

ABBREVIATIONS:

AB	ANCHOR BOLT	L	LOW
ABV	ABOVE	LB	LINK BEAM
AC	AIR CONDITIONER	LBS	POUNDS
ACI	AMERICAN CONCRETE INSTITUTE	LB/FT	POUNDS PER FOOT
ADDL	ADDITIONAL	LD	DEVELOPMENT LENGTH
ADJ	ADJACENT	LG	LONG
AFI	ADJUST FINISHED FLOOR	LL	LIVE LOAD
ASCE	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LLS	LATERAL LOAD RESISTING SYSTEM
ALT	ALTERNATE ALUM ALUMINUM	LV	LONG LEG VERTICAL
ANCH	ANCHOR	LW	LOW WEIGHT
ANG	ANGLE	LRFD	LOAD RESISTANCE FACTOR DESIGN
APPD	APPROVED	LT	LIGHT
APPROX	APPROXIMATE	LW	LIGHT WEIGHT
ARCH	ARCHITECTURAL	MAX	MAXIMUM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MAS	MASONRY
AVG	AVERAGE	MAT	MATERIAL
AWG	AMERICAN WELDING SOCIETY	MC	MOMENT CONNECTION
B	BASE	MD	METAL DECK
BETW	BETWEEN	MECH	MECHANICAL
BF	BRACE FRAME	MEP	MECHANICAL ELECTRICAL AND PLUMBING
BKT	BRACKET	MEZ	MEZZANINE
BL	BUILDING LINE	MF	MOMENT FRAME
BLDG	BUILDING	MFG	MANUFACTURER
BM	BEAM	MIN	MINIMUM
BOIT	BOTTOM	MISC	MISCELLANEOUS
BRK	BRICK	N	NORTH
B/STL	BOTTOM OF STEEL	NA	NOT APPLICABLE
BS	BOTH SIDES	N/C	NOT IN CONTRACT
CANT	CANTILEVER	NO	NUMBER
CF	CUBIC FOOT	N-S	NORTH-SOUTH
CE	CENTR OF GRAVITY	NTS	NOT TO SCALE
CJP	CAST IN PLACE	NW	NORMAL WEIGHT
C-JT	CONCRETE JOINT	O/C	ON CENTER
CL	CENTER LINE	OPG	OPENING
CLG	CEILING	OPR	OPPOSITE
CLR	CLEAR	PC	PILE CAP
CMU	CONSTRUCTION MANAGER	PCF	POUNDS PER CUBIC FEET
COL	CONCRETE MASONRY UNITS	PL	PLATE
CONC	CONCRETE	PLF	POUNDS PER LINEAR FOOT
COND	CONDITIONS	PSF	POUNDS PER SQUARE FOOT
CONN	CONNECTION	PT	POST TENSION
CONST	CONSTRUCTIONS	RC	REINFORCED CONCRETE
CONT	CONTINUOUS	RD	ROOF DRAIN
CONTR	CONTRACTOR	REF	REFERENCE
COORD	COORDINATE	REFN	REINFORCEMENT
CORR	CORRUGATED	REQD	REQUIRED
CY	CUBIC YARD	RFT	REQUEST FOR INFORMATION
DEMO	DEMOLITION	S	SOUTH
DEPT	DEPARTMENT	SB	SPANDREL BEAM
DET	DETAIL	SCHED	SCHEDULE
DIA	DIAMETER	SECT	SECTION
DM	DIMENSION	SF	SQUARE FOOT
DN	DOWN	SHT	SHEET
DWG	DRAWING	SL	SLAB
E	EAST	SLA	SPACING
EA	EACH	SPEC	SPECIFICATIONS
EF	EACH FACE	SQ	SQUARE
EL	ELEVATION	STD	STANDARD
ELEC	ELECTRIC	STIFF	STIFFENER
ELEV	ELEVATOR	STL	STEEL
EMBD	EMBEDMENT	STRUCT	STRUCTURAL
ENCL	ENCLOSURE	SW	SWITCH
ENR	ENGINEER OF RECORD	SM	SIMILAR
EOS	EDGE OF SLAB	TAB	TOP AND BOTTOM
EP	EMBEDDED PLATE	THK	THICK
EQUIP	EQUIPMENT	T/T	TOP OF
ETC	ETCETERA	TBD	TO BE DETERMINED
EW	EACH WAY	TEMP	TEMPORARY
E-W	EAST WEST	TSP	TONS PER SQUARE FOOT
EXIST	EXISTING	TY	TYPICAL
EXP	EXPANSION	UON	UNLESS OTHERWISE NOTED
EXT JT	EXTENSION JOINT	UP	UPTURNED BEAM
EXT	EXTERIOR	VERT	VERTICAL
FL	FLOOR	VF	VERIFY IN FIELD
FND	FOUNDATION	W	WEST
FOS	FACE OF BUILDING	W/O	WITH OUT
FT	FOOT	W/	WITH
FTG	FOOTING	W/OUT	WITHOUT
GA	GAUGE	WF	WIDE FLANGE
GALV	GALVANIZED	W/P	WORKING POINT
GC	GENERAL CONTRACTOR	WP	WATER PROOFING
GB	GRADE BEAM	WTR	WATER STOP
GRG	GRATING	WTD	WIND TRUSS
CY, BD	CYCLIM BOARD	WWF	WELDED WIRE FABRIC
H	HEAD	C	CENTERLINE
HDR	HEADER	PL	PLATE
HGT	HEIGHT	A	ANGLE
HORIZ	HORIZONTAL	&	AND
HP	HIGH POINT	D	DIAMETER
HR	HOOR	@	AT
HS	HIGH STRENGTH		
HVAC	HEAT, VENTILATION & AIR CONDITIONING		
ID	INSIDE DIAMETER		
IF	INTERIOR FACE		
INCH	INCH		
INCL	INCLUDING		
INFO	INFORMATION		
INSUL	INSULATION		
JT	JOINT		
K	KIP (1000 POUNDS)		
KSF	KIPS PER SQUARE FOOT		
KSI	KIPS PER SQUARE INCH		

CONTROLLED INSPECTIONS

(TERMINOLOGY PER CURRENT TR-1)	CURRENT CODE REFERENCES	(PREVIOUS TERMINOLOGY) "CONTROLLED INSPECTION"
SPECIAL INSPECTION		
STRUCTURAL STEEL - WELDING	1704.3.1	WELDING
STRUCTURAL STEEL - ERECTION & BOLTING	1704.3.3	HIGH - STRENGTH BOLTING
CONCRETE - CAST IN PLACE	1704.4	CONCRETE
CONCRETE TEST CYLINDERS* (TR2)	1905.6	CONCRETE TEST CYLINDERS
CONCRETE DESIGN MIX* (TR3)	1905.3	CONCRETE MIX DESIGN
SOILS - SITE PREPARATION	1704.7.1	SUBGRADE
SOILS - FILL PLACEMENT & IN-PLACE DENSITY	1704.7.2 1704.7.3	CONTROLLED FILL -
SOILS - INVESTIGATIONS (BORINGS/TEST PITS) (TR4)	1704.7.4	BORINGS / TEST PITS
PILE FOUNDATIONS & DRILLED PIER INSTALLATION (RS)	1704.8	PIILING
UNDERPINNING	1704.9.1	UNDERPINNING
WALL PANELS, CURTAIN WALLS AND VENEERS (ATTACHMENT TO BUILDING)	1704.10	(NONE)
SPRAYED FIRE RESISTANT MATERIALS	1704.11	SPRAY - ON FIREPROOFING
STRUCTURAL SAFETY - STRUCTURAL STABILITY	1704.19	STRUCTURAL STABILITY
EXCAVATION - SHEETING, SHORING AND BRACING	1704.19 & 3304.1	SHORING & SHEETING
FIRESTOP, DRAFTSTOP AND FIREBLOCK SYSTEMS	1704.25	(NONE)
PROGRESS INSPECTION		
FOOTING AND FOUNDATION	109.3.1	SOIL BEARING PRESSURE
FINAL	28-116.2.4.2 & 109.3 AND DIRECTIVE 14-(1915)	FINAL INSPECTION

* THESE TEST MUST BE PERFORMED BY A LICENSED CONCRETE TESTING LAB.

NOTES:

- REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION ON SCOPE AND DETAILED REQUIREMENTS FOR INSPECTIONS.
- ALL SPECIAL INSPECTIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.
- REPORTS OF RESULTS SHALL BE SUBMITTED TO THE OWNER AND ARCHITECT FOR REVIEW. SIGNED COPIES OF ALL TESTS AND INSPECTION REPORTS SHALL BE FILED WITH THE BUILDING DEPARTMENT (THROUGH THE APPLICANT).
- REPORTS SHALL STATE WHETHER RESULTS COMPLY WITH CONTRACT REQUIREMENTS, SUMMARIZE THE TYPE OF TEST, THE LOCATION OR COMPONENT TESTED, AND RECOMMEND ANY REMEDIAL MEASURES REQUIRED. REPORT SHOULD NOTE ANY OTHER DEVIATIONS FROM THE CONTRACT DOCUMENTS.
- FOR ITEMS OF WORK OF OTHER TRADES WHICH ARE SUBJECT TO SPECIAL INSPECTION, SEE THE CITY OF NEW YORK BUILDING CODE, AS WELL AS ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC. DRAWINGS AND SPECIFICATIONS.
- IN ADDITION TO THE ABOVE REQUIREMENTS, ALL COLUMN SPICES, BEAM MOMENT CONNECTIONS AT BEAMS DESIGNATED AS "LRS" AND BRACE FRAME OR WIND TRUSS CONNECTIONS (PER S-940 SERIES OF DWGS.) SHALL COMPLY WITH THE INSPECTION REQUIREMENTS OF AWS D1.8 "STRUCTURAL WELDING CODE-SEISMIC SUPPLEMENT", IF WELDING IS PRESENT IN CONNECTION.

GENERAL NOTES:

- ALL WORK TO BE PERFORMED IN COMPLIANCE WITH THE NEW YORK CITY BUILDING CODE, LATEST EDITION AND ALL SUPPLEMENTS.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD AND BE RESPONSIBLE FOR ACCURATE COORDINATION WHERE POSSIBLE.
- ALL UNDERPINNING, SHEETING, SHORING OR OTHER CONSTRUCTION REQUIRED FOR THE SUPPORT OF ADJACENT PROPERTIES, BUILDINGS, SIDEWALKS, UTILITIES, ETC., SHALL BE SUBJECT TO SPECIAL INSPECTION AS REQUIRED BY THE CODE. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER ACCEPTABLE TO THE ENGINEER OF RECORD TO PROVIDE THE NECESSARY DESIGN AND THE REQUIRED INSPECTION. THE CONTRACTOR'S PROFESSIONAL ENGINEER SHALL PREPARE AND FILE THE REQUIRED FORMS FOR THE WORK WITH THE BUILDING DEPARTMENT.
- ALL ELEVATIONS SHOWN ON THIS SET REPRESENT RELATIVE ELEVATIONS BASED ON NAVD 88.

A. EXCAVATION NOTES:

- ALL FOUNDATIONS SHALL BEAR ON PILES (SEE PILE NOTE) AND 20 TON/SF ROCK.
- WHERE EXISTING FOOTING OR FOUNDATIONS OF ADJACENT PROPERTY IS LOWER THAN ELEVATIONS SHOWN, NEW MAT FOUNDATION IS TO BE LOWERED TO SAME ELEVATION. WHERE NEW MAT FOUNDATION IS LOWER THAN EXISTING, CONTRACTOR IS TO ESTABLISH EXISTING CONDITIONS BEFORE FOUNDATIONS, COMMENCING WORK AND NOTIFY THE ENGINEER.
- ALL UNDERPINNING, SHEETING, SHORING OR OTHER CONSTRUCTION REQUIRED FOR THE SUPPORT OF ADJACENT PROPERTIES, BUILDINGS, SIDEWALKS, UTILITIES, ETC., SHALL BE SUBJECT TO CONTROLLED INSPECTION AS REQUIRED BY THE CODE. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER ACCEPTABLE TO THE ENGINEER OF RECORD TO PROVIDE THE NECESSARY DESIGN AND THE SHALL PREPARE AND FILE THE REQUIRED FORMS FOR THE WORK WITH THE REQUIRED INSPECTION. THE CONTRACTOR'S PROFESSIONAL ENGINEER BUILDING DEPARTMENT.

B. CONCRETE AND STEEL REINFORCEMENT

- ALL CONCRETE SHALL BE NORMAL WEIGHT CONTROLLED CONCRETE, U.O.N., AND COMPLY WITH A.C.I. BUILDING CODE AND THE CURRENT NEW YORK CITY BUILDING CODE.
- CONCRETE STRENGTH SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
-FOUNDATION PIERS, PILE CAPS, MATS 5950 PSI
-BUTTRESSES AND FOUNDATION WALLS 5950 PSI MIN. "SEE COLUMN SCHEDULE"
-COLUMN PIERS IF ANY 5950 PSI MIN. "SEE COLUMN SCHEDULE"
-SLAB ON GROUND 6500 PSI
-CRASH WALL 5950 PSI
- FOUNDATION WALLS AND BUTTRESSES CAST INTEGRALLY WITH SHEAR WALLS 5950 PSI. SEE PLAN.
- IF SLAB ON GROUND IS POURED BEFORE THE COLUMNS ABOVE AND THE COLUMN STRENGTH IS 5950 PSI OR GREATER, THE SLAB ON GROUND STRENGTH IS TO BE ACCORDING TO THE DETAIL OF BEAM AND SLAB CONCRETE PLACEMENT AT HIGH STRENGTH COLUMN." DWG. FO-202. IN ADDITION, THE DOWNELS EXTENDING ABOVE THE FOOTINGS, PIERS OR PILE CAPS ARE TO BE LENGTHENED A MIN. 12", BEYOND THAT SHOWN OR CALLED FOR IN THE DETAILS.
- ALL STEEL REINFORCEMENT SHALL HAVE AN ULTIMATE TENSILE STRENGTH OF 90,000 PSI AS PER A.S.T.M. A615-94 GRADE 60. A.S.T.M. A775-94D FOR EPOXY COATED REINFORCING BARS, AND A.S.T.M. A884-94d FOR EPOXY COATED STEEL WIRE AND WELDED WIRE FABRIC FOR REINFORCEMENT. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE NECESSARY CHAIRS, REBARS, TIES, SPACERS, ETC., TO SECURE AND SUPPORT THE REINFORCING WHILE PLACING THE CONCRETE.
- ALL BARS MARKED CONTINUOUS, SHALL BE LAPPED BY DIAMETERS AT SPICES AND CORNERS EXCEPT AS OTHERWISE SHOWN ON PLANS. LAP CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND BOTTOM BARS AT SUPPORTS. HOOK TOP BARS AT DISCONTINUOUS ENDS.
- VERTICAL CONSTRUCTION JOINTS IN ALL WALLS SHALL BE USED ONLY IF UNAVOIDABLE, OR UNLESS OTHERWISE NOTED, AND TO BE LOCATED AT LEAST 4'-0" FROM ANY SUPPORTING COLUMN OR WALL OPENING. DISTANCE BETWEEN JOINTS IN WALL SHALL BE ALLOWED AS PER SPECIFICATIONS. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE ALLOWED IN GRADE BEAMS.
- IN NO CASE SHALL TRUCKS, BULLDOZERS, OR OTHER HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 6'-0" FROM ANY FOUNDATION WALL UNLESS APPROVED BY THE ENGINEER.
- TEMPORARY BRACING SHALL BE PROVIDED FOR ALL BUTTRESSES, WHERE BUTTRESSES DO NOT EXIST OR SPACING BETWEEN BUTTRESSES EXCEED 25 FEET, AND WHERE THE DIFFERENCE IN LEVEL BETWEEN INSIDE AND OUTSIDE GRADE IS MORE THAN 4'-0". INTERMEDIATE BRACING SHALL BE PROVIDED, WHERE RAMPS OCCUR, THE GRADE ELEVATION OUTSIDE OF RAMP WALLS SHALL BE USED IN FIGURING THE DIFFERENCE IN LEVEL. CORNER BUTTRESSES NEED NOT BE BRACED. NO BACKFILLING IS TO BE DONE BEFORE ALL SLABS BRACING WALLS ARE IN PLACE UNLESS APPROVED BY THE ENGINEER. PROVIDE TEMPORARY BRACING FOR ALL PIERS AND SUMP PITS.
- CONTRACTOR TO INSTALL ALL PIPE SLEEVES, BOXED OPENINGS, ANCHOR BOLTS, ETC., AS REQUIRED FOR THE VARIOUS TRADES. WALL POCKETS TO RECEIVE BEAMS AND SLABS SHALL BE PROVIDED AS REQUIRED FOR THE SUPERSTRUCTURE. SHOP DRAWINGS SHOWING THE POSITION OF OPENINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE.
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE 3" FOR INTERIOR SLABS AND INTERIOR WALL SURFACES; 1 1/2" FOR BEAMS, GIRDERS, AND COLUMNS (TIES, STIRRUPS OR PRIMARY REINFORCEMENT), FOR ALL CONCRETE EXPOSED TO WEATHER AND EARTH FILL, COVER SHALL BE 2" (1 1/2" FOR STIRRUPS), FOR CONCRETE PLACED AGAINST EARTH, MINIMUM COVER SHALL BE 3".
- THE CONTRACTOR MUST SUBMIT REINFORCING SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW. NO CONSTRUCTION IS TO BE STARTED UNTIL THE SHOP DRAWINGS ARE REVIEWED BY THE ENGINEER.
- THE STRUCTURAL ENGINEER OR HIS FIELD QUALIFIED REPRESENTATIVE MUST CHECK AND APPROVE ALL STEEL REINFORCING PRIOR TO CONCRETE PLACEMENT.

MASONRY NOTES

- SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR COMPLETE REQUIREMENTS FOR CMU. MASONRY CONSTRUCTION AND APPEARANCE. DETAILS AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO SUPPLEMENT ARCHITECTURAL REQUIREMENTS AND TO DEFINE ELEMENTS WHICH PROVIDE STRUCTURAL STRENGTH AND STABILITY.
- DETAILS, SECTIONS, SCHEDULES, ETC. AND THESE NOTES, REPRESENT THE MINIMUM REQUIREMENTS FOR STRUCTURAL ACCURACY. WHERE ARCHITECTURAL REQUIREMENTS DIFFER FROM STRUCTURAL, THE MORE STRINGENT SHALL BE FOLLOWED.
- CODE: MASONRY WALL CONSTRUCTION SHALL CONFORM TO THE NEW YORK CITY BUILDING CODE AND TO ACI 530/ASCE-5 AS REFERENCED BY THE NYC CODE.
- MASONRY UNITS SHALL BE LIGHTWEIGHT HOLLOW LOAD BEARING CONCRETE MASONRY (CMU). COMPRESSIVE STRENGTH OF MASONRY FM SHALL BE A MINIMUM OF 1300 PSI.
- MORTAR SHALL BE TYPE M OR S.
- HORIZONTAL JOINT REINFORCEMENT SHALL BE TRUSS TYPE GALVANIZED COLD-DRAWN STEEL WIRE CONFORMING TO ASTM A 951.
- PROVIDE HORIZONTAL JOINT REINFORCEMENT IN EVERY OTHER JOINT (16" O.C. VERTICALLY) UNLESS PLANS OR DETAILS CALL FOR CLOSER SPACING OR ADDITIONAL REINFORCEMENT.
- BAR REINFORCEMENT: ASTM A 615 GRADE 60, PER SCHEDULE, FOR ADDITIONAL REINFORCEMENT SEE WALL REINFORCEMENT ELEVATION.
- ALL CELLS WITH REINFORCEMENT SHALL BE GROUTED SOLID FOR THE FULL EXTENT OF BAR, VERTICAL AND HORIZONTAL.
- GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI. GROUT SHALL BE LIGHTWEIGHT MIX AS DEFINED BY ASTM C 476.
- STEEL ANGLES: ASTM A 36, STEEL IN AN EXTERIOR WALL OR EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED. 12. CONTRACTOR SHALL COORDINATE ALL MASONRY WORK WITH WORK OF OTHER TRADES: ARCHITECTURAL, STRUCTURAL, MEP.

PILE AND FOOTING NOTES:

- PILES ARE DESIGNED FOR 150 TONS - PILES TO BE STEEL "H" BEARING PILES. "H" PILES TO BE HP 14 x 89 GR50.
- PILE DRIVING TO BE SUPERVISED BY A LICENSED PROFESSIONAL ENGINEER.
- TOP OF PILE CAP ELEVATION TO BE 2" BELOW BOTTOM OF SLAB U.O.N., THUS TO<XX'XX" ON PLAN.
- ALL PILES TO BE DRIVEN TO PENETRATION IN BEARING STRATA TO RESISTANCE AS PER SPECIFICATIONS.
- RECORDS OF PILE PENETRATION OF EVERY PILE, AND THE BEHAVIOR OF SAME DURING DRIVING SHALL BE FILED WITH THE BUILDING DEPARTMENT.
- PILE RE-LOCATION PLANS AND PILE LOG SHALL BE FILED BY THE DESIGN ENGINEER AND APPROVED BY THE BUILDING DEPARTMENT. NO PILE CAPS ARE TO BE PLACED BEFORE THIS IS DONE.
- A PLAN SHOWING THE IDENTIFICATION OF ALL PILES AND A PILE NUMBERING PLAN SHALL BE FILED WITH THE BUILDING DEPARTMENT.
- PLANS TO INDICATE MINIMUM REQUIRED PENETRATION OF ALL PILES, SHALL BE FILED WITH THE BUILDING DEPARTMENT.
- AN AMENDMENT SHALL BE FILED AND APPROVED FOR ON-SITE INSPECTION ON ALL CRANES AND "RIGS", BEFORE MOVING THIS EQUIPMENT ONTO THE JOB SITE.
- A "SPECIAL INSPECTION" FORM IS TO BE SUBMITTED INDICATING THE ENGINEER WHO WILL HAVE RESPONSIBILITY FOR SUPERVISING THE PILES, APPROVED BY THE BUILDING DEPARTMENT, AND THE ENGINEER OF RECORD.
- LOAD TESTS SHALL BE PERFORMED AS PER LOAD TEST PROCEDURES NEW YORK CITY BUILDING CODE.
- FOR DETAILS AND OTHER PERTINENT INFORMATION REFER TO GEOTECHNICAL REPORT PROVIDED BY LANGAN, DATED APRIL 13, 2015.
- THE PILES ON DRAWINGS ARE BASED ON THE ROCK ELEVATIONS AS INDICATED ON THE BORING DATA. ACTUAL ROCK ELEVATION MAY BE DIFFERENT THAN ANTICIPATED. ONCE THE ACTUAL ELEVATION IS FOUND, THE CONTRACTOR, AT HIS EXPENSE SHALL ASK THE ENGINEER OF RECORD TO PROVIDE THE NECESSARY DESIGN CHANGES, SUCH AS SPREAD FOOTINGS WHERE PILE LENGTHS ARE LESS THAN 7 FEET.

NON-STRUCTURAL ITEMS SHOWN ON THE STRUCTURAL/FOUNDATION DRAWINGS

- THE FOLLOWING NON-STRUCTURAL ITEMS MAY BE SHOWN ON THE STRUCTURAL AND/OR FOUNDATION DRAWINGS FOR THE PURPOSE OF CLARITY IN INTERFERENCE WITH STRUCTURAL AND/OR FOUNDATION WORK. ITEMS BELOW MAY NOT BE FULLY DEFINED ON THE STRUCTURAL/FOUNDATION DRAWINGS. THE INFORMATION FOR NON-STRUCTURAL ELEMENTS IS FURNISHED BY OTHER CONSULTANTS AS LISTED BELOW. ALL RFI AND SHOP DRAWINGS RELATED TO THESE NON-STRUCTURAL ITEMS SHALL BE SUBMITTED TO THE CONSULTANTS LISTED BELOW FOR THEIR REVIEW AND APPROVAL.

GEOTECHNICAL ENGINEER:

- FOUNDATION/UNDERSLAB WATERPROOFING, DAMPROOFING SYSTEMS
- WALL AND UNDERSLAB DRAINAGE SYSTEM, INCLUDING SUMP PITS, GRAVEL & PIPING, CLEANOUTS
- ROCK ANCHORS
- CAISSONS AND PILES, INCLUDING REINFORCEMENT ROCK CONTIGURS

ARCHITECT OF RECORD:

- SUMP PITS
- WATERPROOFING/DAMPPOOFING APPLIED TO EXPOSED SURFACES, ELEVATOR OR SUMP PIT INTERIOR SURFACES
- PAINT
- FIREPROOFING
- CONCRETE CURBS: HEIGHT, WIDTH, EXTENT, LOCATION
- BRICK, BLOCK, TILE MASONRY, METAL PANELS, PRECAST FACADE PANELS, CURTAIN WALLS AND ALL OTHER FACADE SYSTEMS
- ROOFING SYSTEMS, DRAIN LOCATIONS, SLOPES TO DRAINS
- FILLS, INSULATION, PAVERS OR GRAVEL
- FLOATING/SECONDARY SLABS

SUPERSTRUCTURE CONCRETE NOTES

A. CONCRETE

- ALL CONCRETE SHALL BE NORMAL WEIGHT CONTROLLED CONCRETE, U.O.N., AND COMPLY WITH THE A.C.I. BUILDING CODE AND THE CURRENT NEW YORK CITY BUILDING CODE.
- CONCRETE STRENGTH SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
SLABS AND BEAMS U.O.N. ON PLANS 5950 PSI
SHEAR WALLS & COLUMNS SEE COLUMN SCHEDULE
LINK BEAMS SAME AS SHEARWALL STRUCTURE
SLAB AT COLUMNS AND SHEARWALLS TO BE PLACED WITH CONCRETE AS PER "BEAM AND SLAB CONCRETE PLACEMENT AT HIGH STRENGTH COLUMN OR WALL" DETAIL ON DRAWING S-962.
- NO CONCRETE SHALL BE PLACED UNTIL THE CONTRACTOR HAS INSTALLED ALL THE INSERTS AND DOVETAILS NECESSARY TO PROVIDE SUPPORT FOR MULLIONS, APPLY FINISHES, PARTITIONS, PIPES, DUCTS, EQUIPMENT, ETC., AS REQUIRED IN ARCHITECTURAL, H.V.A.C. AND STRUCTURAL DRAWINGS. WHERE BRICK VENEER EXCEEDS 14" IN HEIGHT, PROVIDE DOVETAIL TYPE MASONRY ANCHORS SPACED AT 24" O/C IN ALL BACK UP VERTICAL CONCRETE SURFACES.
- CONTRACTOR SHALL VERIFY LOCATIONS AND DIMENSIONS OF ALL SLOTS, PIPE SLEEVES, DUCTS AND ANY OTHER CONCRETE PENETRATIONS AS REQUIRED FOR VARIOUS TRADES BEFORE CONCRETE IS PLACED.

SHOP DRAWINGS SHOWING COMPOSITE LAYOUT OF ALL PENETRATIONS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

- ALL PLUMBING AND ELECTRICAL SLOTS SHALL BE FILLED WITH CONCRETE TO THE SAME DEPTH AS FLOOR AFTER CONCRETE AND/OR PIPES ARE INSTALLED.
- NO PIPES OR CONDUITS EXCEEDING 1/3 SLAB THICKNESS IN OUTSIDE DIAMETER NOR OVER NOMINAL 2" INSIDE DIAMETER SHALL BE EMBEDDED CLOSER THAN 3 DIAMETER ON CENTER NOR PASS WITHIN 24" OF COLUMN FACE, U.O.N. JUNCTION BOXES MAY BE PLACED IN STRUCTURAL CONCRETE SLAB BUT SHALL NOT EXCEED 4 1/2"x4 1/2"x3" IN DEPTH AND SHALL BE SEPARATED FROM OTHER JOINT BOXES BY NOT LESS THAN 8" OF CONCRETE.
- ALL MEMBERS IN THE FLOOR SYSTEM INCLUDING BEAMS, BRACKETS, COLUMN CAPITALS AND HAUNCHES SHALL BE PLACED MONOLITHICALLY. VERTICAL CONSTRUCTION JOINTS NECESSARY MAY BE MADE AT CENTER OF BEAM OR SLAB USING APPROVED BULKHEADS AND ADDITIONAL REINFORCING AS SHOWN ON DETAILS.
- NO CONCRETE FLOOR SYSTEM IS TO BE INSTALLED UNTIL AT LEAST TWO HOURS HAVE PASSED AFTER THE SUPPORTING COLUMNS AND WALLS ARE PLACED.
- WHEN PLACING CONCRETE AGAINST AN ADJACENT BUILDING OR AT EXPANSION JOINT, AT LEAST 1" (U.O.N.) OF HIGH DENSITY STYROFOAM SHALL BE PLACED AT THE INTERFACE BETWEEN THE EXISTING AND NEW CONCRETE. IN ADDITION, THE CONTRACTOR MUST TAKE ALL THE NECESSARY MEASURES SO AS TO NOT CREATE ANY DAMAGE TO THE EXISTING CONSTRUCTION WHILE PLACING THE NEW CONCRETE.
- ALL WORK MARKED S.S.(SUPERSTRUCTURE) IN FOUNDATION DRAWINGS SHALL BE PART OF SUPERSTRUCTURE CONTRACT.
- TEMPORARY SHORING AND RESHORING SHALL REMAIN IN PLACE AT LEAST 28 DAYS AFTER PLACEMENT OF CONCRETE.
- NO DEVIATION FROM THE STRUCTURAL PLANS SHALL BE PERMITTED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE STRUCTURAL ENGINEER.

B. REINFORCEMENT

- ALL STEEL REINFORCEMENT (STIRRUPS AND TIES INCLUSIVE) SHALL HAVE AN ULTIMATE TENSILE STRENGTH OF 90,000 PSI AS PER A.S.T.M. A615 GRADE 60. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE CHAIRS, REBARS, TIES, SPACERS, ETC., TO SECURE AND SUPPORT THE REINFORCING WHILE PLACING THE CONCRETE.
- THE CONTRACTOR MUST SUBMIT REINFORCING SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW. NO CONSTRUCTION IS TO BE STARTED UNTIL THE SHOP DRAWINGS ARE REVIEWED BY THE ENGINEER.
- THE STRUCTURAL ENGINEER OR HIS FIELD QUALIFIED REPRESENTATIVE MUST CHECK AND APPROVE ALL STEEL REINFORCEMENT PRIOR TO CONCRETE PLACEMENT.
- ALL REINFORCING BARS MARKED CONTINUOUS SHALL BE LAPPED AT SPICES AND CORNERS IN CONFORMANCE WITH LAP SPICE TABLES IN TYPICAL DETAILS UNLESS OTHERWISE NOTED. LAP CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AS REQUIRED. TERMINATE CONTINUOUS BARS AT END SUPPORTS WITH STANDARD HOOKS, U.O.N.
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE 3" FOR INTERIOR SLABS AND INTERIOR WALL SURFACES; 1 1/2" FOR BEAMS, GIRDERS AND COLUMNS (TIES, STIRRUPS OR PRIMARY REINFORCEMENT), FOR ALL CONCRETE EXPOSED TO WEATHER AND EARTH FILL, COVER SHALL BE 2" (1 1/2" FOR STIRRUPS), FOR CONCRETE PLACED AGAINST EARTH, MINIMUM COVER SHALL BE 3".

C. CODES AND TESTS

- THIS STRUCTURE HAS BEEN DESIGNED UNDER THE PROVISIONS OF THE NEW YORK CITY BUILDING CODE AS AMENDED AND A.C.I. 318.
- ALL CONTROLLED CONCRETE SHALL COMPLY WITH THE A.C.I. 318 BUILDING CODE. APPLICATION FOR CONTROLLED CONCRETE WITH CONCRETE TESTS AND CURVES OF TESTS FOR THE PRELIMINARY DESIGN MIX PREPARED BY AN APPROVED LABORATORY MUST BE SUBMITTED TO THE ENGINEER FOR FILING WITH THE BUILDING DEPARTMENT. NO CONCRETE SHALL BE PLACED WITHOUT THE DESIGN MIX BEING APPROVED BY THE BUILDING DEPARTMENT.
- DESIGN AND CONSTRUCTION OF FORMWORK IS TO COMPLY WITH THE A.C.I. 318 BUILDING CODE AND NEW YORK CITY CITY BUILDING CODE AS AMENDED.
- THE DESIGN DETAILS AND NOTES INCLUDED HEREIN ARE IN COMPLIANCE WITH LOCAL LAW 17/95.

SEISMIC AND WIND CRITERIA

- THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE LATEST NEW YORK CITY BUILDING CODE (NYCBC 2014).
- WIND DESIGN DATA:**
- BASED ON SPECIFIC WIND TUNNEL REPORT DATED 05/12/2015
- EARTHQUAKE DESIGN DATA:**
- SEISMIC IMPORTANCE FACTOR = 1
S_s = 0.213g
S₁ = 0.058g
S_{0.2} = 0.355g
- S_{0.1} = 0.136g
- SITE CLASS = E
- SEISMIC DESIGN CATEGORY = C
- SEISMIC FORCE RESISTING SYSTEM = ORDINARY REINFORCED CONCRETE SHEAR WALLS
- DESIGN BASE SHEAR (V): E/W = 1800 kips
N/S = 1800 kips
- SEISMIC RESPONSE COEFFICIENT (C_s): E/W = 0.013
N/S = 0.013
- RESPONSE MODIFICATION FACTORS: R = 5
- ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE PROCEDURE

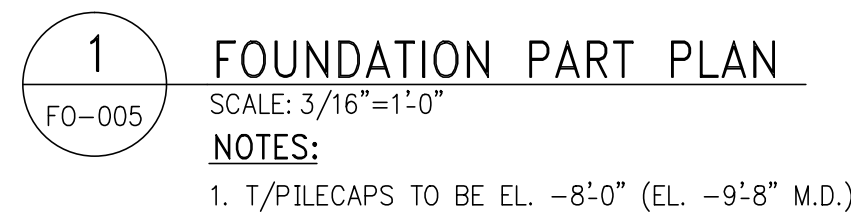
- STRUCTURAL SEPARATIONS, (NYCBC-1613.7): ALL STRUCTURES SHALL BE SEPARATED FROM ADJACENT STRUCTURES, WHEN A STRUCTURE ADJACENT A PROPERTY LINE NOT COMMON TO A PUBLIC WAY (TYPICALLY SIDE OR REAR LOT LINES), THAT STRUCTURE SHALL ALSO BE SET BACK FROM THE PROPERTY LINE BY AT LEAST 1 INCH FOR EACH 50 FEET OF HEIGHT AND A MINIMUM OF 1 INCH FOR STRUCTURES WITH HEIGHTS LESS THAN 50 FEET.

SMALLER SEPARATIONS, OR PROPERTY LINE SETBACKS SHALL BE PERMITTED WHEN JUSTIFIED BY RATIONAL ANALYSIS AND ON MAXIMUM EXPECTED GROUND MOTIONS WITH A MINIMUM SEPARATION OF 1 INCH ALONG THE FULL HEIGHT OF THE STRUCTURE.

LEGEND:


- INDICATES ADDITIONAL WIND BARS
- INDICATES THE BOTTOM OF FOUNDATION WALL ELEVATION (7/PRESSURE SLAB)
- INDICATES THE TOP OF FOUNDATION WALL OR SHEARWALL ELEVATION (LIMIT OF FOUNDATION CONTRACT)
- INDICATES BOTTOM OF PILE CAP ELEVATION
- INDICATES PILE CAP WITH END-BEARING HP14x89 PILES WITH 150 TON COMPRESSION CAPACITY
- INDICATES PILE CAP WITH END-BEARING PILES WITH 150 TON COMPRESSION CAPACITY AND 75 TON TENSION CAPACITY
- INDICATES SIZE OF PIER IN INCHES, FIRST DIMENSION SHOWN IS IN THE EAST-WEST DIRECTION.
- INDICATES ROCK ANCHOR.
- INDICATES DRAIN DIRECTION
- INDICATES CLEANOUT
- INDICATES ADDITIONAL TOP REINFORCEMENT AT SUPPORTS
- INDICATES ADD'L BOTTOM REINFORCING AT SUPPORTS
- INDICATES ADDITIONAL TOP REINFORCEMENT CONTINUOUS BETWEEN SUPPORTS
- INDICATES ADDITIONAL BOTTOM REINFORCEMENT CONTINUOUS BETWEEN SUPPORTS
- 1" & 4" LAYERS
- INDICATES ORDER OF BAR PLACEMENT AS SHOWN ON PLAN.
- 2" & 3" LAYERS
- INDICATES CHANGE IN ELEVATION
- INDICATES CONCRETE COLUMN/SHEARWALL/FOUNDATION WALL
- INDICATES CONCRETE COLUMN/SHEARWALL BELOW
- INDICATES LIGHT WEIGHT CONCRETE FILL
- INDICATES SLAB OPENING (FIRST DIMENSION IS IN EAST-WEST DIRECTION)
- INDICATES COLUMN ABOVE OR BELOW
- INDICATES COLUMN DESIGNATION
- INDICATES POST DESIGNATION
- INDICATES SHEARWALL DESIGNATION
- INDICATES AMTRAK SEWER
- INDICATES 50 TON. 18" MIN. CAISSON
- IF EFFECTIVE LENGTH OF MONITOR PILE IS LESS THAN 7'-0", PILE CAP SHALL BE EXTENDED DOWN TO REST ON A MIN. OF 201-SF MAINTAINING THE (DESIGN) TOP OF PILE CAP ELEVATION AND MONITOR PILE SHALL BE CUT-OFF AT ROCK ELEVATION. A CREDIT FOR THE NON-DRIVEN PILES ON THE DENOTED PILE CAPS SHOULD BE GIVEN TO THE OWNERSHIP IN CASE PILE LENGTH IS LESS THAN 7'-0"
- INDICATES MIN. ROCK BEARING CAPACITY
- INDICATES ESTIMATED CONTOUR LINE FOR TOP OF 20 TON/SF ROCK ELEVATION
- INDICATES MINI-CAISSON WITH ALLOWABLE AXIAL UPLIFT CAPACITY OF 30 TONS & 450 TONS IN COMPRESSION. ADD'L INFORMATION SEE TYPICAL CROSS SECTION THRU PILE/MINI CAISSON CAP & MINI CAISSON DETAIL ON DWG. FO-201. IF MINI CAISSON IS CONCENTRIC OR WITHIN THE SHEARWALL/COLUMN ABOVE MINI CAISSON VERTICAL REIN. SHALL BE EXTEND 6'-0" ABOVE TOP OF SLAB ON GRADE, OTHERWISE A 18"x18"x2" STEEL PLATE SHALL BE INSTALLED IN ACCORDANCE WITH THE TYPICAL CROSS SECTION THRU THE PILE/MINI CAISSON DETAIL ON DRAWING FO-201.
- INDICATES MINI-CAISSON WITH ALLOWABLE AXIAL UPLIFT CAPACITY OF 75 TONS & 150 TONS IN COMPRESSION. PILE CAP

KEY PLAN



FOUNDATION DRAWINGS FOR
GENERAL INFORMATION ONLY.
- NOT FOR BID
- NOT FOR RICING



Damian Titus

Buildings
APPROVED
Under Directive 2 of 1975
Date: 11/17/2015:
NYC Development Hub

KEY PLAN



5	07/31/2015	DIS SUBVISION
4	07/20/2015	100% DD
3	03/23/2015	50% DD
2	03/02/2015	100% DD
1	12/17/2015	100% DD

OWNER
GID DEVELOPMENT
125 HIGH STREET
HIGH STREET TOWER, 27TH FLOOR
BOSTON, MA 02110

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RIVERSIDE CENTER BUILDING 3
NEW YORK, NY

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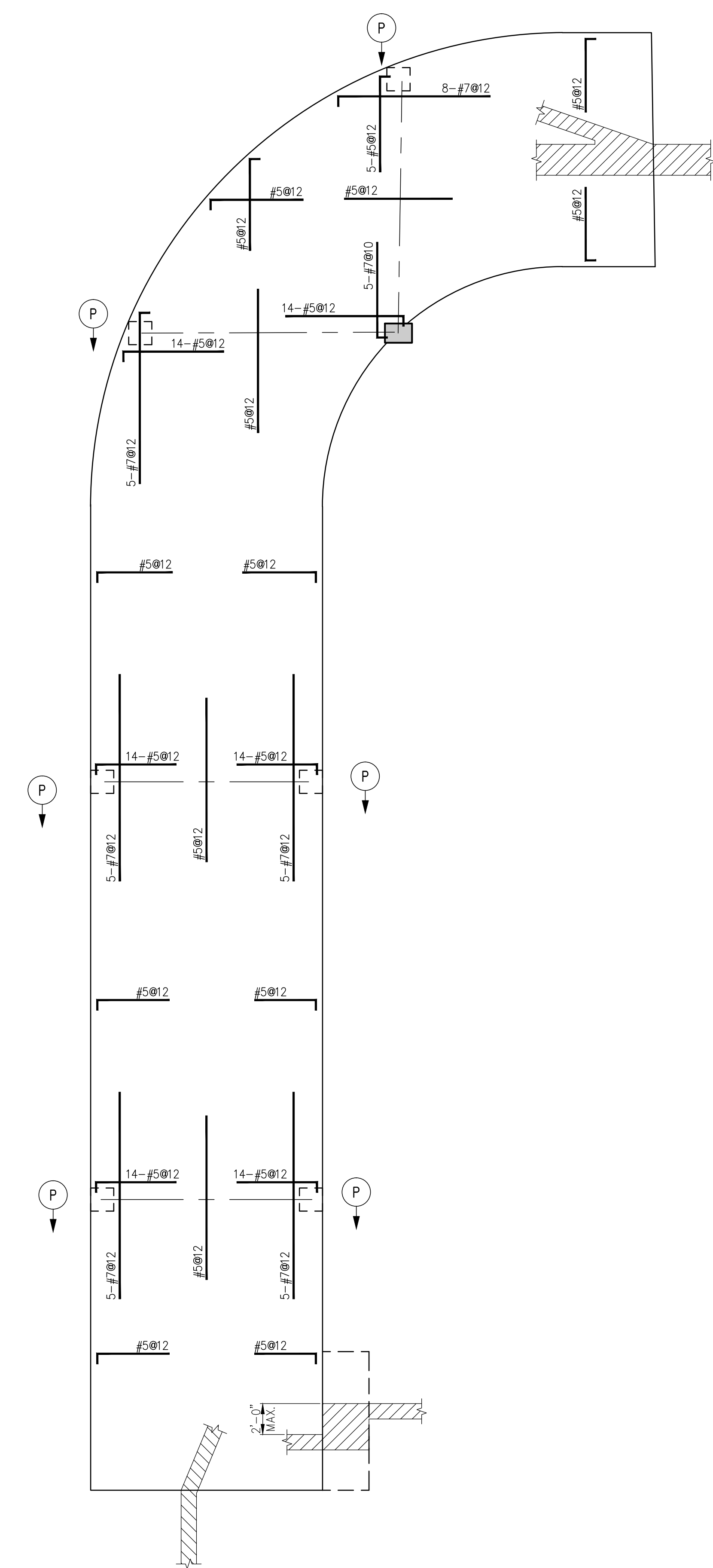
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CDS STAMPS & SIGNATURES

DWG TITLE
FOUNDATION PLAN (C3 LEVEL FOR OVERALL SITE)
NB#XXXXXXXX

SCALE: AS SHOWN
FO-100.00
DWG NO.



2 SUB-CELLAR RAMP FRAMING PLAN
SCALE: 1/8"=1'-0"

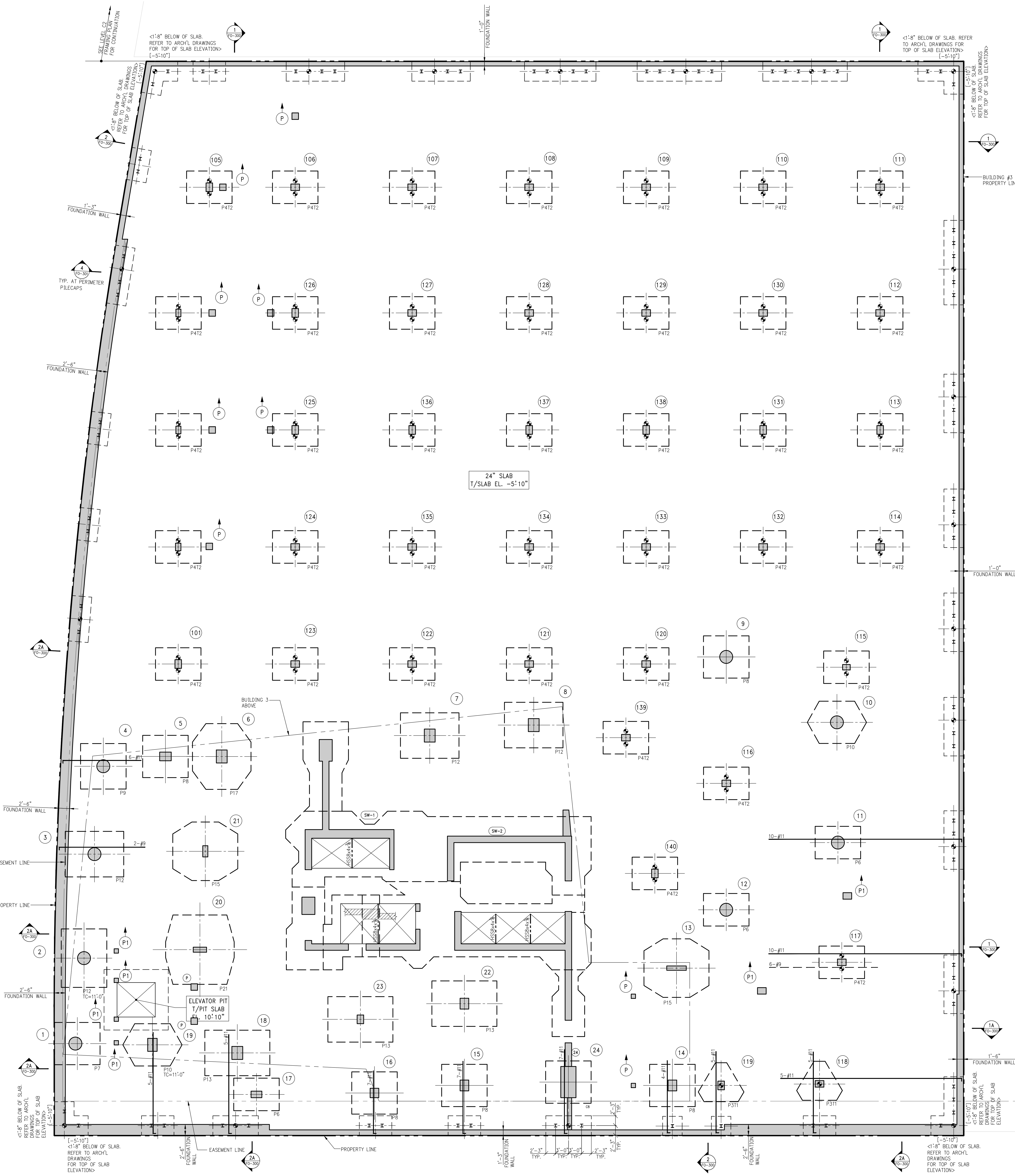
- NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATIONS
 2. SLAB TO BE 12" THICK U.O.N. THUS [] ON PLAN.
 3. BOTTOM REINFORCEMENT TO BE #6@12 CONT. E.W. FOR 12" SLAB U.O.N.
 4. FOR BALANCE OF NOTES SEE DRAWINGS FO-100 AND S-010.

NOTE FOR
PARKING FLOORS, RAMPS, DRIVEWAYS EXPOSED TOPPING, SIDE WALKS - ALL DIRECTLY EXPOSED TO CARS AND/OR PEDESTRIAN TRAFFIC & CONCRETE TANKS. CAST IN PLACE CONCRETE TO HAVE 2" CLEAR COVER AND BE:
- FC 5950 psi AT 28 DAYS TOP SLAB REBARS, CONCRETE AND MASONRY SHEAR WALL DOWELS SHALL BE EPOXY COATED. DAMAGED PARTS OR REBARS SHALL BE PAINTED WITH DOUBLE COAT OF EPOXY PAINT.
- COI (CALCIUM NITRITE) CORROSION INHIBITOR, (4.0 GAL/103)
- WATER/CEMENT RATIO NOT TO EXCEED 0.36
- USE OF SUPER PLASTICIZER TO ACHIEVE THE W/C RATIO.
- CONCRETE TO CONTAIN SILICA FUME (5% OF TOTAL CEMENT) OR SLAG (40%) 2.0 lbs/103 FIBER MESH.
- ENTRAINED AIR AT 6% ±1%
- THE CURING SHALL BE ONLY MOIST TYPE. NO CURING COMPOUND ACCEPTABLE.
- ALTHOUGH PROTECTIVE MEASURES WERE INCORPORATED IN THE DESIGN OF THE EXPOSED SLABS AND WALLS, THESE AREAS MUST BE CAREFULLY MAINTAINED IN ORDER TO PREVENT EARLY DETERIORATION.
- SLOPE TOP OF THE SLAB TO DRAINS IF REQUIRED BY ARCHITECTURAL DRAWINGS.
- APPLY PENETRATING ANTISPALLING SEALER AND TRAFFIC DECK COATING SYSTEM.
REFER TO SPECIFICATIONS FOR DETAILS, TRAFFIC COATING SYSTEM SHALL BE MAINTAINED AND PERIODICALLY REPLACED PER MANUFACTURER SPECIFICATIONS.

1 FOUNDATION PLAN (C3 LEVEL FOR OVERALL SITE)
SCALE: 1/8"=1'-0"

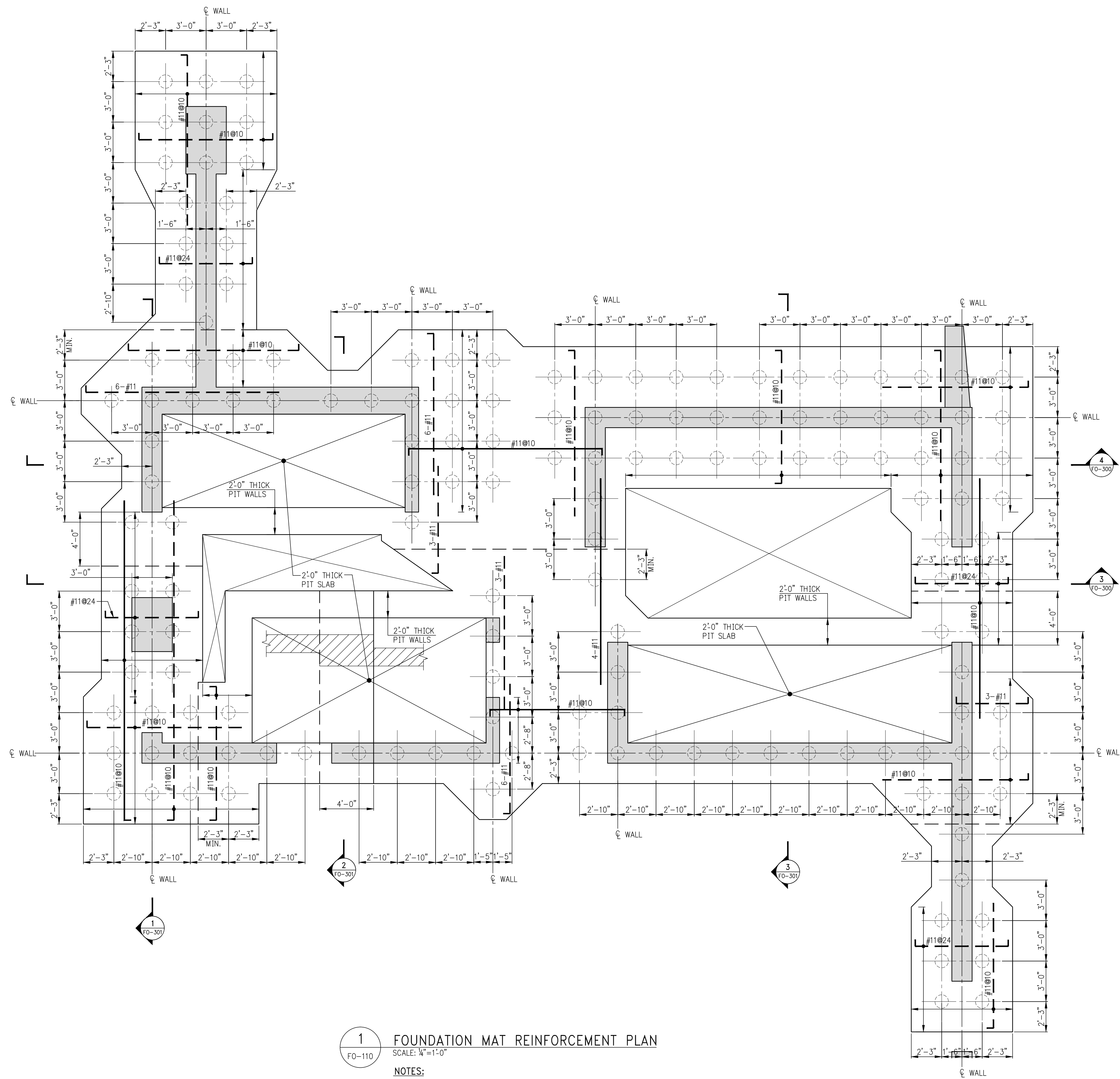
- NOTES:
1. TOP OF SLAB ELEVATION TO BE -5'-10" U.O.N. THUS [] U.O.N. ON PLAN
 2. SLAB TO BE 24" THICK U.O.N. THUS [] U.O.N. ON PLAN
 3. REINFORCEMENT TO BE #7@12 T&B CONT. E.W. FOR 12" SLAB U.O.N.
 4. PILE CAPS TO BE CENTERED ON COLUMNS. SEE DRAWING FC-001
 5. FOR GENERAL NOTES, ABBREVIATIONS AND LEGEND SEE DRAWING FC-001
 6. FOR FOUNDATION TYPICAL DETAILS SEE NYC DEVELOPMENT HUB
 7. FOR FOUNDATION SECTIONS SEE FO-300 SERIES DRAWINGS
 8. FOR LINK BEAM SCHEDULE AND SHEARWALL DETAILS SEE S-940 SERIES DRAWINGS.
 9. FOR COLUMN SIZES, REINFORCEMENT AND DETAILS SEE S-950 SERIES DRAWINGS.

FOUNDATION DRAWINGS FOR GENERAL INFORMATION ONLY.
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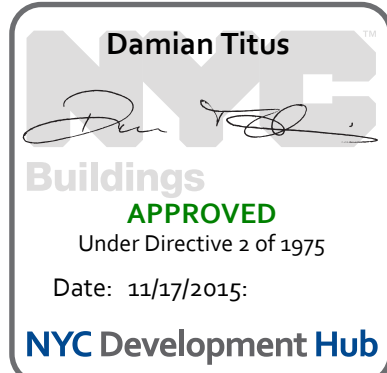
KEY PLAN



1 FOUNDATION MAT REINFORCEMENT PLAN
FO-110
SCALE: 1/4"=1'-0"

- NOTES:
1. MAT THICKNESS TO BE 6'-0" U.O.N.
 2. MAT REINFORCING TO BE #8@12 CONT. TAB E.W. FOR 6'-0" MAT.
#7@12 CONT. TAB E.W. 24" PIT SLAB.
#7@12 CONT. E.F. E.W. FOR 24" PIT WALL.
 3. NO CONDUITS OR OTHER UTILITIES ARE ALLOWED TO PASS THROUGH THE MAT.
 4. INDICATES 400T COMPRESSION, 200T TENSION CAISSON.
REFER TO FO-001 FOR BALANCE OF INFORMATION.
 5. FOR BALANCE OF NOTES AND INFORMATION REFER TO FO-001 & FO-100 DWGS.

FOUNDATION DRAWINGS FOR
GENERAL INFORMATION ONLY.
- NOT FOR BID
- NOT FOR RISING



Number	Date	Revision
4	07/31/2015	DOB SUBMISSION
3	07/31/2015	REVISED
2	08/06/2015	REVISED
1	08/06/2015	DOB FILING

OWNER
GID DEVELOPMENT
125 HIGH STREET
HIGH STREET TOWER, 27TH FLOOR
BOSTON, MA 02110

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NEW YORK, NY

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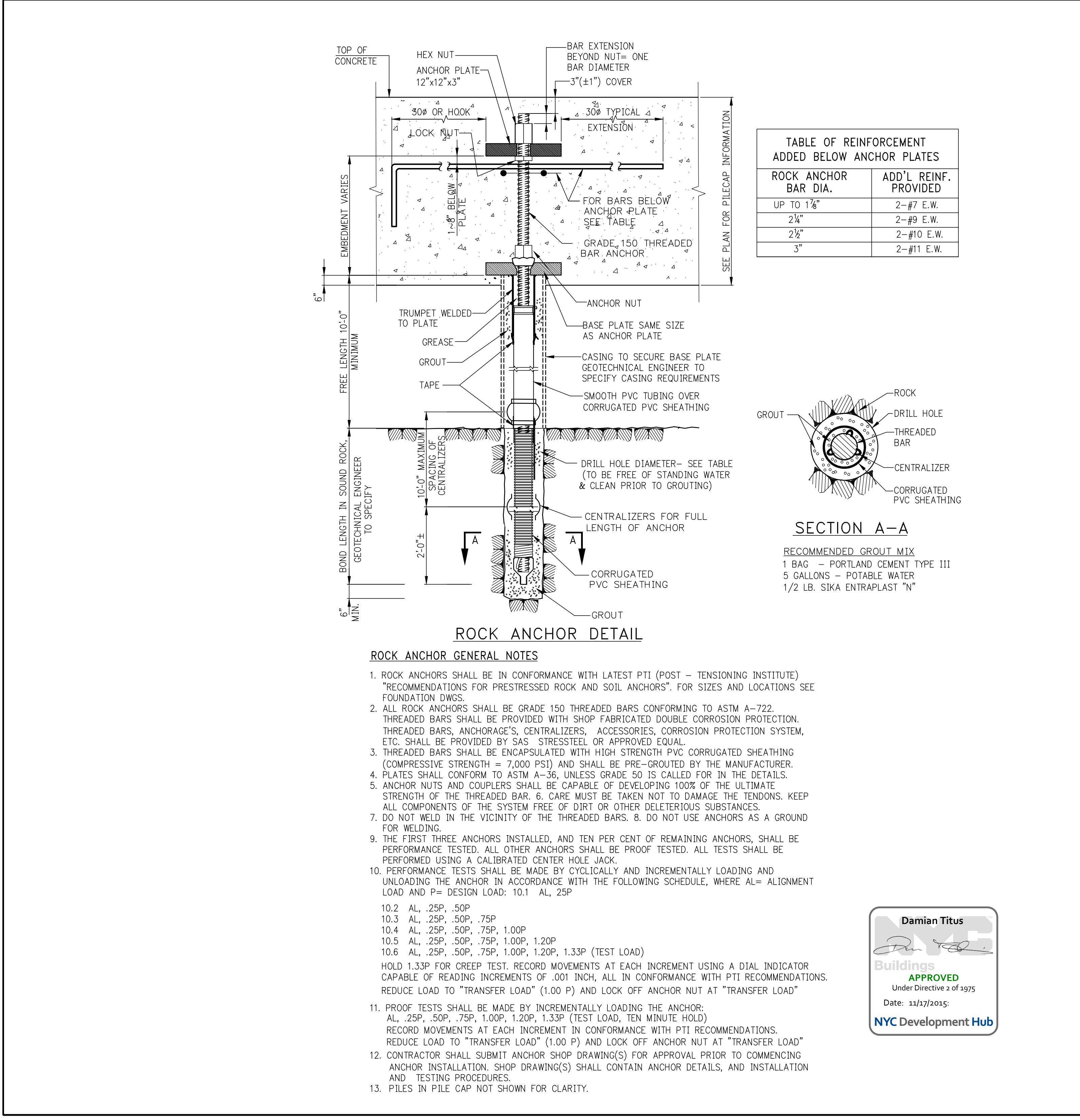
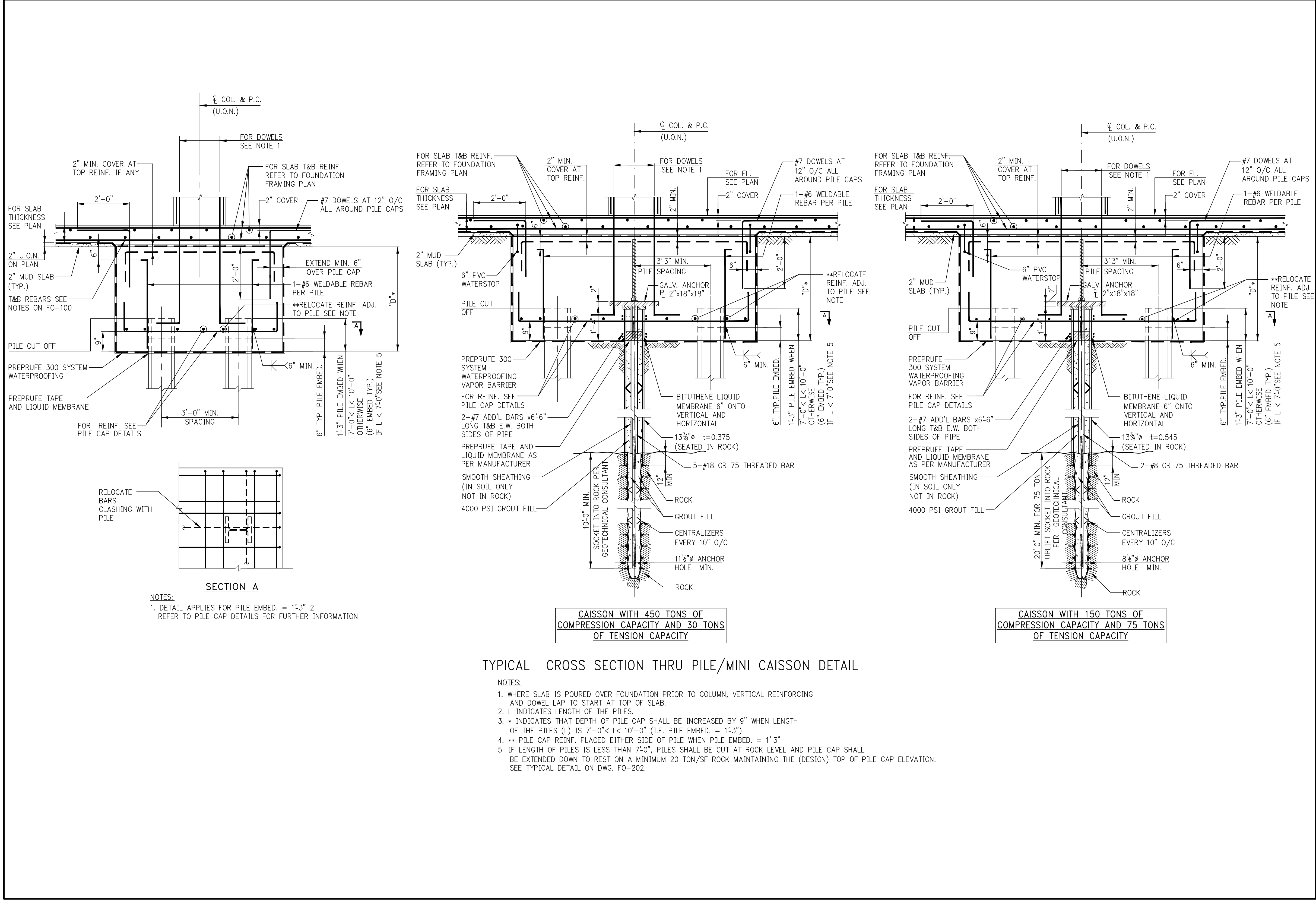
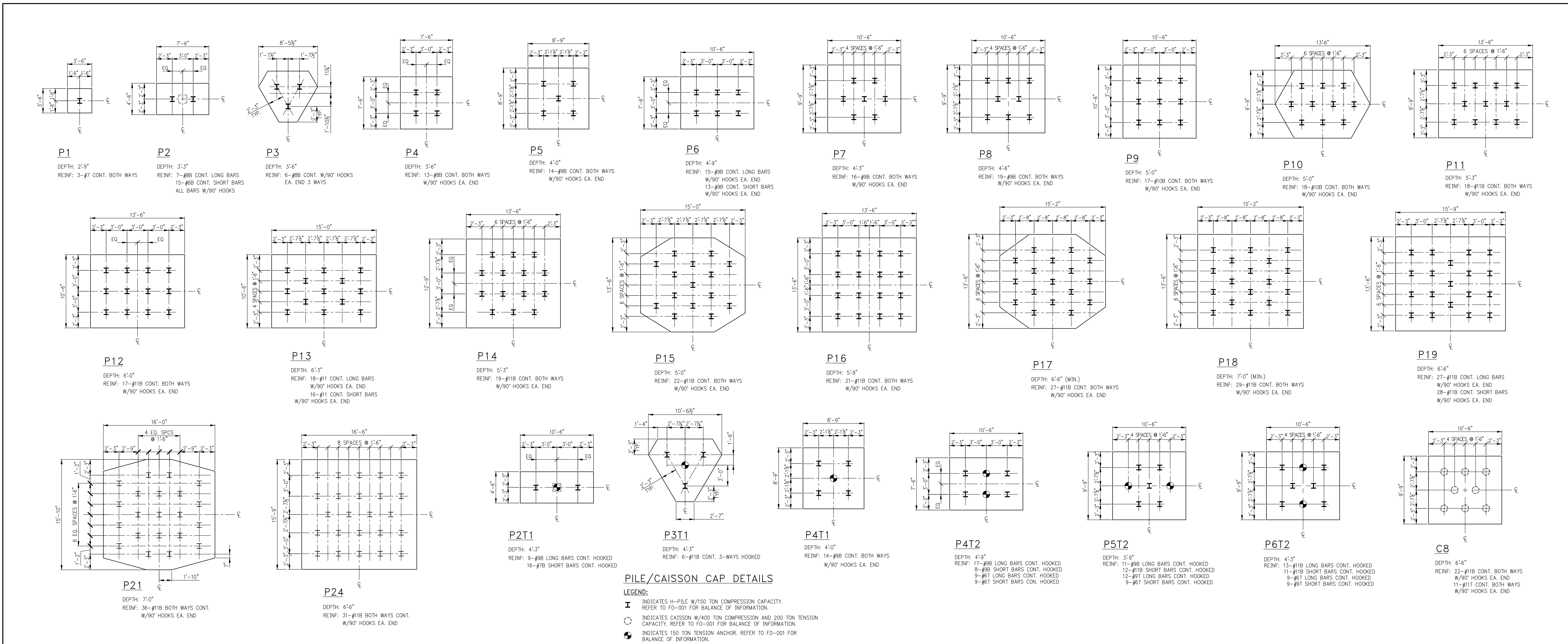
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DOB STAMPS & SIGNATURES

DWG TITLE
FOUNDATION MAT
REINFORCEMENT PLAN
NB#XXXXXXXX

SEAL & SIGNATURE	DATE: 07/31/2015
	PROJECT # 1180104
	SCALE: AS NOTED
	FO-110.00
	DWG NO.



KEY PLAN

507312015

007202015

008202015

009202015

010202015

011202015

012202015

013202015

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089202015

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091202015

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094202015

095202015

096202015

097202015

098202015

099202015

100202015

OWNER

GID DEVELOPMENT
125 EAST STREET
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BOSTON, MA 02110

PROJECT

RIVERSIDE CENTER BUILDING 3
NEW YORK, NY

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COR STAMPS & SIGNATURES

DWG TITLE

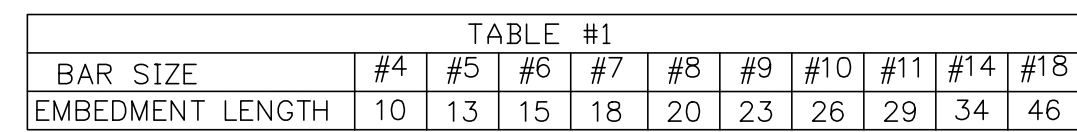
TYPICAL FOUNDATION
DETAILS 1
NB#XXXXXXXX

SCALE

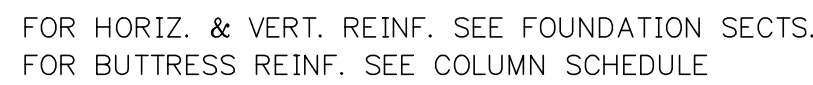
AS NOTED

FO-200.00

DWG NO.



TYPICAL GRADE BEAM DETAIL



EXTERIOR CORNER

RE-ENTRANT CORNER

HORIZONTAL SECTION SHOWING METHOD
OF PLACING WALL REINFORCEMENT



- NOTES:**
1. WHERE EDGE OF OPNG'G. IS 2'-6" OR LESS FROM BOTTOM OF WALL OR GRADE BEAM ADD #3 @2'
 2. WHERE EDGE OF OPNG'G IS 2'-6" OR LESS FROM TOP OF WALL OR GRADE BEAM ADD 1-W#7 E.F. OVER OPNG'G. (INSTEAD OF 1#5 E.F.) PROVIDE #3 @2'
 3. WHERE DIMENSIONS "A" EXCEEDS 1'-6" BOTH BARS MAY BE HOOKED 180'.
 4. ADD #5 BARS A. SIDE OF OPENING EQUAL IN AREA TO ½ OF INTERRUPTED BARS MIN. 1-#5 E.F.



DETAIL OF WATERPROOFED SLEEVE
THRU WALL WITH H.I.T. WATERPROOFING

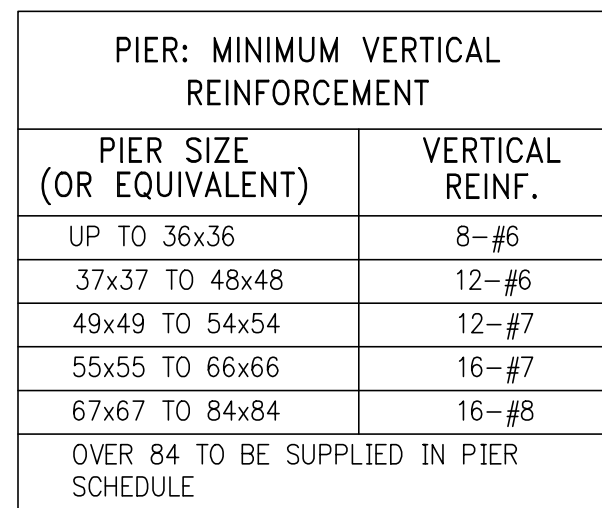


- NOTES:**
1. WHEN PIER HEIGHT IS LESS THAN 2'-6" RUN BUTTRESS REIN. INTO FTG.
 2. MAXIMUM PIER UNREIN. HEIGHT TO BE 8 TIMES LEAST DIMENSION; FOR REIN. REQ'D WHEN PIER EXCEEDS 8 TIMES LEAST DIMENSION SEE GENERAL FOUNDATION NOTES
 3. WHERE GRADE BEAM HEIGHT IS LESS THAN 3'-0" CARRY DOWELS INTO PIER OR FOOTING
 4. OMIT THESE BARS WHERE GRADE BEAM HEIGHT IS LESS THAN 3'-0"
 5. PROVIDE DOVETAIL TYPE MASONRY ANCHORS SPACED 2'-0" o.c. WHERE HEIGHT OF BRICK SHELF EXCEEDS 1'-6"

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
EMBEDMENT LENGTH	10	13	15	18	20	23	26	29	34	46

TABLE #2		
BAR SIZE	$f_y=60$ KSI	$f_y=75$ KSI
#4 TO #11	24 DIA	30 DIA
#14 #18	WELDED SPLICE OR POSITIVE CONNECTION	

NOTE: WHEN SPLICING FROM
 $f_y=75$ KSI TO $f_y=60$ KSI,
 USE 30 DIA

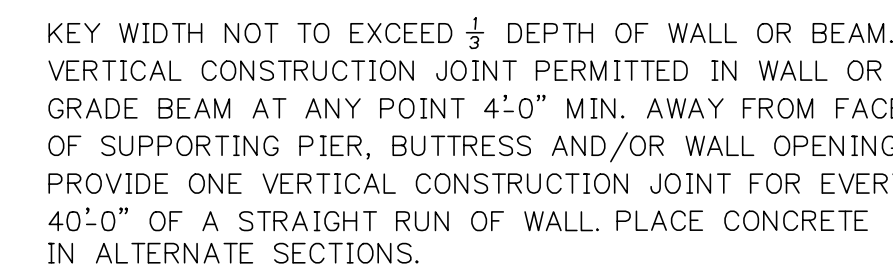


NOTE:
THE PIER SCHEDULE MAY REQUIRE A
GREATER AMOUNT OF REINFORCEMENT,
BUT NOT LESS.

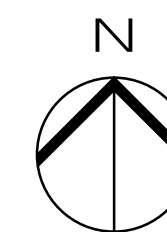
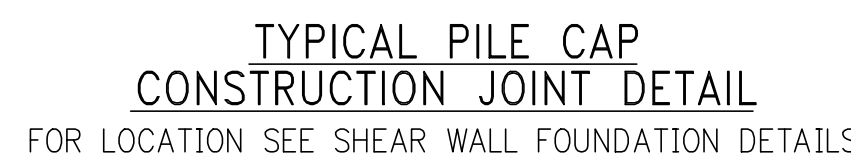
INTERIOR FOOTING AND PIER AT CONCRETE COLUMN

- NOTES:**
1. WHERE PIER HEIGHT IS LESS THAN EMBEDMENT LENGTH OF COLUMN ABOVE, EMBEDD INTO 24 DIAMETERS.
 2. AT CONTRACTOR'S OPTION, A SHORT PIER MAY BE ELIMINATED BY THICKENING THE COLUMN FOOTING TO THE PIER ELEVATION.
 3. MAXIMUM PIER HEIGHT TO BE EIGHT TIMES THE LEAST PIER DIMENSION. INCREASE PIER SIZE AS REQUIRED TO MAINTAIN THIS RATIO.
 4. WHEN SLAB ON GROUND IS REQUIRED BEFORE COLUMN, INCREASE LENGTH OF DOWELS BY DIMENSION "B" (FROM TOP TO TOP OF SLAB).
 5. IF GRADE 75 COLUMN REINFORCEMENT IS USED, INCREASE DOWEL EMBEDMENT LENGTH TO 24 DIAMETERS.
 6. MINIMUM CONCRETE STRENGTH OF $f_{cm} > 4000$ PSI IS REQUIRED FOR PIER AND FOOTING. SEE PLANS AND NOTES FOR GREATER STRENGTH REQUIREMENTS.
 7. ADDITION: IF COLUMN CONCRETE STRENGTH IS GREATER THAN 14 TIMES SLAB CONCRETE STRENGTH, THE SLAB CONCRETE STRENGTH MUST BE INCREASED LOCALLY TO MATCH COLUMN CONCRETE STRENGTH FOR A DISTANCE OF 2 FEET IN ALL DIRECTIONS FROM COLUMN FACES.

TABLE A		
COMPRESSION LAP SPLICE LENGTH		
BAR SIZE	$f_y=60$ KSI	$f_y=75$ KSI
#5 TO #11	30 DIA.	44 DIA.



TYPICAL VERTICAL
CONSTRUCTION JOINT IN WALL



5	07/31/2015	DOB SUBMISSION
4	07/20/2015	100% DO
3	03/20/2015	50% DO
2	03/06/2015	DOB FILING
1	12/17/2015	100% SD

Number:	Date:	Revisions:
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OWNER:

GID DEVELOPMENT
125 HIGH STREET
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PROJECT: RIVERSIDE CENTER BUILDING :
NEW YORK, NY

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TRANS TITLE

TYPICAL FOUNDATION
DETAILS 2
NB#XXXXXXXXXX

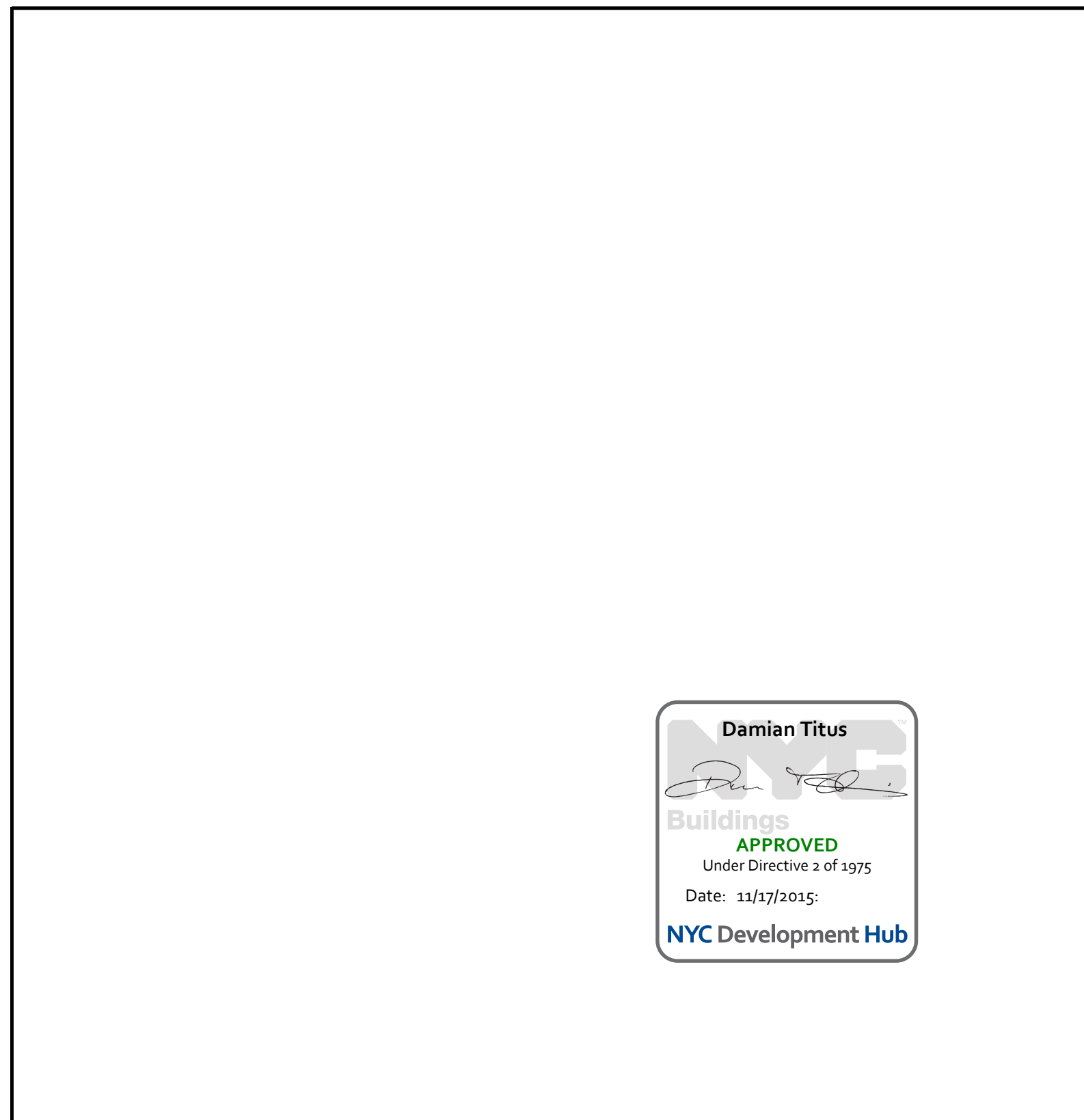
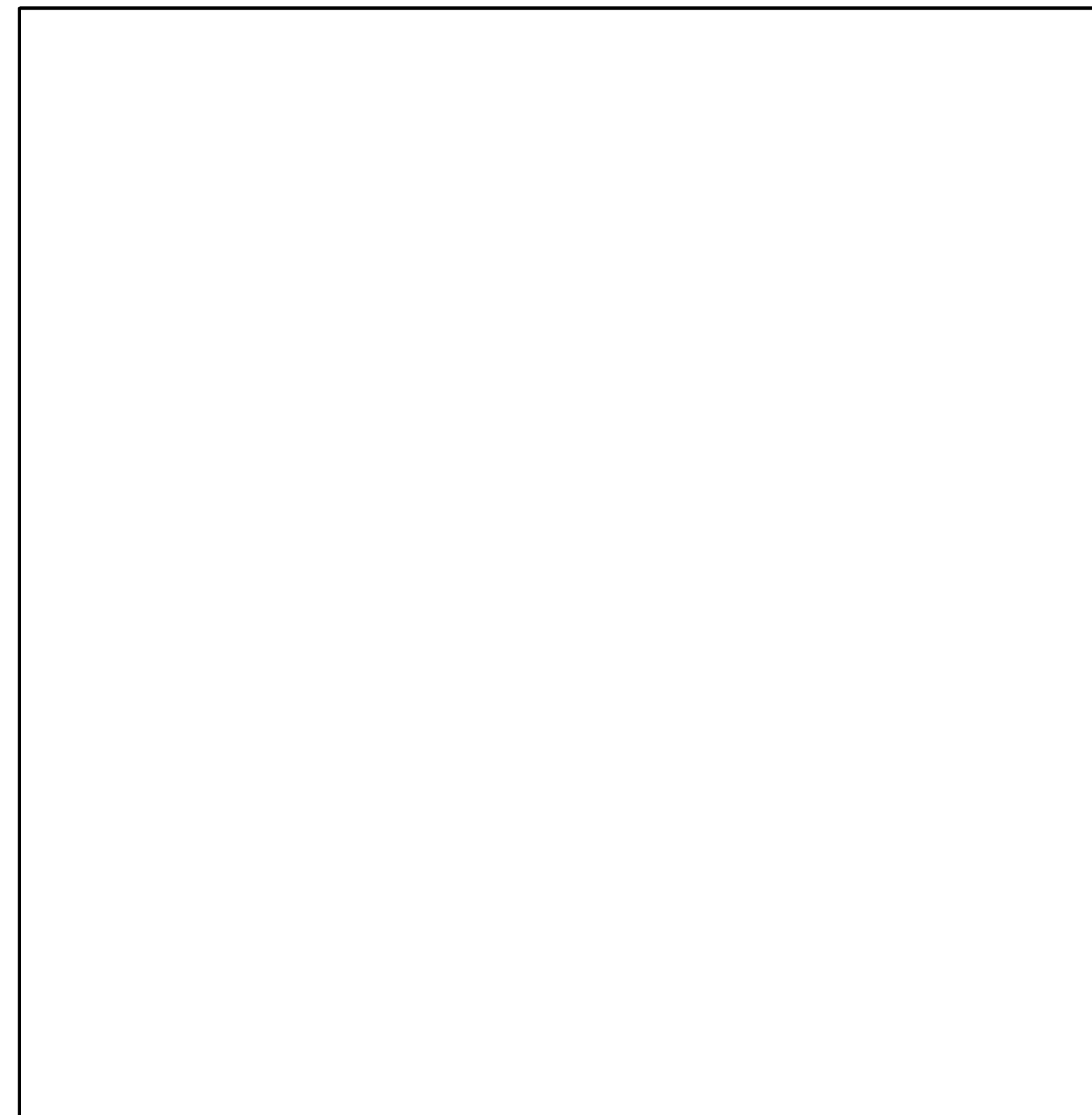
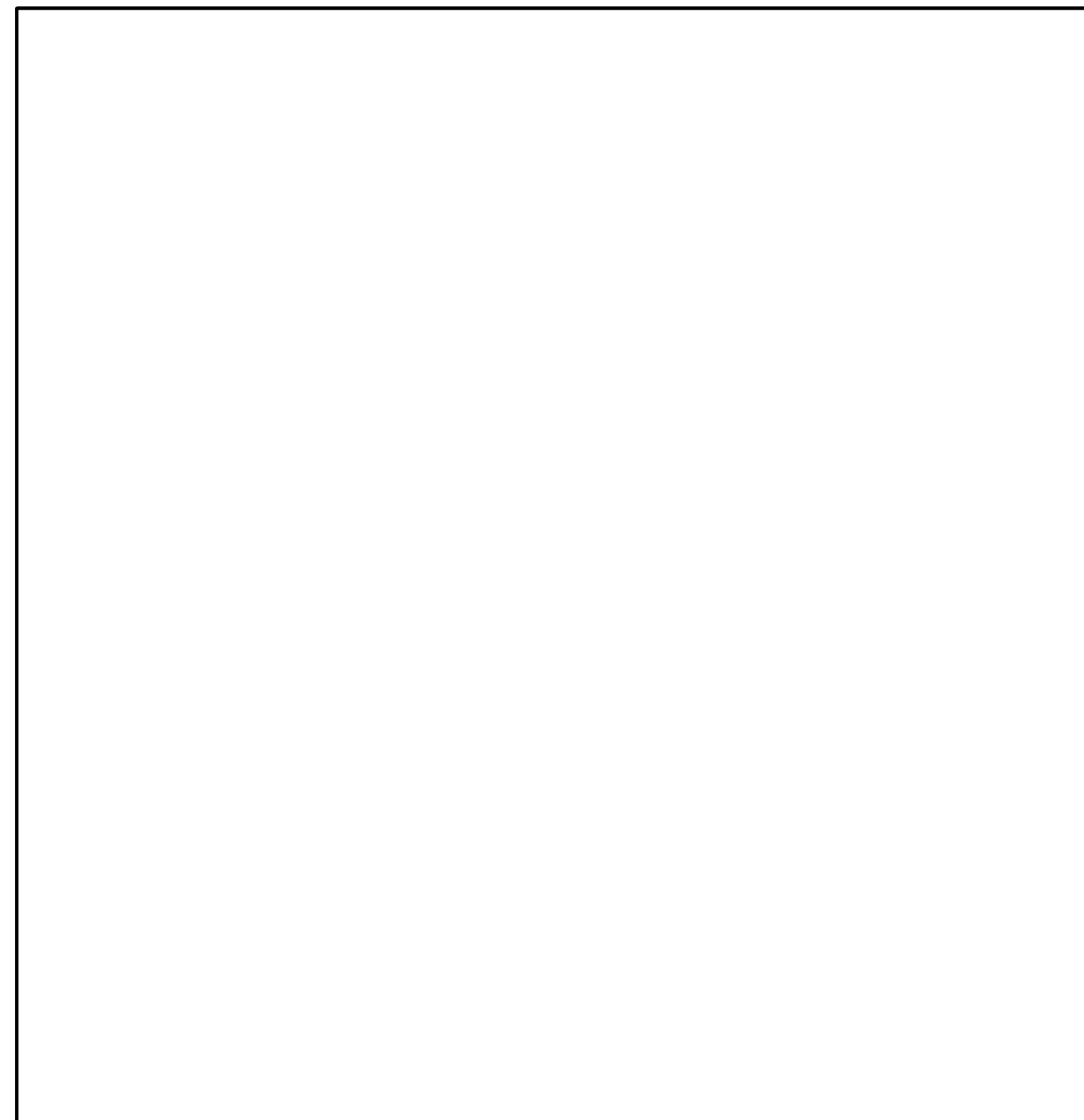
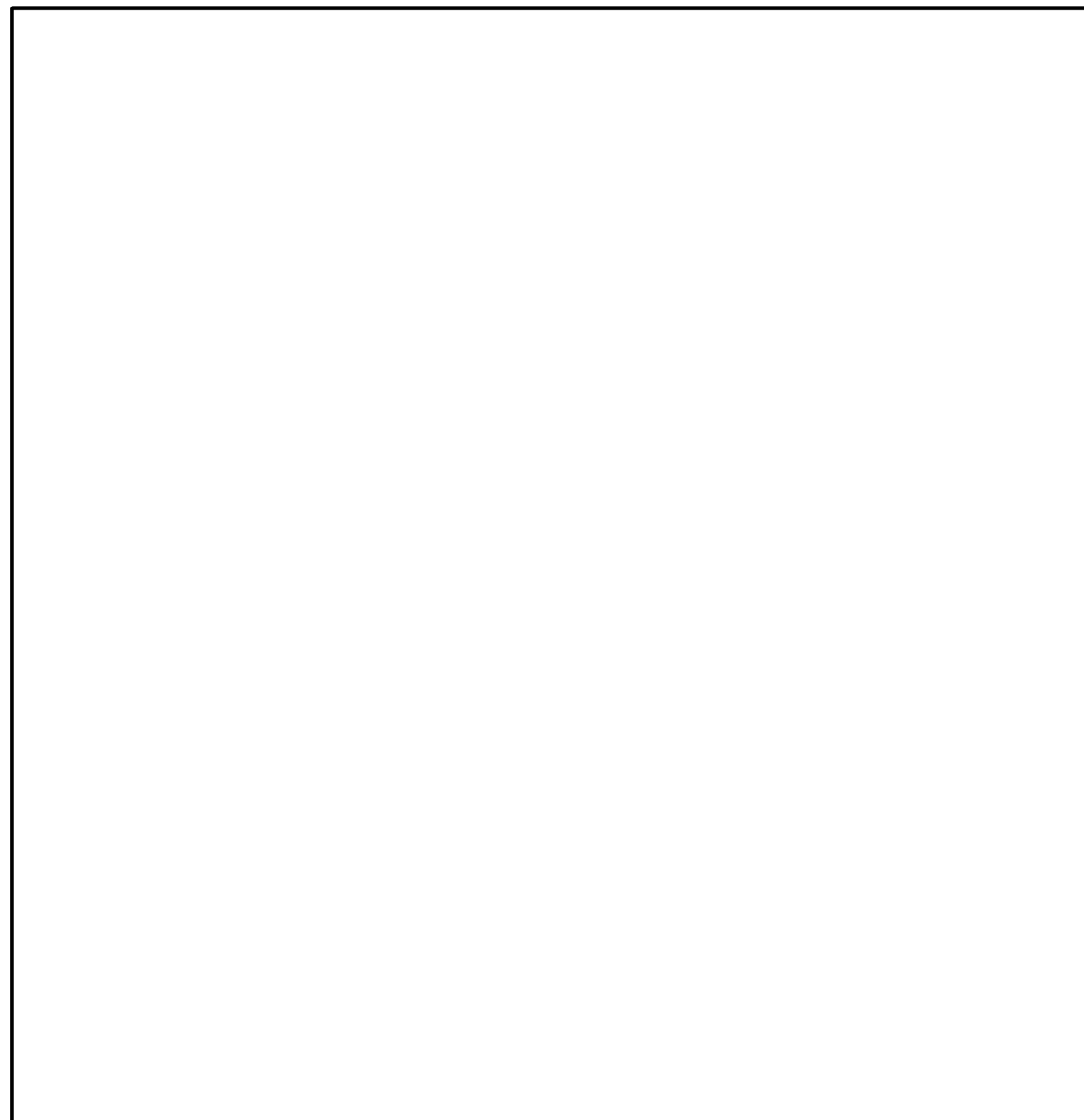
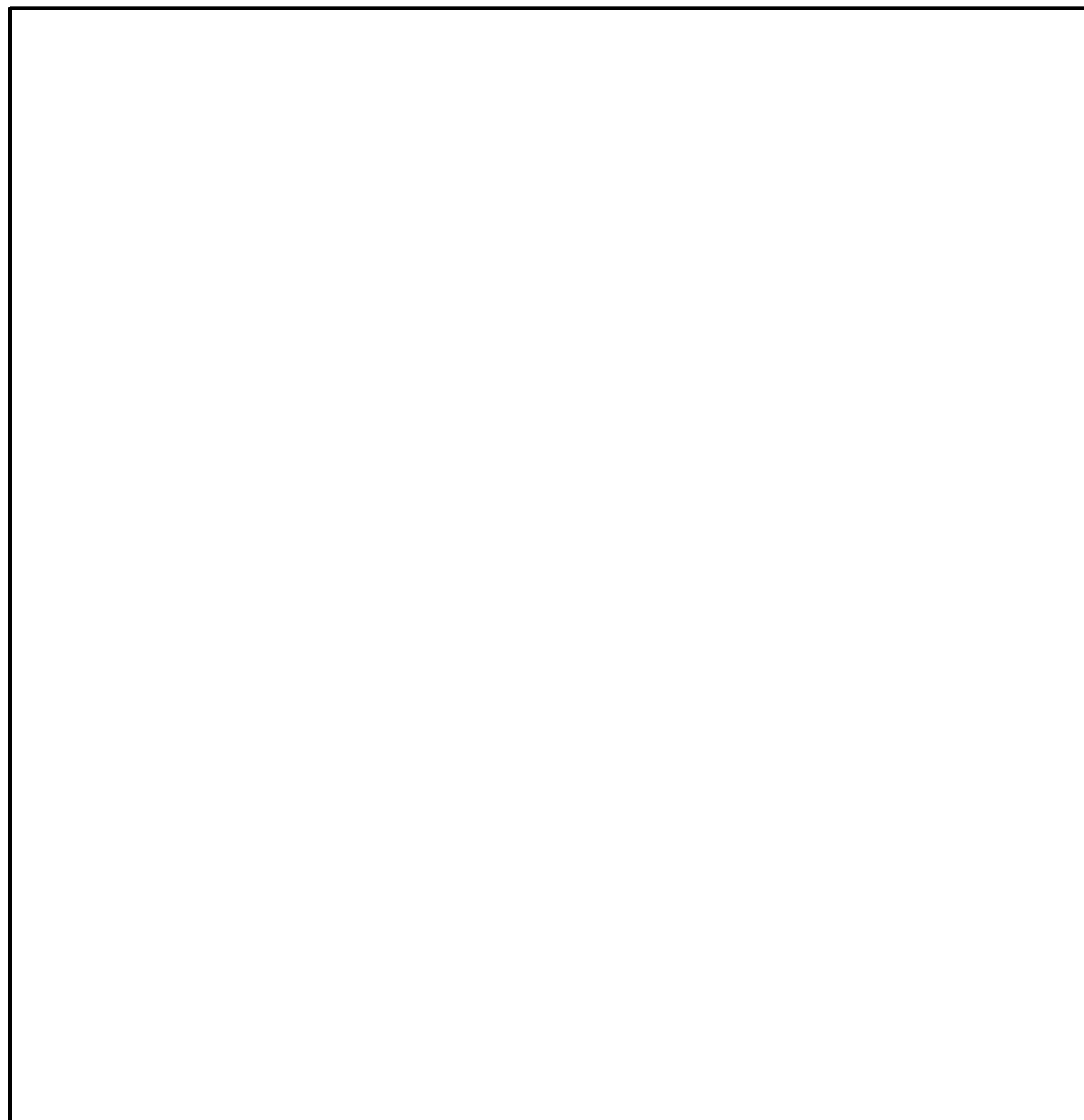
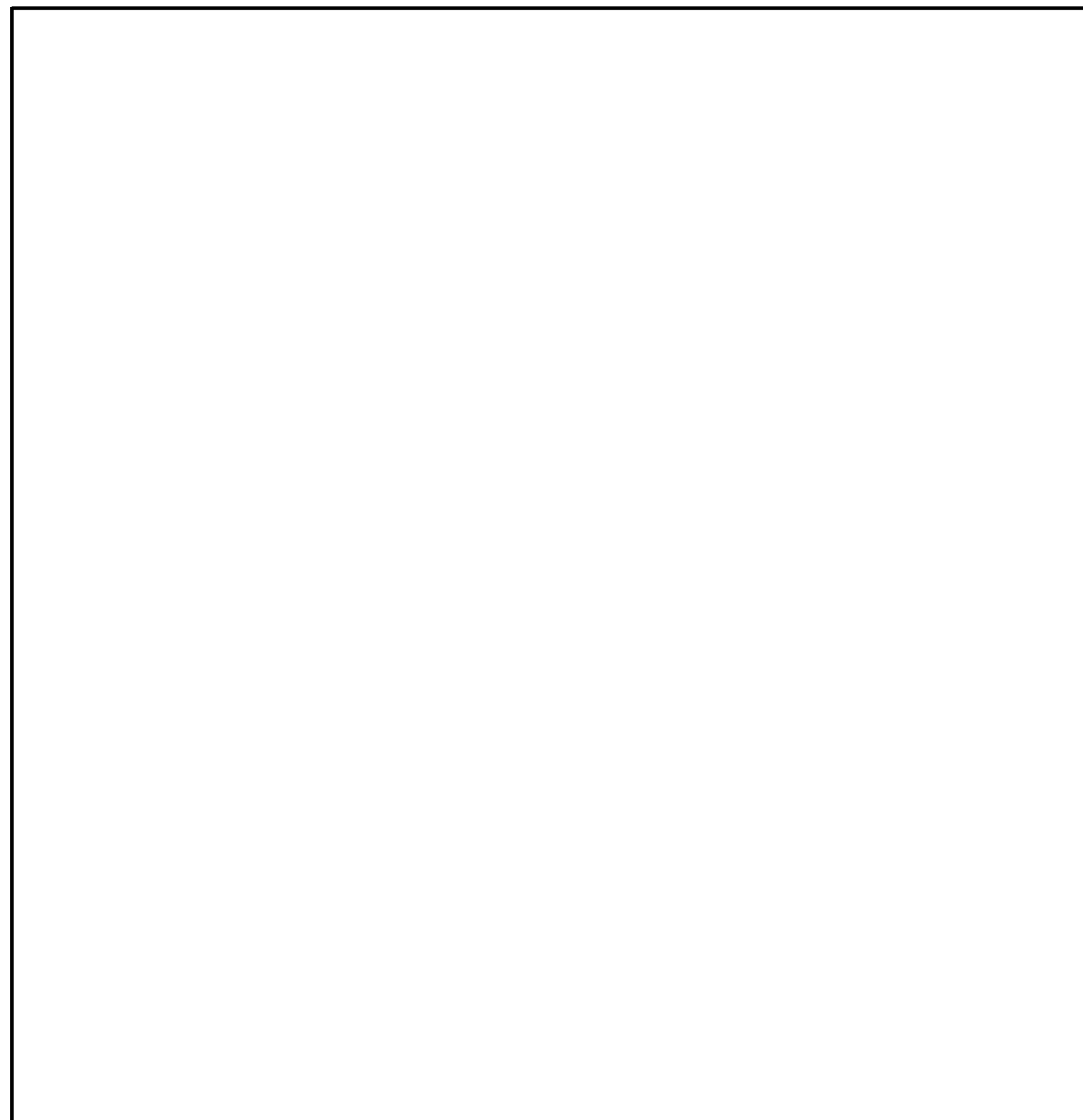
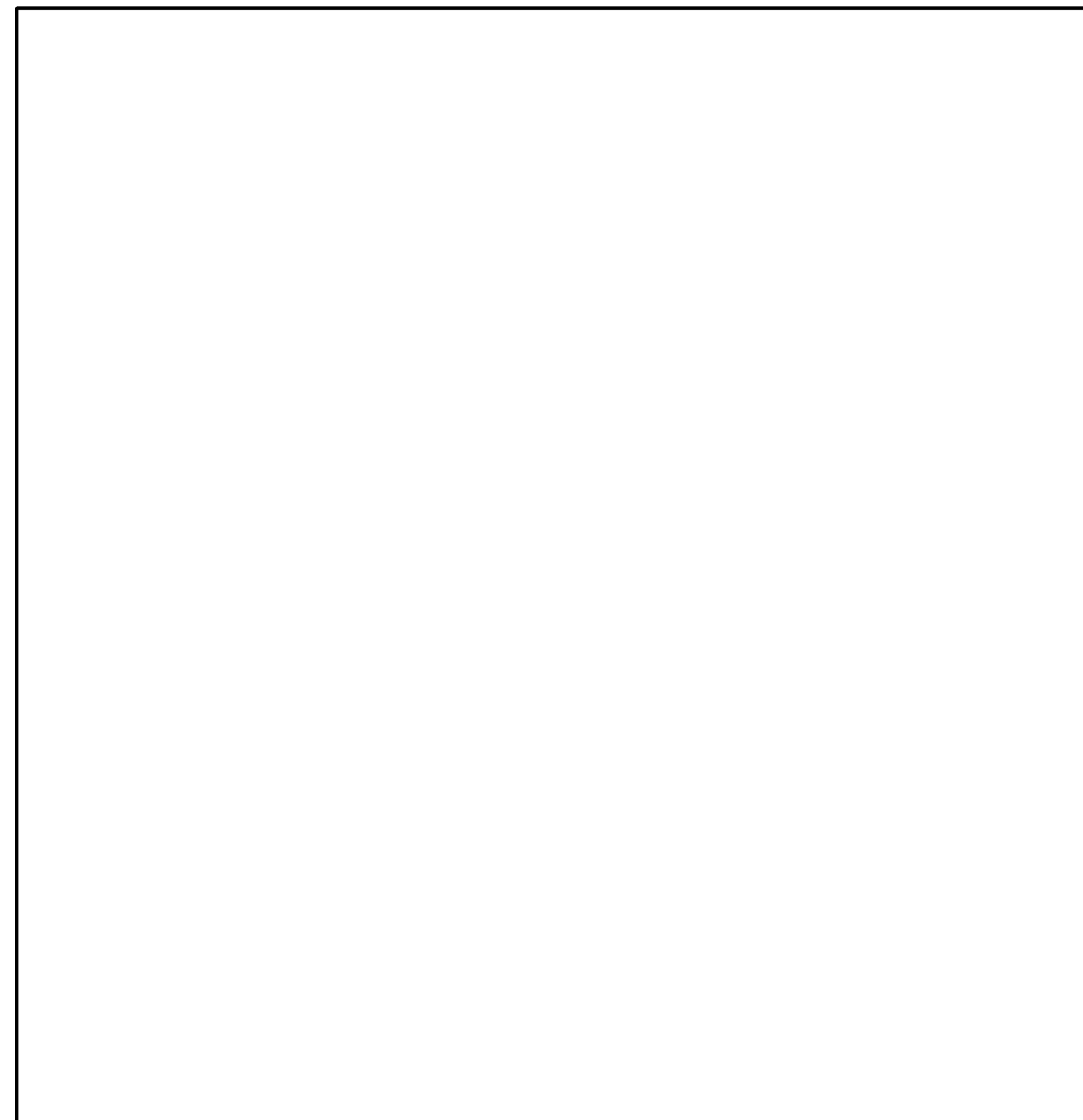
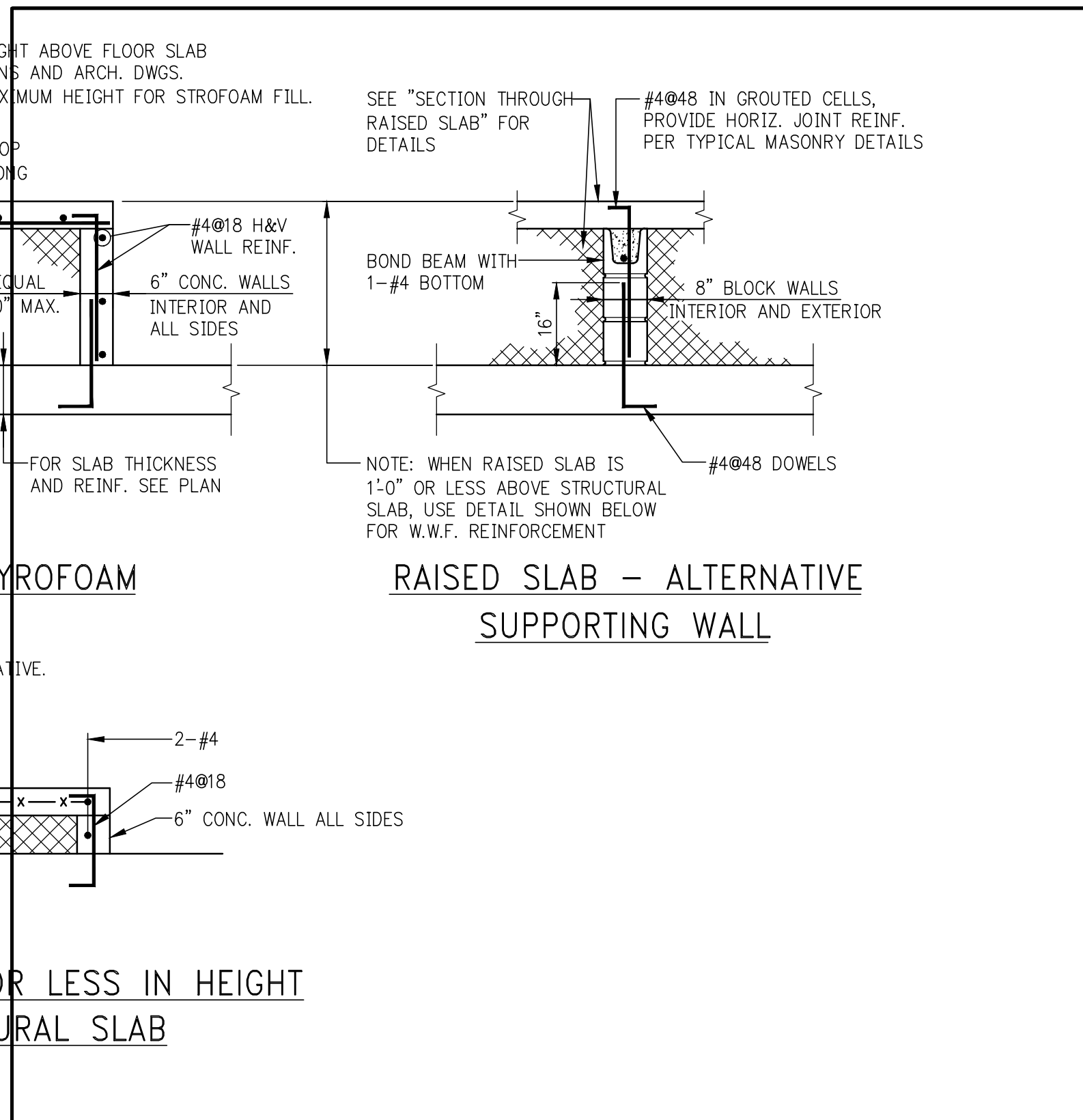
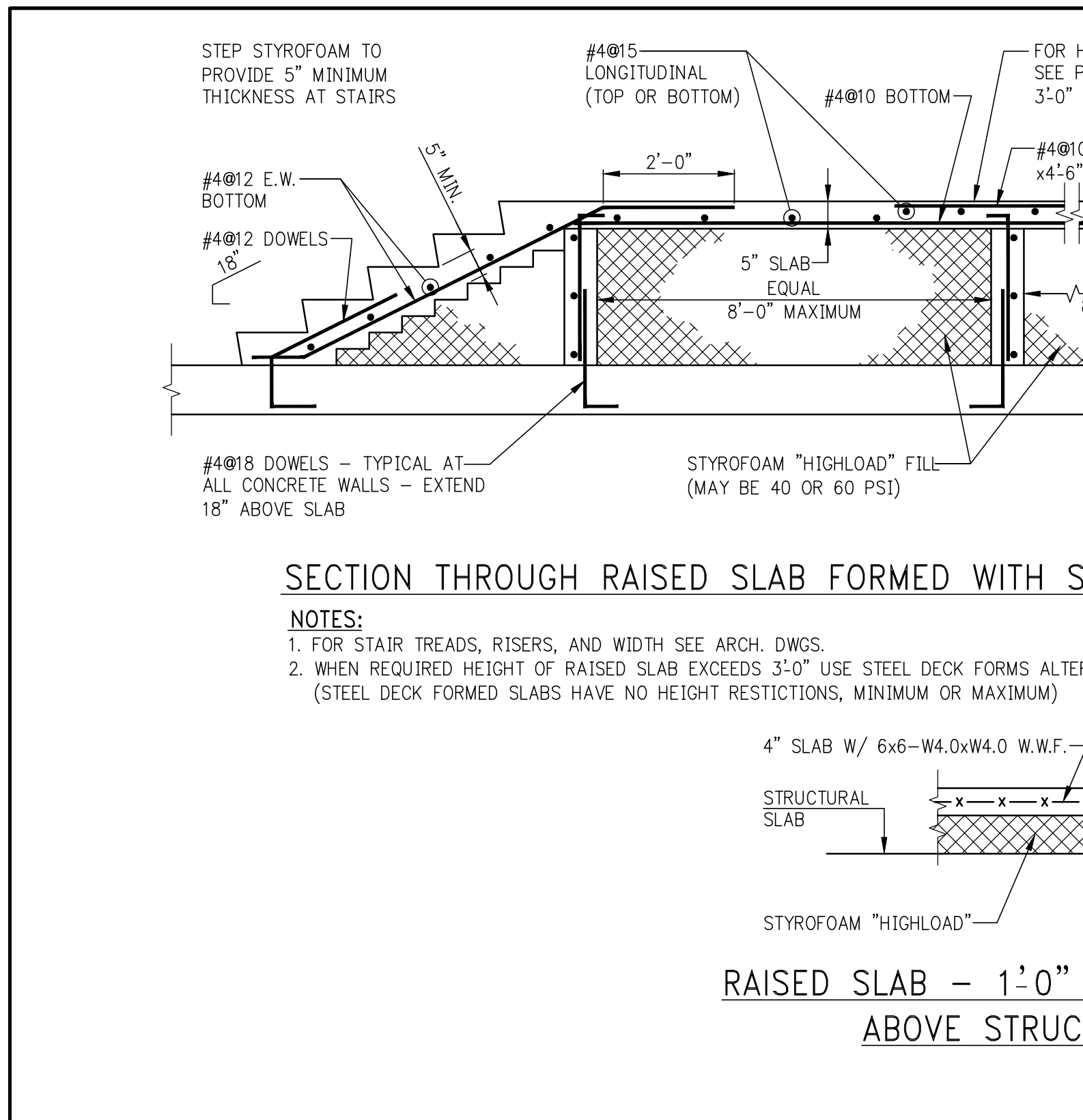
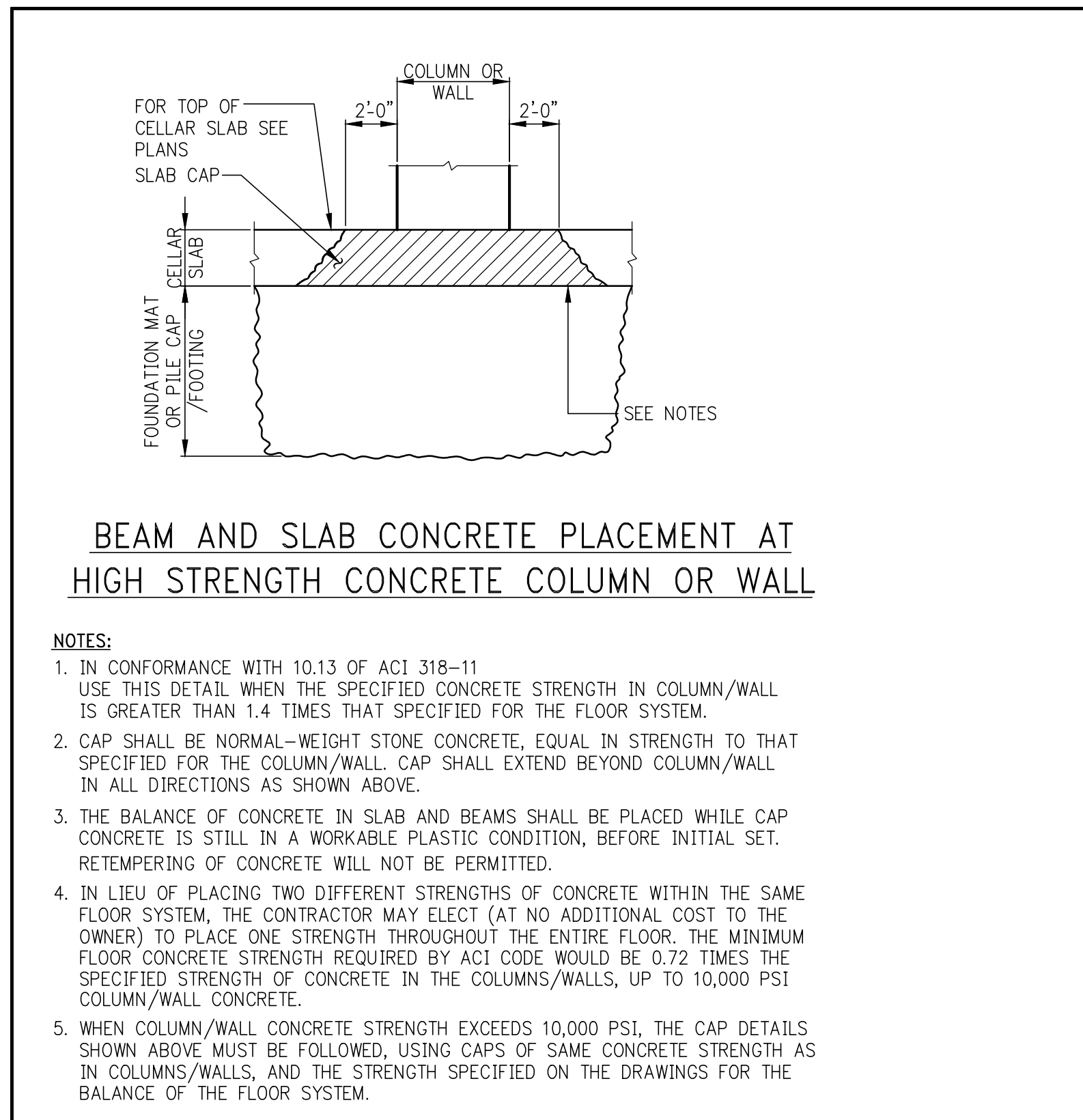
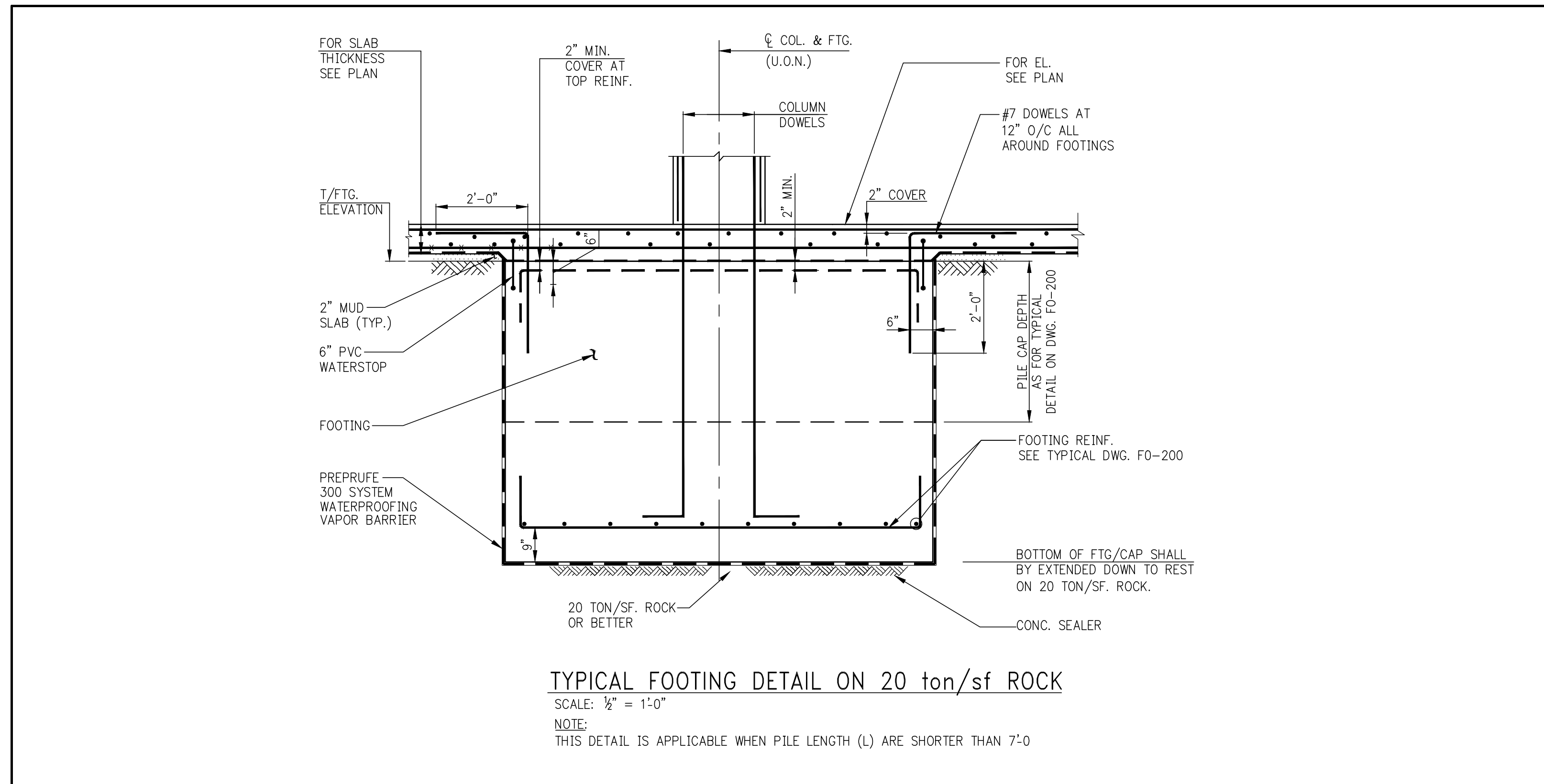
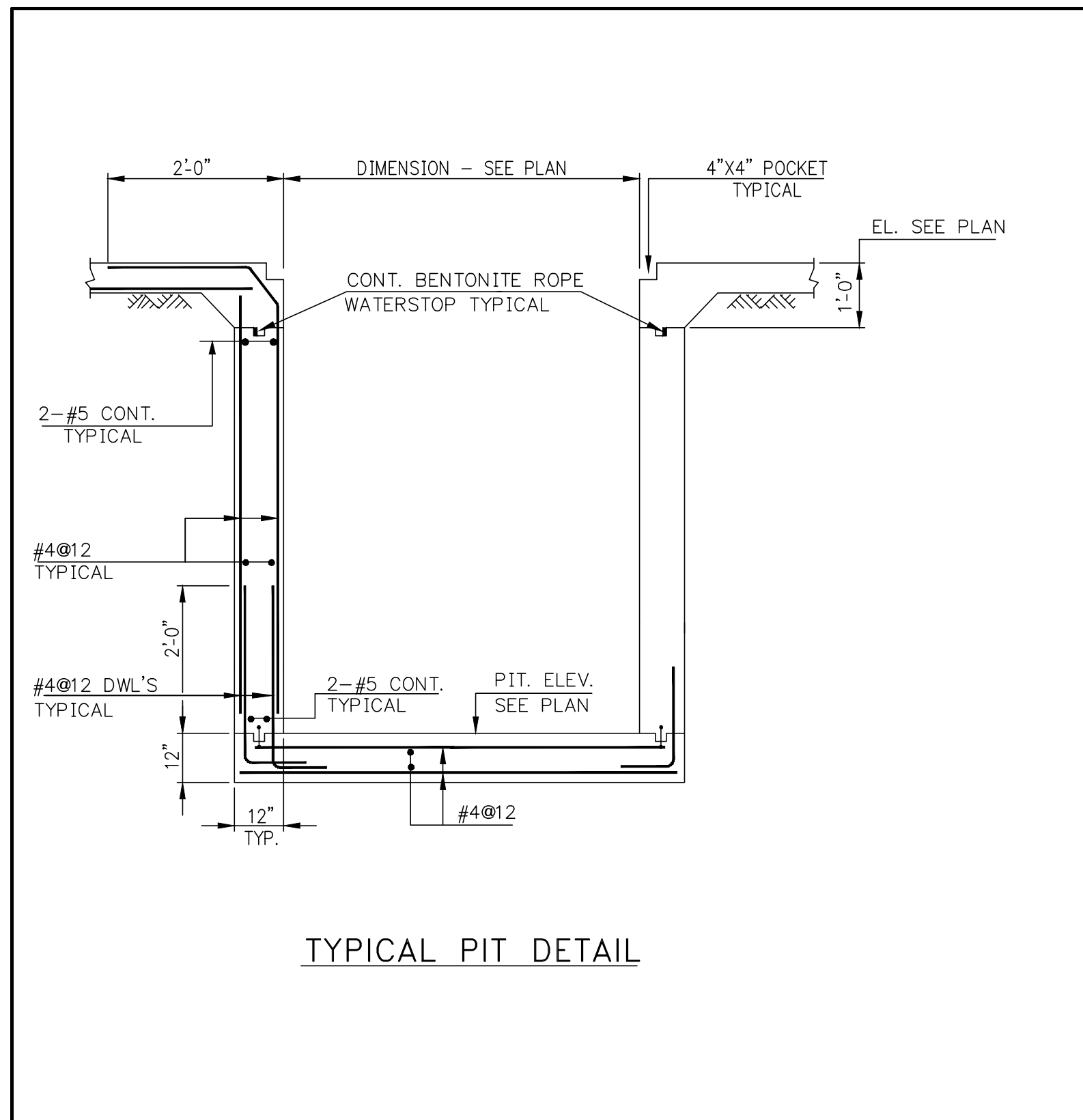
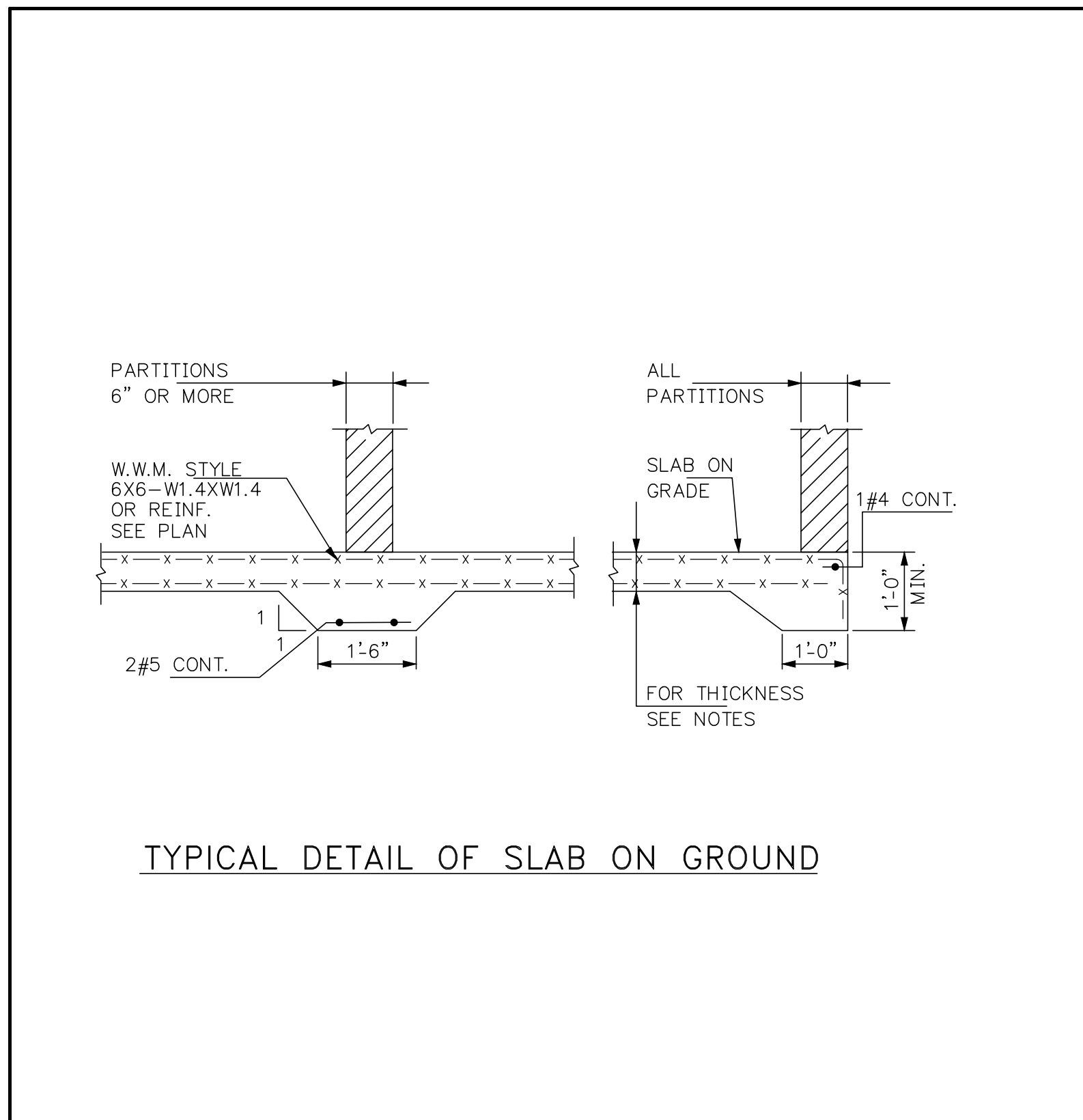
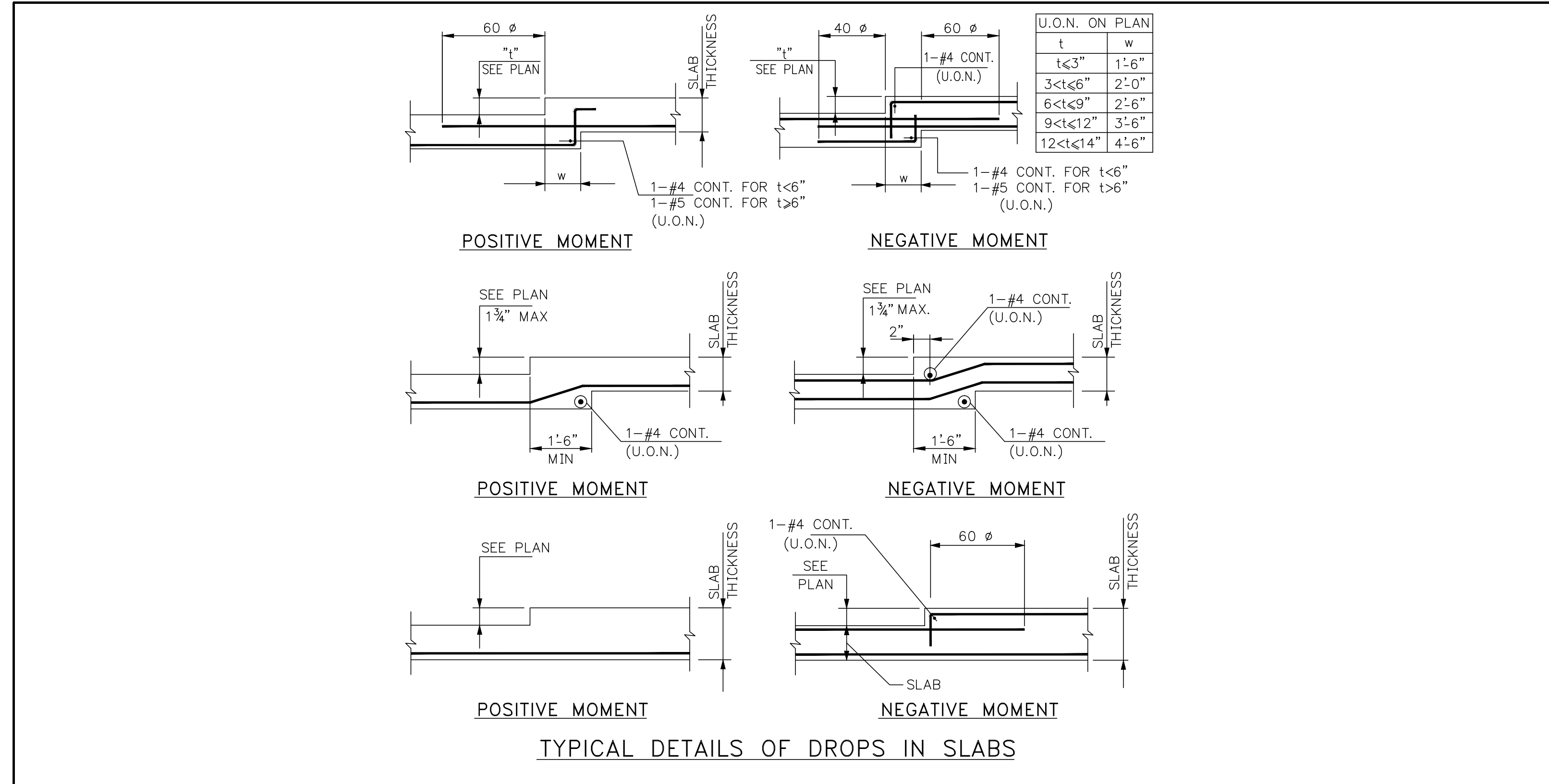
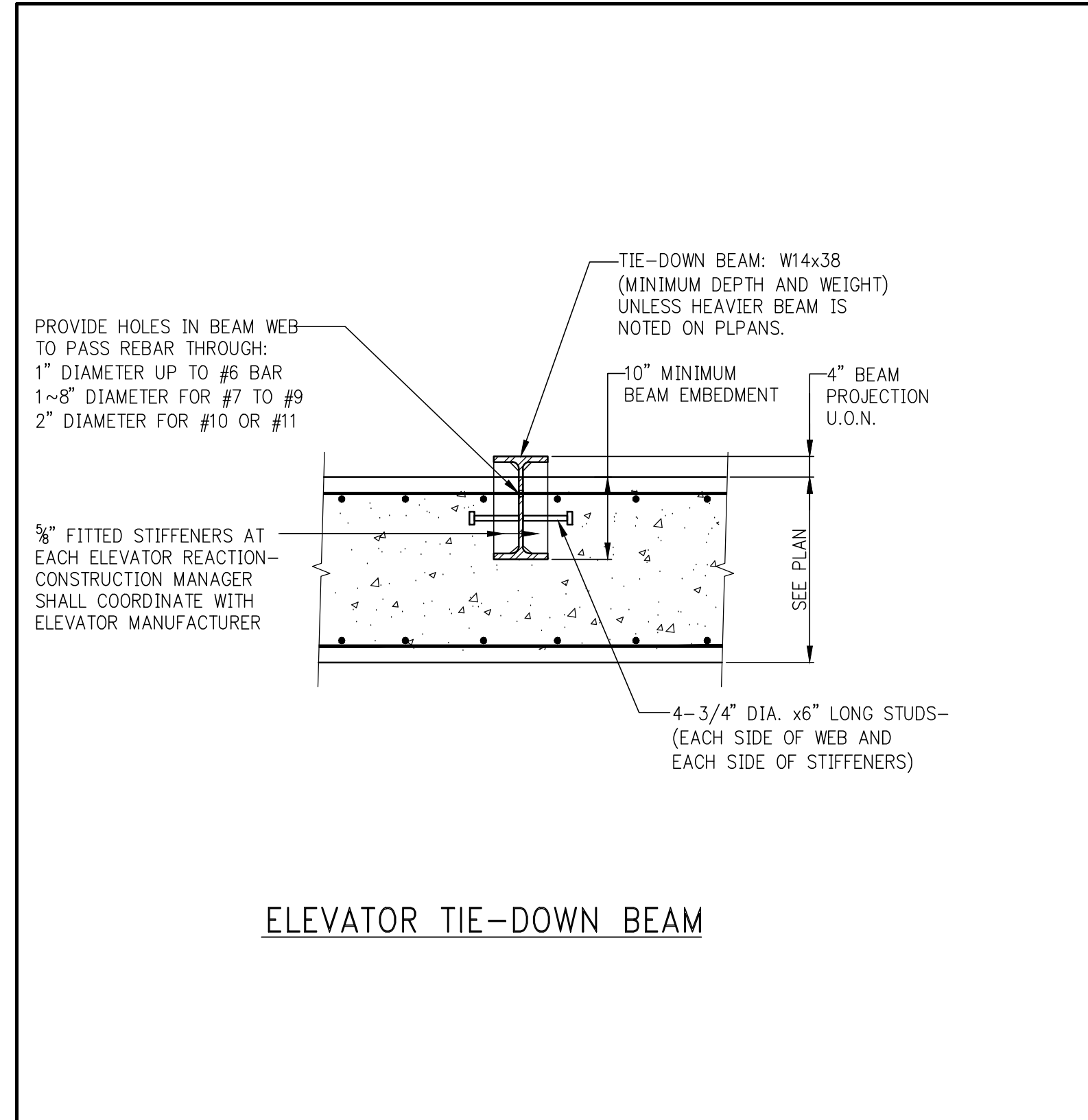
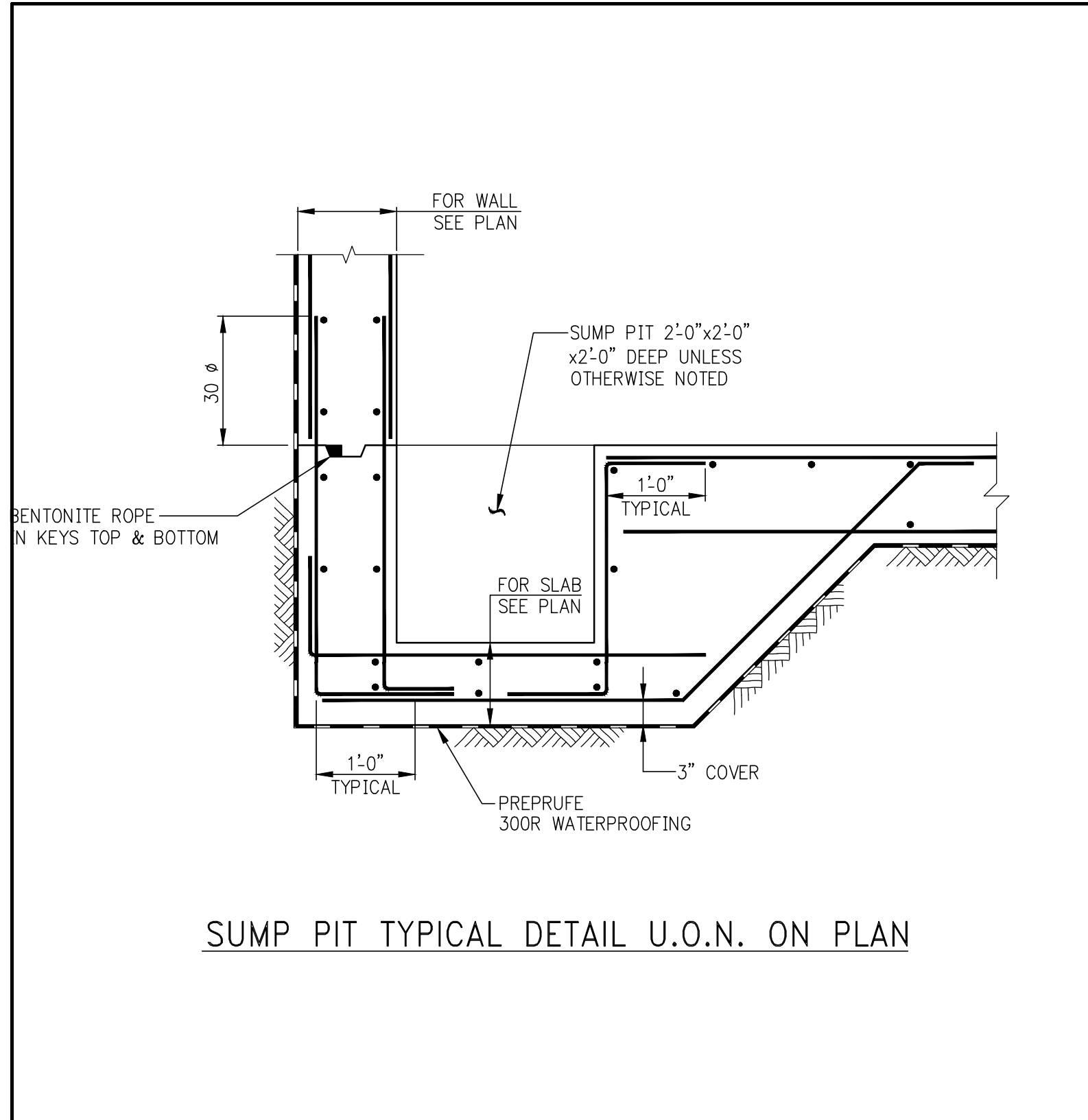
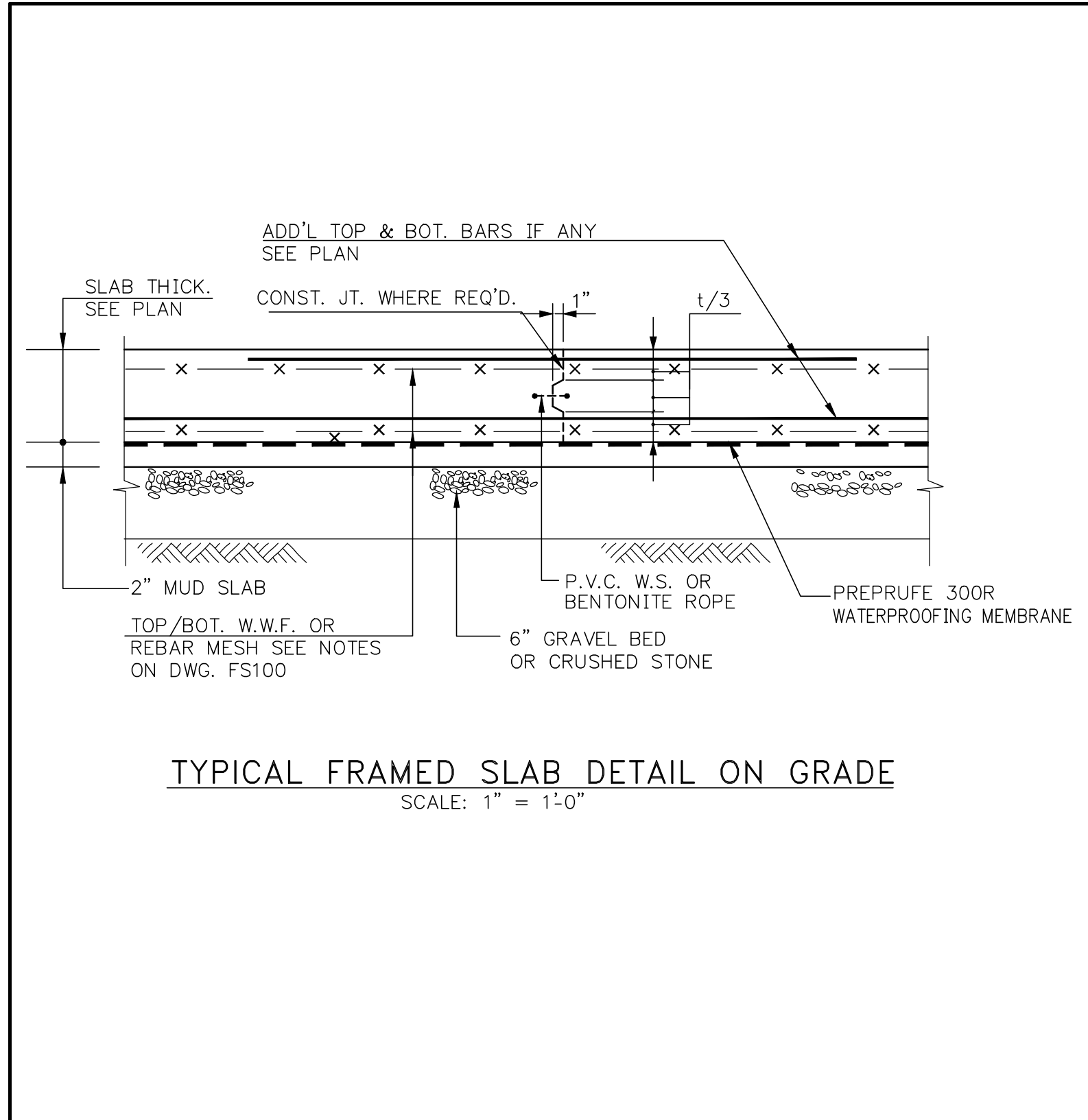
SEAL & SIGNATURE:

	DATE: 07/31/2013
	PROJECT #: 1450104

SCALE: AS NOTED

FO-201.00

	DWG NO.
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KEY PLAN

Number	Date	Revision
5	07/31/2015	DOB SUBMISSION
4	07/20/2015	100% SD
3	03/20/2015	50% SD
2	03/02/2015	100% SD
1	12/17/2015	100% SD

OWNER: GID DEVELOPMENT
125 HIGH STREET
HIGH STREET TOWER, 27TH FLOOR
BOSTON, MA 02110

PROJECT: RIVERSIDE CENTER BUILDING 3
NEW YORK, NY

EXECUTIVE ARCHITECT: **GHW**
Goldstein, Hill & West Architects, LLP
11 Broadway, Suite 1700
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Tel (212) 213-8007 Fax (212) 686-1754

DESIGN ARCHITECT: **RICHARD MEIER & PARTNERS**
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STRUCTURAL ENGINEER: **WSP BUILDING STRUCTURES**
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228 East 45th St, 3rd Floor
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CONSULTING ENGINEERS
512 Seventh Avenue
New York, NY 10018
Tel: (212) 532-9600

DOB STAMPS & SIGNATURES:

DWG TITLE: **TYPICAL FOUNDATION DETAILS 3**
NB#XXXXXXXX

SEAL & SIGNATURE: **APPROVED**
Under Directive 2 of 1975
Date: 11/17/2015
NYC Development Hub

DATE: 07/31/2015
PROJECT #: 180104
SCALE: AS NOTED
FO-202.00
DWG NO.



KEY PLAN

5	07/31/2015	DOB SUBVISION
4	07/20/2015	100% DO
3	03/20/2015	50% DO
2	03/02/2015	100% FILING
1	12/17/2015	100% SD

Number: Date: Revision:

OWNER:
GID DEVELOPMENT
125 HIGH STREET
HIGH STREET TOWER, 27TH FLOOR
BOSTON, MA 02110

PROJECT:
RIVERSIDE CENTER BUILDING 3
NEW YORK, NY

EXECUTIVE ARCHITECT:
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MEP/FP ENGINEER:
WSP BUILDING SYSTEMS
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New York, NY 10018
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DOB STAMPS & SIGNATURES

DWG TITLE:
TYPICAL FOUNDATION
SECTIONS 4
NB#XXXXXXXX

SEAL & SIGNATURE:

DATE: 07/31/2015
PROJECT #: 1100104
SCALE: AS NOTED
FO-203.00
DWG NO.

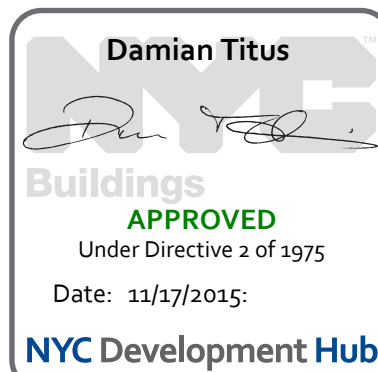


TABLE #5 DEVELOPMENT LENGTHS FOR BARS IN COMPRESSION (LENGTHS IN INCHES)												
BAR SIZE	fy = 60,000 PSI			fy = 75,000 PSI			fy = 80,000 PSI					
	CONC. fc (IN PSI)	3,000	4,000	CONC. fc (IN PSI)	3,000	4,000	CONC. fc (IN PSI)	3,000	4,000	CONC. fc (IN PSI)	3,000	4,000
#3	12	12	12	12	12	12	12	12	12	12	12	12
#4	12	12	12	14	12	12	15	13	12			
#5	14	12	12	17	15	14	18	16	15			
#6	17	15	14	21	18	17	22	19	18			
#7	19	17	16	24	21	20	26	22	21			
#8	22	19	18	28	24	23	29	25	24			
#9	25	22	21	31	27	25	33	28	27			
#10	28	24	23	34	30	28	36	31	30			
#11	31	27	26	38	33	31	40	34	33			
#14	37	32	31	48	42	39	51	44	42			
#18	50	43	41	62	54	51	65	56	54			

TABLE #4 COMPRESSION LAP SPLICES (LENGTHS IN INCHES)				
BAR SIZE	GRADE OF REINFORCEMENT			
	60 KSI (30 DIA)	75 KSI (44 DIA)	80 KSI (48 DIA)	
#3	12	17	18	
#4	15	22	24	
#5	19	28	30	
#6	23	33	36	
#7	27	39	42	
#8	30	44	48	
#9	34	50	54	
#10	38	56	61	
#11	43	62	68	
#14 and #18	1. LAP SPLICES ARE NOT PERMITTED. USE MECHANICAL CONNECTIONS OR WELDED SPLICES FOR #14 AND #18. PER ACI 318 (12.14.3).			
	2. LAP SPLICES OF #14 AND #18 BARS TO #11 AND SMALLER BARS ARE PERMITTED PER ACI 318 (12.16.2).			
3. FOR BARS OF DIFFERENT SIZE, USE LARGER OF: A. DEVELOPMENT LENGTH FOR SMALLER BAR (TABLE #3) OR B. DEVELOPMENT LENGTH FOR LARGER BAR (FROM TABLE #4) OR LARGER BAR (12.16.2).				

NOTE:
TABLE #3 APPLIES FOR NORMALWEIGHT CONCRETE WITH fc = 3,000 PSI OR GREATER.

TABLE #3 TENSION DEVELOPMENT LENGTHS FOR STANDARD END HOOKS (ldh) (LENGTHS IN INCHES)												
BAR SIZE	CONCRETE STRENGTH (PSI)											
	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000				
#3	9	7	7	6	6	6	6	6				
#4	11	10	9	8	7	7	7	6				
#5	14	12	11	10	9	9	8	8				
#6	17	15	13	12	11	10	10	9				
#7	19	17	15	14	13	12	11	11				
#8	22	19	17	16	15	14	13	12				
#9	25	22	19	18	16	15	15	14				
#10	28	24	22	20	19	17	16	16				
#11	31	27	24	22	21	19	18	17				
#14	37	32	29	27	25	23	22	21				
#18	50	43	39	35	33	31	29	27				

- NOTES:
1. TABLE 2 CONFORMS TO ACI 318-2002 (AND 2005). TABULATED VALUES ARE BASED UPON ACI 12.5.2 - ASSUMING GRADE 60 REINFORCEMENT AND NORMALWEIGHT CONCRETE.
2. PER ACI 12.5.3 (d), FOR #11 AND SMALLER BARS, IF COVER TO BAR IS 2 1/2 INCHES OR MORE, AND FOR 90 DEGREE HOOK WITH COVER ON BAR EXTENSION BEYOND HOOK NOT LESS THAN 2 INCHES, A MODIFICATION FACTOR OF 0.7 MAY BE APPLIED. MINIMUM ldh SHALL NOT BE LESS THAN 8db NOR 6 INCHES.

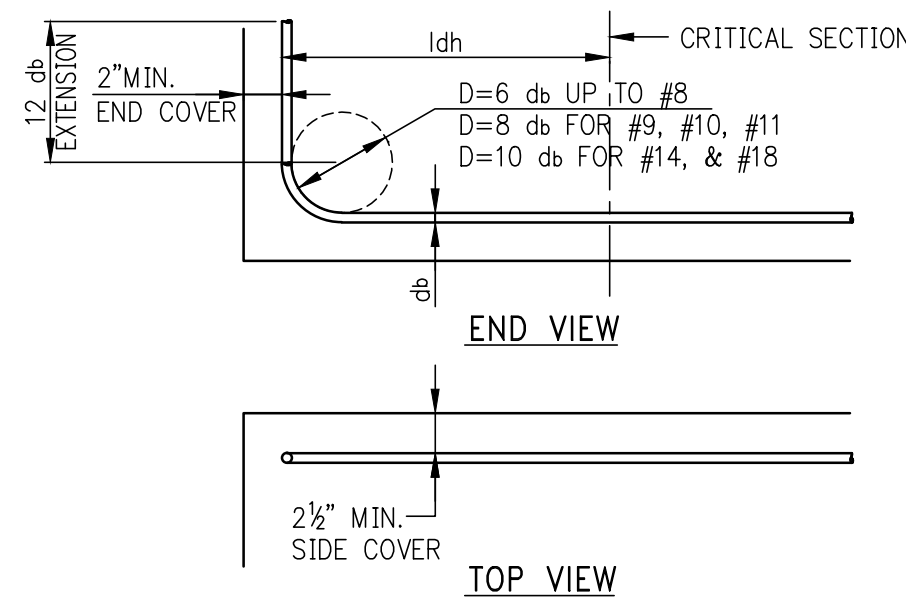


TABLE #2:

TENSION DEVELOPMENT LENGTHS (ld) (IN INCHES)

TABLE 2.A: 3/4" COVER TO OUTER LAYER BARS

OUTER LAYER DEVELOPMENT LENGTHS

CONC. f_c (IN PSI)	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
#3	12	12	12	12	12	12	12	12
#4	16	14	13	12	12	12	12	12
#5	24	21	19	17	16	15	14	13
#6	33	28	25	23	22	20	19	18
#7	53	46	41	37	35	32	31	29
#8	66	57	51	46	43	40	38	36
#9	79	69	61	56	52	49	46	43
#10	93	81	72	66	61	57	54	51
#11	108	94	84	76	71	66	62	59

TABLE 2.C: 1 1/2" COVER TO OUTER LAYER BARS

OUTER LAYER DEVELOPMENT LENGTHS

CONC. f_c (IN PSI)	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	20	17	15	15	15	15	15	15
#7	32	28	25	23	21	20	19	18
#8	41	36	32	29	27	25	24	23
#9	50	44	39	36	33	31	29	28
#10	60	52	47	43	40	37	35	33
#11	71	61	55	50	46	43	41	39

TABLE 2.B: 3/4" COVER TO OUTER LAYER BARS

INNER LAYER DEVELOPMENT LENGTHS

CONC. f_c (IN PSI)	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	23	20	18	16	15	15	15	15
#7	37	32	29	26	23	22	20	19
#8	47	41	36	33	31	29	27	26
#9	57	50	44	41	38	35	33	31
#10	68	59	53	48	45	42	40	38
#11	80	69	62	57	52	49	46	44

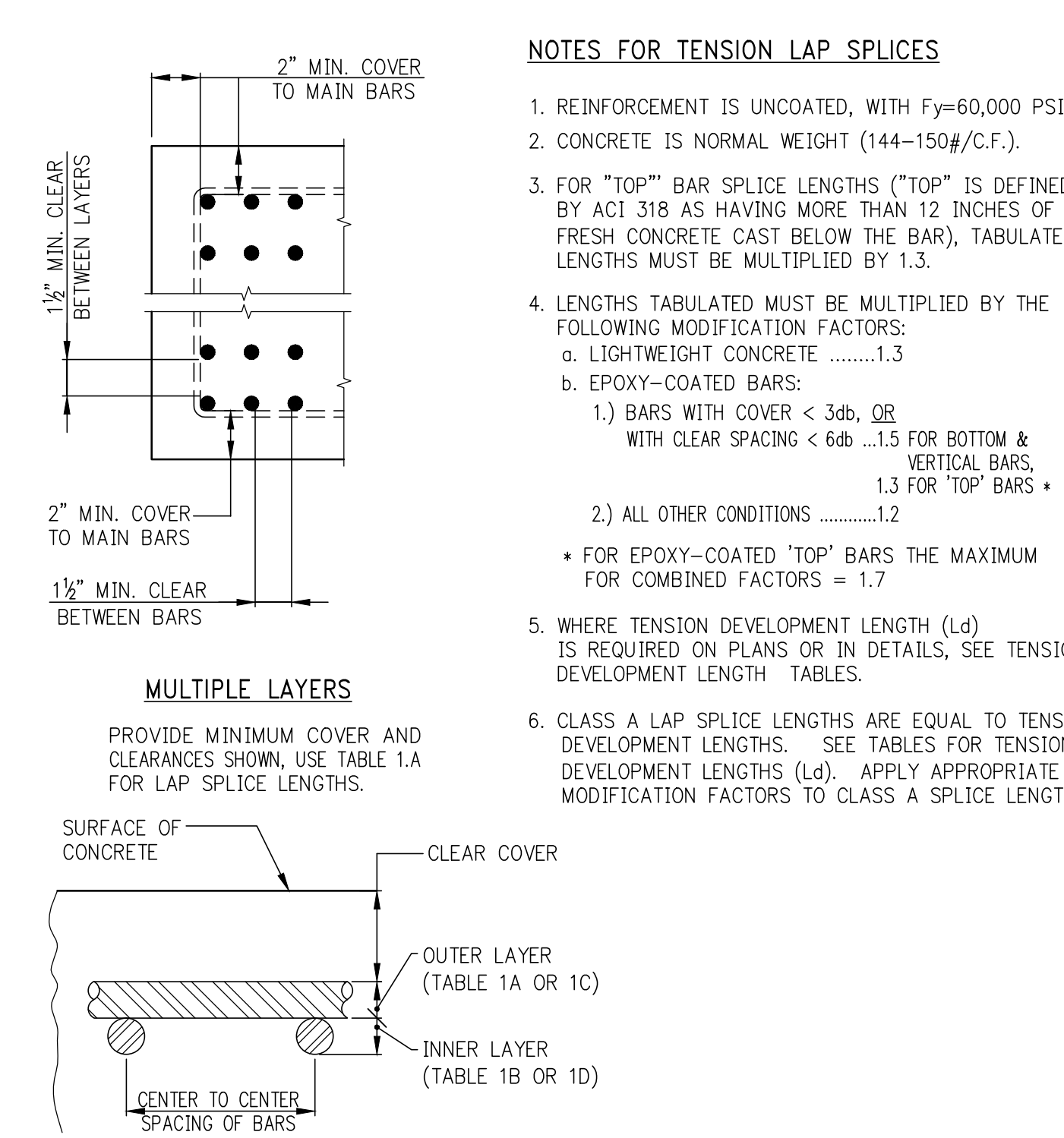
TABLE 2.D: 1 1/2" COVER TO OUTER LAYER BARS

INNER LAYER DEVELOPMENT LENGTHS

CONC. f_c (IN PSI)	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	20	17	15	15	15	15	15	15
#7	29	25	22	20	19	18	18	18
#8	33	28	25	23	22	20	20	20
#9	41	35	31	29	27	25	23	23
#10	49	42	38	35	32	30	28	27
#11	58	50	45	41	38	35	33	32

- NOTES FOR TENSION DEVELOPMENT LENGTHS (ld)
1. REINFORCEMENT IS UNCOATED, WITH Fy=60,000 PSI.
2. CONCRETE IS NORMAL WEIGHT (144-150#/C.F.).
3. FOR "TOP" BAR DEVELOPMENT LENGTHS ("TOP" IS DEFINED BY ACI 318 AS HAVING MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW THE BAR), TABULATED LENGTHS MUST BE MULTIPLIED BY 1.3.
4. LENGTHS TABULATED MUST BE MULTIPLIED BY THE FOLLOWING MODIFICATION FACTORS:
a. LIGHTWEIGHT CONCRETE1.3
b. EPOXY-COATED BARS:
1.) BARS WITH COVER < 3db, OR WITH CLEAR SPACING < 6db ...1.5 FOR BOTTOM & VERTICAL BARS, 1.3 FOR "TOP" BARS
2.) ALL OTHER CONDITIONS1.2
• FOR EPOXY-COATED "TOP" BARS THE MAXIMUM FOR COMBINED FACTORS = 1.7
5. WHERE TENSION DEVELOPMENT LENGTH (ld) IS REQUIRED ON PLANS OR IN DETAILS, SEE TENSION DEVELOPMENT LENGTH TABLES.
6. CLASS A LAP SPLICE LENGTHS ARE EQUAL TO TENSION DEVELOPMENT LENGTHS. SEE TABLES FOR TENSION DEVELOPMENT LENGTHS (ld). APPLY APPROPRIATE MODIFICATION FACTORS TO CLASS A SPLICE LENGTHS.

TABLE #1: TENSION LAP SPLICE LENGTHS (CLASS B MINIMUM)																	
TABLE 1.A: ¾" COVER TO OUTER LAYER BARS OUTER LAYER LAP LENGTHS (IN INCHES)									TABLE 1.C: 1½" COVER TO OUTER LAYER BARS OUTER LAYER LAP LENGTHS (IN INCHES)								
NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 4" O/C UP TO #8. 5" O/C FOR #9, #10, #11									NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 4" O/C UP TO #8. 5" O/C FOR #9, #10, #11								
CONC. f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	CONC. f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
#3	16	16	16	16	16	16	16	16	#3	16	16	16	16	16	16	16	16
#4	21	20	20	20	20	20	20	20	#4	20	20	20	20	20	20	20	20
#5	31	27	24	24	24	24	24	24	#5	24	24	24	24	24	24	24	24
#6	43	37	33	30	29	29	29	29	#6	29	29	29	29	29	29	29	29
#7	69	60	53	49	45	42	40	38	#7	42	37	34	34	34	34	34	34
#8	85	74	66	60	56	52	49	47	#8	53	46	41	39	39	39	39	39
#9	103	89	80	73	67	63	59	56	#9	66	57	51	46	44	44	44	44
#10	121	105	94	86	79	74	70	66	#10	79	68	61	56	51	49	49	49
#11	140	122	109	99	92	86	81	77	#11	92	80	72	65	60	57	54	54
TABLE 1.B: ¾" COVER TO OUTER LAYER BARS INNER LAYER LAP LENGTHS (IN INCHES)									TABLE 1.D: 1½" COVER TO OUTER LAYER BARS INNER LAYER LAP LENGTHS (IN INCHES)								
NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 4" O/C UP TO #8. 5" O/C FOR #9, #10, #11									NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 5" O/C UP TO #8. 6" O/C FOR #9, #10, #11								
CONC. f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	CONC. f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
#3	16	16	16	16	16	16	16	16	#3	16	16	16	16	16	16	16	16
#4	20	20	20	20	20	20	20	20	#4	20	20	20	20	20	20	20	20
#5	24	24	24	24	24	24	24	24	#5	24	24	24	24	24	24	24	24
#6	30	29	29	29	29	29	29	29	#6	29	29	29	29	29	29	29	29
#7	48	42	38	34	34	34	34	34	#7	37	34	34	34	34	34	34	34
#8	61	53	47	43	40	39	39	39	#8	43	39	39	39	39	39	39	39
#9	75	65	58	53	49	46	44	44	#9	53	46	44	44	44	44	44	44
#10	89	77	69	63	58	55	51	51	#10	64	55	49	49	49	49	49	49
#11	104	90	81	74	68	64	60	57	#11	75	65	58	54	54	54	54	54



KEY PLAN



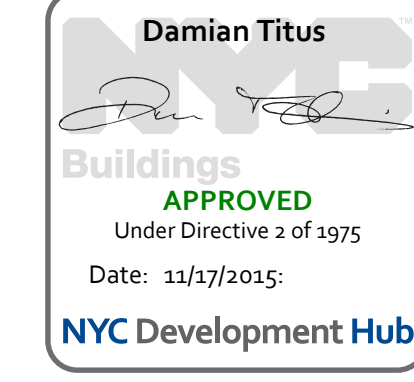
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3	07/31/2015	100% DO
2	03/20/2015	50% DO
1	03/06/2015	DOB FILING

Number	Date	Revision
OWNER		
GID DEVELOPMENT 125 HIGH STREET HIGH STREET TOWER, 27TH FLOOR BOSTON, MA 02110		
PROJECT		
RIVERSIDE CENTER BUILDING 3 NEW YORK, NY		
EXECUTIVE ARCHITECT		
GHW Goldstein, Hill & West Architects, LLP 11 Broadway, Suite 1700 New York, NY 10004 Tel (212) 213-8007 Fax (212) 686-1754		
DESIGN ARCHITECT		
RICHARD MEIER & PARTNERS ARCHITECTS, LLP 475 Tenth Avenue New York, NY 10018 Tel: (212) 967-6560		
STRUCTURAL ENGINEER		
WSP BUILDING STRUCTURES CONSULTING ENGINEERS 228 East 45th St, 3rd Floor New York, NY 10017 Tel: (212) 687-9888 Fax: (646) 487-5501		
MEP/P ENGINEER		
WSP BUILDING SYSTEMS CONSULTING ENGINEERS 512 Seventh Avenue New York, NY 10018 Tel: (212) 532-9600		
DOB STAMPS & SIGNATURES		

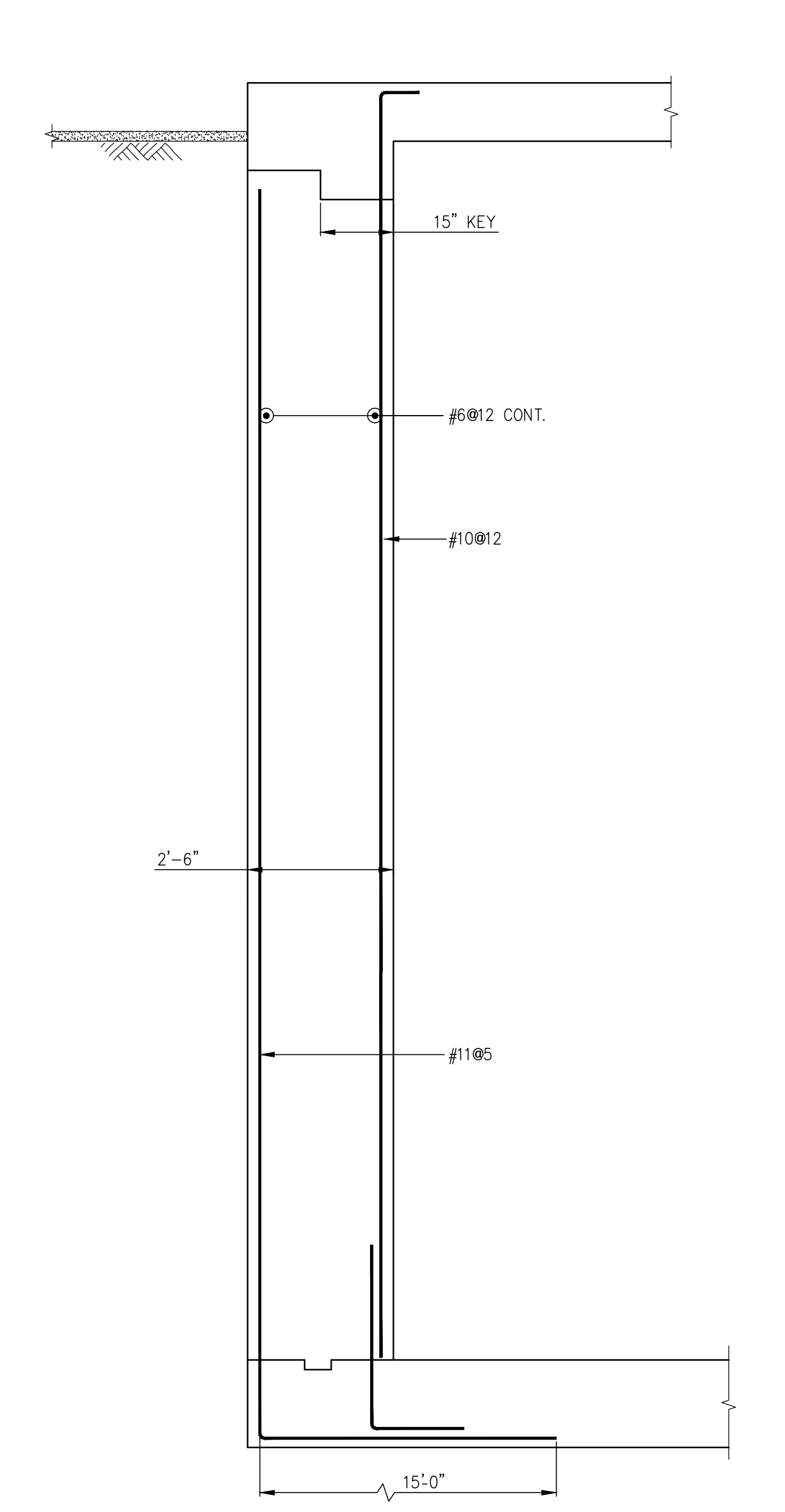
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PROJECT # 1180104
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FO-300.00
DWG NO.

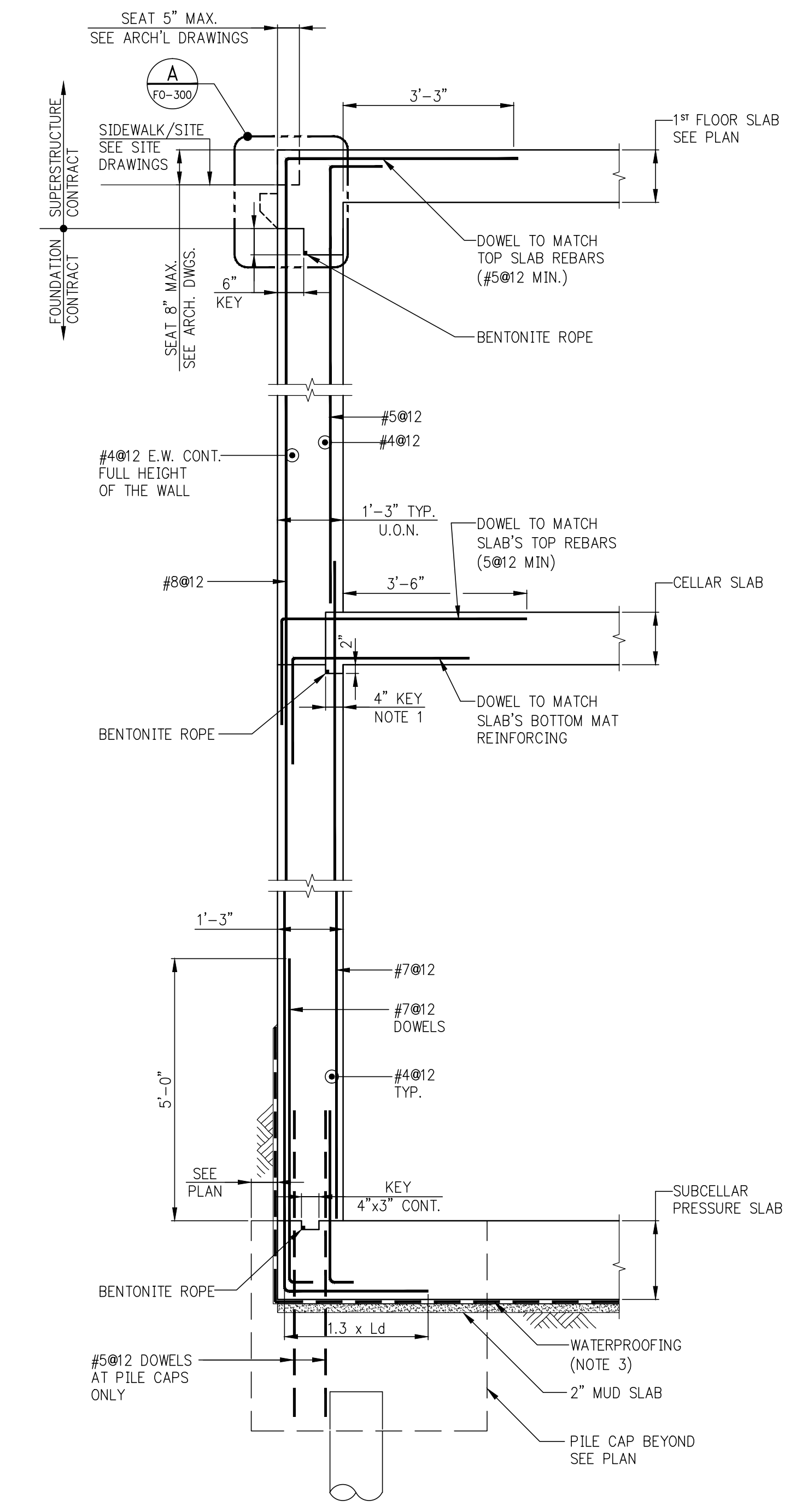


- NOTES:
1. FOR ELEVATOR DIMENSIONS SEE LATEST ARCH'L AND ELEVATOR CONSULTANTS DRAWINGS.
 2. PROVIDE FULL TENSION SPLICE ABOVE SLAB BETWEEN SHEARWALL DOWELS AND SHEARWALL REBARS.
 3. REFER TO ARCHITECTURAL AND GEOTECHNICAL DRAWINGS AND SPECIFICATIONS FOR WATERPROOFING INFORMATION.



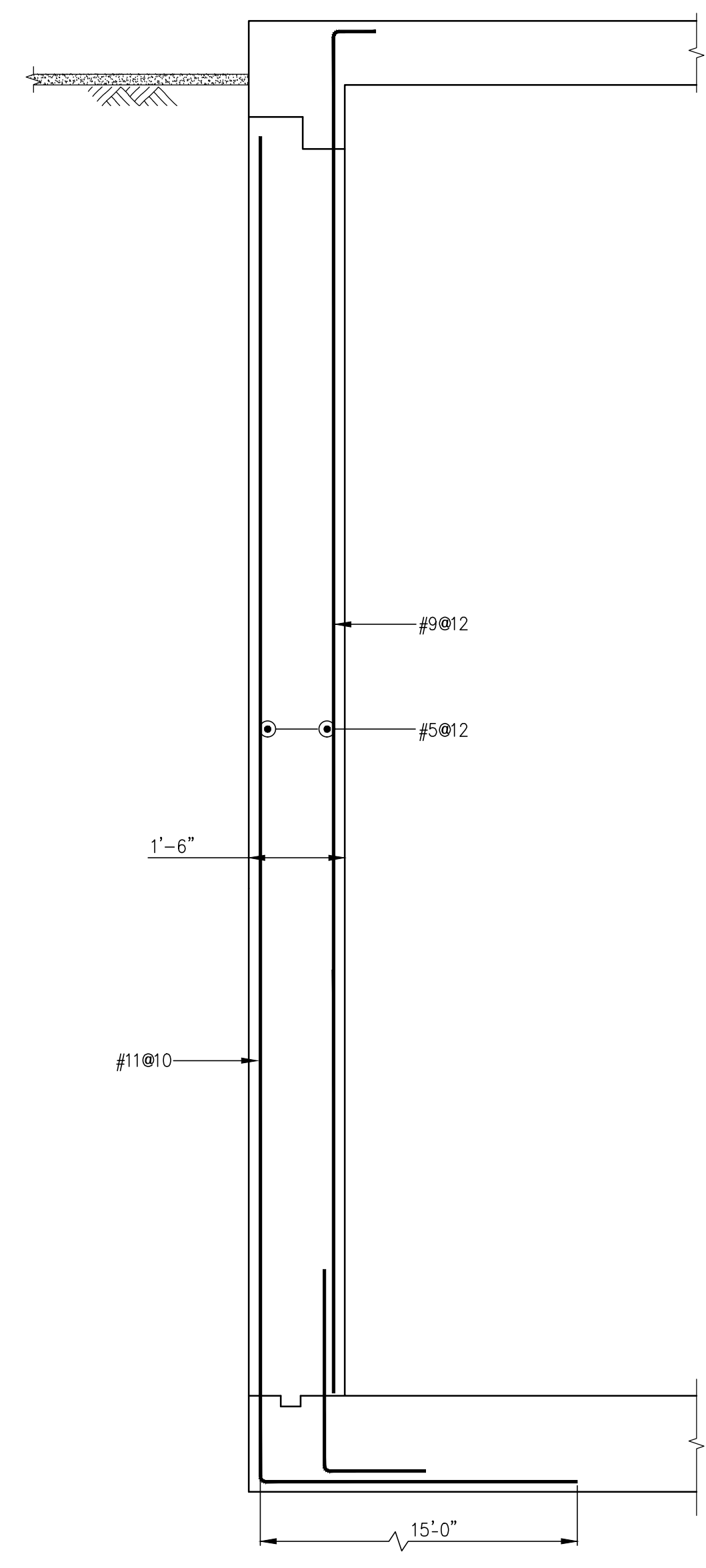
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NOTE:
1. FOR BALANCE OF INFORMATION SEE SECTION 2



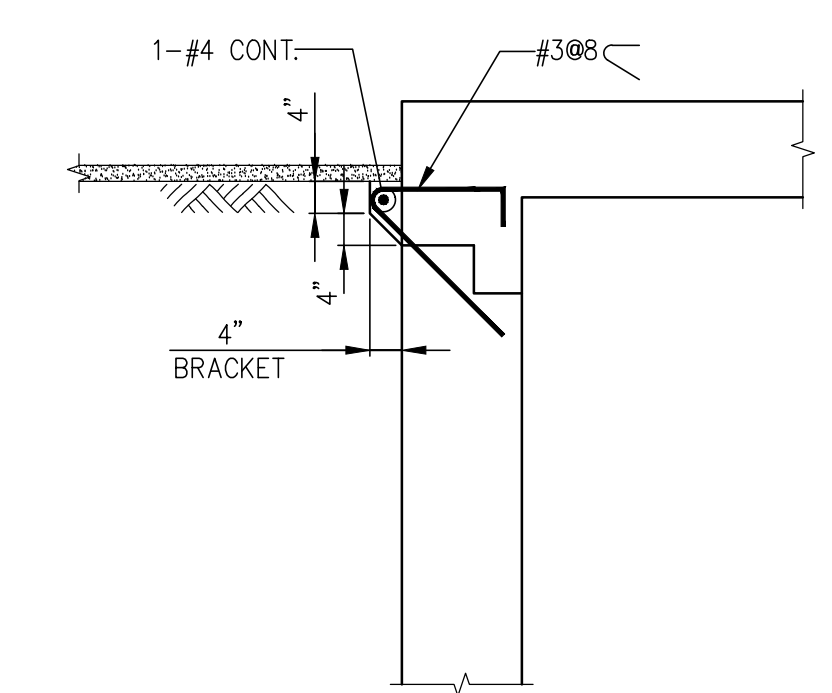
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FO-300

- NOTES:
1. RUN REBARS CONTINUOUSLY THROUGH THE KEY.
 2. SLAB REBARS NOT SHOWN FOR CLARITY.
 3. REFER TO GEOTECHNICAL REPORT FOR DRAINAGE AND WATERPROOFING DETAILS ETC.



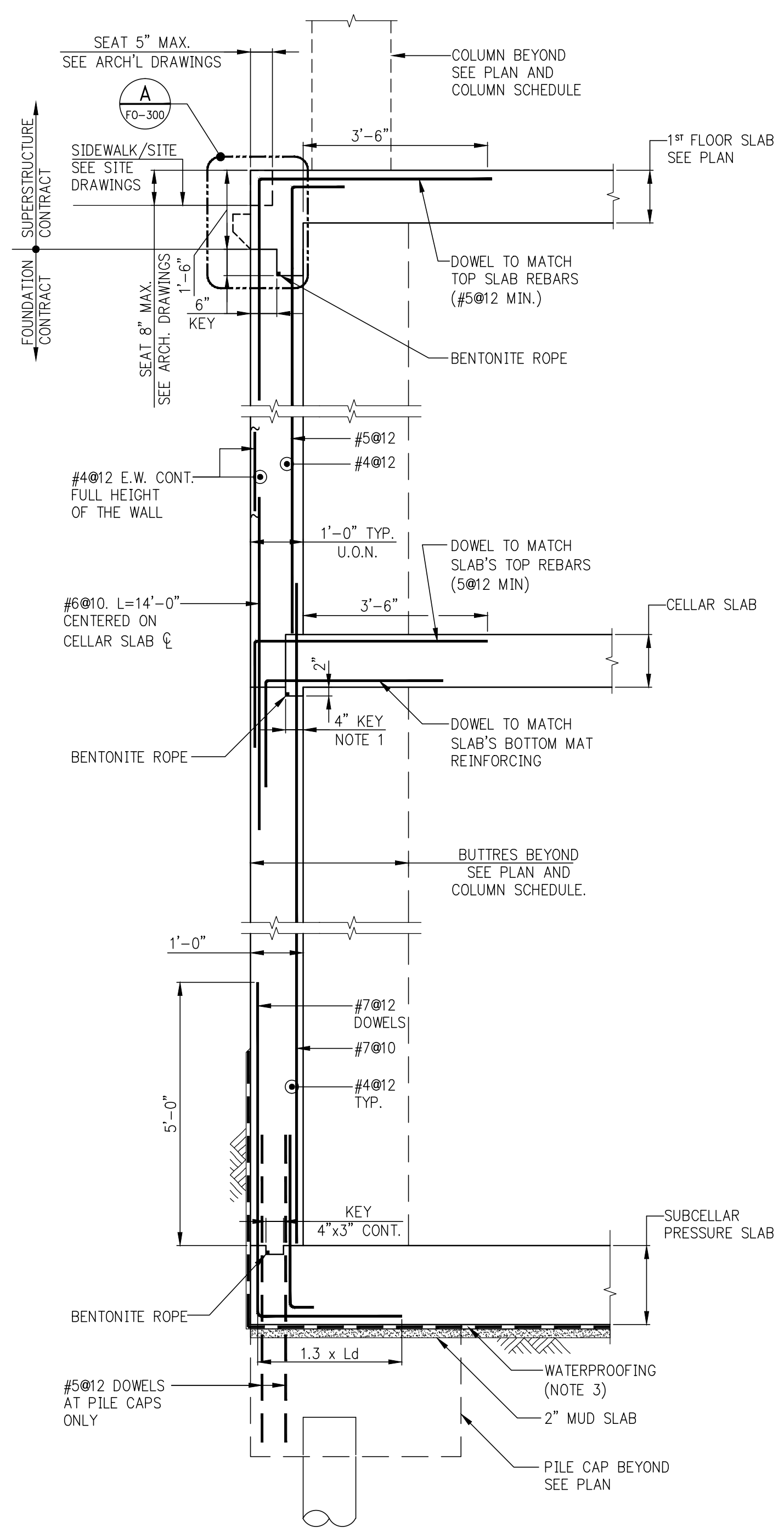
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NOTE:
1. FOR BALANCE OF INFORMATION SEE SECTION 1



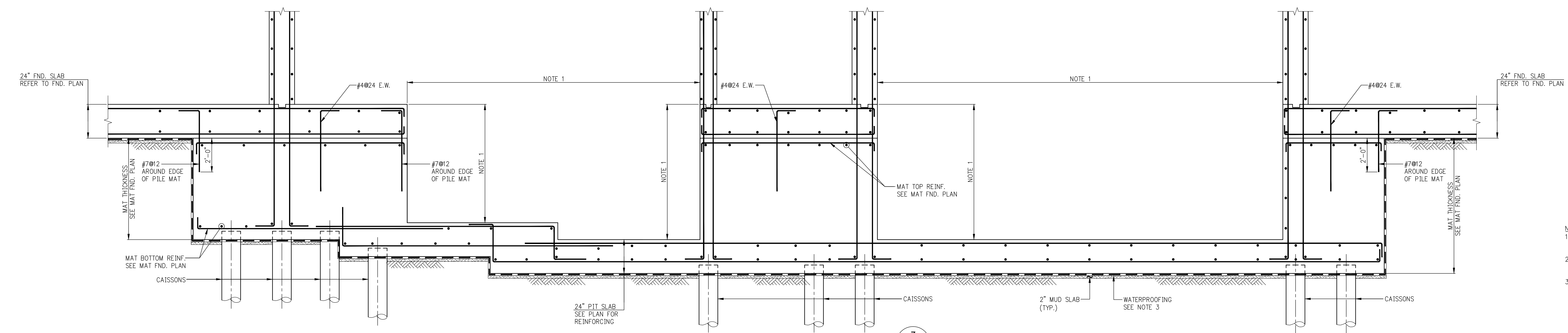
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NOTE:
1. FOR BALANCE OF INFORMATION SEE SECTION 1

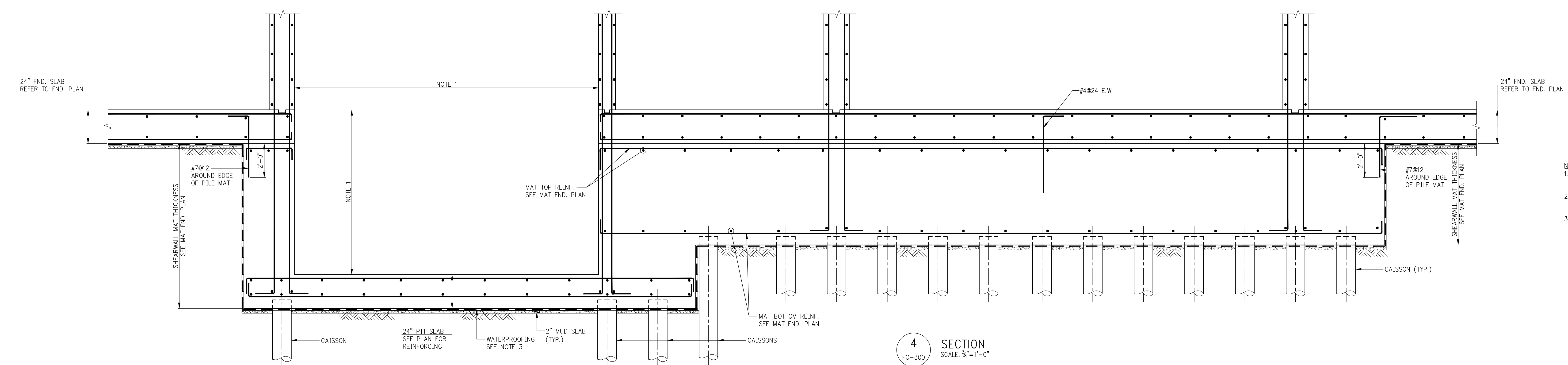


1 SECTION
SCALE: 1/4"=1'-0"
FO-300

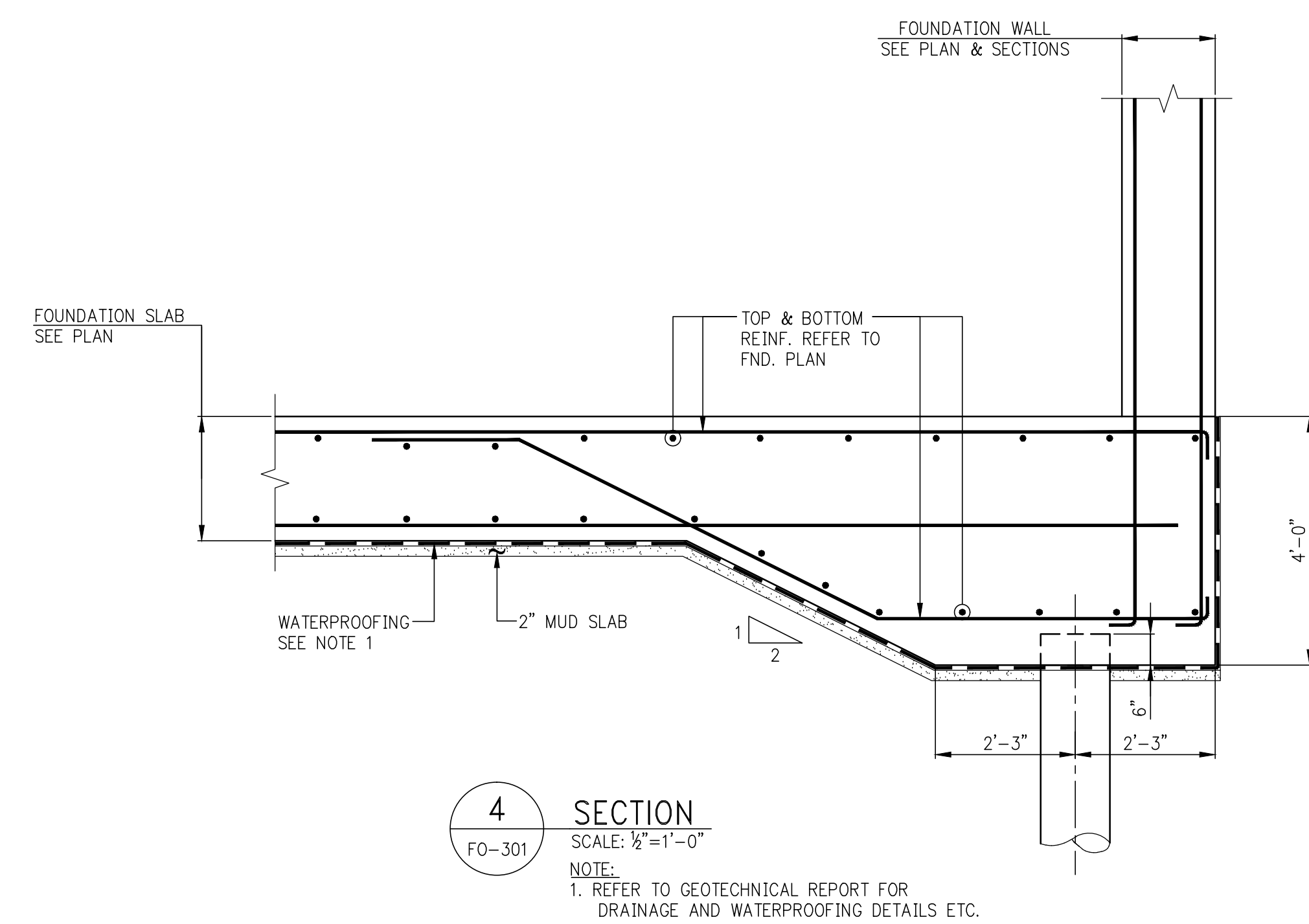
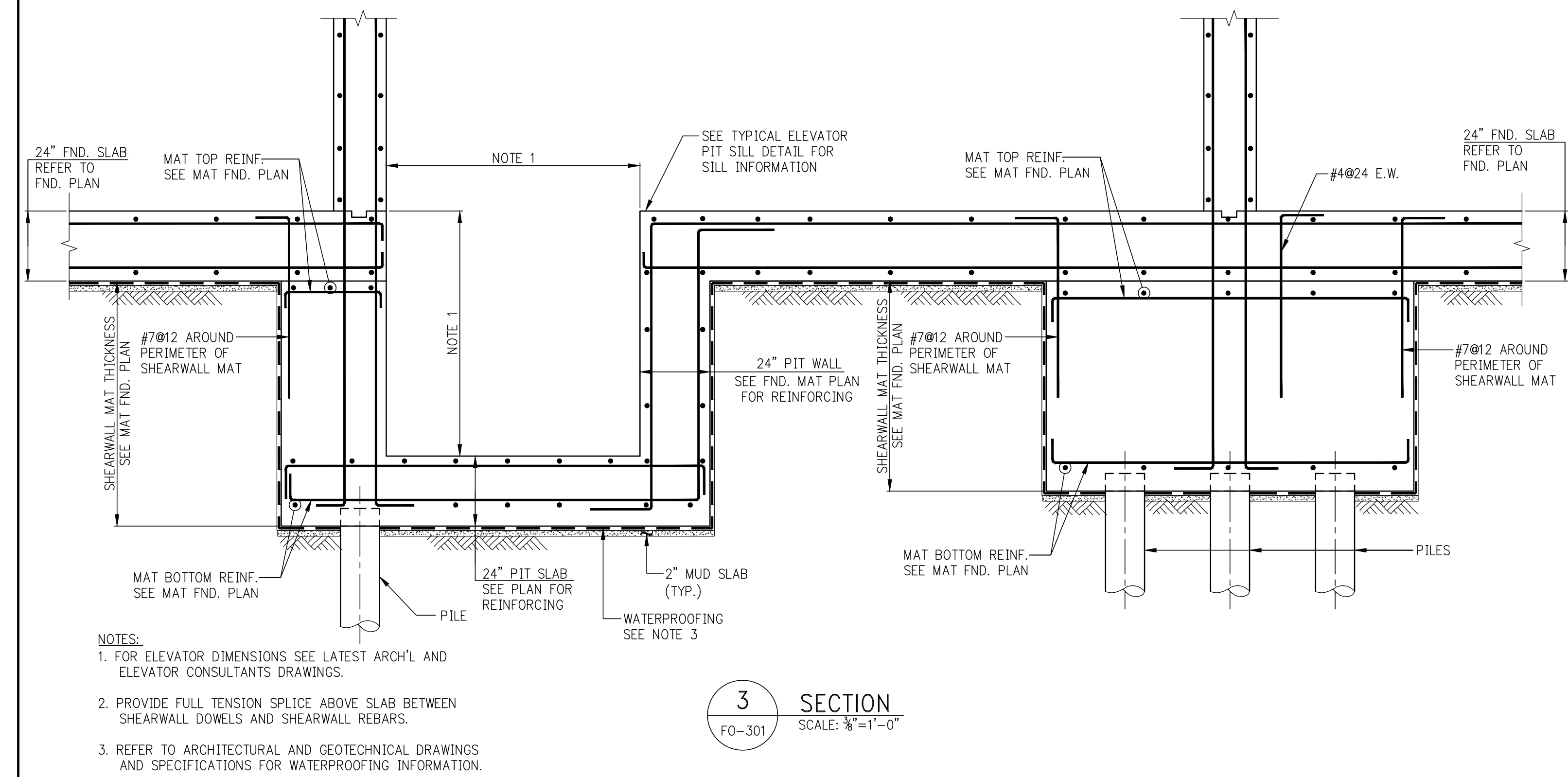
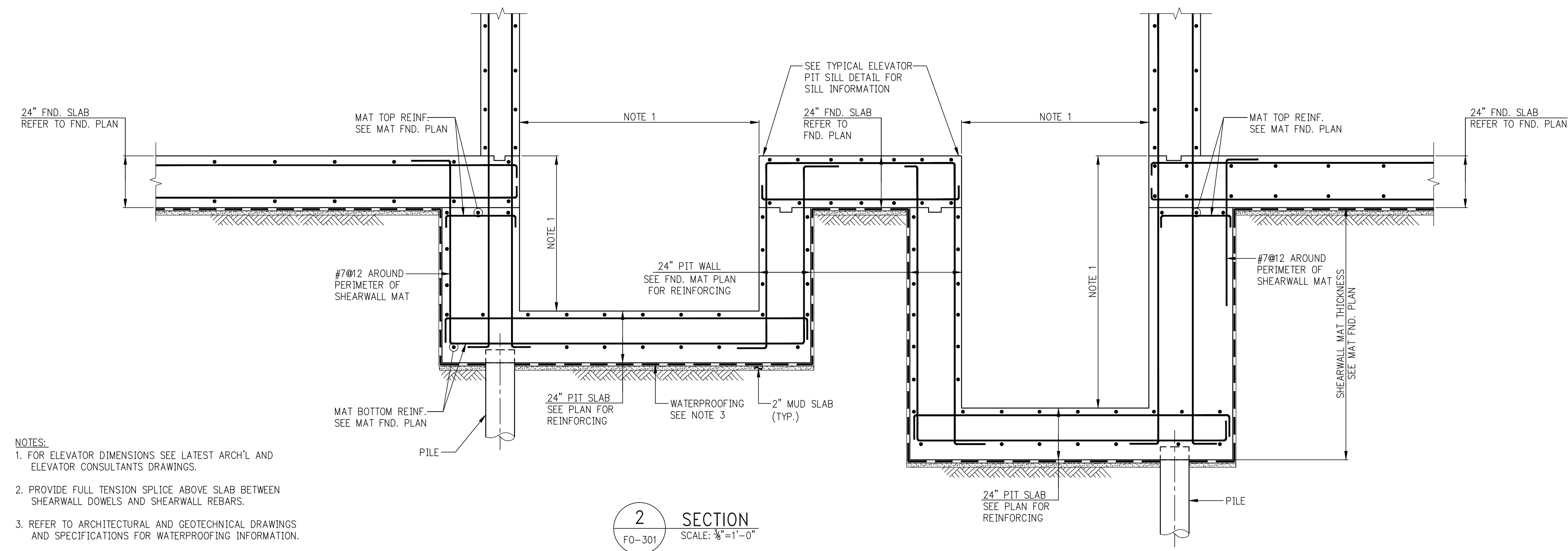
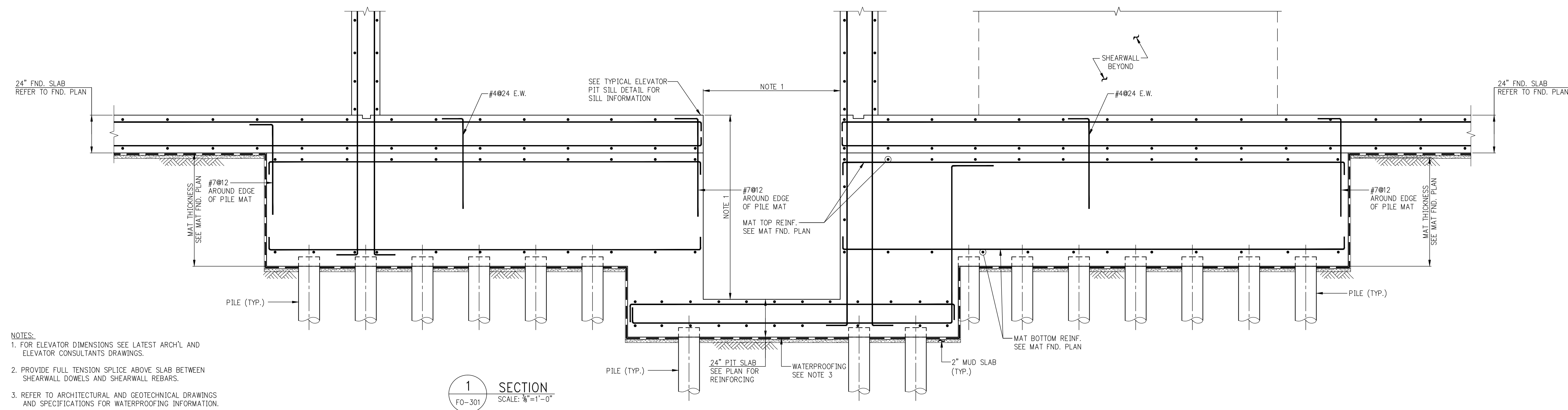
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 3. REFER TO GEOTECHNICAL REPORT FOR DRAINAGE AND WATERPROOFING DETAILS ETC.



3 SECTION
SCALE: 1/8"=1'-0"
FO-300



4 SECTION
SCALE: 1/8"=1'-0"
FO-300



2	07/31/2015	DOB SUBMISSION
1	07/20/2015	100% DO
Number:	Date:	Revision:

GID DEVELOPMENT
125 HIGH STREET
HIGH STREET TOWER, 27TH FLOOR
BOSTON, MA 02110

SUBJECT: RIVERSIDE CENTER BUILDING 3
NEW YORK, NY

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STRUCTURAL ENGINEER

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**WSP BUILDING SYSTEMS
CONSULTING ENGINEERS**
512 Seventh Avenue
New York, NY 10018
Tel: (212) 532-9600

STAMPS & SIGNATURES:

TABLE 1

FOUNDATION SECTIONS 2

2. SINTATICS:	
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DATE: 07/31/2015


STATE OF NEW YORK JUAN L. MARCA	PROJECT #: 1490104
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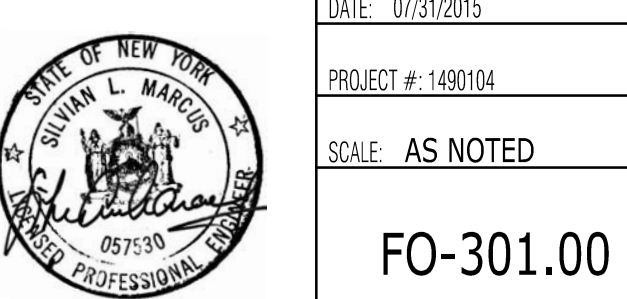
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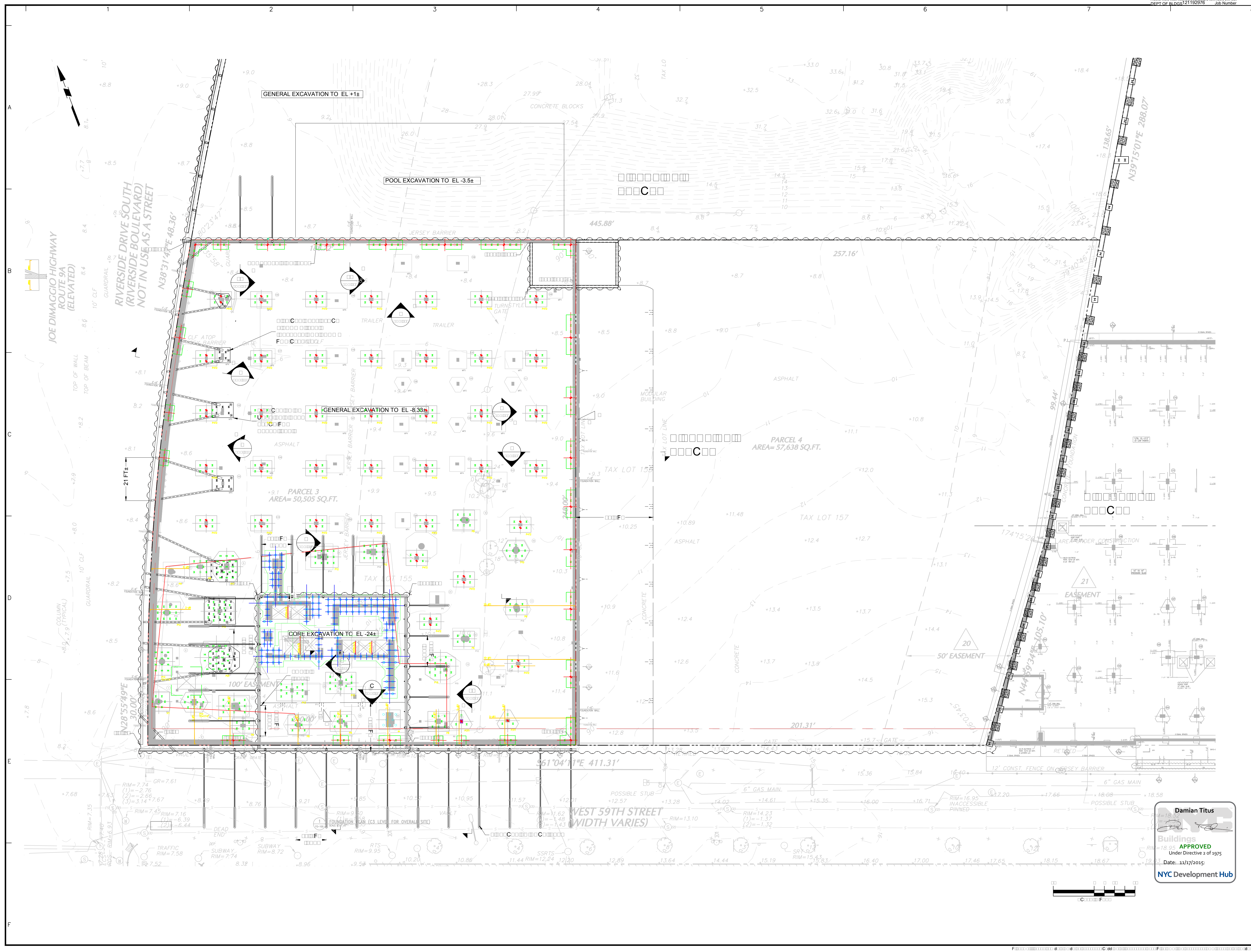
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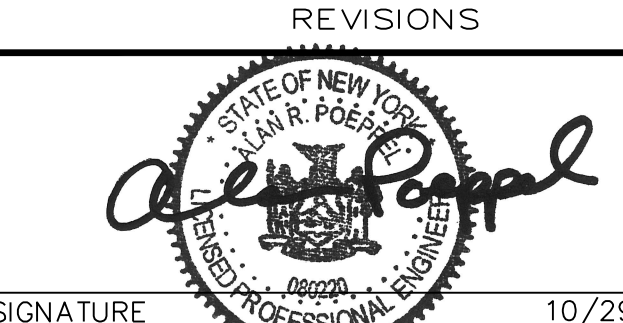
PROFESSIONAL

DATE NO.

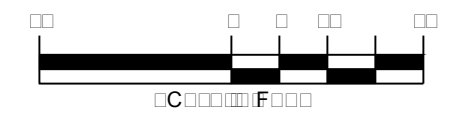
Damian Titus

Buildings
APPROVED
Under Directive 2 of 1975
Date: 11/17/2015:
NYC Development Hub



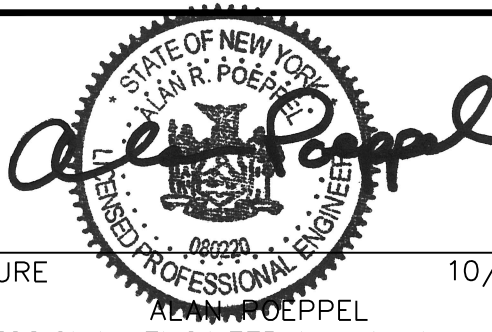


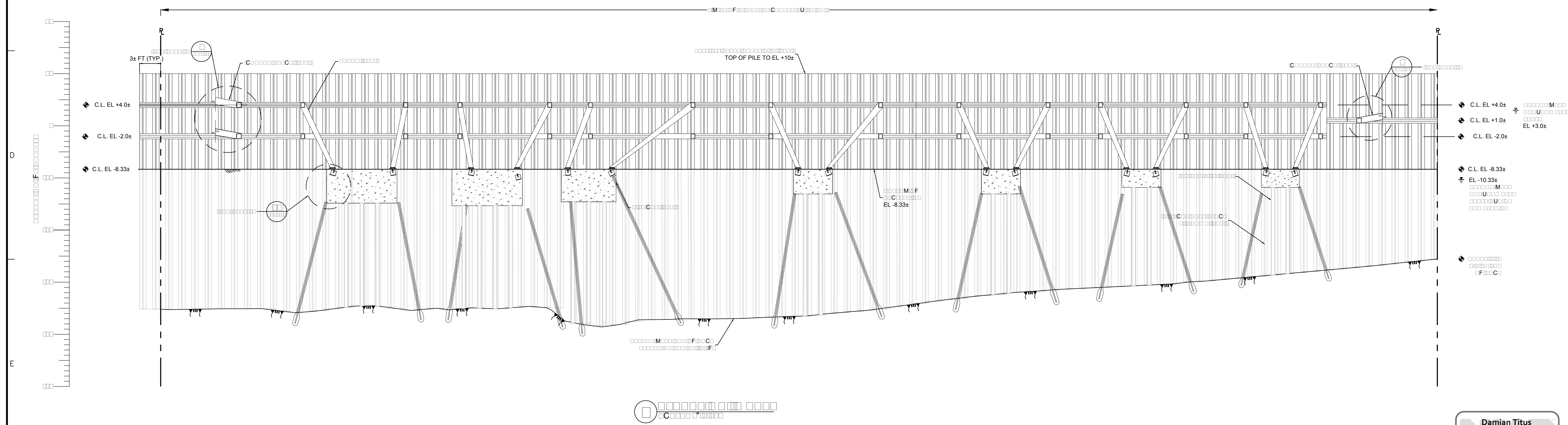
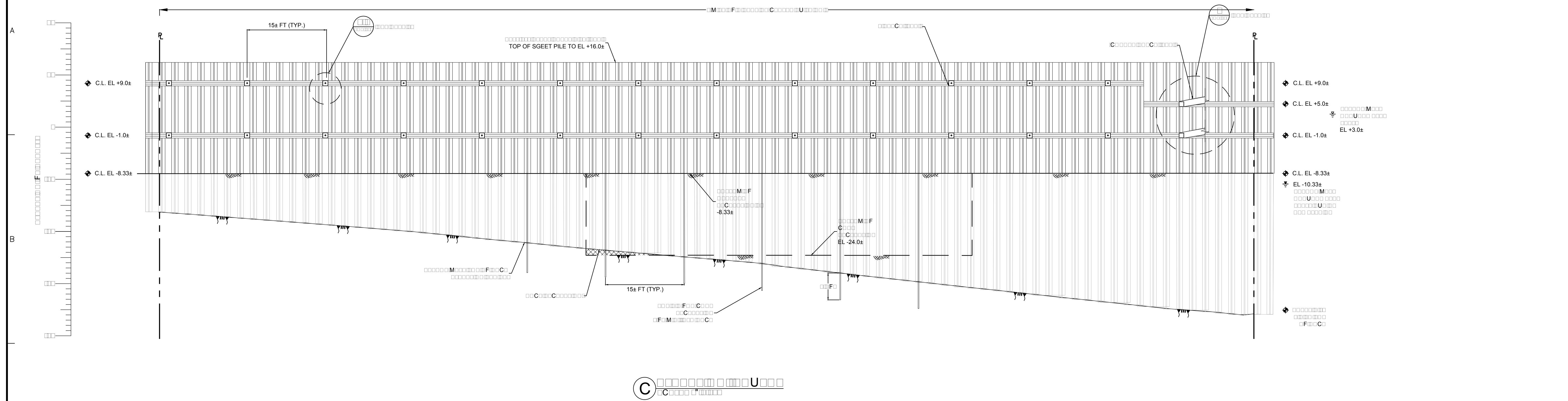
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REVISIONS		
		
SIGNATURE	10/29/2015	
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LANGAN		
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO VIRGINIA WASHINGTON DC FLORIDA NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL		
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan		
Project		
RIVERSIDE CENTER BUILDING 3		
10 RIVERSIDE BLVD. BLOCK No. 1171, LOT No. 155 & 158		
NEW YORK NEW YORK		
Drawing Title		
SUPPORT OF EXCAVATION PLAN		
Project No. 170275403		Drawing No.
Date 10/08/2015	SOE-101	
Scale 1" = 20'	Drawn By RK	Checked By JD
Submission Date 10/08/2015	Sheet 2 of	

Damian Titus
Professional Engineer
NEW YORK STATE
License No. 0802201
APPROVED
Under Directive 2 of 1975
Date: 11/7/2015
NYC Development Hub



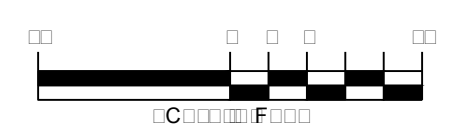


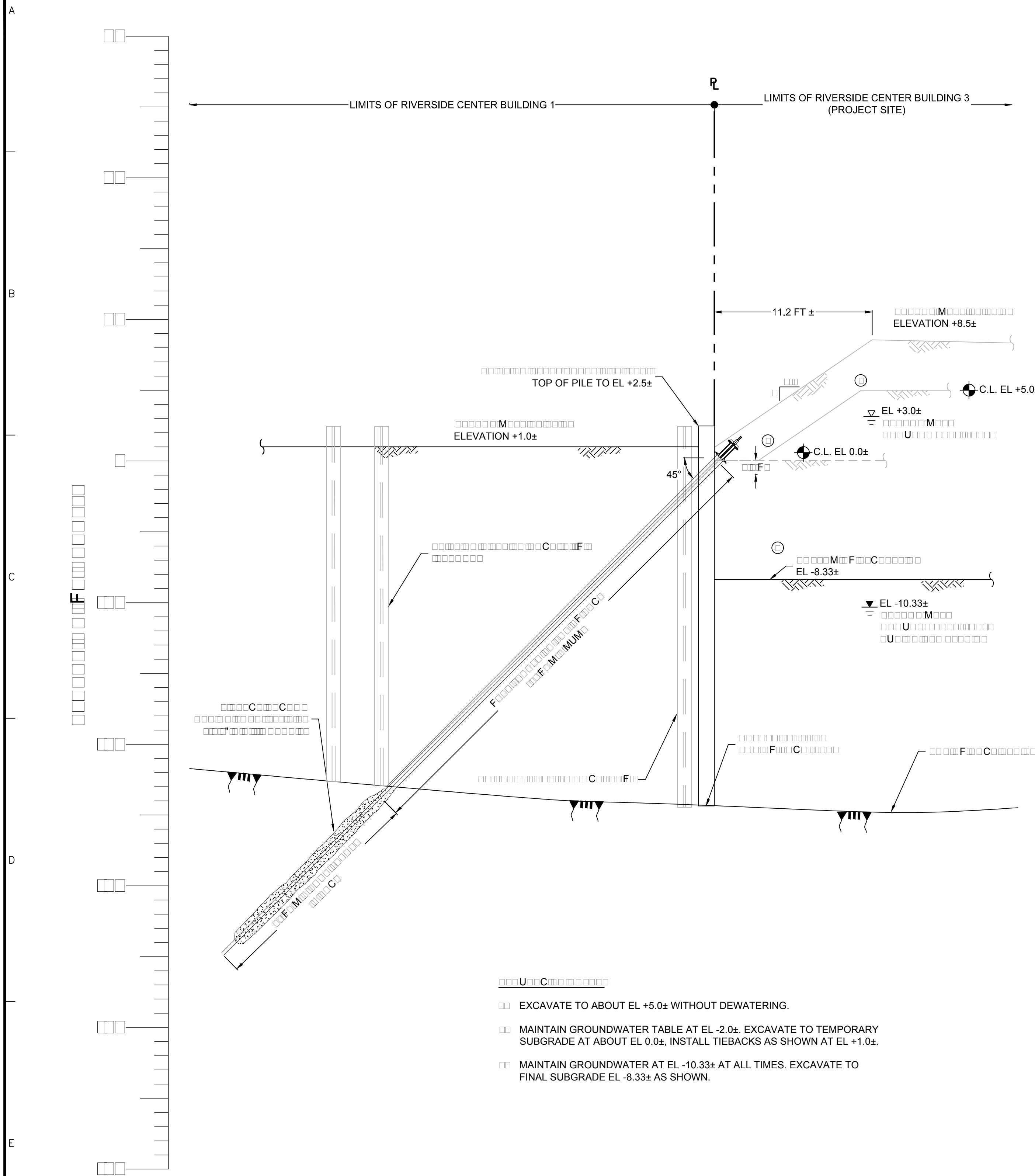
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REVISIONS			
			
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Project			
RIVERSIDE CENTER BUILDING 3 10 RIVERSIDE BLVD. BLOCK NO. 1171, LOT NO. 155 & 158			
NEW YORK		NEW YORK	
Drawing Title			
ELEVATIONS (NORTH & EAST)			
Project No. 170275403		Drawing No. SOE-201	
Date 10/08/2015			
Scale 1" = 10'			
Drawn By RK			
Checked By JD			
Submission Date 10/08/2015		Sheet 3 of	



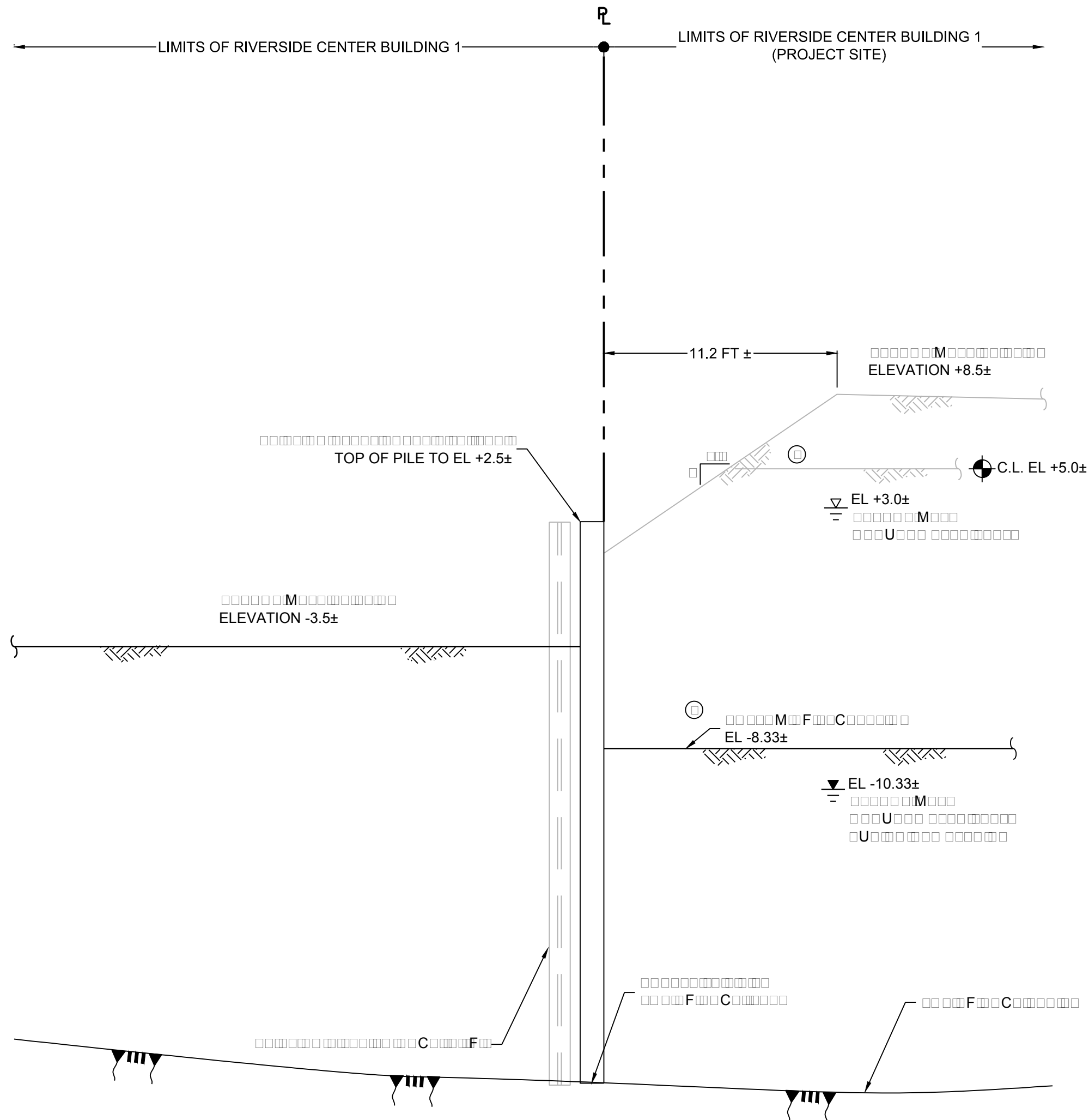
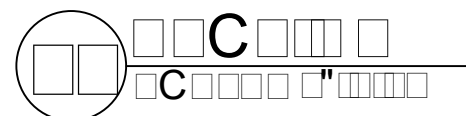
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SIGNATURE		10/29/2015
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LANGAN		
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO VIRGINIA WASHINGTON DC FLORIDA NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL		
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan		
Project		
RIVERSIDE CENTER BUILDING 3 10 RIVERSIDE BLVD. BLOCK No. 1171, LOT No. 155 & 158		
NEW YORK NEW YORK		
Drawing Title		
ELEVATION (SOUTH & WEST)		
Project No. 170275403		Drawing No.
Date 10/08/2015		SOE-202
Scale 1" = 10'		
Drawn By RK	Checked By JD	
Submission Date 10/08/2015		
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Damian Titus
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Under Directive 2 of 1975
Date: 11/17/2015
NYC Development Hub

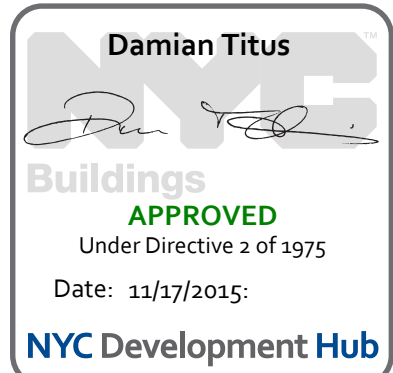
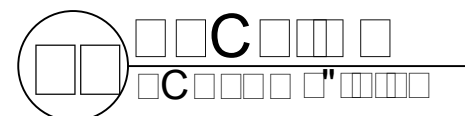




- EXCAVATE TO ABOUT EL +5.0± WITHOUT DEWATERING.
- MAINTAIN GROUNDWATER TABLE AT EL -2.0±. EXCAVATE TO TEMPORARY SUBGRADE AT ABOUT EL 0.0±. INSTALL TIEBACKS AS SHOWN AT EL +1.0±.
- MAINTAIN GROUNDWATER AT EL -10.33± AT ALL TIMES. EXCAVATE TO FINAL SUBGRADE EL -8.33± AS SHOWN.



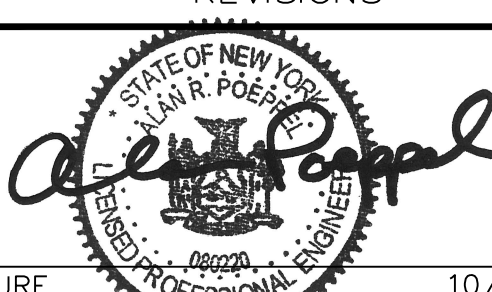
- EXCAVATE TO ABOUT EL +5.0± WITHOUT DEWATERING.
- MAINTAIN GROUNDWATER AT EL -10.33± AT ALL TIMES. EXCAVATE TO FINAL SUBGRADE EL -8.33± AS SHOWN.

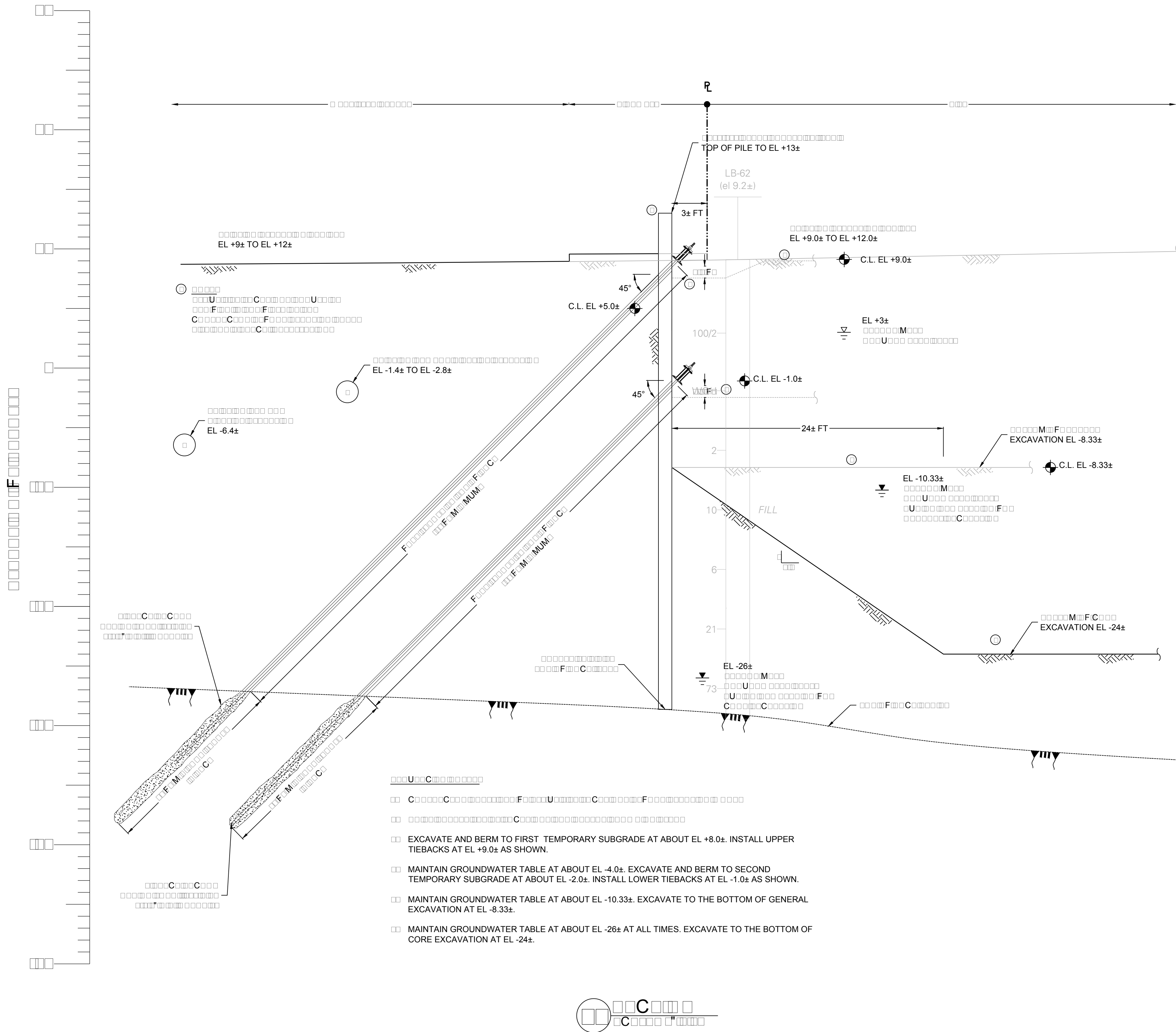


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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan		
Project		
RIVERSIDE CENTER BUILDING 3		
10 RIVERSIDE BLVD.		
BLOCK No. 1171, LOT No. 155 & 158		
NEW YORK NEW YORK		
Drawing Title		
SECTIONS		
Project No.	Drawing No.	
170275403	SOE-301	
Date		
10/08/2015		
Scale		
1" = 5'		
Drawn By	Checked By	
RK	JD	
Submission Date		
10/08/2015	Sheet 5 of	

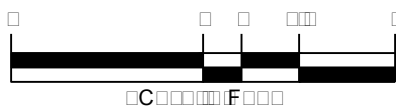


NEW YORK	NEW YORK
Drawing Title	

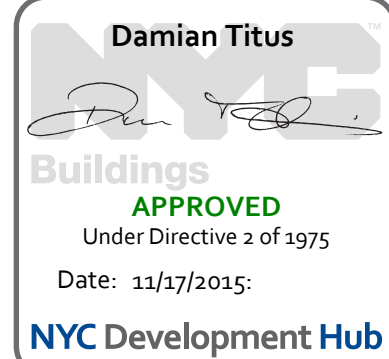
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Project		
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NEW YORK		NEW YORK
Drawing Title		
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Date 10/08/2015		
Scale <div style="font-size: 1.2em; font-weight: bold; letter-spacing: 0.1em;">1" = 5'</div>		
Drawn By RY	Checked By JD	
Submission Date 10/08/2015		
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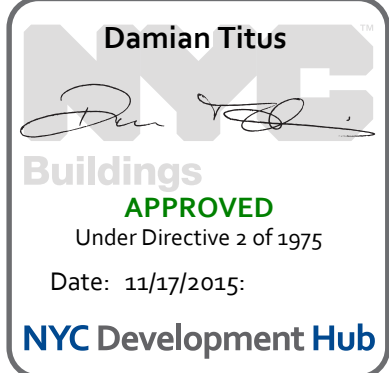
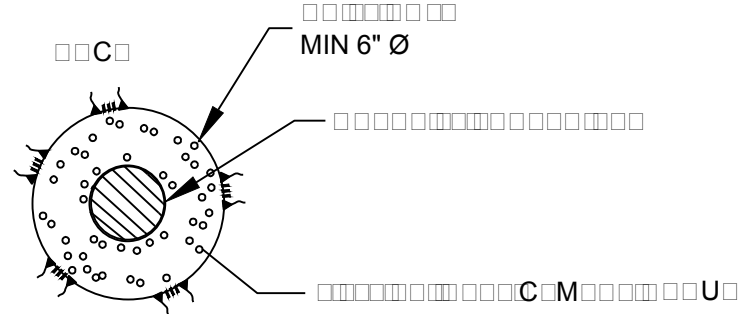
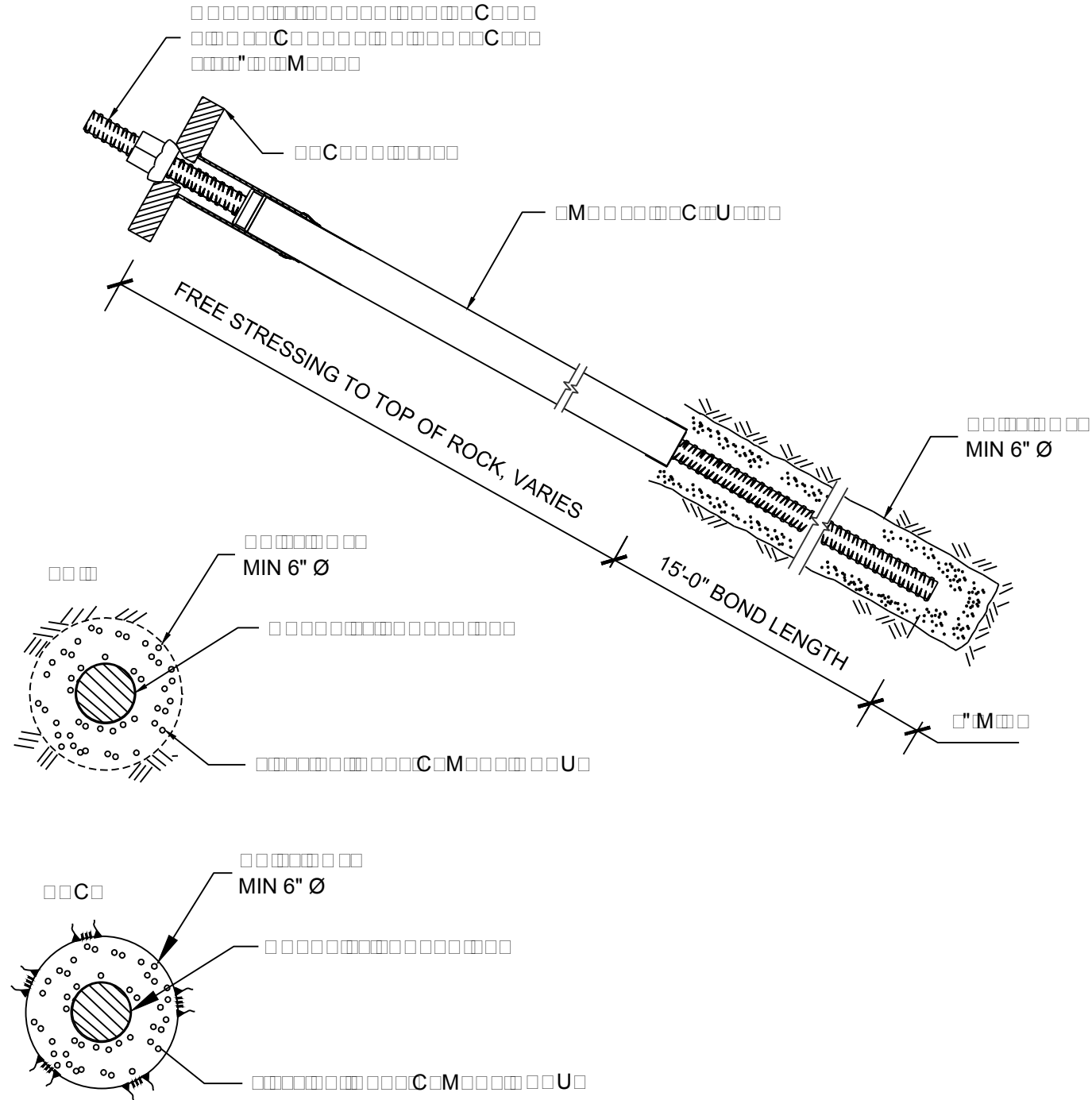
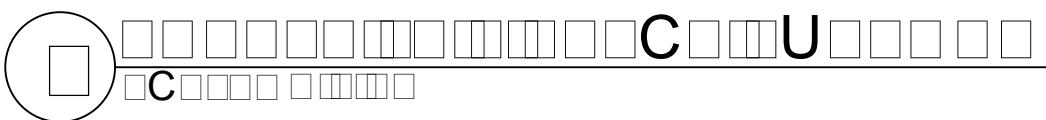
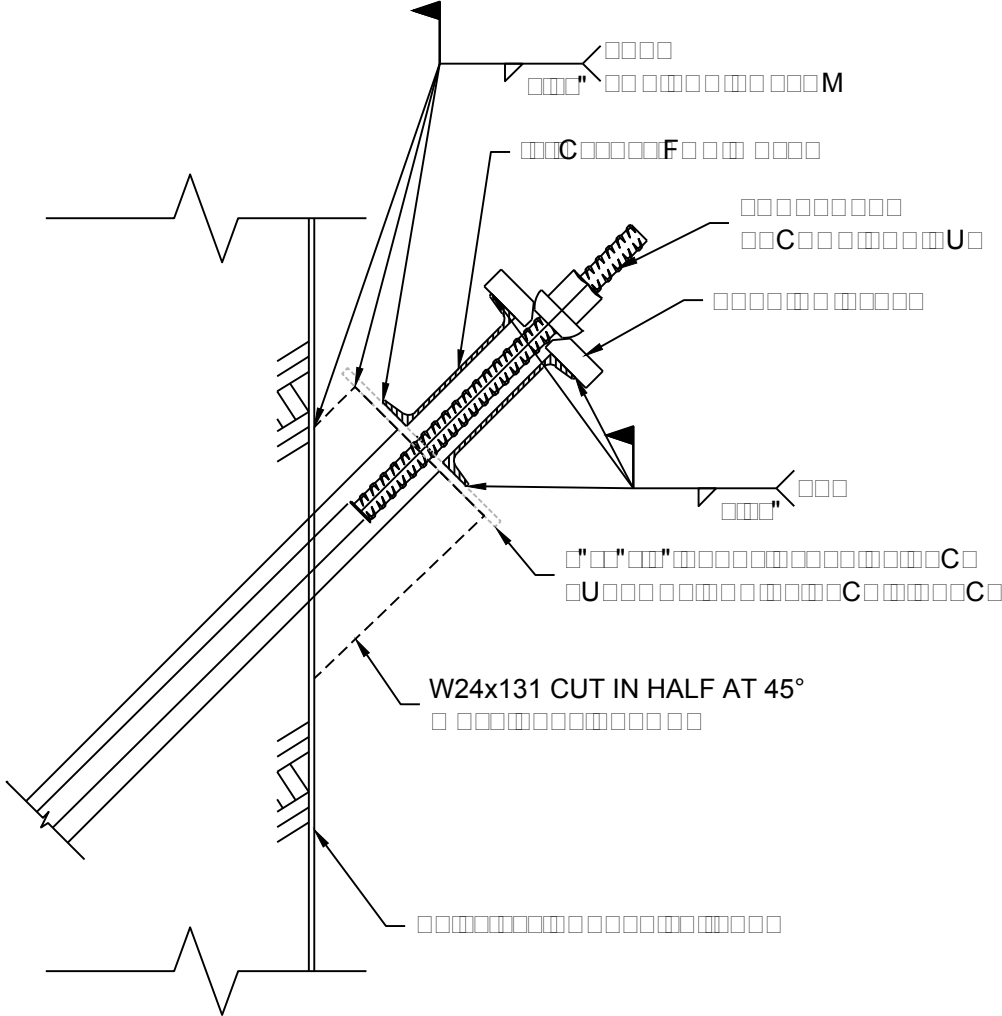
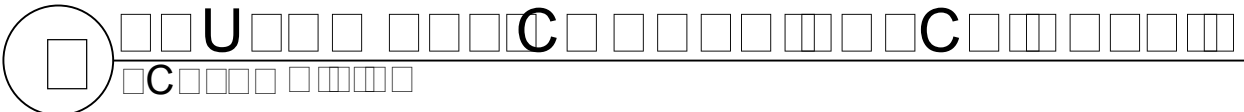
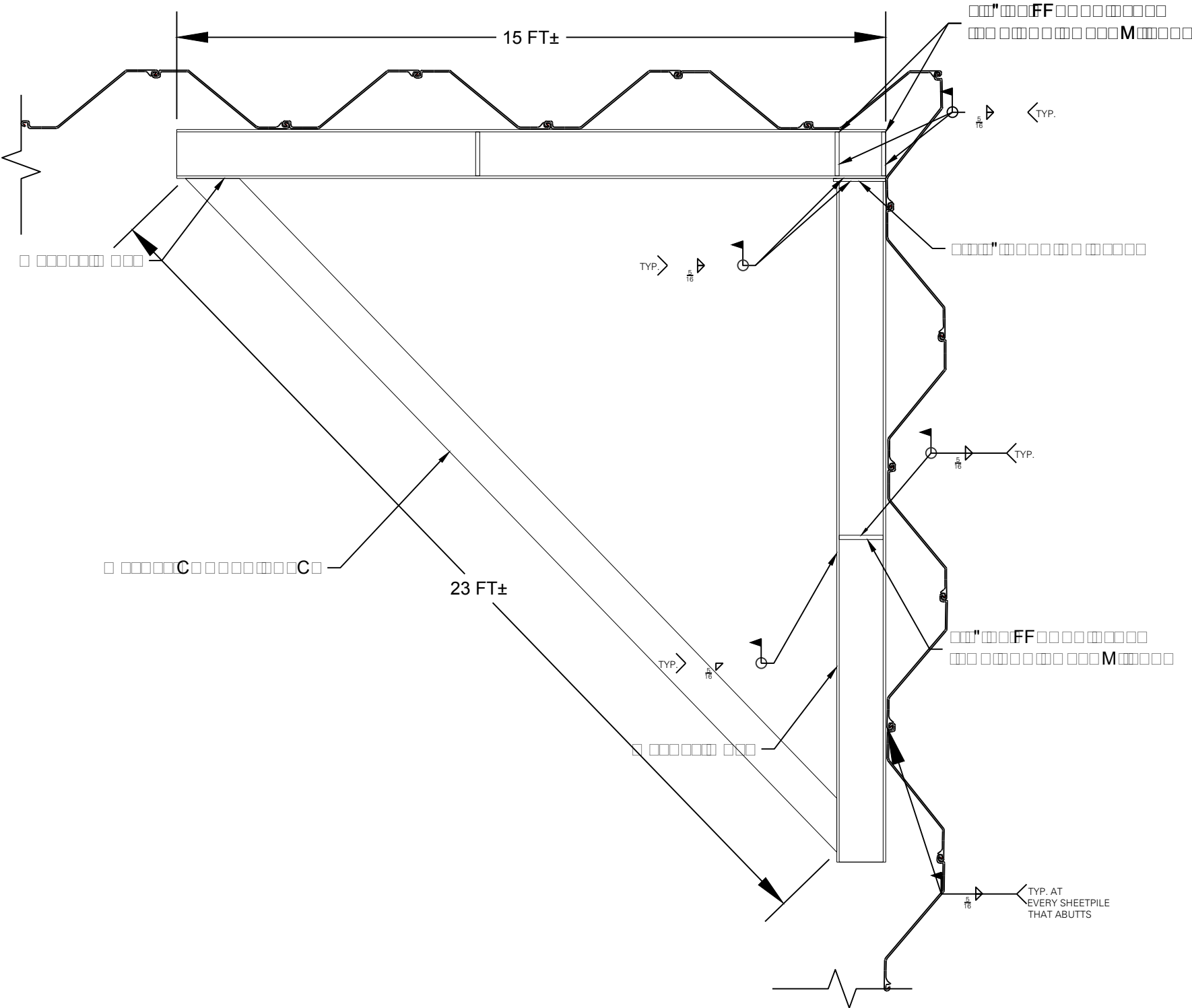
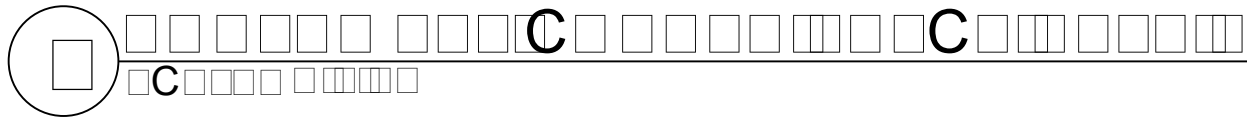
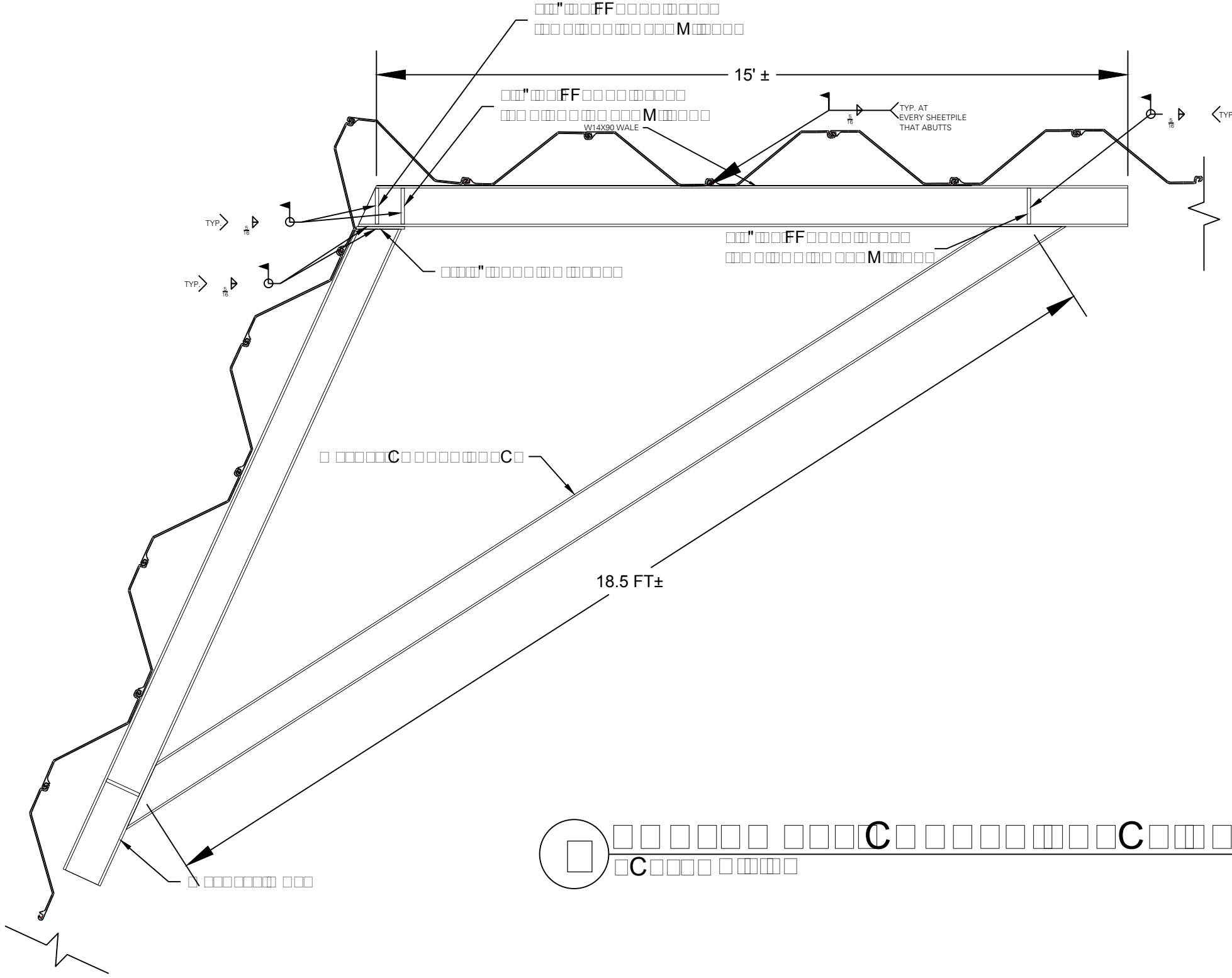
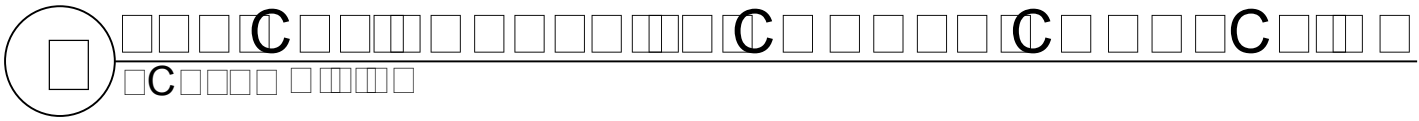
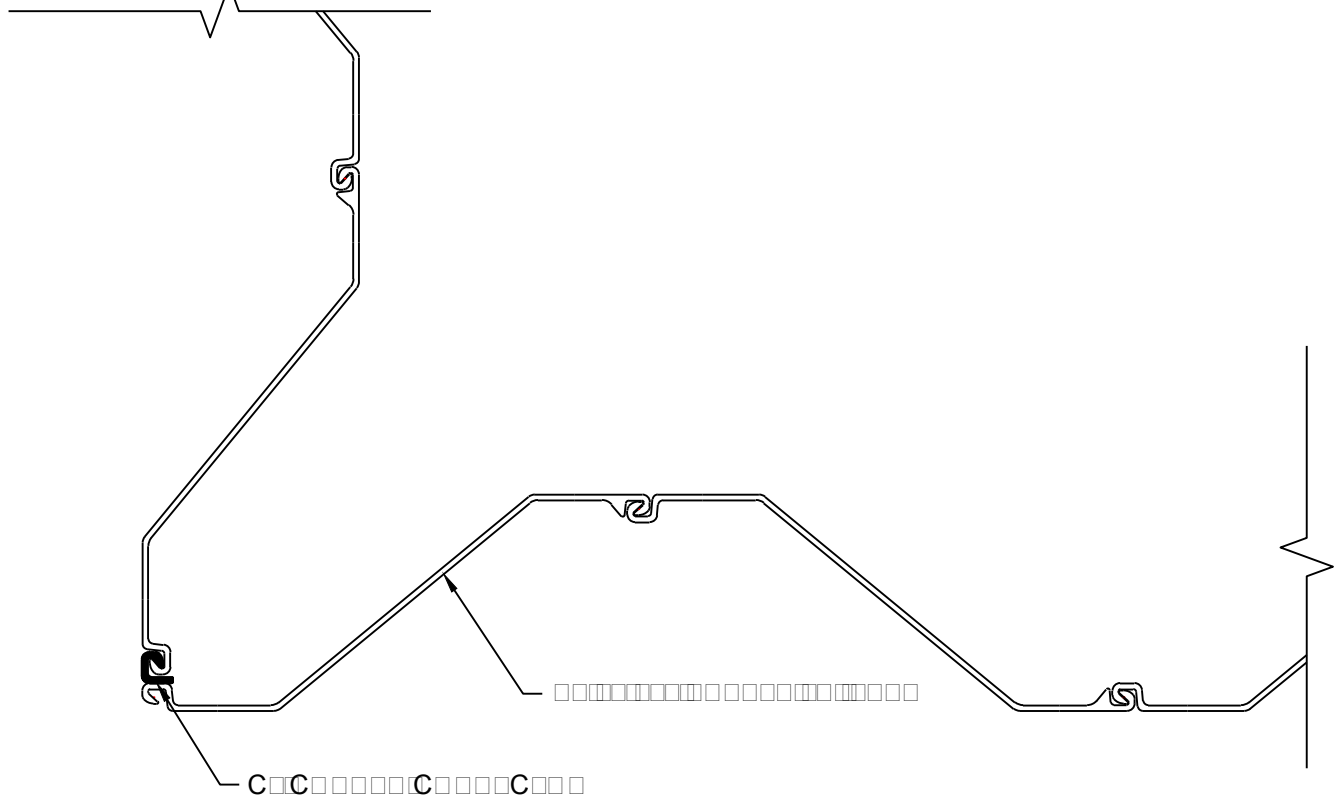
Damian Titus
Buildings
APPROVED
Under Directive 2 of 1975
Date: 11/17/2015;
NYC Development Hub




Date	Description	No.
REVISIONS		
SIGNATURE	10/29/2015	
PROFESSIONAL ENGINEER NY Lic. No. 0802201		
LANGAN		
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO VIRGINIA WASHINGTON DC FLORIDA NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL		
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan		
Project		
RIVERSIDE CENTER BUILDING 3		
10 RIVERSIDE BLVD. BLOCK No. 1171, LOT No. 155 & 158		
NEW YORK NEW YORK		
Drawing Title		
SECTIONS		
Project No. 170275403		Drawing No.
Date 10/08/2015	SOE-304	
Scale 1" = 5'		
Drawn By RK	Checked By JD	Sheet 8 of
Submission Date 10/08/2015		



A
B
C
D
E
F



Date	Description	No.
REVISIONS		
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SIGNATURE	10/29/2015	
ALAN ROEPEL PROFESSIONAL ENGINEER NY Lic. No. 0802201		
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