

VICINITY MAP

PROJECT DATA

TAX PARCEL # 148330-0555
 SITE ADDRESS: 2453 64TH AVE SE
 MERCER ISLAND, WA 98040

OWNER & CONTACT PERSON: SEYSAN FARHAD
 CELL: (253) 653-7979
 SEYSAN@GMAIL.COM

LEGAL DESCRIPTION

CENTRAL ADD TO EAST SEATTLE
 PLat Block: 6
 Plat Lot: 18-19

ZONING

ZONING: R-8.4
 LOT AREA: 6,000 SF
 MAX. LOT COVERAGE: 40% OF LOT AREA = 2,400 SF
 SETBACKS: FRONT 20'-0"
 SIDE 5'-0" MIN, TOTAL 15'-0"
 REAR 25'-0"
 MAX. HEIGHT: 30'-0" ABOVE ABE

SCOPE OF WORK

CONSTRUCTION OF A NEW COVERED DECK EXTENDING OVER EXISTING PATIO. REMOVED 40 S.F. PAVERS TO INSTALL NEW SPIRAL STAIR. REPLACE EXISTING 10'-0" WINDOW IN LIVING ROOM AT 2ND LEVEL WITH A 10'-0" FRENCH DOOR. NO OTHER CHANGES TO THE EXISTING HOUSE. TOP OF NEW DECK ROOF IS UNDER EXISTING MAXIMUM HEIGHT.

LOT COVERAGE CALCULATION

GROSS LOT AREA: 6,000 SF
 MAX. LOT COVERAGE: 40% OF LOT AREA (2,400 SF)

EXISTING LOT COVERAGE

MAIN STRUCTURE ROOF AREA	1,725 S.F.
DRIVEWAY	220 S.F.
TOTAL EXISTING	1,945 S.F.

PROPOSED LOT COVERAGE

MAIN STRUCTURE ROOF AREA	1,945 S.F.
DRIVEWAY	220 S.F.
NEW COVERED DECK	307 S.F.
PROPOSED TOTAL LOT COV.	2,252 S.F. (37.53% OK)

HEIGHT CALCULATION

A = 119' a = 32.2'
 B = 120.5' b = 50.00'
 C = 117.9' c = 32.2'
 D = 117.5' d = 50.00'

BENCHMARK = 116'
 LOCATED AT BASEMENT
 TOP OF EXISTING FINISH FLOOR

$(A \times a) + (B \times b) + (C \times c) + (D \times d) = \text{AVERAGE BUILDING ELEVATION (ABE)}$
 $a + b + c + d$

WHERE A, B, C, D = EXISTING GROUND ELEVATION MIDPOINT OF RECTANGLE SEGMENT AND
 a, b, c, d = LENGTH OF RECTANGLE SEGMENT

$(119 \times 32.2) + (120.5 \times 50) + (117.9 \times 32.2) + (117.5 \times 50) = \frac{19527}{164.4} = \text{ABE} = 118.77'$

MAX. ALLOWED ELEVATION $118.77' + 30' = 148.77'$

EXTERIOR ALTERATION CALCULATION

LENGTH OF EX. EXTERIOR WALLS = 164' - 6"
 EXTERIOR ALTERATION ALLOWED = 40% OF THE TOTAL LENGTH
 LENGTH ALLOWED = 65'-8"
 LENGTH PROPOSED = 30' - 10" (18.74%)

LOT SLOPE CALCULATION

LOT SLOPE IS THE ELEVATION DIFFERENCE DIVIDED BY HORIZONTAL DISTANCE MULTIPLIED BY 100

① HIGHEST ELEVATION POINT OF LOT = 125'
 ② LOWEST ELEVATION POINT OF LOT = 113'
 HORIZONTAL DISTANCE = 100.33'
 = $\frac{125 - 113}{100.33} = 0.119 \times 100 = 11.9\% \text{ LOT SLOPE}$

GROSS FLOOR AREA

GROSS LOT AREA: 6,000 SF
 ALLOWED G.F.A.: 2,700 S.F.
 MICC 19.02.020 : 3,000 OR 45% OF LOT AREA

HOUSE AREA 2540 S.F.
 CARPORT 220 S.F.
 COVERED DECK 307 S.F.
 TOTAL GROSS AREA = 3067 S.F.
 EXCLUDED BASEMENT PORTION = 815.3 S.F.
 GRAND TOTAL GROSS AREA = 2,251.6 S.F. (37.5%)

HARDSCAPE CALCULATION

LOT AREA = 6000 S.F.
 MAX. HARDSCAPE AREA = 9% OF LOT AREA = 540 S.F. ALLOWED

EXISTING

UNCOVERED PATIO	= 100 S.F.
WALKWAYS	= 140 S.F.
ROCKERIES	= 100 S.F.
TOTAL	= 340 S.F.

PROPOSE

REMOVE WALKWAY	= 40 S.F.
ADD STAIR	= 25 S.F.

GRAND TOTAL HARDSCAPE PROPOSED = 325 S.F. (5.41%)

BASEMENT FLOOR AREA CALC

WALL SEG.	LENGTH	COVERAGE	RESULT
A	32.3	55%	17%
B	22.7	95%	21%
C	27.4	62%	17%
D	4.6	59%	27%
E	27.9	19%	53%
F	50	0%	0%
TOTALS	164.9	N/A	63%

BASEMENT FLOOR AREA = 1,270 S.F.
 $1,270 \text{ S.F.} \times (32.3 \times 55\% + 22.7 \times 95\% + 27.4 \times 62\% + 4.6 \times 59\% + 27.9 \times 19\% + 50 \times 0\%) = 164.9$
 $1,270 \text{ S.F.} \times 64.2\% = 815.34 \text{ S.F. Excluded from Gross Floor Area}$

2021 WSEC - ENERGY COMPLIANCE

PER REMODEL/ALTERATION WORKSHEET
 R503.1.1.1 REPLACEMENT FENESTRATION. WHERE SOME OR ALL OF AN EXISTING FENESTRATION UNIT IS REPLACED WITH A NEW FENESTRATION PRODUCT, INCLUDING SASH AND GLAZING, THE REPLACEMENT FENESTRATION UNIT SHALL MEET THE APPLICABLE REQUIREMENTS FOR U-FACTOR AND SHGC IN TABLE R402.1.3.

R503.1.1 BUILDING ENVELOPE.
 EXCEPTION 2 - EXISTING CEILING, WALL OR FLOOR CAVITIES EXPOSED DURING CONSTRUCTION PROVIDED THAT THESE CAVITIES ARE FILLED WITH INSULATION.
 2X4 FRAMED WALLS TO HAVE R-15 MIN. AND 2X6 FRAMED WALLS R-21 MIN.

PROPOSED = REPLACE EXISTING 10'-0" WINDOW TO A 10'-0" FRENCH DOOR U-FACTOR = ≤ 0.30

- INDEX**
- A1- SITE PLAN & PROJECT INFO
 - A2- FLOOR PLANS & SECTION
 - A3- SPIRAL STAIR SPECS SHEET
 - S501- STRUCTURAL NOTES
 - S502- STRUCTURAL PLAN
 - S503- STRUCTURAL SECTION
 - S504- STRUCTURAL SECTION
 - S505- FOUNDATION DETAILS

PROJECT:

NEW DECK
 MERCER

PROJECT ADDRESS:
 2453 64th AVE S
 MERCER ISLAND 98040

REVISIONS

DATE	DESCRIPTION	CORRECTIONS PER CITY
2/17/25		

SHEET NAME:

SITE PLAN AND PROJECT INFO

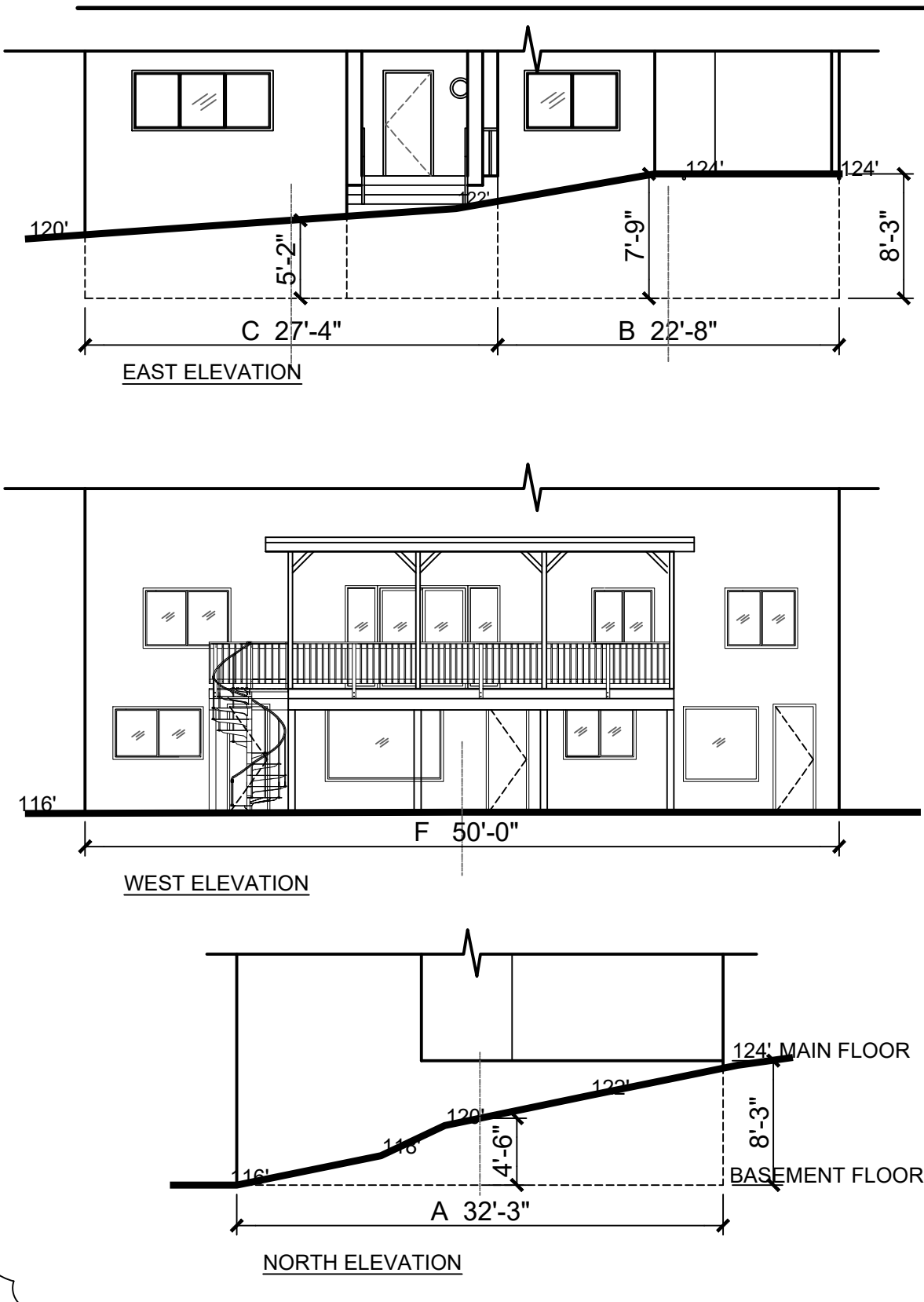
PROJECT NUMBER:

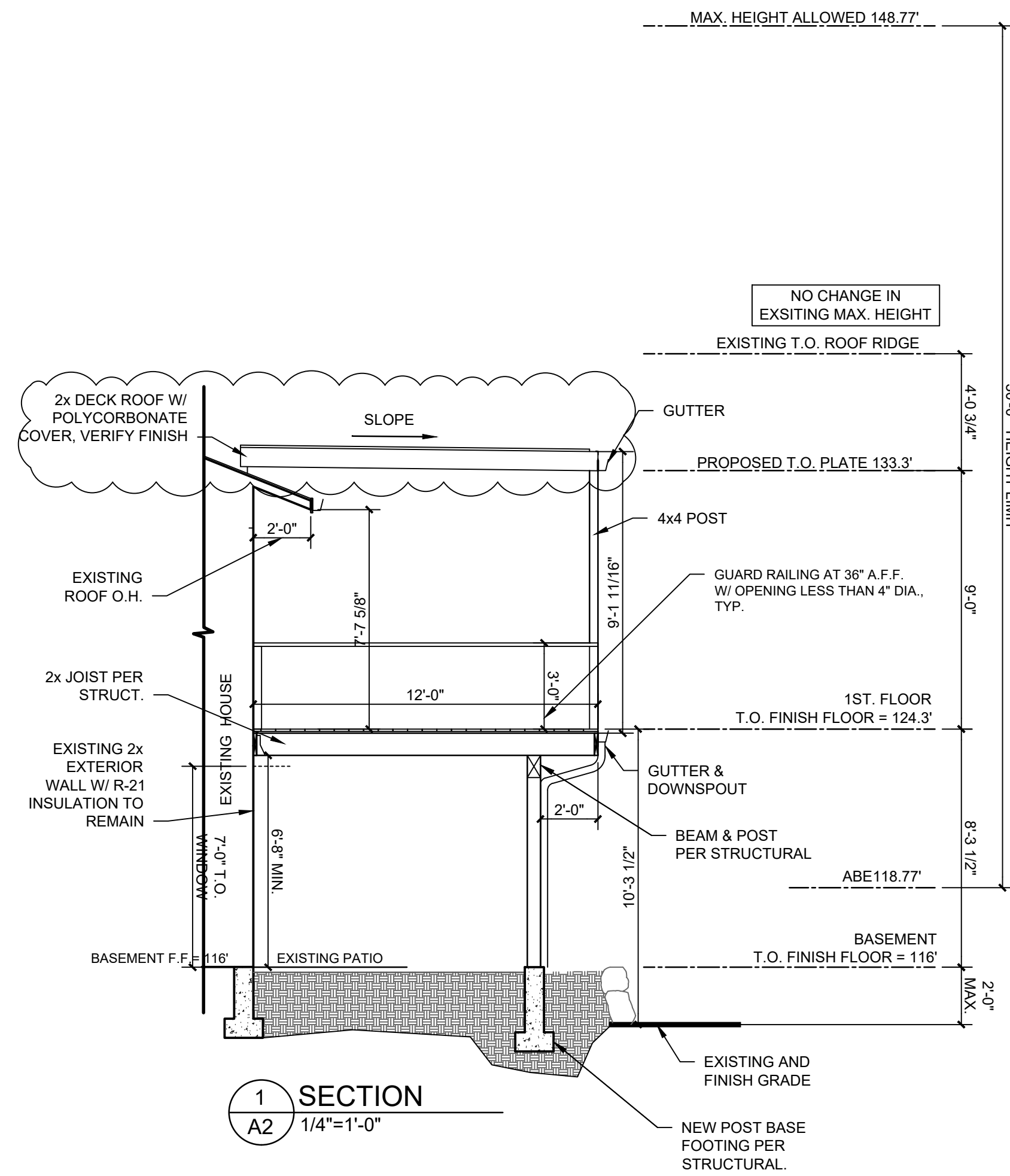
DATE: 8/9/24

DRAWN: RV

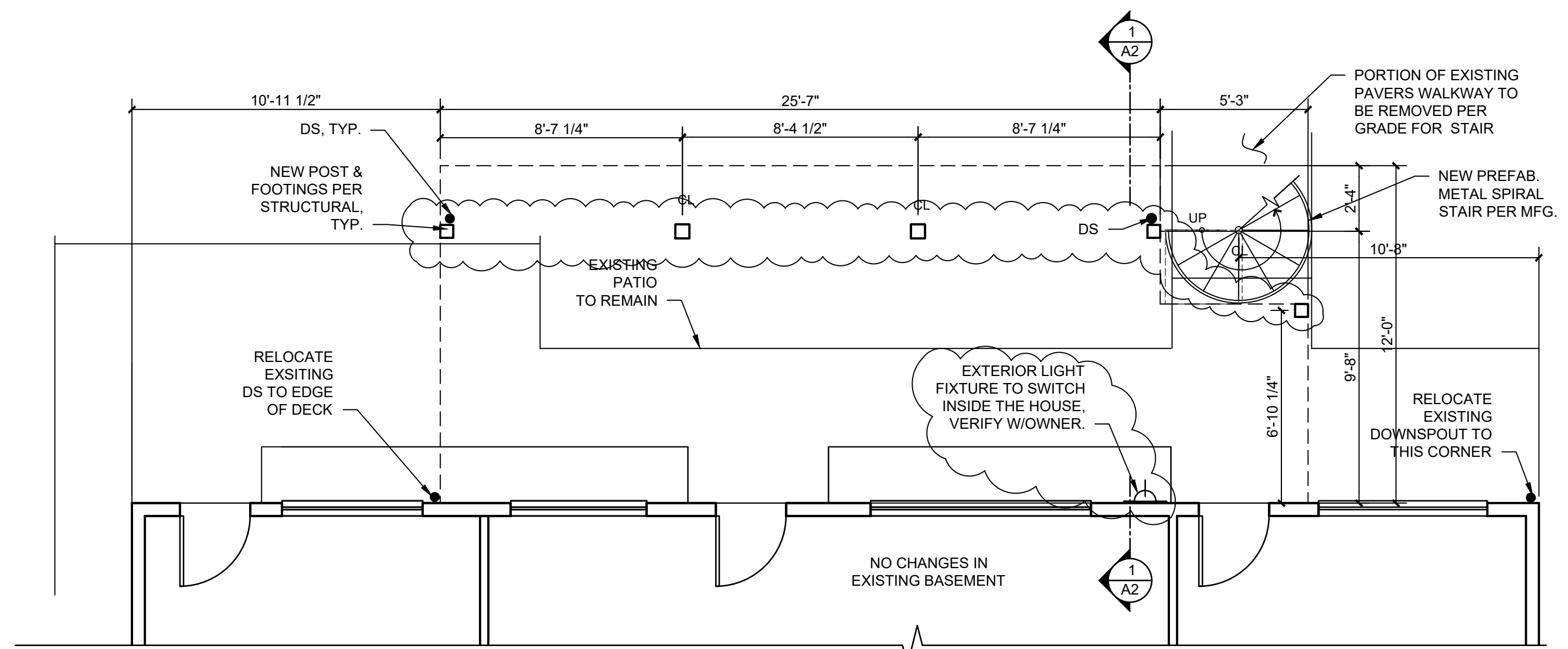
SHEET:

A1

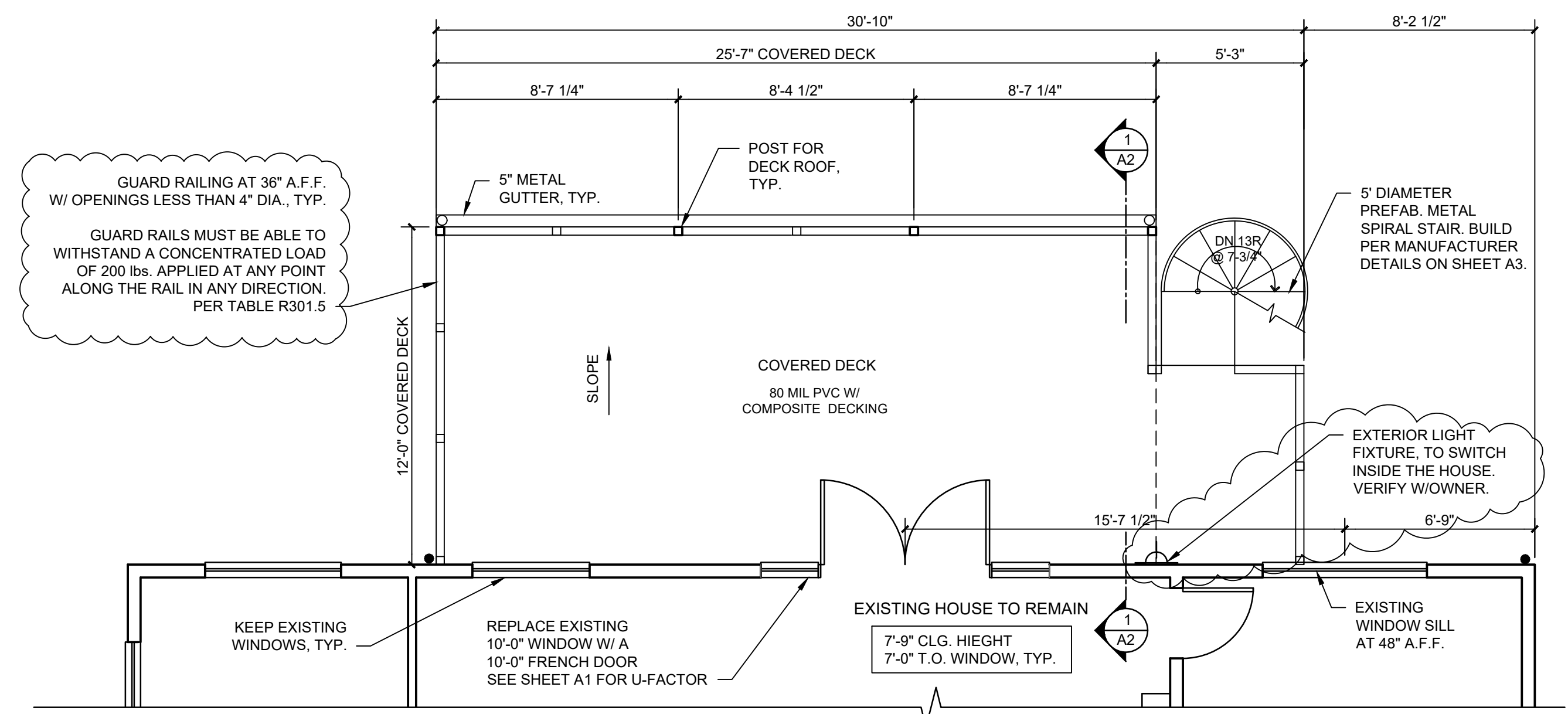




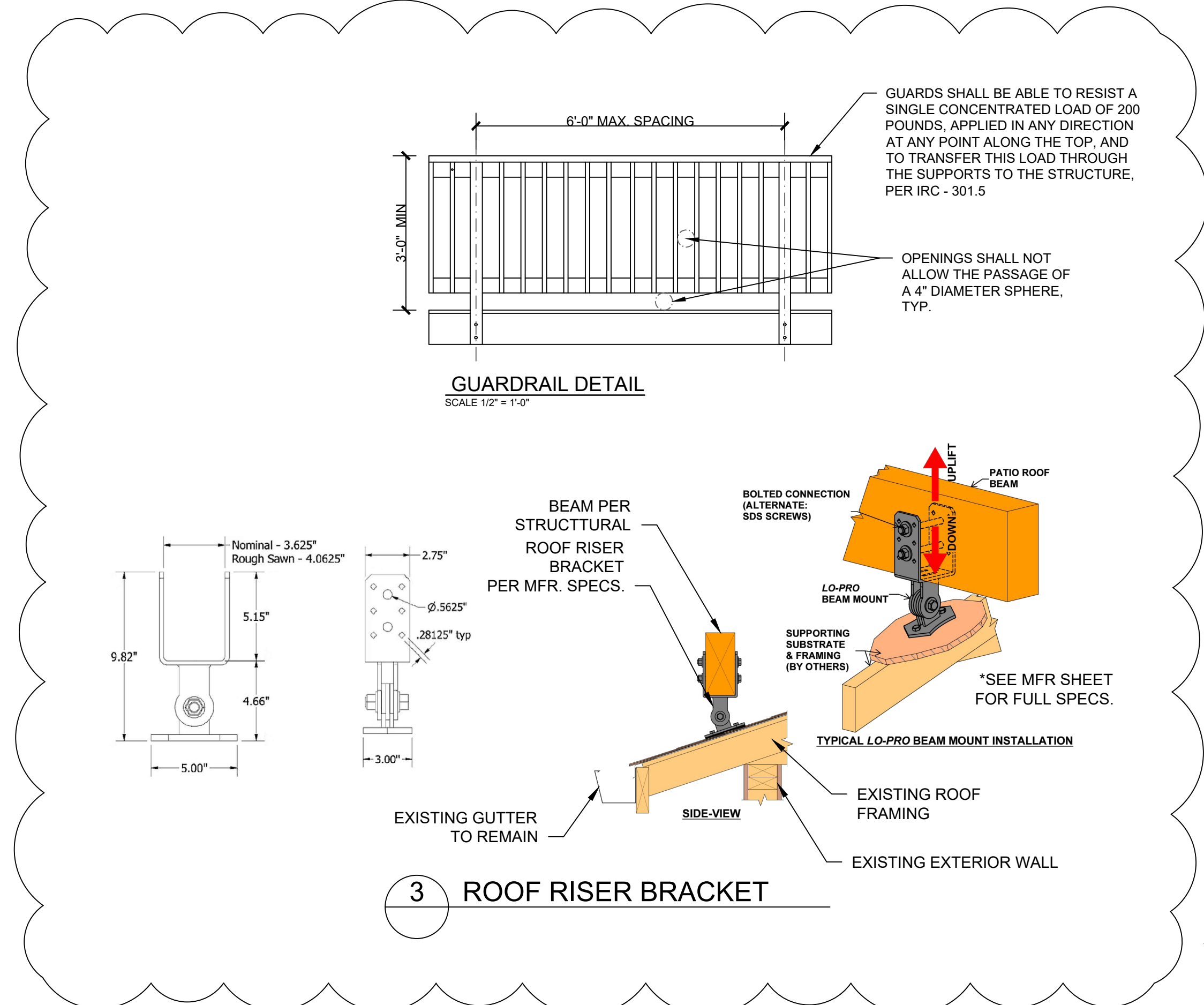
1 SECTION
A2
1/4"=1'-0"



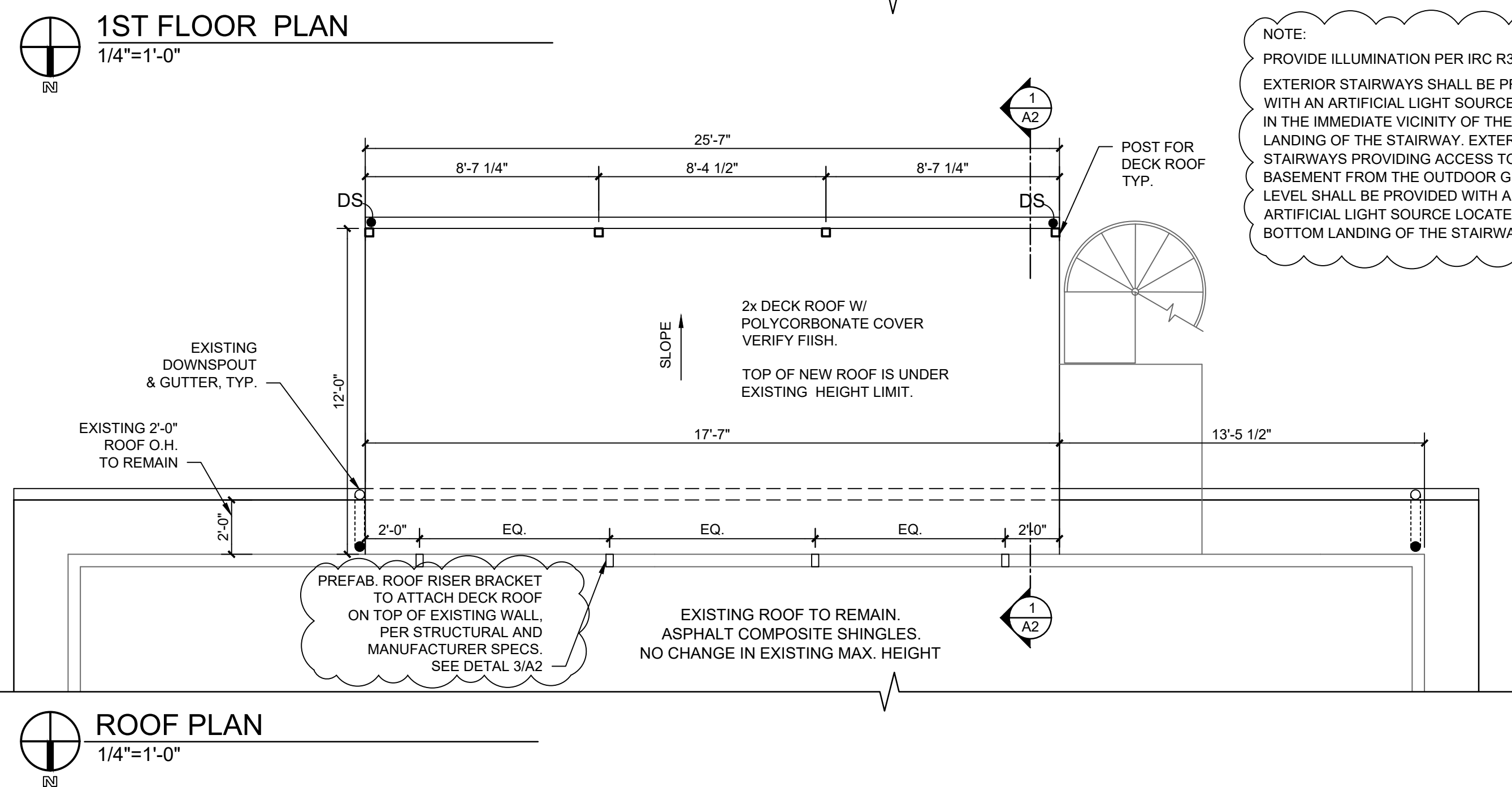
BASEMENT/PATIO FLOOR PLAN
1/4"=1'-0"



1ST FLOOR PLAN
1/4"=1'-0"



3 ROOF RISER BRACKET



ROOF PLAN
1/4"=1'-0"

PROJECT:

NEW DECK
MERCER

PROJECT ADDRESS:
2453 64th AVE S
MERCER ISLAND 98040

REVISIONS

DATE DESCRIPTION
2/17/25 CORRECTIONS PER CITY

SHEET NAME:

FLOOR PLANS
AND SECTION

PROJECT NUMBER:

DATE: 8/9/24

DRAWN: RV

SHEET:

A2

- NOTE: CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE.
- SOIL BEARING MINIMUM = 1,500 P.S.F. PER TABLE 1808.2 FOR CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILTY SAND AND SANDY SILT PER GRADING PER INSPECTION OR SOILS REPORT.
 - CONCRETE FOR NEW FOOTINGS SHALL BE STANDARD MIX, 2,500 P.S.I. AT 28 DAYS. DEPUTY INSPECTOR NOT REQUIRED.
 - STRUCTURAL STEEL PLATES AND BARS SHALL BE A.S.T.M. A-36 (OR HIGHER) YIELD STRENGTH ALUMINUM PLATE FOR TREADS SHALL BE 5052-H32. ALL OTHER PLATE SHALL BE 6061-T6.
 - STEEL PIPE COLUMNS AND SLEEVES SHALL BE A.S.T.M. A-53 GRADE B OR ROUND H.S.S., A.S.T.M. A500 GRADE B ALUMINUM PIPE COLUMNS AND ROUND TUBE COLUMNS SHALL BE 6061-T6.
 - STEEL TUBES SHALL BE A.S.T.M. A500 GRADE B. (F_y = 42 K.S.I. MIN.). ALUMINUM TUBES SHALL BE 6061-T6.
 - WELDS SHALL BE A.S.T.M. A-307. SET SCREWS SHALL BE A.S.T.M. F912. BOLTS IN ALUMINUM SHALL BE STAINLESS STEEL.
 - CASTERS FOR EXTERIOR EXPOSURE SHALL BE STAINLESS STEEL FOR STEEL STAIRWAY AND STAINLESS STEEL FOR ALUMINUM STAIRWAY.
 - FINISH SHALL BE PER CODE. UNFINISHED METAL AND BRASS SHALL BE PER CODE.
 - ALL FABRICATION SHALL BE DONE IN THE SHOP OF A LICENSED FABRICATOR OF THE CITY OF LOS ANGELES OR EQUAL. ALL WELDING FOR INSTALLATION WILL BE DONE BY A WABO-CERTIFIED WELDER.
 - STAIRWAY SHALL BE USED FOR ONE AND TWO FAMILY DWELLING ONLY.
 - SPIRAL STAIRWAYS ARE PERMITTED TO BE USED AS A COMPONENT IN THE MEANS OF EGRESS ONLY WITHIN DWELLING UNITS OR FROM A SPACE NOT MORE THAN 250 SQUARE FEET IN AREA AND SERVING NOT MORE THAN THE OCCUPANCY CATEGORY 1011.10 OF 2002 IBC. AS PER SECTION 1011.10 OF 2002 IBC.
 - PROVIDE MINIMUM OF 26" WIDE WALKING AREA FROM OUTER EDGE OF SUPPORT COLUMN TO INNER EDGE AT AND BELOW HANDRAIL, 7 1/2" MINIMUM TREAD AT A POINT 12" FROM WHERE THE TREAD IS NARROWEST. MINIMUM 6" HEAD ROOM AND RISE NOT TO EXCEED 5 1/2". STAIR TREADS AND RISERS SHALL BE UNIFORM SIZE AND SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER HEIGHT OR BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 3/8" (0.375 INCH) IN ANY FLIGHT OF STAIRS.
 - THE TOP OF GUARDRAILS (GUARDS) SHALL BE 42" MINIMUM IN HEIGHT. OPEN GUARDRAILS (GUARDS) SHALL HAVE INTERMEDIATE RAILS OR AN ORNAMENTAL PATTERN SUCH THAT A 4" SPHERE CANNOT PASS THROUGH.
 - HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS. FOR PRIVATE STAIRWAYS, HANDRAILS ARE NOT REQUIRED TO EXTEND BEYOND THE TOP OR BOTTOM RISER PER CODE SECTION 1014.6.
 - SEE DETAIL 10.
 - SEE DETAIL 11.
 - A PLOT PLAN AND/OR FLOOR PLAN IS REQUIRED FOR OBTAINING A BUILDING PERMIT USING THIS PRODUCT. REPRESENTATIONS OF PATTERNS AND VIEWS SHOWN ON THIS PLAN MAY NOT MATCH CURRENT PRODUCTION.
 - SEE DETAIL 12.
 - STRUCTURAL OBSERVATION IS NOT REQUIRED PER I.C.C.-C.B.C./A.B.C. SECTION 1704.2.5.
- DESIGN LOADS:
- LIFE LOADS: 40 P.S.F. OR 300 LB. ON AREA 2 IN. BY 2 IN. ON TREADS & 40 P.S.F. ON LANDING AND GUARDRAIL (GUARD): 200 LB. IN ANY DIRECTION; INTERMEDIATE RAILS: 50 LB. ON ONE SQ.FT.
 - SPECIAL LOADS: HANDRAIL AND GUARDRAIL (GUARD): 200 LB. IN ANY DIRECTION; INTERMEDIATE RAILS: 50 LB. ON ONE SQ.FT.
 - SNOW LOADS: P_s = 0.7 C_e C_i P_f = 0.7(1.2)(1.2)(1.0)40 = 40 P.S.F.; C_e = 1.2 (SHeltered (MOST SEVERE FACTOR)); C_i = 1.2 (UNHEATED (MOST SEVERE FACTOR)); I = 1.0 (RISK CATEGORY I OR II)
 - WIND DESIGN DATA: BASIC WIND SPEED: V_{ult} = 125 M.P.H. (3-SECOND GUST, RISK CATEGORY I OR II) AT 33' ABOVE GRADE; I_w = 1.0; EXPOSURE: 'C'; INTERNAL PRESSURE COEFFICIENT: I_{pa}/A; COMPONENTS AND CLADDING: N/A. NOTE: WHEN STAIRWAY IS USED ON EXTERIOR OF BUILDING, IT SHALL NOT BE LOCATED NEAR HILLS, RIDGES, OR ESCARPMENTS.
 - EARTHQUAKE DESIGN DATA: I_e = 1.0 (RISK CATEGORY I OR II); S_s = 3.75g; S₁ = 1.39g; SITE CLASS: D; S_{0s} = 1.00g; S₀₁ = 1.39g; SEISMIC DESIGN CATEGORY: E; SEISMIC FORCE RESISTING SYSTEM: ORDINARY MOMENT FRAME; ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE. NOTE: SEISMIC DRIFT OF SUPPORTING FLOOR AT TOP OF COLUMN MUST BE LIMITED TO 1.75" MAX. IF ALLOWABLE ELASTIC DRIFT IS TO BE GREATER THAN 1.75", CONTACT THE ENGINEERING DEPT. AT THE IRON SHOP FOR FURTHER EVALUATION.
- ADDITIONAL REQUIREMENTS:
- OUTDOOR STAIRWAYS SHALL BE CONSTRUCTED SO THAT WATER WILL NOT ACCUMULATE ON WALKING SURFACES. 2% MAXIMUM SLOPE. STAIRWAY SHALL NOT PROJECT INTO ZONE CODE SETBACK.
 - WALKING SURFACES SHALL BE SOLID SURFACES. EXCEPT OPENINGS PERMITTED THAT WILL NOT PASS A 1/2" DIAMETER SPHERE. ELONGATED OPENINGS SHALL BE PERPENDICULAR TO TRAVEL.
 - USABLE SPACE UNDER STAIRS SHALL NOT BE ENCLOSED.
 - ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE ILLUMINATED.
 - THE STAIRWAY CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOD-KUPE. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES—WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.
- GREEN BUILDING CODE REQUIREMENTS:
- ABSORBABLE MATERIALS DELIVERED TO THE CONSTRUCTION SITE SHALL BE PROTECTED FROM RAIN OR OTHER SOURCES OF MOISTURE.
 - ARCHITECTURAL PAINTS AND COATINGS, ADHESIVES, CAULKS AND SEALANTS SHALL COMPLY WITH THE VOLATILE ORGANIC COMPOUND (VOC) LIMITS LISTED IN TABLE 4.504.1-4.504.3.
 - THE MANUFACTURER'S SPECIFICATIONS SHOWING VOC CONTENT FOR ALL APPLICABLE PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB SITE AND BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION.
 - NEW HARDWOOD, PLYWOOD, PARTICLE BOARD, AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED IN THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE FORMALDEHYDE LIMITS LISTED IN TABLE 4.504.5.
 - THE MANUFACTURER'S SPECIFICATIONS SHOWING FORMALDEHYDE CONTENT FOR ALL APPLICABLE WOOD PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB SITE AND BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION.
 - BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED.

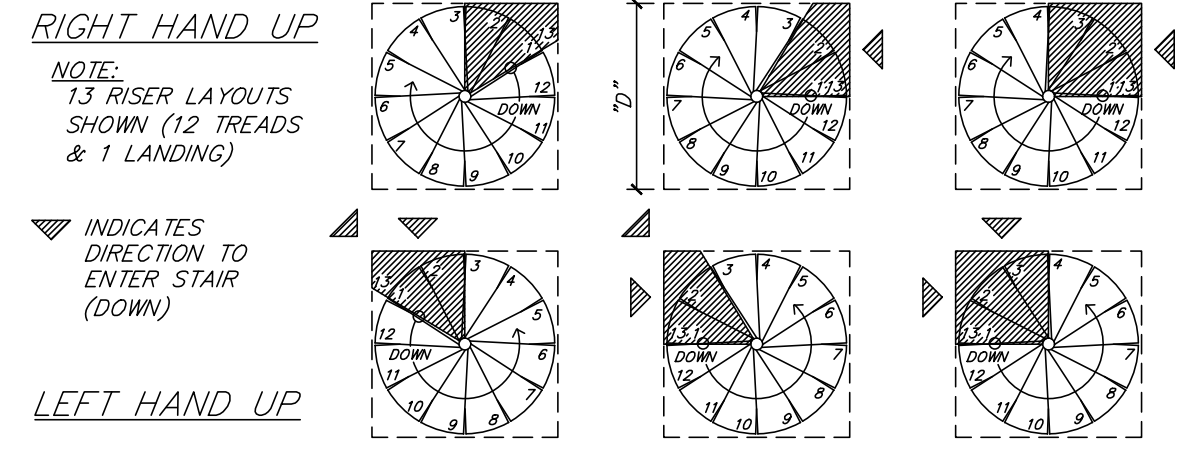
TYPICAL RISERS

RISER HEIGHT	LANDING TO LANDING HT. - 7"							
	12 RISERS	13 RISERS	14 RISERS	15 RISERS	16 RISERS	17 RISERS	18 RISERS	
8"	8'-8"	9'-4"	10'-0"	10'-6"	11'-4"	12'-0"		
8 1/2"	8'-6"	9'-2 1/2"	9'-11"	10'-7 1/2"	11'-4"			
9"	9'-0"	9'-9"	10'-6"	11'-3"	12'-0"			
9 1/2"	9'-6"	10'-3 1/2"	11'-1"	11'-10"	12'-6"			

MINIMUM FINISH FRAMED OPENING FOR STAIRS

STAIR DIA. "D"	FINISHED OPENING
5'-0"	5'-3" x 5'-3"
5'-6"	5'-9" x 5'-9"
6'-0"	6'-3" x 6'-3"
6'-6"	6'-9" x 6'-9"
7'-0"	7'-3" x 7'-3"
7'-6"	7'-9" x 7'-9"
8'-0"	8'-3" x 8'-3"

FRAME ROUND OPENING LARGER TO ALLOW FOR FINISH MATERIAL SUCH AS GYP. BD., TRIM, ETC.



- LANDING IS REVERSIBLE; 60 OR 90 DEGREE EDGE OF LANDING MAY BE USED FOR TOP STEP.
- 8.625" MINIMUM RISER HEIGHT REQUIRED FOR HEADROOM BELOW 90 DEGREE LANDING. IF DOORWAY OCCURS AT LANDING, A LARGER LANDING MAY BE REQUIRED. SEE NOTE (16) & DETAIL 18.

TREAD & FOOTING SCHEDULE

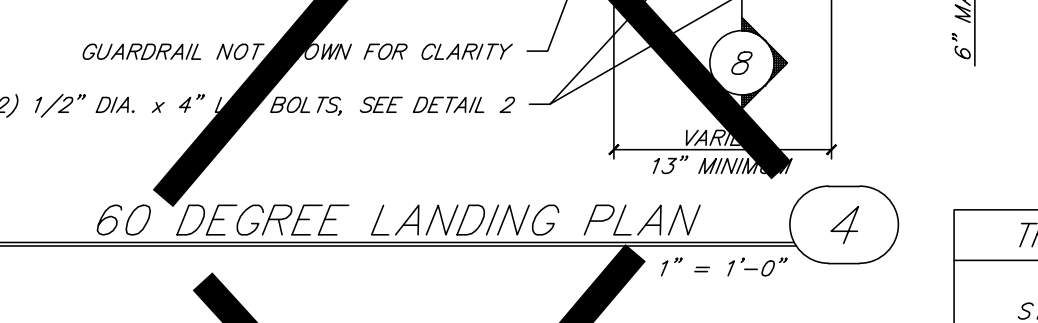
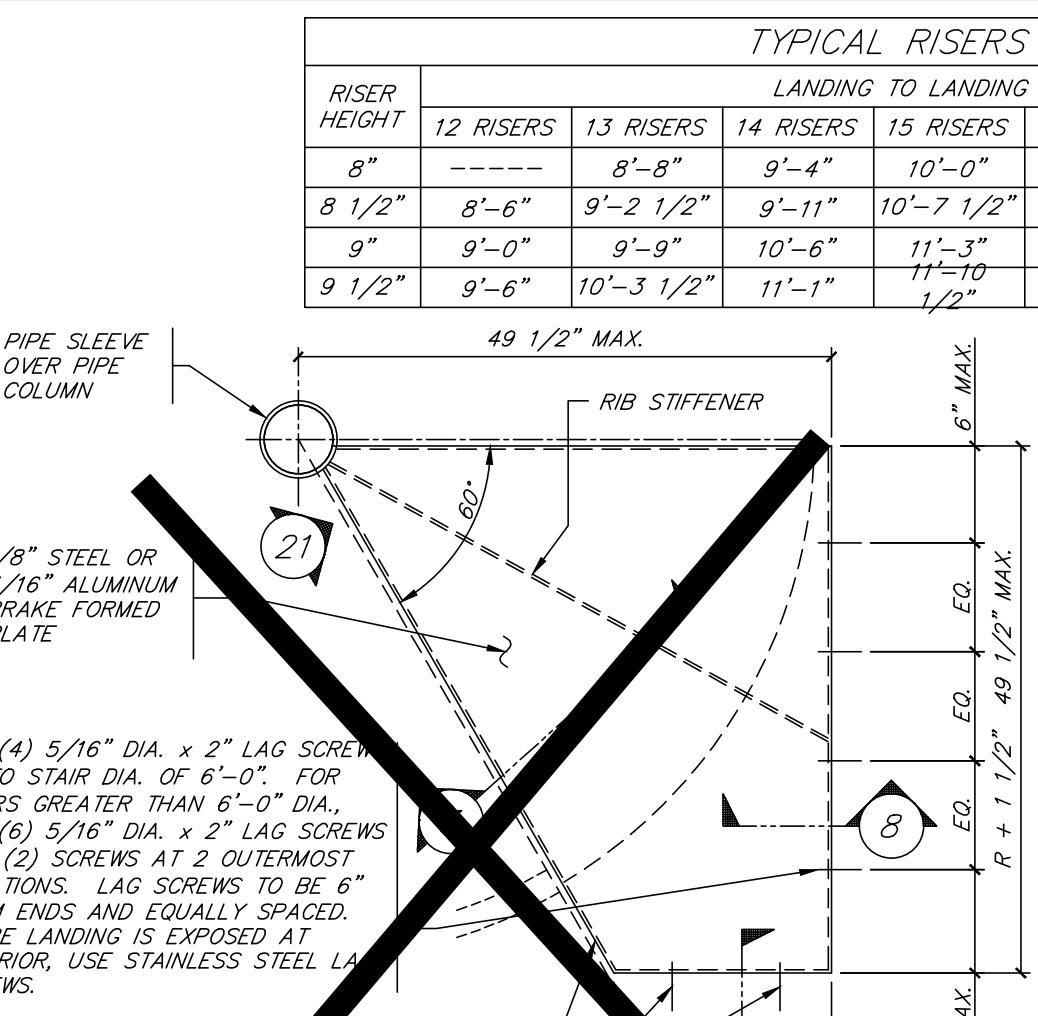
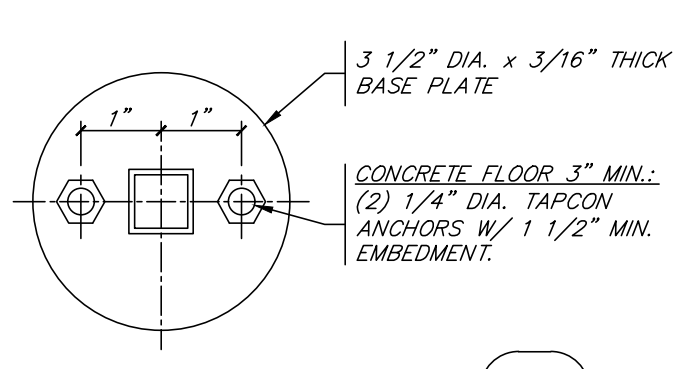
STAIR DIAMETER "D"	TREAD			FOOTING	
	"R" (1)	"C" (1)	"E" (2)	MAX. LOAD (LB)	CONC. PAD "W" (3/4)
5'-0"	2'-6"	15 1/16"	2 7/8"	1227	12"
5'-6"	2'-9"	17 7/16"	2 7/8"	1485	14"
6'-0"	3'-0"	18 1/16"	2 7/8"	1767	14"
6'-6"	3'-3"	18 3/16"	2 7/8"	2074	16"
7'-0"	3'-6"	17 3/8"	2 7/8"	2405	16"
7'-6"	3'-9"	18 1/2"	2 7/8"	2761	18"
8'-0"	4'-0"	19 1/16"	2 7/8"	3142	20"
6'-0" MAX. (6)	SEE 6'-0" ABOVE			5301	26"
8'-0" MAX. (6)	SEE 8'-0" ABOVE			9425	34"

CENTER COLUMN SCHEDULE

STAIR DIAMETER "D"	PIPE SIZE & TYPE	
	STEEL	ALUMINUM
1 STORY (16 FT MAX)	3'-6" TO 5'-0" 3.0 SCH. 10	3.0 SCH. 40
	5'-6" TO 6'-0" 3.0 SCH. 10	3.0 SCH. 40
	6'-0" TO 7'-0" 3.0 SCH. 10	3.0 SCH. 40
	7'-0" TO 8'-0" 3.0 SCH. 10	3.0 SCH. 80
	8'-0" TO 9'-0" 3.0 SCH. 10	3.0 SCH. 40
2 STORY	5'-6" TO 6'-0" 3.0 SCH. 40	3.0 SCH. 40
	6'-0" TO 7'-0" 3.5 SCH. 40	3.5 SCH. 40
	7'-0" TO 8'-0" 3.5 SCH. 80	3.5 SCH. 80
	8'-0" TO 9'-0" 3.5 SCH. 40	3.5 SCH. 40
3 STORY	5'-6" TO 6'-0" 3.5 SCH. 40	3.5 SCH. 40
	6'-0" TO 7'-0" 3.5 SCH. 80	3.5 SCH. 80
	7'-0" TO 8'-0" 3.5 SCH. 80	CUSTOM

- SEE DETAILS 6 & 8
- SEE DETAIL 9
- SEE DETAILS 15 & 20
- SOIL BEARING IS ASSUMED TO BE 1500 P.S.F. IF SOIL BEARING VALUE IS GREATER THAN 1500 P.S.F., USE "W" FOR 1500 P.S.F. EXISTING OR NEW CONCRETE FLOOR OR WOOD FLOOR FRAMING SHALL BE DESIGNED BY OTHERS FOR THE SPECIFIC COLUMN LOAD FOR EACH INSTALLATION.
- 3-STORY STAIRS (86"-0" MAX. HT. WITH LANDING AT EACH 12'-0").
- FOR 6'-6" TO 8'-0" DIA. STAIRS THAT ARE 2 OR 3 STORES, CONCRETE PAD DEPTH OF 14" IS REQUIRED AS OPPOSED TO TYPICAL 12" PAD DEPTH.

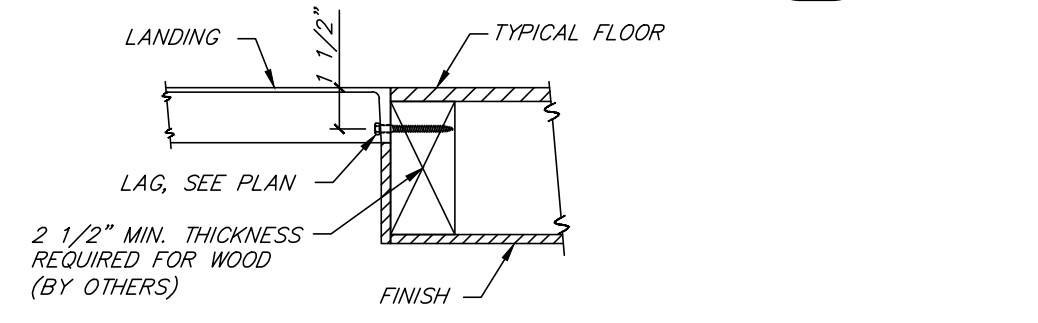
STAIR SCHEDULE (5)



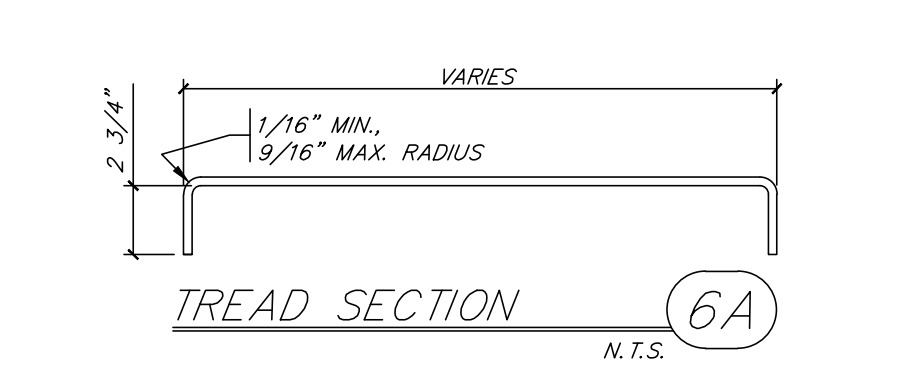
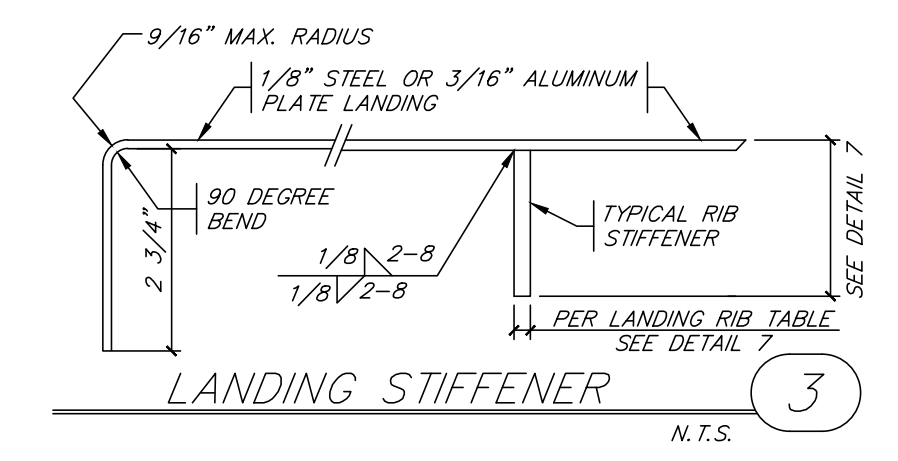
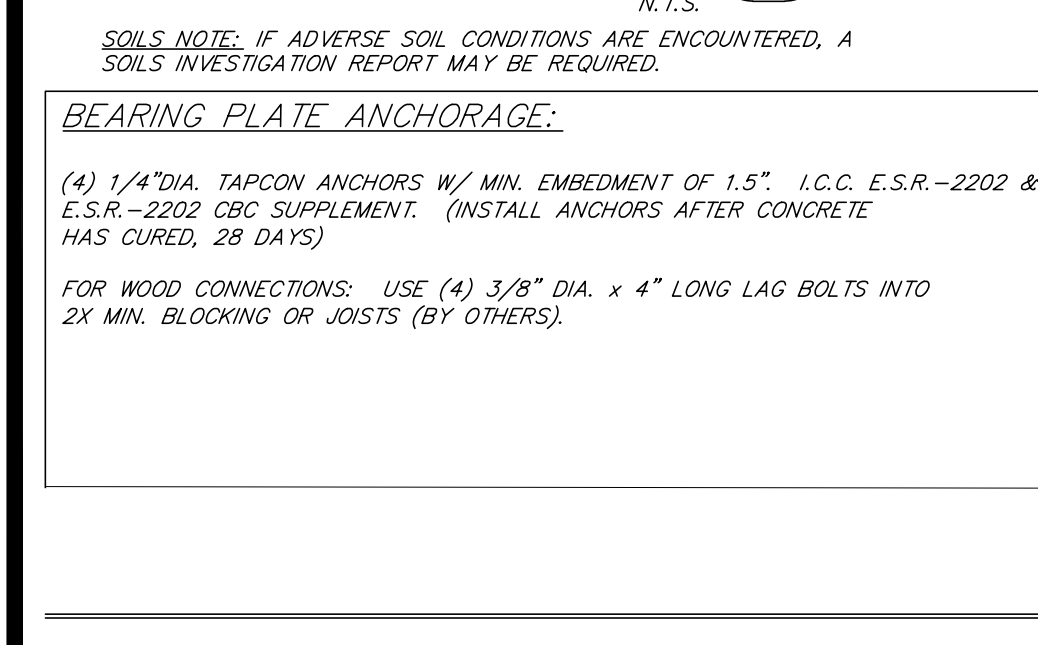
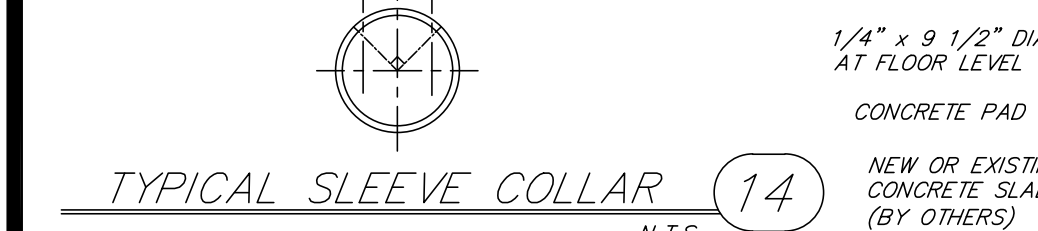
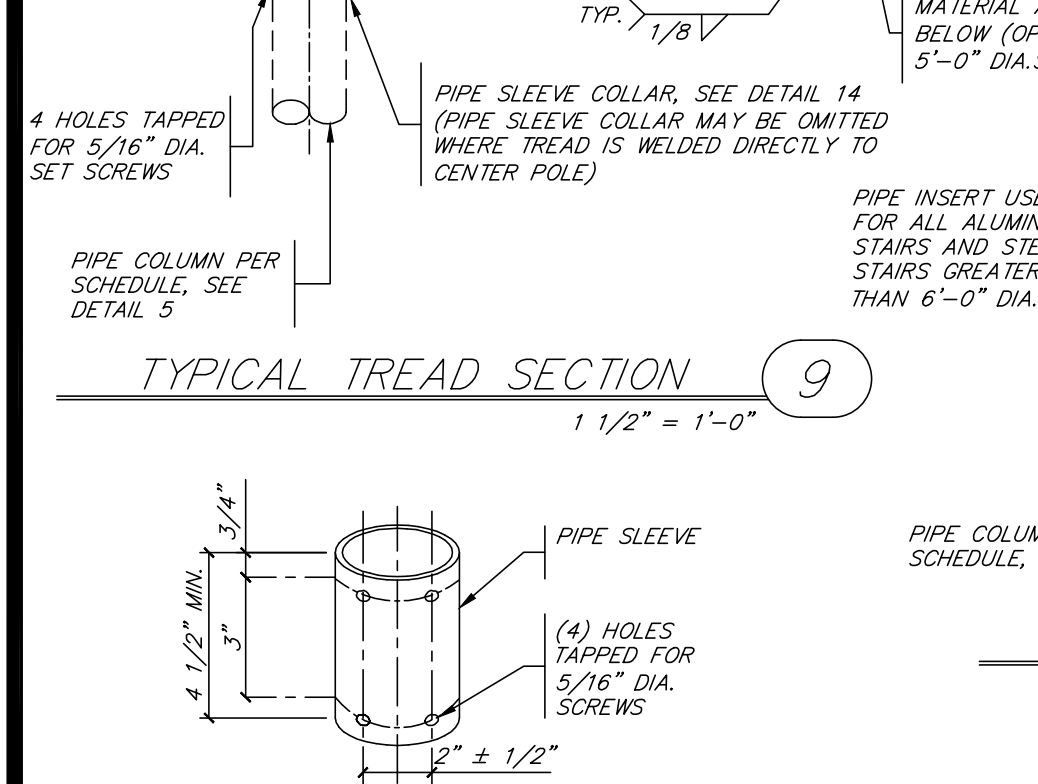
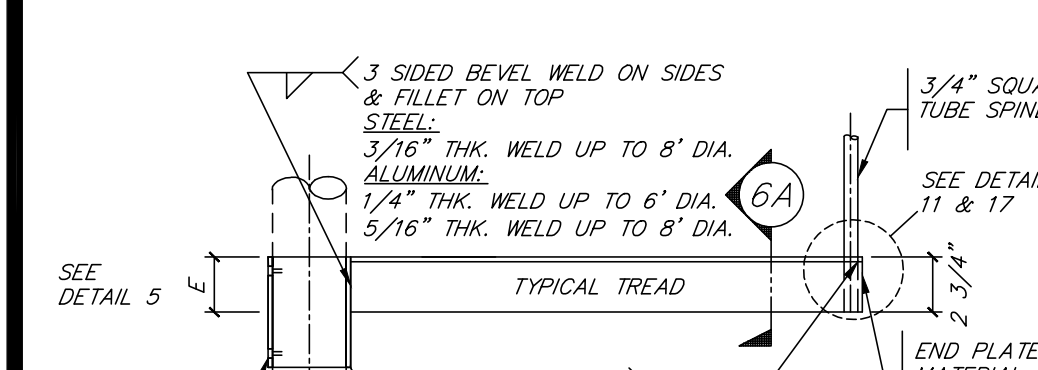
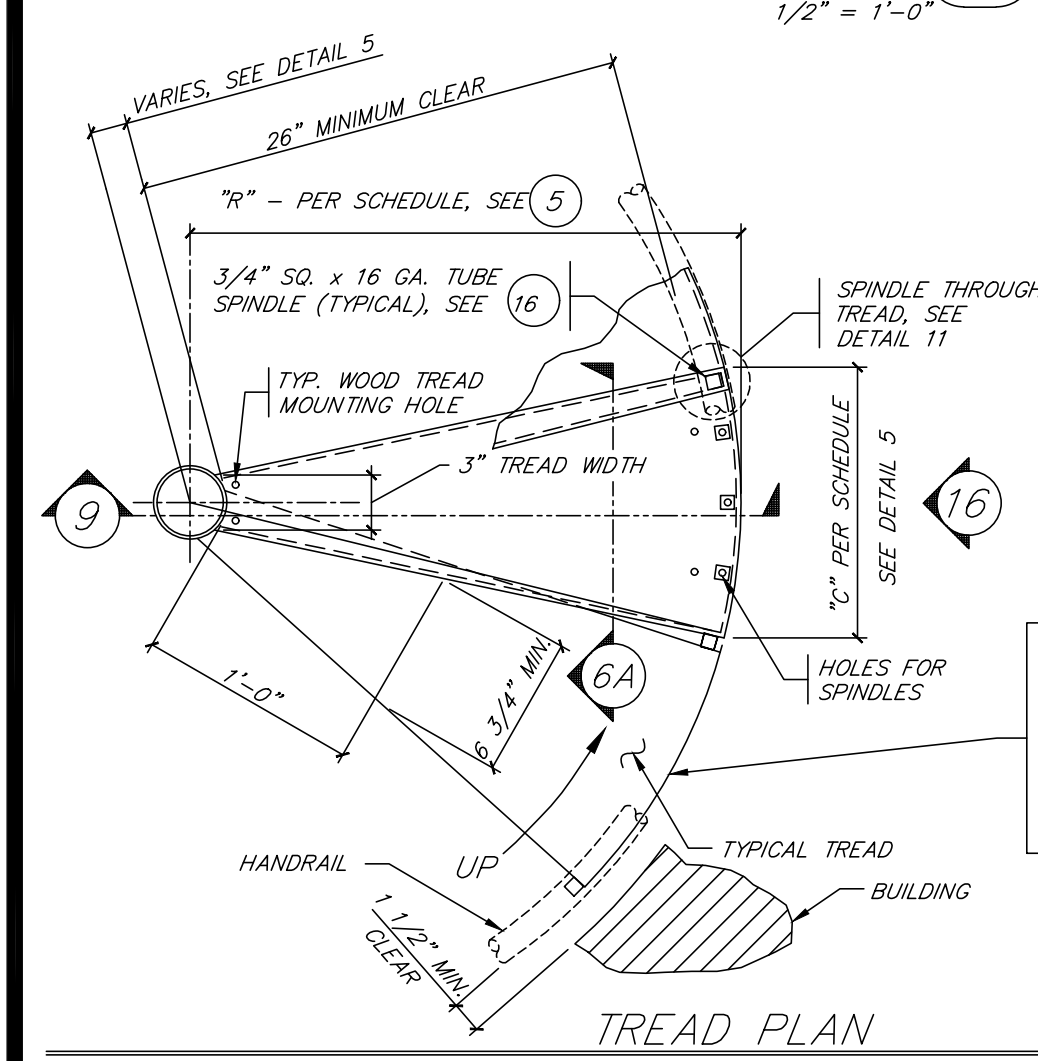
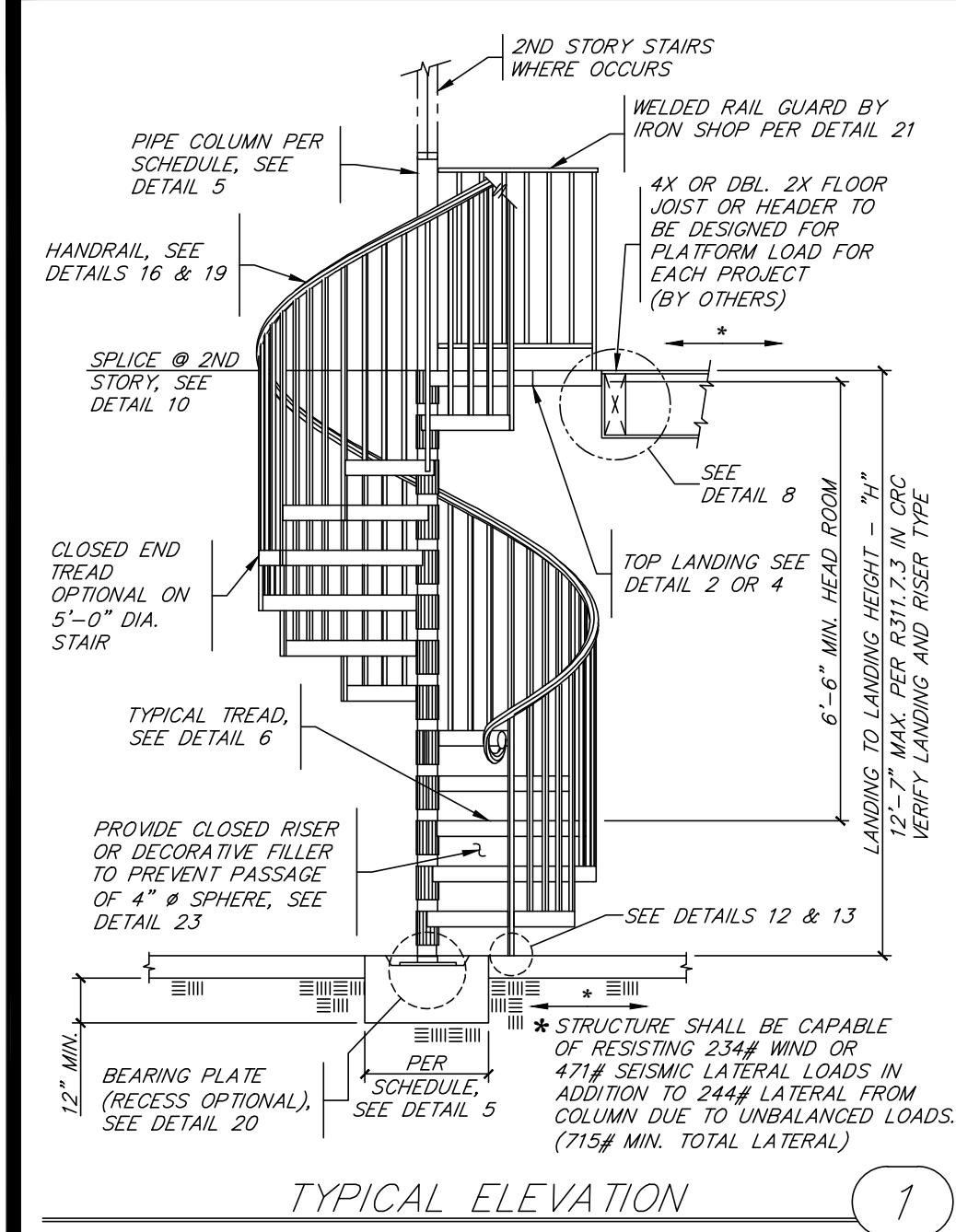
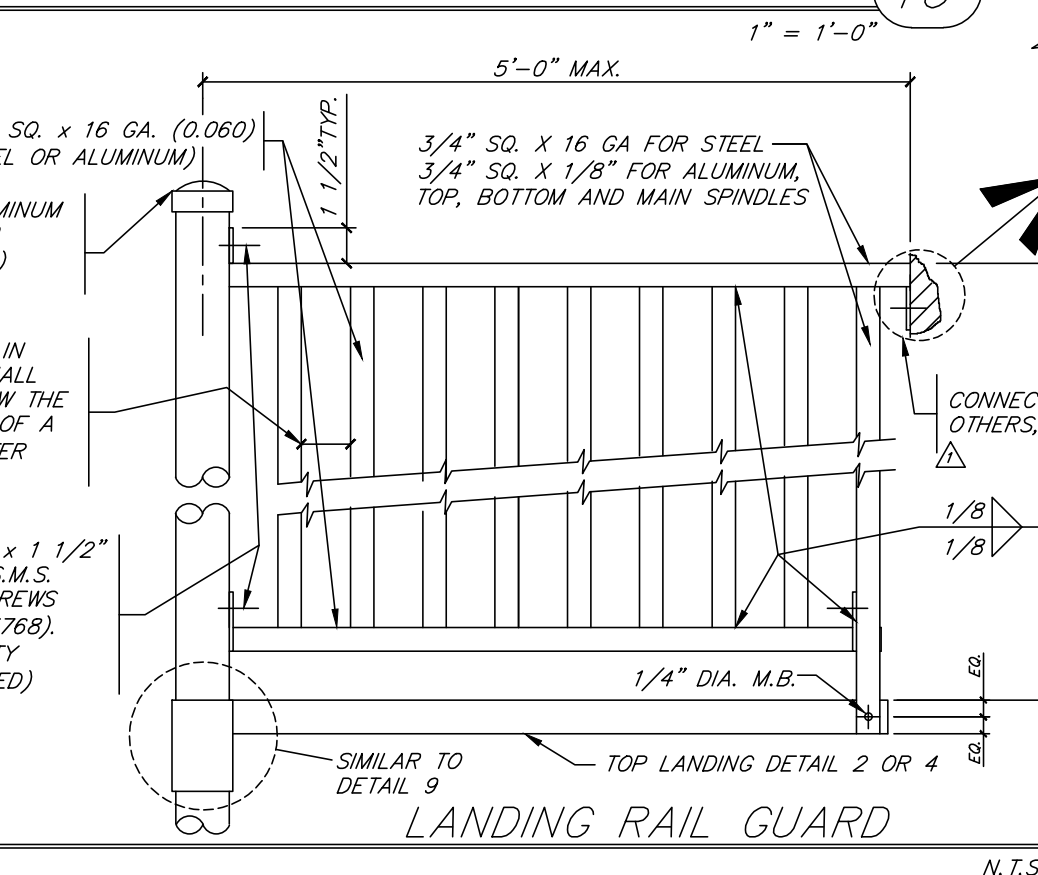
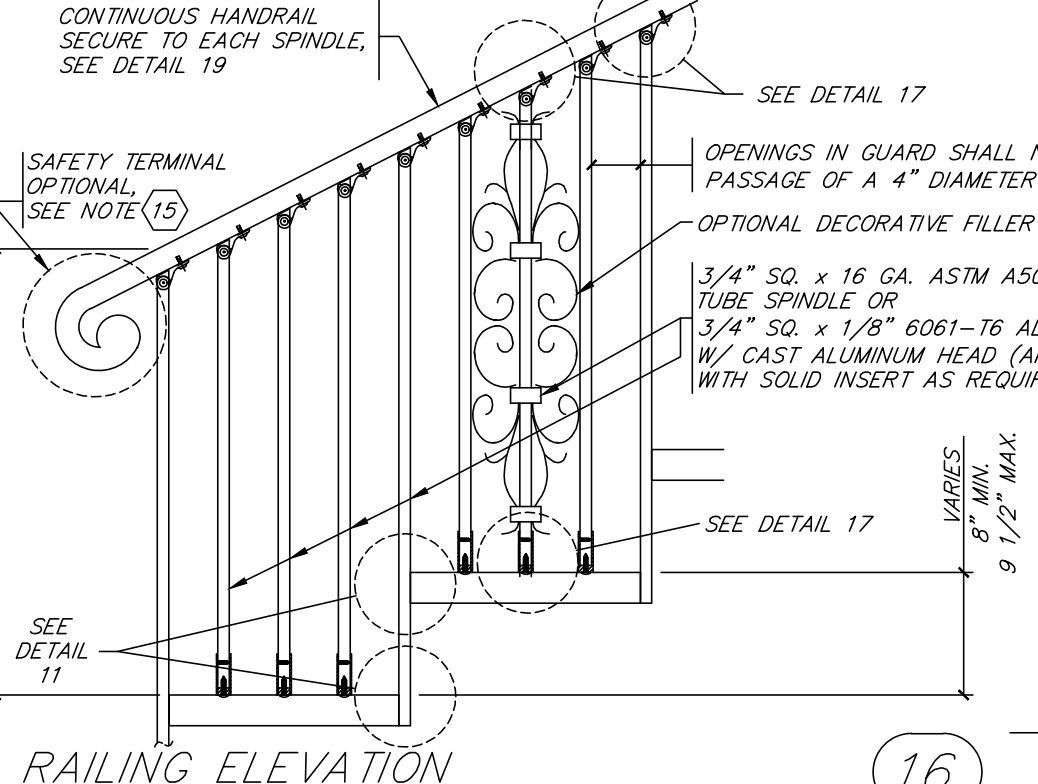
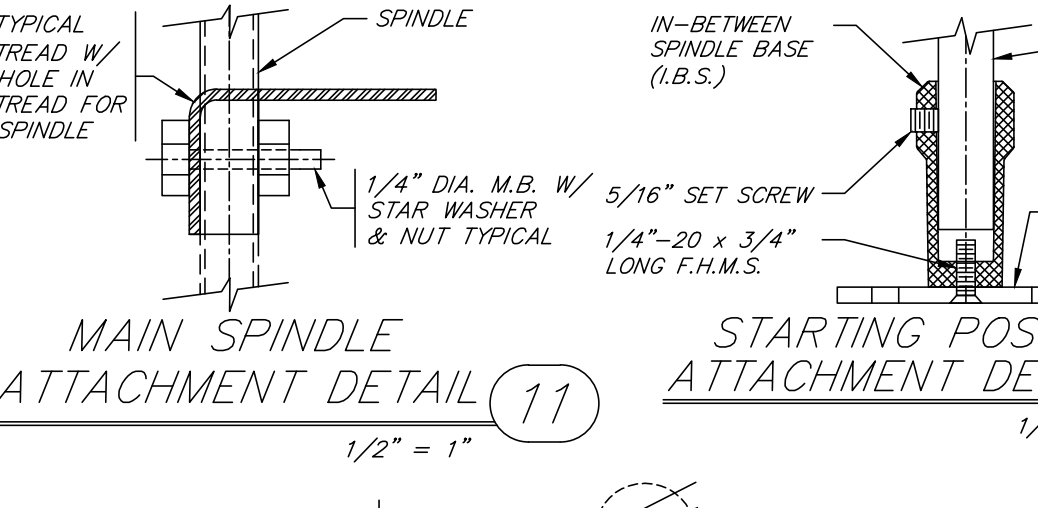
LANDING RIB STIFFENER

STAIR DIAMETER "D"	STIFFENER	
	STEEL	ALUMINUM
5'-0"	3/16" x 2 1/2"	3/16" x 2 1/2"
5'-6"	3/16" x 2 1/2"	3/16" x 2 1/2"
6'-0"	3/16" x 2 1/2"	3/16" x 2 1/2"
6'-6"	3/16" x 2 1/2"	3/16" x 2 1/2"
7'-0"	3/16" x 2 1/2"	3/16" x 2 1/2"
7'-6"	3/16" x 2 1/2"	3/16" x 2 1/2"
8'-0"	3/16" x 2 1/2"	1/4" x 2 1/2"

LANDING RIB TABLE (7)

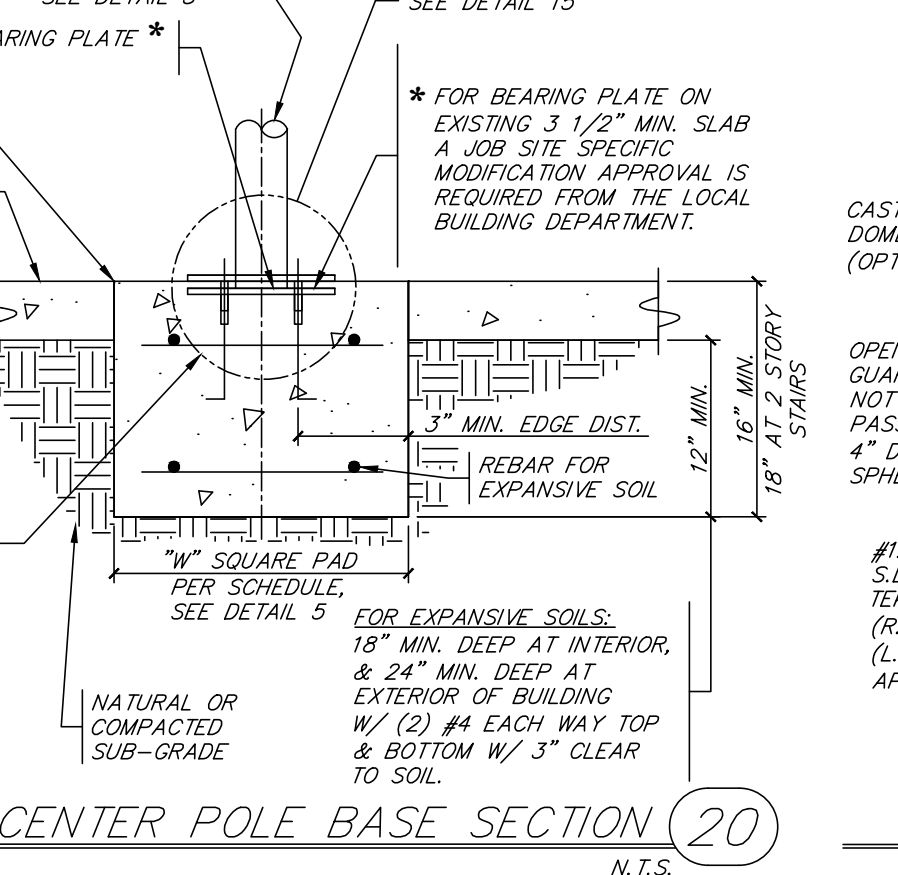
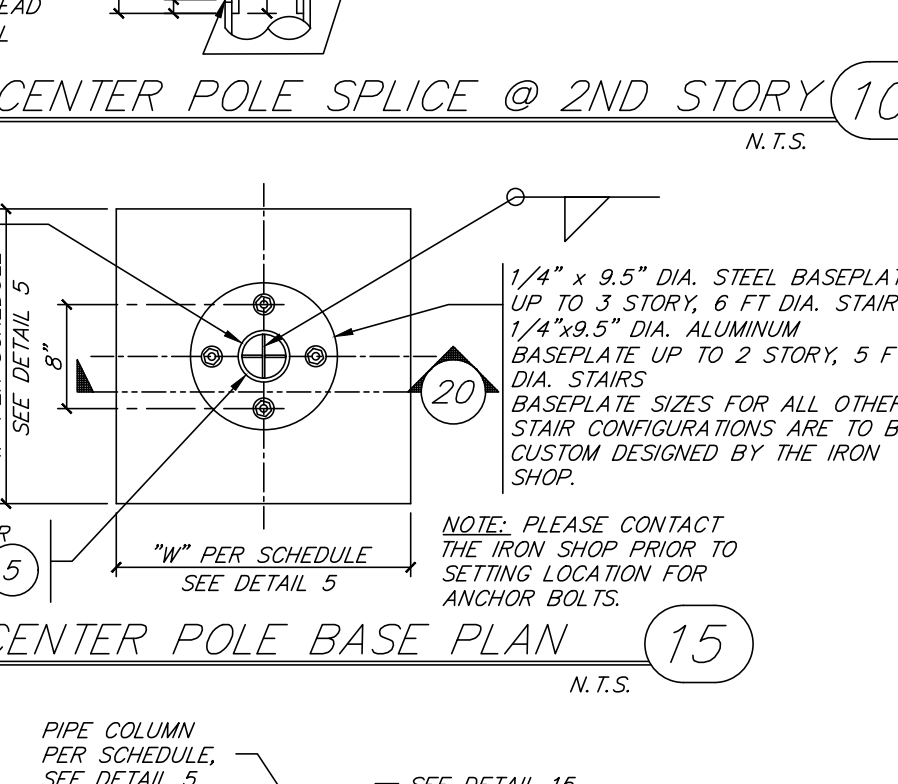
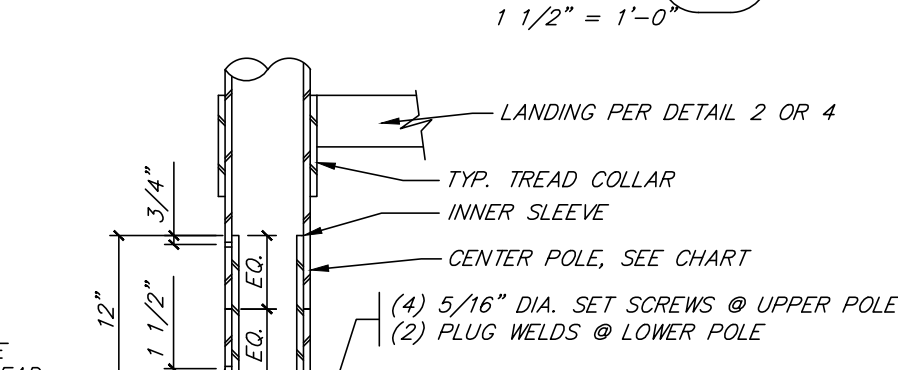


CONNECTION AT LANDING (8)



TREAD ALTERNATIVES

- STEEL: 12 GA PLATE UP TO 7" = 3'-0" MAX., OR 3/16" FOR 7" = 3'-1" AND HIGHER.
- ALUMINUM: 3/16" PLATE UP TO 7" = 3'-0" MAX., 1/4" FOR 7" = 3'-1" TO 7" = 4'-0"
- DIAMOND FLOOR PLATE: (SEE NOTE 1 ABOVE FOR SIZES) 3003-H22 TREAD PLATE (8'-0" MAX. DIA. W/ ALUMINUM).



REVISIONS

NO.	DATE	BY
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		

CONTRACTOR: WWW.THEIRONSHOP.COM
 PHONE: (800) 382-4766 OR (909) 605-1000
THE IRON SHOP
 400 REED ROAD, BROOMALL, PA 19008
 TELEPHONE: (800) 382-4766
 FAX: (909) 605-8899

SPIRAL STAIRWAY
 MODEL NO.: STANDARD #111

P.E. SEAL:

 07/30/24

DRAWN: A3
 CHECKED: AS SHOWN
 DATE: 08/08/2023
 SCALE: 1" = 1'-0"
 JOB NO.: 20-65
 YSREK

STRUCTURAL NOTE & CONSTRUCTIONS CRITERIA:

1. THE DESIGN IS BASED ON CODE REQUIREMENTS IBC2021, IRC2021 WITH 12 PSF FLOOR DEAD LOAD, 60 PSF DECK LIVE LOAD, 12 PSF ROOF DEAD LOAD, 25 PSF SNOW LOAD.

2. MINIMUM SOIL BEARING CAPACITY IS ASSUMED 1500 PSF FOR THE DESIGN.

3. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE SPECIFICALLY DETAILED OR NOTED OTHERWISE ON THE DRAWINGS.

4. RESOLVE ANY CONFLICTS ON THE PLANS WITH THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. DIMENSIONS TAKE PRECEDENCE OVER SCALE OF DRAWINGS. HOWEVER, ANY SIGNIFICANT CONFLICTS SHOULD BE RESOLVED AS NOTED.

5. STRUCTURAL DIMENSIONS CONTROLLED BY EXISTING STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND/OR FABRICATION. ALL ELEVATIONS AND DIMENSIONS OF EXISTING AND NEW STRUCTURES SHOWN ON THE DRAWINGS ARE BASED ON LIMITED FIELD VERIFICATION OF AS-BUILT DIMENSIONS. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS REGARDLESS OF DIMENSIONS AND ELEVATIONS NOTED ON PLANS.

6. THE STRUCTURAL ANALYSIS AND DESIGN OF THIS PROJECTS IS BASED ON THE ASSUMPTIONS THAT THE EXISTING STRUCTURAL COMPONENTS SUCH AS WOOD FRAMES AND FOUNDATION SLAB ARE IN SOUND CONDITIONS AND IN ACCEPTABLE INTEGRITY AND ENGINEER IS NOT IN CHARGE IF THERE IS ANY EXISTING DEFICIENCIES ON THESE STRUCTURAL COMPONENTS.

7. IF CONTRACTOR OBSERVED ANY SIGNIFICANT STRUCTURAL DEFICIENCIES DURING THE CONSTRUCTION OR SIGNIFICANT CONFLICTS BETWEEN EXISTING AND DRAWING, THIS SHOULD BE BROUGHT TO THE ATTENTION OF ENGINEER

8. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND THE SPECIFICATIONS.

9. ALL APPLICABLE REQUIREMENTS OF THE WASHINGTON CONSTRUCTION AND GENERAL INDUSTRY SAFETY ORDERS, THE OCCUPATIONAL SAFETY AND HEALTH ACT AND THE CONSTRUCTION SAFETY ACT SHALL BE MET.

10. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING AND NECESSARY SUPPORT TO ACHIEVE THE FINISHED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENFORCING ALL CONSTRUCTION LOAD LIMITS ON THE STRUCTURE.

11. ALL FOUNDATION FOOTING BASE SHALL BE EXCAVATED TO THE LEVEL SHOWN ON PLANS AND THE SOIL UNDER THE FOOTING SHALL BE COMPACTED TO ACCEPTABLE LEVEL BEFORE PLACING REBAR AND CONCRETE POURING.

12. ALL NAILS SHALL CONFORM TO ASTM F1667. ALL NAILING SHALL BE WITH COMMON WIRE NAILS OR APPROVED EQUAL. ALL NAILING SHALL BE POWER DRIVEN FASTENERS MEETING THE REQUIREMENTS I.C.C. ESR-1539 OR APPROVED EQUAL. ALL NAILS AND FASTENERS IN PRESSURE TREATED OR FIRE RETARDANT WOOD SHALL BE HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, COPPER, OR APPROVED EQUAL, TYPICAL UNLESS NOTED OTHERWISE TO MEET THE REQUIREMENTS OF I.B.C. SECTION 2304.9.5. NAILS SPECIFIED BY PENNYWEIGHT SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: NAIL SIZES SPECIFIED HERE AND ON MANUFACTURE TABLES ARE ACCORDING TO FOLLOWING:

SIZE	LENGTH	DIAMETER	BENDING YIELD
6d	2"	0.113"	100,000 PSI
8d	2-1/2"	0.131"	100,000 PSI
10d	3"	0.148"	90,000 PSI
12d	3-1/2"	0.148"	90,000 PSI
16d	3-1/2"	0.162"	90,000 PSI

13. WOOD: SAWN LUMBER FRAMING: ALL LUMBER FOR DECK STRUCTURE SHALL BE PRESSURE TREATED AND COMPLY WITH THE LATEST EDITION OF GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WES COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. ALL WOOD COMPONENTS SHALL BE (DOUGLAS-FIR LARCH) DF NO.2 AND BETTER EXCEPT OTHERWISE NOTED.

14. ALL THE HARDWARE USED AND MENTIONED IN THIS PLAN SHALL BE INSTALLED ACCORDING TO MANUFACTURE RECOMMENDATIONS AND PROVIDED TABLES.

15. ALL CONNECTIONS AND SIMPSON TIE FASTENERS SHALL BE PERFORMED COMPLY WITH THE GUIDELINE AND REQUIREMENTS PROVIDED BY MANUFACTURER.

16. ALL SIMPSON TIE POST BASES AND POST CAPS SHALL BE SPECIAL CORROSION PROTECTION COATED PER MANUFACTURER.

17. THE DECKING MATERIAL SHALL BE COMPOSITE DECKING PER ARCHITECTURAL.

ARCHITECTURAL.

18. ALL REINFORCEMENT SHALL HAVE MINIMUM YIELD STRENGTH OF 60,000 PSI

19. CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI

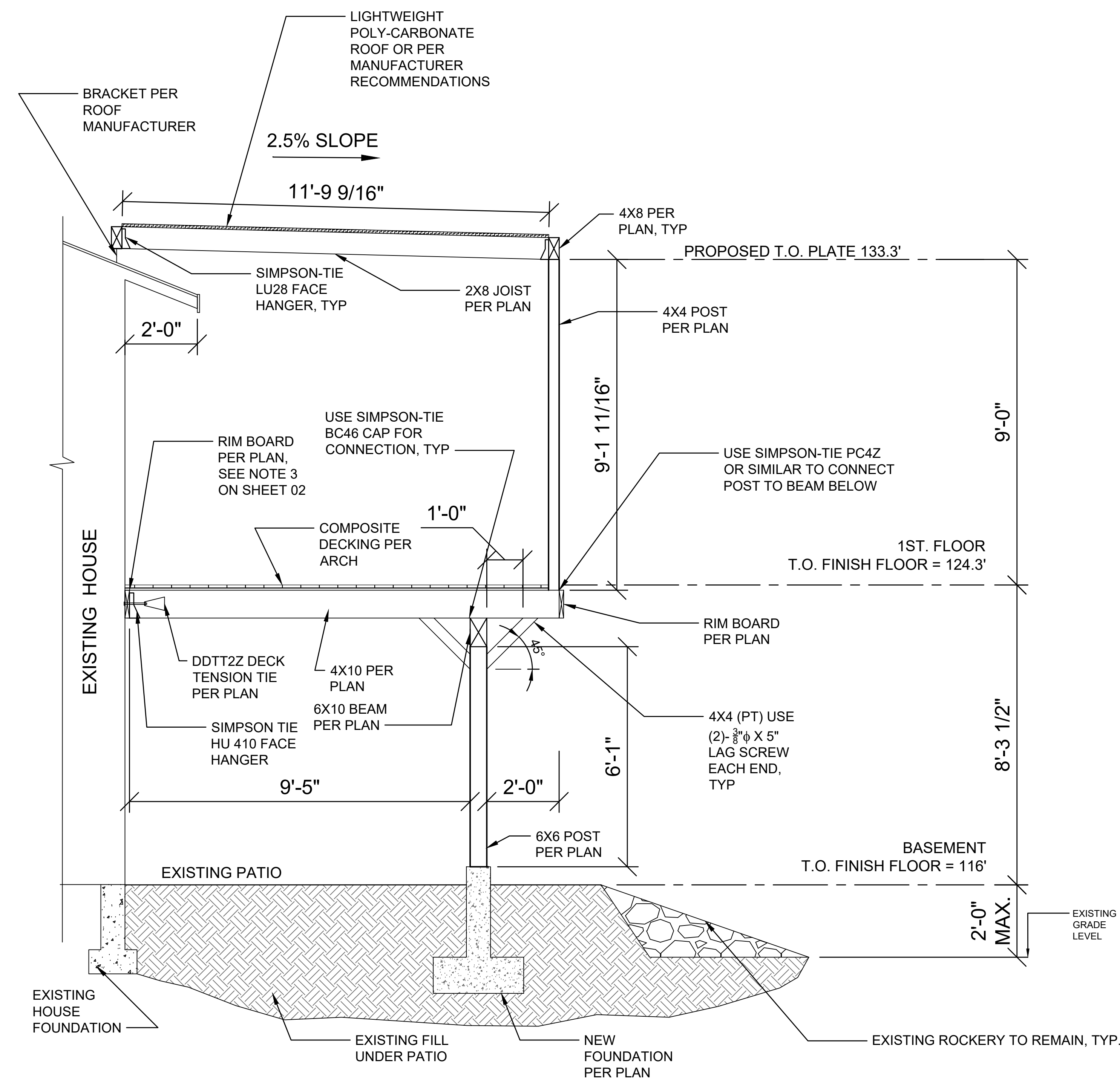
20. MINIMUM COVER FOR CONCRETE TOUCHING EARTH SHALL BE 3.0 INCH OTHERWISE SHALL BE 2.0 INCH

21. DRAWING LIST:
 SHEET S01: GENERAL NOTES
 SHEET S02: DECK STRUCTURAL PLAN VIEW
 SHEET S03: DECK STRUCTURAL SECTION VIEW
 SHEET S04: DECK STRUCTURAL SECTION VIEW
 SHEET S05: DECK FOUNDATION DETAILS

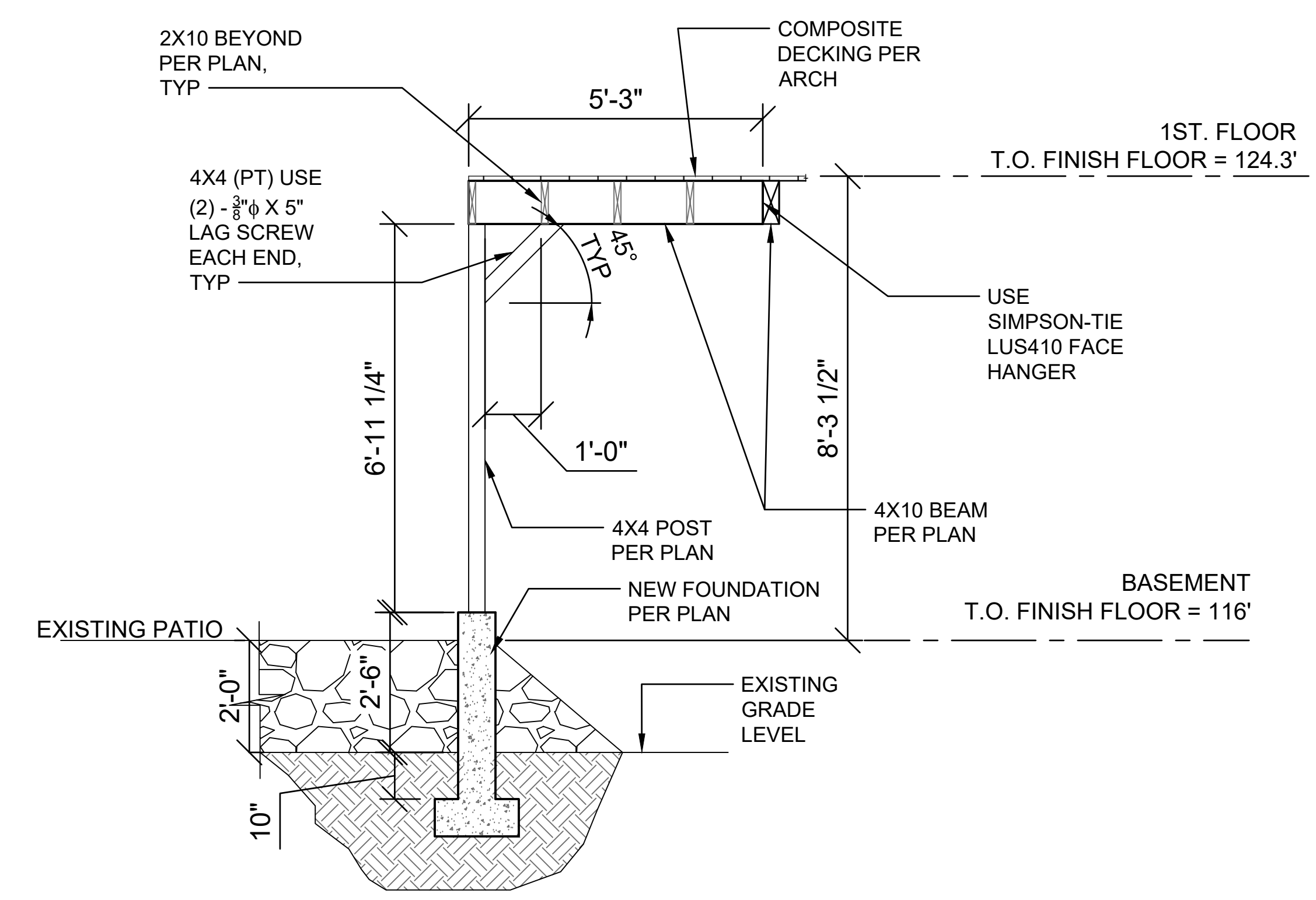


EXP. 01/28/2025
09/29/2024

PROJECT OWNER AND ADDRESS: FARHAD NAJAFIAN SEYSAN 2453 64TH AVE S MERCER ISLAND 98040	PROJECT: NEW DECK DESIGN	TECLOADS LLC INFO@TECLOADS.COM 206-660-8979	GENERAL NOTES		
			SHEET NO. S01	SC. NTS	09/26/24



SECTION A
SCALE: 1/2" = 1'-0"
01



SECTION B
SCALE: 1/2" = 1'-0"
01

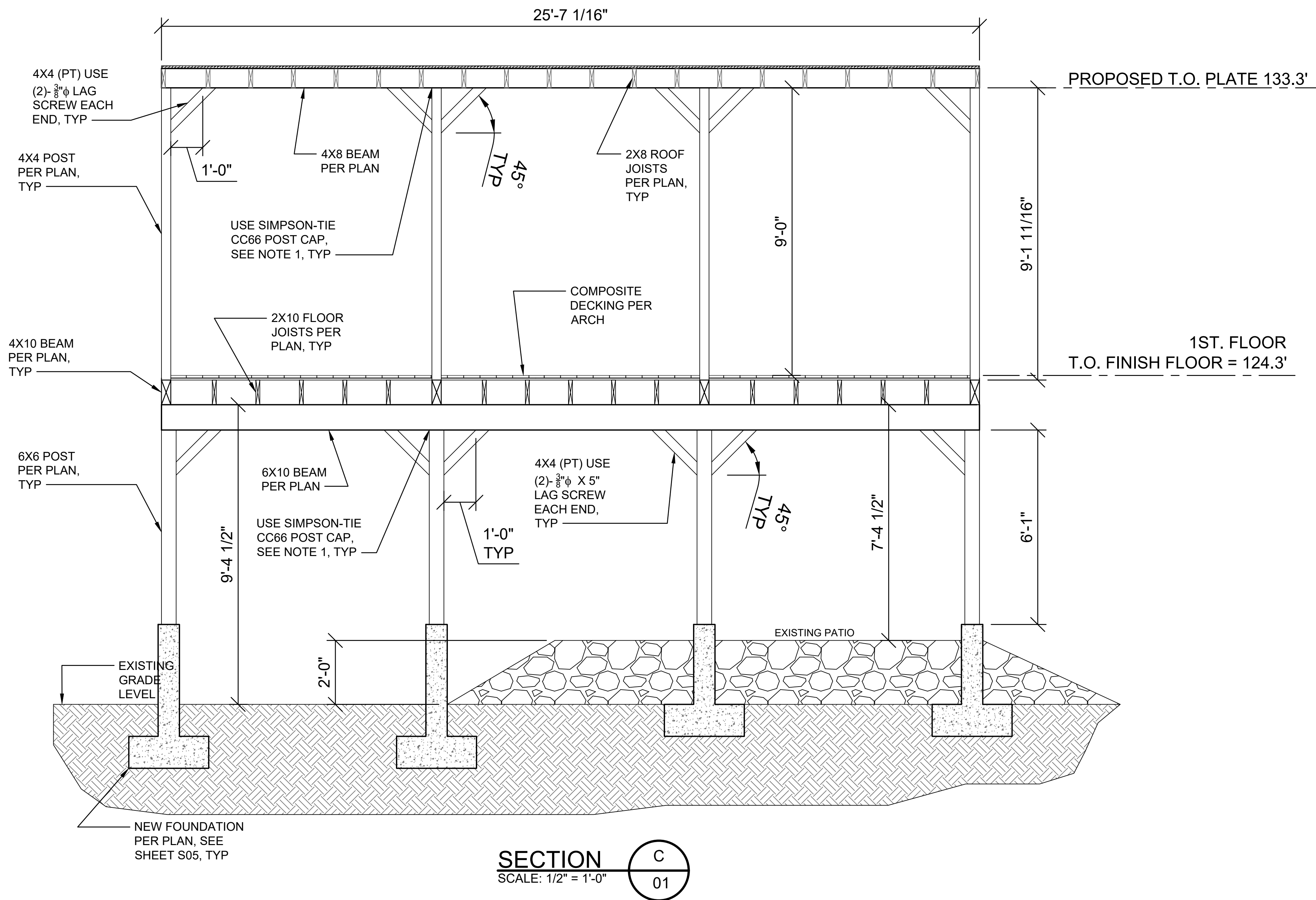
PROJECT OWNER AND ADDRESS: FARHAD NAJAFIAN SEYSAN 2453 64TH AVE S MERCER ISLAND 98040	PROJECT: NEW DECK DESIGN	TECLOADS LLC INFO@TECLOADS.COM 206-660-8979	DECK STRUCTURAL SECTION VIEW		
			SHEET NO. S03	SC. 1/2"=1'	09/26/24



EXP. 01/28/2025
09/29/2024

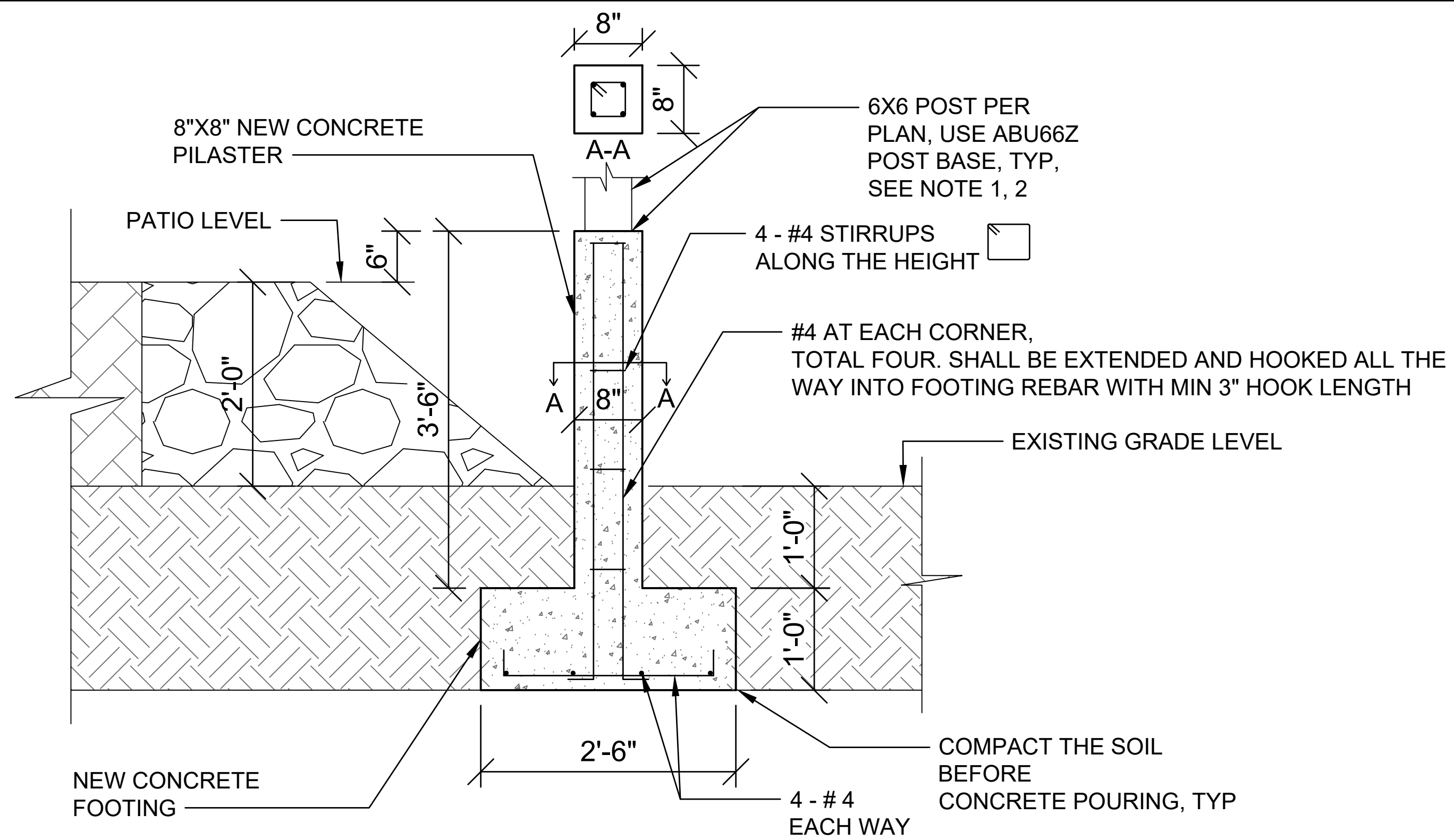
1 2 3 4 5 6 7 8 9 10 11 12

NOTES:
 1. SPECIAL CORROSION PROTECTION SHALL BE APPLIED ON ALL POST CAP AND POST BASES PER SIMPSON-TIE MANUFACTURER.

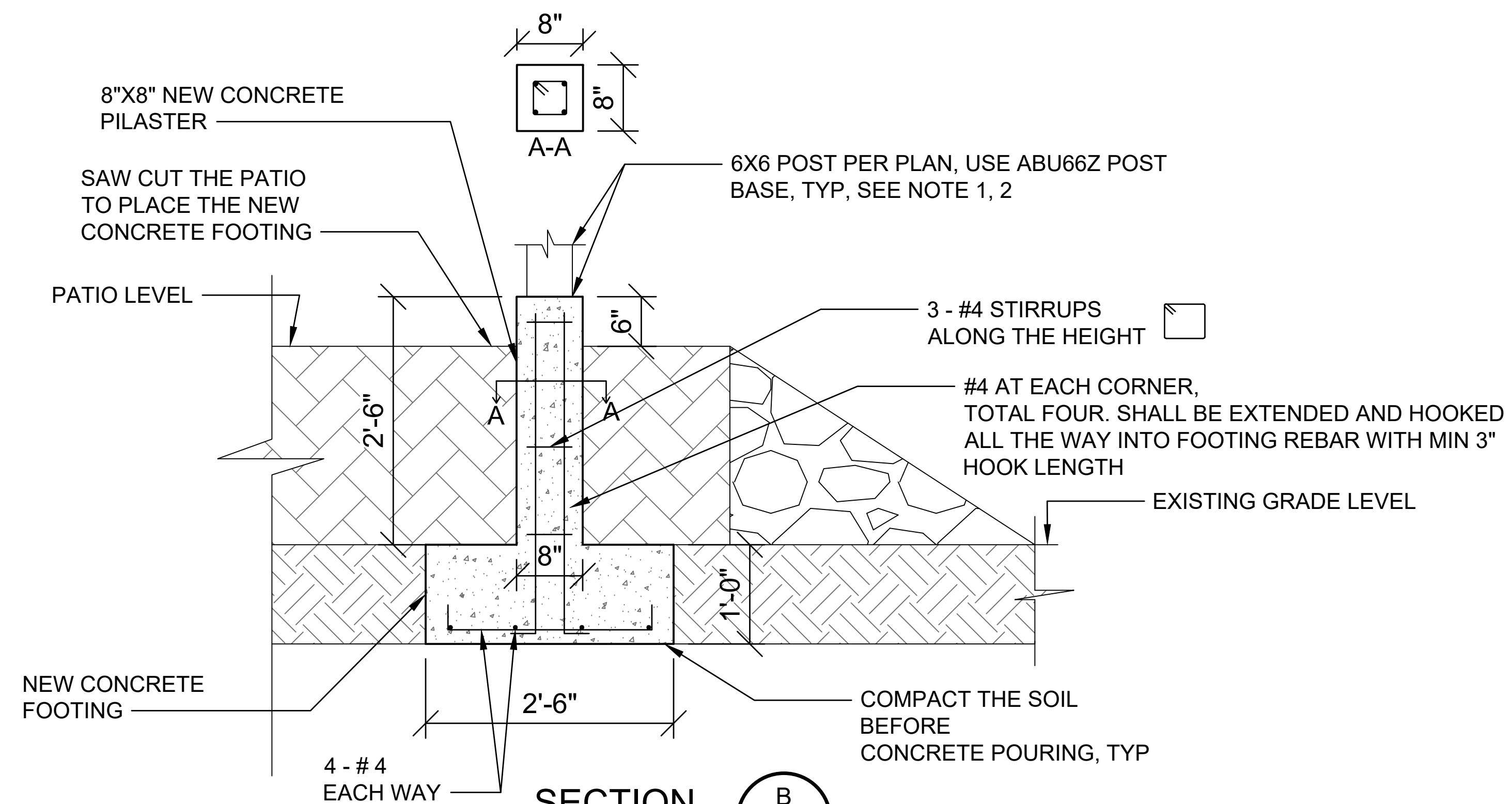


PROJECT OWNER AND ADDRESS: FARHAD NAJAFIAN SEYSAN 2453 64TH AVE S MERCER ISLAND 98040	PROJECT: NEW DECK DESIGN	TECLOADS LLC INFO@TECLOADS.COM 206-660-8979	DECK STRUCTURAL SECTION VIEW	
			SHEET NO. S04	SC. 1/2"=1'
			09/26/24	

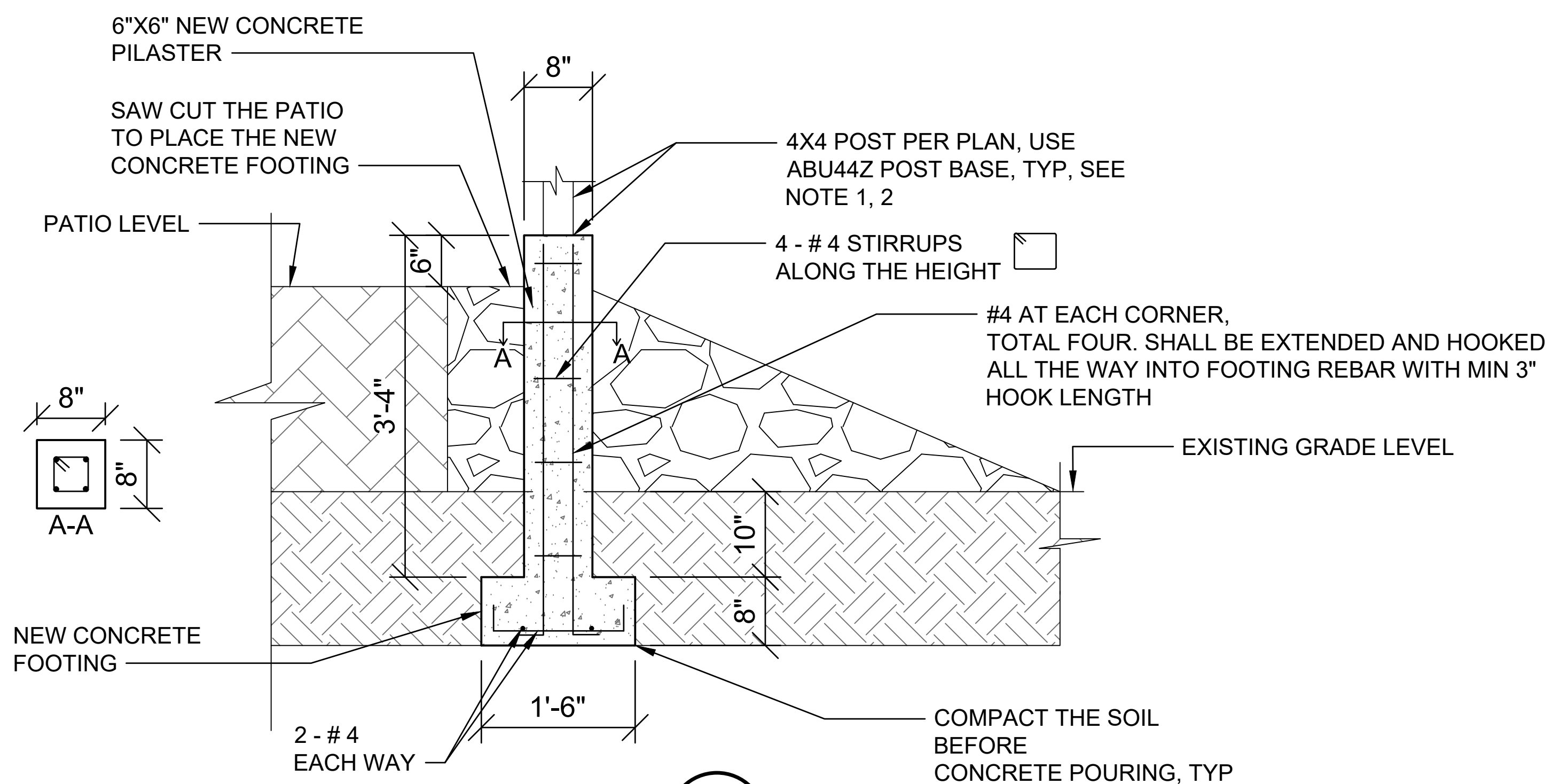




SECTION A-A
SCALE: 1" = 1'-0"



SECTION B-B
SCALE: 1" = 1'-0"



SECTION C-C
SCALE: 1" = 1'-0"

NOTES:

1. SIMPSON STRONG-TIE ABU66Z AND ABU44Z SHALL BE USED FOR 6X6 AND 4X4 POST BASE RESPECTIVELY. SPECIAL CORROSION PROTECTION NEEDS TO BE APPLIED ON ALL HARDWARE AND FASTENER PER SIMPSON-TIE MANUFACTURER.
2. IT IS RECOMMENDED ALL POSTS TO BE WRAPPED AND PROTECTED MINIMUM 1 FEET FROM CONCRETE SURFACE TO PROTECT THE POST BASE FROM WET AND RAIN.
3. CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.
4. MINIMUM COVER FOR CONCRETE FOOTING TOUCHING EARTH SHALL BE 3.0 INCH OTHERWISE SHALL BE 1.5 INCH.

PROJECT OWNER AND ADDRESS:
FARHAD NAJAFIAN SEYSAN
2453 64TH AVE S MERCER ISLAND
98040

PROJECT:
NEW DECK DESIGN

TECLOADS LLC
INFO@TECLOADS.COM
206-660-8979

DECK FOUNDATION FOUNDATION DETAILS

SHEET NO. S05 SC. 1"=1' 09/26/24



EXP. 01/28/2025
09/29/2024