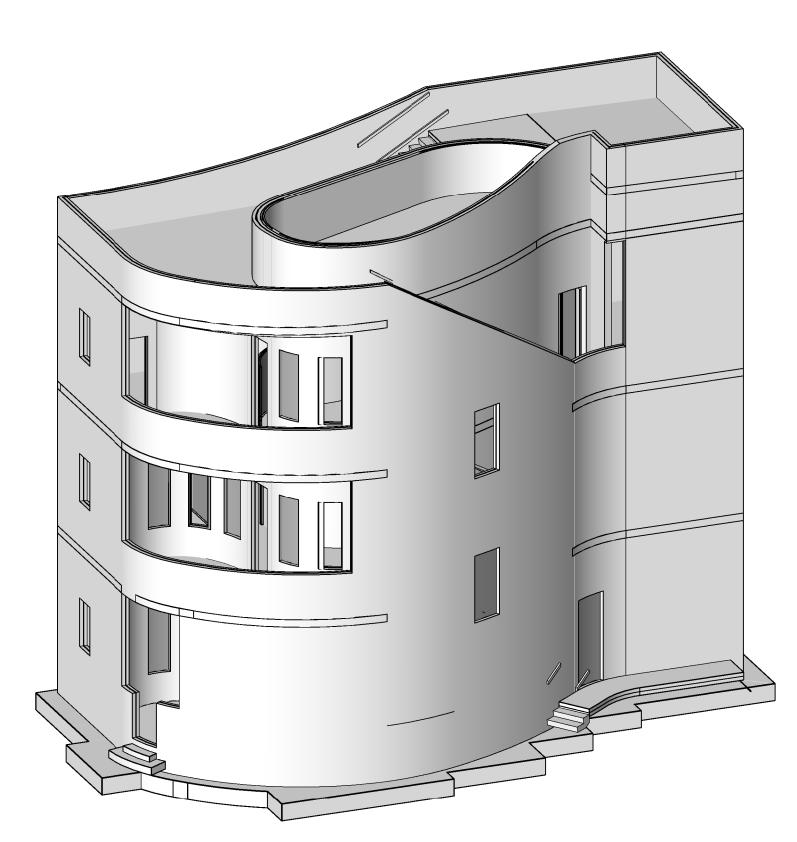
FL. I 301 Pen Tel.

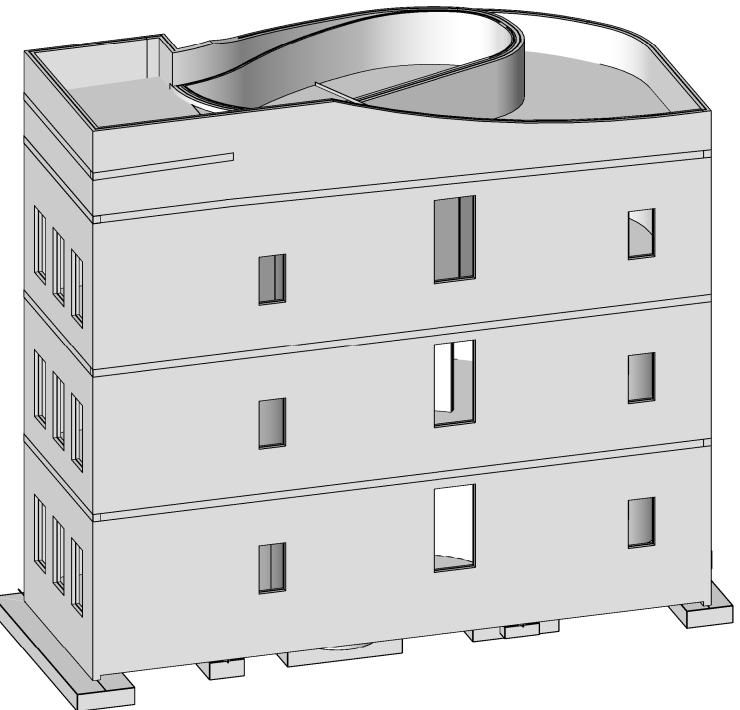
RESIDENCE

EREFIN









WEST PERSPECTIVE S1.0

1.00 GENERAL NOTES

- 1.01 THESE DRAWINGS ADDRESS ONLY THE STRUCTURAL DESIGN OF THE STRUCTURE. THE DIMENSIONAL LAYOUT OF THE STRUCTURE HAS BEEN DICTATED TO JOE DEREUIL ASSOCIATES IN ORDER TO PRODUCE STRUCTURAL DESIGN DOCUMENTS. NO REPRESENTATION IS MADE REGARDING CODE CONFORMANCE OF NON-STRUCTURAL ASPECTS OF THE STRUCTURE.
- 1.02 DRAWINGS SHOW TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. FOR DETAILS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN.
- 1.03 THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 1.04 COORDINATE STRUCTURAL CONTRACT DOCUMENTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL. NOTIFY STRUCTURAL ENGINEER OF ANY CONFLICT AND/OR OMISSION. CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ARCHITECT. FOR ADDITIONAL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS.

1.05 DESIGN LOADS

- DEAD LOADS:
- MECHANICAL, ELECTRICAL, PLUMBING: 5 PSF
- CEILINGS AND INSULATION: 5 PSF
- PARTITIONS: 10 PSF
- POOL: 4" SHOTCRETE PLUS 5'-2" OF WATER: 372 PSF
- LIVE LOADS: (MAY BE REDUCED PER CODE)
- BALCONIES/DECKS.: 60 PSF
- RESIDENTIAL SPACES AND ROOFS: 60 PSF
- C. WIND LOADS STRUCTURE HAS BEEN DESIGNED TO CONFORM TO THE WIND PROVISIONS OF THE FLORIDA BUILDING CODE AND ASCE 7-10. SEE WIND PRESSURE DIAGRAM & CHART ON SHEET S1.1

1.06 SUBMITTALS:

- A. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
- 1.07 INSPECTIONS/OBSERVATIONS:
- A. STRUCTURAL OBSERVATION BY STRUCTURAL ENGINEER OF RECORD SHALL BE AS FOLLOWS.
- STRUCTURAL OBSERVATION IS VISUAL OBSERVATION OF THE IN-PLACE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT THE TIME OF THE OBSERVATION
- 2.00 FOUNDATIONS AND SLAB-ON-GRADE
- 2.01 .
- 2.02 SHALLOW FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF.
- 2.03 AT THIS TIME NO GEOTECHNICAL REPORT HAS BEEN SUBMITTED. AN ALLOWABLE SOIL BEARING PRESSURE HAS BEEN CONSERVATIVELY ESTIMATED BASED ON SIMILAR PROJECTS OF THIS SIZE AND LOCATED IN THE SAME GENERAL AREA OF CONSTRUCTION. A QUALIFIED GEOTECHNICAL ENGINEER SHALL CHECK COMPACTION OF THE FOOTINGS. THE SOILS IMMEDIATELY BENEATH ALL FOOTINGS SHOULD BE COMPACTED FOR A MINIMUM DEPTH OF 12 INCHES TO A MINIMUM OF 95% OF THE SOIL'S MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557) USING A LARGE TAMPER

- 2.04 A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC. SHOULD THE CONTRACTOR FIND UNDESIRABLE SOILS, HE SHALL STOP WORK AND IMMEDIATELY CONTACT THE ENGINEER OFRECRD. ALL FOOTINGS SHALL REST EITHER ON UNDISTURBED SOIL OR A MANUALLY OPERATED VIBRATORY SLED OR TAMPER SHOULD BE USED TO DENSIFY ANY SOILS IN THE BOTTOM OF THE FOOTING TRENCHES LOOSENED DURING THE EXCAVATION OPERATION.
- 2.05 DEWATER TO AT LEAST TWO FEET BELOW BOTTOM OF LOWEST FOUNDATION IF GROUNDWATER IS ENCOUNTERED.
- 2.06 SLAB-ON-GRADE REQUIREMENTS:
- A. UNLESS NOTED OTHERWISE, THE SLAB-ON-GRADE SHALL BE A MINIMUM OF 4 INCHES THICK, PLACED ON COMPACTED SUBGRADE, AND REINFORCED WITH 6 x 6 - W2.0 x W2.0 WWF IN FLAT SHEETS (ROLLS ARE NOT PERMITTED). PROVIDE POSITIVE SUPPORT 3" CLEAR FROM BOTTOM OF SLAB. LAP MESH 12". (PROPERLY DESIGNED FIBER REINFORCED CONCRETE MAY BE SUBSTITUTED FOR MESH, SUBJECT TO PRIOR APPROVAL.)
- B. PLACE CONTROL OR CONSTRUCTION JOINTS AT LOCATIONS INDICATED BY "C.J." IF NOT INDICATED, LOCATED JOINTS AT COLUMN CENTERLINES AND AT 20'-0" O.C MAX. SAWCUT CONTROL JOINTS AS SOON AFTER POURING AS POSSIBLE, WHEN CONCRETE WILL NOT RAVEL; 12 HRS. MAX. CURE CONCRETE IN ACCORDANCE WITH ACI 301. BEGIN CURING IMMEDIATELY AFTER POURING TO LIMIT CRACKING PRIOR TO SAWCUTTING CONTROL JOINTS.
- C. THE TOP 12" OF THE SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY. DENSITY TESTS SHALL BE TAKEN AT 2500 SF INTERVALS. For high performance slabs: COMPACTED SUBGRADE 4" MINIMUM THICKNESS OF A COMPACTIBLE, EASY-TO TRIM, GRANULAR FILL THAT WILL REMAIN STABLE AND SUPPORT CONSTRUCTION TRAFFIC. THE TIRE OF A LOADED CONCRETE TRUCK MIXER SHOULD NOT PENETRATE THE SURFACE MORE THAN 1/2 IN. (13 MM) WHEN DRIVEN ACROSS THE BASE. CLEAN SAND WITH UNIFORM PARTICLE SIZE, SUCH AS CONCRETE SAND MEETING ASTM C33, WILL NOT BE ADEQUATE. A CLEAN, FINE-GRADED MATERIAL WITH AT LEAST 10 PERCENT TO 30 PERCENT OF PARTICLES PASSING A NO. 100 SIEVE BUT NOT CONTAMINATED WITH CLAY, SILT, OR ORGANIC MATERIAL IS RECOMMENDED. THE MATERIAL SHALL HAVE A UNIFORM DISTRIBUTION OF PARTICLE SIZES RANGING FROM NO. 4 THROUGH THE NO. 200 SIEVES. UNWASHED SIZE NO. 10 PER ASTM D 448 WORKS WELL. THE MATERIAL SHOULD HAVE SUFFICIENT MOISTURE CONTENT TO BE COMPACTIBLE. FDOT 2D (821) 1/4" MOD IS AN ACCEPTABLE PRODUCT.
- vapor retarder shall conform to astm E1745, class a, B, OR c. Vapor retarder should be overlapped 8 in. and taped at the joints and carefully fitted around service openings.

3.00 REINFORCED CONCRETE

- 3.01 ALL CONCRETE WORK SHALL CONFORM TO ACI 301-05, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. DESIGN IS BASED ON ACI 318-05, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH ACI 315, DETAILING MANUAL. DETAIL ALL CONCRETE WALLS AND BEAMS ON THE SHOP DRAWINGS IN ELEVATION UNLESS SPECIFICALLY APPROVED OTHERWISE. SUBMIT SHOP DRAWINGS FOR APPROVAL, SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL AND ACCESSORIES. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETED AND REVIEWED.
- 3.02 UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT, SHALL CONTAIN 25% FLY ASH BY WEIGHT OF CEMENT, AND HAVE THE FOLLOWING MINIMUM 28 DAY **COMPRESSIVE STRENGTHS:**

A.	FOUNDATIONS	3000 PSI
B.	RETAINING WALLS	3000 PSI
C.	SLAB-ON-GRADE	3000 PSI
D.	FRAMED FLOOR SLABS	4000 PSI
E.	BEAMS	4000 PSI
F.	COLUMNS AND SHEAR WALLS	4000 PSI

CONCRETE MAY CONTAIN A PROPERLY DESIGNED

3.03 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE

- 3.04 THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNER'S TESTING LABORATORY. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S.
- 3.05 USE OF CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED.
- 3.06 HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED ONLY WHERE INDICATED. THE STRUCTURAL ENGINEER SHALL APPROVE THE LOCATION OF VERTICAL CONSTRUCTION JOINTS. CONSTRUCTION JOINTS SHALL BE THOROUGHLY ROUGHENED BY MECHANICAL MEANS, AND CLEANED. CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING INTENDED POURING SEQUENCE AND LOCATION OF CONSTRUCTION JOINT TO THE ENGINEER FOR REVIEW. PROPOSED METHODS MUST BE ACCEPTABLE TO THE ARCHITECT BEFORE USE.
- 3.07 UNLESS NOTED OTHERWISE, PLACE VERTICAL CONTROL JOINTS IN CONCRETE WALLS AT 10'-0" O.C. (MAX), 3/4" DEEP, V-CHAMFERED ON BOTH FACES. CONSTRUCTION JOINTS SHALL FALL ON CONTROL JOINTS AND SHALL BE KEYED. STOP 50 PERCENT OF THE SPECIFIED LONGITUDINAL REINFORCEMENT AT THE CONTROL JOINT.
- 3.08 CHAMFER OR ROUND ALL EXPOSED CORNERS A MINIMUM OF
- 3.09 TIE ALL REINFORCING STEEL AND EMBEDMENTS SECURELY IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN THE POSITION OF REINFORCEMENT WITHIN SPECIFIED TOLERANCE DURING ALL CONSTRUCTION ACTIVITIES. "STICKING" DOWELS INTO WET CONCRETE IS NOT PERMITTED.
- 3.10 PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED; STAGGER SPLICE WHERE POSSIBLE; USE FULL TENSION SPLICE (CLASS "B") UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH FULL TENSION SPLICES (CLASS "B") UNLESS NOTED OTHERWISE. TERMINATE BARS WITH STANDARD HOOKS.
- 3.11 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE (PER ACI 318-05 PAR.7.7.1):
- CONCRETE AGAINST EARTH (NOT FORMED): 3"
- FORMED CONCRETE EXPOSED TO THE EARTH OR WEATHER:
- #6 THROUGH #18 BARS: 2" #5 BARS AND SMALLER: 1-1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER: SLABS AND WALLS: 1"
- BEAMS (STIRRUPS) AND COLUMNS (TIES): 1-1/2"
- 3.12 DO NOT PLACE DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- 3.13 DO NOT WELD OR TACK WELD REINFORCING STEEL UNLESS APPROVED OR DIRECTED BY THE STRUCTURAL ENGINEER.
- 3.14 THE DESIGN AND CONSTRUCTION OF FORMS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- A. FORMS SHALL CONFORM TO SHAPE, FORM AND LINES ON DRAWINGS.
- ADEQUATE BRACING SHALL BE USED. FORMS SUPPORTED ON GROUND SHALL HAVE ADEQUATE MUDSILLS.
- QUALIFIED WORKMEN SHALL CONSTANTLY OBSERVE AND ADJUST, AS REQUIRED, ALL SHORES DURING CONCRETE PLACING. E. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS. SPECIAL ATTENTION IS DIRECTED TO THE REQUIREMENT THAT THE CONTRACTOR MUST ADJUST THE SHORING, USING SURVEYING INSTRUMENTS, DURING AND IMMEDIATELY AFTER PLACING OF CONCRETE FOR SLABS: THIS ADJUSTMENT MUST NOT BE ATTEMPTED AFTER THE INITIAL SET OF CONCRETE.
- 3.15 SHORING SHALL REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED 75% OF ITS 28-DAY STRENGTH.
- 3.16 ALL REINFORCING STEEL PLACEMENTS SHALL BE REVIEWED BY A REGISTERED STRUCTURAL ENGINEER, OR BY A REPRESENTATIVE RESPONSIBLE TO HIM. (RE: ACI 318 PAR. 1.3.1
- 3.17 PROVIDE FOR AN ALLOWANCE OF 1% BY WEIGHT OF REINFORCING BARS TO BE FABRICATED. AND PLACED DURING PROGRESS OF WORK AS MAY BE DIRECTED BY THE STRUCTURAL ENGINEER, IN ADDITION TO ALL THE STEEL INDICATED ON THE DRAWINGS, CREDIT ANY UNUSED QUANTITY AT THE END OF THE PROJECT.

SUPERPLASTICIZER FOR WORKABILITY. **60 UNLESS NOTED OTHERWISE**

GENERAL NOTES 1/8" = 1'-0"

For Permit

SHEET

CODE SUMMARY

Code: Florida Building Code 2010

Wind Design Data:

Ultimate Design Wind Speed 140 mph
Nominal Design Wind Speed 108 mph
Risk Category II
Mean Roof Ht (h) 41.0 ft
Exposure Category D
Enclosure Classif. Enclosed Building
Internal pressure Coef. +/-0.18
Directionality (Kd) 0.85

Component and cladding ultimate wind pressures

"a"= 3 ft.

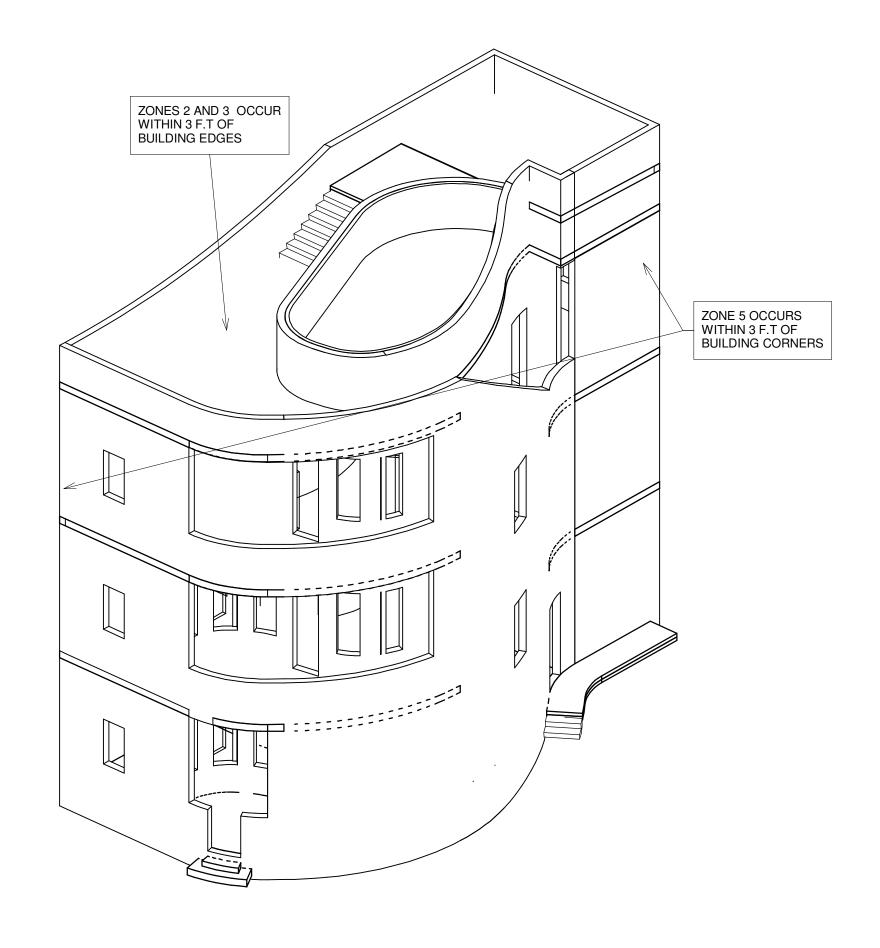
Roof	Surface Pressure (psf)		
Area	10 sf	50 sf	100 sf
Negative Zone 1	-61.8	-58.1	-56.5
Negative Zone 2	-103.6	-78.0	-67.0
Negative Zone 3	-103.6	-78.0	-67.0
Positive Zone 1	25.1	21.5	19.9
Positive Zones 2 & 3	56.5	50.7	48.2
Overhang Zone 1&2	-89.0	-85.3	-83.7
Overhang Zone 3	-89.0	-85.3	-83.7

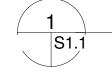
Overhang soffit pressure equals adjacent wall pressure reduced by internal pressure of 9.4 psf

Parapet		Solid Parapet Pressure (psf)		
	Area	10 sf	100 sf	500 sf
CASE A:	Interior zone	145.8	99.4	93.4
	Corner zone	145.8	99.4	93.4
CASE B:	Interior zone	-102.0	-84.9	-72.9
	Corner zone	-116.6	-90.9	-72.9

Wall	Surface Pressure (psf)		
Area	10 sf	100 sf	500 sf
Negative Zone 4	-61.2	-52.9	-47.1
Negative Zone 5	-75.4	-58.7	-47.1
Positive Zone 4 & 5	56.5	48.2	42.4

Note: Pressures given are Ultimate Loads to be used with Strength Design. For Service Loads to be used with Allowable Stress Design, multiply the pressures by 0.60. See Tables 2.3 and 2.4 in ASCE 7-10 for more information on Load Combinations.

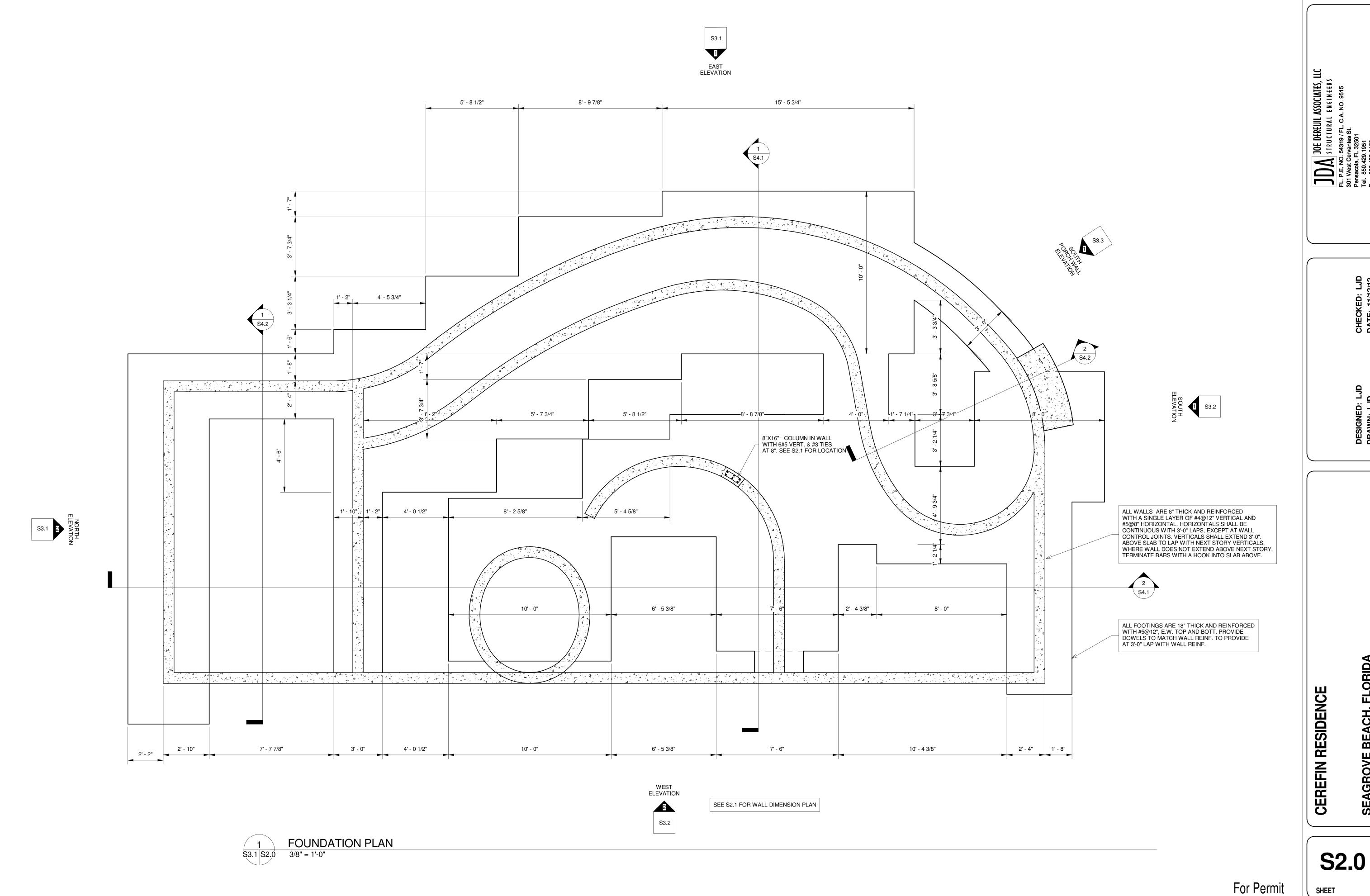




WIND LOAD DIAGRAM

CEREFIN RESIDENCE
SEAGROVE BEACH, FLORIDA

S1.1



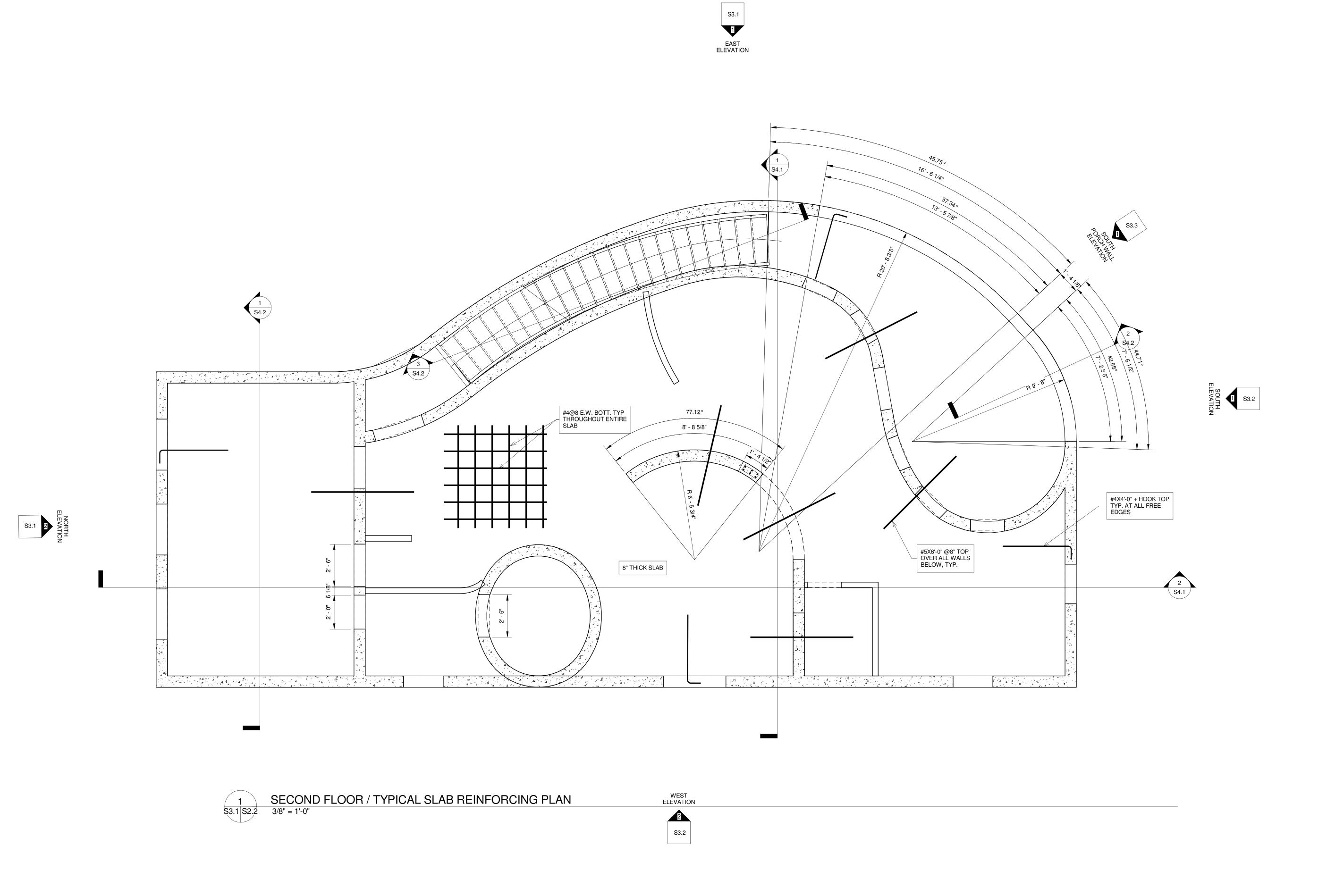
SHEET

SLAB-ON-GRADE PLAN AND DIMENSION PLAN

S3.1 S2.1 3/8" = 1'-0"

CEREFIN RESIDENCE

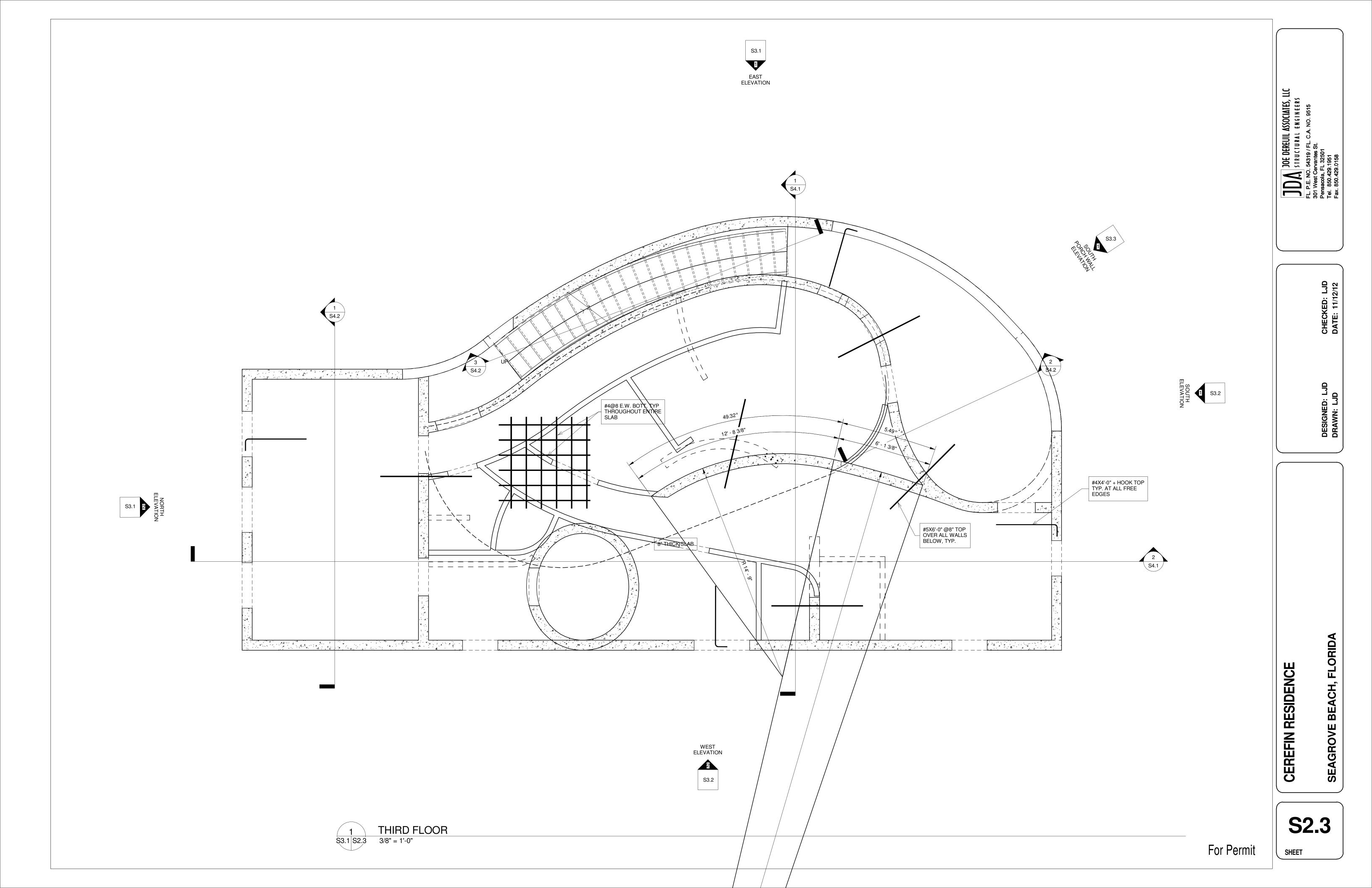
S2.1

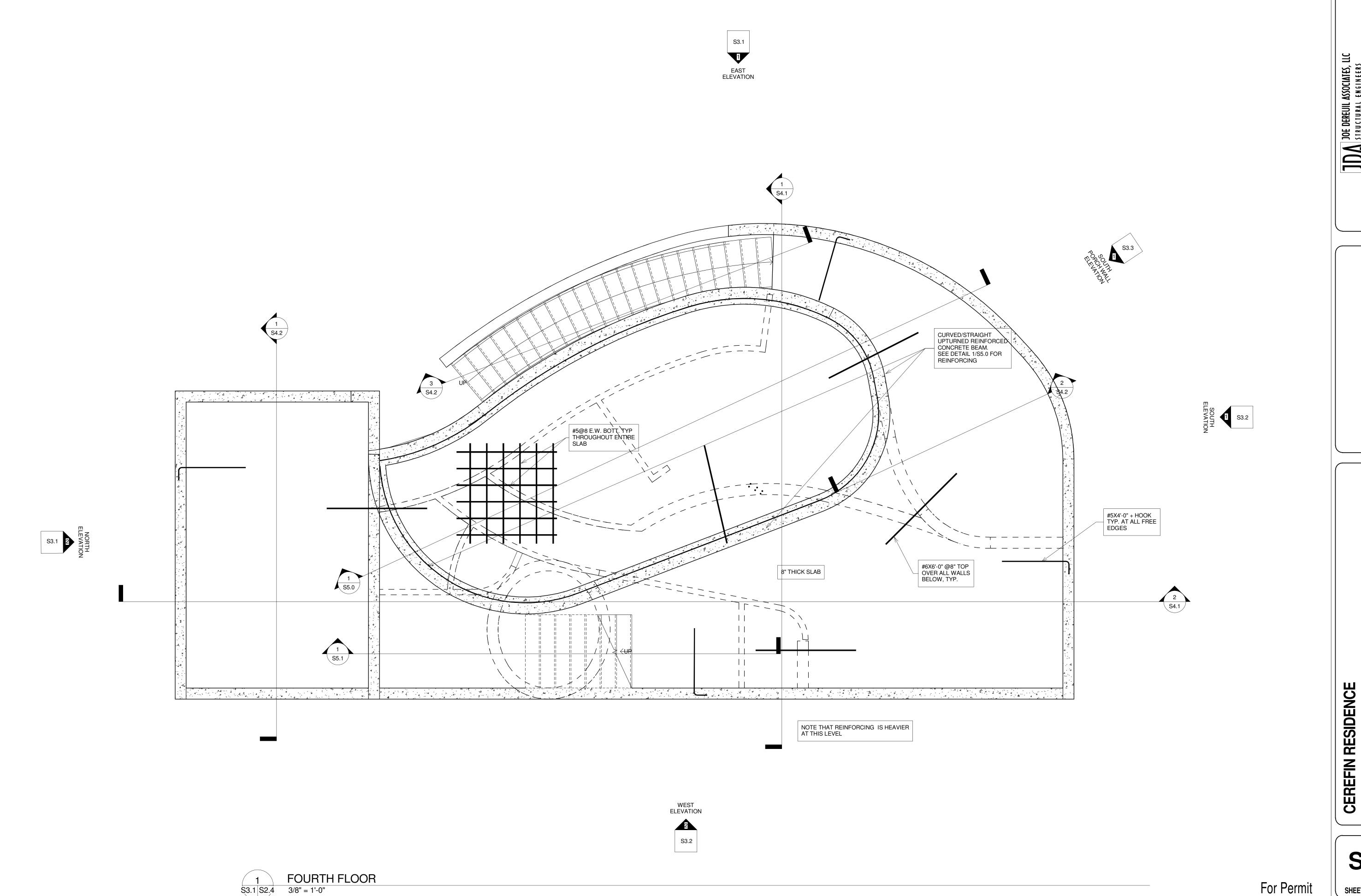


For Permit

S2.2 SHEET

CEREFIN RESIDENCE

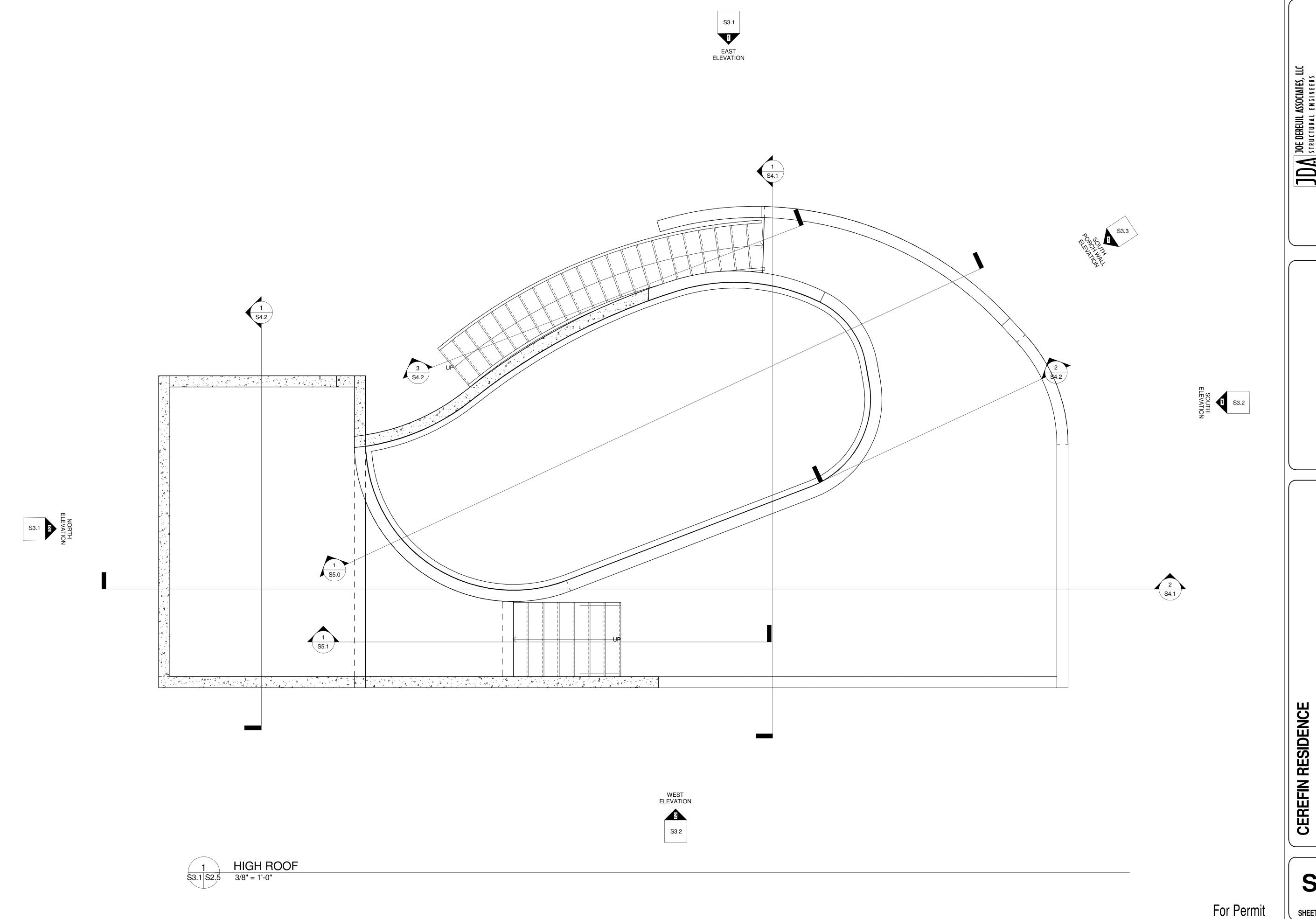




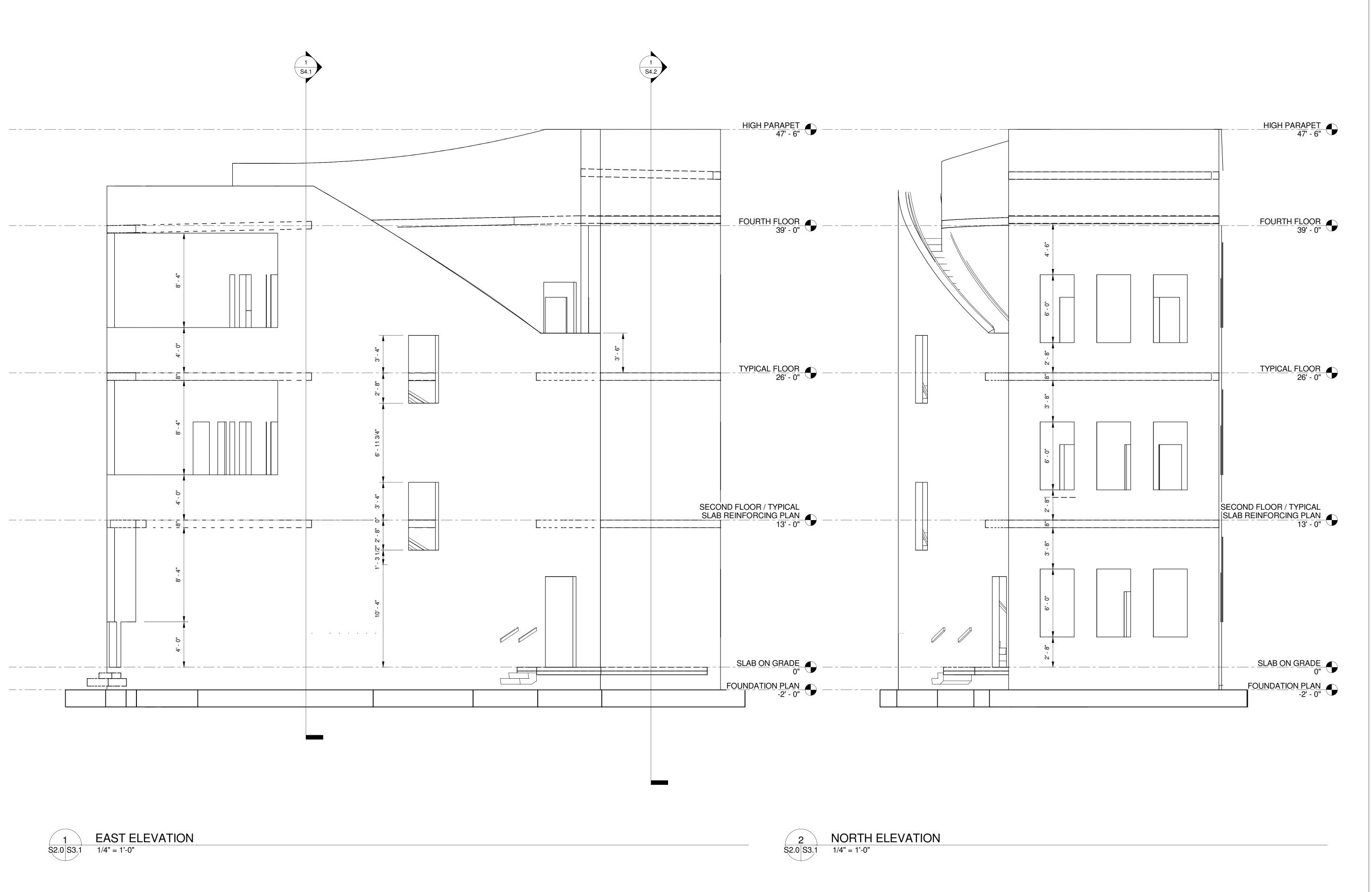
SEAGROVE BEACH, FLORIDA

S2.4

SHEET



S2.5 SHEET

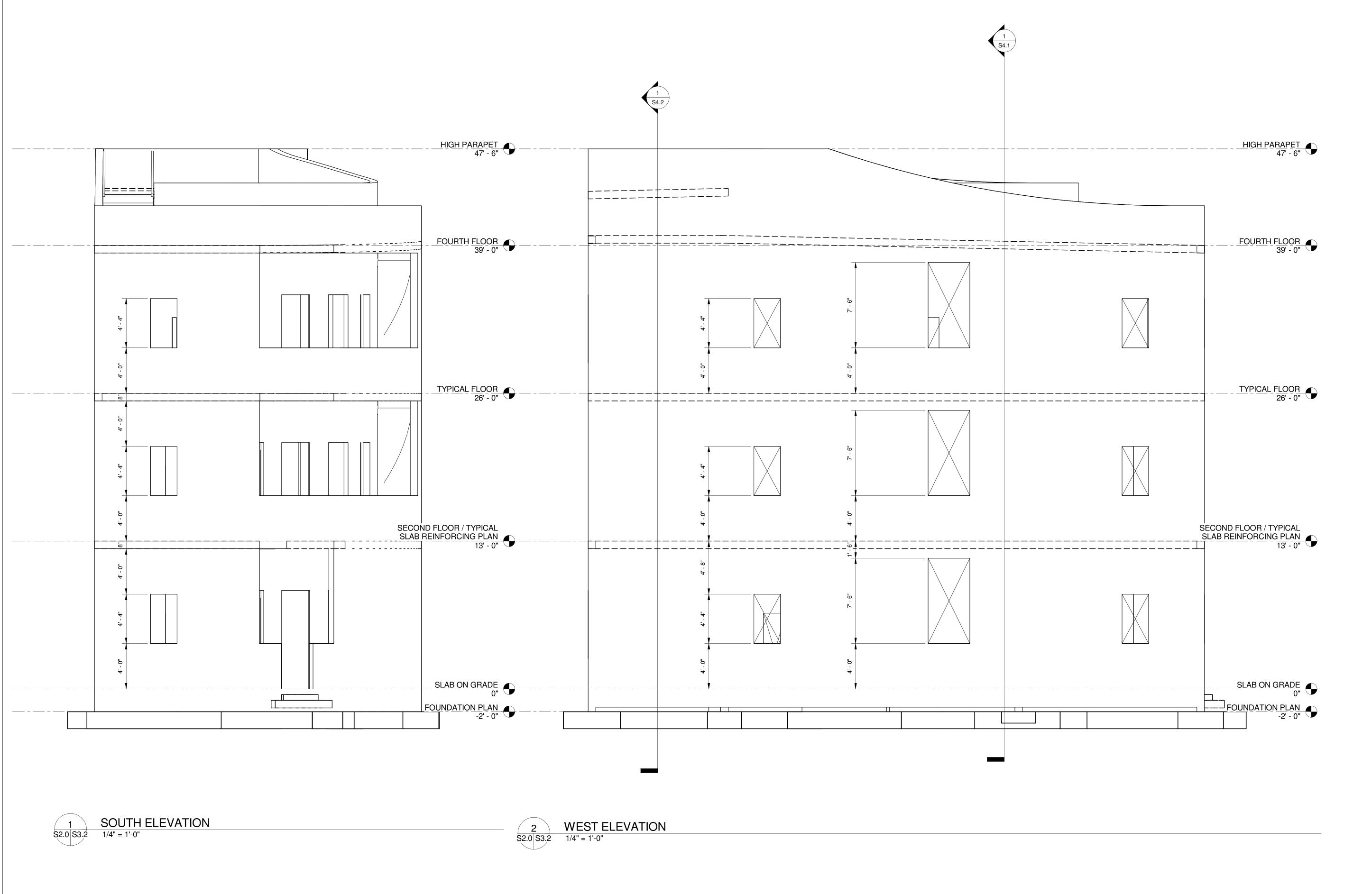


For Permit

S3.1

SHEET

CEREFIN RESIDENCE



S3.2

SHEET

CEREFIN RESIDENCE

SEAGROVE BEACH, FLORIDA

For Permit

SOUTH PORCH WALL ELEVATION

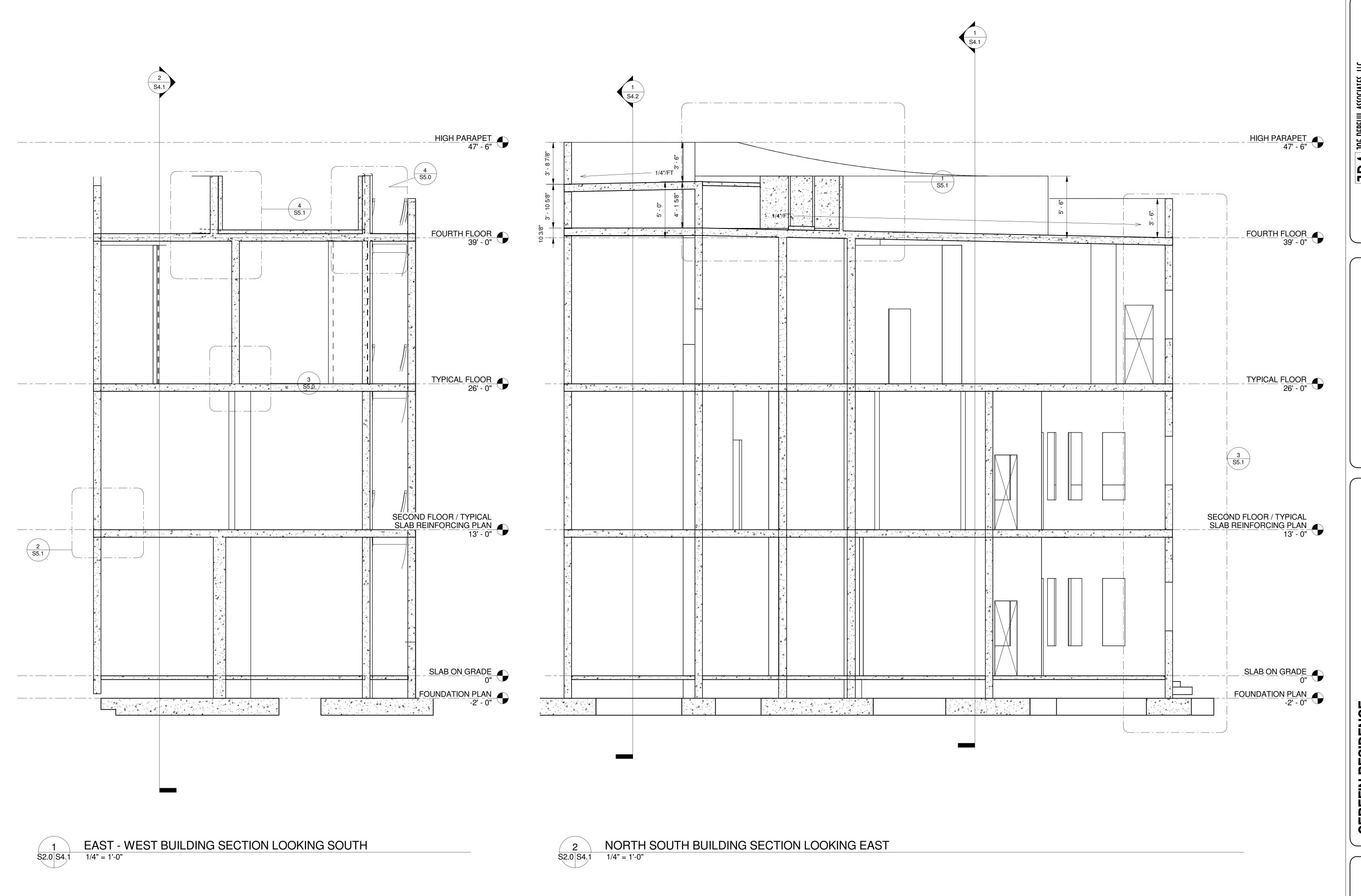
1 S2.0 S3.3 1/4" = 1'-0"

CEREFIN RESIDENCE
SEAGROVE BEACH, FLORIDA

S3.3

SHEET

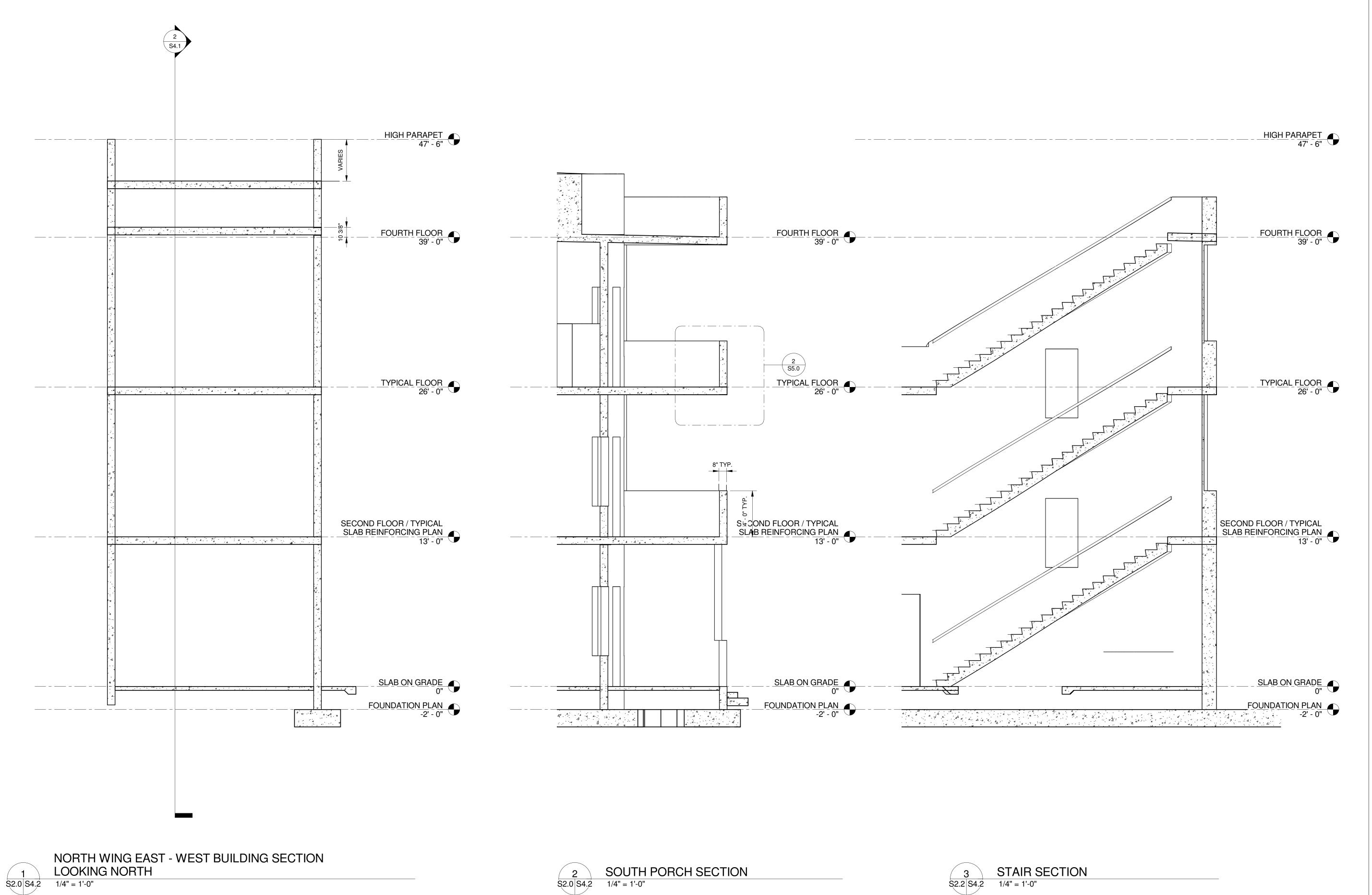
SLAB ON GRADE



S4.1

For Permit

SHEET

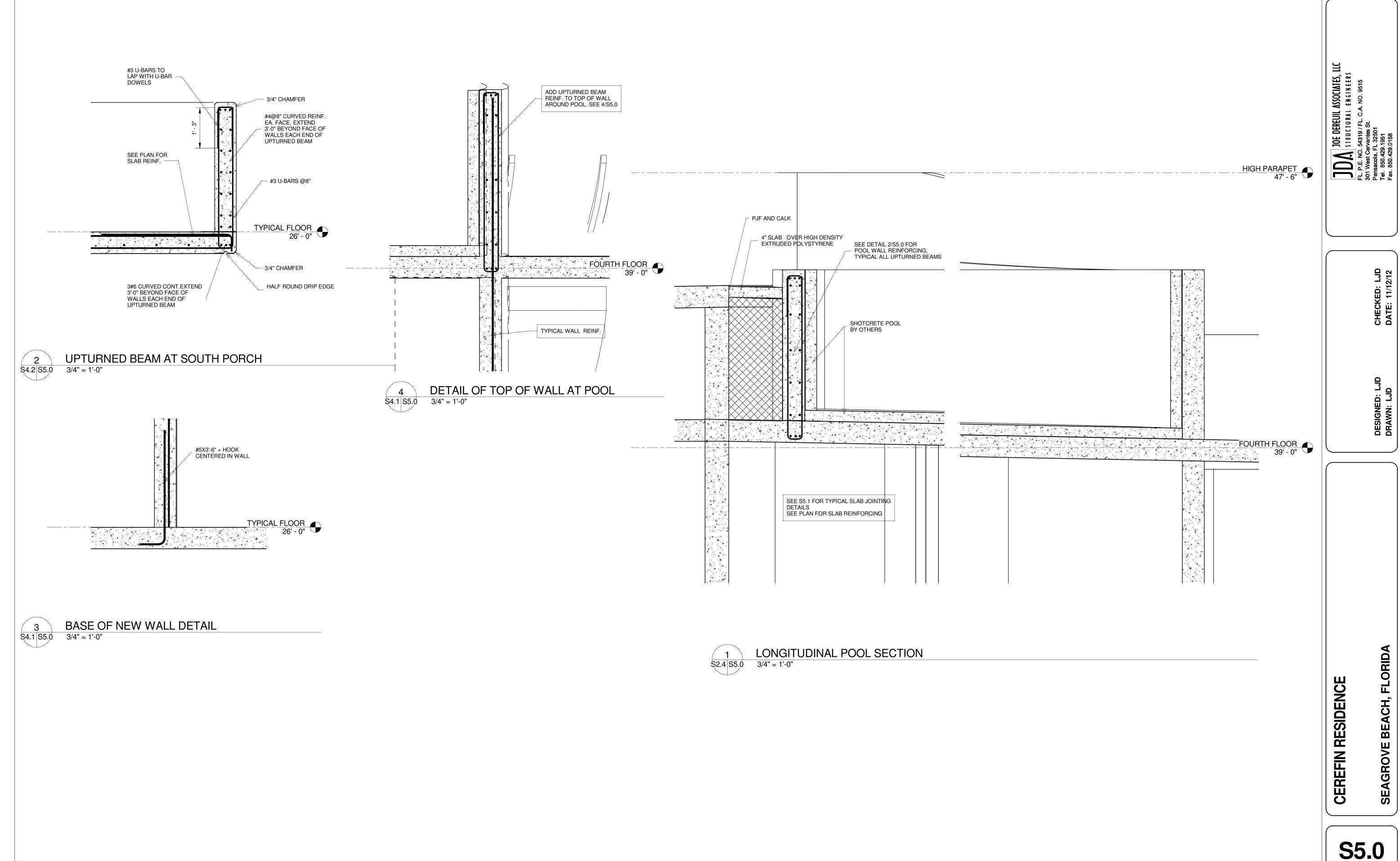


S4.2

For Permit

SHEET

CEREFIN RESIDENCE



For Permit

