



# MANHATTAN WEST: NORTH TOWER

ISSUED FOR BUILDING PERMIT  
APRIL 1ST, 2015



MANHATTAN WEST:  
NORTH TOWER

375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave, Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geotechnical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street, New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:



Warning: It is a violation of the New York State Architecture Law, §93.5(3) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

9	1 APR 2015	ISSUED FOR BUILDING PERMIT
8	30 JAN 2015	ISSUED FOR BUILDING PERMIT
7	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description

Sheet Name:

COVER SHEET

Project No.: 207150	B-SCAN Sheet No.: G-001.00
Date: 1 APR 2015	Sheet No.: G-001
Scale: NTS	Page No.: 1 OF 30
File No.: G-001	







## G-000 - GENERAL NOTES

1 THESE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND THE TYPE OF STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS. THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL ITEMS REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ON THE BASIS OF THE GENERAL SCOPE INDICATED OR DESCRIBED, THE CONTRACTOR SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.

2 THE CONTRACTOR SHALL PREPARE "COORDINATION DRAWINGS" WHICH REPRESENT THAT ALL TRADES INVOLVED IN THE PROJECT HAVE COORDINATED THE INSTALLATION OF THEIR WORK SO AS TO AVOID CONFLICTS AND/OR MISALIGNMENTS.

3 ALL WORK CONTAINED IN ALL CEILINGS SHALL BE SIMULTANEOUSLY REPRESENTED ON A SINGLE DRAWING TO CONTRAST THAT ALL TRADES FIT WITHIN THE ALLOCATED SPACE. ALL CONFLICTS SHALL BE RESOLVED PRIOR TO SUBMITTING SHOP DRAWINGS FOR THE ARCHITECT'S (OR ENGINEER'S) REVIEW AND PRIOR TO EXECUTING ANY OF THE WORK WITHIN THE CEILING CAVITY.

4 EXISTING WORK IS TO BE PROTECTED DURING CONSTRUCTION AND KEPT FREE OF DEBRIS. ANY EXISTING WORK DAMAGED DURING CONSTRUCTION IS TO BE REPLACED WITH WORK OF EQUAL QUALITY.

5 THE ARCHITECT HAS NOT BEEN RETAINED FOR SUPERVISION OF CONSTRUCTION AND ASSUMES NO RESPONSIBILITY FOR MEANS, METHODS AND TECHNIQUES OF CONSTRUCTION.

6 THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS BEFORE COMMENCEMENT OF WORK AND BE RESPONSIBLE FOR THEIR ACCURACY. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE DOCUMENTS OR WITHIN THE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT VIA THE CONTRACTOR.

7 DIMENSIONS SHALL BE FIGURED RATHER THAN DETERMINED BY SCALE OR RULE. IN THE EVENT OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS OR WITHIN THEMSELVES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BRING THE CONFLICT TO THE ARCHITECT'S ATTENTION. THE ARCHITECT WILL DECIDE WHICH CONFLICTING REQUIREMENT GOVERNS.

8 ALL REFERENCES TO CODES, SPECIFICATIONS AND STANDARDS REFERRED TO IN THE CONTRACT DOCUMENTS SHALL MEAN, AND ARE INTENDED TO BE, THE LATEST EDITION, AMENDMENT, OR DERIVATION OF SUCH REFERENCE STANDARDS IN EFFECT AS OF THE DATE OF ISSUANCE OF THE CONTRACT DOCUMENTS.

9 EXCEPT WHERE THE CONTRACT DOCUMENTS INCLUDE MORE STRINGENT REQUIREMENTS, APPLICABLE CONSTRUCTION INDUSTRY STANDARDS HAVE THE SAME FORCE AND EFFECT AS IF FOUND OR CITED DIRECTLY INTO THE CONTRACT DOCUMENTS TO THE EXTENT REFERENCED. SUCH STANDARDS ARE MADE A PART OF THE CONTRACT DOCUMENTS BY REFERENCE.

10 WHERE COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED, AND THE STANDARDS MAY ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUANTITY LEVELS, REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, AND UNCERTAINTIES ARE TO BE DEFERRED TO THE DESIGN TEAM FOR A DECISION BEFORE PROCEEDING.

11 EACH ENTITY ENGAGED IN CONSTRUCTION ON THE PROJECT IS REQUIRED TO BE FAMILIAR WITH INDUSTRY STANDARDS APPLICABLE TO THAT ENTITY'S CONSTRUCTION ACTIVITY. COPIES OF APPLICABLE STANDARDS ARE NOT BOUND WITH THE CONTRACT DOCUMENTS, WHERE COPIES OF STANDARDS ARE NEEDED FOR PERFORMANCE OF A REQUIRED CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL OBTAIN COPIES DIRECTLY FROM THE PUBLICATION SOURCE.

12 WHERE "AS SHOWN," "AS INDICATED," "AS DETAILED," OR WORDS OF SIMILAR IMPORT ARE USED, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE DRAWINGS, SPECIFICATIONS, AND AGREEMENTS WITHIN THE CONSTRUCTION INDUSTRY THAT CONTROL PERFORMANCE OF THE WORK.

13 AS USED IN THE CONTRACT DOCUMENTS, "PROVIDE" SHALL BE UNDERSTOOD TO MEAN "PROVIDE COMPLETE IN PLACE," THAT IS, "FURNISH AND INSTALL."

14 THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

15 THE TERM "INSTALL" IS TO BE USED TO DESCRIBE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS.

16 THE TERM "REGULATIONS" INCLUDES LAWS, ORDINANCES, STATUTES, AND LAWFUL ORDERS ISSUED BY AUTHORITIES HAVING JURISDICTION, AS WELL AS RULES, CONVENTIONS, AND AGREEMENTS WITHIN THE CONSTRUCTION INDUSTRY THAT CONTROL PERFORMANCE OF THE WORK.

17 ON SHEETS FOR MULTIPLE FLOORS, FINISH CODES, KEYNOTES, GENERAL NOTES AND SHEET NOTES ARE FOR FLOOR LISTS ONLY.

## G-000 - BUILDING DEPARTMENT NOTES (NYC)

### A. GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR FILING AND SECURING ALL PERMITS.

2. THE CONTRACTOR IS TO BE PRESENT AT FINAL INSPECTION WITH THE BUILDING DEPARTMENT INSPECTOR.

3. PROPER 2 HOUR WRITTEN NOTICE SHALL BE GIVEN TO THE DEPARTMENT BEFORE COMMENCEMENT OF WORK PER SECTION BC 100.5.1. PROPER 2 HOUR WRITTEN NOTICE SHALL BE GIVEN TO SPECIAL INSPECTORS BEFORE COMMENCEMENT OF ANY WORK REQUIRING SPECIAL INSPECTION PER SECTION BC 170A.1.1.

4. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE NEW YORK CITY CONSTRUCTION CODE.

5. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE REQUIREMENTS OF CHAPTER 18 "SAFEGUARDS DURING CONSTRUCTION OR DEMOLITION" AND SHALL BE HELD RESPONSIBLE FOR SAFE MAINTENANCE UNTIL COMPLETION AND FINAL ACCEPTANCE OF THE WORK.

6. OCCUPANCY CLASSIFICATION PER SECTION BC 302.

7. THE BUILDING IS CLASSIFIED AS CONSTRUCTION CLASS B, NON-COMBUSTIBLE CONSTRUCTION PER SECTION BC 602.

8. CORRIDORS AND PASSAGeways SHALL COMPLY WITH SECTIONS BC 100.3, BC 101.6, AND BC 102.8.

9. HEADROOM IN CORRIDORS AND IN EXIT PASSAGeways SHALL COMPLY WITH SECTION BC 100.3.2. HEADROOM IN EXIT STAIRS SHALL NOT BE LESS THAN 7'-0" CLEAR PER SECTION BC 100.9.2.

10. PROJECT SHALL COMPLY WITH CHAPTER 11 OF THE NEW YORK CITY BUILDING CODE AND ANSI A117.1-2009 REGARDING HANDICAPPED ACCESSIBILITY REQUIREMENTS, CHAPTER 4 OF THE NEW YORK CITY BUILDING CODE FOR PLUMBING FIXTURE REQUIREMENTS, AND SECTION BC 101.7 OF THE NEW YORK CITY BUILDING CODE FOR EARTHQUAKE CRITERIA.

11. TO THE BEST OF OUR PROFESSIONAL KNOWLEDGE, BELIEF, AND JUDGEMENT, THESE DOCUMENTS CONFORM TO THE NEW YORK STATE EGRESS CODE, WHICH SHALL BE GIVEN TO ADJOINING LOT OWNERS BY THE CONTRACTOR WHEN AFFECTED BY WORK PER SECTIONS BC 330A.3.2 AND BC 330B.3.2.

12. AN ACCURATE AND COMPLETE SURVEY MADE BY A LICENSED SURVEYOR AS PER ARTICLE 118, SECTION 28-118.4 SHALL BE SUBMITTED AFTER COMPLETION OF WORK WITH FIRST FLOOR ELEVATION, EXTERIOR GRADES AND CURB ELEVATIONS.

13. A PERMIT FOR WORK BEYOND THE BUILDING LINE, SIDEWALK AND WALKS WILL BE OBTAINED BY THE CONTRACTOR BEFORE CONSTRUCTION IS STARTED, AS PER THE DEPARTMENT OF HIGHWAYS.

14. BORING DIAGRAM WILL BE FILED BEFORE CONSTRUCTION AS PER SECTION BC 1802.6(2).

15. THE CONTRACTOR TO PROVIDE ALL SHORING, BRACING, BARRICADES, TEMPORARY FENCES, PARTITIONS, AND EXCAVATIONS TO ACCOMPLISH ALL WORK IN AN APPROVED MANNER PER SECTION BC 330A.4.

16. MATERIAL APPROVAL PROCEDURE: WHENEVER THE BUILDING CODE PRESCRIBES A METHOD OF TESTING, SUCH TEST SHALL BE MADE BY A TESTING SERVICE OR A LABORATORY ACCEPTABLE TO THE COMMISSIONER AS PER ARTICLE 113, SECTION 28-113.3.

17. INSPECTIONS DURING PROGRESS OF WORK SHALL BE IN ACCORDANCE WITH ARTICLE 196, SECTION 28-196.2.3.

18. MASONRY TO COMPLY WITH CHAPTER 21 OF THE NEW YORK CITY BUILDING CODE.

19. CONCRETE BLOCK SHALL BE OF BOARD OF STANDARDS AND APPEALS APPROVED TYPE AND SHALL BE IN ACCORDANCE WITH SECTION BC 2103.1.

20. UNITS FOR EXTERIORS IN MASONRY WALLS WIDER THAN 4'-0" SHALL BE FIRE PROTECTED AS PER SECTION BC 714.2 AND BC 714.8.

21. INTERIOR AND EXTERIOR STEEL COLUMNS, BEAMS, GIRDERS, AND FLOOR CONSTRUCTION SHALL BE FIREPROOFED IN ACCORDANCE WITH NEW YORK CITY BUILDING CODE TABLE 601. FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS.

22. HANDRAILS WILL BE PROVIDED ON BOTH SIDES OF REQUIRED STAIRS AND SHALL NOT ENDOGRAH MORE THAN 4'-0" PER SECTION BC 1009.1.7.

23. GUARDS AND HANDRAILS SHALL COMPLY WITH SECTION BC 1009.11. DESIGN AND CONSTRUCTION TO WITHSTAND A 200 LB. LOAD APPLIED AT ANY POINT DOWNWARD OR HORIZONTAL OR THE SMALLER OF A LATERAL FORCE OF 40 LBS. AND A VERTICAL FORCE OF 90 LBS. BOTH APPLIED AT THE TOP OF THE RAILING. THE MORE STRINGENT REQUIREMENT GOVERNING.

24. STAIRS TO BE DESIGNED FOR 100 LB. LIVE LOAD AND CONSTRUCTED OF STEEL PANS WITH CONCRETE FILLED TREADS OR PRECAST CONCRETE TREADS, STEEL STRINGERS, RISERS, TREADS AND PLATFORM MATERIALS SHALL CONFORM TO SECTIONS BC 1009.3 AND BC 1009.4.

25. ALL WOOD SHALL BE FIRE-RETARDANT-TREATED PER SECTION 2003.2, AND BE TESTED AS PER SECTION 703.3.

26. ALL FLOORING AT THE PERIMETERS OF FLOORS AND AT PENETRATIONS IN FIRE-RATED SEPARATIONS SHALL BE SEMI-RIGID MINERAL FIBER RATED AT TWO(2) OR THREE(3) HOURS (AS REQUIRED).

27. FIRESTOPPING OF OPENINGS THROUGH FLOORS OR PARTITIONS SHALL PROVIDE A FIRE RESISTANCE RATING EQUIVALENT TO THAT OF THE FLOOR OR PARTITION ASSEMBLY.

28. ROOFING FIRE CLASSIFICATION TO BE AS PER SECTION BC 1505.

29. PARAPETS SHALL COMPLY WITH SECTIONS BC 704.11 AND BC 1500.8.

30. DOORS AND ASSEMBLIES SHALL HAVE FIRE-RESISTIVE RATINGS PER SECTION BC 1008.1.

31. ALL FIRE RATED DOORS SHALL BEAR A LABEL INDICATING SAME TYPE AS APPROVED BY BOARD OF STANDARDS AND APPEALS OF M.E.A. ALL OTHER DOORS SHALL BE OF NON-COMBUSTIBLE MATERIALS.

32. MINIMUM PASS THROUGH DOOR WIDTH SHALL BE 3'-0"

33. WHERE GLASS IS USED, GLASS SHALL COMPLY WITH SECTIONS BC 2403 AND BC 2404.

34. ALL EXTERIOR WINDOW FRAMES SHALL BE METAL.

35. ALL FINISHES SHALL COMPLY WITH CHAPTER 8 OF THE NEW YORK CITY BUILDING CODE.

36. SUSPENDED CEILING SYSTEMS SHALL CONSIST OF SUPPORTING RIGID MEMBERS, CARRYING CHANNELS AND A SUPPORTING GRID AND SHALL COMPLY WITH SECTION BC 803.3 FOR FIRE NON-COMBUSTIBLE CONSTRUCTION.

37. ALL ELEVATOR DOORS SHALL HAVE ELECTRIC INTERLOCKS IN ACCORDANCE WITH SECTION BC 3001.2.

38. ALL MECHANICAL EQUIPMENT TO BE M.E.A. APPROVED.

39. FIRE STAMPDES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION BC 605.

40. ALL MATERIALS AND SERVICE EQUIPMENT WILL COMPLY WITH ARTICLE 113.

41. THE ENTIRE BUILDING SHALL BE PROVIDED WITH AN APPROVED SPRINKLER SYSTEM.

42. ALL TOILETS SHALL BE MECHANICALLY VENTILATED IN ACCORDANCE WITH SECTION BC 1003.4.2.1.

43. EXIT LIGHTS AND SIGNS SHALL BE PROVIDED AT ALL REQUIRED EXITS, STAIRS AND EXIT PASSAGeways WITH SEPARATE ELECTRIC CIRCUIT TAKEN OFF AHEAD OF MAIN SWITCHBOARD AS PER SECTIONS 27-382 AND 27-384 OF THE NEW YORK CITY ADMINISTRATIVE CODE.

44. FIRE ALARM AND COMMUNICATION SYSTEMS TO BE PROVIDED THROUGHOUT THE BUILDING AS PER SECTION BC 901.2. SYSTEM TO COMPLY WITH REQUIREMENTS OF THE FIRE COMMISSIONER.

45. ALL STAIR AND ELEVATOR SIGNAGE SHALL COMPLY WITH SECTION BC 1026.

46. ALL SHAFTS SHALL BE VENTED PER SECTION BC 910.

47. THE ENTIRE BUILDING SHALL COMPLY FULLY WITH LOCAL LAW 168A. THE FOLLOWING SEPARATE APPLICATIONS WILL BE FILED:

- SPRINKLERS
- STAMPDES
- ELEVATORS
- FIRE ALARM SYSTEM
- EMERGENCY GENERATORS
- BUILDERS PAYMENT PLAN / CURB CUTS
- FIRE PROTECTION PLAN
- PUBLIC ASSEMBLY

8. CONTROLLED INSPECTIONS

THE FOLLOWING MATERIALS, OPERATIONS AND EQUIPMENT RELATED TO THE WORK DESCRIBED IN THESE DOCUMENTS ARE SUBJECT TO CONTROLLED INSPECTIONS AS DESCRIBED BY THE NEW YORK CITY BUILDING CODE SECTION BC 7104.

•	ELEVATORS
•	FIRE ALARM SYSTEM
•	EMERGENCY GENERATORS
•	BUILDERS' PAYMENT PLAN / CURB CUTS
•	FIRE PROTECTION PLAN
•	PUBLIC ASSEMBLY

**B. CONTROLLED INSPECTIONS**

THE FOLLOWING MATERIALS, OPERATIONS AND EQUIPMENT RELATED TO THE WORK DESCRIBED IN THESE DOCUMENTS ARE SUBJECT TO CONTROLLED INSPECTIONS AS DESCRIBED BY THE NEW YORK CITY BUILDING CODE SECTION BC 1704.

•	FLOOR ZONE COMPLIANCE (BC 1704.1)
•	FIRE ALARM TESTING (BC 1704.13)
•	PHOTOLUMINESCENT EXIT PAINTING (BC 1008.11)
•	EMERGENCY POWER SYSTEMS (GENERATORS) (BC 1704.13, BC 2702)
•	STRUCTURAL STEEL - WELDING (BC 1704.3.1)
•	STRUCTURAL STEEL - ERECTION / BOLTING (BC 1704.3.2, BC 1704.3.3)
•	STRUCTURAL, COLD FORMED STEEL (BC 1704.3.4)
•	CONCRETE - CAST-IN-PLACE (BC 1704.4)
•	CONCRETE - PRECAST (BC 1704.4.1)
•	CONCRETE - PRESTRESSED (BC 1704.4.2)



# ANNOTATIONS

#	Number	FLH	Flashing	PSF	Pounds per Square Foot
&	And	FLMT	Flush Mounted	PSI	Pounds per Square Inch
/	Angle	FLA	Flashed	PT	Particled
@	At	FLS	Floor Sailer	PTN	Partition
AC	Air Conditioning	FLUOR	Fluorescent	PVC	Polyvinyl Chloride
AV	Audio Visual	FP	Fireproofing	PVC	Paving
ACST	Acoustical	FP	Fireproofing	PWR	Power
AD	Area Drain	PPM	Feet per Minute	QT	Quarry Tile
ADDL	Additional	PPSC	Fireproofing Self-Closing	QTY	Quantity
ADJ	Adjacent	FR	Fire Retardant / Rating / Resistance		
ADR	Access Door	FRM	Frame	R	Riser
AF	Access Floor	FRWY	Fire Retardant Treated Wood	RA	Return Air
AFF	Above Finished Floor	FS	Full Size	RA	Radius
AGGR	Aggregate	FSE	Foot Service Equipment	RB	Resilient Base
AL	Aluminum	FSP	Fire Stopping	RC	Reinforced Concrete
AND	And/or	FSS	Fire Stopping	RD	Roof Drain
AP	Access Panel	FT	Foot (Foot)	RE	Receptacle
APPROX	Approximately	FTG	Footing	RECT	Rectangle
APT	Apartment	FWP	Fabric Wrapped Panel	RECT	Rectangle
ARC	Architectural Concrete	G	Gas	REF	Reference
ARCH	Architectural	GA	Gauge	REFR	Refrigerator
ASPH	Asphalt	GAL	Gallon(s)	REG	Register
AUTO	Automatic	GALV	Galvanized	REIN	Reinforced (ing. -ment)
AUX	Auxiliary	GFRG	Glass Fiber Reinforced Gypsum	RECD	Required
AVG	Average	GFRG	Glass Fiber Reinforced Gypsum	REV	Revised / Revision
		GI	Galvanized Iron	RF	Resilient Flooring
B/	Bottom of	GL	Glass	RFA	Roofing Accessories
BD	Board	GL BLK	Glass Block	RH	Right Hand
BEV	Beweled	GRD	Ground	RM	Room
BG	Bumper Guard	GPH	Gallons per Hour	RNM	Room Number
BLDG	Building	GPM	Gallons per Minute	RO	Rough Opening
BLK	Block	GRD	Grade	ROW	Right of Way
BM	Beam	GRL	Grille	RPM	Revolutions per Minute
BMK	Benchmark	GWB	Gypsum Wallboard	RS	Railroad
BMS	Building Maintenance Unit			RS	Railroad
BOC	Bottom of Curb	HB	Hose Bib	SA	Supply Air
BR	Bedroom	HO	Head	SAN	Sanitary
BRK	Brick	HOW	Hardware	SASH	Sash
BRZ	Bronze	HEX	Hexagonal	SB	Splash Block
BSMT	Basement	HM	Hollow Metal	SCHED	Schedule
BTU	British Thermal Unit(s)	HNDRIL	Handrail	SE	Section
		HO	Hold Open	SECT	Section
CAP	Capacity	HORIZ	Horizontal	SHR	Shower
CB	Catch Basin	HRT	High-Rise	SHT	Sheet
CCTV	Closed Circuit Television	HR	Hour(s) (Fire Resistance Rating)	SHTG	Showering
CN	Cable Feet Per Minute	HT	Height	SM	Similar
CG	Corner Guard	HVAC	Heating, Ventilation, Air Conditioning	SLD	Slab / Siding
CI	Cast Iron	HWY	Highway	SMR	Sheet Metal Roofing
CJ	Control Joint	ID	Inside Diameter	SPC	Synthetic Polymer Countertop
CL	Center Line	INCL	Included / Inclusive / Including	SPEC	Specification
CLG	Ceiling	INFO	Information	SQ	Square
CLG HT	Ceiling Height	INS	Insulation / Insulated	SQ FT	Square Foot / Feet
CLD	Closed	INT	Interior	SST	Stainless Steel
CLD OPNG	Closed Opening	JC	Joint Closet	ST	Stone
CML	Concrete Masonry Unit(s)	JF	Joint Filler	STC	Sound Transmission Class
CO	Cleanout	JG	Joint Gasket	STD	Standard
COL	Column	JT	Joint	STL	Steel
CONC	Concrete	KD	Knockdown	STOR	Storage
CONF	Conference	KIT	Kitchen	STRUCT	Structural / Structural
CONN	Connection	KO	Knockout	SURF MTD	Surface Mounted
CONSTR	Construction	KPL	Kickplate	SUSP	Suspended / Suspension
CONT	Continuous / Continue	LAB	Laboratory	SWB	Switchboard
CONV	Convector	LAM	Laminated	SYMM	Symmetrical
CORR	Corridor	LAV	Lavatory	T	Trad
CPT	Carpeted	LBS	Pounds	T&G	Tongue and Groove
CSK	Countersink / Countersunk	LD	Linear Diffuser	TY	Top of
CSWK	Countersink	LH	Left Hand	TA	Tank Accessory(ies)
CT	Ceramic Tile	LIN	Linear	TC	Traffic Coating
CTR	Centered	LONG	Longitudinal	TD	Trench Drain
CU	Cubic	LFT	Low Point	TEL	Telephone
CW	Cold Water	LR	Living Room	TEMP	Temperature
		LITG	Lighting	TER	Terrazzo
DB	Deckel	LVS	Low Voltage	THK	Thickness
DBL	Double	MACH	Machine	THRES	Threshold
DD	Deck Drain	MAINT	Maintenance / Maintenance	TOC	Top of Curb
DEG	Degree	MATL	Material	TOPO	Topography Map
DEPT	Department	MAX	Maximum	TRANS	Transom
DET	Detail(s)	MECH	Mechanical	TV	Television
DF	Drinking Fountain	MEU	Medium	TYP	Typical
DH	Double Hung	MEZZ	Mechanical	UC	Undercut
DA	Diameter	MFR	Manufacturer	UNFIN	Unfinished
DAG	Diagonal	MH	Manhole	UNO	Unless Noted Otherwise
DFF	Diffuser(s)	MIN	Minimum	UPS	Uninterrupted Power Supply
DIM	Dimensions	MISC	Miscellaneous	VAC	Vacuum
DMP	Dampening	ML	Metal Lath	VERT	Vertical
DMPR	Damper	ML WK	Metal Lath	VEST	Vestibule
DN	Down	MD	Molding	VF	Verify in Field
DP	Display Panel	MDG	Molding	VOL	Volume
DR	Dining Room	MD	Molding	W/	With
DRP	Drainage	MD	Molding	WO	Without
DWG	Drawings	MD	Molding	WB	Wood Base
DWTR	Dumbwaiter	MD	Molding	WCV	Wall Covering
		MD	Molding	WLD	Wood
EA	Each	MD	Molding	WDF	Wood Door Frame
EC	Exposed Construction	MD	Molding	WH	Wall Hydrant
EFS	Exterior Insulated Finish System	MD	Molding	WI	Wrought Iron
EJ	Expansion Joint	MD	Molding	WP	Work Point
EL	Elevation (Grade)	MD	Molding	WPS	Waterproofing System
EAST	Elastic	MD	Molding	WR	Weather Resistant
ELEC	Electrical	MD	Molding	WRB	Weather Resistant
ELEC CL	Electrical Closet	MD	Molding	WS	Weatherstripping
ELEV	Elevation	MD	Molding	WT	Weight
ELEV (Bldg)	Elevation (Building)	MD	Molding	WTR	Window Treatment
EM	Entrance Mat	MD	Molding	WV	Wood Veneer
EMER	Emergency	MD	Molding	WV	Wood Veneer
EMR	Elevator Machine Room	MD	Molding	WV	Wood Veneer
ENCL	Enclosure / Enclosed	MD	Molding	WV	Wood Veneer
ENTR	Entrance	MD	Molding	WV	Wood Veneer
EOS	Edge of Slope	MD	Molding	WV	Wood Veneer
EQU	Equipment	MD	Molding	WV	Wood Veneer
ESCAL	Escalator	MD	Molding	WV	Wood Veneer
EW	Each Way	MD	Molding	WV	Wood Veneer
ENG	Electrical Water Cooler	MD	Molding	WV	Wood Veneer
ENH	Enhance	MD	Molding	WV	Wood Veneer
EXST	Existing	MD	Molding	WV	Wood Veneer
EXP	Expansion	MD	Molding	WV	Wood Veneer
EXPN	Expansion	MD	Molding	WV	Wood Veneer
EXT	Exterior	MD	Molding	WV	Wood Veneer
		MD	Molding	WV	Wood Veneer
F	Fahrenheit	MD	Molding	WV	Wood Veneer
FA	Fire Alarm	MD	Molding	WV	Wood Veneer
FAAP	Fire Alarm Annunciator Panel	MD	Molding	WV	Wood Veneer
FAB	Fabric	MD	Molding	WV	Wood Veneer
FAI	Fresh Air Intake	MD	Molding	WV	Wood Veneer
FD	Floor Drain	MD	Molding	WV	Wood Veneer
FDMR	Fire Damper	MD	Molding	WV	Wood Veneer
FDTN	Foundation	MD	Molding	WV	Wood Veneer
FE	Fire Extinguisher	MD	Molding	WV	Wood Veneer
FEC	Fire Extinguisher Cabinet	MD	Molding	WV	Wood Veneer
FEMA	Federal Emergency Management Agency	MD	Molding	WV	Wood Veneer
FI	Fire Hydrant	MD	Molding	WV	Wood Veneer
FHC	Fire Hose Cabinet	MD	Molding	WV	Wood Veneer
FHR	Fire Hose Rack	MD	Molding	WV	Wood Veneer
FIN	Finished	MD	Molding	WV	Wood Veneer
FIN FL	Finished Floor	MD	Molding	WV	Wood Veneer
FIN GR	Finished Grade	MD	Molding	WV	Wood Veneer
FLEX	Flexible	MD	Molding	WV	Wood Veneer

# G-000 - SYMBOLS LEGEND

	BUILDING ELEVATION REFERENCE		WALL TYPE REFERENCE		SINGLE POLE ELECTRICAL SWITCH
	INTERIOR ELEVATION REFERENCE		DOOR REFERENCE		TWO POLE ELECTRICAL SWITCH
	SECTION REFERENCE		ROOM TARGET REFERENCE		THREE POLE ELECTRICAL SWITCH
	DETAIL REFERENCE		ELEVATOR REFERENCE		SINGLE ELECTRICAL RECEPTACLE
	DETAIL CALLOUT REFERENCE		WINDOW REFERENCE		DUPLEX ELECTRICAL RECEPTACLE
	COLUMN CENTERLINE REFERENCE		CURTAIN PANEL REFERENCE		QUAD ELECTRICAL RECEPTACLE
	REVISION		MATERIAL REFERENCE		220V ELECTRICAL RECEPTACLE
	FINISH FLOOR LEVEL REFERENCE		LIGHT FIXTURE REFERENCE		DUPLEX ELECTRICAL RECEPTACLE WITH GFI PROTECTION
	FLOOR SLAB LEVEL REFERENCE		CASEWORK REFERENCE		WALL MOUNTED TELEPHONE RECEPTACLE
	SPOT ELEVATION (TOP OF FINISHED FLOOR)		PARKING REFERENCE		WALL MOUNTED DATA RECEPTACLE
	SPOT ELEVATION (TOP OF SLAB)		1 HR FIRE RATING		WALL MOUNTED TELEPHONE & DATA RECEPTACLE
	SPOT COORDINATE		2 HR FIRE RATING		SINGLE FLOOR MOUNTED ELECTRICAL RECEPTACLE
	WORK POINT		3 HR FIRE RATING		DUPLEX FLOOR MOUNTED ELECTRICAL RECEPTACLE
	KEYNOTE REFERENCE		4 HR FIRE RATING		GFI PROTECTED ELECTRICAL RECEPTACLE
	NORTH ARROW		SMOKE RATING		FLOOR DRAIN
	CHANGE IN SLAB		LINE ABOVE		ROOF DRAIN
	ALIGN SYMBOL		LINE BELOW / HIDDEN		ROOF DRAIN WITH OVERFLOW
	MATCHLINE REFERENCE		DIRECTION OF GRAIN		FACE MOUNTED ROOF DRAIN
	PROPERTY LINE		ACCESS PANEL		CEILING MOUNTED EXIT SIGN
	NOT IN SCOPE / NOT IN CONTRACT		SUPPLY DIFFUSER		CEILING MOUNTED DIRECTIONAL EXIT SIGN
	DRAWING TITLE		RETURN DIFFUSER		CEILING MOUNTED DIRECTIONAL EXIT SIGN (TWO SIDED)

# G-000 - MATERIALS LEGEND

	EARTH / SOIL
	GYPSUM BOARD
	CONCRETE
	BRICK
	CONCRETE MASONRY UNIT
	STONE
	CERAMIC / QUARRY TILE
	ACOUSTIC CEILING TILE
	STEEL
	ALUMINUM
	PARTICLE BOARD / PLYWOOD / MEDIUM DENSITY FIBERBOARD
	RIGID INSULATION / FIRE SAFING
	SEMI-RIGID INSULATION
	GRAVEL / TERRAZZO
	CONTINUOUS BLOCKING / FURRING / SHIM
	NON-CONTINUOUS BLOCKING / FURRING / SHIM
	BATT INSULATION
	FINISHED WOOD
	SAND / MORTAR / GROUT / PLASTER / SPRAY-ON FIREPROOFING
	ACOUSTICAL INSULATION
	EXPANSION JOINT
	METAL GRATING
	WATERPROOFING MEMBRANE
	AIR / VAPOR BARRIER

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Project No.: 207150

Date: 20 JUN 2014

Scale: NTS

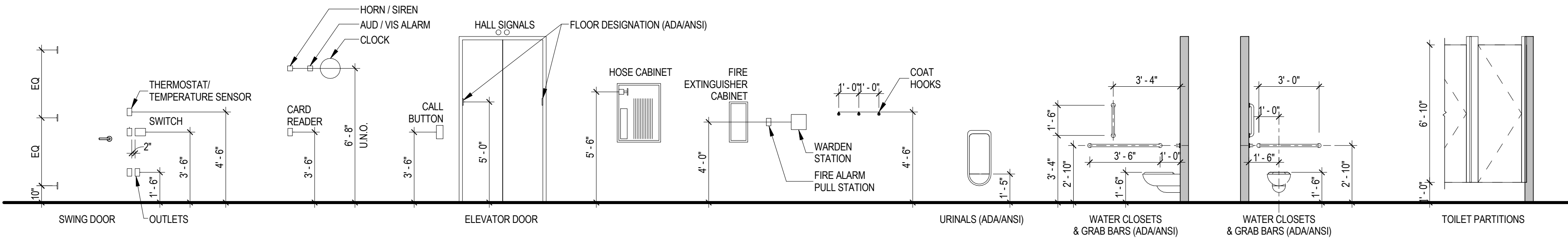
File No.: G-006

B-SCAN Sheet No.: G-006.00

Sheet No.: G-006

Page No.: 4 OF 87

# G-000 - MOUNTING HEIGHTS



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4	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
No.	Date	Description
Sheet Name:		
<b>ABBREVIATIONS, LEGENDS &amp; SYMBOLS</b>		
Project No.: 207150	B-SCAN Sheet No.: G-006.00	
Date: 20 JUN 2014	Sheet No.: G-006	
Scale: NTS	Page No.: 4 OF 87	
File No.: G-006		







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1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. NO BUILDINGS WITHIN 90' OF THE SITE ARE LANDMARKED.



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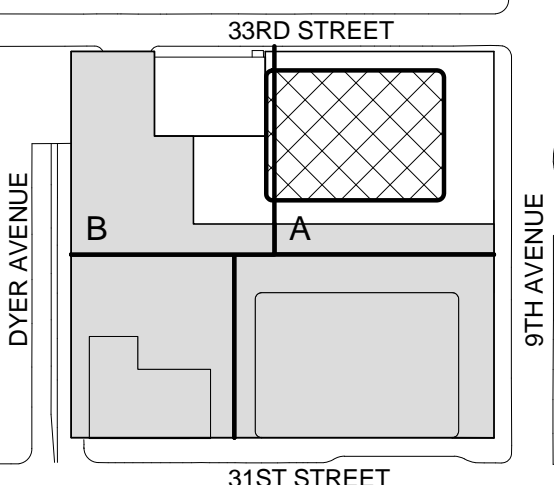
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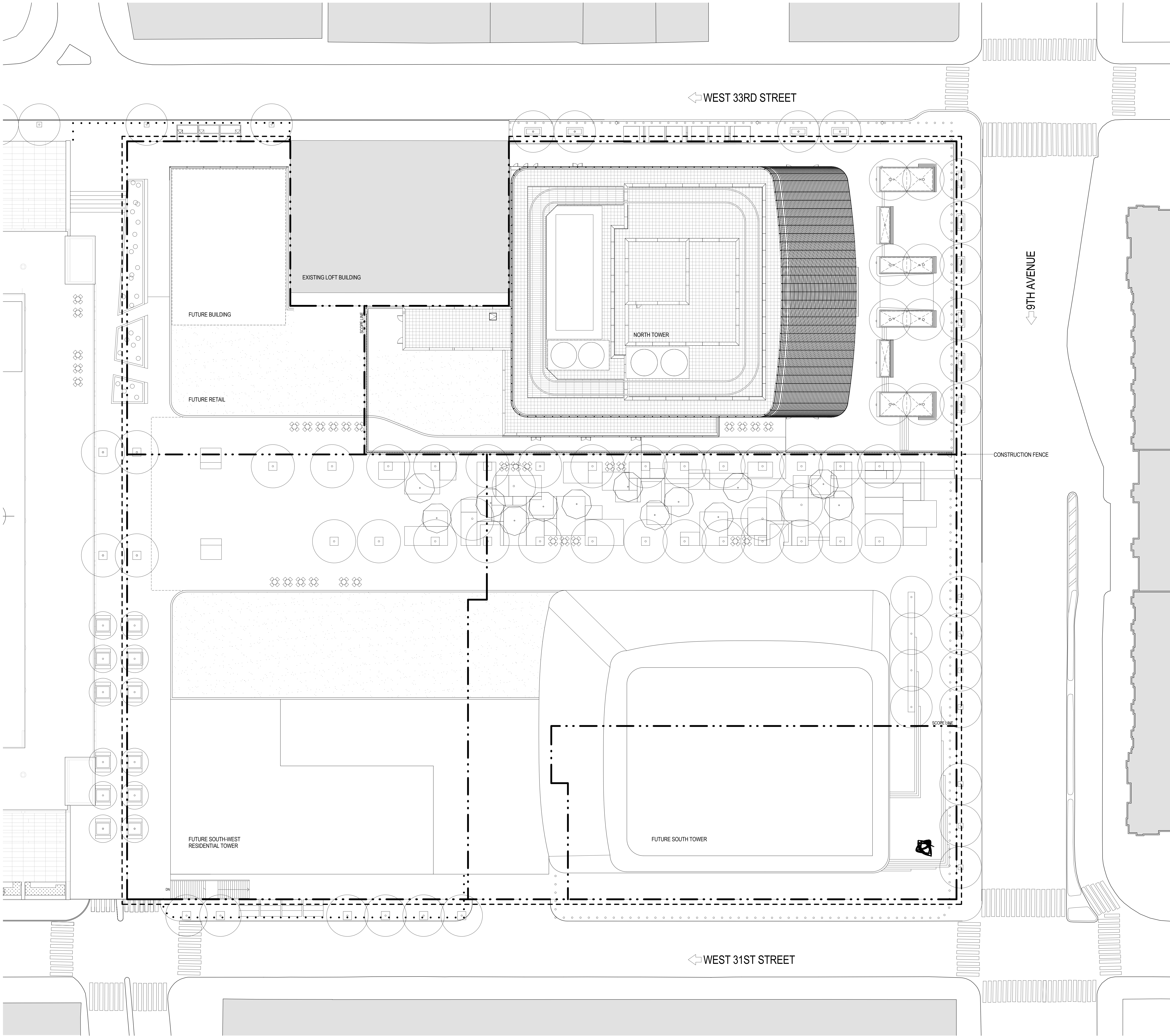
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5	26 FEB 2015	ISSUED FOR BUILDING PERMIT
4	30 JAN 2015	ISSUED FOR BUILDING PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description

Sheet Name:

SITE PLAN

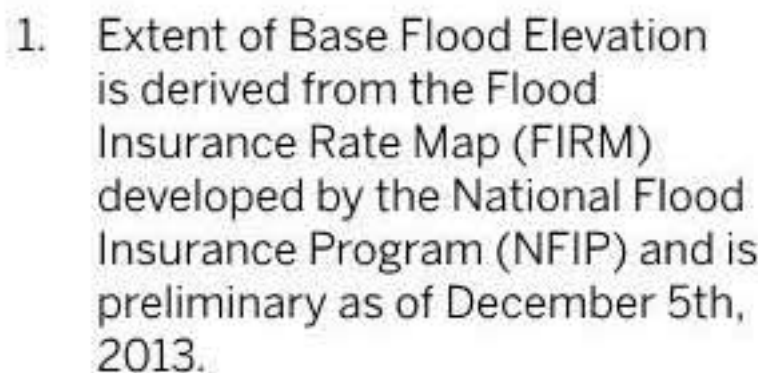
Project No.: 207150	B-SCAN Sheet No.: A-001.00
Date: 1 APR 2015	Sheet No.: A-001
Scale: 1" = 20'-0"	Page No. 1 OF 30
File No.: A-001	







## 2 FLOOD INSURANCE RATE MAP (FIRM) - 2007



**THE NEW YORK CITY BUILDING CODE - VERSION 2008**  
**APPENDIX G: FLOOD-RESISTANT CONSTRUCTION**

**TABLE 7-1**  
**MINIMUM ELEVATION OF UTILITIES AND ATTENDANT EQUIPMENT RELATIVE TO DESIGN FLOOD ELEVATION (DFE)**

STRUCTURAL OCCUPANCY CATEGORY*	LOCATE UTILITIES AND ATTENDANT EQUIPMENT ABOVE*		
	A-Zones	V-Zones	
		Orientation Parallel*	Orientation Perpendicular*
I	DFE = BFE	DFE = BFE	DFE = BFE
II	DFE = BFE	DFE = BFE	DFE = BFE
III	DFE = BFE + 1 ft	DFE = BFE + 2 ft	DFE = BFE + 3 ft
IV	DFE = BFE + 2 ft	DFE = BFE + 2 ft	DFE = BFE + 3 ft

a. See Table 1-1, or Table 1604.5 of the *New York City Building Code*, for structural occupancy category descriptions.  
b. Locate utilities and attendant equipment above elevations shown unless otherwise provided in the text.  
c. Orientation of lowest horizontal structural member relative to the general direction of wave approach, parallel shall mean less than or equal to +20 degrees from the direction of approach; perpendicular shall mean greater than +20 degrees from the direction of approach.

[illegible]





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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
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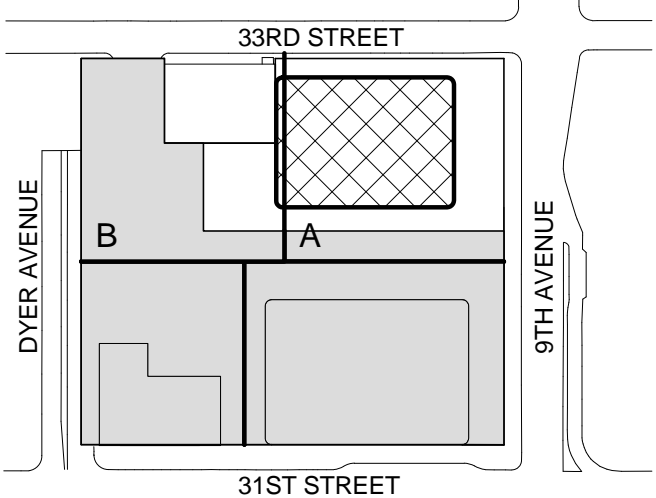
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| 2 | 20 DEC 2013 | ISSUED FOR FOUNDATION PERMIT   |
| 1 | 19 NOV 2013 | ISSUED FOR 60 PROGRESS PRICING |

No. Date Description

Sheet Name:

**KEY PLAN -  
CELLAR B1 PITS**

Project No.:

207150

Date:

20 JUN 2014

Scale:

1" = 20'-0"

File No.:

A-004

B-SCAN Sheet No.:

**A-004.00**

Sheet No.:

**A-004**

Page No.:

7 OF 87



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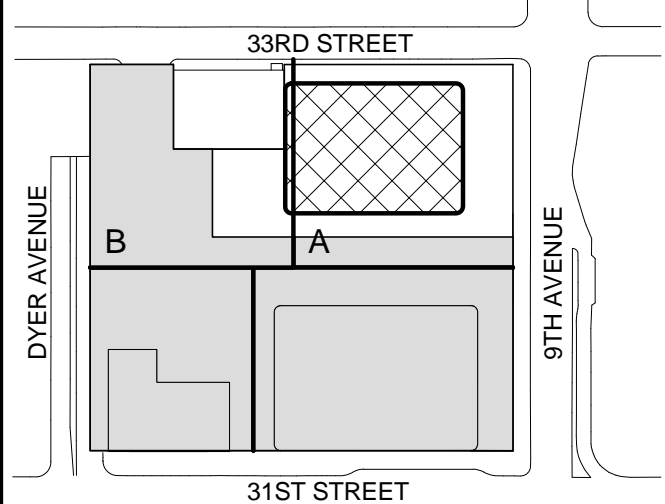
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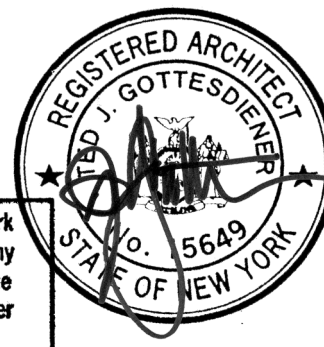
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**KEY PLAN -  
CELLAR B1**

Project No.:

207150

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File No.:

A-005

B-SCAN Sheet No.:

**A-005.00**

Sheet No.:

A-005

Page No.:

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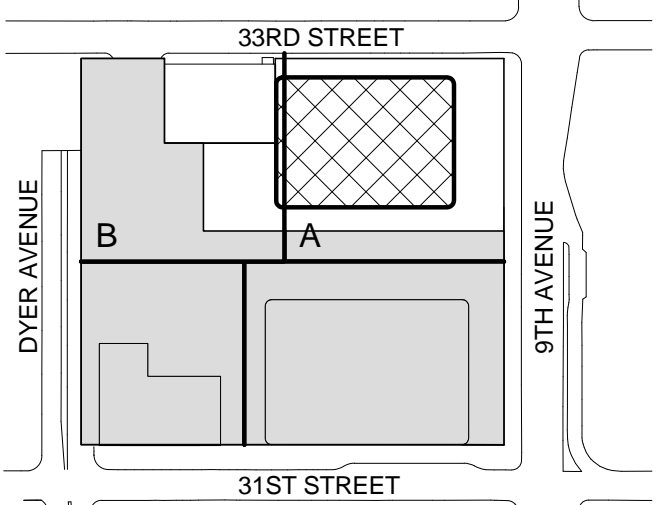
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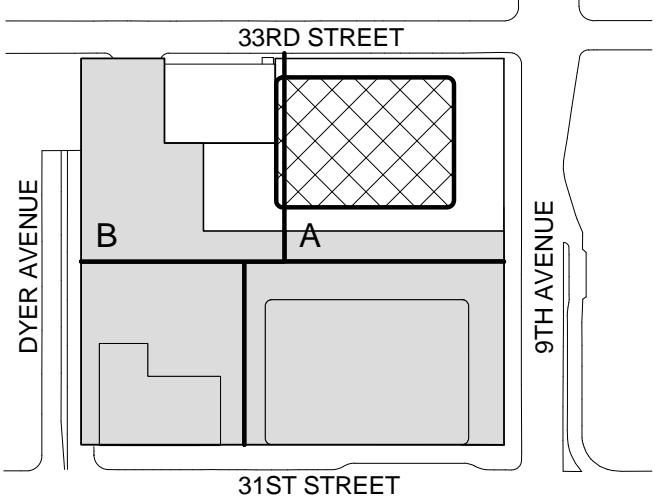
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3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description

Sheet Name:

KEY PLAN -  
GROUND FLOOR

Project No.:

207150

Date:

1 APR 2015

Scale:

1" = 20'-0"

File No.:

A-007

B-SCAN Sheet No.:

A-007.00

Sheet No.:

A-007

Page No.:

10 OF 30







EXIT STAIR F	TOTAL CAPACITY: 167
STAIR WIDTH: 50"	OCCUPANCY FACTOR: 0.3
STAIR CAPACITY: 167 PEOPLE	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE	

EXIT STAIR D	TOTAL CAPACITY: 147
STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3
STAIR CAPACITY: 147 PEOPLE	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE	

EXIT DOOR S	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE	

EGRESS CAPACITY - CELLAR B							
STAIR / DOOR	CLEAR STAIR WIDTH	STAIR OCC. FACTOR	STAIR OCC. TOTAL	CLEAR DOOR WIDTH	DOOR OCC. FACTOR	DOOR OCC. TOTAL	CAPACITY
D	44	0.3	147	34	0.2	170	147
F	50	0.3	167	34	0.2	170	167
S	0	0.3	0	34	0.2	170	170
Grand total							464

OCCUPANT LOAD - CELLAR B			
USE OF SPACE	AREA	FLOOR AREA PER OCCUPANT	TOTAL OCCUPANT LOAD
BUSINESS	6994 R <sup>2</sup>	100 R <sup>2</sup>	70
MECHANICAL	28688 R <sup>2</sup>	300 R <sup>2</sup>	96
PARKING	16629 R <sup>2</sup>	200 R <sup>2</sup>	84
STORAGE	4646 R <sup>2</sup>	300 R <sup>2</sup>	16
Grand total			266

PLUMBING FIXTURE CALCULATION - CELLAR B					
FIXTURE TYPE	REQUIRED <sup>1</sup>		MALE PROVIDED <sup>2</sup>		FEMALE
	MALE	FEMALE	MALE	FEMALE	
WATER CLOSETS	2	2	7	7	
URINALS	0	-	0	-	
LAVATORIES	2	2	7	7	
DRINKING FOUNTAINS	1	-	2	-	
BATH TUBS / SHOWERS	0	-	0	-	
SERVICE SINKS	1	-	1	-	

1. PLUMBING FIXTURE REQUIREMENTS FOR BUSINESS OCCUPANCY ARE BASED ON POPULATION DENSITY OF 100 GROSS SQ. FT. PER PERSON BASED ON CHAPTER 5 OF THE 2008 NEW YORK CITY BUILDING CODE & INTRO 606 OF THE NEW YORK CITY PLUMBING CODE AND A 50/50 SPLIT BETWEEN MALE AND FEMALE OCCUPANTS.
2. FULFILLMENT OF REQUIRED DRINKING FOUNTAINS FOR TENANT OFFICE AND RETAIL SPACE TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC 403 OF THE 2008 NEW YORK CITY PLUMBING CODE. WHERE DRINKING FOUNTAINS ARE REQUIRED, UP TO 50% OF REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCET DESIGNED FOR FILLING A CONTAINER AT LEAST 10 INCHES IN HEIGHT.
3. ADDITIONAL PROVISION FOR REQUIRED PLUMBING FIXTURES AT CELLAR B1, CELLAR B AND GROUND FLOOR ARE ACCOMMODATED AT THE CELLAR B LEVEL AS PER SECTION 403 OF THE NEW YORK CITY PLUMBING CODE.
4. FULFILLMENT OF REQUIRED TOILET FACILITIES WITHIN TENANT RETAIL SPACE FOR CUSTOMERS, PATRONS AND VISITORS TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC 403.6 OF THE 2008 NEW YORK CITY PLUMBING CODE.
5. FULFILLMENT OF REQUIRED SERVICE SINKS FOR TENANT OFFICE SPACES IS TO BE PROVIDED WITHIN JANITOR'S CLOSETS. FULFILLMENT OF REQUIRED SERVICE SINKS AT ALL OTHER LOCATIONS IS TO BE PROVIDED THROUGH HOSE BIBS WITHIN TOILET ROOMS.

## BUILDING CODE

BUILDING CODE OF THE CITY OF NEW YORK - 2008 EDITION, UNLESS OTHERWISE NOTED.

OCCUPANCY CLASSIFICATION

DESIGNATIONS FOR THE BUILDING (SECTION BC 301-312):

A-2 ASSEMBLY  
B BUSINESS (PRIMARY)  
M MERCANTILE  
S-1 MODERATE-HAZARD STORAGE  
S-2 LOW-HAZARD STORAGE  
F-2 LOW-HAZARD FACTORY INDUSTRIAL

CONSTRUCTION CLASSIFICATION

CONSTRUCTION TYPE FOR THE BUILDING (TABLE 503): 1A

FIRE RESISTANCE REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601 & 602):

BUILDING ELEMENT FIRE RATING

STRUCTURAL FRAME 3 HRS  
BEARING WALLS (EXTERIOR) 3 HRS  
BEARING WALLS (INTERIOR) 3 HRS  
NONBEARING WALLS & PARTITIONS (EXTERIOR) 1 HR  
SEPARATION BETWEEN 5'-0" AND 10'-0" 1 HR  
SEPARATION BETWEEN 10'-0" AND 30'-0" 0 HRS  
SEPARATION GREATER OR EQUAL TO 30'-0" 0 HRS  
NONBEARING WALLS & PARTITIONS (INTERIOR) 2 HRS  
FLOOR CONSTRUCTION 2 HRS  
ROOF CONSTRUCTION 1.5 HR

BUILDING LIMITATIONS

AREA, HEIGHT & # OF STORIES (TABLE 503):  
CLASS 1A CONSTRUCTION: NO LIMIT FOR HEIGHT, AREA, OR # OF STORIES

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

FIRE SEPARATION

BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

OCCUPANCY SEPARATION NEED NOT BE PROVIDED FOR STORAGE AREAS SERVING GROUP B OR M IF ANY OF THE FOLLOWING CONDITIONS APPLY (TABLE 508.3):

- THE STORAGE AREA IS LESS THAN 10% OF THE FLOOR AREA AND LESS THAN 3,000 R<sup>2</sup>
- THE STORAGE AREA IS PROVIDED WITH AN AUTOMATIC FIRE EXTINGUISHING SYSTEM AND IS LESS THAN 3,000 R<sup>2</sup>
- THE STORAGE AREA IS LESS THAN 1,000 R<sup>2</sup>

SPACES OCCUPIED BY DIFFERENT TENANTS SHALL BE SEPARATED BY FIRE BARRIERS HAVING AT LEAST 1-HOUR FIRE RESISTANCE RATINGS (SECTION 509.9).

MEANS OF EGRESS

EXIT ACCESS TRAVEL DISTANCE (TABLE 1015.1)

W/ SPRINKLER SYSTEM (R<sup>2</sup>)

OCCUPANCY PRIMARY SECONDARY

A-2 150 250  
B 300 250  
M 200 250  
S-1 200 250  
S-2 250 250  
F-2 250 250

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT OR EXIT ACCESS REMOTENESS (SECTION 1004.2.1):  
MIN. EXIT REMOTENESS: 1/2 THE MAX. TRAVEL DISTANCE  
MIN. EXIT REMOTENESS (SPRINKLERED): 1/3 THE MAX. TRAVEL DISTANCE

DEAD END (SECTION 1009.2.1):  
MAX. DEAD END LENGTH (GROUP B, F): 50'-0"

COMMON PATH OF EGRESS TRAVEL (1003.3):  
MAX. COMMON PATH OF EGRESS (GROUP B, F, S): 100'-0"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

DOOR WIDTH (SECTION 1008.1.1.1):  
MIN. DOOR CLEAR WIDTH (SINGLE LEAF): 32"  
MIN. DOOR CLEAR WIDTH (DOUBLE LEAF): 32" FOR A SINGLE LEAF  
MAX. DOOR CLEAR WIDTH (PER LEAF): 48"

STAIRWAY WIDTH (SECTION 1009.1):  
MIN. STAIRWAY WIDTH: 44"

CORRIDOR WIDTH (SECTION 1015.2):  
MIN. CORRIDOR WIDTH: 44"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT ENCLOSURE FIRE RATING REQUIREMENTS (SECTION 1019.1):  
MIN. FIRE RATING REQUIREMENT: 2 HRS

EXIT DOOR FIRE RATING REQUIREMENTS (TABLE 715.3):  
MIN. FIRE RATING REQUIREMENT: 1.5 HRS

STAIR REQUIREMENTS (SECTION 1009.2 & 1009.3):  
MIN. HEADROOM: 8'-0"  
MIN. RISER HEIGHT: 4"  
MAX. RISER HEIGHT: 7"  
MIN. TREAD DEPTH: 11"

PLUMBING FACILITIES (2008 NEW YORK CITY PLUMBING CODE)

MINIMUM NUMBER OF FIXTURES (SECTION 403.1):  
PLUMBING FIXTURES SHALL BE PROVIDED FOR THE TYPE OF OCCUPANCY AND IN THE MINIMUM NUMBER SHOWN IN TABLE 403.1. TYPES OF OCCUPANCIES NOT SHOWN IN TABLE 403.1 SHALL BE CONSIDERED INDIVIDUALLY BY THE COMMISSIONER. THE NUMBER OF OCCUPANTS AND OCCUPANCY CLASSIFICATION SHALL BE DETERMINED BY THE NEW YORK CITY BUILDING CODE.

MIN. NO. OF PLUMBING FIXTURES (TABLE 403.1)					
OCC.	WC	LAV.	TUB / SHOWER	DRINKING FOUNTAIN	OTHER
A-2	1/10	1/5	-	1/1000	1 SVC SINK
B	200	200	-	1/1000	1 SVC SINK
M	SEE CHART BELOW	-	-	1/1000	1 SVC SINK
S-1	1/1000	1/1000	1/1000	SEE 411	1 SVC SINK
S-2	1/1000	1/1000	1/1000	SEE 411	1 SVC SINK
F-2	1/1000	1/1000	SEE 411	1/1000-400	1 SVC SINK

BUSINESS PLUMBING FIXTURE REQUIREMENT (TABLE 403.1)			
WATER CLOSETS & URINALS (PER SEX)	LAVATORIES (PER SEX)	# OF PERSONS	# OF FIXTURES
1-20	1	1-25	1
21-45	2	26-50	2
46-70	3	51-75	3
71-100	4	76-100	4
101-140	5	101-160	5
141-190	6	-	-
1 FIXTURE PER ADDITIONAL 60 PERSONS	1 FIXTURE PER ADDITIONAL 60 PERSONS		

NUMBER OF OCCUPANTS OF EACH SEX (SECTION 403.3):  
THE OCCUPANT LOAD SHALL BE COMPOSED OF 50% OF EACH SEX

REQUIRED DRINKING FOUNTAINS (SECTION 419.2):  
UP TO 50% OF THE REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCETS DESIGNED FOR FILLING A CONTAINER AT LEAST 10" IN HEIGHT.

SUBSTITUTION FOR WATER CLOSETS (SECTION 419.2):  
URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50% OF THE REQUIRED WATER CLOSETS.

Warning: It is a violation of the New York State Architecture Law, §16-05(b) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

## LEGEND

- BUSINESS
- ASSEMBLY (UNCONCENTRATED)
- MERCANTILE
- MECHANICAL / STORAGE
- PARKING
- LOCKER ROOMS



## Brookfield

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

SOM  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Bluffside Ave., Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geotechnical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street, New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Venter & Santoro  
250 State Street #11, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



Seal & Signature:



Warning: It is a violation of the New York State Architecture Law, §16-05(b) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

7 1 APR 2015 ISSUED FOR BUILDING PERMIT

6 30 JAN 2015 ISSUED FOR BUILDING PERMIT

5 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT

4 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT

3 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT

2 15 NOV 2013 ISSUED FOR DD PROGRESS PRICING

1 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description

Sheet Name:

CODE ANALYSIS - CELLAR B

Project No.: 207150

Date: 1 APR 2015

Scale: 1/8" = 1'-0"

File No.: A-013

Page No.: 12 OF 30

B-SCAN Sheet No.: A-013.00

Sheet No.: A-013

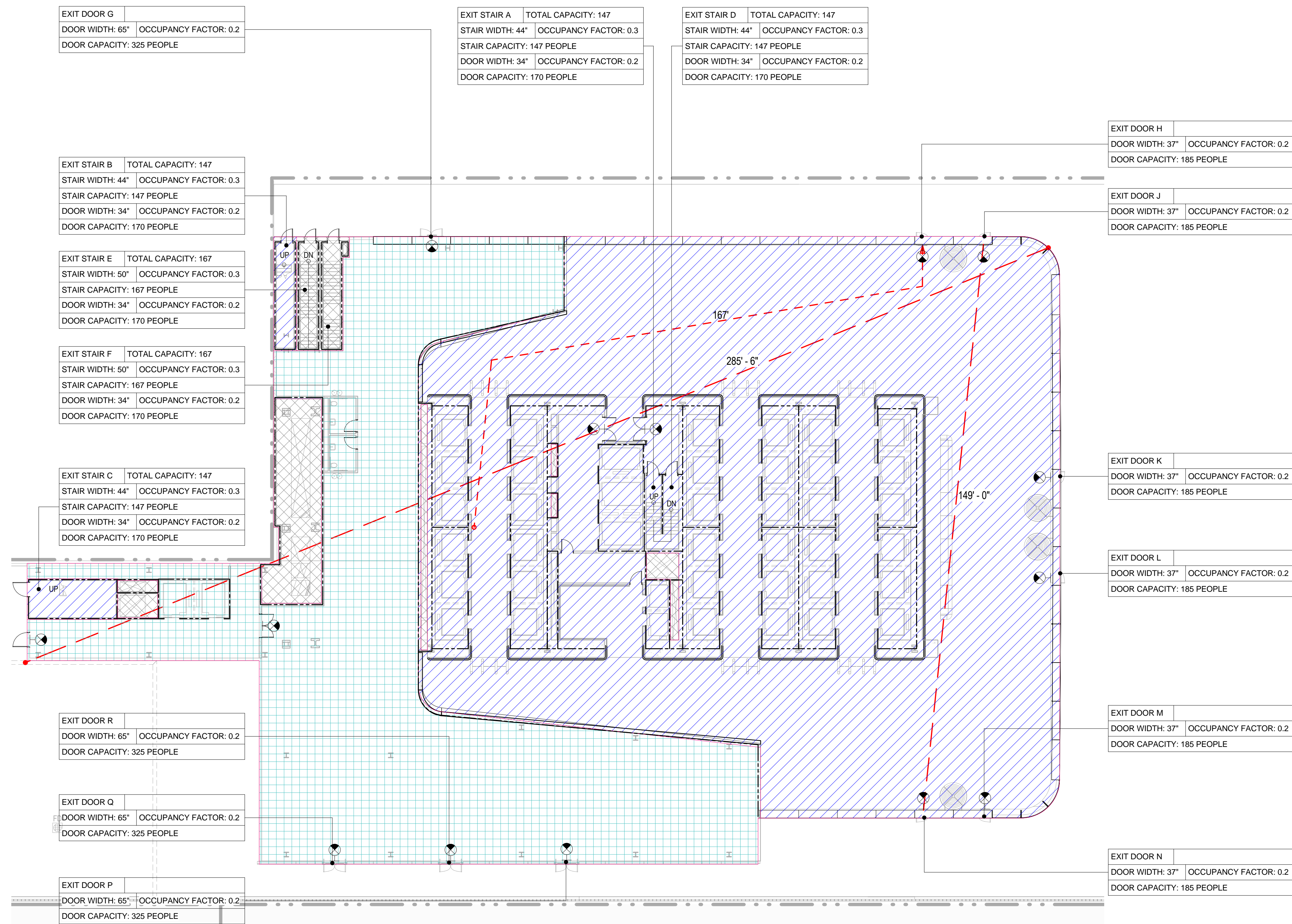
Page No.: 12 OF 30



## 2

LEVEL 2

SCALE: NTS



## 1

GROUND FLOOR

SCALE: 1/16" = 1'-0"

EGRESS CAPACITY - LEVEL 2									
STAIR / DOOR	CLEAR STAIR WIDTH	STAIR OCC. FACTOR	STAIR OCC. TOTAL	CLEAR DOOR WIDTH	DOOR OCC. FACTOR	DOOR OCC. TOTAL	CAPACITY		
A	44	0.3	147	34	0.2	170	147		
B	44	0.3	147	34	0.2	170	147		
C	44	0.3	147	34	0.2	170	147		
Grand total							441		

OCCUPANT LOAD - LEVEL 2			
USE OF SPACE	AREA	FLOOR AREA PER OCCUPANT	TOTAL OCCUPANT LOAD
MECHANICAL	3759 SF	300 SF	13
MERCANTILE	11011 SF	30 SF	367
Grand total		14770 SF	380

PLUMBING FIXTURE CALCULATION - LEVEL 2					
FIXTURE TYPE	REQUIRED		PROVIDED <sup>1</sup>		
	MALE	FEMALE	MALE	FEMALE	
WATER CLOSETS	1	1	1	1	
URINALS	0	-	0	-	
LAVATORIES	1	1	1	1	
DRINKING FOUNTAINS	1	-	2	-	
BATH TUBS / SHOWERS	0	0	0	0	
SERVICE SINKS	1	-	1	-	

1. PLUMBING FIXTURE REQUIREMENTS FOR BUSINESS OCCUPANCY ARE BASED ON POPULATION DENSITY OF 100 GROSS SQ. FT. PER PERSON BASED ON CHAPTER 3 OF THE 2008 NEW YORK CITY BUILDING CODE & INTRO 686A OF THE NEW YORK CITY PLUMBING CODE AND A 50/50 SPLIT BETWEEN MALE AND FEMALE OCCUPANTS.
2. FULFILLMENT OF REQUIRED DRINKING FOUNTAINS FOR TENANT OFFICE AND RETAIL SPACE TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC 403 OF THE 2008 NEW YORK CITY PLUMBING CODE. WHERE DRINKING FOUNTAINS ARE REQUIRED, UP TO 50% OF REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCET DESIGNED FOR FILLING A CONTAINER AT LEAST 10 INCHES IN HEIGHT.
3. ADDITIONAL PROVISION FOR REQUIRED PLUMBING FIXTURES AT CELLAR B1, CELLAR B AND GROUND FLOOR ARE ACCOMMODATED AT THE CELLAR B LEVEL AS PER SECTION 403 OF THE NEW YORK CITY PLUMBING CODE.
4. FULFILLMENT OF REQUIRED TOILET FACILITIES WITHIN TENANT RETAIL SPACE FOR CUSTOMERS, PATRONS AND VISITORS TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC 403.6 OF THE 2008 NEW YORK CITY PLUMBING CODE.
5. FULFILLMENT OF REQUIRED SERVICE SINKS FOR TENANT OFFICE SPACES IS TO BE PROVIDED WITHIN JANITORS CLOSETS. FULFILLMENT OF REQUIRED SERVICE SINKS AT ALL OTHER LOCATIONS IS TO BE PROVIDED THROUGH HOSE BIBS WITHIN TOILET ROOMS.

MEANS OF EGRESS			
EXIT ACCESS TRAVEL DISTANCE (TABLE 1015.1)			
OCCUPANCY	WI SPRINKLER SYSTEM (F)	WITHOUT SPRINKLER SYSTEM (F)	
A-2	PRIMARY	SECONDARY	
B	150	250	
M	200	250	
S-1	200	250	
S-2	250	250	
S-3	250	250	

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

DOOR WIDTH (SECTION 1008.1.1.1):  
MIN. DOOR CLEAR WIDTH (SINGLE LEAF): 32"  
MIN. DOOR CLEAR WIDTH (DOUBLE LEAF): 32" FOR A SINGLE LEAF  
MAX. DOOR CLEAR WIDTH (PER LEAF): 48"

STAIRWAY WIDTH (SECTION 1009.1):  
MIN. STAIRWAY WIDTH: 44"

CORRIDOR WIDTH (SECTION 1010.2):  
MIN. CORRIDOR WIDTH: 44"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT ENCLOSURE FIRE RATING REQUIREMENTS (SECTION 1010.1):  
MIN. FIRE RATING REQUIREMENT: 2 HRS

EXIT DOOR FIRE RATING REQUIREMENTS (TABLE 715.3):  
MIN. FIRE RATING REQUIREMENT: 1.5 HRS

STAIR REQUIREMENTS (SECTION 1009.2 & 1009.3):  
MIN. HEADROOM: 8'  
MIN. RISER HEIGHT: 4"  
MAX. RISER HEIGHT: 7"  
MIN. TREAD DEPTH: 11"

PLUMBING FACILITIES (2008 NEW YORK CITY PLUMBING CODE)

MINIMUM NUMBER OF FIXTURES (SECTION 403.1):  
PLUMBING FIXTURES SHALL BE PROVIDED FOR THE TYPE OF OCCUPANCY AND IN THE MINIMUM NUMBER SHOWN IN TABLE 403.1. TYPES OF OCCUPANCIES NOT SHOWN IN TABLE 403.1 SHALL BE CONSIDERED INDIVIDUALLY BY THE COMMISSIONER. THE NUMBER OF OCCUPANTS AND OCCUPANCY CLASSIFICATION SHALL BE DETERMINED BY THE NEW YORK CITY BUILDING CODE.

EGRESS CAPACITY - GROUND FLOOR									
STAIR / DOOR	CLEAR STAIR WIDTH	STAIR OCC. FACTOR	STAIR OCC. TOTAL	CLEAR DOOR WIDTH	DOOR OCC. FACTOR	DOOR OCC. TOTAL	CAPACITY		
A	44	0.3	147	34	0.2	170	147		
B	44	0.3	147	34	0.2	170	147		
C	44	0.3	147	34	0.2	170	147		
D	44	0.3	147	34	0.2	170	147		
E	50	0.3	167	34	0.2	170	167		
F	50	0.3	167	34	0.2	170	167		
G	44	0.3	147	65	0.2	325	147		
H	44	0.3	147	37	0.2	185	147		
J	44	0.3	147	37	0.2	185	147		
K	44	0.3	147	37	0.2	185	147		
L	44	0.3	147	37	0.2	185	147		
M	44	0.3	147	37	0.2	185	147		
N	44	0.3	147	37	0.2	185	147		
P	44	0.3	147	65	0.2	325	147		
Q	44	0.3	147	65	0.2	325	147		
R	44	0.3	147	65	0.2	325	147		
Grand total							2392		

OCCUPANT LOAD - GROUND FLOOR									
USE OF SPACE	AREA	FLOOR AREA PER OCCUPANT	TOTAL OCCUPANT LOAD						
BUSINESS	22144 SF	100 SF	221						
MECHANICAL	1363 SF	300 SF	5						
MERCANTILE	10324 SF	30 SF	344						
Grand total		33821 SF	570						

PLUMBING FIXTURE CALCULATION - GROUND FLOOR					
FIXTURE TYPE	REQUIRED <sup>1</sup>		PROVIDED <sup>2</sup>		
	MALE	FEMALE	MALE	FEMALE	
WATER CLOSETS	3	6	1	1	
URINALS	3	-	0	-	
LAVATORIES	5	5	1	1	
DRINKING FOUNTAINS	-	-	-	-	
BATH TUBS / SHOWERS	0	0	0	0	
SERVICE SINKS	1	-	1	-	

OCCUPANT LOAD - GROUND FLOOR			
USE OF SPACE	AREA	FLOOR AREA PER OCCUPANT	TOTAL OCCUPANT LOAD
BUSINESS	22144 SF	100 SF	221
MECHANICAL	1363 SF	300 SF	5
MERCANTILE	10324 SF	30 SF	344
Grand total		33821 SF	570

PLUMBING FIXTURE CALCULATION - GROUND FLOOR					
FIXTURE TYPE	REQUIRED <sup>1</sup>		PROVIDED <sup>2</sup>		
	MALE	FEMALE	MALE	FEMALE	
WATER CLOSETS	3	6	1	1	
URINALS	3	-	0	-	
LAVATORIES	5	5	1	1	
DRINKING FOUNTAINS	-	-	-	-	
BATH TUBS / SHOWERS	0	0	0	0	
SERVICE SINKS	1	-	1	-	

1. PLUMBING FIXTURE REQUIREMENTS FOR BUSINESS OCCUPANCY ARE BASED ON POPULATION DENSITY OF 100 GROSS SQ. FT. PER PERSON BASED ON CHAPTER 3 OF THE 2008 NEW YORK CITY BUILDING CODE & INTRO 686A OF THE NEW YORK CITY PLUMBING CODE AND A 50/50 SPLIT BETWEEN MALE AND FEMALE OCCUPANTS.
2. FULFILLMENT OF REQUIRED DRINKING FOUNTAINS FOR TENANT OFFICE AND RETAIL SPACE TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC 403 OF THE 2008 NEW YORK CITY PLUMBING CODE. WHERE DRINKING FOUNTAINS ARE REQUIRED, UP TO 50% OF REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCET DESIGNED FOR FILLING A CONTAINER AT LEAST 10 INCHES IN HEIGHT.
3. ADDITIONAL PROVISION FOR REQUIRED PLUMBING FIXTURES AT CELLAR B1, CELLAR B AND GROUND FLOOR ARE ACCOMMODATED AT THE CELLAR B LEVEL AS PER SECTION 403 OF THE NEW YORK CITY PLUMBING CODE.
4. FULFILLMENT OF REQUIRED TOILET FACILITIES WITHIN TENANT RETAIL SPACE FOR CUSTOMERS, PATRONS AND VISITORS TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC 403.6 OF THE 2008 NEW YORK CITY PLUMBING CODE.
5. FULFILLMENT OF REQUIRED SERVICE SINKS FOR TENANT OFFICE SPACES IS TO BE PROVIDED WITHIN JANITORS CLOSETS. FULFILLMENT OF REQUIRED SERVICE SINKS AT ALL OTHER LOCATIONS IS TO BE PROVIDED THROUGH HOSE BIBS WITHIN TOILET ROOMS.

## BUILDING CODE

BUILDING CODE OF THE CITY OF NEW YORK - 2008 EDITION, UNLESS OTHERWISE NOTED.

## OCCUPANCY CLASSIFICATION

DESIGNATIONS FOR THE BUILDING (SECTION BC 301-312):

A-2	ASSEMBLY
B	BUSINESS (PRIMARY)
M	MERCANTILE
S-1	MODERATE-HAZARD STORAGE
S-2	LOW-HAZARD STORAGE
S-3	LOW-HAZARD FACTORY INDUSTRIAL

## CONSTRUCTION CLASSIFICATION

CONSTRUCTION TYPE FOR THE BUILDING (TABLE 503): 1A

FIRE RESISTANCE REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601 & 602):

BUILDING ELEMENT	FIRE RATING
STRUCTURAL FRAME	3 HRS
BEARING WALLS (EXTERIOR)	3 HRS
NONBEARING WALLS & PARTITIONS (EXTERIOR)	1 HR
SEPARATION BETWEEN 5'-0" AND 10'-0"	1 HR
SEPARATION BETWEEN 10'-0" AND 30'-0"	0 HRS
SEPARATION GREATER OR EQUAL TO 30'-0"	0 HRS
NONBEARING WALLS & PARTITIONS (INTERIOR)	2 HRS
FLOOR CONSTRUCTION	1.5 HR
ROOF CONSTRUCTION	1.5 HR

## BUILDING LIMITATIONS

AREA, HEIGHT & # OF STORIES (TABLE 503):

CLASS 1A CONSTRUCTION: NO LIMIT FOR HEIGHT, AREA, OR # OF STORIES

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

## FIRE SEPARATION

BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

OCCUPANCY SEPARATION NEED NOT BE PROVIDED FOR STORAGE AREAS SERVING GROUP B OR M IF ANY OF THE FOLLOWING CONDITIONS APPLY (TABLE 508.3):

- THE STORAGE AREA IS LESS THAN 10% OF THE FLOOR AREA AND LESS THAN 3,000 SF

- THE STORAGE AREA IS PROVIDED WITH AN AUTOMATIC FIRE-EXTINGUISHING SYSTEM AND IS LESS THAN 3,000 SF

- THE STORAGE AREA IS LESS THAN 1,000 SF

SPACES OCCUPIED BY DIFFERENT TENANTS SHALL BE SEPARATED BY FIRE BARRIERS HAVING AT LEAST 1-HOUR FIRE RESISTANCE RATINGS (SECTION 509.9).

## MEANS OF EGRESS

EXIT ACCESS TRAVEL DISTANCE (TABLE 1015.1)

OCCUPANCY

WI SPRINKLER SYSTEM (F)

WITHOUT SPRINKLER SYSTEM (F)

A-2

B

M

S-1

S-2

S-3

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT OR EXIT ACCESS REMOTE ACCESS (SECTION 1014.2.1):

MIN. EXIT REMOTE ACCESS: 1/2 THE MAX. DIAGONAL DISTANCE

MIN. EXIT REMOTE ACCESS (SPRINKLERED): 1/3 THE MAX. DIAGONAL DISTANCE

DEAD ENDS (1015.3):

MAX. DEAD END LENGTH (GROUP B, F): 50'-0"

COMMON PATH OF EGRESS TRAVEL (1013.3):

MAX. COMMON PATH OF EGRESS (GROUP B, F, S): 100'-0"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

DOOR WIDTH (SECTION 1008.1.1.1):

MIN. DOOR CLEAR WIDTH (SINGLE LEAF): 32"

MIN. DOOR CLEAR WIDTH (DOUBLE LEAF): 32" FOR A SINGLE LEAF

MAX. DOOR CLEAR WIDTH (PER LEAF): 48"

STAIRWAY WIDTH (SECTION 1009.1):

MIN. STAIRWAY WIDTH: 44"

CORRIDOR WIDTH (SECTION 1010.2):

MIN. CORRIDOR WIDTH: 44"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT ENCLOSURE FIRE RATING REQUIREMENTS (SECTION 1010.1):

MIN. FIRE RATING REQUIREMENT: 2 HRS

EXIT DOOR FIRE RATING REQUIREMENTS (TABLE 715.3):

MIN. FIRE RATING REQUIREMENT: 1.5 HRS

STAIR REQUIREMENTS (SECTION 1009.2 & 1009.3):

MIN. HEADROOM: 8'

MIN. RISER HEIGHT: 4"

MAX. RISER HEIGHT: 7"

MIN. TREAD DEPTH: 11"

PLUMBING FACILITIES (2008 NEW YORK CITY PLUMBING CODE)

MINIMUM NUMBER OF FIXTURES (SECTION 403.1):

PLUMBING FIXTURES SHALL BE PROVIDED FOR THE TYPE OF OCCUPANCY AND IN THE MINIMUM NUMBER SHOWN IN TABLE 403.1. TYPES OF OCCUPANCIES NOT SHOWN IN TABLE 403.1 SHALL BE CONSIDERED INDIVIDUALLY BY THE COMMISSIONER. THE NUMBER OF OCCUPANTS AND OCCUPANCY CLASSIFICATION SHALL BE DETERMINED BY THE NEW YORK CITY BUILDING CODE.

MIN. NO. OF PLUMBING FIXTURES (TABLE 403.1):

WC: 1/100, LAV: 1/100, TURB: 1/100, DRINKING: 1/100, OTHER: 1/100

A-2: 1/100, B: 1/100, C: 1/100, D: 1/100, E: 1/100, F: 1/100, G: 1/100, H: 1/100, J: 1/100, K: 1/100, L: 1/100, M: 1/100, N: 1/100, P: 1/100, Q: 1/100, R: 1/100, S: 1/100

S-1: 1/100, S-2: 1/100, S-3: 1/100, SEE 411.1 FOR SINKS

S-2: 1/100, S-3: 1/100, SEE 411.1 FOR SINKS

F-1: 1/100, F-2: 1/100, SEE 411.1 FOR SINKS

BUSINESS PLUMBING FIXTURE REQUIREMENT (TABLE 403.1):

# OF PERSONS / # OF FIXTURES: (PER SEX)

1-20: 1, 21-50: 2, 51-100: 3, 101-150: 4, 151-200: 5, 201-250: 6, 251-300: 7, 301-350: 8, 351-400: 9, 401-450: 10, 451-500: 11, 501-550: 12, 551-600: 13, 601-650: 14, 651-700: 15, 701-750: 16, 751-800: 17, 801-850: 18, 851-900: 19, 901-950: 20, 951-1000: 21, 1001-1050: 22, 1051-1100: 23, 1101-1150: 24, 1151-1200: 25, 1201-1250: 26, 1251-1300: 27, 1301-1350: 28, 1351-1400: 29, 1401-1450: 30, 1451-1500: 31, 1501-1550: 32, 1551-1600: 33, 1601-1650: 34, 1651-1700: 35, 1701-1750: 36, 1751-1800: 37, 1801-1850: 38, 1851-1900: 39, 1901-1950: 40, 1951-2000: 41, 2001-2050: 42, 2051-2100: 43, 2101-2150: 44, 2151-2200: 45, 2201-2250: 46, 2251-2300: 47, 2301-2350: 48, 2351-2400: 49, 2401-2450: 50, 2451-2500: 51, 2501-2550: 52, 2551-2600: 53, 2601-2650: 54, 2651-2700: 55, 2701-2750: 56, 2751-2800: 57, 2801-2850: 58, 2851-2900: 59, 2901-2950: 60, 2951-3000: 61, 3001-3050: 62, 3051-3100: 63, 3101-3150: 64, 3151-3200: 65, 3201-3250: 66, 3251-3300: 67, 3301-3350: 68, 3351-3400: 69, 3401-3450: 70, 3451-3500: 71, 3501-3550: 72, 3551-3600: 73, 3601-3650: 74, 3651-3700: 75, 3701-3750: 76, 3751-3800:



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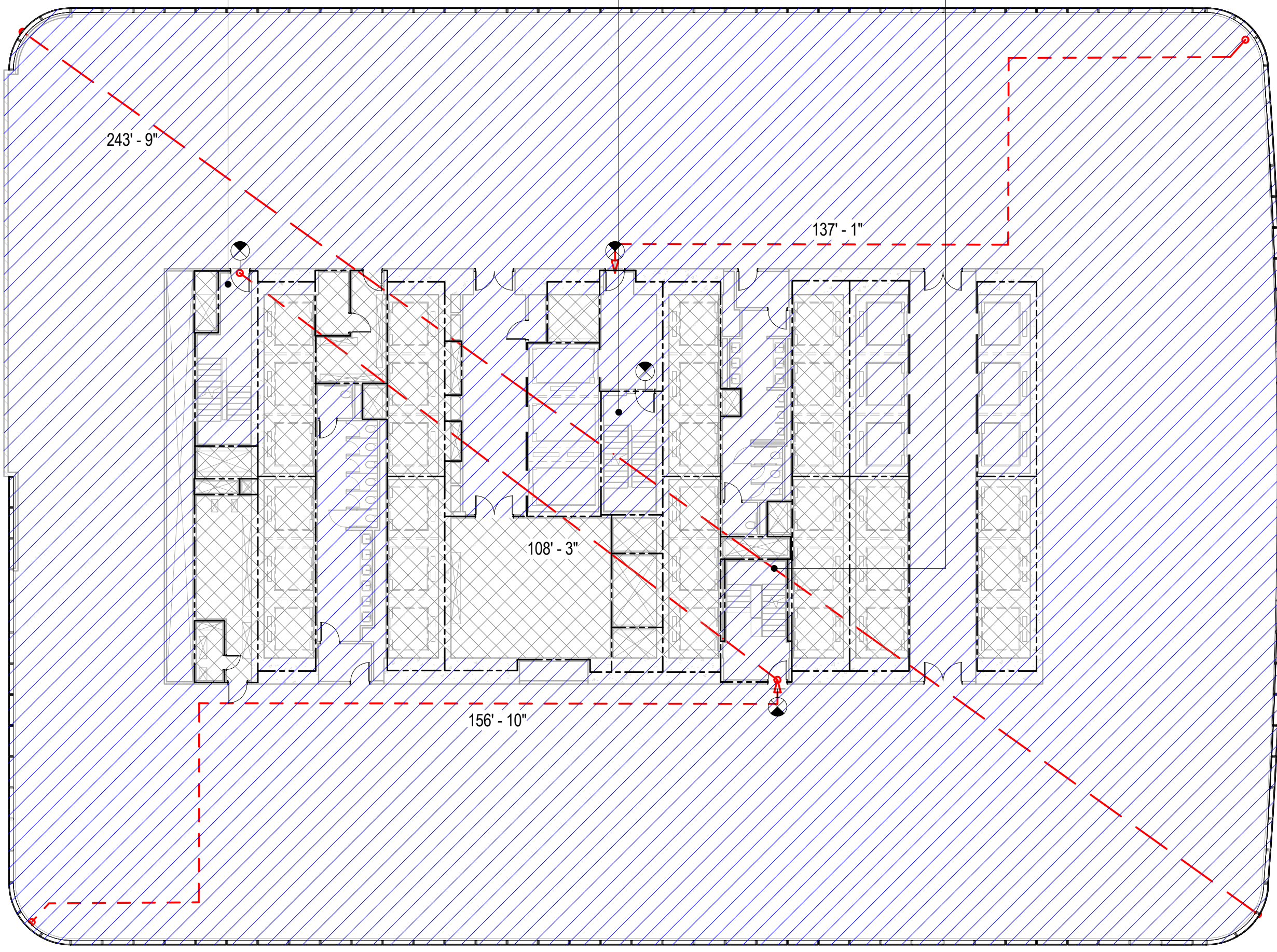
LEVEL 6-16

SCALE: 1/16" = 1'-0"

EXIT STAIR B	TOTAL CAPACITY: 147
STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3
STAIR CAPACITY: 147 PEOPLE	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE	

EXIT STAIR A	TOTAL CAPACITY: 147
STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3
STAIR CAPACITY: 147 PEOPLE	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE	

EXIT STAIR C	TOTAL CAPACITY: 147
STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3
STAIR CAPACITY: 147 PEOPLE	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE	



EGRESS CAPACITY - LEVEL 6-16					
STAIR	CLEAR STAIR WIDTH	STAIR OCC. FACTOR	STAIR OCC. TOTAL	CLEAR DOOR WIDTH	DOOR OCC. FACTOR
A	44	0.3	147	34	0.2
B	44	0.3	147	34	0.2
C	44	0.3	147	34	0.2
Grand total					

OCCUPANT LOAD - LEVEL 6-16			
USE OF SPACE	AREA	FLOOR AREA PER OCCUPANT	TOTAL OCCUPANT LOAD
BUSINESS	26406 SF	100 SF	264
MECHANICAL / STORAGE	4209 SF	300 SF	14
Grand total	30615 SF		278

PLUMBING FIXTURE CALCULATION - LEVEL 6-16					
FIXTURE TYPE	REQUIRED			PROVIDED <sup>1,2</sup>	
	MALE	FEMALE		MALE	FEMALE
WATER CLOSETS	3	5		4	7
URINALS	2	-		3	-
LAVATORIES	5	5		6	6
DRINKING FOUNTAINS	3			0	
BATH TUBS / SHOWERS				0	
SERVICE SINKS	1			1	

- PLUMBING FIXTURE REQUIREMENTS FOR BUSINESS OCCUPANCY ARE BASED ON POPULATION DENSITY OF 100 GROSS SQ. FT. PER PERSON BASED ON CHAPTER 3 OF THE 2008 NEW YORK CITY BUILDING CODE & INTRO 605A OF THE NEW YORK CITY PLUMBING CODE) AND A 50/50 SPLIT BETWEEN MALE AND FEMALE OCCUPANTS.
- FULLFILLMENT OF REQUIRED DRINKING FOUNTAINS FOR TENANT OFFICE AND RETAIL SPACE TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC-403 OF THE 2008 NEW YORK CITY PLUMBING CODE. WHERE DRINKING FOUNTAINS ARE REQUIRED, UP TO 50% OF REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCET DESIGNED FOR FILLING A CONTAINER AT LEAST 10 INCHES IN HEIGHT.
- PROVISION FOR REQUIRED PLUMBING FIXTURES AT CELLAR B1, CELLAR B AND GROUND FLOOR ARE ACCOMMODATED AT THE CELLAR B LEVEL AS PER SECTION 403 OF THE NEW YORK CITY PLUMBING CODE.
- FULLFILLMENT OF REQUIRED TOILET FACILITIES WITHIN TENANT RETAIL SPACE FOR CUSTOMERS, PATRONS AND VISITORS TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC-403.6 OF THE 2008 NEW YORK CITY PLUMBING CODE.

## BUILDING CODE

BUILDING CODE OF THE CITY OF NEW YORK - 2008 EDITION, UNLESS OTHERWISE NOTED.

### OCCUPANCY CLASSIFICATION

DESIGNATIONS FOR THE BUILDING (SECTION BC 301-312):

- A-2 ASSEMBLY
- B BUSINESS (PRIMARY)
- M MERCANTILE
- S-1 MODERATE-HAZARD STORAGE
- S-2 LOW-HAZARD STORAGE
- F-2 LOW-HAZARD FACTORY INDUSTRIAL

### CONSTRUCTION CLASSIFICATION

CONSTRUCTION TYPE FOR THE BUILDING (TABLE 503): 1A

FIRE RESISTANCE REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601 & 602):

BUILDING ELEMENT	FIRE RATING
STRUCTURAL FRAME	3 HRS
BEARING WALLS (EXTERIOR)	3 HRS
BEARING WALLS (INTERIOR)	3 HRS
NONBEARING WALLS & PARTITIONS (EXTERIOR)	1 HR
SEPARATION BETWEEN 5'-0" AND 10'-0"	1 HR
SEPARATION BETWEEN 10'-0" AND 30'-0"	0 HRS
SEPARATION GREATER OR EQUAL TO 30'-0"	2 HRS
NONBEARING WALLS & PARTITIONS (INTERIOR)	2 HRS
FLOOR CONSTRUCTION	1.5 HR
ROOF CONSTRUCTION	1.5 HR

### BUILDING LIMITATIONS

AREA, HEIGHT & # OF STORIES (TABLE 503):  
CLASS 1A CONSTRUCTION: NO LIMIT FOR HEIGHT, AREA, OR # OF STORIES

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

### FIRE SEPARATION

BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

OCCUPANCY SEPARATION NEED NOT BE PROVIDED FOR STORAGE AREAS SERVING GROUP B OR IF ANY OF THE FOLLOWING CONDITIONS APPLY (TABLE 508.3):  
- THE STORAGE AREA IS LESS THAN 10% OF THE FLOOR AREA AND LESS THAN 3,000 SF  
- THE STORAGE AREA IS PROVIDED WITH AN AUTOMATIC FIRE-EXTINGUISHING SYSTEM AND IS LESS THAN 3,000 SF  
- THE STORAGE AREA IS LESS THAN 1,000 SF

SPACES OCCUPIED BY DIFFERENT TENANTS SHALL BE SEPARATED BY FIRE BARRIERS HAVING AT LEAST 1-HOUR FIRE RESISTANCE RATINGS (SECTION 509.9).

### MEANS OF EGRESS

EXIT ACCESS TRAVEL DISTANCE (TABLE 1015.1)

W/ SPRINKLER SYSTEM (F)		
OCCUPANCY	PRIMARY	SECONDARY
A-2	150	250
B	150	250
M	200	250
S-1	200	250
S-2	250	250
F-2	250	250

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT OR EXIT ACCESS REMOTENESS (SECTION 1014.2.1):  
MIN. EXIT REMOTENESS: 1/2 THE MAX. DIAGONAL DISTANCE  
MIN. EXIT REMOTENESS (SPRINKLERED): 1/3 THE MAX. DIAGONAL DISTANCE

DEAD ENDS (1016.3):  
MAX. DEAD END LENGTH (GROUP B, F): 50'-0"

COMMON PATH OF EGRESS TRAVEL (1013.3):  
MAX. COMMON PATH OF EGRESS (GROUP B, F, S): 100'-0"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

DOOR WIDTH (SECTION 1008.1.1.1):  
MIN. DOOR CLEAR WIDTH (SINGLE LEAF): 32"  
MIN. DOOR CLEAR WIDTH (DOUBLE LEAF): 32" FOR A SINGLE LEAF  
MAX. DOOR CLEAR WIDTH (PER LEAF): 48"

STAIRWAY WIDTH (SECTION 1009.1):  
MIN. STAIRWAY WIDTH: 44"

CORRIDOR WIDTH (SECTION 1015.2):  
MIN. CORRIDOR WIDTH: 44"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT ENVELOURE FIRE RATING REQUIREMENTS (SECTION 1019.1):  
MIN. FIRE RATING REQUIREMENT: 2 HRS

EXIT DOOR FIRE RATING REQUIREMENTS (TABLE 715.3):  
MIN. FIRE RATING REQUIREMENT: 1.5 HRS

STAIR REQUIREMENTS (SECTION 1009.2 & 1009.3):  
MIN. HEADROOM: 8'-0"  
MIN. RISER HEIGHT: 4"  
MAX. RISER HEIGHT: 7"  
MIN. TREAD DEPTH: 11"

### PLUMBING FACILITIES

(2008 NEW YORK CITY PLUMBING CODE)

MINIMUM NUMBER OF FIXTURES (SECTION 403.1):  
PLUMBING FIXTURES SHALL BE PROVIDED FOR THE TYPE OF OCCUPANCY AND IN THE MINIMUM NUMBER SHOWN IN TABLE 403.1. TYPES OF OCCUPANCIES NOT SHOWN IN TABLE 403.1 SHALL BE CONSIDERED INDIVIDUALLY BY THE COMMISSIONER. THE NUMBER OF OCCUPANTS AND OCCUPANCY CLASSIFICATION SHALL BE DETERMINED BY THE NEW YORK CITY BUILDING CODE.

MIN. NO. OF PLUMBING FIXTURES (TABLE 403.1)					
OCC.	WC	LAV.	TUB	DRINKING	OTHER
A-2	175	175	-	1/1000	1 SVC SINK
B	200	200	-	1/1000	1 SVC SINK
M	SEE CHART BELOW	1/1000	1/1000	1/1000	1 SVC SINK
S-1	1/100	1/100	1/1000	SEE 411	1 SVC SINK
S-2	1/100	1/100	1/1000	SEE 411	1 SVC SINK
F-2	1/100	1/100	SEE 411	1 PER 400	1 SVC SINK

BUSINESS PLUMBING FIXTURE REQUIREMENT (TABLE 403.1):

WATER CLOSETS & URINALS		LAVATORIES	
# OF PERSONS	# OF FIXTURES	# OF PERSONS	# OF FIXTURES
1-20	1	1-25	1
21-45	2	26-50	2
46-70	3	51-75	3
71-100	4	76-100	4
101-140	5	106-140	5
141-190			

1 FIXTURE PER ADDITIONAL 60 PERSONS

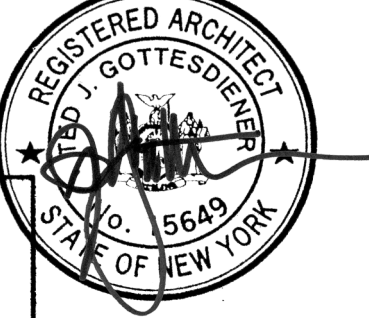
1 FIXTURE PER ADDITIONAL 60 PERSONS

NUMBER OF OCCUPANTS OF EACH SEX (SECTION 403.3):  
THE OCCUPANT LOAD SHALL BE COMPOSED OF 50% OF EACH SEX

REQUIRED DRINKING FOUNTAINS (SECTION 419.2):  
UP TO 50% OF THE REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCETS DESIGNED FOR FILLING A CONTAINER AT LEAST 10" IN HEIGHT.

SUBSTITUTION FOR WATER CLOSETS (SECTION 419.2):  
URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50% OF THE REQUIRED WATER CLOSETS.

Warning: It is a violation of the New York State Architecture Law, §16-010, for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.



7	30 JAN 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description

Sheet Name:

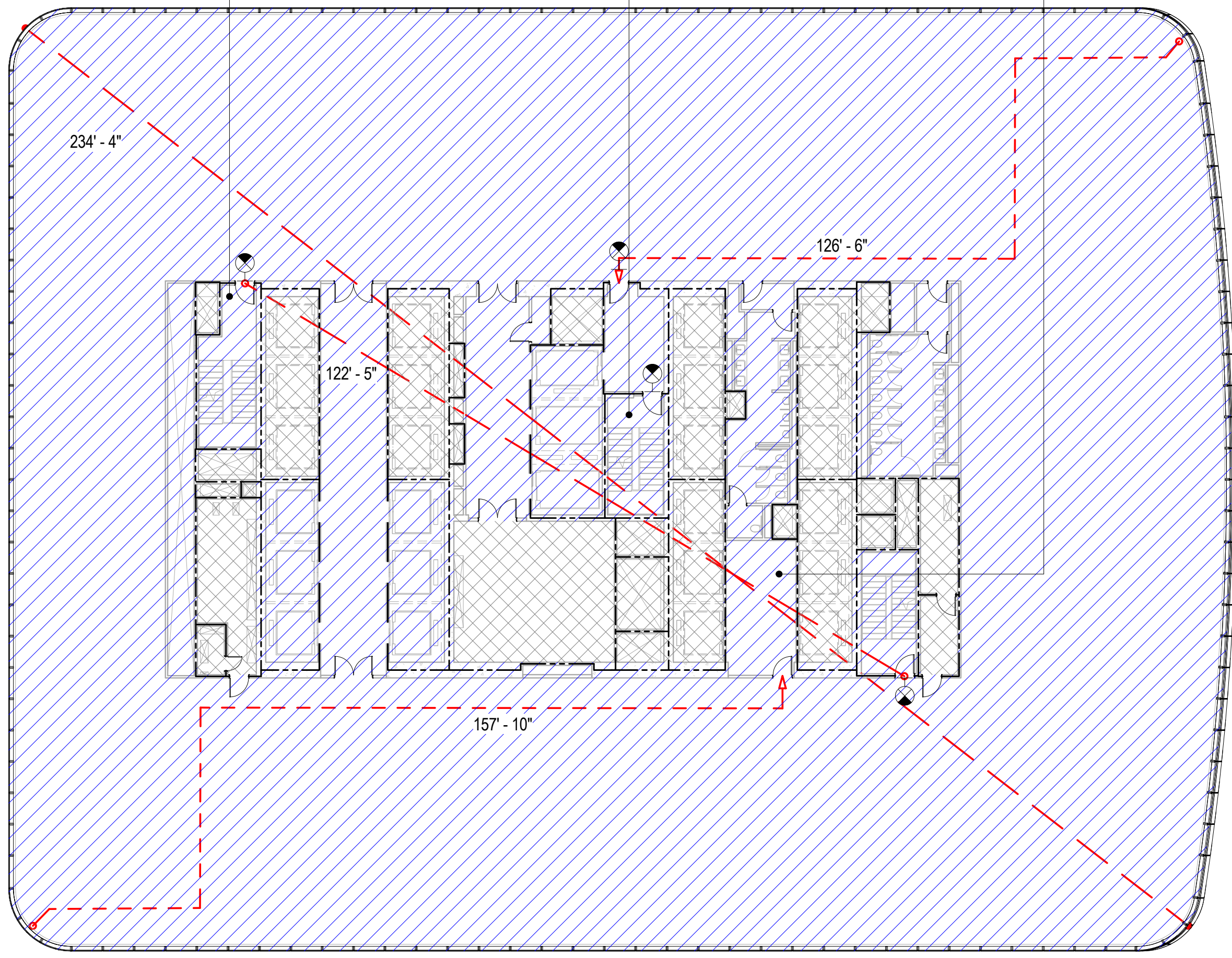
CODE ANALYSIS - LEVEL 6-16

Project No.: 207150	B-SCAN Sheet No.: A-016.00
Date: 30 JAN 2015	Sheet No.: A-016
Scale: 1/16" = 1'-0"	Page No.: 14 OF 30
File No.: A-016	



1 LEVEL 33-38  
SCALE: 1/16" = 1'-0"

EXIT STAIR B	TOTAL CAPACITY: 147	EXIT STAIR A	TOTAL CAPACITY: 147	EXIT STAIR C	TOTAL CAPACITY: 147
STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3	STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3	STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3
STAIR CAPACITY: 147 PEOPLE		STAIR CAPACITY: 147 PEOPLE		STAIR CAPACITY: 147 PEOPLE	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2	DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2	DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE		DOOR CAPACITY: 170 PEOPLE		DOOR CAPACITY: 170 PEOPLE	



EGRESS CAPACITY - LEVEL 33-37					
STAIR	CLEAR STAIR WIDTH	STAIR OCC. FACTOR	STAIR OCC. TOTAL	CLEAR DOOR WIDTH	DOOR OCC. FACTOR
A	44	0.3	147	34	0.2
B	44	0.3	147	34	0.2
C	44	0.3	147	34	0.2
Grand total					

OCCUPANT LOAD - LEVEL 33-37			
USE OF SPACE	AREA	FLOOR AREA PER OCCUPANT	TOTAL OCCUPANT LOAD
BUSINESS	25814 SF	100 SF	258
MECHANICAL / STORAGE	3137 SF	300 SF	10
Grand total	28951 SF		268

PLUMBING FIXTURE CALCULATION - LEVEL 33-37					
FIXTURE TYPE	REQUIRED			PROVIDED <sup>1,2</sup>	
	MALE	FEMALE		MALE	FEMALE
WATER CLOSETS	3	5		4	7
URINALS	2	-		3	-
LAVATORIES	5	5		6	6
DRINKING FOUNTAINS	3			0	
BATH TUBS / SHOWERS				0	
SERVICE SINKS		1		1	

1. PLUMBING FIXTURE REQUIREMENTS FOR BUSINESS OCCUPANCY ARE BASED ON POPULATION DENSITY OF 100 GROSS SQ. FT. PER PERSON BASED ON CHAPTER 3 OF THE 2008 NEW YORK CITY BUILDING CODE & INTRO 655A OF THE NEW YORK CITY PLUMBING CODE) AND A 50/50 SPLIT BETWEEN MALE AND FEMALE OCCUPANTS.

2. FULFILLMENT OF REQUIRED DRINKING FOUNTAINS FOR TENANT OFFICE AND RETAIL SPACE TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC-403 OF THE 2008 NEW YORK CITY PLUMBING CODE. WHERE DRINKING FOUNTAINS ARE REQUIRED, UP TO 50% OF REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCET DESIGNED FOR FILLING A CONTAINER AT LEAST 10 INCHES IN HEIGHT.

3. PROVISION FOR REQUIRED PLUMBING FIXTURES AT CELLAR B1, CELLAR B AND GROUND FLOOR ARE ACCOMMODATED AT THE CELLAR B LEVEL AS PER SECTION 403 OF THE NEW YORK CITY PLUMBING CODE.

4. FULFILLMENT OF REQUIRED TOILET FACILITIES WITHIN TENANT RETAIL SPACE FOR CUSTOMERS, PATRONS AND VISITORS TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC-403.6 OF THE 2008 NEW YORK CITY PLUMBING CODE.

BUILDING CODE

BUILDING CODE OF THE CITY OF NEW YORK - 2008 EDITION, UNLESS OTHERWISE NOTED.

OCCUPANCY CLASSIFICATION

DESIGNATIONS FOR THE BUILDING (SECTION BC 301-312):

A-2 ASSEMBLY  
B BUSINESS (PRIMARY)  
M MERCANTILE  
S-1 MODERATE-HAZARD STORAGE  
S-2 LOW-HAZARD STORAGE  
F-2 LOW-HAZARD FACTORY INDUSTRIAL

CONSTRUCTION CLASSIFICATION

CONSTRUCTION TYPE FOR THE BUILDING (TABLE 503): 1A

FIRE RESISTANCE REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601 & 602):

BUILDING ELEMENT FIRE RATING

STRUCTURAL FRAME 3 HRS  
BEARING WALLS (EXTERIOR) 3 HRS  
BEARING WALLS (INTERIOR) 3 HRS  
NONBEARING WALLS & PARTITIONS (EXTERIOR): 1 HR  
SEPARATION BETWEEN 5'-0" AND 10'-0" 1 HR  
SEPARATION BETWEEN 10'-0" AND 30'-0" 1 HR  
SEPARATION GREATER OR EQUAL TO 30'-0" 0 HRS  
NONBEARING WALLS & PARTITIONS (INTERIOR) 2 HRS  
FLOOR CONSTRUCTION 2 HRS  
ROOF CONSTRUCTION 1.5 HR

BUILDING LIMITATIONS

AREA, HEIGHT & # OF STORIES (TABLE 503):  
CLASS 1A CONSTRUCTION: NO LIMIT FOR HEIGHT, AREA, OR # OF STORIES

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

FIRE SEPARATION

BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

OCCUPANCY SEPARATION NEED NOT BE PROVIDED FOR STORAGE AREAS SERVING GROUP B OR M IF ANY OF THE FOLLOWING CONDITIONS APPLY (TABLE 508.3):

- THE STORAGE AREA IS LESS THAN 10% OF THE FLOOR AREA AND LESS THAN 3,000 SF
- THE STORAGE AREA IS PROVIDED WITH AN AUTOMATIC FIRE-EXTINGUISHING SYSTEM AND IS LESS THAN 3,000 SF
- THE STORAGE AREA IS LESS THAN 1,000 SF

SPACES OCCUPIED BY DIFFERENT TENANTS SHALL BE SEPARATED BY FIRE BARRIERS HAVING AT LEAST 1-HOUR FIRE RESISTANCE RATINGS (SECTION 509.9).

MEANS OF EGRESS

EXIT ACCESS TRAVEL DISTANCE (TABLE 1015.1)

W/ SPRINKLER SYSTEM (F)

OCCUPANCY

	PRIMARY	SECONDARY
A-2	150	250
B	150	250
M	200	250
S-1	200	250
S-2	250	250
F-2	250	250

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT OR EXIT ACCESS REMOTENESS (SECTION 1004.2.1):  
MIN. EXIT REMOTENESS: 1/2 THE MAX. DIAGONAL DISTANCE  
MIN. EXIT REMOTENESS (SPRINKLERED): 1/3 THE MAX. DIAGONAL DISTANCE

DEAD ENDS (1016.3):  
MAX. DEAD END LENGTH (GROUP B, F): 50'-0"

COMMON PATH OF EGRESS TRAVEL (1013.3):  
MAX. COMMON PATH OF EGRESS (GROUP B, F, S): 100'-0"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

DOOR WIDTH (SECTION 1008.1.1.1):  
MIN. DOOR CLEAR WIDTH (SINGLE LEAF): 32"  
MIN. DOOR CLEAR WIDTH (DOUBLE LEAF): 32" FOR A SINGLE LEAF  
MAX. DOOR CLEAR WIDTH (PER LEAF): 48"

STAIRWAY WIDTH (SECTION 1009.1):  
MIN. STAIRWAY WIDTH: 44"

CORRIDOR WIDTH (SECTION 1010.2):  
MIN. CORRIDOR WIDTH: 44"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT ENVELOURE FIRE RATING REQUIREMENTS (SECTION 1019.1):  
MIN. FIRE RATING REQUIREMENT: 2 HRS

EXIT DOOR FIRE RATING REQUIREMENTS (TABLE 715.3):  
MIN. FIRE RATING REQUIREMENT: 1.5 HRS

STAIR REQUIREMENTS (SECTION 1009.2 & 1009.3):  
MIN. HEADROOM: 8'-0"  
MIN. RISER HEIGHT: 4"  
MAX. RISER HEIGHT: 7"  
MIN. TREAD DEPTH: 11"

PLUMBING FACILITIES  
(2008 NEW YORK CITY PLUMBING CODE)

MINIMUM NUMBER OF FIXTURES (SECTION 403.1):  
PLUMBING FIXTURES SHALL BE PROVIDED FOR THE TYPE OF OCCUPANCY AND IN THE MINIMUM NUMBER SHOWN IN TABLE 403.1. TYPES OF OCCUPANCIES NOT SHOWN IN TABLE 403.1 SHALL BE CONSIDERED INDIVIDUALLY BY THE COMMISSIONER. THE NUMBER OF OCCUPANTS AND OCCUPANCY CLASSIFICATION SHALL BE DETERMINED BY THE NEW YORK CITY BUILDING CODE.

MIN. NO. OF PLUMBING FIXTURES (TABLE 403.1)					
OCC.	WC	LAV.	TUB / SHOWER	DRINKING FOUNTAIN	OTHER
A-2	175	175	1	1/1000	1 SVC SINK
B	200	200	-	1/1000	1 SVC SINK
M	SEE CHART BELOW	1/1000	1/1000	1/1000	1 SVC SINK
S-1	1/1000	1/1000	1/1000	SEE 411	1 SVC SINK
S-2	1/1000	1/1000	1/1000	SEE 411	1 SVC SINK
F-2	1/1000	1/1000	SEE 411	1/1000-400	1 SVC SINK

BUSINESS PLUMBING FIXTURE REQUIREMENT (TABLE 403.1)			
WATER CLOSETS & URINALS (PER SEX)	LAVATORIES (PER SEX)	# OF PERSONS # OF FIXTURES	# OF PERSONS # OF FIXTURES
1-20	1	1-25	1
21-45	2	26-50	2
46-70	3	51-75	3
71-100	4	76-100	4
101-140	5	106-160	5
141-190	6		
1 FIXTURE PER ADDITIONAL 60 PERSONS		1 FIXTURE PER ADDITIONAL 60 PERSONS	

NUMBER OF OCCUPANTS OF EACH SEX (SECTION 403.3):  
THE OCCUPANT LOAD SHALL BE COMPOSED OF 50% OF EACH SEX

REQUIRED DRINKING FOUNTAINS (SECTION 419.2):  
UP TO 50% OF THE REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCETS DESIGNED FOR FILLING A CONTAINER AT LEAST 10" IN HEIGHT.

URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50% OF THE REQUIRED WATER CLOSETS.

SUBSTITUTION FOR WATER CLOSETS (SECTION 419.2):  
URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50% OF THE REQUIRED WATER CLOSETS.

Warning: It is a violation of the New York State Architecture Law, §16-010, for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

8	25 FEB 2015	ISSUED FOR BUILDING PERMIT
7	30 JAN 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

No. Date Description

Sheet Name:

CODE ANALYSIS - LEVEL 33-38

Project No.: 207150	B-SCAN Sheet No.: A-021.00
Date: 25 FEB 2015	Sheet No.: A-021
Scale: 1/16" = 1'-0"	Page No.: 15 OF 30
File No.: A-021	



Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

SOM  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering  
Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Bluffside Ave, Suite 1, Mill Valley, California 94941

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geotechnical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street, New York, NY 10122

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Venter & Santoro  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph Ontario, Canada N1K 1B8

Key Plan:

33RD STREET  
9TH AVENUE  
31ST STREET

Seal & Signature:

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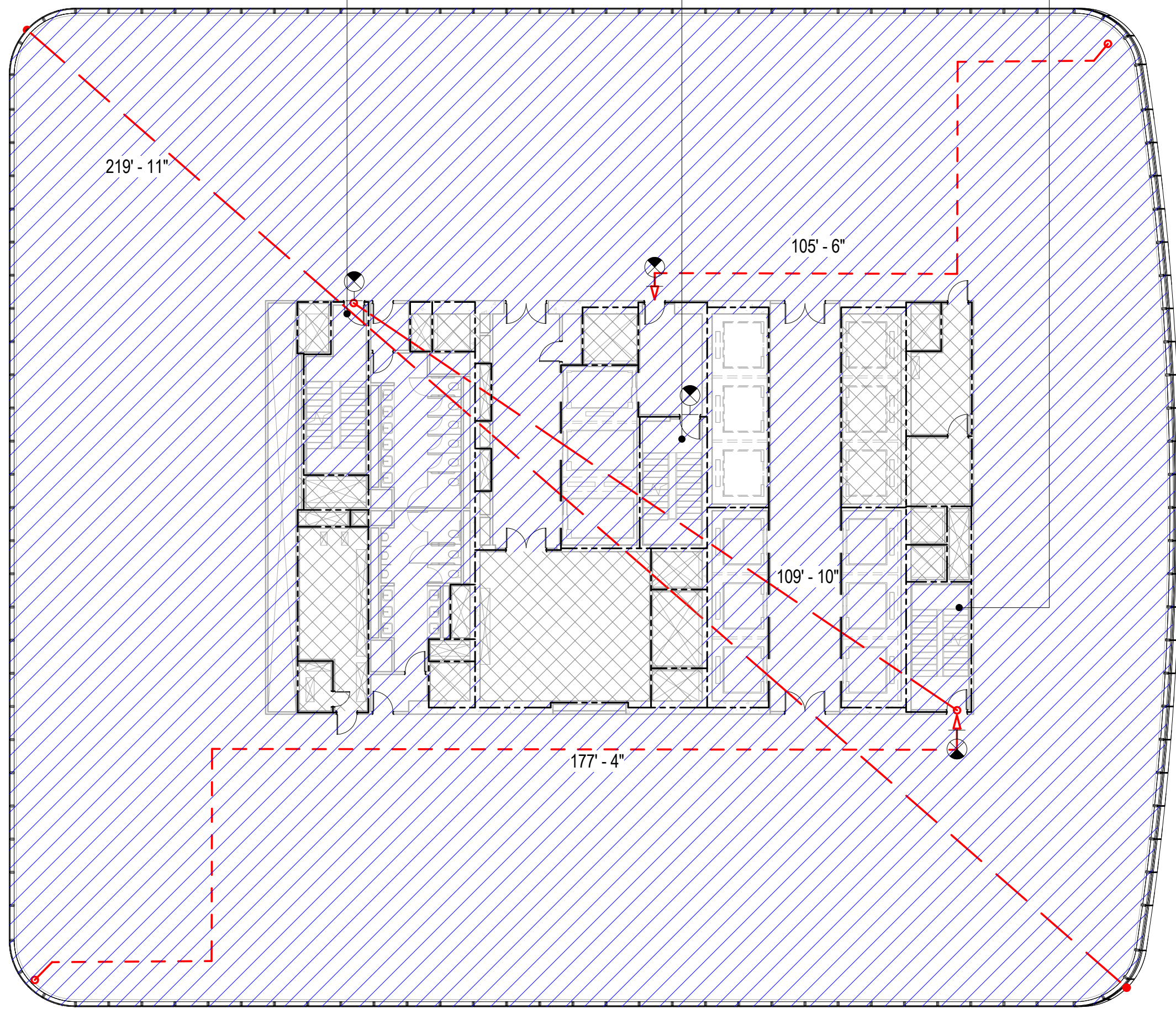


1

LEVEL 57-58

SCALE: 1/16" = 1'-0"

EXIT STAIR B	TOTAL CAPACITY: 147	EXIT STAIR A	TOTAL CAPACITY: 147	EXIT STAIR C	TOTAL CAPACITY: 147
STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3	STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3	STAIR WIDTH: 44"	OCCUPANCY FACTOR: 0.3
STAIR CAPACITY: 147 PEOPLE		STAIR CAPACITY: 147 PEOPLE		STAIR CAPACITY: 147 PEOPLE	
DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2	DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2	DOOR WIDTH: 34"	OCCUPANCY FACTOR: 0.2
DOOR CAPACITY: 170 PEOPLE		DOOR CAPACITY: 170 PEOPLE		DOOR CAPACITY: 170 PEOPLE	



EGRESS CAPACITY - LEVEL 57-58					
STAIR	CLEAR STAIR WIDTH	STAIR OCC. FACTOR	STAIR OCC. TOTAL	CLEAR DOOR WIDTH	DOOR OCC. FACTOR
A	44	0.3	147	34	0.2
B	44	0.3	147	34	0.2
C	44	0.3	147	34	0.2
Grand total					

OCCUPANT LOAD - LEVEL 57-58			
USE OF SPACE	AREA	FLOOR AREA PER OCCUPANT	TOTAL OCCUPANT LOAD
BUSINESS	23768 SF	100 SF	238
MECHANICAL / STORAGE	2060 SF	300 SF	7
Grand total	25828 SF		245

PLUMBING FIXTURE CALCULATION - LEVEL 57-58					
FIXTURE TYPE	REQUIRED			PROVIDED <sup>1,2</sup>	
	MALE	FEMALE		MALE	FEMALE
WATER CLOSETS	3	5		3	6
URINALS	2	-		3	-
LAVATORIES	5	5		6	6
DRINKING FOUNTAINS	3			0	
BATH TUBS / SHOWERS		0			0
SERVICE SINKS		1		1	

1. PLUMBING FIXTURE REQUIREMENTS FOR BUSINESS OCCUPANCY ARE BASED ON POPULATION DENSITY OF 100 GROSS SQ. FT. PER PERSON BASED ON CHAPTER 3 OF THE 2008 NEW YORK CITY BUILDING CODE & INTRO 605A OF THE NEW YORK CITY PLUMBING CODE) AND A 50/50 SPLIT BETWEEN MALE AND FEMALE OCCUPANTS.

2. FULFILLMENT OF REQUIRED DRINKING FOUNTAINS FOR TENANT OFFICE AND RETAIL SPACE TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC-403 OF THE 2008 NEW YORK CITY PLUMBING CODE. WHERE DRINKING FOUNTAINS ARE REQUIRED, UP TO 50% OF REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCET DESIGNED FOR FILLING A CONTAINER AT LEAST 10 INCHES IN HEIGHT.

3. PROVISION FOR REQUIRED PLUMBING FIXTURES AT CELLAR B1, CELLAR B AND GROUND FLOOR ARE ACCOMMODATED AT THE CELLAR B LEVEL AS PER SECTION 403 OF THE NEW YORK CITY PLUMBING CODE.

4. FULFILLMENT OF REQUIRED TOILET FACILITIES WITHIN TENANT RETAIL SPACE FOR CUSTOMERS, PATRONS AND VISITORS TO BE PROVIDED BY TENANT WHERE REQUIRED AS PER SECTION PC-403.6 OF THE 2008 NEW YORK CITY PLUMBING CODE.

## BUILDING CODE

BUILDING CODE OF THE CITY OF NEW YORK - 2008 EDITION, UNLESS OTHERWISE NOTED.

### OCCUPANCY CLASSIFICATION

DESIGNATIONS FOR THE BUILDING (SECTION BC 301-312):

A-2 ASSEMBLY  
B BUSINESS (PRIMARY)  
M MERCANTILE  
S-1 MODERATE-HAZARD STORAGE  
F-2 LOW-HAZARD FACTORY INDUSTRIAL

### CONSTRUCTION CLASSIFICATION

CONSTRUCTION TYPE FOR THE BUILDING (TABLE 503): 1A

FIRE RESISTANCE REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601 & 602):

BUILDING ELEMENT	FIRE RATING
STRUCTURAL FRAME	3 HRS
BEARING WALLS (EXTERIOR)	3 HRS
BEARING WALLS (INTERIOR)	3 HRS
NONBEARING WALLS & PARTITIONS (EXTERIOR)	1 HR
SEPARATION BETWEEN 5'-0" AND 10'-0"	1 HR
SEPARATION BETWEEN 10'-0" AND 30'-0"	0 HRS
SEPARATION GREATER OR EQUAL TO 30'-0"	2 HRS
NONBEARING WALLS & PARTITIONS (INTERIOR)	0 HRS
FLOOR CONSTRUCTION	2 HRS
ROOF CONSTRUCTION	1.5 HR

### BUILDING LIMITATIONS

AREA, HEIGHT & # OF STORIES (TABLE 503):

CLASS 1A CONSTRUCTION: NO LIMIT FOR HEIGHT, AREA, OR # OF STORIES

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

### FIRE SEPARATION

BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

OCCUPANCY SEPARATION NEED NOT BE PROVIDED FOR STORAGE AREAS SERVING GROUP B OR IF ANY OF THE FOLLOWING CONDITIONS APPLY (TABLE 508.3):

- THE STORAGE AREA IS LESS THAN 10% OF THE FLOOR AREA AND LESS THAN 3,000 SF  
- THE STORAGE AREA IS PROVIDED WITH AN AUTOMATIC FIRE-EXTINGUISHING SYSTEM AND IS LESS THAN 3,000 SF  
- THE STORAGE AREA IS LESS THAN 1,000 SF

SPACES OCCUPIED BY DIFFERENT TENANTS SHALL BE SEPARATED BY FIRE BARRIERS HAVING AT LEAST 1-HOUR FIRE RESISTANCE RATINGS (SECTION 509.9).

### MEANS OF EGRESS

EXIT ACCESS TRAVEL DISTANCE (TABLE 1015.1)

OCCUPANCY

	PRIMARY	SECONDARY
A-2	150	250
B	150	250
M	200	200
S-1	200	200
S-2	250	250
F-2	250	250

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT OR EXIT ACCESS REMOTENESS (SECTION 1014.2.1):

MIN. EXIT REMOTENESS: 1/2 THE MAX. DIAGONAL DISTANCE

MIN. EXIT REMOTENESS (SPRINKLERED): 1/3 THE MAX. DIAGONAL DISTANCE

DEAD ENDS (1016.3):

MAX. DEAD END LENGTH (GROUP B, F): 50'-0"

COMMON PATH OF EGRESS TRAVEL (1013.3):

MAX. COMMON PATH OF EGRESS (GROUP B, F, S): 100'-0"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

DOOR WIDTH (SECTION 1008.1.1.1):

MIN. DOOR CLEAR WIDTH (SINGLE LEAF): 32"

MIN. DOOR CLEAR WIDTH (DOUBLE LEAF): 32" FOR A SINGLE LEAF

MAX. DOOR CLEAR WIDTH (PER LEAF): 48"

STAIRWAY WIDTH (SECTION 1009.1):

MIN. STAIRWAY WIDTH: 44"

CORRIDOR WIDTH (SECTION 1015.2):

MIN. CORRIDOR WIDTH: 44"

\*BUILDING IS FULLY SPRINKLERED IN ACCORDANCE WITH SECTION 903.3.1.1

EXIT ENVELOURE FIRE RATING REQUIREMENTS (SECTION 1019.1):

MIN. FIRE RATING REQUIREMENT: 2 HRS

EXIT DOOR FIRE RATING REQUIREMENTS (TABLE 715.3):

MIN. FIRE RATING REQUIREMENT: 1.5 HRS

STAIR REQUIREMENTS (SECTION 1009.2 & 1009.3):

MIN. HEADROOM: 8'-0"

MIN. RISER HEIGHT: 4"

MAX. RISER HEIGHT: 7"

MIN. TREAD DEPTH: 11"

### PLUMBING FACILITIES

(2008 NEW YORK CITY PLUMBING CODE)

MINIMUM NUMBER OF FIXTURES (SECTION 403.1):

PLUMBING FIXTURES SHALL BE PROVIDED FOR THE TYPE OF OCCUPANCY AND IN THE MINIMUM NUMBER SHOWN IN TABLE 403.1. TYPES OF OCCUPANCIES NOT SHOWN IN TABLE 403.1 SHALL BE CONSIDERED INDIVIDUALLY BY THE COMMISSIONER.

THE NUMBER OF OCCUPANTS AND OCCUPANCY CLASSIFICATION SHALL BE DETERMINED BY THE NEW YORK CITY BUILDING CODE

MIN. NO. OF PLUMBING FIXTURES (TABLE 403.1)

OCC. WC (AV. TUR. DRINKING) OTHER

A-2 175 175 1 1500 1 SVC SINK

B 200 200 1 1100 1 SVC SINK

M SEE CHART BELOW 11500 1 SVC SINK

S-1 1100 1100 11000 SEE 411 1 SVC SINK

S-2 1100 1100 11000 SEE 411 1 SVC SINK

F-2 1100 1100 SEE 411 11 PER 400 1 SVC SINK

BUSINESS PLUMBING FIXTURE REQUIREMENT (TABLE 403.1)

WATER CLOSETS & URINALS LAVATORIES

# OF PERSONS # OF FIXTURES # OF PERSONS # OF FIXTURES

1-20 1 1-25 1

21-45 2 26-50 2

46-70 3 51-75 3

71-100 4 76-115 4

101-140 5 116-160 5

141-190 1 FIXTURE PER ADDITIONAL 60 PERSONS

1 FIXTURE PER ADDITIONAL 60 PERSONS

NUMBER OF OCCUPANTS OF EACH SEX (SECTION 403.3):

THE OCCUPANT LOAD SHALL BE COMPOSED OF 50% OF EACH SEX

REQUIRED DRINKING FOUNTAINS (SECTION 419.2):

UP TO 50% OF THE REQUIRED DRINKING FOUNTAINS MAY BE SUBSTITUTED BY DEDICATED PLUMBING FIXTURES WITH FAUCETS DESIGNED FOR FILLING A CONTAINER AT LEAST 10" IN HEIGHT.

SUBSTITUTION FOR WATER CLOSETS (SECTION 419.2):

URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50% OF THE REQUIRED WATER CLOSETS.

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Project No.: 207150

Date: 29 FEB 2015

Scale: 1/16" = 1'-0"

File No.: A-027

Sheet Name:

CODE ANALYSIS - LEVEL 57-58

Project No.: 207150

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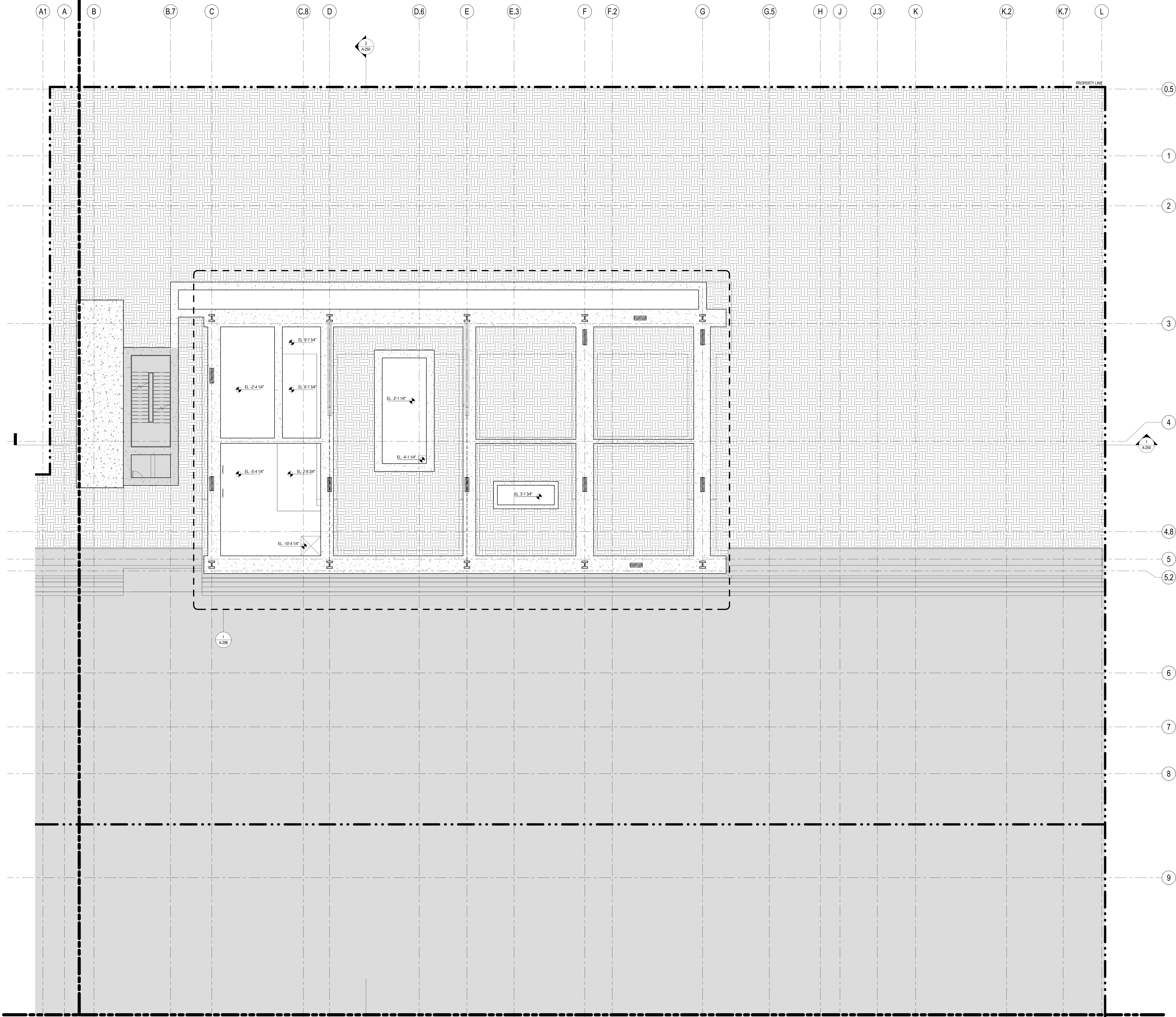
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CODE ANALYSIS - LEVEL 57-58

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SHEET NOTES

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2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (0570).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/CEILING SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED DEVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/FAS DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION/ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.



MANHATTAN WEST:  
NORTH TOWER  
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50 Washington Street, Norwalk, CT 06854

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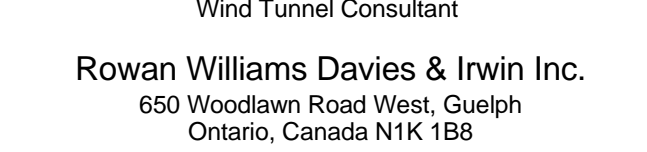
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

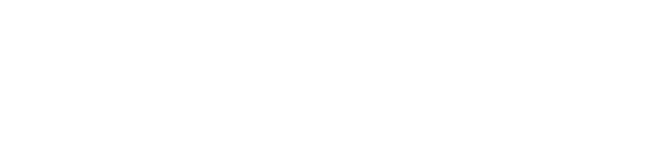
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Entek Engineering LLC  
186 Ames Street, Hackensack, NJ 07601

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Key Plan:



Seal & Signature:



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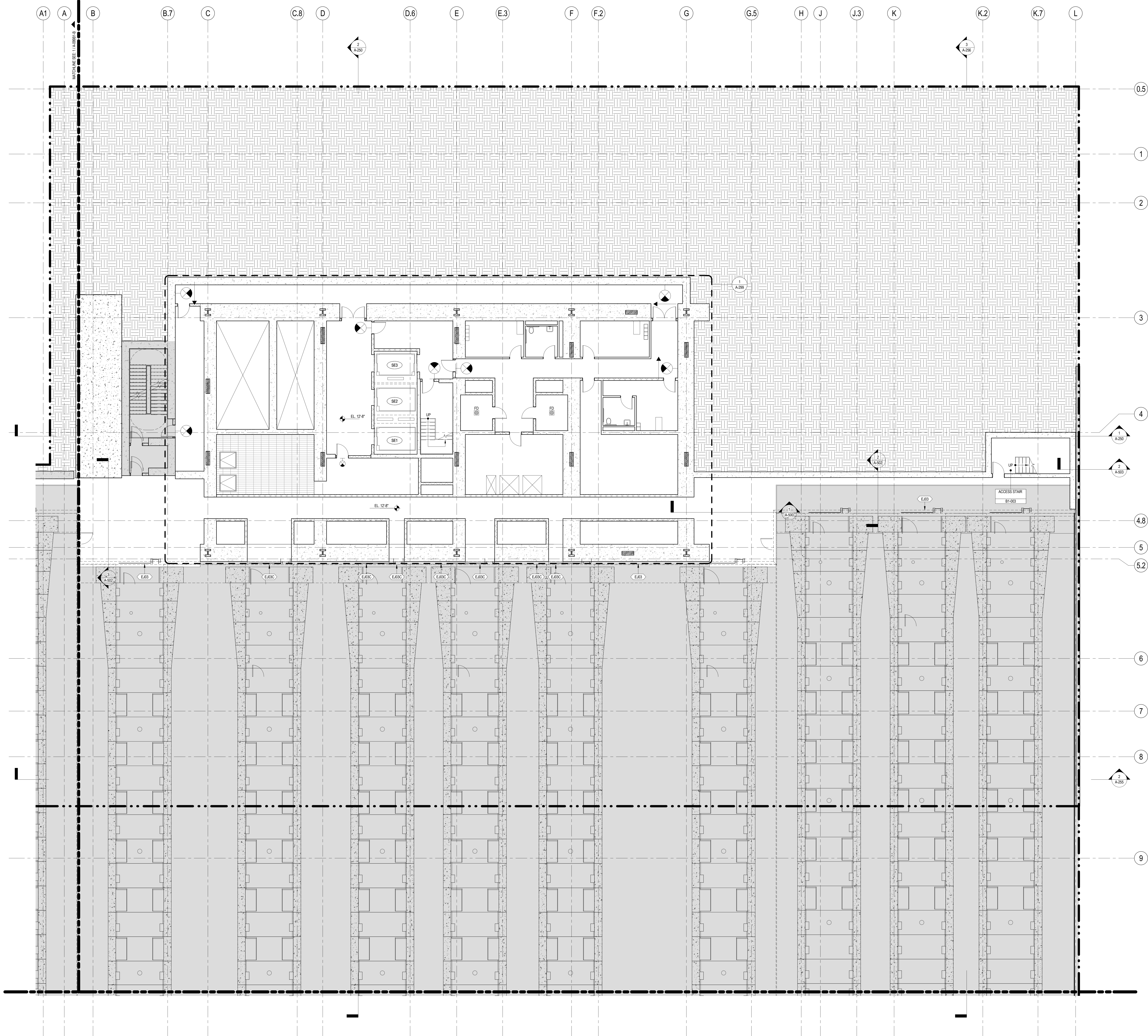
No.	Date	Description
4	20 JUN 2014	ISSUED FOR FOUNDATION BID
3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	19 NOV 2013	ISSUED FOR BID PROGRESS PRICING

Project No.: 207150  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No.: A-098B1P

B-SCAN Sheet No.: A-094.00  
Sheet No.: A-098B1P  
Page No.: 17 OF 37

CELLAR B1 PIT PLAN





# SHEET NOTES

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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-800 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/PA/AS/CT/EL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.
13. EXISTING DIMENSIONS AND CONDITIONS FOR THE ADJACENT LOFT BUILDING MUST BE CHECKED AND VERIFIED BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THESE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT OF RECORD.
14. THE PROJECT MUST SATISFY ALL APPLICABLE SEISMIC DESIGN PROVISIONS INDICATED IN SECTION BC 1910 OF THE 2008 NEW YORK CITY BUILDING CODE. REFER TO THE STRUCTURAL CALCULATION BOOK (ISSUED ON JUNE 20, 2014) FOR SEISMIC LOAD DESIGN PARAMETERS.



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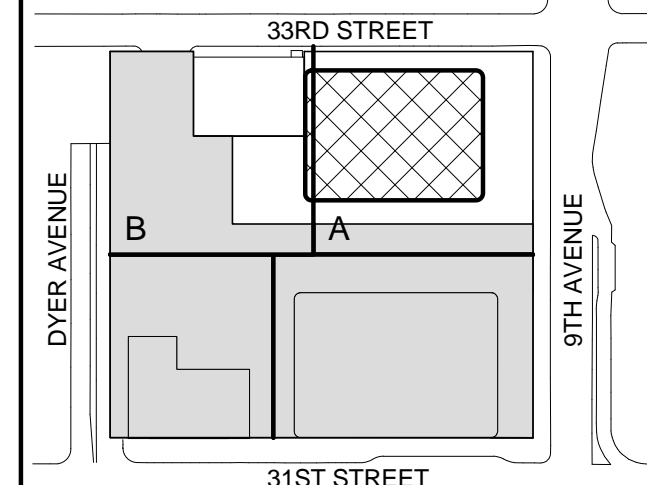
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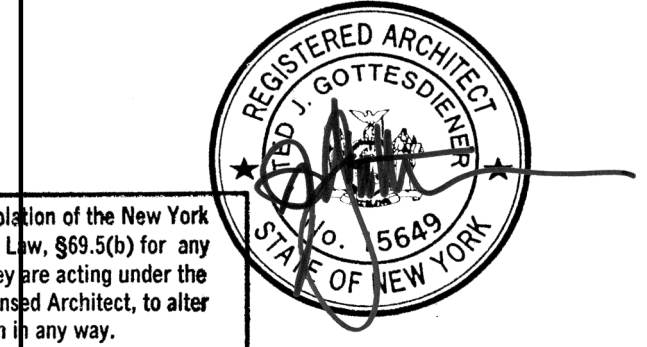
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Key Plan:



Seal & Signature:



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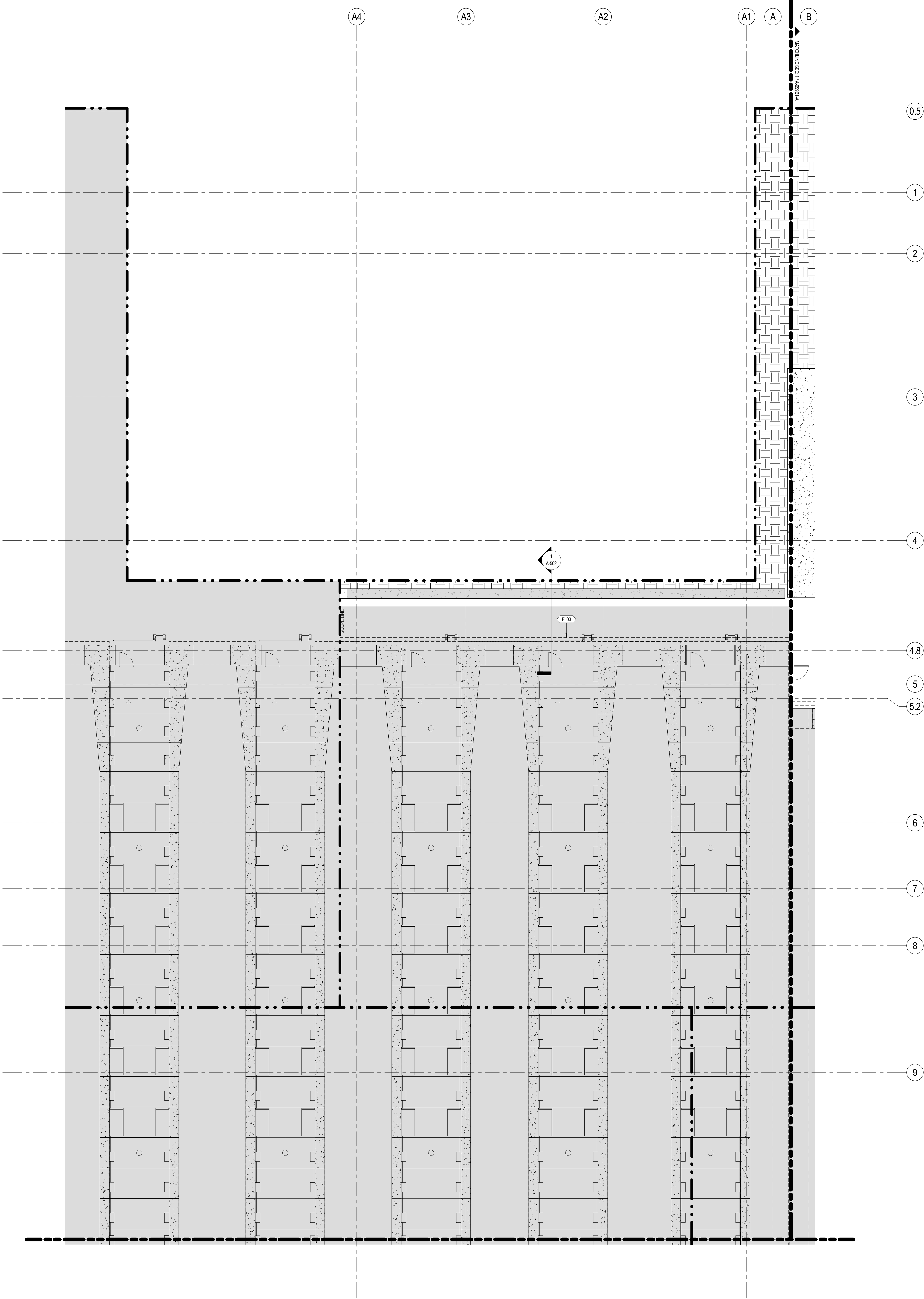
No.	Date	Description
7	1 APR 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

Sheet Name:

**CELLAR B1  
FLOOR PLAN -  
PART A**

Project No.: 207150	B-SCAN Sheet No.: A-095.00
Date: 1 APR 2015	Sheet No.: A-099B1-A
Scale: 1/8" = 1'-0"	Page No.: 18 OF 30
File No.: A-099B1-A	





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250 State Street #F1, North Haven, CT 06473

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Weidinger Associates, Inc.  
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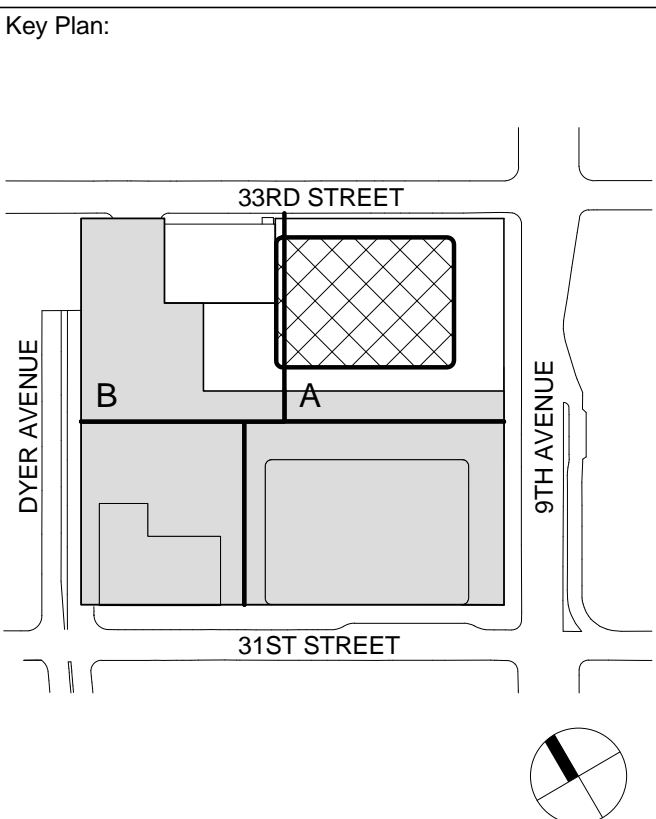
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404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
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65 Broadway, Suite 401, New York, NY 10006

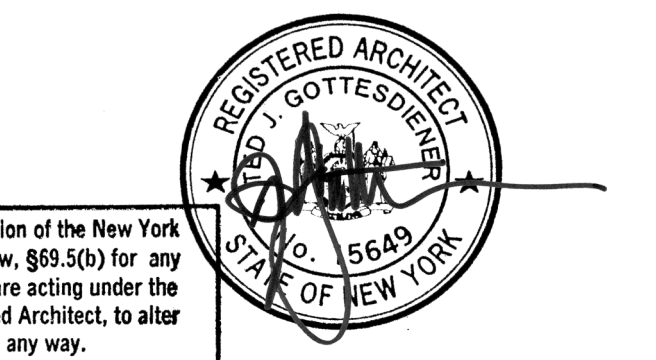
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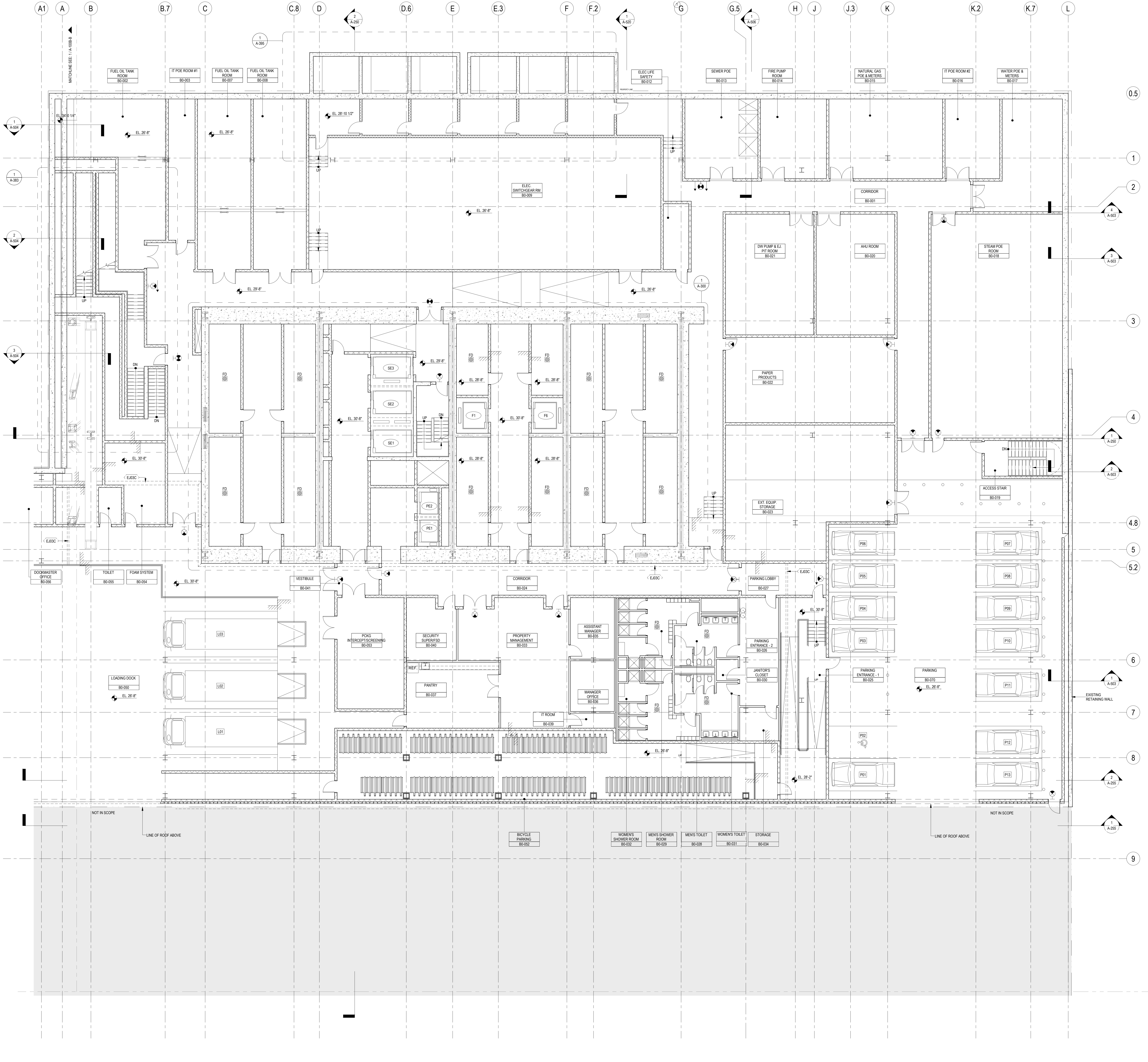
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3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

**CELLAR B1  
FLOOR PLAN -  
PART B**

Project No.: 207150	B-SCAN Sheet No.: <b>A-096.00</b>
Date: 1 APR 2015	Sheet No.: <b>A-099B1-B</b>
Scale: 1/8" = 1'-0"	Page No.: 19 OF 30
File No.: A-099B1-B	





## SHEET NOTES

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2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. C-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. C-005.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 08110.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE 05 UNO.
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Key Plan:

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No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

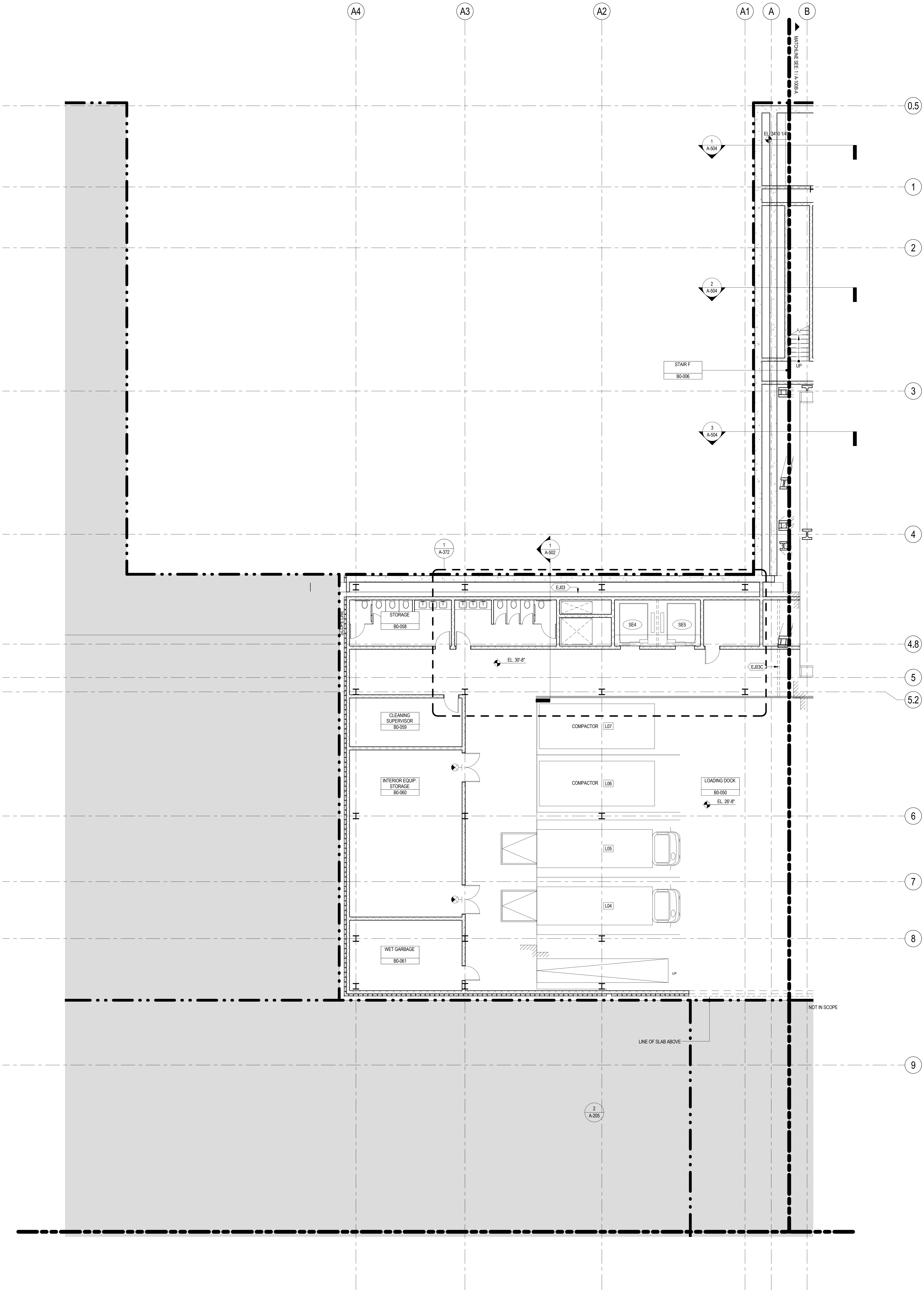
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**CELLAR B FLOOR  
PLAN - PART A**

Project No.: 207120  
Date: 16 JUL 2015  
Scale: 1/8" = 1'-0"  
File No.: A-100B-A

B-SCAN Sheet No.:  
**A-097.00**  
Sheet No.: A-100B-A  
Page No.: 20 OF 30





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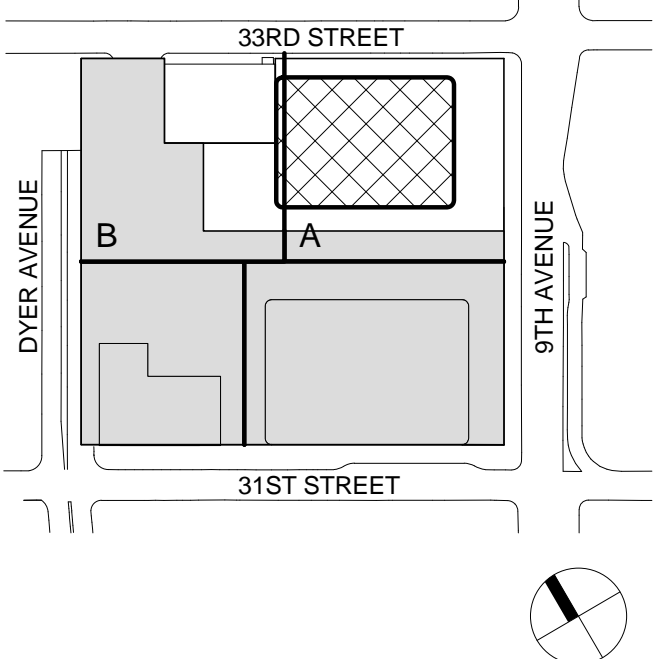
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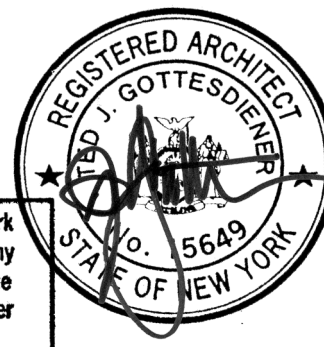
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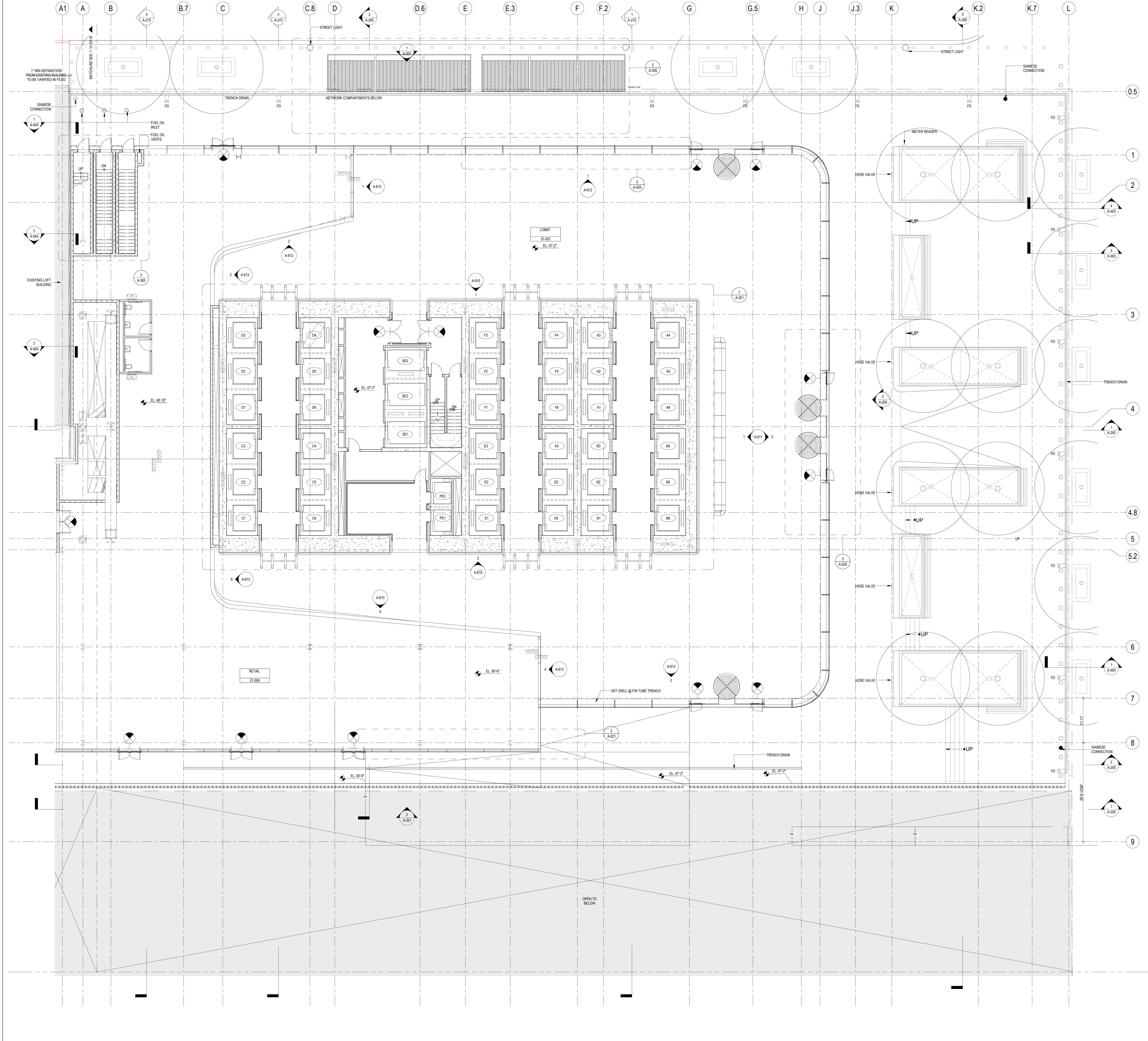
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Sheet Name:

**CELLAR B FLOOR  
PLAN - PART B**

Project No.: 207150	B-SCAN Sheet No.: <b>A-098.00</b>
Date: 1 APR 2015	Sheet No.: <b>A-100B-B</b>
Scale: 1/8" = 1'-0"	Page No.: 21 OF 30
File No.: A-100B-B	




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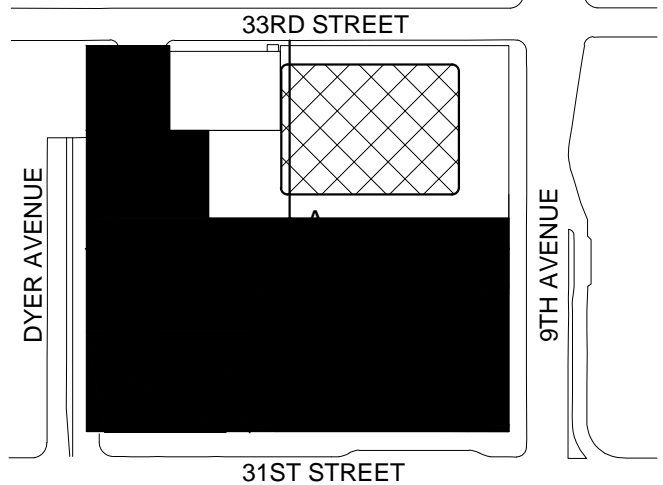
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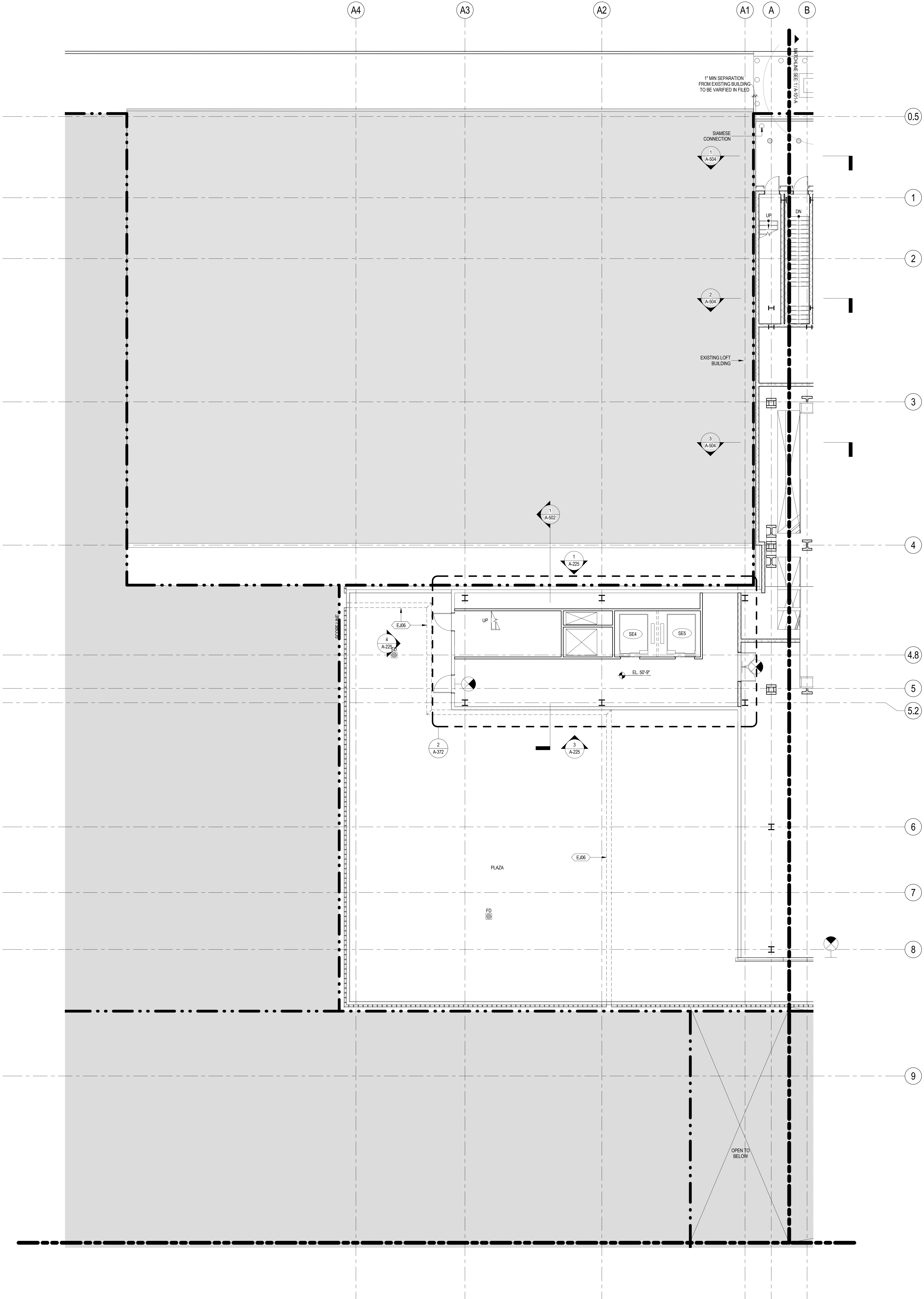
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Sheet Name:

## GROUND FLOOR PLAN - PART A


Project No.:	207120	B-SCAN Sheet No.:	A-100.00
Date:	16 JUL 2015	Sheet No.:	A-101-A
Scale:	1/8" = 1'-0"	Page No.:	22 OF 30
File No.:	A-101-A		





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5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 057010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
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8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPPFA56CITEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/VALVE MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, LND.
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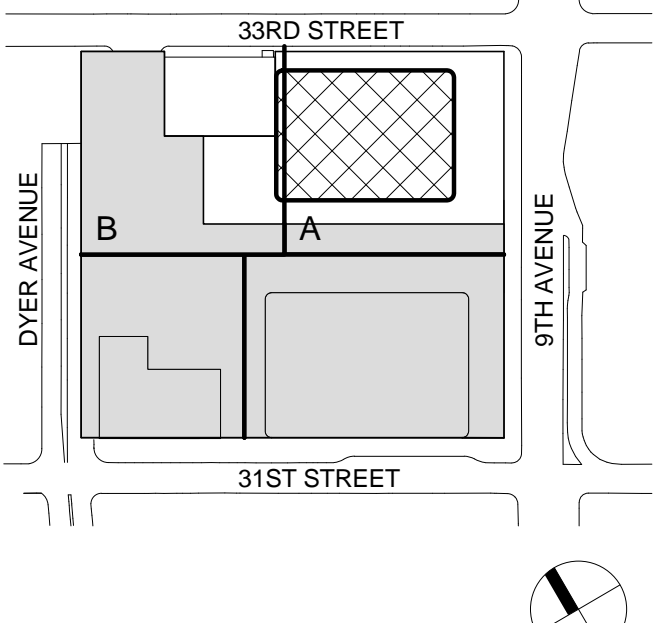
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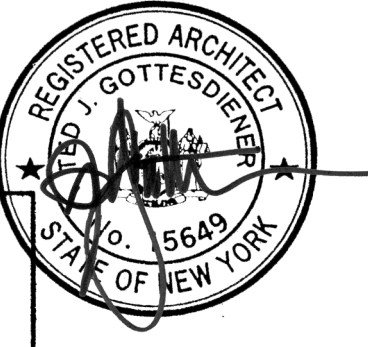
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Key Plan:



Seal & Signature:



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Sheet Name:

**GROUND FLOOR  
PLAN - PART B**

Project No.: 207150	B-SCAN Sheet No.: <b>A-101.00</b>
Date: 1 APR 2015	Sheet No.: <b>A-101-B</b>
Scale: 1/8" = 1'-0"	Page No.: 23 OF 30
File No.: A-101-B	



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11. REFER TO MEPP/FAS/CIT/L FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.
13. EXISTING DIMENSIONS AND CONDITIONS FOR THE ADJACENT LOFT BUILDING MUST BE CHECKED AND VERIFIED BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THESE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT OF RECORD.
14. THE PROJECT MUST SATISFY ALL APPLICABLE SEISMIC DESIGN PROVISIONS INDICATED IN SECTION BC 1910 OF THE 2008 NEW YORK CITY BUILDING CODE. REFER TO THE STRUCTURAL CALCULATION BOOK ISSUED ON JUNE 20, 2014 FOR SEISMIC LOAD DESIGN PARAMETERS.



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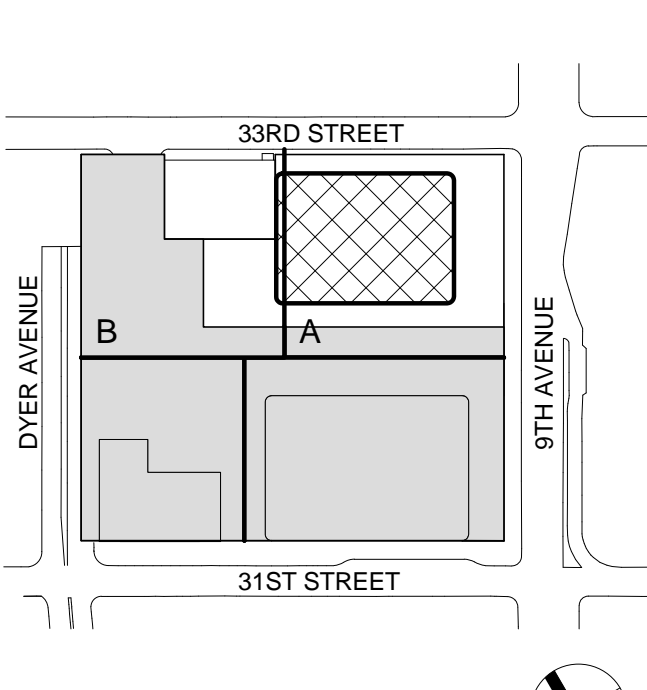
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Key Plan:



Seal & Signature:



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7	1 APR 2015	ISSUED FOR BUILDING PERMIT
6	26 FEB 2015	ISSUED FOR BUILDING PERMIT
5	30 JUN 2015	ISSUED FOR BUILDING PERMIT
4	20 JUN 2014	ISSUED FOR FOUNDATION BID
3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	19 NOV 2013	ISSUED FOR BID PROGRESS PRICING

No. Date Description

Sheet Name:

**LEVEL 2 FLOOR  
PLAN - RETAIL**

Project No.: 207150

Date: 1 APR 2015

Scale: 1/8" = 1'-0"

File No.: A-102

B-SCAN Sheet No.: A-102.00

Sheet No.: A-102

Page No.: 24 OF 30



SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 05101.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPPH/AGC/ETC. SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.
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14. THE PROJECT MUST SATISFY ALL APPLICABLE SEISMIC DESIGN PROVISIONS INDICATED IN SECTION BC 1910 OF THE 2008 NEW YORK CITY BUILDING CODE. REFER TO THE STRUCTURAL CALCULATION BOOK (ISSUED ON JUNE 20, 2014) FOR SEISMIC LOAD DESIGN PARAMETERS.



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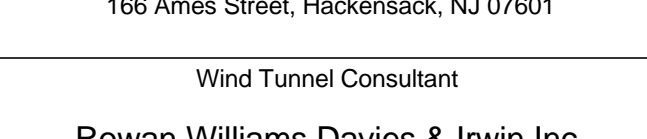
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Key Plan:



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6	1 APR 2015	ISSUED FOR BUILDING PERMIT
5	30 JUN 2015	ISSUED FOR BUILDING PERMIT
4	20 JUN 2014	ISSUED FOR FOUNDATION BID
3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	19 NOV 2012	ISSUED FOR DD PROGRESS PRICING

No. Date Description

Sheet Name:

LEVEL 3 FLOOR  
PLAN - STAIR  
TRANSFER

Project No.: 207150

Date: 1 APR 2015

Scale: 1/8" = 1'-0"

File No.: A-103

Page No.: 25 OF 30

Sheet No.: A-103.00

Sheet No.: A-103

Sheet No.: A-103

Sheet No.: A-103

Sheet No.: A-103

Sheet No.: A-103

Sheet No.: A-103

Sheet No.: A-103

Sheet No.: A-103

Sheet No.: A-103



SHEET NOTES

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3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 05700.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, LND.
8. FOR REFLECTED CEILING PLANS SEE A-800 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FASSC/TEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED SERVICES.
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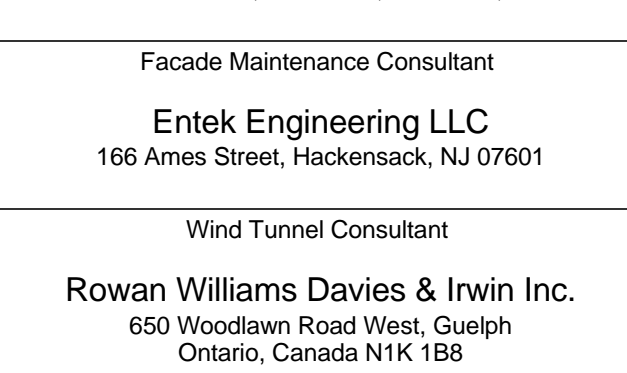
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No.	Date	Description
1	19 MAR 2012	ISSUED FOR RECONCILIATION
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
3	15 NOV 2013	ISSUED FOR 90% PROGRESS PRICING
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
7	30 JAN 2015	ISSUED FOR BUILDING PERMIT
8	1 APR 2015	ISSUED FOR BUILDING PERMIT

Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-104

B-SCAN Sheet No.:  
A-104.00  
Sheet No.:  
A-104  
Page No.: 26 OF 30

LEVEL 4 FLOOR  
PLAN -  
MECHANICAL



SHEET NOTES

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2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 05710.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, LND.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FASS/CTEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/PAINT MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, LND.
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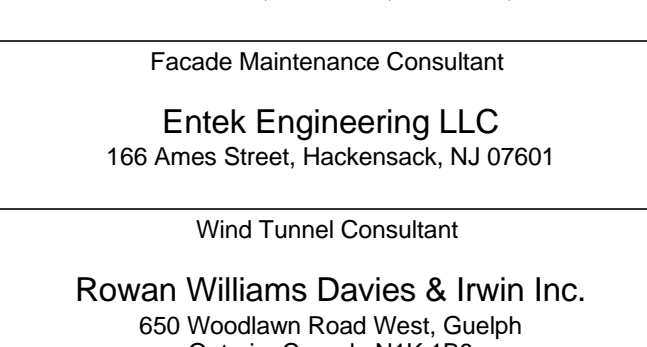
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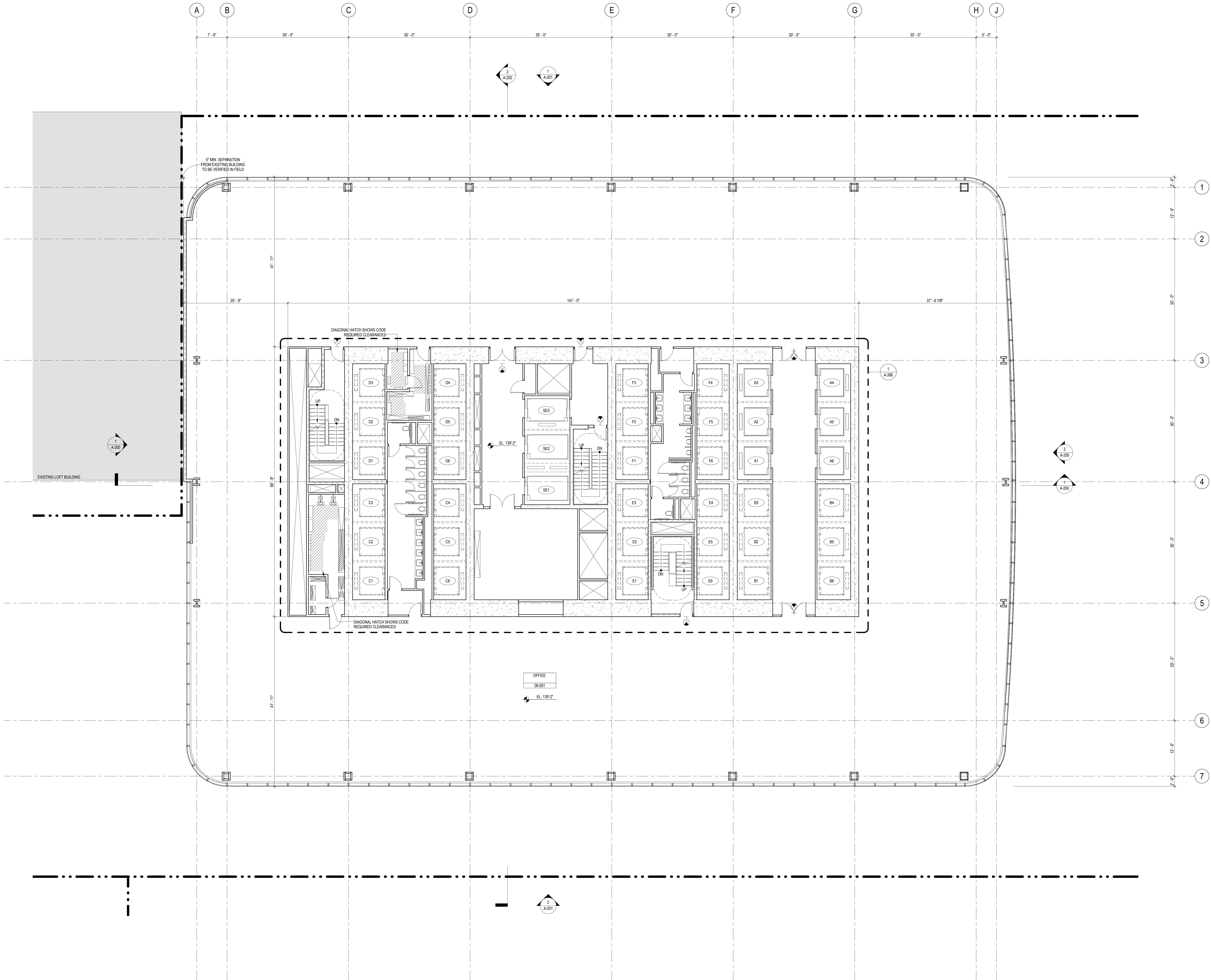
7	1 APR 2015	ISSUED FOR BUILDING PERMIT
6	30 JUN 2014	ISSUED FOR BUILDING PERMIT
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

No.	Date	Description
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
4	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
6	30 JUN 2014	ISSUED FOR BUILDING PERMIT
7	1 APR 2015	ISSUED FOR BUILDING PERMIT

LEVEL 5 FLOOR  
PLAN -  
MECHANICAL

Project No.: 207150	B-SCAN Sheet No.: A-105.00
Date: 1 APR 2015	Sheet No.: A-105
Scale: 1/8" = 1'-0"	Page No.: 27 OF 30
File No.: A-105	





SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE, SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (05101).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/CELT. SERVICE DRAWINGS FOR LOCATIONS OF ALL CEILING MOUNTED DEVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
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Key Plan:

33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

Seal & Signature:

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REGISTERED ARCHITECT  
STATE OF NEW YORK  
No. 5642

9 1 APR 2015 ISSUED FOR BUILDING PERMIT  
8 25 FEB 2015 ISSUED FOR BUILDING PERMIT  
7 30 JAN 2015 ISSUED FOR BUILDING PERMIT  
6 20 JUN 2014 ISSUED FOR FOUNDATION BID  
5 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
3 15 NOV 2013 ISSUED FOR 30% PROGRESS PRICING  
2 12 JUL 2013 ISSUED FOR 90% DESIGN DEVELOPMENT  
1 19 MAR 2013 ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

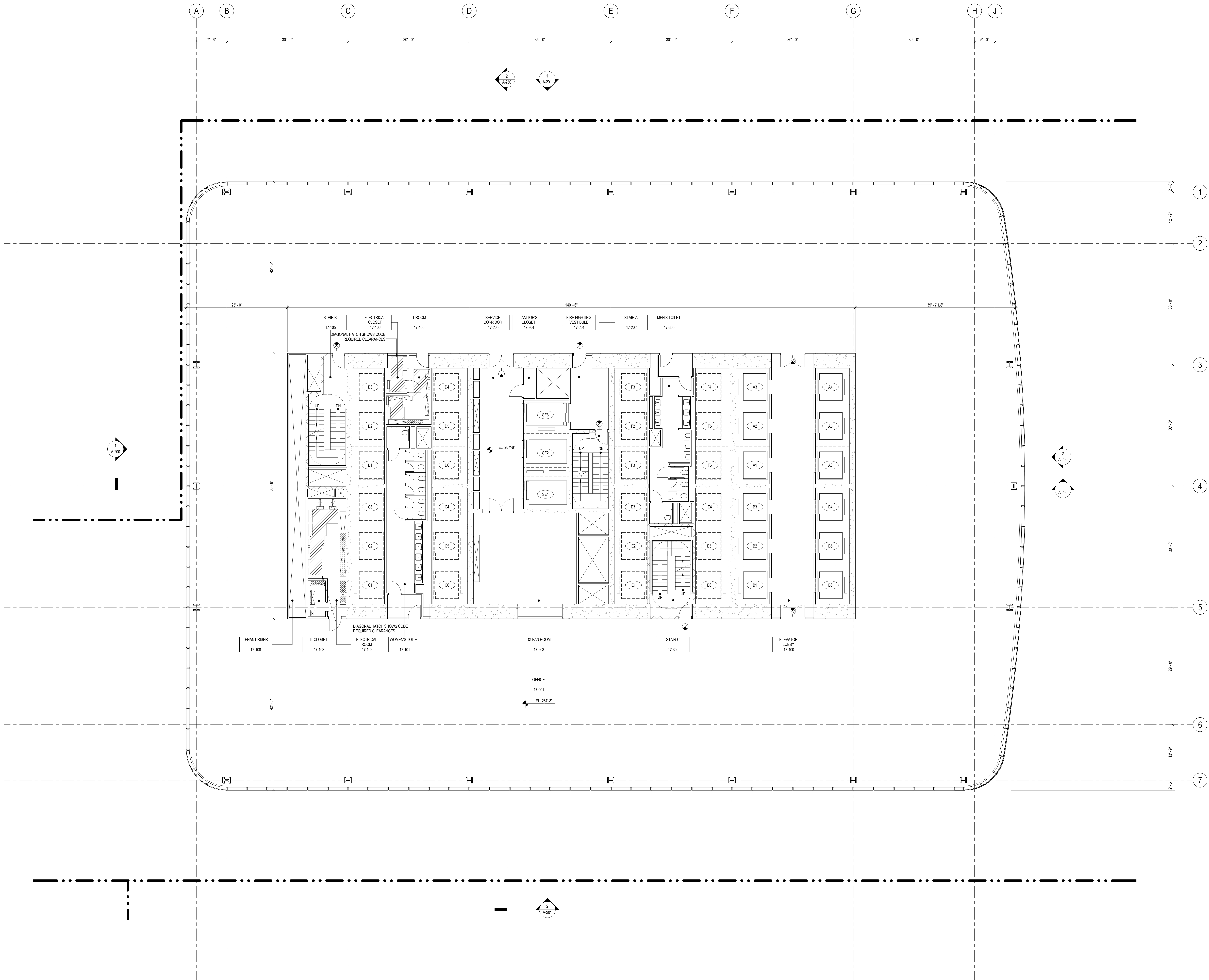
LEVEL 6-16  
FLOOR PLAN -  
TYPICAL  
LOW-RISE

Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-106

B-SCAN Sheet No.: A-106.00  
Sheet No.: A-106  
Page No.: 28 OF 30



3/30/2015 7:28:05 PM



## SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. C-005.
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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B701).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
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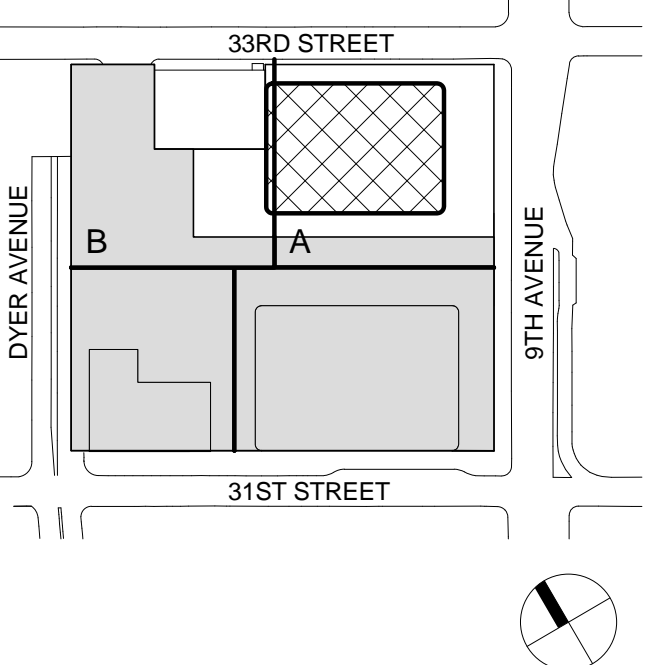
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215 West 40th Street, 15th Floor, New York, NY 10018

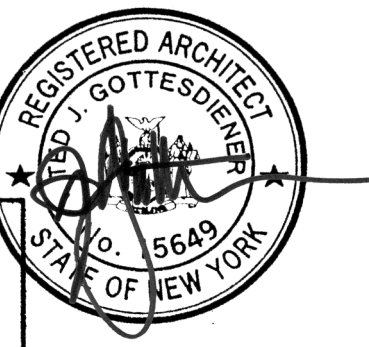
Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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No.	Date	Description
8	1 APR 2015	ISSUED FOR BUILDING PERMIT
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3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

Sheet Name:

**LEVEL 17 FLOOR  
PLAN - LOW-RISE**

Project No.: 207150	B-SCAN Sheet No.: <b>A-117.00</b>
Date: 1 APR 2015	Sheet No.: <b>A-117</b>
Scale: 1/8" = 1'-0"	Page No.: 29 OF 30
File No.: A-117	



SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. C-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. C-005.
4. FOR DOOR FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B510).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/PAGE/CITEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
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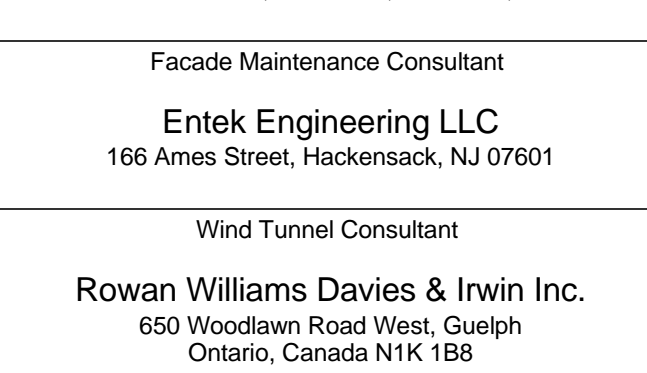
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Key Plan:



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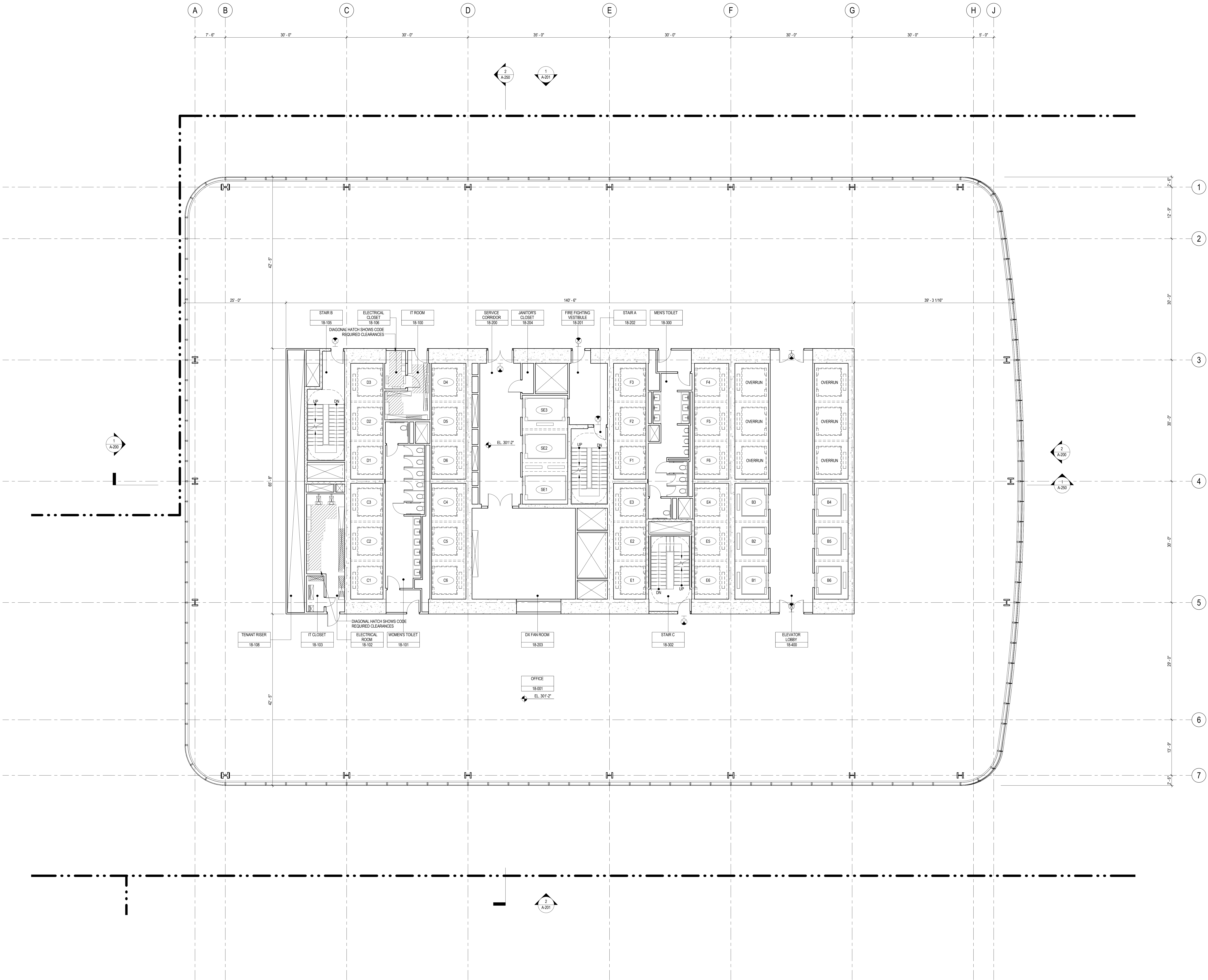


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Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-118

B-SCAN Sheet No.: A-118.00  
Sheet No.: A-118  
Page No.: 30 OF 30

LEVEL 18 FLOOR  
PLAN - LOW-RISE  
OVERRUN





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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
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Key Plan:

33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

Seal & Signature:

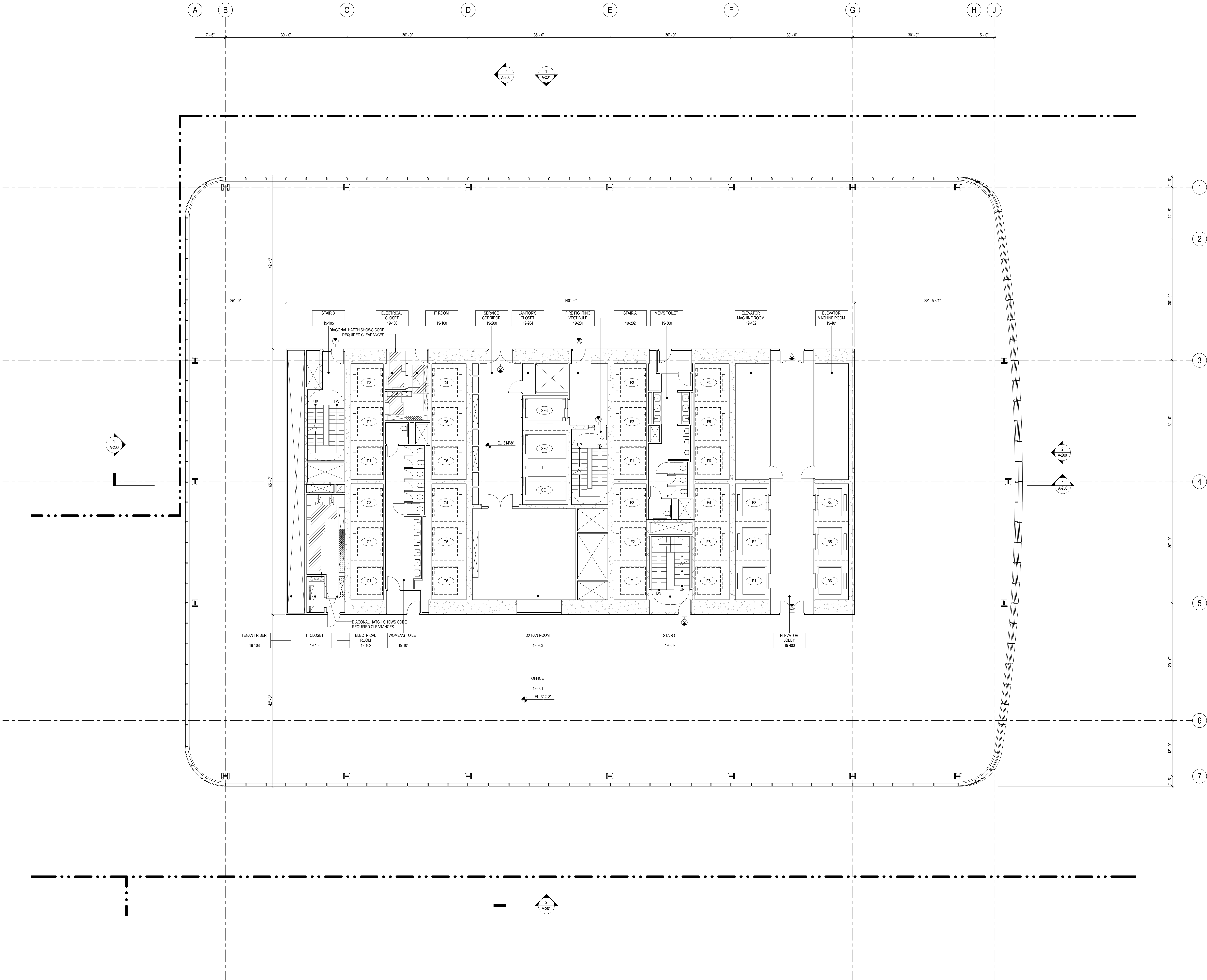
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REGISTERED ARCHITECT  
STATE OF NEW YORK  
JAMES J. BAKER  
No. 12564

Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-119

B-SCAN Sheet No.: A-119.00  
Sheet No.: A-119  
Page No.: 31 OF 30

LEVEL 19-20  
FLOOR PLAN -  
LOW-RISE EMR





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5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE, SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/PA/SC/TEL SERVICE DRAWINGS FOR LOCATIONS OF ALL CEILING WALL MOUNTED SERVICES.
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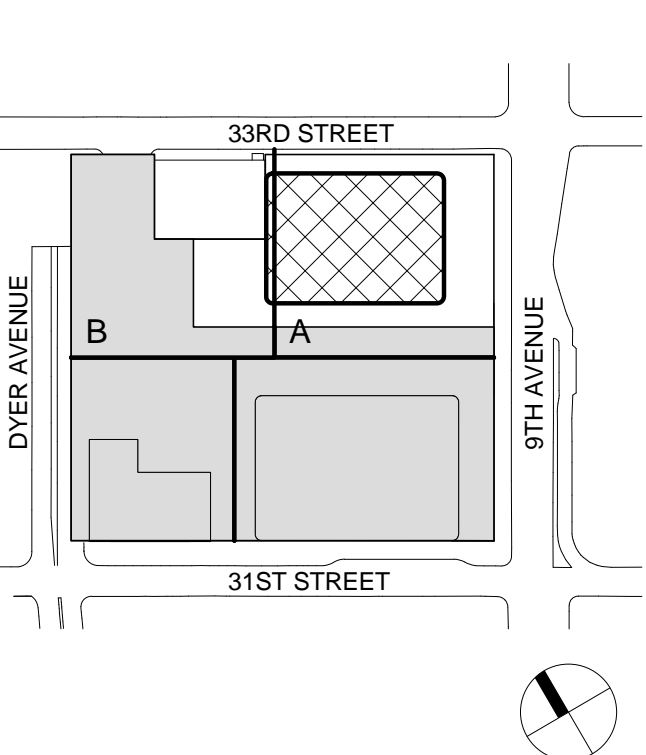
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Key Plan:



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8	1 APR 2015	ISSUED FOR BUILDING PERMIT
7	20 FEB 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

Sheet Name:

LEVEL 21-27  
FLOOR PLAN -  
TYPICAL  
LOW-RISE

Project No.:

207150

Date:

1 APR 2015

Scale:

1/8" = 1'-0"

B-SCAN Sheet No.:

A-121.00

Sheet No.:

A-121

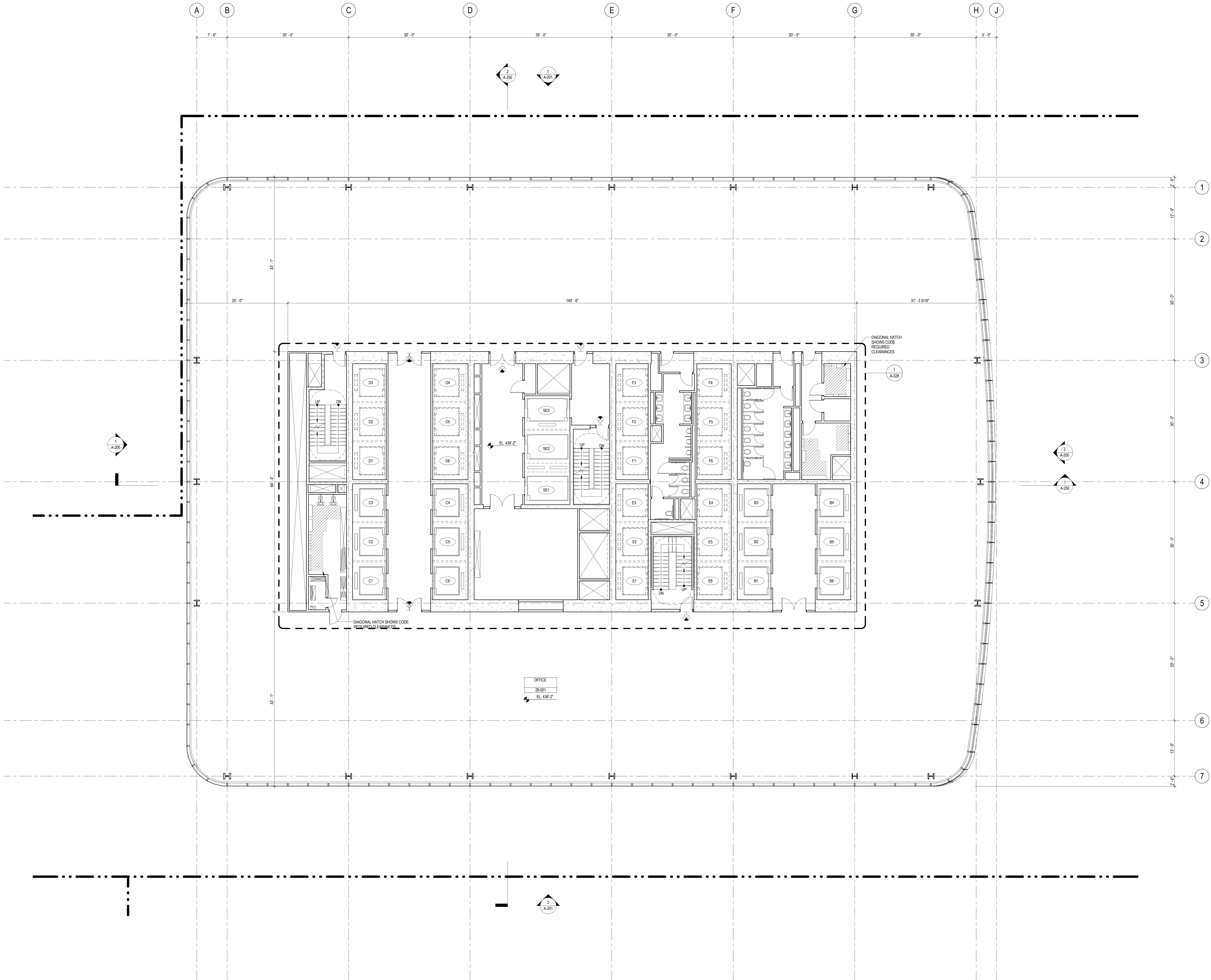
File No.:

A-121

Page No.:

32 OF 30





## SHEET NOTES

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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE, SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
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8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FACETS/TEL. SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING MOUNTED SERVICES.
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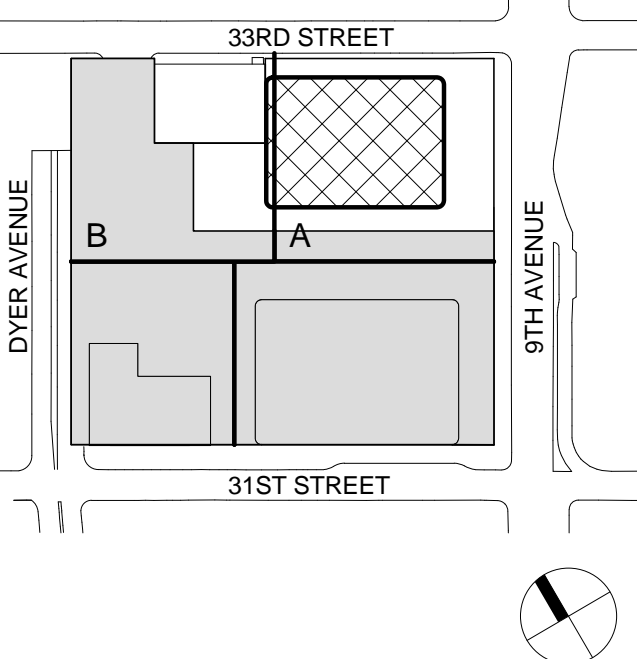
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Key Plan:



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Sheet Name:

**LEVEL 28 FLOOR  
PLAN - LOW-RISE  
& MID-RISE**

Project No.: 207150	B-SCAN Sheet No.: <b>A-128.00</b>
Date: 1 APR 2015	Sheet No.: <b>A-128</b>
Scale: 1/8" = 1'-0"	Page No.: 33 OF 30
File No.: A-128	

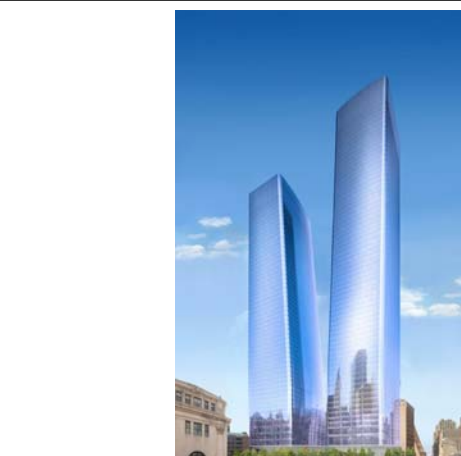






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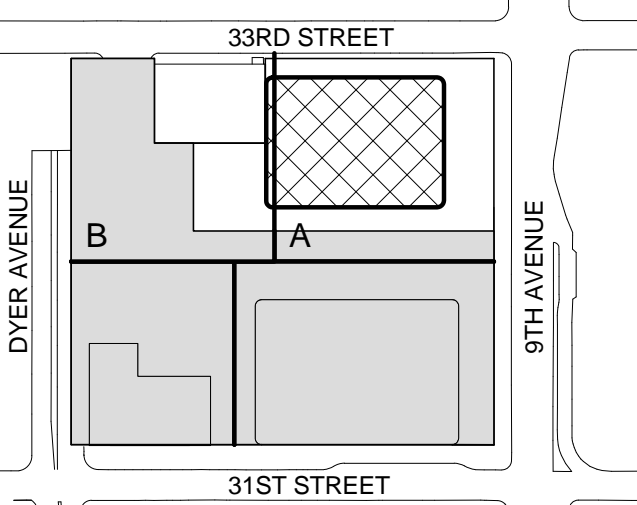
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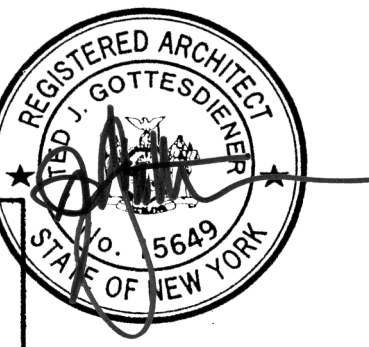
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Key Plan:



Seal & Signature:



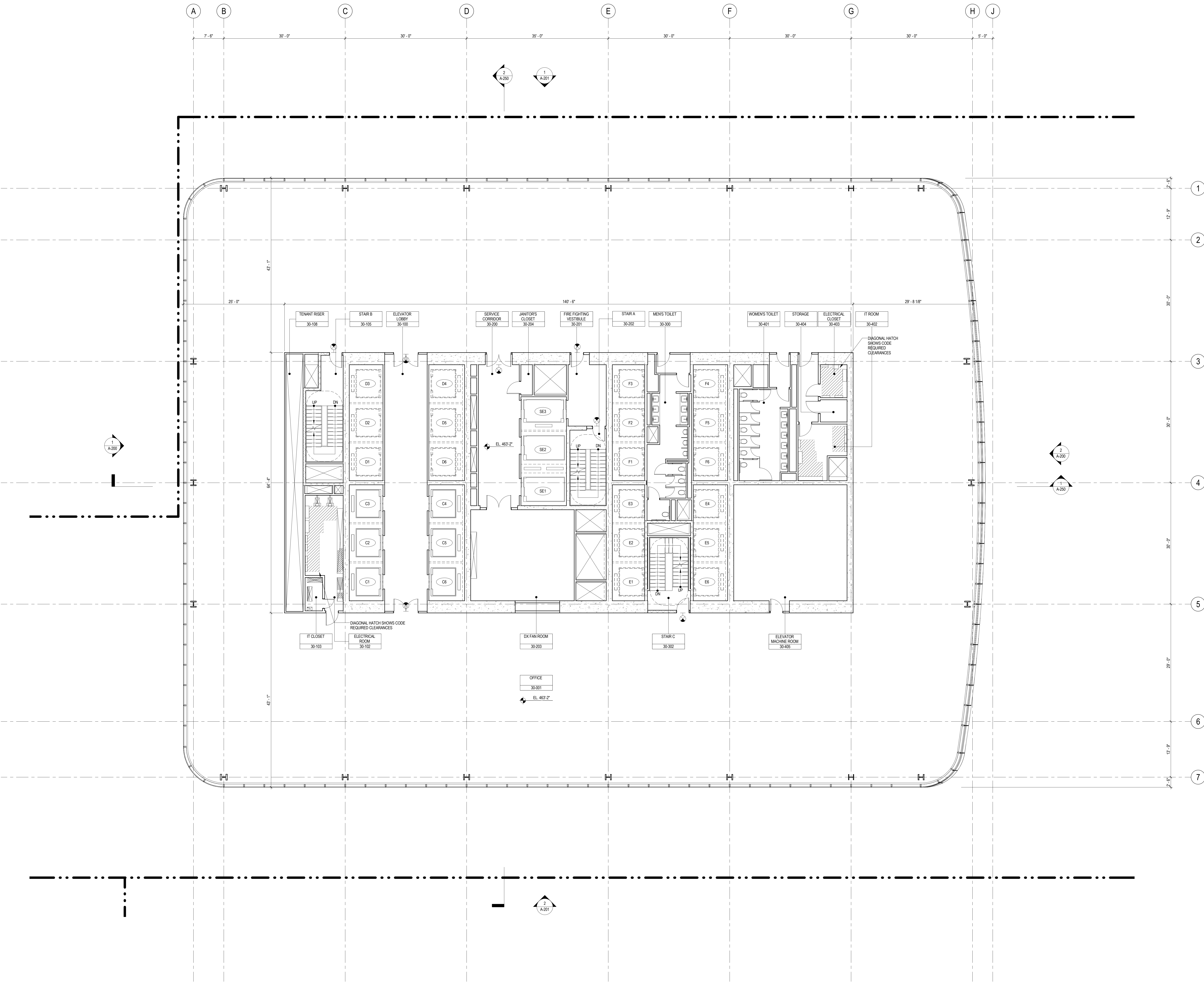
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1	19 MAR 2012	ISSUED FOR RECONCILIATION

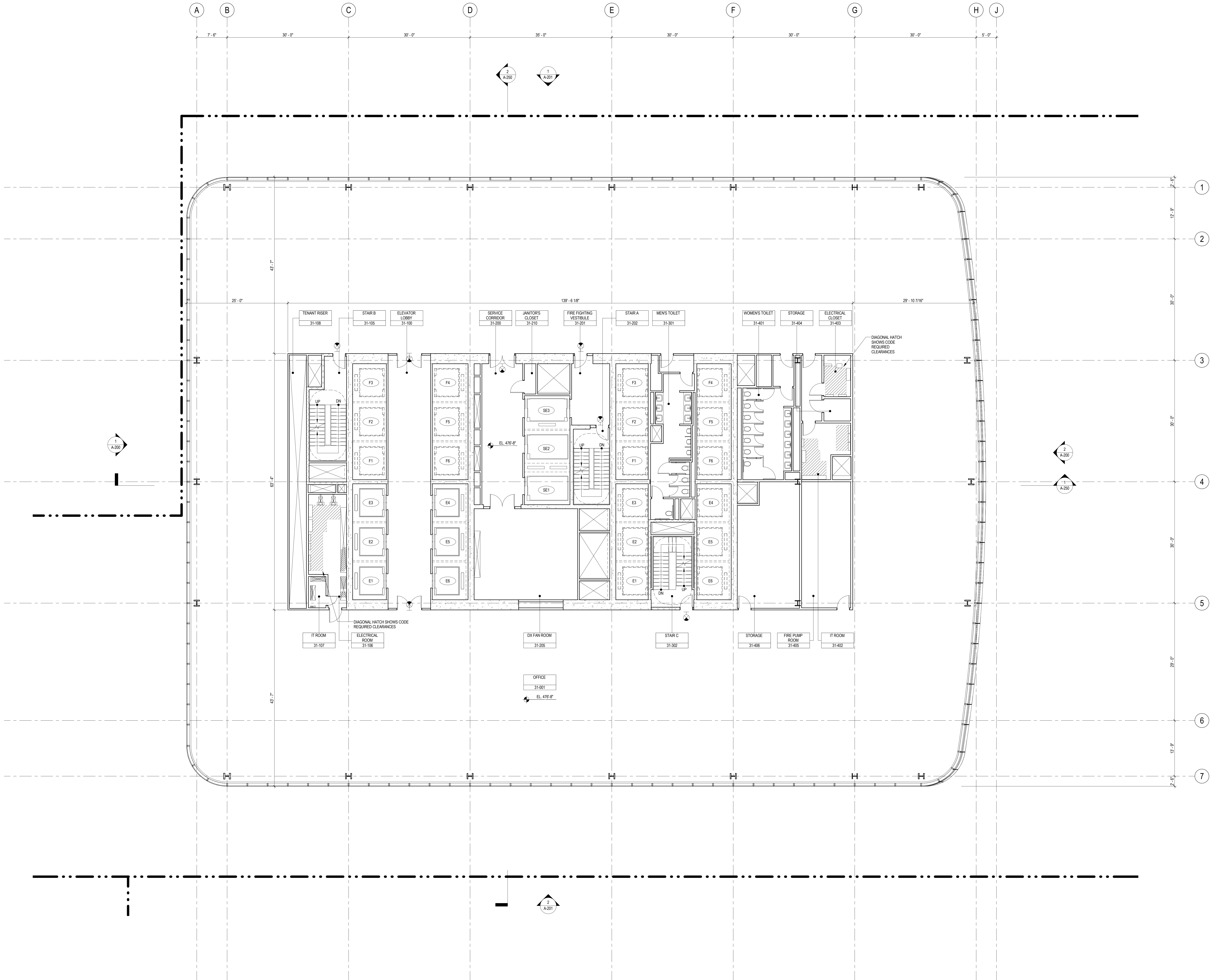
Sheet Name:

LEVEL 30 FLOOR  
PLAN - MID-RISE  
EMR

Project No.: 207150	B-SCAN Sheet No.: A-130.00
Date: 1 APR 2015	Sheet No.: A-130
Scale: 1/8" = 1'-0"	Page No.: 35 OF 30
File No.: A-130	







## SHEET NOTES

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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
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7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
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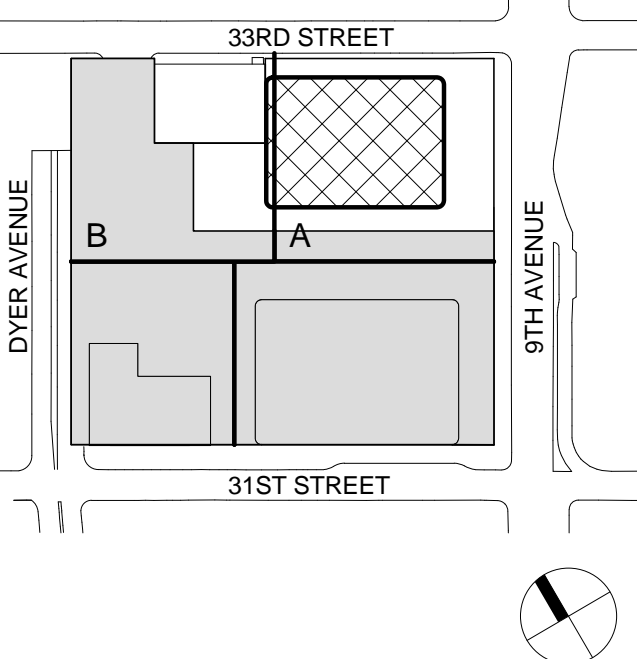
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Key Plan:



Seal & Signature:



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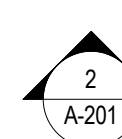
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Sheet Name:

**LEVEL 31 FLOOR  
PLAN - MID-RISE  
PUMP ROOM**

Project No.: 207150	B-SCAN Sheet No.: A-131.00
Date: 1 APR 2015	Sheet No.: A-131
Scale: 1/8" = 1'-0"	Page No.: 36 OF 30
File No.: A-131	







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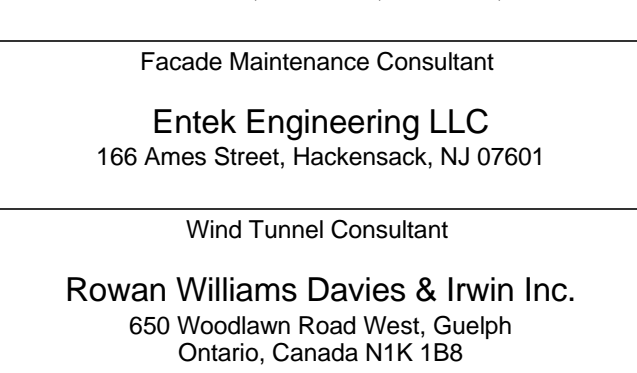
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Key Plan:





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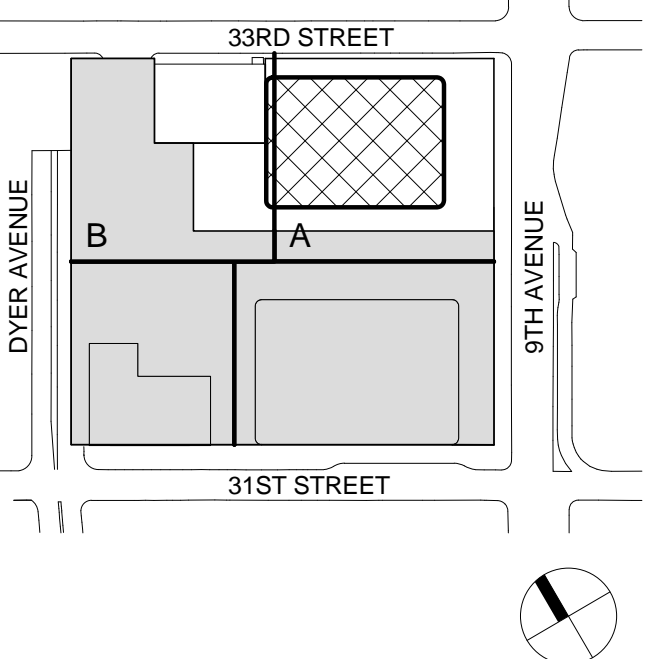
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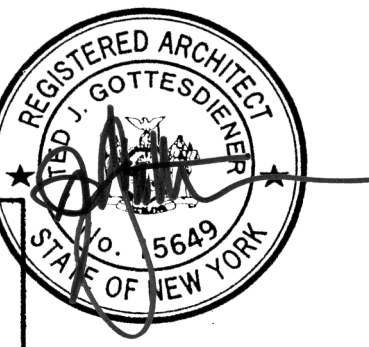
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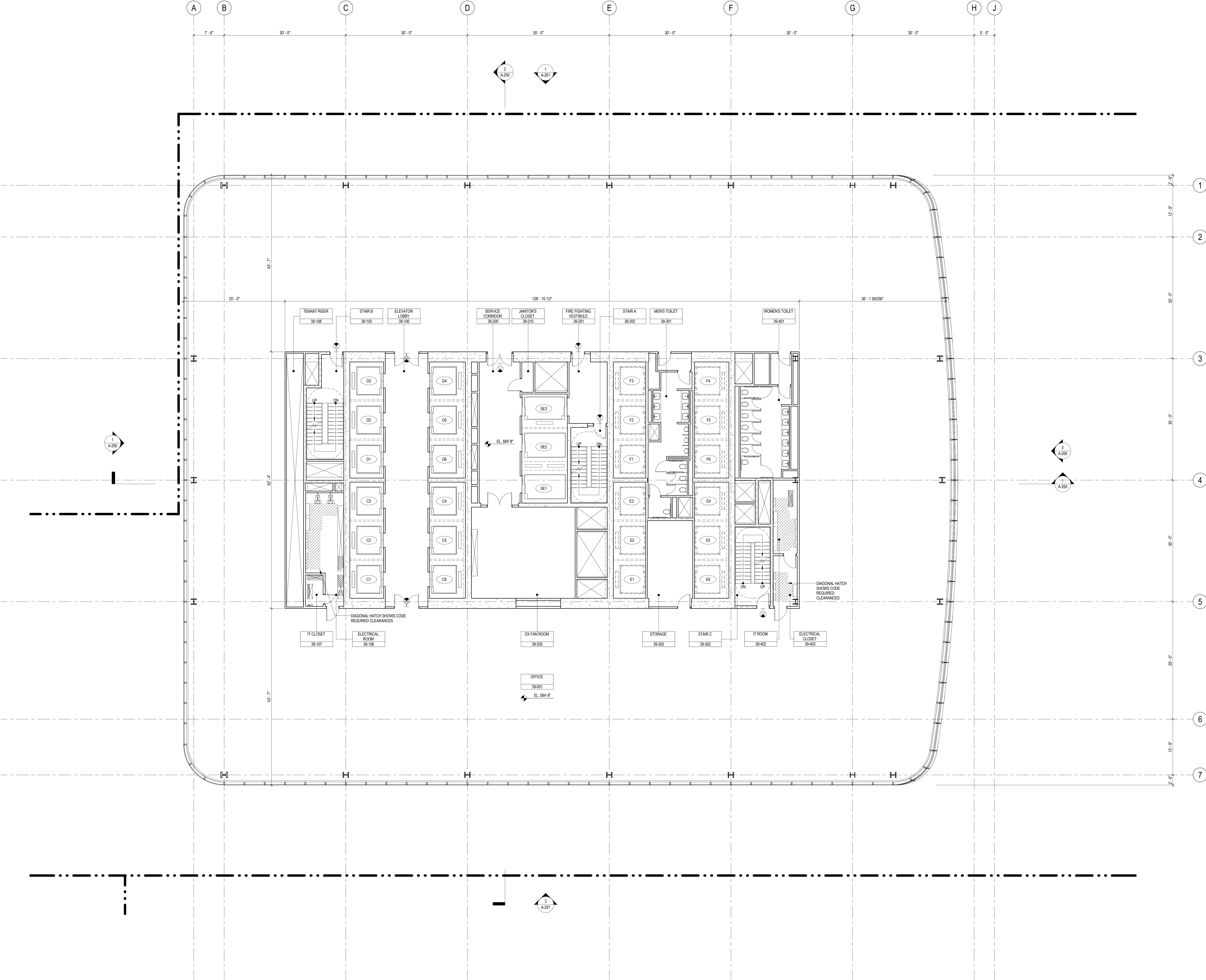


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LEVEL 39 FLOOR  
PLAN - MID-RISE

Project No.: 207150	B-SCAN Sheet No.: A-139.00
Date: 1 APR 2015	Sheet No.: A-139
Scale: 1/8" = 1'-0"	Page No.: 39 OF 30
File No.: A-139	





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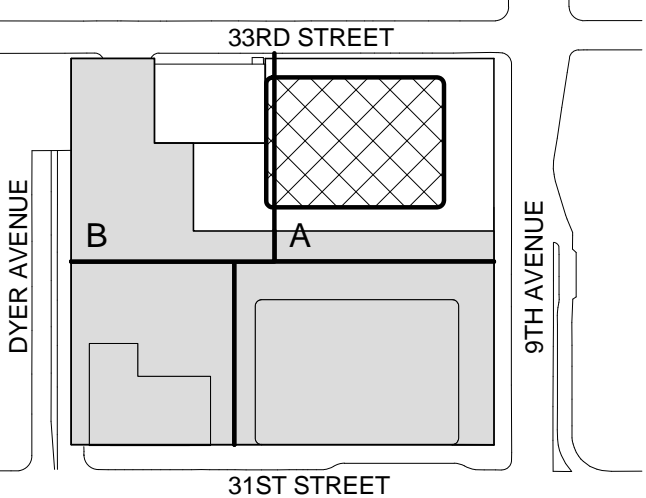
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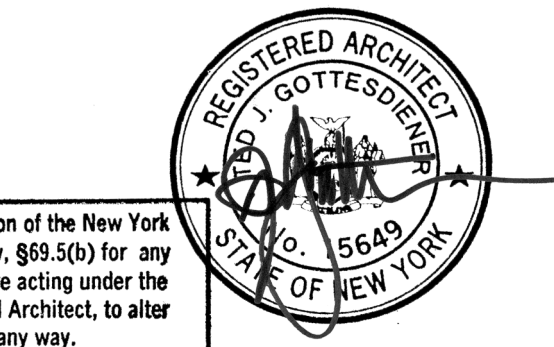
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No. Date Description  
Sheet Name:

LEVEL 40-41  
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MID-RISE  
OVERRUN

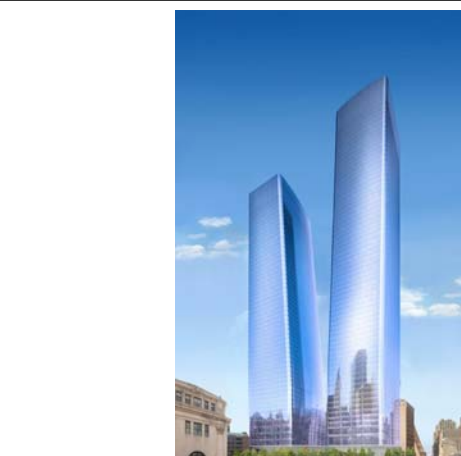
Project No.: 207150  
Date: 1 APR 2015  
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Sheet No.: A-140  
Page No.: 40 OF 30



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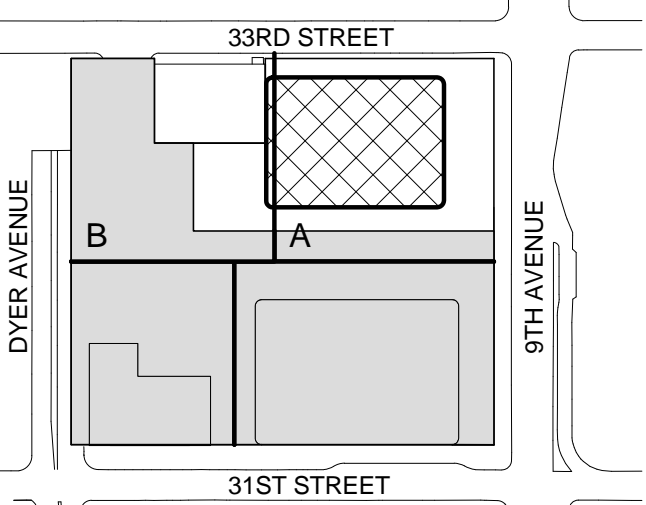
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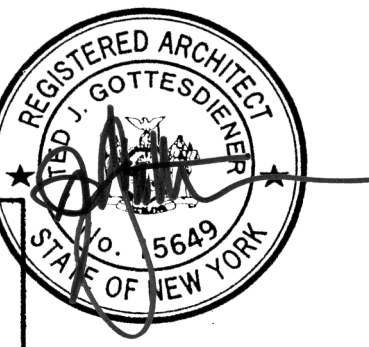
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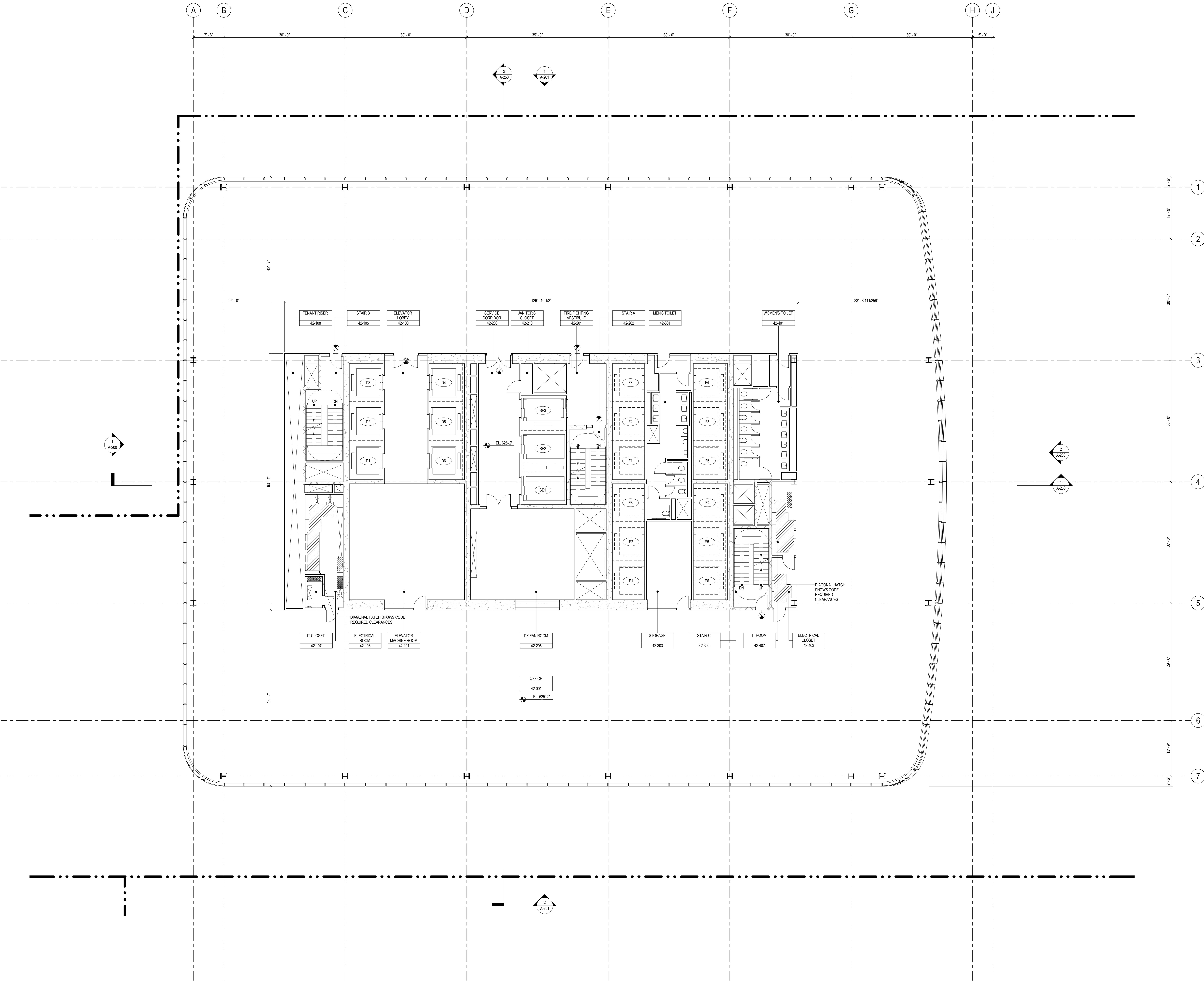
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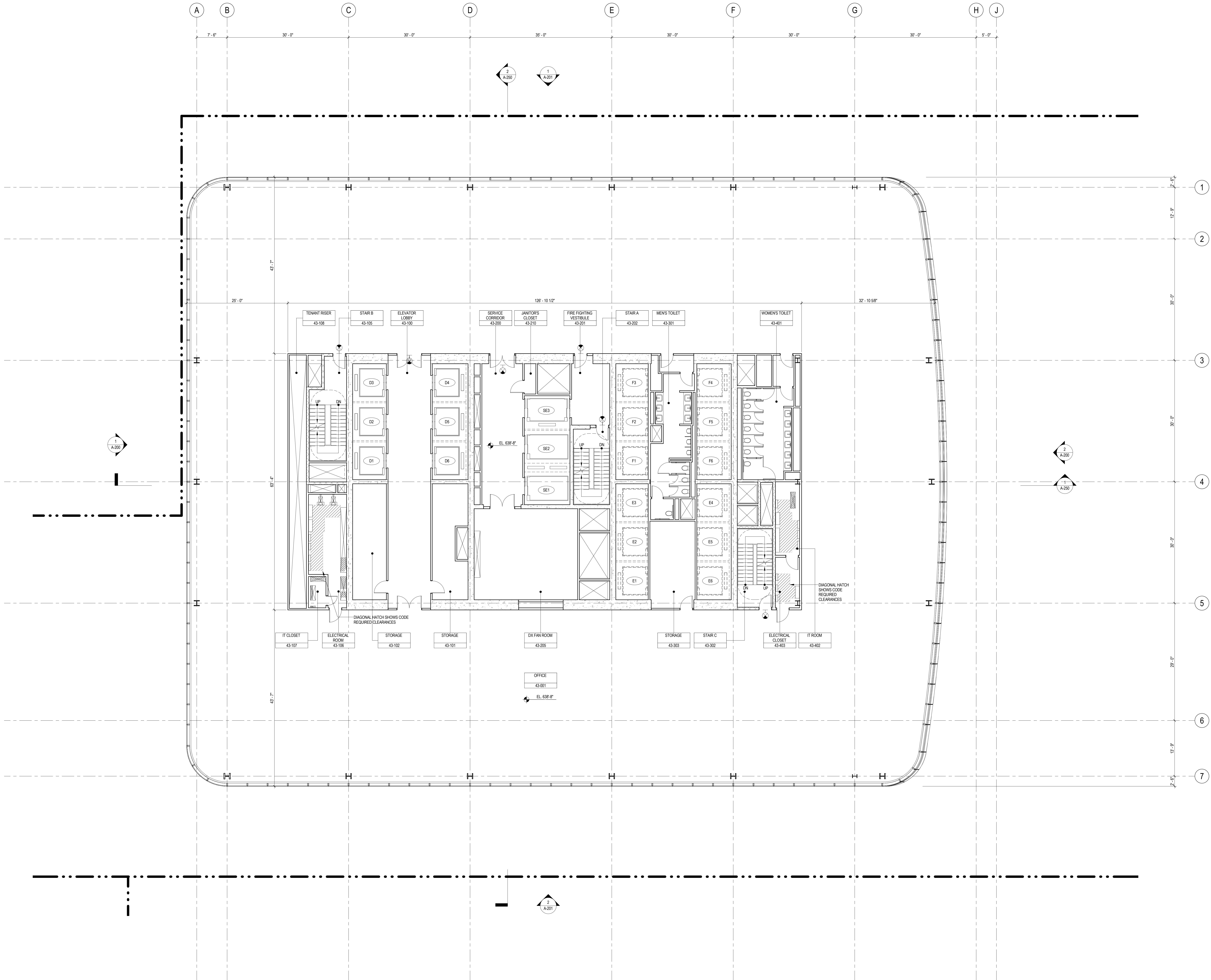
LEVEL 42 FLOOR  
PLAN - MID-RISE  
EMR

Project No.: 207150	B-SCAN Sheet No.: A-142.00
Date: 1 APR 2015	Sheet No.: A-142
Scale: 1/8" = 1'-0"	Page No.: 41 OF 30
File No.: A-142	





3/30/2015 7:28:06 PM



## SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B5700).
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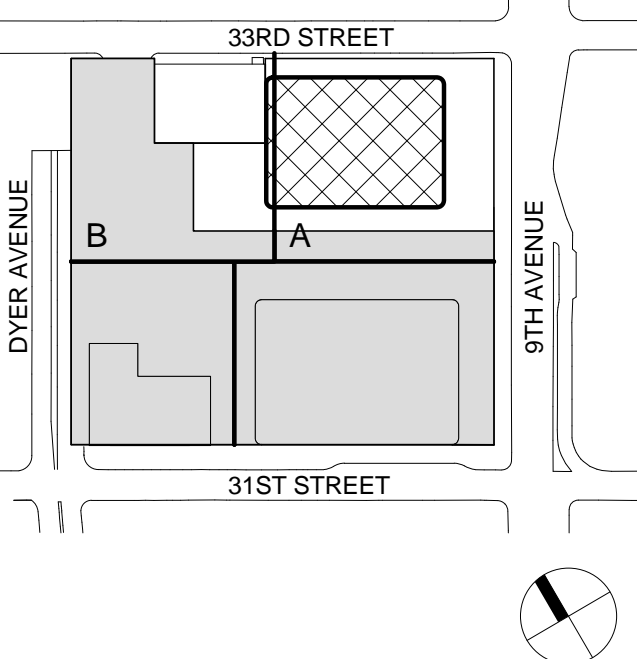
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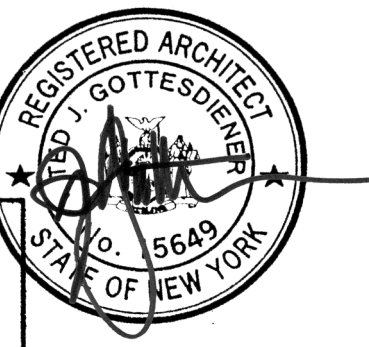
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2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

Sheet Name:

**LEVEL 43-48  
FLOOR PLAN -  
TYPICAL  
MID-RISE**

Project No.: 207150	B-SCAN Sheet No.: A-143.00
Date: 1 APR 2015	Sheet No.: A-143
Scale: 1/8" = 1'-0"	Page No.: 42 OF 30
File No.: A-143	



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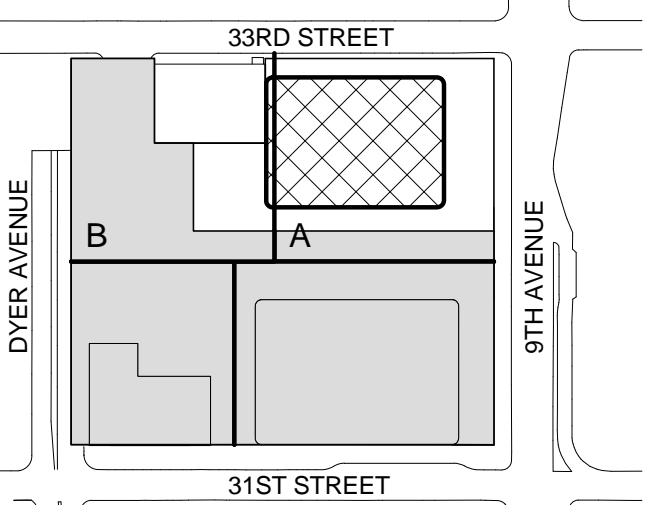
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Key Plan:



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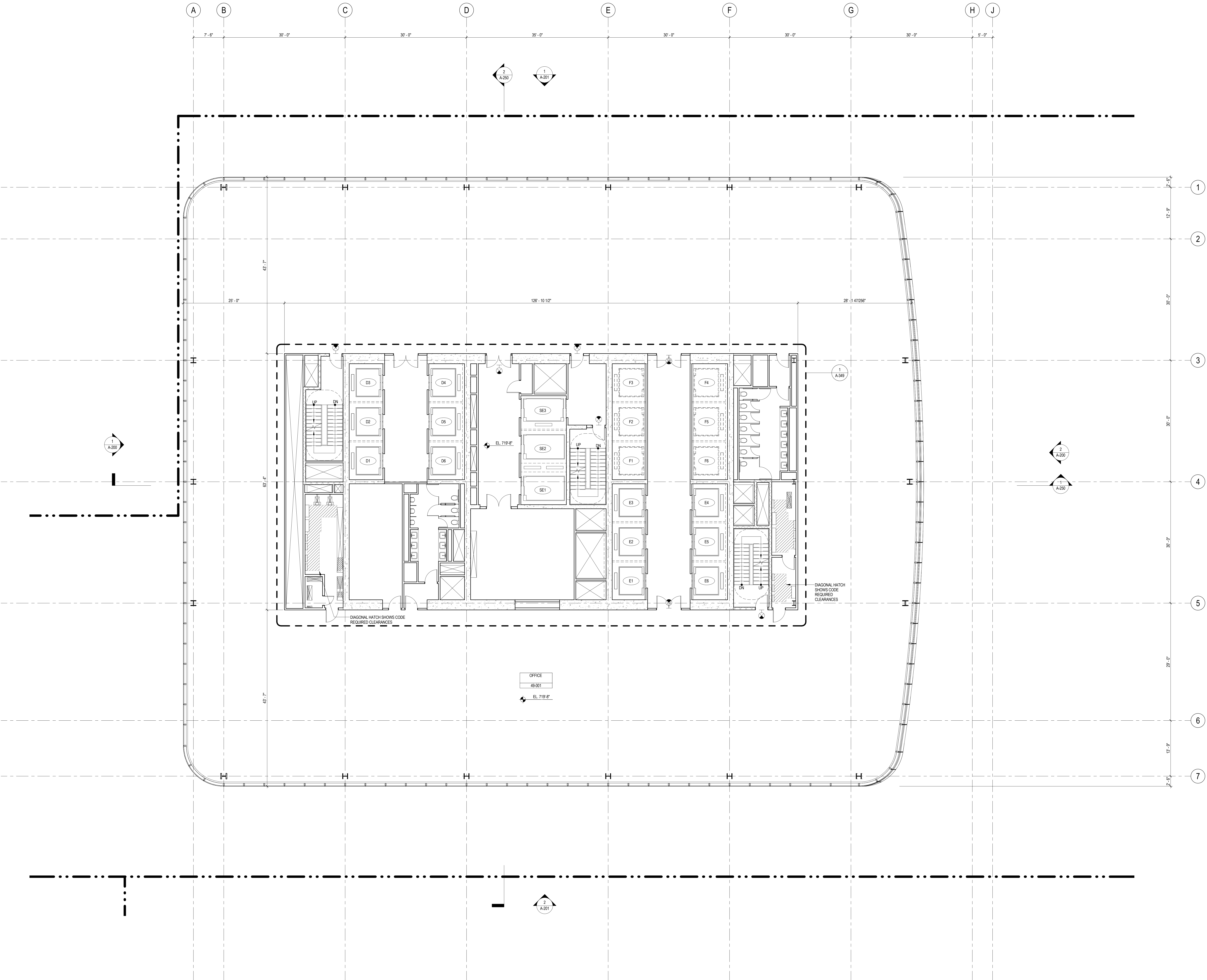
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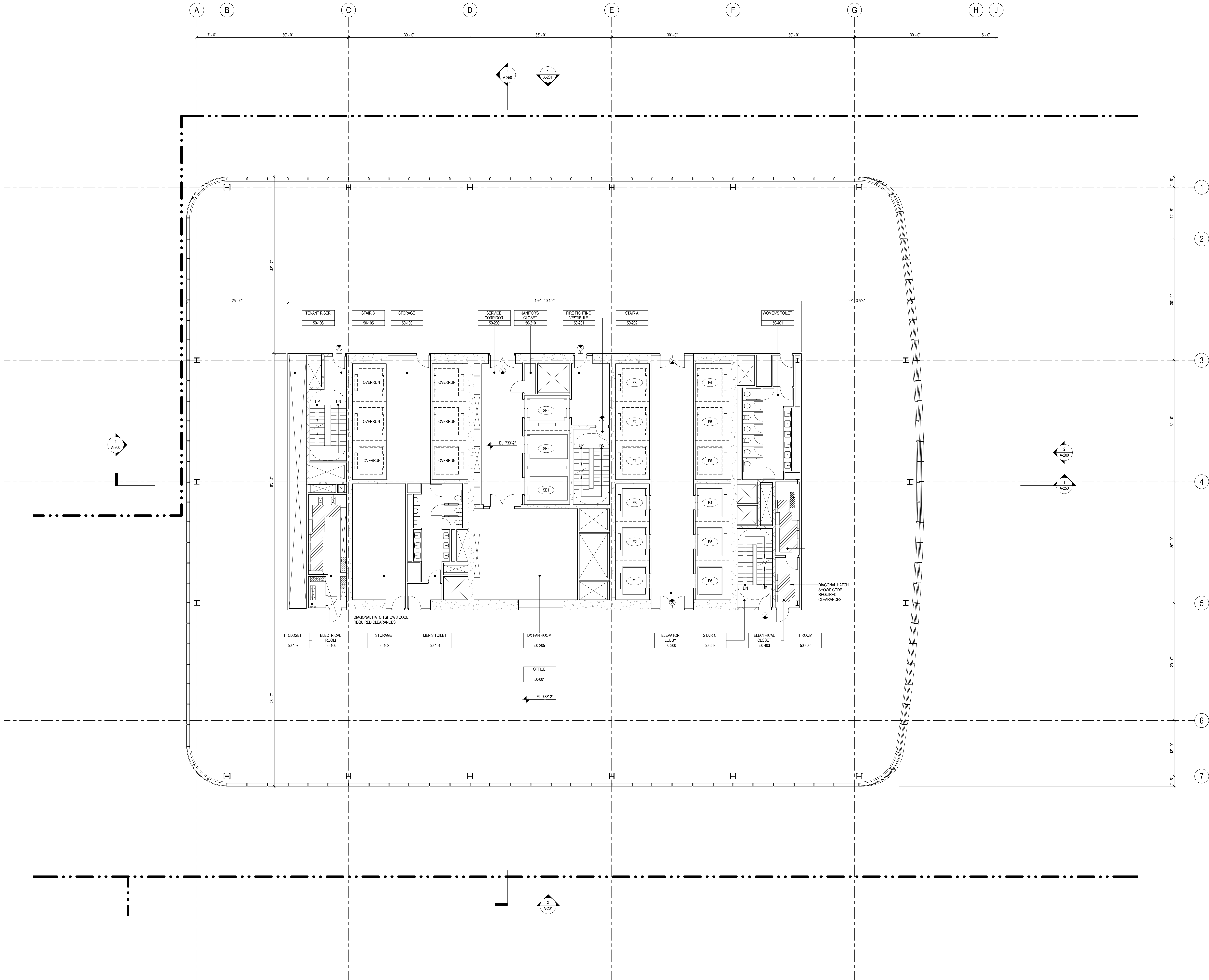
Sheet Name:

LEVEL 49 FLOOR  
PLAN - MID-RISE  
& HIGH-RISE

Project No.: 207150	B-SCAN Sheet No.: A-149.00
Date: 1 APR 2015	Sheet No.: A-149
Scale: 1/8" = 1'-0"	Page No.: 43 OF 30
File No.: A-149	







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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE, SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
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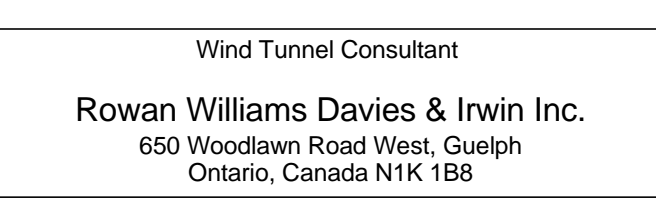
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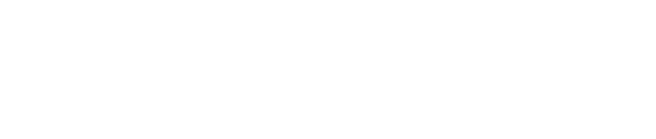
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Key Plan:



Seal & Signature:



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Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-150

B-SCAN Sheet No.:  
A-150.00  
Sheet No.:  
A-150  
Page No.: 44 OF 30

LEVEL 50-51  
FLOOR PLAN -  
HIGH-RISE  
OVERRUN



SHEET NOTES

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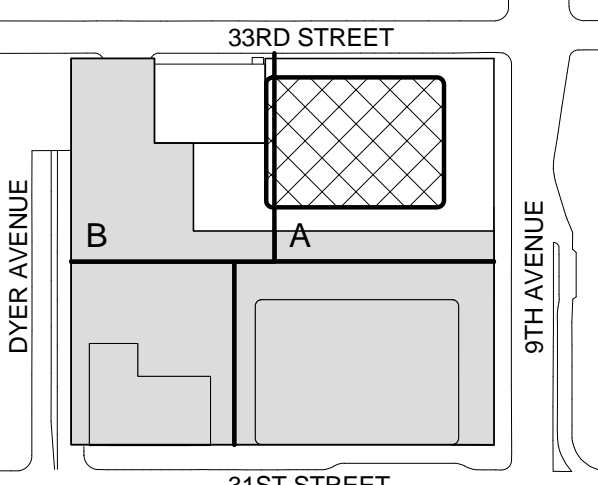
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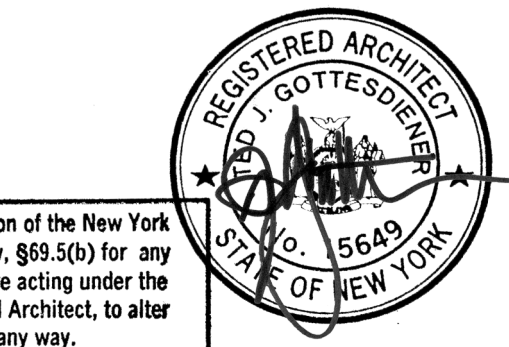
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Key Plan:



Seal & Signature:



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2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

Sheet Name:

LEVEL 52 FLOOR  
PLAN - HIGH-RISE  
EMR

Project No.:

207150

Date:

1 APR 2015

Scale:

1/8" = 1'-0"

B-SCAN Sheet No.:

A-152.00

Sheet No.:

A-152

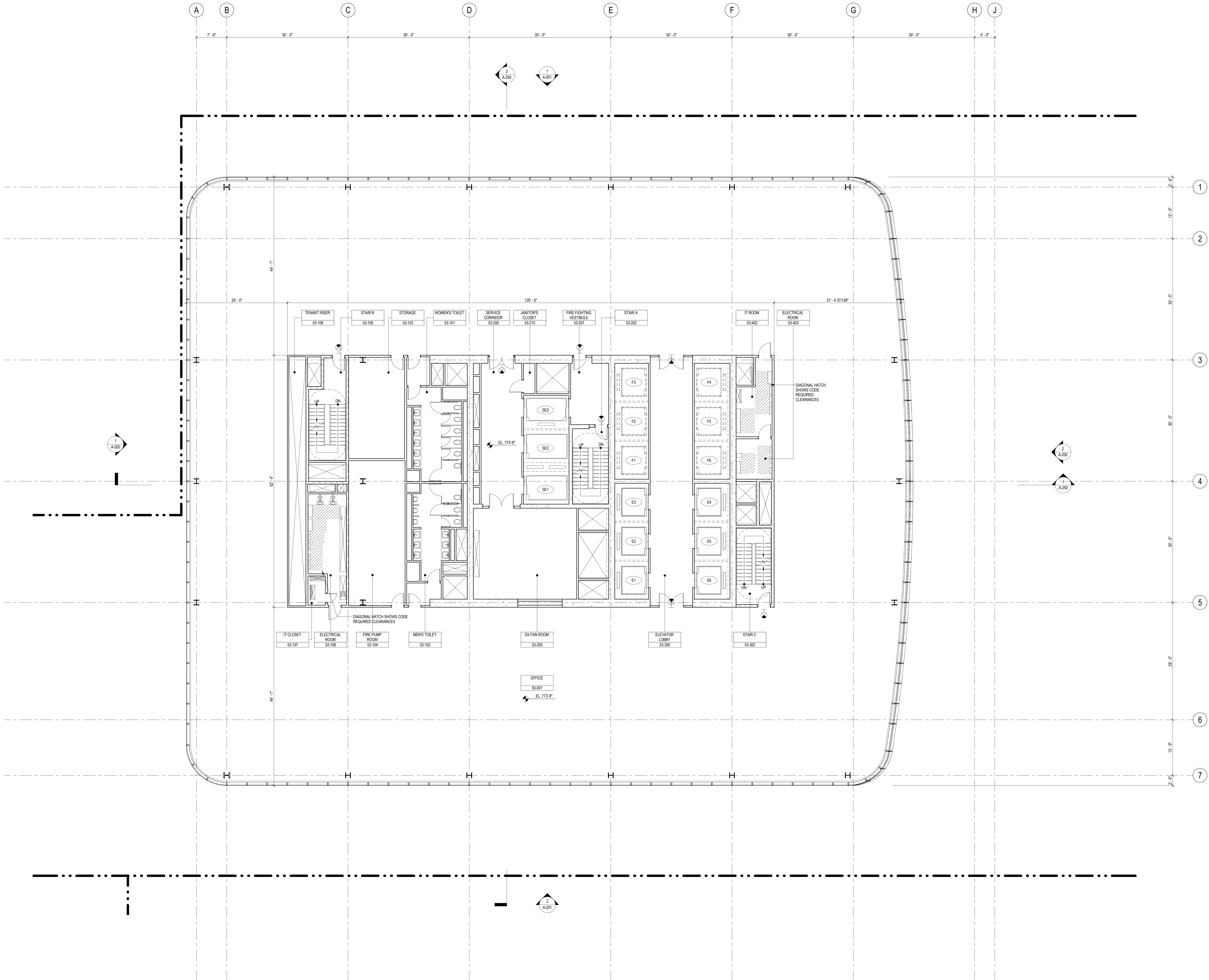
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A-152

Page No.:

45 OF 30





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Sheet Name:

**LEVEL 53 FLOOR  
PLAN - HIGH-RISE  
PUMP ROOM**

Project No.:

207150

Date:

1 APR 2015

Scale:

1/8" = 1'-0"

File No.:

A-153

B-SCAN Sheet No.:

**A-153.00**

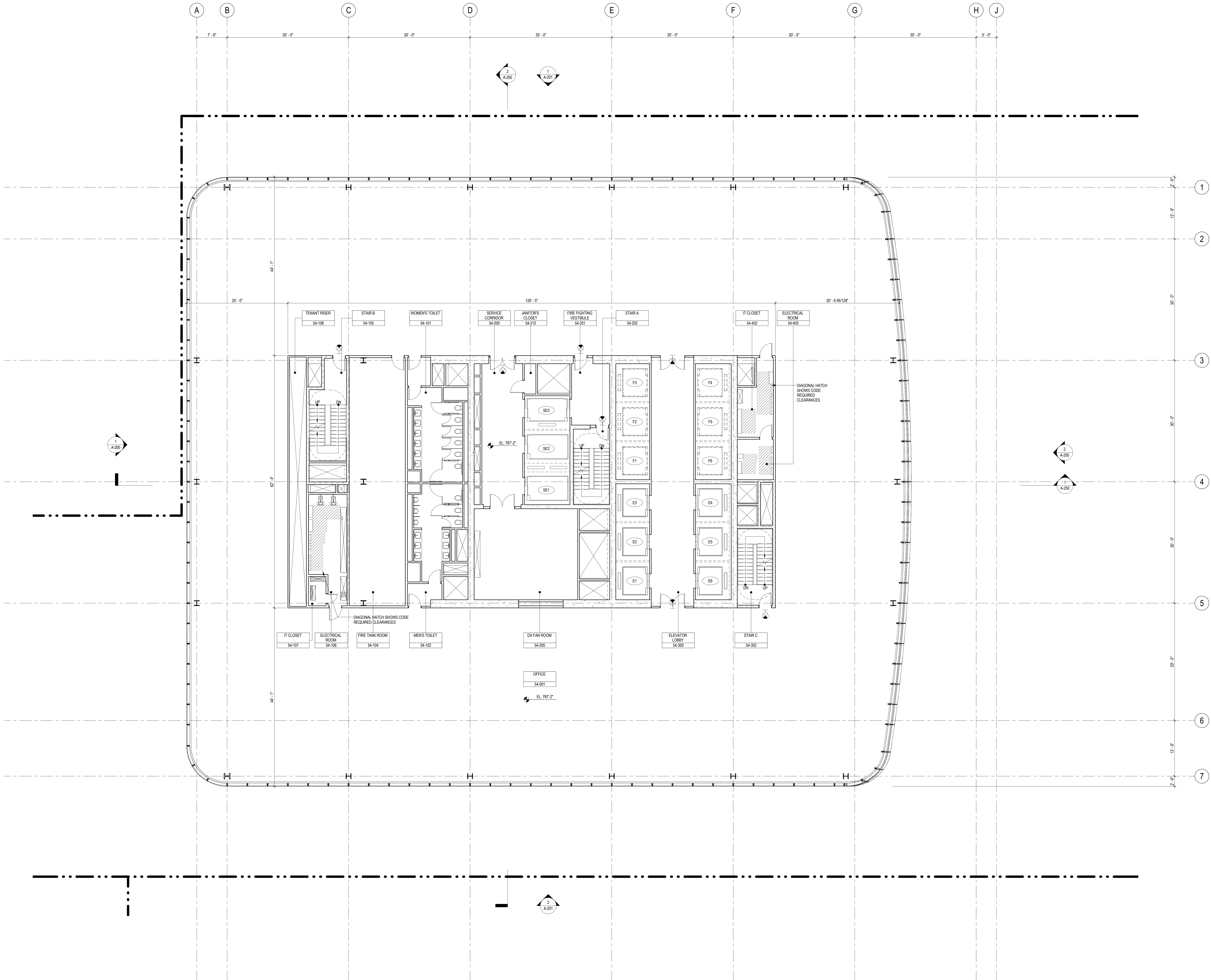
Sheet No.:

**A-153**

Page No.:

46 OF 30





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3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-005.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE 09, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/ECTEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED DEVICES.
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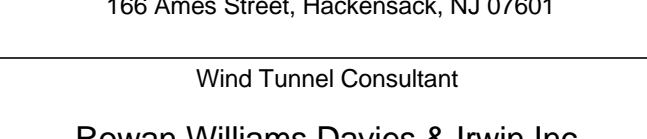
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Key Plan:



Seal & Signature:



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8	1 APR 2015	ISSUED FOR BUILDING PERMIT
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1	19 MAR 2012	ISSUED FOR RECONCILIATION

Sheet Name:

**LEVEL 54 FLOOR  
PLAN - HIGH-RISE  
WATER TANK**

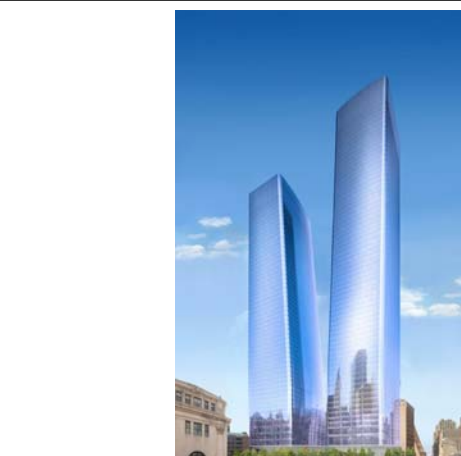
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Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-154

B-SCAN Sheet No.:  
**A-154.00**  
Sheet No.:  
**A-154**  
Page No.: 47 OF 30



SHEET NOTES

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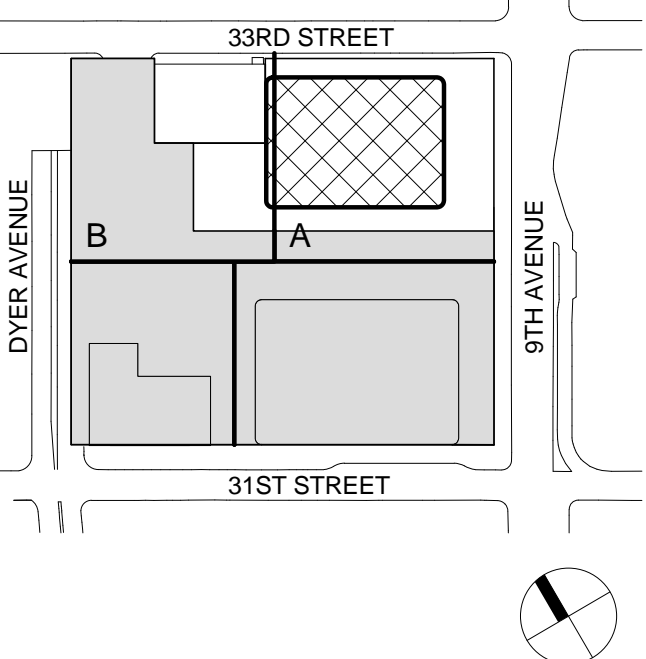
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Key Plan:



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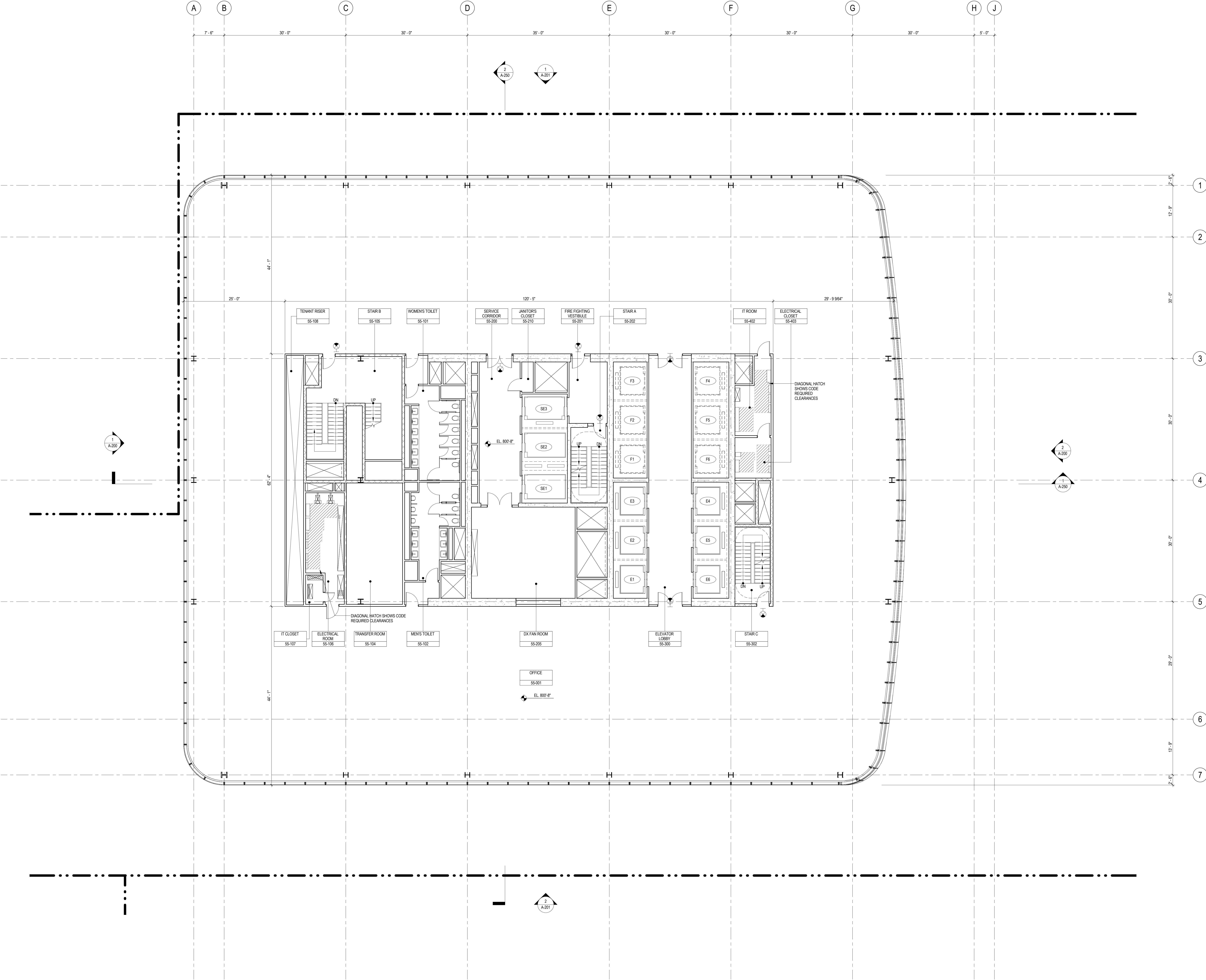
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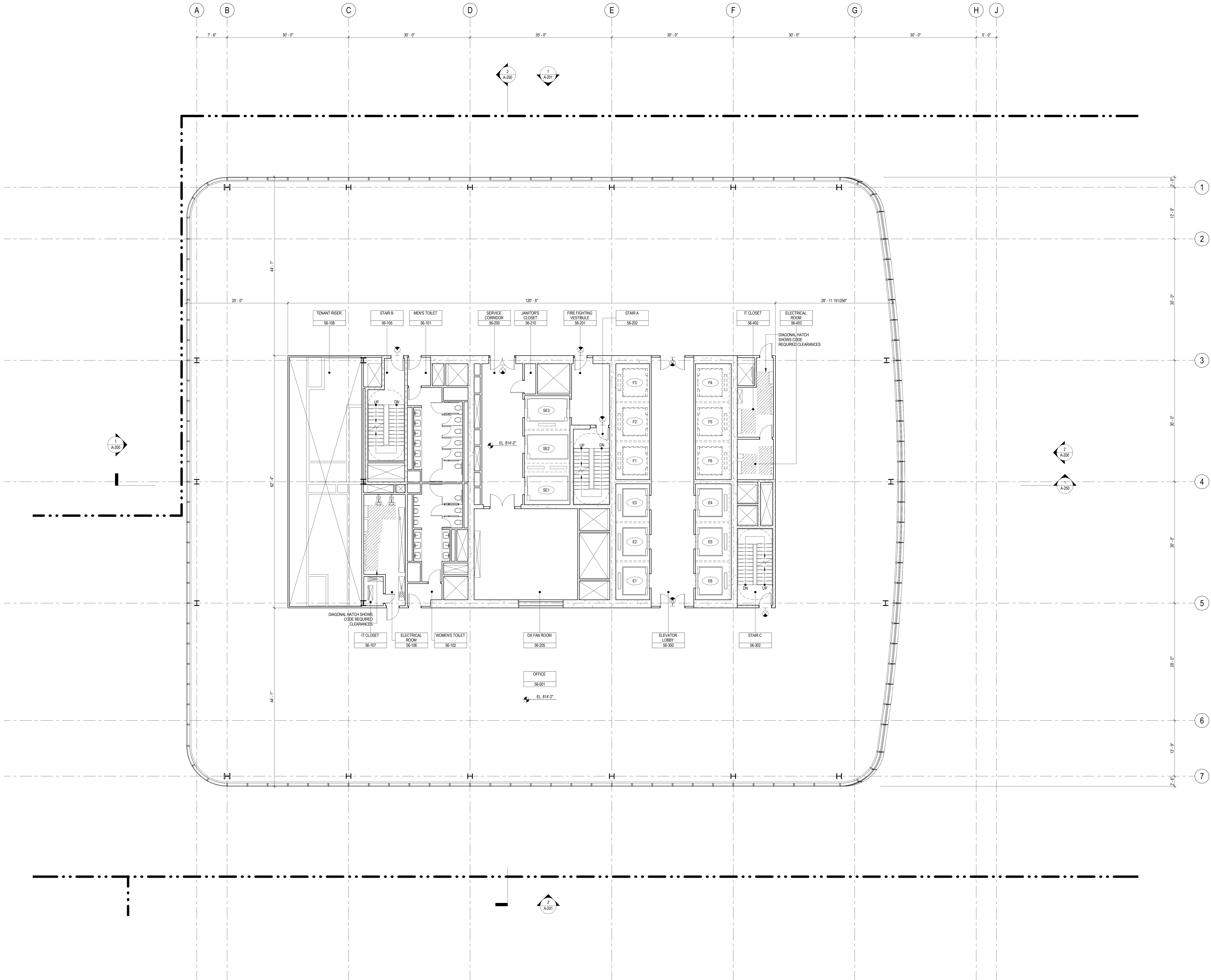
No. Date Description  
Sheet Name:

LEVEL 55 FLOOR  
PLAN - HIGH-RISE

Project No.: 207150	B-SCAN Sheet No.: A-155.00
Date: 1 APR 2015	Sheet No.: A-155
Scale: 1/8" = 1'-0"	Page No.: 48 OF 30
File No.: A-155	







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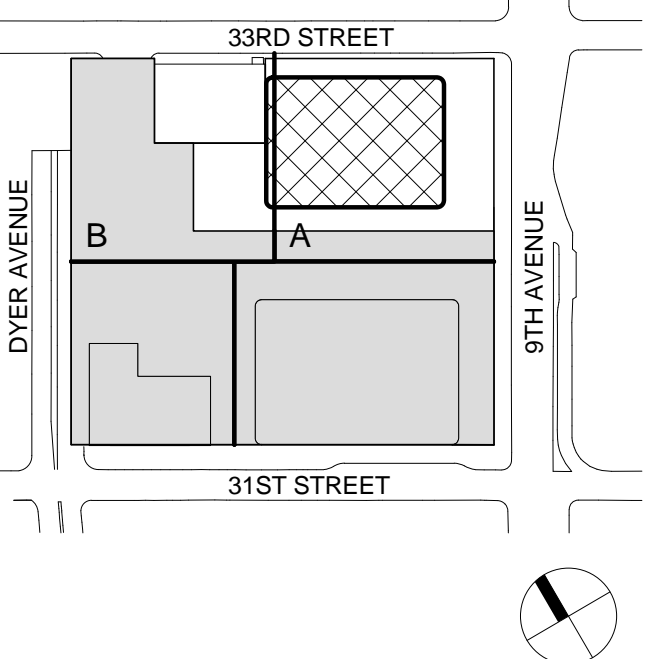
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Key Plan:



Seal & Signature:



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1	19 MAR 2012	ISSUED FOR RECONCILIATION

Sheet Name:

**LEVEL 56 FLOOR  
PLAN - HIGH-RISE**

Project No.:

207150

Date:

1 APR 2015

Scale:

1/8" = 1'-0"

File No.:

A-156

B-SCAN Sheet No.:

**A-156.00**

Sheet No.:

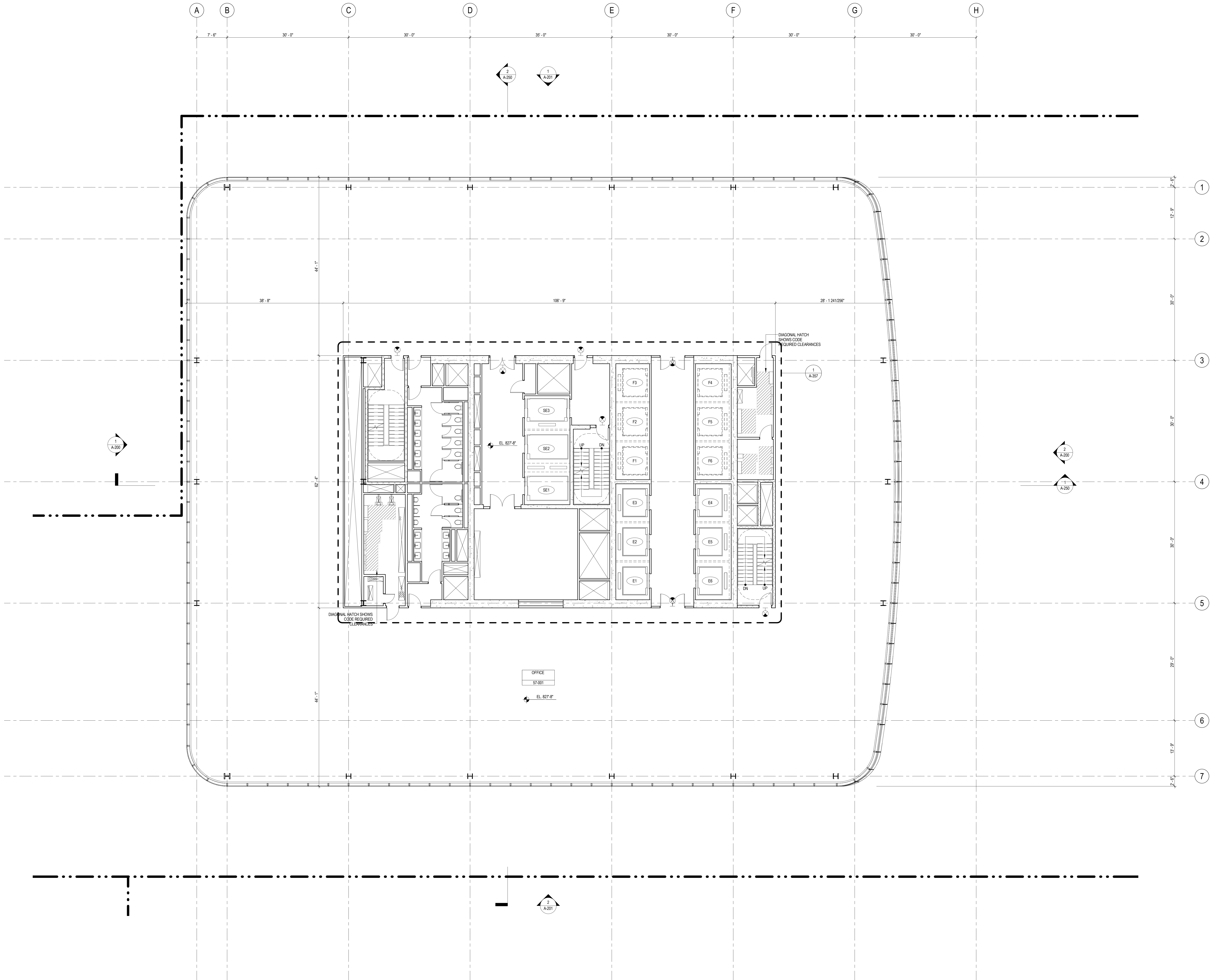
**A-156**

Page No.:

49 OF 30



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## SHEET NOTES

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6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
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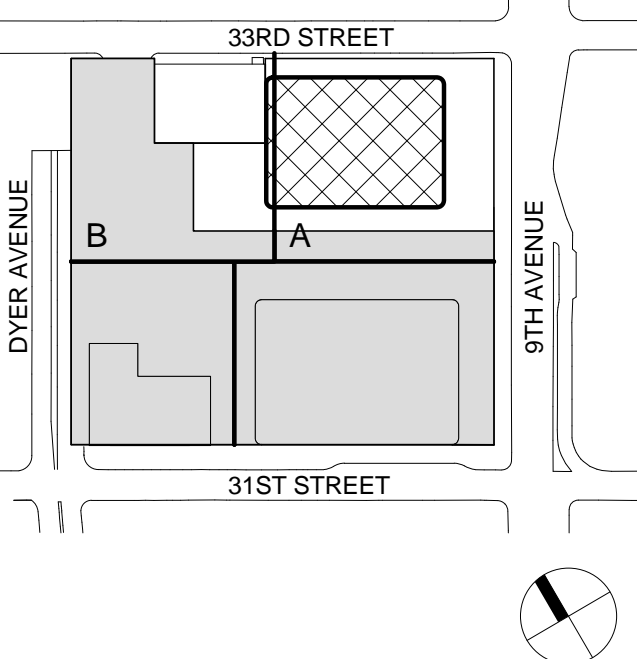
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Key Plan:



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3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
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1	19 NOV 2013	ISSUED FOR 90 PERCENT PRICING

No. Date Description

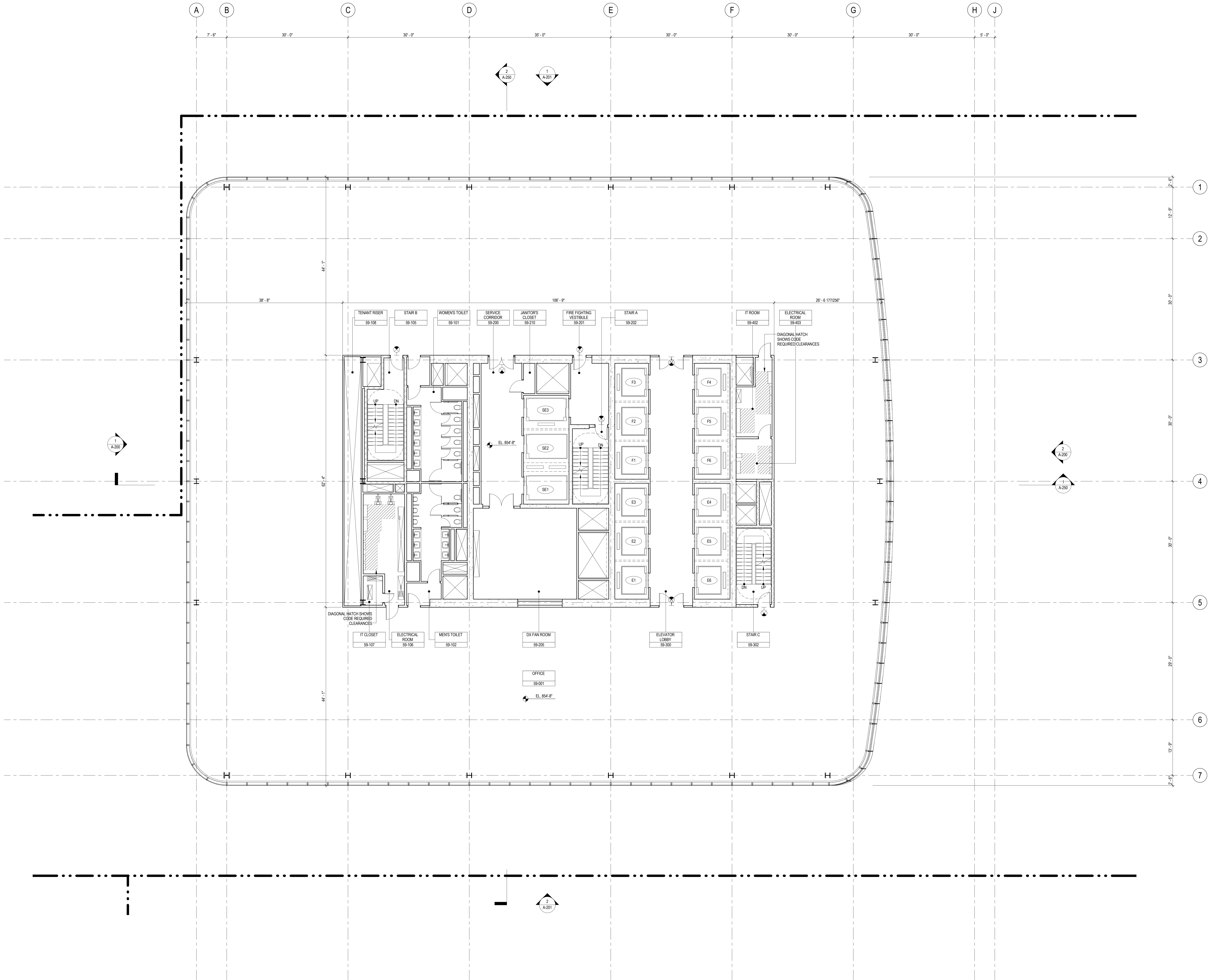
Sheet Name:

**LEVEL 57-58  
FLOOR PLAN -  
TYPICAL  
HIGH-RISE**

Project No.: 207150	B-SCAN Sheet No.: A-157.00
Date: 1 APR 2015	Sheet No.: A-157
Scale: 1/8" = 1'-0"	Page No.: 50 OF 30
File No.: A-157	



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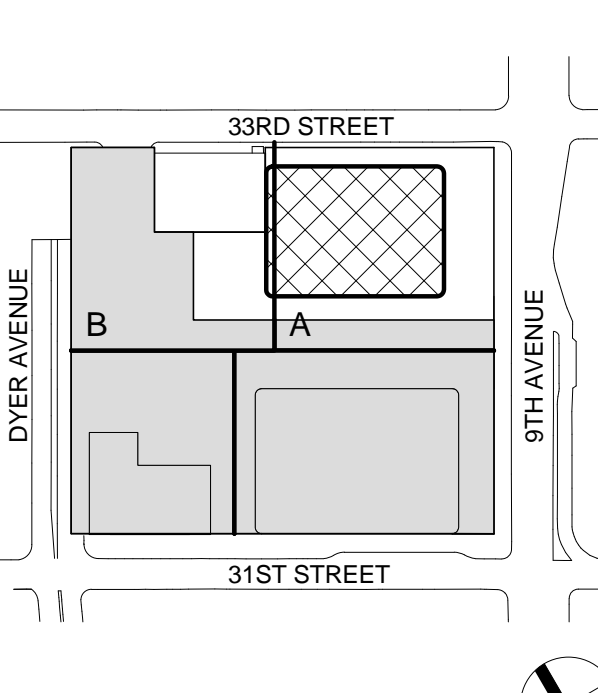
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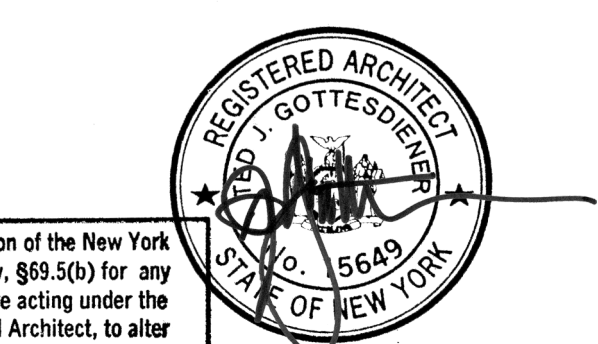
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Sheet Name:

**LEVEL 59 FLOOR  
PLAN - HIGH-RISE**

Project No.:

207150

Date:

1 APR 2015

Scale:

1/8" = 1'-0"

B-SCAN Sheet No.:

A-159.00

Sheet No.:

A-159

File No.:

A-159

Page No.:

51 OF 30



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5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B701).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
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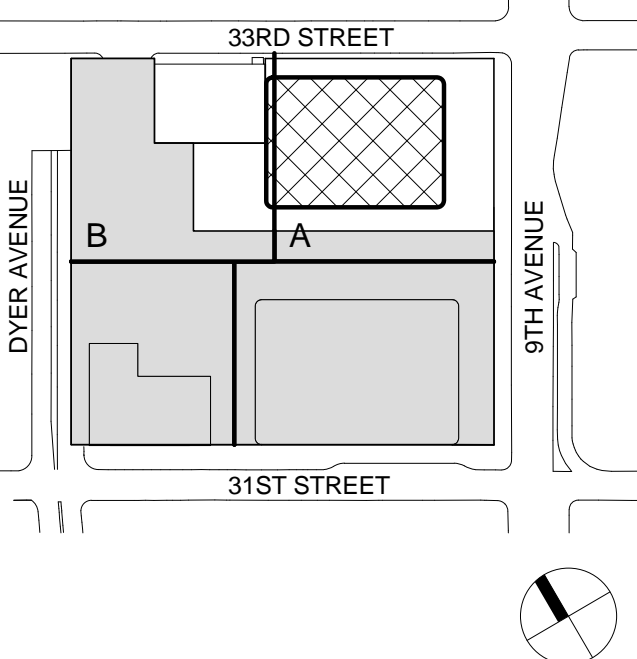
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Key Plan:



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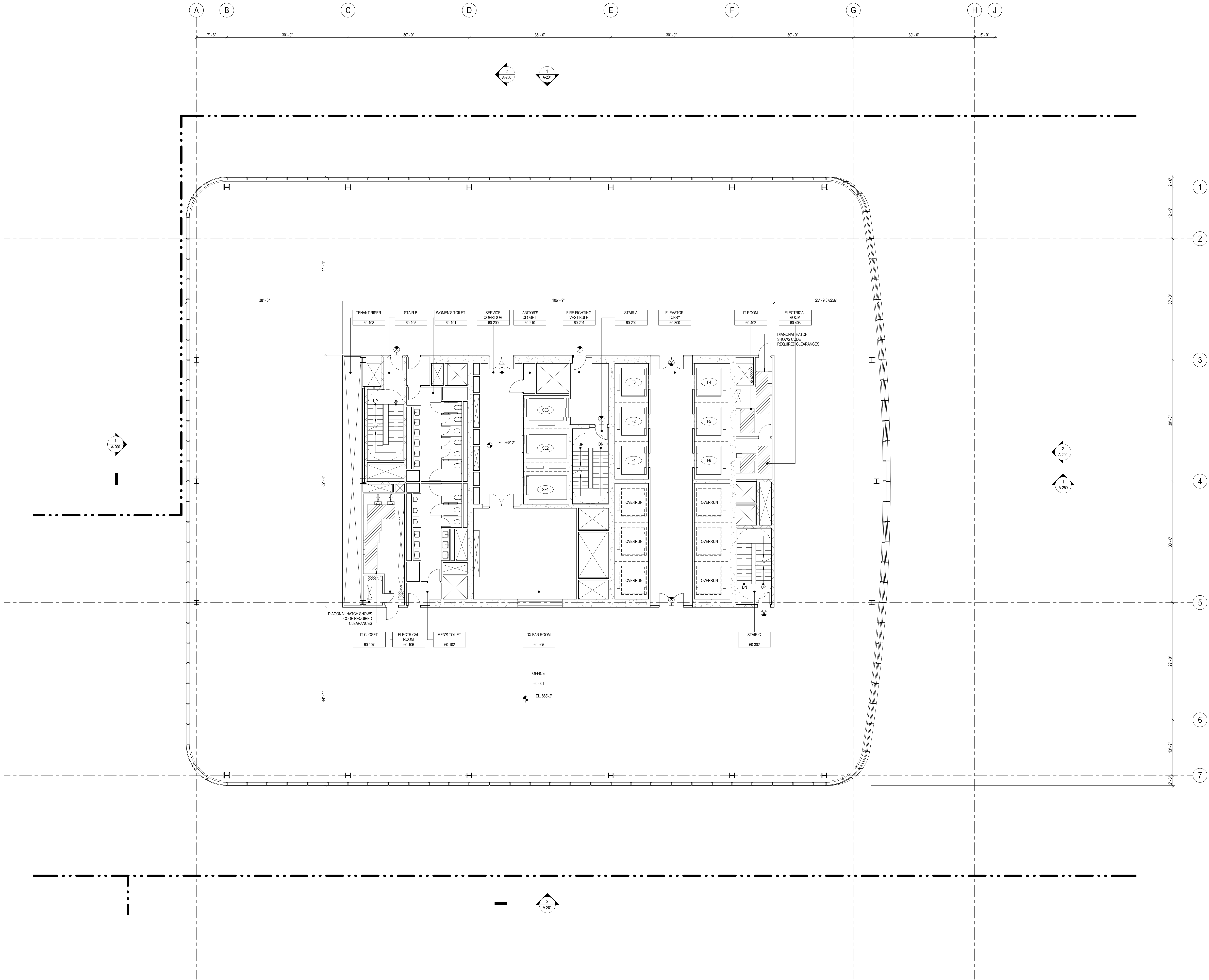
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1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

LEVEL 60-61  
FLOOR PLAN -  
HIGH-RISE  
OVERRUN

Project No.: 207150	B-SCAN Sheet No.: A-160.00
Date: 1 APR 2015	Sheet No.: A-160
Scale: 1/8" = 1'-0"	Page No.: 52 OF 30
File No.: A-160	





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6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, LINO.
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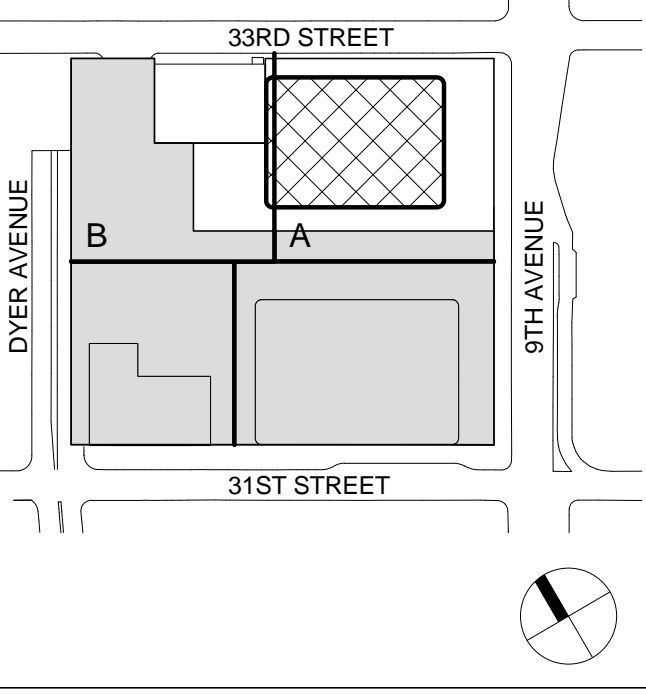
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Key Plan:



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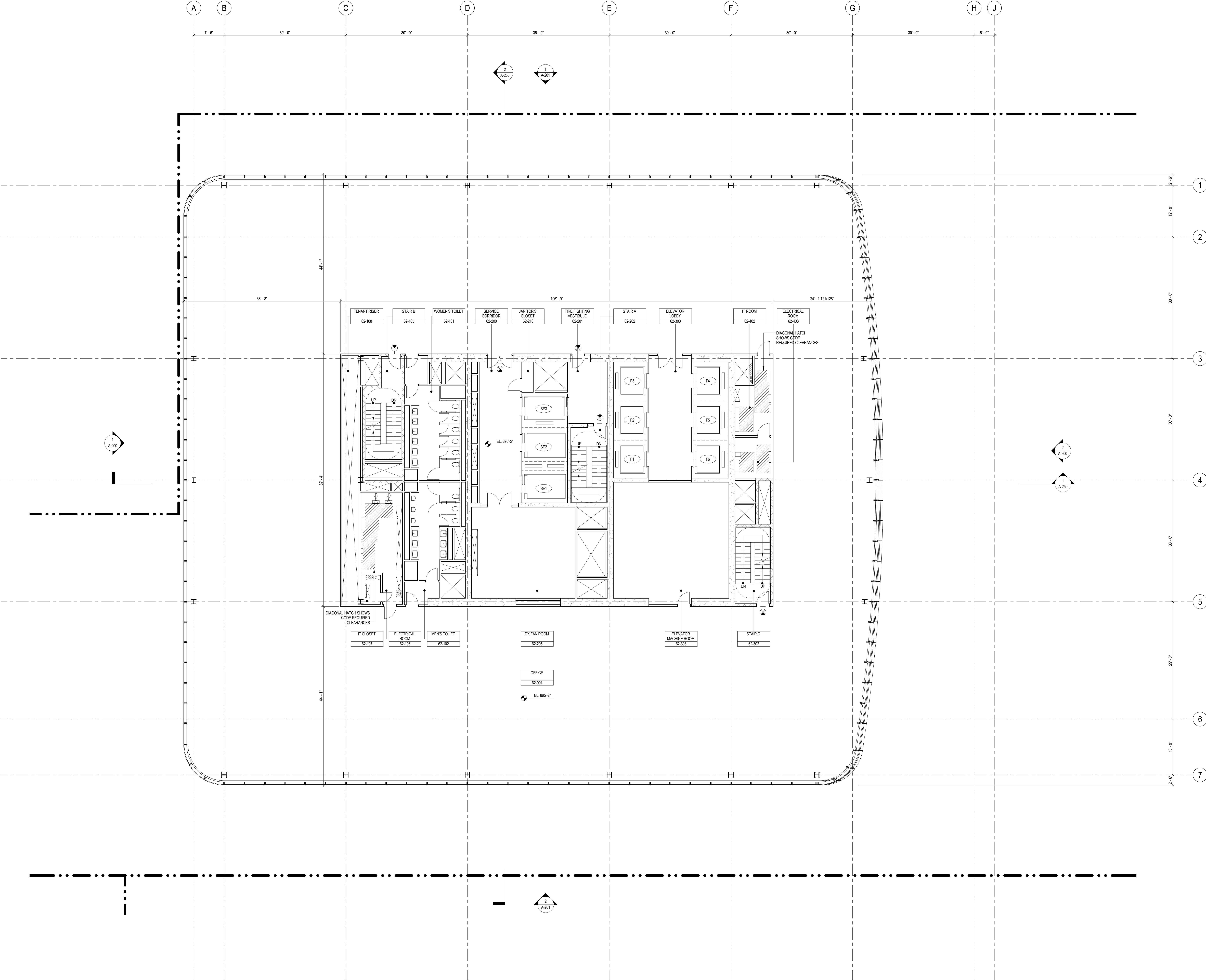


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LEVEL 62 FLOOR  
PLAN - HIGH-RISE  
EMR

Project No.: 207150	B-SCAN Sheet No.: A-162.00
Date: 1 APR 2015	Sheet No.: A-162
Scale: 1/8" = 1'-0"	Page No.: 53 OF 30
File No.: A-162	





SHEET NOTES

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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR UNO.
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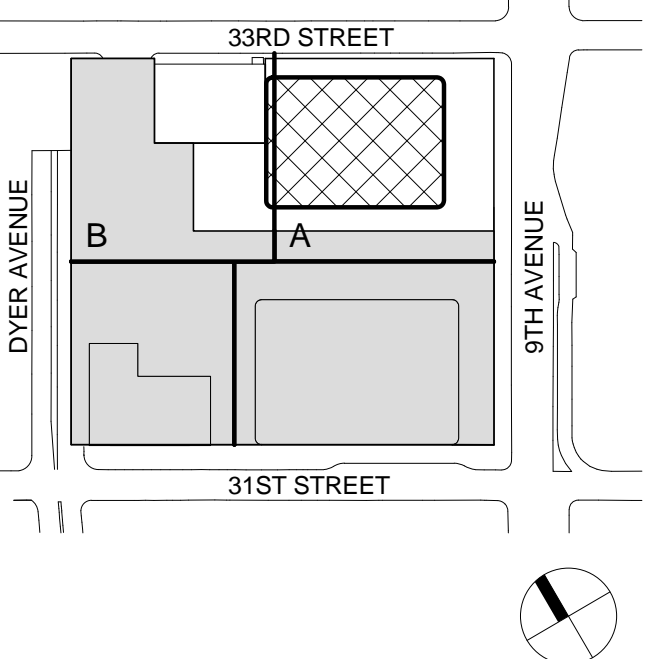
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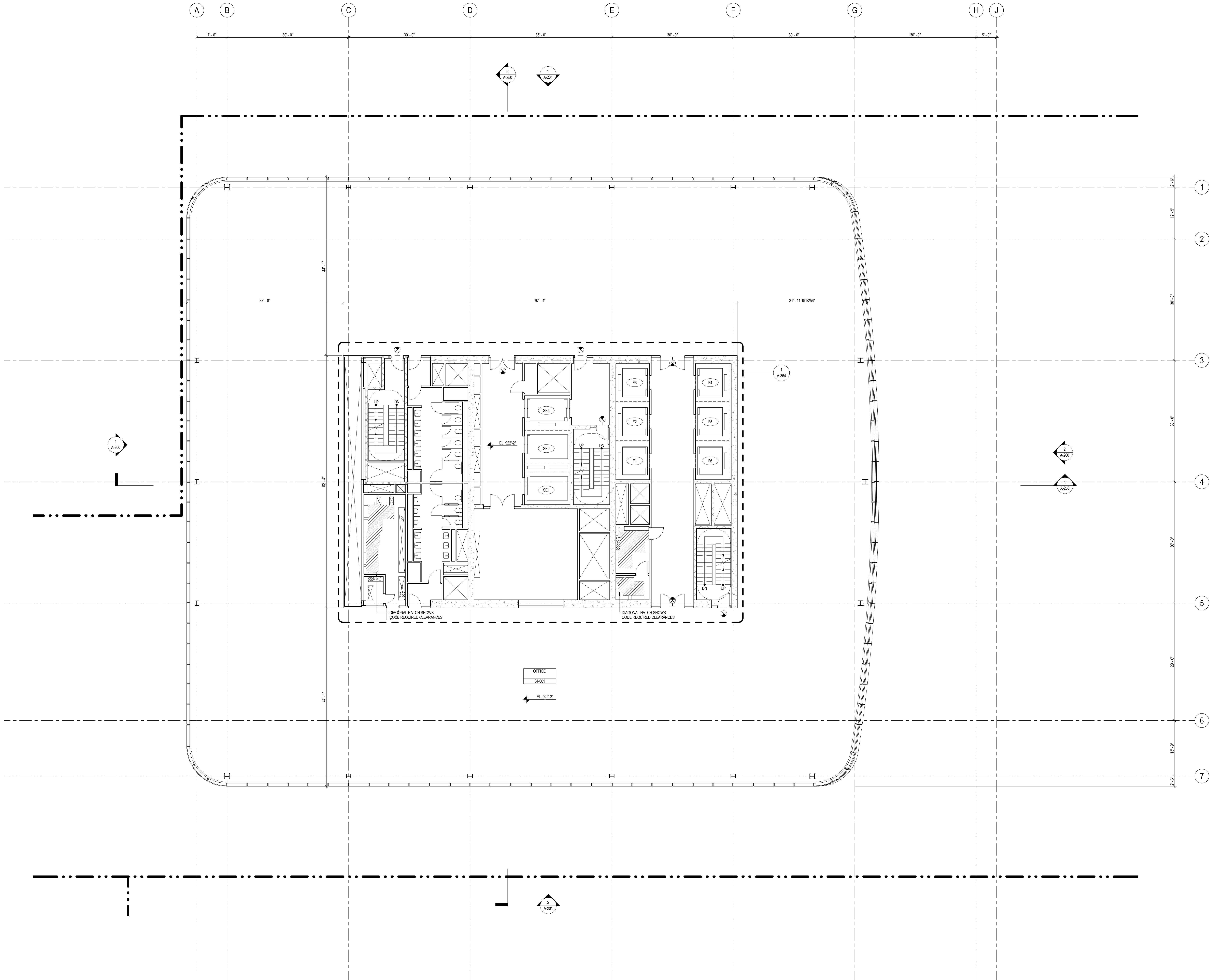
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Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1R6

Key Plan:







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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION B0700.
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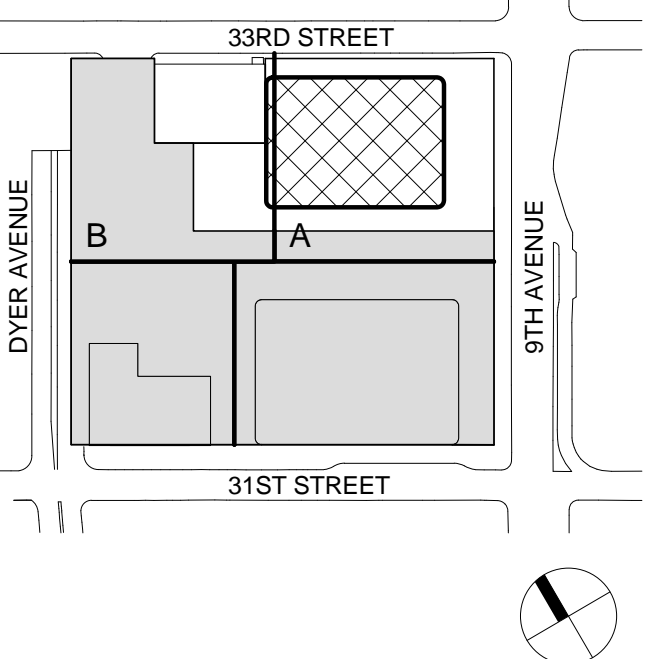
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No. Date Description

Sheet Name:

**LEVEL 64-67  
FLOOR PLAN -  
TYPICAL  
HIGH-RISE**

Project No.:

207150

Date:

1 APR 2015

Scale:

1/8" = 1'-0"

File No.:

A-164

B-SCAN Sheet No.:

**A-164.00**

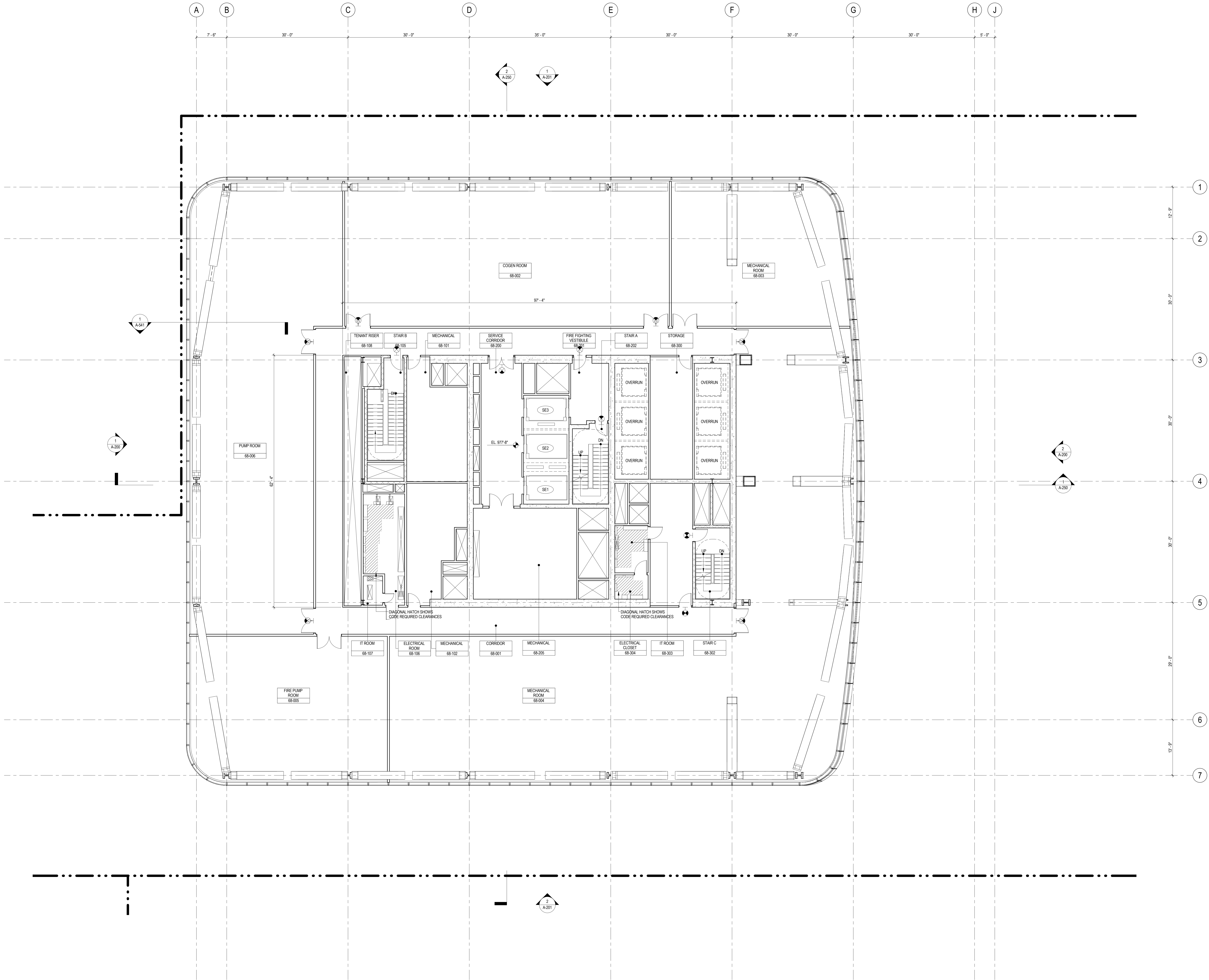
Sheet No.:

**A-164**

Page No.:

55 OF 30





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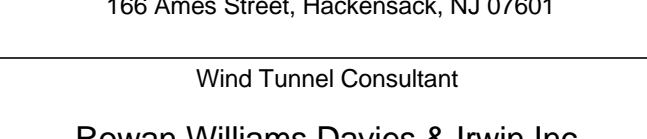
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No. Date Description

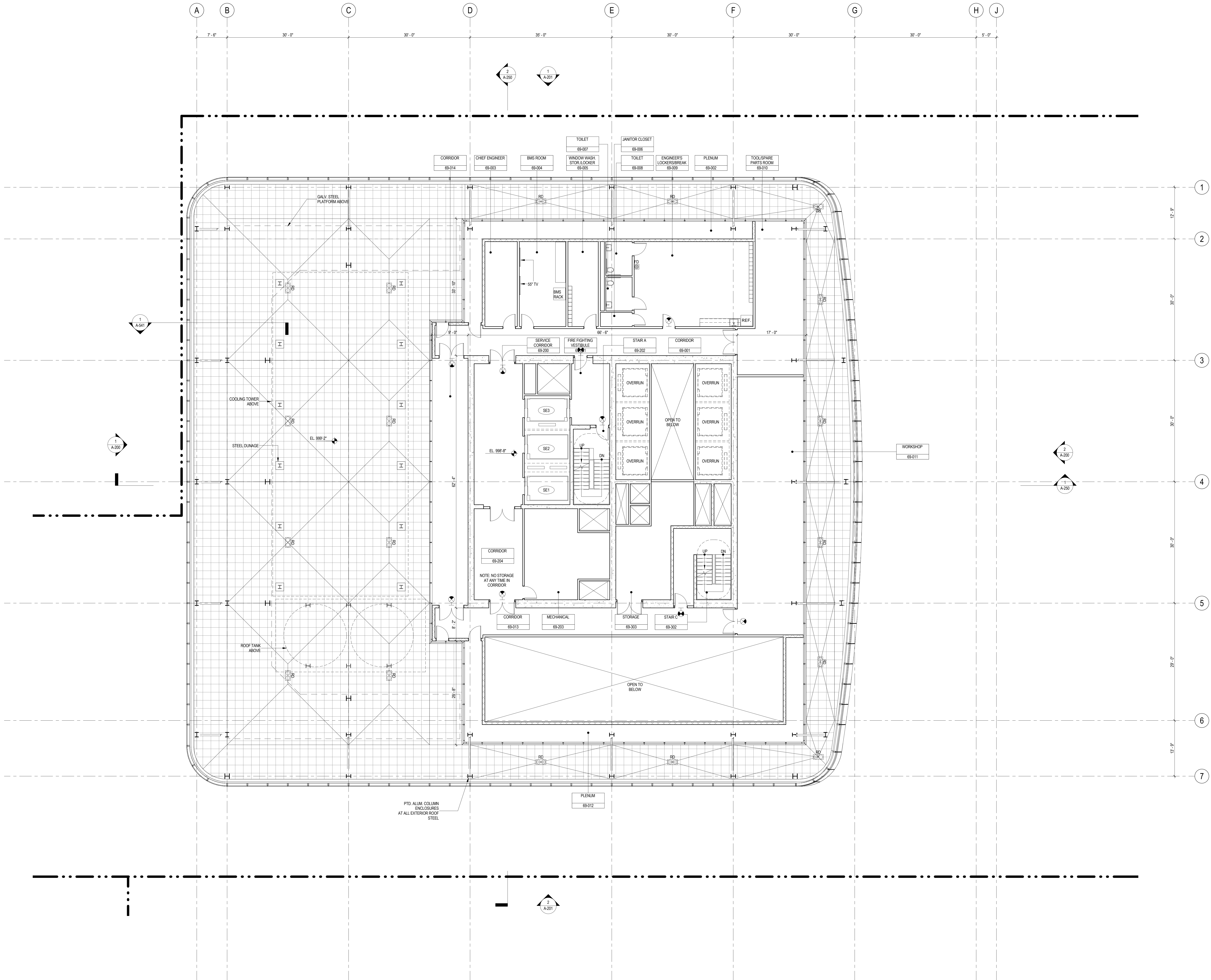
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**LEVEL 68 FLOOR  
PLAN -  
MECHANICAL**

Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-168

B-SCAN Sheet No.:  
**A-168.00**  
Sheet No.:  
**A-168**  
Page No.: 56 OF 30





SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 05700.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/PA/SC/CL. SERVICE DRAWINGS FOR LOCATIONS OF ALL CEILINGWALL MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/PA/SC/CL. SERVICE DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.
13. EXISTING DIMENSIONS AND CONDITIONS FOR THE ADJACENT LOFT BUILDING MUST BE CHECKED AND VERIFIED BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THESE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT OF RECORD.
14. THE PROJECT MUST SATISFY ALL APPLICABLE SEISMIC DESIGN PROVISIONS INDICATED IN SECTION BC 1910 OF THE 2009 NEW YORK CITY BUILDING CODE. REFER TO THE STRUCTURAL CALCULATION BOOK ISSUED ON JUNE 20, 2014 FOR SEISMIC LOAD DESIGN PARAMETERS.



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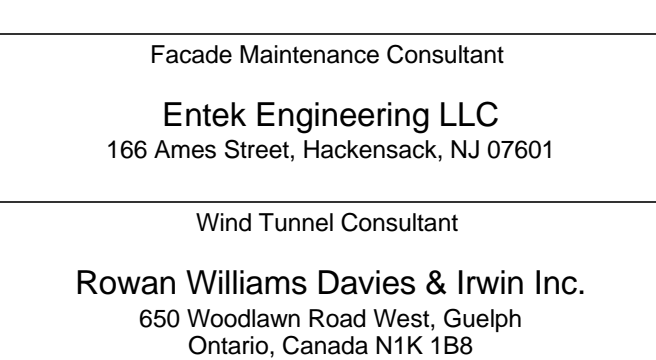
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65 Broadway, Suite 401, New York, NY 10006

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Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

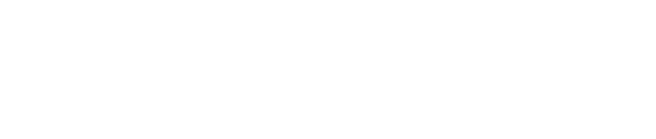
Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



Warning: It is a violation of the New York State Architecture Law, §16-01(b) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

No.	Date	Description
9	1 APR 2015	ISSUED FOR BUILDING PERMIT
8	25 FEB 2015	ISSUED FOR BUILDING PERMIT
7	30 JAN 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-169

B-SCAN Sheet No.: A-169.00  
Sheet No.: A-169  
Page No.: 57 OF 30

LEVEL 69 FLOOR  
PLAN -  
MECHANICAL



SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B270).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-800 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/CITL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/FAS/CITL SERVICE DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
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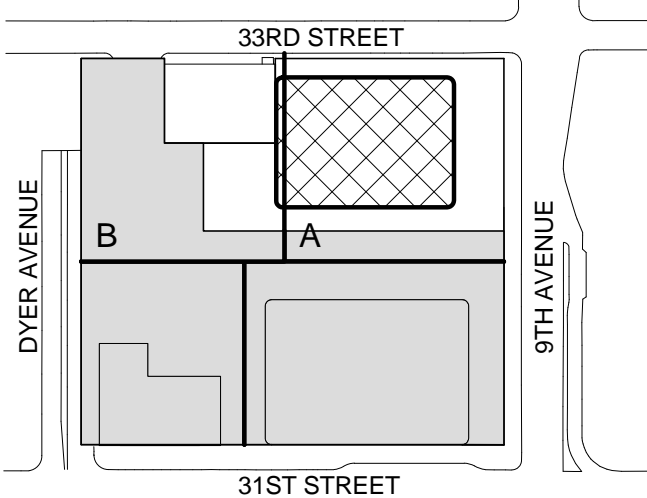
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Key Plan:



Seal & Signature:



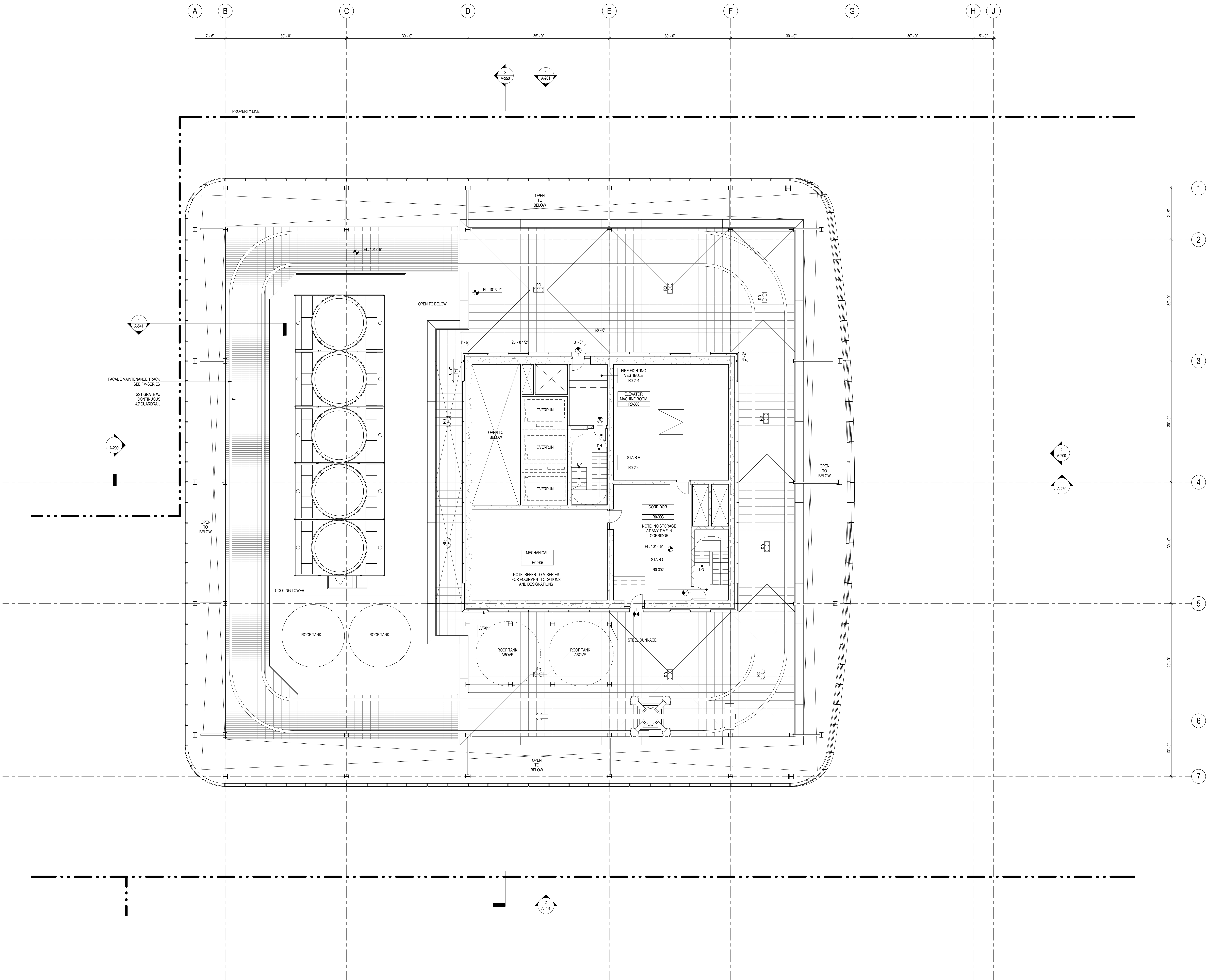
Warning: It is a violation of the New York State Architecture Law, §20-150, for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

8	1 APR 2015	ISSUED FOR BUILDING PERMIT
7	20 FEB 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

ROOF PLAN -  
MECHANICAL  
PENTHOUSE

Project No.: 207150	B-SCAN Sheet No.: A-170.00
Date: 1 APR 2015	Sheet No.: A-170
Scale: 1/8" = 1'-0"	Page No.: 58 OF 30
File No.: A-170	





SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
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3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE, SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FFS/SCOTEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED DEVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph Ontario, Canada N1K 1B8

Key Plan:

33RD STREET  
DYER AVENUE  
9TH AVENUE  
31ST STREET

Seal & Signature:

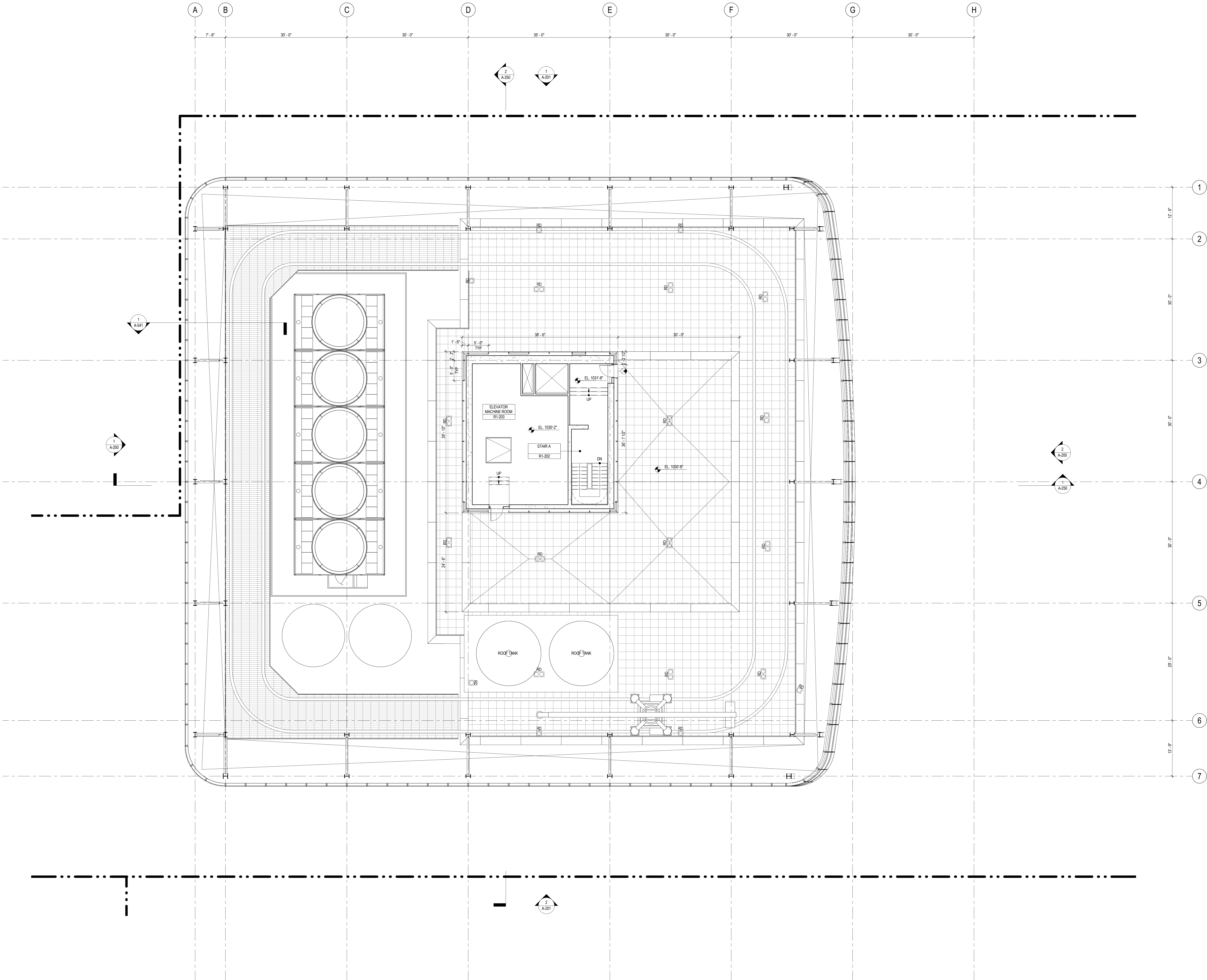
Warning: It is a violation of the New York State Architecture Law, §16-010, for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

REGISTERED ARCHITECT  
STATE OF NEW YORK  
No. 5642

Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/8" = 1'-0"  
File No.: A-171

B-SCAN Sheet No.: A-171.00  
Sheet No.: A-171  
Page No.: 99 OF 30

ROOF PLAN -  
MECHANICAL  
PENTHOUSE  
ROOF





SHEET NOTES

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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B-700).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, LND.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/F/ASCE/TEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED DEVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, LND.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/F DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.



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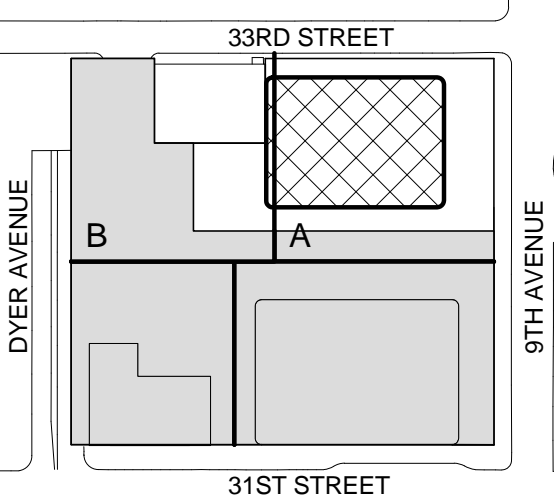
Facade Maintenance Consultant

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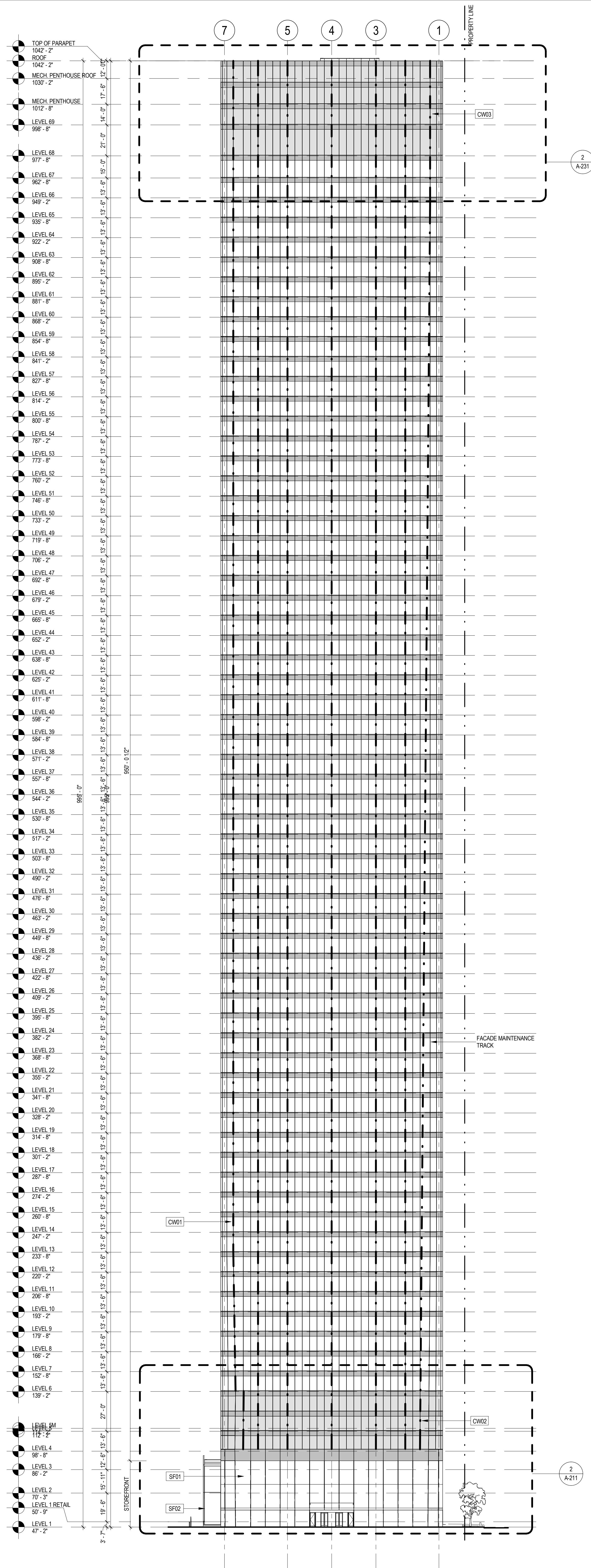
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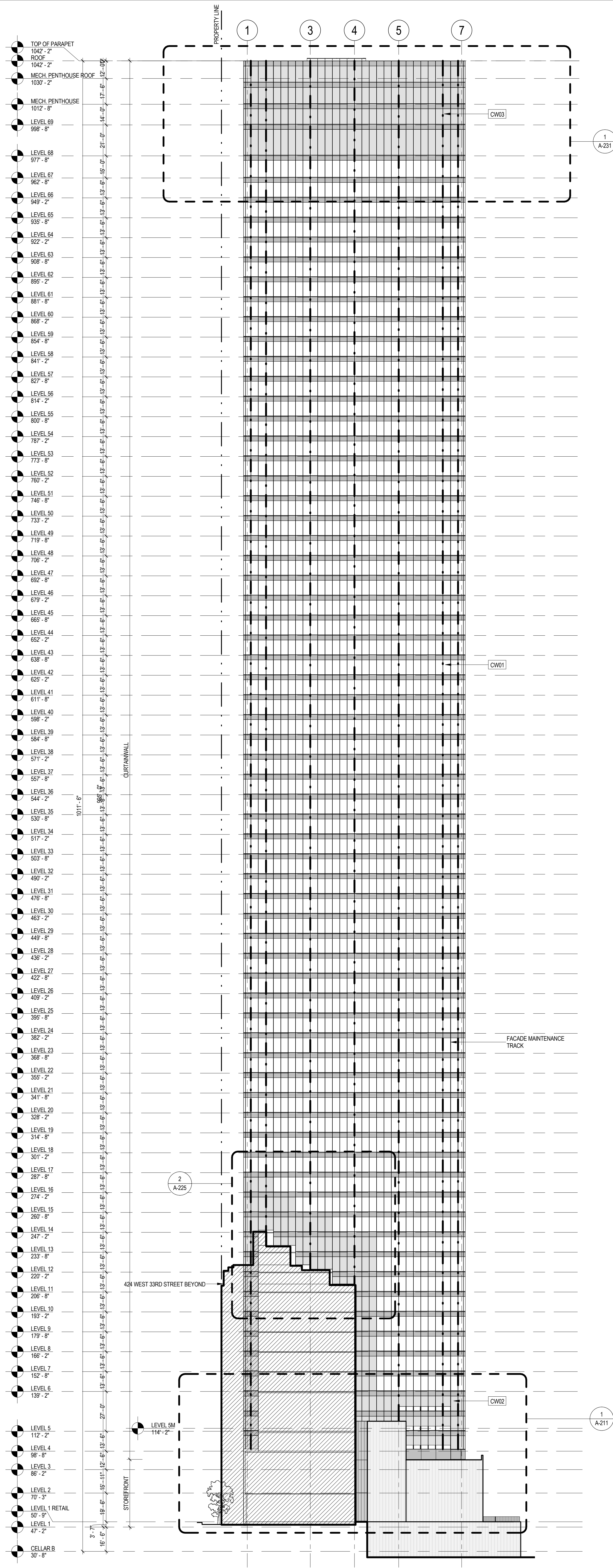
## 2 EAST BUILDING ELEVATION

SCALE: 1/32" = 1'-0"



## 1 WEST BUILDING ELEVATION

SCALE: 1/32" = 1'-0"



### SHEET NOTES

1. SEE 500 SERIES FOR ENCLOSURE DETAILS.
2. ALL DOCUMENTATION OF 424 WEST 33RD STREET IS PRELIMINARY. VERIFY EXISTING CONDITIONS.
3. VERIFY EXISTING CONDITIONS OF ADJACENT LOFT BUILDING, LOCATION OF FOUNDATION WALL AND EXTENT OF CURTAIN WALL SEPARATIONS TO BE VERIFIED IN FIELD.
4. SEE FM SERIES FOR FACADE MAINTENANCE DETAILS.
5. EXISTING DIMENSIONS AND CONDITIONS FOR THE ADJACENT LOFT BUILDING MUST BE CHECKED AND VERIFIED BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THESE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT OF RECORD.
6. THE PROJECT MUST SATISFY ALL APPLICABLE SEISMIC DESIGN PROVISIONS INDICATED IN SECTION 60.1910 OF THE 2008 NEW YORK CITY BUILDING CODE. REFER TO THE STRUCTURAL CALCULATION BOOK ISSUED ON JUNE 20, 2014 FOR SEISMIC LOAD DESIGN PARAMETERS.



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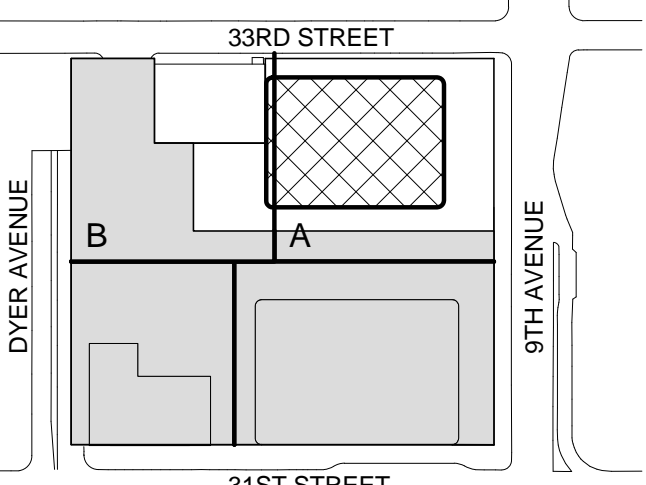
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650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



8	30 JAN 2015	ISSUED FOR BUILDING PERMIT
7	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
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3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
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No. Date Description  
Sheet Name:

### BUILDING ELEVATIONS

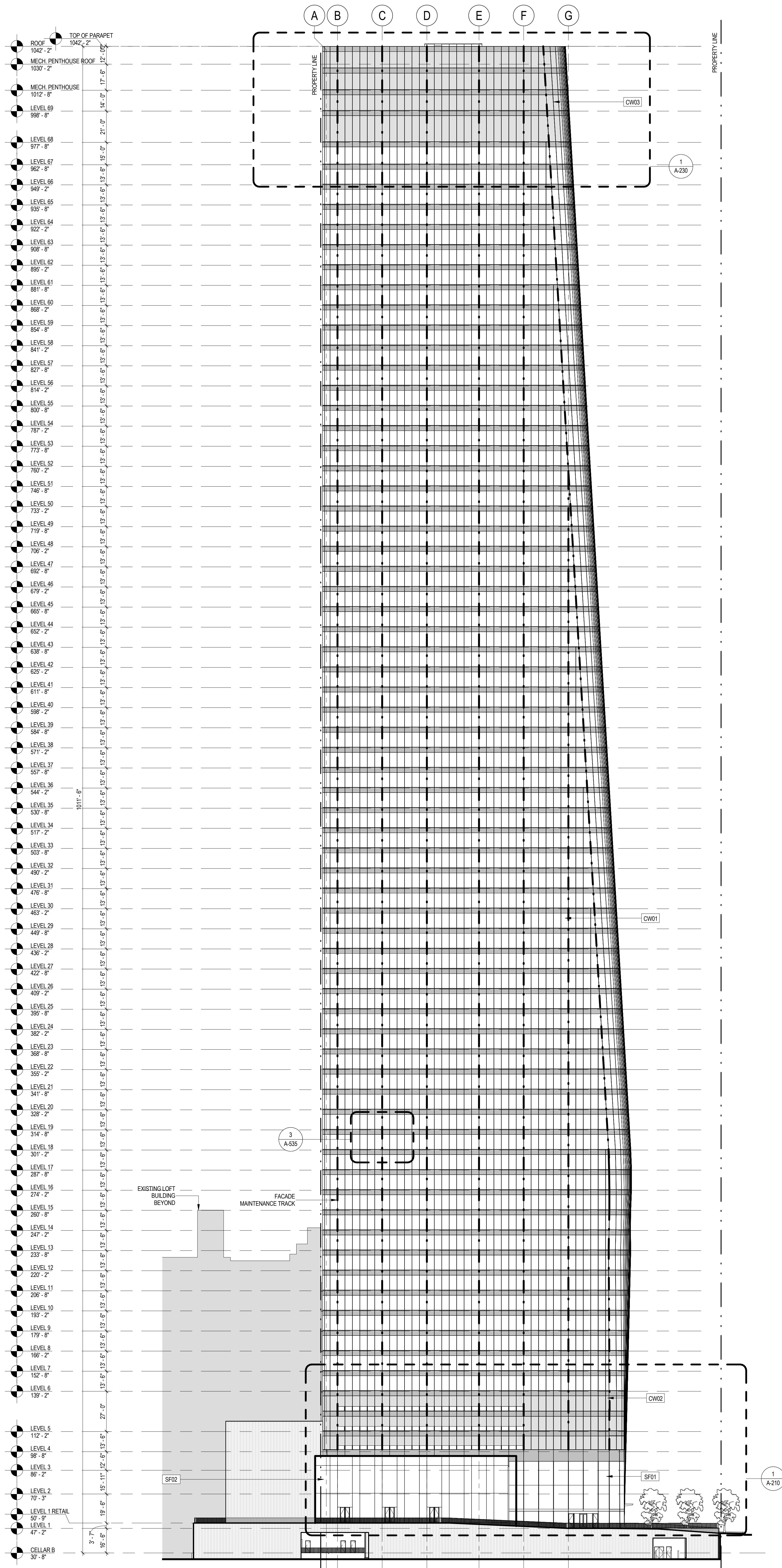
Project No.: 207150	B-SCAN Sheet No.: A-200.00
Date: 30 JAN 2015	Sheet No.: A-200
Scale: 1/32" = 1'-0"	Page No.: 61 OF 30
File No.: A-200	



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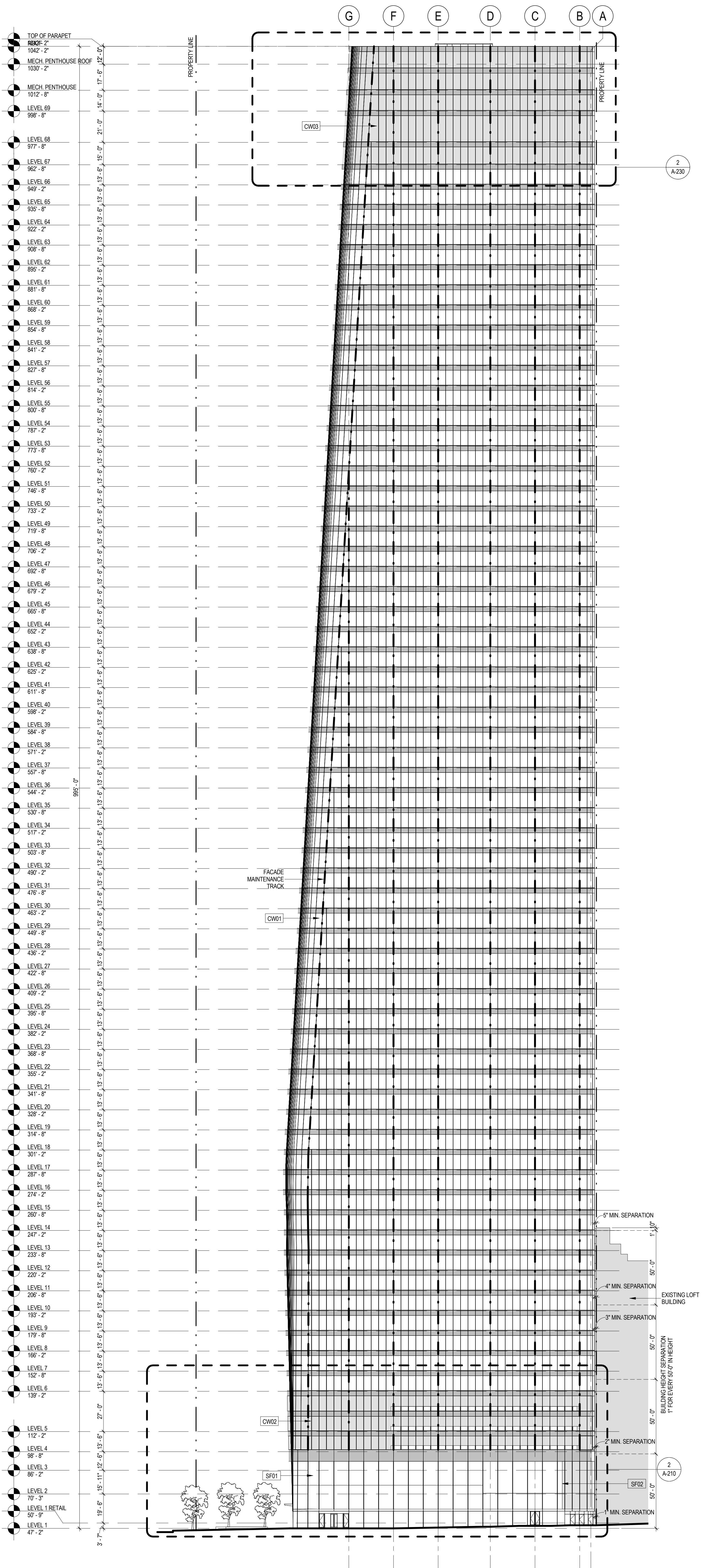
## 2 SOUTH BUILDING ELEVATION

SCALE: 1/32" = 1'-0"



## 1 NORTH BUILDING ELEVATION

SCALE: 1/32" = 1'-0"



### SHEET NOTES

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2. ALL DOCUMENTATION OF 44 WEST 33RD STREET IS PRELIMINARY. VERIFY EXISTING CONDITIONS.
3. VERIFY EXISTING CONDITIONS OF ADJACENT LOFT BUILDING. LOCATION OF FOUNDATION WALL AND EXTENT OF CURTAIN WALL SEPARATIONS TO BE VERIFIED IN FIELD.
4. SEE FM SERIES FOR FACADE MAINTENANCE DETAILS.
5. EXISTING DIMENSIONS AND CONDITIONS FOR THE ADJACENT LOFT BUILDINGS MUST BE CHECKED AND VERIFIED BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THESE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT OF RECORD.
6. THE PROJECT MUST SATISFY ALL APPLICABLE SEISMIC DESIGN PROVISIONS INDICATED IN SECTION 605.190 OF THE 2009 NEW YORK CITY BUILDING CODE. REFER TO THE STRUCTURAL CALCULATION BOOK ISSUED ON JUNE 29, 2014 FOR SEISMIC LOAD DESIGN PARAMETERS.



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250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

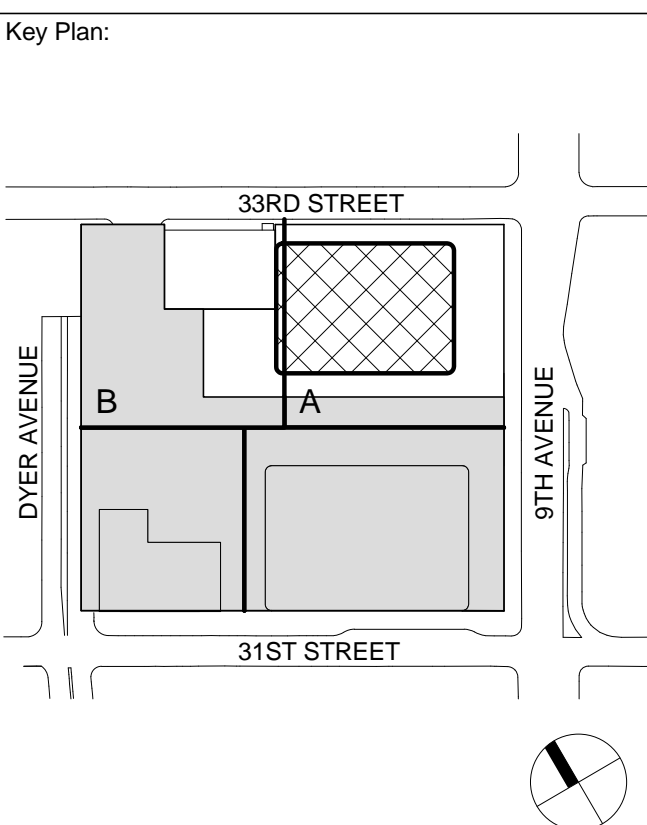
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
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Seal & Signature



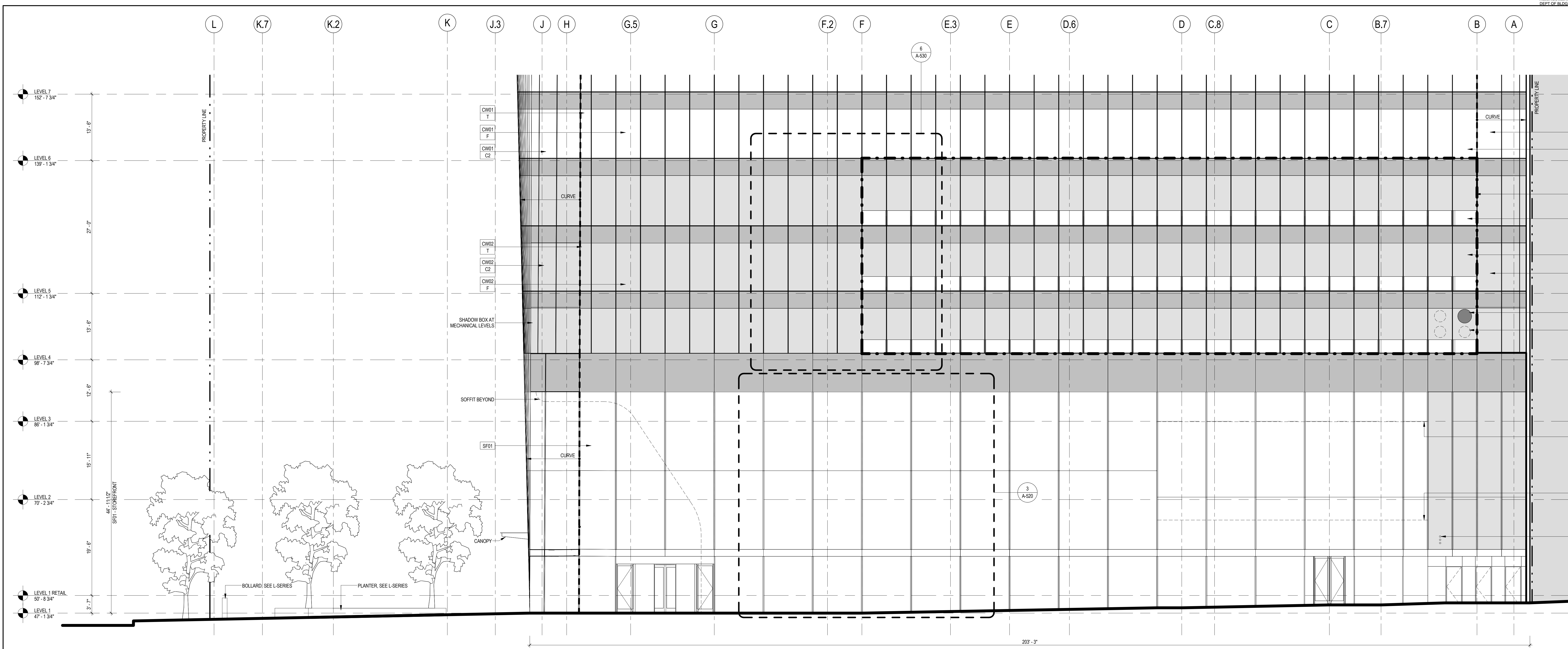
Warning: It is a violation of the New York State Architecture Law, §16-010, for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

No.	Date	Description
8	30 JAN 2015	ISSUED FOR BUILDING PERMIT
7	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

Sheet Name: **BUILDING ELEVATIONS**

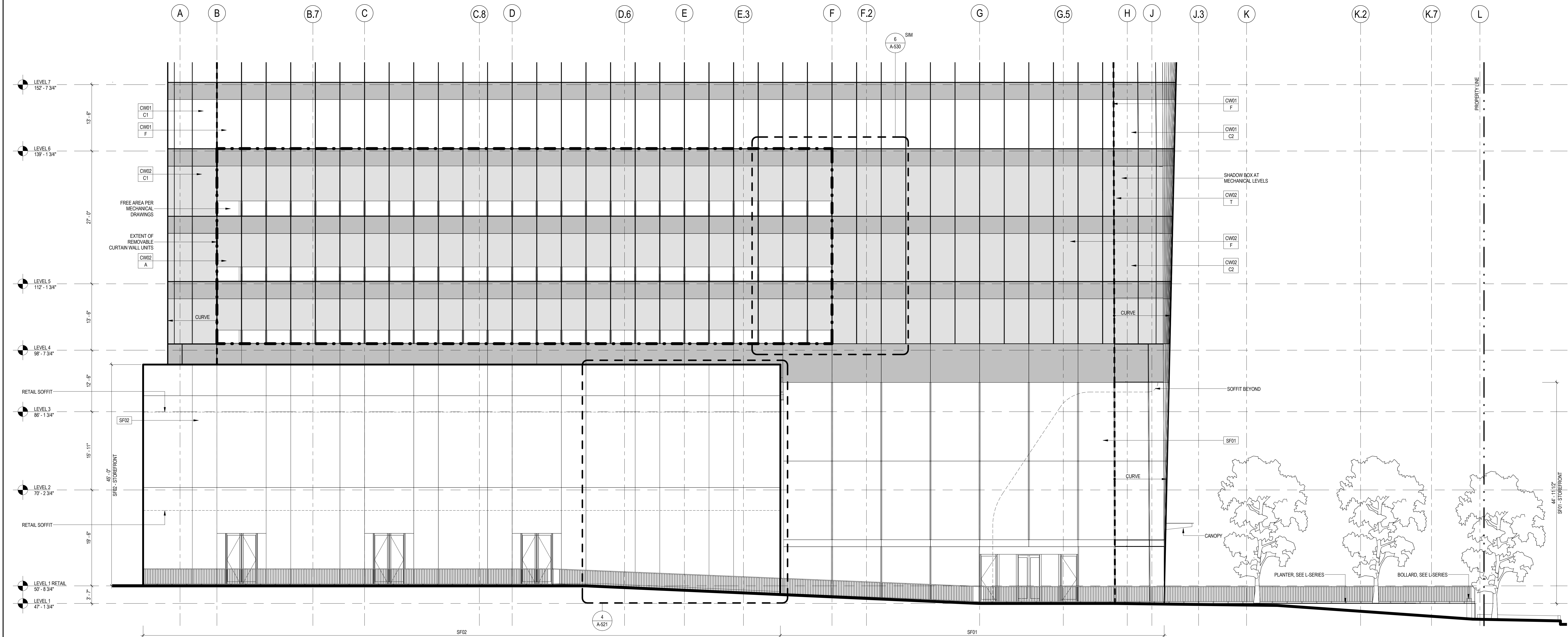
Project No.: 207150	B-SCAN Sheet No.: A-201.00
Date: 30 JAN 2015	Sheet No.: A-201
Scale: 1/32" = 1'-0"	Page No.: 62 OF 30
File No.: A-201	






2 ENLARGED ELEVATION AT GROUND FLOOR LOOKING SOUTH

SCALE: 1/8" = 1'-0"



1 ENLARGED ELEVATION AT GROUND FLOOR LOOKING NORTH

SCALE: 1/8" = 1'-0"



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Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #B, New York, NY 10016

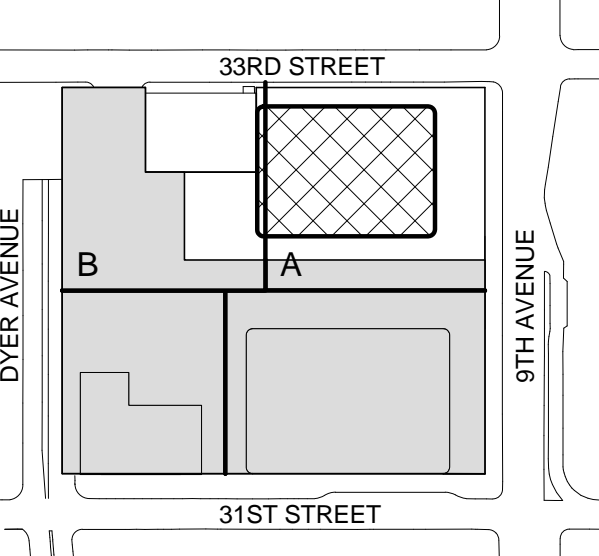
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018


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Key Plan:



Seal & Signature:



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No.	Date	Description
4	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:

**ENLARGED  
ELEVATIONS AT  
GROUND FLOOR**

Project No.:	B-SCAN Sheet No.:
207150	A-210.00
Date:	12 SEPT 2014
Scale:	1/8" = 1'-0"
File No.:	A-210

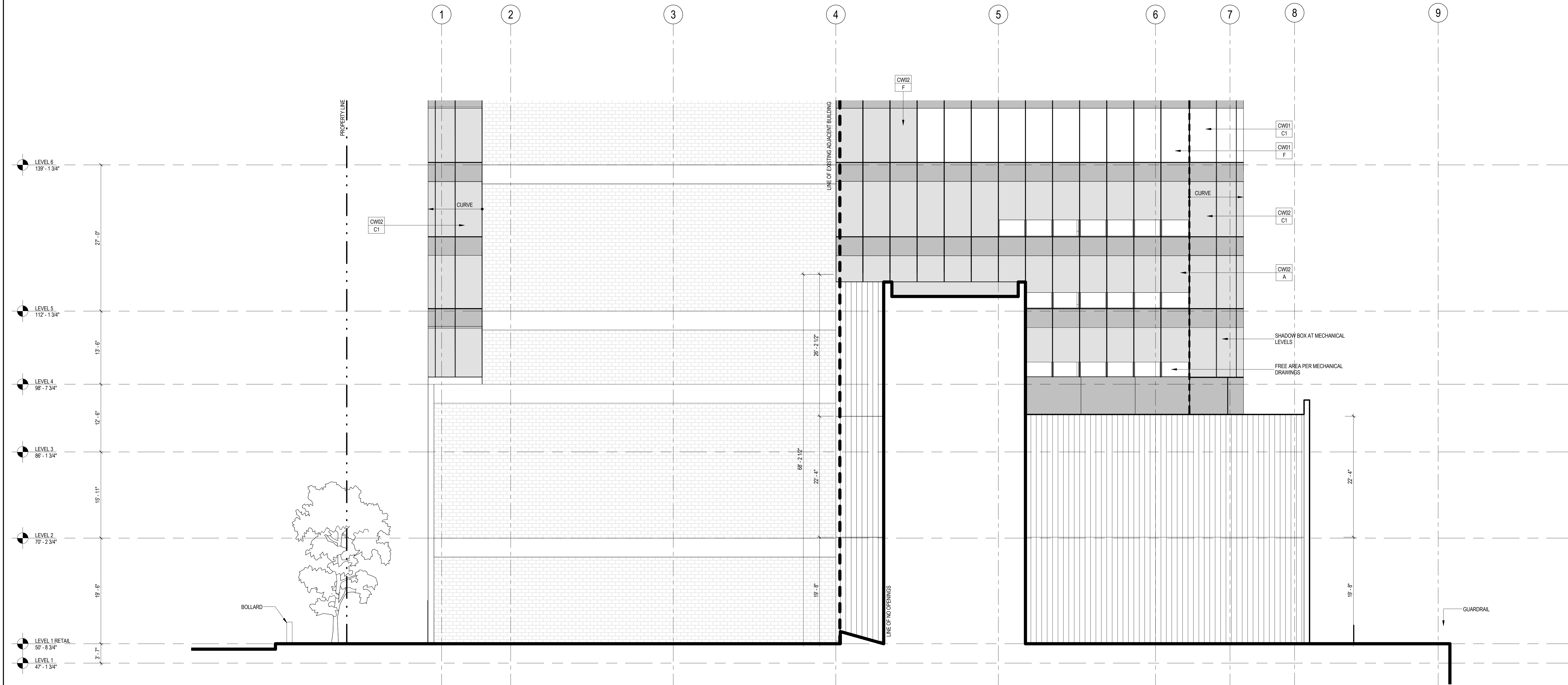
Page No.: 67 OF 30



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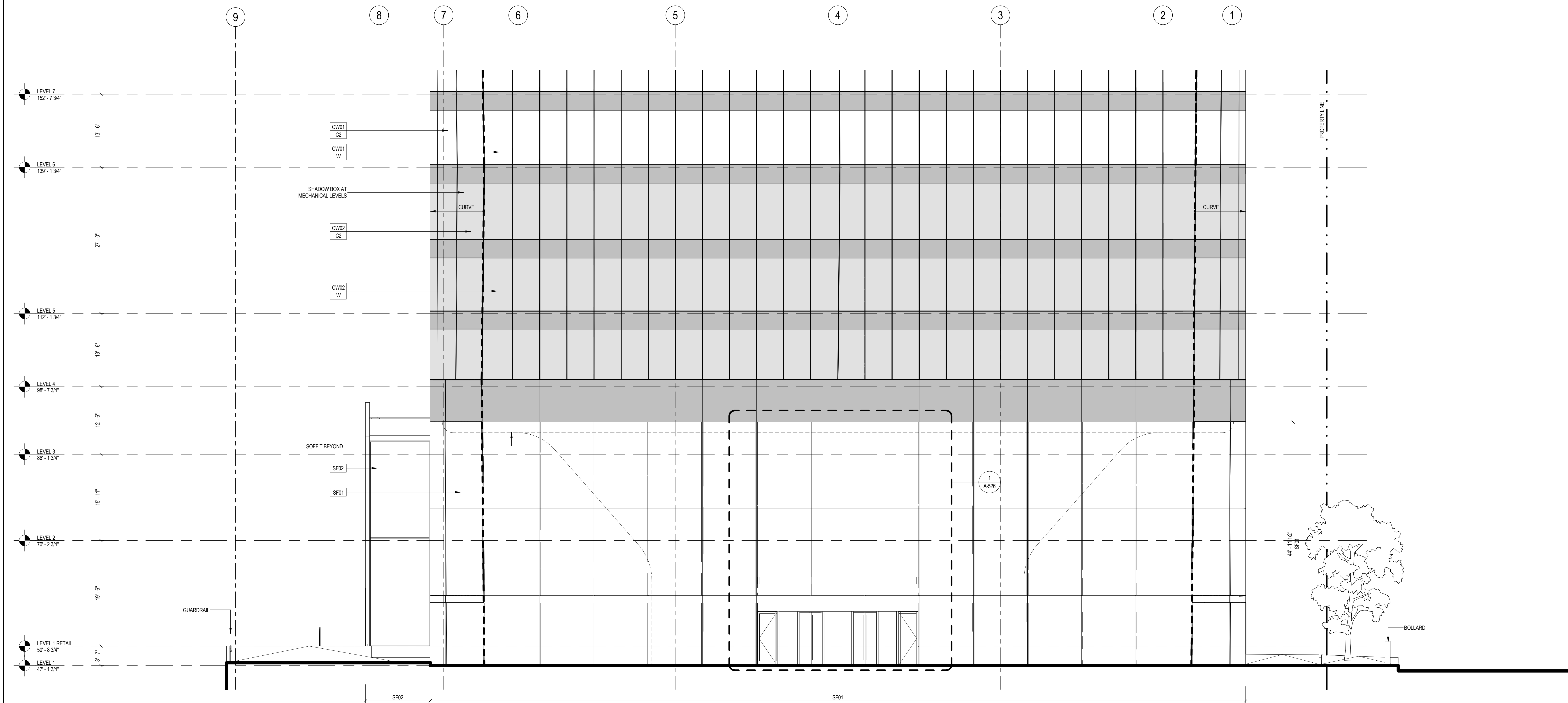
## 1 ENLARGED ELEVATION AT GROUND FLOOR LOOKING EAST

SCALE: 1/8" = 1'-0"



## 2 ENLARGED ELEVATION AT GROUND FLOOR LOOKING WEST

SCALE: 1/8" = 1'-0"



### SHEET NOTES

- SEE 500 SERIES FOR ENCLOSURE DETAILS
- ALL DOCUMENTATION OF 424 WEST 33RD STREET IS PRELIMINARY. VERIFY EXISTING CONDITIONS.
- VERIFY EXISTING CONDITIONS OF ADJACENT LOFT BUILDING, LOCATION OF FOUNDATION WALL AND EXTENT OF CURTAIN WALL SEPARATIONS TO BE VERIFIED IN FIELD.
- SEE FA SERIES FOR FACADE MAINTENANCE DETAILS.



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Wilson, Uhrig & Associates, Inc.  
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Code Consultant

Code Consultants Professional Engineers PC  
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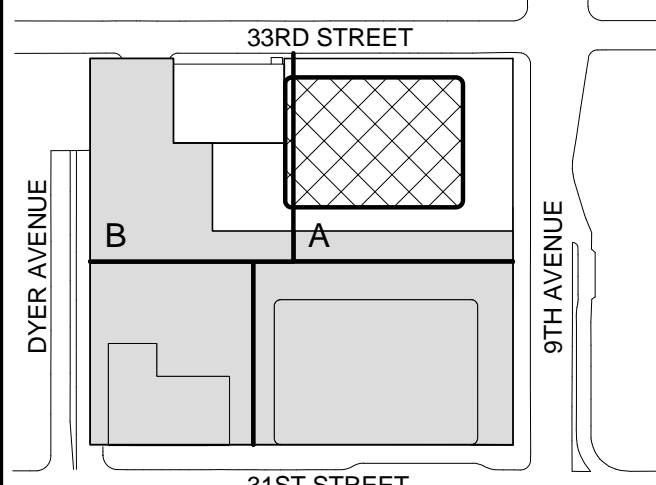
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



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4 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
3 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
2 15 NOV 2013 ISSUED FOR DD PROGRESS PRICING  
1 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description

Sheet Name:

**ENLARGED  
ELEVATIONS AT  
GROUND FLOOR**

### LEGEND

- SHADOW BOX 1
- SHADOW BOX 2

Project No.:

207150

Date:

12 SEPT 2014

Scale:

1/8" = 1'-0"

File No.:

A-211

B-SCAN Sheet No.:

A-211.00

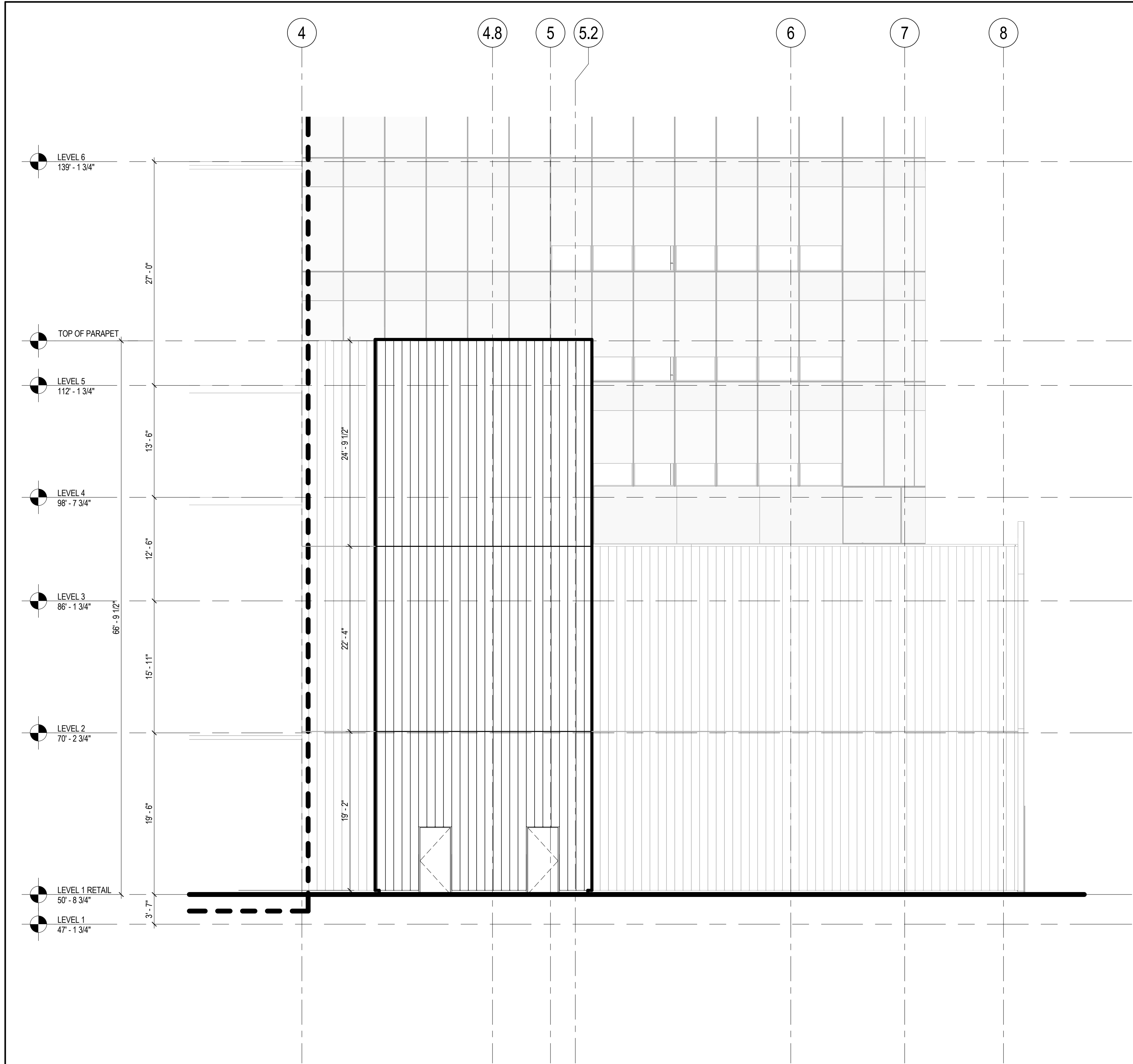
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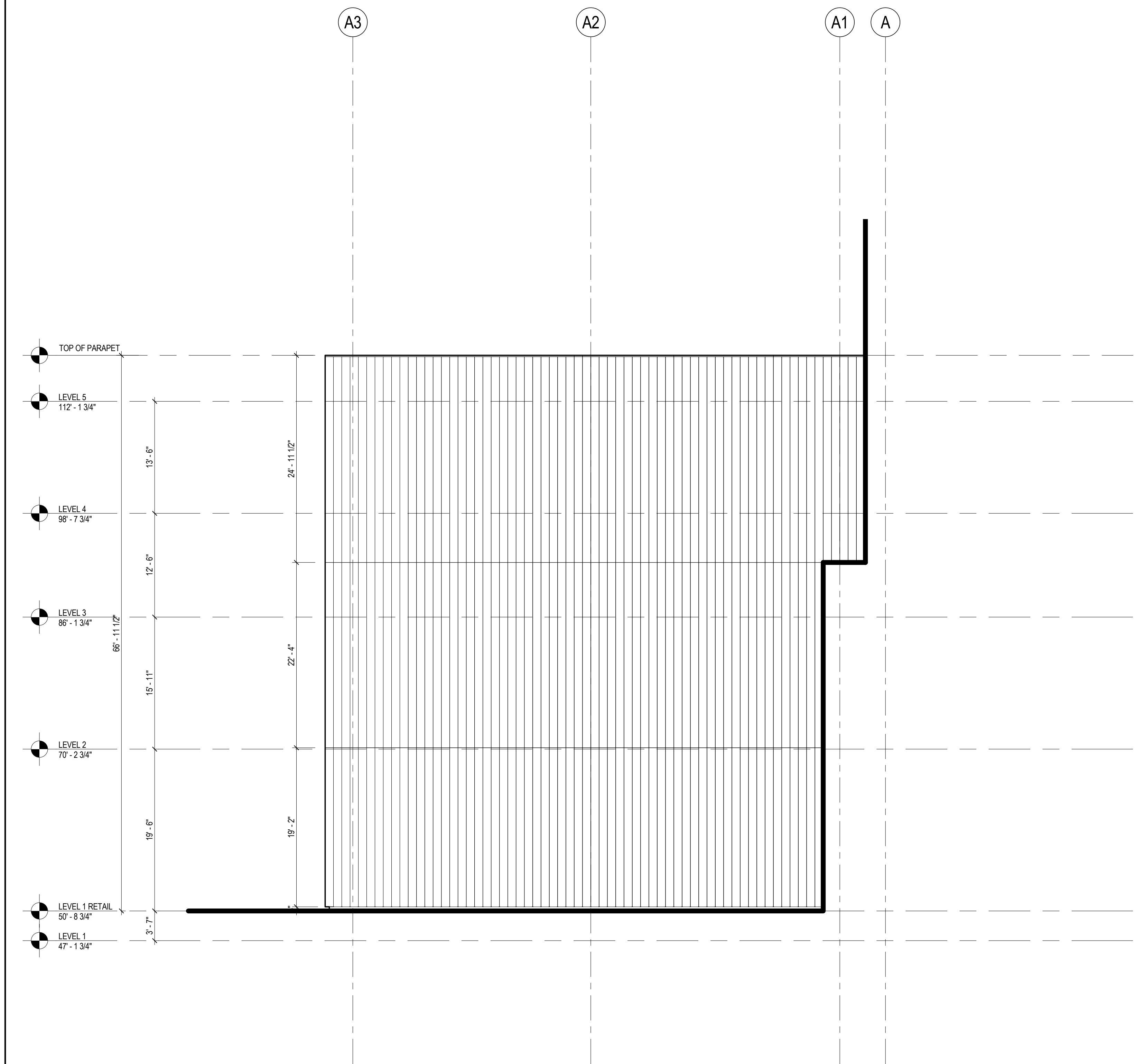
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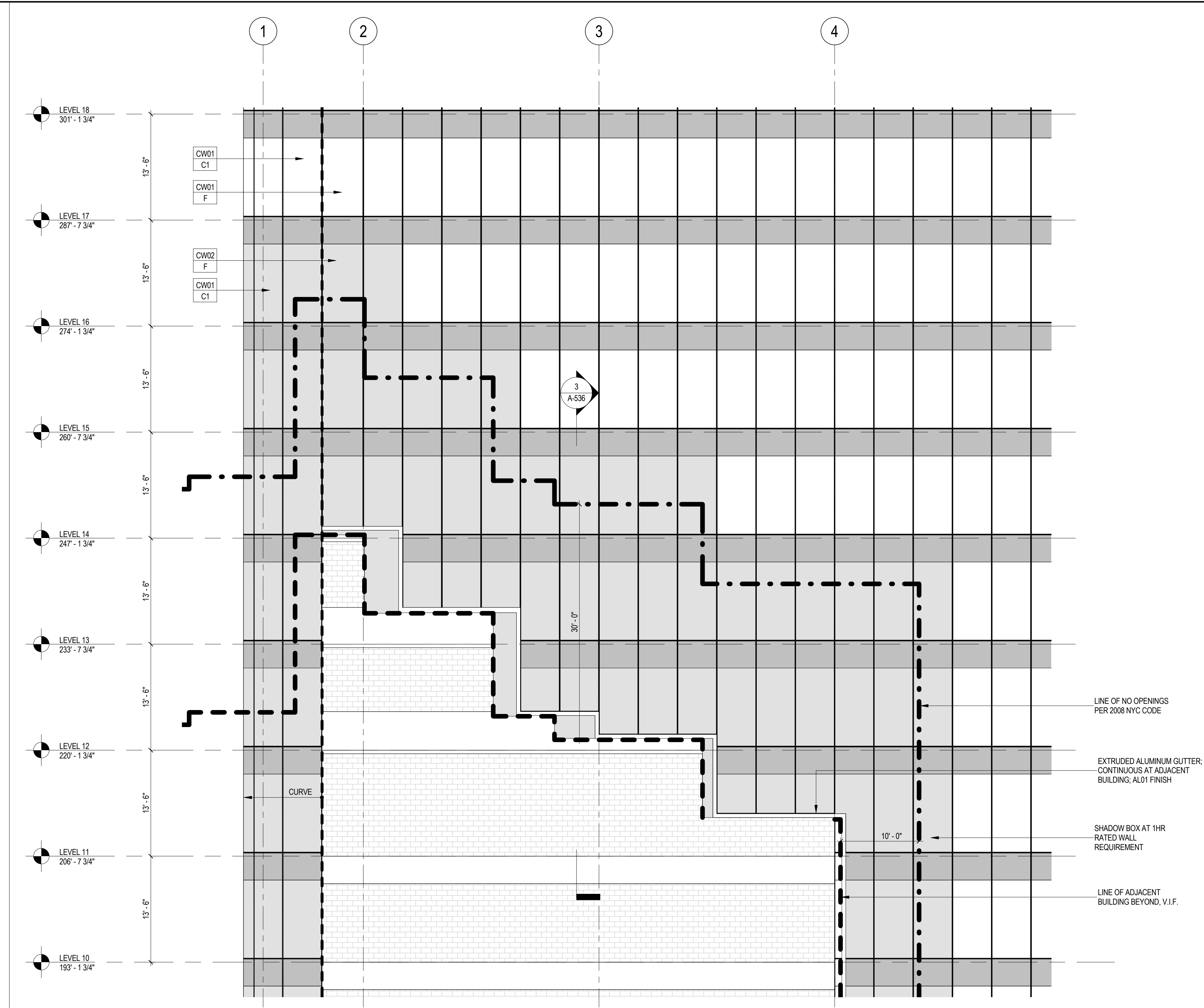




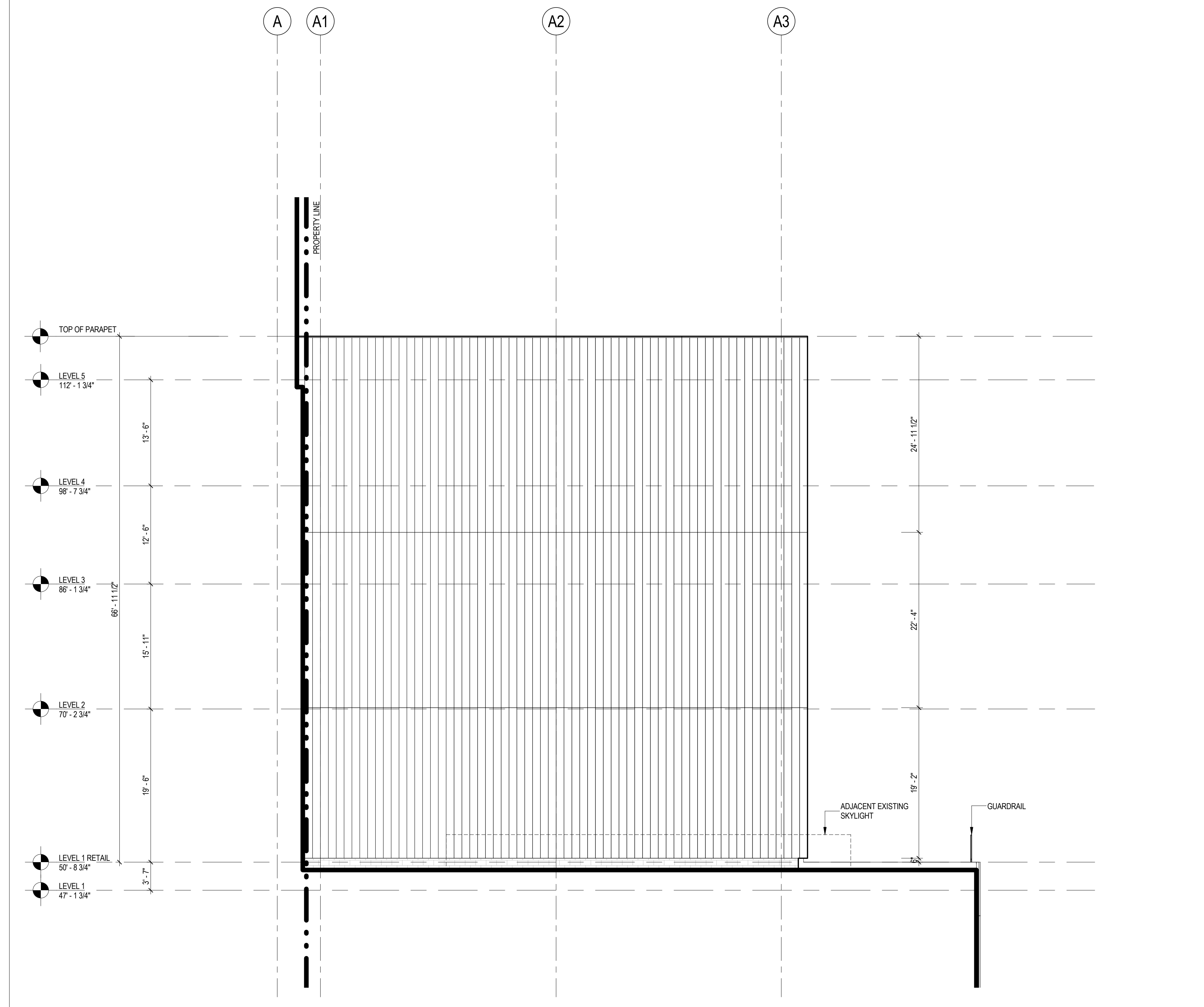
4 ENLARGED BUILDING ELEVATION AT RETAIL CORE LOOKING EAST  
SCALE: 1/8" = 1'-0"



3 ENLARGED BUILDING ELEVATION AT RETAIL CORE LOOKING NORTH  
SCALE: 1/8" = 1'-0"



2 ENLARGED BUILDING ELEVATION - WEST LOFT  
SCALE: 1/8" = 1'-0"



1 ENLARGED BUILDING ELEVATION AT RETAIL CORE LOOKING SOUTH  
SCALE: 1/8" = 1'-0"


## SHEET NOTES

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- SEE FM SERIES FOR FACADE MAINTENANCE DETAILS.

LEGEND

SHADOW BOX 1

SHADOW BOX 2



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Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

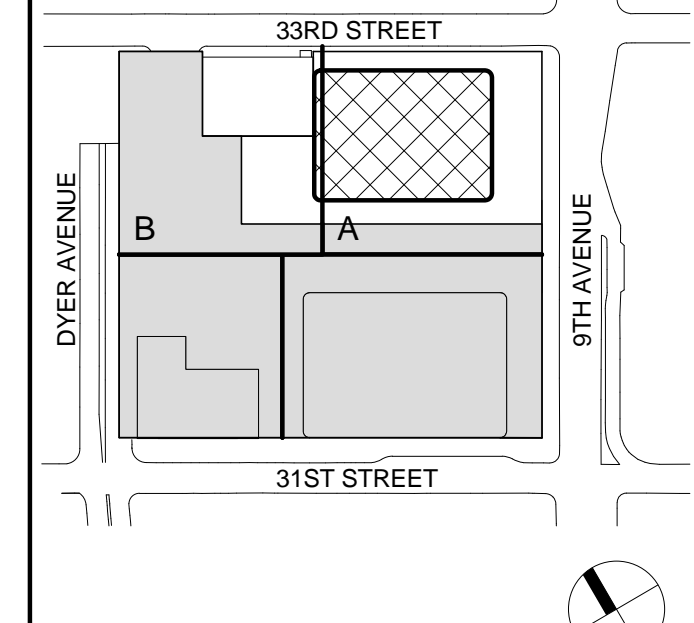
Facade Maintenance Consultant

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Key Plan:



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4 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
3 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
2 15 NOV 2013 ISSUED FOR DD PROGRESS PRICING  
1 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description

Sheet Name:

**ENLARGED  
ELEVATIONS AT  
LOFT BUILDING**

Project No.: 207150  
Date: 12 SEPT 2014  
Scale: 1/8" = 1'-0"  
File No.: A-225

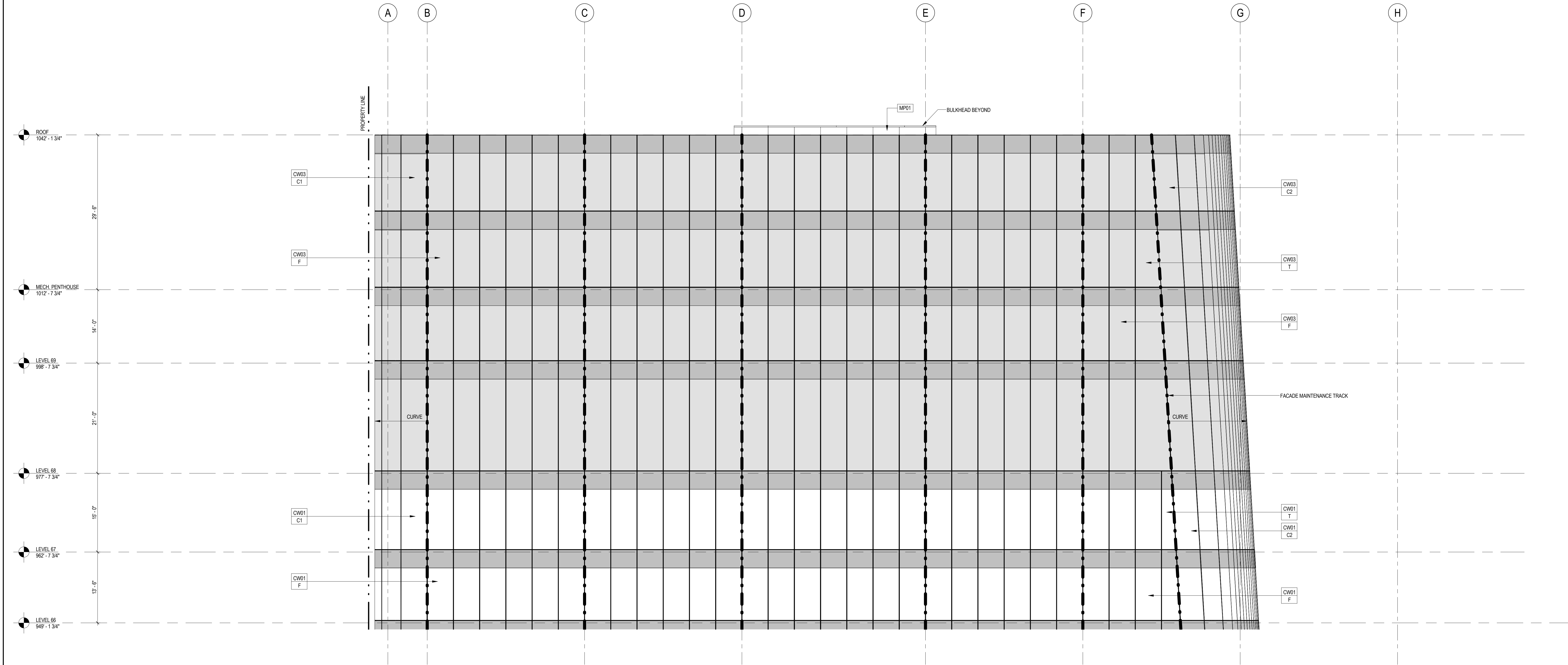
B-SCAN Sheet No.:  
**A-225.00**  
Sheet No.:  
**A-225**  
Page No.: 69 OF 30



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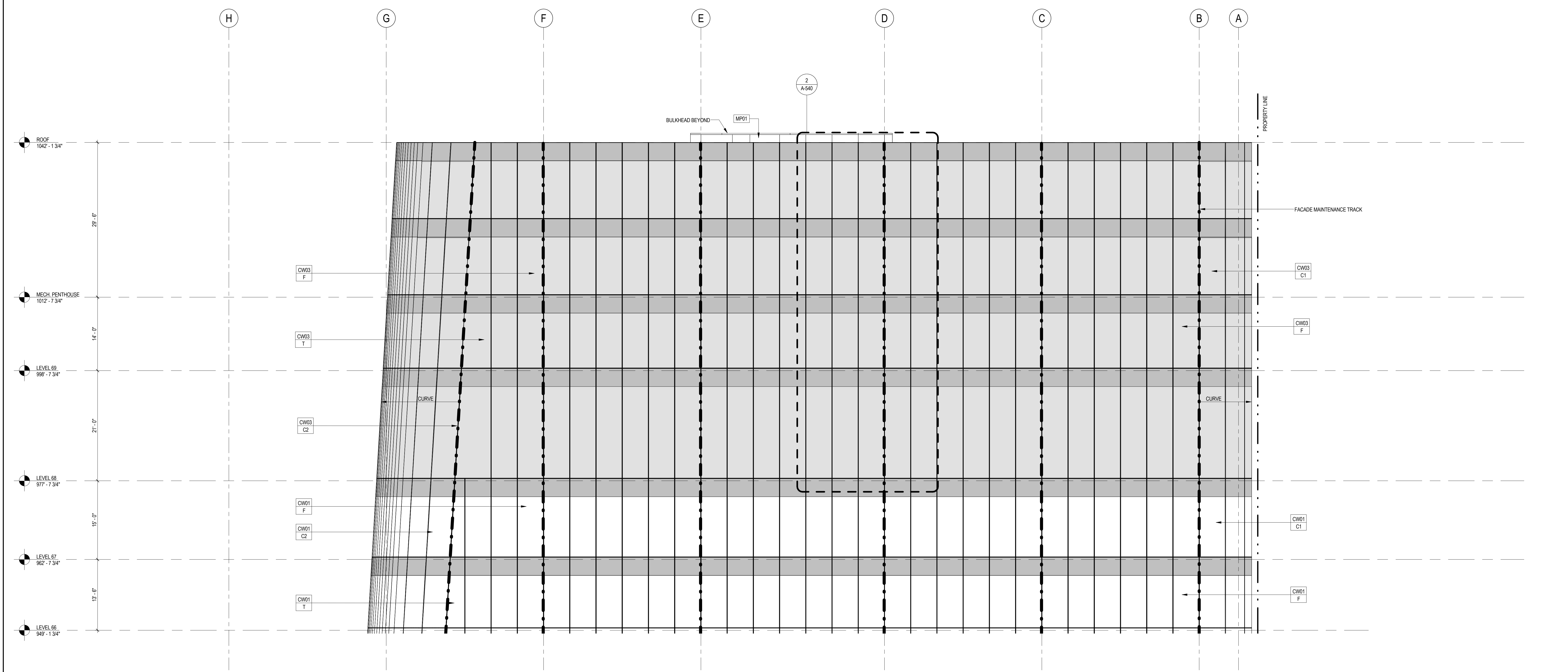
## 1 ENLARGED ELEVATION AT ROOF LOOKING NORTH

SCALE: 1/8" = 1'-0"



## 2 ENLARGED ELEVATION AT ROOF LOOKING SOUTH

SCALE: 1/8" = 1'-0"



### SHEET NOTES

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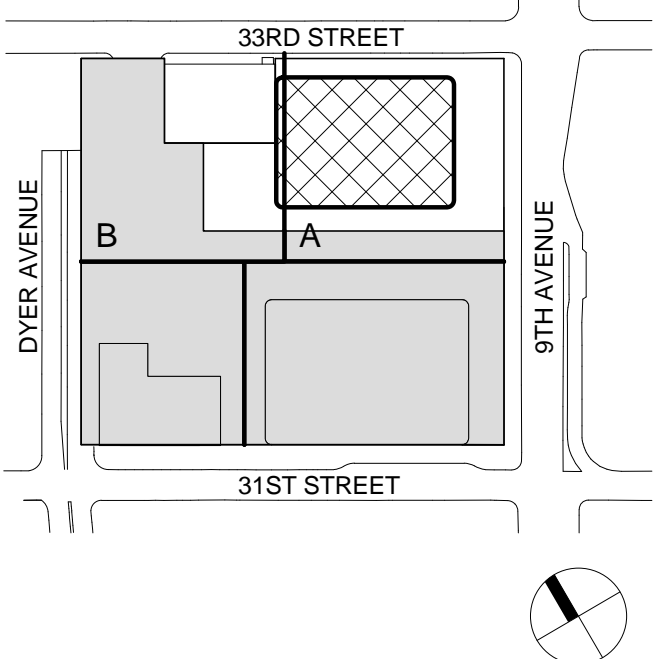
Facade Maintenance Consultant

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1 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description  
Sheet Name:

**ENLARGED  
ELEVATIONS AT  
ROOF**

Project No.:

207150

B-SCAN Sheet No.:

A-230.00

Date:

12 SEPT 2014

Scale:

1/8" = 1'-0"

Sheet No.:

A-230

File No.:

A-230

Page No.:

76 OF 30



SHEET NOTES

- SEE 500 SERIES FOR ENCLOSURE DETAILS
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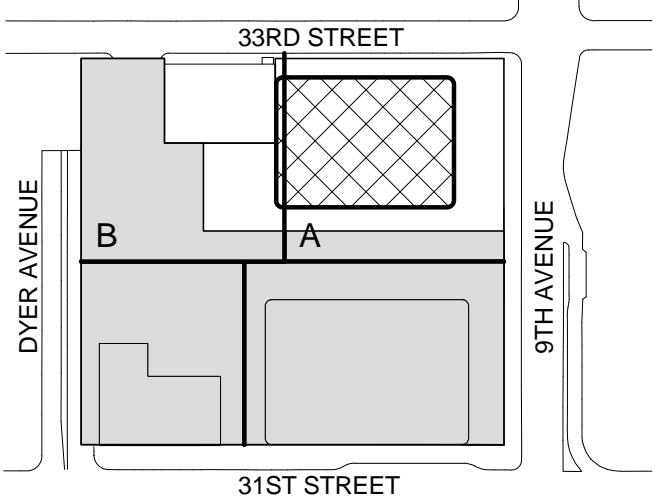
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

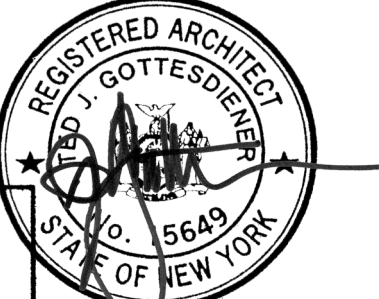
Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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4 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
3 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
2 15 NOV 2013 ISSUED FOR DD PROGRESS PRICING  
1 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description  
Sheet Name:

**ENLARGED  
ELEVATIONS AT  
ROOF**

Project No.:

207150

Date:

12 SEPT 2014

Scale:

1/8" = 1'-0"

File No.:

A-231

B-SCAN Sheet No.:

A-231.00

Sheet No.:

A-231

Page No.:

71 OF 30

LEGEND

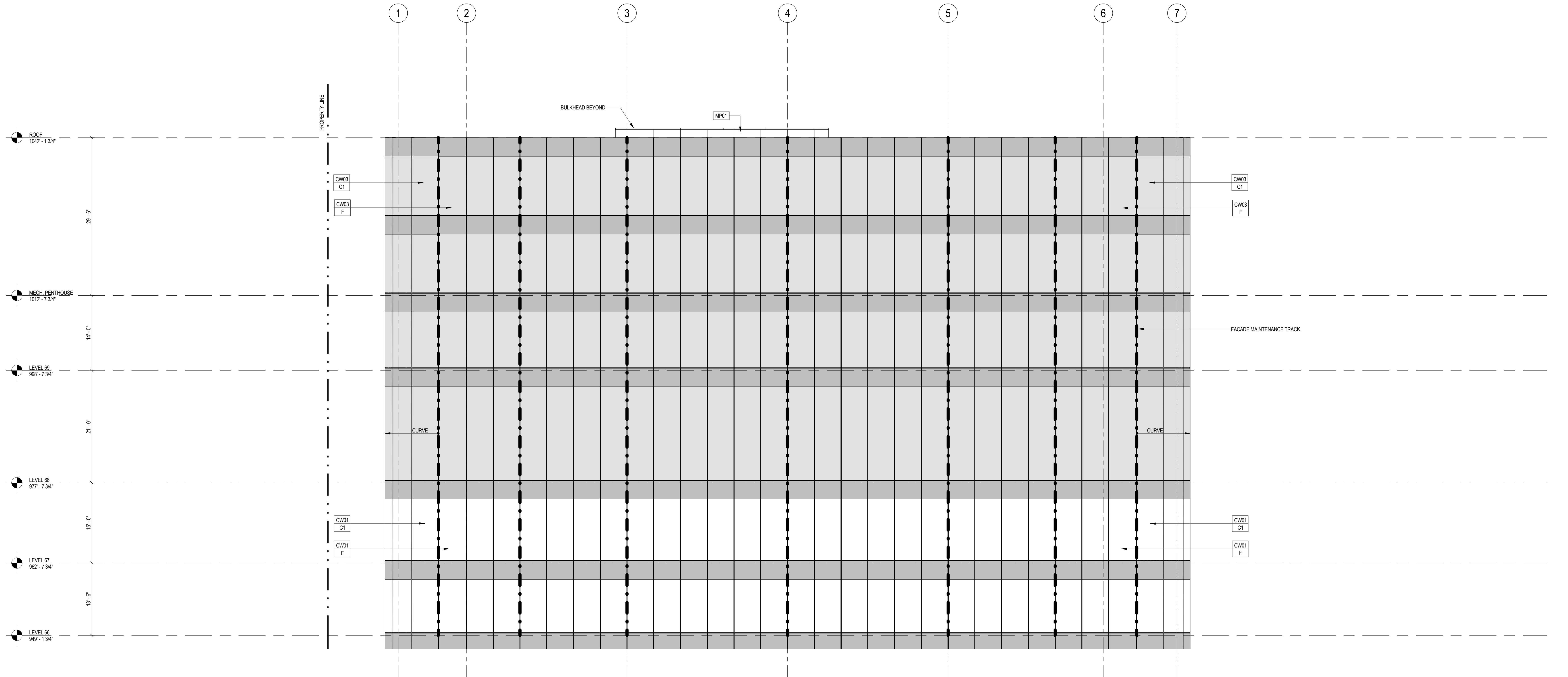
SHADOW BOX 1

SHADOW BOX 2

2

ENLARGED ELEVATION AT ROOF LOOKING WEST

SCALE: 1/8" = 1'-0"



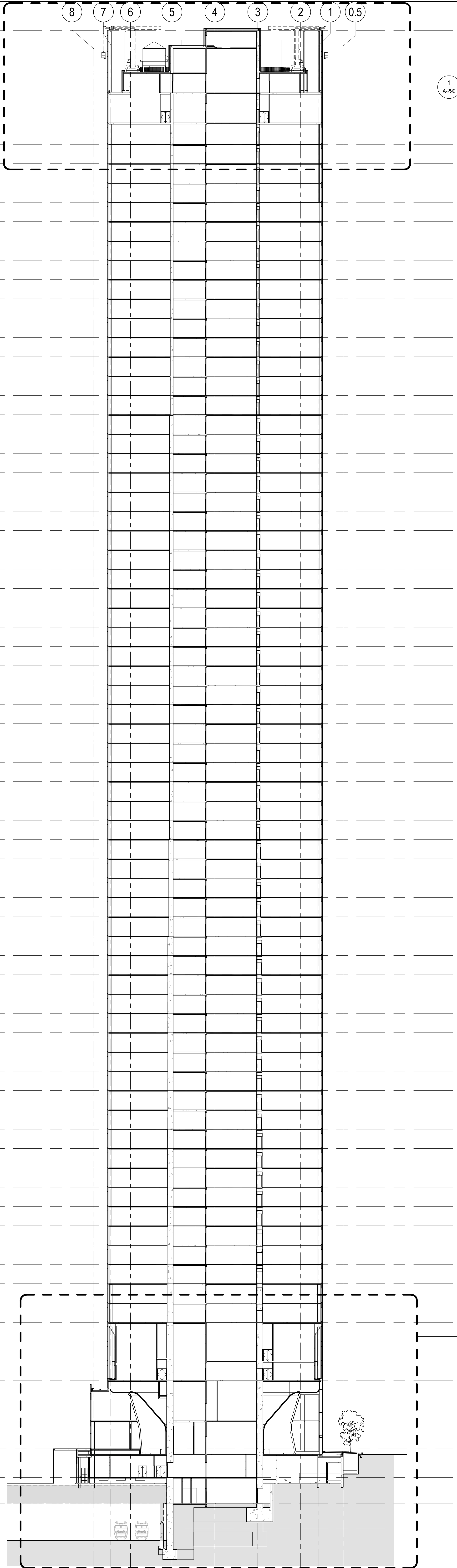
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ENLARGED ELEVATION AT ROOF LOOKING EAST

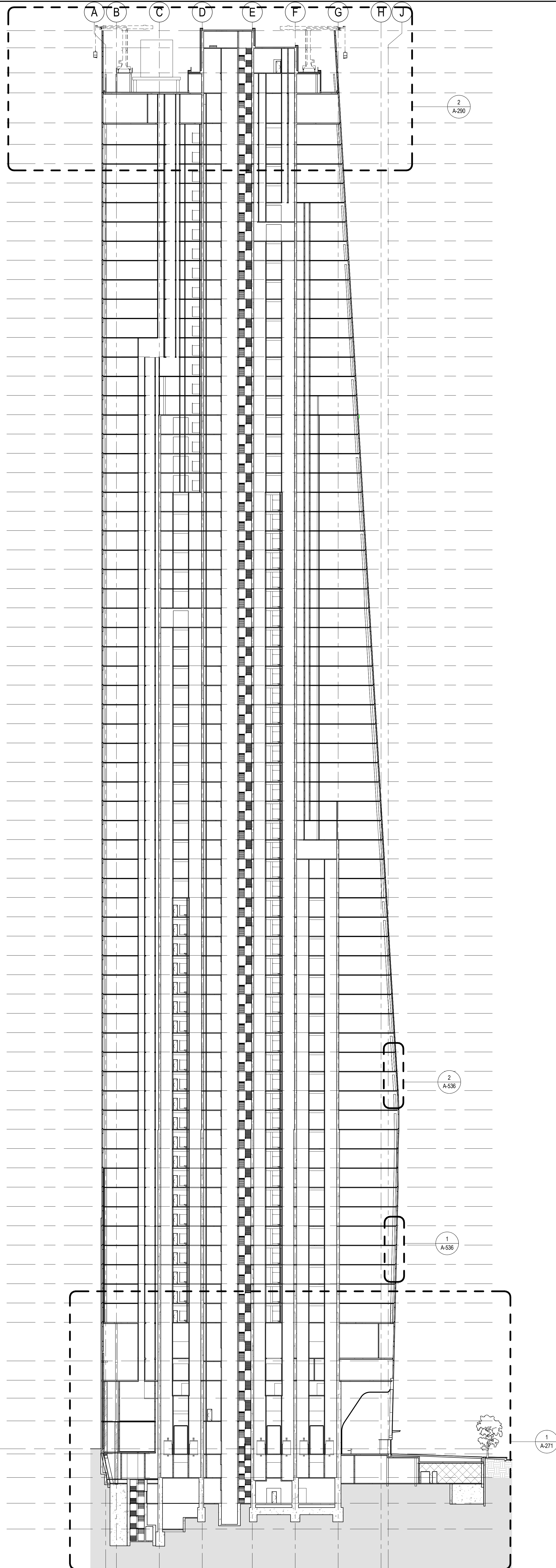
SCALE: 1/8" = 1'-0"



ROOF 1042'-2"  
MECH. PENTHOUSE ROOF 1039'-2"  
MECH. PENTHOUSE 1017'-5"  
LEVEL 69 998'-8"  
LEVEL 68 997'-8"  
LEVEL 67 992'-8"  
LEVEL 66 949'-2"  
LEVEL 65 935'-8"  
LEVEL 64 922'-2"  
LEVEL 63 908'-8"  
LEVEL 62 885'-2"  
LEVEL 61 881'-8"  
LEVEL 60 886'-2"  
LEVEL 59 854'-8"  
LEVEL 58 841'-2"  
LEVEL 57 827'-8"  
LEVEL 56 814'-2"  
LEVEL 55 800'-8"  
LEVEL 54 787'-2"  
LEVEL 53 773'-8"  
LEVEL 52 769'-2"  
LEVEL 51 746'-8"  
LEVEL 50 733'-2"  
LEVEL 49 719'-8"  
LEVEL 48 705'-2"  
LEVEL 47 692'-8"  
LEVEL 46 679'-2"  
LEVEL 45 665'-8"  
LEVEL 44 652'-2"  
LEVEL 43 638'-8"  
LEVEL 42 625'-2"  
LEVEL 41 611'-8"  
LEVEL 40 598'-2"  
LEVEL 39 584'-8"  
LEVEL 38 571'-2"  
LEVEL 37 557'-8"  
LEVEL 36 544'-2"  
LEVEL 35 530'-8"  
LEVEL 34 517'-2"  
LEVEL 33 503'-8"  
LEVEL 32 490'-2"  
LEVEL 31 476'-8"  
LEVEL 30 463'-2"  
LEVEL 29 449'-8"  
LEVEL 28 436'-2"  
LEVEL 27 422'-8"  
LEVEL 26 409'-2"  
LEVEL 25 395'-8"  
LEVEL 24 382'-2"  
LEVEL 23 368'-8"  
LEVEL 22 355'-2"  
LEVEL 21 341'-8"  
LEVEL 20 328'-2"  
LEVEL 19 314'-8"  
LEVEL 18 301'-2"  
LEVEL 17 287'-8"  
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LEVEL 15 260'-8"  
LEVEL 14 247'-2"  
LEVEL 13 233'-8"  
LEVEL 12 220'-2"  
LEVEL 11 206'-8"  
LEVEL 10 193'-2"  
LEVEL 9 179'-8"  
LEVEL 8 166'-2"  
LEVEL 7 152'-8"  
LEVEL 6 139'-2"  
LEVEL 5 122'-2"  
LEVEL 4 98'-8"  
LEVEL 3 85'-2"  
LEVEL 2 70'-3"  
LEVEL 1 RETAIL 50'-0"  
LEVEL 1 47'-2"  
CELLAR B 30'-8"  
CELLAR B1 12'-8"  
CELLAR B1 PITS 5'-4"



ROOF 1042'-2"  
MECH. PENTHOUSE 1037'-2"  
LEVEL 69 998'-8"  
LEVEL 68 997'-8"  
LEVEL 67 992'-8"  
LEVEL 66 949'-2"  
LEVEL 65 935'-8"  
LEVEL 64 922'-2"  
LEVEL 63 908'-8"  
LEVEL 62 885'-2"  
LEVEL 61 881'-8"  
LEVEL 60 886'-2"  
LEVEL 59 854'-8"  
LEVEL 58 841'-2"  
LEVEL 57 827'-8"  
LEVEL 56 814'-2"  
LEVEL 55 800'-8"  
LEVEL 54 787'-2"  
LEVEL 53 773'-8"  
LEVEL 52 769'-2"  
LEVEL 51 746'-8"  
LEVEL 50 733'-2"  
LEVEL 49 719'-8"  
LEVEL 48 705'-2"  
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LEVEL 46 679'-2"  
LEVEL 45 665'-8"  
LEVEL 44 652'-2"  
LEVEL 43 638'-8"  
LEVEL 42 625'-2"  
LEVEL 41 611'-8"  
LEVEL 40 598'-2"  
LEVEL 39 584'-8"  
LEVEL 38 571'-2"  
LEVEL 37 557'-8"  
LEVEL 36 544'-2"  
LEVEL 35 530'-8"  
LEVEL 34 517'-2"  
LEVEL 33 503'-8"  
LEVEL 32 490'-2"  
LEVEL 31 476'-8"  
LEVEL 30 463'-2"  
LEVEL 29 449'-8"  
LEVEL 28 436'-2"  
LEVEL 27 422'-8"  
LEVEL 26 409'-2"  
LEVEL 25 395'-8"  
LEVEL 24 382'-2"  
LEVEL 23 368'-8"  
LEVEL 22 355'-2"  
LEVEL 21 341'-8"  
LEVEL 20 328'-2"  
LEVEL 19 314'-8"  
LEVEL 18 301'-2"  
LEVEL 17 287'-8"  
LEVEL 16 274'-2"  
LEVEL 15 260'-8"  
LEVEL 14 247'-2"  
LEVEL 13 233'-8"  
LEVEL 12 220'-2"  
LEVEL 11 206'-8"  
LEVEL 10 193'-2"  
LEVEL 9 179'-8"  
LEVEL 8 166'-2"  
LEVEL 7 152'-8"  
LEVEL 6 139'-2"  
LEVEL 5 122'-2"  
LEVEL 4 98'-8"  
LEVEL 3 85'-2"  
LEVEL 2 70'-3"  
LEVEL 1 RETAIL 50'-0"  
LEVEL 1 47'-2"  
CELLAR B 30'-8"  
CELLAR B1 12'-8"  
CELLAR B1 PITS 5'-4"



SHEET NOTES

1. SEE 500 SERIES FOR ENCLOSURE DETAILS.
2. ALL DOCUMENTATION OF 424 WEST 33RD STREET IS PRELIMINARY. VERIFY EXISTING CONDITIONS.
3. VERIFY EXISTING CONDITIONS OF ADJACENT LOFT BUILDING, LOCATION OF FOUNDATION WALL AND EXTENT OF CURTAIN WALL SEPARATIONS TO BE VERIFIED IN FIELD.
4. SEE FM SERIES FOR FACADE MAINTENANCE DETAILS.
5. EXISTING DIMENSIONS AND CONDITIONS FOR THE ADJACENT LOFT BUILDING MUST BE CHECKED AND VERIFIED BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THESE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT OF RECORD.
6. THE PROJECT MUST SATISFY ALL APPLICABLE SEISMIC DESIGN PROVISIONS INDICATED IN SECTION 80.1910 OF THE 2008 NEW YORK CITY BUILDING CODE. REFER TO THE STRUCTURAL CALCULATION BOOK ISSUED ON LINE 20, 2014 FOR SEISMIC LOAD DESIGN PARAMETERS.



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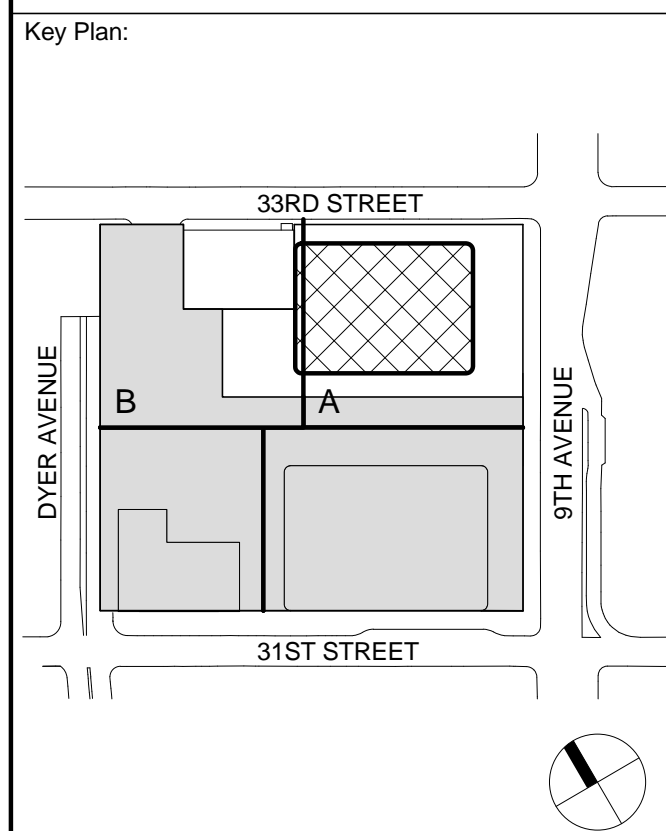
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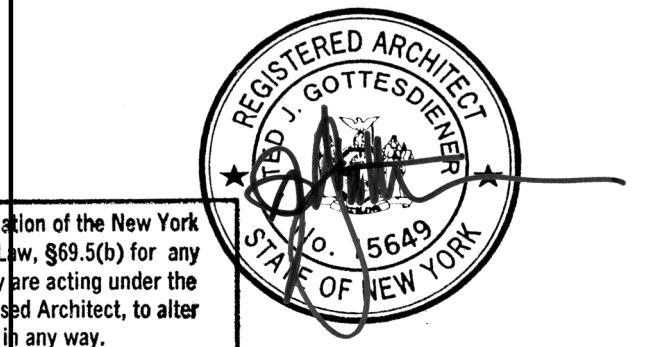
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Seal & Signature



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No.	Date	Description
8	30 JAN 2015	ISSUED FOR BUILDING PERMIT
7	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

Project Name: BUILDING SECTIONS

Project No.: 207150	B-SCAN Sheet No.: A-250.00
Date: 30 JAN 2015	Sheet No.: A-250
Scale: 1/32" = 1'-0"	Page No.: 63 OF 30
File No.: A-250	





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Cerami & Associates  
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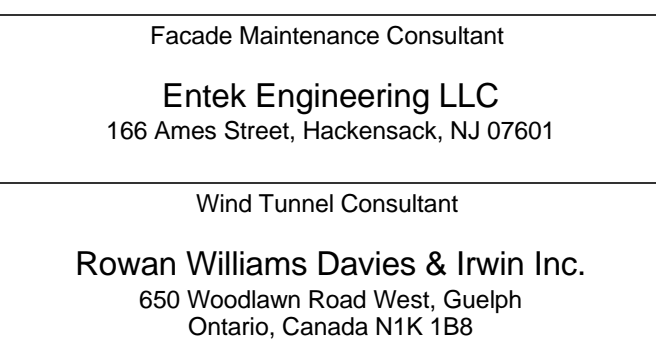
Vibration Consultant  
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Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



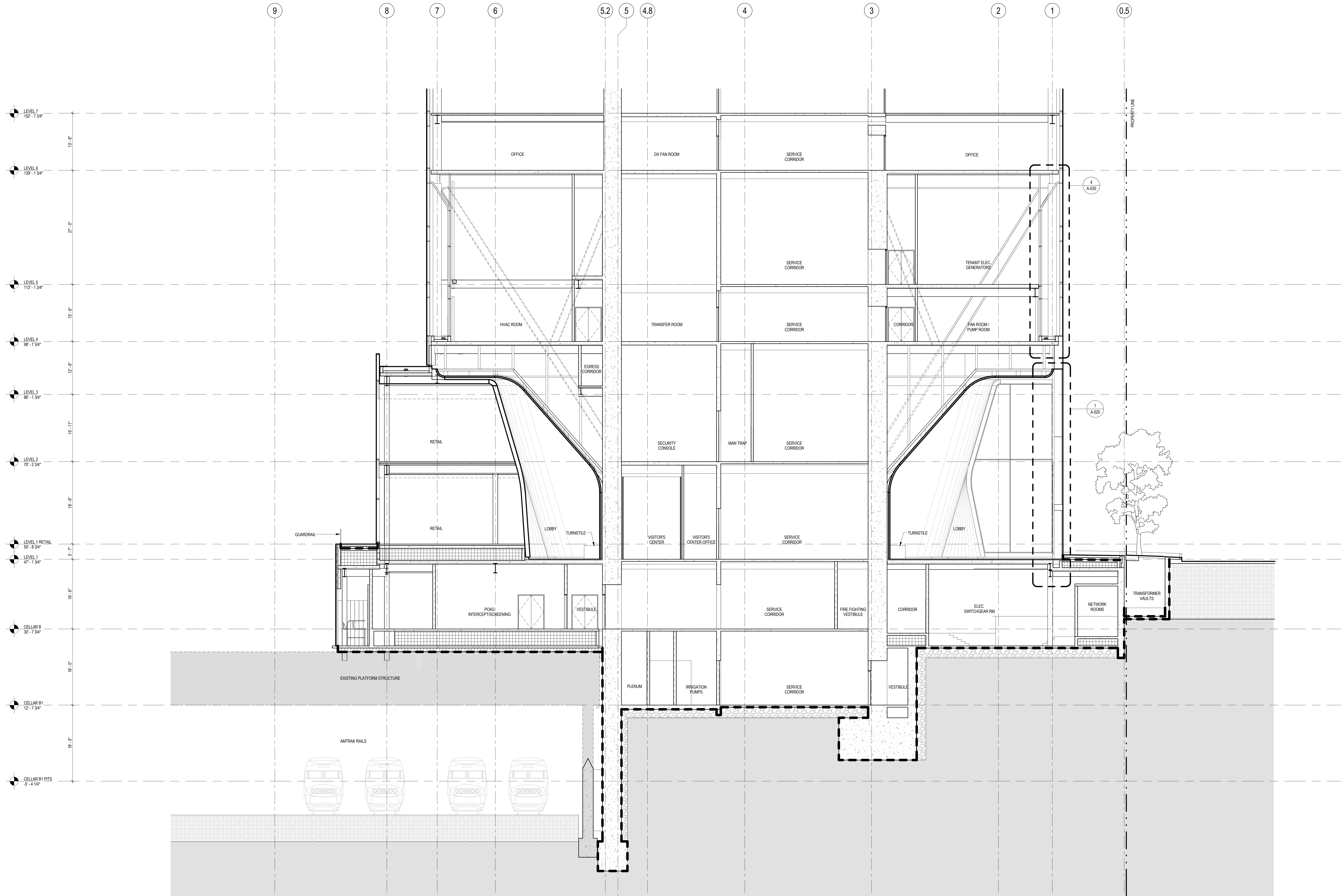
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No.	Date	Description
7	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_  
Sheet Name: \_\_\_\_\_

**ENLARGED SECTION AT LOBBY**

Project No.: 207150	B-SCAN Sheet No.: A-270.00
Date: 12 SEPT 2014	Sheet No.: A-270
Scale: 1/8" = 1'-0"	Page No.: 64 OF 30
File No.: A-270	



**1 ENLARGED SECTION AT GROUND FLOOR LOOKING WEST**  
SCALE: 1/8" = 1'-0"

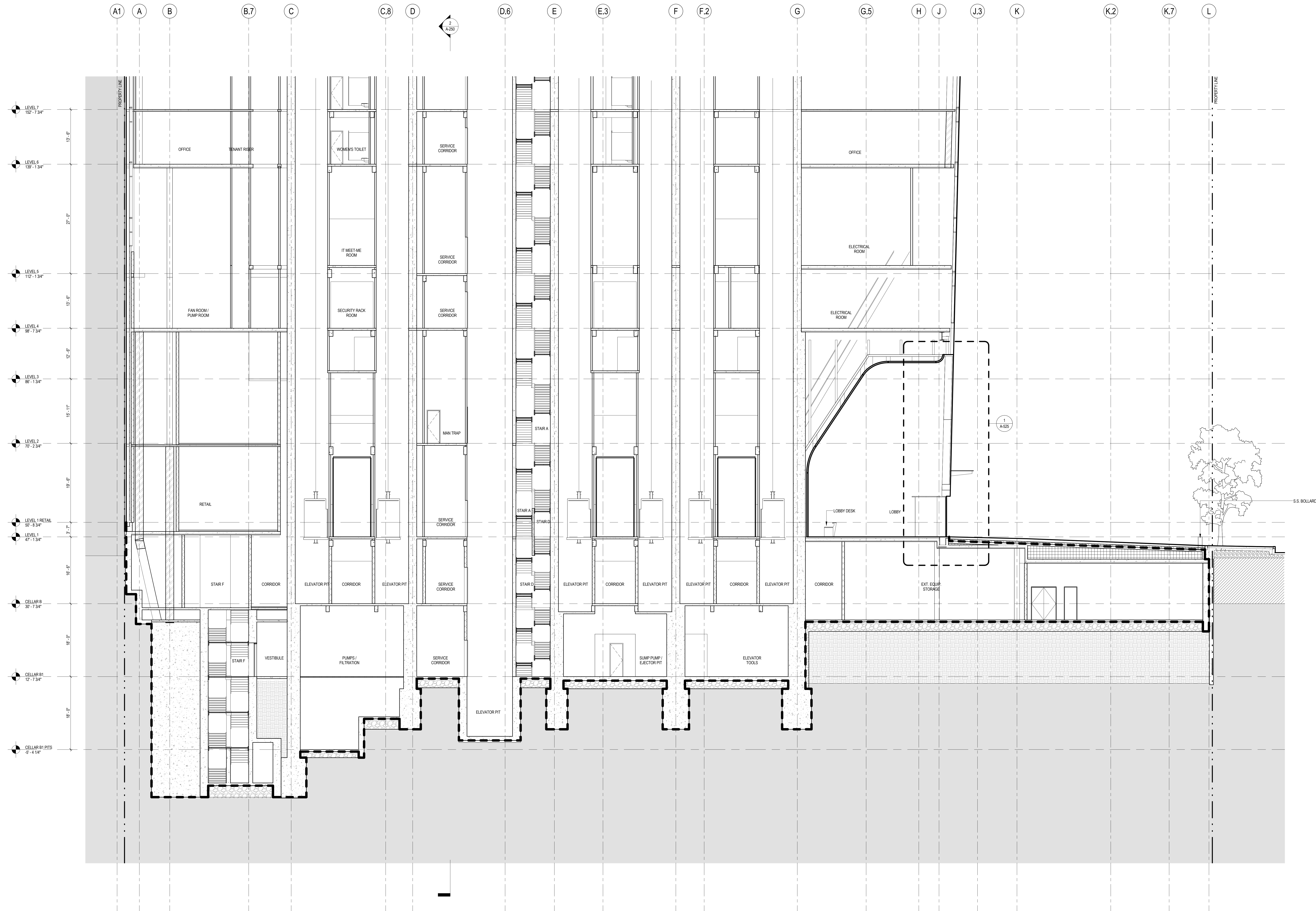


9/11/2014 5:34:38 PM

1

ENLARGED SECTION AT GROUND FLOOR LOOKING NORTH

SCALE: 1/8" = 1'-0"



MANHATTAN WEST:  
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250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

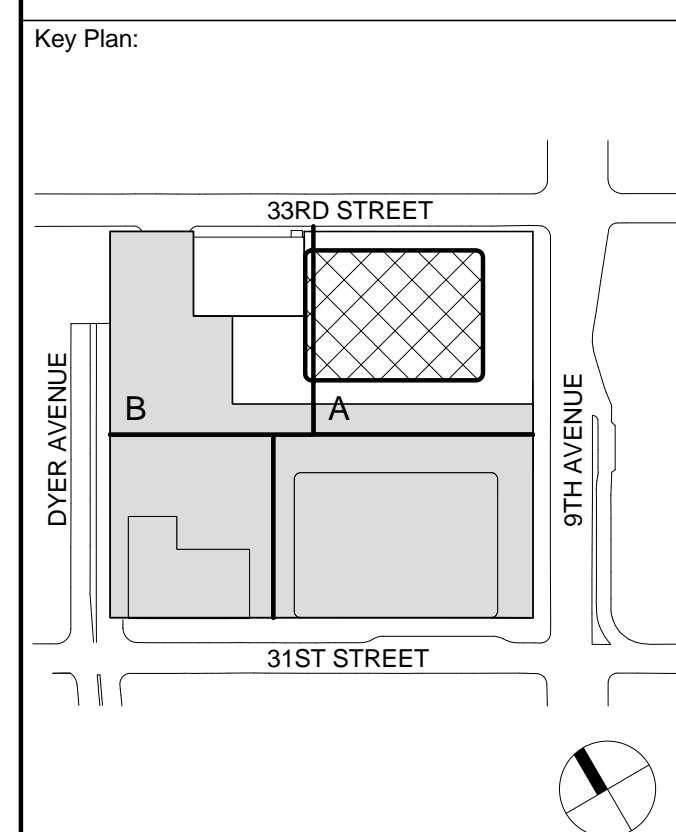
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

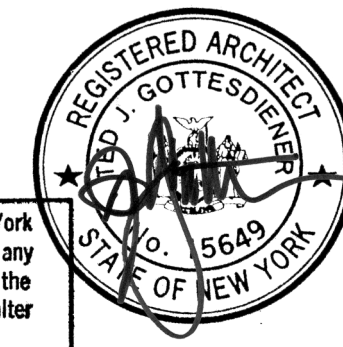
Code Consultant  
Code Consultants Professional Engineers PC  
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7	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

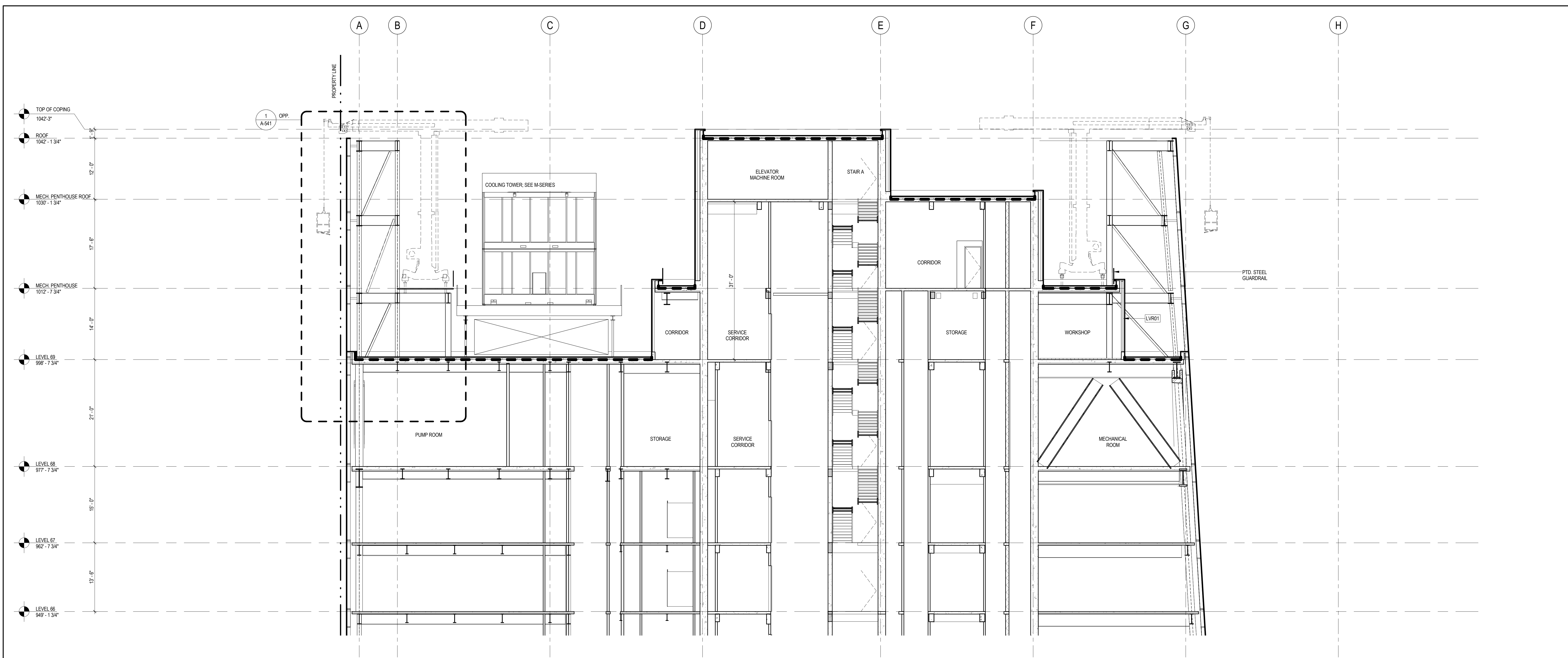
No. Date Description

Sheet Name:

ENLARGED  
SECTION AT  
LOBBY

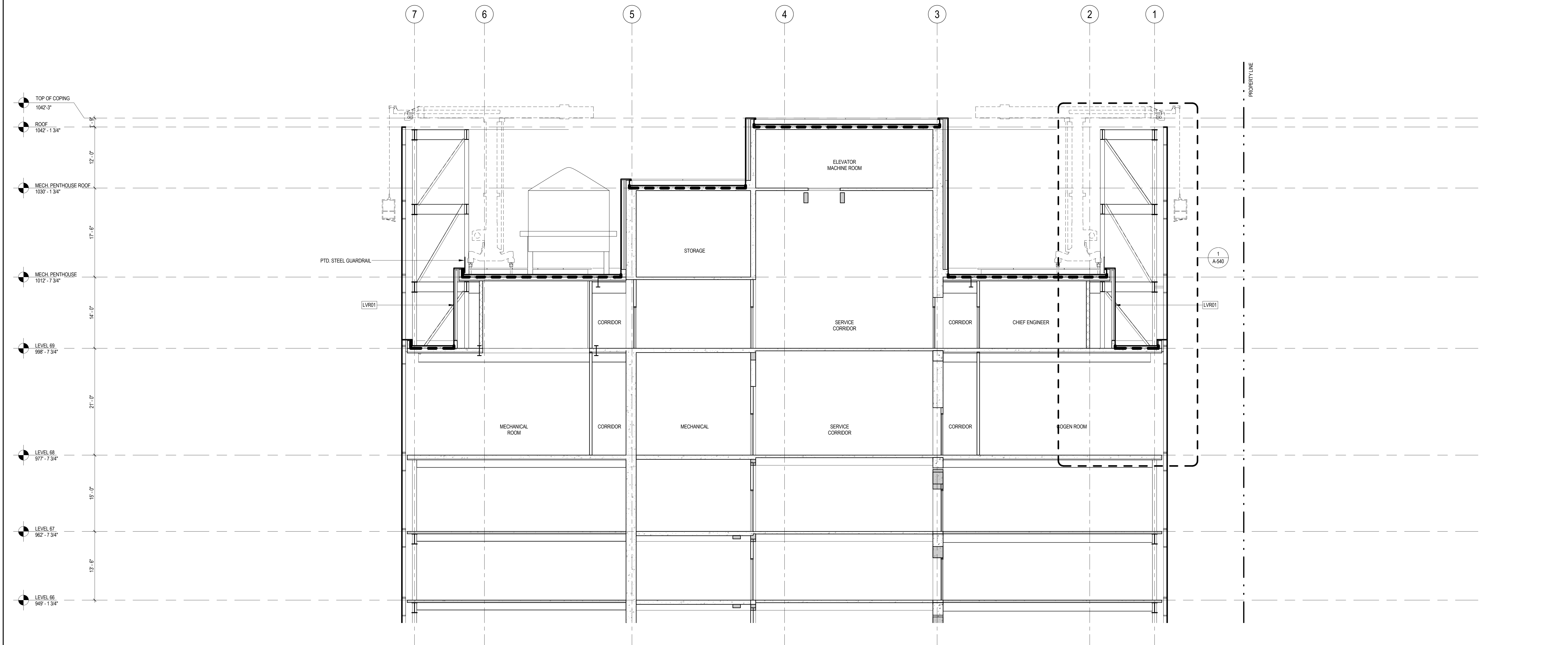
Project No.: 207150	B-SCAN Sheet No.: A-271.00
Date: 12 SEPT 2014	Sheet No.: A-271
Scale: 1/8" = 1'-0"	Page No.: 68 OF 30
File No.: A-271	





2 ENLARGED SECTION AT ROOF LOOKING NORTH

SCALE: 1/8" = 1'-0"

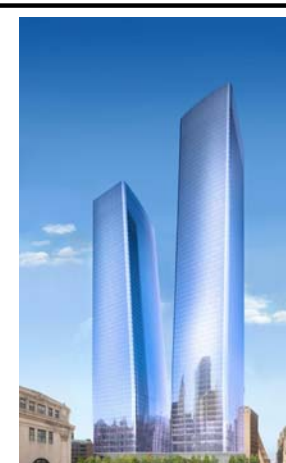


1 ENLARGED SECTION AT ROOF LOOKING EAST

SCALE: 1/8" = 1'-0"

## SHEET NOTES

- SEE 500 SERIES FOR ENCLOSURE DETAILS
- ALL DOCUMENTATION OF 424 WEST 33RD STREET IS PRELIMINARY. VERIFY EXISTING CONDITIONS.
- VERIFY EXISTING CONDITIONS OF ADJACENT LOFT BUILDING. LOCATION OF FOUNDATION WALL AND EXTENT OF CURTAIN WALL SEPARATIONS TO BE VERIFIED IN FIELD.
- SEE 715 SERIES FOR FACADE MAINTENANCE DETAILS.



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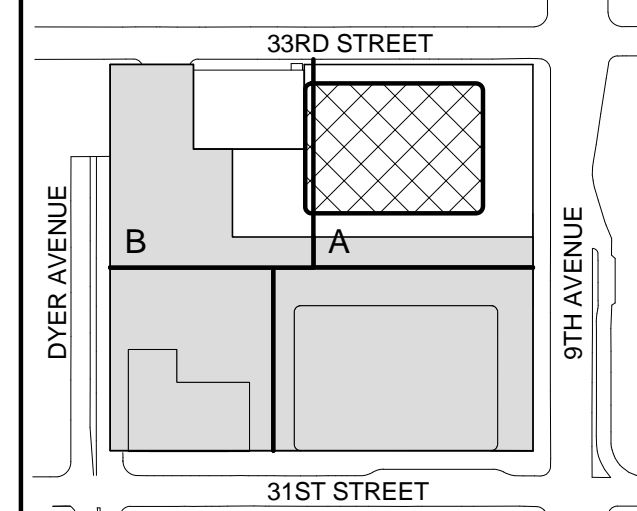
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650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



Seal & Signature:



Warning: It is a violation of the New York State Architecture Law, §16-05(b) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

5 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
3 15 NOV 2013 ISSUED FOR 50% PROGRESS PRICING  
2 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT  
1 19 MAR 2013 ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

**ENLARGED  
SECTIONS AT  
ROOF**

Project No.:

207150

Date:

12 SEPT 2014

Scale:

1/8" = 1'-0"

File No.:

A-290

B-SCAN Sheet No.:

**A-290.00**

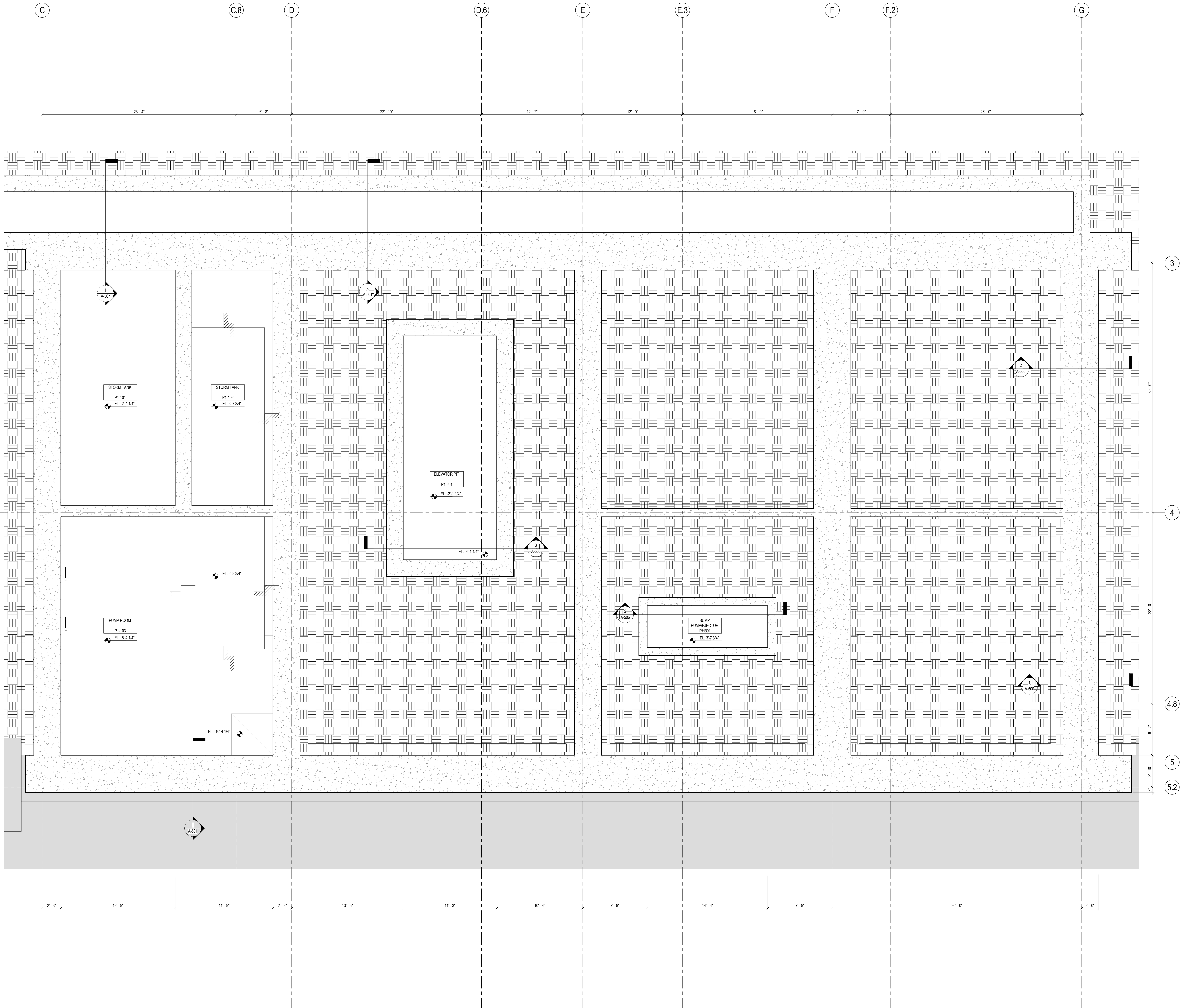
Sheet No.:

**A-290**

Page No.:

79 OF 30





SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. 6-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. C-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B-070).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D6 UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/CTEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED DEVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/FAS/CTEL SERVICE DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.



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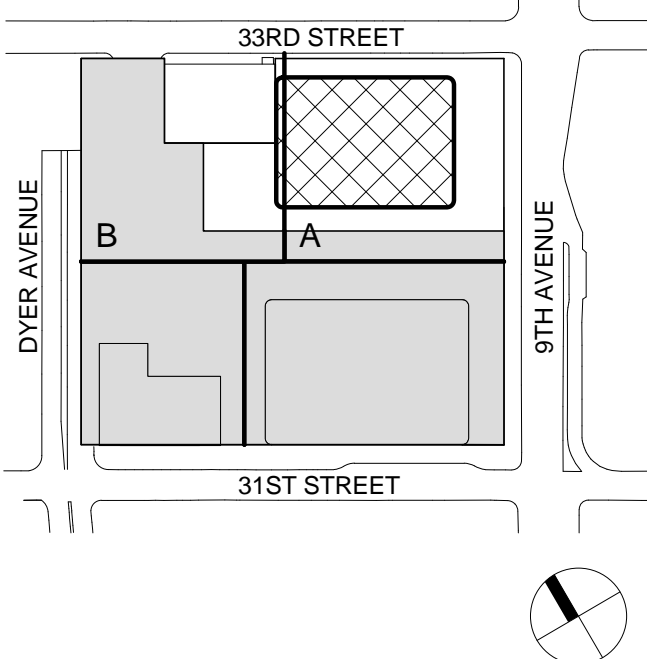
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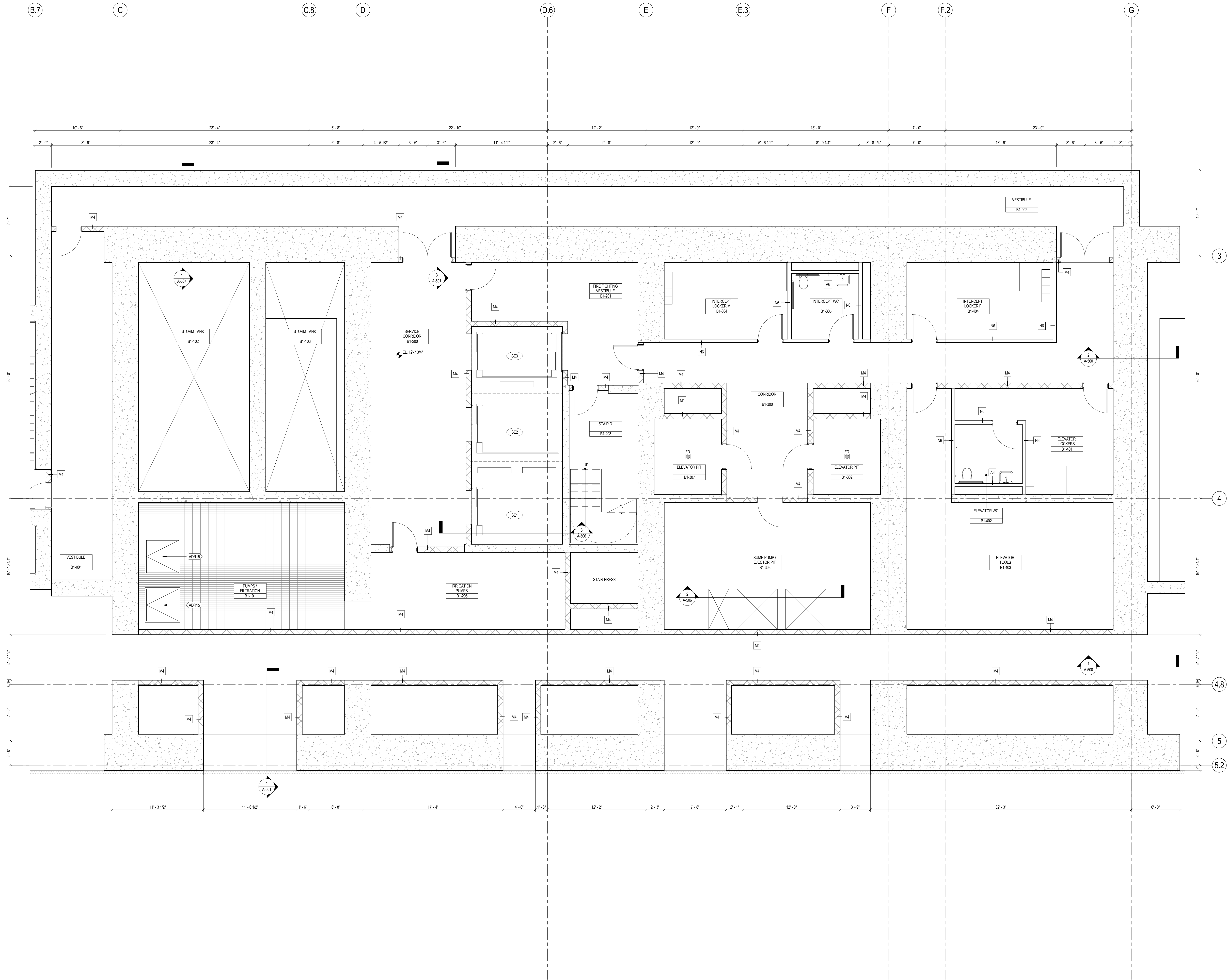
4	20 JUN 2014	ISSUED FOR FOUNDATION BID
3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	19 NOV 2013	ISSUED FOR 00 PROGRESS PRICING

No. Date Description  
Sheet Name:

**CELLAR B1  
ENLARGED PIT  
PLAN**

Project No.: 207150	B-SCAN Sheet No.: A-298.00
Date: 20 JUN 2014	Sheet No.: A-298
Scale: 1/4" = 1'-0"	Page No.: 66 OF 87
File No.: A-298	





## SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVB8).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B700).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FACSET/CL. SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.



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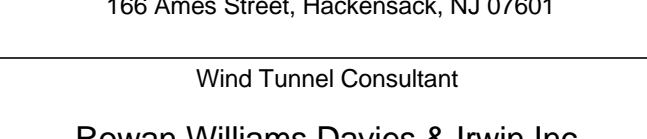
Vibration Consultant  
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No.	Date	Description
5	20 JUN 2014	ISSUED FOR FOUNDATION BID
4	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:

**CELLAR B1  
ENLARGED CORE  
PLAN**

Project No.: 207150  
Date: 20 JUN 2014  
Scale: 1/4" = 1'-0"  
File No.: A-299

B-SCAN Sheet No.: A-299.00  
Sheet No.: A-299  
Page No.: 67 OF 87



SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-05.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-05.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 05101.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/CE/TEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/FAS/CE/TEL SERVICE DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.



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65 Broadway, Suite 401, New York, NY 10006

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Code Consultants Professional Engineers PC  
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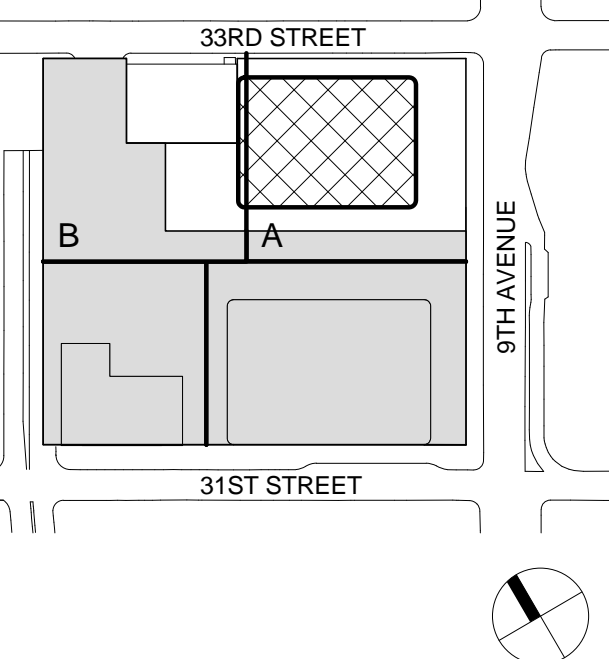
Facade Maintenance Consultant

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Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



Seal & Signature:



Warning: It is a violation of the New York State Architecture Law, §66-03(b) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

5	20 JUN 2014	ISSUED FOR FOUNDATION BID
4	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description  
Sheet Name:

**CELLAR B  
ENLARGED CORE  
PLAN**

Project No.: 207150	B-SCAN Sheet No.: <b>A-300.00</b>
Date: 20 JUN 2014	Sheet No.: <b>A-300</b>
Scale: 1/4" = 1'-0"	Page No.: 68 OF 87
File No.: A-300	



SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 05100.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/SCOTEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/PAINT MOUNTED SERVICES.
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MANHATTAN WEST:  
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Code Consultants Professional Engineers PC  
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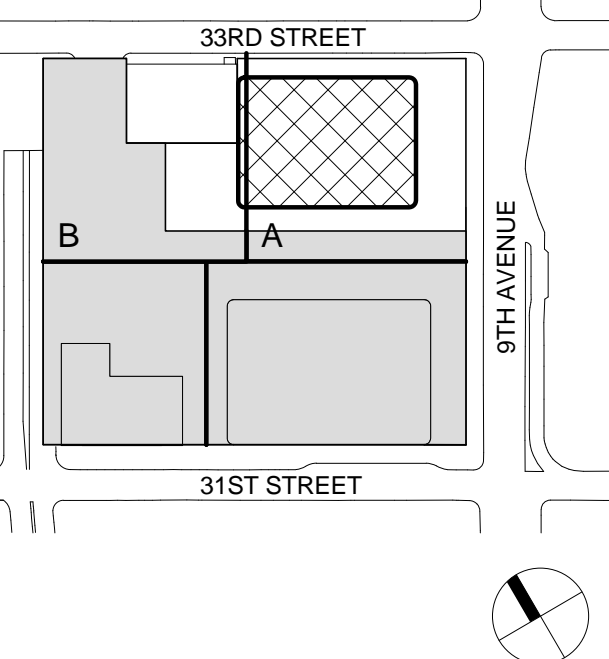
Facade Maintenance Consultant

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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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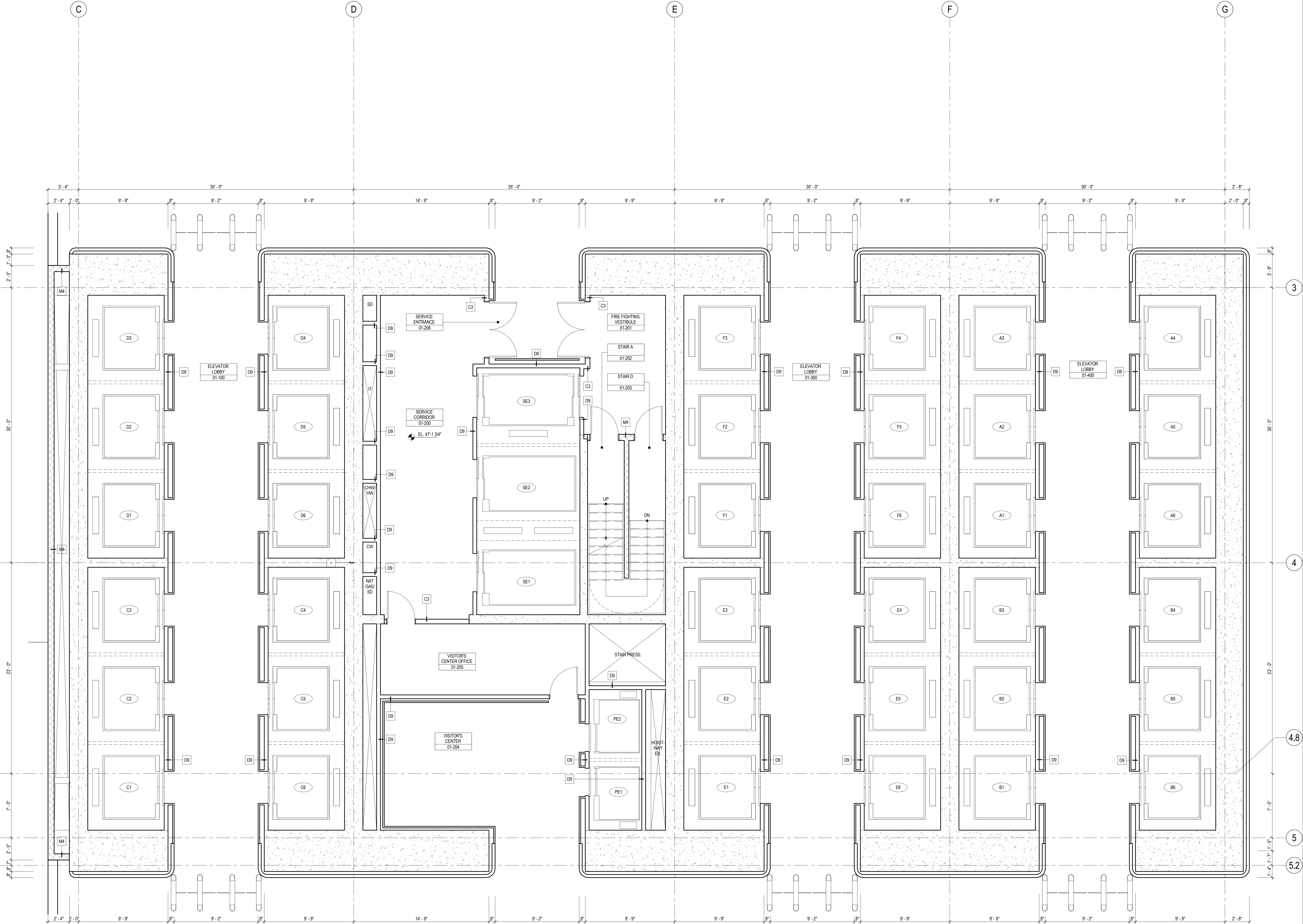
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No. Date Description

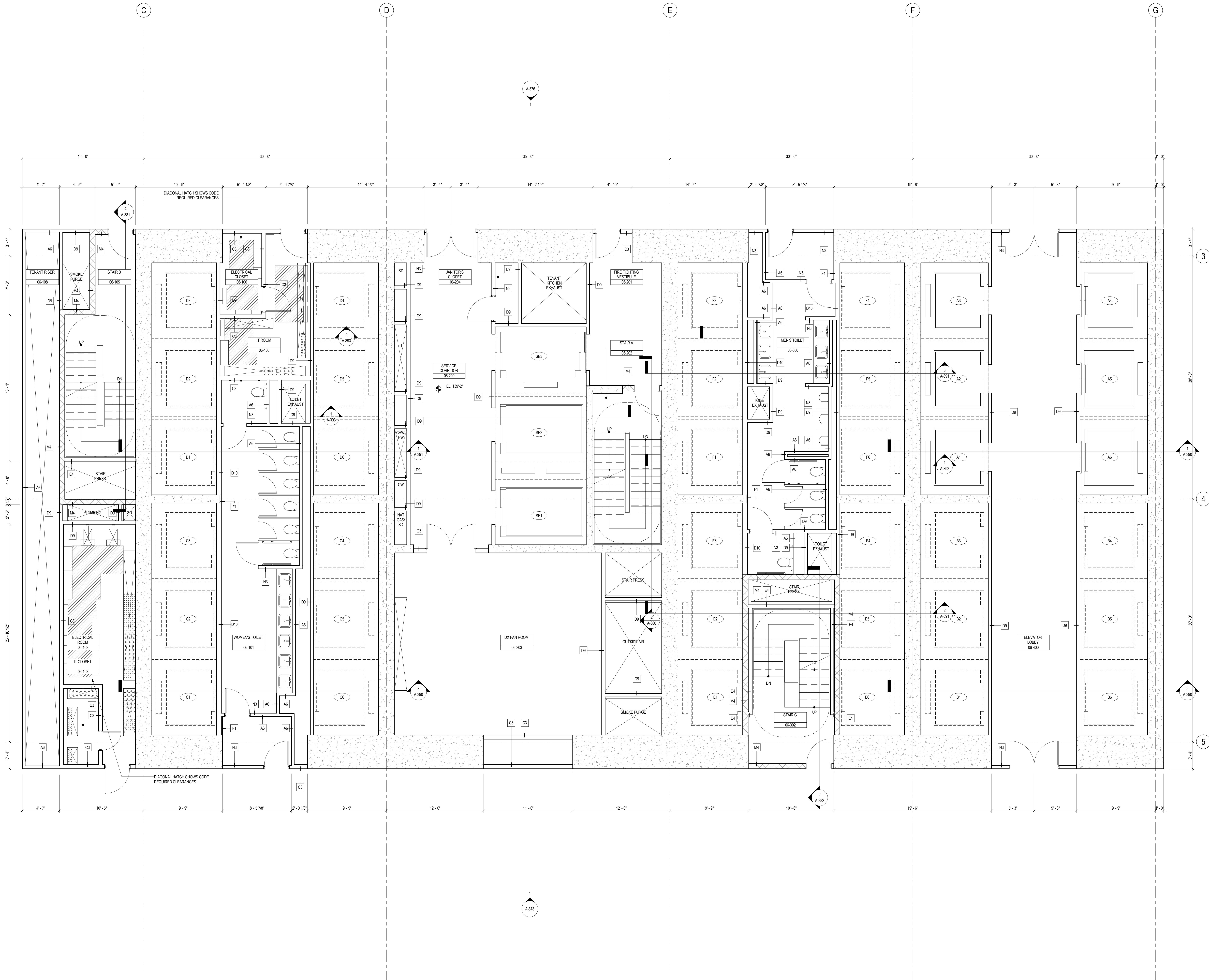
Sheet Name:

GROUND FLOOR  
ENLARGED CORE  
PLAN

Project No.: 207150	B-SCAN Sheet No.: A-301.00
Date: 20 JUN 2014	Sheet No.: A-301
Scale: 1/4" = 1'-0"	Page No.: 69 OF 87
File No.: A-301	







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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B5700).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
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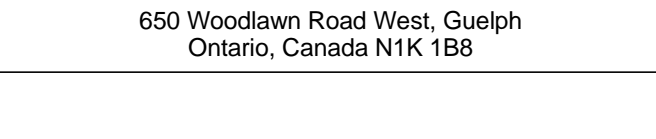
Vibration Consultant  
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Key Plan:



Seal & Signature:



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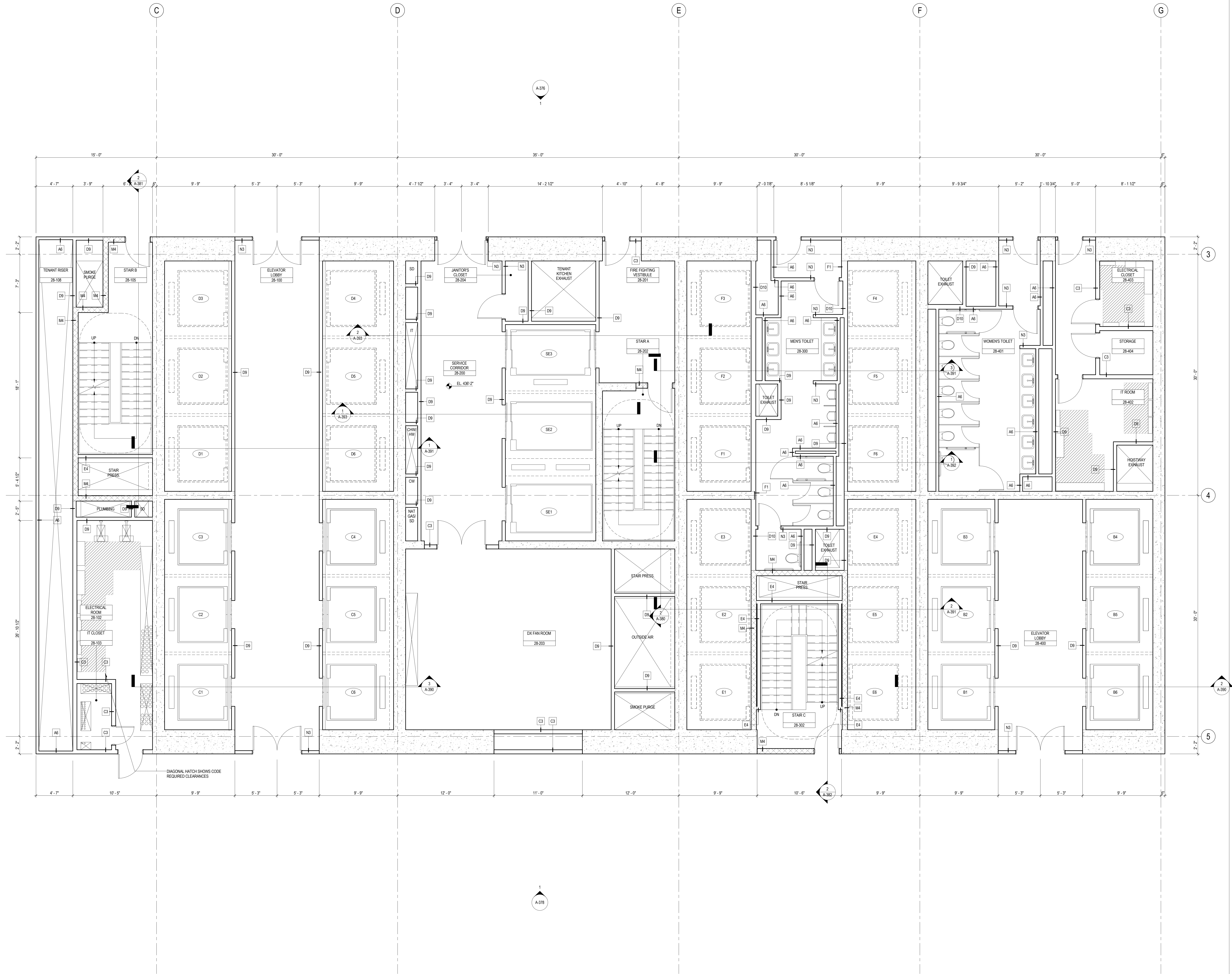
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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION B-0700.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPPFA/SCITEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/NOVAL MOUNTED SERVICES.
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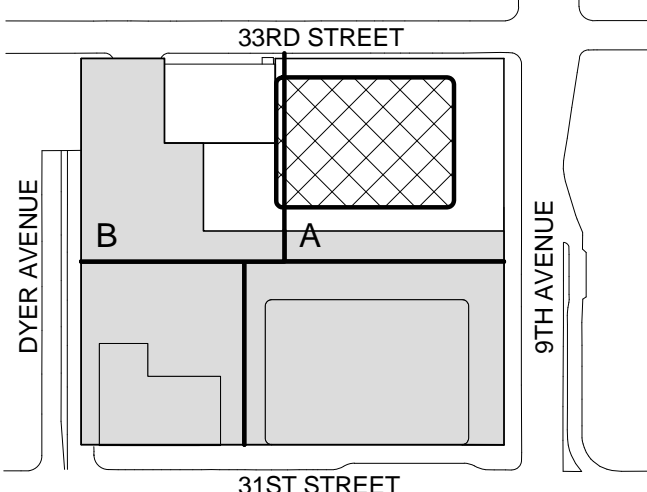
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65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
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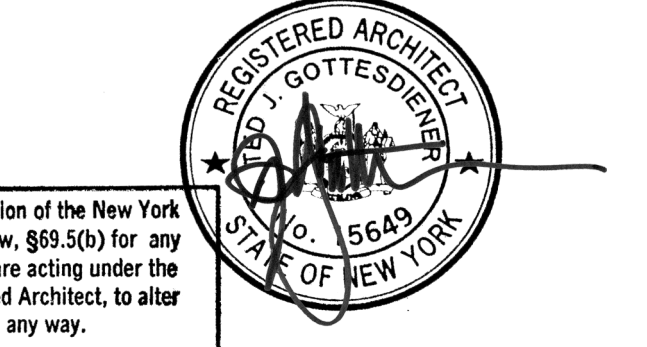
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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



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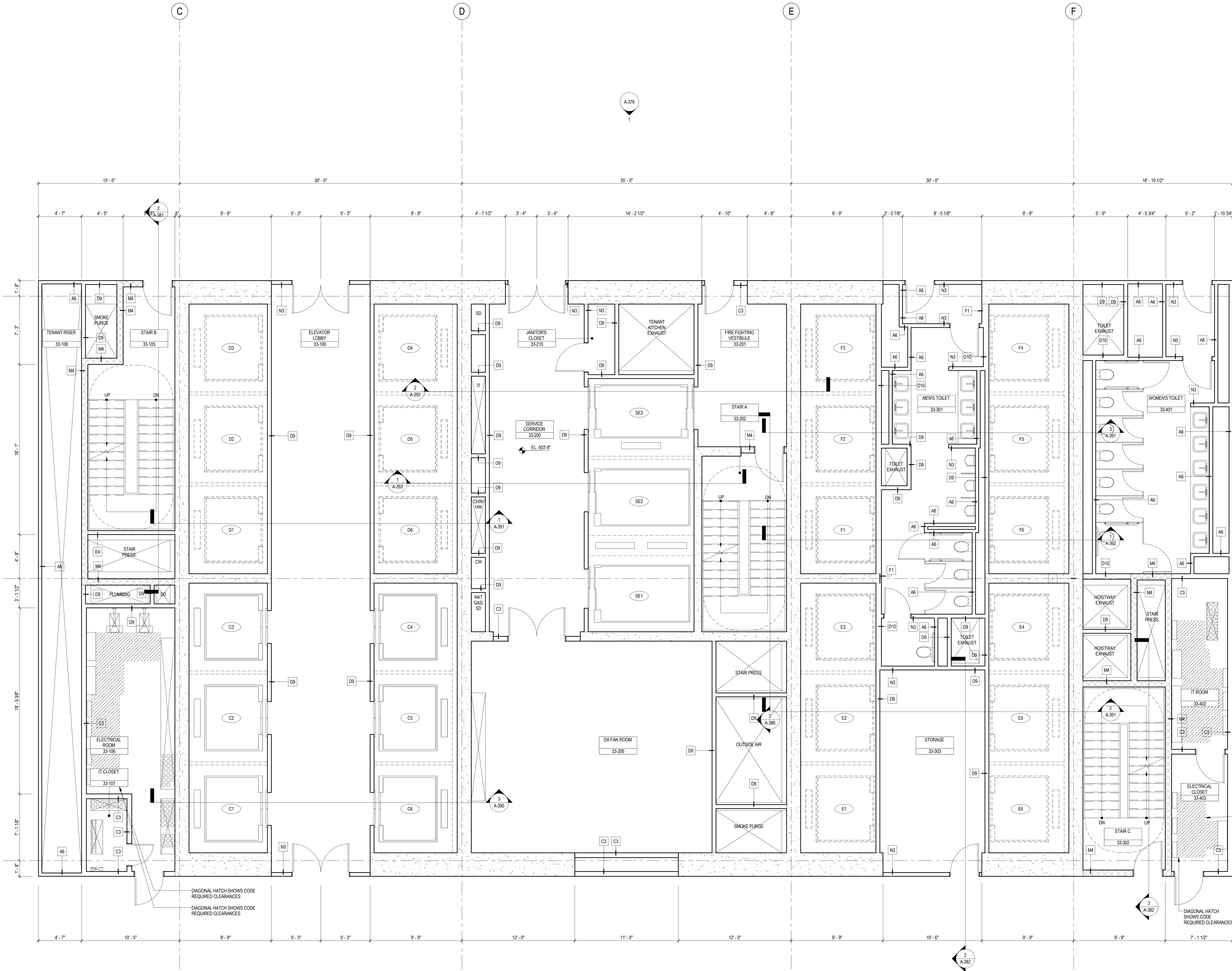
5	25 FEB 2015	ISSUED FOR BUILDING PERMIT
4	20 JUN 2014	ISSUED FOR FOUNDATION BID
3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	19 NOV 2013	ISSUED FOR DD PROGRESS PRICING

No. Date Description  
Sheet Name:

**LEVEL 28  
ENLARGED CORE  
PLAN - LOW-RISE  
& MID-RISE**

Project No.: 207150	B-SCAN Sheet No.: A-328.00
Date: 25 FEB 2015	Sheet No.: A-328
Scale: 1/4" = 1'-0"	Page No.: 71 OF 30
File No.: A-328	





# SHEET NOTES

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4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 051010.
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FASCITE/ SERVICE DRAWINGS FOR LOCATIONS OF ALL CEILING MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
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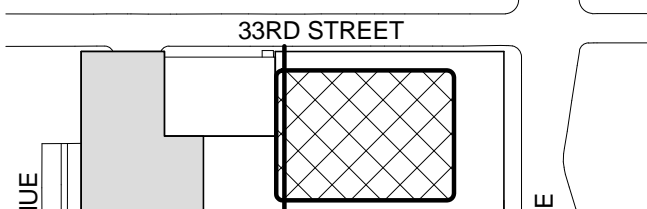
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Key Plan:



Seal & Signature:



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No.	Date	Description
6	26 FEB 2015	ISSUED FOR BUILDING PERMIT
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
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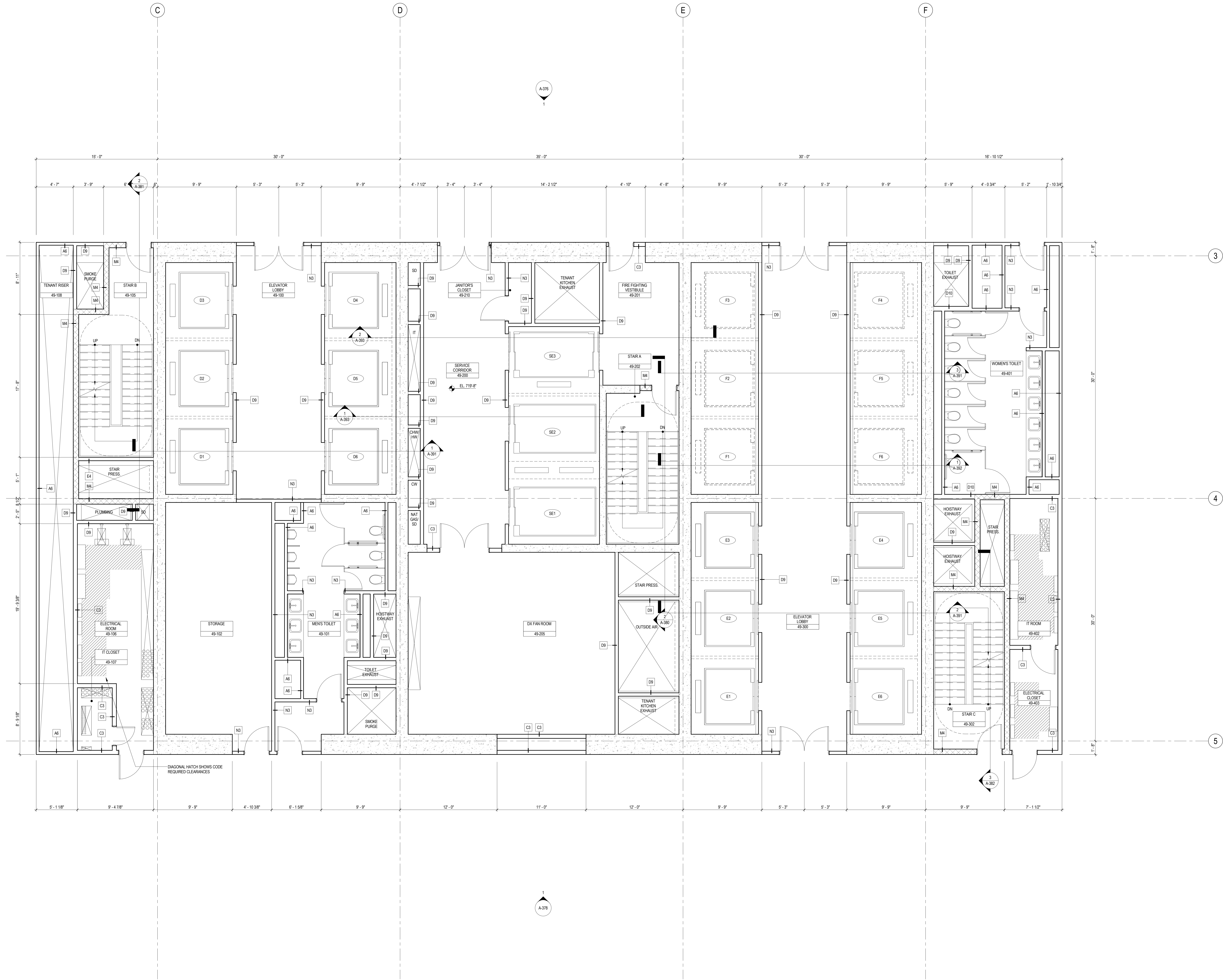
Sheet Name:

**LEVEL 33-38  
ENLARGED CORE  
PLAN - TYPICAL  
MID-RISE**

Project No.: 207150  
Date: 26 FEB 2015  
Scale: 1/4" = 1'-0"  
File No.: A-333

B-SCAN Sheet No.: A-333.00  
Sheet No.: A-333  
Page No.: 72 OF 30





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Field Operations  
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Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

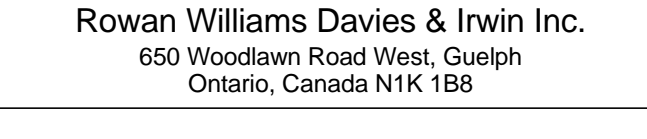
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



Seal & Signature:



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5 25 FEB 2015 ISSUED FOR BUILDING PERMIT  
4 20 JUN 2014 ISSUED FOR FOUNDATION BID  
3 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
2 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
1 19 NOV 2013 ISSUED FOR DD PROGRESS PRICING

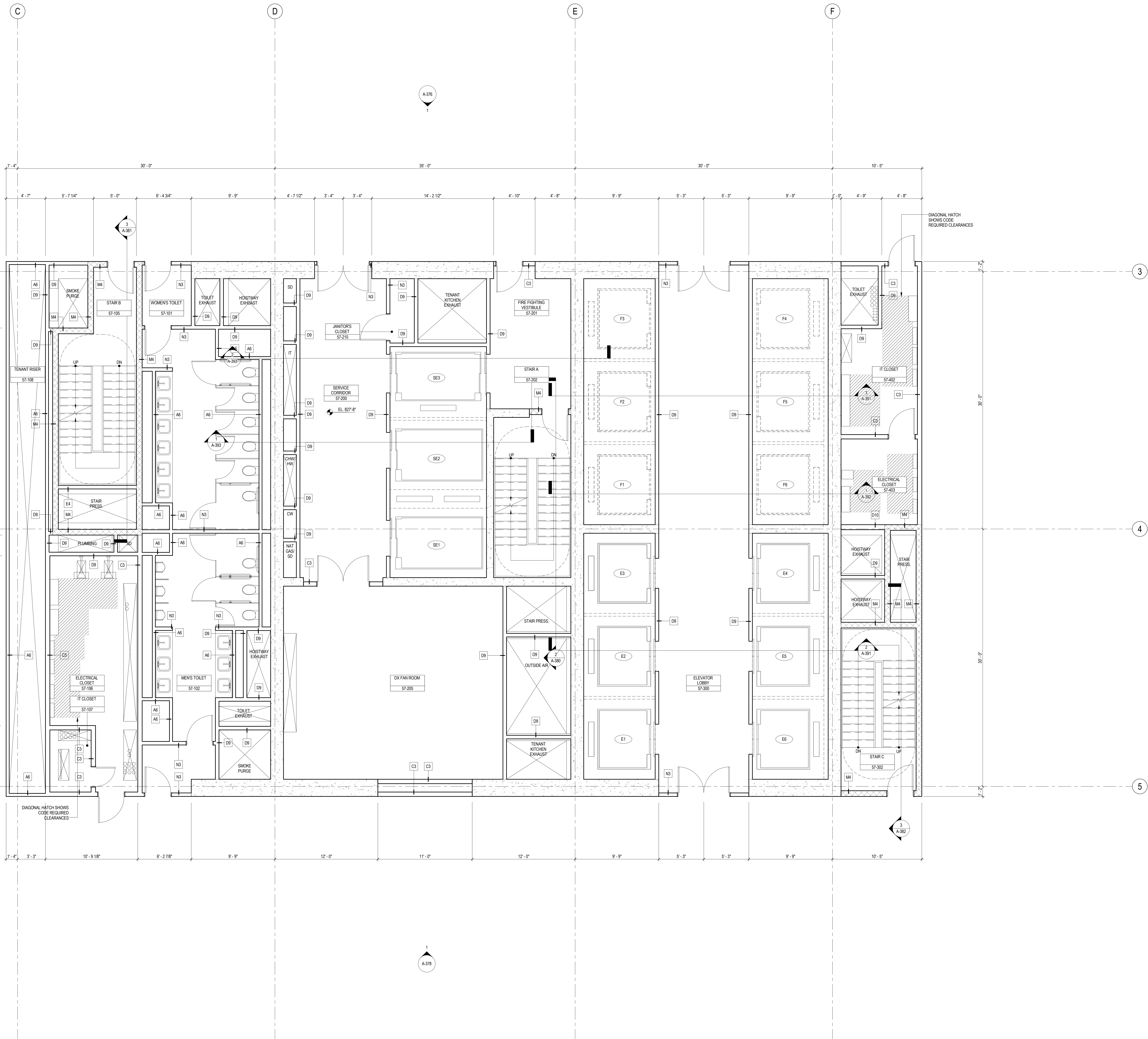
No. Date Description  
Sheet Name:

**LEVEL 49  
ENLARGED CORE  
PLAN - MID-RISE  
& HIGH-RISE**

Project No.: 207150  
Date: 25 FEB 2015  
Scale: 1/4" = 1'-0"  
File No.: A-349

B-SCAN Sheet No.:  
**A-349.00**  
Sheet No.:  
A-349  
Page No.: 73 OF 30





## SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVB88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (0510).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/CITEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/PAINT MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/FAS/CITEL FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.



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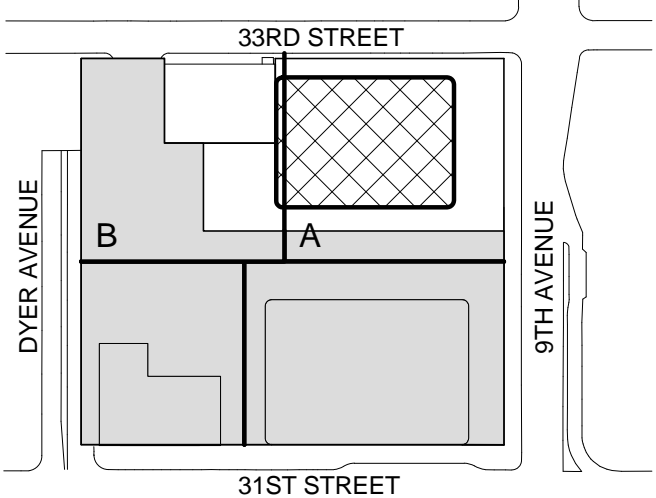
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Wilson, Uhrig & Associates, Inc.  
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Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

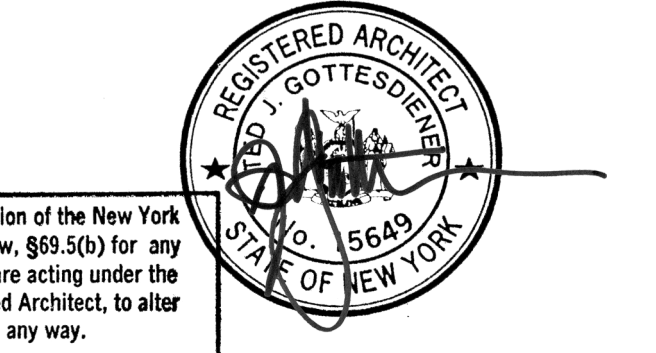
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Rowan Williams Davies & Irwin Inc.  
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Key Plan:



Seal & Signature:



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No.	Date	Description
6	28 FEB 2015	ISSUED FOR BUILDING PERMIT
5	20 JUN 2014	ISSUED FOR FOUNDATION BID
4	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:

**LEVEL 57-58  
ENLARGED CORE  
PLAN - TYPICAL  
HIGH-RISE**

Project No.: 207150	B-SCAN Sheet No.: A-357.00
Date: 28 FEB 2015	Sheet No.: A-357
Scale: 1/4" = 1'-0"	Page No.: 74 OF 30
File No.: A-357	



SHEET NOTES

1. ALL BUILDING ELEVATIONS (IN FEET) REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK, NOTES REFER TO SHEET NO. 6-405.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. 6-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (0510).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE D9, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-600 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAS/CECEL SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/VALVE MOUNTED DEVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
11. REFER TO MEPP/FAS/CECEL SERVICE DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ROOM, RISER AND EQUIPMENT DESIGNATIONS.
12. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.



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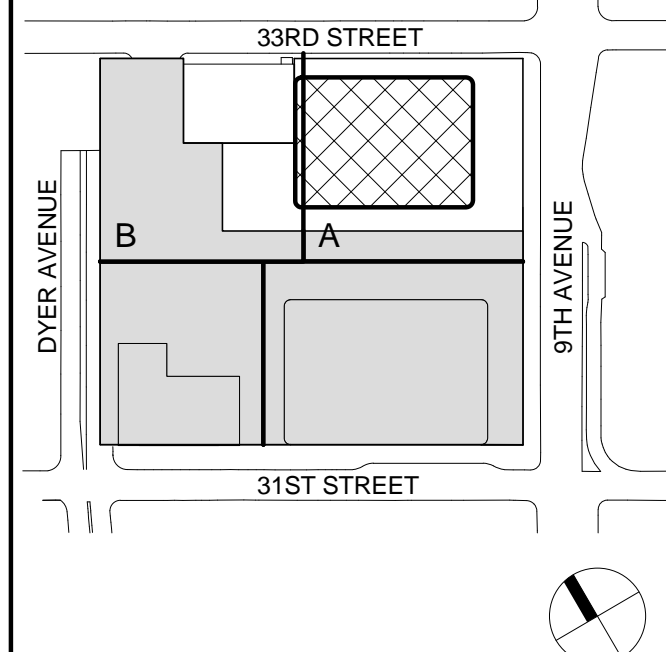
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Key Plan:



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- |   |             |                                |
|---|-------------|--------------------------------|
| 5 | 25 FEB 2015 | ISSUED FOR BUILDING PERMIT     |
| 4 | 20 JUN 2014 | ISSUED FOR FOUNDATION BID      |
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| 2 | 20 DEC 2013 | ISSUED FOR FOUNDATION PERMIT   |
| 1 | 19 NOV 2013 | ISSUED FOR DD PROGRESS PRICING |

No. Date Description  
Sheet Name:

**LEVEL 64-67  
ENLARGED CORE  
PLAN - TYPICAL  
HIGH-RISE**

Project No.:

207150

Date:

20 FEB 2015

Scale:

1/4" = 1'-0"

File No.:

A-364

B-SCAN Sheet No.:

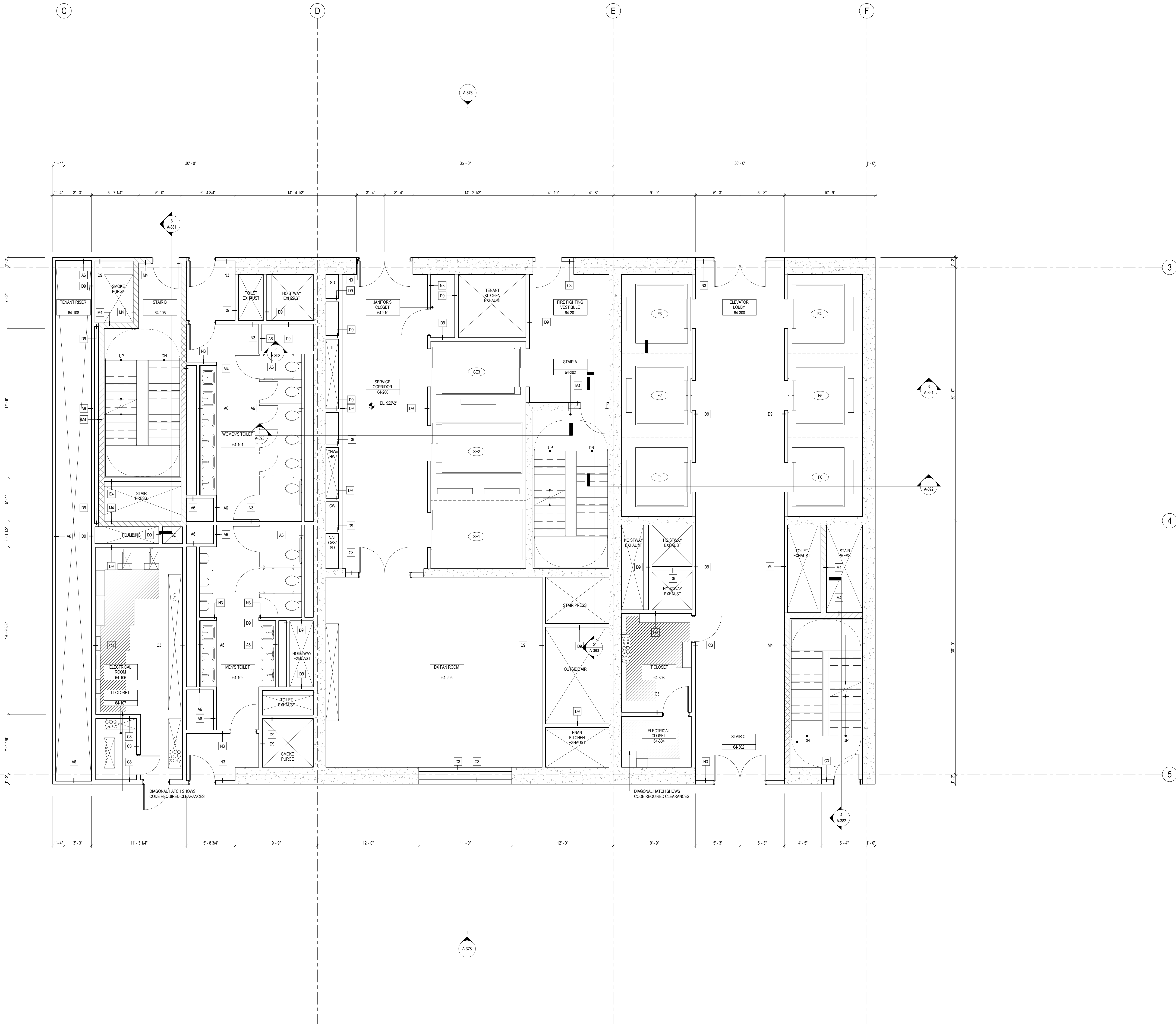
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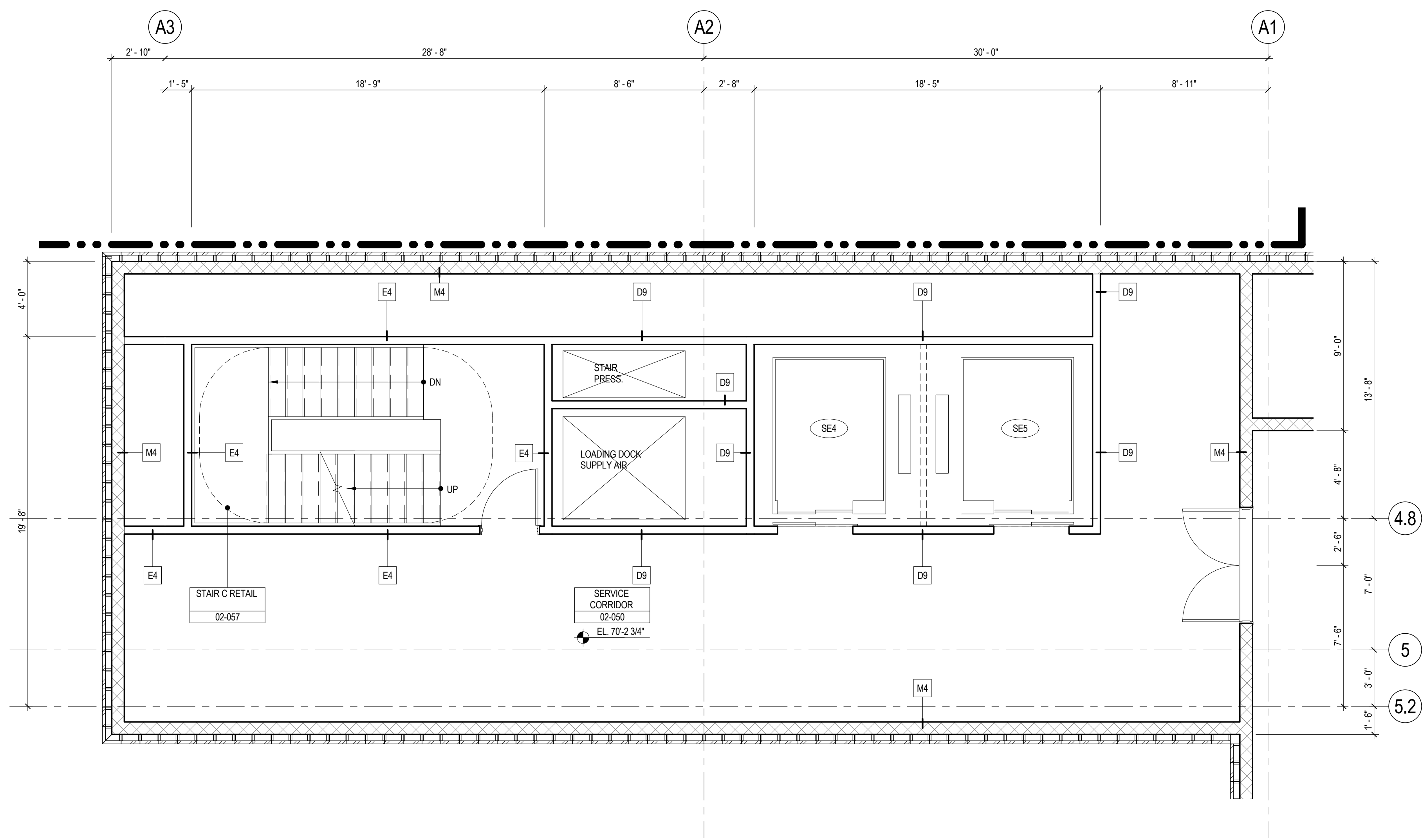
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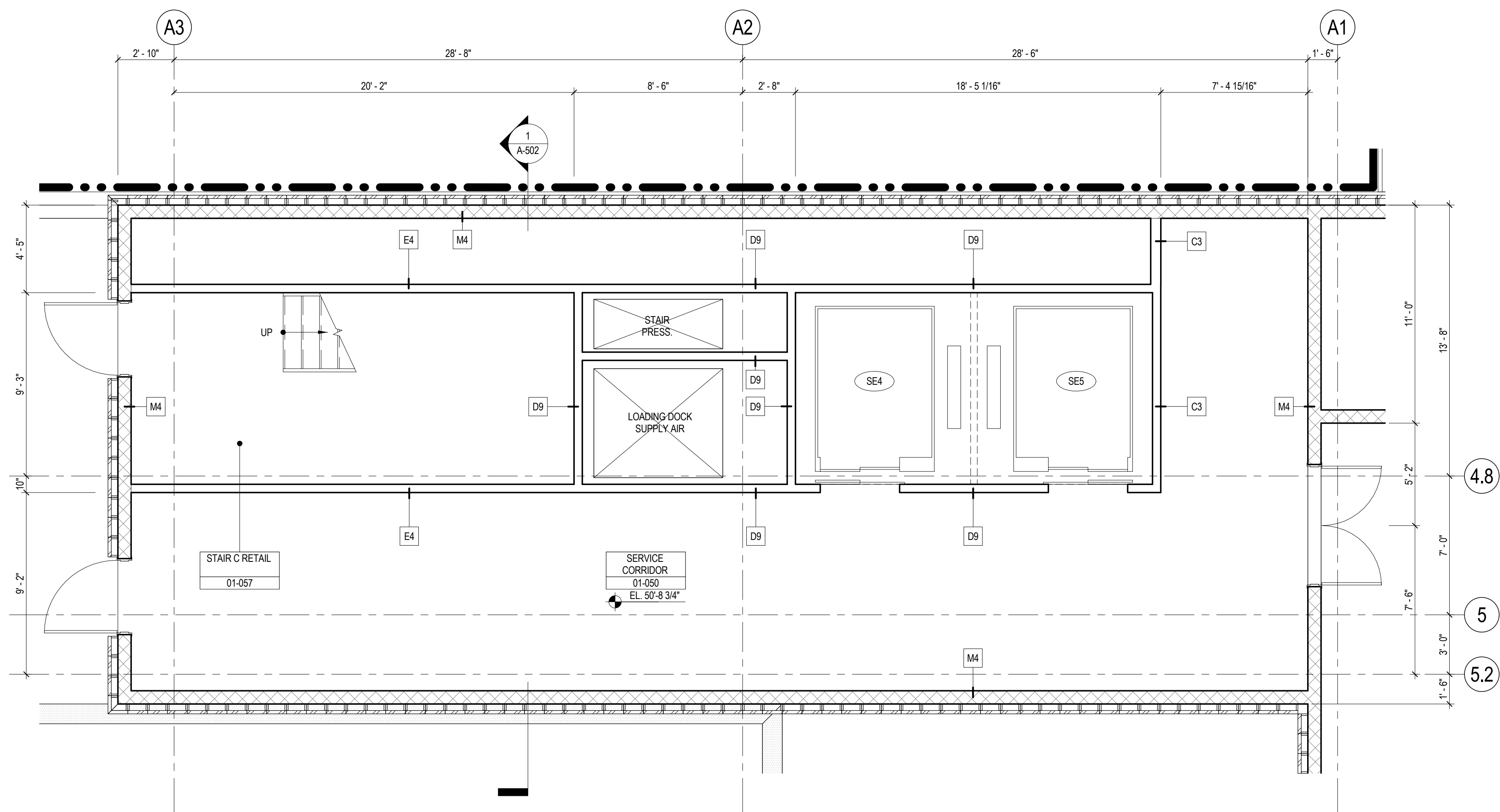
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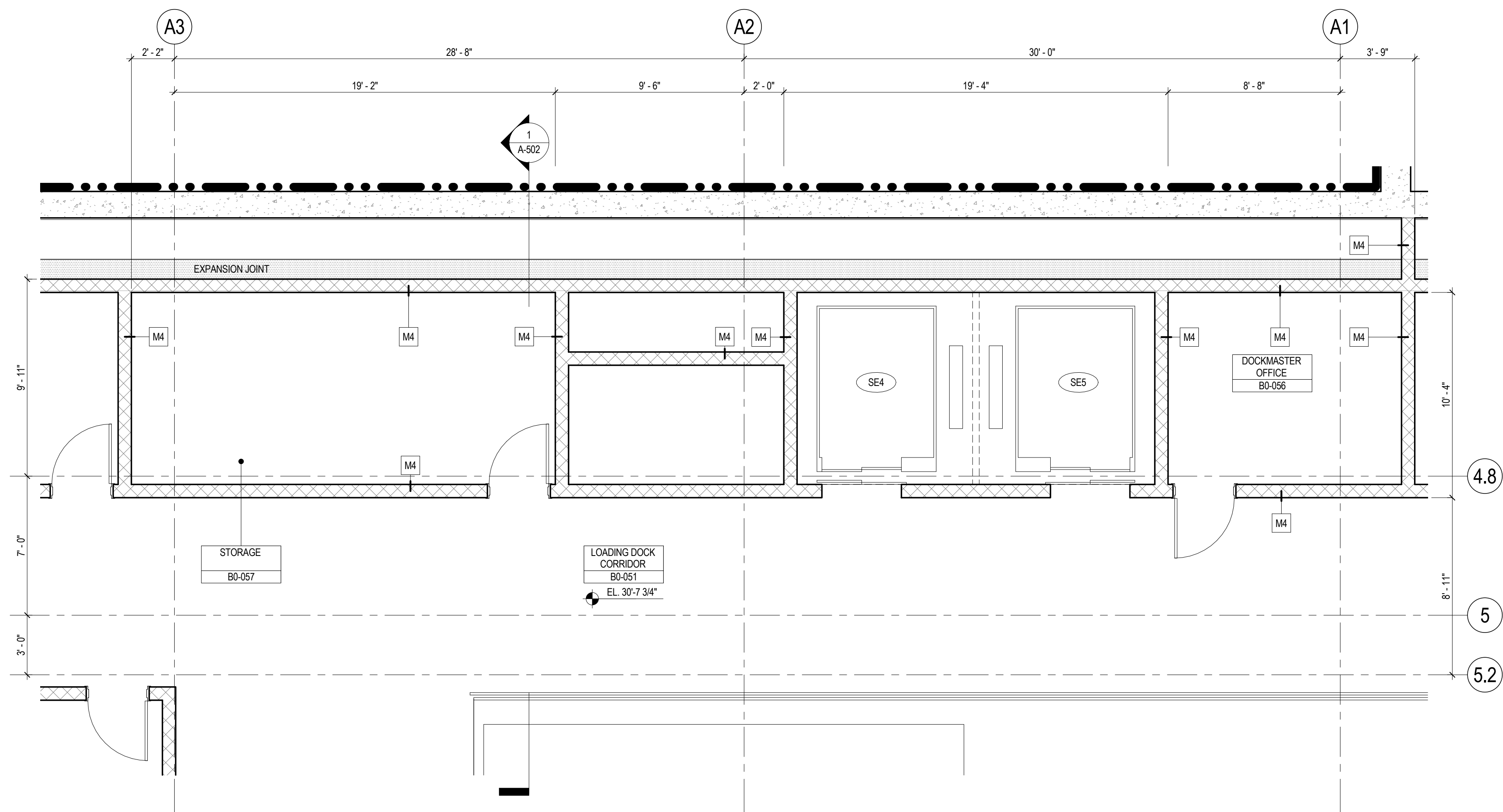




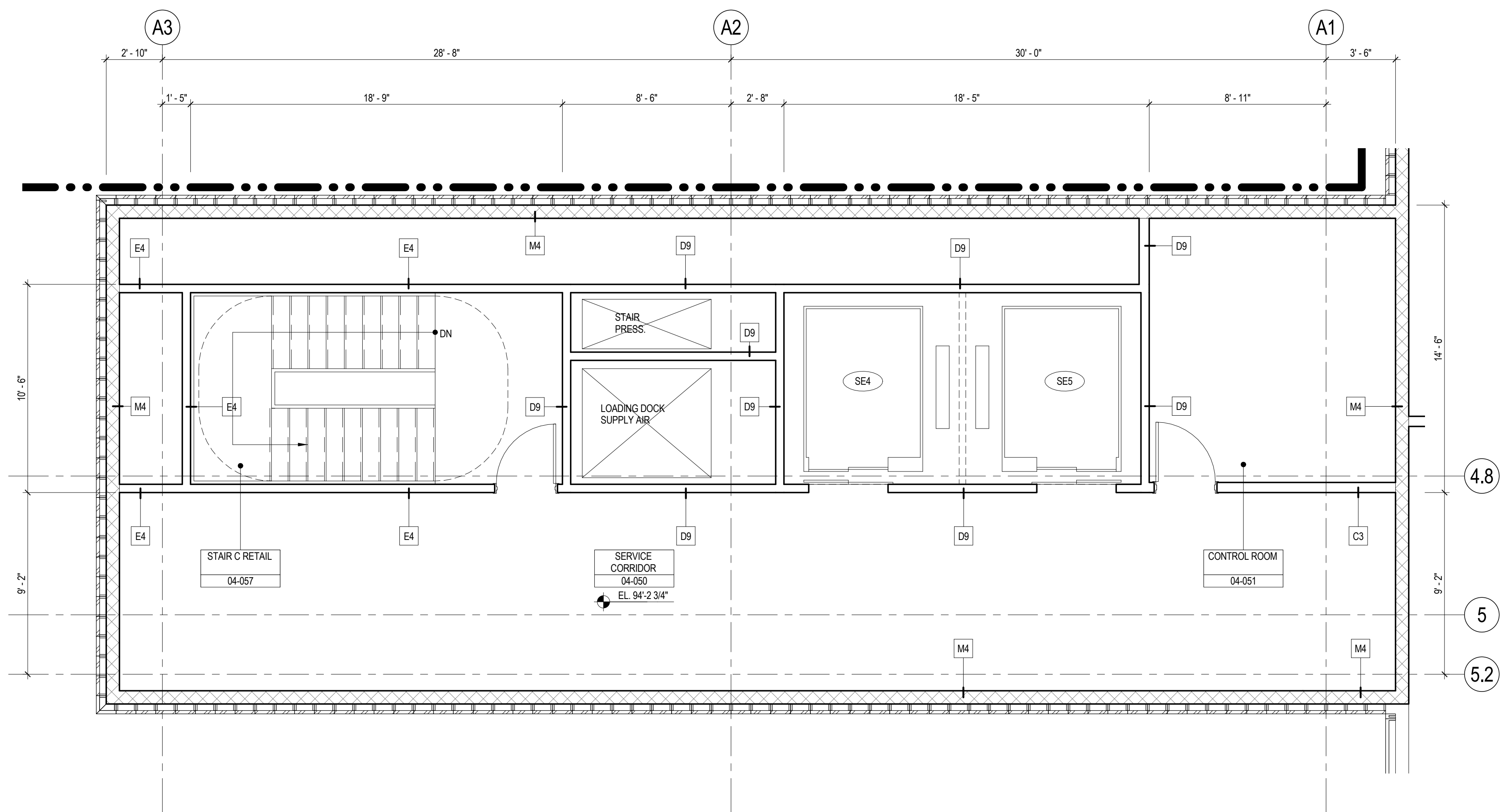
3 LEVEL 2 ENLARGED RETAIL CORE PLAN  
SCALE: 1/4" = 1'-0"



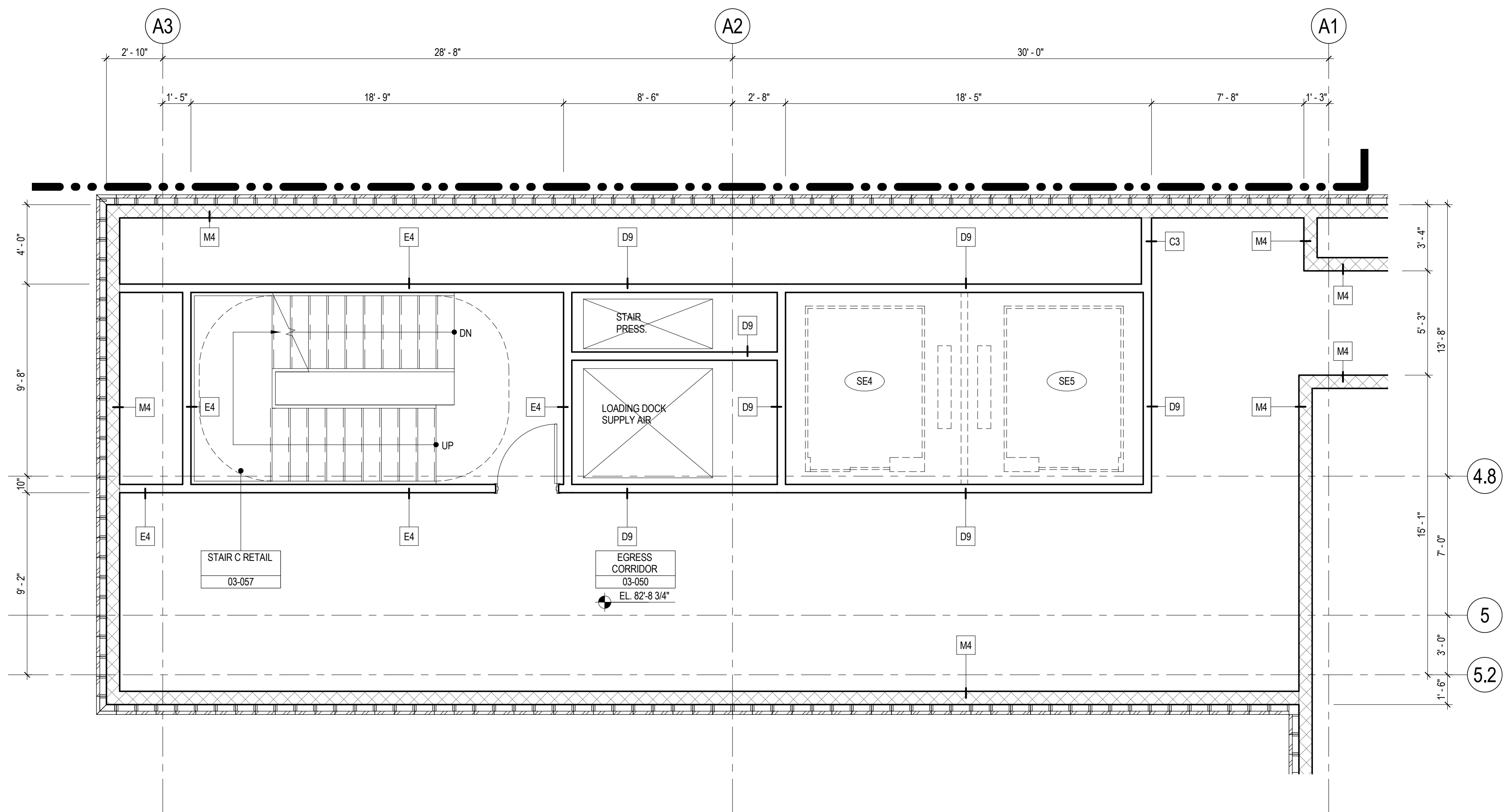
2 LEVEL 1 ENLARGED RETAIL CORE PLAN  
SCALE: 1/4" = 1'-0"



1 CELLAR B ENLARGED RETAIL CORE PLAN  
SCALE: 1/4" = 1'-0"



5 LEVEL 4 ENLARGED RETAIL CORE PLAN  
SCALE: 1/4" = 1'-0"



4 LEVEL 3 ENLARGED RETAIL CORE PLAN  
SCALE: 1/4" = 1'-0"

## SHEET NOTES

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2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR ROOM FINISH SCHEDULE SEE A-700 SERIES DRAWINGS.
5. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION (B5700).
6. FOR PARTITION TYPES SEE A-700 SERIES DRAWINGS.
7. ALL PARTITIONS SHALL BE TYPE DR, UNO.
8. FOR REFLECTED CEILING PLANS SEE A-800 SERIES DRAWINGS. IF RCP IS NOT PROVIDED SEE MEPP/FAC/CEILING SERVICE DRAWINGS FOR LOCATIONS OR ALL CEILING/WALL MOUNTED SERVICES.
9. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
10. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
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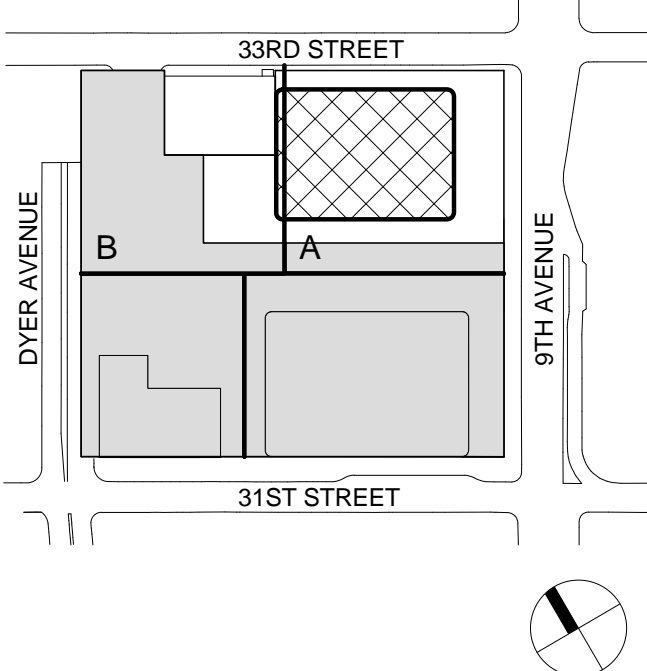
Vibration Consultant  
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65 Broadway, Suite 401, New York, NY 10006

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**Code Consultants Professional Engineers PC**  
215 West 40th Street, 15th Floor, New York, NY 10018

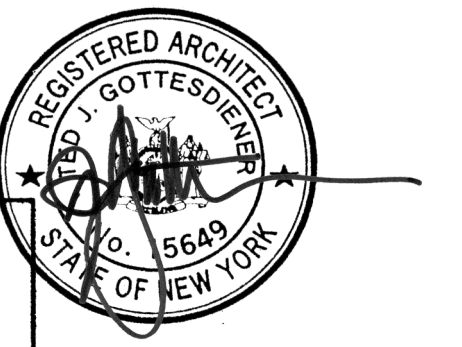
Facade Maintenance Consultant  
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166 Ames Street, Hackensack, NJ 07601

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**Rowan Williams Davies & Irwin Inc.**  
680 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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4 20 JUN 2014 ISSUED FOR FOUNDATION BID  
3 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
2 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
1 19 NOV 2013 ISSUED FOR BID PROGRESS PRICING

No. Date Description

Sheet Name:

**ENLARGED  
RETAIL CORE  
PLANS**

Project No.: 207150  
Date: 20 JUN 2014  
Scale: 1/4" = 1'-0"  
File No.: A-372

B-SCAN Sheet No.:  
**A-372.00**  
Sheet No.:  
**A-372**  
Page No.: 76 OF 87





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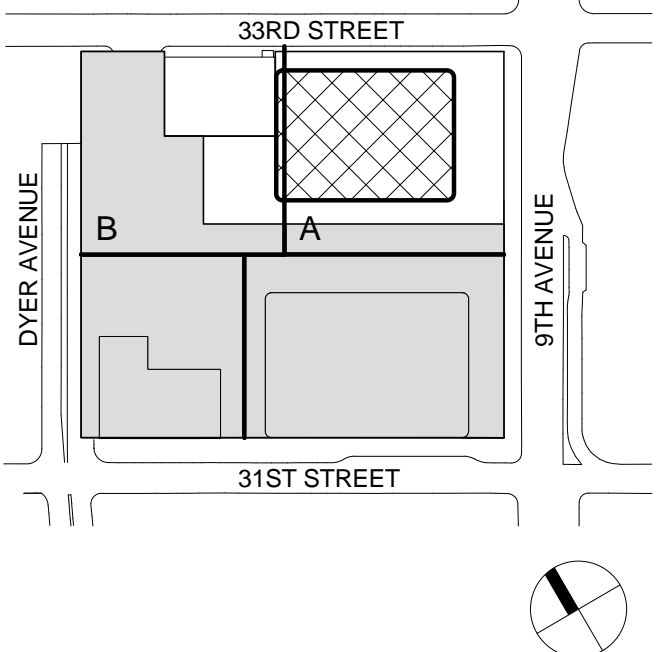
Facade Maintenance Consultant

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650 Woodlawn Road West, Guelph Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:

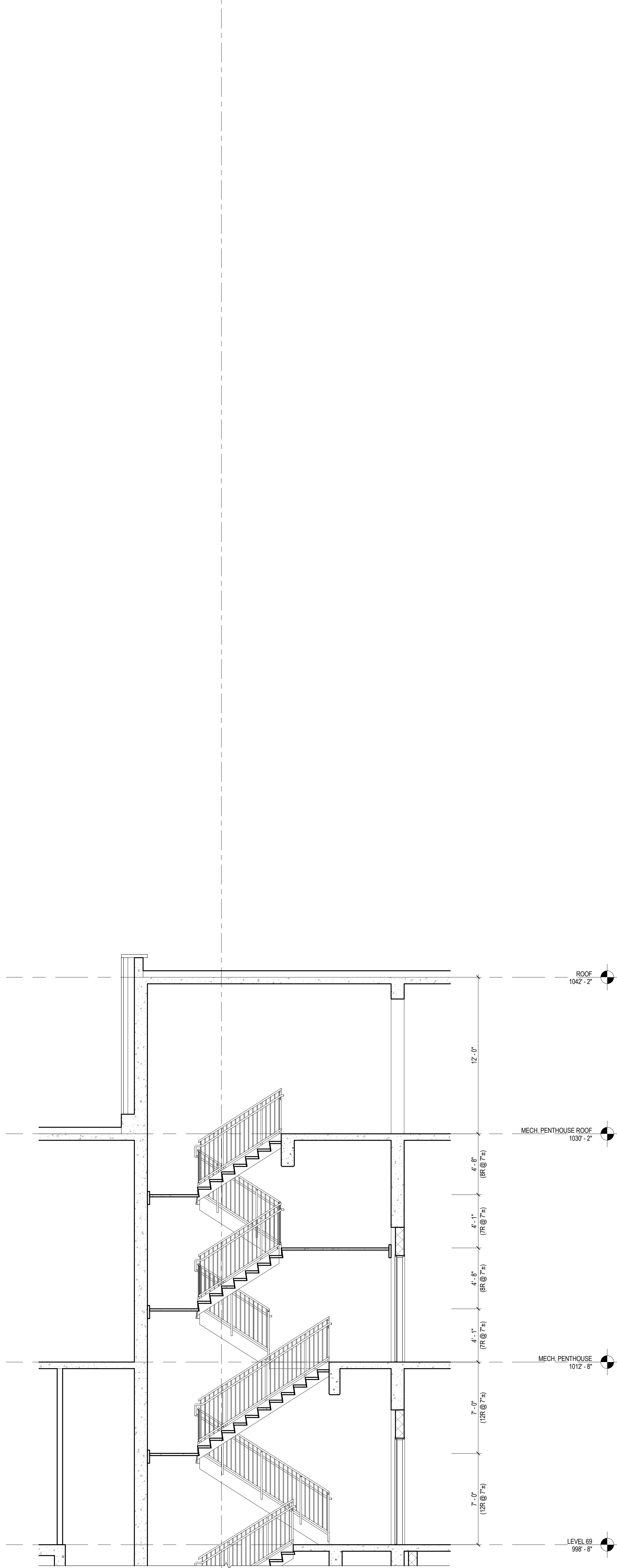


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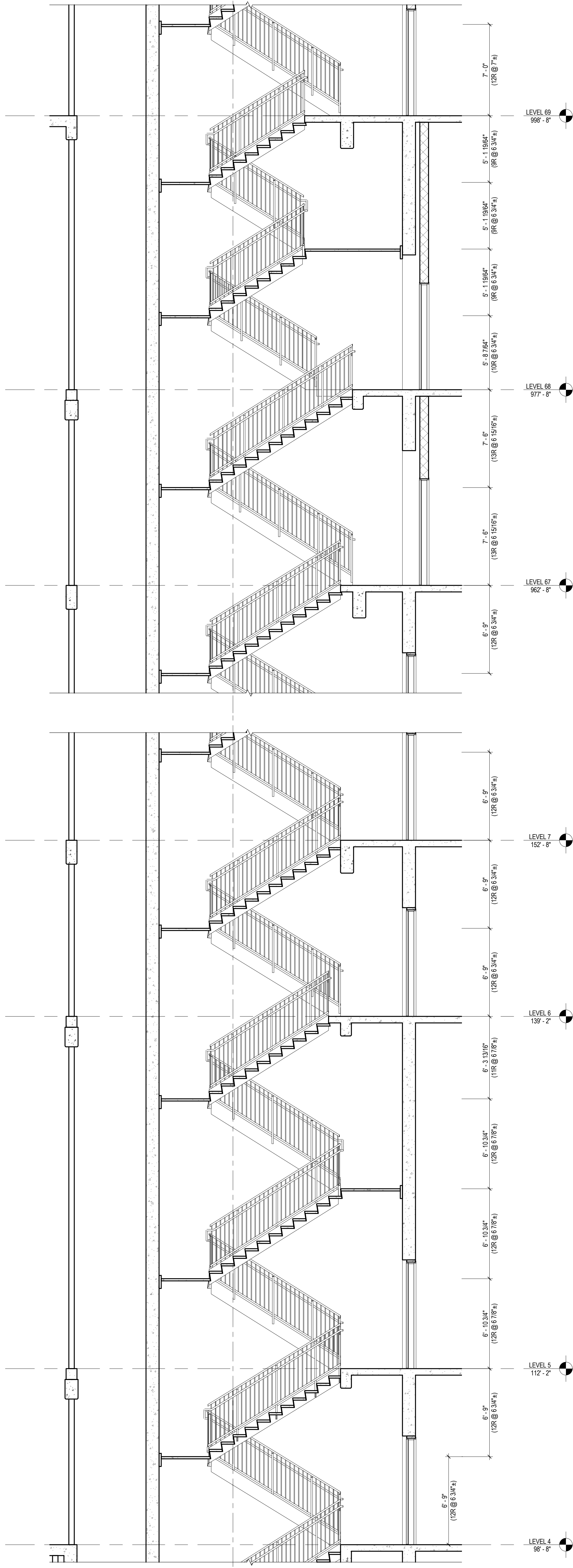
## SHEET NOTES

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2. FOR GENERAL NOTES, BUILDING DEPARTMENT NOTES, AND CLARIFICATION OF THE WORK NOTES REFER TO SHEET NO. G-005.
3. FOR ARCHITECTURAL ABBREVIATIONS, LEGEND OF SYMBOLS & MATERIALS, AND MOUNTING HEIGHTS REFER TO SHEET NO. G-006.
4. FOR DOOR SCHEDULE SEE A-700 SERIES DRAWINGS. FOR DOOR HARDWARE SPECIFICATION SEE TECHNICAL SPECIFICATION SECTION 087010.
5. FOR STRUCTURAL COLUMNS, EDGE OF SLAB, AND CORE WORK POINTS SEE STRUCTURAL SERIES DRAWINGS, UNO.
6. REFER TO STRUCTURAL SERIES DRAWINGS FOR ALL STRUCTURAL WALL DESIGNATIONS AND DIMENSIONS.
7. FOR PROJECT WORK POINT REFER TO A-000 SERIES DRAWINGS.
8. STAIRWAY DOORS SHALL OPERATE IN COMPLIANCE WITH SECTION 403.12 OF THE 2008 NYC BUILDING CODE.
9. EXIT ENCLOSURES SHALL BE SMOKEPROOF IN ACCORDANCE WITH SECTION 403.13 OF THE 2008 NYC BUILDING CODE.
10. EXIT STAIR ENCLOSURES SHALL BE IMPACT RESISTANT IN ACCORDANCE WITH SECTION 403.15 OF THE 2008 NYC BUILDING CODE.
11. ALL EGRESS PATHS SHALL BE PROVIDED WITH PHOTO LUMINESCENT EXIT PATH MARKINGS IN COMPLIANCE WITH SECTIONS 403.16 & 1026 OF THE 2008 NYC BUILDING CODE.
12. ALL STAIRS TO HAVE FIRE RESISTANCE RATED CONSTRUCTION IN ACCORDANCE WITH SECTION 602.1 & 602.2 OF THE 2008 NYC BUILDING CODE.

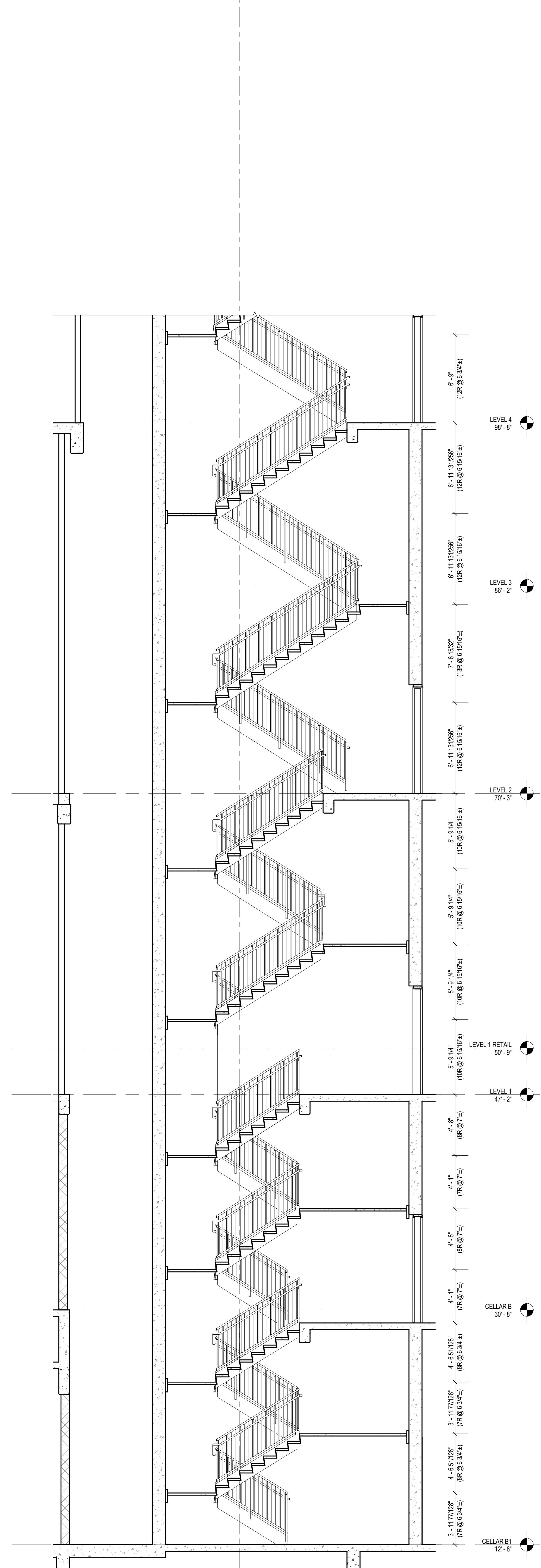
NOTE: STAIR SECTIONS BELOW ARE TYPICAL AND REPRESENTATIVE OF ALL STAIRS.



3 STAIR A SECTION  
SCALE: 1/4" = 1'-0"



2 STAIR A SECTION  
SCALE: 1/4" = 1'-0"



1 STAIR A & D SECTION  
SCALE: 1/4" = 1'-0"

No.	Date	Description
4	1 APR 2015	ISSUED FOR BUILDING PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:

Project No.:

Date:

Scale:

File No.:

Project No.:

Date:

Scale:

File No.:

Project No.:

Date:

Scale:

File No.:

Project No.:

Date:

Scale:

File No.:

B-SCAN Sheet No.:

A-380.00

Sheet No.:

A-380

Page No.:

96 OF 30

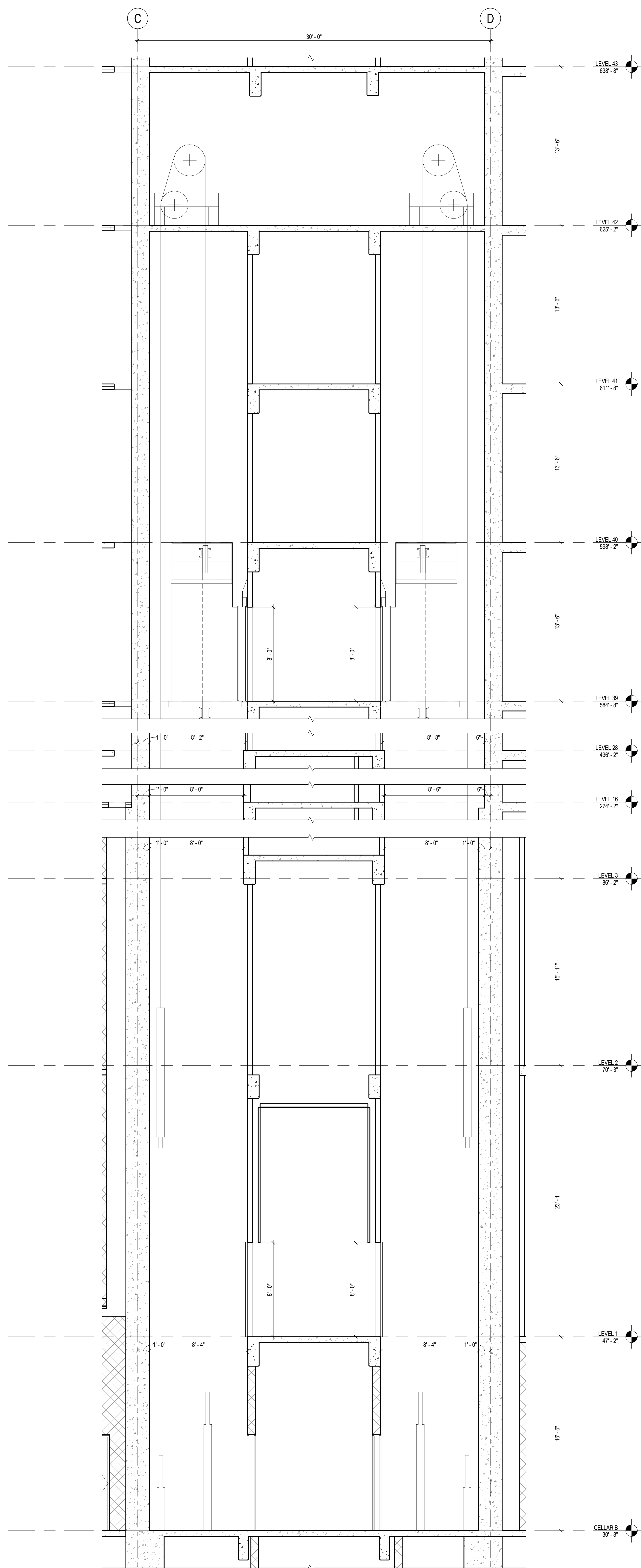


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3

ENLARGED HOISTWAY SECTION - BANK C

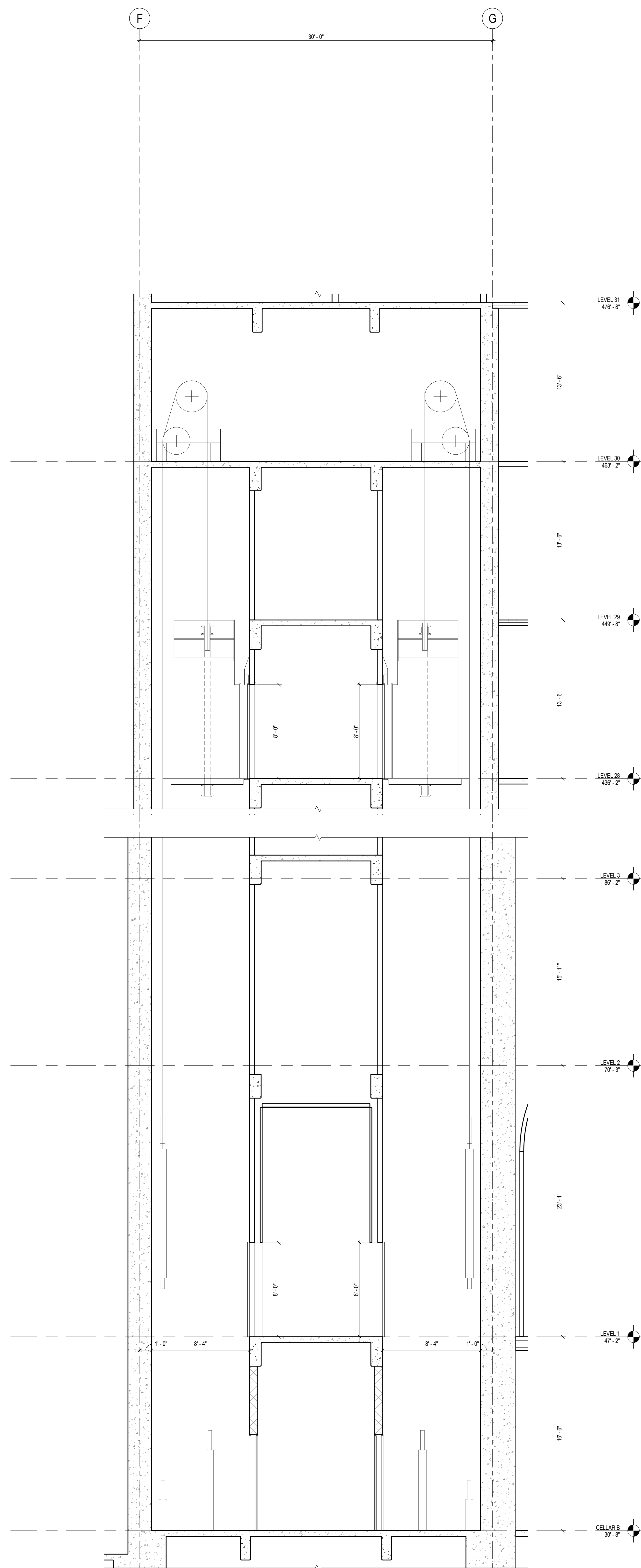
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2

ENLARGED HOISTWAY SECTION - BANK B

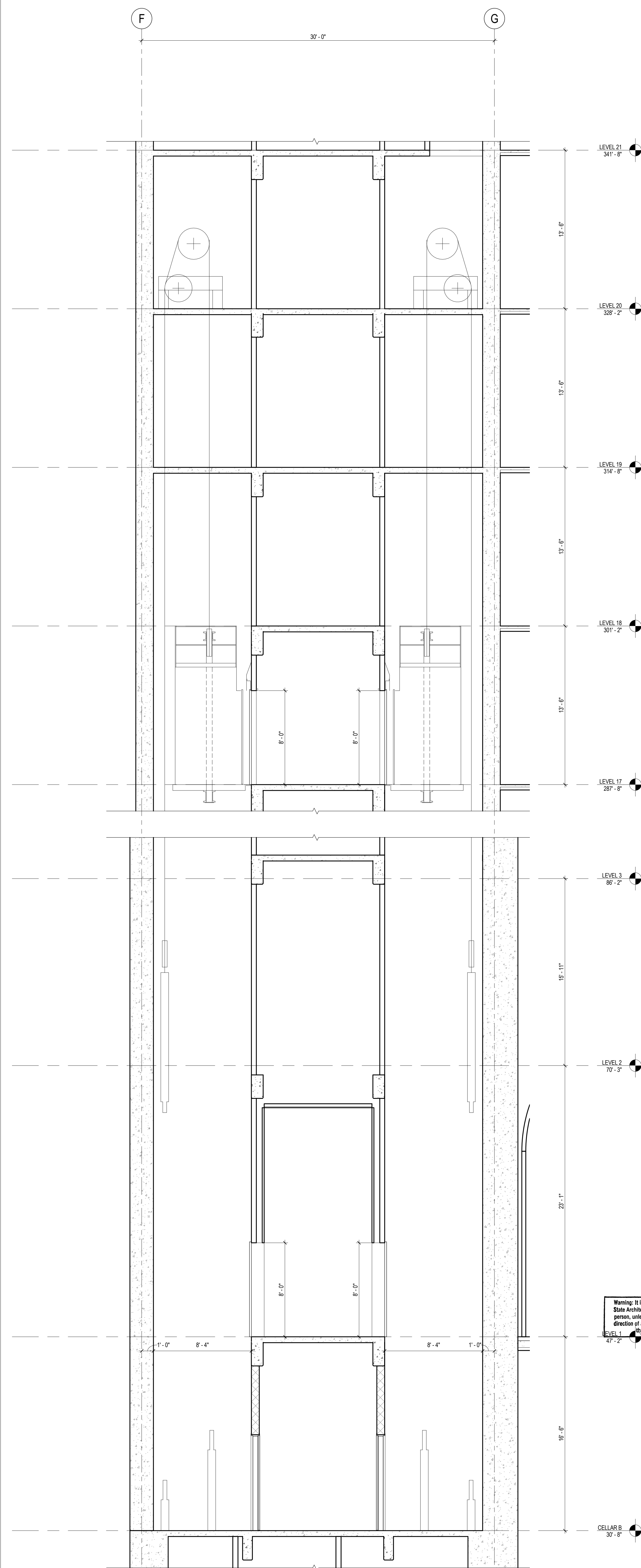
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1

ENLARGED HOISTWAY SECTION - BANK A

SCALE: 1/4" = 1'-0"



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ENLARGED  
HOISTWAY  
SECTIONS

Project No.: 207150  
Date: 1 APR 2015  
Scale: 1/4" = 1'-0"  
File No.: A-390  
B-SCAN Sheet No.: A-390.00  
Sheet No.: A-390  
Page No.: 100 OF 30

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Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

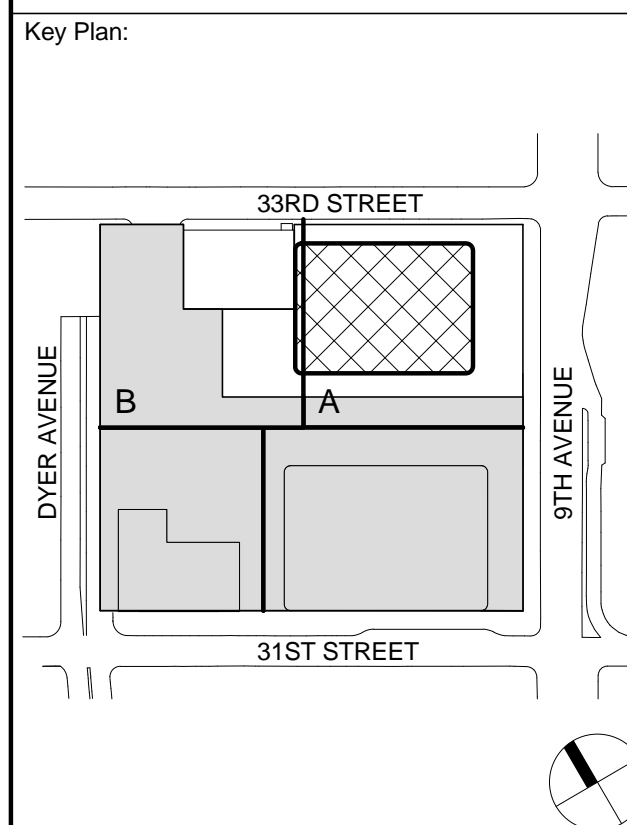
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8





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3

ENLARGED HOISTWAY SECTION - BANK F

SCALE: 1/4" = 1'-0"

2

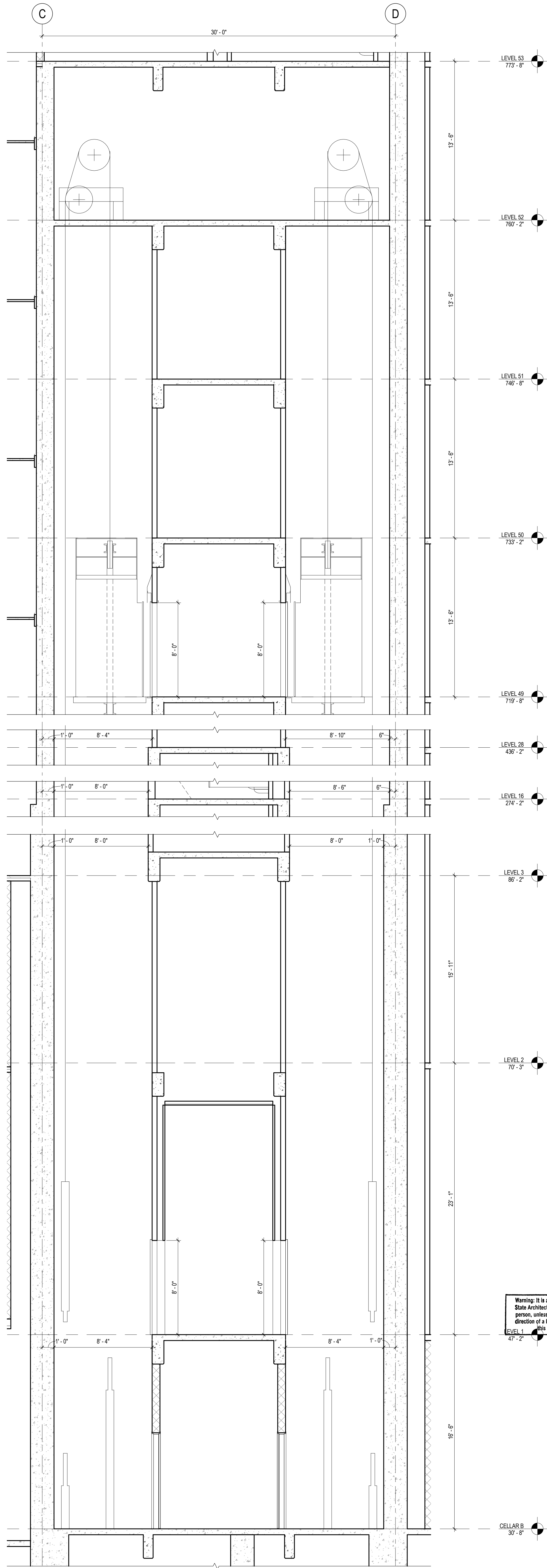
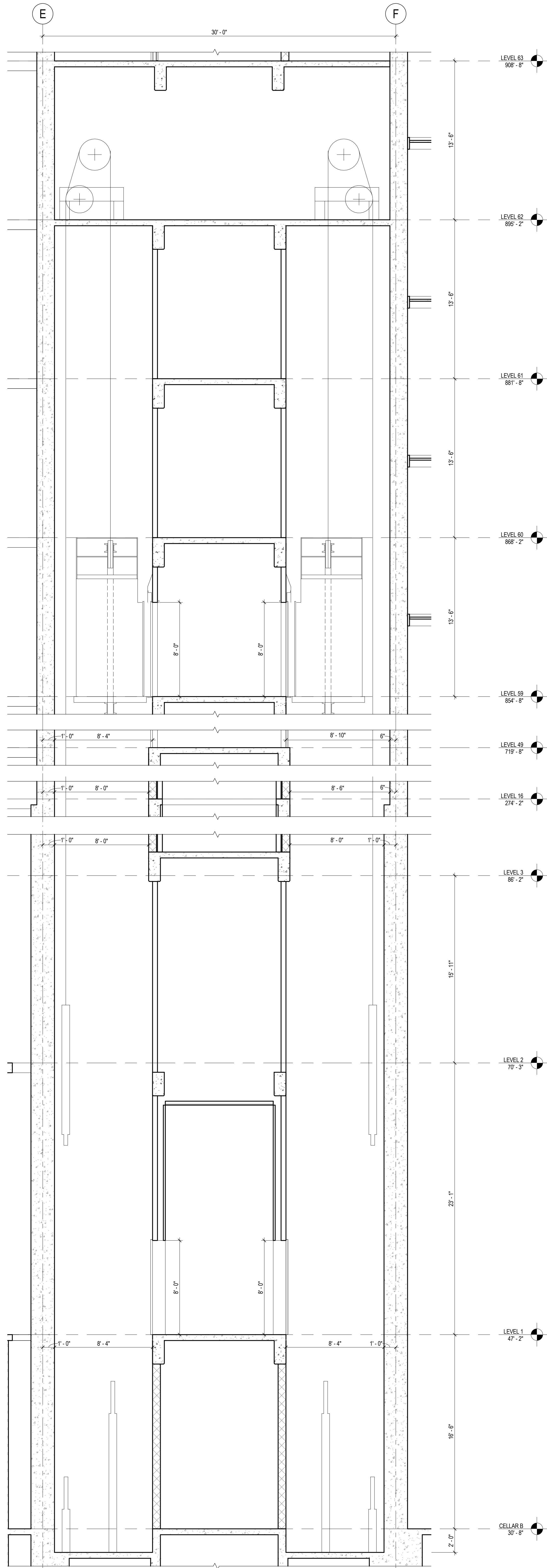
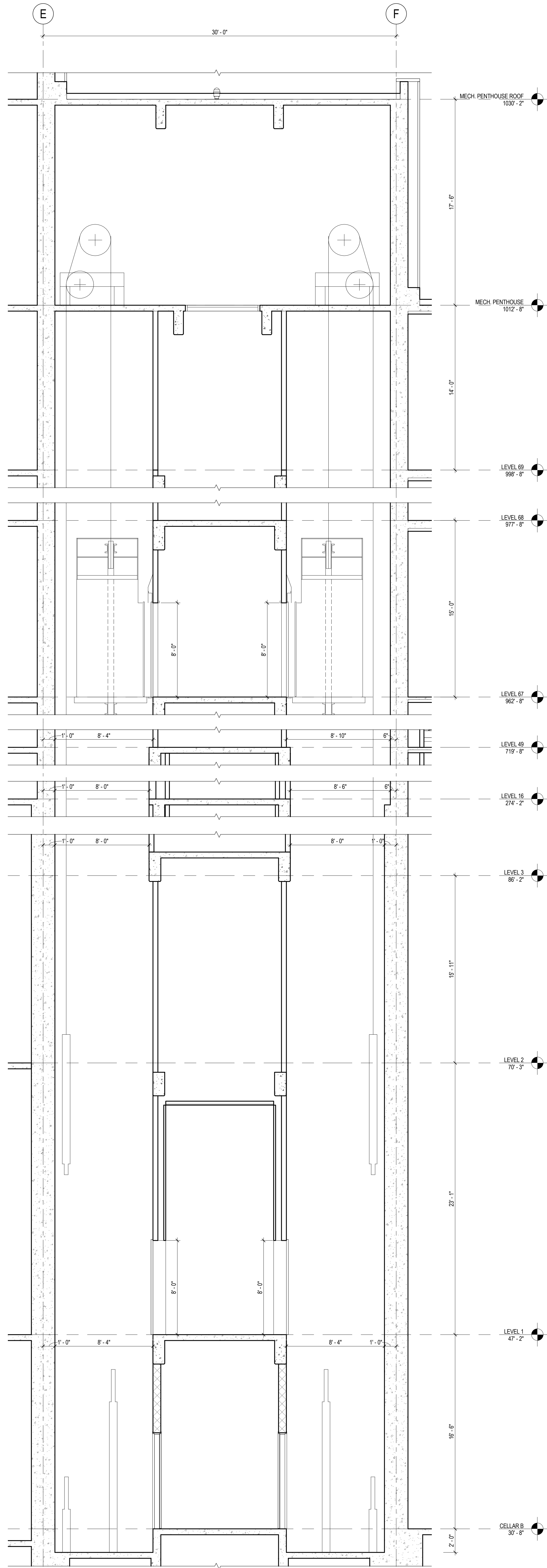
ENLARGED HOISTWAY SECTION - BANK E


SCALE: 1/4" = 1'-0"

1

ENLARGED HOISTWAY SECTION - BANK D

SCALE: 1/4" = 1'-0"





**MANHATTAN WEST:  
NORTH TOWER**  
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**Brookfield**  
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**SOM**  
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Edgett Williams Consulting Group, Inc.  
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Mueser Rutledge Consulting Engineers  
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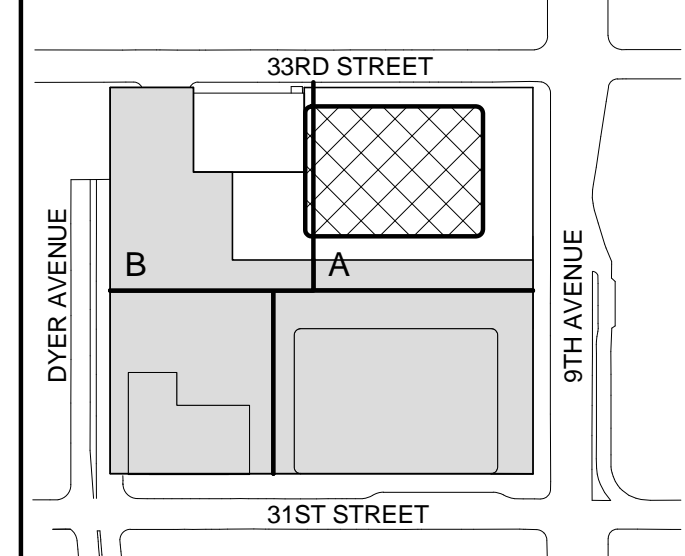
Vibration Consultant  
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Key Plan:



Seal & Signature:



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No.	Date	Description
4	1 APR 2015	ISSUED FOR BUILDING PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:

**ENLARGED  
HOISTWAY  
SECTIONS**

Project No.:	B-SCAN Sheet No.:
207150	A-391.00
Date:	1 APR 2015
Scale:	1/4" = 1'-0"
File No.:	A-391



SHEET NOTES

1. REFER TO THE APPROVED CON Edison DRAWINGS FOR ALL TRANSFORMER VAULT AND NETWORK REQUIREMENTS
2. REFER TO ALL APPLICABLE CON Edison REFERENCE STANDARDS



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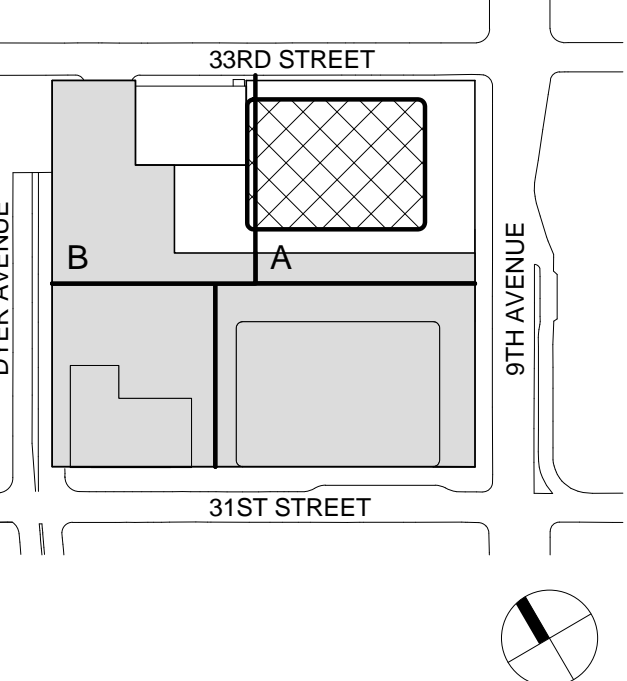
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2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
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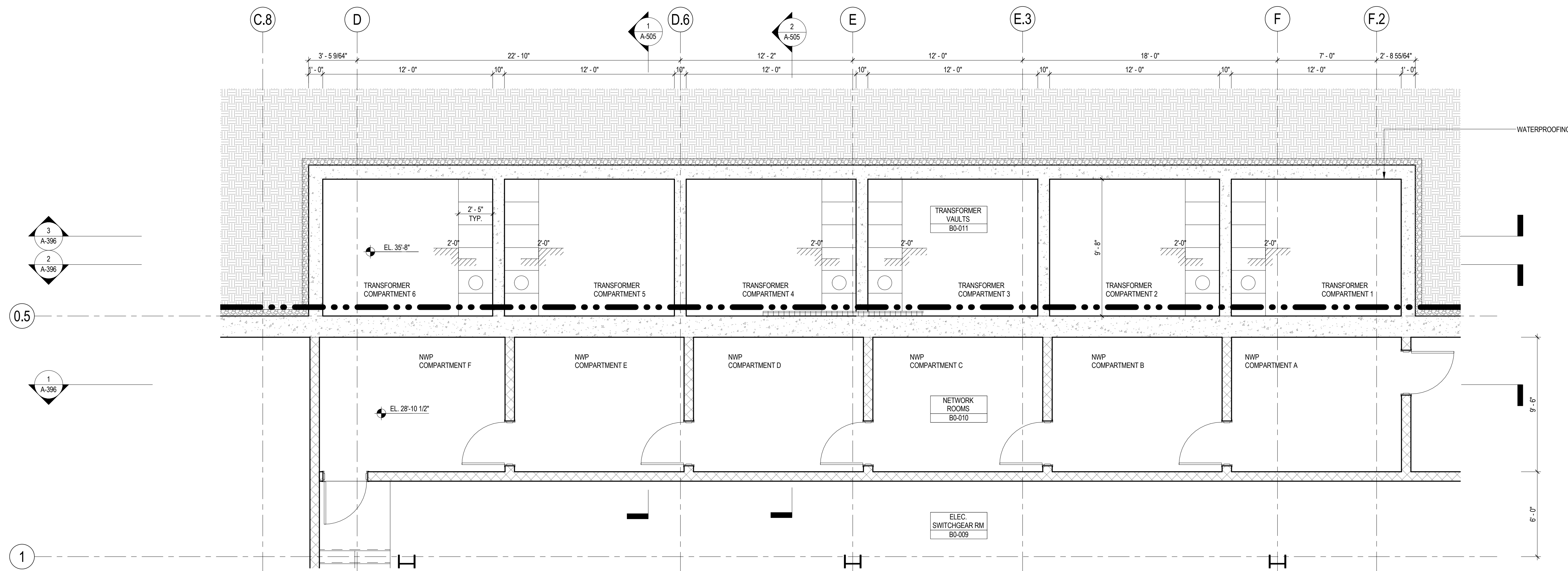
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Sheet Name:

ENLARGED  
TRANSFORMER  
VAULT PLANS

Project No.:	207150	B-SCAN Sheet No.:	A-395.00
Date:	30 JAN 2015	Sheet No.:	A-395
Scale:	1/4" = 1'-0"	Page No.:	77 OF 30
File No.:	A-395		

2 ENLARGED PLAN AT GROUND FLOOR TRANSFORMER VAULT

SCALE: 1/4" = 1'-0"



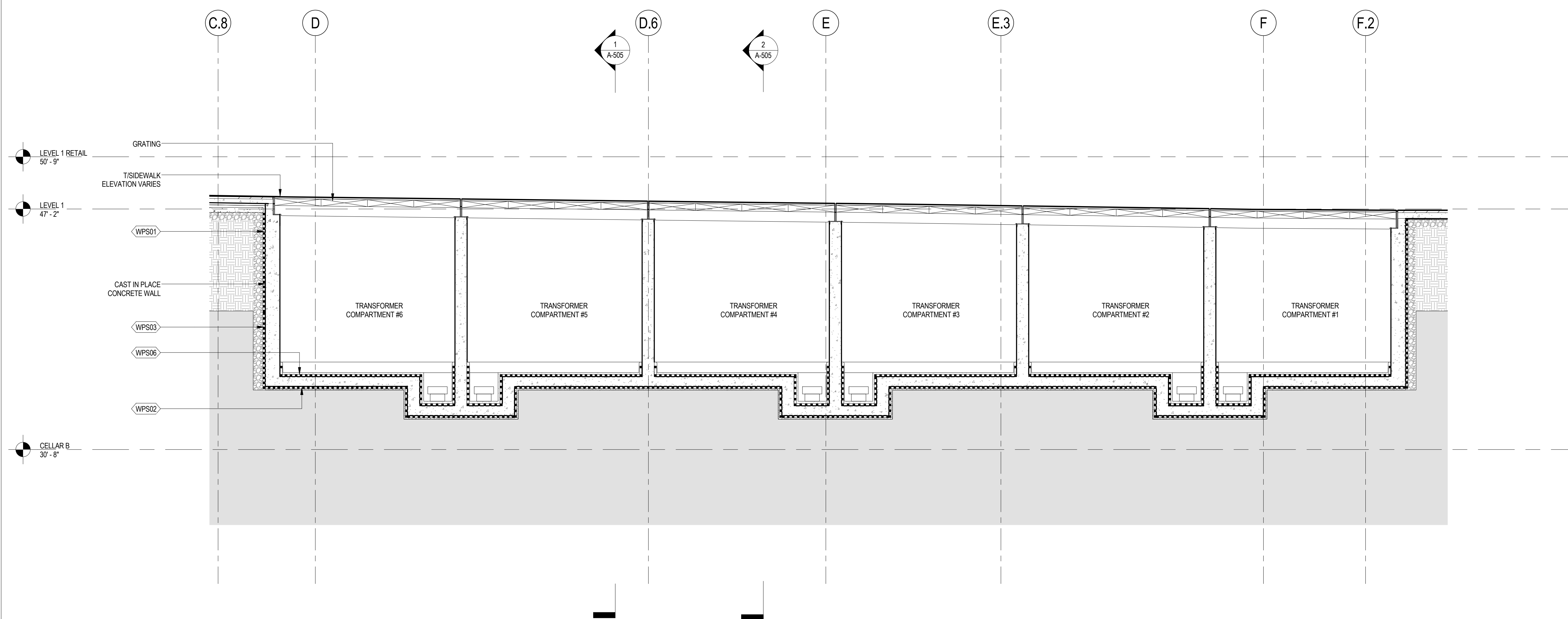
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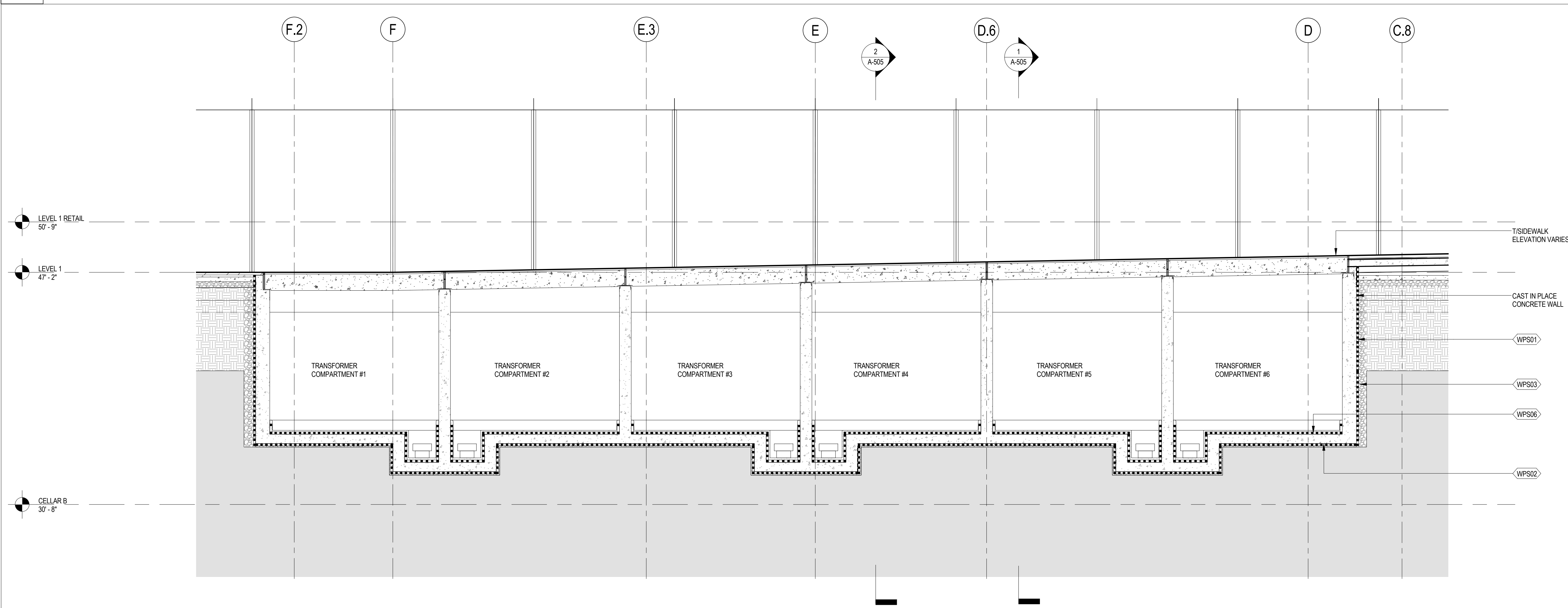




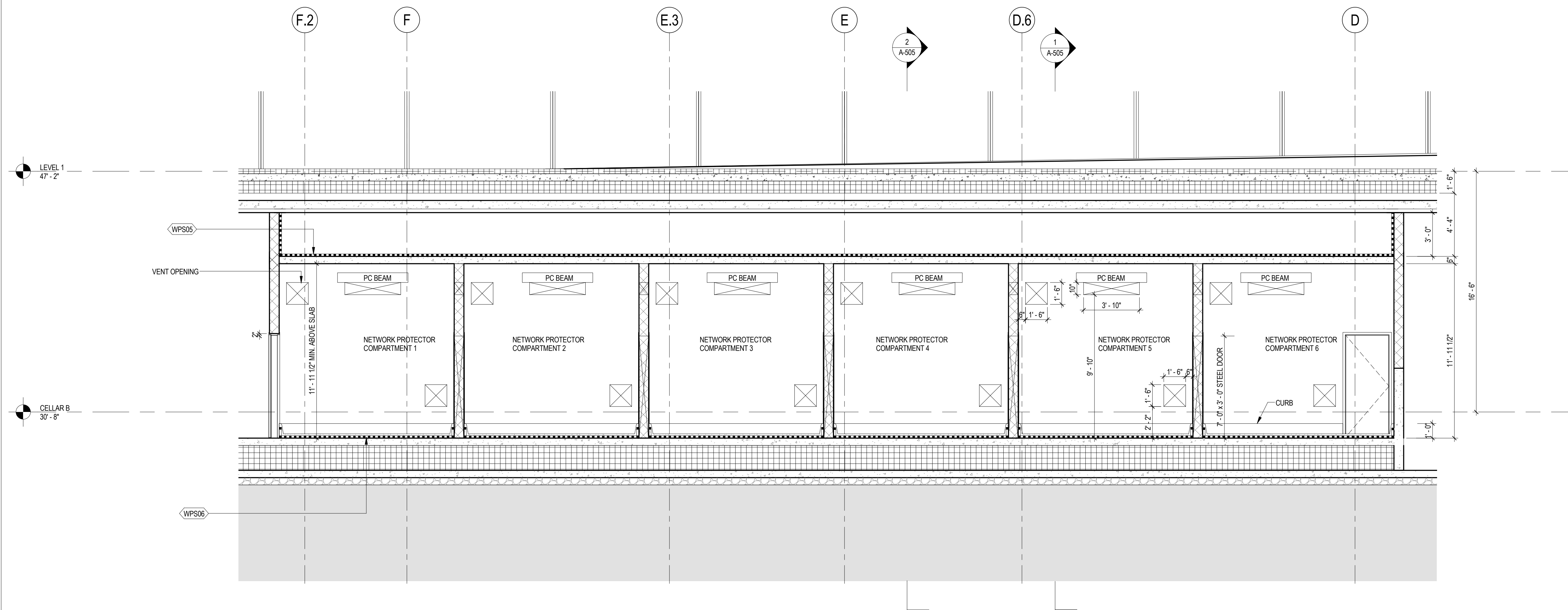
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3 TRANSFORMER VAULT SECTION - NORTH



2 TRANSFORMER VAULT SECTION - SOUTH



1 NETWORK PROTECTOR COMPARTMENT SECTION

## SHEET NOTES

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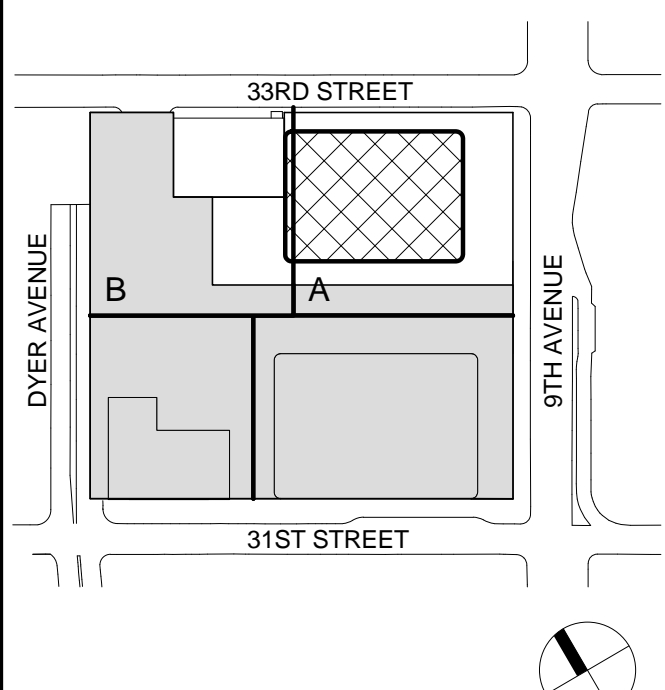
Facade Maintenance Consultant

Entek Engineering LLC  
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2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	18 NOV 2013	ISSUED FOR BID PROGRESS PRICING

No. Date Description

Sheet Name:

**ENLARGED  
TRANSFORMER  
VAULT SECTIONS**

Project No.: 207150	B-SCAN Sheet No.: <b>A-396.00</b>
Date: 30 JAN 2015	Sheet No.: <b>A-396</b>
Scale: 1/4" = 1'-0"	Page No.: 78 OF 30
File No.: A-396	

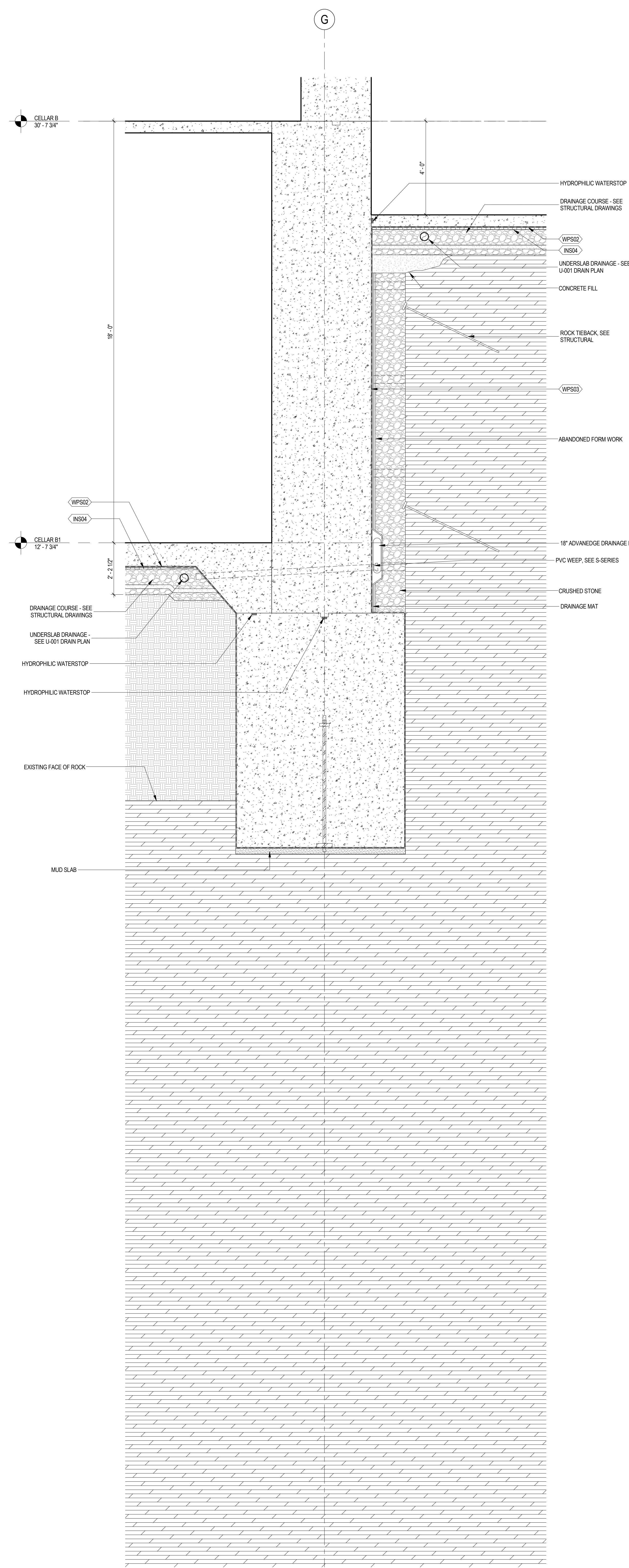


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FOUNDATION SECTION

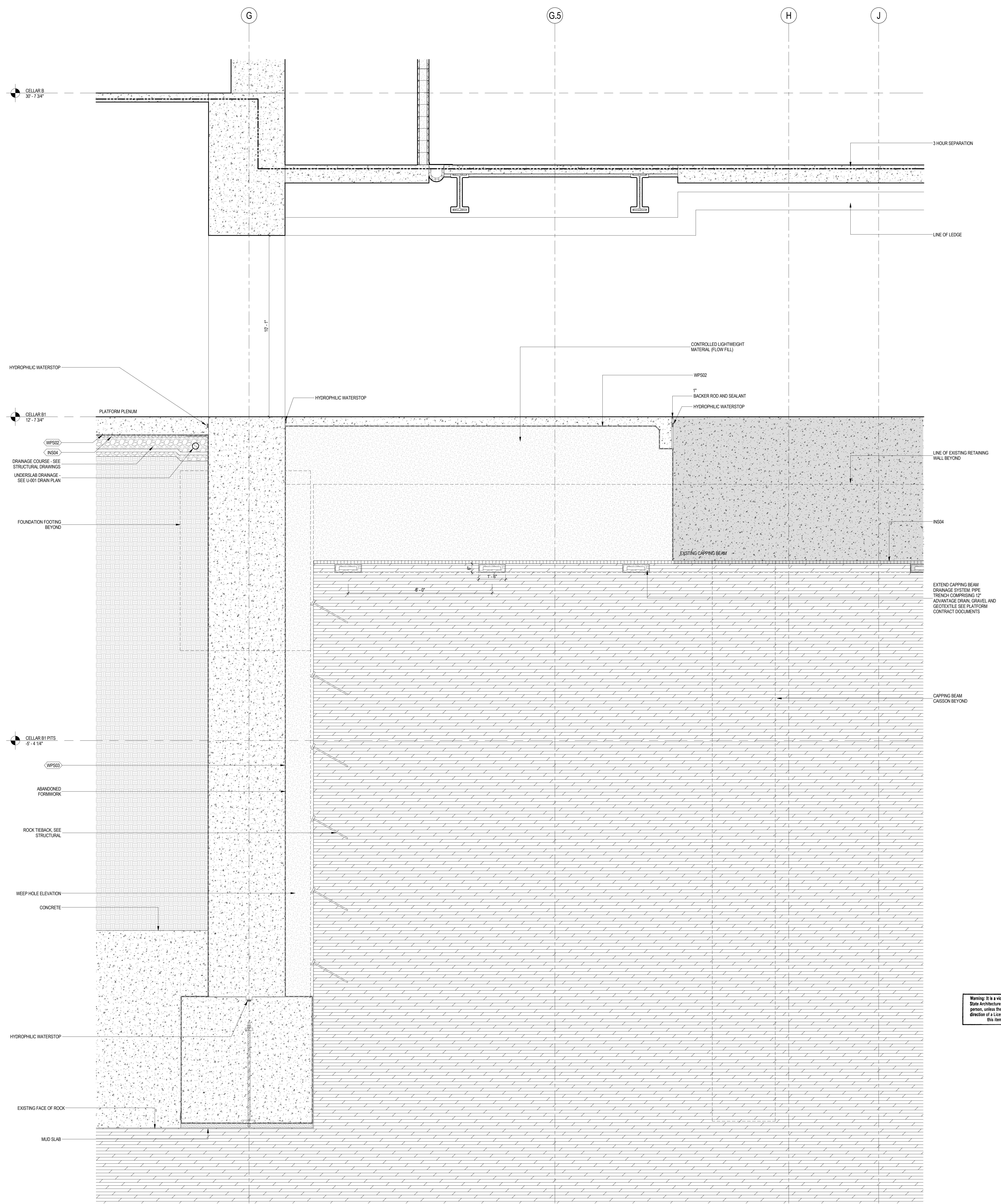
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1

FOUNDATION SECTION

SCALE: 1/2" = 1'-0"





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NORTH TOWER**  
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250 State Street #F1, North Haven, CT 06473

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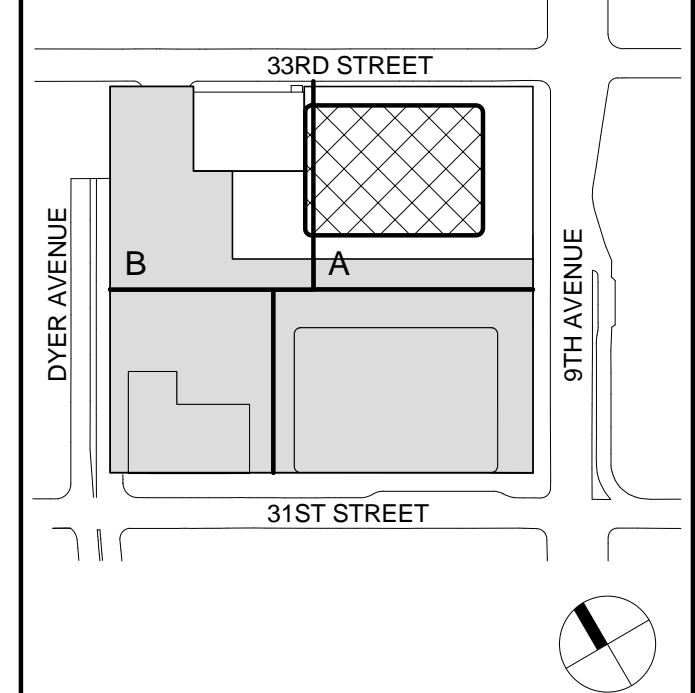
Vibration Consultant  
**Wilson, Uhrig & Associates, Inc.**  
65 Broadway, Suite 401, New York, NY 10006

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3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:

**FOUNDATION  
WALL SECTIONS**

Project No.:	B-SCAN Sheet No.:
207150	A-500.00

Date:	Sheet No.:
20 JUN 2014	A-500

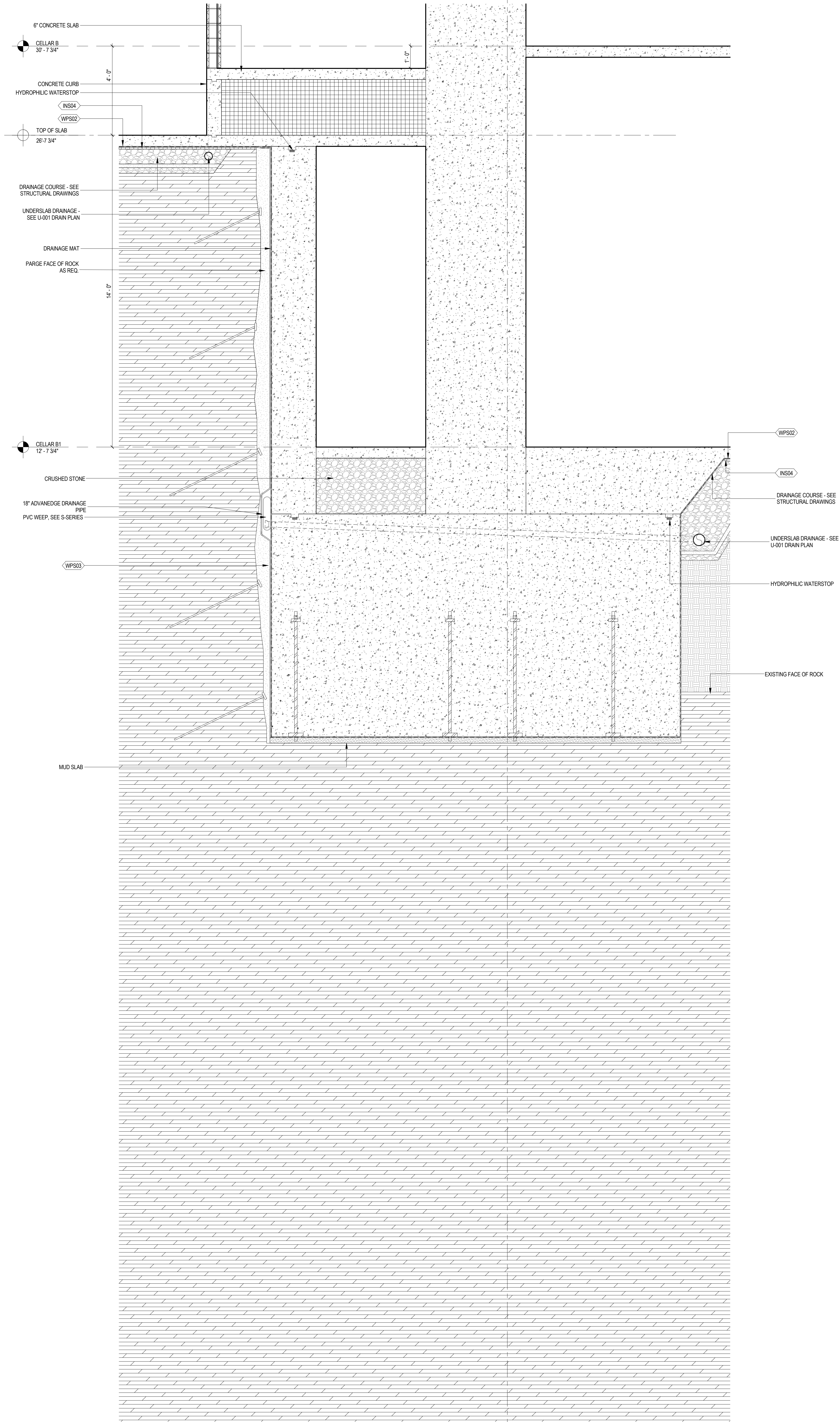
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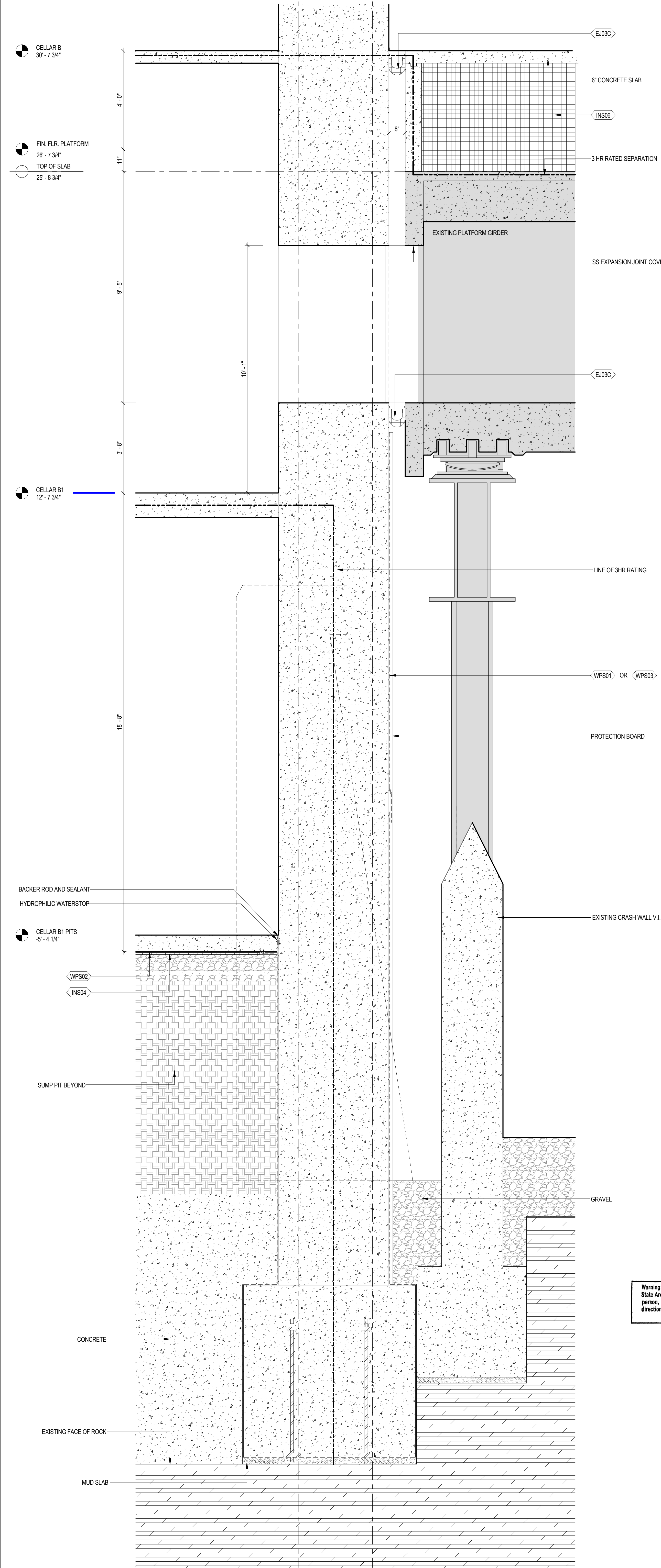
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1 FOUNDATION SECTION AT CORE

SCALE: 1/2" = 1'-0"



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001  
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SOM  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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Philip Habb & Associates  
102 Madison Avenue #11, New York, NY 10016

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Key Plan:

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5 20 JUN 2014 ISSUED FOR FOUNDATION BID  
4 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
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1 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

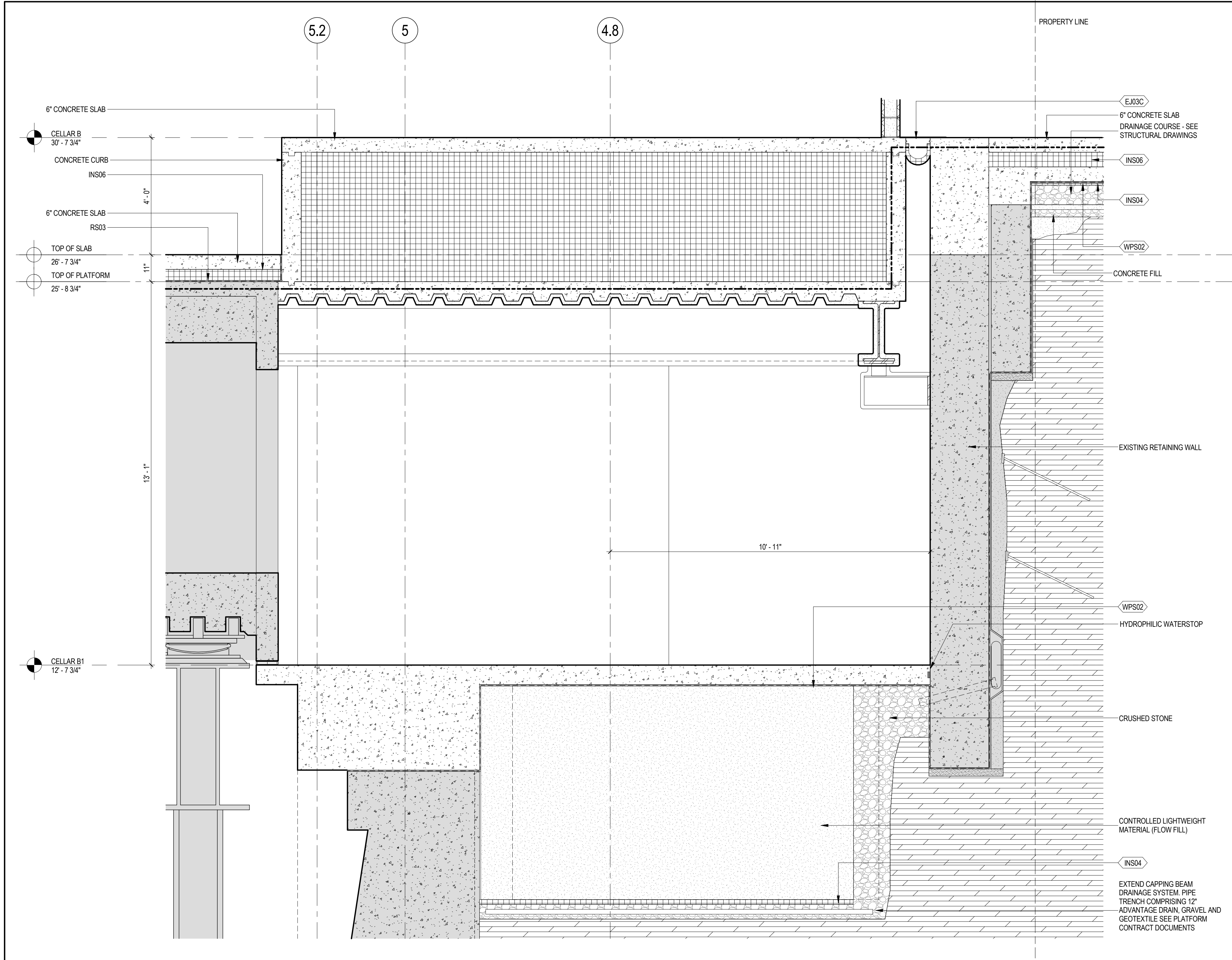
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FOUNDATION  
WALL SECTIONS

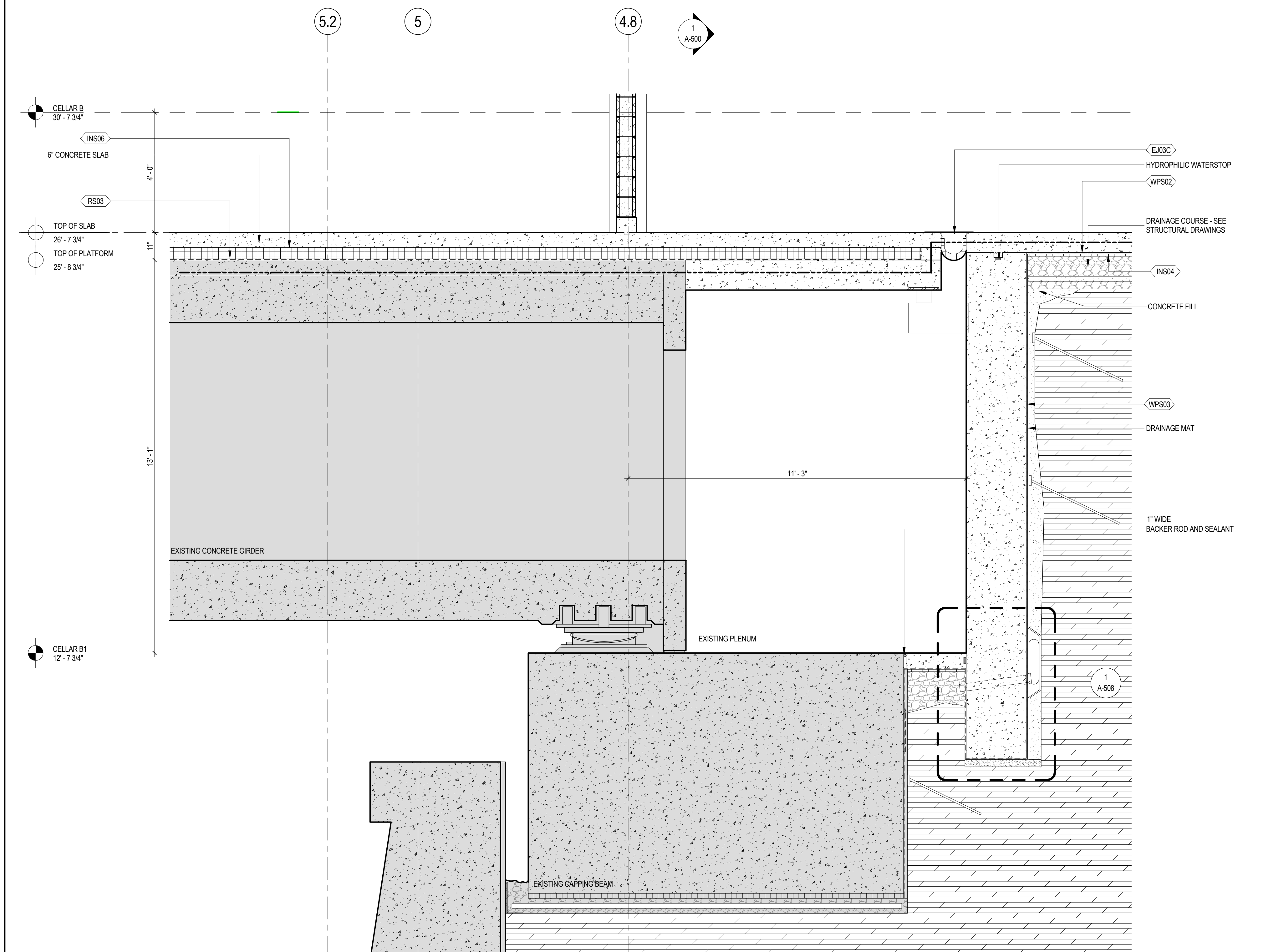
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Date: 20 JUN 2014  
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B-SCAN Sheet No.: A-501.00  
Sheet No.: A-501  
Page No.: 80 OF 87

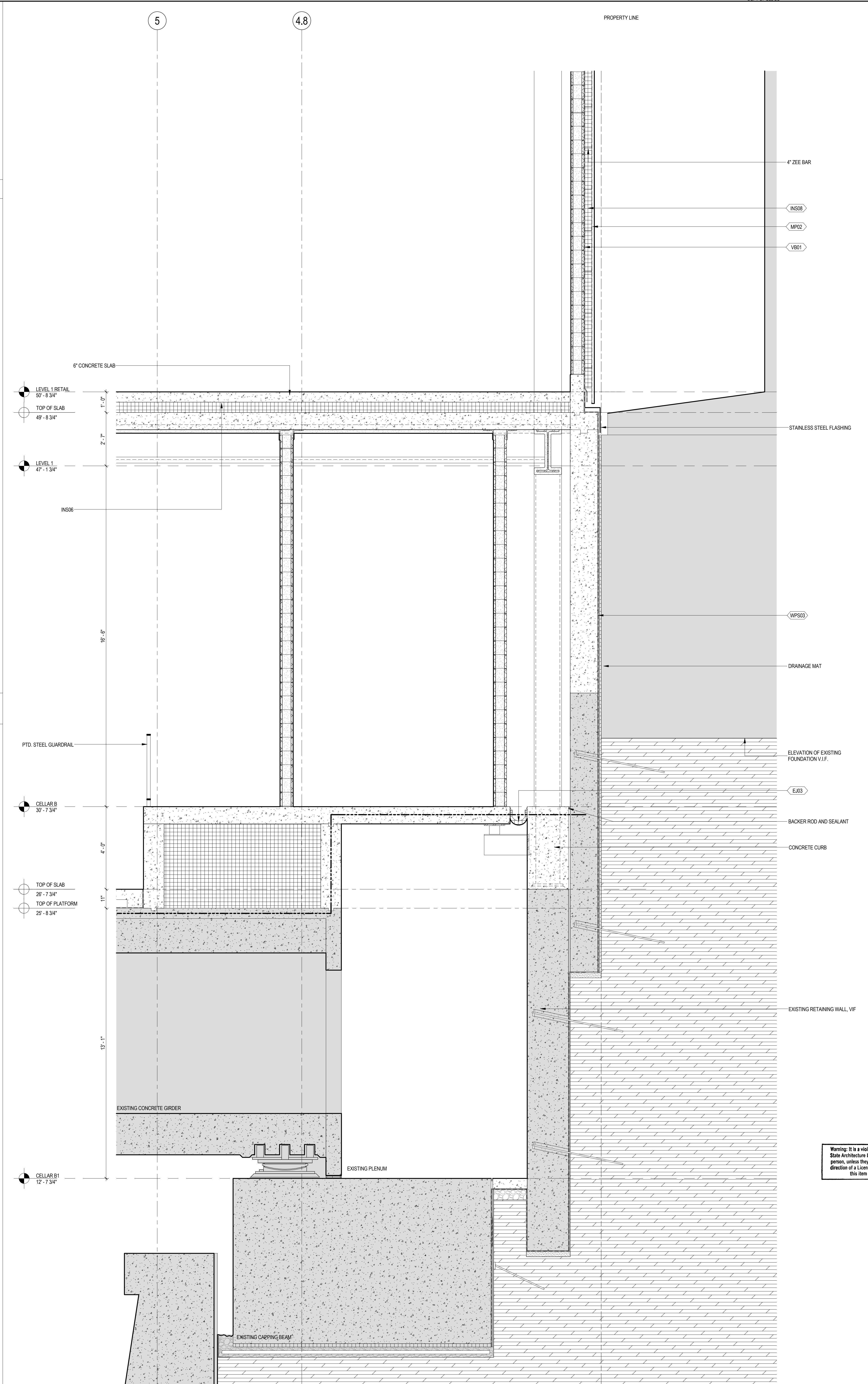





3 FOUNDATION SECTION AT PLENUM 3  
SCALE: 1/2" = 1'-0"



2 FOUNDATION SECTION  
SCALE: 1/2" = 1'-0"



1 FOUNDATION SECTION  
SCALE: 1/2" = 1'-0"



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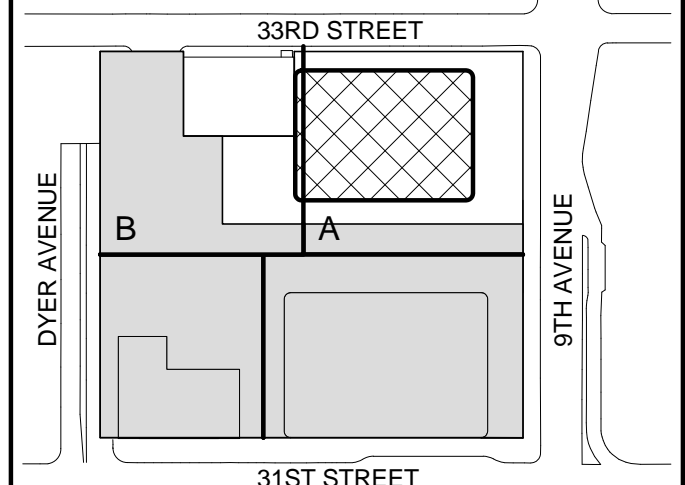
Vibration Consultant  
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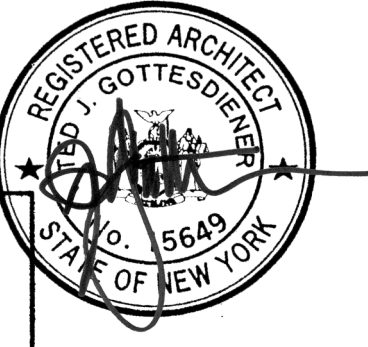
Facade Maintenance Consultant  
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650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

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Sheet Name: **FOUNDATION WALL SECTIONS**

Project No.:	B-SCAN Sheet No.:
207150	<b>A-502.00</b>

Date:	Sheet No.:
20 JUN 2014	<b>A-502</b>

Scale:	Page No.:
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File No. A-502







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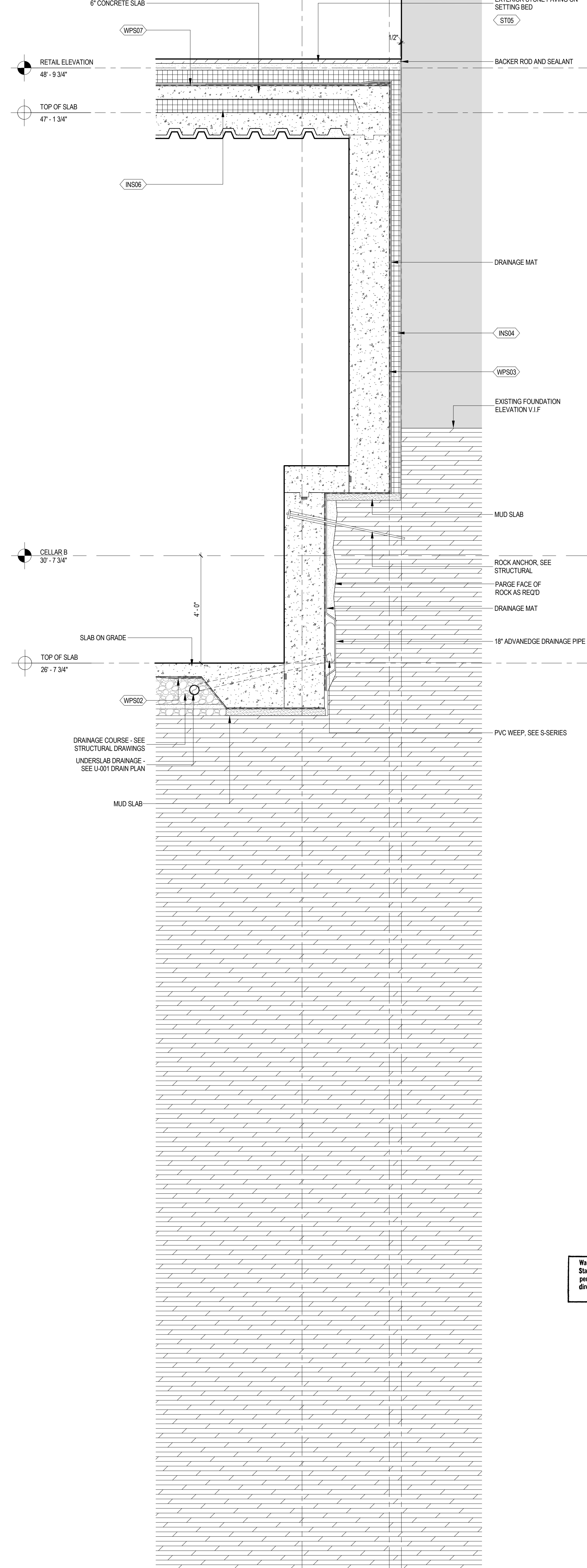
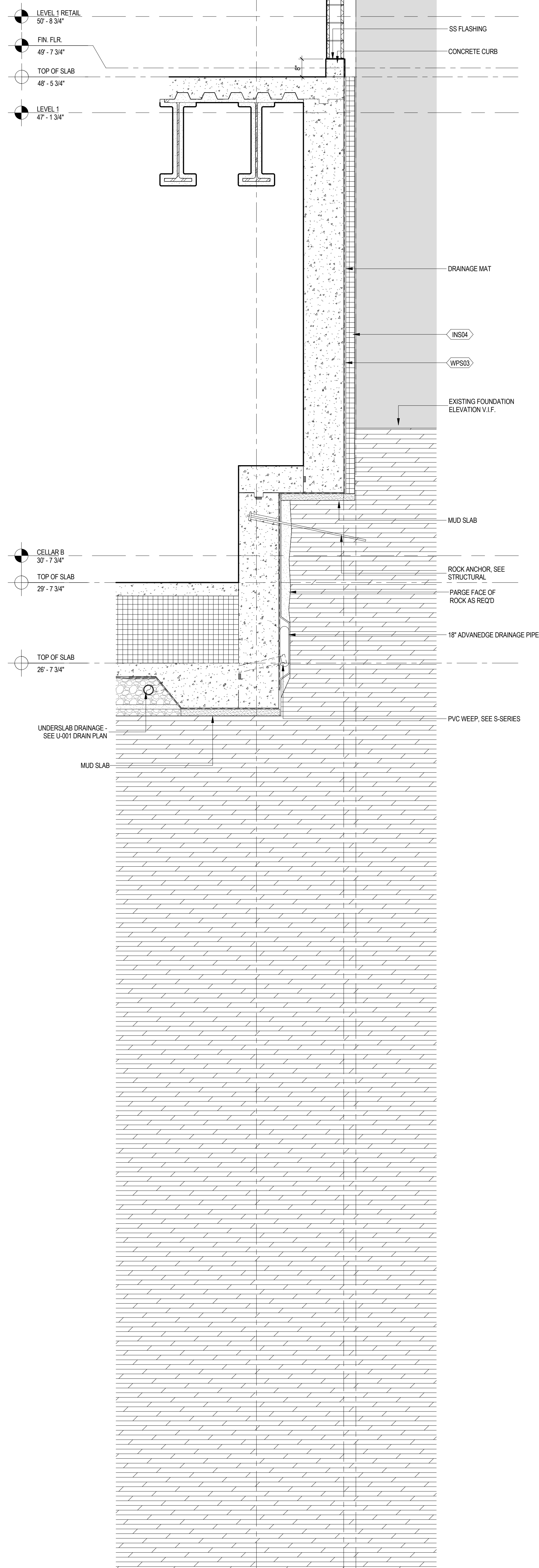
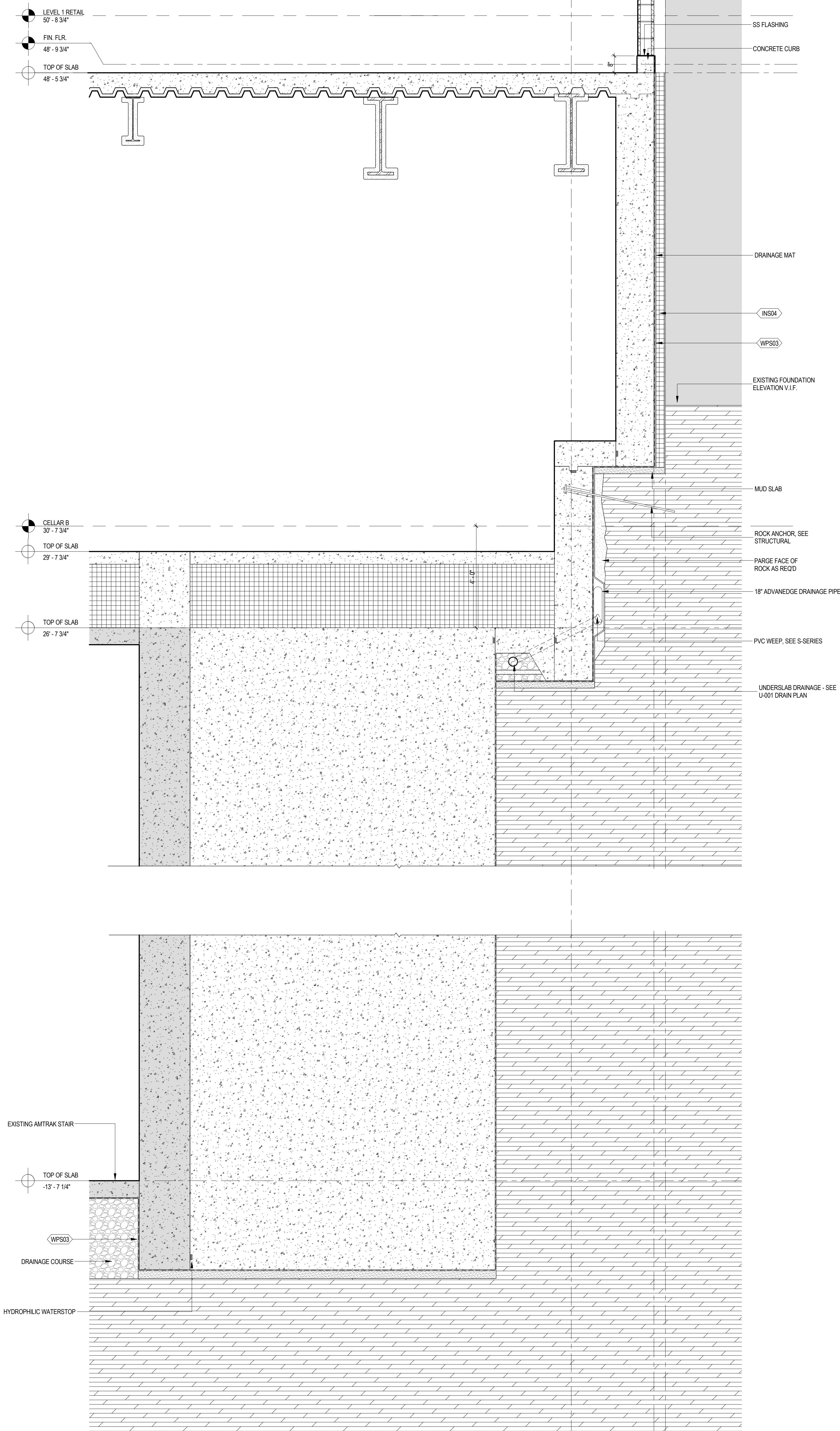
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### 2 FOUNDATION SECTION AT LOFT

SCALE: 1/2" = 1'-0"

### 1 FOUNDATION SECTION AT LOFT

SCALE: 1/2" = 1'-0"





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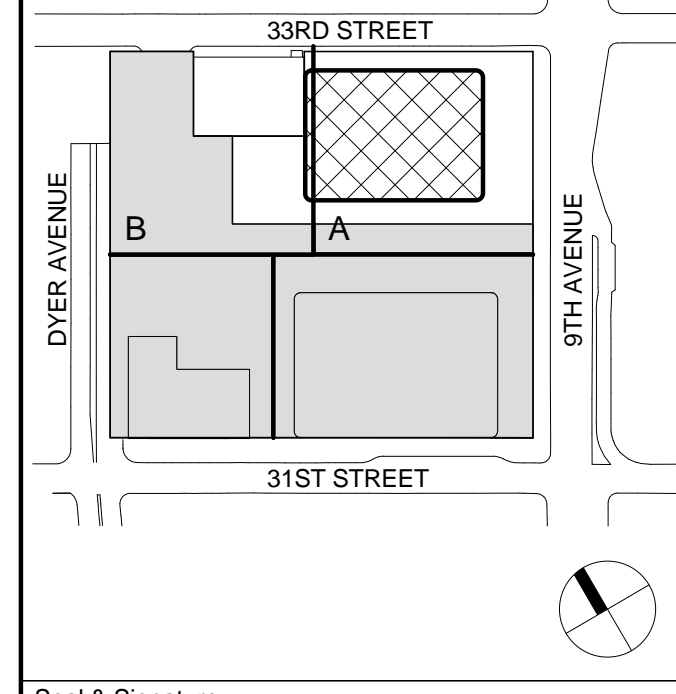
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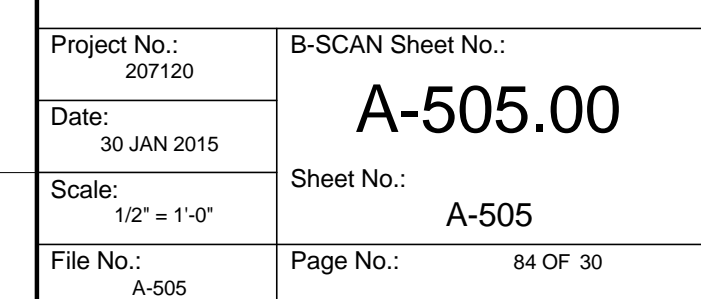
No.	Date	Description
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4	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
3	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Project No.: 207150  
Date: 20 JUN 2014  
Scale: 1/2" = 1'-0"  
File No.: A-504

Sheet No.: A-504.00  
Page No.: 83 OF 87

**FOUNDATION  
WALL SECTIONS**



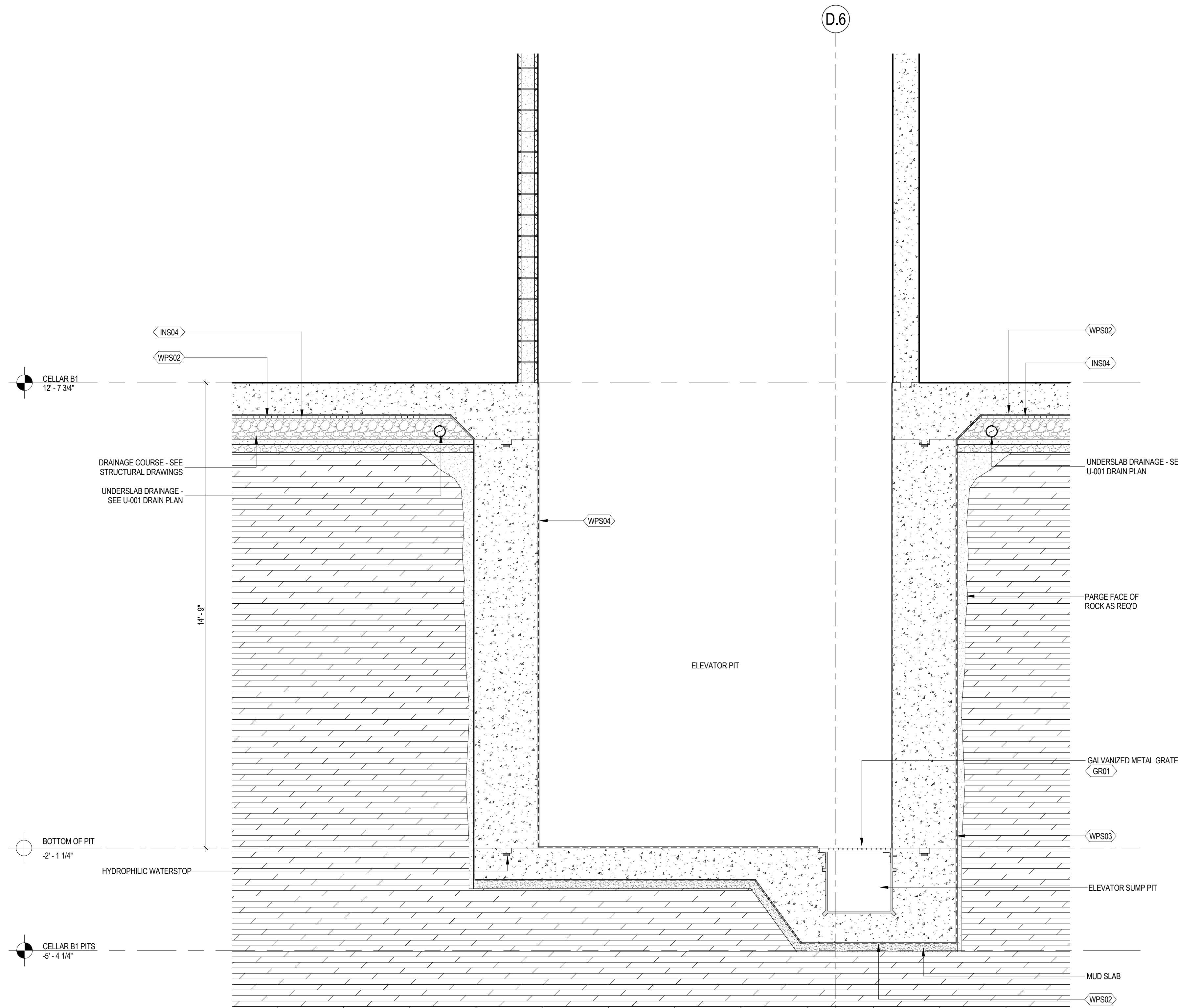




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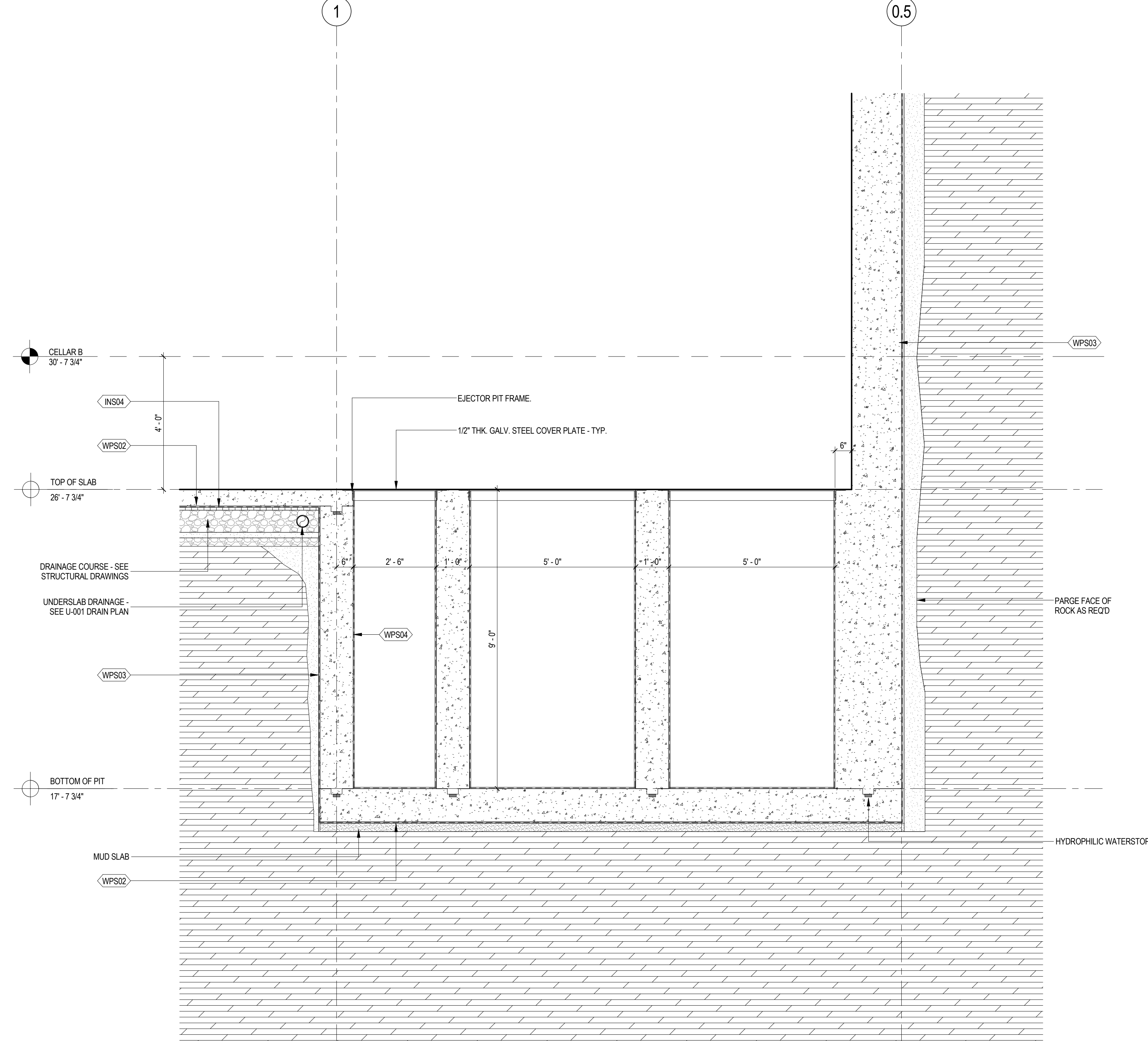
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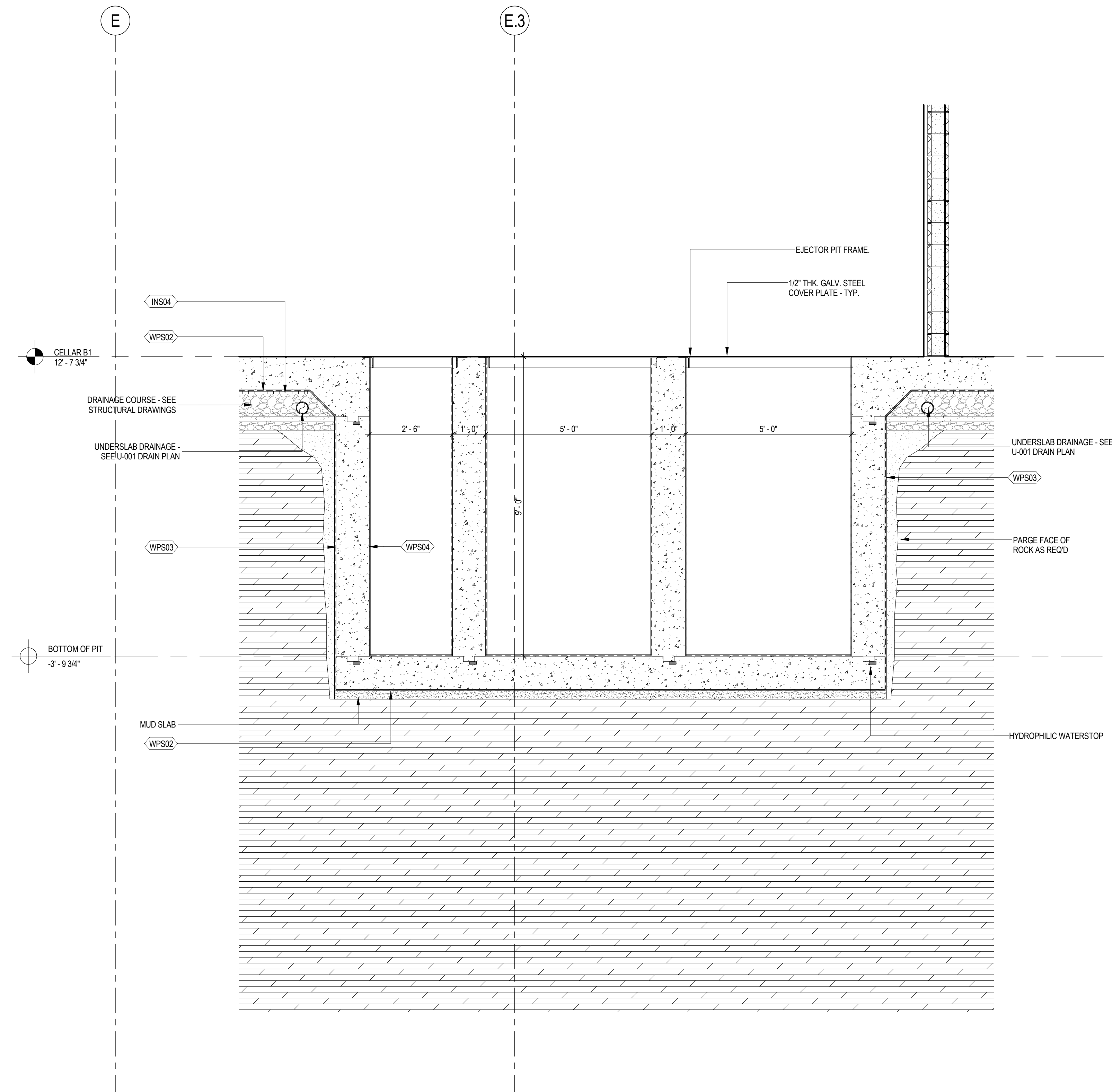
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SCALE: 1/2" = 1'-0"



### 2 FOUNDATION SECTION AT CELLAR B3 SUMP

SCALE: 1/2" = 1'-0"



### SHEET NOTES

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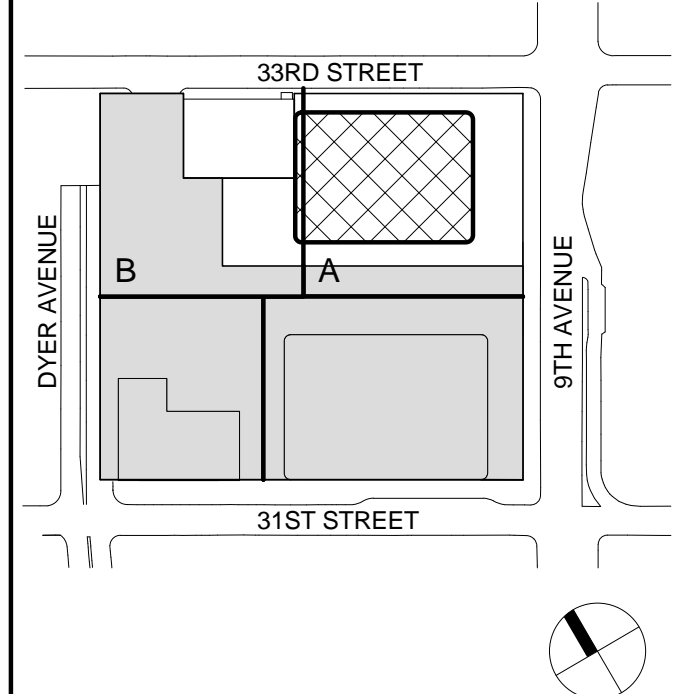
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



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4 20 JUN 2014 ISSUED FOR FOUNDATION BID  
3 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
2 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
1 19 NOV 2013 ISSUED FOR BID PROGRESS PRICING

No. Date Description

Sheet Name:

FOUNDATION  
WALL SECTIONS

Project No.:

207150

Date:

20 JUN 2014

Scale:

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File No.:

A-506

B-SCAN Sheet No.:

A-506.00

Sheet No.:

A-506

Page No.:

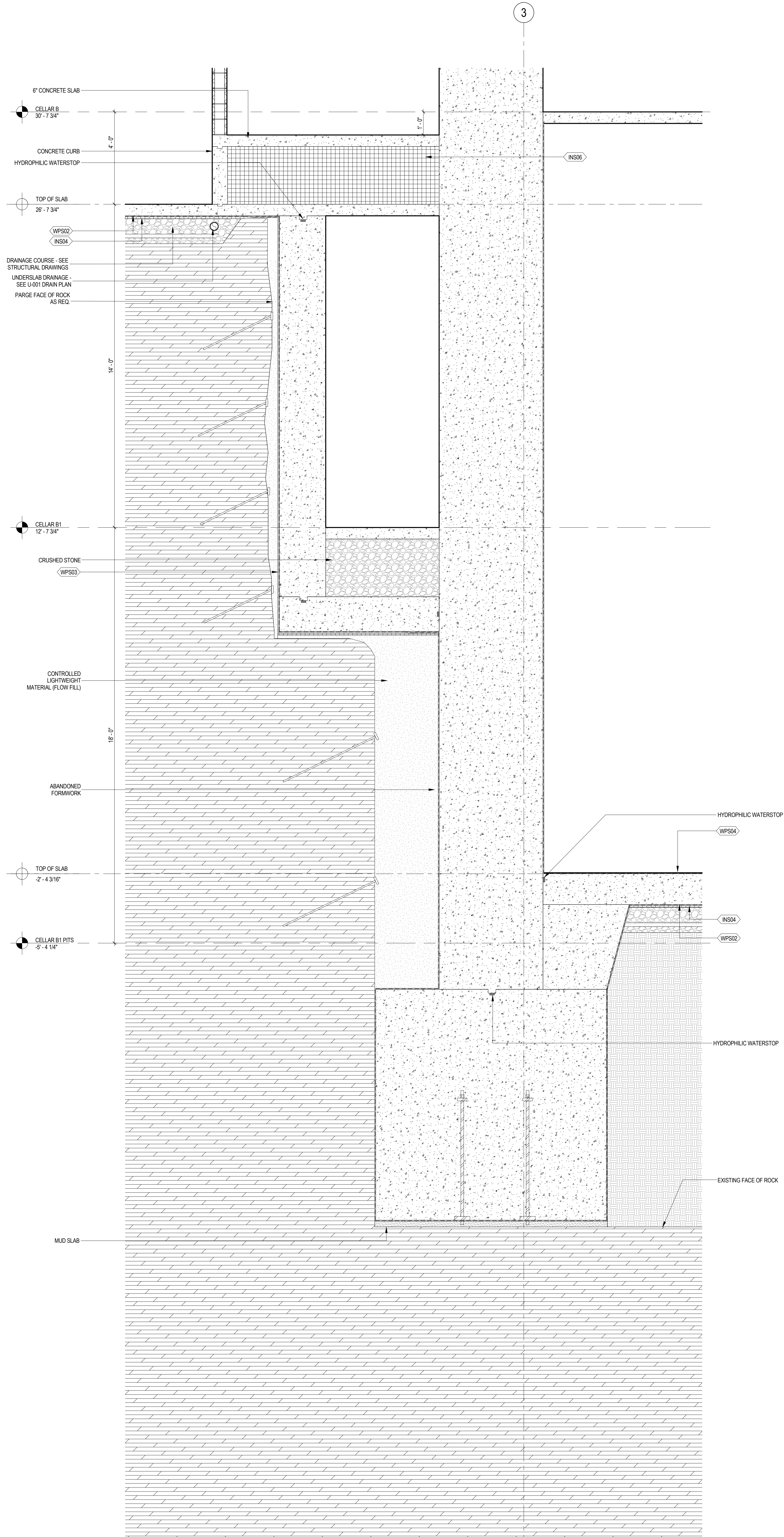
88 OF 87



6/9/2014 11:26:27 AM

1 FOUNDATION SECTION AT CORE

SCALE: 1/2" = 1'-0"



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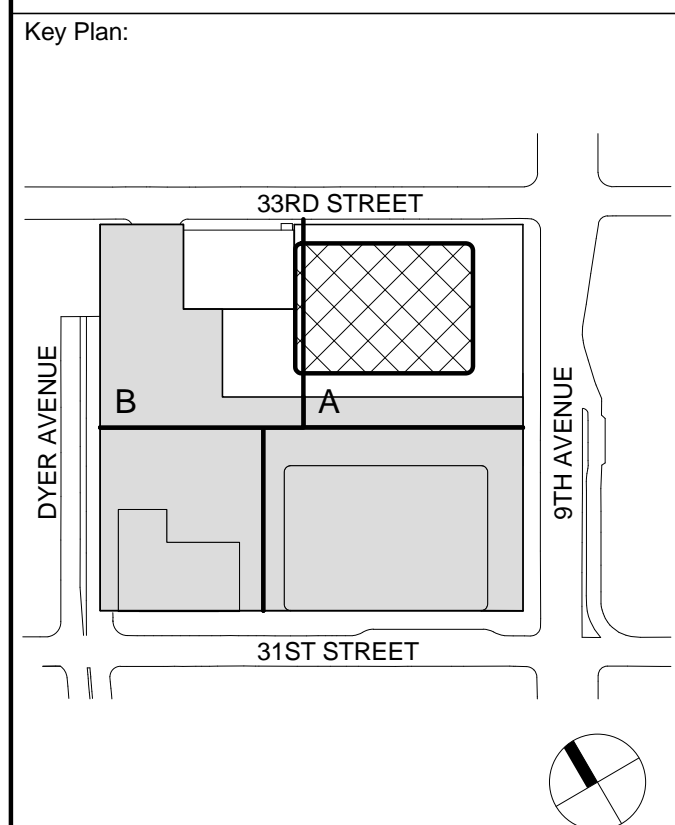
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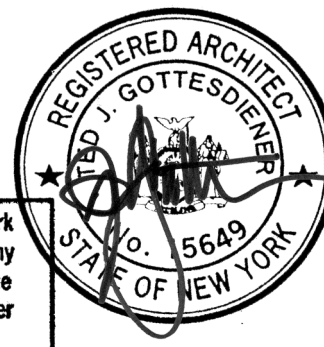
Code Consultant  
Code Consultants Professional Engineers PC  
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1 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
No. Date Description  
Sheet Name:

FOUNDATION  
WALL SECTIONS

Project No.: 207150  
Date: 20 JUN 2014  
Scale: 1/2" = 1'-0"  
File No.: A-507  
B-SCAN Sheet No.: A-507.00  
Sheet No.: A-507  
Page No.: 86 OF 87





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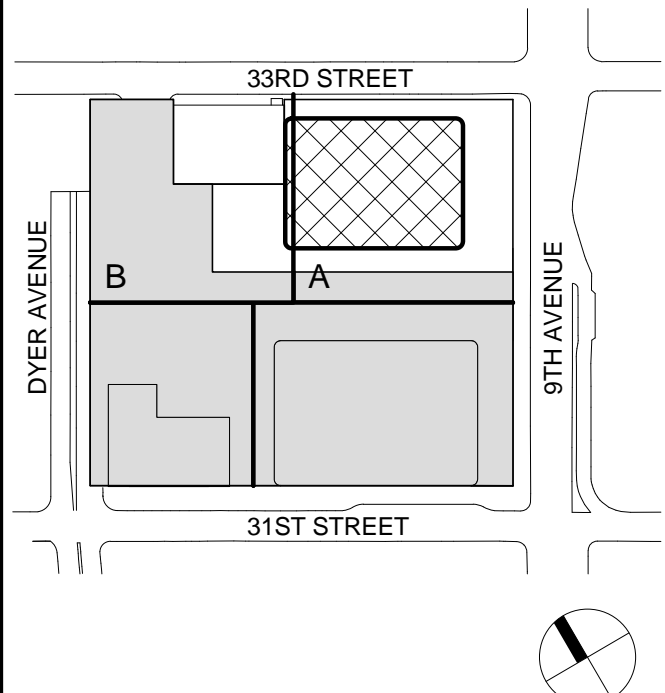
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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

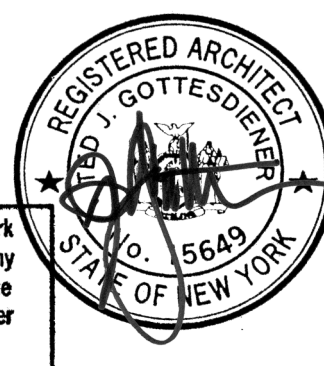
Wind Tunnel Consultant

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4	20 JUN 2014	ISSUED FOR FOUNDATION BID
3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
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No. Date Description

Sheet Name:

FOUNDATION  
DETAILS

Project No.:

207150

Date:

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Scale:

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File No.:

A-508

B-SCAN Sheet No.:

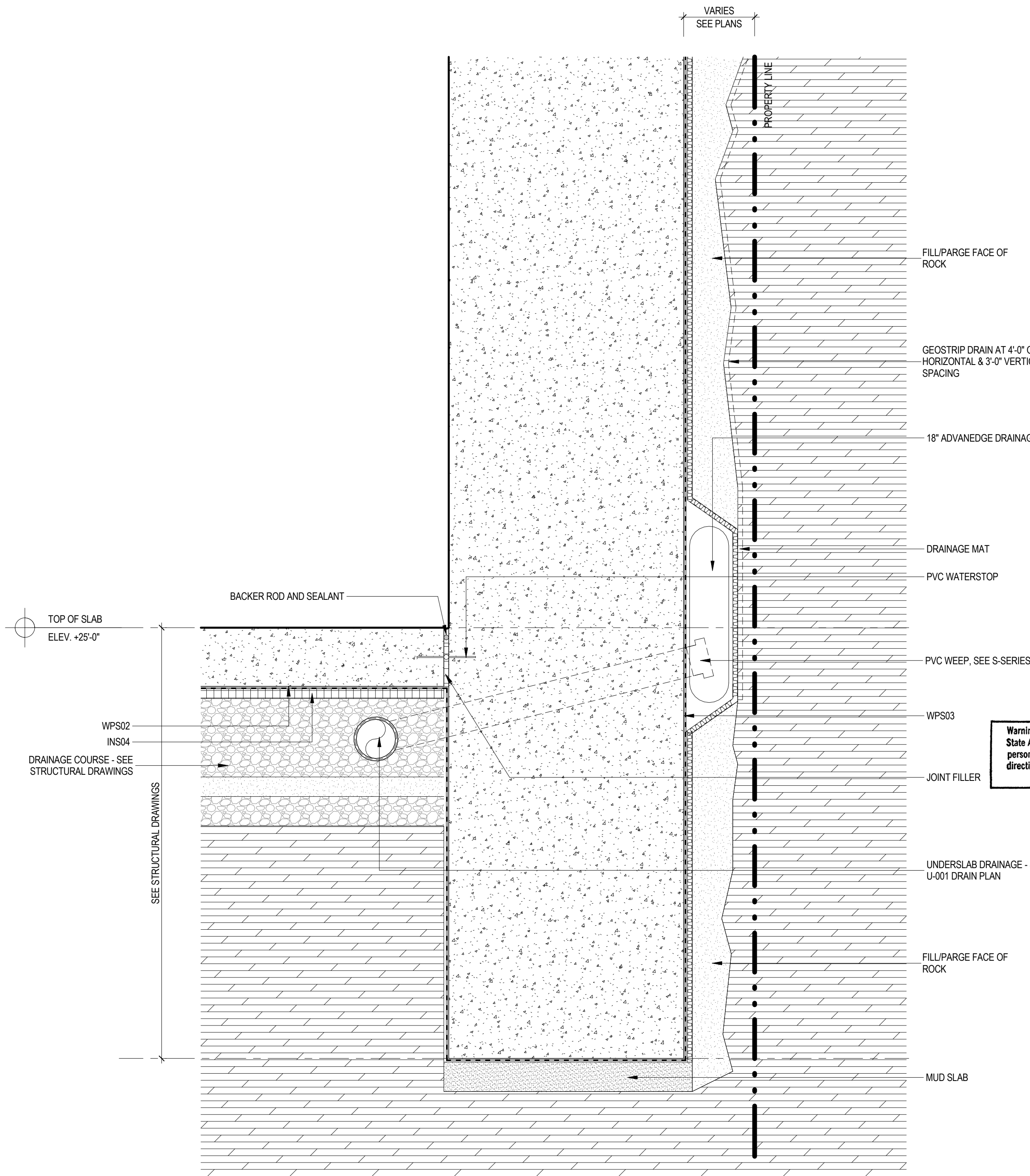
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Sheet No.:

A-508

Page No.:

87 OF 87



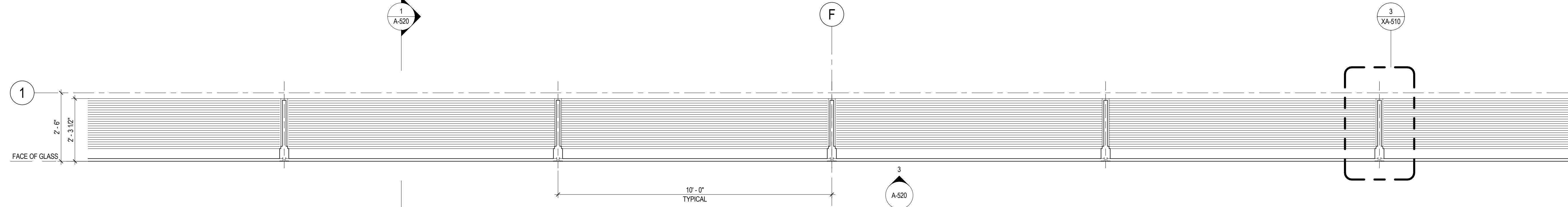
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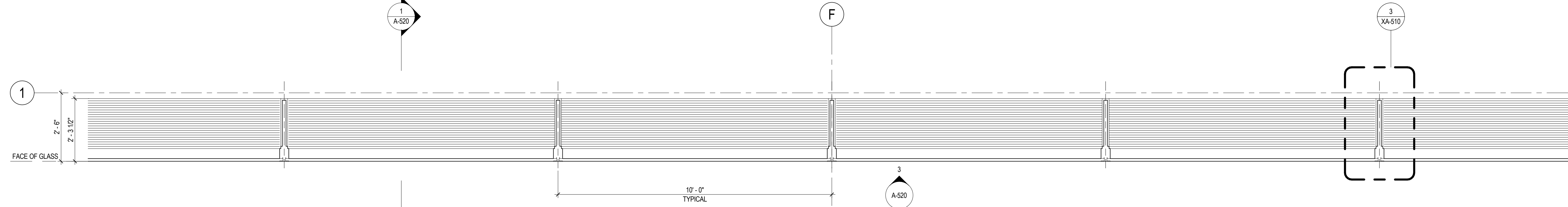
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SCALE: 1/2" = 1'-0"



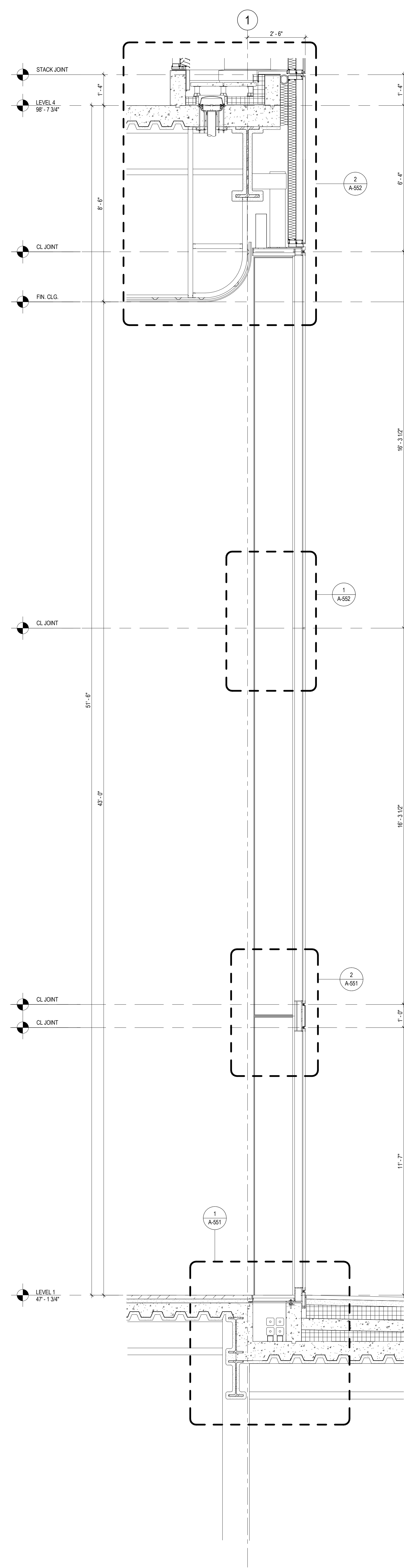
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SCALE: 1/2" = 1'-0"



### 1 ENLARGED SECTION AT STOREFRONT (SF01)

SCALE: 1/2" = 1'-0"





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Field Operations  
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Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

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Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

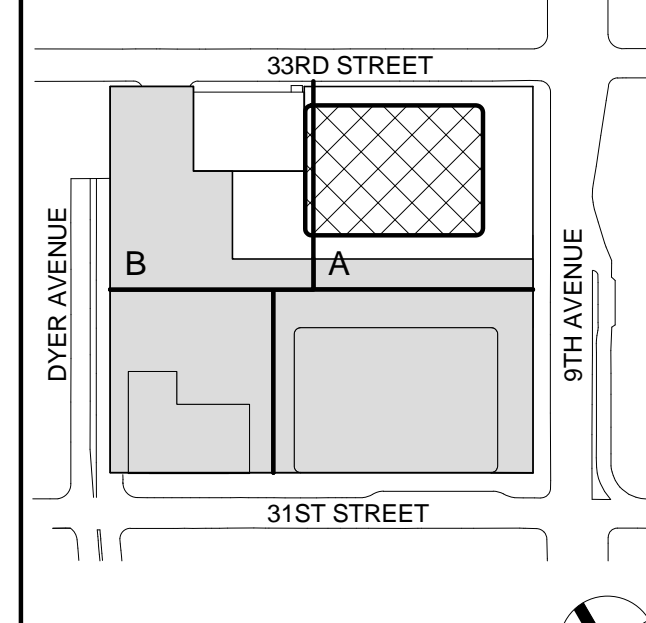
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
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Code Consultants Professional Engineers PC  
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1	18 NOV 2013	ISSUED FOR 03 PROGRESS PRICING

Sheet Name:

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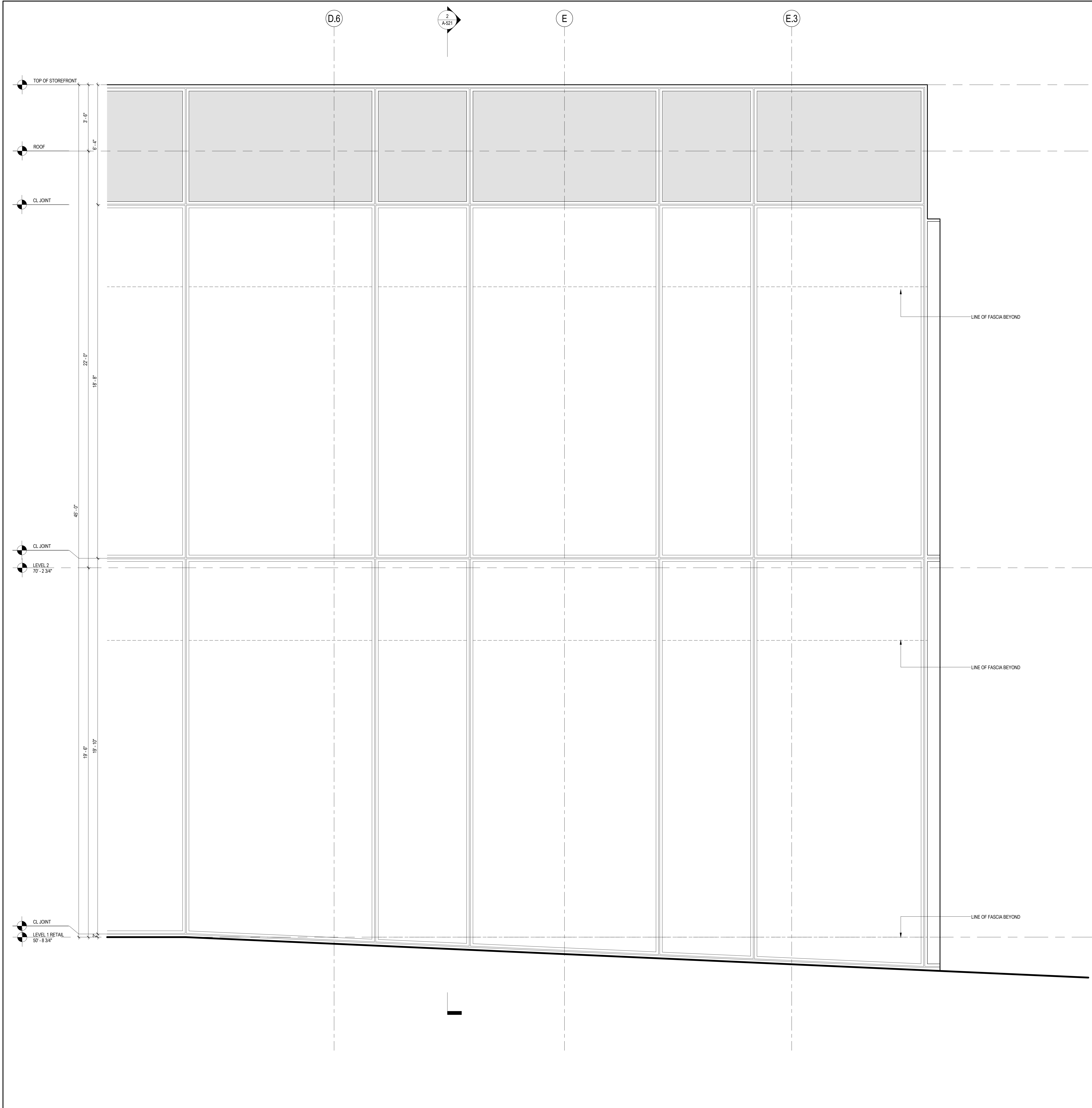
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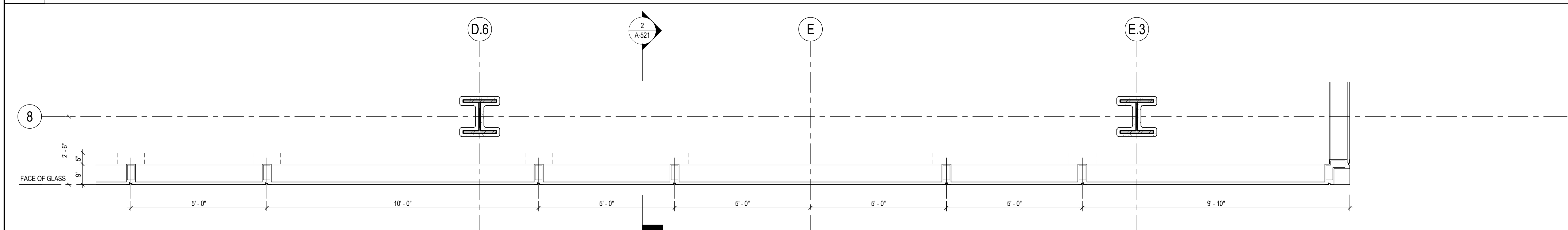
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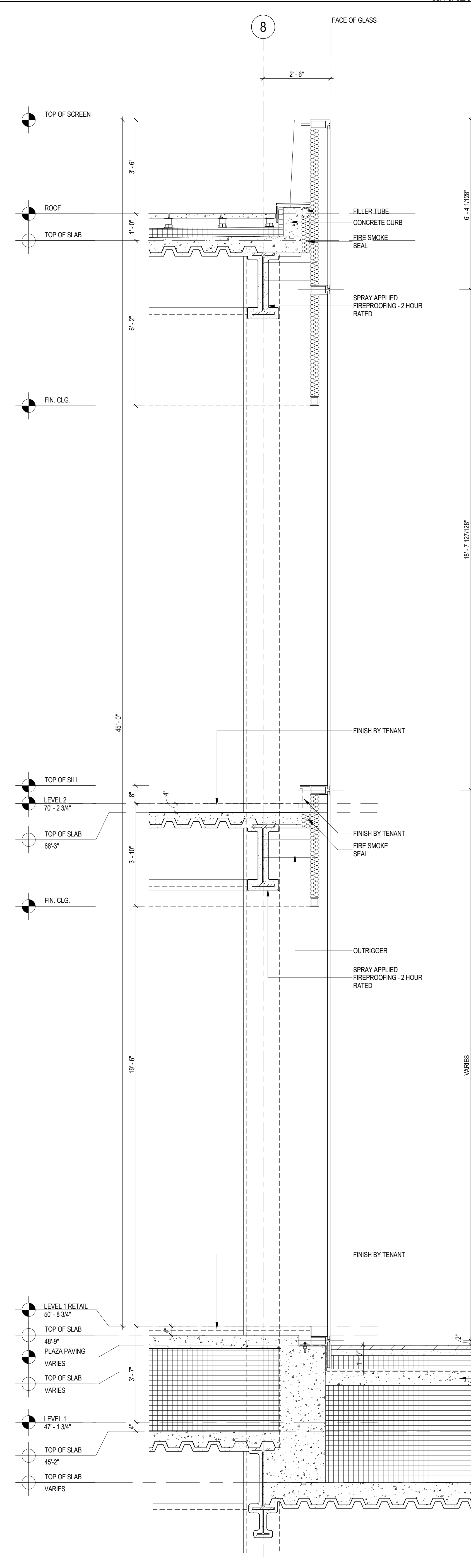





4 ENLARGED ELEVATION AT STOREFRONT (SF02)  
SCALE: 1/2" = 1'-0"



3 ENLARGED PLAN AT STOREFRONT (SF02)  
SCALE: 1/2" = 1'-0"



2 ENLARGED SECTION AT STOREFRONT (SF02)  
SCALE: 1/2" = 1'-0"



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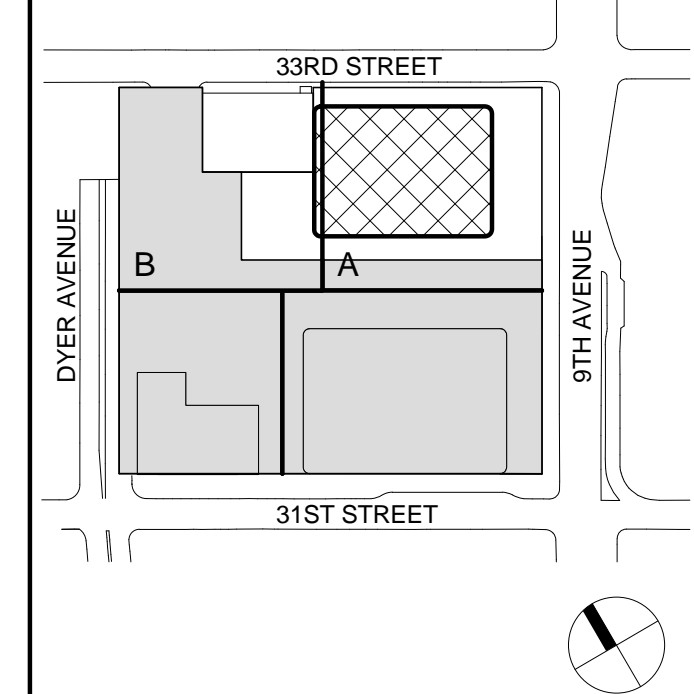
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Key Plan:



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No.	Date	Description
2	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
1	18 NOV 2013	ISSUED FOR BID PROGRESS PRICING

Sheet Name:  
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Date:	Sheet No.:
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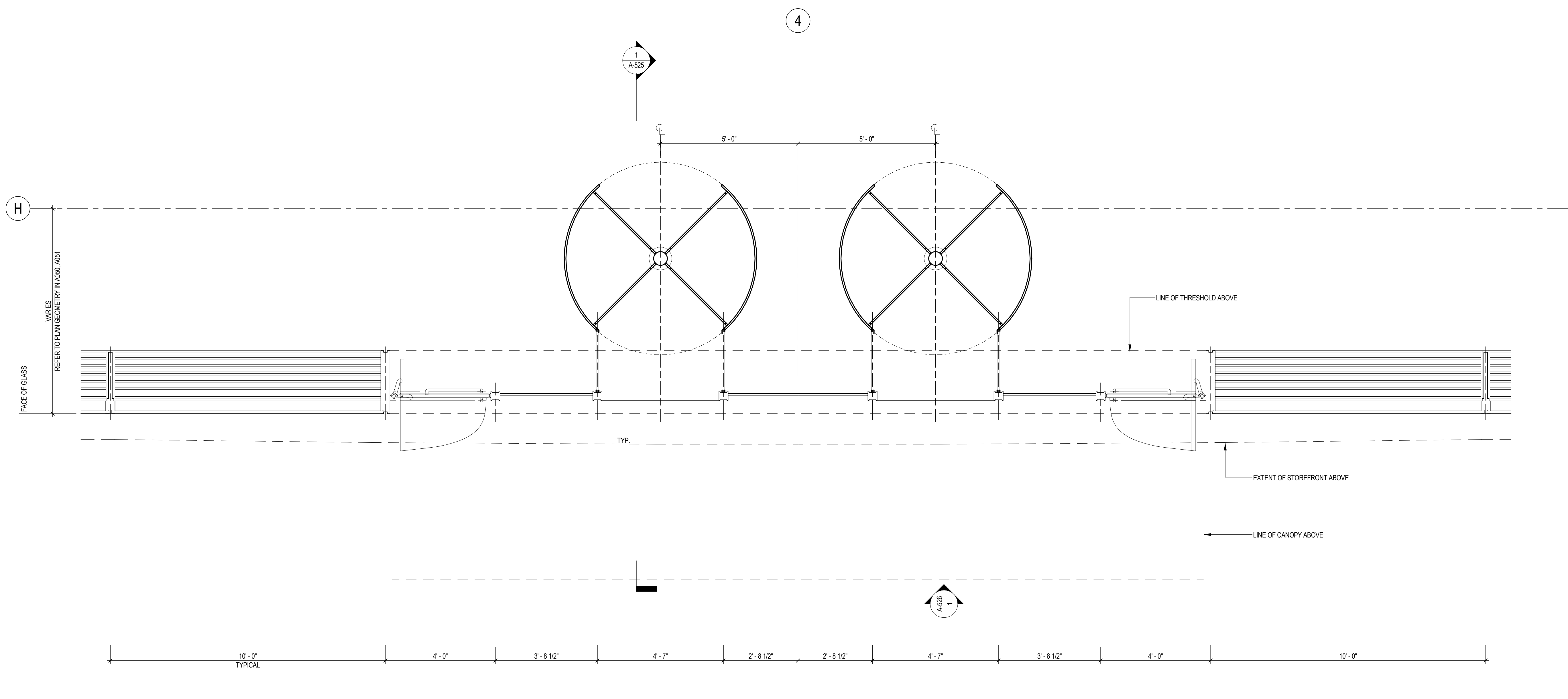
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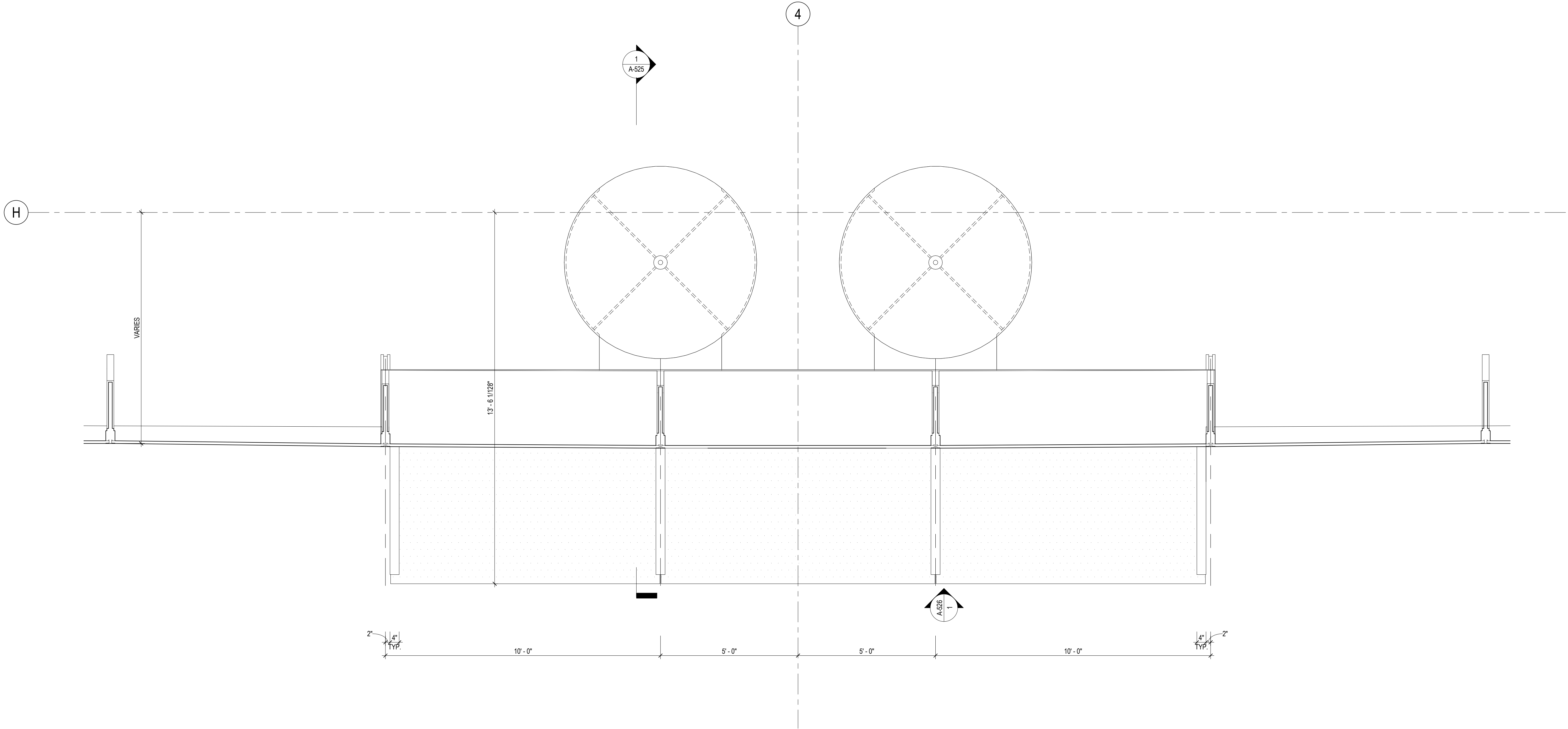
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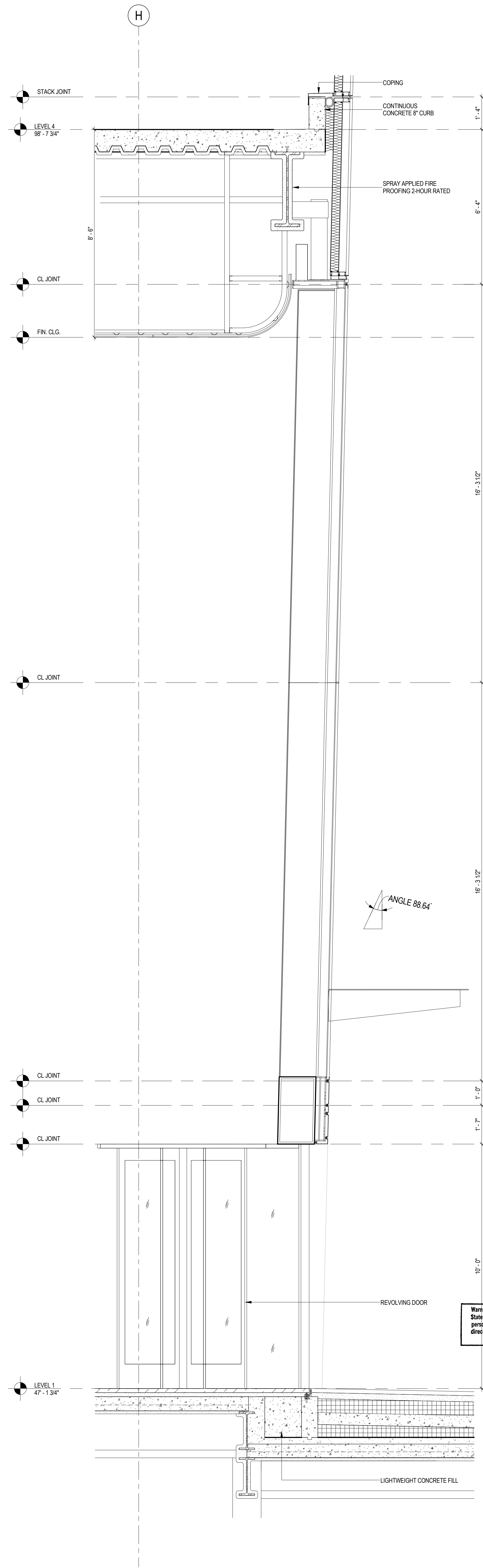
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1

ENLARGED SECTION AT EAST ENTRY  
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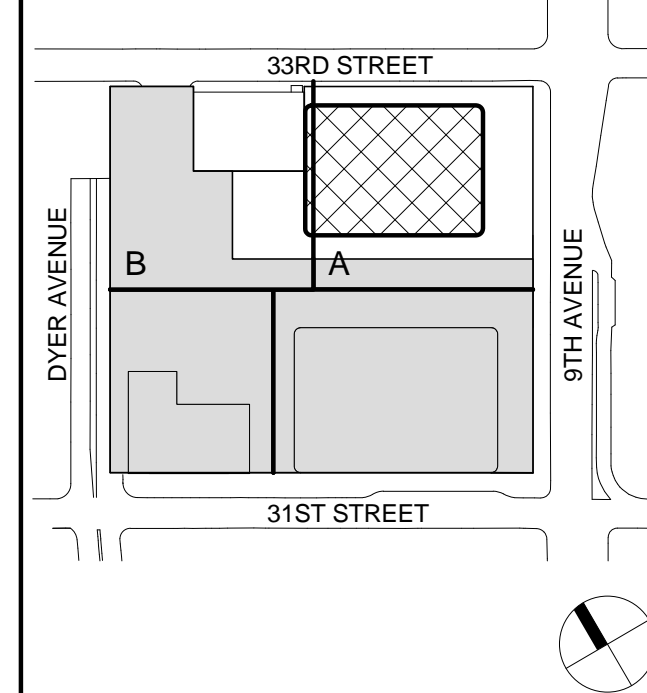
Code Consultant  
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No.	Date	Description
2	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
1	15 NOV 2013	ISSUED FOR 3D PROGRESS PRICING

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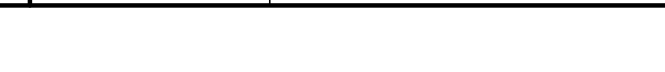
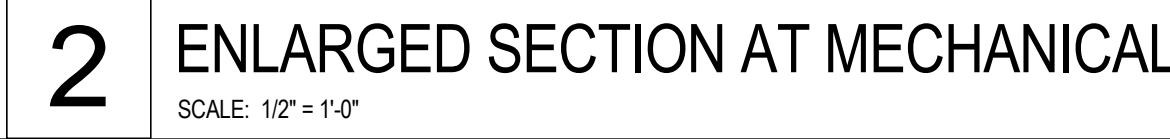
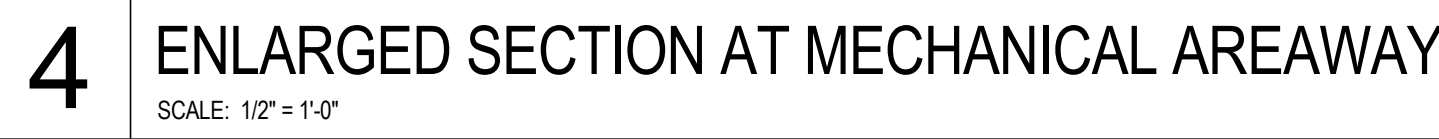
**STOREFRONT  
ENTRANCES**

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207150	<b>A-525.00</b>
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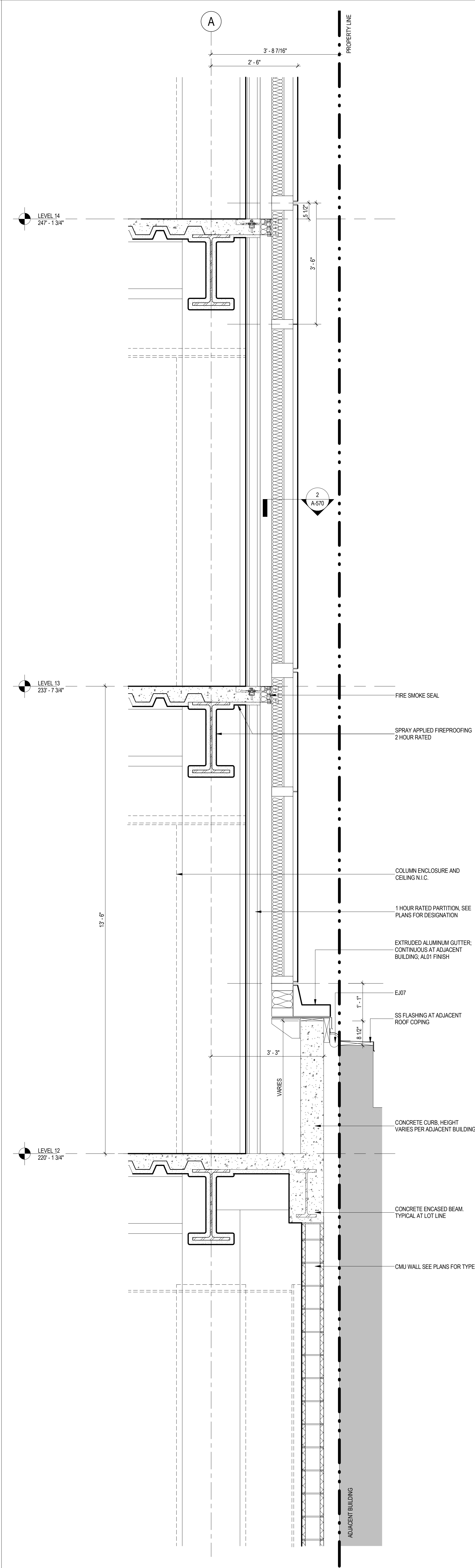




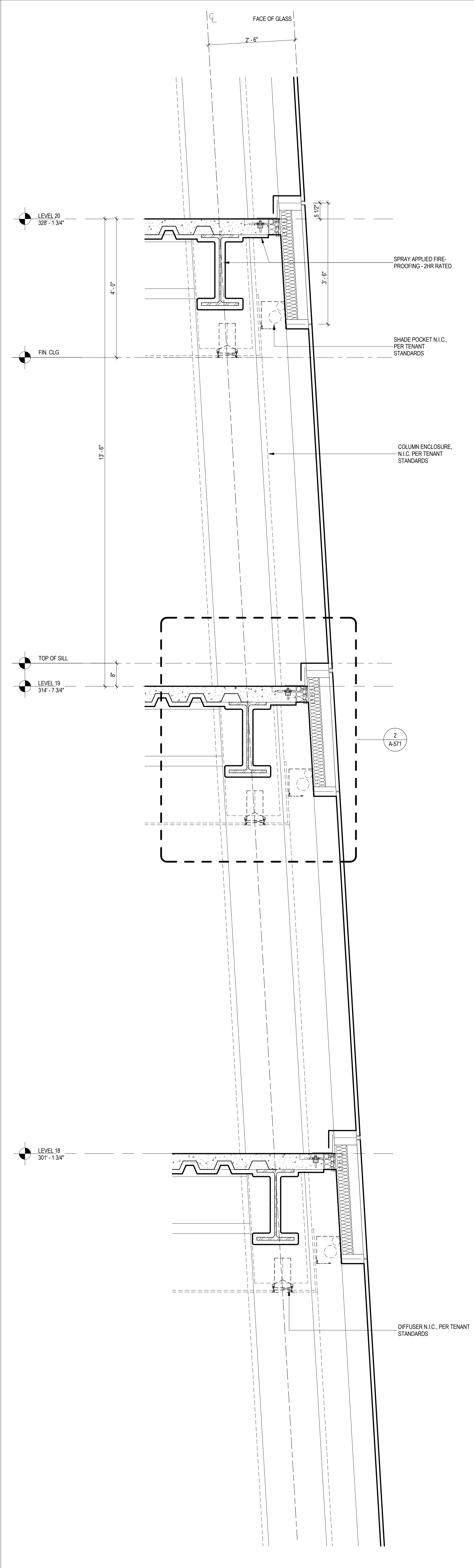




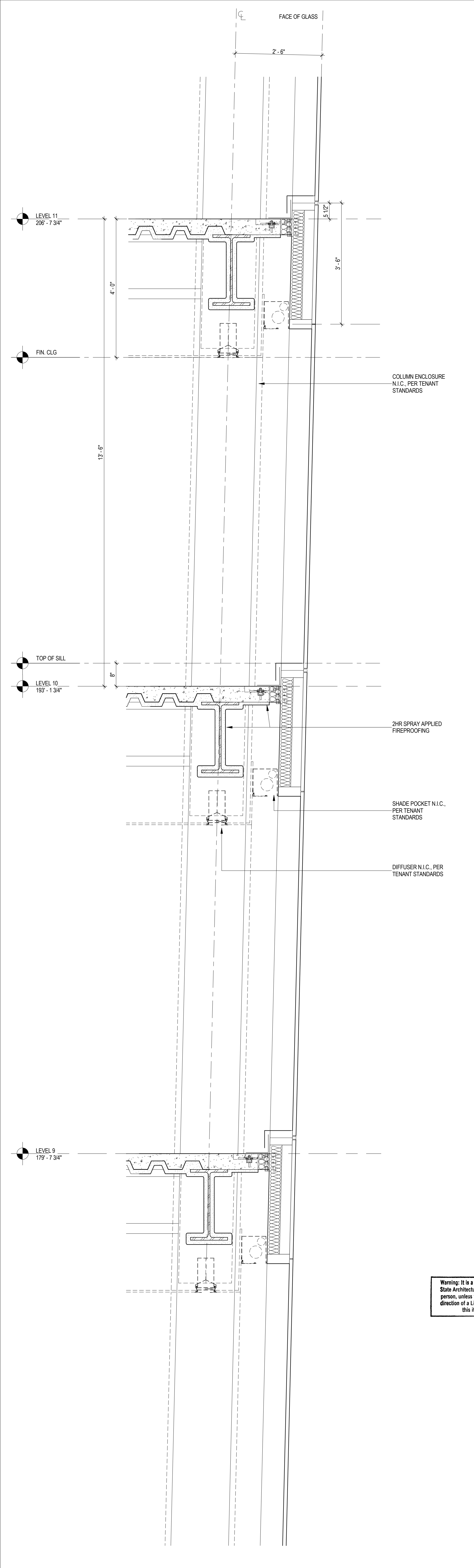
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2 SECTION AT CURTAIN WALL  
SCALE: 3/4" = 1'-0"



1 SECTION AT CURTAIN WALL  
SCALE: 3/4" = 1'-0"



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REGISTERED ARCHITECT  
STATE OF NEW YORK  
No. 12564  
Exp. 12/31/2014

No.	Date	Description
3	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:  
**TYPICAL CURTAIN WALL SECTIONS**

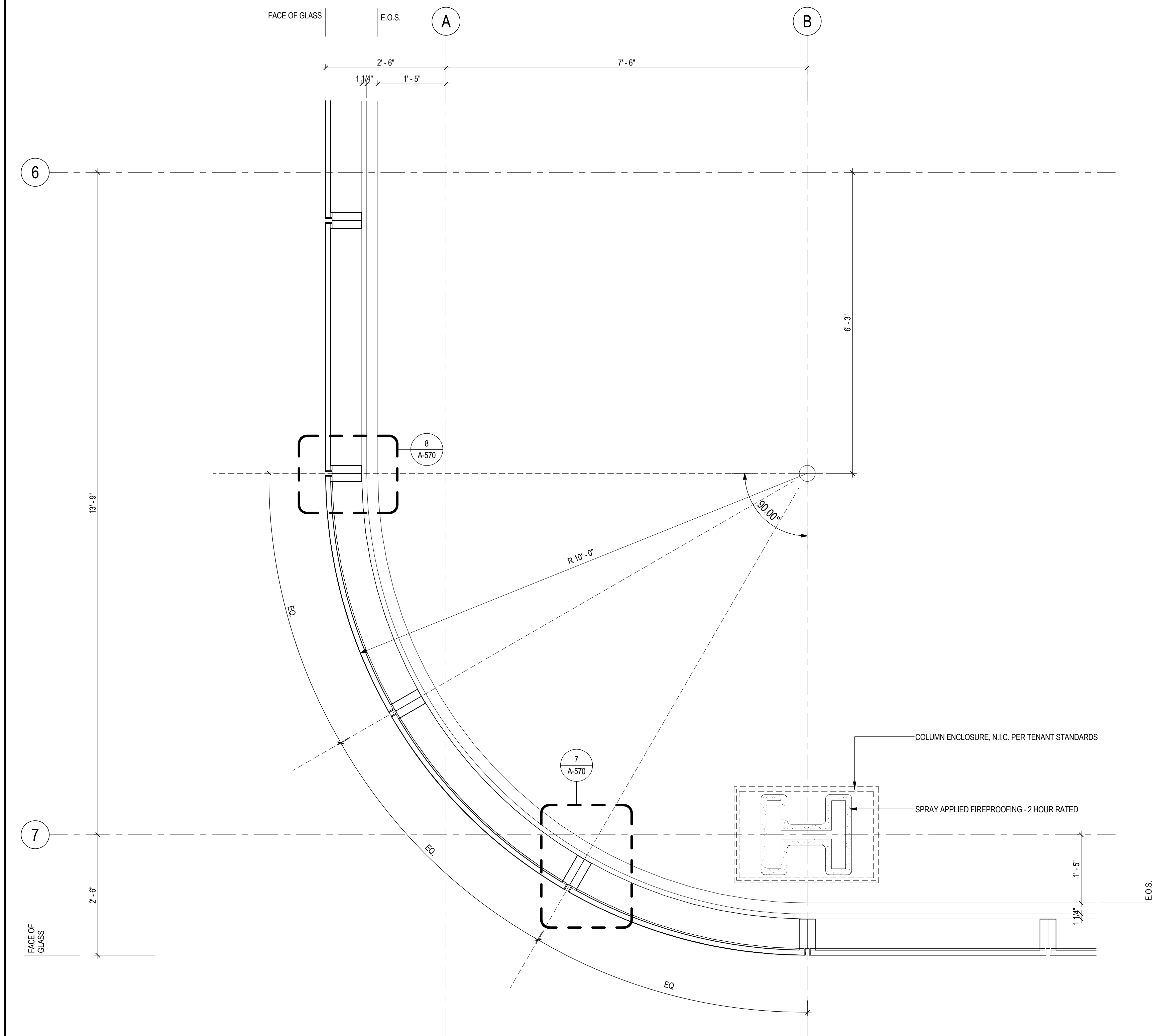
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A-536	



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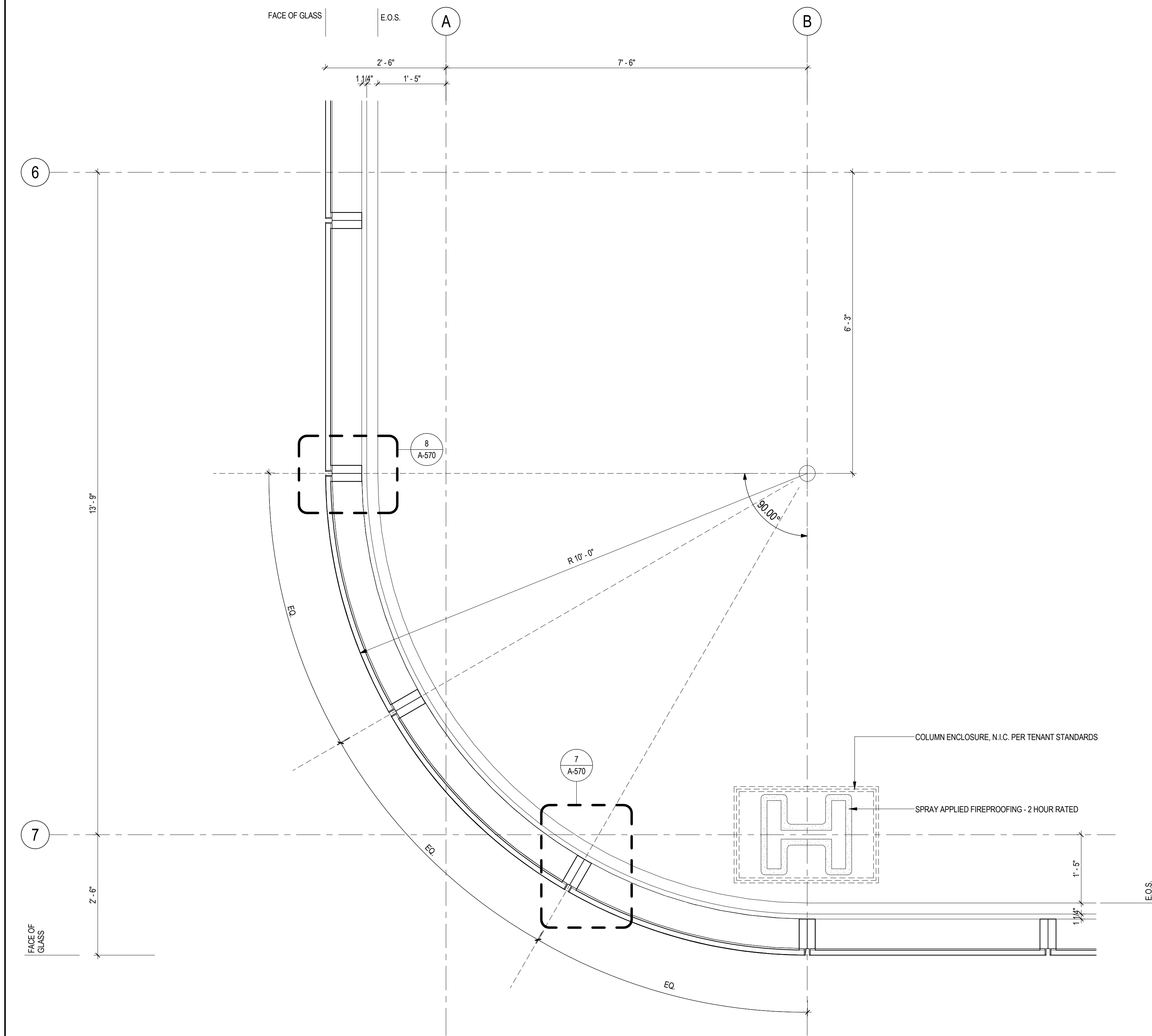
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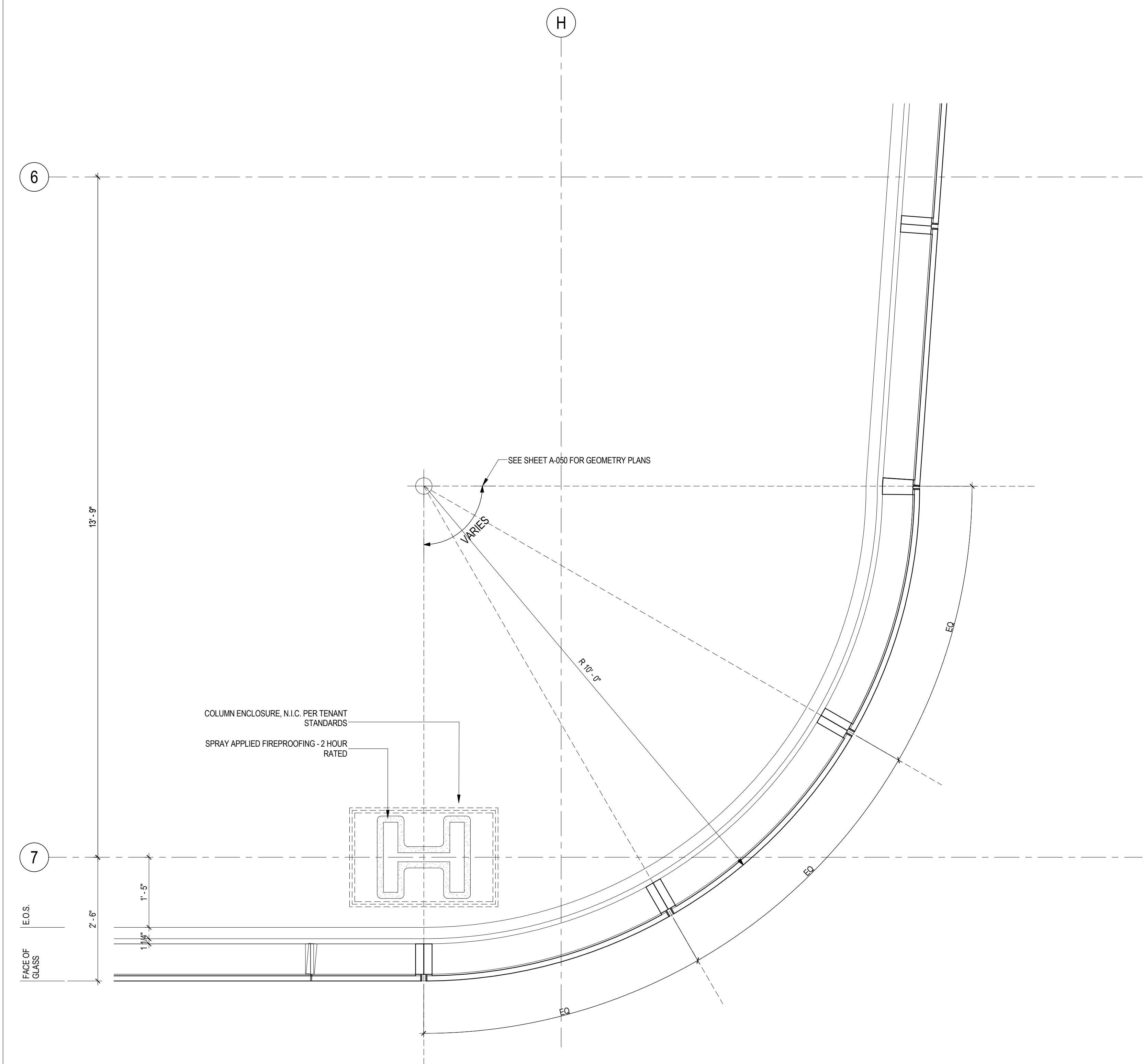
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SCALE: 3/4" = 1'-0"



### 1 ENLARGED PLAN AT SOUTHEAST CORNER

SCALE: 3/4" = 1'-0"



### SHEET NOTES

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Cerami & Associates  
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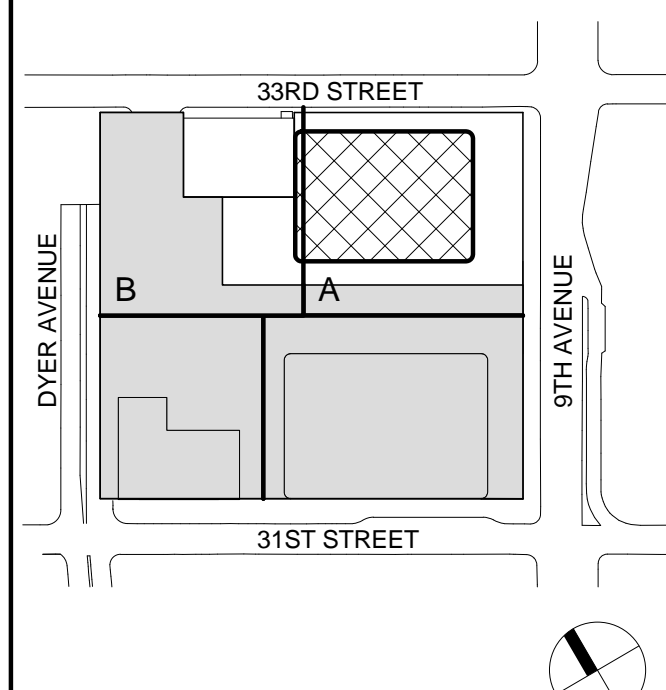
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65 Broadway, Suite 401, New York, NY 10006

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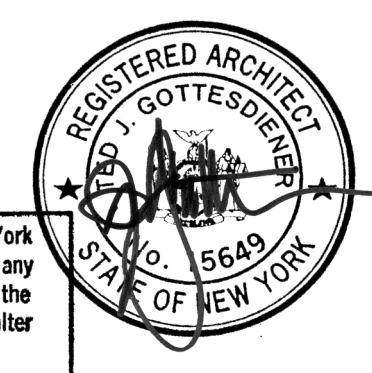
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Key Plan:



Seal & Signature:



3 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
2 15 NOV 2013 ISSUED FOR DD PROGRESS PRICING  
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No. Date Description  
Sheet Name:

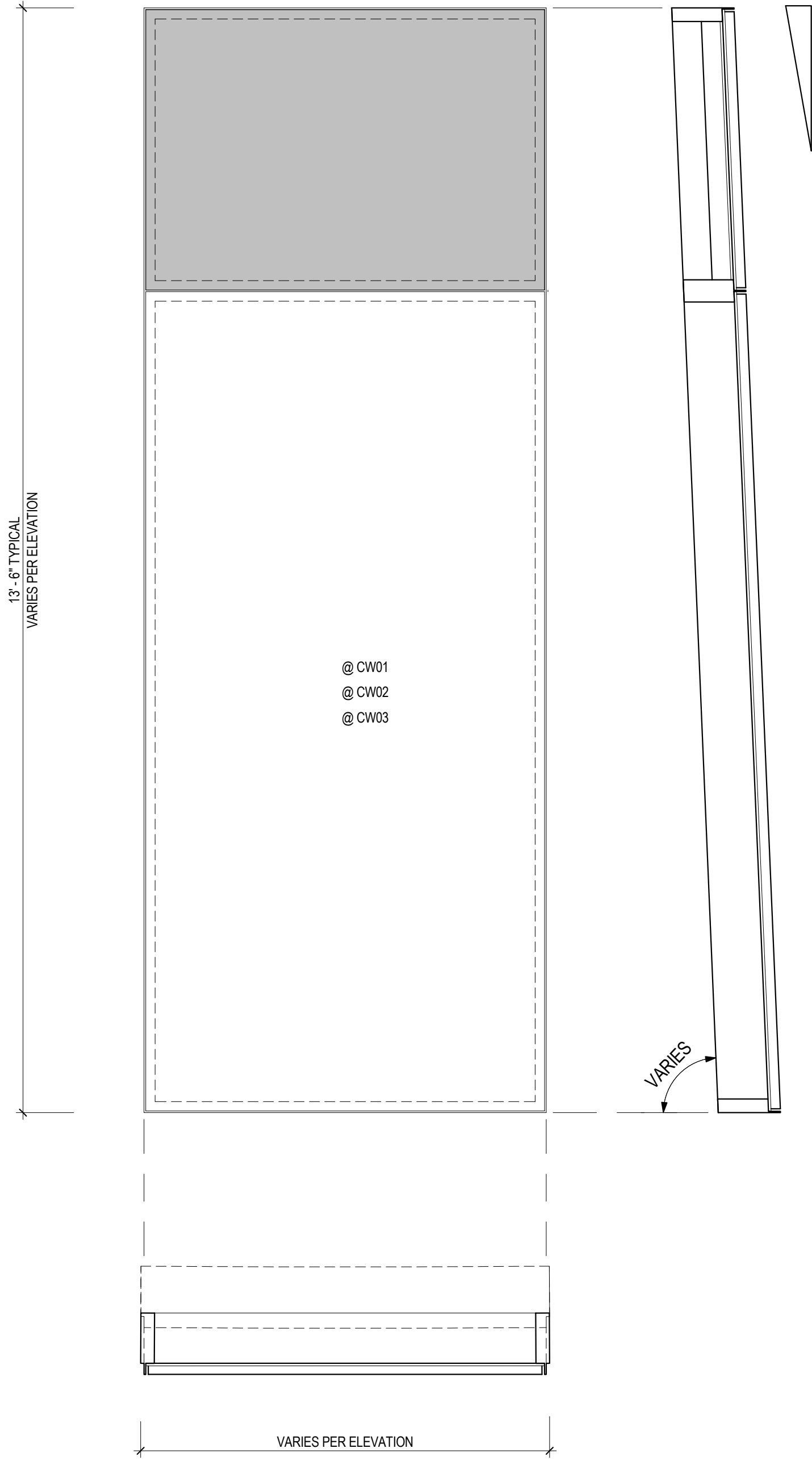
**TYPICAL CURTAIN  
WALL CORNERS**

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B-SCAN Sheet No.:  
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Sheet No.: A-537  
Page No.: 30

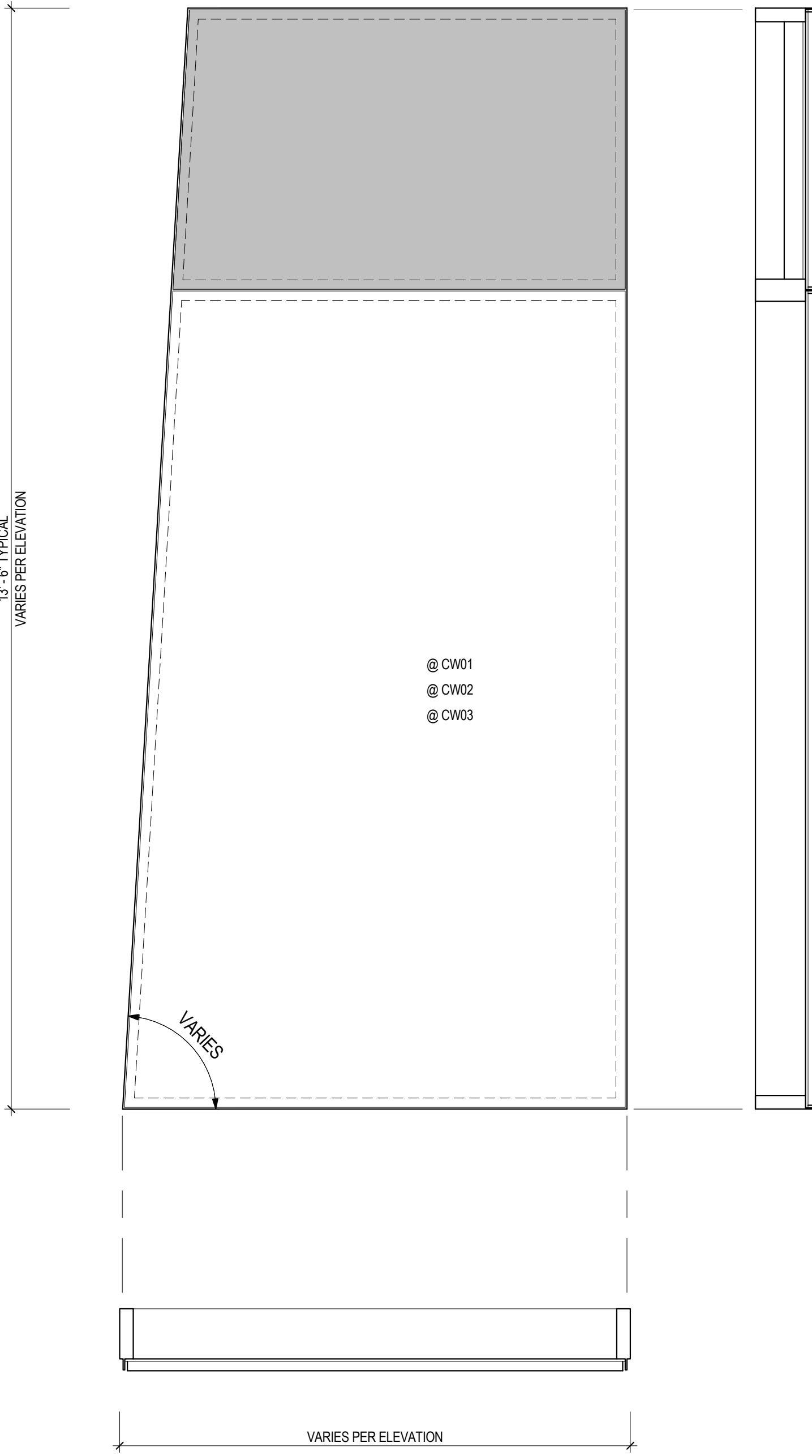


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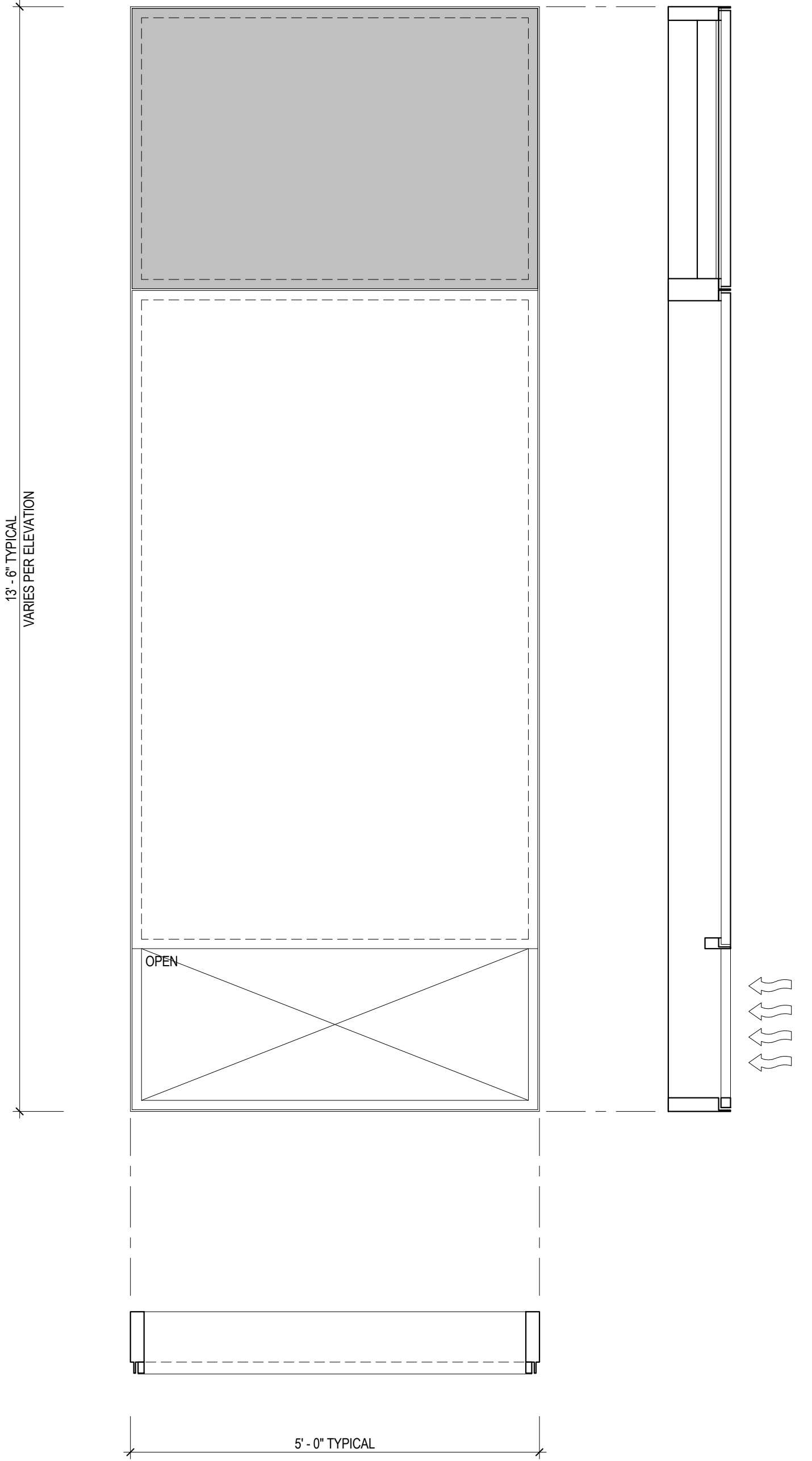
\* REFER TO BUILDING ELEVATIONS FOR DIMENSIONS.  
\* REFER TO A550 AND A551 FOR PLAN PROFILES.

**6** GEOMETRY W PANEL (WARPED)  
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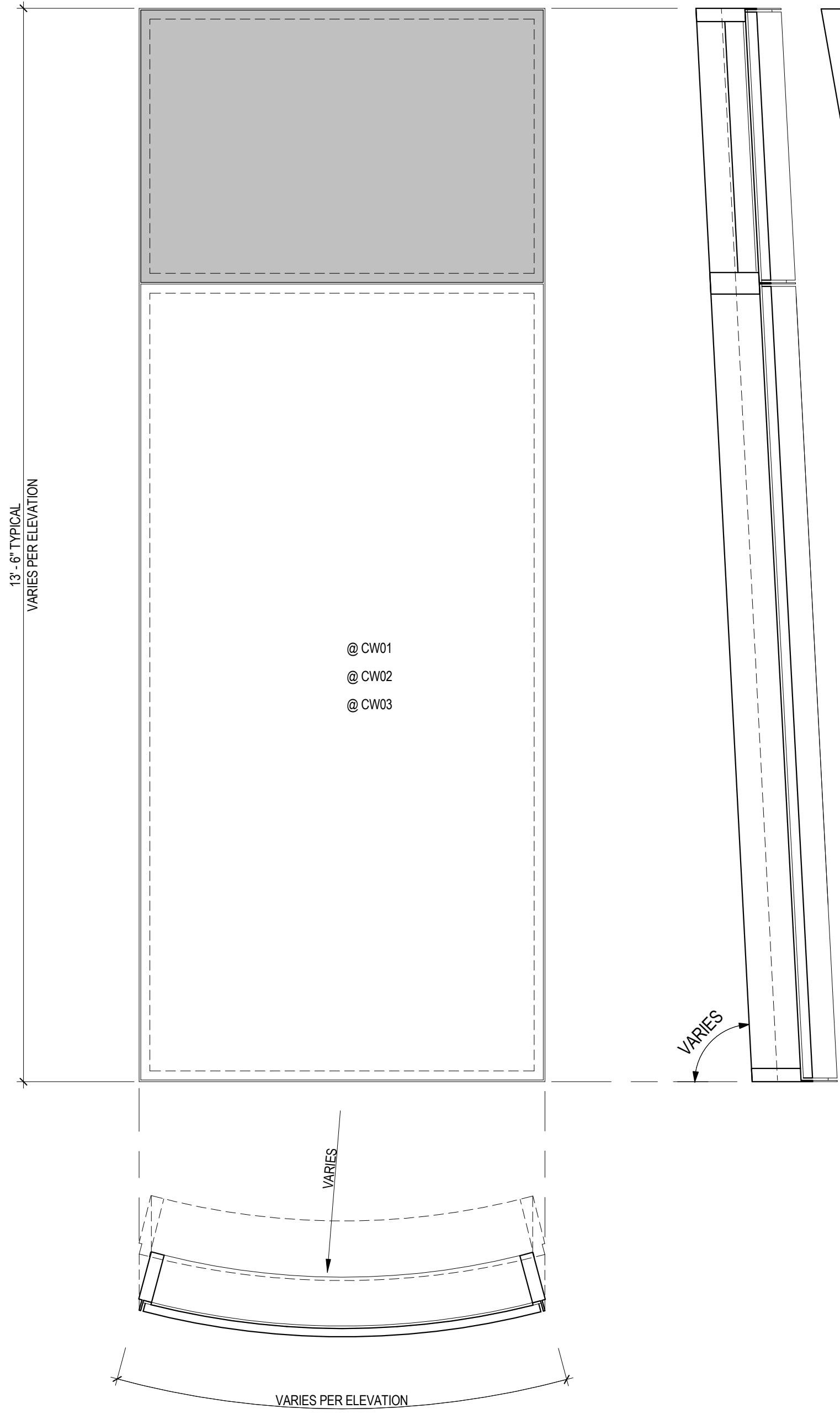


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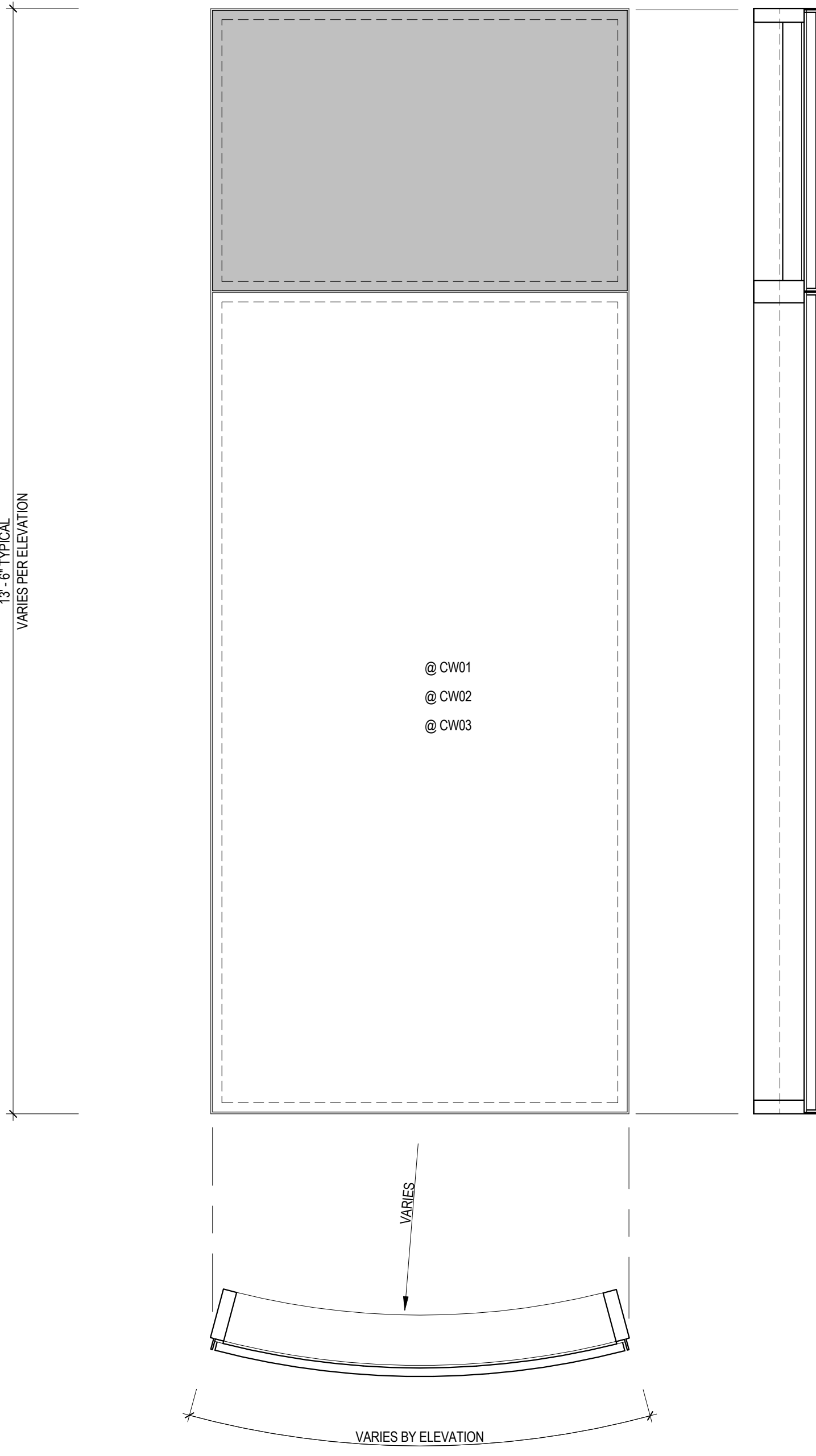


**2** GEOMETRY A PANEL (FLAT - AIR SLOT)  
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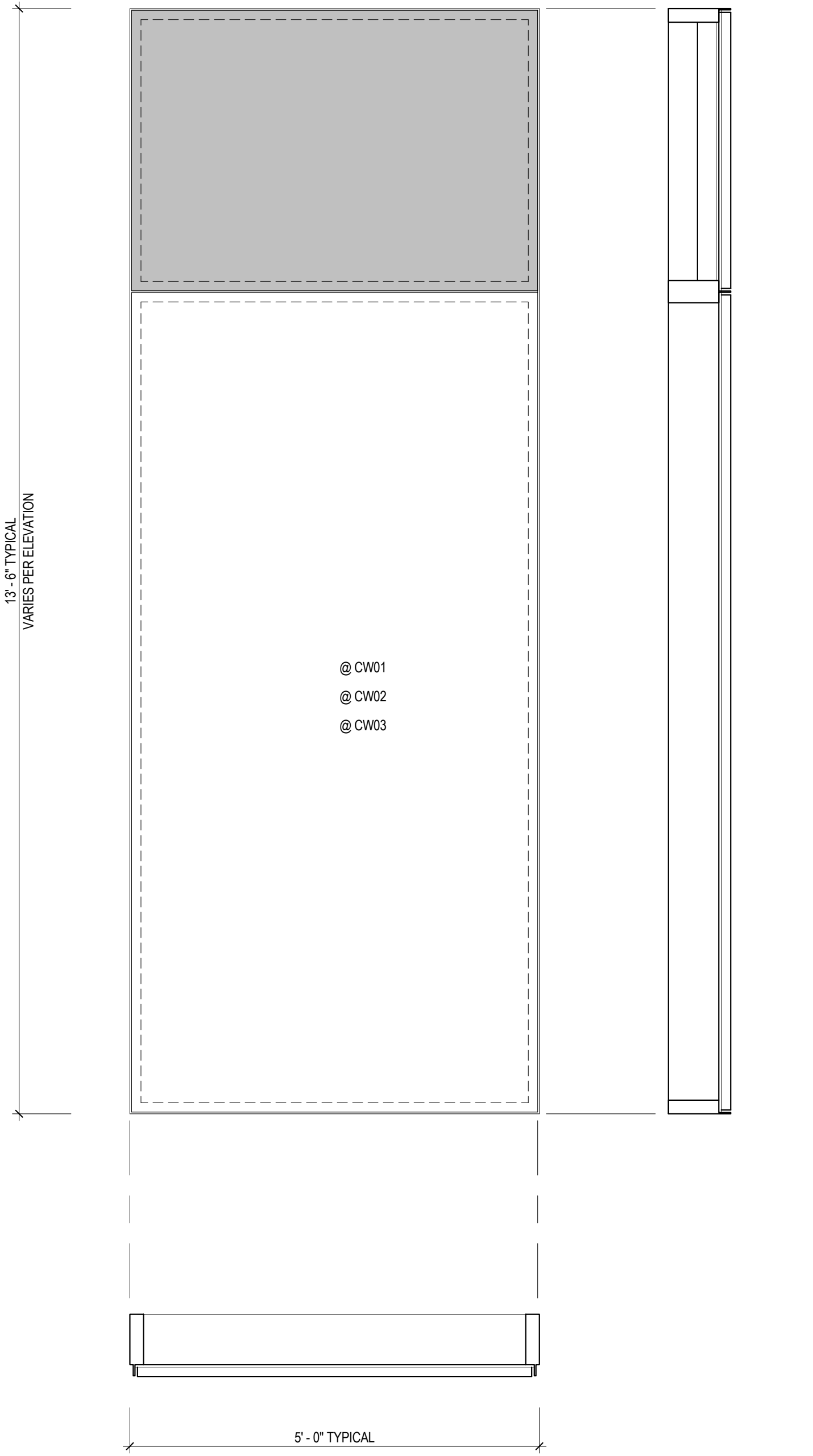
\* REFER TO A550 AND A551 FOR PLAN PROFILES.

**5** GEOMETRY C2 PANEL (THERMALLY CURVED WARPED)  
SCALE: 3/4" = 1'-0"



\* REFER TO A550 AND A551 FOR PLAN PROFILES.

**3** GEOMETRY C1 PANEL (THERMALLY WARPED)  
SCALE: 3/4" = 1'-0"



**1** GEOMETRY F PANEL (FLAT)  
SCALE: 3/4" = 1'-0"

Sheet No. 538  
Project No. 207150



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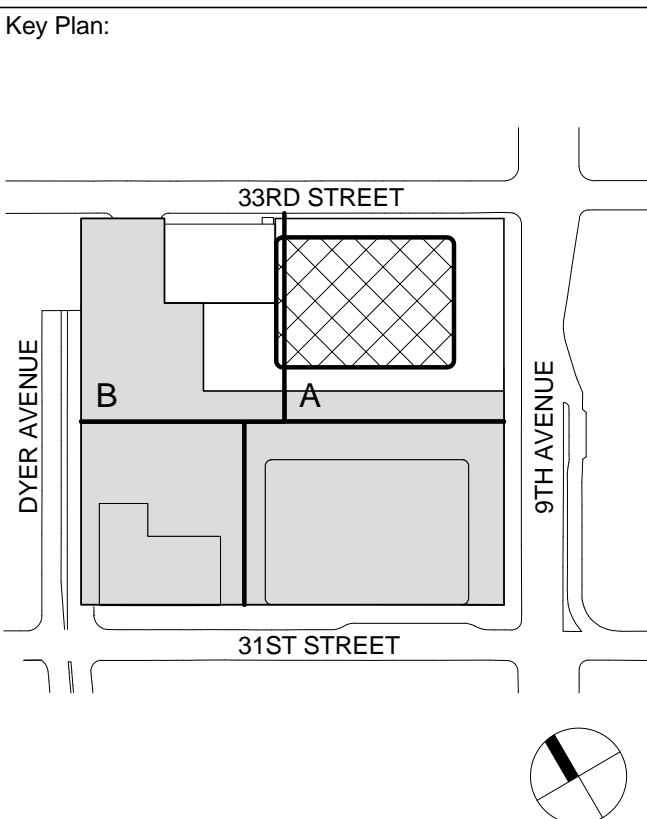
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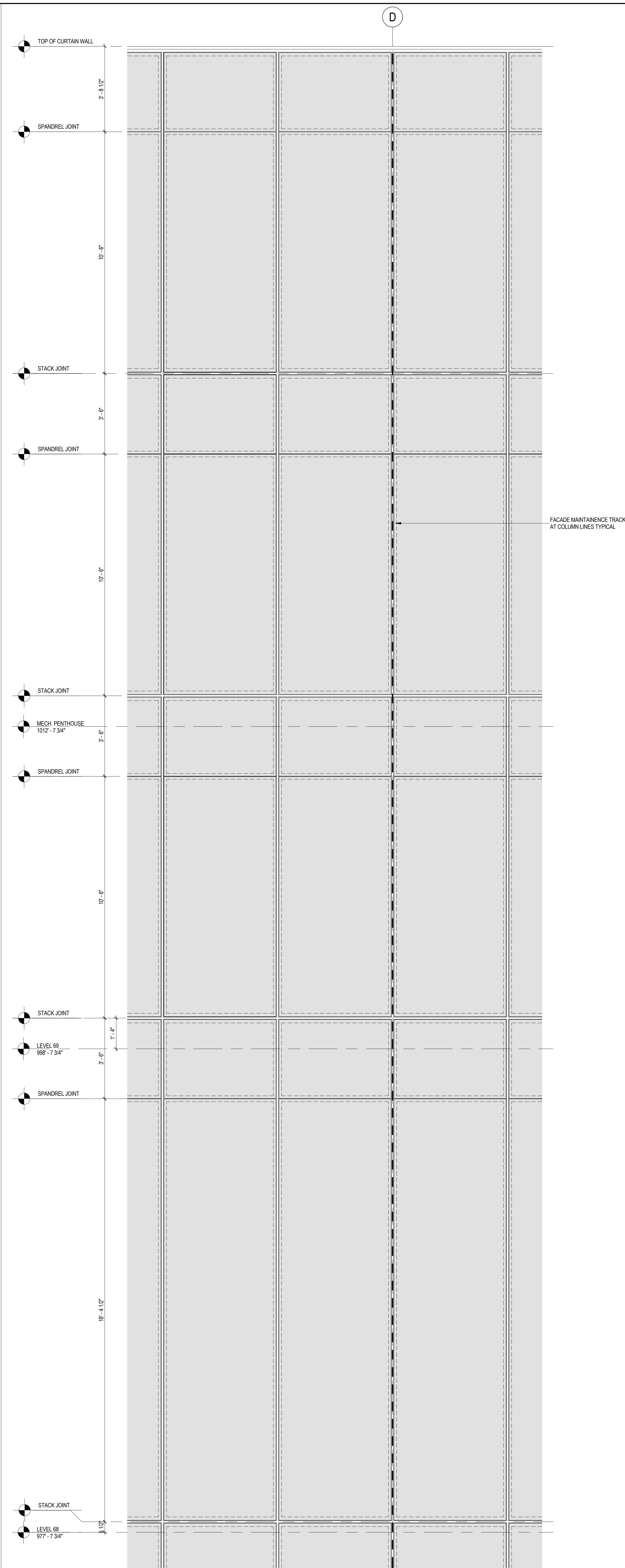
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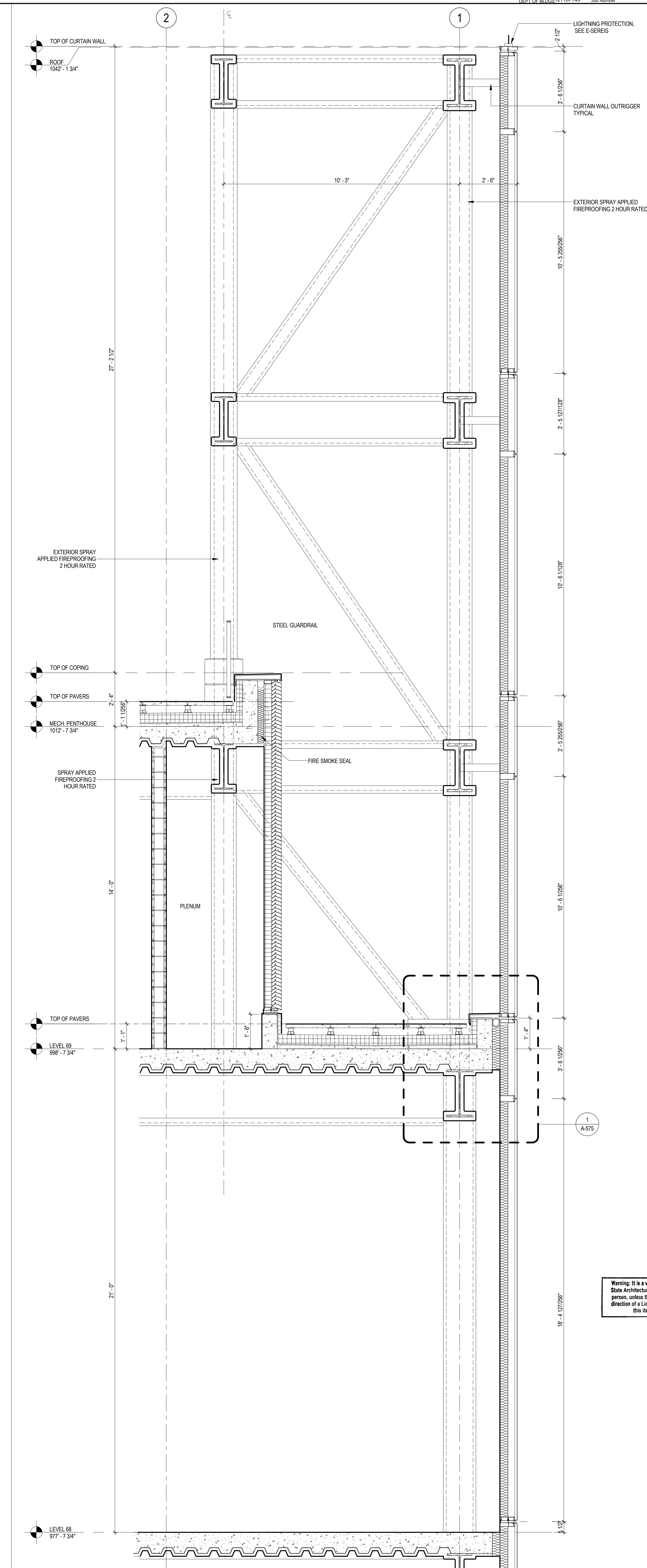
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B-SCAN Sheet No.:  
**A-538.00**  
Sheet No.: A-538  
Page No.: 30




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2 ENLARGED ELEVATION AT ROOF  
SCALE: 1/2" = 1'-0"



1 ENLARGED SECTION AT ROOF LOOKING EAST  
SCALE: 1/2" = 1'-0"



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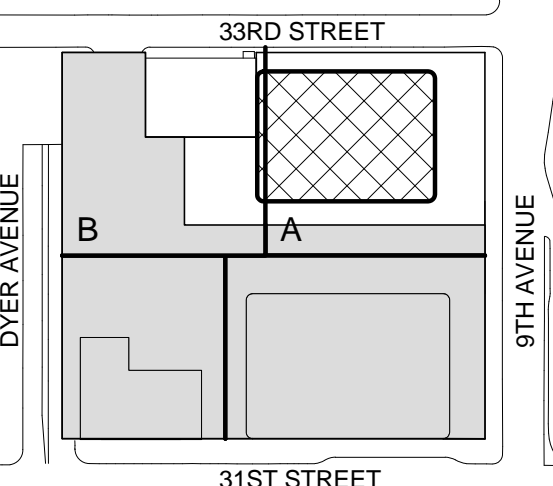
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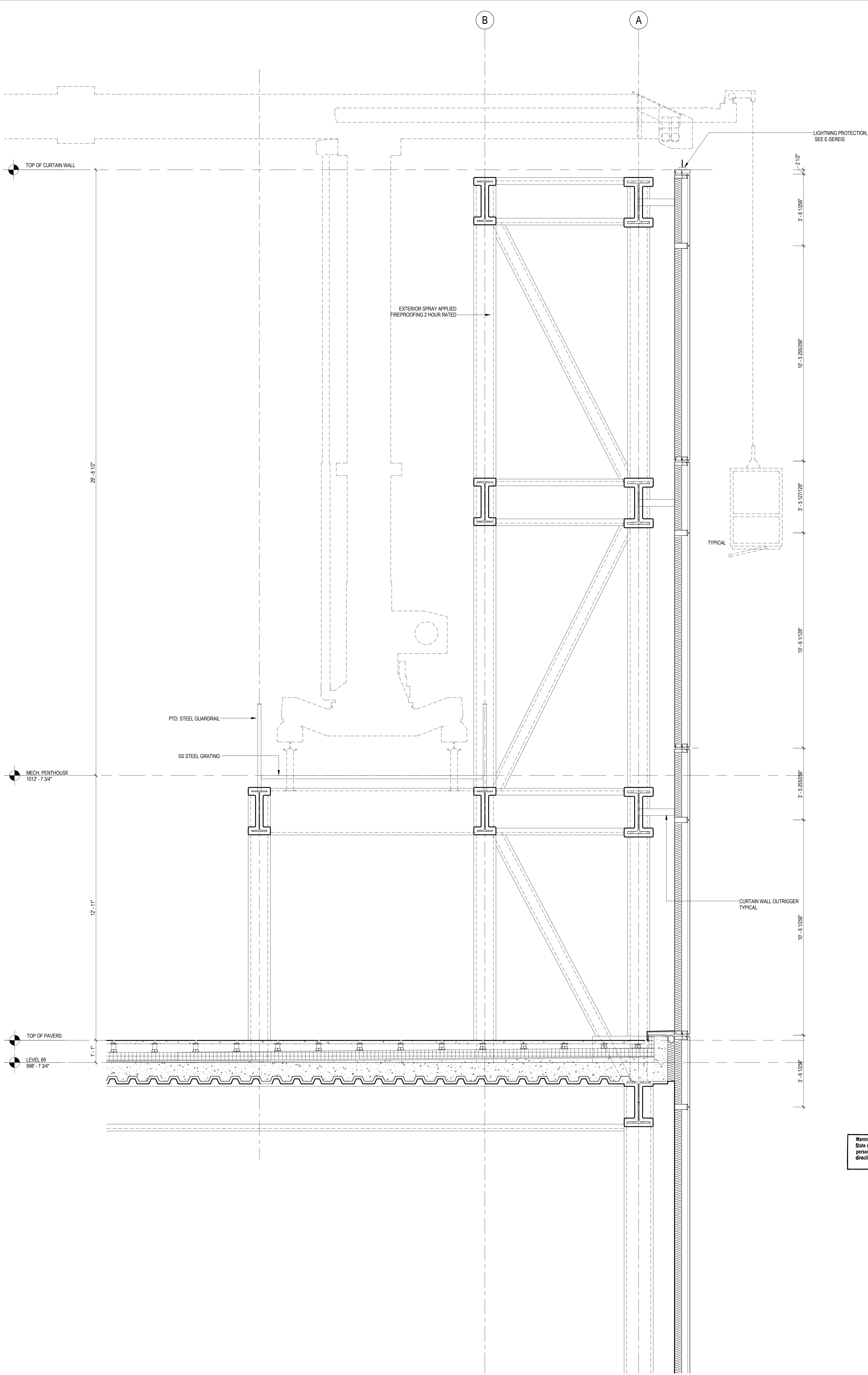
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2	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT

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AT ROOF**


Project No.:	B-SCAN Sheet No.:
207150	<b>A-540.00</b>
Date: 12 SEPT 2014	Sheet No.:
Scale: 1/2" = 1'-0"	<b>A-540</b>
File No.:	Page No.: 30




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**1** ENLARGED SECTION AT ROOF LOOKING SOUTH  
SCALE: 1/2" = 1'-0"



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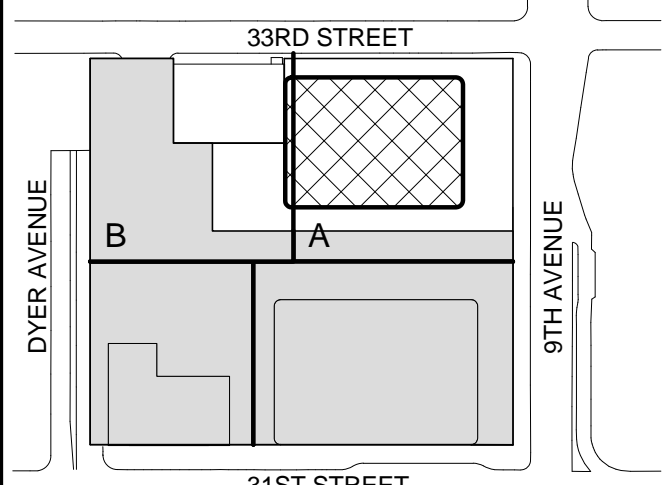
Vibration Consultant  
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1	18 NOV 2013	ISSUED FOR CD PROGRESS PRICING

Sheet Name:

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AT ROOF**

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207120	<b>A-541.00</b>

Date:	Sheet No.:
12 SEPT 2014	<b>A-541</b>

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File No.:	Page No.:
A-541	30



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2 PLAN DETAIL AT STOREFRONT

SCALE: 3" = 1'-0"

1 PLAN DETAIL AT STOREFRONT

SCALE: 3" = 1'-0"

SHEET NOTES



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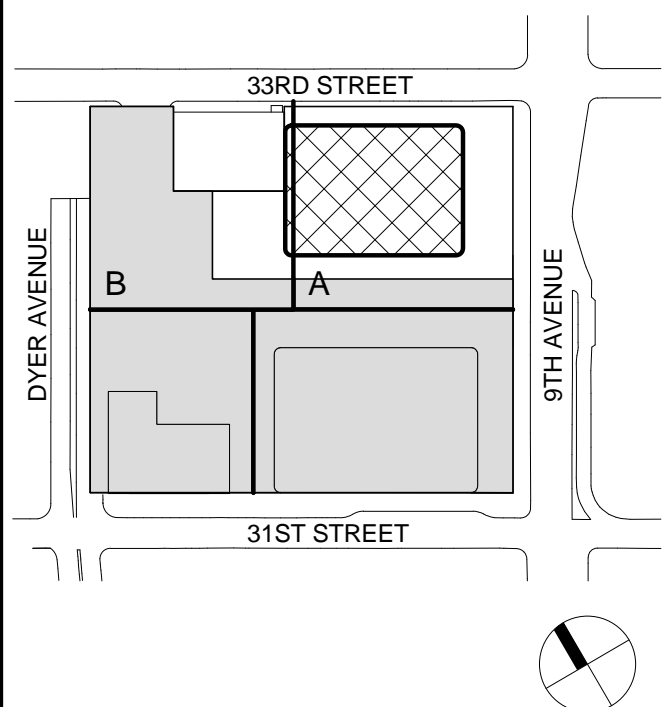
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Sheet Name:

STOREFRONT  
DETAILS

Project No.:

207150

Date:

12 SEPT 2014

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File No.:

A-550

B-SCAN Sheet No.:

A-550.00

Sheet No.:

A-550

Page No.:

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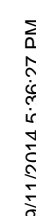




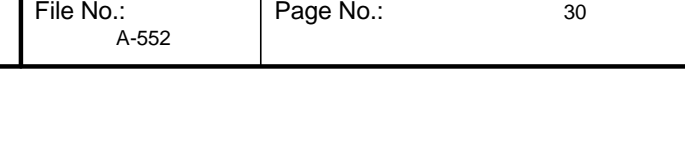
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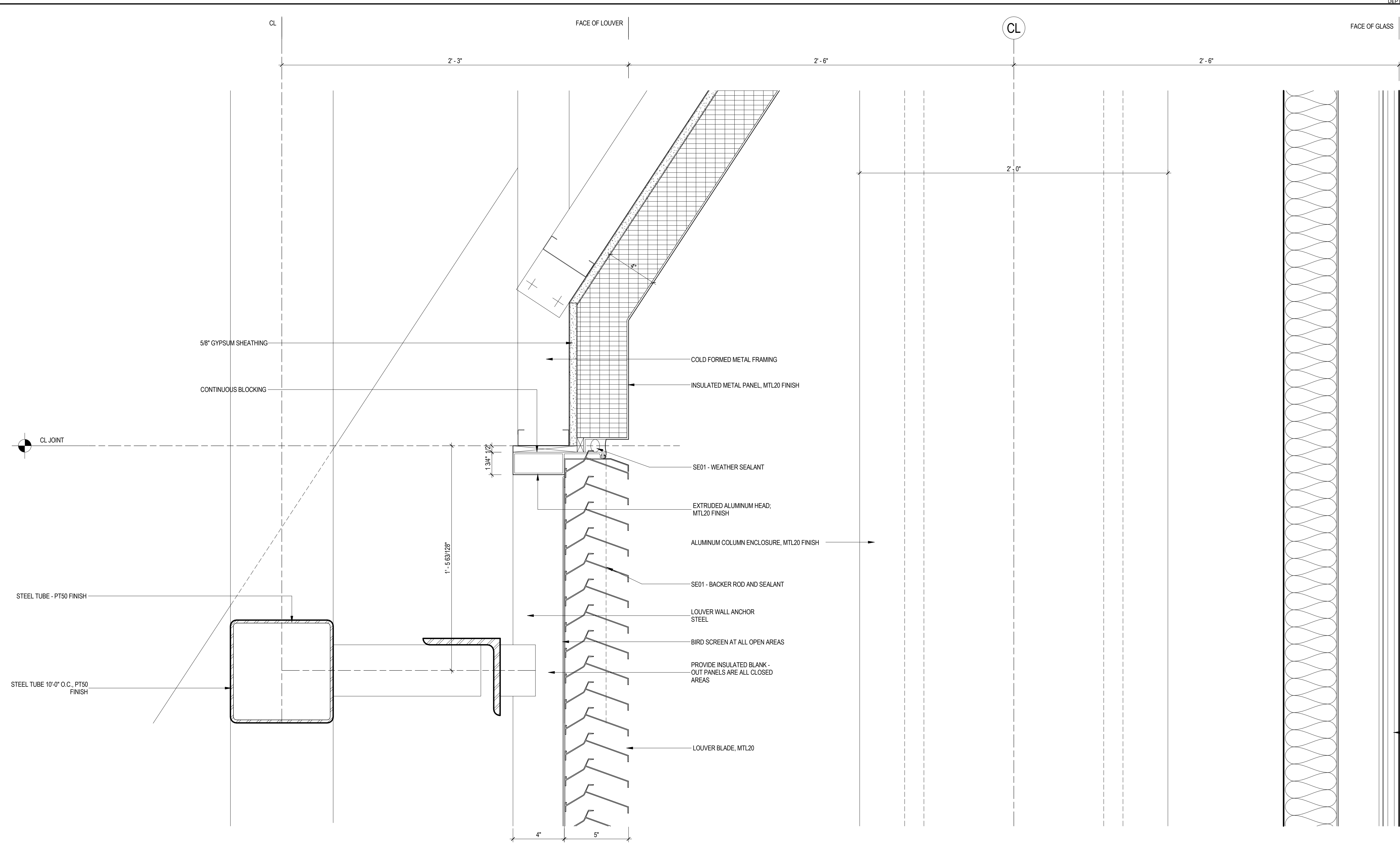


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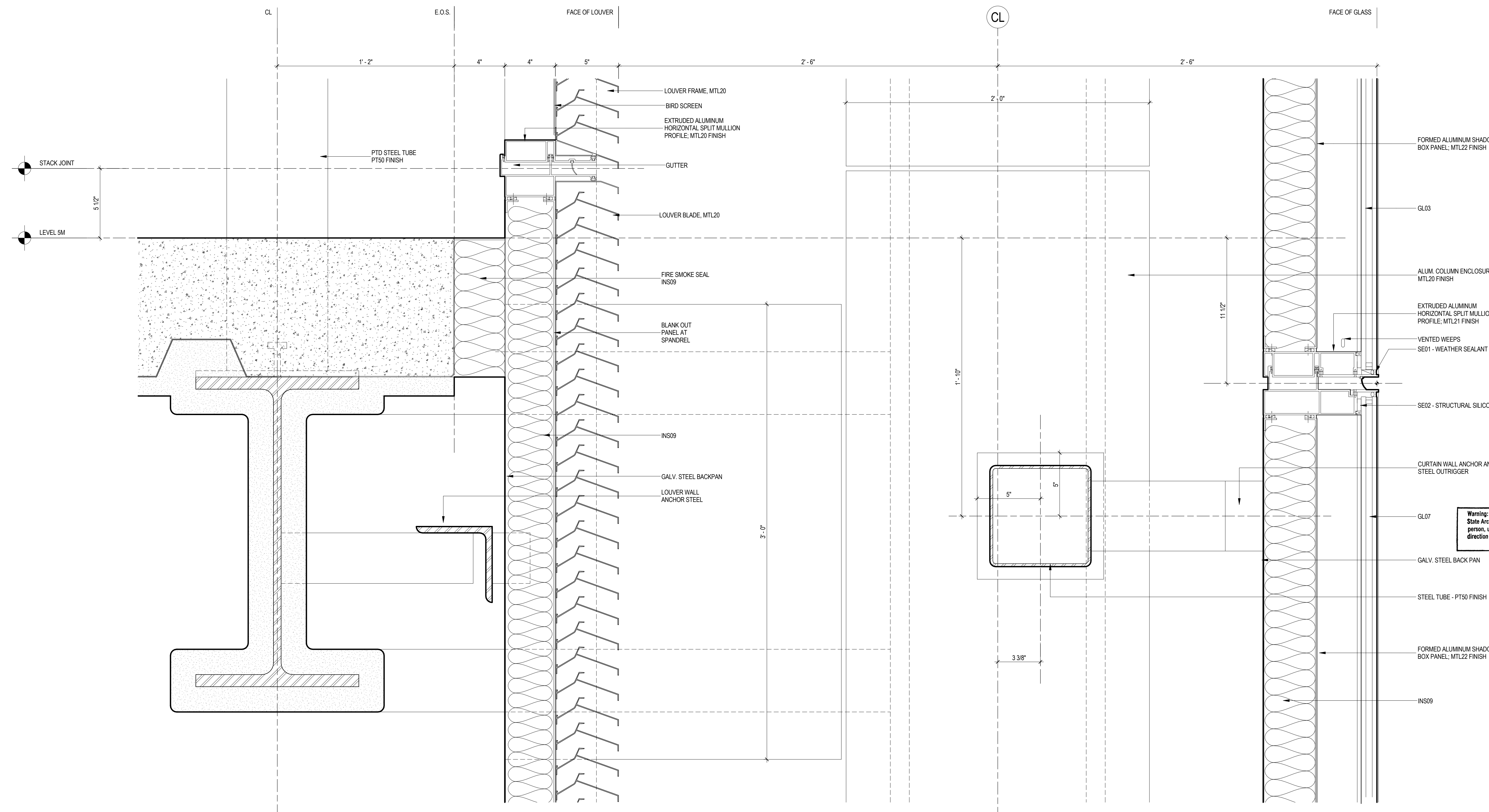
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**2** CURTAIN WALL DETAILS  
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**1** CURTAIN WALL SECTION DETAIL  
SCALE: 3" = 1'-0"

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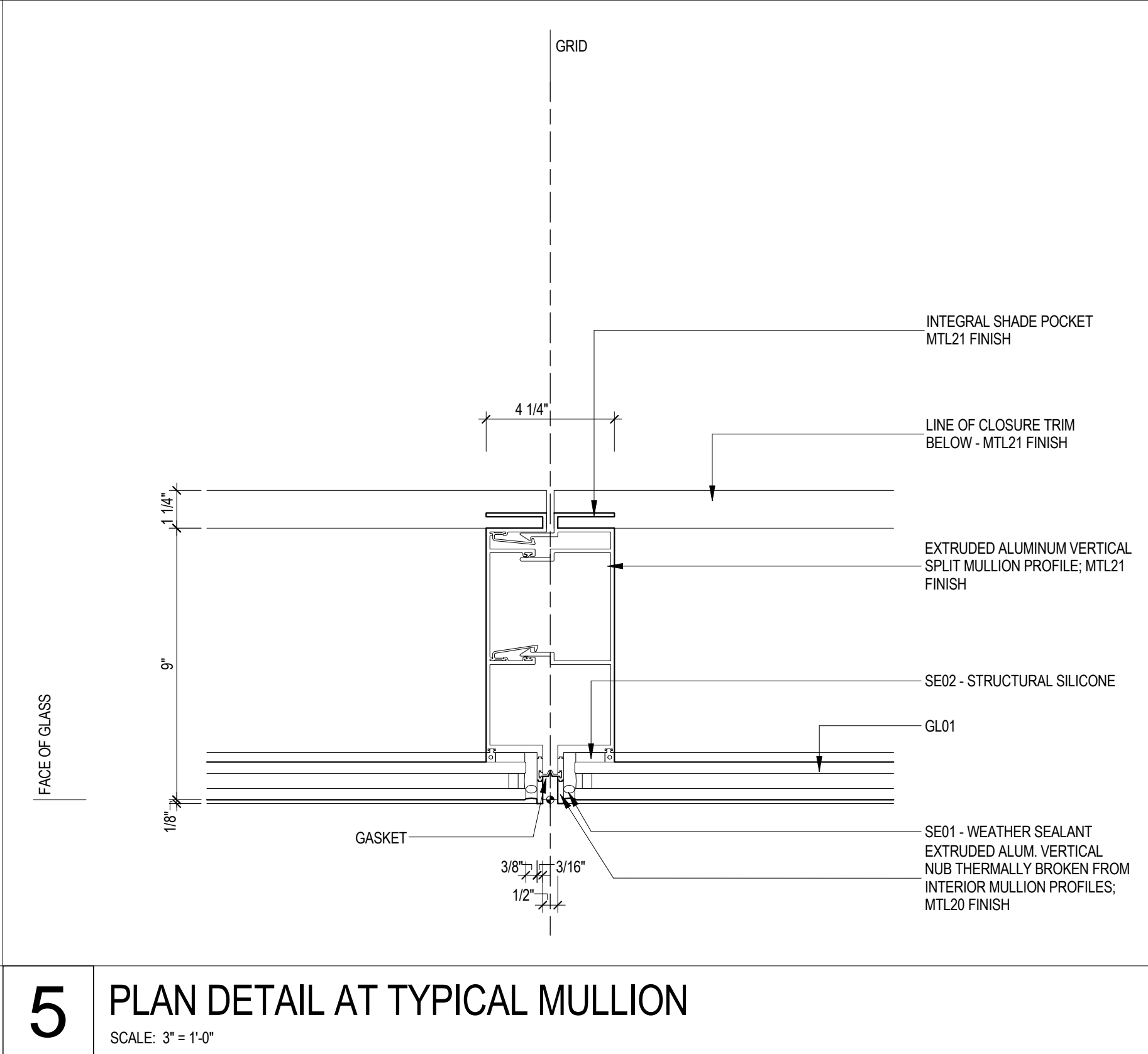
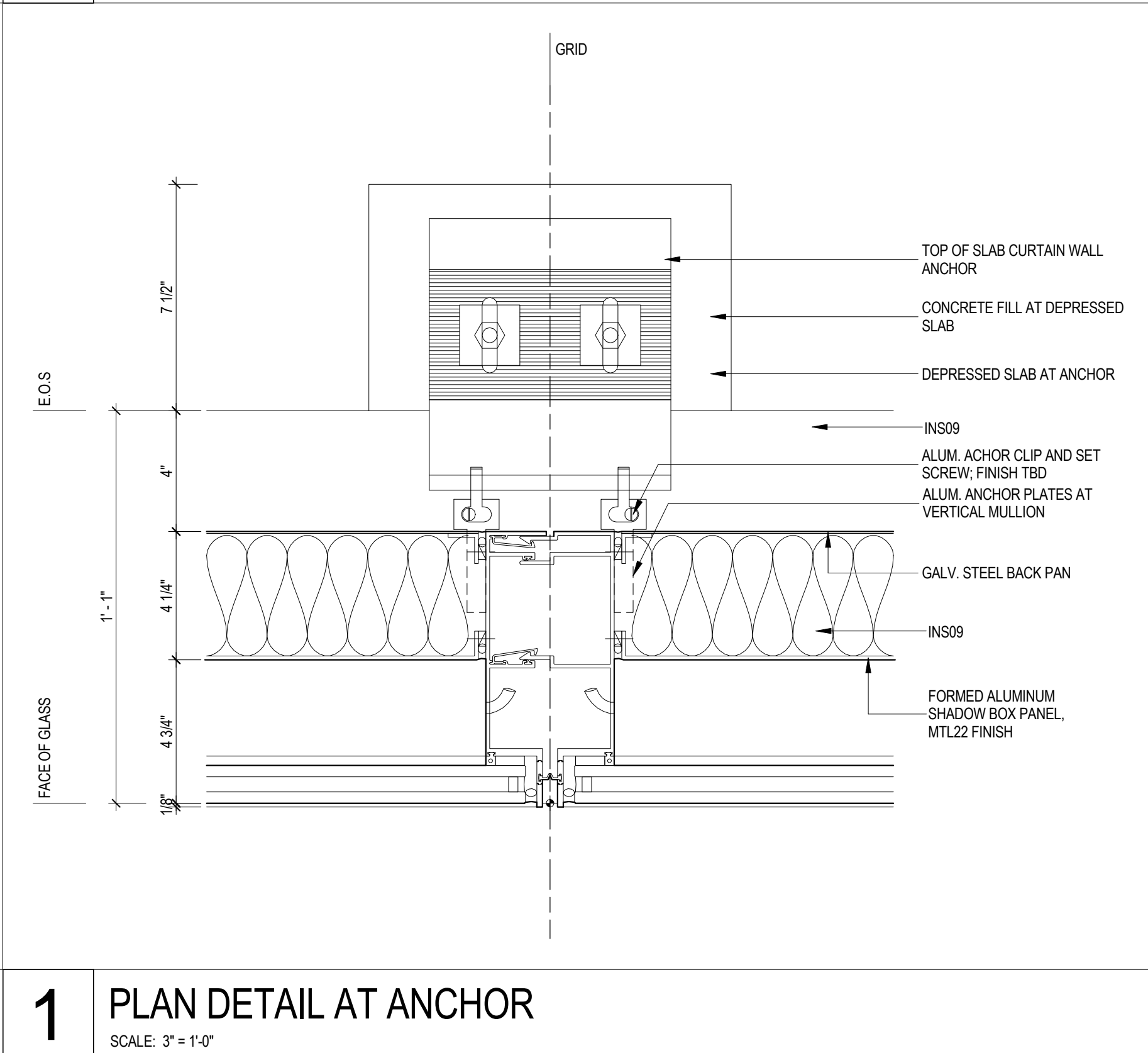
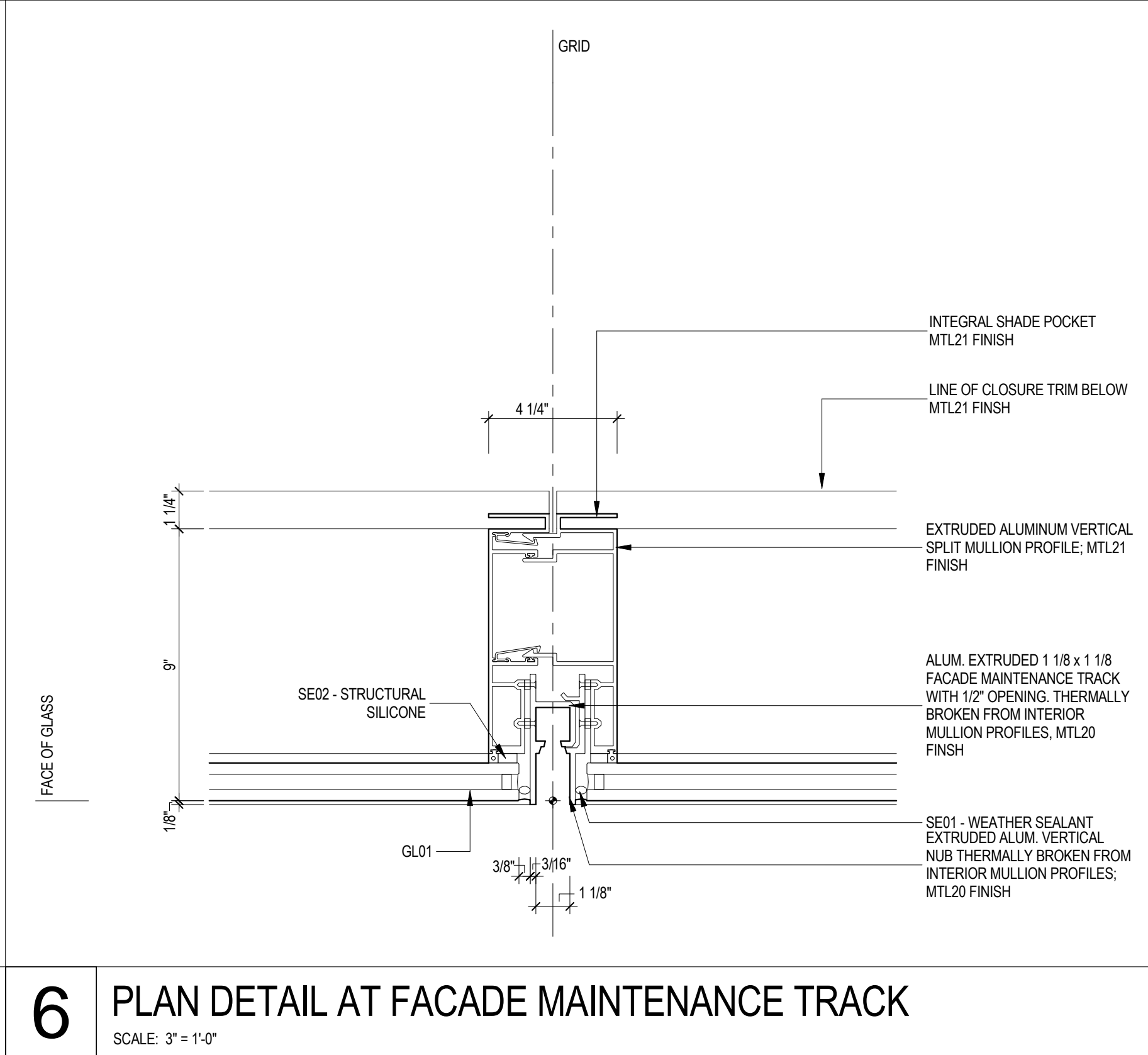
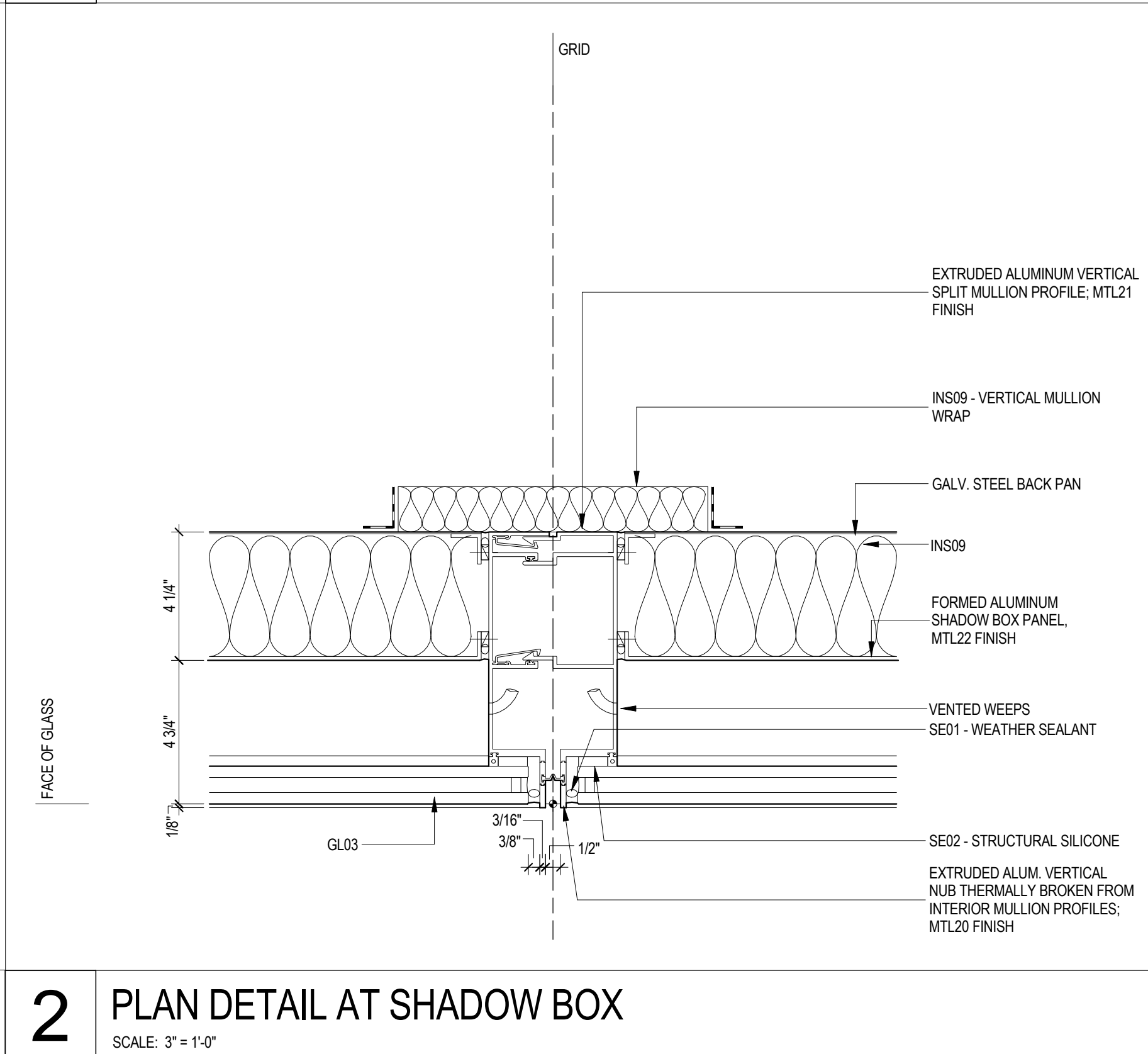
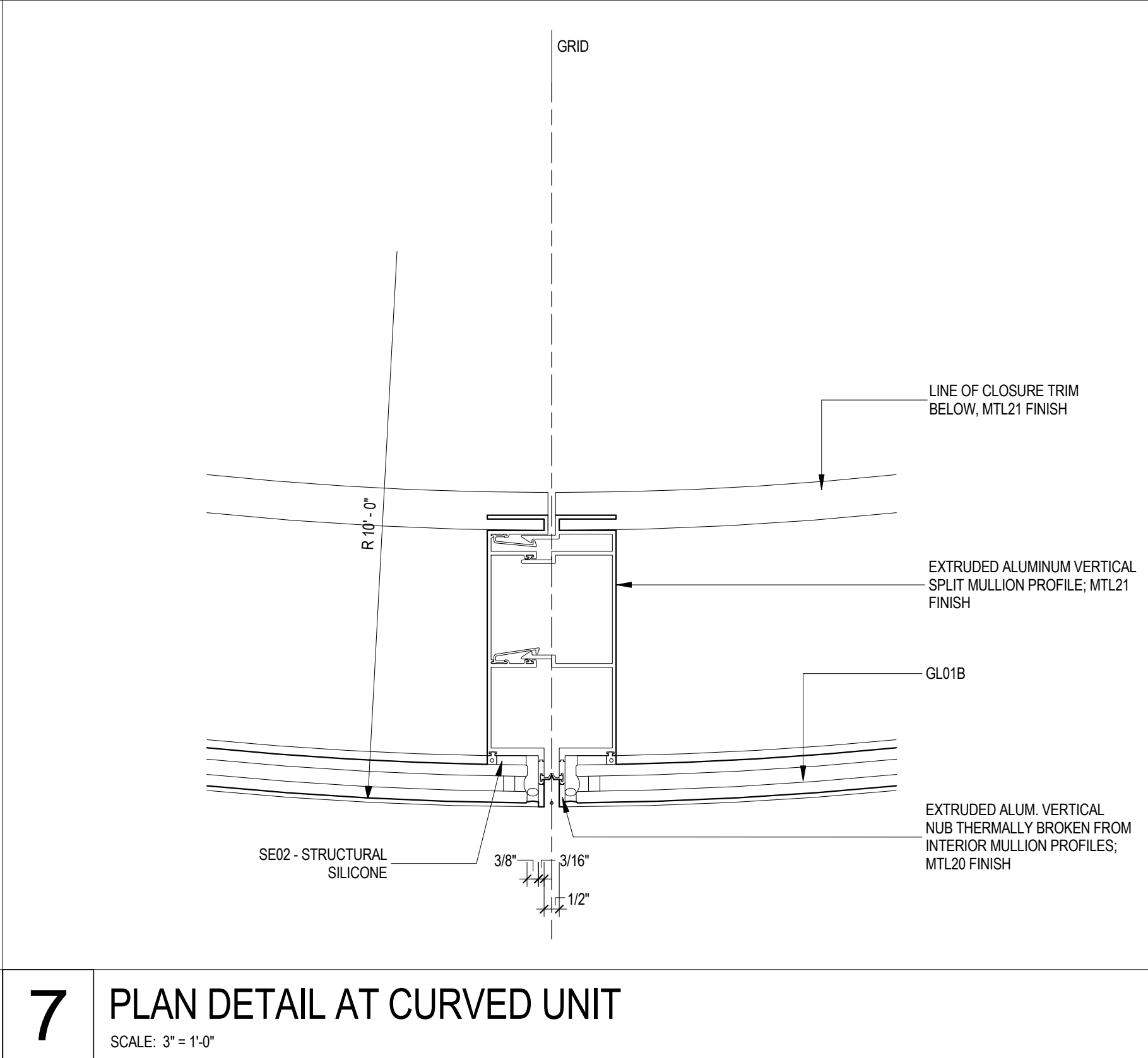
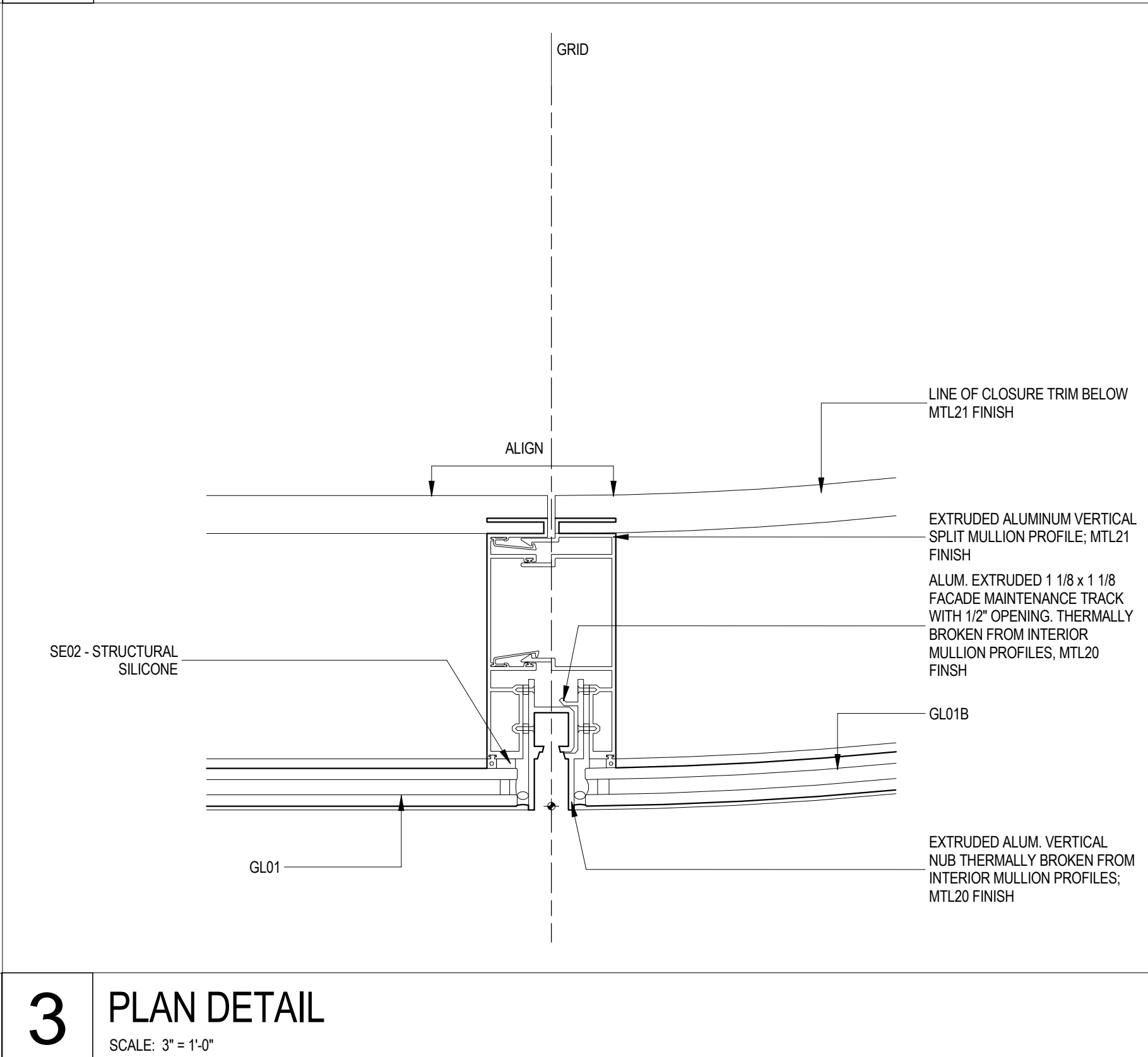
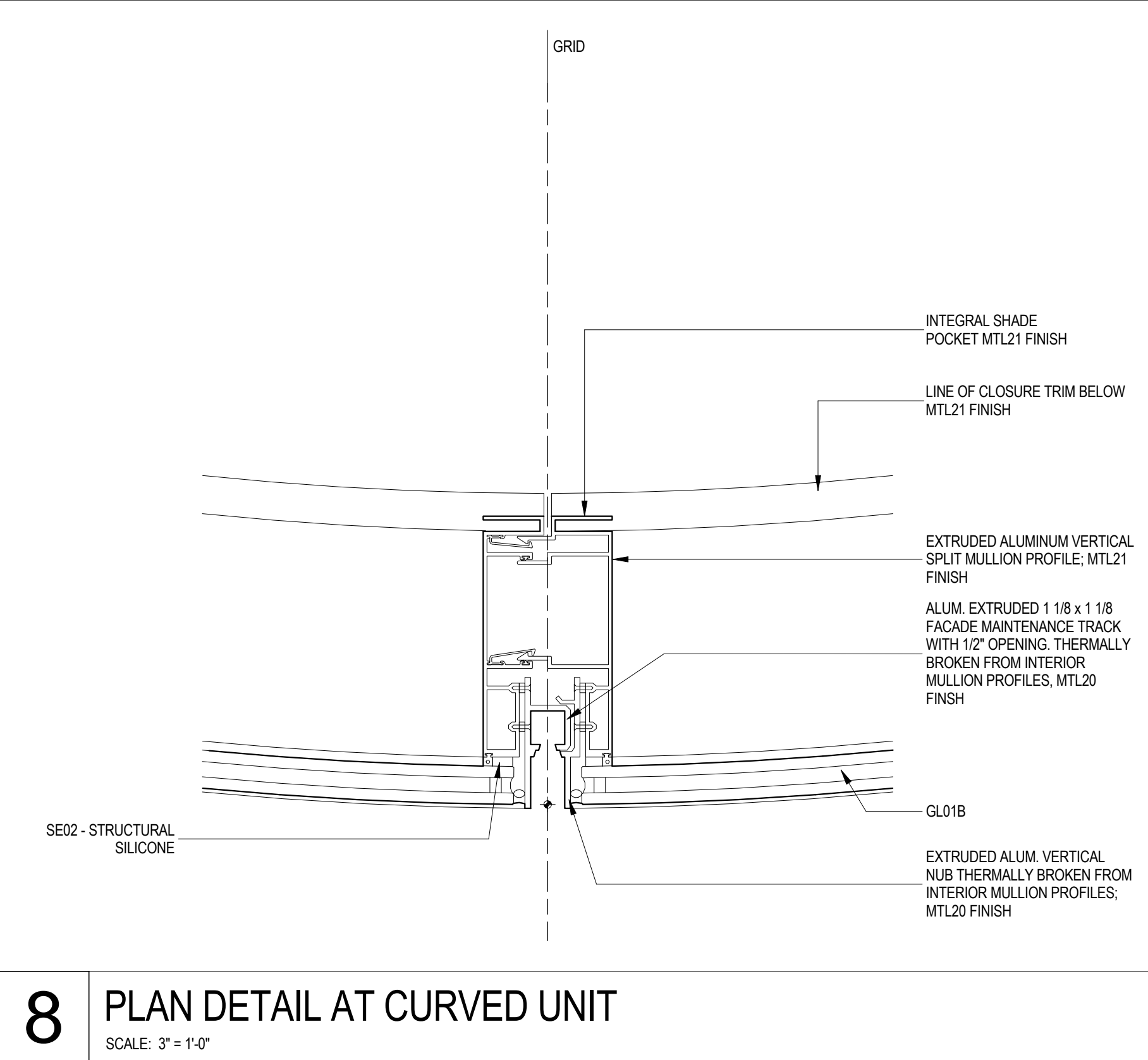
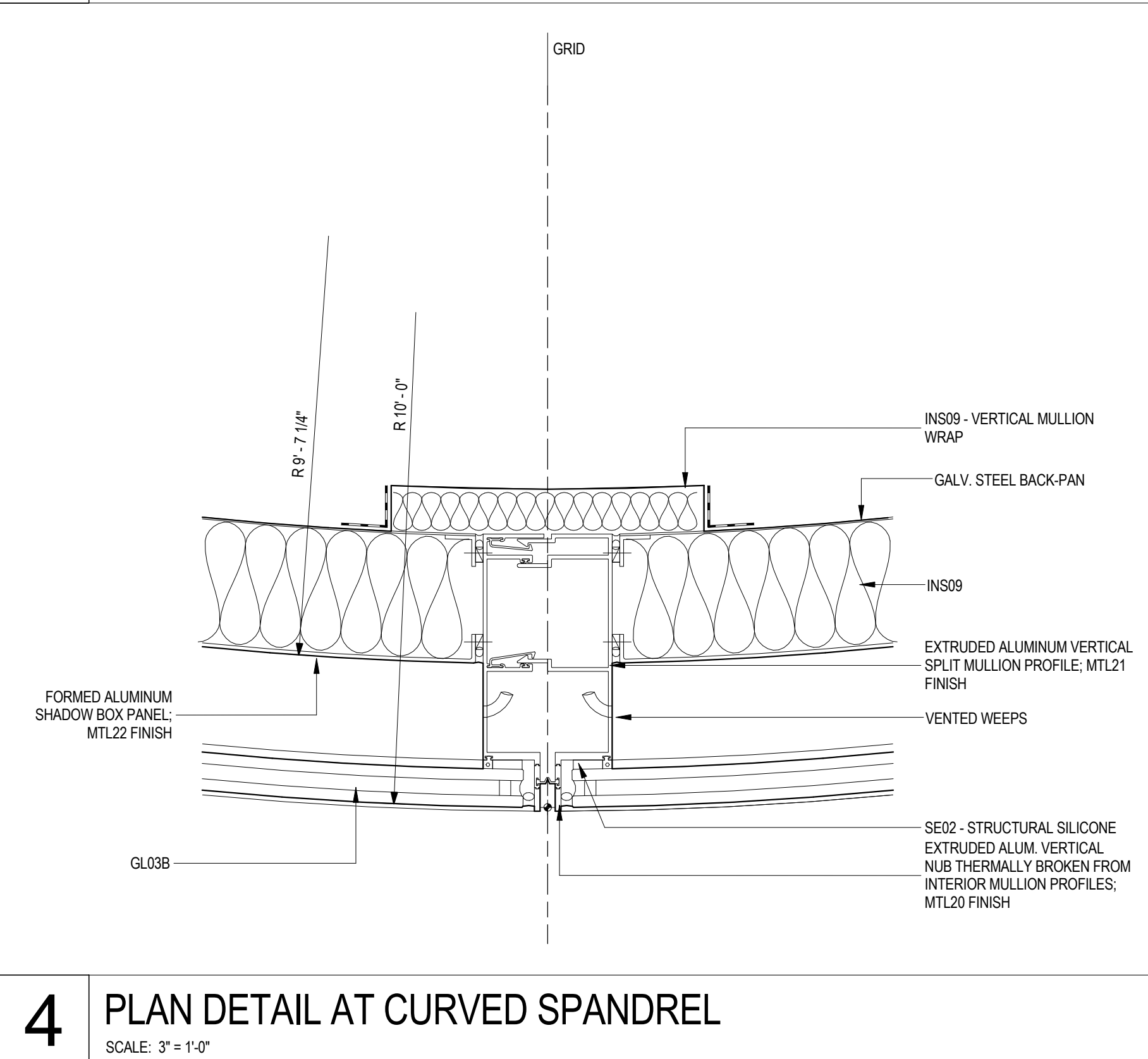
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**SHEET NOTES**



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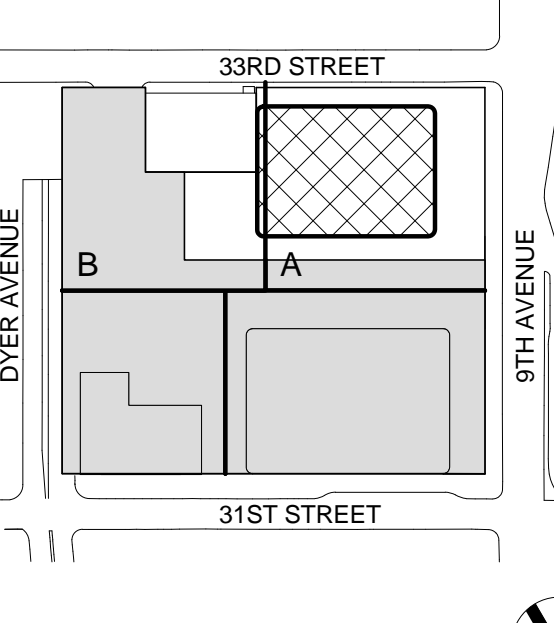
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Key Plan:



Seal & Signature:



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3	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
2	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
1	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT

Sheet Name:

**CURTAIN WALL DETAILS**

Project No.:	B-SCAN Sheet No.:
207150	<b>A-570.00</b>
Date:	Sheet No.:
12 SEPT 2014	<b>A-570</b>
Scale:	Page No.:
3" = 1'-0"	30
File No.:	
A-570	





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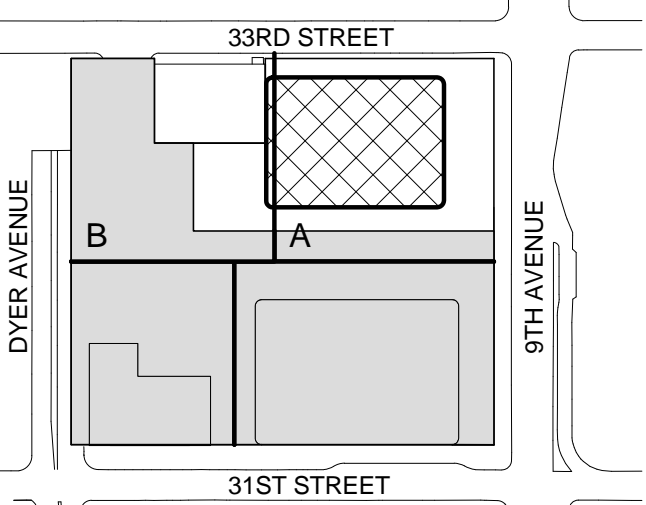
Code Consultant  
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**Entek Engineering LLC**  
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## SHEET NOTES

Key Plan:



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3 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
2 15 NOV 2013 ISSUED FOR DD PROGRESS PRICING  
1 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

No. Date Description

Sheet Name:

**CURTAIN WALL  
DETAILS**

Project No.:

207150

Date:

12 SEPT 2014

Scale:

3" = 1'-0"

File No.:

A-571

B-SCAN Sheet No.:

A-571.00

Sheet No.:

A-571

Page No.:

30

## 2 CURTAIN WALL SECTION DETAIL

SCALE: 3" = 1'-0"

## 1 CURTAIN WALL SECTION DETAIL

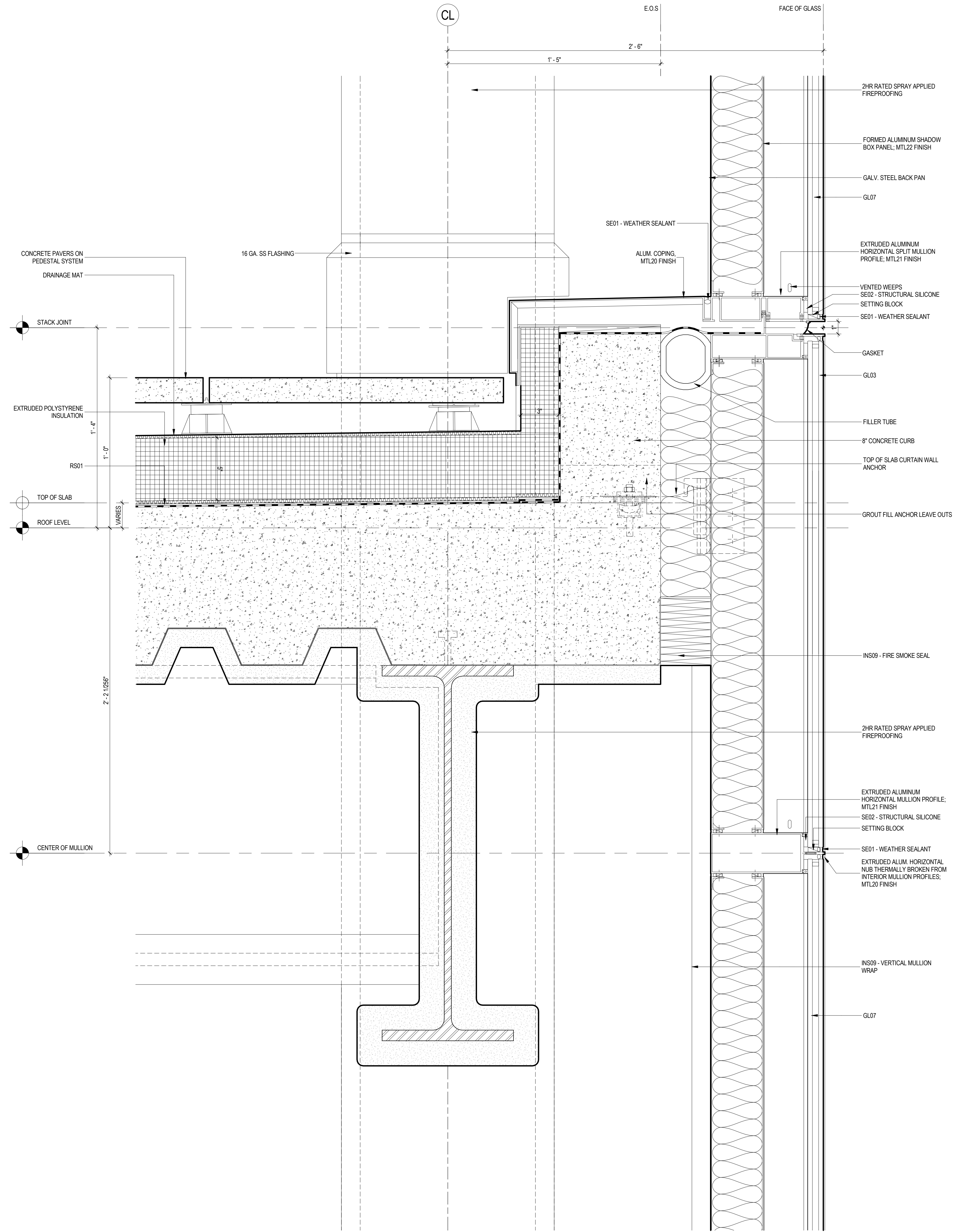
SCALE: 3" = 1'-0"




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1 CURTAIN WALL SECTION DETAIL

SCALE: 3" = 1'-0"



SHEET NOTES



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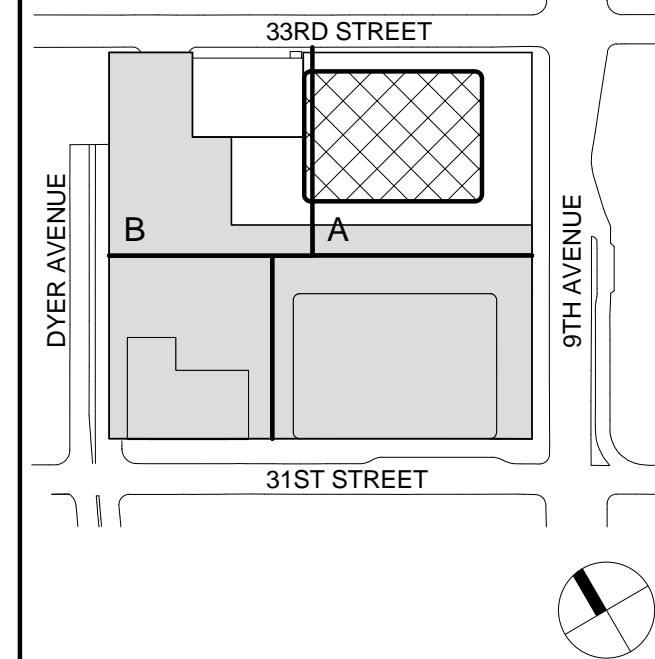
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1	15 NOV 2013	ISSUED FOR 3D PROGRESS PRICING
2	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT

Sheet Name:

**CURTAIN WALL  
DETAILS**

Project No.:	B-SCAN Sheet No.:
207150	<b>A-575.00</b>
Date:	Sheet No.:
12 SEPT 2014	A-575
Scale:	Page No.:
3" = 1'-0"	0 OF 30
File No.:	A-575







SECTION	ITEM	COMPLIANCE	SECTION	ITEM	COMPLIANCE	SECTION	ITEM	COMPLIANCE
93-00 93-01 93-02 93-03 93-04	GENERAL PURPOSES Definitions General provisions District plan and maps Sub districts and subareas within Farley Corridor subdistrict western blocks subarea B1, central blocks subarea B2	General Note (G.N.) G.N. G.N. G.N. G.N.	93-52 93-521 93-522 93-523 93-57	Special height and setback regulations in the Farley Corridor subdistrict B 450 West 33rd Street Ninth Avenue rail yard Pennsylvania Station subarea B4 Special permit for modification of height and setback regulations	COMPLIES  COMPLIES G.N. G.N.	Development Site: Lot: Existing Buildings:  Community board: Little "E" restricted: Zoning Map: Zoning District: Subdistrict: Subarea:	Block 729 60 Lot 163 to remain Lot 50 to remain #4, Manhattan Hazmat / Noise / Air 8d C6-4 / HY (Special Hudson Yards District) Farley Corridor Subdistrict B Central Blocks Subarea B2	
93-05 93-051 93-052 93-053 93-054 93-055	Applicability of district regulations Applicability of Article I, Chapter 1 Applicability of Article I, Chapter 3 Applicability of Chapter 3 of Article VII Applicability of Article VII, Chapter 4 Modification of use and bulk regulations for zoning lots bounding Hudson Boulevard Park	G.N. G.N. G.N. G.N. G.N. G.N.	93-60 93-61 93-62 93-63 93-64 93-65 93-66	MANDATORY IMPROVEMENTS Sidewalk widening Street tree planting Pedestrian circulation space Major building entrances Transit facilities Open area requirements in the large scale plan subdistrict A	COMPLIES COMPLIES COMPLIES COMPLIES G.N. G.N.	SECTION	ITEM	COMPLIANCE
93-10 93-11 93-12 93-13 93-131 93-132 93-14 93-15 93-16 93-17 93-18 93-19	USE REGULATIONS Air space over a rail road or transit right-of-way or yard Special residential use regulations Special office use regulations Certification for office use Authorization for office use Ground floor level requirements Security gates Public parking facilities Modification of sign regulations Non-conforming uses in large-scale plan sub district A Authorization for electrical utility substation	G.N. G.N. G.N. G.N. G.N. G.N. G.N. G.N. G.N. G.N. G.N. G.N.	93-70 93-71 93-72 93-73 93-731 93-732 93-733 93-734	Public access requirements for special sites Public access areas in the eastern rail yard subarea A1 Public access areas at 450 West 33rd Street Public access areas on Ninth Avenue rail yards Design and maintenance requirements for public access areas on Ninth Avenue rail yard Certification for public access areas on the Ninth Avenue rail yard Certification to modify general requirements for public access areas for ventilation demands Certification to temporarily modify public access areas for construction staging	G.N. G.N. G.N. COMPLIES COMPLIES G.N. G.N.	32-11	Lot area: Uses permitted: Uses proposed:	213,629 GSF Use group 1-12 Retail - Use group 6, Use group 10 Office - Use group 6B
93-20 93-21	FLOOR AREA REGULATIONS Floor area regulations in the large-scale plan subdistrict A	G.N.	93-80 93-81	OFF STREET PARKING REGULATIONS Definitions Permitted parking Use and location of parking facilities	G.N. G.N.	93-22 93-22(a) ROW C	FLOOR AREA REGULATIONS Maximum permitted FAR Total: Commercial: Residential: Community Facility:	19.0 19.0 4.0 2.0
93-22 93-221	Floor area regulations in subdistrict B,C,D,E, and F Maximum floor area ratio in the Farley Corridor subdistrict B	COMPLIES COMPLIES	93-82 93-83 93-84	Curb cut restrictions Curb cut restriction in Farley Corridor subdistrict B No curb cut shall be permitted on Ninth Ave. between West 31st and West 33rd street. Max. aggregate width of curb cuts on West 33rd street: 90'	G.N. G.N. G.N.		Maximum permitted floor area Total: Commercial: Residential: Community Facility:	19.0 x 213,629 = 4,058,951 ft² 19.0 x 213,629 = 4,058,951 ft² 4.0 x 213,629 = 854,516 ft² 2.0 x 213,629 = 427,258 ft²
93-222	Maximum floor area ratio in the 34th Street Corridor subdistrict C	G.N.	93-842		COMPLIES		Existing building (SW Tower Residential Tower) floor area Total: Commercial: Residential: Community Facility:	748,279 ft² (3.5 FAR) 7,931 ft² (.04 FAR) 740,348 ft² (3.54 FAR) 0 ft²
93-223 93-224	Maximum floor area ratio in Hell's Kitchen subdistrict D Maximum floor area ratio in the south of Port Authority subdistrict E	G.N. G.N.					Proposed floor area (see floor area schedule, 1/Z-003.00) Total: Commercial: Residential: Community Facility:	1,649,120 ft² (7.72 FAR) 1,649,120 ft² (7.72 FAR) 0 ft² 0 ft²
93-225 93-23 93-30 93-31 93-32	Floor area regulations in subdistrict F Modification of inclusionary housing program Special floor area regulations District improvement found bonus Floor area regulation in the phase 2 Hudson Boulevard and park	G.N. G.N. G.N. G.N. G.N.	93-90 36-62 36-71 37-725	HARASSMENT Required accessory off-street loading berths Required bicycle parking spaces Steps Permitted obstructions Hours of access	COMPLIES COMPLIES COMPLIES COMPLIES G.N.		Proposed commercial floor area SW Residential Tower: New Building: Total: Does not exceed maximum ZFA for the site.	7,931 ft² (.04 FAR) 1,649,120 ft² (7.72 FAR) 1,657,051 ft² (7.76 FAR) 0 ft²
93-33 93-34	Special regulations for residual portions of zoning lots partially within the phase 2 Hudson Boulevard and park Distribution of floor area in the large-scale plan subdistrict A	G.N. G.N.	37-726 37-727 37-741 37-742	Seatings Planting and trees Public space signage system	G.N.	93-42	HEIGHT AND SETBACK REGULATIONS Max. base height on a wide street: Max. base height on a narrow street: -Within 100' of its intersection with wide street: -Beyond 100' of its intersection with wide street: -Weighted avg. base height on a narrow street:	150 ft 150 ft 150 ft 120 ft (Approx.)
93-35	Special permit for transit bonus in Pennsylvania Station subarea B4 plan subdistrict A	G.N.	37-751				SPECIAL HEIGHT AND SETBACK REGULATIONS Required setback on a wide street: Required setback on a narrow street: *Exception: A building may rise without setback when no part of building is within 15' of street line.	15 ft 20 ft*
93-40 93-41 93-42	HEIGHT AND SETBACK REGULATIONS Rooftop regulations Height and setback in subdistrict A,B,C,D,E and F	G.N. COMPLIES				93-522	SIDEWALK WIDENING Minimum along West 33rd Street and Ninth Ave.:	5 ft
93-50 93-51	SPECIAL HEIGHT AND SETBACKS REGULATIONS Special height and setback regulations in the large-scale plan subdistrict A	COMPLIES				93-61		

4	ZONING RESOLUTION - GENERAL	2	ZONING RESOLUTION - APPLICABLE
SCALE: NTS		SCALE: NTS	
3	ZONING - GROUND FLOOR PLAN	1	ZONING - ROOF PLAN
SCALE: 1" = 20'-0"		SCALE: 1" = 20'-0"	

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4	26 FEB 2015	ISSUED FOR BUILDING PERMIT
3	19 DEC 2014	ISSUED FOR FOUNDATION PERMIT
2	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
1	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_  
Sheet Name: \_\_\_\_\_

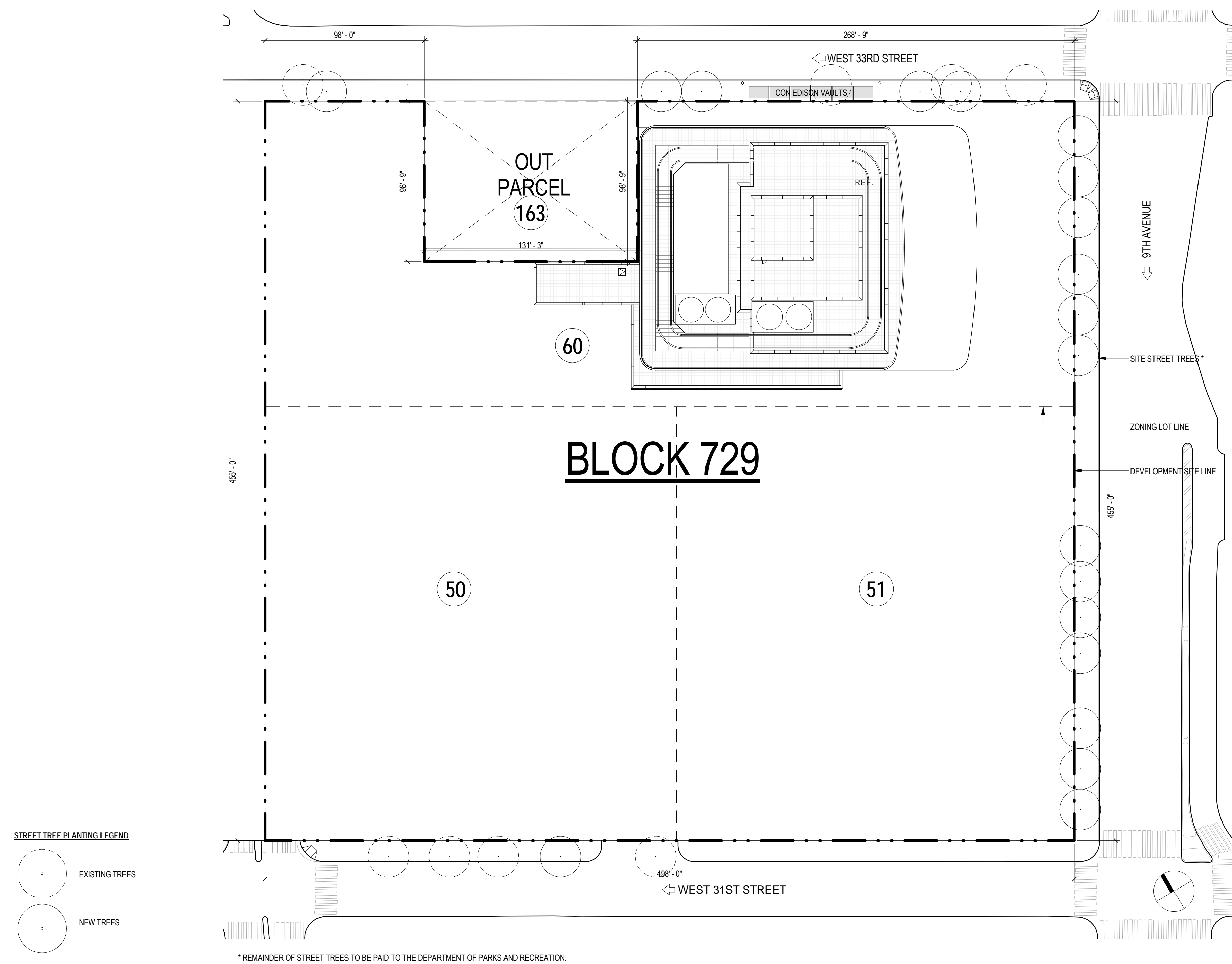
**ZONING CALCULATIONS & ROOF PLAN**

Project No.: 207150	B-SCAN Sheet No.: Z-002.00
Date: 26 FEB 2015	Sheet No.: Z-002
Scale: As indicated	Page No.: 2 OF 30
File No.: Z-002	









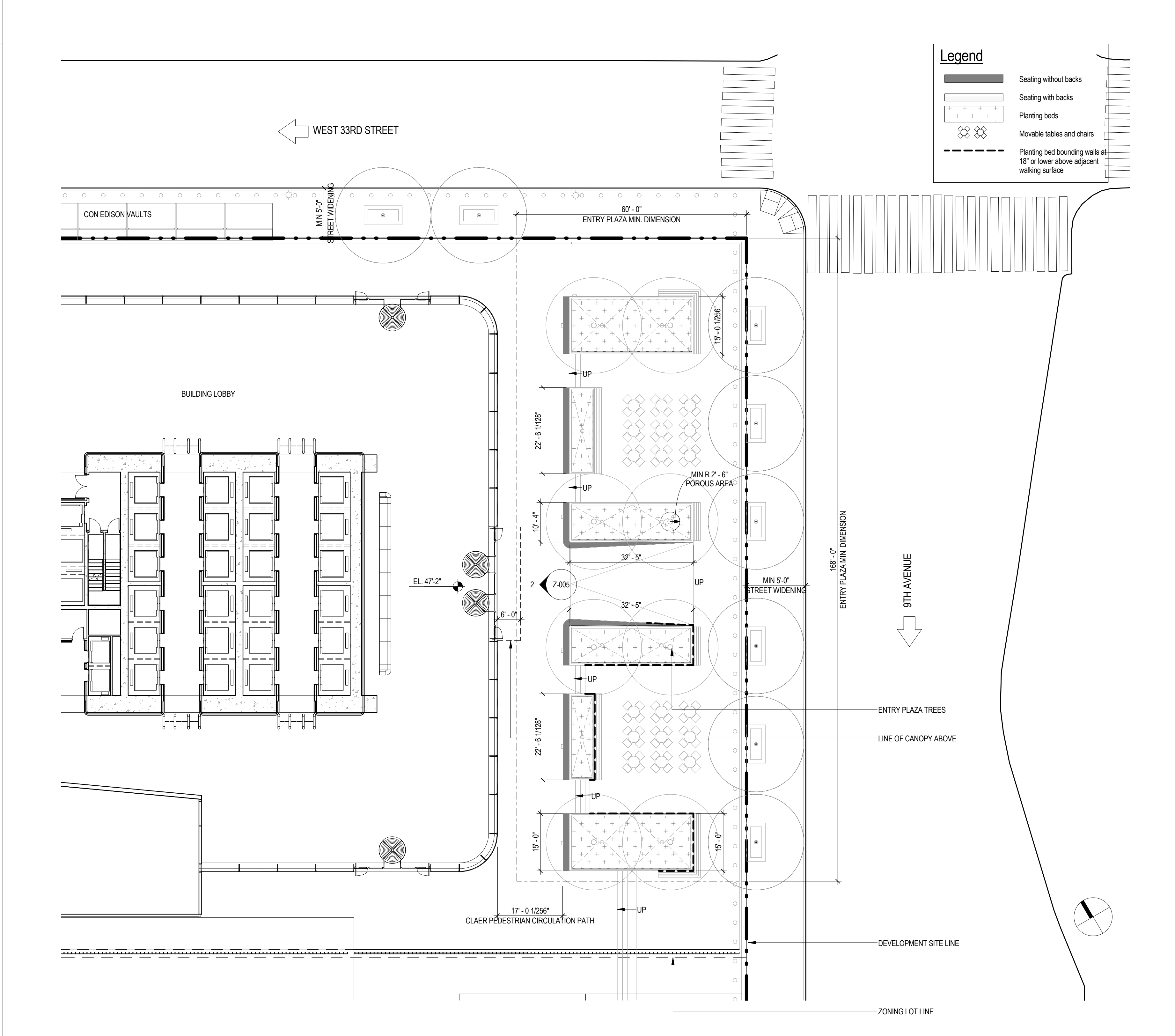
STREET TREES PLANTING		
SCALE: 1" = 40'-0"		
SECTION	ITEM	COMPLIANCE
93-62	SITEWIDE STREET TREE PLANTING	
26-41	Requirement	
33-03	1 tree per 25' of zoning lot street frontage 31st Street = 498.0' 9th Avenue = 455.0' 33rd Street = $(498.0 - 131.25) = 366.75'$ Total Frontage = $1,319.75' / 25$ trees per Ft = 53 trees required	
	Existing Trees to be removed: 8	
	New Trees Provided:	
	5 Trees planted (on site) on 33rd Street	
	13 Trees planted (on site) on 9th Avenue	
	1 Trees planted (on site) adjacent to 435 W. 31st Street	
	19 Trees planted on site	
	34 Trees (off-site) to be funded with payments to Dept. of Parks and Recreation.	
	TOTAL NUMBER OF PROPOSED TREES:	53
		COMPLIES (See Z-004.00)

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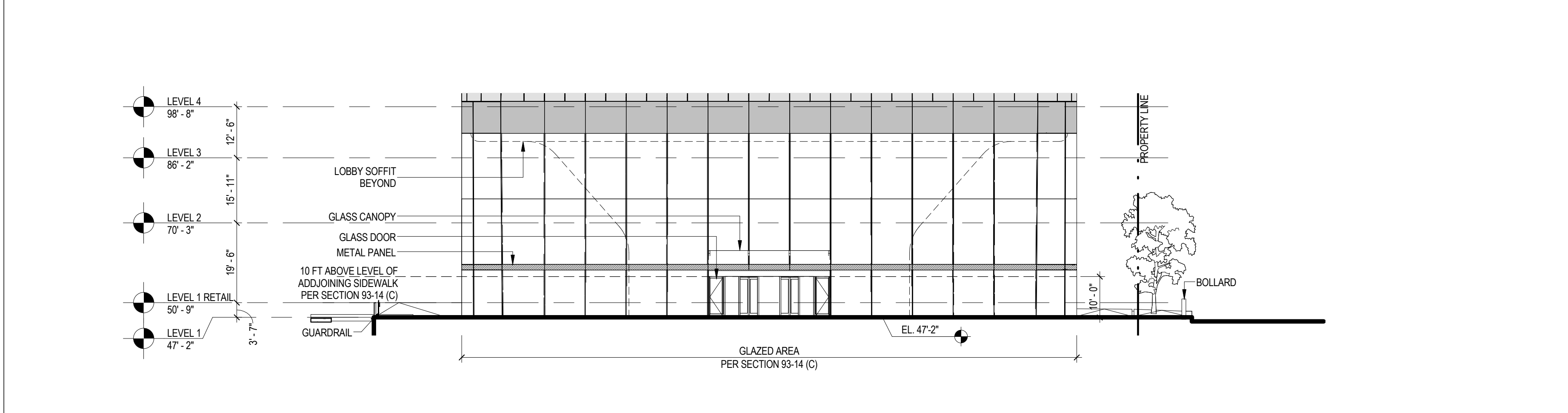


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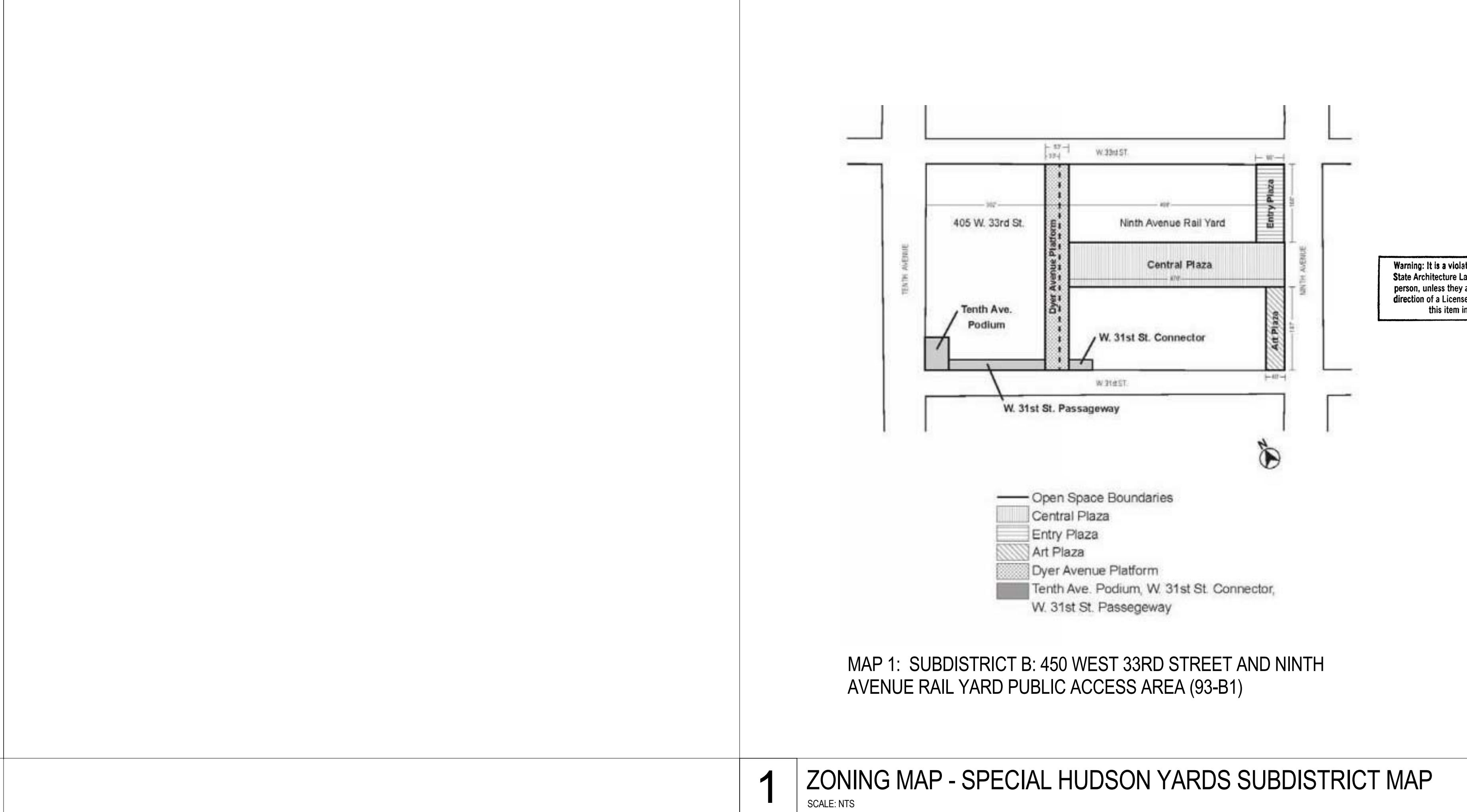
SECTION	ITEM	COMPLIANCE
93-73	PUBLIC ACCESS AREAS ON NINTH AVENUE RAIL YARD	
93-61	SIDEWALK WIDENING 5'-0" on 33rd Street and 9th Avenue	COMPLIES
93-732	CERTIFICATION FOR PUBLIC ACCESS AREAS ON THE NINTH AVENUE RAIL YARD Certification required as per section above.	
93-73(a)(2)(iv)	GROUND FLOOR TRANSPARENCY In accordance with Section 93-14, shall apply to at least 70% of the length of all building walls facing entry plaza.	COMPLIES (See 2/Z-005.00)
4	ZONING RESOLUTION - PUBLIC ACCESS AREA REQUIREMENTS SCALE: NTS	



3 PUBLIC ACCESS AREAS - ENTRY PLAZA  
SCALE: 1/16" = 1'-0"



2 ENLARGED BUILDING ELEVATION FACING ENTRY PLAZA  
SCALE: 1" = 20'-0"



MAP 1: SUBDISTRICT B: 450 WEST 33RD STREET AND NINTH AVENUE RAIL YARD PUBLIC ACCESS AREA (93-B1)

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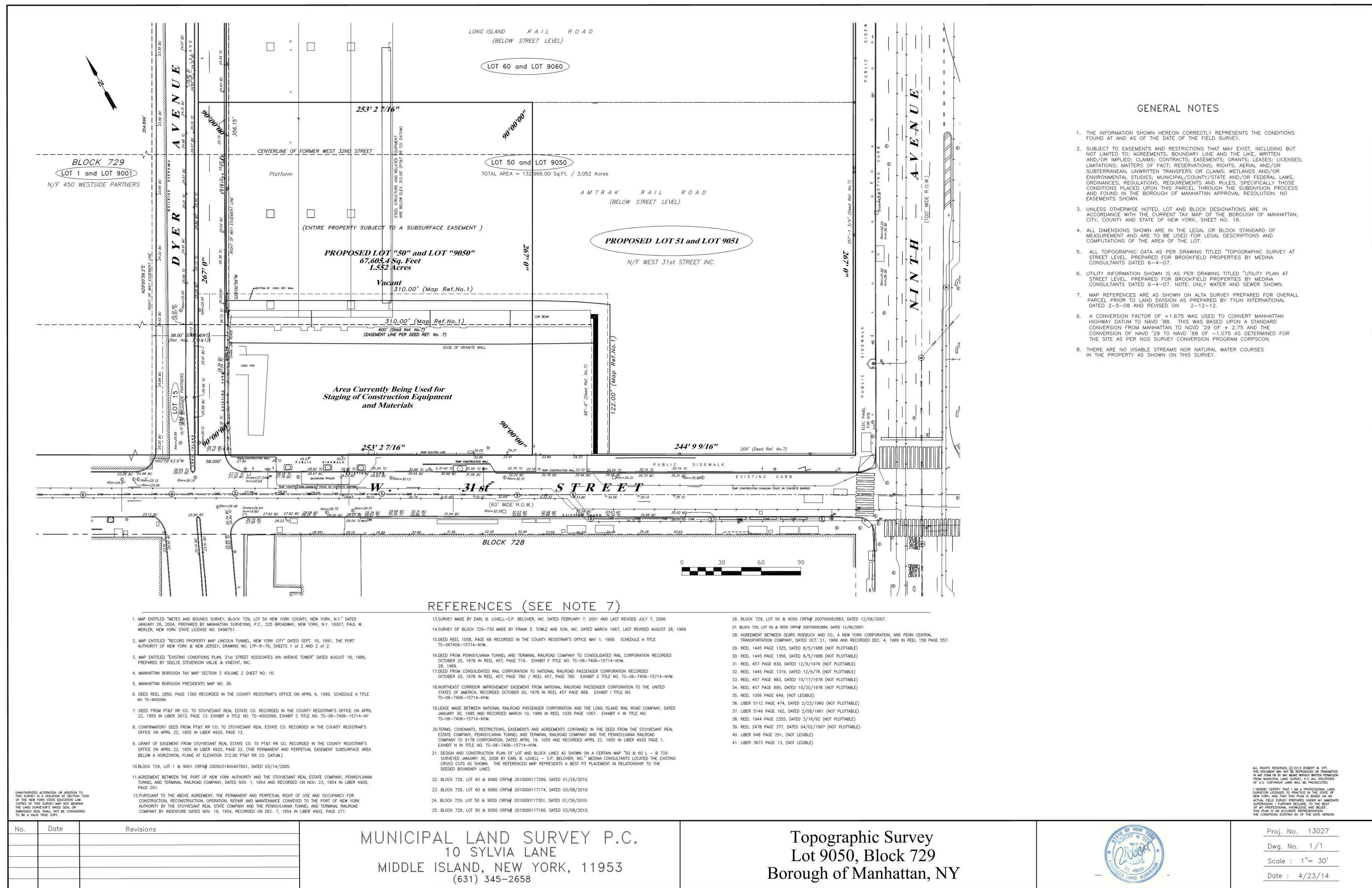
REGISTERED ARCHITECT  
JOHN GOTTESPEY  
No. 15645  
STATE OF NEW YORK

3	19 DEC 2014	ISSUED FOR FOUNDATION PERMIT
2	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
1	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
No.	Date	Description
Sheet Name:		

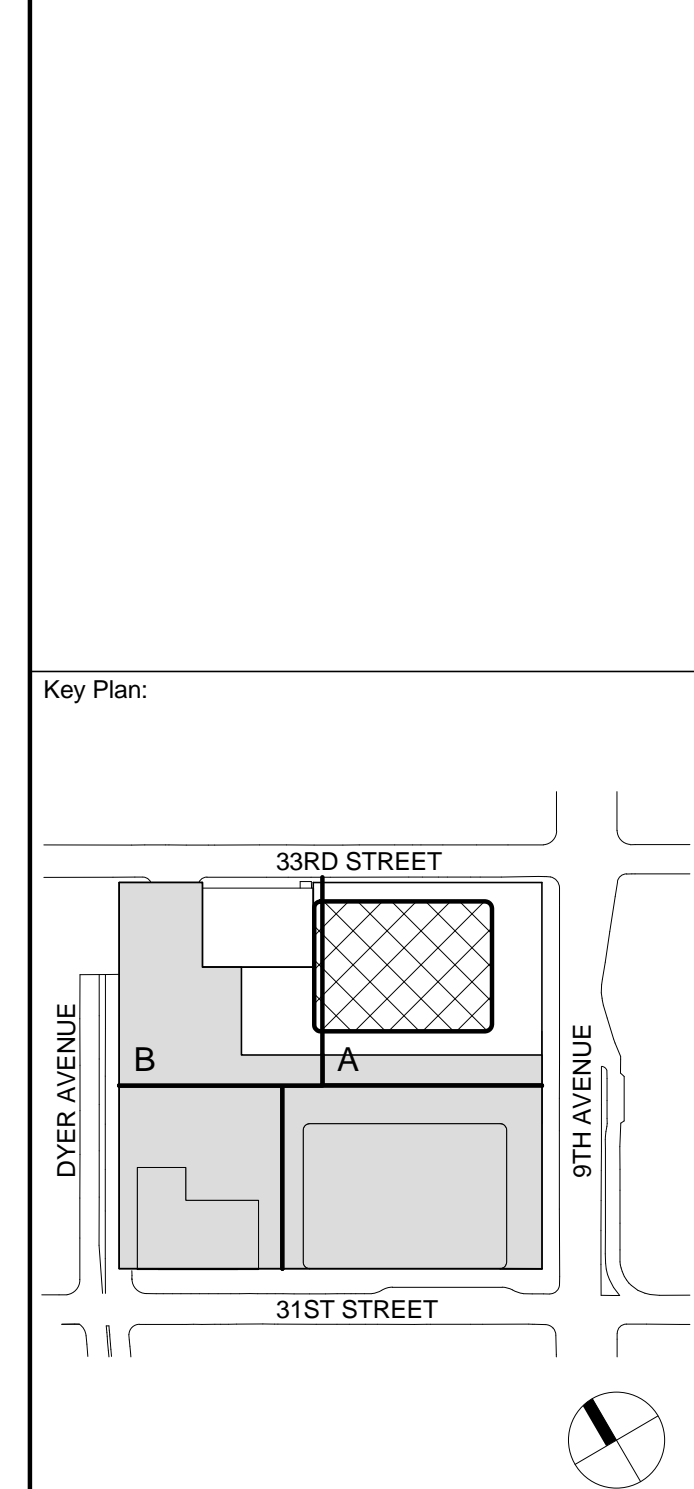
**PUBLIC ACCESS AREAS - ENTRY PLAZA**

Project No.: 207120	B-SCAN Sheet No.: Z-005.00
Date: 19 DEC 2014	Sheet No.: Z-005
Scale: As Indicated	Page No.: 5 OF 30
File No: Z-005	





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## 2 ENLARGED BICYCLE STORAGE PLAN

SCALE: 1/8" = 1'-0"

## 4 CELLAR B PLAN - LOADING DOCK

SCALE: 1" = 2'-0"

### ACCESSORY OFF-STREET LOADING BERTHS (ZR 36-62)

Berths required for office use

First 100,000 ft²: 0 berths  
Next 200,000 ft²: 1 berth  
Each additional 300,000 ft²: 1 berth  
Total: 1 berth  
(1,649,247 ft² - 300,000 ft²) / 300,000 ft²

Berths required for retail use

First 25,000 ft²: 0 berths  
Next 15,000 ft²: 1 berth  
Next 60,000 ft²: 1 berth  
Each additional 150,000 ft²: 1 berth  
Total: 0 berths  
(20,123 ft² - 100,000 ft²) / 150,000 ft²

Provided: 6 accessory off-street loading berths (COMPLIES)

### OFF STREET PARKING REGULATIONS (ZR 93-81)

Provided: 13 parking spaces\*  
\*Chairperson certification required

### EXISTING SW RESIDENTIAL TOWER LOADING BERTHS

Berths required: None

## 3 ZONING RESOLUTION - BICYCLE PARKING RERQUIREMENTS

SCALE: NTS

### REQUIRED BICYCLE PARKING SPACES (ZR 36-71)

Spaces required for office use

1 per 7,500 ft² of floor area  
Total (1,649,247 / 7,500): 220 spaces

Spaces required for retail use

1 per 10,000 ft² of floor area  
Total (20,123 / 10,000): 3 spaces

Provided: 224 bike racks (COMPLIES)

### REQUIRED BICYCLE STORAGE (ZR 36-73)

15 ft² / Bicycle  
(224 x 15 ft²) / 2 = 1,680 ft² (for stacked bicycle racks)

Provided: 1,920 ft² (COMPLIES)

### EXISTING SW RESIDENTIAL TOWER ENCLOSED BICYCLE PARKING REQUIREMENTS (ZR 25-811, ZR 36-711)

#### REQUIRED BICYCLE PARKING SPACES

Residential uses = 1 per 2 dwelling units

Proposed no. dwelling units = 844 D.U.

Required bicycle parking spaces: 844 / 2 = 422 Bicycle required

#### BICYCLE STORAGE PROVIDED AT 15 ft² / Bicycle:

Bike Room #1 (Cellar) 4,196 ft² / 15 ft² / Bicycle = 279 Bicycles  
Bike Room #2 (1st Floor) 831 ft² / 15 ft² / Bicycle = 55 Bicycles  
Bike Room #3 (2nd Floor) 1,332 ft² / 15 ft² / Bicycle = 88 Bicycles  
Total = 422 Bicycles

### Specifications

**Model#:** • BDDF-8.16 Bike-Double-Decker-Framework™: Two-Tier, Moderate Security Bike Rack

**Capacity:** • (8) bikes on 16" centers (4 on the top and 4 on the bottom)

**Materials:** • 1" nom., Sched. 40 ASTM A500 welded, seamless-steel pipe for Bike-Bar units and end structures  
• 1.5" nom., Sched. 40 ASTM A500 welded, seamless-steel pipe for upper-tier railings  
• 1" nom., heavy-walled, abrasion-resistant, black plastic sleeve covers entire horizontal portion of Bike-Bar units  
• 3" x 3" x 1/8 gauge H.R. steel channel for bike wheel tracks  
• 1/4" x 3" H.R. steel flat-bar for base plates  
• 1/2" dia. H.R. steel round-bar for lock-retaining yokes and front tire supports

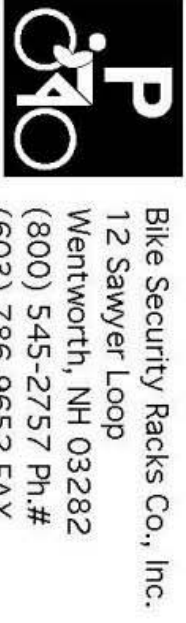
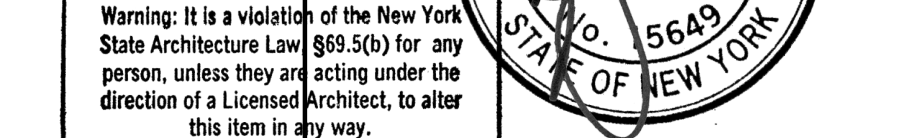
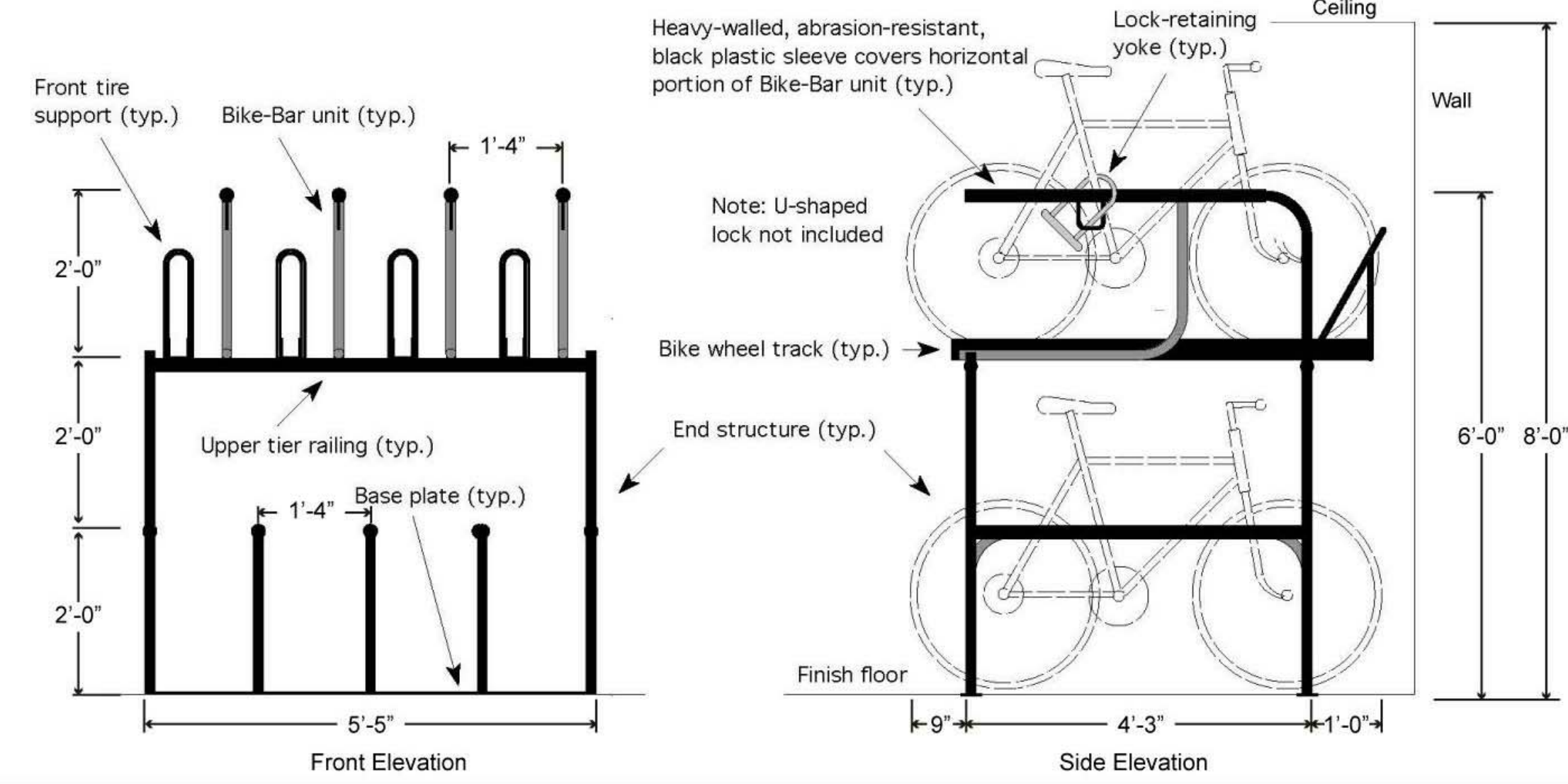
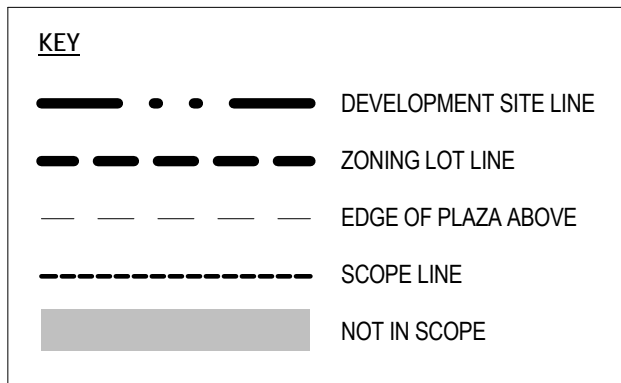
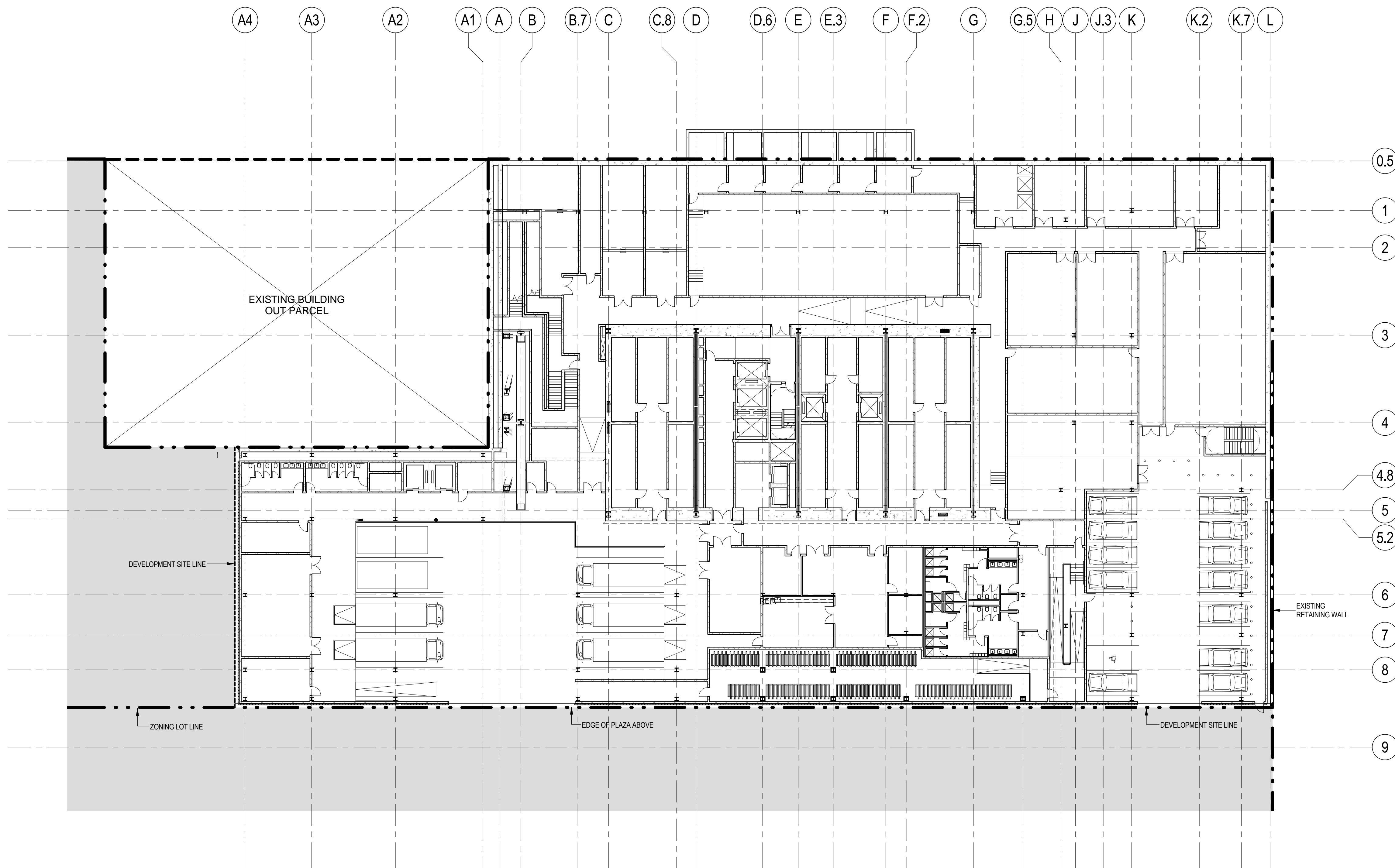
**Finishes:** • Hot-dipped galvanizing  
• Black, abrasion-resistant thermoplastic powder coating 8 to 10 mils thick  
• Standard-colored, abrasion-resistant thermoplastic powder coating 8 to 10 mils thick (extra)  
• Hot-dipped galvanized substrate plus thermoplastic powder coating 8 to 10 mils thick (extra)  
• Satin-finished #304 stainless-steel construction (extra)

**Fabrication:** • All metallurgical joints are MIG welds

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## 1 BICYCLE PARKING SPECIFICATIONS

SCALE: NTS



Client

Brookfield Place  
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SOM  
Skidmore, Owings & Merrill LLP  
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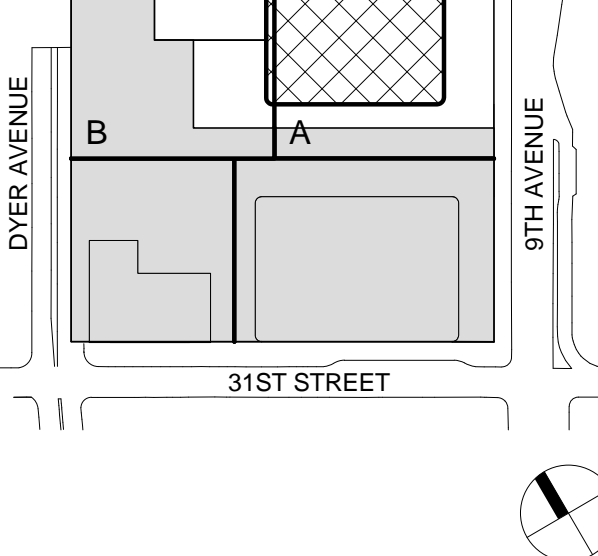
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1	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT

Sheet Name:

BICYCLE PARKING & LOADING BERTHS

Project No.: 207150

Date: 12 MAY 2015

Scale: As indicated

File No.: Z-007

B-SCAN Sheet No.: Z-007.00

Sheet No.: Z-007

Page No.: 7 OF 30





## 1 SUB-CELLAR LEVEL B2 FLOOR PLAN

Sheet No.: Z-101

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Page No.: 8 of 30





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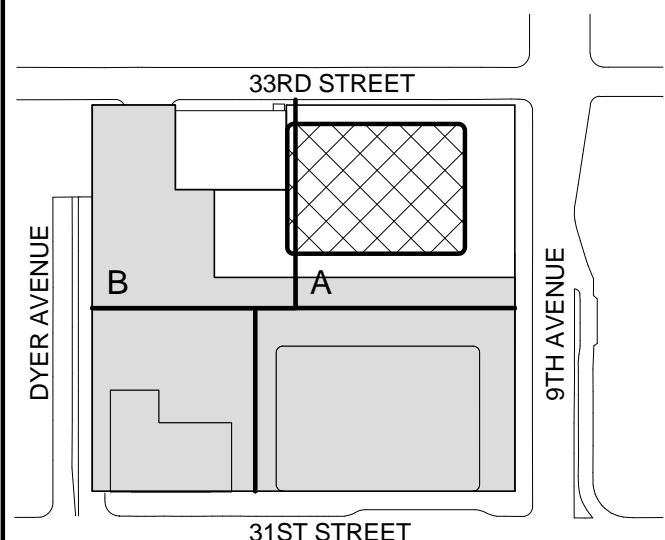
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ZONING LEGENDS

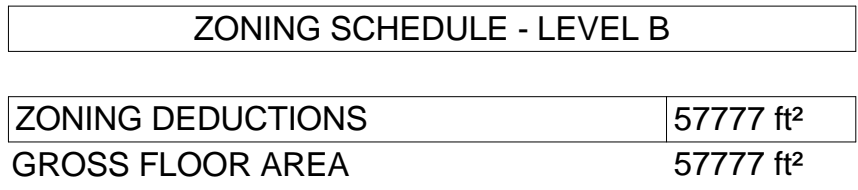
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- ZONING AREA DEDUCTIONS
- ZONING FLOOR AREA
- RETAIL
- MR MECHANICAL ROOM
- M MECHANICAL
- E ELECTRICAL/TEL./IT
- P PLUMBING
- EM ELEVATOR MACHINE ROOM

ZONING SCHEDULE - LEVEL B1	
ZONING DEDUCTIONS	7782 ft²
GROSS FLOOR AREA	7782 ft²

ZONING FLOOR  
AREA  
DEDUCTIONS -  
CELLAR B1

Project No.: 2014-0001	B-SCAN Sheet No.: Z-102.00
Date: 18 DEC 2014	Sheet No.: Z-102
Scale: 1/16" = 1'-0"	Page No.: 9 OF 30
File No.: Z-102	



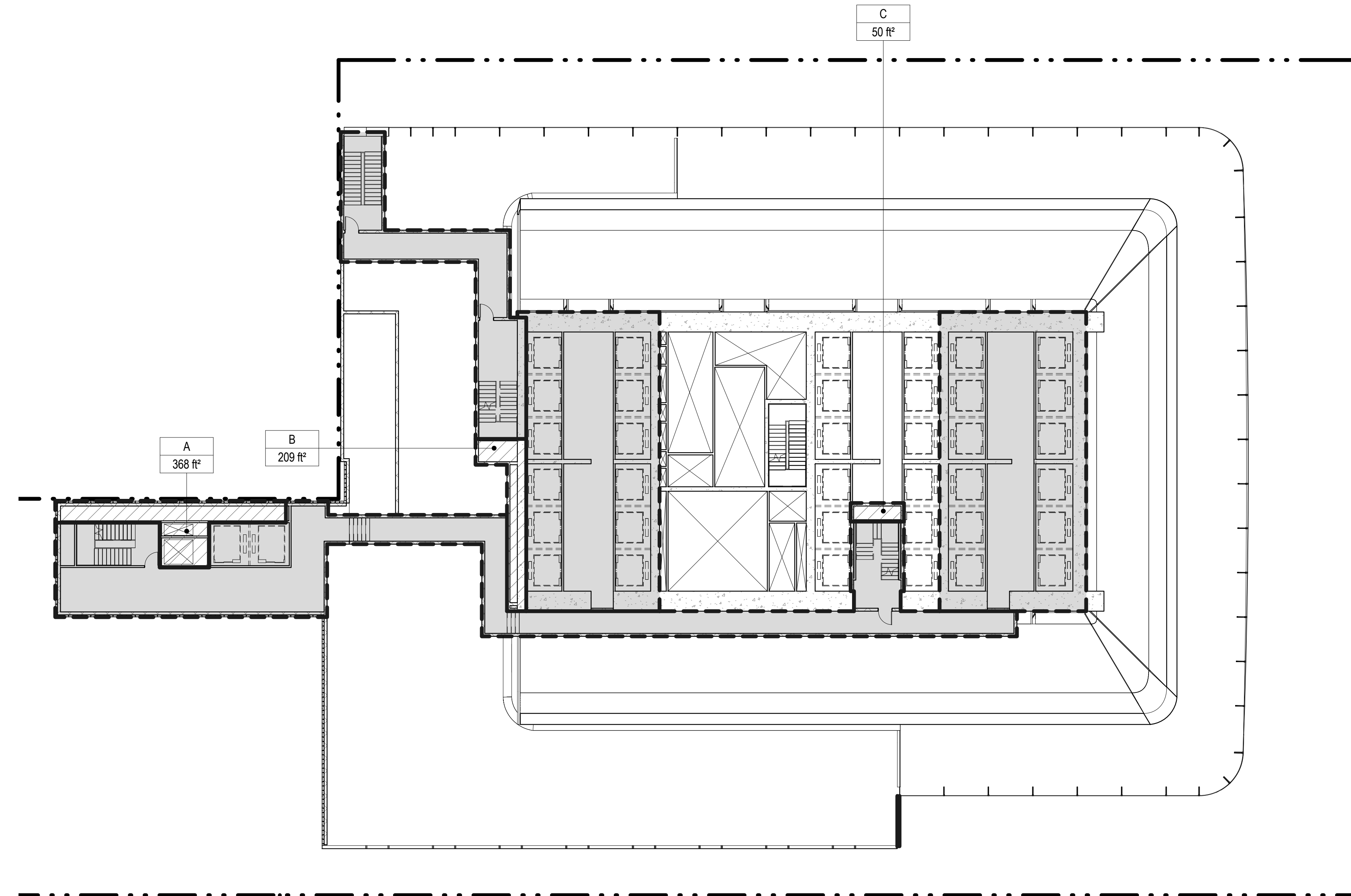


## 1 CELLAR LEVEL B FLOOR PLAN

2.103	
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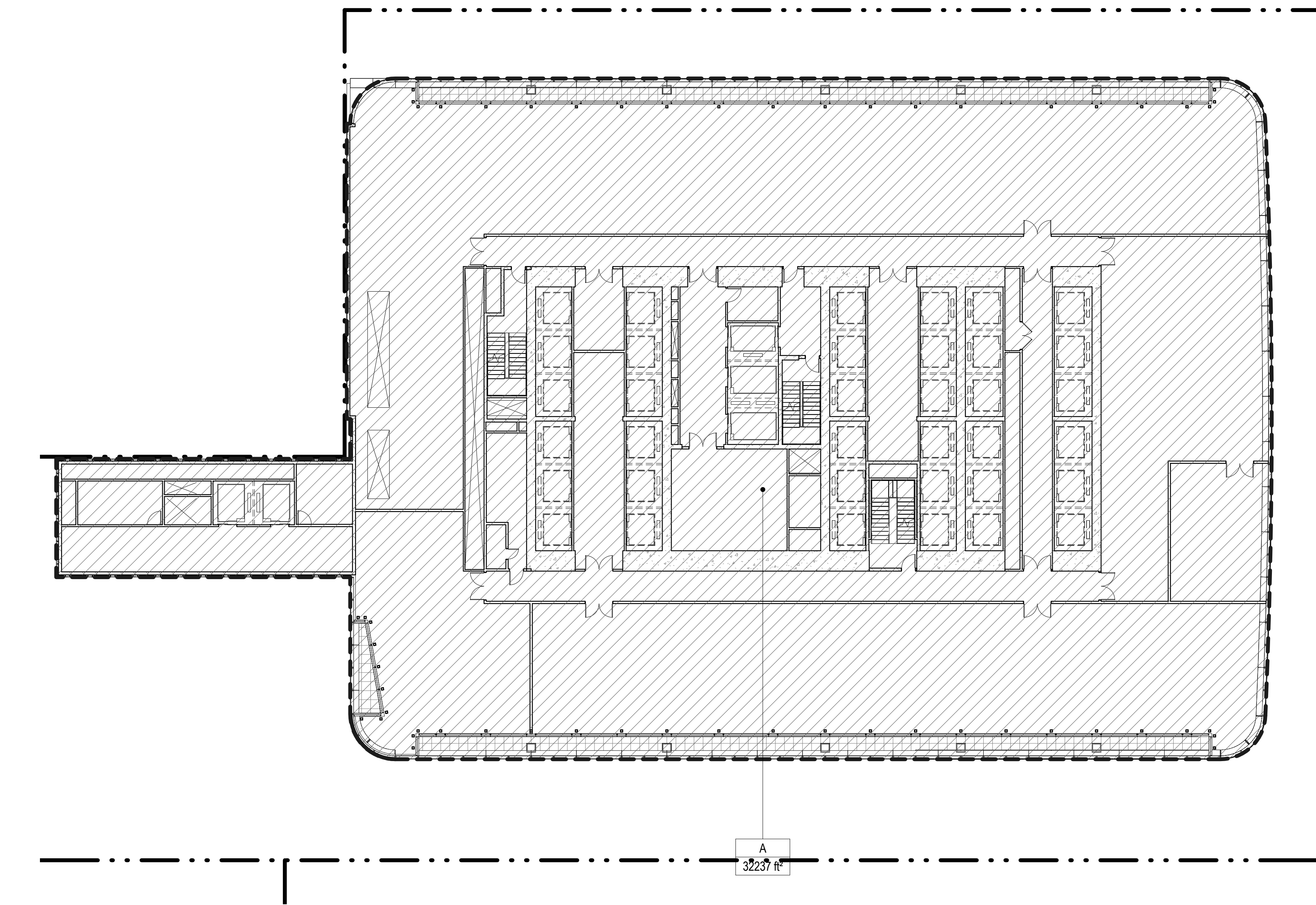
12/18/2014 8:42:22 AM



AREA DEDUCTIONS LEVEL 3		
NAME	TYPE	AREA
A	M	368 ft²
B	M/E	209 ft²
C	M	50 ft²
Grand total		627 ft²

ZONING SCHEDULE - LEVEL 3	
ZONING DEDUCTIONS	627 ft²
ZONING FLOOR AREA	7648 ft²
GROSS FLOOR AREA	8275 ft²

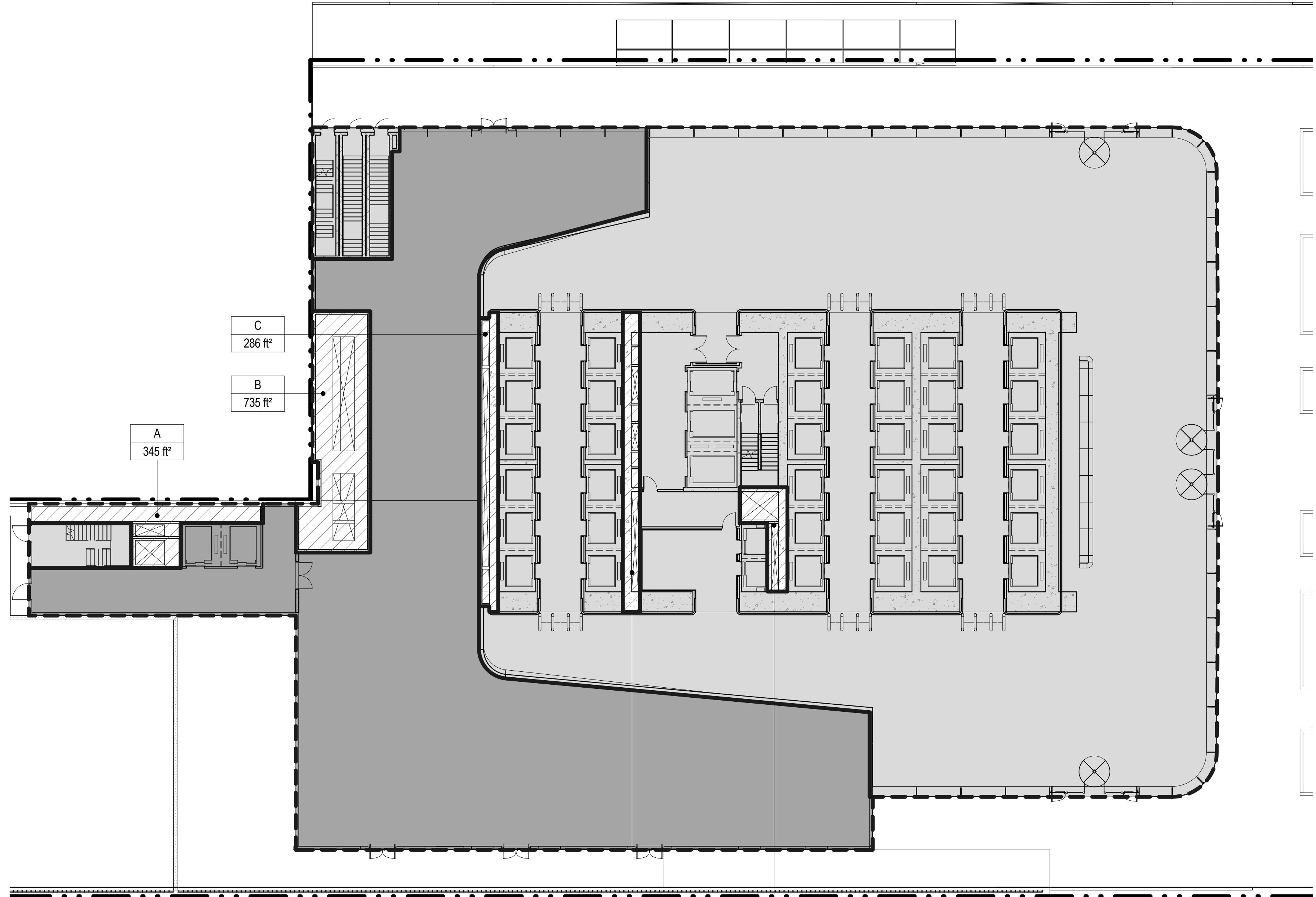
**3** LEVEL 3 PLAN  
SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 4		
NAME	TYPE	AREA
A	MR	32237 ft²
Grand total		32237 ft²

ZONING SCHEDULE - LEVEL 4	
ZONING DEDUCTIONS	32237 ft²
GROSS FLOOR AREA	32237 ft²

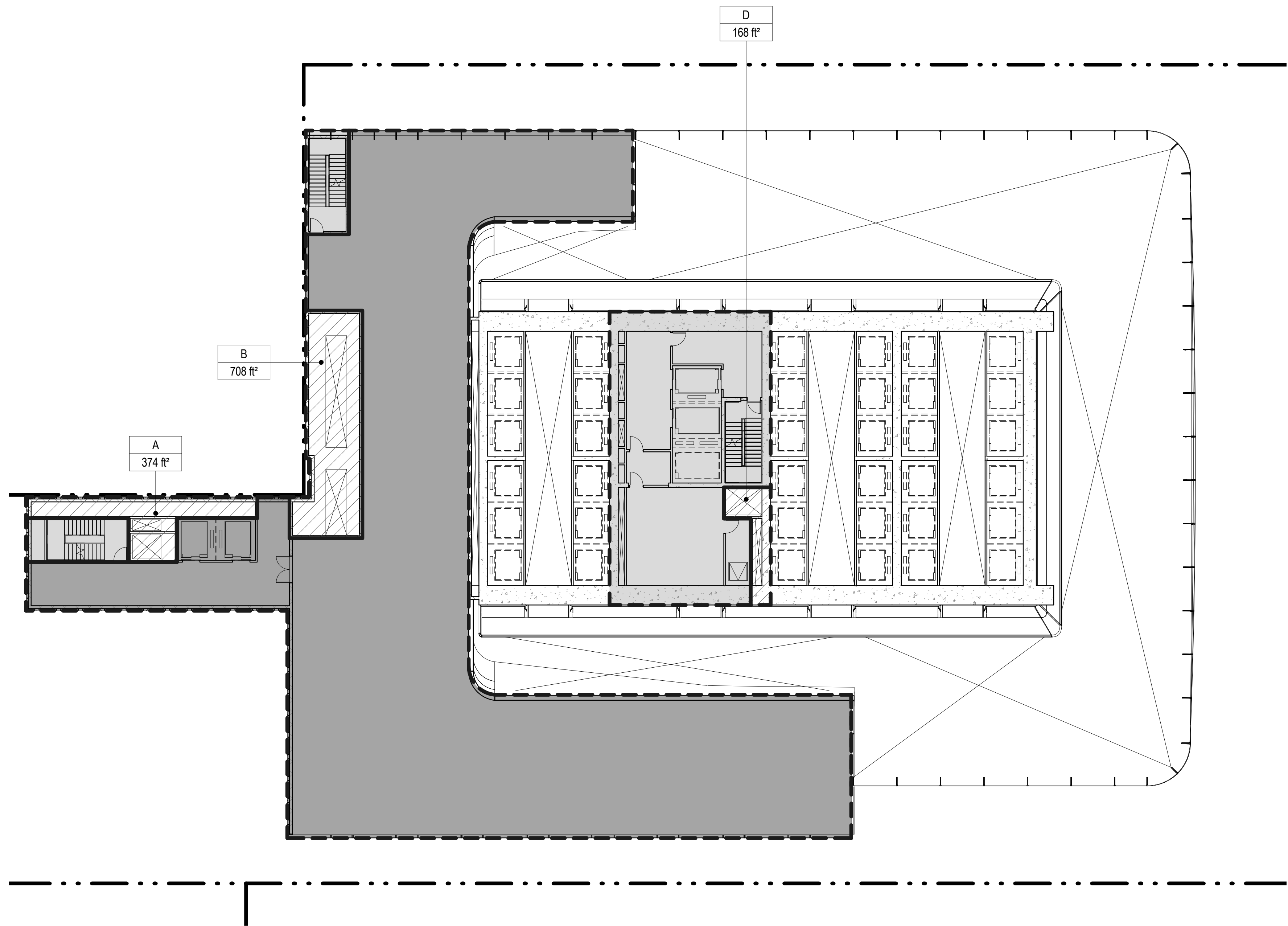
**4** LEVEL 4 PLAN  
SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 1		
NAME	TYPE	AREA
A	M	345 ft²
B	M	735 ft²
C	E	286 ft²
D	M/E/P	262 ft²
E	M	156 ft²
Grand total		1784 ft²

ZONING SCHEDULE - LEVEL 1	
RETAIL	10008 ft²
ZONING DEDUCTIONS	1784 ft²
ZONING FLOOR AREA	22070 ft²
GROSS FLOOR AREA	33862 ft²

**1** LEVEL 1 PLAN  
SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 2		
NAME	TYPE	AREA
A	M	374 ft²
B	M/E/P	708 ft²
D	M	168 ft²
Grand total		1250 ft²

ZONING SCHEDULE - LEVEL 2	
RETAIL	10115 ft²
ZONING DEDUCTIONS	1250 ft²
ZONING FLOOR AREA	2797 ft²
GROSS FLOOR AREA	14162 ft²

**2** LEVEL 2 PLAN  
SCALE: 1/16" = 1'-0"

**ZONING LEGENDS**

- GROSS BUILDING AREA
- ZONING AREA DEDUCTIONS
- ZONING FLOOR AREA
- RETAIL
- MR MECHANICAL ROOM
- M MECHANICAL
- E ELECTRICAL/TEL./IT
- P PLUMBING
- EM ELEVATOR MACHINE ROOM



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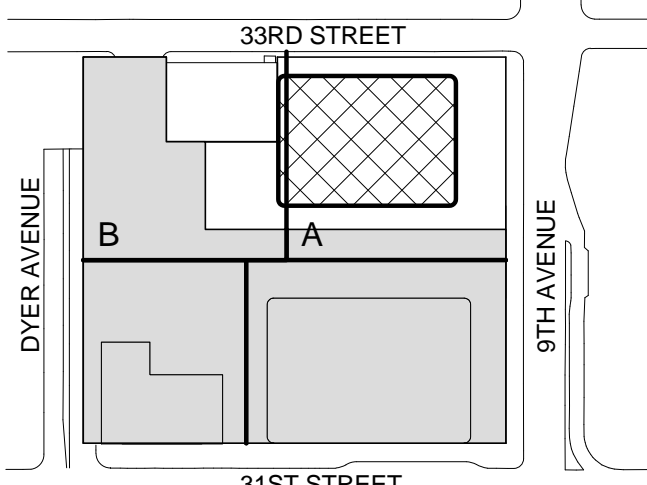
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**ZONING FLOOR  
AREA  
DEDUCTIONS -  
GROUND FLOOR  
& LEVEL 2-4**

Project No.:

207120

Date:

19 DEC 2014

Scale:

1/16" = 1'-0"

File No.:

Z-104

B-SCAN Sheet No.:

**Z-104.00**

Sheet No.:

**Z-104**

Page No.:

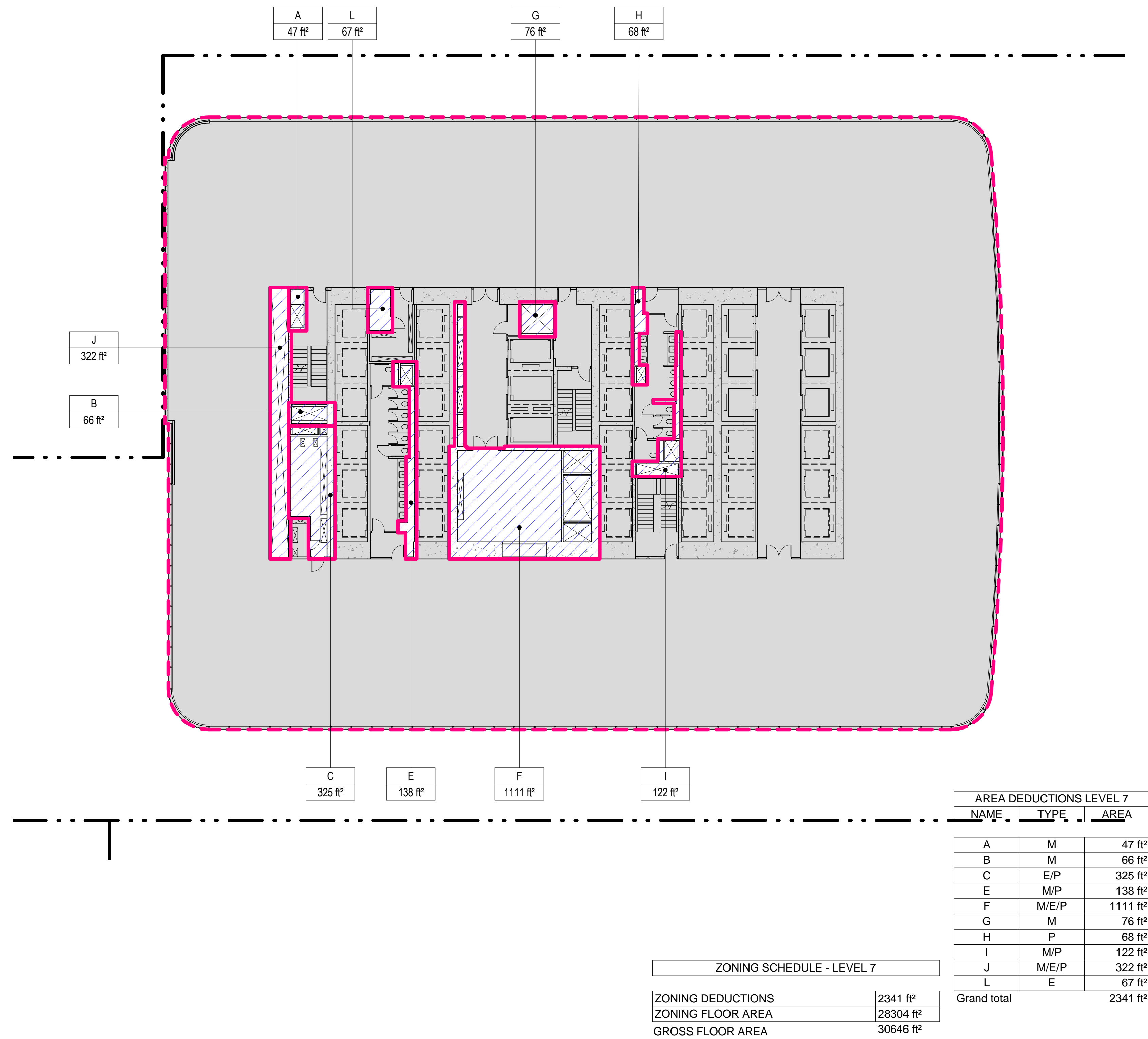
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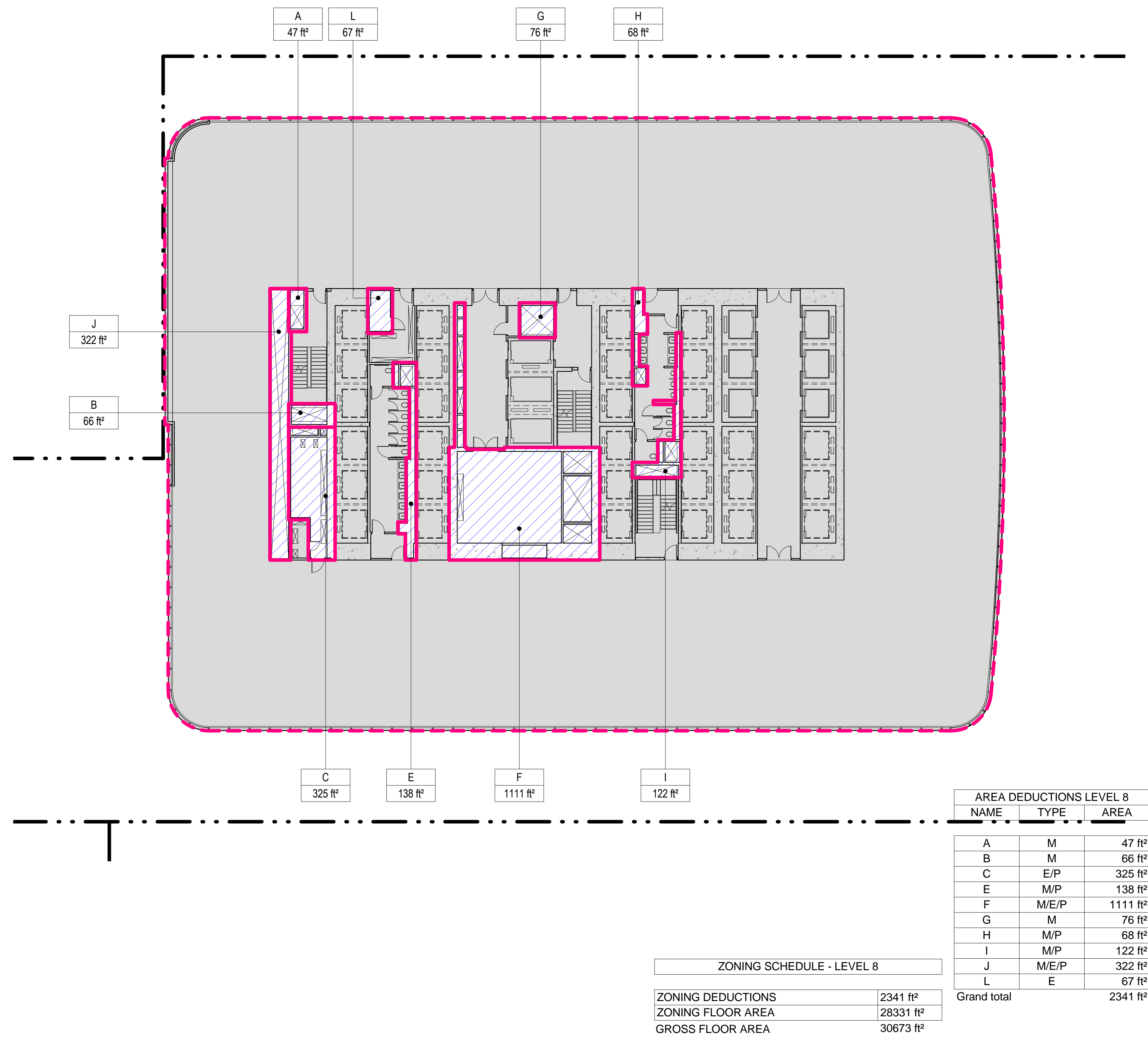
### 3 LEVEL 7 PLAN

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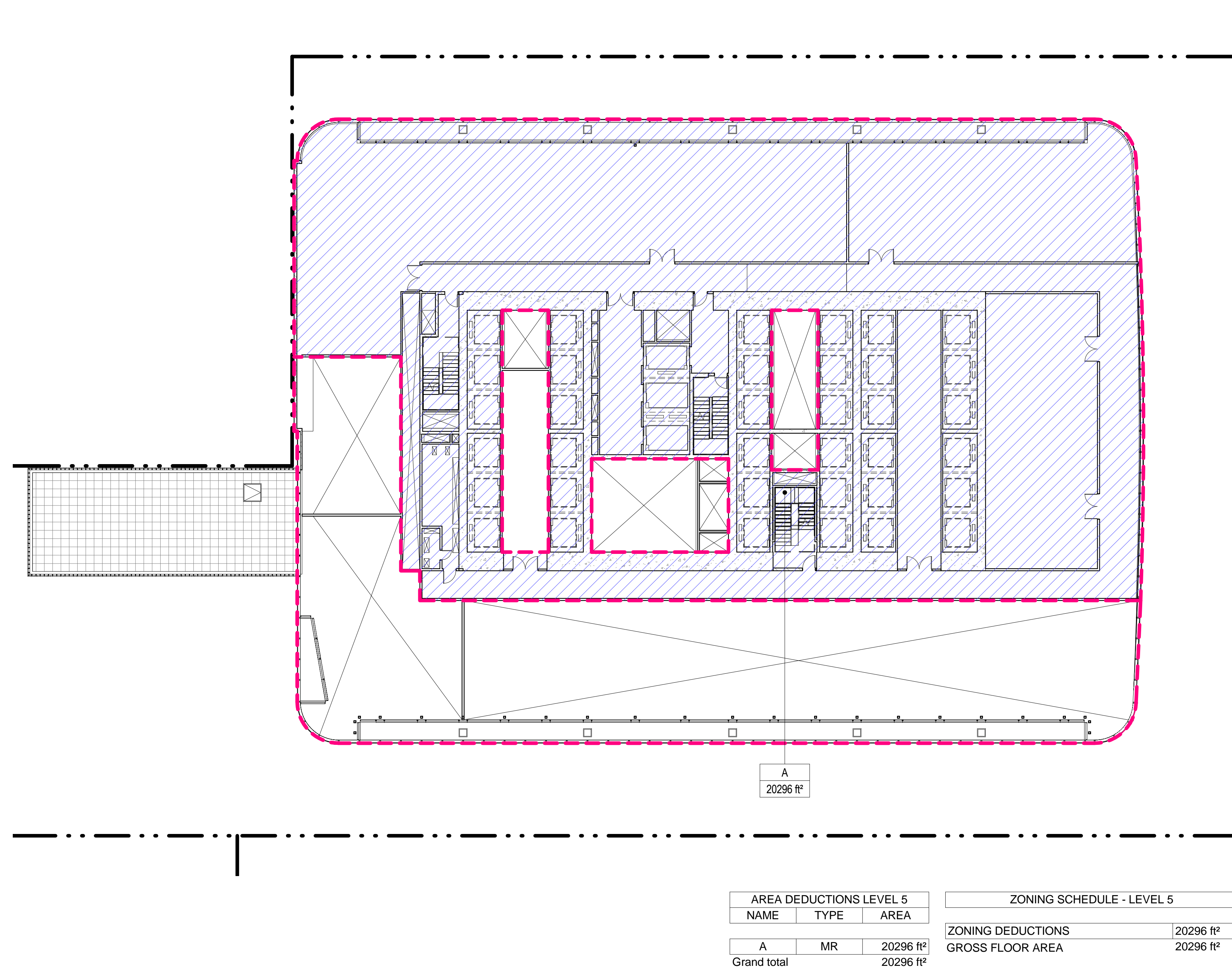
### 4 LEVEL 8 PLAN

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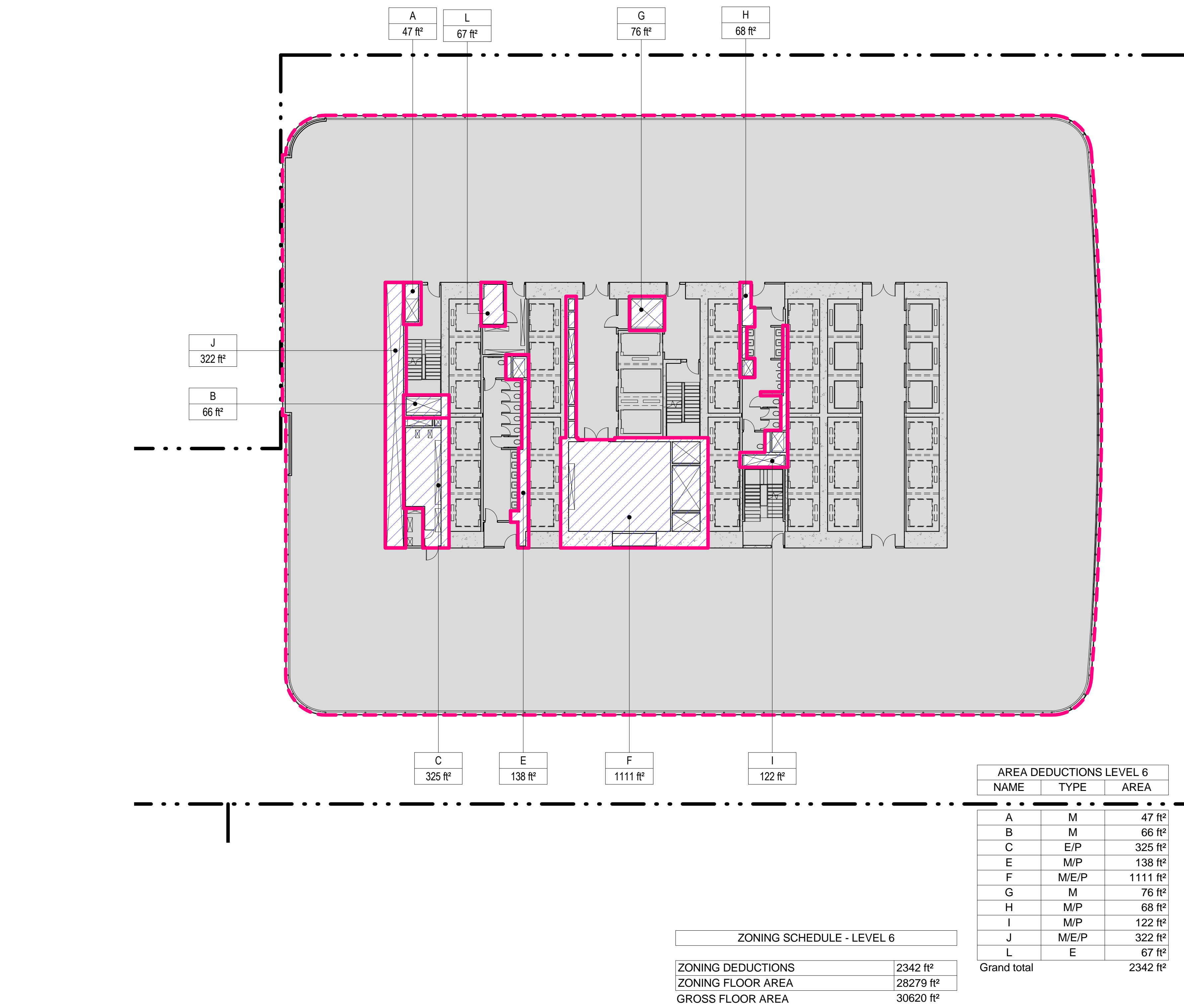
### 1 LEVEL 5 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 6 PLAN

SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
  - M MECHANICAL
  - E ELECTRICAL/TEL/IT
  - P PLUMBING
  - EM ELEVATOR MACHINE ROOM



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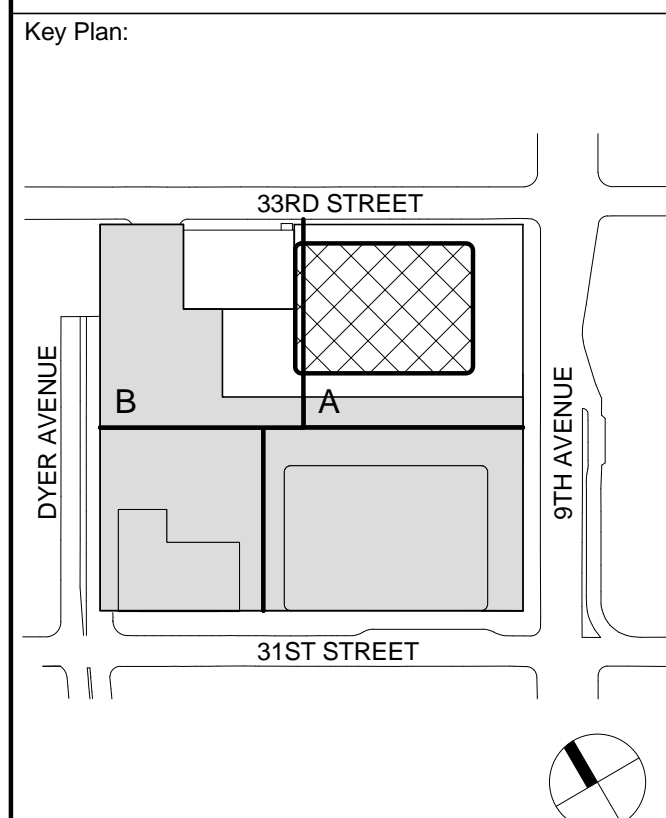
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Sheet Name:  
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AREA  
DEDUCTIONS -  
LEVEL 5-8**

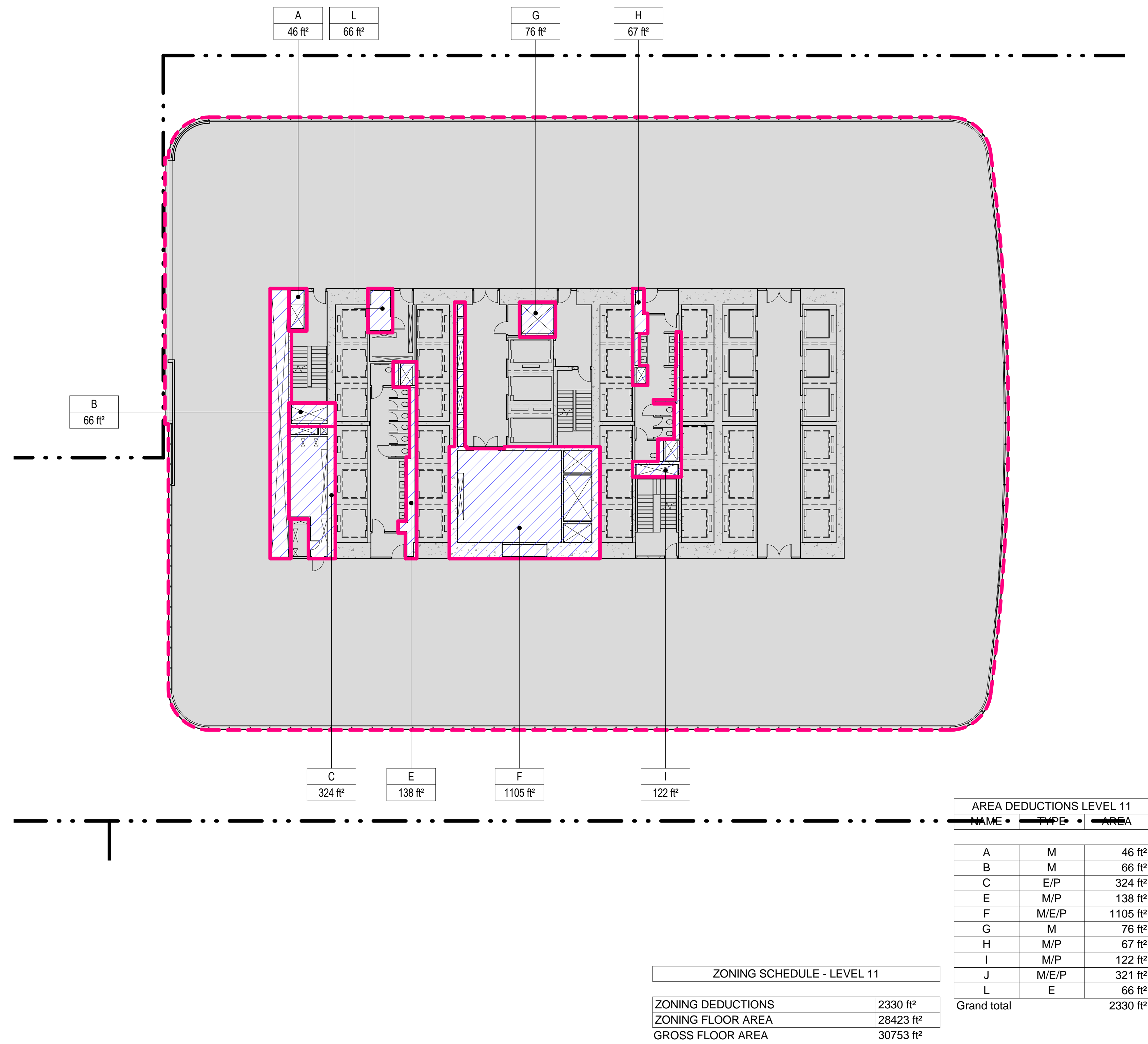
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Sheet No.: Z-105  
Page No.: 12 OF 30



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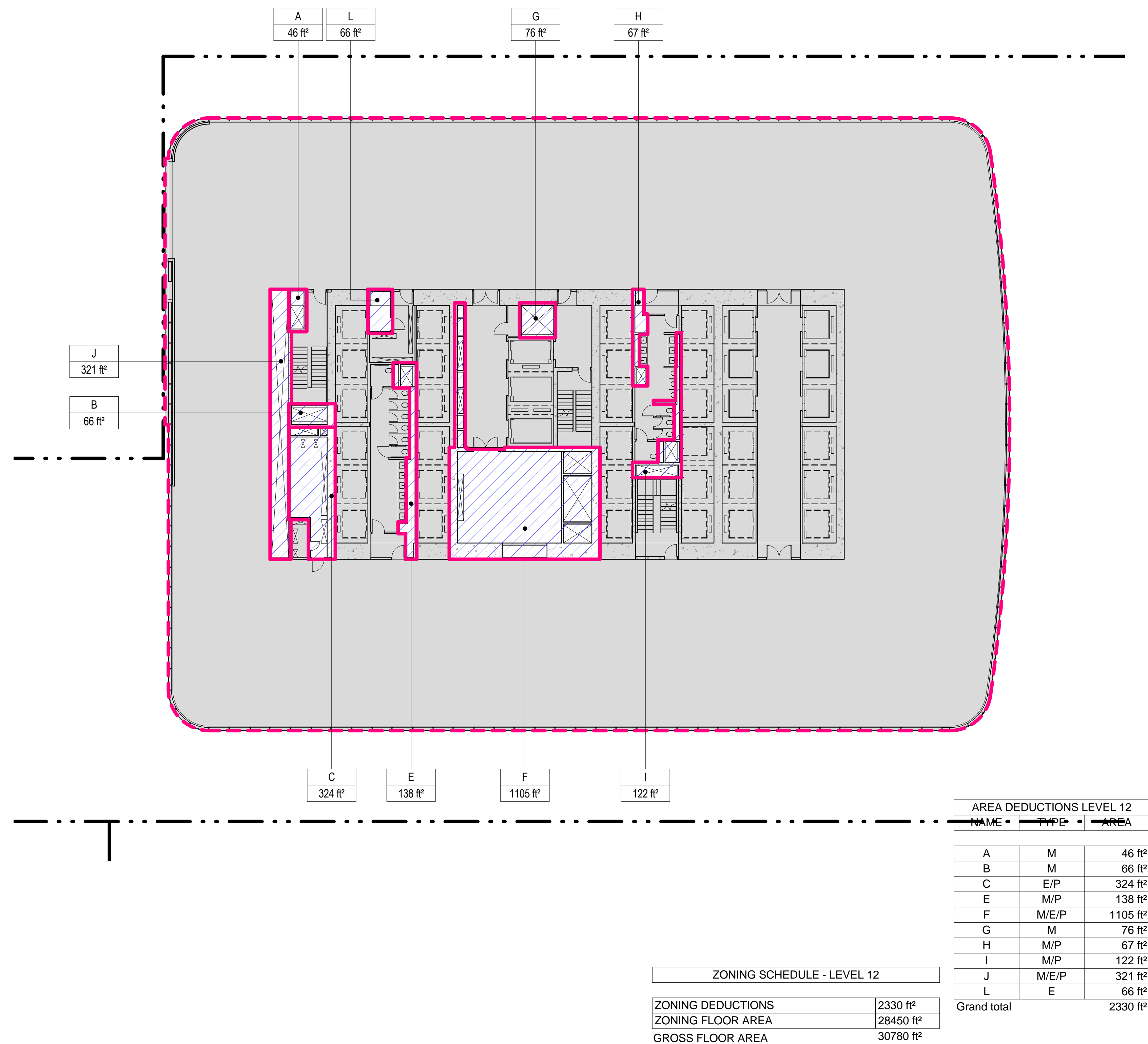
### 3 LEVEL 11 PLAN

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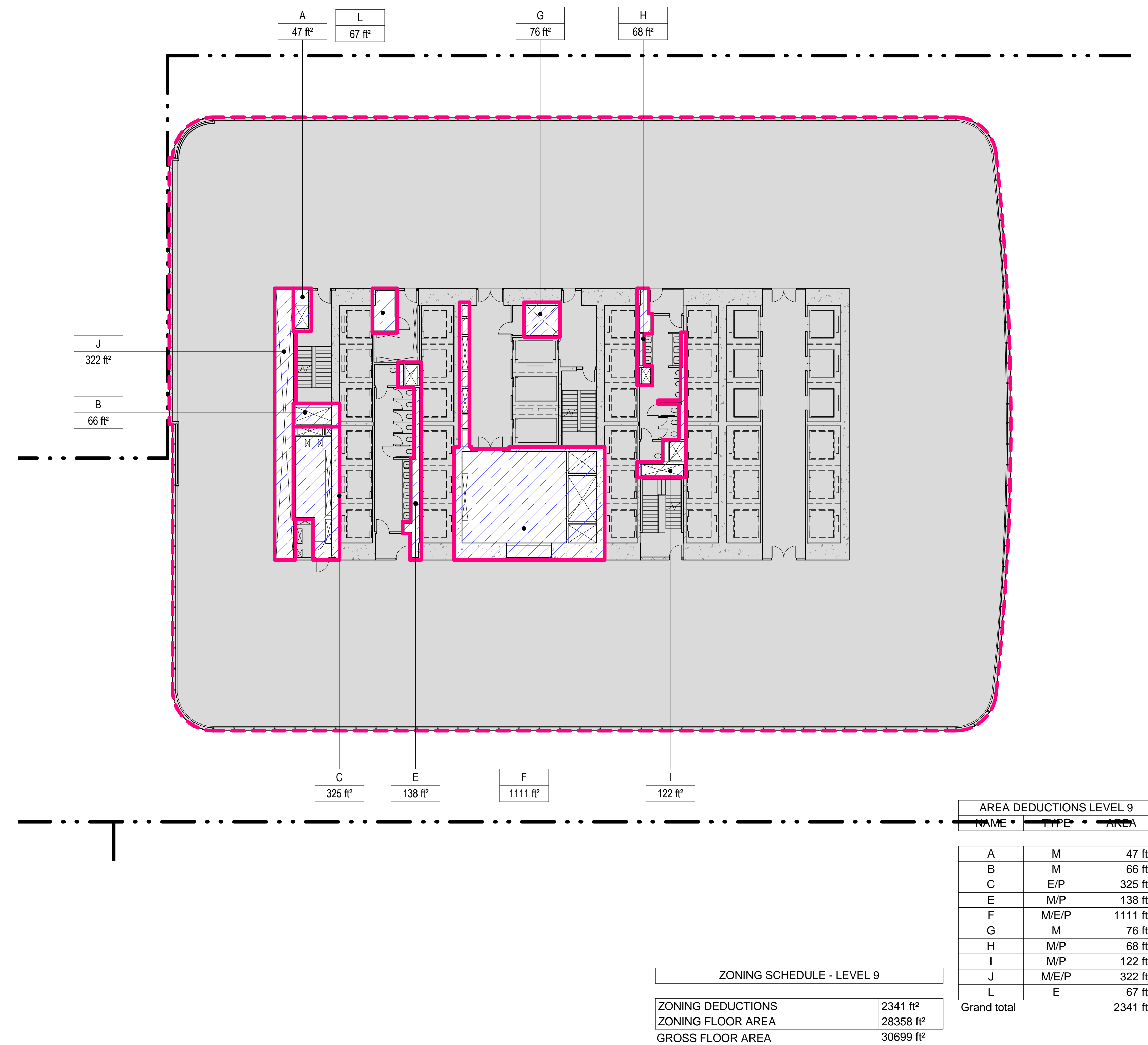
### 4 LEVEL 12 PLAN

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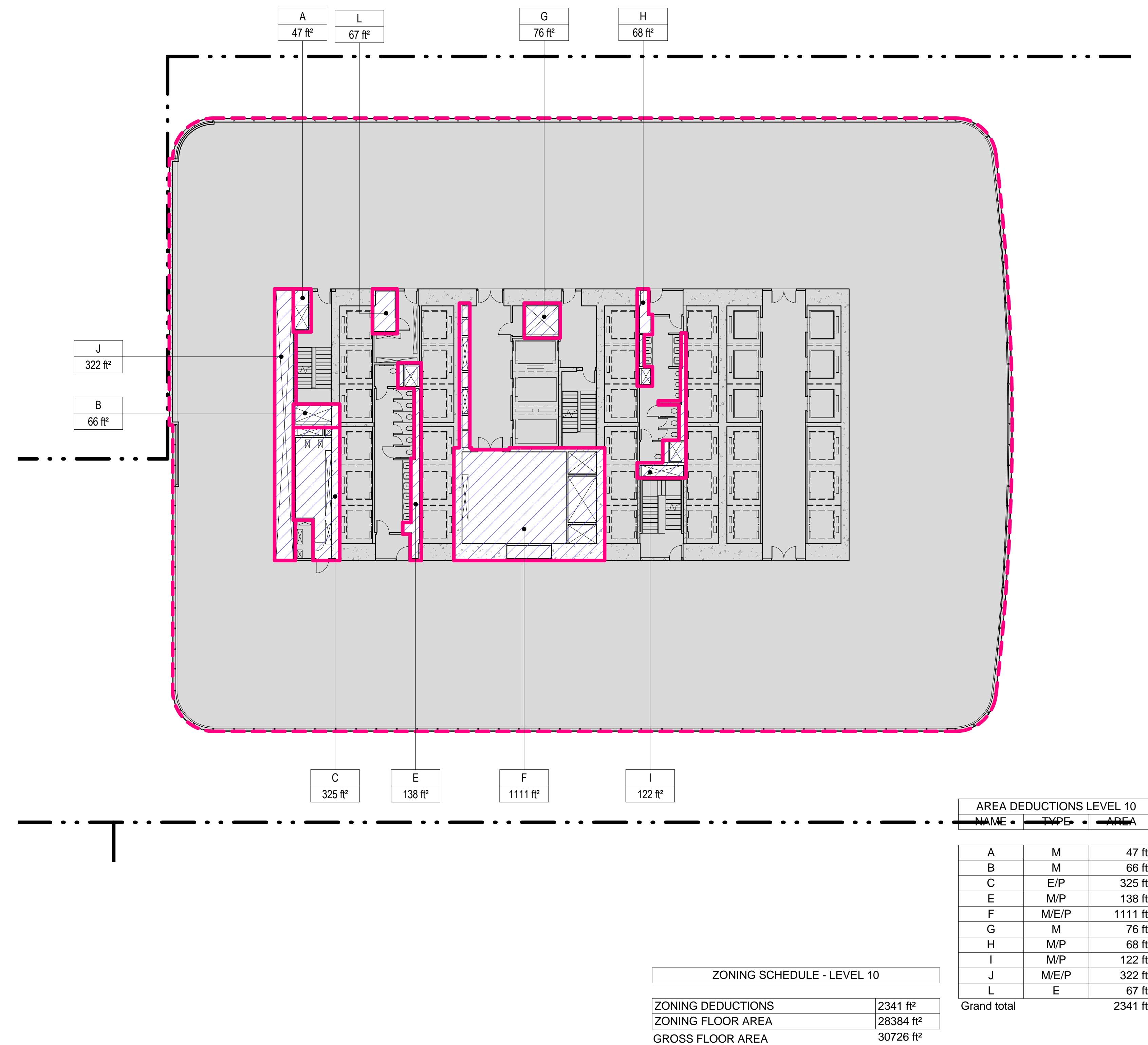
### 1 LEVEL 9 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 10 PLAN

SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
  - M MECHANICAL
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B-SCAN Sheet No.:  
**Z-106.00**  
Sheet No.:  
Page No.: 13 OF 30

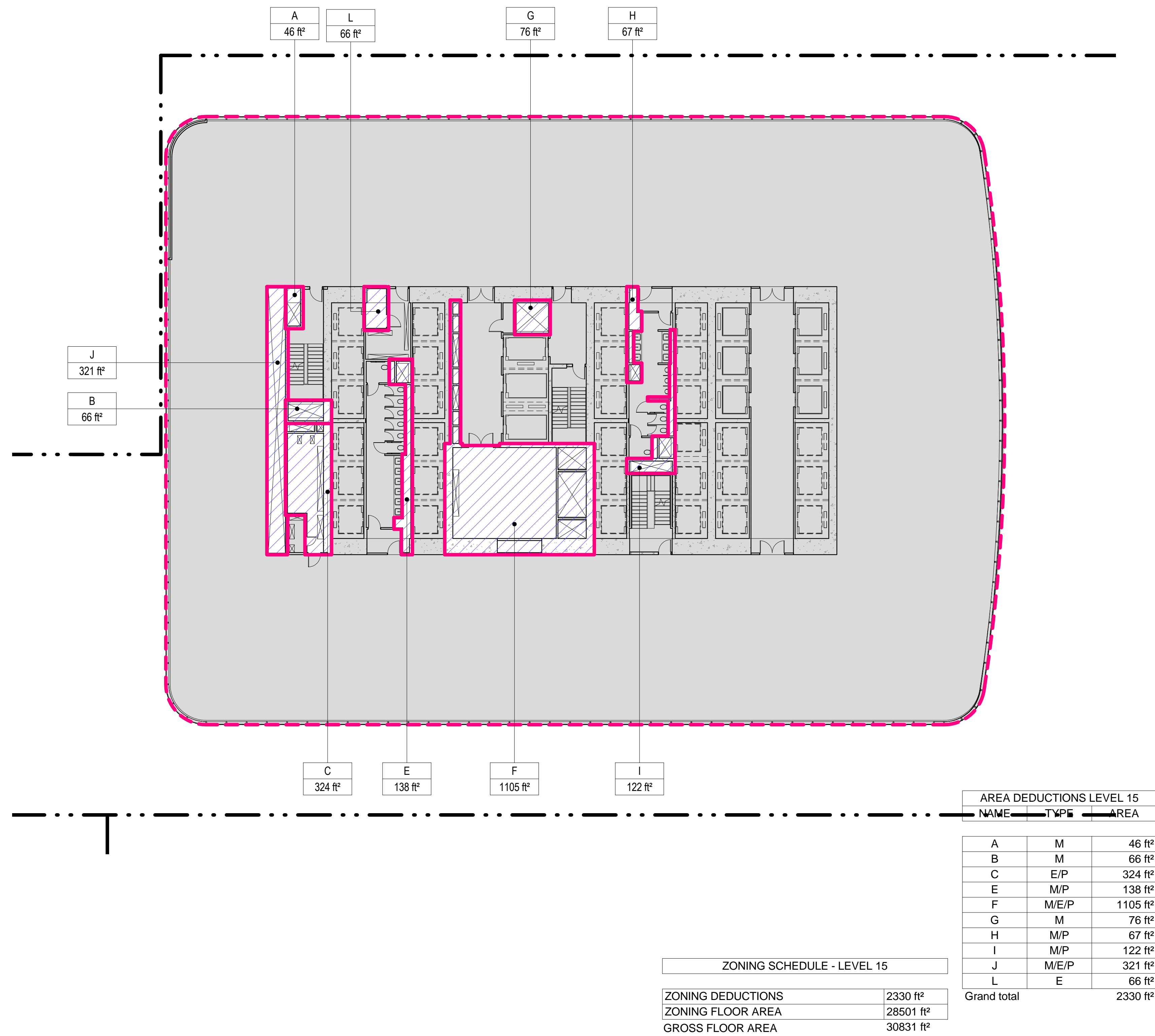
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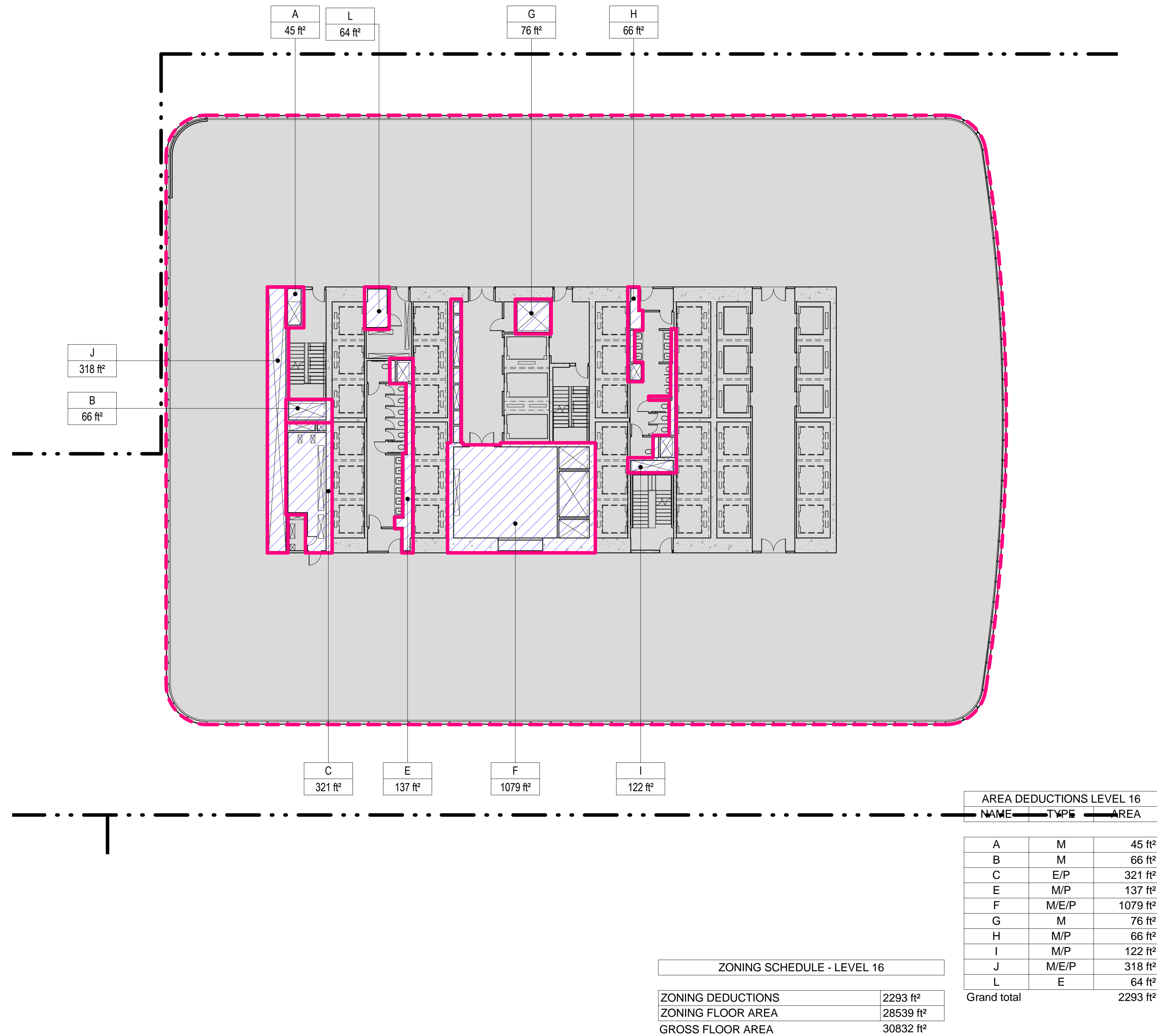
### 3 LEVEL 15 PLAN

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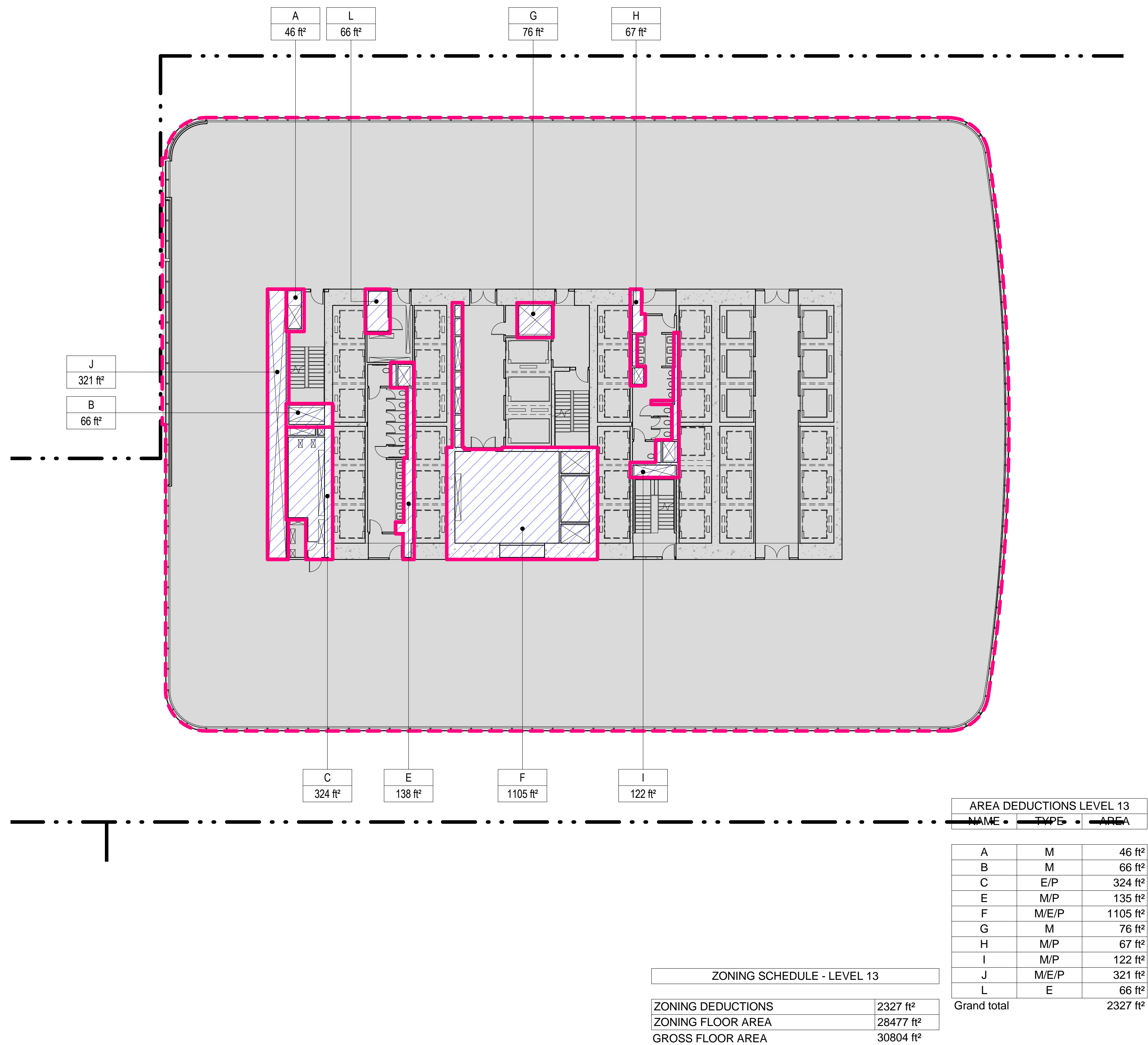
### 4 LEVEL 16

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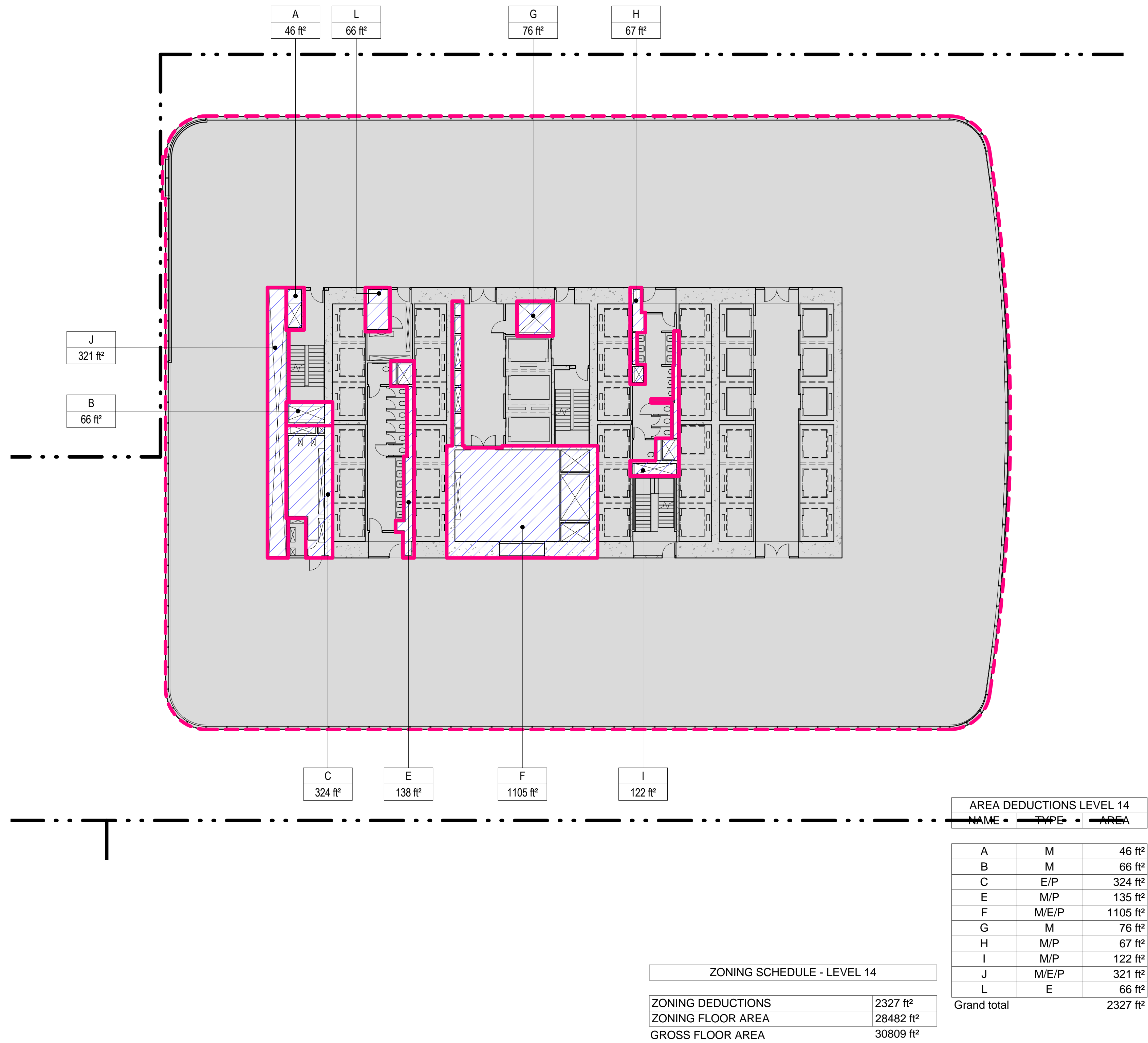
### 1 LEVEL 13 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 14 PLAN

SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
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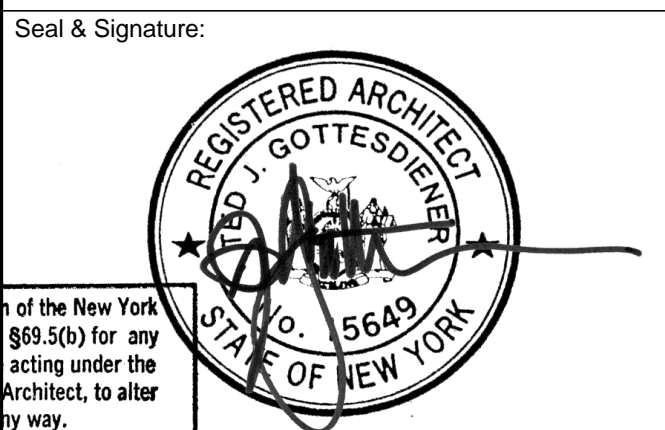
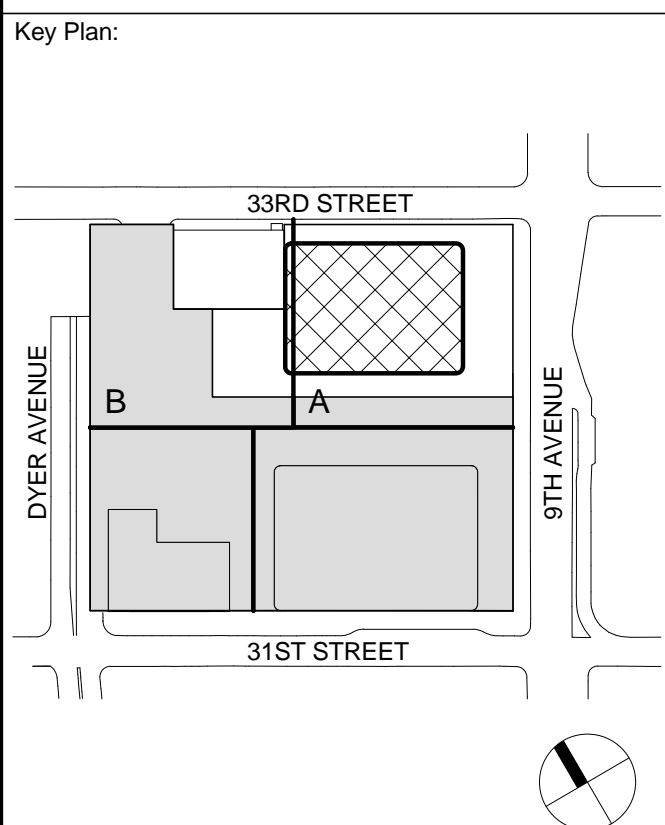
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**ZONING FLOOR  
AREA  
DEDUCTIONS -  
LEVEL 13-16**

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-107

B-SCAN Sheet No.:  
**Z-107.00**  
Sheet No.:  
Page No.: 14 OF 30



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### 3 LEVEL 19 PLAN

SCALE: 1/16" = 1'-0"



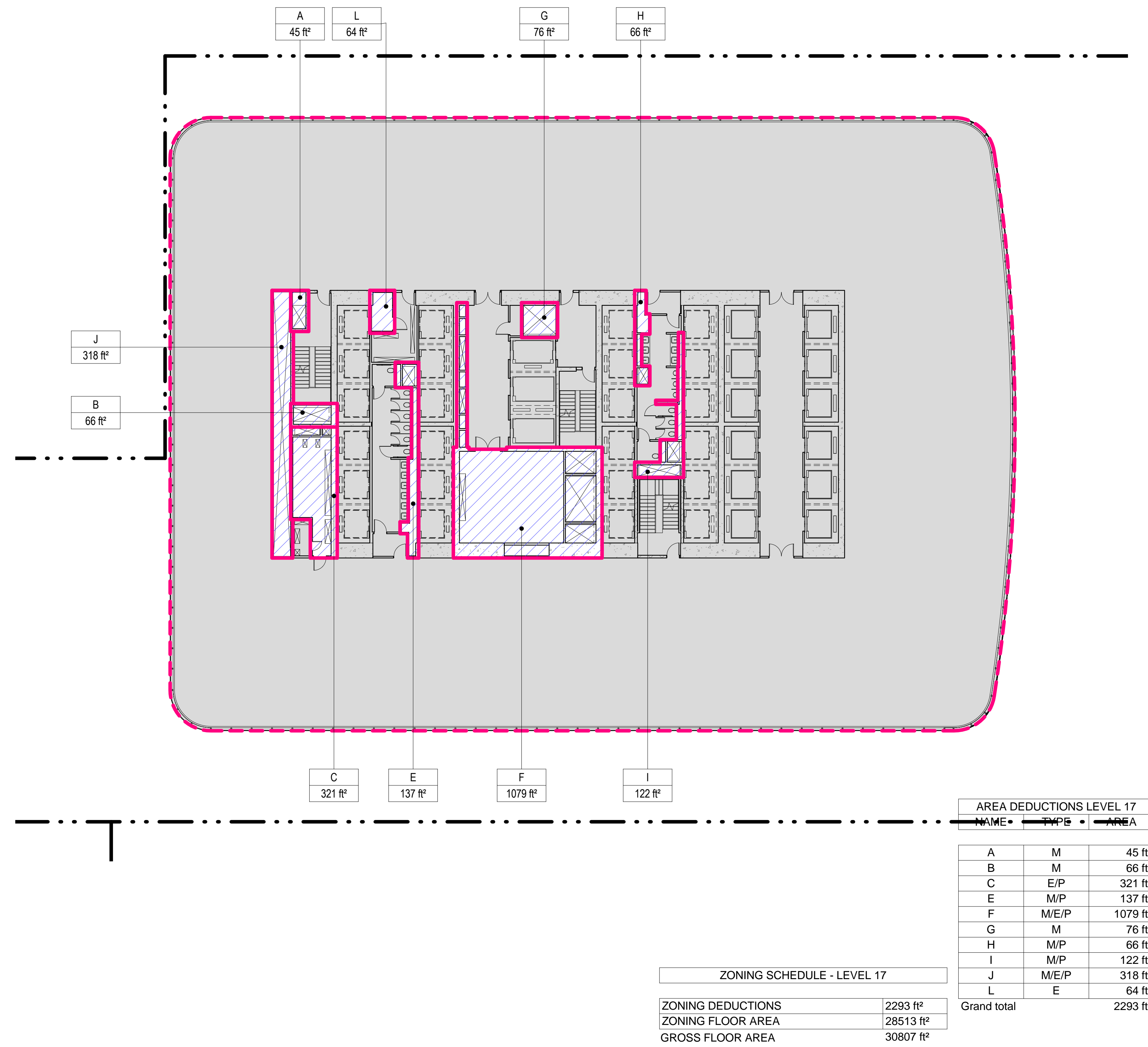
### 4 LEVEL 20 PLAN

SCALE: 1/16" = 1'-0"



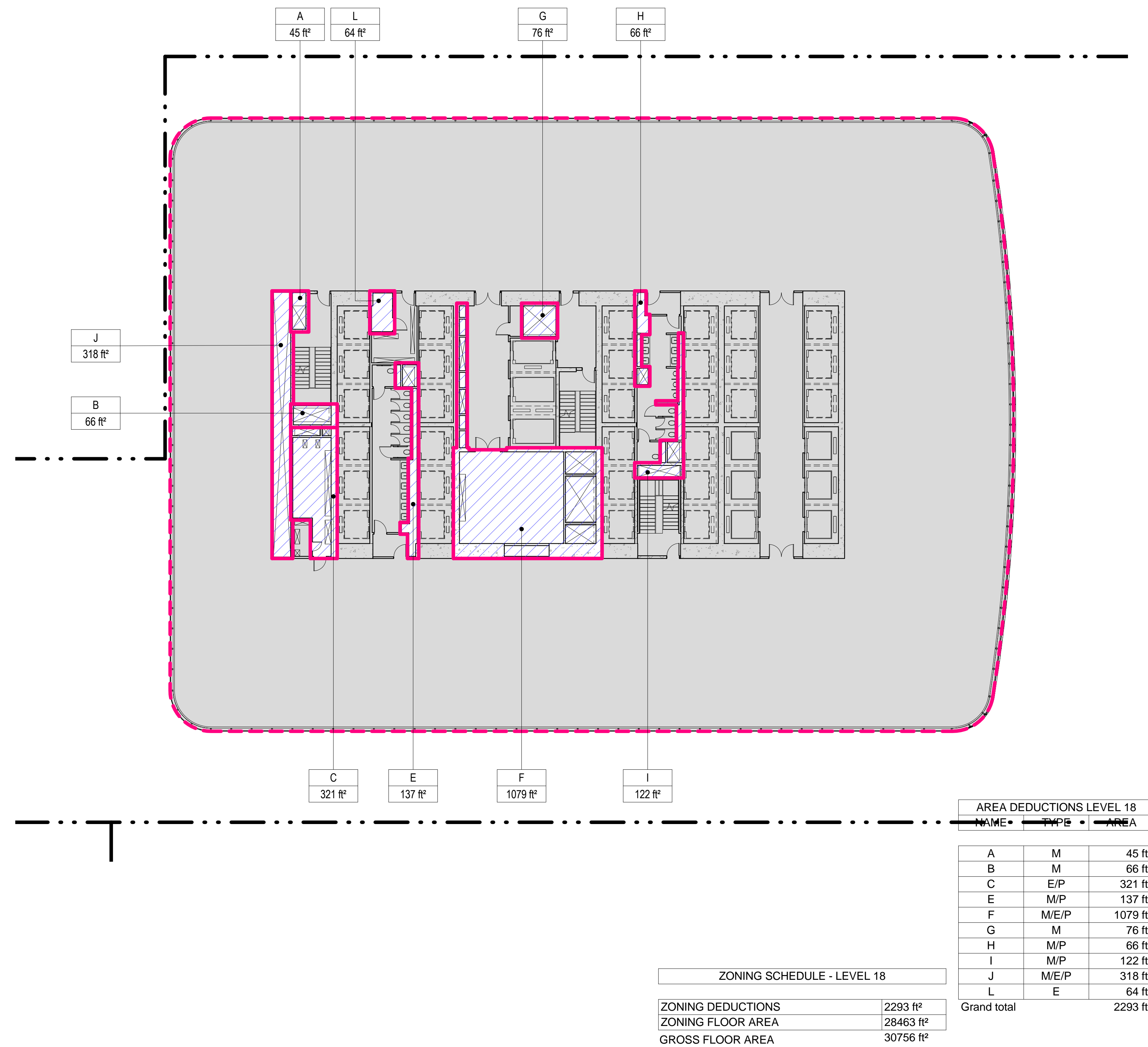
### 1 LEVEL 17 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 18 PLAN

SCALE: 1/16" = 1'-0"



#### ZONING LEGENDS

- GROSS BUILDING AREA
- ZONING AREA DEDUCTIONS
- ZONING FLOOR AREA
- RETAIL
- MR MECHANICAL ROOM
- M MECHANICAL
- E ELECTRICAL/TEL/IT
- P PLUMBING
- EM ELEVATOR MACHINE ROOM



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Field Operations  
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250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

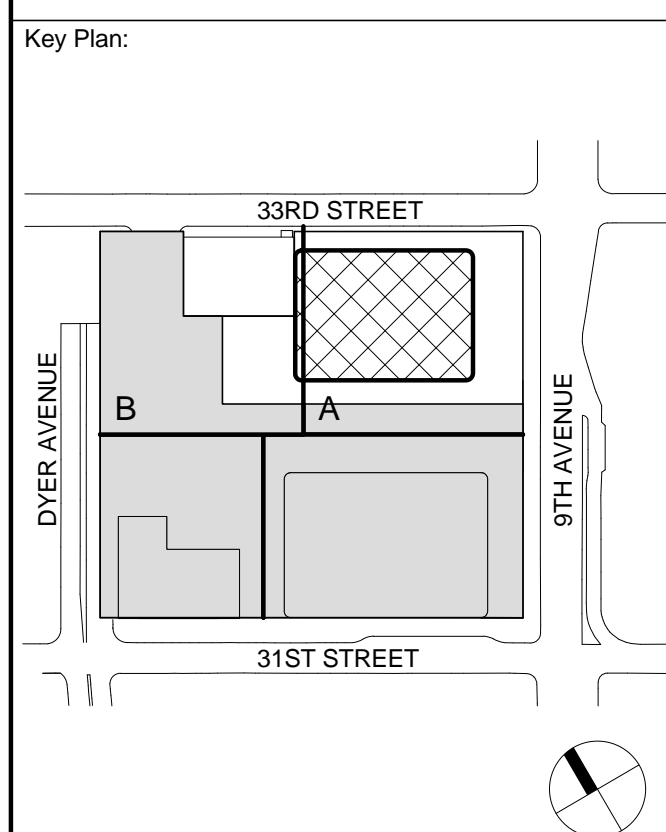
Acoustical Consultant  
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404 Fifth Avenue #8, New York, NY 10016

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No. Date Description  
Sheet Name:  
ZONING FLOOR AREA DEDUCTIONS - LEVEL 17-20

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-108  
B-SCAN Sheet No.: Z-108.00  
Sheet No.: Z-108  
Page No.: 15 OF 30



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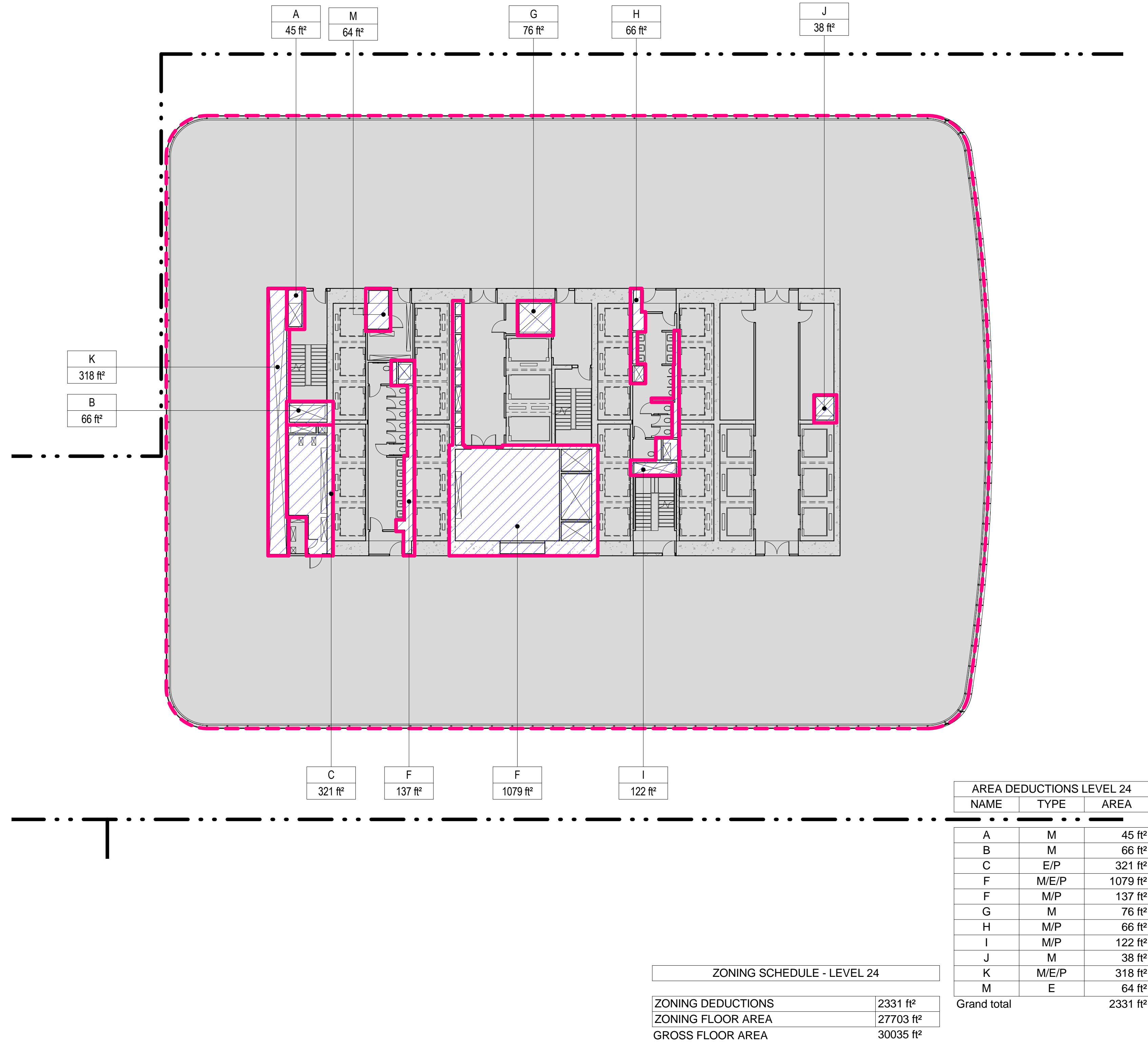
### 3 LEVEL 23 PLAN

SCALE: 1/16" = 1'-0"



### 4 LEVEL 24 PLAN

SCALE: 1/16" = 1'-0"



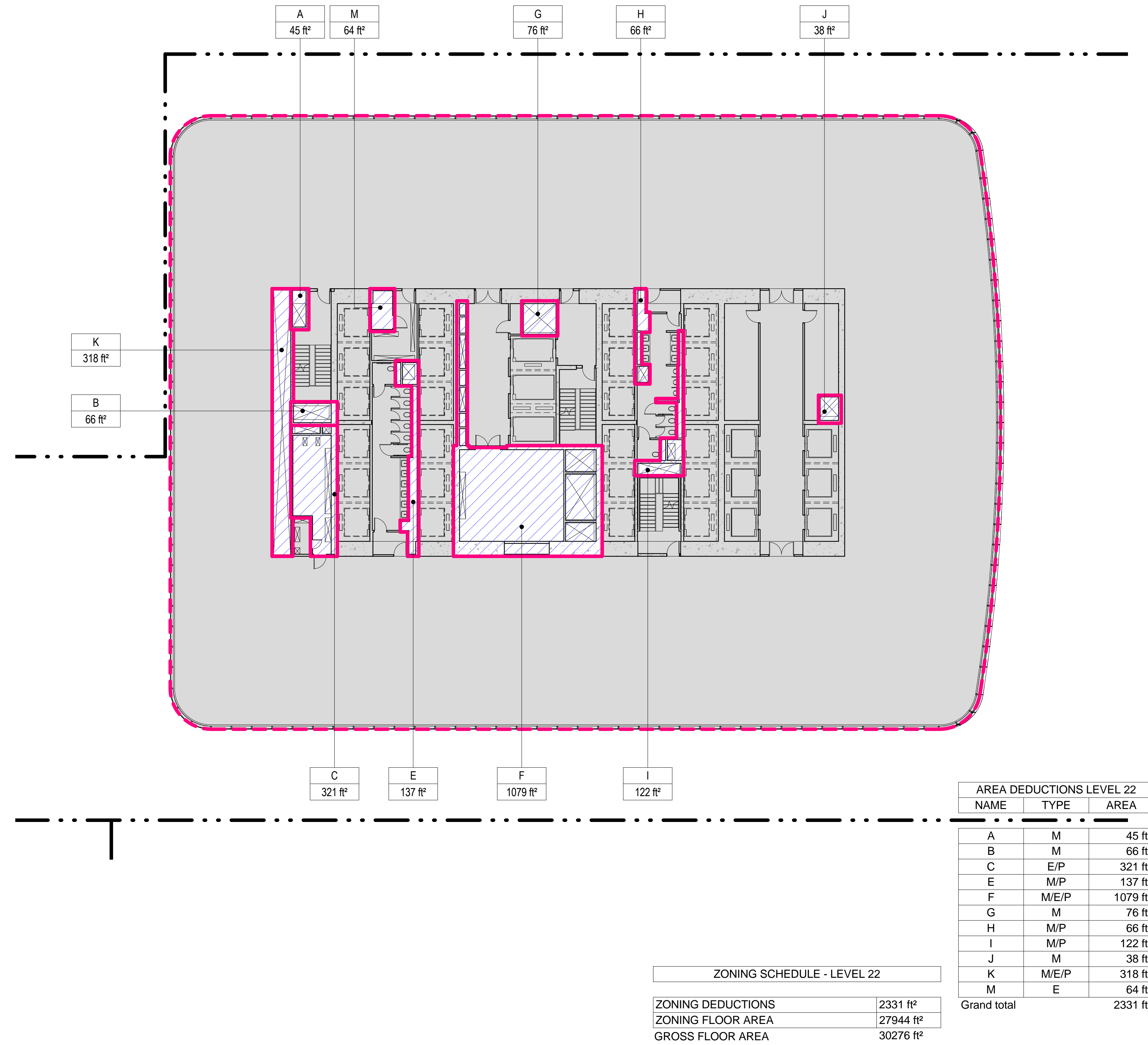
### 1 LEVEL 21 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 22 PLAN

SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
  - M MECHANICAL
  - E ELECTRICAL/TEL/IT
  - P PLUMBING
  - EM ELEVATOR MACHINE ROOM

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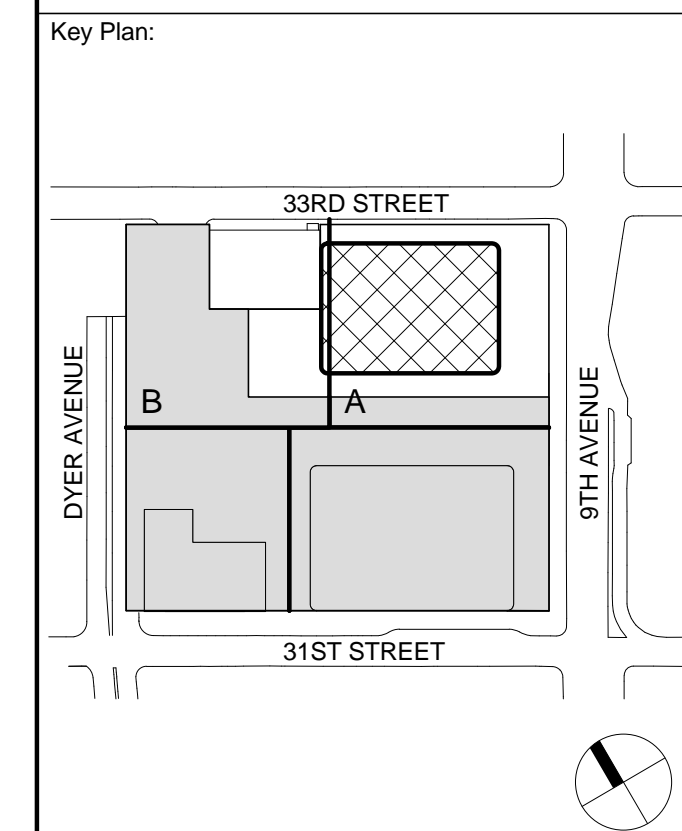
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1	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT

Sheet Name: ZONING FLOOR AREA DEDUCTIONS - LEVEL 21-24

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: 2-109

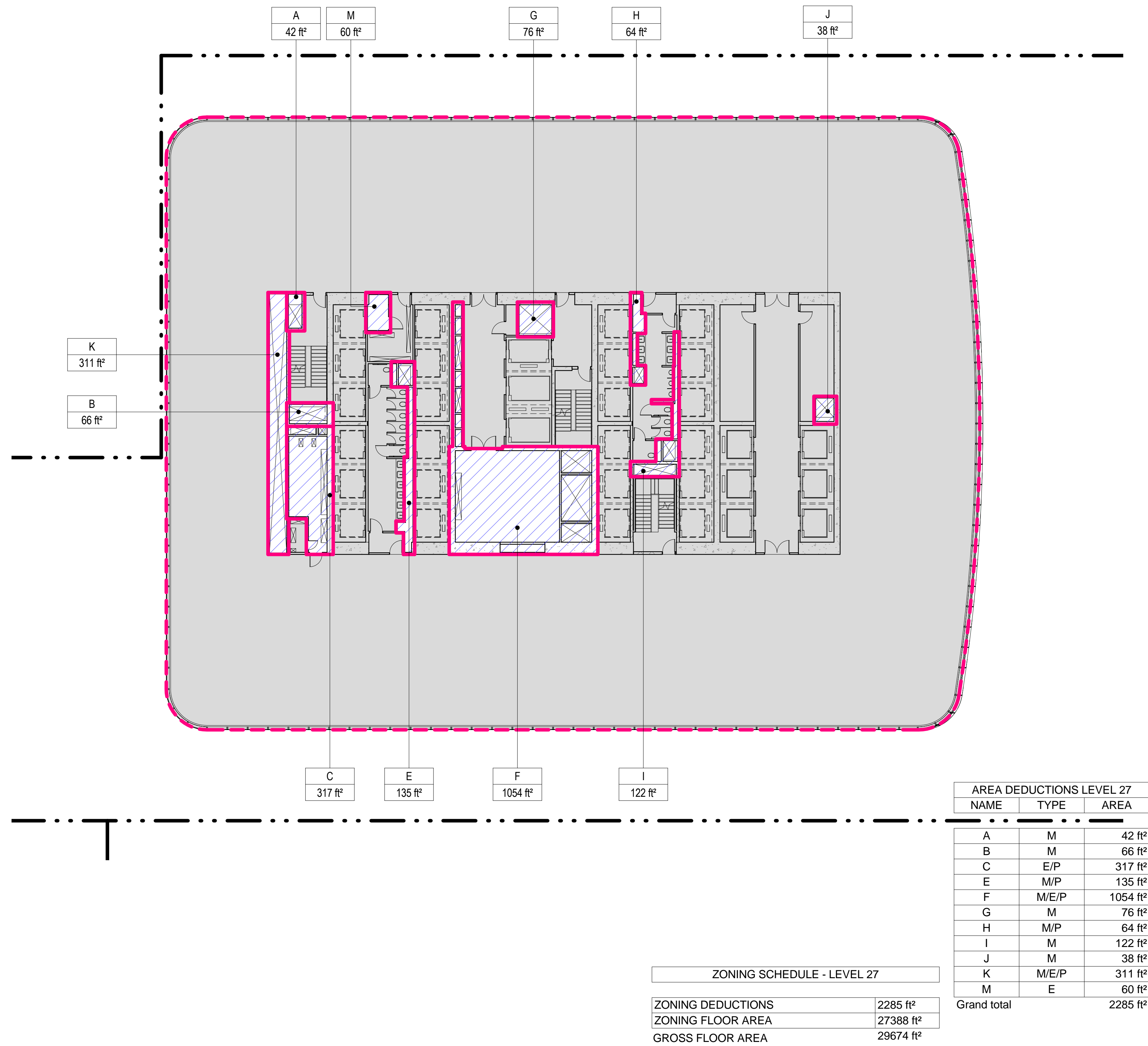
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Sheet No.: Z-109  
Page No.: 16 OF 30



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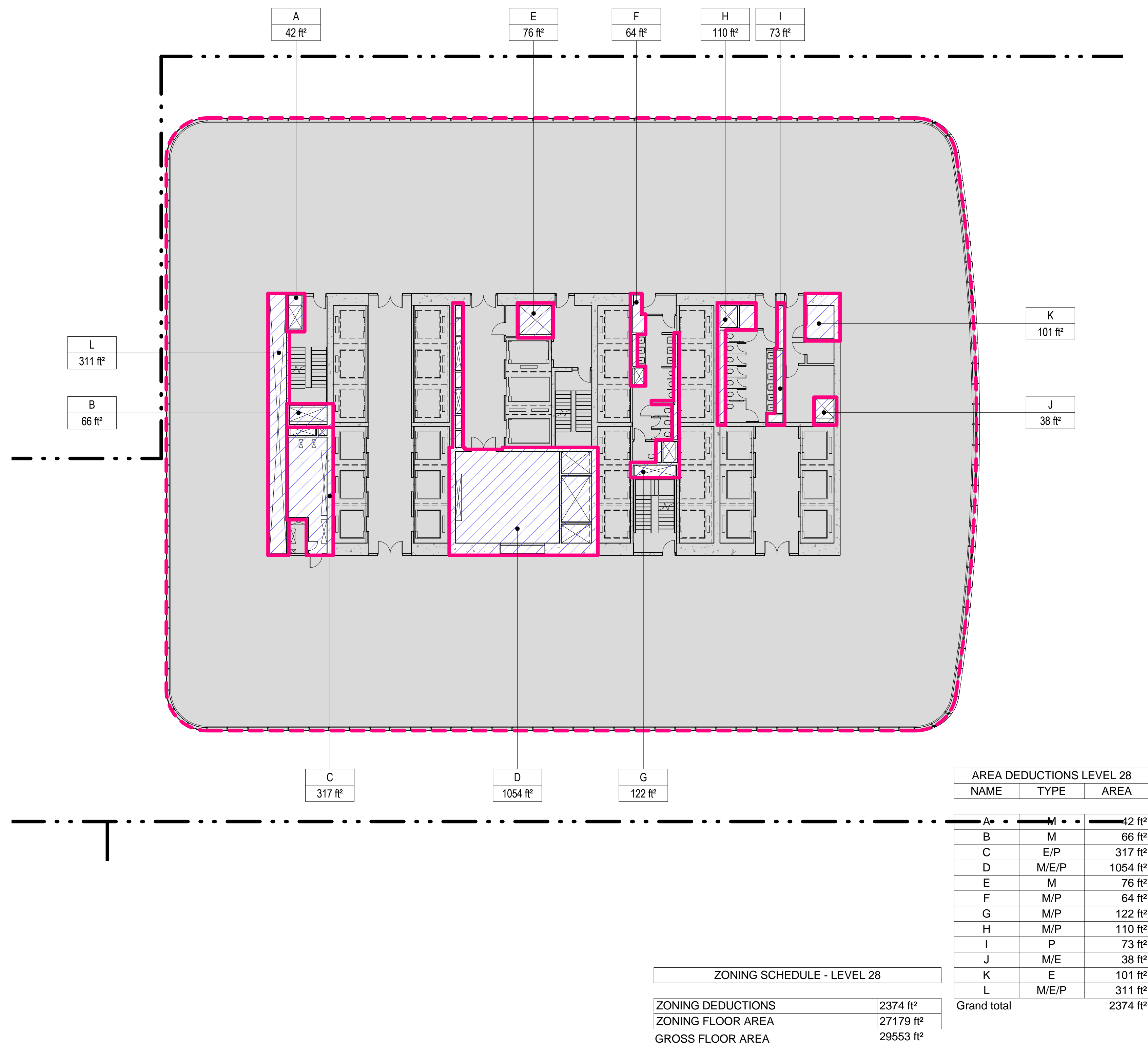
### 3 LEVEL 27 PLAN

SCALE: 1/16" = 1'-0"



### 4 LEVEL 28 PLAN

SCALE: 1/16" = 1'-0"



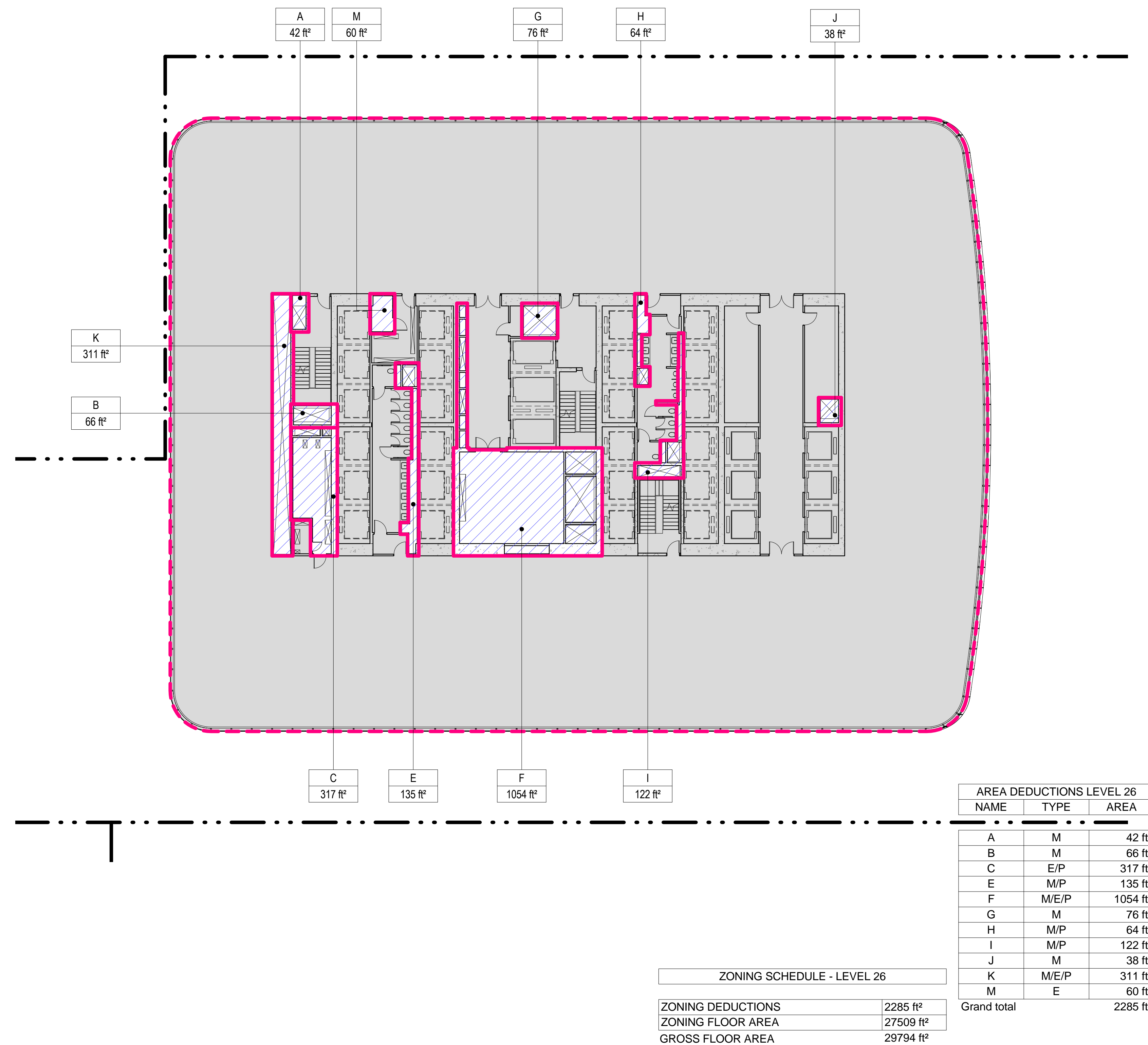
### 1 LEVEL 25 PLAN

SCALE: 1/16" = 1'-0"



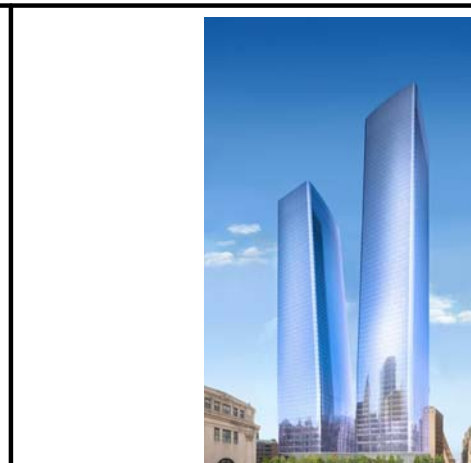
### 2 LEVEL 26 PLAN

SCALE: 1/16" = 1'-0"



#### ZONING LEGENDS

- GROSS BUILDING AREA
- ZONING AREA DEDUCTIONS
- ZONING FLOOR AREA
- RETAIL
- MR MECHANICAL ROOM
- M MECHANICAL
- E ELECTRICAL/TEL/IT
- P PLUMBING
- EM ELEVATOR MACHINE ROOM



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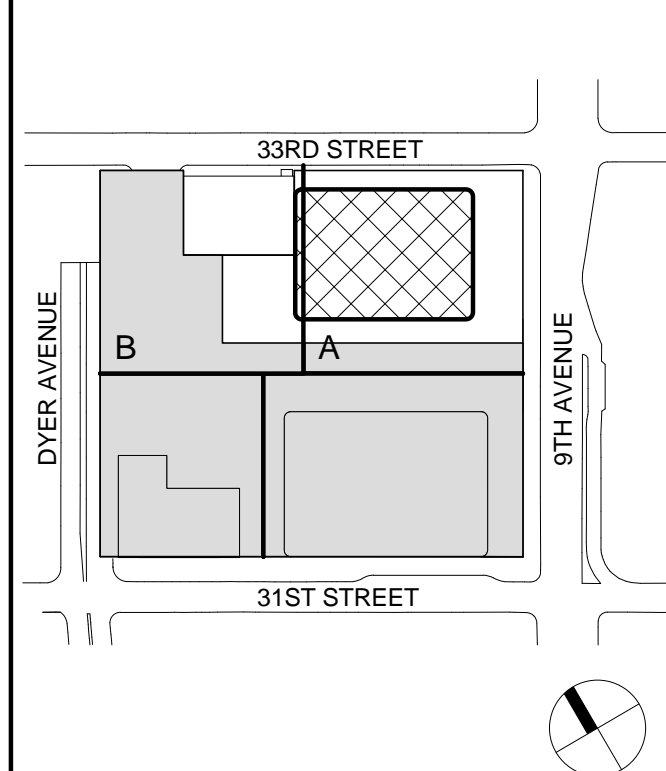
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Key Plan:



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Sheet Name:

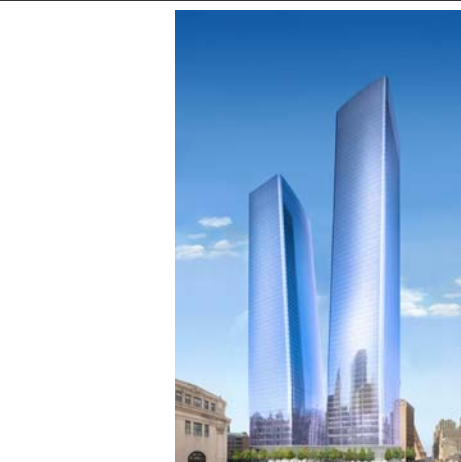
ZONING FLOOR  
AREA  
DEDUCTIONS -  
LEVEL 25-28

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-110

B-SCAN Sheet No.: Z-110.00  
Sheet No.: Z-110  
Page No.: 17 OF 30



- ZONING LEGENDS
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
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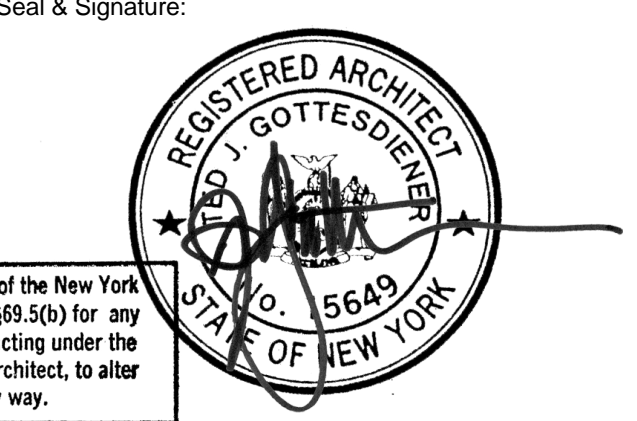
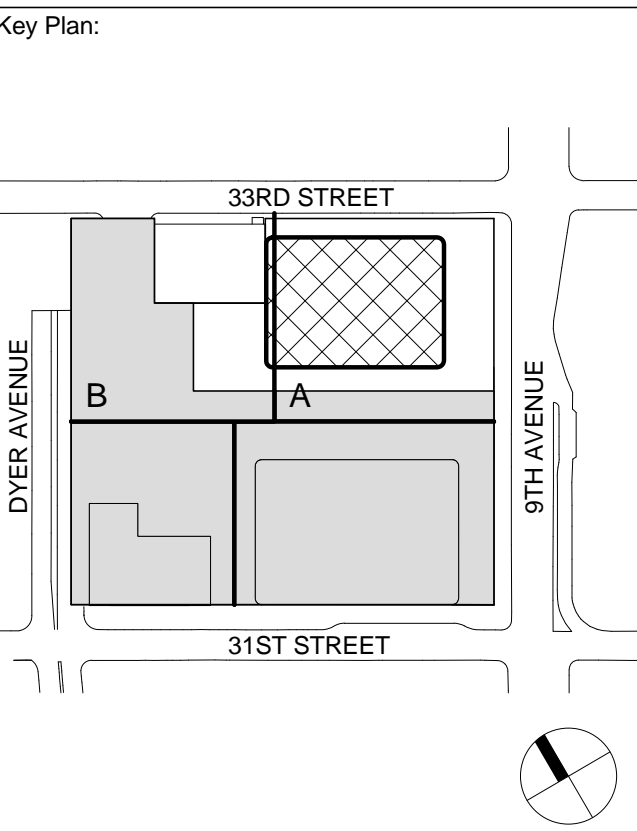
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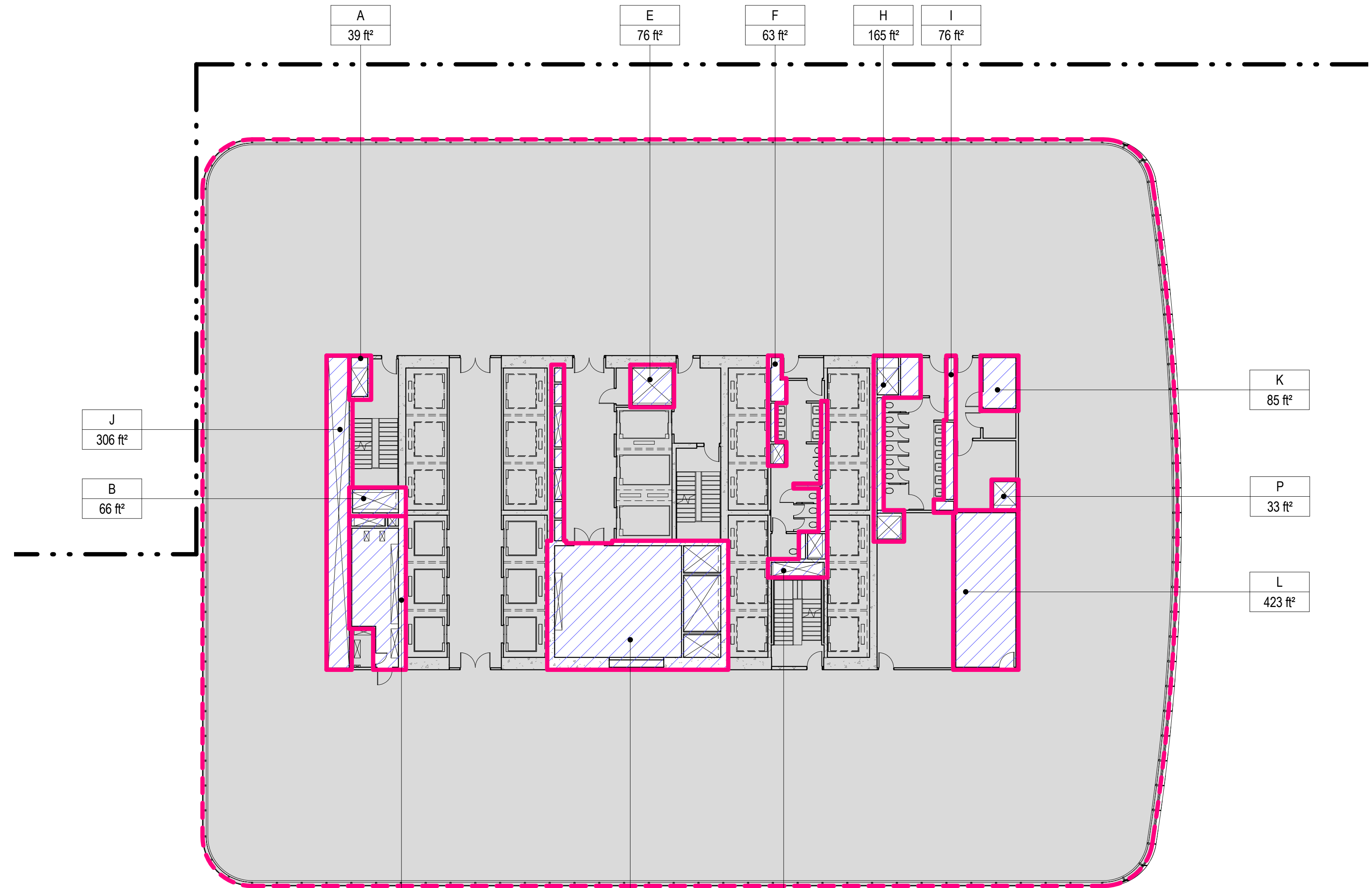


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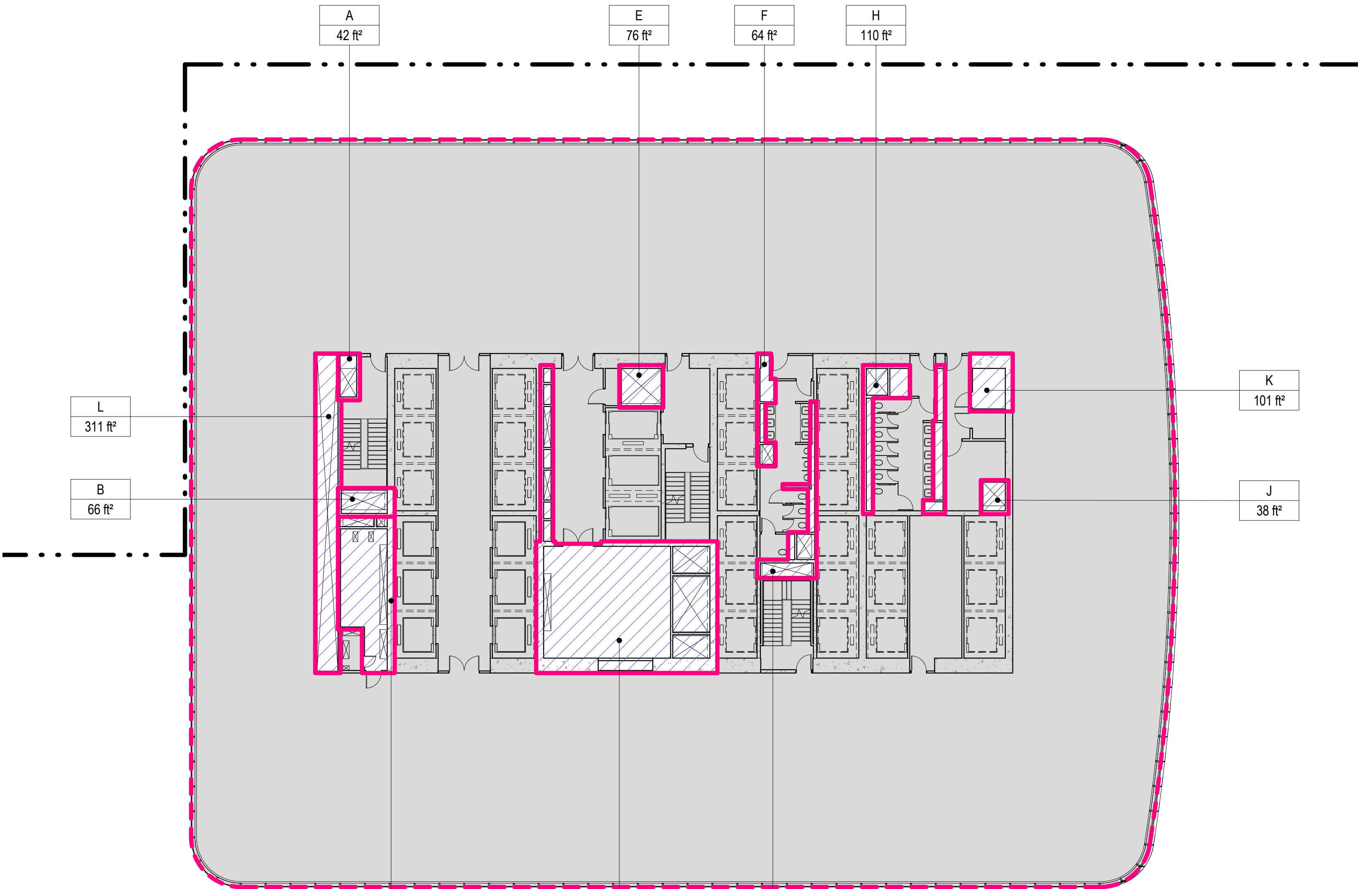
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**ZONING FLOOR AREA DEDUCTIONS - LEVEL 29-32**

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-111  
B-SCAN Sheet No.:  
**Z-111.00**  
Sheet No.:  
Page No.: 18 OF 30



AREA DEDUCTIONS LEVEL 31		
NAME	TYPE	AREA
A	M	39 ft²
B	M	66 ft²
C	E/P	314 ft²
D	M/E/P	1036 ft²
E	M	76 ft²
F	M/P	63 ft²
G	M/P	122 ft²
H	M/P	165 ft²
I	P	76 ft²
J	M/E/P	306 ft²
K	E	85 ft²
L	M/P	423 ft²
P	M	33 ft²
Grand total		2804 ft²

ZONING SCHEDULE - LEVEL 31		
ZONING DEDUCTIONS	2804 ft²	
ZONING FLOOR AREA	26388 ft²	
GROSS FLOOR AREA	29192 ft²	



AREA DEDUCTIONS LEVEL 29		
NAME	TYPE	AREA
A	M	42 ft²
B	M	66 ft²
C	E/P	317 ft²
D	M/E/P	1054 ft²
E	M	76 ft²
F	M/P	64 ft²
G	M/P	122 ft²
H	M/P	110 ft²
I	P	73 ft²
J	M	38 ft²
K	E	101 ft²
L	M/E/P	311 ft²
Grand total		2374 ft²

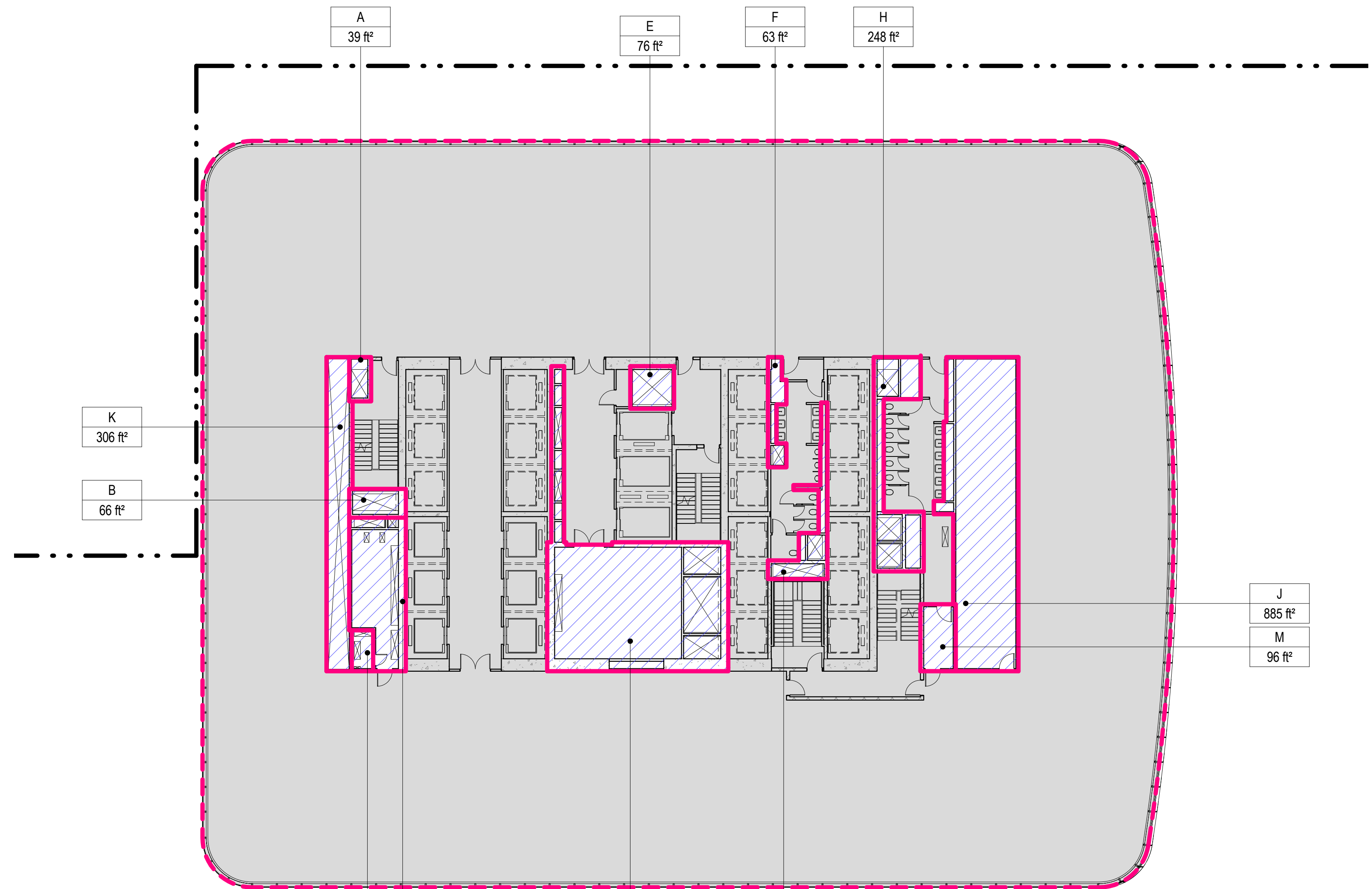
ZONING SCHEDULE - LEVEL 29		
ZONING DEDUCTIONS	2374 ft²	
ZONING FLOOR AREA	27059 ft²	
GROSS FLOOR AREA	29433 ft²	

### 3 LEVEL 31 PLAN

SCALE: 1/16" = 1'-0"

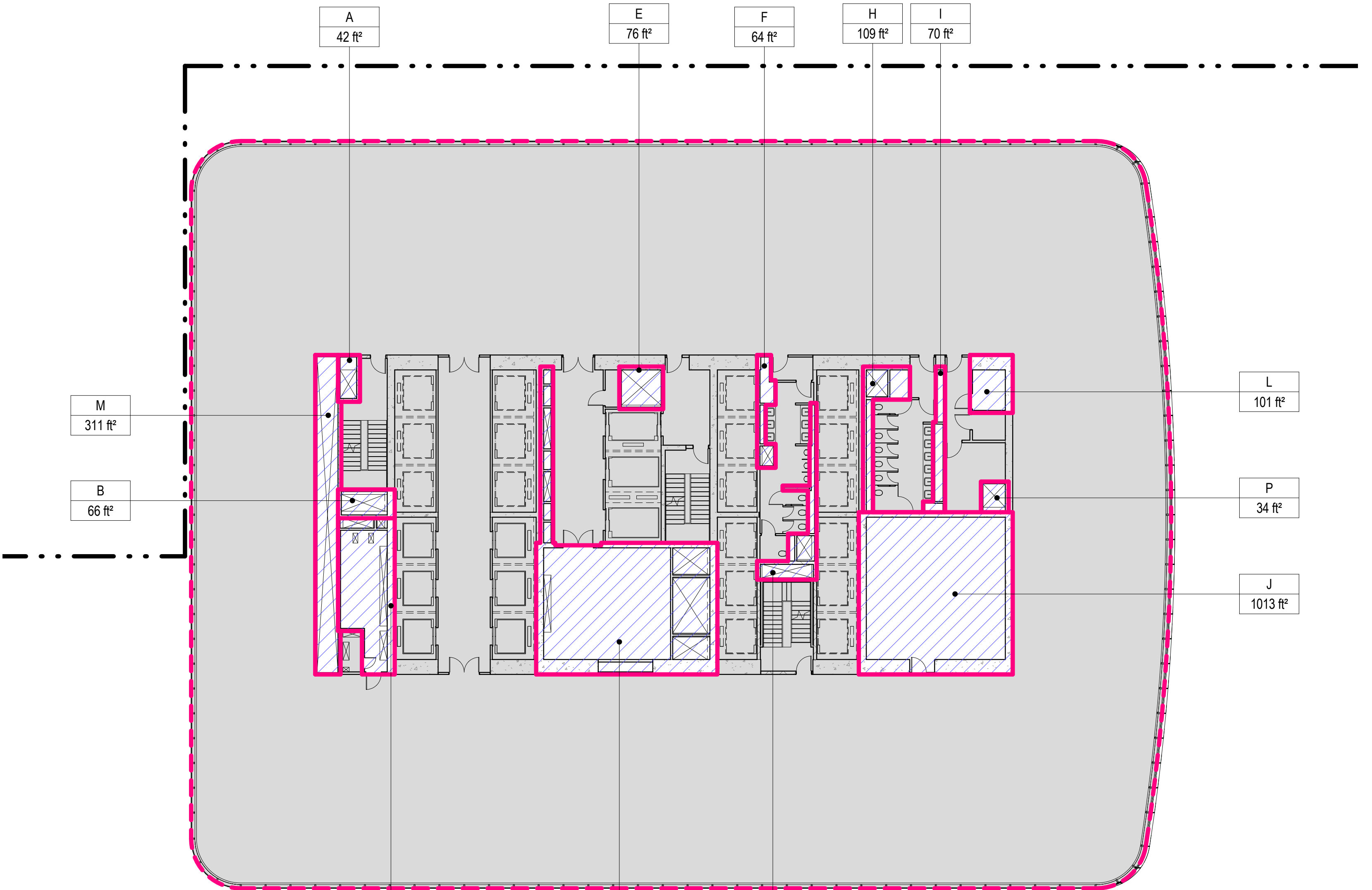
### 1 LEVEL 29 PLAN

SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 32		
NAME	TYPE	AREA
A	M	39 ft²
B	M	66 ft²
C	E/P	314 ft²
D	M/E/P	1036 ft²
E	M	76 ft²
F	M/P	63 ft²
G	M/P	122 ft²
H	M/P	248 ft²
I	P	885 ft²
J	M/E/P	306 ft²
K	E	36 ft²
L	E	96 ft²
M	E	96 ft²
Grand total		3287 ft²

ZONING SCHEDULE - LEVEL 32		
ZONING DEDUCTIONS	3287 ft²	
ZONING FLOOR AREA	25785 ft²	
GROSS FLOOR AREA	29072 ft²	



AREA DEDUCTIONS LEVEL 30		
NAME	TYPE	AREA
A	M	42 ft²
B	M	66 ft²
C	E/P	317 ft²
D	M/E/P	1054 ft²
E	M	76 ft²
F	M/P	64 ft²
G	M/P	122 ft²
H	M/P	109 ft²
I	P	70 ft²
J	EM	1013 ft²
L	E	101 ft²
M	M/E/P	311 ft²
P	M	34 ft²
Grand total		3379 ft²

ZONING SCHEDULE - LEVEL 30		
ZONING DEDUCTIONS	3379 ft²	
ZONING FLOOR AREA	25935 ft²	
GROSS FLOOR AREA	29313 ft²	

### 4 LEVEL 32 PLAN

SCALE: 1/16" = 1'-0"

### 2 LEVEL 30 PLAN

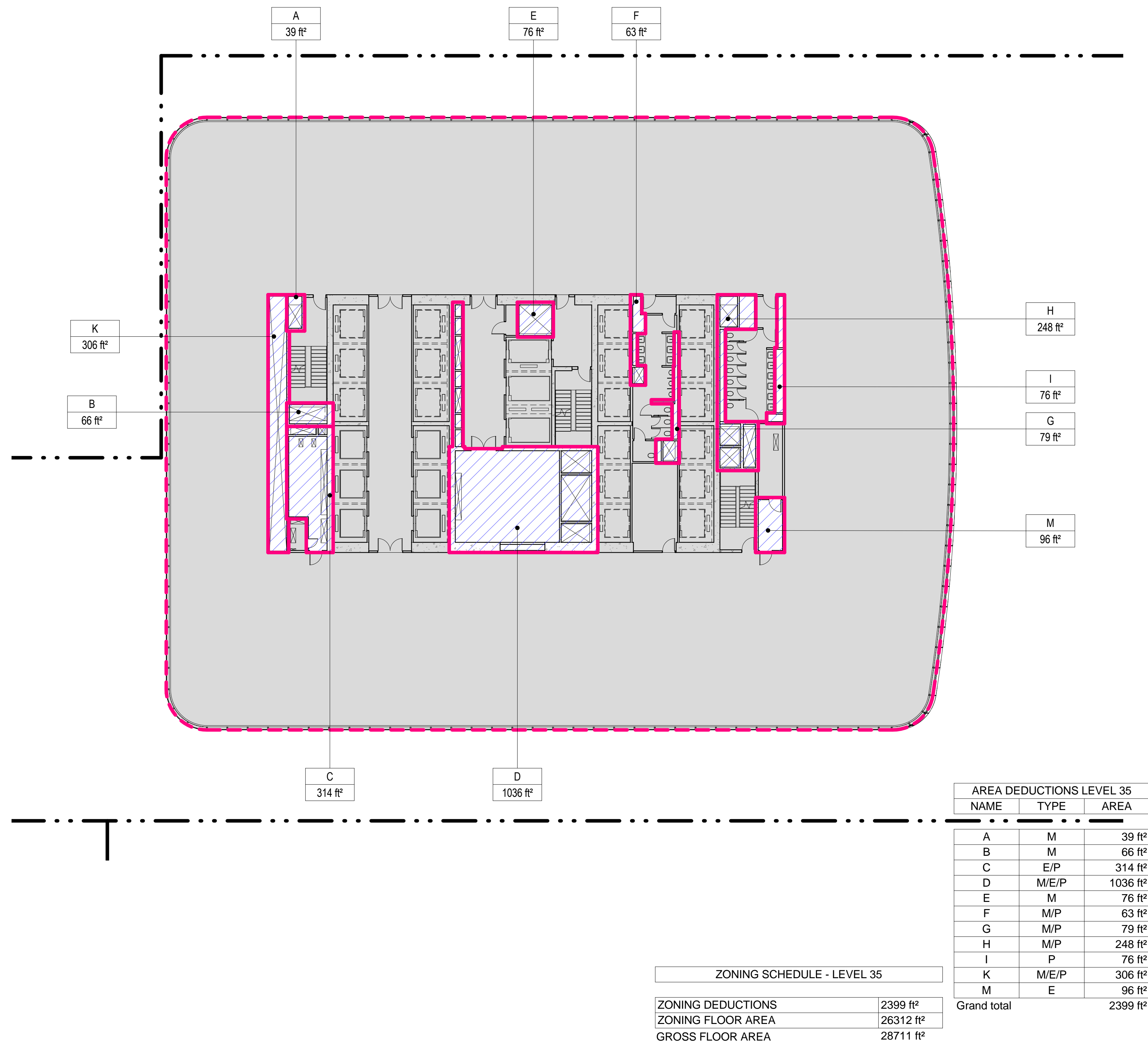
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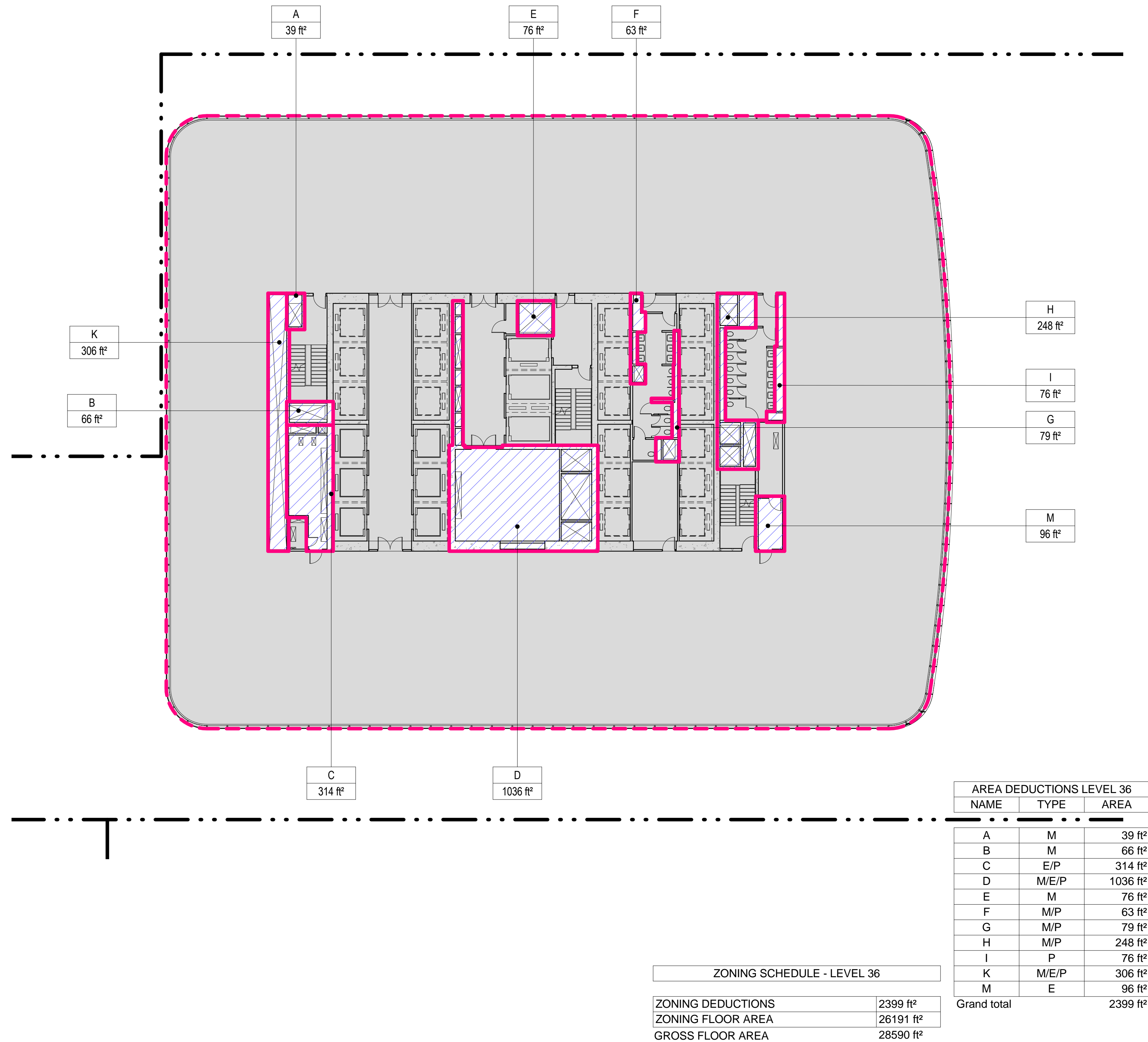
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SCALE: 1/16" = 1'-0"



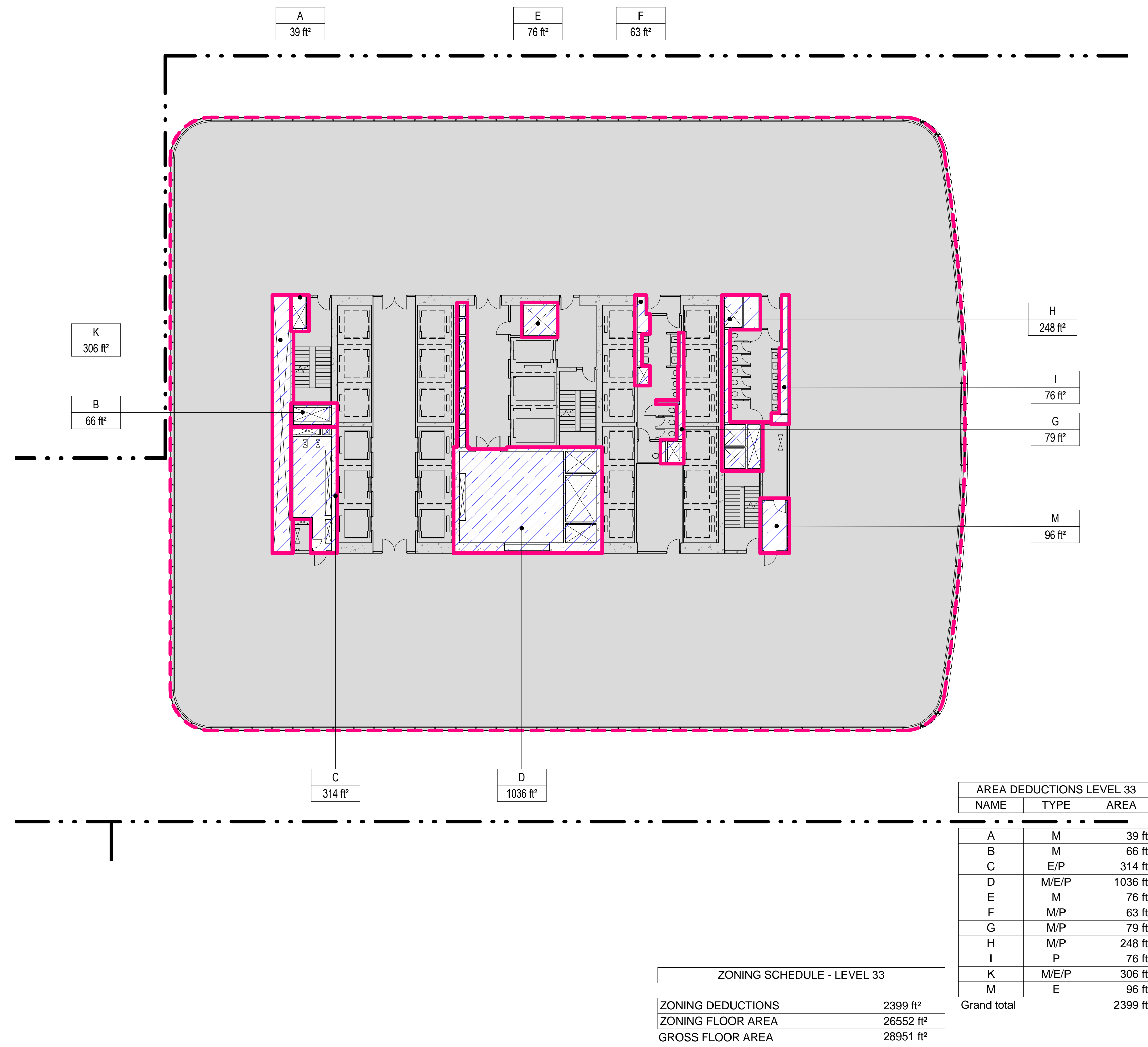
### 4 LEVEL 36 PLAN

SCALE: 1/16" = 1'-0"



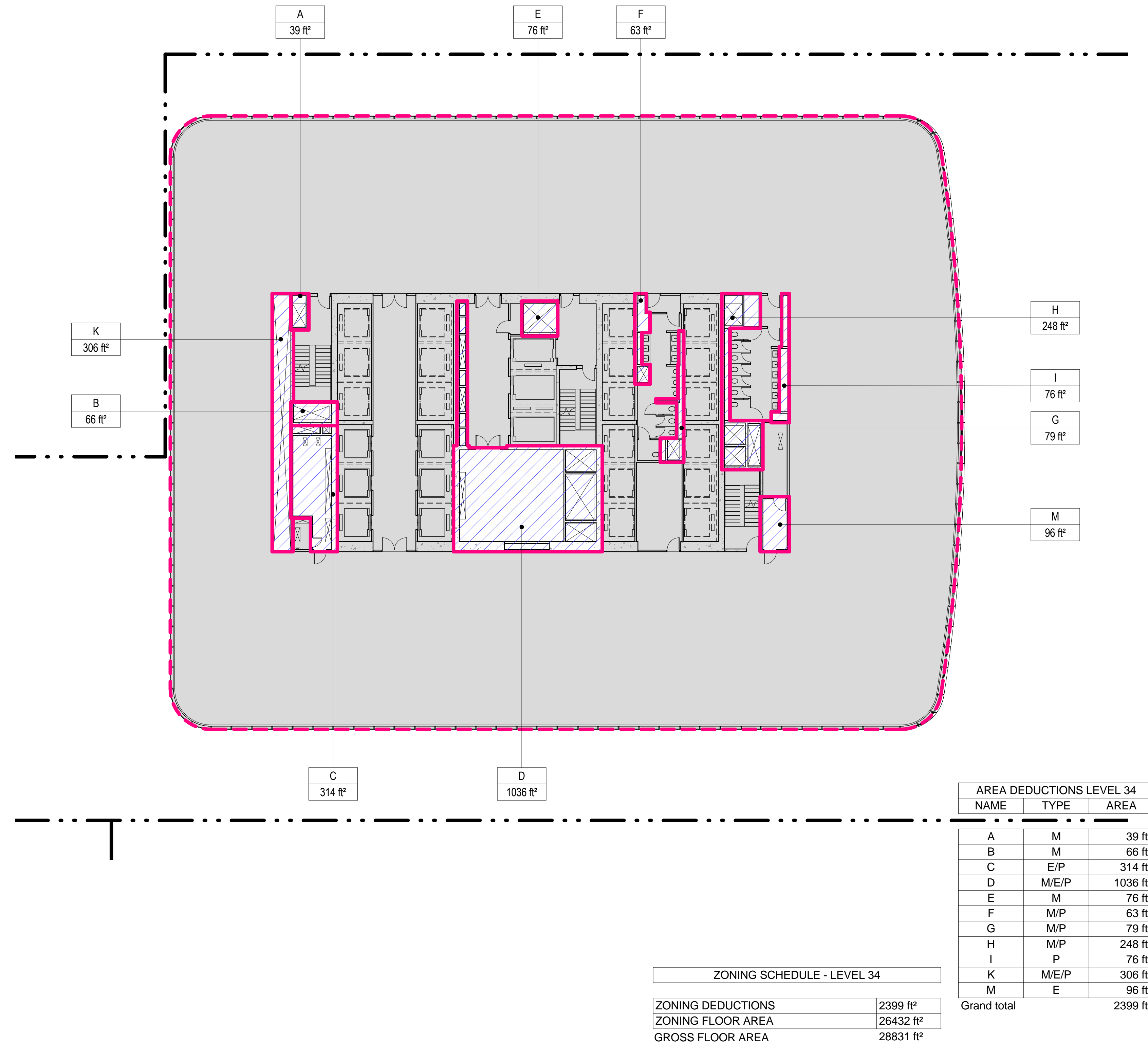
### 1 LEVEL 33 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 34 PLAN

SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
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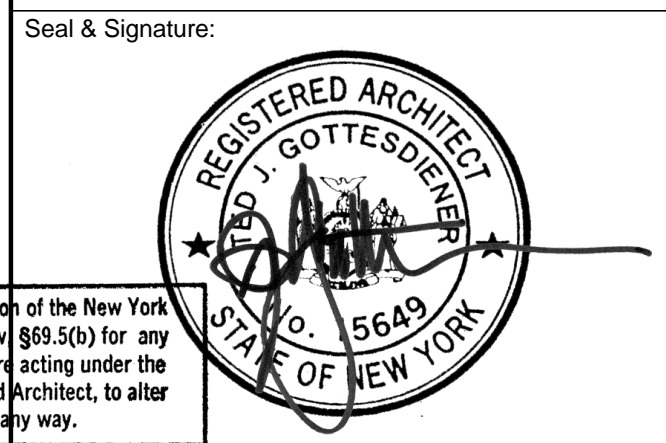
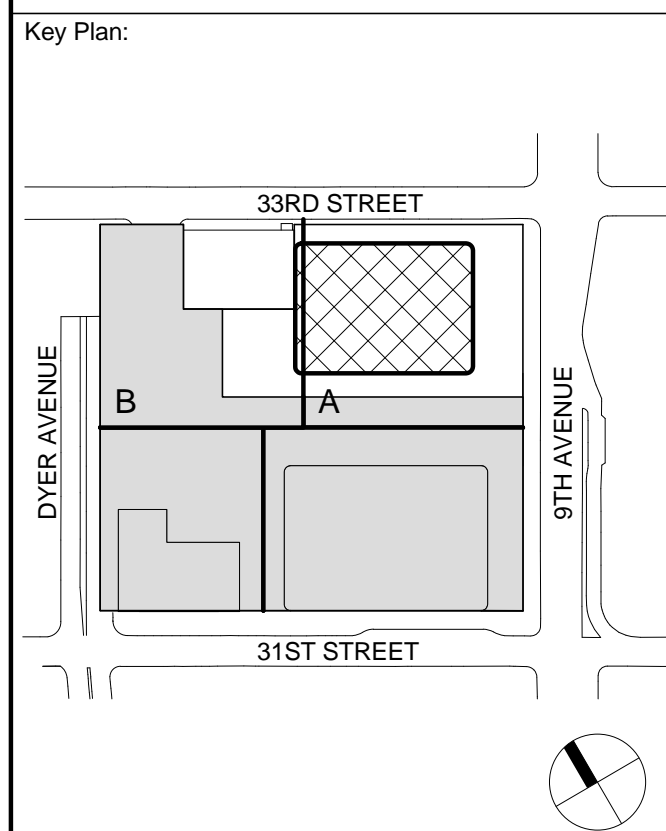
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1	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT

### ZONING FLOOR AREA DEDUCTIONS - LEVEL 33-36

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-112

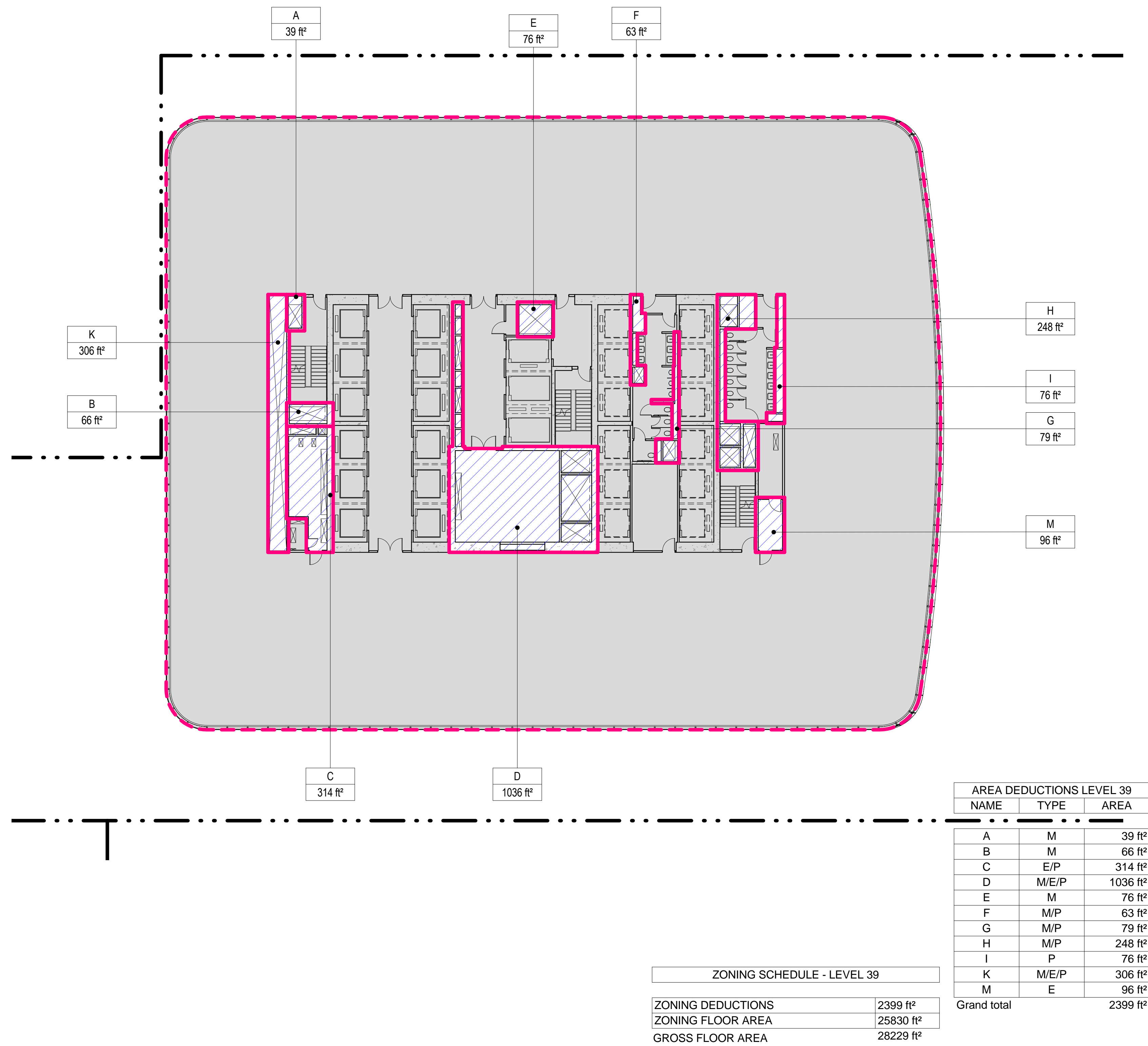
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Sheet No.:  
Page No.: 19 OF 30



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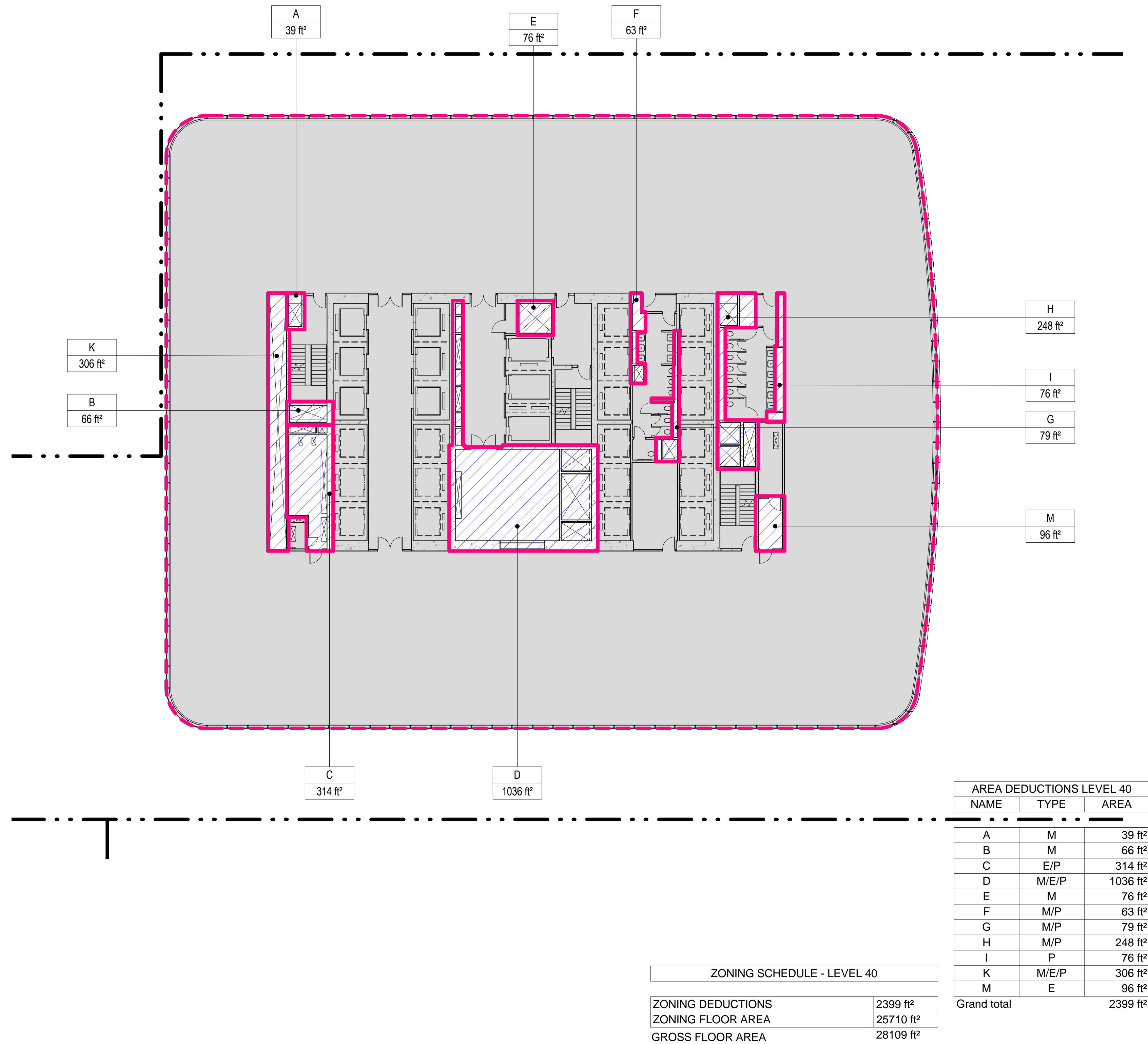
### 3 LEVEL 39 PLAN

SCALE: 1/16" = 1'-0"



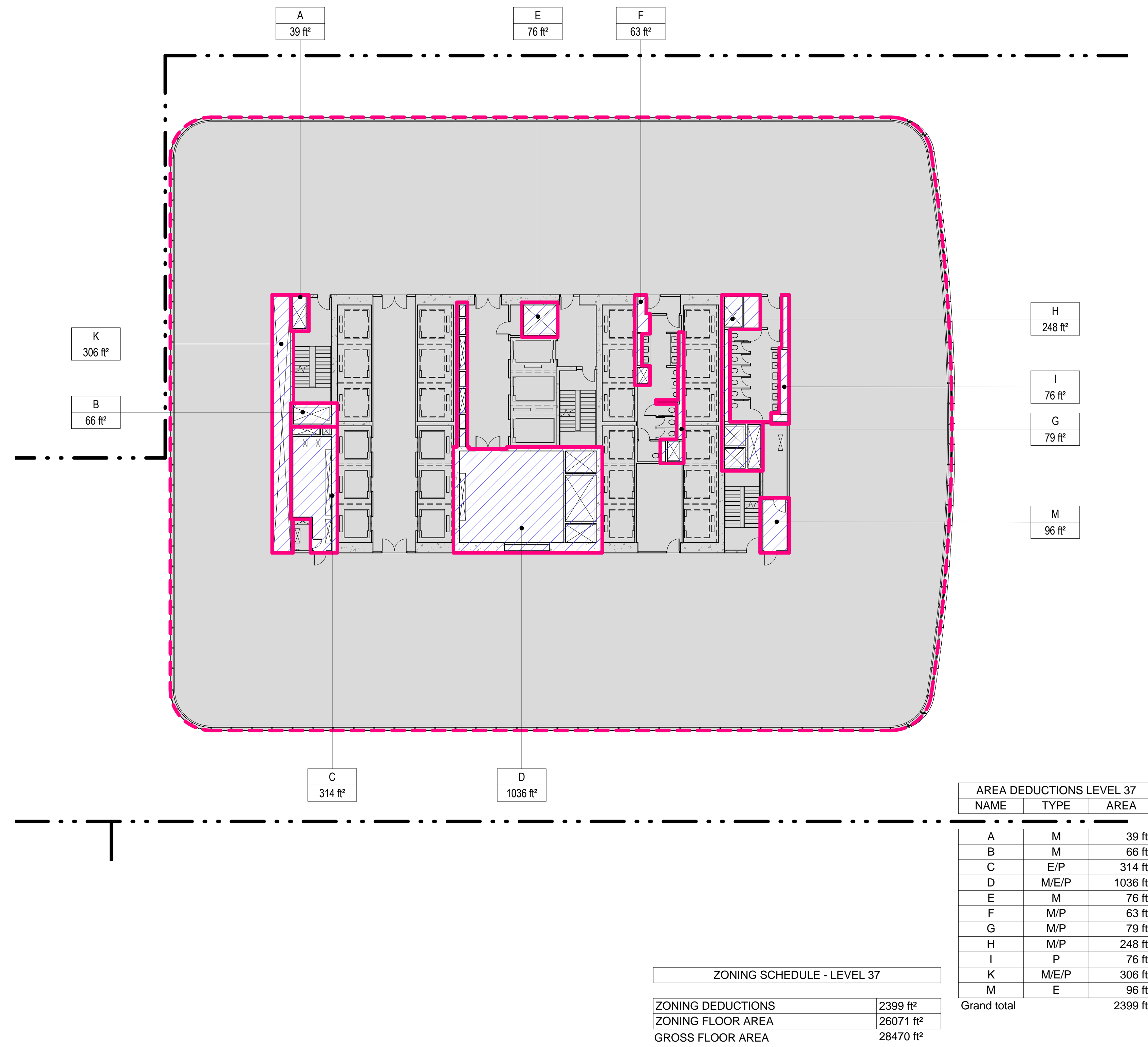
### 4 LEVEL 40 PLAN

SCALE: 1/16" = 1'-0"



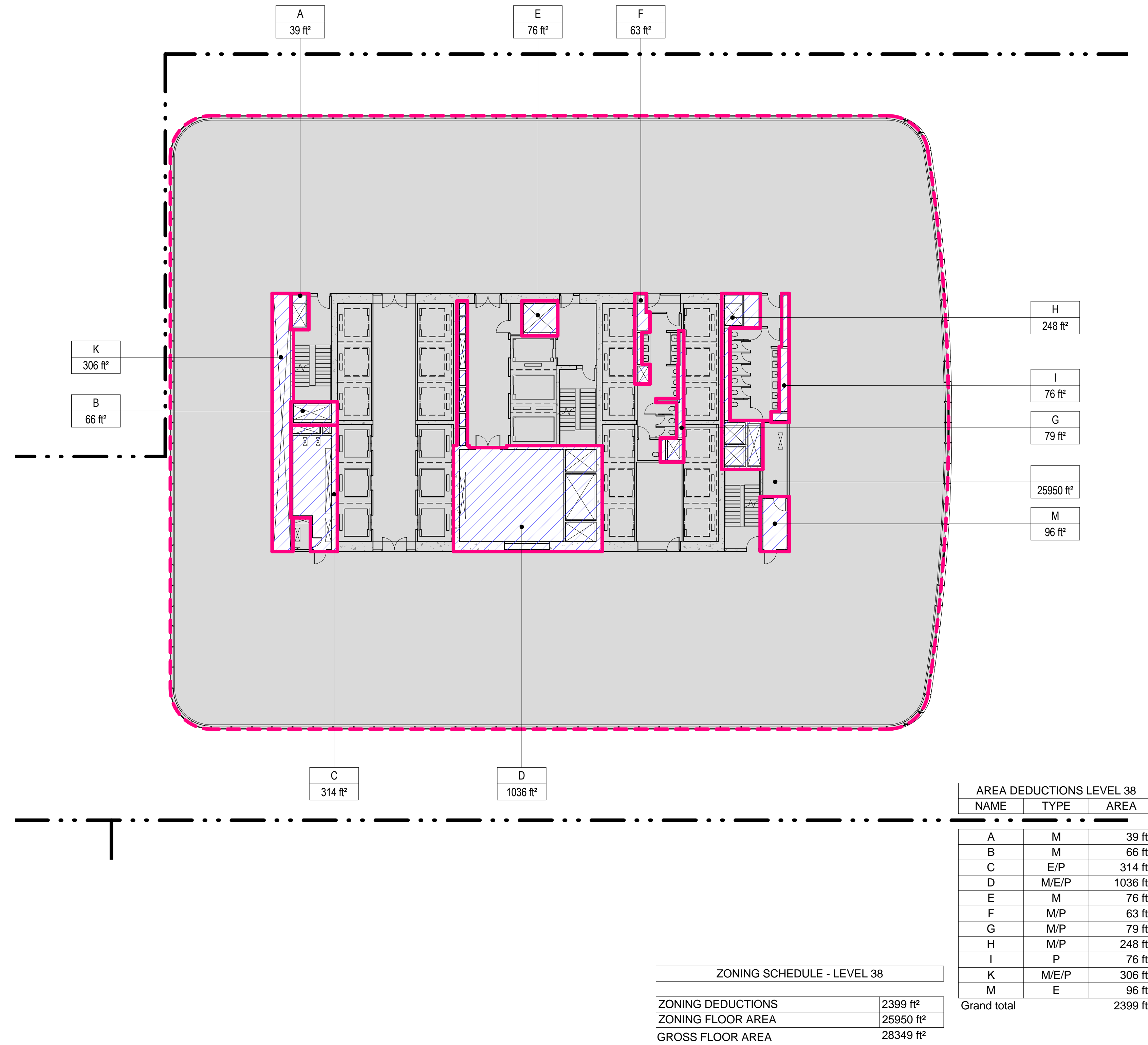
### 1 LEVEL 37 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 38 PLAN

SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
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  - P PLUMBING
  - EM ELEVATOR MACHINE ROOM

**MANHATTAN WEST: NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering  
**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering  
Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave., Suite 1, Mill Valley, California 94941

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geotechnical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street, New York, NY 10122

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Field Operations  
475 10th Avenue, New York, NY 10018

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Ducibella, Ventor & Santoro  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
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40 Wall Street, New York, NY 10005

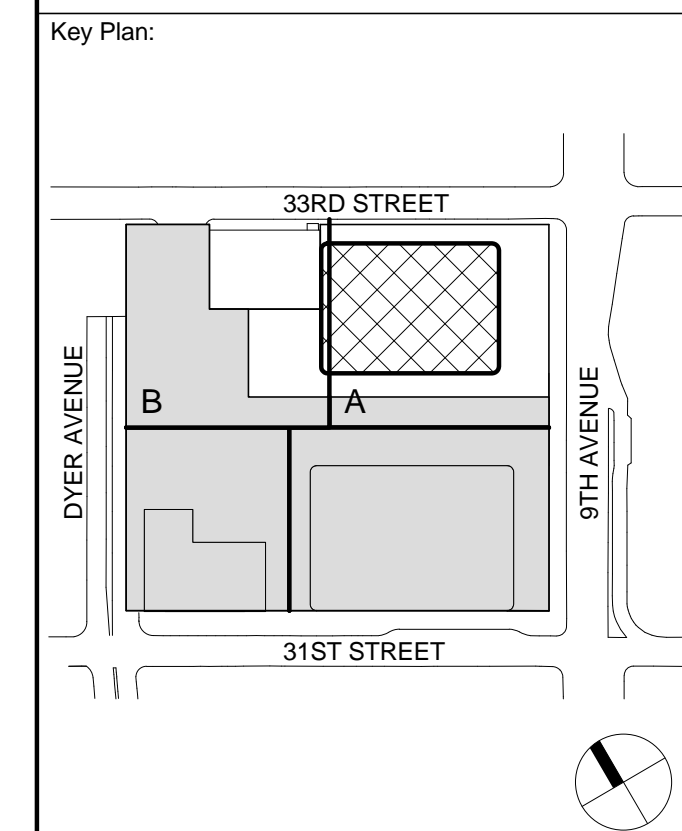
Acoustical Consultant  
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Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
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No.	Date	Description
Sheet Name:		
ZONING FLOOR AREA DEDUCTIONS - LEVEL 37-40		
Project No.:	207150	B-SCAN Sheet No.:
Date:	12 MAY 2015	<b>Z-113.00</b>
Scale:	1/16" = 1'-0"	Sheet No.:
File No.:	Z-113	Page No.:
		20 OF 30





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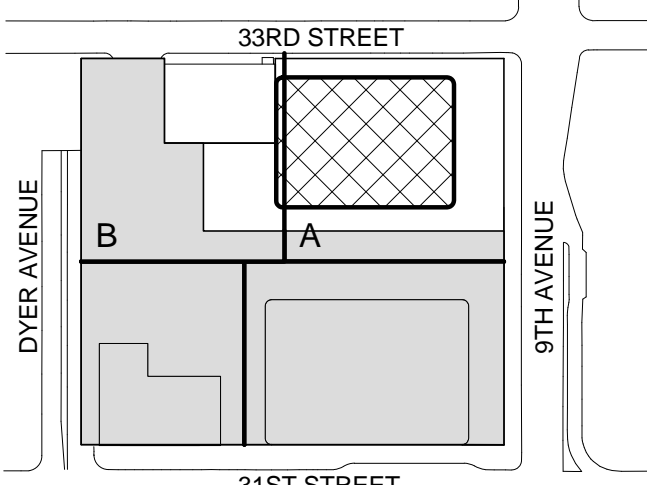
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166 Ames Street, Hackensack, NJ 07601

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Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



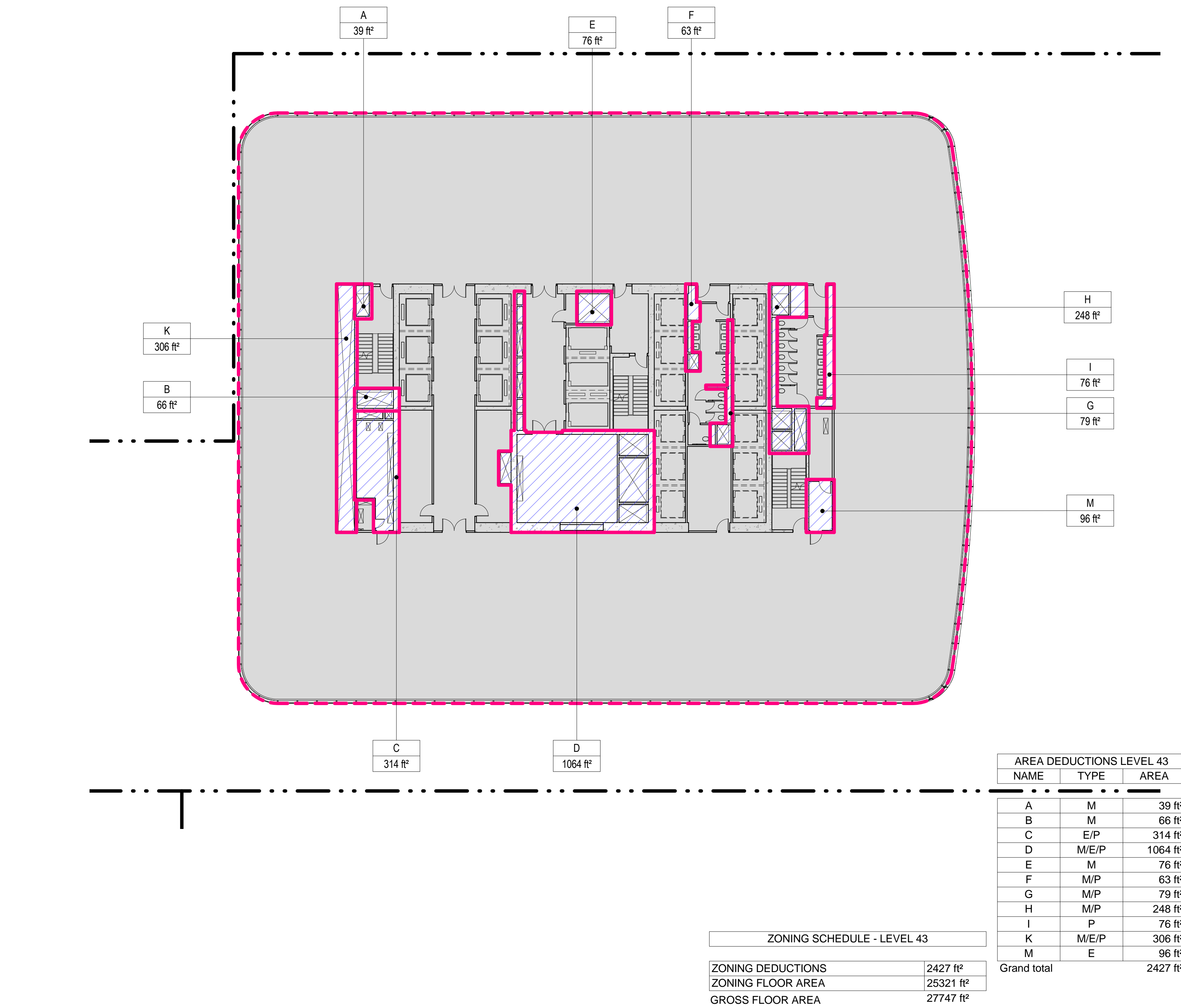
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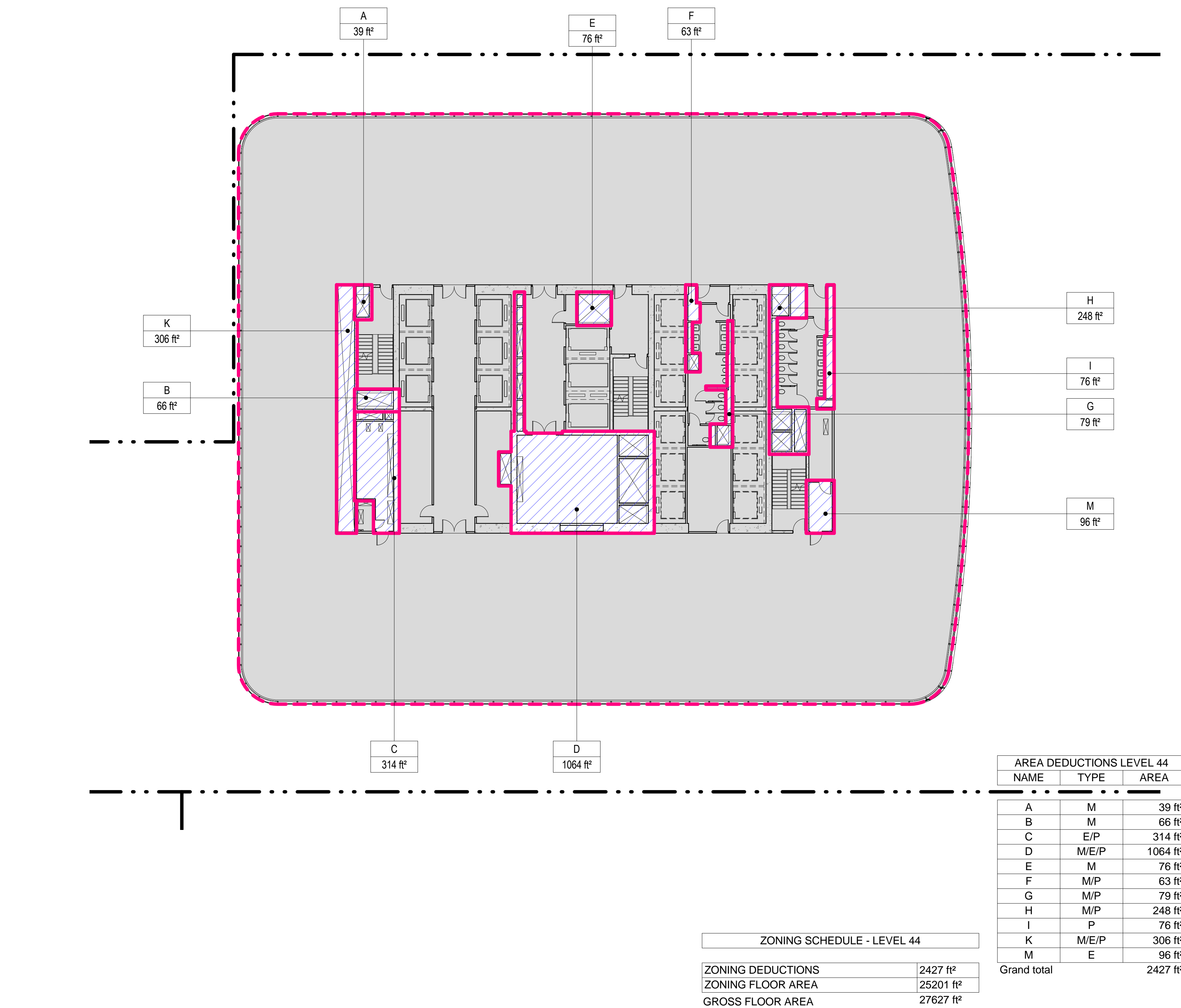
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ZONING LEGENDS

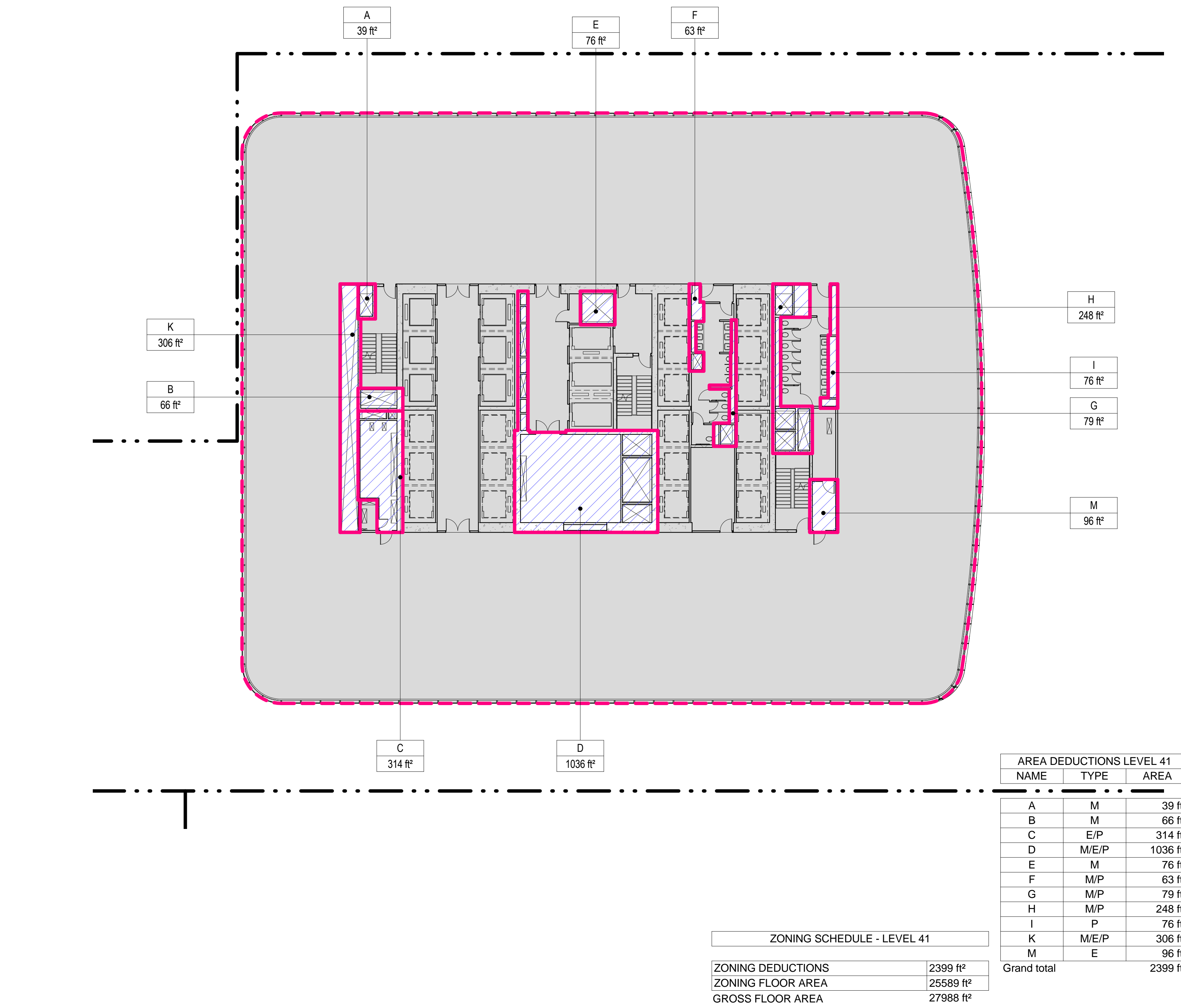
- GROSS BUILDING AREA
- ZONING AREA DEDUCTIONS
- ZONING FLOOR AREA
- RETAIL
- MR MECHANICAL ROOM
- M MECHANICAL
- E ELECTRICAL/TEL./IT
- P PLUMBING
- EM ELEVATOR MACHINE ROOM



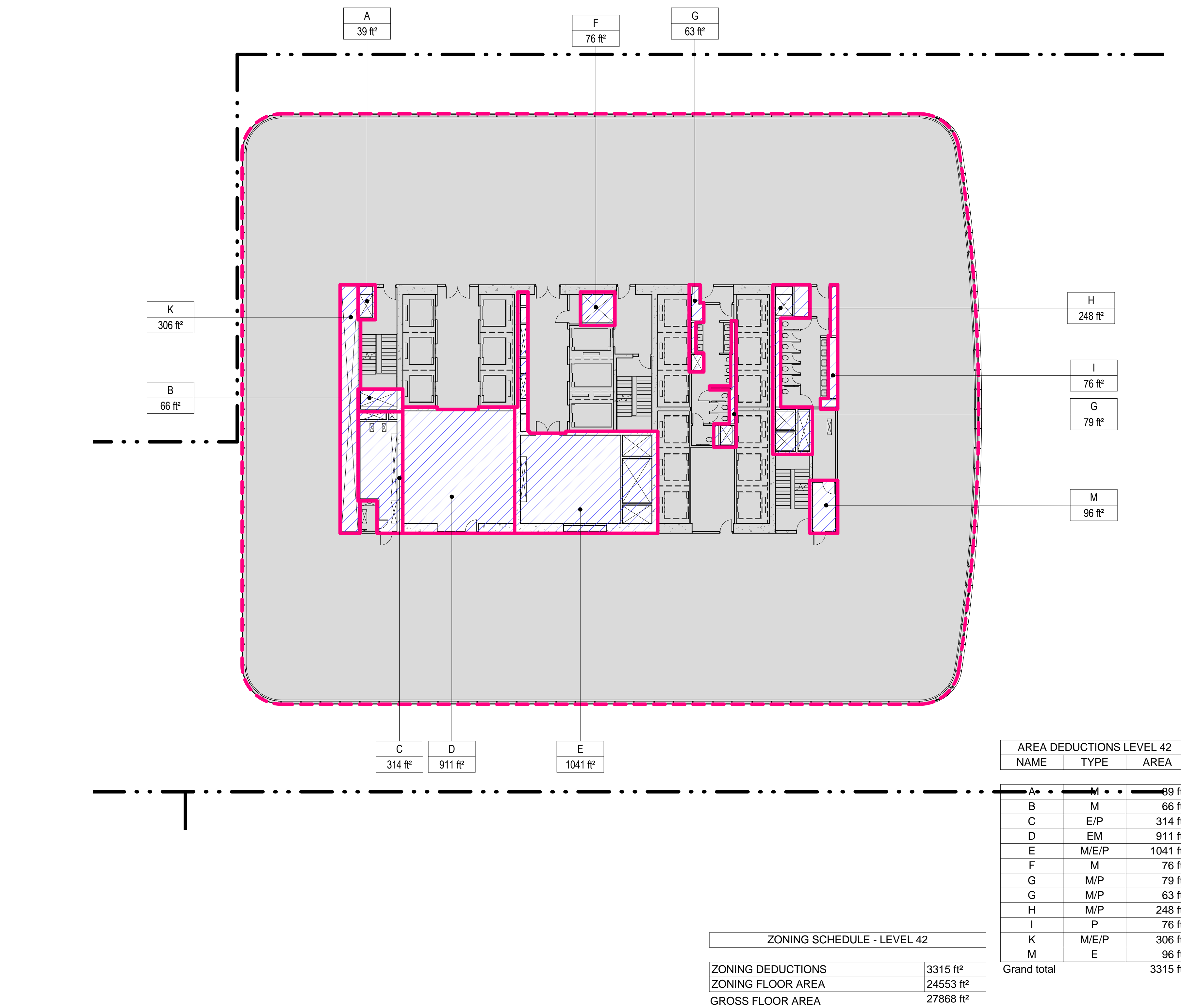
3 LEVEL 43 PLAN  
SCALE: 1/16" = 1'-0"



4 LEVEL 44 PLAN  
SCALE: 1/16" = 1'-0"



1 LEVEL 41 PLAN  
SCALE: 1/16" = 1'-0"



2 LEVEL 42 PLAN  
SCALE: 1/16" = 1'-0"

ZONING FLOOR  
AREA  
DEDUCTIONS -  
LEVEL 41-44

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-114

B-SCAN Sheet No.: Z-114.00  
Sheet No.: Z-114  
Page No.: 21 OF 30



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
  - M MECHANICAL
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50 Washington Street, Newark, CT 06854

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215 West 40th Street, 15th Floor, New York, NY 10018

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166 Ames Street, Hackensack, NJ 07601

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Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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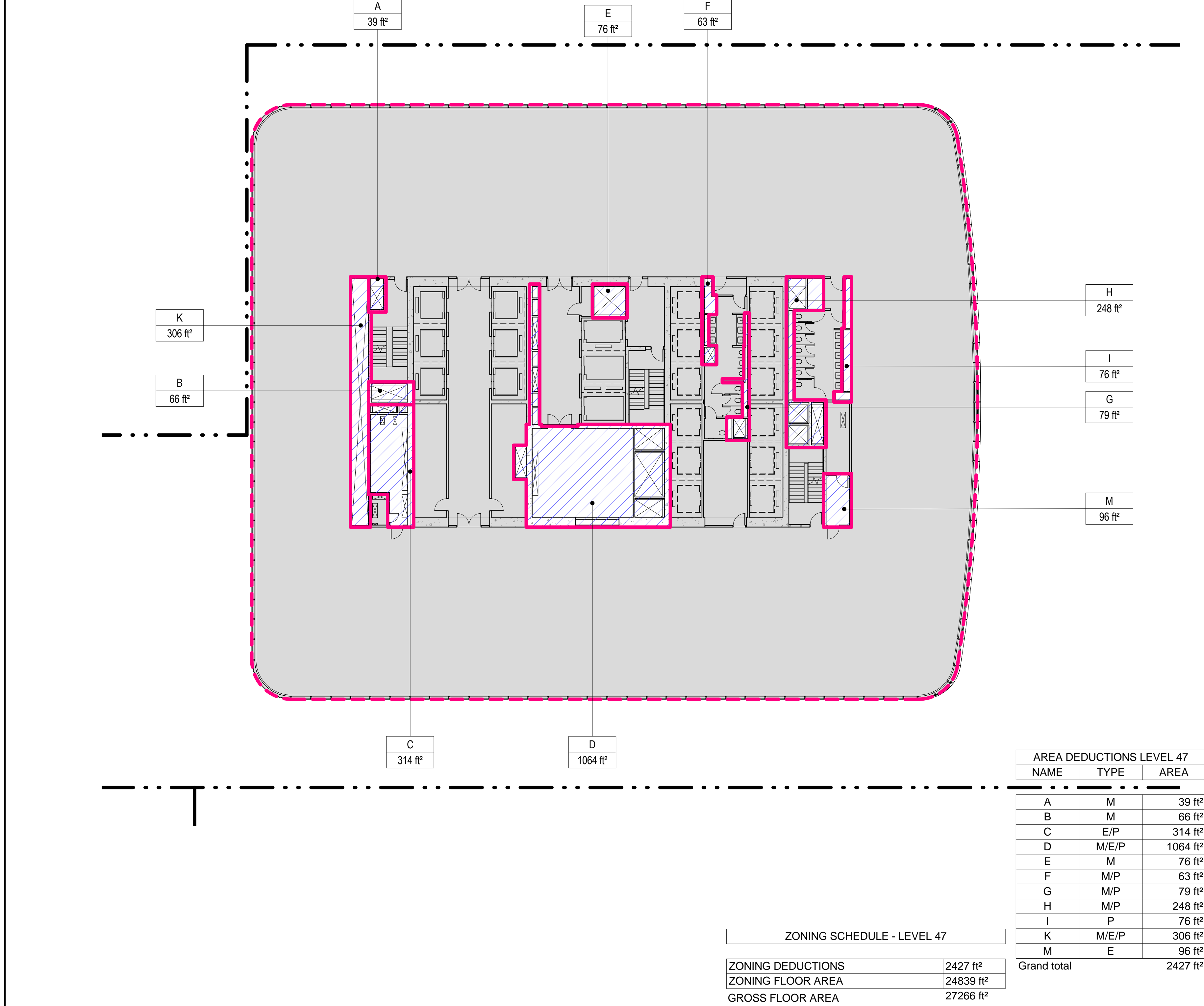
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No. Date Description  
Sheet Name:

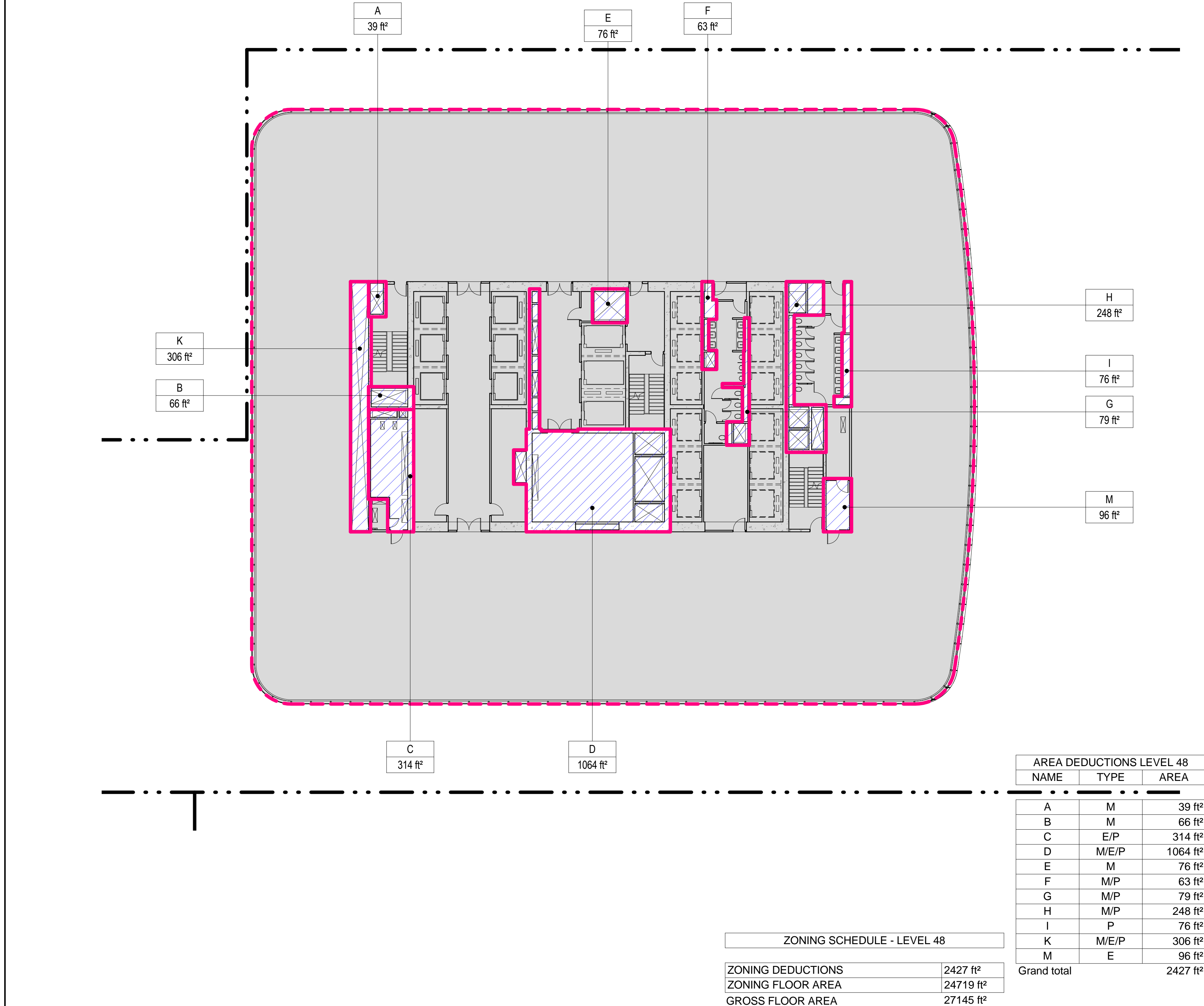
**ZONING FLOOR AREA DEDUCTIONS - LEVEL 45-48**

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: 2-115

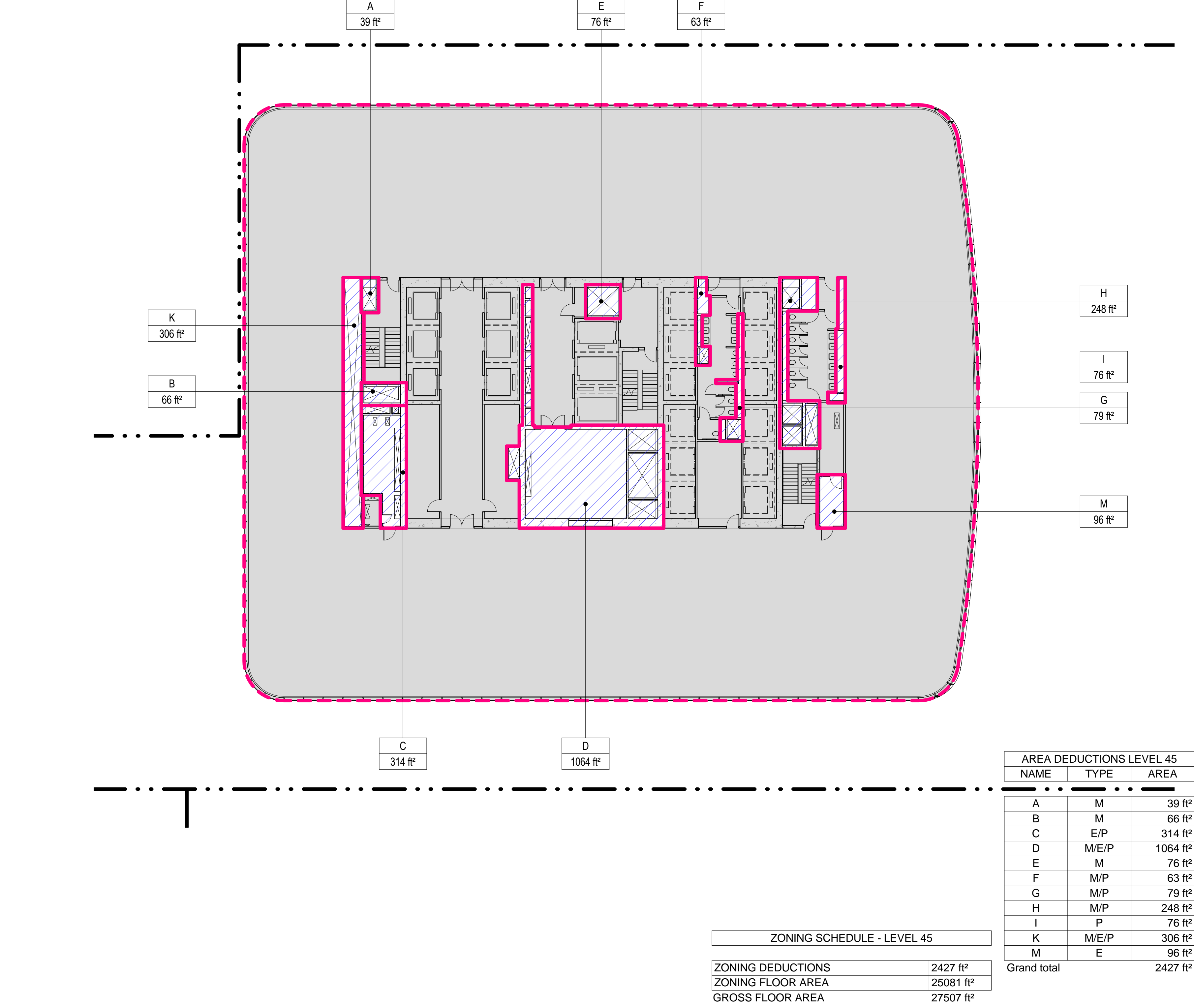
B-SCAN Sheet No.:  
**Z-115.00**  
Sheet No.:  
Z-115  
Page No.: 22 OF 30



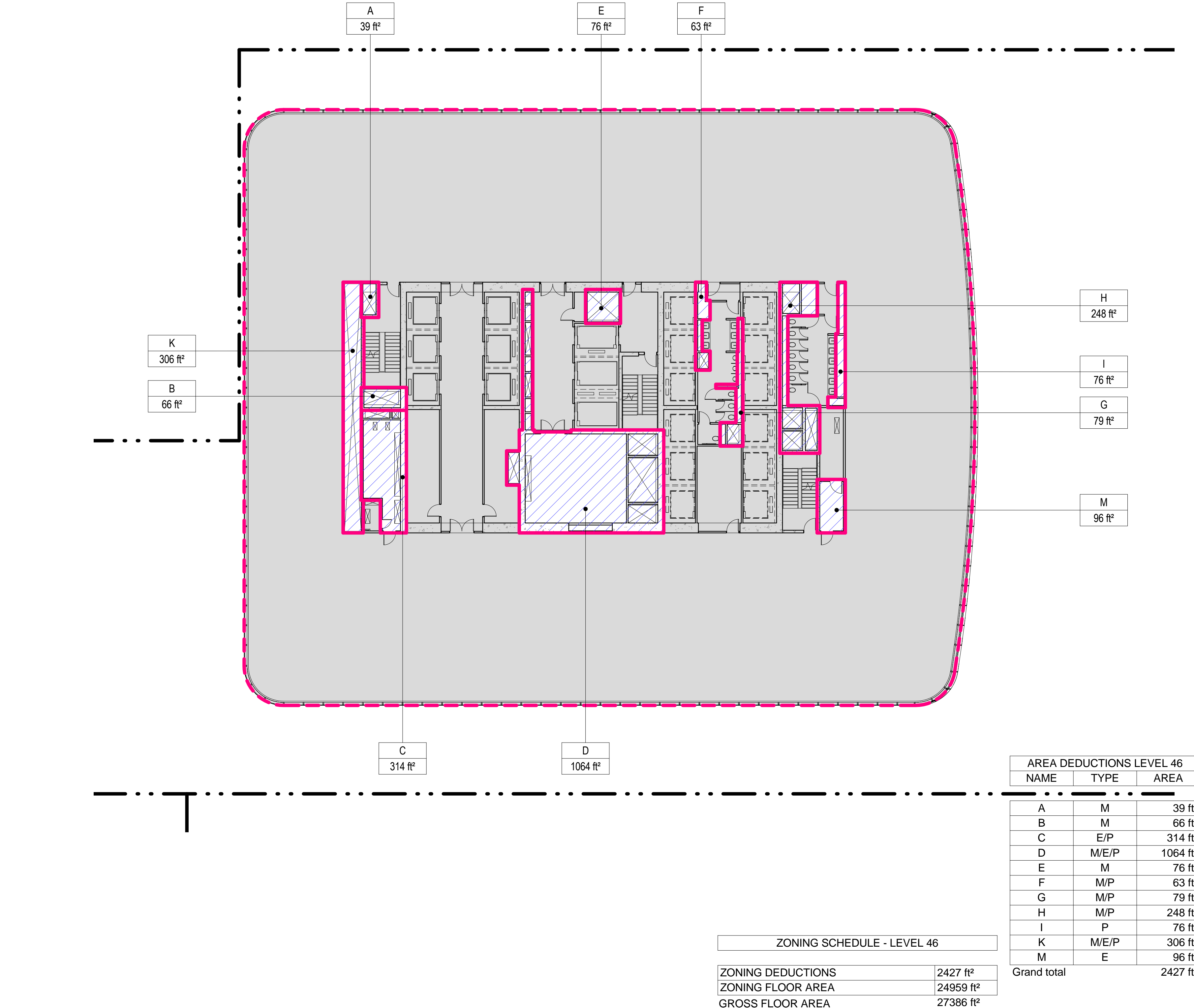
**3 LEVEL 47 PLAN**  
SCALE: 1/16" = 1'-0"



**4 LEVEL 48 PLAN**  
SCALE: 1/16" = 1'-0"



**1 LEVEL 45 PLAN**  
SCALE: 1/16" = 1'-0"



**2 LEVEL 46 PLAN**  
SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
  - M MECHANICAL
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Field Operations  
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Blast Consultant  
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40 Wall Street, New York, NY 10005

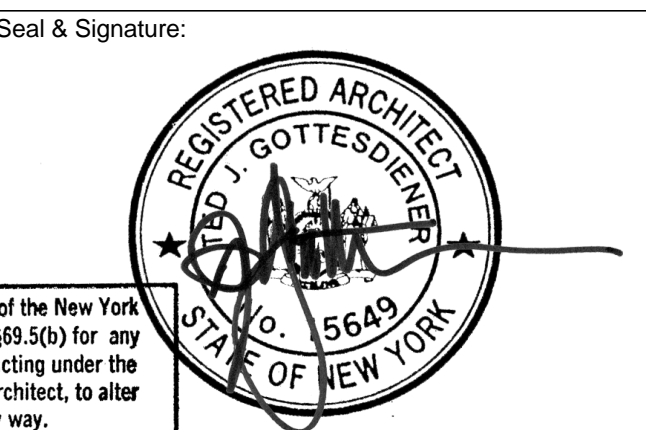
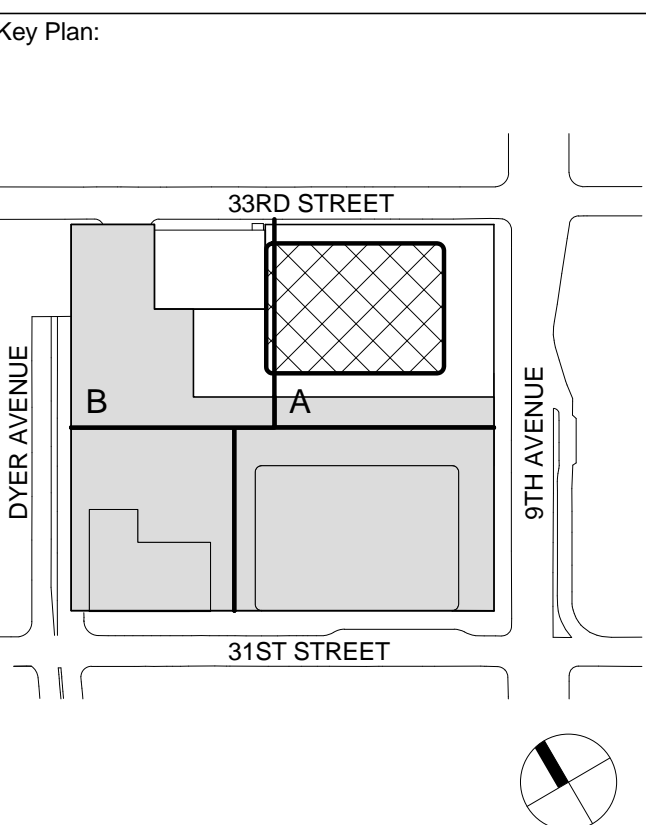
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650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8



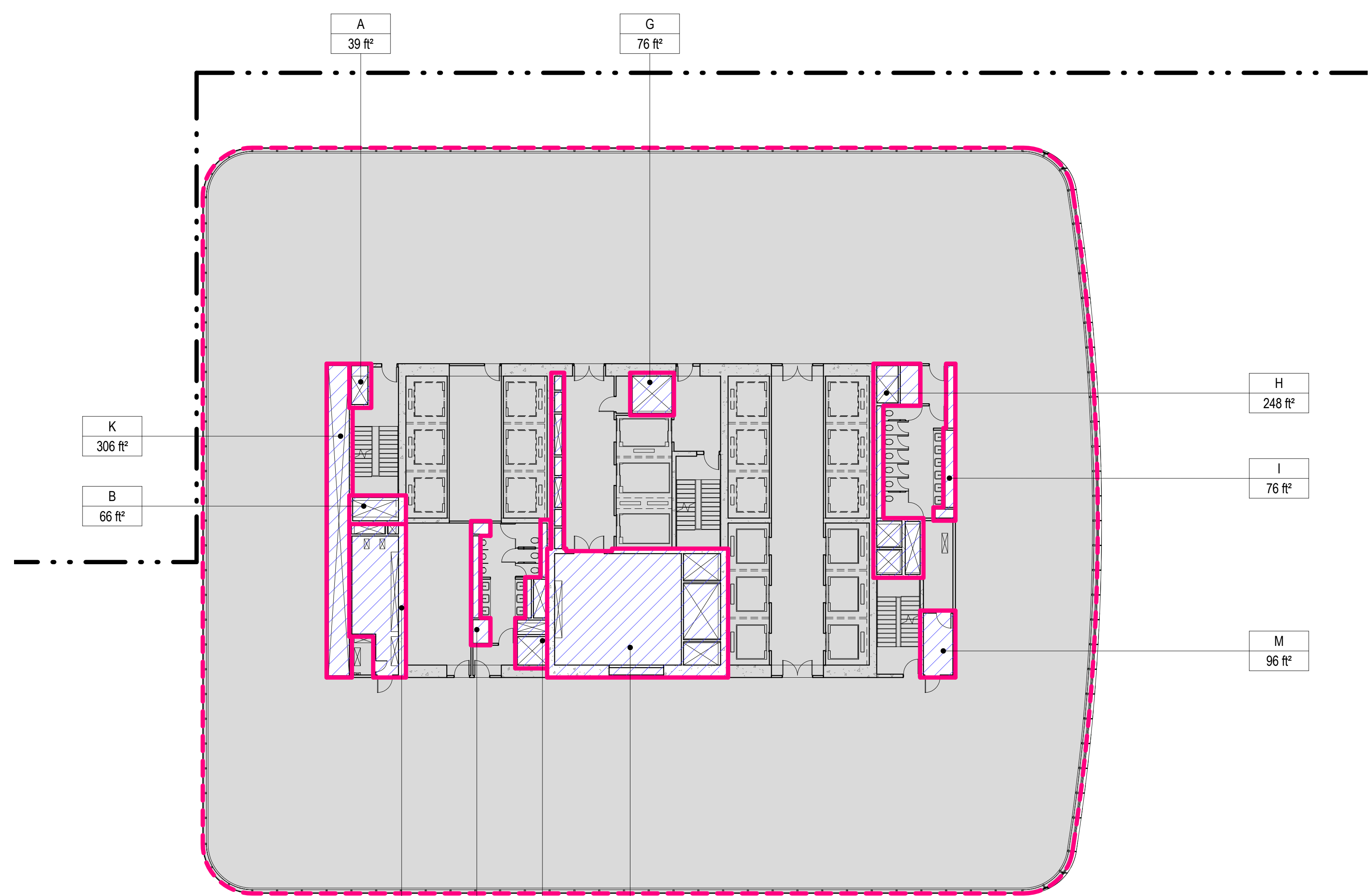
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**ZONING FLOOR  
AREA  
DEDUCTIONS -  
LEVEL 49-52**

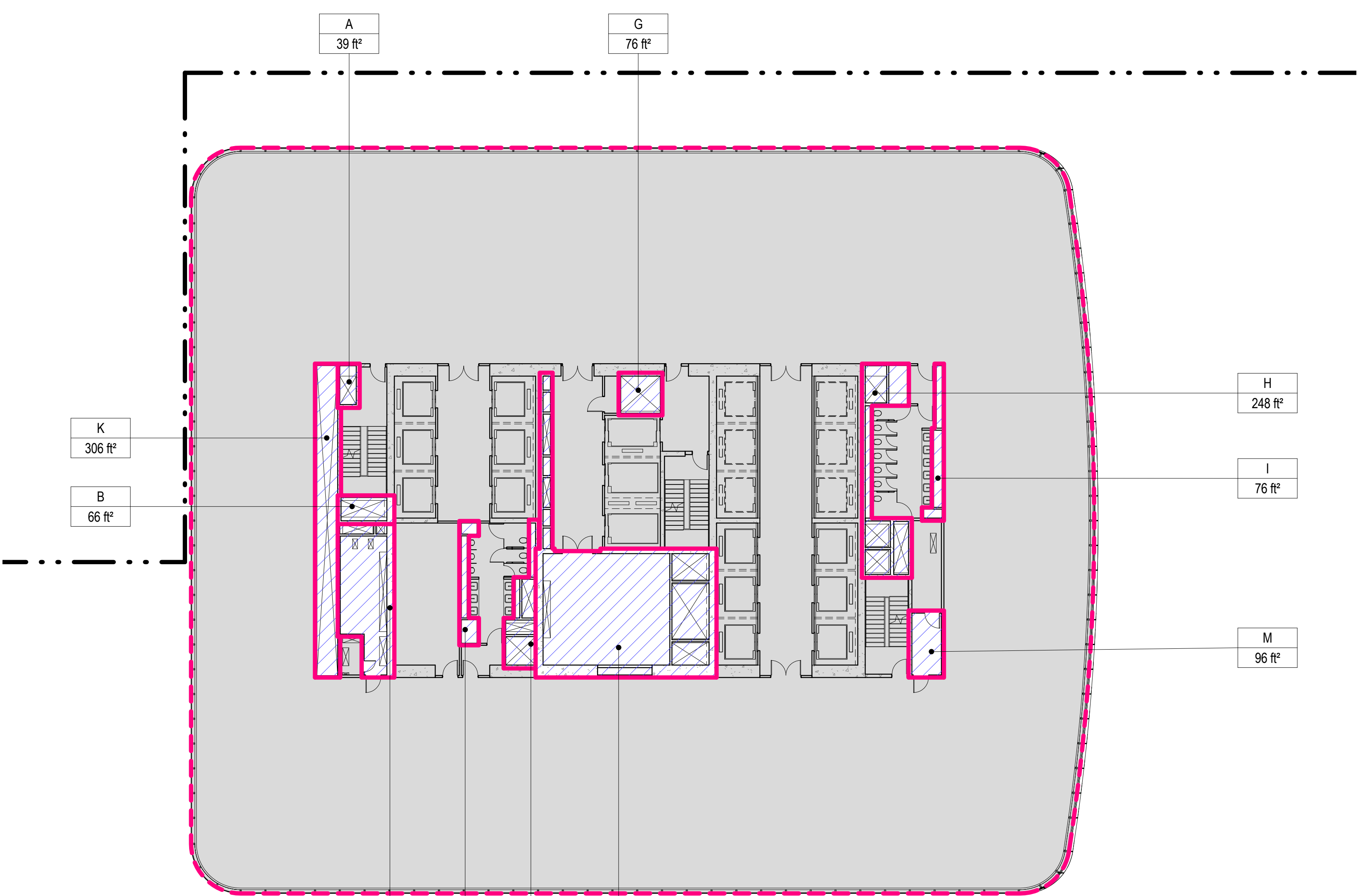
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Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: 2-116

B-SCAN Sheet No.:  
**Z-116.00**  
Sheet No.:  
**Z-116**  
Page No.: 23 OF 30



AREA DEDUCTIONS LEVEL 51		
NAME	TYPE	AREA
A	M	39 ft²
B	M	66 ft²
C	E/P	314 ft²
D	P	66 ft²
E	M/P	122 ft²
F	M/E/P	1036 ft²
G	M	76 ft²
H	M/P	248 ft²
I	P	76 ft²
K	M/E/P	306 ft²
M	E	96 ft²
Grand total		2444 ft²

ZONING SCHEDULE - LEVEL 51		
ZONING DEDUCTIONS	2444 ft²	
ZONING FLOOR AREA	24340 ft²	
GROSS FLOOR AREA	26784 ft²	



AREA DEDUCTIONS LEVEL 49		
NAME	TYPE	AREA
A	M	39 ft²
B	M	66 ft²
C	E/P	314 ft²
D	P	66 ft²
E	M/P	122 ft²
F	M/E/P	1036 ft²
G	M	76 ft²
H	M/P	248 ft²
I	P	76 ft²
K	M/E/P	306 ft²
M	E	96 ft²
Grand total		2444 ft²

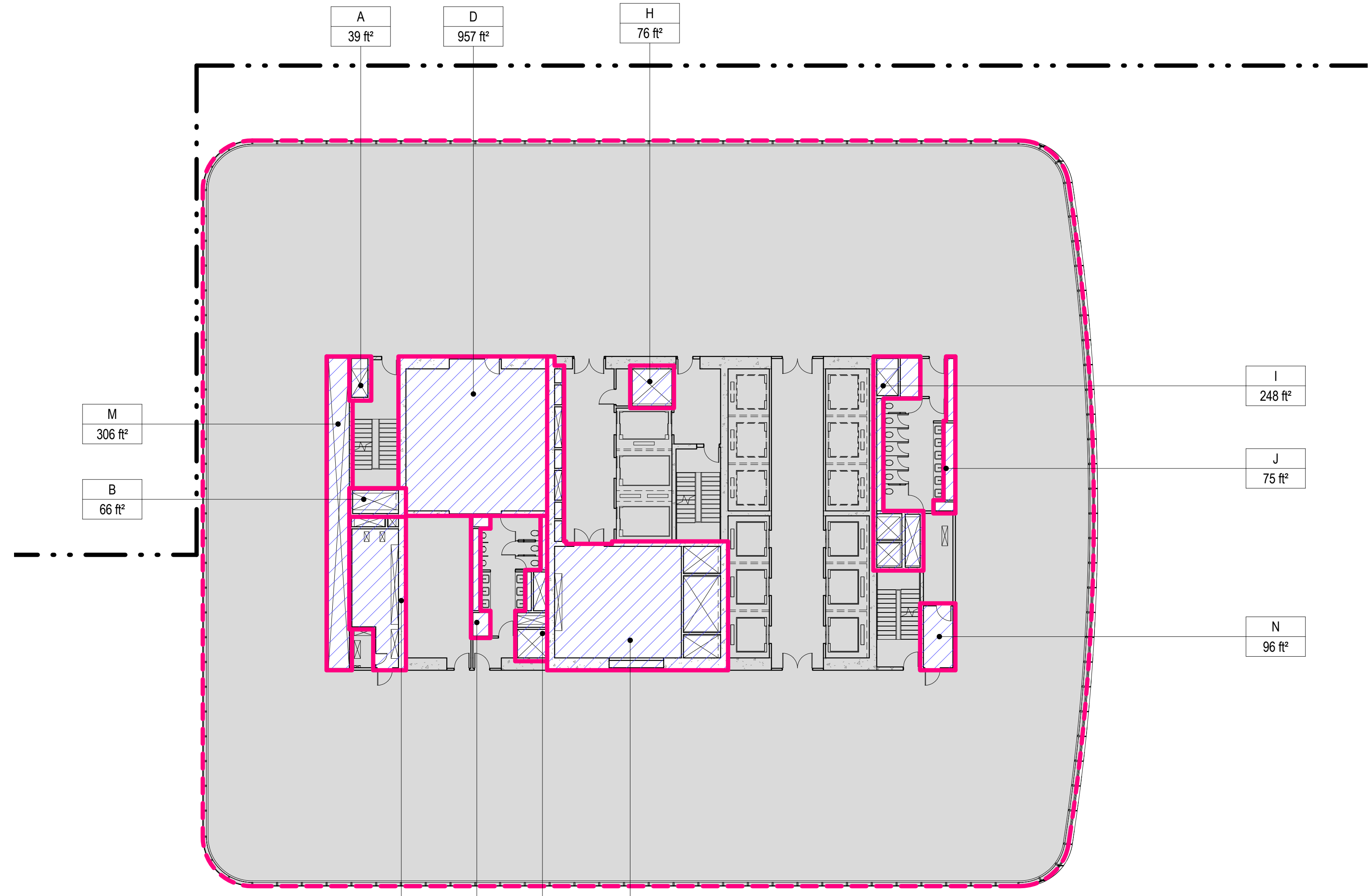
ZONING SCHEDULE - LEVEL 49		
ZONING DEDUCTIONS	2444 ft²	
ZONING FLOOR AREA	24581 ft²	
GROSS FLOOR AREA	27025 ft²	

### 3 LEVEL 51 PLAN

SCALE: 1/16" = 1'-0"

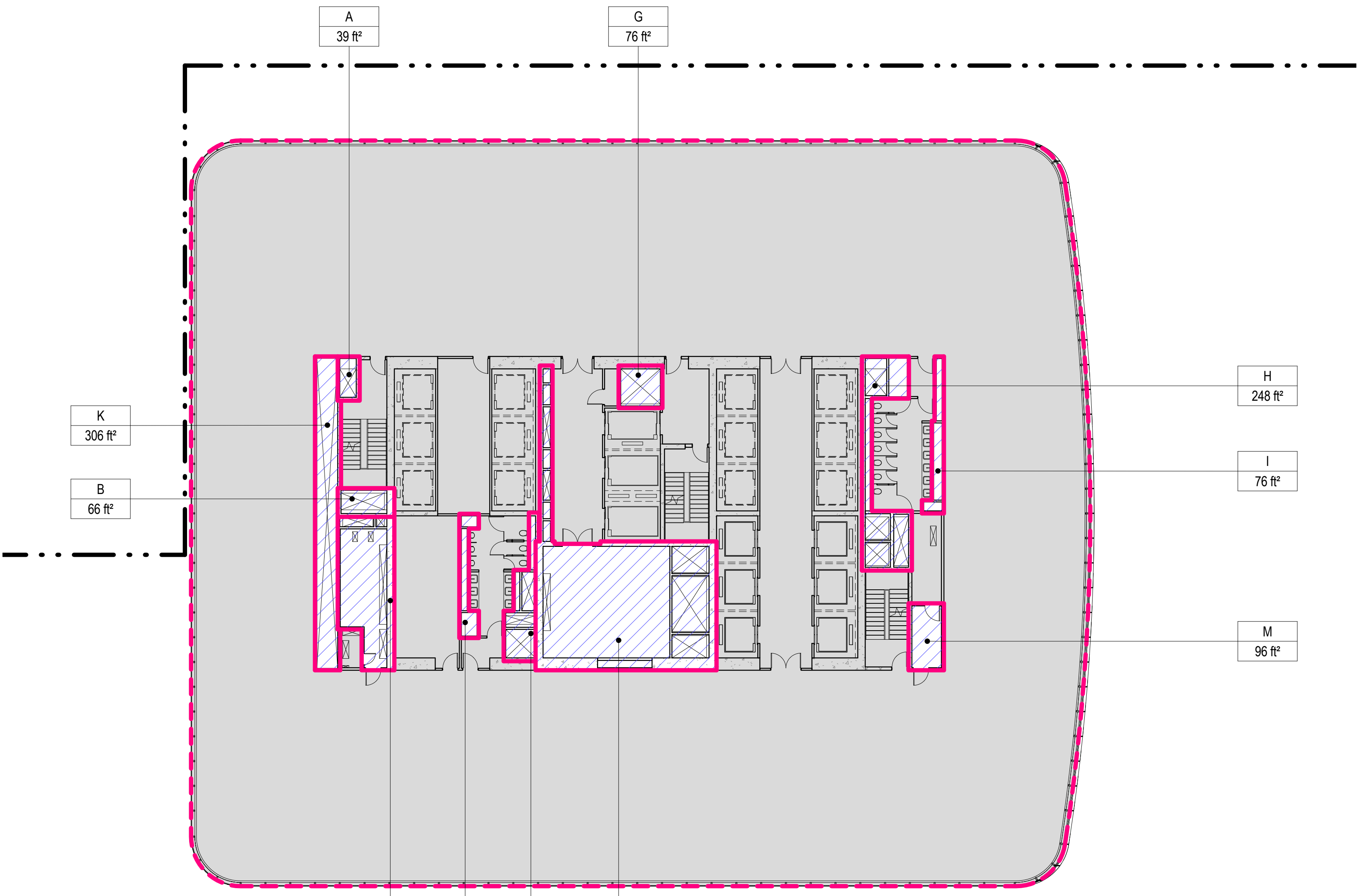
### 1 LEVEL 49 PLAN

SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 52		
NAME	TYPE	AREA
A	M	39 ft²
B	M	66 ft²
C	E/P	314 ft²
D	EM	957 ft²
E	P	64 ft²
F	M/P	117 ft²
G	M/E/P	1069 ft²
H	M	76 ft²
I	M/P	248 ft²
J	P	75 ft²
M	M/E/P	306 ft²
N	E	96 ft²
Grand total		3426 ft²

ZONING SCHEDULE - LEVEL 52		
ZONING DEDUCTIONS	3426 ft²	
ZONING FLOOR AREA	23238 ft²	
GROSS FLOOR AREA	26664 ft²	



AREA DEDUCTIONS LEVEL 50		
NAME	TYPE	AREA
A	M	39 ft²
B	M	66 ft²
C	E/P	314 ft²
D	P	66 ft²
E	M/P	122 ft²
F	M/E/P	1036 ft²
G	M	76 ft²
H	M/P	248 ft²
I	P	76 ft²
K	M/E/P	306 ft²
M	E	96 ft²
Grand total		2444 ft²

ZONING SCHEDULE - LEVEL 50		
ZONING DEDUCTIONS	2444 ft²	
ZONING FLOOR AREA	24461 ft²	
GROSS FLOOR AREA	26905 ft²	

### 4 LEVEL 52 PLAN

SCALE: 1/16" = 1'-0"

### 2 LEVEL 50 PLAN

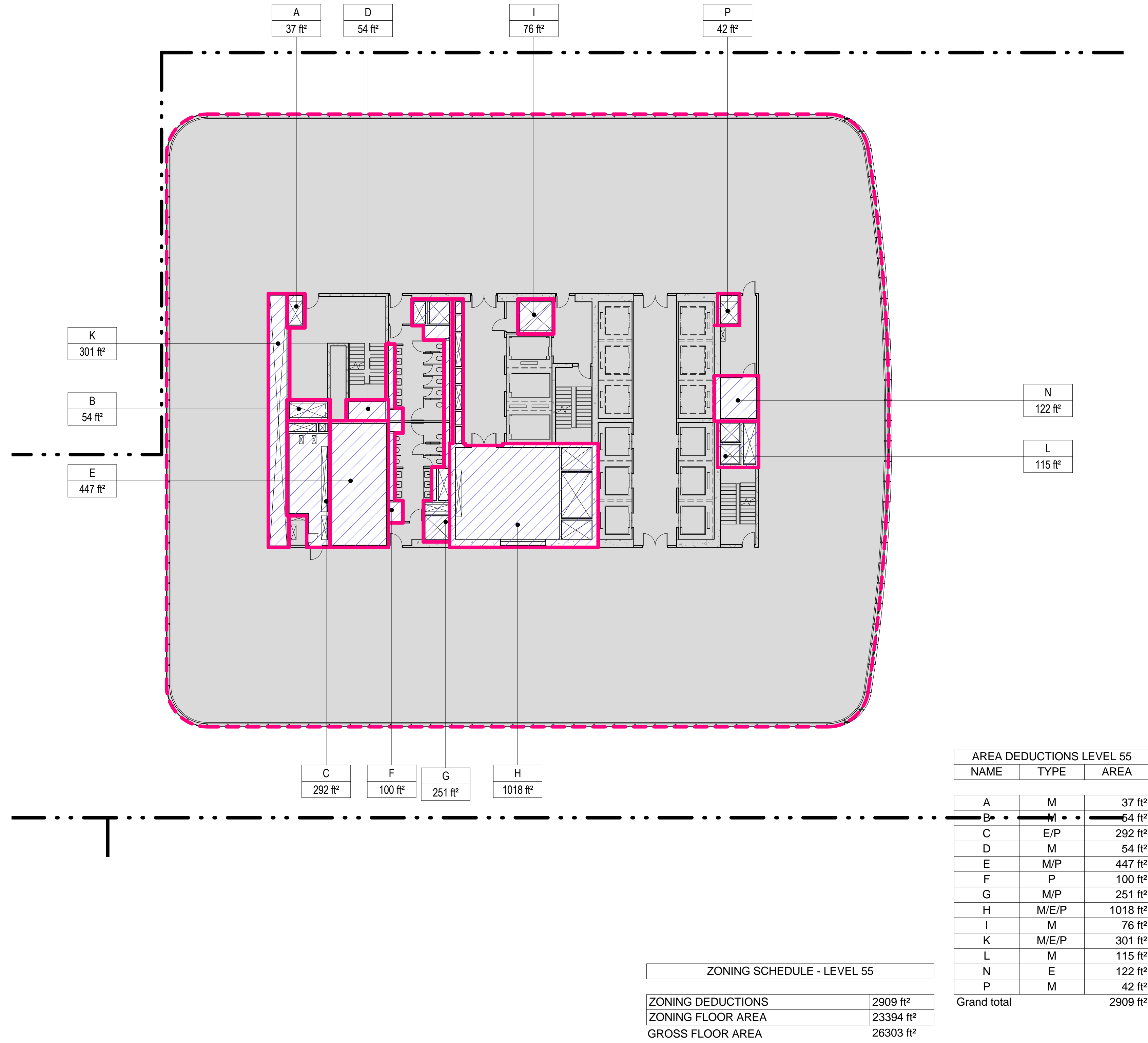
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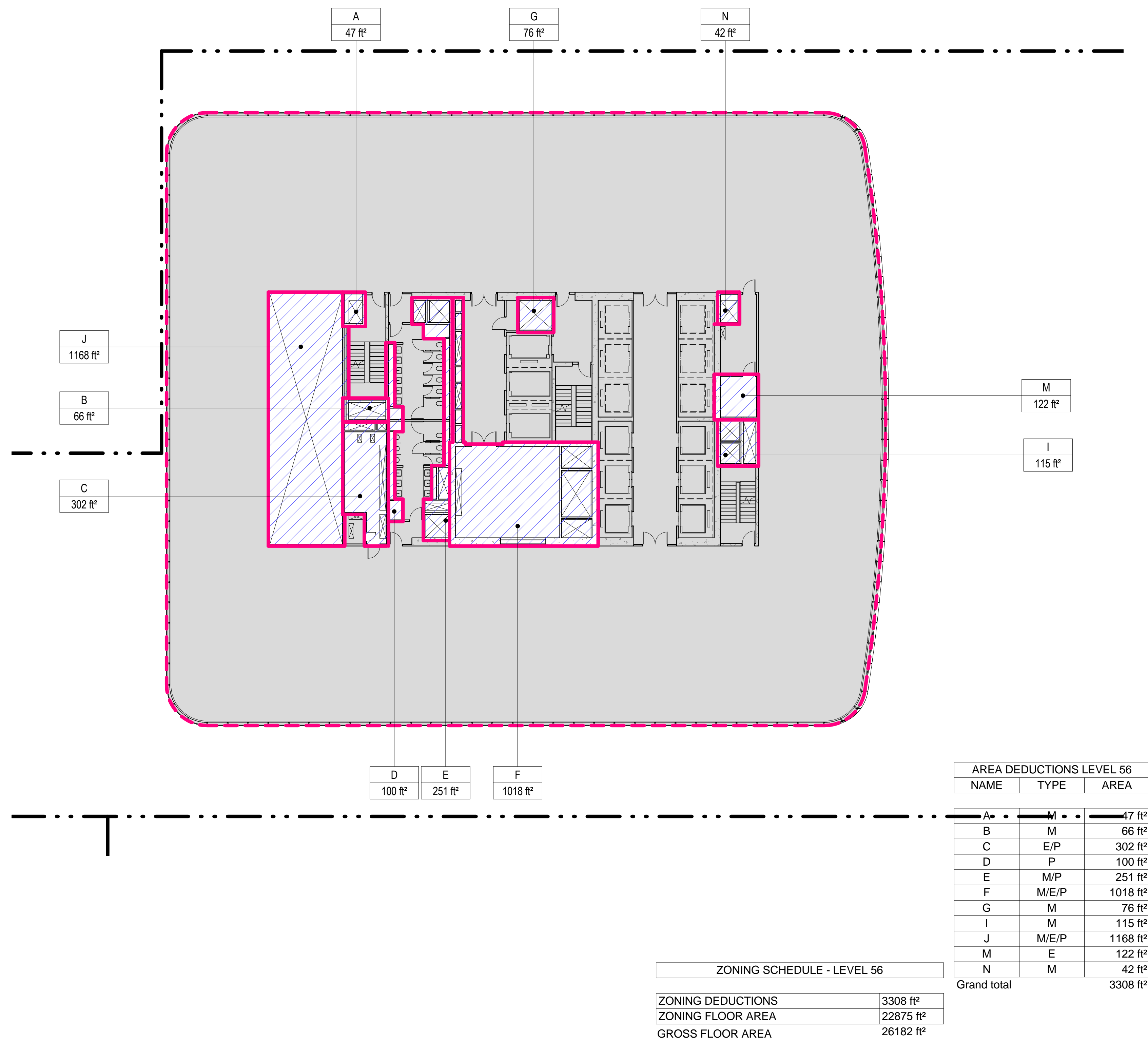
### 3 LEVEL 55 PLAN

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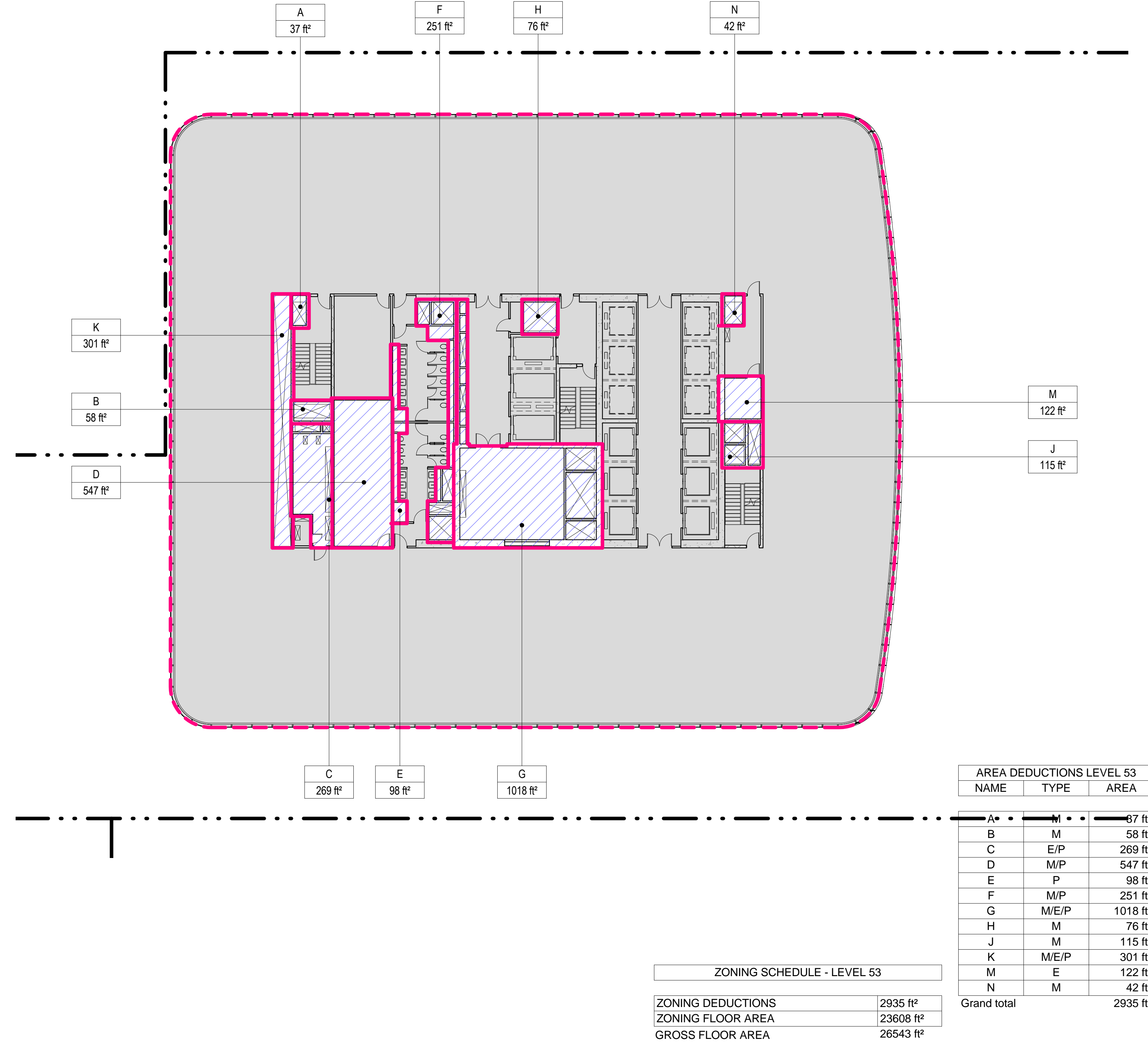
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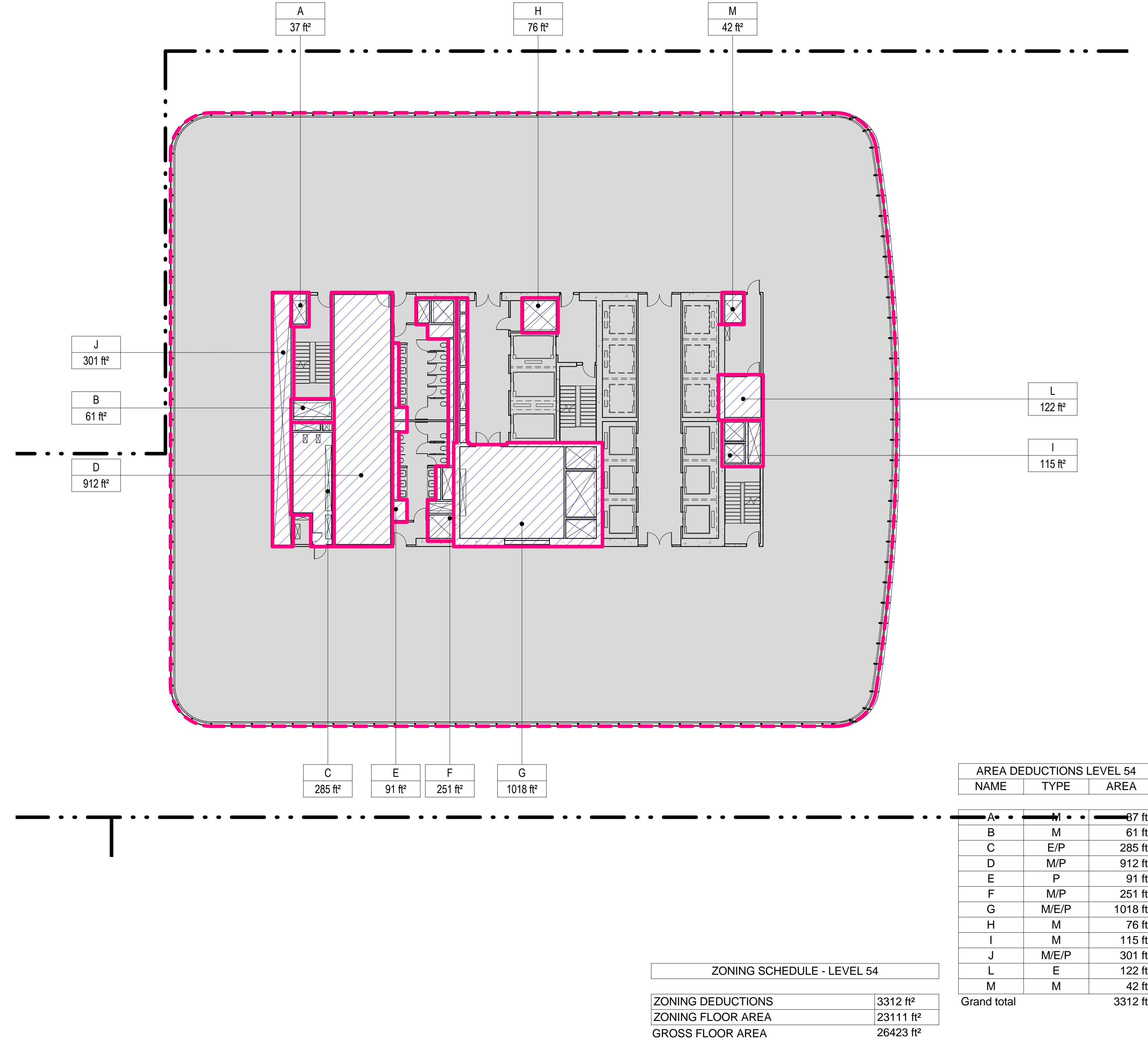
### 1 LEVEL 53 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 54 PLAN

SCALE: 1/16" = 1'-0"



- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
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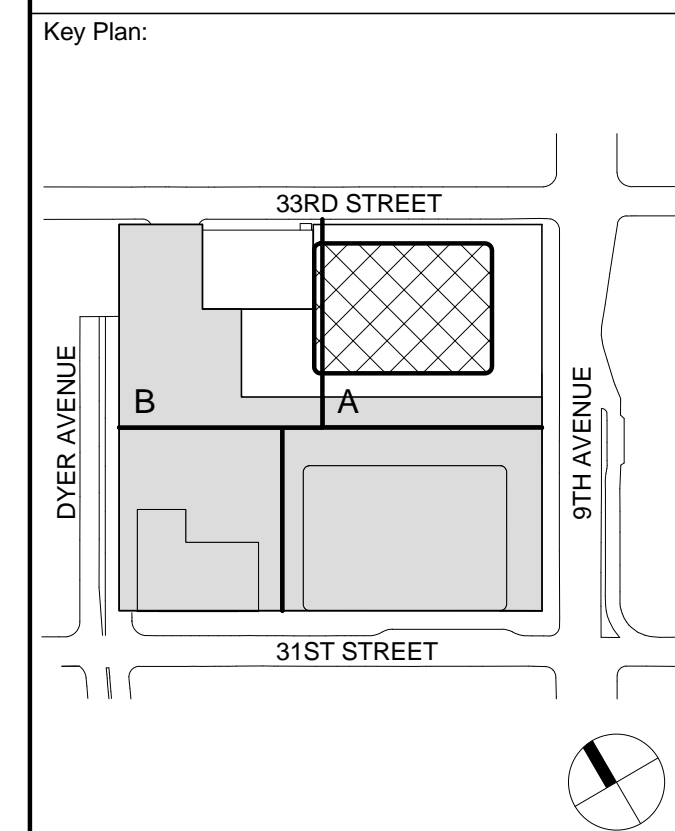
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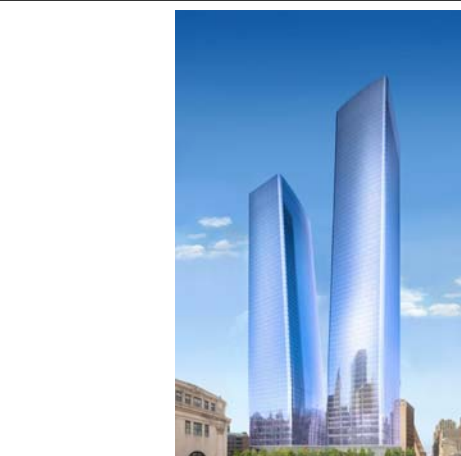
### ZONING FLOOR AREA DEDUCTIONS - LEVEL 53-56

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-117

B-SCAN Sheet No.:  
**Z-117.00**  
Sheet No.:  
Page No.: 24 OF 30



- ZONING LEGENDS
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
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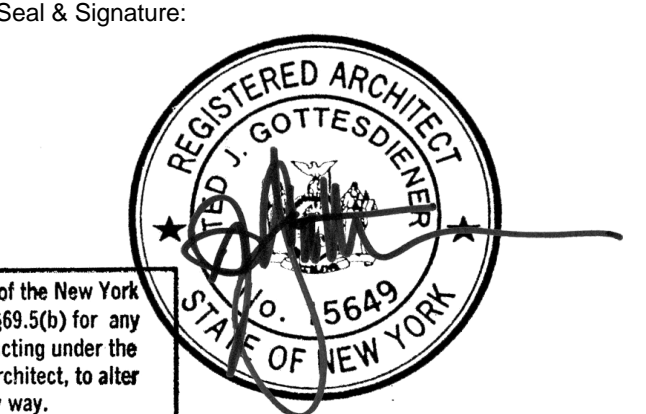
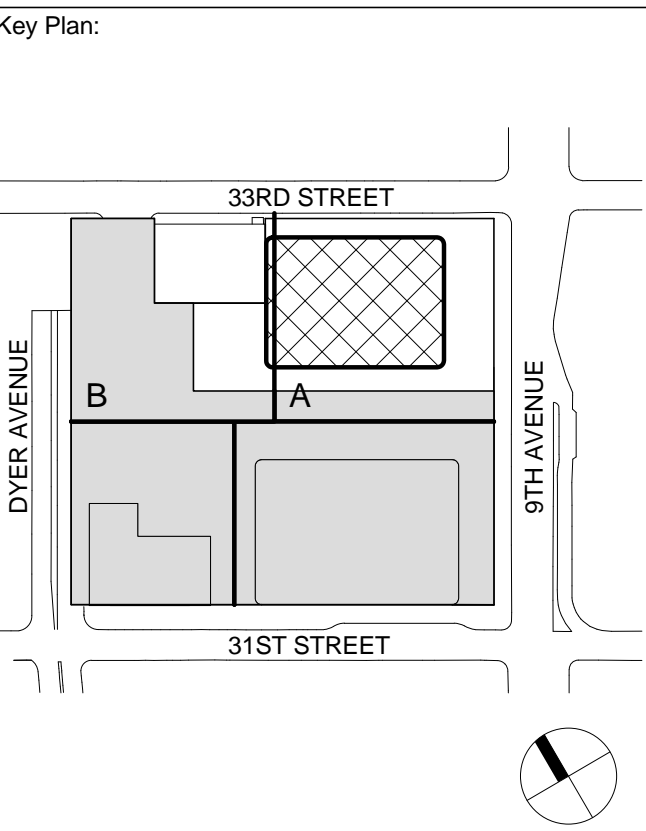
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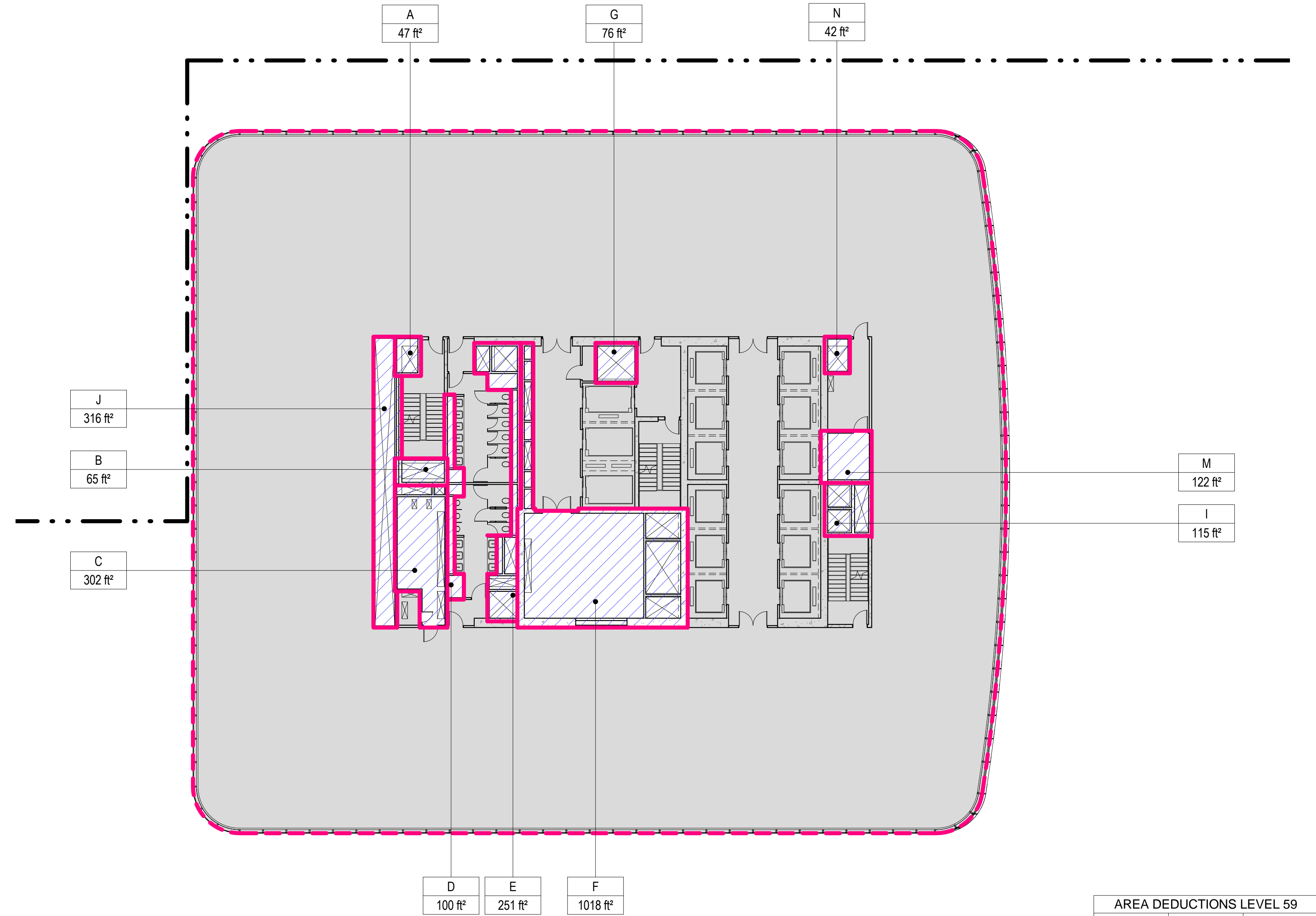


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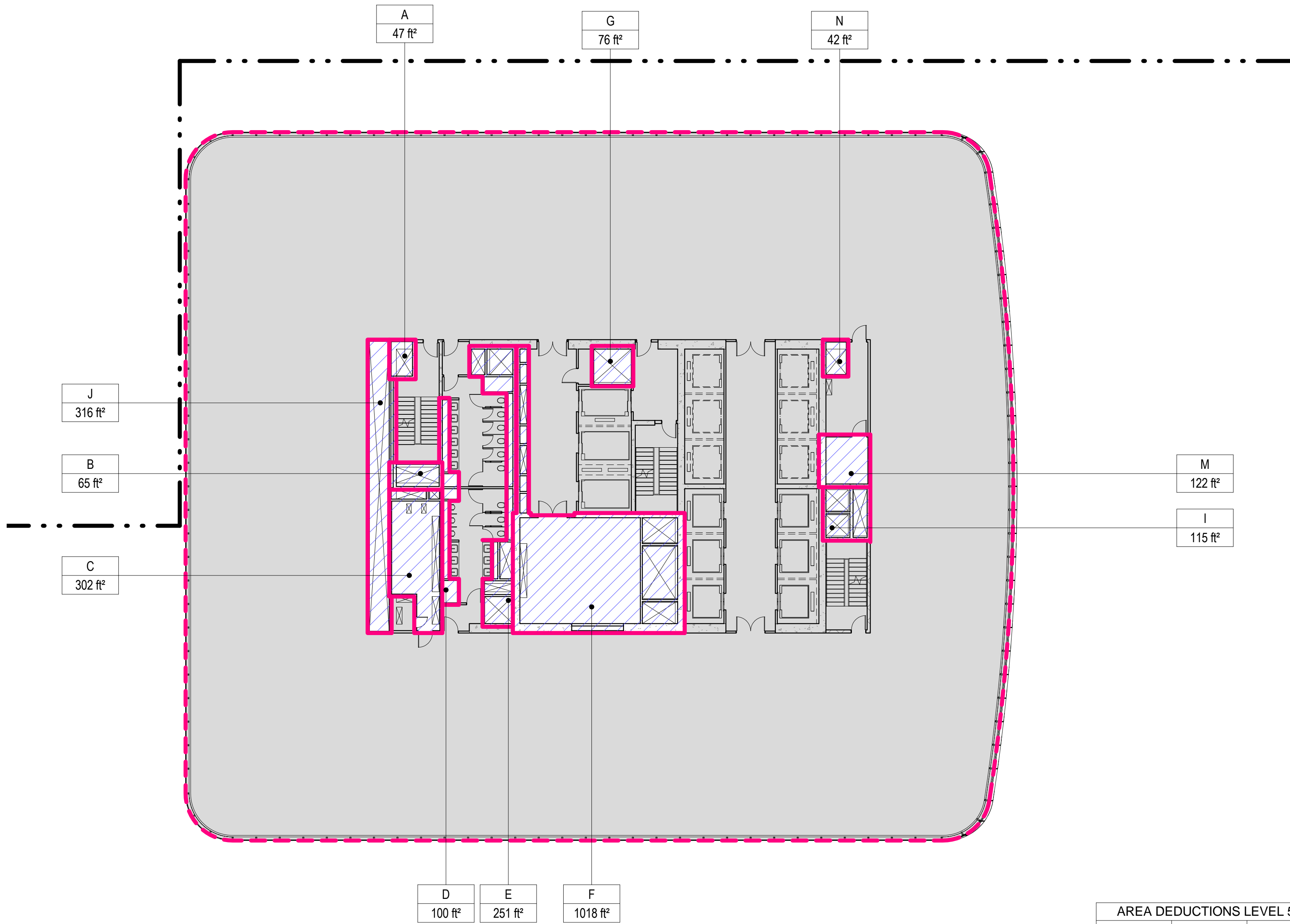
ZONING FLOOR AREA DEDUCTIONS - LEVEL 57-60

Project No.: 207150	B-SCAN Sheet No.: Z-118.00
Date: 12 MAY 2015	Sheet No.: Z-118
Scale: 1/16" = 1'-0"	Page No.: 25 OF 30
File No.: Z-118	



AREA DEDUCTIONS LEVEL 59		
NAME	TYPE	AREA
A	M	47 ft²
B	M	65 ft²
C	E/P	302 ft²
D	P	100 ft²
E	M/P	251 ft²
F	M/E/P	1018 ft²
G	M	76 ft²
I	M	115 ft²
J	M/E/P	316 ft²
M	E	122 ft²
N	M	42 ft²
Grand total		2455 ft²

ZONING SCHEDULE - LEVEL 59	
ZONING DEDUCTIONS	2455 ft²
ZONING FLOOR AREA	23366 ft²
GROSS FLOOR AREA	25821 ft²



AREA DEDUCTIONS LEVEL 57		
NAME	TYPE	AREA
A	M	47 ft²
B	M	65 ft²
C	E/P	302 ft²
D	P	100 ft²
E	M/P	251 ft²
F	M/E/P	1018 ft²
G	M	76 ft²
I	M	115 ft²
J	M/E/P	316 ft²
M	E	122 ft²
N	M	42 ft²
Grand total		2455 ft²

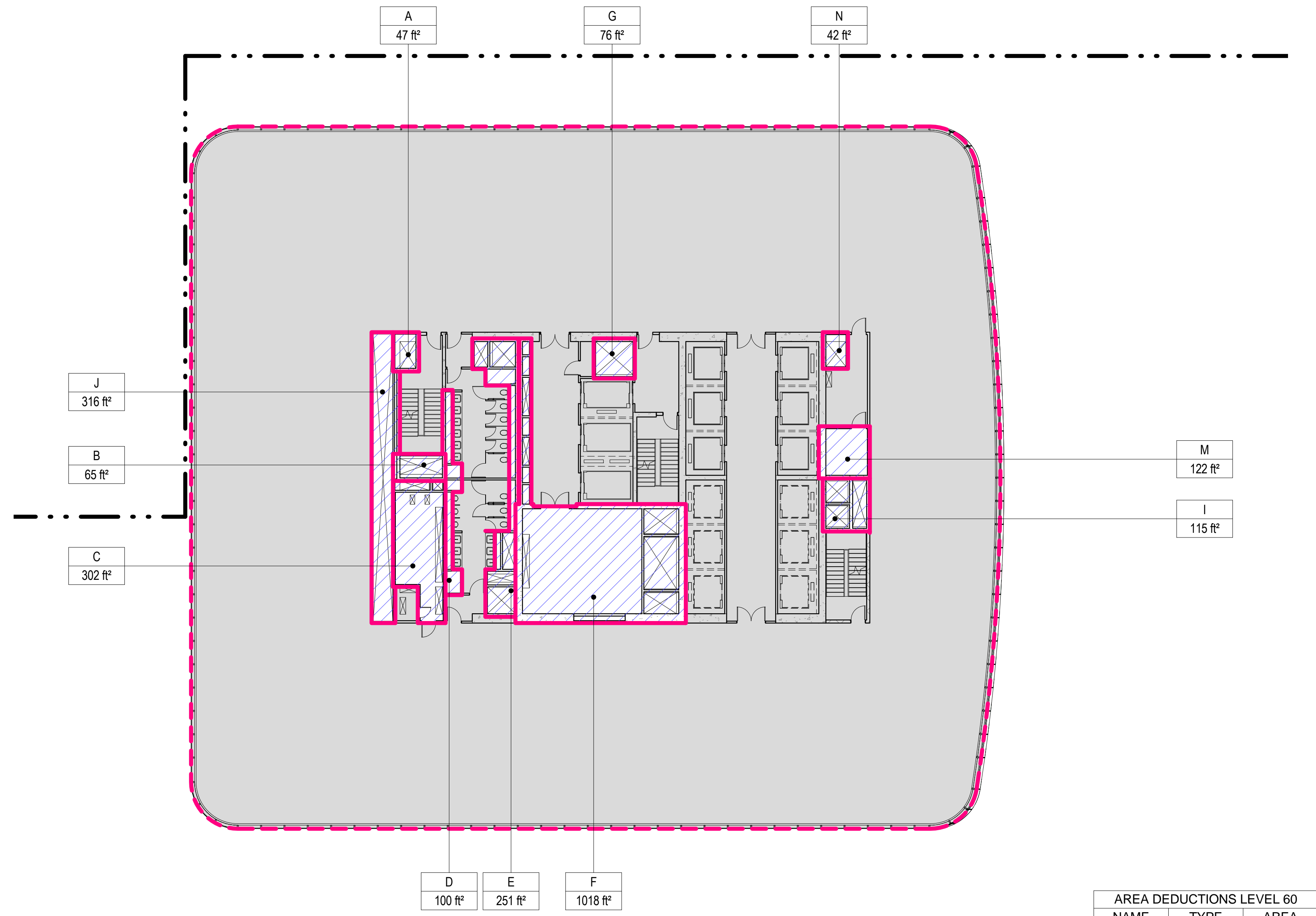
ZONING SCHEDULE - LEVEL 57	
ZONING DEDUCTIONS	2455 ft²
ZONING FLOOR AREA	23607 ft²
GROSS FLOOR AREA	26062 ft²

### 3 LEVEL 59 PLAN

SCALE: 1/16" = 1'-0"

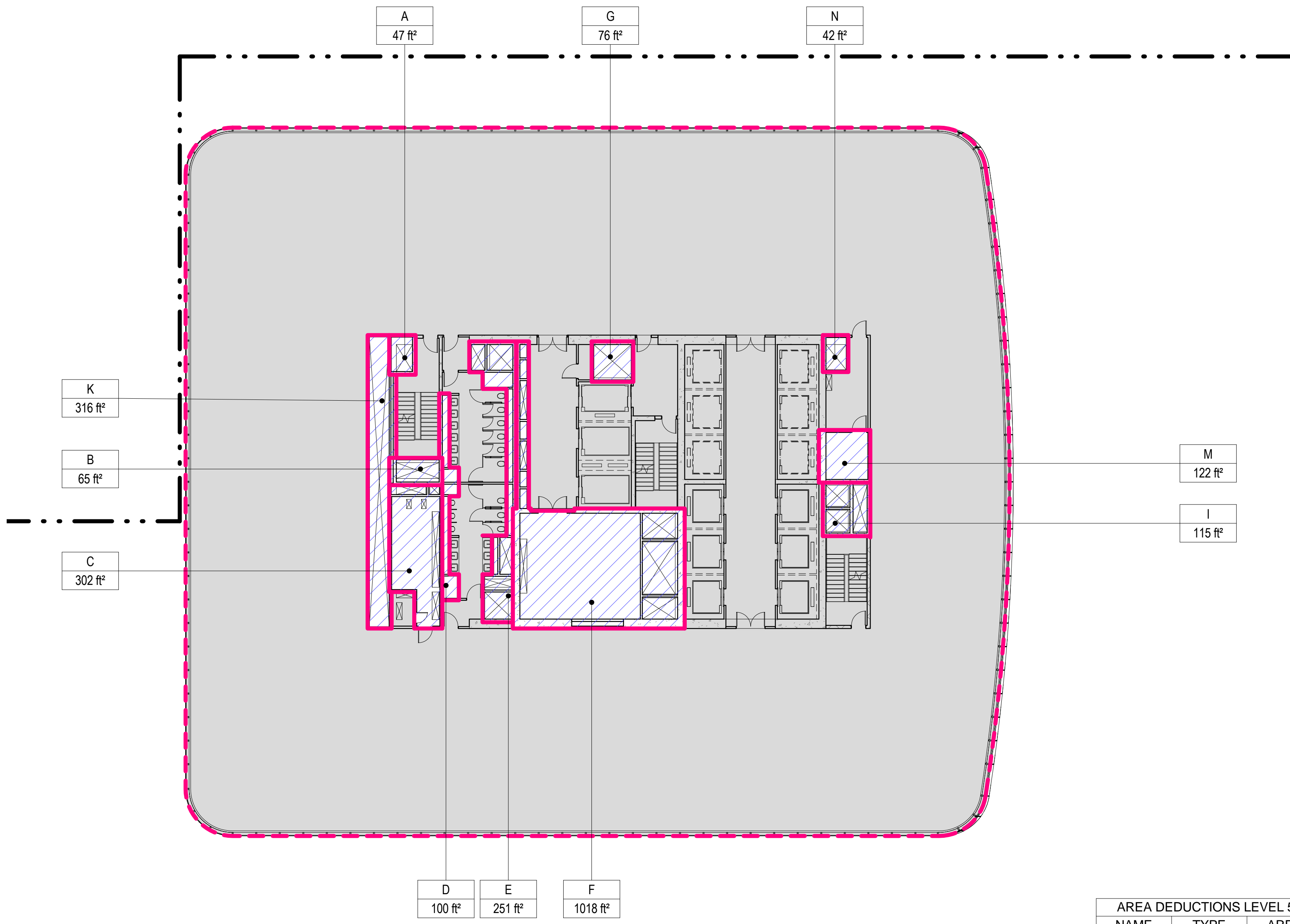
### 1 LEVEL 57 PLAN

SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 60		
NAME	TYPE	AREA
A	M	47 ft²
B	M	65 ft²
C	E/P	302 ft²
D	P	100 ft²
E	M/P	251 ft²
F	M/E/P	1018 ft²
G	M	76 ft²
I	M	115 ft²
J	M/E/P	316 ft²
M	E/P	122 ft²
N	M	42 ft²
Grand total		2455 ft²

ZONING SCHEDULE - LEVEL 60	
ZONING DEDUCTIONS	2455 ft²
ZONING FLOOR AREA	23246 ft²
GROSS FLOOR AREA	25701 ft²



AREA DEDUCTIONS LEVEL 58		
NAME	TYPE	AREA
A	M	47 ft²
B	M	65 ft²
C	E/P	302 ft²
D	P	100 ft²
E	M/P	251 ft²
F	M/E/P	1018 ft²
G	M	76 ft²
I	M	115 ft²
K	M/E/P	316 ft²
M	E	122 ft²
N	M	42 ft²
Grand total		2455 ft²

ZONING SCHEDULE - LEVEL 58	
ZONING DEDUCTIONS	2455 ft²
ZONING FLOOR AREA	23486 ft²
GROSS FLOOR AREA	25941 ft²

### 4 LEVEL 60 PLAN

SCALE: 1/16" = 1'-0"

### 2 LEVEL 58 PLAN

SCALE: 1/16" = 1'-0"

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- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
  - M MECHANICAL
  - E ELECTRICAL/TEL./IT
  - P PLUMBING
  - EM ELEVATOR MACHINE ROOM



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Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

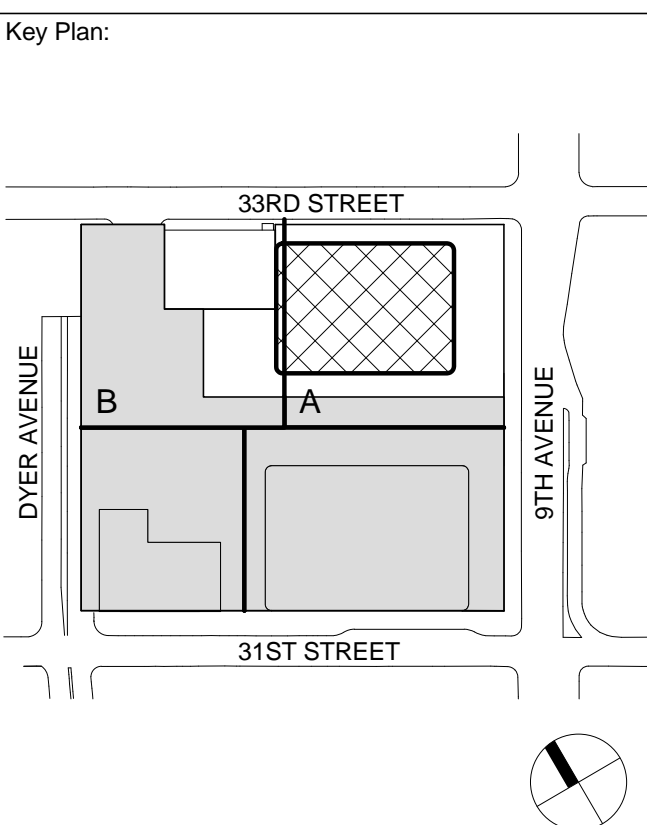
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8



Seal & Signature:

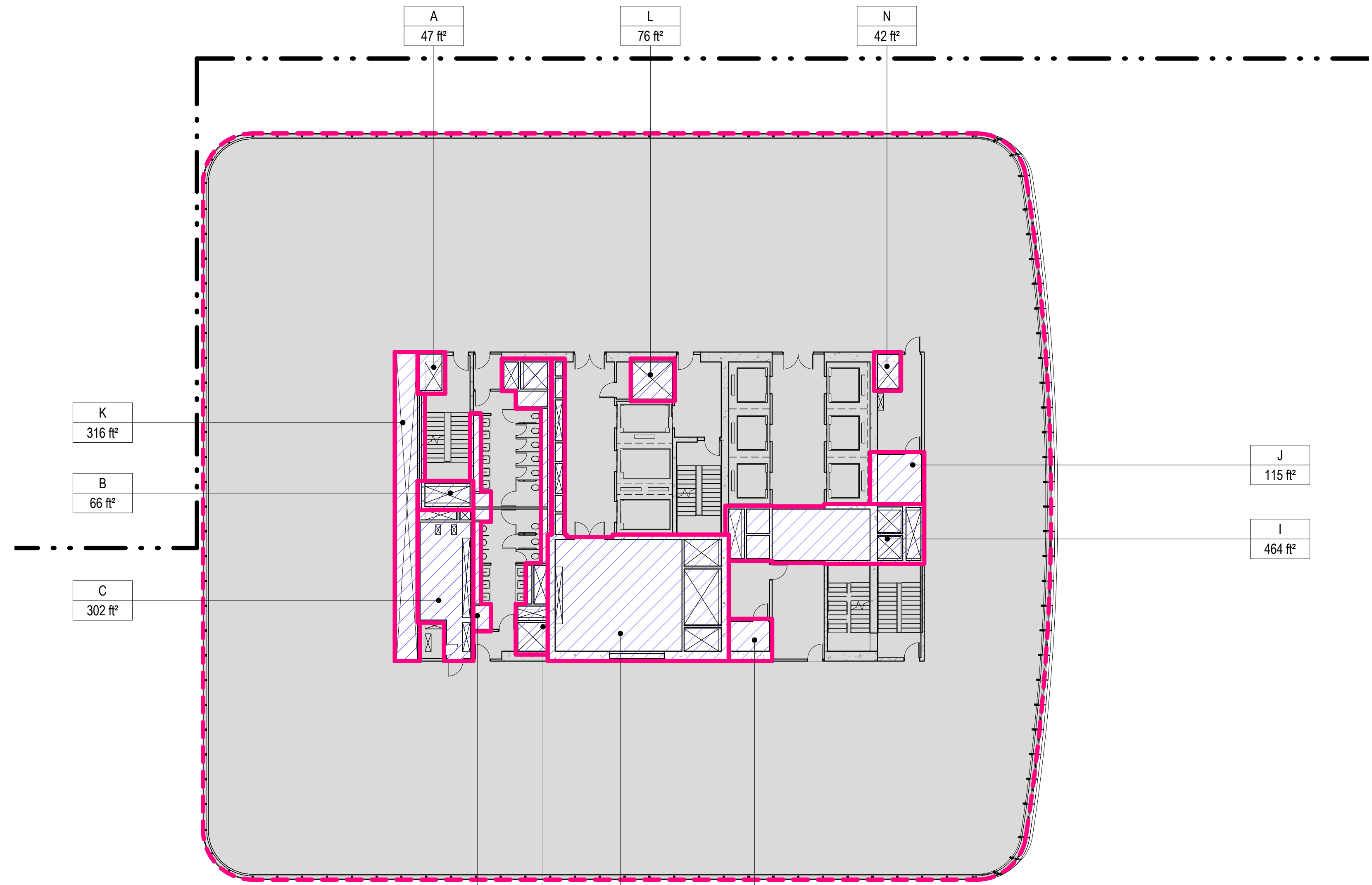


Warning: It is a violation of the New York State Architecture Law §160.500 for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

5 12 MAY 2015 ISSUED FOR BUILDING PERMIT  
4 26 FEB 2015 ISSUED FOR BUILDING PERMIT  
3 18 DEC 2014 ISSUED FOR FOUNDATION PERMIT  
2 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
1 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT

No. Date Description  
Sheet Name:  
**ZONING FLOOR  
AREA  
DEDUCTIONS -  
LEVEL 61-64**

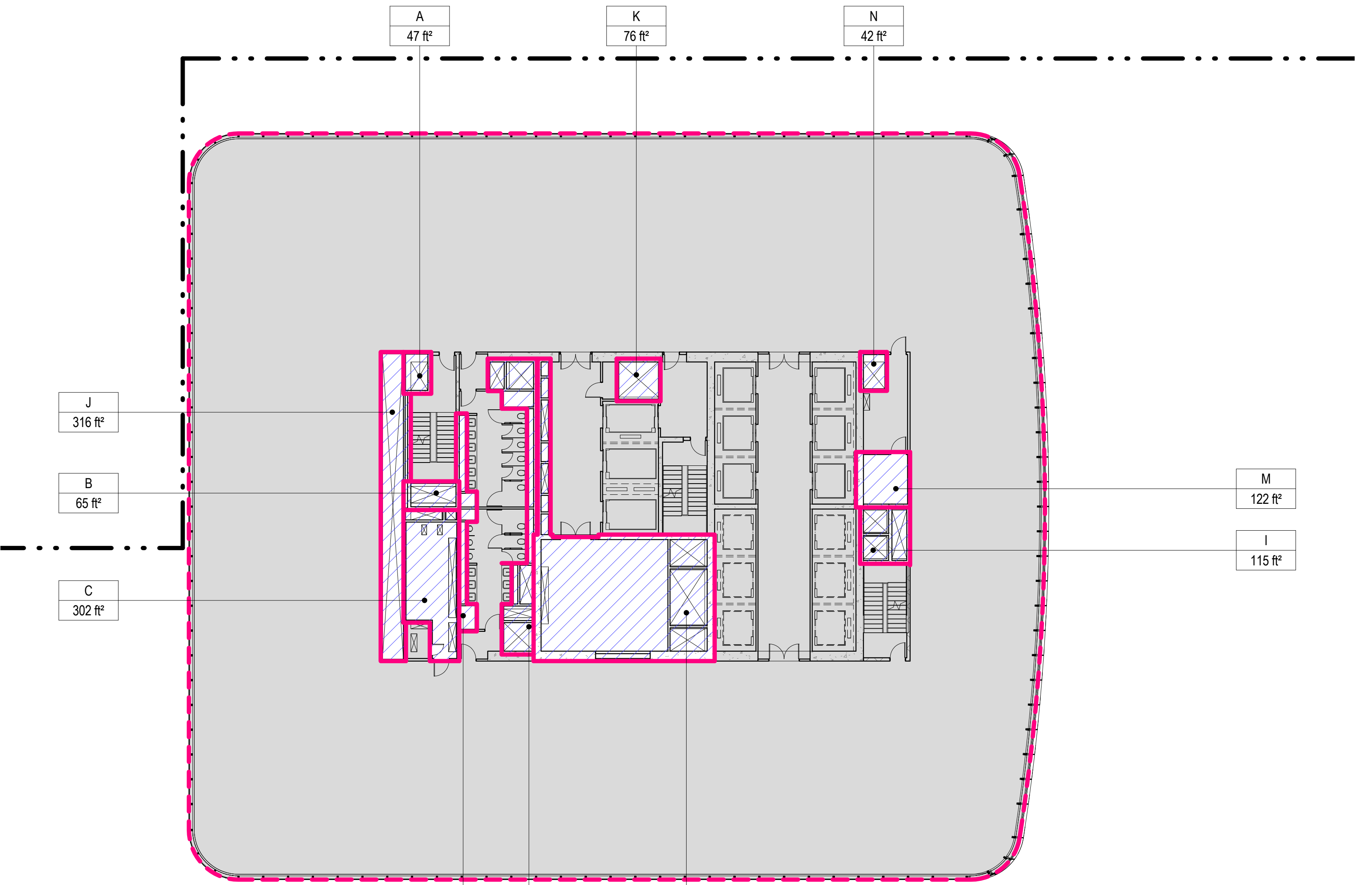
Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: 2-119  
B-SCAN Sheet No.:  
**Z-119.00**  
Sheet No.:  
**Z-119**  
Page No.: 26 OF 30



AREA DEDUCTIONS LEVEL 63		
NAME	TYPE	AREA
A	M	47 R²
B	M	66 R²
C	E/P	302 R²
D	P	100 R²
E	M/P	251 R²
F	M/E/P	1018 R²
I	M	464 R²
J	M/E	115 R²
K	M/E/P	316 R²
L	M	76 R²
N	M	42 R²
P	E	74 R²
Grand total		2872 R²

ZONING SCHEDULE - LEVEL 63	
ZONING DEDUCTIONS	2872 R²
ZONING FLOOR AREA	22468 R²
GROSS FLOOR AREA	25339 R²

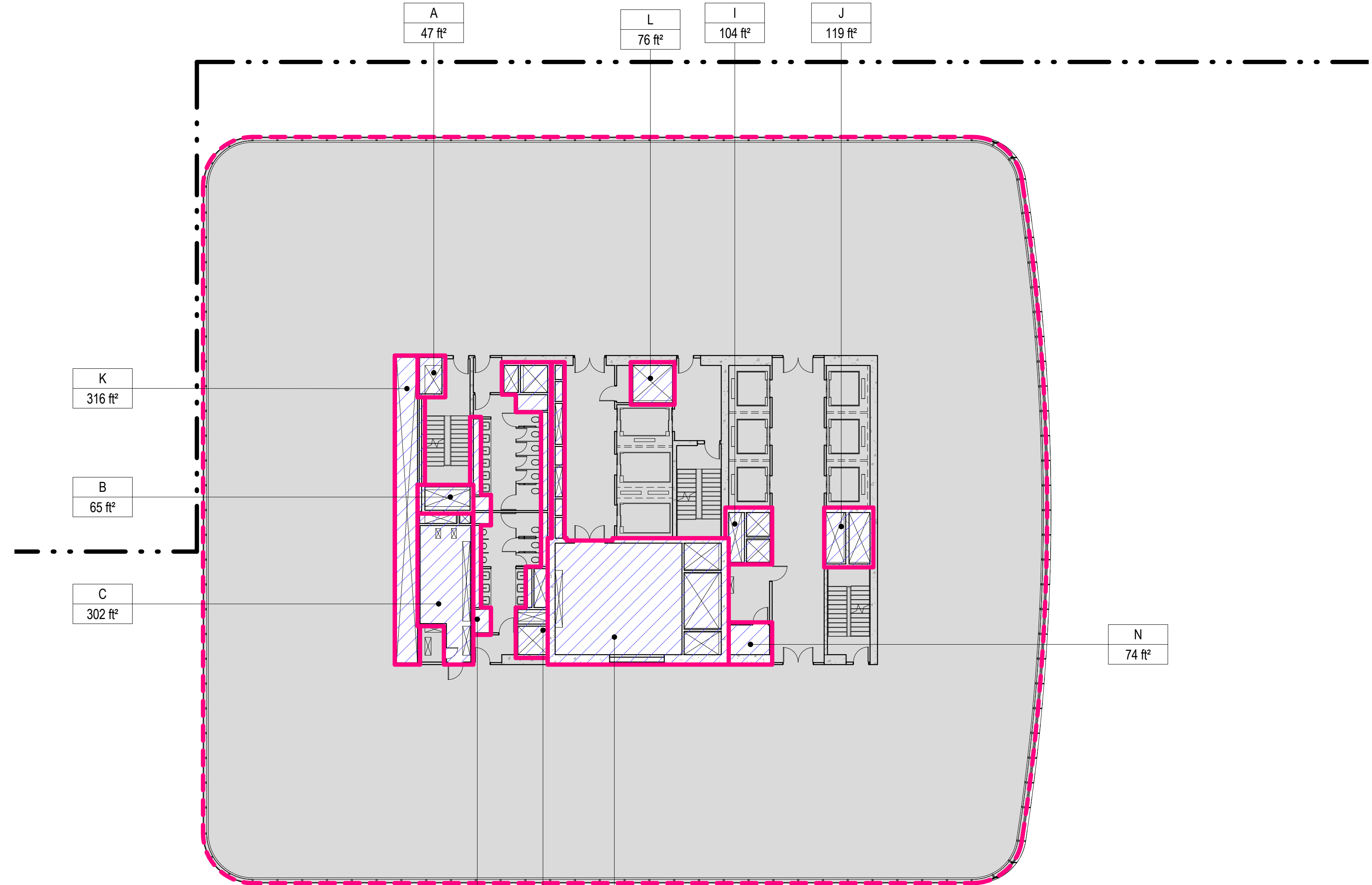
**3 LEVEL 63 PLAN**  
SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 61		
NAME	TYPE	AREA
A	M	47 R²
B	M	65 R²
C	E/P	302 R²
D	P	100 R²
E	M/P	251 R²
G	M	1018 R²
I	M	115 R²
J	M/E/P	316 R²
K	M	76 R²
M	E	122 R²
N	M	42 R²
Grand total		2455 R²

ZONING SCHEDULE - LEVEL 61	
ZONING DEDUCTIONS	2455 R²
ZONING FLOOR AREA	23125 R²
GROSS FLOOR AREA	25580 R²

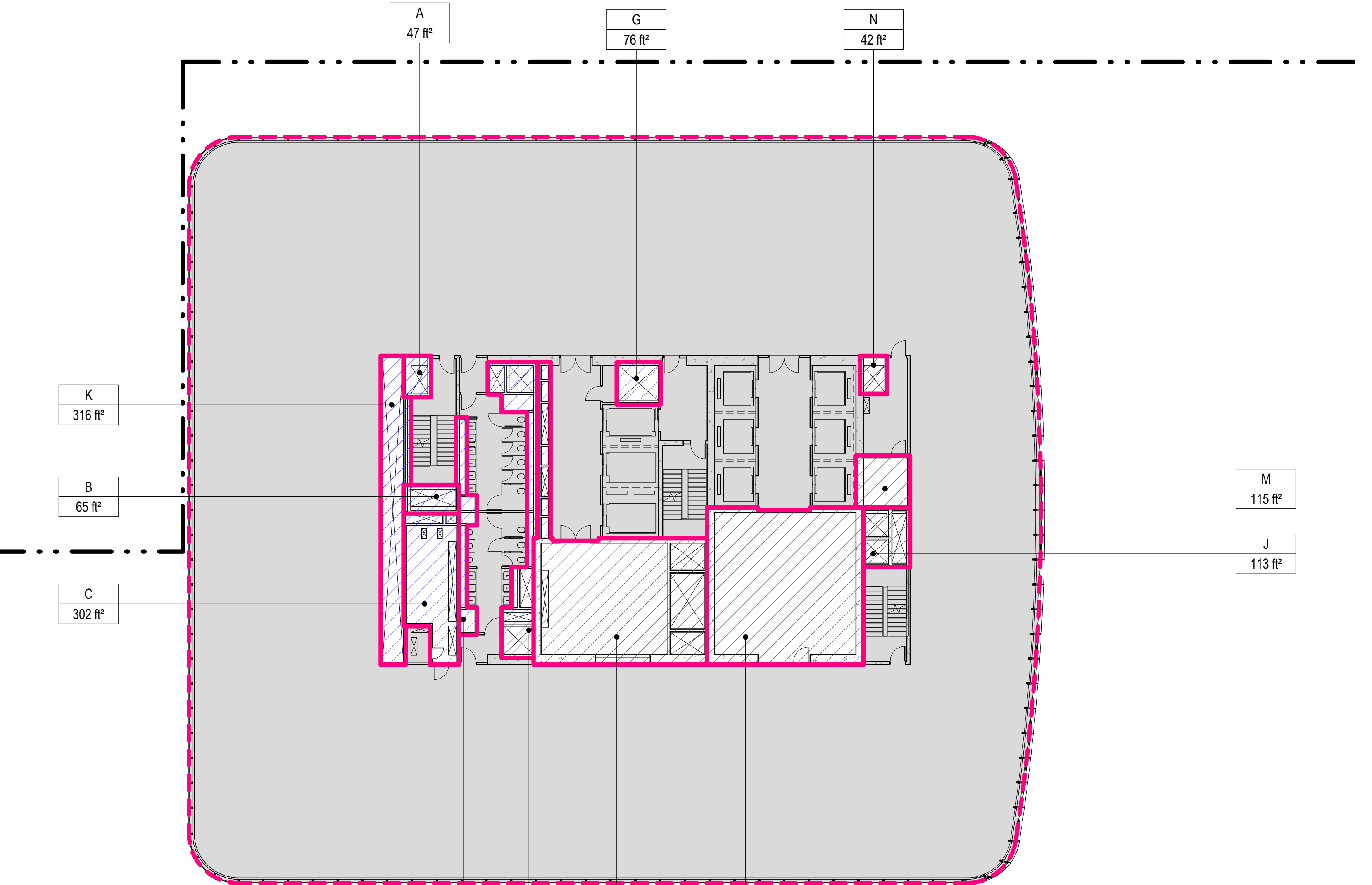
**1 LEVEL 61 PLAN**  
SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 64		
NAME	TYPE	AREA
A	M	47 R²
B	M	65 R²
C	E/P	302 R²
D	P	100 R²
E	M/P	251 R²
F	M/E/P	1018 R²
I	M	104 R²
J	M	119 R²
K	M/E/P	316 R²
L	M	76 R²
N	E	74 R²
Grand total		2474 R²

ZONING SCHEDULE - LEVEL 64	
ZONING DEDUCTIONS	2474 R²
ZONING FLOOR AREA	22745 R²
GROSS FLOOR AREA	25219 R²

**4 LEVEL 64 PLAN**  
SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 62		
NAME	TYPE	AREA
A	M	47 R²
B	M	65 R²
C	E/P	302 R²
D	P	100 R²
E	M/P	251 R²
F	M/E/P	980 R²
G	M	76 R²
H	EM	991 R²
J	M	113 R²
K	M/E/P	316 R²
M	E	115 R²
N	M	42 R²
Grand total		3399 R²

ZONING SCHEDULE - LEVEL 62	
ZONING DEDUCTIONS	3399 R²
ZONING FLOOR AREA	22060 R²
GROSS FLOOR AREA	25460 R²

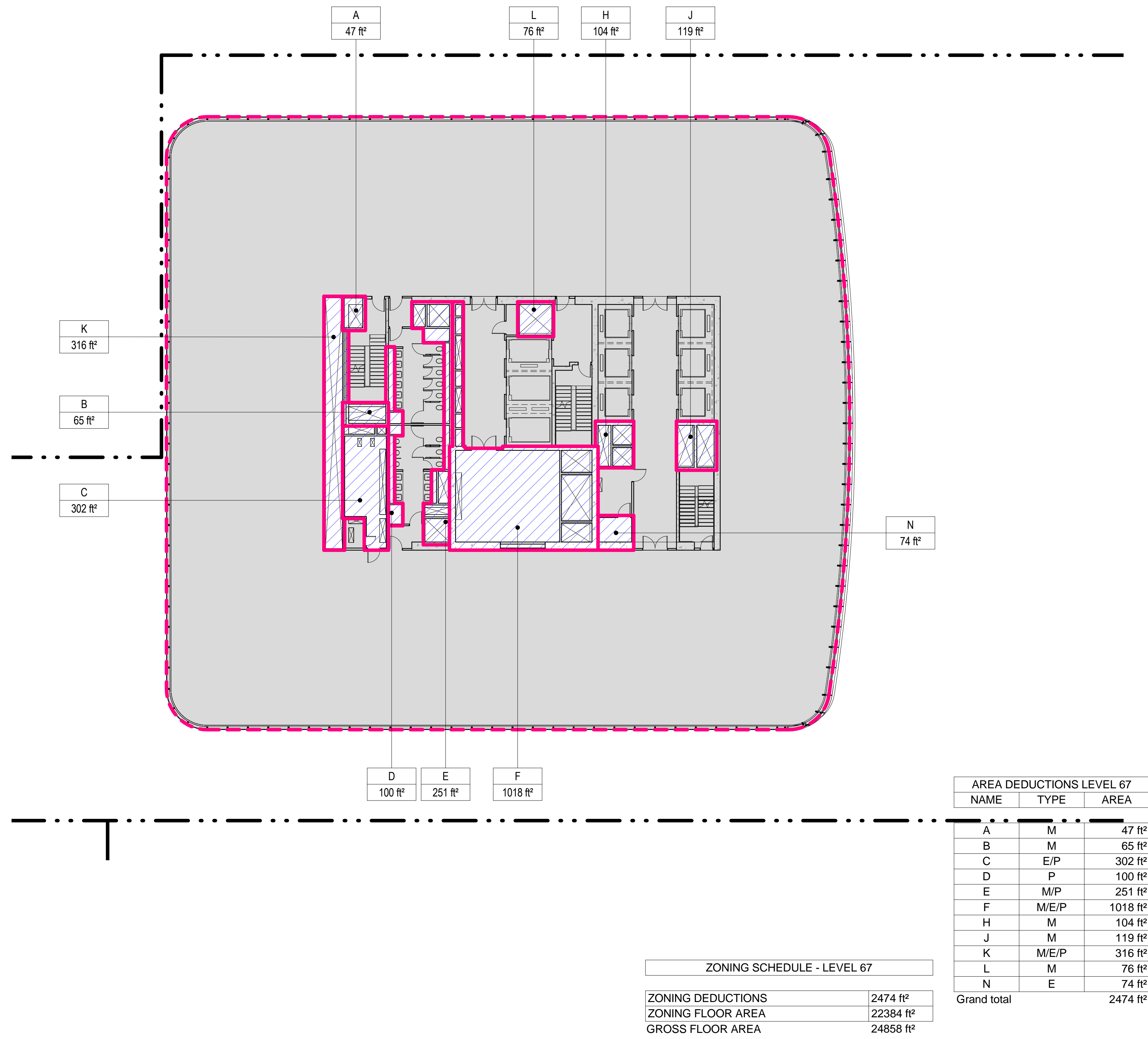
**2 LEVEL 62 PLAN**  
SCALE: 1/16" = 1'-0"



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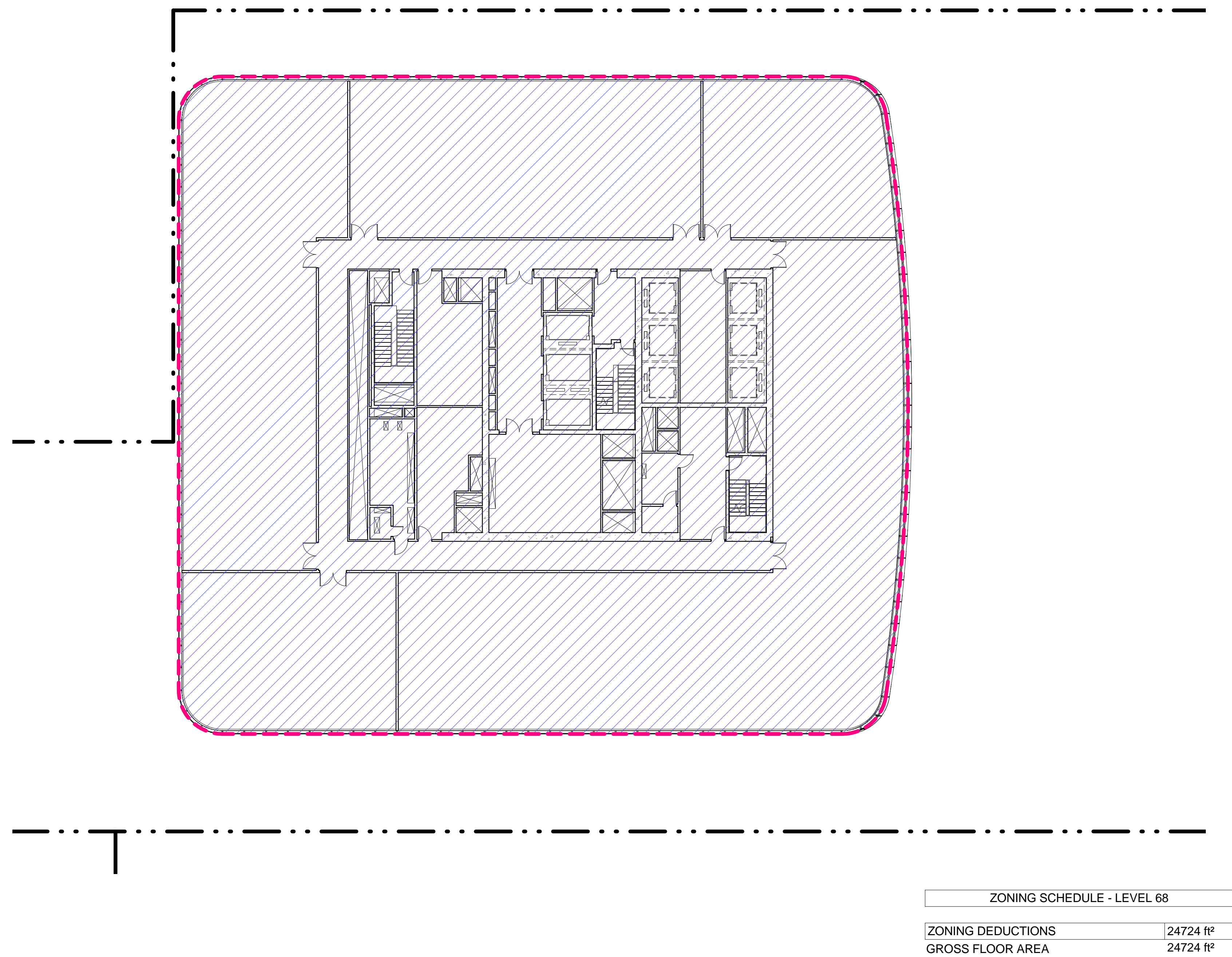
### 3 LEVEL 67 PLAN

SCALE: 1/16" = 1'-0"



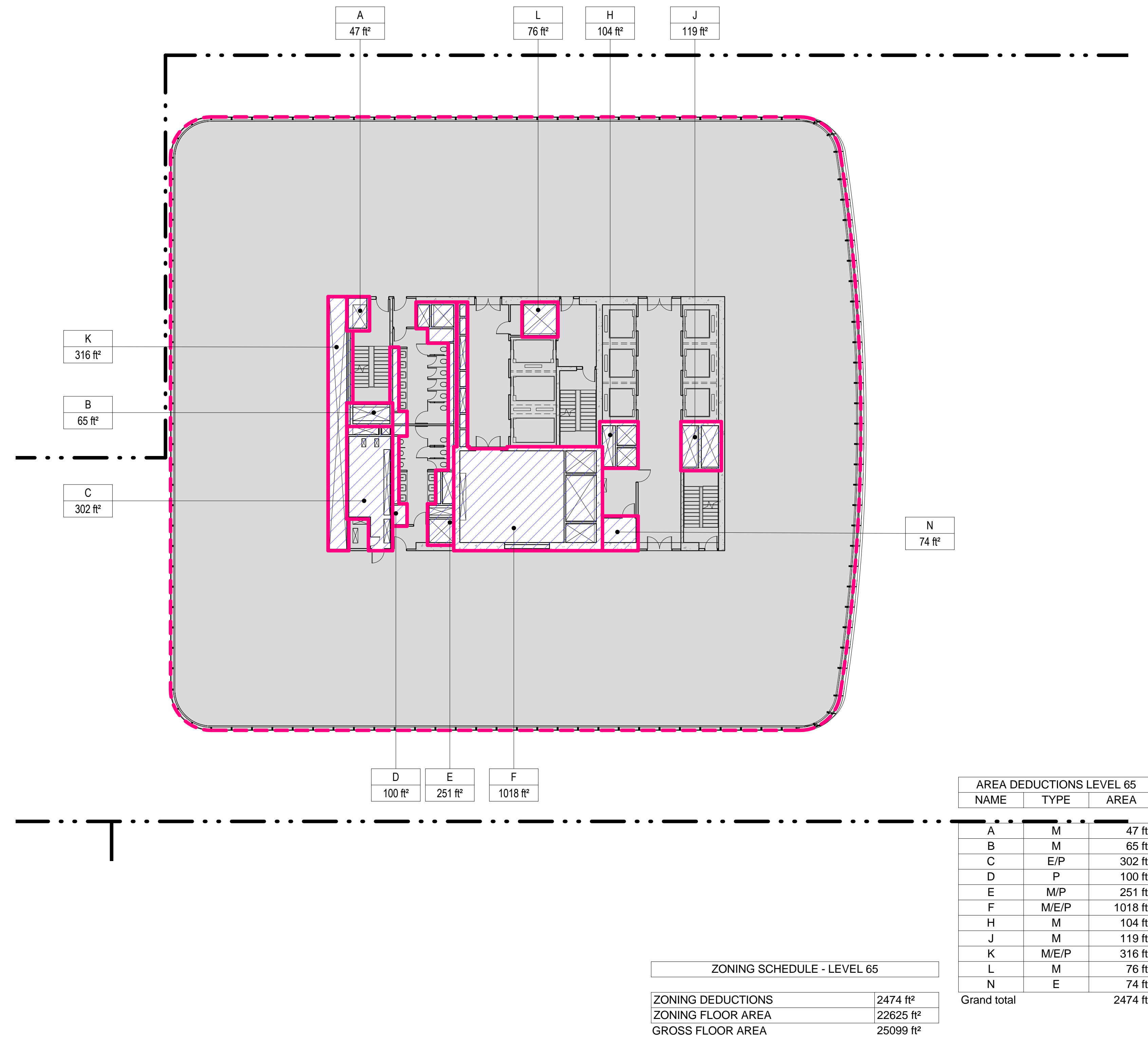
### 4 LEVEL 68 PLAN

SCALE: 1/16" = 1'-0"



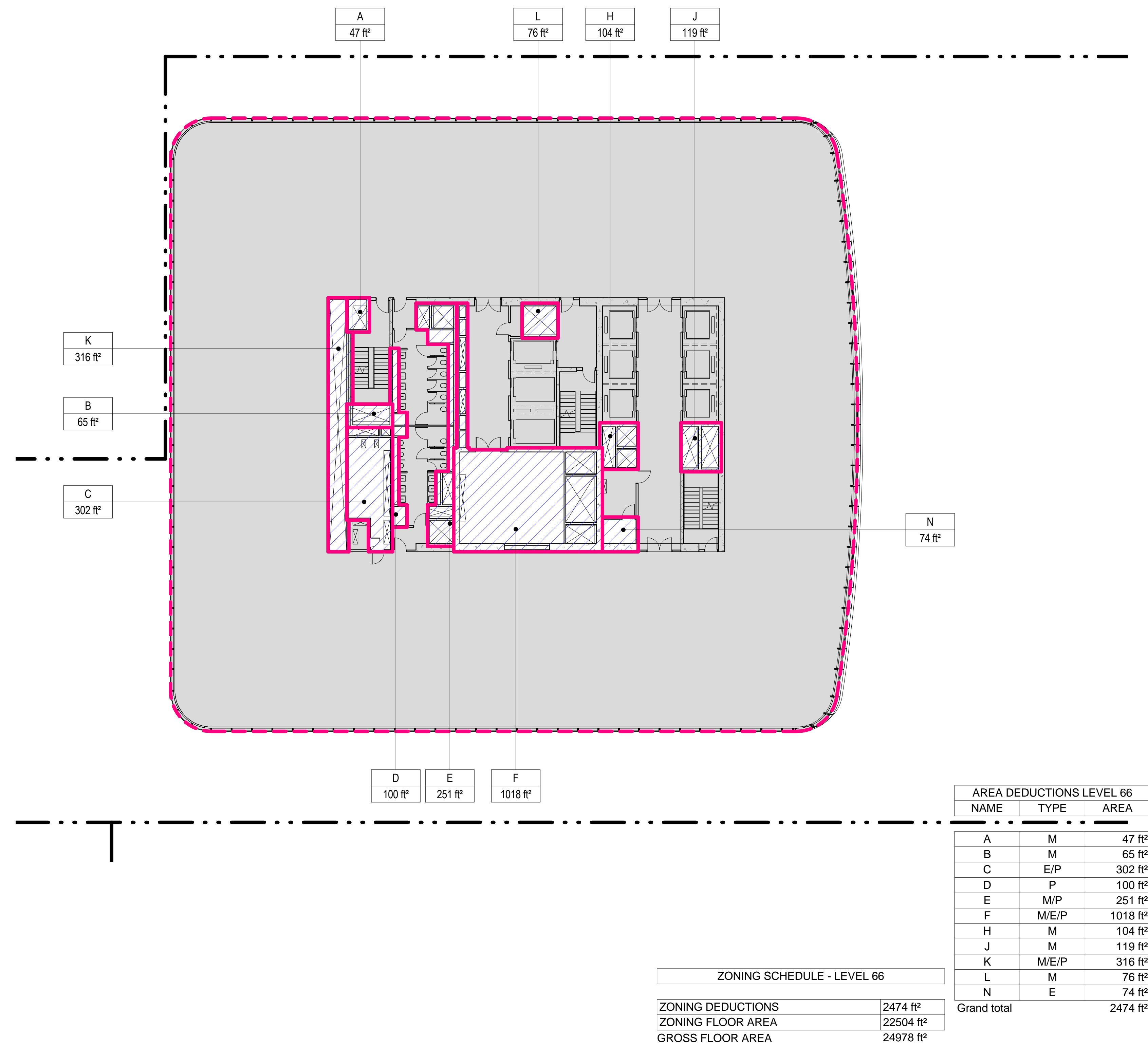
### 1 LEVEL 65 PLAN

SCALE: 1/16" = 1'-0"



### 2 LEVEL 66 PLAN

SCALE: 1/16" = 1'-0"



#### ZONING LEGENDS

- GROSS BUILDING AREA
- ZONING AREA DEDUCTIONS
- ZONING FLOOR AREA
- RETAIL
- MR MECHANICAL ROOM
- M MECHANICAL
- E ELECTRICAL/TEL/IT
- P PLUMBING
- EM ELEVATOR MACHINE ROOM



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Blast Consultant  
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40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

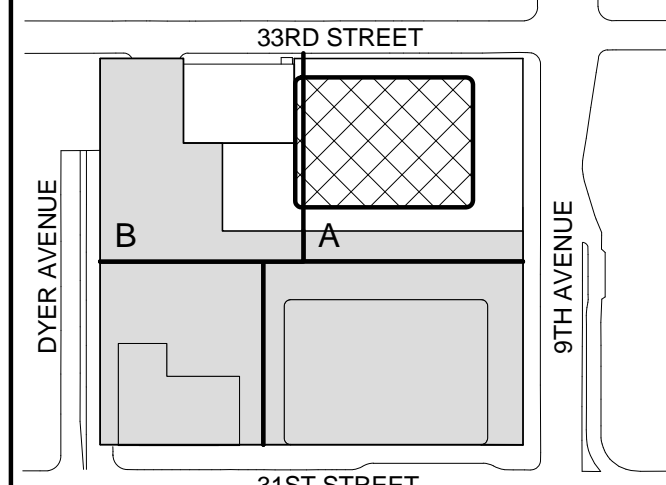
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

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Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



Seal & Signature:



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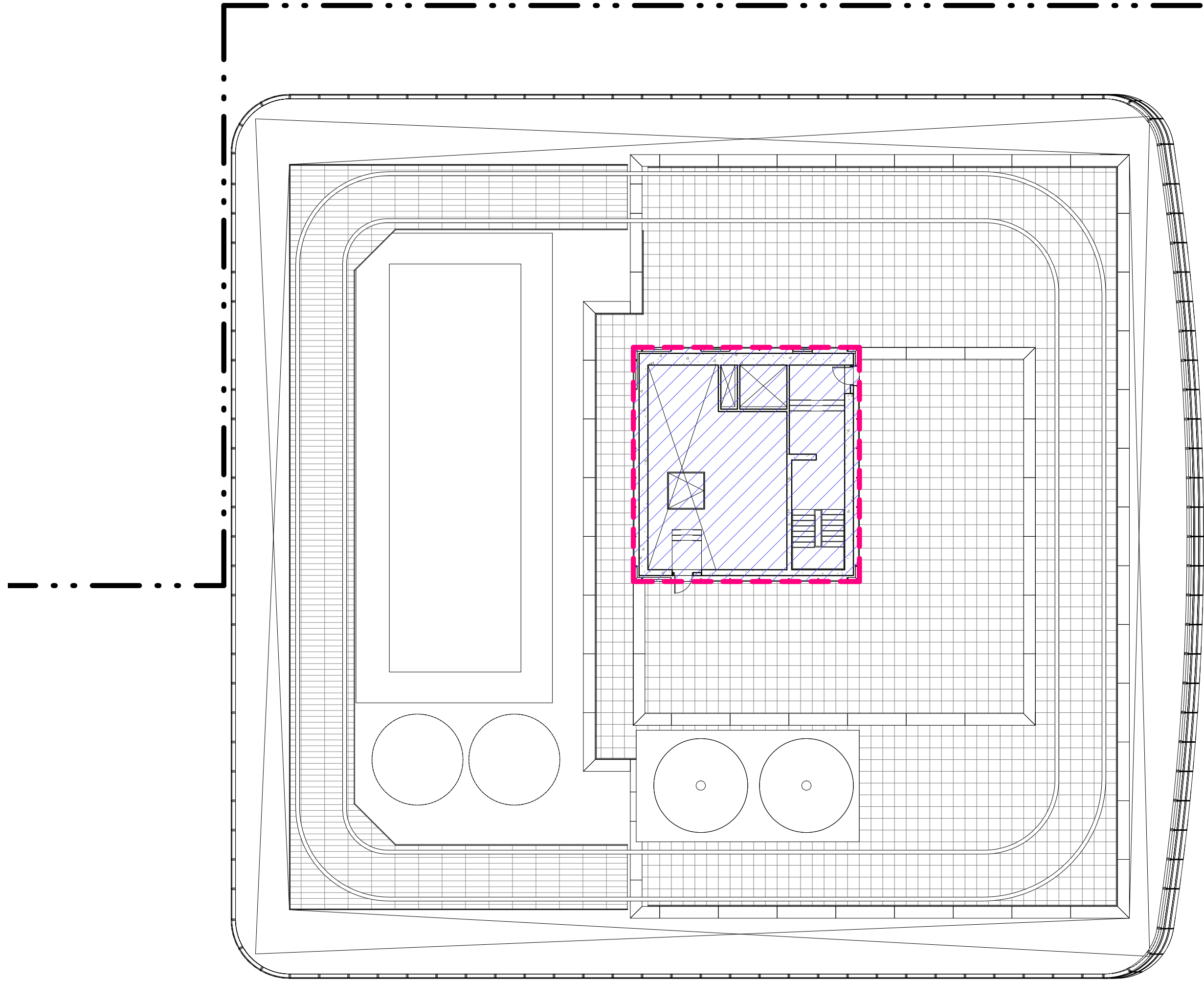
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**ZONING FLOOR AREA DEDUCTIONS - LEVEL 65-68**

Project No.: 207150  
Date: 12 MAY 2015  
Scale: 1/16" = 1'-0"  
File No.: Z-120

B-SCAN Sheet No.: Z-120.00  
Sheet No.: Z-120  
Page No.: 27 OF 30

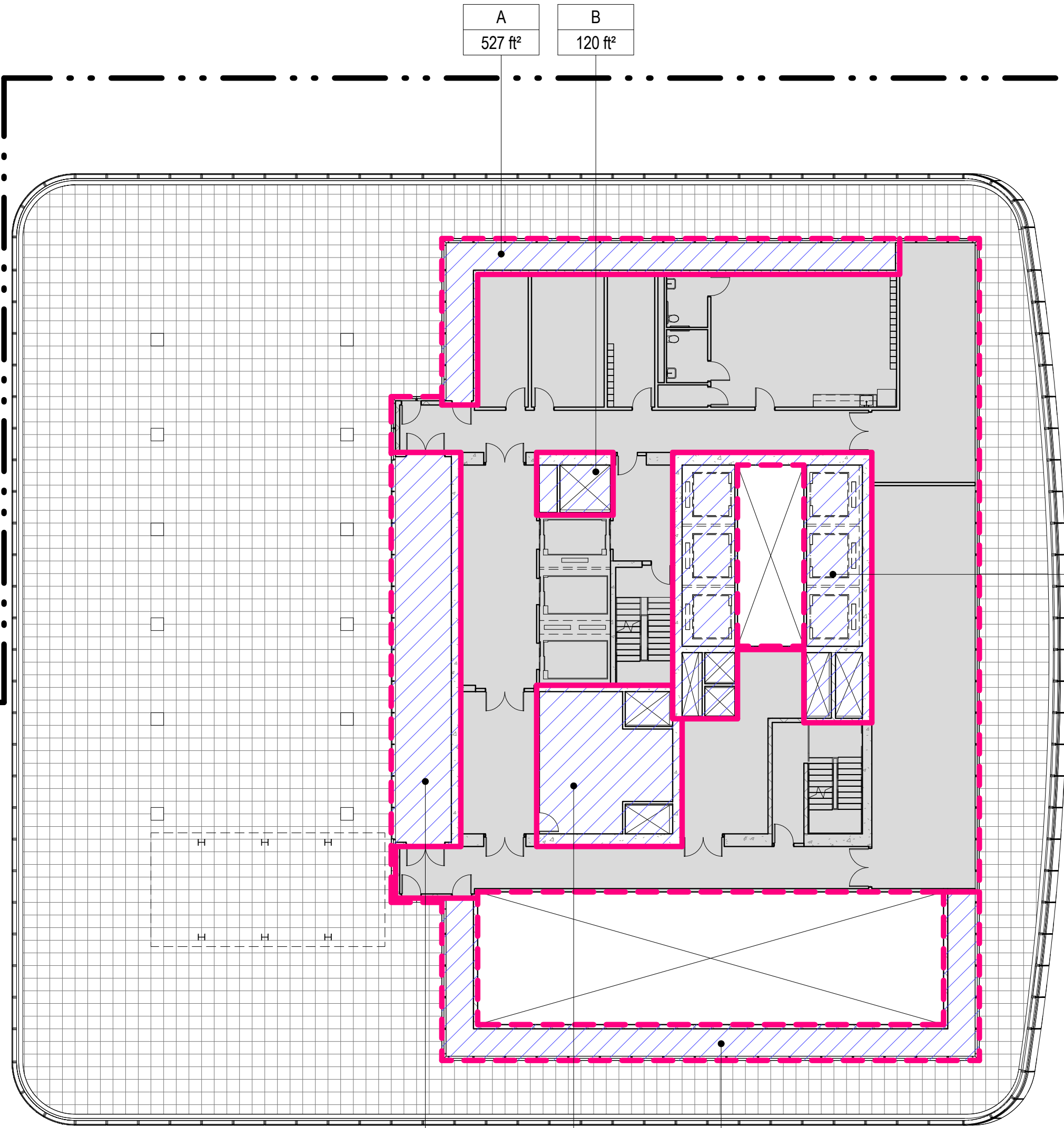




ZONING SCHEDULE - MECHANICAL PENTHOUSE ROOF

ZONING DEDUCTIONS	1534 R²
GROSS FLOOR AREA	1534 R²

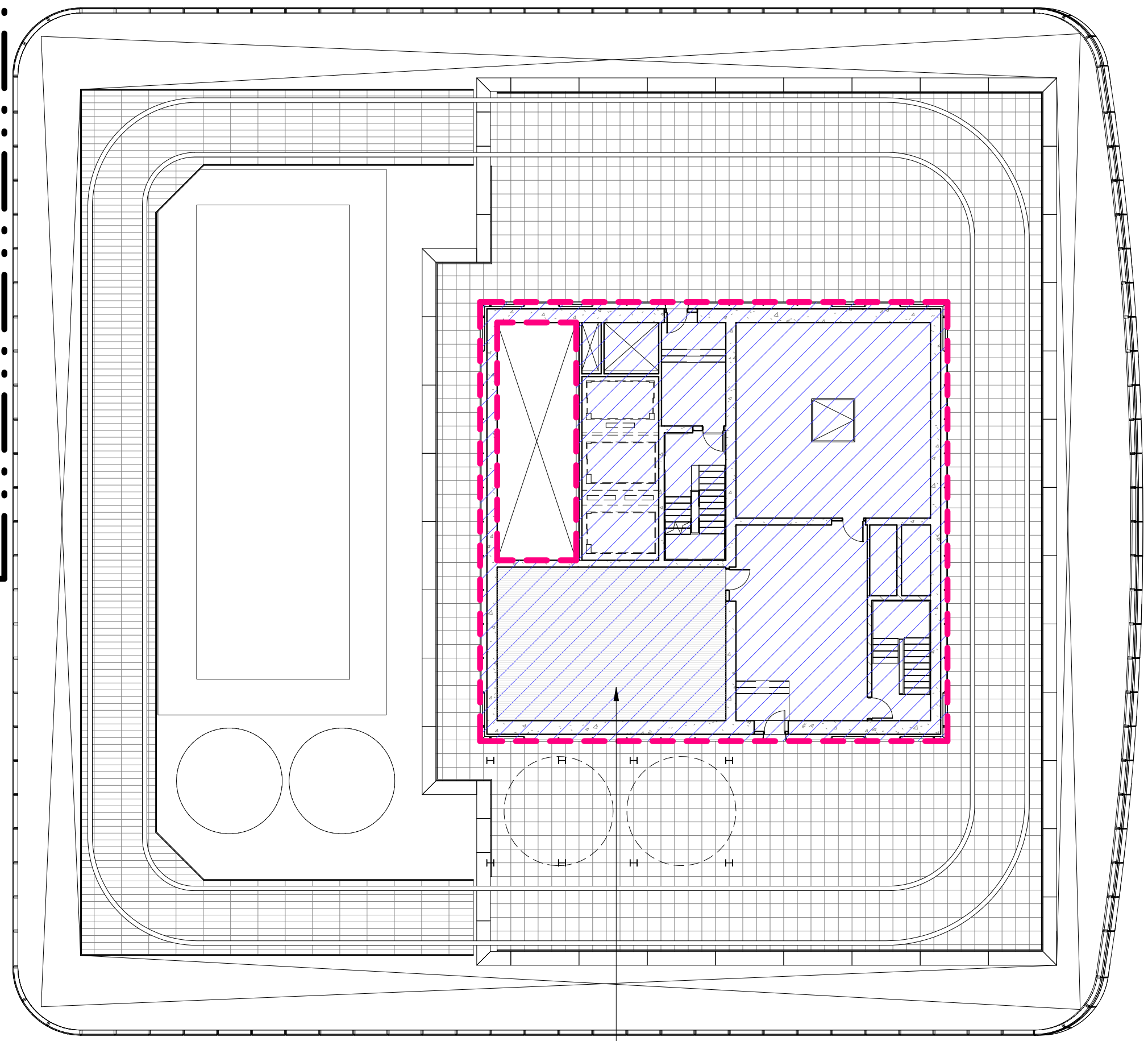
3 MECH. PENTHOUSE ROOF PLAN  
SCALE: 1/16" = 1'-0"



AREA DEDUCTIONS LEVEL 69		
NAME	TYPE	AREA
A	M	527 R²
B	E/P	120 R²
C	M/E/P	918 R²
D	M/E/P	579 R²
E	M	725 R²
F	M	686 R²
Grand total		3554 R²

ZONING SCHEDULE - LEVEL 69	
ZONING DEDUCTIONS	3554 R²
ZONING FLOOR AREA	6289 R²
GROSS BUILDING AREA	9843 R²

1 LEVEL 69 PLAN  
SCALE: 1/16" = 1'-0"



— OPEN STEEL FLOOR GRATING

ZONING SCHEDULE - MECHANICAL PENTHOUSE	
ZONING DEDUCTIONS	4003 R²
GROSS FLOOR AREA	4003 R²

2 MECH. PENTHOUSE PLAN  
SCALE: 1/16" = 1'-0"

- ZONING LEGENDS**
- GROSS BUILDING AREA
  - ZONING AREA DEDUCTIONS
  - ZONING FLOOR AREA
  - RETAIL
  - MR MECHANICAL ROOM
  - M MECHANICAL
  - E ELECTRICAL/TEL./IT
  - P PLUMBING
  - EM ELEVATOR MACHINE ROOM



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Field Operations  
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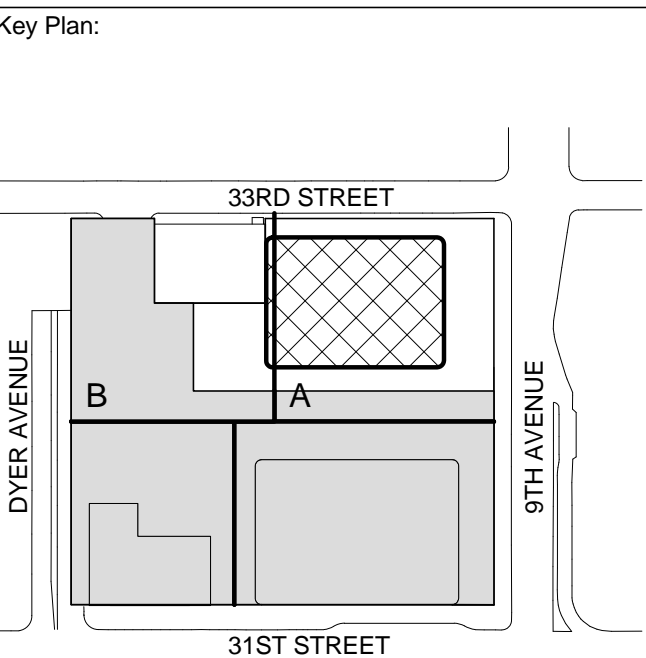
Acoustical Consultant  
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Vibration Consultant  
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Seal & Signature:



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No.	Date	Description
4	26 FEB 2015	ISSUED FOR BUILDING PERMIT
3	19 DEC 2014	ISSUED FOR FOUNDATION PERMIT
2	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
1	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT

Sheet Name:

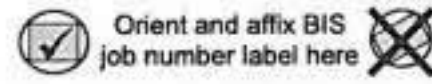
**ZONING FLOOR  
AREA  
DEDUCTIONS -  
LEVEL 69 &  
PENTHOUSE  
ROOF PLANS**

Project No.: 207150	B-SCAN Sheet No.: Z-121.00
Date: 26 FEB 2015	Sheet No.: Z-121
Scale: 1/16" = 1'-0"	Page No.: 28 OF 30
File No.: Z-121	





TR8: Technical Report  
Statement of Responsibility for  
Energy Code Progress Inspections  
This form must be typewritten



1 Location Information Required for all applications.

House No(s) 375 Street Name 9 Avenue (aka 401 9 Avenue)  
Work on Floor(s) SC1,CEL,1-69,ROF

2 Applicant Information Required for all applications.

Choose all that apply: ☒ Design Applicant 3A, 4 ☐ Progress Inspections Applicant 3B-D, 5-6

Last Name Gottesdiener First Name Ted Middle Initial J  
Business Name Skidmore Owings & Merrill, LLP Business Telephone (212) 298-9300  
Business Address 14 Wall Street Business Fax  
City NY State NY Zip 10005 Mobile Telephone  
License Type choose one: ☐ P.E. ☒ R.A. License Number 079322

3 Energy Code Progress Inspection Required for applications where Energy Code Compliance Progress Inspection is marked Yes on TR1

3A Identification of Requirement	Table Reference in 1 RCNY §5000-01(h) (1) and (2)	3B Identification of Responsibilities	3C Certificate of Complete Inspections / Tests	3D Withdraw Responsibilities
Y N Progress Inspections		Initial & Date	Initial & Date	Initial & Date
<input checked="" type="checkbox"/> Protection of foundation insulation	(IA1), (IA1)			
<input checked="" type="checkbox"/> Insulation placement and R values	(IA2), (IA2)			
<input checked="" type="checkbox"/> Fenestration thermal values and ratings	(IA3), (IA3)			
<input checked="" type="checkbox"/> Fenestration ratings for air leakage	(IA4), (IA4)			
<input checked="" type="checkbox"/> Fenestration areas	(IA5), (IA5)			
<input checked="" type="checkbox"/> Air sealing and insulation — visual	(IA6), (IA6)			
<input checked="" type="checkbox"/> Air sealing and insulation — testing	(IA7)			
<input checked="" type="checkbox"/> Projection factors	(IA7)			
<input checked="" type="checkbox"/> Loading deck weather seals	(IA8)			
<input checked="" type="checkbox"/> Vestibules	(IB9)			
<input checked="" type="checkbox"/> Fireplaces	(IB1), (IB1)			
<input checked="" type="checkbox"/> Dampers integral to building envelope	(IB2), (IB2)			
<input checked="" type="checkbox"/> HVAC and service water heating equipment	(IB3), (IB3)			
<input checked="" type="checkbox"/> HVAC and service water heating system controls	(IB4), (IB4)			
<input checked="" type="checkbox"/> Duct plenum and piping insulation and sealing	(IB5), (IB5)			
<input checked="" type="checkbox"/> Duct leakage testing	(IB6), (IB6)			
<input checked="" type="checkbox"/> Electrical metering	(IC1), (IC1)			
<input checked="" type="checkbox"/> Lighting in dwelling units	(IC2), (IC2)			
<input checked="" type="checkbox"/> Interior lighting power	(IC3)			
<input checked="" type="checkbox"/> Exterior lighting power	(IC4)			
<input checked="" type="checkbox"/> Lighting controls	(IC5)			
<input checked="" type="checkbox"/> Exit signs	(IC6)			
<input checked="" type="checkbox"/> Tandem wiring	(IC7)			
<input checked="" type="checkbox"/> Electrical motors	(IC8)			
<input checked="" type="checkbox"/> Maintenance information	(ID1), (ID1)			
<input checked="" type="checkbox"/> Permanent certificate	(ID2)			

01/11

TR8

PAGE 2

4 Design Applicant's Statements and Signatures P.E./R.A. responsible for plans must sign and seal.

I have identified herein all of the progress inspections and tests required for compliance.

Name (please print) Ted J. Gottesdiener  
Signature Date  
P.E. / R.A. Seal (apply seal, then sign and date over seal)

5 Inspection Applicant's Identification of Responsibilities

Check all that apply below:

☐ For the progress inspections indicated above in section 3, I certify that I am the principal/director of the progress inspection agency accepting responsibility for conducting the inspections. I further certify that I have read the applicable sections of the New York City Construction Codes and 1 RCNY 5000-01 in connection with progress inspections as well as 1 RCNY 101-07, which specifies the qualifications required for each progress inspector and that this agency meets those qualifications for each and every progress inspection for which I/we take responsibility. I agree that both I and the agency will comply with all provisions of the New York City Construction Codes and the Rules. I am aware of the additional sanctions imposed on false filings by §28-211.1.2 of the Administrative Code.

☐ Change of Applicant: I am a newly designated individual responsible for the items specified herein and I hereby state that:

☐ None of the inspections/tests indicated herein have been performed to date by the previously designated individual.

☐ Some of the inspections/tests indicated herein have been performed by the previously designated individual, as indicated in the attached report.

I am aware of the additional sanctions imposed on false filings by §28-211.1.2 of the Administrative Code.

Name (please print)  
Signature Date  
P.E. / R.A. Seal (apply seal, then sign and date over seal)

6 Inspection Applicant's Certification of Completion

☐ I have completed the items specified herein and certify the following (check one only):

☐ All work performed substantially conforms to approved construction documents and has been performed in accordance with applicable provisions of the New York City Energy Conservation Code and other designated rules and regulations.

☐ All work performed substantially conforms to approved construction documents and has been performed in accordance with applicable provisions of the New York City Energy Conservation Code and other designated rules and regulations, except as indicated in the attached report.

I am aware of the additional sanctions imposed on false filings by §28-211.1.2 of the Administrative Code.

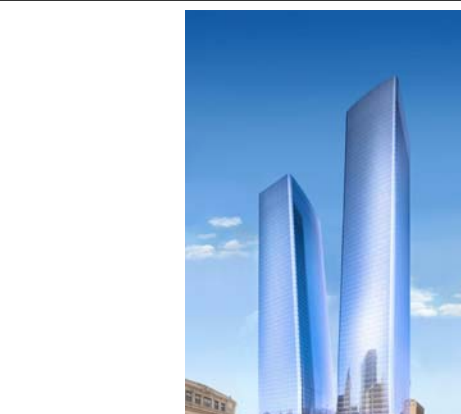
☐ Withdrawal of Applicant: I am withdrawing responsibility for the items of progress inspections and/or tests indicated herein and herewith submit the results or status of the work performed to date.

Name (please print)  
Signature Date  
P.E. / R.A. Seal (apply seal, then sign and date over seal)

01/11

SHEET NOTES

1. THE SCOPE OF WORK INDICATED IS BASED ON A PERFORMANCE BASED ENERGY ANALYSIS TO CONFIRM COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYECC). THE ENERGY COST BUDGET METHOD OF ASHRAE 90.1-2007 IS USED TO SHOW COMPLIANCE ENERGY CODE COMPLIANCE PER NYECC 501.1.
2. REFER TO SHEET EN-200 FOR BUILDING ASSEMBLY DESCRIPTIONS, DETAILS, AND PERFORMANCE CRITERIA.
3. REFER TO PERFORMANCE BASED ENERGY ANALYSIS TITLED "ENERGY MODELING OF THE MANHATTAN WEST NORTH TOWER" FOR OUTPUT REPORTS OF THE ASSEMBLIES ON SHEET EN-200.



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001  
Client

Brookfield  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering  
SOM  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering  
Philip Habb & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Bluffside Ave., Suite 1, Mill Valley, California 94041

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geotechnical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street, New York, NY 10122

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Ventor & Santoro  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

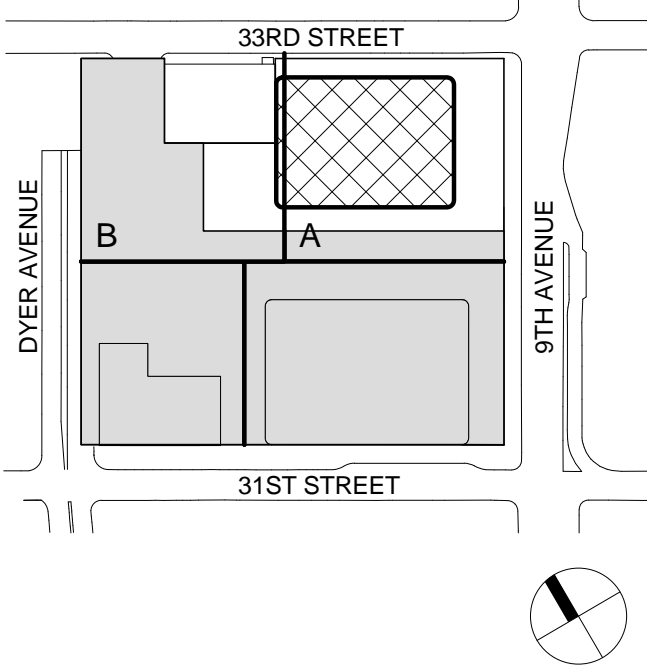
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

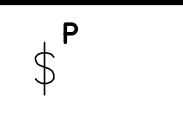
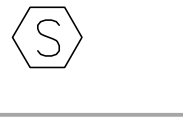
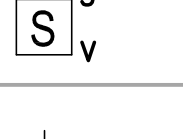
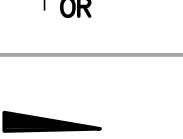
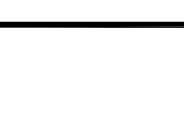
Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



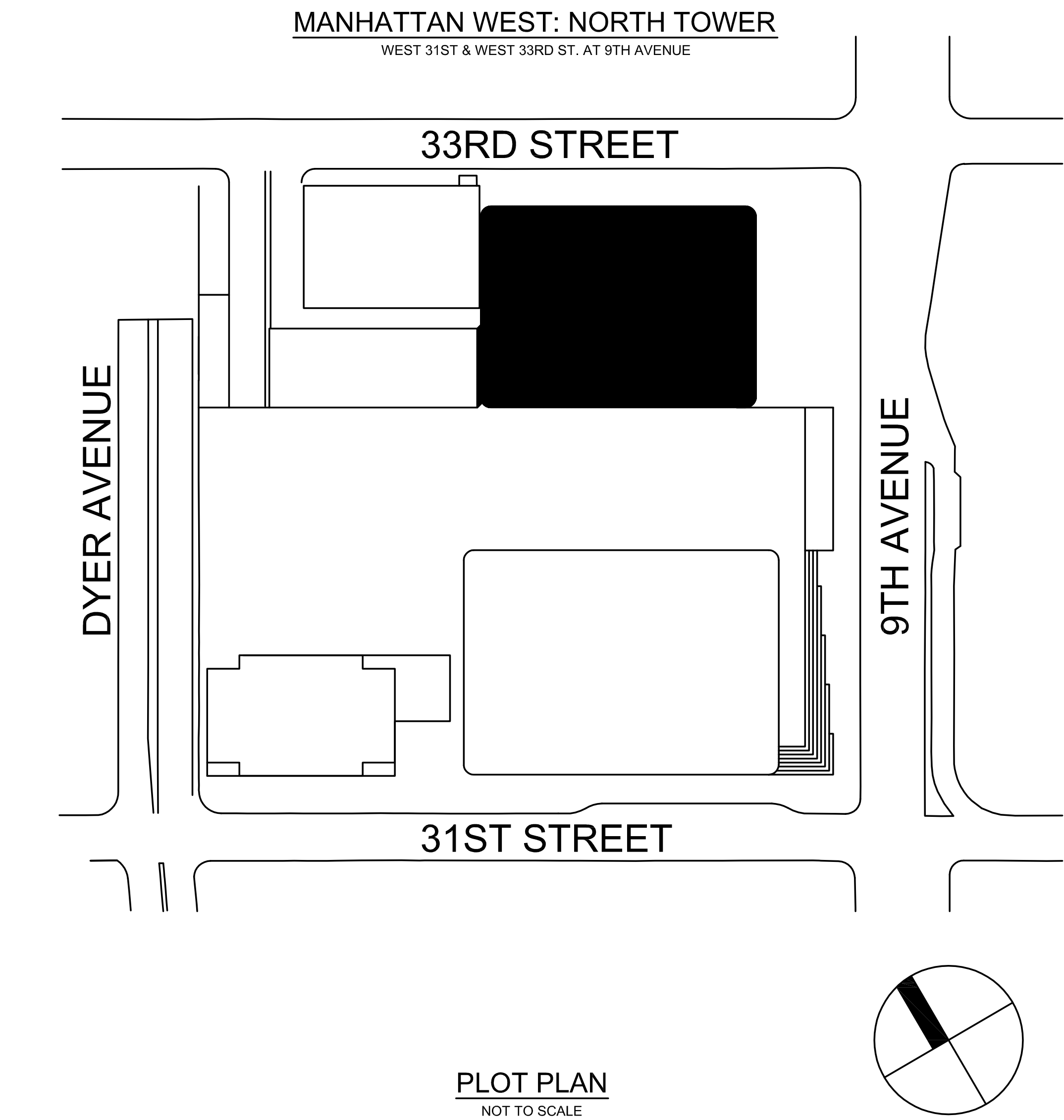


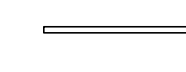





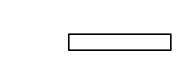



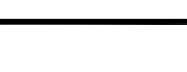

MEP DRAWING INDEX				
DRAWING NUMBER	DRAWING TITLE	ISSUED DRAWING DATES		
		01.30.2015		
EN-001.00	NYC EC COMPLIANCE COVER SHEET	•		
EN-002.00	NYC EC COMPLIANCE MANDATORY MEASURES SHEET NO. 1	•		
EN-003.00	NYC EC COMPLIANCE MANDATORY MEASURES SHEET NO. 2	•		
EN-004.00	NYC EC COMPLIANCE ENERGY MODELING SHEET NO. 1	•		
EN-100.00	NYC EC COMPLIANCE LIGHTING CELLAR B1 FLOOR PLAN - PART A	•		
EN-101.00	NYC EC COMPLIANCE LIGHTING CELLAR B FLOOR PLAN - PART A	•		
EN-102.00	NYC EC COMPLIANCE LIGHTING CELLAR B FLOOR PLAN - PART B	•		
EN-103.00	NYC EC COMPLIANCE LIGHTING LEVEL 1 FLOOR PLAN	•		
EN-104.00	NYC EC COMPLIANCE LIGHTING LEVEL 3 FLOOR PLAN	•		
EN-105.00	NYC EC COMPLIANCE LIGHTING LEVEL 4 FLOOR PLAN	•		
EN-106.00	NYC EC COMPLIANCE LIGHTING LEVEL 5 FLOOR PLAN	•		
EN-107.00	NYC EC COMPLIANCE LIGHTING LEVEL 6-16 FLOOR PLAN	•		
EN-108.00	NYC EC COMPLIANCE LIGHTING LEVEL 17 FLOOR PLAN	•		
EN-109.00	NYC EC COMPLIANCE LIGHTING LEVEL 18 FLOOR PLAN	•		
EN-110.00	NYC EC COMPLIANCE LIGHTING LEVEL 19-20 FLOOR PLAN	•		
EN-111.00	NYC EC COMPLIANCE LIGHTING LEVEL 21-27 FLOOR PLAN	•		
EN-112.00	NYC EC COMPLIANCE LIGHTING LEVEL 28 FLOOR PLAN	•		
EN-113.00	NYC EC COMPLIANCE LIGHTING LEVEL 29 FLOOR PLAN	•		
EN-114.00	NYC EC COMPLIANCE LIGHTING LEVEL 30 FLOOR PLAN	•		
EN-115.00	NYC EC COMPLIANCE LIGHTING LEVEL 31 FLOOR PLAN	•		
EN-116.00	NYC EC COMPLIANCE LIGHTING LEVEL 32 FLOOR PLAN	•		
EN-117.00	NYC EC COMPLIANCE LIGHTING LEVEL 33-38 FLOOR PLAN	•		
EN-118.00	NYC EC COMPLIANCE LIGHTING LEVEL 39 FLOOR PLAN	•		
EN-119.00	NYC EC COMPLIANCE LIGHTING LEVEL 40-41 FLOOR PLAN	•		
EN-120.00	NYC EC COMPLIANCE LIGHTING LEVEL 42 FLOOR PLAN	•		
EN-121.00	NYC EC COMPLIANCE LIGHTING LEVEL 43-48 FLOOR PLAN	•		
EN-122.00	NYC EC COMPLIANCE LIGHTING LEVEL 49 FLOOR PLAN	•		
EN-123.00	NYC EC COMPLIANCE LIGHTING LEVEL 50-51 FLOOR PLAN	•		
EN-124.00	NYC EC COMPLIANCE LIGHTING LEVEL 52 FLOOR PLAN	•		
EN-125.00	NYC EC COMPLIANCE LIGHTING LEVEL 53 FLOOR PLAN	•		
EN-126.00	NYC EC COMPLIANCE LIGHTING LEVEL 54 FLOOR PLAN	•		
EN-127.00	NYC EC COMPLIANCE LIGHTING LEVEL 55 FLOOR PLAN	•		
EN-128.00	NYC EC COMPLIANCE LIGHTING LEVEL 56 FLOOR PLAN	•		
EN-129.00	NYC EC COMPLIANCE LIGHTING LEVEL 57-58 FLOOR PLAN	•		
EN-130.00	NYC EC COMPLIANCE LIGHTING LEVEL 59 FLOOR PLAN	•		
EN-131.00	NYC EC COMPLIANCE LIGHTING LEVEL 60-61 FLOOR PLAN	•		
EN-132.00	NYC EC COMPLIANCE LIGHTING LEVEL 62 FLOOR PLAN	•		
EN-133.00	NYC EC COMPLIANCE LIGHTING LEVEL 63 FLOOR PLAN	•		
EN-134.00	NYC EC COMPLIANCE LIGHTING LEVEL 64-67 FLOOR PLAN	•		
EN-135.00	NYC EC COMPLIANCE LIGHTING LEVEL 68 FLOOR PLAN	•		
EN-136.00	NYC EC COMPLIANCE LIGHTING LEVEL 69 FLOOR PLAN	•		
EN-137.00	NYC EC COMPLIANCE LIGHTING ROOF PLAN MECH PENTHOUSE	•		
EN-138.00	NYC EC COMPLIANCE LIGHTING ROOF PLAN MECH PENTHOUSE ROOF	•		
EN-139.00	NYC EC COMPLIANCE LIGHTING SYSTEM CONTROLS SHEET NO. 1	•		

LIGHTING DEVICE SYMBOLS	
SYMBOL	LIGHTING DEVICES
	PILOT LIGHT SWITCH
	CEILING MOUNTED SENSOR
	VACANCY SENSOR SWITCH
	LIGHTING RELAY PANEL OVERRIDE SWITCH
	EMERGENCY NIGHT LIGHT

ENERGY ANALYSIS 2011 NEW YORK CITY ENERGY CONSERVATION CODE CHAPTER 5 CLIMATE ZONE 4A				
2011 NEW YORK CITY ENERGY CONSERVATION CODE PROGRESS INSPECTIONS FOR ENERGY CODE COMPLIANCE – COMMERCIAL BUILDINGS				
	Inspection/Test	Periodic (minimum)	Reference Standard (See ECC Chapter 6) or Other Criteria	ECC or Other Citation
IIA	Envelope Inspections			
IIA1	Protection of exposed foundation insulation: Insulation shall be visually inspected to verify proper protection where applied to the exterior of basement or cellar walls, crawl-space walls and/or the perimeter of slab-on-grade floors.	As required during foundation work and prior to backfill	Approved construction documents	303.2.1; ASHRAE 90.1 – 5.8.1.7
IIA2	Insulation placement and R-values: Installed insulation for each component of the conditioned space envelope and at junctions between components shall be visually inspected to ensure that the R-values are marked, that such R-values conform to the R-values identified in the construction documents and that the insulation is properly installed. Certifications for unmarked insulation shall be similarly visually inspected.	As required to verify continuous enclosure while walls, ceilings and floors are open	Approved construction documents	303.1, 303.1.1, 303.1.2, 502.1, 502.2; ASHRAE 90.1 – 5.5, 5.6 or 11; 5.8.1
IIA3	Fenestration thermal values and product ratings: U-factors and SHGC values of installed fenestration shall be visually inspected for conformance with the U-factors and SHGC values identified in the construction drawings by verifying the manufacturer's NFRC labels or, where not labeled, using the ratings in ECC Tables 303.1.3(1), (2) and (3). Where ASHRAE 90.1 is used, visible light transmittance values shall also be verified.	As required during installation	Approved construction documents; NFRC 100, NFRC 200	303.1, 303.1.3, 502.3; ASHRAE 90.1 – 5.5; 5.6 or 11; 5.8.2
IIA4	Fenestration and door assembly product ratings for air leakage: Windows and sliding or swinging door assemblies, except site-built windows and/or doors, shall be visually inspected to verify that installed assemblies are listed and labeled by the manufacturer to the referenced standard.  For curtain wall, storefront glazing, commercial entrance doors and revolving doors, the testing reports shall be reviewed to verify that the installed assembly complies with the standard cited in the approved plans.	As required during installation; prior to final construction inspection	NFRC 400, AAMA/WDMA/CSA 101/5.2/A440 ASTM E283; ANSI/DASMA 105	502.4; ASHRAE 90.1 – 5.4.3.2
IIA5	Fenestration areas: Dimensions of windows, doors and skylights shall be verified by visual inspection.	Prior to final construction inspection	Approved construction documents	502.3; ASHRAE 90.1 – 5.5.4, 5.6 or 11
IIA6	Sealing: Openings and penetrations in the building envelope, including site-built fenestration and doors, shall be visually inspected to verify that a continuous air barrier around the envelope forms an air-tight enclosure.  The progress inspector shall visually inspect to verify that materials and/or assemblies have been tested and meet the requirements of the respective standards, or that the building is tested and meets the requirements of the standard, in accordance with the standard(s) cited in the approved plans.	As required during construction	Approved construction documents; ASTM E2178, ASTM E2357, ASTM E1677, ASTM E779, ASTM E283.	502.4.3, 502.4.7; ASHRAE 90.1 – 5.4.3.1
IIA7	Projection factors: Where the energy analysis utilized a projection factor > 0, the projection dimensions of overhangs, eaves or permanently attached shading devices shall be verified for conformance with approved plans by visual inspection.	Prior to final construction inspection	Approved construction documents, including energy analysis	502.3; ASHRAE 90.1 – 5.5.4, 5.6 or 11
IIA8	Loading dock weathershals: Weathershals at loading docks shall be visually verified.	Prior to final construction inspection	Approved construction documents	502.4.5; ASHRAE 90.1 – 5.4.3.3
IIA9	Building entrance vestibules: Required entrance vestibules shall be visually inspected for proper operation.	Prior to final construction inspection	Approved construction documents	502.4.6; ASHRAE 90.1 – 5.4.3.4
IIIB	Mechanical and Service Water Heating Inspections			
IIIB2	Outdoor air intakes and exhaust openings: Dampers for stair and elevator shaft vents and other outdoor air intakes and exhaust openings integral to the building envelope shall be visually inspected to verify that such dampers, except where permitted to be gravity dampers, comply with approved construction drawings.  Manufacturer's literature shall be reviewed to verify that the product has been tested and found to meet the standard.	As required during installation	Approved construction documents; AMCA 500D	502.4.4; ASHRAE 90.1 – 6.4.3.4
IIIB3	HVAC, service water heating and pool equipment sizing and performance: Equipment sizing, efficiencies and other performance factors of all major equipment units, as determined by the applicant of record, and no less than 15% of minor equipment units, shall be verified by visual inspection and, where necessary, review of manufacturer's data.  Pool heaters and covers shall be verified by visual inspection.	Prior to final plumbing and construction inspection	Approved construction documents	503.2, 504.2, 504.7; ASHRAE 90.1 – 6.3, 6.4.1, 6.4.2, 6.8; 7.4, 7.8
IIIB4	HVAC system controls and economizers and service hot water system controls: No less than 20% of each type of required controls and economizers shall be verified by visual inspection and tested for functionality and proper operation. Such controls shall include, but are not limited to: Thermostatic; Set point overlap restriction; Off-hour; Shutoff damper; Snow-melt system; Demand control systems; Outdoor heating systems; Zones; Economizers; Air systems; Variable air volume fan; Hydronic systems; Heat rejection equipment fan speed; Complex mechanical systems serving multiple zones; Ventilation; Energy recovery systems; Hot gas bypass limitation; Temperature; Service water heating; Hot water system; Pool heater and time switches; Exhaust hoods; Radiant heating systems.  Controls with seasonally dependent functionality: Controls whose complete operation cannot be demonstrated due to prevailing weather conditions typical of the season during which progress inspections will be performed shall be permitted to be signed off for the purpose of a Temporary Certificate of Occupancy with only a visual inspection, provided, however, that the progress inspector shall perform a supplemental inspection where the controls are visually inspected and tested for functionality and proper operation during the next immediate season thereafter.  The owner shall provide full access to the progress inspector within two weeks of the progress inspector's request for such access to perform the progress inspection.  For such supplemental inspections, the Department shall be notified by the approved progress inspection agency of any unresolved deficiencies in the installed work within 180 days of such supplemental inspection.	After installation and prior to final electrical and construction inspection, except that for controls with seasonally dependent functionality, such testing shall be performed before sign-off for issuance of a Final Certificate of Occupancy	Approved construction documents, including control system narratives; ASHRAE Guideline 1; The HVAC Commissioning Process where applicable	503.2.4, 503.2.5.1, 503.2.11, 503.3, 503.4, 504.3, 504.6, 504.7; ASHRAE 90.1 – 6.3, 6.4, 6.5, 6.7, 7.4, 7.4.4, 7.4.5
IIIB5	Duct, plenum and piping insulation and sealing: Installed duct and piping insulation shall be visually inspected to verify proper insulation placement and values.  Joints, longitudinal and transverse seams and connections in ductwork shall be visually inspected for proper sealing.	After installation and prior to closing shafts, ceilings and walls	Approved construction documents; SMACNA Duct Construction Standards, Metal and Flexible	503.2.7, 503.2.8, 504.5; ASHRAE 90.1 – 6.3, 6.4-4.2, 6.8.2, 6.8.3; 7.4.3
IIIB6	Air leakage testing for high-pressure duct systems: For duct systems designed to operate at static pressures in excess of 3 inches w.g. (746 Pa), representative sections, as determined by the progress inspector, totaling at least 25% of the duct area, per ECC 503.2.7.1.3, shall be tested to verify that actual air leakage is below allowable amounts.	After installation and sealing and prior to closing shafts, ceilings and walls	Approved construction documents; SMACNA HVAC Air Duct Leakage Test Manual	503.2.7.1.3; ASHRAE 90.1 – 6.4.4.2
IIIC	Electrical Power and Lighting Systems			
IIIC1	Electrical metering: The presence and operation of individual meters or other means of monitoring individual apartments shall be verified by visual inspection for all apartments.	Prior to final electrical and construction inspection	Approved construction documents	505.7
IIIC3	Interior lighting power: Installed lighting shall be verified for compliance with the lighting power allowance by visual inspection of fixtures, lamps, ballasts and transformers.	Prior to final electrical and construction inspection	Approved construction documents	505.5; ASHRAE 90.1 – 9.1, 9.2, 9.5, 9.6; 11RCM §101-07(c)(3)(v)(C)4
IIIC4	Exterior lighting: Installed lighting shall be verified for compliance with source efficacy and/or the lighting power allowance by visual inspection of fixtures, lamps, ballasts and relevant transformers.	Prior to final electrical and construction inspection	Approved construction documents	505.6; ASHRAE 90.1 – 9.4.4, 9.4.5; 11RCM §101-07(c)(3)(v)(C)4
IIIC5	Lighting controls: Each type of required lighting controls, including: occupant sensors; manual interior lighting controls; light-reduction controls; automatic lighting shut-off; daylight zone controls; sleeping unit controls; exterior lighting controls, shall be verified by visual inspection and tested for functionality and proper operation.	Prior to final electrical and construction inspection	Approved construction documents, including control system narratives	505.2, 505.2.2; ASHRAE 90.1 – 9.4.1, 9.4.1.2 (as modified by section ECC A103)
IIIC6	Exit signs: Installed exit signs shall be visually inspected to verify that the label indicates that they do not exceed maximum permitted wattage.	Prior to final electrical and construction inspection	Approved construction documents	505.4; ASHRAE 90.1 – 9.4.3
IIIC7	Tandem wiring: Tandem wiring shall be tested for functionality.	Prior to final electrical and construction inspection	Approved construction documents	505.3; ASHRAE 90.1 – 9.4.2
IIIC8	Electric motors (including but not limited to fan motors): Where required by the construction documents for energy code compliance, motor listing or labels shall be visually inspected to verify that they comply with the respective energy requirements in the construction documents.	Prior to final electrical and construction inspection	Approved construction documents	503.2.10; ASHRAE 90.1 – 10.4
IIID	Other			
IID1	Maintenance information: Maintenance manuals for mechanical, service hot water and electrical equipment and systems requiring preventive maintenance shall be reviewed for applicability to installed equipment and systems before such manuals are provided to the owner. The progress inspector shall certify that to the best of his or her knowledge and belief the building as built complies with such signed and sealed energy analysis and construction drawings for energy code compliance; where no trade-offs have been used among disciplines, more than one registered design professional may sign and seal the elements of the energy analysis. The energy analysis shall be approved or accepted by the Department prior to sign-off.	Prior to sign-off or issuance of Final Certificate of Occupancy	Approved construction documents, including electrical drawings where applicable; ASHRAE Guideline 4; Preparation of Operating and Maintenance Documentation for Building Systems	303.3, 503.2.9.3; ASHRAE 90.1 – 4.2.2.3, 6.7.2.2, 8.7.2
Note:				
(i)	Energy Analysis of Constructed Conditions. In accordance with Section 28-104.3 of the Administrative Code and section ECC 103.4, if constructed work differs from the last-approved full energy analysis, an as-built energy analysis shall be submitted to the Department, listing the actual values used in the building for all applicable energy code-regulated items and demonstrating that the building complies with the Energy Code. Such energy analysis shall be signed and sealed by a registered design professional. The progress inspector shall certify that to the best of his or her knowledge and belief the building as built complies with such signed and sealed energy analysis and construction drawings for energy code compliance; where no trade-offs have been used among disciplines, more than one registered design professional may sign and seal the elements of the energy analysis. The energy analysis shall be approved or accepted by the Department prior to sign-off.			

ARCH DRAWING INDEX		
DRAWING NUMBER	DRAWING TITLE	ISSUED DRAWING DATES
		09.12.2014
EN-200.00	ENCLOSURE ASSEMBLIES	•



LIGHTING FIXTURE SCHEDULE						
FIXTURE IDENTIFICATION	SYMBOL	FIXTURE DESCRIPTION	LOCATION	UNITS	CONTROL GEAR	TOTAL SYSTEM WATTS
F1		LINEAR LED RECESSED DOWNLIGHT	RESTROOMS	PER FT.	ELECTRONIC DRIVER	7 W/FT.
LT01		RECESSED LED FIXED DOWNLIGHT, NOMINAL 4-1/2" SQUARE APERTURE AND 10" HOUSING DEPTH, SEMI-SPECULAR, NON-REDUCED DEPTH, ALUMINUM REFLECTOR WITH WHITE PAINTED OVERLAP SELF-FLANGE, MICROPRISM GLASS LENS, DIMMABLE.	GROUND FLOOR LOBBY	EA.	DIMMING BALLAST	34 W
F2		LINEAR CORE VAPOR PROOF	SHOWERS	PER FT.	REMOTE DIMMING DRIVER	3.26 W/FT.
LT03		RECESSED LED WALL WASHER, NOMINAL 4-1/2" SQUARE APERTURE AND 11" HOUSING DEPTH, SEMI-SPECULAR, NON-REDUCED DEPTH, ALUMINUM REFLECTOR WITH WHITE PAINTED OVERLAP SELF-FLANGE, FROSTED MICROPRISM GLASS LENS, DIMMABLE.	GROUND FLOOR LOBBY	EA.	DIMMING BALLAST	34 W
FA		5' COMPACT FLUORESCENT SEMI-RECESSED DOWNLIGHT	RESTROOMS	EA.	DIMMING BALLAST	32 W
FB		6' SQUARE COMPACT FLUORESCENT RECESSED DOWNLIGHT	ELEVATOR LOBBY	EA.	DIMMING BALLAST	26 W
FG		PENDANT-MOUNTED TWO LAMP FLUORESCENT GASKETED FIXTURE.	LOADING DOCK	EA.	ELECTRONIC BALLAST	120 W
FJ		LED WALL MOUNTED	PLENUM	EA.	REMOTE DIMMING DRIVER	26 W
FK		4' STRIP INDUSTRIAL FLUORESCENT PENDENT	GENERAL	EA.	ELECTRONIC BALLAST	32 W
FS		4' LINEAR FLUORESCENT LENSED SURFACE	STAIRWELLS	EA.	DIMMING DRIVER	32 W
FV		4' LINEAR INDUSTRIAL SURFACE	ELEVATOR/JUMP PUMP PIT	EA.	DIMMING DRIVER	64 W
EX		RECESSED WALL- OR CEILING-MOUNTED LED EXIT SIGN	GENERAL	PER FACE.	INTEGRAL BATTERY PACK	5 W/ FACE (MAX)

## PROFESSIONAL'S STATEMENT

TO THE BEST OF OUR KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE.

## BUILDING DEPARTMENT NOTE:

THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

## SHEET NOTES


### ENERGY ANALYSIS NOTES:

1. THE SCOPE OF WORK INDICATED IS BASED ON A PERFORMANCE BASED ENERGY ANALYSIS TO CONFIRM COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).

2. REFER TO SHEET EN-200 FOR BUILDING ASSEMBLY DESCRIPTIONS, DETAILS, AND PERFORMANCE CRITERIA.

3. REFER TO PERFORMANCE BASED ENERGY ANALYSIS TITLED "ENERGY MODELING OF THE MANHATTAN WEST NORTH TOWER" FOR OUTPUT REPORTS OF THE ASSEMBLIES ON SHEET EN-200.

4. THE LIGHTING WITHIN THE TENANT OFFICE SPACE IS NOT PART OF THE CORE AND SHELL SCOPE OF WORK. A SEPARATE FIT-OUT IS REQUIRED FROM EACH TENANT WHICH PROVES INDIVIDUAL COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).



MANHATTAN WEST: NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

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250 Vesey Street, 15th Floor, New York, NY 10291

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Skidmore, Owings & Merrill LLP  
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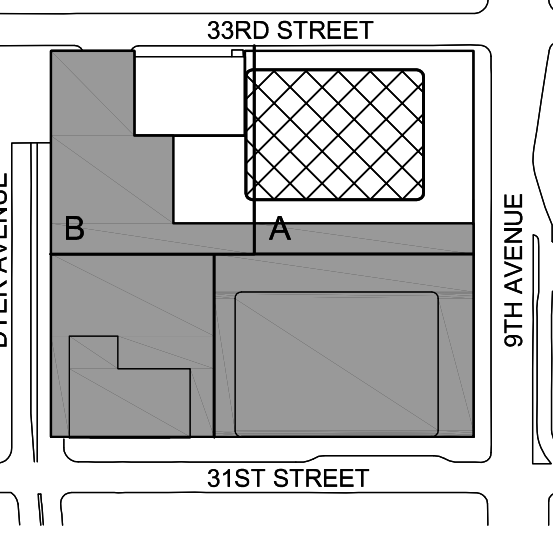
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650 Woodlawn Road West, Guelph Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



2 / 30 JAN 2015 ISSUED FOR BUILDING PERMIT  
1 / 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT

No. Date Description

Sheet Name:

NYC EC COMPLIANCE COVER SHEET

Project No.: 14830 A 000 Sheet No.: EN-001.00

Date: 19 DEC 2014

Scale: N.T.S.

File No.: Page No.:



NEW YORK CITY ENERGY CODE COMPLIANCE SECTION 502 – BUILDING ENVELOPE MANDATORY PROVISIONS			
STANDARD: CLIMATE ZONE:		NYCECC – 2011 4A	
ITEM DESCRIPTION		PROPOSED DESIGN VALUE	CODE PRESCRIPTIVE VALUE AND CITATION
502.4 – AIR LEAKAGE			
502.4.1: WINDOW AND DOOR ASSEMBLIES		THE AIR LEAKAGE DOES NOT EXCEED THE MAXIMUM OF 1.0 CFM/FT² FOR GLAZED SWINGING ENTRANCE DOORS AND 0.4 CFM/FT² FOR ALL OTHER PRODUCTS WHEN TESTED IN ACCORDANCE WITH NFRC 400.	AIR LEAKAGE FOR FENESTRATION AND DOORS SHALL BE DETERMINED IN ACCORDANCE WITH NFRC 400. AIR LEAKAGE SHALL NOT EXCEED .3 CFM/FT² FOR SWINGING DOORS 0.5 CFM/FT².
502.4.2: CURTAIN WALL, STOREFRONT GLAZING AND COMMERCIAL ENTRANCE DOORS		THE AIR LEAKAGE DOES NOT EXCEED THE MAXIMUM OF 1.0 CFM/FT² FOR GLAZED SWINGING ENTRANCE DOORS AND 0.3 CFM/FT² FOR CURTAIN WALL AND STOREFRONT WHEN TESTED IN ACCORDANCE WITH NFRC 400.	AIR LEAKAGE FOR CURTAIN WALL, STOREFRONT GLAZING AND COMMERCIAL GLAZED SWINGING ENTRANCE DOORS AND REVOLVING DOORS SHALL BE DETERMINED IN ACCORDANCE WITH ASTM E 283. AIR LEAKAGE SHALL NOT EXCEED .3 CFM/FT² FOR CURTAIN WALL AND STOREFRONT GLAZING AND NO MORE THAN 1 CFM/SF FOR COMMERCIAL GLAZED SWINGING ENTRANCE DOORS AND REVOLVING DOORS
502.4.3: CONTINUOUS AIR BARRIER		THE BUILDING ENVELOPE OPENINGS HAVE BEEN SPECIFIED TO MINIMIZE AIR LEAKAGE.	ALL JOINTS, JUNCTIONS, OPENINGS, PENETRATIONS, ETC., OF THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER-STRIPPED TO MINIMIZE AIR LEAKAGE.
502.4.4: OUTDOOR AIR INTAKES AND EXHAUST OPENINGS		STAIR AND ELEVATOR SHAFT VENTS AND OTHER OUTDOOR AIR INTAKES AND EXHAUST OPENINGS INTEGRAL TO THE BUILDING ENVELOPE HAVE BEEN SPECIFIED TO HAVE NOT LESS THAN A CLASS 1 MOTORIZED, LEAKAGE RATED DAMPER WITH A MAXIMUM LEAKAGE RATE OF 4 CFM/SF AT 1.0 IN WATER GAUGE WHEN TESTED IN ACCORDANCE WITH AMCA 5000	STAIR AND ELEVATOR SHAFT VENTS AND OTHER OUTDOOR AIR INTAKES AND EXHAUST OPENINGS INTEGRAL TO THE BUILDING ENVELOPE SHALL BE EQUIPPED WITH NOT LESS THAN A CLASS 1 MOTORIZED, LEAKAGE RATED DAMPER WITH A MAXIMUM LEAKAGE RATE OF 4 CFM/SF AT 1.0 IN WATER GAUGE WHEN TESTED IN ACCORDANCE WITH AMCA 5000
502.4.5: LOADING DOCK WEATHERSEALS		LOADING DOCK DOORS HAVE BEEN SPECIFIED WITH WEATHER-STRIPPING.	CARGO DOORS AND LOADING DOCKS DOORS SHALL BE EQUIPPED WITH WEATHERSEALS TO RESTRICT INFILTRATION WHEN VEHICLES ARE PARKED IN THE DOORWAY.
502.4.6: VESTIBULES		VESTIBULES MEETING THESE REQUIREMENTS HAVE BEEN DESIGNED.	A DOOR THAT SEPARATES CONDITIONED SPACE FROM THE EXTERIOR SHALL BE PROTECTED WITH AN ENCLOSED VESTIBULE, WITH ALL DOORS OPENING INTO AND OUT OF THE VESTIBULE EQUIPPED WITH SELF-CLOSING DEVICES. VESTIBULE SHALL BE DESIGNED SO THAT IN PASSING THROUGH THE VESTIBULE IT IS NOT NECESSARY FOR THE INTERIOR AND EXTERIOR DOORS TO OPEN AT THE SAME TIME.
502.4.7: RECESSED LIGHTING		RECESSED LIGHTING MEETING THESE REQUIREMENTS HAVE BEEN DESIGNED.	RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES. ALL RECESSED LUMINAIRES SHALL BE IC-RATED AND LABELED AS MEETING ASTM E 283 WHEN TESTED AT 1.57 PSI. PRESSURE DIFFERENTIAL WITH NO MORE THAN 2.0 CFM OR AIR MOVEMENT FROM THE CONDITIONED SPACE TO THE CEILING CAVITY. ALL RECESSED LUMINAIRES SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND INTERIOR WALL OR CEILING COVERING.
502.5: VAPOR RETARDERS		EXEMPT: CLIMATE ZONE 4	CLASS I OR II VAPOR RETARDERS ARE REQUIRED ON THE INTERIOR SIDE OF WALLS IN ZONES 5 AND 6 FOR ALL FRAMED WALLS, FLOORS, AND CEILINGS WHERE THE FRAMED CAVITY IS NOT VENTILATED TO ALLOW MOISTURE TO ESCAPE.

NEW YORK CITY ENERGY CODE COMPLIANCE SECTION 504 – SERVICE WATER HEATING MANDATORY PROVISIONS			
STANDARD: CLIMATE ZONE:		NYCECC – 2011 4A	
ITEM DESCRIPTION	PROPOSED DESIGN VALUE	CODE PRESCRIPTIVE VALUE AND CITATION	
504.2: EQUIPMENT EFFICIENCY	SPECIFIED DOMESTIC HOT WATER HEATERS HAVE THE BOILERS WATER TO DOMESTIC HOT WATER AND ARE NO APPLICABLE TO A MINIMUM PERFORMANCE RATING EFFICIENCY	EQUIPMENT SHOWN IN TABLE 504.2 SHALL HAVE A MINIMUM PERFORMANCE RATING SPECIFIED RATING CONDITIONS IN ACCORDANCE WITH THE SPECIFIED TEST PROCEDURE	
504.3: TEMPERATURE CONTROLS	THE FIXTURE DELIVERY TEMPERATURE IS LIMITED VIA A MIXING VALVE.	SERVICE WATER HEATING EQUIPMENT SHALL BE PROVIDED WITH CONTROLS TO ALLOW A SET POINT OF 110°F FOR EQUIPMENT SERVING DWELLING UNITS AND 90°F FOR EQUIPMENT SERVING OTHER OCCUPANCIES. THE OUTLET TEMPERATURE OF LAVATORIES IN PUBLIC FACILITY REST ROOMS SHALL BE LIMITED TO 110°F.	
504.4: HEAT TRAPS	NOT INCLUDED IN THIS APPLICATION.	NOT INCLUDED IN THIS APPLICATION.	
504.5: PIPE INSULATION	DOMESTIC HOT WATER PIPING MINIMUM INSULATION IS SPECIFIED AS FOLLOWS: PIPING WITH DIAMETER < 1 1/2" = 1.0" PIPING WITH DIAMETER >= 1 1/2" = 1.0"	INSULATION SHALL BE INSTALLED AS PER INDUSTRY-ACCEPTED STANDARDS. PIPING SHALL BE THERMALLY INSULATED IN ACCORDANCE WITH TABLE 6.8.3 OF ASHRAE 90.1.	
504.6: HOT WATER SYSTEM CONTROLS	SPECIFIED DOMESTIC WATER HEATER SYSTEM HAS AN AUTOMATIC CONTROL SYSTEM THAT TURNS OFF THE USAGE TEMPERATURE WHEN NOT REQUIRED.	SYSTEMS DESIGNED TO MAINTAIN USAGE TEMPERATURES IN HOT WATER PIPES SHALL BE EQUIPPED WITH AUTOMATIC CONTROLS THAT CAN SWITCH OFF THE USAGE TEMPERATURE WHEN HOT WATER IS NOT REQUIRED.	
504.7: POOLS	NOT INCLUDED IN THIS APPLICATION.	NOT INCLUDED IN THIS APPLICATION.	

NEW YORK CITY ENERGY CODE COMPLIANCE SECTION 505 – ELECTRICAL POWER AND LIGHTING SYSTEMS MANDATORY PROVISIONS			
STANDARD: CLIMATE ZONE:		NYCECC – 2011 4A	
ITEM DESCRIPTION	PROPOSED DESIGN VALUE	CODE PRESCRIPTIVE VALUE AND CITATION	
505.2: LIGHTING CONTROLS	LIGHTING SYSTEMS HAVE BEEN SPECIFIED TO BE PROVIDED WITH CONTROLS AS REQUIRED IN SECTIONS 505.2.1, 505.2.2, 505.2.3 AND 505.2.4	LIGHTING SYSTEMS SHALL BE PROVIDED WITH CONTROLS AS REQUIRED IN SECTIONS 505.2.1, 505.2.2, 505.2.3 AND 505.2.4	
505.3: TANDEM WIRING	NOT INCLUDED IN THIS APPLICATION.	THE FOLLOWING LUMINAIRES LOCATED WITHIN THE SAME AREA SHALL BE TANDEM WIRED: 1.FLUORESCENT LUMINAIRES EQUIPPED WITH ONE, THREE OR ODD-NUMBERED LAMP CONFIGURATIONS, ASSOCIATED WITH SYSTEMS PROVIDING HEATING OR COOLING CAPABILITY. 2.FOOT CENTER-TO-CENTER OF EACH OTHER.2.FLUORESCENT LUMINAIRES EQUIPPED WITH ONE, THREE OR ANY OTHER ODD-NUMBERED LAMP CONFIGURATION, THAT ARE PENDANT-OR SURFACE-MOUNTED WITHIN 1 FOOT (305 MM) EDGE-TO-EDGE OF EACH OTHER	
505.4: EXIT SIGNS	INTERNALLY ILLUMINATED EXIT SIGNS ARE SPECIFIED NOT EXCEED 5 WATTS PER SIDE	INTERNALLY ILLUMINATED EXIT SIGNS SHALL NOT EXCEED 5 WATTS PER SIDE	
505.6: EXTERIOR LIGHTING	SHALL COMPLY WITH SECTIONS 505.6.1 AND 505.6.2.	WHEN THE POWER FOR EXTERIOR LIGHTING IS SUPPLIED THROUGH THE ENERGY SERVICE TO THE BUILDING, ALL EXTERIOR LIGHTING, OTHER THAN LOW-VOLTAGE LANDSCAPE LIGHTING, SHALL COMPLY WITH SECTIONS 505.6.1 AND 505.6.2.	
505.7: ELECTRICAL ENERGY CONSUMPTION	NOT INCLUDED IN THIS APPLICATION.	NOT INCLUDED IN THIS APPLICATION.	

NEW YORK CITY ENERGY CODE COMPLIANCE SECTION 503 – BUILDING MECHANICAL SYSTEMS MANDATORY PROVISIONS			
STANDARD: CLIMATE ZONE:		NYCECC – 2011 4A	
ITEM DESCRIPTION	PROPOSED DESIGN VALUE	CODE PRESCRIPTIVE VALUE AND CITATION	
503.2.1: LOAD CALCULATIONS	SYSTEM AND EQUIPMENT HAS BEEN SIZED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND ACCEPTED ENGINEERS STANDARDS.	SYSTEMS AND EQUIPMENT SIZED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND ACCEPTED ENGINEERS STANDARDS.	
503.2.2: EQUIPMENT AND SYSTEM SIZING	HEATING AND COOLING EQUIPMENT AND SYSTEM CAPACITIES SHALL NOT EXCEED THE LOADS CALCULATED IN ACCORDANCE WITH SECTION 503.2.1.	HEATING AND COOLING EQUIPMENT AND SYSTEM CAPACITIES SHALL NOT EXCEED THE LOADS CALCULATED IN ACCORDANCE WITH SECTION 503.2.1. A SINGLE PIECE OF EQUIPMENT PROVIDING BOTH HEATING AND COOLING MUST SATISFY THIS PROVISION FOR ONE FUNCTION WITH THE CAPACITY FOR THE OTHER FUNCTION AS SMALL AS POSSIBLE, WITHIN AVAILABLE EQUIPMENT OPTIONS	
503.2.3: HVAC EQUIPMENT PERFORMANCE REQUIREMENTS	EQUIPMENT HAS BEEN SELECTED TO MEET THE MINIMUM PERFORMANCE. SEE TABLE 1 AND TABLE 2.	EQUIPMENT SHALL MEET THE MINIMUM EFFICIENCIES REQUIREMENTS OF TABLES 503.2.3(1), 503.2.3(2), 503.2.3(3), 503.2.3(4), 503.2.3(5), 503.2.3(6), AND 503.2.3(7) WHEN TESTED AND RATED IN ACCORDANCE WITH THE APPLICATION TEST PROCEDURE.	
503.2.4: HVAC SYSTEM CONTROLS			
503.2.4.1: THERMOSTATIC CONTROLS			
503.2.4.1.1: GENERAL	EACH HEATING AND COOLING ZONE IS THERMOSTATICALLY CONTROLLED.	THE SUPPLY OF HEATING AND COOLING ENERGY TO EACH ZONE SHALL BE INDIVIDUALLY CONTROLLED BY THERMOSTATIC CONTROLS RESPONDING TO TEMPERATURE WITHIN THE ZONE.	
503.2.4.1.1: HEAT PUMP SUPPLEMENTARY HEAT	SEE TABLE 3	HEAT PUMPS HAVING SUPPLEMENTARY ELECTRIC RESISTANCE HEAT SHALL HAVE CONTROLS THAT, EXCEPT DURING DEFROST, PREVENT SUPPLEMENTARY HEAT OPERATION WHEN THE HEAT PUMP CAN MEET THE HEATING LOAD.	
503.2.4.2: SET POINT OVERLAP RESTRICTIONS	THE SYSTEMS PROVIDED AS SPECIFIED HAVING CONTROLS WHICH PREVENT THE HEAT SET POINT FROM EXCEEDING THE COOL SET POINT – THE DEADBAND.	MEANS SHALL BE PROVIDED TO PREVENT THE HEATING SET POINT FROM EXCEEDING THE COOLING SET POINT MINUS ANY APPLICABLE PROPORTIONAL BAND.	
503.2.4.3: OFF-HOUR CONTROLS	SEE TABLE 3	HVAC SYSTEM SHALL BE EQUIPPED WITH AN AUTOMATIC COMPLYING WITH SECTION 6.4.3.2.1	
503.2.4.3.1: SETBACK CONTROLS	SEE TABLE 3	HVAC SYSTEM SHALL BE EQUIPPED WITH A TEMPERATURE RESET FUNCTION COMPLYING WITH SECTION 6.4.3.2.2	
503.2.4.4: SHUTOFF DAMPER CONTROLS	BOTH OUTDOOR AIR SUPPLY AND EXHAUST DUCTS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS THAT WILL AUTOMATICALLY SHUT WHEN THE SYSTEMS OR SPACES SERVED ARE NOT IN USE.	BOTH OUTDOOR AIR SUPPLY AND EXHAUST DUCTS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS THAT WILL AUTOMATICALLY SHUT WHEN THE SYSTEMS OR SPACES SERVED ARE NOT IN USE.	
503.2.4.5: SNOW MELT SYSTEM CONTROLS	THE FREEZE PROTECTION SYSTEMS AS SPECIFIED COMPLY WITH THESE REQUIREMENTS, AS SPECIFIED.	FREEZE PROTECTION SYSTEMS SHALL INCLUDE AUTOMATIC CONTROLS CAPABLE OF SHUTTING OFF SYSTEM WHEN THE OUTDOOR AIR TEMPERATURE IS ABOVE 40°F. SNOW/ICE MELTING SYSTEMS SHALL INCLUDE AUTOMATIC CONTROLS CAPABLE OF SHUTTING OFF SYSTEM WHEN THE PAVEMENT TEMPERATURE IS ABOVE 50°F.	
503.2.5: VENTILATION SYSTEM CONTROLS	VENTILATION SHALL BE PROVIDED IN ACCORDANCE WITH THE NEW YORK CITY CONSTRUCTION CODES, WHERE MECHANICAL VENTILATION IS PROVIDED, THE SYSTEM SHALL PROVIDE THE CAPABILITY TO REDUCE THE OUTDOOR AIR SUPPLY TO THE MINIMUM REQUIRED BY CHAPTER 4 OF THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES.	VENTILATION, EITHER NATURAL OR MECHANICAL, SHALL BE PROVIDED IN ACCORDANCE WITH CHAPTER 4 OF THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES, WHERE MECHANICAL VENTILATION IS PROVIDED, THE SYSTEM SHALL PROVIDE THE CAPABILITY TO REDUCE THE OUTDOOR AIR SUPPLY TO THE MINIMUM REQUIRED BY CHAPTER 4 OF THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES.	
503.2.5.1: DEMAND CONTROLLED VENTILATION	VENTILATION SYSTEMS FOR HIGH OCCUPANCY AREAS COMPLY WITH THESE REQUIREMENTS, AS SPECIFIED.	DEMAND CONTROLLED VENTILATION IS REQUIRED FOR SPACES LARGER THAN 500 SQ FT AND WITH AN AVERAGE LOAD OF 40 PEOPLE PER 1000 SQ FT OF FLOOR AREA	
503.2.6: ENERGY RECOVERY VENTILATION SYSTEMS	SHALL COMPLY WITH SECTION 503.2.6	INDIVIDUAL FAN SYSTEMS THAT HAVE BOTH A DESIGN SUPPLY AIR CAPACITY OF 5,000 CFM (2.36 M3/S) OR GREATER AND A MINIMUM OUTSIDE AIR SUPPLY OF 70 PERCENT OR GREATER OF THE DESIGN SUPPLY AIR QUANTITY SHALL HAVE AN ENERGY RECOVERY SYSTEM THAT PROVIDES A CHANGE IN THE ENTHALPY OF THE OUTDOOR AIR SUPPLY OF 50 PERCENT OR MORE OF THE DIFFERENCE BETWEEN THE OUTDOOR AIR AND RETURN AIR AT DESIGN CONDITIONS. PROVISION SHALL BE MADE TO BYPASS OR CONTROL THE ENERGY RECOVERY SYSTEM TO PERMIT COOLING WITH OUTDOOR AIR WHERE COOLING WITH OUTDOOR AIR IS REQUIRED.	
503.2.7: DUCT AND PLENUM INSULATION AND SEALING	INSULATION AND SEALING HAS BEEN SPECIFIED TO BE INSTALLED AS PER 503.2.7	ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-5 INSULATION WHEN LOCATED IN UNCONDITIONED SPACES AND WITH A MINIMUM OF R-8 INSULATION WHEN LOCATED OUTSIDE THE BUILDING. WHEN LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-8 INSULATION.ALL DUCTS, AIR HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH SECTION 603.9 OF THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES.	
503.2.7.1: DUCT CONSTRUCTION	DUCTWORK HAS BEEN SPECIFIED TO BE CONSTRUCTED AND ERECTED IN ACCORDANCE WITH THE MECHANICAL CODE OF NEW YORK CITY AND THE NEW YORK CITY CONSTRUCTION CODES	DUCTWORK SHALL BE CONSTRUCTED AND ERECTED IN ACCORDANCE WITH THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES.	
503.2.7.1.1: LOW PRESSURE DUCT SYSTEMS	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 502.7.1.1	ALL LONGITUDINAL AND TRANSVERSE JOINTS, SEAMS AND CONNECTIONS OF SUPPLY AND RETURN DUCTS OPERATING AT A STATIC PRESSURE LESS THAN OR EQUAL TO 2 INCHES W.G. (500 PA) SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS (ADHESIVES), MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS OR TAPES INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PRESSURE CLASSIFICATIONS SPECIFIC TO THE DUCT SYSTEM SHALL BE CLEARLY INDICATED ON THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES.	
503.2.7.1.2: MEDIUM PRESSURE DUCT SYSTEMS	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 502.7.1.2	ALL DUCTS AND PLENUMS DESIGNED TO OPERATE AT A STATIC PRESSURE GREATER THAN 2 INCHES W.G. (500 PA) BUT LESS THAN 3 INCHES W.G. (750 PA) SHALL BE INSULATED AND SEALED IN ACCORDANCE WITH SECTION 503.2.7.1.2. PRESSURE CLASSIFICATIONS SPECIFIC TO THE DUCT SYSTEM SHALL BE CLEARLY INDICATED ON THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES.	
503.2.7.1.3: HIGH PRESSURE DUCT SYSTEMS	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 502.7.1.3	DUCTS DESIGNED TO OPERATE AT STATIC PRESSURES IN EXCESS OF 3 INCHES W.G. (748 PA) SHALL BE INSULATED AND SEALED IN ACCORDANCE WITH SECTION 503.2.7.1.3. IN ADDITION, DUCTS AND PLENUMS SHALL BEALX-TESTED IN ACCORDANCE WITH THE SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL WITH THE RATE OF AIR LEAKAGE (CL) LESS THAN OR EQUAL TO 6.0 AS DETERMINED IN ACCORDANCE WITH EQUATION 5-2	
503.2.8: PIPING INSULATION	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.8	ALL PIPING SERVING AS PART OF A HEATING OR COOLING SYSTEM SHALL BE THERMALLY INSULATED IN ACCORDANCE WITH TABLE 503.2.8	
503.2.9: HVAC SYSTEM COMPLETION	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.9	PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE DESIGN PROFESSIONAL SHALL PROVIDE EVIDENCE OF SYSTEM COMPLETION IN ACCORDANCE WITH SECTIONS 503.2.9.1 THROUGH 503.2.9.3	
503.2.9.1: AIR SYSTEM BALANCING	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.9.1	EACH SUPPLY AIR OUTLET AND ZONE TERMINAL DEVICE SHALL BE EQUIPPED WITH MEANS FOR AIR BALANCING IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 6 OF THE MECHANICAL CODE OF NEW YORK CITY, IN NEW YORK CITY, THE NEW YORK CITY CONSTRUCTION CODES. DISCHARGE DAMPERS ARE PROHIBITED ON CONSTANT VOLUME FANS AND VARIABLE VOLUME FANS WITH MOTORS 10 HP (7.46 KW) AND LARGER.	
503.2.9.2: HYDRONIC SYSTEM BALANCING	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.9.2	INDIVIDUAL HYDRONIC HEATING AND COOLING COILS SHALL BE EQUIPPED WITH MEANS FOR BALANCING AND PRESSURE TEST CONNECTIONS.	
503.2.9.3: MANUALS	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.9.3	THE CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT AN OPERATING AND MAINTENANCE MANUAL BE PROVIDED TO THE BUILDING OWNER BY THE MECHANICAL CONTRACTOR	
503.2.10: AIR SYSTEM DESIGN AND CONTROL	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.9.10	EACH HVAC SYSTEM HAVING A TOTAL FAN SYSTEM MOTOR NAMEPLATE HORSEPOWER (HP) EXCEEDING 5 HORSEPOWER (HP) (3.7 KW) SHALL MEET THE PROVISIONS OF SECTIONS 503.2.10.1 THROUGH 503.2.10.2	
503.2.10.1:ALLOWABLE FAN HORSEPOWER	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.10.1	EACH HVAC SYSTEM AT FAN SYSTEM DESIGN CONDITIONS SHALL NOT EXCEED THE ALLOWABLE FAN SYSTEM MOTOR NAMEPLATE HP (OPTION 1) OR FAN SYSTEM BHP (OPTION 2) AS SHOWN IN TABLE 503.2.10.1(1). THIS INCLUDES SUPPLY FANS, RETURN/RELIEF FANS, AND FAN-POWERED TERMINAL UNITS ASSOCIATED WITH SYSTEMS PROVIDING HEATING OR COOLING CAPABILITY.	
503.2.10.2: MOTOR NAMEPLATE HORSEPOWER	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.10.2	FOR EACH FAN, THE SELECTED FAN MOTOR SHALL BE NO LARGER THAN THE FIRST AVAILABLE MOTOR SIZE GREATER THAN THE BRAKE HORSEPOWER(BHP). THE FAN BRAKE HORSEPOWER (BHP) SHALL BE INDICATED ON THE DESIGN DOCUMENTS TO ALLOW FOR COMPLIANCE VERIFICATION BY THE CODE ENFORCEMENT OFFICIAL.	
503.2.11: HEATING OUTSIDE A BUILDING	HAS BEEN SPECIFIED TO COMPLY WITH SECTION 503.2.11	SYSTEMS INSTALLED TO PROVIDE HEAT OUTSIDE A BUILDING SHALL BE RADIANT SYSTEMS. SUCH HEATING SYSTEMS SHALL BE CONTROLLED BY AN OCCUPANCY SENSING DEVICE OR A TIMER SWITCH, SO THAT THE SYSTEM IS AUTOMATICALLY DEENERGIZED WHEN NO OCCUPANTS ARE PRESENT.	

PROFESSIONAL'S STATEMENT

TO THE BEST OF OUR KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE.

BUILDING DEPARTMENT NOTE:

THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

SHEET NOTES


ENERGY ANALYSIS NOTES:

1. THE SCOPE OF WORK INDICATED IS BASED ON A PERFORMANCE BASED ENERGY ANALYSIS TO CONFIRM COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC). THE ENERGY COST BUDGET METHOD OF ASHRAE 90.1-2007 IS USED TO SHOW ENERGY CODE COMPLIANCE PER NYCECC 501.1.

2. REFER TO SHEET EN-200 FOR BUILDING ASSEMBLY DESCRIPTIONS, DETAILS, AND PERFORMANCE CRITERIA.

3. REFER TO PERFORMANCE BASED ENERGY ANALYSIS TITLED "ENERGY MODELING OF THE MANHATTAN WEST NORTH TOWER" FOR OUTPUT REPORTS OF THE ASSEMBLIES ON SHEET EN-200.

4. THE LIGHTING WITHIN THE TENANT OFFICE SPACE IS NOT PART OF THE CORE AND SHELL SCOPE OF WORK. A SEPARATE FIT-OUT IS REQUIRED FROM EACH TENANT WHICH PROVES INDIVIDUAL COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).



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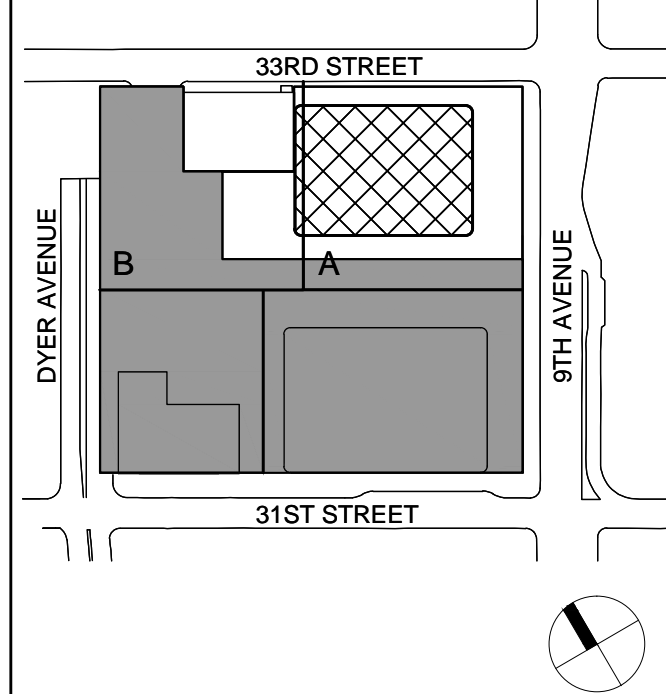
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

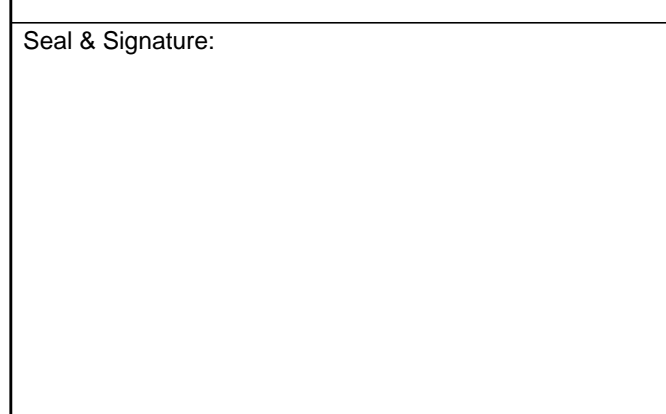
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Key Plan:



Seal & Signature:



No.	Date	Description
3	28 APR 2015	ISSUED FOR ENERGY CODE REVIEW
2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

Sheet Name:

**NYC EC  
COMPLIANCE  
MANDATORY  
MEASURES  
SHEET NO. 1**

Project No.: 14B00A.000 Sheet No.: EN-002.00

Date: 19 DEC 2014

Scale: N.T.S.

File No.: Page No.:



TABLE 3 - AIR-CONDITIONING CONTROLS SYSTEMS WORKSHEET																															
SYSTEM TAG	AC-B-1 & AC-B-2	AC-B-3	AC-B-4	AC-B-5	AC-B-6	AC-B-7	AC-B-8	AC-6-1 & AC-67-1	AC-B1-1	AC-B2-1	AC-B3-1	AC-1-1	AC-2-1	AC-4-1	AC-20-1B & 2B	AC-30-1B	AC-40-1B & 2B	AC-52-1B	AC-62-1B	AC-70-1B	AC-71-1B	AHU-4-1	AHU-4-2	HV-4-1&2	HV-4-3	HV-5-1	HV-5-2	HV-6B-1&2	HV-6B-3	HV-6B-4&5	
SUPPLY CFM	8,000	12,000	800	800	800	800	800	25,000	3,000	3,000	3,000	1,500	1,500	3,000	2,000	5,000	5,000	10,000	10,000	10,000	7,500	15,000	55,000	75,000	62,500	15,000	11,000	37,500	18,000	32,000	
SUPPLY ESP	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.5	0.75	0.75	0.75	0.75	0.75	0.75	0.5	0.75	0.75	1.0	1.0	1.0	1.0	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.5	1.5	
FAN SYSTEM HP	7-1/2	15	3/4	3/4	3/4	3/4	3/4	40	3	3	3	1-1/2	1-1/2	3	1-1/2	5	5	10	10	10	7-1/2	25	100	125	75	20	15	60	20	50	
OA CFM	0	0	150	150	150	150	150	4,500	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	11,000	75,000	62,500	15,000	11,000	37,500	18,000	32,000	
AUTOMATIC SHUTDOWN (SECTION 6.4.3.2.1)	N1	N1	N2	N2	N2	N2	N2	C1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	C1	C1	N1	N1	N1	N1	N1	N1	N1	N1	N1
DEAD BAND (SECTION 6.4.3.2.1)	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	N2	C1	C1	N2	N2	N2	N2	N2	N2	N2	N2
SETBACK CONTROLS (SECTION 6.4.3.2.2)	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	N5	C1	C1	N1	N1	N1	N1	N1	N1	N1	N1
OPTIMUM START CONTROLS (SECTION 6.4.3.2.3)	N1	N1	N3	N3	N3	N3	N3	C1	C1	C1	C1	C1	C1	C1	N1	N1	N1	N1	N1	N1	N1	C1	C1	N1	N1	N1	N1	N1	N1	N1	N1
ZONE ISOLATION (SECTION 6.4.3.2.4)	N1	N1	N2	N2	N2	N2	N2	C1	C1	C1	C1	C1	C1	C1	N1	N1	N1	N1	N1	N1	N1	C1	C1	N1	N1	N1	N1	N1	N1	N1	N1
SHUTOFF DAMPER CONTROLS (SECTION 6.4.3.3.4)	N1	N1	N2	N2	N2	N2	N2	C1	C1	C1	C1	C1	C1	C1	N1	N1	N1	N1	N1	N1	N1	C1	C1	N1	N1	N1	N1	N1	N1	N1	N1
HEAT PUMP AUX HEAT CONTROL (SECTION 6.4.3.4)	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1
HUMIDIFIER PREHEAT (SECTION 6.4.3.5)	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1
HUMIDIFICATION & DEHUMIDIFICATION (SECTION 6.4.3.6)	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1	N1

TABLE 3 - CONTROLS LEGEND					
AUTOMATIC SHUTDOWN		OPTIMUM START CONTROLS		HEAT PUMP AUX HEAT CONTROL	
C1	COMPLYING NONRESIDENTIAL TIME SWITCH WITH OVERRIDE	C1	OPTIMUM START PROVIDED	C1	CONTROLS PROVIDED
C2	COMPLYING RESIDENTIAL TIME SWITCH WITH OVERRIDE	N1	N/A - CONTINUOUS OPERATION	N1	N/A - SYSTEM NOT A HEAT PUMP
N1	N/A - UNIT CONTINUOUSLY OPERATES	N2	N/A <15 KBTU/H OR < 3/4 HP	N2	N/A - AUX HEAT IS NOT ELECTRIC OR NOT PROVIDED
N2	N/A - UNIT IS <15 KBTU/H OR < 3/4 HP	N3	N/A SUPPLY </= 10,000 CFM	N3	N/A - HEAT PUMP COVERED BY NAECA
N3	N/A - UNIT IS HOTEL/MOTEL GUESTROOM				
DEAD BAND		SHUTOFF DAMPER CONTROLS		HUMIDIFIER PREHEAT	
C1	DUAL SET POINT CONTROL	C1	MOTORIZED SHUTOFF DAMPERS ON OA AND EXH	C1	CONTROLS PROVIDED
C2	MANUAL CHANGE OVER CONTROL	C2	GRAVITY SHUTOFF DAMPERS ON OA AND EXH	N1	N/A - NO HUMIDIFIER
N1	N/A - SPECIAL OCCUPANCY	N1	N/A - UNIT CONTINUOUSLY OPERATES		
N2	N/A - UNIT PROVIDES HEATING OR COOLING ONLY	N2	N/A - UNIT IS <15 KBTU/H OR < 3/4 HP		
		N3	N/A - OA/EA FOR UNIT </= 300 CFM	C1	COMPLY - CONTROLS PROVIDED
				N1	N/A - NO HUMIDIFICATION AND/OR DEHUMIDIFICATION
SETBACK CONTROLS		ZONE ISOLATION		DUCT/PLENUM INSULATION	
C1	SETBACK PROVIDED (DOWN TO 55°F)	C1	COMPLY - ISOLATION ZONES PROVIDED	C1	COMPLYING INSULATION PROVIDED
N1	N/A - UNIT CONTINUOUSLY OPERATES	N1	N/A - UNIT CONTINUOUSLY OPERATES	N1	N/A - ALL DUCTS LOCATED IN CONDITIONED SPACE
N2	N/A - UNIT IS <15 KBTU/H OR < 3/4 HP	N2	N/A - UNIT IS <15 KBTU/H OR < 3/4 HP		
N3	N/A - 99.6% WINTER DB > 40°F	N3	N/A - ALL ZONES ON SAME SCHEDULE		
N4	N/A - RADIANT HEATING	N4	N/A - OA/EA FOR UNIT </= 5,000 CFM		
N5	N/A - NO HEATING PROVIDED BY UNIT				

MISCELLANEOUS REQUIREMENTS - MANDATORY MEASURES

1. MECHANICAL EQUIPMENT NOT COVERED BY THE US NATIONAL APPLIANCE ENERGY CONSERVATION ACT (NAECA) OF 1987 SHALL BE PROVIDED A PERMANENT LABEL INSTALLED BY THE MANUFACTURER STATING THAT THE EQUIPMENT COMPLIES WITH THE REQUIREMENTS OF ASHRAE 90.1.

2. PACKAGED TERMINAL AIR CONDITIONERS AND HEAT PUMPS WITH SLEEVE SIZES LESS THAN 18 INCHES HIGH AND 42 INCHES WIDE SHALL BE PROVIDED WITH A FACTORY LABEL WHICH READS: "MANUFACTURED FOR REPLACEMENT APPLICATIONS ONLY; NOT TO BE INSTALLED IN NEW CONSTRUCTION PROJECTS."

3. A DEADBAND OF \_\_\_\_\_°F SHALL BE PROVIDED TO PREVENT THE HEATING SET POINT FROM EXCEEDING THE COOLING SET POINT.

4. THE LEAKAGE OF THE SPECIFIED DAMPERS SHALL BE LESS THAN THE 10 CFM / SQUARE FOOT FOR MOTORIZED DAMPERS AND 20 CFM / SQUARE FOOT FOR NONMOTORIZED DAMPERS AT 1.0 INCHES OF WATER GAUGE WHEN TESTED IN ACCORDANCE WITH AMCA STANDARD 500.

5. VENTILATION FANS WITH MOTORS GREATER THAN 3/4 HP SHALL HAVE CONTROLS WHICH AUTOMATICALLY SHUT OFF THE FANS WHEN NOT REQUIRED.
6. FREEZE PROTECTION SYSTEMS (SUCH AS HEAT TRACING) SHALL HAVE CONTROLS TO SHUT OFF THE SYSTEM WHEN THE OUTDOOR AIR TEMPERATURE IS ABOVE 40°F. SNOW/ICE MELTING SYSTEMS SHALL HAVE CONTROLS TO SHUT OFF THE SYSTEM WHEN THE PAVEMENT TEMPERATURE IS ABOVE 50°F.

7. CO<sub>2</sub> SENSORS, WHICH REDUCE THE OUTDOOR AIR INTAKE BELOW DESIGN RATES WHEN SPACES ARE PARTIALLY OCCUPIED, HAVE BEEN PROVIDED FOR SYSTEMS WITH DESIGN OUTDOOR AIR CAPACITIES GREATER THAN 3000 CFM SERVING AREAS HAVING AN AVERAGE DESIGN OCCUPANCY EXCEEDING 100 PEOPLE PER 1000 FT<sup>2</sup>.

8. DUCTWORK USED FOR BOTH HEATING AND COOLING SHALL HAVE BE INSULATED WITH AN R-VALUE GREATER THAN OR EQUAL TO 3.5. RETURN AIR DUCTS ARE NOT TO BE INSULATED.
9. SUPPLY AND RETURN DUCTWORK AND PLENUMS LOCATED OUTDOORS AND SUPPLY DUCTWORK AND PLENUMS GREATER THAN 2 INCHES OF W.C. IN UNCONDITIONED SPACES SHALL BE A MINIMUM OF CLASS "A" SEALED. SUPPLY DUCTWORK AND PLENUMS LESS THAN 2 INCHES OF W.C. AND RETURN DUCTWORK IN UNCONDITIONED SPACES AND SUPPLY DUCTWORK AND PLENUMS GREATER THAN 2 INCHES OF W.C. AND EXHAUST DUCTWORK IN CONDITIONED SPACES SHALL BE A MINIMUM OF CLASS "B" SEALED. EXHAUST DUCTWORK AND PLENUMS LOCATED OUTDOORS AND IN UNCONDITIONED SPACE AND SUPPLY DUCTWORK AND PLENUMS LESS THAN 2 INCHES OF W.C. AND RETURN DUCTWORK IN CONDITIONED SPACE SHALL BE A MINIMUM OF CLASS "C" SEALED.

10. THIS CONTRACTOR IS REQUIRED TO PROVIDE RECORD DRAWINGS AND OWNER'S OPERATIONAL MANUALS. THIS CONTRACTOR IS ALSO RESPONSIBLE TO PARTICIPATE IN THE AIR AND WATER SYSTEM BALANCING AND ANY REQUIRED CONTROL SYSTEM COMMISSIONING.

PROFESSIONAL'S STATEMENT

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SHEET NOTES

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3. REFER TO PERFORMANCE BASED ENERGY ANALYSIS TITLED "ENERGY MODELING OF THE MANHATTAN WEST NORTH TOWER" FOR OUTPUT REPORTS OF THE ASSEMBLIES ON SHEET EN-200.

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MANHATTAN WEST: NORTH TOWER

375 Ninth Avenue, New York, NY 10001

Client

Brookfield

250 Vesey Street, 15th Floor, New York, NY 10291

Architecture/Structural Engineering

SOM

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East 88th Street, Suite 1, New York, NY 10014

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 22nd W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Ventor & Santoro  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

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65 Broadway, Suite 401, New York, NY 10006

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Code Consultants Professional Engineers PC  
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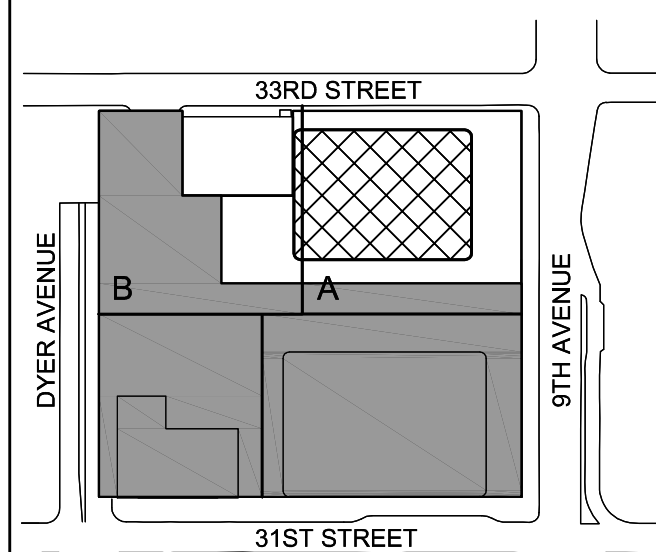
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1S8

Key Plan:



Seal & Signature:



2 30 JAN 2016 ISSUED FOR BUILDING PERMIT  
1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No. Date Description  
Sheet Name:

NYC EC COMPLIANCE MANDATORY MEASURES SHEET NO. 2

Project No.: 14830A.000

Sheet No.:

Date: 19 DEC 2014

EN-003.00

Scale: N.T.S.

File No.:

Page No.:





EN1: Energy Cost Budget Worksheet

Do Not Submit Separately. Must be Incorporated in the drawing set. Must be typewritten.

1

Location Information Required for all applications.

House No(s)

401

Street Name

9TH AVENUE

Borough

MANHATTAN

Block

00729

Lot

00060

BIN

1800650

CB No

104

Work on Floor(s)

001 to 069, SC1, CEL, ROF

Apt/Condo No(s)

2

Applicant Information Required for all applications.

Last Name

Tuluca

First Name

Adrian

Middle Initial

N

Business Name

Vidaris, Inc.

Business Telephone (212)

689-5389

Business Address

360 Park Avenue South

Business Fax (212)

689-6449

City

New York

State

NY

Zip

10010

Mobile Telephone (203)

921-6892

E-Mail

atuluca@vidaris.com

License Number

019062

Energy Model Inputs

NYS approved energy model software:

Envelope

Proposed Design Input

Budget (Standard Design) Input

Above-grade wall U-factor

U-0.179 (curtain wall); U-0.128 (mass wall)

U-0.064 (steel frame); U-0.104 (mass wall)

Below-grade wall U-factor

C-0.550

C-1.140

Roof construction U-factor

U-0.036 (Tower); U-0.025 (Plaza)

U-0.048

Exterior floor U-factor

N/A

N/A

Slab-on-grade construction (yes/no)

Yes

Yes

Window-to-gross wall ratio

67%

40%

Average fenestration assembly U-factor

U-0.45

U-0.50

Average fenestration assembly SHGC

0.29

0.40

Fixed shading devices (yes/no)

no

no

Automated movable shading devices (yes/no)

no

no

Lighting

Average ambient lighting power density (W/SF)

0.41 (excl'd, tenant area)

0.93 (excl'd, tenant area)

Lighting occupant sensor controls (yes/no)

yes

yes (conf, office < 250 sf)

Automatic daylighting controls (yes/no)

no

no

Exterior lighting power (tradable surfaces) (kW)

8 kW

8 kW

Exterior lighting power (non-tradable surfaces) (kW)

0

0

Heating, Ventilating & Air Conditioning

Refrigeration equipment type

Water cooled DX units with water side economizer (EER=11.5, 2.1 gpm/ton, variable flow), Five 60 ton chillers for EMR, 250 ton absorption chiller using heat recovered from cogen.

Water cooled centrifugal chillers (0.576 kW/ton at ARI conditions) and absorption chiller (COP=1 at ARI conditions)

Heating equipment type

Purchased Steam

Purchased Steam

Demand controlled ventilation (yes/no)

No

No

Economizer type (air or water)

Yes; water side economizer

Yes; air side enthalpy economizer

Domestic hot water heating source

Electric and Steam-fired

Electric and Steam-fired

01/11

EN1

Unregulated Energy (W/SF)	Proposed Design Input	Budget (Standard Design) Input
Average Receptacle equipment power density (W/SF)	1.23	1.23
Average Unregulated lighting power density (W/SF)	1.05 (for tenant area)	1.05 (for tenant area)
Other process loads	0	0

Energy Cost Budget Conformance	Proposed Design Output	Budget (Standard Design) Output
Annual Regulated Energy Cost (\$)	4,738,802 with 1200 kW cogen	5,221,618
Annual Regulated Energy Use (BTU/GSF)	77,268 (Site); 147,266 (Source) 1200 kW cogen	80,943 (Site); 155,147 (Source)
Annual Regulated Energy Cost Per Sq. Ft. (\$/GSF)	2.56 with 1200 kW cogen	2.82

Energy Model Output Breakdown		
Energy Use Breakdown	Proposed Design Output (% BTU/yr)	Budget (Standard Design) Output (% BTU/yr)
Heating	15.11 (Site); 10.46 (Source) with 1200 kW cogen	21.03 (Site); 9.50 (Source)
Cooling	9.32 (Site); 11.26 (Source) with 1200 kW cogen	13.82 (Site); 9.95 (Source)
Heat rejection	1.20 (Site); 1.22 (Source) with 1200 kW cogen	7.23 (Site); 8.93 (Source)
Fans	16.55 (Site); 16.43 (Source) with 1200 kW cogen	9.13 (Site); 11.29 (Source)
Pumps	5.35 (Site); 5.84 (Source) with 1200 kW cogen	3.53 (Site); 4.37 (Source)
Lighting	26.81 (Site); 27.34 (Source) with 1200 kW cogen	25.68 (Site); 31.75 (Source)
Unregulated loads (e.g., plug loads, elevators, escalators, kitchen, process equipment, exterior lighting)	25.65 (Site); 25.44 (Source) with 1200 kW cogen	19.57 (Site); 24.20 (Source)
Total	100%	100%

Falsification of any statement is a misdemeanor under § 26-124 of the NYC Administrative Building Code and is punishable by a fine or imprisonment, or both. It is unlawful to give to a city employee, or for a city employee to accept, any benefit, monetary or otherwise, either as a gratuity for properly performing the job or in exchange for special consideration. Violation is punishable by imprisonment or fine or both.

Name (please print)

Adrian Tuluca

Signature

7/6/2015

P.E. / R.A. Seal (apply seal, then sign and date over seal)

01/11

GENERAL NOTES



MANHATTAN WEST:  
NORTH TOWER  
401 Ninth Avenue, New York, NY 10001  
Client

Brookfield

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

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Skidmore, Owings & Merrill LLP  
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MEP Engineering  
Jaros Baum & Bolles  
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Vertical Transportation  
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102 East Blithedale Ave., Suite 1, Mill Valley, California 94041

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geotechnical Engineering  
Mueser Rutledge Consulting Engineers  
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Landscape Consultant  
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475 10th Avenue, New York, NY 10018

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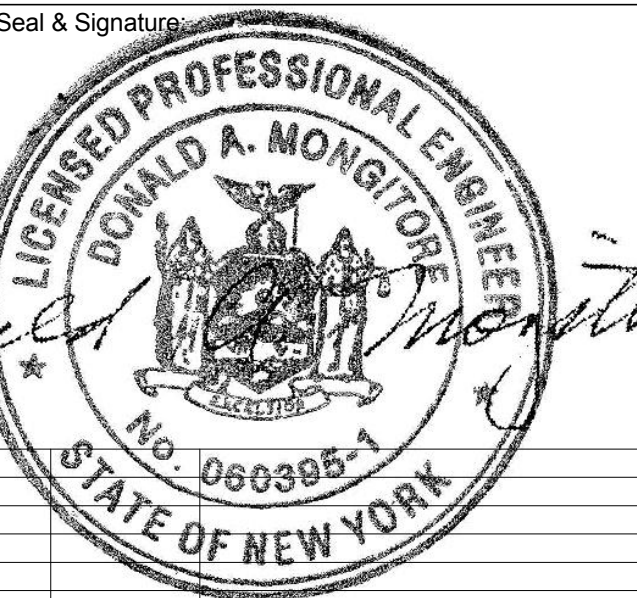
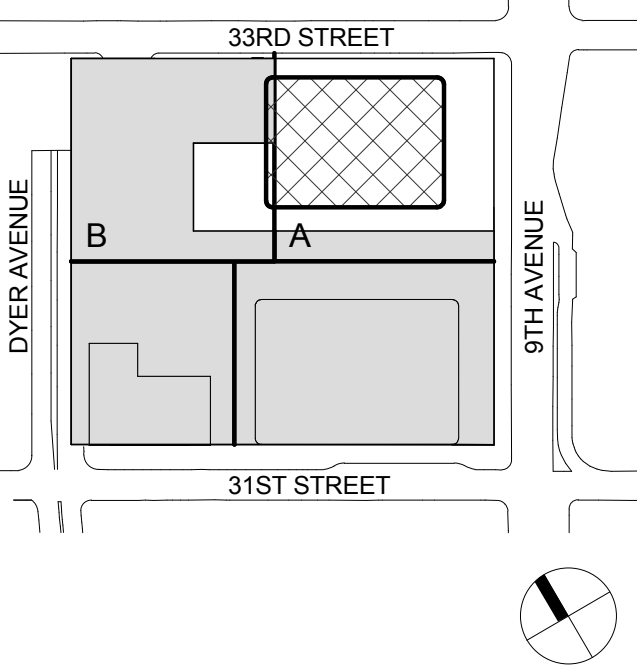
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215 West 40th Street, 15th Floor, New York, NY 10018

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166 Ames Street, Hackensack, NJ 07601

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Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



No. Date Description  
Sheet Name:

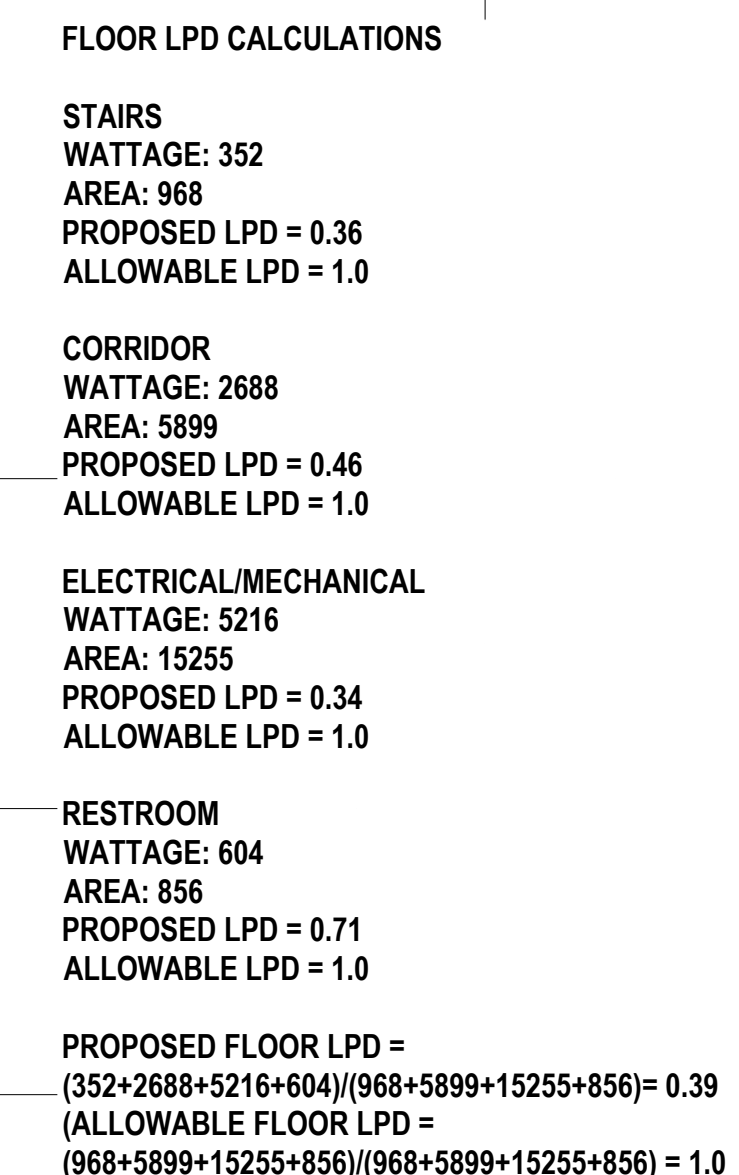
EN-1 ENERGY  
COST BUDGET  
WORKSHEET

Project No.: 207150  
Date: EN-010  
Scale: B-SCAN Sheet No.: EN-010.00  
File No.: EN-010  
Sheet No.: EN-010  
Page No.: 30





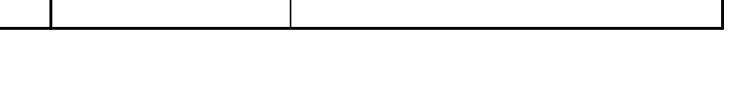




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**Brookfield**  
Brookfield Place  
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Architecture/Structural Engineering



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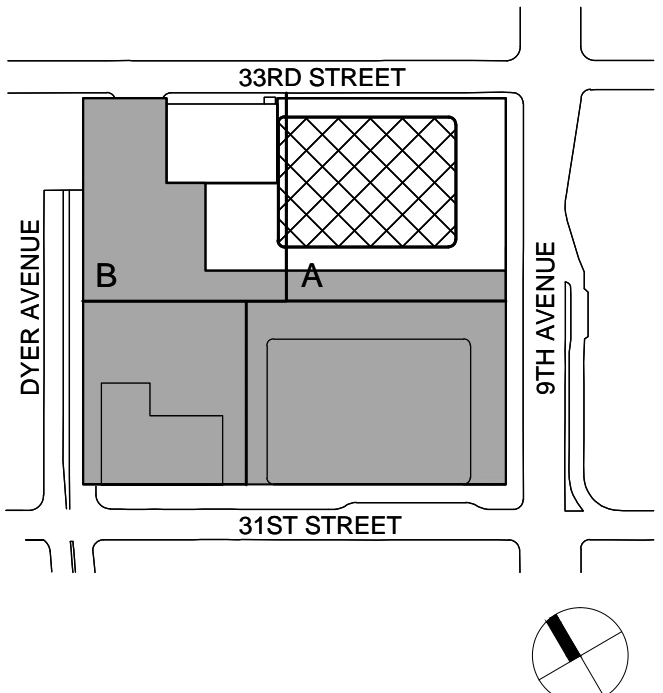
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Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
No.	Date	Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
CELLAR B  
FLOOR PLAN -  
PART B

Project No.:

Date:

Scale:

File No.:

Sheet No.:

EN-102.00

Page No.:

A4

A3

A2

A1

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4.8

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8

FLOOR LPD CALCULATIONS  
ACTIVE STORAGE  
WATTAGE: 320  
AREA: 1236  
PROPOSED FLOOR LPD = 0.26  
ALLOWABLE FLOOR LPD = 1.0

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MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10001

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Bithedale Ave. Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering

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14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10005

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

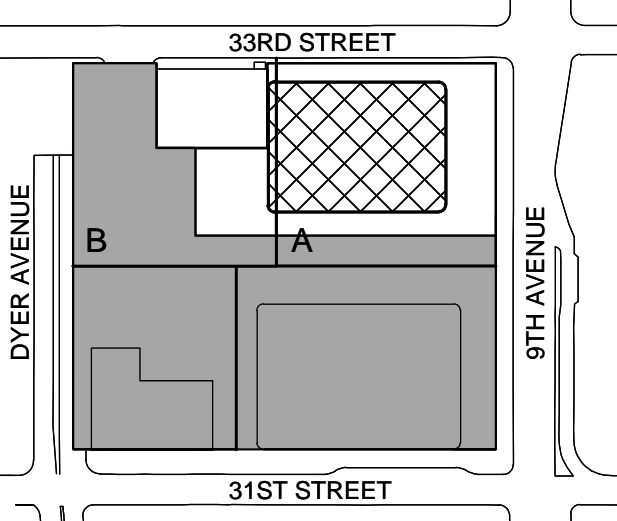
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



Project No.: 14830-A-000  
Date: 19 DEC 2014  
Scale: N.T.S.  
File No.:  
Sheet No.:  
Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 1  
FLOOR PLAN

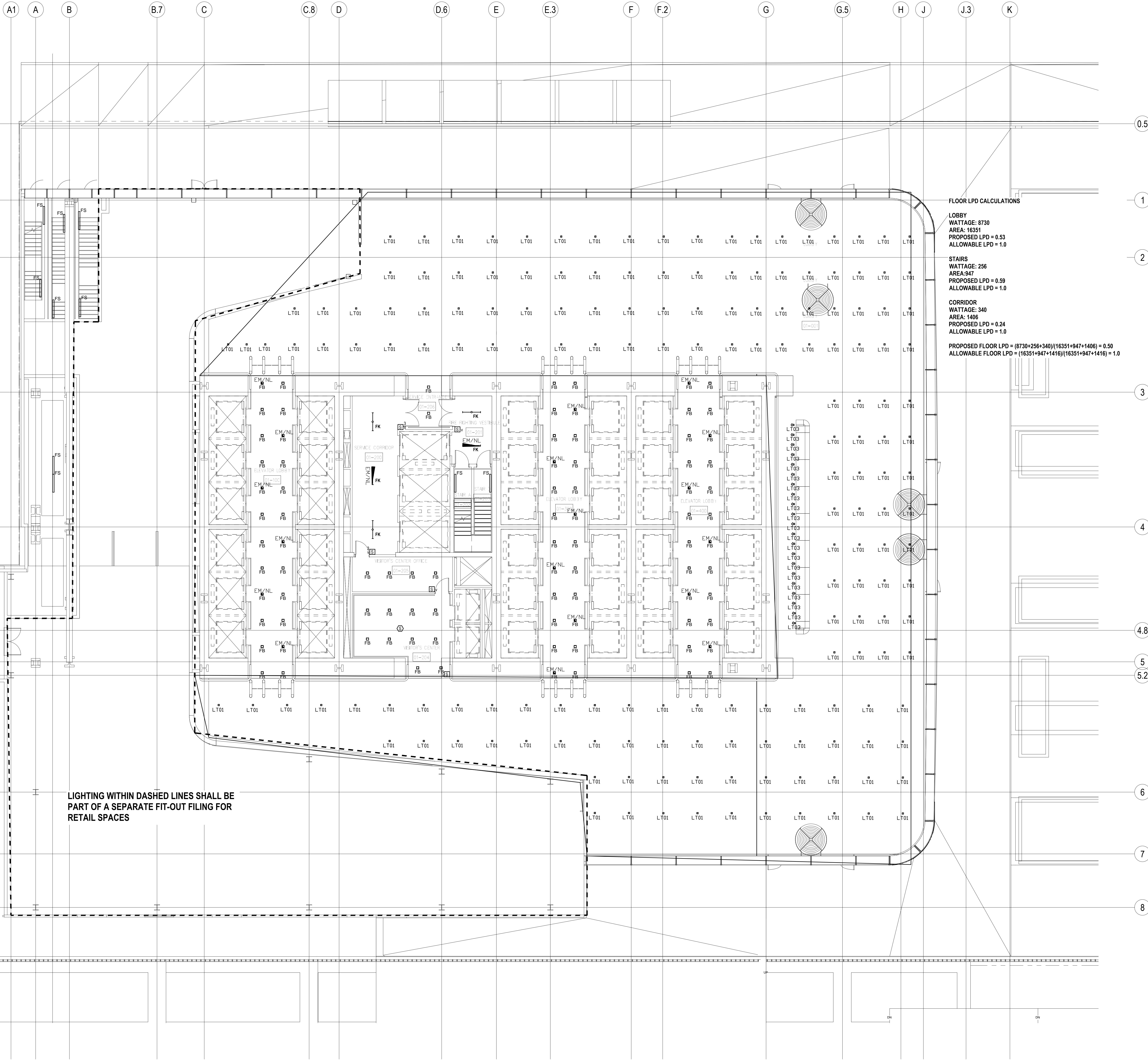
Project No.: 14830-A-000  
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PROFESSIONAL'S STATEMENT

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FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 8730  
AREA: 16351  
PROPOSED LPD = 0.53  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 256  
AREA: 947  
PROPOSED LPD = 0.59  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 340  
AREA: 1406  
PROPOSED LPD = 0.24  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD = (8730+256+340)/(16351+947+1406) = 0.50  
ALLOWABLE FLOOR LPD = (16351+947+1416)/(16351+947+1416) = 1.0





MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**  
Brookfield Place  
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Architecture/Structural Engineering



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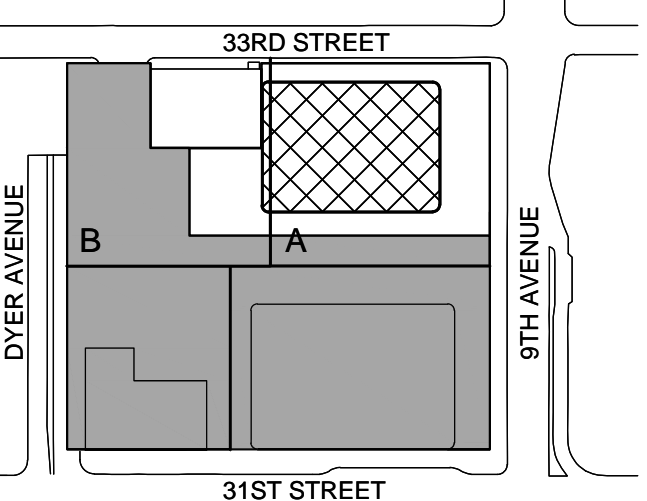
Facade Maintenance Consultant

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Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
No.	Date	Description

Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 3  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

Sheet No.:

Date:

Scale:

Page No.:

**EN-104.00**  
B-SCAN Sheet No.

SHEET NOTES

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FLOOR LPD CALCULATIONS

STAIRS  
WATTAGE: 256  
AREA: 947  
PROPOSED LPD = 0.59  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 1056  
AREA: 2835  
PROPOSED LPD = 0.37  
ALLOWABLE LPD = 1.0

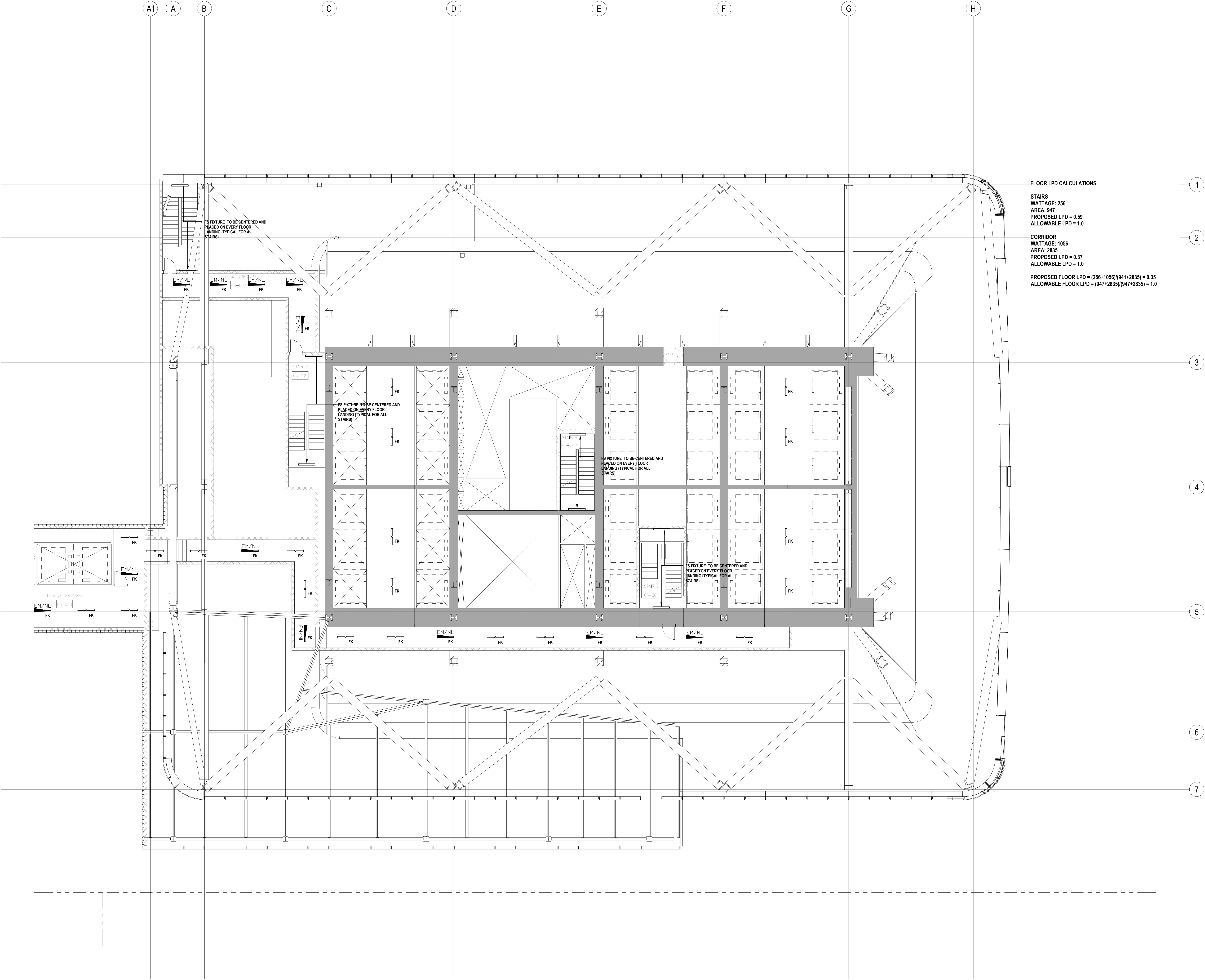
PROPOSED FLOOR LPD =  $(256+1056)/(947+2835) = 0.35$   
ALLOWABLE FLOOR LPD =  $(947+2835)/(947+2835) = 1.0$

PROFESSIONAL'S STATEMENT

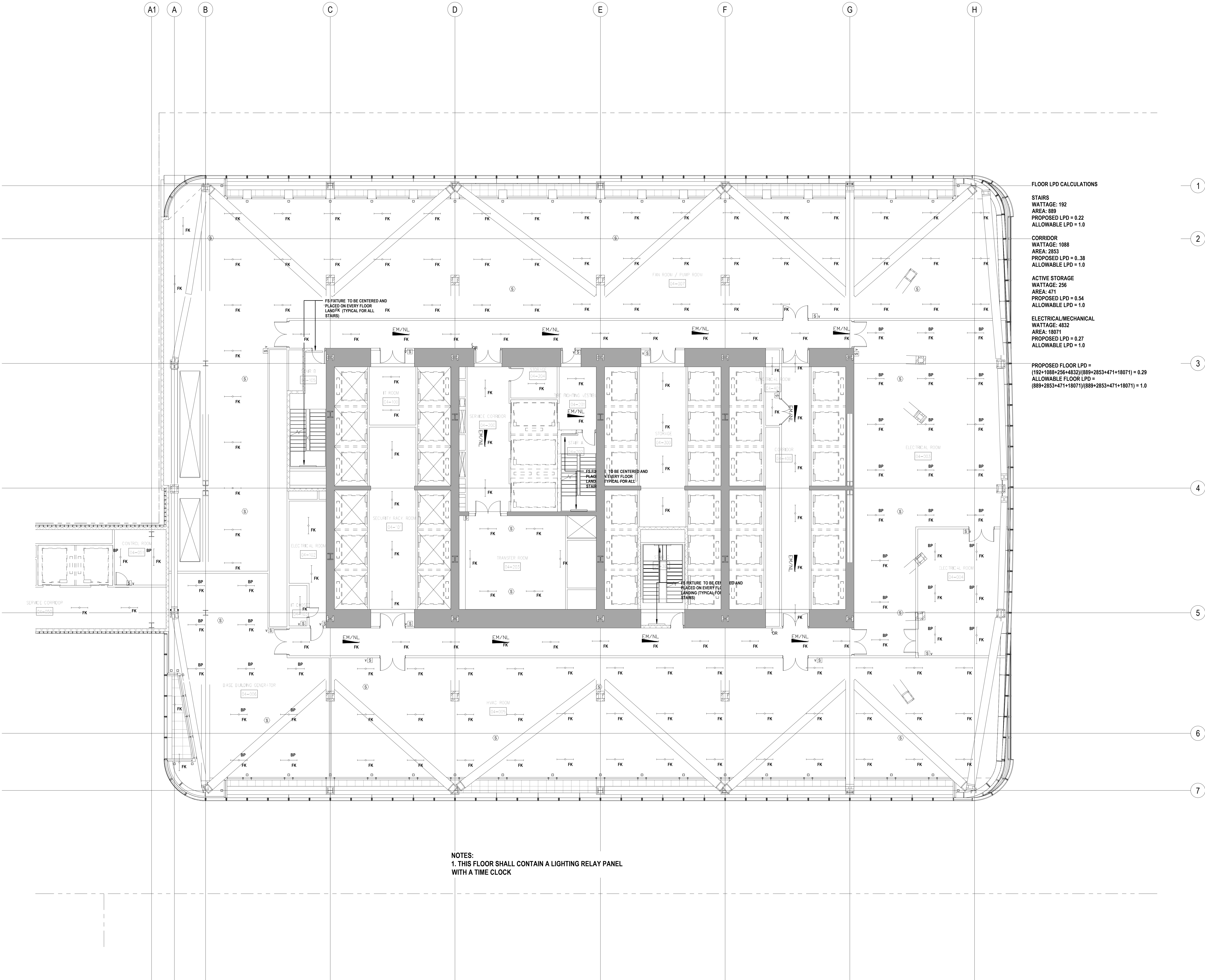
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NOTES:  
1. THIS FLOOR SHALL CONTAIN A LIGHTING RELAY PANEL  
WITH A TIME CLOCK

FLOOR LPD CALCULATIONS

STAIRS  
WATTAGE: 192  
AREA: 889  
PROPOSED LPD = 0.22  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 1088  
AREA: 2833  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 256  
AREA: 471  
PROPOSED LPD = 0.54  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 4832  
AREA: 18071  
PROPOSED LPD = 0.27  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(192+1088+256+4832)/(889+2833+471+18071) = 0.29  
ALLOWABLE FLOOR LPD =  
(889+2833+471+18071)/(889+2833+471+18071) = 1.0

SHEET NOTES

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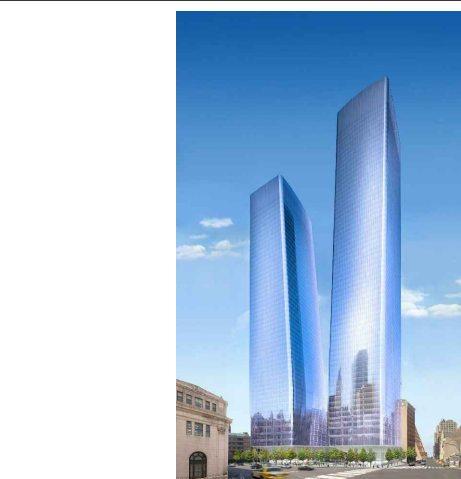
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SHEET EN-200.

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FLOOR LPD CALCULATIONS

STAIRS  
WATTAGE: 256  
AREA: 947  
LPD=0.59

CORRIDOR  
WATTAGE: 1056  
AREA: 2835



MANHATTAN WEST:  
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Viridian Energy & Environmental  
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Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

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40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

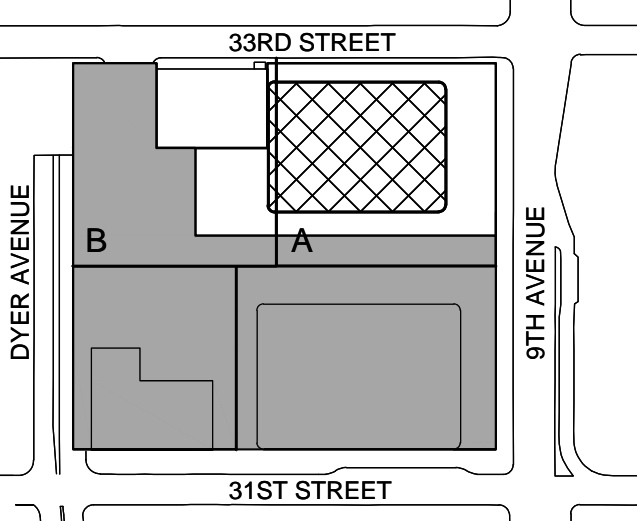
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10005

Code Consultant  
Code Consultants Professional Engineers PC  
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166 Ames Street, Hackensack, NJ 07601

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Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



2 30 JAN 2015 ISSUED FOR BUILDING PERMIT  
1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No. Date Description  
Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 4  
FLOOR PLAN

Project No.: 14830-A-000 Sheet No.:  
Date: 19 DEC 2014 EN-105.00  
Scale: N.T.S.  
File No.: Page No.:

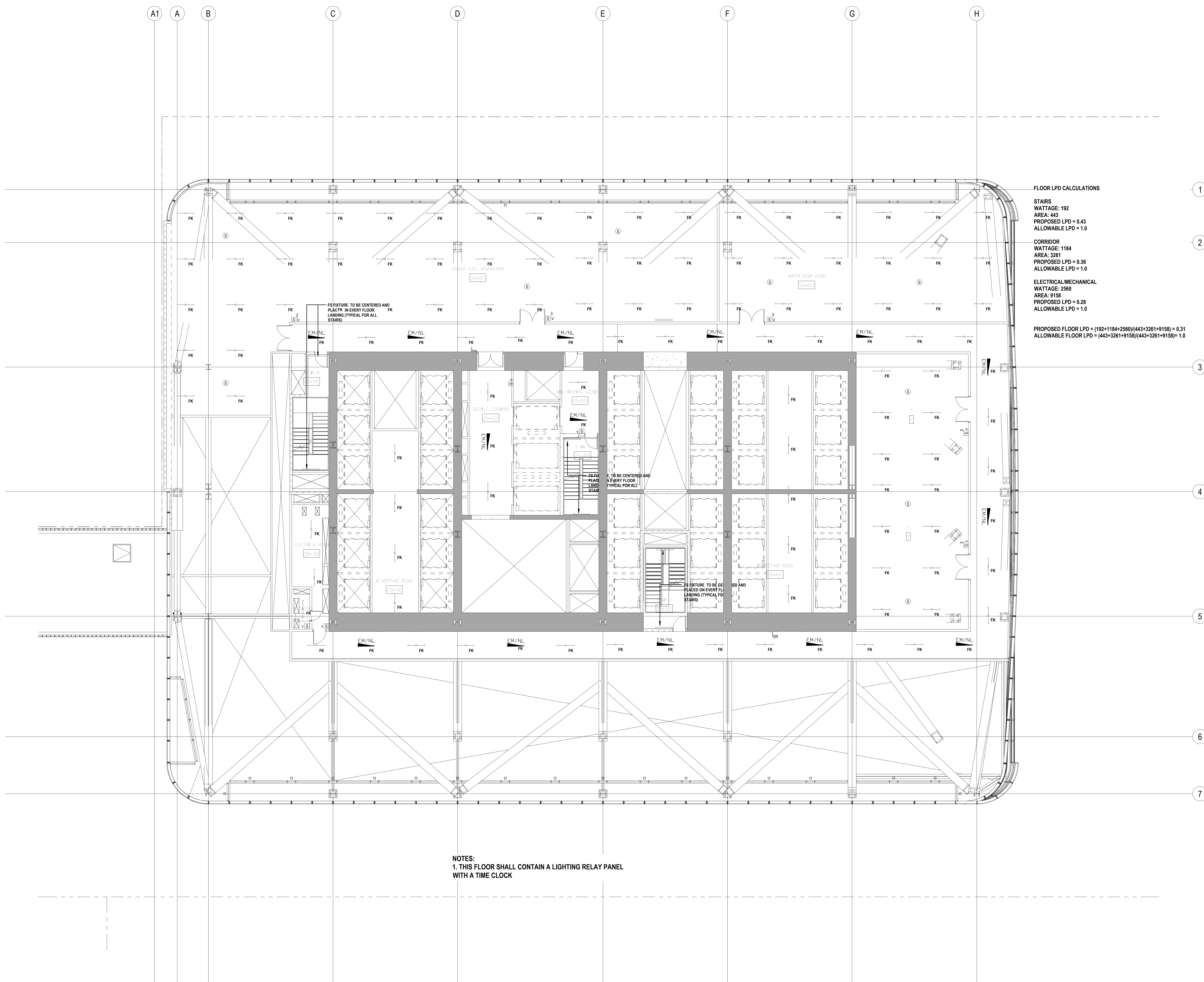
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**NOTES:**  
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WITH A TIME CLOCK

FLOOR LPD CALCULATIONS

STAIRS  
WATTAGE: 192  
AREA: 443  
PROPOSED LPD = 0.43  
ALLOWABLE LPD = 1.0

—CORRIDOR  
WATTAGE: 1184  
AREA: 3261  
PROPOSED LPD = 0.36  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 2560  
AREA: 9158  
PROPOSED LPD = 0.28  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  $(192+1184+2560)/(443+3261+9158) = 0.31$   
 ALLOWABLE FLOOR LPD =  $(443+3261+9158)/(443+3261+9158) = 1.0$

SHEET NOTES

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102 East Blithedale Ave. Suite 1, Mill Valley, California 94941

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

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Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
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475 10th Avenue, New York, NY 10018

Security Consultant  
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	Blast Consultant
	Weidinger Associates, Inc. 40 Wall Street, New York, NY 10005

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Cerami & Associates  
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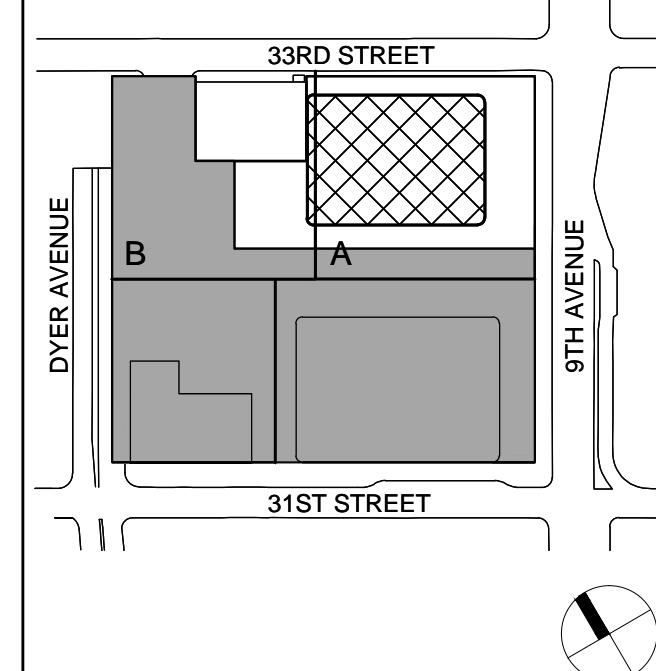
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

	Code Consultant
	Code Consultants Professional Engineers PC 215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

	Wind Tunnel Consultant
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	650 Woodlawn Road West, Guelph
	Ontario, Canada N1K 1B8

Key Plan:



Seal &amp; Signature



2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
No.	Date	Description
Sheet Name:		

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 5  
FLOOR PLAN

Project No.:

Date: 10/25/2010

Scale: N.T.S.

File No.:

Sheet No.

EN-106.00

100

Page No.

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Client

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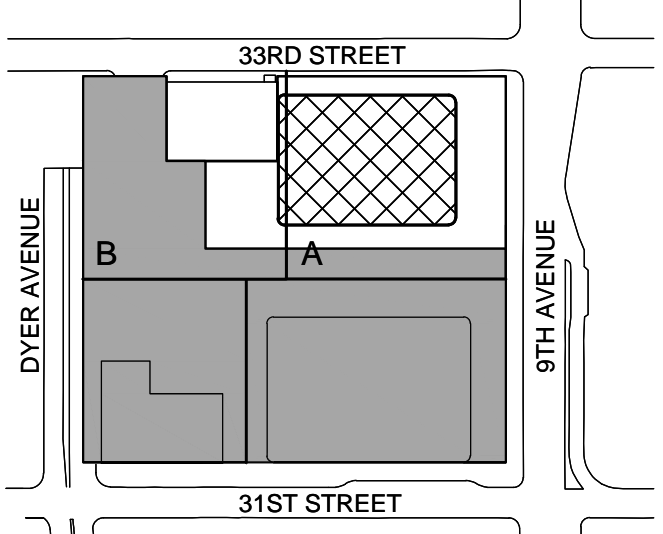
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No.	Date	Description
2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
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Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 6-16  
FLOOR PLAN**

Project No.:

14500-A-000

Date:

19 DEC 2014

Scale:

N.T.S.

File No.:

Sheet No.:

**EN-107.00**

Page No.:

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LIGHTING WITHIN DASHED LINES SHALL BE  
PART OF A SEPARATE FIT-OUT FILING

FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 520  
AREA: 1172  
PROPOSED LPD: 0.44  
ALLOWABLE LPD: 1.0

STAIRS  
WATTAGE: 192  
AREA: 517  
PROPOSED LPD = 0.37  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 188  
AREA: 560  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 780  
AREA: 490  
PROPOSED LPD = 1.5  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 384  
AREA: 1020  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
 $(520+192+188+780+384)/(1172+517+560+490+1020) = 0.54$   
ALLOWABLE FLOOR LPD =  
 $(1172+517+560+490+1020)/(1172+517+560+490+1020) = 1.0$

FS FIXTURE TO BE CENTERED  
AND PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)



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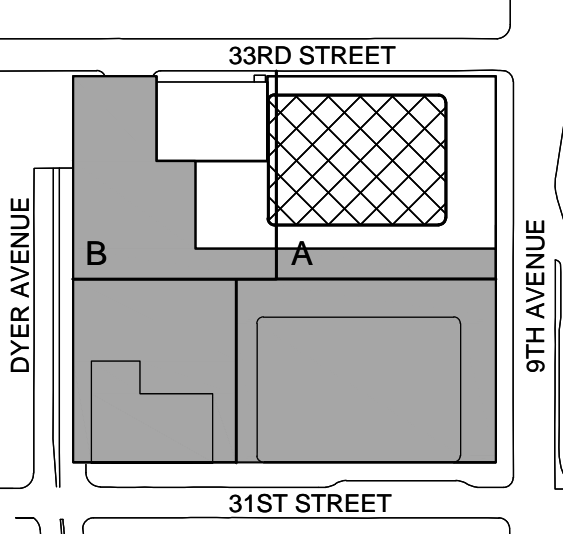
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
No.	Date	Description

Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 17  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

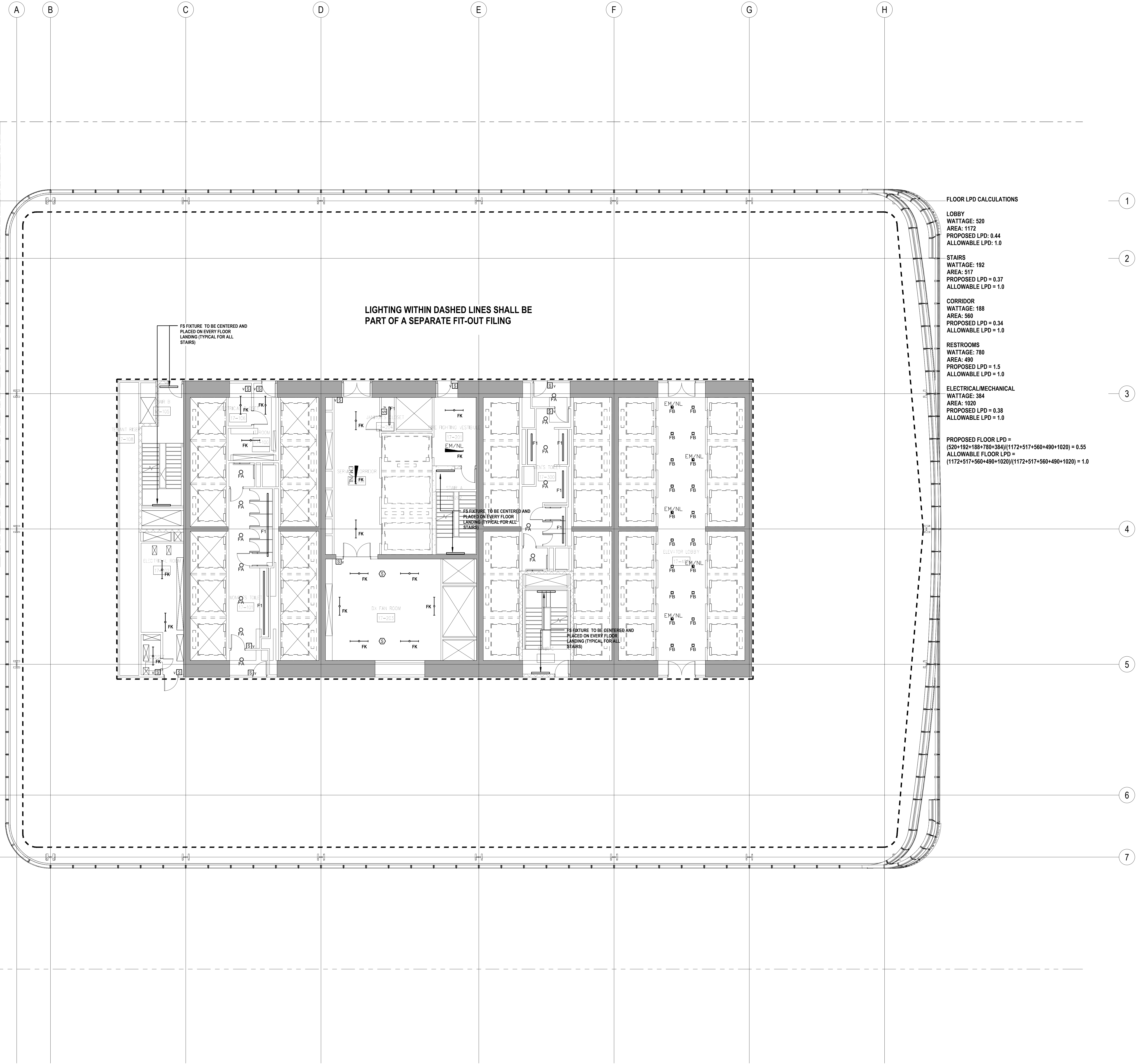
Sheet No.:

Date:

Scale:

Page No.:

**EN-108.00**



FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 520  
AREA: 1172  
PROPOSED LPD = 0.44  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 517  
PROPOSED LPD = 0.37  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 188  
AREA: 560  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 780  
AREA: 490  
PROPOSED LPD = 1.5  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 384  
AREA: 1020  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(520+192+188+780+384)/((1172+517+560+490+1020) = 0.55  
ALLOWABLE FLOOR LPD =  
(1172+517+560+490+1020)/((1172+517+560+490+1020) = 1.0

PROFESSIONAL'S STATEMENT

TO THE BEST OF OUR KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE.

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SHEET NOTES

ENERGY ANALYSIS NOTES:

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MANHATTAN WEST:  
NORTH TOWER  
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Client

**Brookfield**

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250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave. Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
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Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

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Security Consultant

Ducibella, Vantor & Santore  
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Blast Consultant

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65 Broadway, Suite 401, New York, NY 10005

Code Consultant

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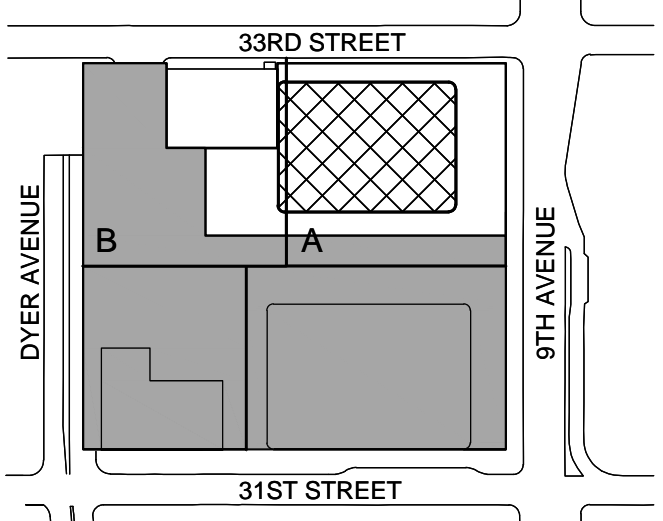
Facade Maintenance Consultant

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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:





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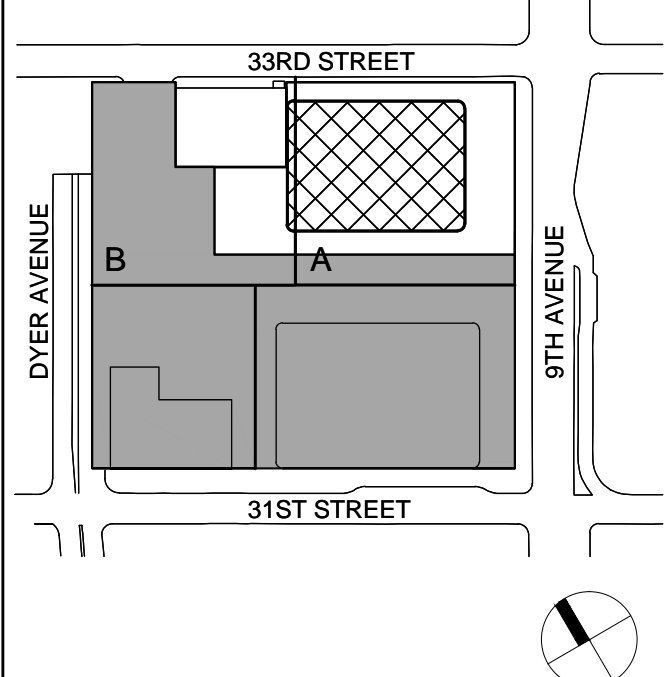
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Key Plan:



Seal & Signature:



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No. Date Description

Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 19 - 20  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

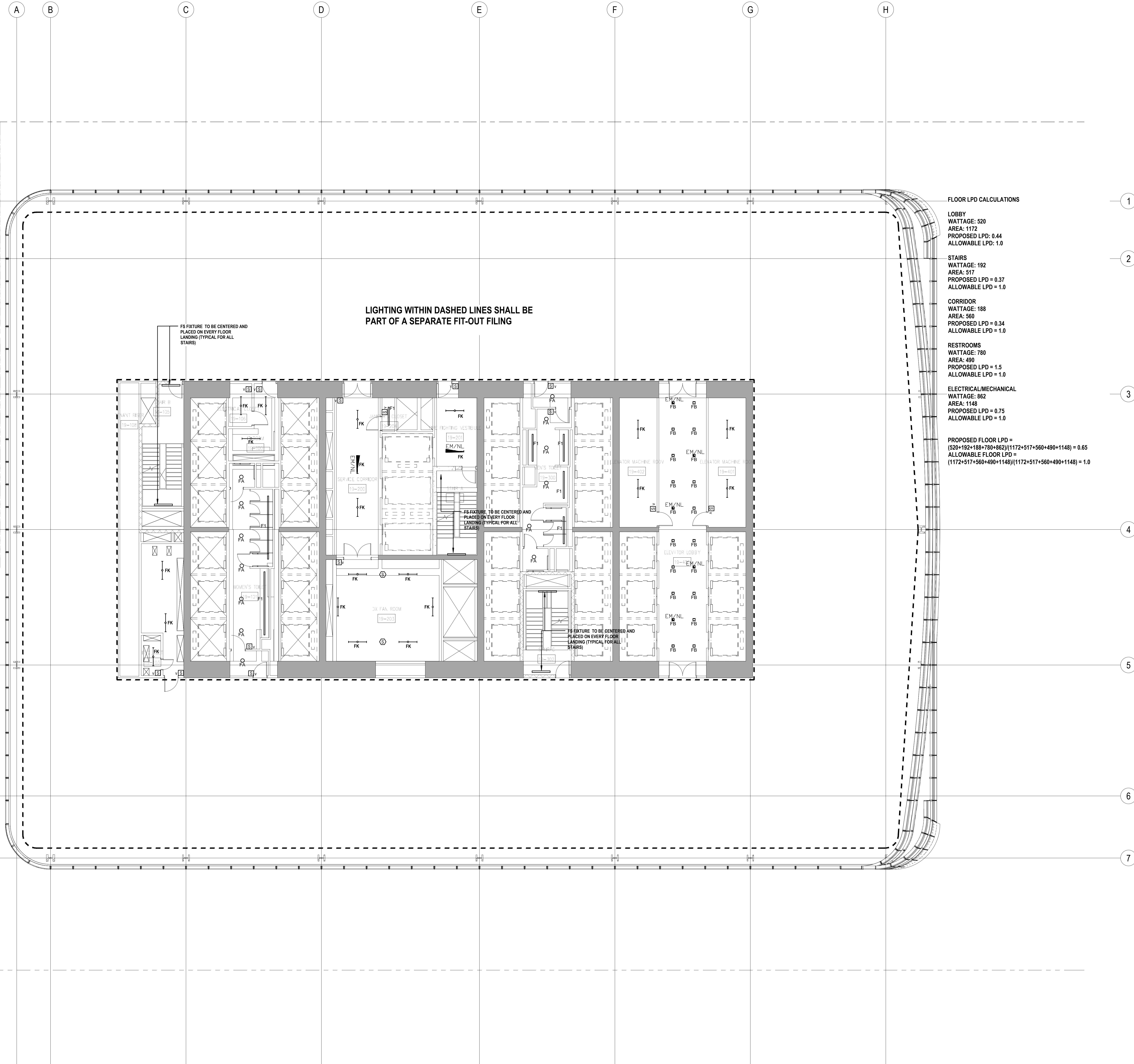
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Date:

Scale:

Page No.:

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FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 520  
AREA: 1172  
PROPOSED LPD: 0.44  
ALLOWABLE LPD: 1.0

STAIRS  
WATTAGE: 192  
AREA: 517  
PROPOSED LPD = 0.37  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 188  
AREA: 560  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 780  
AREA: 490  
PROPOSED LPD = 1.5  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 862  
AREA: 1148  
PROPOSED LPD = 0.75  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(520+192+188+780+862)/(1172+517+560+490+1148) = 0.65  
ALLOWABLE FLOOR LPD =  
(1172+517+560+490+1148)/(1172+517+560+490+1148) = 1.0

LIGHTING WITHIN DASHED LINES SHALL BE  
PART OF A SEPARATE FIT-OUT FILING

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

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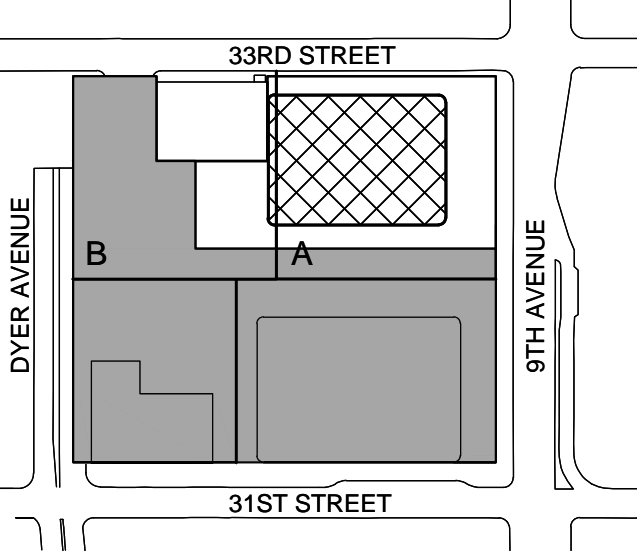
Facade Maintenance Consultant

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166 Ames Street, Hackensack, NJ 07601

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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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No. Date Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 21-27  
FLOOR PLAN

Project No.:

Date:

Scale:

File No.:

Sheet No.:

Date:

Scale:

Page No.:

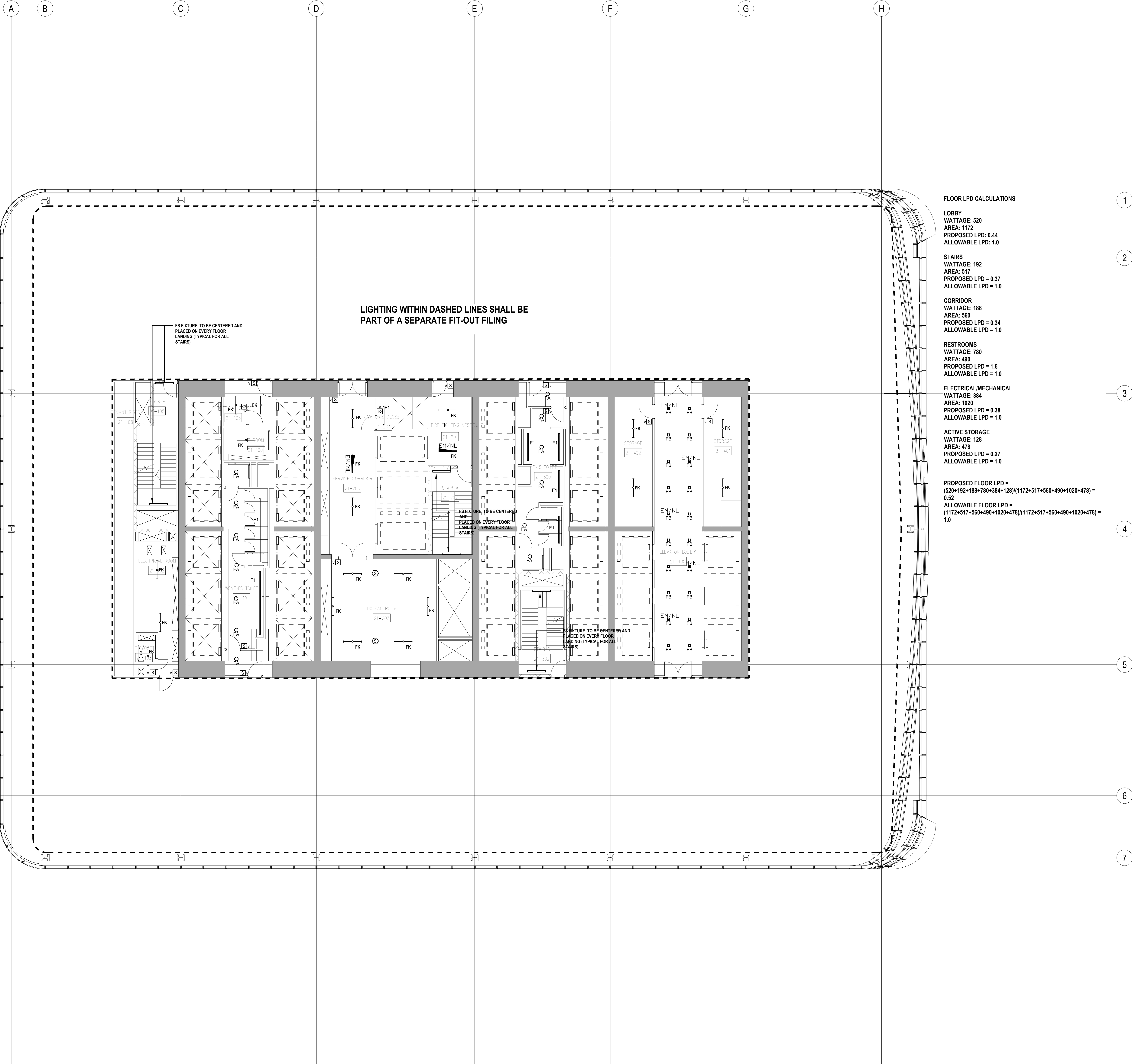
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LIGHTING WITHIN DASHED LINES SHALL BE  
PART OF A SEPARATE FIT-OUT FILING

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED  
AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 520  
AREA: 1172  
PROPOSED LPD: 0.44  
ALLOWABLE LPD: 1.0

STAIRS  
WATTAGE: 192  
AREA: 517  
PROPOSED LPD = 0.37  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 188  
AREA: 560  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 780  
AREA: 490  
PROPOSED LPD = 1.6  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 384  
AREA: 1020  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 128  
AREA: 478  
PROPOSED LPD = 0.27  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(520+192+188+780+384+128)/(1172+517+560+490+1020+478) =  
0.52  
ALLOWABLE FLOOR LPD =  
(1172+517+560+490+1020+478)/(1172+517+560+490+1020+478) =  
1.0



SHEET NOTES

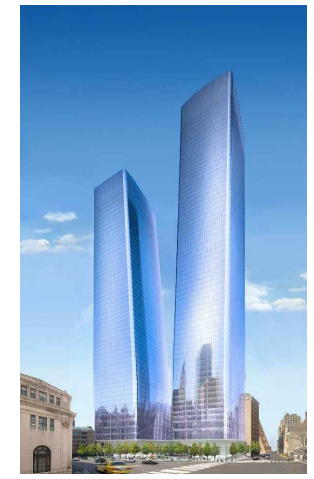
ENERGY ANALYSIS NOTES:

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NORTH TOWER  
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Client

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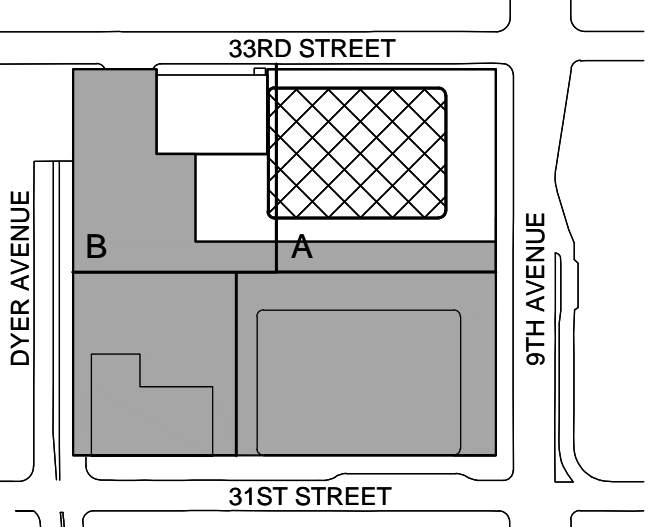
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**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 28  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

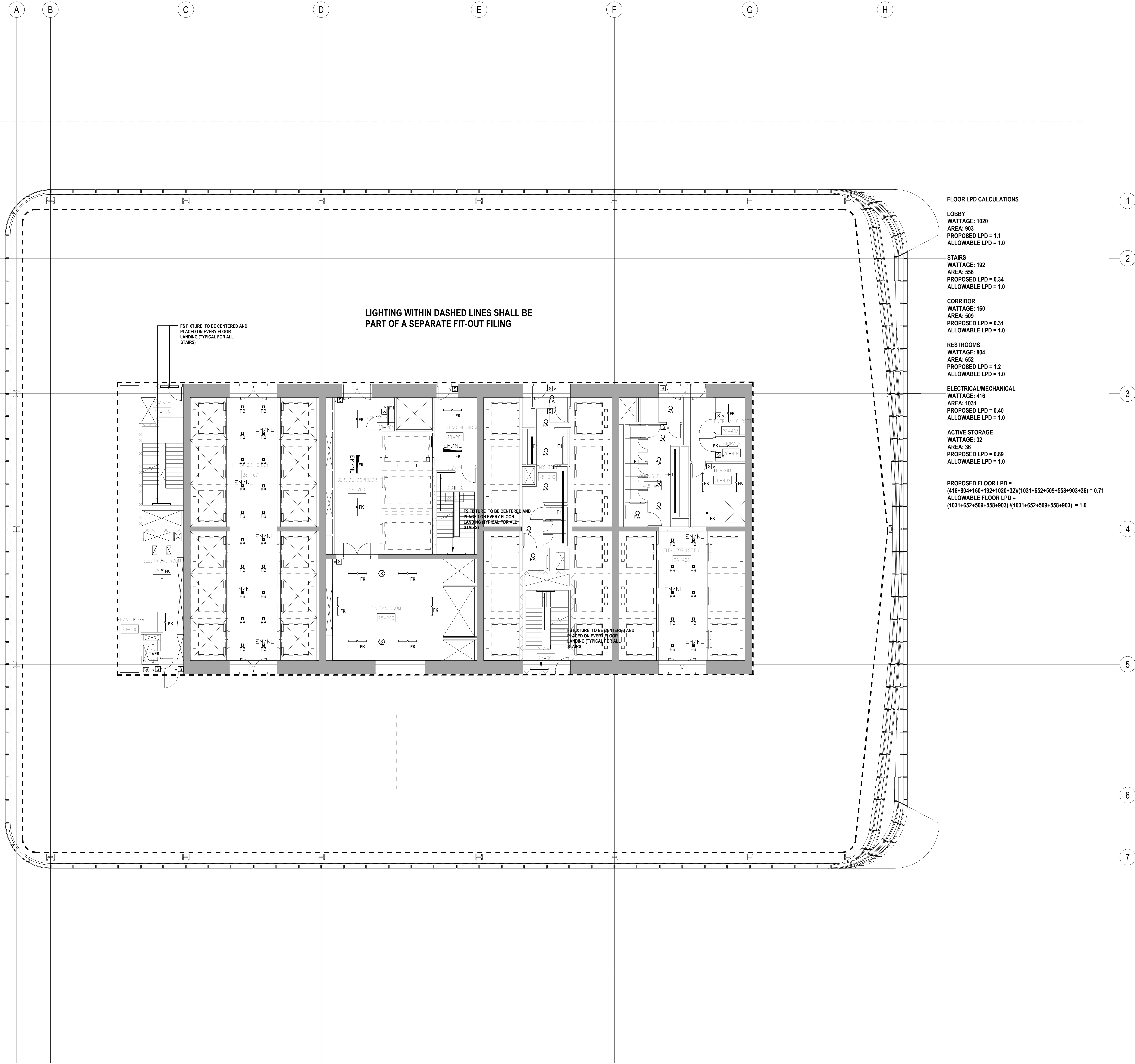
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Date:

Scale:

Page No.:

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FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 1020  
AREA: 903  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 804  
AREA: 652  
PROPOSED LPD = 1.2  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 416  
AREA: 1031  
PROPOSED LPD = 0.40  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 32  
AREA: 36  
PROPOSED LPD = 0.89  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(416+804+160+192+1020+32)/(1031+652+509+558+903+36) = 0.71  
ALLOWABLE FLOOR LPD =  
(1031+652+509+558+903)/(1031+652+509+558+903) = 1.0

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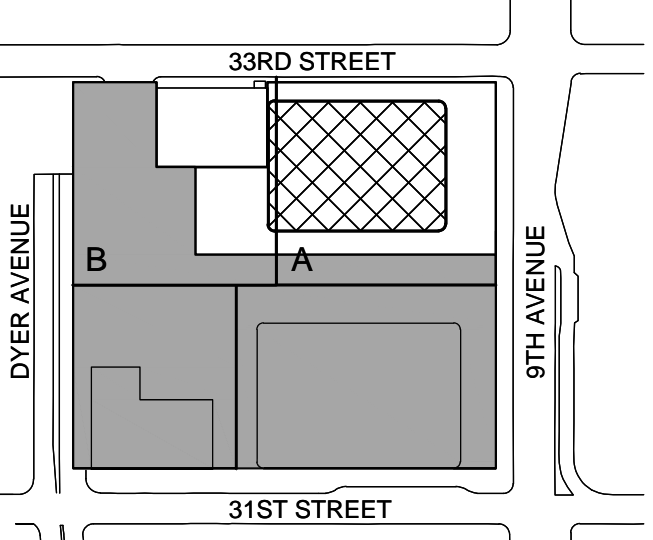
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Key Plan:



Seal & Signature:



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No. Date Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 29  
FLOOR PLAN

Project No.:

Date:

Scale:

File No.:

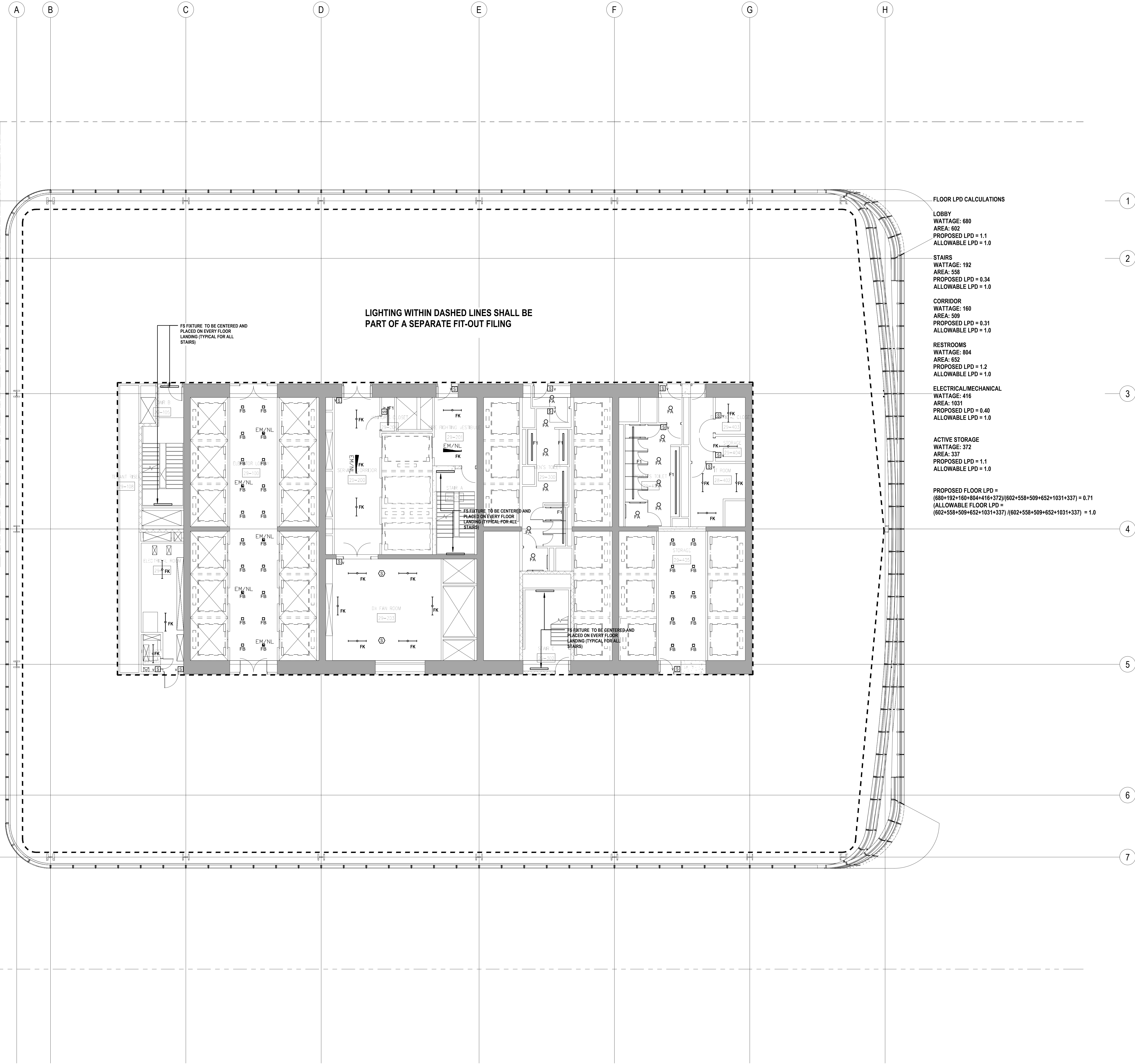
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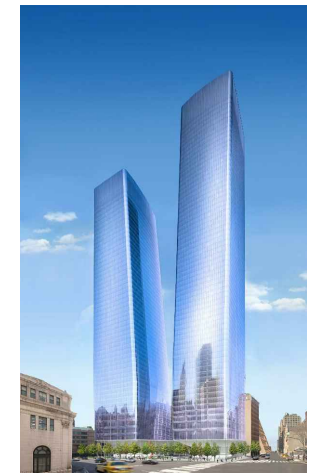
ENERGY ANALYSIS NOTES:

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2. REFER TO SHEET EN-200 FOR BUILDING ASSEMBLY DESCRIPTIONS, DETAILS, AND PERFORMANCE CRITERIA.

3. REFER TO PERFORMANCE BASED ENERGY ANALYSIS TITLED "ENERGY MODELING OF THE MANHATTAN WEST NORTH TOWER" FOR OUTPUT REPORTS OF THE ASSEMBLIES ON SHEET EN-200.

4. THE LIGHTING WITHIN THE TENANT OFFICE SPACE IS NOT PART OF THE CORE AND SHELL SCOPE OF WORK. A SEPARATE FIT-OUT IS REQUIRED FROM EACH TENANT WHICH PROVES INDIVIDUAL COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave. Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

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Acoustical Consultant

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404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant

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65 Broadway, Suite 401, New York, NY 10005

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

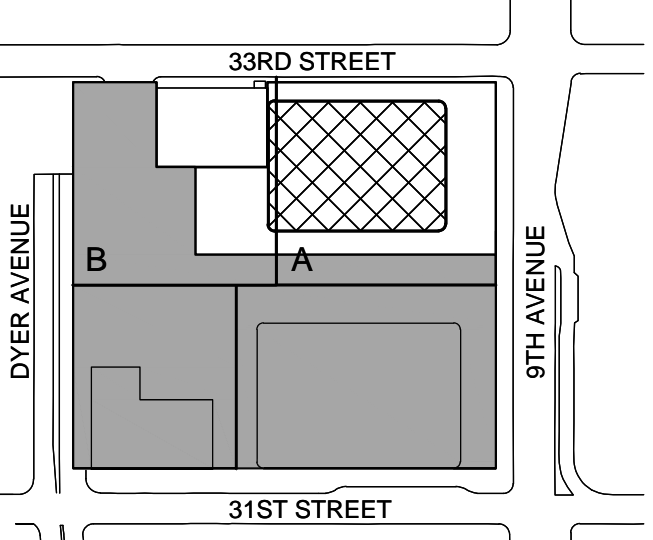
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No Date Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 30  
FLOOR PLAN

Project No.:

Date:

Scale:

File No.:

Sheet No.:

Date:

Scale:

Page No.:

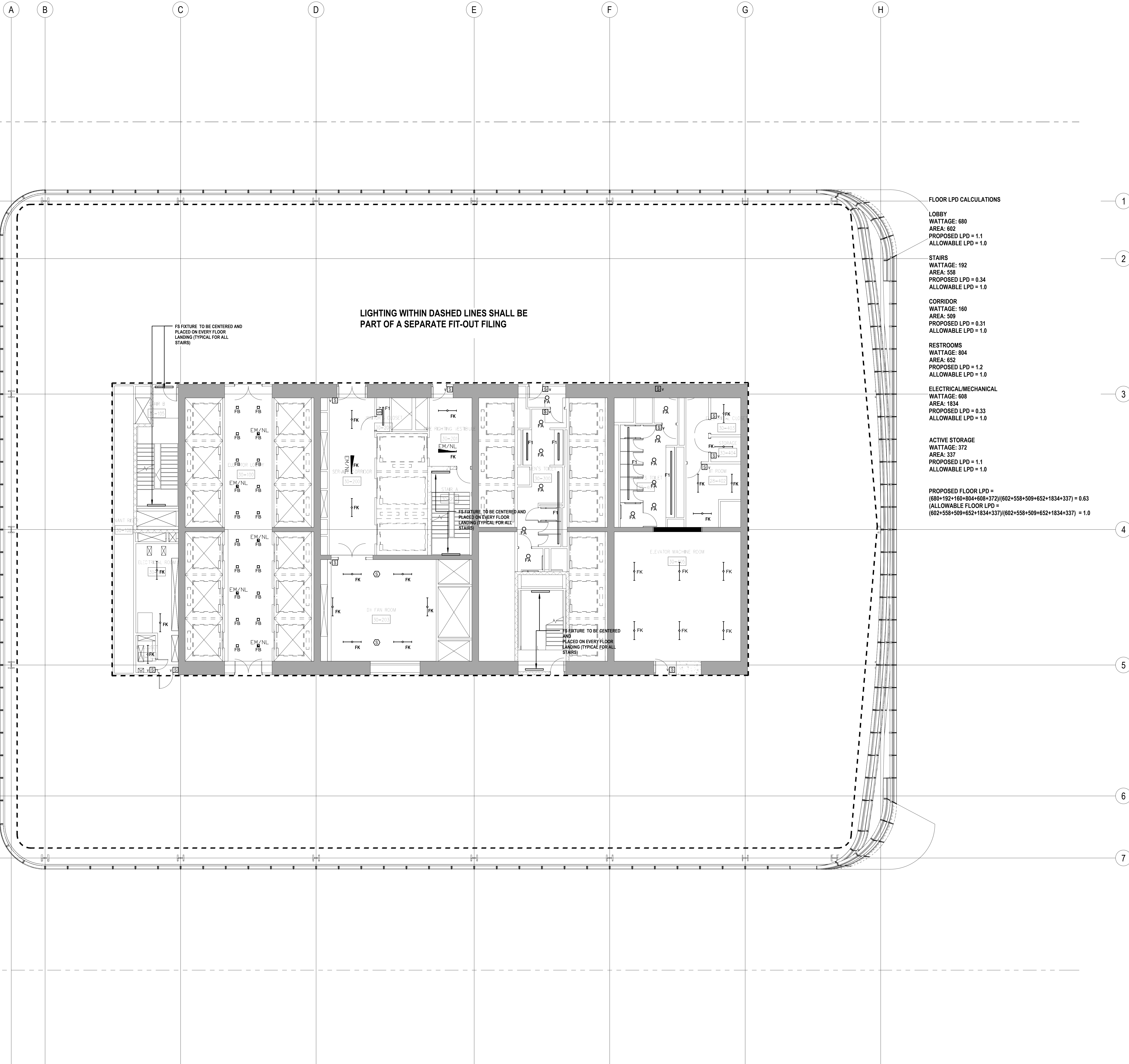
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PROFESSIONAL'S STATEMENT

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FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 602  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 804  
AREA: 652  
PROPOSED LPD = 1.2  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 608  
AREA: 1834  
PROPOSED LPD = 0.33  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 372  
AREA: 337  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+804+608+372)/(602+558+509+652+1834+337) = 0.63  
ALLOWABLE FLOOR LPD =  
(602+558+509+652+1834+337)/(602+558+509+652+1834+337) = 1.0



SHEET NOTES

ENERGY ANALYSIS NOTES:

1. THE SCOPE OF WORK INDICATED IS BASED ON A PERFORMANCE BASED ENERGY ANALYSIS TO CONFIRM COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).

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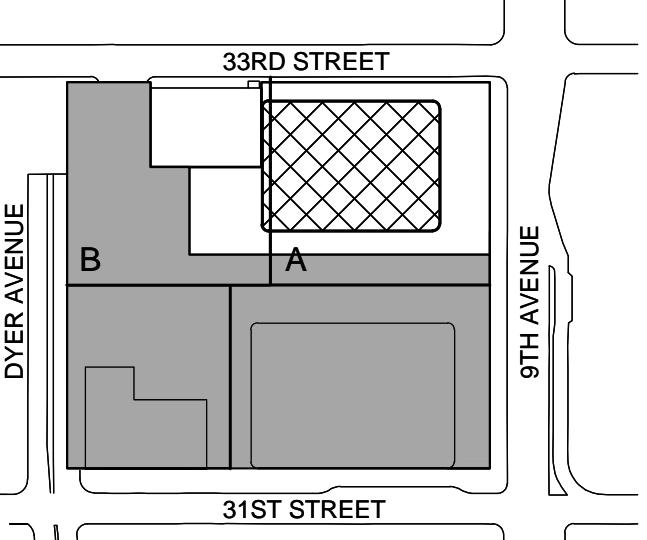
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Key Plan:



Seal & Signature:



2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT
No.	Date	Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 31  
FLOOR PLAN

Project No.:

14500.A.000

Date:

19 DEC 2014

Scale:

N.T.S.

File No.:

Sheet No.:

EN-115.00

Date:

19 DEC 2014

Scale:

N.T.S.

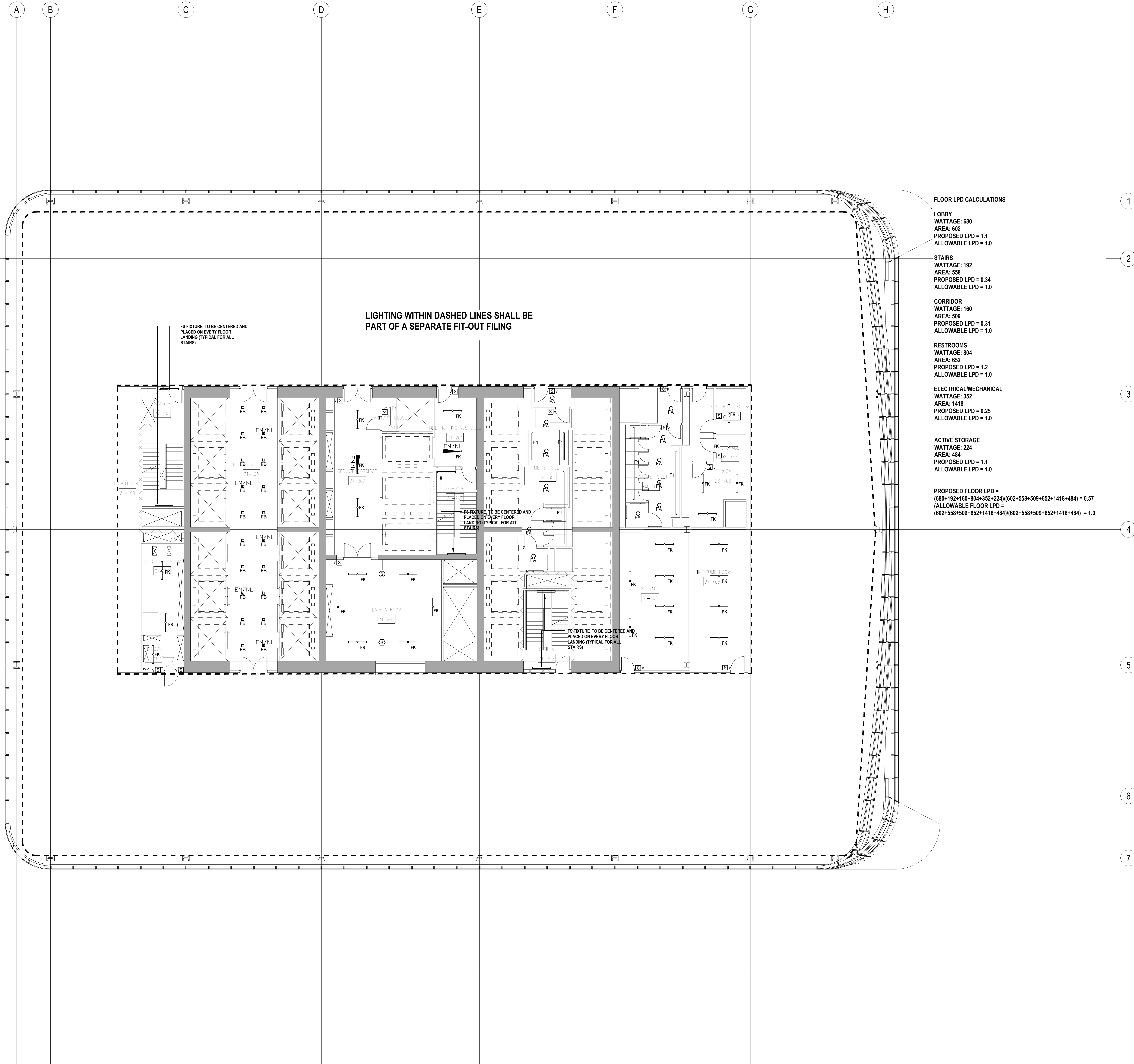
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FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 602  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 804  
AREA: 652  
PROPOSED LPD = 1.2  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 352  
AREA: 1418  
PROPOSED LPD = 0.25  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 224  
AREA: 484  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+804+352+224)/(602+558+509+652+1418+484) = 0.57  
ALLOWABLE FLOOR LPD =  
(602+558+509+652+1418+484)/(602+558+509+652+1418+484) = 1.0

LIGHTING WITHIN DASHED LINES SHALL BE  
PART OF A SEPARATE FIT-OUT FILING

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
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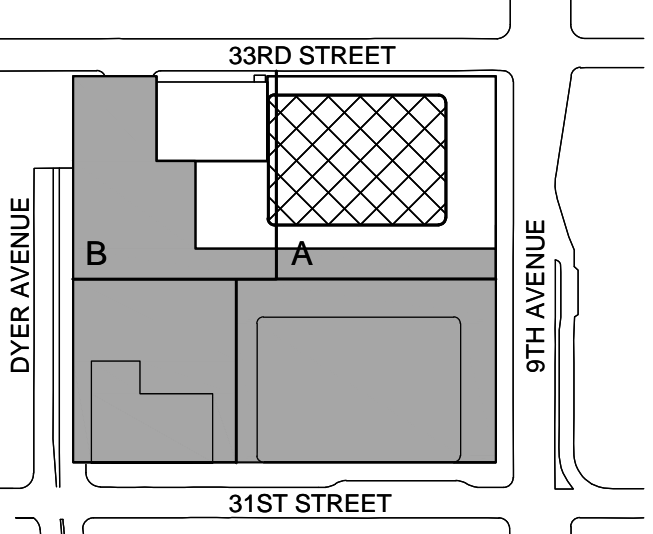
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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No. Date Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 32  
FLOOR PLAN

Project No.:

Date:

Scale:

File No.:

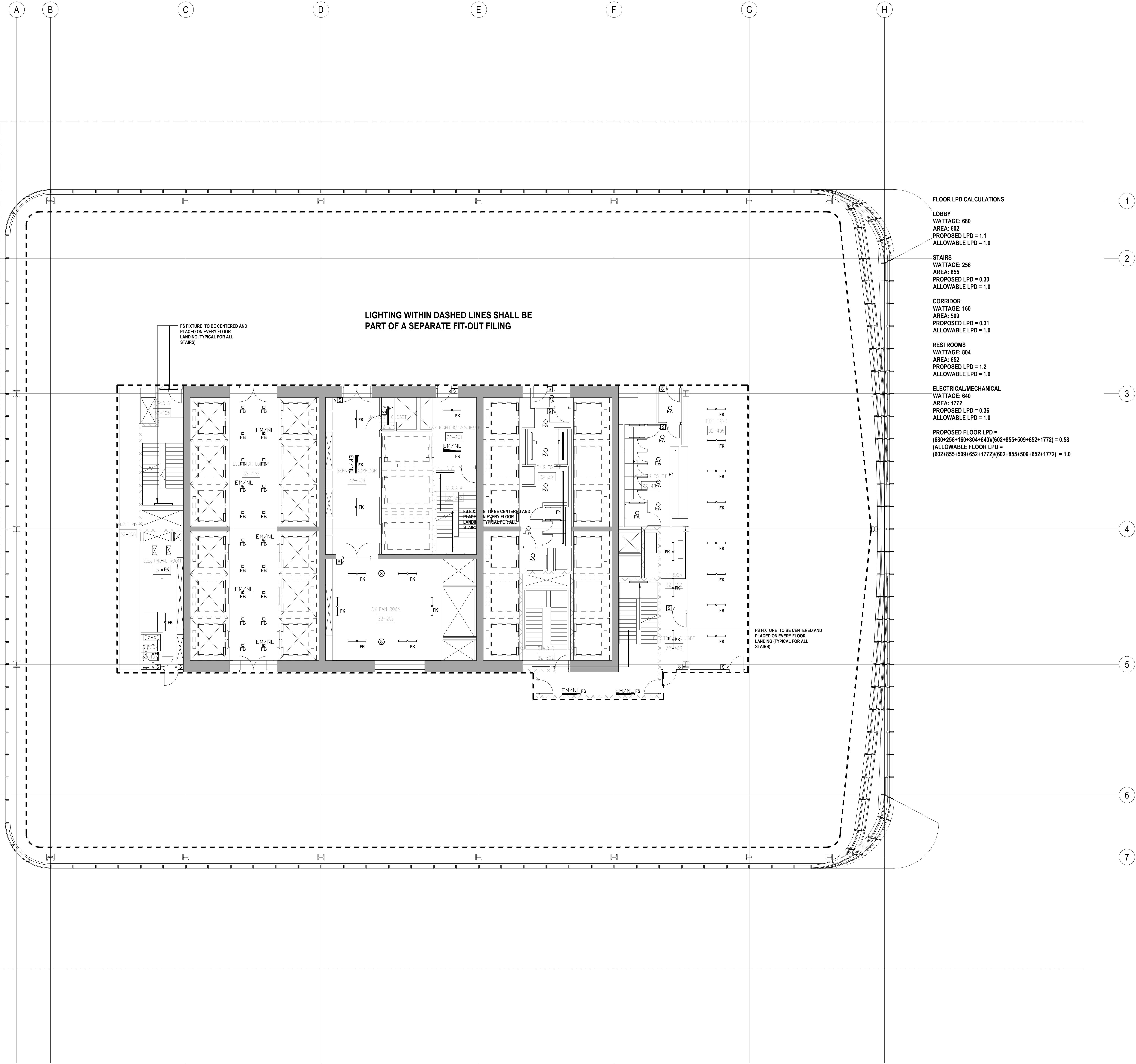
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Scale:

Page No.:

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PROFESSIONAL'S STATEMENT

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50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

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475 10th Avenue, New York, NY 10018

Security Consultant

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250 State Street #F1, North Haven, CT 06473

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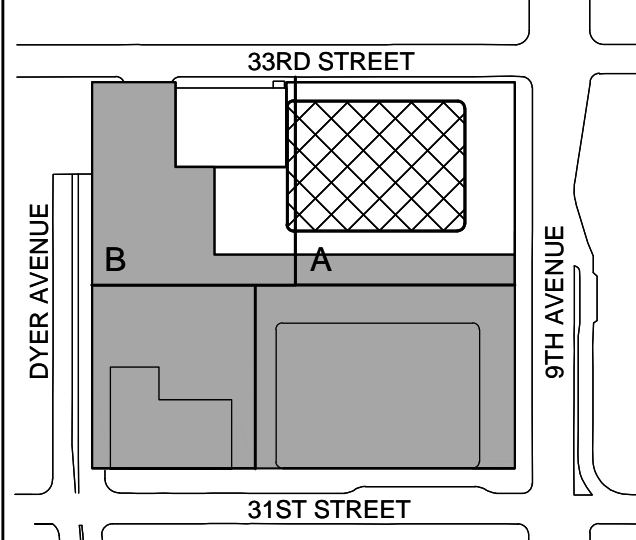
Facade Maintenance Consultant

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Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No. Date Description  
Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 33-38  
FLOOR PLAN

Project No.:

14830-A-000

Date:

19 DEC 2014

Scale:

N.T.S.

File No.:

Sheet No.:

EN-117.00

Date:

19 DEC 2014

Scale:

N.T.S.

File No.:

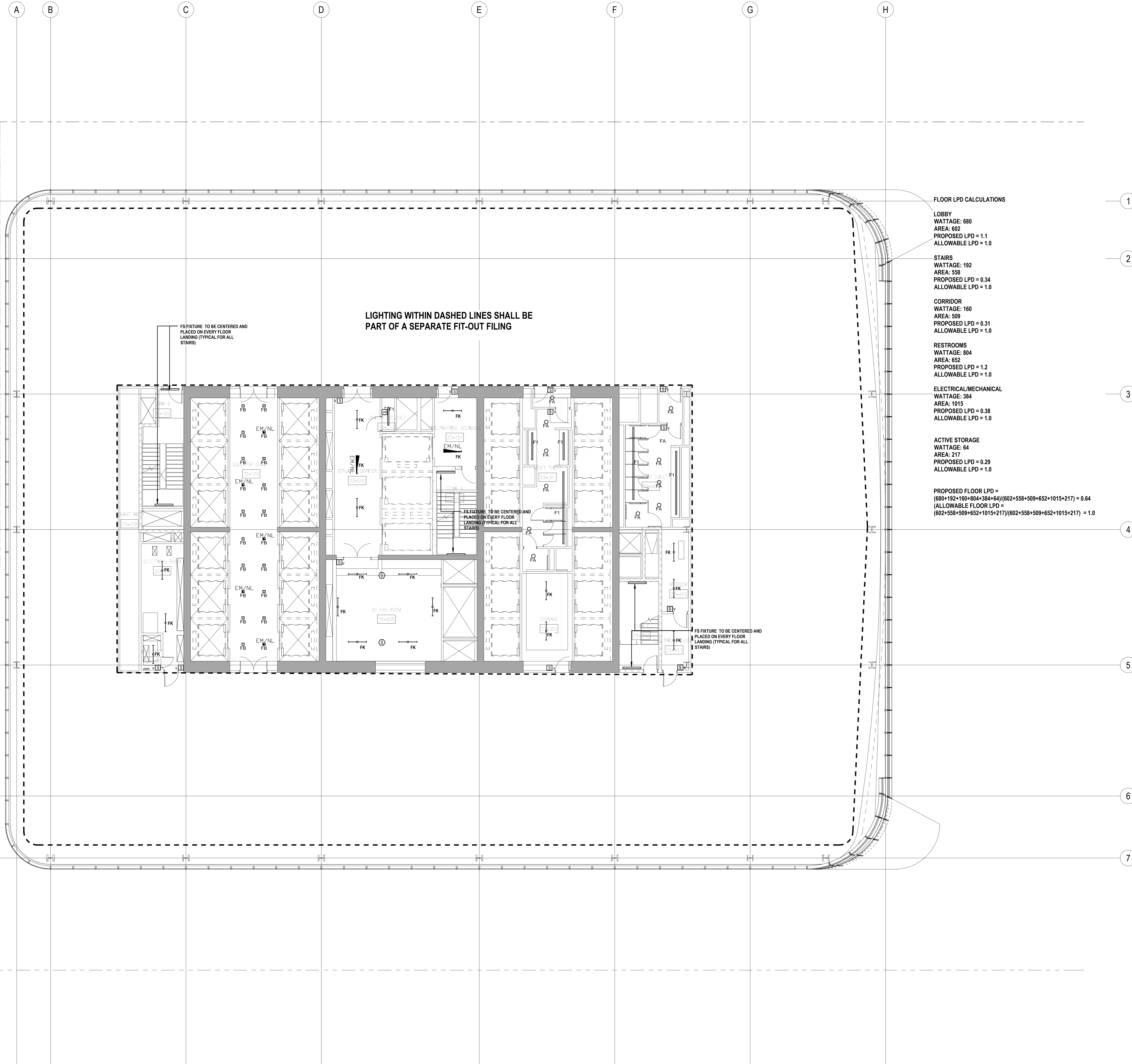
Page No.:

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FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 802  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 804  
AREA: 652  
PROPOSED LPD = 1.2  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 384  
AREA: 1015  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 64  
AREA: 217  
PROPOSED LPD = 0.29  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+804+384+64)/(802+558+509+652+1015+217) = 0.64  
ALLOWABLE FLOOR LPD =  
(802+558+509+652+1015+217)/(802+558+509+652+1015+217) = 1.0



SHEET NOTES

ENERGY ANALYSIS NOTES:

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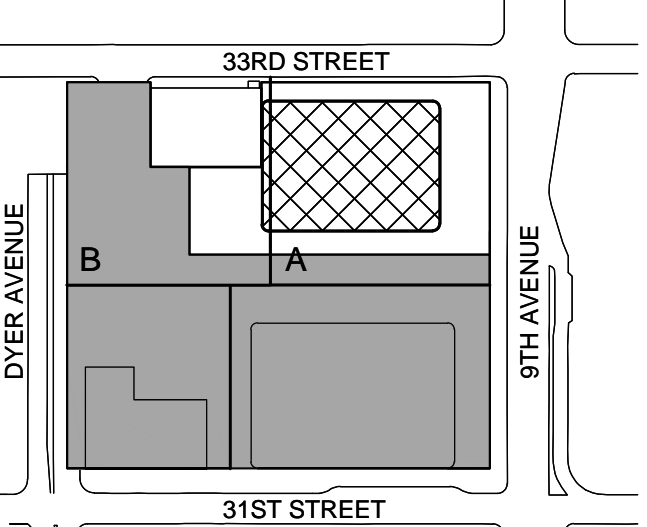
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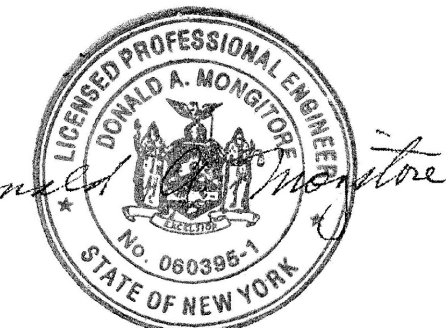
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Key Plan:



Seal & Signature:



2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
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No.	Date	Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 39  
FLOOR PLAN

Project No.:

Date:

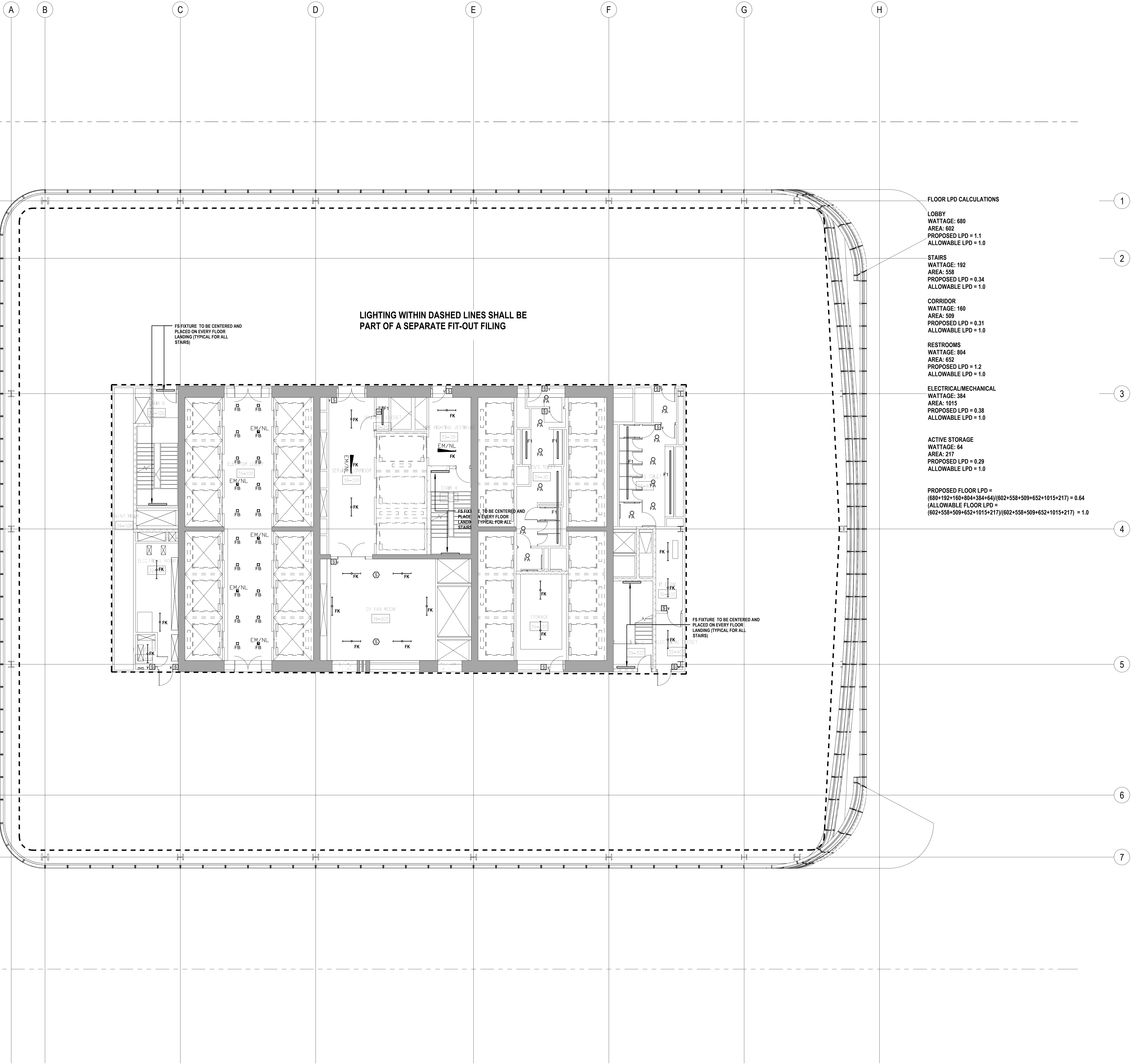
Scale:

File No.:

Sheet No.:

EN-118.00

Page No.:



FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 602  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 804  
AREA: 652  
PROPOSED LPD = 1.2  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 384  
AREA: 1015  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 64  
AREA: 217  
PROPOSED LPD = 0.29  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+804+384+64)/(602+558+509+652+1015+217) = 0.64  
(ALLOWABLE FLOOR LPD =  
(602+558+509+652+1015+217)/(602+558+509+652+1015+217) = 1.0

LIGHTING WITHIN DASHED LINES SHALL BE  
PART OF A SEPARATE FIT-OUT FILING

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
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STAIRS)

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MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

Brookfield  
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Architecture/Structural Engineering

SOM

Skidmore, Owings & Merrill LLP

14 Wall Street, New York, NY 10005

Civil Engineering

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MEP Engineering

Jaros Baum & Bolles  
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Code Consultants Professional Engineers PC  
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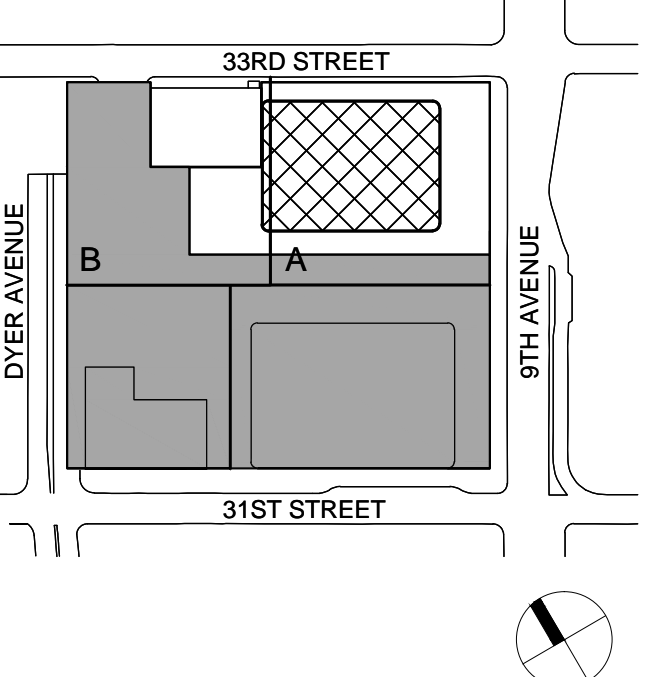
Facade Maintenance Consultant

Entek Engineering LLC  
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Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 40-41  
FLOOR PLAN

Project No.:

Date:

Scale:

File No.:

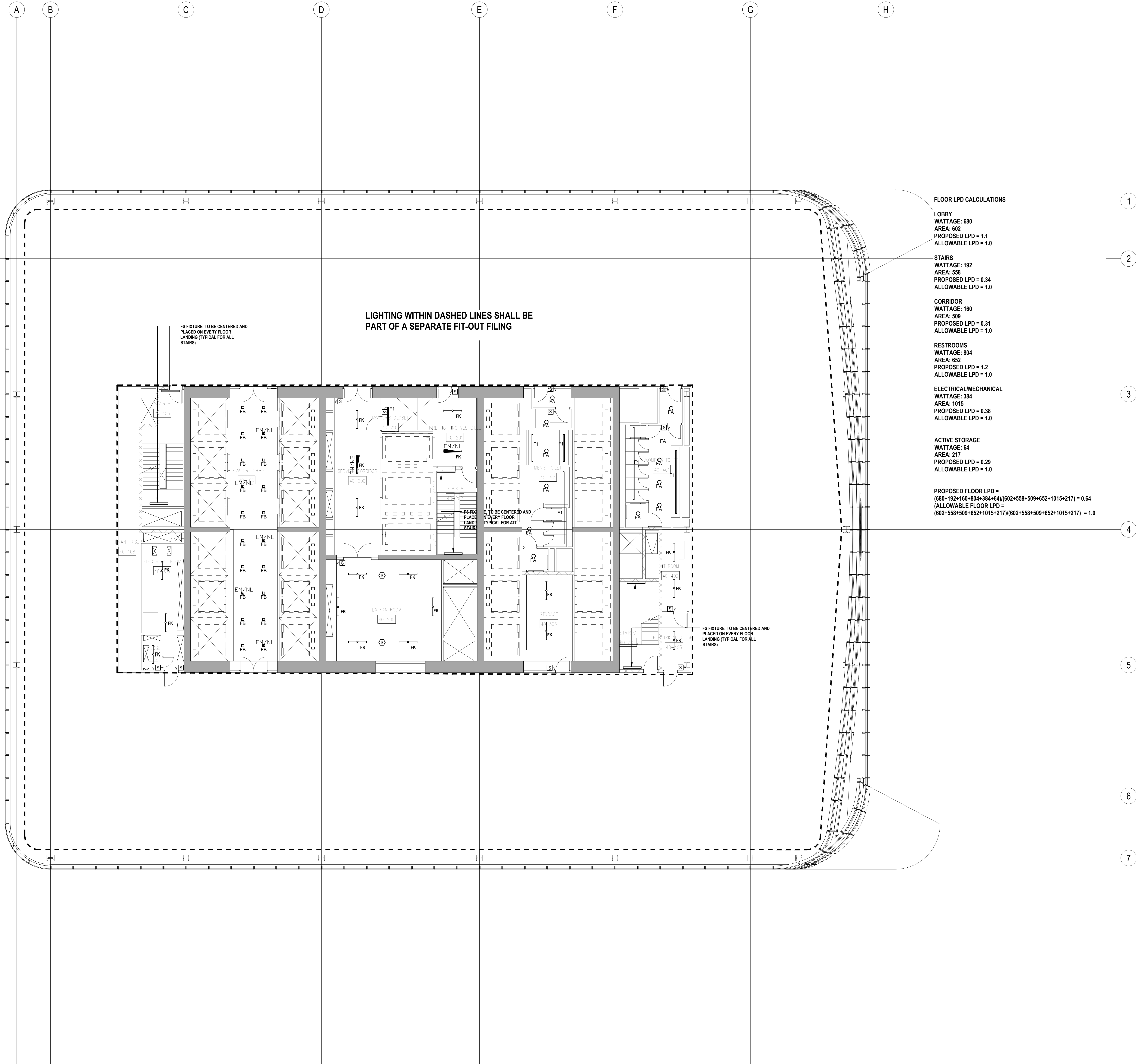
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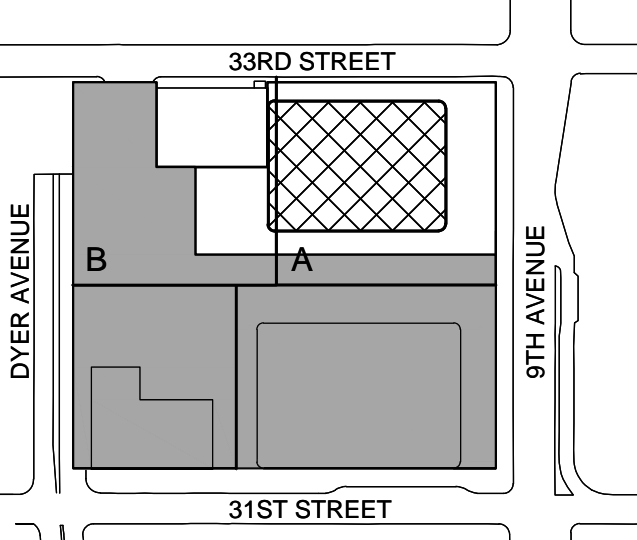
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Ontario, Canada N1K 1B8

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Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 43-48  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

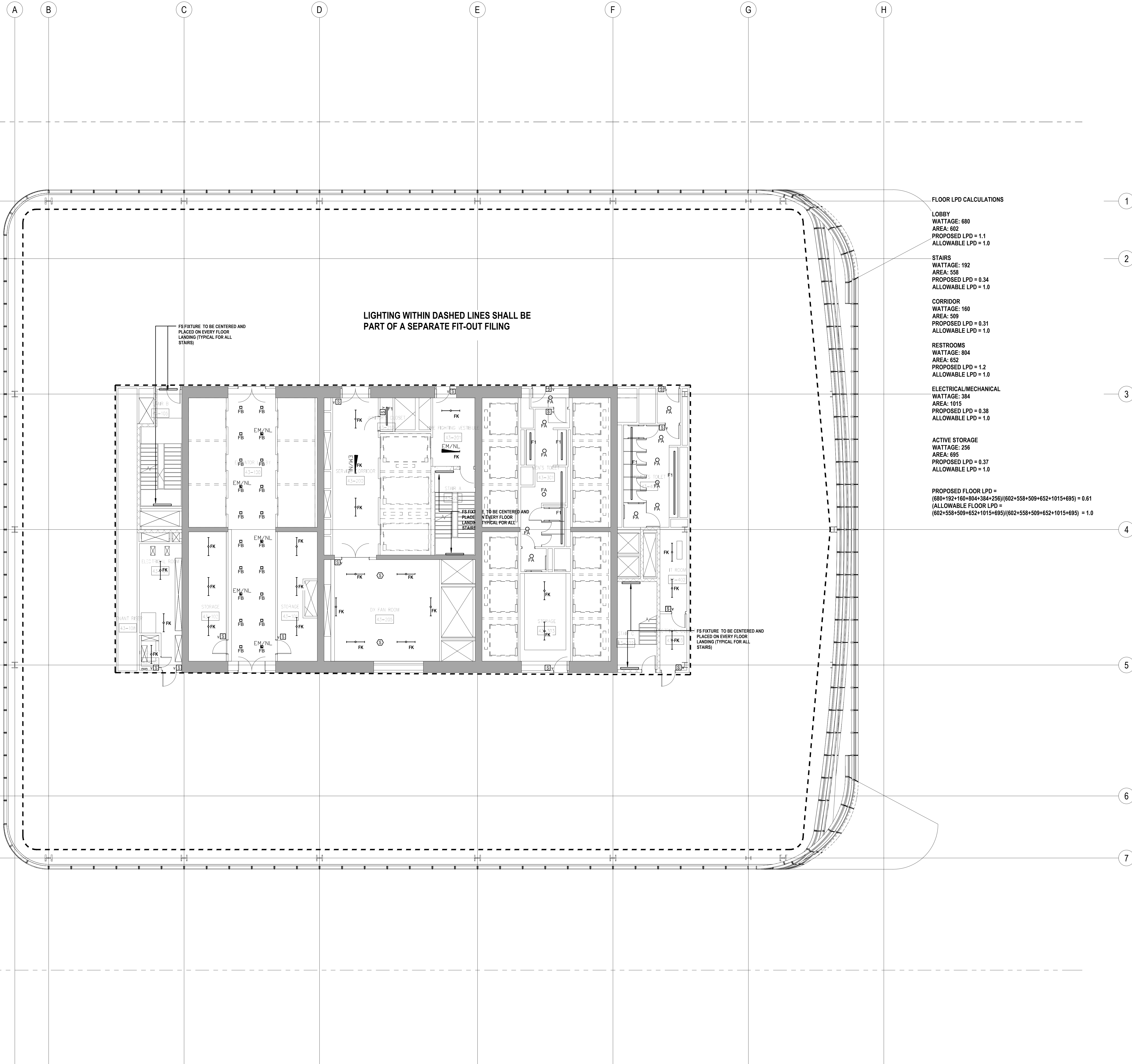
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Date:

Scale:

Page No.:

EN-121.00



FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 602  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 804  
AREA: 652  
PROPOSED LPD = 1.2  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 384  
AREA: 1015  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

ACTIVE STORAGE  
WATTAGE: 256  
AREA: 695  
PROPOSED LPD = 0.37  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
 $(680+192+160+804+384+256)/(602+558+509+652+1015+695) = 0.61$   
ALLOWABLE FLOOR LPD =  
 $(602+558+509+652+1015+695)/(602+558+509+652+1015+695) = 1.0$

LIGHTING WITHIN DASHED LINES SHALL BE  
PART OF A SEPARATE FIT-OUT FILING

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

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MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

**COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).**

	<p>Sustainable Design</p> <p>Viridian Energy &amp; Environmental</p> <p>50 Washington Street, Norwalk, CT 06854</p>
--	---

	<p>Geo-Technical Engineering</p> <p><b>Mueser Rutledge Consulting Engineers</b></p> <p>14 Penn Plaza, 225 W. 34th Street #610, New York, NY 10122</p>
--	---

Field Operations  
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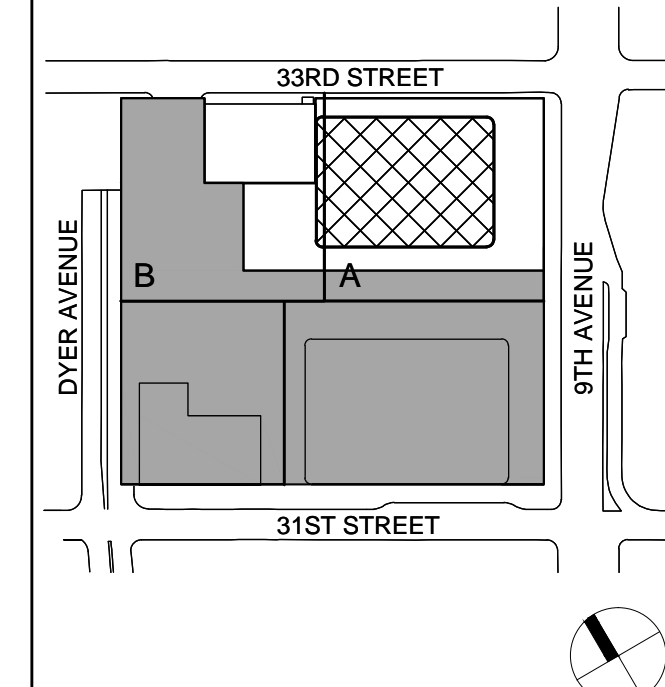
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	Code Consultant
	Code Consultants Professional Engineers 215 West 40th Street, 15th Floor, New York, NY 10018

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Key Plan

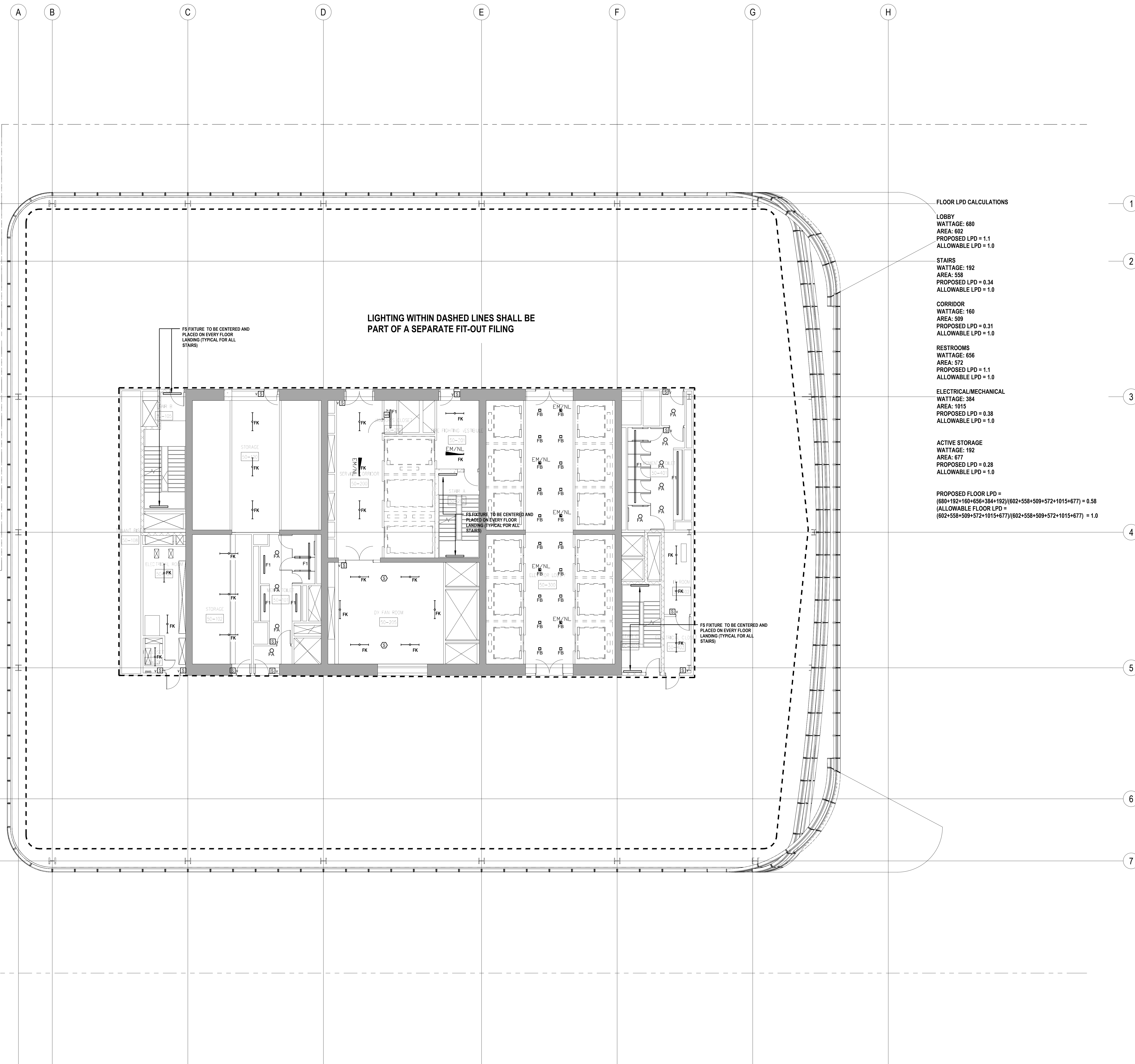


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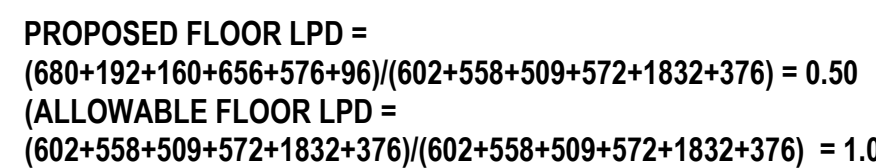
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Date: 19 DEC 2014	EN-123.00
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File No.:	Page No.:



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FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

Project No.: 14830.A.000	Sheet No.:
Date: 19 DEC 2014	EN-124.00
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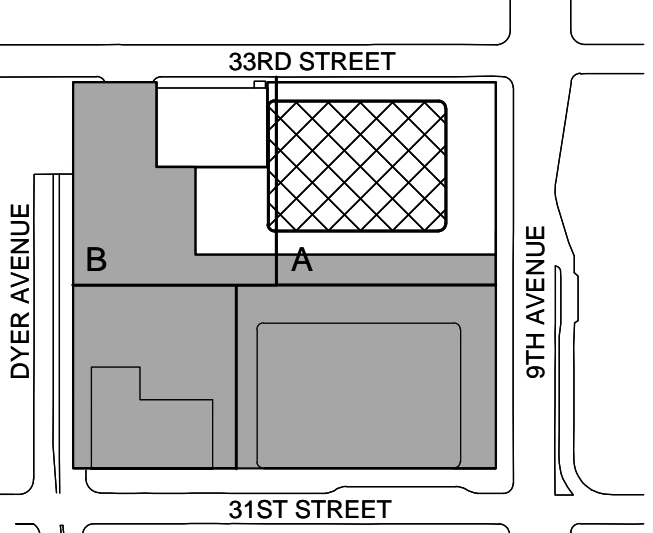
Facade Maintenance Consultant

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650 Woodlawn Road West, Guelph  
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Key Plan:



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No. Date Description

Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 53  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

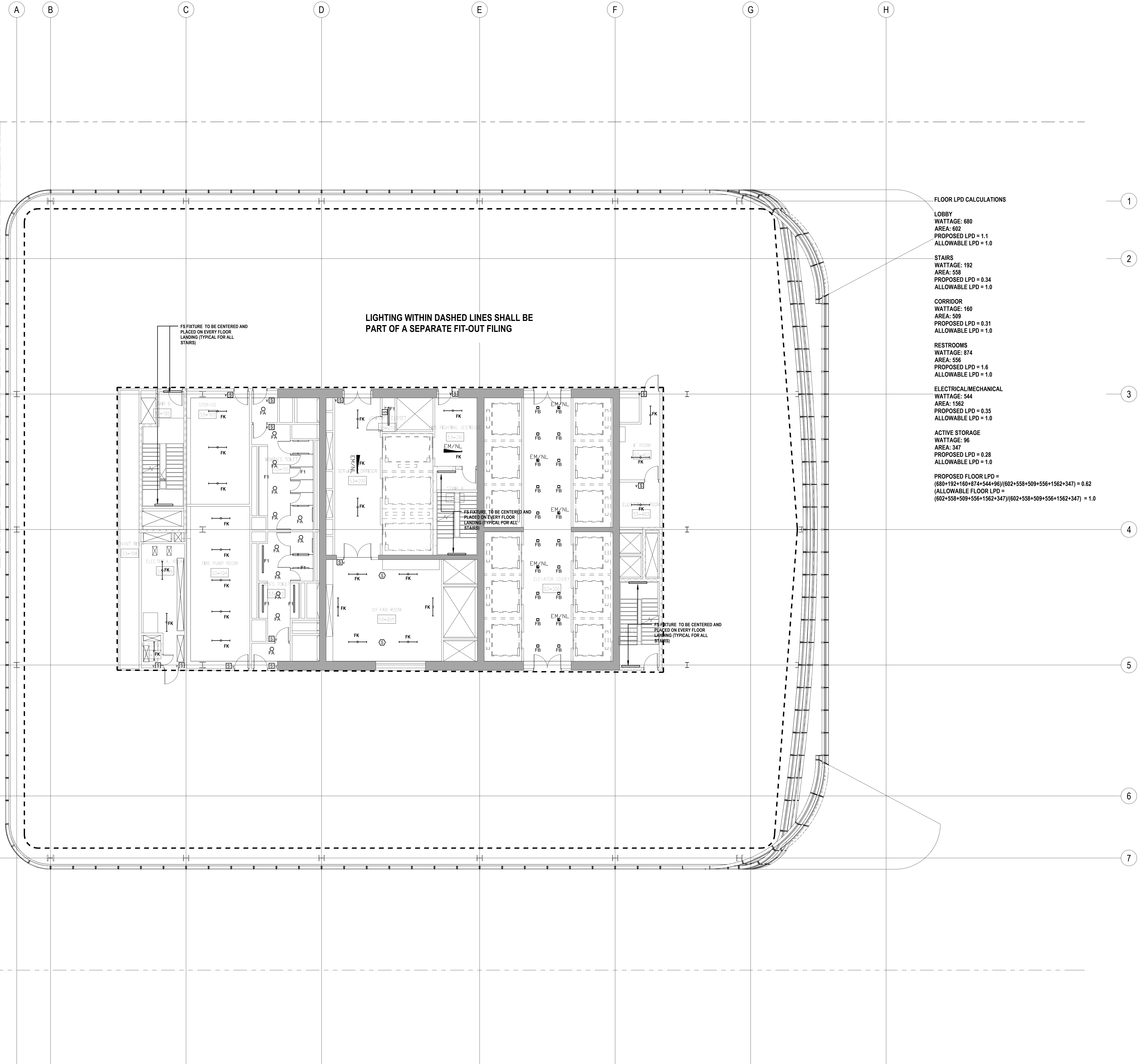
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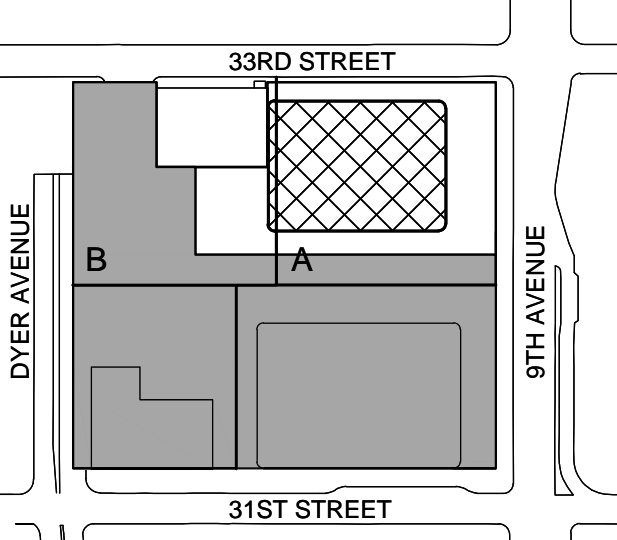
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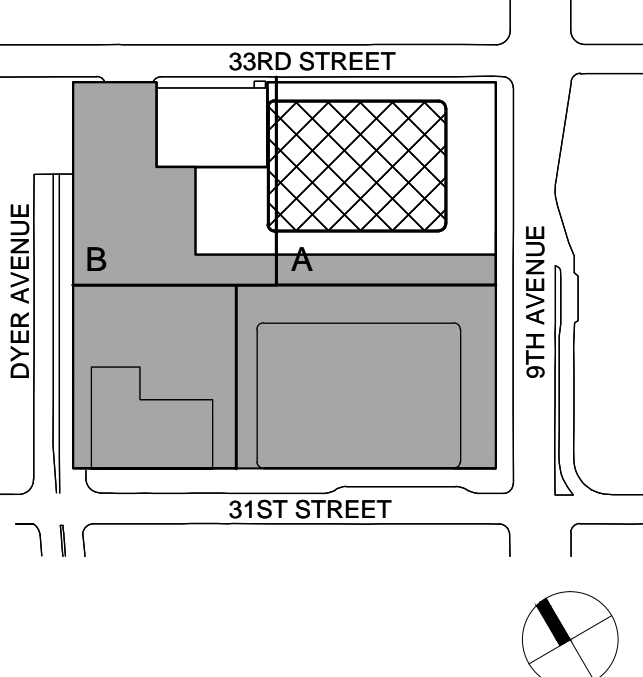
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No.	Date	Description
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Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 55  
FLOOR PLAN**

Project No.:

14200.A.000

Date:

19 DEC 2014

Scale:

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File No.:

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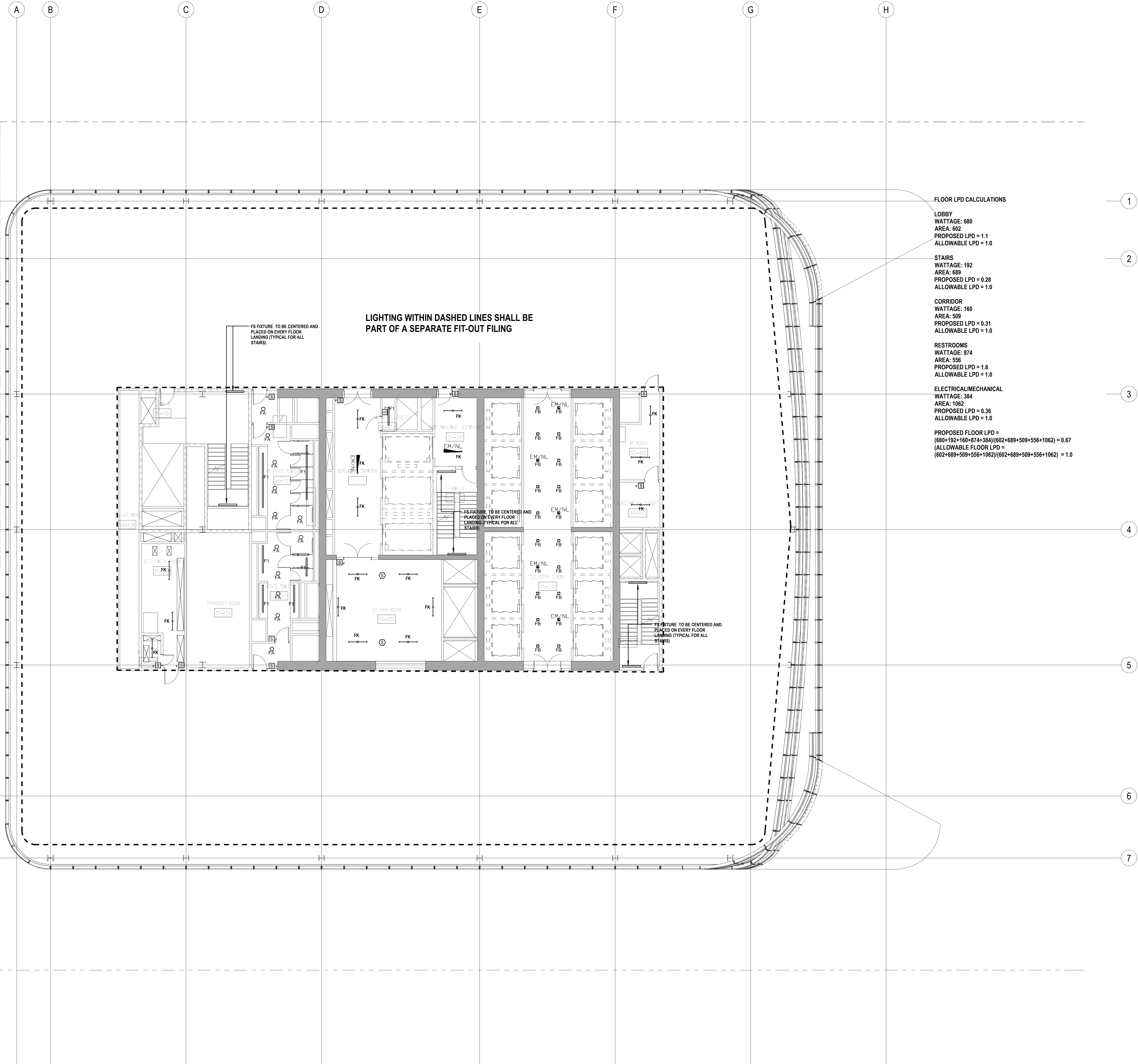
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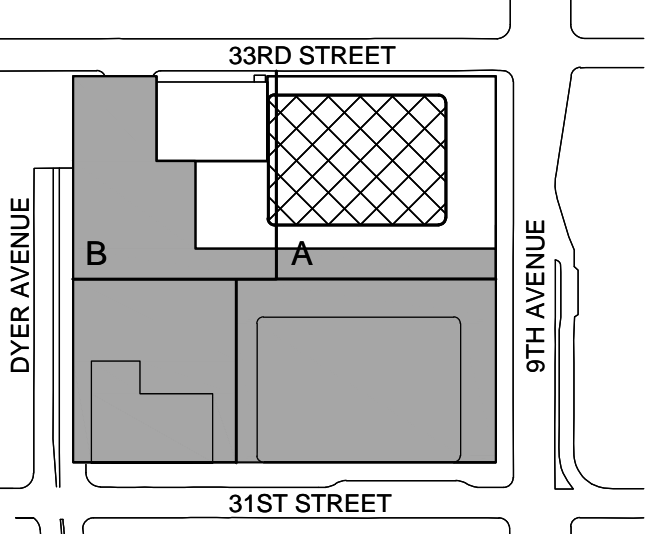
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Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



2 30 JAN 2015 ISSUED FOR BUILDING PERMIT  
1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No. Date Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 56  
FLOOR PLAN

Project No.:

Date:

Scale:

File No.:

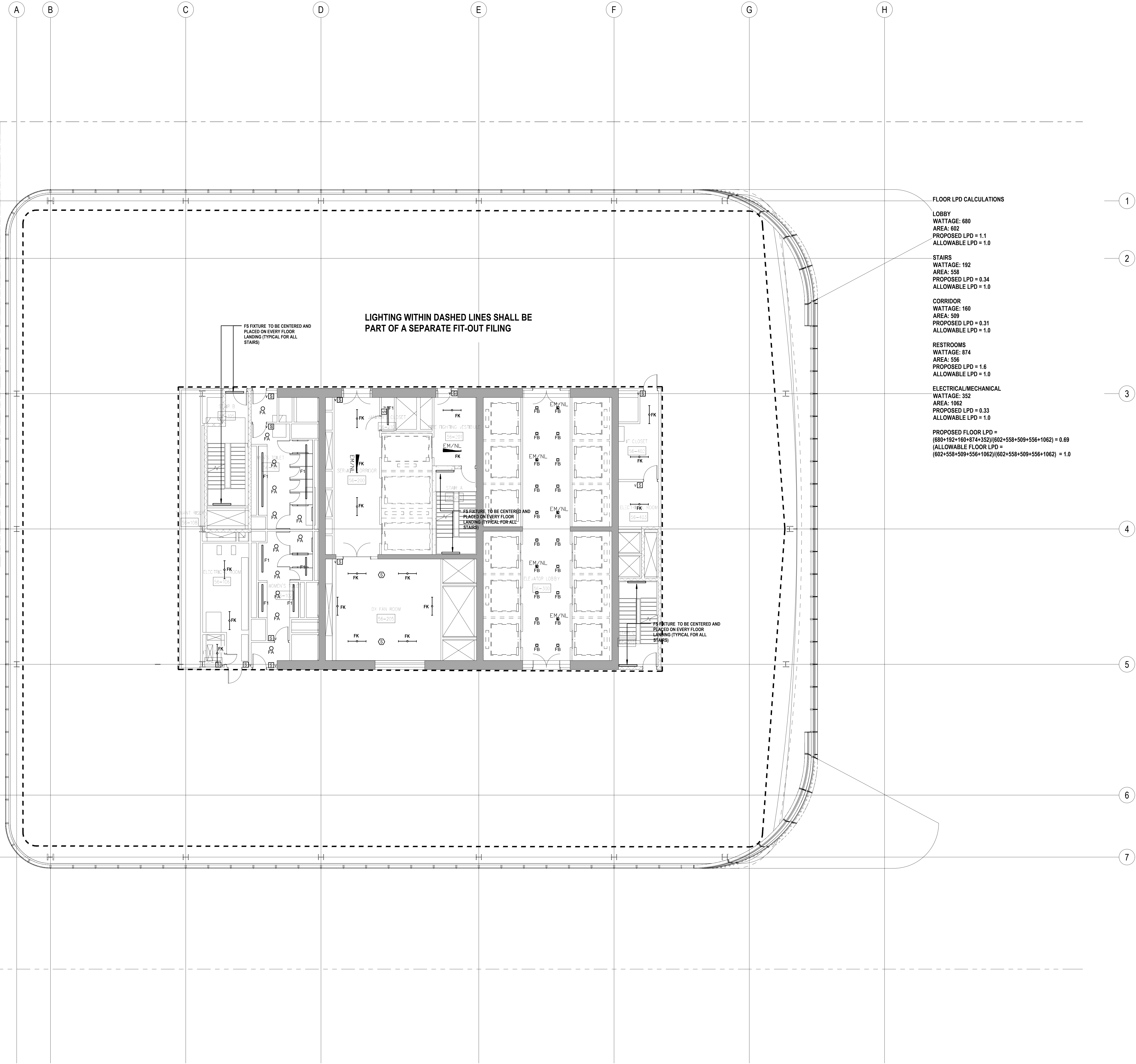
Sheet No.:

Date:

Scale:

Page No.:

EN-128.00



FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 602  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 874  
AREA: 556  
PROPOSED LPD = 1.6  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 352  
AREA: 1062  
PROPOSED LPD = 0.33  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+874+352)/(602+558+509+556+1062) = 0.69  
ALLOWABLE FLOOR LPD =  
(602+558+509+556+1062)/(602+558+509+556+1062) = 1.0

PROFESSIONAL'S STATEMENT

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SHEET NOTES

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MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Eddgett Williams Consulting Group, Inc.  
102 East Blithedale Ave. Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

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14 Penn Plaza, 225 W. 34th Street #610,  
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Landscape Consultant

Field Operations  
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Security Consultant

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Blast Consultant

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40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
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Vibration Consultant

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Code Consultant

Code Consultants Professional Engineers PC  
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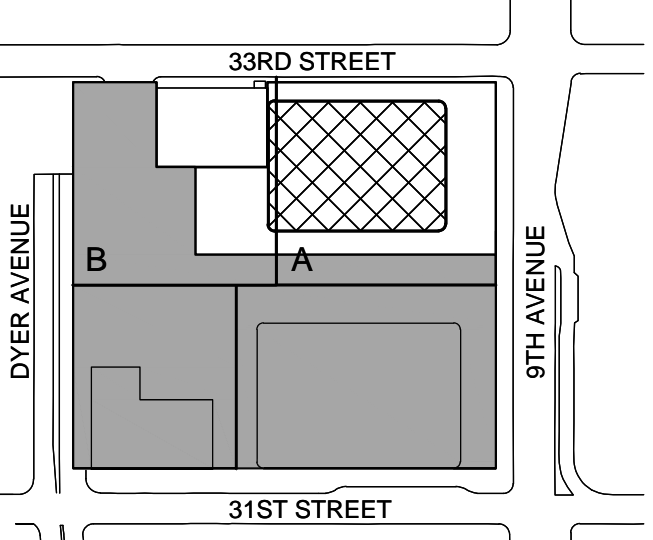
Facade Maintenance Consultant

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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

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Ontario, Canada N1K 1B8

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No. Date Description

Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 57-58  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

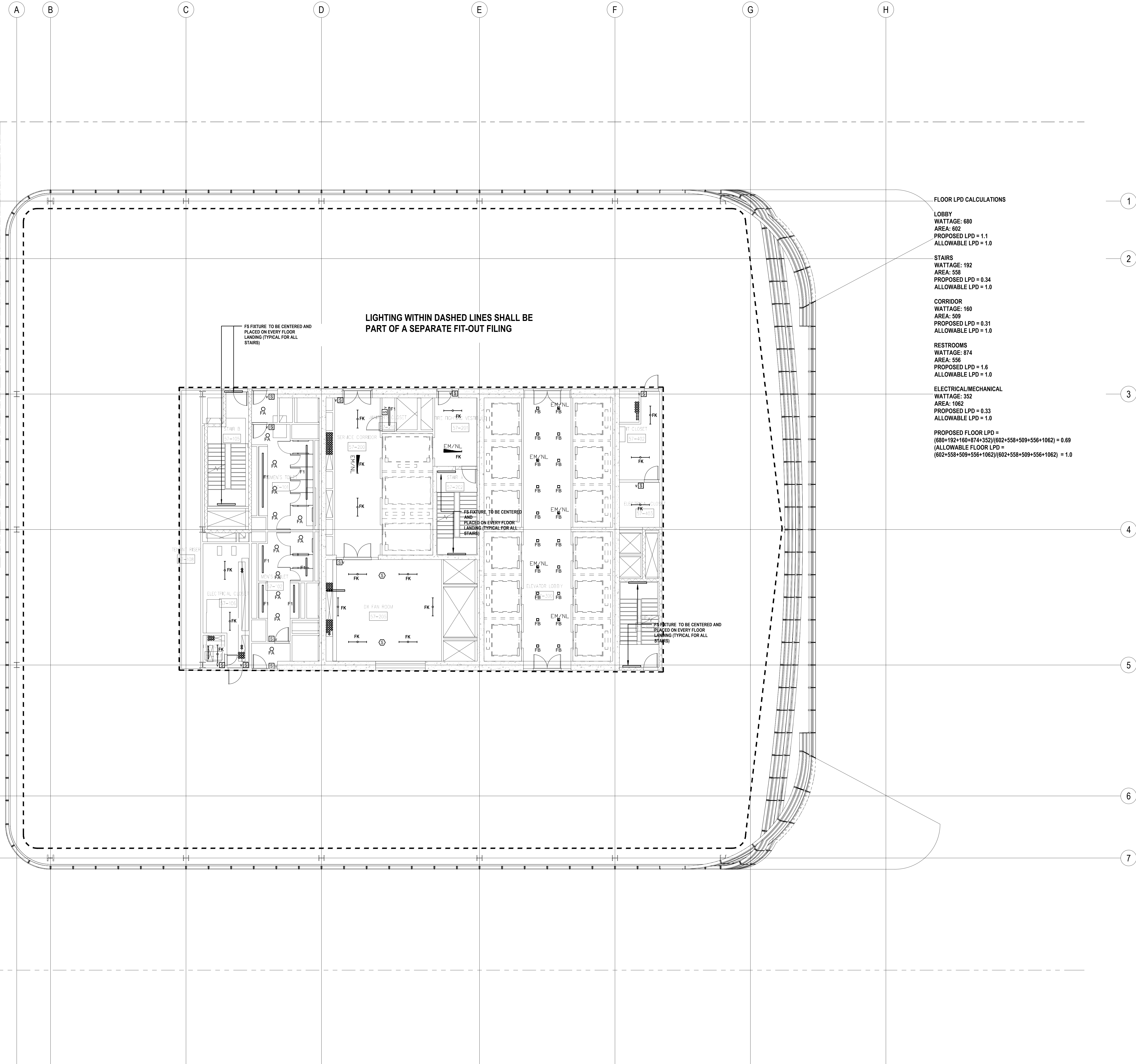
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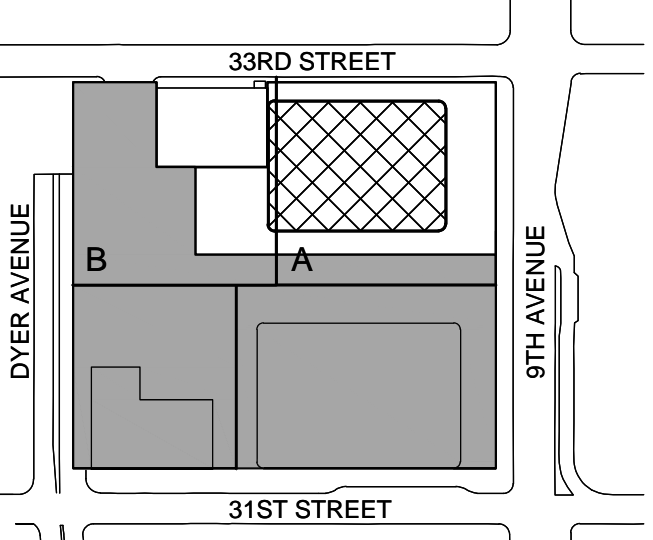
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Key Plan:



Seal & Signature:



2 30 JAN 2015 ISSUED FOR BUILDING PERMIT  
1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No. Date Description

Sheet Name:

**NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 59  
FLOOR PLAN**

Project No.:

Date:

Scale:

File No.:

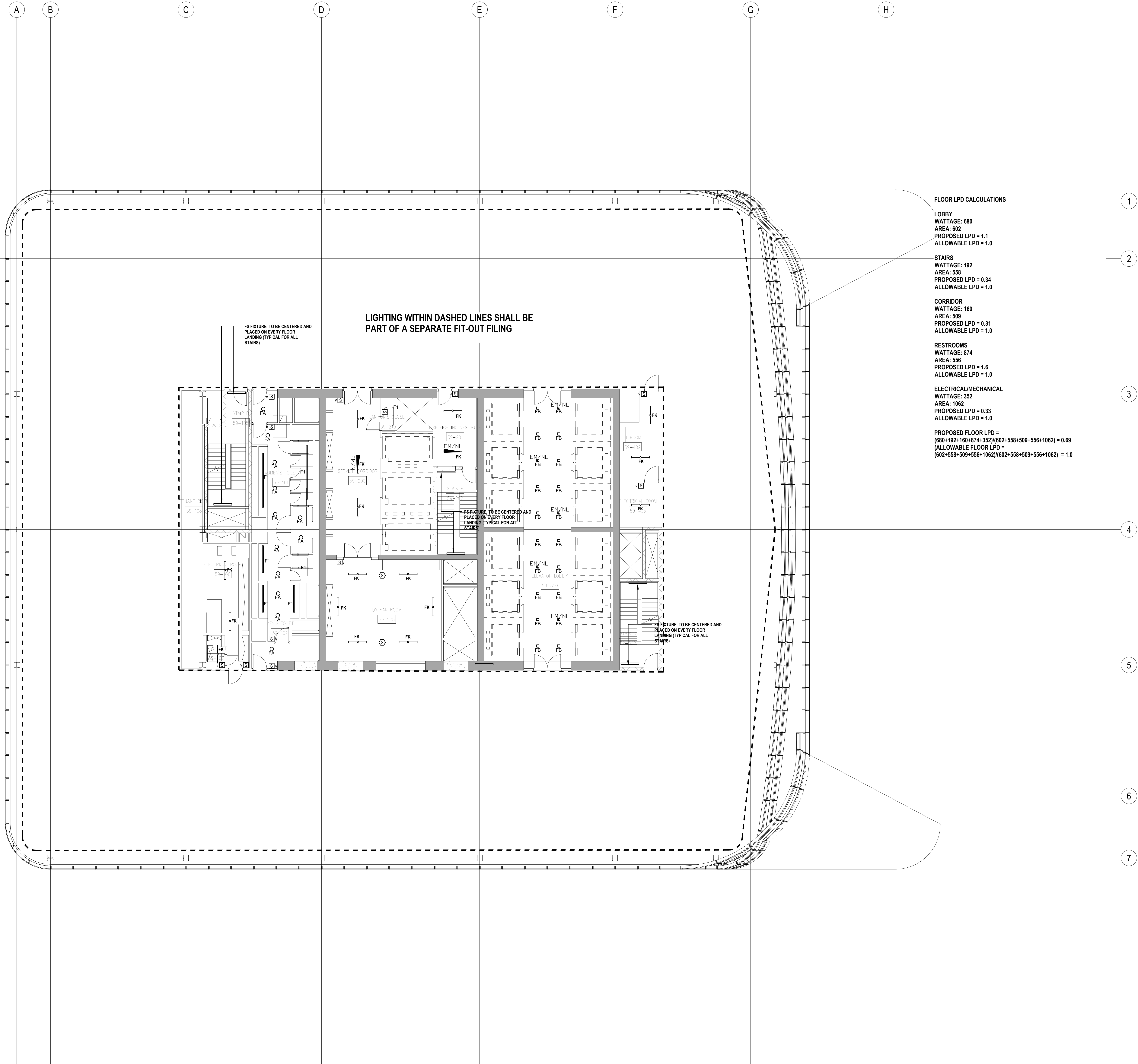
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Date:

Scale:

Page No.:

**EN-130.00**



FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 802  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 874  
AREA: 556  
PROPOSED LPD = 1.6  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 352  
AREA: 1062  
PROPOSED LPD = 0.33  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+874+352)/(602+558+509+556+1062) = 0.69  
(ALLOWABLE FLOOR LPD =  
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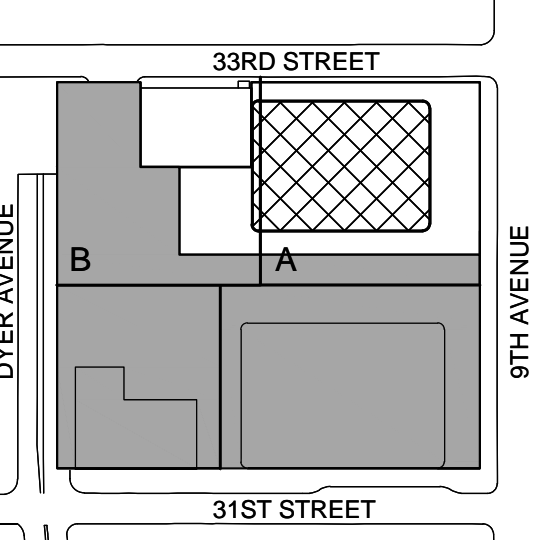
Facade Maintenance Consultant

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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

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Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



No.	Date	Description
2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 60-61  
FLOOR PLAN

Project No.:

Date:

Scale:

File No.:

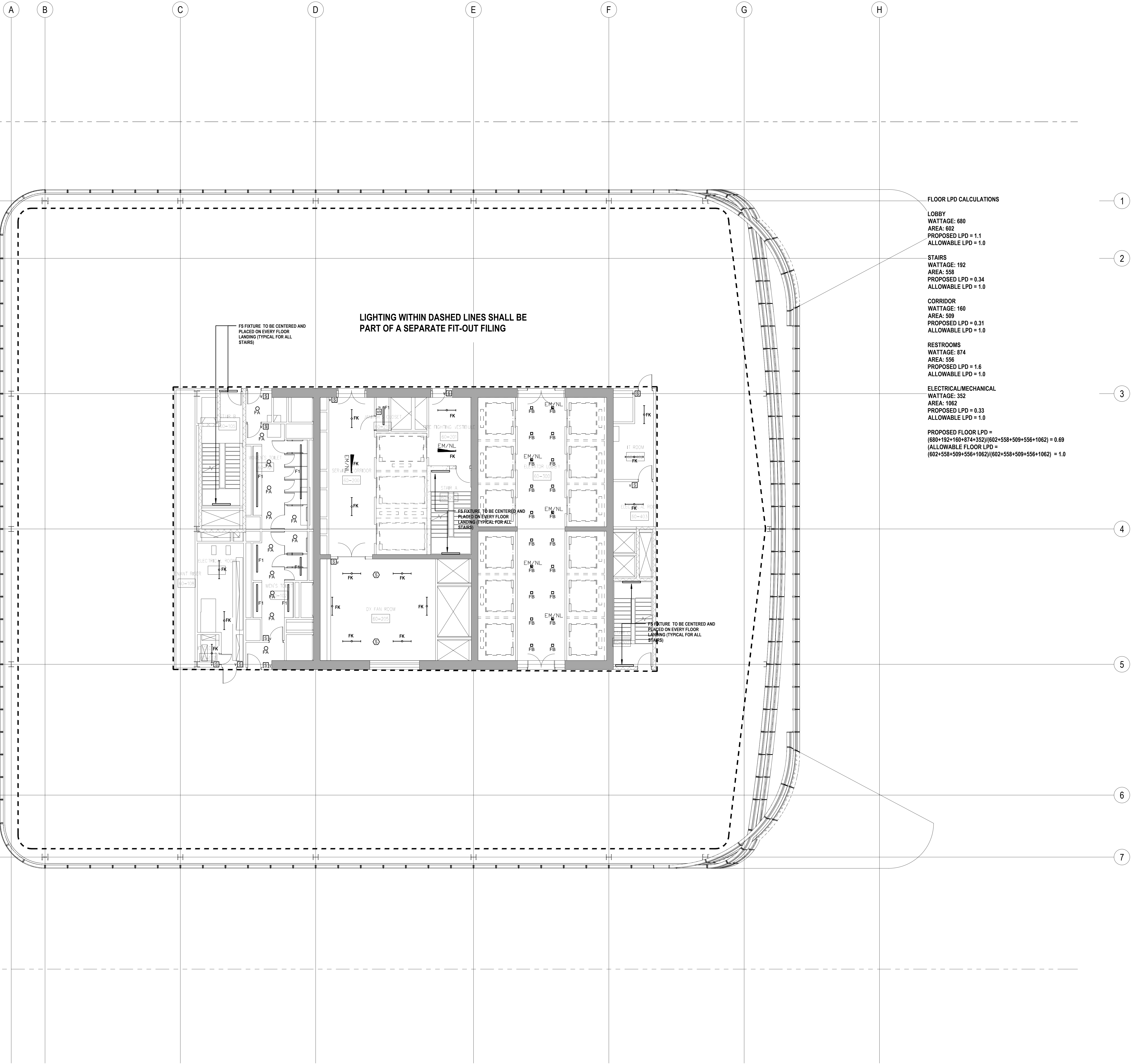
Sheet No.:

Date:

Scale:

Page No.:

EN-131.00



FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 802  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
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RESTROOMS  
WATTAGE: 874  
AREA: 556  
PROPOSED LPD = 1.6  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 352  
AREA: 1062  
PROPOSED LPD = 0.33  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+874+352)/(602+558+509+556+1062) = 0.69  
(ALLOWABLE FLOOR LPD =  
(602+558+509+556+1062)/(602+558+509+556+1062) = 1.0

LIGHTING WITHIN DASHED LINES SHALL BE  
PART OF A SEPARATE FIT-OUT FILING

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

FS FIXTURE TO BE CENTERED AND  
PLACED ON EVERY FLOOR  
LANDING (TYPICAL FOR ALL  
STAIRS)

PROFESSIONAL'S STATEMENT

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SOM  
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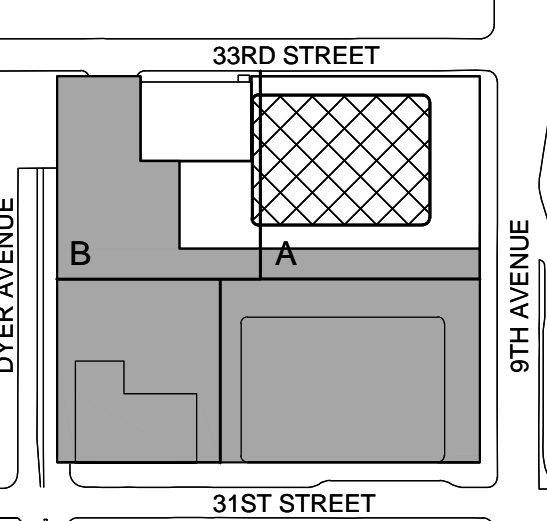
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Key Plan:



Seal & Signature:



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No.	Date	Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 62  
FLOOR PLAN

Project No.:

Date:

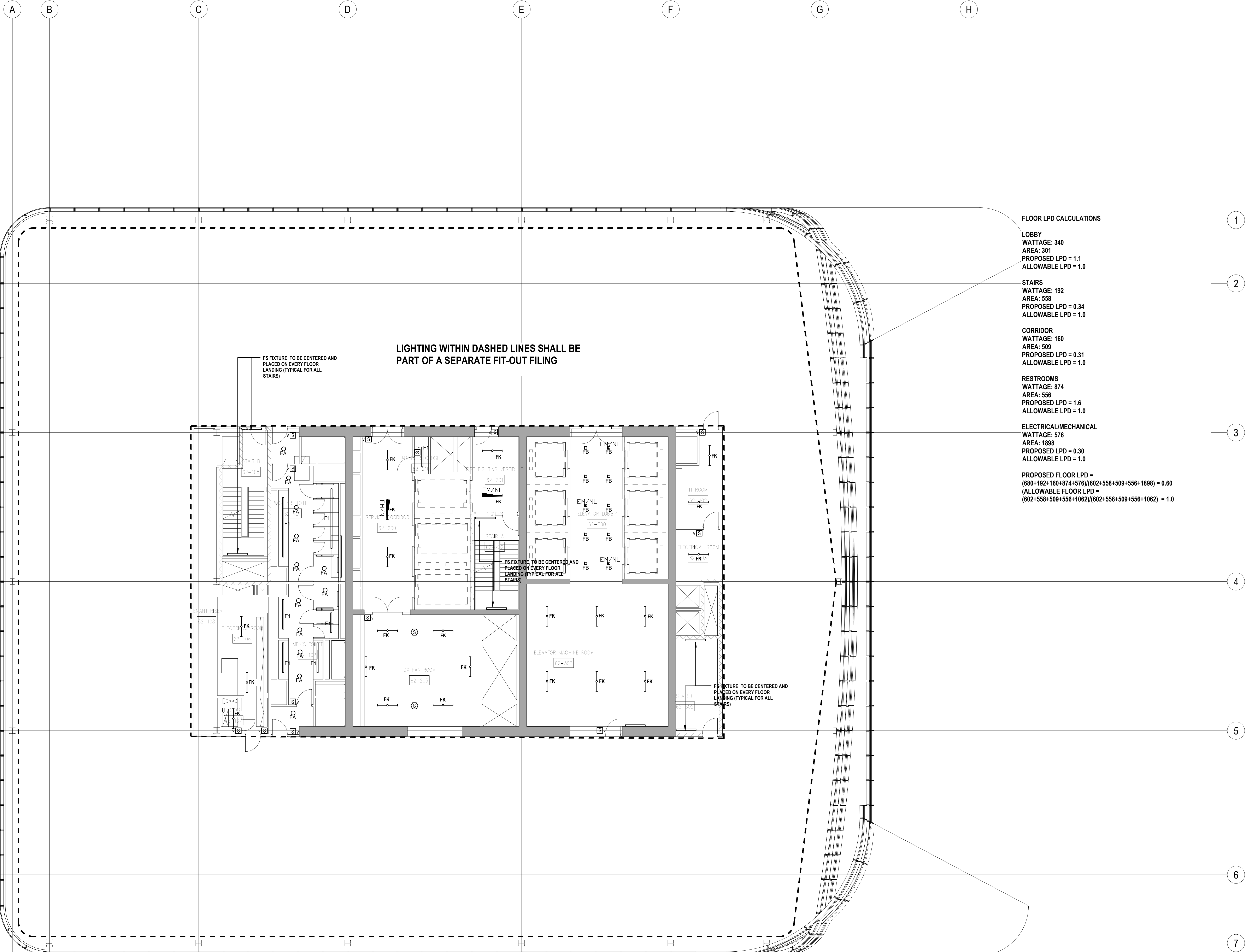
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File No.:

Sheet No.:

EN-132.00

Page No.:



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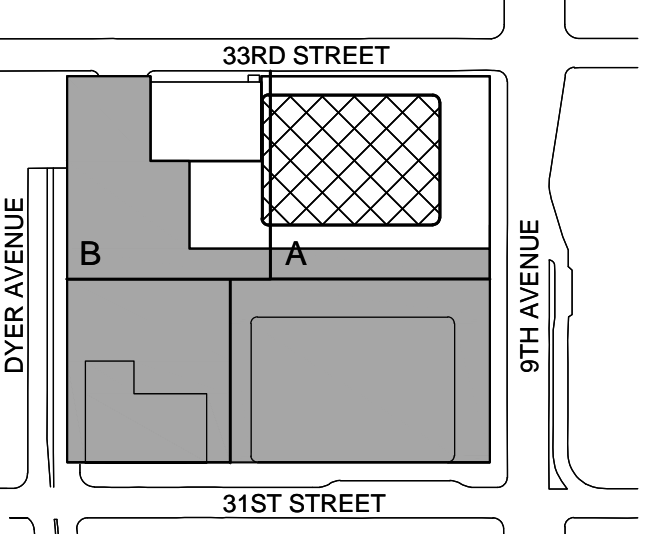
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Key Plan:





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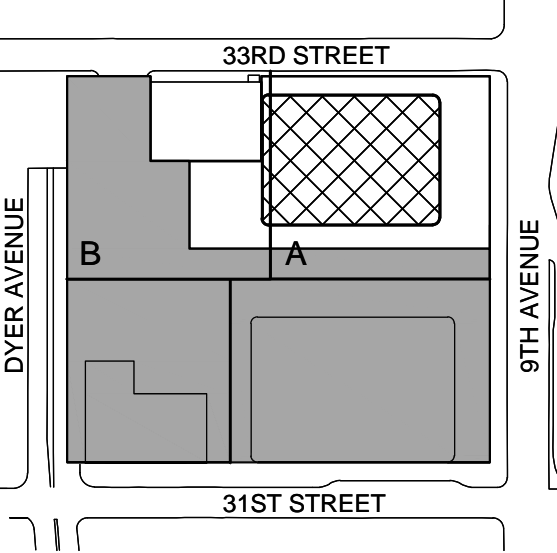
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2 30 JAN 2015 ISSUED FOR BUILDING PERMIT  
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Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 64-67  
FLOOR PLAN

Project No.:

Date:

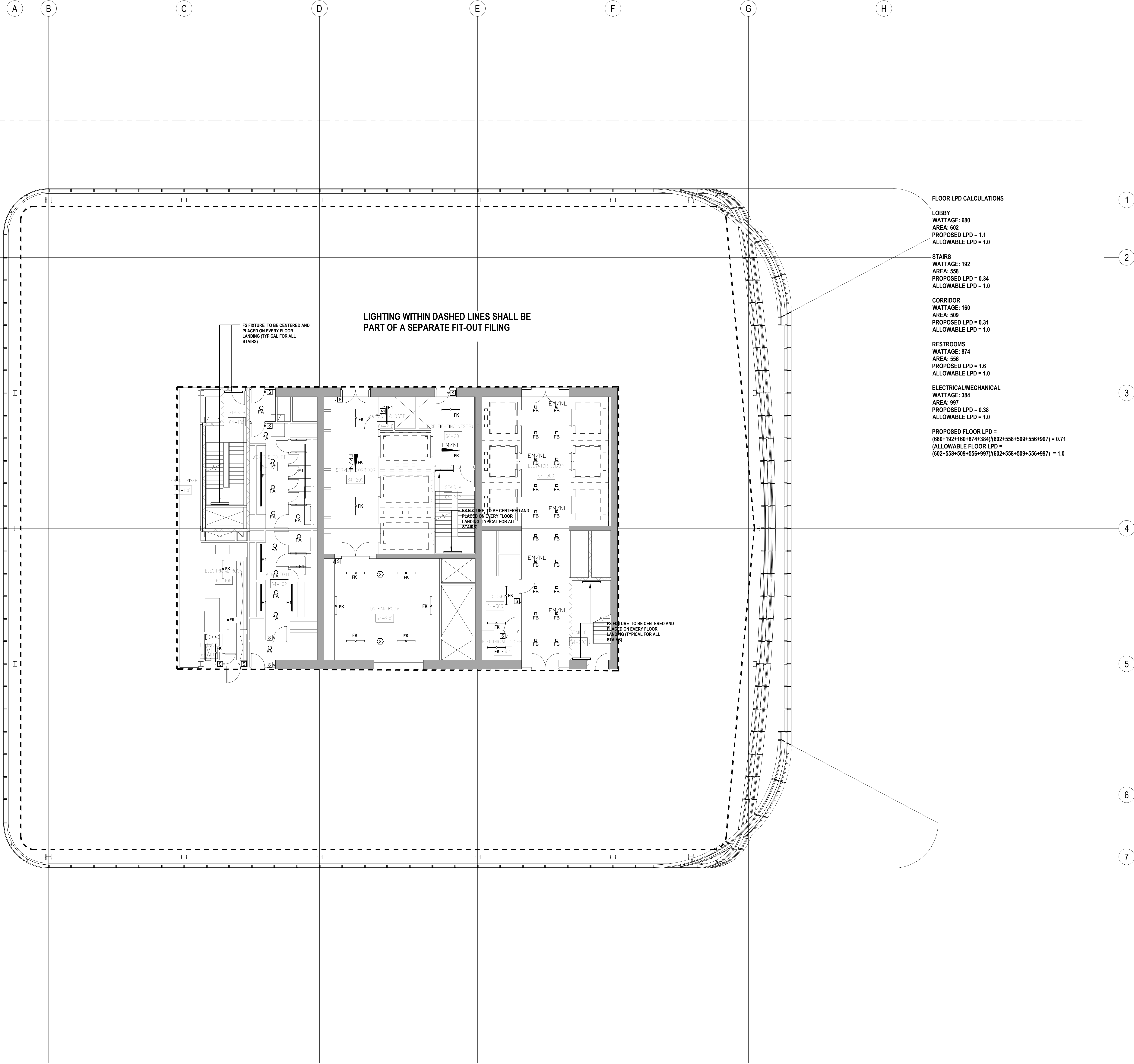
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File No.:

Sheet No.:

EN-134.00

Page No.:



FLOOR LPD CALCULATIONS

LOBBY  
WATTAGE: 680  
AREA: 602  
PROPOSED LPD = 1.1  
ALLOWABLE LPD = 1.0

STAIRS  
WATTAGE: 192  
AREA: 558  
PROPOSED LPD = 0.34  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 160  
AREA: 509  
PROPOSED LPD = 0.31  
ALLOWABLE LPD = 1.0

RESTROOMS  
WATTAGE: 874  
AREA: 556  
PROPOSED LPD = 1.6  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 384  
AREA: 997  
PROPOSED LPD = 0.38  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
(680+192+160+874+384)/(602+558+509+556+997) = 0.71  
ALLOWABLE FLOOR LPD =  
(602+558+509+556+997)/(602+558+509+556+997) = 1.0

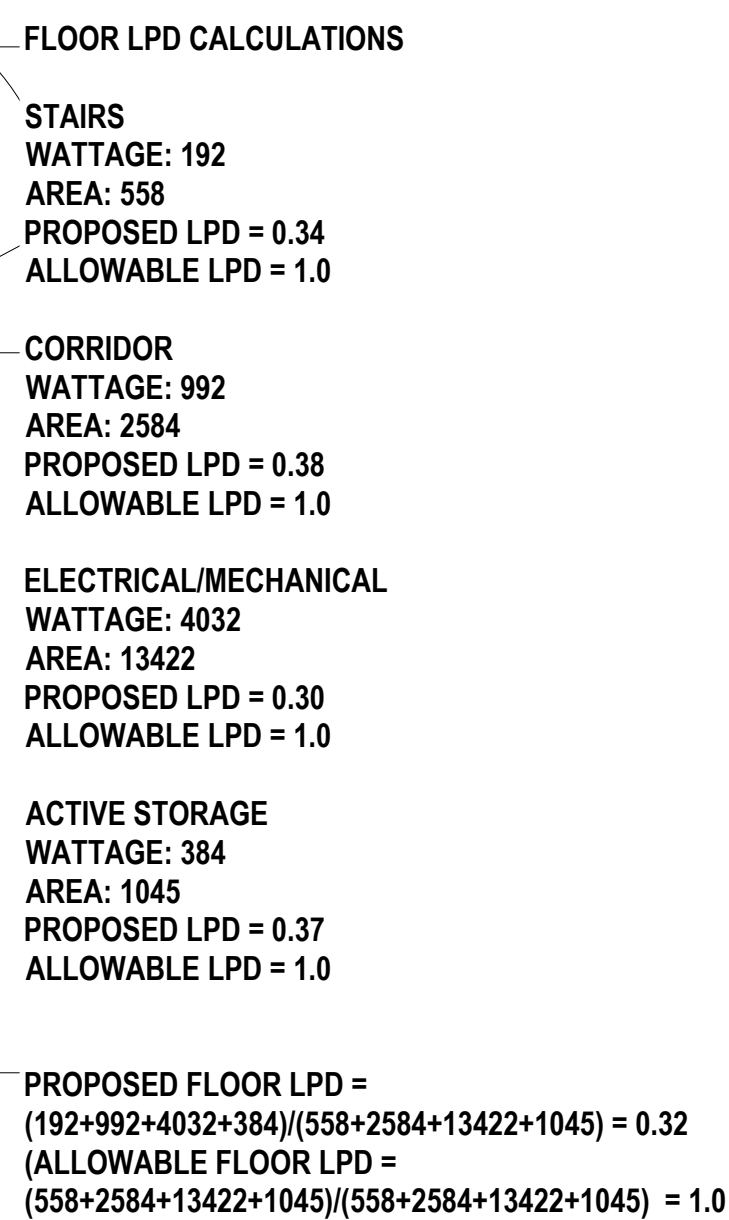
PROFESSIONAL'S STATEMENT

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NOTES:  
1. THIS FLOOR SHALL CONTAIN A LIGHTING RELAY PANEL  
WITH A TIME CLOCK

Page No.:

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SHEET NOTES

ENERGY ANALYSIS NOTES:

1. THE SCOPE OF WORK INDICATED IS BASED ON A PERFORMANCE BASED ENERGY ANALYSIS TO CONFIRM COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).

2. REFER TO SHEET EN-200 FOR BUILDING ASSEMBLY DESCRIPTIONS, DETAILS, AND PERFORMANCE CRITERIA.

3. REFER TO PERFORMANCE BASED ENERGY ANALYSIS TITLED "ENERGY MODELING OF THE MANHATTAN WEST NORTH TOWER" FOR OUTPUT REPORTS OF THE ASSEMBLIES ON SHEET EN-200.

4. THE LIGHTING WITHIN THE TENANT OFFICE SPACE IS NOT PART OF THE CORE AND SHELL SCOPE OF WORK. A SEPARATE FIT-OUT IS REQUIRED FROM EACH TENANT WHICH PROVES INDIVIDUAL COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC).



MANHATTAN WEST:  
NORTH TOWER  
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Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

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MEP Engineering

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65 Broadway, Suite 401, New York, NY 10005

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

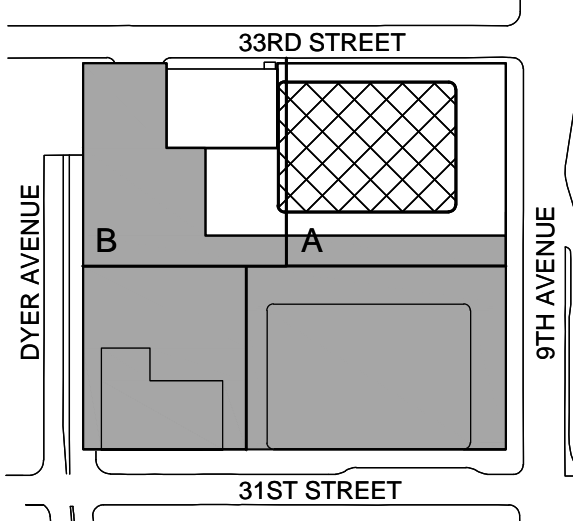
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



2 30 JAN 2015 ISSUED FOR BUILDING PERMIT  
1 12 SEPT 2014 ISSUED FOR FOUNDATION PERMIT  
No Date Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING  
LEVEL 69  
FLOOR PLAN

Project No.:

14200-A-000

Date:

19 DEC 2014

Scale:

N.T.S.

File No.:

Sheet No.:

EN-136.00

Date:

N.T.S.

File No.:

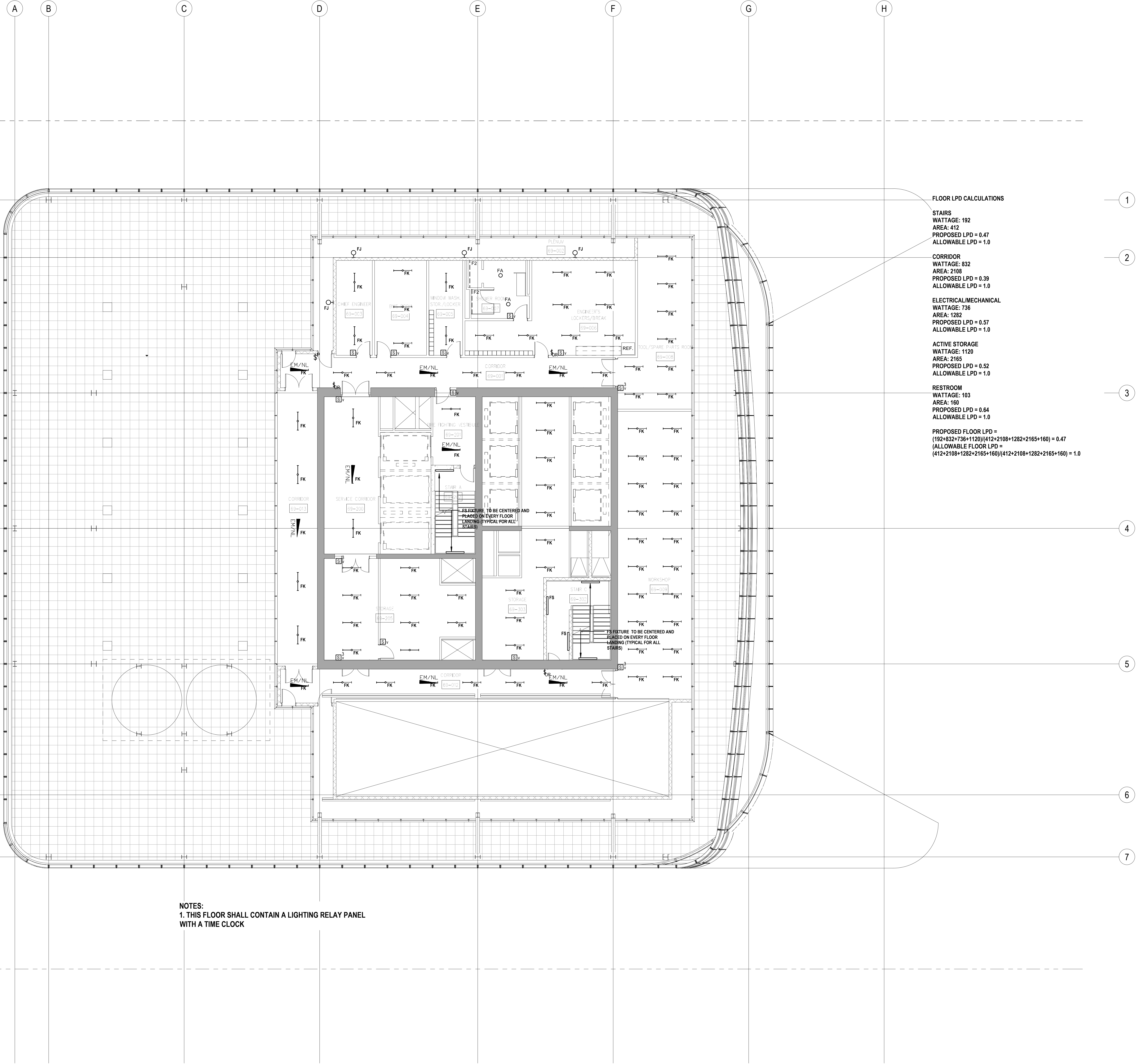
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NOTES:  
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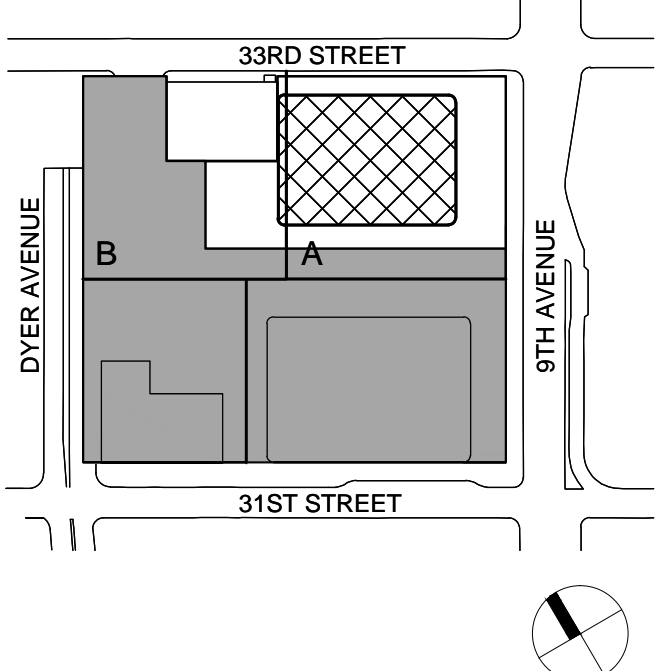
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No.	Date	Description

Sheet Name:

NYC EC  
COMPLIANCE  
LIGHTING ROOF  
PLAN MECH  
PENTHOUSE

Project No.:

Date:

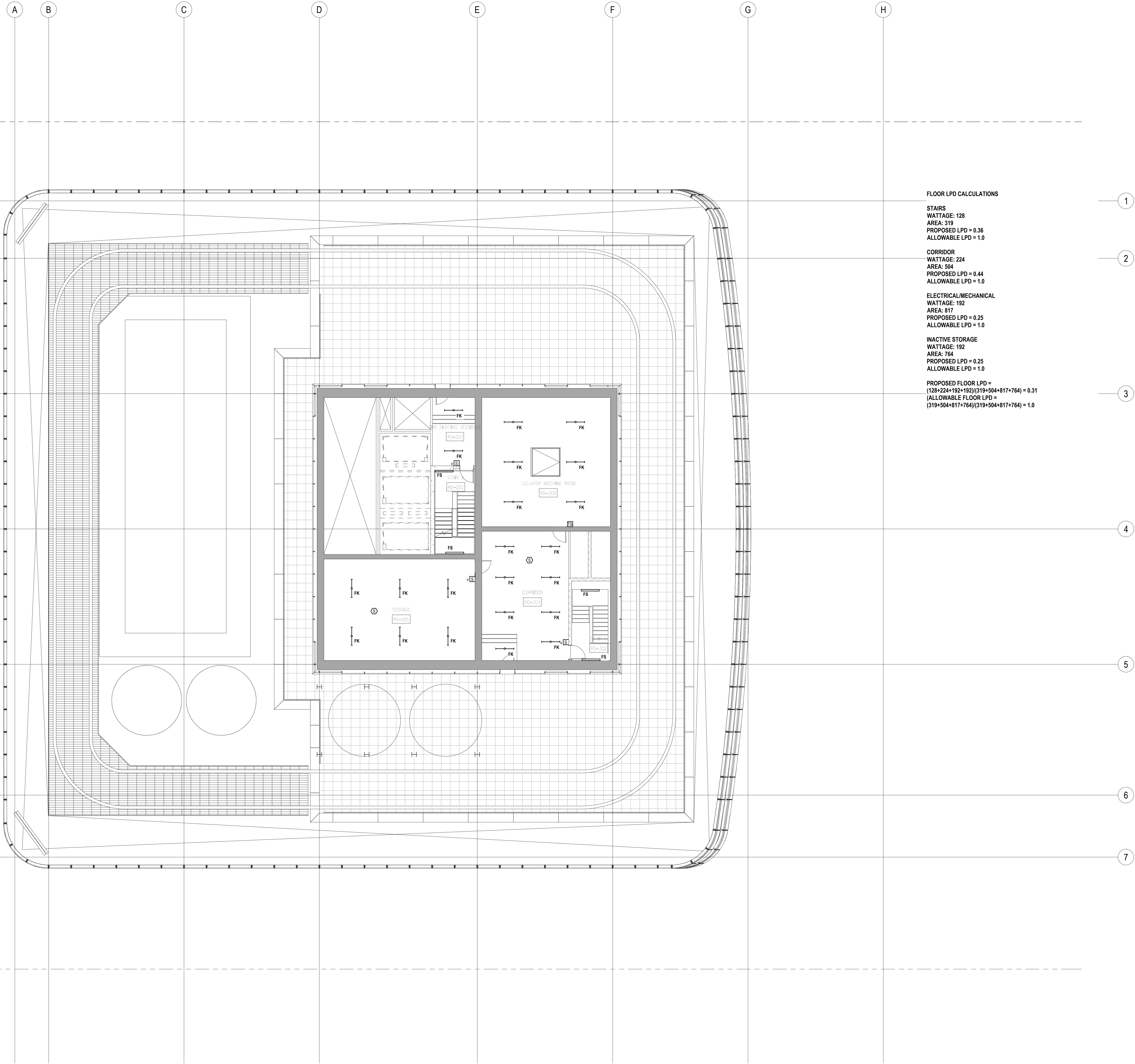
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Sheet No.:

EN-137.00

Page No.:



FLOOR LPD CALCULATIONS

STAIRS  
WATTAGE: 128  
AREA: 319  
PROPOSED LPD = 0.36  
ALLOWABLE LPD = 1.0

CORRIDOR  
WATTAGE: 224  
AREA: 504  
PROPOSED LPD = 0.44  
ALLOWABLE LPD = 1.0

ELECTRICAL/MECHANICAL  
WATTAGE: 192  
AREA: 817  
PROPOSED LPD = 0.25  
ALLOWABLE LPD = 1.0

INACTIVE STORAGE  
WATTAGE: 192  
AREA: 764  
PROPOSED LPD = 0.25  
ALLOWABLE LPD = 1.0

PROPOSED FLOOR LPD =  
 $(128+224+192+192)/(319+504+817+764) = 0.31$   
(ALLOWABLE FLOOR LPD =  
 $(319+504+817+764)/(319+504+817+764) = 1.0$

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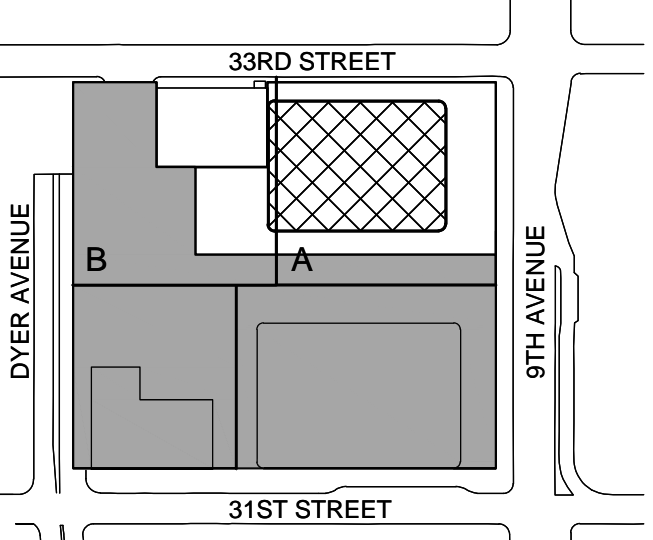
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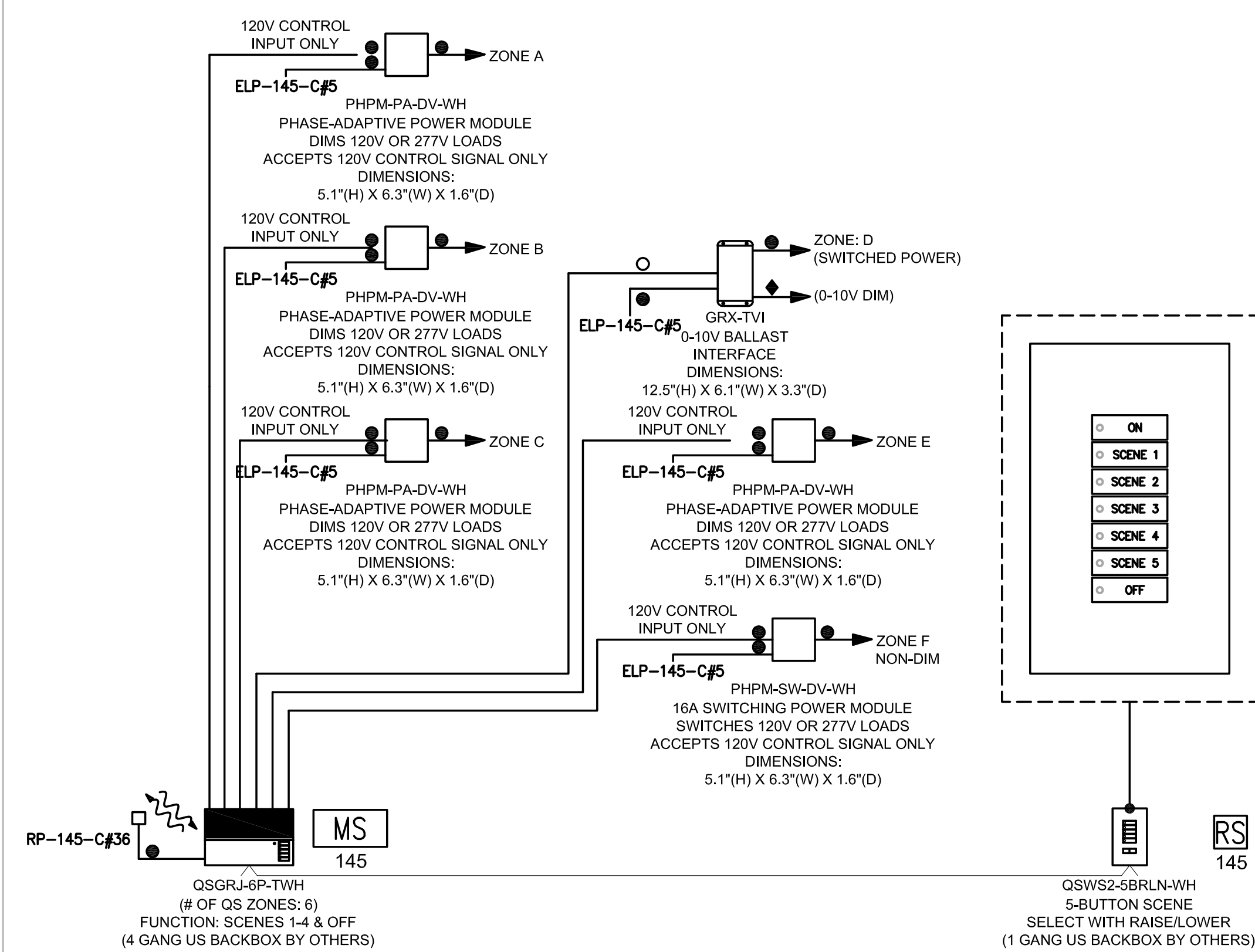
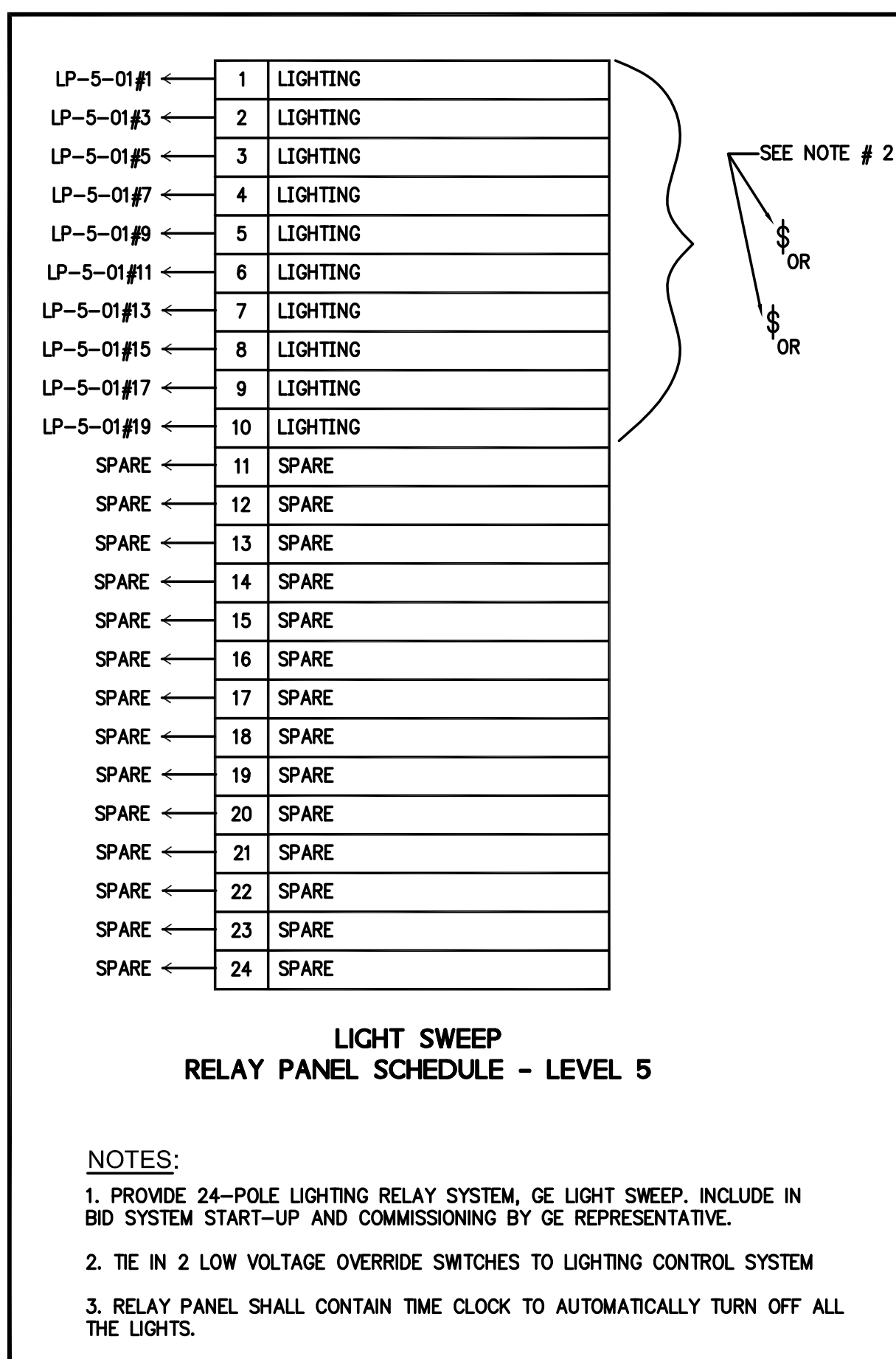
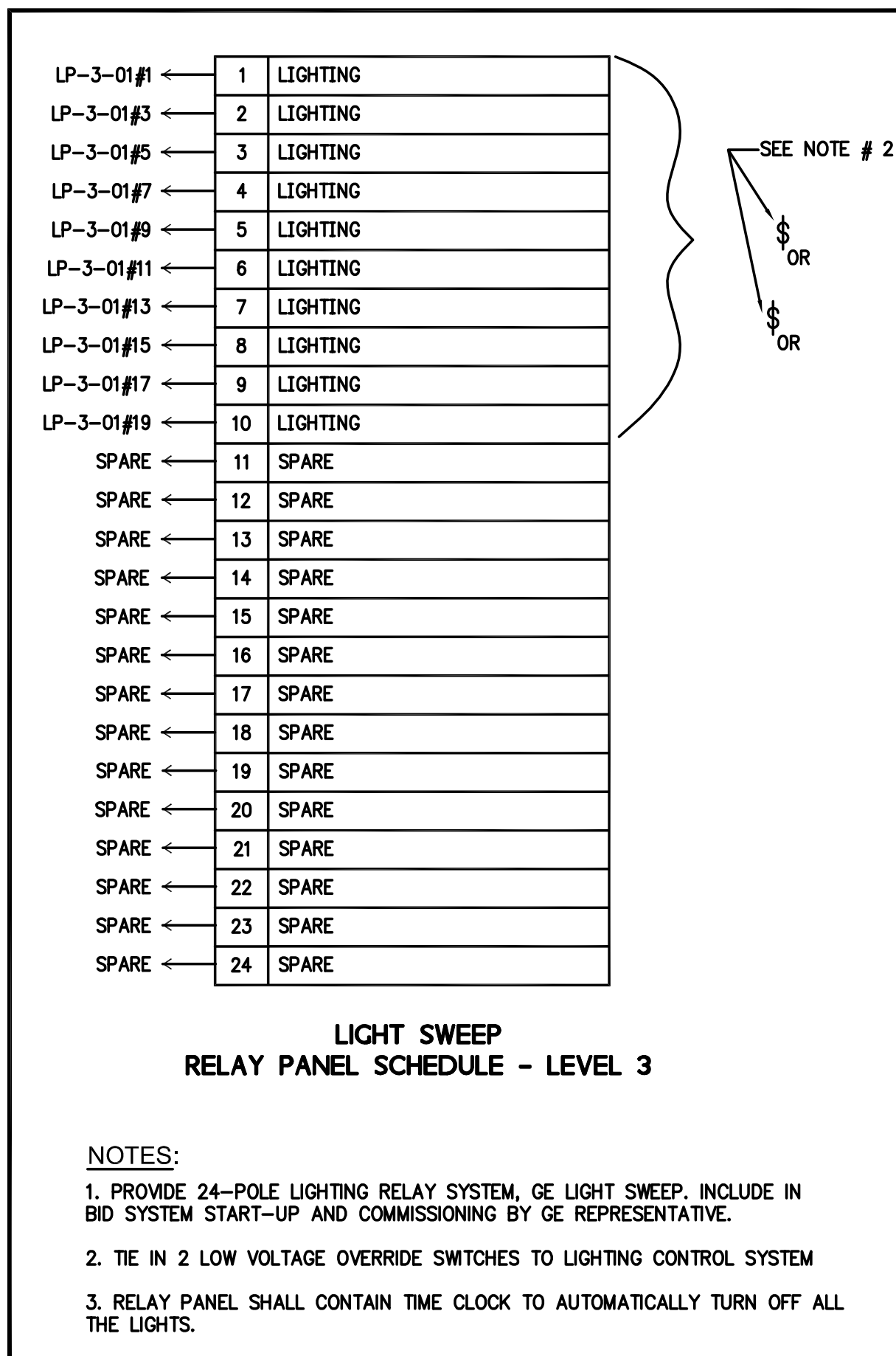
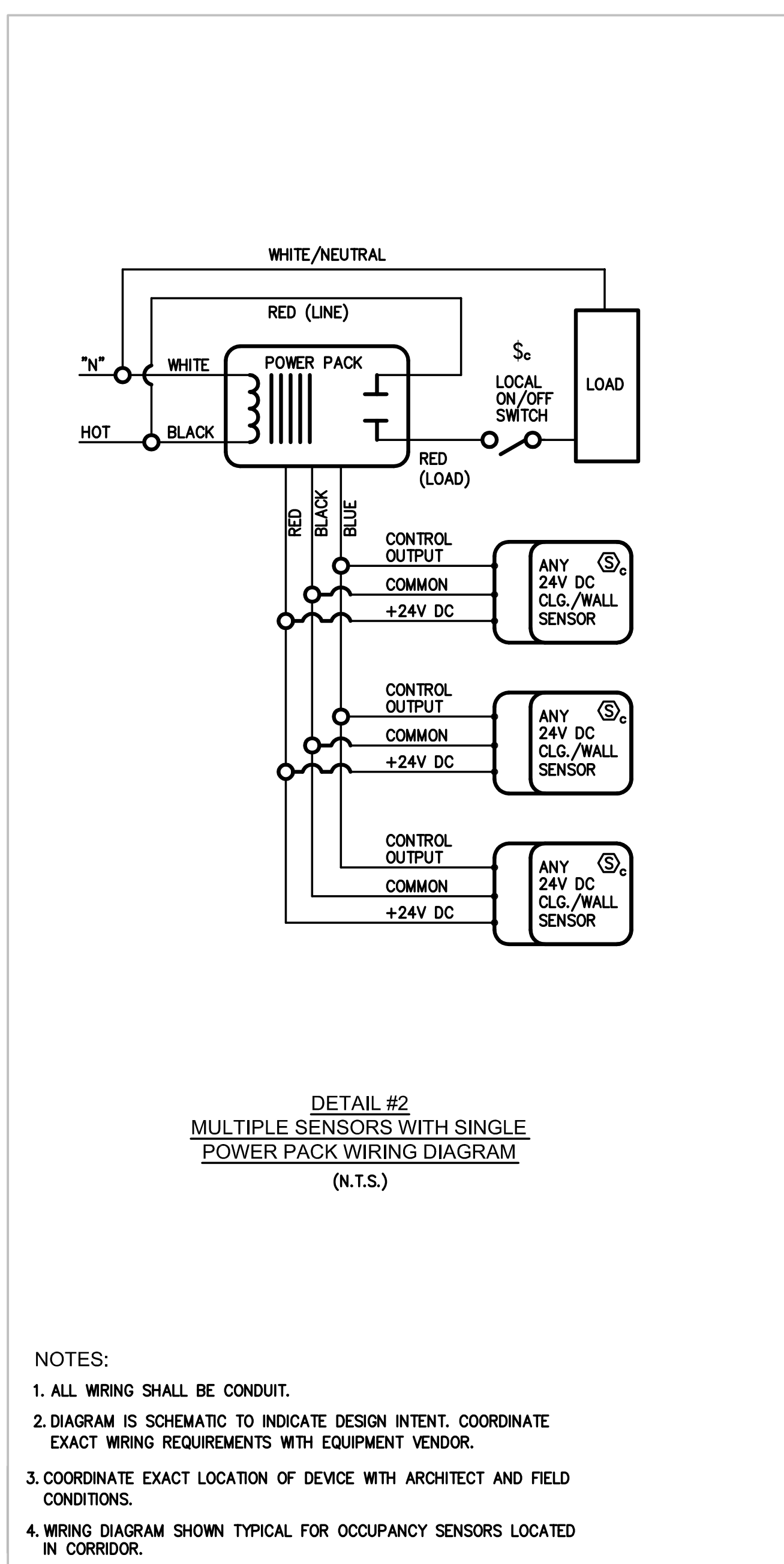
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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:







**LIGHT SWEEP  
RELAY PANEL SCHEDULE - LEVEL 69**

NOTES:

1. PROVIDE 24-POLE LIGHTING RELAY SYSTEM, GE LIGHT SWEEP. INCLUDE IN BID SYSTEM START-UP AND COMMISSIONING BY GE REPRESENTATIVE.
2. TIE IN 2 LOW VOLTAGE OVERRIDE SWITCHES TO LIGHTING CONTROL SYSTEM

RELAY PANEL SHALL CONTAIN TIME CLOCK TO AUTOMATICALLY TURN OFF ALL THE LIGHTS.

Project No.: 14830.A.000	Sheet No.:
Date: 19 DEC 2014	EN-139.00
Scale: N.T.S.	
File No.:	Page No.:



NYCECC BUILDING ENVELOPE REQUIREMENTS - OPAQUE ELEMENTS (ECCO/NS TABLE 502.1.2)							
CLIMATE ZONE 4, COMMERCIAL BUILDING		MAXIMUM U-FACTOR		MAXIMUM SHGC		PROPOSED SHGC	
ENVELOPE TYPE	ENVELOPE AREA	PROPOSED U-FACTOR	MAXIMUM U-FACTOR	PROPOSED SHGC	MAXIMUM SHGC	PROPOSED SHGC	MAXIMUM SHGC
A. ROOFS							
A1: INSULATION ENTIRELY ABOVE DECK - PLAZA	76,599 sq'	U-0.048	U-0.025	-	-	-	-
A2: INSULATION ENTIRELY ABOVE DECK - TOWER	31,173 sq'	U-0.048	U-0.025	-	-	-	-
B. WALLS							
B1: METAL FRAMED - CURTAIN WALL	134,788 sq'	U-0.064	U-0.179	-	-	-	-
B2: METAL FRAMED - STOREFRONT	538 sq'	U-0.064	U-0.179	-	-	-	-
B3: METAL FRAMED - SHADOW BOX	43,895 sq'	U-0.064	U-0.179	-	-	-	-
B4: MASS - CONCRETE MASONRY UNIT	31,371 sq'	U-0.104	U-0.128	-	-	-	-
C. BELOW-GRADE WALLS							
C1: MASS - CONCRETE WALL	13,291 sq'	-	-	C-1.140	C-0.550	-	-
C2: MASS - CONCRETE MASONRY UNIT	10,474 sq'	-	-	C-1.140	C-0.143	-	-
D. SLAB-ON-GRADE FLOORS							
D1: UNHEATED SLABS	56,263 sq'	-	-	-	F-0.730	F-0.480	-

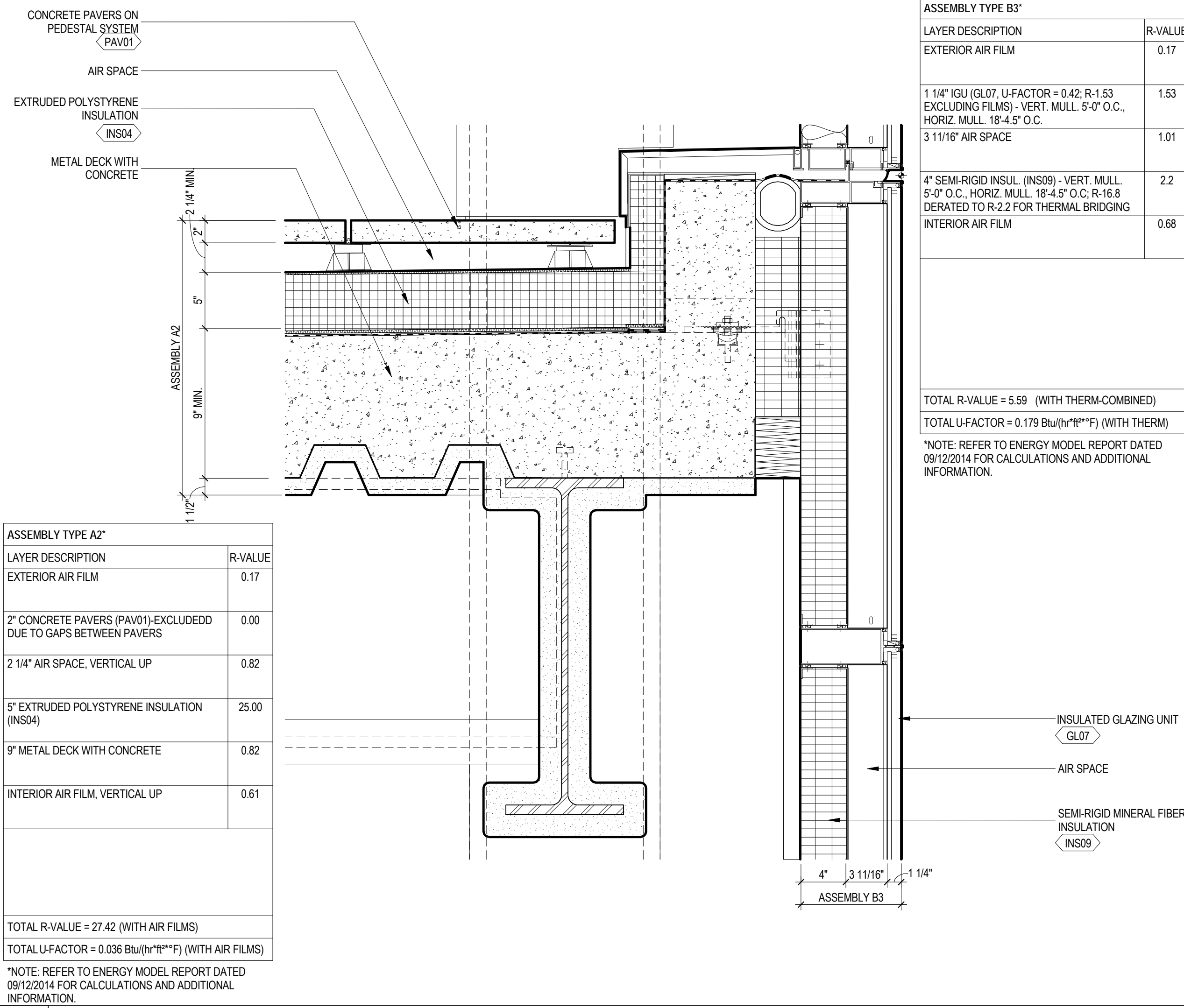
NYCECC BUILDING ENVELOPE REQUIREMENTS - FENESTRATION (ECCO/NS TABLE 502.3)					
CLIMATE ZONE 4, COMMERCIAL BUILDING		MAXIMUM U-FACTOR		MAXIMUM SHGC	
FENESTRATION TYPE	FENESTRATION AREA	PROPOSED U-FACTOR	MAXIMUM U-FACTOR	PROPOSED SHGC	MAXIMUM SHGC
METAL FRAMING WITH OR WITHOUT THERMAL BREAK					
CURTAIN WALL (GL01) - PF < 0.25	498,969 sq'	U-0.500	U-0.400	SHGC 0.400	SHGC 0.290
STOREFRONT (GL02) - PF < 0.25	23,975 sq'	U-0.500	U-0.106	SHGC 0.400	SHGC 0.880

NYCECC BUILDING ENVELOPE MANDATORY PROVISIONS			CLIMATE ZONE 4, COMMERCIAL BUILDING		COMPLIANCE	
SECTION	TITLE	DESCRIPTION				
502.4.1	WINDOW AND DOOR ASSEMBLIES	The air leakage of window and sliding or swinging door assemblies that are part of the building envelope shall be determined in accordance with AAMA/NADCA/CA 1011.5 (SMA40) or NFRC 600 by an accredited, independent laboratory, and labeled and certified by the manufacturer and shall not exceed 1.5 cfm per square foot (1.5 L/s/m <sup>2</sup> ), and swinging doors no more than 0.5 cfm per square foot (2.5 L/s/m <sup>2</sup> ).			COMPLIES	
502.4.2	CURTAIN WALL, STOREFRONT GLAZING AND COMMERCIAL ENTRANCE DOORS	Curtain wall, storefront glazing and commercial glazed swinging entrance doors and revolving doors shall be tested for air leakage at 1.57 pounds per square foot (0.07 Pa) in accordance with ASTM E 283. For curtain walls and storefront glazing, the maximum air leakage rate shall be 0.3 cubic foot per minute per square foot (0.007 m <sup>3</sup> /s/m <sup>2</sup> ) at 1.57 pounds per square foot (0.07 Pa) in accordance with ASTM E 283. For commercial glazed swinging entrance doors and revolving doors, the maximum air leakage rate shall be 1.00 cfm/m <sup>2</sup> (0.05 m <sup>3</sup> /s/m <sup>2</sup> ) at 1.57 pounds per square foot (0.07 Pa) in accordance with ASTM E 283.			COMPLIES	
502.4.3	CONTINUOUS AIR BARRIER	Except in unheated structures and as permitted by this section, a continuous air barrier shall be installed, sealing all seams, openings, and penetrations of the building and shall be sealed with caulking materials or closed with gasketing systems compatible with the construction materials and location. Joints and seams shall be sealed in the same manner or taped or covered with a moisture vapor-permeable wrapping material. Sealing materials spanning joints between construction materials shall allow for expansion and contraction of the construction materials. Such an air barrier shall have all the following characteristics: 1. Continuous throughout the envelope with all joints and seams sealed and with sealed connections between all transitions in planes and changes in materials and at all penetrations. 2. Joined and sealed in a flexible manner to the air barrier component of adjacent assemblies, allowing for the relative movement of these assemblies and components. 3. Installed in accordance with the manufacturer's instructions and in such a manner as to achieve the performance requirements. 4. Penetrations of the continuous air barrier shall be made in a way such that the integrity of the continuous air barrier is maintained.			COMPLIES	
502.4.4	OUTDOOR AIR INTAKES AND EXHAUST OPENINGS	Stair and elevator shaft vents and other outdoor air intakes and exhaust openings integral to the building envelope shall be equipped with not less than a Class I motorized, leakage-rated damper with a maximum leakage rate of 4 cfm per square foot (0.8 L/s/m <sup>2</sup> ) at 1.0 inch water gauge (4 g) (1250 Pa) when tested in accordance with AMCA 5000.			COMPLIES	
502.4.5	LOADING DOCK WEATHERSEALS	Cargo doors and loading dock doors shall be equipped with weatherseals to restrict infiltration when vehicles are parked in the doorway.			COMPLIES	
502.4.6	VESTIBULES	A door that separates conditioned space from the exterior shall be protected with an enclosed vestibule, with all doors opening into and out of the vestibule equipped with self-closing devices. Vestibules shall be designed so that in passing through the vestibule it is not necessary for the interior and exterior doors to open at the same time. Exceptions: 1. Doors not intended to be used as a building entrance door, such as doors to mechanical or electrical equipment rooms. 2. Doors opening directly from a sleeping unit or dwelling unit. 3. Doors that open directly from a space less than 3,000 square feet (279 m <sup>2</sup> ) in area. 4. Revolving doors. 5. Doors used primarily to facilitate vehicular movement or material handling and adjacent personnel doors.			COMPLIES	

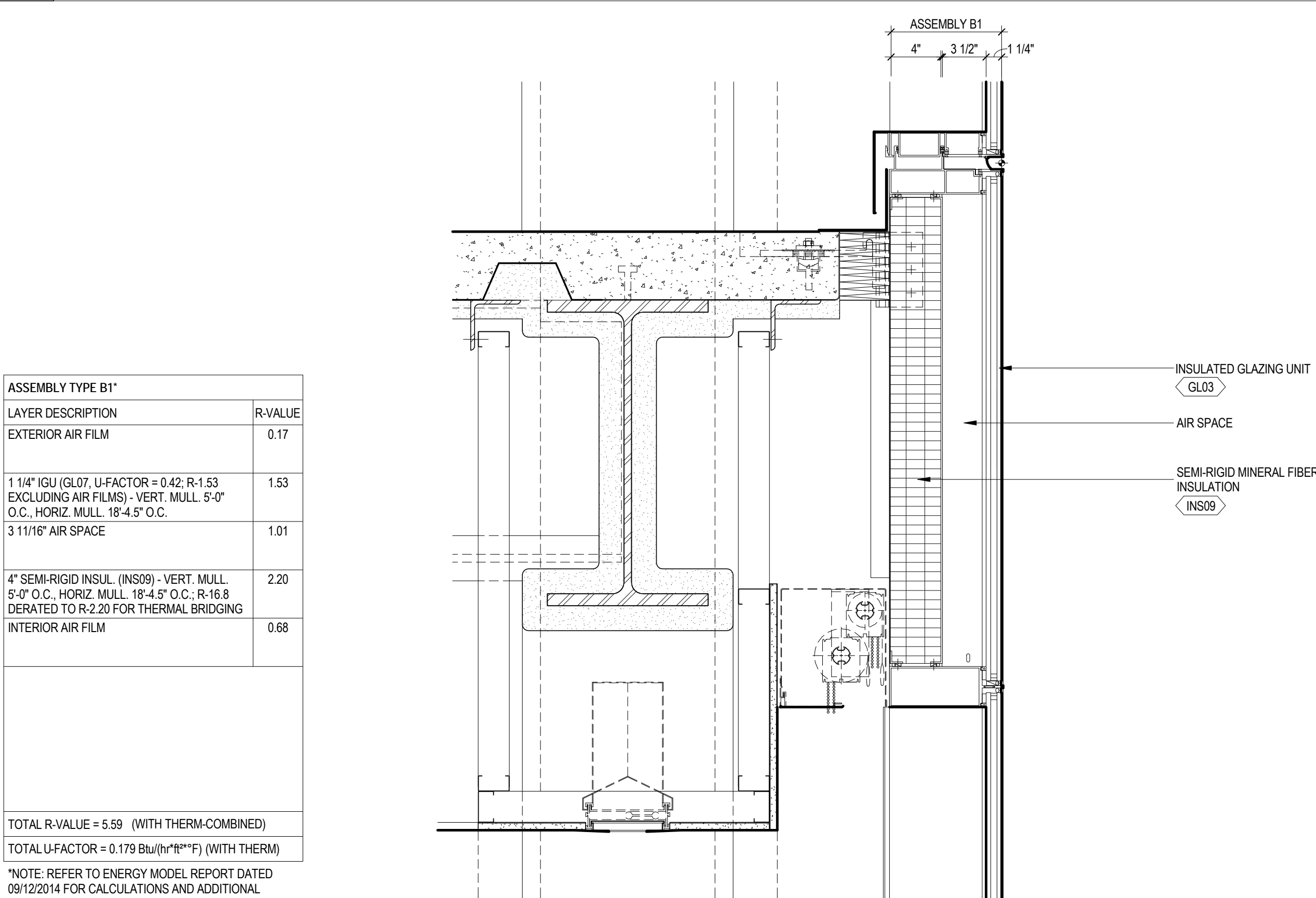
BUILDING ENVELOPE MATERIALS				
MATERIAL ID	DESCRIPTION	LOCATION		COMMENTS
GL01				
GL01	1 1/4" INSULATED GLASS UNIT COMPOSED OF 3/8" CLEAR LOW-IRON HEAT STRENGTHENED OUTER LITE WITH A LOW-E COATING ON THE NO. 2 SURFACE + 1/2" BLACK STAINLESS STEEL SPACER WITH ARGON FILL + 3/8" CLEAR LOW-IRON FULLY TEMPERED HEAT SOAKED INNER LITE.	TOWER CURTAIN WALL VISION GLAZING		GL01B IS A THERMALLY CURVED VERSION OF GL01 ASSEMBLY.
GL02	1 1/4" LAMINATED SAFETY GLASS COMPOSED OF 3/8" LOW-IRON HEAT STRENGTHENED GLASS + A .060" PVB INTERLAYER + 3/8" LOW-IRON HEAT STRENGTHENED GLASS.	STOREFRONT VISION GLAZING		GL02B IS A THERMALLY CURVED VERSION OF GL02 ASSEMBLY.
GL03	1 1/4" INSULATED GLASS UNIT COMPOSED OF 3/8" CLEAR LOW-IRON HEAT STRENGTHENED OUTER LITE WITH A LOW-E COATING ON THE NO. 2 SURFACE + 1/2" SPACER WITH ARGON FILL + 3/8" CLEAR LOW-IRON INNER LITE.	TOWER CURTAIN WALL SPANDREL		GL03B IS A THERMALLY CURVED VERSION OF GL03 ASSEMBLY.
GL04	2 3/8" LAMINATED GLASS FIN COMPOSED OF 3/4" LOW-IRON TEMPERED GLASS + .060" IONOPLAST INTERLAYER + 3/4" LOW-IRON TEMPERED GLASS + .060" IONOPLAST INTERLAYER + 3/4" LOW-IRON TEMPERED GLASS.	STOREFRONT FINS		
GL05	3/4" LAMINATED SAFETY GLASS COMPOSED OF 3/8" LOW-IRON GLASS + .060" IONOPLAST INTERLAYER + 3/8" LOW-IRON GLASS WITH A CUSTOM CERAMIC FRIT ON THE NO. 2 SURFACE.	STOREFRONT CANOPY		
GL06	1/2" LOW-IRON FULLY TEMPERED GLASS.	STOREFRONT DOORS/REVOLVERS		
GL07	1 1/4" INSULATED GLASS UNIT COMPOSED OF 3/8" CLEAR LOW-IRON HEAT STRENGTHENED OUTER LITE WITH A LOW-E COATING ON THE NO. 2 SURFACE + 1/2" BLACK STAINLESS STEEL SPACER WITH ARGON FILL + 3/8" CLEAR LOW-IRON HEAT STRENGTHENED INNER LITE.	TOWER CURTAIN WALL SHADOW BOX		GL07B IS A THERMALLY CURVED VERSION OF GL07 ASSEMBLY.
INS04	EXTRUDED POLYSTYRENE INSULATION	ROOF DECK		
INS06	EXTRUDED POLYSTYRENE INSULATION	PLAZA DECK		
INS09	SEMI-RIGID MINERAL FIBER INSULATION	CURTAIN WALL / STOREFRONT		
MTL04	STAINLESS STEEL BRIGHT DIRECTIONAL POLISH.	STOREFRONT INTERIOR MULLIONS		
MTL08	STAINLESS STEEL NON-DIRECTIONAL MIRROR POLISH.	STOREFRONT EXTERIOR MULLIONS		
MTL20	PAINTED ALUMINUM.	TOWER CURTAIN WALL EXTERIOR MULLIONS		
MTL21	PAINTED ALUMINUM.	TOWER CURTAIN WALL INTERIOR MULLIONS		
MTL22	PAINTED ALUMINUM.	TOWER CURTAIN WALL SPANDREL SHADOW BOX		
PAV01	CONCRETE PAVERS	ROOF DECK		
ST05	STONE	PLAZA DECK		
PAV01	STONE	ROOF DECK		

REFERENCE STANDARDS:  
2014 NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC)  
2010 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE (ECCO/NS)  
ASPRING STANDARD 01-12007

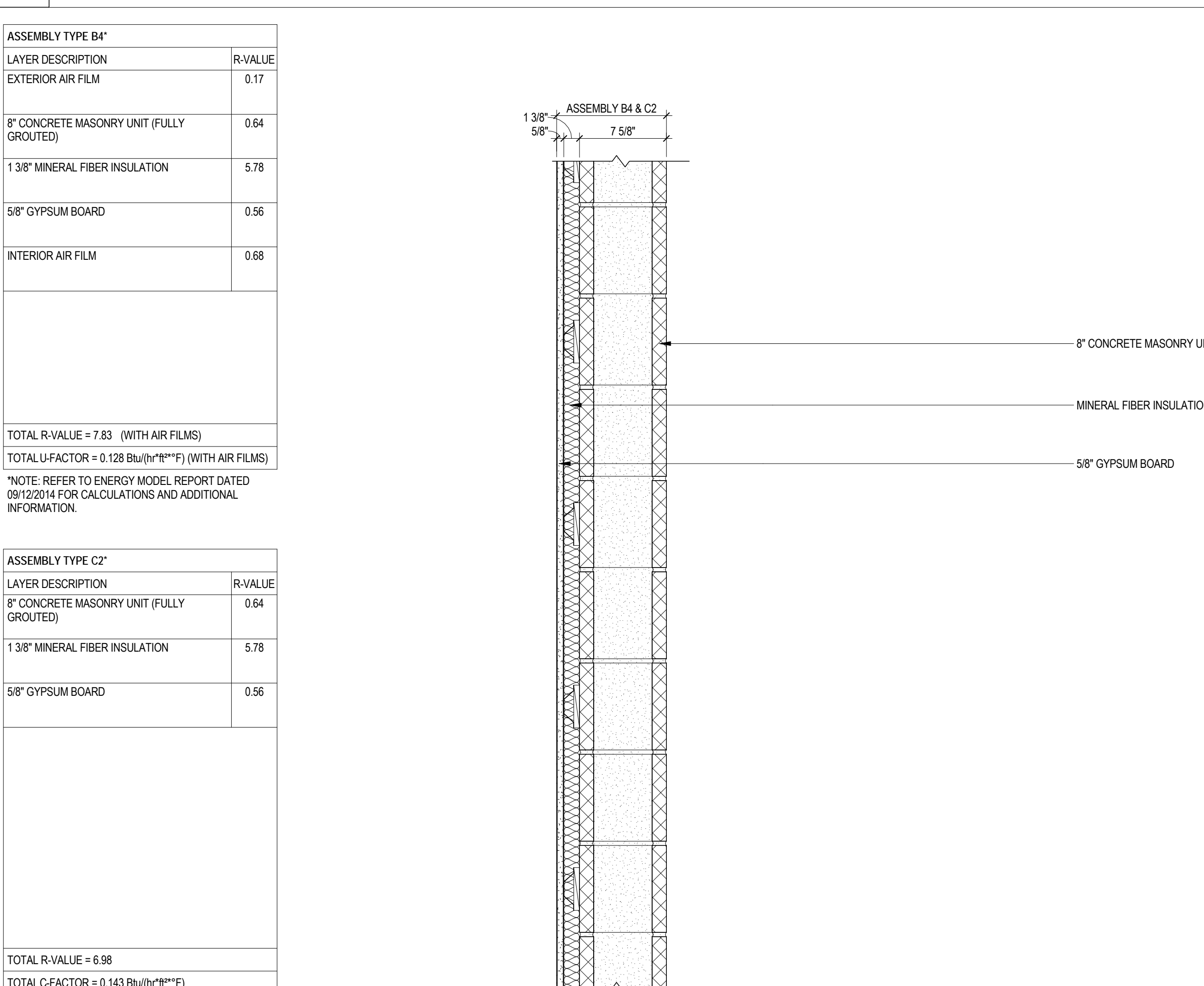
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3. VESTIBULES COMPLY WITH SECTION 502.4.6 EXCEPTION 4 AND 5 OF THE NEW YORK CITY ENERGY CONSERVATION CODE.



**6 ROOF ASSEMBLY AT TOWER**  
SCALE: NTS

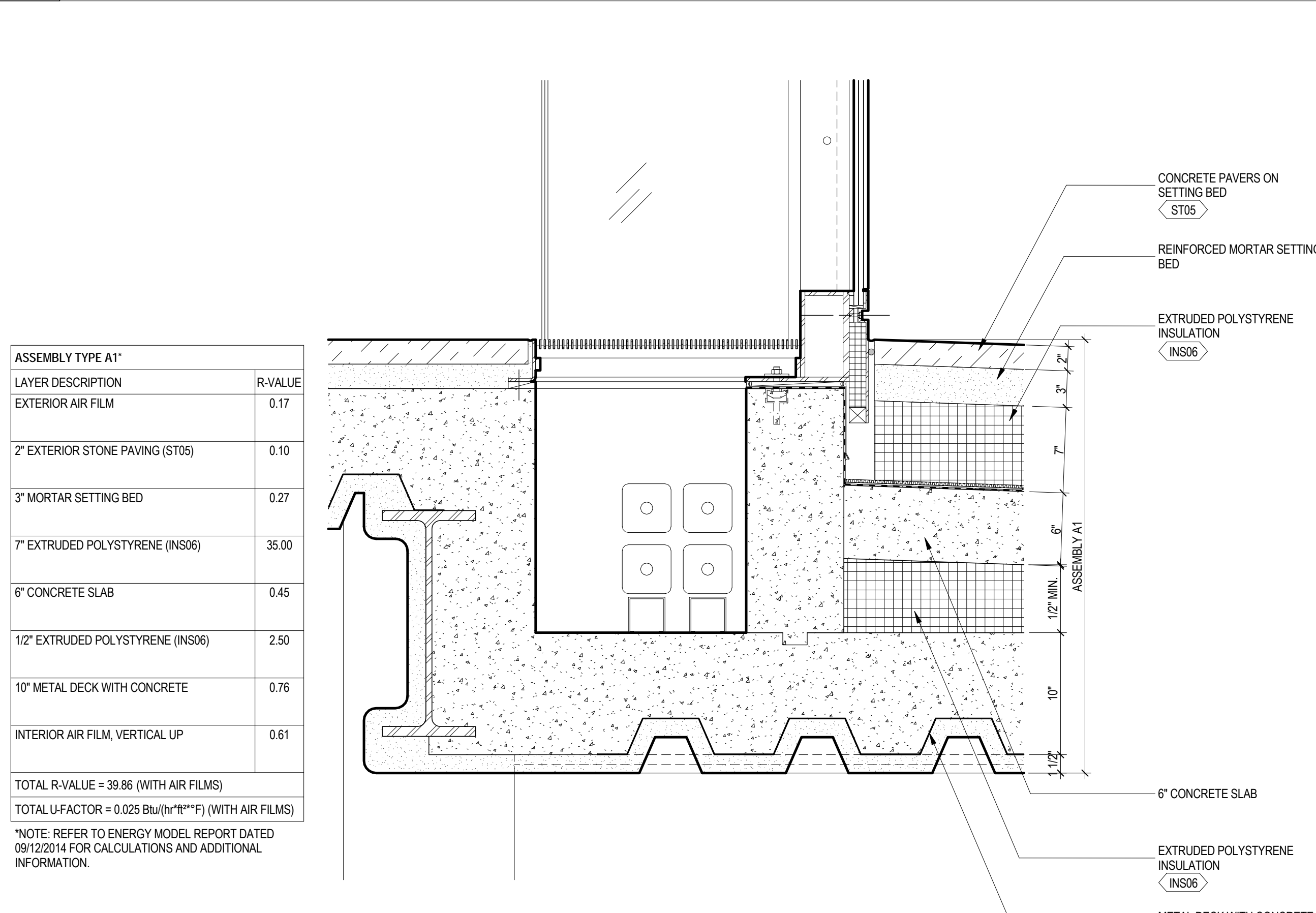


**5 WALL/FLOOR ASSEMBLY AT CURTAIN WALL**  
SCALE: NTS

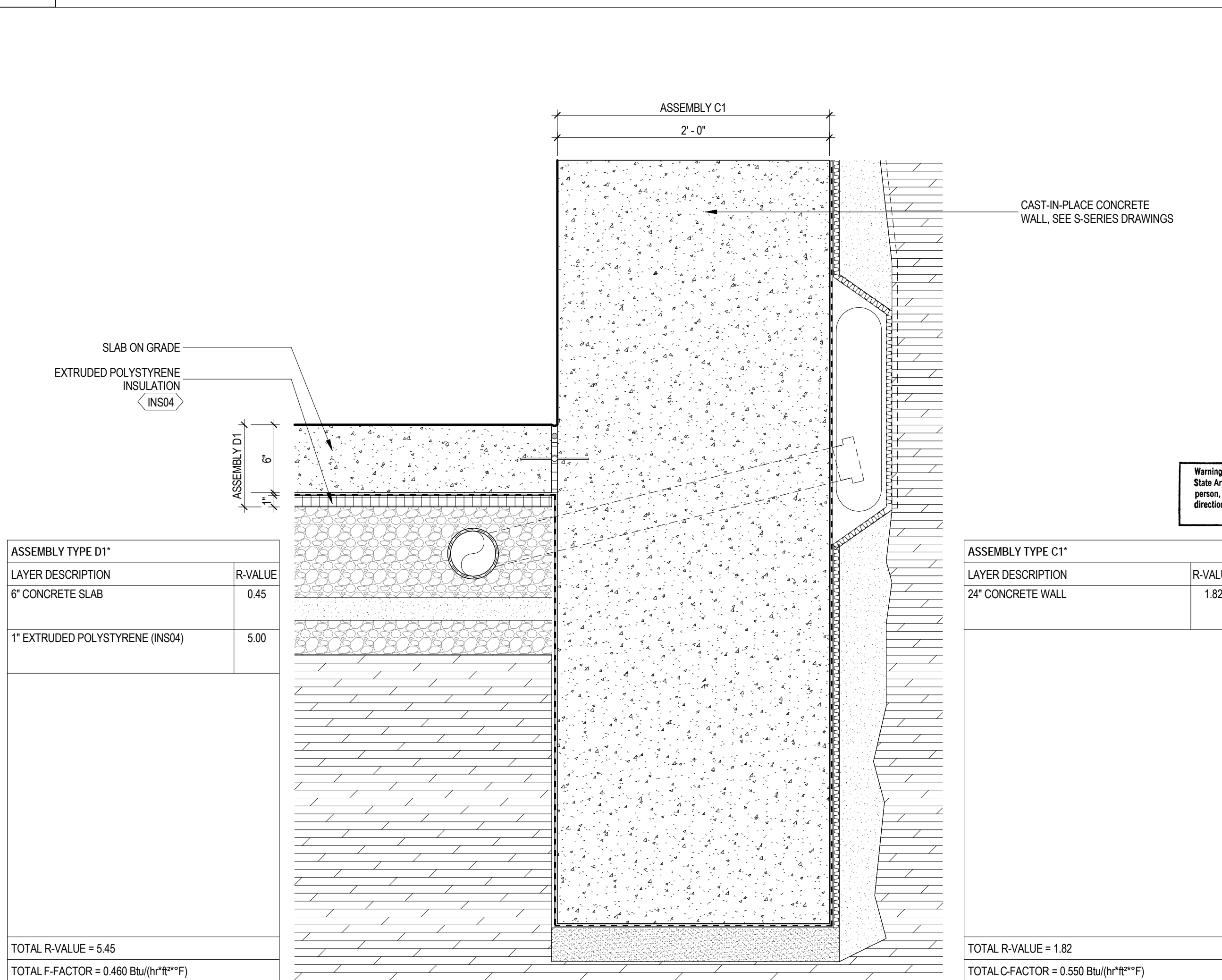


**4 WALL ASSEMBLY AT CONCRETE MASONRY WALL**  
SCALE: 1 1/2" = 1'-0"

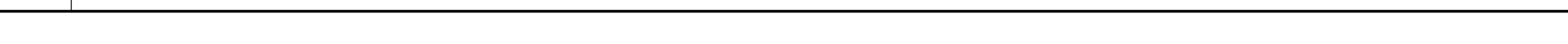
**3 WALL ASSEMBLY AT STOREFRONT**  
SCALE: NTS



**2 ROOF ASSEMBLY AT PLAZA**  
SCALE: NTS



**1 WALL/FLOOR ASSEMBLY AT PERIMETER FOOTING**  
SCALE: 1 1/2" = 1'-0"



**Brookfield**  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering  
**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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**Philip Habb & Associates**  
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MEP Engineering  
**Jaros Baum & Bolles**  
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Vertical Transportation  
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102 East Bluffside Ave, Suite 1, Mill Valley, California 94941

Sustainable Design  
**Viridian Energy & Environmental**  
50 Washington Street, Norwalk, CT 06854

Geotechnical Engineering  
**Mueser Rutledge Consulting Engineers**  
14 Penn Plaza, 225 W. 34th Street, New York, NY 10122

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**Field Operations**  
475 10th Avenue, New York, NY 10018

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250 State Street #F1, North Haven, CT 06473

Blast Consultant  
**Weidinger Associates, Inc.**  
40 Wall Street, New York, NY 10005

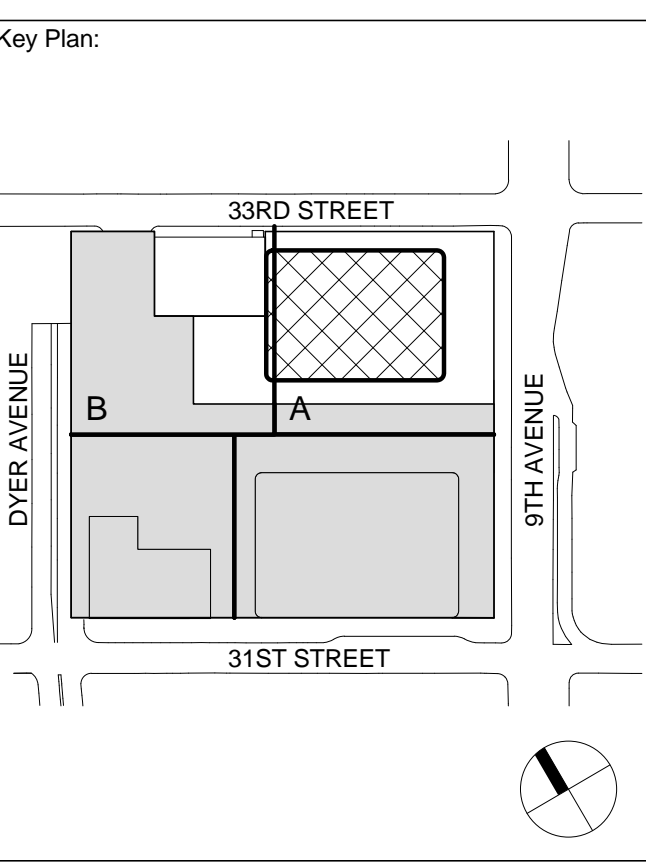
Acoustical Consultant  
**Cerami & Associates**  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant  
**Wilson, Uhrig & Associates, Inc.**  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
**Code Consultants Professional Engineers PC**  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
**Entek Engineering LLC**  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
**Rowan Williams Davies & Irwin Inc.**  
680 Woodlawn Road West, Guelph Ontario, Canada N1K 1B8



No.	Date	Description
3	28 APR 2015	ISSUED FOR ENERGY CODE REVIEW
2	30 JAN 2015	ISSUED FOR BUILDING PERMIT
1	12 SEPT 2014	ISSUED FOR FOUNDATION PERMIT

Project No.: 207150  
Date: 28 APR 2015  
Scale: 1 1/2" = 1'-0"  
File No.: EN-200

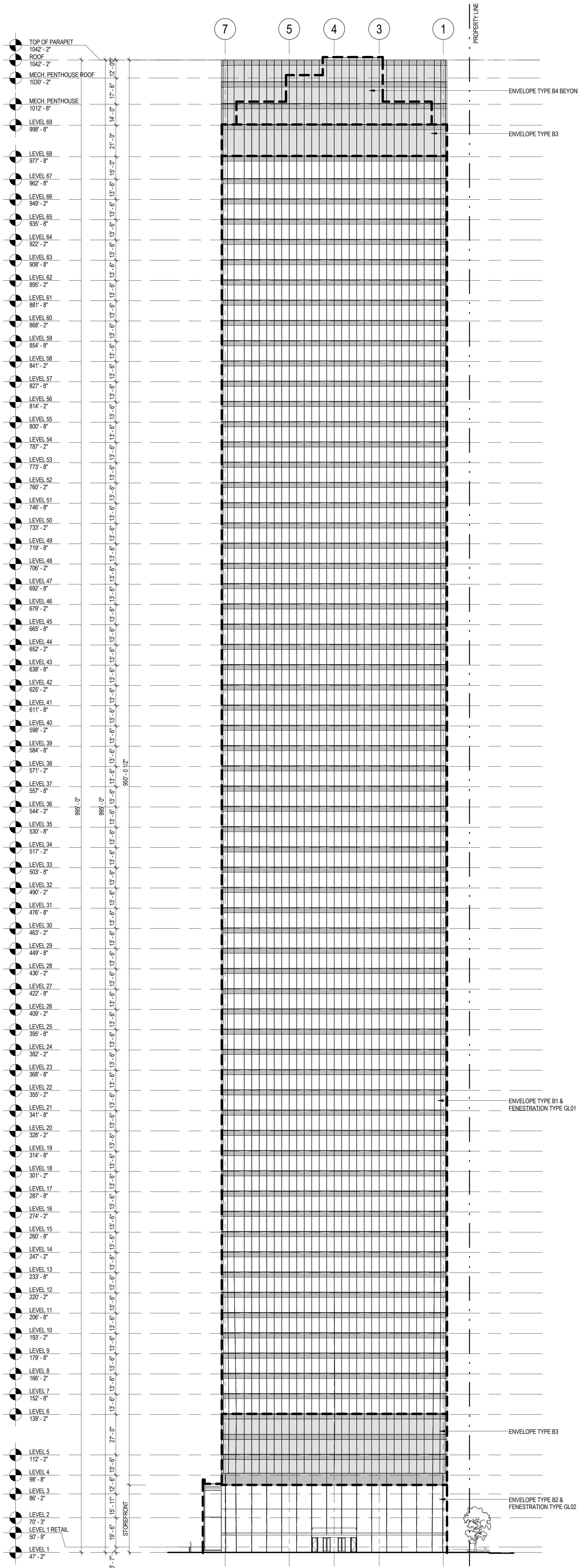
Sheet No.: EN-200.00  
Page No.: 1 OF 30

**ENCLOSURE ASSEMBLIES**



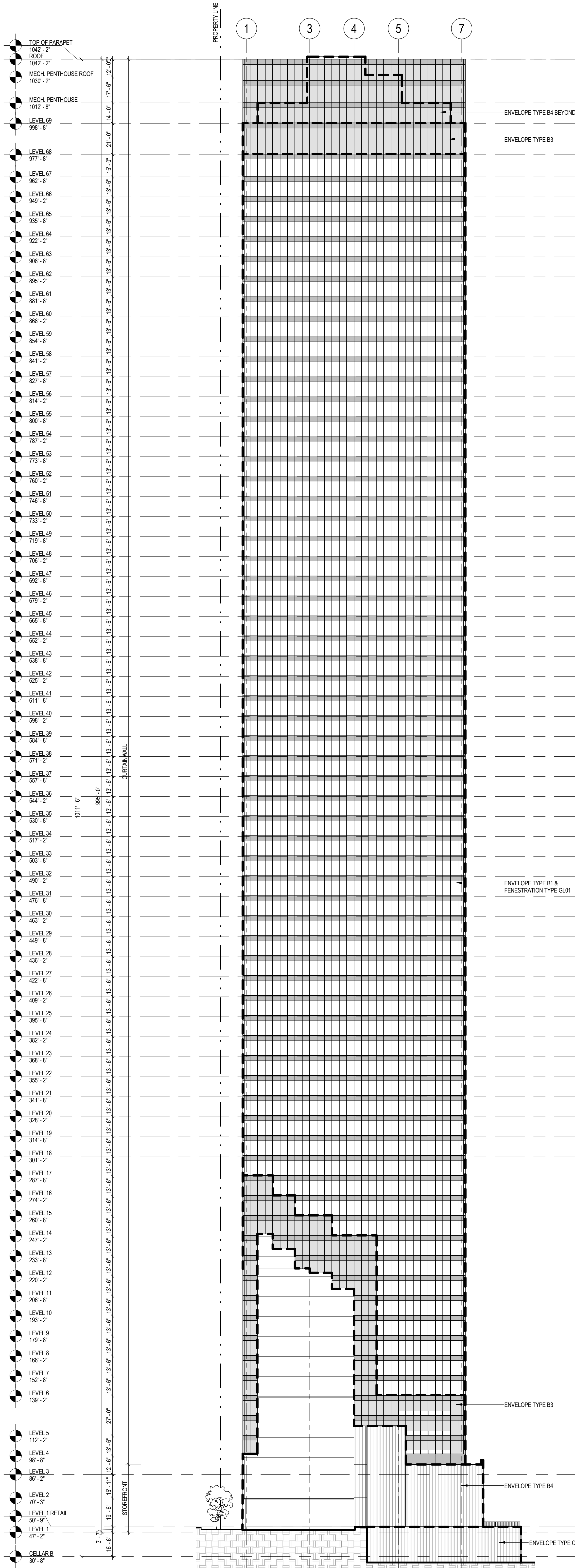
# 1 EAST BUILDING ELEVATION

SCALE: NTS



# 2 WEST BUILDING ELEVATION

SCALE: NTS



NYCECC BUILDING ENVELOPE REQUIREMENTS - OPAQUE ELEMENTS (ECCONYS TABLE 502.1.2)							
CLIMATE ZONE 4, COMMERCIAL BUILDING							
ENVELOPE TYPE	ENVELOPE AREA	MAXIMUM U-FACTOR	PROPOSED U-FACTOR	MAXIMUM C-FACTOR	PROPOSED C-FACTOR	MAXIMUM F-FACTOR	PROPOSED F-FACTOR
A. ROOFS							
A1: INSULATION ENTIRELY ABOVE DECK - PLAZA	76,930 SF	U-0.048	U-0.025	-	-	-	-
A2: INSULATION ENTIRELY ABOVE DECK - TOWER	31,173 SF	U-0.048	U-0.038	-	-	-	-
B. WALLS							
B1: METAL FRAMED - CURTAIN WALL	134,788 SF	U-0.064	U-0.179	-	-	-	-
B2: METAL FRAMED - STOREFRONT	536 SF	U-0.064	U-0.890	-	-	-	-
B3: METAL FRAMED - SHADOW BOX	43,805 SF	U-0.064	U-0.179	-	-	-	-
B4: MASS - CONCRETE MASONRY UNIT	31,371 SF	U-0.104	U-0.128	-	-	-	-
C. BELOW-GRADE WALLS							
C1: MASS - CONCRETE WALL	13,291 SF	-	-	C-1.140	C-0.550	-	-
C2: MASS - CONCRETE MASONRY UNIT	10,474 SF	-	-	C-1.140	C-0.143	-	-
D. SLAB-ON-GRADE FLOORS							
D1: UNHEATED SLABS	55,263 SF	-	-	-	-	F-0.730	F-0.480


NYCECC BUILDING ENVELOPE REQUIREMENTS - FENESTRATION (ECCONYS TABLE 502.3)					
CLIMATE ZONE 4, COMMERCIAL BUILDING					
FENESTRATION TYPE	FENESTRATION AREA	MAXIMUM U-FACTOR	PROPOSED U-FACTOR	MAXIMUM SHGC	PROPOSED SHGC
METAL FRAMING WITH OR WITHOUT THERMAL BREAK					
CURTAIN WALL (GL01) - PF < 0.25	406,958 SF	U-0.500	U-0.450	SHGC-0.400	SHGC-0.280
STOREFRONT (GL02) - PF < 0.25	23,971 SF	U-0.500	U-0.196	SHGC-0.400	SHGC-0.880

## REFERENCE STANDARDS:

2014 NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC)  
2010 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE (ECCONYS)  
ASHRAE STANDARD 90.1-2007

## NOTES:

1. THE SCOPE OF WORK INDICATED IS BASED ON A PERFORMANCE BASED ENERGY ANALYSIS TO CONFIRM COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE.
2. REFER TO SHEET EN-200 FOR BUILDING ASSEMBLY DESCRIPTIONS, DETAILS AND PERFORMANCE CRITERIA.
3. REFER TO PERFORMANCE BASED ENERGY ANALYSIS TITLED "ENERGY MODELING OF THE MANHATTAN WEST NORTH TOWER" FOR OUTPUT REPORTS OF THE ASSEMBLIES ON SHEET EN-200.



**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

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Blast Consultant  
Weidinger Associates, Inc.  
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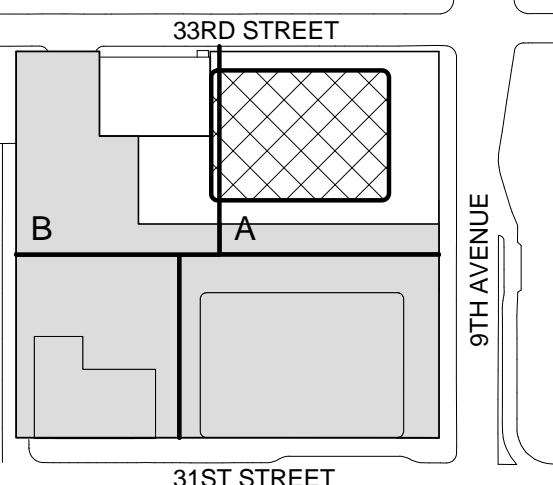
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016


Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

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Code Consultants Professional Engineers PC  
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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph Ontario, Canada N1K 1B6

Key Plan:  


Seal & Signature:  
  
Warning: It is a violation of the New York State Architecture Law, §16-50(b) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

Project No.: 207150  
Date: 30 JAN 2015  
Scale: 1/32" = 1'-0"  
File No.: EN-201

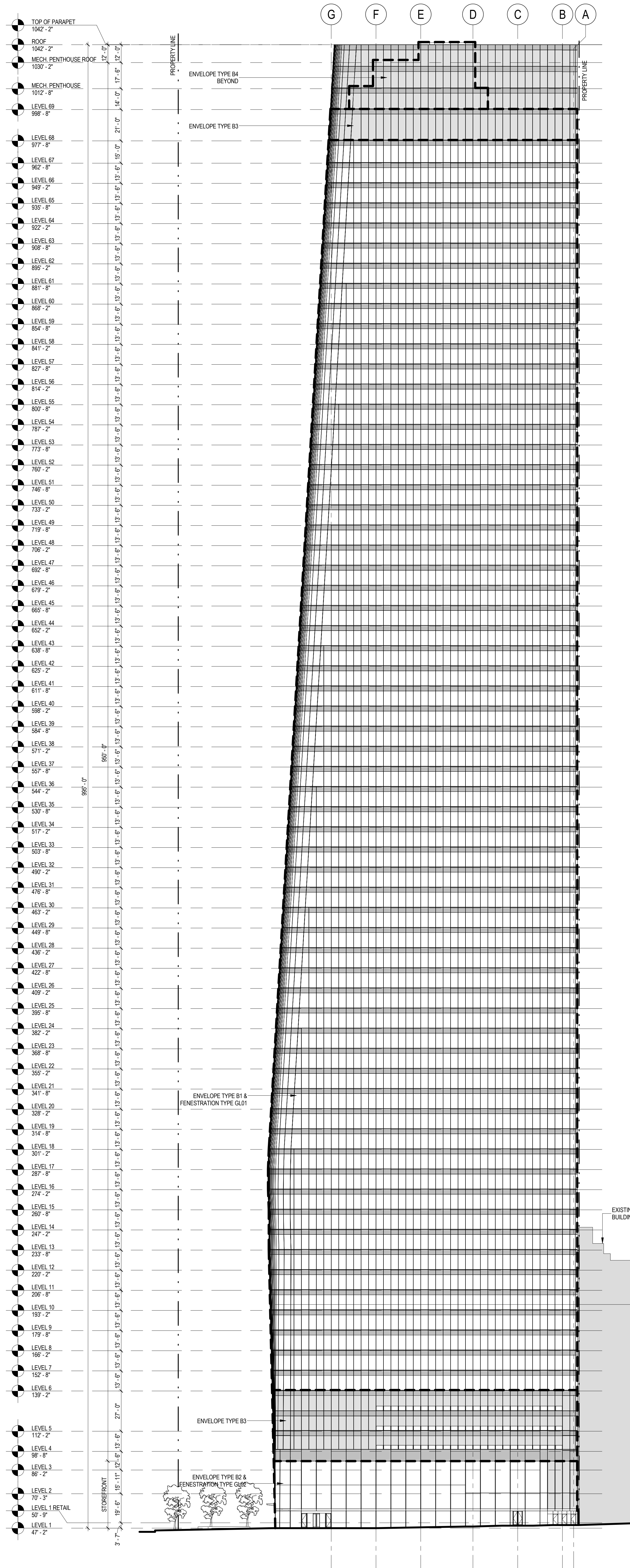
B-SCAN Sheet No.:  
**EN-201.00**  
Sheet No.: EN-201  
Page No.: 30

**BUILDING  
ELEVATIONS -  
FACADE  
PERFORMANCE**



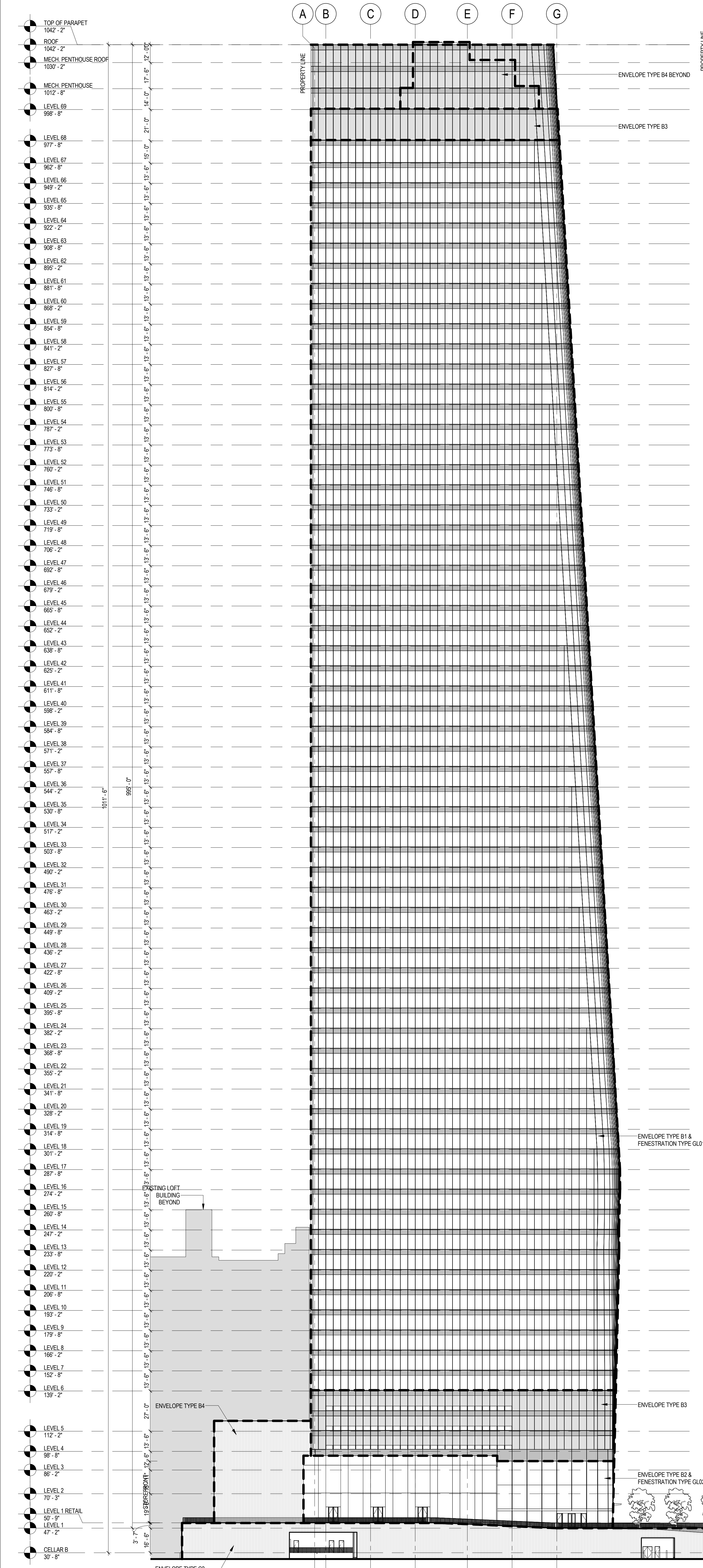
# 1 NORTH BUILDING ELEVATION

SCALE: NTS



# 2 SOUTH BUILDING ELEVATION


SCALE: NTS



NYCECC BUILDING ENVELOPE REQUIREMENTS - OPAQUE ELEMENTS (ECCO/NYS TABLE 502.1.2)							
CLIMATE ZONE 4, COMMERCIAL BUILDING							
ENVELOPE TYPE	ENVELOPE AREA	MAXIMUM U-FACTOR	PROPOSED U-FACTOR	MAXIMUM C-FACTOR	PROPOSED C-FACTOR	MAXIMUM F-FACTOR	PROPOSED F-FACTOR
A. ROOFS							
A1: INSULATION ENTIRELY ABOVE DECK - PLAZA	76,939 SF	U-0.048	U-0.025	-	-	-	-
A2: INSULATION ENTIRELY ABOVE DECK - TOWER	31,173 SF	U-0.048	U-0.026	-	-	-	-
B. WALLS							
B1: METAL FRAMED - CURTAIN WALL	134,788 SF	U-0.064	U-0.179	-	-	-	-
B2: METAL FRAMED - STOREFRONT	536 SF	U-0.064	U-0.890	-	-	-	-
B3: METAL FRAMED - SHADOW BOX	43,895 SF	U-0.064	U-0.179	-	-	-	-
B4: MASS - CONCRETE MASONRY UNIT	31,331 SF	U-0.104	U-0.128	-	-	-	-
C. BELOW-GRADE WALLS							
C1: MASS - CONCRETE WALL	13,291 SF	-	-	C-1.140	C-0.550	-	-
C2: MASS - CONCRETE MASONRY UNIT	10,414 SF	-	-	C-1.140	C-0.143	-	-
D. SLAB-ON-GRADE FLOORS							
D1: UNHEATED SLABS	56,263 SF	-	-	-	-	F-0.730	F-0.480

NYCECC BUILDING ENVELOPE REQUIREMENTS - FENESTRATION (ECCO/NYS TABLE 502.3)					
CLIMATE ZONE 4, COMMERCIAL BUILDING					
FENESTRATION TYPE	FENESTRATION AREA	MAXIMUM U-FACTOR	PROPOSED U-FACTOR	MAXIMUM SHGC	PROPOSED SHGC
METAL FRAMING WITH OR WITHOUT THERMAL BREAK					
CURTAIN WALL (GL01) - PF < 0.25	406,958 SF	U-0.500	U-0.450	SHGC-0.400	SHGC-0.280
STOREFRONT (GL02) - PF < 0.25	23,879 SF	U-0.500	U-1.06	SHGC-0.400	SHGC-0.880

- REFERENCE STANDARDS:
- 2014 NEW YORK CITY ENERGY CONSERVATION CODE (NYCECC)
  - 2010 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE (ECCO/NYS)
  - ASHRAE STANDARD 90.1-2007
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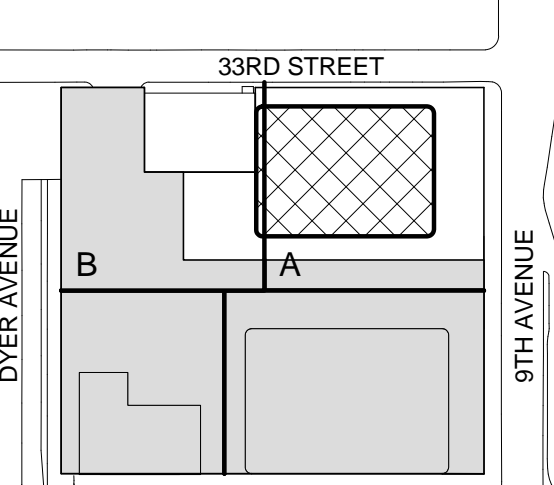
Vibration Consultant  
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215 West 40th Street, 15th Floor, New York, NY 10018


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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:



Seal & Signature:



Warning: It is a violation of the New York State Architecture Law, §9-5(b) for any person, unless they are acting under the direction of a Licensed Architect, to alter this item in any way.

No.	Date	Description
1	30 JAN 2015	ISSUED FOR BUILDING PERMIT

**BUILDING ELEVATIONS - FACADE PERFORMANCE**

Project No.:	6-SCAN Sheet No.:
207150	EN-202.00
Date:	30 JAN 2015
Scale:	1/32" = 1'-0"
File No.:	EN-202
Page No.:	30





## NOTES

1. The quantities given are anticipated and only include materials required for the primary structural system within the footprint of the tower. The quantities above exclude entrance cladding support, miscellaneous mechanical support framing, stairs, window washing framing, elevator framing, cooling tower framing, secondary services framing and framing for exterior canopies. Removable steel work required for temporary building stability or shoring during construction is also excluded. These quantities/exclude additional concrete required for the tower's architectural and structural details and additional reinforcement required for shoring and for slab openings.
2. The above quantities do include progressive collapse based on project security recommendations and direction from Brookfield.
3. The above quantities do not include the structural components outside the footprint of the tower as documented in the structural drawings.
4. The above quantities do not include seismic special detailing or blast requirements, if required.
5. The above quantities do not include rock ledsooms.
6. The above quantities do not include slab on grade.
7. The basing structure has been designed to accommodate the security criteria developed for this project which is more stringent than that currently required by NYC code.

This alternative would base the design on the approach outlined in the NYC code. The following preliminary tonnage savings are expected:

- Structural Steel Columns = 1900 tons (including connection allowances)
- Structural Steel Kicker Columns, Belt Trusses and Outrigger Trusses = 1400 tons (including connection allowances)

# STRUCTURAL SYSTEMS DRAWING AND SHEET LIST

Project No.: 211157	B-SCAN Sheet No.:  <h1>S-001.00</h1>
Date: 20 JUN 2014	
Scale:	
File No.: S-001	Sheet No.: S-001  Page No.: 1 of 90





MANHATTAN WEST:  
NORTH TOWER

375 Ninth Avenue, New York, NY 10001

Client

Brookfield Place  
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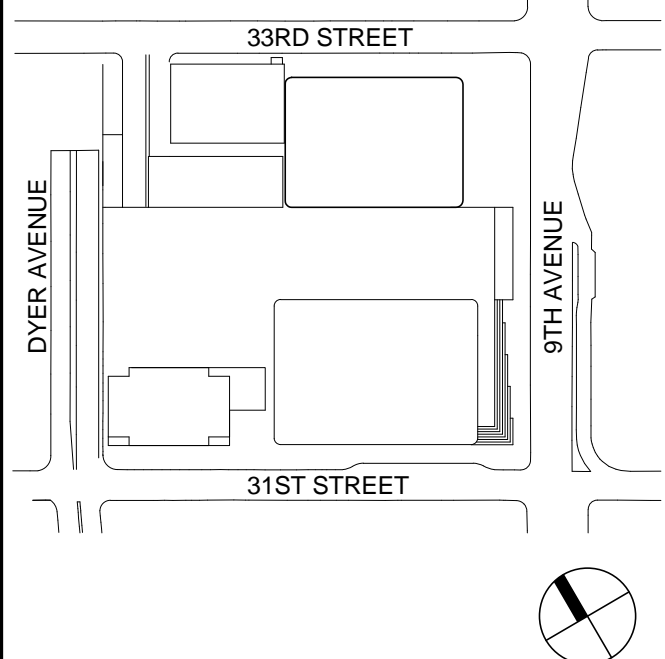
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Ontario, Canada N1K 1B6



Key Plan:



Seal & Signature:

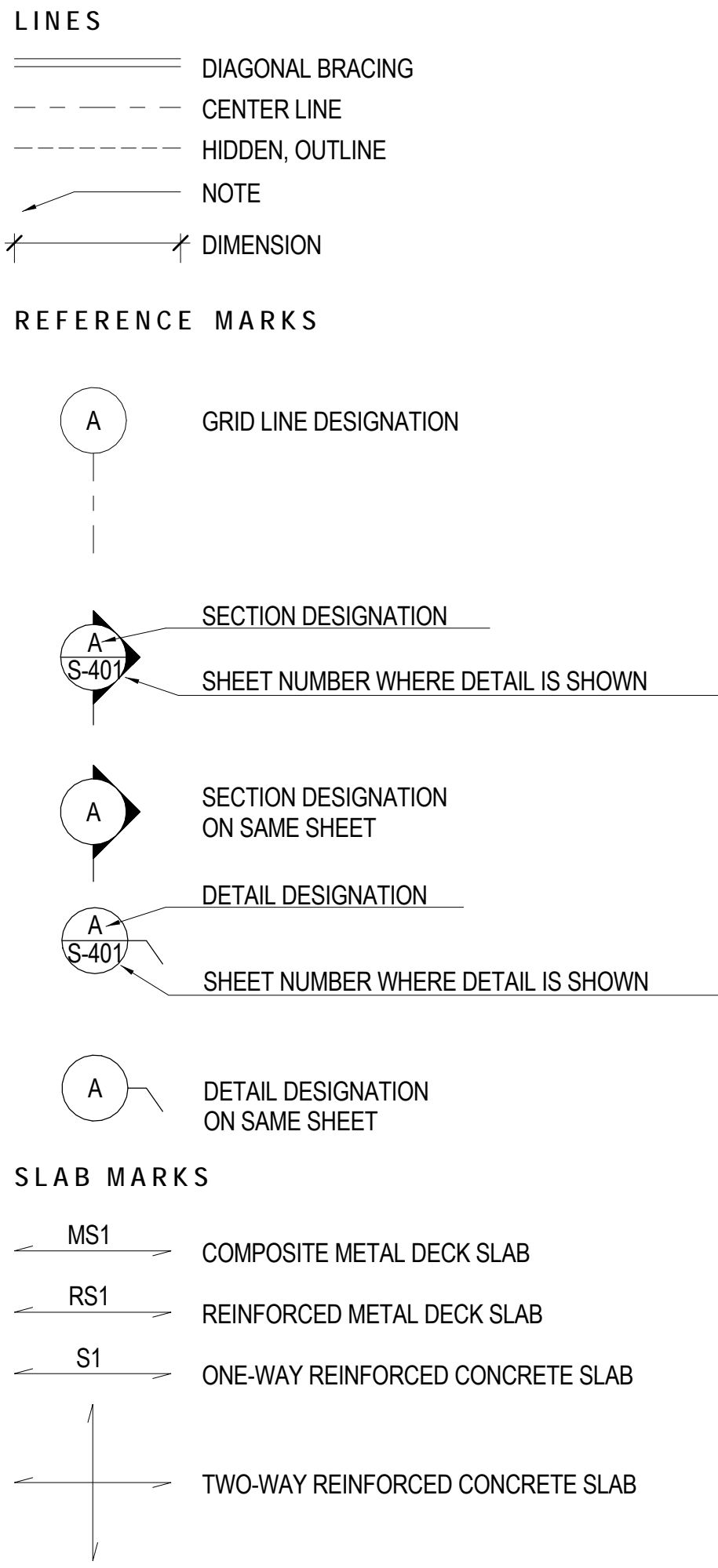
PRELIMINARY  
NOT FOR CONSTRUCTION

6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

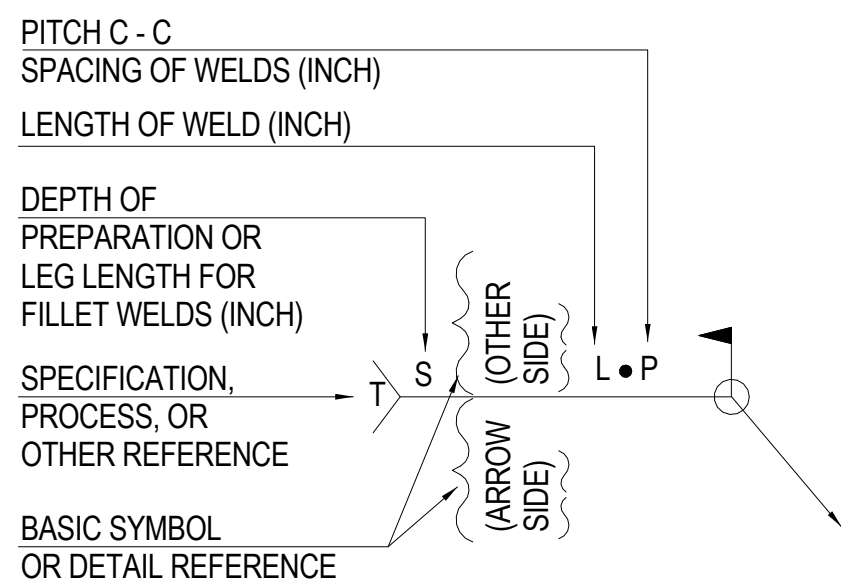
No. Date Description  
Sheet Name:

TYPICAL  
STRUCTURAL  
SYMBOLS AND  
ABBREVIATIONS

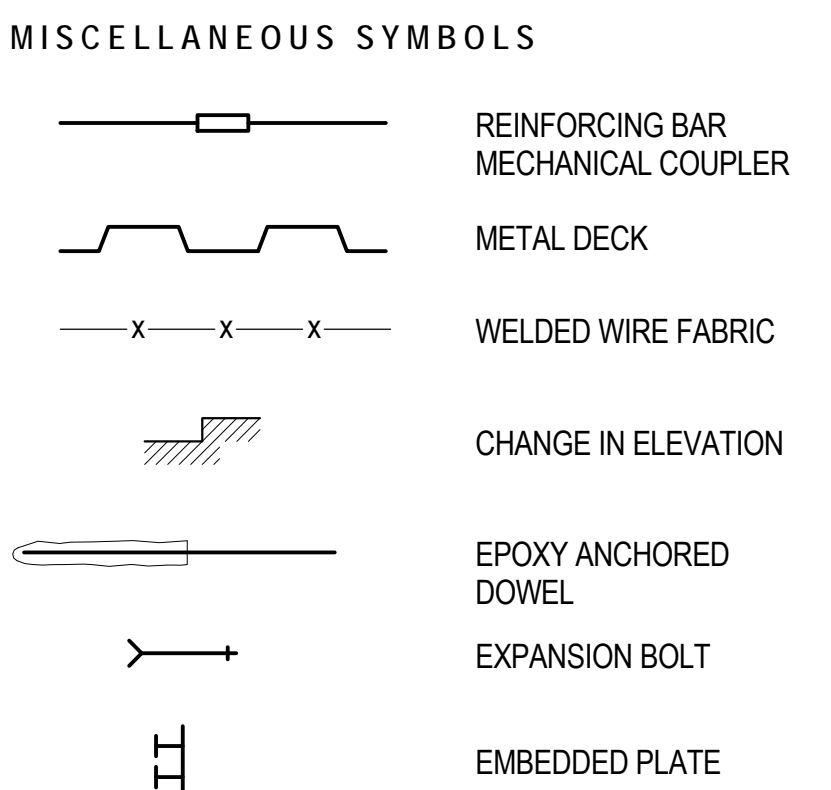
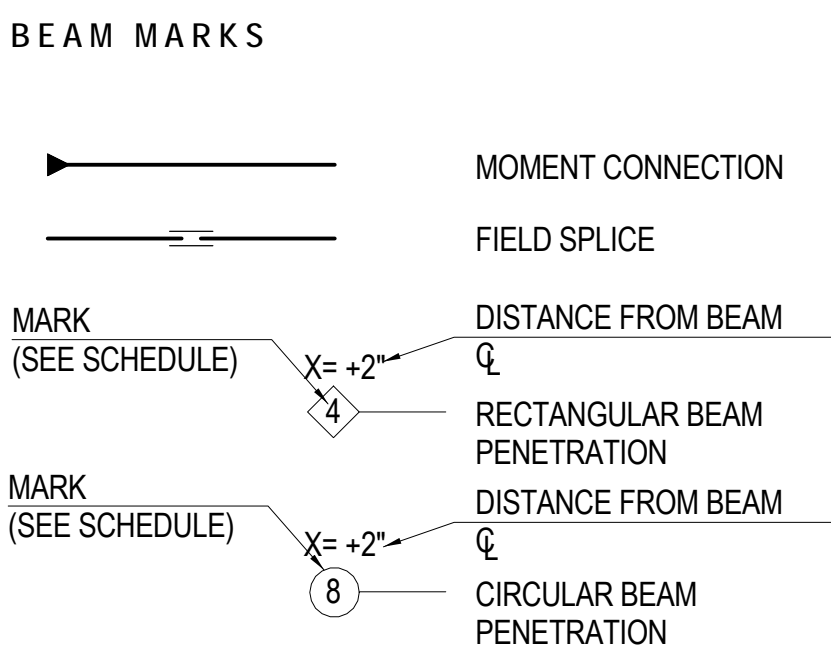
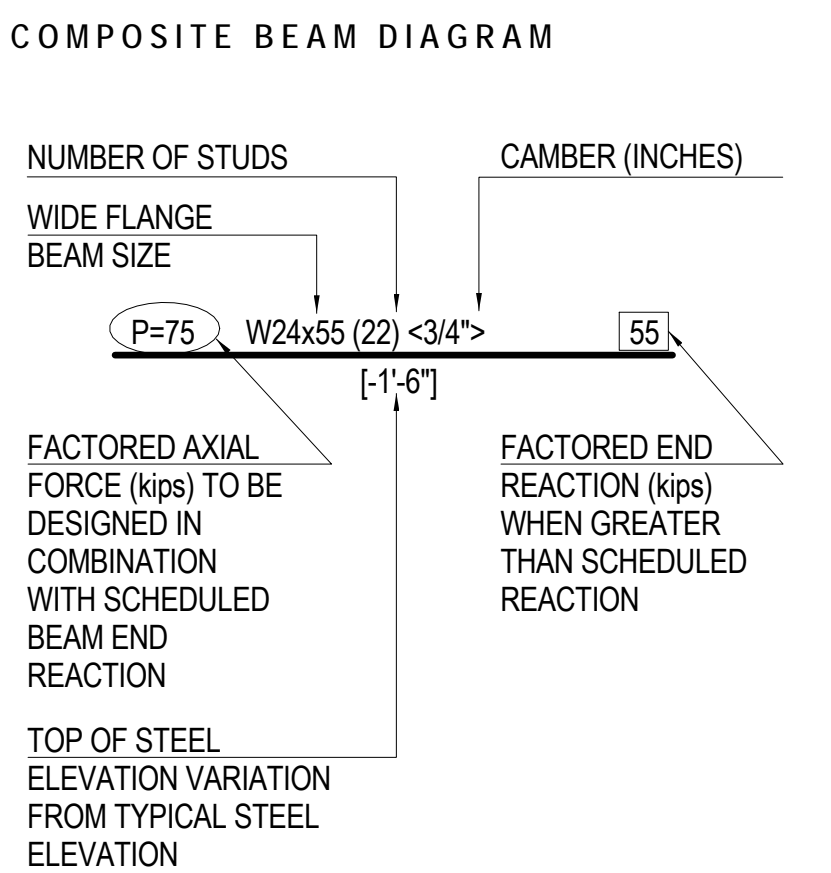
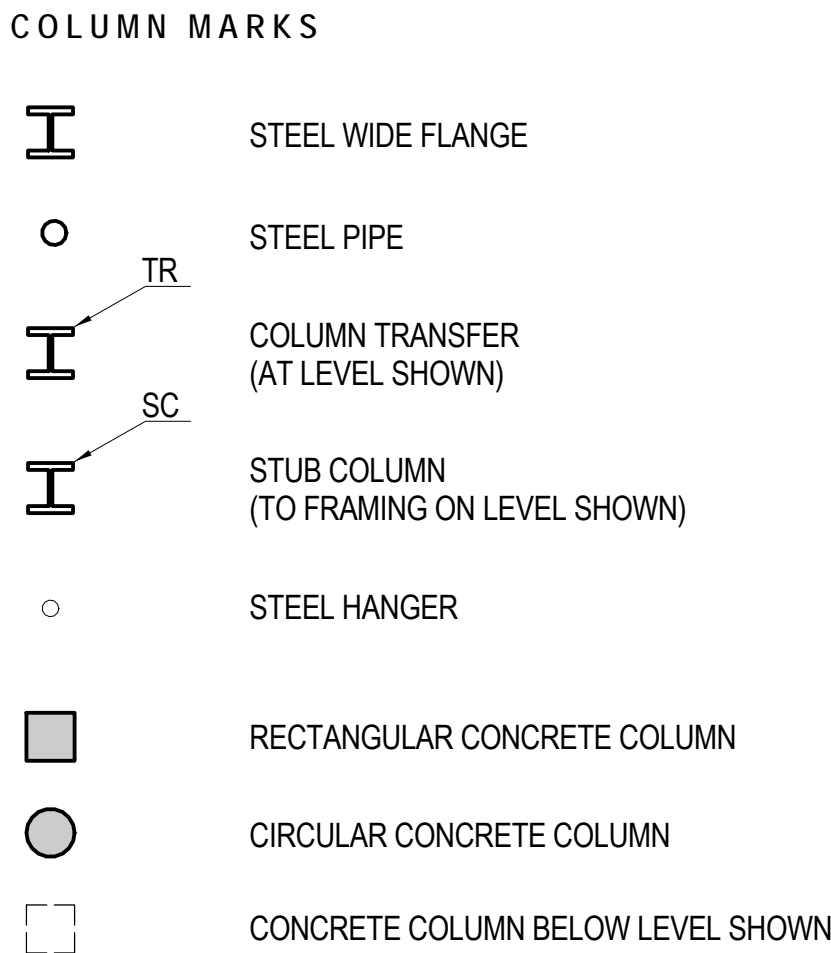
Project No.: 211157	B-SCAN Sheet No.: S-002.00
Date: 20 JUN 2014	Sheet No.: S-002
Scale: 1/2" = 1'-0"	Page No.: 2 of 90
File No.: S-002	



BASIC SYMBOLS					
BACK	FILLET	PLUG SLOT	GROOVE OR BUTT		
SUPPLEMENTARY SYMBOLS					
BACKING	WELD AROUND	FIELD WELD	CONTOUR FLUSH	CONVEX	



PAINT SYSTEM IDENTIFICATION	
II	INTERIOR EXPOSED STRUCTURAL STEEL WITH INTUMESCENT FIREPROOFING
IP	INTERIOR EXPOSED STRUCTURAL STEEL WITHOUT INTUMESCENT FIREPROOFING
EP	EXTERIOR EXPOSED STRUCTURAL STEEL
EC	EPOXY BARRIER COATING SYSTEM



ABBREVIATIONS	
ACI	= AMERICAN CONCRETE INSTITUTE
AESS	= ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AISC	= AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ASIS	= AMERICAN IRON AND STEEL INSTITUTE
APPROX	= APPROXIMATE, APPROXIMATELY
ARCH	= ARCHITECT, ARCHITECTURAL
ASCE	= AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	= AMERICAN SOCIETY OF CIVIL ENGINEERS
AWS	= AMERICAN WELDING SOCIETY
B/	= BOTTOM OF
C-C	= CENTER-TO-CENTER
CONC	= CONCRETE
CONT	= CONTINUOUS
CU	= CUBIC
DEG	= DEGREE
DIA	= DIAMETER
DIAG	= DIAGONAL
EA	= EACH
EW, EF	= EACH WAY, EACH FACE
EOS	= EDGE OF SLAB
E	= ELEVATOR SHAFT
EL	= ELEVATION
EXT	= EXTERIOR
FDN	= FOUNDATION
FTG	= FOOTING
GA	= GAUGE, GAGE
GALV	= GALVANIZED
HORIZ	= HORIZONTAL
HP	= HIGH POINT
HSS	= HOLLOW STRUCTURAL SHAPE
IBC	= INTERNATIONAL BUILDING CODE
INT	= INTERIOR
KIPS	= THOUSANDS OF POUNDS
KLF	= KIPS PER LINEAL FOOT
KSF	= KIPS PER SQUARE FOOT
KSI	= KIPS PER SQUARE INCH
LB(S)	= POUND(S)
LOC	= LOCATION
LLV	= LONG LEG VERTICAL
LLH	= LONG LEG HORIZONTAL
LWT	= LIGHTWEIGHT
M	= MECHANICAL SHAFT
MAX	= MAXIMUM
MEZZ	= MEZZANINE
MIN	= MINIMUM
MISC	= MISCELLANEOUS
NTS	= NOT TO SCALE
NWT	= NORMAL WEIGHT
O.C.	= ON CENTER
OPP.	= OPPOSITE
PERP	= PERPENDICULAR
PL	= PLATE
PLF	= POUNDS PER LINEAL FOOT
PSF	= POUNDS PER SQUARE FOOT
PSI	= POUNDS PER SQUARE INCH
REQ'D	= REQUIRED
REV	= REVISION, REVISED
S	= STAIR OPENING
S.C.	= SLIP-CRITICAL
SCHED	= SCHEDULE
SECT	= SECTION
SHT	= SHEET
SIM	= SIMILAR
SPEC	= SPECIFICATION
S.S.	= STAINLESS STEEL
STRUC	= STRUCTURE, STRUCTURAL
T/	= TOP OF
TYP.	= TYPICAL
U.N.O.	= UNLESS NOTED OTHERWISE
V.I.F.	= VERIFY IN FIELD
W/	= WITH
W/O	= WITHOUT
W.P.	= WORK POINT
W.W.F.	= WELDED WIRE FABRIC



GENERAL EXCAVATION NOTES

1. THE GENERAL EXCAVATION PROGRAM, INCLUDING METHODS, SEQUENCES, PROTECTION OF EXCAVATION SURFACES, ETC., SHALL BE THE COMPLETE AND SOLE RESPONSIBILITY OF THE CONTRACTOR. SOIL RETENTION SYSTEMS WILL BE REQUIRED IN ALL THE NON-ROCK EXCAVATION ZONES, ESPECIALLY ADJACENT TO ROADWAYS AND RAILROAD TRACKS. EXCAVATION-RETENTION SYSTEM DESIGN, INSTALLATION, MAINTENANCE, AND REMOVAL SHALL ALSO BE THE COMPLETE AND SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE AND MINIMIZE SETTLEMENT OF EXISTING OR NEW CONSTRUCTION INSIDE OR OUTSIDE THE PROJECT LIMITS. ANY DAMAGE TO NEW OR EXISTING CONSTRUCTION, INSIDE OR OUTSIDE OF THE PROJECT LIMITS, CAUSED BY EXCAVATION TECHNIQUES OR MOVEMENTS OF THE ANY SOIL RETENTION SYSTEM IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. WHEN EXCAVATION IS NEAR THE TRACKS, RAILROAD PROTECTION IS REQUIRED. WHEN EXCAVATION IS NEAR THE TRACKS, SUPPORT OF THE TRACKS IS REQUIRED.
2. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK ACCEPTABLE TO THE ENGINEER-OF-RECORD TO DESIGN AND INSPECT THE ROCK EXCAVATION PROGRAM AND ANY EXCAVATION-RETENTION SYSTEM COMPONENTS, INCLUDING ALL MEASURES REQUIRED TO SUPPORT, EITHER PERMANENTLY OR TEMPORARILY, ADJACENT FOUNDATIONS, BUILDINGS, RAILROAD TRACKS, STREETS, PROPERTIES, SIDEWALKS, AND UTILITIES. THESE MEASURES INCLUDE UNDERPINNING, ROCK BOLTING, SHOTCRETING, TIEBACKS, SHEETING, AND SHORING.
3. THE ROCK EXCAVATION PROGRAM AND ANY EXCAVATION-RETENTION SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE GEOTECHNICAL DESIGN PARAMETERS AND SOIL PRESSURES AS INDICATED IN THE GEOTECHNICAL EXPLORATION REPORT. REFER TO NOTE #19 BELOW.
4. SLOT OR LINE DRILL AS REQUIRED.
5. PLUG ALL SLEEPS & LENSES IN ROCK WITH GROUT AS REQUIRED.
6. BLASTING OPERATIONS SHALL COMPLY WITH ALL LOCAL & STATE LAWS, RULES AND REGULATIONS. ALL BLASTING OPERATIONS SHALL COMPLY WITH AMTRAK BLASTING SPECIFICATIONS.
7. BLASTING OPERATIONS SHALL COMPLY WITH THE RECOMMENDATIONS OF THE OWNERS BLAST CONSULTANT, ESPECIALLY WITH REGARD TO COORDINATING TIMING AND EFFECTS OF BLASTING WITH EXISTING RAILROAD OPERATIONS. ALL BLASTING OPERATIONS SHALL COMPLY WITH AMTRAK BLASTING SPECIFICATIONS.
8. AFTER CONCRETE HAS BEEN PLACED, BLASTING SHALL NOT OCCUR WITHIN A 50-FOOT RADIUS UNLESS WRITTEN PERMISSION IS OBTAINED FROM THE ENGINEER-OF-RECORD. ALL BLASTING OPERATIONS SHALL COMPLY WITH AMTRAK BLASTING SPECIFICATIONS.
9. THE CONTRACTOR SHALL COORDINATE ALL GENERAL EXCAVATION WORK AND ALL ELEMENTS OF ANY SOIL RETENTION SYSTEMS WITH ALL ELEMENTS OF THE PERMANENT BUILDINGS.
10. PRIOR TO ANY GENERAL EXCAVATION OR INSTALLATION OF ELEMENTS OF ANY SOIL RETENTION SYSTEM, THE CONTRACTOR SHALL ESTABLISH A GRID OF SURVEY POINTS AROUND THE PERIMETER OF THE AREA TO BE EXCAVATED, INCLUDING POINTS UP TO 200 FEET BEYOND THE PERIMETER AND POINTS ON ADJACENT EXISTING STRUCTURES TO REMAIN. THESE POINTS SHALL BE SURVEYED FOR VERTICAL AND HORIZONTAL MOVEMENT AT FREQUENT INTERVALS DURING ACTUAL EXCAVATION, AND CONTINUED DURING EACH SUBSEQUENT PHASE OF THE WORK, AND SUBMITTED TO THE ARCHITECT FOR INFORMATION. MONITORING POINTS WILL ALSO BE REQUIRED ON ALL RAILROAD TRACKS THAT HAVE ANY EXCAVATION OR DEWATERING ADJACENT TO THEM. A DETAILED MONITORING PROGRAM SHALL BE PREPARED AND SUBMITTED TO THE RAILROADS AS WELL AS THE RESULTS OF THE MONITORING PROGRAM.
11. EXCAVATION WORK SHALL BE BASED UPON ENGINEERED DRAWINGS PREPARED BY THE CONTRACTOR INCLUDING PLANS AND SECTIONS OF EXCAVATION SEQUENCES. THE EXCAVATION SEQUENCES SHALL BE CONTROLLED TO MATCH THE REQUIREMENTS OF ALL NEW AND EXISTING CONSTRUCTION WORK.
12. THE GENERAL EXCAVATION ACROSS THE SITE SHALL NOT EXTEND DEEPER THAN THE SLAB-ON-GRADE GRANULAR FILL SUBGRADE ELEVATION. THE DEEPER EXCAVATIONS FOR GRADE BEAMS, SPREAD FOOTINGS, PITS, ETC., SHALL BE EXCAVATED ON AN INDIVIDUAL, LOCALIZED BASIS DOWN FROM THE SLAB-ON-GRADE SUBGRADE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ANY STRUCTURAL COMPONENTS WHICH ARE TO RESIST TEMPORARY LOADS AS PART OF THE CONTRACTOR'S EXCAVATION/RETENTION PROGRAM.
14. EXCAVATION BELOW THE SLAB LEVEL REQUIRED FOR PITS SHALL BE RETAINED BY LOCALIZED EXCAVATION/RETENTION SYSTEMS, AS MAY BE NECESSARY, BASED ON THE CONTRACTOR'S DESIGN USING APPROPRIATE EARTH/ROCK AND HYDRAULIC PRESSURES AS INDICATED IN THE GEOTECHNICAL EXPLORATION REPORT, AND OTHER CONSTRUCTION LOADING.
15. THE CONTRACTOR SHALL PROVIDE POSITIVE PROTECTION (MAT/SHEET COVERINGS), FOR ALL EXCAVATION FACES, TO PROTECT FACES FROM INSTABILITY AND DETERIORATION DUE TO RAIN, WIND OR SNOW/ICE.
16. THE CONTRACTOR SHALL PROVIDE SURFACE DRAINAGE CHANNELS AND SUMPS AND SUMP PUMPS TO PROTECT ALL EXCAVATIONS FROM FLOODING. FLOODING OF ANY EXCAVATION AFTER APPROVAL OF ANY SUBGRADE WILL BE CAUSE FOR THE COMPLETE REPREPARATION AND APPROVAL OF THE SUBGRADE, INCLUDING REMOVAL OF CONCRETE MUD SLABS, IF ANY EXIST, NO DISCHARGE OF ANY DEWATERING OPERATION IS TO BE MADE ONTO AMTRAK PROPERTY. IF THE CONTRACTOR DISCHARGES ANY WATER INTO EXISTING STORMWATER FACILITIES ON AMTRAK, THEN THE CONTRACTOR IS TO PROVIDE PROOF THAT THE SYSTEM CAN HANDLE THE FLOWS. UPON THE COMPLETION OF THE DEWATERING, THE CONTRACTOR IS TO CLEAN PIPES OF ALL DEBRIS THAT HAS ACCUMULATED AS A RESULT OF THE DEWATERING OPERATION.
17. AFTER COMPLETION OF EACH EXCAVATION PHASE, IN EACH AREA, THE SITE SHALL BE DEWATERED, AS REQUIRED, BEFORE (OR AS) THE EXCAVATION PROCEEDS. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION AND EQUIPMENT FOR THE DEWATERING SYSTEM INCLUDING, BUT NOT LIMITED TO, TRENCHES, SUMPS, DEWATERING WELLS, WELL POINTS, OBSERVATION WELLS, PUMPING SYSTEM, DISPOSAL LOCATION, SETTLING BASINS, MAINTENANCE AND EMERGENCY BACK-UP EQUIPMENT, ETC. AT ALL TIMES, THE DEWATERING SYSTEM SHALL MAINTAIN THE WATER LEVEL A MINIMUM OF 3 FEET BELOW THE DEEPEST FOUNDATION SUBGRADE. THE DEWATERING SYSTEM SHALL BE MAINTAINED UNTIL ALL LOWER LEVEL AND GROUND FLOOR SLABS, PERIMETER WALLS AND WATERPROOFING ARE INSTALLED AND THE PERMANENT BUILDING DRAINAGE SYSTEM IS FULLY OPERATIONAL.
18. THE OWNERS SOIL TESTING AGENCY SHALL REVIEW AND CONTINUOUSLY MONITOR THE EXCAVATION, DEWATERING AND SOIL RETENTION SYSTEMS. THE CONTRACTOR SHALL INSTALL AND CONTINUOUSLY SURVEY: (A) VERTICAL AND HORIZONTAL MOVEMENTS OF THE TOP OF THE SOIL RETENTION SYSTEM; (B) BENCH MARKS ADJACENT TO AND AWAY FROM THE SITE PERIMETER FOR VERTICAL AND HORIZONTAL MOVEMENTS; (C) INCLINOMETERS INSTALLED ALONG THE PERIMETER OF THE EXCAVATION, PRIOR TO THE START OF EXCAVATION; AND (D) OBSERVATION WELLS FOR MONITORING WATER LEVELS BELOW GROUND SURFACE. REFER TO FINAL SOIL CONSULTANTS REPORT FOR MONITORING REQUIREMENTS.
19. ALL WORK IS SUBJECT TO CONTROLLED INSPECTION AS REQUIRED BY THE NEW YORK CITY BUILDING CODE.
20. A GEOTECHNICAL EXPLORATION REPORT, INCLUDING SOIL AND ROCK BORING DATA, HAS BEEN PREPARED BY MUESER RUTLEDGE CONSULTING ENGINEERS, 14 PENN PLAZA, 225 WEST 34TH STREET, NEW YORK, NY 10122.
21. FOR ADDITIONAL REQUIREMENTS, SEE SPECIFICATIONS.

312300	EXCAVATION & FILL
312316.26	ROCK EXCAVATION
312319	CONSTRUCTION DEWATERING
312313	ROCK GROUTING
315100	EXCAVATION SUPPORT AND PROTECTION
316813	ROCK FOUNDATION ANCHORS
334619	UNDERSLAB DRAINAGE PIPING
071000	FOUNDATION WATERPROOFING

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ANY STRUCTURAL COMPONENTS WHICH ARE TO RESIST TEMPORARY LOADS AS PART OF THE CONTRACTOR'S EXCAVATION/RETENTION PROGRAM.

GENERAL FOUNDATION NOTES

1. FOUNDATION DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW YORK CITY BUILDING CODE LATEST EDITION, EXCEPT AS VARIANCES ARE OBTAINED.
2. THE GEOTECHNICAL REPORT BY MRCE CONTAINING BORING AND TEXT PIT INFORMATION IS PROVIDED FOR INFORMATION.
3. THE FOUNDATION OF THE BUILDING CONSISTS OF:
  - LARGE "MEGA COLUMN" FOUNDATION WALL
  - SPREAD FOOTINGS
  - STRIP FOOTINGS
4. FOOTINGS AND GRADE BEAMS SHALL BE FOUNDED UPON UNDISTURBED, NATURAL ROCK SUBGRADE WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 20 TSF TO 60 TSF AS INDICATED ON THE DRAWINGS. THE BOTTOM OF THE FOOTING ELEVATIONS AND ROCK BEARING CAPACITIES AS SHOWN ON THE DRAWINGS ARE ESTIMATED FROM THE ROCK BORING DATA. FINAL EXACT BEARING ELEVATIONS SHALL BE FIELD DETERMINED AND ROCK BEARING CAPACITIES VERIFIED BY THE OWNERS SOIL TESTING LABORATORY DURING CONSTRUCTION.
5. THE ROCK SUBGRADE FOR ALL FOOTINGS, GRADE BEAMS, AND SLABS SHALL BE INSPECTED AND APPROVED BY THE OWNERS TESTING AGENCY IMMEDIATELY PRIOR TO PLACING FOUNDATION CONCRETE OR CONCRETE MUD SLABS.
6. ALL ORGANIC AND/OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM FOUNDATION AND SLAB SUBGRADES AND BACKFILL AREAS, AND THEN BACKFILLED WITH LEAN CONCRETE ( $f_c=2000$  psi).
7. PROVIDE TEMPORARY BRACING FOR ALL BASEMENT WALLS, IN ACCORDANCE WITH THE GEOTECHNICAL DESIGN PARAMETERS AND SOIL PRESSURES AS INDICATED IN THE GEOTECHNICAL EXPLORATION REPORT. UNTIL THE GROUND FLOOR AND LOWER LEVEL SLABS HAVE BEEN PLACED, AND THE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH.
8. NO MUD SLABS, FOOTINGS OR STRUCTURAL SLABS SHALL BE PLACED INTO OR AGAINST SUBGRADES CONTAINING FREE WATER, FROST OR ICE. SHOULD WATER OR FROST ENTER A FOOTING/MUD SUBSTRUCTURAL SLAB EXCAVATION AFTER SUBGRADE APPROVAL, THE SUBGRADE SHALL BE REINSPECTED BY THE OWNERS SOIL TESTING AGENCY AFTER REMOVAL OF WATER, FROST, OR ICE.
9. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY WATER, FROST, OR ICE FROM PENETRATING ANY FOOTING OR STRUCTURAL MUD SLAB SUBGRADE BEFORE AND AFTER PLACING OF CONCRETE, AND UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE.
10. ALL SLAB AND FOOTING MUD SLABS SHALL BE THOROUGHLY CLEANED IMMEDIATELY PRIOR TO CONCRETE PLACEMENT.
11. THE CONCRETE FOR EACH ISOLATED OR COMBINED FOOTING SHALL BE PLACED IN ONE (1) CONTINUOUS POUR.
12. SLABS-ON-GRADE SHALL BE PLACED OVER A CONTINUOUS VAPOR BARRIER OVER A MINIMUM OF 8" COMPACTED GRANULAR MATERIAL.
13. SEE PLUMBING AND CIVIL DRAWINGS FOR UNDERFLOOR AND PERIMETER WALL DRAINAGE SYSTEMS, AND SPECIAL GRANULAR FILL MATERIALS FOR SUCH DRAINAGE SYSTEMS.
14. SEE ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING AND DAMP PROOFING DETAILS.
15. ELEVATIONS ON THE FOUNDATION PLANS ARE GIVEN RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88). FOR REFERENCE, 0.0' NAV88 = 301.675 PENN RAIL ROAD TUNNELS DATUM.

GEOTECHNICAL ASSUMPTIONS:

1. ALL FOUNDATION DESIGNS ARE BASED ON RECOMMENDATIONS PROVIDED BY MRCE PRIOR TO THE FINAL GEOTECHNICAL REPORT AND ON THE FINAL GEOTECHNICAL REPORT TITLED "FOUNDATION DESIGN RECOMMENDATIONS, 9TH AVENUE DEVELOPMENT, NEW YORK, NEW YORK" DATED JUNE 10,2009, EXCEPT AS NOTED IN ITEM 3 BELOW.
2. THE TOP 1'-0" OF ROCK BELOW BALLAST IS ASSUMED TO BE TOO FRACTURED TO PROVIDE RESISTANCE TO LOAD.
3. ALLOWABLE ROCK BEARING CAPACITY AT TRACK LEVEL HAS BEEN ASSUMED TO BE 60 TSF. THIS IS TO BE VERIFIED BY ADDITIONAL BORINGS BY MRCE.
4. ALLOWABLE ROCK BEARING CAPACITY NEAR LEVEL B1 HAS BEEN ASSUMED TO BE 40 TSF.
5. AN ALLOWABLE ROCK BEARING CAPACITY INCREASE OF 10% PER FOOT OF EMBEDMENT INTO ROCK (BEYOND THE FIRST FOOT) UP TO A 100% INCREASE HAS BEEN ASSUMED IN MOST CASES REGARDLESS OF THE ELEVATION OF THE ROCK.
6. FOR TENSION RESISTANCE, UNIT WEIGHT OF BUOYANT ROCK ASSUMED TO BE 100 pcf.
7. LATERAL LOADS APPLIED TO THE TOPS OF FOOTINGS BY THE STRUCTURE ARE ASSUMED TO BE TRANSFERRED TO THE ROCK ENTIRELY THROUGH FRICTION ON THE SIDE AND BOTTOM OF THE FOOTING AND PASSIVE PRESSURE RESISTANCE OF THE ROCK AGAINST THE FOOTING.
8. TENSION CAPACITY BASED ON A FAILURE CONE OF 45° FROM THE BOTTOM OF THE CAISSON SHAFT.
9. FRICTIONLESS CAISSON SHAFT ELEVATIONS INDICATED ON THE DRAWINGS HAVE BEEN BASED UPON THE FOLLOWING:
  - THE ASSUMPTION PROVIDED BY MRCE THAT NO ADDITIONAL SURCHARGE LOAD MAY BE APPLIED TO THE EXISTING ROCK BOLTED RETAINING WALLS.
  - THE ASSUMPTION PROVIDED BY MRCE OF A 1:2 INFLUENCE LINE EXTENDING FROM THE INTERFACE OF THE WALL AND THE ROCK AT THE BOTTOM OF THE EXISTING RETAINING WALL.
  - ASSUMED LOCATION OF THE EXISTING RETAINING WALL BASED UPON SURVEY DATA PROVIDED BY MEDINA.
10. ADDITIONAL ROCK BOLTS INTO THE EXISTING RETAINING WALL ARE ASSUMED TO BE ADDED AS REQUIRED.
11. THE TOP OF FOOTING ELEVATION ARE GENERALLY ASSUMED TO MATCH THE TOP OF SOUND ROCK ELEVATION.
12. TIFOUNDATION ELEVATIONS INDICATED ON THE DRAWINGS HAVE BEEN BASED UPON THE FOLLOWING INFORMATION:
  - TRAIL PROFILE AND OFFSET FROM TRAIL TO T/ROCK SHOWN ON "TERMINAL STATION WEST, TYPICAL SECTIONS, CONTRACT DRAWING NO. 2112B" DATED FEBRUARY 1906 WITH REVISIONS ON SEPT. 20, 1907 AND NOV. 15, 1909 FOR THE PENNSYLVANIA, NEW YORK AND LONG ISLAND RAILROAD COMPANY.
  - FOUNDATION AND DRAINAGE CONFLICT ANALYSIS PERFORMED BY TURNER AND EVALUATED BY PARSONS BRINCKERHOFF RECEIVED BY SOM ON 24 APRIL, 2008.
  - T/SOUND ROCK ELEVATIONS PROVIDED BY MRCE IN THE FINAL GEOTECHNICAL REPORT.



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Client

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MEP Engineering

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Vertical Transportation

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Sustainable Design

Viridian Energy & Environmental  
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Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
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Landscape Consultant

Field Operations  
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Security Consultant

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Blast Consultant

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Code Consultant

Code Consultants Professional Engineers PC  
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Facade Maintenance Consultant

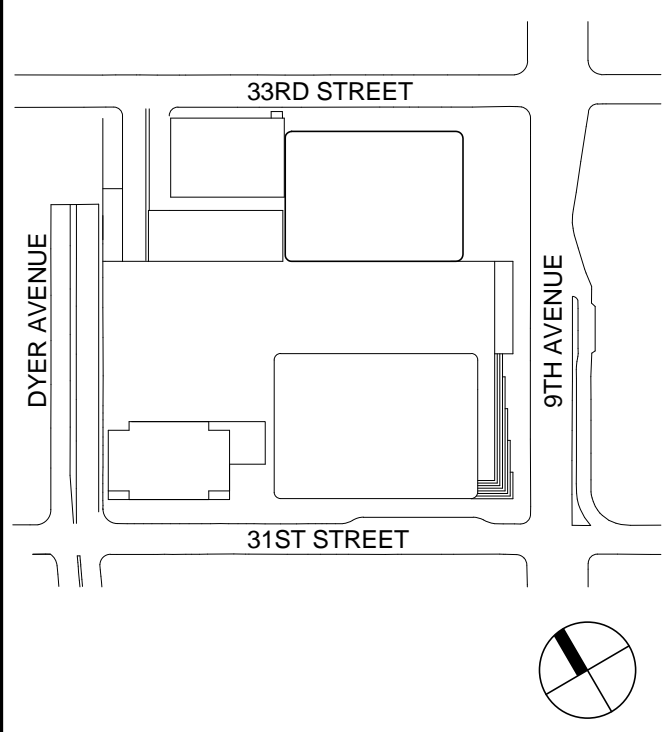
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:



Seal & Signature

PRELIMINARY  
NOT FOR CONSTRUCTION

6	20 JUN 2014	ISSUED FOR FOUNDATION BD
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	16 MAR 2012	ISSUED FOR RECONSTRUCTION

No.	Date	Description
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Sheet Name:

EXCAVATION AND  
FOUNDATION  
NOTES

Project No.: 211157	B-SCAN Sheet No.: S-003.00
Date: 20 JUN 2014	Sheet No.: S-003
Scale:	Page No.: 3 of 90
File No.: S-003	



- CONCRETE NOTES
- A. GENERAL
1. SHOP DRAWINGS FOR FORMWORK AND REINFORCING SHALL BE APPROVED PRIOR TO FORMWORK CONSTRUCTION OR REINFORCING FABRICATION AND PLACEMENT.
  2. IN ADDITION TO CAMBERS SHOWN, CAMBER FORMWORK TO COMPENSATE FOR DEFLECTION OF FORMS UNDER THE WET WEIGHT OF CONCRETE AS REQUIRED TO ACHIEVE THE SPECIFIED TOLERANCES.
  3. SLAB-ON-GRADE THICKNESSES SHALL BE FIVE (5) INCHES FOR SIDEWALKS, SIX (6) INCHES FOR BASEMENT AND PLAZA SLABS, EIGHT (8) INCHES FOR AUTOMOBILE DRIVEWAY AREAS, AND TEN (10) INCHES FOR TRUCK TRAFFIC AREAS, UNLESS NOTED OTHERWISE.
  4. CONCRETE BEAMS AND SLABS SHALL NOT BE SLEEVED, BOXED-OUT OR HAVE THEIR REINFORCING INTERRUPTED EXCEPT AS SHOWN ON THE STRUCTURAL DRAWINGS.
  5. EXPOSED CONCRETE CORNERS SHALL HAVE 3/4 INCH CHAMFERS UNLESS NOTED OTHERWISE.
  6. REFER TO ARCHITECTURAL DRAWINGS FOR THE TYPE, SIZE AND LOCATION OF FLOOR FINISHES, FLOOR DEPRESSIONS AND CURBS.
  7. REFER TO ARCHITECTURAL DRAWINGS FOR WATERPROOFING AND DAMPPROOFING REQUIREMENTS.
  8. PROVIDE SLEEVES AND BLOCKOUTS AS SHOWN ON THE APPROVED HVAC, ELECTRICAL, FIRE PROTECTION AND PLUMBING SHOP DRAWINGS IN ACCORDANCE WITH THE STRUCTURAL DETAILS.
  9. INSERTS AND EMBEDMENTS SHALL BE ANCHORED SECURELY AND POSITIONED SO THAT THEY WILL BE FLUSH WITH THE FINISHED CONCRETE SURFACE TO A TOLERANCE OF 1/8 INCH, UNLESS NOTED OTHERWISE.
  10. PERFORM AND SUBMIT INSTRUMENT SURVEYS OF ALL FINISHED REINFORCED CONCRETE AND STEEL DECK CONCRETE SLAB SURFACES. CONDUCT SURVEYS IMMEDIATELY BOTH BEFORE AND AFTER REMOVAL OF FORMWORK AND/OR SHORING SYSTEMS.
  11. REFER TO SPECIFICATION SECTION 031000, "CONCRETE FORMWORK," SECTION 032000, "CONCRETE REINFORCEMENT," AND SECTION 033000, "CAST-IN-PLACE CONCRETE" FOR ADDITIONAL REQUIREMENTS.
  12. REFER TO "STATEMENT OF SPECIAL INSPECTIONS" FOR SPECIAL INSPECTION REQUIREMENTS AND THE SPECIFICATIONS FOR THE REQUIRED PROGRAM OF TESTING AND INSPECTIONS. PROVIDE MATERIAL TESTS, DATA AND ACCESS AS REQUIRED TO FACILITATE SPECIAL INSPECTIONS AND OWNER MONITORING.
- B. CONCRETE
1. CAST-IN-PLACE CONCRETE SHALL BE OF THE TYPES AND MINIMUM 28-DAY COMPRESSIVE STRENGTHS AND MAXIMUM WATER CEMENT RATIOS AS SHOWN IN THE CONCRETE MATERIAL SCHEDULE.
  2. ALL CONCRETE SHALL CONTAIN A WATER REDUCING OR HIGH-RANGE WATER REDUCING, PLASTICIZING ADMIXTURE.
  3. CONCRETE PERMANENTLY EXPOSED TO WEATHER SHALL CONTAIN AN APPROVED AIR-ENTRAINING ADMIXTURE.
  4. CONCRETE ELEMENTS WITH A LEAST CROSS SECTIONAL DIMENSION GREATER THAN 48 INCHES SHALL BE CONSIDERED TO BE "MASS CONCRETE."
- C. REINFORCING
1. MATERIALS:
    - a. REINFORCING BARS: ASTM A615, ASTM A706 (WELDABLE REBAR) GRADE 60.
    - b. WELDED WIRE FABRIC (WWF): ASTM A185.
    - c. STRUCTURAL MACRO FIBERS: ASTM C1116, MIN. 2 INCH LENGTH.
    - d. ANCHOR RODS: ASTM A1559 UNLESS NOTED OTHERWISE.
  2. CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED, SPACED IN FORMS, AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITIONS OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318, AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 311.
  3. REINFORCING SPLICES SHALL CONFORM TO THE REQUIREMENTS OF ACI 318, BUT NOT LESS THAN 36 BAR DIAMETERS, UNLESS NOTED OTHERWISE.
  4. WELDED WIRE FABRIC SPLICES SHALL BE LAPPED EIGHT (8) INCHES AND TIED SECURELY.
  5. MACRO FIBERS AT A DOSAGE RATE OF 4 LBS/CU YARD MAY BE SUBSTITUTED FOR WELDED WIRE FABRIC IN STEEL DECK SLABS AND FILL CONCRETE OVER STRUCTURAL SLABS. SLABS WITH MACRO FIBERS SHALL HAVE #3 BY 2'-0" AT 12 INCHES ON CENTER AT CONSTRUCTION JOINTS IN ADDITION TO THE REINFORCING BARS SHOWN.
  6. MECHANICAL COUPLERS SHALL BE USED WHERE NOTED AND OTHERWISE AT THE CONTRACTOR'S OPTION. COUPLERS SHALL DEVELOP IN TENSION 125% OF THE BAR STRENGTH UNLESS NOTED OTHERWISE.
  7. DOWELS SHALL MATCH THE SIZE AND NUMBER OF MAIN REINFORCING, UNLESS NOTED OTHERWISE.
  8. FIELD WELDING OR BENDING OF REINFORCING IS NOT PERMITTED EXCEPT WHERE SHOWN ON THE DRAWINGS OR OTHERWISE APPROVED.
  9. MINIMUM REINFORCING, UNLESS NOTED OTHERWISE:
    - a. WALLS AND STRUCTURAL SLABS: #4 AT 12 INCH WAY, EACH FACE.
    - b. SLABS ON GRADE: 1 LAYER 6X6 - W2.9XW2.9 WWF.
    - c. FILLS/WEAR SLABS: 1 LAYER 6X6 - W1.4XW1.4 WWF.
    - d. MEP EQUIPMENT PADS: 1 LAYER 6X6 - W4.0XW4.0 WWF.
  10. MINIMUM REINFORCING FOR EXTERIOR AND VEHICLE TRAFFIC SLABS-ON-GRADE, GALVANIZED OR EPOXY COATED UNLESS NOTED OTHERWISE:
    - a. SIDEWALKS, PLAZAS: 1 LAYER 4X4 - W2.9XW2.9 WWF.
    - b. AUTO TRAFFIC AREAS: 1 LAYER 4X4 - W6.0XW6.0 WWF.
    - c. TRUCK TRAFFIC AREAS: 1 LAYER 4X4 - W7.0XW7.0 WWF.
  11. BAR SUPPORTS SHALL BE GALVANIZED OR EPOXY COATED. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL ALSO BE PLASTIC TIPPED.
  12. SLAB-ON-GRADE REINFORCING SHALL BE SUPPORTED BY CONCRETE BLOCKS.
- D. CONSTRUCTION JOINTS:
1. CONSTRUCTION JOINTS IN ALL WALLS, SLABS AND BEAMS SHALL NOT BE FURTHER APART THAN 90 FEET IN ANY DIRECTION.
  2. CONSTRUCTION JOINTS SHALL BE WIRE BRUSHED, CLEANED AND MOISTENED IMMEDIATELY PRIOR TO PLACING NEW CONCRETE.
  3. PLACE SLABS-ON-GRADE IN STRIP POURS OF A MAXIMUM WIDTH OF 15 FEET WITH A MINIMUM OF 24 HOURS BETWEEN ADJACENT POURS.
  4. SLABS-ON-GRADE STRIP POURED SLABS SHALL HAVE SAWCUT CONTROL JOINTS AT 15'-0" CENTERS IN EACH DIRECTION AT THE FOLLOWING MAXIMUM CENTERS, UNLESS SHOWN OTHERWISE:
    - a. 4 INCH SLAB: 10 FEET.
    - b. 5 INCH SLAB: 12 FEET.
    - c. 6 INCH OR GREATER SLAB: 15 FEET.
  5. CONSTRUCTION JOINTS IN STEEL DECK SLABS SHALL BE LOCATED A MINIMUM OF 18 INCHES FROM ANY BEAM LINE.
  6. PROVIDE SHEAR KEYS AT ALL BEAM, REINFORCED SUSPENDED SLAB, GRADE BEAM, MAT AND FOUNDATION WALL CONSTRUCTION JOINTS. REFER TO STEEL DECK DETAILS FOR REQUIREMENTS AT STEEL DECK SLABS. REFER TO DETAILS FOR SLAB-ON-GRADE AND SLAB ON METAL DECK CONSTRUCTION JOINT REQUIREMENTS.
  7. CONSTRUCTION JOINTS SHALL BE LOCATED ONLY IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.
  8. ALLOW A MINIMUM OF THREE (3) HOURS BETWEEN PLACEMENT OF CONCRETE FOR COLUMNS, WALLS OR PIERS AND PLACEMENT OF CONCRETE ON THE ADJACENT FLOOR.
- E. ELECTRICAL CONDUIT
1. CONDUIT SHALL BE STEEL OR RIGID PLASTIC ONLY.
  2. MAXIMUM CONDUIT DIAMETER IS 1/6 THE SLAB DEPTH.
  3. CONDUIT SHALL BE LOCATED IN THE CENTER 1/3 OF THE SLAB AND AS SHOWN IN THE STEEL DECK DETAILS.
  4. CLEAR DISTANCE BETWEEN CONDUITS SHALL BE 3 TIMES THE CONDUIT DIAMETER.
  5. CONDUIT SHALL BE SECURELY TIED TO REINFORCING TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.
  6. CONDUIT SHALL BE PLACED ONLY IN ACCORDANCE WITH SHOP DRAWINGS APPROVED BY THE STRUCTURAL ENGINEER.
- F. CURING AND SEALING
1. PROVIDE APPROVED CURING COMPOUND AND SEALER FOR THE TOP SURFACE OF ALL SLAB WORK, UNLESS NOTED OTHERWISE.
  2. PROVIDE APPROVED CURING COMPOUND, SEALER, AND HARDENER FOR ALL SLABS IN M.E.P. AND STORAGE AREAS, UNLESS NOTED OTHERWISE.
  3. MOIST CURE PARKING SLABS FOR A MINIMUM OF 7 DAYS.
  4. MOIST CURE CONCRETE FILLS AND TOPPINGS PLACED OVER STRUCTURAL SLABS.
  5. CURE FORMED CONCRETE IN FORMS OR PROVIDE APPROVED CURING COMPOUND.
- G. DRILLED IN ANCHORS AND REINFORCING BARS
1. DRILLED IN EXPANSION ANCHORS, ADHESIVE ANCHORS AND GROUTED BARS MAY BE USED ONLY WHERE SHOWN ON THE DRAWINGS.
  2. DRILLED IN BARS SHALL BE ADHESIVE ANCHORED UNLESS NOTED OTHERWISE.
  3. CONDUCT A PRECONSTRUCTION CONFERENCE AT LEAST 14 DAYS PRIOR TO INSTALLATION OF ANCHORS TO VERIFY MATERIALS AND PROCEDURES. CONFERENCE SHALL BE ATTENDED BY REPRESENTATIVES OF THE MANUFACTURER, INSTALLER, CONTRACTOR AND ARCHITECT.
  4. ADHESIVE ANCHORED BARS SHALL BE INSTALLED BY TRAINED PERSONNEL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE INSTALLATION SHALL BE MONITORED AND APPROVED BY THE MANUFACTURER'S REPRESENTATIVE.

CONCRETE MATERIALS SCHEDULE					
LOCATION	COMPRESSIVE STRENGTH (28 DAY U.N.C.)	MAX. SIZE AGGREGATE	SUPPLEMENTARY MATERIALS	MAXIMUM W/C RATIO	AIR CONTENT
STRIP FOOTINGS	8,000 PSI @ 28 DAYS	1"	FLY ASH AND/OR SLAG	0.45	3% MAXIMUM
SHEAR WALLS	10,000 PSI @ 56 DAYS 6,000 PSI @ 28 DAYS	3/4"	FLY ASH AND/OR SLAG SILICA FUME REQUIRED FOR FC ≥ 10,000 PSI	0.30 (10 KSI) 0.45 (6 TO 9 KSI)	3% TO 5% MAXIMUM
BASEMENT WALLS	5,000 PSI	3/4"		0.50	3% MAXIMUM
SLABS AND BEAMS	5,000 PSI	3/4"		0.50	3% MAXIMUM
EXPOSED TO FREEZING	5,000 PSI @ 28 DAYS	3/4"		0.45	4.5% TO 7.5%
SLABS ON STEEL DECK	4,000 PSI @ 28 DAYS	3/4"	MACRO FIBERS	0.50	3% MAXIMUM
TIGHT POURS	COORDINATE W/ELEMENTS	3/8"	COORDINATE W/ELEMENT	COORDINATE W/ELEMENT	3% MAXIMUM
TOPPING/FILL SLABS	4,000 PSI @ 28 DAYS	3/4"	MACRO FIBERS FLY ASH AND/OR SLAG	0.40	3% INTERIOR 3% TO 7% EXTERIOR

NOTES:  
1. ALL CONCRETE NORMAL WEIGHT UNLESS NOTED OTHERWISE.

TENSION DEVELOPMENT LENGTH AND CLASS 'A' TENSION LAP SPlice LENGTH																								
BAR SIZE	f <sub>c</sub> = 4000 psi				f <sub>c</sub> = 5000 psi				f <sub>c</sub> = 6000 psi				f <sub>c</sub> = 7000 psi				f <sub>c</sub> = 8000 psi				f <sub>c</sub> = 10000 psi			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2
#3	19	28	15	22	17	25	13	19	15	23	12	18	14	21	12	16	13	20	12	15	12	18	12	14
#4	25	37	19	29	22	33	17	26	20	31	16	24	19	28	15	22	18	26	14	20	16	24	12	18
#5	31	47	24	36	28	42	22	32	25	38	20	29	24	35	18	27	22	33	17	25	20	30	15	23
#6	37	56	29	43	33	50	26	38	31	46	24	35	28	42	22	33	26	40	20	30	24	35	18	27
#7	54	81	42	63	49	73	37	56	44	66	34	51	41	61	32	47	38	58	30	44	34	51	27	40
#8	62	93	48	71	55	83	43	64	51	76	39	58	47	70	36	54	44	66	34	51	39	59	30	45
#9	70	105	54	81	63	94	48	72	57	85	44	66	53	79	41	61	49	74	38	57	44	66	34	51
#10	79	118	61	91	70	105	54	81	64	96	49	74	59	89	46	69	56	83	43	64	50	75	38	57
#11	87	131	67	101	78	117	60	90	71	107	55	82	66	99	51	76	62	93	48	71	55	83	43	64
#14	105	157	81	121	94	140	72	108	86	128	66	99	79	119	61	91	74	111	57	85	66	99	51	76
#18	139	209	107	161	125	187	96	144	114	171	88	131	106	158	81	122	98	148	76	114	88	132	68	102

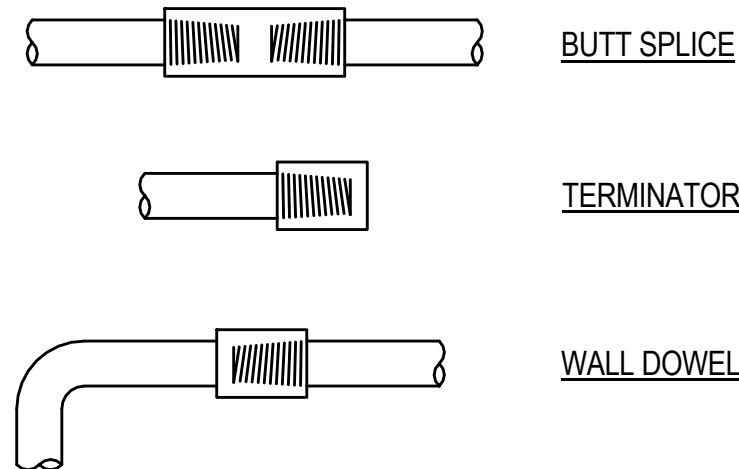
- NOTES:
1. TABULATED TENSION DEVELOPMENT LENGTHS ARE GIVEN IN INCHES, AND ARE CALCULATED FOR REINFORCEMENT CONFORMING TO ASTM A615 GRADE 60 AS PER THE REQUIREMENTS OF ACI 318 (2005).
  2. CASES 1 AND 2 DEPEND UPON CONCRETE COVER AND THE CENTER-TO-CENTER SPACING OF THE BARS, DEFINED AS FOLLOWS:  

CASE 1: CLEAR SPACING AT LEAST ONE (1) BAR DIAMETER  
CLEAR COVER AT LEAST ONE (1) BAR DIAMETER  
STRUTS OR TIES THROUGHOUT THE DEVELOPMENT LENGTH NOT LESS THAN THE CODE MINIMUM  
OR  
CLEAR SPACING AT LEAST TWO (2) BAR DIAMETERS  
CLEAR COVER AT LEAST ONE (1) BAR DIAMETER

  
CASE 2: ALL OTHER CASES
  3. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
  4. TABULATED TENSION DEVELOPMENT LENGTHS HAVE BEEN CALCULATED WITH RESPECT TO NORMALWEIGHT CONCRETE. FOR LIGHTWEIGHT CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
  5. FOR EPOXY COATED BARS, MULTIPLY THE TABULATED VALUES BY ONE OF THE FOLLOWING FACTORS:  

1.5 FOR EPOXY COATED BARS WITH COVER LESS THAN 3 BAR DIAMETERS, OR CLEAR SPACING LESS THAN 6 BAR DIAMETERS  
1.2 FOR ALL OTHER EPOXY COATED BARS
  6. LAP SPICE LENGTHS (ACI 12.15.1) ARE MULTIPLES OF TENSION DEVELOPMENT LENGTHS:  
CLASS A = 1.0 LD, WHERE 50% OR LESS BARS ARE LAP SPICED AT A SECTION FOR A DISTANCE EQUAL TO THE REQUIRED LAP SPICE LENGTH, OR  
CLASS B = 1.3 LD, AT ALL OTHER LOCATIONS.
  7. ALL ADJACENT LAP SPLICES IN SLAB-ON-GRADE SHALL BE STAGGERED BY A MINIMUM DISTANCE EQUAL TO THE REQUIRED LAP SPICE LENGTH.
  8. USE MECHANICAL SPICE FOR #14 AND #18 BAR SIZES.

## LENTION MECHANICAL SPLICES



NOTE: USE LENTION MECHANICAL SPLICES OR MECHANICAL SPLICES THAT MEET OR EXCEED STRENGTH OF EQUIVALENT LENTION SPICE.

## MINIMUM CONCRETE COVER

CONCRETE SURFACE EXPOSURE	MINIMUM CONCRETE CLEAR COVER
FOOTINGS/CAISSONS	3"
CORE WALLS/BUTTRESS WALLS	1"
SLAB - ON - GRADE	2"
SLABS	3/4"
BEAMS	1 1/2"
COLUMNS	1 1/2"
SLAB ON COMPOSITE DECK	3/4"
FOUNDATION WALLS	2" O.F./1" I.F.

## COMPRESSION LAP SPICE LENGTH AND COMPRESSION DEVELOPMENT LENGTH

BAR SIZE	COMPRESSION LAP SPICE	COMPRESSION DEVELOPMENT LENGTH					
		f <sub>c</sub> = 4000 psi	f <sub>c</sub> = 5000 psi	f <sub>c</sub> = 6000 psi	f <sub>c</sub> = 7000 psi	f <sub>c</sub> = 8000 psi	f <sub>c</sub> = 10000 psi
#3	12	8	8	8	8	8	8
#4	15	10	9	9	9	9	9
#5	19	12	12	12	12	12	12
#6	23	15	14	14	14	14	14
#7	27	17	16	16	16	16	16
#8	30	19	18	18	18	18	18
#9	34	22	21	21	21	21	21
#10	39	25	23	23	23	23	23
#11	43	27	26	26	26	26	26
#14	SEE NOTE 2	33	31	31	31	31	31
#18	SEE NOTE 2	43	41	41	41	41	41

- NOTES:
1. TABULATED COMPRESSION DEVELOPMENT LENGTHS AND COMPRESSION LAP SPLICES ARE GIVEN IN INCHES, AND ARE CALCULATED FOR REINFORCEMENT CONFORMING TO ASTM A615 GRADE 60 AS PER THE REQUIREMENTS OF ACI 318-05.
  2. USE MECHANICAL SPICE FOR #14 AND #18 BAR SIZES.



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Vertical Transportation

Edgett Williams Consulting Group, Inc.  
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Sustainable Design

Viridian Energy & Environmental  
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Geo-Technical Engineering

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Landscape Consultant

Field Operations  
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Blast Consultant

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Code Consultant

Code Consultants Professional Engineers PC  
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Wind Tunnel Consultant

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STRUCTURAL STEEL NOTES

A. GENERAL

1. ALL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO AISC (LRFD) SPECIFICATIONS AND CODES, LATEST EDITION.

2. ALL WELDING WORK SHALL CONFORM TO THE AWS D1.1 "STRUCTURAL WELDING CODE - STEEL," LATEST EDITION, AND SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.

3. ALL STEEL BEAM SIZES FOLLOWED BY A NUMBER IN PARENTHESES, (XX), ARE COMPOSITE BEAMS WITH SHEAR STUDS. SEE "STRUCTURAL METAL DECK NOTES" FOR ADDITIONAL INFORMATION.

4. COMPOSITE BEAMS ARE NOT REQUIRED TO BE SHORED, UNLESS NOTED OTHERWISE.

5. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR REVIEW BY THE ARCHITECT.

6. ALL STRUCTURAL STEEL SHALL BE FIREPROOFED TO ATTAIN THE APPLICABLE FIRE RATING REQUIRED BY CODE WITH UL APPROVED SPRAYED-ON CEMENTITIOUS FIREPROOFING MATERIALS. SEE THE ARCHITECTURAL DRAWINGS FOR SPECIFIC FIREPROOFING REQUIREMENTS. ALL STEEL SURFACES ENCASED IN CONCRETE, ELEVATOR GUIDE BEAMS, AND PENTHOUSE ROOF FRAMING DO NOT REQUIRE SPRAY FIREPROOFING.

7. AFTER FABRICATION AND JUST PRIOR TO SITE APPLICATION OF SPRAY-ON FIREPROOFING, ALL STEEL SHALL BE CLEANED OF ALL RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS. PRIMING AND PAINTING OF THE STRUCTURAL STEEL WILL NOT BE REQUIRED EXCEPT FOR STEEL WHICH IS PERMANENTLY EXPOSED.

8. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88) FOR REFERENCE 0.0 NAV88 = 301.75 PENN RAIL ROAD TUNNELS DATUM

9. SEE SPECIFICATION SECTION 05120, "STRUCTURAL STEEL," FOR ADDITIONAL REQUIREMENTS NOT NOTED HEREIN.

B. MATERIALS

1. STRUCTURAL STEEL GRADES SHALL BE AS FOLLOWS:

BUILT-UP STEEL COLUMNS: ASTM A572 Gr. 50  
FLOOR BEAMS: ASTM A992 - GRADE 50  
W14 COLUMNS, HANGERS, & BRACED FRAME DIAGONALS: ASTM A913 - GRADE 65  
W12, W24, W30, W36 COLUMNS: ASTM A992 - GRADE 50  
WT DIAGONALS: ASTM A992 - GRADE 50  
CONNECTIONS, PLATES: ASTM A572 - GRADE 50  
ANGLES: ASTM A36 - GRADE 36  
WELDING: E70XX ELECTRODES

2. ALL STRUCTURAL STEEL TUBING SHALL BE ASTM A500, GRADE B, UNLESS NOTED OTHERWISE.

3. ALL STRUCTURAL STEEL PIPE SHALL BE ASTM A53, TYPE E, GRADE B, UNLESS NOTED OTHERWISE.

4. ALL BOLTS, NUT AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 OR A490.

C. CONNECTIONS

1. ALL CONNECTIONS, EXCEPT FOR THOSE CONNECTIONS COMPLETELY DESIGNED ON THE DRAWINGS, SHALL BE DESIGNED AND DETAILED BY THE FABRICATOR. DETAILING SHALL BE PERFORMED USING RATIONAL ENGINEERING DESIGN AND STANDARD PRACTICE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE GENERAL DETAILS SHOWN ON THE DRAWINGS ARE CONCEPTUAL ONLY AND DO NOT INDICATE THE REQUIRED NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED. THE CONTRACTOR SHALL SUBMIT ENGINEERING CALCULATIONS AND CONNECTION DETAIL DRAWINGS FOR EACH CONNECTION TYPE, MEMBER SIZE, AND REACTION INDICATED ON THE DRAWINGS FOR REVIEW BY THE ARCHITECT PRIOR TO THE SUBMITTAL OF THE STRUCTURAL STEEL SHOP DRAWINGS. AFTER REVIEW BY THE ARCHITECT, THESE DETAIL DRAWINGS SHALL BE UTILIZED AS THE STANDARD FOR FABRICATION AND SHOP DRAWING DETAILING. THE DESIGN CALCULATIONS SHALL BE PREPARED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.

2. ALL CONNECTIONS, UNLESS NOTED OTHERWISE, SHALL BE SIMPLE SHEAR CONNECTIONS UTILIZING "SHORT-SLOTTED" HOLES AND HIGH-STRENGTH BOLTS IN BEARING-TYPE CONNECTIONS WITH THREADS EXCLUDED FROM THE SHEAR PLANE. THE CONNECTION CAPACITIES SHALL BE AS SHOWN IN NOTE C5 BELOW, OR AS NOTED ON THE STRUCTURAL FRAMING PLANS.

3. BEAM-TO-COLUMN CONNECTIONS SHALL BE MOMENT CONNECTED WHERE SHOWN ON THE DRAWINGS. THE WEB SHEAR CONNECTION FOR THESE MEMBERS SHALL UTILIZE SINGLE SHEAR PLATE SLIP-CRITICAL TYPE CONNECTIONS WITH HIGH-STRENGTH BOLTS WITH THREADS EXCLUDED FROM THE SHEAR PLANE FOR THE CAPACITIES SHOWN IN NOTE C5 BELOW.

4. ALL BOLTS SHALL BE FULLY TORQUED FOR BOTH SLIP CRITICAL AND BEARING TYPE CONNECTIONS.

5. MINIMUM SERVICE END REACTIONS (ASD) FOR STANDARD ROLLED SHAPES:

W36 160 kips W16 40 kips C18 35 kips  
W33 135 kips W14 30 kips C15 30 kips  
W30 115 kips W12 20 kips C12 10 kips  
W27 85 kips W10 15 kips C10 10 kips  
W24 75 kips W8 10 kips C8,C9 6 kips  
W21 60 kips W6 10 kips C7,C9 6 kips  
W18 50 kips W5 10 kips

ANY MEMBERS WITH END REACTIONS EXCEEDING THE VALUES LISTED ABOVE ARE INDICATED ON THE PLANS, EITHER WITH BOXED END REACTIONS OR IN TABULAR FORM.

6. THE MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE TWO (2) 3/4 INCH DIAMETER, A325 BOLTS.

7. MINIMUM FILLET WELD SIZES SHALL COMPLY WITH THE AISC SPECIFICATION REQUIREMENTS, BUT SHALL NOT BE LESS THAN 1/4 INCH, UNLESS NOTED OTHERWISE.

D. DETAILING AND FABRICATION

1. THE CONTRACTOR SHALL SUBMIT DETAILED, ENGINEERED, COORDINATED AND CHECKED SHOP DRAWINGS FOR ALL STRUCTURAL STEEL TO THE ARCHITECT FOR REVIEW PRIOR TO THE START OF FABRICATION AND/OR ERECTION.

2. ALL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER UP. PROVIDE ADDITIONAL CAMBERS AS INDICED IN BRACKETS <XX> ON THE STRUCTURAL DRAWINGS. FOR CANTILEVERS, CAMBER SHALL BE MEASURED AT THE FREE END.

3. ALL SIMPLE SHEAR CONNECTIONS SHALL BE CAPABLE OF END ROTATION AS PER THE REQUIREMENTS OF AISC SPECIFICATION, CHAPTER J1.2, "SIMPLE CONNECTIONS."

4. ALL BEAMS FRAMING INTO NEW CONCRETE WALLS SHALL BE DETAILED TO SUIT THE HORIZONTAL FIELD TOLERANCES

E. ERECTION

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES, ESPECIALLY WITH RELATION TO TEMPERATURE DIFFERENTIALS, ERECTION TOLERANCES, AND WITH RESPECT TO STRUCTURAL STEEL FRAMING INTO REINFORCED CONCRETE WALLS.

2. SURVEY THE TOPS OF ALL COLUMNS AT EACH LEVEL. RECORD X, Y & Z - COORDINATES MEASURED CONSISTANTLY FROM AN ESTABLISHED BENCHMARK. PROVIDE A COPY OF THE SURVEY DATA TO THE ARCHITECT AND STRUCTURAL ENGINEER WITHIN TWO DAYS OF THE COMPLETION OF EACH SURVEY.

3. ALL ERECTION PROCEDURES, DESIGNS AND CALCULATIONS SHALL BE PERFORMED BY THE CONTRACTOR'S QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK. ANY REVIEW OF SUCH CALCULATIONS AND/OR DRAWINGS BY THE ARCHITECT WILL BE SOLELY LIMITED TO ANY EFFECTS ON THE INTEGRITY OF THE PERMANENT PRIMARY STRUCTURE.

4. ALL ADDITIONAL STEEL REQUIRED BY THE CONTRACTOR FOR ERECTION PURPOSES AND SITE ACCESS OF STOCKPILED MATERIALS SHALL BE PROVIDED AT NO COST TO THE OWNER. ALL SUCH ADDITIONAL STEEL SHALL BE REMOVED BY THE CONTRACTOR UNLESS APPROVED BY THE OWNER IN WRITING.

5. THE CONTRACTOR SHALL SUBMIT A METHODS STATEMENT FOR ALL STRUCTURAL STEEL/METAL DECK ERECTION PROGRAMS.

F. NON-SELF-SUPPORTING STEEL FRAMES

THE STEEL STRUCTURE (COMPRISED OF GRAVITY COLUMNS, FLOOR BEAMS, FLOOR BRACING, BRACED FRAMES AND MOMENT FRAMES) IS A NON SELF-SUPPORTING FRAME. THE FLOOR DIAPHRAGM (METAL DECK AND HARDENED CONCRETE SLAB TOPPING) AND R/C CONCRETE WALLS ARE REQUIRED TO PROVIDE STABILITY AND STRENGTH TO RESIST THE LOADS FOR WHICH THE FRAME IS DESIGNED. THE CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY SUPPORT AS NECESSARY UNTIL THE COMPLETE STRUCTURE IS ERECTED.

G. TESTING AND INSPECTION

TESTING AND INSPECTION OF BOTH SHOP AND FIELD STRUCTURAL STEEL FABRICATION AND ERECTION WORK, INCLUDING WELDED AND BOLTED CONNECTIONS, SHALL BE AS FOLLOWS:

1. ALL STRUCTURAL STEEL FABRICATION AND ERECTION SHALL BE VISUALLY INSPECTED.

2. ALL WELDERS SHALL BE AWS CERTIFIED.

3. ALL WELDS SHALL BE AWS/AISC PREQUALIFIED.

4. ALL WELDS SHALL BE VISUALLY INSPECTED PER AWS D1.1. WELD MEASUREMENTS SHALL BE PERFORMED FOR 15% OF ALL WELDS ON A RANDOM BASIS.

5. MAGNETIC PARTICLE TESTING IN ACCORDANCE WITH ASTM E709 SHALL BE PERFORMED FOR A MINIMUM OF:

A. 10% OF ALL FILLET WELDS CHOSEN AT RANDOM, FINAL PHASE ONLY.

B. 100% OF TENSION MEMBER CONNECTION WELDS (I.E., HANGER CONNECTION PLATES, ETC.) FOR ROOT AND FINAL PASSES.

6. ULTRASONIC TESTING IN ACCORDANCE WITH AWS D1.1 SHALL BE PERFORMED FOR A MINIMUM OF:

A. 100% OF ALL FULL PENETRATION WELDS.

B. 20% OF ALL COLUMN SPICE WELDS, CHOSEN AT RANDOM.

7. ULTRASONIC TESTING AND VISUAL INSPECTION IN ACCORDANCE WITH ASTM A435 SHALL BE UTILIZED TO VERIFY BASE MATERIALS FOR LAMINATIONS, INCLUSIONS, AND OTHER DISCONTINUITIES AS FOLLOWS:

A. ALL STRUCTURAL STEEL PLATES GREATER THAN 1 1/2" THICK USED FOR THE CAISSON CORE STEEL, FOR THE CAISSON CAP TRANSFER GIRDERS, AND FOR THE DIAGONAL JOINT ASSEMBLIES w/ THE BEAMS IN THE CONTINUOUS CAISSON CAPS PRIOR TO FABRICATION.

B. ALL COLUMN FLANGES AND WEBS WITHIN STRUCTURAL SHAPE GROUPS 4 AND 5 AS DEFINED BY AISC LOCATED AT MOMENT CONNECTIONS. TEST AREA IS DEFINED AS 6" ABOVE AND BELOW BEAM FLANGE CONNECTION.

C. ALL GUSSET PLATES USED IN X-BRACED FRAMES GREATER THAN 1 1/2" THICK.

D. ALL COLUMN FLANGES IN COLUMNS WITH GUSSET PLATES ATTACHED TO BOTH FLANGES. TEST AREA IS DEFINED AS 6" AT 2'-0" INTERVALS.

8. ALL BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED AND TESTED WITH A CALIBRATED TORQUE WRENCH TO VERIFY A MINIMUM OF 25% OF BOLTS IN EACH CONNECTION (2 BOLTS PER CONNECTION MINIMUM).

9. THE REQUIRED CONTACT SURFACE CONDITIONS OF ALL SHEAR CONNECTIONS SHALL BE VISUALLY INSPECTED IMMEDIATELY PRIOR TO BEAM ERECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMEDIAL WORK REQUIRED TO CONTACT SURFACES.

10. THE OWNER'S STRUCTURAL STEEL TESTING SHALL PERFORM ALL FIELD INSPECTION AND TESTING AS OUTLINED ABOVE, AND MONITOR THE CONTRACTOR'S INSPECTION AND TESTING OUTLINED ABOVE FOR ALL SHOP WORK. IF THE CONTRACTOR'S QUALITY CONTROL PROGRAM IS NOT AISC CERTIFIED, THE CONTRACTOR SHALL ENGAGE AN APPROVED STRUCTURAL STEEL TESTING LABORATORY, ACCEPTABLE TO THE OWNER, WHO SHALL PERFORM ALL SHOP TESTING AND INSPECTION.

11. THE STRUCTURAL STEEL FABRICATOR AND ERECTOR SHALL SCHEDULE ALL WORK TO ALLOW THE ABOVE INSPECTION AND TESTING REQUIREMENTS TO BE COMPLETED.

STRUCTURAL STEEL PAINTING

1. ALL STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED AS REQUIRED BY THE TECHNICAL SPECIFICATIONS.

2. ALL STRUCTURAL STEEL TO RECEIVE SPRAYED-ON FIREPROOFING AND/OR TO BE ENCASED IN CONCRETE DOES NOT REQUIRE PAINTING UNLESS NOTED OTHERWISE.

3. THE FOLLOWING STRUCTURAL STEEL ELEMENTS REQUIRE CLEANING AND PAINTING SYSTEMS:

A. ELEVATOR SEPARATOR BEAMS: CLEANED; PRIMED

B. NON-FIREPROOFED, INTERIOR STRUCTURAL STEEL: CLEANED; PRIMED; FIELD PAINTED (1 COAT)

STRUCTURAL METAL DECK NOTES

1. ALL METAL DECK SHALL BE FABRICATED FROM STEEL TYPE ASTM A446, GRADE A, HAVING A MINIMUM YIELD STRENGTH OF 40,000 PSI. ALL FLOOR DECKING SHALL BE HOT-DIPPED GALVANIZED, OR PHOSPHATIZED AND PAINTED. ALL DECKING AT ROOF LEVELS, PARKING/VEHICULAR LEVELS, LOADING DOCK/FREIGHT AREAS, AND SIDEWALK AREAS SHALL BE HOT-DIPPED GALVANIZED. ALL INSULATED METAL ROOF DECKING SHALL BE FORMED WITH TELESCOPED ENDS TO ALLOW ENDS OF SHEETS TO BE LAPPED A MINIMUM OF 2 INCHES.

2. ALL METAL DECK SHALL BE DESIGNED FOR THE SPAN AND LOADING CONDITIONS SHOWN ON THE STRUCTURAL DRAWINGS AND IN THE METAL DECK SCHEDULE. NONCELLULAR METAL DECK SHALL BE PROVIDED IN ALL AREAS, UNLESS NOTED OTHERWISE.

3. METAL DECK SECTION PROPERTIES SHALL BE COMPUTED IN ACCORDANCE WITH THE AISI "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION, UNLESS NOTED OTHERWISE.

4. THE MINIMUM GAGE OF ALL METAL DECK SHALL BE 18 GAGE WHEN THE CONCRETE TOPPING SLAB THICKNESS IS LESS THAN OR EQUAL TO 4 1/2" AND 16 GAGE WHEN CONCRETE TOPPING SLAB THICKNESS IS GREATER THAN 4 1/2".

5. THE METAL DECK CONTRACTOR SHALL SUBMIT, TO THE ARCHITECT FOR REVIEW, STRUCTURAL ENGINEERING CALCULATIONS, PREPARED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK, PROVIDE PUBLISHED MANUFACTURERS' DATA, AND INDEPENDENTLY CERTIFIED LOAD TEST DATA, VERIFYING THAT THE METAL DECK AND RELATED DECK ACCESSORIES SATISFY THE SPECIFIED LOADING AND DEFLECTION REQUIREMENTS FOR THE SPANS INDICATED ON THE DRAWINGS.

6. THE CONTRACTOR SHALL PROVIDE DETAILED, COORDINATED, AND CHECKED SHOP DRAWINGS INDICATING LOCATION, GAGE AND SIZE OF EACH PIECE OF DECKING AND RELATED ACCESSORIES. THE DRAWINGS SHALL CLEARLY SHOW WELDING DETAILS TO STRUCTURAL FRAMING ELEMENTS, SIDE LAP CONNECTION DETAILS, DECK OPENING/EDGE CLOSURES, AND WHERE REQUIRED, SUPPLEMENTARY DECK AND/OR CLOSURE REINFORCING.

7. ALL NON-CELLULAR COMPOSITE METAL DECK SHALL HAVE WIDE RIBS SUITABLE FOR SHEAR STUD PLACEMENT WHERE STUDS ARE REQUIRED. THE CONFIGURATION OF THE METAL DECK SHALL BE SUCH AS TO DEVELOP THE FULL HORIZONTAL SHEAR VALUE OF THE STUD FOR THE PARTICULAR METAL DECK-SLAB CONFIGURATION PER THE AISC SPECIFICATIONS, LATEST EDITION, AND AS REQUIRED BY NOTE 17C HEREIN.

8. ALL DECKING SHALL BE WELDED TO STRUCTURAL STEEL BY QUALIFIED WELDERS USING PRE-QUALIFIED PROCEDURES. THE TECHNICAL SPECIFICATIONS ESTABLISH A PROCEDURE FOR PRE-QUALIFICATION OF THE PLUG WELDING OF THE STEEL DECKING TO THE STRUCTURAL STEEL FOR THE PARTICULAR GAGES USED. PRIOR TO THE START OF ERECTION OF THE STEEL DECK, EACH WELDER SHALL BE QUALIFIED USING THIS PROCEDURE AS WITNESSED BY THE OWNER'S TESTING LABORATORY.

9. ALL METAL DECK SHALL BE WELDED AT 12 INCHES MAXIMUM ON CENTER TO THE SUPPORTING STEEL WITH A 3/4 INCH DIAMETER PLUG WELD. SIDE LAPS SHALL BE FASTENED AT 30 INCHES MAXIMUM ON CENTER.

10. THE METAL DECK SHALL BE DESIGNED TO BE UNSHORED AND CONTINUOUS OVER A MINIMUM OF THREE (3) SPANS IN THE DIRECTION INDICATED. METAL DECKING FOR SINGLE AND DOUBLE SPANS, IF REQUIRED, SHALL ALSO SATISFY THE SPECIFIED LOAD AND DEFLECTION REQUIREMENTS, NOTED HEREIN.

11. THE METAL DECK SHALL BE DESIGNED FOR AN ASSUMED SUITABLE CONSTRUCTION LIVE LOAD TAKING INTO CONSIDERATION THE PARTICULAR METHOD OF CONCRETE PLACEMENT TO BE USED ON THE PROJECT. SPAN AND LOAD CONDITIONS INDICATED BY THE SUPPORTING FRAMEWORK OPENINGS, AND ACTUAL DECK PIECE SIZES UTILIZED. THE ASSUMED CONSTRUCTION LIVE LOAD SHALL NOT BE LESS THAN 20 PSF. THE CONTRACTOR SHALL NOT EXCEED THE ASSUMED CONSTRUCTION DESIGN LIVE LOAD WITHOUT FIRST TAKING ALL NECESSARY SAFETY PRECAUTIONS SUCH AS SHORING, ETC. ADDITIONALLY, FOLLOW ALL APPLICABLE CITY, LOCAL AND AISI REQUIREMENTS FOR TEMPORARY CONSTRUCTION LOADINGS, IF MORE STRINGENT.

12. COMPOSITE METAL DECK DESIGN CRITERIA: (CELLULAR AND NON-CELLULAR DECKS)

A. METAL DECK: (CONSTRUCTION LOADS ONLY)

1A. MAXIMUM DECK DEFLECTION FOR CONCRETE WET WEIGHT SHALL BE LESS THAN OR EQUAL TO L/240, BUT NOT TO EXCEED 1/2"; COMPUTED EITHER ON A SINGLE SPAN BASIS, OR ON LOADING ONLY ONE (1) SPAN FOR MULTIPLE SPAN CONDITIONS.

2A. MAXIMUM STRESS IN DECK FOR CONCRETE WET WEIGHT AND CONSTRUCTION LOADS SHALL BE LESS THAN OR EQUAL TO 0.6 Fy (Fy = YIELD STRESS) COMPUTED ON A SINGLE SPAN BASIS, OR ON LOADING TWO ADJACENT SPANS FOR MULTIPLE SPAN CONDITIONS.

3A. ALLOW FOR AN AVERAGE OF 5 PSF WET CONCRETE WEIGHT FOR CONCRETE LEVELING (AS PER SPECIFICATIONS) IN ADDITION TO THE SPECIFIED SLAB THICKNESS, FOR STRESS AND DEFLECTION CALCULATIONS.

4A. PROVIDE DECK SHORING, IF REQUIRED, TO MEET THE CONDITIONS OF ITEMS NO. 1, 2, AND 3 ABOVE.

5A. ALL FORM DECKS, FOR REINFORCED CONCRETE SLABS, SHALL BE DESIGNED FOR THE SAME CRITERIA STATED IN ITEMS NOS. 1, 2, 3, AND 4 ABOVE.

B. COMPOSITE METAL DECK SLAB: (FINAL DESIGN LOAD)

1B. THE DECK SHALL DEVELOP FULL COMPOSITE ACTION FOR IMPOSED LOADS AS SHOWN IN THE DECK SCHEDULE.

2B. MAXIMUM DEFLECTION UNDER SUPERIMPOSED LOAD SHALL BE LESS THAN OR EQUAL TO L/360.

3B. MAXIMUM STRESS IN DECK FOR TOTAL LOAD USING APPROPRIATE NON-COMPOSITE AND COMPOSITE PROPERTIES SHALL BE LESS THAN OR EQUAL TO 0.75 FY.

4B. MAXIMUM ALLOWABLE STRESS IN CONCRETE SHALL BE AS PER ACI 318, LATEST EDITION.

5B. THE COMPOSITE DECK SHALL BE DESIGNED ON THE BASIS OF OBTAINING A MINIMUM FACTOR OF SAFETY OF 2 FOR THE TOTAL SUPERIMPOSED LOAD ON A SINGLE SPAN BASIS. TEST RESULTS SHALL BE FURNISHED TO SUBSTANTIATE THE FACTOR OF SAFETY.

16. SHEAR STUDS:

A. ALL SHEAR STUD PLACEMENT DIAGRAM SHOWN REPRESENT IDEALIZED CONDITIONS, AND ACTUAL FRAMING CONFIGURATIONS MAY REQUIRE ADDITIONAL MODIFICATIONS AND INTERPRETATIONS.

B. THE CONTRACTOR SHALL SUBMIT CHECKED SHOP DRAWINGS INDICATING THE SHEAR STUD LAYOUT, INCLUDING SIZE, SPACING AND GROUPING, FOR EACH BEAM.

C. THE NUMBER OF STUDS PER BEAM AS SHOWN ON THE DRAWINGS INCLUDES REDUCTIONS BASED ON RIB WIDTH, NUMBER OF STUDS PER CELL, DECK RIB ORIENTATION, AND SLAB THICKNESS AS PER AISC SPECIFICATIONS FOR COMPOSITE CONSTRUCTION, LATEST EDITION. THE ASSUMED ALLOWABLE HORIZONTAL SHEAR DESIGN VALUE (ASD) FOR A NOMINAL 3/4"-DIA. x 6" LONG STUD IS 10.5 KIPS PER STUD FOR NON-CELLULAR DECK WITH LIGHTWEIGHT CONCRETE AND 12.5 KIPS PER STUD FOR NON-CELLULAR DECK WITH NORMAL WEIGHT CONCRETE. THE ASSUMED DECK NOMINAL RIB HEIGHT IS 3", AND THE ASSUMED AVERAGE CONCRETE RIB WIDTH IS 6". THE METAL DECK CONTRACTOR SHALL SUBMIT LOAD TEST DATA VERIFYING THE HORIZONTAL SHEAR CAPACITY OF SHEAR STUDS FOR DIFFERENT DECK TYPES AND CELL CONFIGURATIONS, AS DETAILED ON THE SHOP DRAWINGS. IF ANY OF THE ASSUMPTIONS LISTED ABOVE ARE VIOLATED, THE METAL DECK CONTRACTOR SHALL SUBMIT STRUCTURAL DESIGN CALCULATIONS, PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK, BASED ON THE DETAILED SHOP DRAWINGS. PROVIDE ALL EXTRA STUDS AS MAY BE REQUIRED TO ACHIEVE THE TOTAL HORIZONTAL SHEAR CAPACITY.

D. MAXIMUM SPACING OF STUDS SHALL BE 12" ON CENTER.

E. SHEAR STUDS SHALL BE EITHER WELDED DIRECTLY TO STRUCTURAL STEEL ELEMENTS AT LOCATIONS WITHOUT DECK OR WELDED TYPE THROUGH THE METAL DECK BY PREQUALIFIED METHODS. IF THROUGH DECK WELDING IS UNFEASIBLE, THE STUDS SHALL BE INSTALLED IN PRE-PUNCHED HOLES IN THE METAL DECK. THE CONTRACTOR SHALL ESTABLISH SPECIFIC WELDING REQUIREMENTS FOR EACH THICKNESS OF FRAMING ELEMENT AND/OR GAGE OF METAL DECK.

17. THE OWNER'S TESTING LABORATORY SHALL INSPECT AND TEST ALL METAL DECK AND SHEAR STUD INSTALLATION WORK. SEE TECHNICAL SPECIFICATION SECTION 05310, "STEEL DECK" FOR ADDITIONAL TESTING AND INSPECTION REQUIREMENTS.

18. CONDUIT SHALL NOT BE PLACED IN STRUCTURAL SLABS.

19. ALL ELEVATIONS ARE REFERENCED TO A LOCAL SITE DATUM, WHERE Z = 0'-0" = 44'-6" BOROUGH OF MANHATTAN DATUM (2.75' ABOVE NATIONAL GEODETIC SURVEY VERTICAL DATUM OF 1929, MEAN SEA LEVEL, SANDY HOOK, NEW JERSEY).

20. SEE SPECIFICATION SECTION 05310, "STEEL DECK", FOR ADDITIONAL REQUIREMENTS.



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Key Plan:



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3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description

Sheet Name

STRUCTURAL  
STEEL AND  
METAL DECK  
NOTES

Project No.: 211157 B-SCAN Sheet No.:

Date: 20 JUN 2014 S-005.00

Scale: 1/2" = 1'-0" Sheet No.:

File No. S-005 Page No. 5 of 90





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Professional Engineer Seal  
CHARLES MICHAEL BERLIN  
079322  
NEW YORK STATE PROFESSIONAL ENGINEER

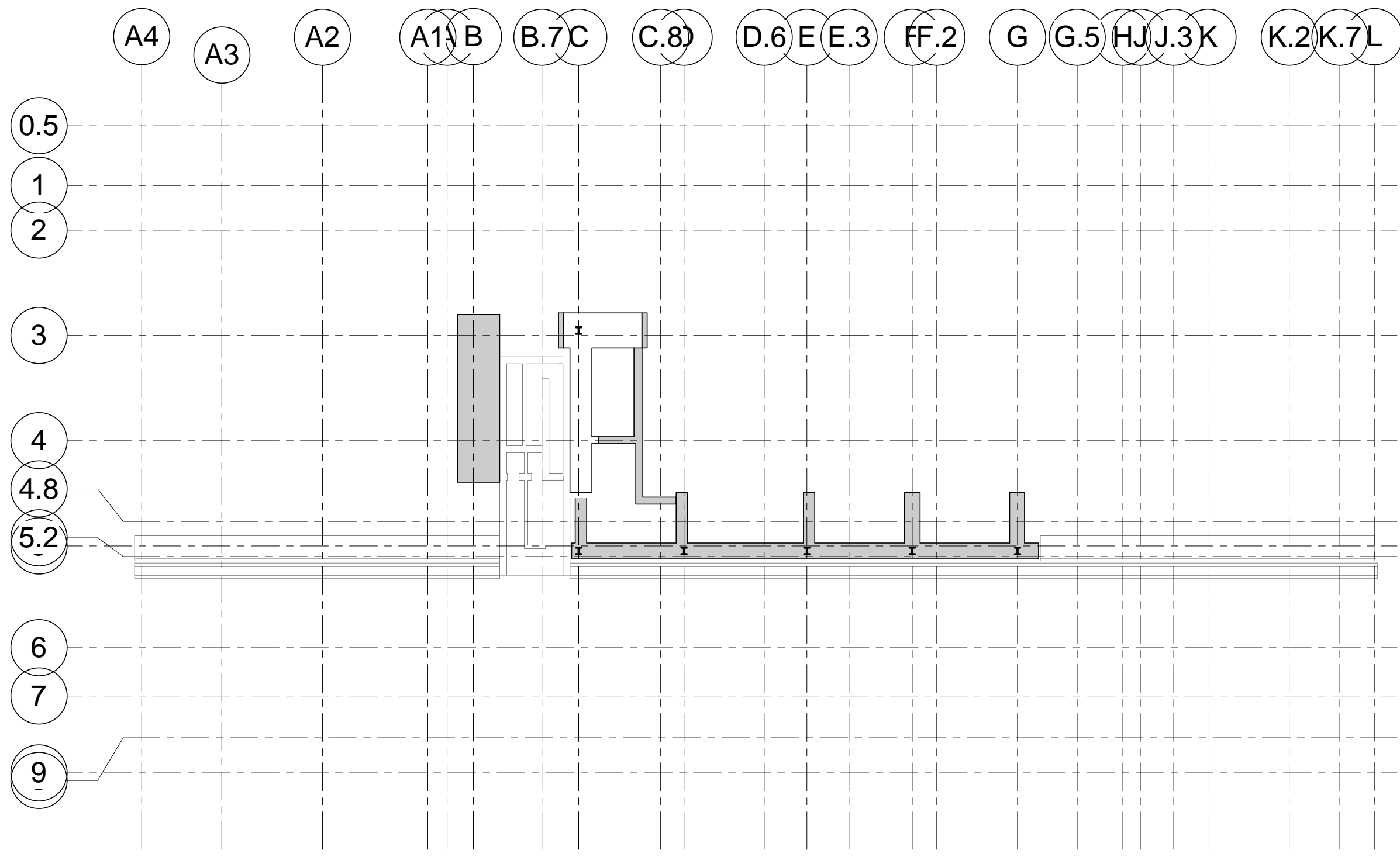
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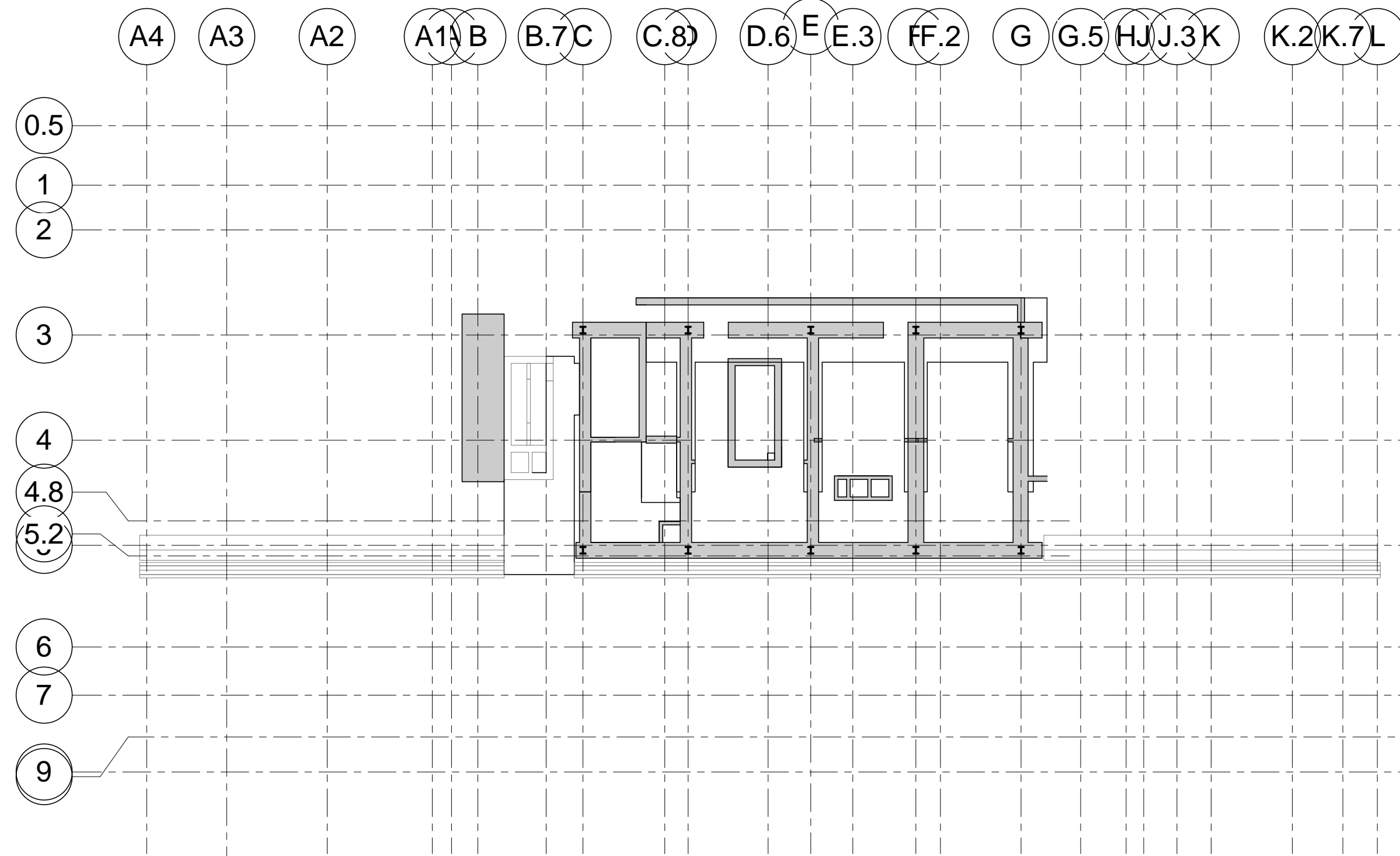
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File No.: S-010

B-SCAN Sheet No.: S-010.00  
Sheet No.: S-010  
Page No.: 6 of 90

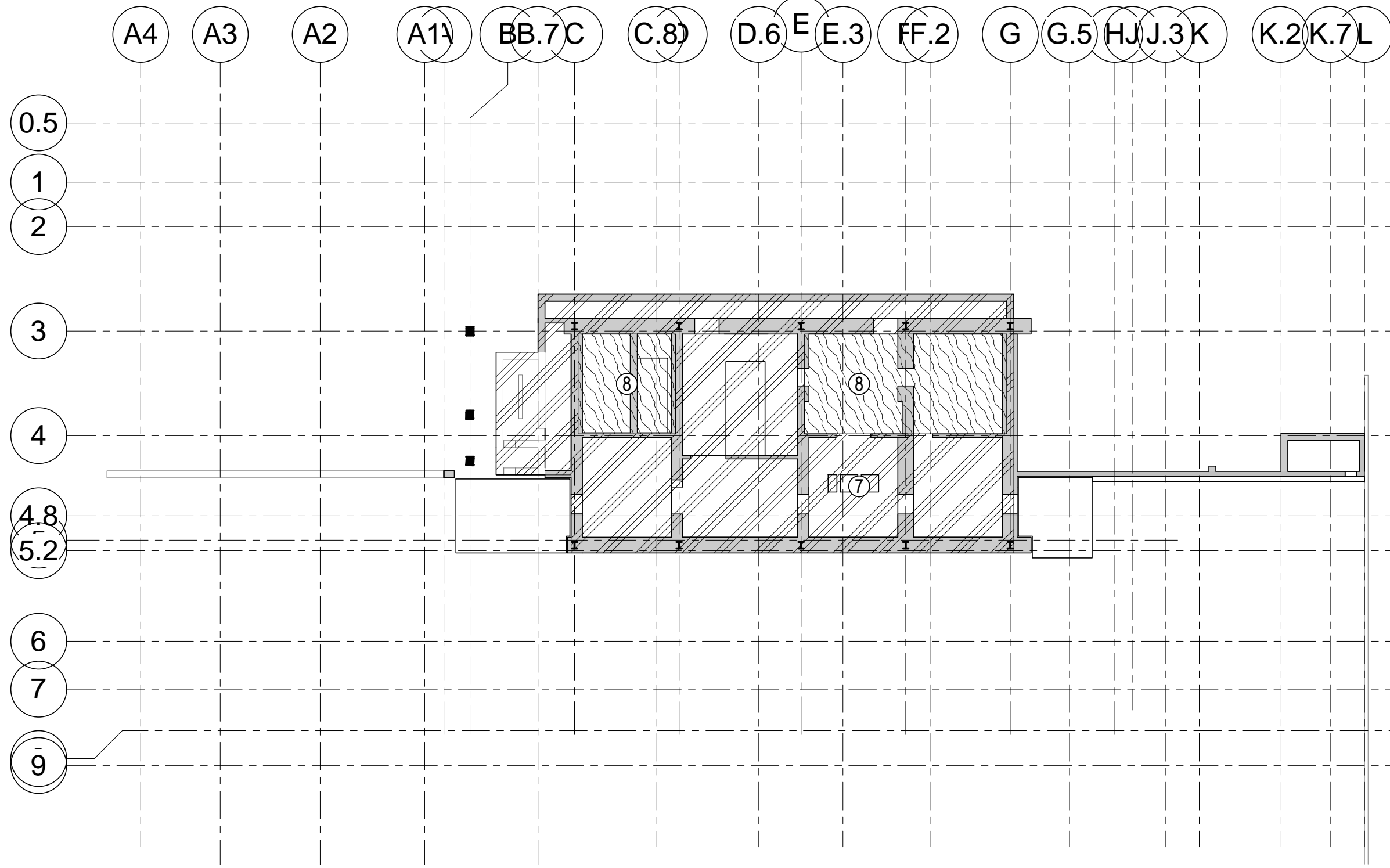
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②	MECHANICAL	60	150
③	HEAVY MECHANICAL	60	225
④	LIGHT MECHANICAL	50	100
⑤	OFFICE	45	50
⑥	PLAZA	60	100
⑦	CORRIDOR	50	100
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⑨	BACK OF HOUSE	50	50
⑩	ROOF MECH	60	250
⑪	RETAIL	60	100



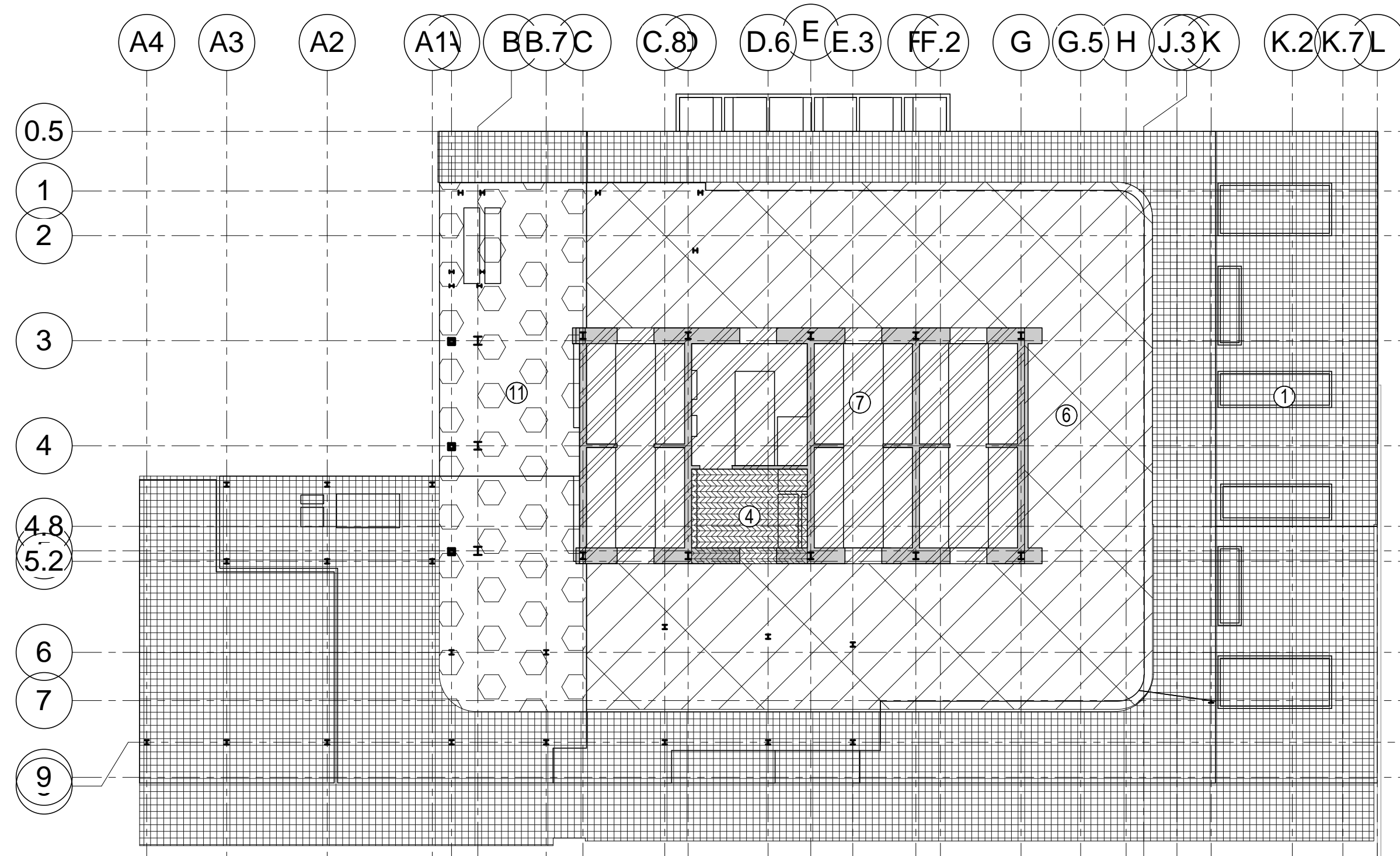
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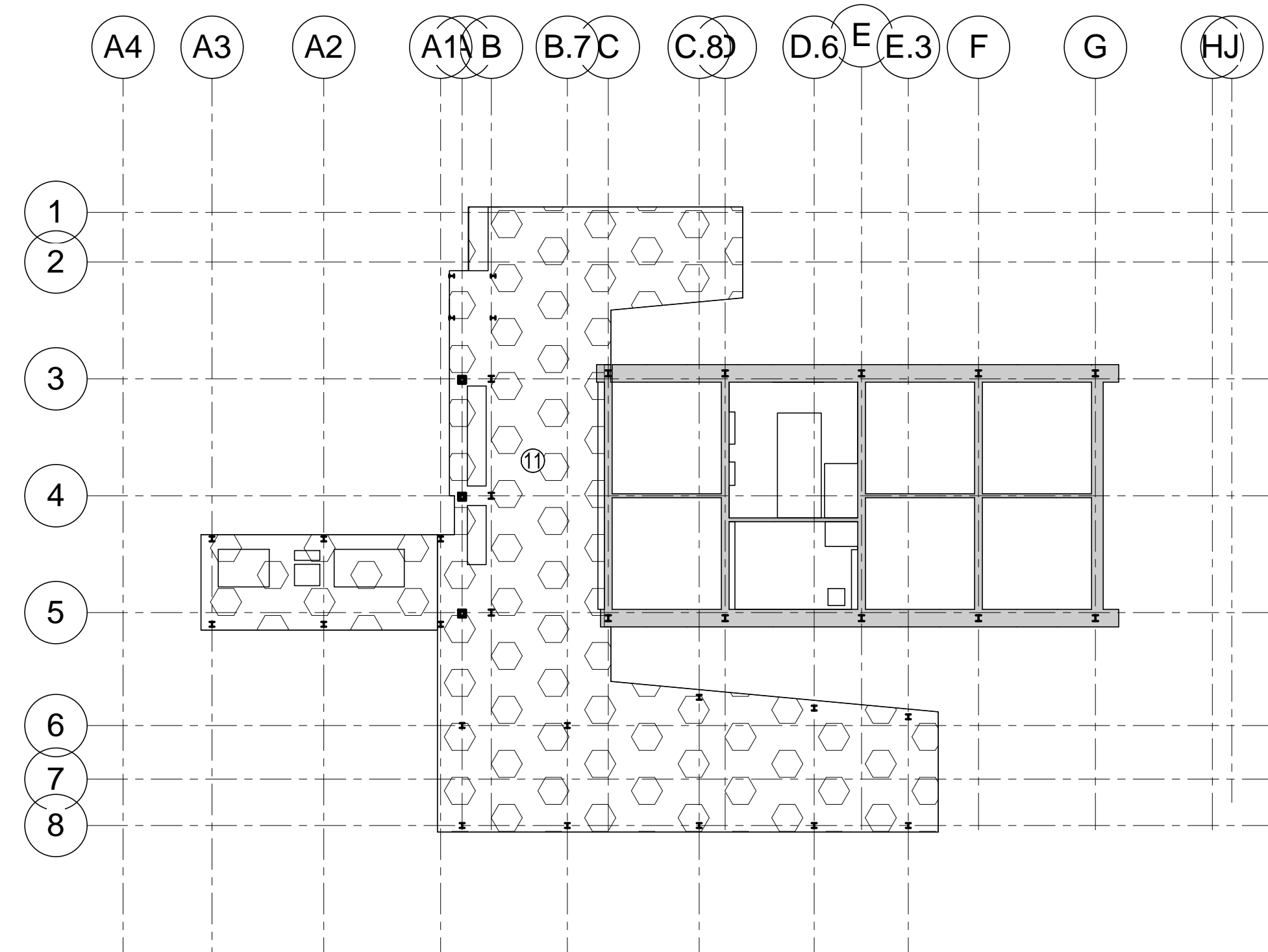
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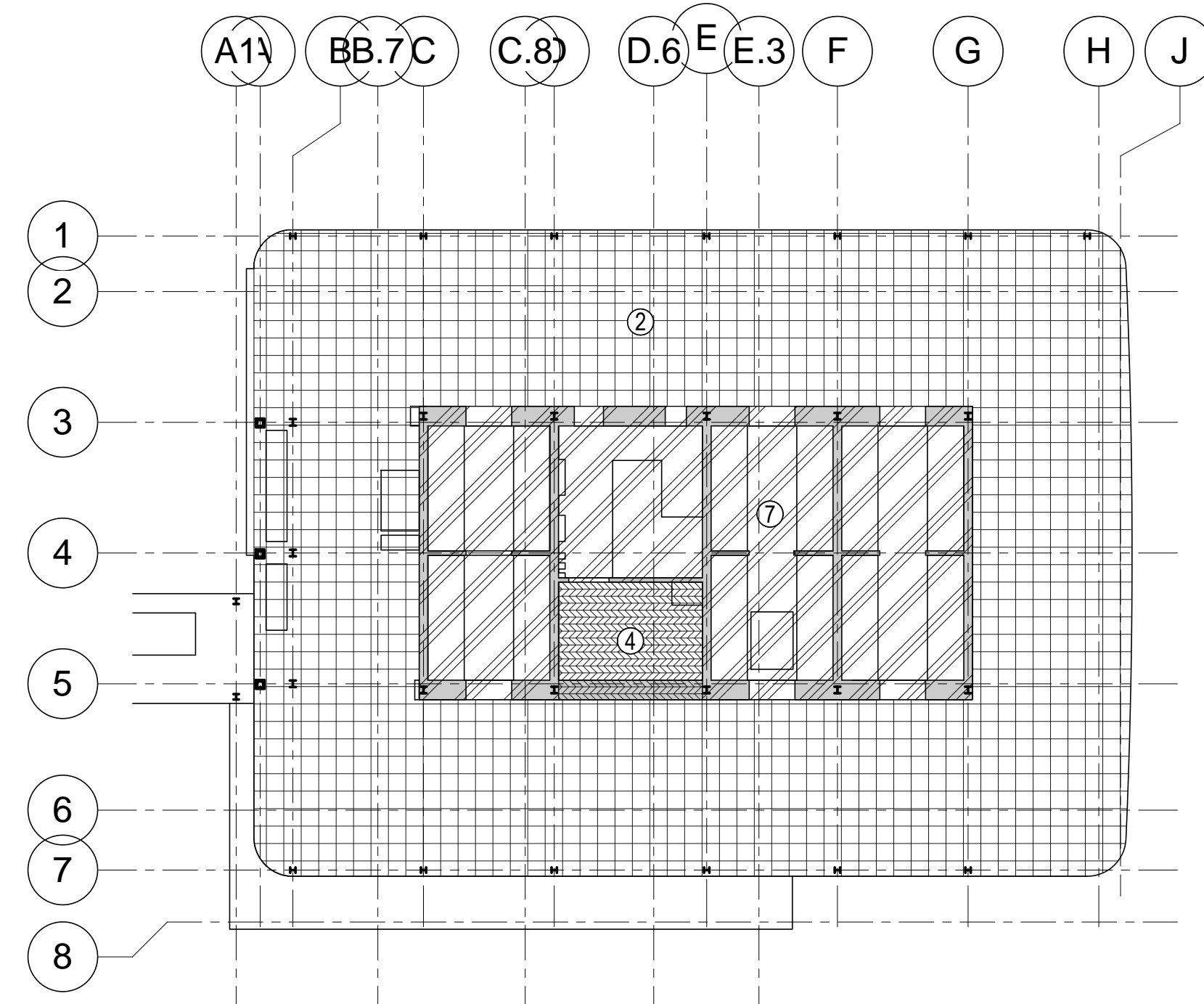
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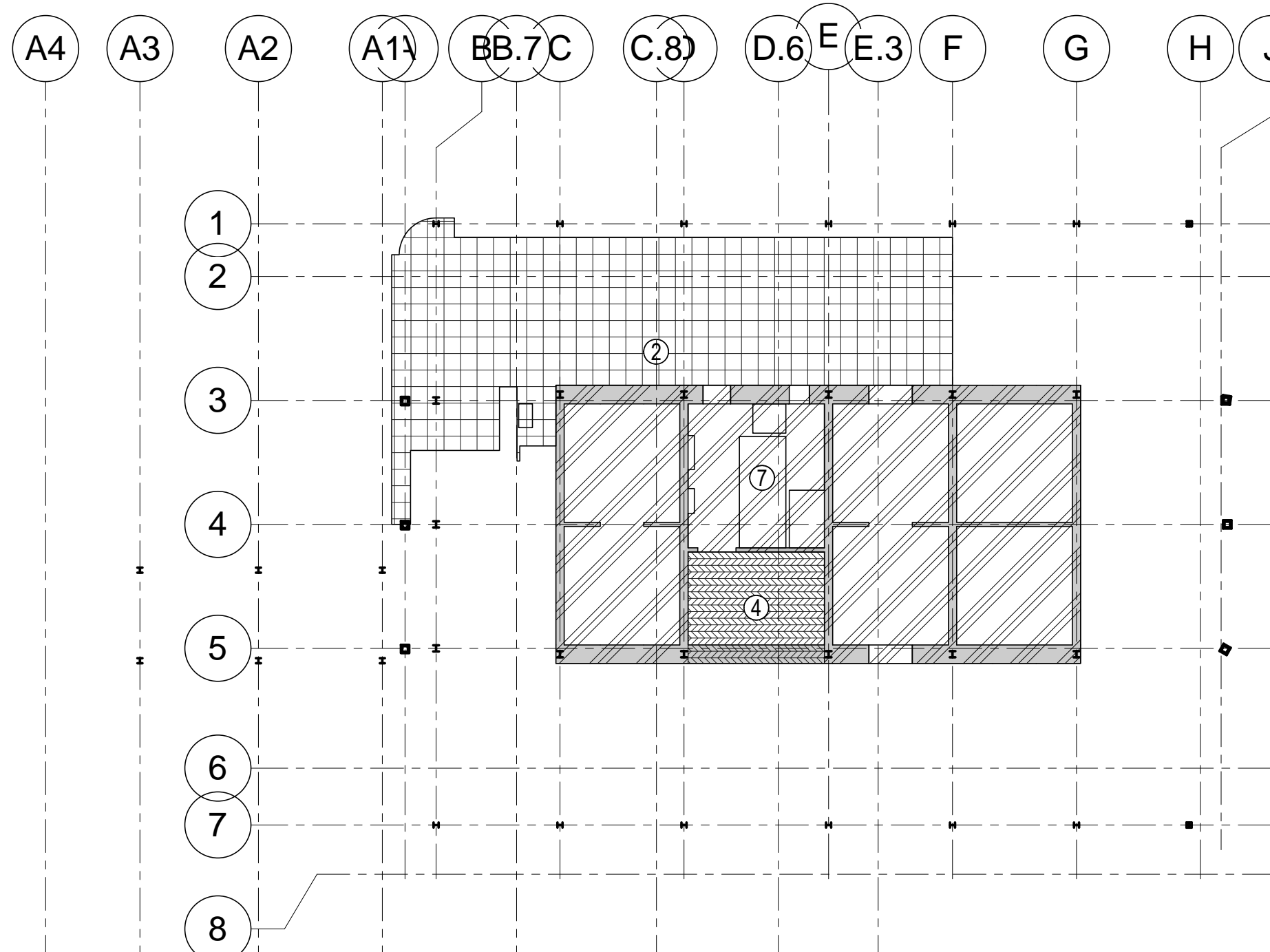
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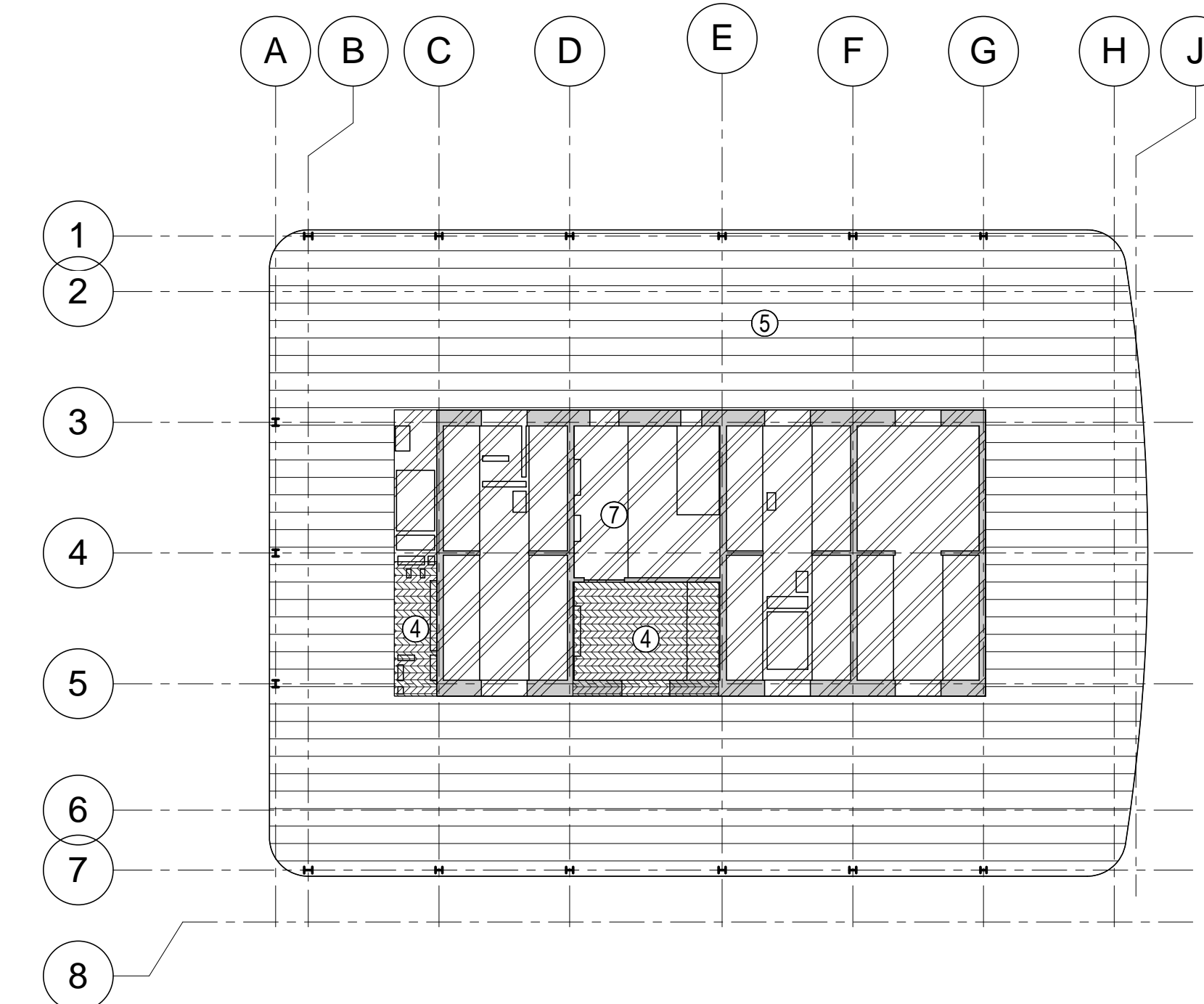
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1/32" = 1'-0"



**6 LEVEL 4 MECH. LOADING DIAGRAM**  
1/32" = 1'-0"



**7 LEVEL 5 MECHANICAL MEZZ. LOADING DIAGRAM**  
1/32" = 1'-0"



**8 LEVEL 22 TYP LOW-RISE LOADING DIAGRAM**  
1/32" = 1'-0"









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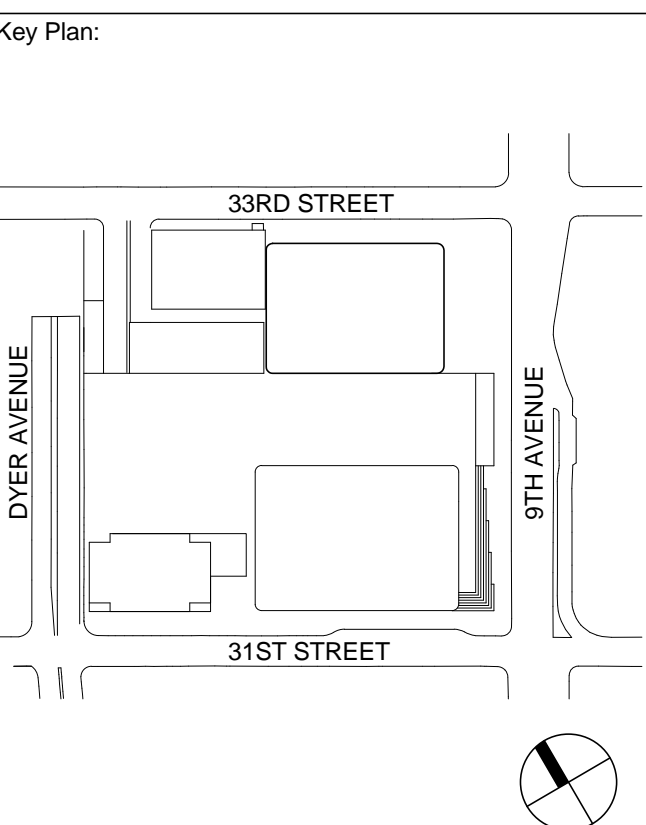
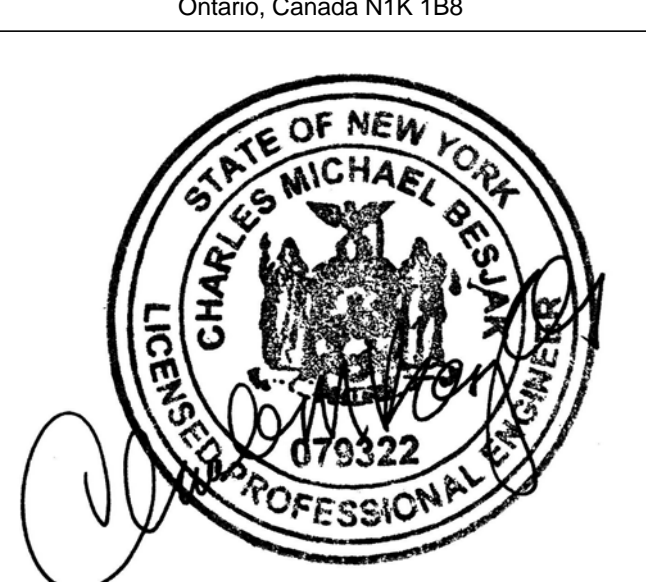
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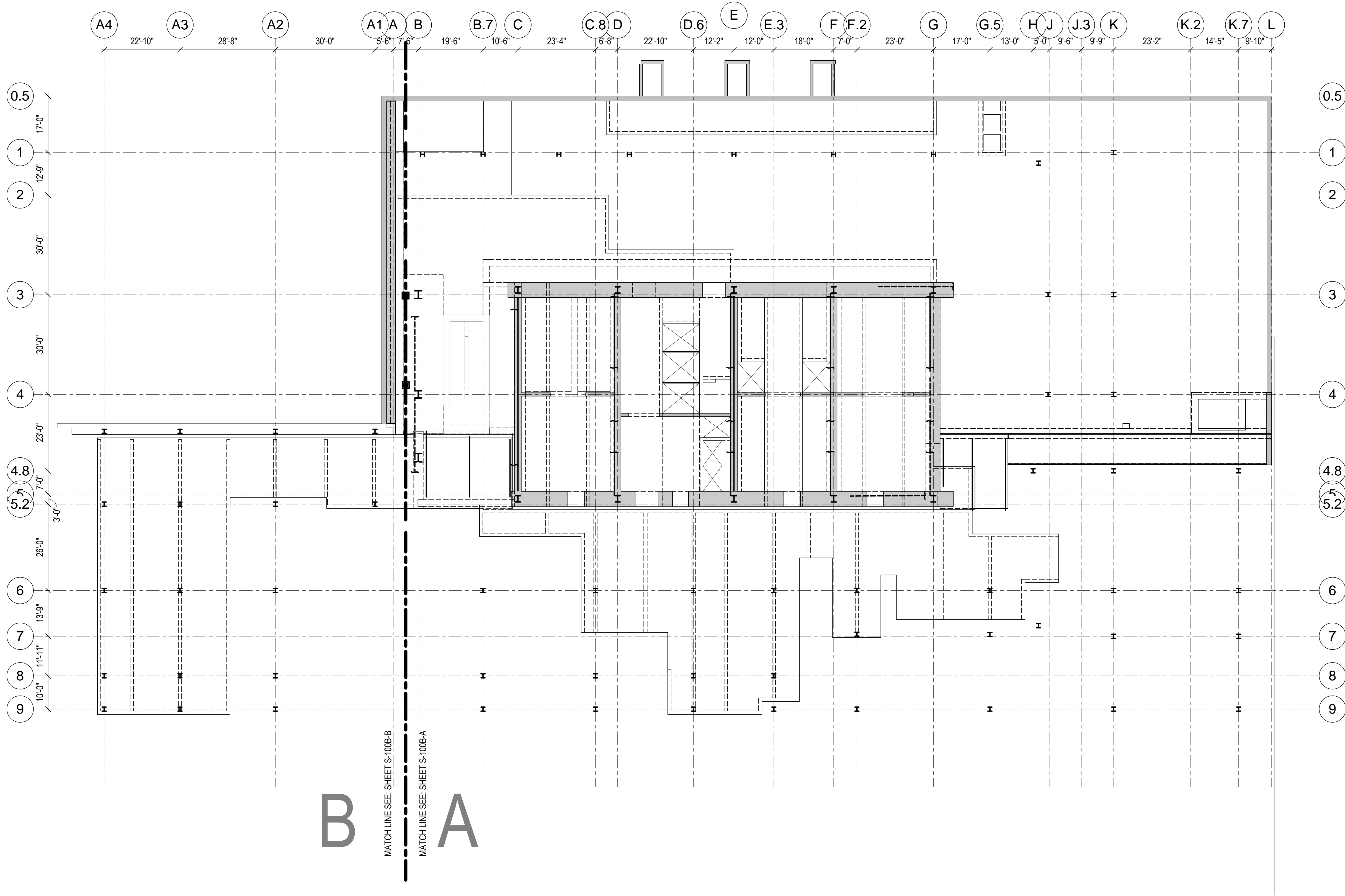


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4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 3D PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name: **OVERALL  
LEVEL B PLAN**

Project No.: 211157	B-SCAN Sheet No.: <b>S-050.00</b>
Date: 20 JUN 2014	Sheet No.: S-050
Scale: 1/16" = 1'-0"	Page No.: 8 of 90
File No.: S-050	

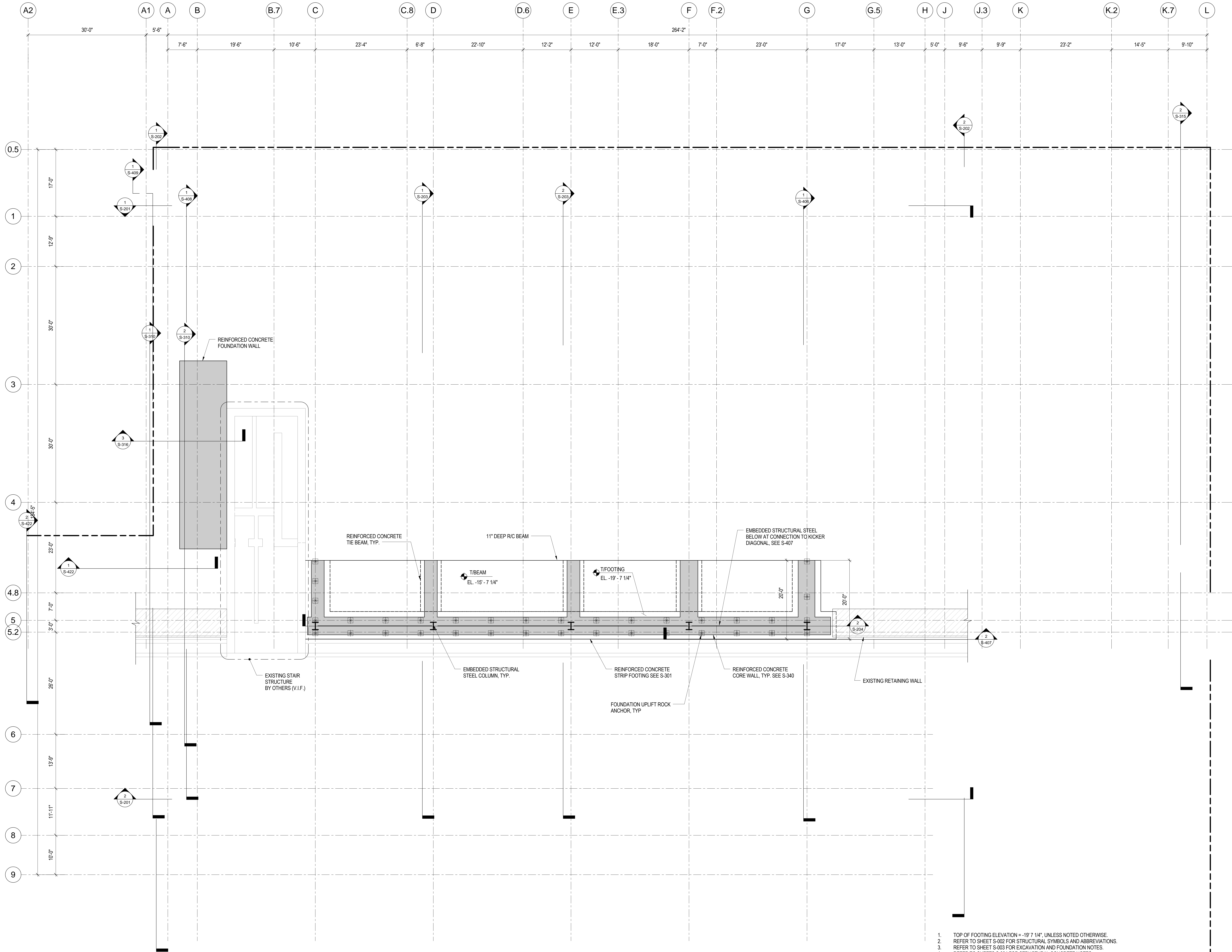


**1 OVERALL LEVEL B PLAN**  
1/16" = 1'-0"









**1 FOUNDATION LOWER PLAN (TRACK LEVEL)**  
1/8" = 1'-0"

1. TOP OF FOOTING ELEVATION = -19' 7 1/4", UNLESS NOTED OTHERWISE.
2. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
3. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
4. REFER TO SHEETS S-004 FOR STRUCTURAL CONCRETE NOTES.
5. REFER TO SHEETS S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
6. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
7. REFER TO SHEETS S-301 AND S-302 FOR CORE WALL CONTINUOUS FOOTINGS SECTIONS AND DETAILS.
8. REFER TO SHEET S-305 FOR CAISSON SCHEDULE, SECTIONS AND DETAILS.
9. REFER TO SHEET S-340 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
10. REFER TO SHEET S-341 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
11. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
12. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
13. REFER TO SHEETS S-405 TO S-407 FOR EMBEDDED STRUCTURAL STEEL ELEVATIONS, SCHEDULES, SECTIONS AND DETAILS.
14. REFER TO DRAWINGS PREPARED BY ENTUITIVE FOR ADJACENT PLATFORM STRUCTURE.

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Key Plan:

Seal & Signature:

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Sheet Name:

**FOUNDATION  
LOWER PLAN  
(TRACK LEVEL)**

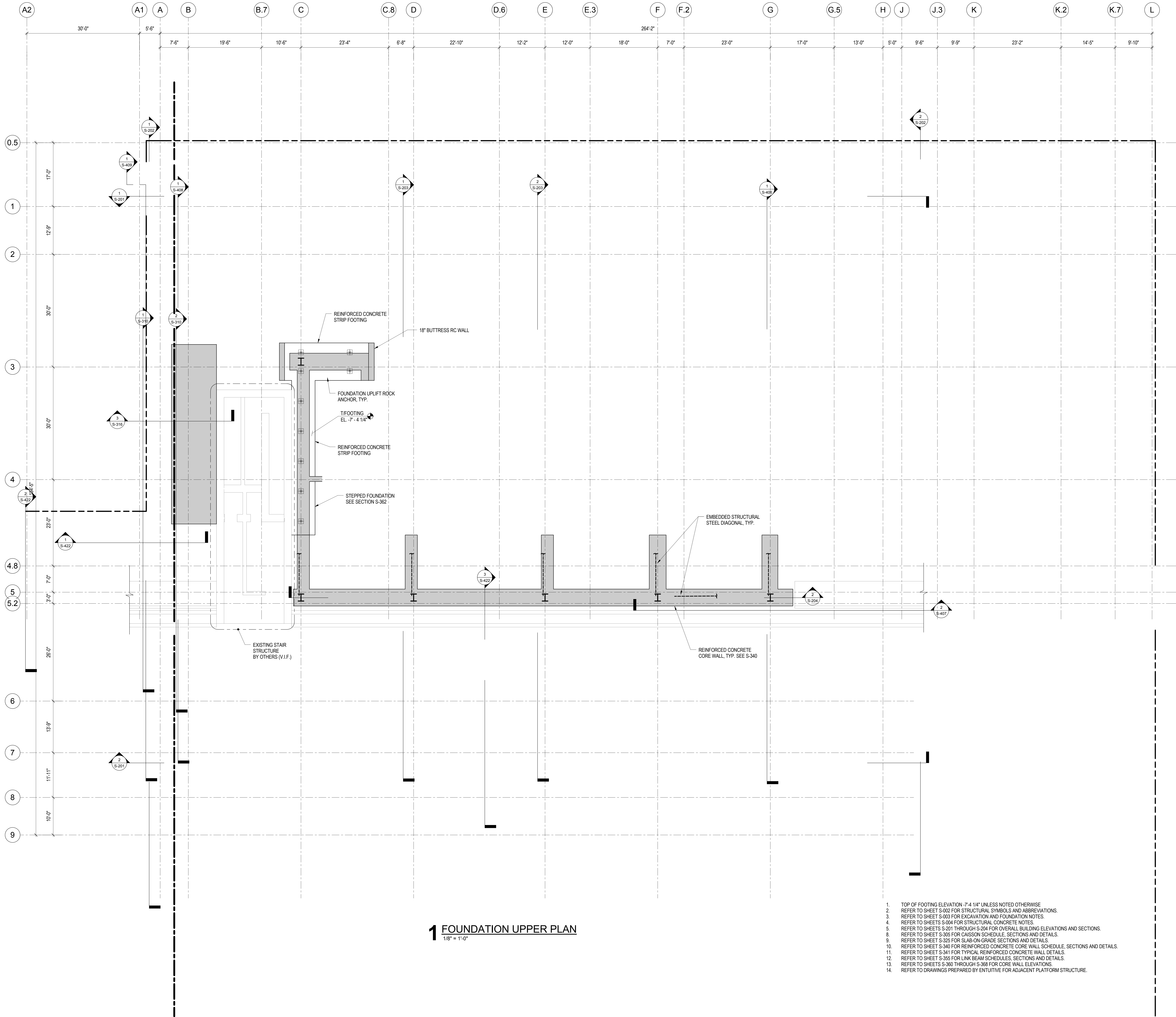
Project No.:	B-SCAN Sheet No.:
211157	S-092.00

Date:	Sheet No.:
20 JUN 2014	S-FND

Scale:	Page No.:
1/8" = 1'-0"	10 of 90



6/9/2014 11:15:34 AM



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

1. TOP OF FOOTING ELEVATION -7'-4 1/4" UNLESS NOTED OTHERWISE.
2. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
3. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
4. REFER TO SHEETS S-004 FOR STRUCTURAL CONCRETE NOTES.
5. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
6. REFER TO SHEET S-305 FOR CAISSON SCHEDULE, SECTIONS AND DETAILS.
7. REFER TO SHEET S-325 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
8. REFER TO SHEET S-340 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
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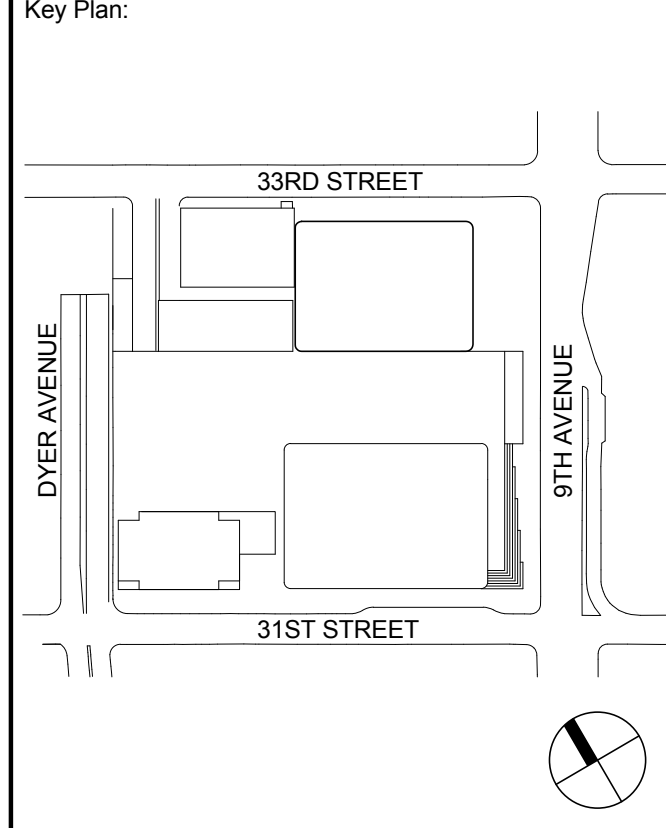
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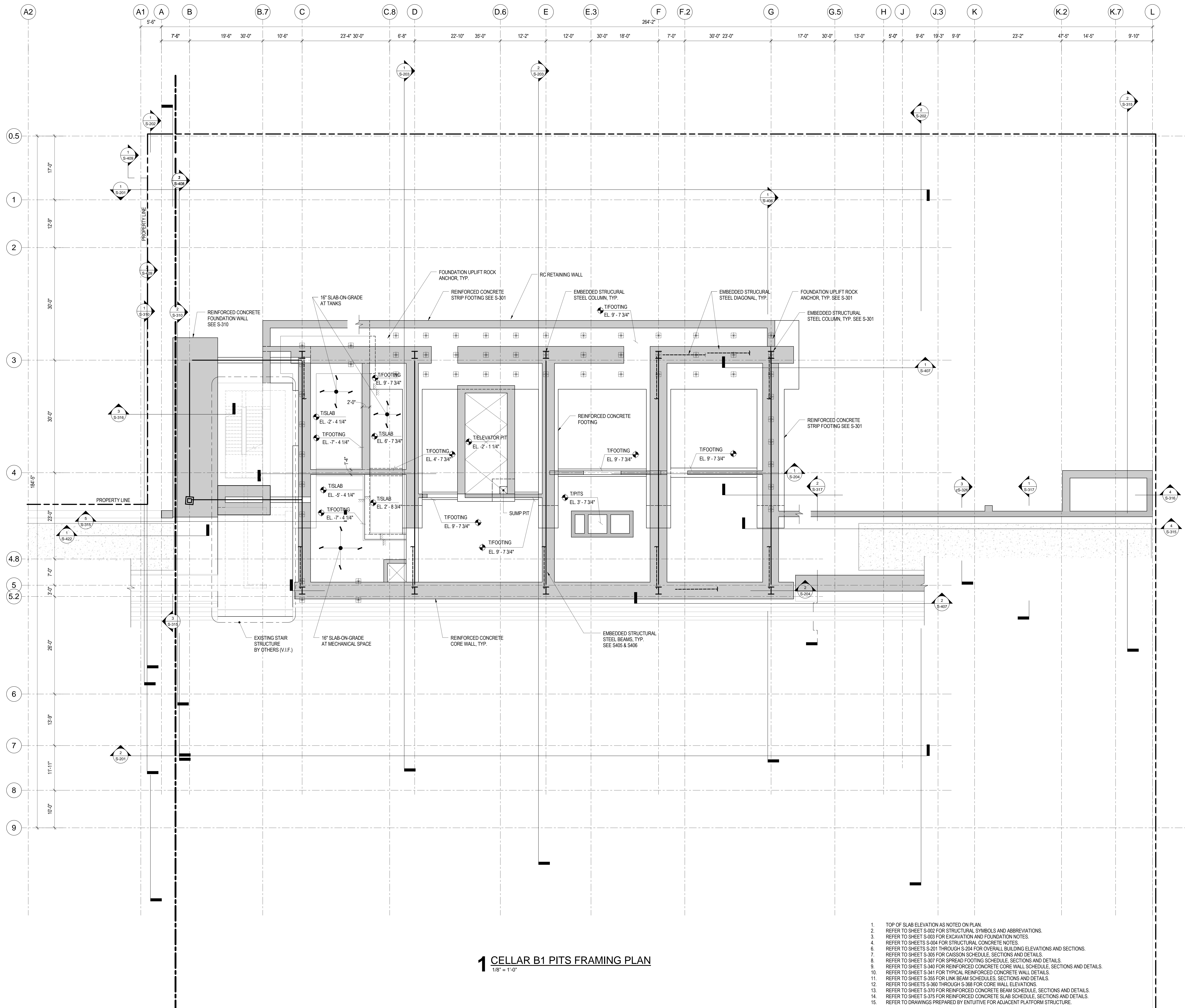
Seal & Signature:  
  
PRELIMINARY  
NOT FOR CONSTRUCTION

6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:  
**FOUNDATION  
UPPER PLAN**

Project No.: 211157	B-SCAN Sheet No.: <b>S-093.00</b>
Date: 20 JUN 2014	Sheet No.: <b>S-097B3</b>
Scale: 1/8" = 1'-0"	Page No.: 11 of 90
File No.: S-097B3	

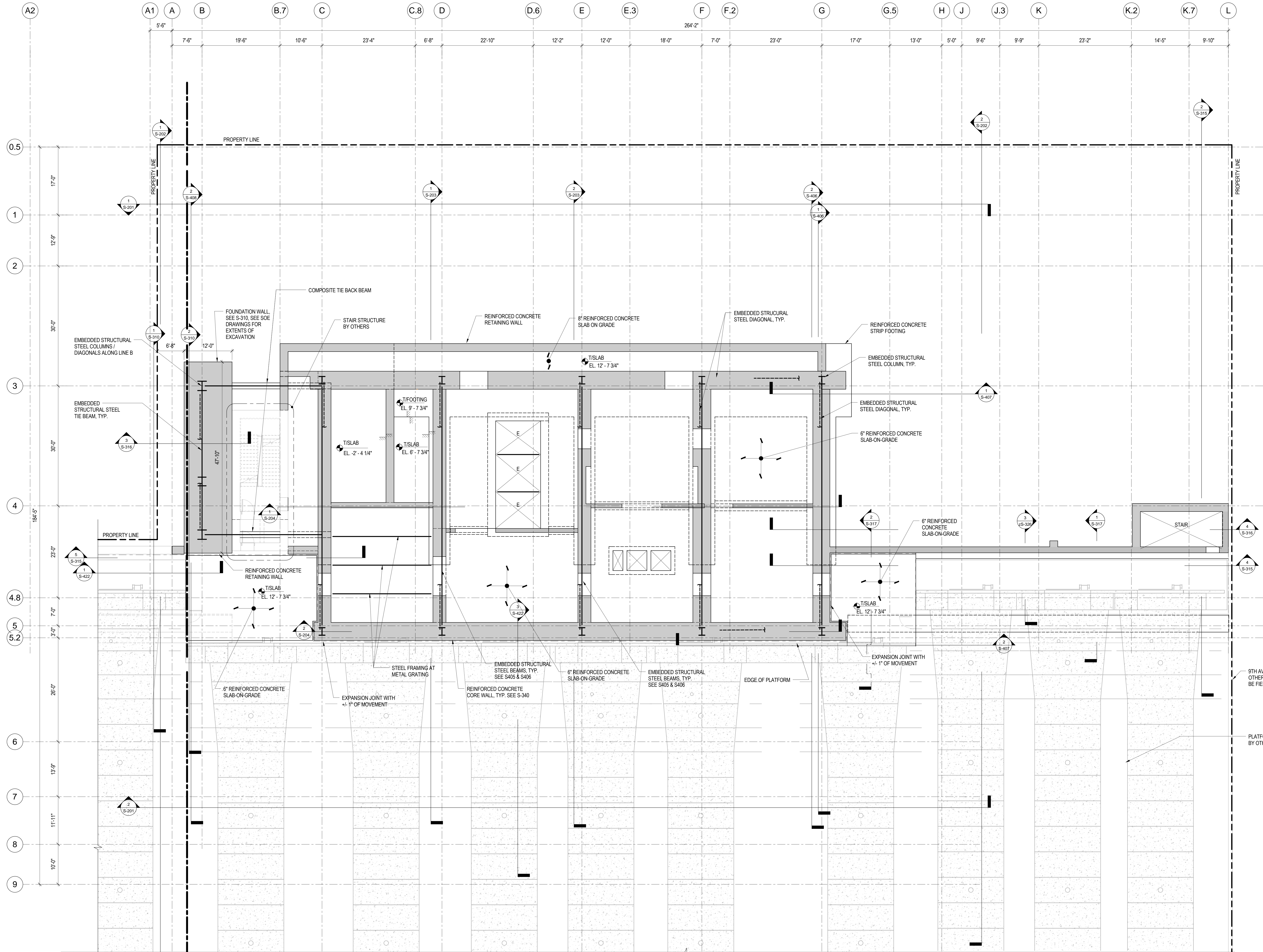




## 1 CELLAR B1 PITS FRAMING PLAN

1. TOP OF SLAB ELEVATION AS NOTED ON PLAN.  
2. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.  
3. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTATIONS.  
4. REFER TO SHEET S-004 FOR STRUCTURAL CONCRETE NOTES.  
5. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.  
6. REFER TO SHEET S-305 FOR CANNING SCHEDULE, SECTIONS AND DETAILS.  
7. REFER TO SHEET S-306 FOR REINFORCED CONCRETE CURE SCHEDULE, SECTIONS AND DETAILS.  
8. REFER TO SHEET S-307 FOR PAVING FOOTING SCHEDULE, SECTIONS AND DETAILS.  
9. REFER TO SHEET S-340 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.  
10. REFER TO SHEET S-341 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.  
11. REFER TO SHEET S-356 FOR LINING SCHEDULE, SECTIONS AND DETAILS.  
12. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.  
13. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.  
14. REFER TO SHEET S-375 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.  
15. REFER TO DRAWINGS PREPARED BY ENTITLED FOR ADJACENT PLATFORM STRUCTURE.





**1 CELLAR B1 FLOOR FRAMING PLAN - PART A**  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = +12'-7 3/4", UNLESS NOTED OTHERWISE.
2. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
3. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
4. REFER TO SHEETS S-004 FOR STRUCTURAL CONCRETE NOTES.
5. REFER TO SHEETS S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
6. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
7. REFER TO SHEETS S-301 AND S-302 FOR CORE WALL CONTINUOUS FOOTINGS SECTIONS AND DETAILS.
8. REFER TO SHEET S-315 FOR SPREAD FOOTING SCHEDULE, SECTIONS AND DETAILS.
9. REFER TO SHEET S-316 FOR GRADE BEAM SCHEDULE, SECTIONS AND DETAILS.
10. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
11. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
12. REFER TO SHEET S-330 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
13. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
14. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
15. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
16. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
17. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-401 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
19. REFER TO DRAWINGS PREPARED BY ENTUITIVE FOR ADJACENT PLATFORM STRUCTURE.



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Vibration Consultant  
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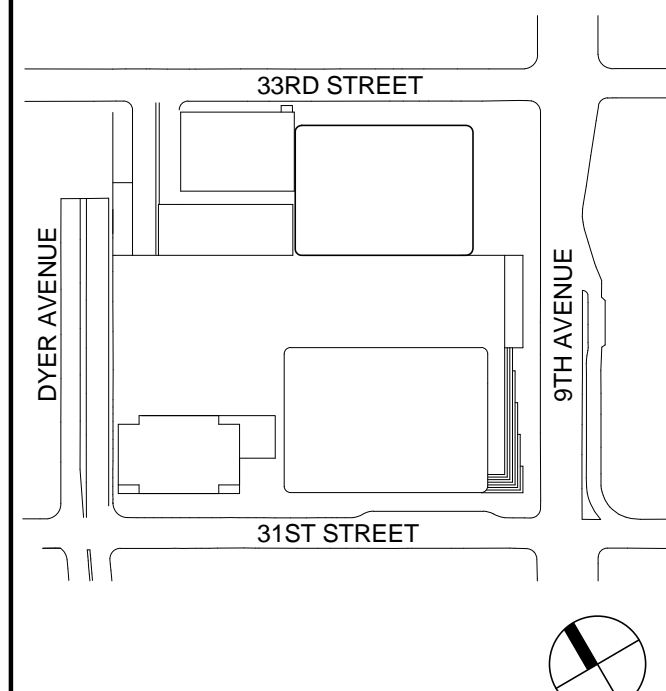
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

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Key Plan:



Seal & Signature:

**PRELIMINARY  
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Project No.: 211157  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet Name: **CELLAR B1  
FLOOR FRAMING  
PLAN - PART A**

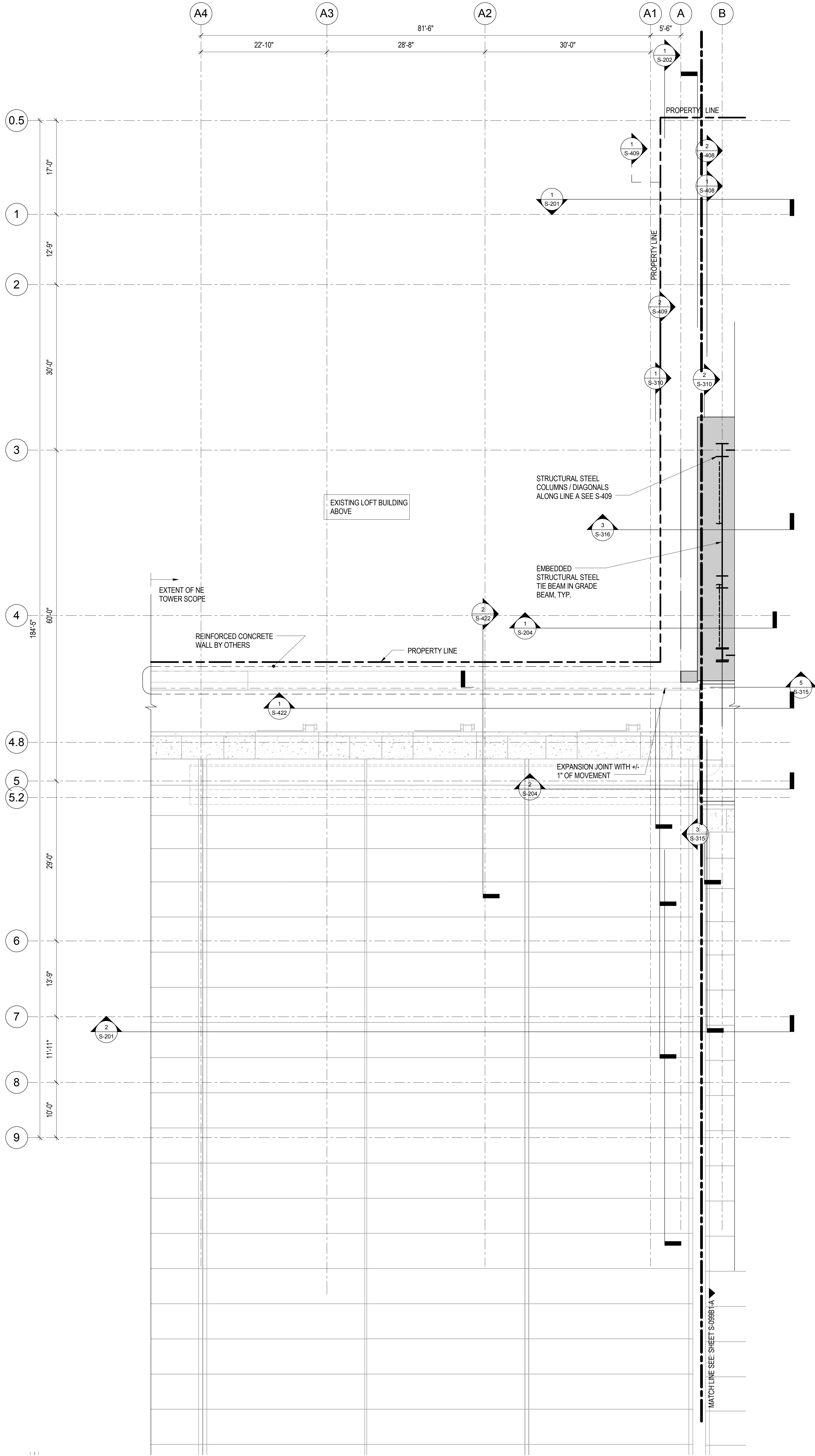
Sheet No.: **S-095.00**

Page No.: **13 of 90**



**1 CELLAR B1 FLOOR FRAMING PLAN - PART B**  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = +12'-7 3/4"; UNLESS NOTED OTHERWISE.
2. REFER TO SHEET S-202 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
3. REFER TO SHEET S-203 FOR EXCAVATION AND FOUNDATION NOTES.
4. REFER TO SHEETS S-204 FOR STRUCTURAL CONCRETE NOTES.
5. REFER TO SHEETS S-205 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
6. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
7. REFER TO SHEETS S-301 AND S-302 FOR CORE WALL CONTINUOUS FOOTINGS SECTIONS AND DETAILS.
8. REFER TO SHEET S-315 FOR SPREAD FOOTING SCHEDULE, SECTIONS AND DETAILS.
9. REFER TO SHEET S-316 FOR GRADE BEAM SCHEDULE, SECTIONS AND DETAILS.
10. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
11. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
12. REFER TO SHEET S-350 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
13. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
14. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
15. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
16. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
17. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-401 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
19. REFER TO DRAWINGS PREPARED BY ENTUITIVE FOR ADJACENT PLATFORM STRUCTURE.



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Key Plan:

Seal & Signature:

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1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

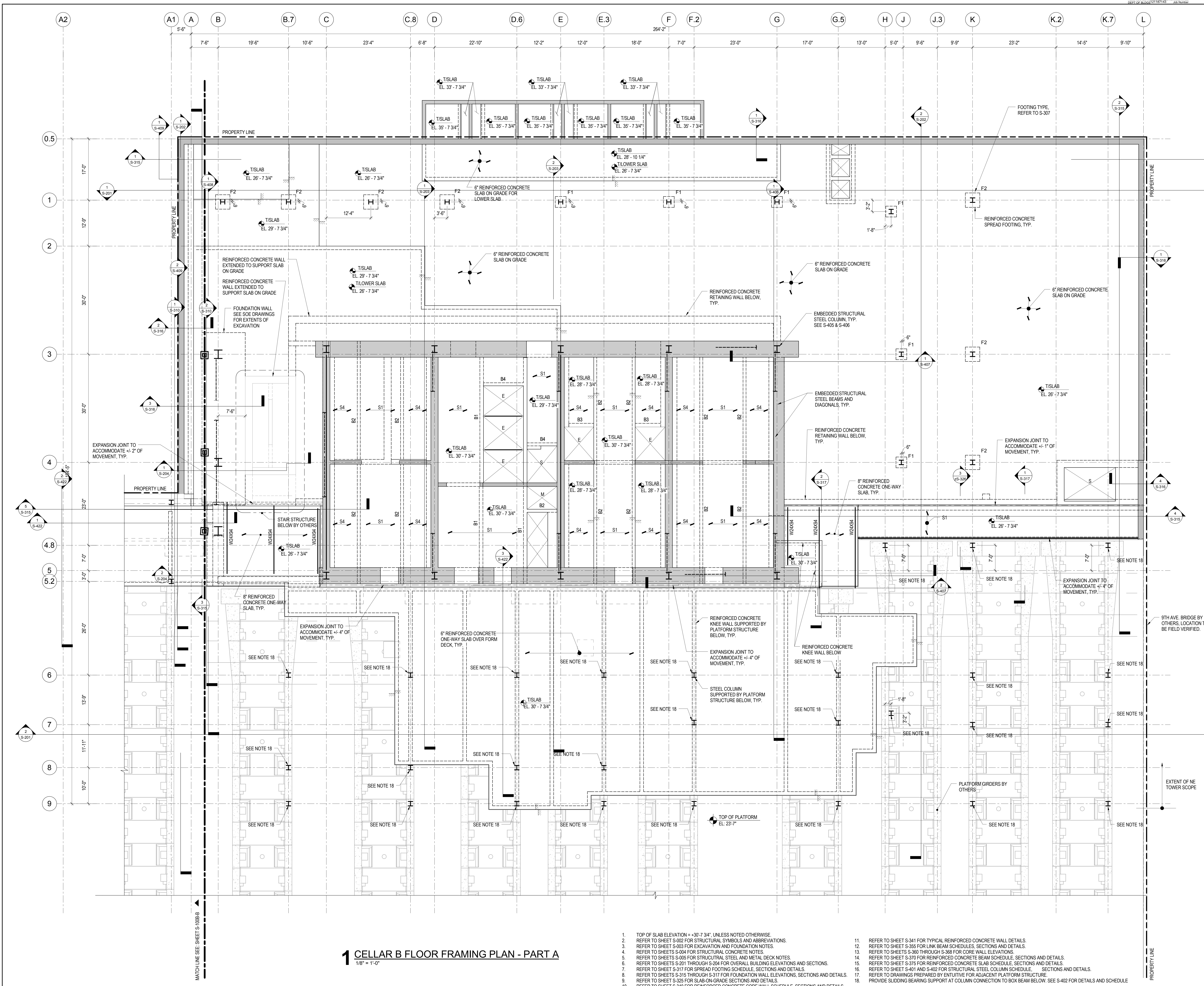
Sheet Name: **CELLAR B1  
FLOOR FRAMING  
PLAN - PART B**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-096.00</b>

Date:	Sheet No.:
20 JUN 2014	S-099B1-B

Scale:	Page No.:
1/8" = 1'-0"	14 of 90





**1 CELLAR B FLOOR FRAMING PLAN - PART A**  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = +30'-7 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
3. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
4. REFER TO SHEETS S-004 FOR STRUCTURAL CONCRETE NOTES.
5. REFER TO SHEETS S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
6. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
7. REFER TO SHEET S-317 FOR SPREAD FOOTING SCHEDULE, SECTIONS AND DETAILS.
8. REFER TO SHEETS S-315 THROUGH S-317 FOR FOUNDATION SLAB ELEVATIONS, SECTIONS AND DETAILS.
9. REFER TO SHEET S-325 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
10. REFER TO SHEET S-340 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
11. REFER TO SHEET S-341 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
12. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
13. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
14. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
15. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
16. REFER TO SHEET S-401 AND S-402 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
17. REFER TO DRAWINGS PREPARED BY ENTITLED FOR ADJACENT PLATFORM STRUCTURE.
18. PROVIDE SLIDING BEARING SUPPORT AT COLUMN CONNECTION TO BOX BEAM BELOW. SEE S-402 FOR DETAILS AND SCHEDULE.

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40 Wall Street, New York, NY 10005

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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:  
  
**PRELIMINARY  
NOT FOR CONSTRUCTION**

No.	Date	Description
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

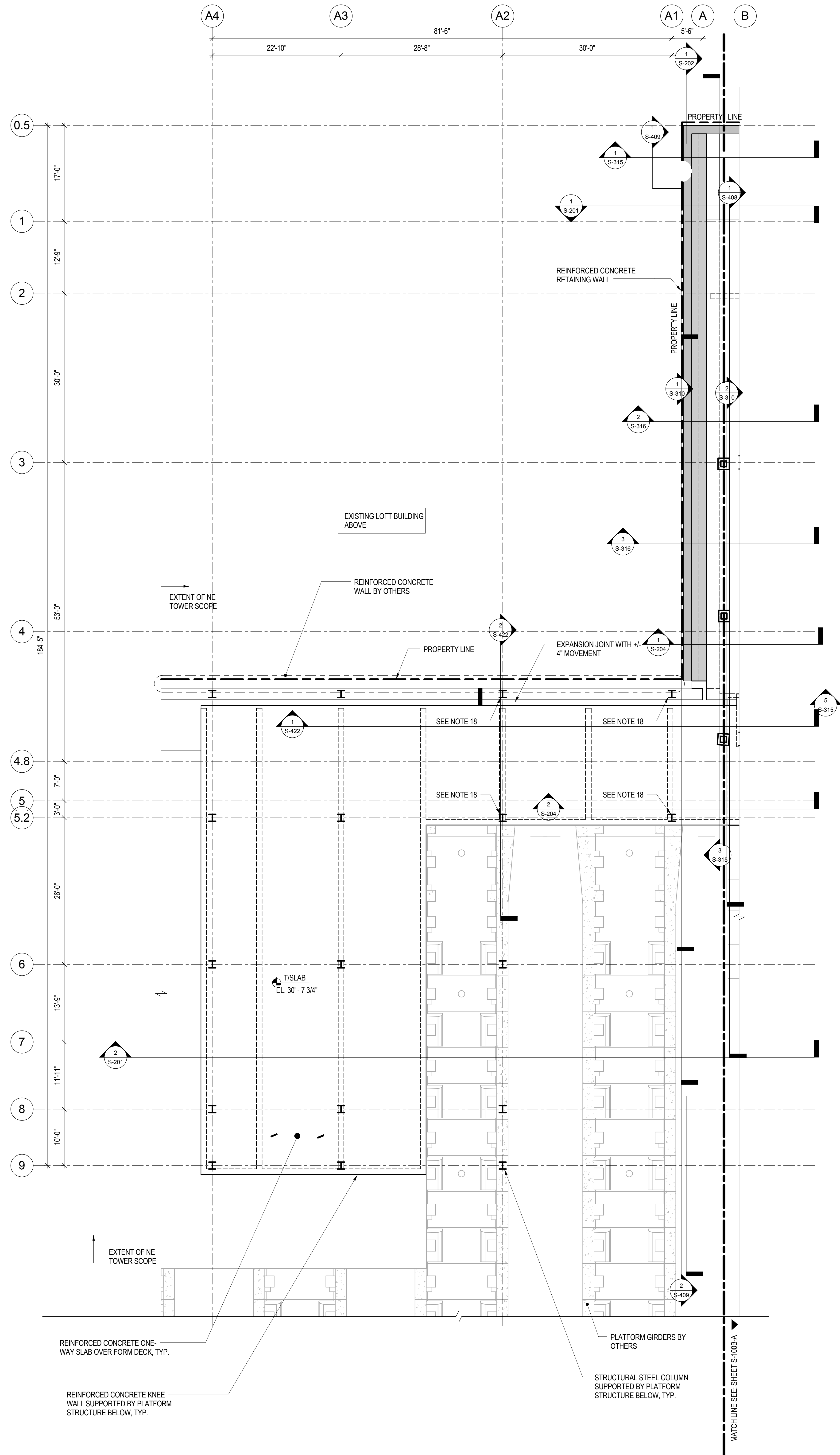
No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

Sheet Name: **CELLAR B FLOOR FRAMING PLAN - PART A**

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No.: S-100B-A

B-SCAN Sheet No.: **S-097.00**  
Sheet No.: **S-100B-A**  
Page No.: 15 of 90





1. TOP OF SLAB ELEVATION = +30'-7 3/4", UNLESS NOTED OTHERWISE.
2. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
3. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
4. REFER TO SHEETS S-004 FOR STRUCTURAL CONCRETE NOTES.
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6. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
7. REFER TO SHEET S-307 FOR SPREAD FOOTING SCHEDULE, SECTIONS AND DETAILS.
8. REFER TO SHEETS S-315 THROUGH S-317 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
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10. REFER TO SHEET S-340 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
11. REFER TO SHEET S-341 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
12. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
13. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
14. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
15. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
16. REFER TO SHEET S-401 AND S-402 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
17. REFER TO DRAWINGS PREPARED BY ENTITLED FOR ADJACENT PLATFORM STRUCTURE.
18. PROVIDE SLIDING BEARING SUPPORT AT COLUMN CONNECTION TO BOX BEAM BELOW. SEE S-402 FOR DETAILS & SCHEDULE.

# 1 CELLAR B FLOOR FRAMING PLAN - PART B

1/8" = 1'-0"



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3	15 SEP 2013	ISSUED FOR 20% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 60% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

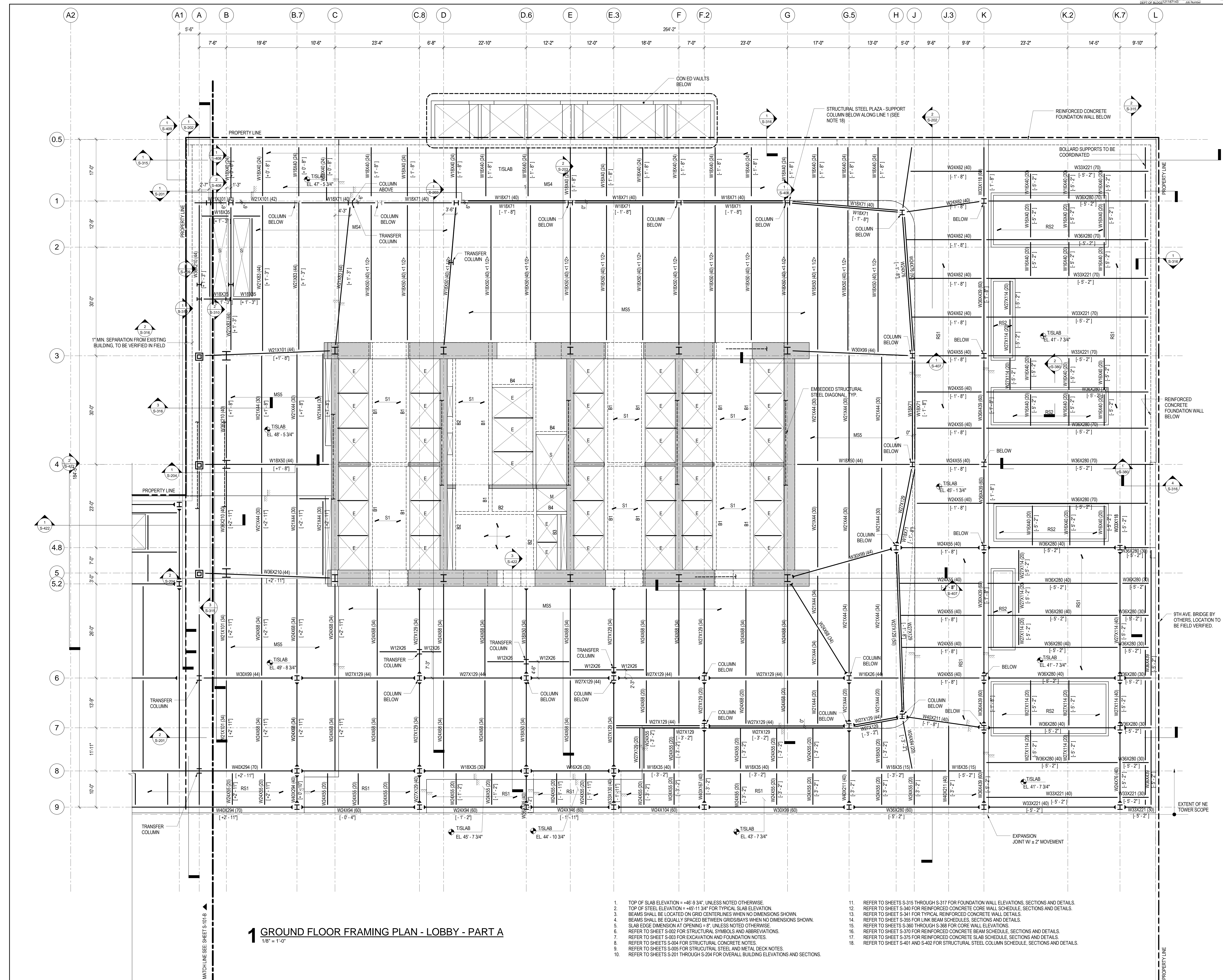
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**CELLAR B FLOOR  
FRAMING PLAN -  
PART B**


Project No.:	B-SCAN Sheet No.:
211157	S-098.00

Date:	Sheet No.:
20 JUN 2014	S-1008-B

Scale:	Page No.:
1/8" = 1'-0"	16 of 90







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Key Plan:  


Seal & Signature:  


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No.	Date	Description
7	30 JAN 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
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3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	18 MAR 2013	ISSUED FOR RECONCILIATION

Sheet Name:  
**GROUND FLOOR  
FRAMING PLAN -  
LOBBY - PART A**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-100.00</b>

Date:  
30 JAN 2015

Scale:  
1/8" = 1'-0"

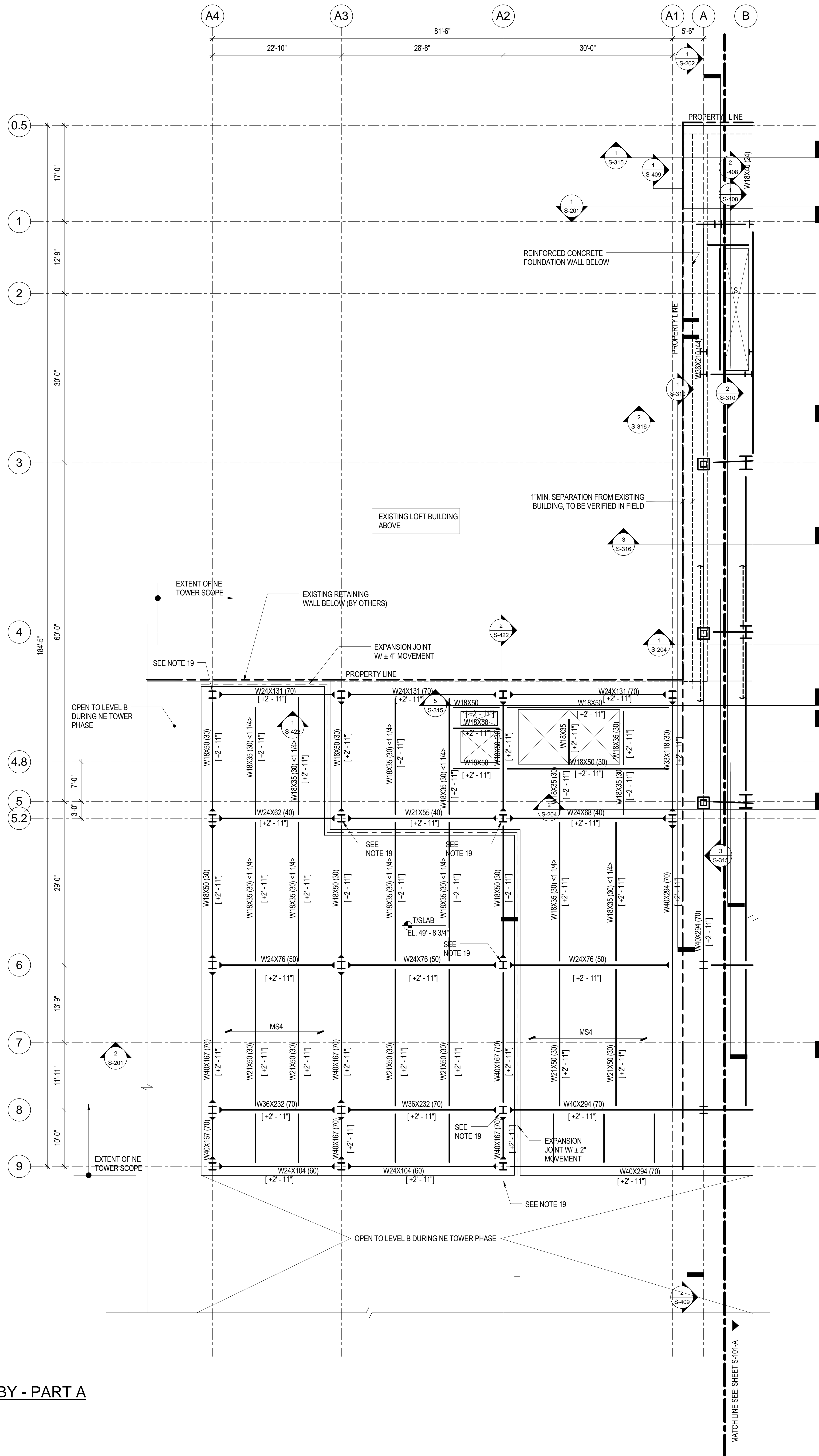
File No. S-101-A Page No. 17 of 90



1. TOP OF SLAB ELEVATION = +46'-9 3/4", UNLESS NOTED OTHERWISE.
2. TOP OF STEEL ELEVATION = +46'-11 3/4" FOR TYPICAL SLAB ELEVATION.
3. BEAMS SHALL BE LOCATED ON GRID CENTERLINES WHEN NO DIMENSIONS SHOWN.
4. BEAMS SHALL BE EQUALLY SPACED BETWEEN GRIDS/BAYS WHEN NO DIMENSIONS SHOWN.
5. SLAB EDGE DIMENSION AT OPENING = 8", UNLESS NOTED OTHERWISE.
6. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
7. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
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17. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-401 AND S-402 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
19. PROVIDE SLIDING CONNECTION AT GIRDER SUPPORT TO COLUMN ACROSS EXPANSION JOINT. SEE DETAIL 6421.

## 2 GROUND FLOOR FRAMING PLAN - LOBBY - PART A

1/8" = 1'-0"



**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
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Architecture/Structural Engineering  
**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering  
Philip Habb & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave, Suite 1, Mill Valley, California 94041

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
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Landscape Consultant  
Field Operations  
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Security Consultant  
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Blast Consultant  
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Acoustical Consultant  
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Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
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215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature:  
  
**PRELIMINARY  
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No.	Date	Description
7	30 JAN 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_  
Sheet Name: **GROUND FLOOR FRAMING PLAN - LOBBY - PART B**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-101.00</b>

Date:	Scale:
30 JAN 2015	1/8" = 1'-0"

File No.:	Page No.:
S-101-B	18 of 90









MANHATTAN WEST:  
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375 Ninth Avenue, New York, NY 10001

Client

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**SOM**

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MEP Engineering

Jaros Baum & Boles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave, Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering

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14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

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475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Ventor & Santoro  
250 State Street #1, North Haven, CT 06473

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Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

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404 Fifth Avenue #8, New York, NY 10016

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Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Seal & Signature

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NOT FOR CONSTRUCTION

Project No.: 211157

Sheet No.: S-103

Date: 30 JAN 2015

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Page No.: 20 of 90

Project No.: 211157

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Page No.: 20 of 90

Project No.: 211157

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Page No.: 20 of 90

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Page No.: 20 of 90

Project No.: 211157

Sheet No.: S-103

Date: 30 JAN 2015

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Page No.: 20 of 90

Project No.: 211157

Sheet No.: S-103

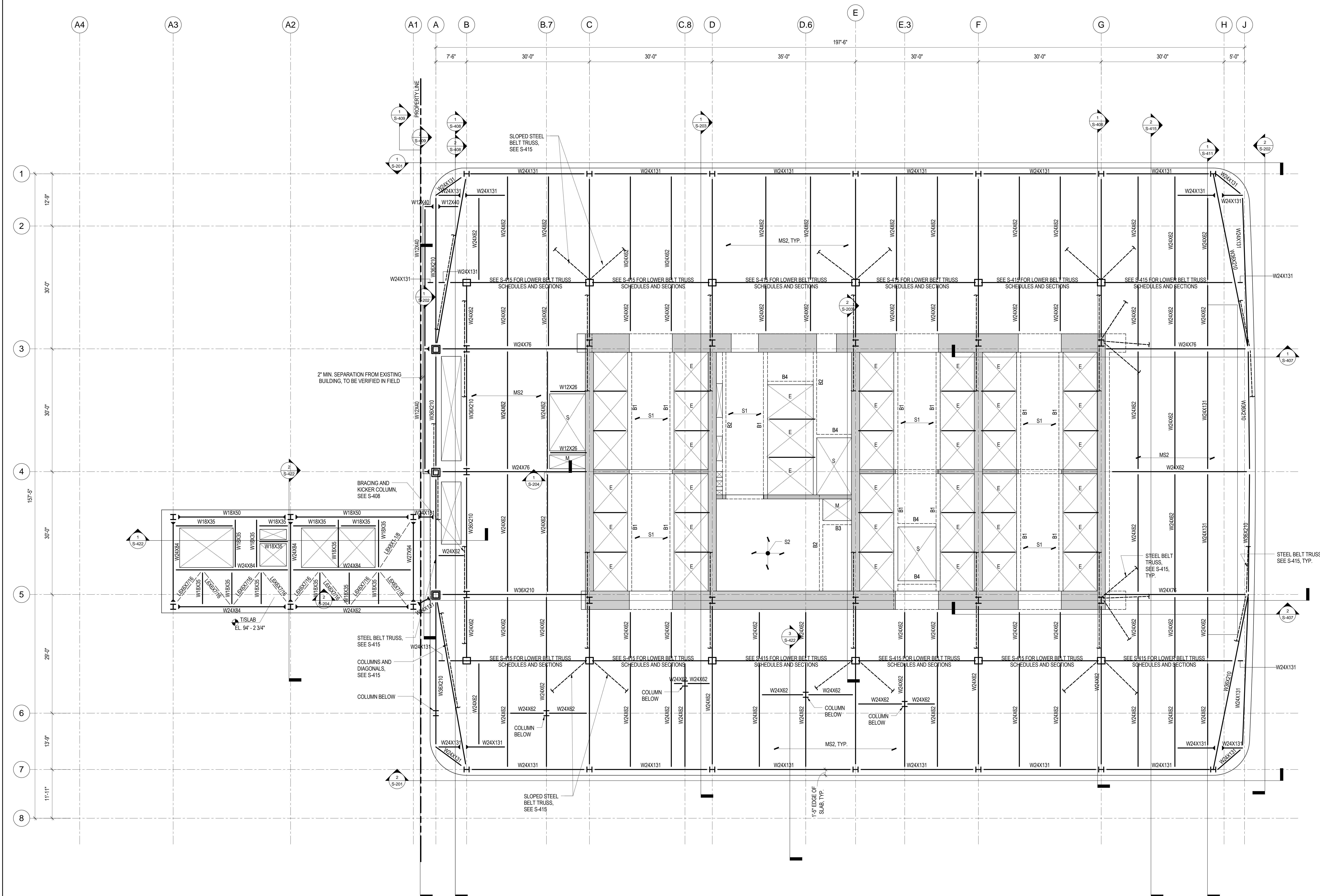
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File No.: S-103

Page No.: 20 of 90





1 4TH FLOOR FRAMING PLAN - MECHANICAL  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = 9' - 0", UNLESS NOTED OTHERWISE.
2. TOP OF STEEL ELEVATION = 9' - 1", UNLESS NOTED OTHERWISE BY (+X'-X") OR (X'-X"), WHICH DENOTE POSITIVE OR NEGATIVE VERTICAL OFFSET, RESPECTIVELY.
3. BEAMS SHALL BE LOCATED ON GRID CENTERLINES WHEN NO DIMENSIONS SHOWN.
4. BEAMS SHALL BE EQUALLY SPACED BETWEEN GRID BAYS WHEN NO DIMENSIONS SHOWN.
5. SLAB EDGE DIMENSION AT OPENING = 8", UNLESS NOTED OTHERWISE.
6. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
7. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
8. REFER TO SHEETS S-004 FOR STRUCTURAL CONCRETE NOTES.
9. REFER TO SHEETS S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
10. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
11. REFER TO SHEETS S-301 AND S-302 FOR CORE WALL CONTINUOUS FOOTINGS SECTIONS AND DETAILS.
12. REFER TO SHEET S-305 FOR CAISSON SCHEDULE, SECTIONS AND DETAILS.
13. REFER TO SHEET S-315 FOR SPREAD FOOTING SCHEDULE, SECTIONS AND DETAILS.
14. REFER TO SHEET S-316 FOR GRADE BEAM SCHEDULE, SECTIONS AND DETAILS.
15. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
16. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
17. REFER TO SHEET S-350 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
19. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
20. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
21. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
22. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
23. REFER TO SHEET S-401 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
24. REFER TO DRAWINGS PREPARED BY ENTITLED FOR ADJACENT PLATFORM STRUCTURE.
25. REFER TO SHEET S-501 FOR METAL DECK SLAB SCHEDULES, SECTIONS & DETAILS.

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Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature:

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NOT FOR CONSTRUCTION

No.	Date	Description
7	30 JAN 2015	ISSUED FOR BUILDING PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

Sheet Name: **4TH FLOOR  
FRAMING PLAN -  
MECHANICAL**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-104.00</b>

Date:	Scale:
30 JAN 2015	1/8" = 1'-0"

File No.:	Page No.:
S-104	21 of 90





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| Client<br><b>Brookfield</b><br>Brookfield Place<br>250 Vesey Street, 15th Floor, New York, NY 10281                       |   |
| Architecture/Structural Engineering<br><b>SOM</b><br>Skidmore, Owings & Merrill LLP<br>14 Wall Street, New York, NY 10005 |   |
| Civil Engineering   | Philip Habib & Associates<br>102 Madison Avenue #11, North Haven, CT 10016                                  |
| MEP Engineering   | Jaros Baum & Bolles<br>80 Pine Street, New York, NY 10005   |
| Vertical Transportation   | Eddgett Williams Consulting Group, Inc.<br>102 East Blinnedale Ave., Suite 1, Mill Valley, California 94941 |
| Sustainable Design  | Viridian Energy & Environmental<br>50 Washington Street, Norwalk, CT 06854                                  |
| Geo-Technical Engineering   | Mueser Rutledge Consulting Engineers<br>14 Penn Plaza, 22S W. 34th Street #610,<br>New York, NY 10022       |
| Landscape Consultant  | Field Operations<br>475 10th Avenue, New York, NY 10018   |
| Security Consultant   | Ducibella, Vantor & Santoro<br>250 State Street #F1, North Haven, CT 06473                                  |
| Blast Consultant  | Weidlinger Associates, Inc.<br>40 Wall Street, New York, NY 10005   |
| Acoustical Consultant   | Ceramî & Associates<br>404 Fifth Avenue #B, New York, NY 10018  |
| Vibration Consultants   | Wilson, Uhrig & Associates, Inc.<br>65 Broadway, Suite 401, New York, NY 10006                              |
| Code Consultant   | Code Consultants Professional Engineers PC<br>215 West 40th Street, 15th Floor, New York, NY 10018          |
| Facade Maintenance Consultant   | Entek Engineering LLC<br>166 Ames Street, Hackensack, NJ 07601  |
| Wind Tunnel Consultant  | Rowan Williams Davies & Irwin Inc.<br>650 Woodburn Road West, Guelph<br>Ontario, Canada N1K 1B8             |
|   |   |
| Key Plan:   |   |
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| Seal & Signature:   |   |
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| No.   | Date Description  |
| 7   | 30 JAN 2013 ISSUED FOR BUILDING PERMIT  |
| 6   | 20 JUN 2014 ISSUED FOR FOUNDATION BID   |
| 5   | 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  |
| 4   | 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  |
| 3   | 15 NOV 2013 ISSUED FOR DD PROGRESS PRICING  |
| 2   | 12 JUL 2013 ISSUED FOR 50% DESIGN DEVELOPMENT   |
| 1   | 15 MAR 2013 ISSUED FOR RECONCILIATION   |
| Sheet Name:<br><b>5TH FLOOR<br/>FRAMING PLAN -<br/>MECHANICAL<br/>MEZZANINE</b>   |   |
| Project No.:<br>Date:<br>Scale:<br>File No.:  | B-SCAN Sheet No.:<br><b>S-105.00</b><br>Sheet No.:<br>\$-I05<br>Page No.:<br>22of 90                        |





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80 Pine Street, New York, NY 10005

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New York, NY 10122

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250 State Street #F1, North Haven, CT 06473

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Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:  
33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

Seal & Signature:  
PRELIMINARY  
NOT FOR CONSTRUCTION

Project No.: 211157  
Date: 30 JAN 2015  
Scale: 1/8" = 1'-0"  
File No.: S-106

Sheet No.: S-106  
Page No.: 23 of 90

6TH FLOOR  
FRAMING PLAN-  
LOW-RISE

Project No.: 211157  
Date: 30 JAN 2015  
Scale: 1/8" = 1'-0"  
File No.: S-106

Sheet No.: S-106  
Page No.: 23 of 90

6TH FLOOR  
FRAMING PLAN-  
LOW-RISE

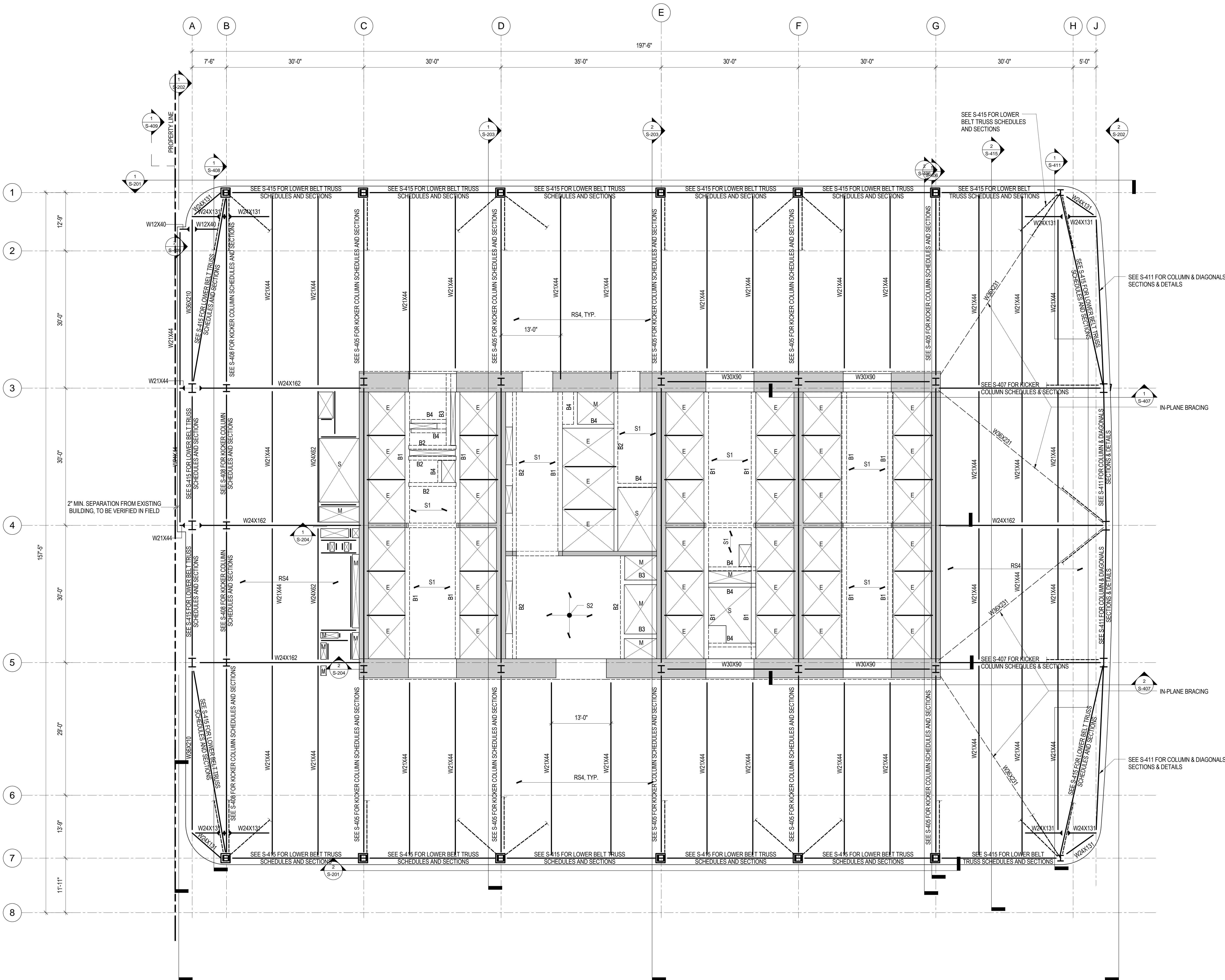
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Date: 30 JAN 2015  
Scale: 1/8" = 1'-0"  
File No.: S-106

Sheet No.: S-106  
Page No.: 23 of 90

6TH FLOOR  
FRAMING PLAN-  
LOW-RISE

Project No.: 211157  
Date: 30 JAN 2015  
Scale: 1/8" = 1'-0"  
File No.: S-106

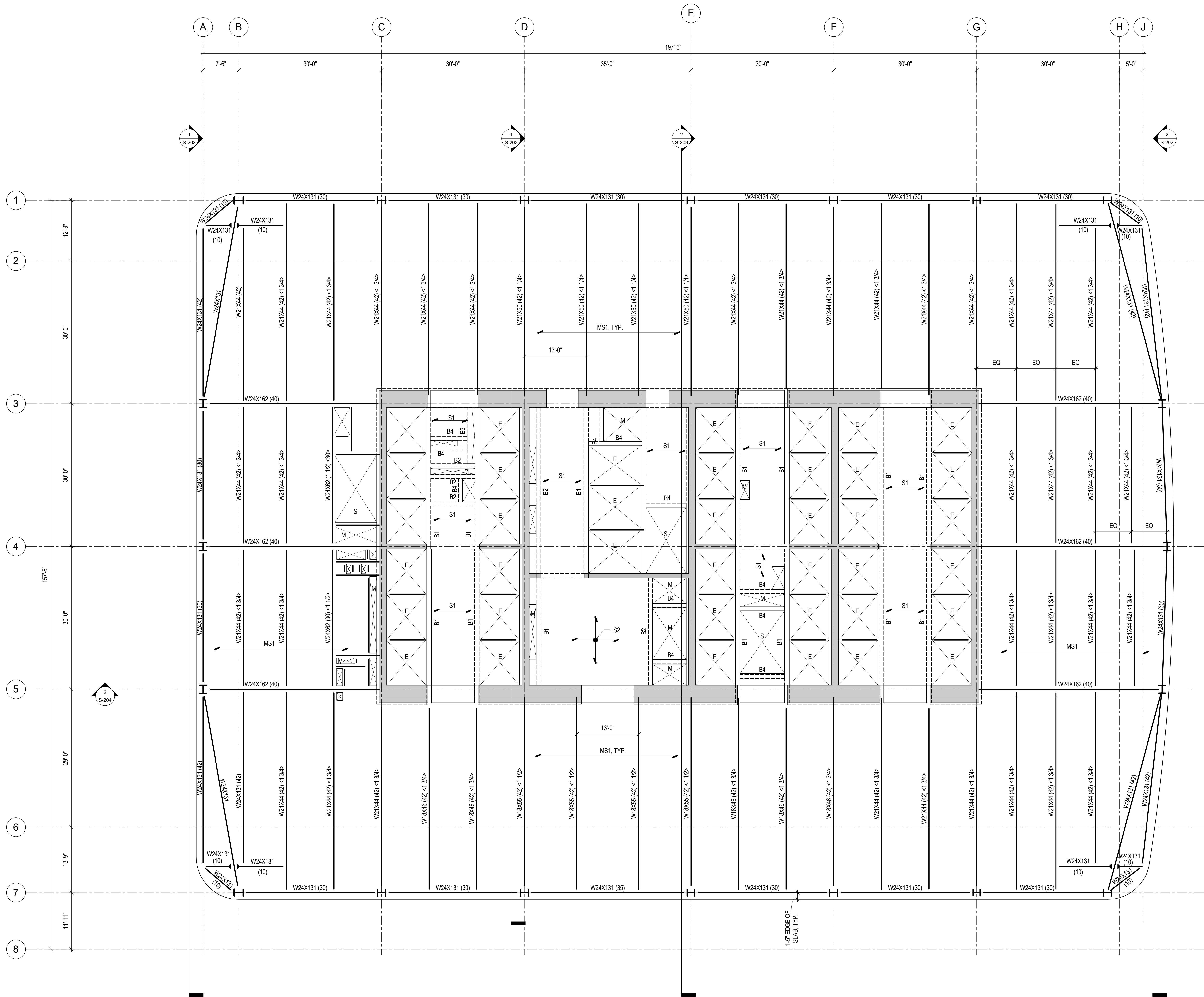
Sheet No.: S-106  
Page No.: 23 of 90



**1 6TH FLOOR FRAMING PLAN- LOW-RISE**  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = 137'-6", UNLESS NOTED OTHERWISE.
2. TOP OF STEEL ELEVATION = 136'-7", UNLESS NOTED OTHERWISE BY (+X'-X") OR (X'-X"), WHICH DENOTE POSITIVE OR NEGATIVE VERTICAL OFFSET, RESPECTIVELY.
3. BEAMS SHALL BE LOCATED ON GRID CENTERLINES WHEN NO DIMENSIONS SHOWN.
4. BEAMS SHALL BE EQUALLY SPACED BETWEEN GRIDS/BAYS WHEN NO DIMENSIONS SHOWN.
5. SLAB EDGE DIMENSION AT OPENING = 8", UNLESS NOTED OTHERWISE.
6. REFER TO SHEET S-002 FOR EXCAVATION AND FOUNDATION NOTES.
7. REFER TO SHEET S-003 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
8. REFER TO SHEET S-004 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
9. REFER TO SHEET S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
10. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
11. REFER TO SHEETS S-301 AND S-302 FOR CORE WALL CONTINUOUS FOOTINGS SECTIONS AND DETAILS.
12. REFER TO SHEET S-305 FOR CAISSON SCHEDULE, SECTIONS AND DETAILS.
13. REFER TO SHEET S-315 FOR SPREAD FOOTING SCHEDULE, SECTIONS AND DETAILS.
14. REFER TO SHEET S-316 FOR GRADE BEAM SCHEDULE, SECTIONS AND DETAILS.
15. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
16. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
17. REFER TO SHEET S-350 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
19. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
20. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
21. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
22. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
23. REFER TO SHEET S-401 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
24. REFER TO DRAWINGS PREPARED BY ENTITLED FOR ADJACENT PLATFORM STRUCTURE.
25. REFER TO SHEET S-501 FOR METAL DECK SLAB SCHEDULES, SECTIONS & DETAILS.





**1 16TH FLOOR FRAMING PLAN - TYPICAL LOW-RISE**  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = 272'-6", UNLESS NOTED OTHERWISE.
2. TOP OF STEEL ELEVATION = 272'-1/2', UNLESS NOTED OTHERWISE BY (+X'-X") OR (-X'-X"), WHICH DENOTE POSITIVE OR NEGATIVE VERTICAL OFFSET, RESPECTIVELY.
3. BEAMS SHALL BE LOCATED ON GRID CENTERLINES WHEN NO DIMENSIONS SHOWN.
4. BEAMS SHALL BE EQUALLY SPACED BETWEEN GRIDSBAYS WHEN NO DIMENSIONS SHOWN.
5. SLAB EDGE DIMENSION AT OPENING = 8", UNLESS NOTED OTHERWISE.
6. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
7. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
8. REFER TO SHEETS S-004 FOR STRUCTURAL CONCRETE NOTES.
9. REFER TO SHEETS S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
10. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
11. REFER TO SHEETS S-301 AND S-302 FOR CORE WALL CONTINUOUS FOOTINGS SECTIONS AND DETAILS.
12. REFER TO SHEET S-305 FOR CAISSON SCHEDULE, SECTIONS AND DETAILS.
13. REFER TO SHEET S-315 FOR SPREAD FOOTING SCHEDULE, SECTIONS AND DETAILS.
14. REFER TO SHEET S-316 FOR GRADE BEAM SCHEDULE, SECTIONS AND DETAILS.

15. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
16. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
17. REFER TO SHEET S-350 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
19. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
20. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
21. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
22. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
23. REFER TO SHEET S-401 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
24. REFER TO DRAWINGS PREPARED BY ENTITLED FOR ADJACENT PLATFORM STRUCTURE.
25. REFER TO SHEET S-501 FOR METAL DECK SLAB SCHEDULES, SECTIONS & DETAILS.

**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10011  
Client

**Brookfield**  
Brookfield Place  
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**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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Philip Habib & Associates  
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Edgett Williams Consulting Group, Inc.  
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250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

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Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
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Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

No.	Date	Description
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_  
Sheet Name: \_\_\_\_\_

**16TH FLOOR  
FRAMING PLAN -  
TYPICAL  
LOW-RISE**

Project No.:	B-SCAN Sheet No.:
211157	S-116.00

Date:	Sheet No.:
20 JUN 2014	S-116

Scale:	Page No.:
1/8" = 1'-0"	24 of 90

File No.: S-116





15. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
16. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
17. REFER TO SHEET S-350 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
19. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
20. REFER TO SHEETS S-360 THROUGH S-369 FOR CORE WALL ELEVATIONS.
21. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
22. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
23. REFER TO SHEET S-380 FOR STAIR AND LANDING SCHEDULES, SECTIONS AND DETAILS.
24. REFER TO DRAWINGS PREPARED BY TENTATIVE FOR ADJACENT PLATFORM STRUCTURE.
25. REFER TO SHEET S-501 FOR METAL DECK SLAB SCHEDULES, SECTIONS & DETAILS.





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Ontario, Canada N1K 1B6

Professional Engineer Seal

Key Plan:



Seal & Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90

37TH FLOOR  
FRAMING PLAN -  
TYPICAL  
MID-RISE

Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90

37TH FLOOR  
FRAMING PLAN -  
TYPICAL  
MID-RISE

Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90

37TH FLOOR  
FRAMING PLAN -  
TYPICAL  
MID-RISE

Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90

37TH FLOOR  
FRAMING PLAN -  
TYPICAL  
MID-RISE

Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90

37TH FLOOR  
FRAMING PLAN -  
TYPICAL  
MID-RISE

Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90

37TH FLOOR  
FRAMING PLAN -  
TYPICAL  
MID-RISE

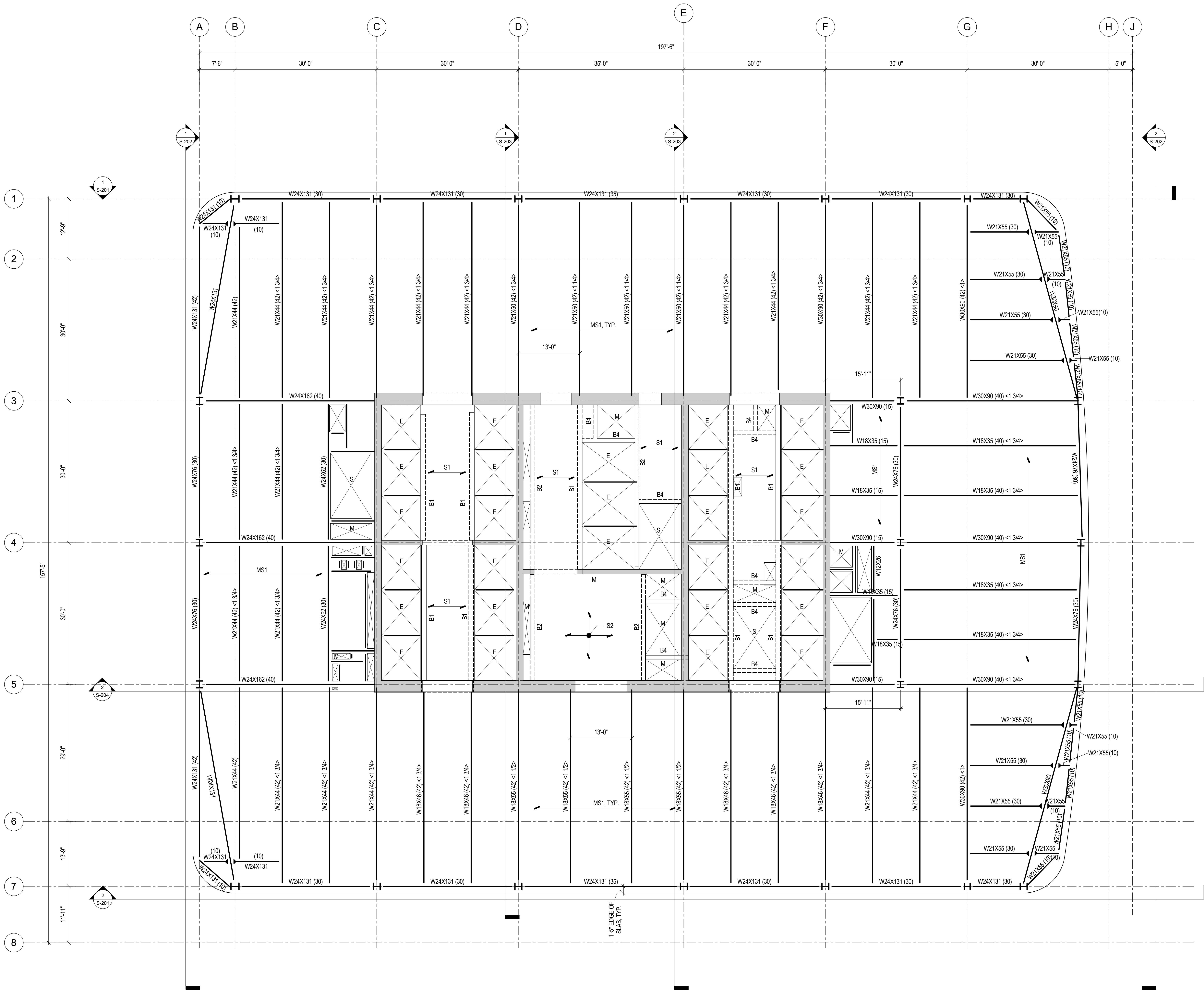
Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90

37TH FLOOR  
FRAMING PLAN -  
TYPICAL  
MID-RISE

Project No.: 137-00  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: 137  
Page No.: 26 of 90



1 37TH FLOOR FRAMING PLAN - TYPICAL MID-RISE  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = 556'-0", UNLESS NOTED OTHERWISE.
2. TOP OF STEEL ELEVATION = 556'-6 1/2" UNLESS NOTED OTHERWISE BY {X'-X"} OR {X'-X"}, WHICH DENOTE POSITIVE OR NEGATIVE VERTICAL OFFSET, RESPECTIVELY.
3. BEAMS SHALL BE LOCATED ON GRID CENTERLINES WHEN NO DIMENSIONS SHOWN.
4. BEAMS SHALL BE EQUALLY SPACED BETWEEN GRIDS/BAYS WHEN NO DIMENSIONS SHOWN.
5. SLAB EDGE DIMENSION AT OPENING = 8", UNLESS NOTED OTHERWISE.
6. REFER TO SHEET S-002 FOR EXCAVATION AND FOUNDATION NOTES.
7. REFER TO SHEET S-003 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
8. REFER TO SHEET S-004 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
9. REFER TO SHEET S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
10. REFER TO SHEET S-006 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
11. REFER TO SHEET S-007 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
12. REFER TO SHEET S-008 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
13. REFER TO SHEET S-009 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
14. REFER TO SHEET S-010 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
15. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
16. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
17. REFER TO SHEET S-350 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
18. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
19. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
20. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
21. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
22. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
23. REFER TO SHEET S-401 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
24. REFER TO DRAWINGS PREPARED BY ENTITLED FOR ADJACENT PLATFORM STRUCTURE.
25. REFER TO SHEET S-501 FOR METAL DECK SLAB SCHEDULES, SECTIONS & DETAILS.





- | 6   | 20 JUN 2014 | ISSUED FOR FOUNDATION BID         |
|-----|-------------|-----------------------------------|
| 5   | 20 JUN 2014 | ISSUED FOR FOUNDATION PERMIT      |
| 4   | 20 DEC 2013 | ISSUED FOR FOUNDATION PERMIT      |
| 3   | 15 NOV 2013 | ISSUED FOR DD PROGRESS PRICING    |
| 2   | 12 JUL 2013 | ISSUED FOR 50% DESIGN DEVELOPMENT |
| 1   | 15 MAR 2013 | ISSUED FOR RECONCILIATION         |
| No. | Date        | Description                       |





- |           |             |                                   |
|-----------|-------------|-----------------------------------|
| 8         | 20 JUN 2014 | ISSUED FOR FOUNDATION BID         |
| 9         | 20 JUN 2014 | ISSUED FOR FOUNDATION PERMIT      |
| 10        | 21 DEC 2013 | ISSUED FOR FOUNDATION PERMIT      |
| 3         | 15 NOV 2013 | ISSUED FOR DOOR PRICING PROGRESS  |
| 2         | 12 JUL 2013 | ISSUED FOR 50% DESIGN DEVELOPMENT |
| 1         | 15 MAR 2013 | ISSUED FOR RECONCILIATION         |
| No. _____ |             | Description _____                 |
- Sheet Name: \_\_\_\_\_
- # 59TH FLOOR FRAMING PLAN - TYPICAL HIGH-RISE
- Project No.: 21157
- Date: 20 JUN 2014
- Scale: 1/8" = 1'-0"
- File No.: S-159
- B-SCAN Sheet No.: \_\_\_\_\_
- ## S-159-00
- Sheet No.: S-159
- Page No.: 28 of 90





- |   |             |                                   |
|---|-------------|-----------------------------------|
| 6 | 20 JUN 2014 | ISSUED FOR FOUNDATION BID         |
| 5 | 20 JUN 2014 | ISSUED FOR FOUNDATION PERMIT      |
| 4 | 20 DEC 2013 | ISSUED FOR FOUNDATION PERMIT      |
| 3 | 15 NOV 2013 | ISSUED FOR DD PROGRESS PRICING    |
| 2 | 12 JUL 2013 | ISSUED FOR 50% DESIGN DEVELOPMENT |
| 1 | 15 MAR 2013 | ISSUED FOR RECONCILIATION         |

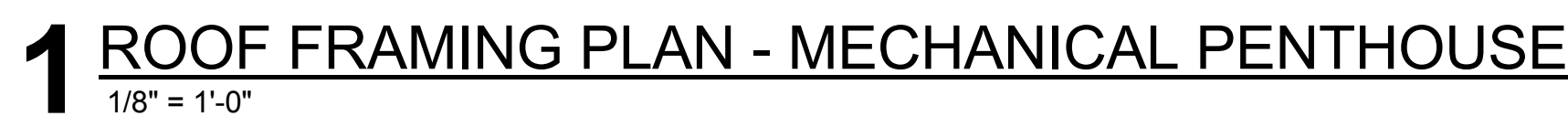
68TH FLOOR  
FRAMING PLAN -  
MECHANICAL

Project No.: 211157	B-SCAN Sheet No.:  <div style="font-size: 2em; text-align: center;">S-168.00</div>
Date: 20 JUN 2014	
Scale: 1/8" = 1'-0"	
File No.: S_168	Sheet No.: <div style="text-align: center;">S-168</div>
	Page No.: <div style="text-align: right;">29 of 90</div>









- ROOF FRAMING  
PLAN -  
MECHANICAL  
PENTHOUSE





MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

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**Brookfield**  
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**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East 8th Street, Suite 1, Mill Valley, California 94941

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

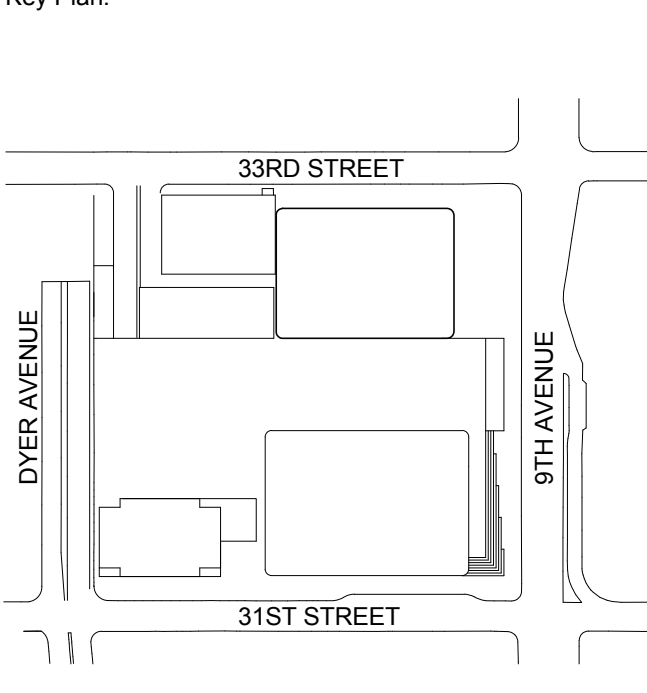
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:



Seal & Signature:

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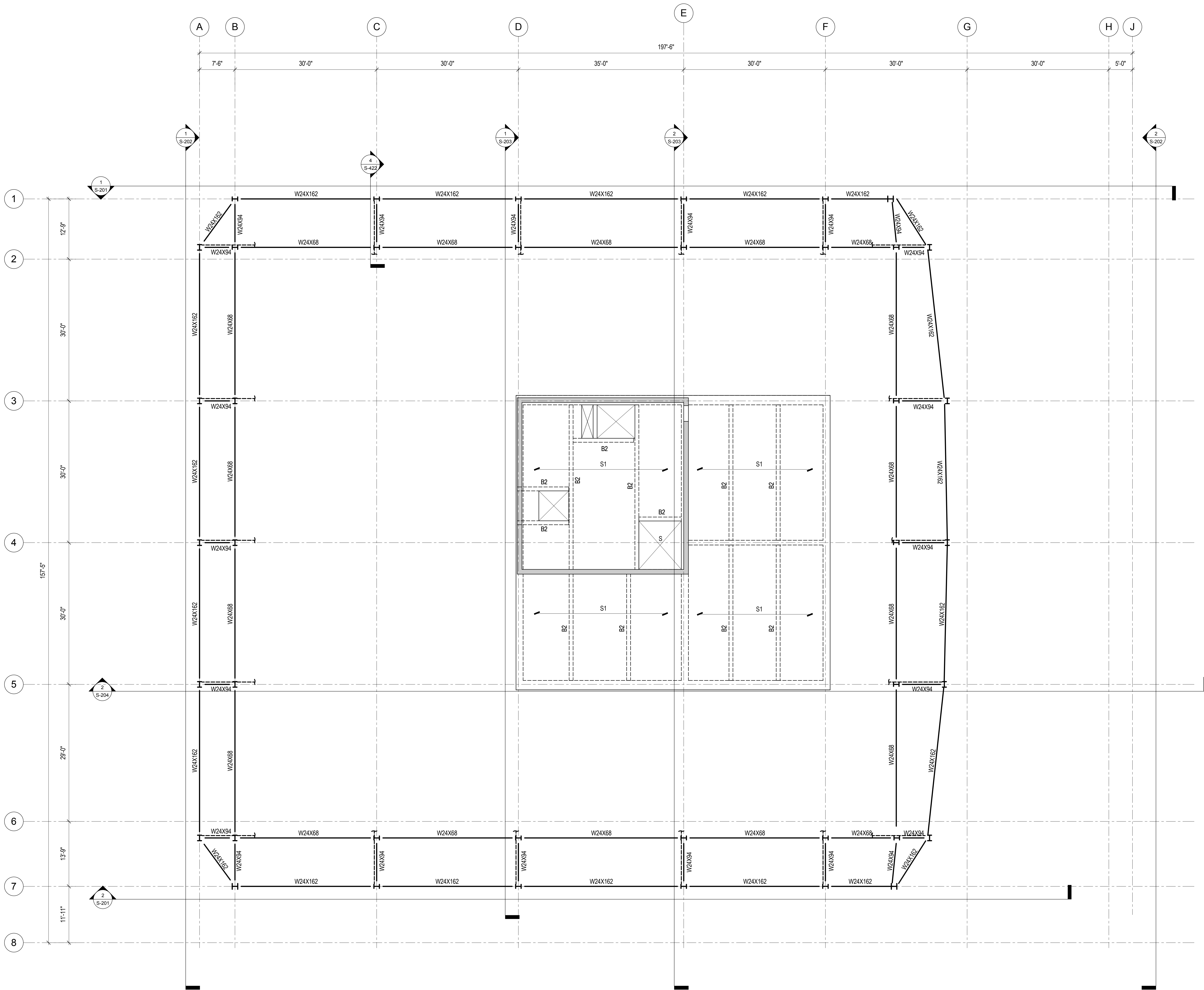
ROOF FRAMING  
PLAN

6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 30% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name

Project No.: 21157  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No.: S-171

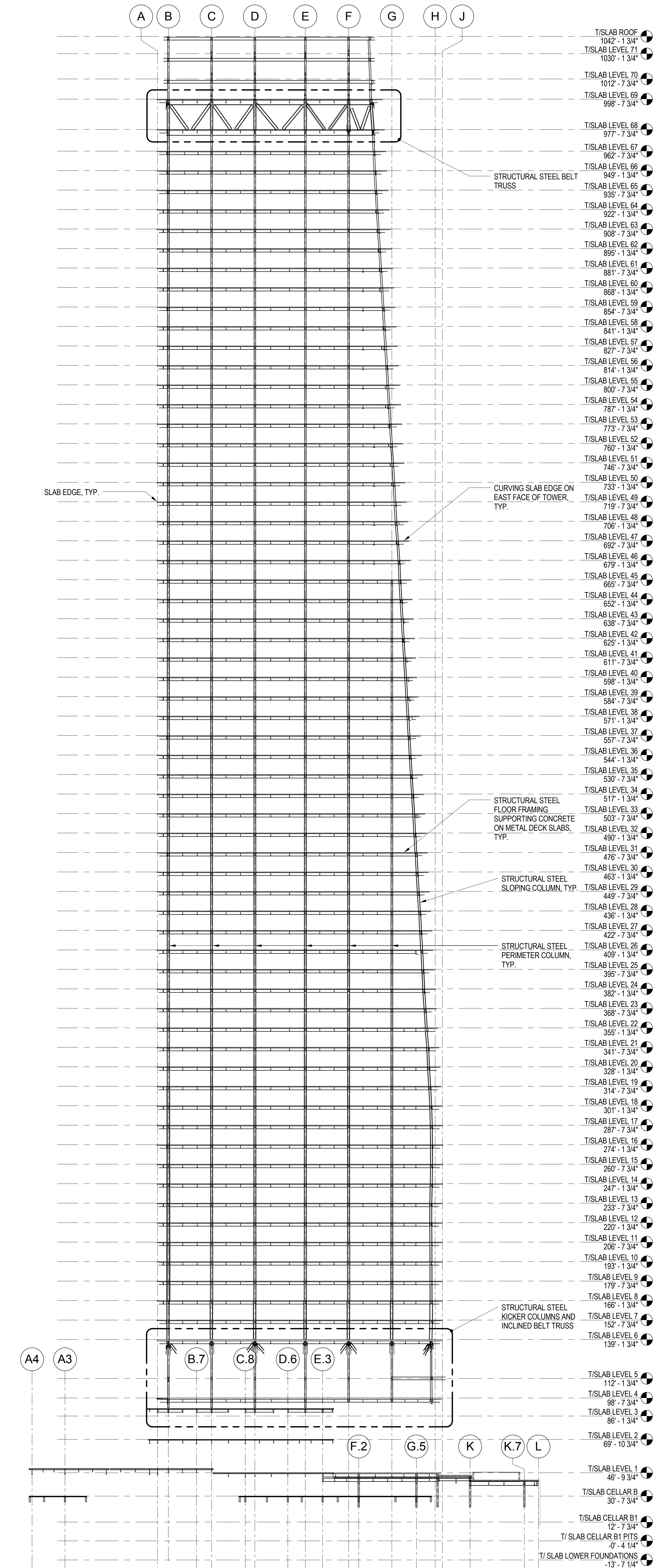
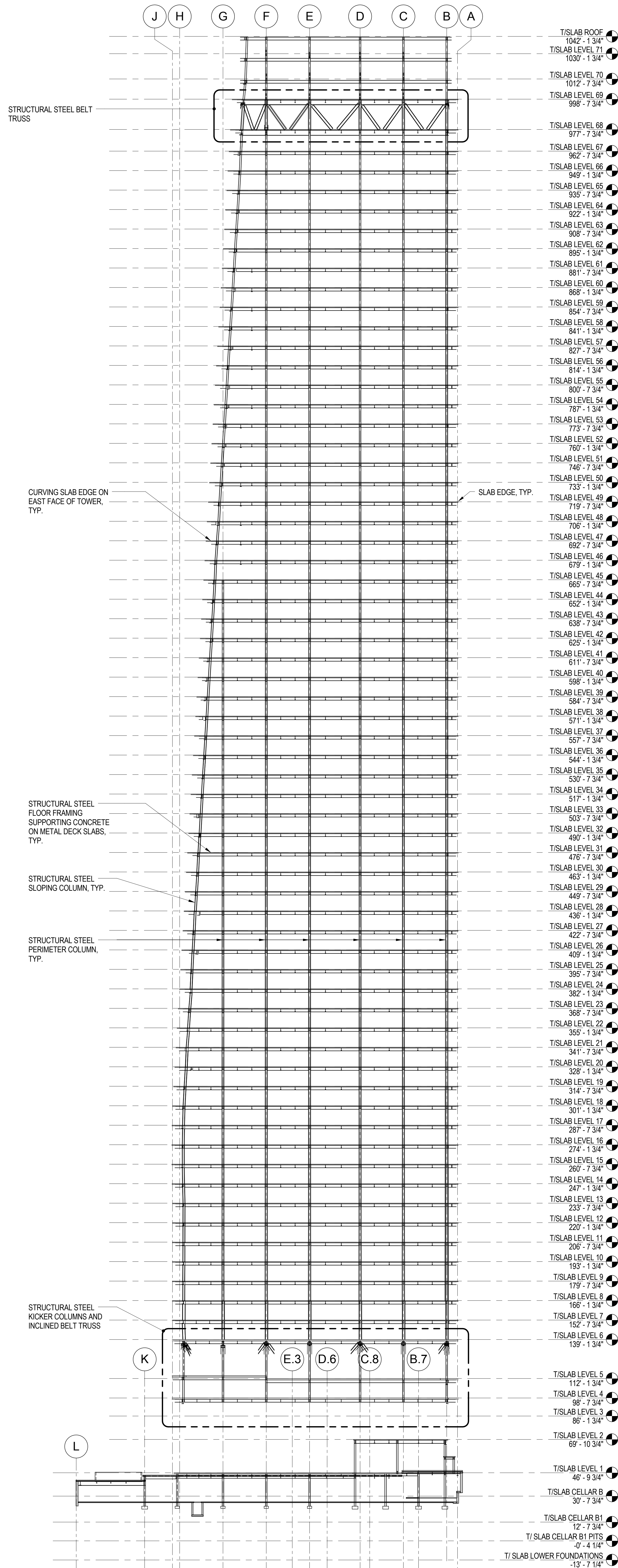
B-SCAN Sheet No.: S-171.00  
Sheet No.: S-171  
Page No.: 32 of 90



**1 ROOF FRAMING PLAN**  
1/8" = 1'-0"

1. TOP OF SLAB ELEVATION = 998'-0", UNLESS NOTED OTHERWISE.
2. BEAMS SHALL BE LOCATED ON GRID CENTERLINES WHEN NO DIMENSIONS SHOWN.
3. BEAMS SHALL BE EQUALLY SPACED BETWEEN GRIDLINES WHEN NO DIMENSIONS SHOWN.
4. SLAB EDGE DIMENSION AT OPENING = 8", UNLESS NOTED OTHERWISE.
5. REFER TO SHEET S-002 FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS.
6. REFER TO SHEET S-003 FOR EXCAVATION AND FOUNDATION NOTES.
7. REFER TO SHEET S-004 FOR STRUCTURAL CONCRETE NOTES.
8. REFER TO SHEETS S-005 FOR STRUCTURAL STEEL AND METAL DECK NOTES.
9. REFER TO SHEETS S-201 THROUGH S-204 FOR OVERALL BUILDING ELEVATIONS AND SECTIONS.
10. REFER TO SHEETS S-301 AND S-302 FOR CORE WALL CONTINUOUS FOOTINGS SECTIONS AND DETAILS.
11. REFER TO SHEET S-305 FOR CAISSON SCHEDULE, SECTIONS AND DETAILS.
12. REFER TO SHEET S-315 FOR GRADE BEAM SCHEDULE, SECTIONS AND DETAILS.
13. REFER TO SHEET S-316 FOR GRADE BEAM SCHEDULE, SECTIONS AND DETAILS.
14. REFER TO SHEETS S-320 THROUGH S-322 FOR FOUNDATION WALL ELEVATIONS, SECTIONS AND DETAILS.
15. REFER TO SHEET S-330 FOR SLAB-ON-GRADE SECTIONS AND DETAILS.
16. REFER TO SHEET S-350 FOR REINFORCED CONCRETE CORE WALL SCHEDULE, SECTIONS AND DETAILS.
17. REFER TO SHEET S-351 FOR TYPICAL REINFORCED CONCRETE WALL DETAILS.
18. REFER TO SHEET S-355 FOR LINK BEAM SCHEDULES, SECTIONS AND DETAILS.
19. REFER TO SHEETS S-360 THROUGH S-368 FOR CORE WALL ELEVATIONS.
20. REFER TO SHEET S-370 FOR REINFORCED CONCRETE BEAM SCHEDULE, SECTIONS AND DETAILS.
21. REFER TO SHEET S-375 FOR REINFORCED CONCRETE SLAB SCHEDULE, SECTIONS AND DETAILS.
22. REFER TO SHEET S-401 FOR STRUCTURAL STEEL COLUMN SCHEDULE, SECTIONS AND DETAILS.
23. REFER TO DRAWINGS PREPARED BY ENTUITIVE FOR ADJACENT PLATFORM STRUCTURE.





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Key Plan:

Seal & Signature:

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No.	Date	Description
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
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2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

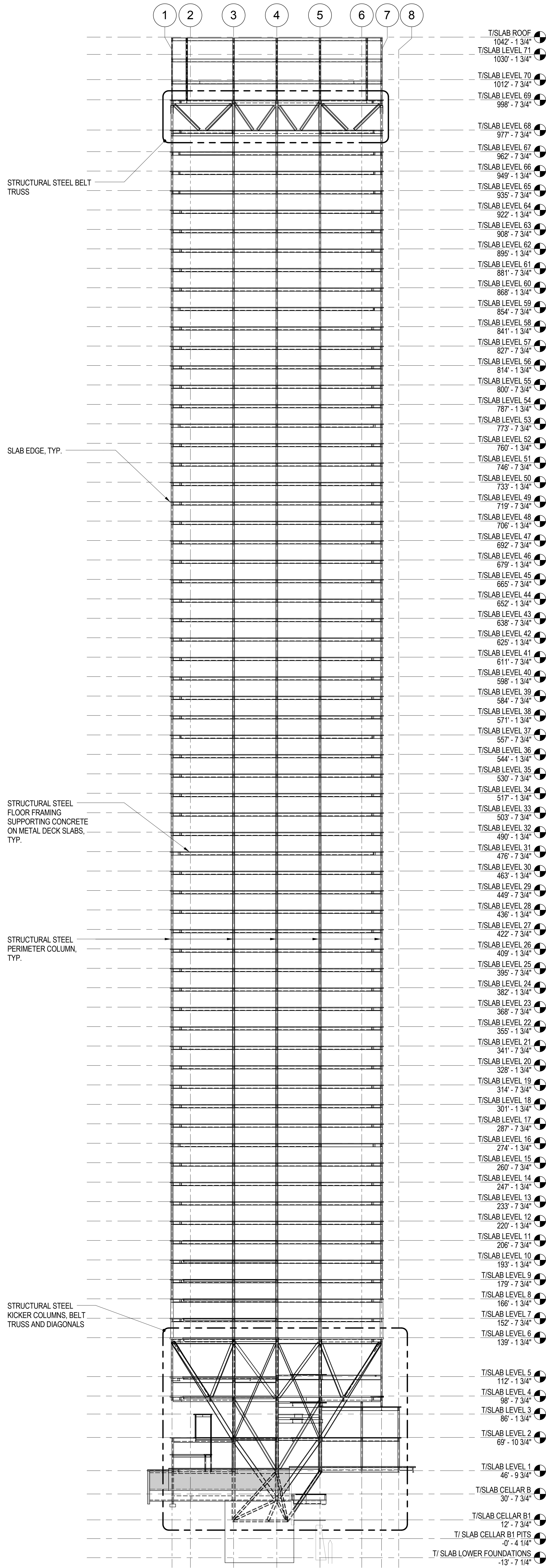
No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

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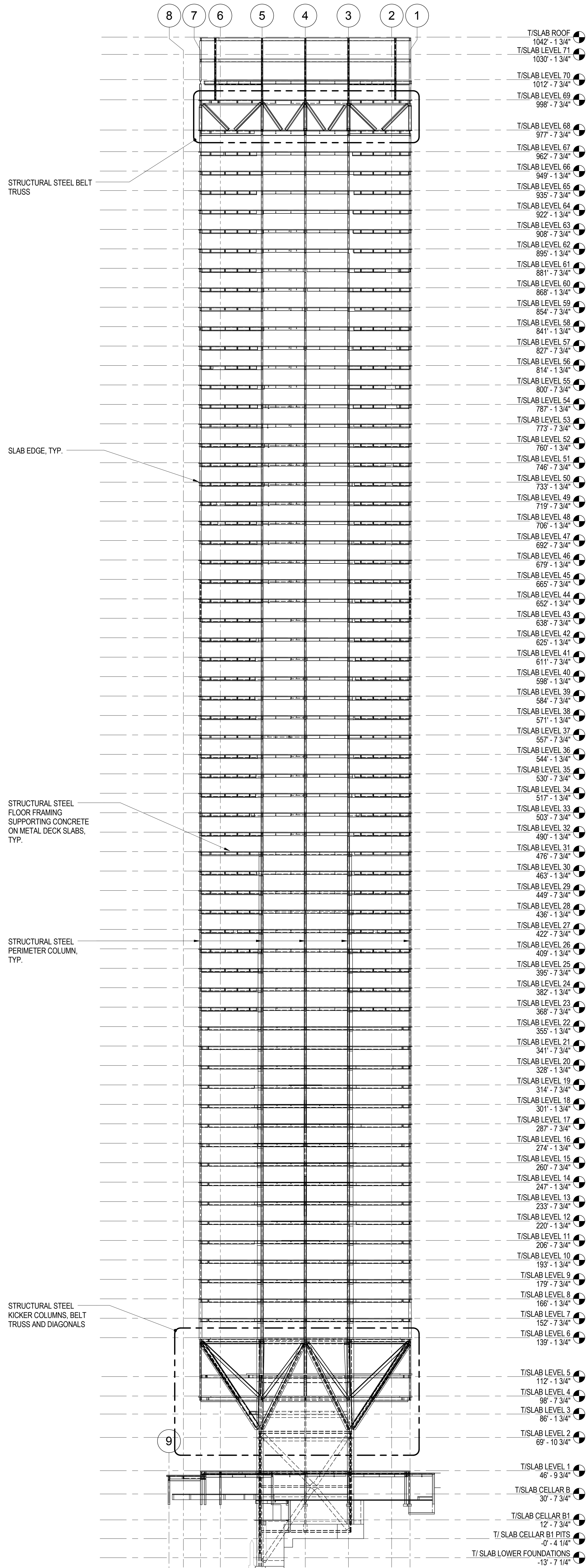
Project No.:	B-SCAN Sheet No.:
211157	S-201.00

Date:	Scale:	File No.:	Page No.:
20 JUN 2014	1/32" = 1'-0"	S-201	33 of 90





1 TOWER ELEVATION WEST (LOOKING EAST)  
1/32" = 1'-0"



2 TOWER ELEVATION EAST (LOOKING WEST)  
1/32" = 1'-0"



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680 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B8

Key Plan:  
33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

Seal & Signature:  
PRELIMINARY  
NOT FOR CONSTRUCTION

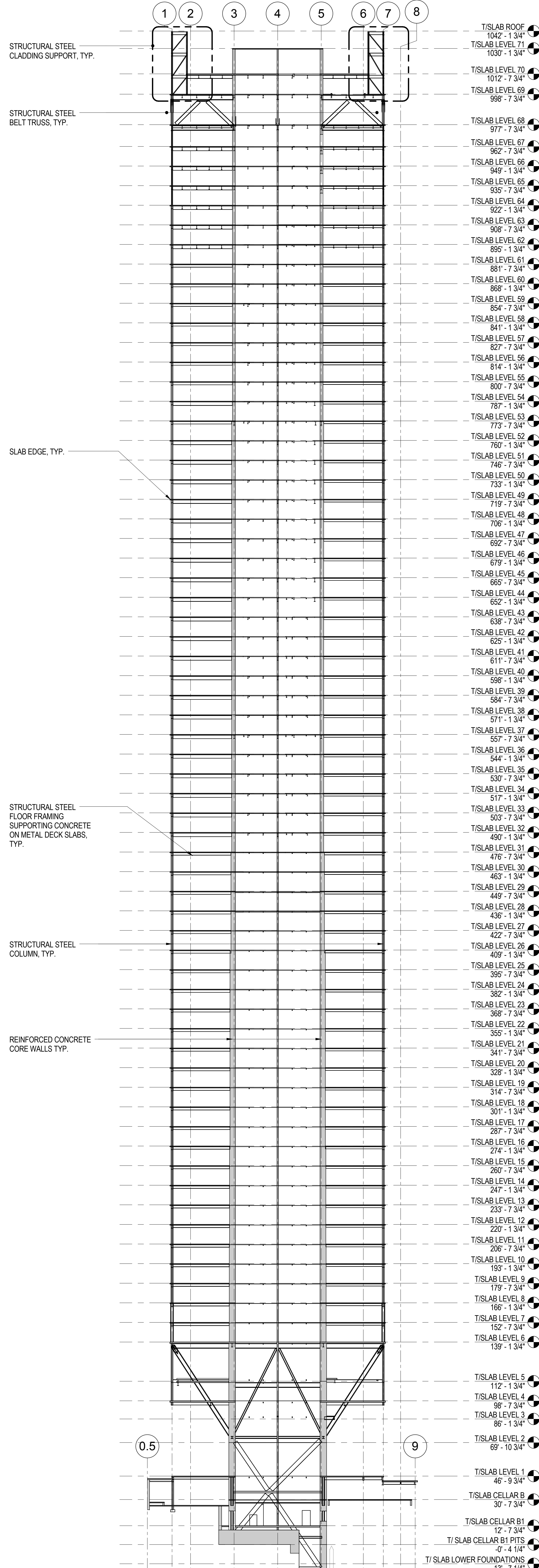
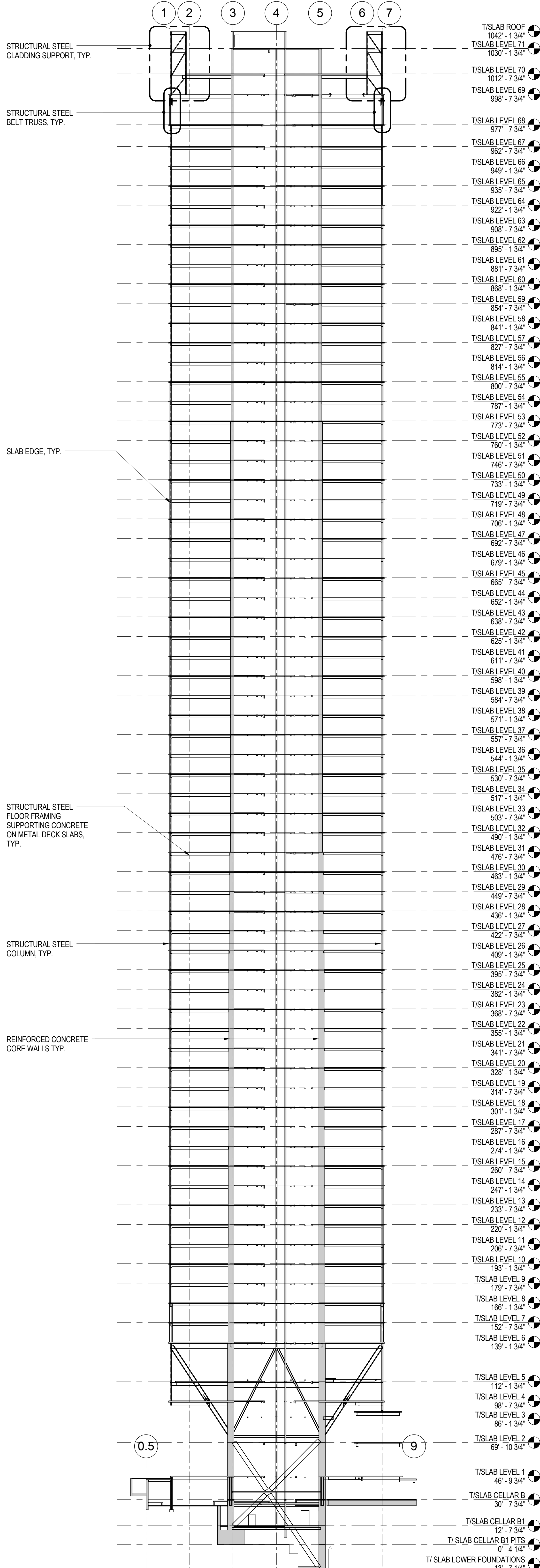
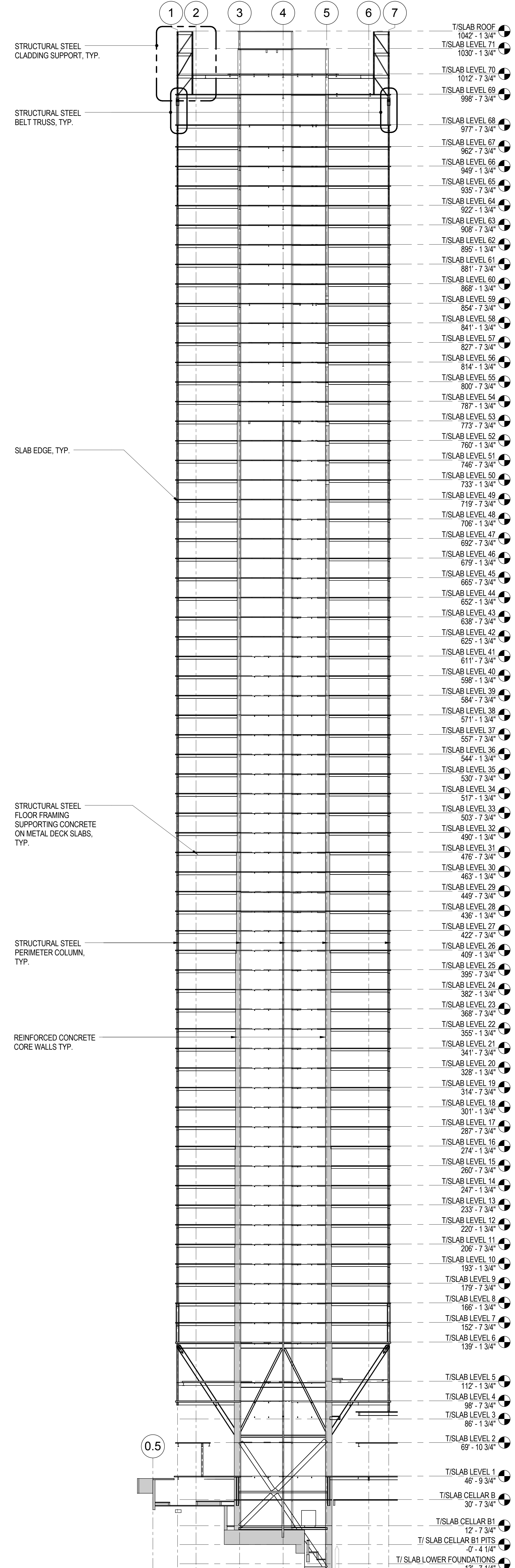
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Date: 20 JUN 2014  
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File No.: S-202


B-SCAN Sheet No.: S-202.00  
Sheet No.: S-202  
Page No.: 34 of 90

6 20 JUN 2014 ISSUED FOR FOUNDATION BID  
5 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
3 15 NOV 2013 ISSUED FOR 2D PROGRESS PRICING  
2 12 JUL 2013 ISSUED FOR 90% DESIGN DEVELOPMENT  
1 16 MAR 2013 ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name: TOWER ELEVATIONS







**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
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Skidmore, Owings & Merrill LLP  
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Weidinger Associates, Inc.  
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Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

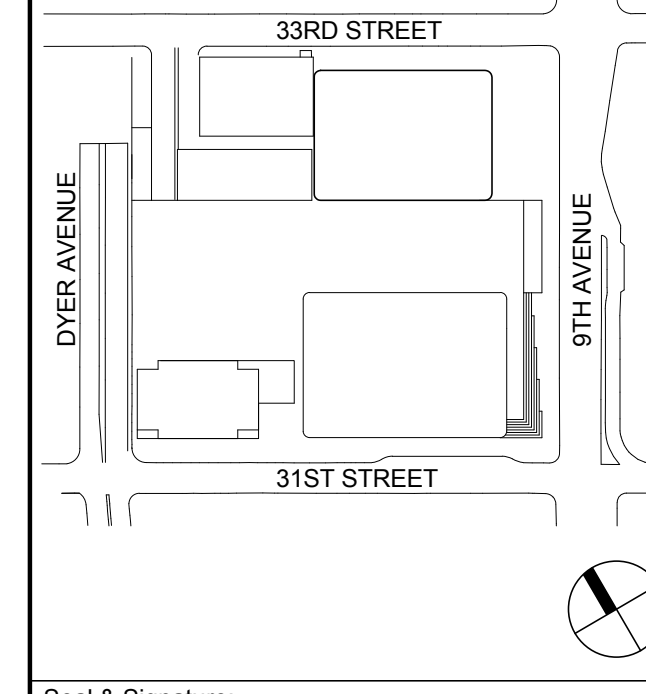
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal & Signature:

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5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

Sheet Name: **TOWER SECTIONS**

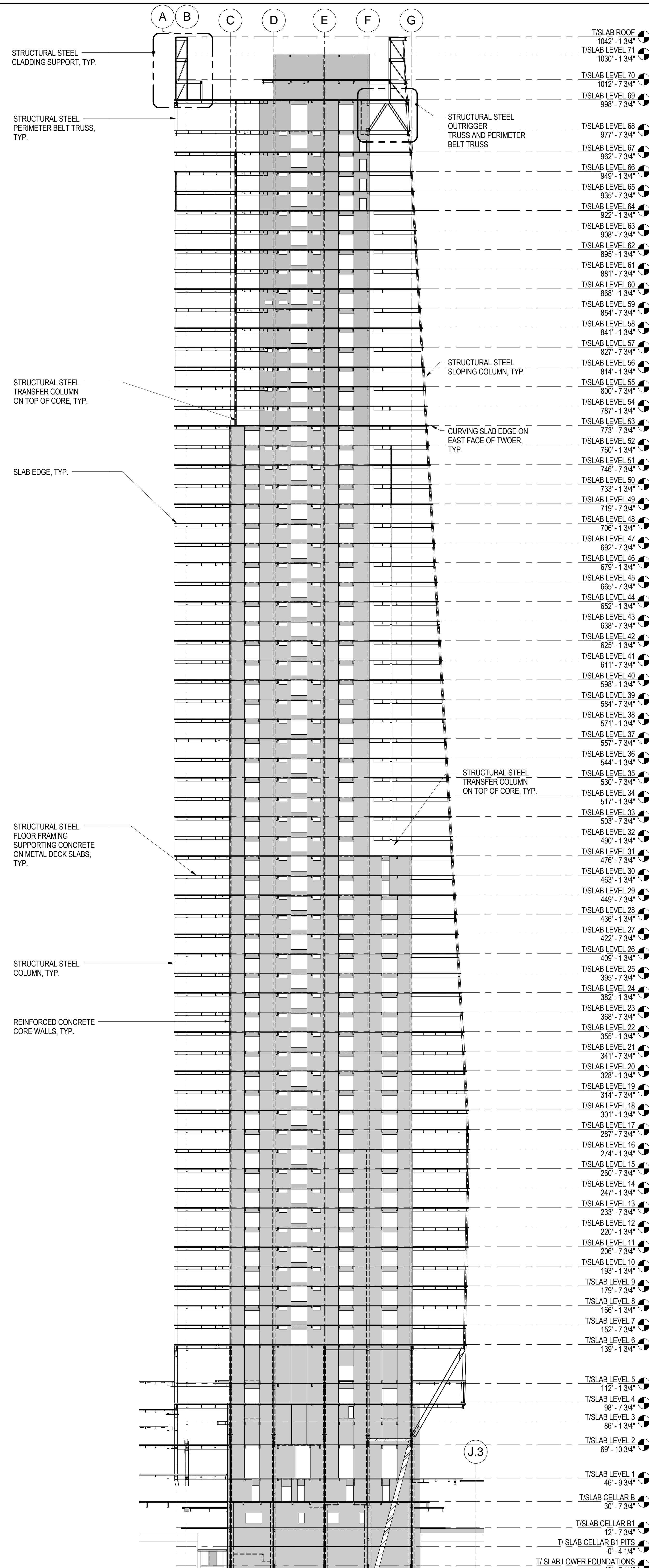
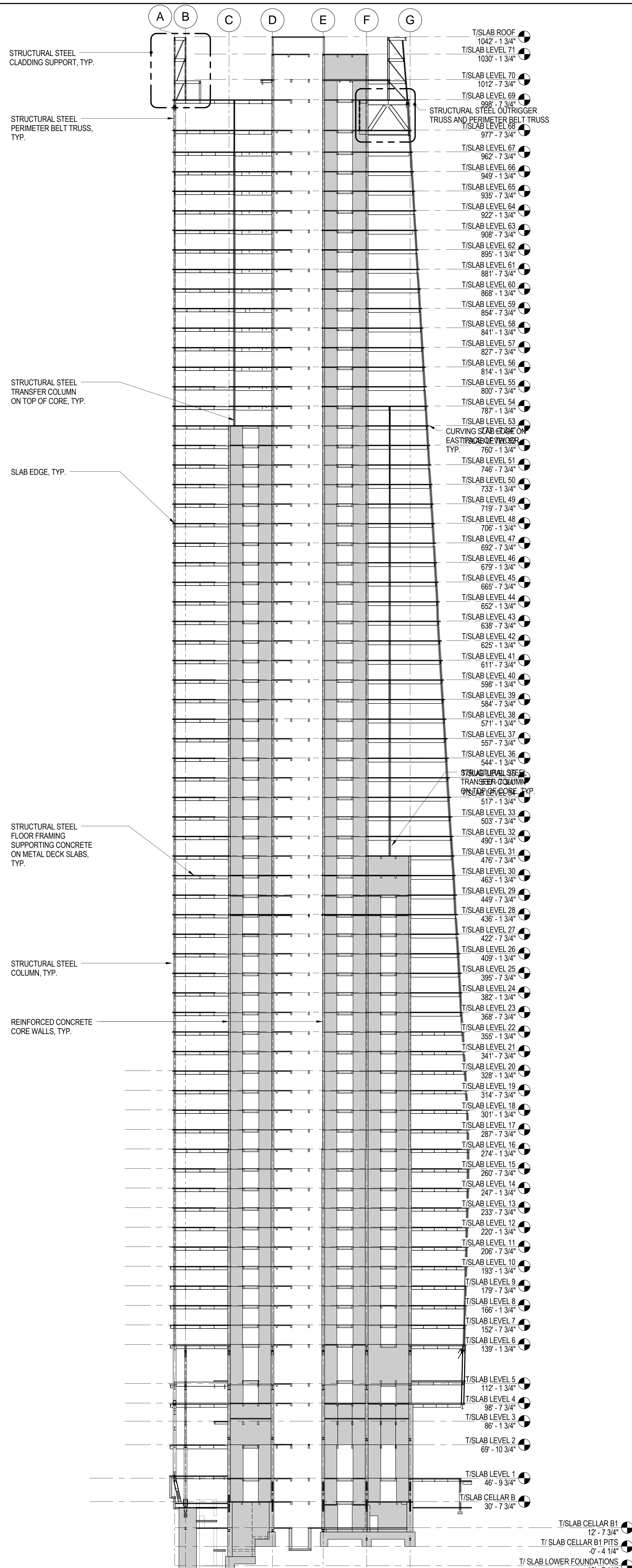
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211157	S-203.00

Date:	Sheet No.:
20 JUN 2014	S-203

Scale:	Page No.:
1/32" = 1'-0"	35 of 90

File No: S-203





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50 Washington Street, Newark, NJ 07102

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Code Consultants Professional Engineers PC  
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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:

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3	15 NOV 2013	ISSUED FOR 2D PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

Sheet Name: **TOWER SECTIONS**

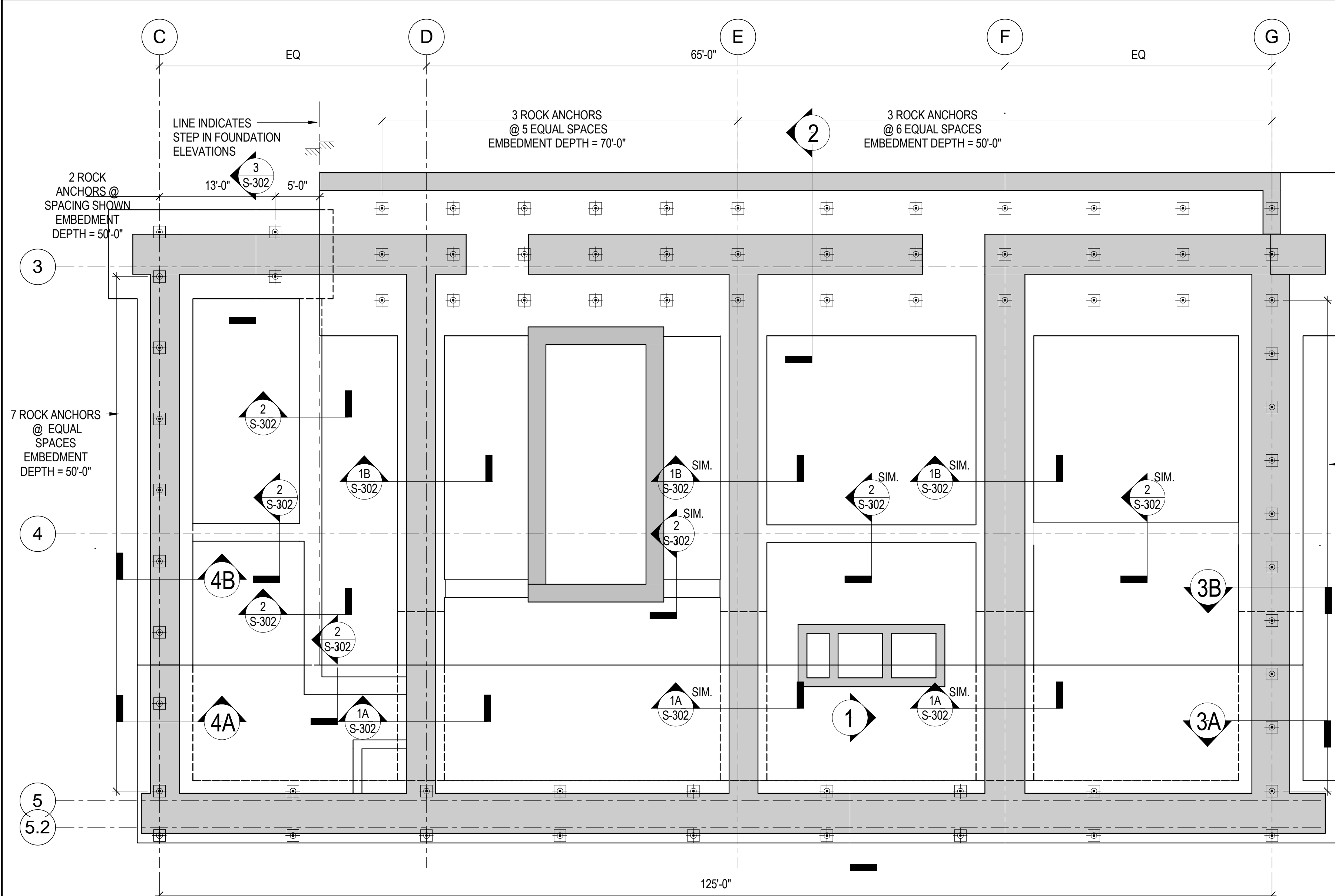
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211157	S-204.00

Date:	Sheet No.:
20 JUN 2014	S-204

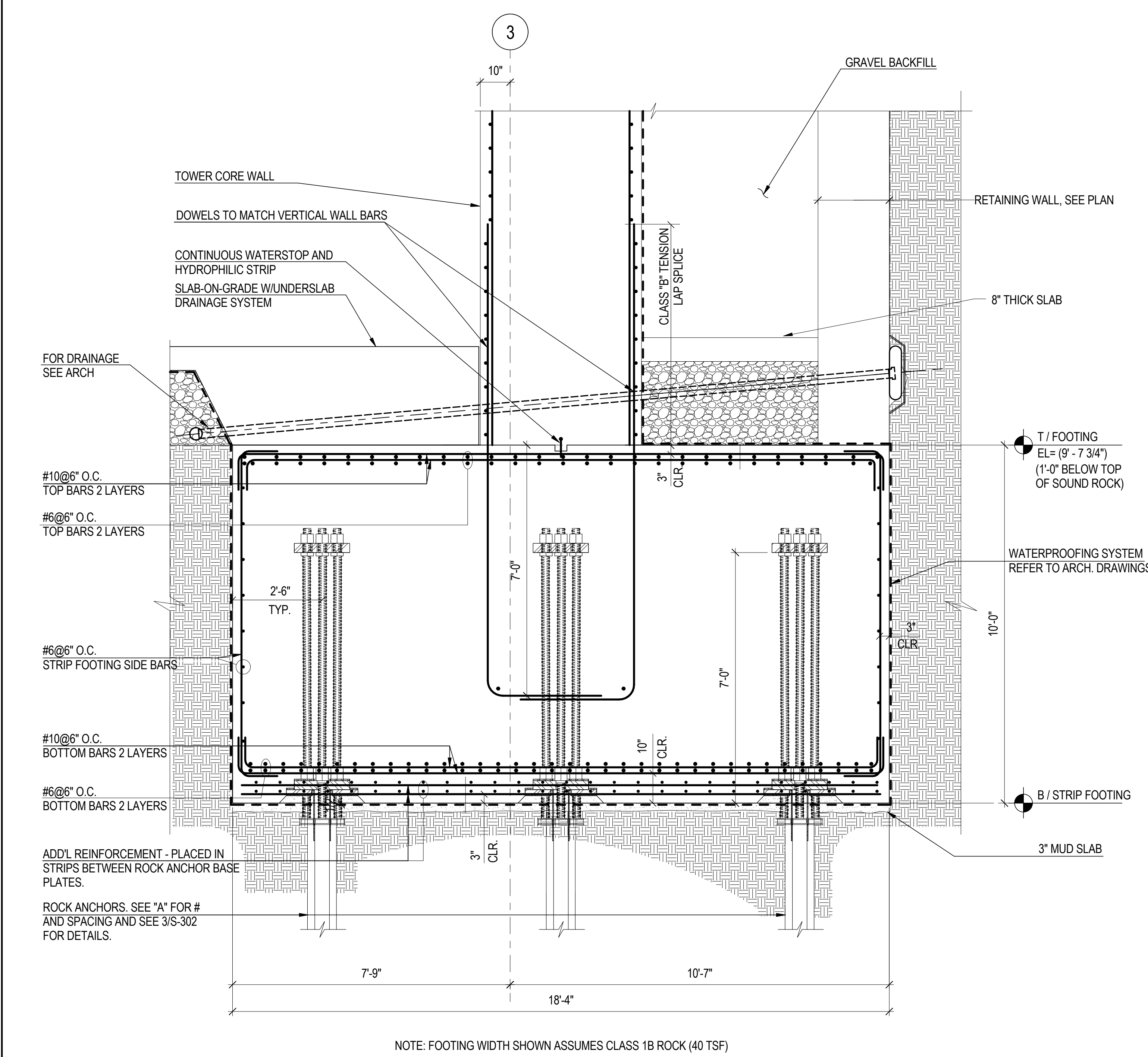
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File No.:	Page No.:
S-204	36 of 90

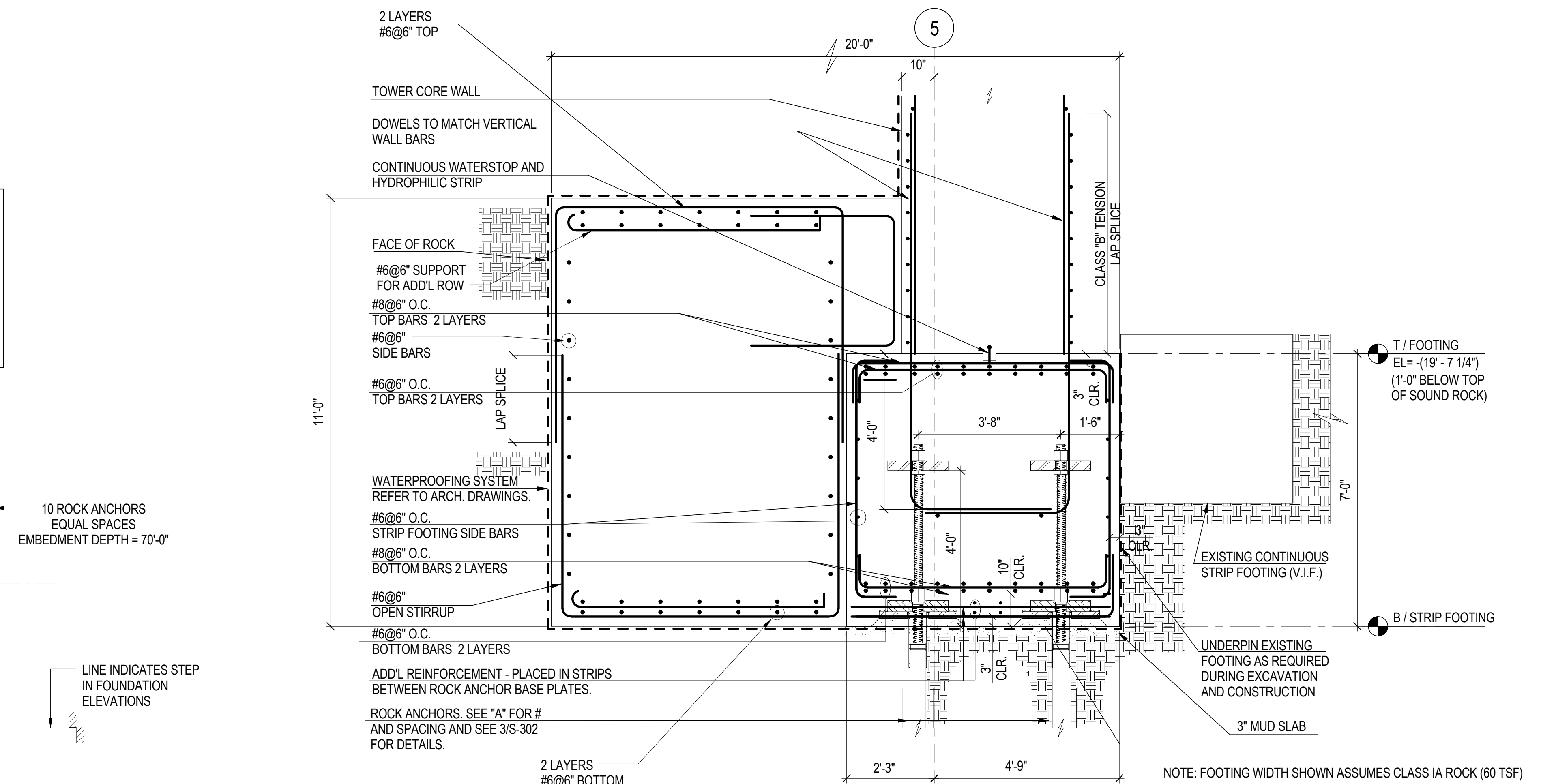




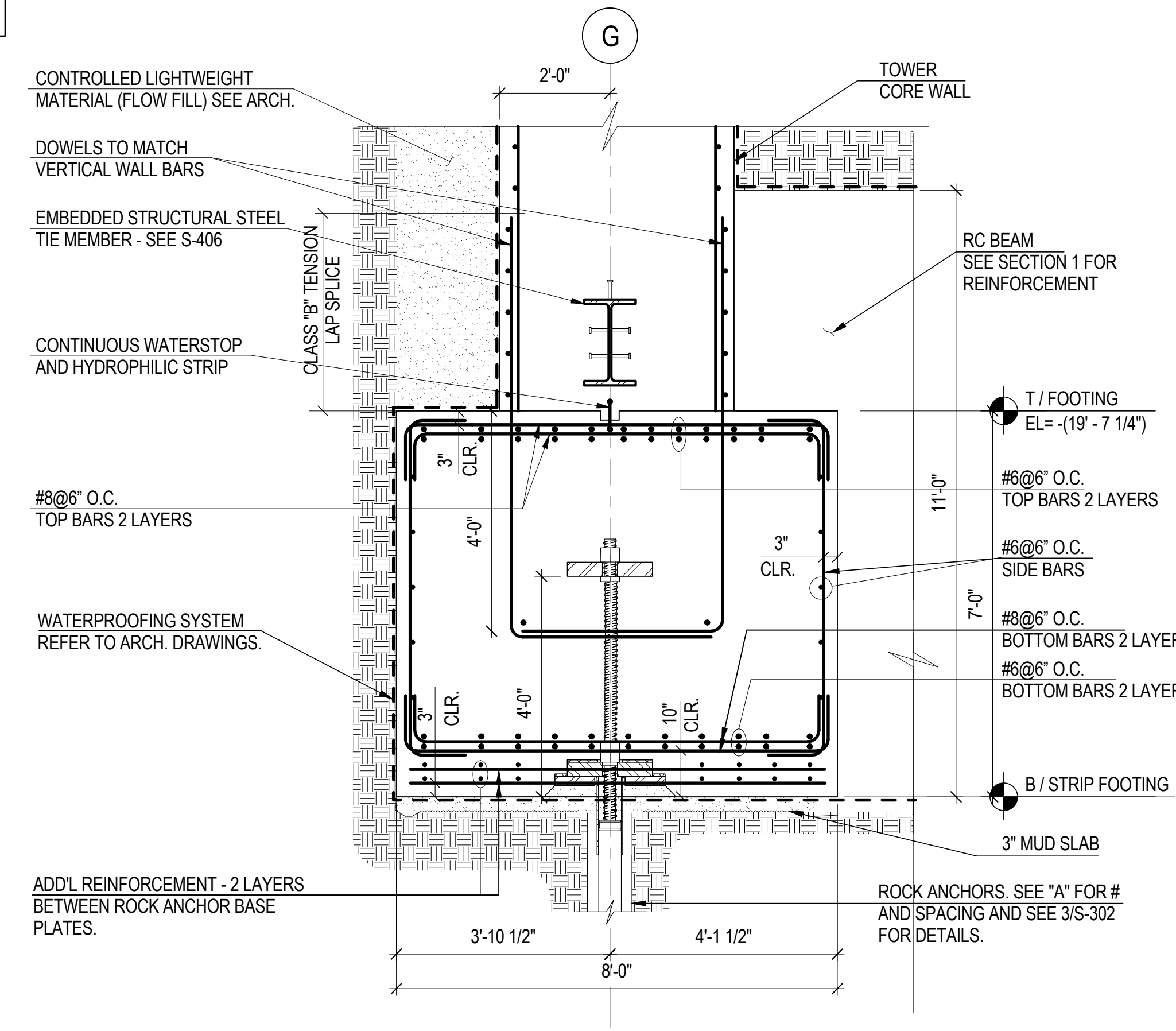
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NOT TO SCALE



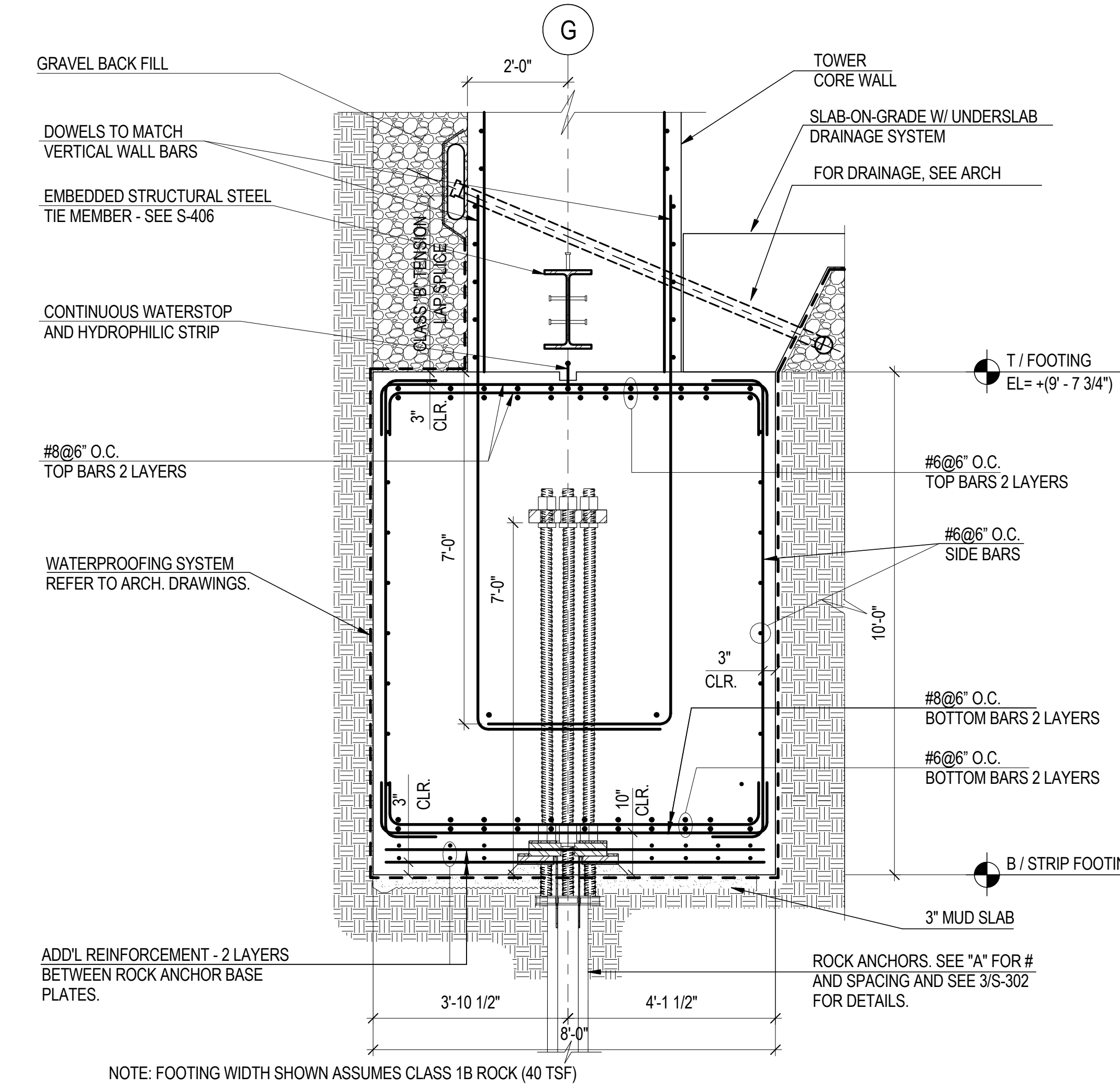
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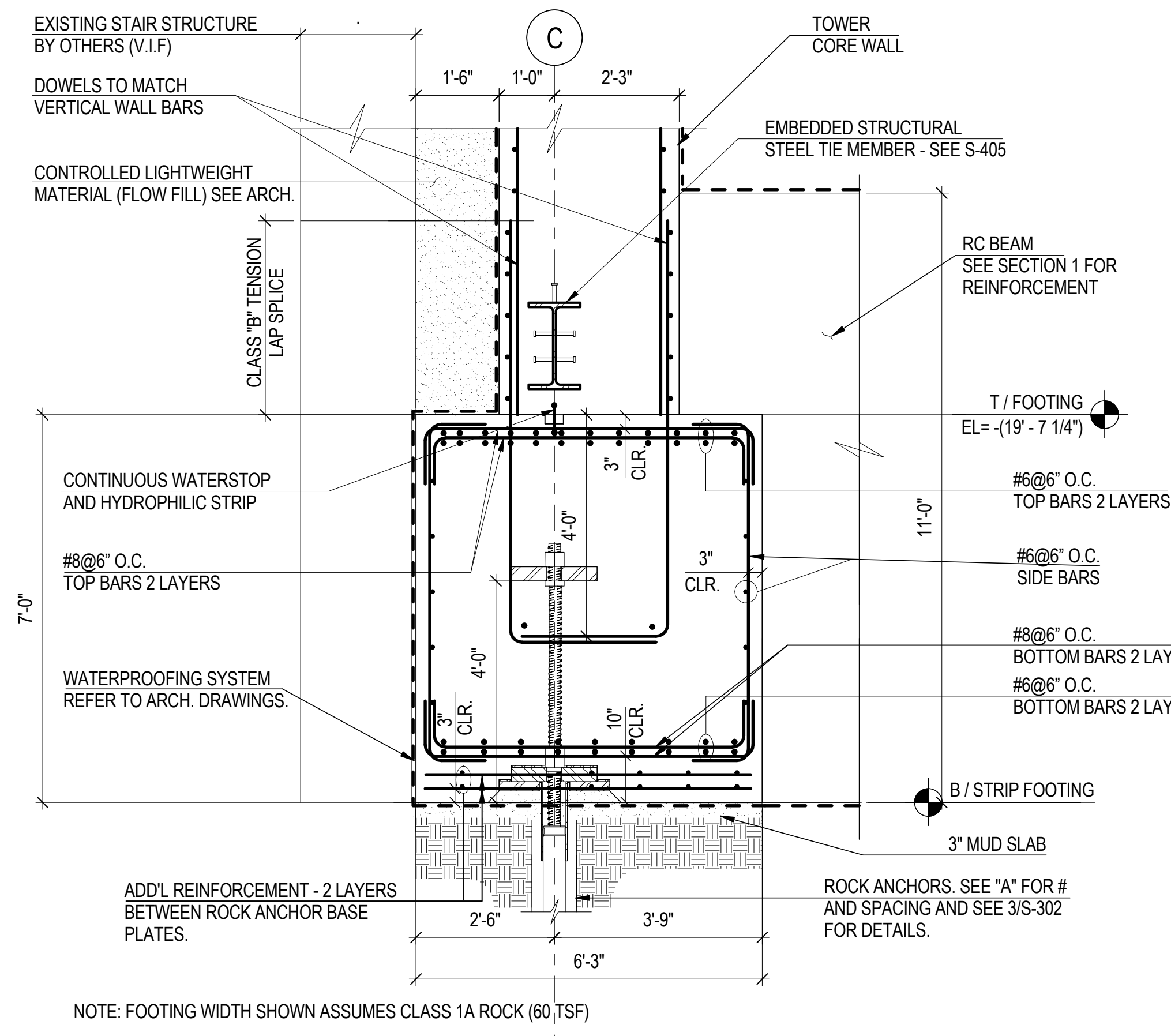
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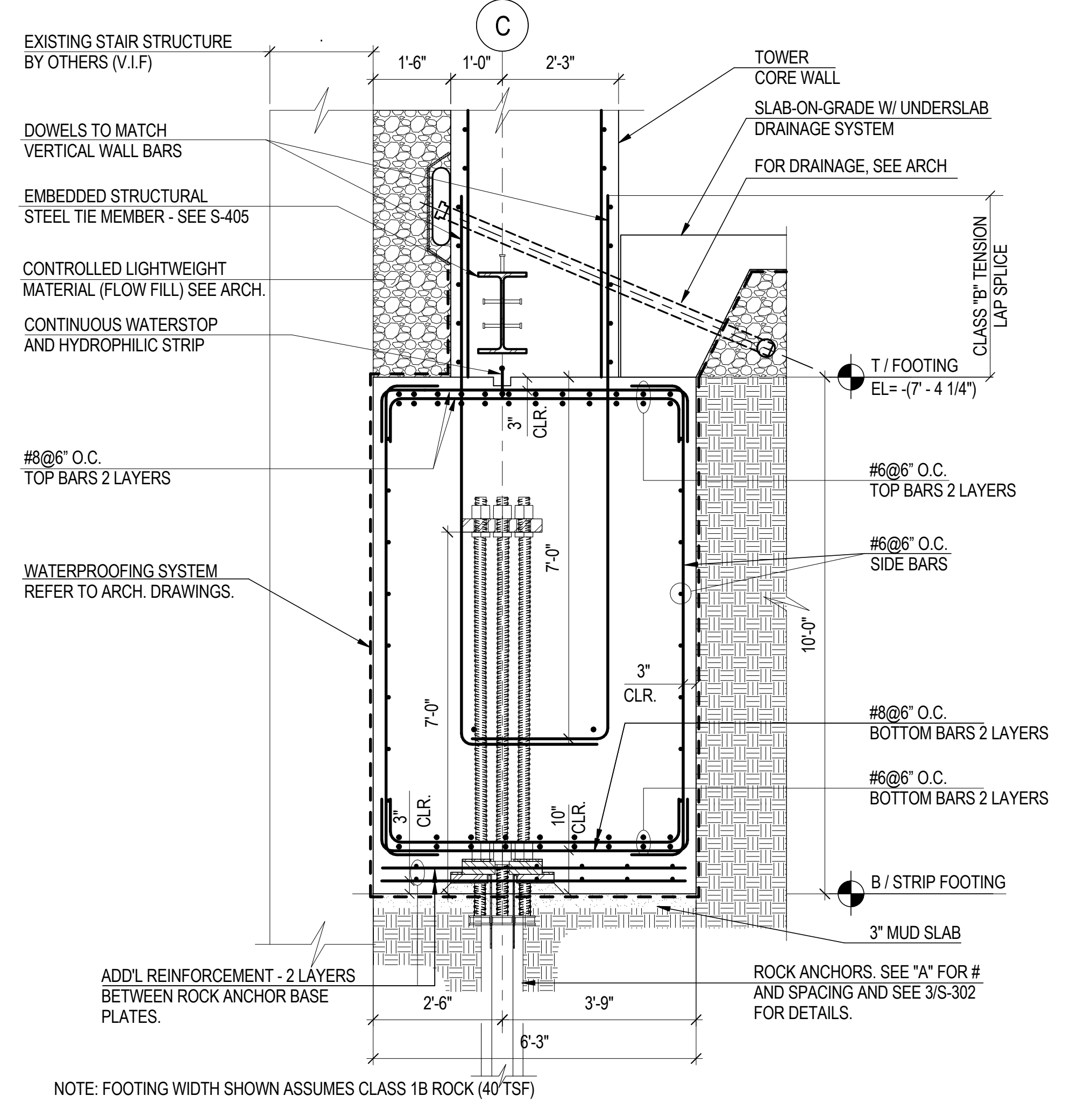
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**3B UPPER - SECTION THRU EAST EXTERIOR WALL CONT. FOOTING ON ROCK W/ ROCK ANCHORS**  
NOT TO SCALE



**4A LOWER - SECTION THRU WEST EXTERIOR WALL CONT. FOOTING ON ROCK W/ ROCK ANCHORS**  
NOT TO SCALE



**4B UPPER - SECTION THRU WEST EXTERIOR WALL CONT. FOOTING ON ROCK W/ ROCK ANCHORS**  
NOT TO SCALE



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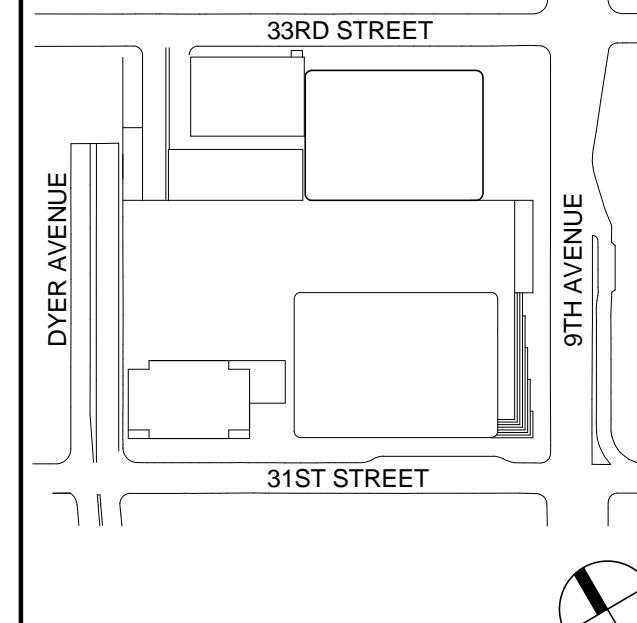
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:



Seal & Signature:

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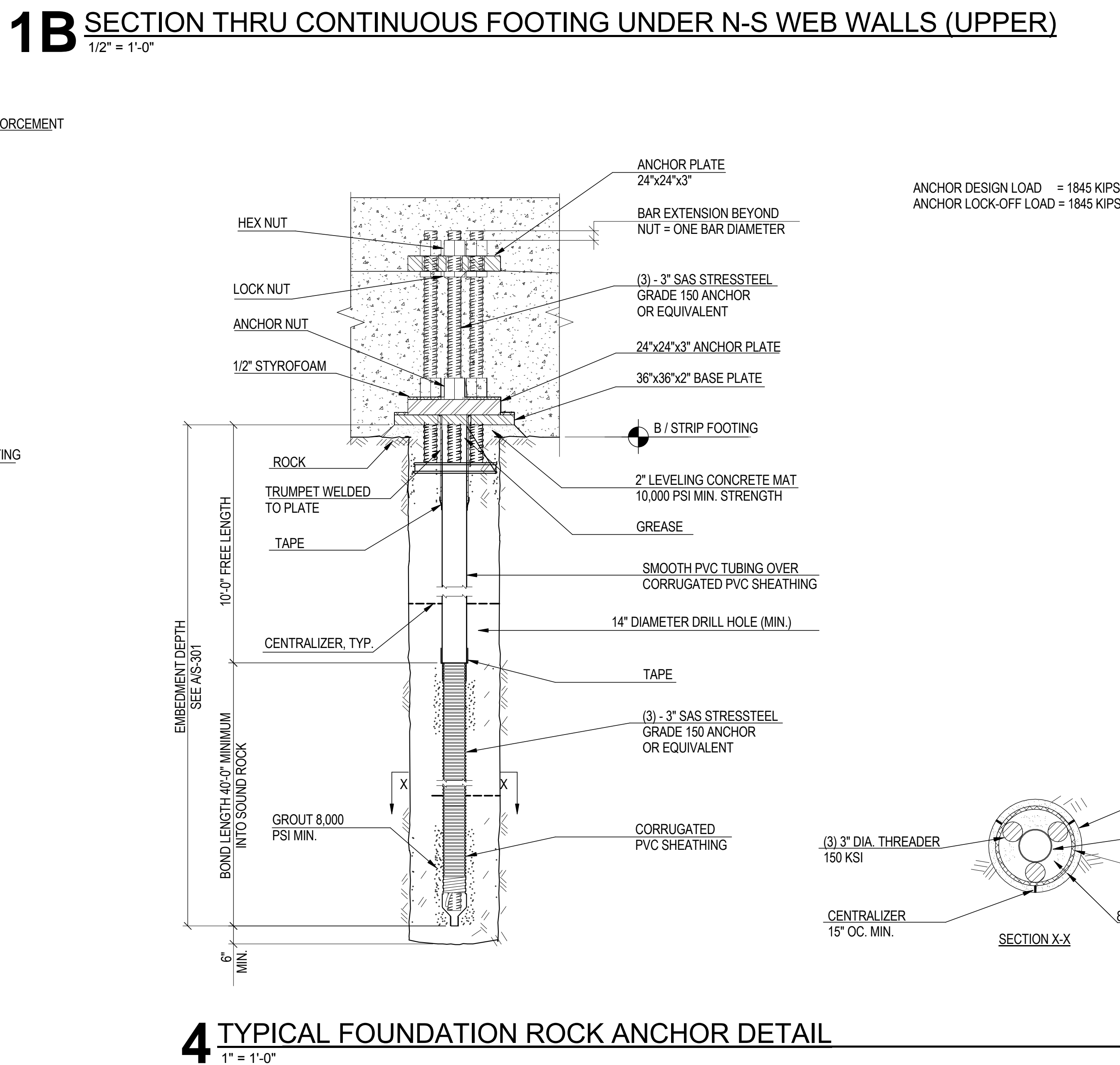
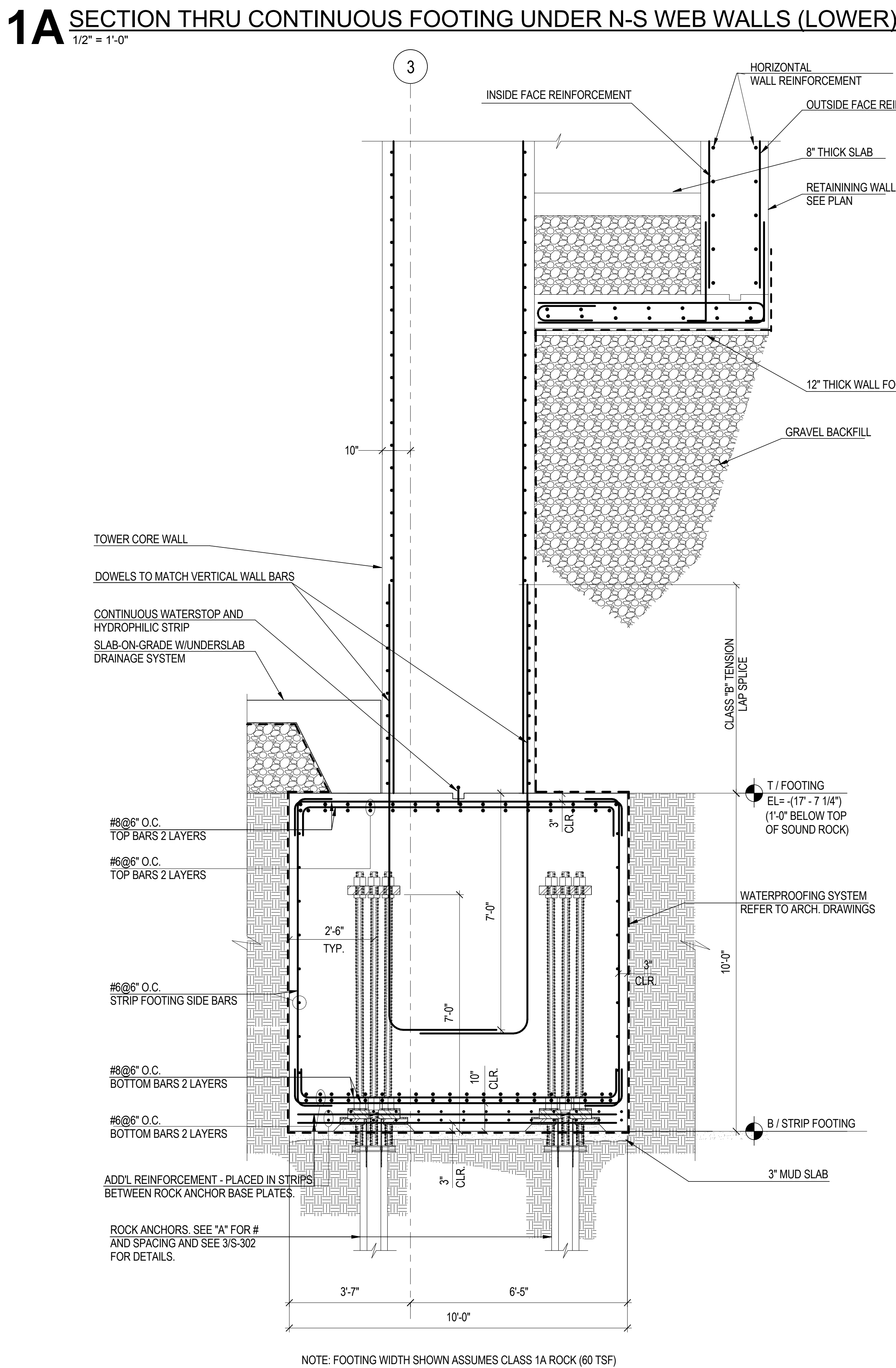
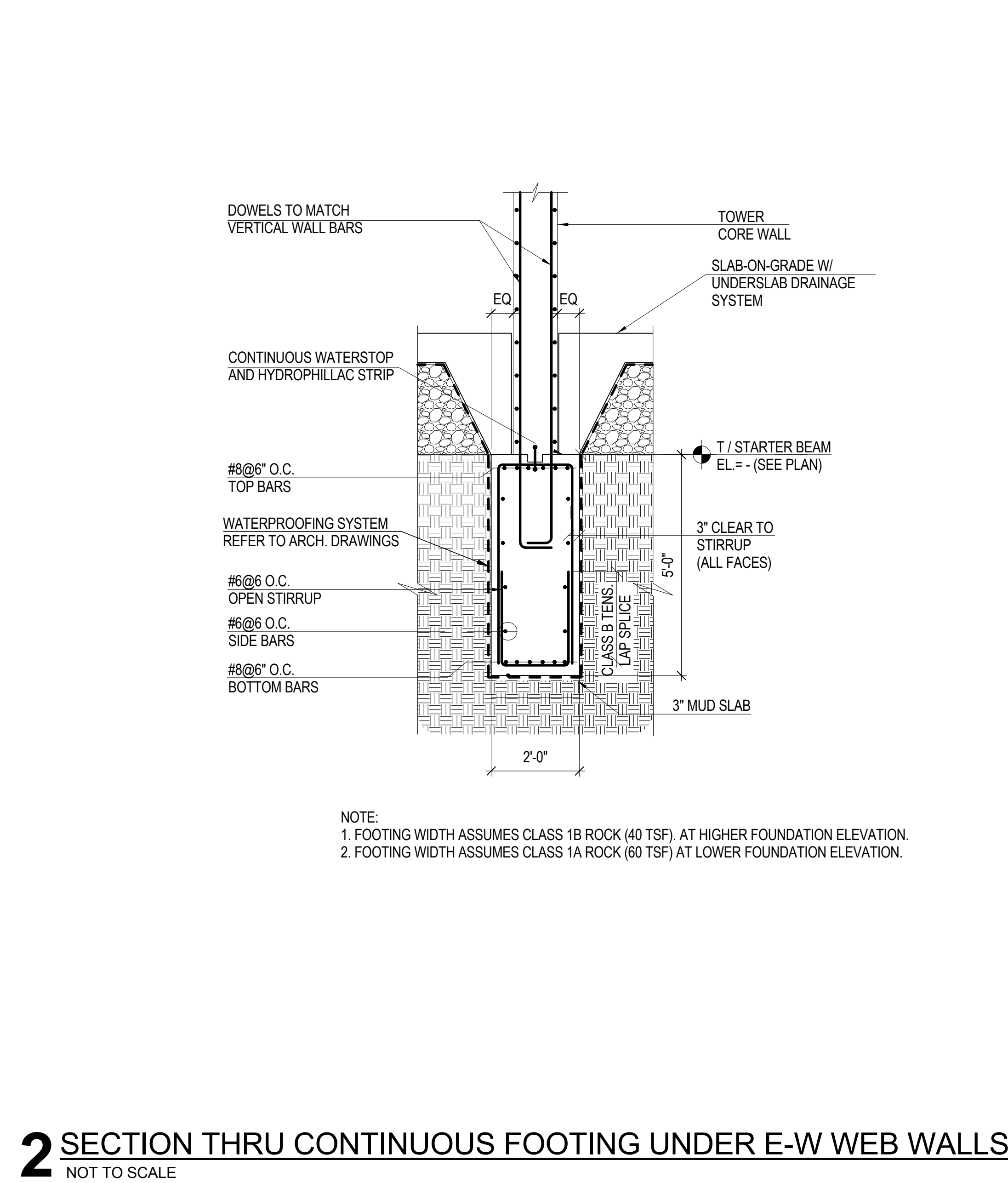
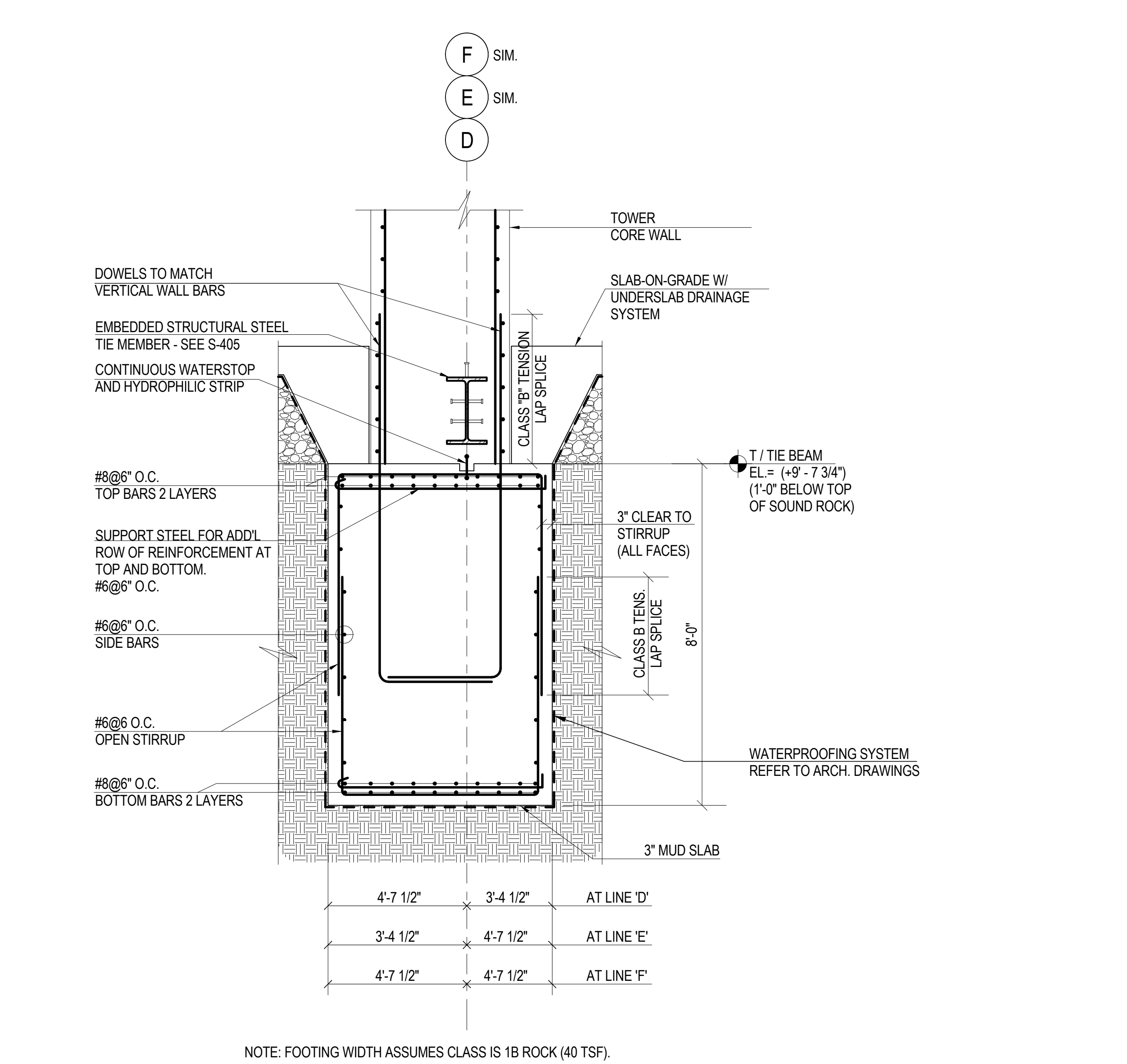
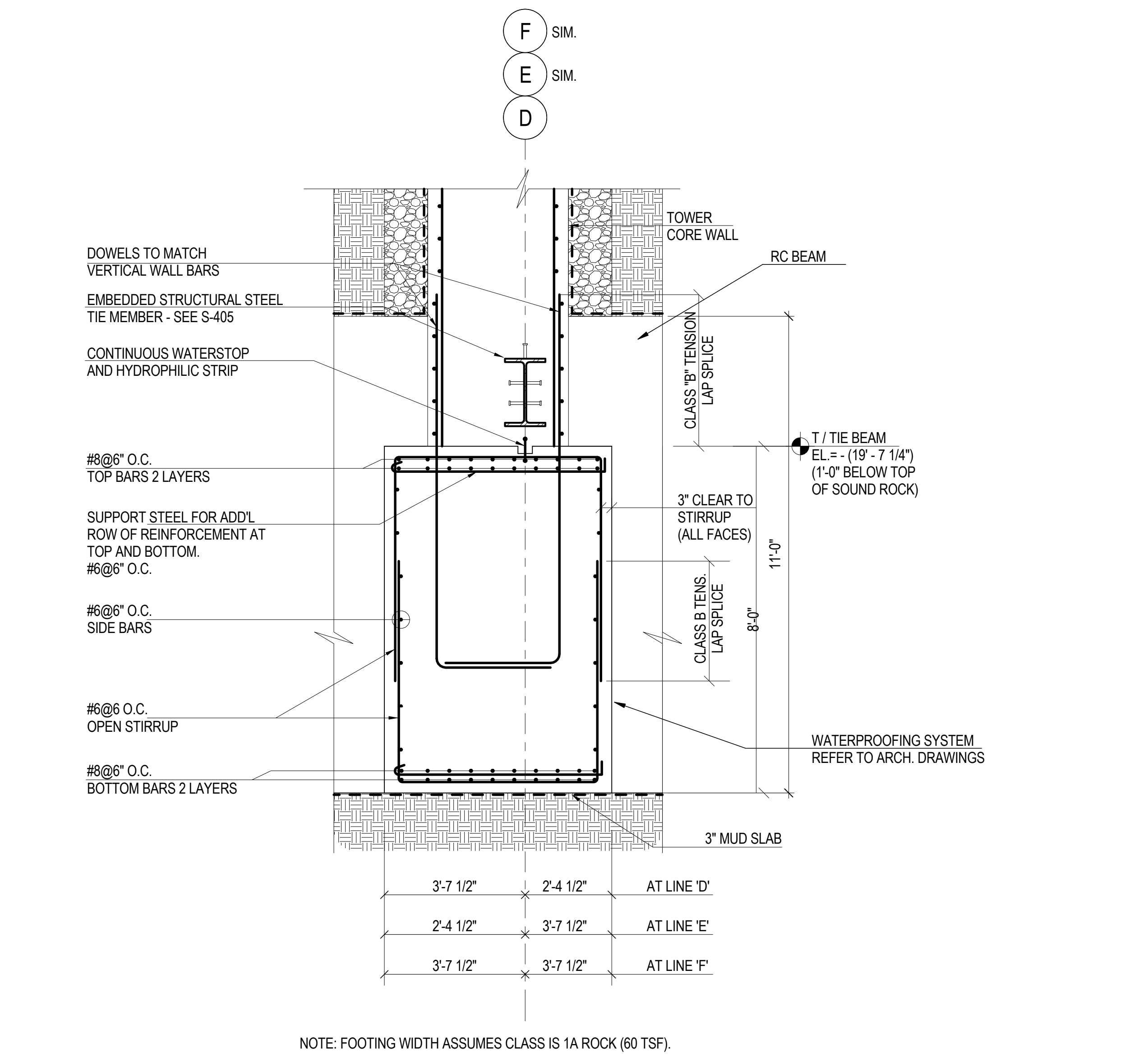
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2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
3	15 NOV 2013	ISSUED FOR 20% PROGRESS PRICING
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
6	20 JUN 2014	ISSUED FOR FOUNDATION BID

**CORE WALL CONT. FOOTING SECTIONS & DETAILS**

Project No.: 211157  
Date: 20 JUN 2014  
Scale: As Indicated  
File No.: S-301

B-SCAN Sheet No.: **S-301.00**  
Sheet No.: **S-301**  
Page No.: 37 of 90





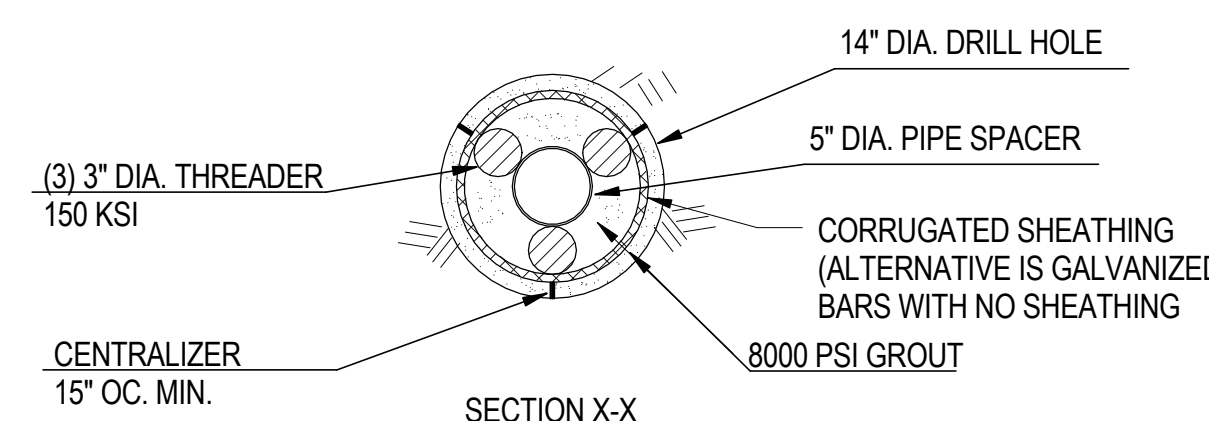
- INSTALLATION PROCEDURE**
1. DETERMINE ANCHOR LOCATION AS INDICATED ON CONTRACT DRAWINGS.
  2. DRILL 14" MINIMUM DIAMETER HOLE TO SPECIFIED DEPTH.
  3. CLEAN DRILL HOLE OF ALL DRILL CUTTINGS AND DEBRIS.
  4. INSERT A GROUT PIPE AND PREFABRICATED ANCHOR TO THE BOTTOM OF THE ANCHOR HOLE AND PUMP FULL OF CEMENT GROUT DISPLACING ANY STANDING WATER.
  5. AFTER GROUT REACHES SPECIFIED STRENGTH, (3 DAYS FOR PORTLAND CEMENT TYPE III OR 7 DAYS FOR PORTLAND TYPE I OR II) LOAD ANCHORS USING CALIBRATED JACKS.
  6. AFTER SUCCESSFUL TESTING, LOCK OFF ANCHOR AT 680 KIP, USING EXTERNAL WRENCH AND RELEASE PRESSURE FROM JACK.
  7. INSTALL UPPER PLATE & NUTS AND POUR FOOTING CONCRETE.

- GENERAL NOTES**
1. ROCK ANCHORS SHALL BE IN CONFORMANCE WITH PTI (POST TENSIONING INSTITUTE) LATEST RECOMMENDATIONS ON ROCK & SOIL ANCHORS.
  2. ALL ANCHORS SHALL BE 3" DIAMETER SAS STRESSTEEL THREADED BARS OR EQUIVALENT, GRADE 150 KSI, MEETING OR EXCEEDING PROPERTIES OF ASTM A-722.
  3. THE THREADED BAR SHALL BE PROVIDED WITH SHOP-FABRICATED DOUBLE CORROSION PROTECTION. THE ANCHOR BARS SHALL BE ENCAPSULATED WITH HIGH STRENGTH PVC CORRUGATED SHEATHING (COMPRESSIVE STRENGTH=7000 psi) AND PRE-GROUTED.
  4. PLATES SHALL CONFORM TO ASTM A-36.
  5. ANCHOR NUTS & COUPLERS SHALL BE CAPABLE OF DEVELOPING 100% OF THE ULTIMATE STRENGTH OF THREADBAR.
  6. CARE MUST BE TAKEN NOT TO DAMAGE THE THREADED BAR TENDONS. KEEP THREADBARS FREE OF DIRT OR OTHER DELETERIOUS SUBSTANCES.
  7. DO NOT WELD IN THE VICINITY OF THE HIGH STRENGTH BARS.
  8. DO NOT USE ANCHORS AS A GROUND FOR WELDING.
  9. THE FIRST THREE ANCHORS INSTALLED, AND 10% OF THE REMAINING ANCHORS SHALL BE PERFORMANCE TESTED. ALL OTHER ANCHORS SHALL BE PROOF TESTED USING A CALIBRATED CENTER HOLE JACK.
  10. PERFORMANCE TEST SHALL BE CONDUCTED BY CYCLICALLY AND INCREMENTALLY LOADING AND UNLOADING THE ANCHOR AS NOTED BELOW:

AL, 25P, 50P, 75P, 1.00P, 1.20P, 1.33P  
P=615 KIPS

HOLD 1.33P FOR CREEP TEST. RECORD MOVEMENTS USING A DIAL INDICATOR CAPABLE OF READING INCREMENTS OF .001". RECORD READINGS AT 0.1, 2.3, 4.5, 6 AND 10 MINUTES. THE ANCHOR IS ACCEPTABLE IF THE ANCHOR MOVEMENT BETWEEN THE 1 MIN. AND 10 MIN. DOES NOT EXCEED 0.040". RELEASE TO TRANSFER LOAD AND LOCK OFF ANCHOR NUT.

AL, 25P, 50P, 75P, 1.00P, 1.20P, 1.33P  
HOLD 1.33P FOR CREEP TEST AS ABOVE.



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102 East 81st Street, Suite 1, Mill Valley, California 94941

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Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
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Key Plan:

Seal & Signature:

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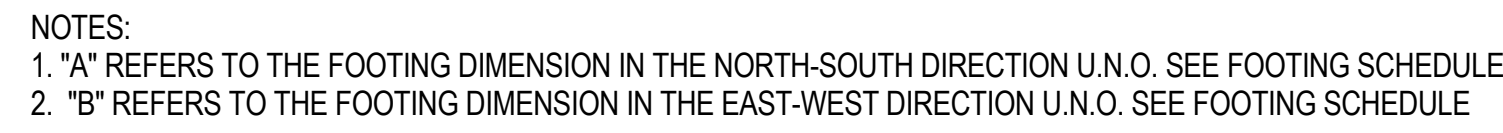
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Project No.:	B-SCAN Sheet No.:
211157	S-302.00

Date:	Sheet No.:
20 JUN 2014	S-302

Scale:	Page No.:
As indicated	38 of 90



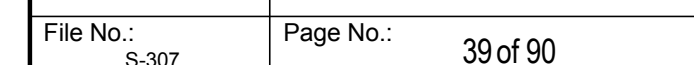


1" = 1'-0"



1" = 1'-0"

### 3 REINFORCED CONCRETE SPREAD FOOTING SCHEDULE







MANHATTAN WEST:  
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Ontario, Canada N1K 1B6

Key Plan:  
33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

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Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"  
File No.: S-310

B-SCAN Sheet No.: S-310.00  
Sheet No.: S-310  
Page No.: 40 of 90

WEST  
PERIMETER  
COLUMN  
FOUNDATION  
SECTIONS &  
DETAILS

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"  
File No.: S-310

B-SCAN Sheet No.: S-310.00  
Sheet No.: S-310  
Page No.: 40 of 90

WEST  
PERIMETER  
COLUMN  
FOUNDATION  
SECTIONS &  
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Project No.: 211157  
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B-SCAN Sheet No.: S-310.00  
Sheet No.: S-310  
Page No.: 40 of 90

WEST  
PERIMETER  
COLUMN  
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Project No.: 211157  
Date: 20 JUN 2014  
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B-SCAN Sheet No.: S-310.00  
Sheet No.: S-310  
Page No.: 40 of 90

WEST  
PERIMETER  
COLUMN  
FOUNDATION  
SECTIONS &  
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Project No.: 211157  
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B-SCAN Sheet No.: S-310.00  
Sheet No.: S-310  
Page No.: 40 of 90

WEST  
PERIMETER  
COLUMN  
FOUNDATION  
SECTIONS &  
DETAILS

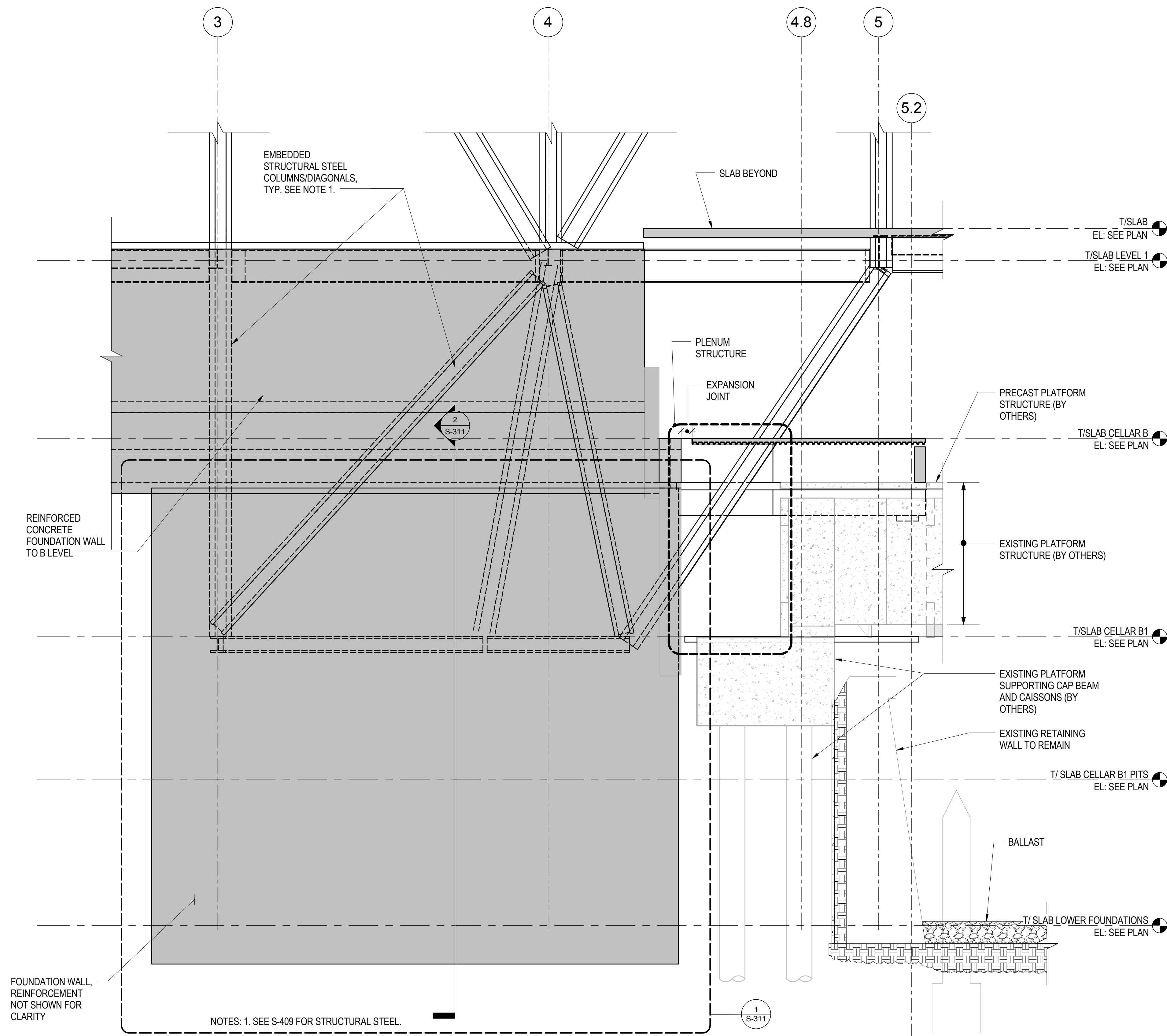
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Page No.: 40 of 90

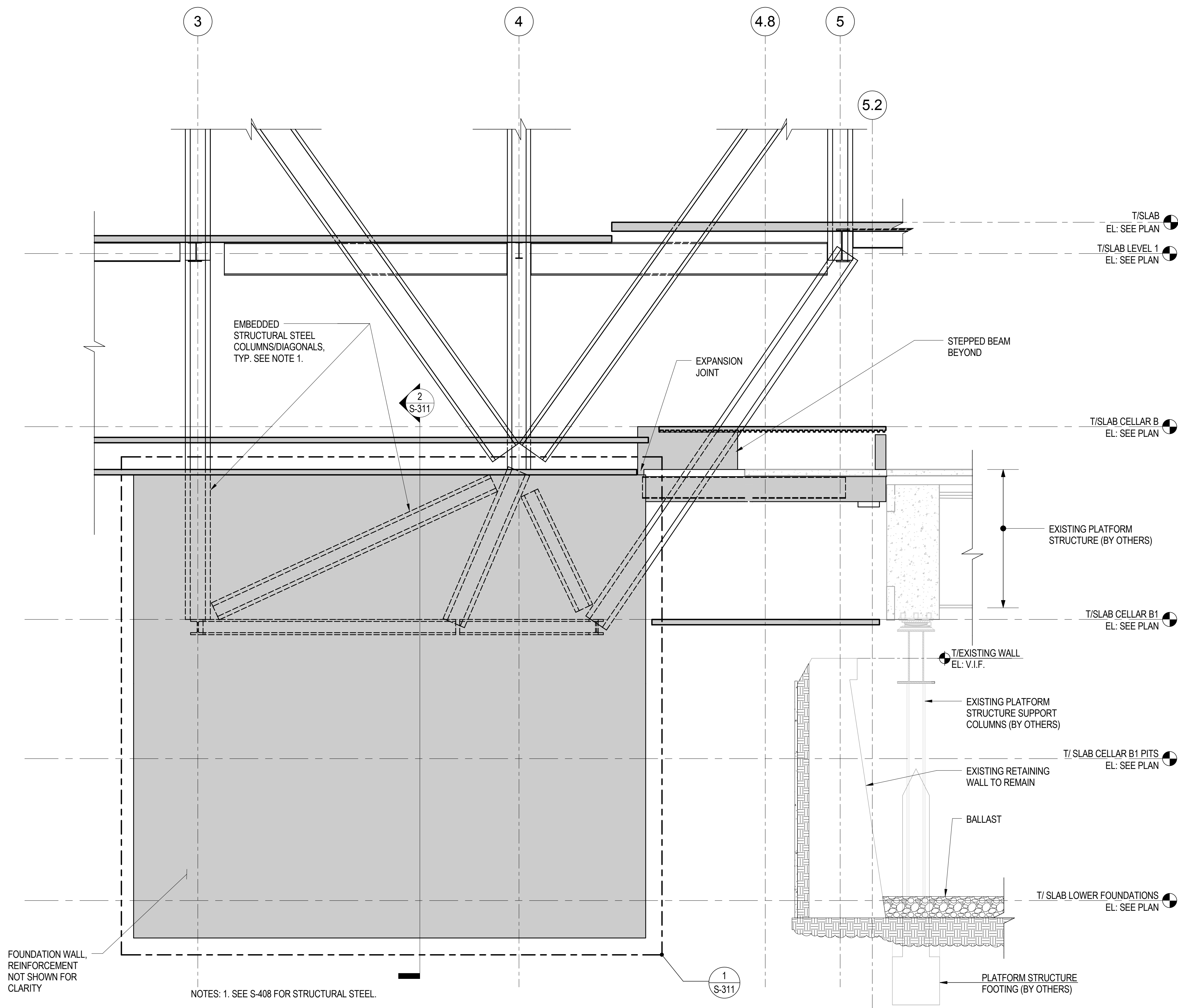
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COLUMN  
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SECTIONS &  
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B-SCAN Sheet No.: S-310.00  
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Page No.: 40 of 90

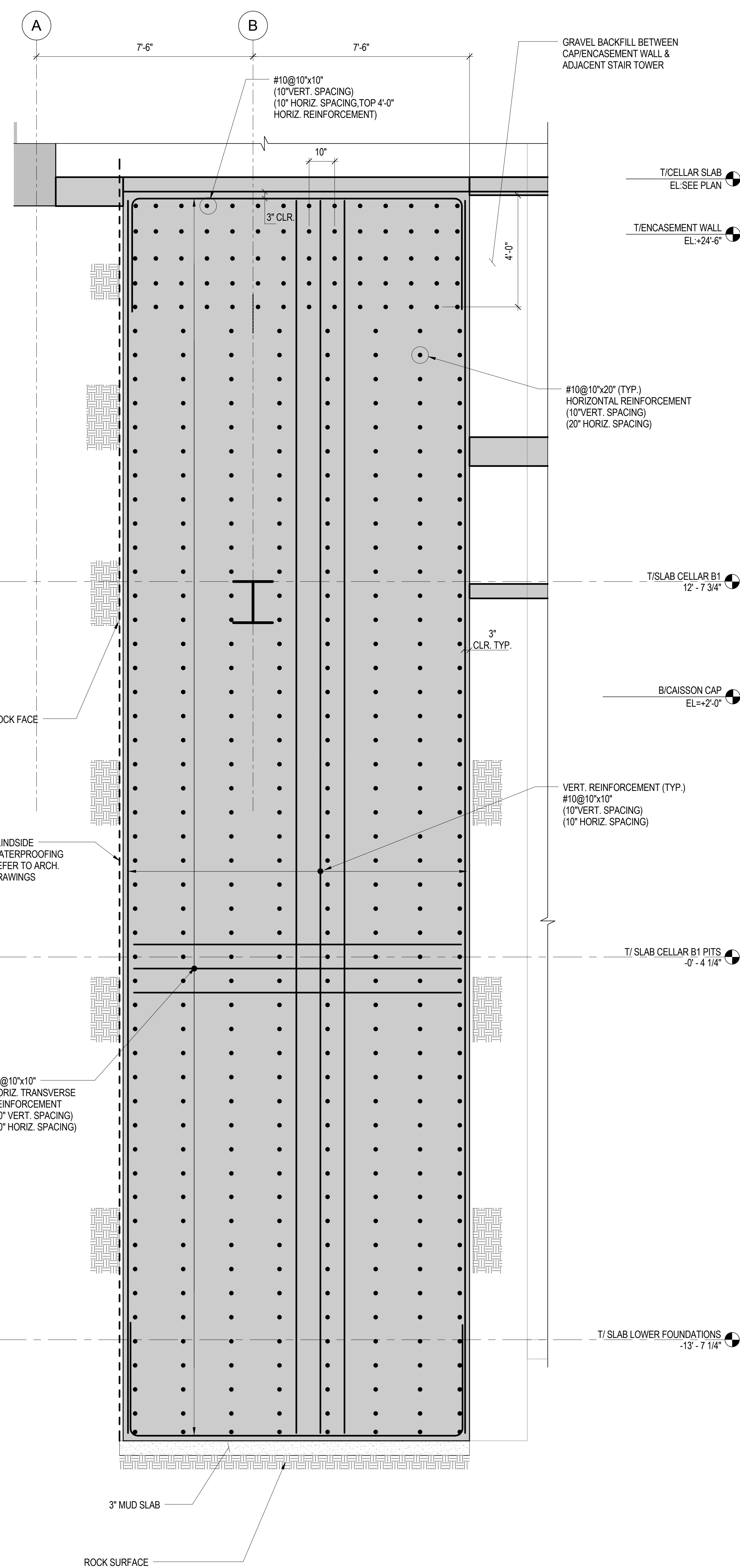


1 FOUNDATION SECTION AT GRIDLINE A  
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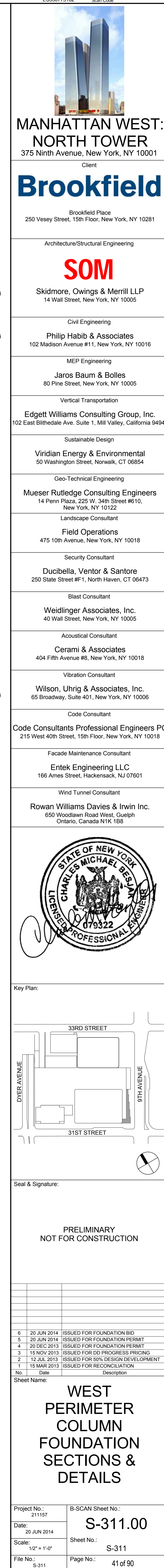
2 FOUNDATION SECTION AT GRIDLINE B  
3/16" = 1'-0"





**2** TRANSVERSE SECTION AT FOUNDATION WALL FOR COLUMNS/DIAGONALS ALONG LINES 'A' AND 'B'

NOT TO SCALE







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Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #510,  
New York, NY 10001-2298  
Tel: 212-512-2000  
Fax: 212-512-2001  
E-mail: [info@mrce.com](mailto:info@mrce.com)  
Web: [www.mrce.com](http://www.mrce.com)

475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Vantor & Santore

250 State Street #F1, North Haven, CT 06473

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

---

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018  
Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultants  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

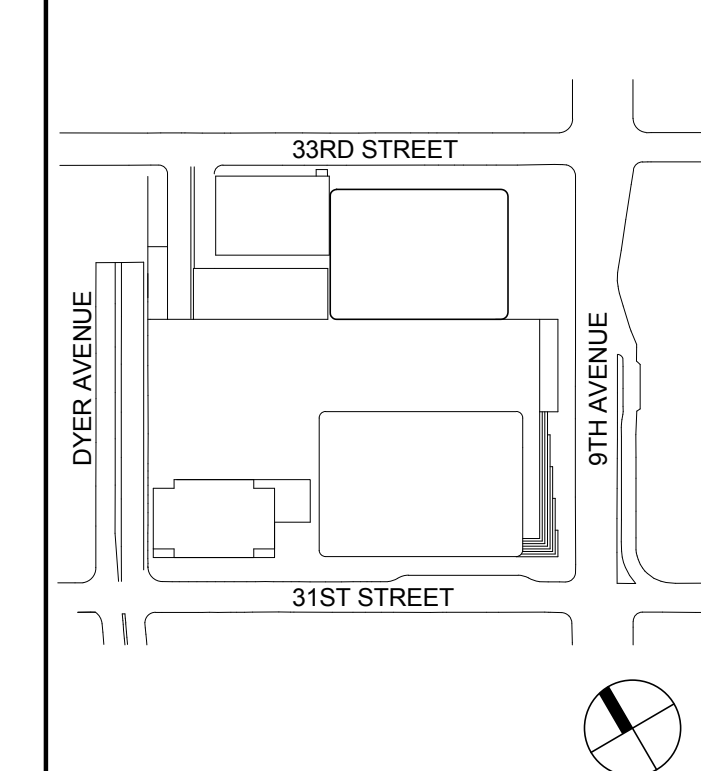
Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.

850 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal &amp; Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

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2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	15 MAR 2013	ISSUED FOR RECONCILIATION
No.	Date	Description

Sheet Name: FOUNDATION

FOUNDATION  
WALL

### WALL ELEVATIONS

ELEVATIONS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Project No.: 211157	B-SCAN Sheet No.:
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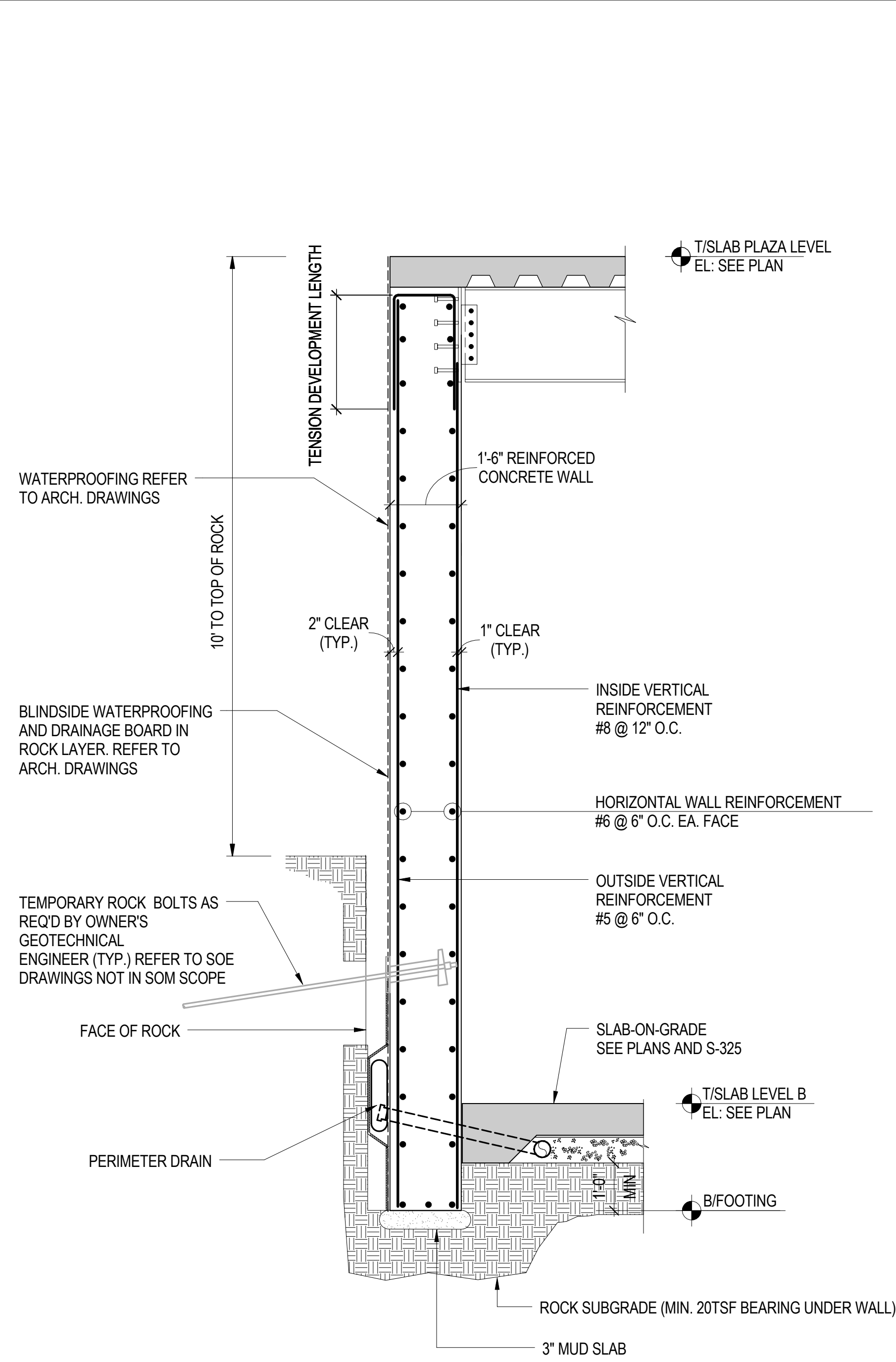
Date: 20 JUN 2014	S-315.00
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Scale: 1/8" = 1'-0"	Sheet No.: S-315
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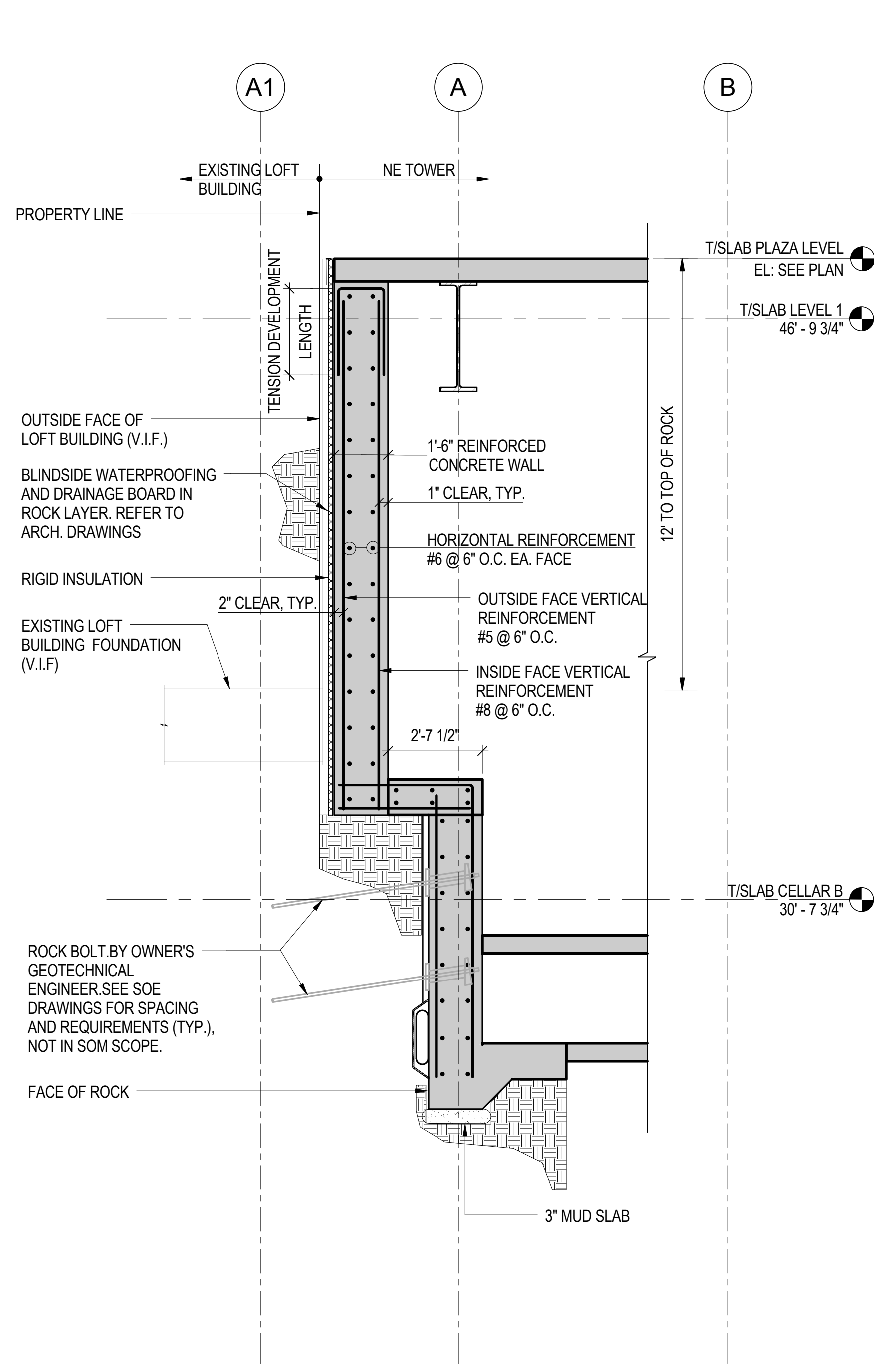
File No.: 8-315	Page No.: 42 of 90
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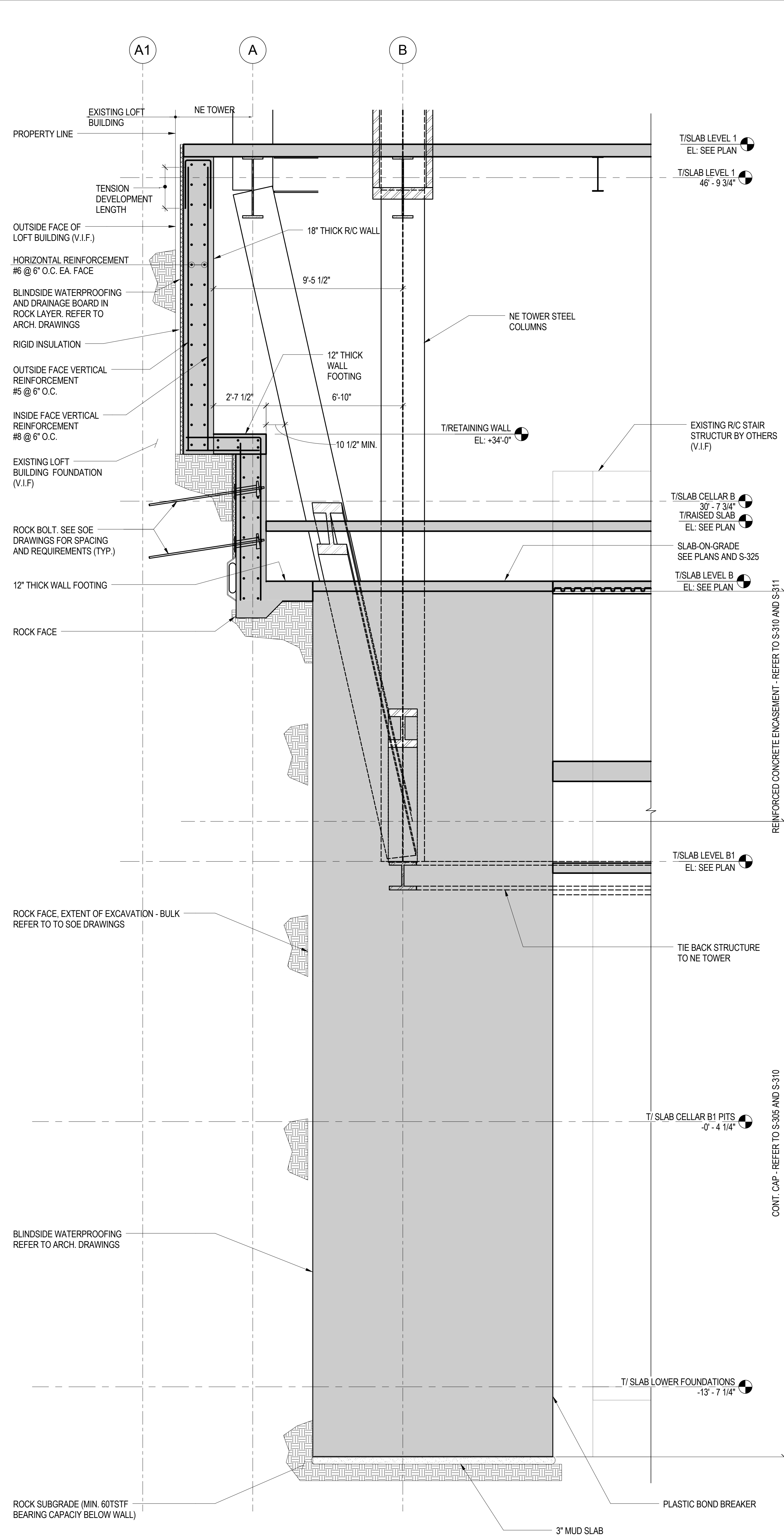




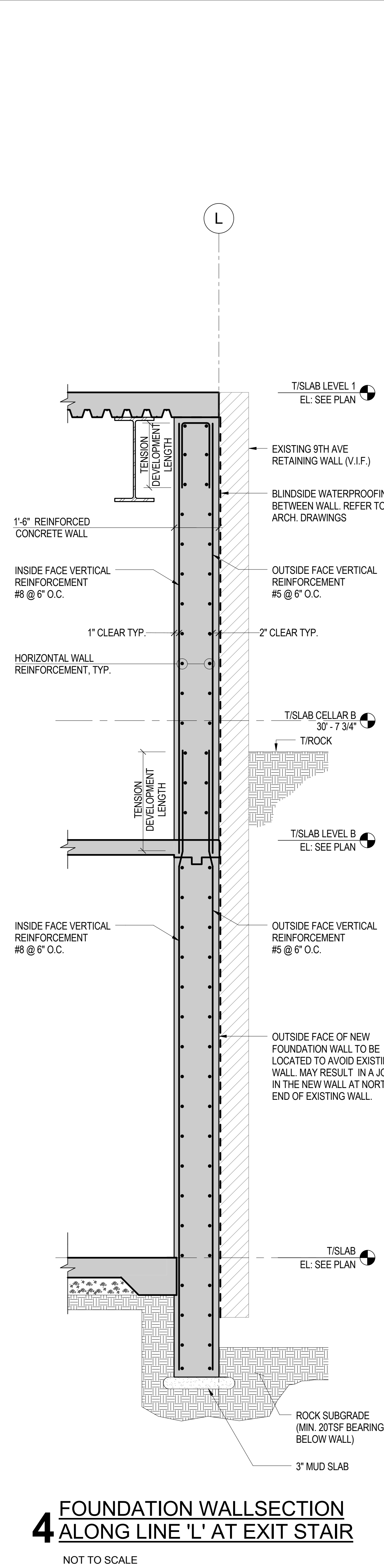
**1 FOUNDATION WALL SECTION TYP**  
ALONG NORTH & EAST WALL  
NOT TO SCALE




**2 FOUNDATION WALL SECTION AT**  
LINE A LOOKING NORTH  
NOT TO SCALE



**3 FOUNDATION WALL SECTION NEAR LINE A - LOOKING NORTH**  
3/8" = 1'-0"



**4 FOUNDATION WALL SECTION**  
ALONG LINE 'L' AT EXIT STAIR  
NOT TO SCALE



**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
250 Vesey Street, 15th Floor, New York, NY 10021  
Architecture/Structural Engineering

**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005  
Civil Engineering

Philip Habb & Associates  
102 Madison Avenue #11, New York, NY 10016  
MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005  
Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East 8th Street, Suite 1, Mill Valley, California 94041  
Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854  
Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 22nd W, 34th Street #10,  
New York, NY 10122  
Field Operations

475 10th Avenue, New York, NY 10018  
Security Consultant

Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473  
Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005  
Acoustical Consultant


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65 Broadway, Suite 401, New York, NY 10006  
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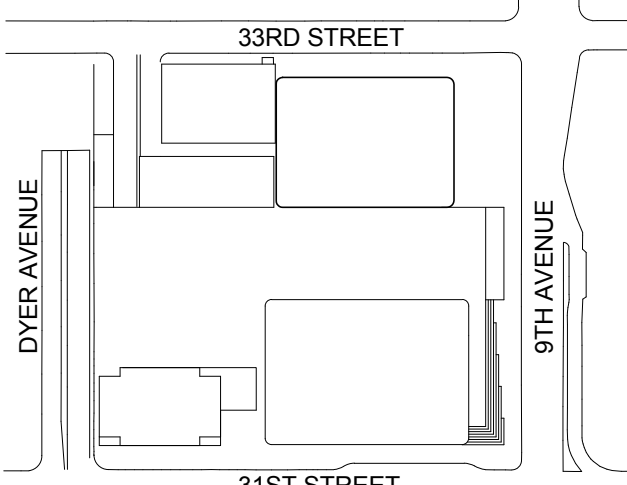
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018  
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601  
Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal & Signature:

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1	18 MAR 2012	ISSUED FOR RECONCILIATION

Project No.: 211157

Date: 20 JUN 2014

Scale: As indicated

File No.: S-316

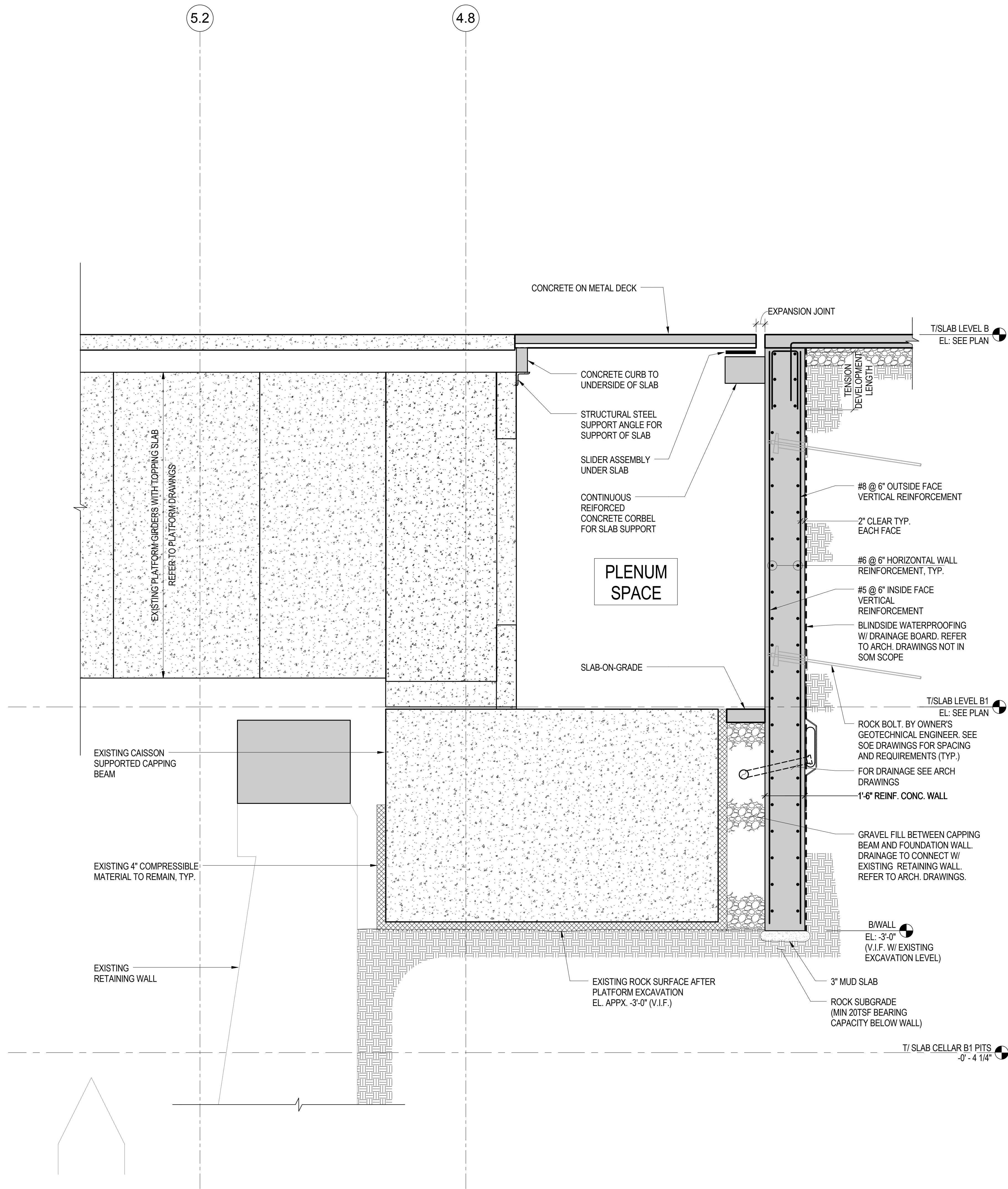
B-SCAN Sheet No.: **S-316.00**

Sheet No.: **S-316**

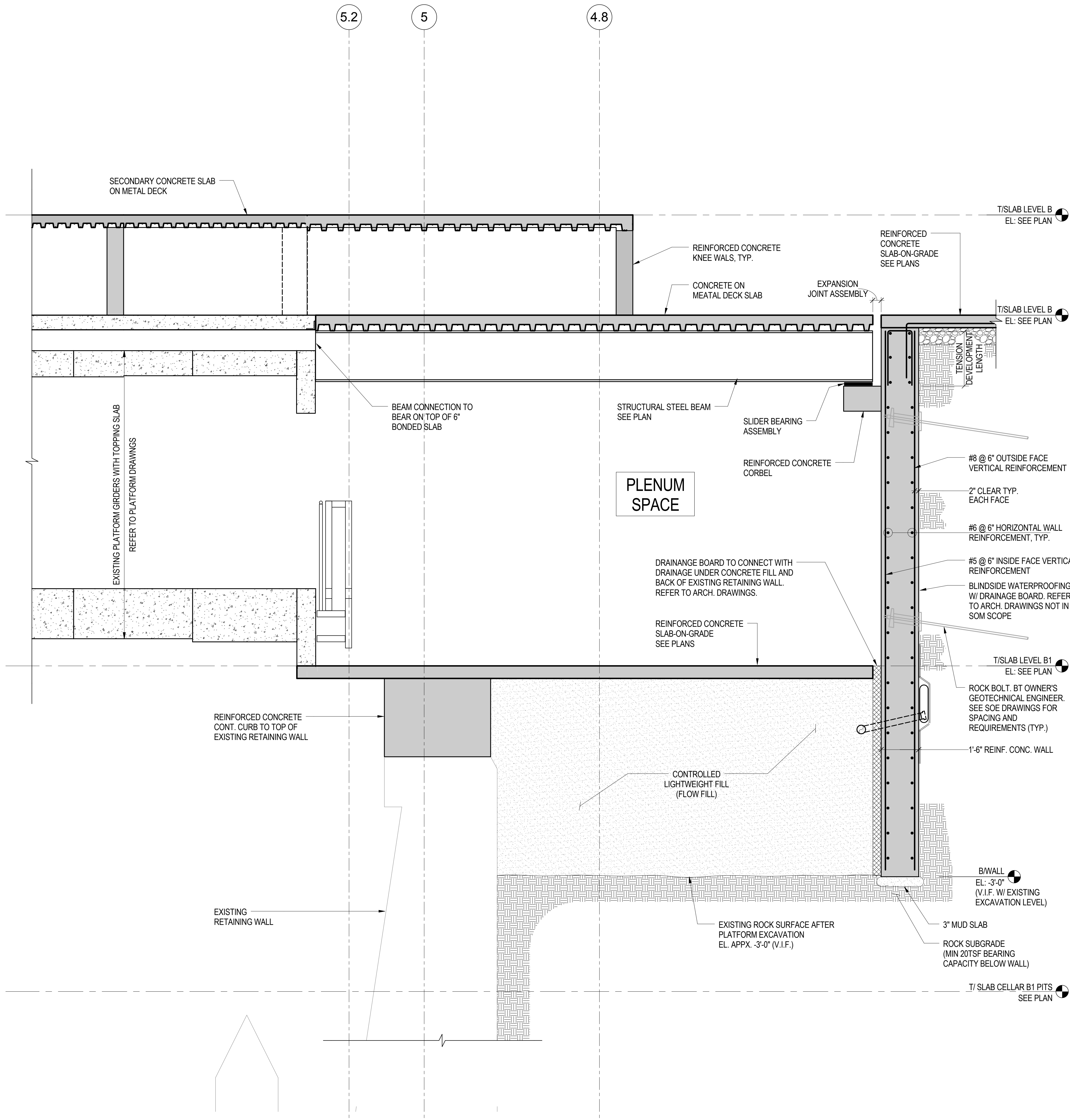
Page No.: **43 of 90**

**FOUNDATION  
WALL SECTIONS  
& DETAILS**






**1** SECTION AT RETAINING WALL NORTH OF PLATFORM  
NOT TO SCALE




**2** SECTION AT RETAINING WALL NORTH OF PLATFORM ADJACENT TO TOWER CORE  
NOT TO SCALE



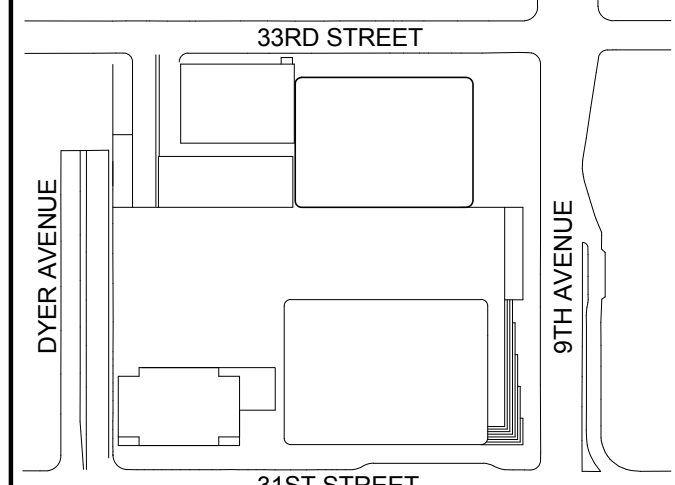
**MANHATTAN WEST:  
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375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
250 Vesey Street, 15th Floor, New York, NY 10021  
Architecture/Structural Engineering

**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005  
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Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016  
MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005  
Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Bluffside Ave., Suite 1, Mill Valley, California 94041  
Sustainable Design  
Viridian Energy & Environmental  
40 Washington Street, Newark, CT 06854  
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Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122  
Landscape Consultant  
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Key Plan:



Seal & Signature:

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Sheet Name:  
**FOUNDATION  
WALL SECTIONS  
& DETAILS**

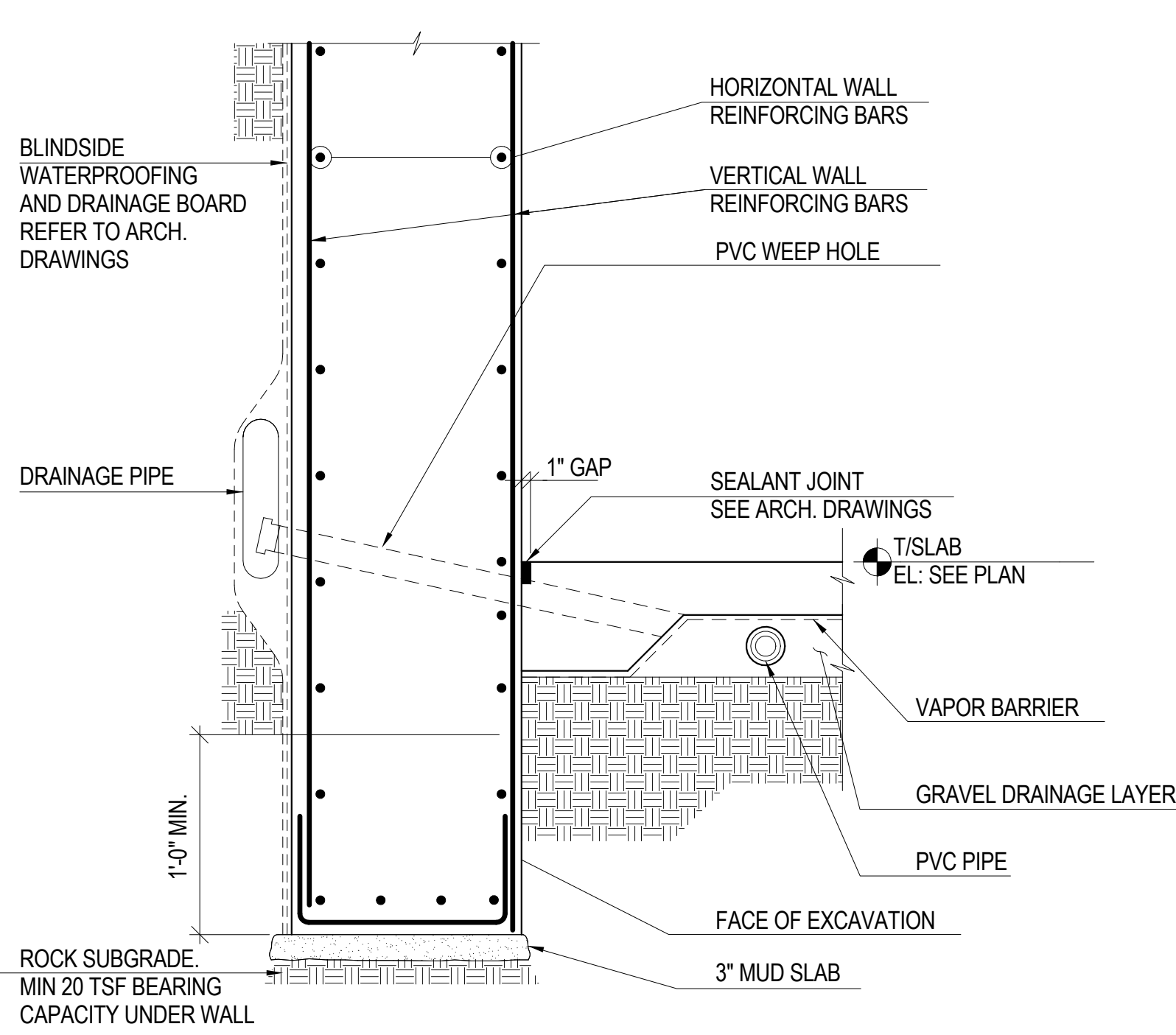
Project No.:	B-SCAN Sheet No.:
211157	<b>S-317.00</b>

Date:	Sheet No.:
20 JUN 2014	<b>S-317</b>

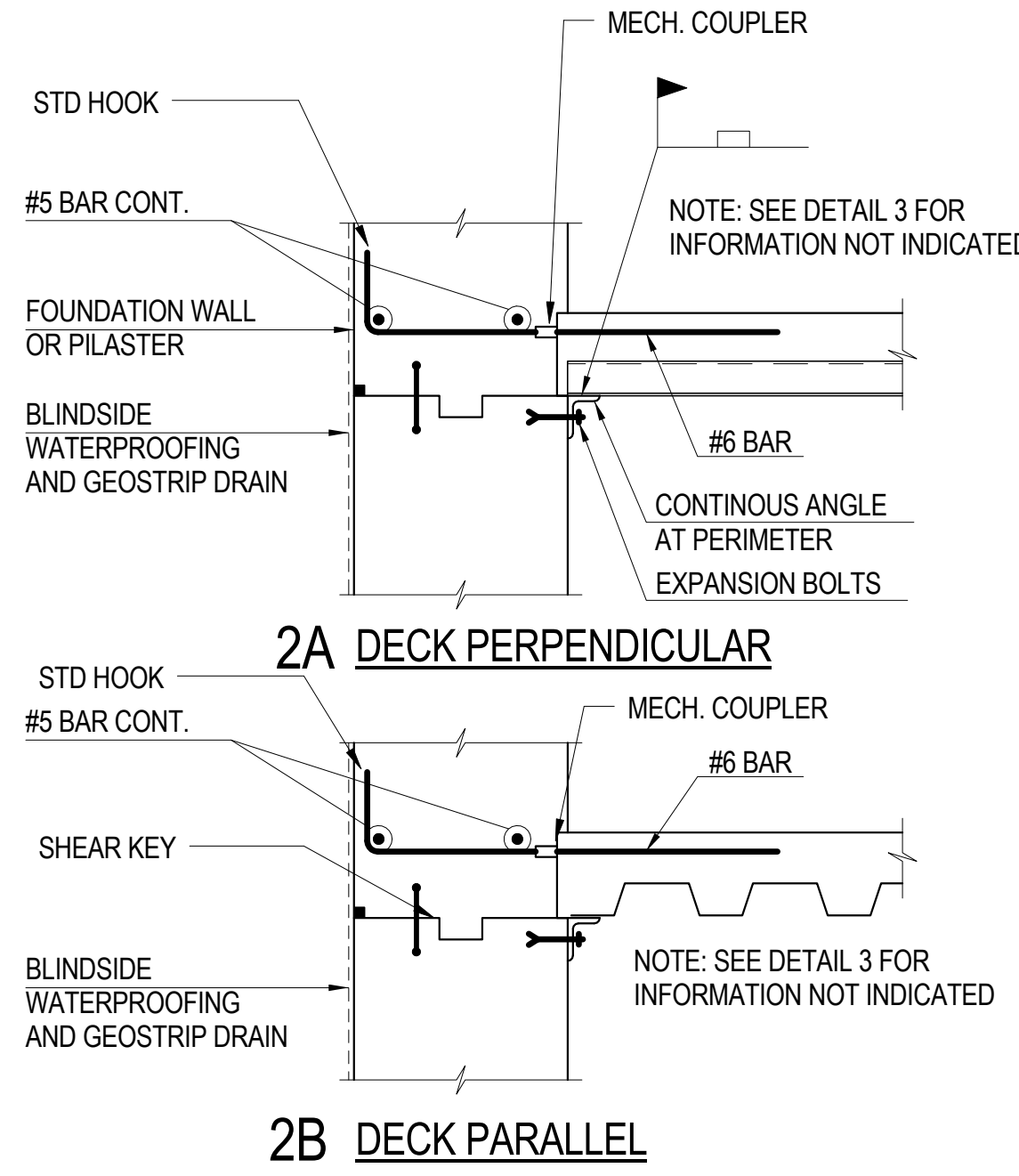
Scale:	Page No.:
1/2" = 1'-0"	44 of 90

File No.:
S-317

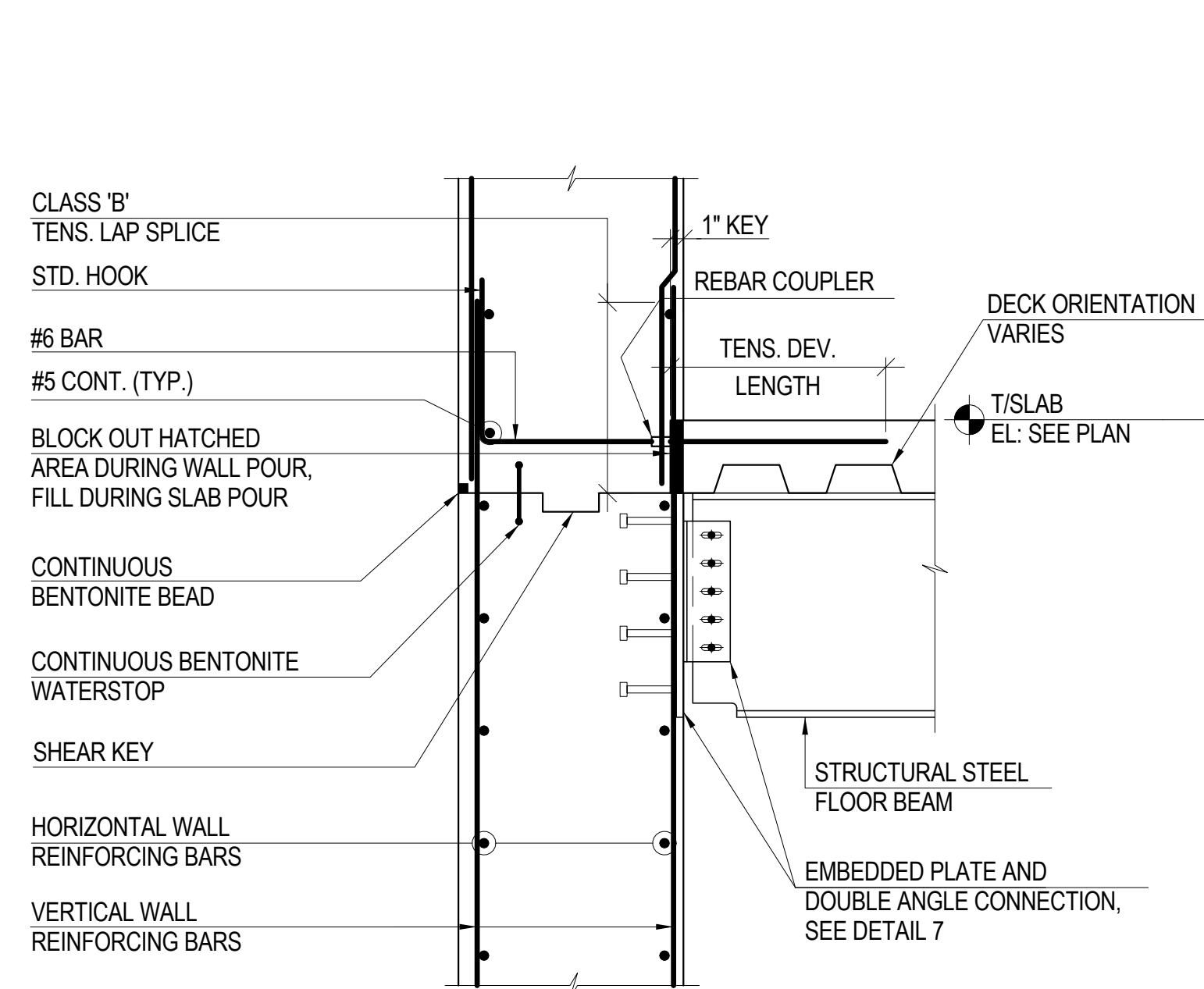




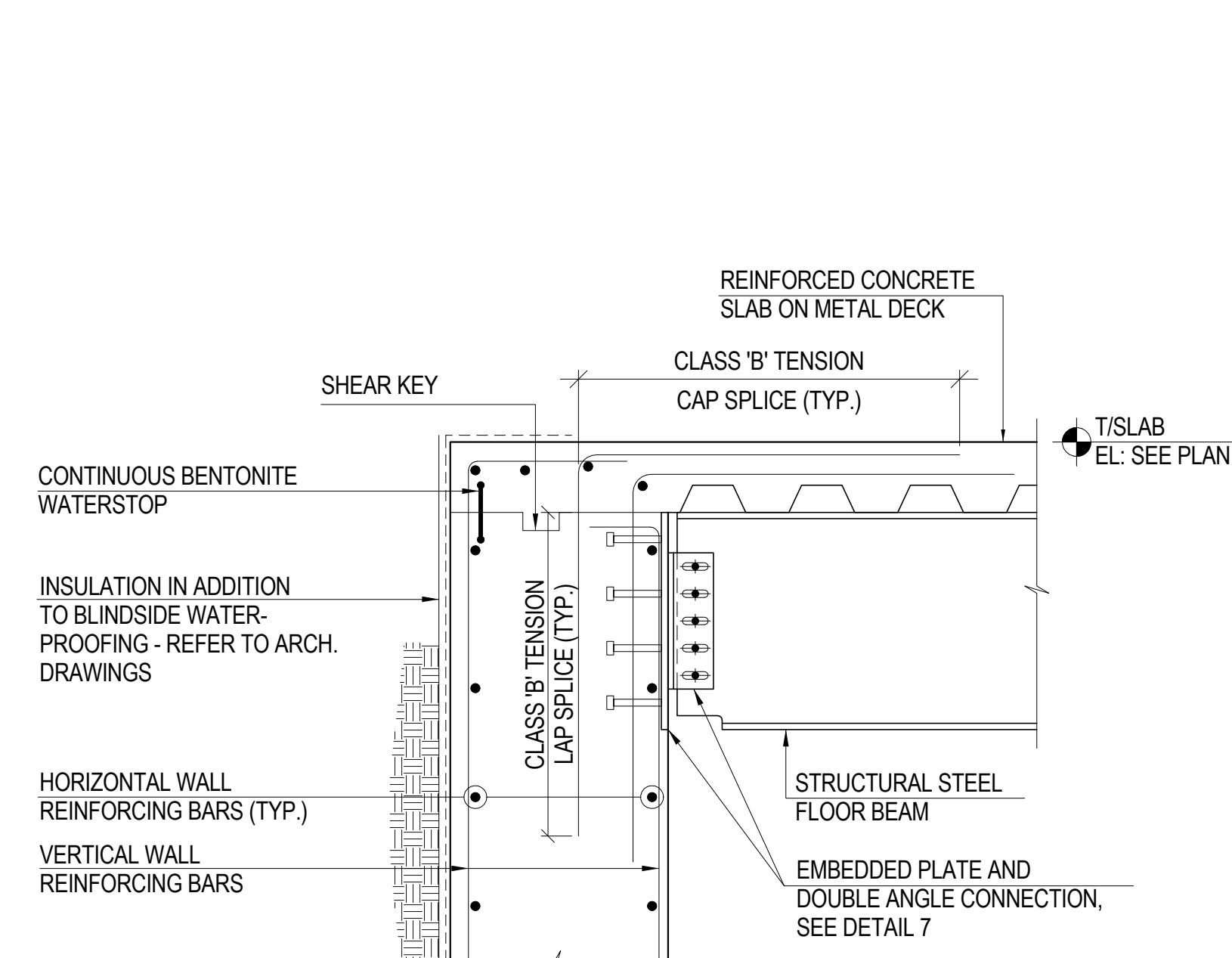
NOTE: REFER TO THE DRAWING U-001 FOR DETAILS OF THE UNDERDRAIN SYSTEM.



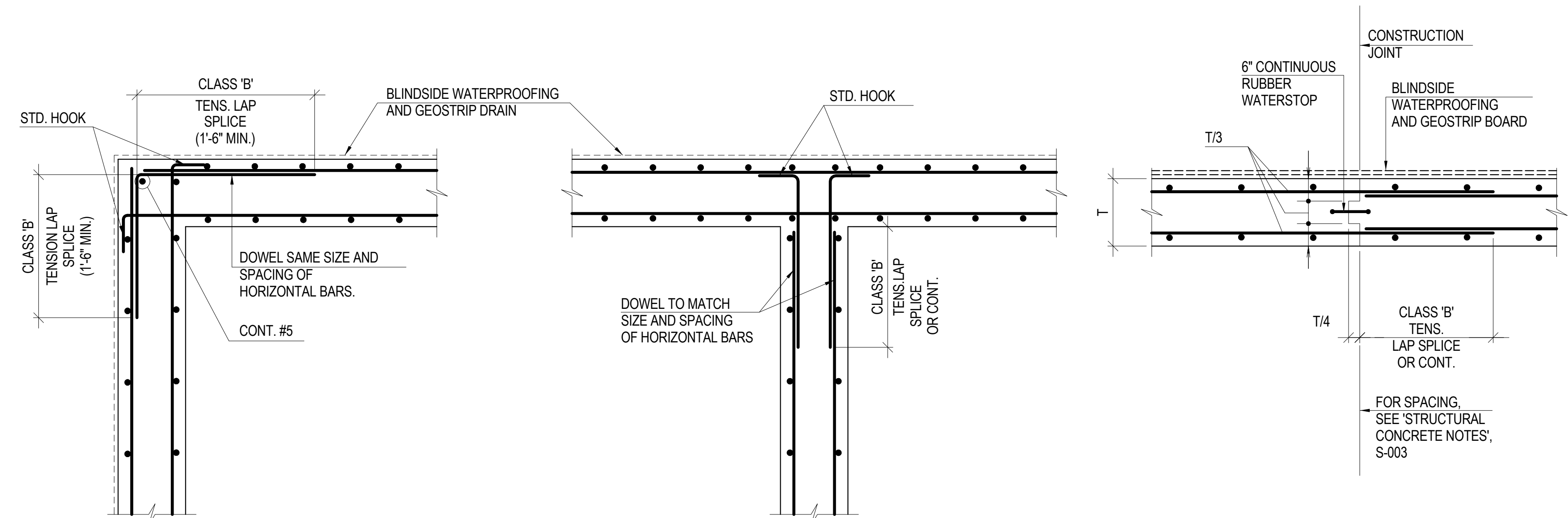
2 TYPICAL METAL DECK TO FOUNDATION WALL DETAILS  
SCALE: 3/4" = 1'-0"



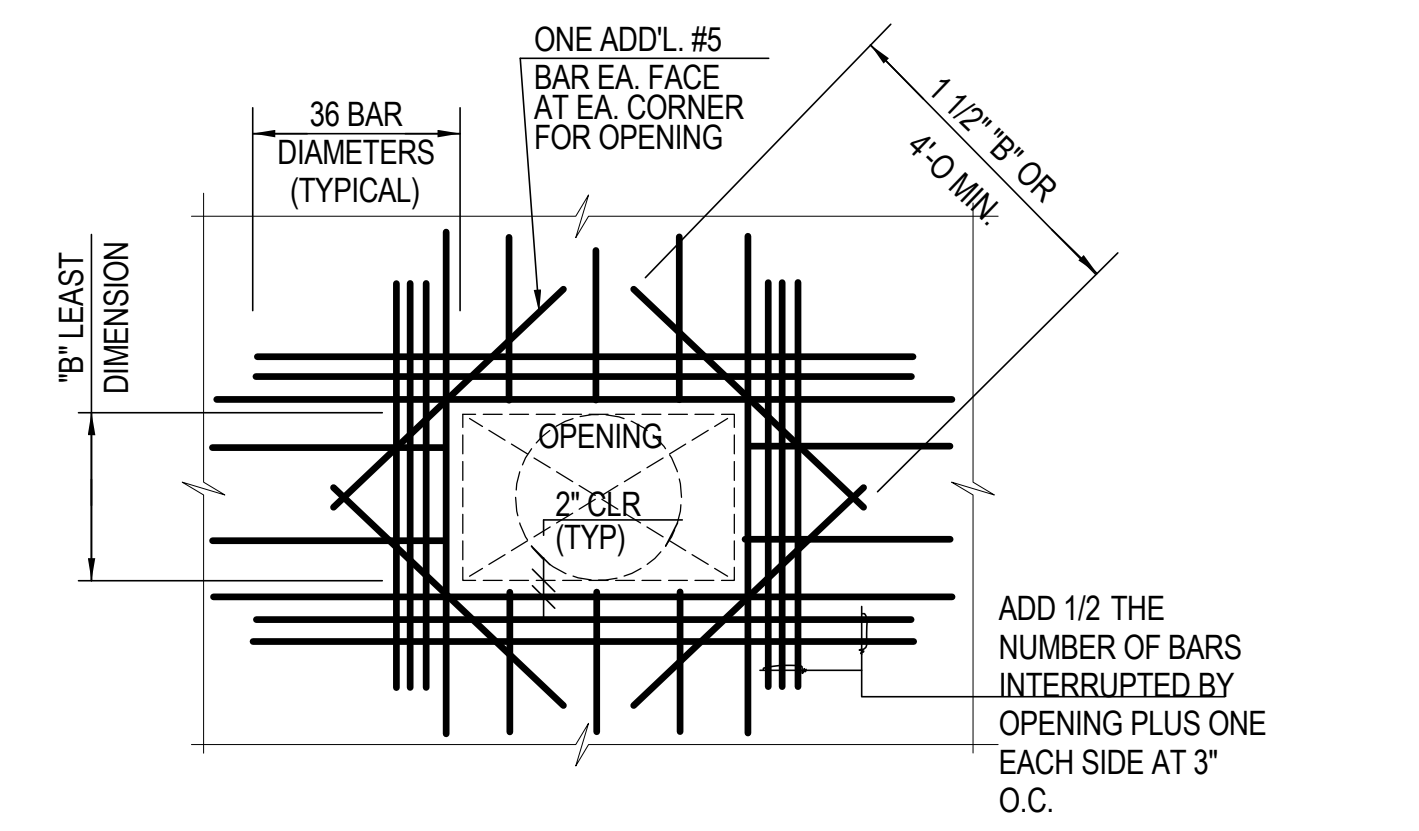
3 TYPICAL BEAM TO FOUNDATION WALL DETAIL  
SCALE: 3/4" = 1'-0"



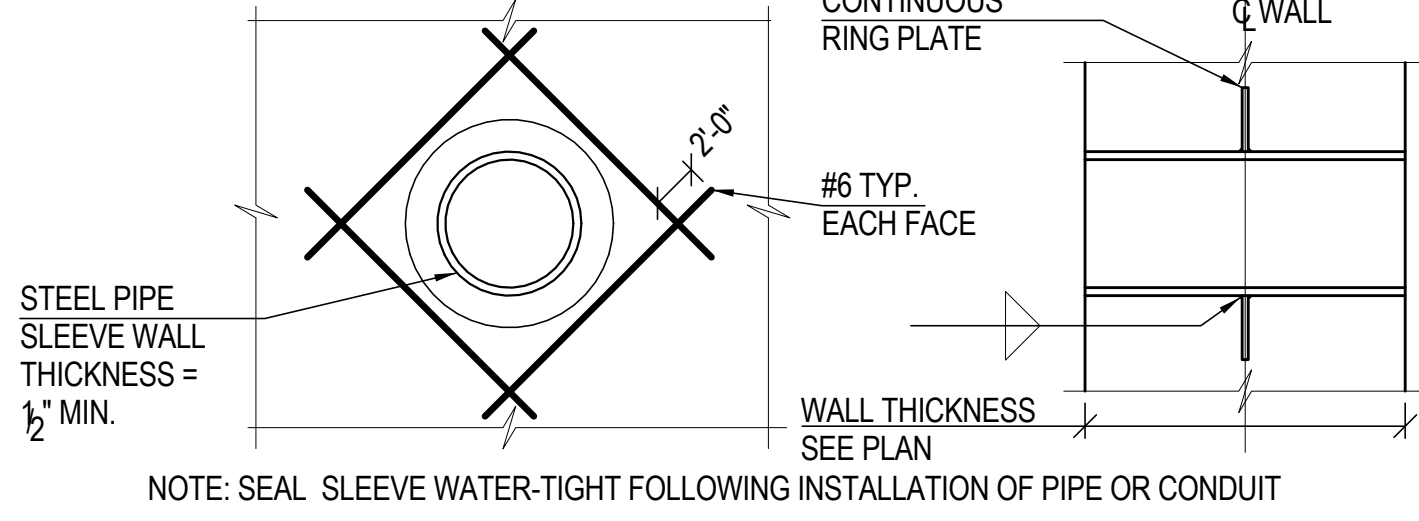
4 TYPICAL FOUNDATION WALL DETAIL AT TOP  
SCALE: 3/4" = 1'-0"



5 TYPICAL FOUNDATION WALL DETAILS  
SCALE: 3/4" = 1'-0"

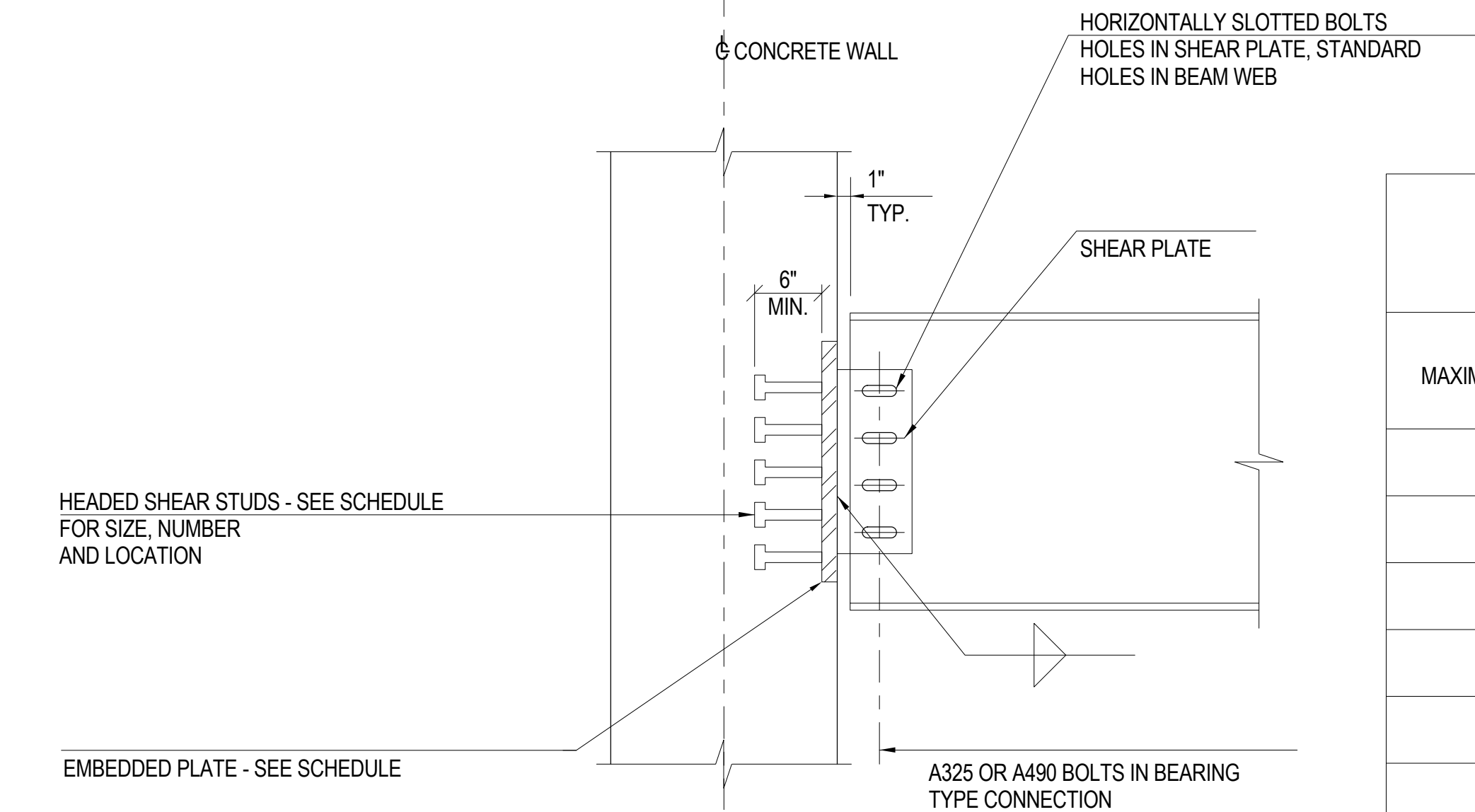


6A TYPICAL RECTANGULAR WALL OPENING



6B TYPICAL SLEEVE WALL OPENING (10" DIA. MAX.)

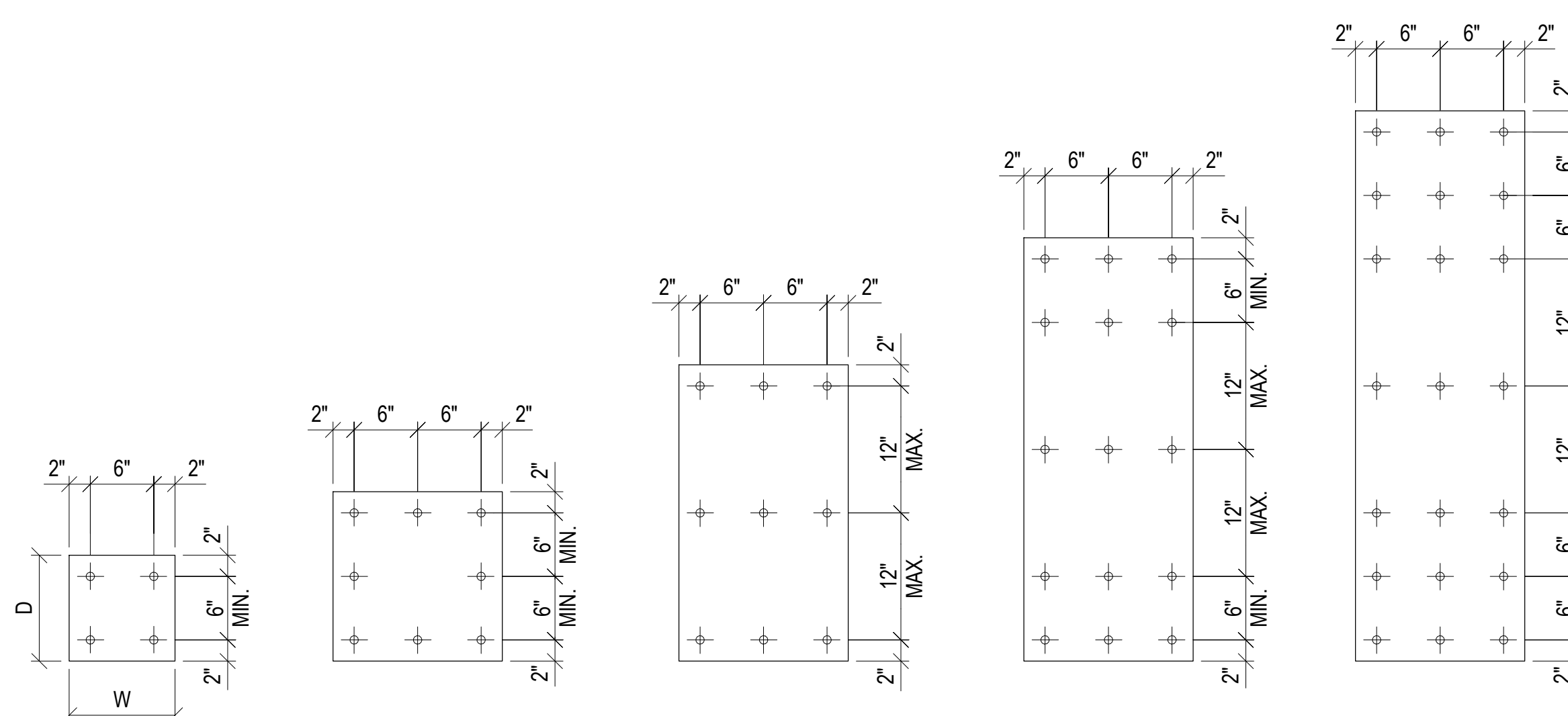
6 TYPICAL OPENING DETAILS  
NOT TO SCALE



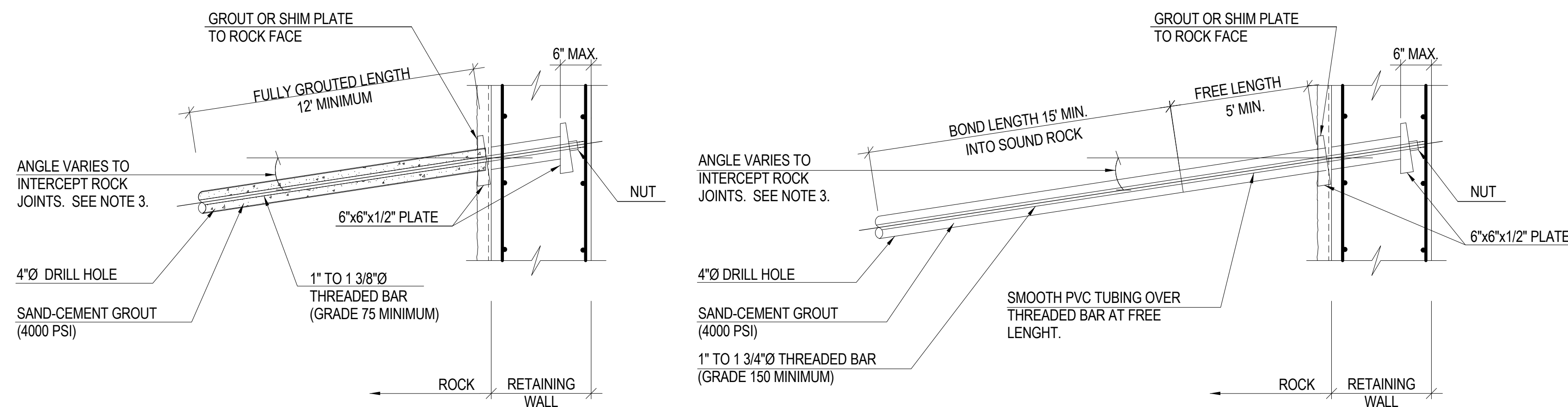
NOTE: WELDS, SHEAR PLATE AND BOLTS TO DEVELOP 100% OF SCHEDULED BEAM REACTION.

- NOTES:
1. BOLTS, WELDS AND ANGLES TO DEVELOP REACTIONS LISTED ON THE PLANS
  2. ALL SHEAR STUD CONNECTORS, ANGLES & WELDS SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION
  3. ALL SHEAR STUDS SHALL BE TYPE B ASTM A108
  4. ALL SHEAR STUD WELDS SHALL DEVELOP THE ULTIMATE STRENGTH OF THE STUD

EMBEDDED PLATE SCHEDULE					F <sub>y</sub> PLATE = 50ksi F <sub>y</sub> STUDS = 60 ksi
MAXIMUM BEAM SIZE	MAXIMUM CAPACITY (kips)	NUMBER OF SHEAR STUDS	EMBEDDED PLATE SIZE T <sub>x</sub> W <sub>x</sub> D	MIN SHEAR PLATE DEPTH (in)	PLATE TYPE
W12					
W14-W18					
W21-W24					
W27-W30					
W33-W36					



7 EMBEDDED PLATE DETAIL  
NOT TO SCALE



NON - TENSIONED ROCK ANCHORS

POST - TENSIONED ROCK ANCHORS

- NOTES:
1. DETAILS TO BE CONFIRMED WITH MUESER RUTLEDGE CONSULTING ENGINEERS (MRCE).
  2. ANCHORS CAN BE ALSO USED FOR TEMPORARY SUPPORT OF EXCAVATION.
  3. DURING EXCAVATION, THE BOLT CAPACITY, ANGLE AND LENGTH SHOULD BE VERIFIED BY FOUNDATION CONTRACTOR BASED ON THE JOINTING PATTERN OBSERVED. SUPPLEMENTAL BOLTS MAY BE REQUIRED IF UNFAVORABLE JOINTING PATTERNS ARE ENCOUNTERED AND WHEN EXISTING BUILDING LOADS ARE SUPERIMPOSED.
  4. ROCK BOLT TO BE ANGLED DOWNWARD A MINIMUM OF 5° FROM HORIZONTAL. BOLTS WITHIN 5' OF THE TOP OF BEDROCK SHALL BE ANGLED DOWNWARD A MINIMUM OF 30° FROM HORIZONTAL TO ENGAGE AN ADEQUATE BLOCK OF BEDROCK. BOLT ANGLE WILL VARY DEPENDING ON THE DIP AND DIRECTION OF THE ROCK JOINTS.
  5. ALL BOLTS SHOULD BE GALVANIZED FOR CORROSION PROTECTION.
  6. ANCHOR NUTS AND COUPLERS SHALL BE CAPABLE OF DEVELOPING 100% OF THE ULTIMATE STRENGTH OF THREADED BAR.
  7. POST-TENSIONED ANCHORS SHALL BE IN CONFORMANCE WITH PTI (POST TENSIONING INSTITUTE) LATEST RECOMMENDATIONS ON ROCK AND SOIL ANCHORS.
  8. POST-TENSIONED ANCHOR LOCK-OFF LOAD SHOULD NOT EXCEED 70% OF THE GUARANTEED ULTIMATE STRENGTH OF THE THREADED BAR.

8 TYPICAL PERMANENT ROCK ANCHOR DETAIL  
NOT TO SCALE

**MANHATTAN WEST:  
NORTH TOWER**  
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102 East 81st Street, Suite 1, Mill Valley, California 94041

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No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_  
Sheet Name: **FOUNDATION WALL SECTIONS & DETAILS**

Project No.: 211157	B-SCAN Sheet No.: <b>S-318.00</b>
Date: 20 JUN 2014	Sheet No.: <b>S-318</b>
Scale: As indicated	Page No.: 45 of 90

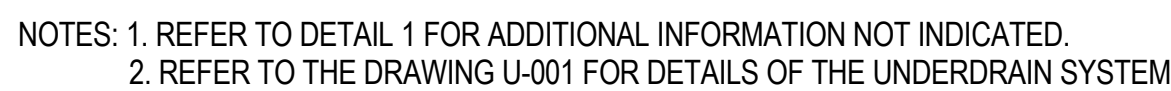




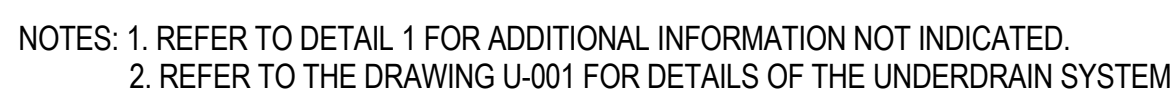
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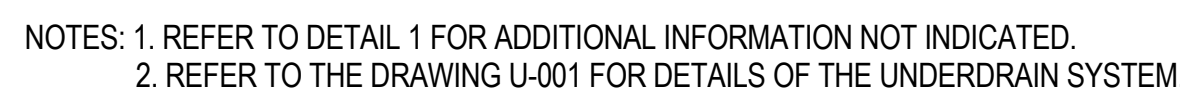
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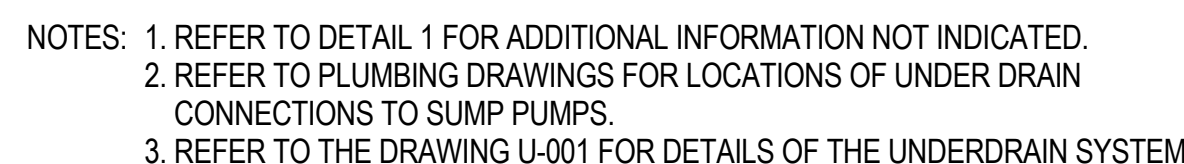
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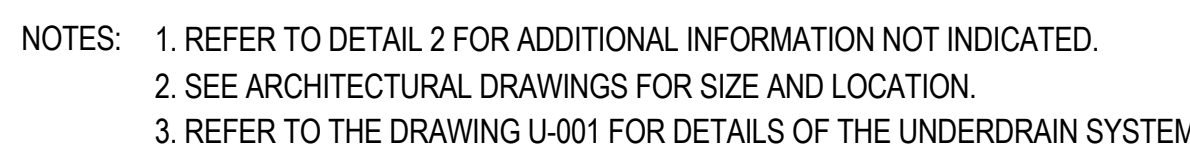
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NOT TO SCALE



NOT TO SCALE



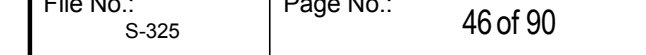
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$$1'' = 1'-0''$$


## 10

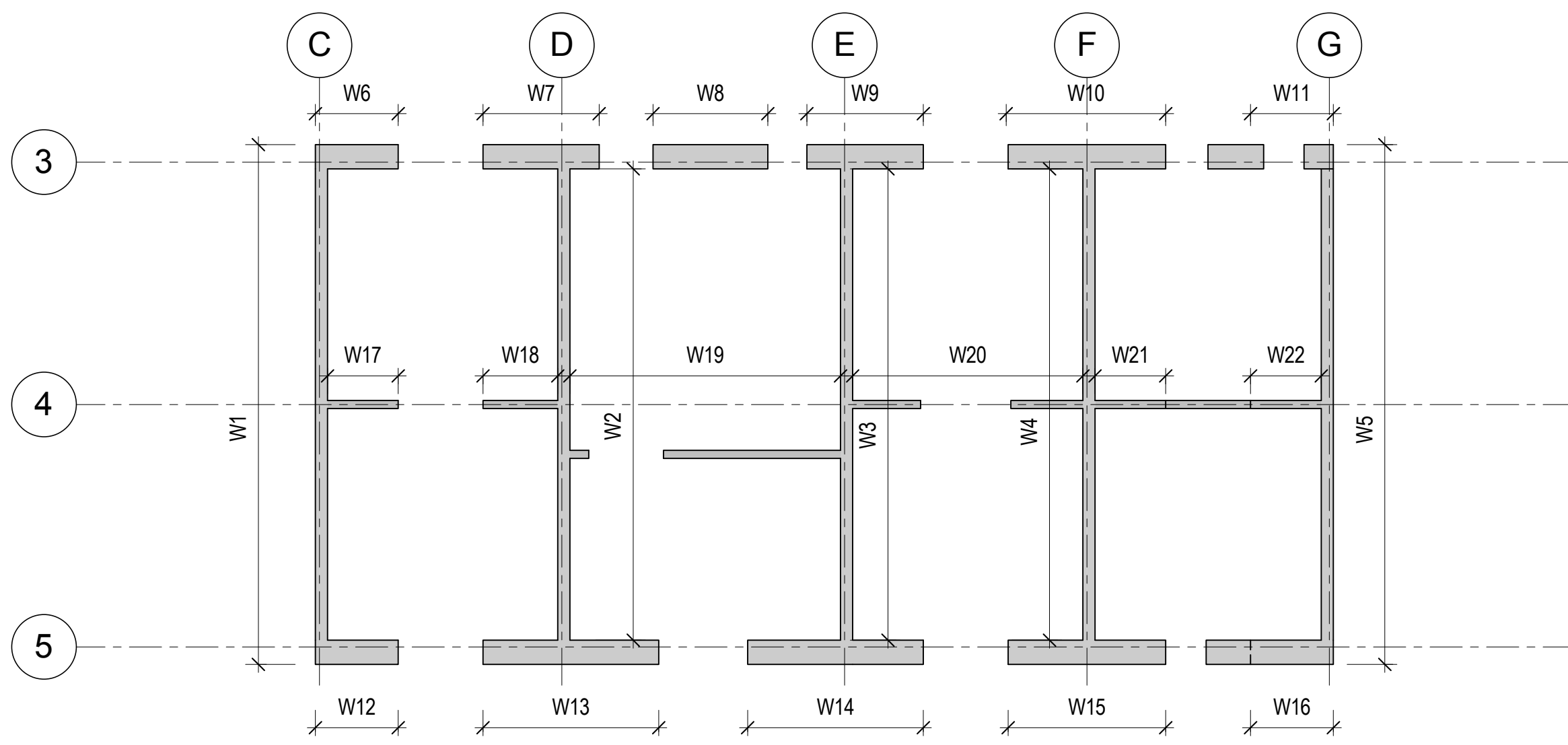
18B PLAN

111

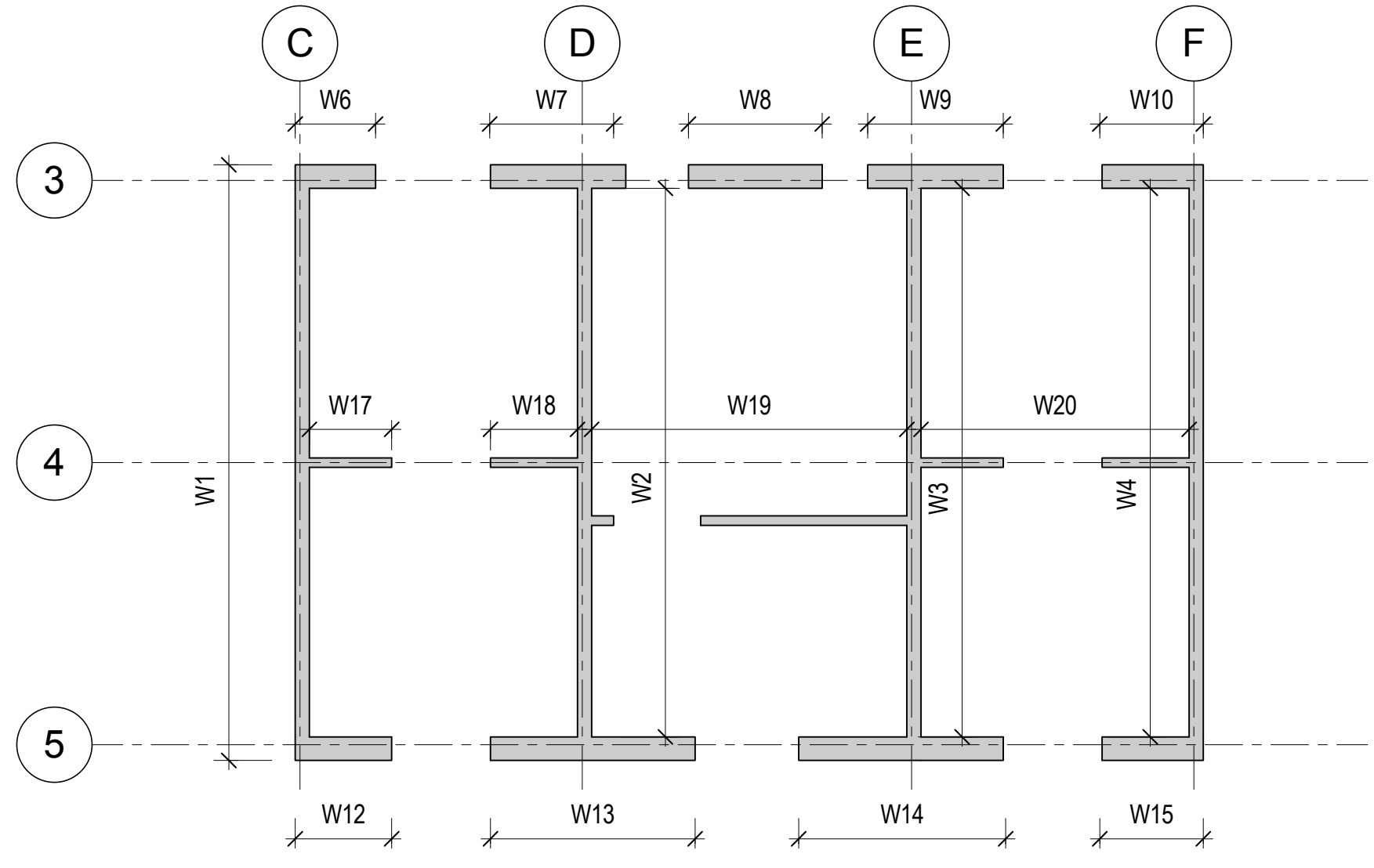




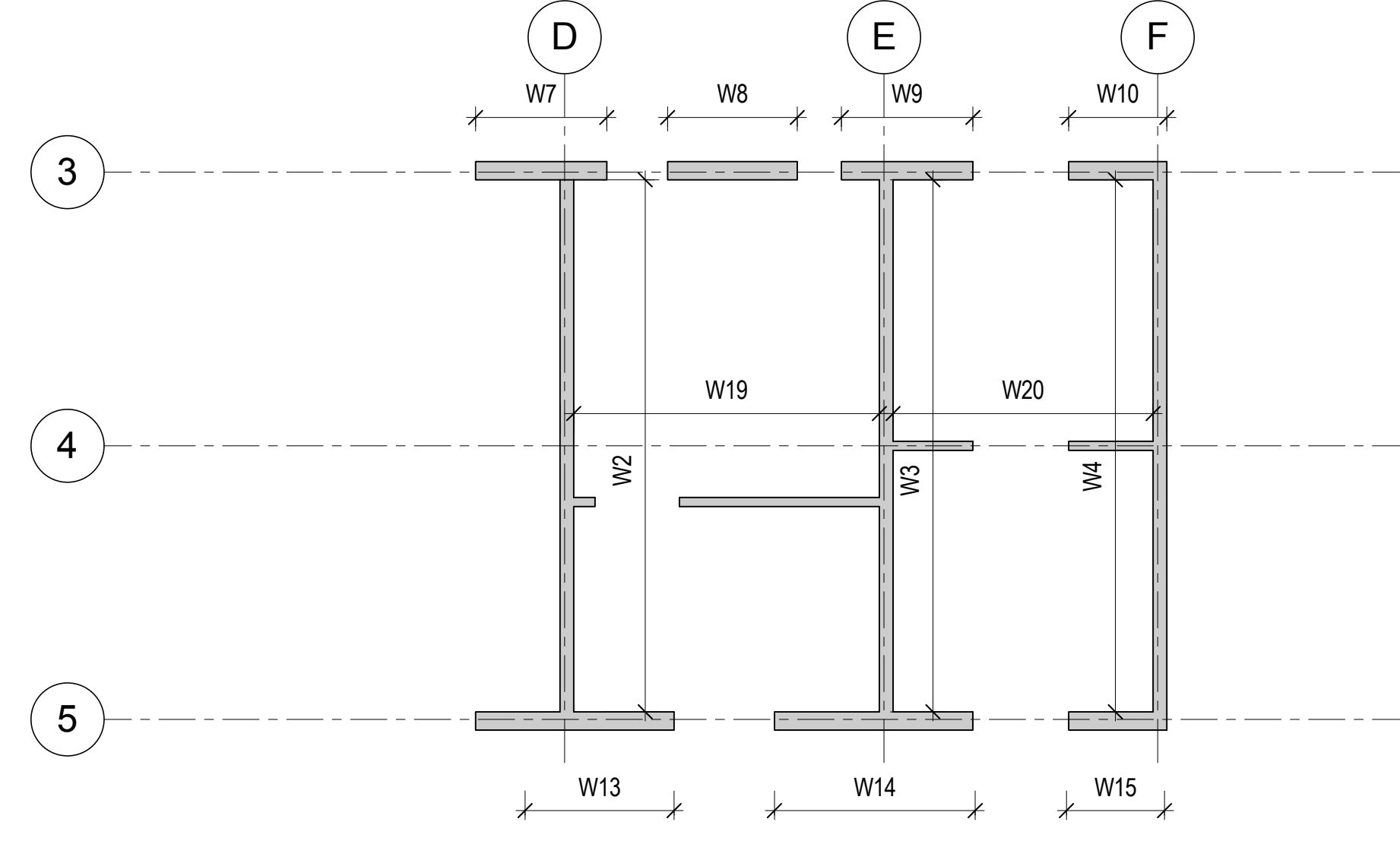
REINFORCED CONCRETE CORE WALL SCHEDULE FOR NORTH TOWER																						CONCRETE: AS NOTED REINFORCEMENT: ASTM A615 GR. 60		REINFORCEMENT
WALL MARK	CONCRETE (PSI)	WALL 1 WALL THICKNESS TW (IN)	WALL 2 WALL THICKNESS TW (IN)	WALL 3 WALL THICKNESS TW (IN)	WALL 4 WALL THICKNESS TW (IN)	WALL 5 WALL THICKNESS TW (IN)	WALL 6 WALL THICKNESS TW (IN)	WALL 7 WALL THICKNESS TW (IN)	WALL 8 WALL THICKNESS TW (IN)	WALL 9 WALL THICKNESS TW (IN)	WALL 10 WALL THICKNESS TW (IN)	WALL 11 WALL THICKNESS TW (IN)	WALL 12 WALL THICKNESS TW (IN)	WALL 13 WALL THICKNESS TW (IN)	WALL 14 WALL THICKNESS TW (IN)	WALL 15 WALL THICKNESS TW (IN)	WALL 16 WALL THICKNESS TW (IN)	WALL 17 WALL THICKNESS TW (IN)	WALL 18 WALL THICKNESS TW (IN)	WALL 19 WALL THICKNESS TW (IN)	WALL 20 WALL THICKNESS TW (IN)	WALL 21 WALL THICKNESS TW (IN)	WALL 22 WALL THICKNESS TW (IN)	
LEVEL																								
ROOF LEVEL	8000	-	18	18	-	-	-	24	24	24	24	-	-	-	-	-	-	-	12	12	-	12	-	SEE 1/S-354
LEVEL 70 - ROOF	8000	-	18	18	18	-	-	24	24	24	24	-	-	-	24	24	24	-	-	12	12	12	-	SEE 2/S-353
LEVEL 69 - 70	8000	-	18	18	18	-	-	24	24	24	24	-	-	-	24	24	24	-	-	12	12	12	-	SEE 1/S-353
LEVEL 68 - 69	8000	-	18	18	18	-	-	24	24	24	24	-	-	-	24	24	24	-	-	12	12	12	-	SEE 2/S-352
LEVEL 63 - 68	8000	-	18	18	18	-	-	24	24	24	24	-	-	-	24	24	24	-	-	12	12	12	-	SEE 1/S-352
LEVEL 58 - 63	8000	-	18	18	18	-	-	24	24	24	24	-	-	-	24	24	24	-	-	12	12	12	-	SEE 2/S-351
LEVEL 53 - 58	8000	-	18	18	18	-	-	24	24	24	24	-	-	-	24	24	24	-	-	12	12	12	-	SEE 1/S-351
LEVEL 47 - 53	8000	18	18	18	18	-	30	30	30	30	30	-	30	30	30	30	30	-	12	12	12	12	-	SEE 2/S-350
LEVEL 42 - 47	8000	18	18	18	18	-	30	30	30	30	30	-	30	30	30	30	30	-	12	12	12	12	-	SEE 1/S-350
LEVEL 36 - 42	8000	18	18	18	18	-	30	30	30	30	30	-	30	30	30	30	30	-	12	12	12	12	-	SEE 2/S-349
LEVEL 31 - 36	8000	18	18	18	18	-	30	30	30	30	30	-	30	30	30	30	30	-	12	12	12	12	-	SEE 1/S-349
LEVEL 28 - 31	8000	18	18	18	18	18	36	36	36	36	36	36	36	36	36	36	36	12	12	12	12	12	12	SEE 2/S-348
LEVEL 26 - 28	8000	18	18	18	18	18	36	36	36	36	36	36	36	36	36	36	36	12	12	12	12	12	12	SEE 1/S-348
LEVEL 16 - 26	8000	18	18	18	18	18	44	44	44	44	44	44	44	44	44	44	44	12	12	12	12	12	12	SEE 2/S-347
LEVEL 11 - 16	10000	24	24	24	24	24	48	48	48	48	48	48	48	48	48	48	48	12	12	12	12	12	12	SEE 1/S-347
LEVEL 6 - 11	10000	24	24	24	24	24	50	50	50	50	50	50	50	50	50	50	50	12	12	12	12	12	12	SEE 2/S-346
LEVEL 5 - 6	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 1/S-346
LEVEL 4 - 5	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 2/S-345
LEVEL 3 - 4	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 1/S-345
LEVEL 2 - 3	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 2/S-344
LEVEL 1 - 2	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 1/S-344
LEVEL B - 1	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 2/S-343
LEVEL B1 - B	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 1/S-343
LEVEL B2 - B1	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 2/S-342
LEVEL B3 - B2	10000	39	39	39	39	39	54	54	54	54	54	54	54	54	54	54	54	12	12	12	12	12	12	SEE 1/S-342
DOWELS	-	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	



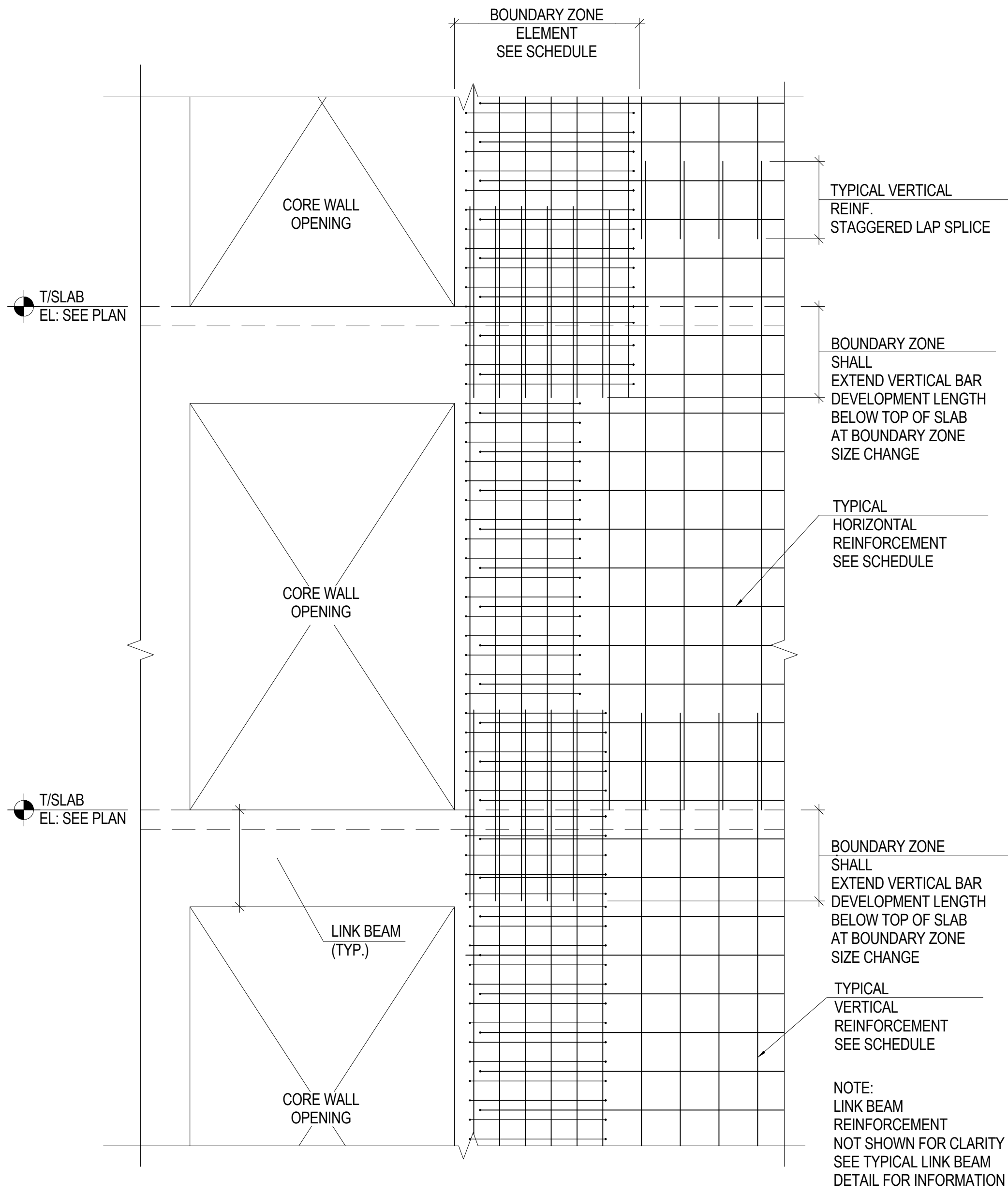
**A** KEY PLAN A - UP TO LEVEL 31  
1/16" = 1'-0"



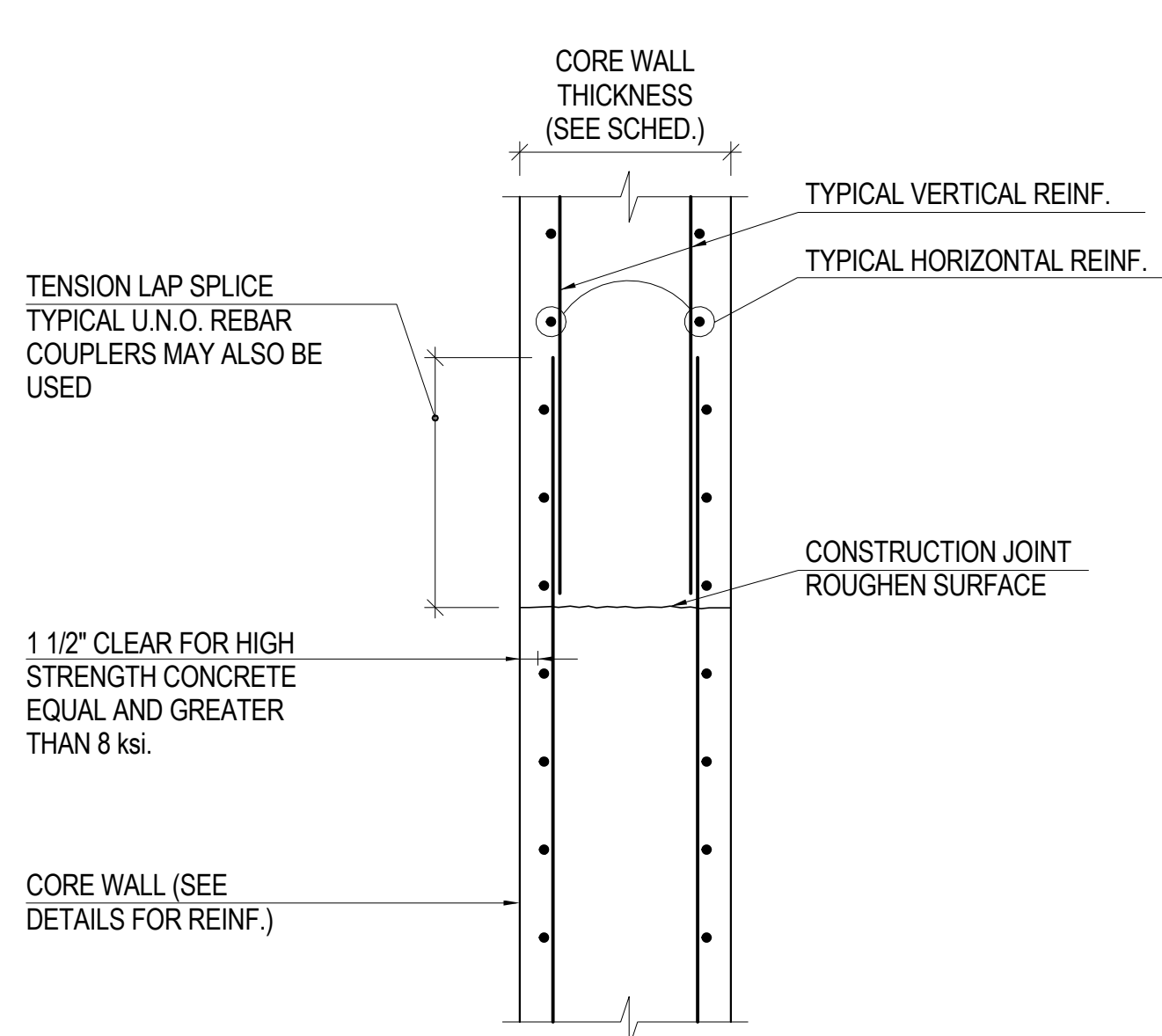
**B** KEY PLAN B - LEVEL 31 TO LEVEL 53  
1/16" = 1'-0"



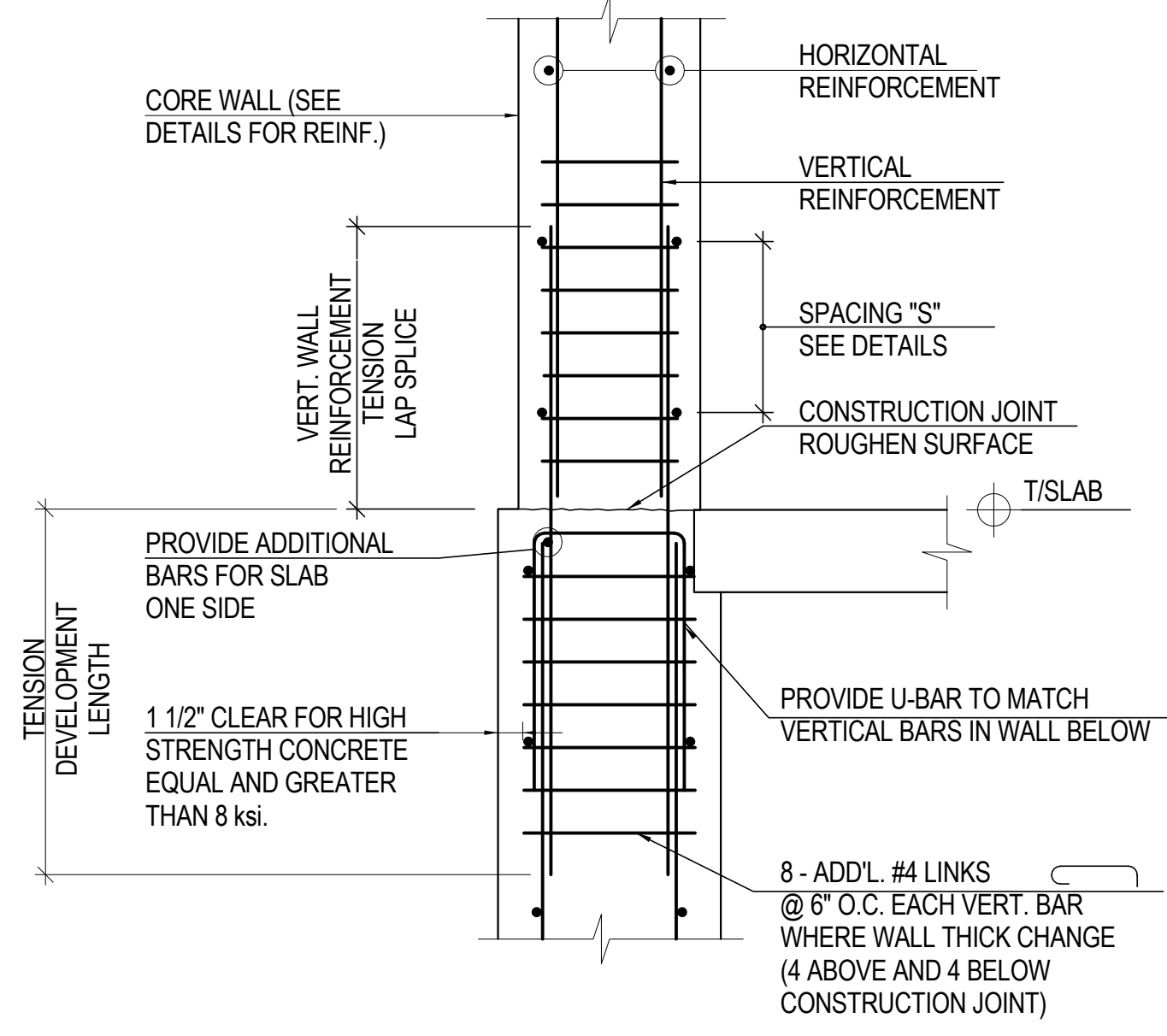
**C** KEY PLAN C - LEVEL 53 TO ROOF  
1/16" = 1'-0"



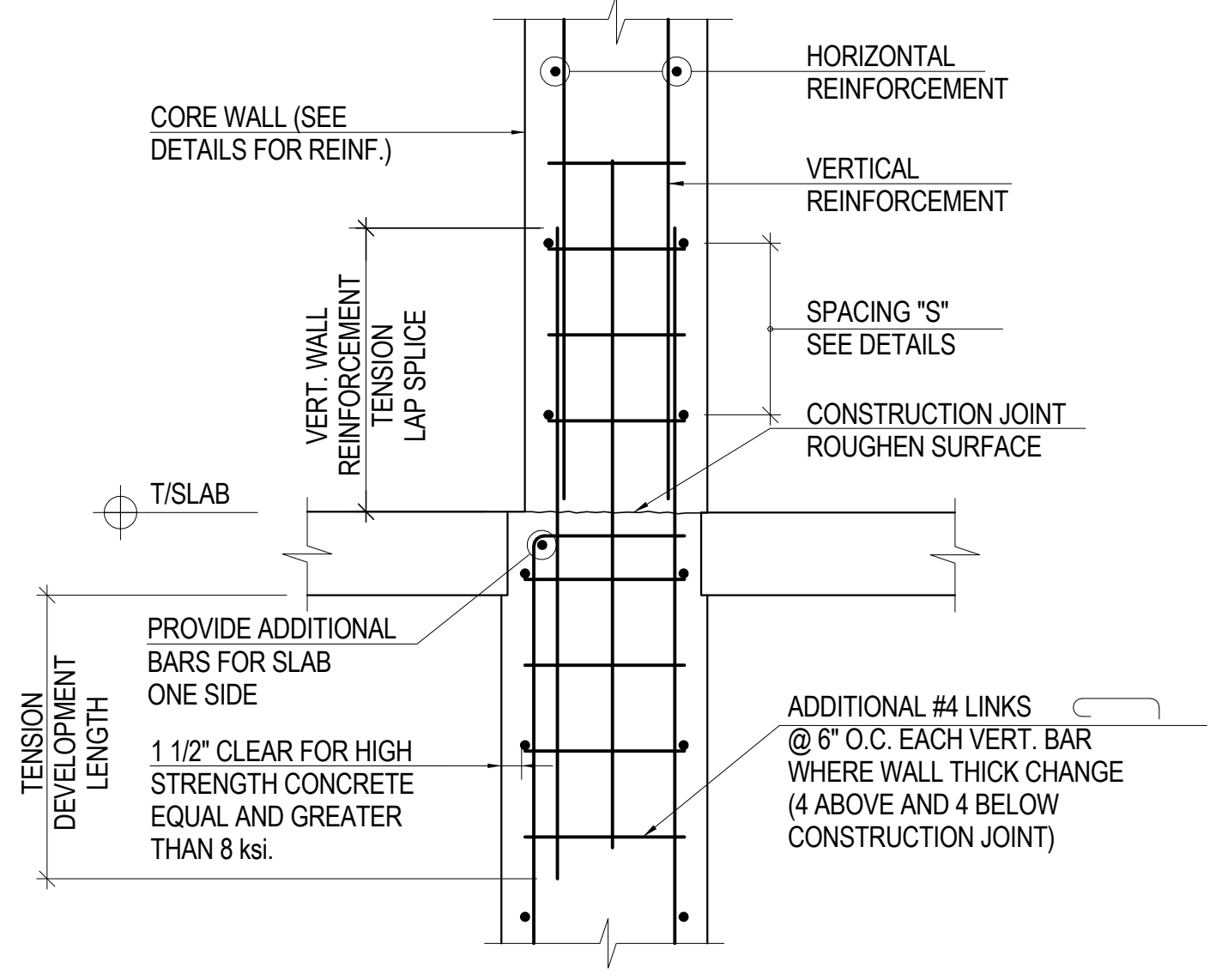
**1** TYPICAL SHEAR WALL TIE REINFORCEMENT  
1/2" = 1'-0"



**2** TYPICAL CORE WALL SPLICE  
1" = 1'-0"



**3** TYPICAL CORE WALL SPLICE WITH WALL THICKNESS CHANGE  
NOT TO SCALE



**4** TYPICAL CORE WALL SPLICE WITH WALL THICKNESS  
NOT TO SCALE

MANHATTAN WEST:  
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375 Ninth Avenue, New York, NY 10001  
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Mueser Rutledge Consulting Engineers  
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475 10th Avenue, New York, NY 10018  
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250 State Street #F1, North Haven, CT 06473  
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Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018  
Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601  
Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:  
  
**PRELIMINARY  
NOT FOR CONSTRUCTION**

No.	Date	Description
6	20 JUN 2014	ISSUED FOR FOUNDATION BD
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 60% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_  
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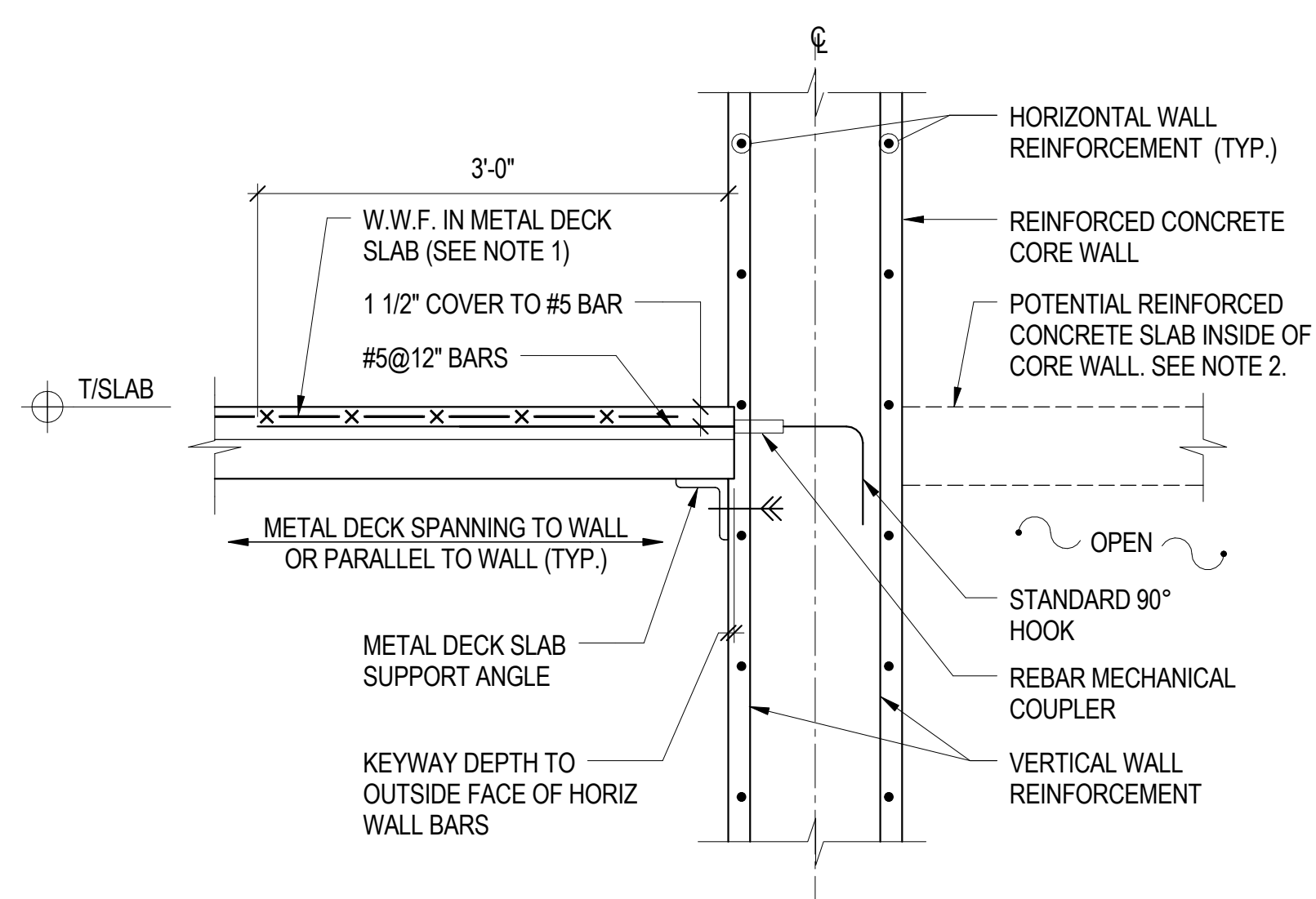
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211157	<b>S-340.00</b>

Date:	Sheet No.:
20 JUN 2014	<b>S-340</b>

Scale:	Page No.:
As Indicated	47 of 90

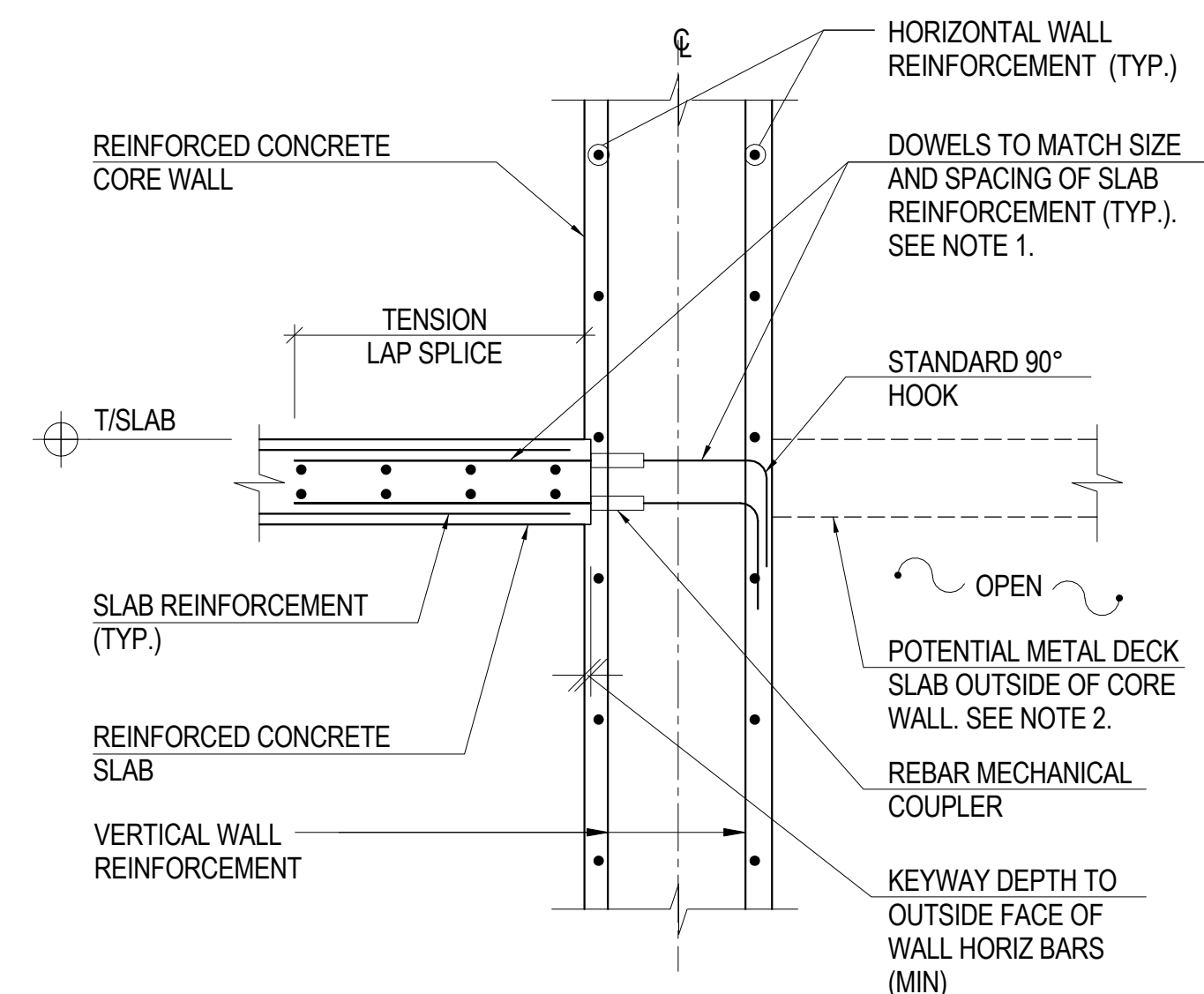
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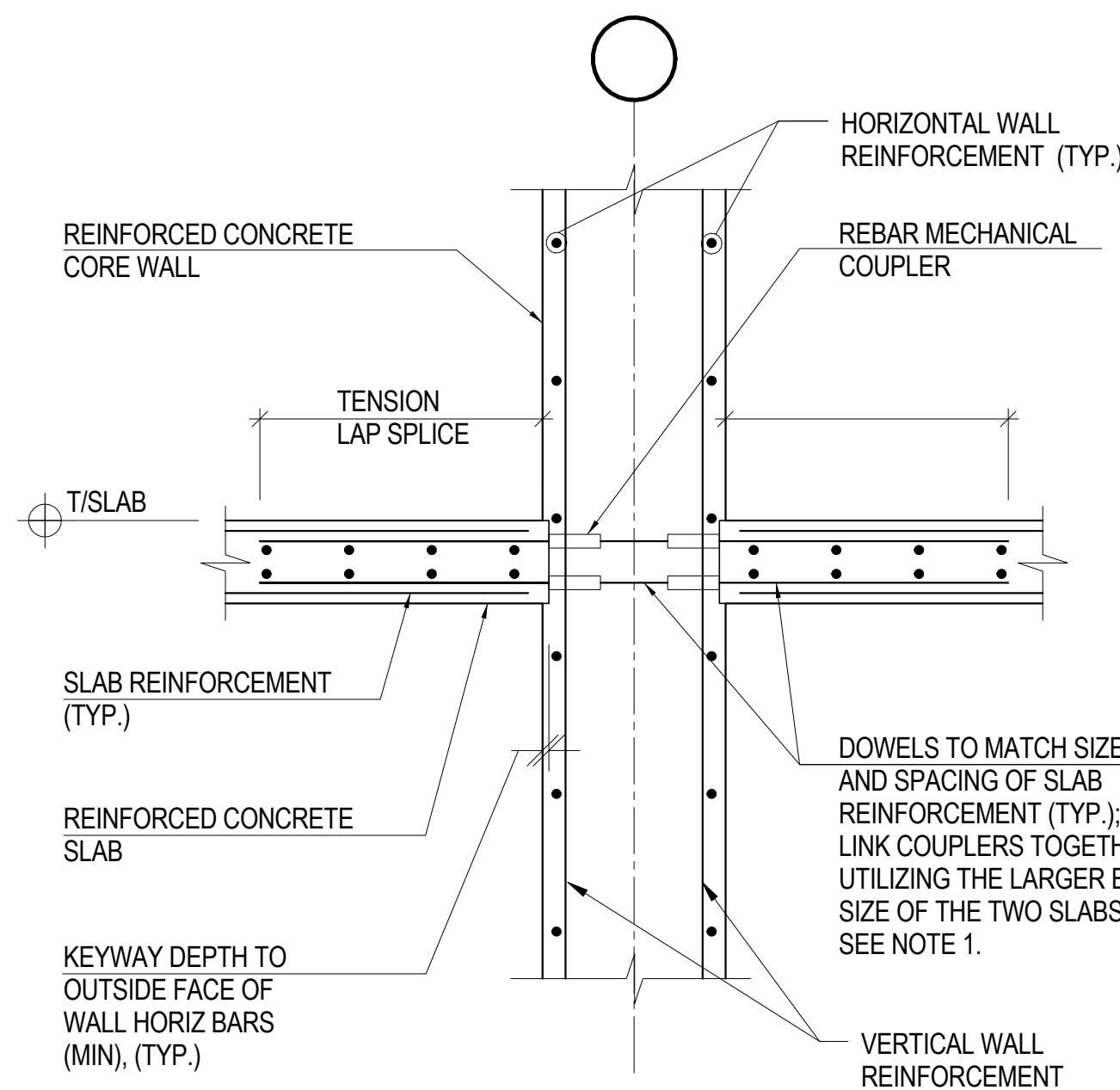
- NOTE:
1. 'RS' SLABS TO HAVE REBAR IN LIEU OF W.W.F. REFER TO PLANS AND S-301.
  2. AT CONDITIONS WHERE A R/C SLAB EXISTS ON THE OTHER SIDE OF THE CORE WALL, THIS DETAIL TO BE USED IN CONJUNCTION WITH DETAIL 2.

**1** TYPICAL METAL DECK SLAB CONNECTION DETAIL: ONE-SIDED  
NOT TO SCALE



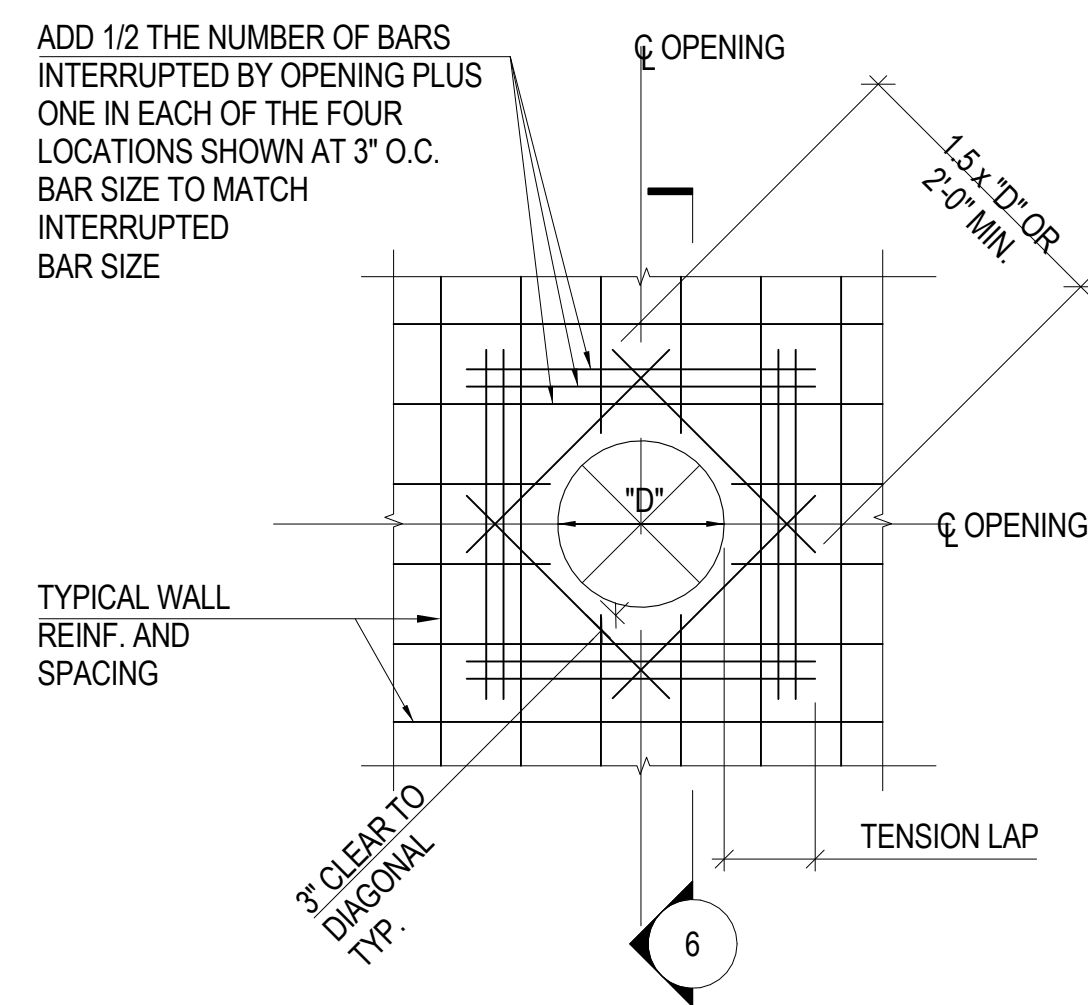
- NOTE:
1. AT ONE WAY SLABS SPANNING PARALLEL TO CORE WALL, PROVIDE EQUIVALENT OF #5@12" AT MID-DEPTH OF SLAB EXTENDING 4'-0" OUT FROM FACE OF WALL. COORDINATE SIZE AND SPACING OF THIS REINFORCEMENT WITH CORE WALL REINFORCEMENT SPACING.
  2. AT CONDITIONS WHERE A METAL DECK SLAB EXISTS ON THE OTHER SIDE OF THE CORE WALL, THIS DETAIL TO BE USED IN CONJUNCTION WITH DETAIL 1.

**2** TYPICAL R/C SLAB CONNECTION DETAIL: ONE-SIDED  
NOT TO SCALE

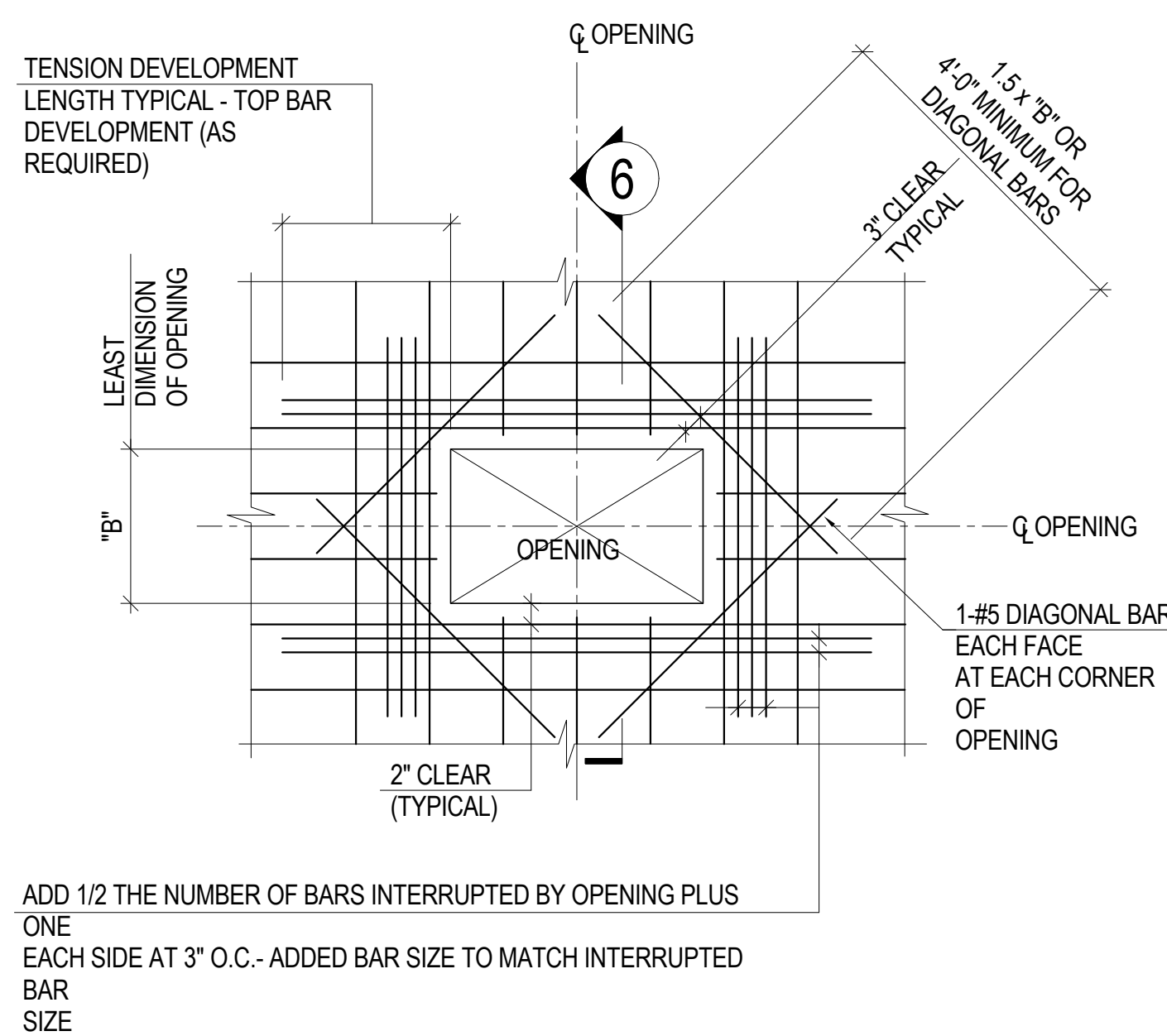


- NOTE:
1. AT ONE WAY SLABS SPANNING PARALLEL TO CORE WALL, PROVIDE EQUIVALENT OF #5@12" AT MID-DEPTH OF SLAB EXTENDING 4'-0" OUT FROM FACE OF WALL. COORDINATE SIZE AND SPACING OF THIS REINFORCEMENT WITH CORE WALL REINFORCEMENT SPACING.

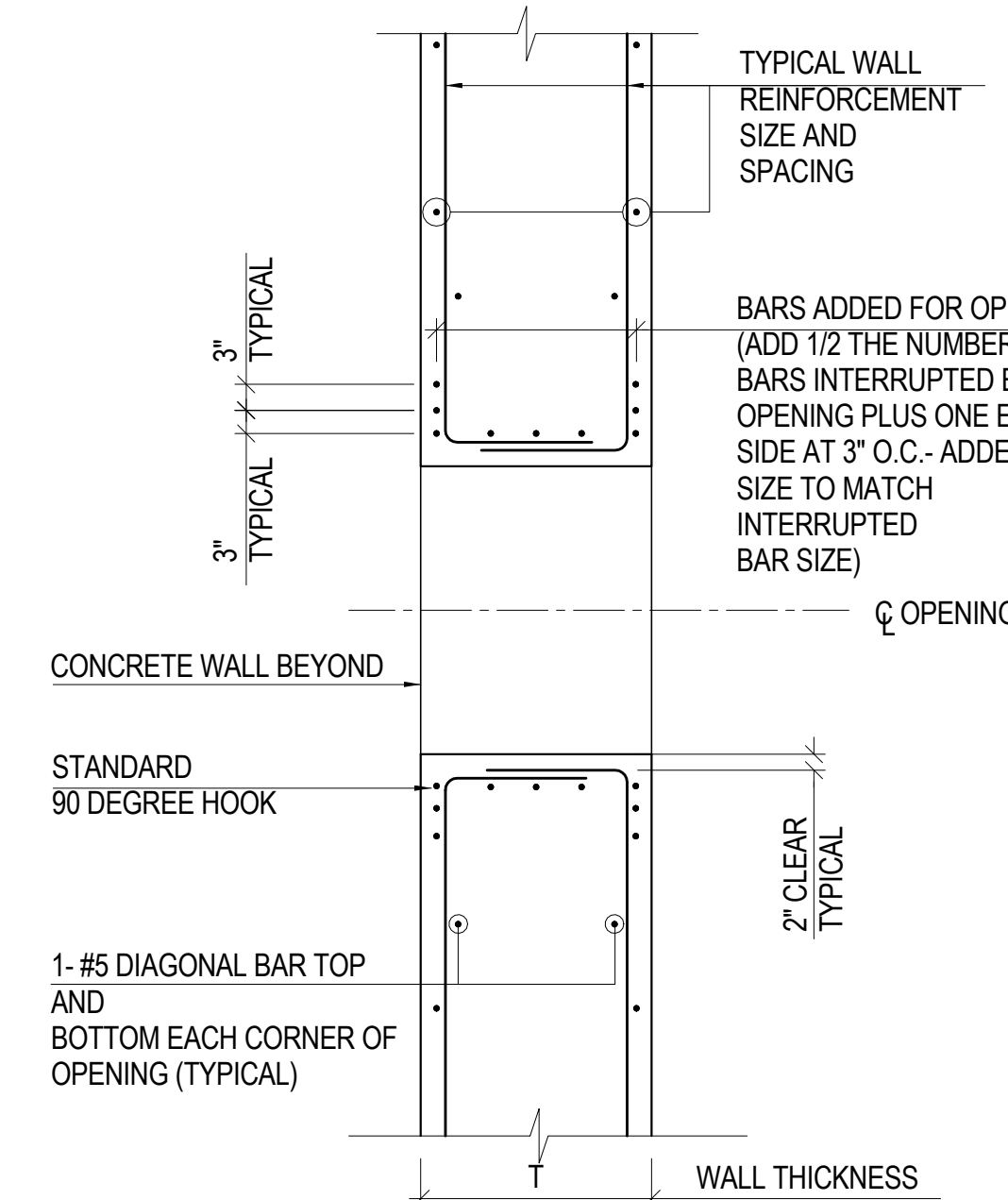
**3** TYPICAL R/C SLAB CONNECTION DETAIL: TWO-SIDED  
NOT TO SCALE



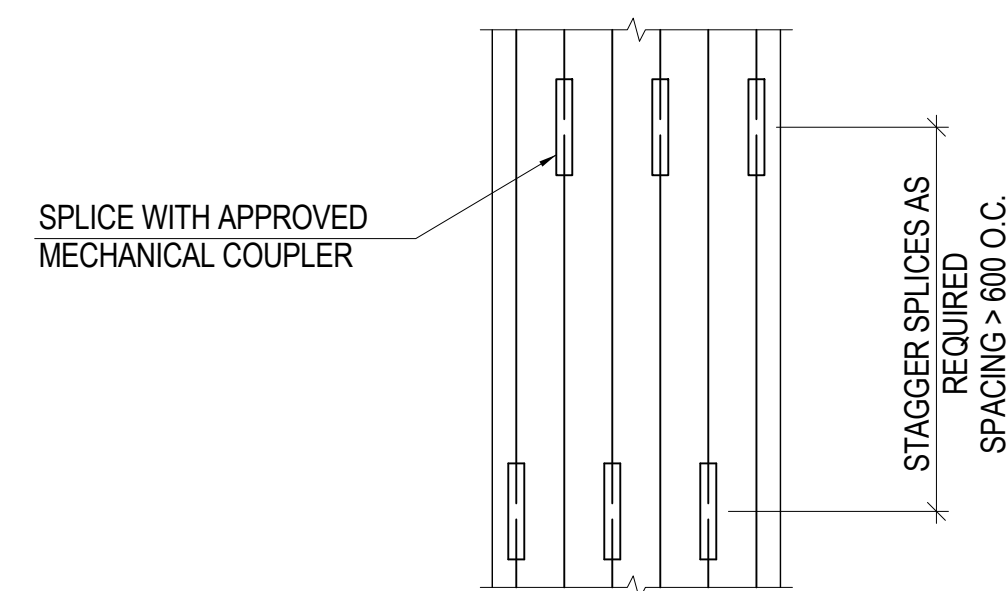
**4** TYPICAL RECTANGULAR CORE WALL OPENING DETAIL  
NOT TO SCALE



**5** TYPICAL RECTANGULAR CORE WALL OPENING DETAIL  
NOT TO SCALE

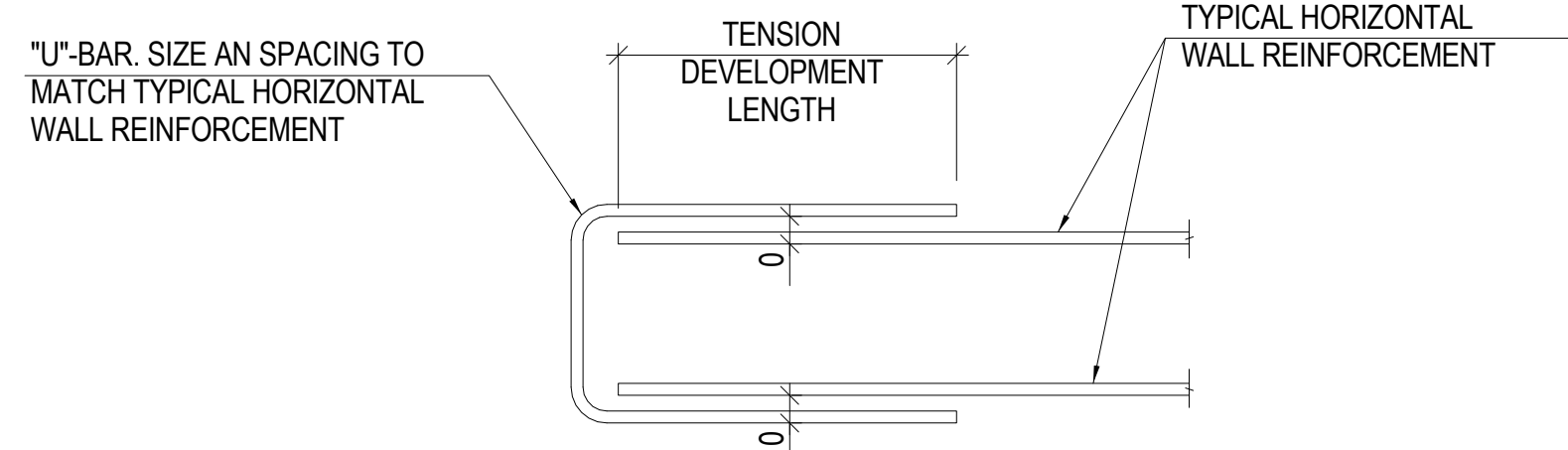


**6** TYPICAL RECTANGULAR/CIRCULAR CORE WALL OPENING DETAIL  
NOT TO SCALE

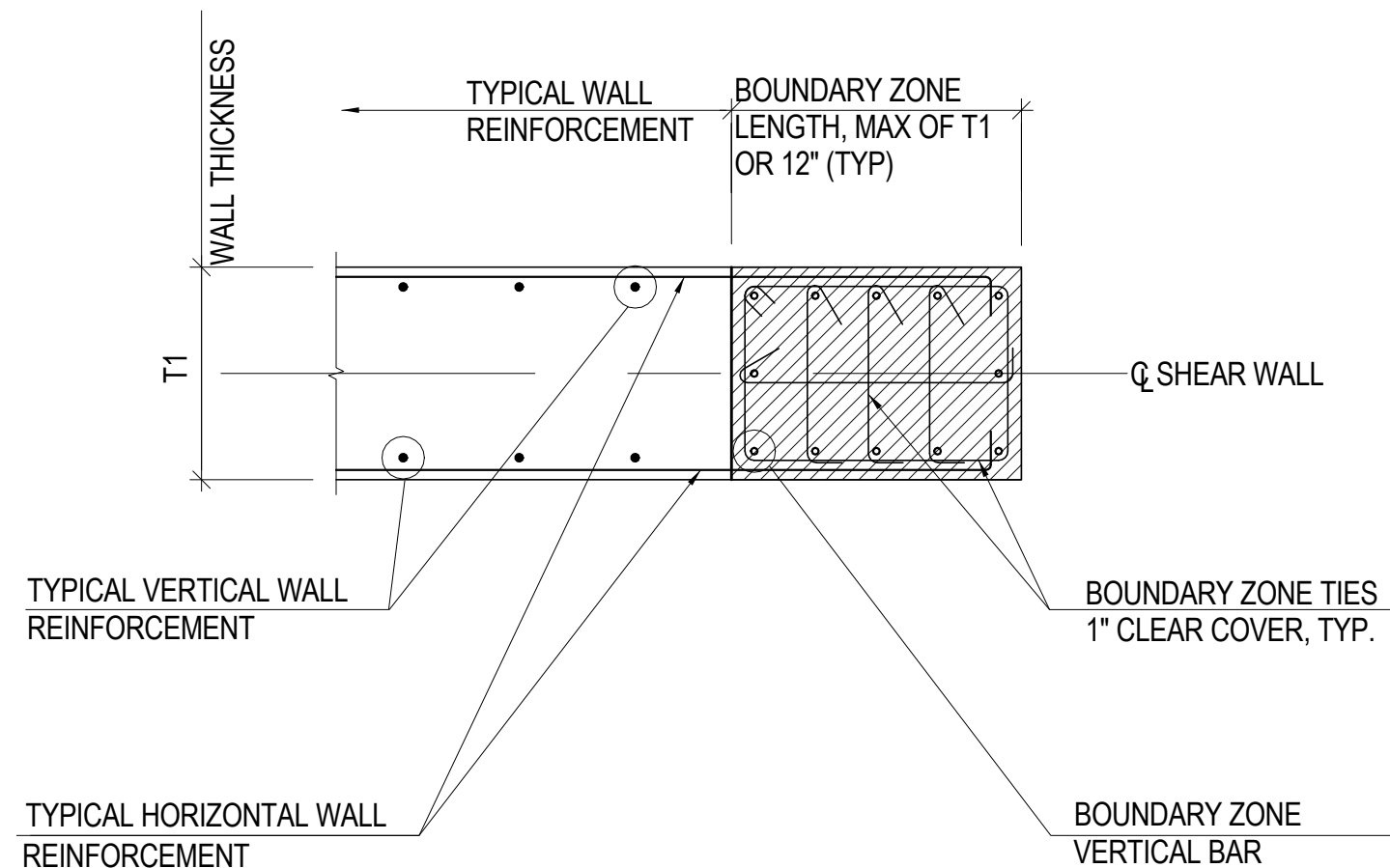


- NOTE:
- TIE REINFORCEMENT NOT SHOWN FOR CLARITY. REDISTRIBUTE STIRRUP VERTICAL SPACING FOR NOT TO BE PLACED AT CONNECTOR LOCATION.

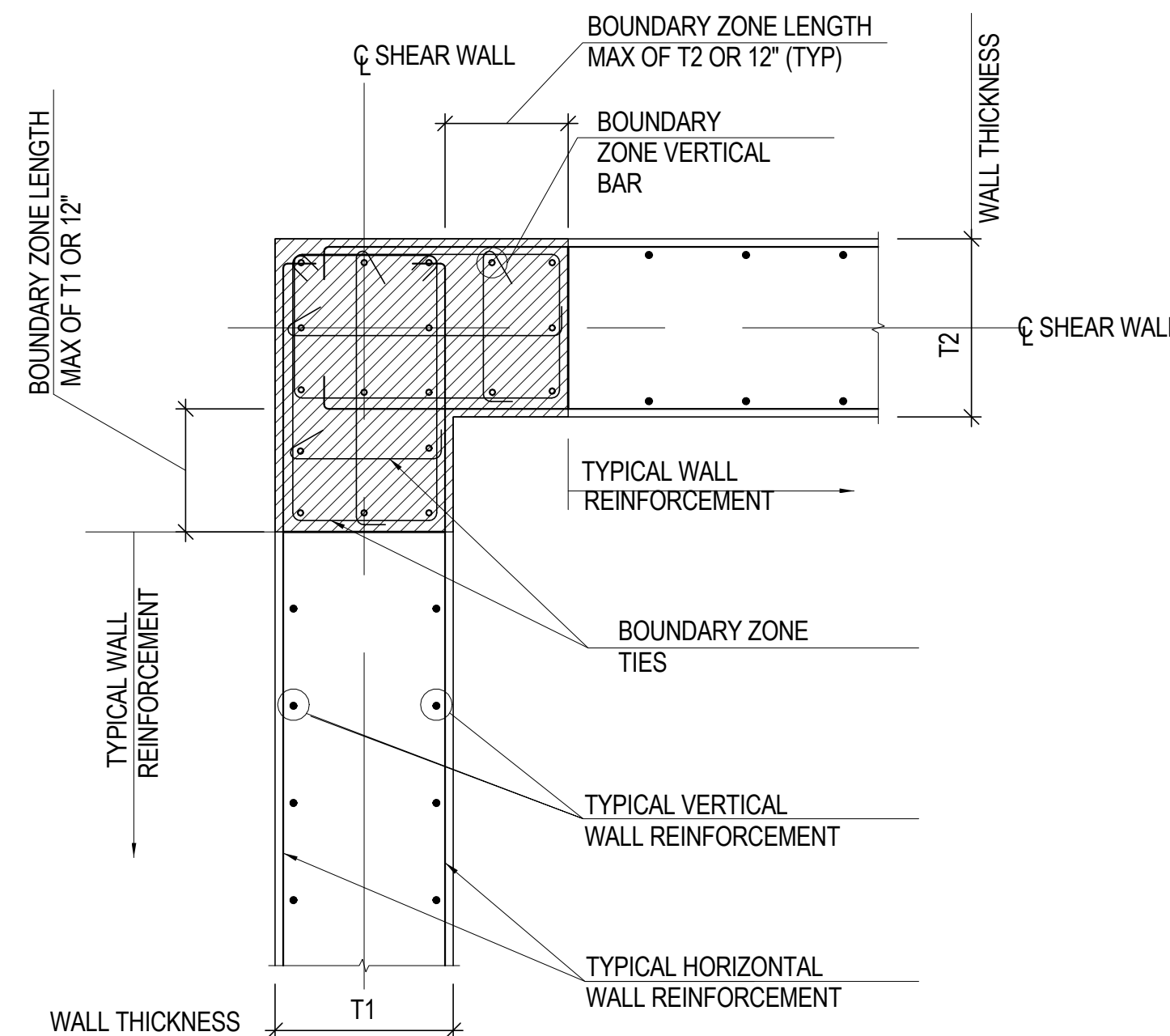
**7** ALTERNATE REBAR SPLICE DETAIL  
NOT TO SCALE



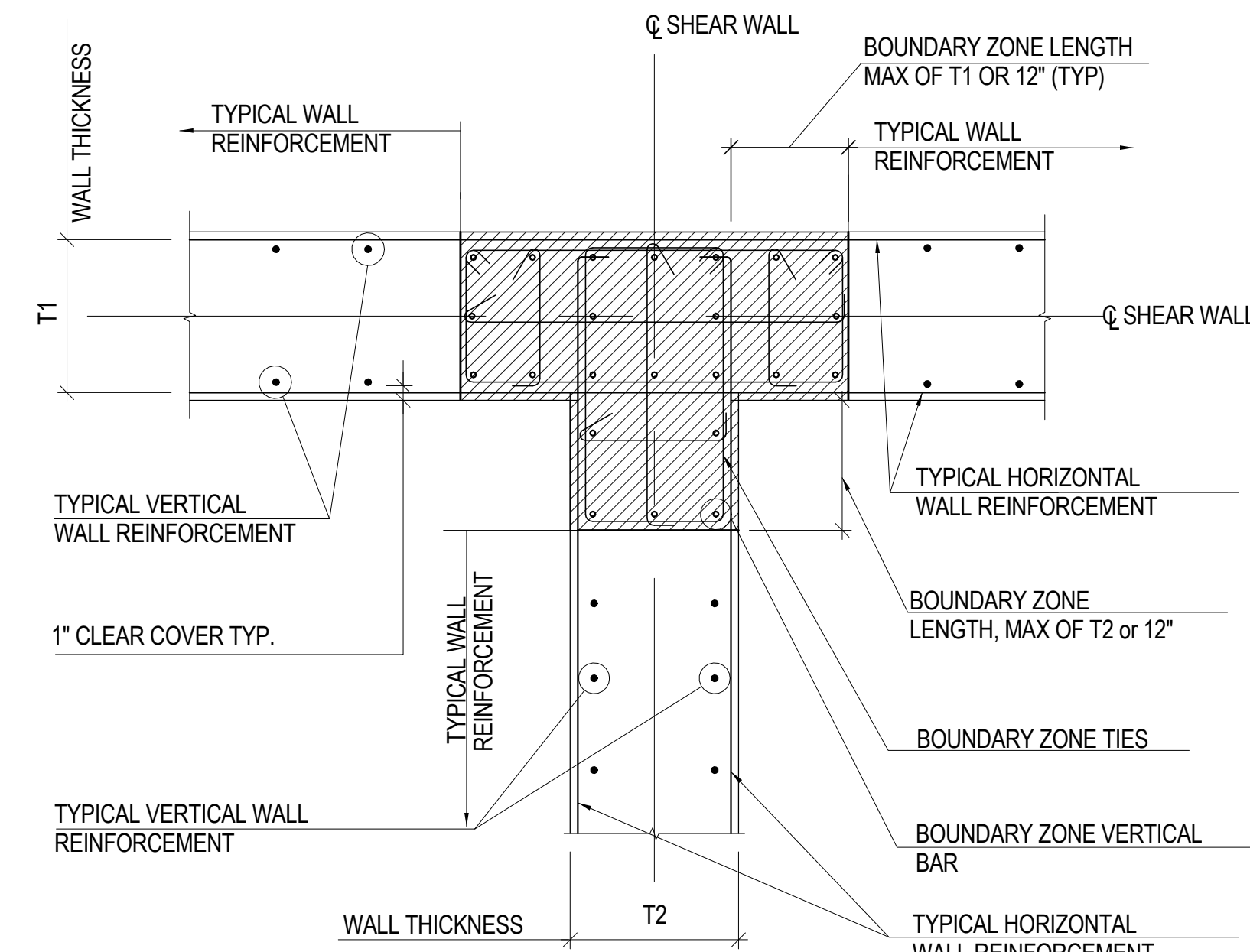
**8** ALTERNATE REBAR SPLICE DETAIL  
NOT TO SCALE



**9** TYPICAL SHEAR WALL BOUNDARY ELEMENT END DETAIL  
NOT TO SCALE



**10** TYPICAL SHEAR WALL BOUNDARY ELEMENT CORNER DETAIL  
NOT TO SCALE



**11** TYPICAL SHEAR WALL BOUNDARY ELEMENT INTERSECTION DETAIL  
NOT TO SCALE



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Facade Maintenance Consultant

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Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Professional Engineer  
State of New York  
Charles Michael Bell  
073322  
Professional Engineer

Key Plan:  
33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

Seal & Signature:  
PRELIMINARY  
NOT FOR CONSTRUCTION

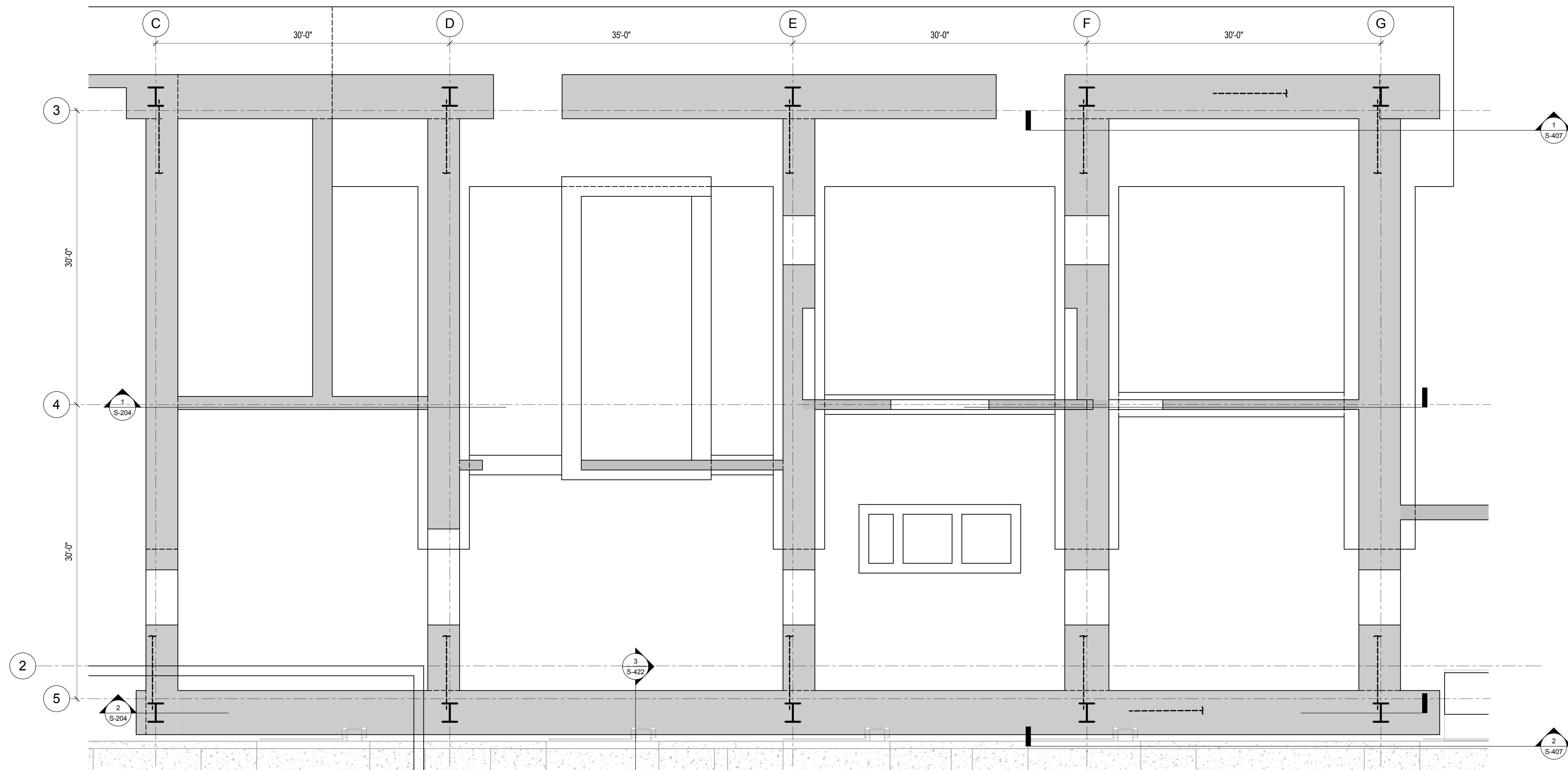
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Date: 20 JUN 2014  
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File No: S-341

B-SCAN Sheet No.:  
S-341.00  
Sheet No.: S-341  
Page No.: 48 of 90

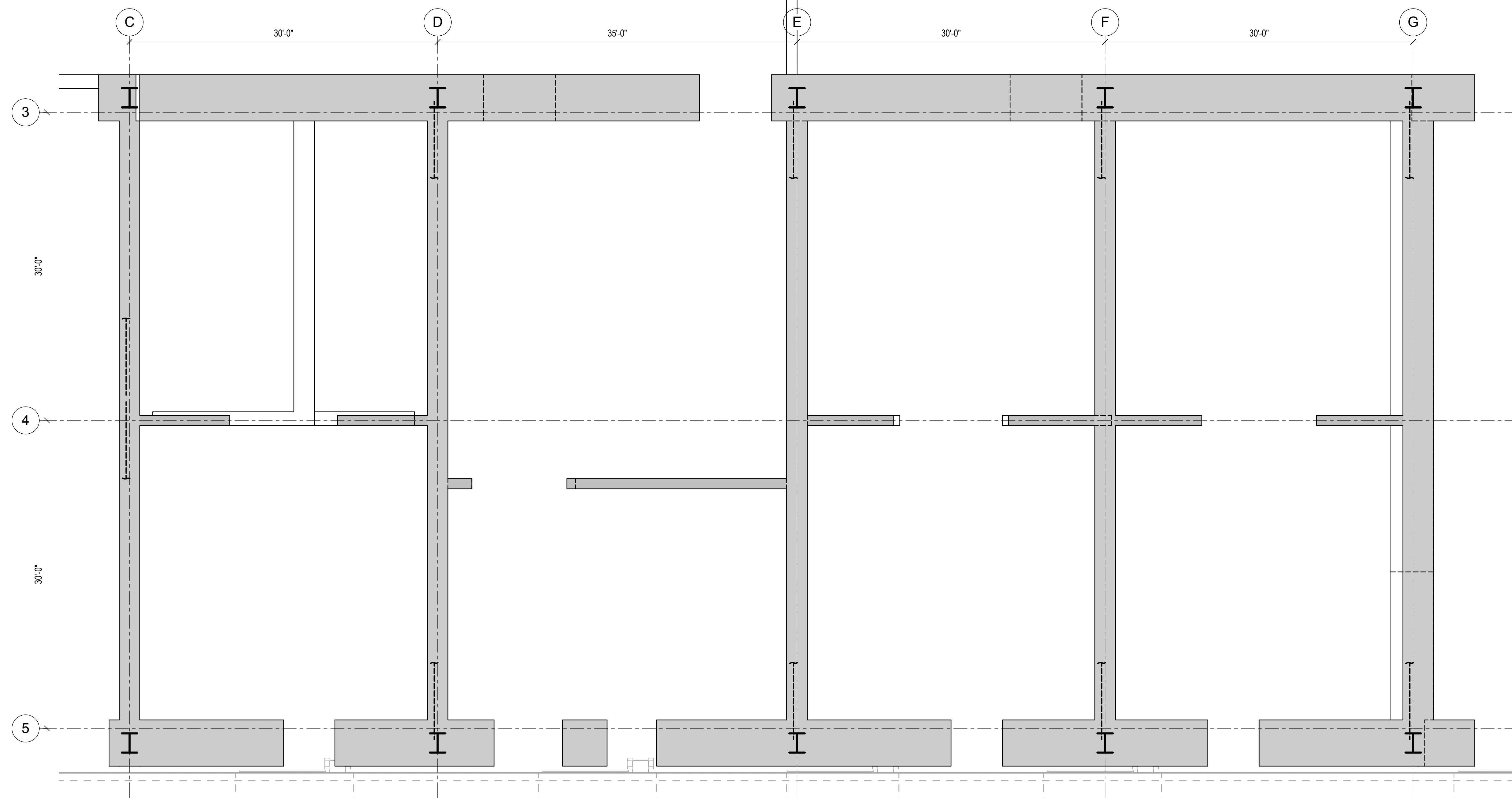








**1 REINFORCEMENT LAYOUT - LEVEL B1 TO LEVEL B**  
3/16" = 1'-0"



**2 REINFORCEMENT LAYOUT - LEVEL B TO LEVEL 1**  
3/16" = 1'-0"



MANHATTAN WEST:  
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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Professional Engineer Seal  
CHARLES MICHAEL BEEBE  
070322  
PROFESSIONAL ENGINEER

Key Plan:  
Map showing the project location relative to 33rd Street, 31st Street, Dyer Avenue, and 9th Avenue.

Seal & Signature:  
PRELIMINARY  
NOT FOR CONSTRUCTION

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"  
File No: S-343

B-SCAN Sheet No.: S-343.00  
Sheet No.: S-343  
Page No.: 50 of 90





MANHATTAN WEST:  
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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:



Seal & Signature:

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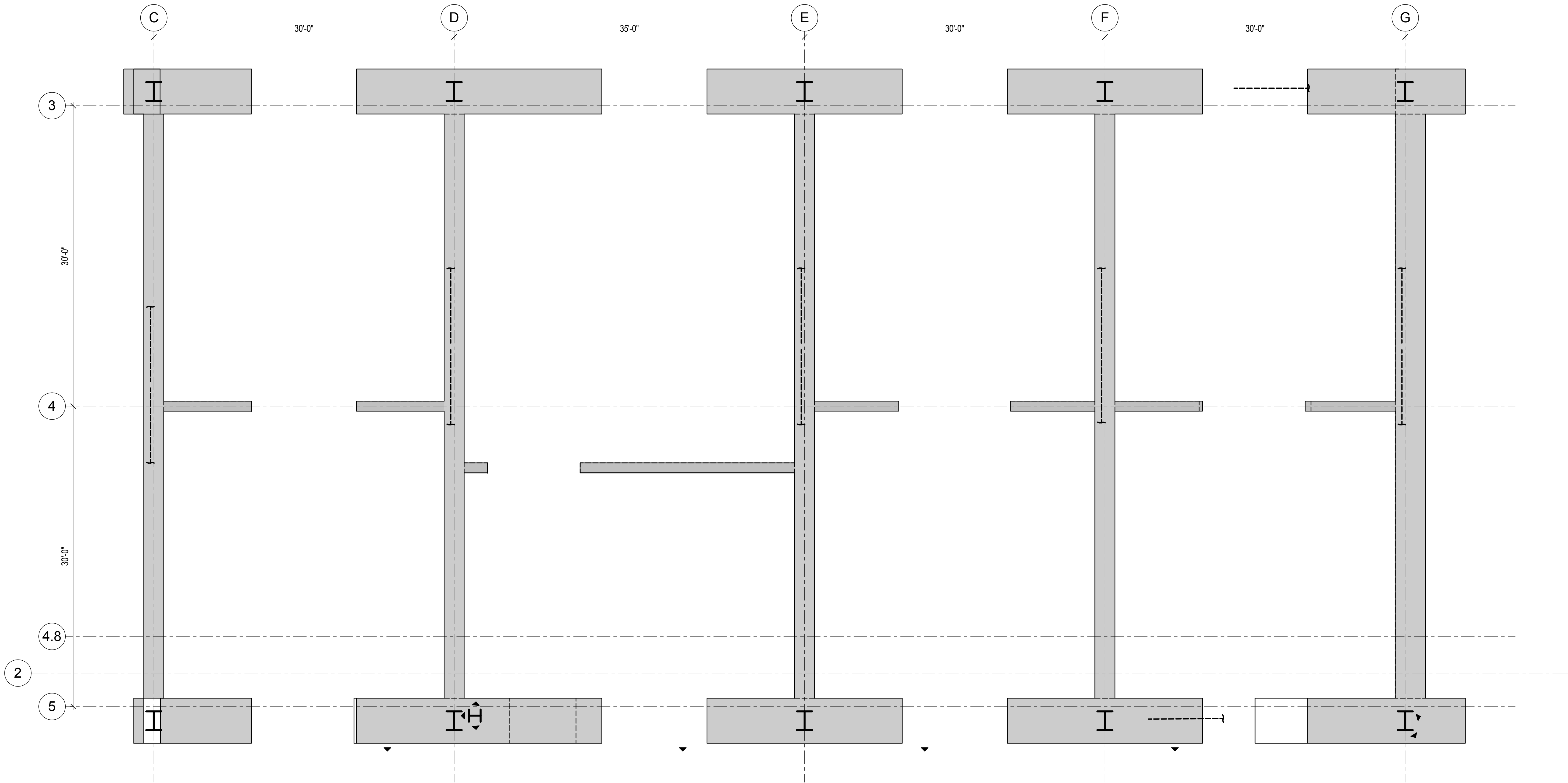
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1	19 MAR 2013	ISSUED FOR RECONCILIATION

No. Date Description

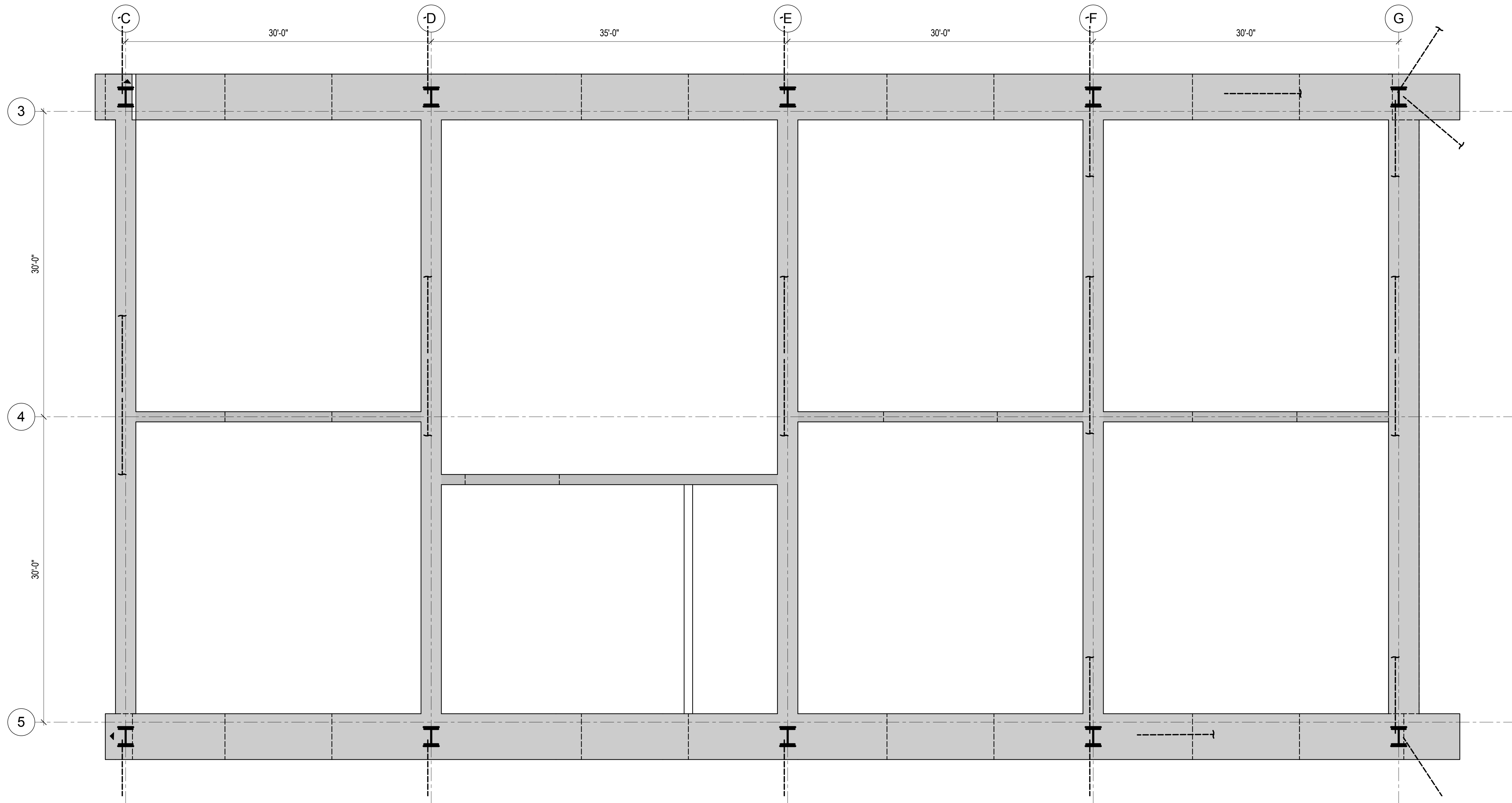
Sheet Name

CORE WALL  
REINFORCEMENT  
LAYOUT

Project No.: 211157	B-SCAN Sheet No.: S-344.00
Date: 20 JUN 2014	Sheet No.: S-344
Scale: 3/16" = 1'-0"	Page No.: 51 of 90
File No.: S-344	



**1** REINFORCEMENT LAYOUT - LEVEL 1 TO LEVEL 2  
3/16" = 1'-0"



**2** REINFORCEMENT LAYOUT - LEVEL 2 TO LEVEL 3  
3/16" = 1'-0"





MANHATTAN WEST:  
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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Professional Engineer Seal

Key Plan:

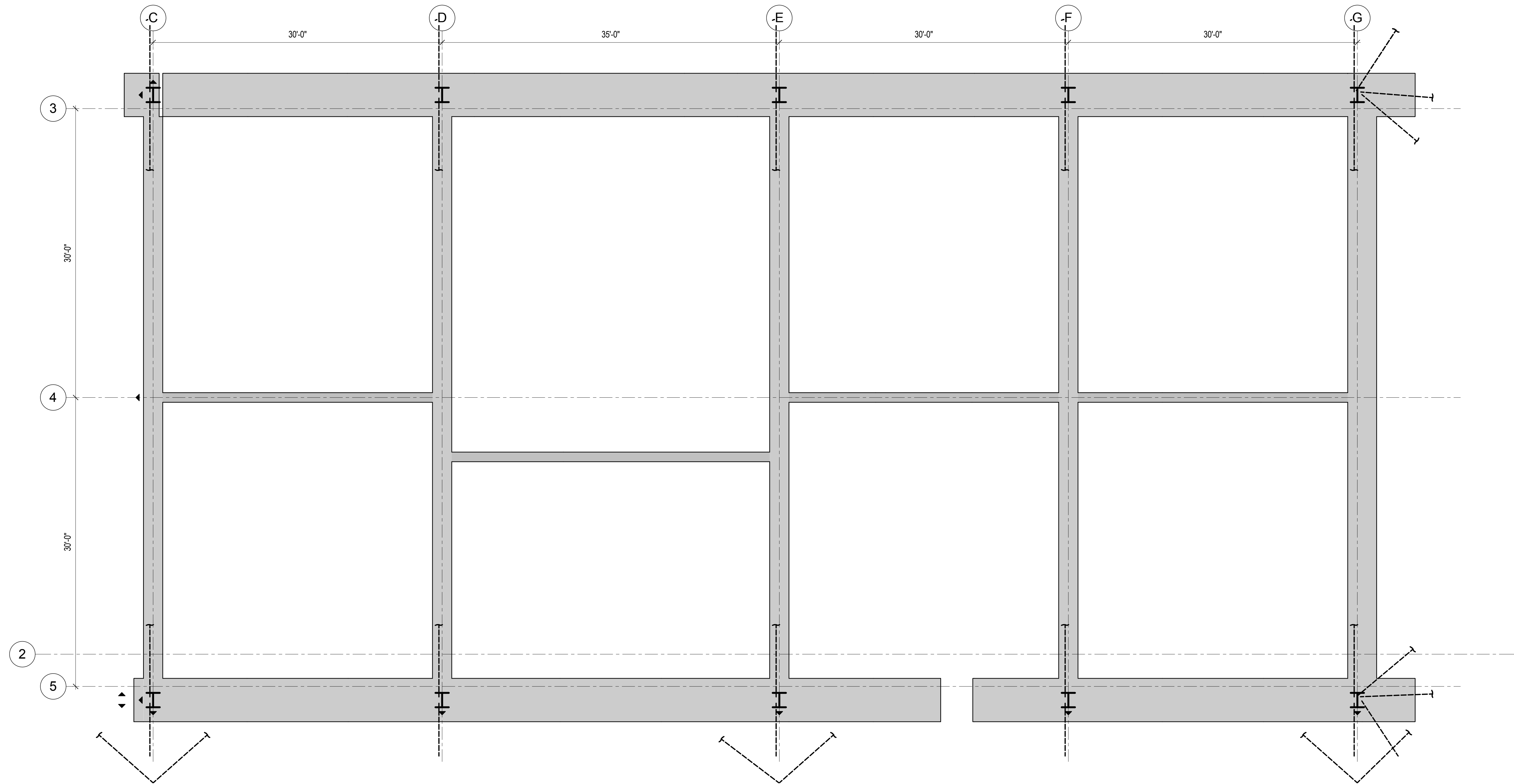
33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

Seal & Signature:

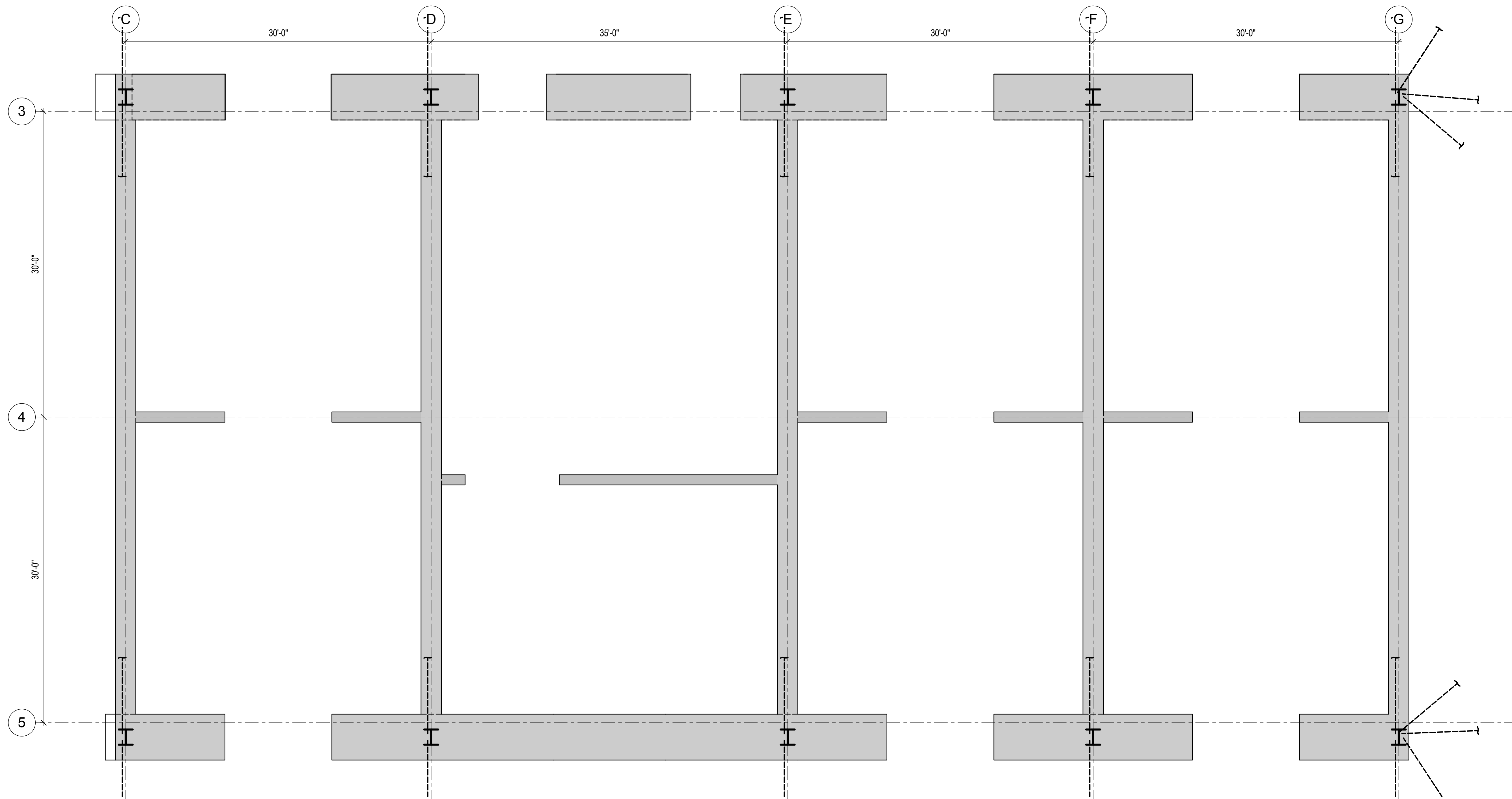
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Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"  
File No.: S-345

B-SCAN Sheet No.: S-345.00  
Sheet No.: S-345  
Page No.: 52 of 90

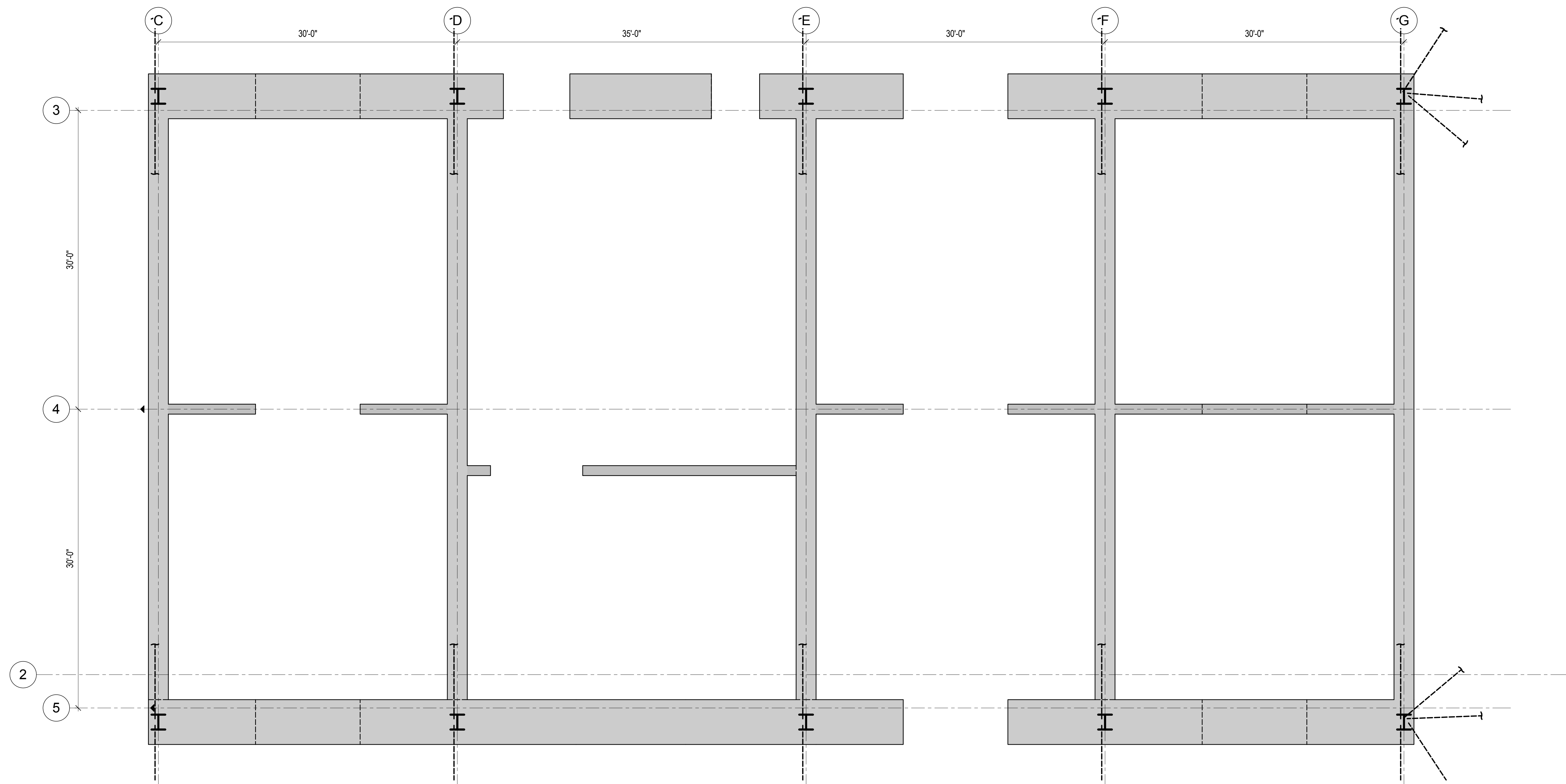


**1** REINFORCEMENT LAYOUT - LEVEL 3 TO LEVEL 4  
3/16" = 1'-0"



**2** REINFORCEMENT LAYOUT - LEVEL 4 TO LEVEL 5  
3/16" = 1'-0"

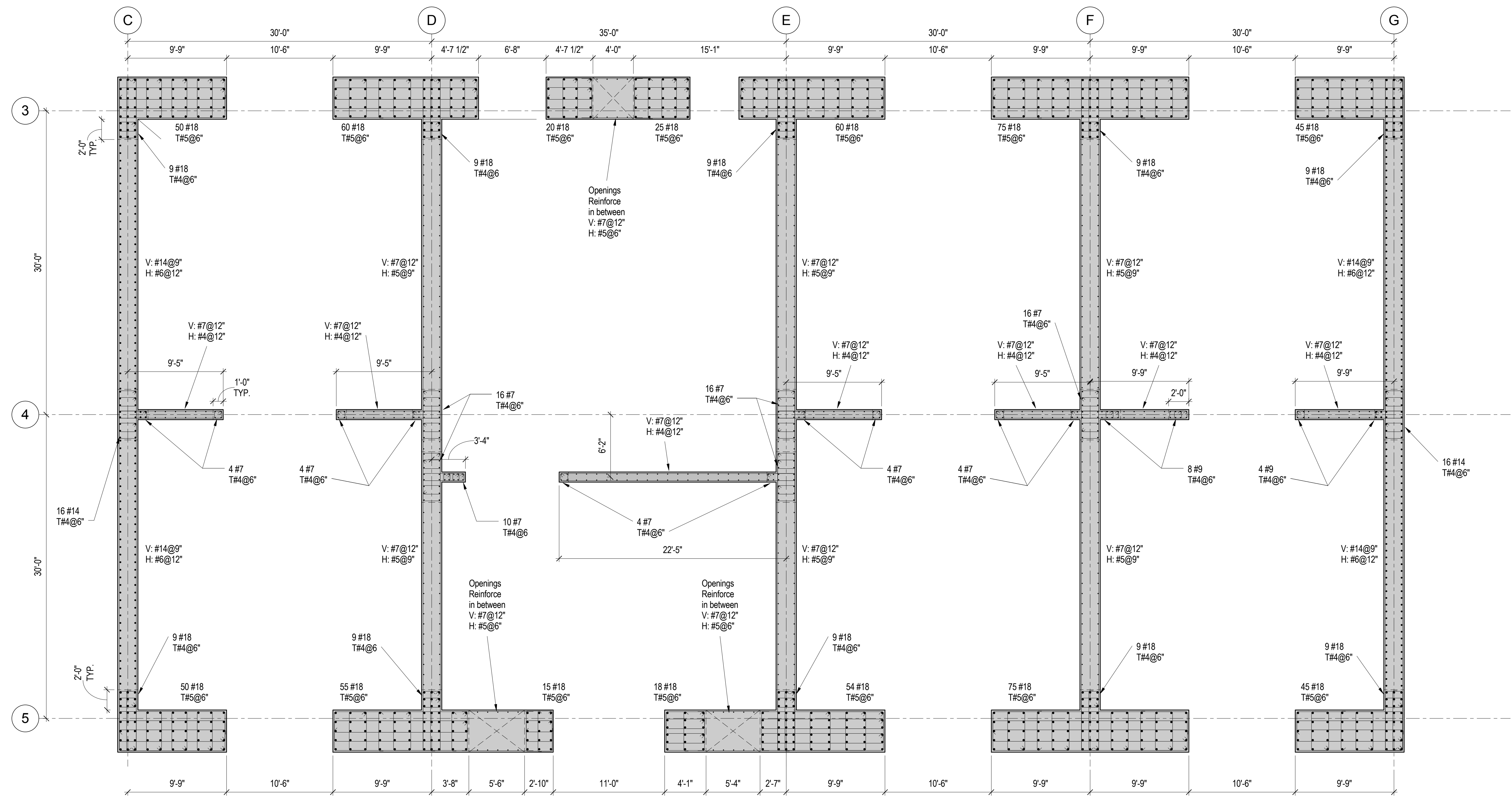




REINFORCING LAYOUT DESIGN IN-  
PROGRESS AND WILL BE SHOWN ON  
FUTURE DRAWING ISSUES.

## 1 REINFORCEMENT LAYOUT - LEVEL 5 TO LEVEL 6

3/16" = 1'-0"



## 2 REINFORCEMENT LAYOUT - LEVEL 6 TO LEVEL 11

3/16" = 1'-0"



MANHATTAN WEST:  
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STATE OF NEW YORK  
CHARLES MICHAEL BEL  
073322  
PROFESSIONAL ENGINEER

Key Plan:  
Map showing the project location relative to 33RD STREET, 31ST STREET, DYER AVENUE, and 9TH AVENUE.

Seal & Signature:  
PRELIMINARY  
NOT FOR CONSTRUCTION

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"

Sheet No.: S-346  
File No.: S-346

Revision Table:  
6 20 JUN 2014 ISSUED FOR FOUNDATION BID  
5 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
3 15 NOV 2013 ISSUED FOR 50% DESIGN DEVELOPMENT  
2 12 JUL 2013 ISSUED FOR 60% DESIGN DEVELOPMENT  
1 18 MAR 2012 ISSUED FOR RECONCILIATION

Sheet Name:  
CORE WALL  
REINFORCEMENT  
LAYOUT

Project No.: 211157  
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Sheet Name:  
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Scale: 3/16" = 1'-0"

Sheet No.: S-346  
File No.: S-346

Revision Table:  
6 20 JUN 2014 ISSUED FOR FOUNDATION BID  
5 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
3 15 NOV 2013 ISSUED FOR 50% DESIGN DEVELOPMENT  
2 12 JUL 2013 ISSUED FOR 60% DESIGN DEVELOPMENT  
1 18 MAR 2012 ISSUED FOR RECONCILIATION

Sheet Name:  
CORE WALL  
REINFORCEMENT  
LAYOUT

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"

Sheet No.: S-346  
File No.: S-346

Revision Table:  
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Sheet Name:  
CORE WALL  
REINFORCEMENT  
LAYOUT

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"

Sheet No.: S-346  
File No.: S-346

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Sheet Name:  
CORE WALL  
REINFORCEMENT  
LAYOUT

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"

Sheet No.: S-346  
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Sheet Name:  
CORE WALL  
REINFORCEMENT  
LAYOUT

Project No.: 211157  
Date: 20 JUN 2014  
Scale: 3/16" = 1'-0"

Sheet No.: S-346  
File No.: S-346





MANHATTAN WEST:  
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65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

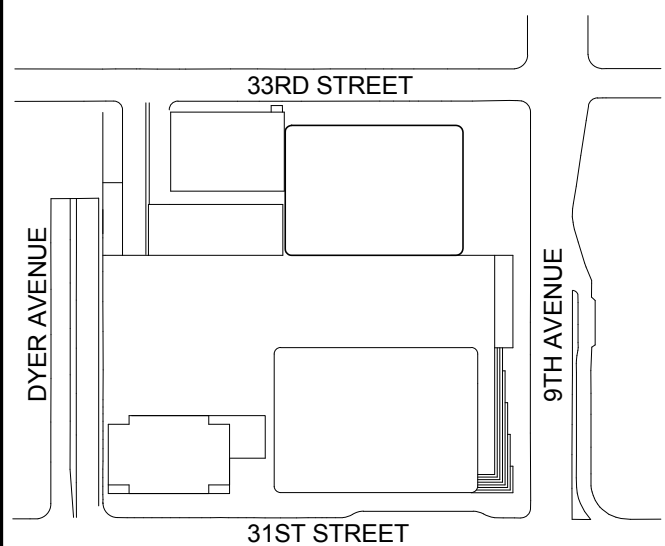
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



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Sheet Name

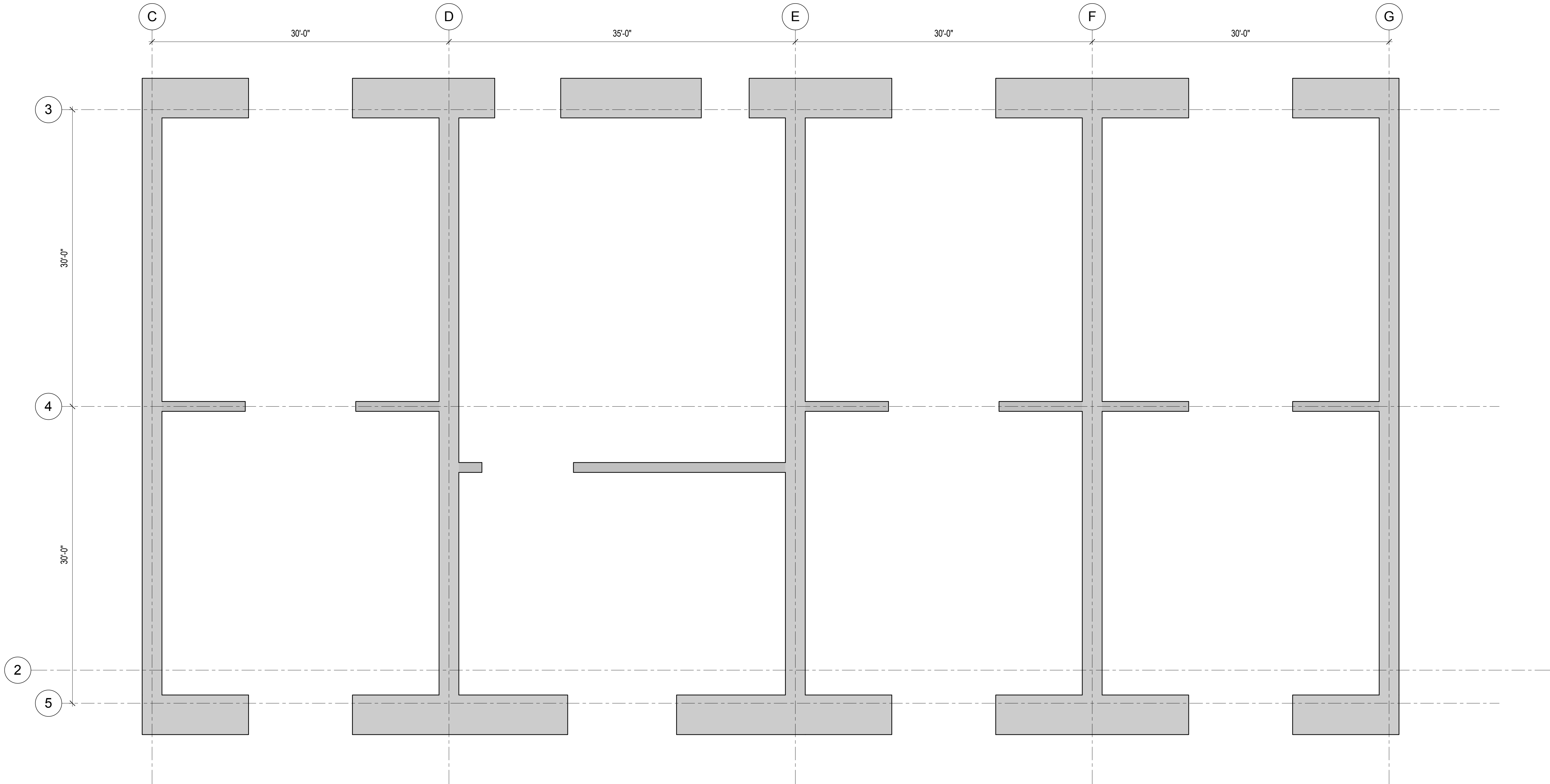
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REINFORCEMENT  
LAYOUT**

Project No.: 211157 B-SCAN Sheet No.: S-347.00

Date: 20 JUN 2014 Sheet No.: S-347

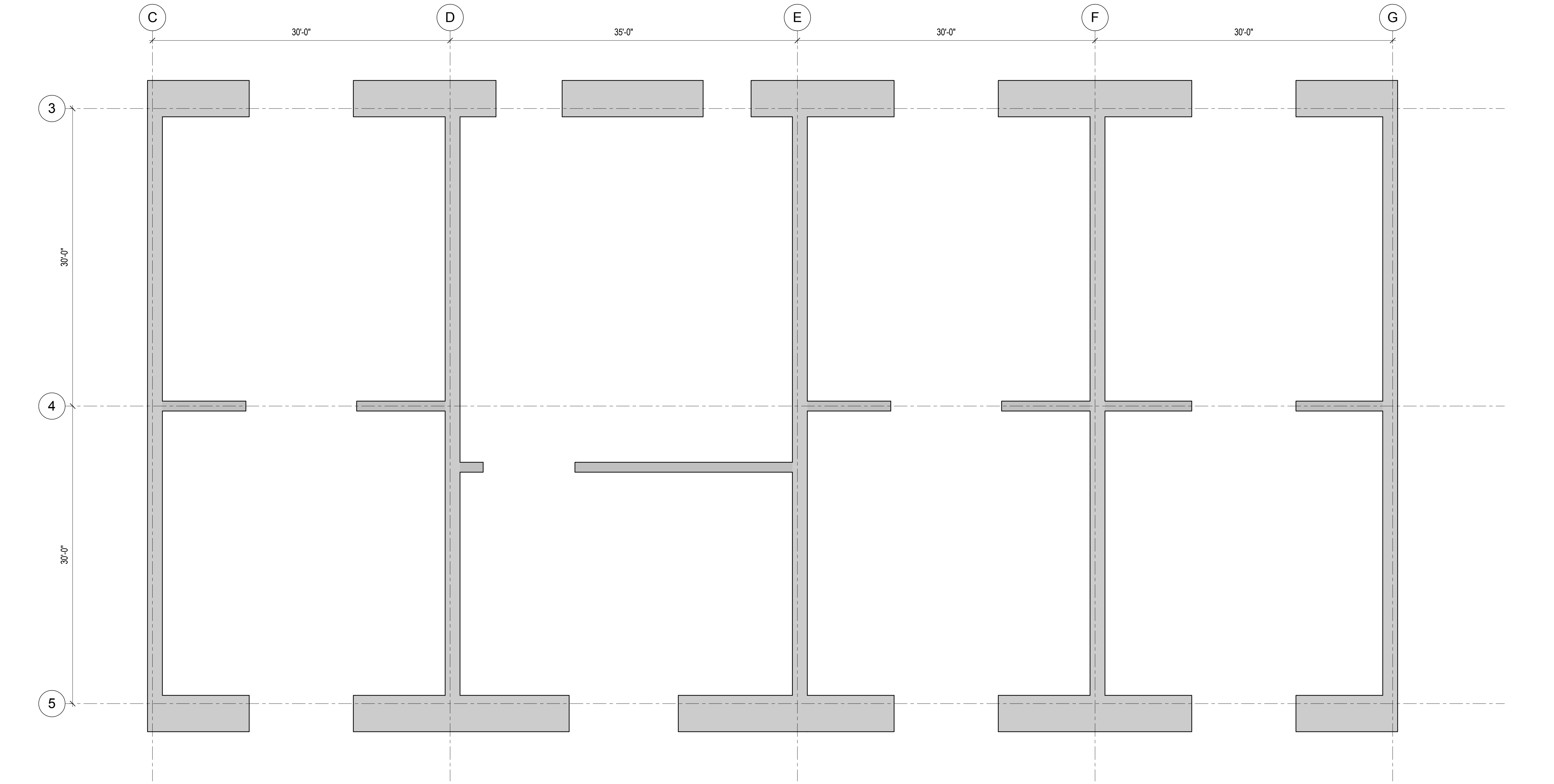
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File No.: S-347



**1 REINFORCEMENT LAYOUT - LEVEL 11 TO LEVEL 16**

3/16" = 1'-0"



**2 REINFORCEMENT LAYOUT - LEVEL 16 TO LEVEL 26**

3/16" = 1'-0"

REINFORCING LAYOUT DESIGN IN-  
PROGRESS AND WILL BE SHOWN ON  
FUTURE DRAWING ISSUES.  
REFER TO 2/S-346 FOR SIMILAR  
LAYOUT.

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Facade Maintenance Consultant

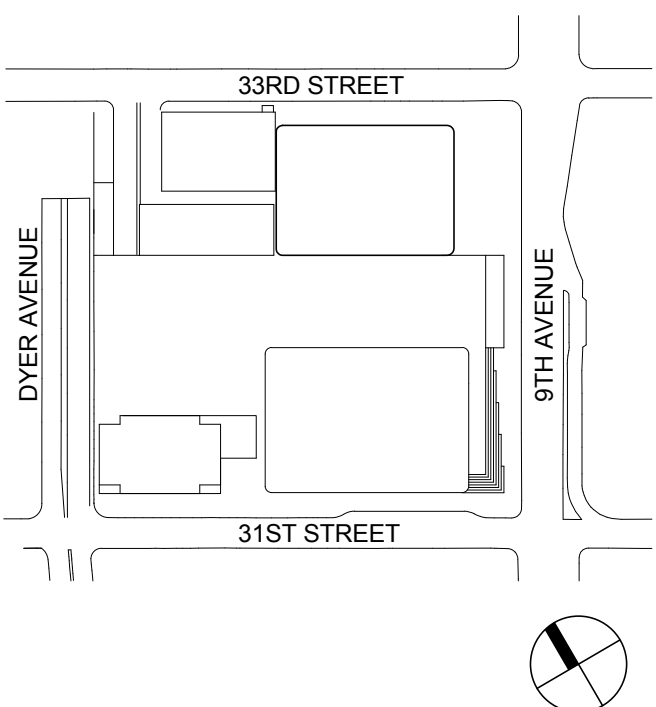
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



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Sheet Name		

CORE WALL  
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LAYOUT

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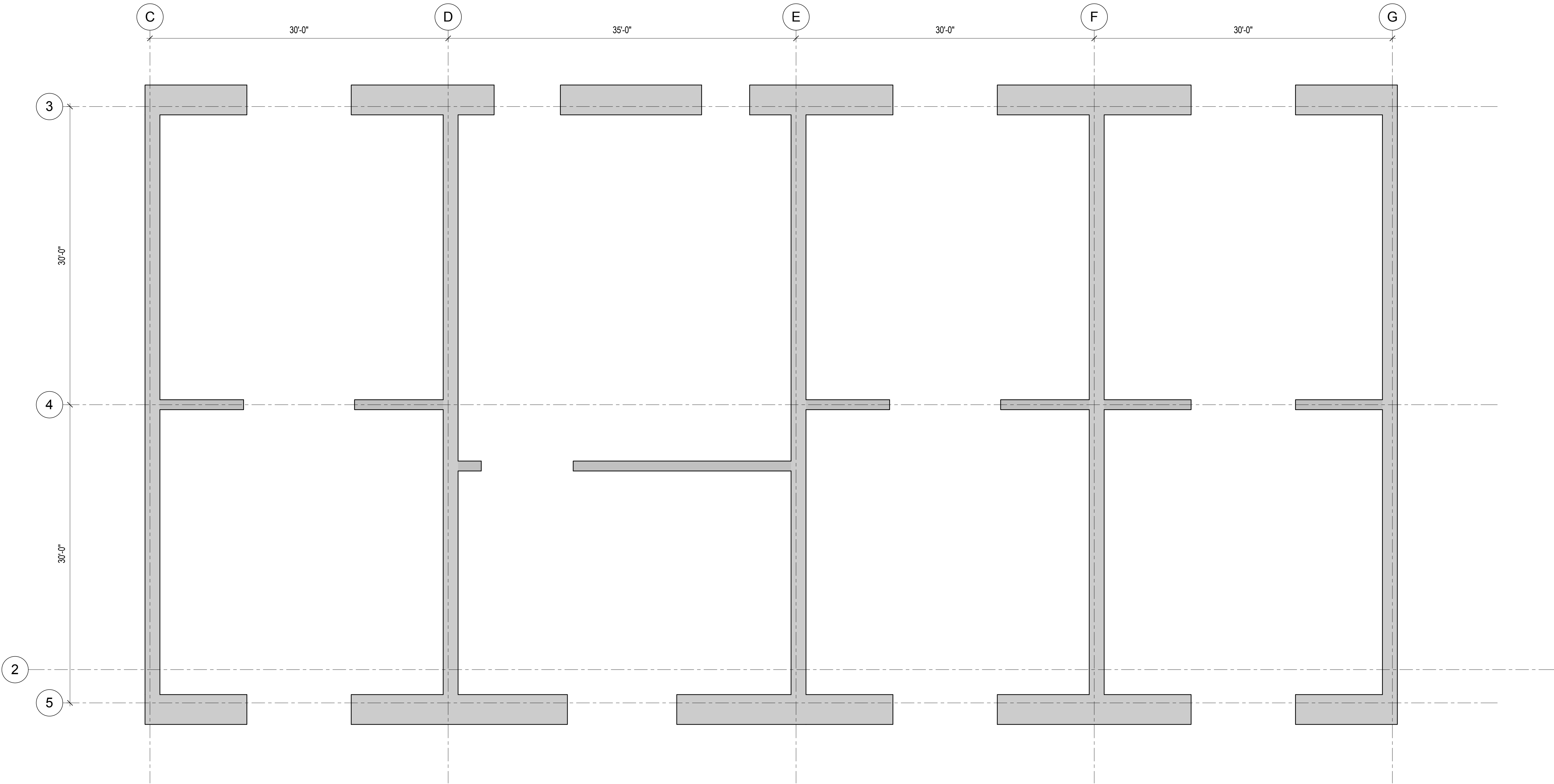
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S-348

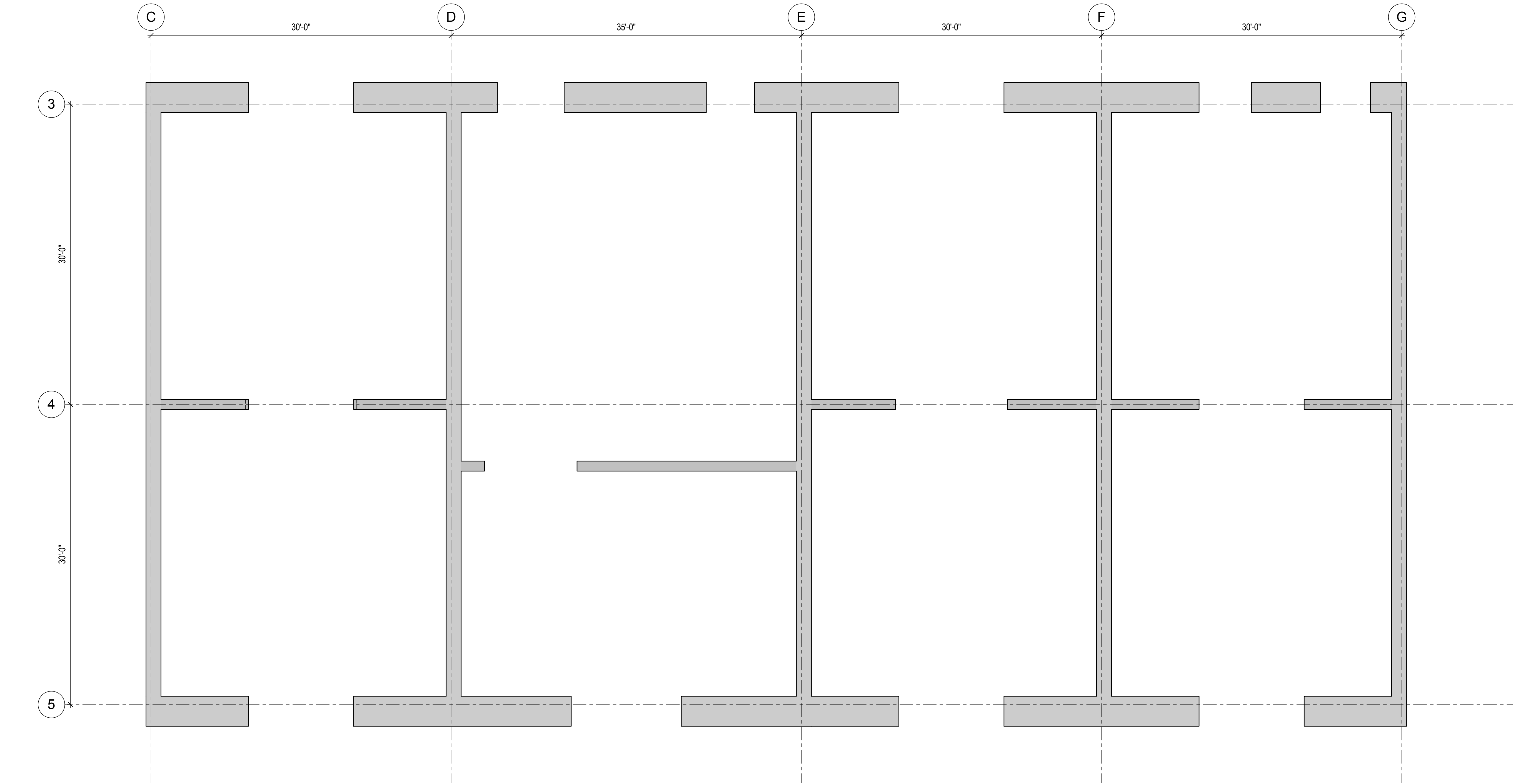
B-SCAN Sheet No.:  
S-348.00

Sheet No.:  
S-348

Page No.:  
55 of 90



**1** REINFORCEMENT LAYOUT - LEVEL 26 TO LEVEL 28  
3/16" = 1'-0"



**2** REINFORCEMENT LAYOUT - LEVEL 28 TO LEVEL 31  
3/16" = 1'-0"

REINFORCING LAYOUT DESIGN IN-  
PROGRESS AND WILL BE SHOWN ON  
FUTURE DRAWING ISSUES.  
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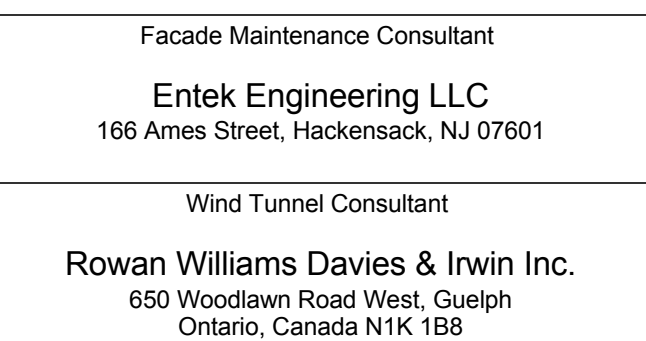
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

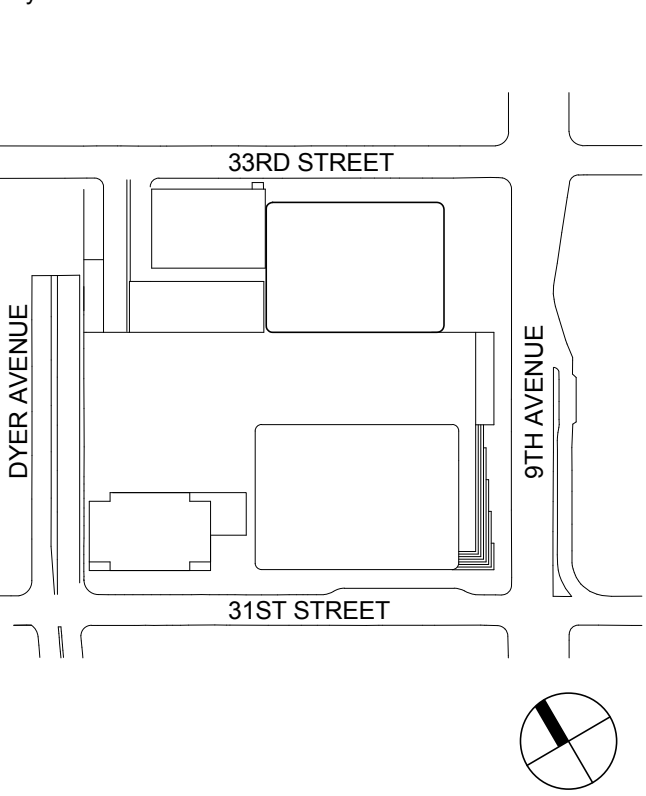
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
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Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:



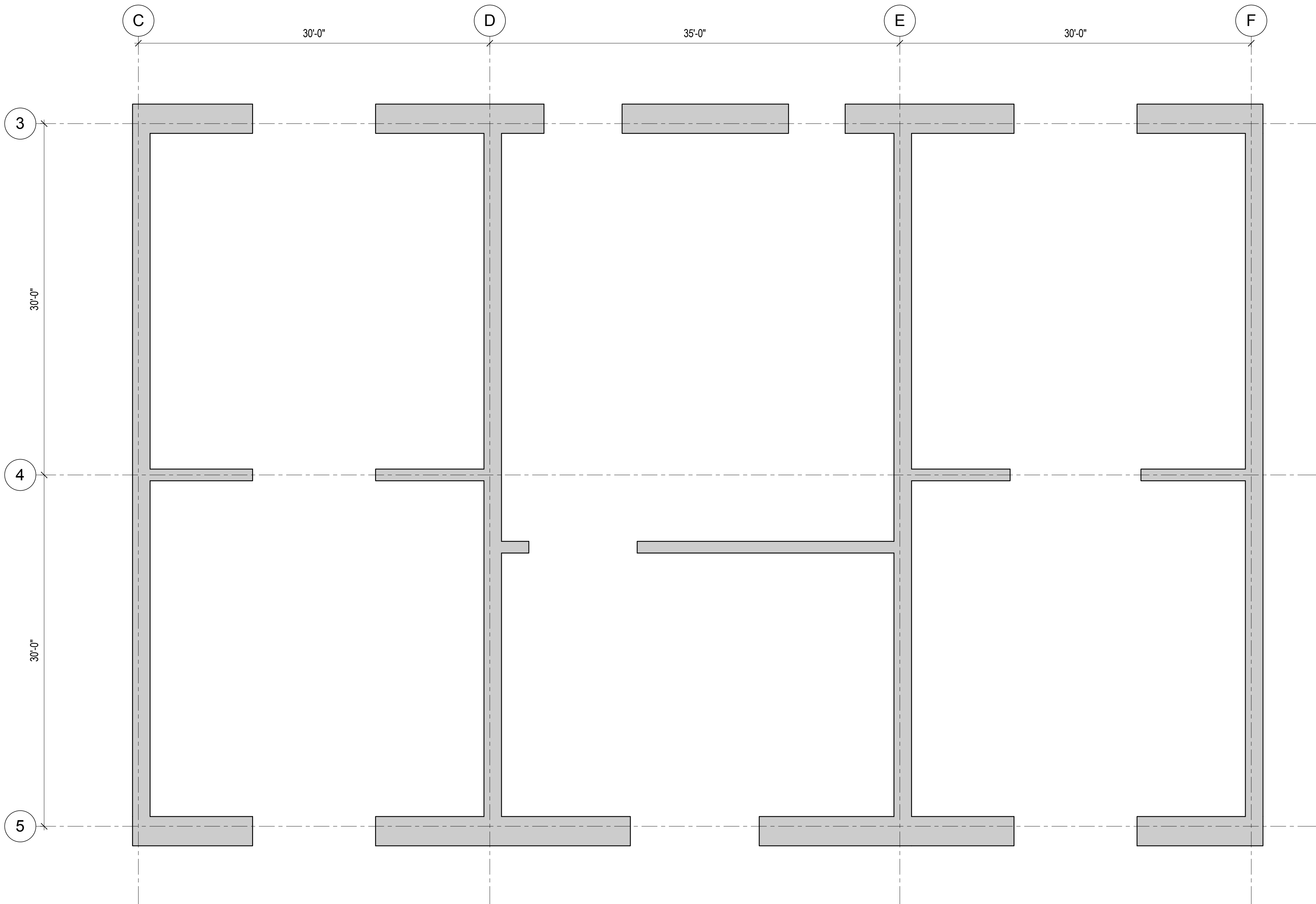
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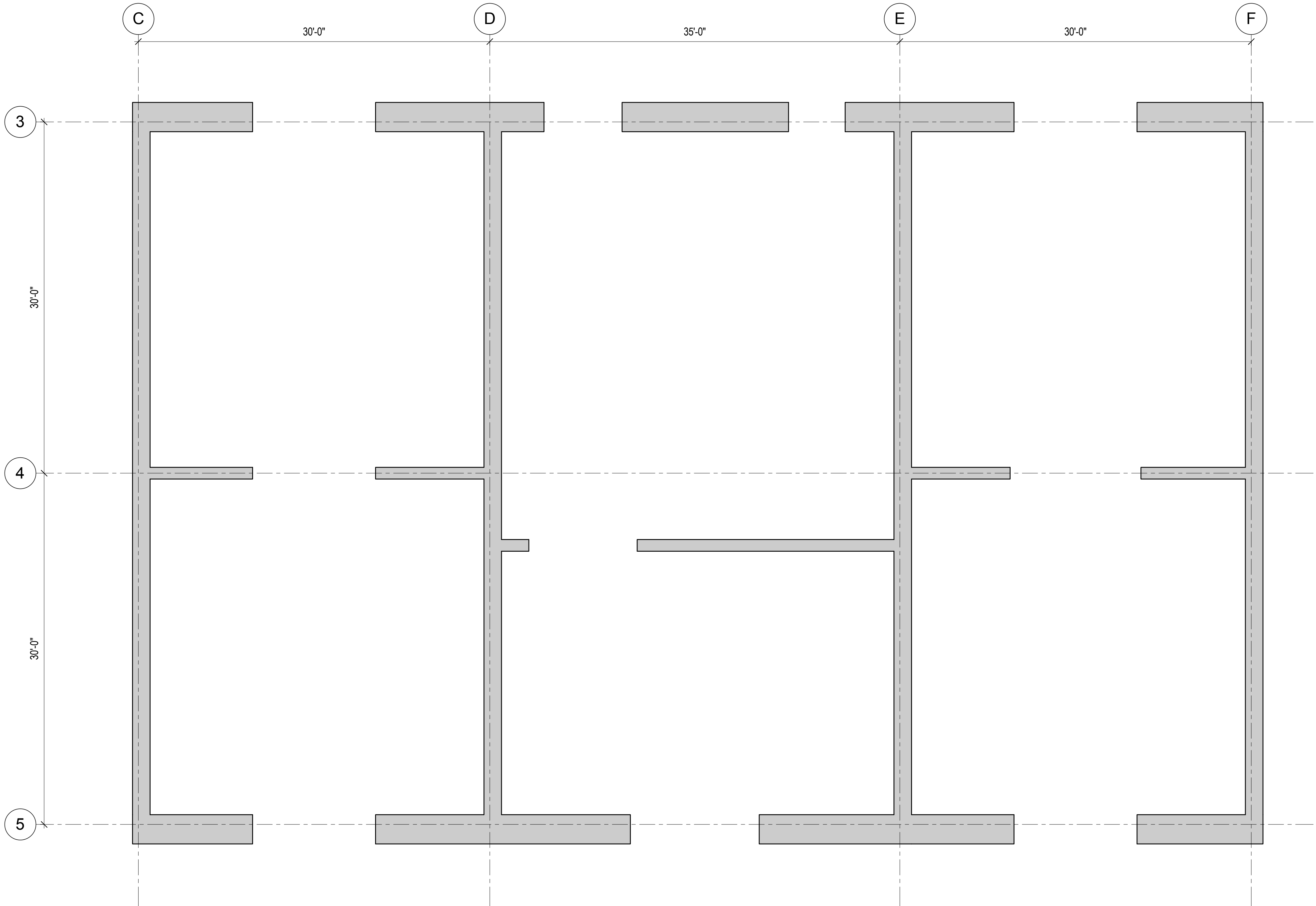
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Sheet Name  
**CORE WALL  
REINFORCEMENT  
LAYOUT**

Project No.: 211157	B-SCAN Sheet No.: <b>S-350.00</b>
Date: 20 JUN 2014	Sheet No.: S-350
Scale: 3/16" = 1'-0"	Page No.: 57 of 90
File No.: S-350	



**1** REINFORCEMENT LAYOUT - LEVEL 42 TO LEVEL 47  
3/16" = 1'-0"

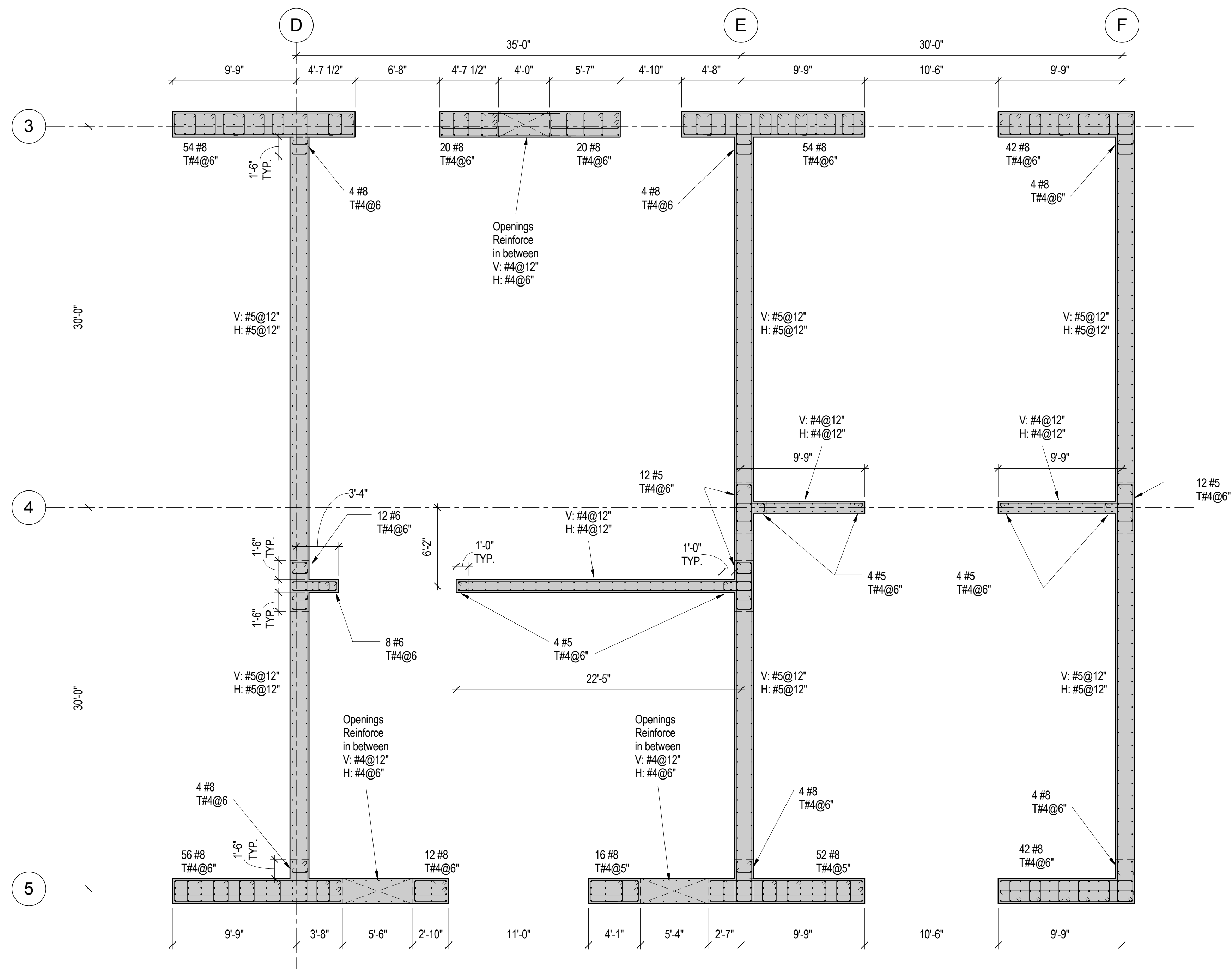


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3/16" = 1'-0"

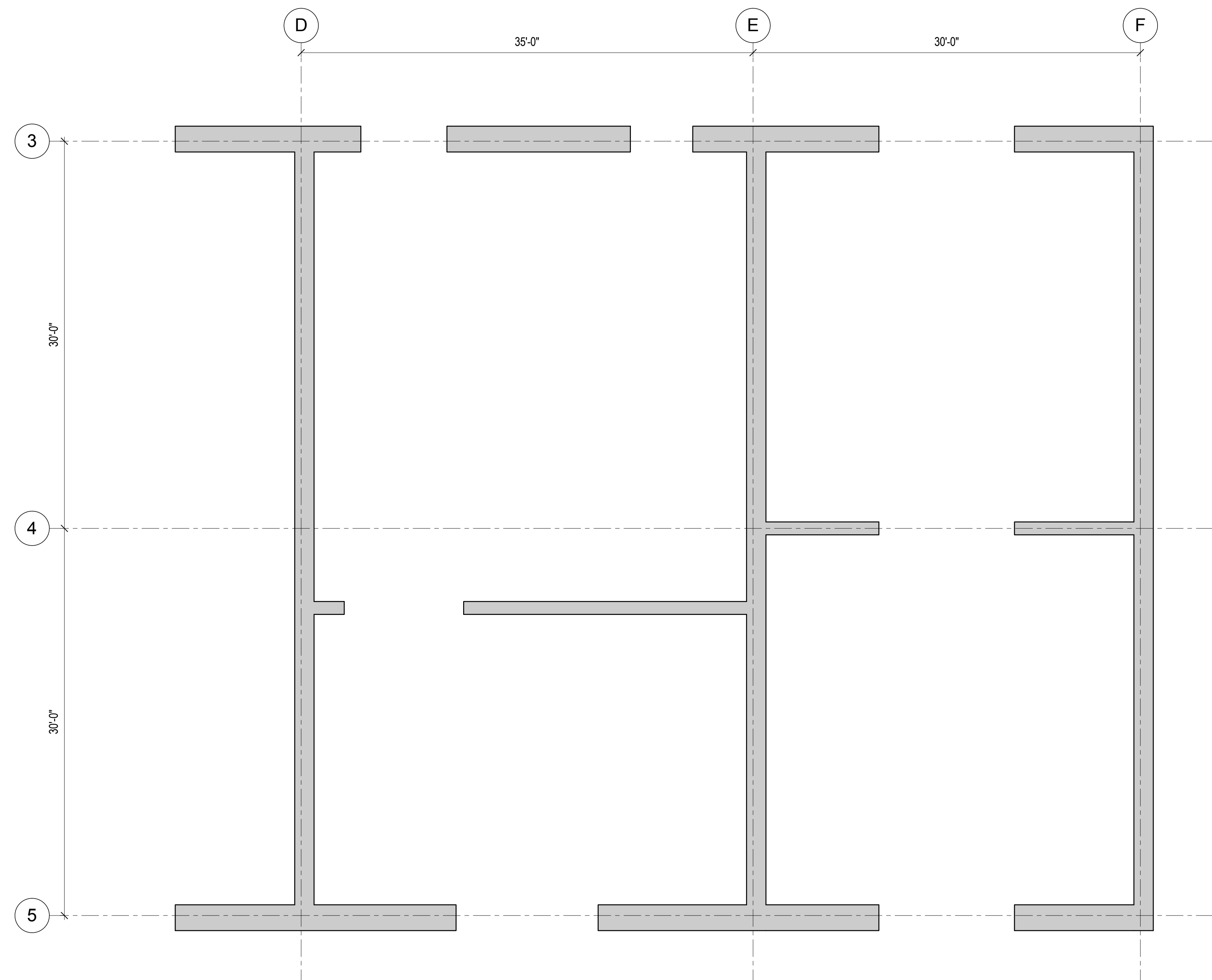
REINFORCING LAYOUT DESIGN IN-  
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REFER TO 1/S-349 FOR SIMILAR  
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REFER TO 1/S-349 FOR SIMILAR  
LAYOUT.





**1 REINFORCEMENT LAYOUT - LEVEL 53 TO LEVEL 58**  
3/16" = 1'-0"



**2 REINFORCEMENT LAYOUT - LEVEL 58 TO LEVEL 63**  
3/16" = 1'-0"

REINFORCING LAYOUT DESIGN IN-PROGRESS AND WILL BE SHOWN ON FUTURE DRAWING ISSUES. REFER TO 1/S-349 FOR SIMILAR LAYOUT.

REINFORCING LAYOUT DESIGN IN-PROGRESS AND WILL BE SHOWN ON FUTURE DRAWING ISSUES. REFER TO 1/S-351 FOR SIMILAR LAYOUT.

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Blast Consultant

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Acoustical Consultant

Cerami & Associates  
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Vibration Consultant

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Code Consultant

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215 West 40th Street, 15th Floor, New York, NY 10018  
Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601  
Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:  
  
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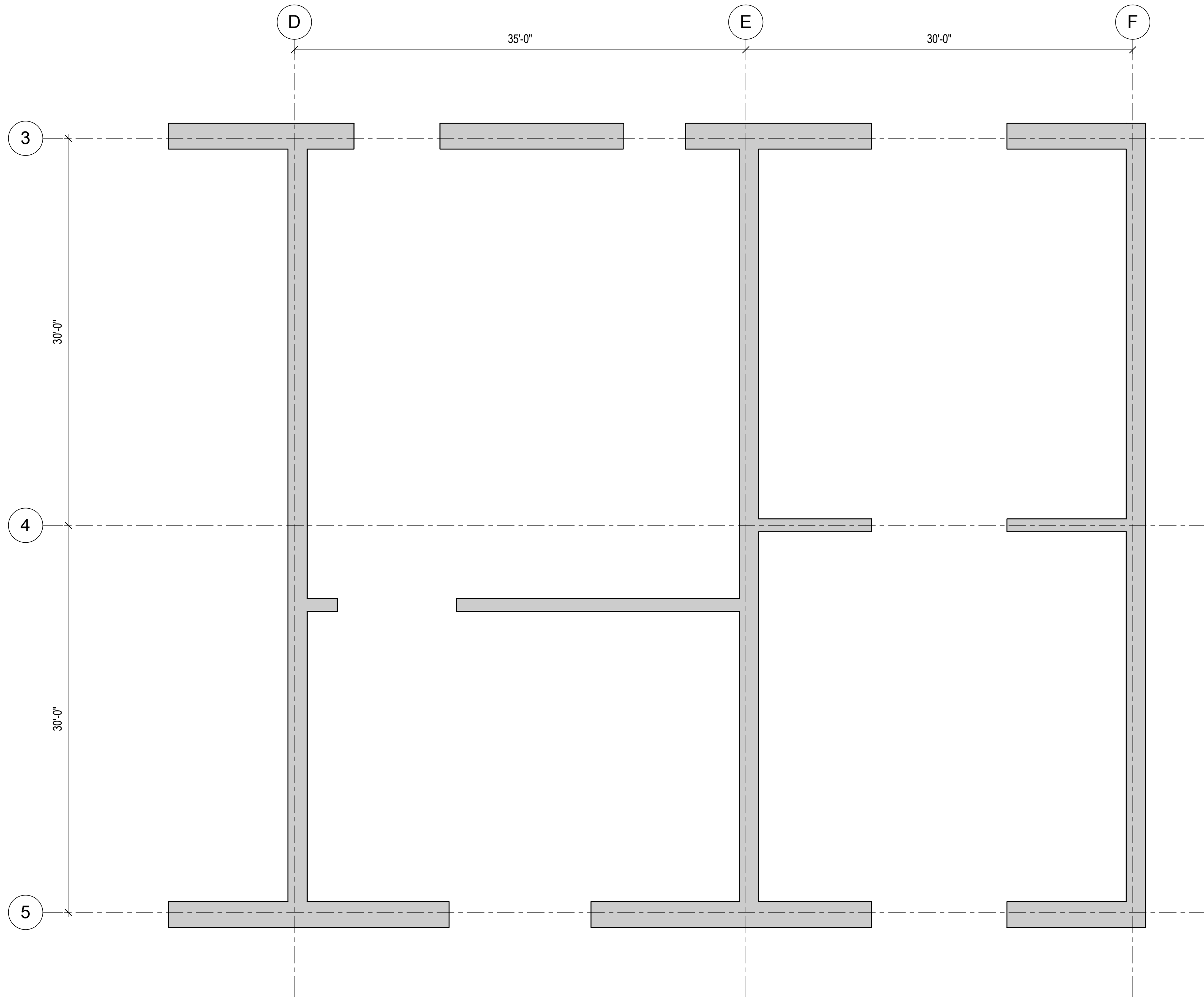
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REINFORCEMENT  
LAYOUT**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-351.00</b>

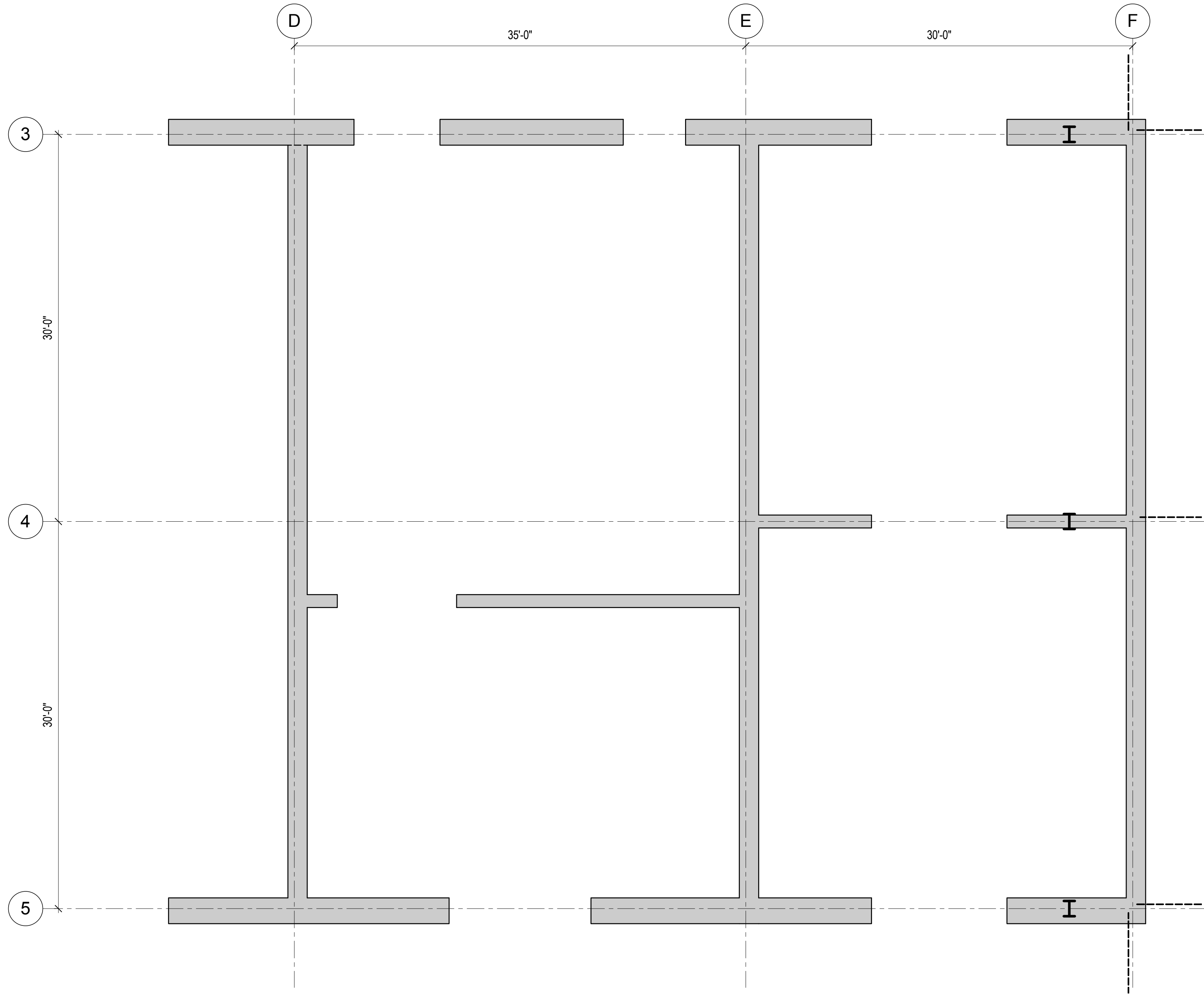
Date:	Sheet No.:
20 JUN 2014	<b>S-351</b>

Scale:	Page No.:
3/16" = 1'-0"	<b>58 of 90</b>





**1** REINFORCEMENT LAYOUT - LEVEL 63 TO LEVEL 68  
3/16" = 1'-0"



**2** REINFORCEMENT LAYOUT - LEVEL 68 TO LEVEL 69  
3/16" = 1'-0"

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MANHATTAN WEST:  
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375 Ninth Avenue, New York, NY 10001

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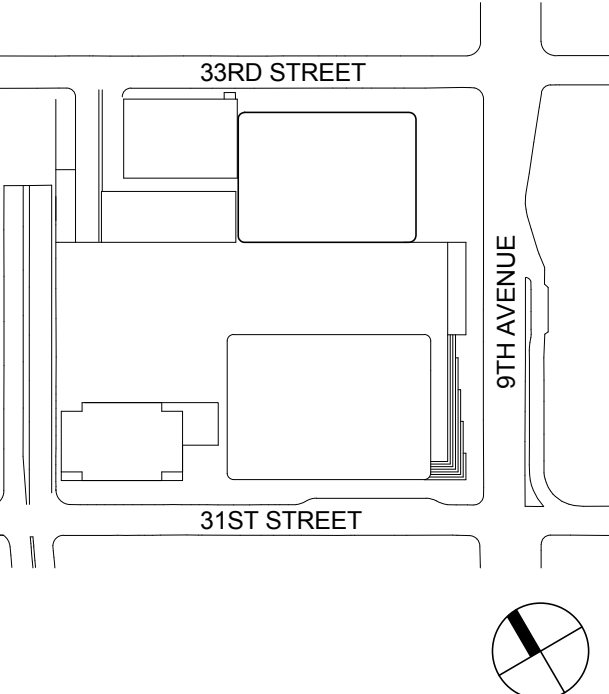
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Sheet Name

**CORE WALL  
REINFORCEMENT  
LAYOUT**

Project No.: 211157	B-SCAN Sheet No.: <b>S-352.00</b>
Date: 20 JUN 2014	Sheet No.: S-352
Scale: 3/16" = 1'-0"	Page No.: 59 of 90
File No.: S-352	





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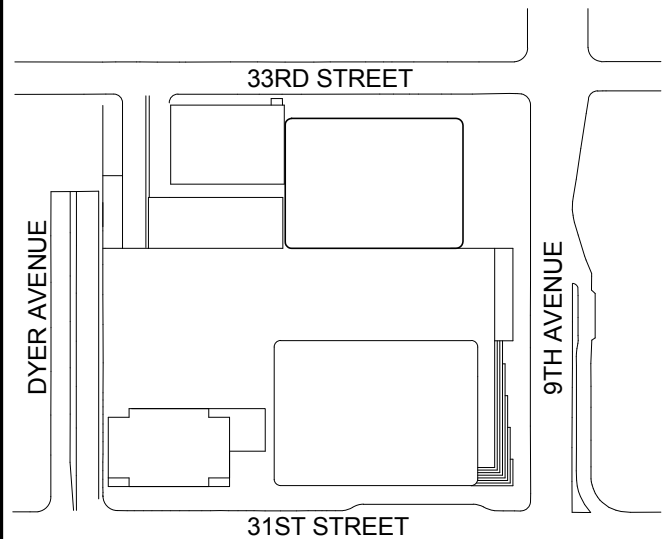
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No.	Date	Description
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Project No.: 211157

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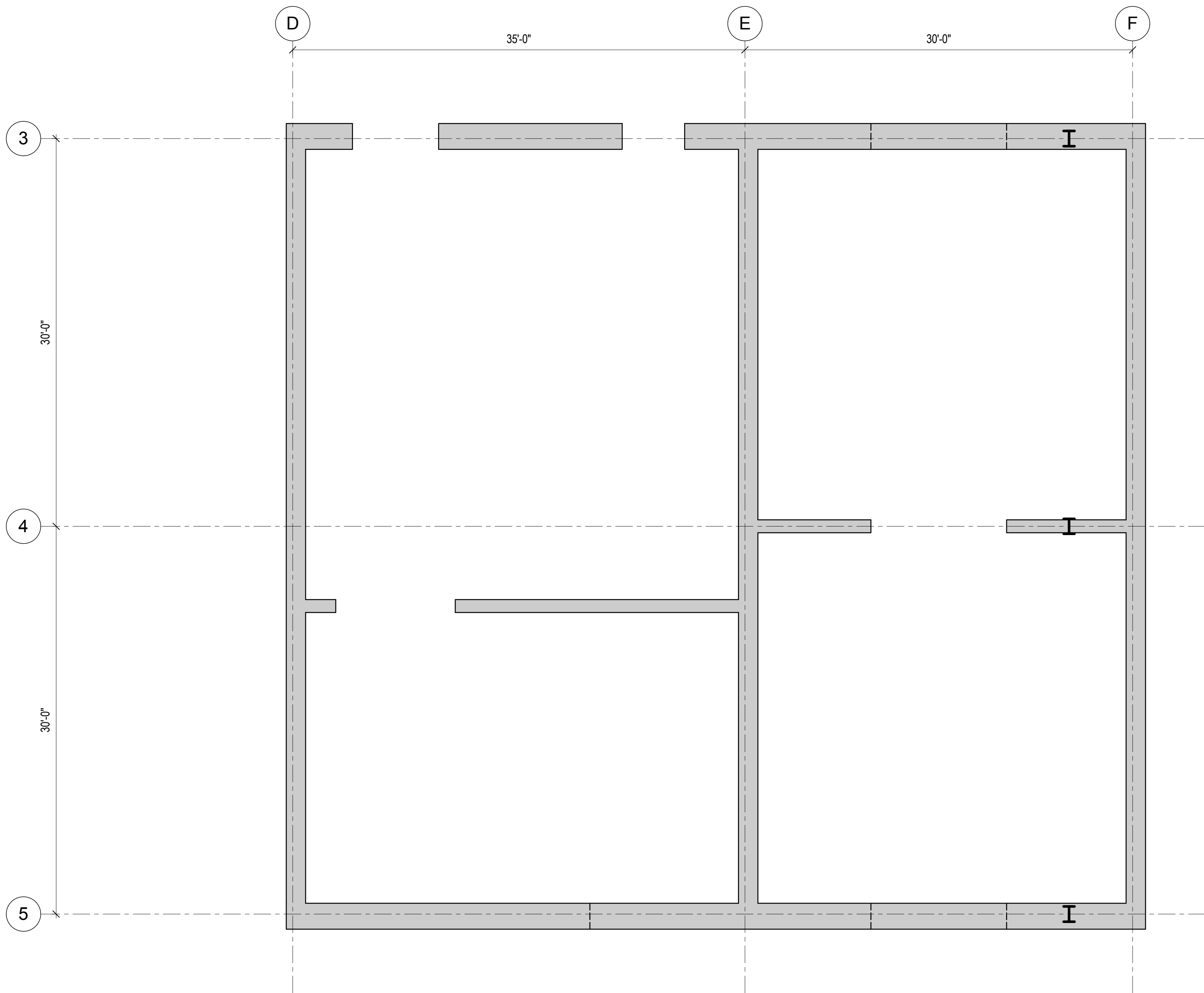
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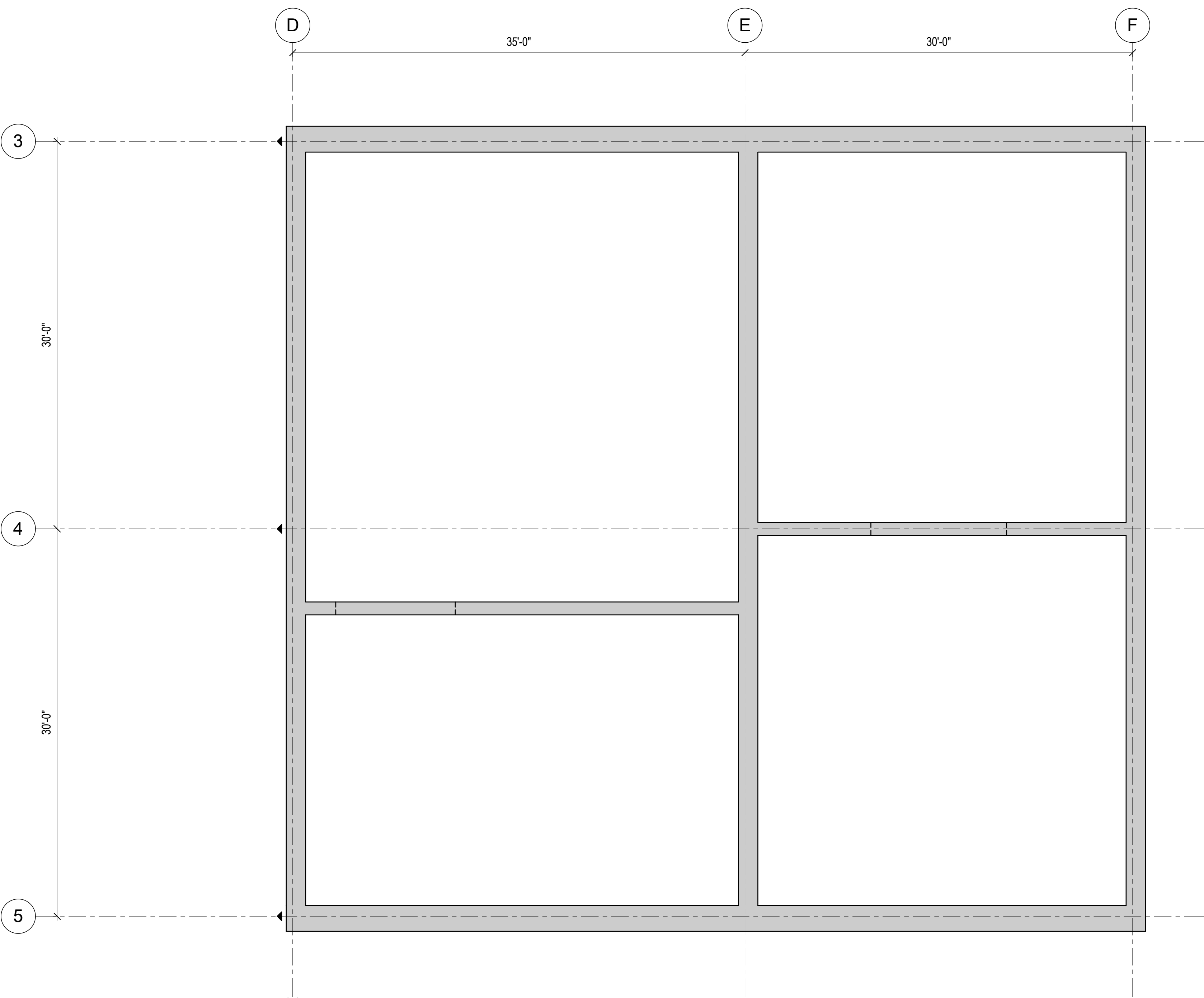
Sheet No.:  
S-353

Page No.:  
60 of 90



**1** REINFORCEMENT LAYOUT - LEVEL 69 TO LEVEL 70

3/16" = 1'-0"



**2** REINFORCEMENT LAYOUT - LEVEL 70 TO ROOF

3/16" = 1'-0"

REINFORCING LAYOUT DESIGN IN-  
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REINFORCING LAYOUT DESIGN IN-  
PROGRESS AND WILL BE SHOWN ON  
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Acoustical Consultant  
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404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
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Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:  
33RD STREET  
DYER AVENUE  
9TH AVENUE  
31ST STREET

Seal & Signature:  
PRELIMINARY  
NOT FOR CONSTRUCTION

Project No.: 211157  
Date: 20 JUN 2014  
Scale: As Indicated  
File No.: S-355

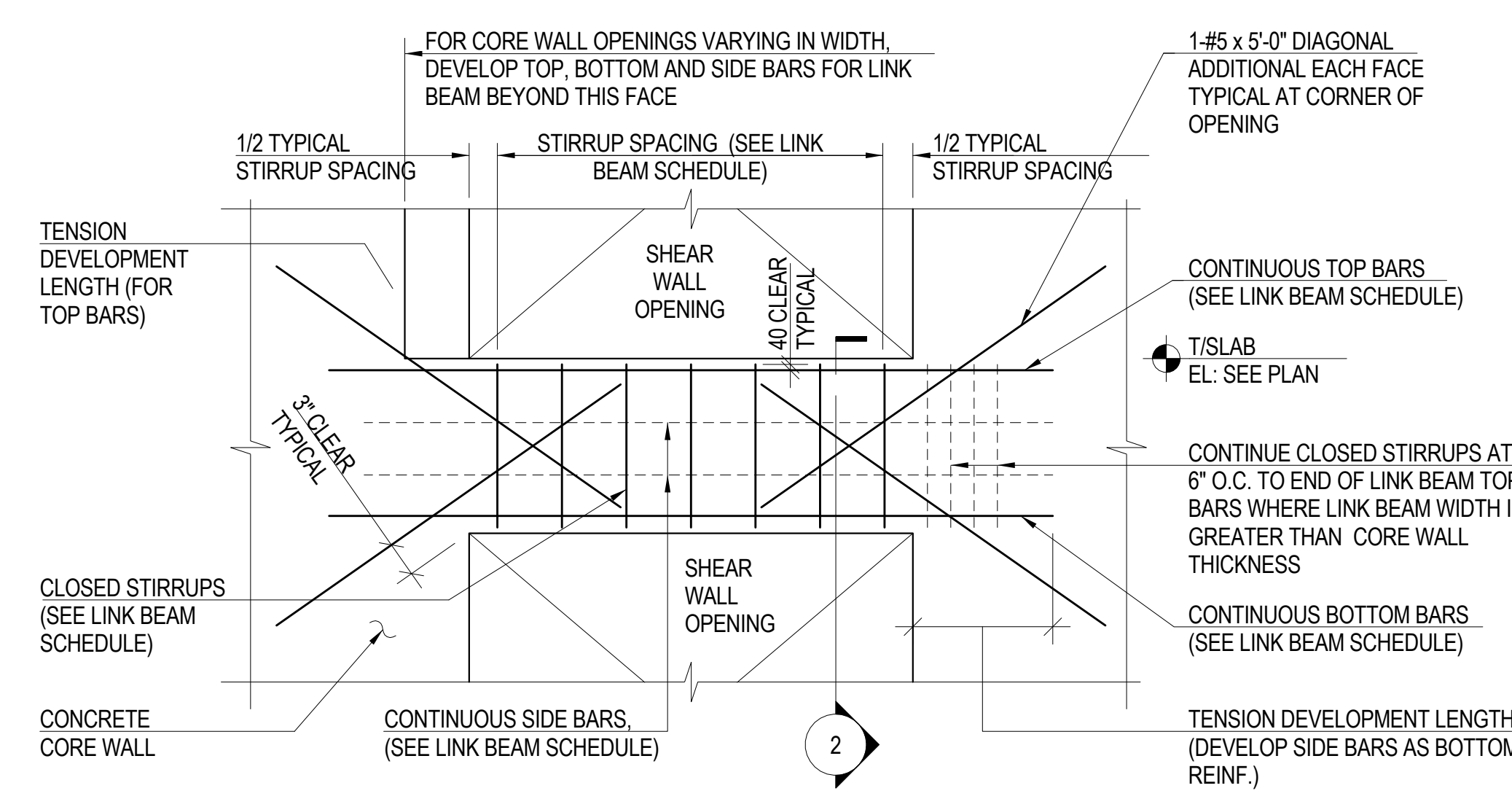
B-SCAN Sheet No.:  
S-355.00  
Sheet No.:  
S-355  
Page No.: 62 of 90

## REINFORCED CONCRETE CORE WALL LINK BEAM SCHEDULE

fy = 60 ksi  
fc = SEE NOTE 1  
E = SEE NOTE 1

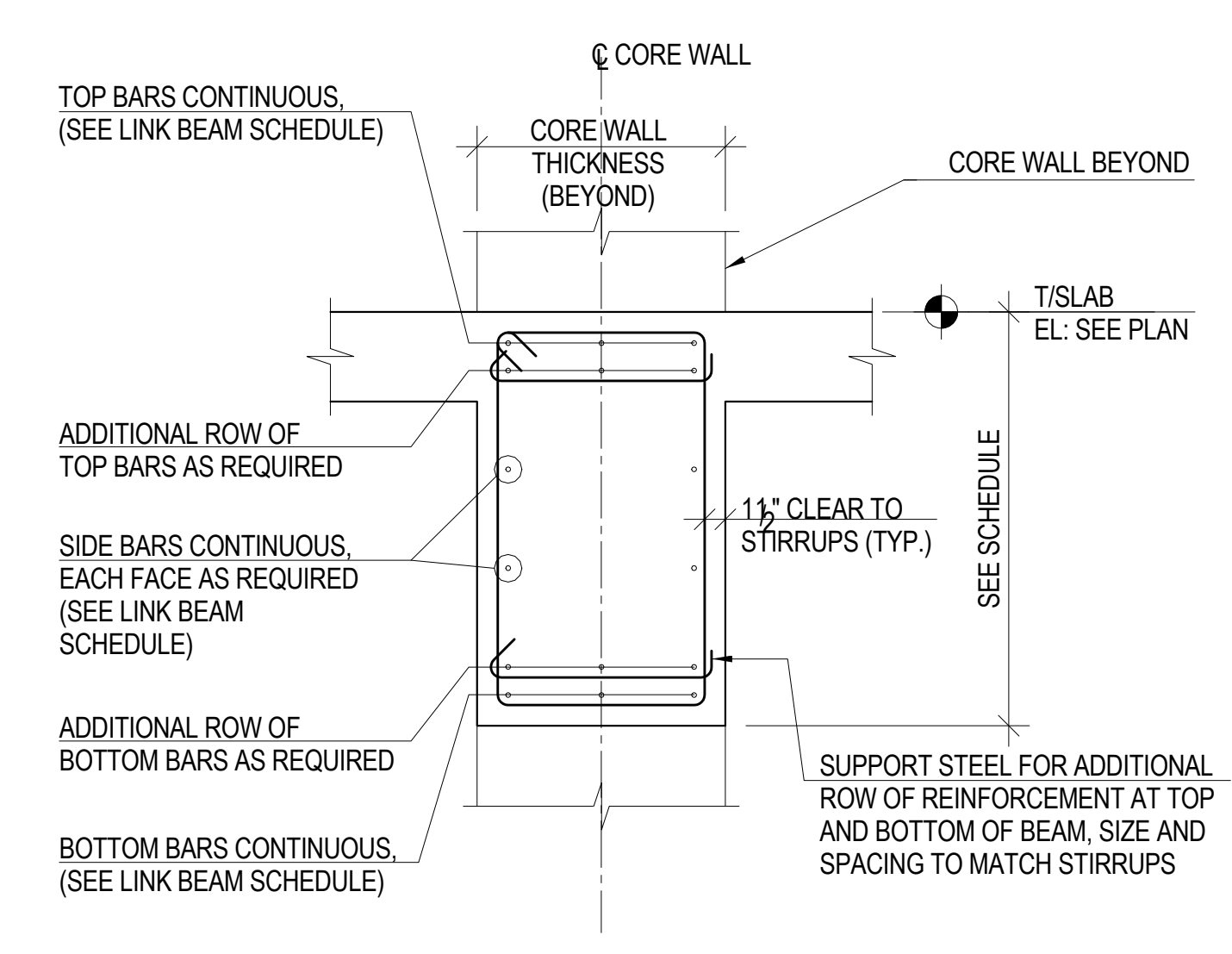
LEVEL	LOCATION (SEE KEY PLANS)	DIMENSIONS		TOP AND BOTTOM REINF.	SIDE REINF. (EA. FACE)	STIRRUPS		REMARKS
		DEPTH "D" (IN)	WIDTH "W" (IN)			SIZE/ SPACING	TYPE	
54 - ROOF	LB2	111	30	2 x 12 - #9	2 - #5	#5 @ 6.0"	-	
	LB3	66	30	2 x 7 - #9	2 - #5	#5 @ 6.0"	-	EMBEDDED W18x158 ON LEVEL S3 TO 60
	LB4, LB8	120	42	3 x 9 - #9	4 - #5	#5 @ 5.0"	-	
	LB7	132	32	3 x 10 - #9	2 - #5	#5 @ 6.0"	-	UPTURNED LINK BEAM, EMBEDDED W24x162 ON LEVEL S3 TO 60
	LB11, LB12	120	24	8 - #9	2 - #5	#4 @ 6.0"	-	
32 - 53	LB1, LB6	124	42	3 x 9 - #9	3 - #5	#5 @ 4.0"	-	
	LB2	111	30	3 x 12 - #9	1 - #5	#5 @ 5.0"	-	EMBEDDED W18x234
	LB3	66	30	2 x 10 - #9	2 - #5	#5 @ 5.0"	-	EMBEDDED W18x234
	LB4, LB8	120	42	3 x 10 - #9	3 - #5	#5 @ 5.0"	-	EMBEDDED W27x258 ON LEVEL 31 TO 42
	LB7	132	32	5 - #9	3 - #5	#5 @ 6.0"	-	UPTURNED LINK BEAM, EMBEDDED 24x32x2x1 STEEL BUILT-UP MEMBER
	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	4 - #9	2 - #5	#4 @ 6.0"	-	
29 - 31	LB12	120	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB1, LB6	124	42	3 x 9 - #9	3 - #5	#5 @ 4.0"	-	
	LB2	111	30	3 x 14 - #9	1 - #5	#4 @ 5.0"	-	
	LB3	66	30	3 x 14 - #9	1 - #5	#4 @ 5.0"	-	
	LB4, LB8	120	42	3 x 12 - #9	4 - #5	#5 @ 5.0"	-	
	LB5, LB9	60	42	8 - #9	5 - #5	#5 @ 6.0"	-	EMBEDDED 24x34x2x2.5 STEEL BUILT-UP MEMBER
	LB7	132	32	6 - #9	3 - #5	#5 @ 6.0"	-	UPTURNED LINK BEAM, EMBEDDED 24x32x2x1 STEEL BUILT-UP MEMBER
	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	8 - #9	2 - #5	#4 @ 6.0"	-	
	LB12	120	24	8 - #9	2 - #5	#4 @ 6.0"	-	
27 - 28	LB14	60	42	2 x 6 - #9	3 - #5	#5 @ 5.0"	-	
	LB1, LB6	124	42	3 x 9 - #9	3 - #5	#5 @ 5.0"	-	
	LB2	111	30	3 x 14 - #9	1 - #5	#4 @ 5.0"	-	
	LB3	66	30	3 x 14 - #9	1 - #5	#4 @ 5.0"	-	
	LB4, LB5, LB8, LB9	120	42	3 x 12 - #9	3 - #5	#5 @ 5.0"	-	
	LB7	132	32	6 - #9	3 - #5	#5 @ 6.0"	-	UPTURNED LINK BEAM, EMBEDDED 24x32x2x1 STEEL BUILT-UP MEMBER
	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	8 - #9	2 - #5	#4 @ 6.0"	-	
	LB12, LB13	120	24	8 - #9	2 - #5	#4 @ 6.0"	-	
	LB1, LB6	124	42	3 x 9 - #9	3 - #5	#5 @ 5.0"	-	
17 - 26	LB2	111	30	2 x 18 - #9	2 - #5	#5 @ 5.0"	-	
	LB3	66	30	3 x 8 - #9	2 - #5	#5 @ 5.0"	-	
	LB4, LB5, LB8, LB9	120	42	3 x 14 - #9	3 - #5	#5 @ 4.0"	-	
	LB7	132	32	8 - #9	3 - #5	#5 @ 6.0"	-	UPTURNED LINK BEAM, EMBEDDED 24x32x2x1 STEEL BUILT-UP MEMBER
	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	8 - #9	2 - #5	#4 @ 6.0"	-	
	LB12, LB13	120	24	8 - #9	2 - #5	#4 @ 6.0"	-	
	LB1, LB6	124	42	3 x 8 - #9	3 - #5	#5 @ 5.0"	-	
	LB2	111	30	3 x 11 - #9	2 - #5	#5 @ 5.0"	-	
	LB3	66	30	3 x 8 - #9	2 - #5	#5 @ 5.0"	-	
12 - 16	LB4, LB5, LB8, LB9	120	42	3 x 11 - #9	3 - #5	#5 @ 5.0"	-	
	LB7	132	32	10 - #9	3 - #5	#5 @ 5.0"	-	UPTURNED LINK BEAM, EMBEDDED 24x32x2x1.5 STEEL BUILT-UP MEMBER
	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	8 - #9	2 - #5	#4 @ 6.0"	-	
	LB12, LB13	120	24	8 - #9	2 - #5	#4 @ 6.0"	-	
	LB1, LB6	124	42	3 x 8 - #9	3 - #5	#5 @ 5.0"	-	
	LB2	111	30	3 x 10 - #9	2 - #5	#5 @ 5.0"	-	
	LB3	66	30	3 x 8 - #9	2 - #5	#5 @ 4.0"	-	
	LB4, LB5, LB8, LB9	120	42	3 x 10 - #9	3 - #5	#5 @ 6.0"	-	
	LB7	132	32	3 x 17 - #9	2 - #5	#5 @ 5.0"	-	UPTURNED LINK BEAM
7 - 11	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB12, LB13	120	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB2	111	224	3 x 10 - #9	2 - #5	#5 @ 5.0"	-	
	LB3	66	224	3 x 8 - #9	2 - #5	#5 @ 4.0"	-	
	LB4	120	204	3 x 10 - #9	3 - #5	#5 @ 6.0"	-	
	LB8	120	180	3 x 10 - #9	3 - #5	#5 @ 6.0"	-	
6	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB12	120	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB1, LB6	124	42	3 x 8 - #9	3 - #5	#5 @ 5.0"	-	
	LB2	111	30	3 x 10 - #9	2 - #5	#5 @ 5.0"	-	
	LB3	66	30	3 x 8 - #9	2 - #5	#5 @ 4.0"	-	
	LB4, LB5, LB8, LB9	120	42	3 x 10 - #9	3 - #5	#5 @ 6.0"	-	
5	LB10	124	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB11	111	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB12, LB13	120	24	4 - #9	2 - #5	#4 @ 6.0"	-	
	LB1, LB6	124	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB2	111	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB3	66	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB4, LB5	120	474	8 - #8	40 - #8	#8 @ 12.0"	-	
2	LB7	80	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB8, LB9	46	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB10	124	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB11	111	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB12, LB13	120	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB1, LB6	124	474	8 - #8	40 - #8	#8 @ 12.0"	-	
	LB2	111	474	8 - #8	40 - #8	#8 @ 12.0"	-	

NOTE: SEE S-356 FOR LINK BEAM DETAILS W/ EMBEDDED STEEL SHAPES.

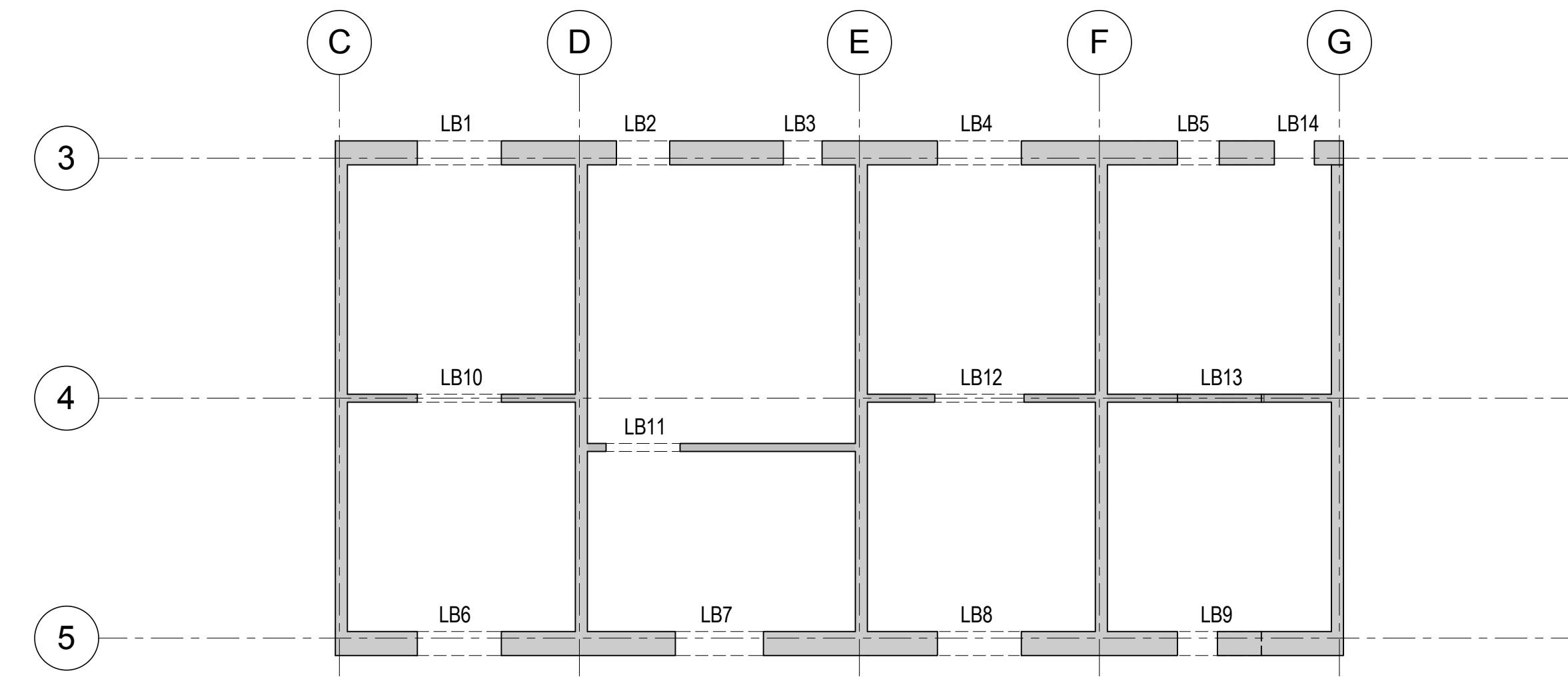


NOTES: 1. CORE WALL REINFORCEMENT NOT SHOWN FOR CLARITY.  
2. SEE CORE WALL ELEVATION FOR SIZE OF OPENINGS.

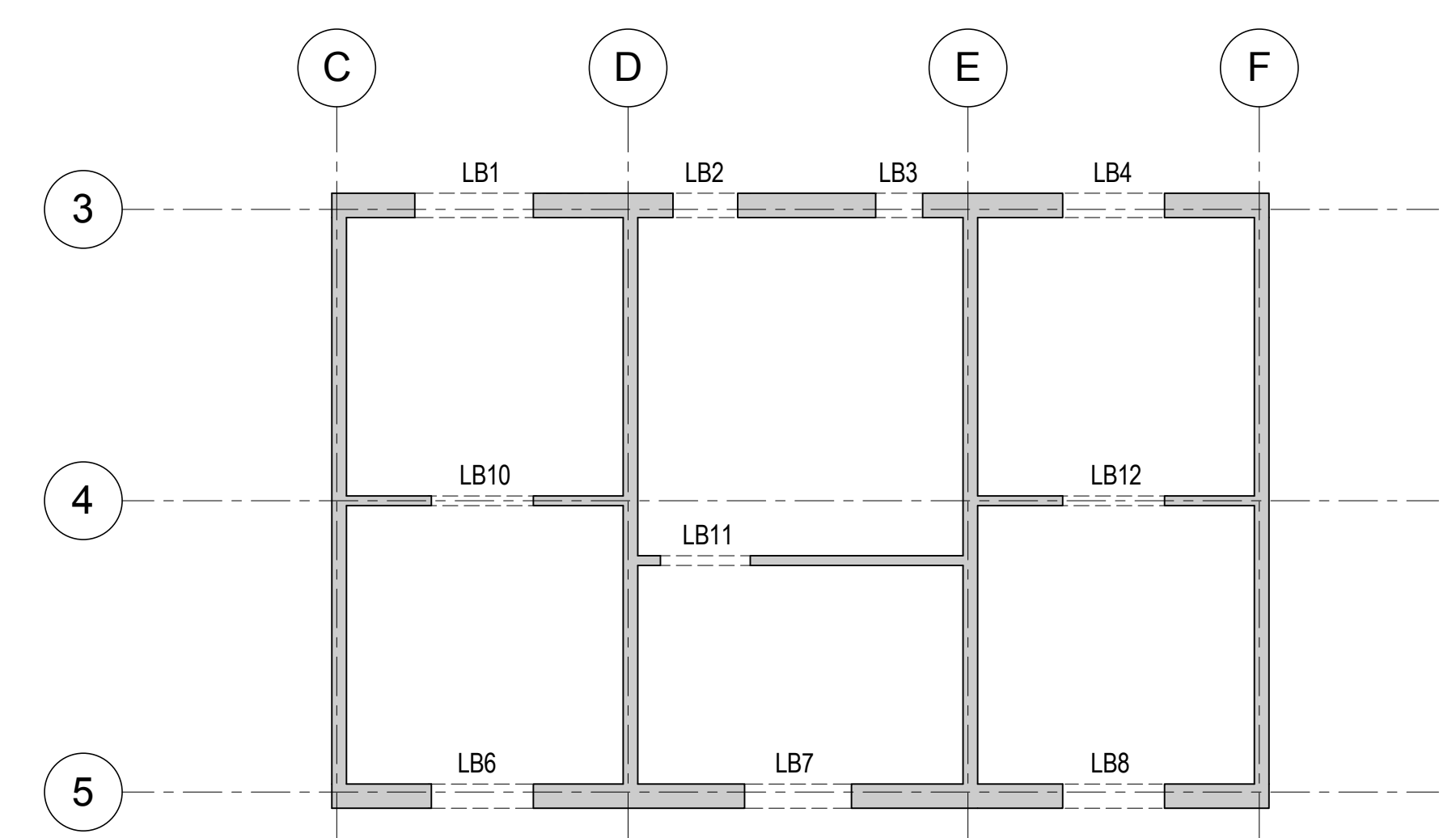
**1** TYPICAL LINK BEAM ELEVATION FOR SHEAR SPAN-TO-DEPTH RATIO LESS THAN 2.0  
1" = 1'-0"



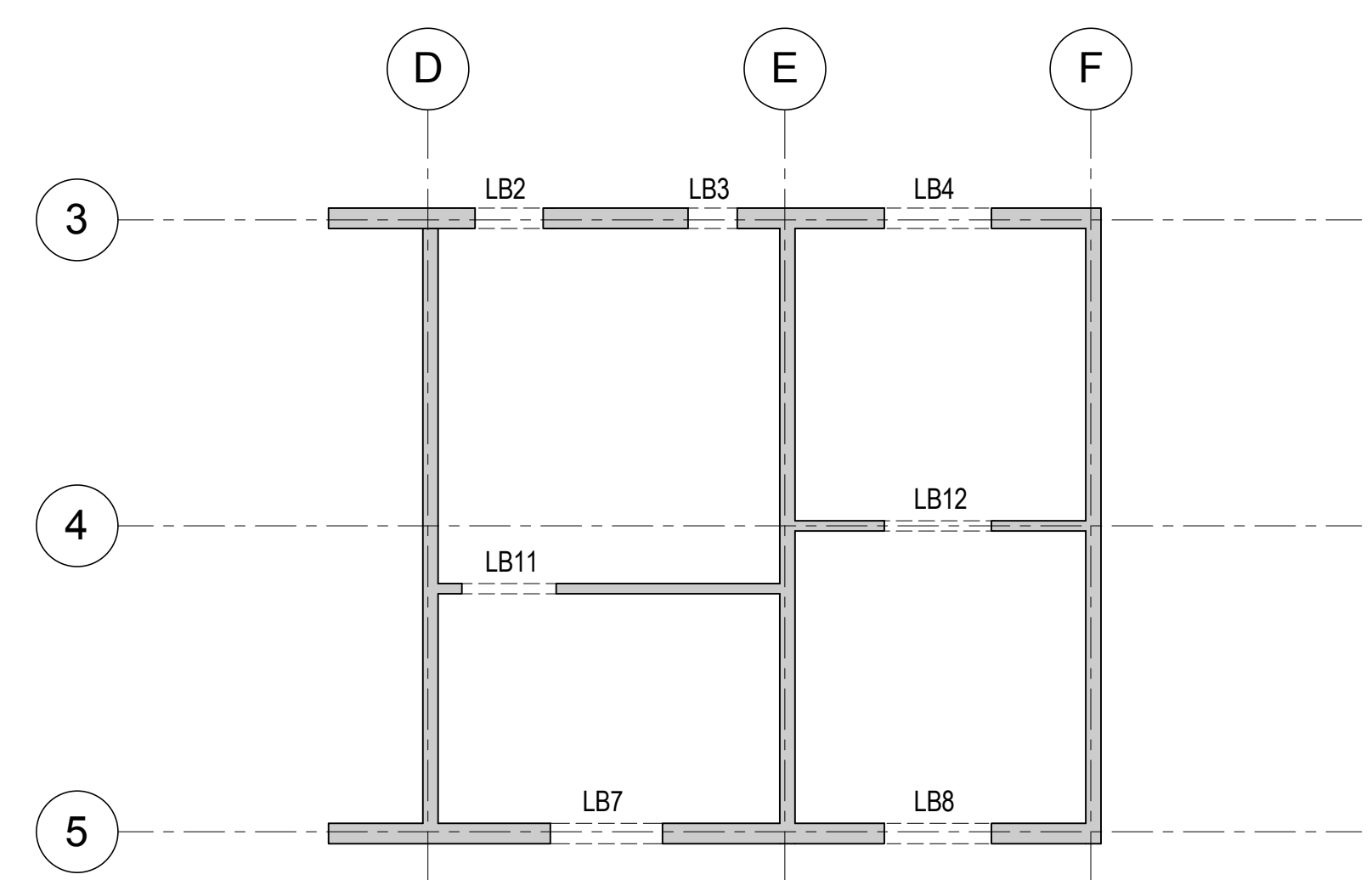
NOTES: 1. SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.



**A** KEY PLAN A - LEVEL 6 TO LEVEL 31 KEY PLAN  
1/16" = 1'-0"



**B** KEY PLAN B - LEVEL 31 TO 53  
1/16" = 1'-0"



**C** KEY PLAN C - LEVEL 53 TO ROOF  
1/16" = 1'-0"





CONTRACTOR TO PROVIDE METHOD  
STATEMENT  
FOR ALL LINK BEAM CONSTRUCTION INCLUDING  
SPECIAL PLACEMENT METHODS FOR LINK  
BEAMS WITH EMBEDDED STEEL PIECES

NOT TO SCALE



#### 4 DETAIL

NOT TO SCALE

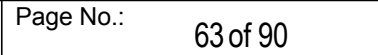


A SECTION THRU CORE WALL ABOVE AND BELOW LINK BEAM



**B** SECTION THRU CORE WALL AT LINK BEAM

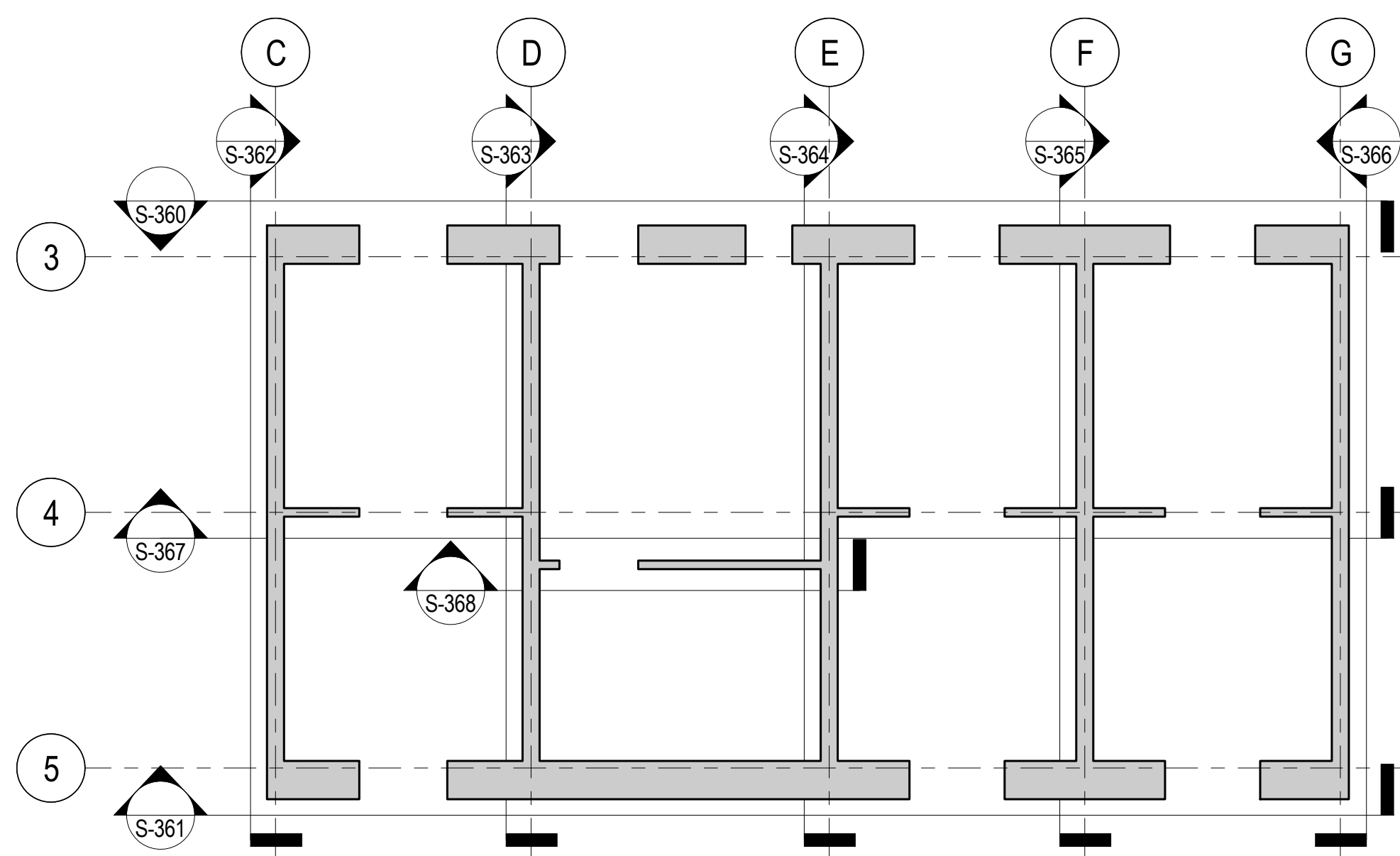
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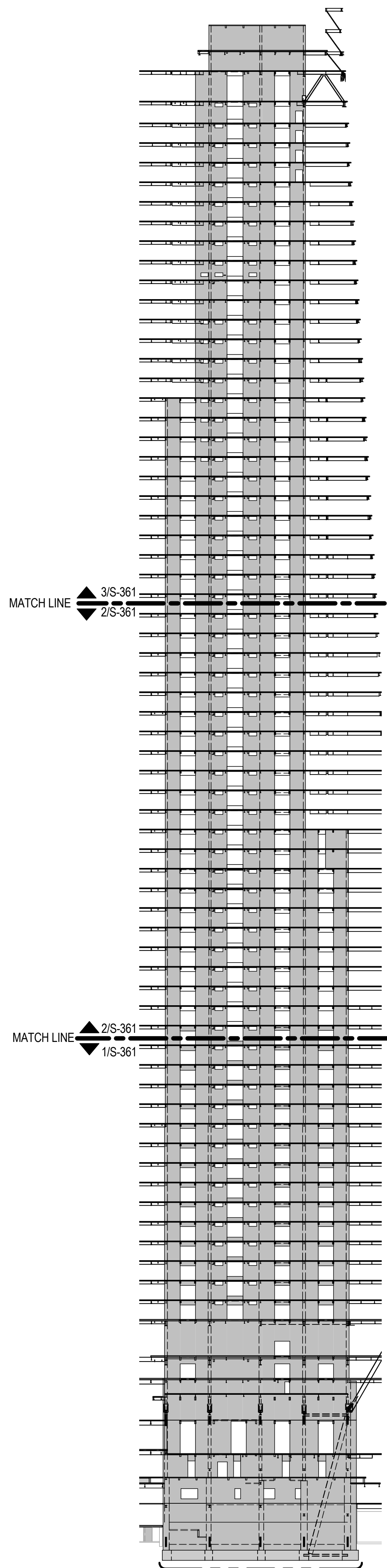




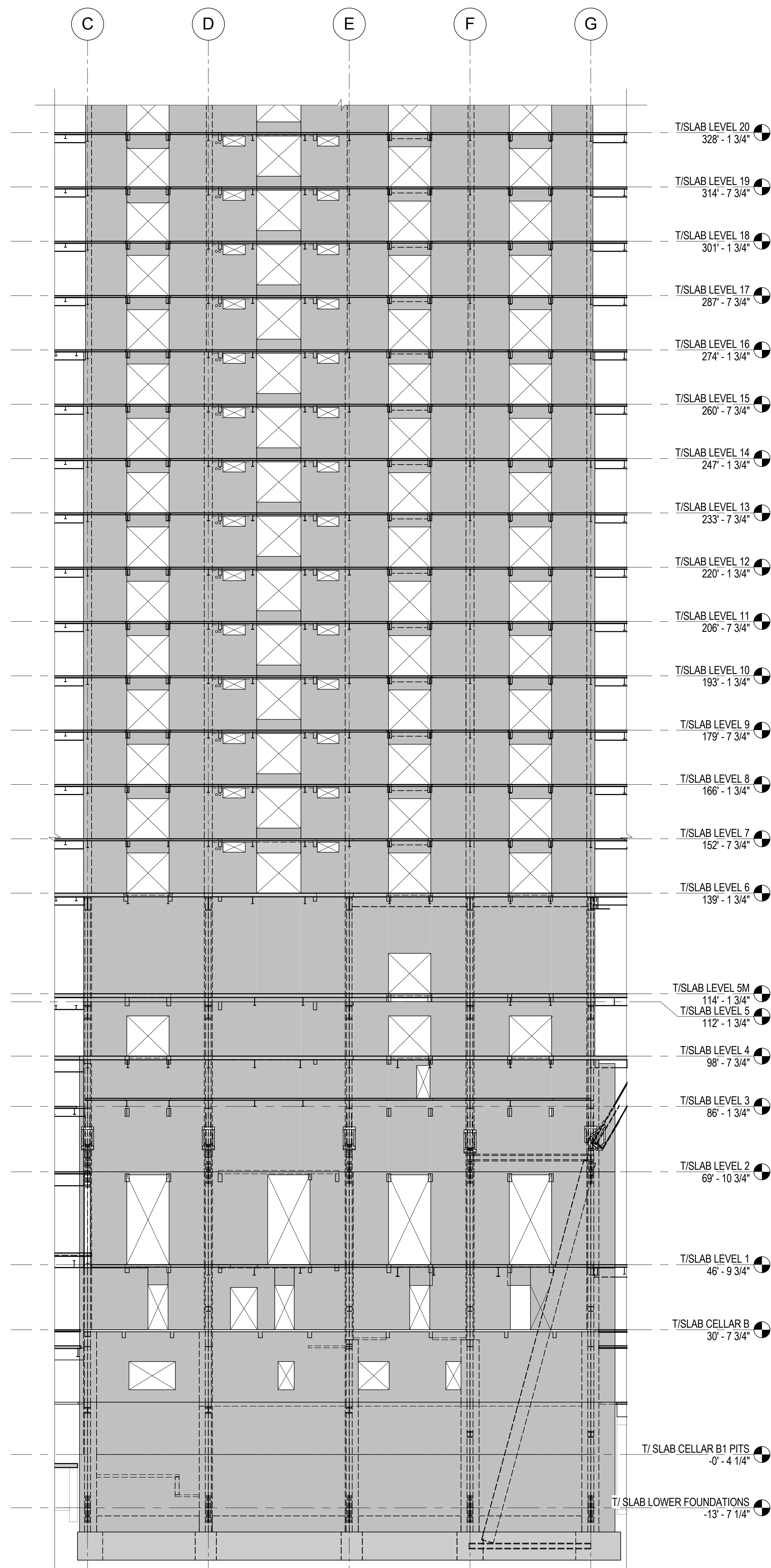




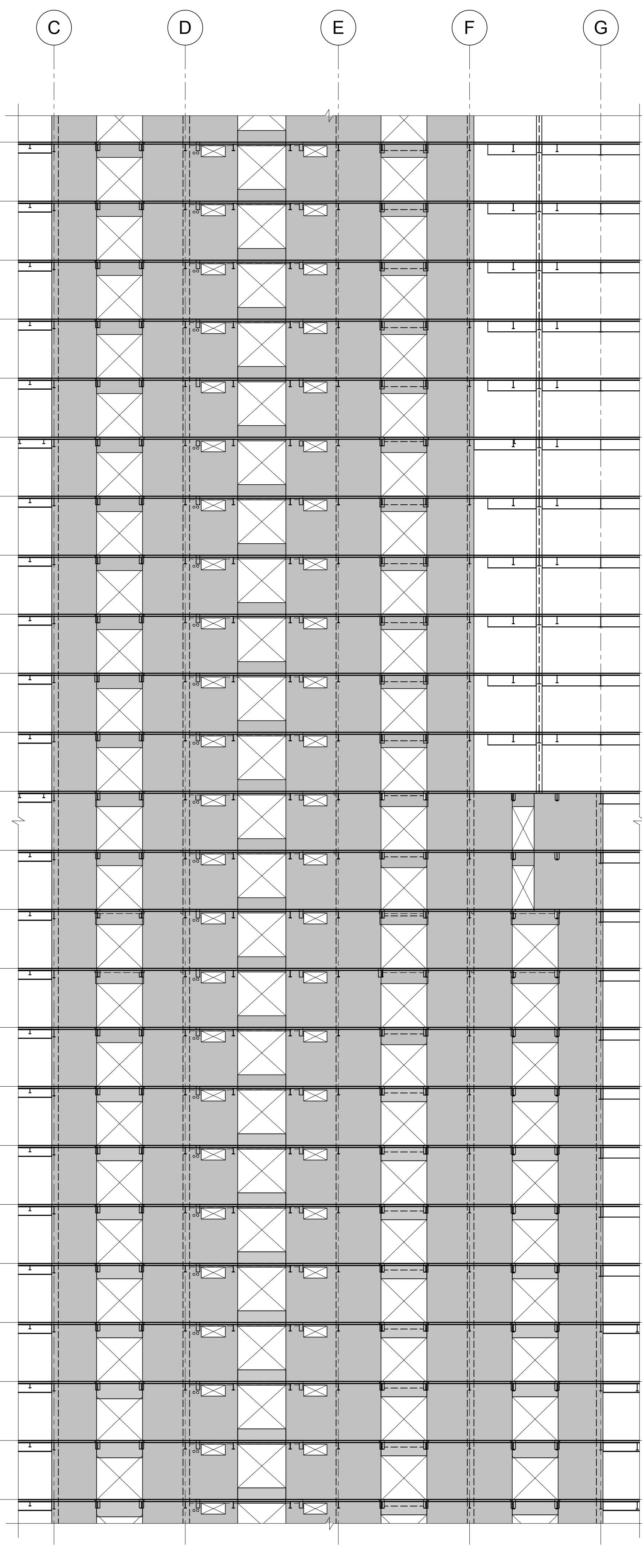
CORE WALL ELEVATION KEY PLAN  
NTS



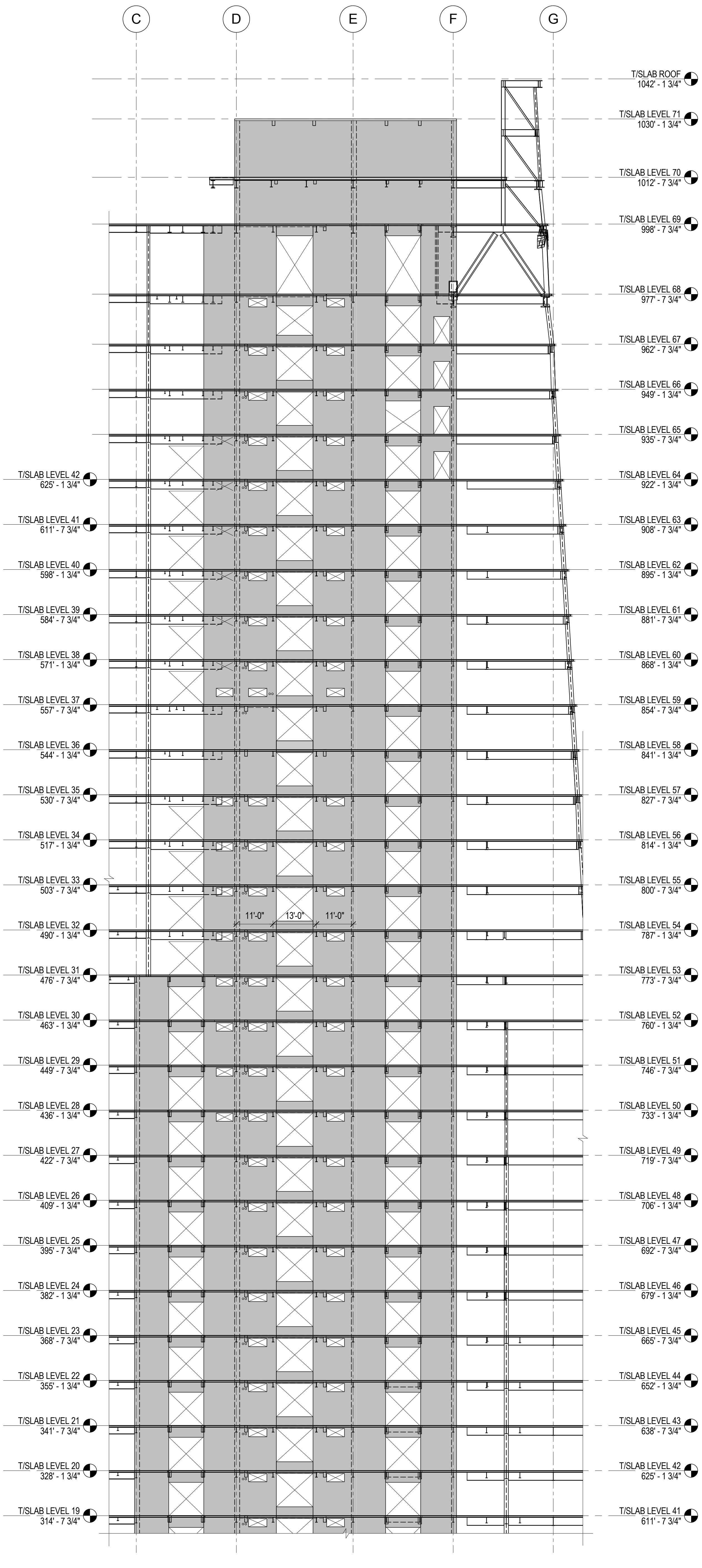
ELEVATION KEY  
NTS



1 ELEVATION ALONG LINE 5  
1/16" = 1'-0"



2 ELEVATION ALONG LINE 5  
1/16" = 1'-0"



3 ELEVATION ALONG LINE 5  
1/16" = 1'-0"

MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

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**SOM**  
Skidmore, Owings & Merrill LLP  
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Vertical Transportation  
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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

No.	Date	Description
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 2D PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

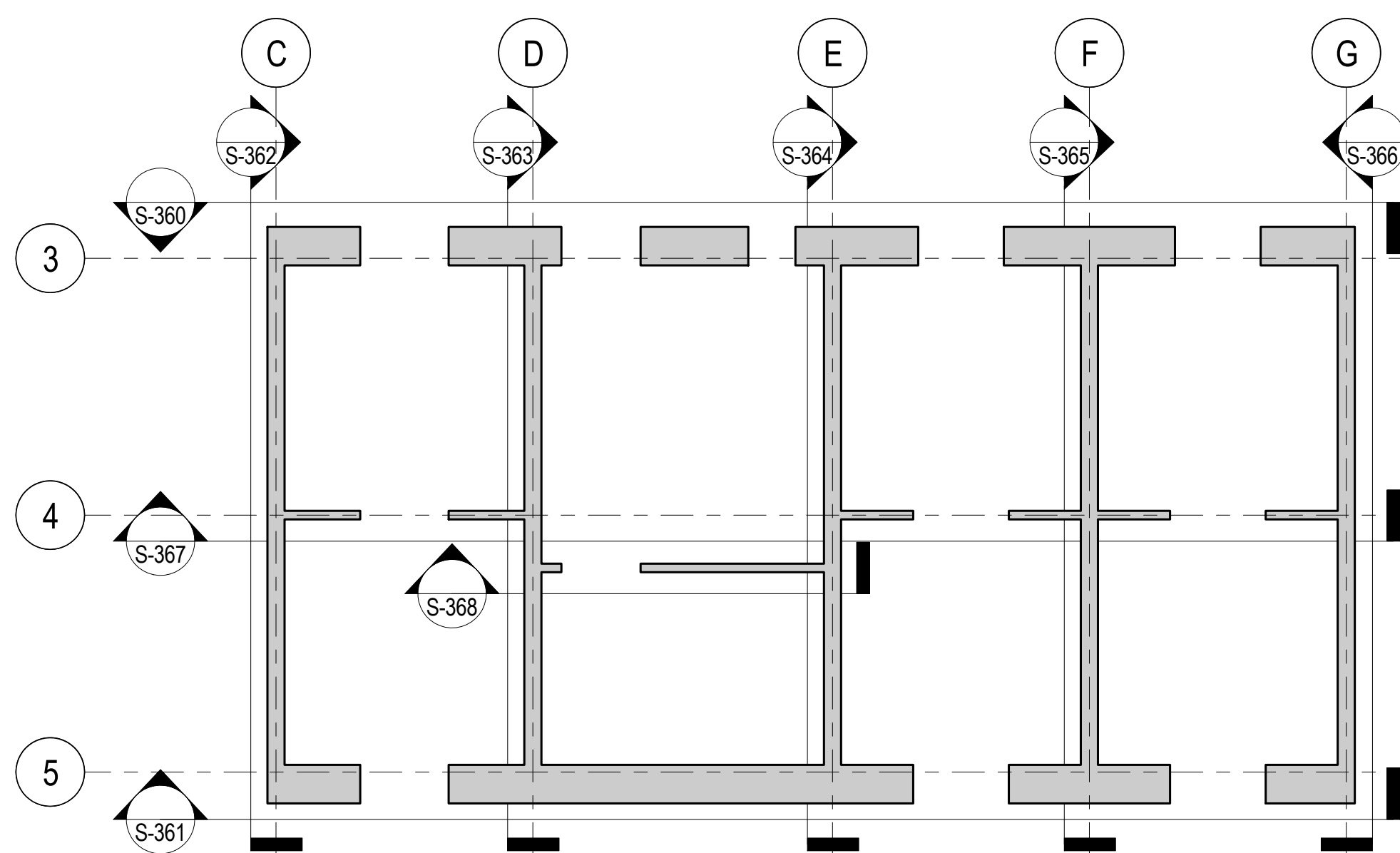
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Project No.:	B-SCAN Sheet No.:
211157	S-361.00

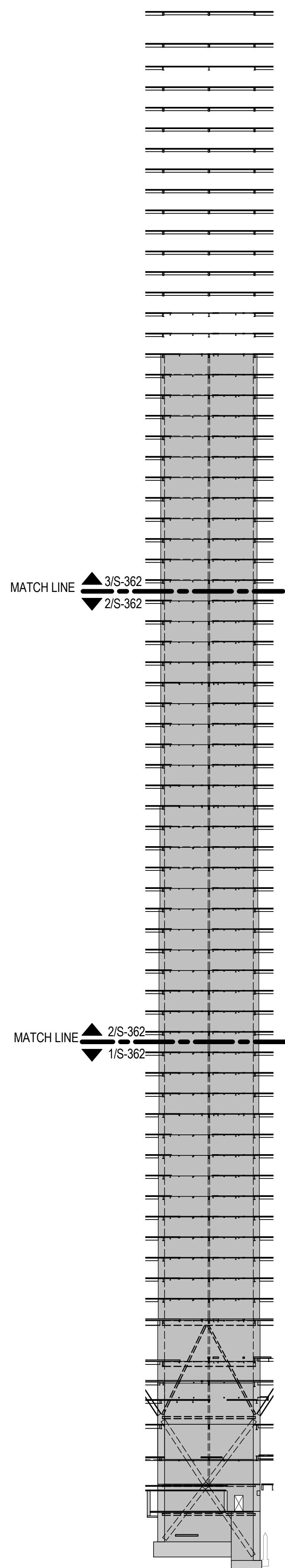
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20 JUN 2014	As Indicated

File No.:	Page No.:
S-361	65 of 90

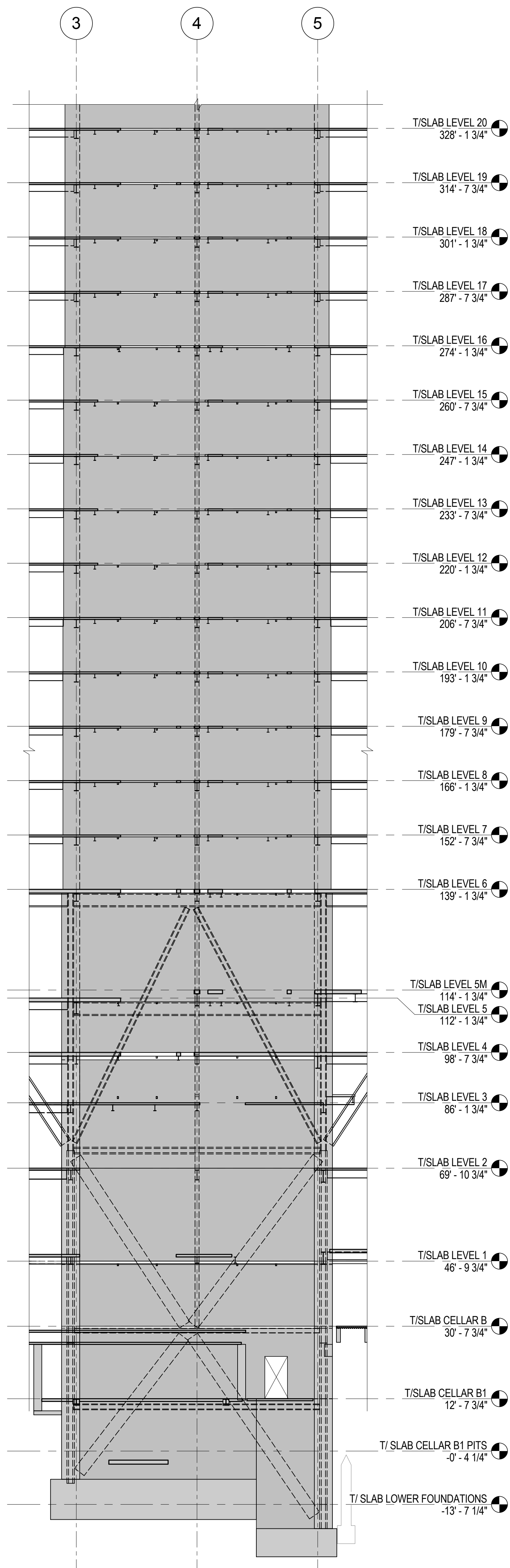




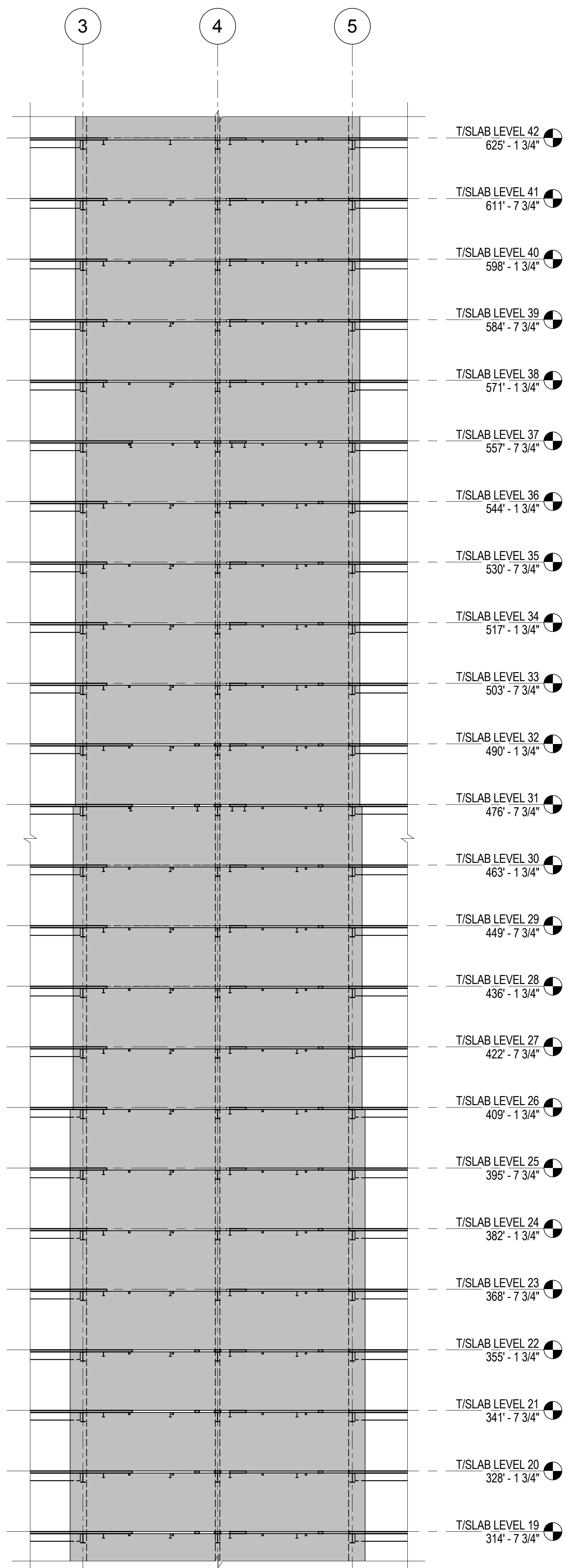
CORE WALL ELEVATION KEY PLAN  
NTS



ELEVATION KEY  
NTS



1 ELEVATION ALONG LINE C  
1/16" = 1'-0"



2 ELEVATION ALONG LINE C  
1/16" = 1'-0"



3 ELEVATION ALONG LINE C  
1/16" = 1'-0"



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680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:

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Project No.: 211157

Sheet No.: S-362

Date: 20 JUN 2014

Scale: As indicated

File No: S-362

Page No: 66 of 90

6 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT

5 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT

4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT

3 15 NOV 2013 ISSUED FOR 50% DESIGN DEVELOPMENT

2 12 JUL 2013 ISSUED FOR 60% DESIGN DEVELOPMENT

1 18 MAR 2012 ISSUED FOR RECONCILIATION

No. Date Description

Sheet Name

CORE WALL  
ELEVATIONS  
ALONG LINE C

Project No.: 211157

Sheet No.: S-362

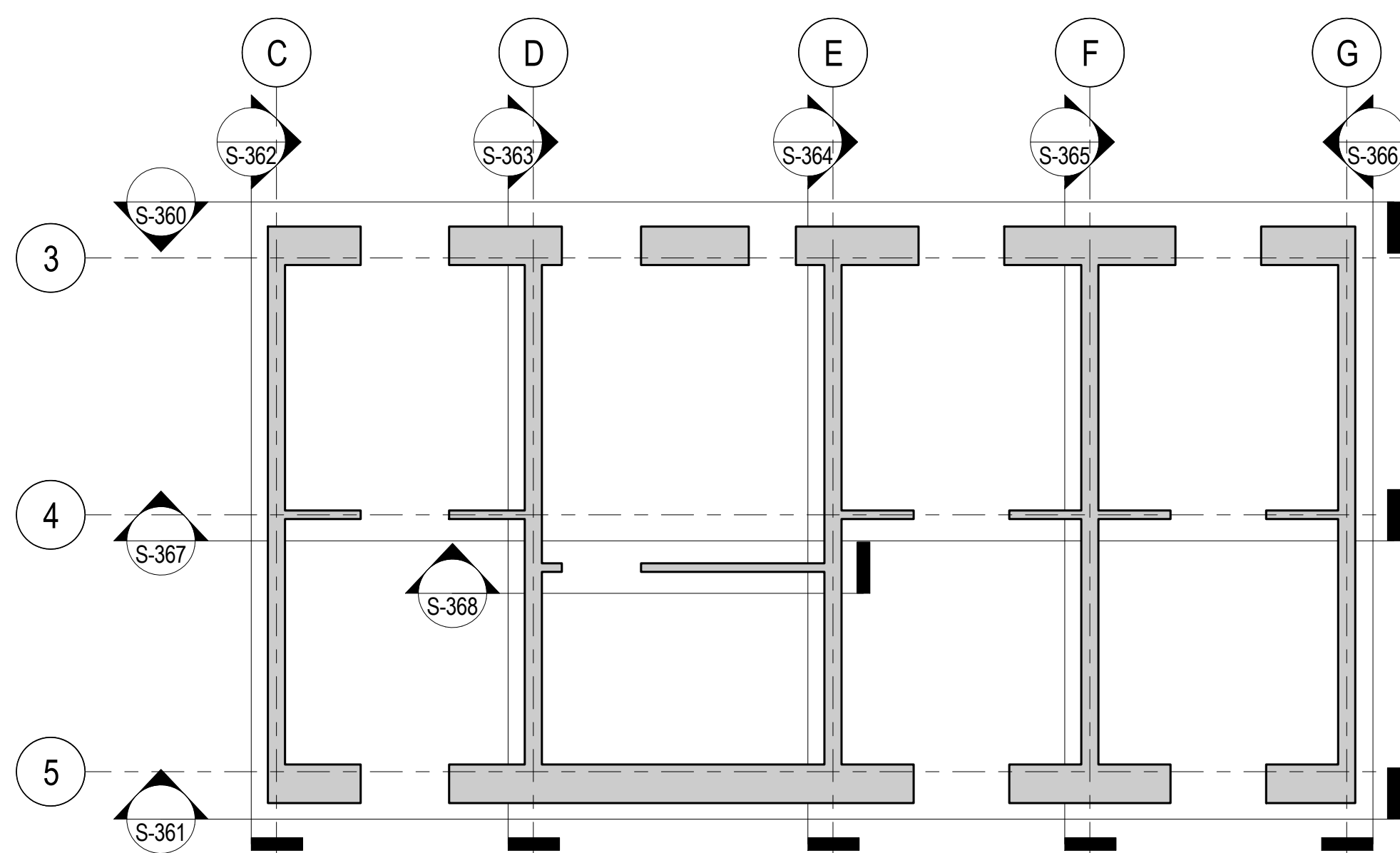
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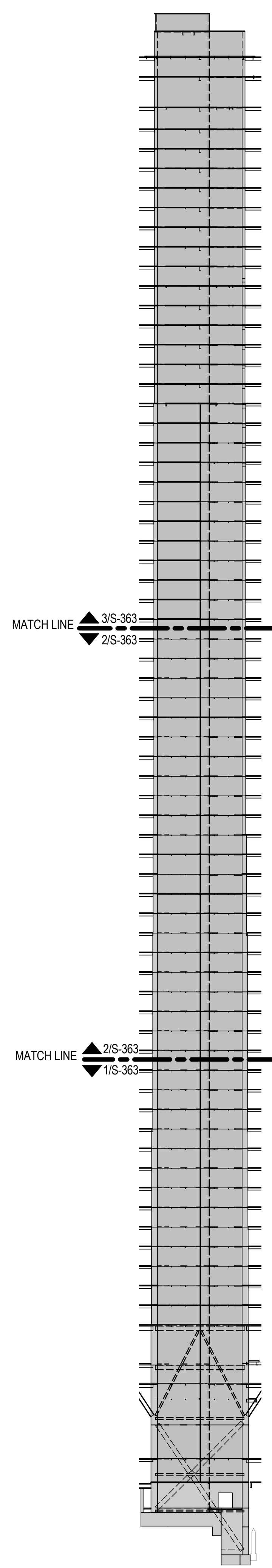
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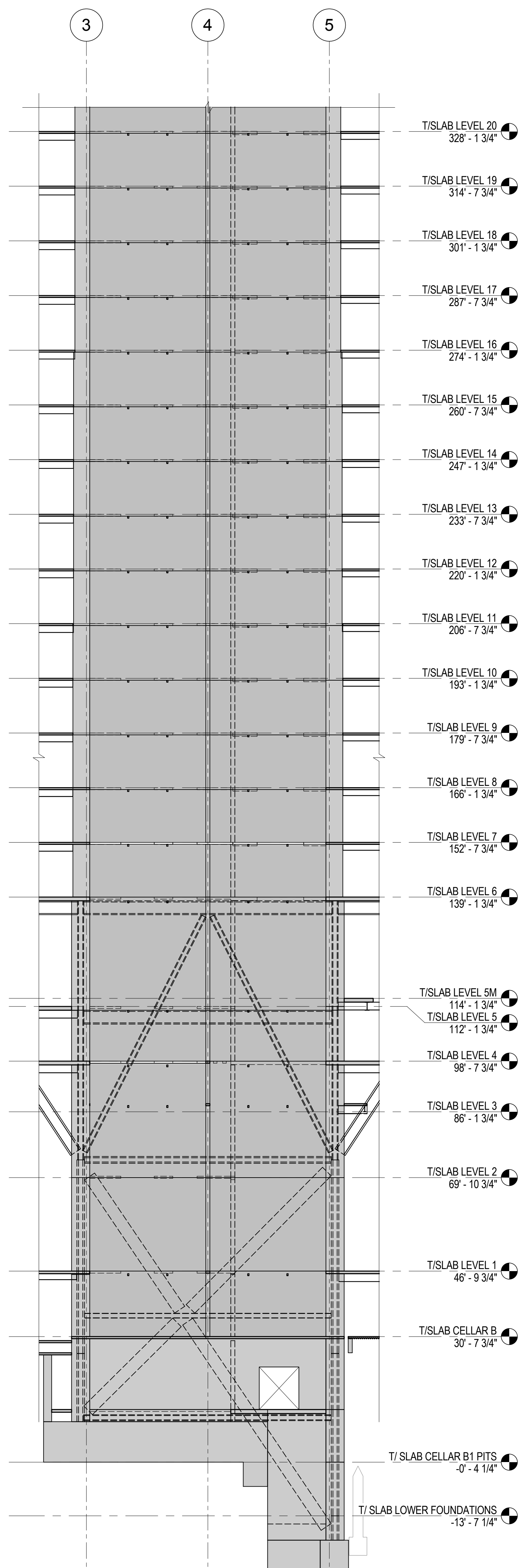




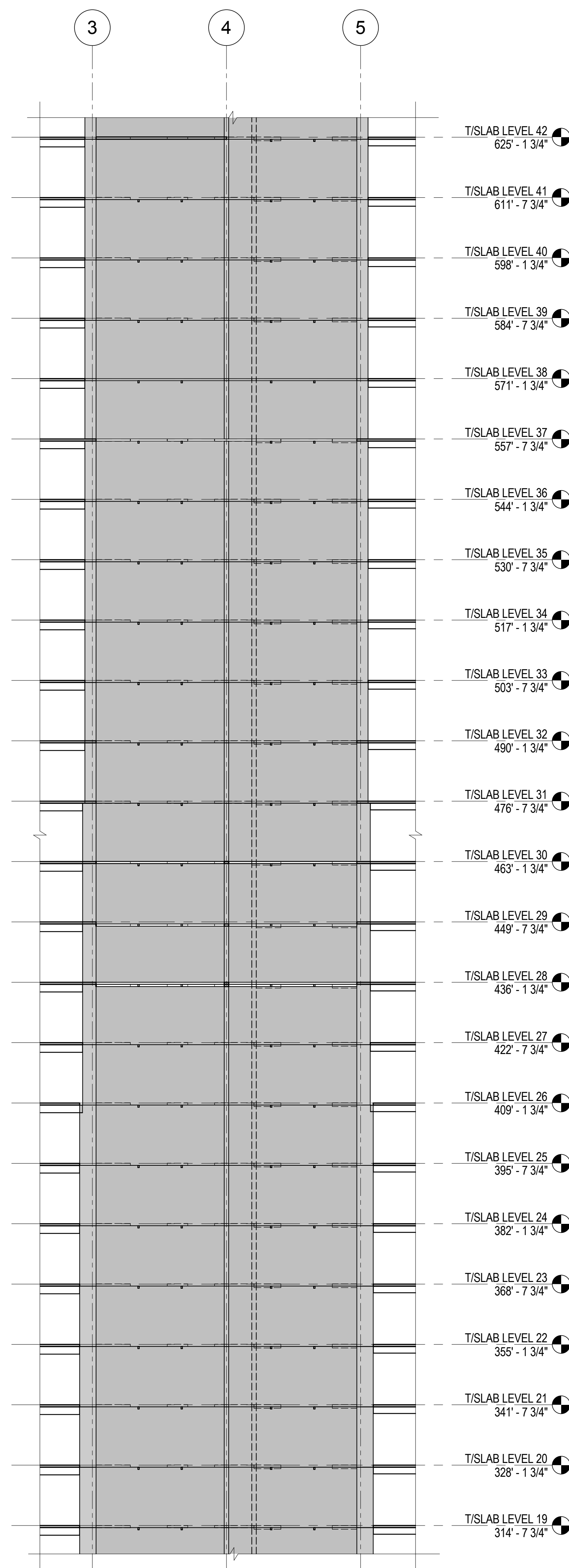
CORE WALL ELEVATION KEY PLAN  
NTS



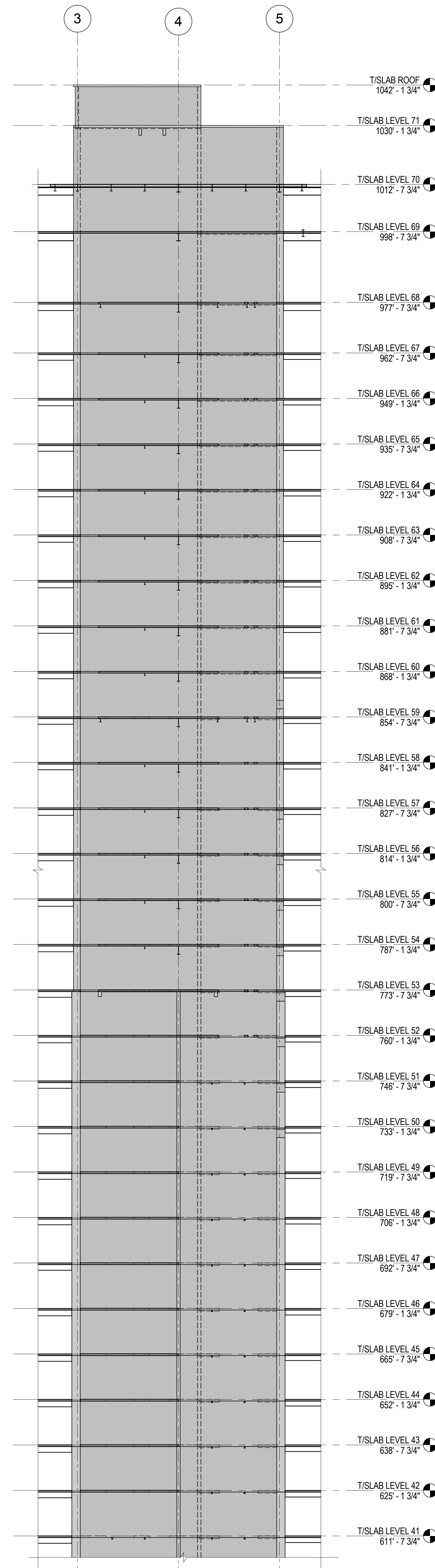
ELEVATION KEY  
NTS



1 ELEVATION ALONG LINE D  
1/16" = 1'-0"



2 ELEVATION ALONG LINE D  
1/16" = 1'-0"



3 ELEVATION ALONG LINE D  
1/16" = 1'-0"



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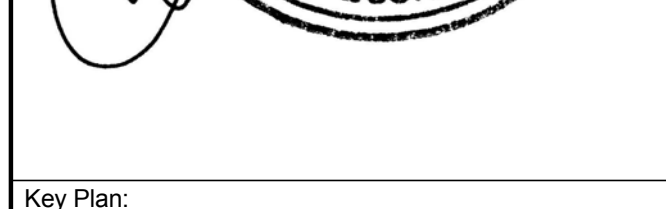
Acoustical Consultant  
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Key Plan:



Seal & Signature:

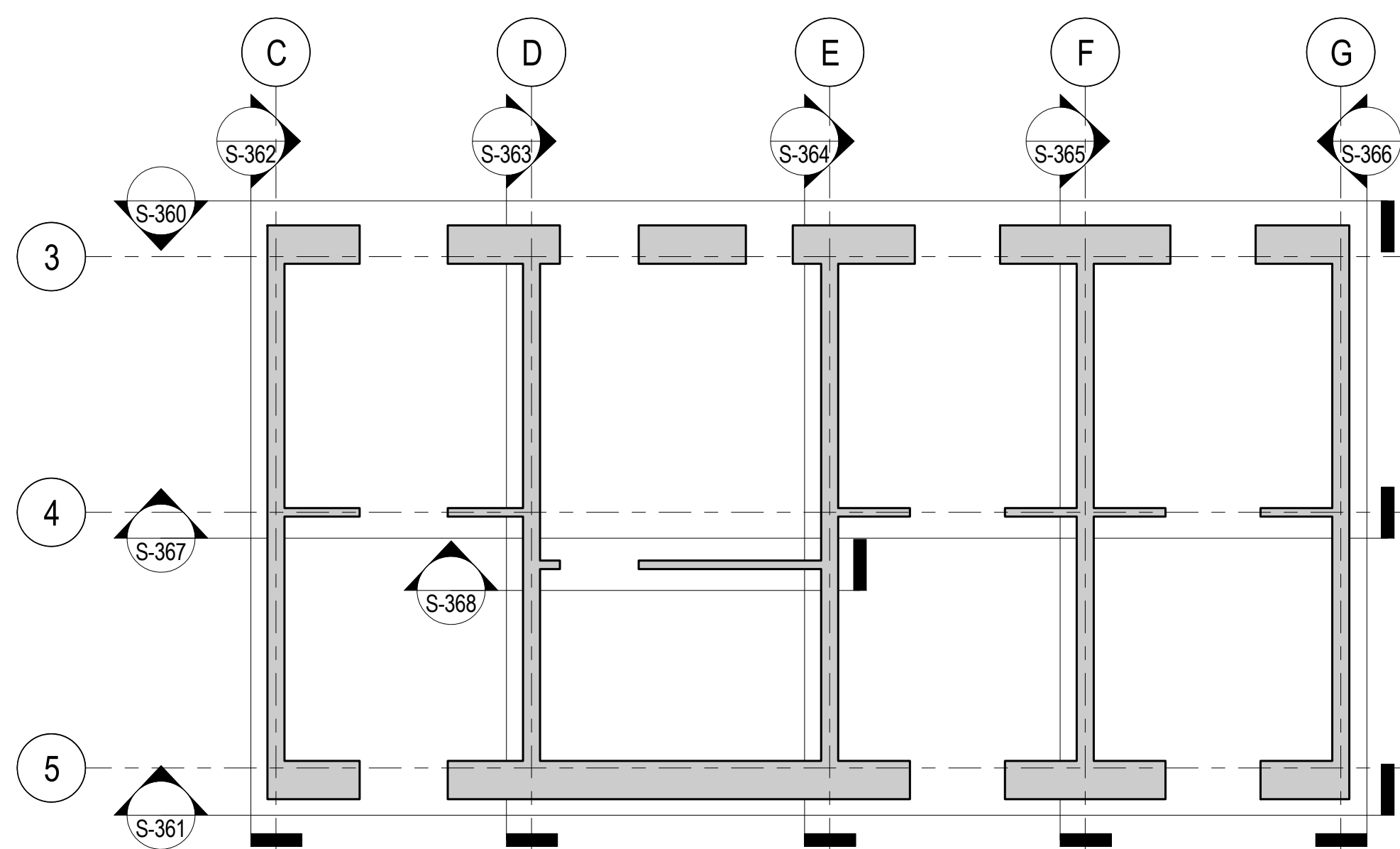
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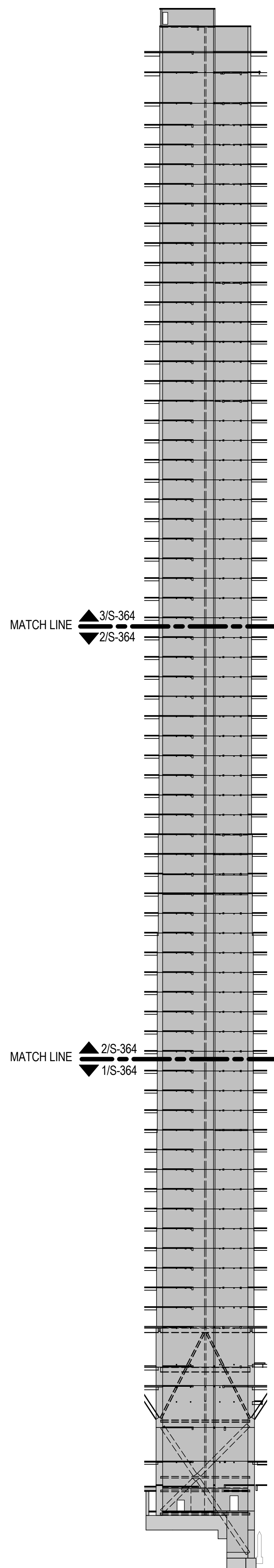
Sheet Name  
**CORE WALL  
ELEVATIONS  
ALONG LINE D**

Project No.: 211157	B-SCAN Sheet No.: <b>S-363.00</b>
Date: 20 JUN 2014	Sheet No.: S-363
Scale: As indicated	Page No.: 67 of 90
File No.: S-363	

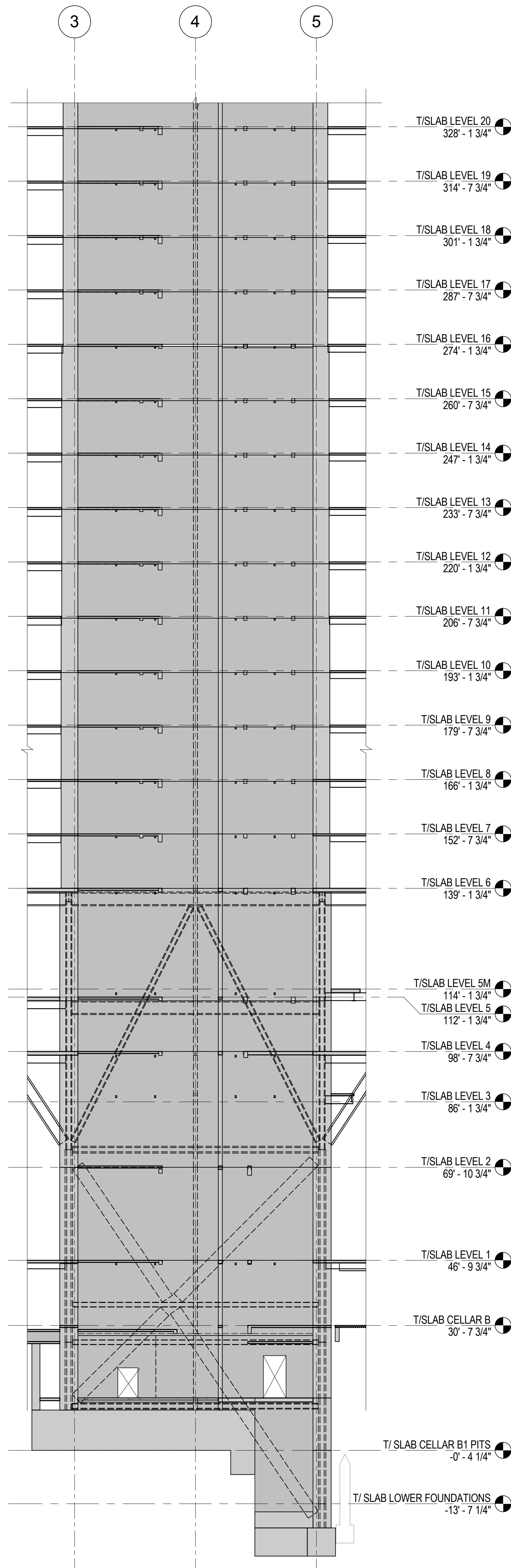




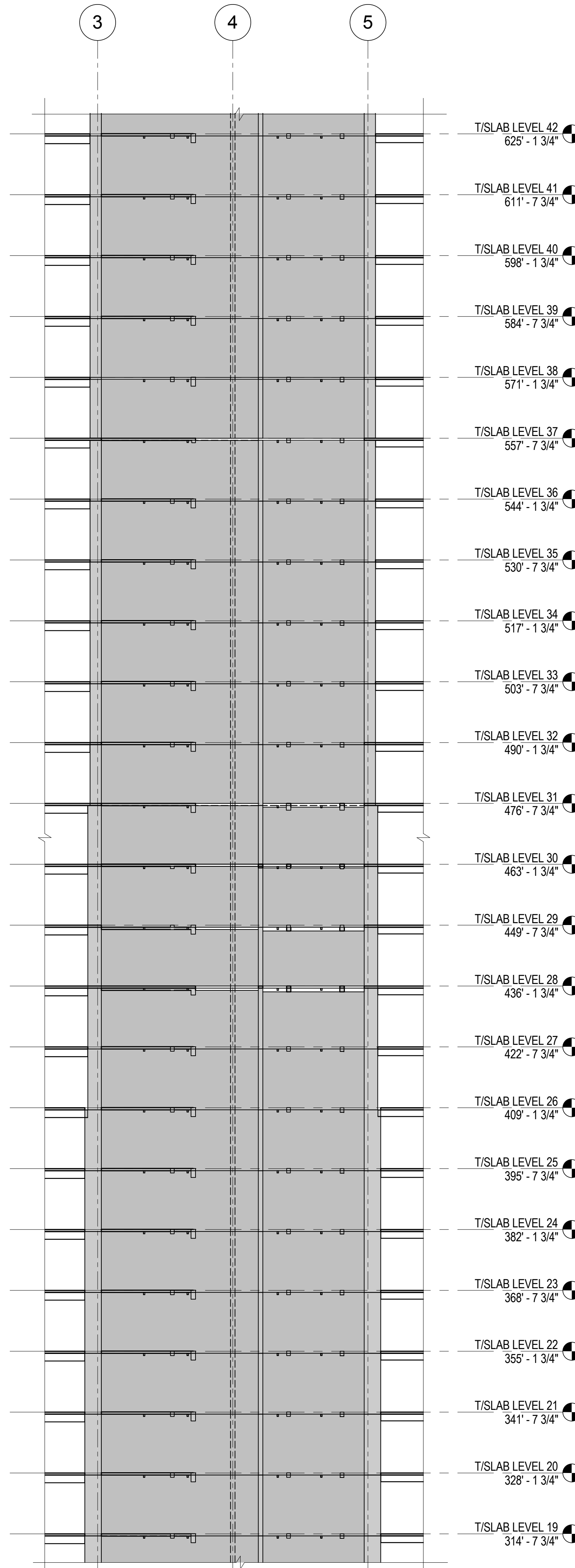
CORE WALL ELEVATION KEY PLAN  
NTS



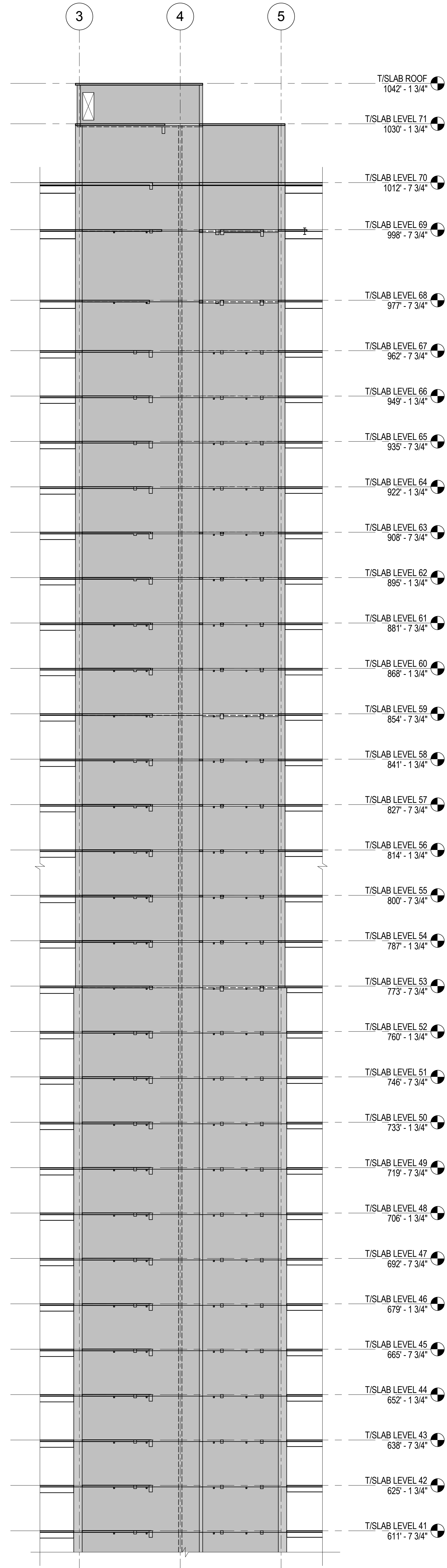
ELEVATION KEY  
N.T.S




1 ELEVATION ALONG LINE E  
1/16" = 1'-0"



2 ELEVATION ALONG LINE E  
1/16" = 1'-0"



3 ELEVATION ALONG LINE E  
1/16" = 1'-0"



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East 81st Street, Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 22nd W, 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant


Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

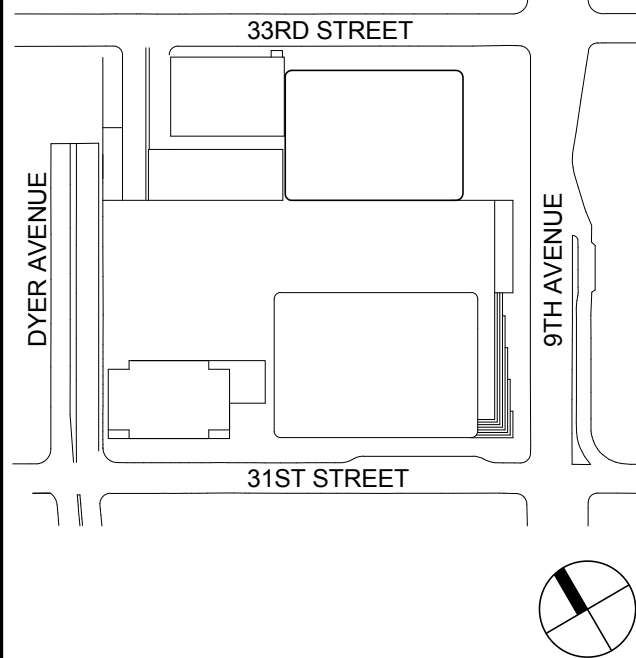
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6



Key Plan:



Seal & Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

No.	Date	Description
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 2D PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2012	ISSUED FOR RECONCILIATION

No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

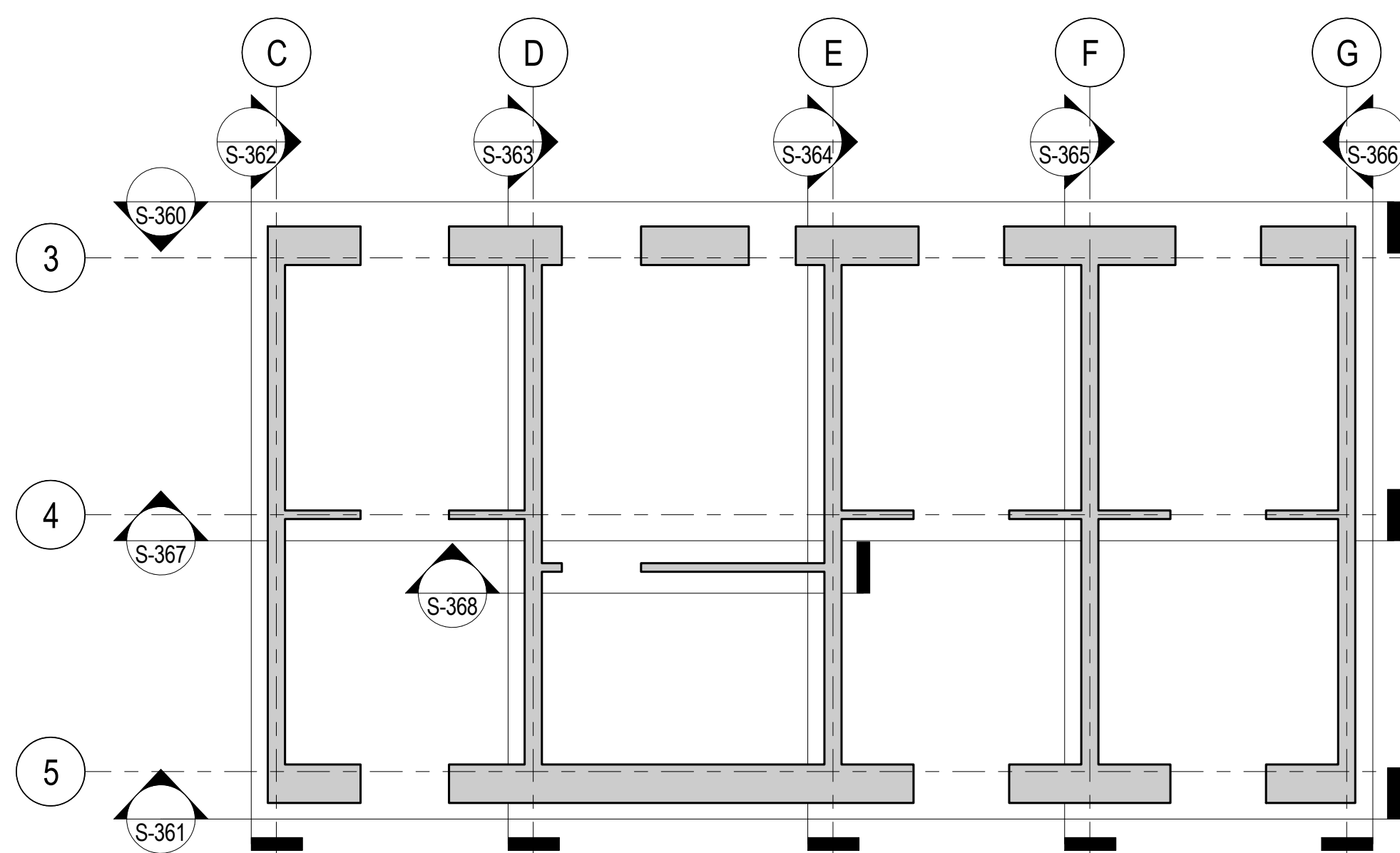
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Project No.:	B-SCAN Sheet No.:
211157	<b>S-364.00</b>

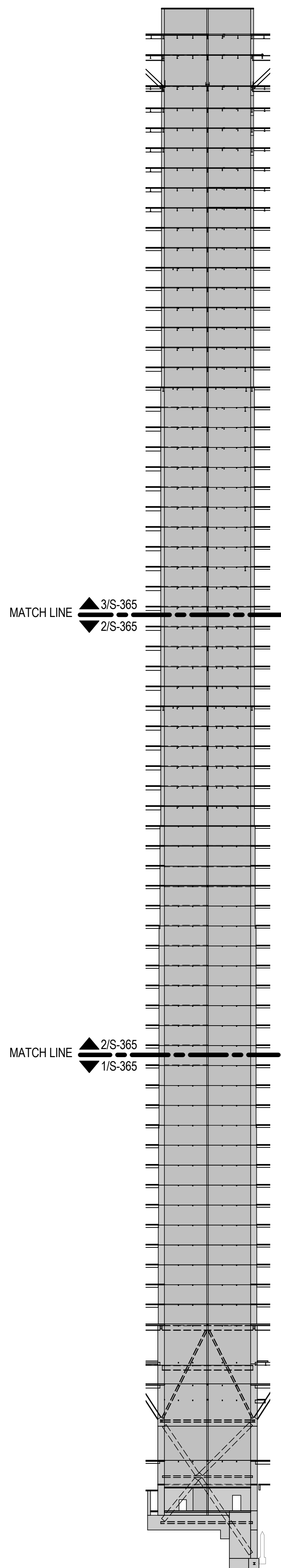
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20 JUN 2014	As Indicated	S-364

Page No.:	Page No.:
68 of 90	68 of 90

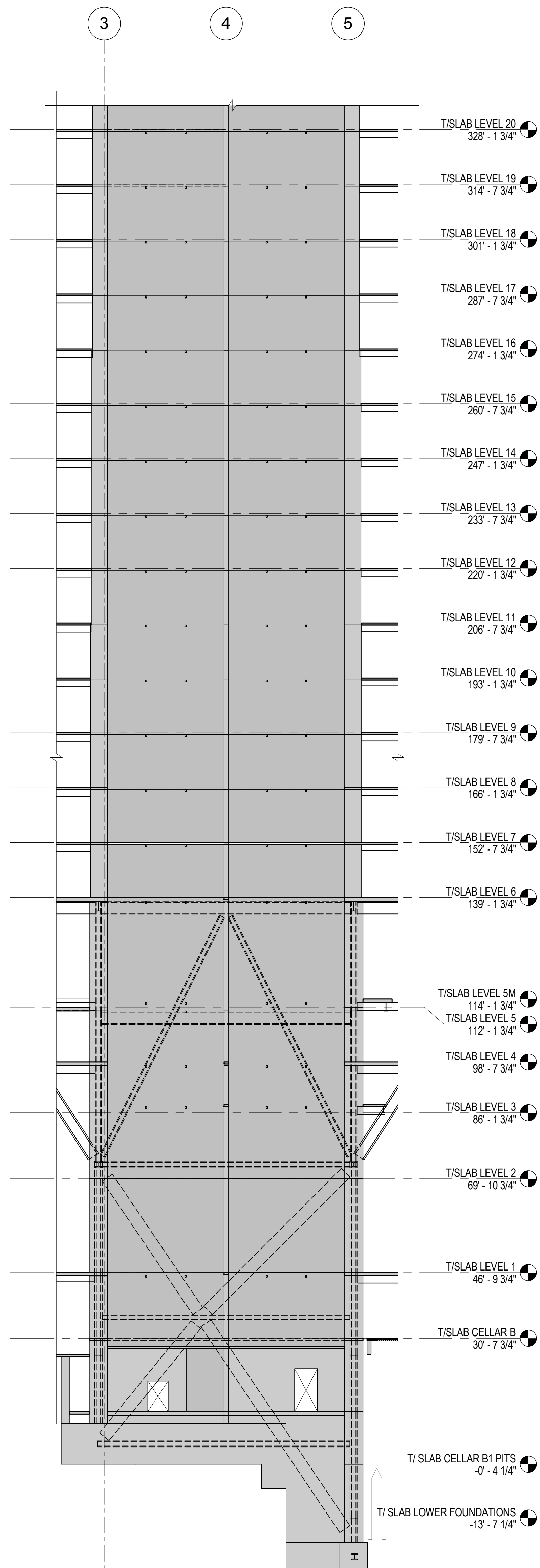




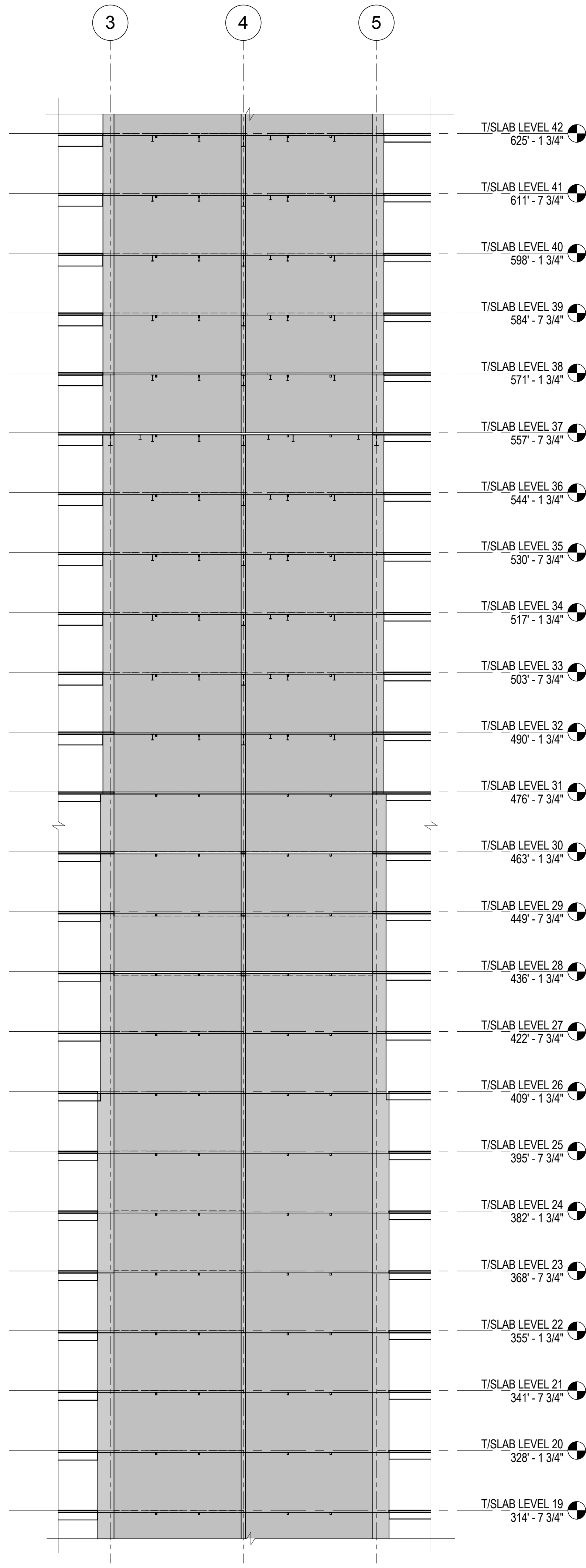
CORE WALL ELEVATION KEY PLAN  
NTS



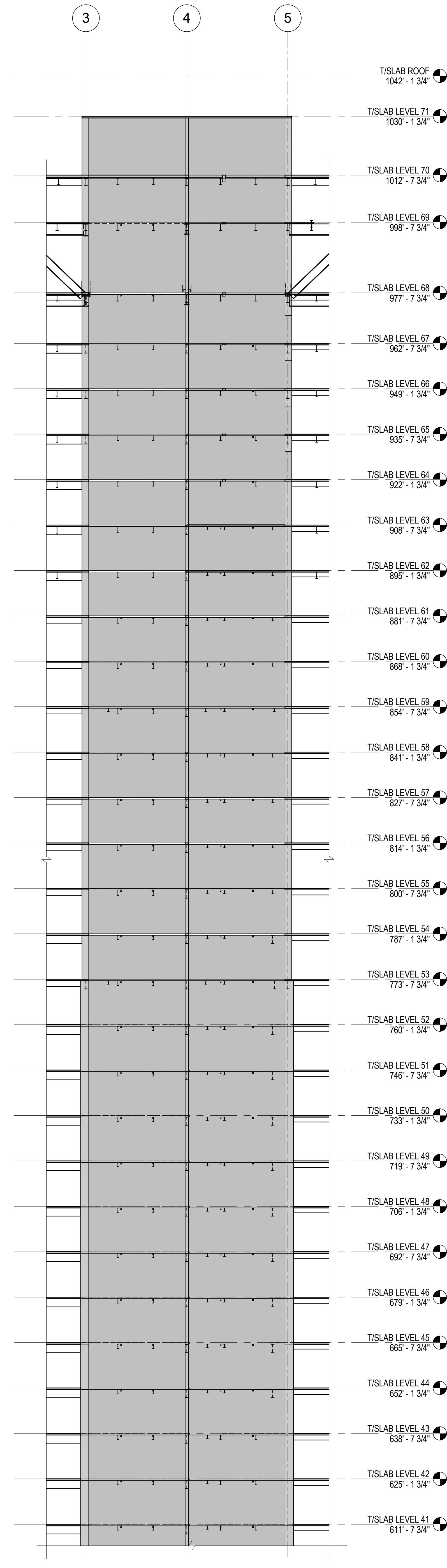
ELEVATION KEY  
NTS



1 ELEVATION ALONG LINE F  
1/16" = 1'-0"



2 ELEVATION ALONG LINE F  
1/16" = 1'-0"



3 ELEVATION ALONG LINE F  
1/16" = 1'-0"



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
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102 East 81st Street, Suite 1, Mill Valley, California 94041

Sustainable Design

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50 Washington Street, Newark, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 22nd W, 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations

Security Consultant

Ducibella, Vantor & Santore  
250 State Street #1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

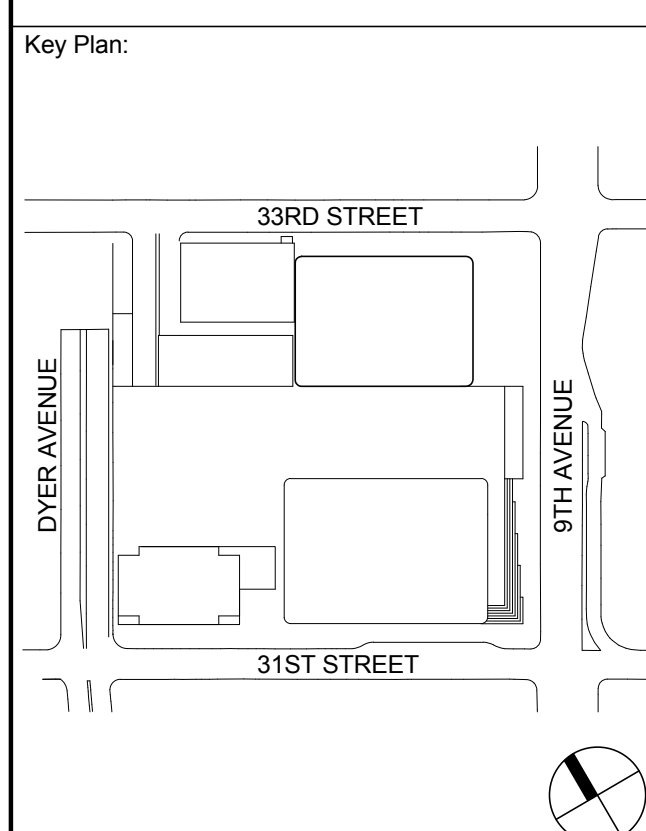
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal & Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

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2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name

**CORE WALL  
ELEVATIONS  
ALONG LINE F**

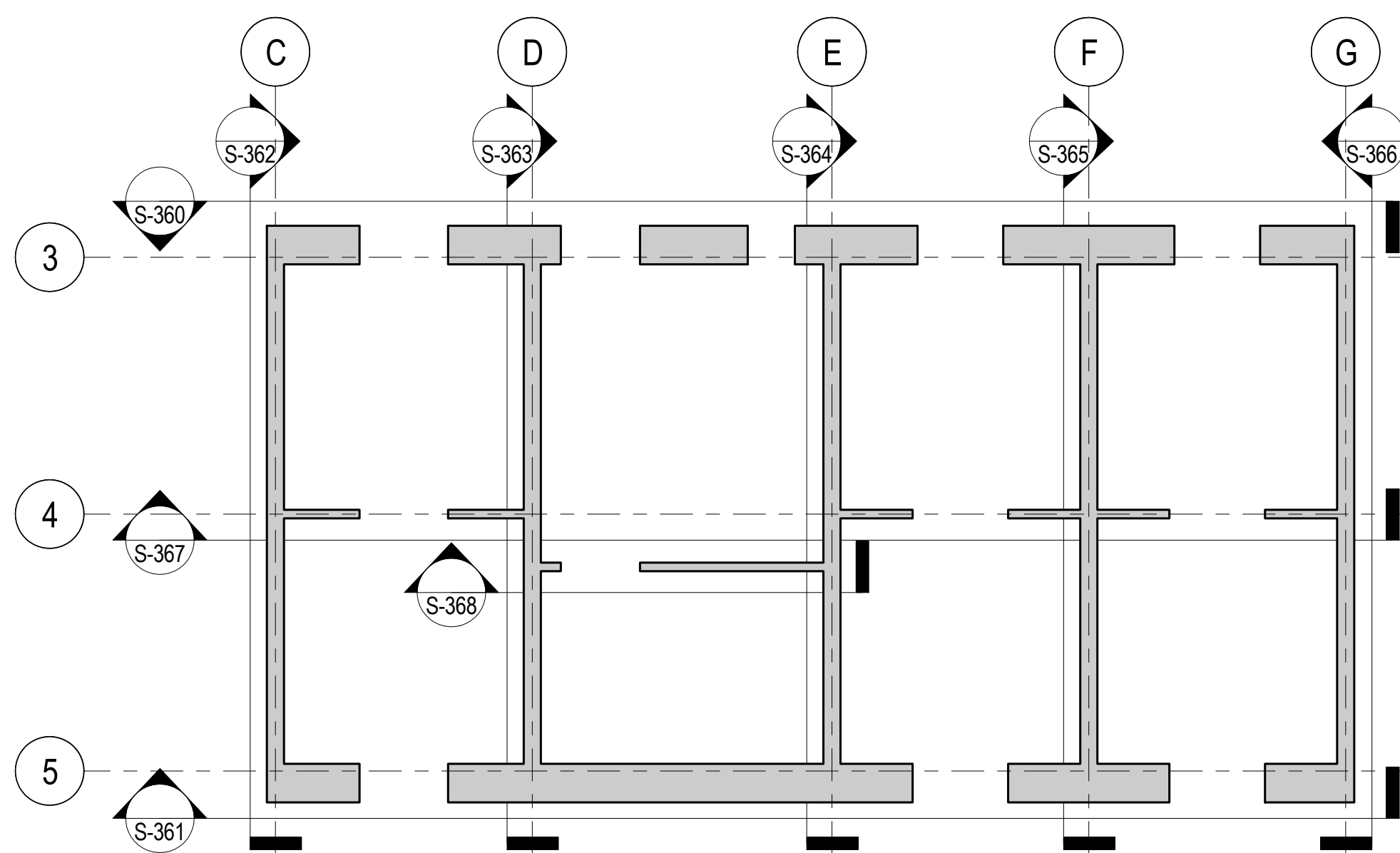
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Date: 20 JUN 2014 Sheet No.: S-365

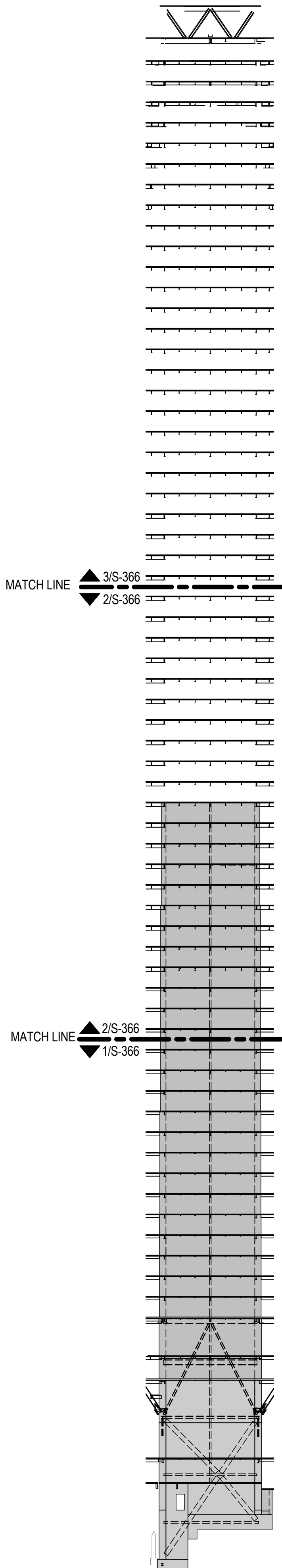
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File No: S-365

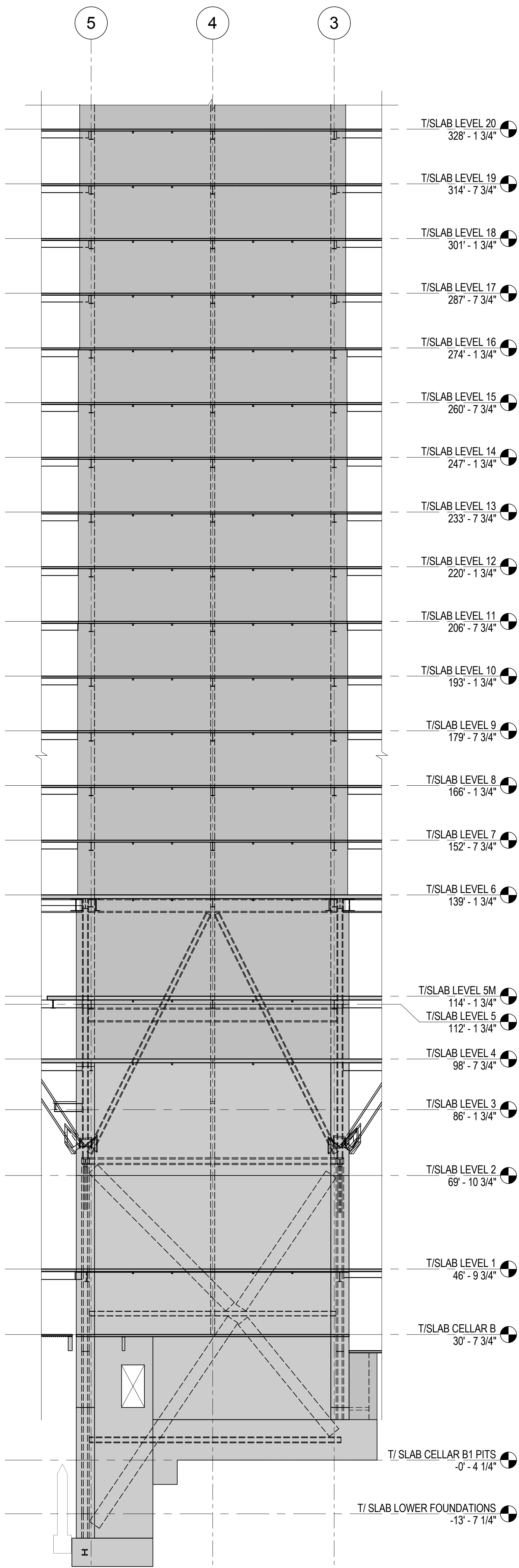




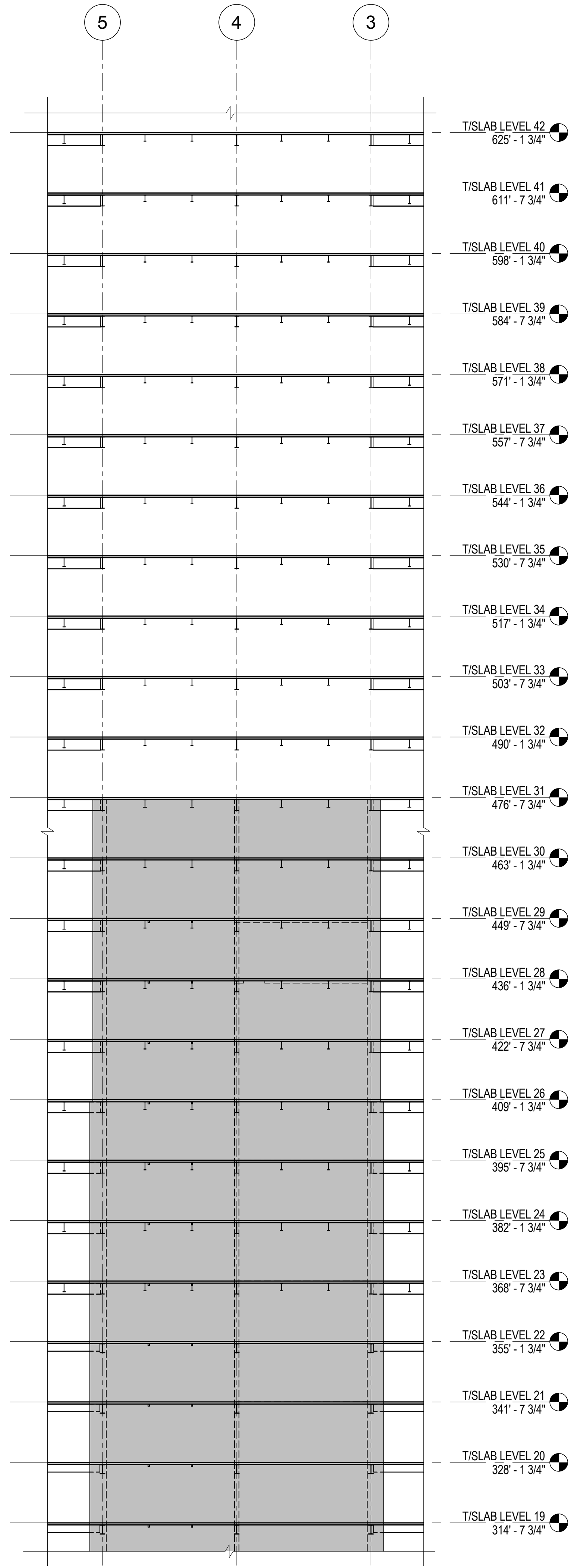
CORE WALL ELEVATION KEY PLAN  
NTS



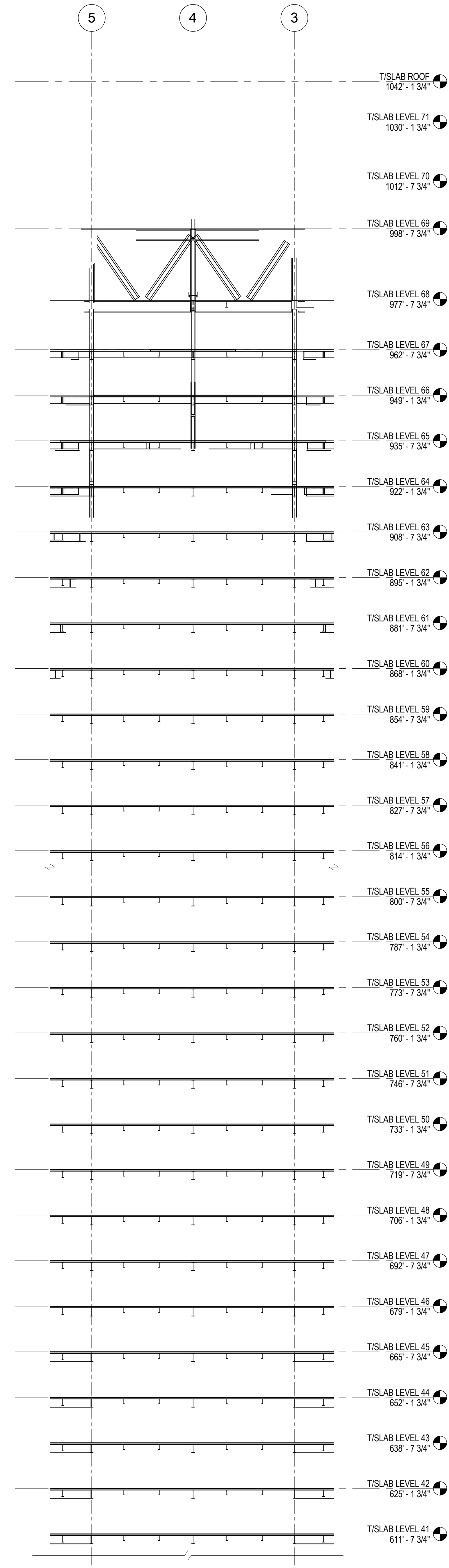
ELEVATION KEY  
NTS



1 ELEVATION KEY  
1/16" = 1'-0"



2 ELEVATION KEY  
1/16" = 1'-0"



3 ELEVATION KEY  
1/16" = 1'-0"



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client  
**Brookfield**

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

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**SOM**

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Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

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Edgett Williams Consulting Group, Inc.  
102 East 87th Street, Suite 1, Mill Valley, California 94040

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Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 22nd W, 34th Street #610,  
New York, NY 10122

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Ventor & Santore  
250 State Street #1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

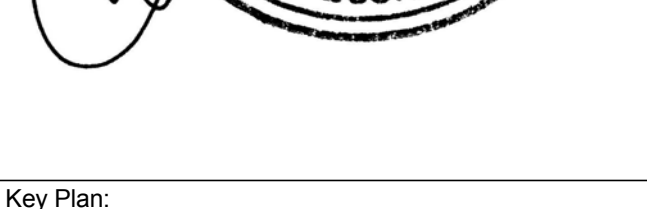
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

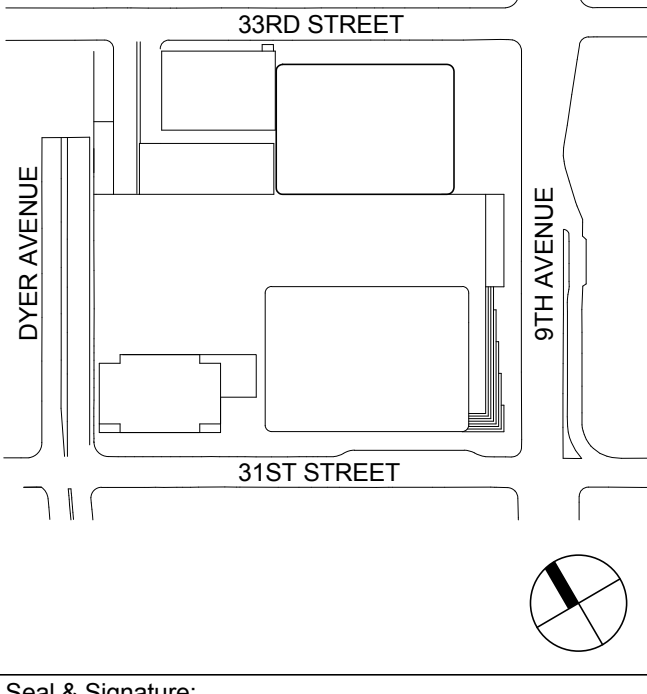
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal & Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

Project No.: 211157  
Date: 20 JUN 2014  
Scale: As indicated  
File No.: S-366

B-SCAN Sheet No.:  
Sheet No.: S-366  
Page No.: 70 of 90

6 20 JUN 2014 ISSUED FOR FOUNDATION BID  
5 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
3 15 NOV 2013 ISSUED FOR 50% DESIGN PERMIT  
2 12 JUL 2013 ISSUED FOR 60% DESIGN DEVELOPMENT  
1 18 MAR 2012 ISSUED FOR RECONCILIATION

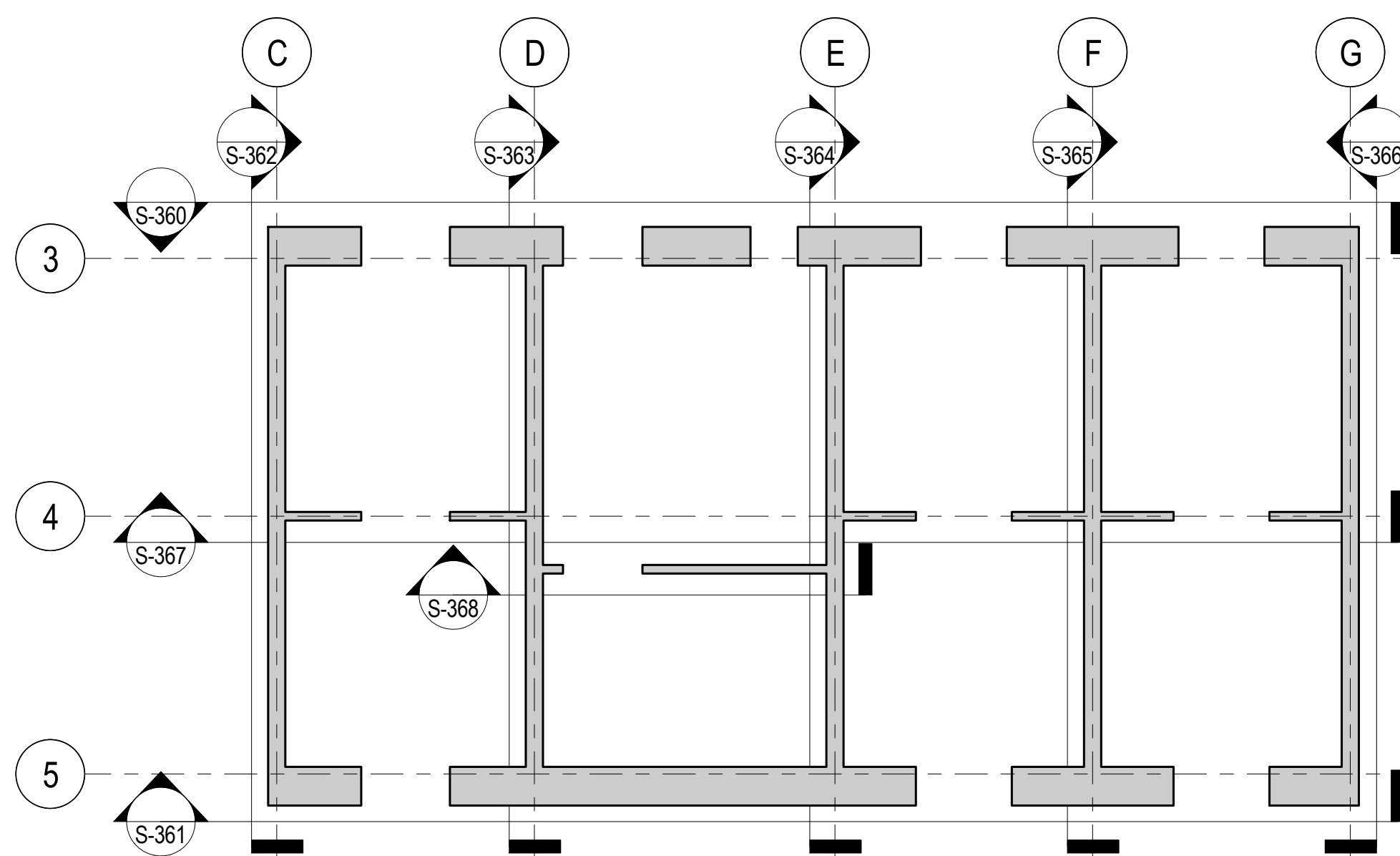
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Sheet Name

CORE WALL  
ELEVATIONS  
ALONG LINE G



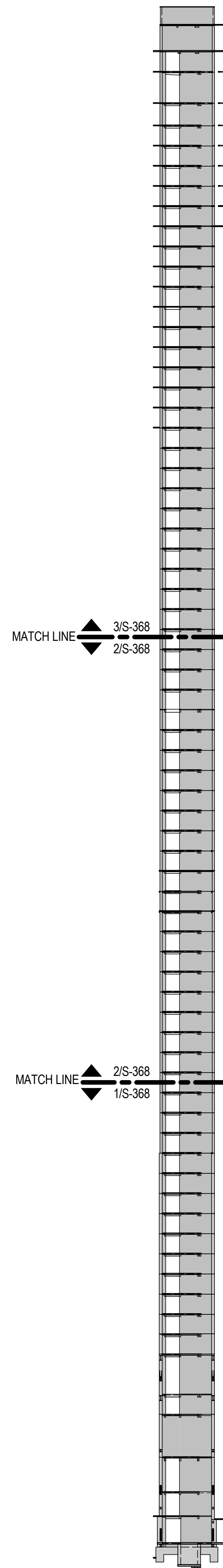
 <b>MANHATTAN WEST NORTH TOWER</b> 375 Ninth Avenue, New York, NY 10001 Client																						
<b>Brookfield</b> Brookfield Place 250 Vesey Street, 15th Floor, New York, NY 10281																						
Architecture/Structural Engineering <b>SOM</b> Skidmore, Owings & Merrill LLP 143 Wall Street, New York, NY 10005																						
Civil Engineering <b>Philip Habib &amp; Associates</b> 102 Madison Avenue #11, New Haven, CT 06510 MEP Engineering <b>Jaros Baum &amp; Bolles</b> 80 Pine Street, New York, NY 10005																						
Vertical Transportation <b>Edgett Williams Consulting Group, Inc.</b> 102 East Blithedale Ave., Suite 1, Mill Valley, California 949 Sustainable Design <b>Viridian Energy &amp; Environmental</b> 50 Washington Street, Norwalk, CT 06854																						
Geo-Technical Engineering <b>Mueser Rutledge Consulting Engineers</b> 14 Penn Plaza, 225 W. 34th Street #510, New York, NY 10122 Landscape Consultant <b>Field Operations</b> 475 10th Avenue, New York, NY 10018																						
Security Consultant <b>Ducibella, Vantor &amp; Santore</b> 250 State Street #F1, North Haven, CT 06473 Blast Consultant <b>Weidinger Associates, Inc.</b> 40 Wall Street, New York, NY 10005																						
Acoustical Consultant <b>Cerami &amp; Associates</b> 404 First Avenue #8, New York, NY 10018 Vibration Consultant <b>Wilson, Uhrig &amp; Associates, Inc.</b> 65 Broadway, Suite 401, New York, NY 10006																						
Code Consultant <b>Code Consultants Professional Engineers P.C.</b> 215 West 40th Street, 15th Floor, New York, NY 10018 Facade Maintenance Consultant <b>Entek Engineering LLC</b> 166 Ames Street, Hackensack, NJ 07601																						
Wind Tunnel Consultant <b>Rowan Williams Davies &amp; Irwin Inc.</b> 650 Woodlawn Road West, Guelph Ontario, Canada N1K 1B8																						
Key Plan: 																						
Seal & Signature:  <div>PRELIMINARY NOT FOR CONSTRUCTION</div>																						
<table border="1"><tr><td>No.</td><td>Date</td><td>Description</td></tr><tr><td>6</td><td>20 JUN 2014</td><td>ISSUED FOR FOUNDATION BID</td></tr><tr><td>5</td><td>20 JUN 2014</td><td>ISSUED FOR FOUNDATION PERMIT</td></tr><tr><td>4</td><td>20 DEC 2013</td><td>ISSUED FOR FOUNDATION PERMIT</td></tr><tr><td>3</td><td>15 NOV 2013</td><td>ISSUED FOR DD PROGRESS PRICING</td></tr><tr><td>2</td><td>12 JUL 2013</td><td>ISSUED FOR 90% DESIGN DEVELOPMENT</td></tr><tr><td>1</td><td>15 MAR 2013</td><td>ISSUED FOR RECONCILIATION</td></tr></table>		No.	Date	Description	6	20 JUN 2014	ISSUED FOR FOUNDATION BID	5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT	4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT	3	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING	2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT	1	15 MAR 2013	ISSUED FOR RECONCILIATION
No.	Date	Description																				
6	20 JUN 2014	ISSUED FOR FOUNDATION BID																				
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1	15 MAR 2013	ISSUED FOR RECONCILIATION																				
Sheet Name: <b>CORE WALL ELEVATIONS ALONG LINE 4</b>																						
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Project No.: 21157	B-SCAN Sheet No. <b>S-367.00</b>																					
Date: 20 JUN 2014	Sheet No.: <b>S-367</b>																					
Scale: As indicated	Page No.: 71 of 90																					
File No.: S_367																						





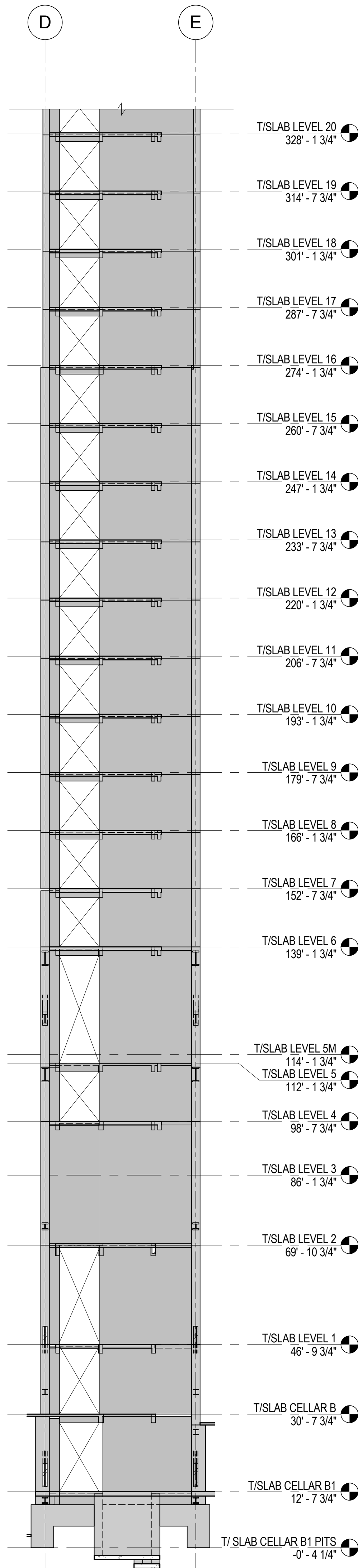
CORE WALL ELEVATION KEY PLAN

NTS



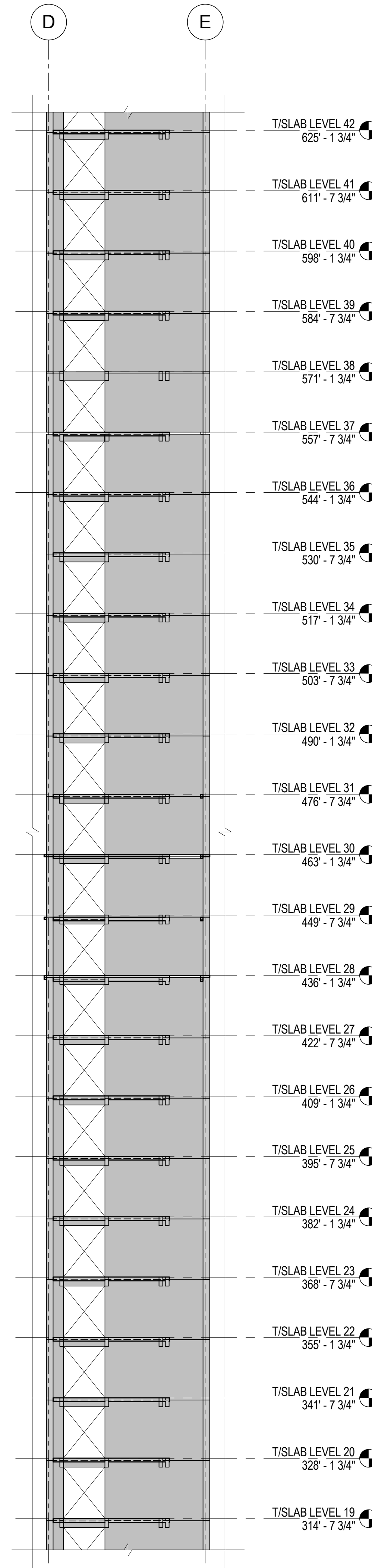
ELEVATION KEY

N.T.S.



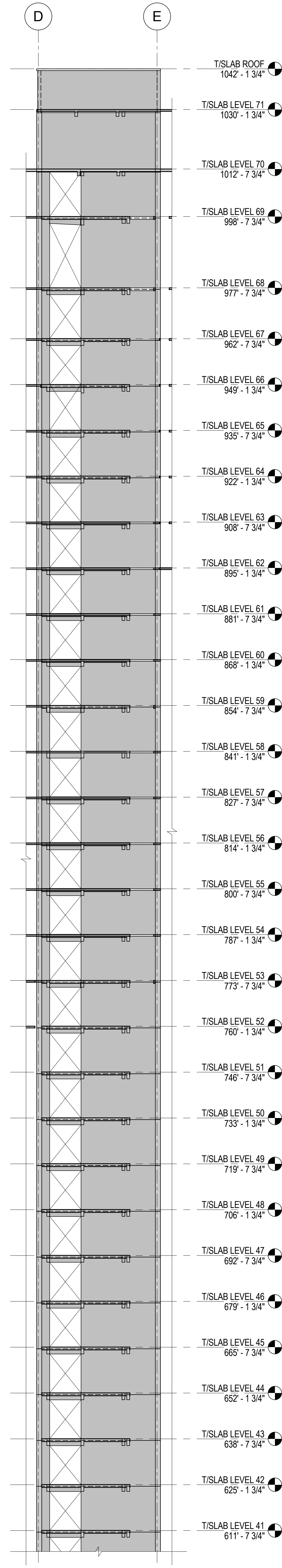
1 ELEVATION WITHIN SERVICE CORE BETWEEN LINES D & E

1/16" = 1'-0"




2 ELEVATION WITHIN SERVICE CORE BETWEEN LINES D & E

1/16" = 1'-0"




3 ELEVATION WITHIN SERVICE CORE BETWEEN LINES D & E

1/16" = 1'-0"




**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client



Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering



Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Bluffside Ave, Suite 1, Mill Valley, California 94941

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10022

Field Operations

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Security Consultant

Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473

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Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

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Vibration Consultant

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Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

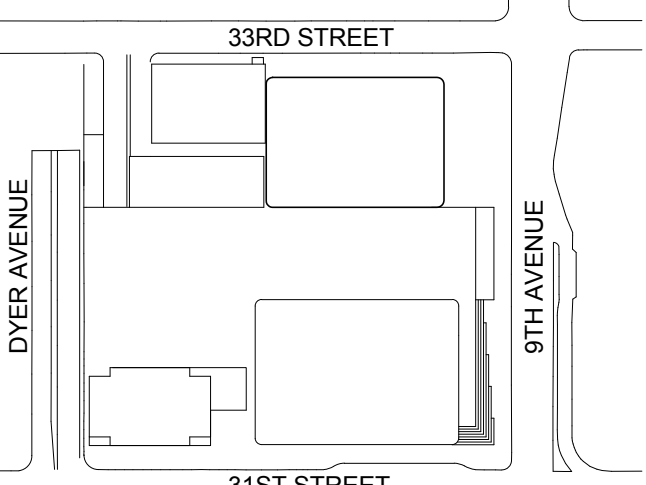
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal & Signature:

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No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

Sheet Name: **CORE WALL  
ELEVATIONS  
WITHIN SERVICE  
CORE BETWEEN  
LINES D & E**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-368.00</b>

Date:	Sheet No.:
20 JUN 2014	<b>S-368</b>

Scale:	Page No.:
As Indicated	72 of 90



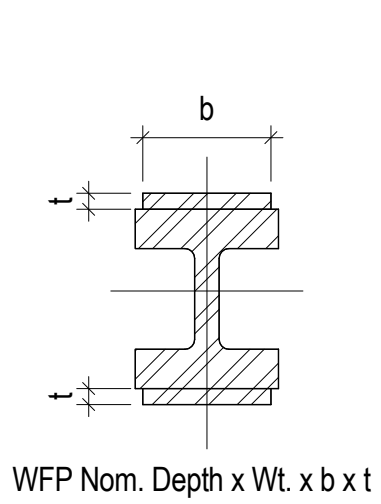




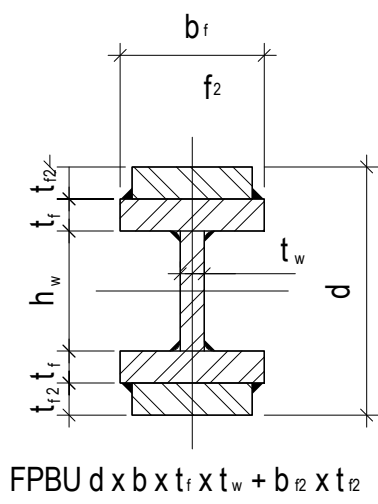




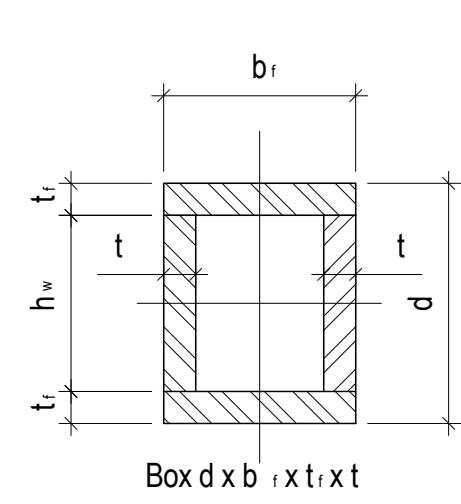
STRUCTURAL STEEL COLUMN SCHEDULE OF NE TOWER										W14 COLUMNS: ASTM A913-GRADE 65 PLATE MATERIAL: ASTM A572 GR 50, TYP. U.N.O.	
GRID LOCATION											
FLOOR LEVEL	A-3, A-5	A-4	B-1, B-7	TC-1, TC-7	TC-3, TC-4, TC-5	C-1, C-7, D-1, D-7, E-1, E-7	F-1, F-7	C-1-3, C-1-4, C-1-5	G-1, G-7	F-5-3, F-5-4, F-5-5	
ROOF LEVEL EL. SEE PLAN	W14X61	W14X61	W14X90	W14X90	W14X61	W14X61	W14X61	--	--	--	
LEVEL 71 EL. SEE PLAN	W14X61	W14X61	W14X90	W14X90	W14X61	W14X61	W14X61	--	--	--	
LEVEL 70 EL. SEE PLAN	W14X61	W14X61	W14X90	W14X90	W14X61	W14X61	W14X61	--	--	--	
LEVEL 69 EL. SEE PLAN	W14X61	W14X61	W14X90	W14X90	W14X61	W14X61	W14X61	--	--	--	
LEVEL 68 EL. SEE PLAN	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	SEE NOTE 1	W14X109	--	--	
LEVEL 67 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X109	--	--	
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LEVEL 65 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X109	--	--	
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LEVEL 61 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X109	--	--	
LEVEL 60 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X109	--	--	
LEVEL 59 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X109	--	--	
LEVEL 58 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X159	--	--	
LEVEL 57 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X159	--	--	
LEVEL 56 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X159	--	--	
LEVEL 55 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X193	--	--	
LEVEL 54 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X193	--	--	
LEVEL 53 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	W14X233	--	--	
LEVEL 52 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X61
LEVEL 51 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X61
LEVEL 50 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X61
LEVEL 49 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X61
LEVEL 48 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X61
LEVEL 47 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X61
LEVEL 46 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X61
LEVEL 45 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	--	--	W14X90
LEVEL 44 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X159	W14X90	
LEVEL 43 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X159	W14X90	
LEVEL 42 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X159	W14X132	
LEVEL 41 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X159	W14X132	
LEVEL 40 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X159	W14X132	
LEVEL 39 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X159	W14X159	
LEVEL 38 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X211	W14X159	
LEVEL 37 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X211	W14X159	
LEVEL 36 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X211	W14X211	
LEVEL 35 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X283	W14X211	
LEVEL 34 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X283	W14X211	
LEVEL 33 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X283	W14X211	
LEVEL 32 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X283	W14X283	
LEVEL 31 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X342	W14X283	
LEVEL 30 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X342	--	
LEVEL 29 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X342	--	
LEVEL 28 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X342	--	
LEVEL 27 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X426	--	
LEVEL 26 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X426	--	
LEVEL 25 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X426	--	
LEVEL 24 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X426	--	
LEVEL 23 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X426	--	
LEVEL 22 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X426	--	
LEVEL 21 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X500	--	
LEVEL 20 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X500	--	
LEVEL 19 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X500	--	
LEVEL 18 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X500	--	
LEVEL 17 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X500	--	
LEVEL 16 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X500	--	
LEVEL 15 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X550	--	
LEVEL 14 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X550	--	
LEVEL 13 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X550	--	
LEVEL 12 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X455	W14X665	W14X665	W14X665	--	W14X550	--	
LEVEL 11 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X500	W14X665	W14X665	W14X665	--	W14X605	--	
LEVEL 10 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X500	W14X730	W14X665	W14X665	--	W14X605	--	
LEVEL 09 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X2	W14X500	W14X730	W14X665	W14X665	--	W14X605	--	
LEVEL 08 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X3	W14X500	W14X730	W14X730	W14X730	--	W14X730	--	
LEVEL 07 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X3	W14X500	W14X730	W14X730	W14X730	--	W14X730	--	
LEVEL 06 EL. SEE PLAN	W14X665	W14X665	WFP 14X730X16X3	W14X500	WFP 14X730X16X1	W14X730	W14X730	--	W14X730	--	
LEVEL 05 EL. SEE PLAN	WFP 14X730X16X1	W14X730	DP BOX 24X24X3	DP BOX 24X24X3 25X3 25	DP BOX 24X24X2 5X2 5	DP BOX 24X24X2 5X2 5	BOX 24X24X4X4	--	DP BOX 24X24X3X3	--	
LEVEL 04 EL. SEE PLAN	WFP 14X730X16X1	W14X730	DP BOX 24X24X3	DP BOX 24X24X3 25X3 25	DP BOX 24X24X2 5X2 5	DP BOX 24X24X2 5X2 5	BOX 24X24X4X4	--	DP BOX 24X24X3X3	--	
LEVEL 03 EL. SEE PLAN	SEE NOTE 2	SEE NOTE 2	W14X132	W14X132	SEE NOTE 3	W14X132	W14X132	--	W14X132	--	
LEVEL 02 EL. SEE PLAN	SEE NOTE 2	SEE NOTE 2	W14X132	W14X132	SEE NOTE 3	W14X132	W14X132	--	W14X132	--	
LEVEL 01 EL. SEE PLAN	SEE NOTE 2	SEE NOTE 2	HSS 12X12X1/2	HSS 12X12X1/2	DP BOX 24X24X3X3	HSS 12X12X1/2	HSS 12X12X1/2	--	HSS 12X12X1/2	--	
1. REFER TO S-416 FOR UPPER BELT TRUSS COLUMN SCHEDULE. 2. REFER TO S-409 FOR COLUMN SCHEDULE ALONG GRID A BELOW LEVEL 6. 3. REFER TO S-415 FOR COLUMN SCHEDULE ALONG GRID J ON LOWER BELT TRUSS.											



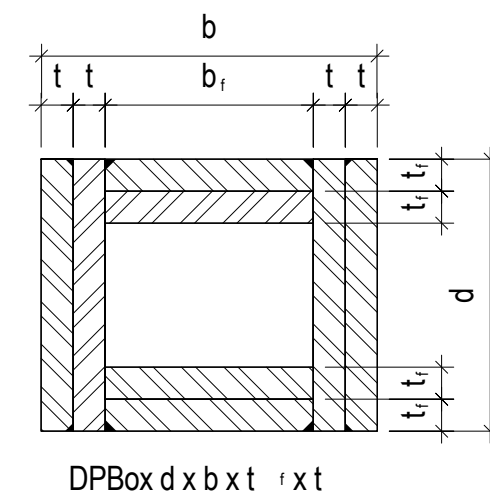
WFP Nom. Depth x Wt. x b x t



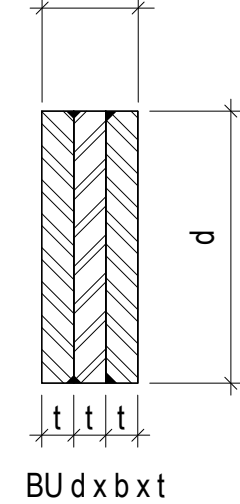
FPBU d x b x t x t1 + b x t1



Box d x b x t x t



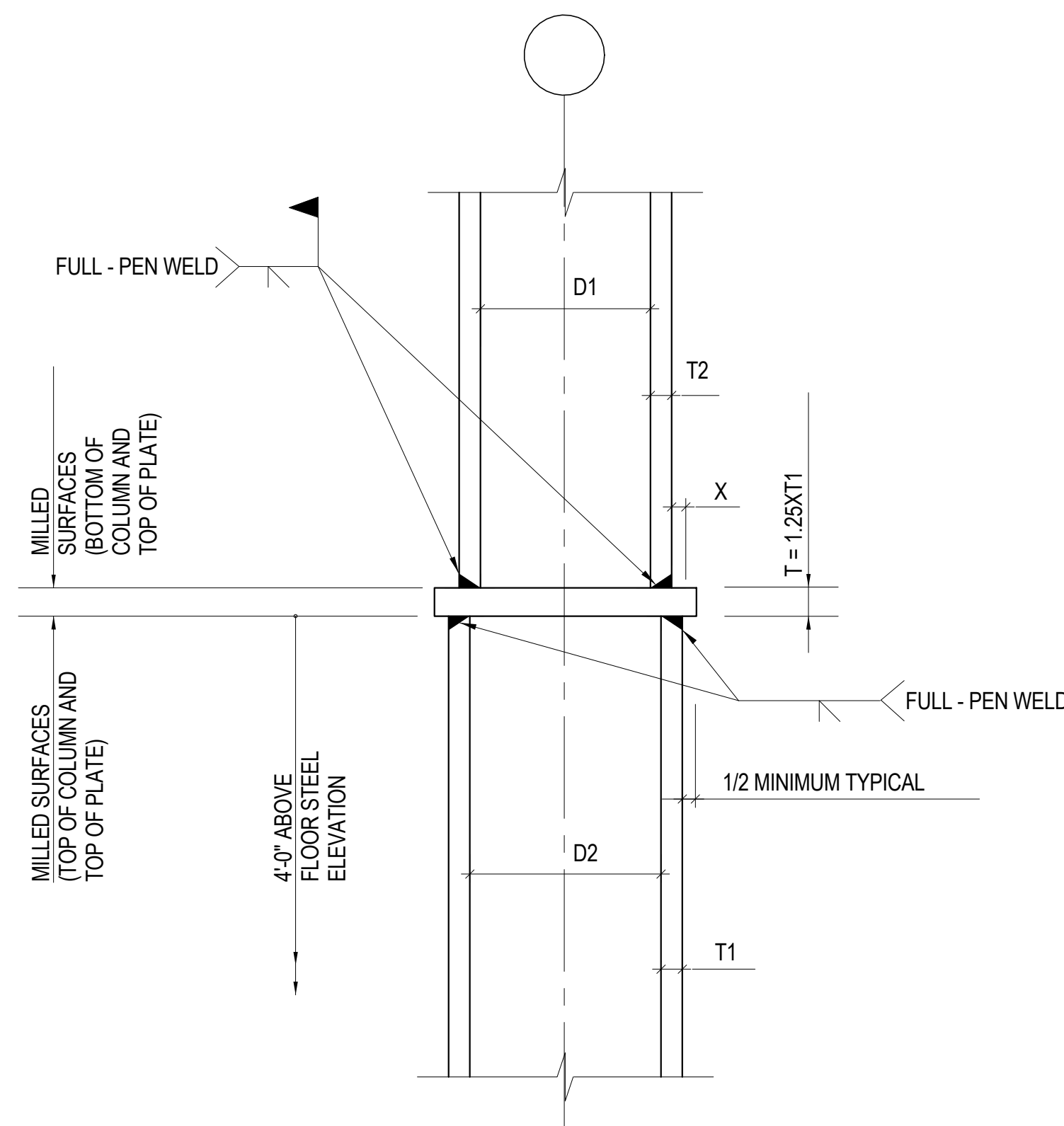
DPBox d x b x t1 x t



BU d x b x t

## 1 NOMENCLATURE FOR BUILT-UP COLUMN SECTIONS

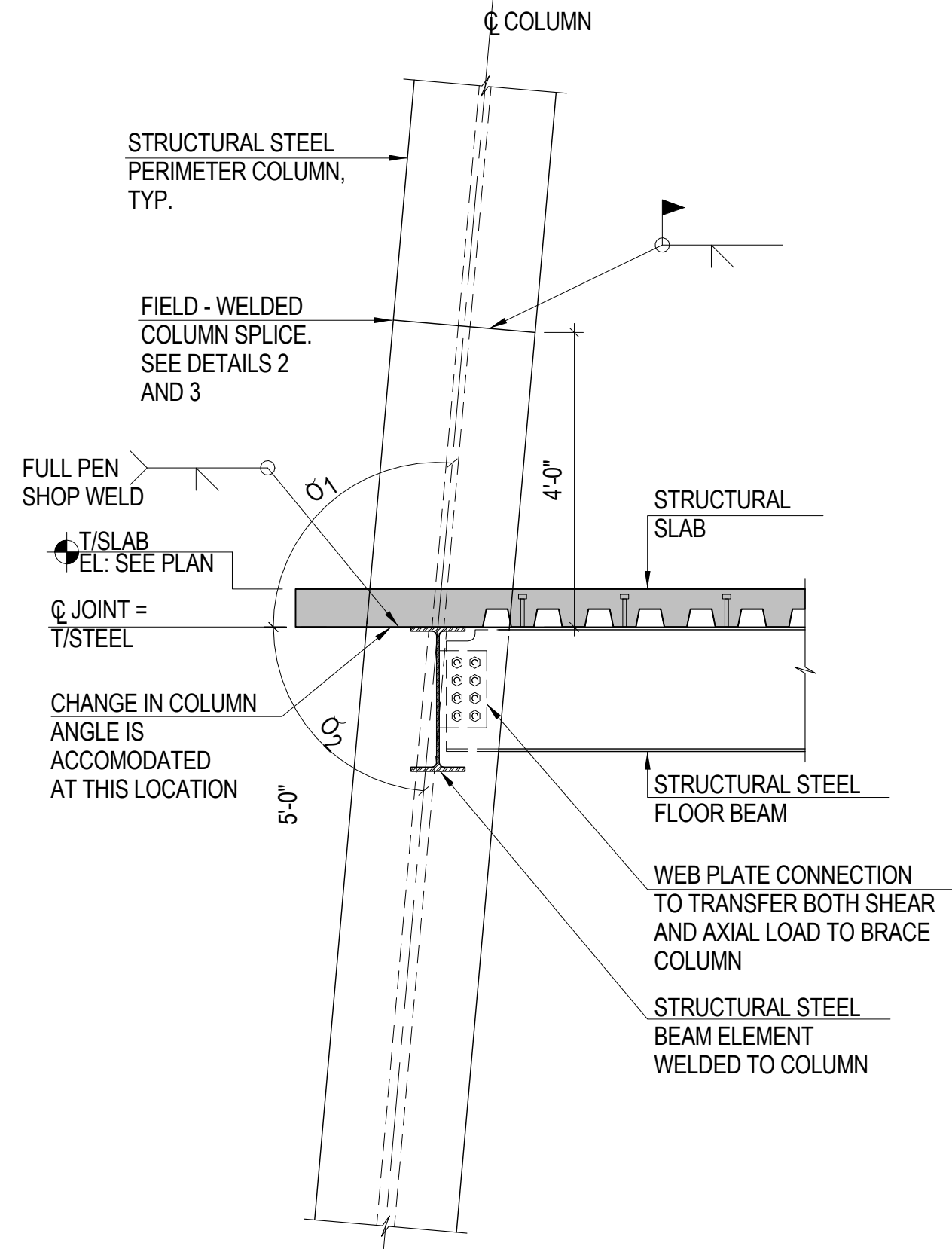
NOT TO SCALE



NOTE:  
1. CONNECTION VALID FOR 3/16" < x < 1".  
2. SPLICE CONNECTION SHALL DEVELOP LOAD EQUAL TO TENSION CAPACITY OF SMALLER COLUMN.

## 2 TYPICAL COLUMN SPLICE (D1 ≠ D2)

NOT TO SCALE



NOTE:  
1. O: DOES NOT NECESSARILY EQUAL O1.  
2. SEE SPLICE REQUIREMENT IN DETAILS 2 AND 3.

## 4 TYPICAL SLOPING COLUMN DETAIL

NOT TO SCALE

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Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

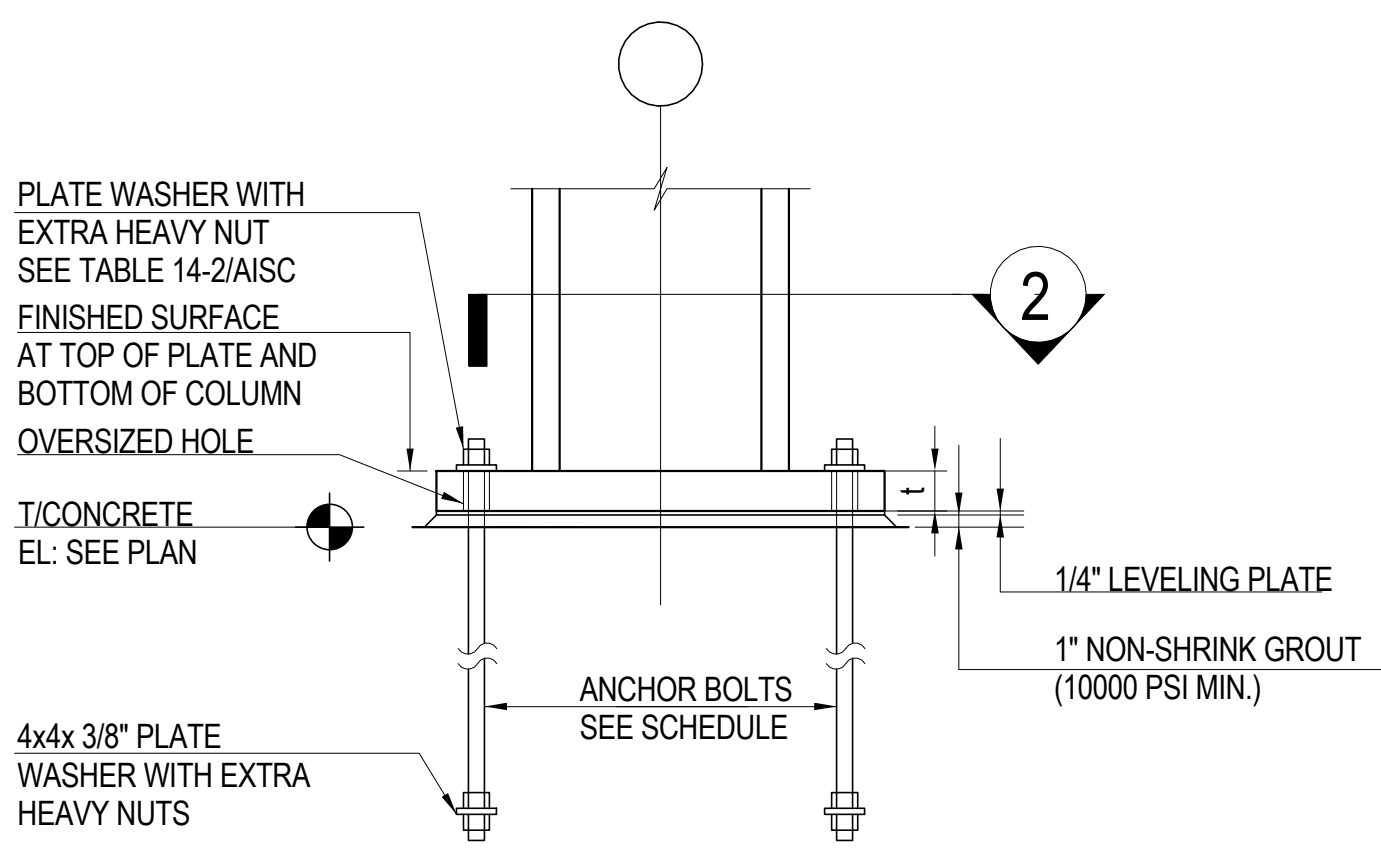
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

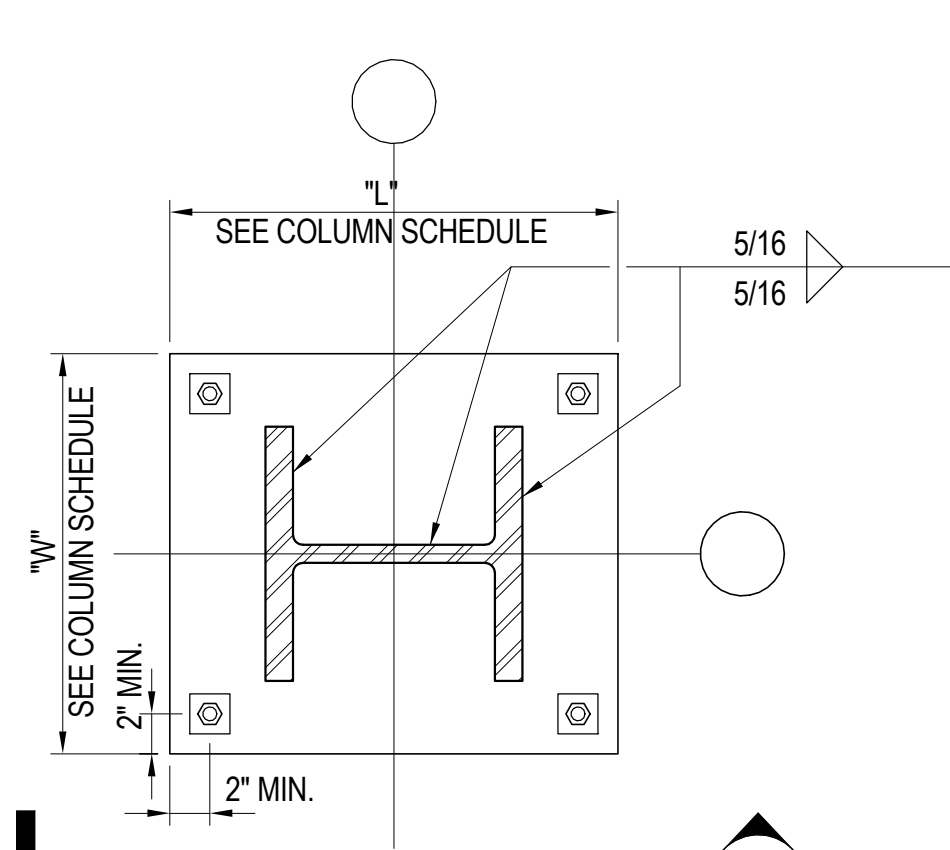
Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:

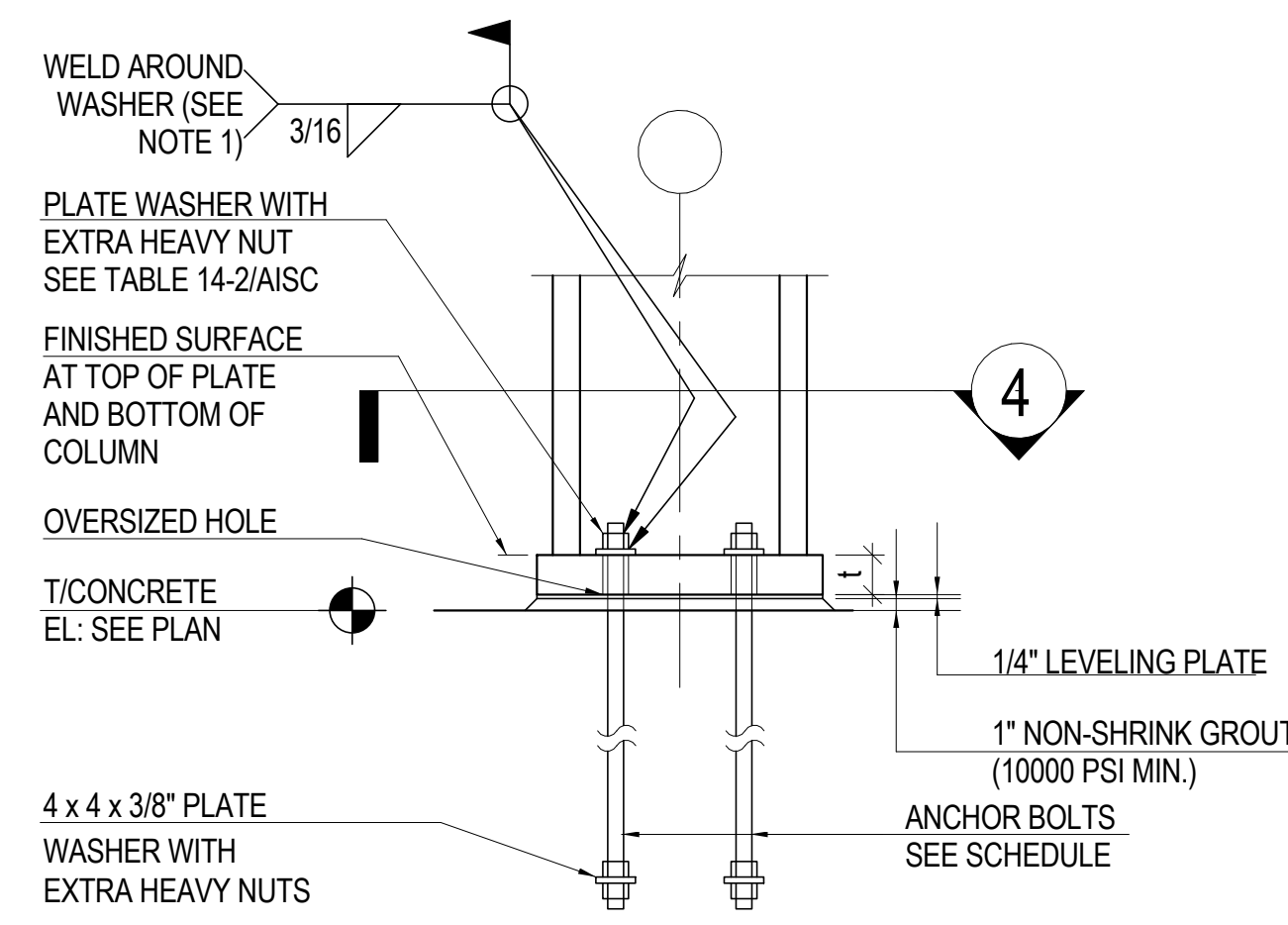




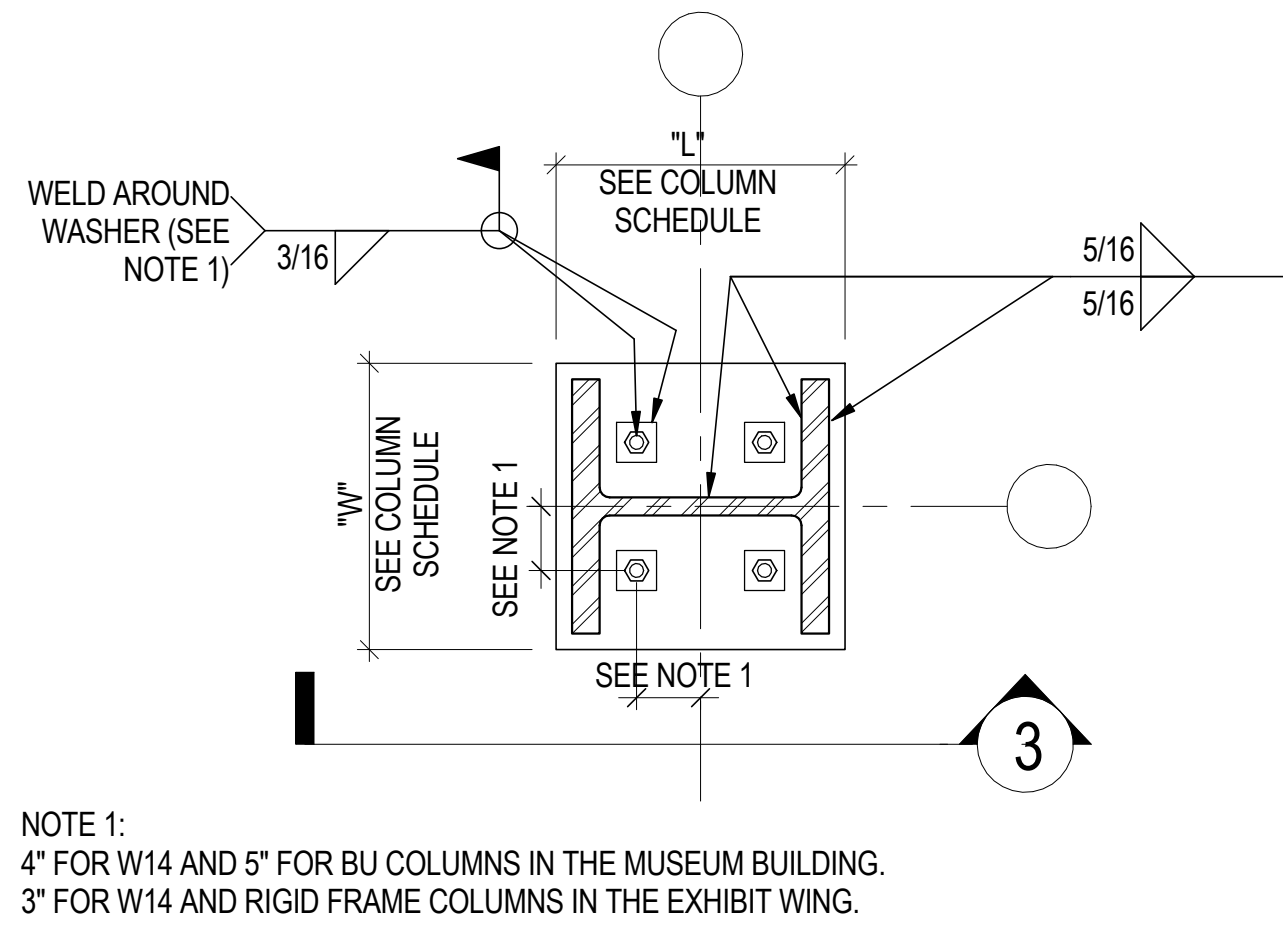
1 TYPICAL BASE PLATE ELEVATION  
1" = 1'-0"



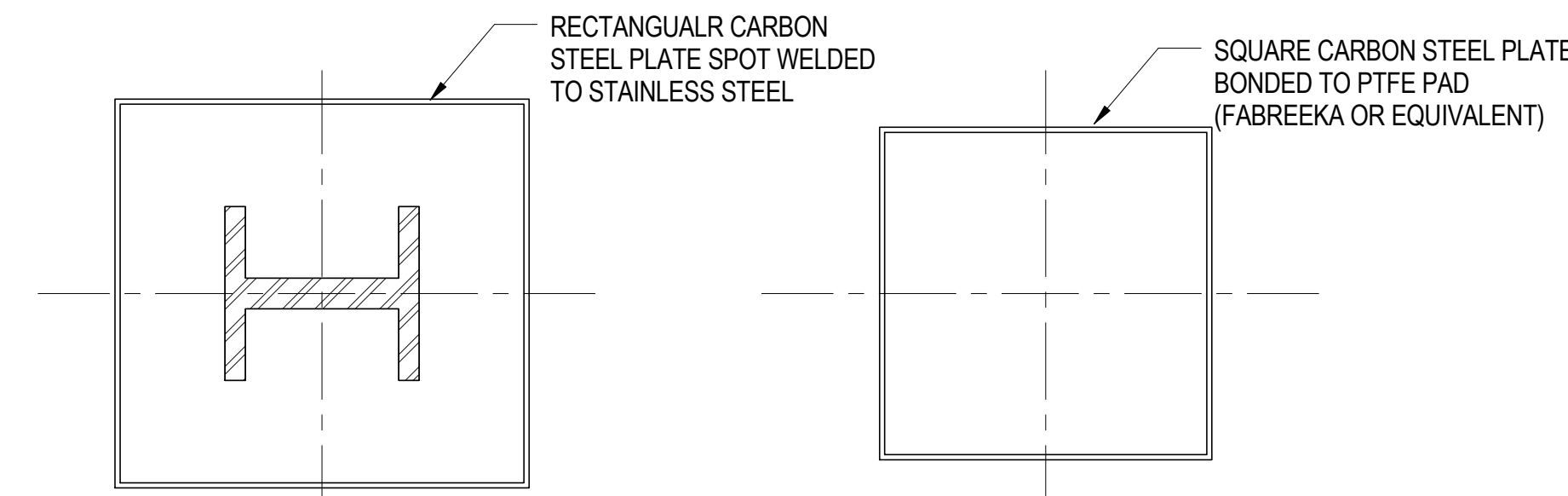
2 TYPICAL BASE PLATE PLAN  
1" = 1'-0"



3 BASE PLATE WITH INTERIOR ANCHOR RODS ELEVATION  
1" = 1'-0"



4 BASE PLATE WITH INTERIOR ANCHOR RODS PLAN  
1" = 1'-0"



5 TYPICAL COLUMN BASE DETAIL AT SLIDING SUPPORT  
3/4" = 1'-0"

STRUCTURAL STEEL COLUMN SCHEDULE AT RETAIL																									W14 COLUMNS: ASTM A913-GRADE 50 PLATE MATERIAL: ASTM A572 GR 50, TYP. U.N.O.			
GRID LOCATION																												
FLOOR LEVEL		B-7 - 6	C-8 - 6	D-6 - 6	E-3 - 6	B-7 - 8	C-8 - 8	D-6 - 8	E-3 - 8	A-3 - 5	A-2 - 5	A-1 - 5	A-3 - 4	A-2 - 4	A-1 - 4	A-4 - 4.5	A-4 - 5	A-4 - 6	A-4 - 8	A-4 - 9	A-3 - 6	A-3 - 8	A-3 - 9	A-2 - 6	A-2 - 8	A-2 - 9	A - 6	A - 8
LEVEL 05 EL: SEE PLAN																												
LEVEL 04 EL: SEE PLAN										W14X43	W14X43	W14X43	W14X43	W14X43	W14X43													
LEVEL 03 EL: SEE PLAN										W14X43	W14X43	W14X43	W14X43	W14X43	W14X43													
LEVEL 02 EL: SEE PLAN		W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X43	W14X61	W14X48	W14X48	W14X61	W14X43												W14X132	W14X132
LEVEL 01 EL: SEE PLAN		W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X176	W14X145	W14X132	W14X159	W14X145												W14X132	W14X132
CELLAR B EL: SEE PLAN		W14X370	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X370	W14X132	W14X176	W14X145	W14X132	W14X159	W14X145	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X370	W14X370	W14X370		
1. ALL COLUMNS SUPPORTED ON A SLIDGING BEARING PAD WEST OF GL C SHALL BE DESIGNED FOR AN AXIAL LOAD (LRFD) OF 1110 KIPS AND ACCOMMODATE MOVEMENTS IN THE EAST-WEST DIRECTION OF +/- 2-3/4in AND IN THE NORTH-SOUTH DIRECTION OF +/- 4in.																												
2. ALL COLUMNS SUPPORTED ON A SLIDGING BEARING PAD EAST OF GL C AND WEST OF GL H SHALL BE DESIGNED FOR AN AXIAL LOAD (LRFD) OF 500 KIPS AND ACCOMMODATE MOVEMENTS IN THE EAST-WEST DIRECTION OF +/- 2-3/4in AND IN THE NORTH-SOUTH DIRECTION OF +/- 4in.																												
3. ALL COLUMNS SUPPORTED ON A SLIDGING BEARING PAD EAST OF GL H SHALL BE DESIGNED FOR AN AXIAL LOAD (LRFD) OF 500 KIPS AND ACCOMMODATE MOVEMENTS IN THE EAST-WEST DIRECTION OF +/- 1-1/2in AND IN THE NORTH-SOUTH DIRECTION OF +/- 4in.																												

STRUCTURAL STEEL COLUMN SCHEDULE OUTSIDE OF TOWER																												W14 COLUMNS: ASTM A913-GRADE 50 PLATE MATERIAL: ASTM A572 GR 50, TYP. U.N.O.									
GRID LOCATION																																					
FLOOR LEVEL	B-7 - 9	C-8 - 9	D-6 - 9	E-3 - 9	F-2 - 9	G-5 - 9	K - 9	K-7 - 9	F-2 - 7	G-5 - 7	K - 7	K-7 - 7	F-2 - 6	G-5 - 6	K - 6	K-7 - 6	J - 7	H - 4	K - 4	K-7 - 4	H - 4	K - 4	H - 3	K - 3	B - 1	B-7 - 1	C - 1	C-5 - 1	D - 1	D - 2	E - 1	F - 1	G - 1	H - 1	K - 1		
LEVEL 01 EL: SEE PLAN																									W14X132		W14X132		W14X132	W14X132							
CELLAR B EL: SEE PLAN	W14X370	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132	W14X132		W14X132	W14X132	W14X132	W14X132	W14X132		
<div>1. ALL COLUMNS SUPPORTED ON A SLIDGING BEARING PAD WEST OF GL C SHALL BE DESIGNED FOR AN AXIAL LOAD (LRFD) OF 1110 KIPS AND ACCOMMODATE MOVEMENTS IN THE EAST-WEST DIRECTION OF +/- 2-3/4in AND IN THE NORTH-SOUTH DIRECTION OF +/- 4in.</div> <div>2. ALL COLUMNS SUPPORTED ON A SLIDGING BEARING PAD EAST OF GL C AND WEST OF GL H SHALL BE DESIGNED FOR AN AXIAL LOAD (LRFD) OF 500 KIPS AND ACCOMMODATE MOVEMENTS IN THE EAST-WEST DIRECTION OF +/- 2-3/4in AND IN THE NORTH-SOUTH DIRECTION OF +/- 4in.</div> <div>3. ALL COLUMNS SUPPORTED ON A SLIDGING BEARING PAD EAST OF GL H SHALL BE DESIGNED FOR AN AXIAL LOAD (LRFD) OF 500 KIPS AND ACCOMMODATE MOVEMENTS IN THE EAST-WEST DIRECTION OF +/- 1-1/2in AND IN THE NORTH-SOUTH DIRECTION OF +/- 4in.</div>																																					



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650 Woodlawn Road West, Guelph, Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature:

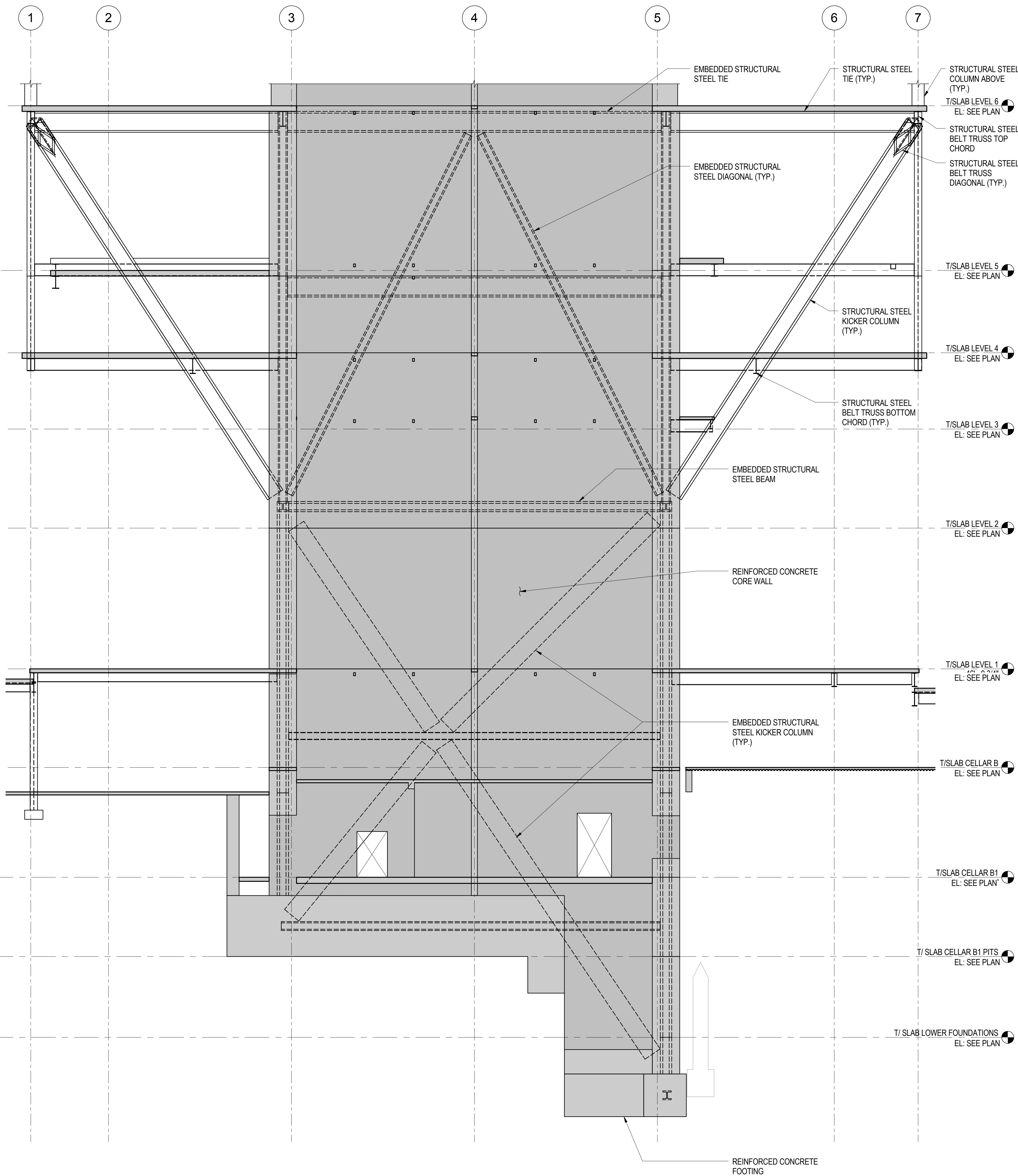
PRELIMINARY  
NOT FOR CONSTRUCTION

**STRUCTURAL  
STEEL COLUMN  
SCHEDULE,  
SECTIONS &  
DETAILS**

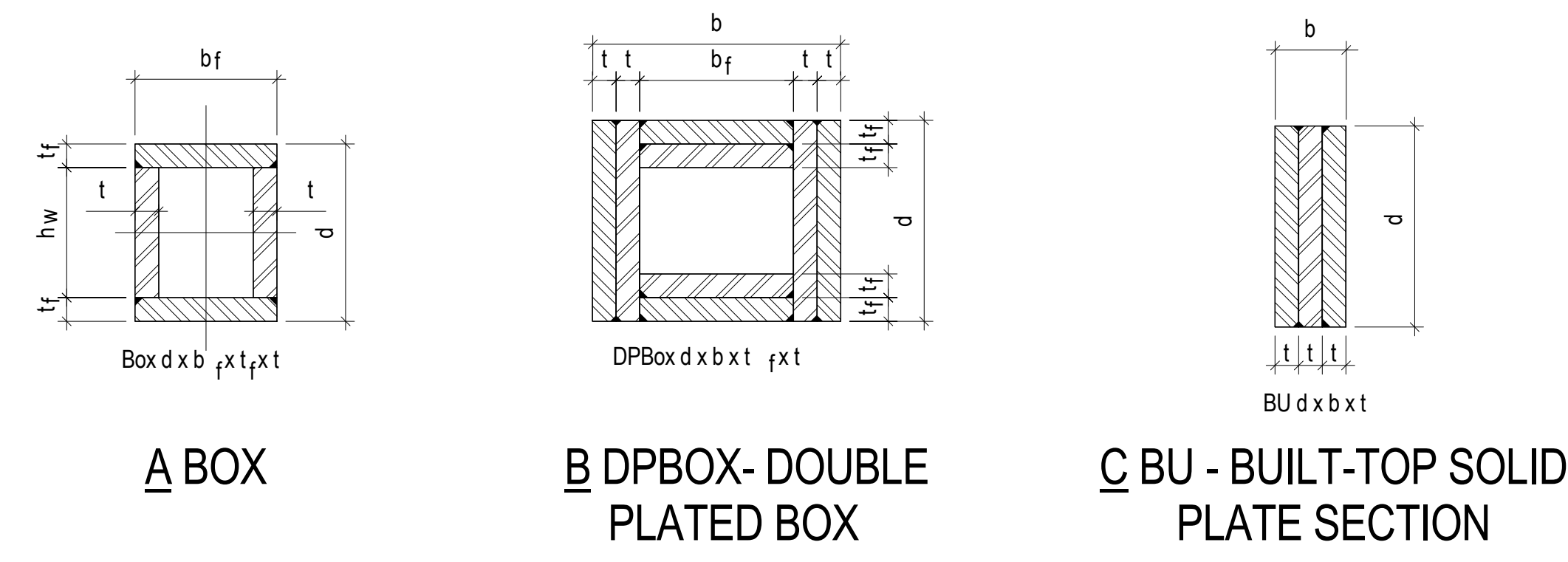
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Sheet No.: S-402  
Page No.: 76 of 90

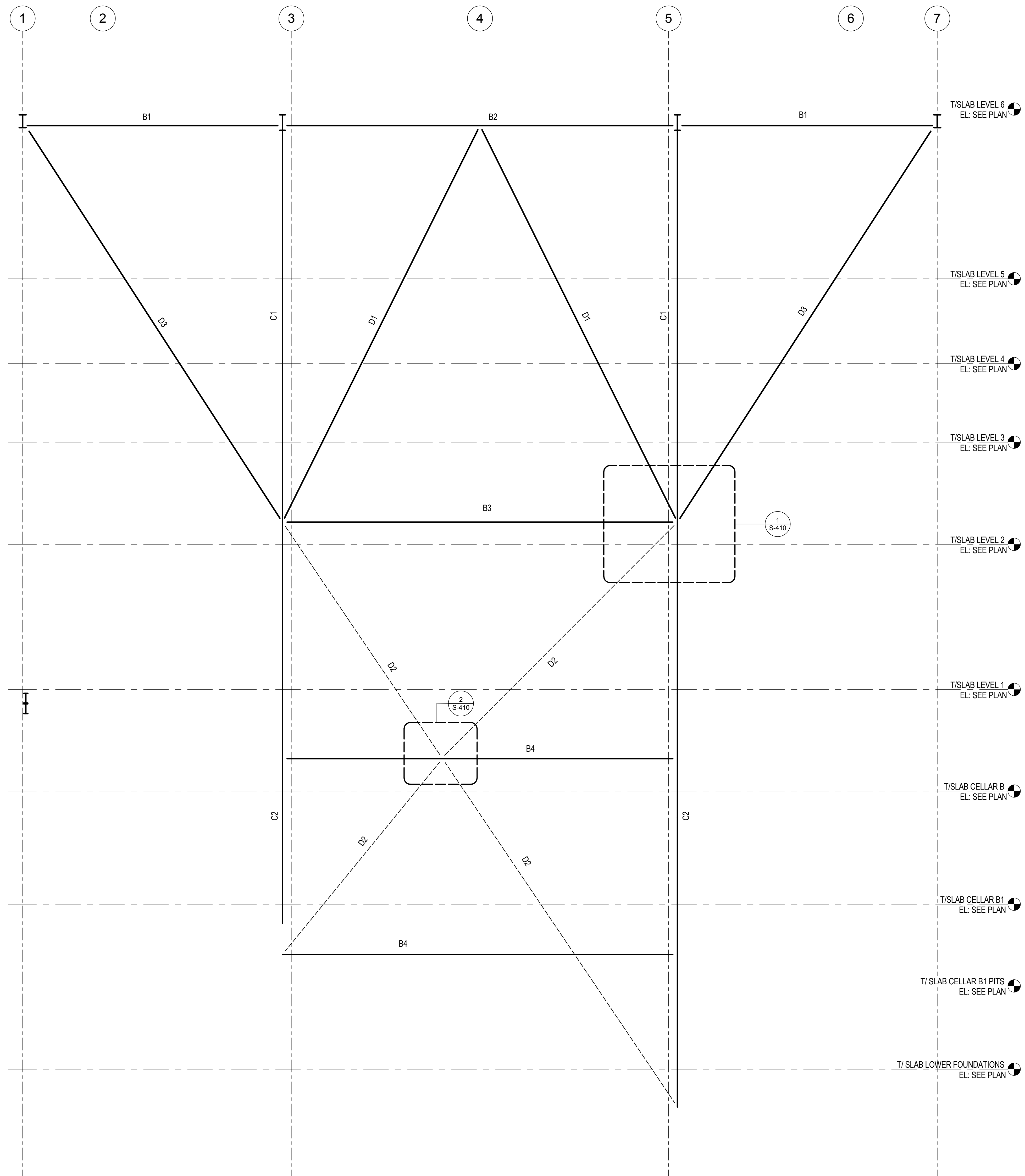




**1** TYPICAL SECTION @ KICKERS THRU CORE WALL ALONG GRID LINES C TO F LOOKING EAST  
NOT TO SCALE



**NOMENCLATURE FOR BUILT-UP SECTIONS**  
1/2" = 1'-0"



STEEL MEMBER SCHEDULE FOR KICKER COLUMN ASSEMBLY	
MARK	LINE C, D, E, F, G
B1	W36X852
B2	W36X852
B3	W14X550
B4	W14X109
B5	W14X311
D1	W12X336
D2	BU 36X12X4
D3	DPBOX 36X36X2-1/4X2-1/4
C1	W14X730
C2	W14X730

**2** KEY SECTION AND SCHEDULE FOR KICKER COLUMN ASSEMBLY ALONG GRID LINES 'C' TO 'F'  
NOT TO SCALE

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Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 22nd W, 34th Street #610,  
New York, NY 10122  
Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018  
Security Consultant  
Ducibella, Vantor & Santoro  
250 State Street #F1, North Haven, CT 06473  
Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005  
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016  
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006  
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018  
Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601  
Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature:

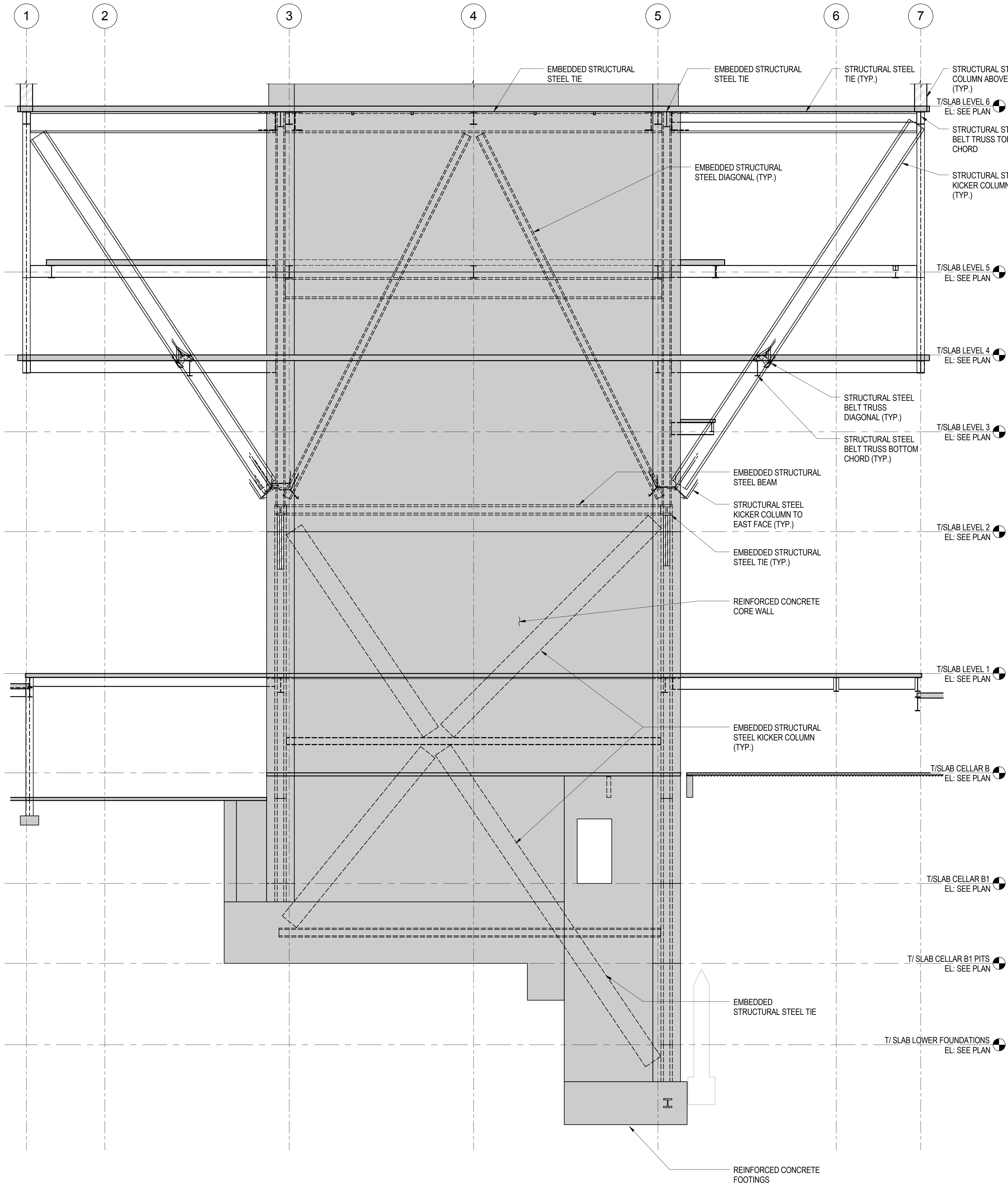
PRELIMINARY  
NOT FOR CONSTRUCTION

6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 20% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 60% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

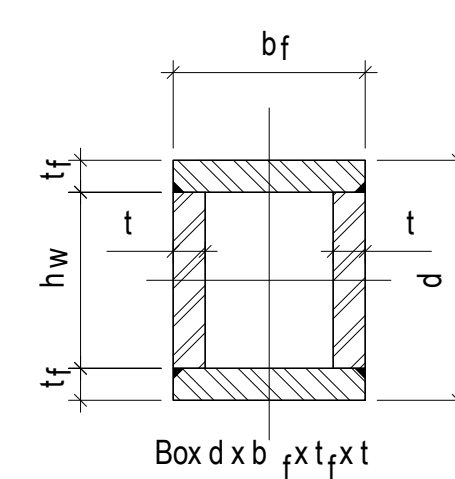
No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_  
Sheet Name: **KICKER COLUMNS AT CORE LINES C TO F - SCHEDULES, ELEVATIONS, SECTIONS & DETAILS**

Project No.: 211157	B-SCAN Sheet No.: <b>S-405.00</b>
Date: 20 JUN 2014	Sheet No.: <b>S-405</b>
Scale: As indicated	Page No.: 77 of 90
File No.: S-405	

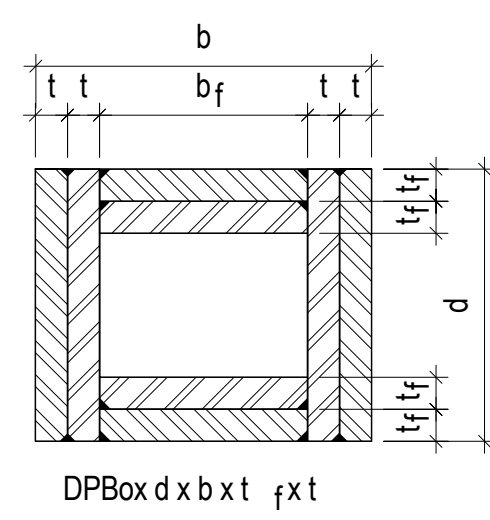




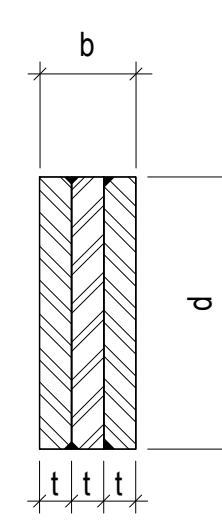
**1** TYPICAL SECTION @ KICKERS THRU CORE WALL ALONG GRID LINE 'G' LOOKING EAST  
NOT TO SCALE



**A** BOX

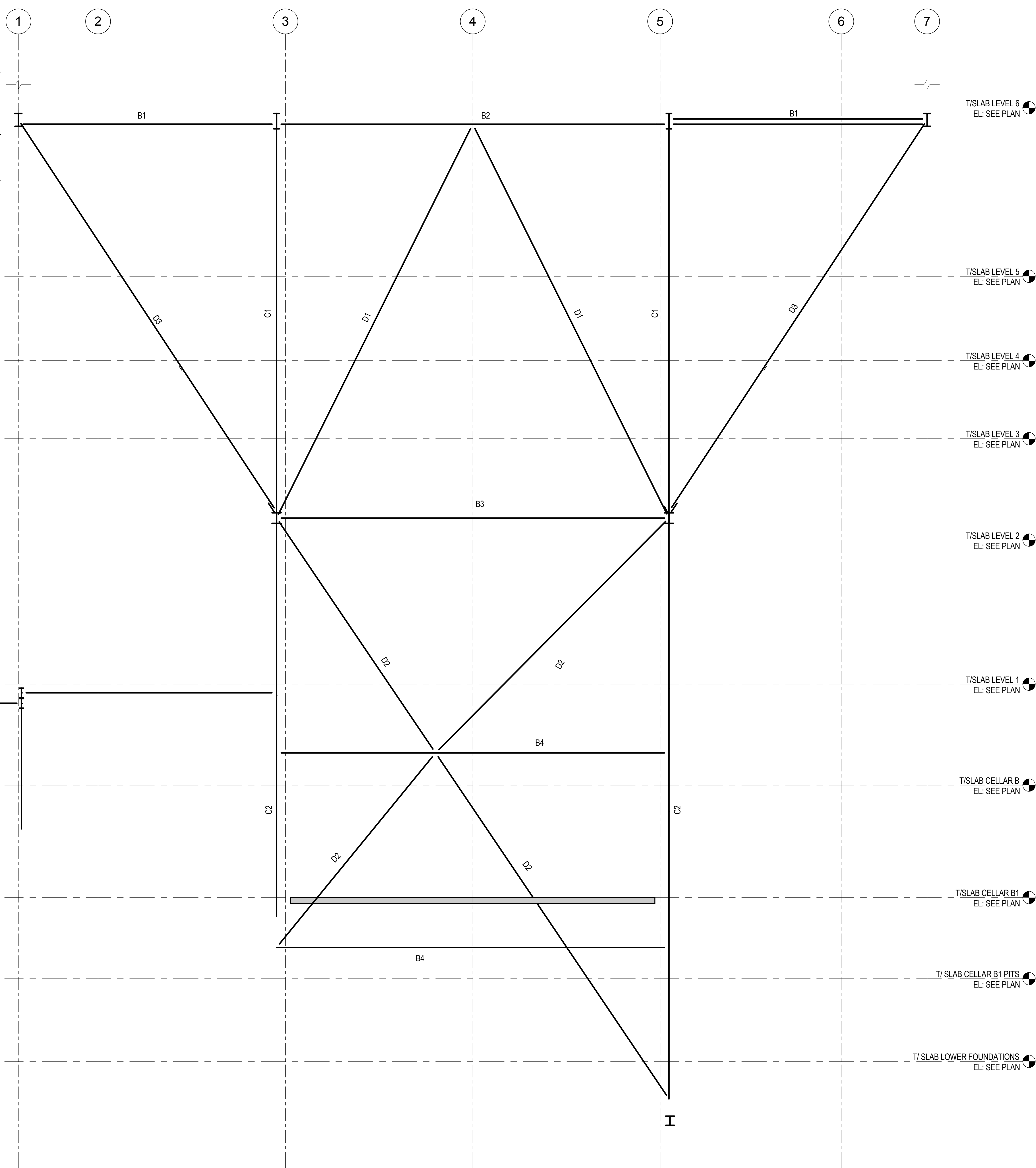


**B** DPBOX- DOUBLE PLATED BOX



**C** BU - BUILT-TOP SOLID PLATE SECTION

**NOMENCLATURE FOR BUILT-UP SECTIONS**  
1/2" = 1'-0"



STEEL MEMBER SCHEDULE FOR KICKER COLUMN ASSEMBLY	
MARK	LINE C, D, E, F, G
B1	W36X652
B2	W36X652
B3	W14X550
B4	W14X109
B5	W14X311
D1	W12X336
D2	BU 36X12X4
D3	DPBOX 36X36X2-1/4X2-1/4
C1	W14X730
C2	W14X730

**2** KEY SECTION AND SCHEDULE FOR KICKER COLUMN ASSEMBLY ALONG LINE 'G'  
1/8" = 1'-0"

**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

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New York, NY 10022

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Code Consultants Professional Engineers PC  
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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:

PRELIMINARY  
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**KICKER  
COLUMNS AT  
CORE LINE G -  
SCHEDULES,  
ELEVATIONS,  
SECTIONS &  
DETAILS**

Project No.: 211157  
Date: 20 JUN 2014  
Scale: As indicated  
File No.: S-406

B-SCAN Sheet No.:  
**S-406.00**  
Sheet No.:  
Page No.: 78 of 90





MANHATTAN WEST:  
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Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

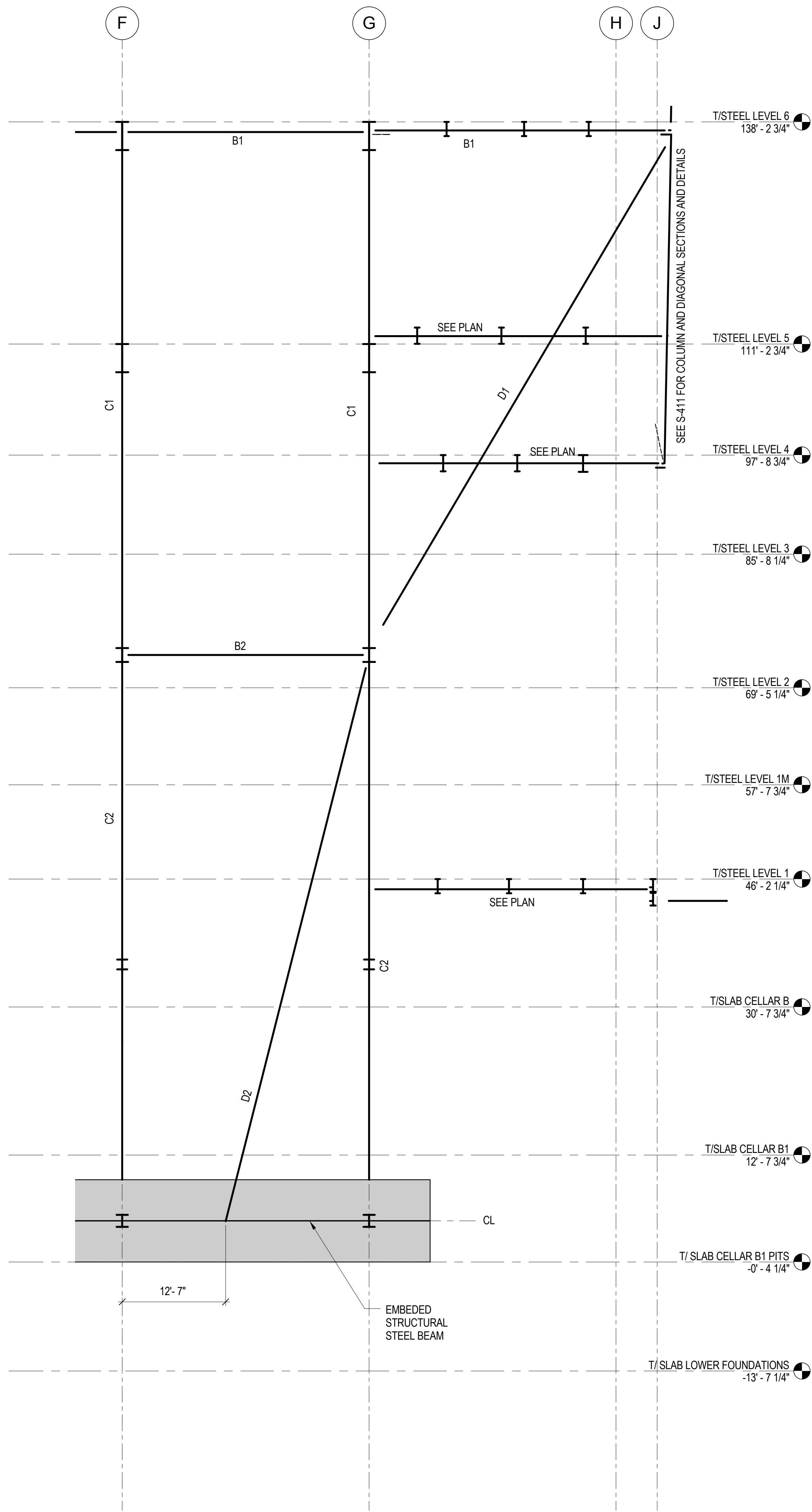
Key Plan:  
33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

Seal & Signature:  
PRELIMINARY  
NOT FOR CONSTRUCTION

Project No.: 211157  
Date: 20 JUN 2014  
Scale: As indicated  
File No: S-407

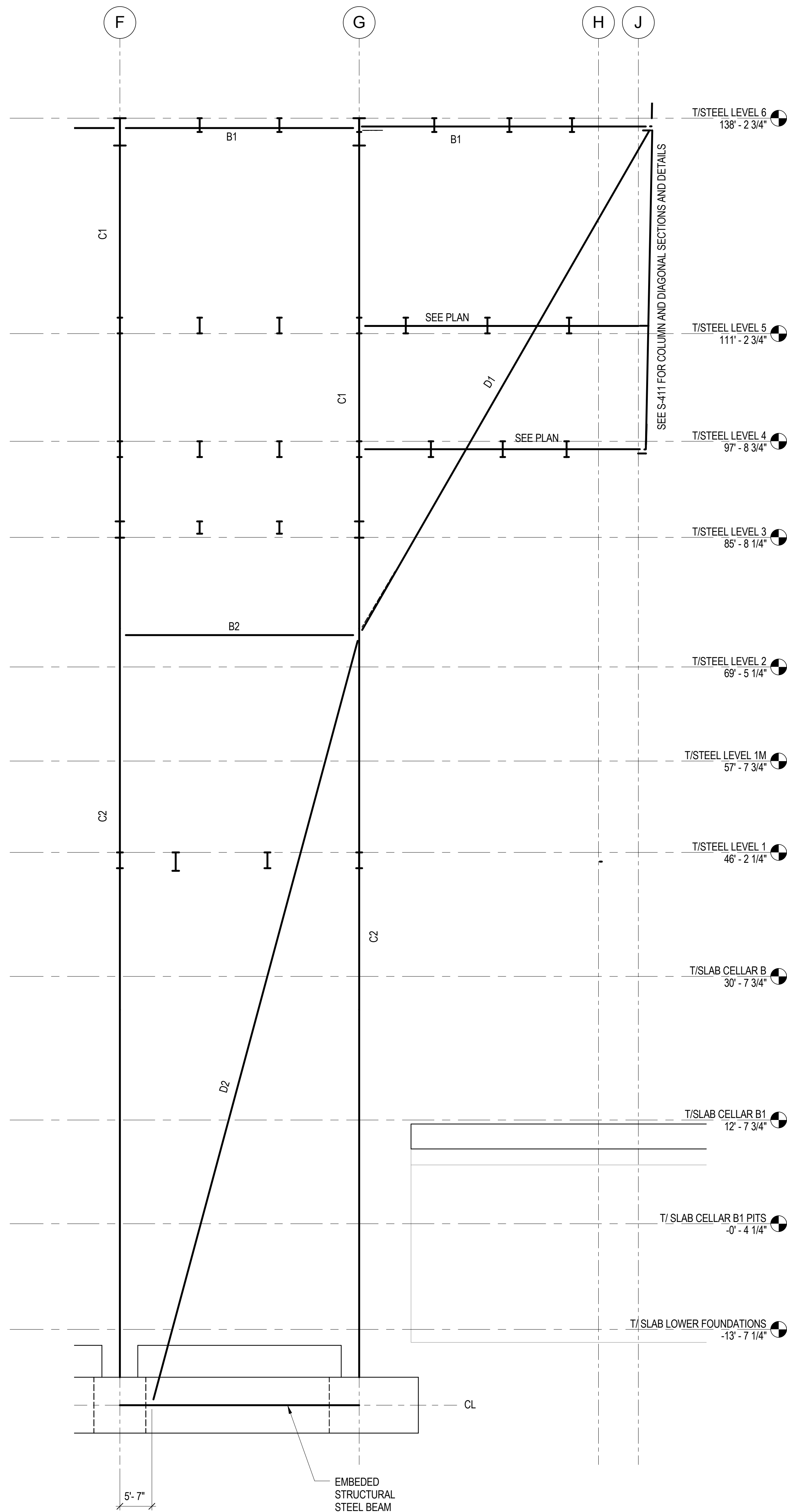
B-SCAN Sheet No.: S-407.00  
Sheet No.: S-407  
Page No.: 79 of 90

KICKER  
COLUMNS AT  
CORE LINE 3 & 5  
SCHEDULES,  
ELEVATIONS,  
SECTIONS &  
DETAILS



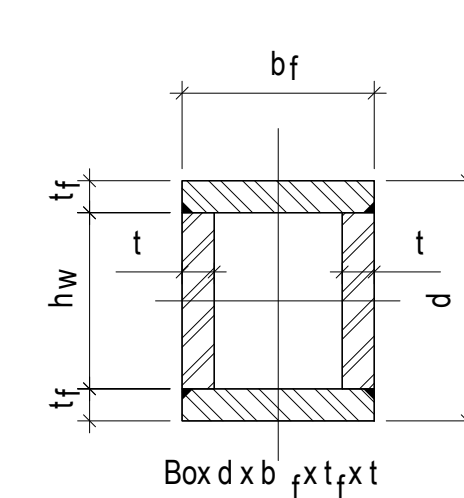
B1: W36X652  
B2: W14X550  
D1: BOX 36X36X2X2  
D2: BU 36X12X4  
C1: W14X370  
C2: W14X730

**1** TYPICAL SECTION AT LINE 3 KICKER COLUMN ASSEMBLY LOOKING NORTH  
1/8" = 1'-0"

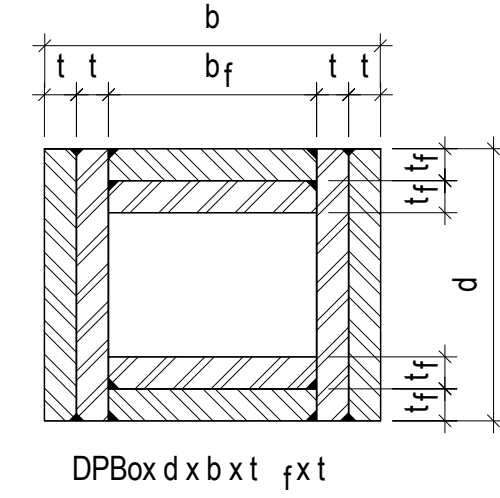


**2** TYPICAL SECTION AT LINE 5 KICKER COLUMN ASSEMBLY LOOKING NORTH  
1/8" = 1'-0"

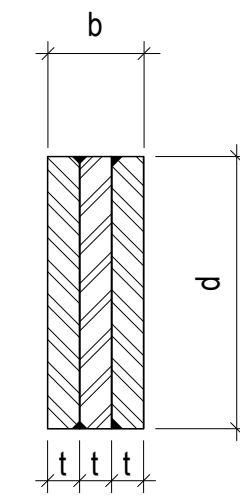
STEEL MEMBER SCHEDULE FOR KICKER COLUMN ASSEMBLY	
MARK	LINE C, D, E, F, G
B1	W36X652
B2	W14X550
D1	BOX 36X36X2X2
D2	BU 36X12X4
C1	W14X730
C2	W14X730



**A** BOX

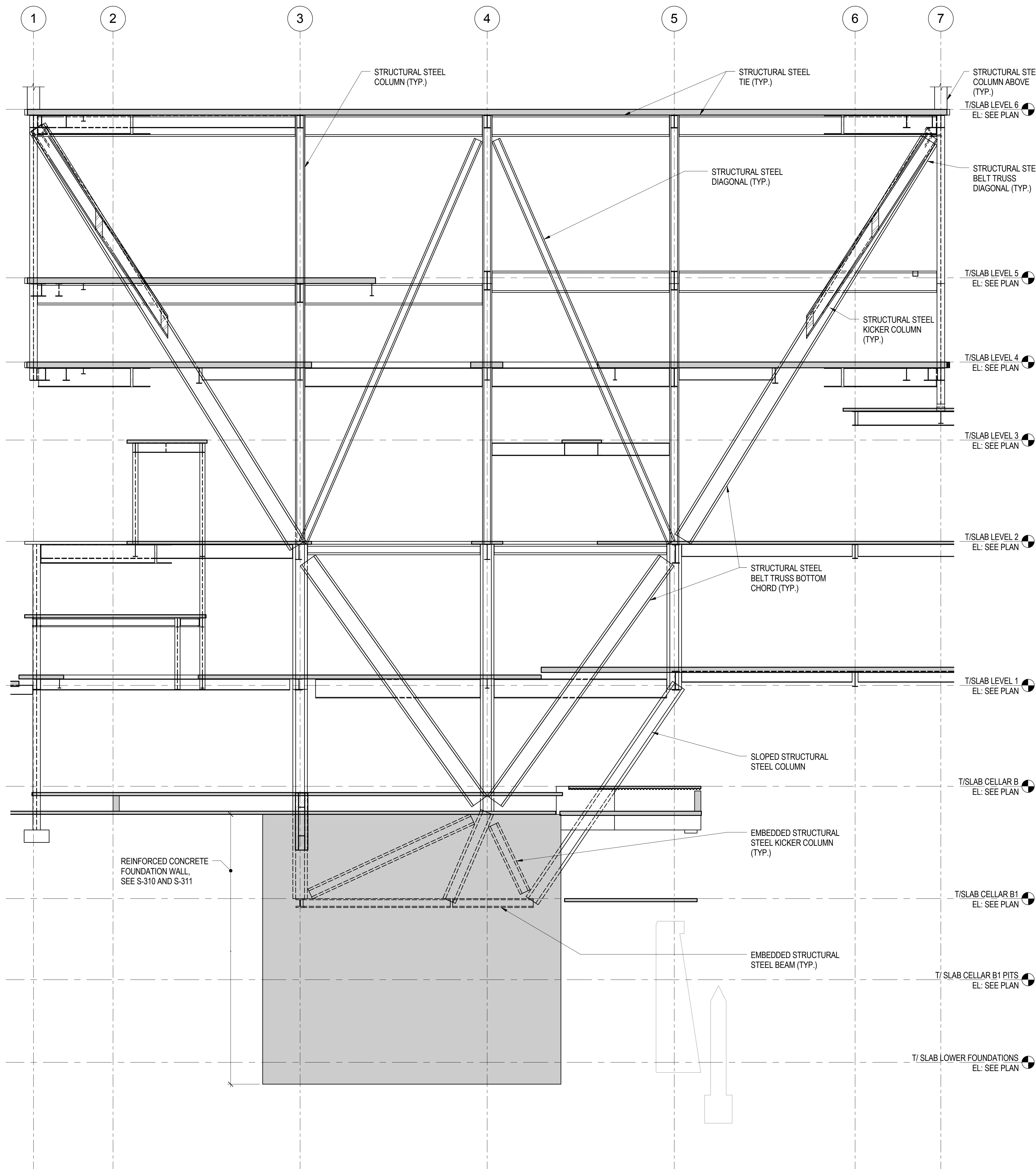


**B** DPBOX - DOUBLE PLATED BOX

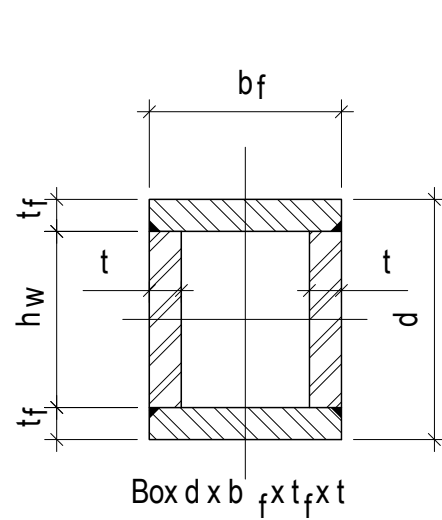


**C** BU - BUILT-TOP SOLID PLATE SECTION

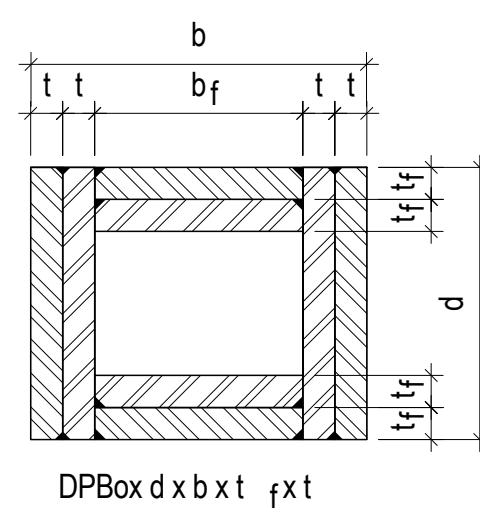




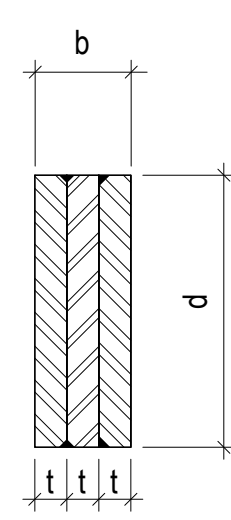
**1** TYP SECTION @ LINE B KICKER COLUMN ASSEMBLY LOOKING EAST  
1/8" = 1'-0"



**A** BOX

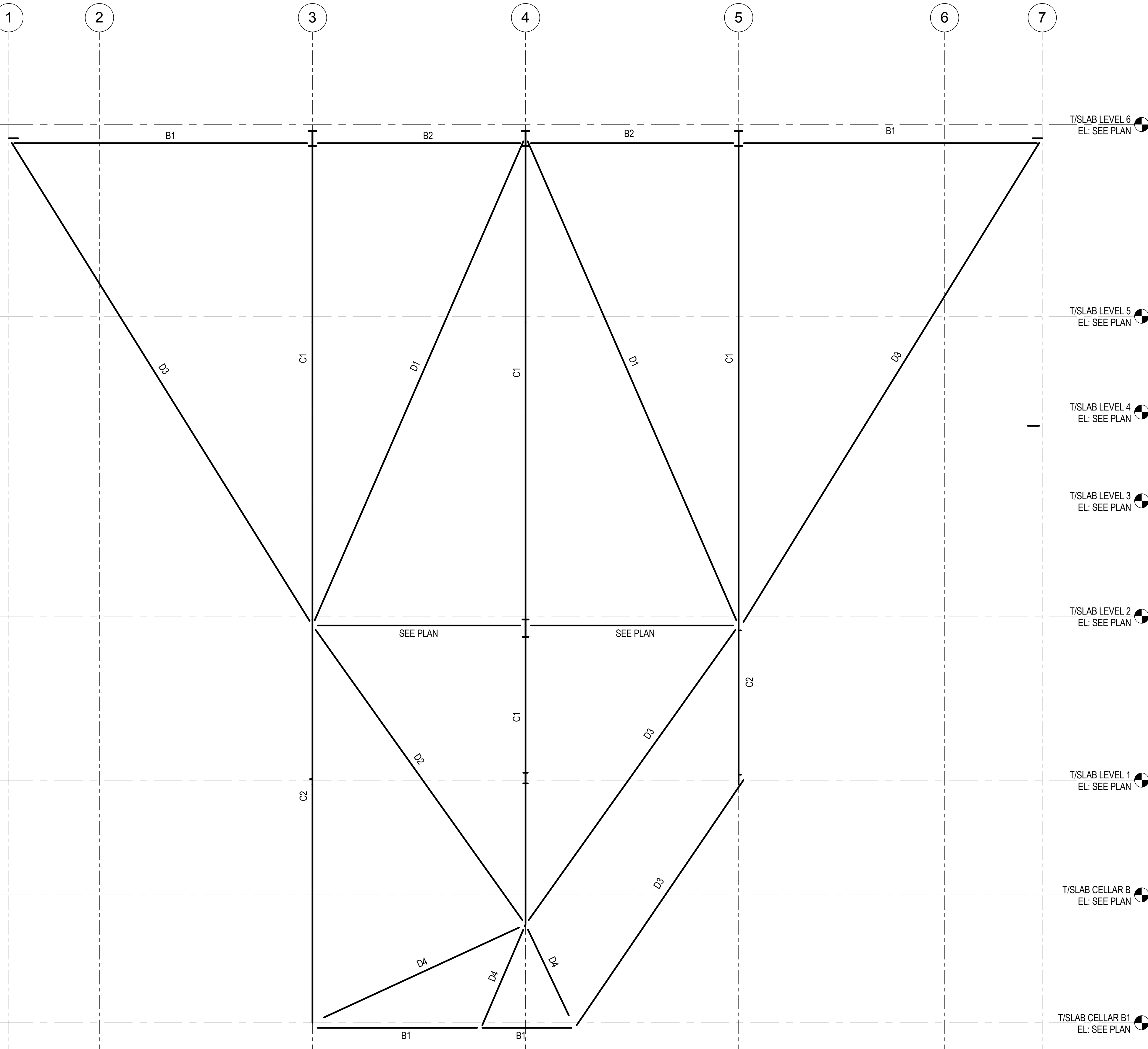


**B** DPBOX - DOUBLE PLATED BOX



**C** BU - BUILT-TOP SOLID PLATE SECTION

**NOMENCLATURE FOR BUILT-UP SECTIONS**  
1/2" = 1'-0"



STEEL MEMBER SCHEDULE	
MARK	SECTION
B1	W14X311
B2	W36X552
C1	W14X370
C2	BOX 28X26X5.5X3.75
D1	W14X283
D2	BU 36X12X4
D3	DPBU 36X36X2 1/4X2 1/4
D4	W14X605

**2** KEY SECTION AND SCHEDULE FOR KICKER COLUMN ASSEMBLY  
NOT TO SCALE

**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering  
Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Bluffside Ave., Suite 1, Mill Valley, California 94941

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10022

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:

PRELIMINARY  
NOT FOR CONSTRUCTION

No.	Date	Description
6	20 JUN 2014	ISSUED FOR FOUNDATION BID
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

Sheet Name: **KICKER COLUMN  
AT LINE B -  
SCHEDULE,  
ELEVATIONS,  
SECTIONS &  
DETAILS**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-408.00</b>

Date:	Sheet No.:
20 JUN 2014	<b>S-408</b>

Scale:	Page No.:
As indicated	<b>80 of 90</b>

File No.:	Page No.:
S-408	<b>80 of 90</b>









MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East 81st Street, Suite 1, Mill Valley, California 94041

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

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404 Fifth Avenue #8, New York, NY 10016

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Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

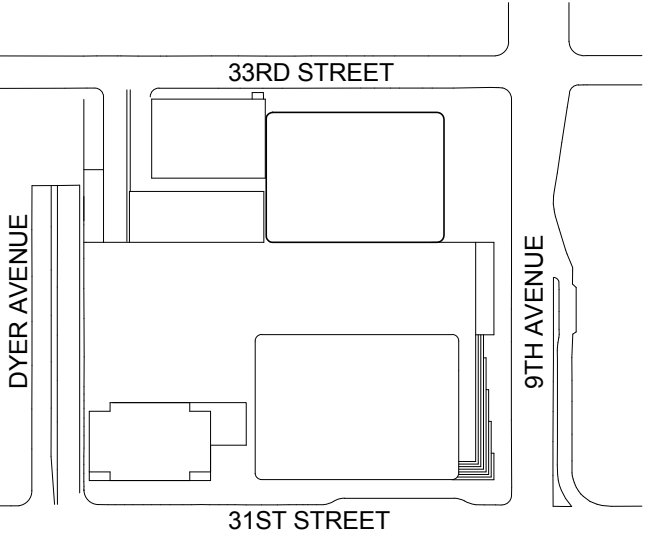
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal & Signature:

PRELIMINARY  
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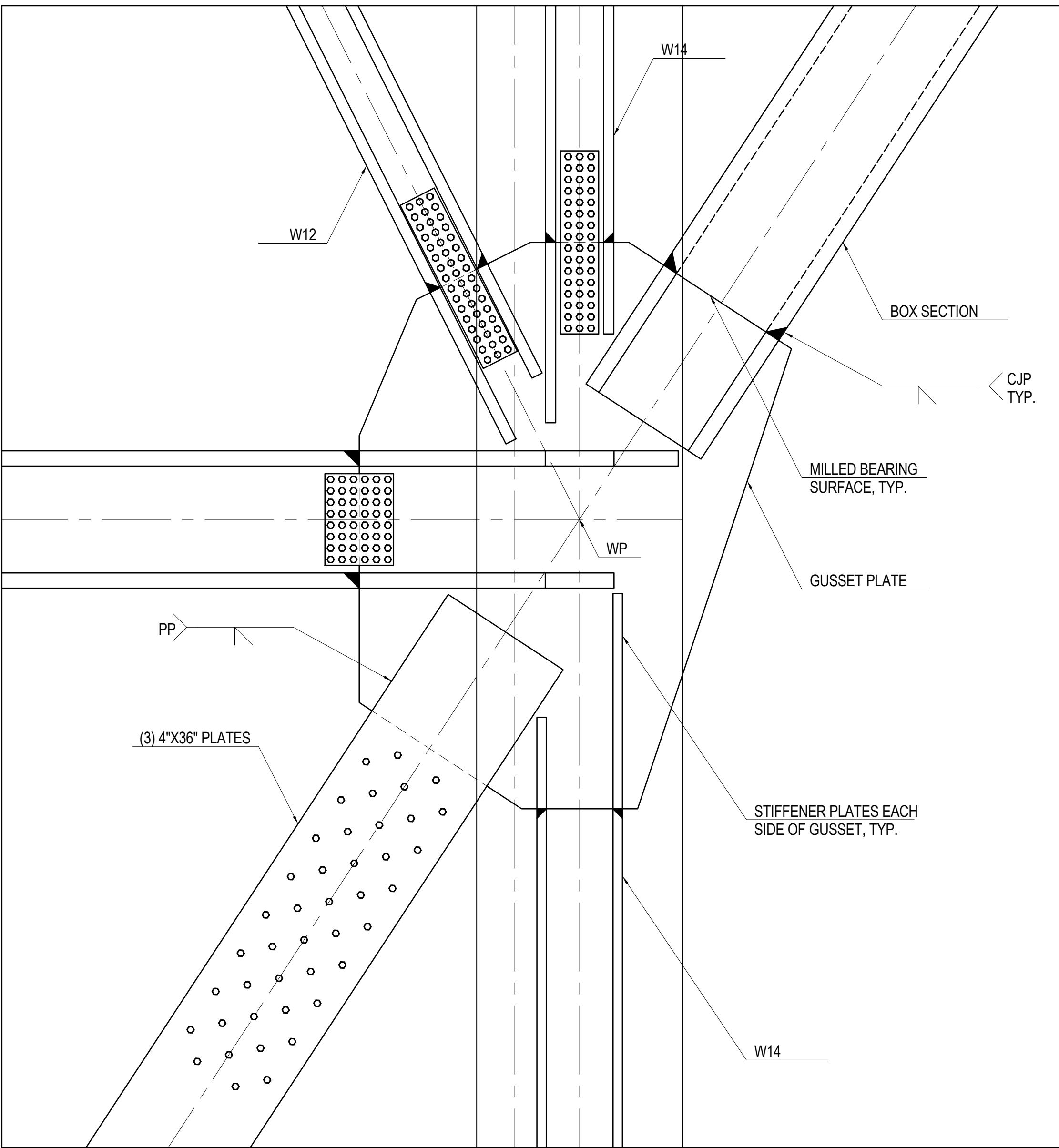
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5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description

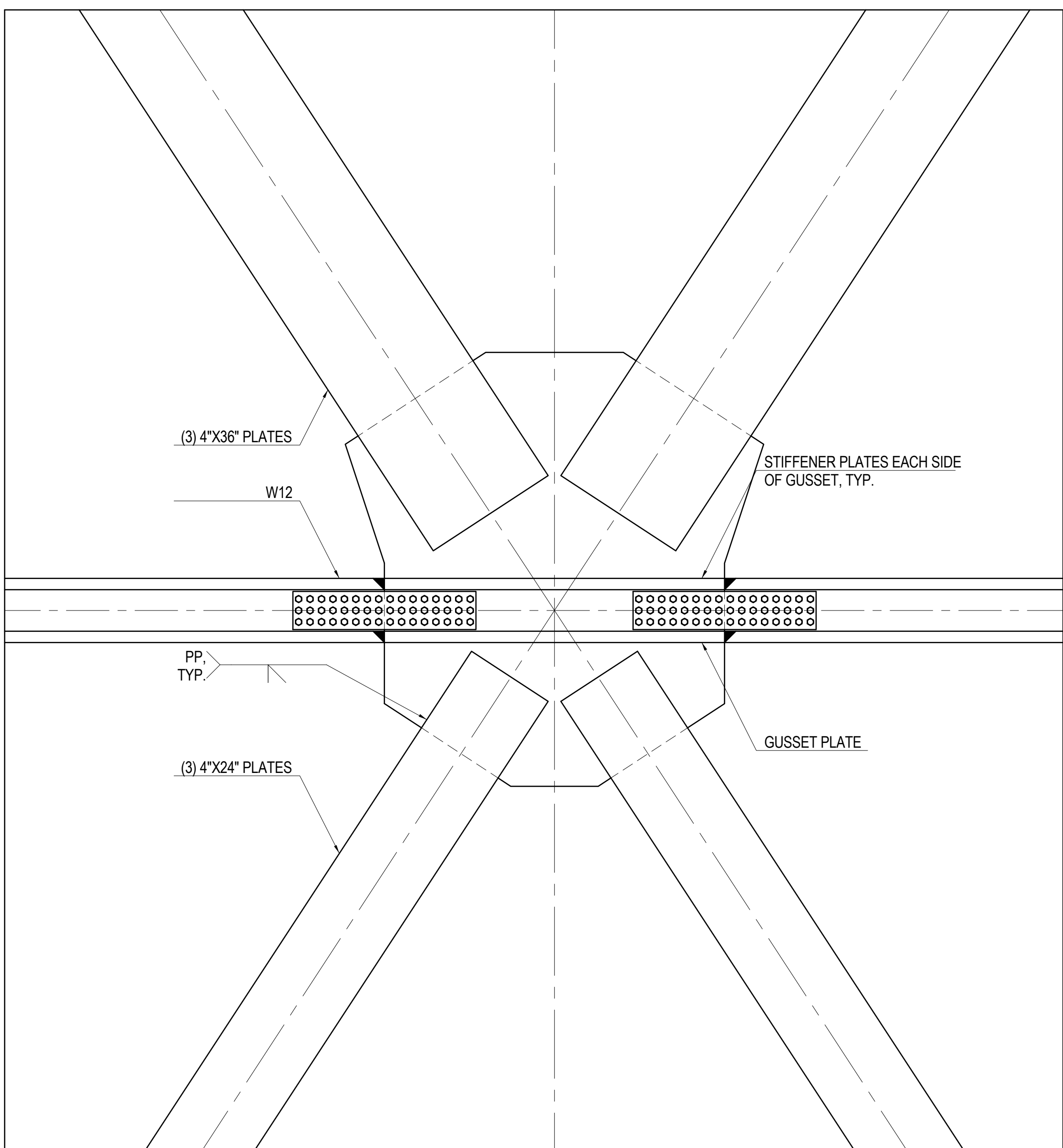
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**KICKER COLUMN  
SECTIONS &  
DETAILS**

Project No.: 211157	B-SCAN Sheet No.: <b>S-410.00</b>
Date: 20 JUN 2014	Sheet No.: <b>S-410</b>
Scale: 1/2" = 1'-0"	Page No.: 82 of 90
File No.: S-410	

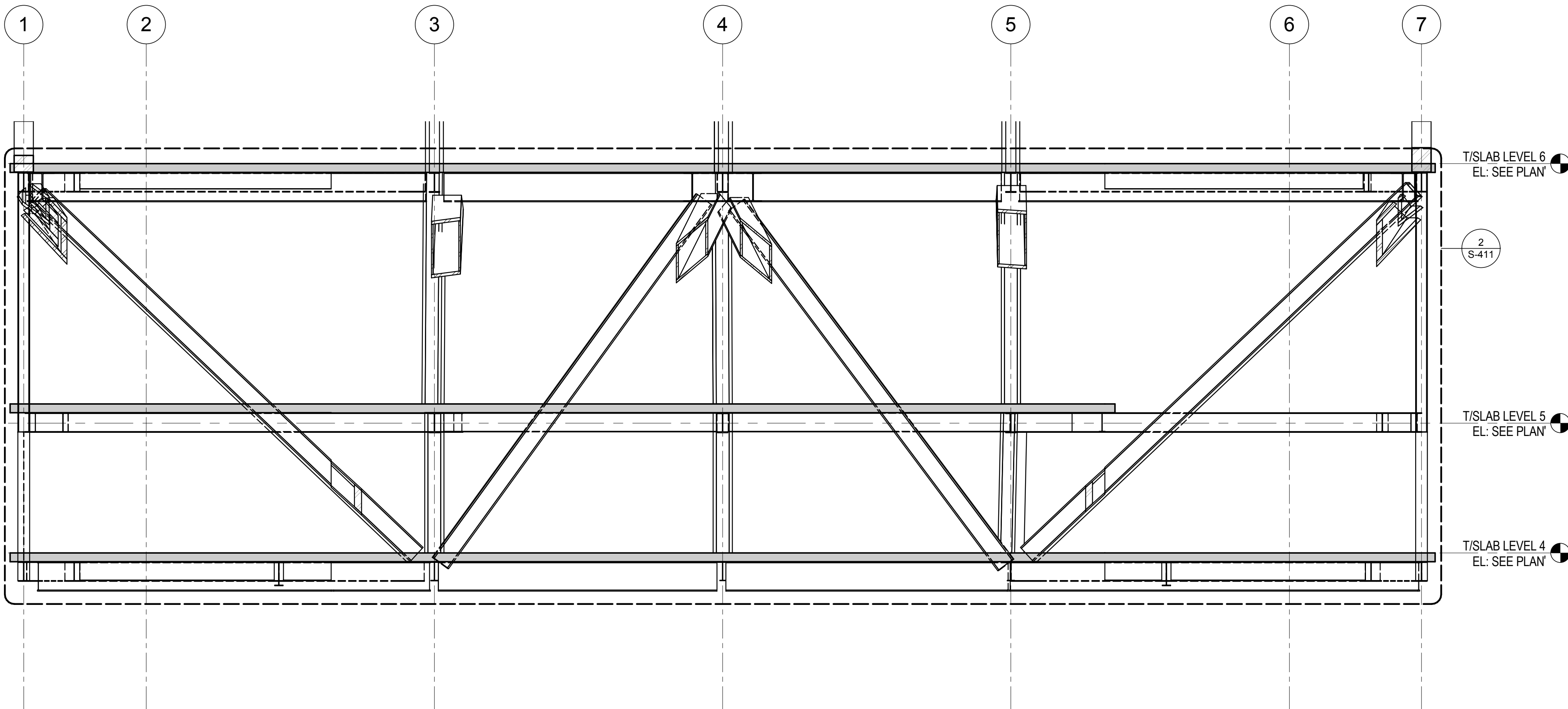


**1** DETAIL AT KICKER COLUMN INTERFACE WITH CORE WALL  
1/2" = 1'-0"

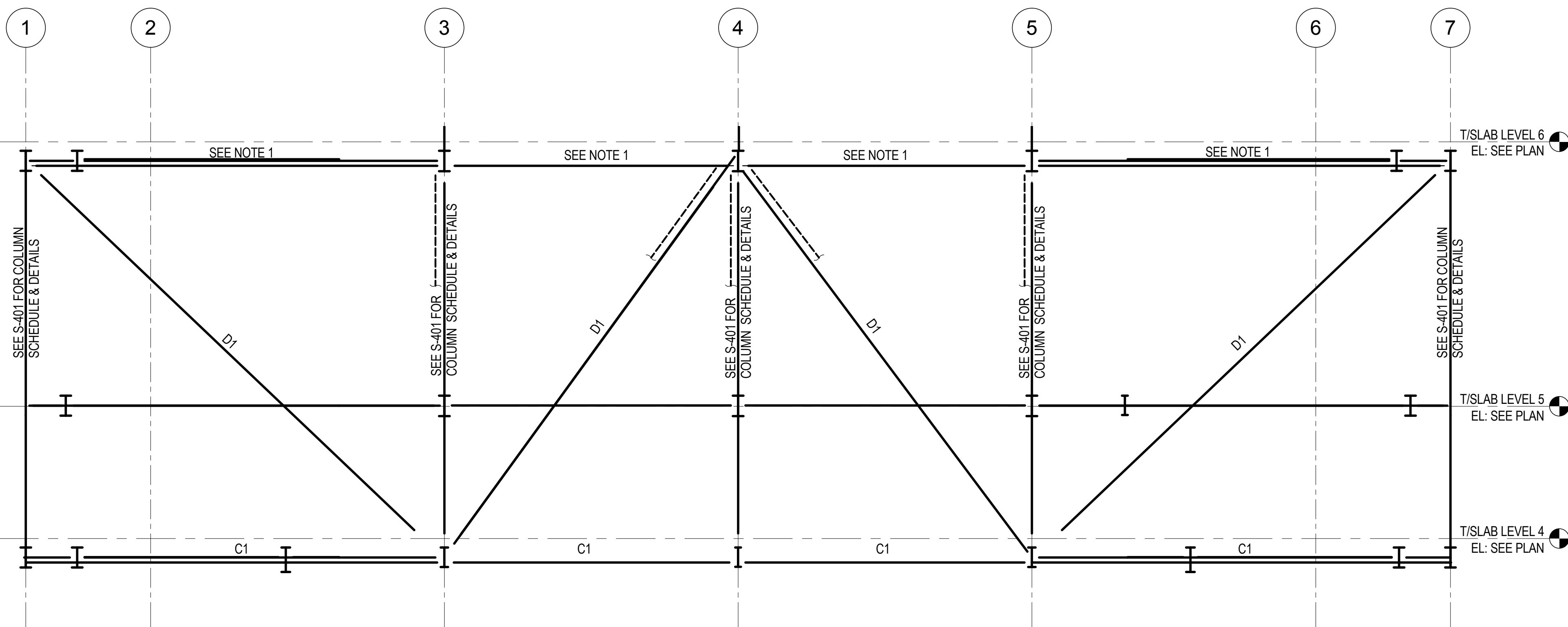


**2** DETAIL AT KICKER COLUMN INTERSECTION WITHIN CORE WALL  
1/2" = 1'-0"



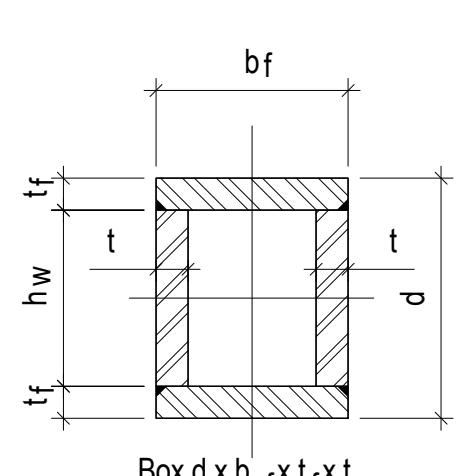


1 TYP SECTION @ LINE J LOOKING EAST  
1/8" = 1'-0"

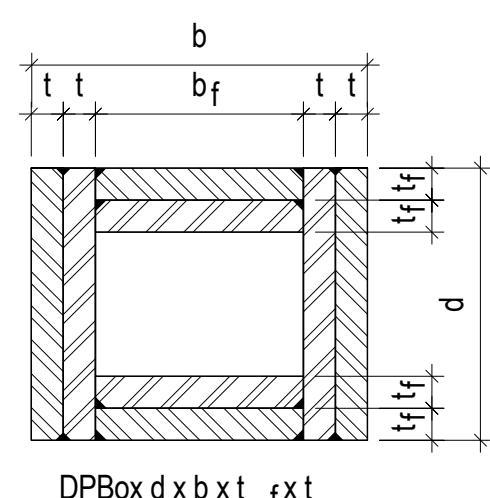


C1: W36X210  
D1: BOX 24X24X1-3/4X1-3/4  
NOTE: REFER TO S-415 FOR LOWER BELT TRUSS TOP CHORD.

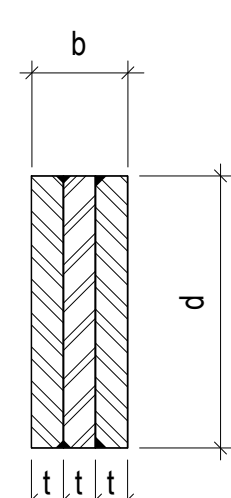
2 TYP SECTION @ LINE J LOOKING EAST  
1/8" = 1'-0"



A BOX



B DPBOX- DOUBLE  
PLATED BOX



C BU - BUILT-TOP SOLID  
PLATE SECTION

**NOMENCLATURE FOR BUILT-UP SECTIONS**  
1/2" = 1'-0"

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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature:

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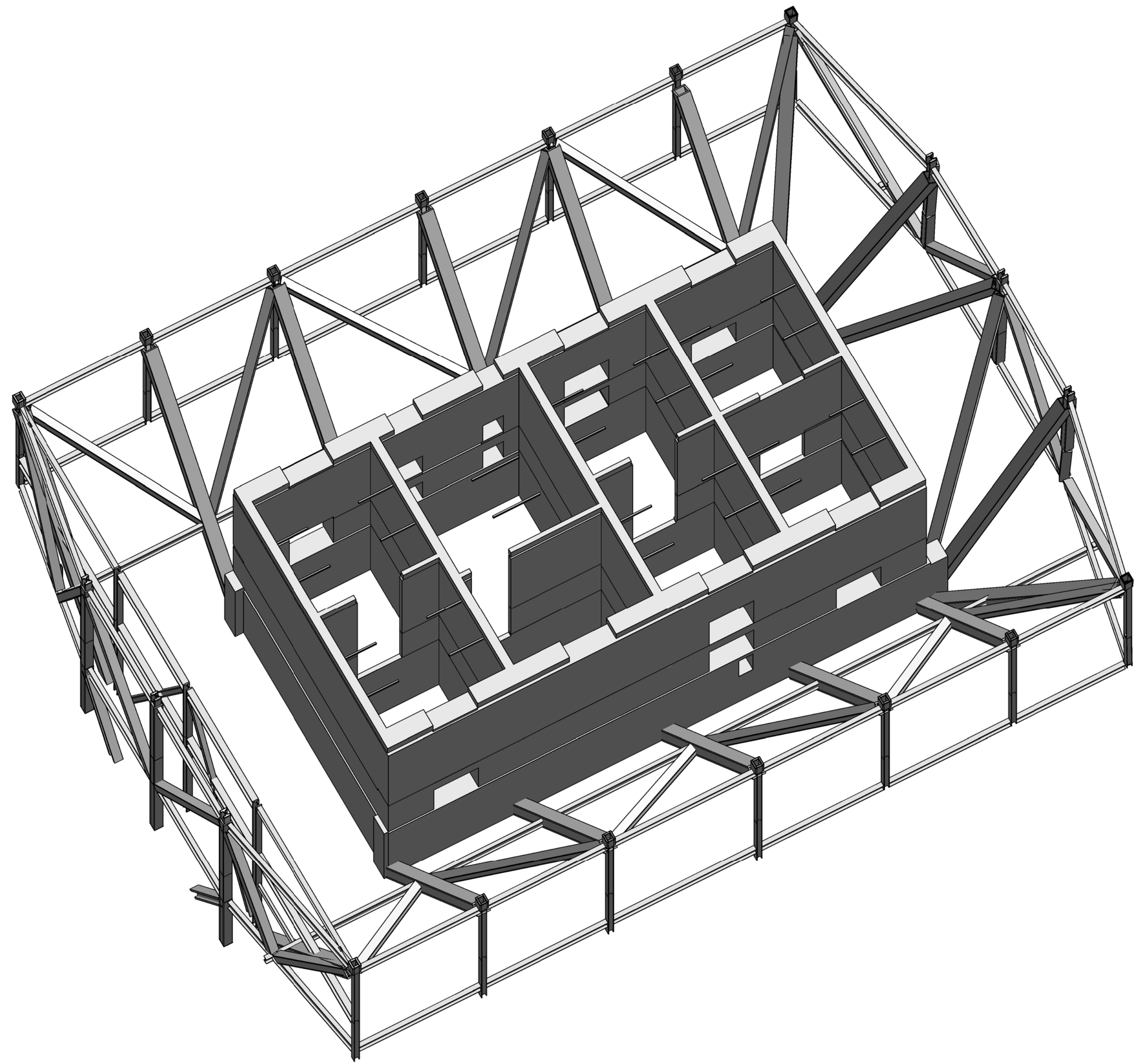
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Project No.:	B-SCAN Sheet No.:
211157	S-411.00

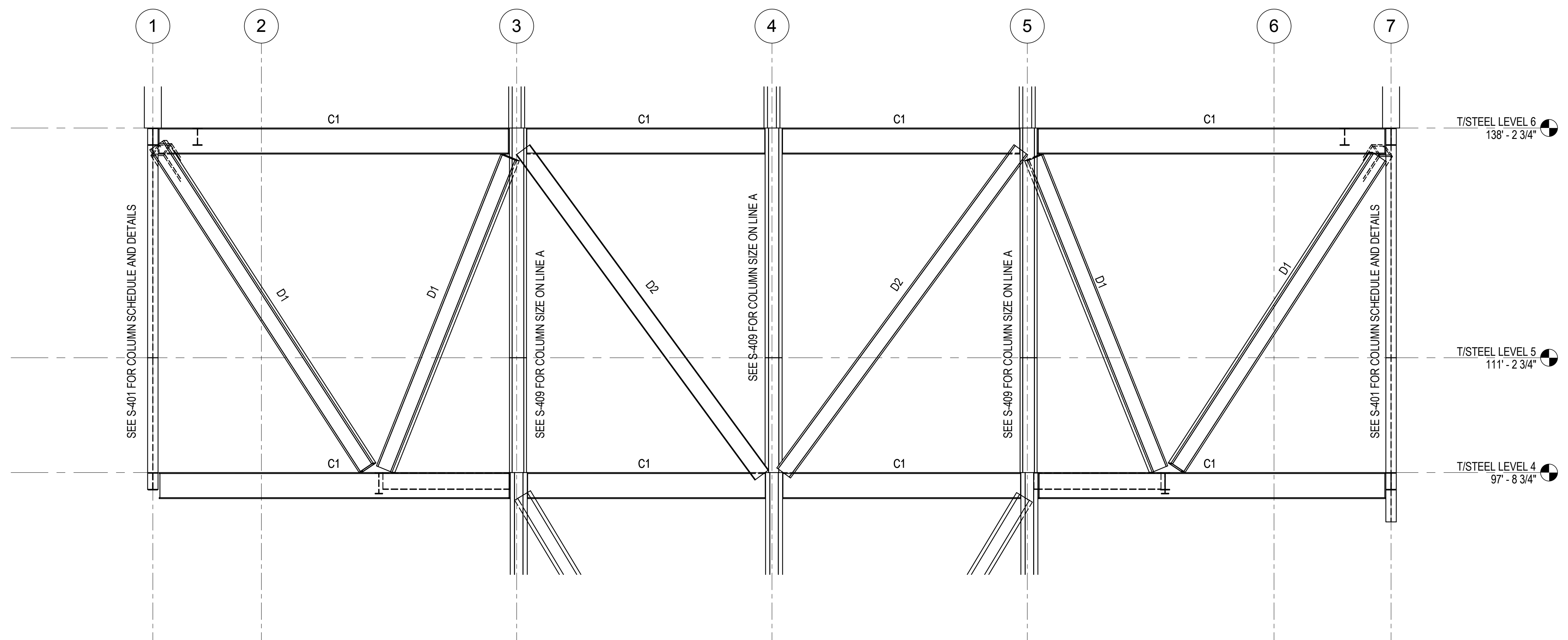
Date:	Sheet No.:
20 JUN 2014	S-411

Scale:	Page No.:
As indicated	83 of 90

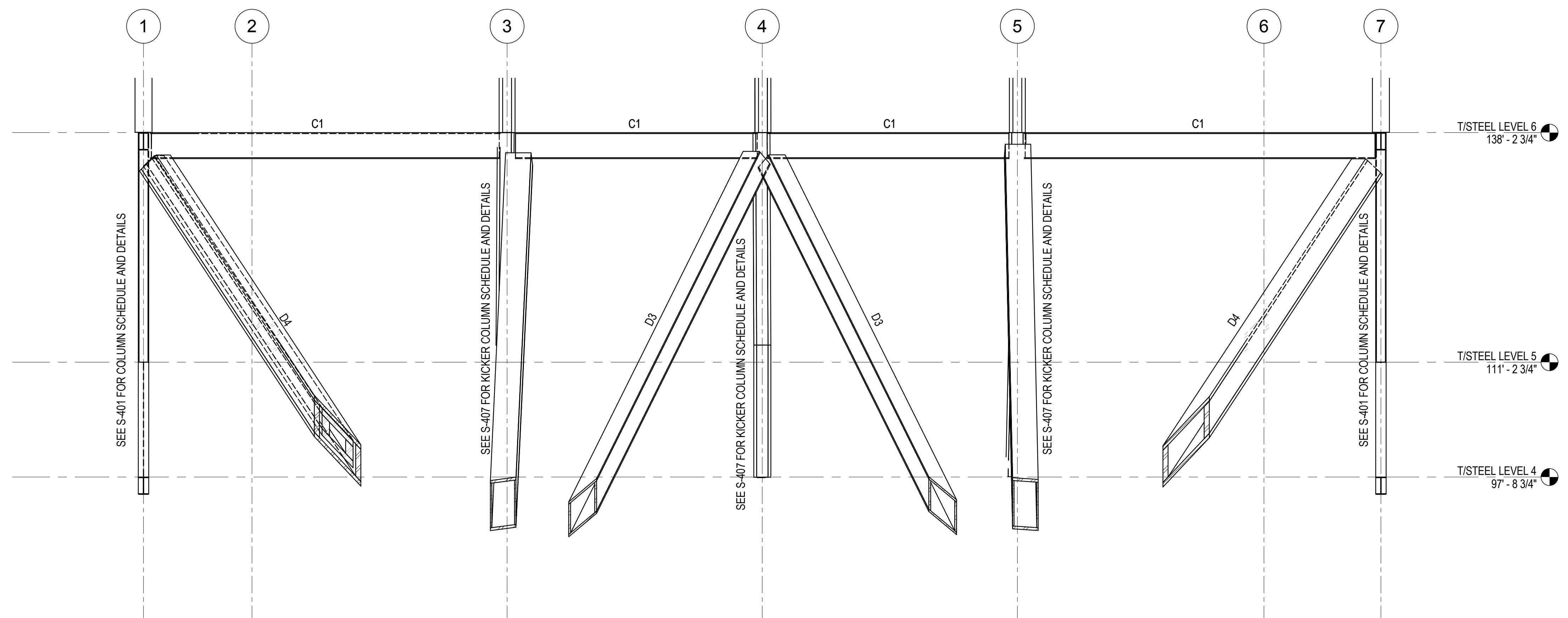




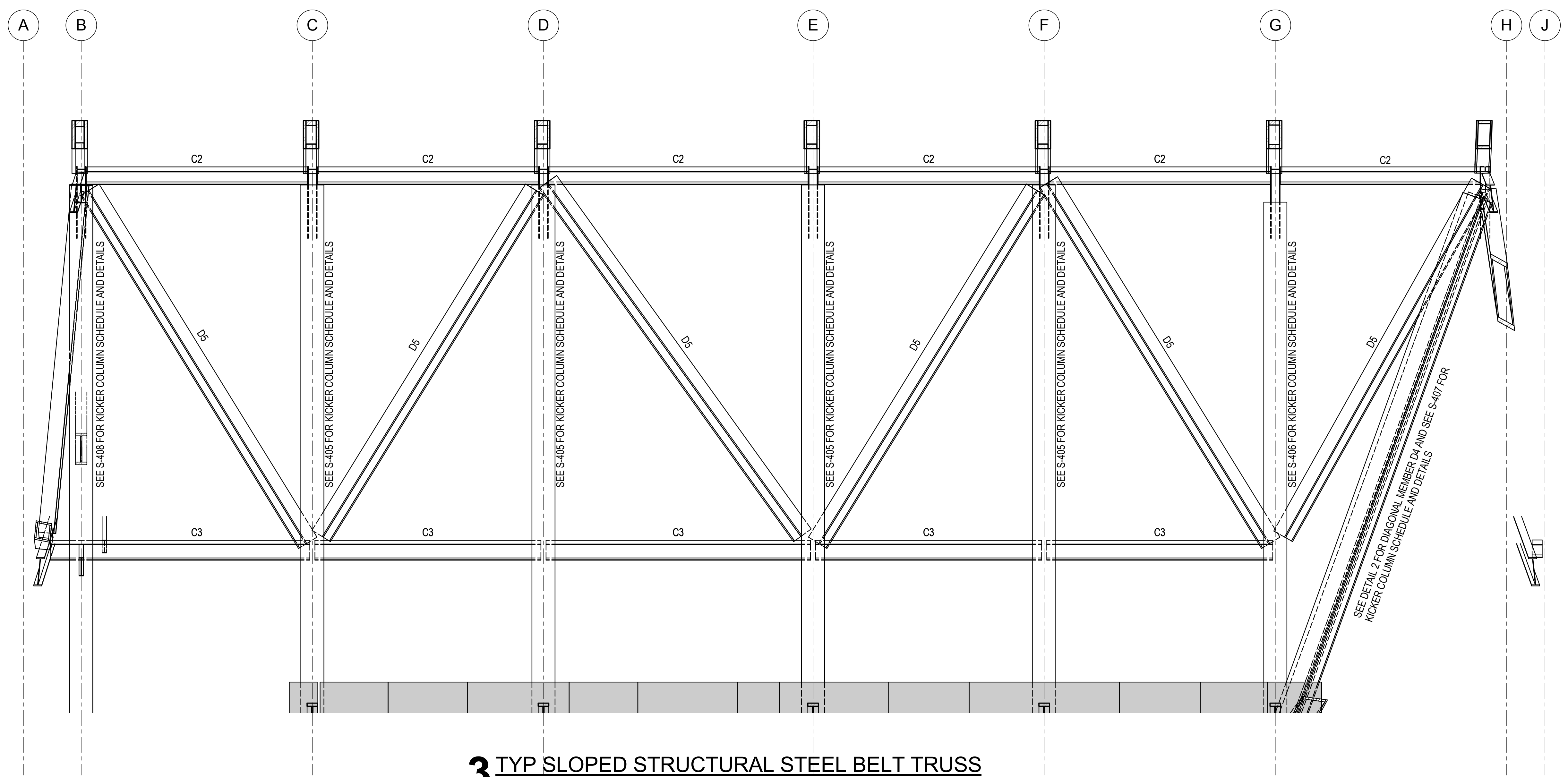
LEVEL 2 TO 4 BELT TRUSS SCHEDULE			
	EAST ELEVATION	WEST ELEVATION	NORTH AND SOUTH ELEVATION
C1	W36x210	W36x210	-
C2	-	-	W24x131
C3	-	-	W30x116
D1	BOX 24X24X2 1/4X2 1/4	-	-
D2	-	BOX 24X24X7/8X7/8	-
D3	-	-	BOX 30X30X2X2
D4	BOX 36X36X4X4	-	-
D5	-	BOX 30X30X3X3	-



1 EAST ELEVATION @ BELT TRUSS GRID LINE A (LOOKING EAST)  
1/8" = 1'-0"



2 SLOPED STRUCTURAL STEEL ON EAST SIDE (LOOKING EAST)  
1/8" = 1'-0"



3 TYP SLOPED STRUCTURAL STEEL BELT TRUSS  
1/8" = 1'-0"



MANHATTAN WEST:  
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Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

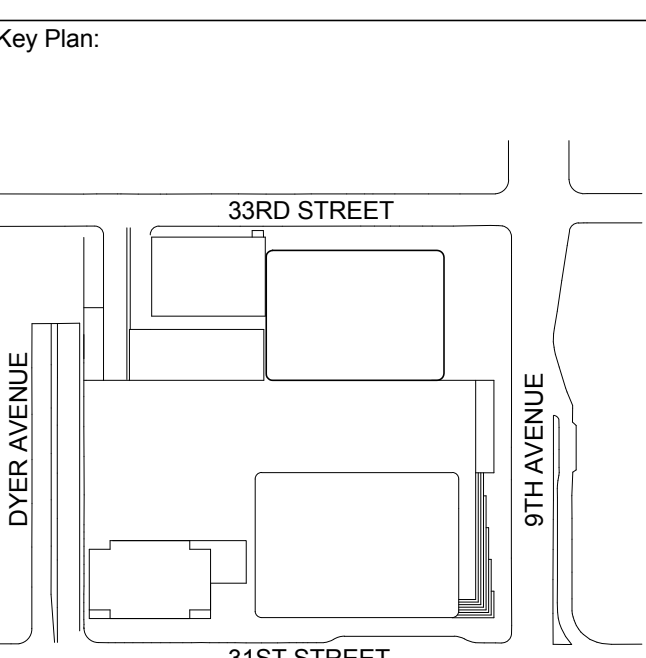
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10016

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Seal & Signature

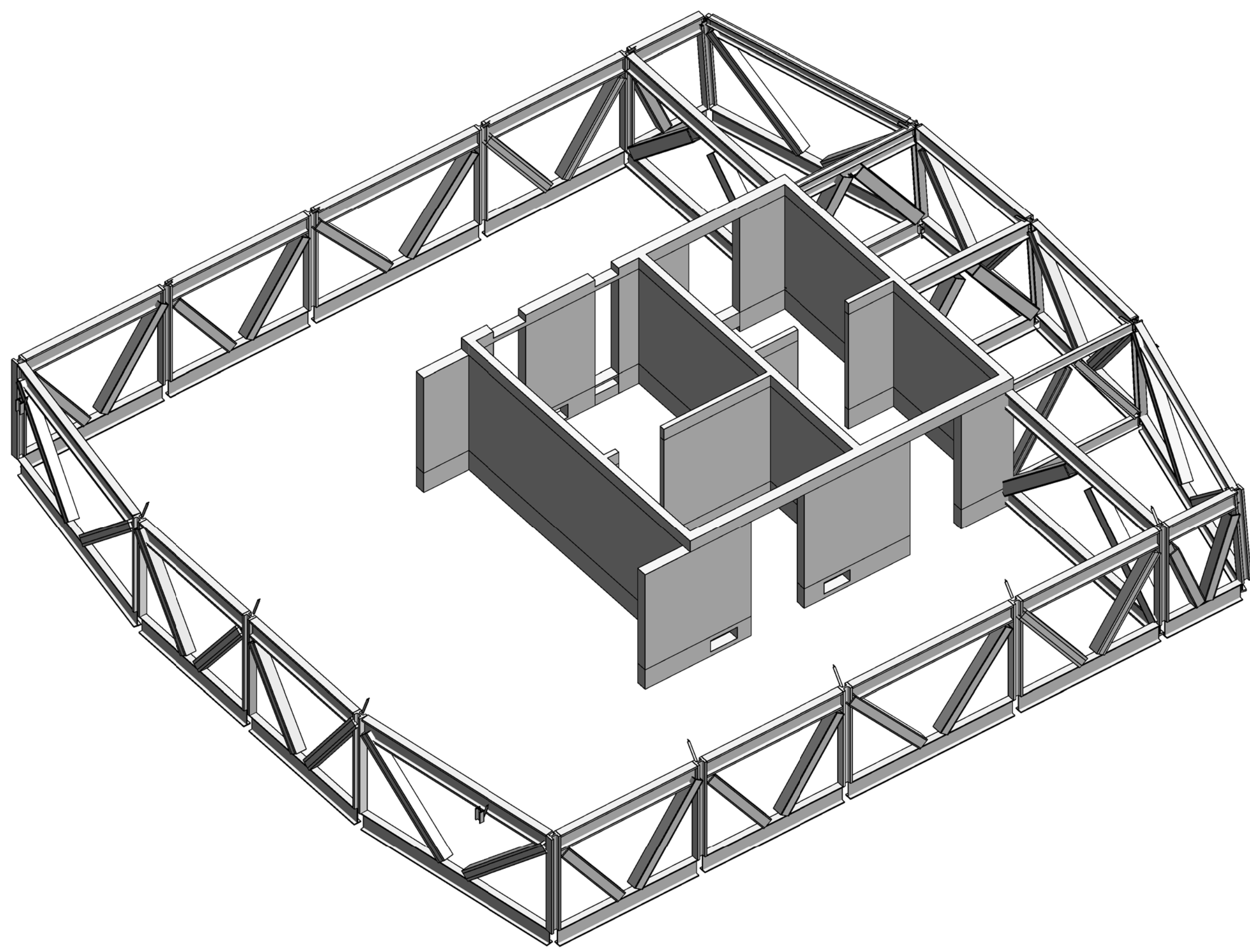
PRELIMINARY  
NOT FOR CONSTRUCTION

No.	Date	Description
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5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 90% DESIGN DEVELOPMENT
1	18 MAR 2013	ISSUED FOR RECONCILIATION

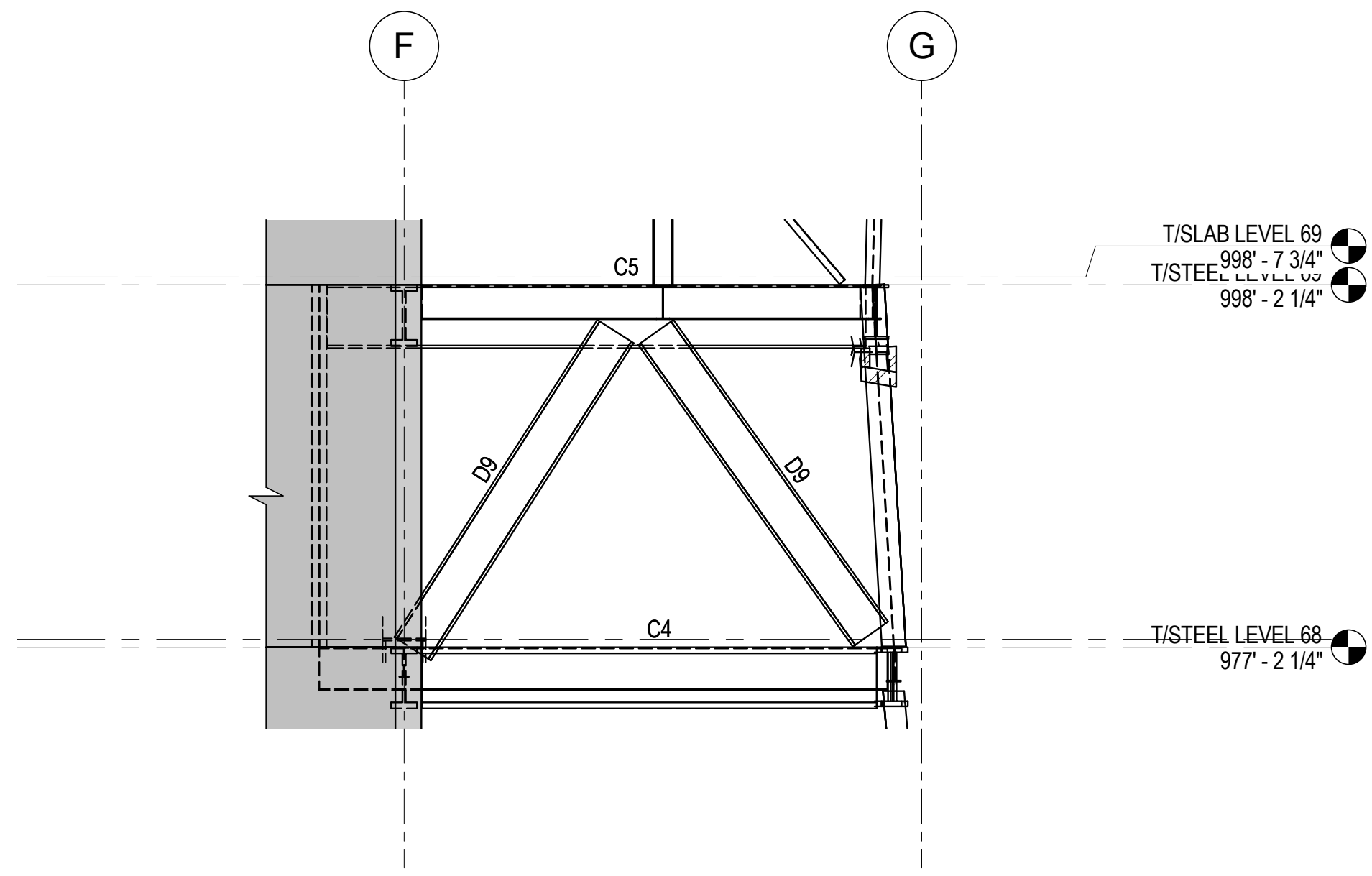
Sheet Name: **LOWER BELT TRUSS SCHEDULES, SECTIONS & DETAILS**

Project No.: 211157	B-SCAN Sheet No.: S-415.00
Date: 20 JUN 2014	Sheet No.: S-415
Scale: As indicated	Page No.: 84 of 90
File No.: S-415	

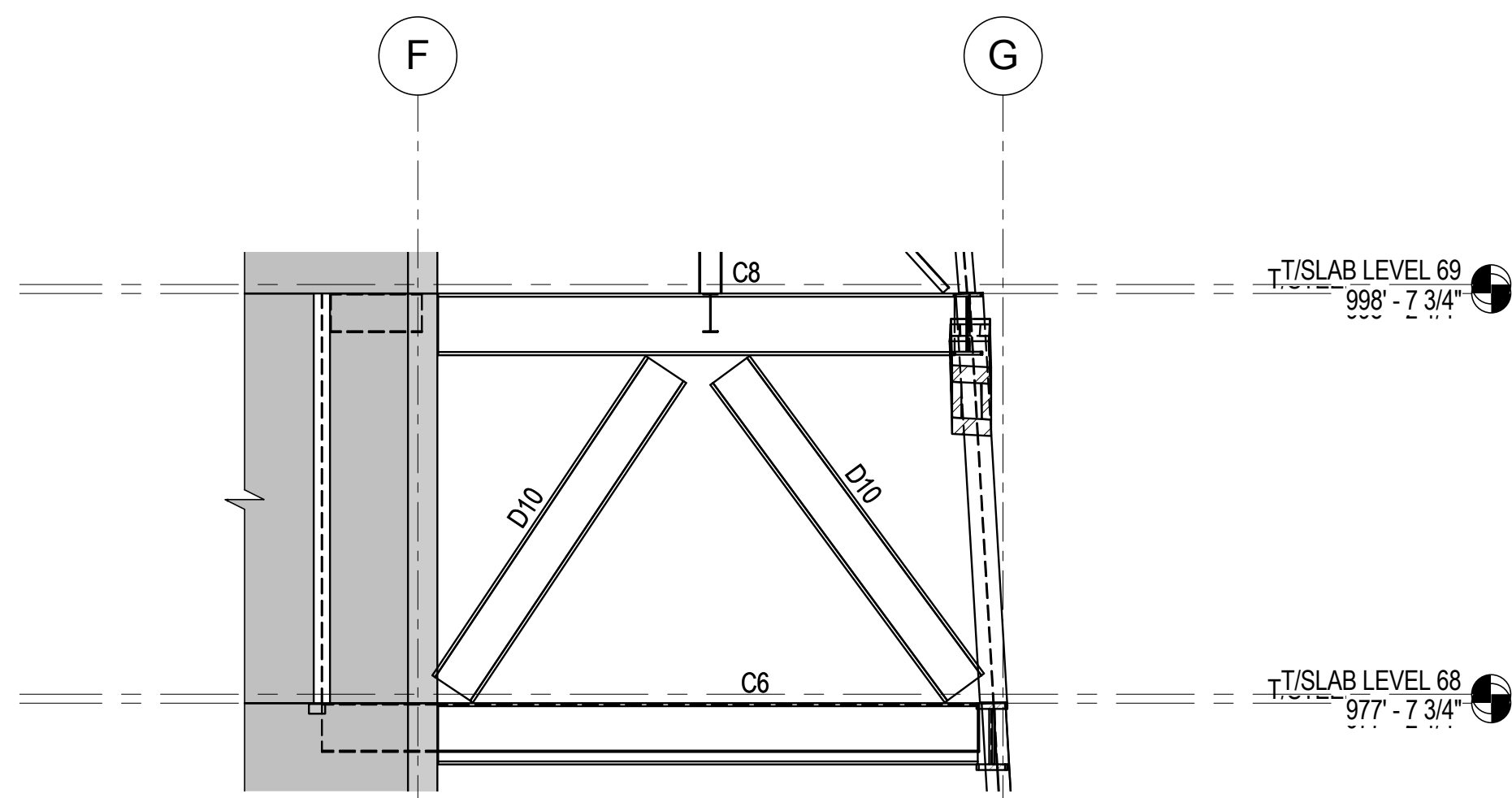




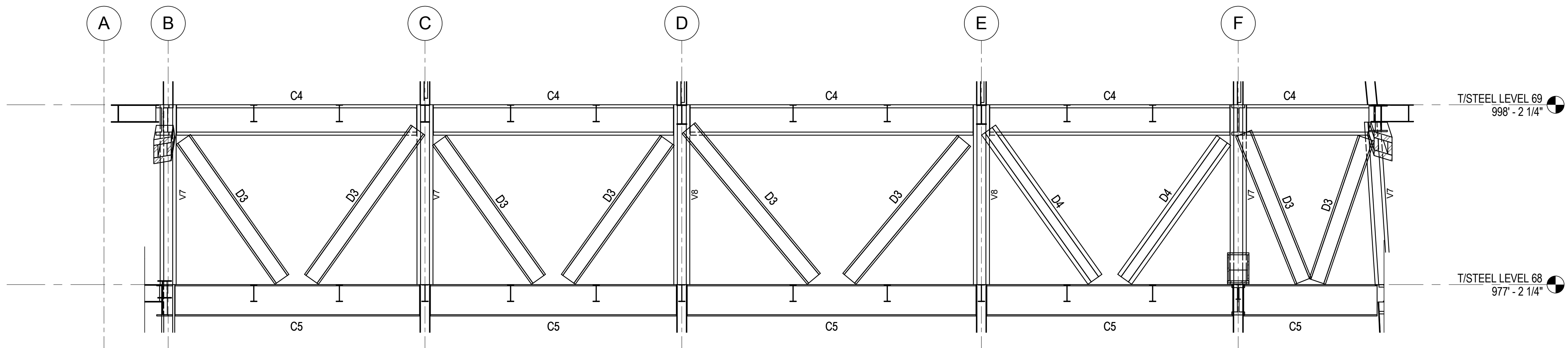
LEVEL 64 TO 65 BELT TRUSS SCHEDULE				
	NORTH AND SOUTH ELEVATION	WEST ELEVATION	EAST ELEVATION	OUTRIGGERS
C4	W36x800	W36x800	-	W36x800
C5	BU44x20x4x4	BU44x20x4x4	-	BU44x20x4x4
C6	-	-	W36x330	W36x330
C7	-	-	W36x652	W36x652
C8	-	-	-	W36x361
D3	BOX24x24x2 1/2x2 1/2	-	-	-
D4	BOX24x24x3 1/4x3 1/4	BOX24x24x3 1/4x3 1/4	-	-
D5	-	BOX24x24x2 1/4x2 1/4	-	-
D6	-	-	BOX24x24x1 1/4x1 1/4	-
D9	-	-	-	BOX30x24x4x4
D10	-	-	-	BOX30x24x1 1/2x1 1/2
D11	-	-	-	BOX30x24x3 1/2x3 1/2
V7	W14x730	W14x730	W14x730	-
V8	WFP14x730x17x1	WFP14x730x17x1	-	-
V9	-	-	W14x426	-



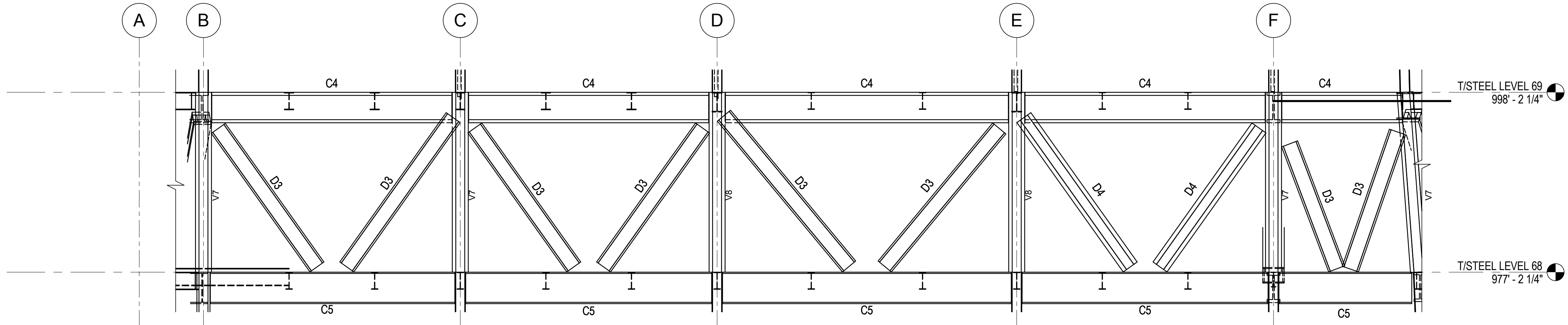
5 OUTRIGGER SECTION ALONG LINES 3 AND 5  
1/8" = 1'-0"



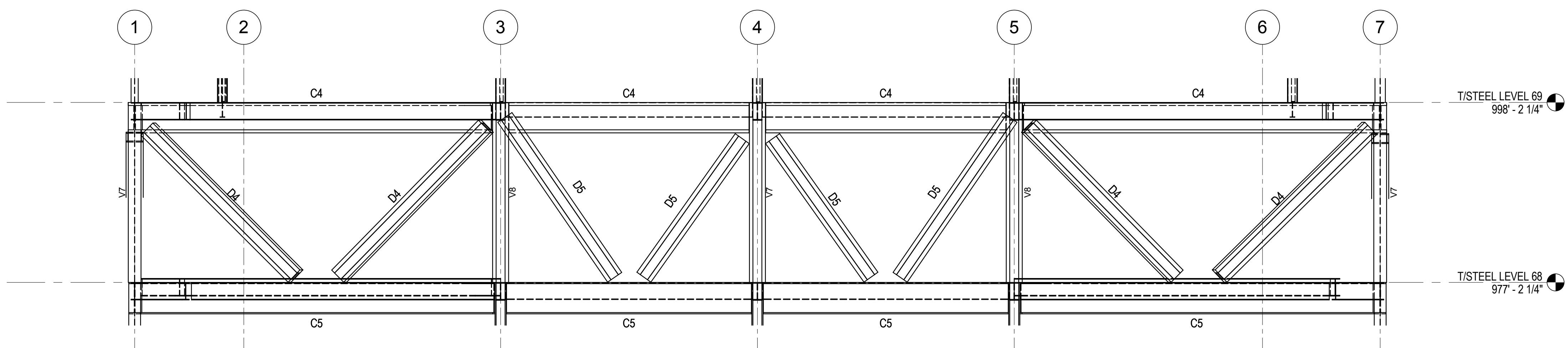
6 OUTRIGGER SECTION ALONG LINE 4  
1/8" = 1'-0"



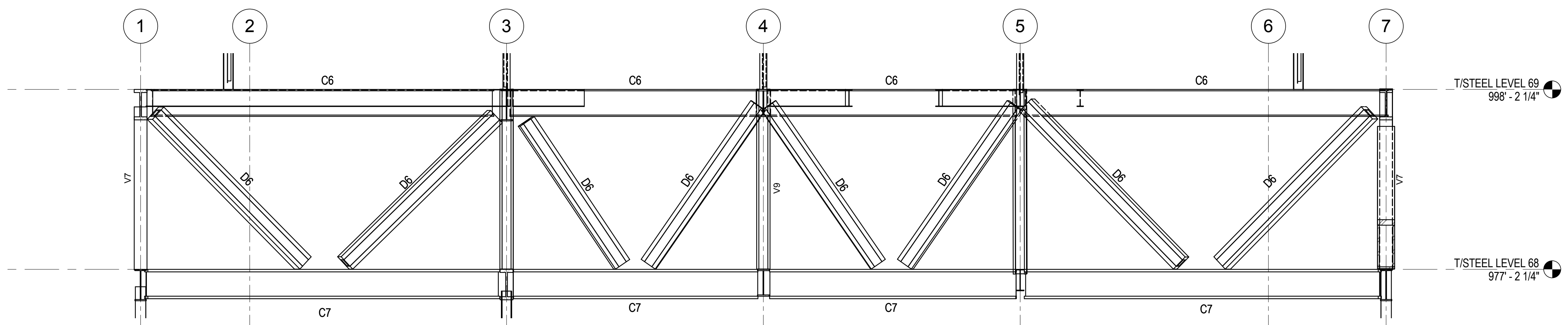
1 NORTH ELEVATION @ BELT TRUSS GRID LINE 1 (LOOKING NORTH)  
1/8" = 1'-0"



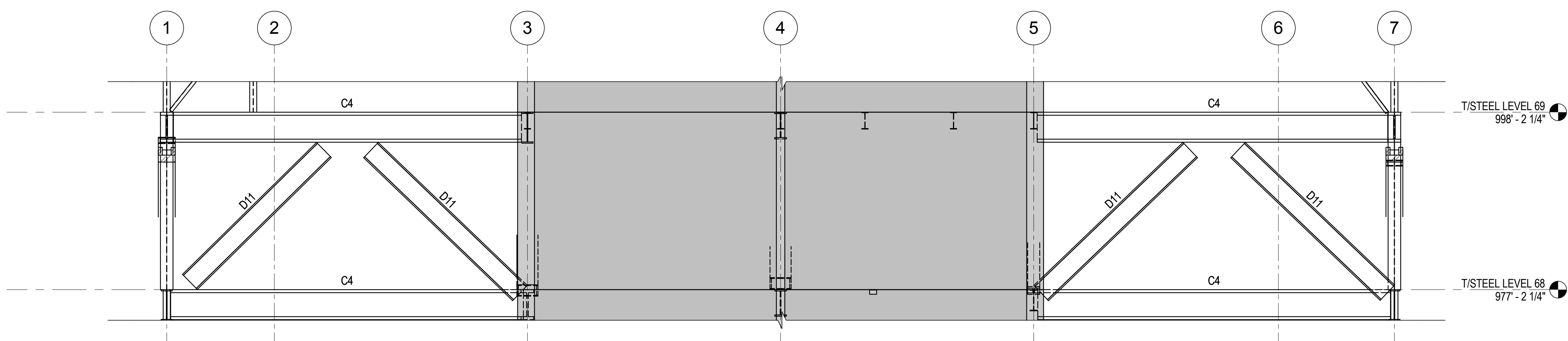
2 SOUTH ELEVATION @ BELT TRUSS GRID LINE 7 (LOOKING NORTH)  
1/8" = 1'-0"



3 WEST ELEVATION @ BELT TRUSS GRID LINE A (LOOKING EAST)  
1/8" = 1'-0"



4 EAST ELEVATION @ BELT TRUSS GRID LINE G (LOOKING EAST)  
1/8" = 1'-0"



7 ELEVATION @ LINE F (LOOKING EAST)  
1/8" = 1'-0"

**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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Philip Habib & Associates  
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MEP Engineering  
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50 Washington Street, Newark, CT 06854

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475 10th Avenue, New York, NY 10018

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Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

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Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:

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Sheet Name: UPPER BELT TRUSS SCHEDULES, SECTIONS & DETAILS

Project No.:	B-SCAN Sheet No.:
211157	S-416.00
Date:	Sheet No.:
20 JUN 2014	S-416
Scale:	Page No.:
As indicated	85 of 90
File No.:	
S-416	





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375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
250 Vesey Street, 15th Floor, New York, NY 10021

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**SOM**  
Skidmore, Owings & Merrill LLP  
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Code Consultants Professional Engineers PC  
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166 Ames Street, Hackensack, NJ 07601

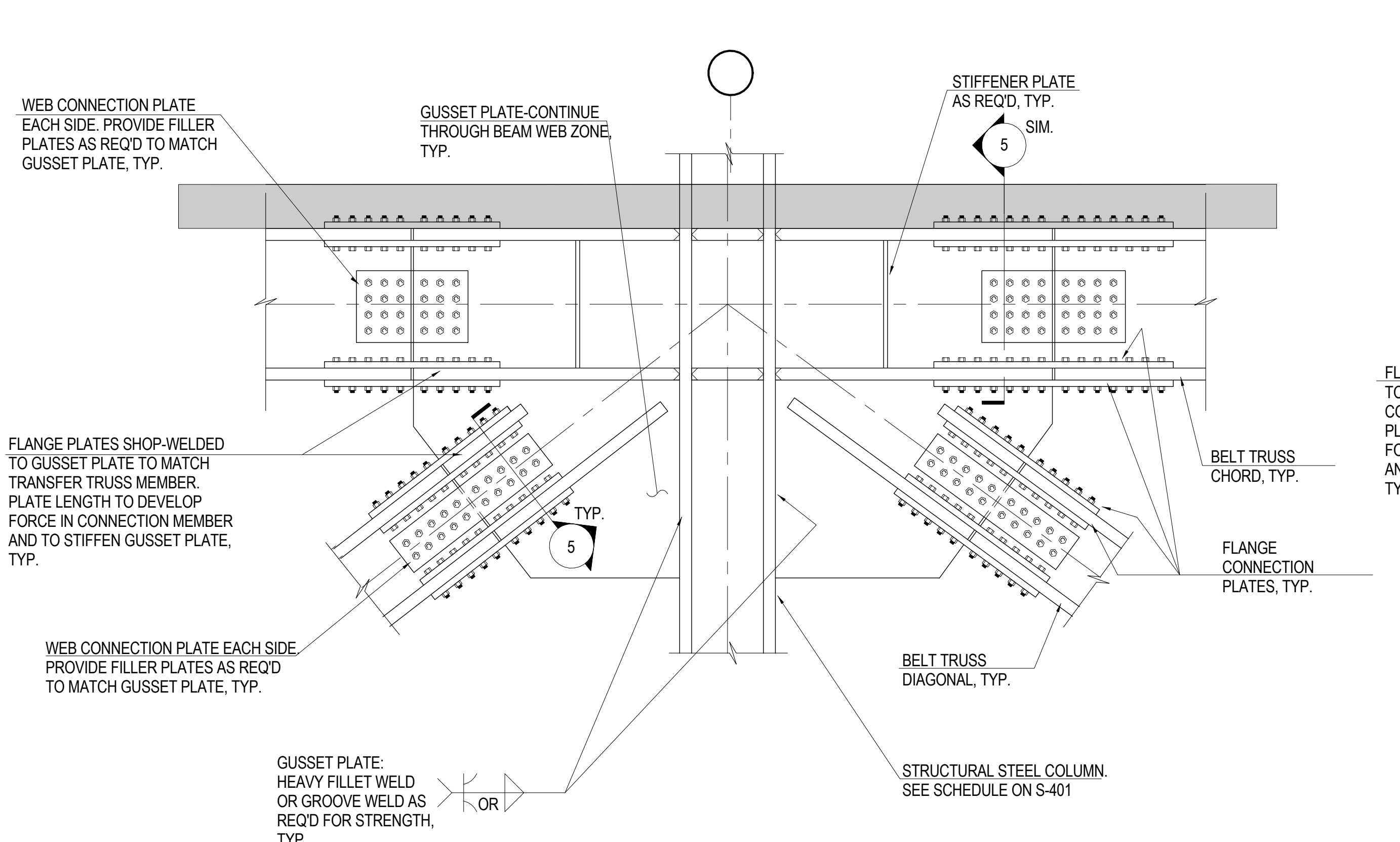
Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:  
33RD STREET  
DYER AVENUE  
31ST STREET  
9TH AVENUE

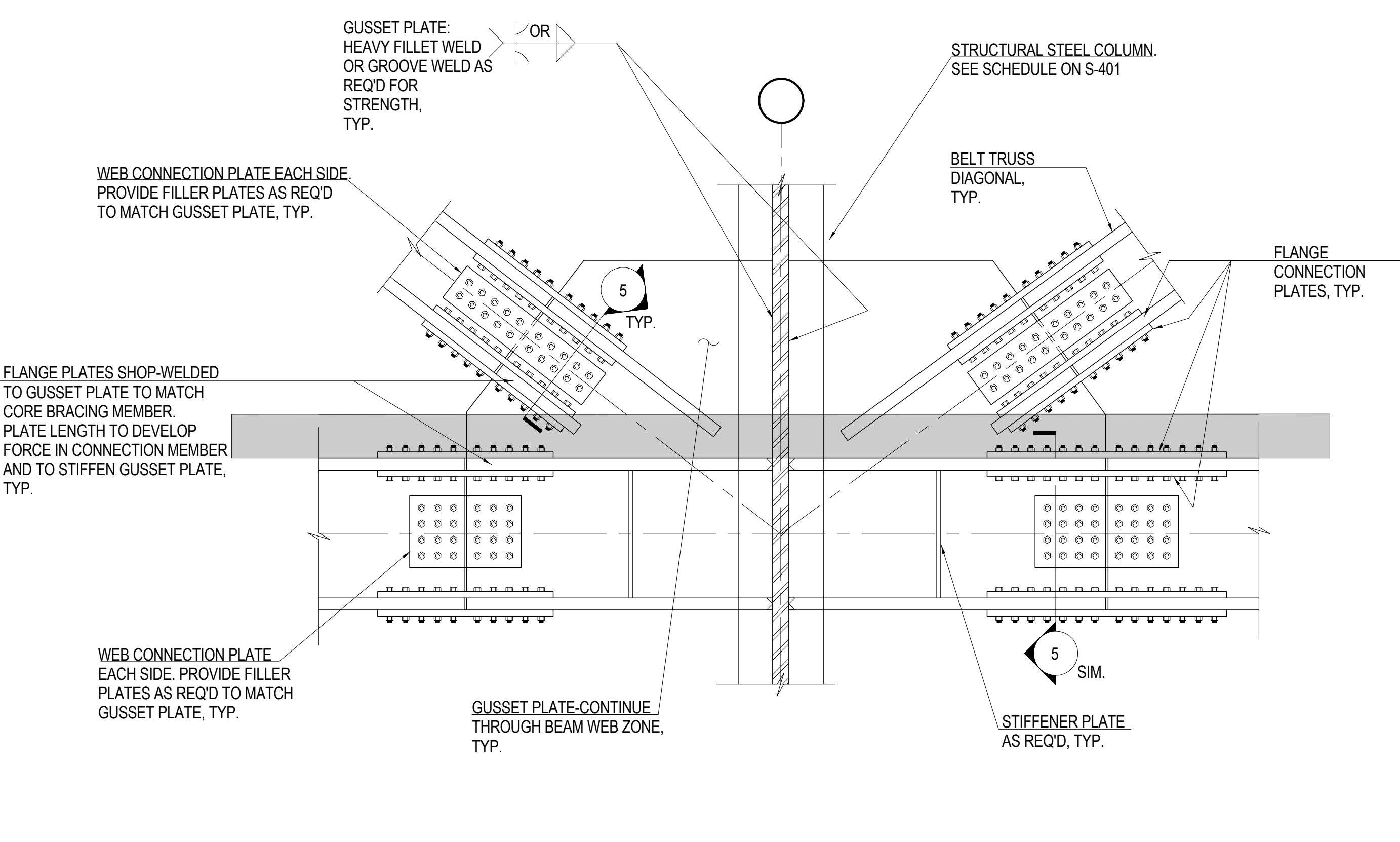
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Project No.: 211157  
Date: 20 JUN 2014  
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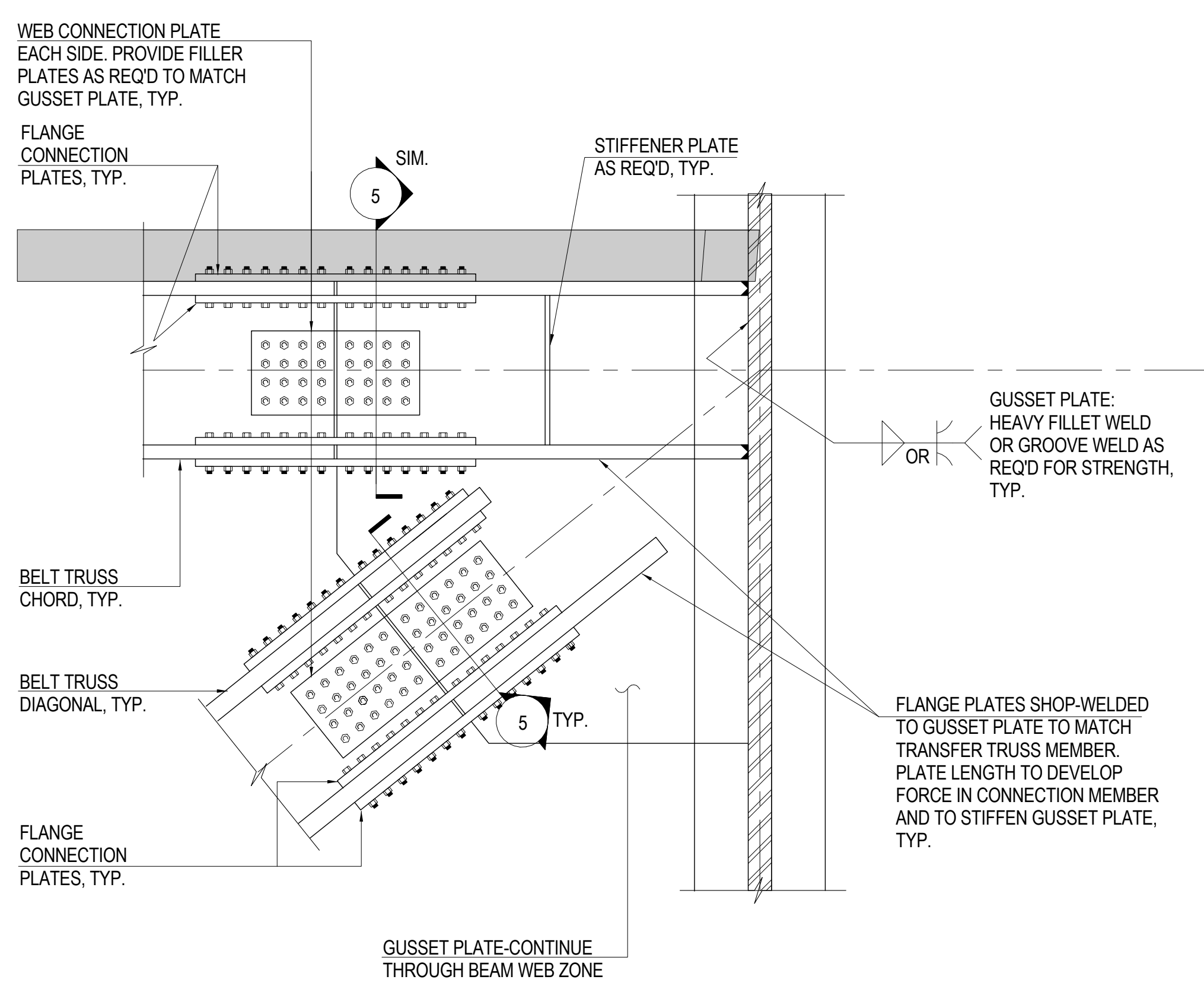
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Sheet No.: S-417  
Page No.: 86 of 90



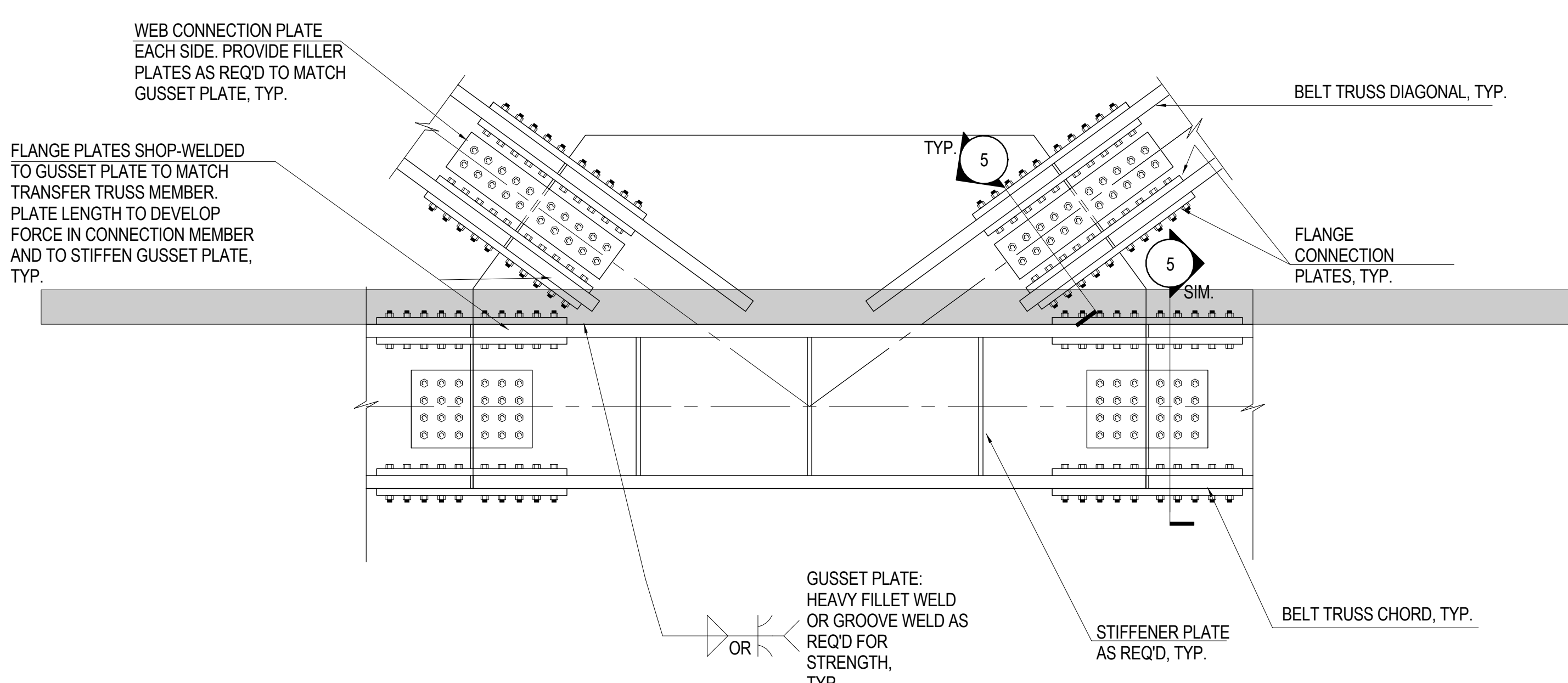
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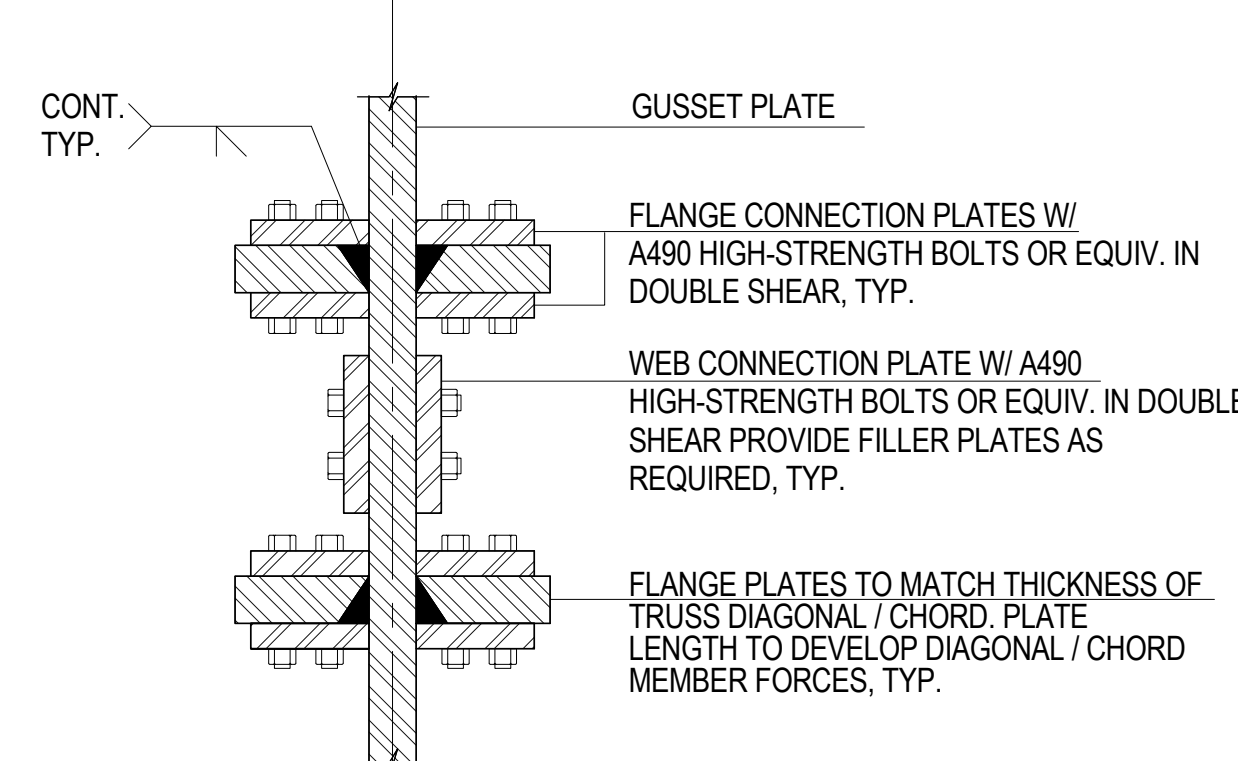
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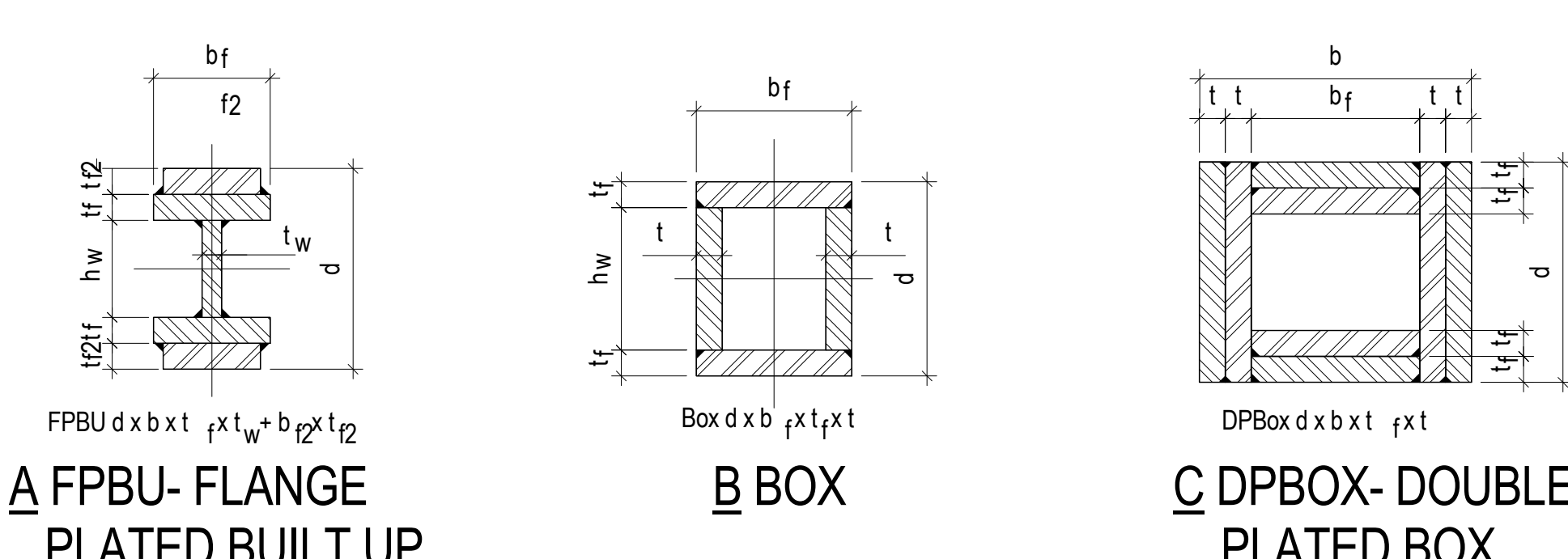
**3 BELT TRUSS BRACING CONNECTION DETAIL**  
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**4 BELT TRUSS BRACING BOTTOM CONNECTION DETAIL**  
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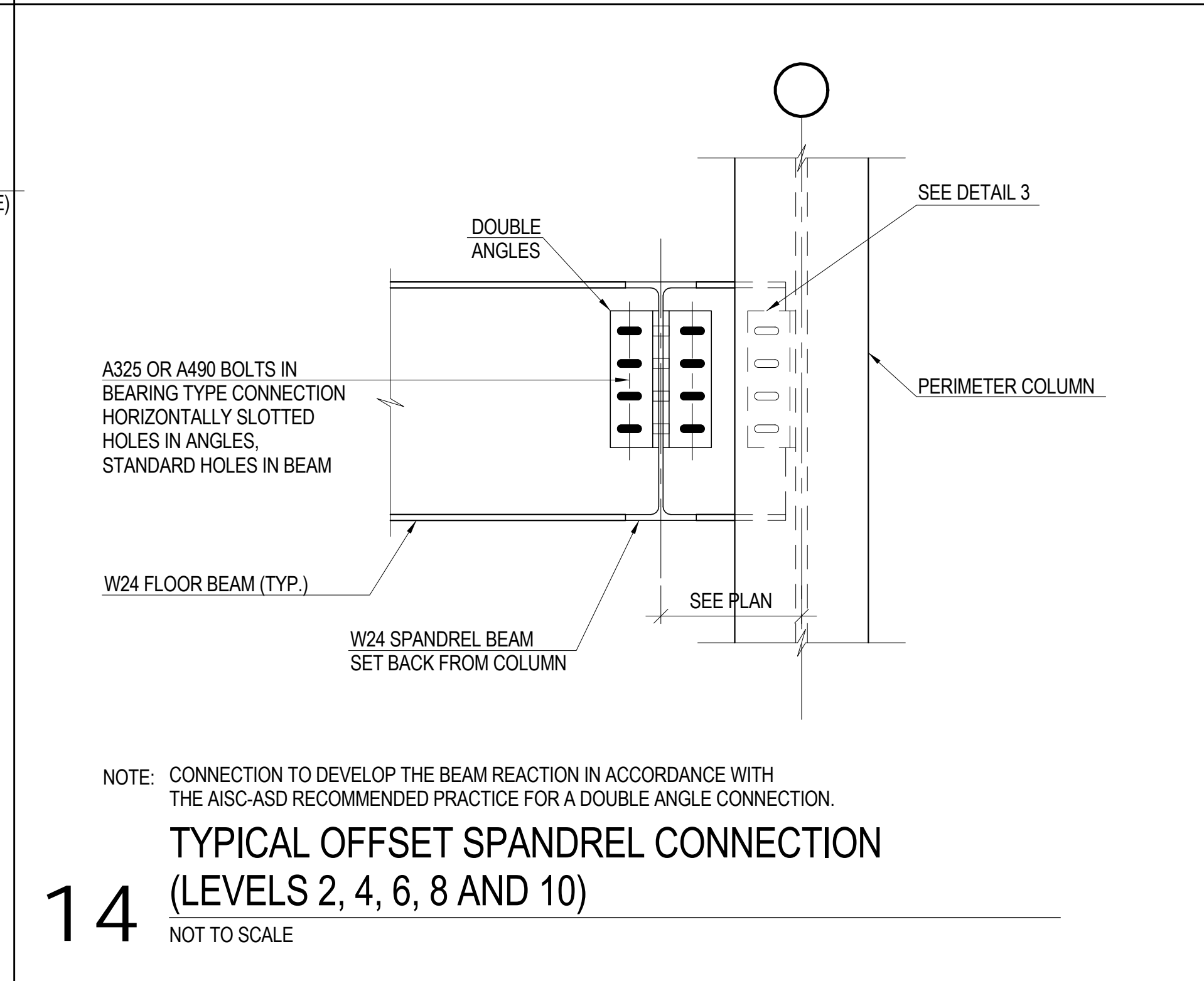
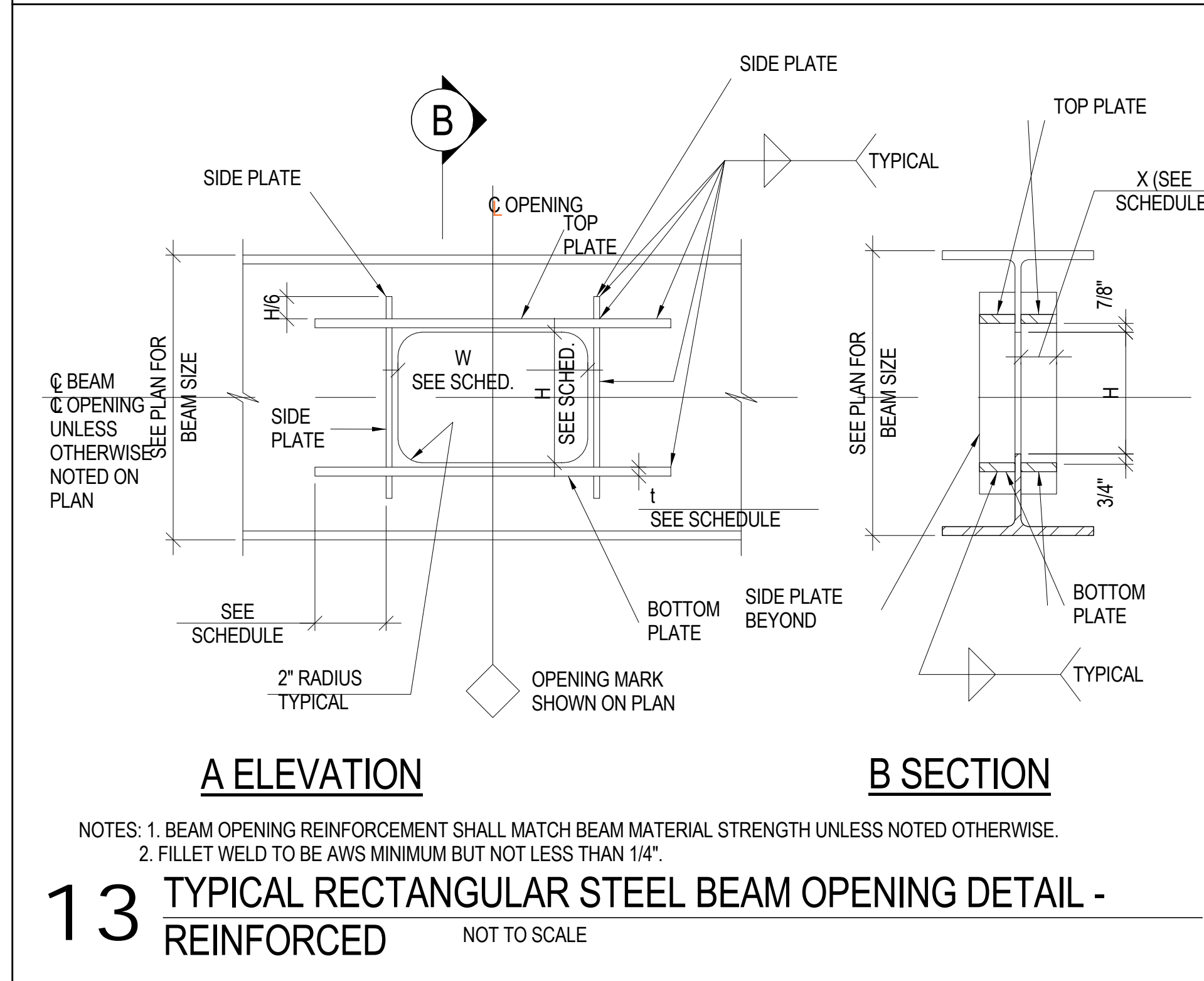
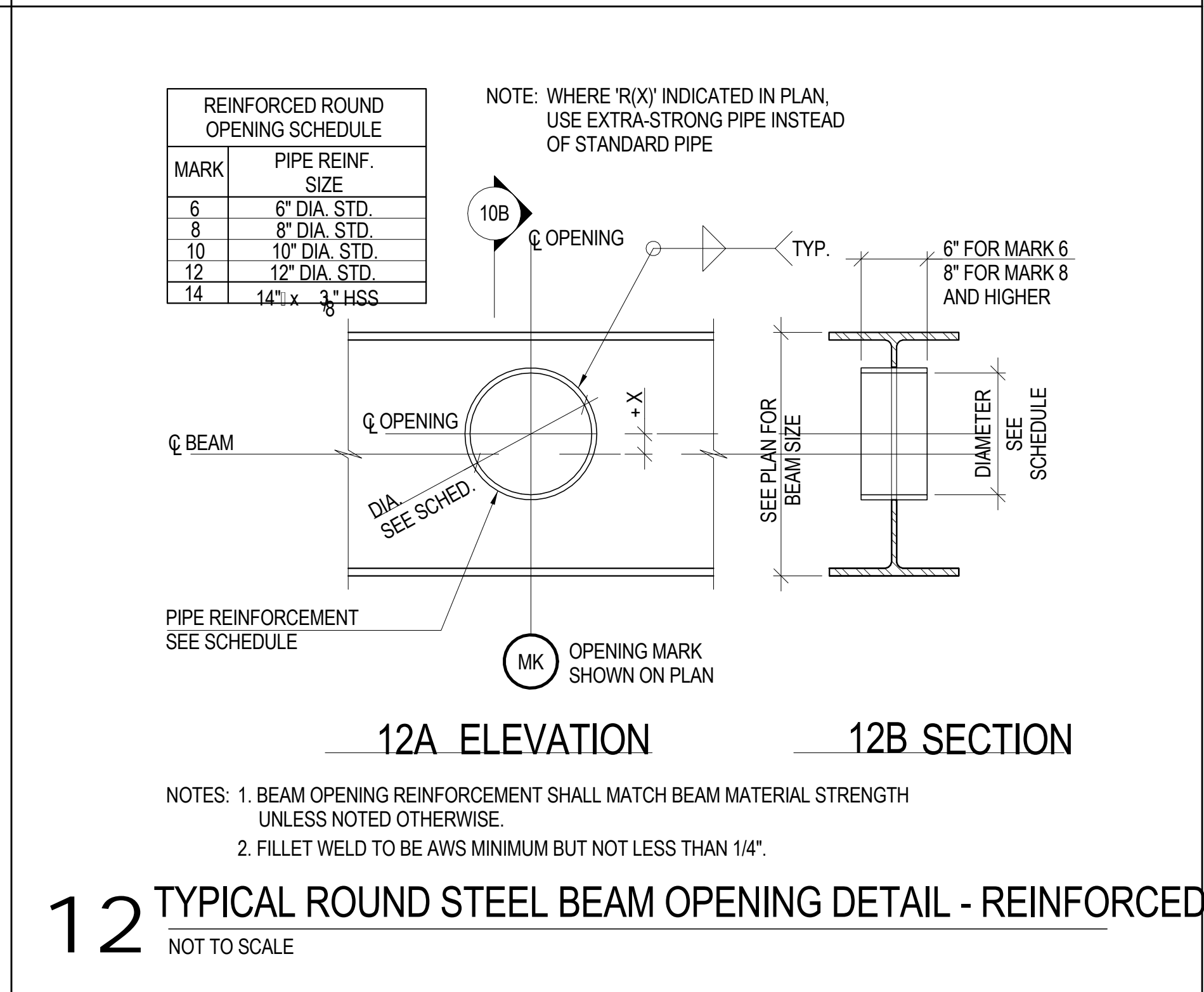
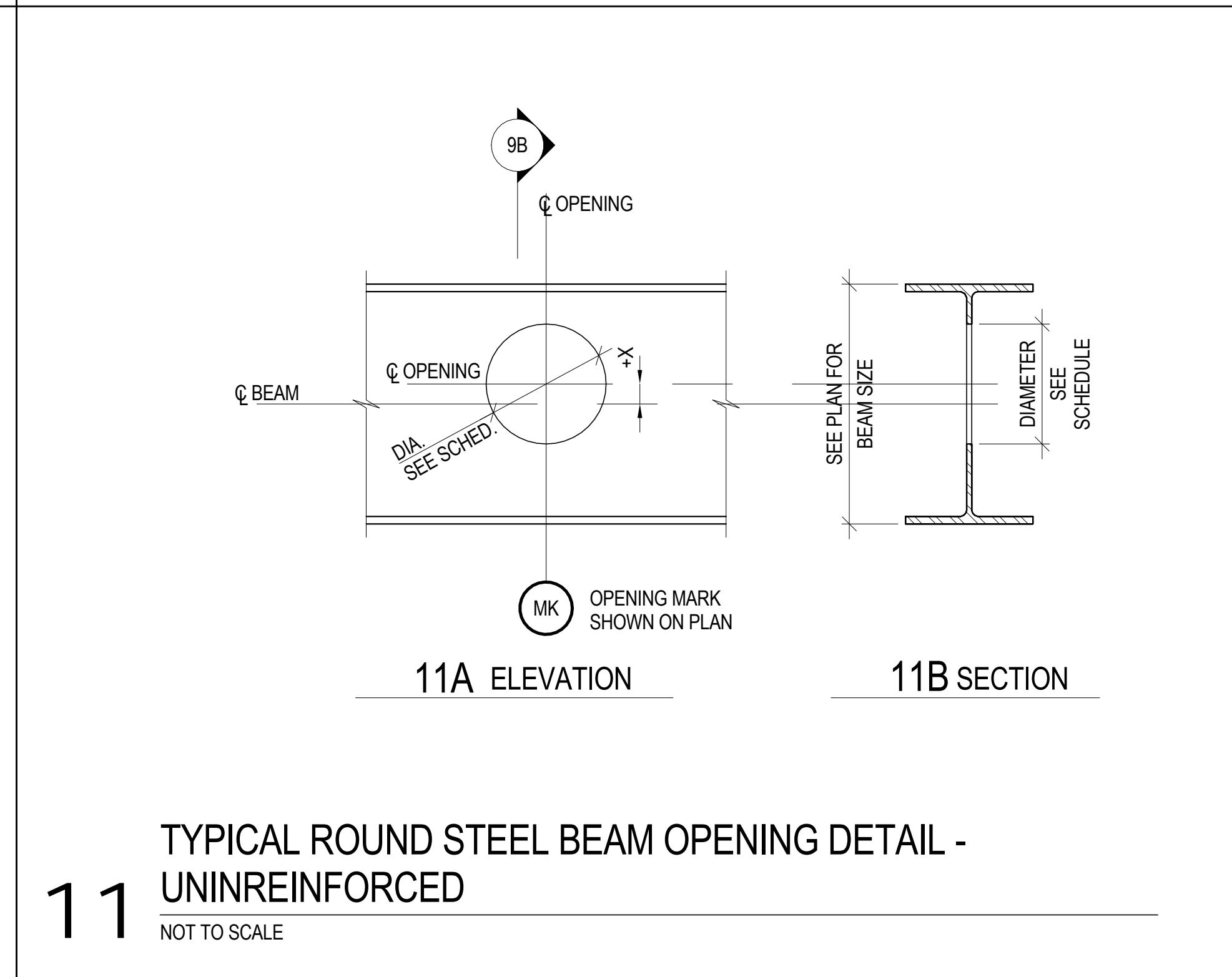
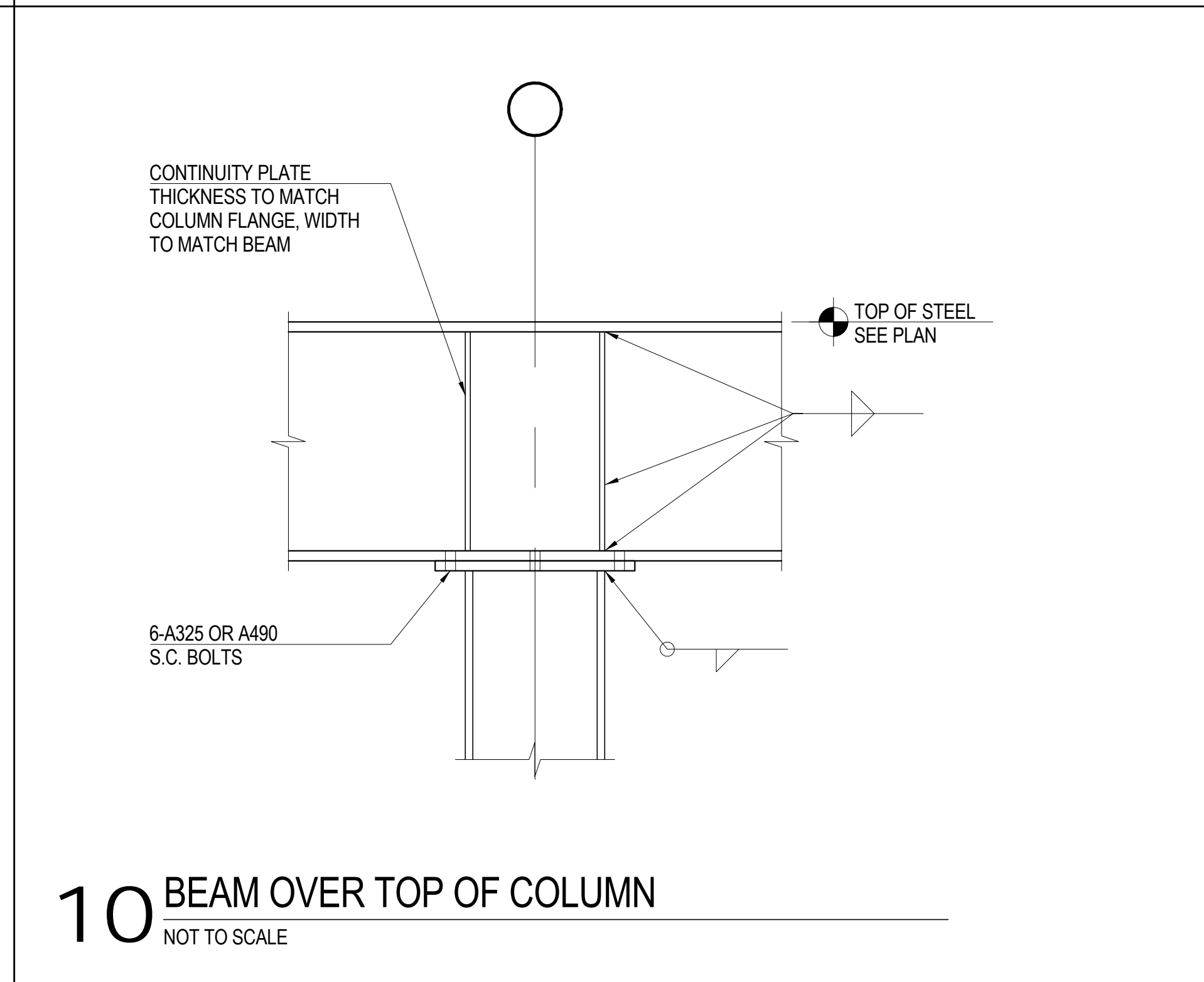
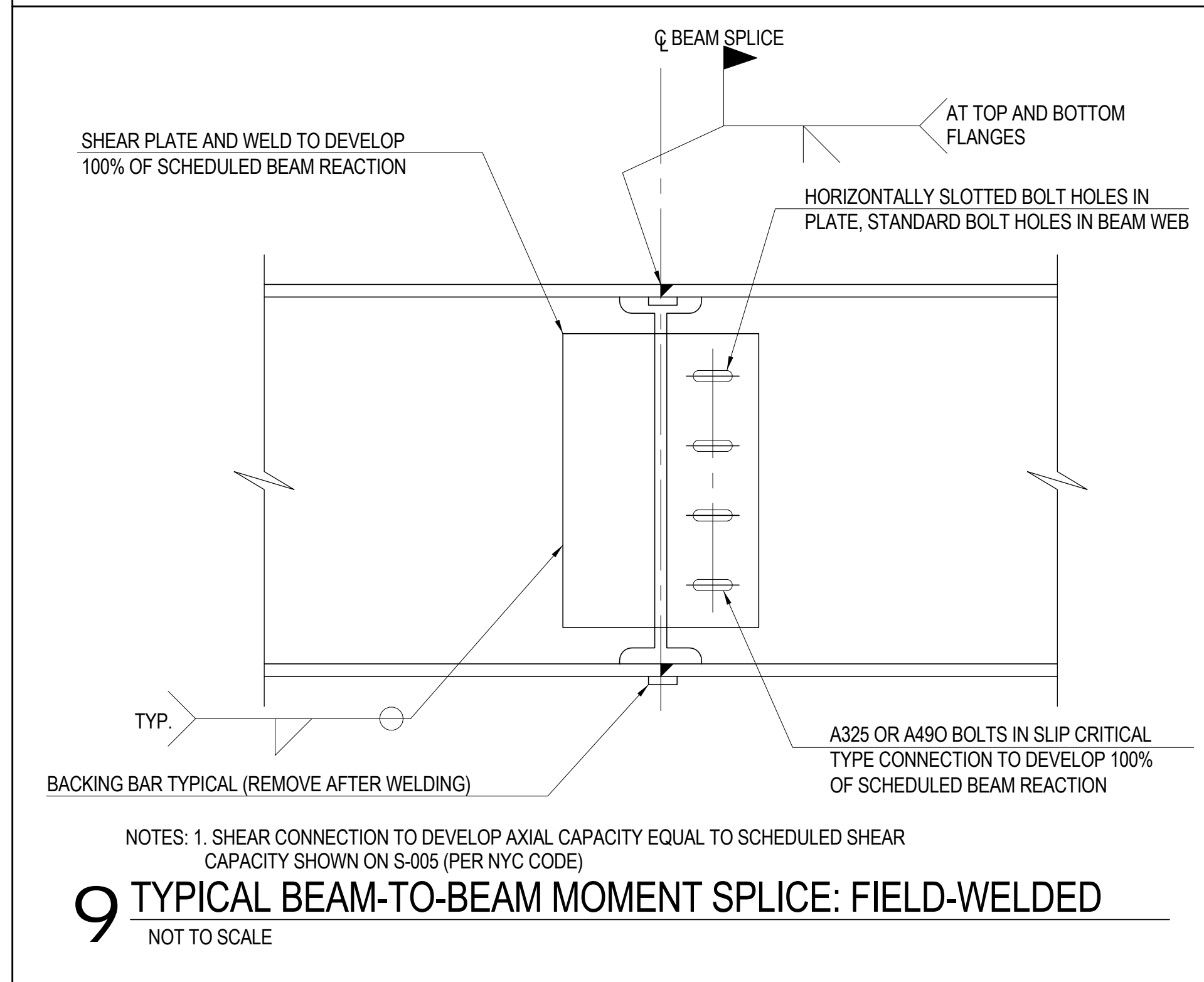
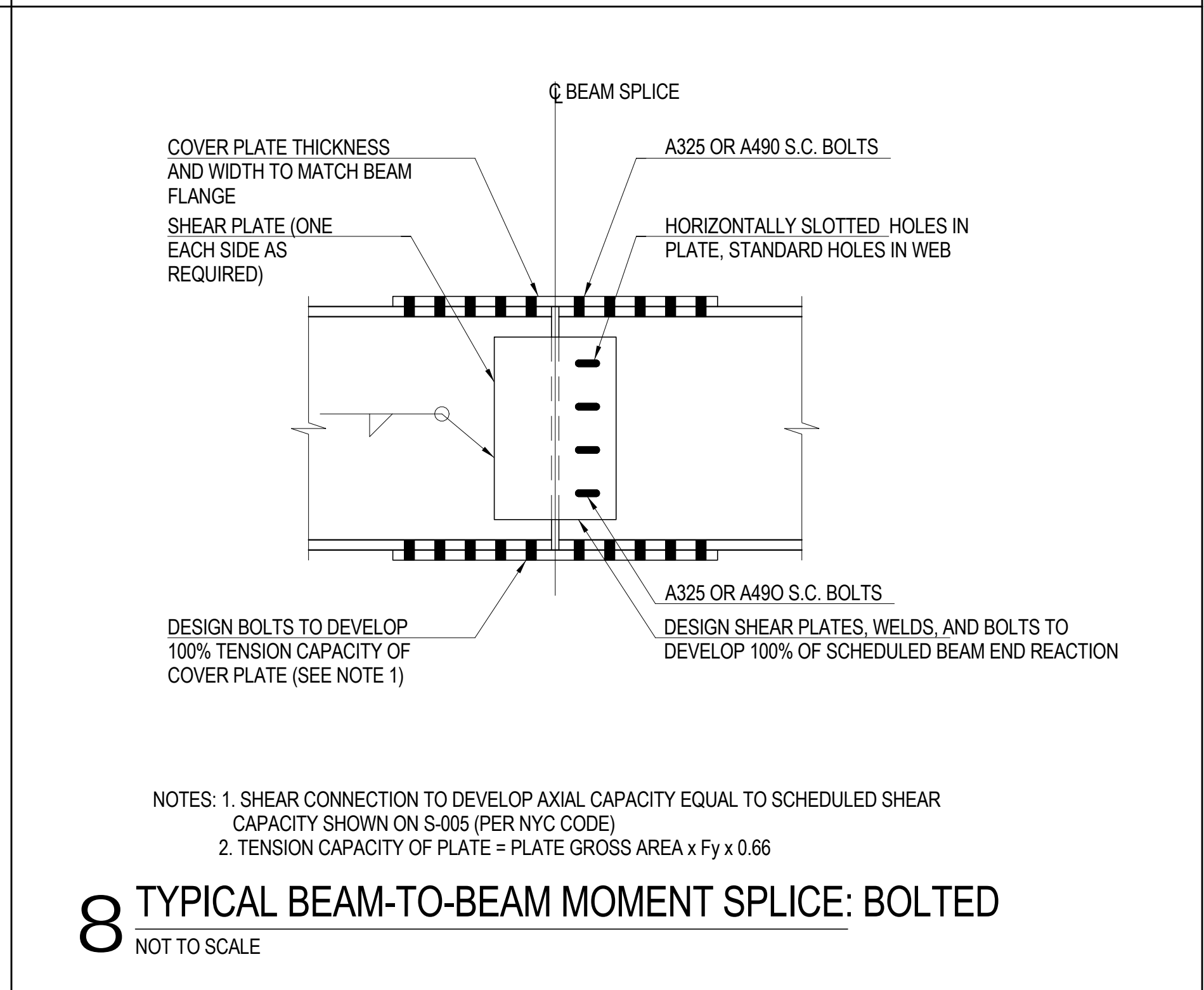
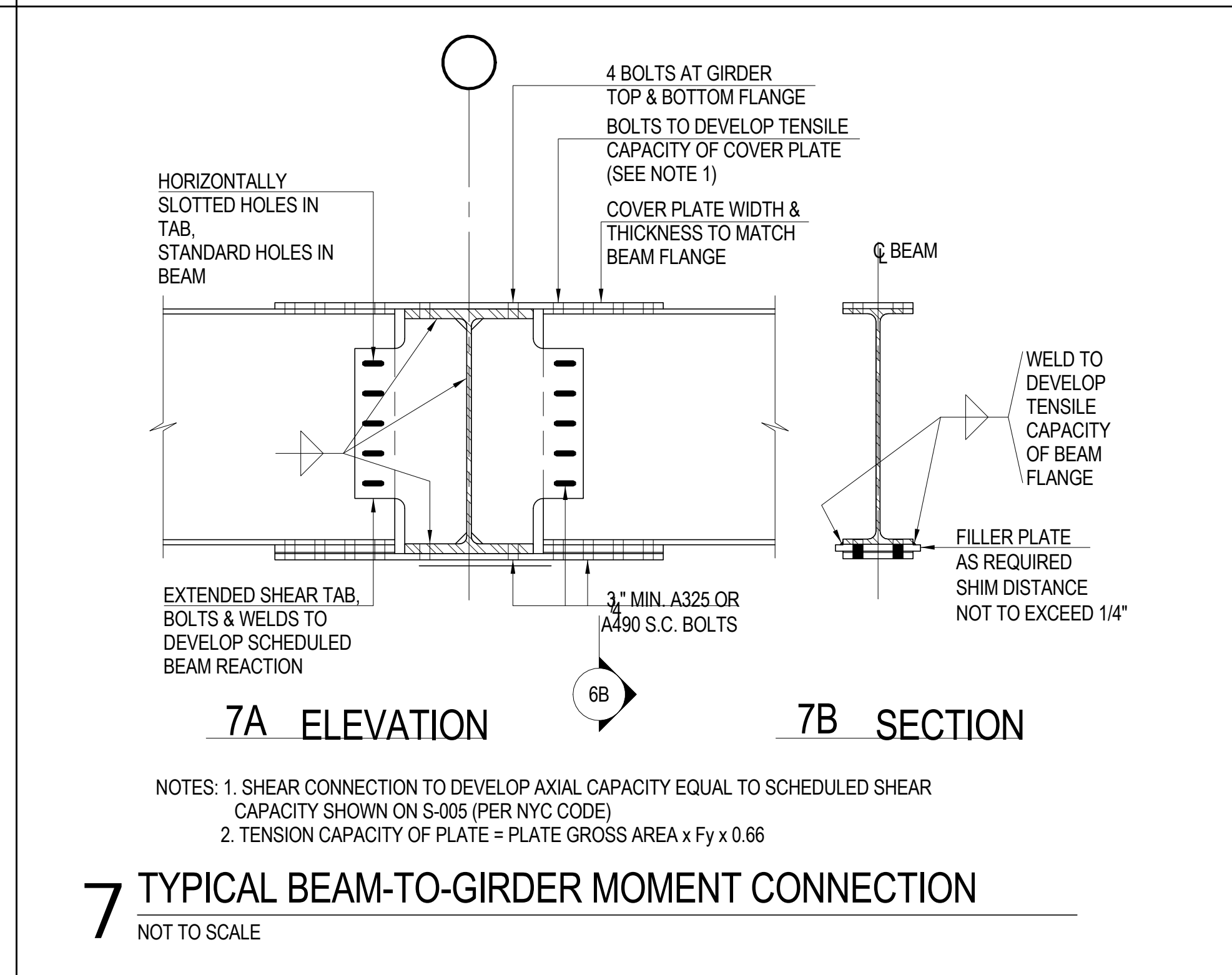
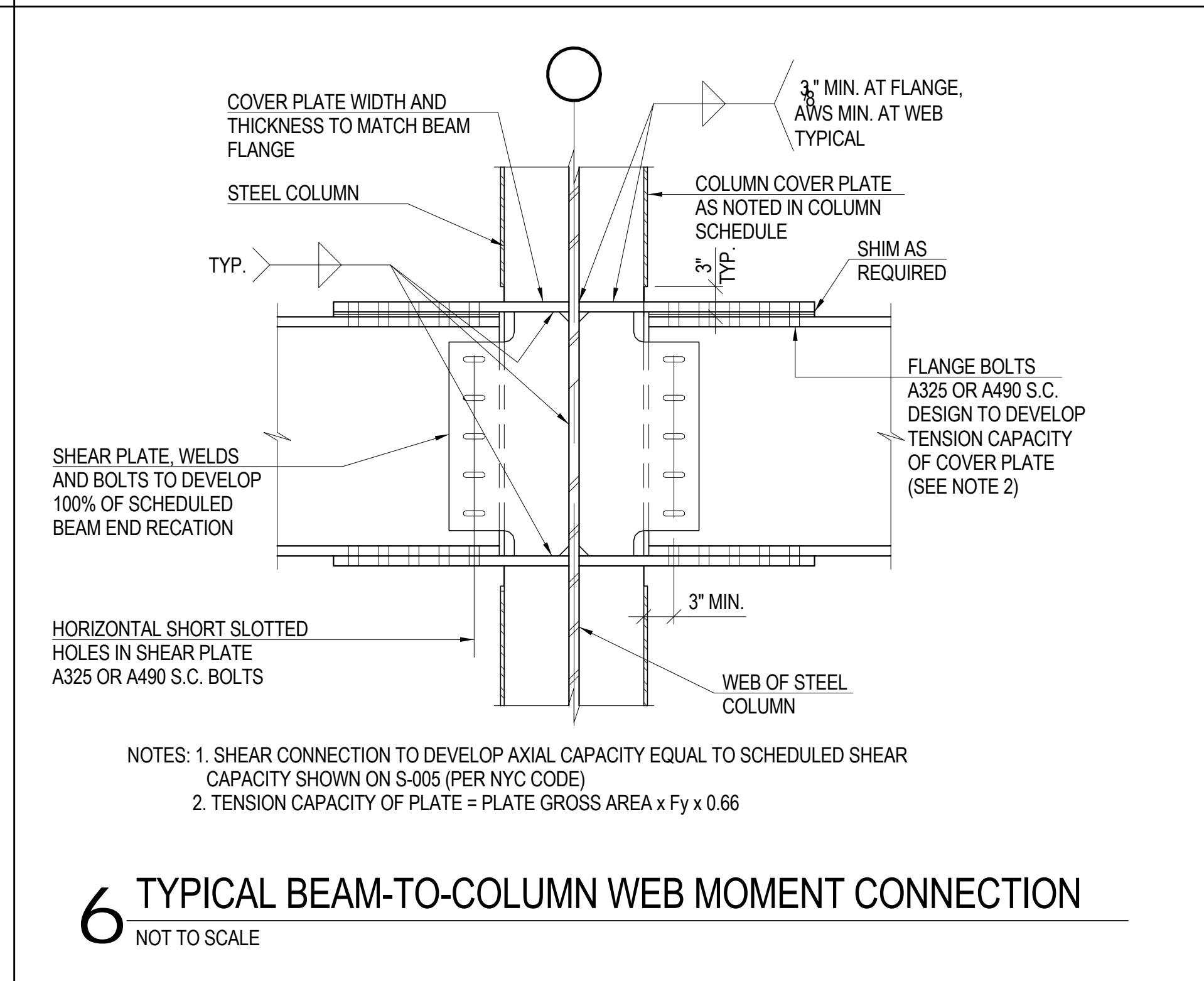
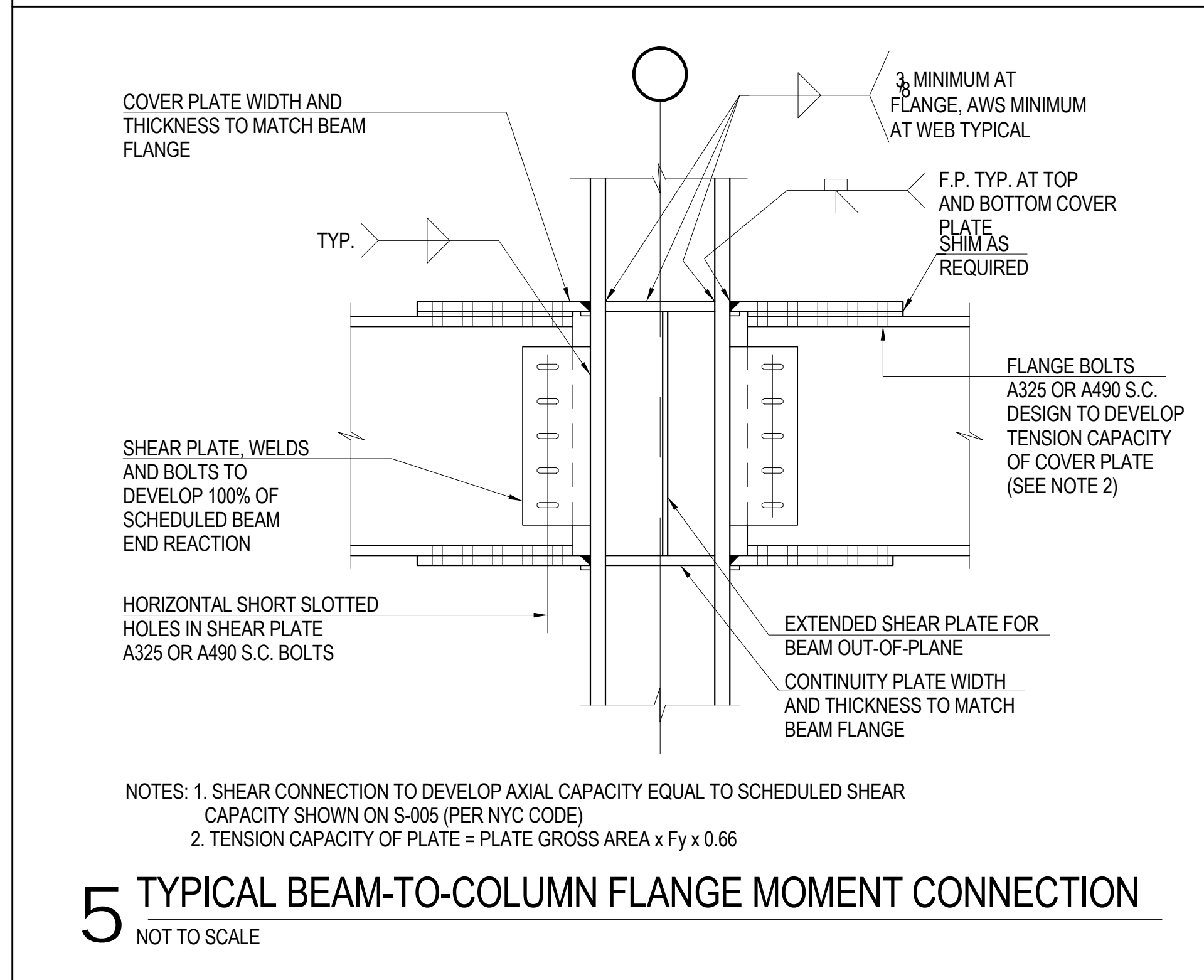
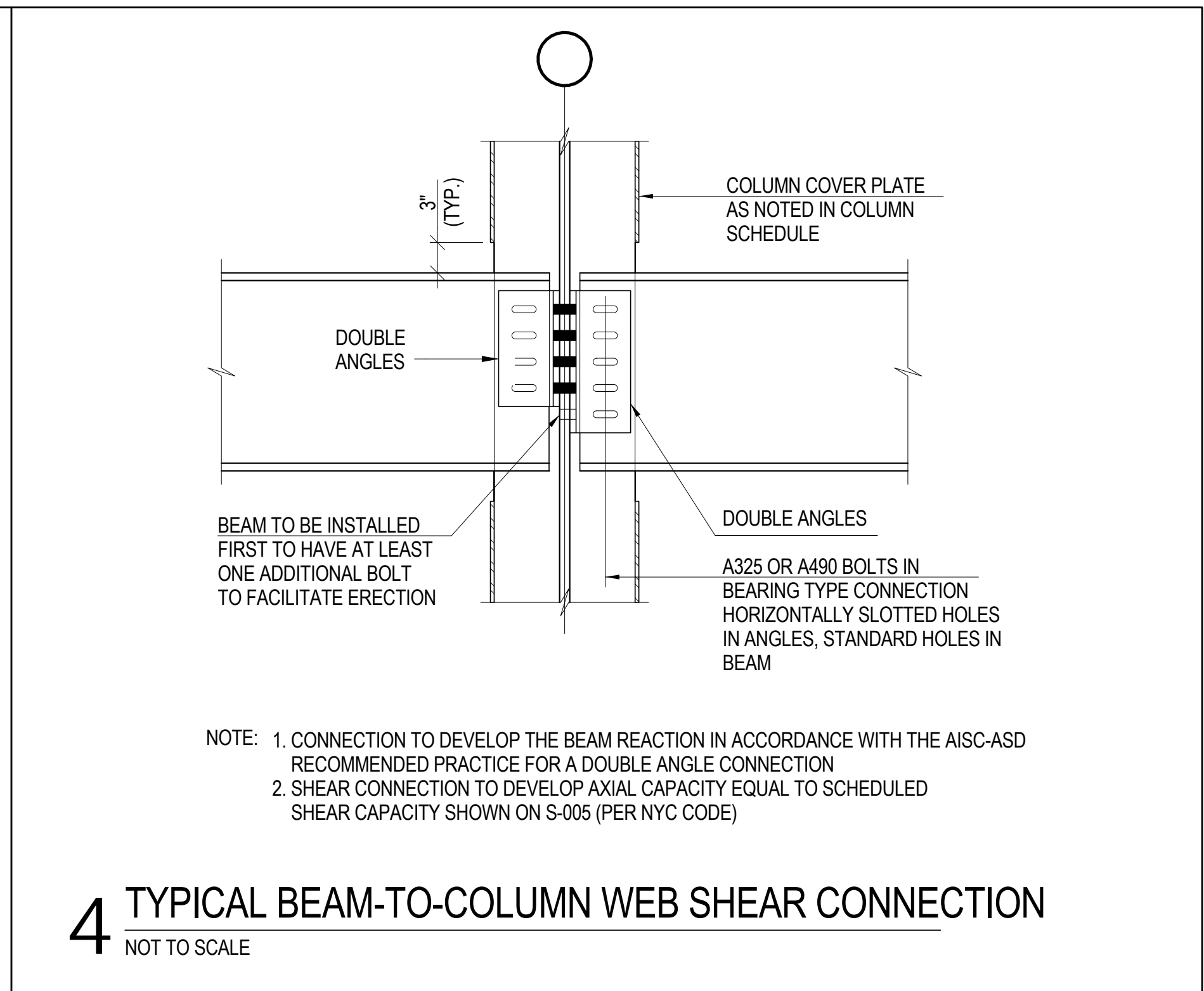
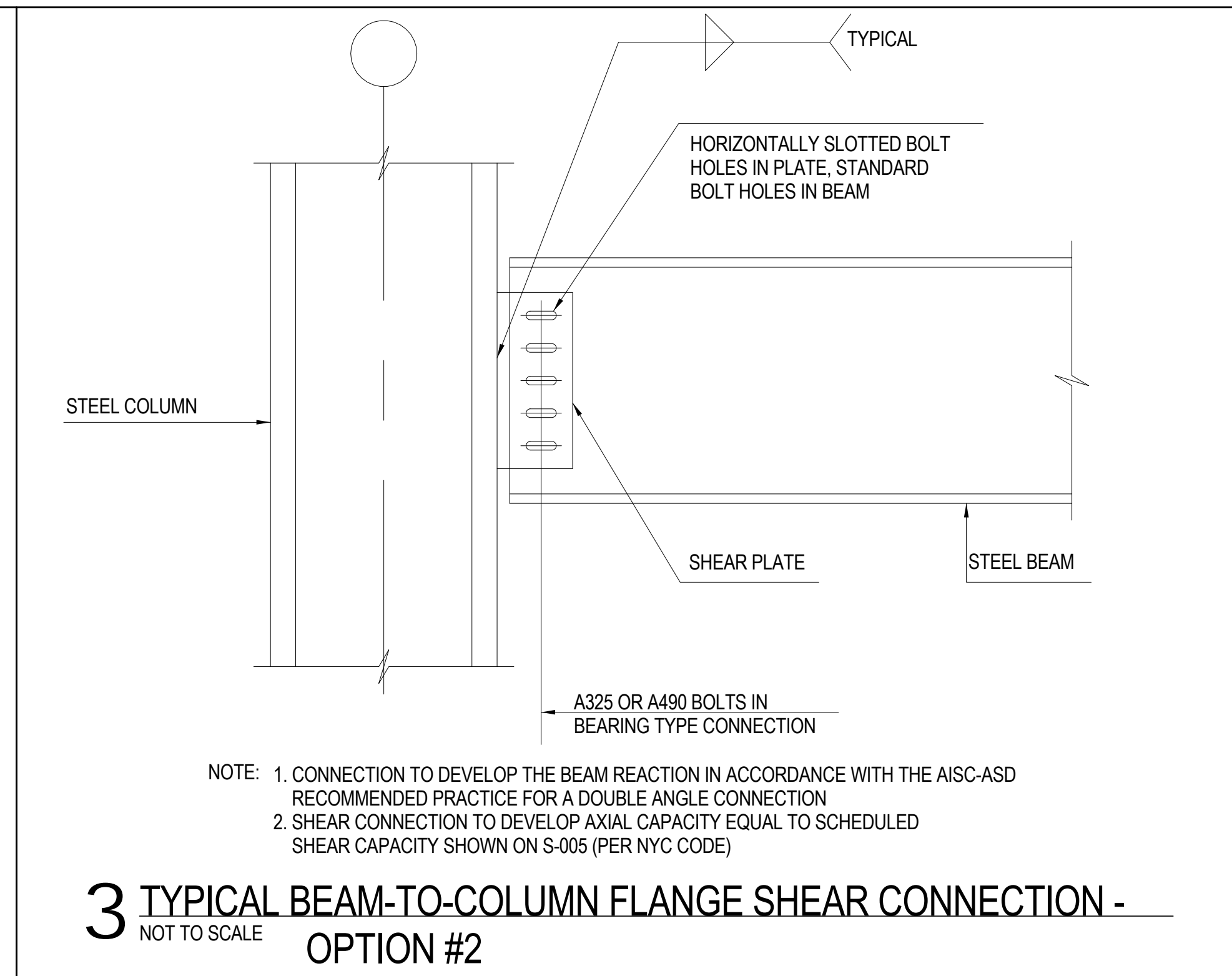
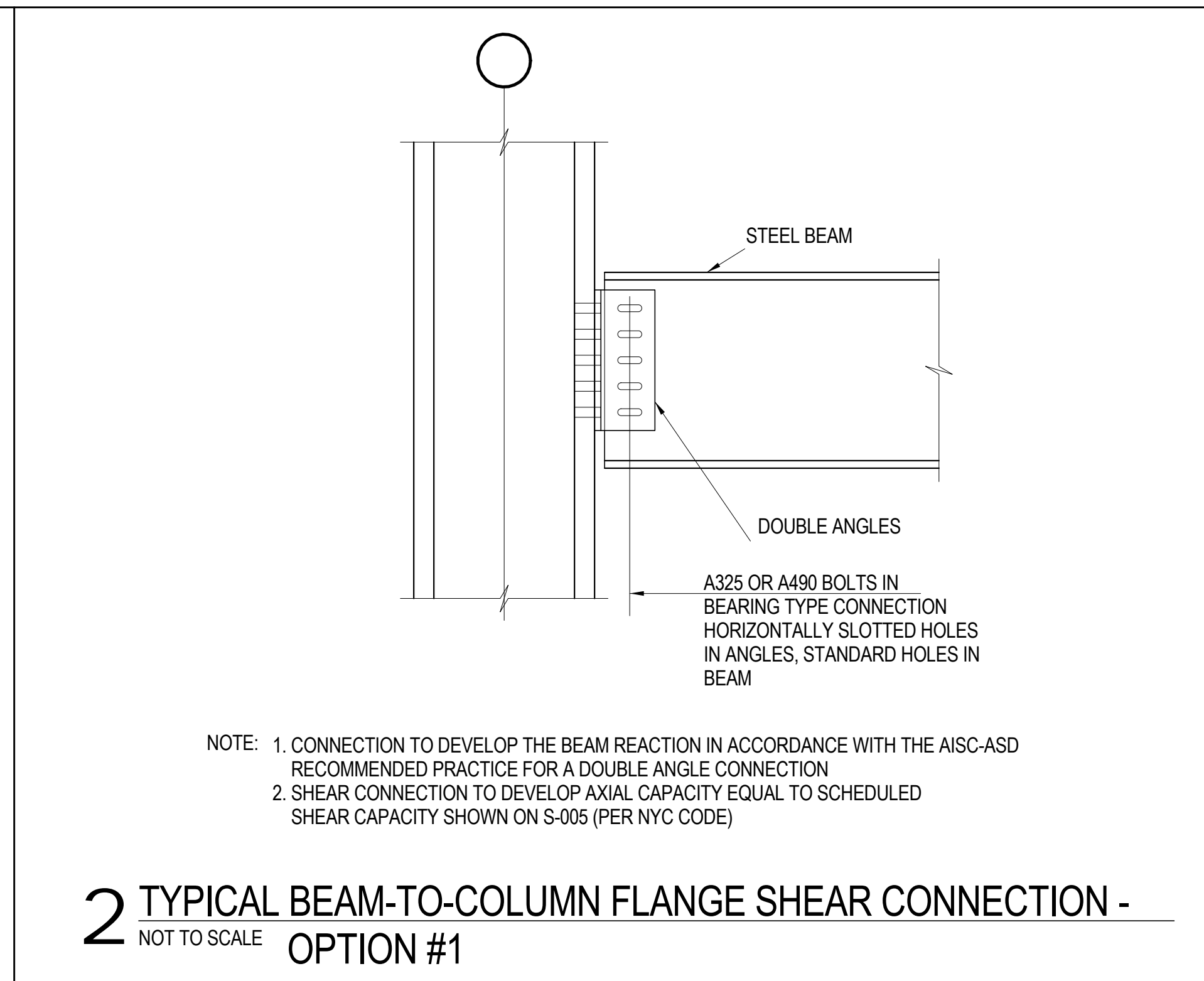
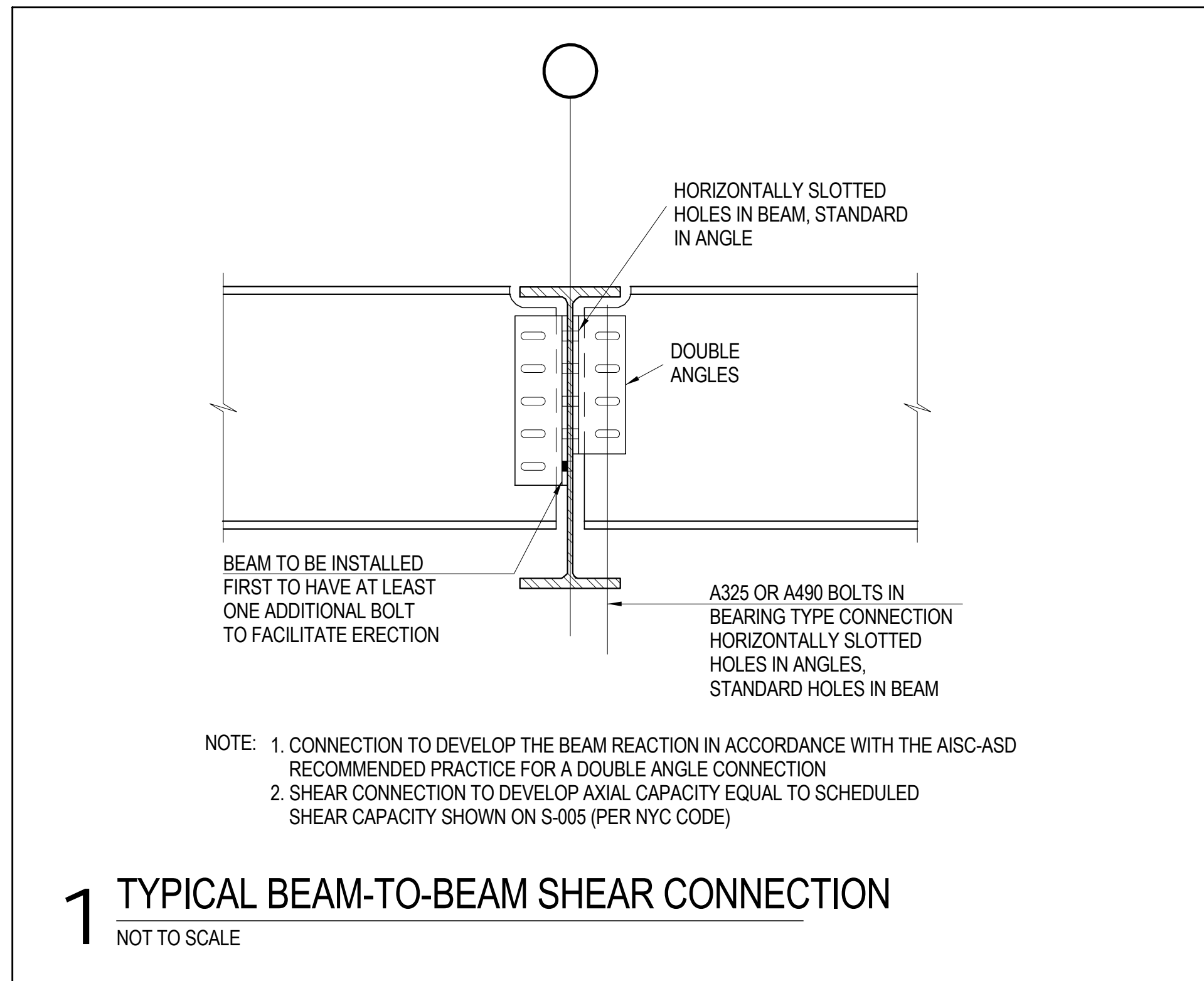


**5 TYPICAL DIAGONAL / CHORD TO GUSSET PLATE CONNECTION**  
NOT TO SCALE



**NOMENCLATURE FOR BUILT-UP SECTIONS**  
NOT TO SCALE





**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client  
**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021  
Architecture/Structural Engineering  
**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005  
Civil Engineering  
Philip Habb & Associates  
102 Madison Avenue #11, New York, NY 10016  
MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005  
Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East 8th Street, Suite 1, Mill Valley, California 94041  
Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854  
Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122  
Field Operations  
475 10th Avenue, New York, NY 10018  
Security Consultant  
Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473  
Blast Consultant  
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166 Ames Street, Hackensack, NJ 07601  
Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

Seal & Signature:

PRELIMINARY  
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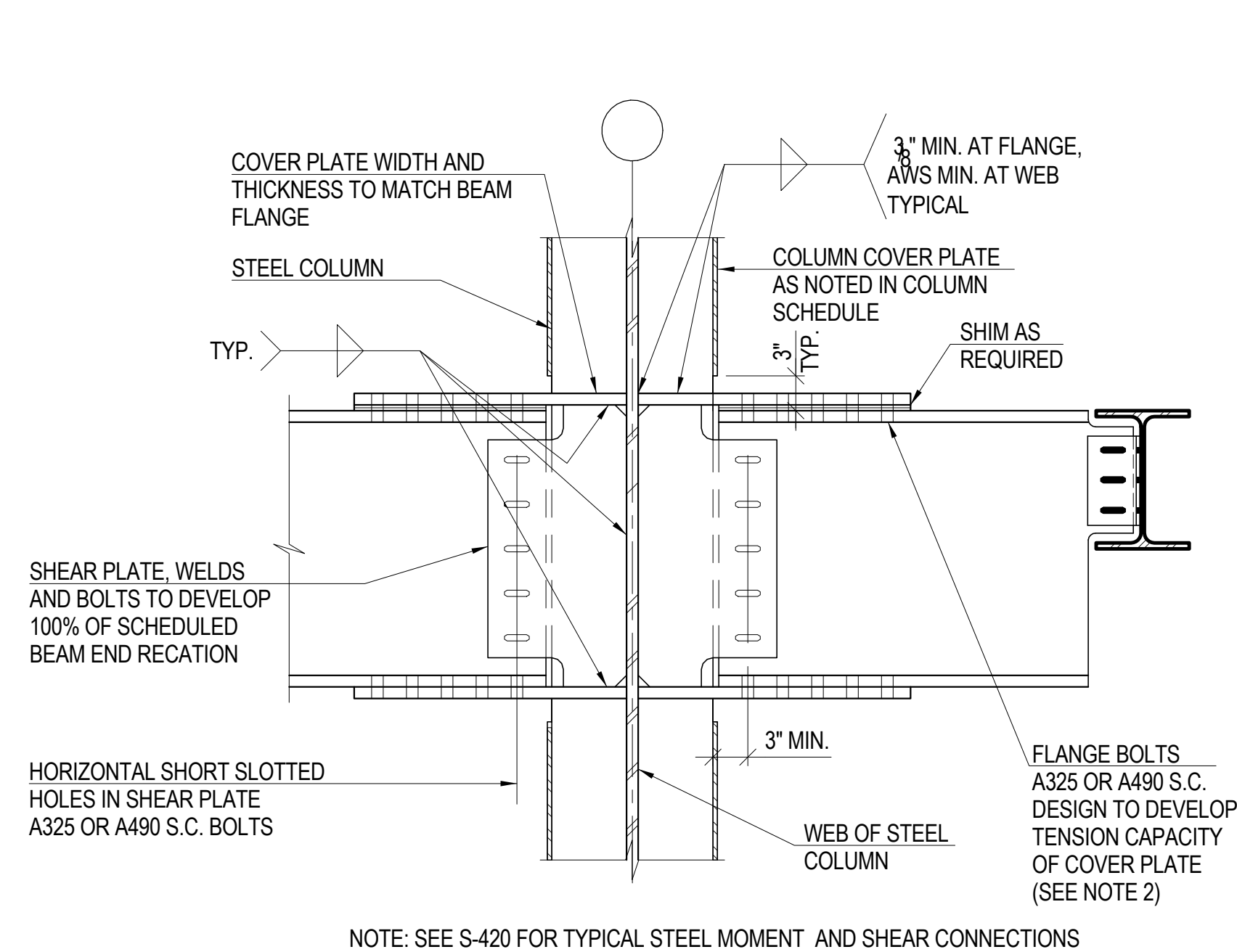
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1	18 MAR 2012	ISSUED FOR RECONSTRUCTION

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 Sheet Name: **TYPICAL STRUCTURAL STEEL SECTIONS & DETAILS**

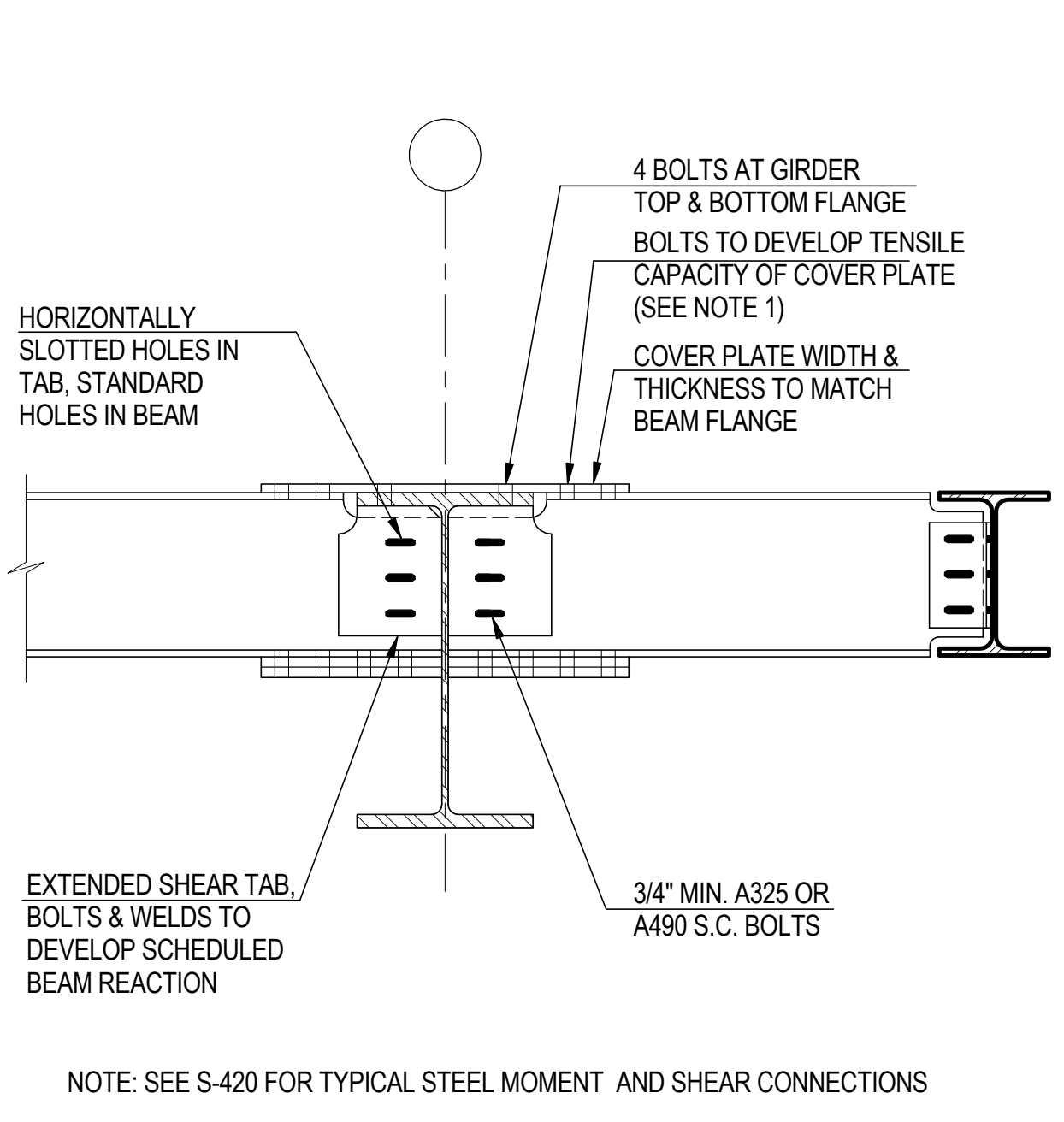
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211157	S-420.00
Date:	Sheet No.:
20 JUN 2014	S-420
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S-420	



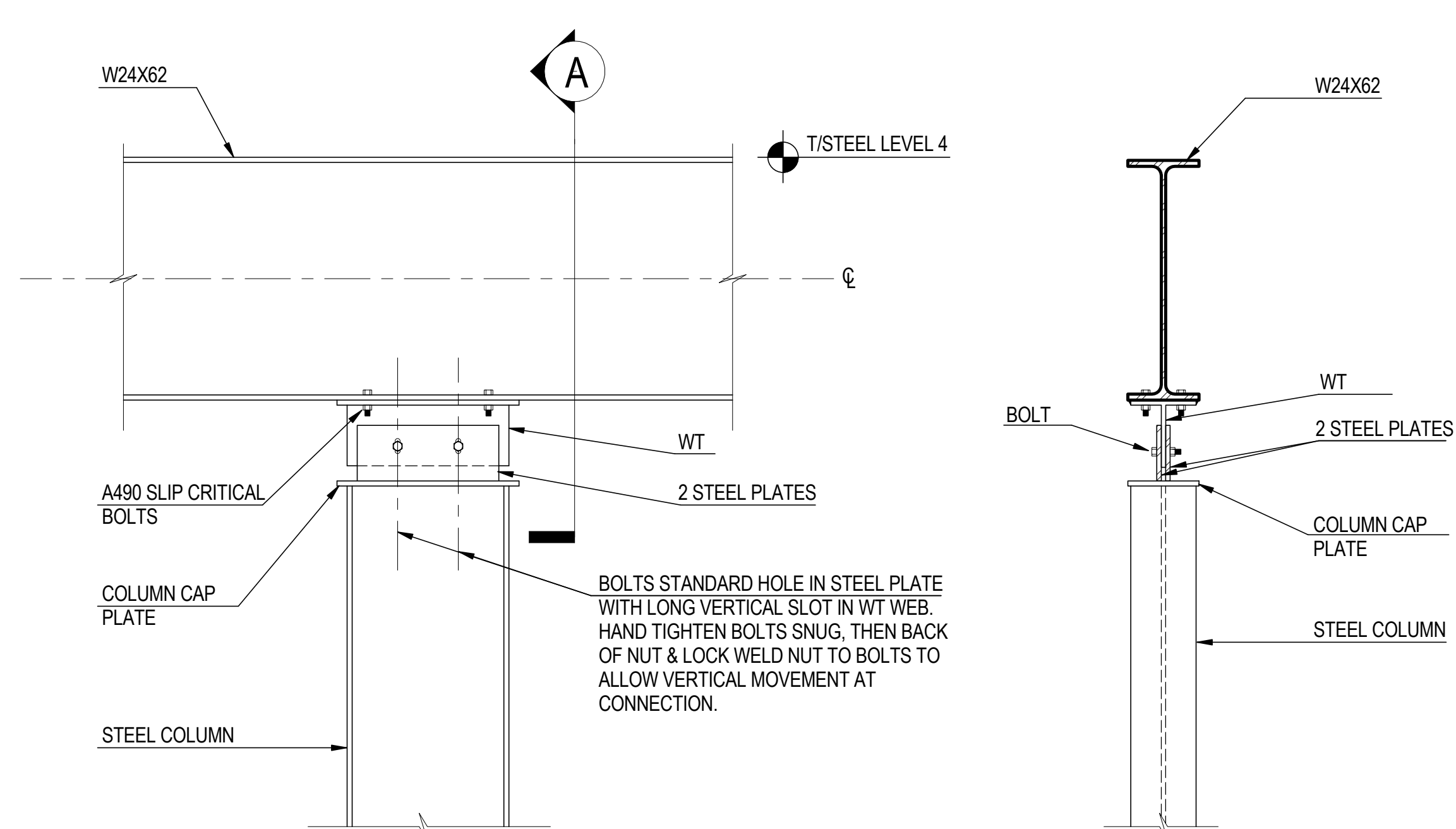
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**1 BEAM CONNECTION**  
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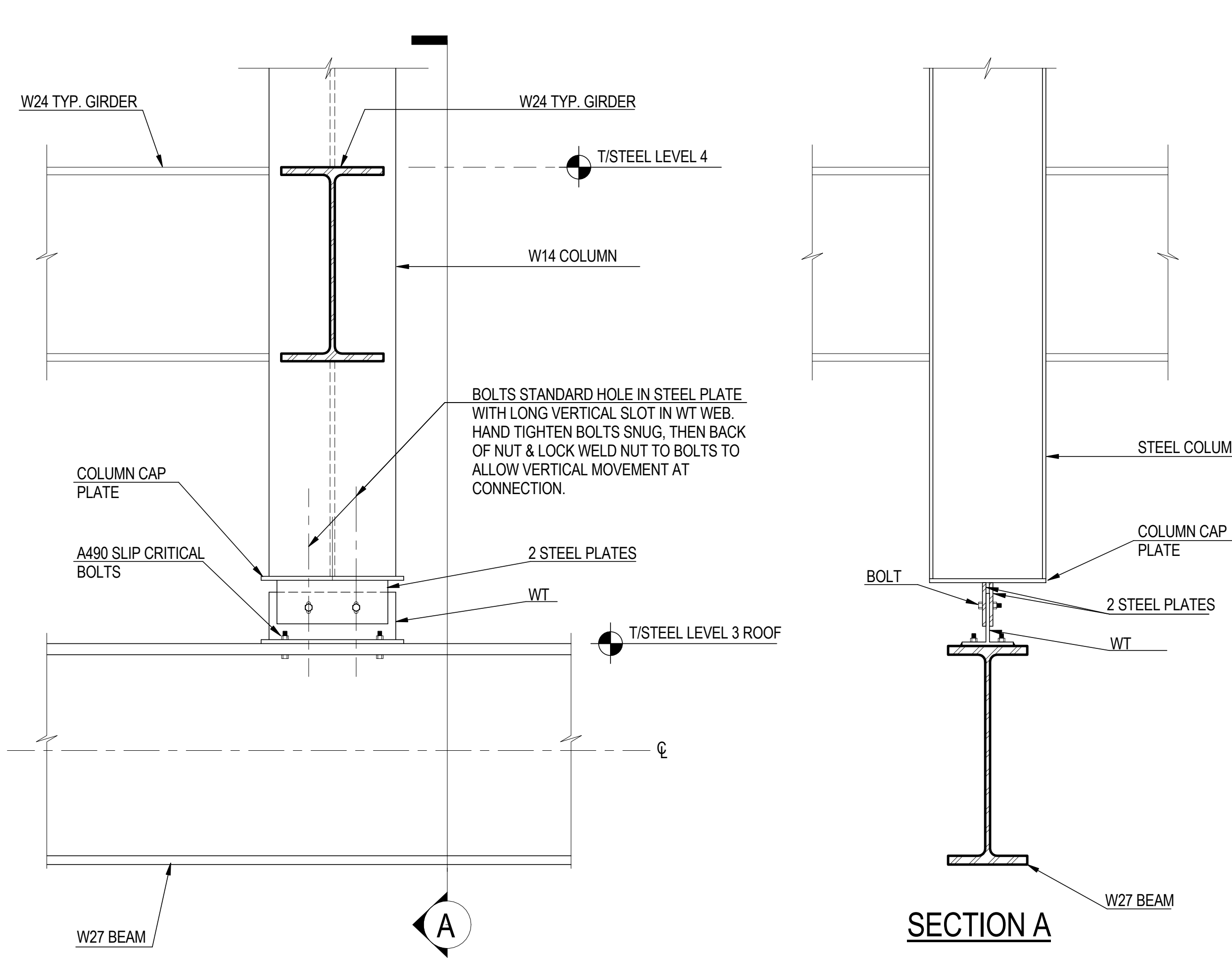


**2 BEAM CONNECTION**  
1" = 1'-0"




**3 DETAIL AT RETAIL BUILDING ROOF CONNECTION TO UNDERSIDE OF LEVEL 4**  
NOT TO SCALE

**SECTION A**



**4 DETAIL AT RETAIL BUILDING ROOF CONNECTION TO UNDERSIDE OF LEVEL 4**  
NOT TO SCALE



**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
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**Brookfield**  
250 Vesey Street, 15th Floor, New York, NY 10281

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**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering  
Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10018

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East 81st Street, Suite 1, Mill Valley, California 94041

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W, 34th Street #610,  
New York, NY 10122

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

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Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

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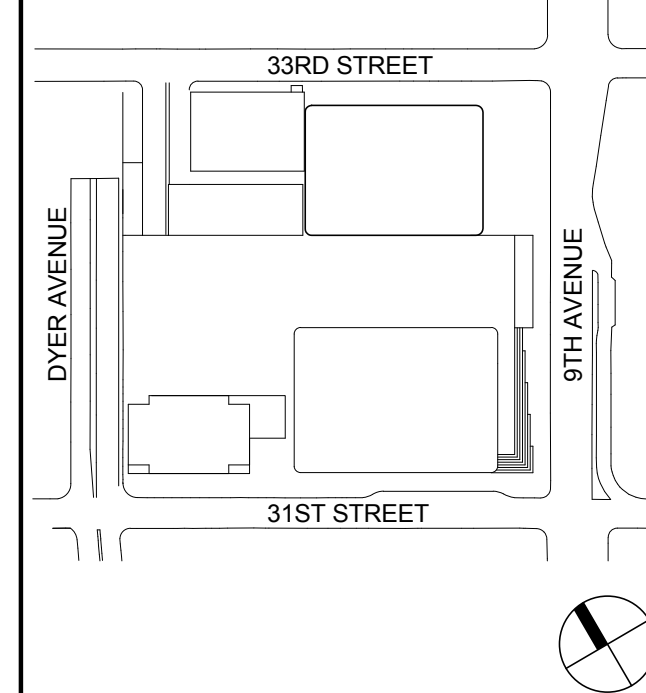
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

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Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Key Plan:



Seal & Signature:

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Sheet Name:

**TYPICAL  
STRUCTURAL  
STEEL SECTIONS  
& DETAILS**

Project No.:	B-SCAN Sheet No.:
211157	<b>S-421.00</b>
Date:	Sheet No.:
20 JUN 2014	S-421
Scale:	Page No.:
1" = 1'-0"	88 of 90
File No.:	
S-421	





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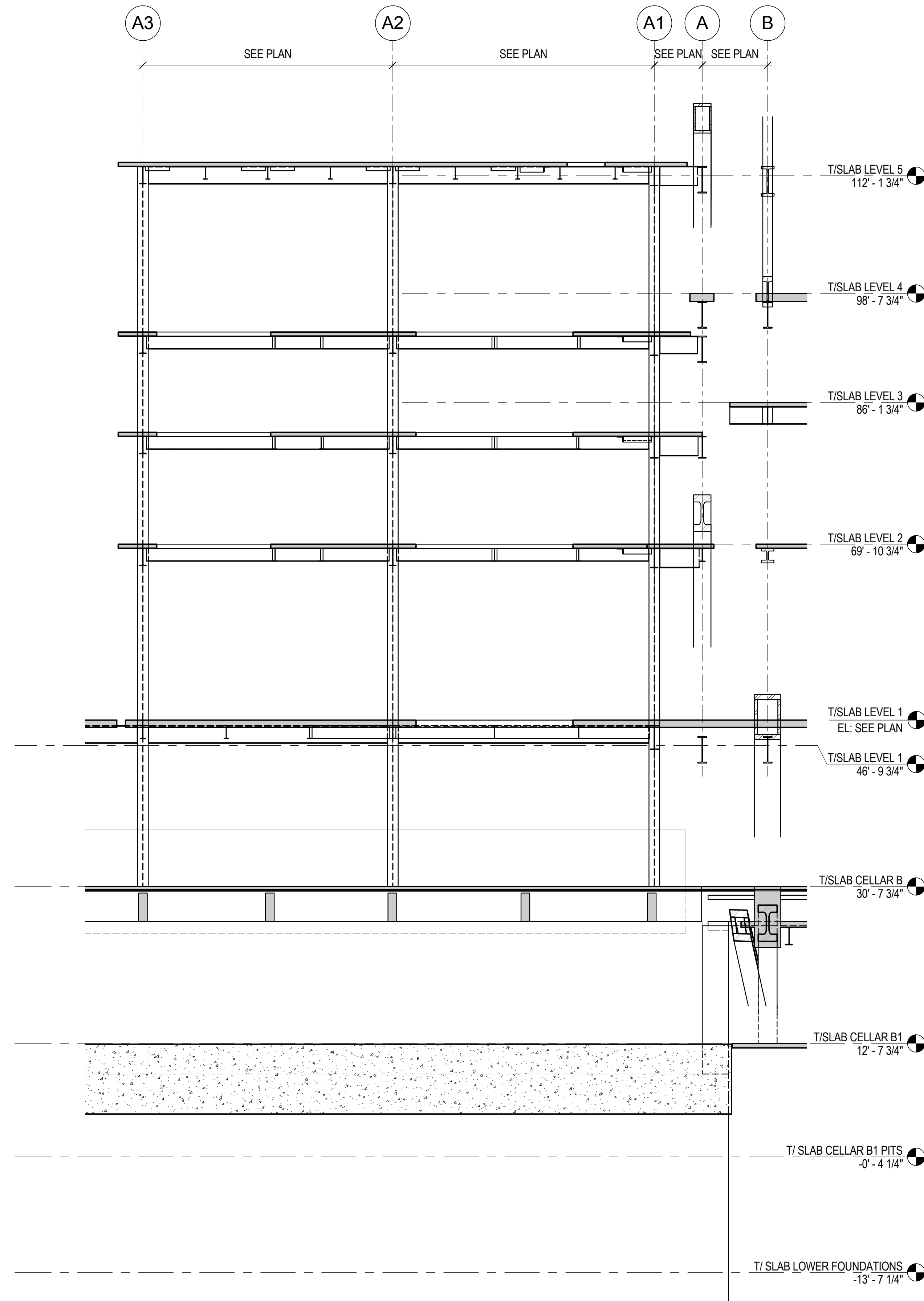
Professional Engineer Seal  
CHARLES MICHAEL BELL  
079322  
PROFESSIONAL ENGINEER

Key Plan:  
Map showing the location of the building at the intersection of 33rd Street and 9th Avenue, bounded by Dyer Avenue and 31st Street.

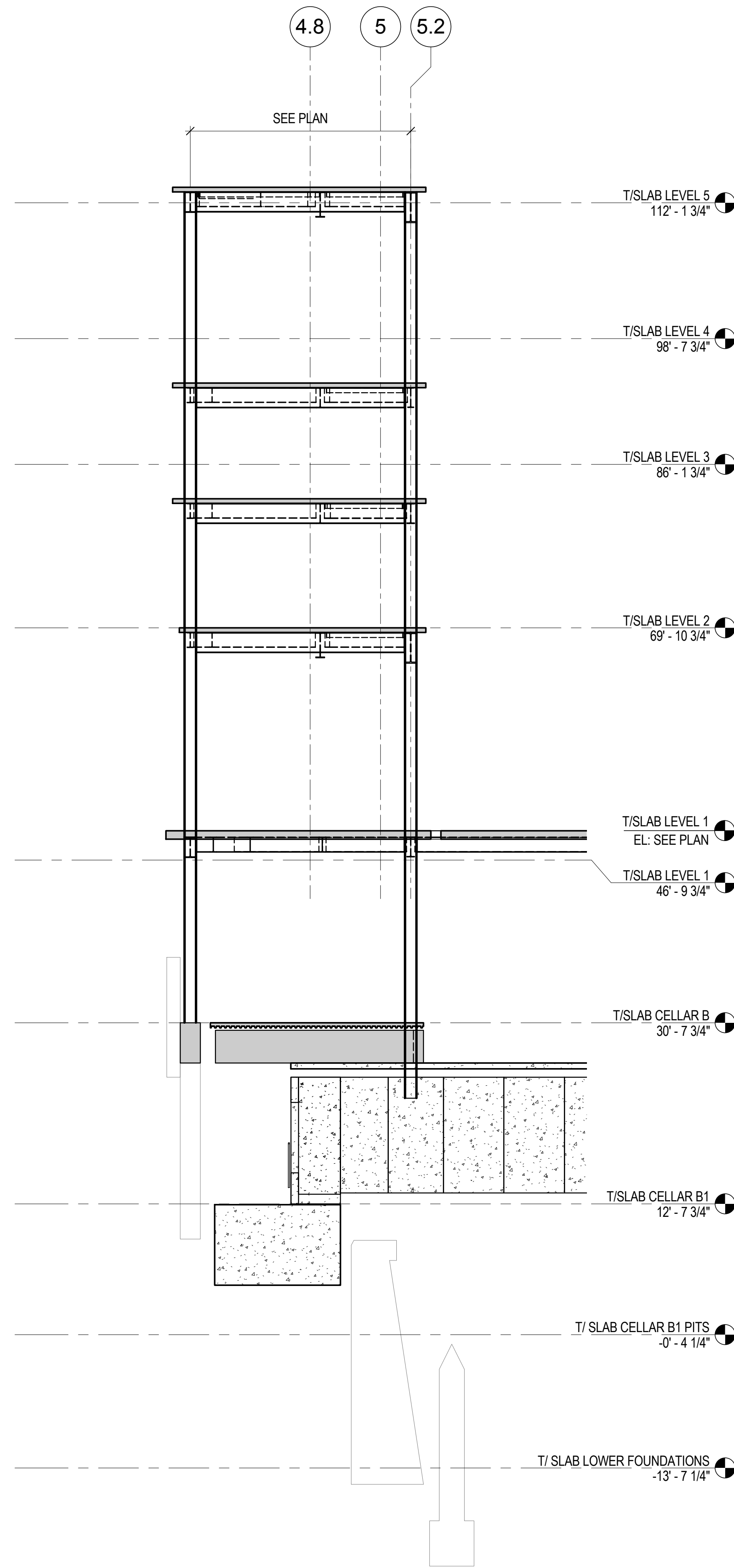
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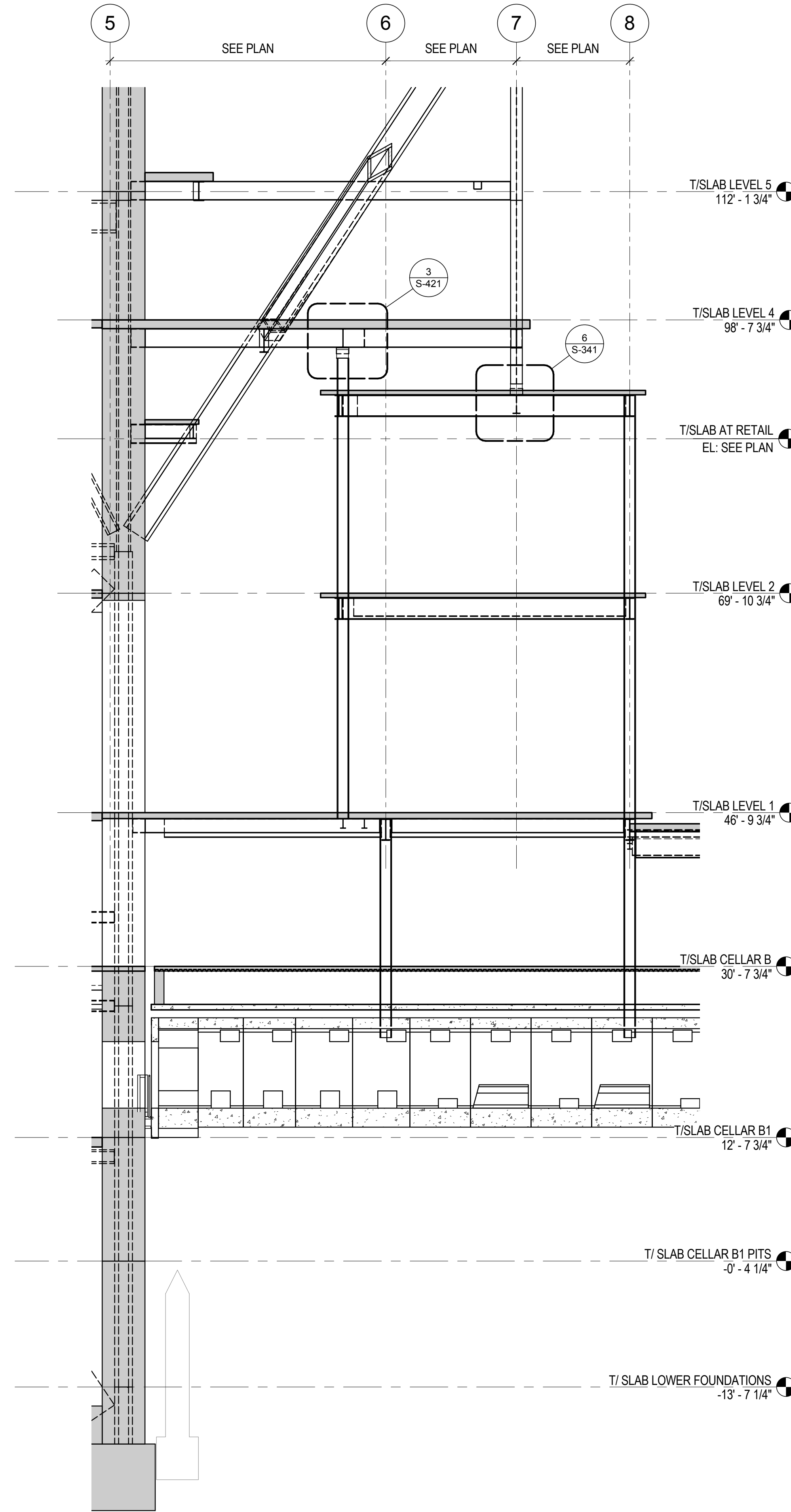
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Sheet No.: S-422  
Page No.: 89 of 90



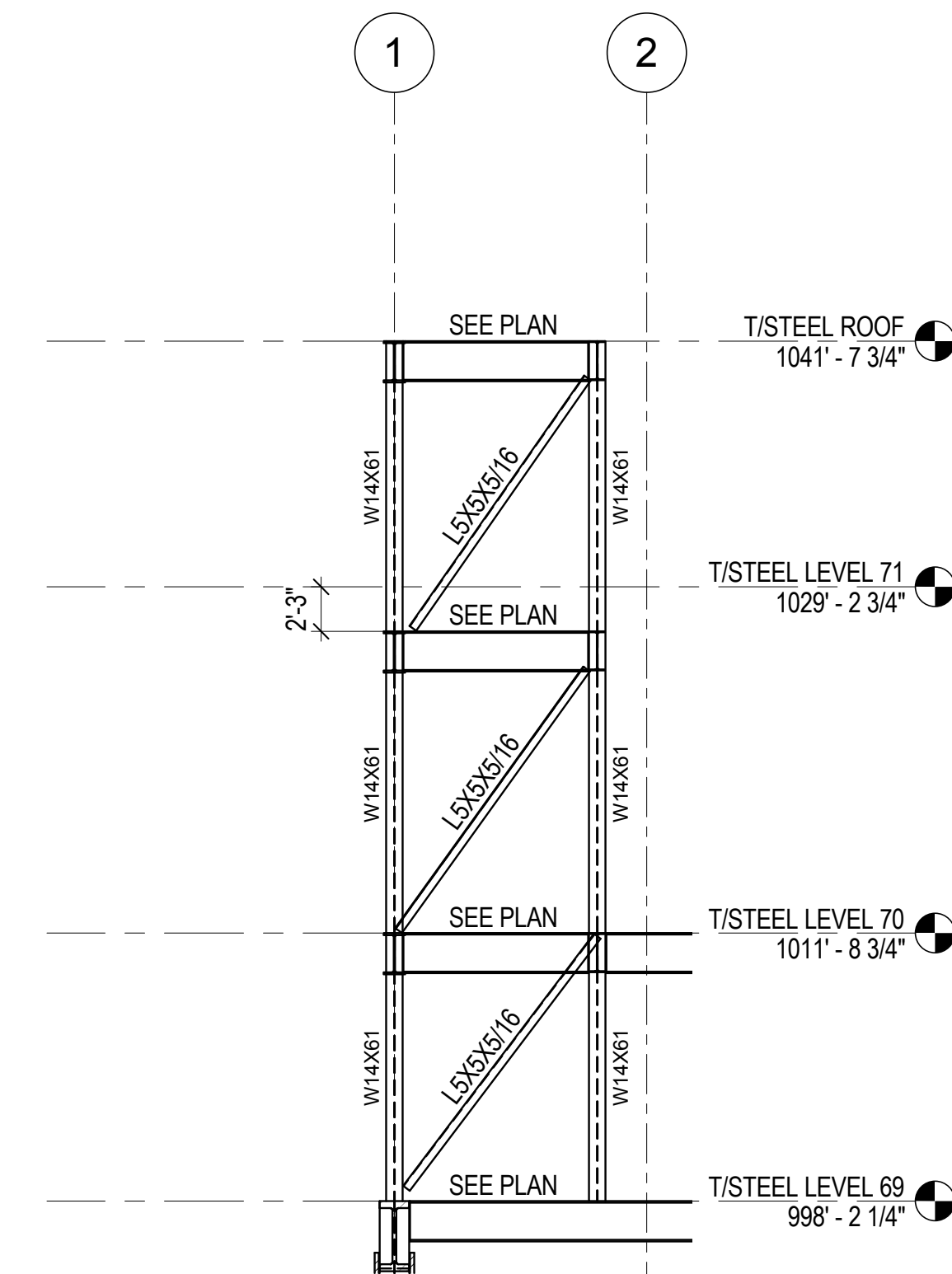
**1** RETAIL SECTION LOOKING NORTH  
1/8" = 1'-0"



**2** RETAIL SECTION LOOKING WEST  
1/8" = 1'-0"



**3** RETAIL SECTION NEAR BUILDING LOOKING WEST  
1/8" = 1'-0"



**4** TYPICAL BRACING AT TOP OF TOWER  
1/8" = 1'-0"





MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001  
Client

Brookfield  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

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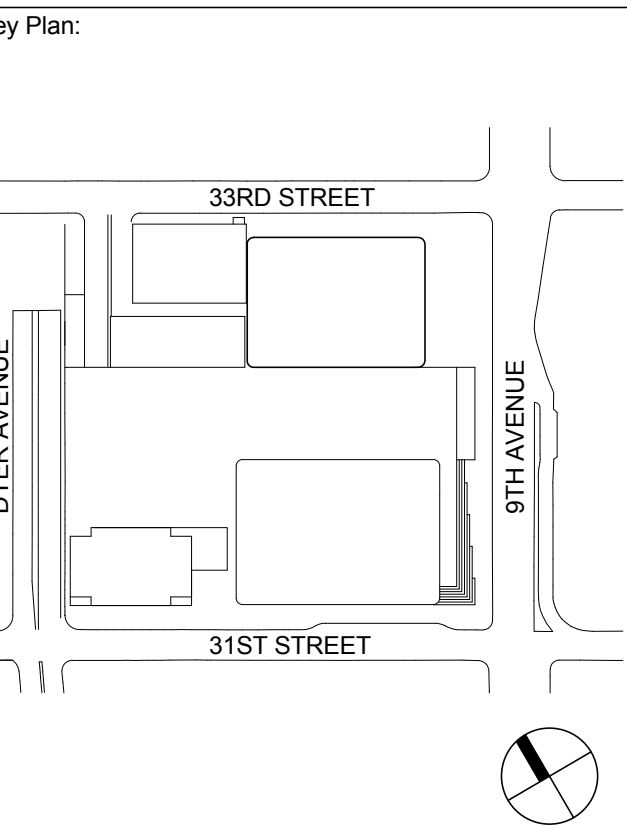
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Ontario, Canada N1K 1B8



Seal & Signature

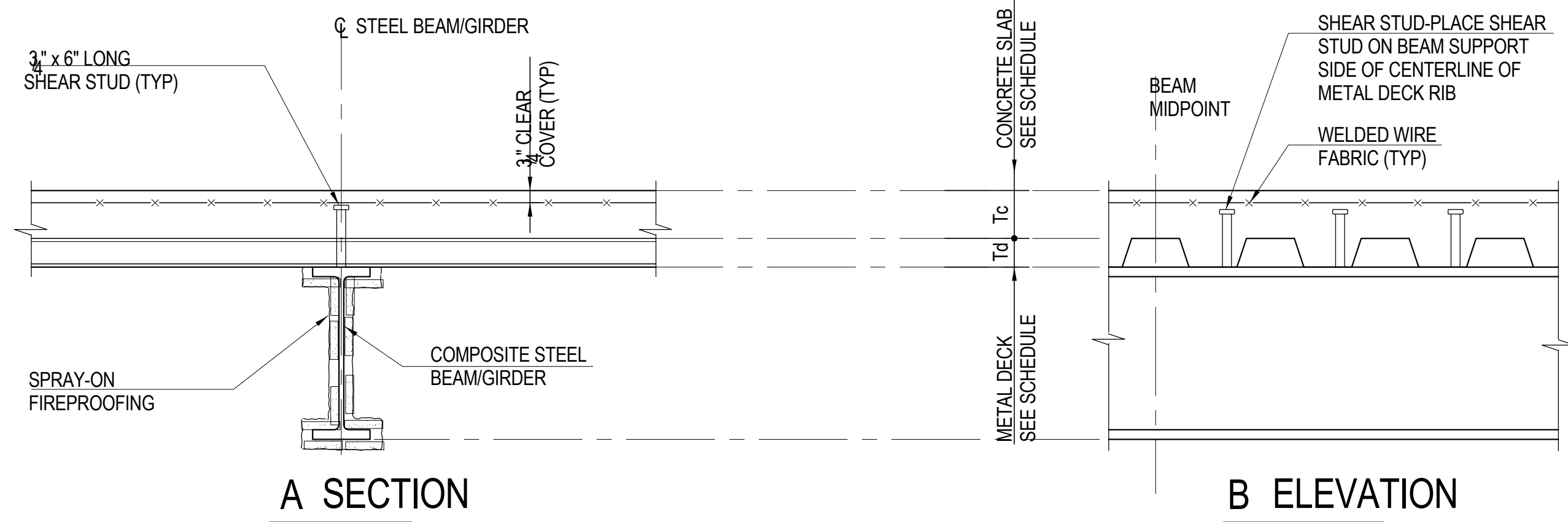
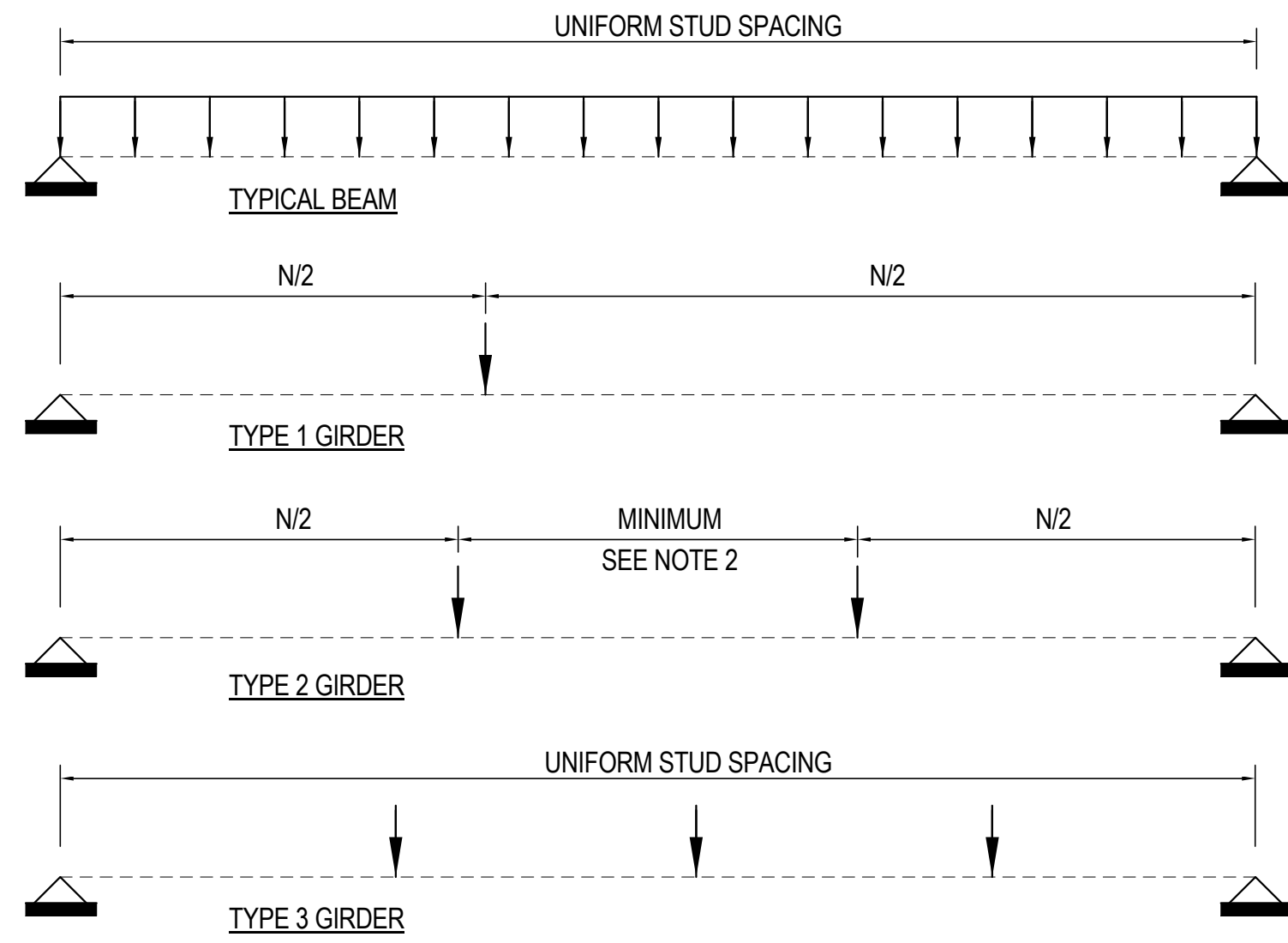
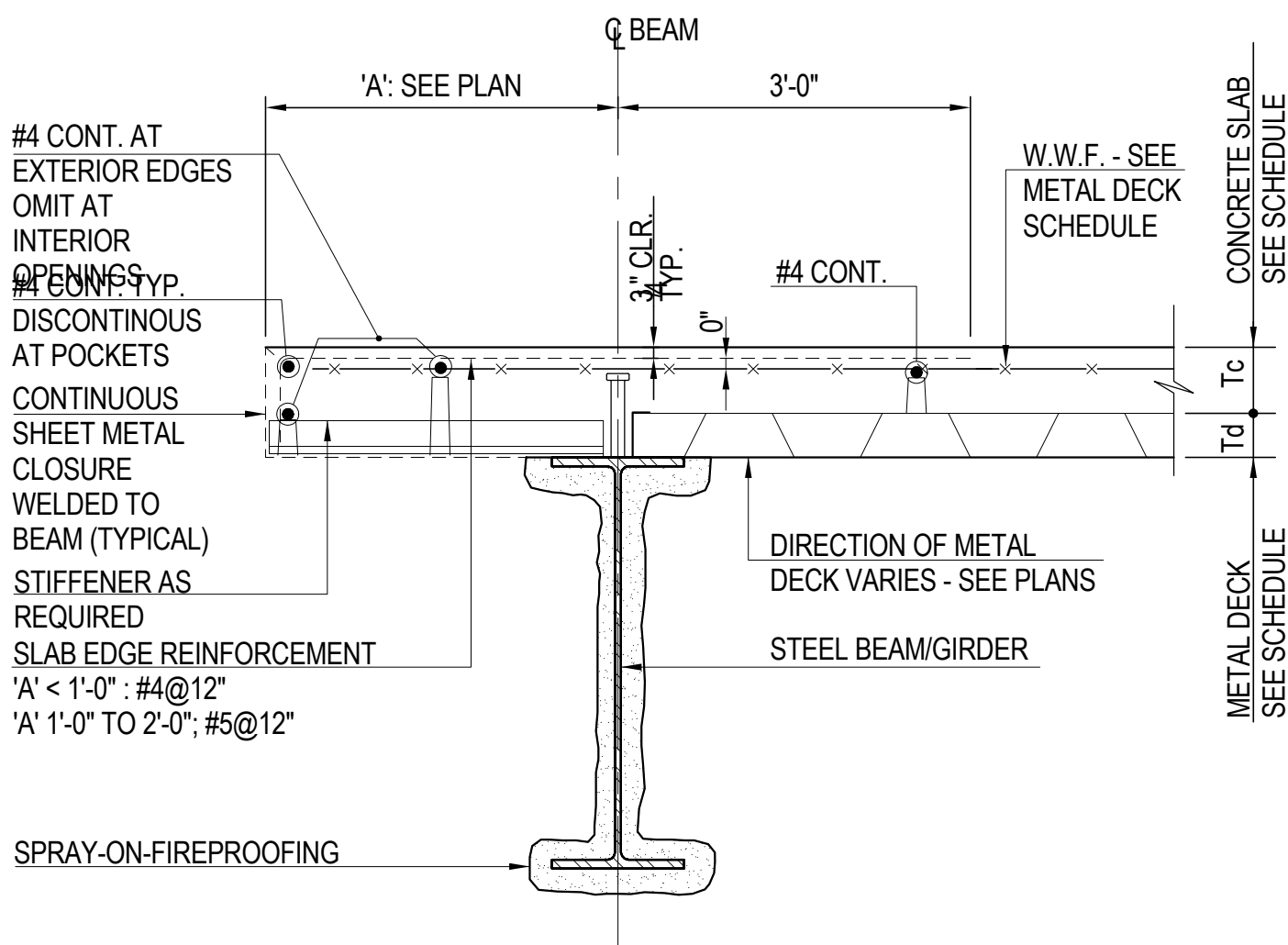
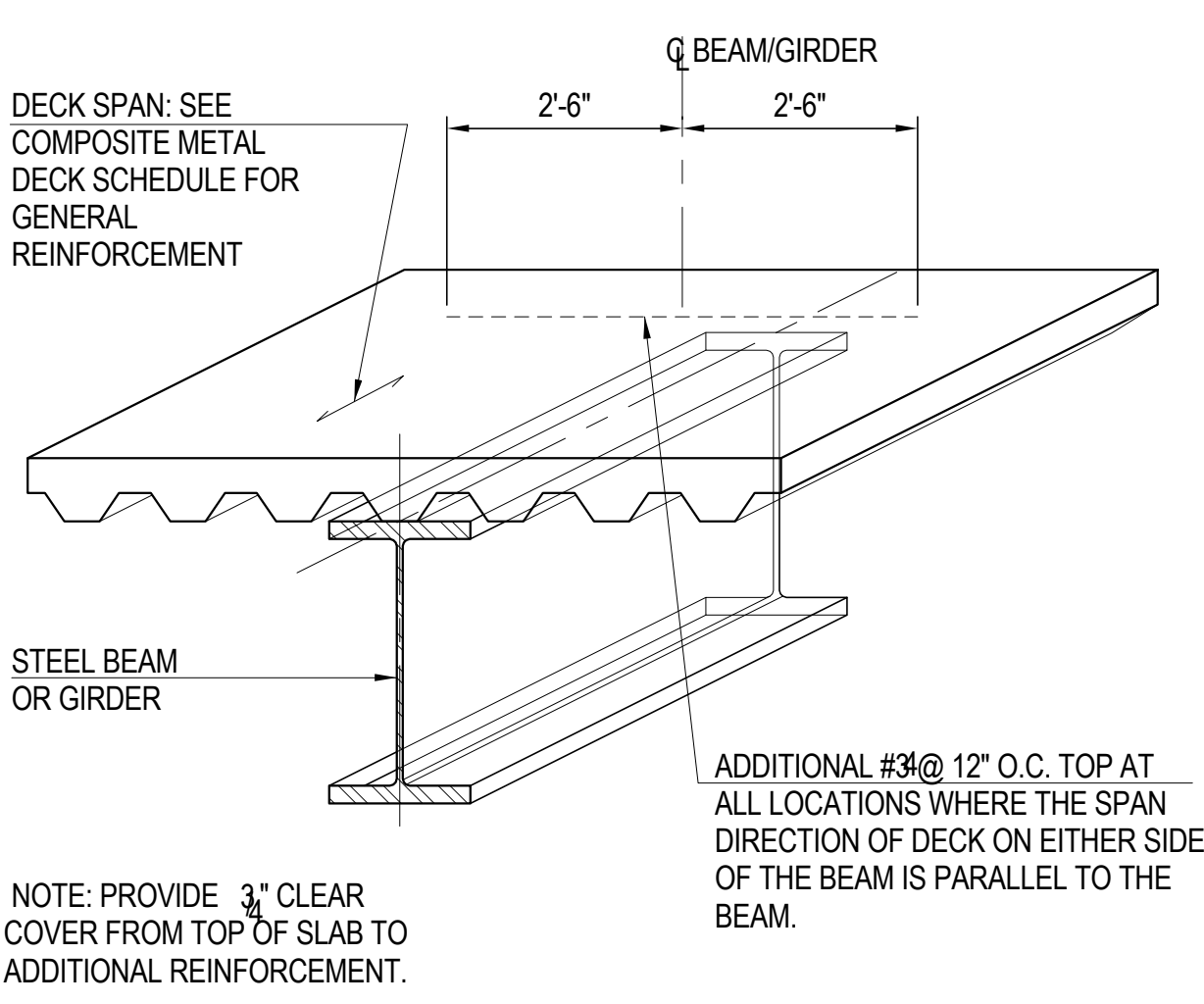
PRELIMINARY  
NOT FOR CONSTRUCTION

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5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 60% DESIGN DEVELOPMENT
1	18 MAR 2013	ISSUED FOR RECONCILIATION

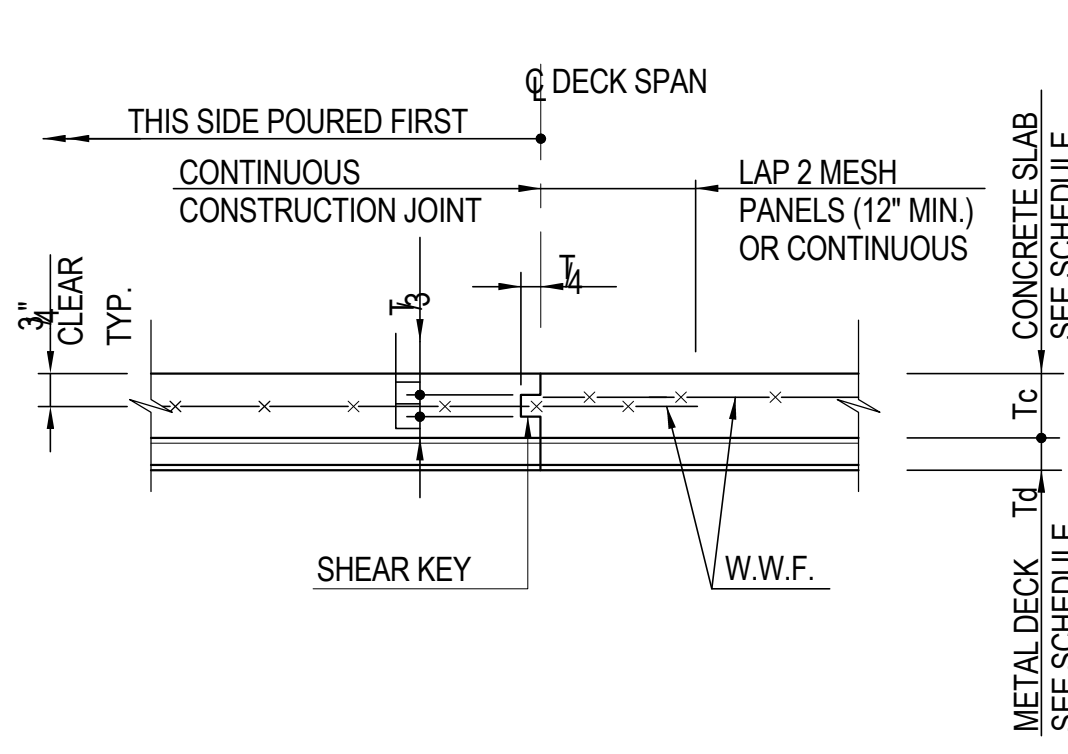
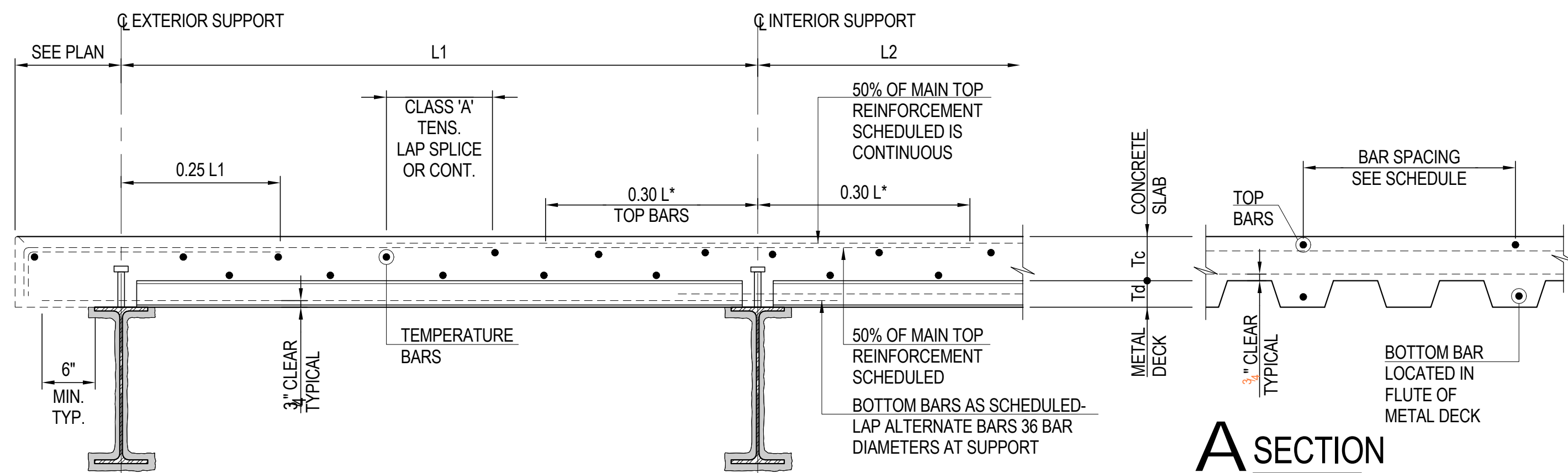
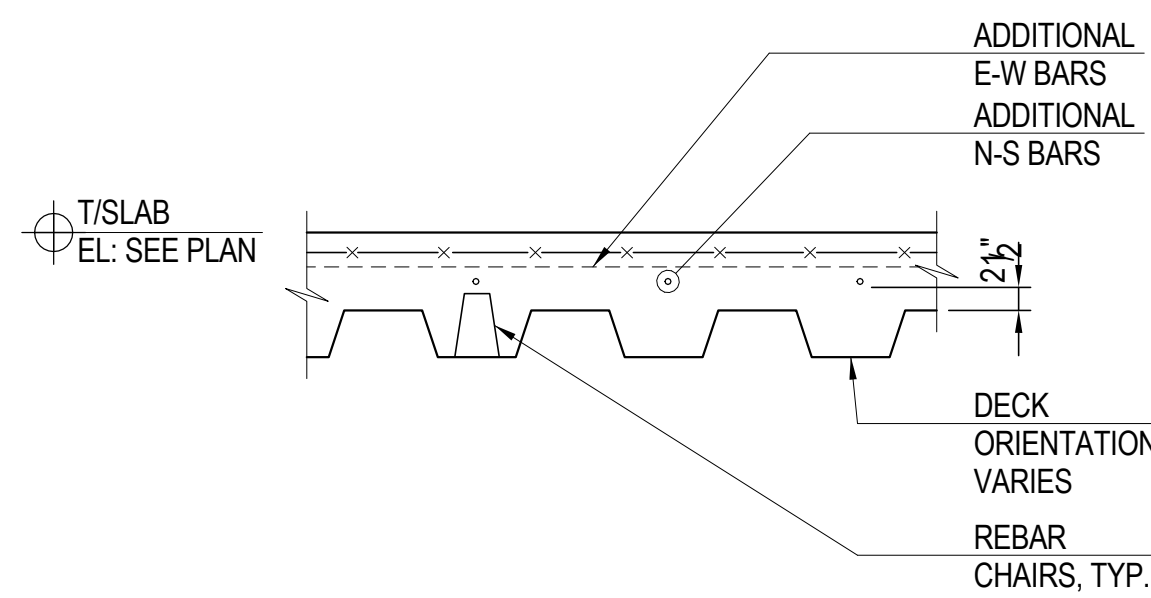
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METAL DECK  
SLAB  
SCHEDULES,  
SECTIONS &  
DETAILS

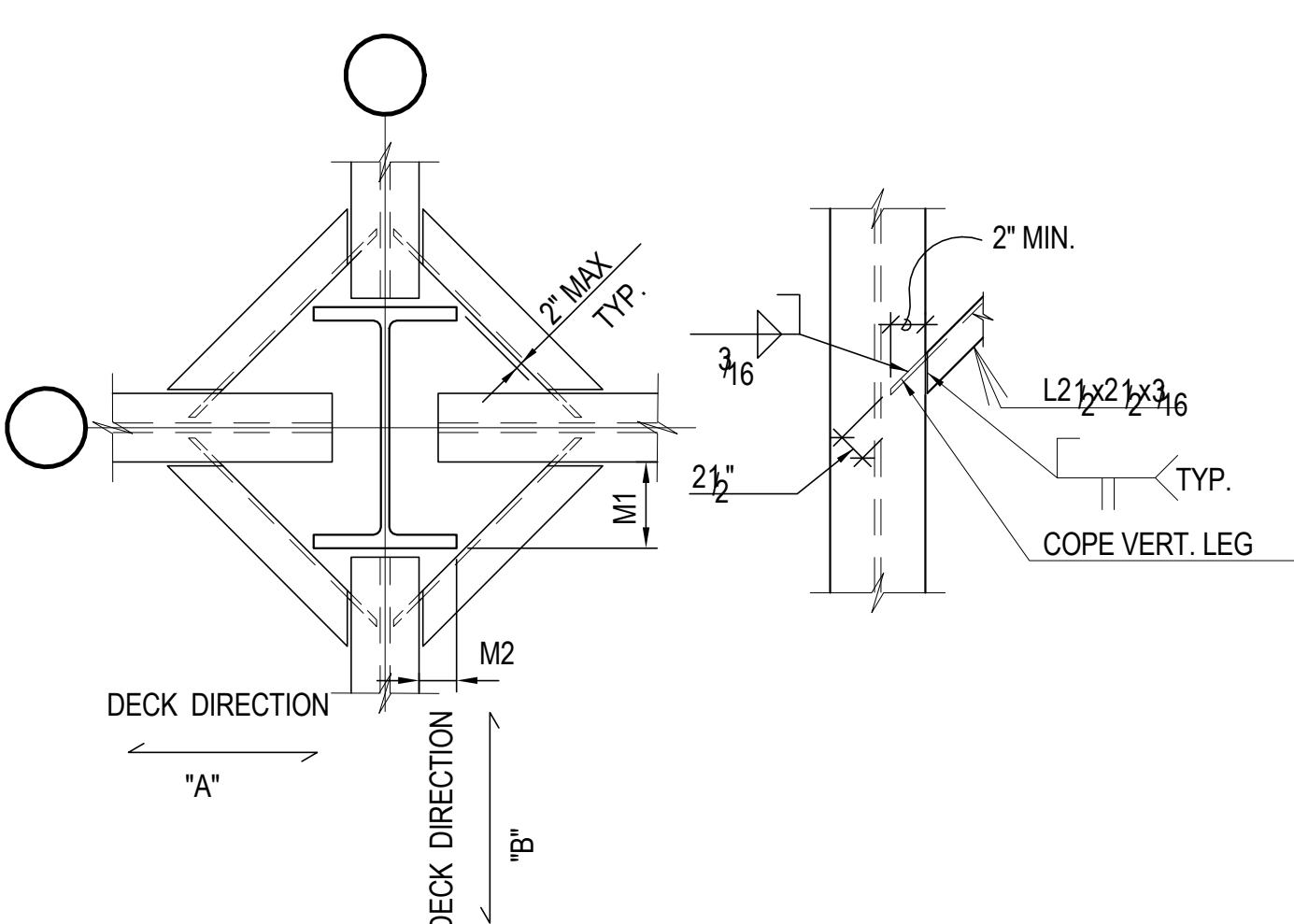
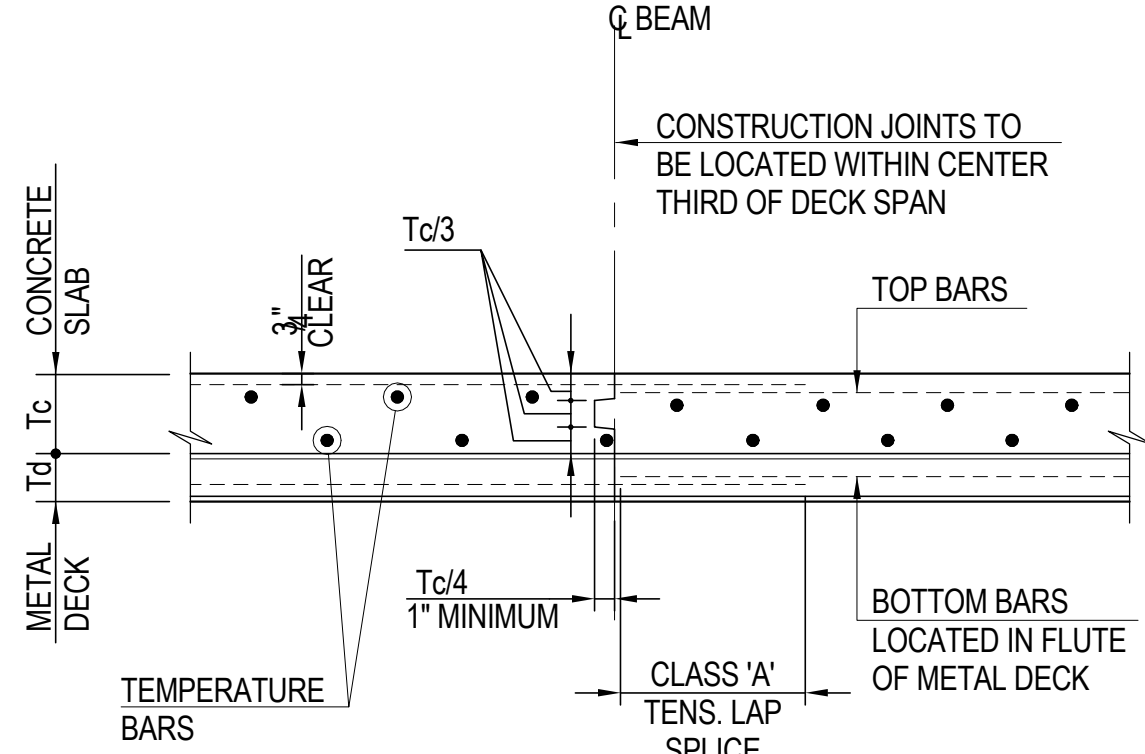
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Date: 20 JUN 2014	Sheet No.: S-501
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File No.: S-501	



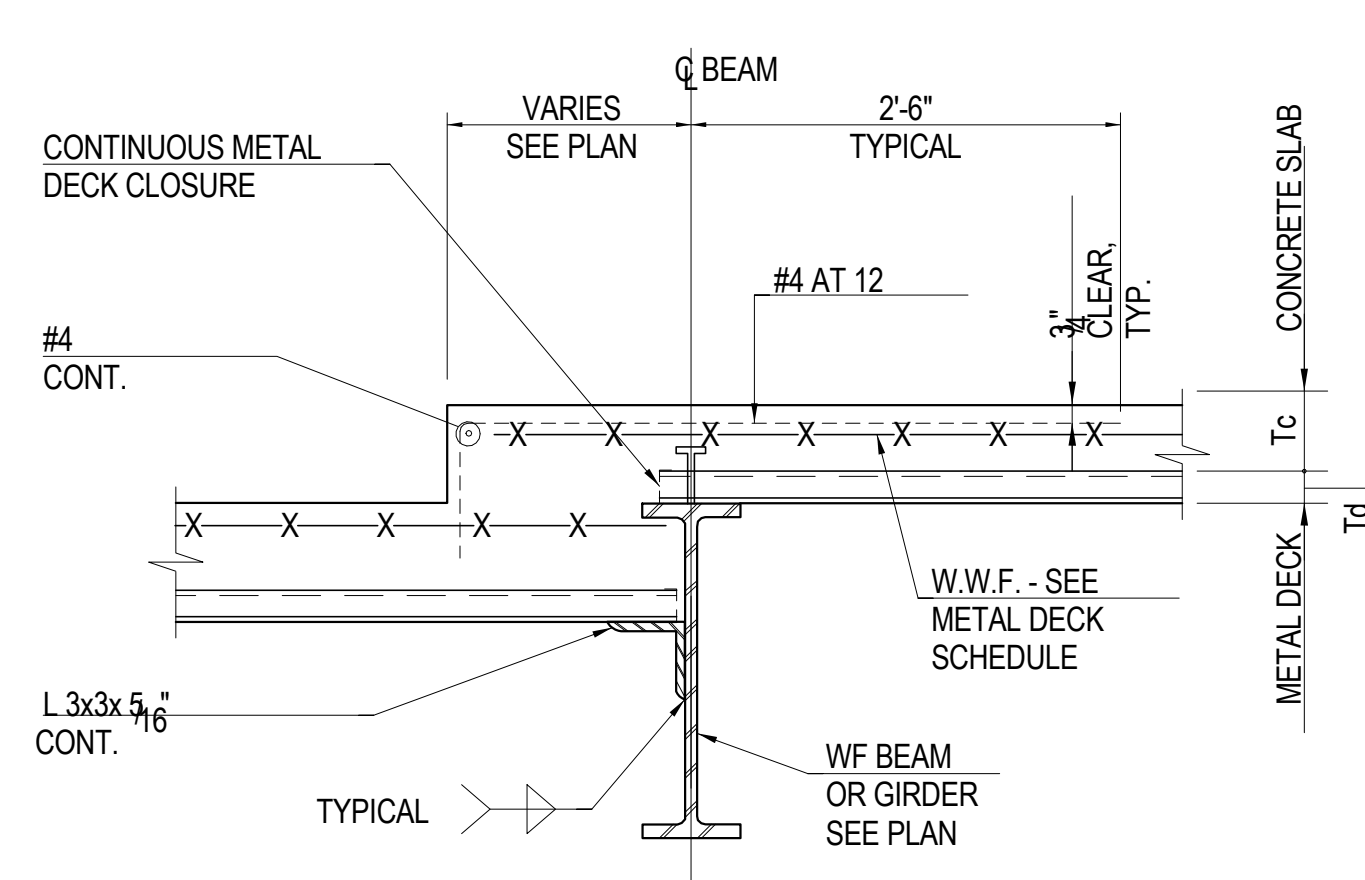
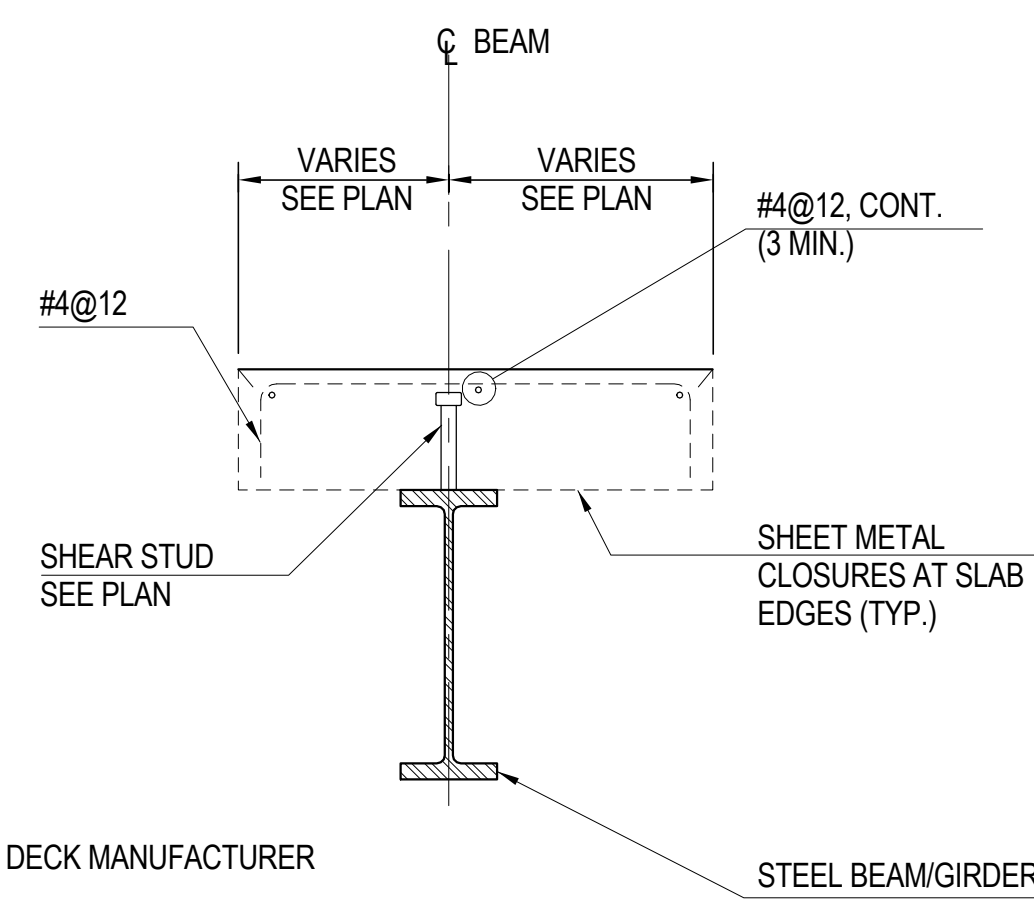
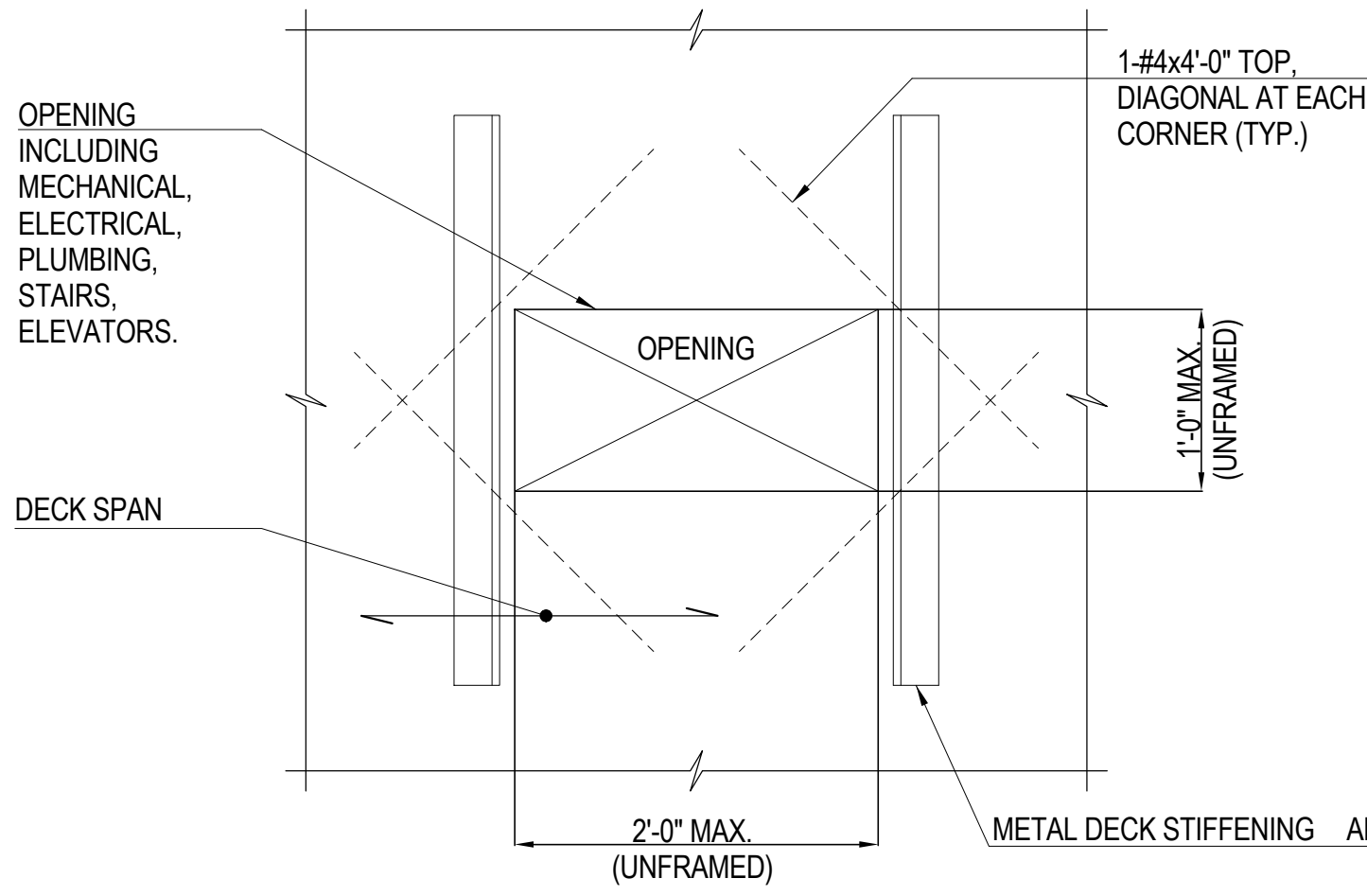
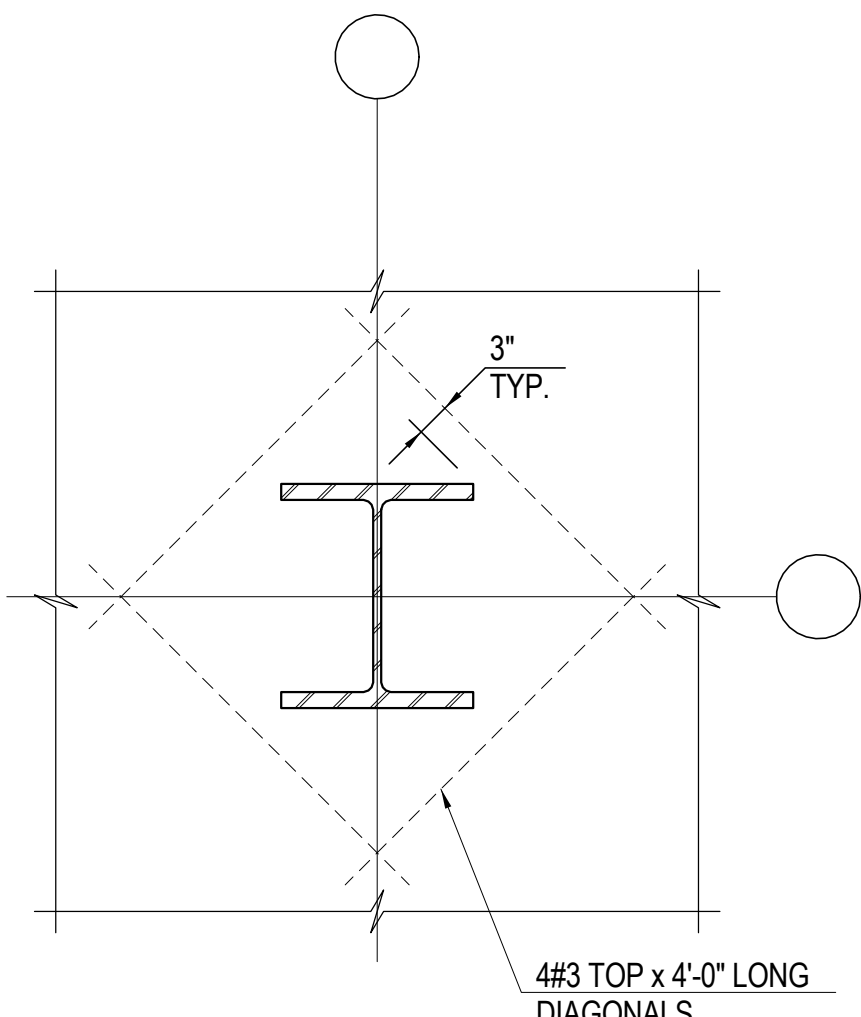
NOTE: ADDL. ARCH. CONCRETE FILL SLAB OR FINISHES NOT SHOWN FOR CLARITY



NOTE: ORIENT JOINT PARALLEL TO DECK SPAN IF POSSIBLE. IF JOINT PERPENDICULAR TO DECK SPAN, LOCATE IN MIDDLE THIRD OF SPAN



NOTES: 1. OMIT ANGLES IN DECK DIR 'A' WHEN M1 < 6" OR IN DECK DIR 'B' WHEN M2 < 6".

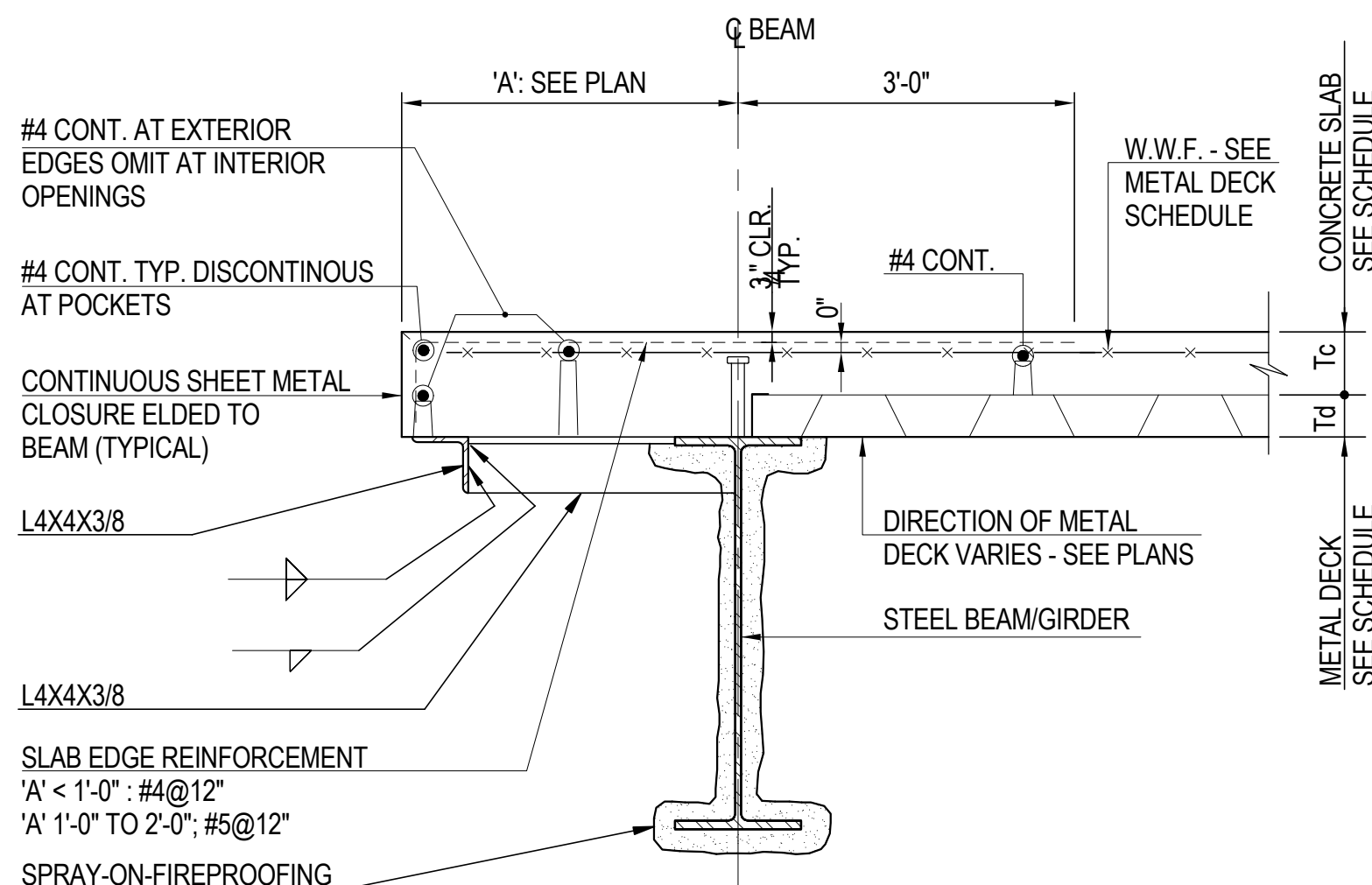


COMPOSITE METAL DECK SLAB SCHEDULE							REBAR	fy = 60 ksi
MARK	Td (IN)	Tc (IN)	IMPOSED LOAD CAPACITIES (PSF)	ONE LAYER TEMP. REINF.	CONCRETE	REMARKS	DECK	fy = 40 ksi
MS1	3	2 1/2	LL	SDL	150 4000	TYPICAL OFFICE FLOOR SLAB		
MS2	3	8			150 4000	TYPICAL MECHANICAL FLOOR SLAB		
MS3	3	6			150 4000	TYPICAL ROOF SLAB		
MS4	3	2 1/2			150 4000	TYPICAL RETAIL SLAB		
MS5	4	3 1/2			150 4000	TYPICAL LOBBY SLAB		

NOTES:  
1. SEE DETAIL 4 FOR TYPICAL COMPOSITE METAL DECK SLAB DETAIL.

REINFORCED METAL DECK SLAB SCHEDULE										REBAR	fy = 60 ksi
MARK	Td (IN)	Tc (IN)	IMPOSED LOAD CAPACITIES (PSF)	MAIN REINFORCEMENT	TEMP. REINF.	CONCRETE	REMARKS	DECK	fy = 40 ksi		
RS1	3	7	LL	SDL			TYPICAL PLAZA SLAB AT PLANTED AREAS				
RS2	3	9					TYPICAL TREE PIT SLAB				
RS3	3	8					TYPICAL MECHANICAL				
RS4	3	8					TYPICAL AT TOP OF KICKERS				

NOTES: 1. SEE DETAIL 5 FOR TYPICAL REINFORCED METAL DECK SLAB DETAIL.







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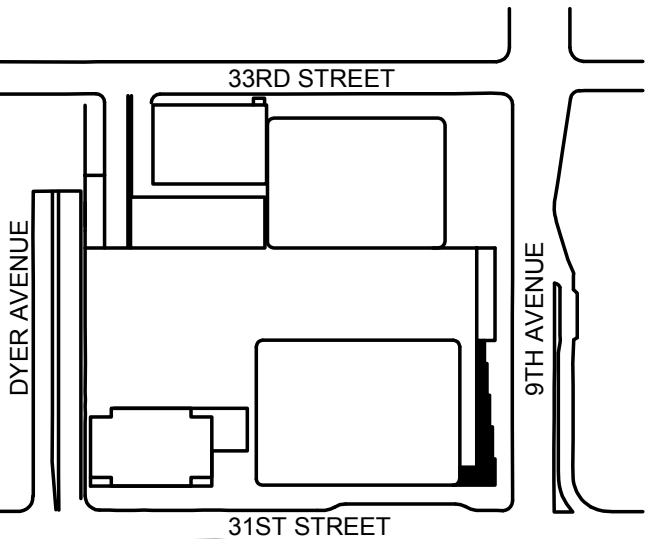
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Key Plan:







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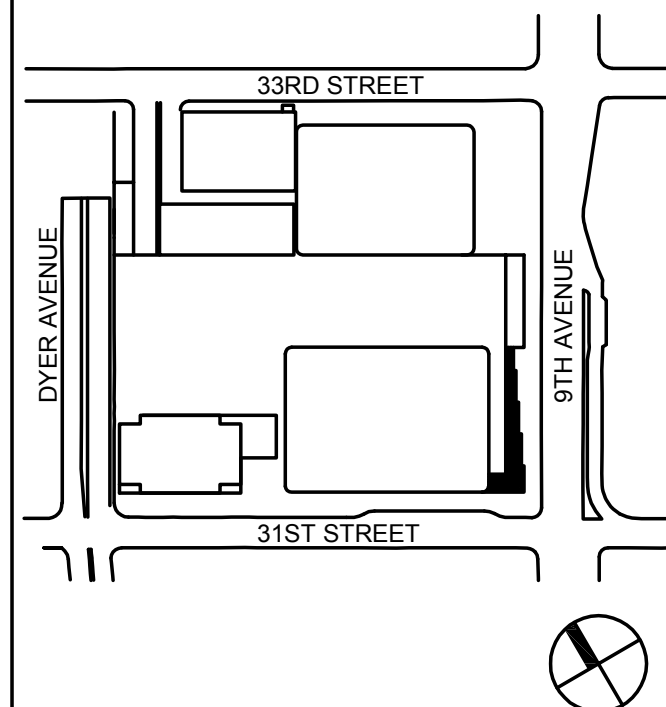
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Seal & Signature:



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5	12 JUL 2013	ISSUED FOR REVISION

Sheet Name:

**MECHANICAL  
TITLE SHEET**

Project No:  
14830.A.000

Date:  
20 JUN 2014

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NTS

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B-SCAN Sheet No.:

**M-002.00**

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**M-002**

Page No.:

**KEY TO SYMBOLS**

ABBREVIATIONS	SYMBOLS
AC AD AFF AHU AL ALD BDD BI BRD BR(G) CAV CC CD CHWR CHWS COD CR(G) CV CVR CWR CWS DB DSD DWBI E EAT EMR FAI FC FCU FD FL FLOR FLV FDR FDS FSD GSX GX HC HWR HWS HX ITP JDKTD KW KX LAT LPS LWT M MER MLWS MM MMD MPS N NC NE ND NE ND NTS NW OAI OBD PC PC PCHWR PCHWS PCWS PCWR PHC PHWR PHWS RA RR RSX RTX R/S S SA SCWS SCWR SD SE SF ST SWI SX S/S TD TF TR(G) TX U UC UDN V VAV VAV VI VIV VR VW VMS VP W/SQ, FT	   

**NYC BLDG. CODE NOTES**

**GENERAL N.Y.C. BUILDING CODE NOTES**

(BUILDING CODE CITY OF NEW YORK EFFECTIVE JULY 1, 2008, TO BE COMPLIED WITH)

**1. MATERIALS AND EQUIPMENT SUBJECT TO SPECIAL INSPECTION**

- MECHANICAL SYSTEMS - CODE/SECTION: BC 1704.15
- SMOKE CONTROL SYSTEMS - CODE/SECTION: BC 1704.14
- FUEL OIL PIPING/STORAGE SYSTEMS - CODE/SECTION: BC 1704.16
- HIGH PRESSURE STEAM PIPING - CODE/SECTION: BC 1704.17
- HEATING SYSTEMS - CODE/SECTION: BC 1704.23

- FINAL INSPECTION PER BC 109.5 AND DIRECTIVE 14 OF 1975

**2. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC., TO COMPLY WITH THE FOLLOWING:**

**ARTICLE OR REFERENCE:**

**WORK ITEM OR MATERIAL(S)**

**CHAPTER**

**SUBPARAGRAPHS**

- DUCT CONSTRUCTION MC603 603.1 THROUGH 603.18 INCLUSIVE
- AIR INLETS AND OUTLETS MC608 608.1 THROUGH 608.23 INCLUSIVE
- FILTERS MC605 605.1 THROUGH 605.5 INCLUSIVE
- MOTORS AND FANS MC503 503.1 THROUGH 503.5 INCLUSIVE
- ELEC. WIRING AND EQUIP. MC301 301.7 (REFERENCE TO NYCEC)
- REFRIGERATION SYSTEMS MC1102 1102.1 THROUGH 1102.2.2 INCLUSIVE
- DUCT SMOKE DETECTOR MC513 513.1 THROUGH 513.20.3 INCLUSIVE
- CONTROLS MC405 405.1 THROUGH 405.2.1 INCLUSIVE
- HEATING CAPACITY MC312 312.1 (BC 1204.1 THROUGH 1204.4 INCLUSIVE)
- NOISE CONTROL REQUIREMENTS MC326 326.1 THROUGH 326.2.9 INCLUSIVE
- HYDROIC PIPING MC1001 1201.1 THROUGH 1210.3.2 INCLUSIVE
- INTAKES AND EXHAUSTS MC401 401.5 THROUGH 401.6 INCLUSIVE
- FUEL OIL PIPING AND STORAGE MC1301 1301 THROUGH 1308.3 INCLUSIVE

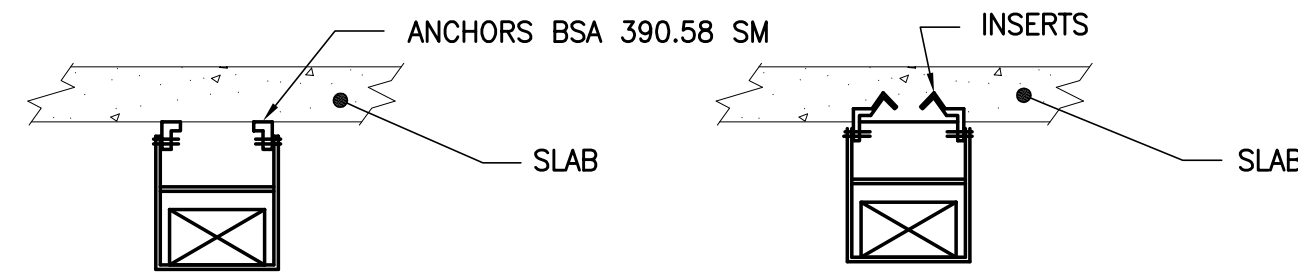
**3. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED WALL COMPOSITIONS.**

**4. MINIMUM TEMPERATURE TO BE MAINTAINED IN HABITABLE ROOMS: 68°F AT A POINT 3 FEET ABOVE FLOOR WHEN 0°F OUTSIDE WITH 15 MPH WIND. HEATING REQUIREMENTS PER BC 1204 (MC 309.1).**

**5. VENTILATION FOR ALL AREAS IS COMPLIANT WITH BC 1203 UNDER WHICH MECHANICAL VENTILATION SHALL COMPLY WITH MC 403**

**6. WHERE UNDER MECHANICAL VENTILATION, A STATEMENT WILL BE FILED (BY OWNER OR TENANT IN POSSESSION) THAT THE VENTILATING SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION DURING NORMAL OCCUPANCY OF THE PREMISES.**

**7. DETAIL OF DUCT SUPPORTS:**



**A. SEE NOTE 2.A. ABOVE FOR HANGERS, BRACINGS, ETC.**

**B. UNLESS OTHERWISE NOTED, ALL DUCTS SHALL BE CONSTRUCTED OF GALVANIZED IRON.**

**8. MECHANICAL EQUIPMENT LOCATED OUTSIDE OF THE BUILDING OR WHERE EQUIPMENT OPENS TO THE EXTERIOR OF THE BUILDING SHALL BE SUBJECT TO THE NOISE LIMITATIONS OF BC 1207 (MC 926) WHERE WINDOWS OF A DWELLING UNIT ARE WITHIN 100 FT. OF EQUIPMENT OPENING TO OR ON THE EXTERIOR OF THE BUILDING.**

**9. WHERE PIPING OR DUCTWORK HAS TO BE HUNG IN SPACES WHERE INSERTS ARE NOT PROVIDED, INSTALL TWO STAR NO. 7000 DOUBLE 3/8 IN. EXPANSION SHIELDS CONNECTED BY A 2 INCH X 2 INCH ANGLE, FROM WHICH SUSPENDS THE HANGAR RODS. THE NUMBER OF HANGERS WILL BE DOUBLE THAT ALLOWED FOR INSERTS. ALL METHODS OF ATTACHMENT TO THE BUILDING STRUCTURE MUST BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO THEIR USE. ANGLE SIZE SHALL BE SUITABLE TO SUPPORT THE LOAD WHICH IS BEING SUPPORTED.**

**10. PLANS ARE IN COMPLIANCE WITH LOCAL LAW 17-95**

**11. THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2007 ENERGY CONSERVATION CODE OF NEW YORK STATE CHAPTER 8 AND THE LATEST EDITION (2008) OF NYC BUILDING CODE**

**GENERAL NOTES**

- ALL LOW PRESSURE BRANCH DUCTWORK (SUPPLY AND RETURN) SHALL BE PROVIDED WITH VOLUME CONTROL, SPLITTER DAMPERS AND VOLUME DAMPERS RESPECTIVELY (PROVIDE LOCK NUT AT DAMPERS).
- PROVIDE COMBINATION FIRE/SMOKE DAMPER AT BRANCH CONNECTIONS TO ALL RISERS AND AT ALL SLAB AND FIRE RATED WALL PENETRATIONS.
- ALL DUCTWORK AND PIPING ENCLOSURES FOR HORIZONTAL OFFSETS SHALL BE OF 2HR RATED MINIMUM SHUTWALL CONSTRUCTION (TOP, BOTTOM AND SIDES) SHALL BE SUPPORTED INDEPENDENTLY OF THE DUCTWORK OR PIPING AND SHALL BE THE WORK OF ANOTHER CONTRACTOR.
- EACH VARIABLE AIR VOLUME BOX (WITH AND WITHOUT REHEAT COIL) AND CONSTANT VOLUME BOX (WITH REHEAT COIL) SHALL BE PROVIDED WITH A THERMOSTAT FURNISHED AND INSTALLED UNDER THE B.A.T.C. SECTION OF THE SPECIFICATIONS. THERMOSTATS SHALL BE LOCATED AS SHOWN OR AS DIRECTED.
- FOR SIZES OF THE MOTOR CONTROL CENTERS (MCC, INCLUDING VARIABLE SPEED DRIVE) AND ARRANGEMENT AND/OR GROUPING OF ISOLATED STARTERS REFER TO ELECTRICAL CONTRACT DOCUMENTS.
- ALL GRATING, OUTWALKS AND STEEL RUNG ACCESS LADDERS WILL BE PROVIDED UNDER ANOTHER SECTION OF THE SPECIFICATIONS. EXCEPT AS NOTED ON PLANS.
- VARIABLE AIR VOLUME AND CONSTANT AIR VOLUME BOXES AND SOUND TRAP SYMBOLS SHOWN ON DRAWINGS ARE SCHEMATIC. SEE DETAIL OF INSTALLATION ON DRAWING FOR ACTUAL TYPICAL ARRANGEMENT REQUIRED.
- BORDER TYPES, COLOR, FINISHES, AND METHOD OF ATTACHMENT FOR ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE COORDINATED WITH THE ARCHITECTURAL CEILING DETAILS AND SPECIFICATIONS.
- ALL LINEAR DIFFUSERS ARE TO BE COORDINATED WITH ARCHITECTURAL PLANS FOR EXACT LENGTHS AND LOCATIONS. ACTIVE PLENUM SECTIONS SHALL BE OF THE SIZES AS SHOWN ON PLANS. EACH BRANCH TAP SERVING THE LINEAR DIFFUSER SHALL BE PROVIDED WITH A VOLUME DAMPER WHICH SHALL BE OPERABLE THROUGH THE ROOM SIDE FACE OF THE DIFFUSER. (CABLE OPERATED DAMPER) ACTIVE SUPPLY SECTIONS OF THE LINEAR DIFFUSERS SHALL BE PROVIDED WITH PATTERNS CONTROL DEVICES AND EQUALIZING GRIDS. ACTIVE OR INACTIVE RETURN SECTIONS SHALL NOT BE FURNISHED WITH PATTERNS CONTROL OR EQUALIZING GRIDS. REFER TO SPECIFICATIONS FOR MODEL NUMBERS. ALL FINISH COLORS AND TYPES SHALL BE AS PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
- THERMOSTAT SHOULD BE LOCATED 5'-0" A.F.F. AND 9" FROM EDGE OF DOOR U.O.N. FINAL LOCATIONS TO BE VERIFIED WITH THE ARCHITECT. FINISHED PAINT COLOR TO BE SELECTED BY THE OWNER. MANUFACTURER'S LOGO SHALL NOT BE EXPOSED.
- WHERE PIPING CONNECTIONS FOR EQUIPMENT SUCH AS PUMPS, CHILLERS, HEAT EXCHANGERS, ETC. DIFFER FROM THE LINE SIZE PIPING, IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO FURNISH AND INSTALL THE NECESSARY REDUCER/EXPANDER FITTINGS TO ENABLE CONNECTION BETWEEN THE PIPING SYSTEM AND THE EQUIPMENT.
- ALL PRESSURE AND TEMPERATURE GAUGES ARE SCHEMATICALLY SHOWN ON THE PLANS. REFER TO SPECIFICATIONS FOR EXACT TYPES.
- REFER TO SCHEDULE SHEETS FOR THE DIFFUSER, GRILLE AND REGISTER SCHEDULES.

**12. LOCATION OF DIRECT DIGITAL CONTROL (DDC) AND LOCAL (LC) PANELS SHOWN ON PLANS ARE SUGGESTED. LOCATIONS ONLY. FINAL LOCATION AND EXACT QUANTITY OF DDC/LC PANELS WILL BE DEPENDENT ON SELECTION OF A.T.C. VENDOR AND SHALL BE SUBJECT TO SHOP DRAWING SUBMITTAL, REVIEW AND APPROVAL BY THE ENGINEER AND ARCHITECT.**

**13. ALL COMBINATION FIRE/SMOKE DAMPERS SHALL BE APPROVED FOR USE IN NEW YORK CITY (SHALL HAVE NEW YORK CITY M.E.A./B.S.A. NO.) DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED U.L. LISTING REQUIREMENTS. DAMPERS SHALL BE RIGID AS STD.**

**14. ALL FSD AND TERMINAL BOXES WITH REHEAT COILS SHALL BE PROVIDED WITH ACCESS DOORS.**

**15. ALL MER FLOORS TO BE WATERPROOFED. (REFER TO ARCH. DRAWINGS)**

**16. ALL STEAM VALVES, CHILLED WATER, CONDENSER WATER AND HOT WATER PUMPS SHALL BE PROVIDED WITH INSULATED CUSTOM FITTED BLANKET/ENCLOSURES AS PER SPECIFICATION.**

**17. INSTALL INITIAL CROSS CONNECTION "FLUSH VALVES" AT THE BEGINNING AND END OF ALL WATER PIPE RUNS. VALVE SIZE SHALL NOT BE LESS THAN TWO PIPE SIZES SMALLER THAN THE LINE SIZE. WITH A MINIMUM SIZE OF 2" WATER SYSTEMS INCLUDE: CHILLER WATER, SECONDARY CONDENSER, HOT WATER REHEAT, HOT WATER RADIATION, ETC.**

**18. ALL HEAT TRANSFER PACKAGED EQUIPMENT (PUMPS, HEAT EXCHANGERS, EXPANSION TANKS, CONDENSATE PUMPS, ETC.) SHALL BE VALVED AS SHOWN ON THE DETAIL SHEETS, AND/OR AS DESCRIBED IN THE SPECIFICATIONS.**

**19. ALL TERMINAL BOXES AND EQUIPMENT THAT REQUIRE ACCESS AND SERVICE SHALL BE CENTER LINE NO MORE THAN 11'-0" ABOVE FINISH FLOOR.**

**20. ALL ELEVATOR HOSTWAYS SHALL BE PROVIDED WITH A 3 SQUARE FOOT VENT TO THE EXTERIOR. REFER TO ARCHITECTURAL PLANS FOR VENTING REQUIREMENTS.**

**21. ALL VALVED OUTLETS FOR FUTURE USE AND DEAD LESS SHALL BE PROVIDED WITH A BYPASS LINE AND BALANCING VALVE. INCLUDING BUT NOT LIMITED TO THE VALVES FOR FUTURE PUMPS, VALVED OUTLETS ON FLOUT FLOORS.**

**22. ALL DUCTWORK LOCATED IN ELECTRICAL ROOMS SHALL BE INSTALLED 6'-0" ABOVE ALL ELECTRICAL EQUIPMENT.**

**23. ALL PIPING RUNNING THROUGH OR SERVING ELECTRICAL ROOMS SHALL BE LOCATED 6'-0" ABOVE ALL ELECTRICAL EQUIPMENT. PIPING SHALL BE PROVIDED WITH A DRAIN PAN AND LEAK DETECTION TIED INTO THE DMS SYSTEM.**

**24. ALL CHILLED WATER VALVES SHALL BE RATED FOR ANSI CLASS 300.**

**25. ALL MOTORS SHALL BE INVERTER DUTY RATED.**

**26. PER NYC BUILDING CODE AND THE SEISMIC CATEGORY C ASSIGNED TO THIS BUILDING, MECHANICAL SYSTEMS ARE REQUIRED TO BE SEISMICALLY RESTRAINED. REFER TO COMPONENT SEISMIC IMPORTANCE FACTORS IP SCHEDULE ON THIS DRAWING.**

**27. ALL METAL LOUVERS, AND ALL BLANK OFF PANELS (INSULATED OR NOT INSULATED, ACTIVE OR INACTIVE) FOR LOUVERS SHALL BE PROVIDED UNDER ANOTHER SECTION OF THE SPECIFICATIONS. WIRE MESH SCREENS FOR LOUVERS SHALL BE PROVIDED BY THE LOUVER MANUFACTURER. ALL OTHER WIRE MESH SCREENS SHALL BE PROVIDED UNDER THIS SECTION OF THE SPECIFICATIONS.**

**28. ALL HORIZONTAL S.A. DUCTWORK UPSTREAM OF TERMINAL UNITS SHALL BE LEAK TESTED.**

**29. DIFFUSERS LOCATED IN INACCESSIBLE CEILING SHALL HAVE CORD OPERATED VOLUME DAMPERS IN ITS RESPECTIVE BRANCH DUCTS OPERABLE THROUGH FACE OF THE DIFFUSER.**

**30. PROVIDE CLEANOUTS FOR CONDENSATE DRAIN PIPING AT EACH CHANGE OF DIRECTION AS REQUIRED.**

**31. CONTRACTOR MUST SIZE REFRIGERANT LINES ONCE AN ACCURATE PIPING LAYOUT HAS BEEN DONE DURING THE SHOP DRAWING COORDINATION PHASE. REFRIGERANT PIPING SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.**

**32. ALL REQUIRED SPECIAL INSPECTIONS SHALL BE CONDUCTED BY A SPECIAL INSPECTOR IN ACCORDANCE WITH REQUIREMENTS OF THE NEW YORK CITY BUILDING CODE. SERVICES OF THE SPECIAL INSPECTORS SHALL BE RETAINED BY THE OWNER UNDER A SEPARATE CONTRACT.**

**33. ALL HVAC SYSTEMS SHALL BE BALANCED. BALANCING REPORTS SHALL BE PROVIDED TO THE OWNER.**

**ALTERNATES**

NUMBER	DESCRIPTION
23000.1	PROVIDE AN ADD ALTERNATE PRICE TO FURNISH AND INSTALL AN ACOUSTIC RETURN AIR PLENUM SECTION ON EACH LOCAL FLOOR AIR CONDITIONING UNIT. THE PLENUM WILL BE OF SIMILAR CONSTRUCTION AS THE LOCAL FLOOR AIR CONDITIONING UNIT CASING WITH A PERFORATED INNER LINER. REFER TO M-200 FOR TYPICAL FAN ROOM DETAILS.
23000.2	PROVIDE AN ADD ALTERNATE PRICE TO FURNISH AND INSTALL THE 1200 F.W. CO-GENERATION SYSTEM. THE ALTERNATE WOULD INCLUDE ALL SPECIALTIES AND ALL REQUIRED AUXILIARIES FOR THE CO-GEN MODULES, SUPPORTING SYSTEMS FOR EXHAUST FUELS, VENTILATION MAKE-UP AIR, PIPING, INSULATION AND CONTROLS. ALSO INCLUDED WOULD BE ALL EQUIPMENT AND PIPING ASSOCIATED WITH THE HEAT RECOVERY AND ABSORPTION COOLING SYSTEMS. REFER TO M-166, 403, 404, 600, 601, 603, FOR THE 68TH FLOOR MECHANICAL PLAN AND ASSOCIATED PIPING RISER DIAGRAMS AND FLOW DIAGRAMS.
23000.3	PROVIDE AN ADD ALTERNATE PRICE TO FURNISH AND INSTALL ELECTRIC CLOSEST EXHAUST FANS AND MAKE-UP AIR TRANSFER DUCTS. FANS WOULD SERVE THE TYPICAL A & B ELECTRIC CLOSETS ON THE TOWER OFFICE FLOOR 6 THRU 17. REFER TO TYPICAL TOWER OFFICE FLOOR PLANS AND M-501 FOR THE EXHAUST FAN SCHEDULE.
23000.4	PROVIDE AN ADD ALTERNATE PRICE TO FURNISH AND INSTALL UPGRADED FILTERS FOR LOBBY AND BACK OF HOUSE AIR CONDITIONING UNITS. UPGRADE FINAL FILTRATION ON THESE SYSTEM TO MEET 17 FILTERS. UNITS FOR THE FILTER UPGRADE ARE LISTED: -LOBBY SYSTEMS (ACU-4-1,2) -BASEMENT OUTSIDE AIR (M-2-3) -SECURITY CONSOLE ROOM (AC-2-1) -VISITORS CENTER (AC-1-1) -BACK OF HOUSE SYSTEMS ON B LEVEL (AC-8-1 THRU AC-8-8) -BACK OF HOUSE SYSTEMS ON B, B2, B3 (AC-81-1, AC-82-1, AC-83-1)
23000.5	PROVIDE AN ADD ALTERNATE PRICE TO FURNISH AND INSTALL ELECTRIC RADIANT FLOOR HEATER IN THE MAIN LOBBY. REFER TO ELECTRICAL DRAWINGS AND M-101A FOR THE LOCATION AND FLOOR AREAS FOR RADIANT FLOOR HEATING.
23000.6	PROVIDE AN ADD ALTERNATE PRICE TO FURNISH AND INSTALL TEMPORARY HEATING ON PER FLOOR BASIS FOR SHELLED FLOORS AWAITING TENANCY (NOT FOR CONSTRUCTION PHASE HEATING). THE HEATING WOULD BE PROVIDED BY A SERIES OF FAN-POWERED BOXES (FPB) MOUNTED, PIPED, TRIMMED, WIRED AND CONTROLLED. REFER TO SCHEMATIC LAYOUT OF FPB'S FOR TEMPORARY HEATING INDICATED ON M-106.













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CHINA



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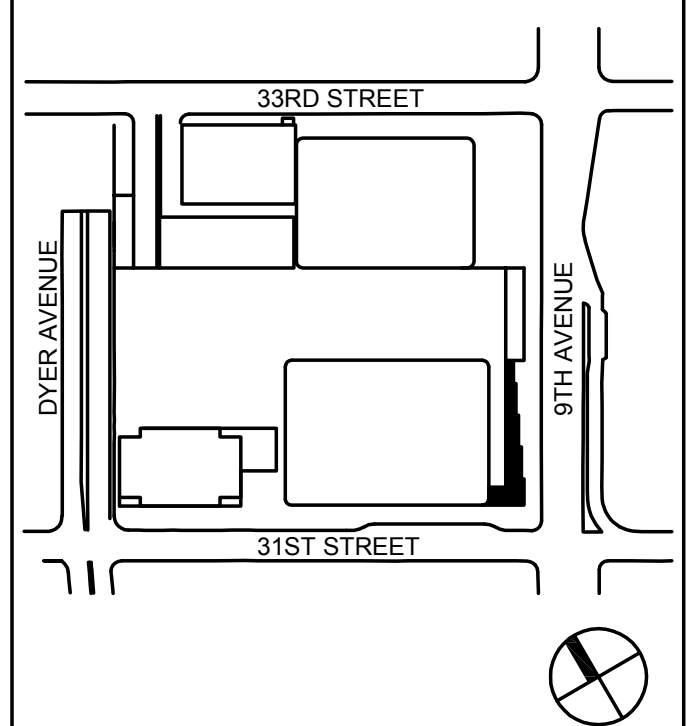
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Rowan Williams Davies & Irwin Inc.

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3	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	15 MAR 2013	ISSUED FOR RECONCILIATION
No.	Date	Description

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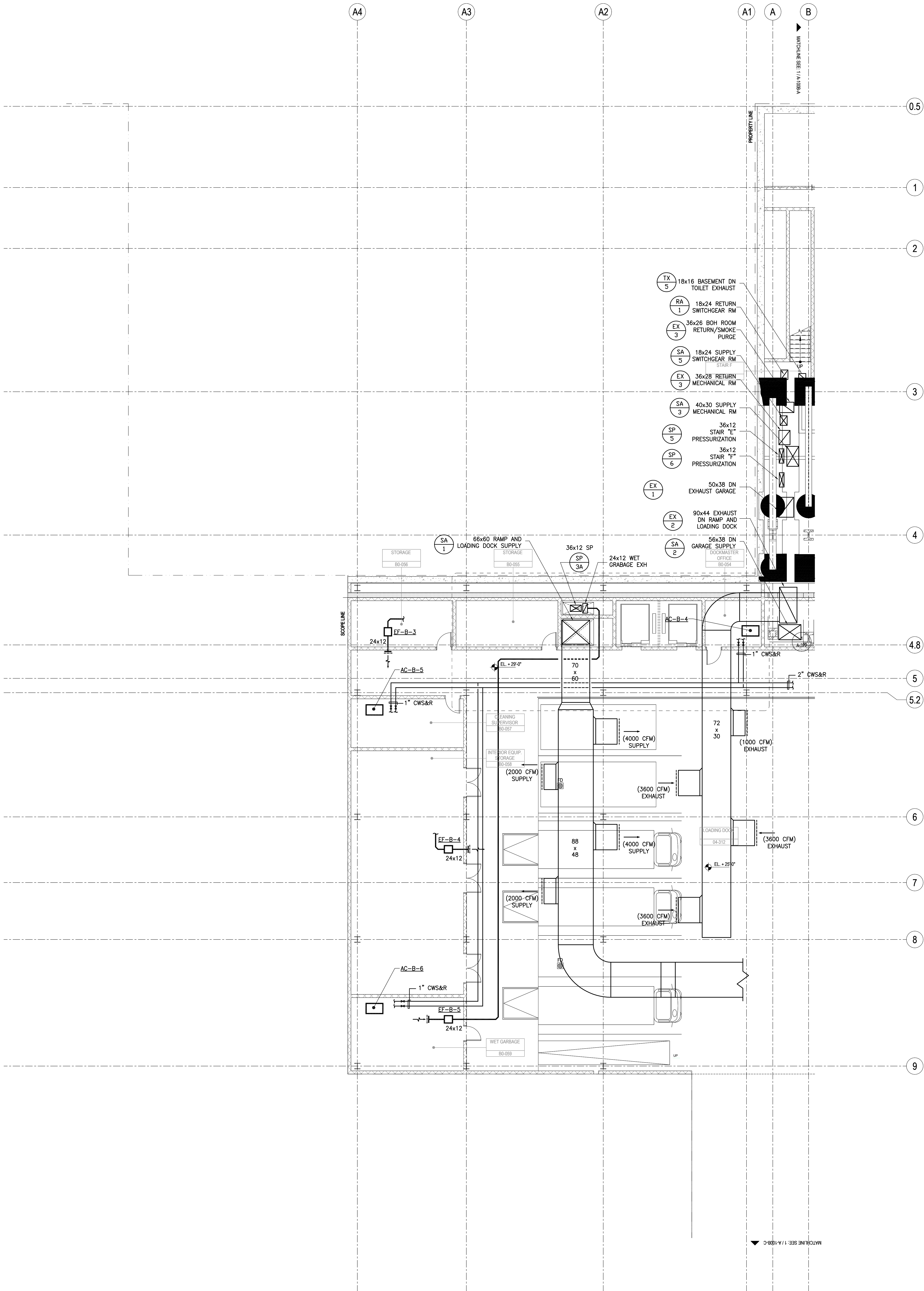
MECHANICAL  
CELLAR B1  
FLOOR PLAN -  
PART B


Project No.: 14830.A.000	B-SCAN Sheet No.:
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	Page No.:











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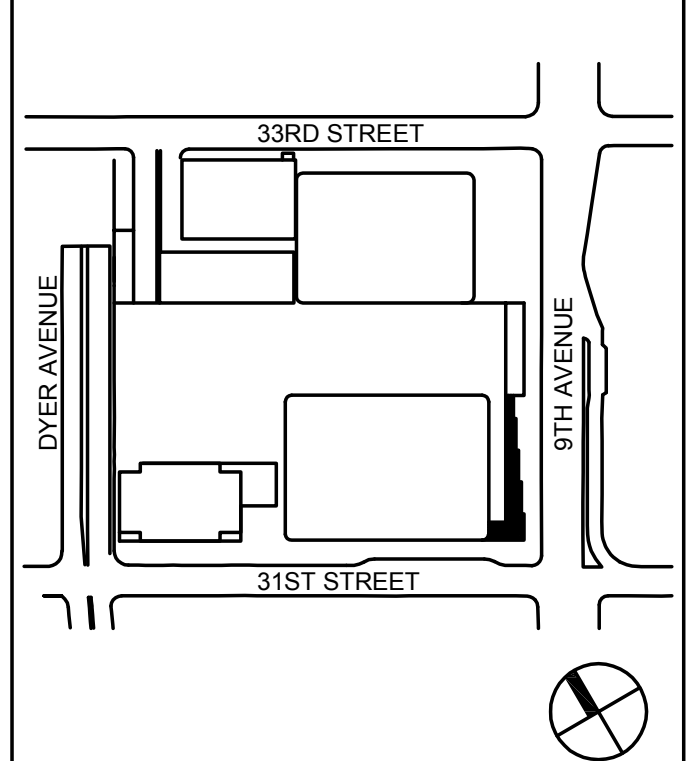
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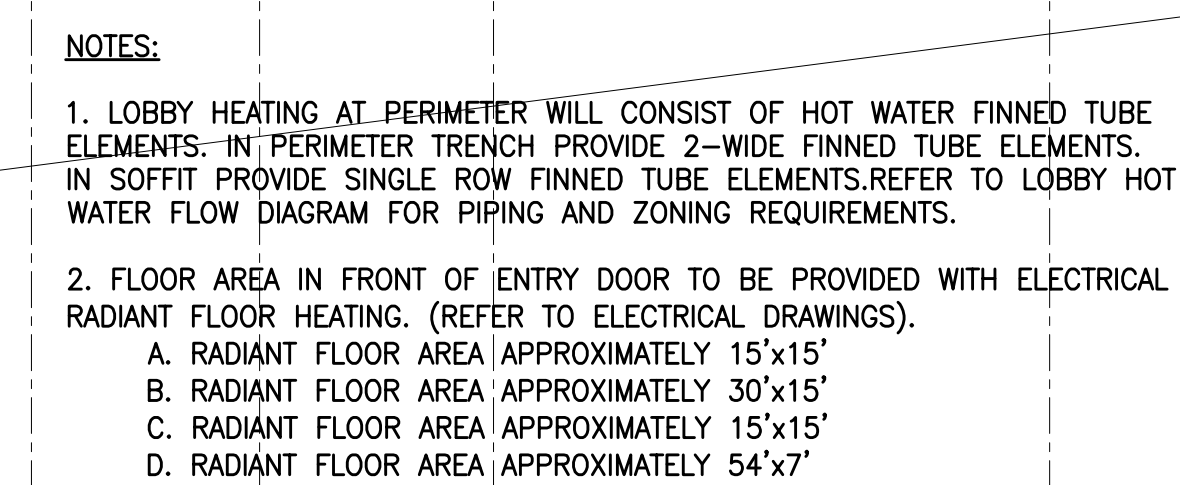
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5	13 MAR 2013	ISSUED FOR RECONFIGURATION

Sheet Name:

**MECHANICAL  
CELLAR B  
FLOOR PLAN -  
PART B**

Project No:	B-SCAN Sheet No.:
14830.A.000	M-098.00
Date: 20 JUN 2014	Sheet No.:
Scale: 1/8"=1'-0"	M-098
File No.:	Page No.:





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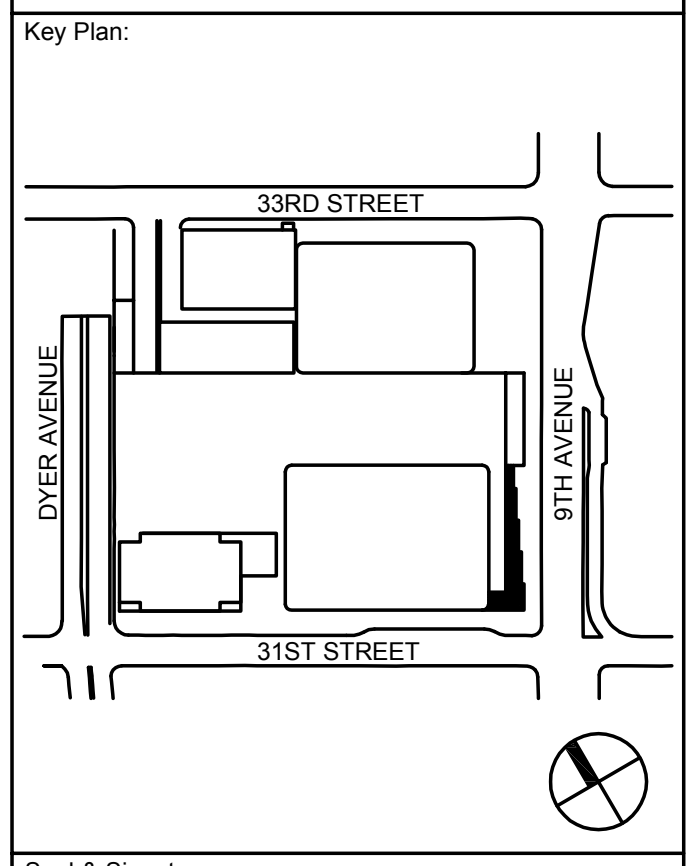
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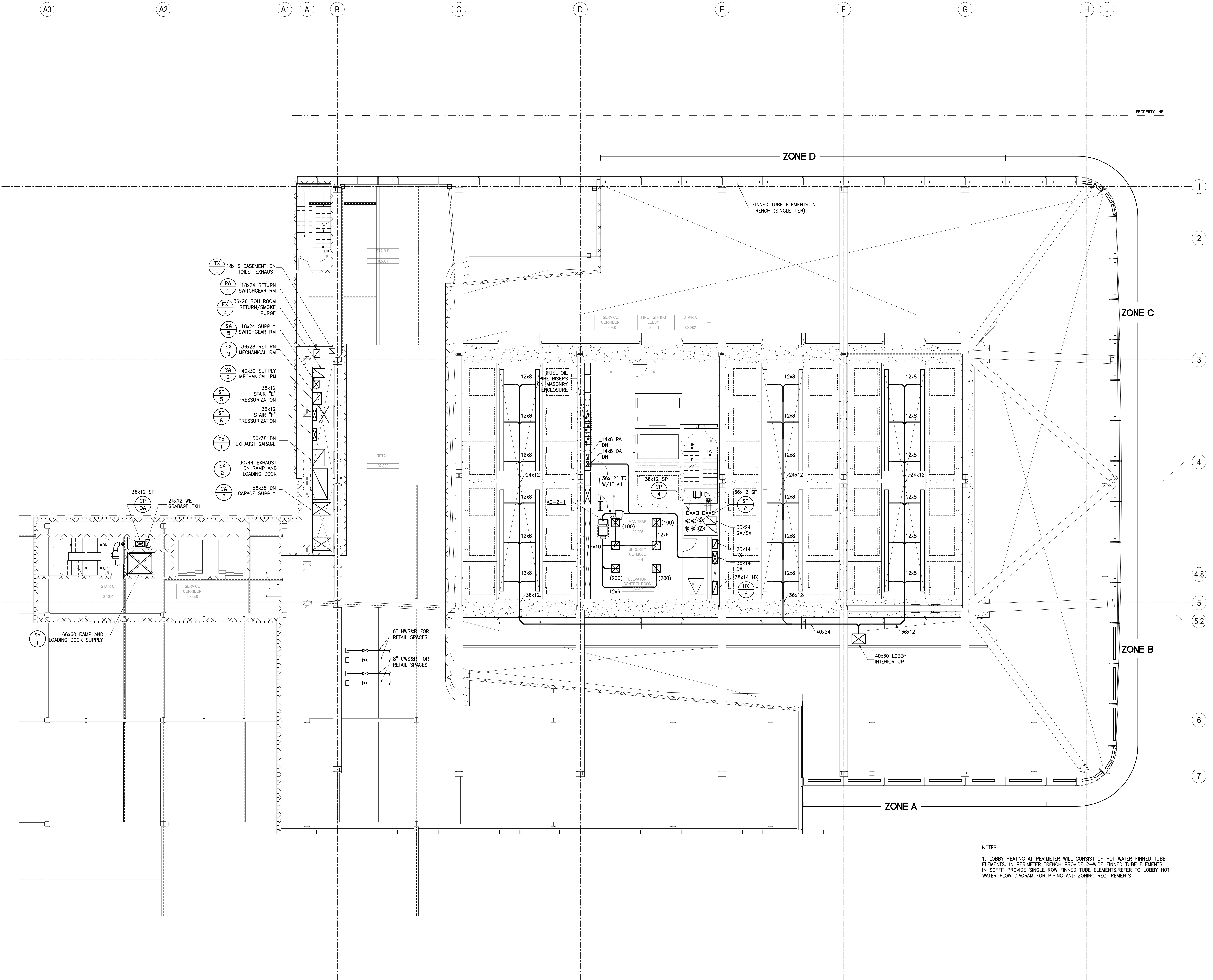
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5	13 MAR 2013	ISSUED FOR PRELIMINARY

MECHANICAL  
LEVEL 2  
FLOOR PLAN -  
RETAIL

Project No:  
14830.A.000  
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20 JUN 2014  
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Sheet No.:  
M-102  
Page No.:



NOTES:

1. LOBBY HEATING AT PERIMETER WILL CONSIST OF HOT WATER FINNED TUBE ELEMENTS. IN PERIMETER TRENCH PROVIDE 2-WIDE FINNED TUBE ELEMENTS. IN SOFFIT PROVIDE SINGLE ROW FINNED TUBE ELEMENTS. REFER TO LOBBY HOT WATER FLOW DIAGRAM FOR PIPING AND ZONING REQUIREMENTS.





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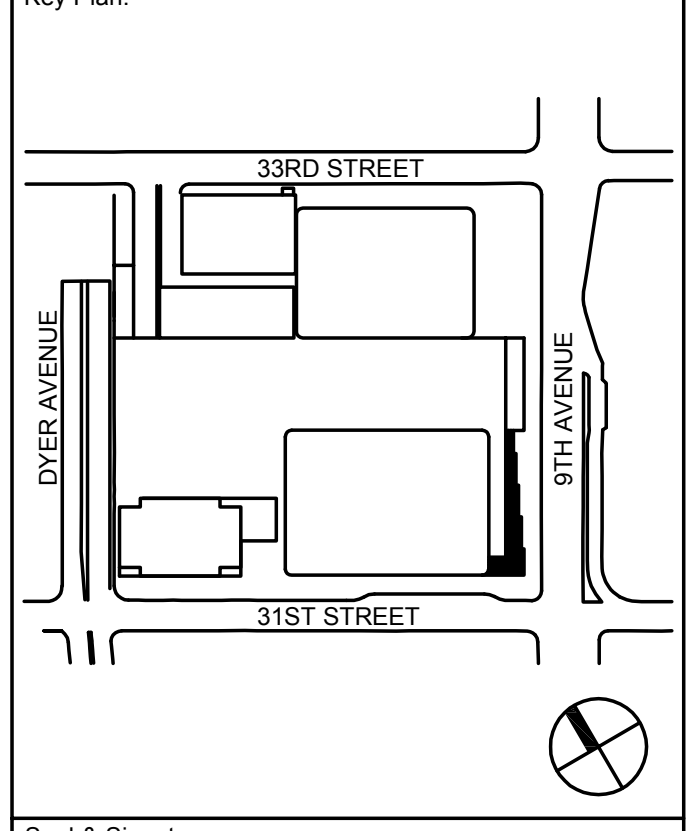
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Ontario, Canada N1K 1S8

Key Plan:  
33RD STREET  
31ST STREET  
DIXIE AVENUE  
STAY AVENUE

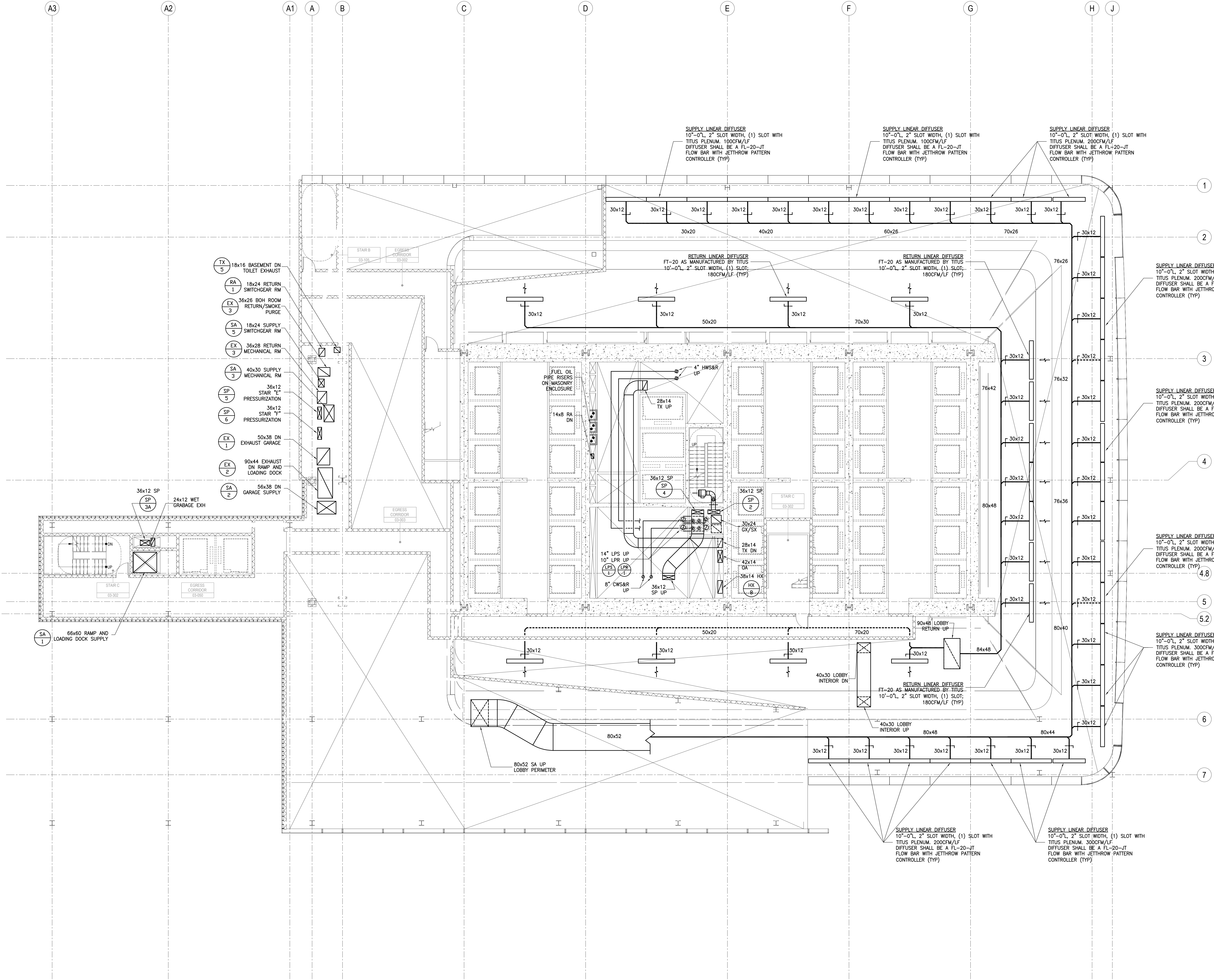


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5	13 MAR 2013	ISSUED FOR PRELIMINARY

## MECHANICAL LEVEL 3 FLOOR PLAN - STAIR TRANSFER

Project No:  
14830.A.000  
Date:  
20 JUN 2014  
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M-103  
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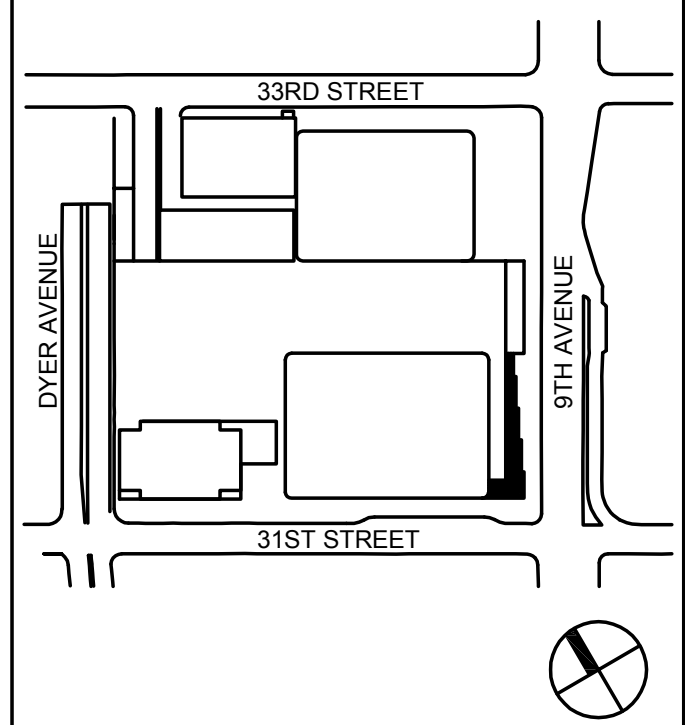
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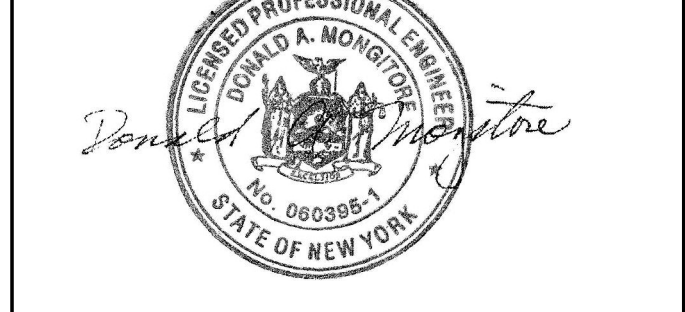
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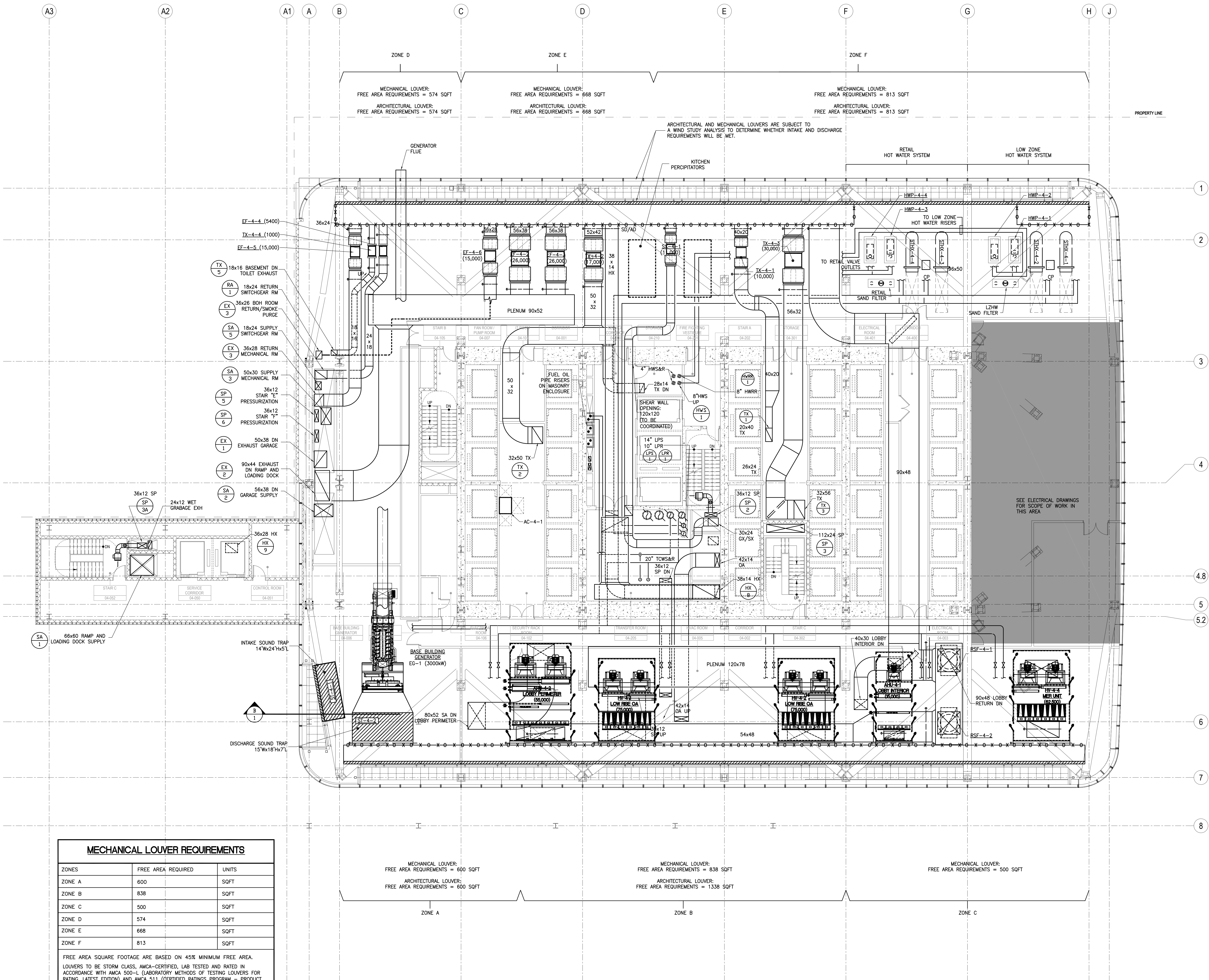


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5	13 MAR 2014	ISSUED FOR REVISION
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## MECHANICAL LEVEL 4 FLOOR PLAN - MECHANICAL



MECHANICAL LOUVER REQUIREMENTS		
ZONES	FREE AREA REQUIRED	UNITS
ZONE A	600	SQFT
ZONE B	838	SQFT
ZONE C	500	SQFT
ZONE D	574	SQFT
ZONE E	668	SQFT
ZONE F	813	SQFT

FREE AREA SQUARE FOOTAGE ARE BASED ON 45% MINIMUM FREE AREA. LOUVERS TO BE STORM CLASS, AMCA-CERTIFIED, LAB TESTED AND RATED IN ACCORDANCE WITH AMCA 500-L (LABORATORY METHODS OF TESTING LOUVERS FOR RATING, LATEST EDITION) AND AMCA 511 (CERTIFIED RATING PROGRAM - PRODUCT RATING MANUAL FOR AIR CONTROL DEVICES, LATEST EDITION)

STORM CLASS LOUVERS SHALL HAVE AN AMCA CERTIFIED CLASS 'A' RATING FOR WIND-DRIVEN RAIN AT 29MPH, AND 3.0" RAINFALL PER HOUR, AND SHALL HAVE NOT LESS THAN AN AMCA CERTIFIED CLASS 'B' RATING FOR WIND-DRIVEN RAIN AT 50MPH, AND 8.0" RAINFALL PER HOUR.

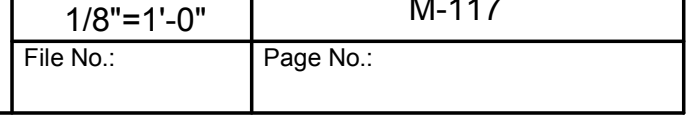












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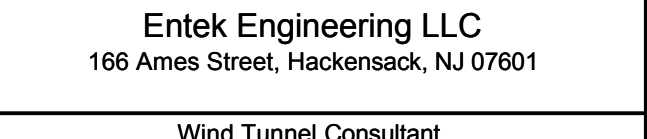
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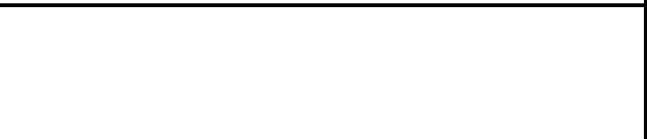
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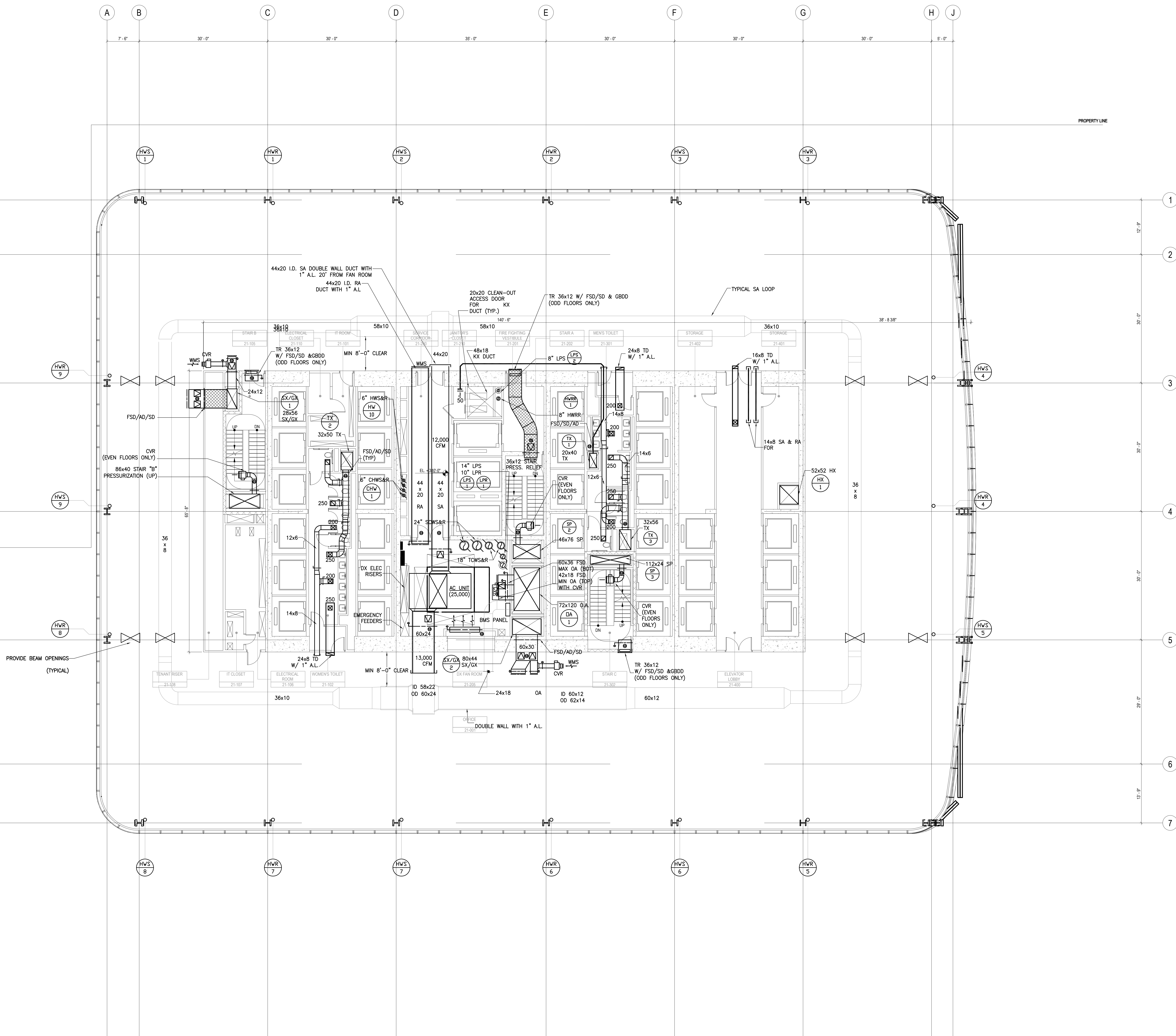


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5	13 MAR 2013	ISSUED FOR RECONFIGURATION

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**MECHANICAL  
LEVEL  
21-27 FLOOR  
PLAN - TYPICAL  
LOW-RISE**







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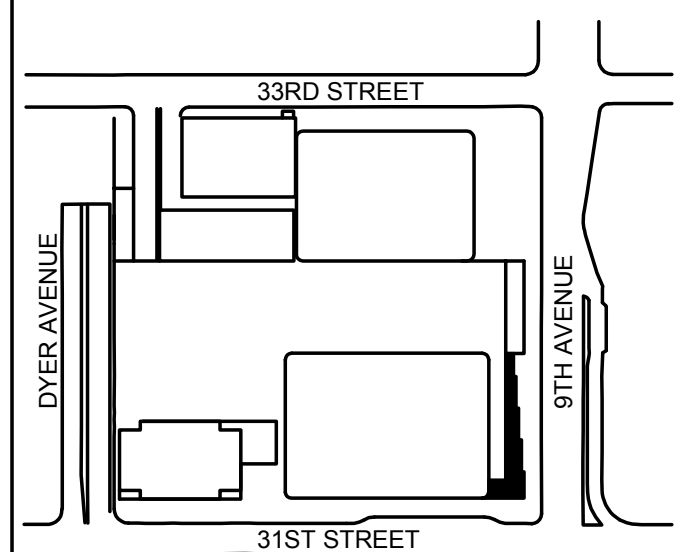
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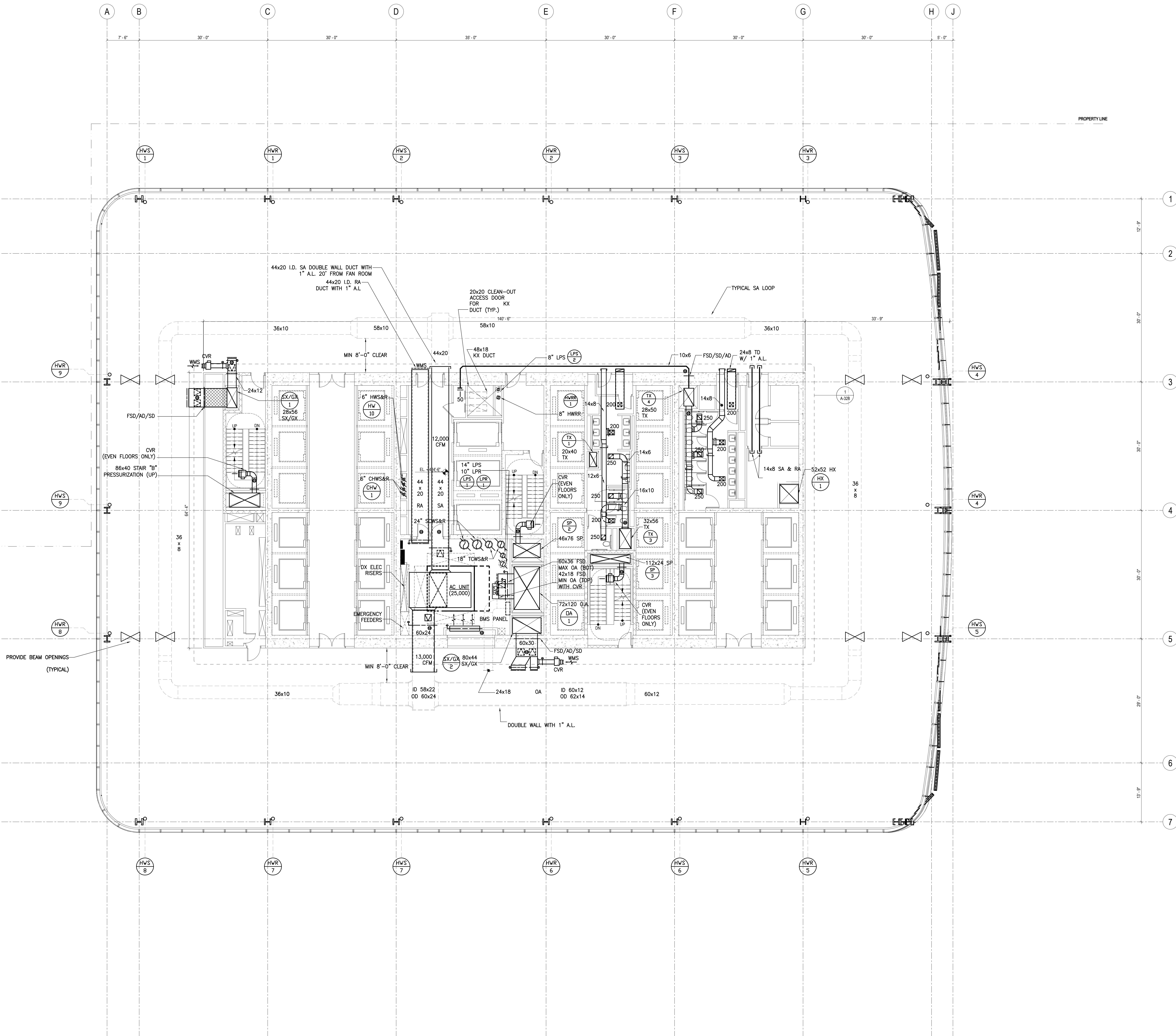


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Sheet Name:

**MECHANICAL  
LEVEL  
28 FLOOR  
PLAN - LOW RISE  
& MID-RISE**

Project No: 14830.A.000	B-SCAN Sheet No.: M-128.00
Date: 20 JUN 2014	Sheet No.: M-128
Scale: 1/8"=1'-0"	Page No.:
File No.:	













B-SCAN Sheet No.:  
**M-131.00**  
 Sheet No.:  
**M-131**  
 Page No.:

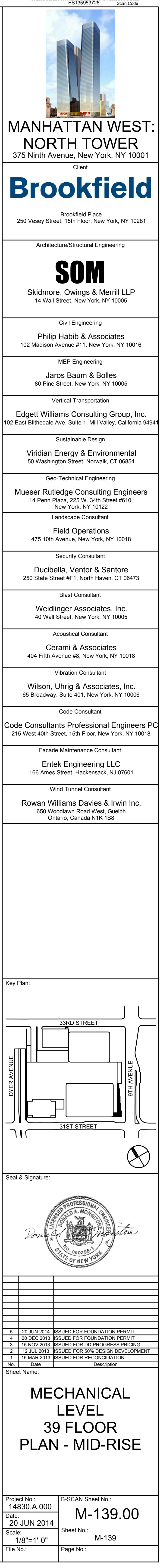




























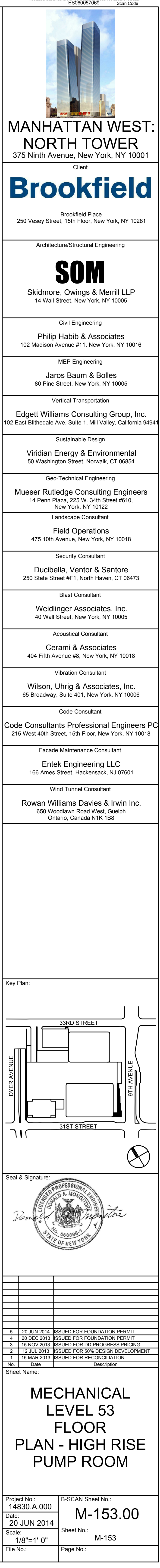










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B-SCAN Sheet No.:	M-155.00
Sheet No.:	M-155
Page No.:	



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MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client  
**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering  
**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering  
Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave. Suite 1, Mill Valley, California 94941

Sustainable Design  
Virdian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering  
Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Ventor & Santoro  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1S8

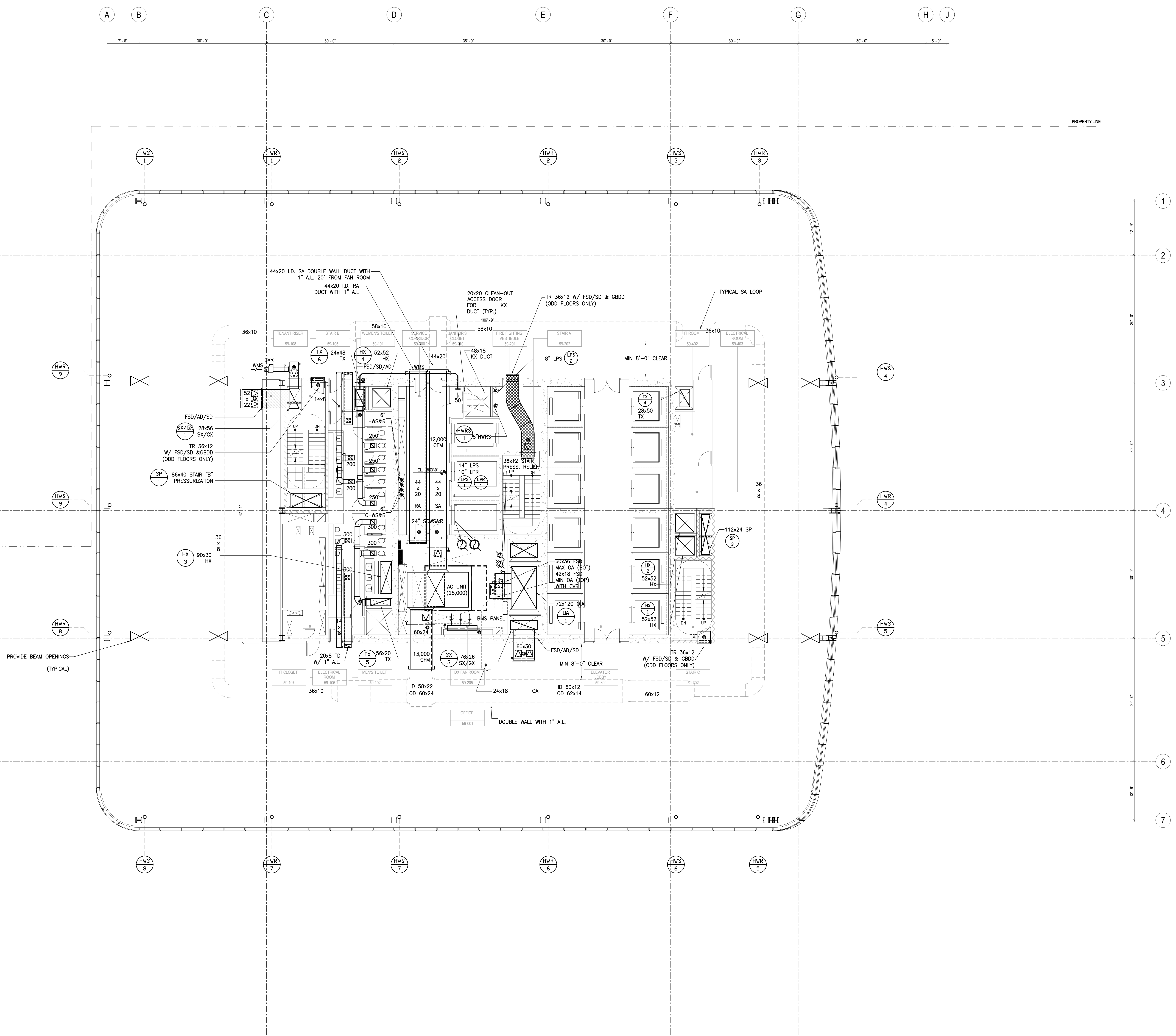
Key Plan:  
33RD STREET  
31ST STREET  
DYER AVENUE  
STANLEY AVENUE

Seal & Signature:

No.	Date	Description
1	10 MAR 2013	ISSUED FOR REVISION
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
3	13 NOV 2013	ISSUED FOR 10% DESIGN DEVELOPMENT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT

Project No.: 14830.A.000  
Date: 20 JUN 2014  
Scale: 1/8"=1'-0"  
File No.:  
B-SCAN Sheet No.:  
Sheet No.: M-159  
Page No.:

**MECHANICAL  
LEVEL 59  
FLOOR PLAN -  
HIGH RISE**





--	--









# Brookfield

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

**SOM**  
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

--

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MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation  
Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave. Suite 1, Mill Valley, California 94941

Sustainable Design  
Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering

**Mueser Rutledge Consulting Engineers**  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

**Field Operations**  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Middleman Associates Inc.

40 Wall Street, New York, NY 10005

**Cerami & Associates**  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant
Code Consultants Professional Engineers PC 215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

**Entek Engineering LLC**  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
850 Woodlawn Road West, Guelph

--

[illegible][illegible]

Key Plan:

33RD STREET

19TH AVENUE

18TH AVENUE

20TH AVENUE

31ST STREET



A circular professional engineer seal for Donald A. Mongitoro. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER". The inner circle features an eagle perched atop a shield, which is flanked by two crossed tools (likely a wrench and a screwdriver). Below the shield, the name "DONALD A. MONGITORO" is inscribed. To the right of the seal, there are handwritten initials "JL".


5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT

3	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	15 MAR 2013	ISSUED FOR RECONCILIATION
No.	Date	Description

Sheet Name:

MECHANICAL  
LEVEL 63  
FLOOR PLAN -  
HIGH RISE

[illegible]

Project No.: 14830.A.000	B-SCAN Sheet No.:  M-163.00
Date: 20 JUN 2014	
Scale:	Sheet No.:

1/8"=1'-0"	M-163
File No.:	Page No.:







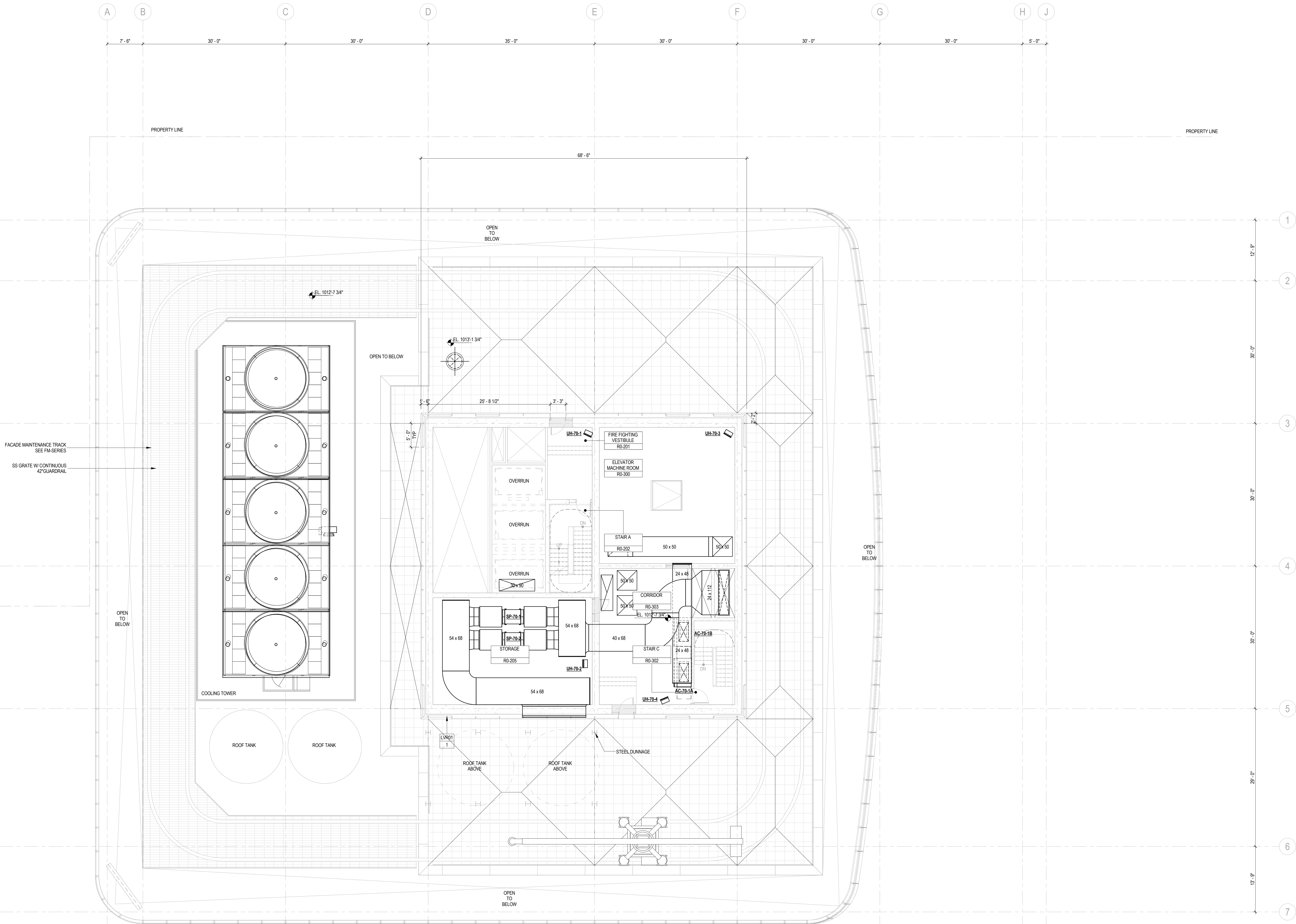








6/9/2014 10:21:12 AM



SHEET NOTES

BUILDING DEPARTMENT NOTE:  
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APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS  
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ACCORDANCE WITH APPLICABLE CODES.

Project No.: 14830 A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No.: M-170  
B-SCAN Sheet No.: M-170.00  
Sheet No.: M-170  
Page No.: 46 OF 77

MECHANICAL  
ROOF PLAN -  
MECHANICAL  
PENTHOUSE

Sheet Name:

No. Date Description

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4 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT

3 15 NOV 2013 ISSUED FOR SD PROGRESS PRICING

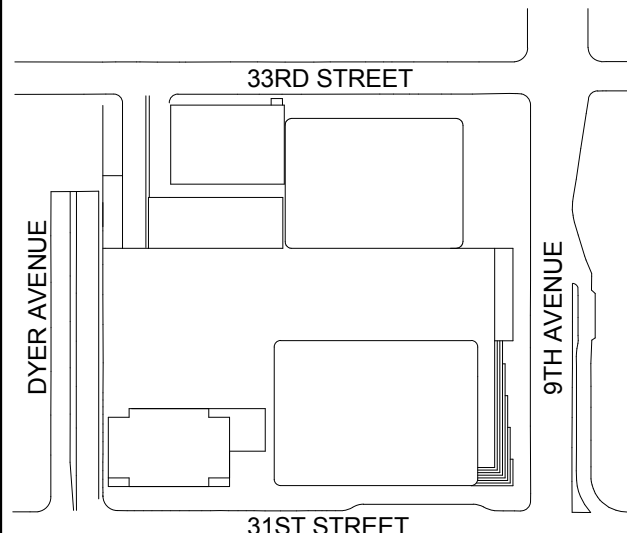
2 12 JUL 2013 ISSUED FOR REDESIGN DEVELOPMENT

1 19 MAR 2012 ISSUED FOR RECONCILIATION

Seal & Signature



Key Plan:



Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
680 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Blast Consultant  
Weidinger Associates, Inc.  
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Ducibella, Vantor & Santore  
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475 10th Avenue, New York, NY 10018

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Mueser Rutledge Consulting Engineers  
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New York, NY 10122

Geo-Technical Engineering  
Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Sustainable Design  
Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave., Suite 1, Mill Valley, California 94941

MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Civil Engineering  
Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

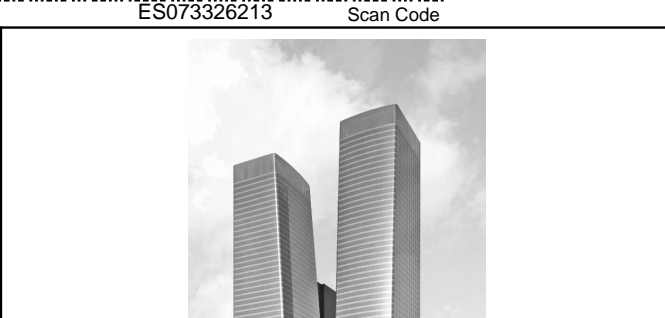
Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Architecture/Structural Engineering  
**SOM**

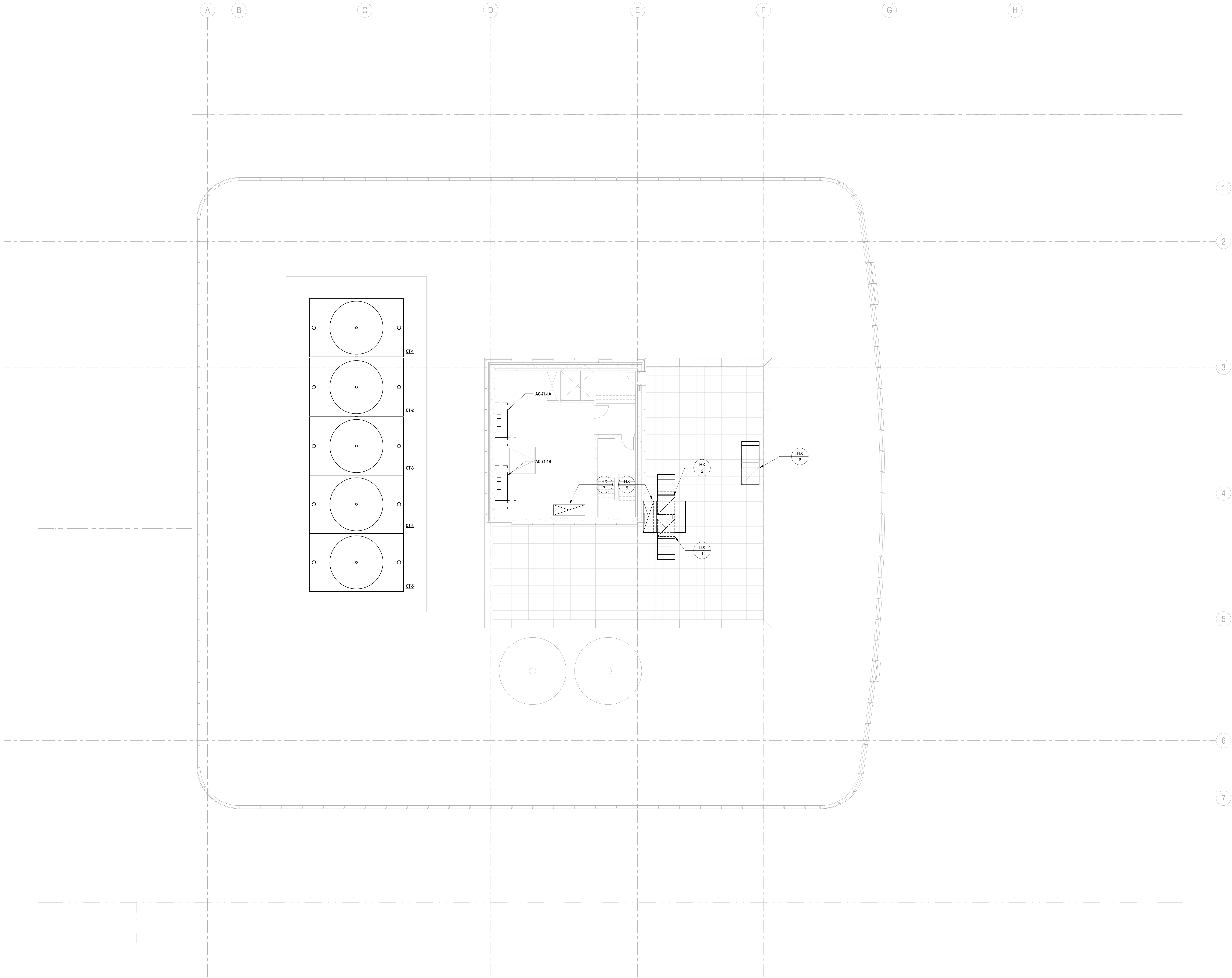
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Client  
**Brookfield**

375 Ninth Avenue, New York, NY 10001  
**NORTH TOWER**







SHEET NOTES

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**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
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Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature:

5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR SD PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR REDESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description

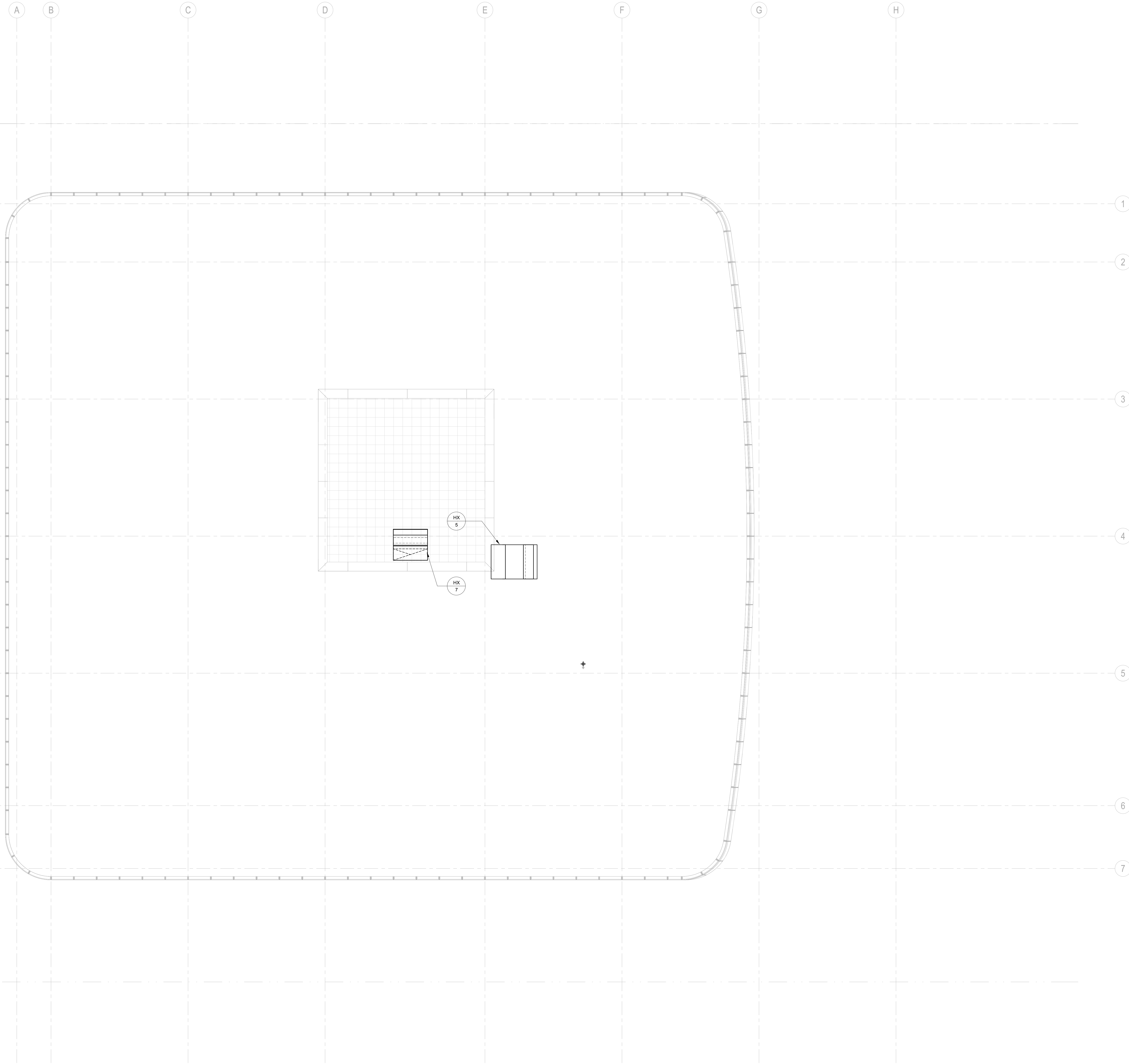
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**MECHANICAL  
ROOF PLAN -  
MECHANICAL  
PENTHOUSE  
ROOF**

Project No.: 14830 A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

B-SCAN Sheet No.:  
**M-171.00**  
Sheet No.: M-171  
Page No.: 47 OF 77





SHEET NOTES

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**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

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14 Wall Street, New York, NY 10005

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Philip Habib & Associates  
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Edgett Williams Consulting Group, Inc.  
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50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering  
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14 Penn Plaza, 225 W, 34th Street #610,  
New York, NY 10122

Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Vantor & Santoro  
250 State Street #F1, North Haven, CT 06473

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Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

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Wilson, Uhrig & Associates, Inc.  
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Code Consultant  
Code Consultants Professional Engineers PC  
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Facade Maintenance Consultant  
Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B6

Key Plan:

Seal & Signature

5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 3D PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR REDESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No.      Date      Description

Sheet Name:

**MECHANICAL  
ROOF PLAN**

Project No.: 14830 A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No: M-172

B-SCAN Sheet No.:  
**M-172.00**  
Sheet No.:  
Page No: 48 OF 77









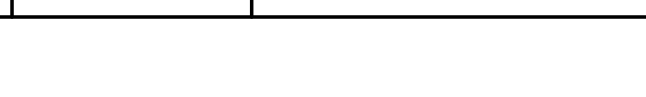




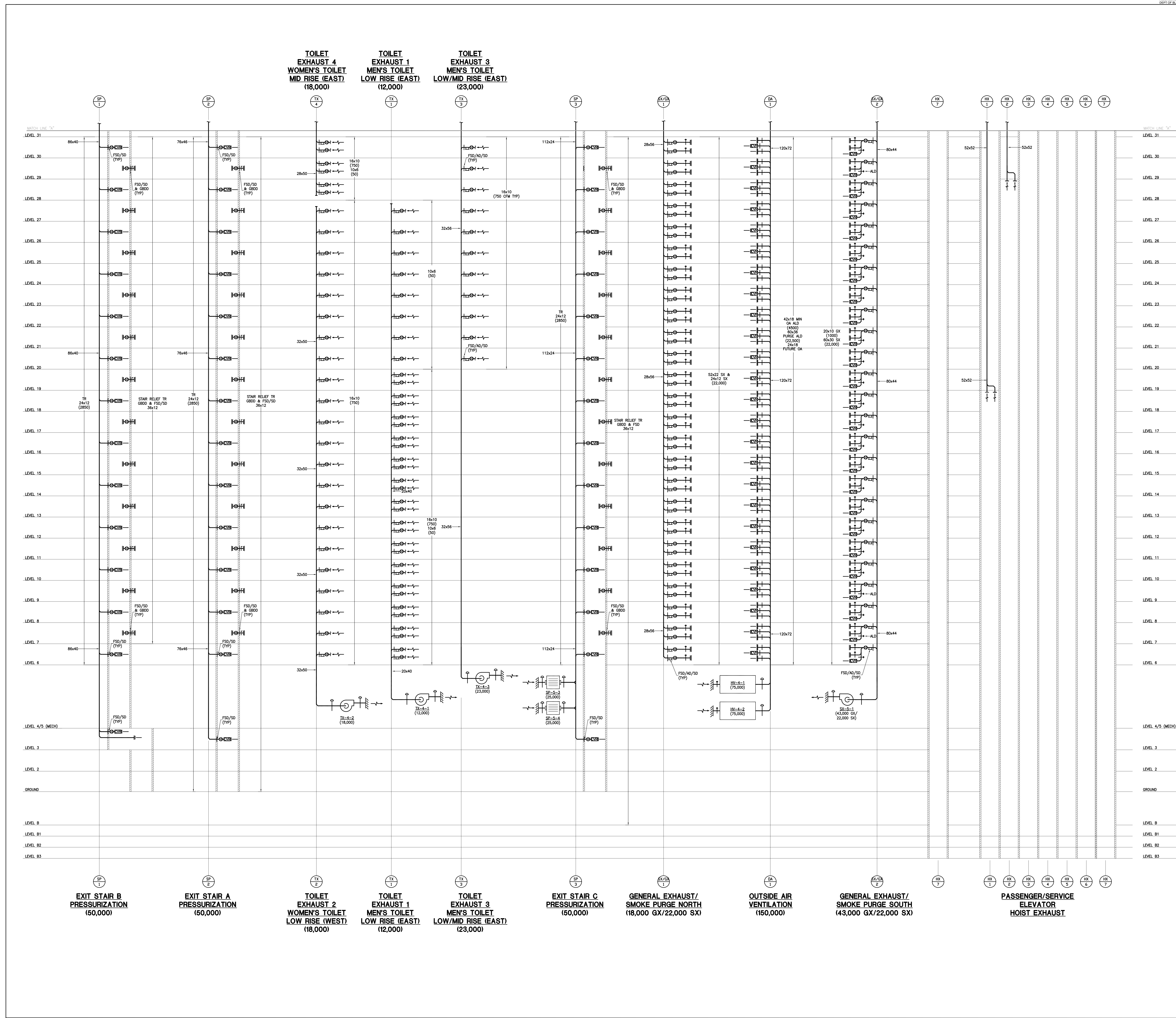












**MANHATTAN WEST:  
NORTH TOWER**  
375 Ninth Avenue, New York, NY 10001  
Client

250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave. Suite 1, Mill Valley, California 94941

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Norwalk, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 225 W. 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Ventor & Santoro  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant

Entek Engineering LLC  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1S8

Key Plan:

Seal & Signature:

1	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	13 NOV 2013	ISSUED FOR DD PROJECT SUBMITTING
4	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
5	13 MAR 2013	ISSUED FOR PRELIMINARY DESIGN

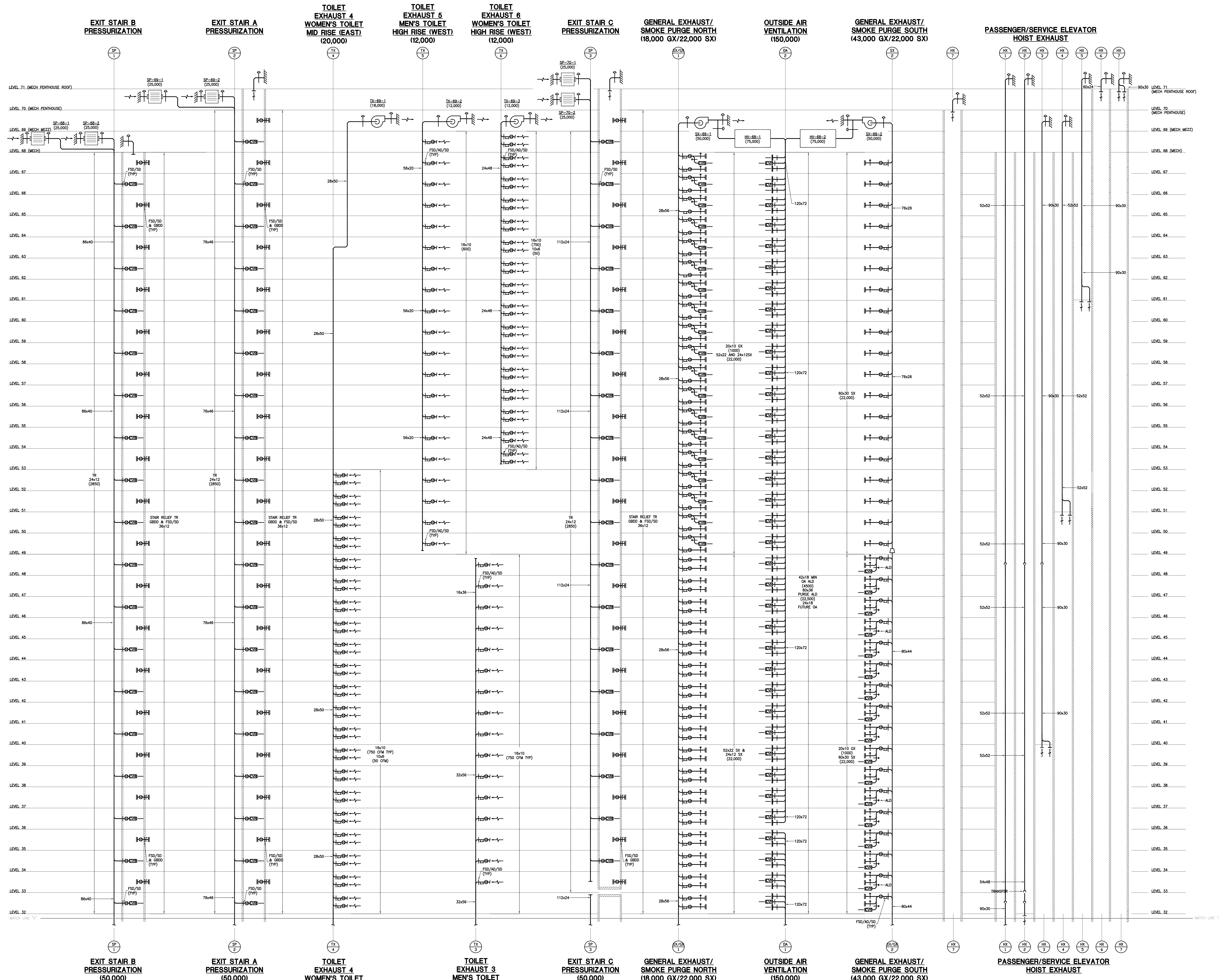
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Sheet Name: \_\_\_\_\_

**MECHANICAL  
LOW-RISE  
AIR RISER  
DIAGRAM**

Project No: 14830.A.000	B-SCAN Sheet No.: M-401.00
Date: 20 JUN 2014	Sheet No.: M-401
Scale: NTS	Page No.: _____
File No.: _____	_____





MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**

250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

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Facade Maintenance Consultant

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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1S8

Key Plan:

Seal & Signature:

*[Signature]*

1	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	13 NOV 2013	ISSUED FOR FOUNDATION PERMIT
4	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
5	13 MAR 2013	ISSUED FOR RECONSTRUCTION

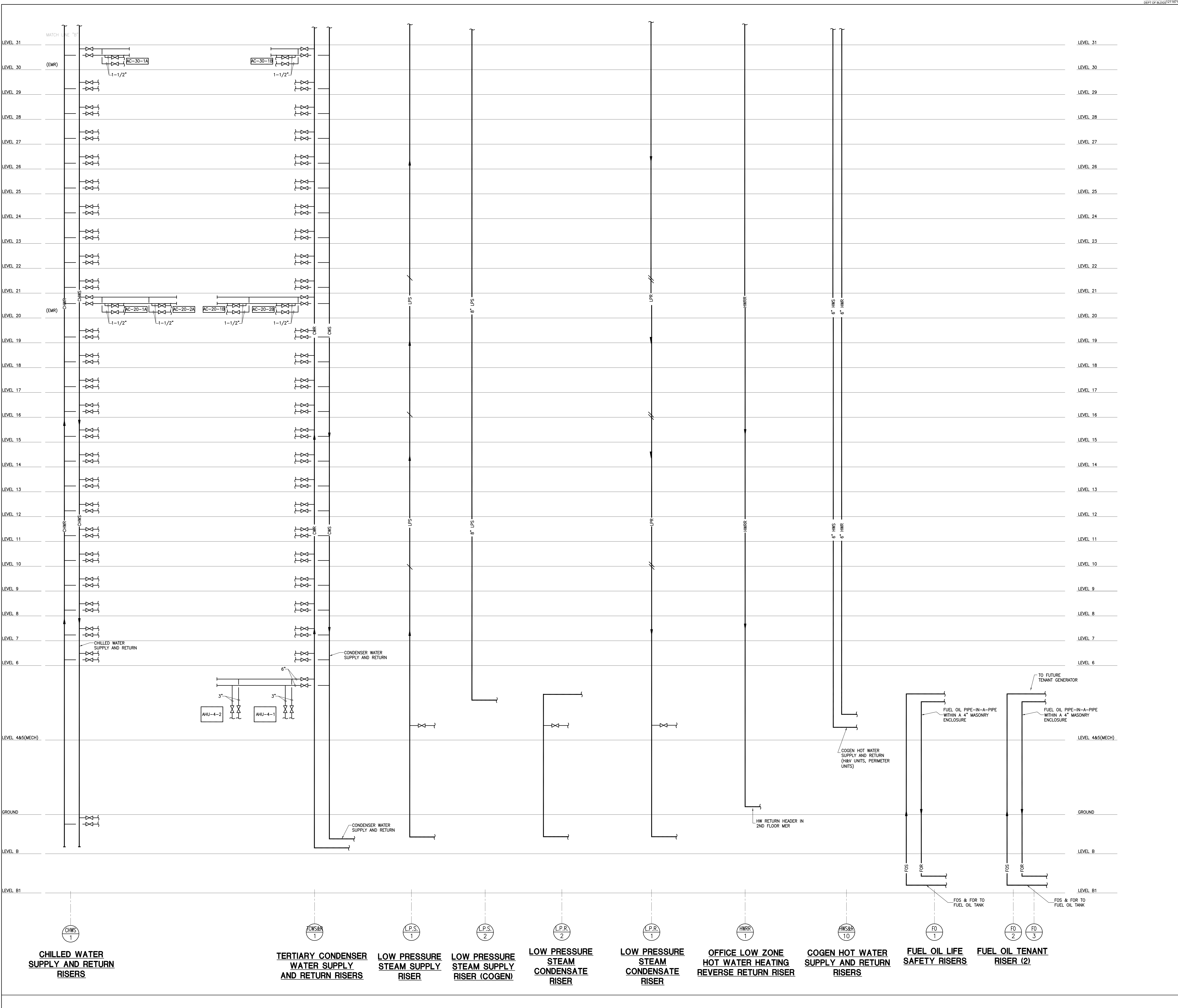
No. \_\_\_\_\_ Date \_\_\_\_\_ Description \_\_\_\_\_

Sheet Name: \_\_\_\_\_

**MECHANICAL  
HIGH-RISE  
AIR RISER  
DIAGRAM**

Project No: 14830-A.000	B-SCAN Sheet No.: M-402.00
Date: 20 JUN 2014	Sheet No.: M-402
Scale: NTS	Page No.: _____
File No.: _____	_____





MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

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102 Madison Avenue #11, New York, NY 10016

MEP Engineering

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Acoustical Consultant

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Vibration Consultant

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166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1S8

Key Plan:

Seal & Signature:

1	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	13 NOV 2013	ISSUED FOR DD PROJECT SPRING
4	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
5	13 MAR 2013	ISSUED FOR RECONFIGURATION

No. Date Description

Sheet Name:

**MECHANICAL  
PIPING RISER  
DIAGRAM  
SHEET 1**

Project No: 14830-A-000	B-SCAN Sheet No.:
Date: 20 JUN 2014	M-403.00
Scale: NTS	Sheet No.:
File No.:	Page No.:





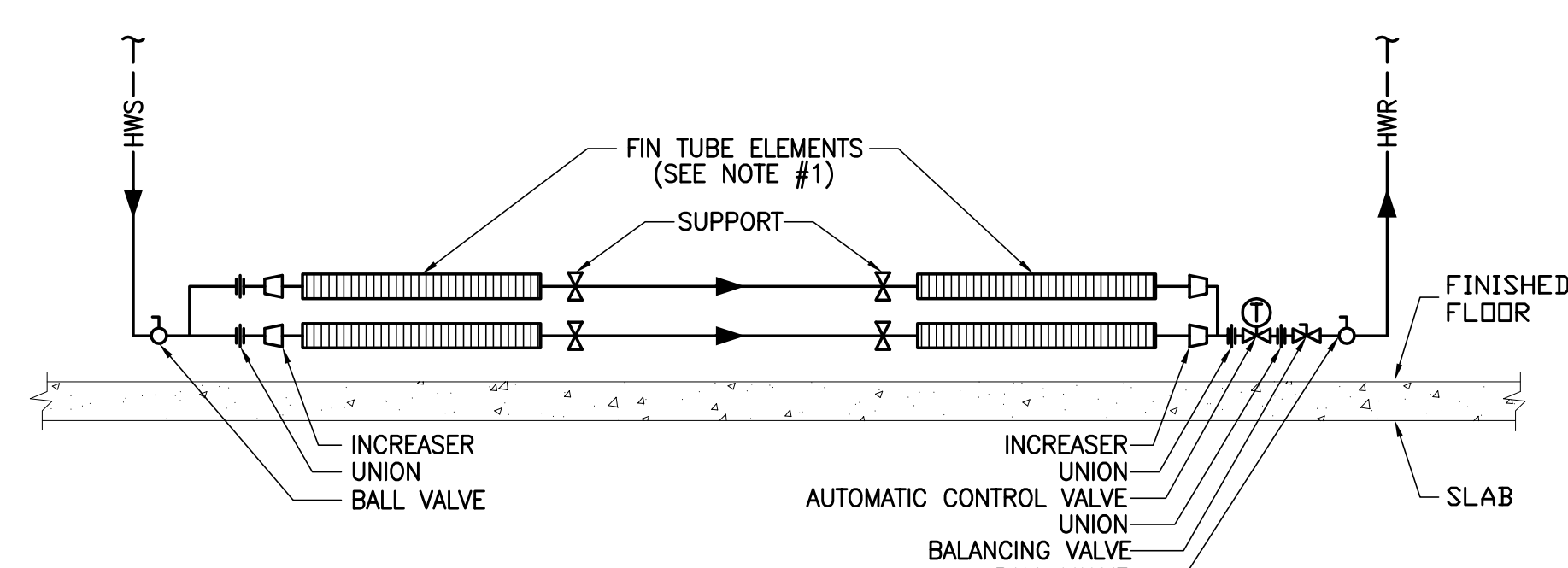
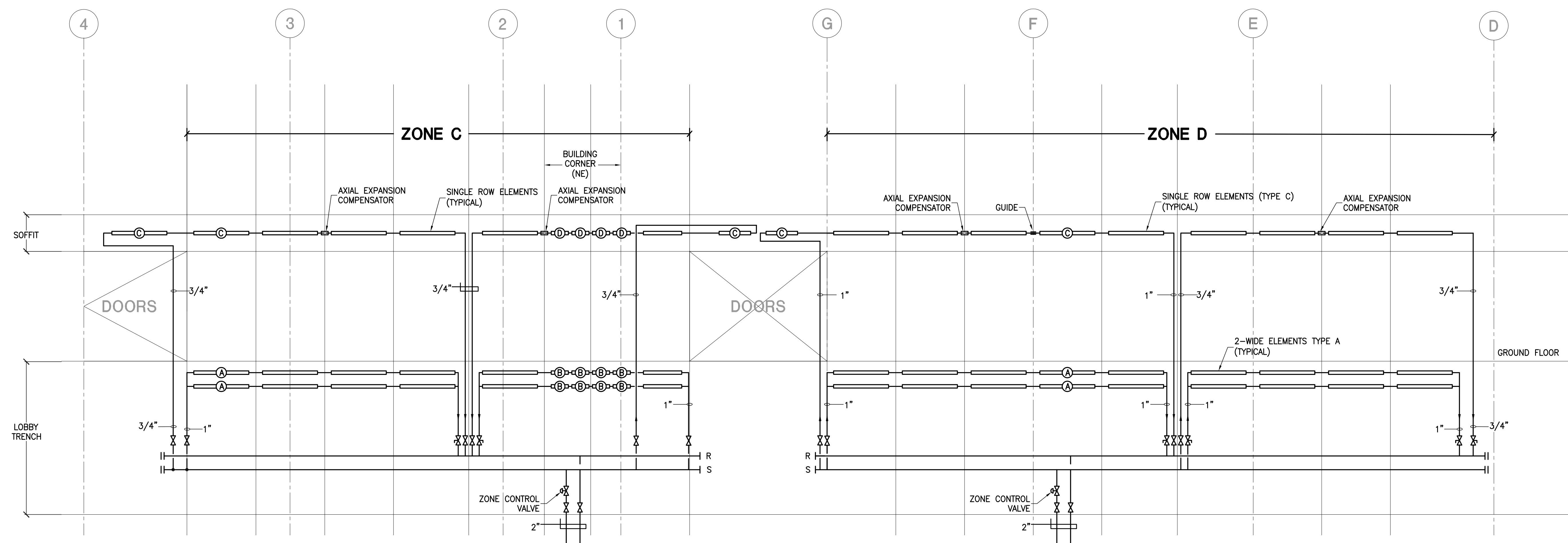












### TWO ROW HOT WATER FINNED TUBE PIPING DETAIL

NOTES:  
1. REFER TO PLANS FOR QUANTITY AND ORIENTATION OF FINNED TUBE ROWS.

CONVECTOR ELEMENTS									
DESIGNATION	CONVECTOR ELEMENT FINNED LENGTH PER ROW	TUBE SIZE (N.)	ELEMENT SIZE (N.)	FIN THICKNESS (N.)	FINS PER FOOT	PERFORMANCE RATING PER ACTIVE FINNED LENGTH (BTU/H/°F) @ 170°F AWT @ 70°F EAT			
						BARRE ELEMENTS (2 WIDE)	WALL MOUNTED WITHIN SOFFIT (SINGLE)	RECESSED TRENCH (2 WIDE)	
A	8"-0"	1	4-1/4" x 4-1/4"	0.02	50	—	1350	—	TBD
B	3"-0"	1	4-1/4" x 4-1/4"	0.02	50	—	1350	—	TBD
C	8"-0"	1	4-1/4" x 4-1/4"	0.02	50	750	—	TBD	—
D	3"-0"	1	4-1/4" x 4-1/4"	0.02	50	750	—	TBD	—

## SHEET NOTES



MANHATTAN WEST:  
NORTH TOWER

Client

# Brookfield

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

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# SOM

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Geo-Technical Engineering

**Mueser Rutledge Consulting Engineers**  
14 Penn Plaza, 225 W. 34th Street #610,

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

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Acoustical Consultant

**Cerami & Associates**  
404 Fifth Avenue #8, New York, NY 10018

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Vibration Consultant

**Wilson, Uhrig & Associates, Inc.**  
65 Broadway, Suite 401, New York, NY 10008

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

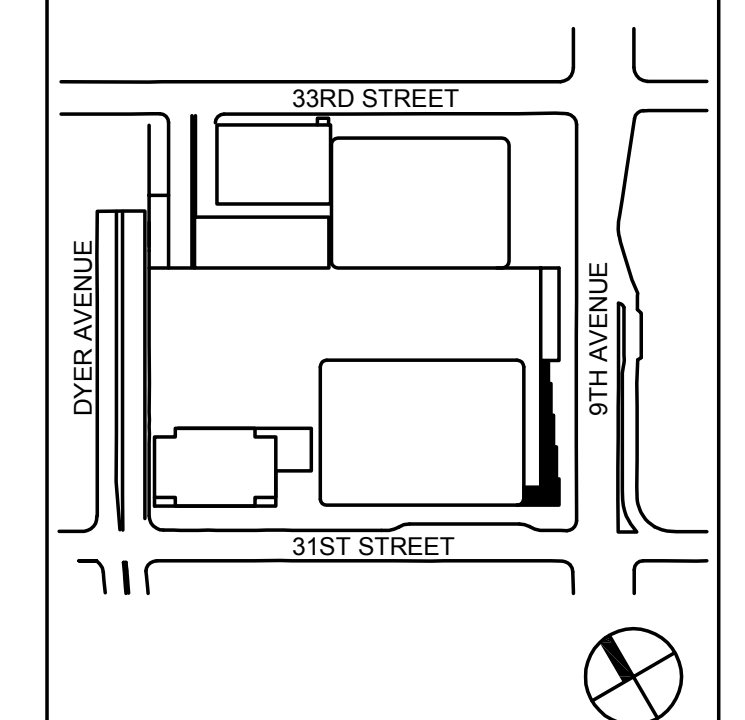
Facade Maintenance Consultant

**Entek Engineering LLC**  
166 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
850 Woodlawn Road West, Quebec

Key Plan:



Seal &amp; Signature:



5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	15 MAR 2013	ISSUED FOR RECONCILIATION

No.	Date	Description
Sheet Name:		

MECHANICAL  
HOT WATER RISER  
DIAGRAM  
LOBBY  
SHEET 3

Project No.: 14830.A.000	B-SCAN Sheet No.:  M-407.00
Date: 20 JUN 2014	Sheet No.: M-407
Scale: NTS	
File No.:	Page No.:



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## NOTES

1. ALL PFHX PERFORMANCE SHALL BE ARI CERTIFIED (ARI STANDARD 400).
2. ALL PFHX'S SHALL BE INSULATED AND PROVIDED WITH SHEETMETAL PROTECTIVE JACKET.

[illegible]

EXPANSION TANKS / MAKE-UP PUMPS																(AMTROL/PACO DOMESTIC AS STD)	
TANK NO. ET	LOCATION	SERVICE	EXPANSION TANKS						MAKE-UP PUMPS								REMARKS
			DIAMETER (N.)	STRAIGHT SHELL LENGTH (N.)	CAPACITY (GALLONS)	WORKING PRESS. (PSI)	TYPE	MODEL	GPM PER PUMP	SUSTAIN. TEMP. (°F)	DISCHARGE PRESS. (PSIG)	MOTOR RPM	RECEIVER (GALLONS)	MIN. MOTOR HP PER PUMP	PUMP TYPE	SIZE	
ET-1	4TH FLOOR MER	LOW RISE HOT WATER	48	85	480	150	DIAPHRAM	2000L	15	180	40	3500	15	3	DUPLEX	1070 1x6	
ET-2	4TH FLOOR MER	RETAIL HOT WATER	48	72	422	150	DIAPHRAM	1600L	15	180	40	3500	15	3	DUPLEX	1070 1x6	
ET-3	5TH FLOOR MER	SECONDARY CHILLED WATER	48	85	480	150	DIAPHRAM	2000L	15	60	40	3500	15	3	DUPLEX	1070 1x6	
ET-4	68TH FLOOR MER	CHILLED WATER	48	72	422	150	DIAPHRAM	1600L	15	60	40	3500	15	3	DUPLEX	1070 1x6	
ET-5	68TH FLOOR MER	HIGH RISE HOT WATER	48	85	480	150	DIAPHRAM	2000L	15	180	40	3500	15	3	DUPLEX	1070 1x6	
ET-6	4TH FLOOR MER	BASE BUILDING SECONDARY CONDENSER WATER	48	85	480	150	DIAPHRAM	2000L	15	110	40	3500	15	3	DUPLEX	1070 1x6	
ET-7	68TH FLOOR MER	HEAT RECOVERY HOT WATER	24	66	106	150	DIAPHRAM	400L	15	180	40	3500	15	3	DUPLEX	1070 1x6	
ET-8	68TH FLOOR MER	CO-GEN SYSTEM HOT WATER	48	85	480	150	DIAPHRAM	2000L	15	220	40	3500	15	3	DUPLEX	1070 1x6	
ET-9	68TH FLOOR MER	CHW SYSTEM	24	66	106	150	DIAPHRAM	400L	15	60	40	3500	15	3	DUPLEX	1070 1x6	

NOTES:

1. PROVIDE AND INSTALL ALL REQUIRED COMPRESSED AIR VALVES, FITTINGS AND GUAGES REQUIRED FOR CHARGING.

[illegible][illegible]

PUMPS													(ARMSTRONG AS STD)			
PUMP NO.	LOCATION	SERVICE	GPM	TOTAL DYNAMIC HEAD (F.T. HEAD)	% EFFICIENCY	SHUT-OFF HEAD (F.T. HEAD)	IMPELLER (INCHES)	B.H.P.	MINIMUM MOTOR H.P.	R.P.M.	WORKING PRESS. (PSIG)	MODEL #	PUMP TYPE	VIBRATION BASE SPEC. TYPE	VIBRATION BASE MAXIMUM DEFLECTION (INCHES)	REMARKS
CHWP--68-1 & 2	68TH FLOOR MER	CO-GEN SYSTEM (CHW)	500	125					30		150		END SUCTION			(1) STANDBY
HWP--B-1 & 2	LEVEL B	LOBBY/BOH HOT WATER	200	75					15		150		END SUCTION			(1) STANDBY
HWP--4-1&2	4TH FLOOR MER	LOW RISE HOT WATER	900	150					75		300		END SUCTION			(1) STANDBY
HWP--4-3&4	4TH FLOOR MER	RETAIL HOT WATER	175	150					20		300		END SUCTION			(1) STANDBY
HWP--68-1&2	68TH FLOOR MER	HIGH RISE HOT WATER	900	150					75		150		END SUCTION			(1) STANDBY
PCWP--68-1 THRU PCWP--68-4	68TH FLOOR MER	PRIMARY CONDENSER	5000	200					300		150		HORIZONTAL SPLIT CASE			(1) STANDBY
PCWP--68-5 THRU PCWP--68-6	68TH FLOOR MER	PRIMARY CONDENSER	2000	100					100		150		HORIZONTAL SPLIT CASE			(1) STANDBY
SCWP--68-1 THRU SCWP--68-4	68TH FLOOR MER	SECONDARY CONDENSER WATER (HIGH ZONE)	5000	100					250		150		HORIZONTAL SPLIT CASE			(1) STANDBY
TOWP--5-1 THRU TOWP--5-3	5TH FLOOR MER	TERTIARY CONDENSER WATER (LOW ZONE)	3750	100					200		450		HORIZONTAL SPLIT AND/OR VERTICAL SPLIT			(1) STANDBY
HRHWP--68-1 THRU HRHWP--68-2	68TH FLOOR MER	CO-GEN SYSTEM (ABSORPTION)	800	100					60		150		END SUCTION			(1) STANDBY
HRHWP--68-3 THRU HRHWP--68-4	68TH FLOOR MER	CO-GEN SYSTEM (HOT WATER PFHX)	500	100					25		150		END SUCTION			(1) STANDBY

**NOTES:**

1. ALL PUMPS TO BE PROVIDED WITH PREMIUM EFFICIENCY MOTORS

MODULAR CHILLERS																											(MULTISTACK AS STANDARD)						
UNIT NO.	LOCATION	TONS	QTY.	TOTAL TONS	CHILLER										CONDENSER										ELECTRICAL						MODEL NO.	REMARKS	MEA NO.
					GPM	INLET WATER TEMP. °F	OUTLET WATER TEMP. °F	MAX. PRESS. DROP (FT. H2O)	WORKING PRESS. (PSHG)	FOULING FACTOR	MAX. WATER VELOCITY (FPS)	NO. OF PASSES	REFRIGERANT	GPM	INLET WATER TEMP. °F	OUTLET WATER TEMP. °F	MAX. PRESS. DROP (FT. H2O)	WORKING PRESS. (PSHG)	FOULING FACTOR	MAX. WATER VELOCITY (FPS)	NO. OF PASSES	KW	VOLTAGE	PHASE	FREQUENCY	KW/TON	TOTAL FULL LOAD AMPS						
CH-68-2	68TH FLOOR MER	60	5	300	450	38	42	-	150	.0001	-	-	410A	500	85	100	-	150	.0005	-	-	250	460	3	60	.74	-	UCW070AFXSACBBX					

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NOTES:

1. EACH COOLING TOWER CELL SHALL BE PROVIDED WITH THE FOLLOWING:
  - A) BOTTOM RETURN PIPING CONNECTION (WITH INTERNAL FACTORY INSTALLED RISER & DISTRIBUTION GRID).
  - B) STEAM HEATING COIL.
  - C) EACH CELL SHALL INCLUDE STAINLESS STEEL CONSTRUCTION FOR THE FRAME, THE BASINS, THE PUMPS AND DISTRIBUTION BASIN COVERS.
  - D) ACCESS LADDER WITH SAFETY CAGE & HANDRAIL.
  - E) INTERNAL LADDER & CATWALK.
  - F) PREMIUM EFFICIENCY MOTOR SUITABLE FOR USE WITH VFD.
  - G) PROBE CONTROLLED COLD WATER MAKE-UP.
  - H) BOTTOM CONNECTIONS FOR OVERFLOW LINE, EQUALIZATION LINE, BYPASS CONNECTION, ETC.
2. REEVE SPECIFICATIONS FOR EQUIPMENT MAXIMUM SOUND PRESSURE LEVELS.
3. STATE AN ALTERNATE PRICE TO PROVIDE COOLING TOWER CELLS WITH MIN 100 MOTOR HP EACH. MODEL NC841AXA52

[illegible]



RETURN, EXHAUST AND VENTILATION (SUPPLY) FANS																							(TWIN CITY FAN BLOWER) (UNLESS OTHERWISE NOTED)			
FAN NO.	LOCATION	SERVICE	CFM	STATIC PRESS (INCHES H2O)	MAX. OUTLET VELOCITY (FPM)	DISCHARGE DIRECTION	ARRANGEMENT	FAN R.P.M.	FAN ROTATION	WIDTH AND INLET	WHEEL DIAMETER (INCHES)	ACCESS DOOR LOCATION (0° CLOCK)	UNIT		B.H.P.	MIN. MOTOR H.P.	MOTOR R.P.M.	MOTOR LOCATION	VOLTS	PHASE	HERTZ	ON EMERGENCY POWER	VIBRATION BASE SPECIFICATION TYPE	VIBRATION BASE MIN. STATIC DEFLECTION (INCHES)	CLASS	REMARKS
													TYPE	SIZE												
F-5-1A&B	5TH FLOOR MER	B LEVEL RAMP AND LOADING DOCK SUPPLY	22,500	2.0	2298		4	1192		N/A			TCVX	420532	10.59	15	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
F-5-2A&B	5TH FLOOR MER	B LEVEL GARAGE SUPPLY	10,000	2.5	2298		4	1775		N/A			TCVX	280534	6.15	7.5	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
TX-4-1	4TH FLOOR MER	MEN'S LOW RISE TOILET EXHAUST 1	10,500	2.0	1442		9	1096		SWSI			QSL	270	4.72	7.5	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-4-2	4TH FLOOR MER	WOMEN'S LOW RISE TOILET EXHAUST 2	16,500	2.0	1238		9	750		SWSI			QSL	365	7.28	10	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-4-3	4TH FLOOR MER	MEN'S LOW/MID RISE TOILET EXHAUST 3	22,000	2.0	1650		9	846		SWSI			QSL	365	10.06	15	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-4-4	4TH FLOOR MER	B LEVEL TOILET EXHAUST	5,000	2.0	1238		9	1419		SWSI			QSL	200	2.44	3	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-4-5	4TH FLOOR MER	B3-B1 LEVEL TOILET EXHAUST AND LOW RISE JC EXHAUST	3,600	2.0	1324		9	1796		SWSI			QSL	165	8.88	15	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-69-1	69TH FLOOR MER	WOMEN'S MID RISE TOILET EXHAUST 4	20,000	2.0	1500		9	806		SWSI			QSL	365	8.88	15	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-68-1	68TH FLOOR MER	MEN'S HIGH RISE TOILET EXHAUST 5	12,000	2.0	1648		9	728		SWSI			QSL	270	5.57	7.5	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-68-2	68TH FLOOR MER	WOMEN'S HIGH RISE TOILET EXHAUST 6	12,000	2.0	1648		9	1167		SWSI			QSL	270	5.57	7.5	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
TX-69-4	69TH FLOOR MER	HIGH RISE JC EXHAUST	1600	2.0	1524		10	1864		SWSI			BCV	135	.78	1	1725		460	3	60					
EF-4-1	4TH FLOOR MER	B LEVEL SWITCHGEAR EXHAUST	5,400	2.0	1692		4	1715		N/A			TCVX	240630	2.56	5	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
EF-4-2	4TH FLOOR MER	B LEVEL BOH SPACES RETURN/SMOKE PURGE	15,000	2.0	2093		4	1192		N/A			TCVX	3606	7.27	10	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-4-3	4TH FLOOR MER	FUEL OIL PUMPS	2,400	2.0	1067		9	1812		SWSI			QSL	150	1.17	1.5	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-4-4	4TH FLOOR MER	SKADDEN LAUNDRY EXHAUST	2,400	2.0	1067		9	1812		SWSI			QSL	150	1.17	1.5	1725		460	3	60					
EF-4-8	4TH FLOOR MER	SECURITY CONSOLE ROOM AND VISITOR CENTER EXHAUST	1,500	1.5	667		9	1466		SWSI			QSL	150	.59	1	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
EF-5-1A&B	5TH FLOOR MER	B LEVEL GARAGE EXHAUST	10,000	2.5	2297		4	1742		N/A			TCVX	280535	6.13	7.5	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-5-2	5TH FLOOR MER	B LEVEL MECHANICAL ROOM EXHAUST	10,000	2.0	2297		4	1742		N/A			TCVX	280535	5.0	7.5	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
EF-68-1&2	68TH FLOOR MER	CO-GEN SYSTEM	23,000	1.5	2349		4	1197		N/A			TCVX	420530	8.53	15	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
EF-A	TYP OFFICE FLOOR (4-64)	LARGE ELEC CLOSET	400	0.75	905		4	747		SWSI			TL	900S	0.32	1	1725		115	1	60					SPEED CONTROL SWITCH (PROVIDE ALT. PRICE)
EF-B	TYP OFFICE FLOOR (4-64)	SMALL ELEC CLOSET	400	0.75	905		4	747		SWSI			TL	900S	0.32	1	1725		115	1	60					SPEED CONTROL SWITCH (PROVIDE ALT. PRICE)
SP-4-1&2	4TH FLOOR MER	3 STAIR "C" PRESSURIZATION	25,000	3.0	2553		4	1220		N/A			TCVX	420735	18.67	25	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SP-5-1&2	5TH FLOOR MER	5 STAIR "E" PRESSURIZATION	3,000	2.0	1333		9	1969		SWSI			QSLSH	150	1.49	2	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SP-5-3&4	5TH FLOOR MER	6 STAIR "F" PRESSURIZATION	3,000	2.0	1333		9	1969		SWSI			QSLSH	150	1.49	2	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SP-5-5&6	5TH FLOOR MER	4 STAIR "D" PRESSURIZATION	3,000	2.0	1333		9	1969		SWSI			QSLSH	150	1.49	2	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SP-5-7&8	5TH FLOOR MER	3A STAIR "A" PRESSURIZATION B LEVELS	3,000	2.0	1333		9	1969		SWSI			QSLSH	150	1.49	2	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SP-68-1&2	68TH FLOOR MER	STAIR "B" PRESSURIZATION	25,000	3.0	2553		4	1199		N/A			TCVX	420736	18.71	25	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SP-69-1&2	69TH FLOOR MER	STAIR "A" PRESSURIZATION (HIGH RISE)	25,000	3.0	2553		4	1199		N/A			TCVX	420736	18.71	25	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SP-70-1&2	70TH FLOOR MER	STAIR "C" PRESSURIZATION (HIGH RISE)	25,000	3.0	2553		4	1199		N/A			TCVX	420736	18.71	25	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SX-5-1	5TH FLOOR MER	GEN EXH/SMOKE PURGE SOUTH	43,000 GX / SX 22,000	3.0	2667		4	2667		N/A			TCVX	540530	29.9	40	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SX-4-1	4TH FLOOR MER	GEN EXH/SMOKE PURGE CELLAR LEVELS	3,000 GX / SX 11,000 18,000 GX / SX 22,000	1.5	1939		4	1161		N/A			TCVX	320635	3.96	5	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SX-69-1	69TH FLOOR MER	GEN EXH/SMOKE PURGE NORTH	43,000 GX / SX 22,000	3.5	3070		4	1696		N/A			TCVX	360634	19.19	25	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
SX-69-2	69TH FLOOR MER	GEN EXH/SMOKE PURGE SOUTH	43,000 GX / SX 22,000	3.0	3070		4	1163		N/A			TCVX	468740	37.59	50	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
RSF-4-1&2	4TH FLOOR MER	LOBBY RETURN/SMOKE EXH	37,500	1.5	2939		4	1141		N/A			TCVX	480435	15.58	20	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-5-3	ANNEX MER	B-LEVEL WET GARBAGE EXHAUST	2000	1.5	889		9	1552		SWSI			QSL	150	.73	1	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS
EF-5-4A&B	ANNEX MER	B LEVEL LOADING DOCK AND RAMP EXHAUST	12000	2.0	1675		4	1208		N/A			TCVX	360531	5.91	7.5	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
F-5-4A&B	ANNEX MER	GARAGE SUPPLY AIR SW AND NW TOWER	25,000	2	2553		4	1175		N/A			TCVX	420535	12.11	15	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-5-5A&B	ANNEX MER	GARAGE EXHAUST AIR SW AND NW TOWER	22,500	2	2298		4	1192		N/A			TCVX	420532	10.59	15	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-5-6	ANNEX MER	RETAIL AND ANNEX GX/SX	10,000 GX / SX 40,000	2	2481		4	1141		N/A			TCVX	540332	19.58	25	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-5-7	ANNEX MER	LOADING DOCK EXHAUST AIR SW TOWER	18,000	2	2093		4	1192		N/A			TCVX	360635	7.27	10	1725		460	3	60	Y				PROVIDE WITH VFD AND SOUND TRAPS
EF-5-10	ANNEX MER	LOADING DOCK BOH GX/SX	1000 GX / SX 5,000	2	2042		4	1807		N/A			TCVX	210742	2.6	5	1725		460	3	60					
TX-5-1	ANNEX MER	ANNEX AND RETAIL TOILET EXHAUST	5,000	2.0	1238		9	1144		SWSI			QSL	200	2.44	3	1725		460	3	60					PROVIDE WITH VFD AND SOUND TRAPS

RETURN, EXHAUST AND VENTILATION (SUPPLY) FANS CONT.																							(TWIN CITY FAN BLOWER) (UNLESS OTHERWISE NOTED)					
FAN NO.	LOCATION	SERVICE	CFM	STATIC PRESS (INCHES H2O)	MAX. OUTLET VELOCITY (FPM)	DISCHARGE DIRECTION	ARRANGEMENT	FAN R.P.M.	FAN ROTATION	WIDTH AND INLET	WHEEL DIAMETER (INCHES)	ACCESS DOOR LOCATION (0° CLOCK)	UNIT		B.H.P.	MIN. MOTOR H.P.	MOTOR R.P.M.	MOTOR LOCATION	VOLTS	PHASE	HERTZ	ON EMERGENCY POWER	VIBRATION BASE MIN.	VIBRATION BASE SPECIFICATION TYPE	STATIC DEFLECTION (INCHES)	CLASS	REMARKS	
													TYPE	SIZE														
F-5-5	5TH FLOOR MER	WEST MER SUPPLY	21,000	2.0	2931		4	1465		N/A			TCVX	3686	12.34	15	1725		460	3	60							
F-5-6	5TH FLOOR MER	EAST MER SUPPLY	20,000	2.0	3528		4	1751		N/A			TCVX	3284	12.71	15	1725		460	3	60							
EF-4-5	4TH FLOOR MER	NORTH MER EXH	6000	1	1378		4	1143		N/A			TCVX	2887	1.52	2	1725		460	3	60							
EF-4-6	4TH FLOOR MER	NORTH MER EXH	6000	1	1378		4	1143		N/A			TCVX	2887	1.52	2	1725		460	3	60							
EF-4-7	4TH FLOOR MER	SOUTH MER EXH	23000	2.0	2349		4	1131		N/A			TCVX	4285	11.39	15	1725		460	3	60							
EF-5-9	5TH FLOOR MER	NORTH MER EXH	5000	.5	882		4	673		N/A			TCVX	3286	.62	1	1725		460	3	60							









MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

Brookfield

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

SOM

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14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave., Suite 1, Mill Valley, California 94941

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14 Penn Plaza, 22nd W, 34th Street #610,  
New York, NY 10122

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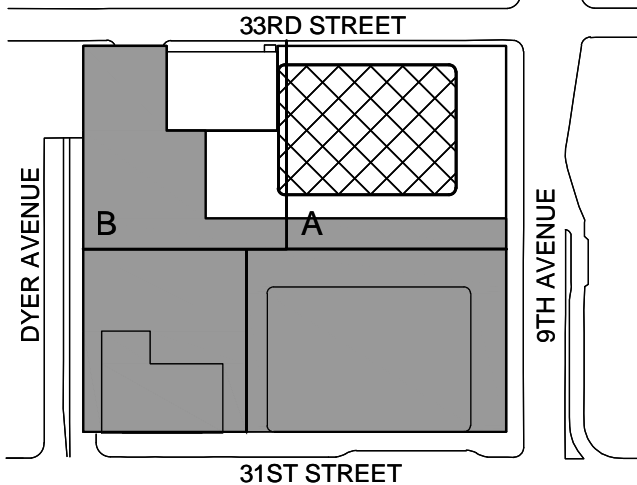
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Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



5	24 APR 2013	ISSUED FOR 50% CD
4	19 DEC 2014	ISSUED FOR CD CONFIRMATION
3	15 NOV 2013	ISSUED FOR CD PROGRESS PRICING
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Sheet Name:

MECHANICAL  
SCHEDULE  
SHEET  
4 OF 6

Project No.: 14830.A.000  
Date: 19 DEC 2014  
Scale: 1/8"=1'-0"  
File No.:  
Sheet No.:  
M-503  
B-SCAN Sheet No.: M-503.00  
Page No.:

CONSTANT / VARIABLE VOLUME BOXES

(TITUS TYPE 'DES' AS STD)

BOX SIZES (SEE DWGS)	MAXIMUM SET POINT CFM RANGE		MIN. SET POINT OF CFM SHOWN ON PLANS	MIN. SP @ MAX. CFM	INLET AND OUTLET SIZES		BOXES WITH HEATING COIL						SOUND TRAP		REMARKS
	LOW	HIGH			IN	OUT	ENTERING AIR TEMP. (°F)	LEAVING AIR TEMP. (°F)	ENTERING WATER TEMP. (°F)	LEAVING WATER TEMP. (°F)	Nº. OF ROWS	CFM	MAX. COIL PRESSURE DROP (PSIG)	MIN. SP @ MAX. CFM (BOX + COIL)	
7	90	500	65	0.14	7"ø	12x10	55	VARIES	140	VARIES	1	SEE NOTES	.10	.19	3HL 12x12x36 .01
8	245	800	120	0.20	8"ø	12x10	55	VARIES	140	VARIES	1	SEE NOTES	.10	.27	3HL 18x12x36 .01
10	385	1000	195	0.12	10"ø	14x12.5	55	VARIES	140	VARIES	1	SEE NOTES	.10	.19	3HL 18x12x36 .02
12	550	1500	280	0.15	12"ø	16x15	55	VARIES	140	VARIES	1	SEE NOTES	.10	.22	5HL 24x12x60 .04
14	880	2000	400	0.16	14"ø	20x17.5	55	VARIES	140	VARIES	1	SEE NOTES	.10	.22	5HL 24x12x60 .06
16	1000	2500	530	0.15	16"ø	24x18	55	VARIES	140	VARIES	1	SEE NOTES	.10	.22	5HL 30x12x60 .06

NOTES:

- REFER TO SPECIFICATIONS FOR ACOUSTICAL PERFORMANCE.
- ALL COILS SHALL BE ONE ROW UNLESS NOTED, REFER TO PLANS FOR LOCATIONS. HEATING PERFORMANCE OF ALL COILS SHALL BE BASED ON 2.0 GPM FLOW RATE.
- ALL COILS SHALL BE SUITABLE FOR A MINIMUM OF 250 PSIG. WATER WORKING PRESSURE.
- V = VARIABLE VOLUME  
VR = VARIABLE VOLUME WITH HEATING COIL  
C = CONSTANT VOLUME  
CR = CONSTANT VOLUME WITH HEATING COIL
- EACH VAV BOX SHALL BE PROVIDED WITH DUCT MOUNTED SOUND TRAP AS SCHEDULED ABOVE.
- ALL BOXES SHALL BE PROVIDED WITH BOTTOM ACCESS DOOR, FOR INTERNAL ACCESS TO CONTROLS & TO HEATING COIL.

CONSTANT VOLUME REGULATORS

(TITUS TYPE AQCV/DQCV AS STD.)

BOX SIZES (SEE DWGS)	CFM RANGE		DAMPER SIZE (IN)	MIN. SP @ MAX. CFM	DISCHARGE NO. RATING FOR 1" INLET	RADIATED NO. RATING FOR 2" WD. INLET PRESSURE	REMARKS
	LOW	HIGH					
F	250	500	14x8	0.155	26	35	
H	435	1000	18x10	0.172	22	37	
K	725	2000	20x14	0.185	22	38	
M	970	3500	22x16	0.185	25	43	
N	1220	5000	24x18	0.165	26	44	
P	1860	6000	30x20	0.162	24	42	
R	2750	8000	40x20	0.152	24	42	
R	8001	10,000	40x20	0.210	25	43	

NOTES:

- THE MECHANICAL CONTRACTOR SHALL PROVIDE A PLENUM LENGTH OF 5'-0" OF STRAIGHT DUCT RUN DOWN STREAM OF EACH CVR.

FAN POWERED TERMINAL UNITS

(TITUS TYPE DTQS STD)

BOX SIZES (SEE DWGS)	MAX. SET POINT CFM RANGE OF VALVE 45°F EAT		MINIMUM SET POINT CFM OF VALVE	SET OF POINT OF FAN		MIN. MOTOR H.P. HIGH SPEED	DISCHARGE S.P. OF FETU (INCL. HEATING COIL)	INLET SIZES	BOXES WITH HEATING COIL						SOUND TRAP		REMARKS	
	LOW	HIGH		LOW	OFFICE HIGH				TRADING	ENTERING AIR TEMP. (°F)	LEAVING AIR TEMP. (°F)	ENTERING WATER TEMP. (°F)	LEAVING WATER TEMP. (°F)	GPM	MAX. COIL PRESSURE DROP (F.T. /20)	MIN. SP @ MAX. CFM (COIL & BOX)		ELECTRICAL CHGR. (VOLTS /PHASE HERTZ)
2	145	335	145	150	400 535	1/6	.40	8"ø	60	VARIES	170	140	SEE NOTE 2	.66 .08	277/1/60	3HL 12x12x36	.01	
3	200 336	480 900	160 260	401	1050 1150	1/4	.40	8"ø 10"ø	60	VARIES	170	140	SEE NOTE 2	.20 .26	277/1/60	3HL 18x12x36	.03	
5	801	1130	375	951	1350 1600	1/3	.40	12"ø	60	VARIES	170	140	SEE NOTE 2	.43 .16	277/1/60	5HL 24x12x60	.04	
6	1131	1350	470	1351	1650 2000	3/4	.40	14"ø	60	VARIES	170	140	SEE NOTE 2	.93 .22	277/1/60	5HL 24x12x60	.06	

NOTES:

- REFER TO FLOOR PLANS FOR ACTUAL QUANTITY OF FAN POWERED BOXES WITH AND WITHOUT HOT WATER HEATING COILS AND UNIT LEFT/RIGHT HAND ARRANGEMENT.
- ALL COILS SHALL BE ONE ROW UNLESS NOTED, REFER TO PLANS FOR LOCATIONS. COILS ON FLOORS 15 THRU 69 SHALL HAVE 2.5 GPM FLOW RATE.
- KEY TO SYMBOL: FAN CFM  
(MAX. VALVE CFM)  
(MIN. VALVE CFM)
- REFER TO SPECIFICATIONS FOR ACOUSTICAL PERFORMANCE.
- FAN POWERED TERMINAL UNITS BASED ON MAXIMUM OF 1.5 INCHES INLET STATIC PRESSURE.
- ALL COILS SHALL BE SUITABLE FOR A MINIMUM OF 250 PSIG. WATER WORKING PRESSURE.
- FPB = FAN POWERED BOX  
FPBH = FAN POWERED BOX WITH HEATING COIL
- EACH FPB BOX SHALL BE PROVIDED WITH DUCT MOUNTED SOUND TRAP AS SCHEDULED ABOVE.
- ALL FANS PROVIDED WITH THE FPB'S SHALL BE SET TO PROVIDE A MINIMUM ESP OF .4 INCH W.G. AT THE MAXIMUM AIRFLOW RATES NOTED IN THE SCHEDULE.





















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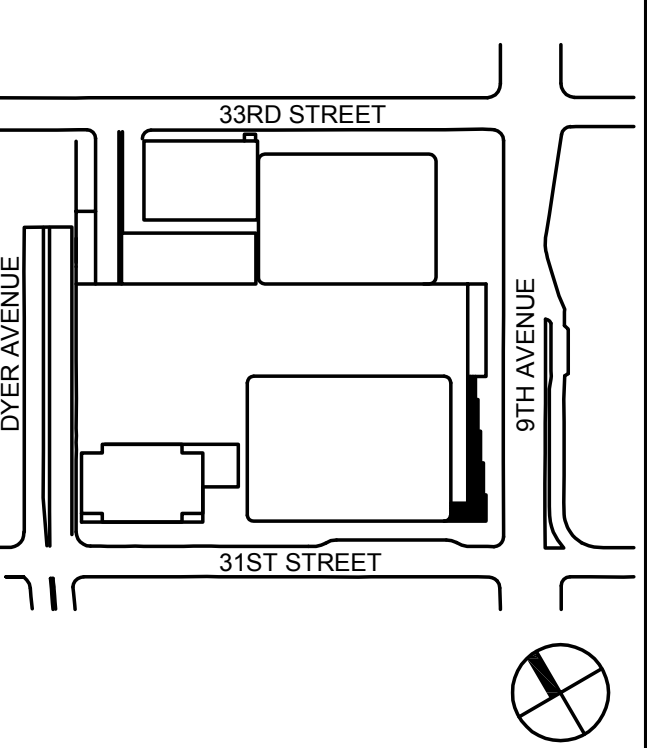
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Key Plan:



Seal & Signature:

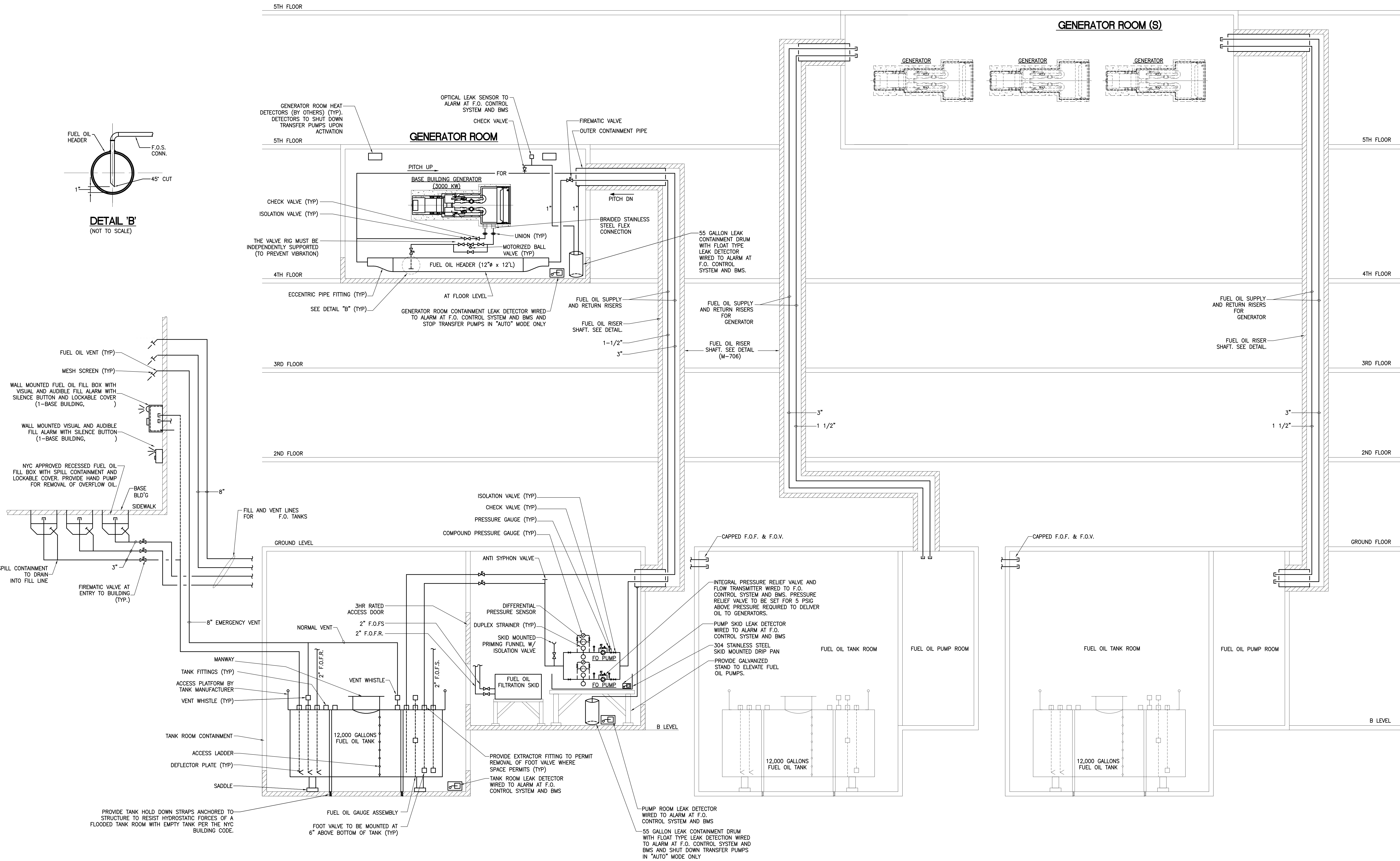


1	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	13 NOV 2013	ISSUED FOR F.O.D. PROCESSING DRAWING
4	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
5	13 MAR 2013	ISSUED FOR PRELIMINARY

Sheet Name:

**MECHANICAL  
FUEL OIL FLOW  
DIAGRAM**

Project No: 14830.A.000	B-SCAN Sheet No.: M-602.00
Date: 20 JUN 2014	Sheet No.: M-602
Scale: NTS	Page No.:
File No.:	



NOTES:

1. ALL F.O. PIPING FROM THE F.O. PUMP ROOM TO THE UNDERSIDE OF THE MASONRY F.O. SHAFTS AND FROM THEIR RESPECTIVE MASONRY SHAFTS TO THE GENERATOR EQUIPMENT ROOM SHALL BE PIPE-WITHIN-A-PIPE CONSTRUCTION. IN ADDITION, THE PIPING SHALL BE ENCLOSED WITHIN A TWO (2) HOUR RATED ENCLOSURE (AS DETAILED ABOVE).
2. EACH SET OF F.O. SUPPLY AND RETURN RISERS SHALL BE INSTALLED WITHIN SEPARATE DEDICATED 4" MASONRY RISER SHAFTS.
3. ALL FUEL OIL ISOLATION, BALANCING, BRIDGE AND/OR FIREMATIC VALVES SHALL BE PROVIDED WITH INTEGRAL TAMPER SWITCHES, WIRED TO THE BMS SYSTEM FOR ANNUNCIATION.
4. ALL LEAK DETECTORS SHALL BE OPTICAL TYPE AND SHALL BE CAPABLE OF DISTINGUISHING BETWEEN OIL AND WATER.













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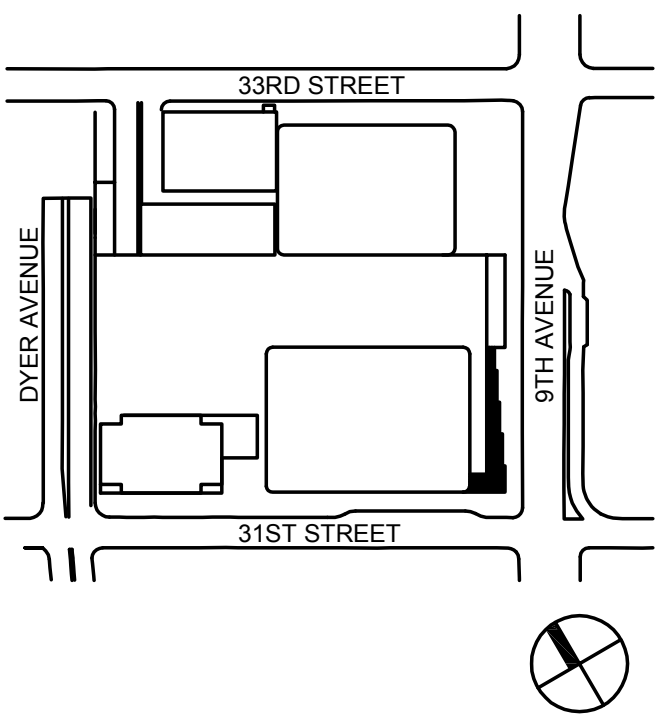
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Key Plan:



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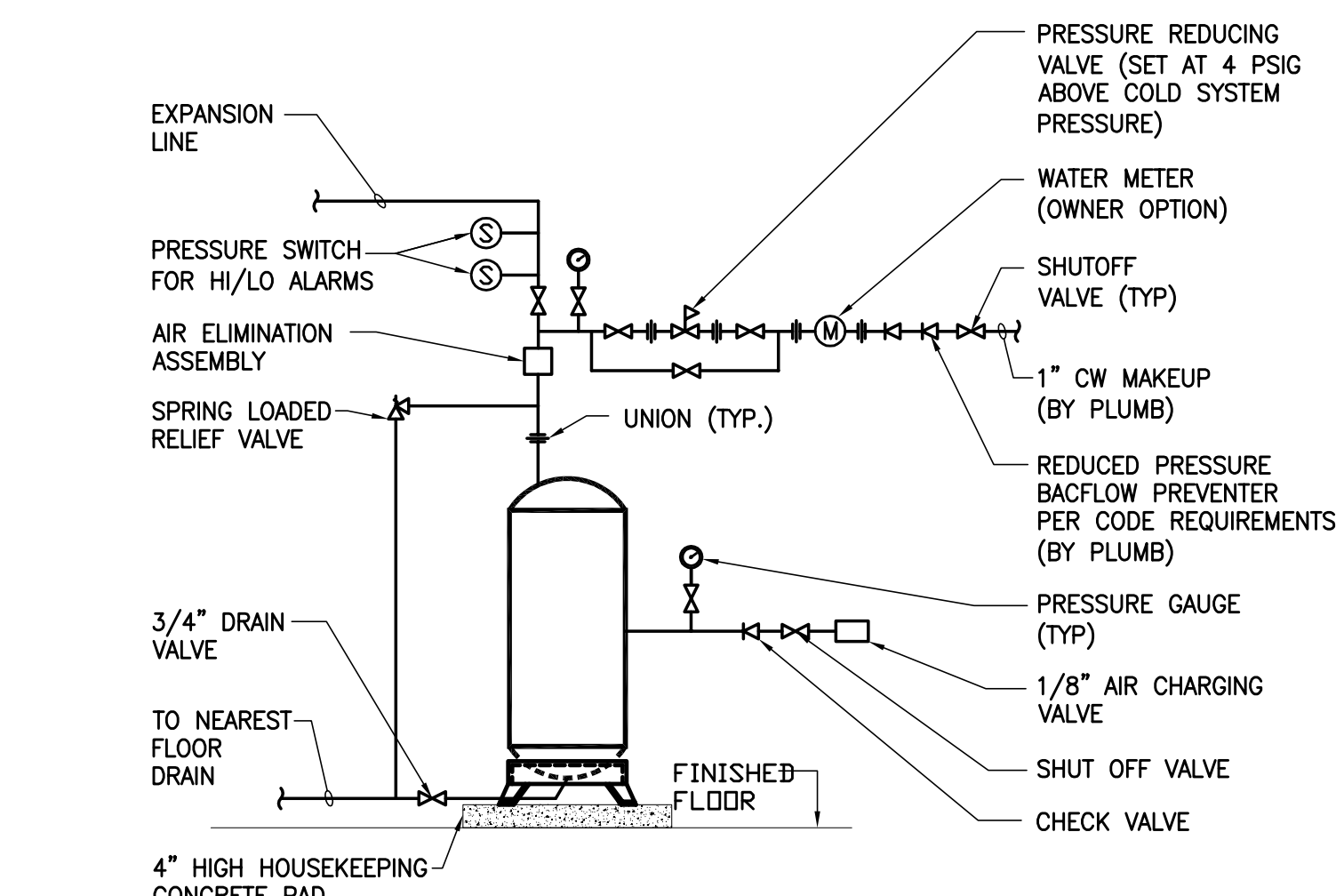


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No. Date Description  
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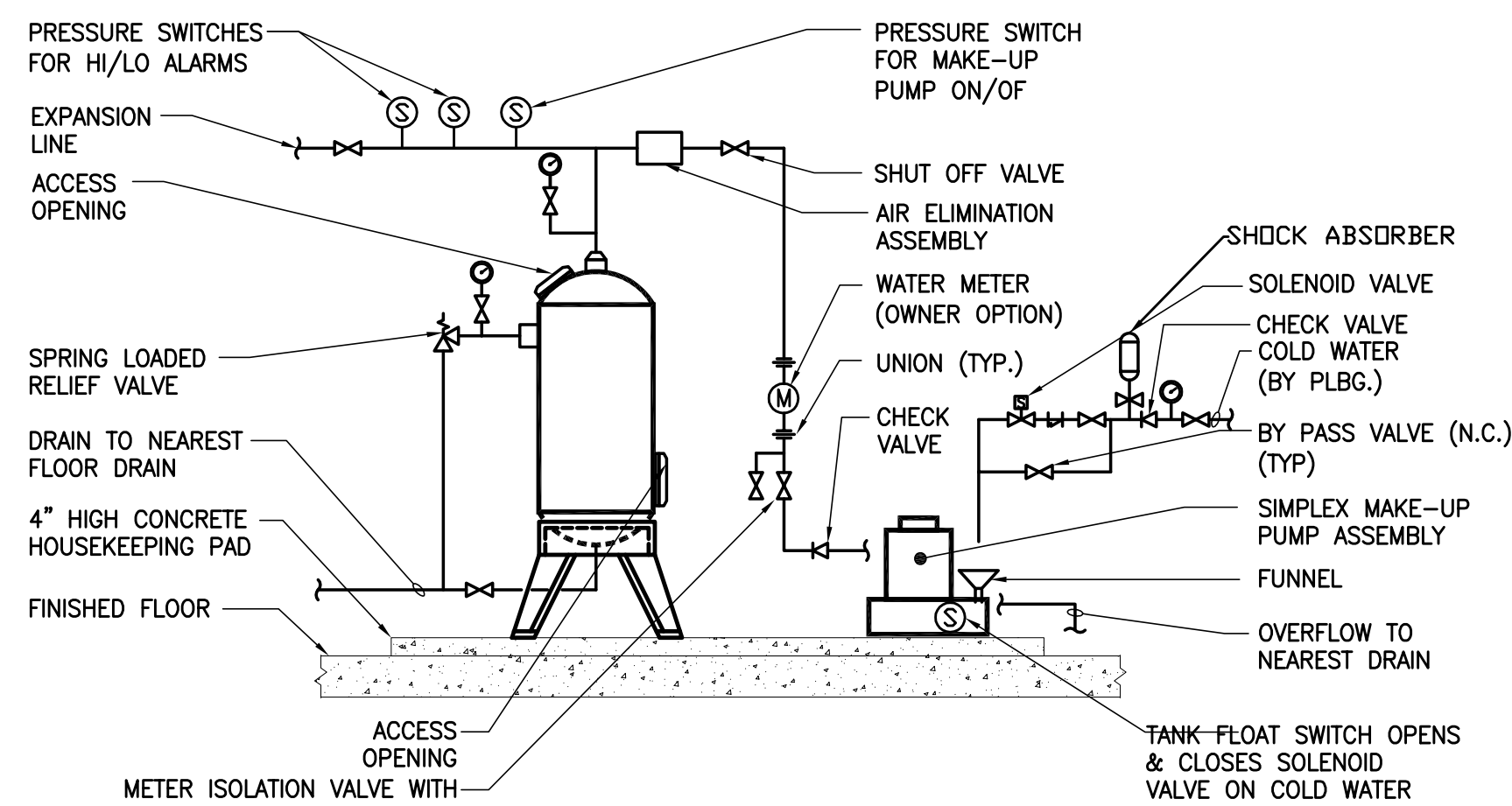
MECHANICAL  
DETAIL  
SHEET  
NO. 2

Project No: 14830.A.000	B-SCAN Sheet No.: M-701.00
Date: 20 JUN 2014	Sheet No.: M-701
Scale: NTS	Page No.:
File No.:	

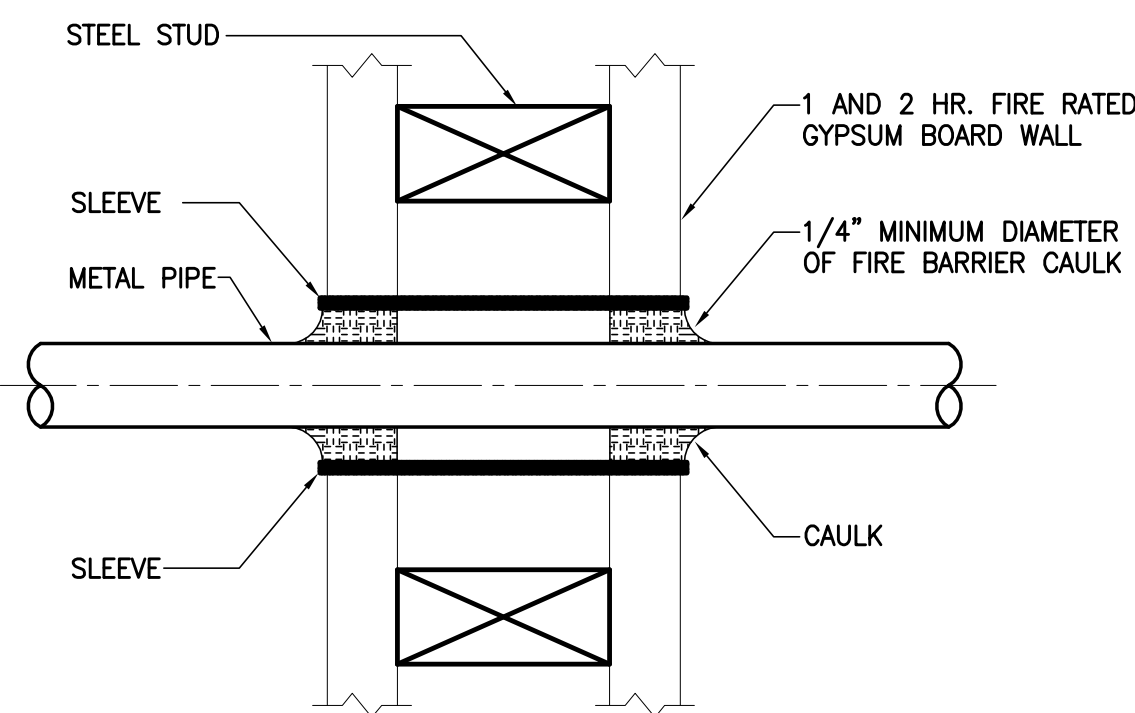


VERTICAL DIAPHRAGM EXPANSION TANK  
PIPING CONNECTION DETAIL

NOTES:



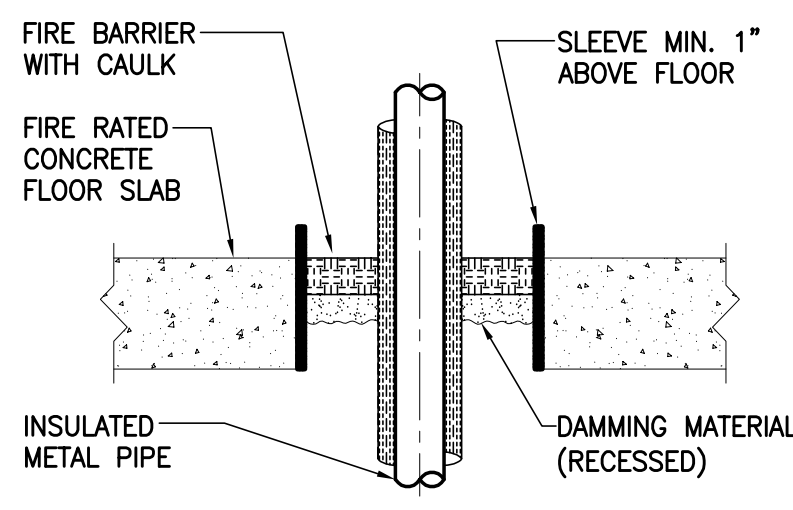
DIAPHRAGM EXPANSION TANK WITH MAKE-UP PUMP



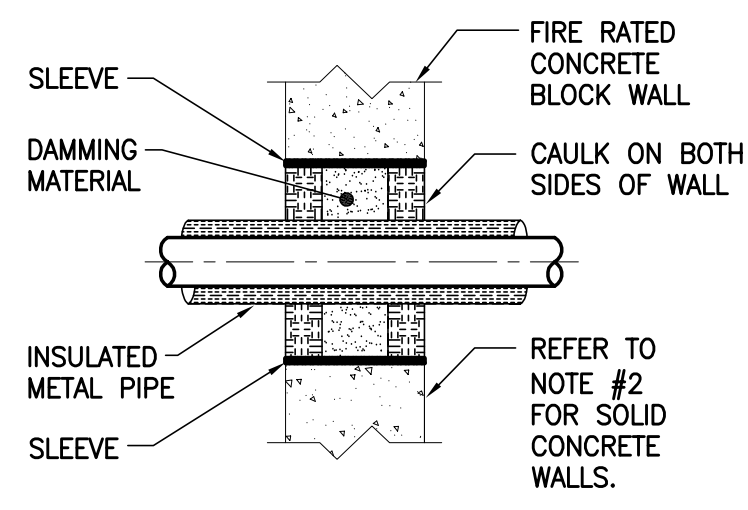
PENETRATION FIRESTOP FOR METAL PIPE  
THROUGH GYPSUM BOARD WALL

NOTES:

1. THE SPACE BETWEEN THE PENETRATING ITEM AND WALL BOARD MUST ACCOMMODATE AT LEAST ONE WRAP OF 1/4" FIRE BARRIER WRAP/STRIP.
2. IF THE ANNULAR SPACE IS LESS THAN 1/2", ONE WRAP OF WRAP/STRIP IS REQUIRED. IF THE ANNULAR SPACE IS 1/2" OR GREATER, FILL WITH ADDITIONAL WRAPS OF WRAP/STRIP UNTIL THE SPACE IS LESS THAN 1/4". WRAP/STRIP MAY BE FRICTION FIT INTO OPENING SECURED WITH FOIL TAPE OR 16 GAUGE STEEL TIE WIRE.
3. SLIDE THE WALL STRIPS INTO THE OPENING, LEAVING A MAXIMUM OF 3/4" EXPOSED WRAP BEYOND THE WALL SURFACE.
4. SEAL THE WRAP/STRIP EDGES AND SEAMS WITH 1/4" MINIMUM BEAD OF FIRE BARRIER CAULK.
5. INSTALL FIRESTOP ON BOTH SIDES OF THE WALL.
6. INSTALLATION MUST CONFORM WITH PRODUCT MANUFACTURERS PERFORMANCE RATINGS PER ASTM E-814 (UL 1479) FIRE TEST AND UL RESPECTIVE CLASSIFICATION FOR FIRE STOPPING.
7. IN ADDITION TO THE REQUIREMENTS OF THE APPROVED UL LISTED FIRE STOPPING ASSEMBLIES, ESCUTCHEON PLATES SHALL BE INSTALLED ON EACH SIDE OF THE FIRE RATED WALL AND SLAB CONSTRUCTION IN ACCORDANCE WITH ARTICLE 15005-1.25 OF THE SPECIFICATIONS AND AS REQUIRED BY THE NEW YORK CITY BUILDING CODE.



CONCRETE FLOOR SECTION VIEW

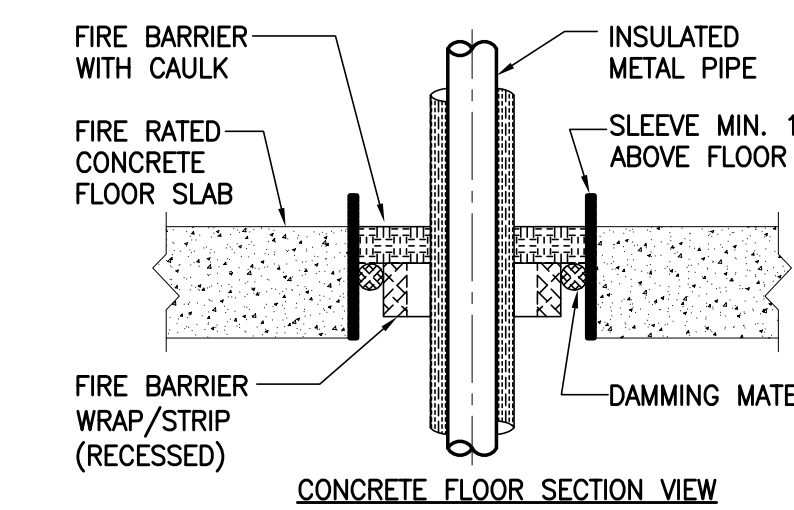


CONCRETE WALL SECTION VIEW

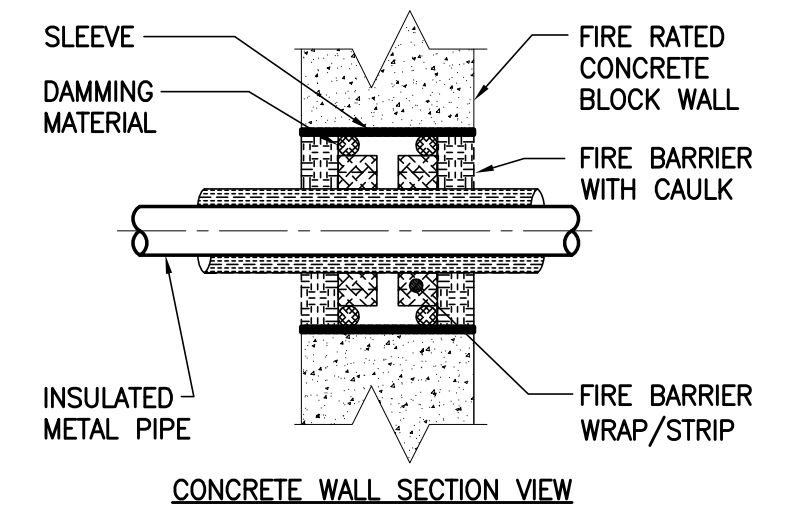
NOTES:

1. THE MAXIMUM ANNULAR SPACE TO BE FILLED IS 2", THE MINIMUM ANNULAR SPACE IS 3/4". THE MAXIMUM PIPE SIZE IS A NOMINAL 4" DIAMETER.
2. FOR SOLID CONCRETE WALLS, THE CAULK MAY BE CENTERED IN THE WALL WITH DAMMING MATERIAL ON BOTH SIDES OF THE CAULK.
3. PENETRATIONS SHALL BE CAULKED ON BOTH SIDES. SELF LEVELING CAULK SHALL BE USED ON ALL HORIZONTAL SURFACES.
4. THE DEPTH OF THE CAULK SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE:  
CAULK DEPTH (MIN.) INSULATION  
1" THICK 1" THICK  
2" THICK 2" THICK
5. INSTALLATION MUST CONFORM WITH PRODUCT MANUFACTURERS PERFORMANCE RATINGS PER ASTM E-814 (UL 1479) FIRE TEST AND UL RESPECTIVE CLASSIFICATION FOR FIRE STOPPING.
6. IN ADDITION TO THE REQUIREMENTS OF THE APPROVED UL LISTED FIRE STOPPING ASSEMBLIES, ESCUTCHEON PLATES SHALL BE INSTALLED ON EACH SIDE OF THE FIRE RATED WALL AND SLAB CONSTRUCTION IN ACCORDANCE WITH ARTICLE 15005-1.25 OF THE SPECIFICATIONS AND AS REQUIRED BY THE NEW YORK CITY BUILDING CODE.

PENETRATION FIRESTOP FOR INSULATED  
METAL PIPE THROUGH A CONCRETE FLOOR OR WALL



CONCRETE FLOOR SECTION VIEW

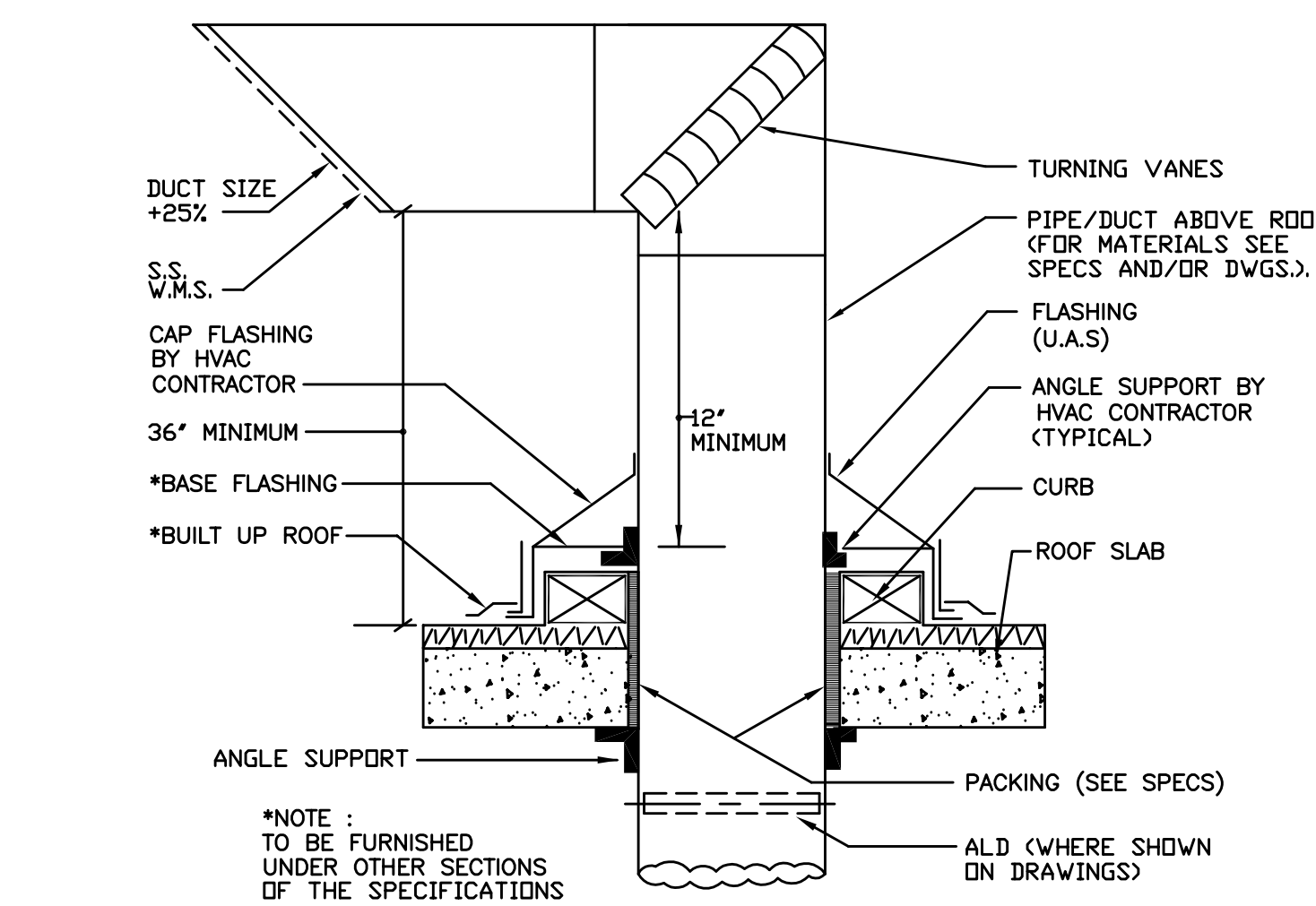


CONCRETE WALL SECTION VIEW

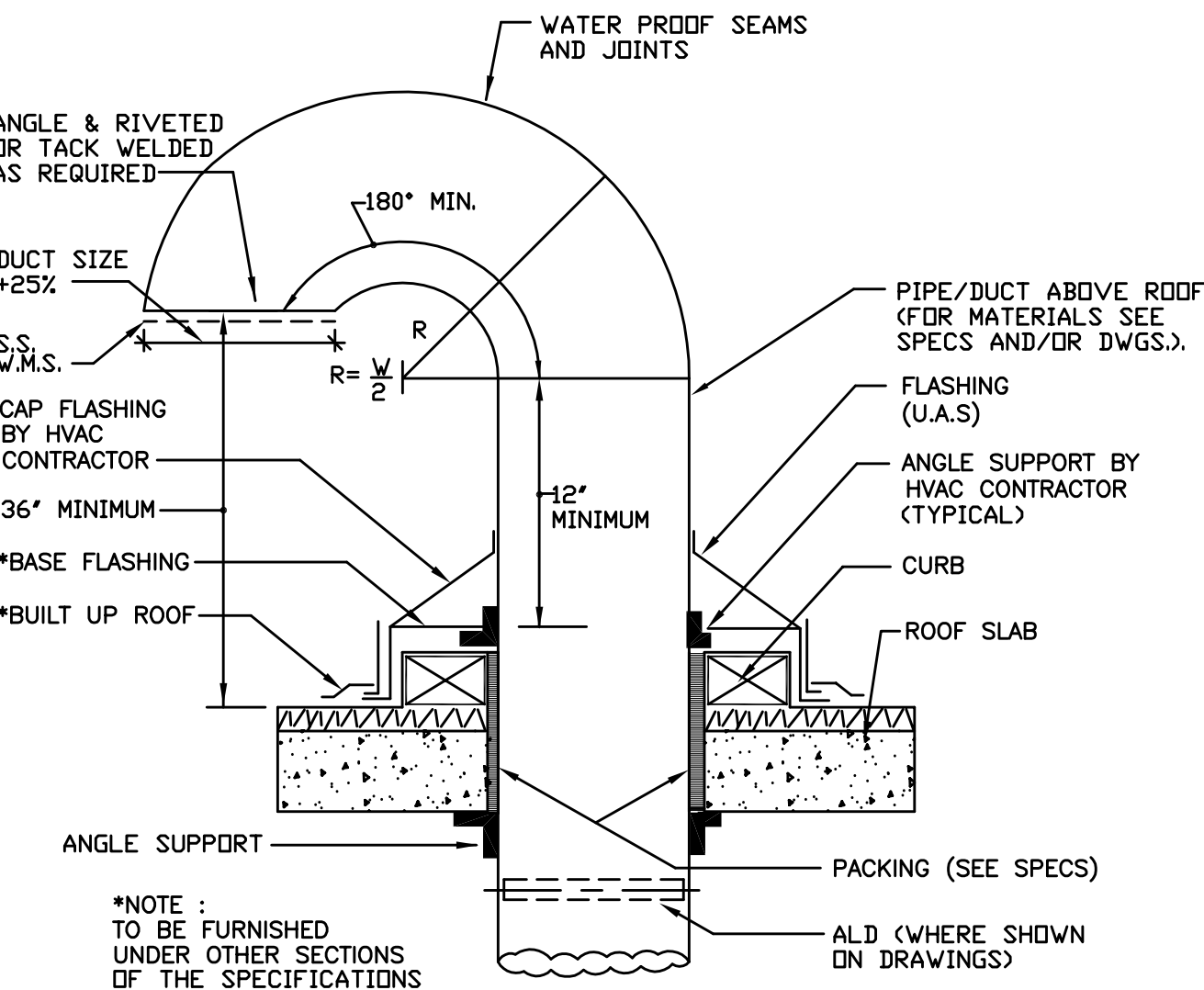
NOTES:

1. WALL PENETRATION FIRESTOPS MUST BE INSTALLED ON BOTH SIDES OF THE WALL, THE FLOOR PENETRATION FIRESTOP IS TO BE INSTALLED FOR THE TOP OF THE FLOOR SURFACE.
2. THE ANNULAR SPACE MUST BE LARGE ENOUGH TO ACCOMMODATE THE MIN. NUMBER OF WRAP/STRIPS REQUIRED IN BOTH THE FLOOR OR WALL. THE MINIMUM ANNULAR SPACE MUST ACCOMMODATE THE MINIMUM NUMBER OF WRAP/STRIPS REQUIRED PER INSULATION THICKNESS. (SEE TABLE BELOW)
3. IF THE ANNULAR SPACE IS GREATER THAN 1/2" AFTER THE INSTALLATION OF THE WRAP/STRIP, IT MAY BE FILLED WITH ADDITIONAL WRAP/STRIPS UP TO LESS THAN 1/2" OR FILLED WITH THE PROPER AMOUNT OF CAULK (SEE TABLE 1). A SUITABLE DAMMING MATERIAL SUCH AS MINERAL WOOL MUST BE PROVIDED TO SUPPORT THE CAULK AND PREVENT LEAKAGE.
4. SEAL THE SURFACE AND EDGES OF THE THROUGH OPENINGS WITH A MINIMUM 1/4" BEAD OF CAULK.
5. INSTALLATION MUST CONFORM WITH PRODUCT MANUFACTURERS PERFORMANCE RATINGS PER ASTM E-814 (UL 1479) FIRE TEST AND UL RESPECTIVE CLASSIFICATION FOR FIRE STOPPING.
6. IN ADDITION TO THE REQUIREMENTS OF THE APPROVED UL LISTED FIRE STOPPING ASSEMBLIES, ESCUTCHEON PLATES SHALL BE INSTALLED ON EACH SIDE OF THE FIRE RATED WALL AND SLAB CONSTRUCTION IN ACCORDANCE WITH ARTICLE 15005-1.25 OF THE SPECIFICATIONS AND AS REQUIRED BY THE NEW YORK CITY BUILDING CODE.

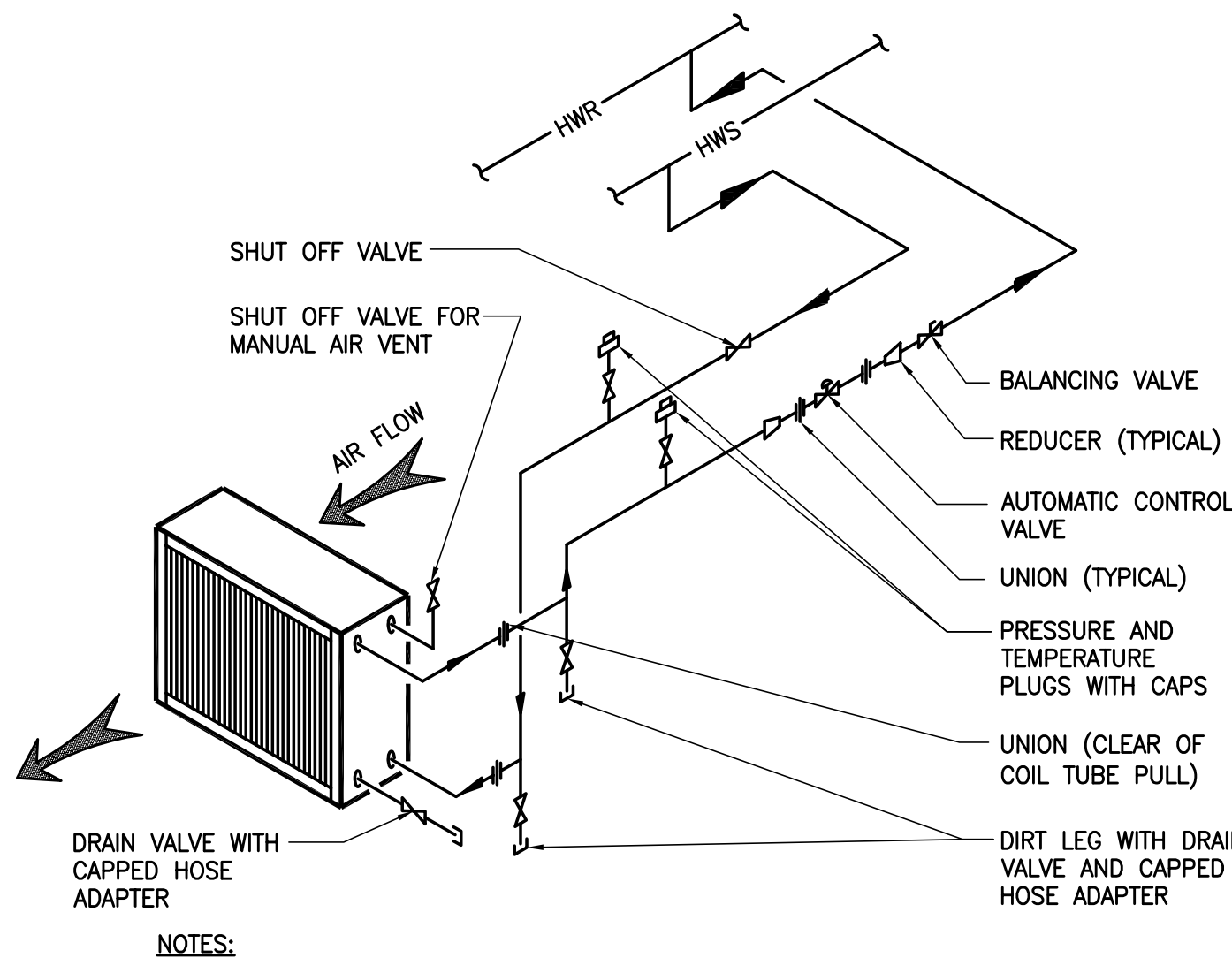
PENETRATION FIRESTOP FOR 20" MAXIMUM INSULATED  
METAL PIPE THROUGH A CONCRETE FLOOR OR WALL



CURB AND FLASHING DETAIL FOR GOOSENECK AT ROOF



CURB AND FLASHING DETAIL FOR GOOSENECK AT ROOF



NOTES:

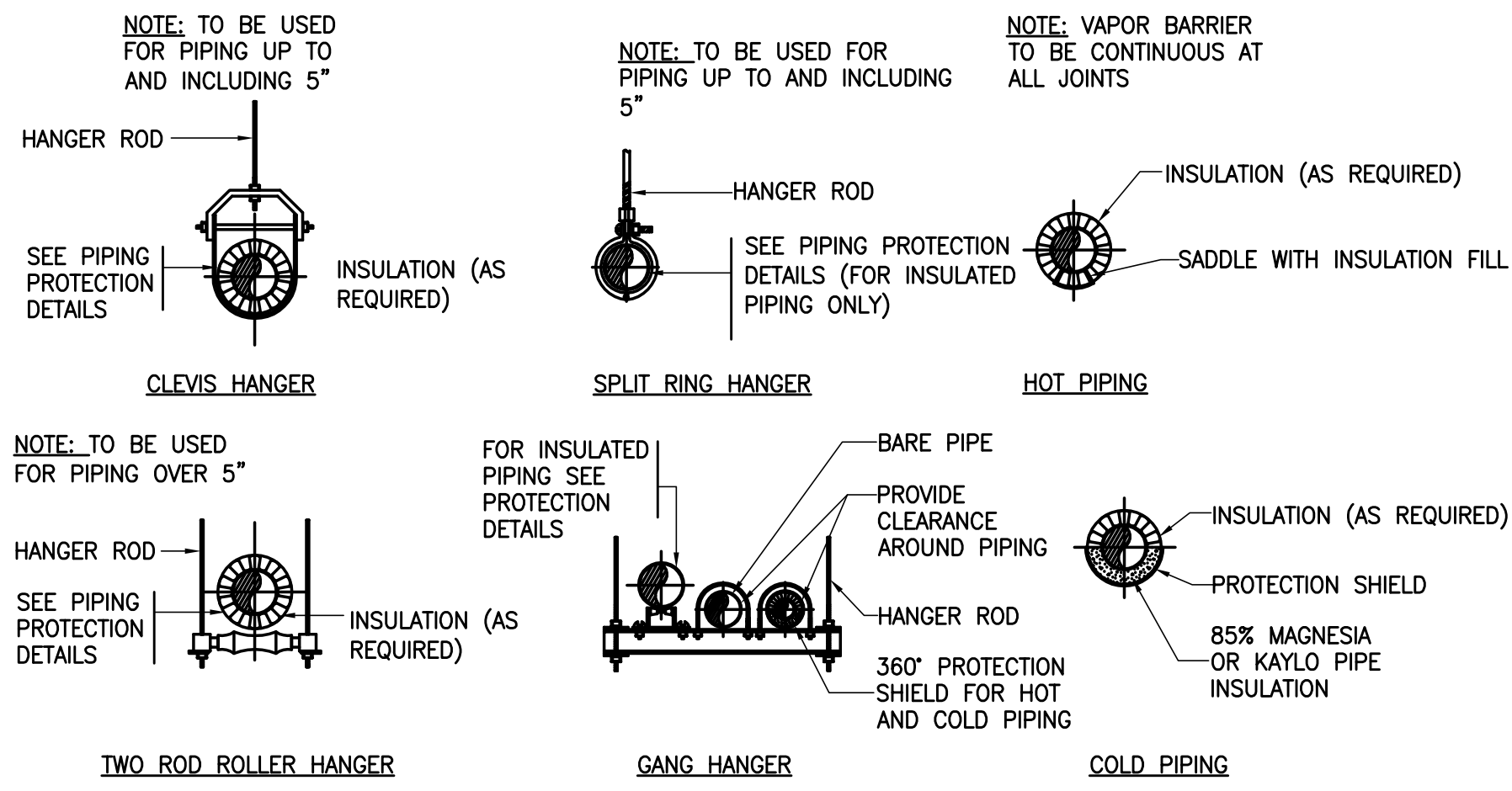
1. PROVIDE ACCESS DOORS UPSTREAM AND DOWNSTREAM OF ALL HEATING COILS.
2. FOR DUCT MOUNTED REHEAT COILS PROVIDE PRESSURE TEMPERATURE PLUGS WITH CAPS IN LIEU OF THERMOMETERS AND TEMPERATURE GAUGES.

HOT WATER HEATING AND REHEAT COIL PIPING CONNECTION DETAIL



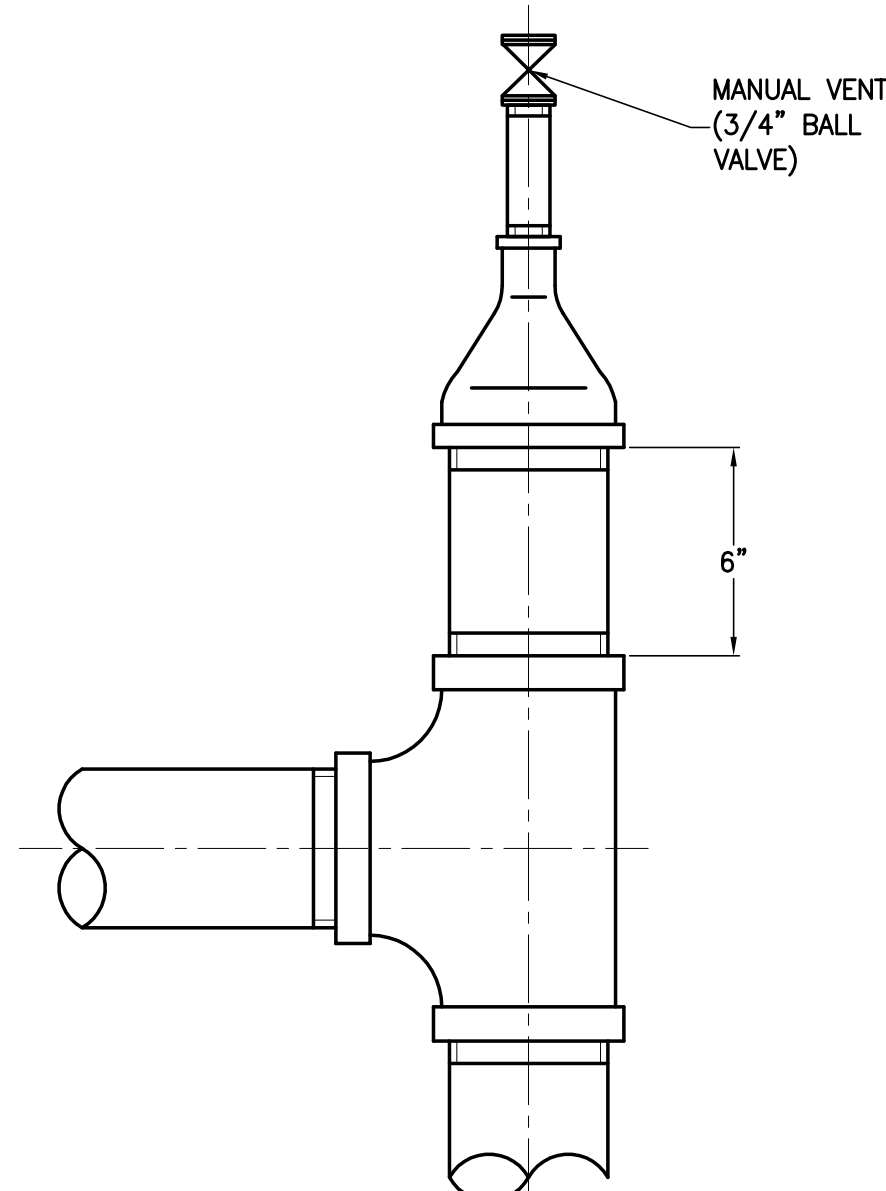




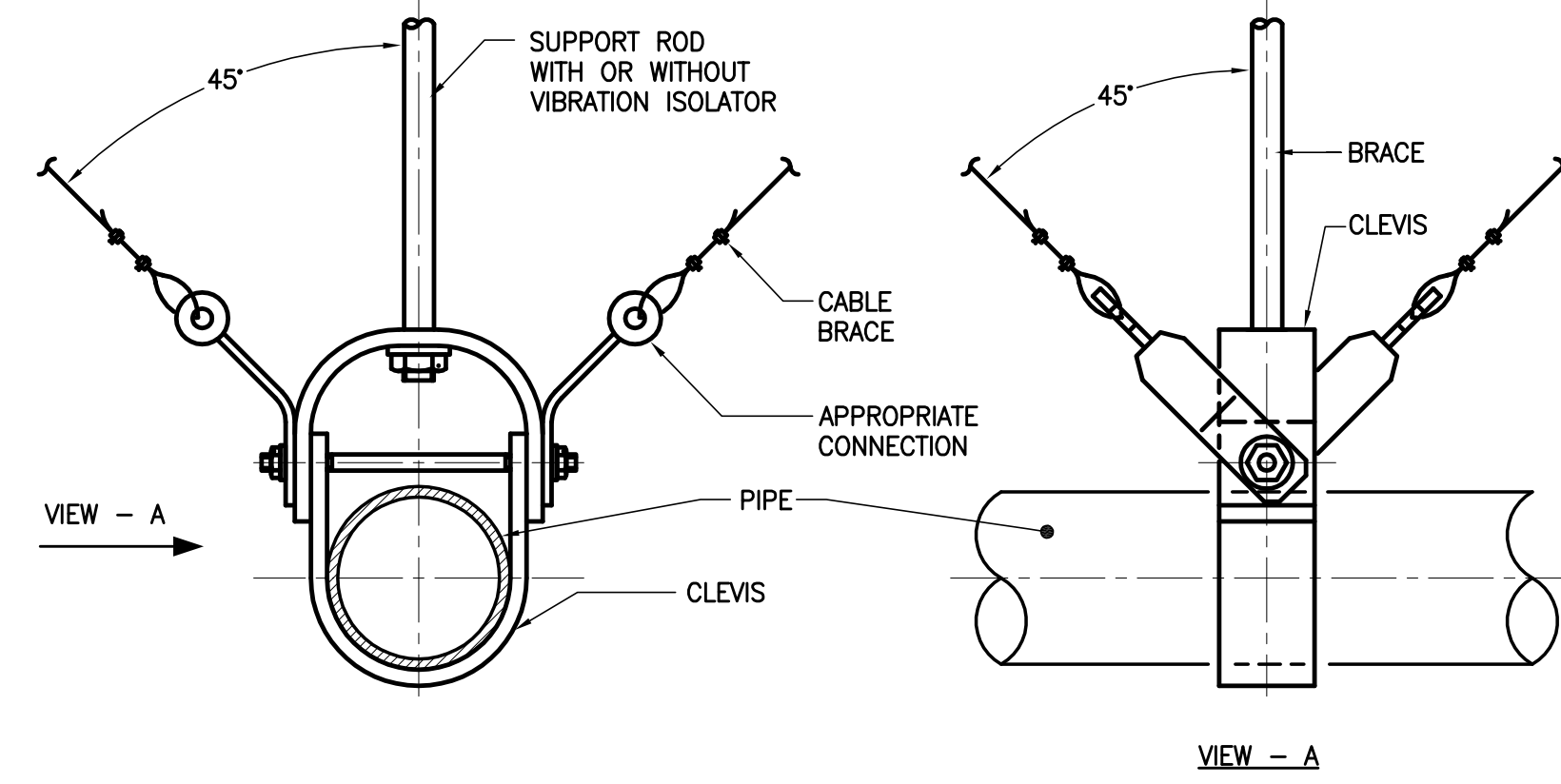


NOTE: PROVIDE AIR VENT AT HIGH POINT OF PIPING PROVIDE DRAIN VALVE AT LOW POINT OF PIPING.

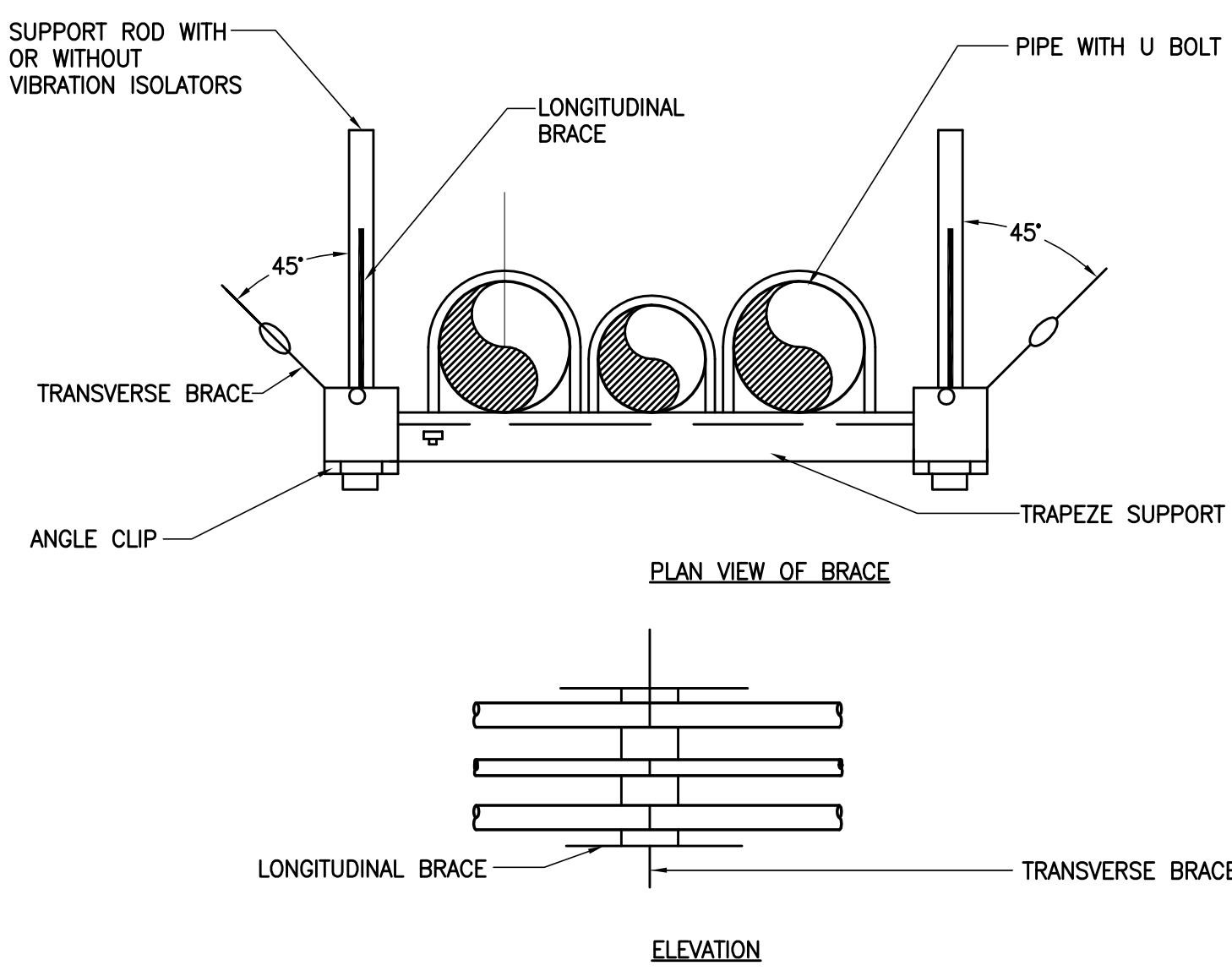
#### NON-SEISMIC PIPING SUPPORT AND INSULATION DETAILS



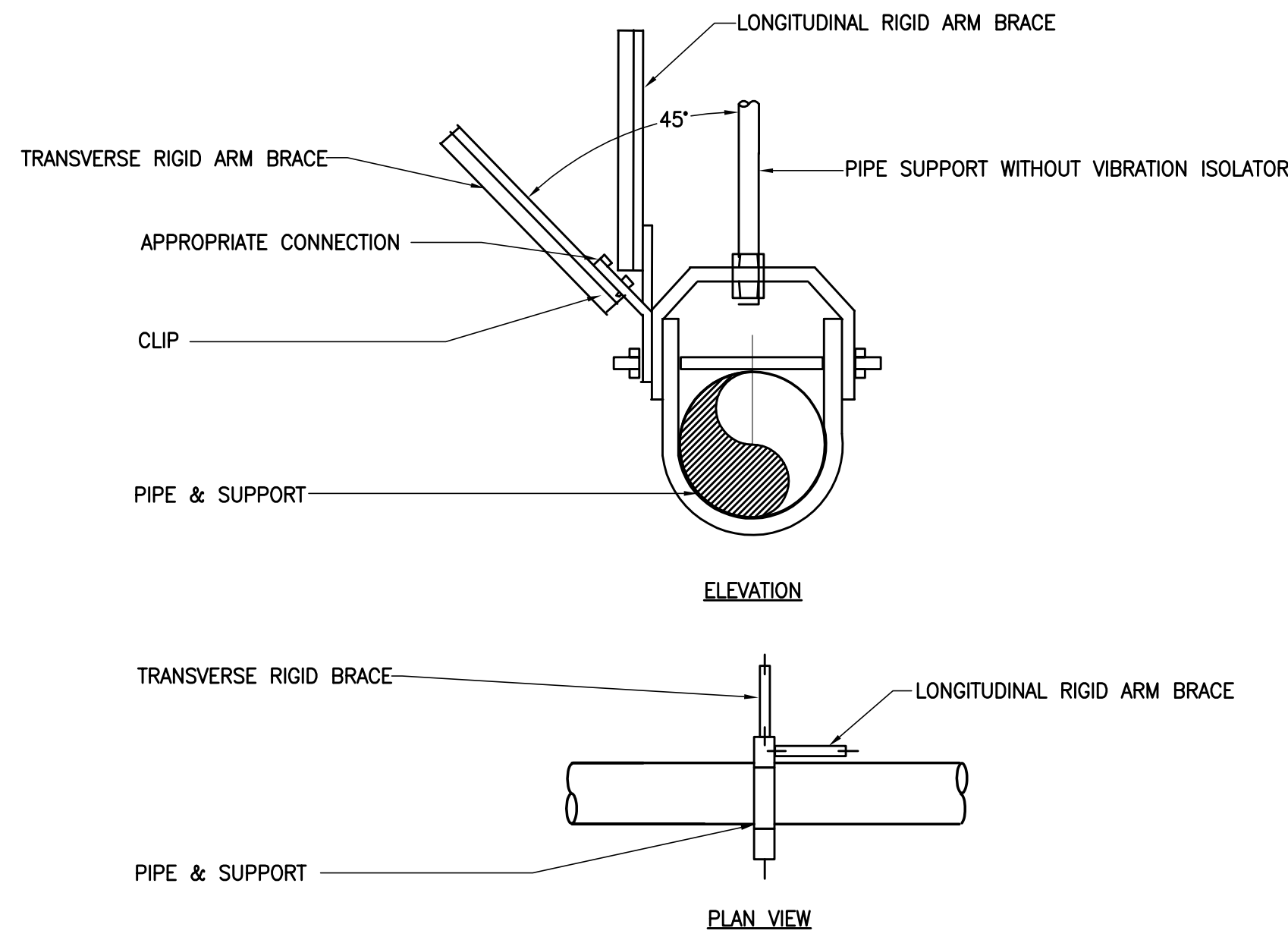
VENT ON PIPE RISER



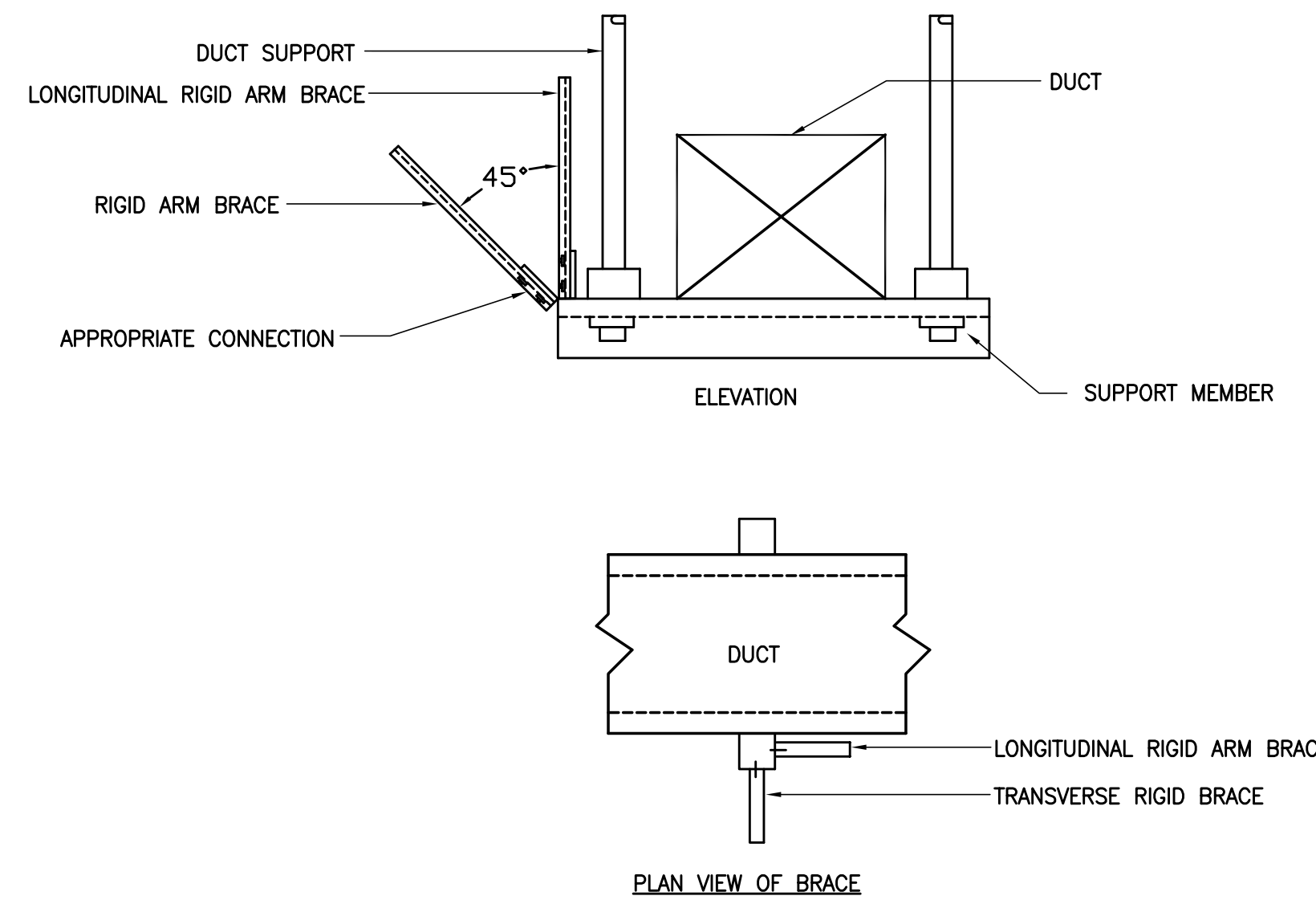
SEISMIC CABLE BRACE FOR PIPEWORK MOUNTING DETAIL



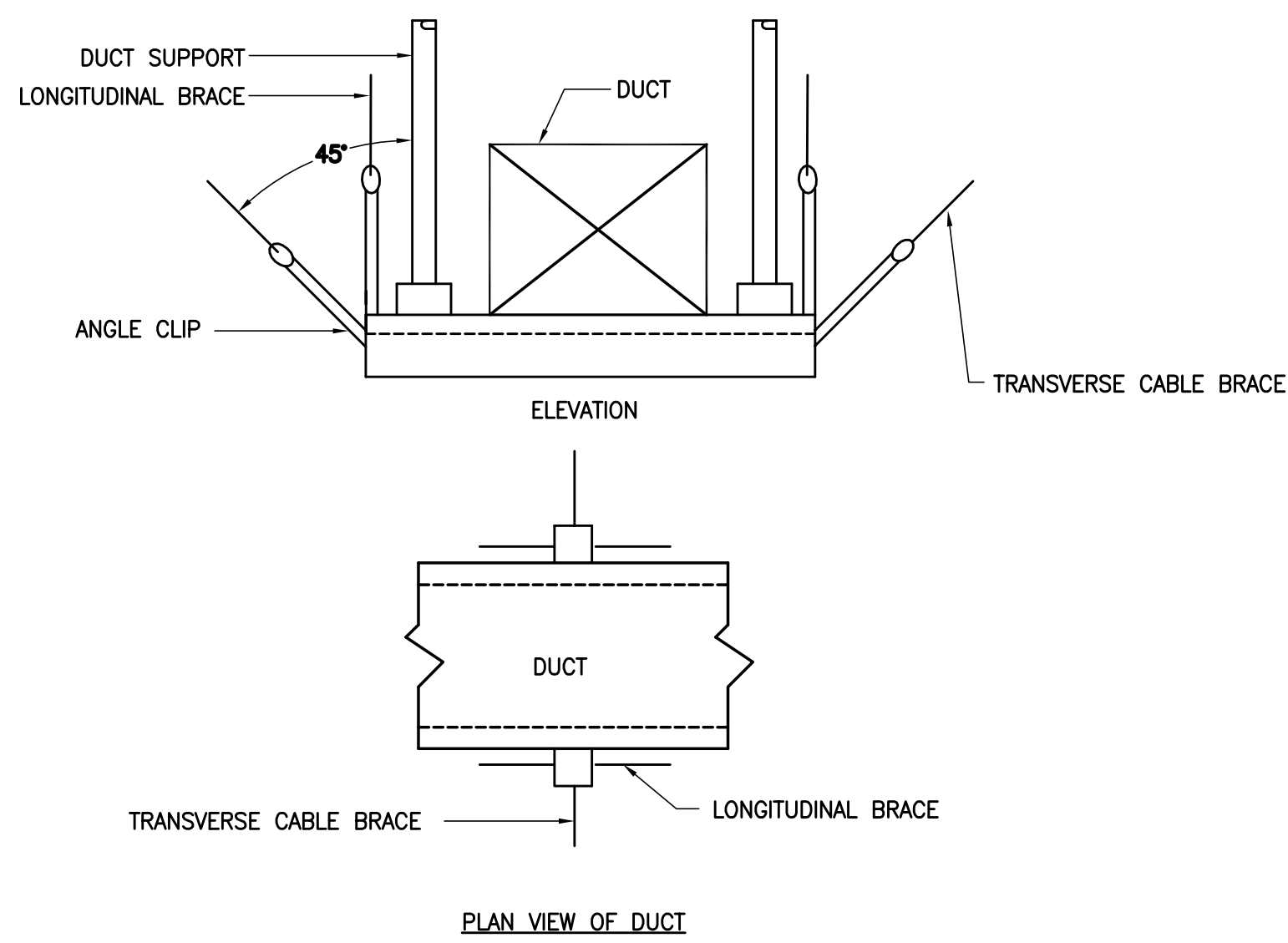
SEISMIC TWO DIRECTIONAL CABLE BRACE FOR PIPEWORK ON TRAPEZE



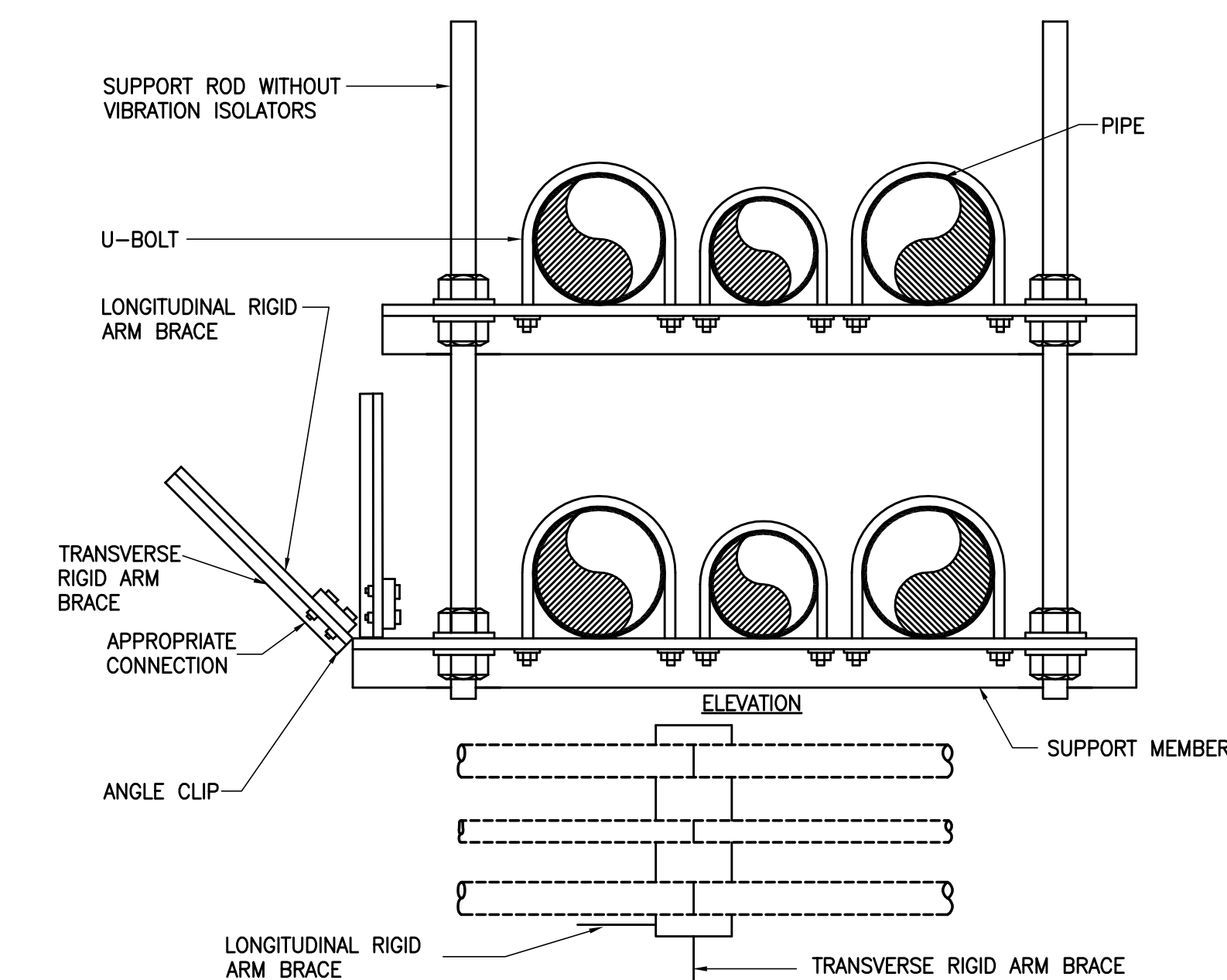
SEISMIC RIGID ARM NON-INSULATED PIPE BRACE



SEISMIC SINGLE RIGID ARM BRACE FOR DUCTS



SEISMIC TWO DIRECTIONAL CABLE BRACE FOR DUCT



SEISMIC RIGID ARM BRACE FOR NON-ISOLATED PIPES

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Key Plan:

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No.	Date	Description
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**MECHANICAL  
DETAIL  
SHEET  
NO. 4**

Project No: <b>14830.A.000</b>	B-SCAN Sheet No.:
Date: <b>20 JUN 2014</b>	<b>M-703.00</b>
Scale: <b>NTS</b>	Sheet No.: <b>M-703</b>
File No.:	Page No.:





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Landscape Consultant  
Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant  
Ducibella, Ventor & Santoro  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

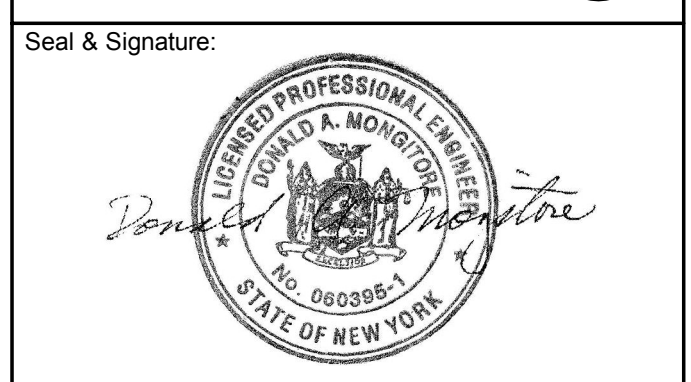
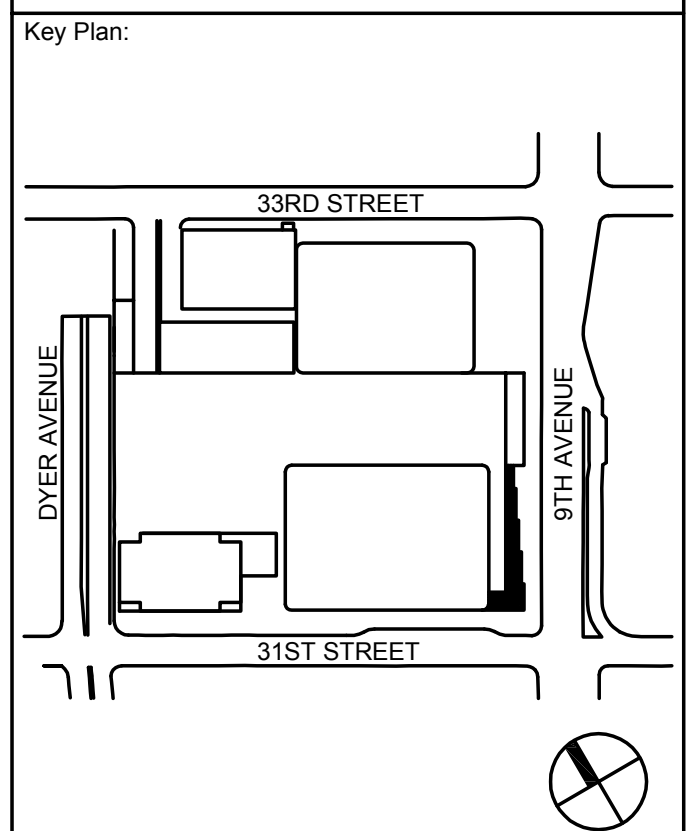
Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

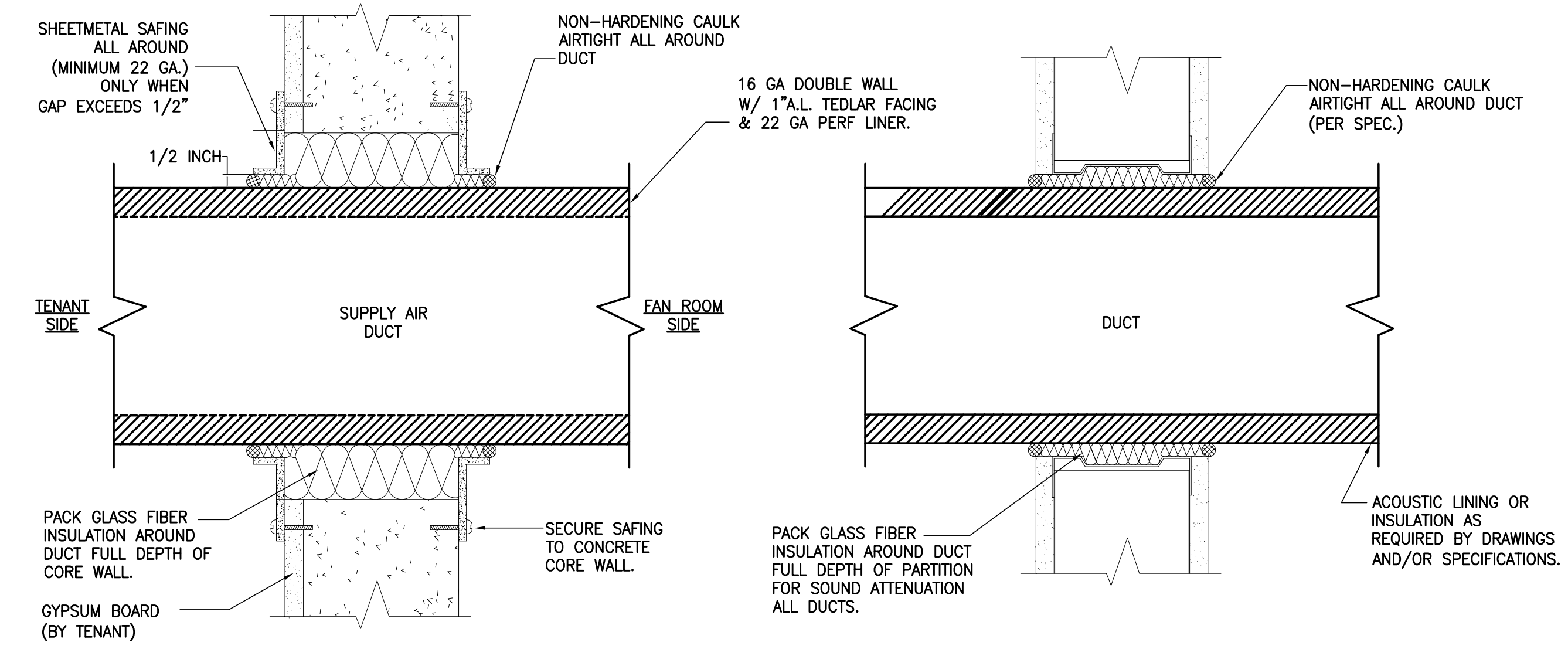
Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

Facade Maintenance Consultant  
Entek Engineering LLC  
186 Ames Street, Hackensack, NJ 07601

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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1S8

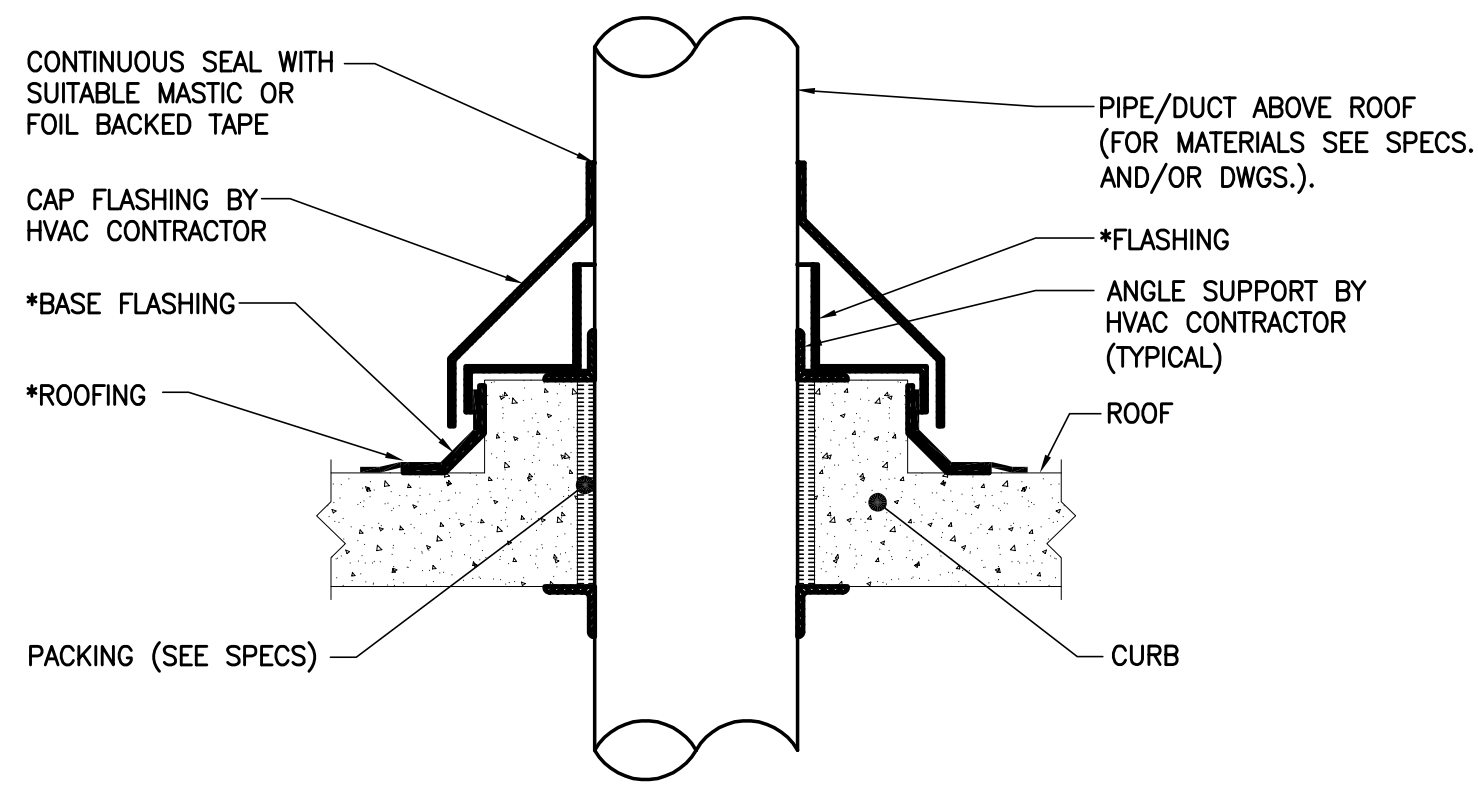


No.	Date	Description
1	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	13 NOV 2013	ISSUED FOR PROPOSED SPRING
4	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
5	13 MAR 2013	ISSUED FOR RECONFIGURATION



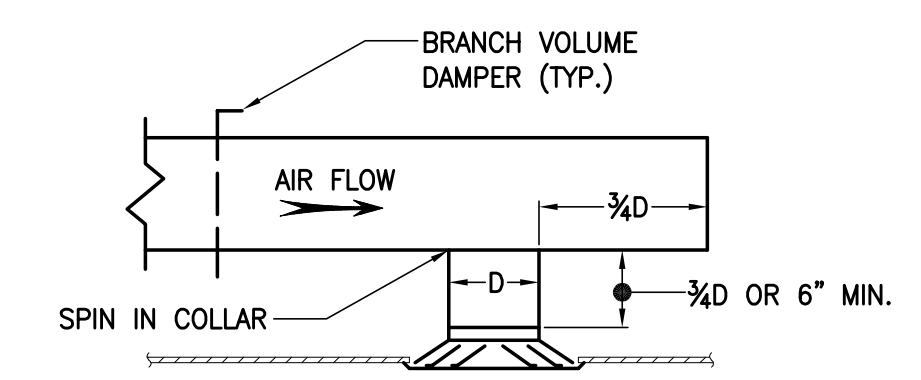
FAN ROOM DUCT PENETRATION  
(NON-RATED PARTITIONS)

TYPICAL DUCT AT WALL PENETRATION  
(NON-RATED PARTITIONS)

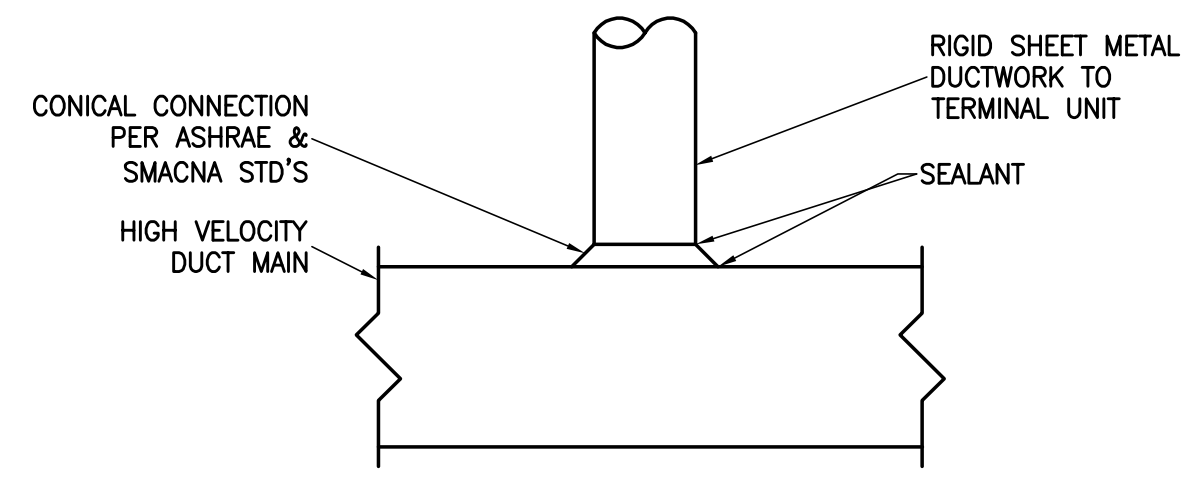


\*NOTE:  
TO BE FURNISHED UNDER OTHER SECTIONS OF THE SPECIFICATION.

CURB AND FLASHING DETAIL FOR  
PIPE/DUCT PENETRATIONS AT ROOF



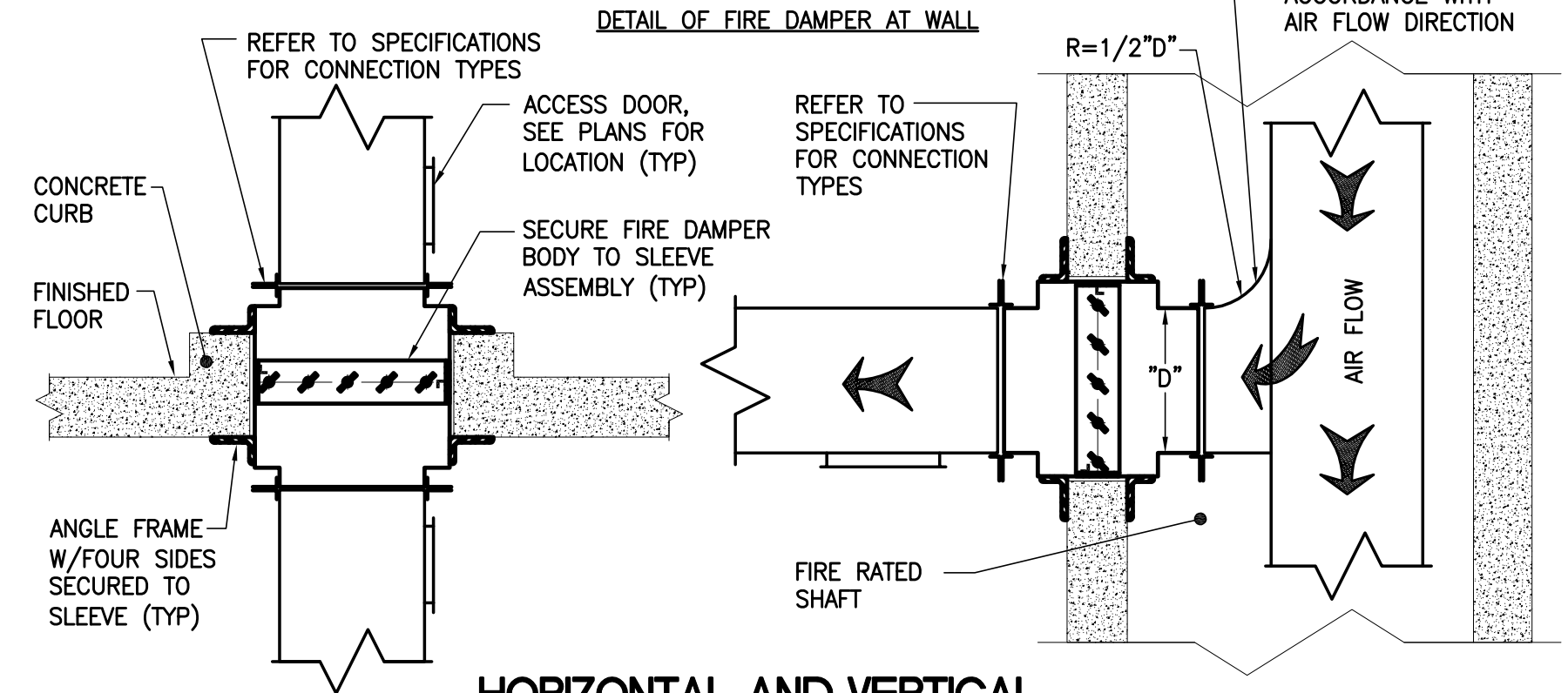
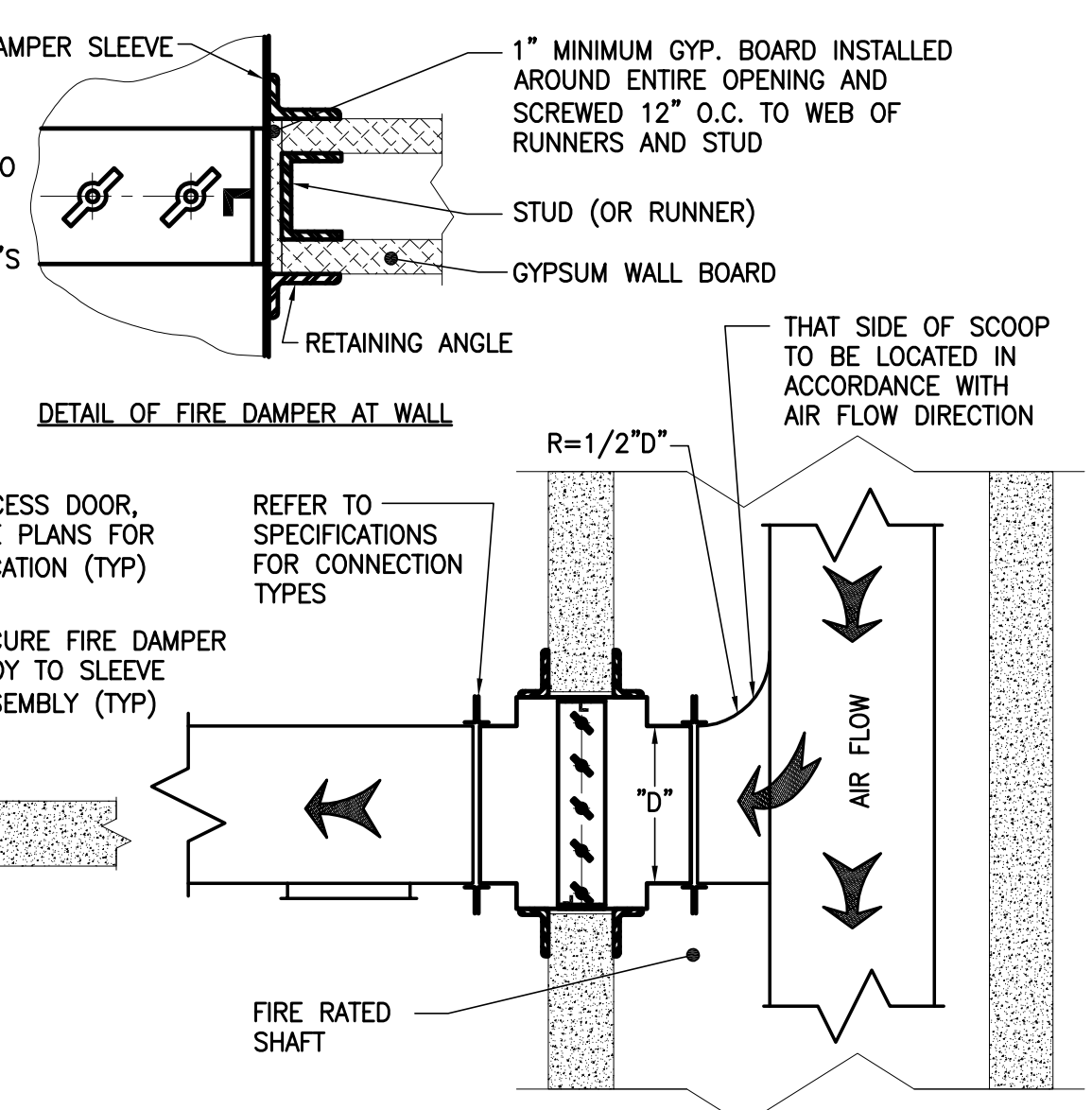
TYPICAL DIFFUSER INSTALLATION



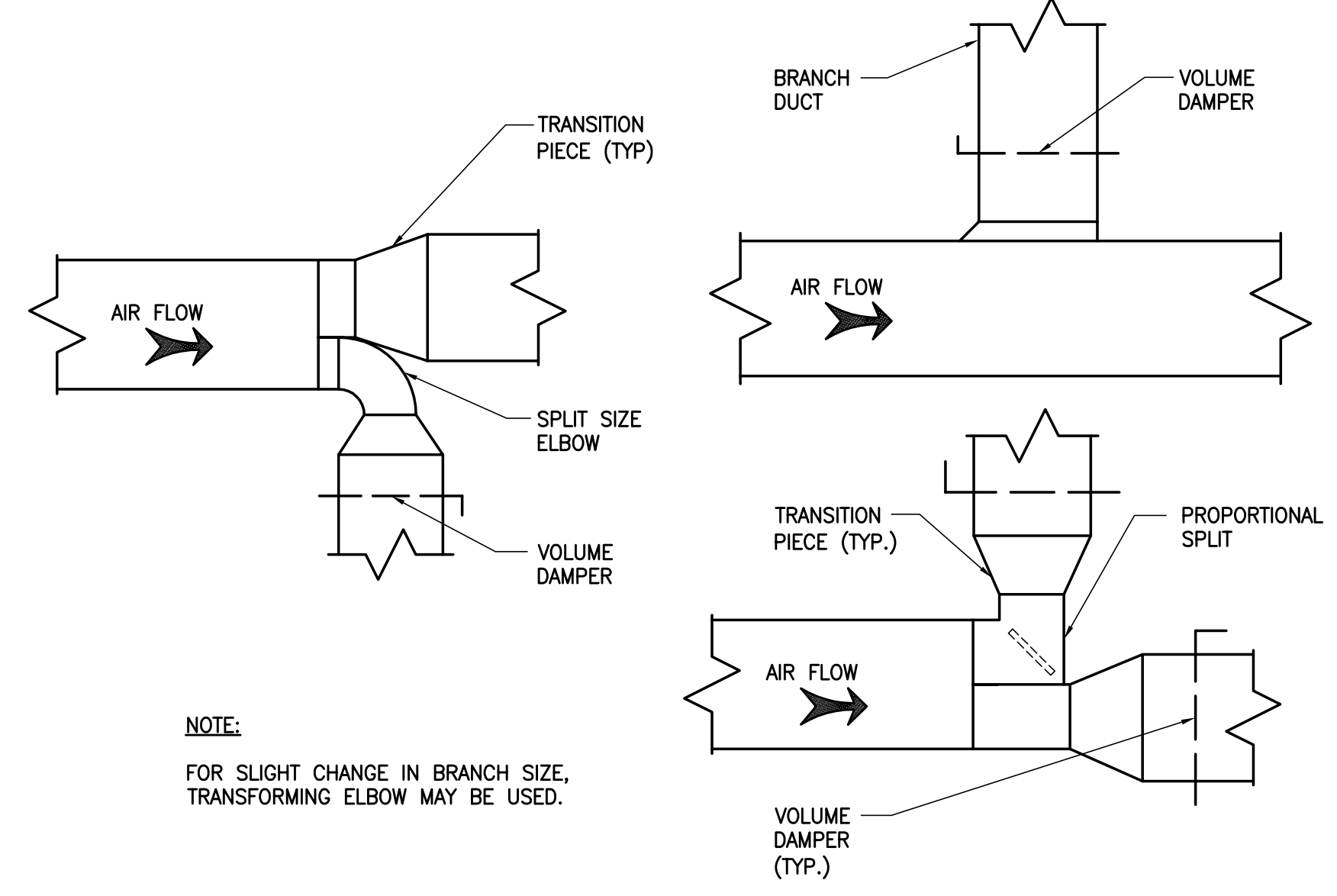
HIGH VELOCITY DUCT CONNECTION

FIRE DAMPER NOTES:

1. DRY WALL FRAMING AT FIRE DAMPERS MUST BE IN ACCORDANCE WITH WALL SYSTEM MANUFACTURER'S UL APPROVED DETAILS.
2. SHEET METAL SLEEVES FOR ALL DAMPERS TO BE 14 GA.
3. FIRE DAMPERS ARE TO BE INSTALLED IN FULL ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS PER UL 555D.
4. SEE ARCHT. DWGS FOR STUD LOCATION AT DAMPERS.

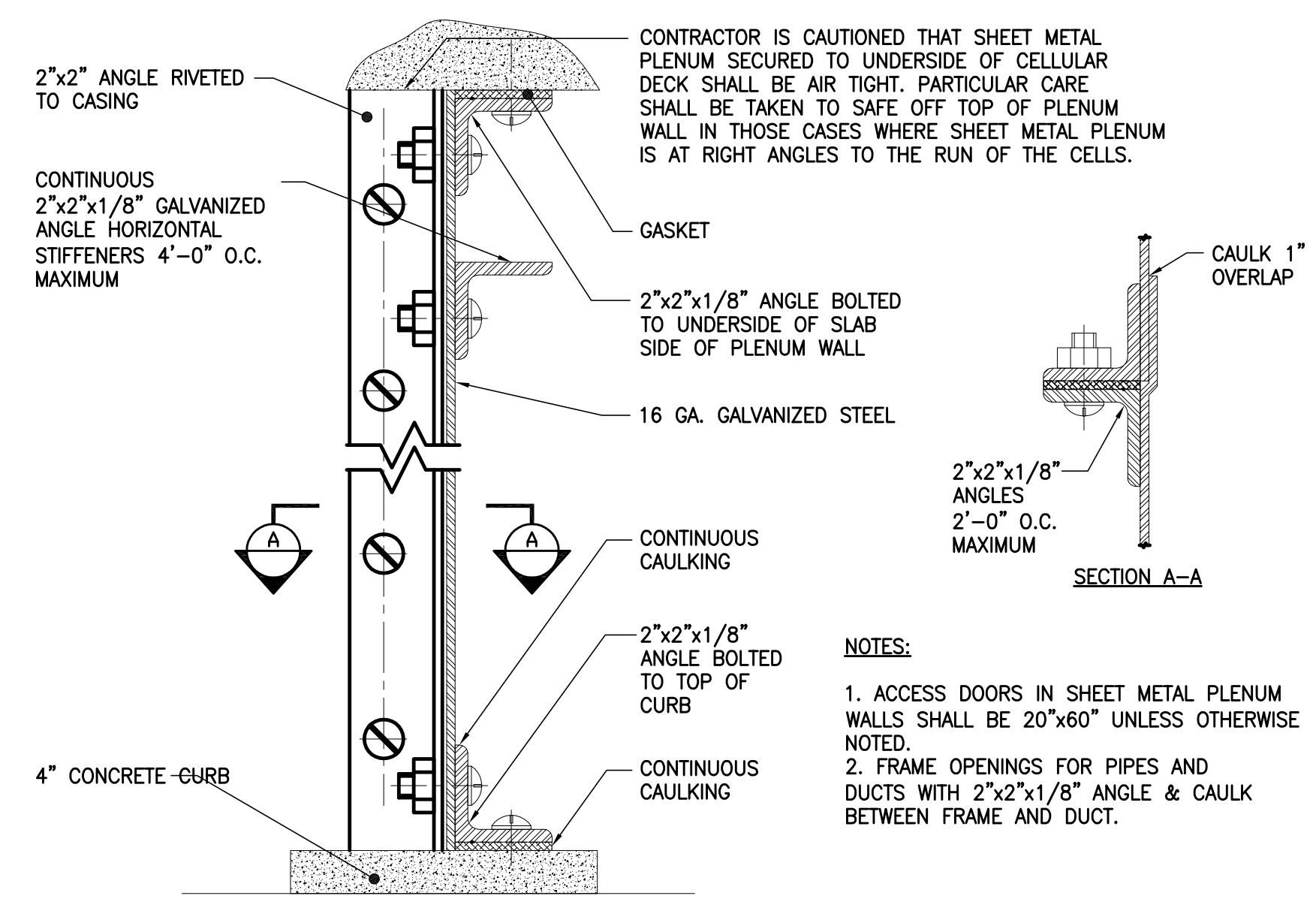


HORIZONTAL AND VERTICAL  
FIRE OR FIRE SMOKE DAMPERS INSTALLATION DETAIL



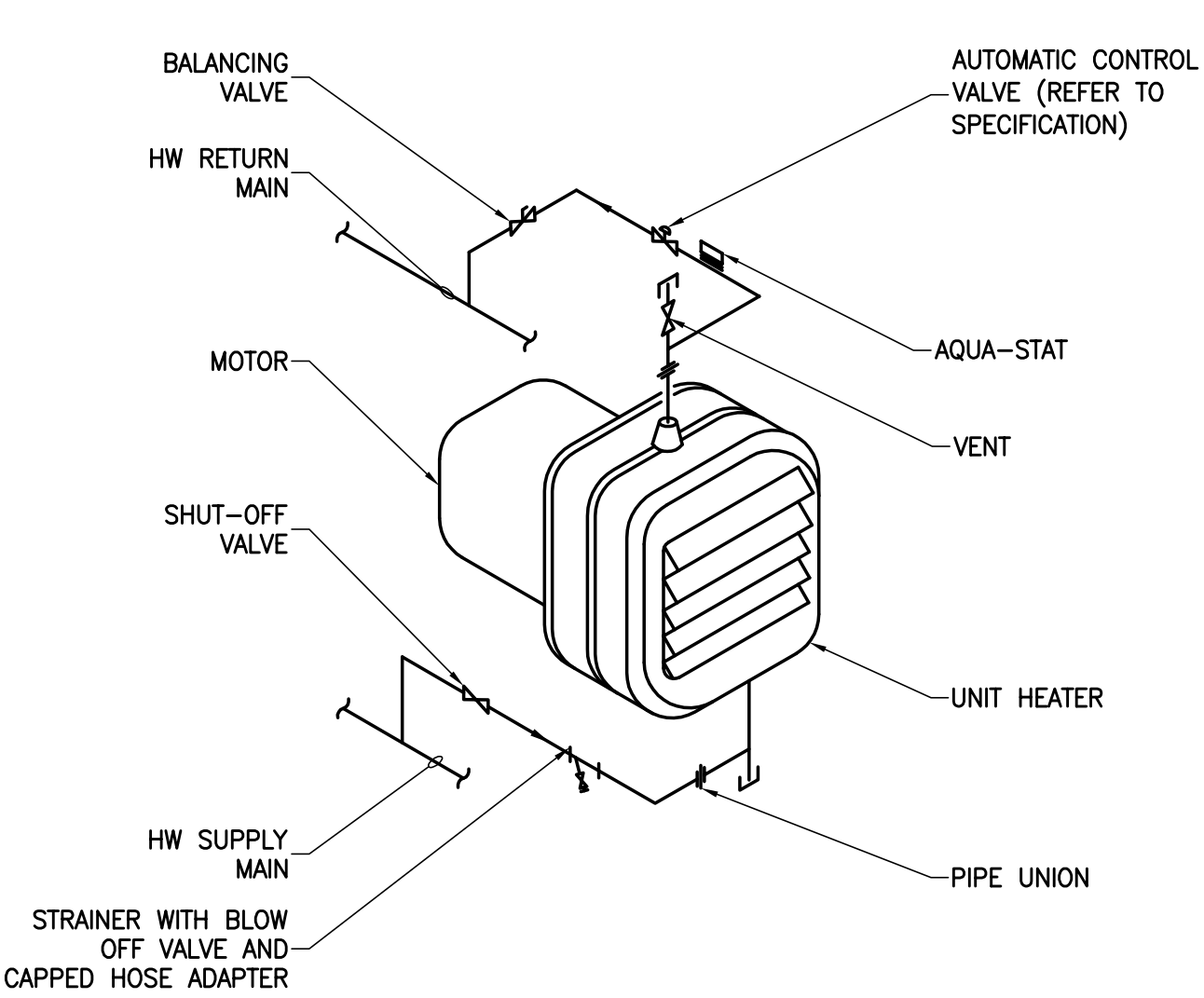
\*NOTE:  
FOR SLIGHT CHANGE IN BRANCH SIZE, TRANSFORMING ELBOW MAY BE USED.

LOW VELOCITY DUCT CONNECTIONS

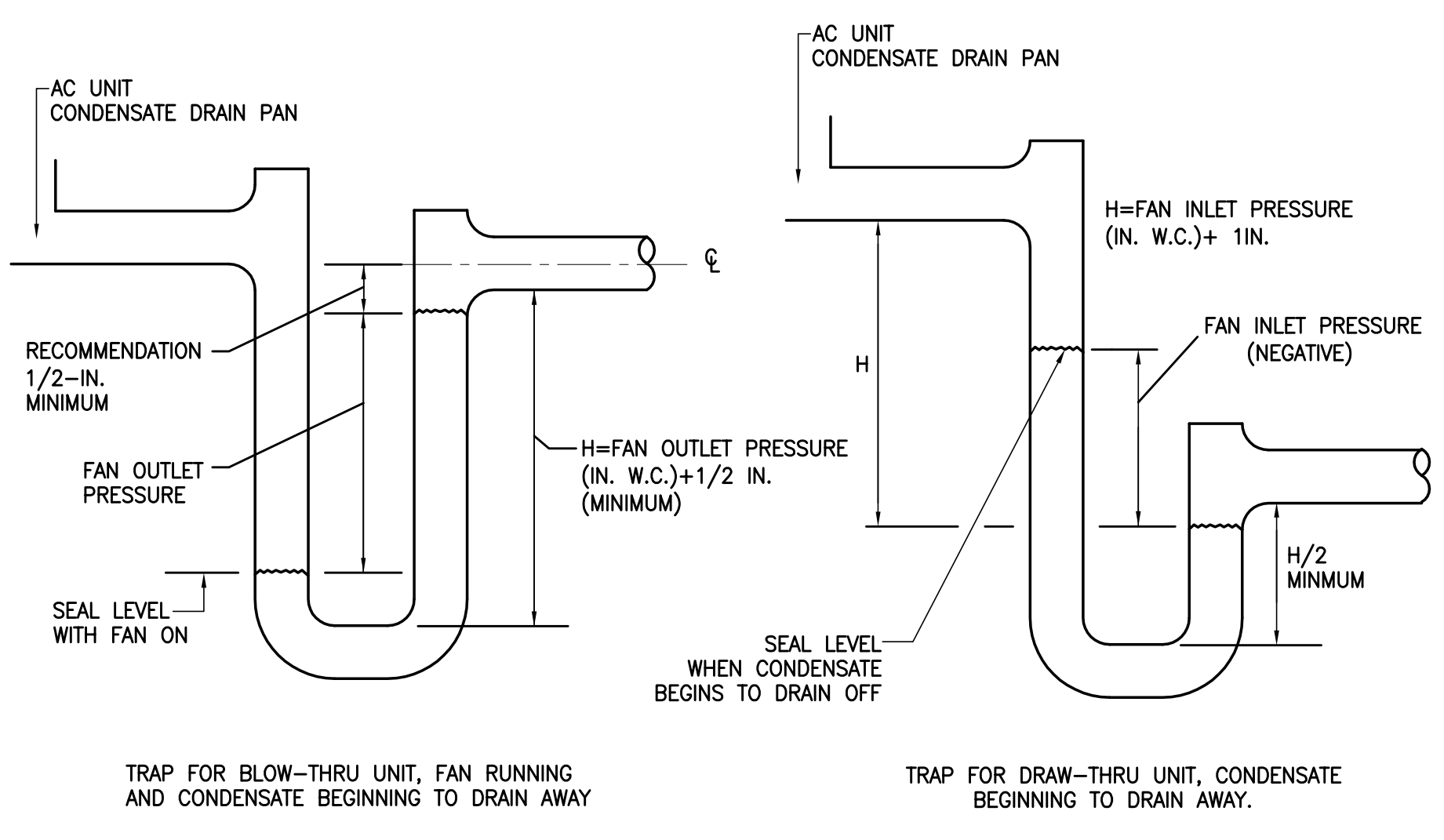


- NOTES:
1. ACCESS DOORS IN SHEET METAL PLENUM WALLS SHALL BE 20"x60" UNLESS OTHERWISE NOTED.
  2. FRAME OPENINGS FOR PIPES AND DUCTS WITH 2"x2"x1/8" ANGLE & CAULK BETWEEN FRAME AND DUCT.

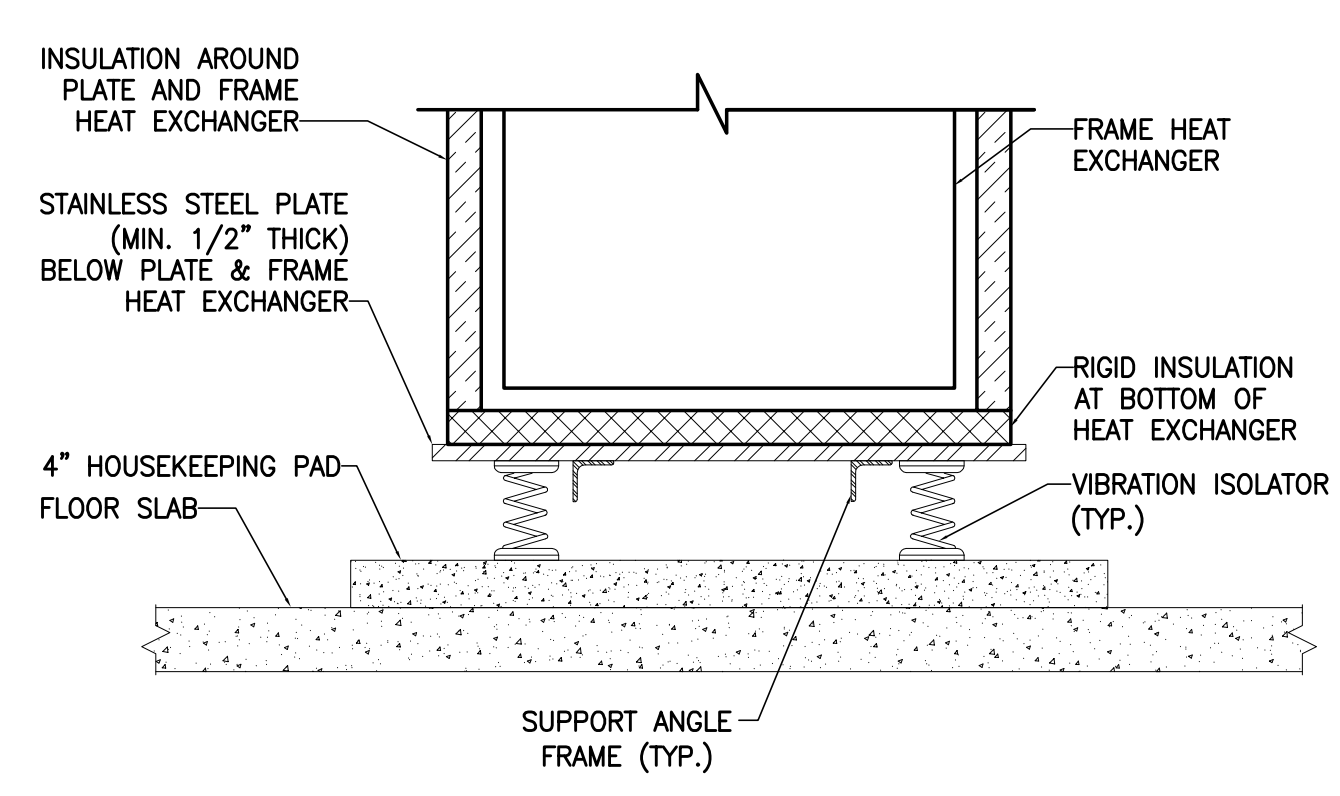
SHEET METAL PLENUM DETAIL



HW UNIT HEATER PIPING CONNECTION

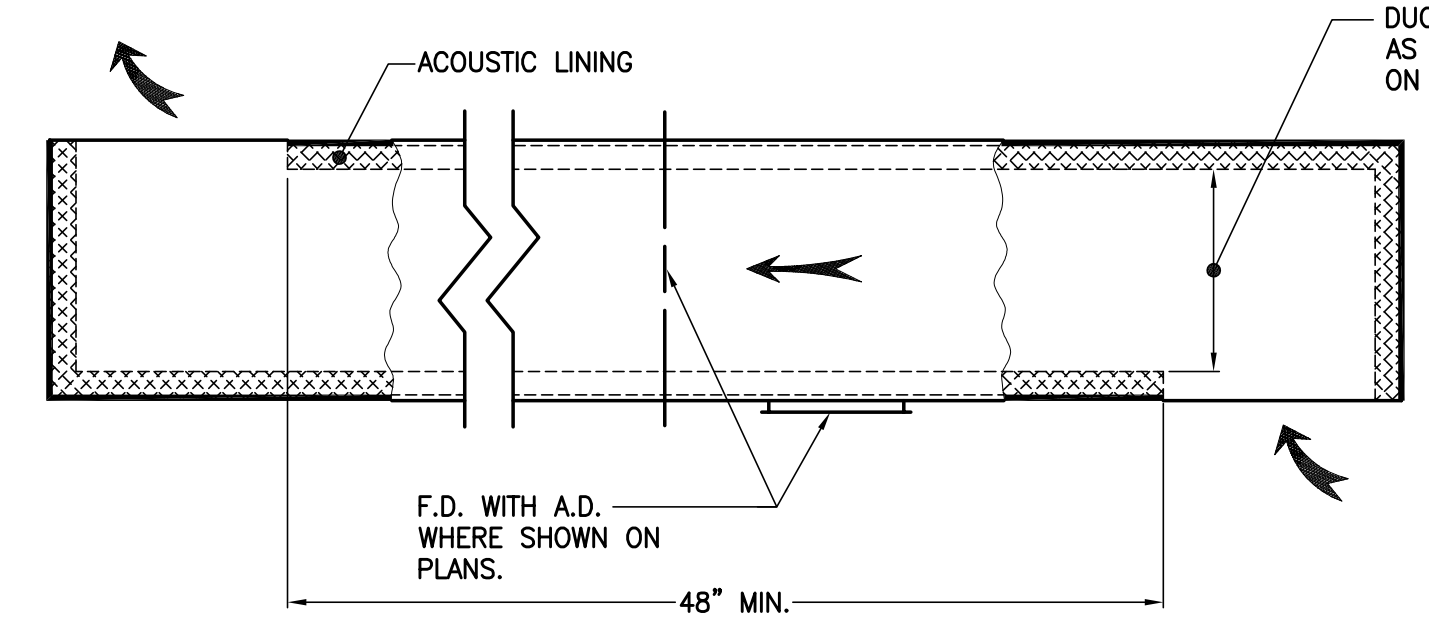


CONDENSATE TRAPS FOR COOLING COILS



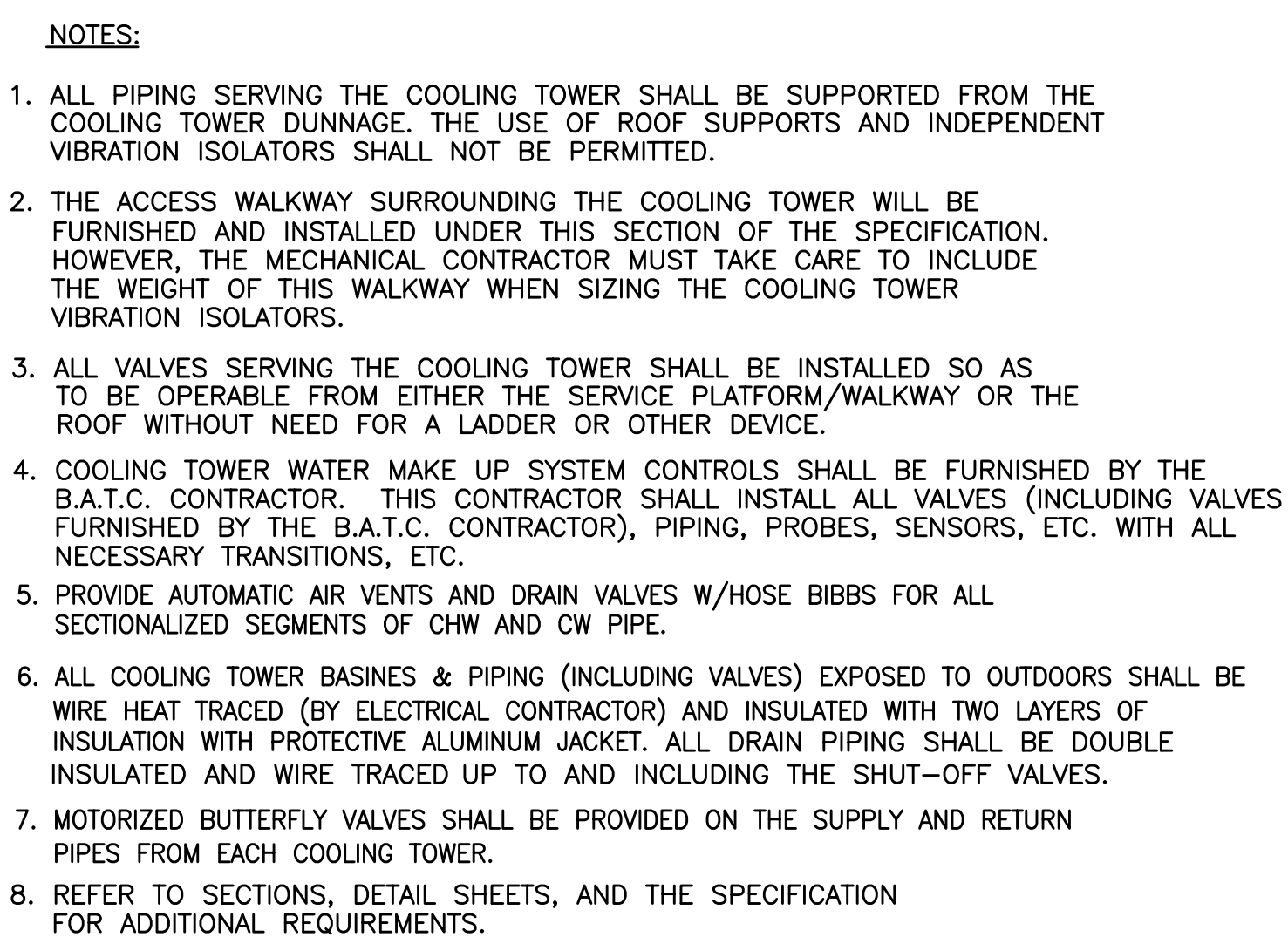
SUPPORT DETAIL FOR FLAT PLATE  
HEAT EXCHANGER WITH INSULATION

\*NOTE:  
REQUIREMENT FOR SUPPORT ANCHORS AND FOR THE THICKNESS OF THE SUPPORT PLATE BELOW THE PLATE & FRAME HEAT EXCHANGER SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND SHALL BE AS SPECIFIED BY THE STRUCTURAL ENGINEER.

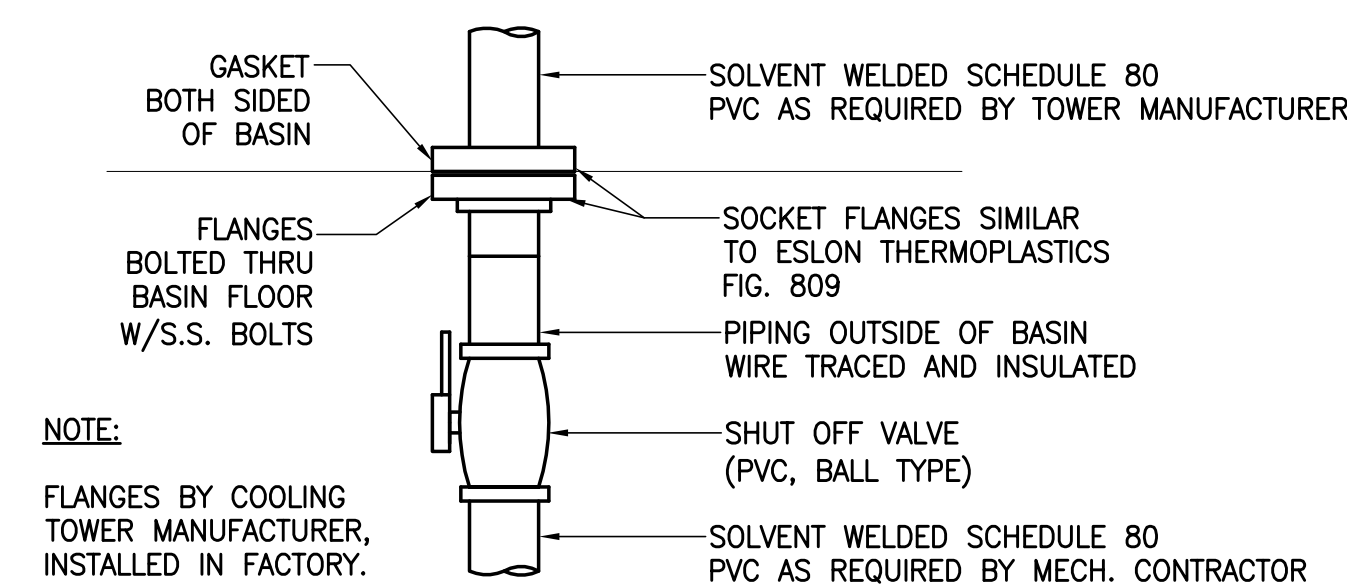


TRANSFER DUCT DETAIL



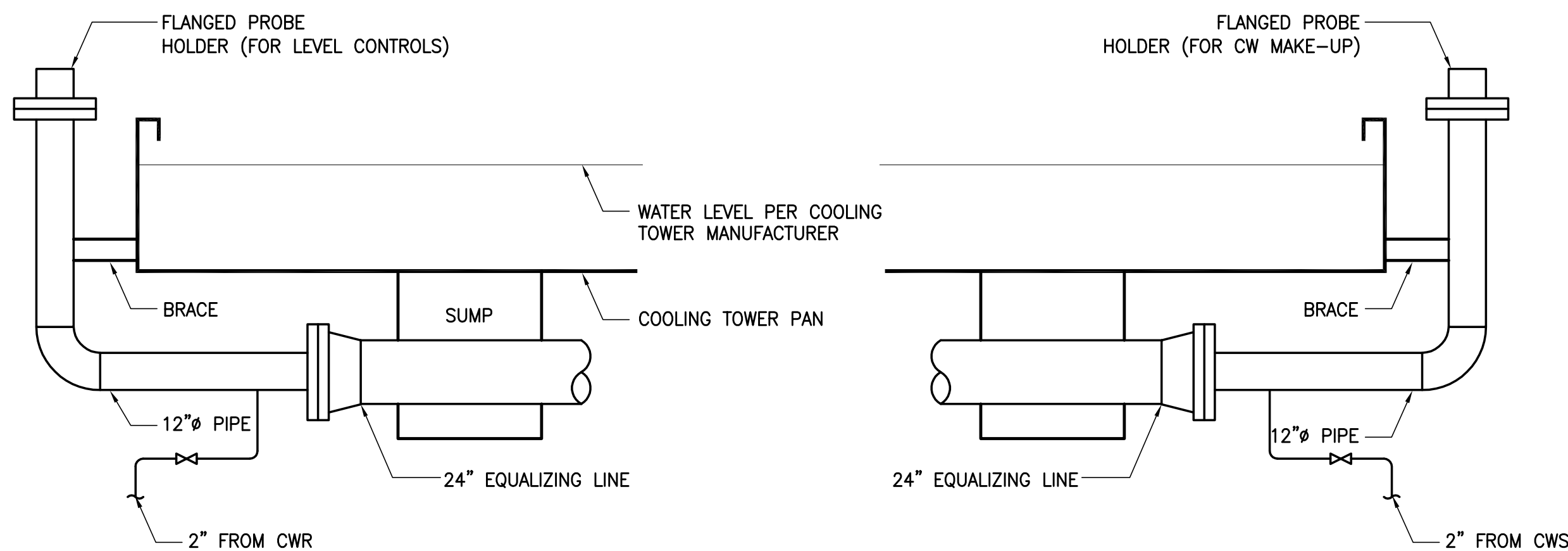


COOLING TOWER - ROOF LEVE

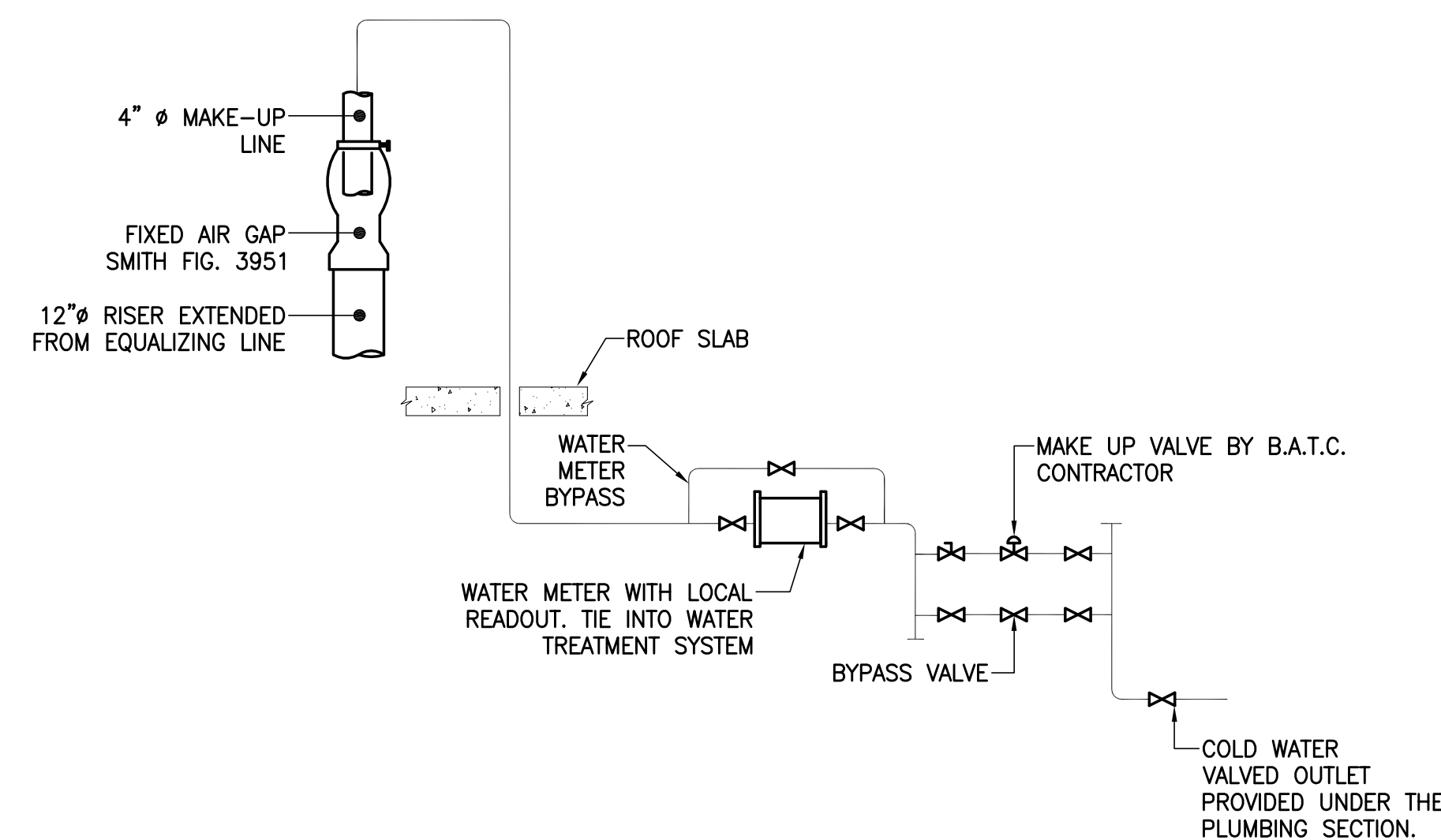


### CONDENSER WATER SIDESTREAM FILTRATION PIPING 24"

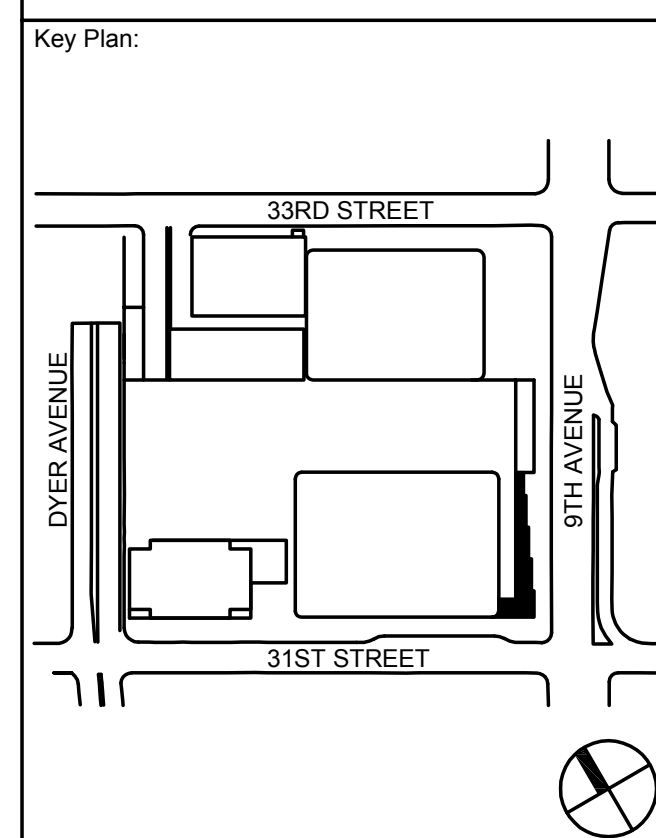
### COOLING TOWER BASIN FILTRATION SYSTEM BASIN CONNECTION DETAIL



### COOLING TOWER MAKE-UP PROBE ARRANGEMENT



### COOLING TOWER MAKE-UP SCHEMATIC



Seal &amp; Signature



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No.	Date	Description
Sheet Name:		

MECHANICAL  
DETAIL  
SHEET  
NO. 6

Project No.: 14830.A.000	B-SCAN Sheet No.:  M-705.00
Date: 20 JUN 2014	Sheet No.:  M-705
Scale: NTS	
File No.:	Page No.:





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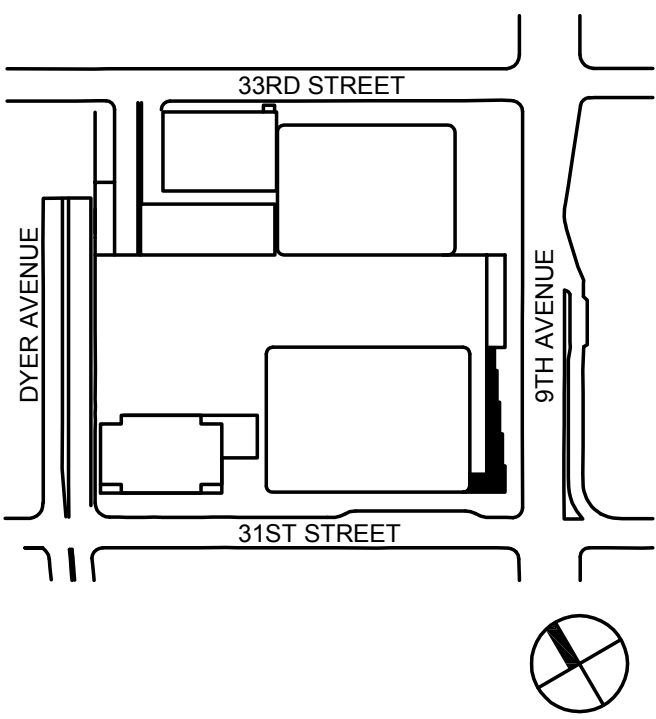
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Key Plan:



Seal & Signature:



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No. Date Description  
Sheet Name:

MECHANICAL  
DETAIL  
SHEET  
NO. 7

Project No:

14830.A.000

Date:

20 JUN 2014

Scale:

NTS

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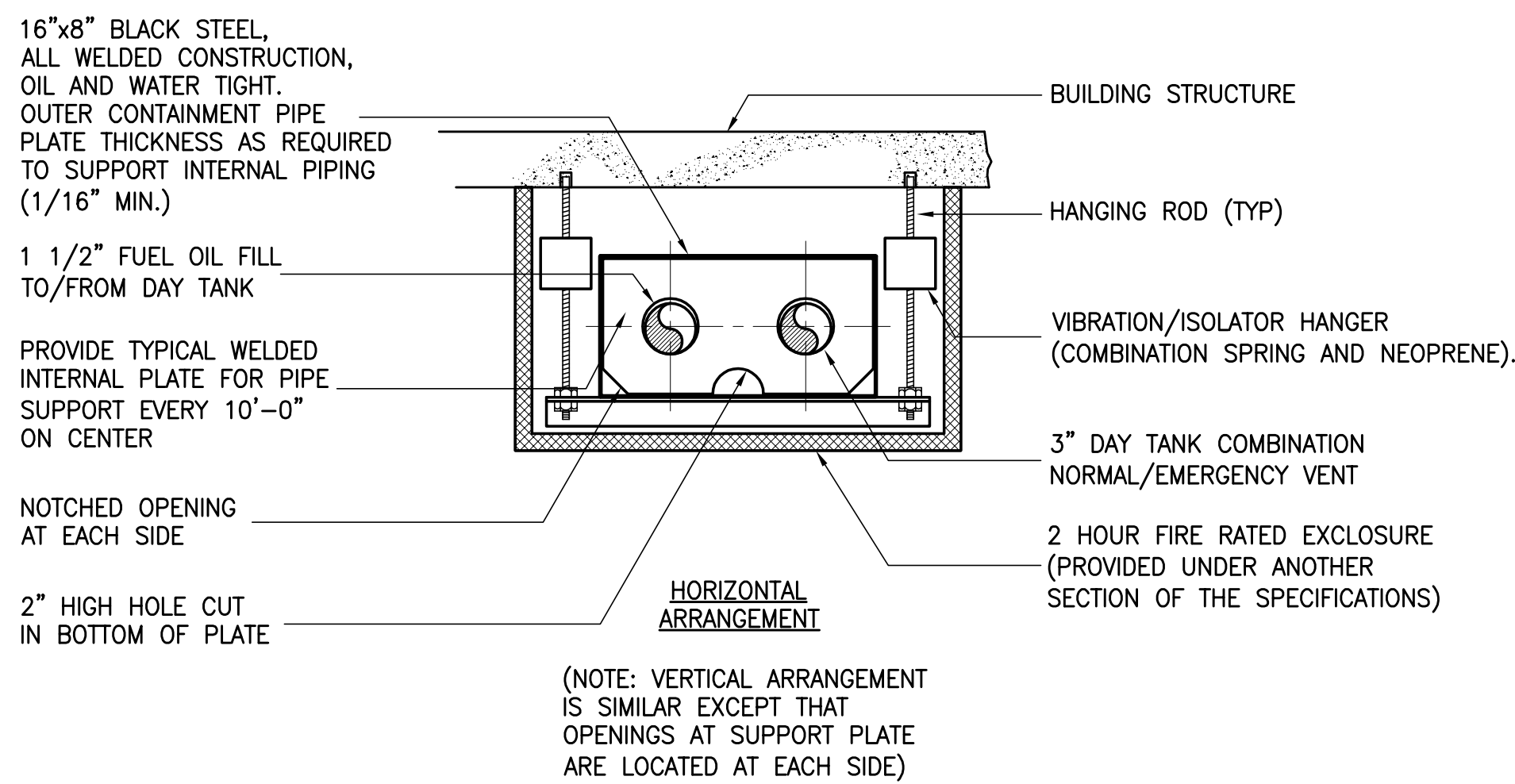
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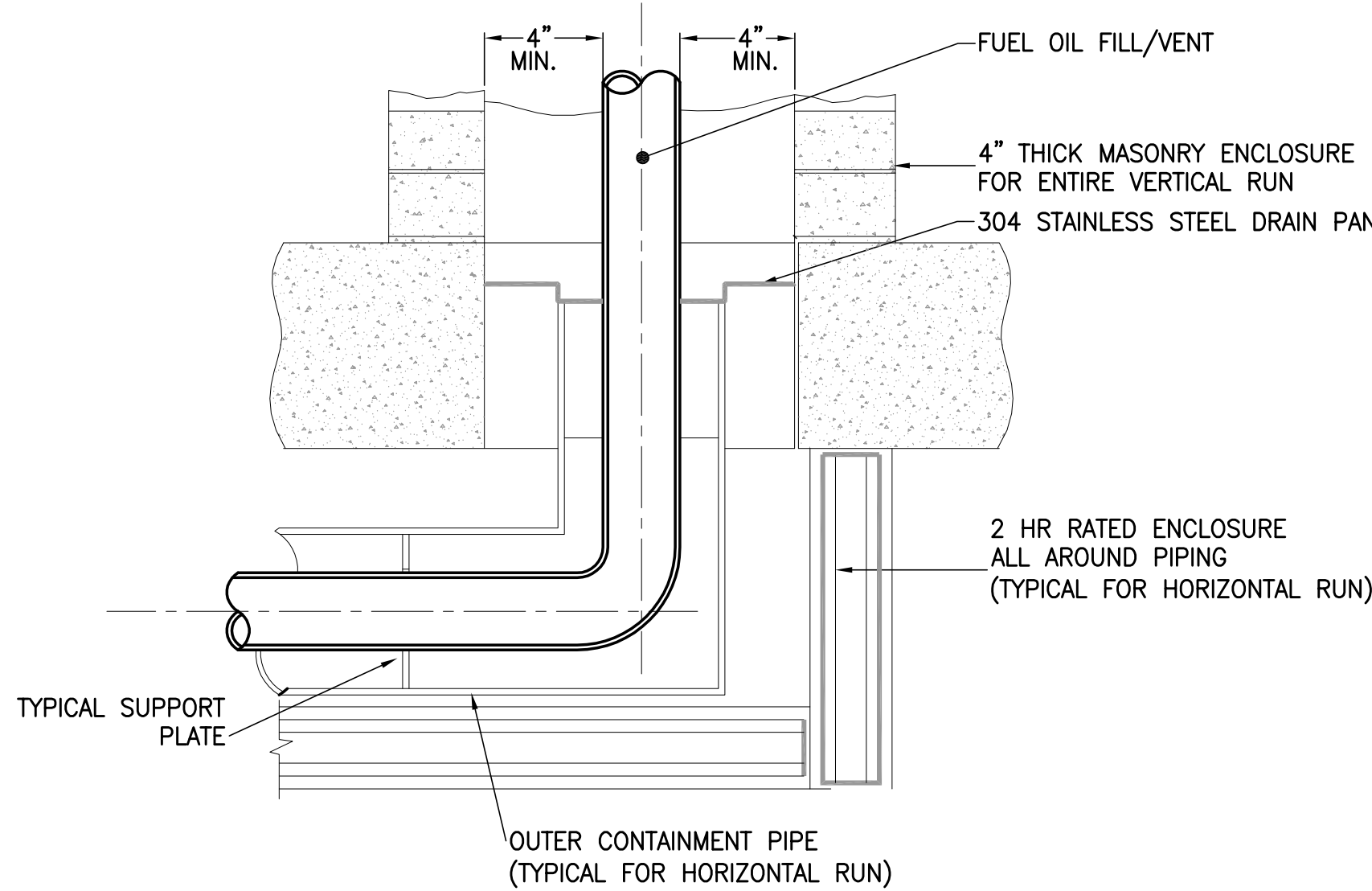
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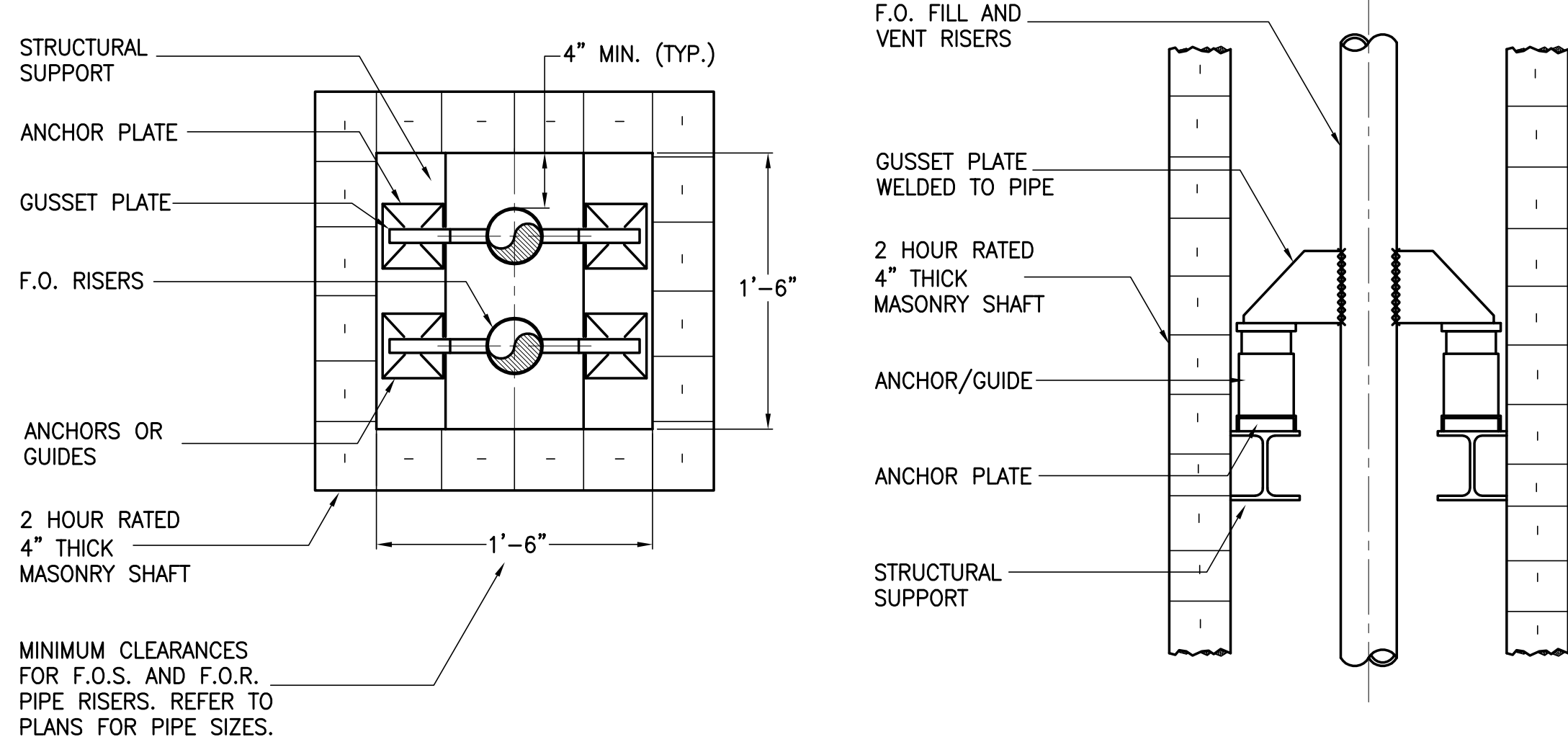
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DETAIL OF CONTAINMENT PIPE AND PIPE SUPPRT PLATE



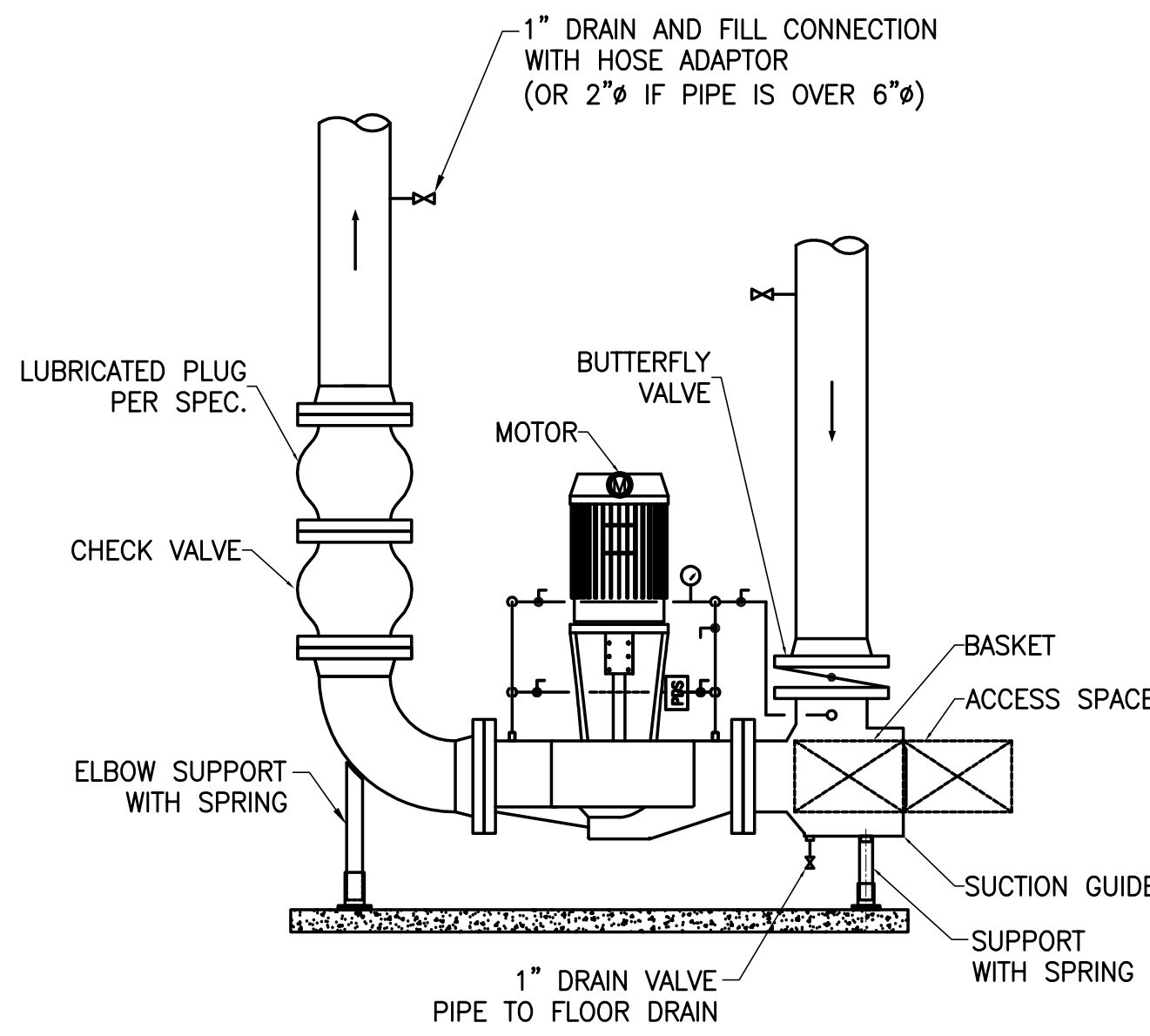
DETAIL OF BOTTOM OF FUEL OIL PIPE SHAFT



NOTES:

1. ALL FUEL OIL PIPING FROM THE FUEL OIL PUMP ROOM TO THE UNDERSIDE OF THE MASONRY FUEL OIL SHAFTS AND FROM THEIR RESPECTIVE MASONRY SHAFTS TO THE GENERATOR EQUIPMENT ROOM SHALL BE PIPE-WITHIN-A-PIPE CONSTRUCTION. IN ADDITION, THE PIPING SHALL BE ENCLOSED WITHIN A TWO (2) HOUR RATED ENCLOSURE (AS DETAILED ABOVE).
2. REFER TO ARCHITECTURAL DETAILS FOR DIMENSIONS.

VERTICAL FUEL OIL PIPE ENCLOSURE DETAILS



VERTICAL PUMP DETAIL  
PROVIDE SPRING ON ELBOW SUPPORTS



22 00 - Plumbing Sheet Matrix - DOB FILING			12 JUL 2013	15 NOV 2013	20 DEC 2013	20 JUN 2014
DOB Sheet Number	Sheet Number	Sheet Name	50% DD	DD PROGRESS	FOUNDATION PERMIT	FOUNDATION PERMIT
000 - Cover Sheet, General Notes, Legends						
P-001.00	P-001	PLUMBING DRAWING INDEX	•	•	•	•
P-002.00	P-002	PLUMBING ABBREVIATIONS AND SYMBOLS LIST	•	•	•	•
100 - Floor Plans						
P-093.00	P-098B1-A	B1 PIT PART FLOOR PLAN - PART A		•	•	•
P-094.00	P-099B1-A	PLUMBING CELLAR B1 FLOOR PLAN - PART A	•	•	•	•
P-095.00	P-099B1-B	PLUMBING CELLAR B1 FLOOR PLAN - PART B		•	•	•
P-096.00	P-099B1-C	PLUMBING CELLAR B1 FLOOR PLAN - PART C		•	•	•
P-097.00	P-100B-A	PLUMBING CELLAR B FLOOR PLAN - PART A	•	•	•	•
P-098.00	P-100B-B	PLUMBING CELLAR B FLOOR PLAN - PART B		•	•	•
P-099.00	P-100B-C	PLUMBING CELLAR B FLOOR PLAN - PART C		•	•	•
P-100.00	P-101-A	PLUMBING GROUND FLOOR PLAN - PART A	•	•	•	•
P-101.00	P-101-B	PLUMBING GROUND FLOOR PLAN - PART B		•	•	•
P-102.00	P-102	PLUMBING LEVEL 2 FLOOR PLAN - RETAIL	•	•	•	•
P-103.00	P-103	PLUMBING LEVEL 3 FLOOR PLAN - STAIR TRANSFER	•	•	•	•
P-104.00	P-104	PLUMBING LEVEL 4 FLOOR PLAN - MECHANICAL	•	•	•	•
P-105.00	P-105	PLUMBING LEVEL 5 FLOOR PLAN - MECHANICAL MEZZANINE	•	•	•	•
P-106.00	P-106	PLUMBING LEVEL 6-15 FLOOR PLAN - TYPICAL LOW-RISE		•	•	•
P-116.00	P-116	PLUMBING LEVEL 16 FLOOR PLAN - TYPICAL LOW-RISE		•	•	•
P-117.00	P-117	PLUMBING LEVEL 17 FLOOR PLAN - LOW-RISE		•	•	•
P-118.00	P-118	PLUMBING LEVEL 18 FLOOR PLAN - LOW-RISE OVERRUN		•	•	•
P-119.00	P-119	PLUMBING LEVEL 19-20 FLOOR PLAN - LOW-RISE EMR	•	•	•	•
P-121.00	P-121	PLUMBING LEVEL 21-27 FLOOR PLAN - TYPICAL LOW-RISE		•	•	•
P-128.00	P-128	PLUMBING LEVEL 28 FLOOR PLAN - LOW-RISE & MID-RISE		•	•	•
P-129.00	P-129	PLUMBING LEVEL 29 FLOOR PLAN - MID-RISE OVERRUN	•	•	•	•
P-130.00	P-130	PLUMBING LEVEL 30 FLOOR PLAN - MID-RISE EMR	•	•	•	•
P-131.00	P-131	PLUMBING LEVEL 31 FLOOR PLAN - MID-RISE PUMP ROOM	•	•	•	•
P-132.00	P-132	PLUMBING LEVEL 32 FLOOR PLAN - MID-RISE WATER TANK		•	•	•
P-133.00	P-133	PLUMBING LEVEL 33-35 FLOOR PLAN - TYPICAL MID-RISE		•	•	•
P-136.00	P-136	PLUMBING LEVEL 36 FLOOR PLAN - TYPICAL MID-RISE		•	•	•
P-137.00	P-137	PLUMBING LEVEL 37-38 FLOOR PLAN - TYPICAL MID-RISE		•	•	•
P-139.00	P-139	PLUMBING LEVEL 39 FLOOR PLAN - MID-RISE		•	•	•
P-140.00	P-140	PLUMBING LEVEL 40-41 FLOOR PLAN - MID-RISE OVERRUN		•	•	•
P-142.00	P-142	PLUMBING LEVEL 42 FLOOR PLAN - MID-RISE EMR		•	•	•
P-143.00	P-143	PLUMBING LEVEL 43-46 FLOOR PLAN - TYPICAL MID-RISE		•	•	•
P-147.00	P-147	PLUMBING LEVEL 47-48 FLOOR PLAN - TYPICAL MID-RISE		•	•	•
P-149.00	P-149	PLUMBING LEVEL 49 FLOOR PLAN - MID-RISE & HIGH-RISE		•	•	•
P-150.00	P-150	PLUMBING LEVEL 50-51 FLOOR PLAN - HIGH-RISE OVERRUN	•	•	•	•
P-152.00	P-152	PLUMBING LEVEL 52 FLOOR PLAN - HIGH-RISE EMR	•	•	•	•
P-153.00	P-153	PLUMBING LEVEL 53 FLOOR PLAN - HIGH-RISE PUMP ROOM	•	•	•	•
P-154.00	P-154	PLUMBING LEVEL 54 FLOOR PLAN - HIGH-RISE WATER TANK		•	•	•
P-155.00	P-155	PLUMBING LEVEL 55 FLOOR PLAN - HIGH-RISE		•	•	•
P-156.00	P-156	PLUMBING LEVEL 56 FLOOR PLAN - HIGH-RISE		•	•	•
P-157.00	P-157	PLUMBING LEVEL 57-58 FLOOR PLAN - TYPICAL HIGH-RISE		•	•	•
P-159.00	P-159	PLUMBING LEVEL 59 FLOOR PLAN - HIGH-RISE		•	•	•
P-160.00	P-160	PLUMBING LEVEL 60-61 FLOOR PLAN - HIGH-RISE OVERRUN		•	•	•
P-162.00	P-162	PLUMBING LEVEL 62 FLOOR PLAN - HIGH-RISE EMR		•	•	•
P-163.00	P-163	PLUMBING LEVEL 63 FLOOR PLAN - HIGH-RISE		•	•	•
P-164.00	P-164	PLUMBING LEVEL 64-66 FLOOR PLAN - TYPICAL HIGH-RISE	•	•	•	•
P-167.00	P-167	PLUMBING LEVEL 67 FLOOR PLAN - TYPICAL HIGH-RISE		•	•	•
P-168.00	P-168	PLUMBING LEVEL 68 FLOOR PLAN - MECHANICAL		•	•	•
P-169.00	P-169	PLUMBING LEVEL 69 FLOOR PLAN - MECHANICAL MEZZANINE		•	•	•
P-170.00	P-170	PLUMBING ROOF PLAN - MECHANICAL PENTHOUSE		•	•	•
P-171.00	P-171	PLUMBING ROOF PLAN - MECHANICAL PENTHOUSE ROOF		•	•	•
P-172.00	P-172	PLUMBING ROOF PLAN		•	•	•
400 - Risers & One Line Diagrams						
P-400.00	P-400	PLUMBING DOMESTIC WATER RISER DIAGRAM	•	•	•	•
P-401.00	P-401	PLUMBING SANITARY RISER DIAGRAM - SHEET 1	•	•	•	•
P-402.00	P-402	PLUMBING SANITARY RISER DIAGRAM - SHEET 2		•	•	•
P-403.00	P-403	PLUMBING STORM & NATURAL GAS RISER DIAGRAMS	•	•	•	•
500 - Schedules						
P-500.00	P-500	PLUMBING SCHEDULE SHEET	•	•	•	•
600 - Details						
P-600.00	P-600	PLUMBING DETAILS - SHEET 1	•	•	•	•
P-601.00	P-601	PLUMBING DETAILS - SHEET 2	•	•	•	•

BUILDING DEPARTMENT NOTE:  
THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

SHEET NOTES



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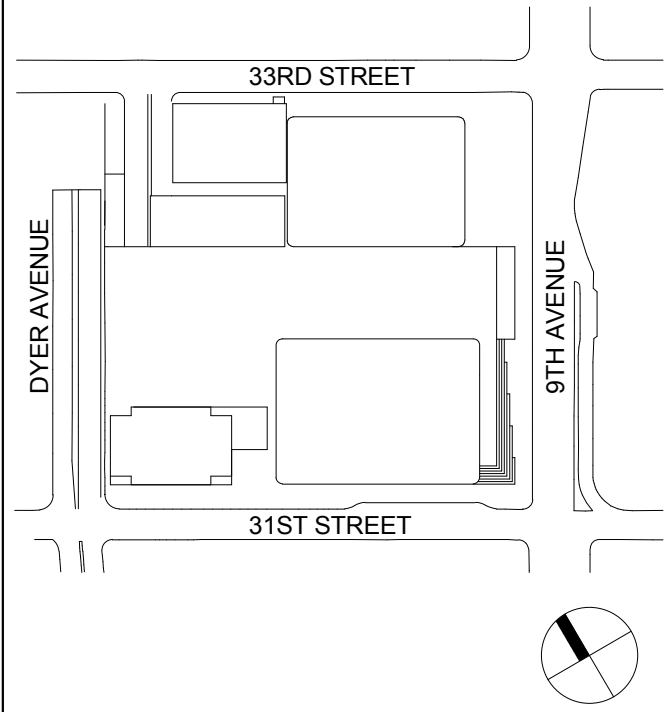
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Project No.: 14830-A-000	B-SCAN Sheet No.: <b>P-001.00</b>
Date: 20 JUN 2014	Sheet No.: P-001
Scale:	
File No.: P-001	Page No.: 1 OF 6

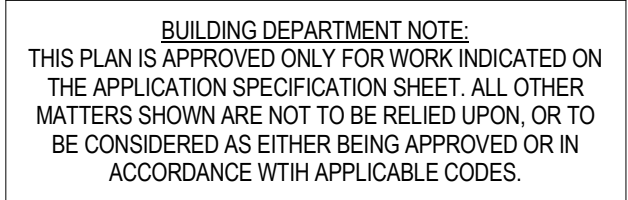












P-00001-A





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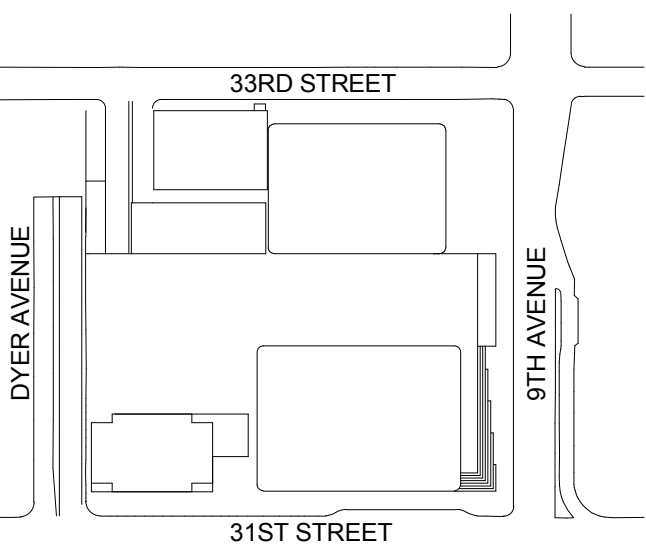
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2 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
1 19 NOV 2013 ISSUED FOR CD PROGRESS PRICING

No. Date Description

Sheet Name:

**PLUMBING  
CELLAR B1  
FLOOR PLAN -  
PART B**

Project No.:  
14830-A-000

Date:  
20 JUN 2014

Scale:  
1/8" = 1'-0"

File No.:  
P-095B1-B

B-SCAN Sheet No.:

**P-095.00**

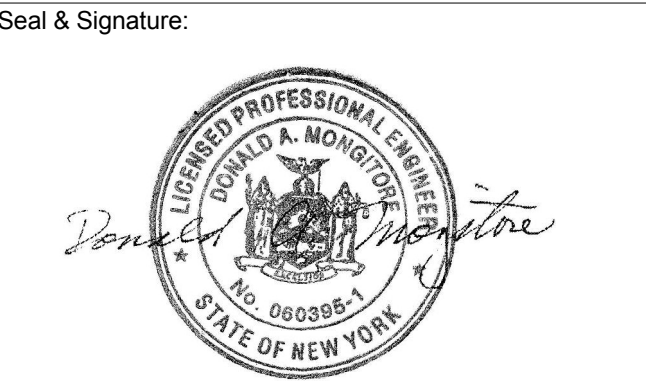
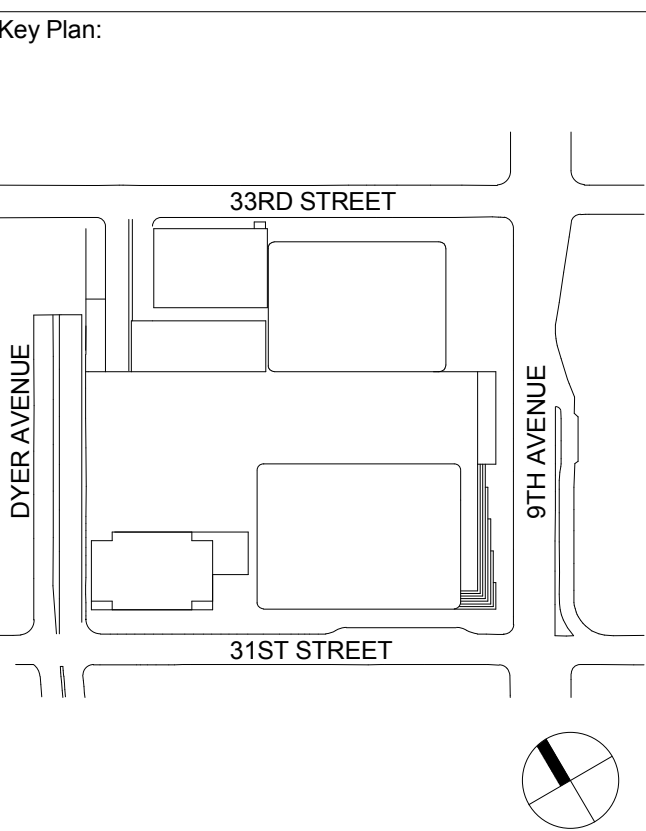
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P-095B1-B

Page No.:  
7 OF 6

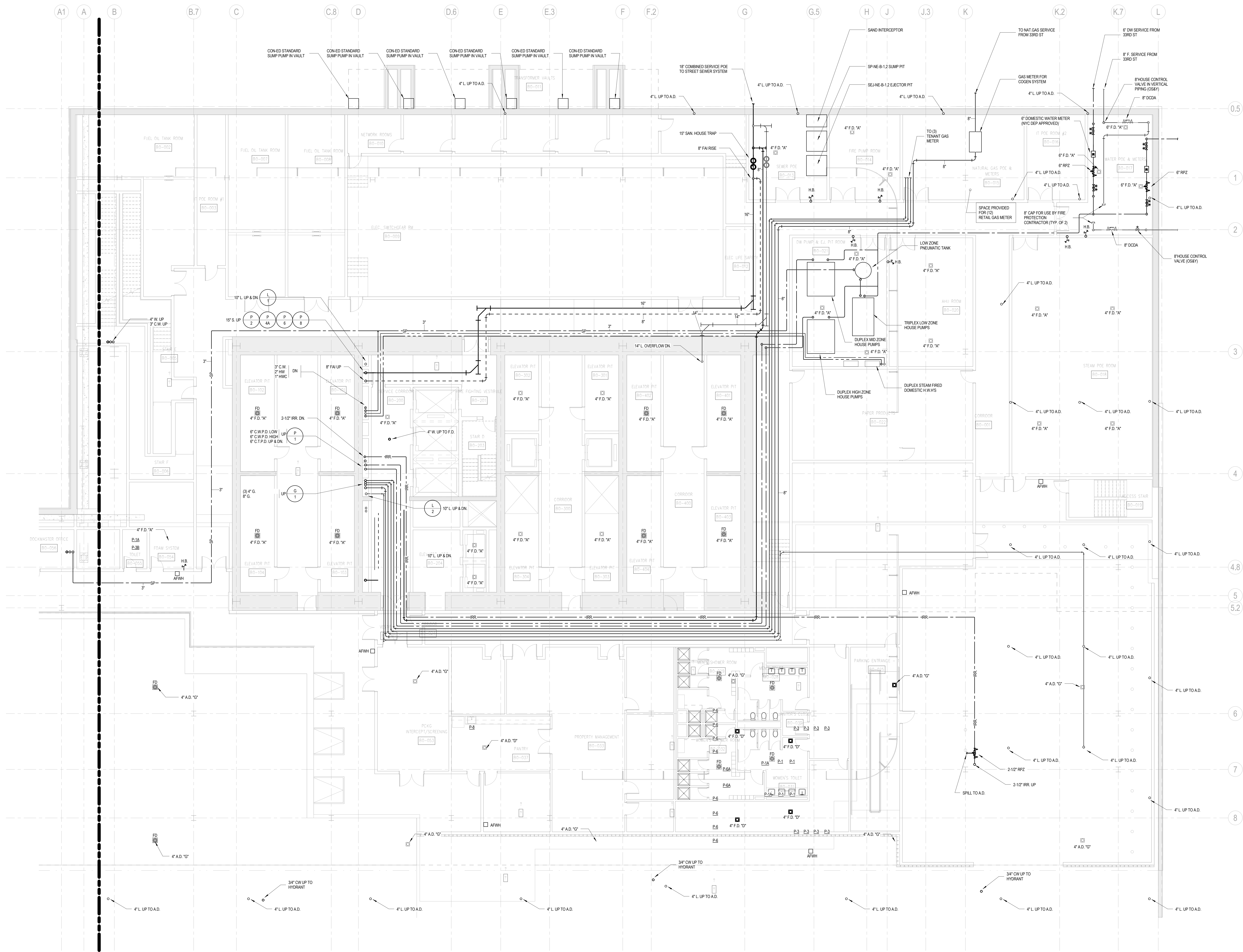
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3	15 NOV 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

PLUMBING  
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PLAN - PART A

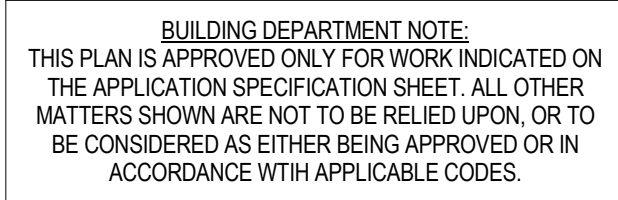


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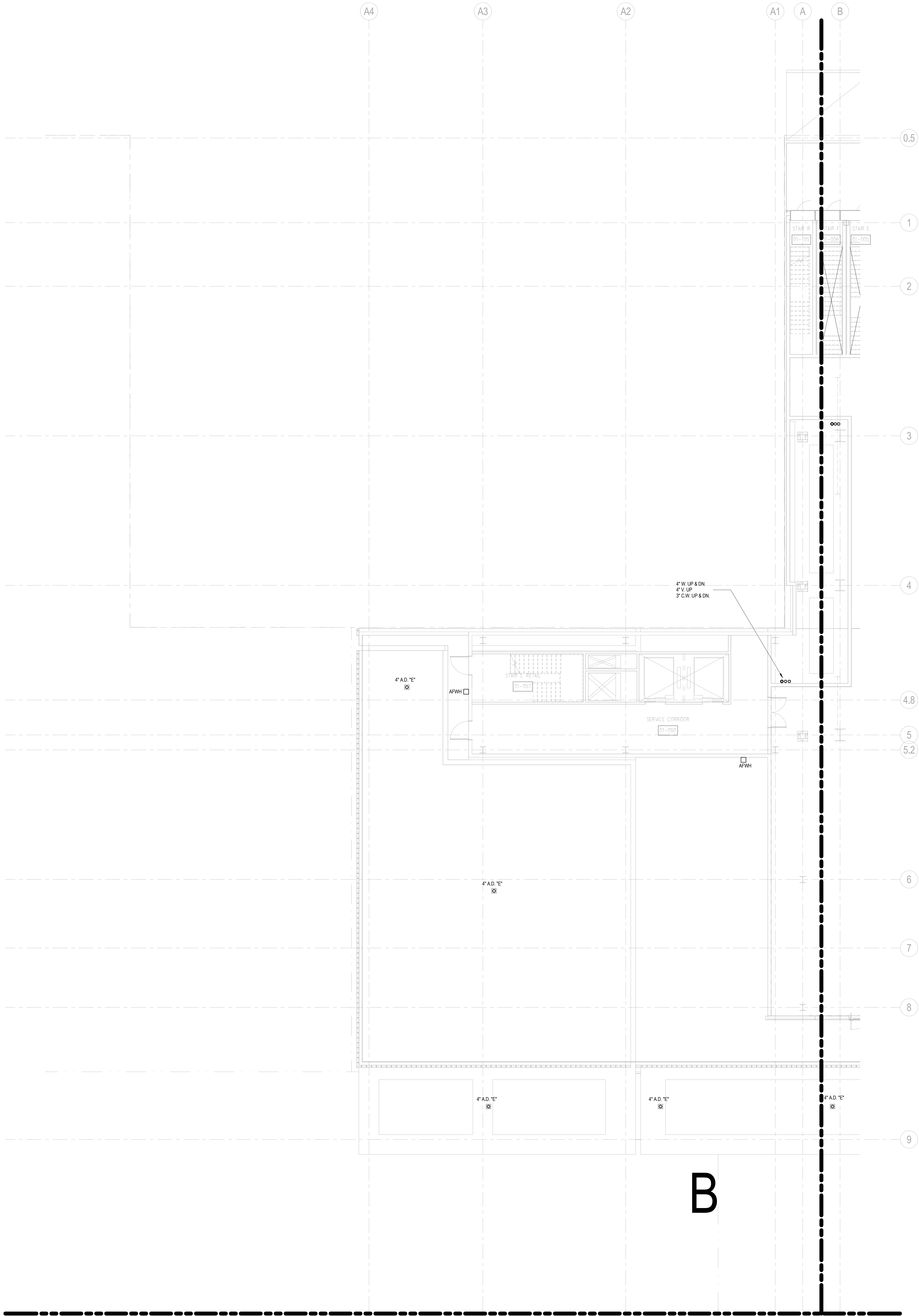




File NO.. P-101-A	Page NO.. 12 OF 6
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## SHEET NOTES



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001  
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Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

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Cerami & Associates  
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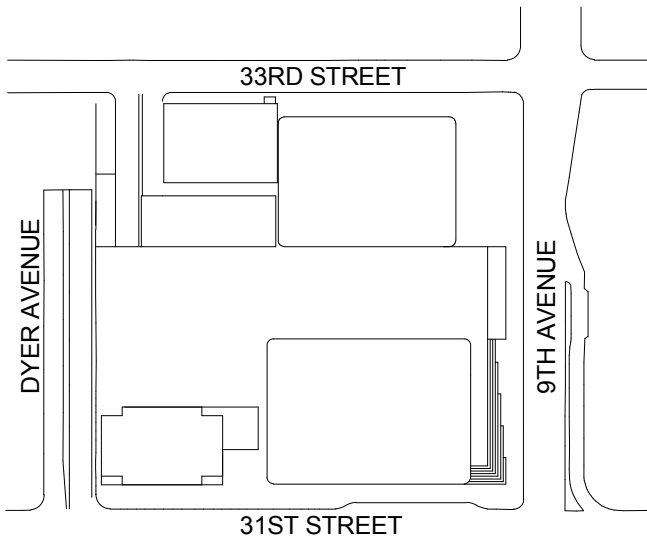
Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant  
Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

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Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1S8

Key Plan:



Seal & Signature:



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2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	19 NOV 2013	ISSUED FOR 60% PROGRESS PRICING

No. Date Description

Sheet Name:

PLUMBING  
GROUND FLOOR  
PLAN - PART B

Project No.: 14830-A-000	B-SCAN Sheet No.: <b>P-101.00</b>
Date: 20 JUN 2014	Sheet No.: P-101-B
Scale: 1/8" = 1'-0"	Page No.: 13 OF 6
File No.: P-101-B	



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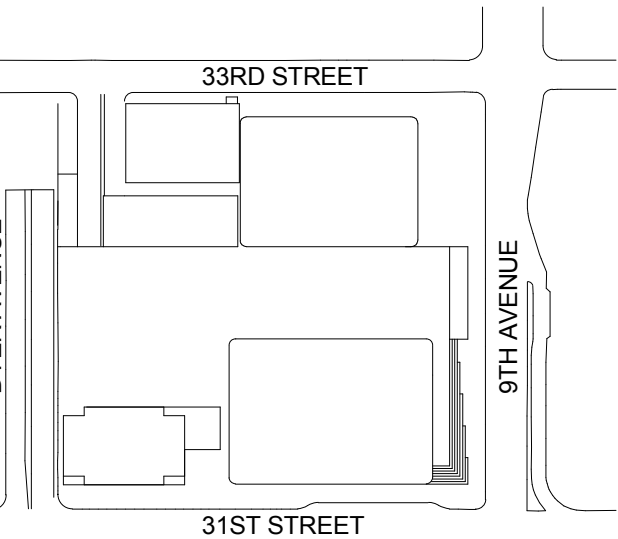
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Key Plan:



Seal & Signature:



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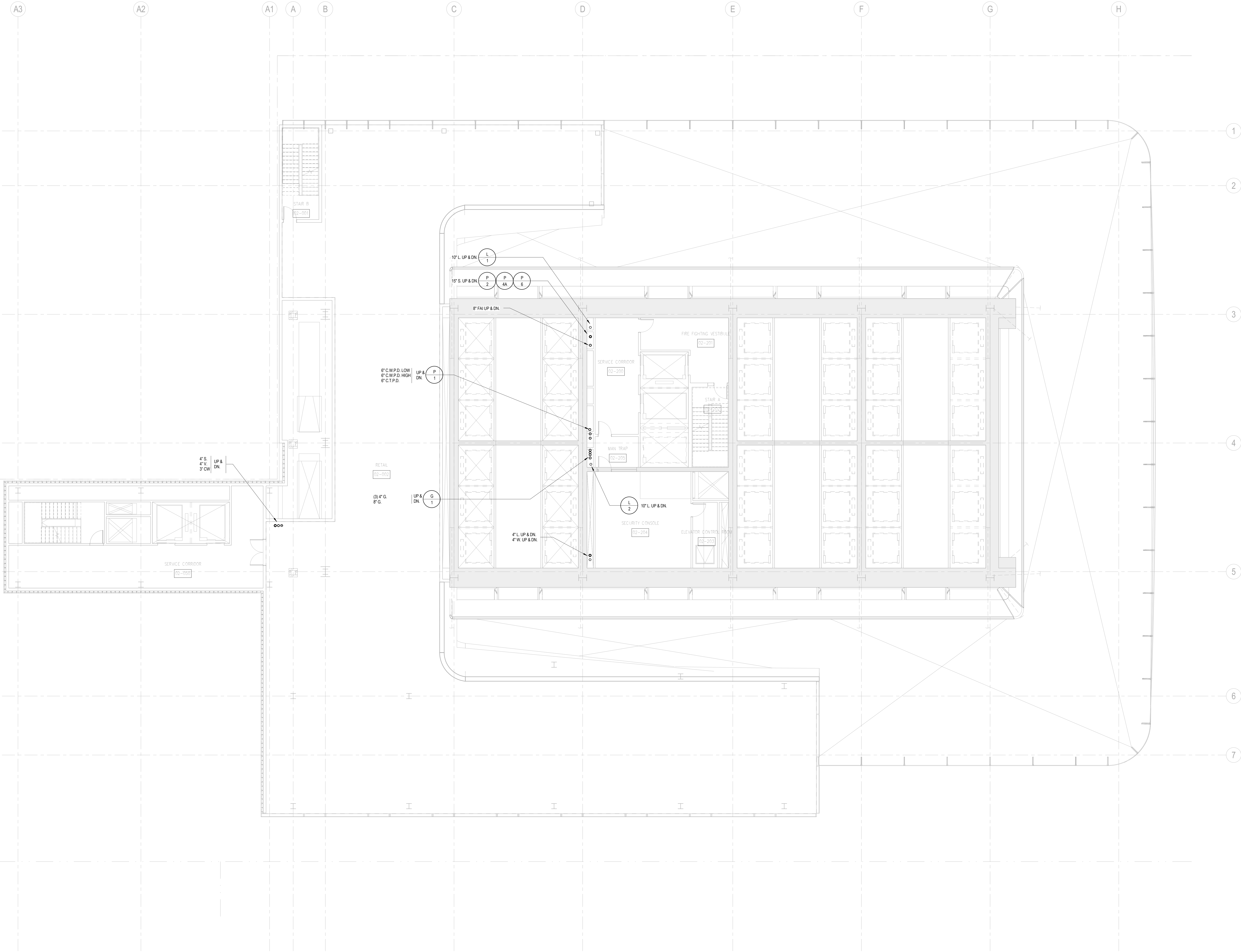
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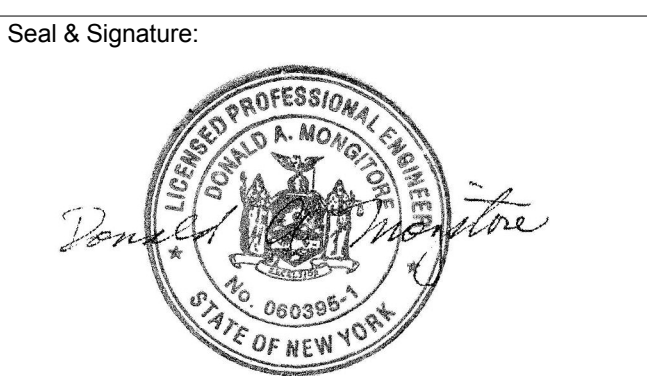
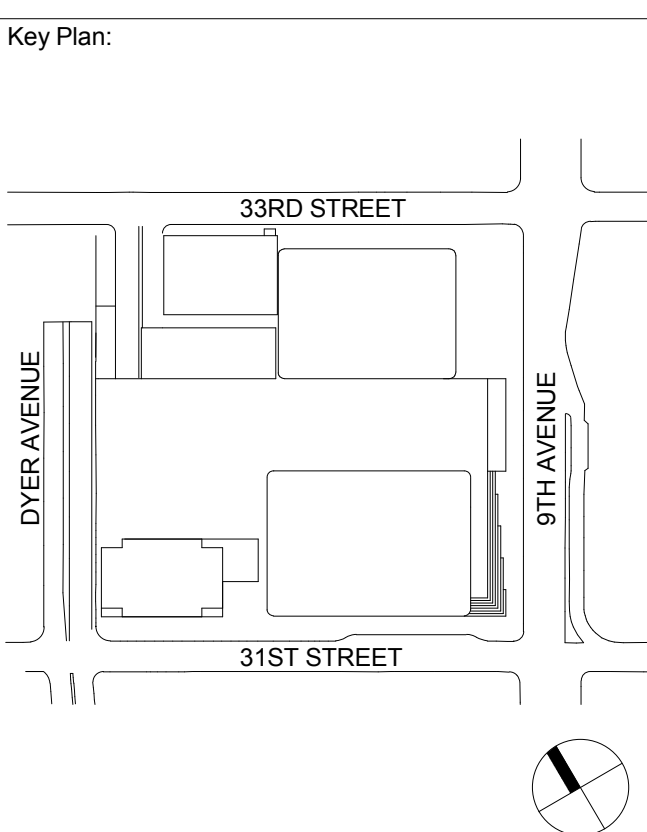
**PLUMBING  
LEVEL 2 FLOOR  
PLAN - RETAIL**

Project No.: 14830-A-000	B-SCAN Sheet No.: <b>P-102.00</b>
Date: 20 JUN 2014	Sheet No.: P-102
Scale: 1/8" = 1'-0"	Page No.: 14 OF 6
File No.: P-102	

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No. Date Description

Sheet Name:

PLUMBING  
LEVEL 3 FLOOR  
PLAN - STAIR  
TRANSFER

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Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

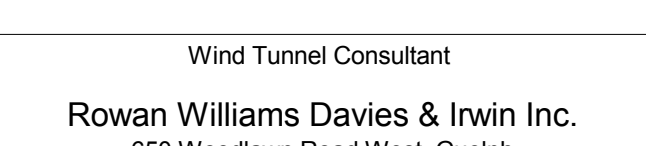
Vibration Consultant  
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Key Plan:



Seal & Signature:



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No. Date Description

Sheet Name:

Project No.: 14830-A-000

Date: 20 JUN 2014

Scale: 1/8" = 1'-0"

File No.: P-104

B-SCAN Sheet No.: P-104.00

Sheet No.: P-104

Page No.: 16 OF 6

PLUMBING  
LEVEL 4 FLOOR  
PLAN -  
MECHANICAL

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65 Broadway, Suite 401, New York, NY 10006

Code Consultant

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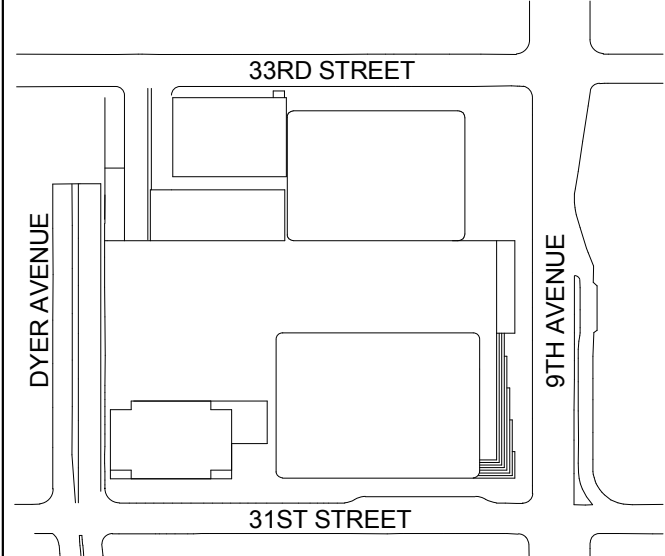
Facade Maintenance Consultant

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Wind Tunnel Consultant

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650 Woodlawn Road West, Guelph  
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No.	Date	Description

Sheet Name:

**PLUMBING  
LEVEL 5 FLOOR  
PLAN -  
MECHANICAL  
MEZZANINE**

Project No.: 14830-A-000

Date: 20 JUN 2014

Scale: 1/8" = 1'-0"

File No: P-105

Page No: 17 OF 6

B-SCAN Sheet No.: P-105.00

Sheet No.: P-105

Page No: 17 OF 6

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SHEET NOTES



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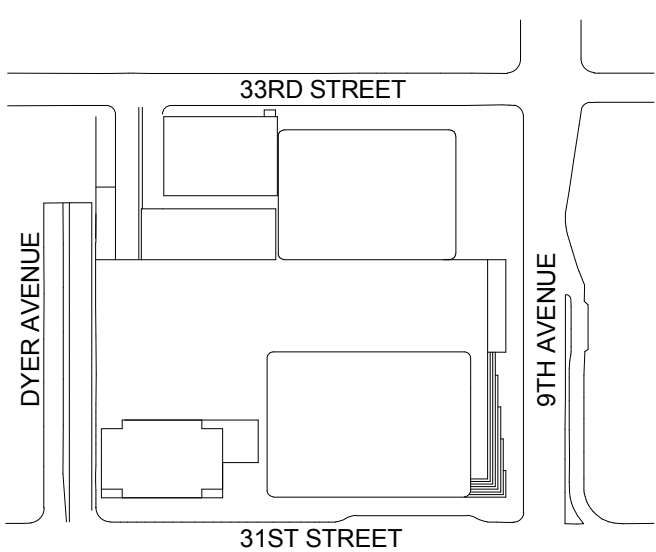
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Ontario, Canada N1K 1B8

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1	19 NOV 2013	ISSUED FOR 60 PERCENT PRICING

No. Date Description

Sheet Name:

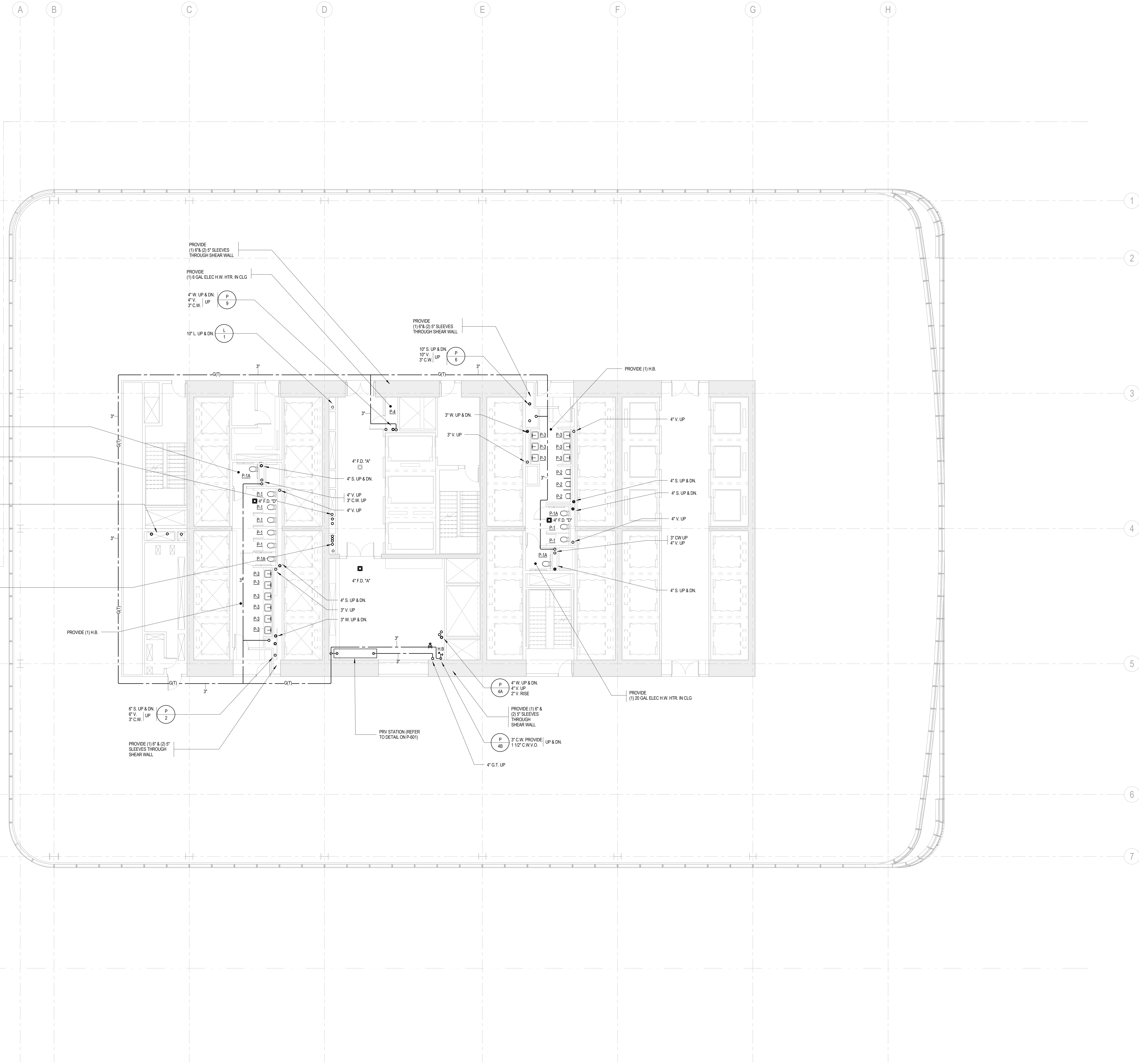
**PLUMBING  
LEVEL 16 FLOOR  
PLAN - TYPICAL  
LOW-RISE**

Project No.: 14430-A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: P-116

Page No.: 19 OF 6

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NORTH TOWER  
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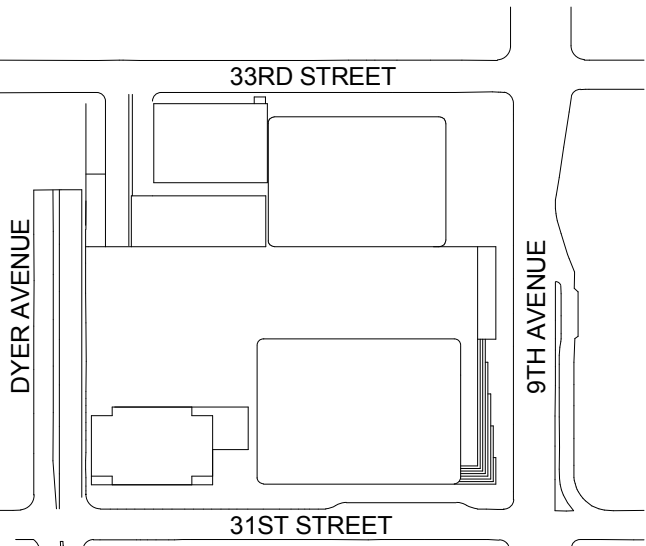
Facade Maintenance Consultant

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Key Plan:



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1	19 NOV 2013	ISSUED FOR 60 PROGRESS PRICINGS

No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 17 FLOOR  
PLAN - LOW-RISE**

Project No.:

14830-A-000

Date:

20 JUN 2014

Scale:

1/8" = 1'-0"

File No.:

P-117

B-SCAN Sheet No.:

**P-117.00**

Sheet No.:

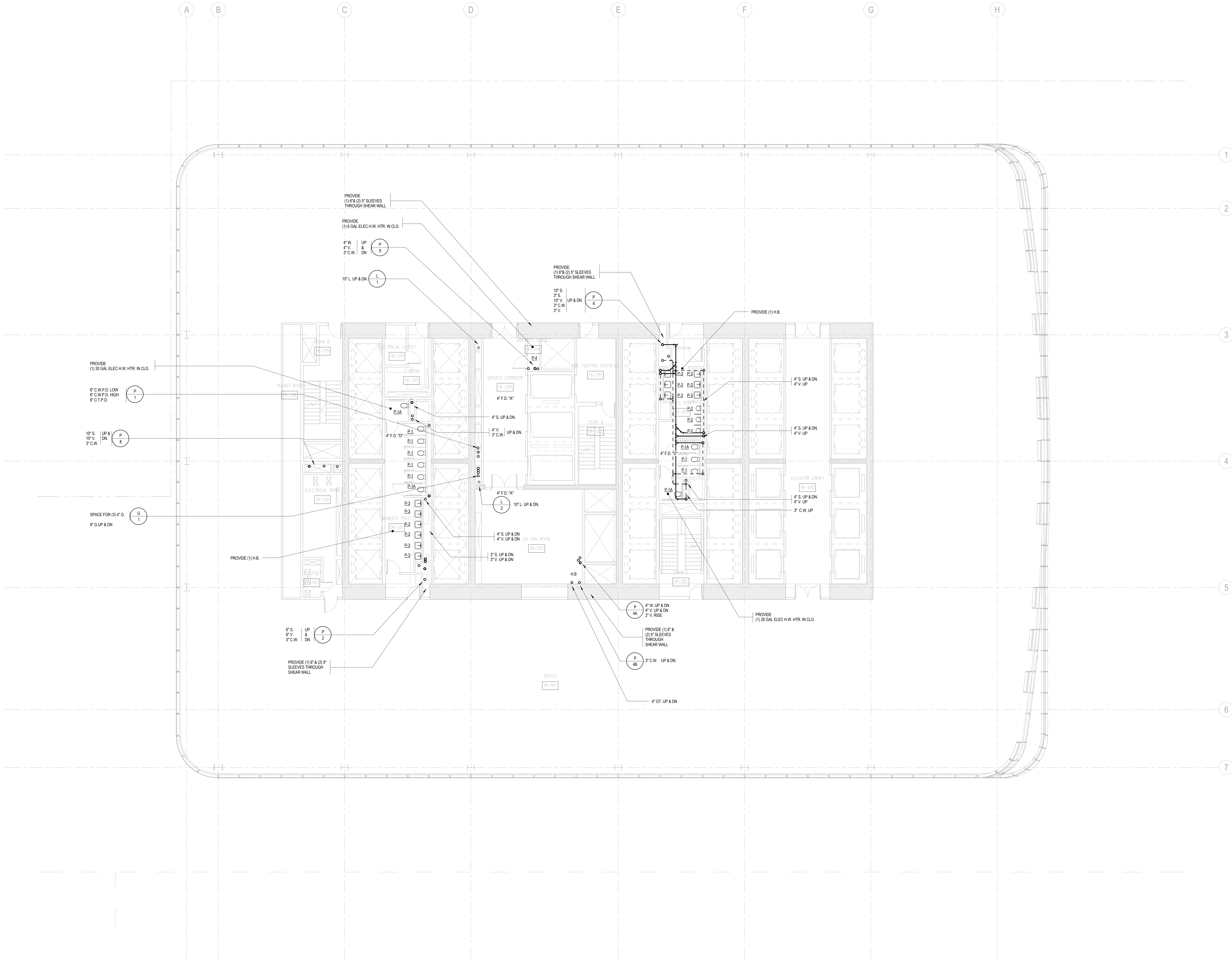
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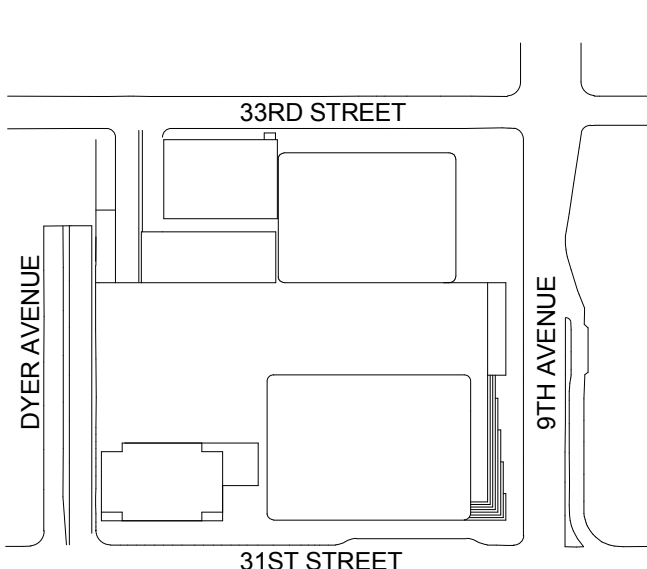
Facade Maintenance Consultant

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No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 19-20  
FLOOR PLAN -  
LOW-RISE EMR**

Project No.:  
14830-A-000

Date:  
20 JUN 2014

Scale:  
1/8" = 1'-0"

File No.:  
P-119

Page No.:  
22 OF 6

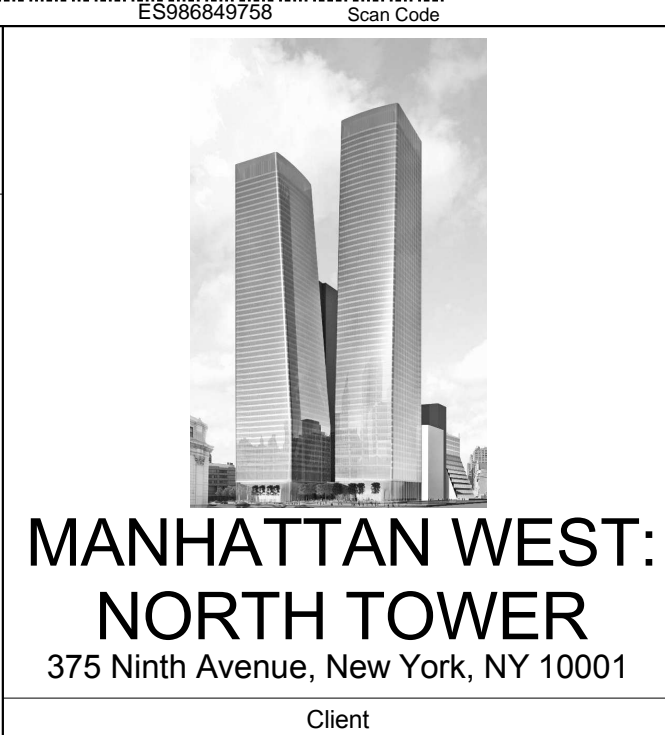
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**P-119.00**

Sheet No.:  
**P-119**

Page No.:  
22 OF 6

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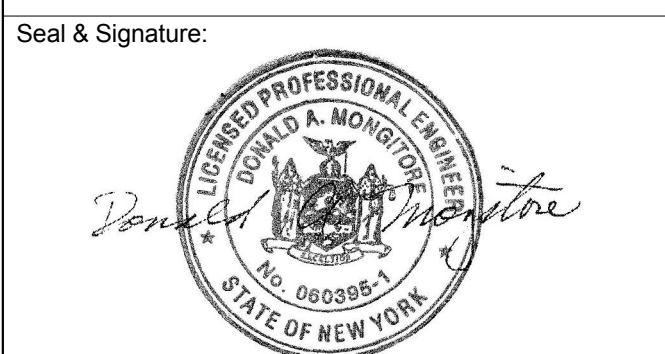
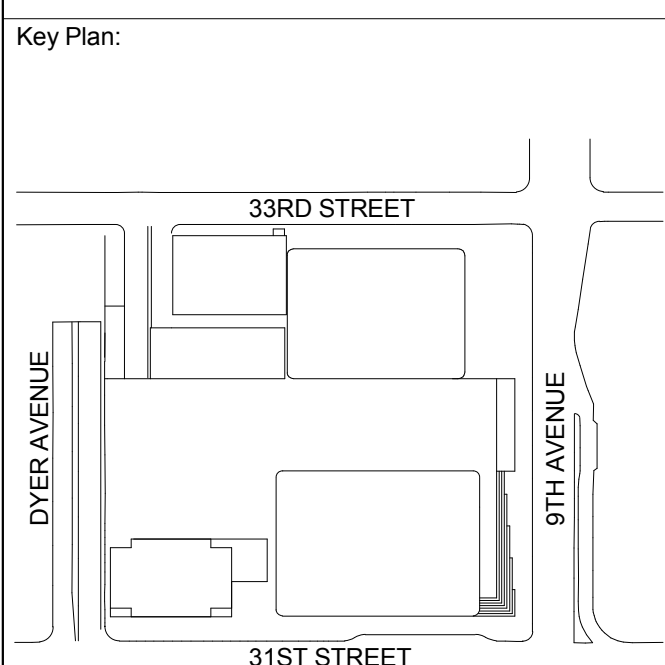
Acoustical Consultant  
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Wilson, Uhrig & Associates, Inc.  
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Wind Tunnel Consultant  
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1	19 NOV 2013	ISSUED FOR CD PROGRESS PRICING

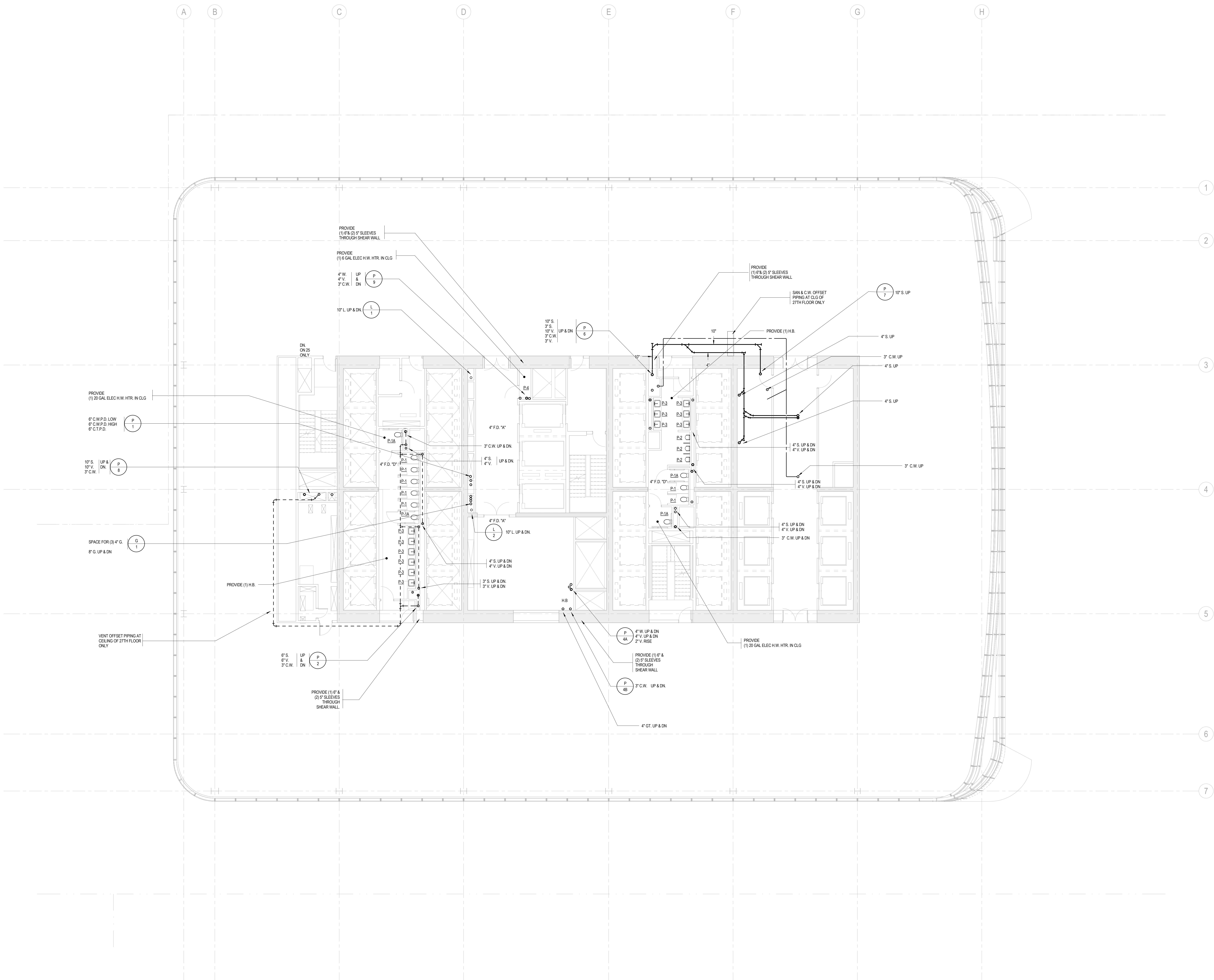
No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 21-27  
FLOOR PLAN -  
TYPICAL  
LOW-RISE**

Project No.: 14830-A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No: P-121  
B-SCAN Sheet No.:  
**P-121.00**  
Sheet No.: P-121  
Page No.: 23 OF 6

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Weidinger Associates, Inc.  
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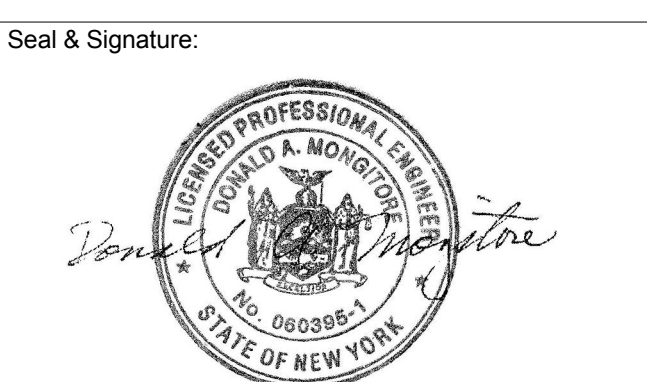
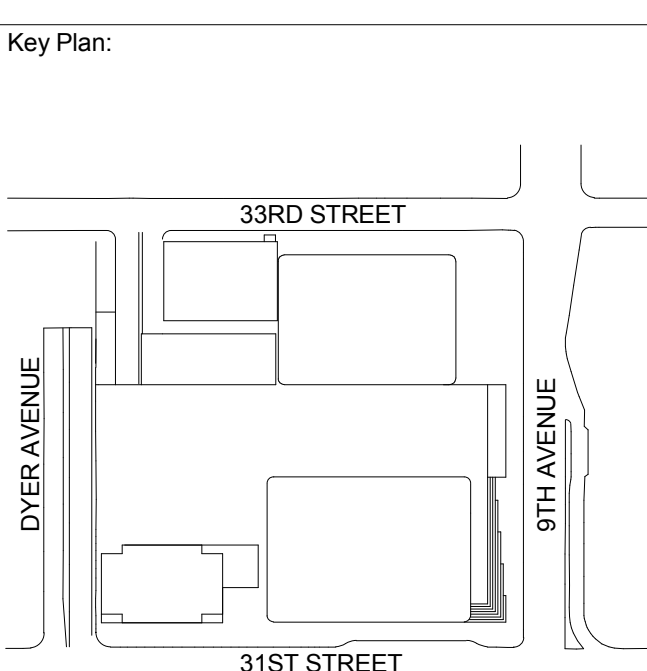
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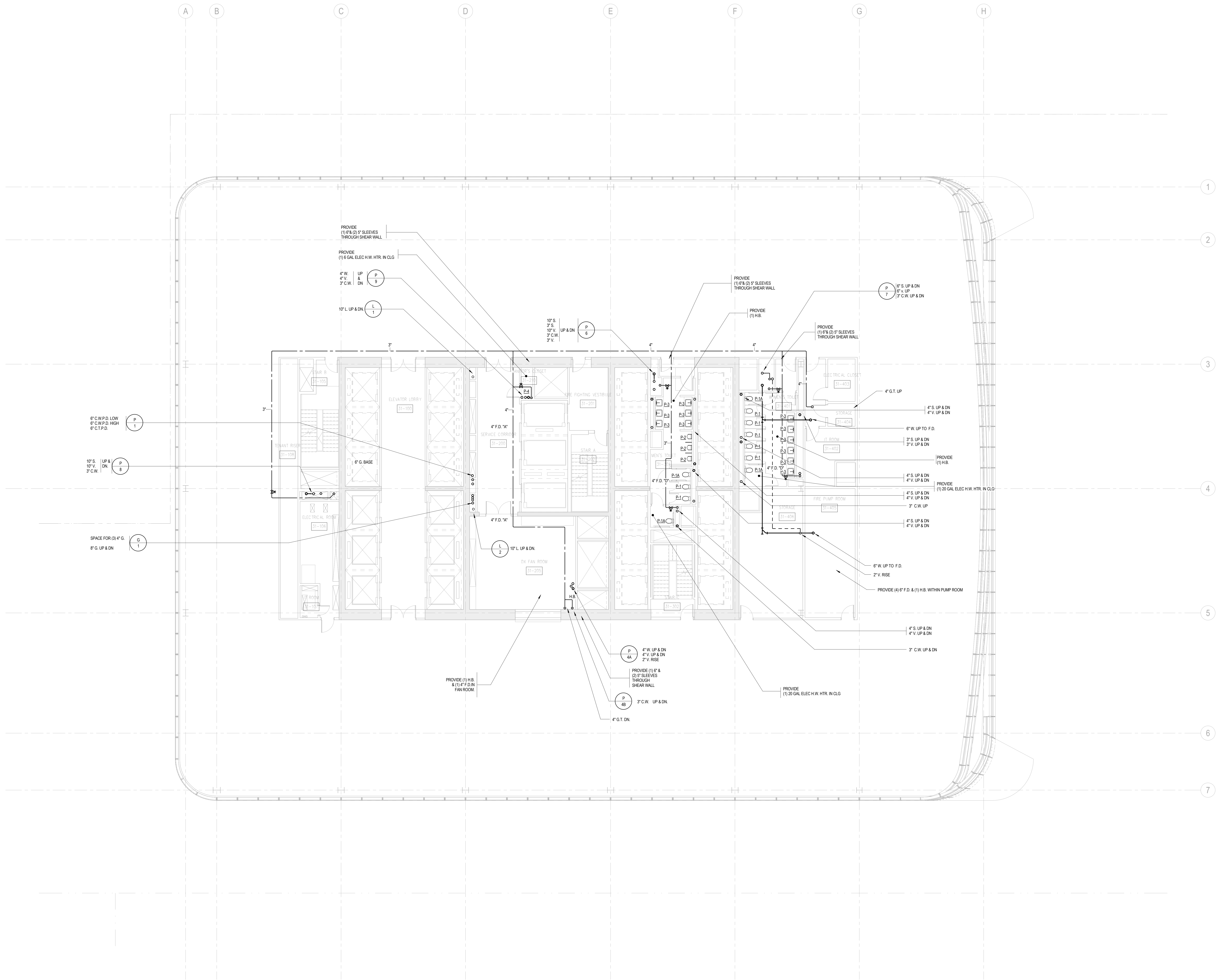
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1	19 MAR 2013	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

**PLUMBING  
LEVEL 31 FLOOR  
PLAN - MID-RISE  
PUMP ROOM**

Project No.: 14830-A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No.: P-131  
B-SCAN Sheet No.:  
**P-131.00**  
Sheet No.:  
P-131  
Page No.: 27 OF 6

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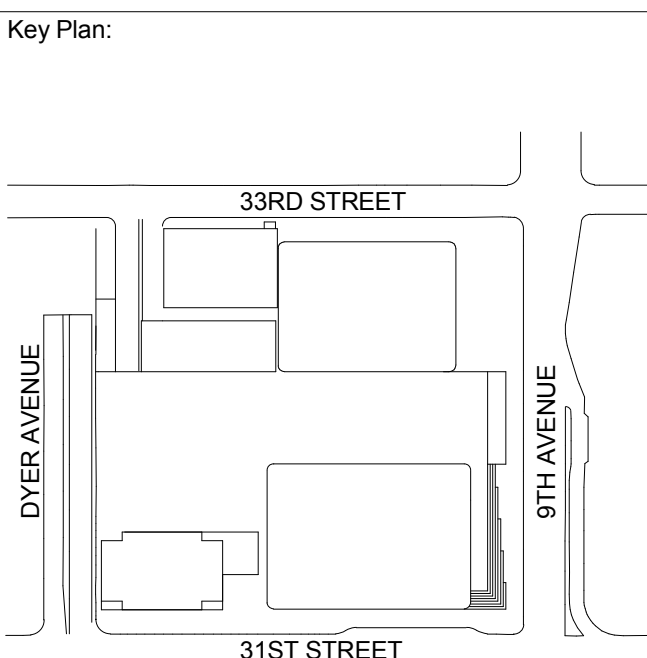
Code Consultants Professional Engineers PC  
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Facade Maintenance Consultant

Entek Engineering LLC  
186 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

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SHEET NOTES



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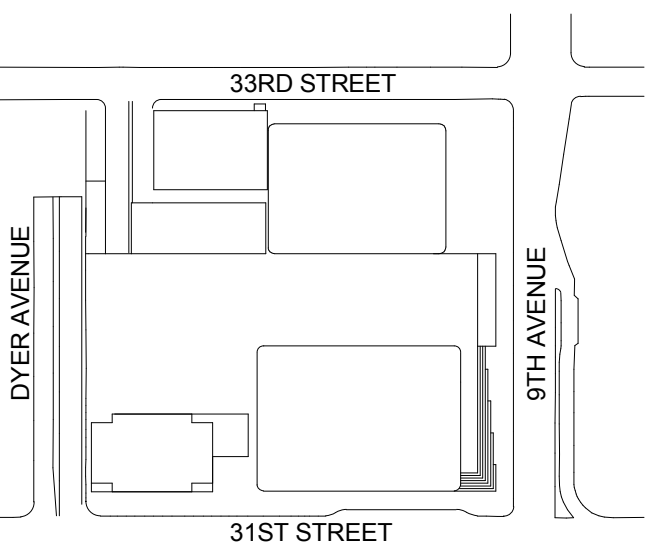
Facade Maintenance Consultant

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650 Woodlawn Road West, Guelph  
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Key Plan:



Seal & Signature:



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1	19 NOV 2013	ISSUED FOR 60 PROGRESS PRICINGS
No.	Date	Description
Sheet Name:		

**PLUMBING  
LEVEL 33-35  
FLOOR PLAN -  
TYPICAL  
MID-RISE**

Project No.:  
14830-A.000

Date:  
20 JUN 2014

Scale:  
1/8" = 1'-0"

File No.:  
P-133

B-SCAN Sheet No.:

**P-133.00**

Sheet No.:

P-133

Page No.:  
29 OF 6

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Key Plan:



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1	19 NOV 2013	ISSUED FOR CD PROGRESS PRICINGS

No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 36 FLOOR  
PLAN - TYPICAL  
MID-RISE**

Project No.:

14830-A-000

Date:

20 JUN 2014

Scale:

1/8" = 1'-0"

File No.:

P-136

B-SCAN Sheet No.:

**P-136.00**

Sheet No.:

P-136

Page No.:

30 OF 6

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65 Broadway, Suite 401, New York, NY 10006

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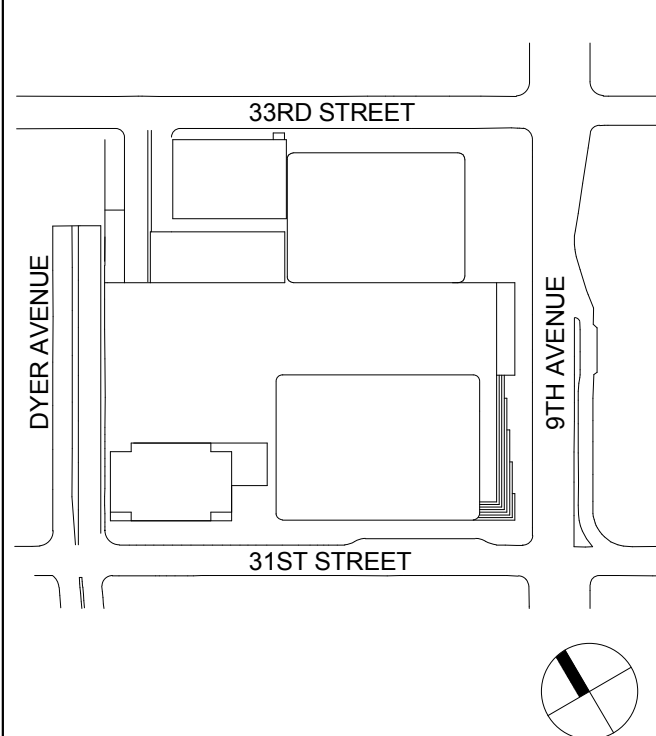
Facade Maintenance Consultant

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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



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1	19 NOV 2013	ISSUED FOR 60 PROGRESS PRICINGS

No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 37-38  
FLOOR PLAN -  
TYPICAL  
MID-RISE**

Project No.:  
14830-A-000

Date:  
20 JUN 2014

Scale:  
1/8" = 1'-0"

File No.:  
P-137

Page No.:  
31 OF 6

B-SCAN Sheet No.:  
**P-137.00**

Sheet No.:  
**P-137**

Page No.:  
31 OF 6

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250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
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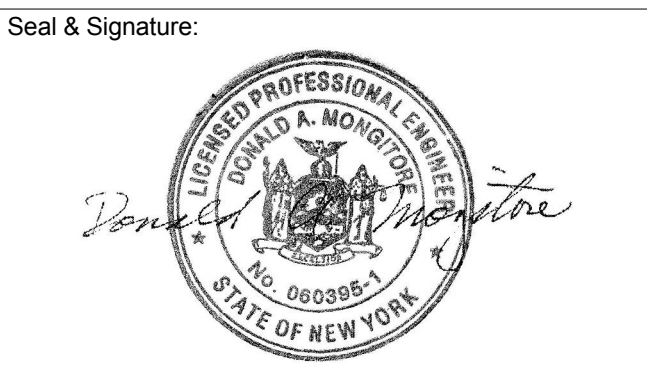
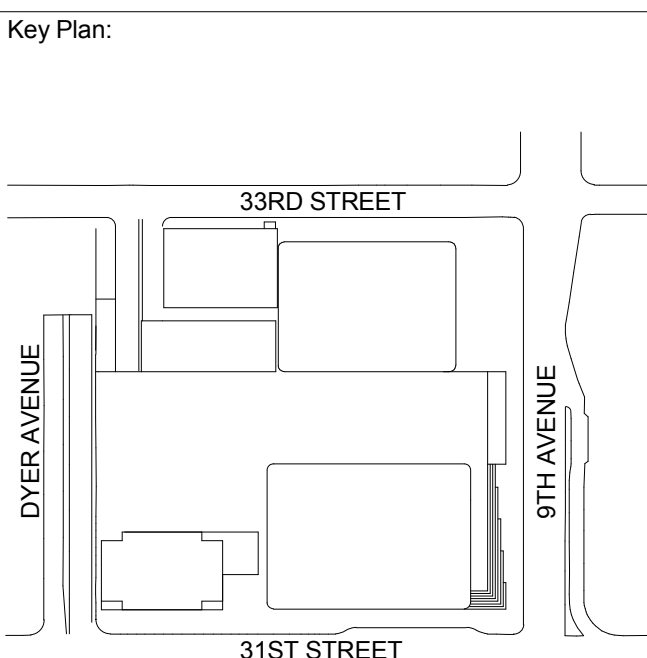
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404 Fifth Avenue #8, New York, NY 10018

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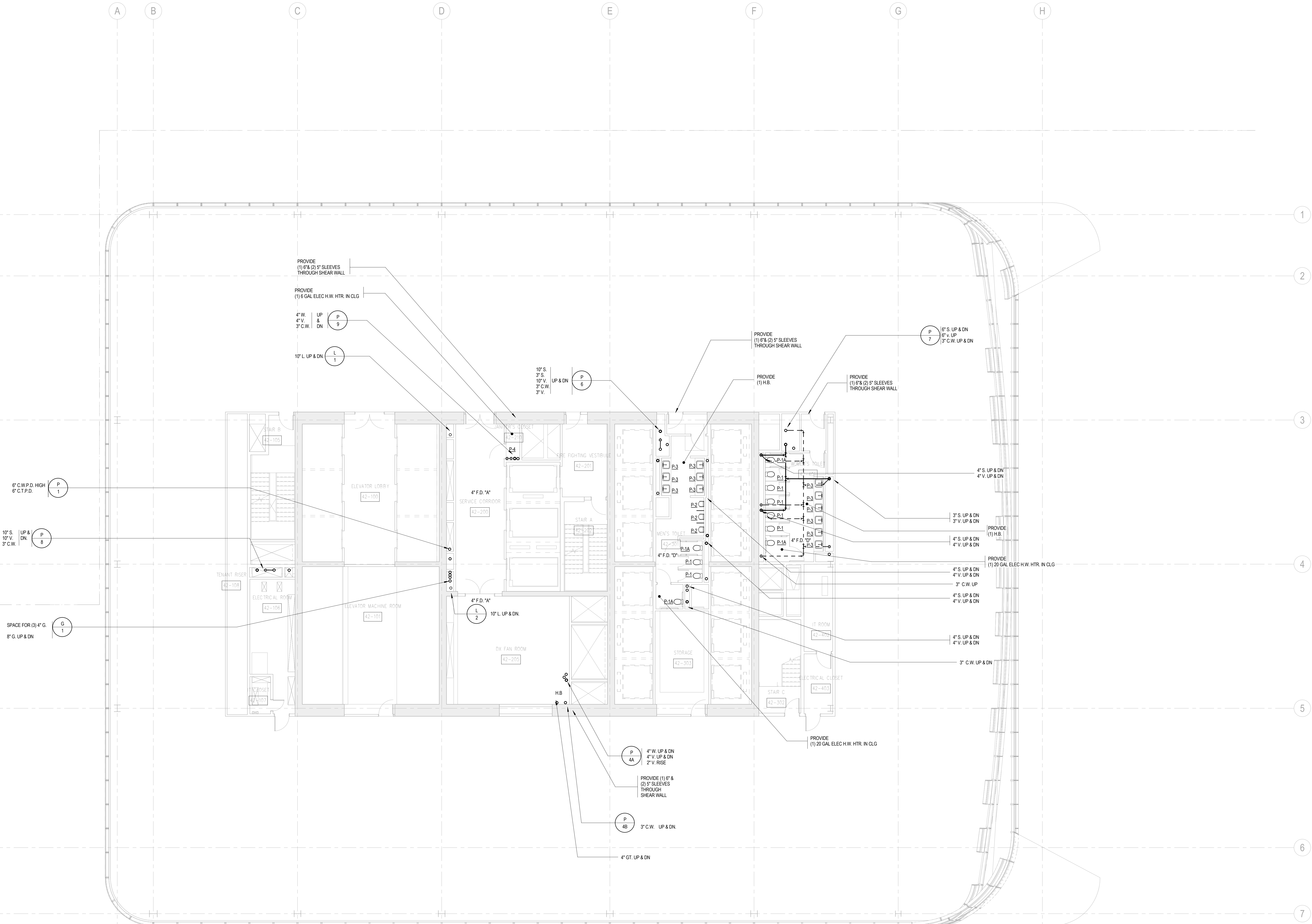
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4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PERMIT
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2012	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

**PLUMBING  
LEVEL 42 FLOOR  
PLAN - MID-RISE  
EMR**

Project No.: 14830-A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No: P-142  
B-SCAN Sheet No.:  
**P-142.00**  
Sheet No.: P-142  
Page No.: 34 OF 6

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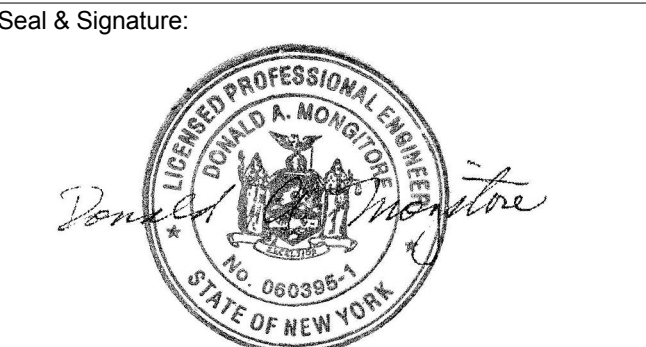
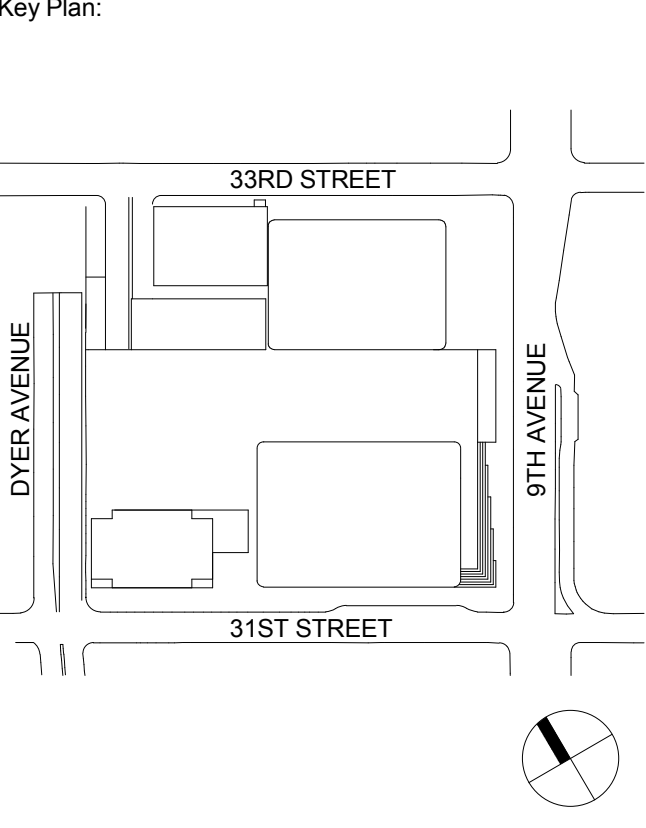
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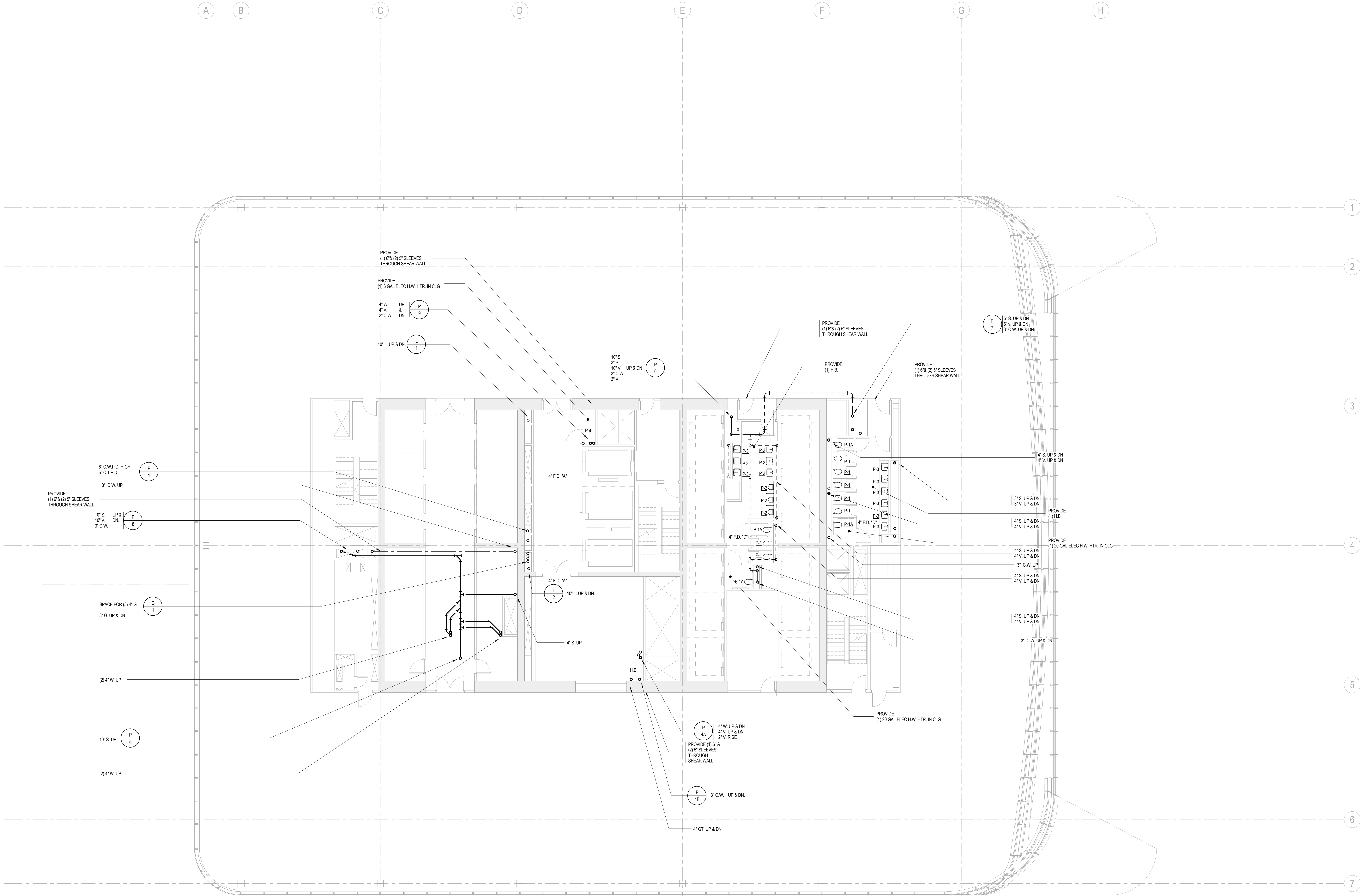
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3	15 NOV 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

No. Date Description  
Sheet Name:

**PLUMBING  
LEVEL 47-48  
FLOOR PLAN -  
TYPICAL  
MID-RISE**

Project No.: 14830-A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No: P-147  
B-SCAN Sheet No.:  
**P-147.00**  
Sheet No.: P-147  
Page No.: 36 OF 6

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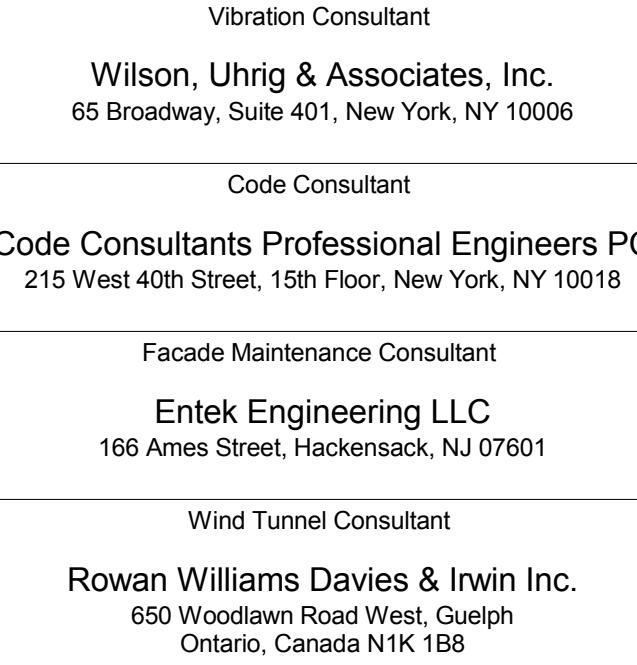
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Key Plan:



Seal & Signature:



Project No.: 14930-A-000

Date: 20 JUN 2014

Scale: 1/8" = 1'-0"

File No: P-149

B-SCAN Sheet No.: P-149.00

Sheet No.: P-149

Page No.: 37 OF 6

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PLUMBING  
LEVEL 49 FLOOR  
PLAN - MID-RISE  
& HIGH-RISE

3 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT

2 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT

1 19 NOV 2013 ISSUED FOR 60 PROGRESS PRICINGS

No. Date Description

Sheet Name:

3 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT

2 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT

1 19 NOV 2013 ISSUED FOR 60 PROGRESS PRICINGS

No. Date Description

Sheet Name:

3 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT

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1 19 NOV 2013 ISSUED FOR 60 PROGRESS PRICINGS

No. Date Description

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MANHATTAN WEST:  
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Wind Tunnel Consultant

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650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



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5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONSTRUCTION

No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 50-51  
FLOOR PLAN -  
HIGH-RISE  
OVERRUN**

Project No.:

14830-A-000

Date:

20 JUN 2014

Scale:

1/8" = 1'-0"

File No.:

P-150

B-SCAN Sheet No.:

P-150.00

Sheet No.:

P-150

Page No.:

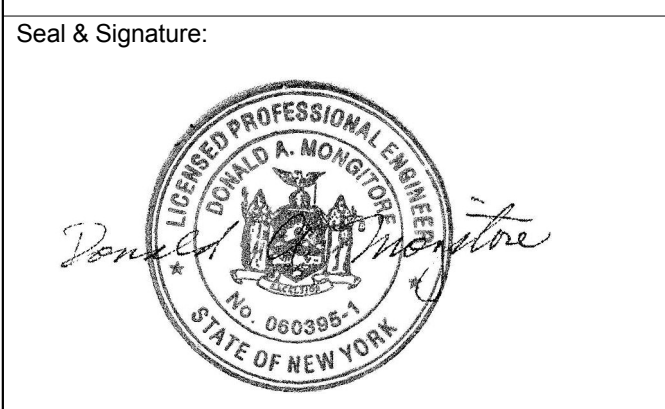
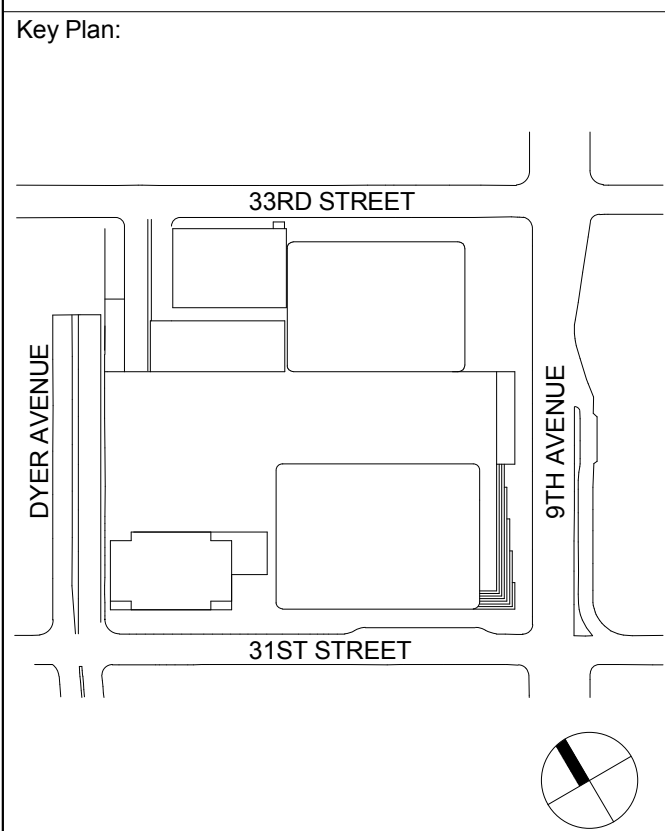
36 OF 6

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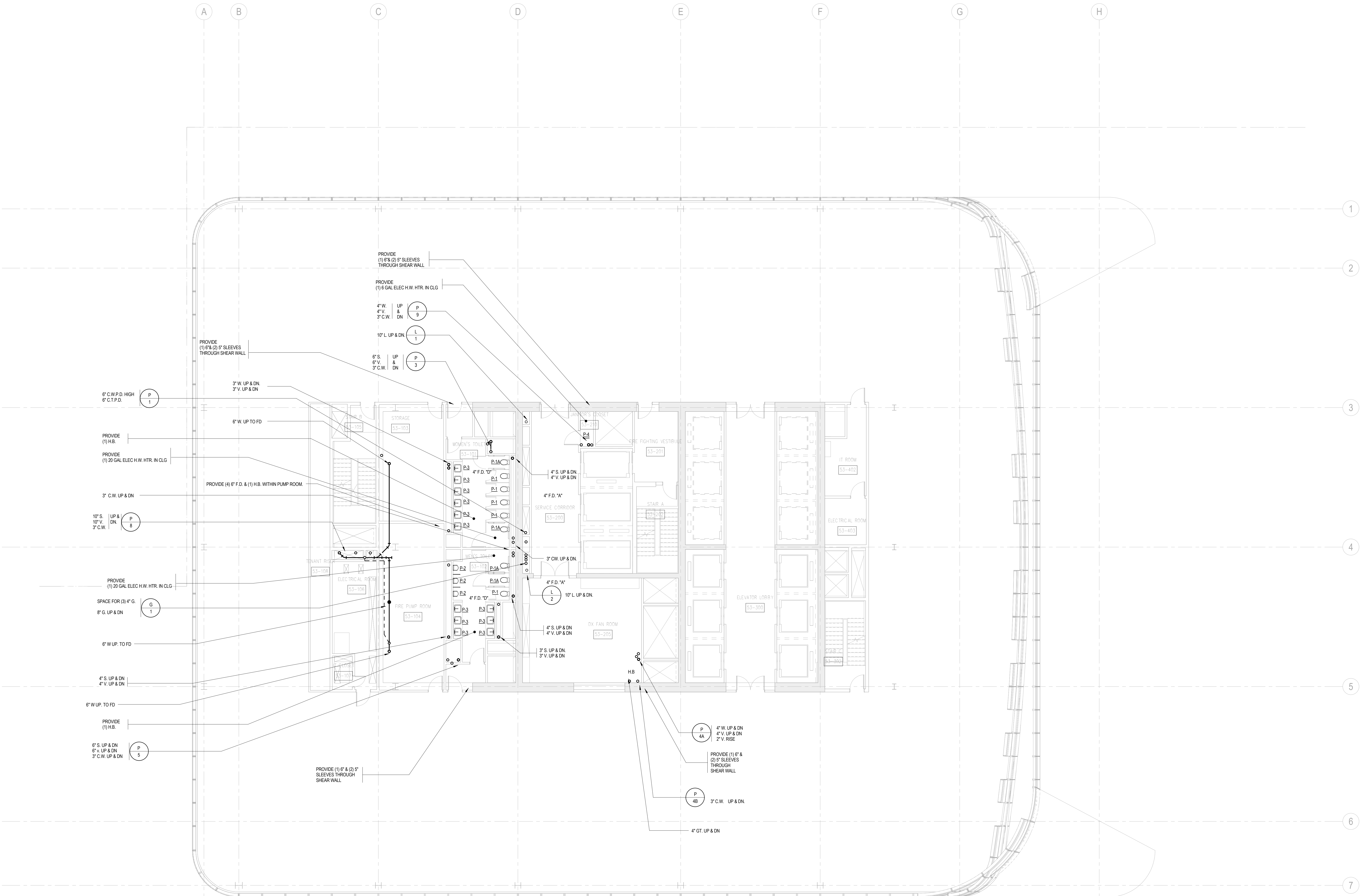
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No.	Date	Description
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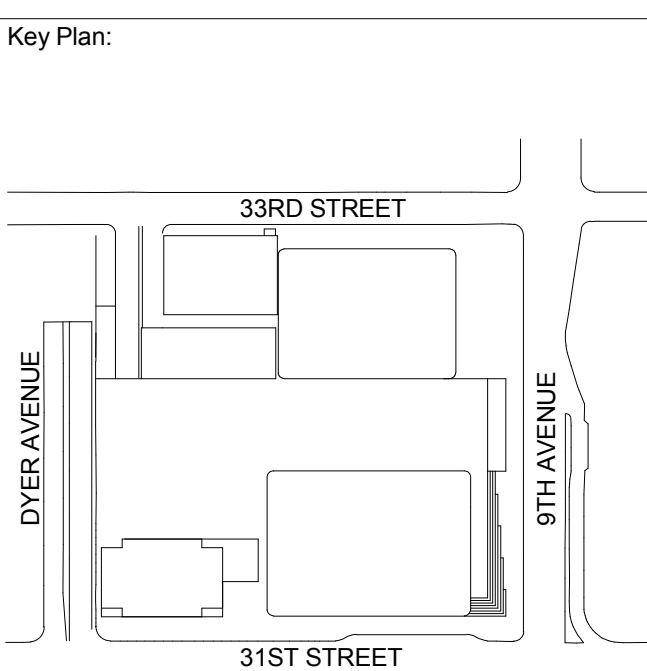
**PLUMBING  
LEVEL 53 FLOOR  
PLAN - HIGH-RISE  
PUMP ROOM**

Project No.: 14830-A-000	B-SCAN Sheet No.: <b>P-153.00</b>
Date: 20 JUN 2014	Sheet No.: P-153
Scale: 1/8" = 1'-0"	Page No.: 40 OF 6
File No.: P-153	

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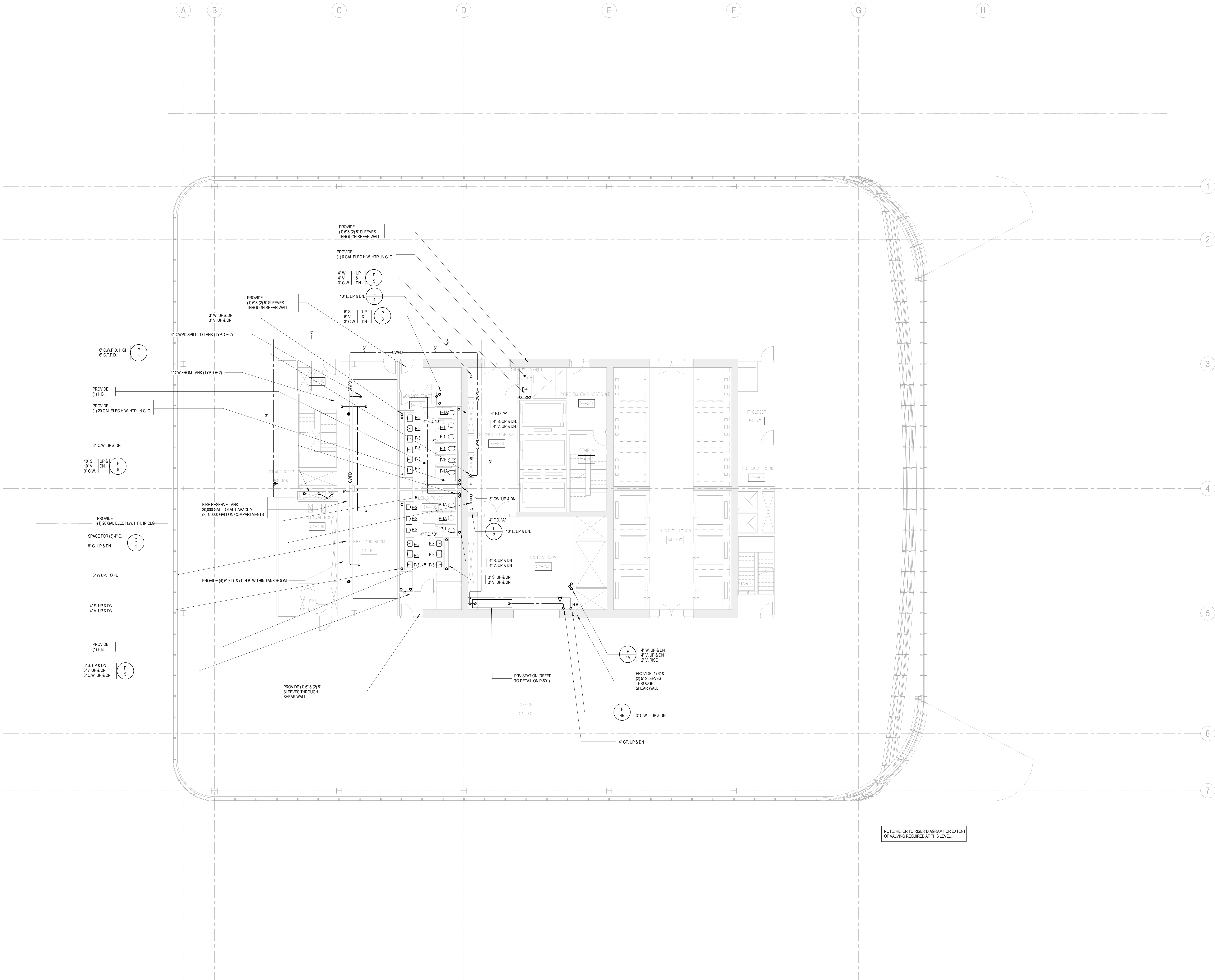


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1	19 NOV 2013	ISSUED FOR 60 PERCENT PRICING
No.	Date	Description

PLUMBING  
LEVEL 54 FLOOR  
PLAN - HIGH-RISE  
WATER TANK



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250 State Street #F1, North Haven, CT 06473

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Weidinger Associates, Inc.  
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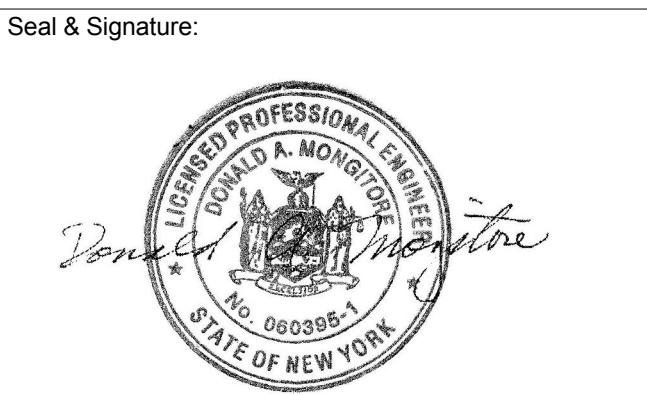
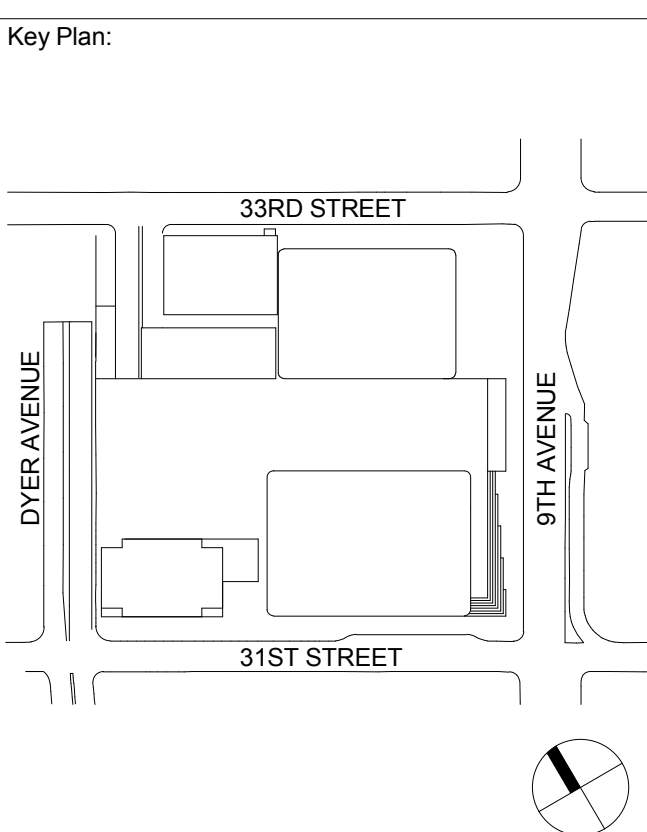
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Wind Tunnel Consultant  
Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

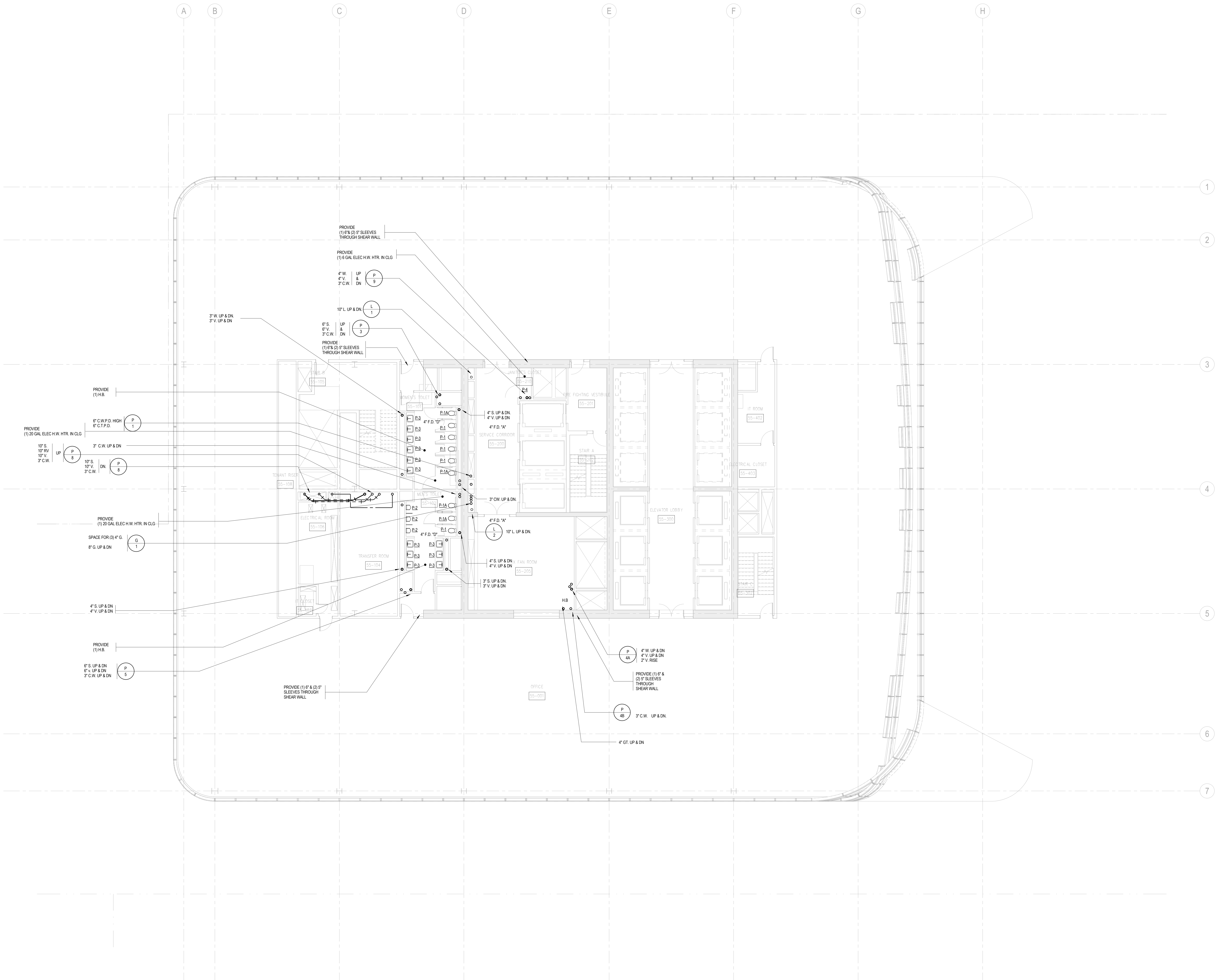


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No.	Date	Description
Sheet Name:		

**PLUMBING  
LEVEL 55 FLOOR  
PLAN - HIGH-RISE**

Project No.: 14830-A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"  
File No: P-155  
B-SCAN Sheet No.:  
**P-155.00**  
Sheet No.: P-155  
Page No.: 42 OF 6

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250 State Street #F1, North Haven, CT 06473

Blast Consultant  
Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

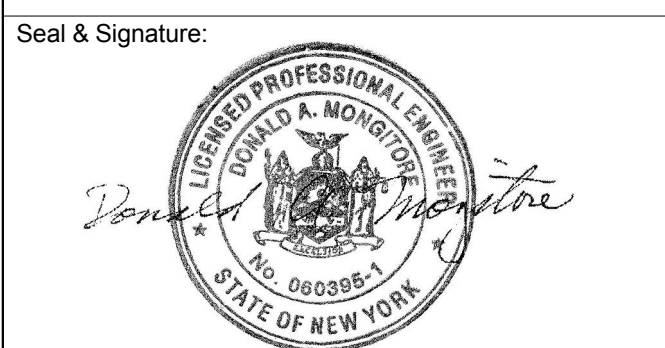
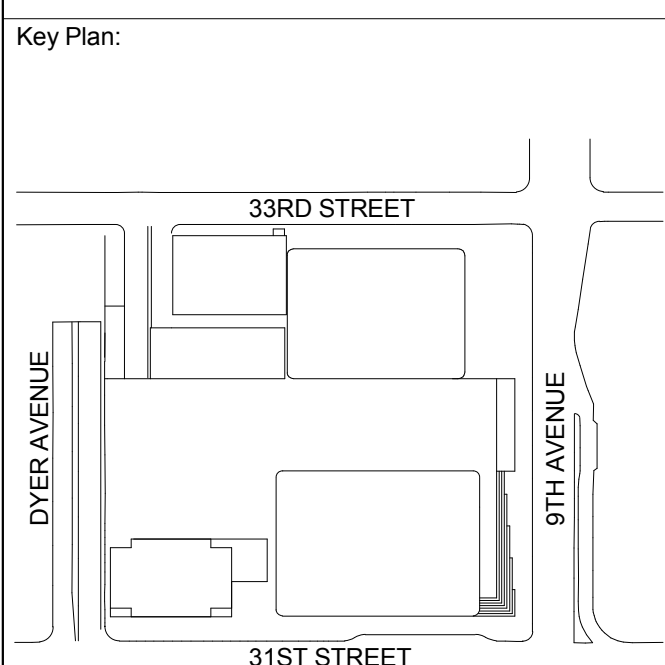
Acoustical Consultant  
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Vibration Consultant  
Wilson, Uhrig & Associates, Inc.  
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Ontario, Canada N1K 1S8

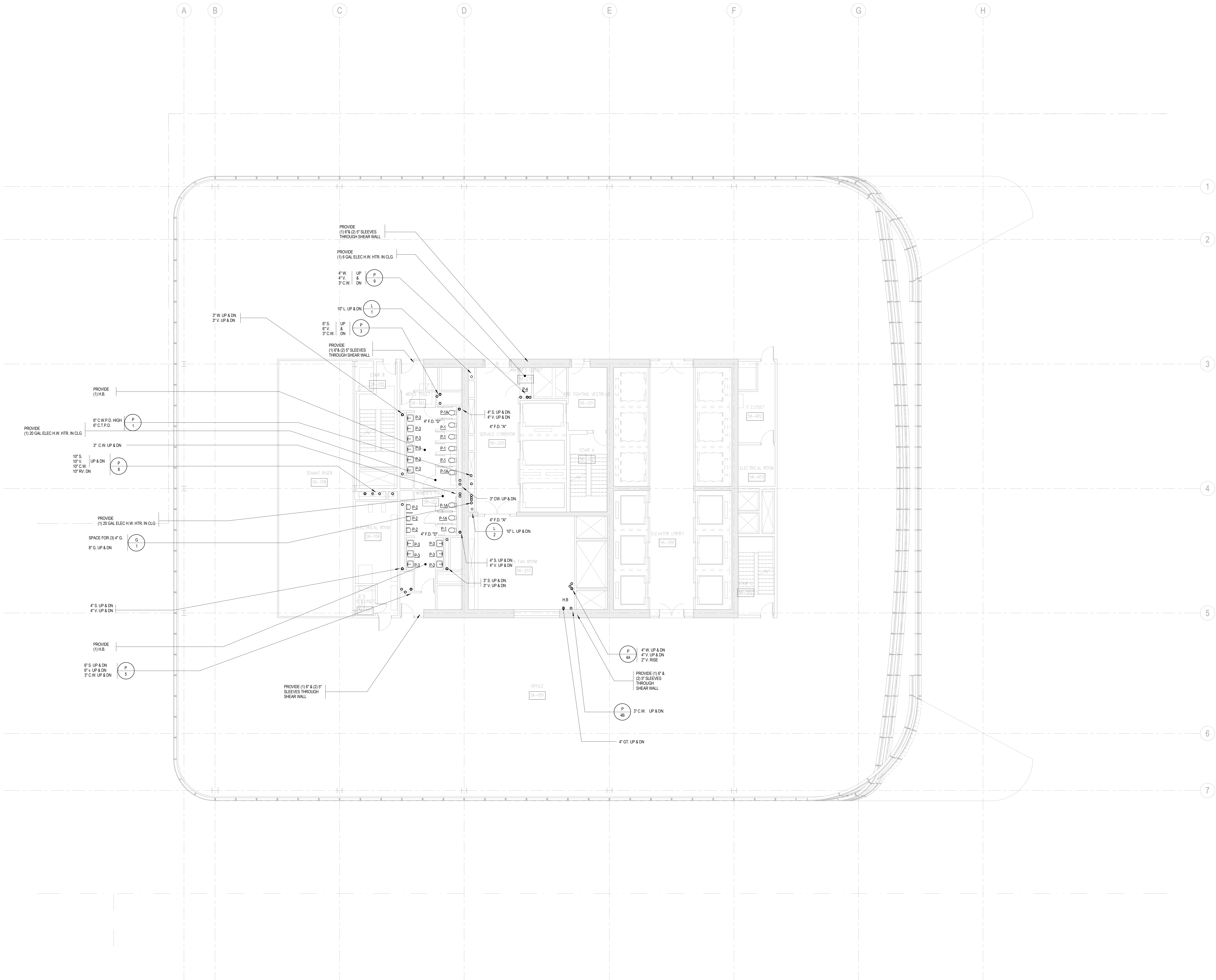


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No.	Date	Description
Sheet Name:		

**PLUMBING  
LEVEL 56 FLOOR  
PLAN - HIGH-RISE**

Project No.: 14830-A-000	B-SCAN Sheet No.: <b>P-156.00</b>
Date: 20 JUN 2014	Sheet No.: P-156
Scale: 1/8" = 1'-0"	Page No.: 43 OF 6
File No.: P-156	

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MANHATTAN WEST:  
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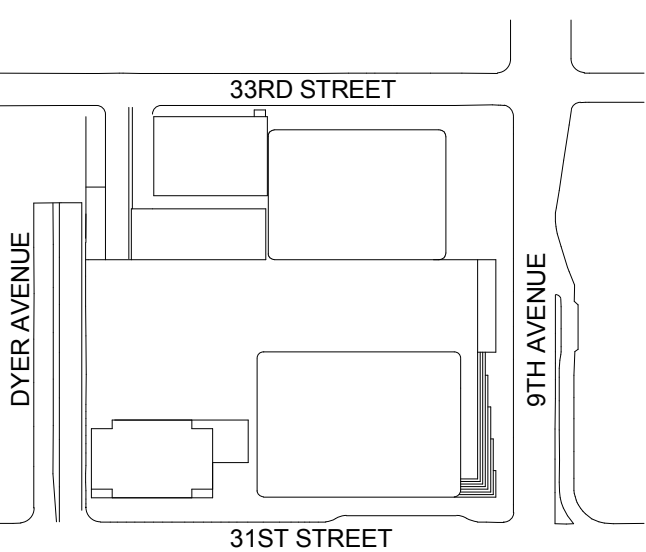
Facade Maintenance Consultant

Entek Engineering LLC  
188 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



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Project No.:  
14330-A-000

Date:  
20 JUN 2014

Scale:  
1/8" = 1'-0"

File No.:  
P-159

B-SCAN Sheet No.:  
P-159.00

Sheet No.:  
P-159

Page No.:  
45 OF 6

PLUMBING  
LEVEL 59 FLOOR  
PLAN - HIGH-RISE

Project No.:  
14330-A-000

Date:  
20 JUN 2014

Scale:  
1/8" = 1'-0"

File No.:  
P-159

B-SCAN Sheet No.:  
P-159.00

Sheet No.:  
P-159

Page No.:  
45 OF 6

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SHEET NOTES



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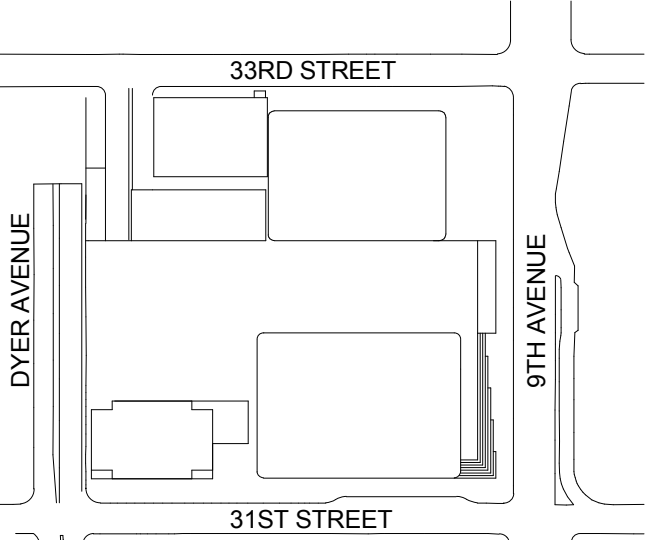
Facade Maintenance Consultant

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Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

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No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 60-61  
FLOOR PLAN -  
HIGH-RISE  
OVERRUN**

Project No.:

14830-A-000

Date:

20 JUN 2014

Scale:

1/8" = 1'-0"

File No.:

P-160

B-SCAN Sheet No.:

**P-160.00**

Sheet No.:

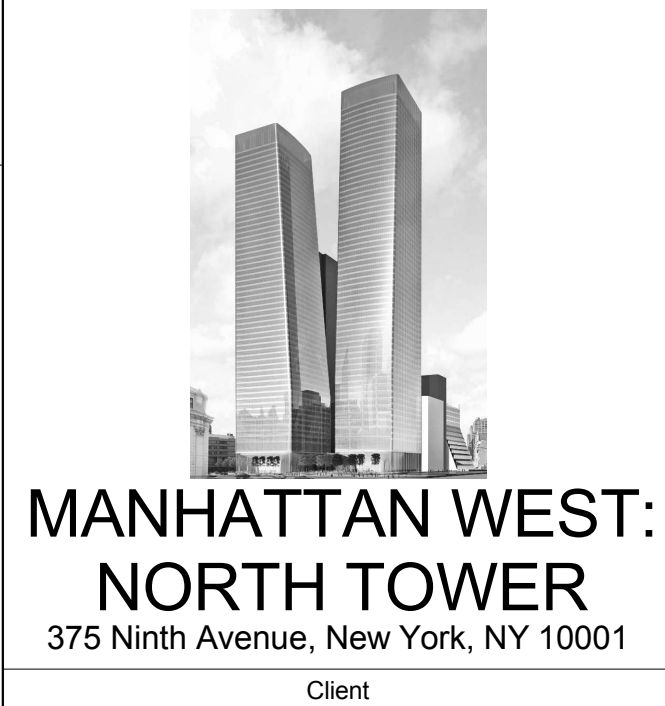
**P-160**

Page No.:

**46 OF 6**

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MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001

Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10021

Architecture/Structural Engineering

**SOM**

Skidmore, Owings & Merrill LLP  
14 Wall Street, New York, NY 10005

Civil Engineering

Philip Habib & Associates  
102 Madison Avenue #11, New York, NY 10016

MEP Engineering

Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
102 East Blithedale Ave., Suite 1, Mill Valley, California 94941

Sustainable Design

Viridian Energy & Environmental  
50 Washington Street, Newark, CT 06854

Geo-Technical Engineering

Mueser Rutledge Consulting Engineers  
14 Penn Plaza, 22nd W, 34th Street #610,  
New York, NY 10122

Landscape Consultant

Field Operations  
475 10th Avenue, New York, NY 10018

Security Consultant

Ducibella, Ventor & Santore  
250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
40 Wall Street, New York, NY 10005

Acoustical Consultant

Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

Vibration Consultant

Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

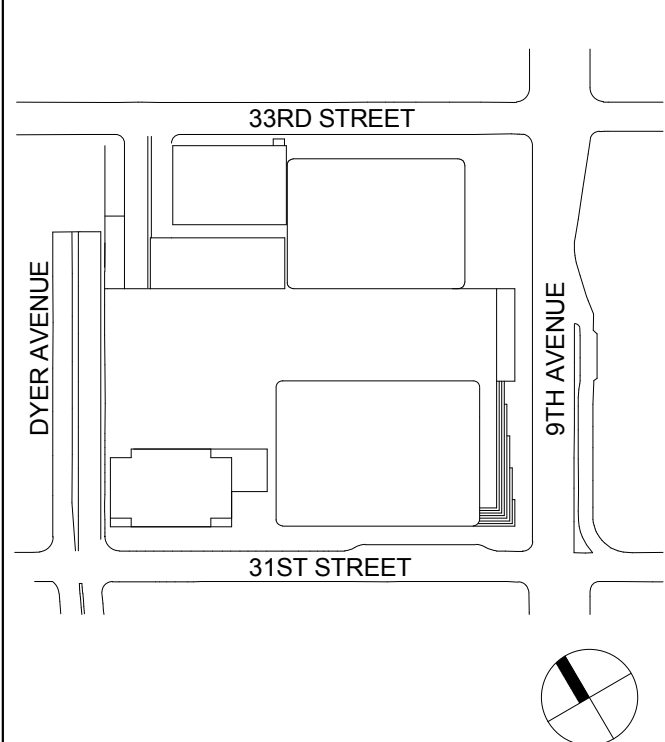
Facade Maintenance Consultant

Entek Engineering LLC  
186 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



3 20 JUN 2014 ISSUED FOR FOUNDATION PERMIT  
2 20 DEC 2013 ISSUED FOR FOUNDATION PERMIT  
1 19 NOV 2013 ISSUED FOR 60 PROGRESS PRICINGS

No. Date Description  
Sheet Name:

**PLUMBING  
LEVEL 62 FLOOR  
PLAN - HIGH-RISE  
EMR**

Project No.: 14830-A-000  
Date: 20 JUN 2014  
Scale: 1/8" = 1'-0"

Sheet No.: P-162  
Page No.: 47 OF 6

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SHEET NOTES



MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001  
Client

Brookfield  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10028

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Civil Engineering

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MEP Engineering

Jaros Baum & Bolles  
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Vertical Transportation

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Sustainable Design

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Geo-Technical Engineering

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New York, NY 10122

Landscape Consultant

Field Operations  
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Security Consultant

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250 State Street #F1, North Haven, CT 06473

Blast Consultant

Weidinger Associates, Inc.  
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Wilson, Uhrig & Associates, Inc.  
65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

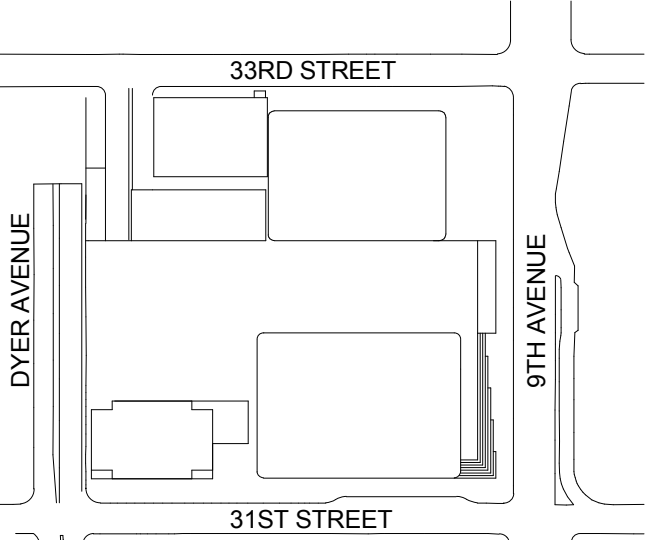
Facade Maintenance Consultant

Entek Engineering LLC  
186 Ames Street, Hackensack, NJ 07601

Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



3	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
2	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
1	19 NOV 2013	ISSUED FOR 60 PROGRESS PRICINGS
No.	Date	Description

Sheet Name:

PLUMBING  
LEVEL 63 FLOOR  
PLAN - HIGH-RISE

Project No.:	14830-A-000	B-SCAN Sheet No.:	P-163.00
Date:	20 JUN 2014	Sheet No.:	P-163
Scale:	1/8" = 1'-0"	Page No.:	48 OF 6
File No.:	P-163		

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MANHATTAN WEST:  
NORTH TOWER  
375 Ninth Avenue, New York, NY 10001  
Client

**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

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MEP Engineering

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Weidinger Associates, Inc.  
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Acoustical Consultant

Cerami & Associates  
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Vibration Consultant

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65 Broadway, Suite 401, New York, NY 10006

Code Consultant

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

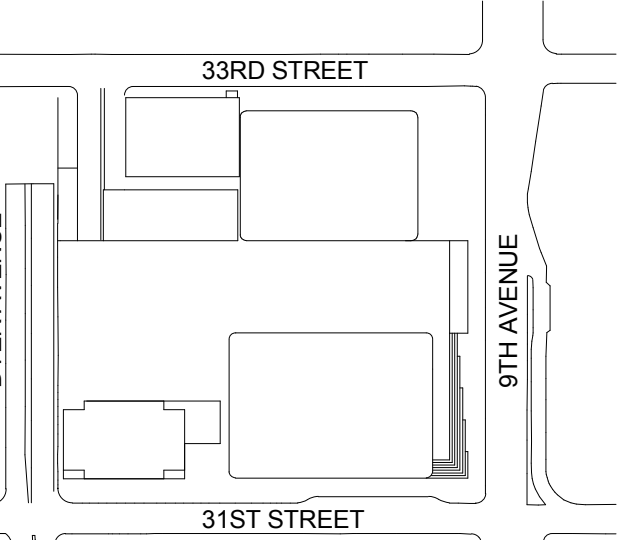
Facade Maintenance Consultant

Entek Engineering LLC  
188 Ames Street, Hackensack, NJ 07601

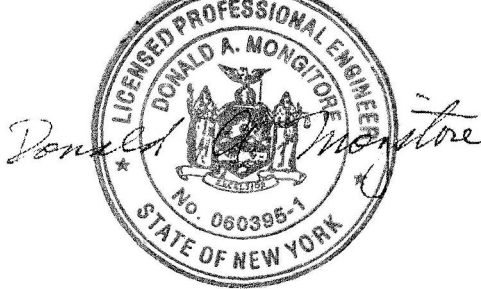
Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:



Seal & Signature:



5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR 50% PROGRESS PERING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	19 MAR 2013	ISSUED FOR RECONCILIATION

No. Date Description

Sheet Name:

**PLUMBING  
LEVEL 67 FLOOR  
PLAN - TYPICAL  
HIGH-RISE**

Project No.:  
14830-A-000

Date:  
20 JUN 2014

Scale:  
1/8" = 1'-0"

File No.:  
P-167

B-SCAN Sheet No.:

**P-167.00**

Sheet No.:

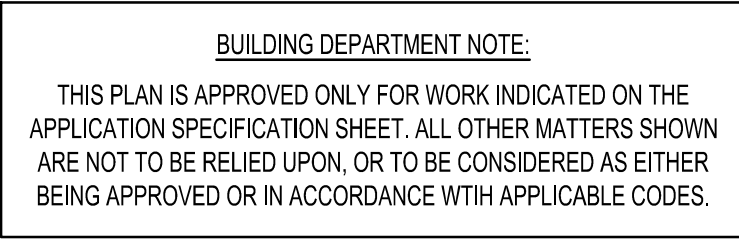
**P-167**

Page No.:

**50 OF 6**

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**Rowan Williams Davies & Irwin Inc.**  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8



Project No.: 14830.A	B-SCAN Sheet No.:  <div style="font-size: 2em; text-align: center;">P-168.00</div>
Date: 20 DEC 2013	
Scale: 1/8" = 1'-0"	
File No.: P-168	Sheet No.:  <div style="font-size: 1.5em; text-align: center;">P-168</div>
	Page No.:  <div style="text-align: center;">52 OF 62</div>



SHEET NOTES



Client  
**Brookfield**  
Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

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**Ducibella, Ventor & Santore**  
250 State Street #F1, North Haven, CT 06473

Blast Consultant  
**Weidinger Associates, Inc.**  
40 Wall Street, New York, NY 10005

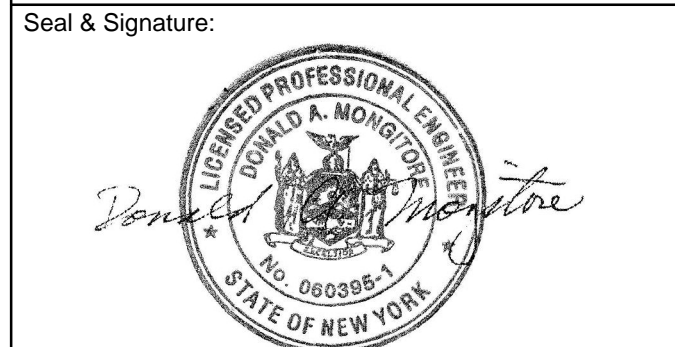
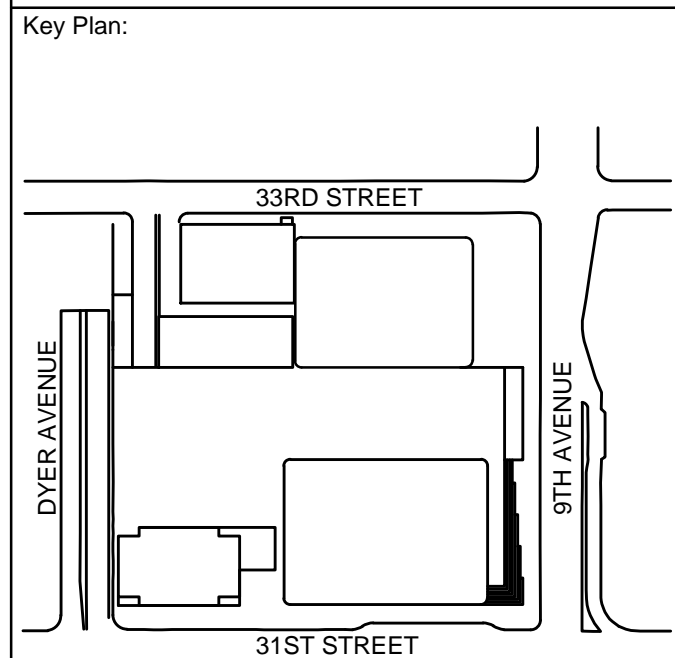
Acoustical Consultant  
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Vibration Consultant  
**Wilson, Uhrig & Associates, Inc.**  
65 Broadway, Suite 401, New York, NY 10006

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Ontario, Canada N1K 1B5



5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	13 NOV 2013	ISSUED FOR CD PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	18 MAR 2013	ISSUED FOR RECONCILIATION

Project Name: PLUMBING LEVEL 69 FLOOR PLAN - MECHANICAL MEZZANINE

Project No.: 14630.A	B-SCAN Sheet No.: P-169.00
Date: 20 DEC 2013	Sheet No.: P-169
Scale: 1/8" = 1'-0"	Page No.: 53 OF 62

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**Design Field**

# Brookfield

Brookfield Place  
250 Vesey Street, 15th Floor, New York, NY 10281

Architecture/Structural Engineering

**SOM**  
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MEP Engineering  
Jaros Baum & Bolles  
80 Pine Street, New York, NY 10005

Vertical Transportation

Edgett Williams Consulting Group, Inc.  
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Sustainable Design

**Viridian Energy & Environmental**  
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**Mueser Rutledge Consulting Engineers**  
 14 Penn Plaza, 225 W. 34th Street #610,  
 New York, NY 10122

Landscape Consultant  
Field Operations  
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Security Consultant  
Ducibella, Vantor & Santore  
250 State Street #F1, North Haven, CT 06473

**Blast Consultant**  
**Weidinger Associates, Inc.**  
40 Wall Street, New York, NY 10005

Acoustical Consultant  
Cerami & Associates  
404 Fifth Avenue #8, New York, NY 10018

**Wilson, Uhrig & Associates, Inc.**  
65 Broadway, Suite 401, New York, NY 10006

Code Consultants Professional Engineers PC  
215 West 40th Street, 15th Floor, New York, NY 10018

**Entek Engineering LLC**  
166 Ames Street, Hackensack, NJ 07601

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
Ontario, Canada N1K 1B8

Key Plan:

33RD STREET

DYER AVENUE

9TH AVENUE

Seal & Signature:



No. 080385-1  
STATE OF NEW YORK


5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	16 NOV 2013	ISSUED FOR DO PROGRESS PRICING

2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	15 MAR 2013	ISSUED FOR RECONCILIATION
No.	Date	Description

Sheet Name:

**PLUMBING**

PLUMBING  
ROOF PLAN -  
MECHANICAL

## MEDIA/ARTS PENTHOUSE

Project No.: 14830 A	B-SCAN Sheet No.: B-45000
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Date: 20 DEC 2013	P-170.00
Scale: 1/8" = 1'-0"	Sheet No.: P-170
File No.:	Page No.:

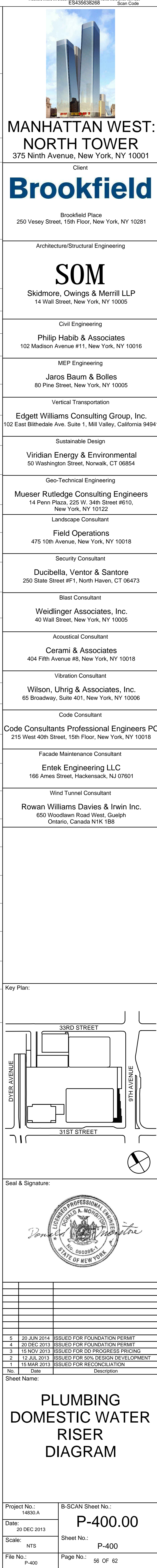
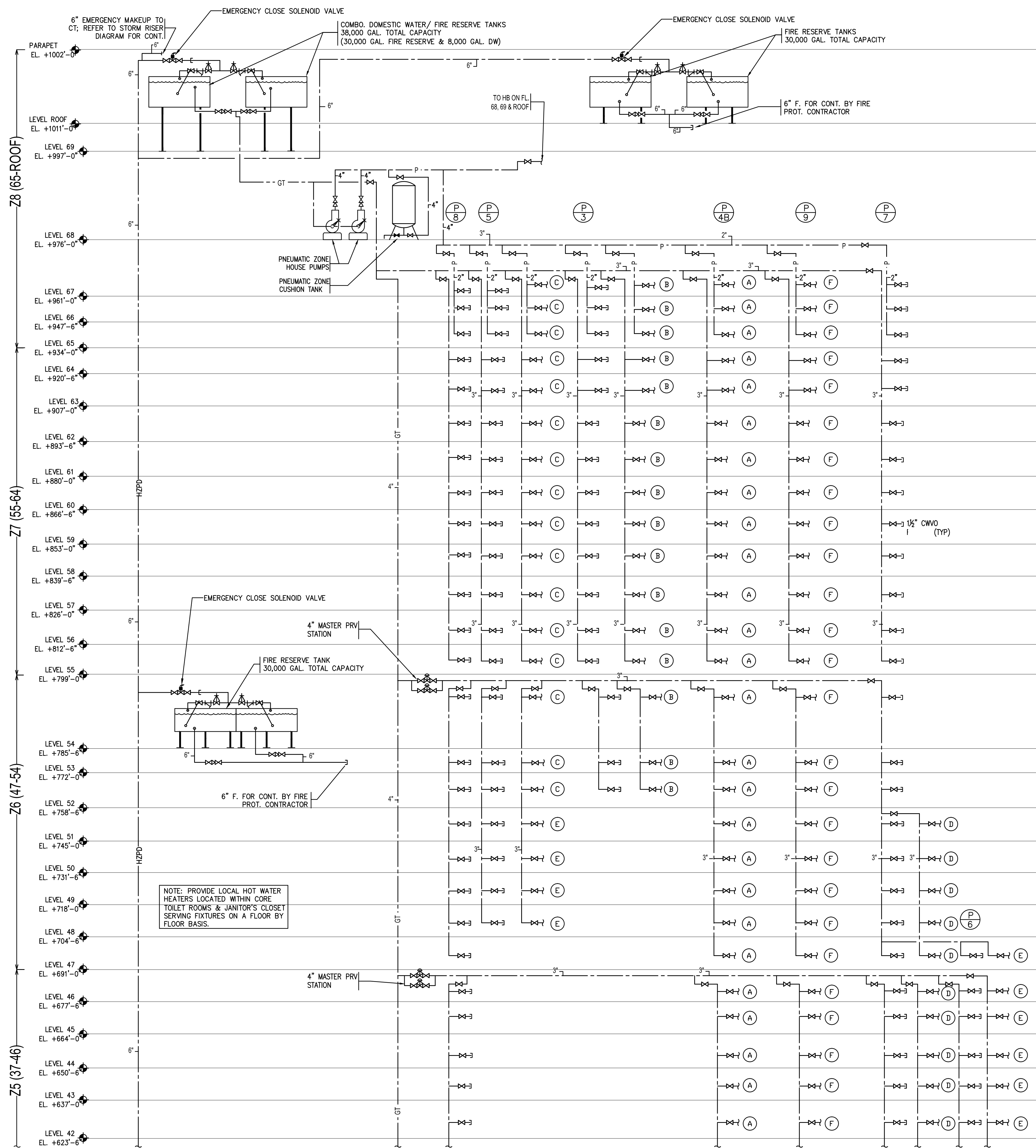
P-170 Page No. 54 OF 62

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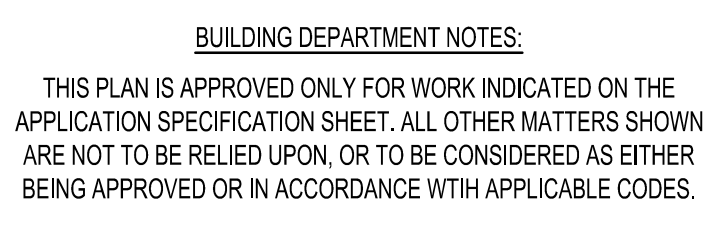






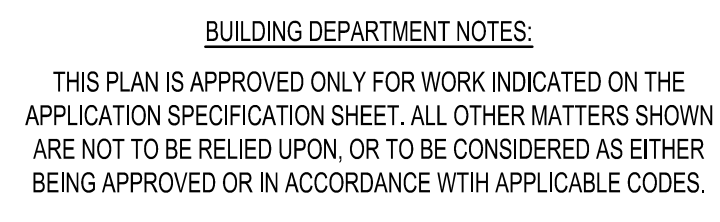


2/21/2018 10:14:52 AM



Date: 20 DEC 2013	P-402.00
Scale: NTS	Sheet No.: P-402
File No.: P-402	Page No.: 58 OF 62







DRAIN SCHEDULE																																											
		BODY														STRAINER										REMARKS																	
DESIGNATION	PUMP NO. SERIES NO. (UNLESS OTHERWISE NOTED)	CASIT IRON	DURA-COATED	GALVANIZED	STAINLESS STEEL	NICKEL BRONZE	BOTTOM OUTLET	SIDE OUTLET	CLAMPING DEVICE	UNDERDECK CLAMP	BACK WATER VALVE	NO. HUB OUTLET	F.O. REGISTER PLATE	ACID RESISTANT COATING	CALKED	CASIT IRON	LACQUER COATED	GALVANIZED	SECONDARY STRAINER	BRONZE	NICKEL BRONZE	CHROME PLATED	STAINLESS STEEL	POLISHED FINISH	SAFIN FINISH	6" HIGH SOLID WATER DAM	TRACTOR GRADE (DUCTILE IRON) FLANGE TOP	FLAT TOP	HEEL PROOF	LOW DOME	EXTENSION PRICE WEEP HOLES	GRAVEL GUARD	TOP SIZE	ANGLE TYPE PASSED UP	VANDAL PROOF	ALUMINUM DOME	FLOW CONTROL ASSIST	GENERAL AREA OR LOCATION					
A	Z-508-DG-Y	●	●	●												●	●										●													MER. ELEVATOR PITTS, BOH SPACES, PLENUM DRAINS			
B	ZC-100-C-EA-R	●	●	●												●	●										●													ROOF DRAINS			
C	ZC-100-C-EA-R-W2	●	●	●												●	●										●													OVERFLOW ROOF DRAINS			
D	Z-415	●	●	●												●	●										●														TOILET ROOM DRAINS		
E	ZC-100-C-EA-R	●	●	●												●	●										●														AREA DRAINS INSTALLED IN PLAZA TRENCHES		
F	ZRB-125-C-EA-BS	●	●	●												●	●										●														PLANTER DRAINS (INSTALLED IN PLAZA LANDSCAPING)		
G	Z-533	●	●	●												●	●										●															PARKING AREA DRAINS (INSTALLED IN GIRDERS)	
H	Z-122	●	●	●												●	●										●															COOLING TOWER DRAIN DOWN - ROOF - PROVIDE SOLID DAM 6" ABOVE FINISHED ROOF SURFACE	
J	ZB92-U4-NS	●	●	●												●	●										●															LOADING DOCK TRENCH DRAINS	
K	Z302-P-W / Z328	●	●	●												●	●										●																SP/K. DIRTY VALVE AREAS / SP/K. PRE-ACTION VALVE AREAS
NOTE: THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DRAIN TYPES & OPTIONS WITH CONSTRUCTION MANAGER AND CONFIRMING THE CONSTRUCTION MATERIALS. THICKNESS LENGTHS(FOR LINEAR TRENCH DRAINS) AND FINISHED FLOOR ELEVATIONS (I.E. EXTENSION HEIGHTS, GRAVEL STOP HEIGHTS, WATERPROOFING MATERIALS, ETC PRIOR TO PURCHASING EQUIPMENT.																																											

NOTE: THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DRAIN TYPES & OPTIONS WITH CONSTRUCTION MANAGER AND CONFIRMING THE CONSTRUCTION MATERIALS, THICKNESS, LENGTHS (FOR LINEAR/TRENCH DRAINS) AND FINISHED FLOOR ELEVATIONS (I.E. EXTENSION HEIGHTS, GRAVEL STOP HEIGHTS, WATERPROOFING MATERIALS, ETC.) PRIOR TO PURCHASING EQUIPMENT.

PUMP SCHEDULE																				
PUMP DESIGNATIONS	SYSTEM	No. REQUIRED	G.P.M. / SQFT each	Max. TDH/P.S.I.	MECH. SEAL	MANUFACTURER	MODEL NUMBER	SIZES INCHES	WORKING PRESSURE (PSI)	R.P.M.	VOLTS	PHASE	MANUAL CONTR'L	STARTING STOPS	AUTO CONTR'L	FLOAT LIGHT	PRESSURE GAUGE RANGE	EMERGENCY POWER	CONCRETE PIT	LOCATION
DBP-NE--B8-1,2	PNEUMATIC ZONE BOOSTER PUMPS	2	30	140	●	P.P.C.	2TU12A-2	2	● 350 7.5	1750	460	3	60	●	●	●	0-100	●	●	
DBP-NE-B-3,4	HIGH ZONE HOUSE PUMPS	2	253	981	●	P.P.C.	3TU9A-4	4	● 600 150	1750	460	3	60	●	●	●	0-500	●	●	
DBP-NE-B-1,2	MID ZONE HOUSE PUMPS	2	100	449	●	P.P.C.	3TU13A-3	3	● 350 50	1750	460	3	60	●	●	●	0-300	●	●	
DBP-NE-B-5,6,7	LOW ZONE HOUSE PUMPS	3	35	123	●	P.P.C.	1.5UT7A-3	3	● 350 5	1750	460	3	60	●	●	●	0-100	●	●	
SP-NE-B-1,2	SUMP PUMP SET #1	2	100	45	FLYGT	CP3057 imp. 266	1	150 2.5	3600	460	3	60	●	●	●	●	0-100	●	●	
SP-NE-B1-1,2	SUMP PUMP SET #2	2	250	60	FLYGT	NP3127 imp. 488	1	150 10	1750	460	3	60	●	●	●	●	0-100	●	●	
SP-NE-B3-1,2	SUMP PUMP SET #3	2	250	85	FLYGT	NP3152 imp. 464	1	150 15	1750	460	3	60	●	●	●	●	0-100	●	●	
SEJ-NE-B-1,2	EJECTOR PUMP SET #1	2	500	45	FLYGT	NP3127 imp. 438A	1	150 10	1750	460	3	60	●	●	●	●	0-100	●	●	
SEJ-NE-B3-1,2	EJECTOR PUMP SET #2	2	125	85	FLYGT	FP3127 imp. 244	1	150 10	3600	460	3	60	●	●	●	●	0-100	●	●	
ESP-NE-B3-1,2,3	ELEVATOR SUMP PUMP	3	50	84	STANCOR	SV750-OM	1	150 7.5	3600	460	1	60	●	●	●	●	0-100	●	●	
LFP-NE-B3-1	STORM WATER FILTER SKID	1	128	42	PEP	OPEL TC 2x4x4 BP2-PUR-V	4	350 2.5	3600	460	3	60	●	●	●	●	0-300	●	●	
MUP-NE-B3-1,2	COOLING TOWER MAKEUP PUMPS	2	253	1109	●	P.P.C.	3TU9A-4	2	● 600 200	3600	460	3	60	●	●	●	0-500	●	●	
IP-NE-B3-1,2	IRRIGATION PUMPS	2	70	243	●	P.P.C.	2TU12A-2	2	● 350 15	1750	460	3	60	●	●	●	0-100	●	●	
NGP-NE--B8-1,2	NATURAL GAS BOOSTER PUMP	2	20,000	15	ECLIPSE	AE0-5-5-20-15-35-SEQ-COM-N4	1	150 35	3600	460	3	60	●	●	●	●	0-30	●	●	
HWC-NE-B-1,2	HOT WATER CIRCULATION PUMP	2	10	15	B&G	SERIES 60	1	175 1/2	1750	460	3	60	●	●	●	●	0-100	●	●	

P.P.C. = Peerless Pump Co. (Packaged Pump Plant); B&G = BELL & GOSSETT

[illegible]

NON-PRESSURE VESSELS & PITS					
DESIGNATION	NO REQUIRED	LOCATION	GAS TANK	SIZE	MATERIAL
COMBO HOUSE TANKS	2	ROOF	19,000	18'Dx12'H	WOOD
SUMP PIT #1	1	B LEVEL	-----	5'x5'x9'D	CONCRETE
SUMP PIT #2	1	B1 LEVEL	-----	5'x5'x9'D	CONCRETE
SUMP PIT #3	1	B3 LEVEL	-----	5'x5'x9'D	CONCRETE
EJECTOR PIT #1	1	B LEVEL	-----	5'x5'x9'D	CONCRETE
EJECTOR PIT #2	1	B3 LEVEL	-----	5'x5'x9'D	CONCRETE
ELEVATOR SUMP PITS	3	B3 LEVEL	-----	2'x2'x2'D	CONCRETE
FIRE RESERVE TANKS	2	ROOF	15,000	20'Dx7'6"H	WOOD
FIRE RESERVE TANKS	2	54TH FLOOR	15,000	10'8"x52'8"x13'6"H	CONCRETE
COMBO HOUSE TANKS	2	32ND FLOOR	17,500	13'9"x59'6"x9'10"H	CONCRETE
STORM DETENTION TANK	1	B3/B2 LEVEL	-----	-----	CONCRETE
SAND INTERCEPTOR	1	B LEVEL	-----	2'6'x5'x9'D	CONCRETE
SAND INTERCEPTOR	1	B3 LEVEL	-----	2'6'x5'x9'D	CONCRETE

FIXTURE CONNECTION SCHEDULE						
FIXTURES	S	W	V	H	HW	RH
WALL HUNG FLUSH VALVE WATER CLOSET	4"	--	2"	--	--	1'-6"
SIPHON JET URINALS	--	2"	2"	--	--	1'-5"
LAVATORIES	--	2"	2"	3/4"	3/4"	2'-10"
SLOP SINKS	--	3"	2"	3/4"	3/4"	--
DRINKING FOUNTAINS	--	2"	2"	--	1/2"	3'-4"
SINKS	--	2"	2"	3/4"	3/4"	--

PRESSURE VESSELS AND HEATERS															
EQUIPMENT TAG	EQUIPMENT	NO. REQUIRED	MODEL	HEATING WATER TEMP. (°F)	SIZE (GALS.)	SIZE	W.P.	TEST PRESSURE (PSI) 15 MIN. HOLD	TEST PRESSURE (PSI) 30 MIN. HOLD	BTU/HOUR/HEATER	ΔW	TEMP. RISE (°F)	PEAK FLOWRATE (GPM)	NOTES	
DWH-NE-6 TO 67-1,2	ELECTRIC HOT WATER HEATER	140	HUBBELL 20 GAL.	140°	----	3'x5'	150 300			-	5	100°	=	(1) IN EACH CORE TOILET	
DWH-NE-6 TO 67-3	ELECTRIC HOT WATER HEATER	70	HUBBELL 6 GAL.	140°	----	15"Tx18"H	150 300			-	1.5	100°	=	(1) IN EACH JANITOR'S CLOSET	
DWH-NE-B-1,2	STEAM-FIRED HOT WATER HEATER	2	P.K. 06 S	----	----	----	150 300			750,000	-	100°	15	SERVING STREET PRESSURE ZONE	
PT-NE-B-1	PNEUMATIC TANK	1	AMTROL WX-457C	60°	528	48x96H	125 225			-	-	-	-	B LEVEL	
PT-NE-68-1	PNEUMATIC TANK	1	AMTROL WX-457C	60°	528	48x96H	125 225			-	-	-	-	68TH FLOOR (MER)	
P.K.: PATTERSON KELLEY (PROVIDE A LEAK DETECTION SYSTEM FOR THE WATER HEATERS TO BE PLACED ON FLOOR BENEATH WATER HEATERS. CONNECT LEAK DETECTION SYSTEM TO BMS.)															
NOTE: PROVIDE HOLBY TEMPERING VALVE AT EACH SET OF H.W. HEATERS															

PLUMBING FIXTURES SCHEDULE							
DW	FIXTURE TYPE	LOCATION	SIZE	MANUFACTURER	MODEL #	FAUCET / FLUSHOMETER / VALVE	NOTES
-1	TOILET - PUBLIC	CORE TOILET ROOMS	1/8 GPF	AMERICAN STANDARD	AF-WALL 3351/001	TOTO TETILN2	WALL HUNG, TOP SPUD, ECOPOWER
-1A	TOILET - PUBLIC	CORE TOILET ROOMS	1/8 GPF	AMERICAN STANDARD	AF-WALL 3351/001	TOTO TETILN2	WALL HUNG, TOP SPUD, ECOPOWER, MOUNTED AT ADA HEIGHT
-2	URINAL - PUBLIC	CORE TOILET ROOMS	18 GPF	AMERICAN STANDARD	WASHBROOK FLOWISE 6590/001	TOTO TETULN12	TOP SPUD, EXPOSED AUTOMATIC FLUSH VALVE, ECOPOWER
-2A	URINAL - PUBLIC	CORE TOILET ROOMS	18 GPF	AMERICAN STANDARD	WASHBROOK FLOWISE 6590/001	TOTO TETULN12	TOP SPUD, EXPOSED AUTOMATIC FLUSH VALVE, ECOPOWER, MOUNTED AT ADA HEIGHT
-3	LAVATORY - PUBLIC	CORE TOILET ROOMS	0.17 GPC	AMERICAN STANDARD	OVALYN 9482/000	TOTO TELS5G10 W TH559EDV432	SELF-CLOSING, UNDERCOUNTER MOUNT SINK, THERMAL MIXING FAUCET, LAMINAR FLOW, 1 GPM W/ 10 SEC CYCLE
-3A	LAVATORY - PUBLIC	CORE TOILET ROOMS	0.17 GPC	AMERICAN STANDARD	OVALYN 9482/000	TOTO TELS5G10 W TH559EDV432	SELF-CLOSING, UNDERCOUNTER MOUNT SINK, THERMAL MIXING FAUCET, MOUNTED AT ADA HEIGHT, LAMINAR FLOW, 1 GPM W/ 10 SEC CYCLE
-4	MOP SINK	JANITOR CLOSET	—	JUST MANUFACTURING	C-3523	FAT 628-AA	STAINLESS STEEL
-7	SHOWER	LOCKER ROOMS	1.5 GPM	MOEN	52776EP15	MOEN 8370 MIXING VALVE	FIXED SHOWERHEAD
-7A	SHOWER	LOCKER ROOMS ADA STALL BOH ADA LOCATIONS	1.5 GPM	MOEN	52236GBM15	MOEN 8370 MIXING VALVE	MOUNTED AT ADA HEIGHT
-8	PANTRY SINK	BREAK ROOMS	1.5 GPM	ELKAY	LR2022	ELKAY LIKE4121	DROP IN SINK; SINGLE LEVER MANUAL FAUCET

**BUILDING DEPARTMENT NOTE:**  
THIS PLAN IS APPROVED ONLY FOR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

## SHEET NOTES



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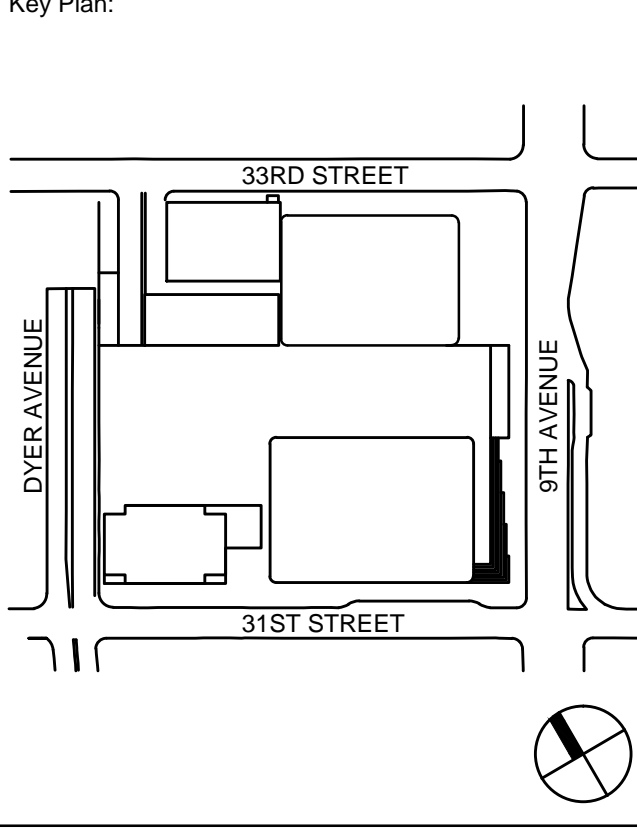
Code Consultants Professional Engineers F  
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Wind Tunnel Consultant

Rowan Williams Davies & Irwin Inc.  
650 Woodlawn Road West, Guelph  
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Seal &amp; Signature:



5	20 JUN 2014	ISSUED FOR FOUNDATION PERMIT
4	20 DEC 2013	ISSUED FOR FOUNDATION PERMIT
3	15 NOV 2013	ISSUED FOR DD PROGRESS PRICING
2	12 JUL 2013	ISSUED FOR 50% DESIGN DEVELOPMENT
1	15 MAR 2013	ISSUED FOR RECONCILIATION
No.	Date	Description

Sheet Name:

# PLUMBING SCHEDULE SHEET

Project No.: 14830.A	B-SCAN Sheet No.:  <div style="font-size: 2em; text-align: center;">P-500</div>
Date: 15 NOV 2013	
Scale: NTS	
File No.: P-500	Sheet No.: P-500.00  Page No.: 60 OF 62







