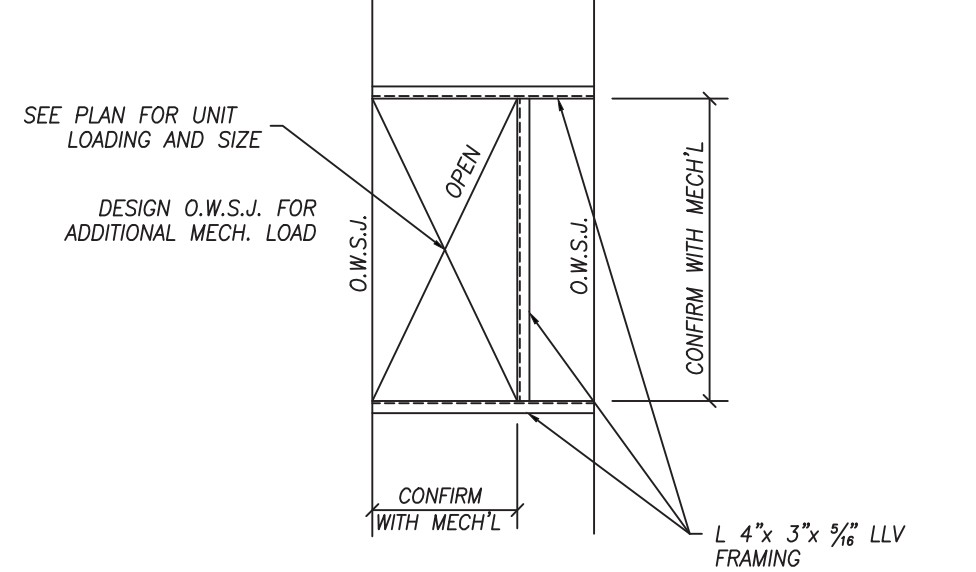
TYPICAL PRECAST SLAB BEARING DETAIL PERPENDICULAR TO STEEL BEAM

NOT TO SCALE



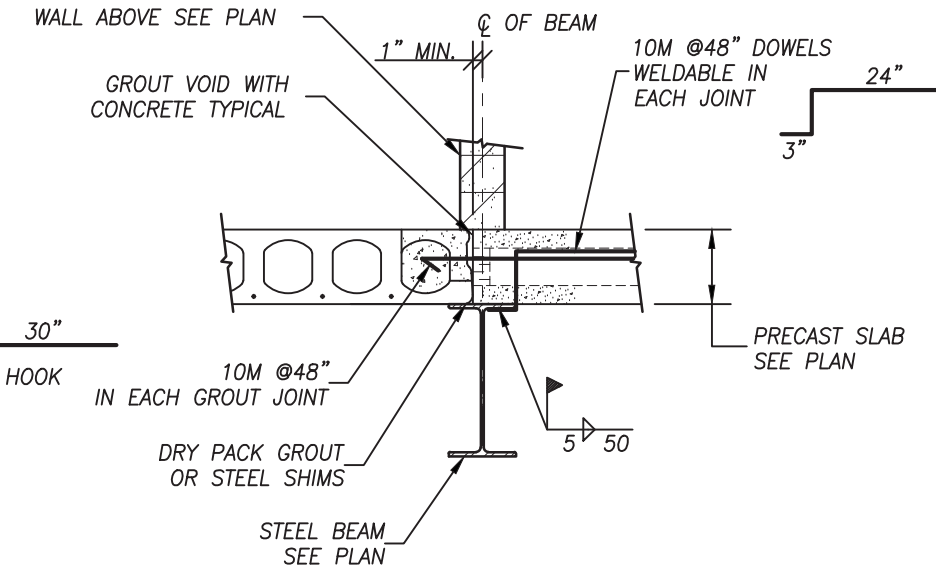
STEEL JOIST BEARING ON STEEL AND MASONRY (TYPICAL)

NOT TO SCALE



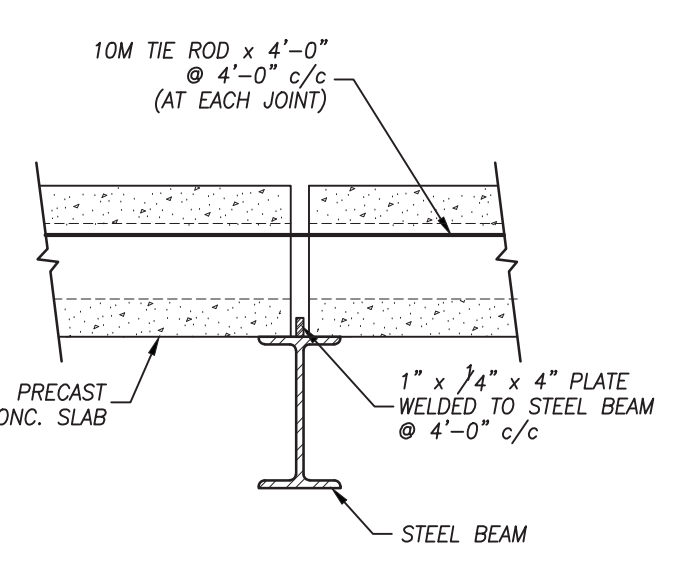
TYPICAL ROOF TOP HVAC UNIT FRAMING

NOT TO SCALE



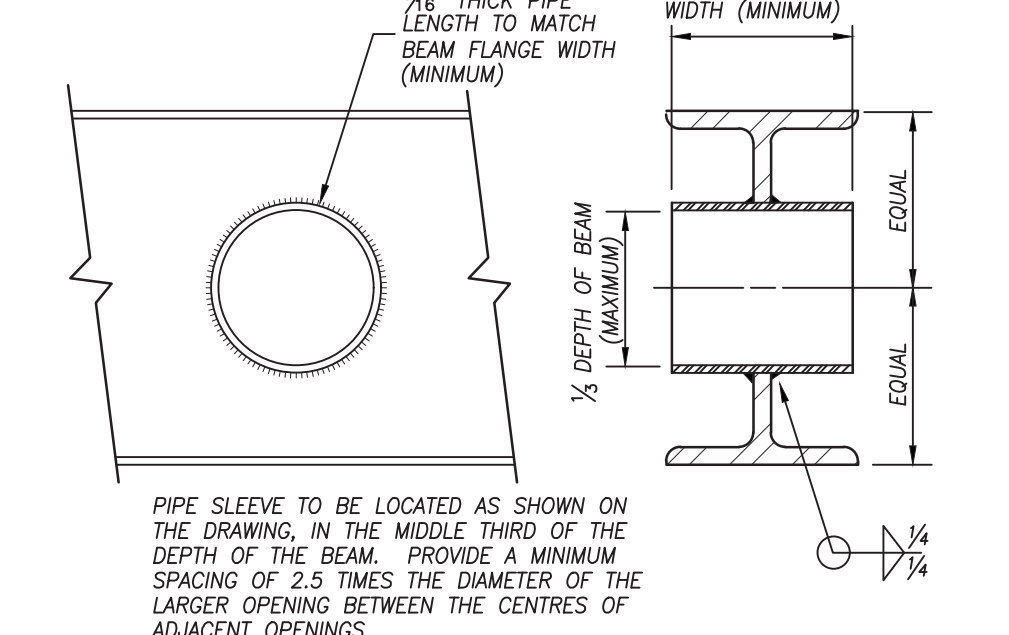
TYPICAL DETAIL OF PERPENDICULAR PRECAST SLABS TOP FLANGE BEARING

NOT TO SCALE



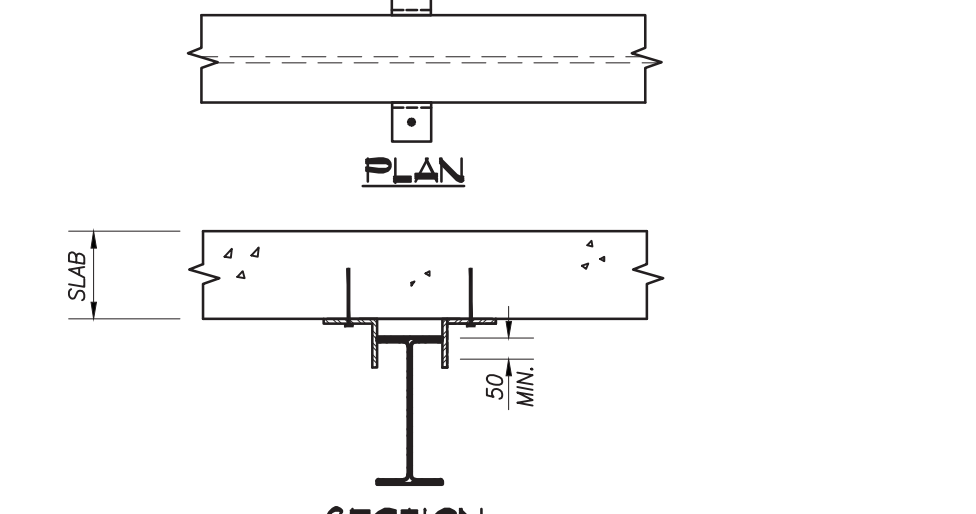
TYPICAL PRECAST SLAB BEARING ON STEEL BEAM

NOT TO SCALE



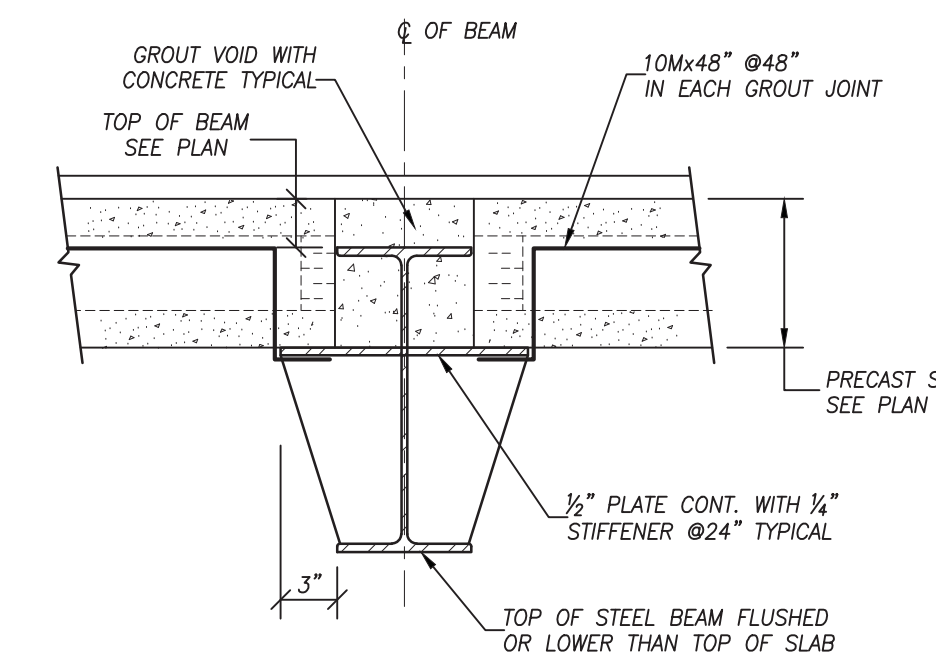
TYPICAL REINFORCING FOR OPENING IN STEEL BEAM

NOT TO SCALE



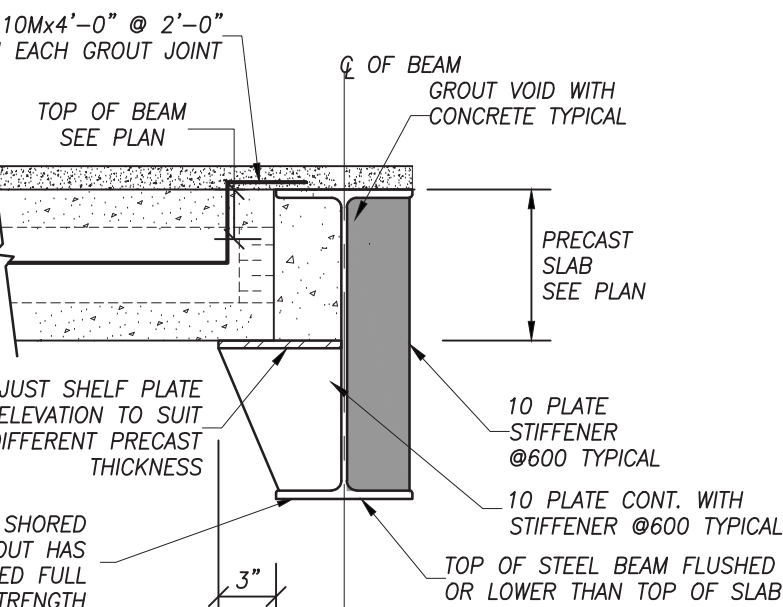
LATERAL CLIP DETAIL BRACING OF STEEL BEAM AT UNDERSIDE OF CONCRETE SLAB (PRECAST OR CAST-IN-PLACE)

NOT TO SCALE



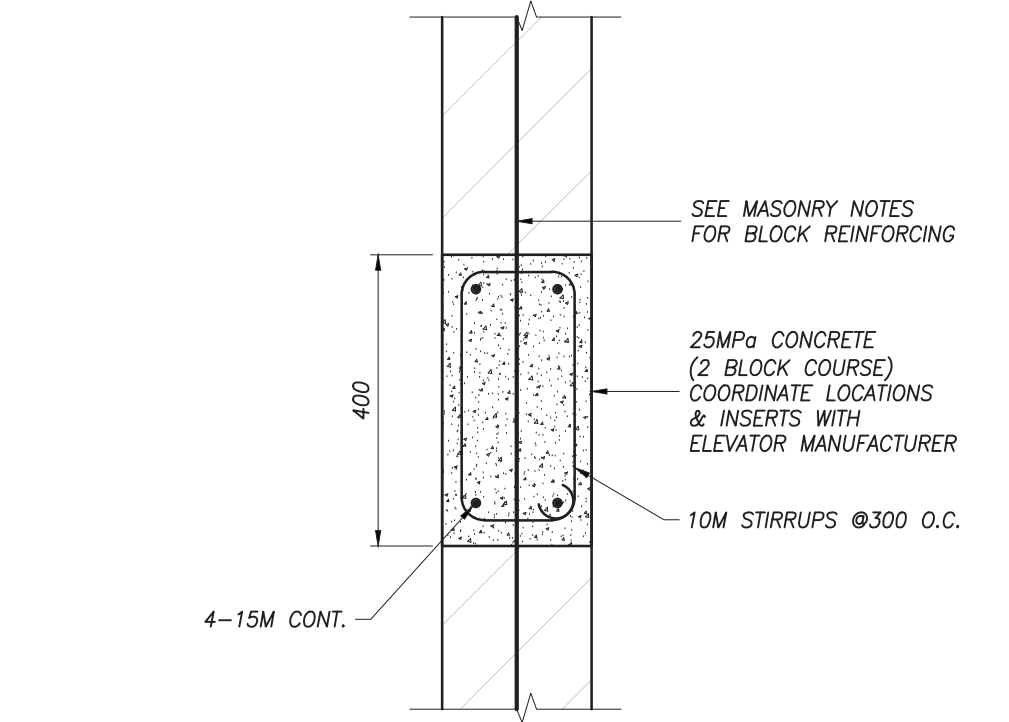
TYPICAL DETAIL OF PRECAST SLAB STEEL BRACKET BEARING

NOT TO SCALE



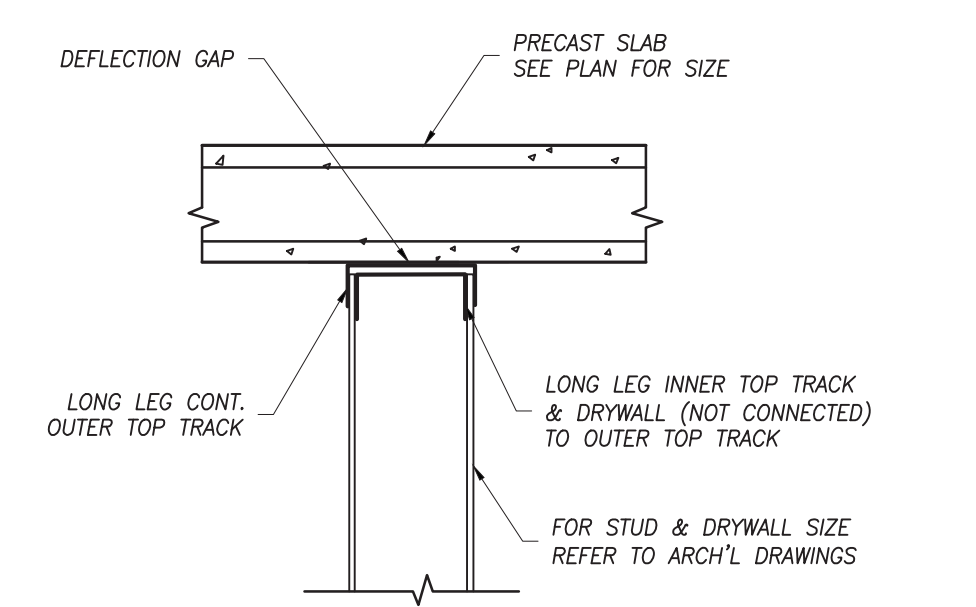
TYPICAL DETAIL OF PRECAST SLAB AT FLUSH BEAM (SINGLE BEARING)

NOT TO SCALE



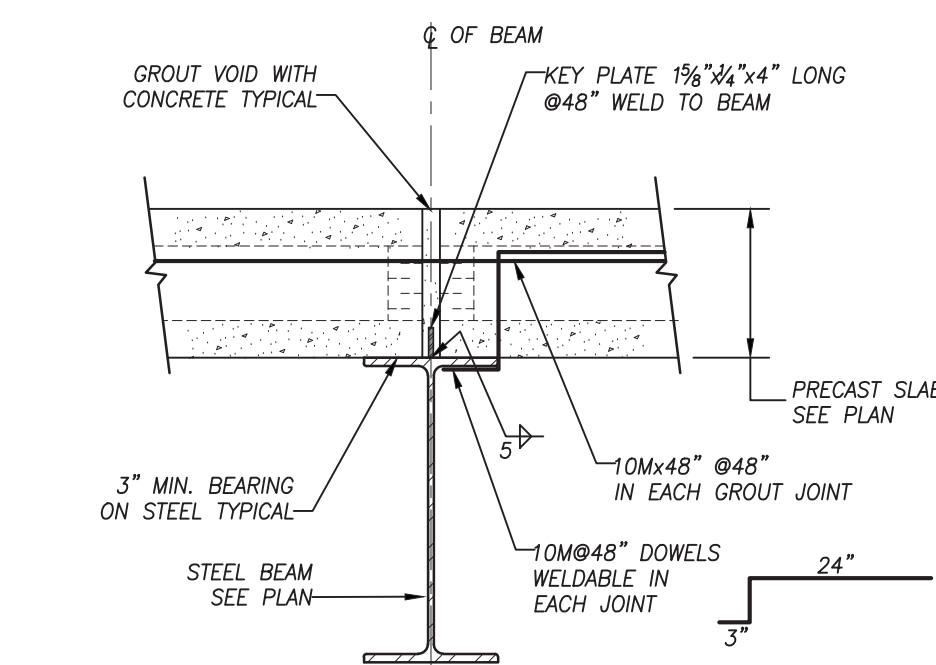
TYPICAL ELEVATOR BOND BEAM

NOT TO SCALE



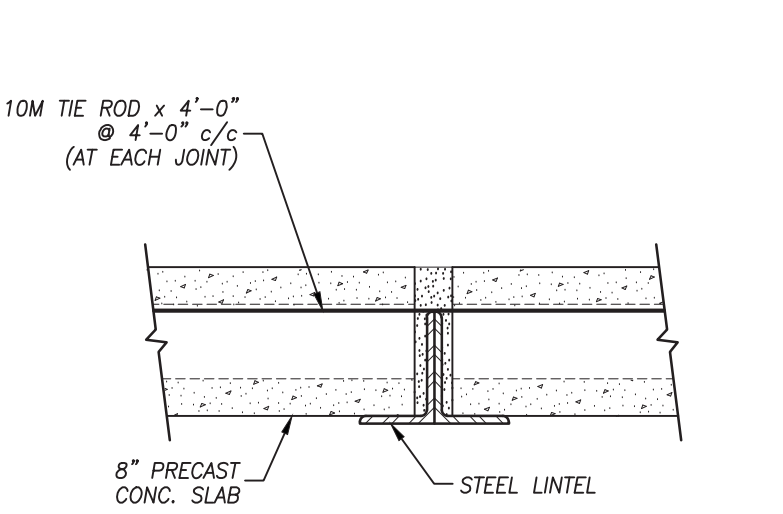
TYPICAL DEFLECTION GAP DETAIL

NOT TO SCALE



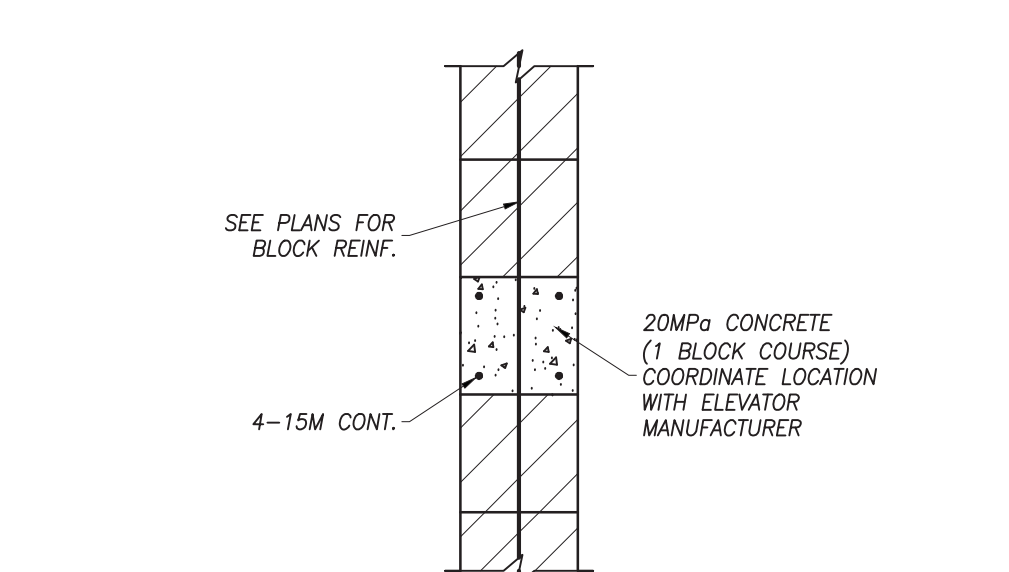
TYPICAL DETAIL OF PARALLEL PRECAST SLAB TOP FLANGE BEARING

NOT TO SCALE



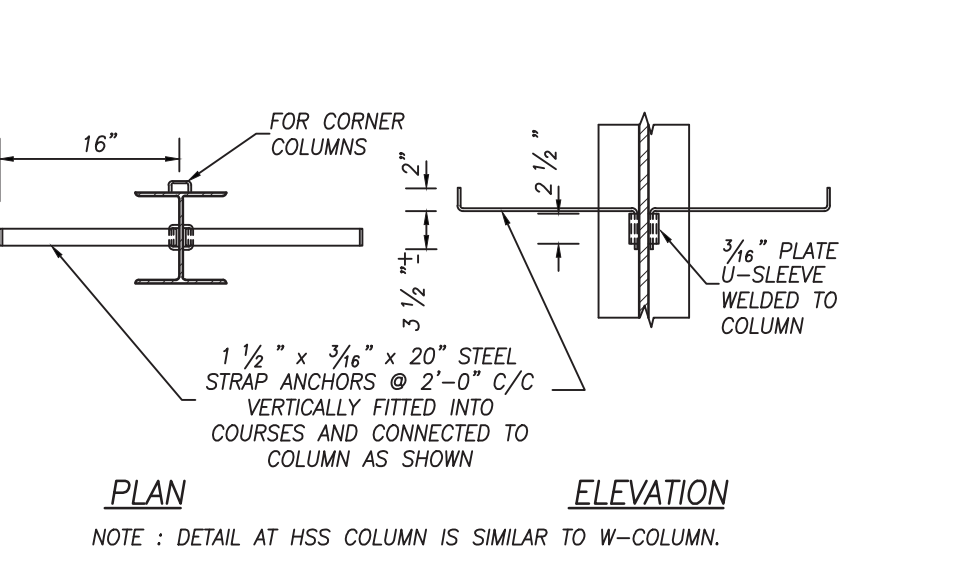
TYPICAL PRECAST DETAIL BEARING ON STEEL ANGLE LINTEL

NOT TO SCALE



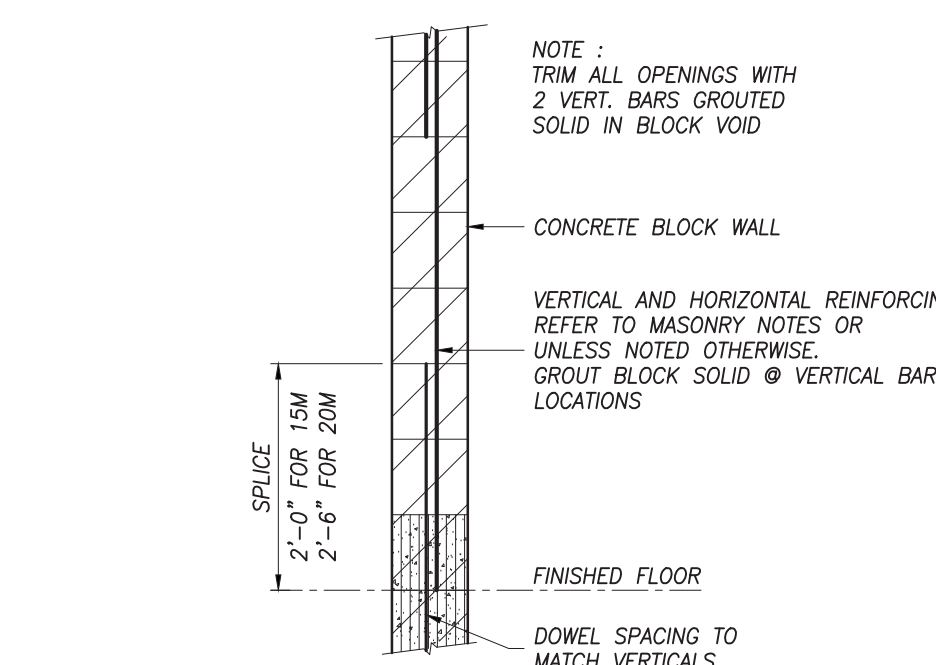
TYPICAL CONCRETE BOND BEAM

SCALE: NTS



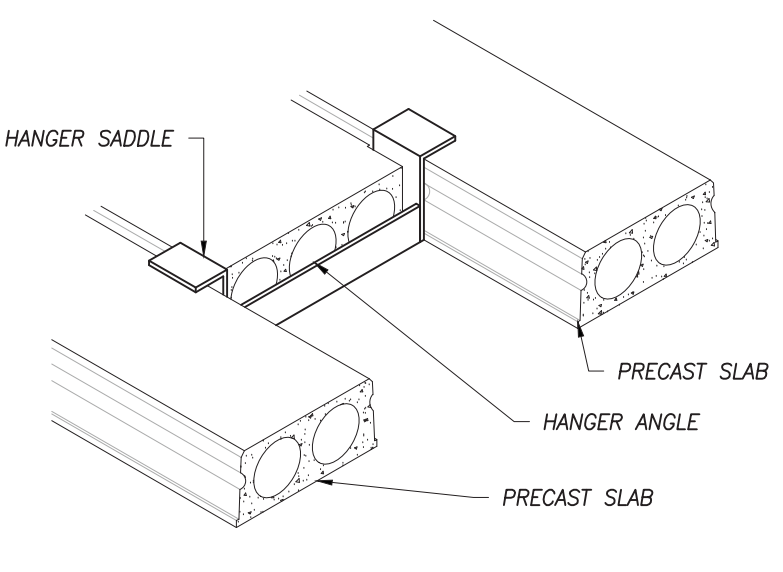
DETAIL OF ANCHORAGE OF STEEL COLUMN TO MASONRY WALL

NOT TO SCALE



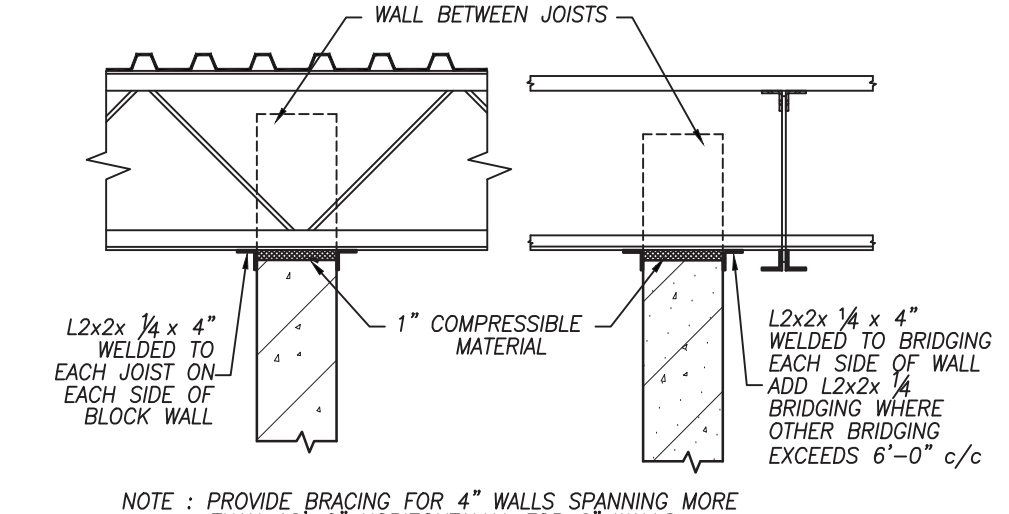
TYPICAL BLOCK WALL REINFORCING

NOT TO SCALE



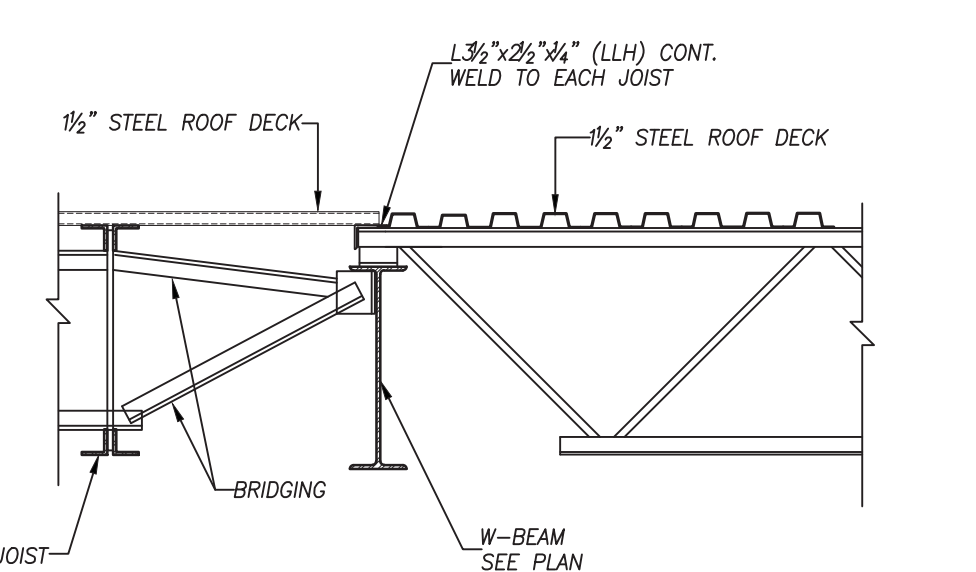
TYPICAL SLAB TO SLAB HANGER DETAIL

NOT TO SCALE



BRACING OF PARTITION WALLS AT UNDERSIDE OF STEEL JOIST

NOT TO SCALE



TYPICAL DECK SUPPORT DETAIL

NOT TO SCALE

CLEAR SPAN	6" WALL	8" WALL
UP TO 4'-0"	2x6x2 1/2 x 3/4	2x6x3/4 x 3/4
4'-0" TO 6'-0"	2x6x3/4 x 3/4	2x6x3/4 x 3/4
6'-0" TO 7'-0"	2x6x3/4 x 3/4	2x6x3/4 x 3/4

CLEAR SPAN	10" WALL	12" WALL
UP TO 4'-0"	2x6x3/4 x 3/4	2x6x3/4 x 3/4
4'-0" TO 6'-0"	2x6x3/4 x 3/4	2x6x3/4 x 3/4
6'-0" TO 7'-0"	2x6x3/4 x 3/4	2x6x3/4 x 3/4

FOR LINTELS IN 4" VENEER, USE 1 ANGLE OF THAT NOTED FOR 8" WALL ON SIMILAR SPAN.

DOUBLE ANGLES TO BE STITCH WELDED BACK TO BACK.

TYPICAL STEEL LINTEL (6L) DETAIL

NOT TO SCALE

No.	DATE	REVISION
2	26/09/22	ISSUED FOR TENDER
1	26/08/20	ISSUED FOR PERMIT/TENDER

REVISIONS



300 YORK BLVD HAMILTON, ONTARIO L8R 3K6 905-333-9119

LIBURDI AUTOMATION INC. PROPOSED MANUFACTURING ADDITION

45 INNOVATION DRIVE

DUNDAS

ONTARIO

DETAILS

DATE	DRAWN BY	DRAWING No.
APRIL, 2026	AL	S4.0
PROJECT No.	CHECKED BY	
18188	HAPH	

