GENERAL STRUCTURAL NOTES

1. CODES:
A. ALL WORK SHALL CONFORM TO THE FLORIDA BUILDING CODE, 2020 EDITION AND ALL OTHER APPLICABLE LOCAL CODES.
B. ALL STANDARDS REFERENCED IN THESE DRAWINGS SHALL REFER TO THE EDITIONS OF SUCH STANDARDS AS LISTED IN FBC 2020, CHAPTER 35, "REFERENCED STANDARDS", UNLESS OTHERWISE NOTED.

2. DESIGN CRITERIA:

FOR TEMPORARY SHORING & BRACING AS FOLLOWS:
A. CONSTRUCTION LIVE LOADS = 50 PSF (ONE FLOOR ONLY)
B. ROOF DEAD LOADS = EXISTING (V.I.F.)
ROOF LIVE LOAD = SEE CONSTRUCTION LIVE LOAD
C. FLOOR DEAD LOADS = EXISTING (V.I.F.)
FLOOR LIVE LOAD = SEE CONSTRUCTION LIVE LOAD

D. WIND LOADS: IN ACCORDANCE WITH ASCE 7-16 [RISK CATEGORY II; 175 MPH ULTIMATE DESIGN WIND SPEED; EXPOSURE C; WITH REDUCTION FACTOR OF 0.85 FOR CONSTRUCTION PERIOD OF ONE TO TWO YEARS]. SEE CALCULATIONS FOR ADDITIONAL INFORMATION.

3. BUILDING PERMIT:
A. OBTAIN BUILDING PERMIT.
B. COMPLY WITH THE REQUIREMENTS OF THE BUILDING PERMIT AND WITH OTHER REQUIREMENTS OF THE PERMITTING AUTHORITY.
C. IF CHANGES TO STRUCTURAL DESIGN ARE ISSUED BY THE ENGINEER, SUBMIT CHANGES TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL. MAINTAIN PERMIT APPROVALS CONCURRENT WITH CONSTRUCTION.

4. CONSTRUCTION DOCUMENTS:
A. EXAMINE AND STUDY ALL CONSTRUCTION DOCUMENTS PRIOR TO COMMENCEMENT OF WORK. DIRECT ANY QUESTIONS TO THE ENGINEER.

5. ELEVATION DATUM:
ALL ELEVATIONS ON THESE STRUCTURAL DRAWINGS REFER TO TOP OF INTERIOR GROUND FLOOR SLAB = +0'-0".
+0'-0"=X.XX FT. N.G.V.D.

6. COORDINATION AND DIMENSIONS:
A. COORDINATE ALL DIMENSIONS AND ELEVATIONS BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK. VERIFY ALL DIMENSIONS AND CONDITIONS RELATED TO EXISTING CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION. BRING ANY DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE ENGINEER. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE. SCALE IS FOR GUIDELINE PURPOSES ONLY. IF DIMENSIONS ARE UNCLEAR, DO NOT SCALE. REQUEST CLARIFICATION FROM THE ENGINEER.
B. COORDINATE THE STRUCTURAL WORK WITH THE WORK OF ALL OTHER TRADES.
C. COORDINATE THE STRUCTURAL WORK WITH SLAB DEPRESSIONS, MECHANICAL OPENINGS, PIPING AND CONDUITS AS SHOWN ON OTHER DRAWINGS.
D. COORDINATE ALL DIMENSIONS RELATIVE TO DOORS, WINDOWS, ACCESS PANELS AND HEATING, VENTILATING AND AIR-CONDITIONING EQUIPMENT.

7. CONFLICTS IN DOCUMENTS:
IF CONFLICTS OCCUR IN OR BETWEEN DOCUMENTS AND FIELD CONDITIONS OR OTHERWISE, IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION AND DIRECTION BEFORE PROCEEDING. COORDINATE ALL DIMENSIONS BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.

8. METHODS & SAFETY:
A. THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION. PROVIDE APPROPRIATE SUPERVISION THROUGHOUT THE PROJECT. CONSTRUCTION SITE SAFETY, INCLUDING ALL ADEQUATE TEMPORARY BRACING AND SHORING, IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EMPLOY THE NECESSARY PROFESSIONAL SERVICES TO DETERMINE THE NECESSARY METHODS AND SUPPORTS REGARDING FORMING AND CONSTRUCTION LOADS. TEMPORARY BRACING AND SHORING SHALL BE DESIGNED TO RESIST ALL CONSTRUCTION LOADS INCLUDING THE WEIGHTS OF ALL SUPPORTED MATERIALS PLUS A LIVE LOAD OF 50 PSF ON HORIZONTAL SURFACES. MAINTAIN TEMPORARY BRACING AND RETAIN IN PLACE UNTIL PERMANENT STRUCTURAL SYSTEMS ARE CAPABLE OF RESISTING ALL CONSTRUCTION PHASE LOADS.
B. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFE AND APPROPRIATE USE OF ALL PRODUCTS AND MATERIALS. STRICTLY CONFORM TO ALL OF THE MANUFACTURERS', PROVIDERS' OR INDUSTRY'S RESTRICTIONS, RECOMMENDATIONS, PRECAUTIONS AND PROTECTIONS (INCLUDING AS INDICATED IN THE MATERIAL/PRODUCT SAFETY DATA SHEET) FOR EACH PRODUCT'S OR MATERIAL'S STORAGE, HANDLING, USE, APPLICATION, CLEAN-UP AND DISPOSAL.

9. PROTECTION OF EXISTING CONSTRUCTION:
A. DO NOT DAMAGE EXISTING CONSTRUCTION WHICH IS TO REMAIN. LOCATE AND PROTECT CONCEALED PIPES, CONDUITS AND OTHER EXISTING CONSTRUCTION PRIOR TO DEMOLITION AND TAKE APPROPRIATE ACTION TO PROTECT THEM AND TO PROVIDE FOR SAFETY.
B. LOCATE EXISTING EMBEDMENTS, REINFORCEMENT AND POST-TENSIONED TENDONS IN EXISTING CONCRETE PRIOR TO ANY DEMOLITION, DRILLING, CHIPPING OR CUTTING. DO NOT DAMAGE OR ALTER EXISTING EMBEDMENTS, REINFORCEMENT OR POST-TENSIONING/PRESTRESSED TENDONS UNLESS SPECIFICALLY INSTRUCTED BY ENGINEER TO DO SO.

10. CONSTRUCTION INSPECTIONS:
A. NOTIFY THE BUILDING INSPECTOR FOR INSPECTION OF ALL STRUCTURAL ELEMENTS FOR WHICH INSPECTION IS REQUIRED. VERIFY THAT EACH AND EVERY STRUCTURAL ITEM HAS BEEN ACCEPTED BY THE INSPECTOR PRIOR TO PROCEEDING WITH SUBSEQUENT WORK AND/OR CONCEALING ANY STRUCTURAL ITEM. ANY STRUCTURAL ITEM WHICH HAS NOT BEEN SPECIFICALLY ACCEPTED BY THE INSPECTOR AND/OR ANY CONCEALING CONSTRUCTION WILL BE SUBJECT TO REMOVAL AND RECONSTRUCTION.
B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL REQUIRED STRUCTURAL INSPECTIONS HAVE BEEN PERFORMED AND THAT THEY INDICATE ACCEPTANCE.

11. SPECIAL INSPECTION (SELECTED SYSTEMS):
BY PROVISION OF THE FLORIDA BUILDING CODE 2020 AND THE MIAMI-DADE COUNTY CODE (SECTION 8-22), SPECIAL INSPECTION IS REQUIRED FOR COMPACTION OF SOIL UNDER SLABS-ON-GROUND, INSTALLATION OF STRUCTURAL PILES, WELDING AND HIGH STRENGTH BOLTING FOR STRUCTURAL STEEL AND AS MAY OTHERWISE BE REQUIRED BY THE BUILDING OFFICIAL. NOTIFY SPECIAL INSPECTOR FOR INSPECTION OF ALL COMPONENTS OF THESE SYSTEMS PRIOR TO THEIR CONCEALMENT BY OTHER CONSTRUCTION. DO NOT CONCEAL ANY COMPONENT OF THESE SYSTEMS UNTIL ACCEPTED BY SPECIAL INSPECTOR AND UNTIL SO INDICATED ON THE SPECIAL INSPECTION LOG. THE SPECIAL INSPECTION LOG WILL BE PREPARED BY SPECIAL INSPECTOR AND GIVEN TO CONTRACTOR FOR KEEPING ON SITE. KEEP THE SPECIAL INSPECTION LOG IN A CLEAN DRY AREA AT THE SITE AND MAKE IT AVAILABLE TO THE SPECIAL INSPECTOR AND TO THE MUNICIPAL BUILDING INSPECTOR UPON REQUEST. THE SPECIAL INSPECTOR WILL MAKE ENTRIES ON THE LOG FOR EACH SITE VISIT AND WILL INDICATE ACCEPTANCE OR REJECTION OF THE ITEMS OBSERVED. ACCEPTANCE APPLIES ONLY TO THOSE SPECIFIC ITEMS SO INDICATED. NO OTHER ITEMS OR AREAS ARE TO BE ASSUMED TO BE ACCEPTED. ANY COMPONENTS OF THE STRUCTURAL SYSTEMS WHICH HAVE BEEN CONCEALED WITHOUT SPECIFIC ACCEPTANCE BY THE SPECIAL INSPECTOR WILL BE REJECTED, AND ANY CONCEALING CONSTRUCTION MUST BE REMOVED. UPON ACCEPTANCE OF ALL COMPONENTS OF ALL SYSTEMS, RETURN SPECIAL INSPECTION LOG TO THE SPECIAL INSPECTOR. COMPLY WITH ALL REQUIREMENTS OF THE BUILDING OFFICIAL.

12. SHOP DRAWINGS:
A. SUBMIT TO THE ENGINEER COMPLETE SHOP DRAWINGS AS REQUIRED BY THESE CONTRACT DOCUMENTS.
B. CHECK ALL SHOP DRAWINGS FOR COMPLIANCE AND COMPLETENESS PRIOR TO SUBMITTAL. ALL SHOP DRAWINGS SHALL BEAR EVIDENCE OF CONTRACTOR'S REVIEW AND APPROVAL.
C. REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS FOR CONFORMANCE WITH DESIGN CONCEPT AND INFORMATION INDICATED IN CONTRACT DOCUMENTS. ACCURACY, COMPLETENESS, DIMENSIONS, QUANTITIES, SAFETY PRECAUTIONS, CONSTRUCTION MEANS AND METHODS, SEQUENCE OF CONSTRUCTION, COORDINATION WITH OTHER TRADES AND PERFORMANCE OF SYSTEMS REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.
D. REVIEW BY THE ENGINEER IS NOT FOR THE PURPOSE OF APPROVING CHANGES OR SUBSTITUTIONS.

13. MICRO PILES:
A. PILES: PILES SHALL BE 8" DIAMETER MICRO PILES (A.K.A MINI PILES). DRIVE CASING THROUGH THE EXISTING SOIL TO THE TOP OF THE LIMESTONE FORMATION. AUGER PILES A MINIMUM OF 5'-0" INTO THE LIMESTONE FORMATION AND FILL CASING AND HOLE WITH CONCRETE GROUT (MIN. 4,000 psi COMPRESSION STRENGTH).
B. DESIGN AND CONSTRUCTION: PILES SHALL BE DESIGNED AND INSTALLED BY A SPECIALTY CONTRACTOR. PILES SHALL BE DESIGNED TO ACHIEVE A MINIMUM 45-TON COMPRESSION CAPACITY, 20-TON TENSION CAPACITY AND 3-TON LATERAL CAPACITY.
C. SHOP DRAWINGS AND CALCULATIONS FOR PILES SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO ENGINEER-OF-RECORD AND GEOTECHNICAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
D. UNDERGROUND UTILITIES: UNDERGROUND UTILITIES EXIST WITHIN THE CONSTRUCTION AREAS. LOCATE UTILITIES BY GROUND PENETRATING RADAR, HAND EXCAVATION OR OTHER APPROPRIATE METHOD AND IDENTIFY THEM ON SHOP DRAWINGS. IF UTILITIES ARE FOUND TO CONFLICT WITH PROPOSED PILE LOCATIONS, NOTIFY ENGINEER-OF-RECORD FOR FURTHER DIRECTION. DO NOT DAMAGE EXISTING UTILITIES.
E. INSPECTION AND REPORTING: ALL PILE INSTALLATION OPERATIONS SHALL BE MONITORED BY A SPECIAL INSPECTOR, AND A REPORT AND AFFIDAVIT OF COMPLIANCE (SIGNED AND SEALED BY FLORIDA REGISTERED ENGINEER) FILED WITH THE ENGINEER AND THE BUILDING DEPARTMENT AS REQUIRED BY SECTION 8-22 OF THE MIAMI-DADE COUNTY CODE OF ORDINANCES.
F. TAKE CONCRETE GROUT SAMPLES AT THE TIME OF CONCRETE PLACEMENT. TAKE SAMPLES AT LEAST ONCE PER DAY AND AT LEAST ONCE FOR EACH 50 CUBIC YARDS OF GROUT PLACED. TEST SAMPLES FOR COMPRESSION AT 28 DAYS. THE AVERAGE OF ALL TESTS SHALL EXCEED 4000 PSI WITH NO ONE TEST FALLING BELOW 3800 PSI. SUBMIT TEST REPORTS TO THE ENGINEER.
G. LOAD TEST: LOAD TEST A MINIMUM OF ONE PILE IN ACCORDANCE WITH PARAGRAPH 1810.3.3 OF F.B.C., 2020 AND ASTM D1143.
H. SURVEY AND TOLERANCES:
1. SURVEY LOCATIONS OF ALL PILE TOPS. SUBMIT SURVEY PLAN TO ENGINEER.
2. TOLERANCES:
a. VARIATION FROM LOCATION: CENTER OF PILE TOPS: 3 INCHES
b. VARIATION FROM PLUMB OR BATTER ANGLE: 1 INCH IN 5 FT. LENGTH

14. SPLICING OF REINFORCING BARS TO EXISTING REINFORCING BARS:
A. STANDARDS: ACI 318, AWS D1.4 AND AWS D1.1.
B. MECHANICAL SPLICES MAY BE USED, PROVIDED THEY DEVELOP AT LEAST 125% OF THE YIELD STRENGTH OF THE ATTACHED BAR AND PROVIDED THAT THE REQUIRED CONCRETE COVER IS MAINTAINED. CONTRACTOR SHALL SUBMIT MANUFACTURER'S TEST DATA.
C. WELDED SPLICES SHALL LIKEWISE DEVELOP AT LEAST 125% OF THE YIELD STRENGTH OF THE ATTACHED BAR. A COMPLETE CHEMICAL ANALYSIS SHALL BE PROVIDED FOR ALL BARS, INCLUDING EXISTING BARS. ALL BARS WHICH ARE TO BE WELDED SHALL HAVE A CARBON EQUIVALENT OF LESS THAN 0.55%. REINFORCING BARS SHALL BE BUTT-WELDED USING A SINGLE VEE OR DOUBLE VEE GROOVE JOINT WITH A GROOVE ANGLE OF 45° TO 60°. THE ROOT OPENING SHALL BE 1/8" E80XX FOR ASTM A706 BARS OR E90XX FOR ASTM A615-GR. 60 (AS INDICATED IN AWS D1.4), AND LOW-HYDROGEN ELECTRODES SHALL BE USED. PROPERLY STORE LOW-HYDROGEN ELECTRODES AS REQUIRED BY AWS D1.4 PRIOR TO USE. THE REINFORCING BARS SHALL BE PREHEATED AS REQUIRED BY AWS D1.4
D. LAP SPLICE BARS AS INDICATED ABOVE.
E. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A706.

15. WELDING OF REINFORCING BARS TO STRUCTURAL STEEL:
A. STANDARDS: ACI 318, AWS D1.4, AND AWS D1.1.
B. WELDED REINFORCING BARS SHALL DEVELOP AT LEAST 125% OF THE YIELD STRENGTH OF THE ATTACHED BAR. A COMPLETE CHEMICAL ANALYSIS REPORT SHALL BE PROVIDED FOR ALL BARS TO BE WELDED. ALL BARS WHICH ARE TO BE WELDED SHALL HAVE A CARBON EQUIVALENT OF LESS THAN 0.55%. REINFORCING BARS SHALL BE BUTT-WELDED USING A SINGLE VEE GROOVE JOINT WITH A GROOVE ANGLE OF 45° TO 60°. THE ROOT OPENING SHALL BE 1/8" E80XX FOR ASTM A706 BARS OR E90XX FOR ASTM A615-GR. 60, AND LOW-HYDROGEN ELECTRODES SHALL BE USED. PROPERLY STORE LOW-HYDROGEN ELECTRODES AS REQUIRED BY AWS D1.4 PRIOR TO USE. THE REINFORCING BARS SHALL BE PREHEATED AS REQUIRED BY AWS D1.4
C. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A706.

16. STRUCTURAL STEEL:
A. MATERIALS:
1. STRUCTURAL TUBING: ASTM A500, GRADE B
2. STEEL PIPE: ASTM A53, TYPE E OR S, GRADE B
3. W-SHAPES: ASTM A992
4. ALL OTHER STRUCTURAL STEEL: ASTM A36 (U.O.N.)
5. ANCHOR BOLTS: ASTM A307
6. THREADED RODS: ASTM A36
7. HEADED SHEAR STUDS: AWS D1.1, TYPE B
8. ALL OTHER BOLTS: ASTM A325-09
9. NUTS: ASTM A563, GRADE C
10. WASHERS: ASTM F436, TYPE I
B. INSTALL STEEL BEAMS WITH NATURAL CAMBER UP.
C. SHOP DRAWINGS: SUBMIT COMPLETE SHOP DRAWINGS FOR STRUCTURAL STEEL FOR REVIEW BY ENGINEER PRIOR TO FABRICATION.
D. STANDARDS:
1. AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS."
2. AWS D1-1, E-70 SERIES ELECTRODES. ALL WELDERS SHALL BE CERTIFIED BY AWS FOR THE MATERIALS AND FOR THE WELD TYPES, SIZES AND ORIENTATIONS INDICATED IN THESE DRAWINGS. SUBMIT WELDER CERTIFICATIONS TO ENGINEER.
E. QUALITY CONTROL (QC) AND QUALITY ASSURANCE (QA) OF WELDED AND BOLTED CONNECTIONS SHALL BE AS REQUIRED BY AISC 360, CHAPTER N, AND ITS REFERENCED STANDARDS. CONTRACTOR SHALL INCLUDE IN BASE BID ALL ASSOCIATED COSTS OF QC INSPECTION TASKS. OWNER SHALL COVER THE ASSOCIATED COSTS OF QA INSPECTION TASKS AND NON-DESTRUCTIVE TESTING, WHICH SHALL INCLUDE 10% OF CJP GROOVE WELDS BY ULTRASONIC OR RADIOGRAPHIC METHOD, AND 10% OF FILLET WELDS BY MAGNETIC PARTICLE OR DYE PENETRANT METHOD. REPAIR OF NON-CONFORMANCES SHALL BE AT CONTRACTOR'S EXPENSE.

17. CONCRETE (CAST-IN-PLACE):
A. STANDARDS: ACI 301, ACI 347, ACI 207, ACI 117, ACI 308.1 & ACI 318 (EXCEPT AS MODIFIED BY FBC 2020, SECTION 1905).
B. CONCRETE MIXES
1. SUBMIT CONCRETE MIX DESIGNS TO ENGINEER FOR REVIEW PRIOR TO USE.
2. PROPORTION ALL NORMAL-WEIGHT CONCRETE IN ACCORDANCE WITH ACI 301 TO ATTAIN THE FOLLOWING PROPERTIES:

CONCRETE LOCATION	COMPRESSIVE STRENGTH	MAXIMUM WATER / CEMENT RATIO	NOTES
ALL MEMBERS	4,000 PSI @ 28 DAYS	0.50	

3. SLUMP SHALL BE 4" (±1") FOR REGULAR MIXES AND NOT GREATER THAN 9" FOR MIXES WITH WATER-REDUCING ADMIXTURES. ADD NO WATER TO THE CONCRETE AT THE SITE, UNLESS OTHERWISE APPROVED BY THE ENGINEER IN ADVANCE AND ONLY IF TEST SAMPLES ARE TAKEN AFTER ADDITION OF THE APPROVED WATER.
4. CEMENTITIOUS MATERIALS:
a. CEMENT: ASTM C150, TYPE I, UNLESS OTHERWISE NOTED. BLENDED HYDRAULIC CEMENTS (ASTM C595)
MAY BE USED WITH PRIOR APPROVAL BY THE ENGINEER.
b. FLY ASH: ASTM C618, CLASS F.
c. GROUND GRANULATED BLAST-FURNACE SLAG: ASTM C989 GRADE 100 OR 120
d. LIMIT PERCENTAGE OF FLY ASH, SLAG OR COMBINATION FLY ASH AND SLAG TO 25% BY WEIGHT OF TOTAL CEMENTITIOUS MATERIALS, UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.
5. LARGE-AGGREGATE PUMP MIXES WITH WATER-REDUCING ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. PEA ROCK PUMP MIXES WILL NOT BE APPROVED.
6. COARSE AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-33.
7. WATER: ASTM C-1602.
8. READY-MIX CONCRETE: ASTM C-94.
11. LIMIT WATER SOLUBLE CHLORIDE IONS TO MAXIMUM PERCENTAGE BY WEIGHT OF CEMENT PERMITTED BY
ACI 318 OR PCI MNL 116.
C. CONTRACT AN INDEPENDENT TESTING LABORATORY TO PERFORM THE CONCRETE CYLINDER SAMPLING AND TESTING AS REQUIRED BY SECTION 26.12 OF ACI 318-14. SUBMIT TEST REPORTS TO THE ENGINEER TIMELY.
D. PROVIDE ALL FORMING AND TEMPORARY SHORING.
E. DO NOT EMBED PIPES OR CONDUITS EXCEEDING 1/3 THE SLAB THICKNESS IN OUTSIDE DIAMETER IN THE CONCRETE FLOOR WITHOUT THE WRITTEN APPROVAL FROM THE ENGINEER. WHERE PIPES OR CONDUITS ARE PERMITTED, PLACE NO CLOSER THAN THREE DIAMETERS O.C. AND LOCATE SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE.
F. REINFORCEMENT:
1. STANDARD: ASTM A-615, GRADE 60.
2. WELDED WIRE FABRIC (W.W.F.): ASTM A1064, PLAIN.
3. REINFORCEMENT PLACEMENT TOLERANCES: COMPLY WITH SECTION 2.2 OF ACI 117-10
G. CONCRETE COVER OVER REINFORCEMENT: UNLESS OTHERWISE INDICATED IN THESE DRAWINGS, PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS:
1. 3 INCHES WHERE CAST AGAINST EARTH
2. 2 INCHES FOR NO. 6 AND LARGER AND 1 - 1/2 INCHES FOR NO. 5 AND SMALLER DIAMETER BARS WHERE CAST IN FORMS OR ON VAPOR-GAS RETARDER SHEET AND PERMANENTLY EXPOSED TO WEATHER OR EARTH
3. 1-1/2 INCHES FOR INTERIOR COLUMNS AND BEAMS
4. 3/4-INCH FOR INTERIOR WALLS, SLABS, JOISTS AND STAIRS
H. STEEL REINFORCEMENT SHOP DRAWINGS:
SUBMIT REINFORCEMENT PLACING DRAWINGS TO ENGINEER THAT DETAIL BENDING AND PLACEMENT. INCLUDE BAR SIZES, LENGTHS, MATERIAL AND GRADE. INCLUDE DRAWINGS, SCHEDULES AND DIAGRAMS AS NECESSARY TO CLEARLY INDICATE ALL BARS, ARRANGEMENT, SPLICES, SPACING AND SUPPORTS.
I. REINFORCING LAP SPLICES
1. UNLESS OTHERWISE INDICATED OR APPROVED BY THE ENGINEER IN ADVANCE, MAKE SPLICES FOR REINFORCING BARS BY LAPPING BARS. UNLESS OTHERWISE NOTED, LAP SPLICE COLUMN AND WALL BARS ABOVE FLOOR AND FOOTING LEVELS. UNLESS OTHERWISE NOTED FOR BEAMS AND SLABS, PLACE LAP SPLICES FOR TOP BARS WITHIN THE MIDDLE THIRD OF THE SPANS AND PLACE LAP SPLICES FOR BOTTOM BARS AND INTERMEDIATE BARS CENTERED OVER SUPPORTS, OR WHEN THIS IS NOT POSSIBLE, PLACE THEM WITHIN ONE THIRD OF THE SPAN LENGTH FROM THE CENTERLINE OF THE SUPPORTING COLUMN OR WALL. U.O.N., LENGTHS OF TENSION LAP SPLICES SHALL BE IN ACCORDANCE WITH "TENSION DEVELOPMENT AND LAP SPLICE LENGTHS FOR REINFORCING BARS" ON DRAWING No. SX.XX.
2. LAP SPLICE WELDED WIRE FABRIC MINIMUM ONE FULL MESH DIMENSION PLUS 2".

18. FASTENERS AND ANCHORS:
A. FASTENERS AND ANCHORS SHALL BE OF THE TYPE AND SIZE INDICATED IN THESE DRAWINGS. USE THE SPECIFIC MANUFACTURER AND MODEL WHERE INDICATED. STRICTLY FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
B. ALL FASTENERS, INCLUDING EXPANSION ANCHORS, SLEEVE ANCHORS, STRAPS, NAILS, SCREWS, ETC. SHALL BE GALVANIZED, OR OTHERWISE COATED FOR CORROSION CONTROL BY A METHOD APPROVED BY THE ENGINEER.

19. EPOXY ANCHORS:
USE TWO COMPONENT EPOXY BASED PRODUCT SUPPLIED AS A SIDE-BY-SIDE CARTRIDGE SYSTEM AND DISPENSED THROUGH A STATIC MIXING NOZZLE. USE HILTI HY-200 OR AN ENGINEER APPROVED SUBSTITUTE. FOLLOW RECOMMENDATIONS AND SPECIFICATIONS FOR PREPARATION AND INSTALLATION INDICATED IN PRODUCT'S ICC-ES EVALUATION REPORT (ESR) OR STATE OR COUNTY PRODUCT APPROVAL, INCLUDING THE NUMBER OF TIMES HOLES SHALL BE WIRE-BRUSHED AND BLOWN WITH COMPRESSED AIR. ALL HOLES MUST BE OBSERVED BY THE PROJECT INSPECTOR PRIOR TO INSTALLATION OF EPOXY. ONCE EPOXY CURING TIME HAS ELAPSED, SET CONNECTION TO SPECIFIED MINIMUM INSTALLATION TORQUE USING AN ADJUSTABLE TORQUE-LIMITING WRENCH. DO NOT OVER-TORQUE ANCHORS NOR USE AIR-POWERED OR ELECTRIC WRENCHES.

SEQUENCE OF TEMPORARY STRUCTURAL BRACING & STRUCTURAL DEMOLITION:

TEMPORARY BRACING
1. INSTALL TEMPORARY PILING.
2. INSTALL TEMPORARY FOOTINGS.
3. REMOVE EXISTING FOURTH FLOOR ROOF AND FOURTH FLOOR WALLS (SEE STRUCTURAL DEMOLITION NOTES BELOW).
4. INSTALL ALL STRUCTURAL STEEL TEMPORARY BRACING MEMBERS, CONNECTIONS AND ANCHORAGES. MAINTAIN TEMPORARY BRACING MEMBERS IN PLACE UNTIL PERMANENT STRUCTURAL SYSTEMS ARE COMPLETE.

STRUCTURAL DEMOLITION
1. REMOVE EXISTING ROOF SHEATHING AND RAFTERS ABOVE FOURTH FLOOR, AND REMOVE EXISTING FOURTH FLOOR WALLS.
2. ASSURE THAT ALL TEMPORARY BRACING MEMBERS, CONNECTIONS AND ANCHORAGES ARE INSTALLED AS INDICATED.
3. REMOVE EXISTING INTERIOR WOOD STRUCTURES IN THE SEQUENCE THAT FOLLOWS. PROVIDE TEMPORARY SHORING TO EXISTING WOOD MEMBERS THROUGHOUT THE SEQUENCE SUCH THAT EXISTING WOOD MEMBERS DO NOT EXERT ANY ADDITIONAL STRESSES TO THE EXISTING CONCRETE AND MASONRY MEMBERS ALONG THE EXISTING EXTERIOR WALLS, WHERE JOISTS ARE INSERTED INTO EXISTING C.M.U. OR CONCRETE, CAREFULLY EXTRACT HORIZONTALLY WITHOUT TWISTING OR TURNING. IF EXISTING CEMENTITIOUS MATERIALS ARE TIGHT TO THE EXISTING WOOD MEMBER, LIGHTLY CHIP/CHISEL SUCH MATERIALS UNTIL EXISTING WOOD MEMBERS CAN BE EXTRACTED WITHOUT FURTHER DAMAGE TO EXISTING CEMENTITIOUS MATERIALS. SEQUENCE OF REMOVAL OF EXISTING WOOD MEMBERS (EACH STEP INDICATED HERE INCLUDES ASSOCIATED EXISTING WOOD BLOCKING, PLATES, LEDGERS, FURRING, LATH AND OTHER EXISTING ACCESSORIES)
A. EXISTING WOOD ROOF SHEATHING AND FOURTH-FLOOR SHEATHING.
B. EXISTING WOOD ROOF RAFTERS AND FOURTH-FLOOR WOOD JOISTS.
C. EXISTING WOOD ROOF STUD WALLS.
D. EXISTING WOOD THIRD-FLOOR CEILING JOISTS.
E. EXISTING WOOD THIRD-FLOOR STUDS.
F. EXISTING WOOD THIRD-FLOOR SHEATHING.
G. EXISTING WOOD THIRD-FLOOR JOISTS.
H. EXISTING WOOD SECOND-FLOOR STUDS.
I. EXISTING WOOD SECOND-FLOOR SHEATHING.
J. EXISTING WOOD SECOND-FLOOR JOISTS.
K. EXISTING WOOD FIRST-FLOOR STUDS.
L. EXISTING WOOD FIRST-FLOOR SHEATHING.
M. EXISTING WOOD FIRST-FLOOR JOISTS.

4. REMOVE ALL OTHER STRUCTURAL MEMBERS/SYSTEMS WHICH ARE INDICATED TO BE REMOVED IN THESE DRAWINGS. DO NOT DAMAGE EXISTING MATERIALS AND SYSTEMS WHICH ARE TO REMAIN. PROVIDE TEMPORARY SHORING TO EXISTING MEMBERS WHICH ARE TO BE REMOVED AND CAREFULLY SAWCUT SO THAT THEY DO NOT EXERT ADDITIONAL STRESSES ON EXISTING MATERIALS AND SYSTEM WHICH ARE TO REMAIN.

STRUCTURAL DRAWING INDEX

SHEET No.	SHEET TITLE	FOR REVEIW ONLY - 02/03/2023	REVISIONS			
S0.00	GENERAL STRUCTURAL NOTES, DRAWING INDEX	●				
S2.00	FIRST FLOOR BRACING PLAN	●				
S2.01	SECOND FLOOR BRACING PLAN	●				
S2.02	THIRD FLOOR BRACING PLAN	●				
S2.03	FOURTH FLOOR BRACING PLAN	●				
S2.03A	FOURTH FLOOR UPPER BRACING PLAN	●				
S3.00	ELEVATIONS	●				
S3.01	ELEVATIONS	●				
S4.00	SECTIONS AND DETAILS	●				

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DOUGLAS WOOD, P.E.
FL P.E. No. 32092

DOUGLAS SCOTT WOOD, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NUMBER 32092
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DOUGLAS S WOOD
2023.02.10 09:21:08-05'00'

CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

ADDRESS:
337 20TH STREET,
MIAMI BEACH, FL 33139

Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title:
GENERAL STRUCTURAL NOTES, DRAWING INDEX

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
Sheet
S0.00

P:\1-Project\22088 - Riviera Plaza Assessment Feasibility Study\Drawings\Structural\Originals\PHASE-1 CONCEPTUAL BRACING & SHORING\22088-S0.00 General Structural Notes.dwg, 2/10/2023 8:57:03 AM, DWG To PDF.pc3

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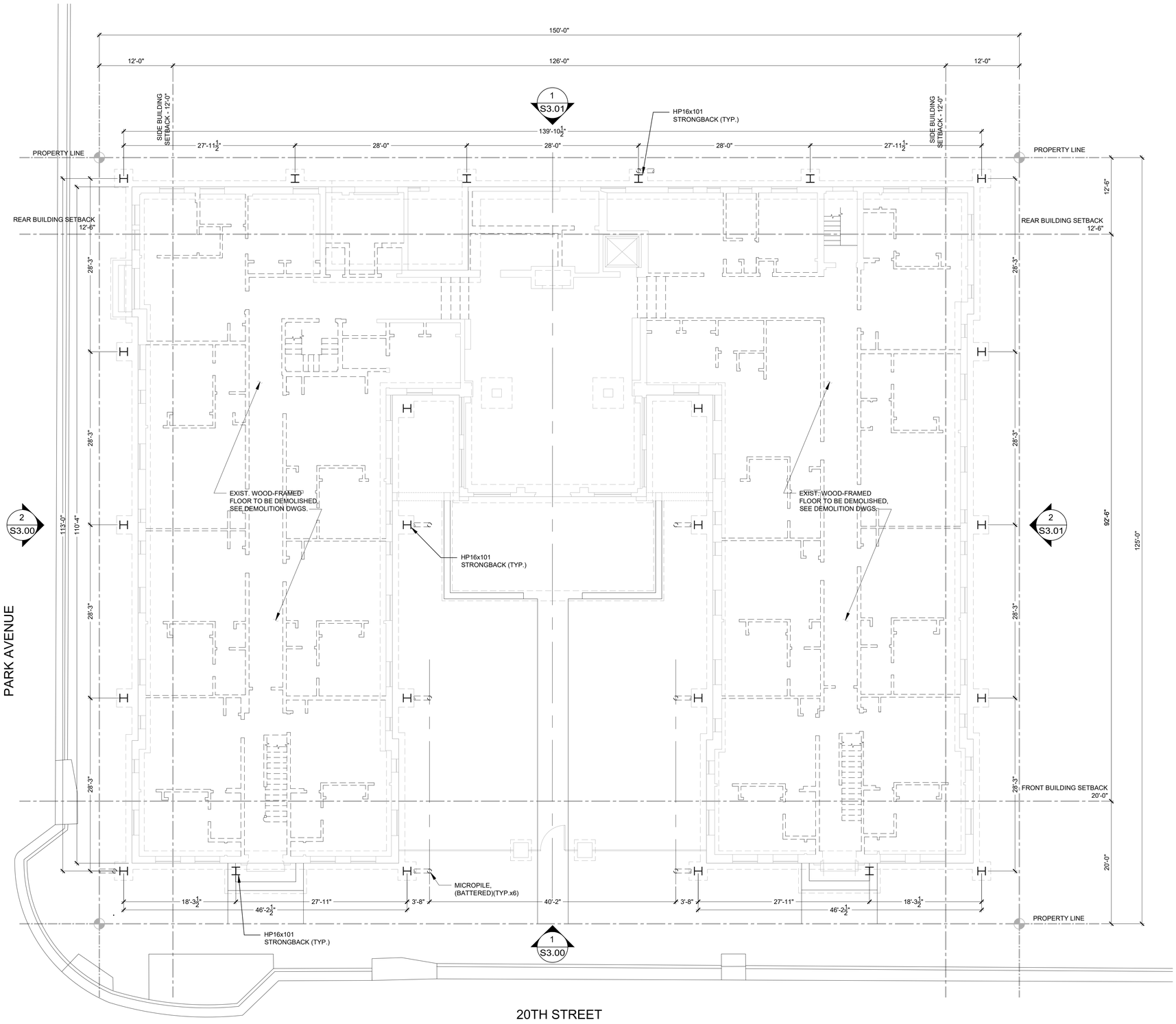

FIRST FLOOR BRACING PLAN

1/8" = 1'-0"

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ADDRESS:
337 20TH STREET,
MIAMI BEACH, FL 33139

Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title:
FIRST FLOOR BRACING PLAN

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
Sheet
S2.00

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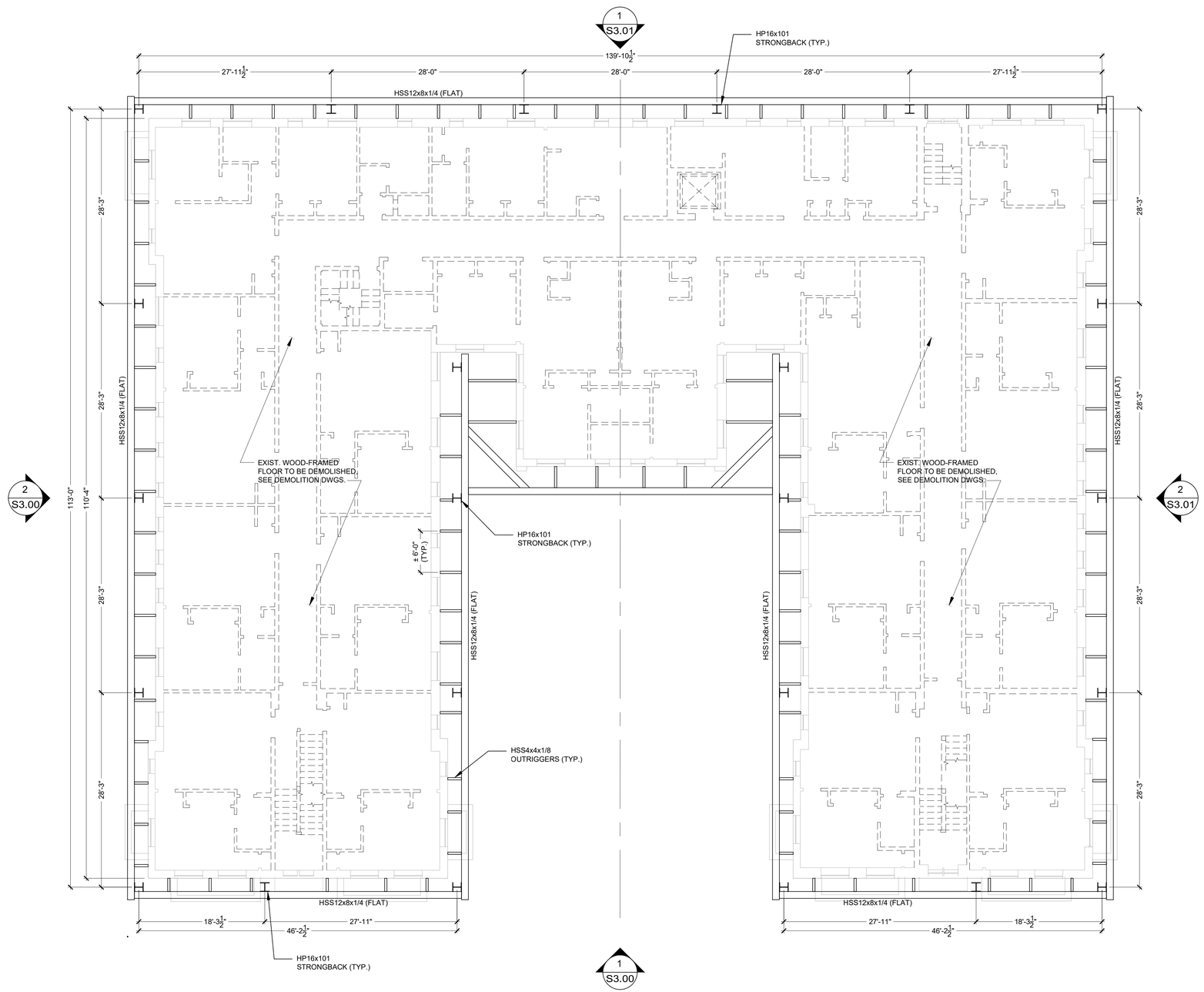

SECOND FLOOR BRACING PLAN

1/8" = 1'-0"

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337 20TH STREET,
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Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title:
SECOND FLOOR BRACING PLAN

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
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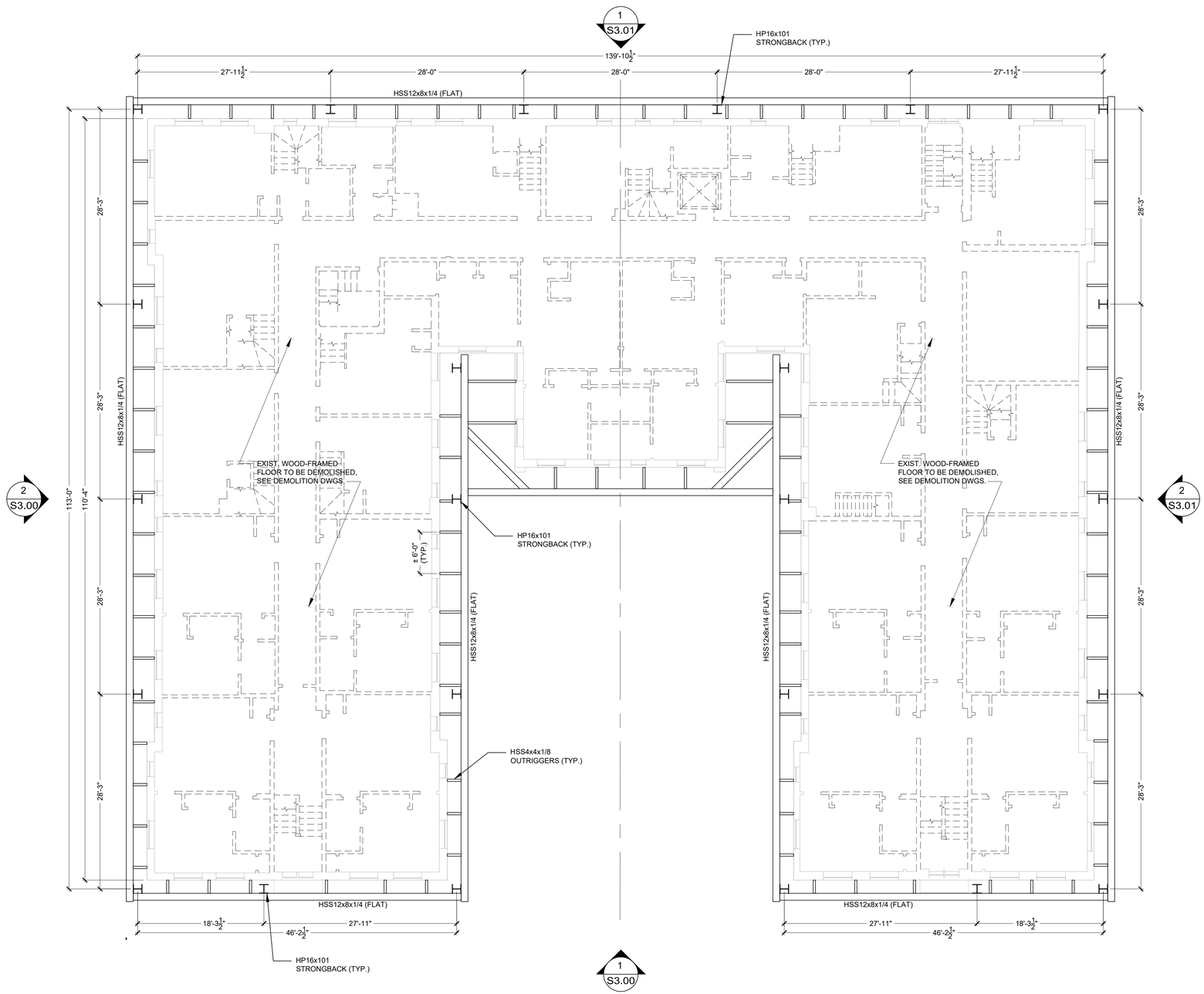

THIRD FLOOR BRACING PLAN

1/8" = 1'-0"

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ADDRESS:
337 20TH STREET,
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Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR
TEMPORARY BRACING

Drawing Title:
THIRD FLOOR BRACING PLAN

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
Sheet
S2.02

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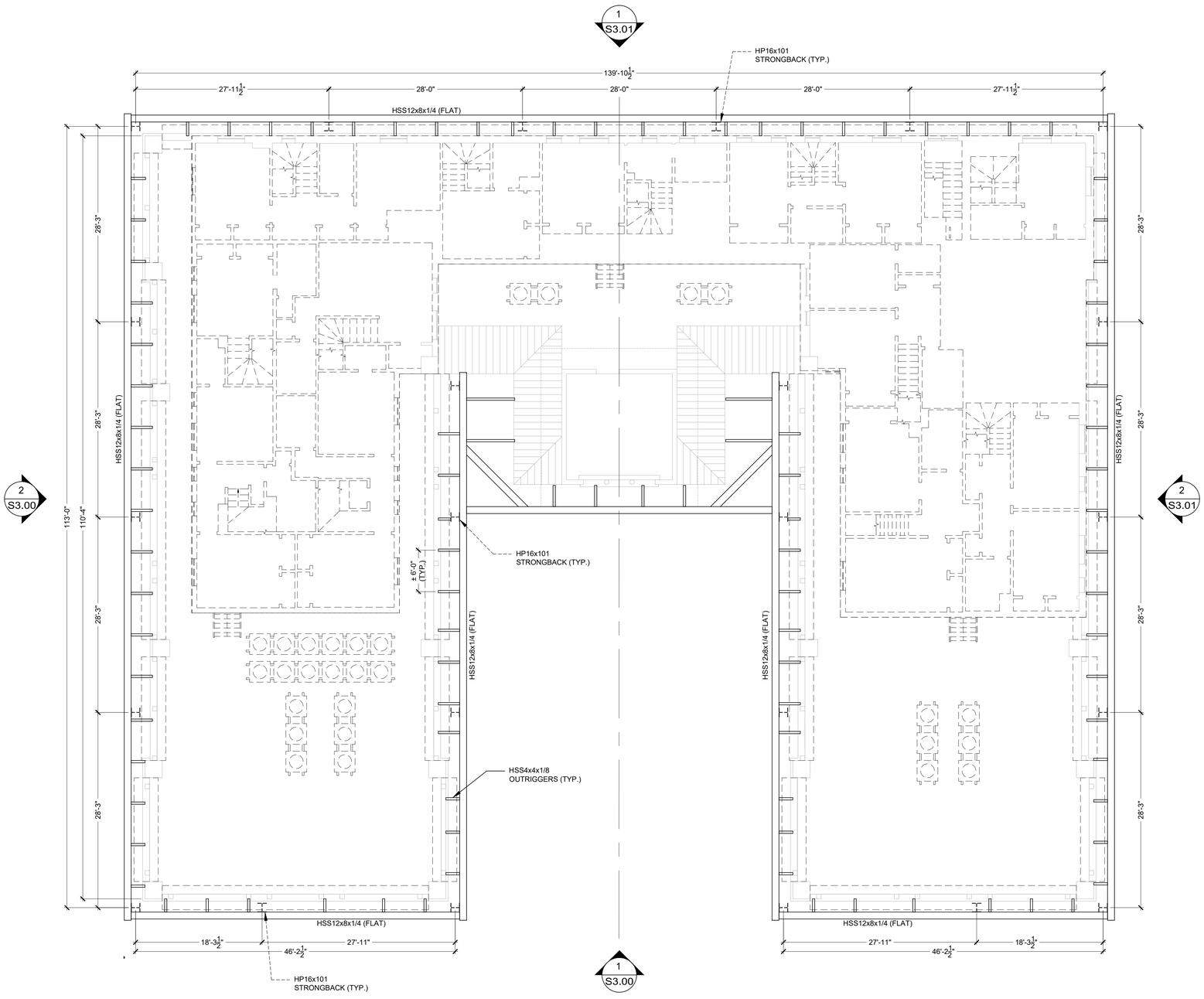

FOURTH FLOOR BRACING PLAN

1/8" = 1'-0"

N

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Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title:
FOURTH FLOOR BRACING PLAN

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
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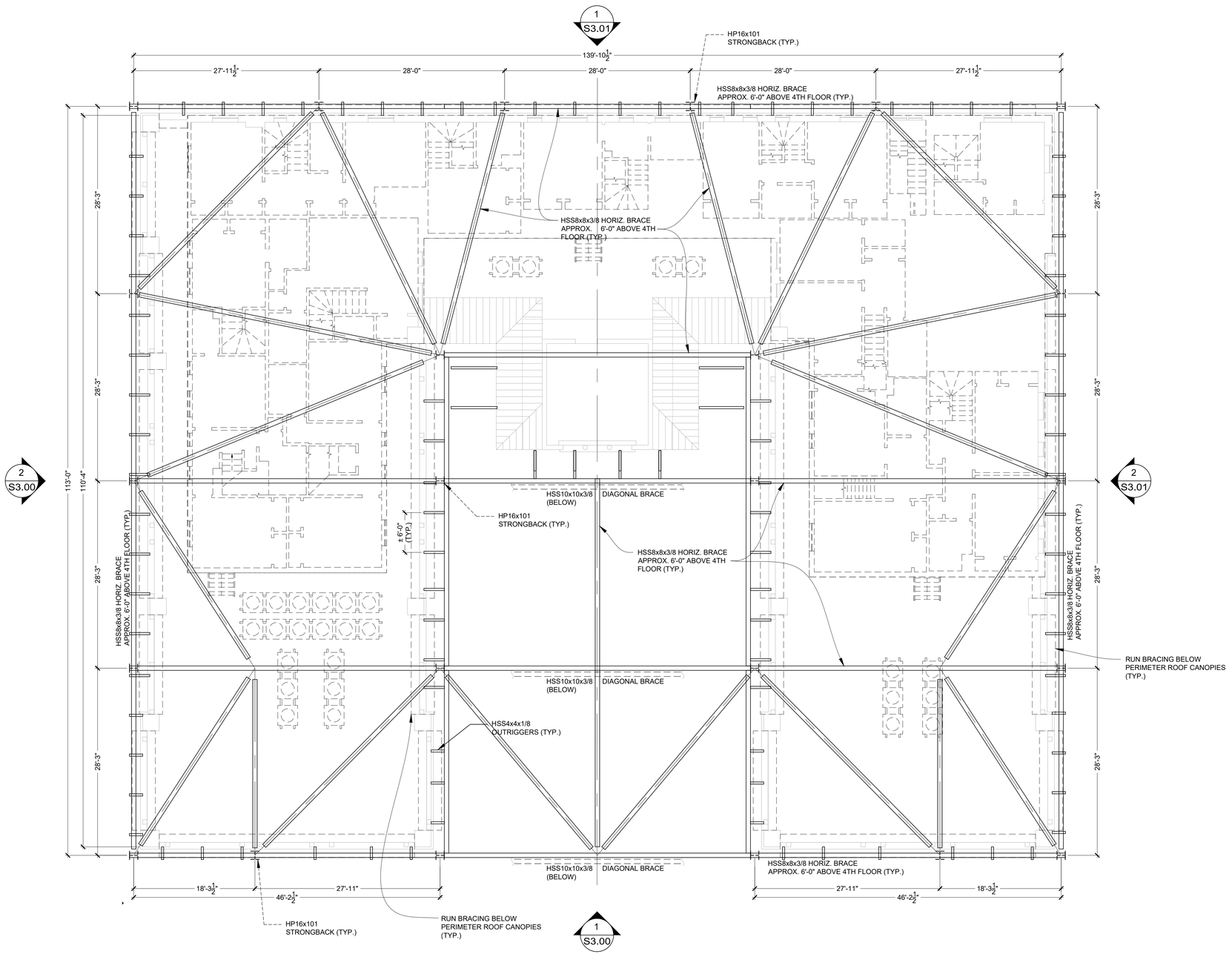

FOURTH FLOOR UPPER BRACING PLAN

1/8" = 1'-0"

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Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title:
FOURTH FLOOR UPPER BRACING PLAN

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
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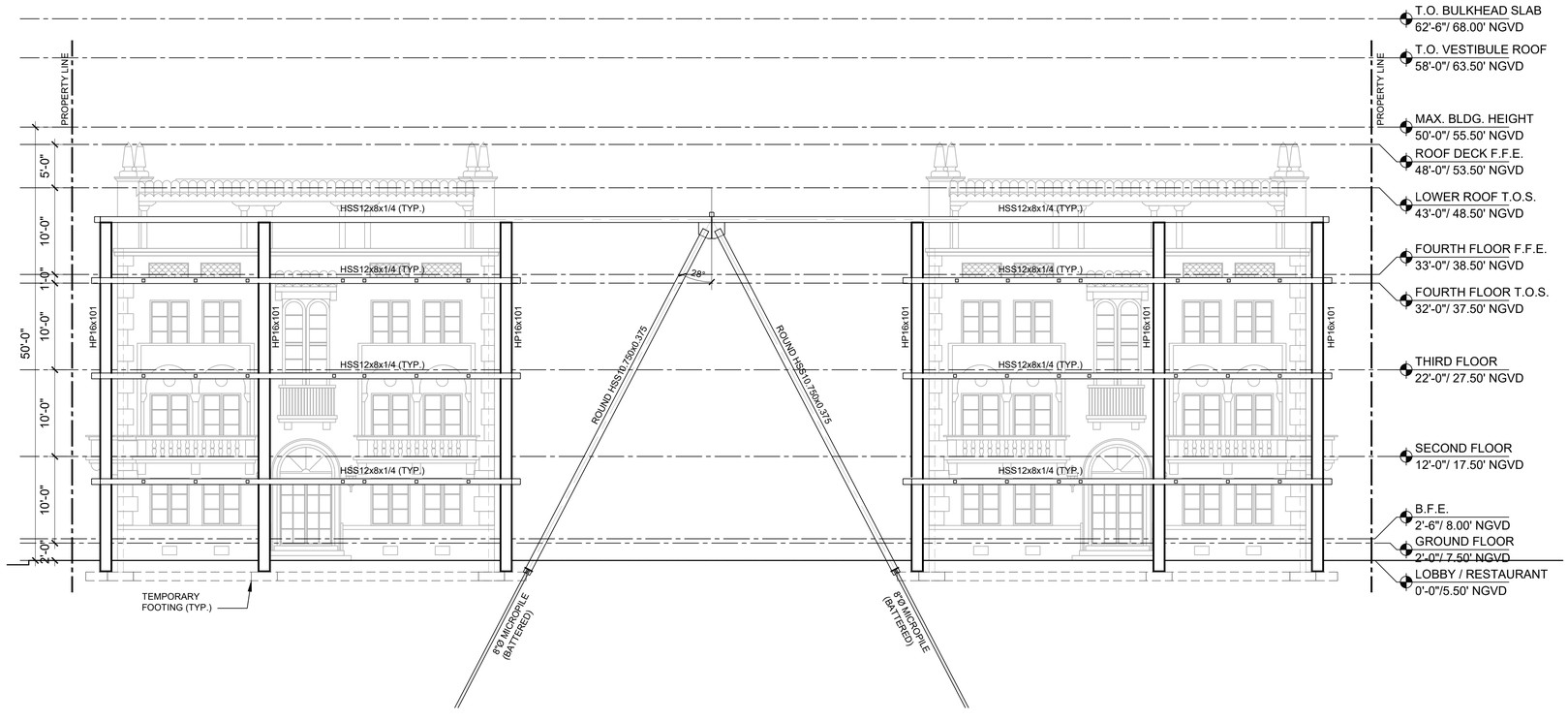
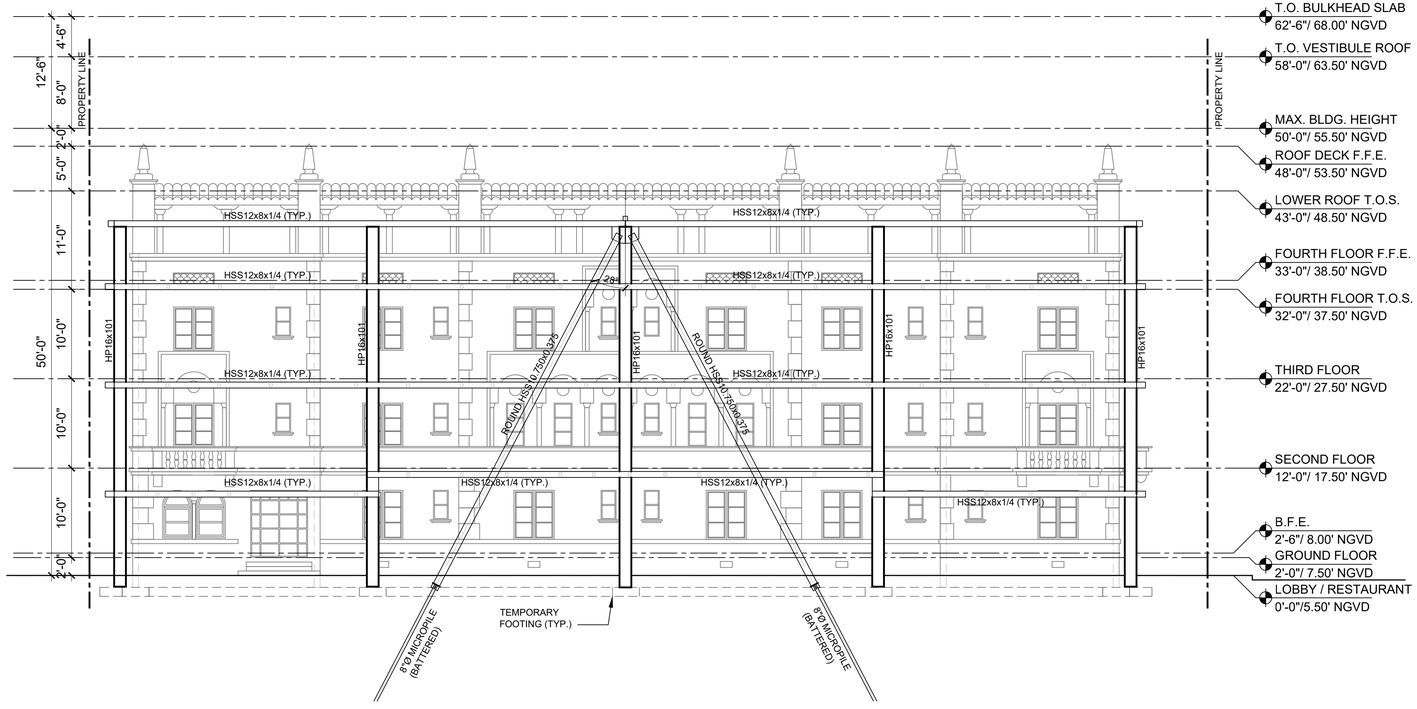


SOUTH ELEVATION

1/8" = 1'-0"

1 S3.00



WEST ELEVATION

1/8" = 1'-0"

2 S3.00

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Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title: ELEVATION

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
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Job: 22088

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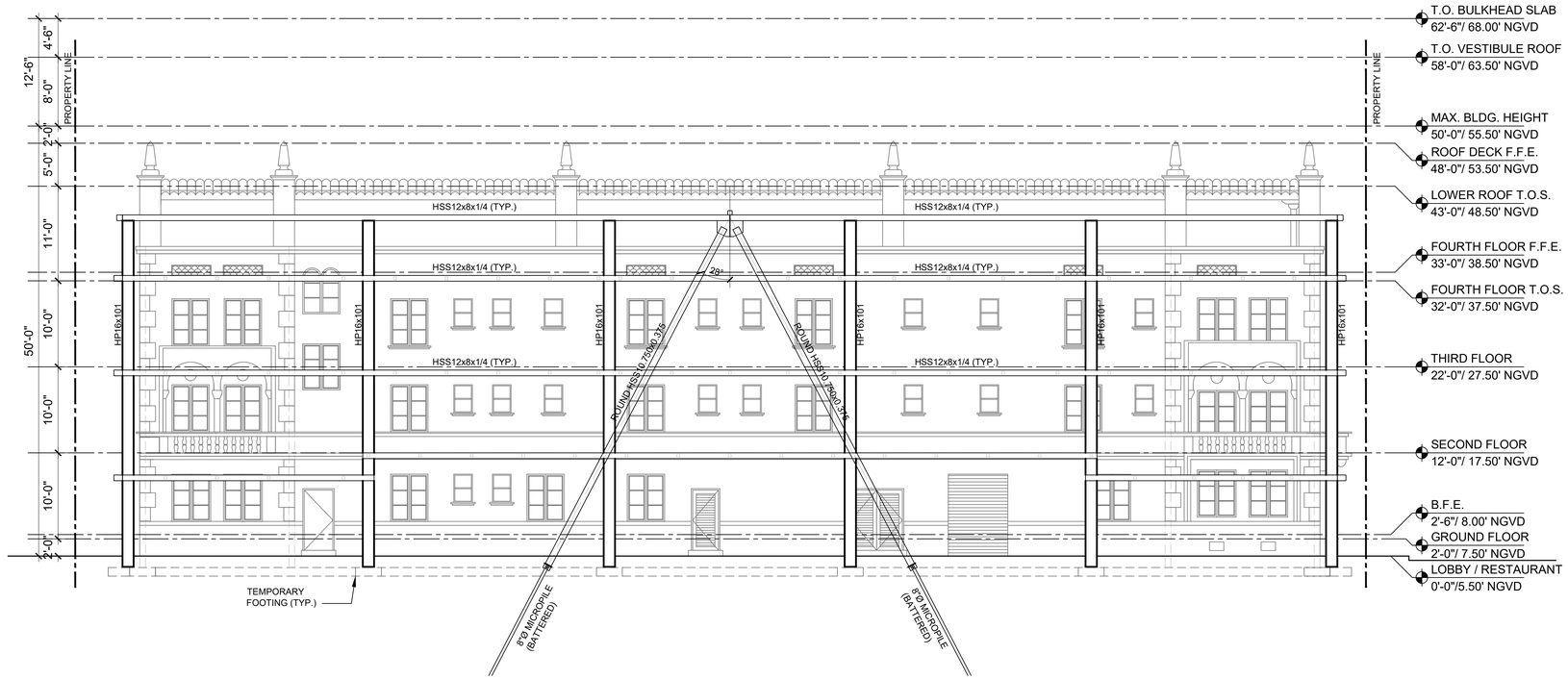
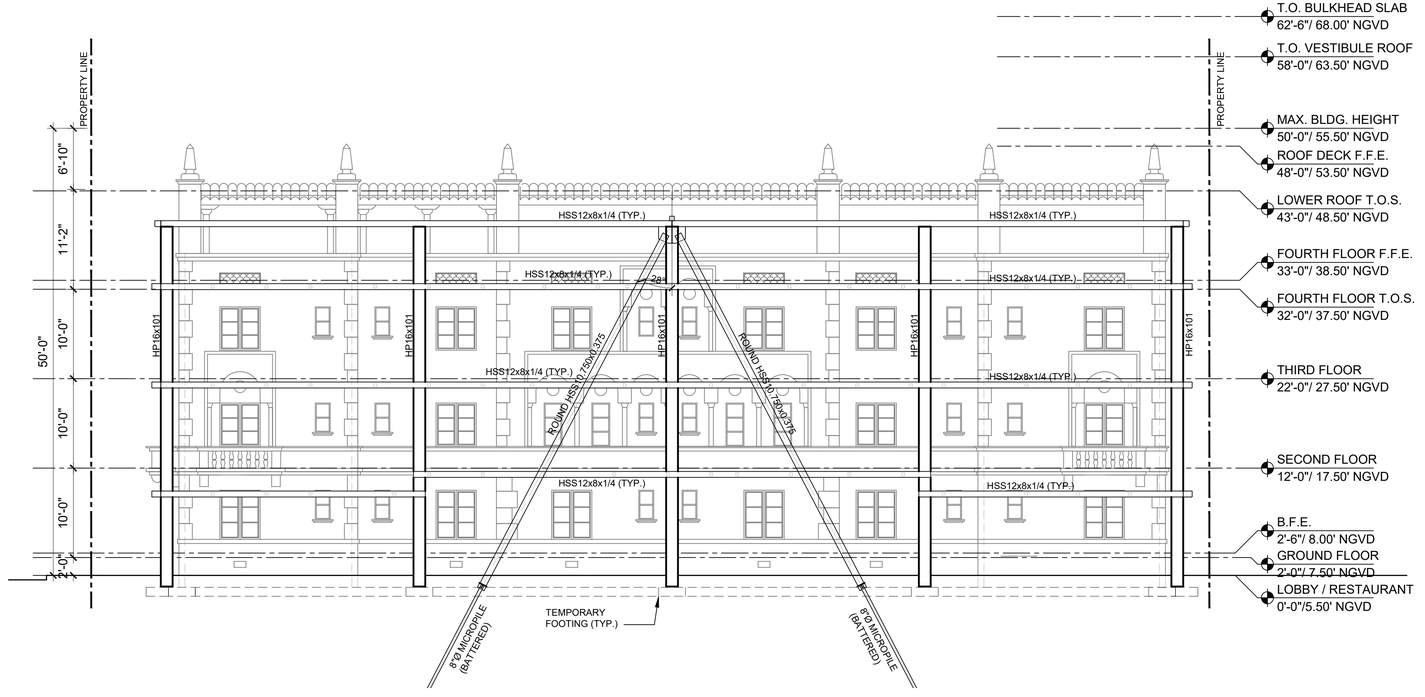


NORTH ELEVATION

1/8" = 1'-0"

1 / S3.01



EAST ELEVATION

1/8" = 1'-0"

2 / S3.01

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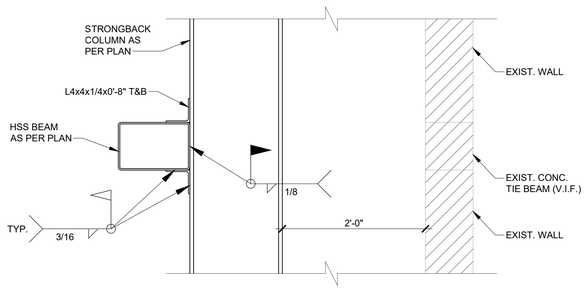
Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title: ELEVATIONS

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
Sheet
S3.01



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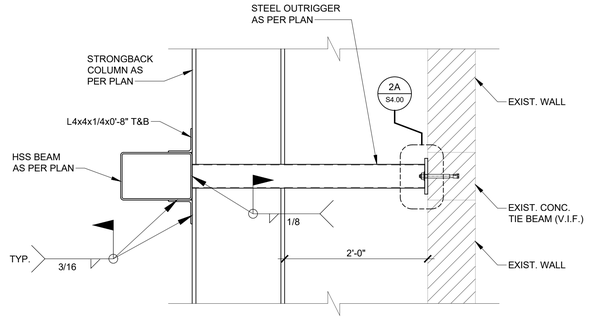

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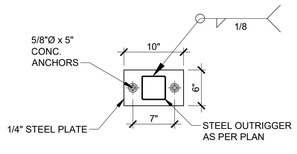

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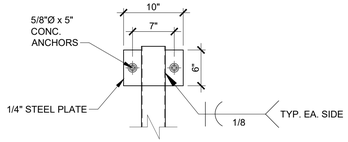

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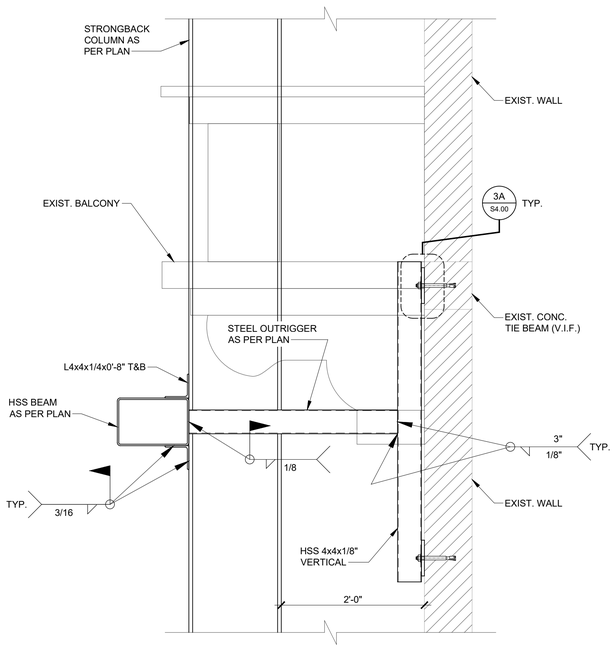

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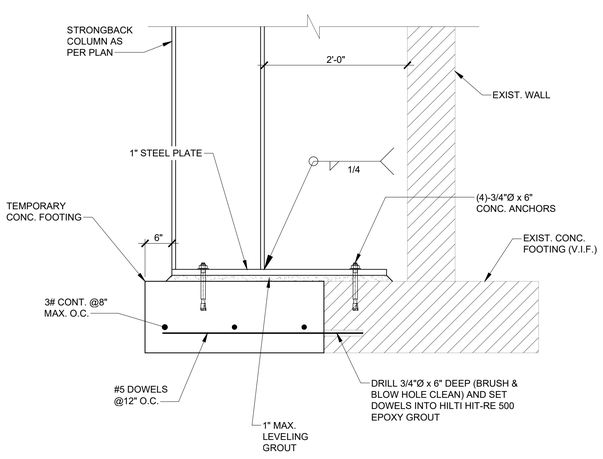

SECTION 4 S4.00
SCALE: 1" = 1'-0"

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Project:
RIVIERA PLAZA
CONCEPTUAL DESIGN FOR TEMPORARY BRACING

Drawing Title:
SECTIONS AND DETAILS

REVISIONS

Date: 02-03-2023
Scale: AS NOTED
Drawn by: RA
Job: 22088
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