

STRUCTURAL NOTES

Design Live Loads:  
A. Roofs 85 psf  
B. Floors 40 psf  
C. Wind 120 mph, Exposure B, ASCE 7-10  
D. Seismic Design Category B, Soil Type D, 2009 IBC

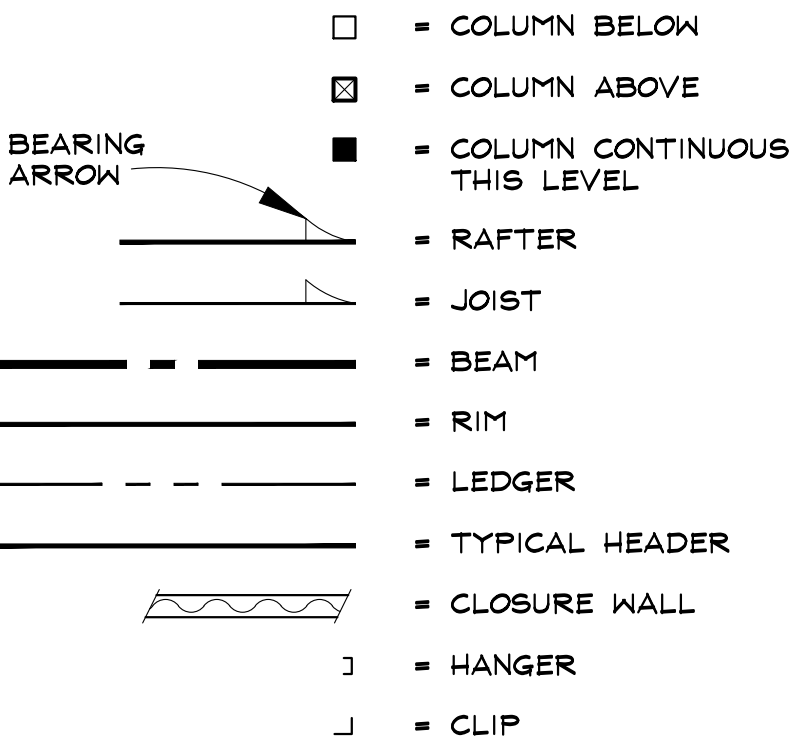
Foundation Criteria:  
A. Design of continuous and individual footings is based on a maximum allowable soil bearing pressure of 3,000 psf dead load plus full live load and a minimum 800 psf dead load placed on the natural undisturbed soils below frost depth. This is an assumed value based on a recommendation from Northwest Colorado Consultants, Inc.  
B. The helical pile foundations and tiebacks are designed in accordance with the Practical Design and Inspection Guide for Helical Piles and Helical Tension Anchors Compiled and Prepared by John S. Pack, P.E. for I.M.R., Inc., Denver, Colorado, Revision 2, July 27, 2009.  
C. The helical piles and tension anchors shall be installed to the minimum torques and lengths specified herein.  
D. The installation of the helical piles and tension anchors shall be monitored and recorded by a representative of SEAD, Inc. or approved independent testing agency.

Reinforced Concrete:  
A. Structural concrete shall be Type I, and have a minimum 28 day strength of 4,000 psi, w/ min 6% entrained air for durability.  
B. Reinforcing bars shall conform to ASTM spec. A615-79 and shall be Grade 60.  
C. All concrete work shall conform to the requirements of ACI318 and 301, latest edition.  
D. At splices, lap bars a minimum of 34 diameters. At corners and intersections, make horizontal continuous or provide matching corner bars. Around openings in walls and slabs, provide (2) #5 bars extending a minimum of 2 feet beyond the edge of the opening.  
E. Concrete cover shall conform to ACI 318-08, 7.7. Unless a greater cover is required, concrete cast against earth shall have 3in. min. cover, concrete exposed to earth or weather shall have 1 1/2in. min. cover for No. 5 bars & smaller & 2in. min. cover for No. 6 bars & greater. Concrete not exposed to weather shall have 3/4 min. cover for No. 11 bars & smaller.

Structural Steel:  
A. All bolts, including anchor bolts, shall conform to ASTM spec. A307.  
B. Structural steel rolled shapes, including plates and angles, shall be ASTM A36.  
C. Expansion bolts called for on the drawings shall be Simpson "Weg-All", "Strong-Bolt 2" or approved wedge type anchors with the following minimum embedments: 3/4" diameter bolts - 3 3/8", 5/8" diameter bolts - 2 1/2", 1/2" diameter bolts - 2 1/4".  
D. All epoxy shall be Simpson "Set-Xp" and shall be installed per the "Anchoring and Fastening Systems For Concrete and Masonry" Simpson catalog #C-SAS-2012 by qualified personnel.  
E. Field welded connections must be inspected by the Engineer of Record or approved 3rd party.  
F. Fillet welds indicated on the plans shall be of E70xx electrodes and shall be the minimum size specified in the AISC Manual of Steel Construction, Table J2.4.

Structural Wood Framing:  
A. Unless noted otherwise, all 2" lumber shall be Douglas Fir S4S No. 2 and better. All solid timber beams and posts shall be DF-L No. 1 or better.  
B. Unless noted otherwise, minimum nailing shall be provided as specified in Table No. 2304.9.1, "Fastening Schedule", of the 2009 IBC or Table No. R602.3(1), "Fastener Schedule For Structural Members", of the 2009 IRC.  
C. Wall and floor sheathing shall be APA rated with exterior glue and graded in accordance with APA standards. Panel identification and thickness shall be as noted on the drawings.  
D. Where light gauge framing anchors are shown or required, they shall be Simpson "Strong Tie" (or equal approved by ICBO). They shall be installed with the number and type of fasteners recommended by the manufacturer to develop the rated capacity.  
E. Laminated Veneer Lumber shall be of such stress grade to provide an allowable bending stress of 2,600 psi, allowable shear stress parallel to the glue line of 285 psi and a modulus of elasticity of 1,900,000 psi.

STRUCTURE LEGEND



NOTE:  
ALL EXTERIOR WALLS SHALL BE 1hr. FIRE RATED PER GA FILE NO. WP8105  
Re: SHEET A-1

CEILING SHALL BE 1 hr. FIRE RATED PER GA FILE NO. RC2601  
Re: SHEET A-1

GRADE BEAM / WALL SCHEDULE

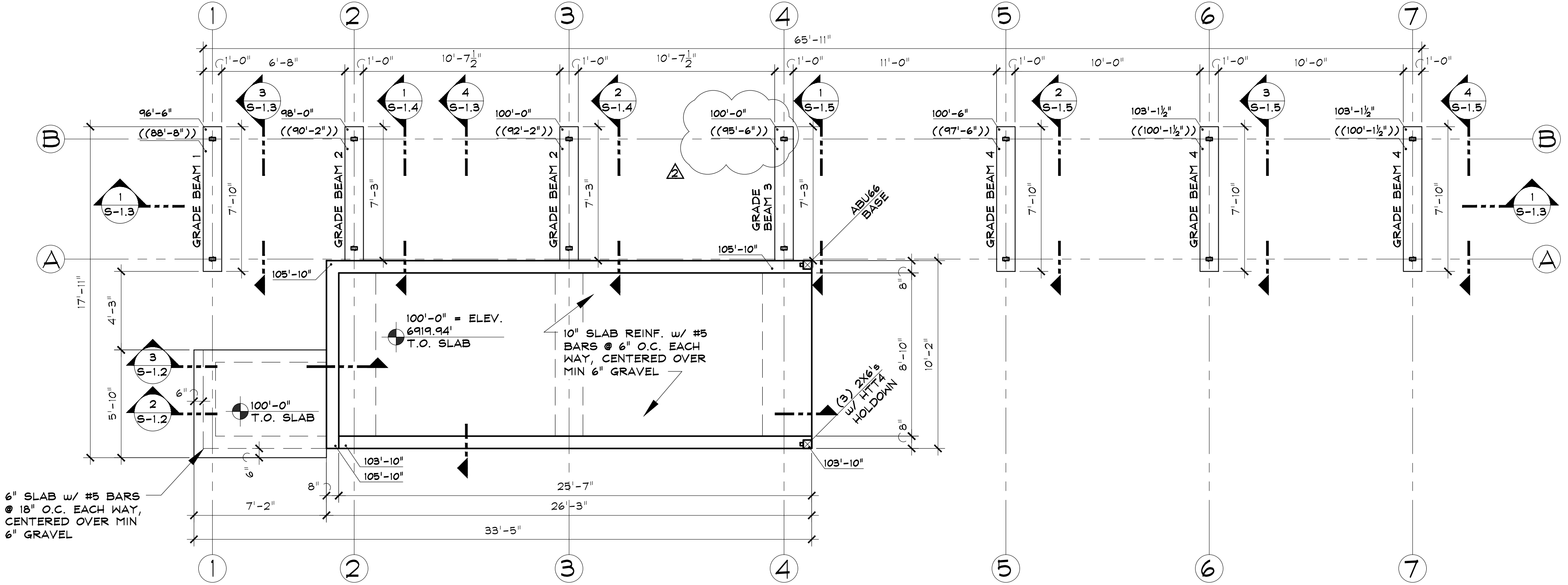
| BEAM<br>I.D. | SIZE<br>(lxwxh)          | REINF.                                                                      | BEAM<br>I.D. | SIZE<br>(lxwxh)                                                    | REINF.                                                                                                                                       |
|--------------|--------------------------|-----------------------------------------------------------------------------|--------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| GB 1         | 7'-10"x11'-0"<br>X7'-10" | (2) #5 BARS @ 18" O.C. w/ STIRRUP 'A' @ 12" O.C., T4B & #5 VERTS @ 12" O.C. | GB 6         | 10'-2"x2'-8"<br>X3'-8"                                             | (4) #5 BARS @ T4B w/ (2) #5 BARS @ 14" O.C. w/ STIRRUP 'B' @ 12" O.C. & #4 TIES                                                              |
| GB 2         | 7'-3"x11'-0"<br>X7'-10"  | (2) #5 BARS @ 18" O.C. w/ STIRRUP 'A' @ 12" O.C., T4B & #5 VERTS @ 12" O.C. | GB 7         | 10'-2"x11'-6"<br>X3'-8"                                            | (2) #5 BARS @ 12" O.C. w/ STIRRUP 'C' @ 12" O.C. & #4 TIES                                                                                   |
| GB 3         | 7'-13"x11'-0"<br>X4'-6"  | (2) #5 BARS @ 16" O.C. w/ STIRRUP 'A' @ 12" O.C., T4B & #4 TIES             | GB 8         | 10'-2"x2'-8"<br>3'-8"                                              | (2) #5 BARS @ 12" O.C. w/ STIRRUP 'D' @ 12" O.C. & #4 TIES                                                                                   |
| GB 4         | 7'-10"x11'-0"<br>X3'-0"  | (2) #5 BARS @ 16" O.C. w/ STIRRUP 'A' @ 12" O.C., T4B & #4 TIES             | WALL 1       | 9'-8 1/2"x10'-8"<br>2'-9" w/<br>11"x1'-4" X<br>CONT. FTG.<br>BELOW | #5 DOWELS X 2'-10"x6" @ 18" O.C. INTO FOOTING (ALT. BENDS), #5 DOWELS X 2'-6"x1'-6" INTO SLAB & #5 HORIZONTAL BARS @ 18" O.C. (w/ (2) @ TOP) |
| WALL 2       | PER PLAN                 | REFER TO WALL W1                                                            |              |                                                                    |                                                                                                                                              |

HELICAL PILE SCHEDULE

| PILE I.D. | PILE TYPE | ORIENTATION | MIN. LENGTH<br>Feet | MIN. TORQUE<br>Ft. - Lbs. | QUANTITY |
|-----------|-----------|-------------|---------------------|---------------------------|----------|
| PI1       | HPC15     | VERTICAL    | 7                   | 3,000                     | (14)     |

NOTES:  
1. MINIMUM TORQUE INCLUDES F.S. = 2 FOR HELICAL PILES  
2. PROVIDE RC150 PILE CAP FOR ALL PILES

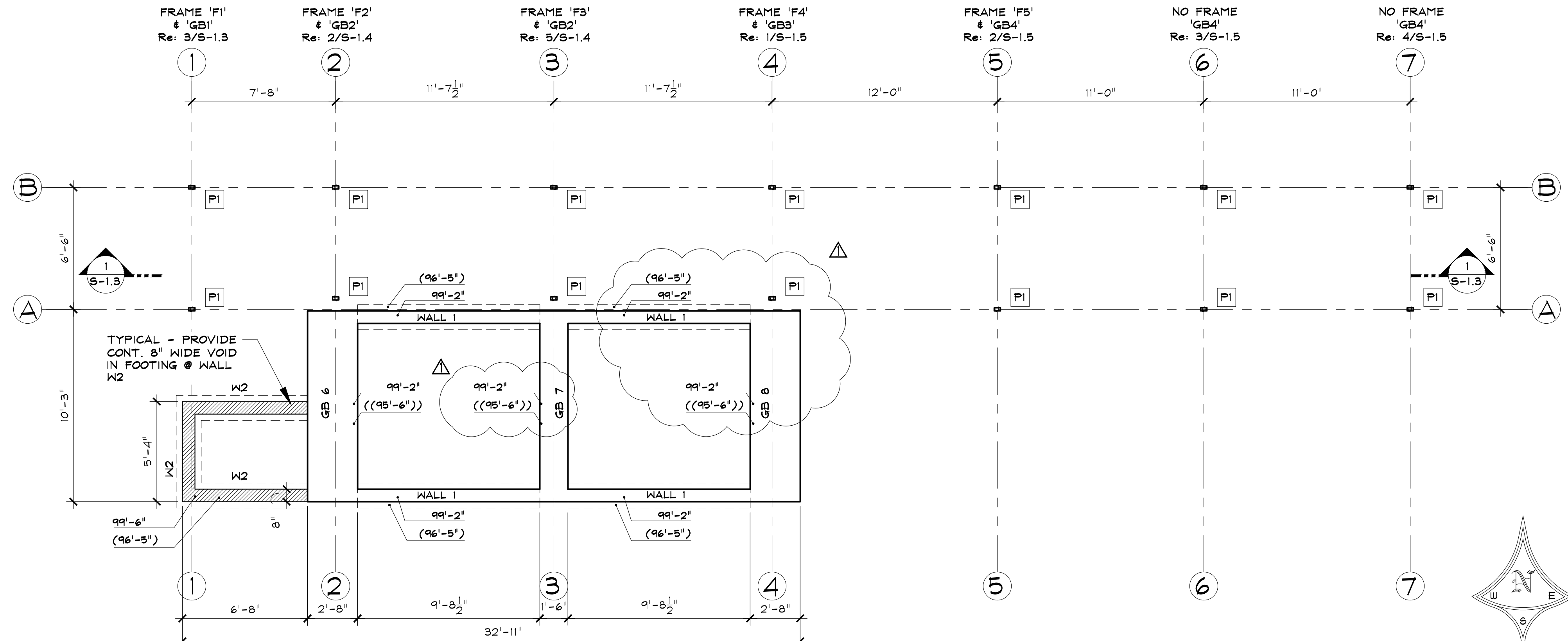
RCRBD  
RECORD SET



2 UPPER FOUNDATION PLAN

TYPICAL - ELEVATION @ TOP OF CONCRETE GRADE BEAM / WALL INDICATED THUS: ELEV  
TYPICAL - ELEVATION @ BOTTOM OF CONCRETE GRADE BEAM INDICATED THUS: ((ELEV))  
TYPICAL - COLUMNS THAT BEGIN THIS LEVEL ARE INDICATED ON PLAN

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



1 HELICAL PILE / GRADE BEAM / LOWER FOUNDATION PLAN

TYPICAL - ELEVATION @ TOP OF CONCRETE GRADE BEAM / WALL INDICATED THUS: ELEV  
TYPICAL - ELEVATION @ BOTTOM OF CONCRETE GRADE BEAM INDICATED THUS: ((ELEV))  
TYPICAL - ELEVATION @ TOP OF CONCRETE FOOTING INDICATED THUS: (ELEV)

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

TENSIONING STATION

2305 MT. WERNER CIRCLE  
STEAMBOAT SPRINGS, COLORADO  
A NEW STRUCTURE FOR:  
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

PROGRESS  
08 . 03 . 16  
PRICING SET  
08 . 10 . 16  
PERMIT  
08 . 11 . 16  
09 . 01 . 16  
09 . 07 . 16  
09 . 08 . 16

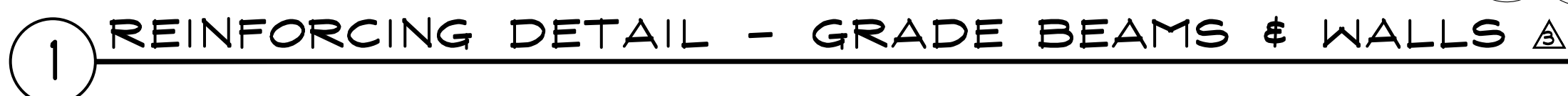
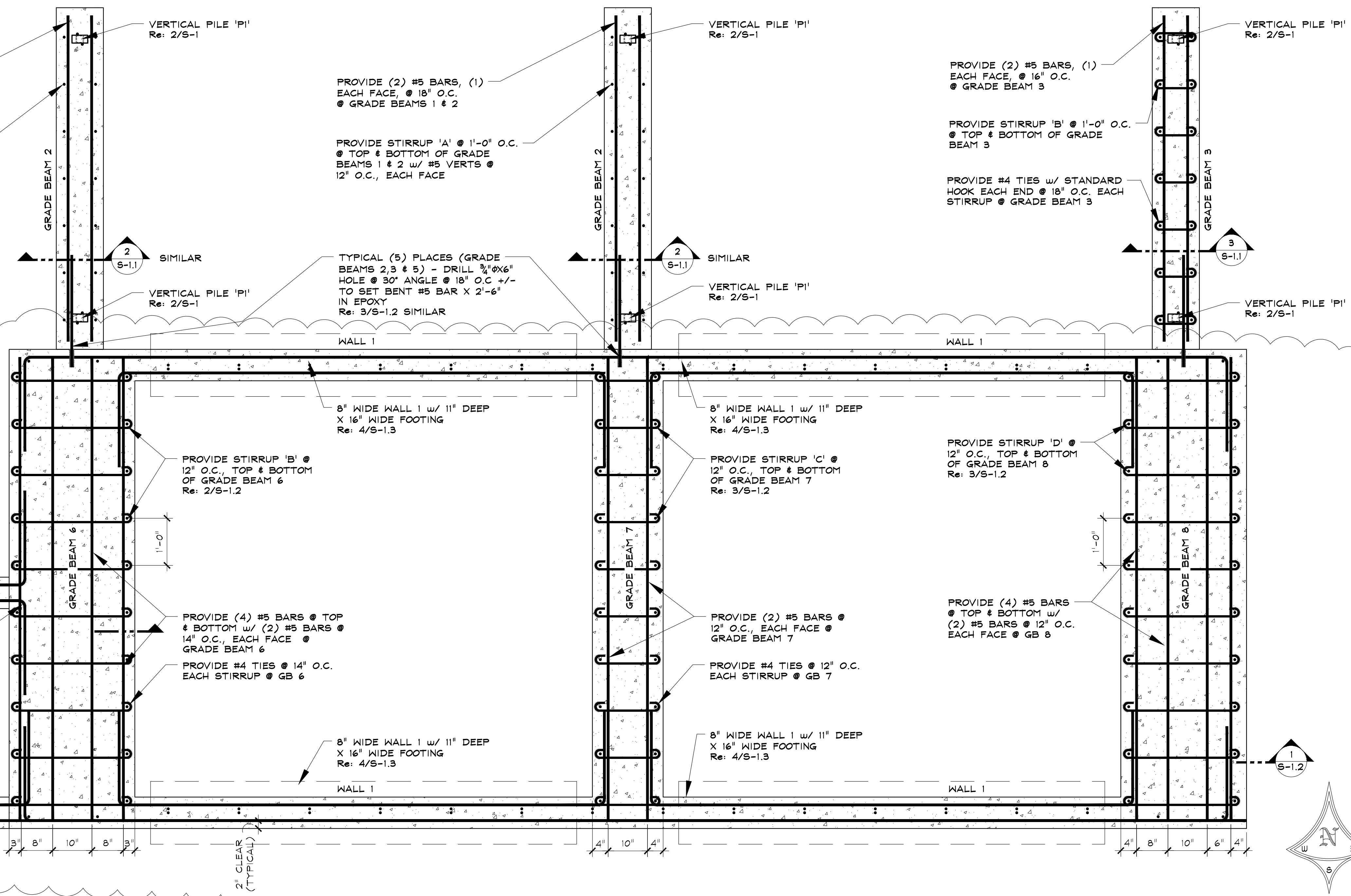
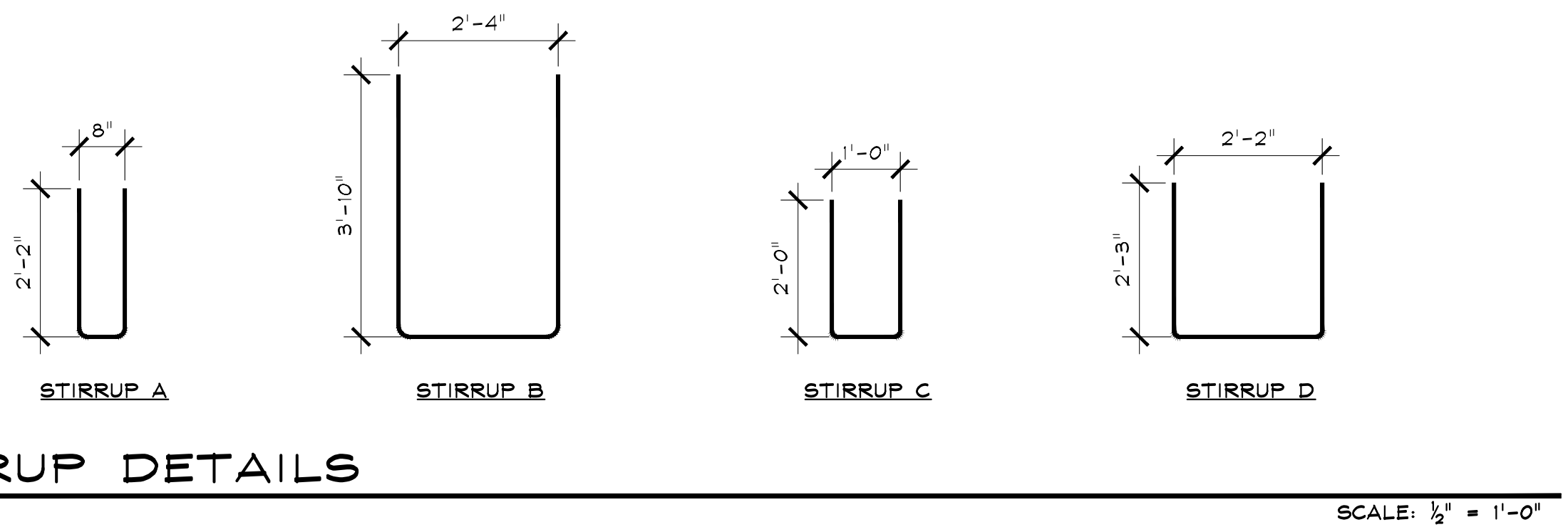
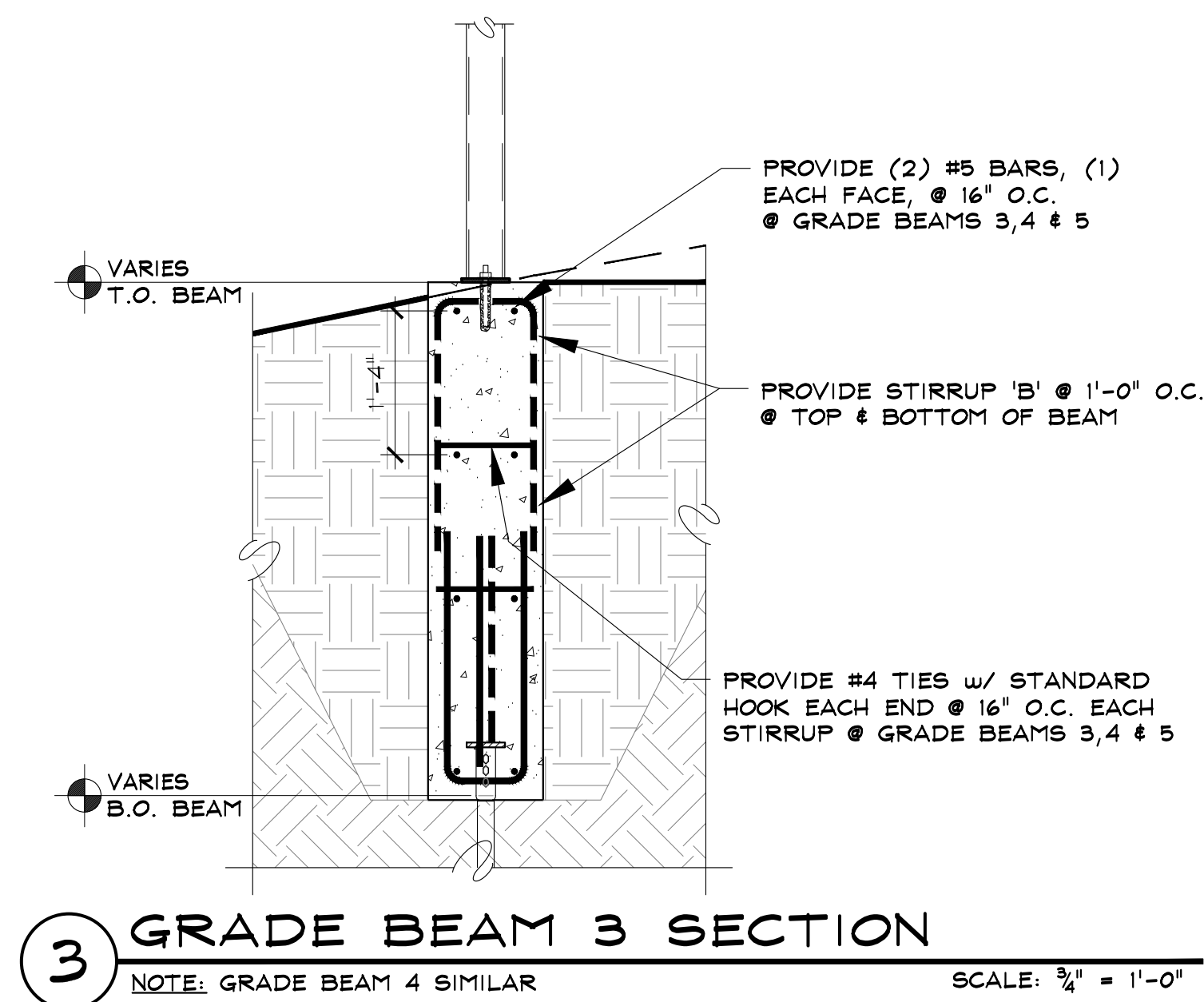
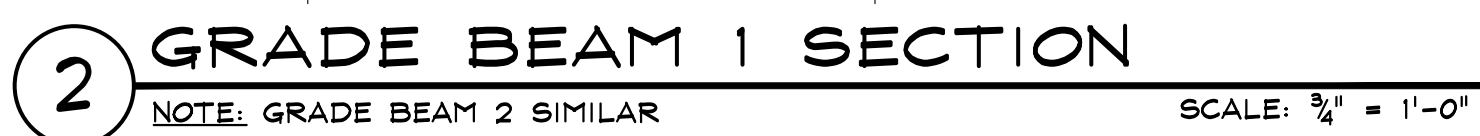
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PROJECT # 16020

FOUNDATION  
PLAN & NOTES

S-1

SHEET 4 of 10





**R C R B D**  
**RECORD SET**



# TENSIONING STATION

2303 H.I. WERNER CIRCLE  
STEAMBOAT SPRINGS, COLORADO

A NEW STRUCTURE FOR:

SSRC - STEAMBOAT SKI &amp; RESORT CORP.

| ISSUE DATES                                                                                        |              |
|----------------------------------------------------------------------------------------------------|--------------|
| PROGRESS                                                                                           | 08 . 03 . 16 |
| PRICING SET                                                                                        | 08 . 10 . 16 |
| PERMIT                                                                                             | 08 . 11 . 16 |
|  09 . 01 . 16 |              |
|  09 . 07 . 16 |              |
|  09 . 08 . 16 |              |

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SJM/JEM  
PROJECT # 16020

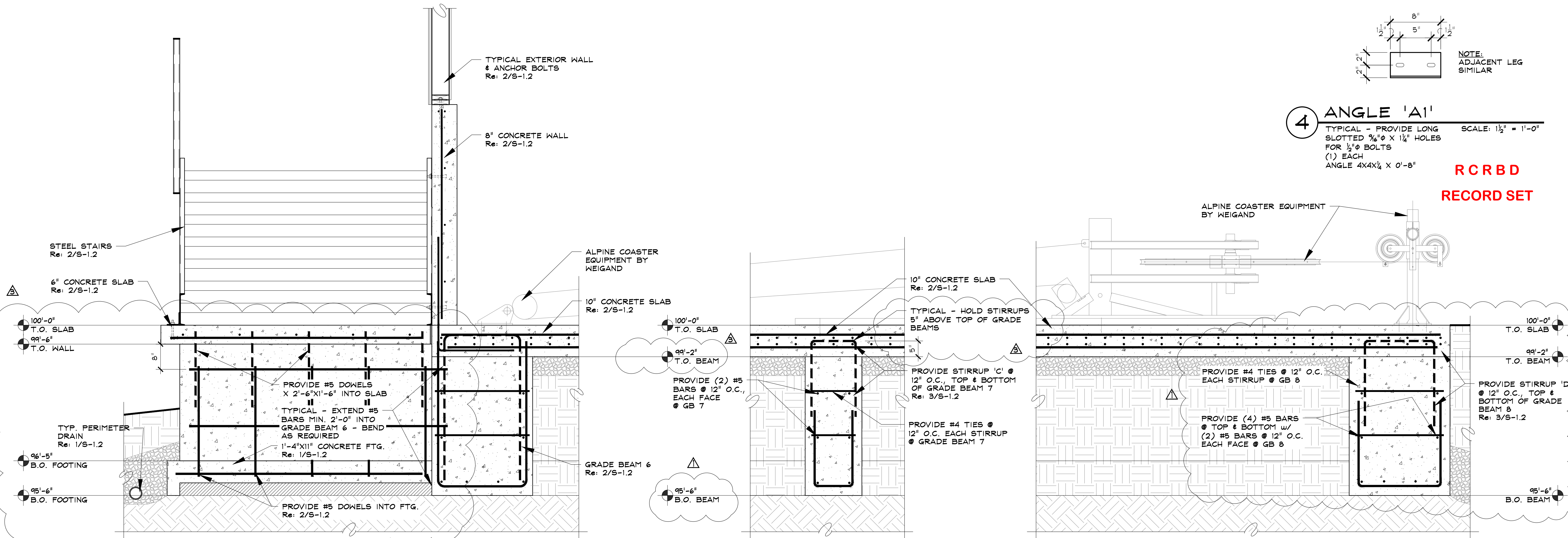
FOUNDATION  
SECTIONS

# S-1.1

SHEET 5 of 10



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4

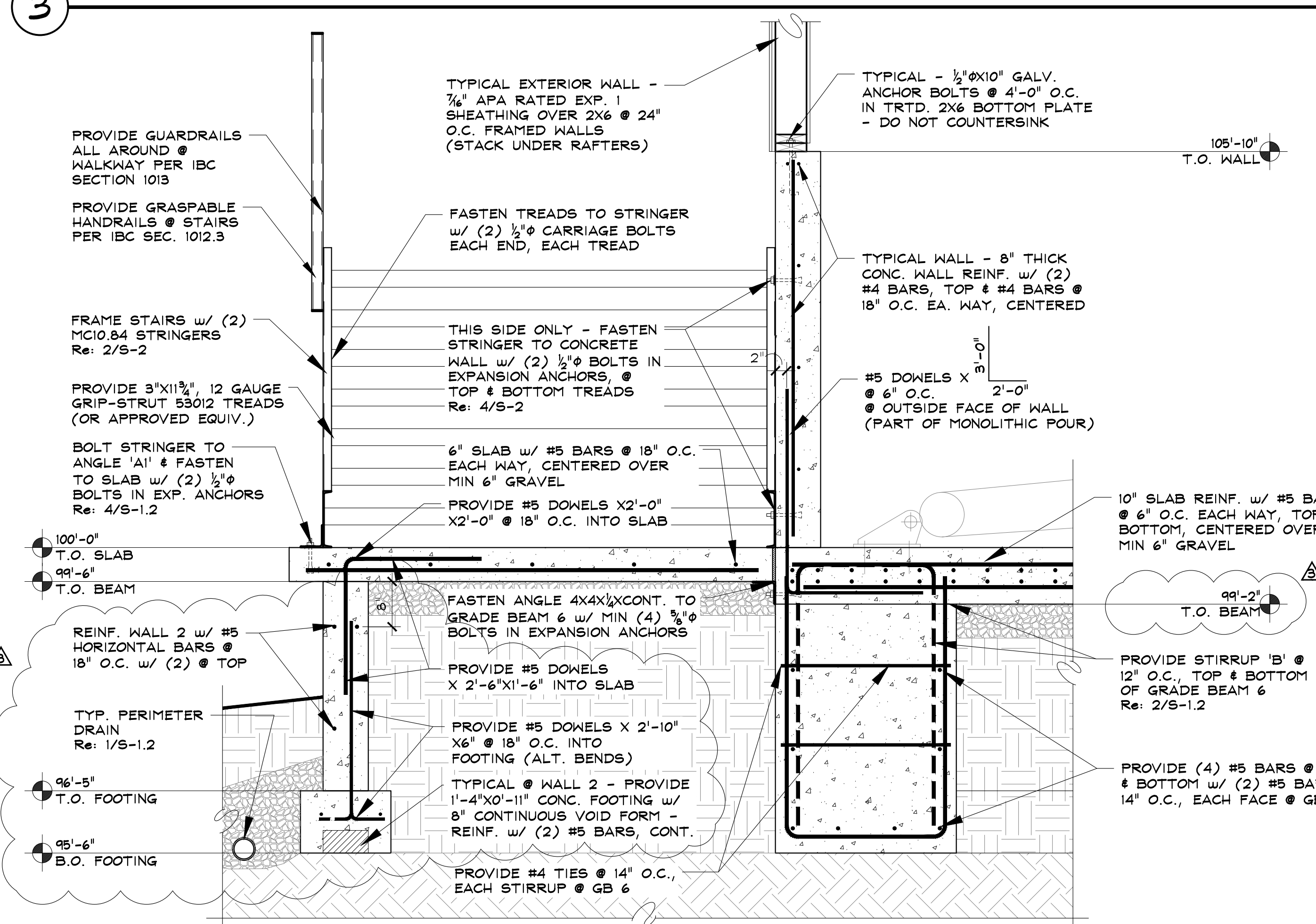
ANGLE 'A1'

TYPICAL - PROVIDE LONG SLOTTED  $\frac{3}{8}" \phi \times 1\frac{1}{4}"$  HOLES FOR  $\frac{1}{2}" \phi$  BOLTS (1) EACH ANGLE 4X4X $\frac{1}{4}" \times 0'-8"$

SCALE:  $1\frac{1}{2}" = 1'-0"$

RCRBD

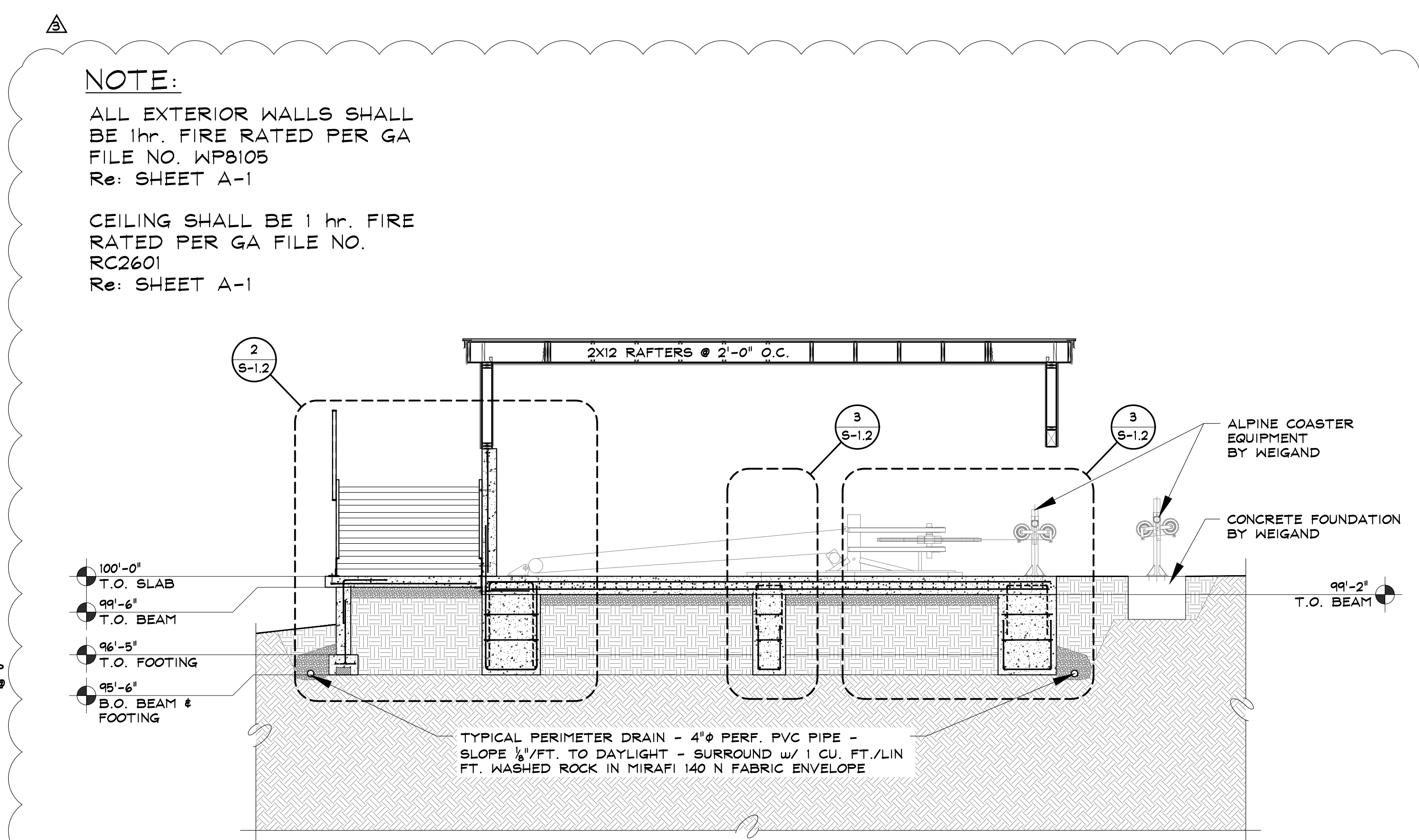
RECORD SET



2

ENHANCED SECTION THROUGH STAIRS

SCALE:  $\frac{3}{4}" = 1'-0"$



1

LONGITUDINAL SECTION THROUGH STRUCTURE

SCALE:  $\frac{1}{4}" = 1'-0"$

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TENSIONING STATION

2305 MT. WERNER CIRCLE  
STEAMBOAT SPRINGS, COLORADO

A NEW STRUCTURE FOR:  
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

|             |              |
|-------------|--------------|
| PROGRESS    | 08 . 03 . 16 |
| PRICING SET | 08 . 10 . 16 |
| PERMIT      | 08 . 11 . 16 |
|             | 09 . 01 . 16 |
|             | 09 . 07 . 16 |
|             | 09 . 08 . 16 |

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SJM/JEM

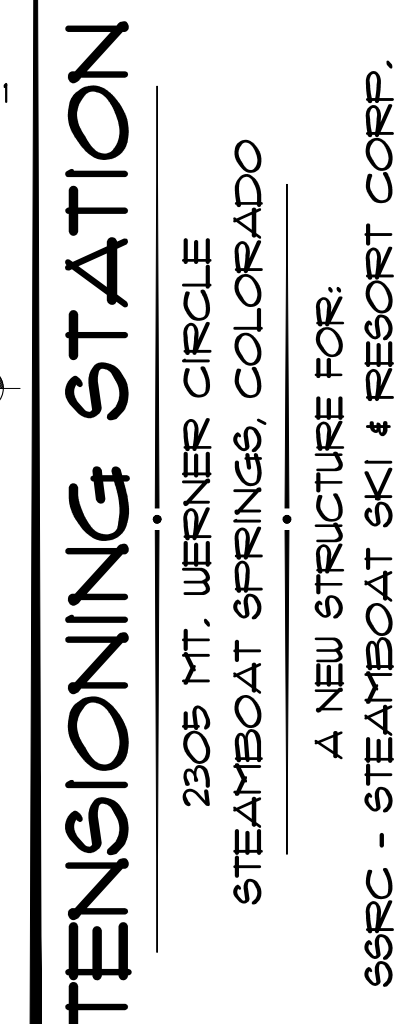
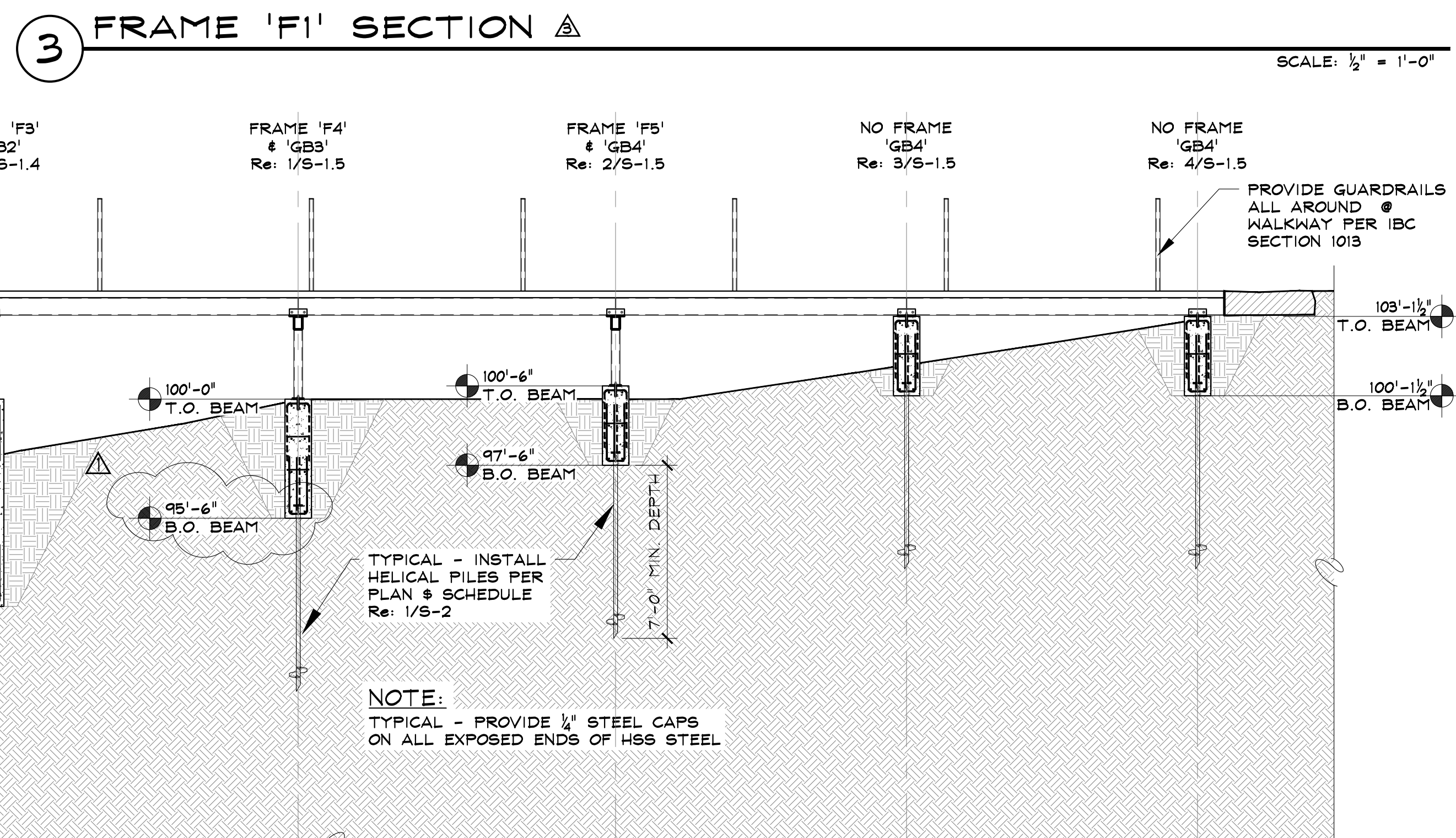
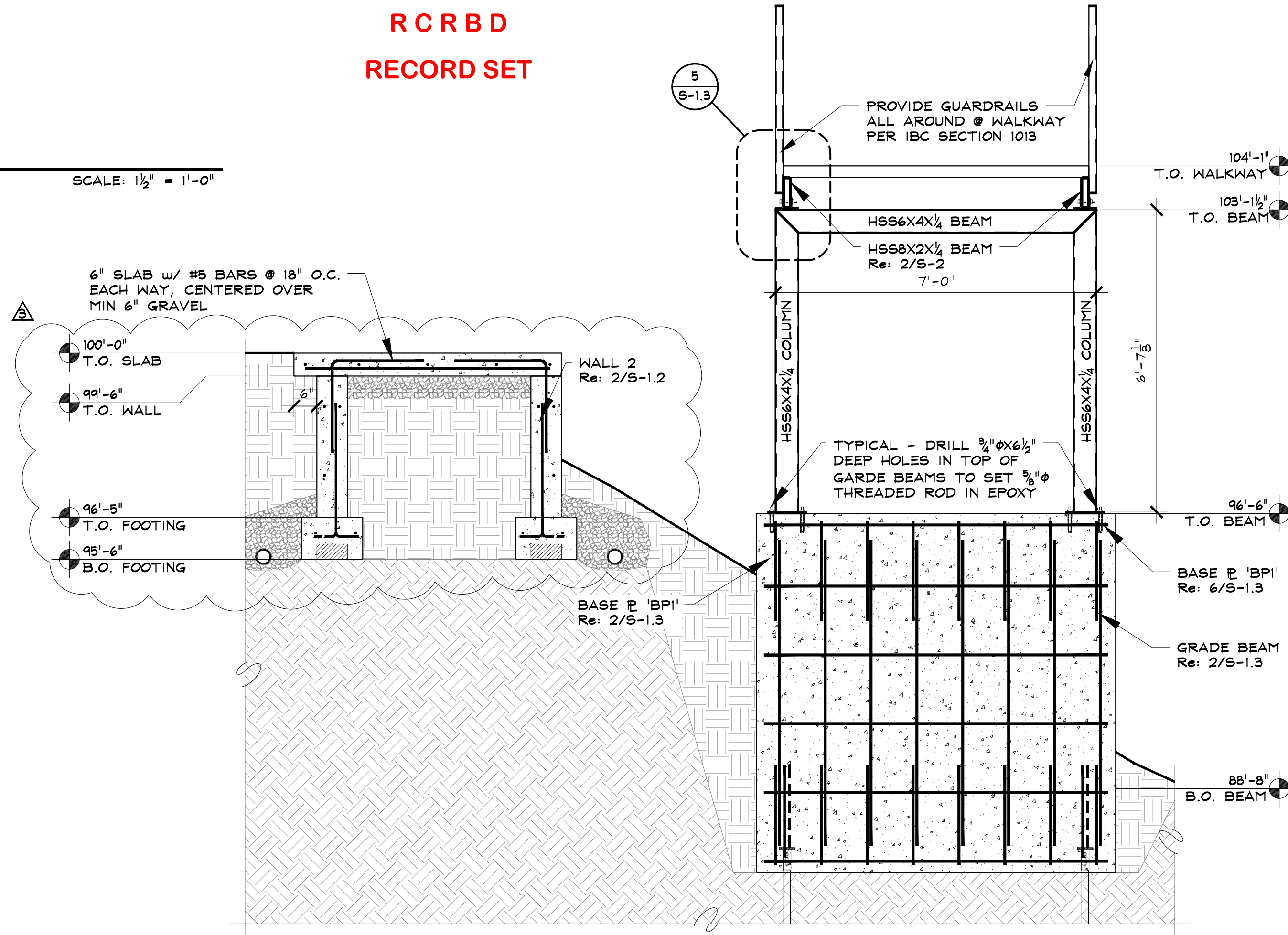
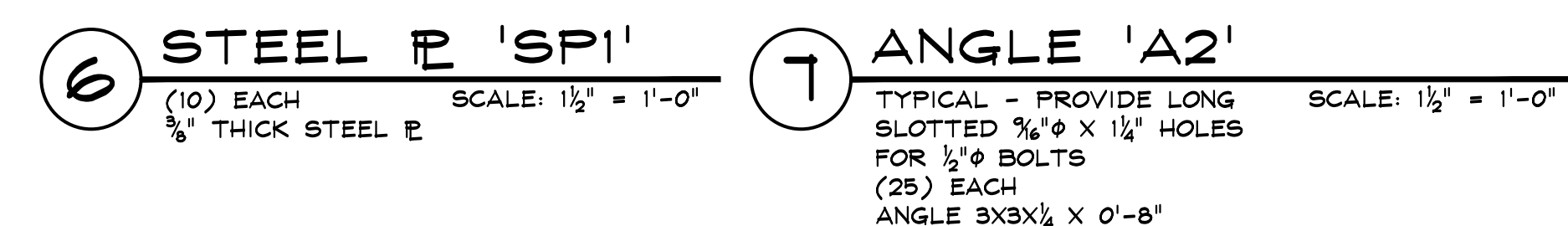
PROJECT # 16020

FOUNDATION SECTIONS

5-1.2

SHEET 6 of 10

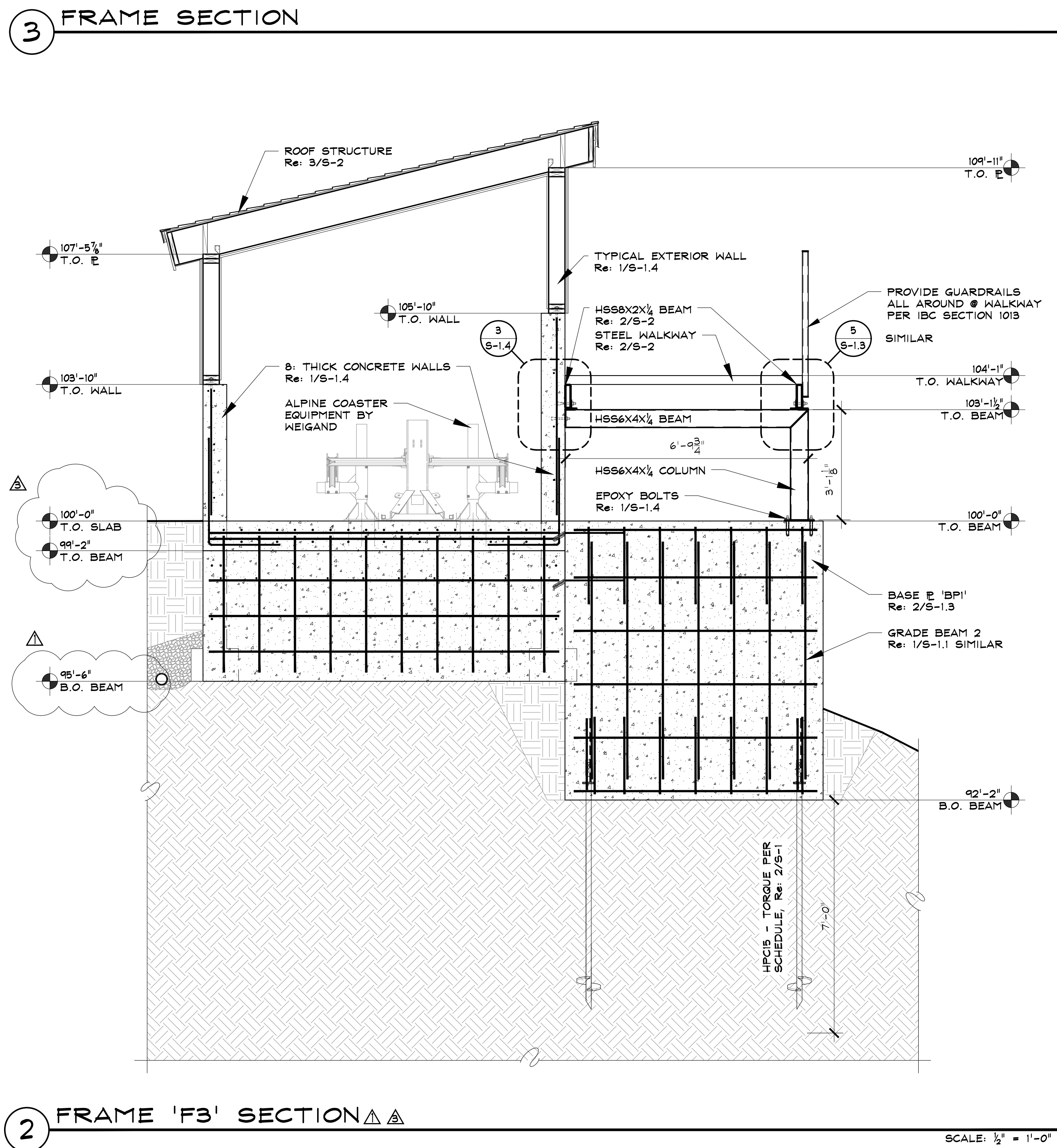




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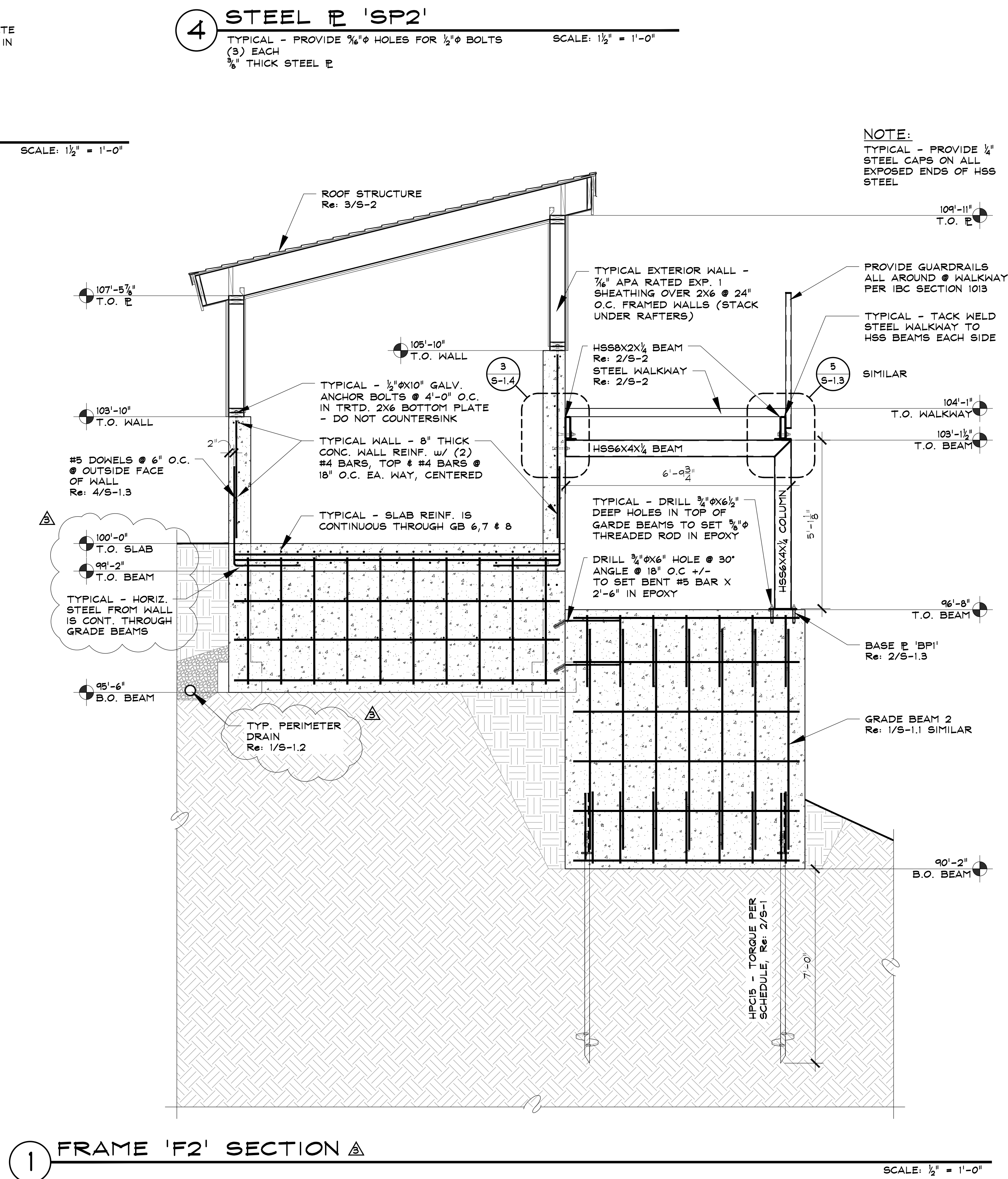


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**2 FRAME 'F3' SECTION**

SCALE:  $\frac{1}{2}" = 1'-0"$



**1 FRAME 'F2' SECTION**

SCALE:  $\frac{1}{2}" = 1'-0"$

**NOTE:**

ALL EXTERIOR WALLS SHALL BE 1hr. FIRE RATED PER GA FILE NO. WP8105  
Re: SHEET A-1

CEILING SHALL BE 1 hr. FIRE RATED PER GA FILE NO. RC2601  
Re: SHEET A-1

**RCRBD  
RECORD SET**

**TENSIONING STATION**

2305 MT. WERNER CIRCLE  
STEAMBOAT SPRINGS, COLORADO

A NEW STRUCTURE FOR:

SSRC - STEAMBOAT SKI & RESORT CORP.

| ISSUE DATES  |              |
|--------------|--------------|
| PROGRESS     | 08 . 03 . 16 |
| PRICING SET  | 08 . 10 . 16 |
| PERMIT       | 08 . 11 . 16 |
| 09 . 01 . 16 |              |
| 09 . 07 . 16 |              |
| 09 . 08 . 16 |              |

DRAWN BY:  
SJM/JEM  
PROJECT # 16020

FOUNDATION  
SECTIONS

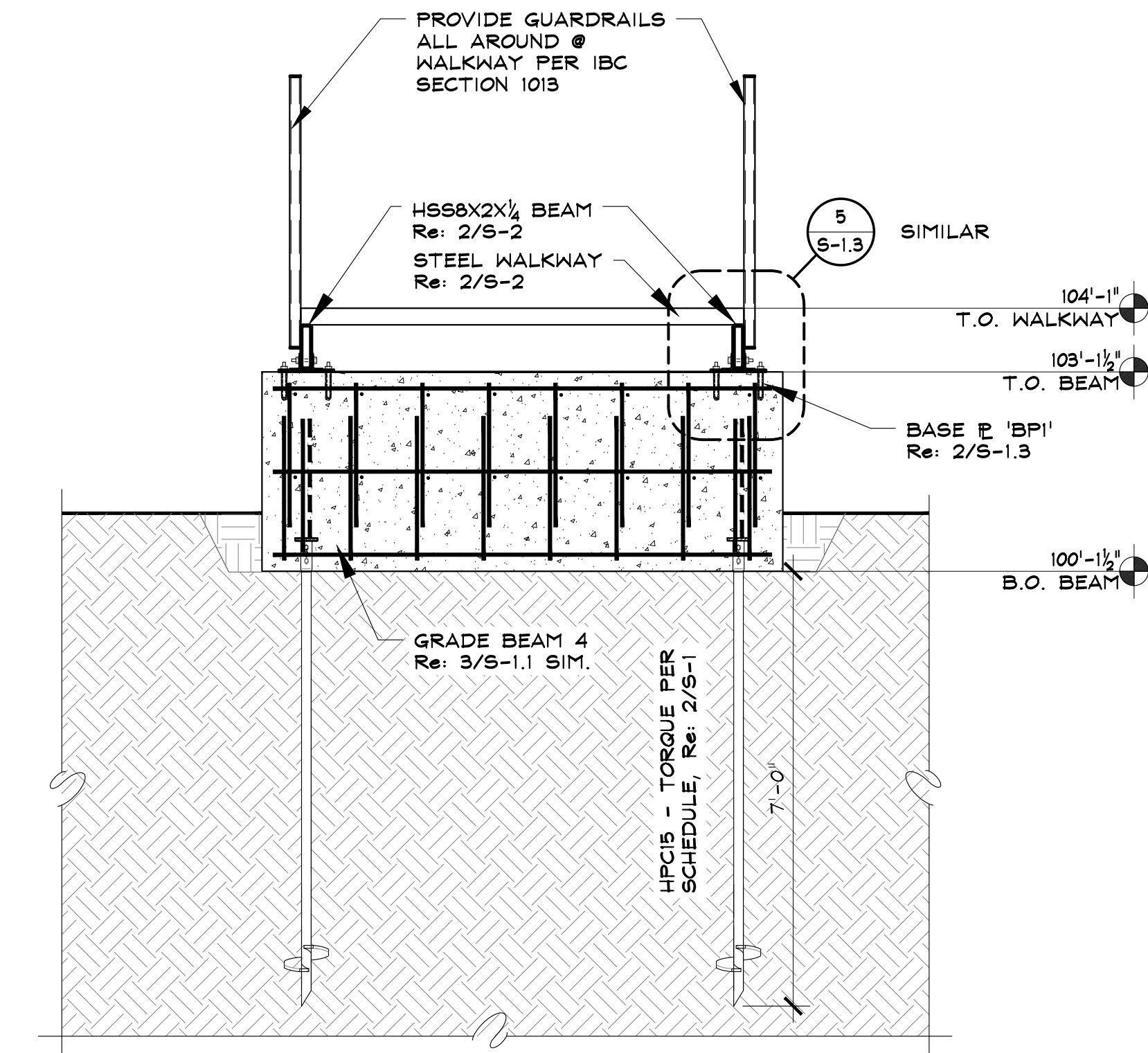
**S-1.4**

SHEET 8 of 10

**SSRC**  
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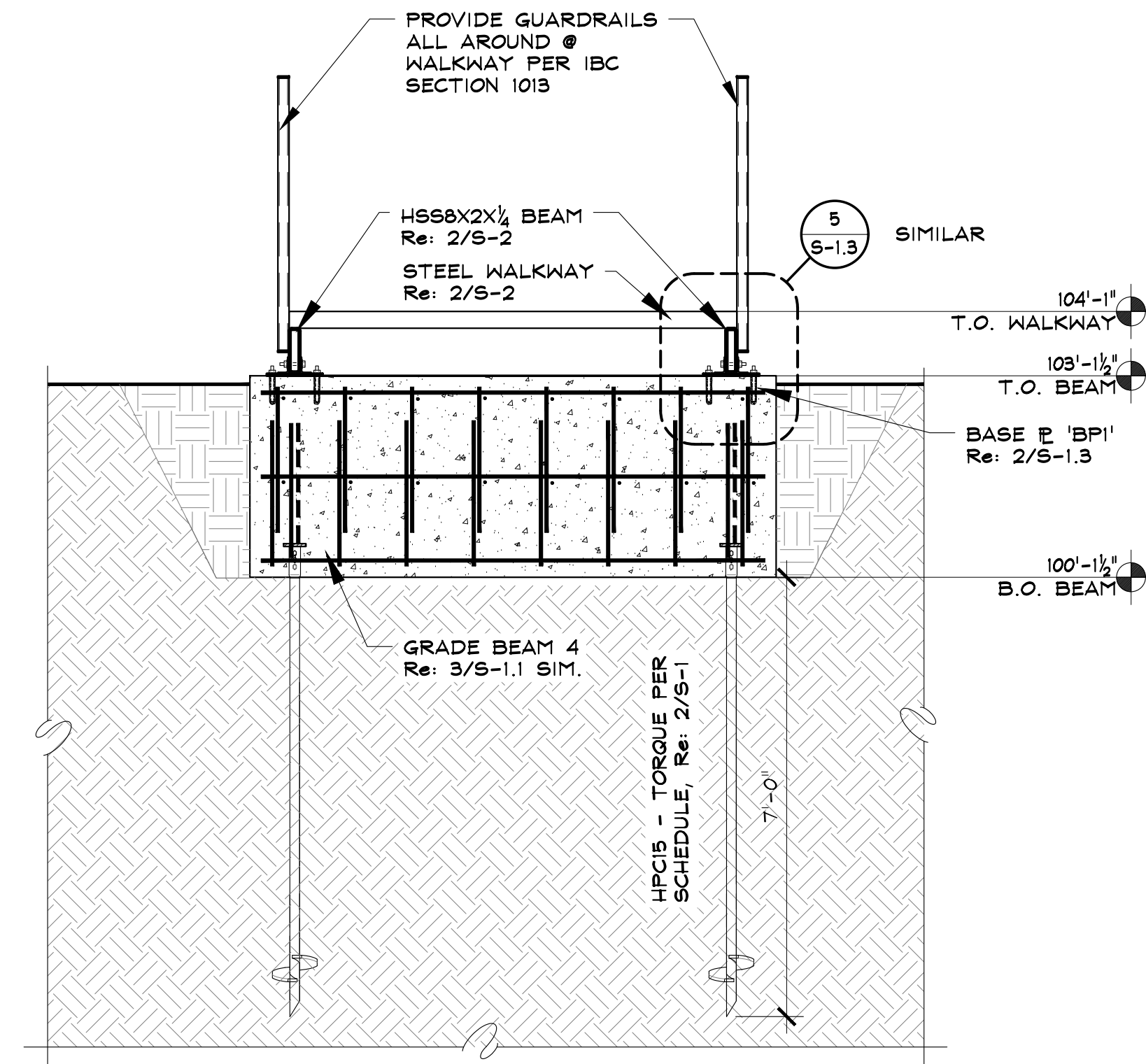


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3 WALKWAY SECTION

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



4 WALKWAY SECTION

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

RCRBD  
RECORD SET

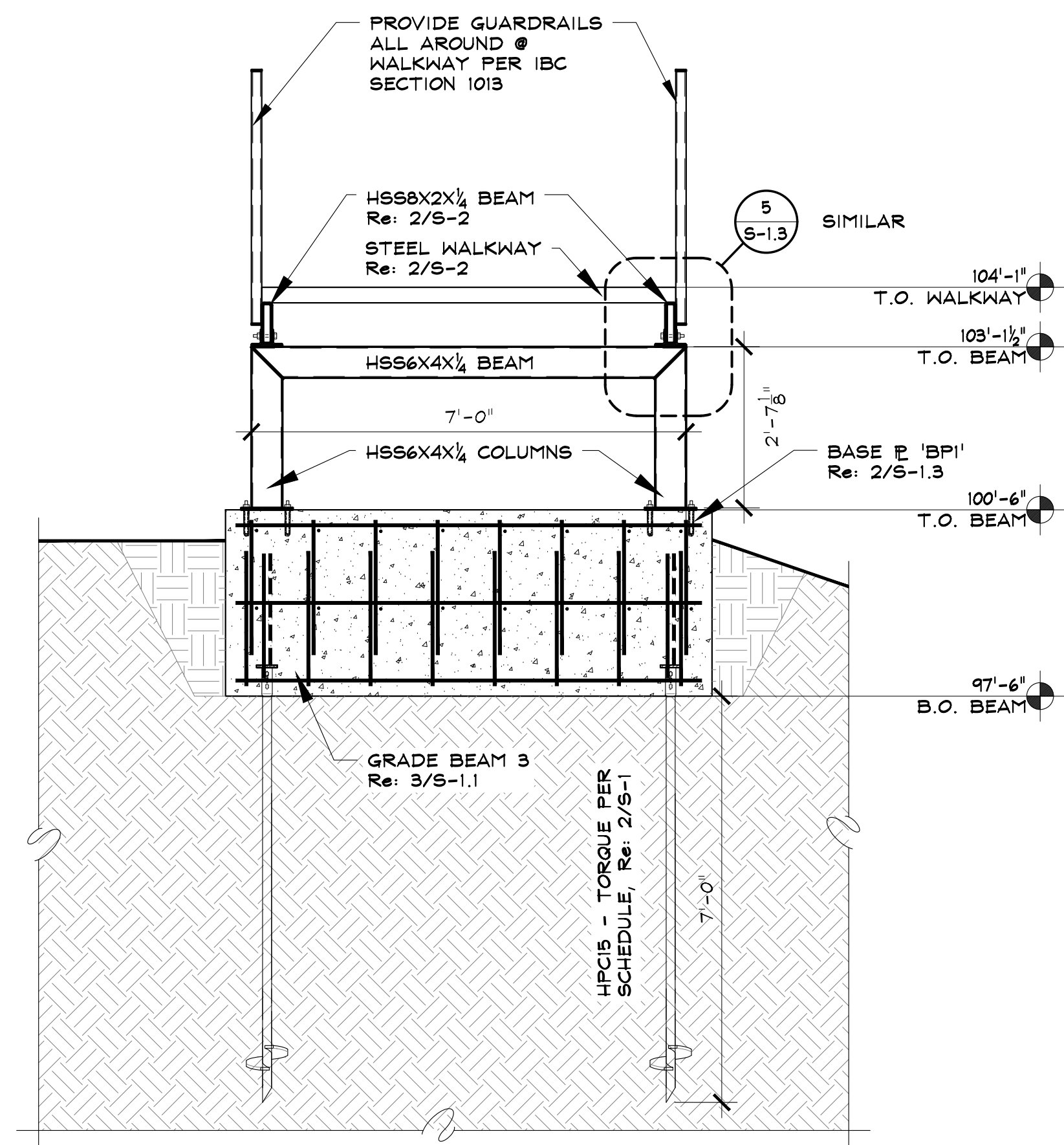
NOTE:

ALL EXTERIOR WALLS SHALL BE 1hr. FIRE RATED PER GA FILE NO. WP8105  
Re: SHEET A-1

CEILING SHALL BE 1 hr. FIRE RATED PER GA FILE NO. RC2601  
Re: SHEET A-1

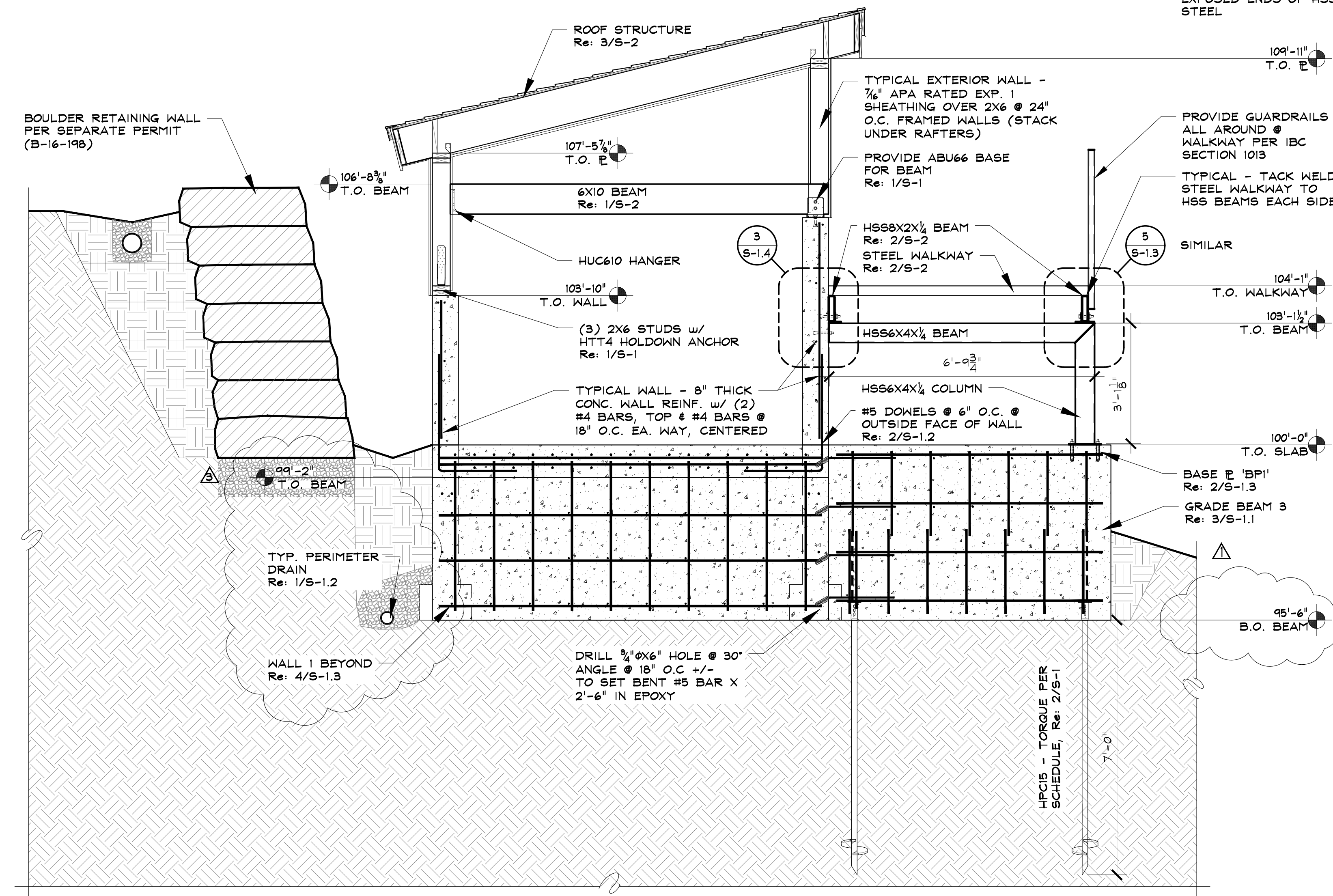
NOTE:

TYPICAL - PROVIDE 1/4" STEEL CAPS ON ALL EXPOSED ENDS OF HSS STEEL



2 FRAME 'F5' SECTION

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



1 FRAME 'F4' SECTION

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

TENSIONING STATION

2305 MT. WERNER CIRCLE  
STEAMBOAT SPRINGS, COLORADO

A NEW STRUCTURE FOR:

SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

PROGRESS  
08 . 03 . 16  
PRICING SET  
08 . 10 . 16  
PERMIT  
08 . 11 . 16  
09 . 01 . 16  
09 . 07 . 16  
09 . 08 . 16

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SJM/JEM  
PROJECT # 16020

FOUNDATION  
SECTIONS

S-1.5

SHEET 9 of 10

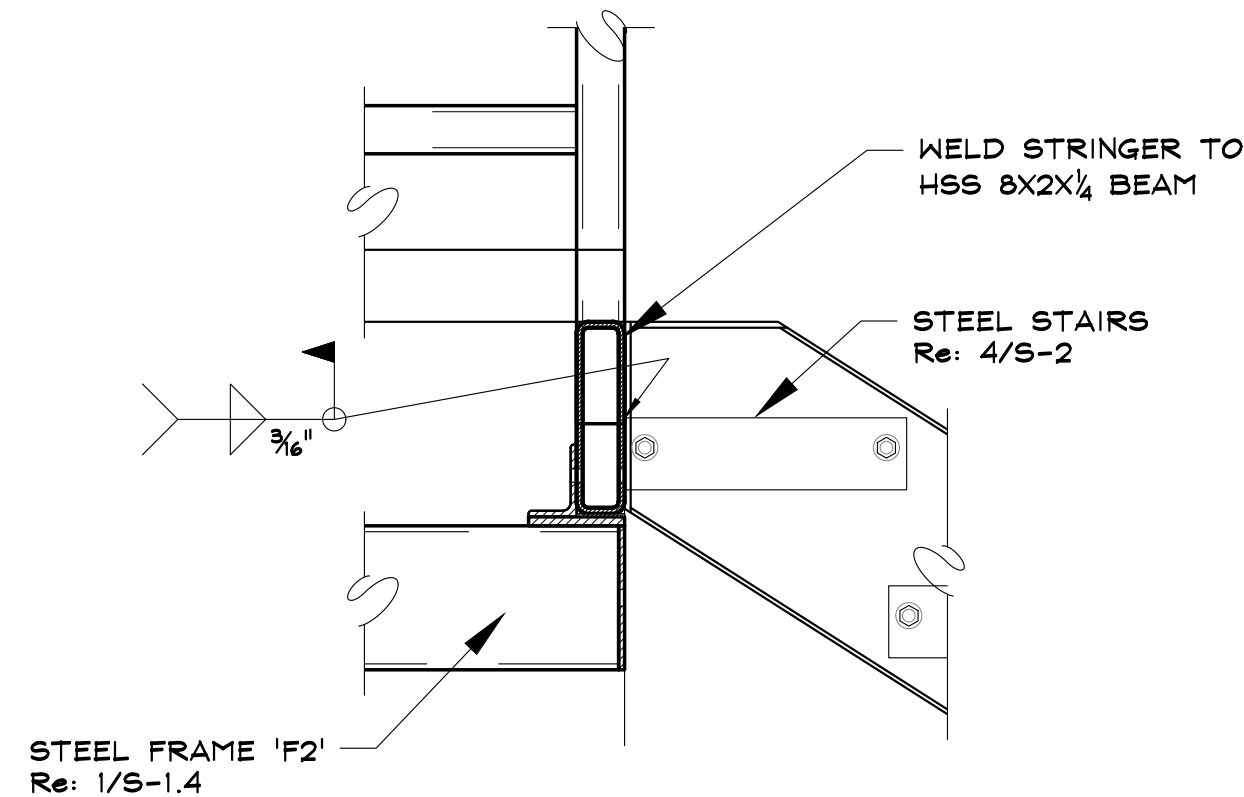
**SSRC**  
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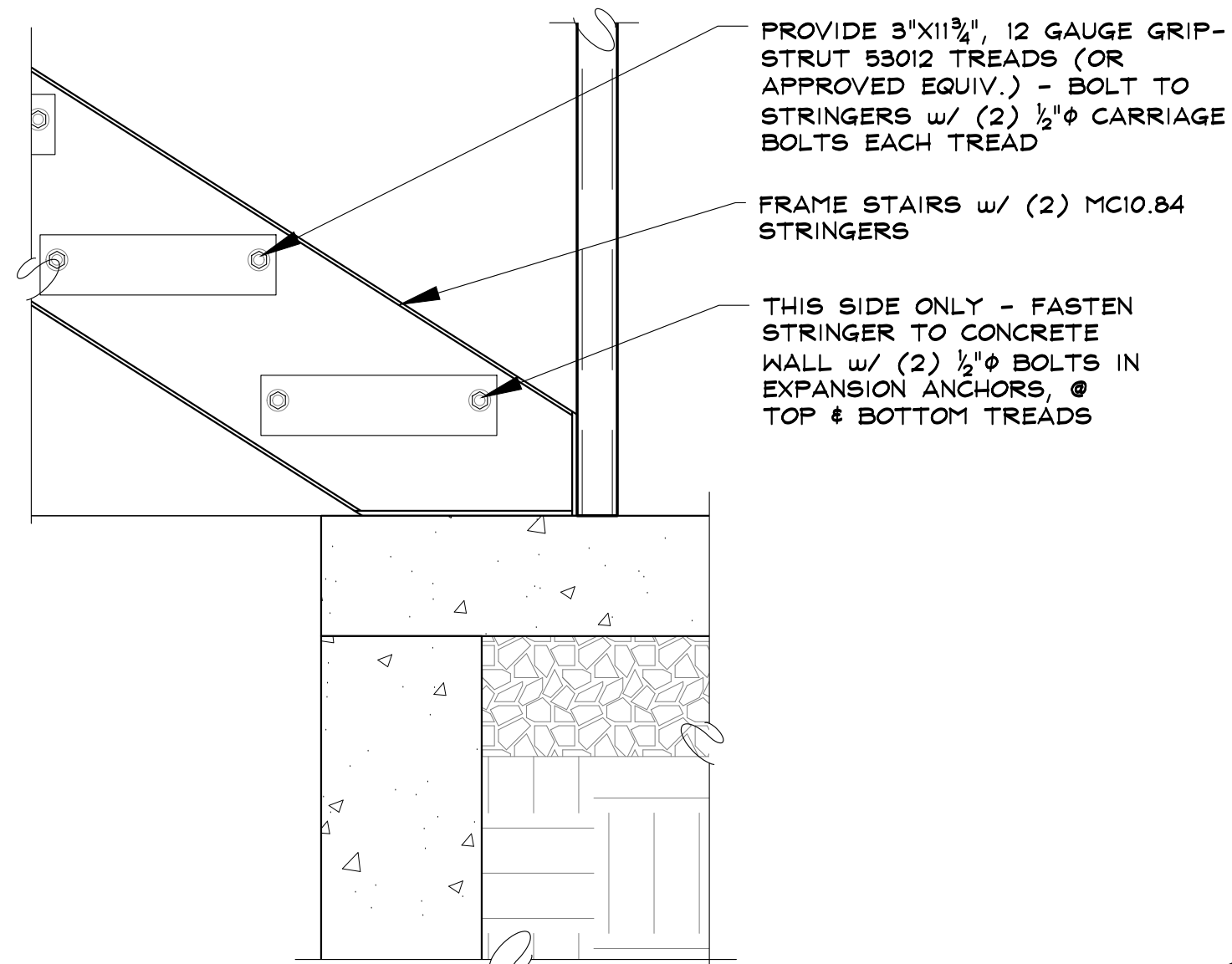
#### 6 SECTION THROUGH STAIRS

SCALE:  $\frac{1}{2}" = 1'-0"$



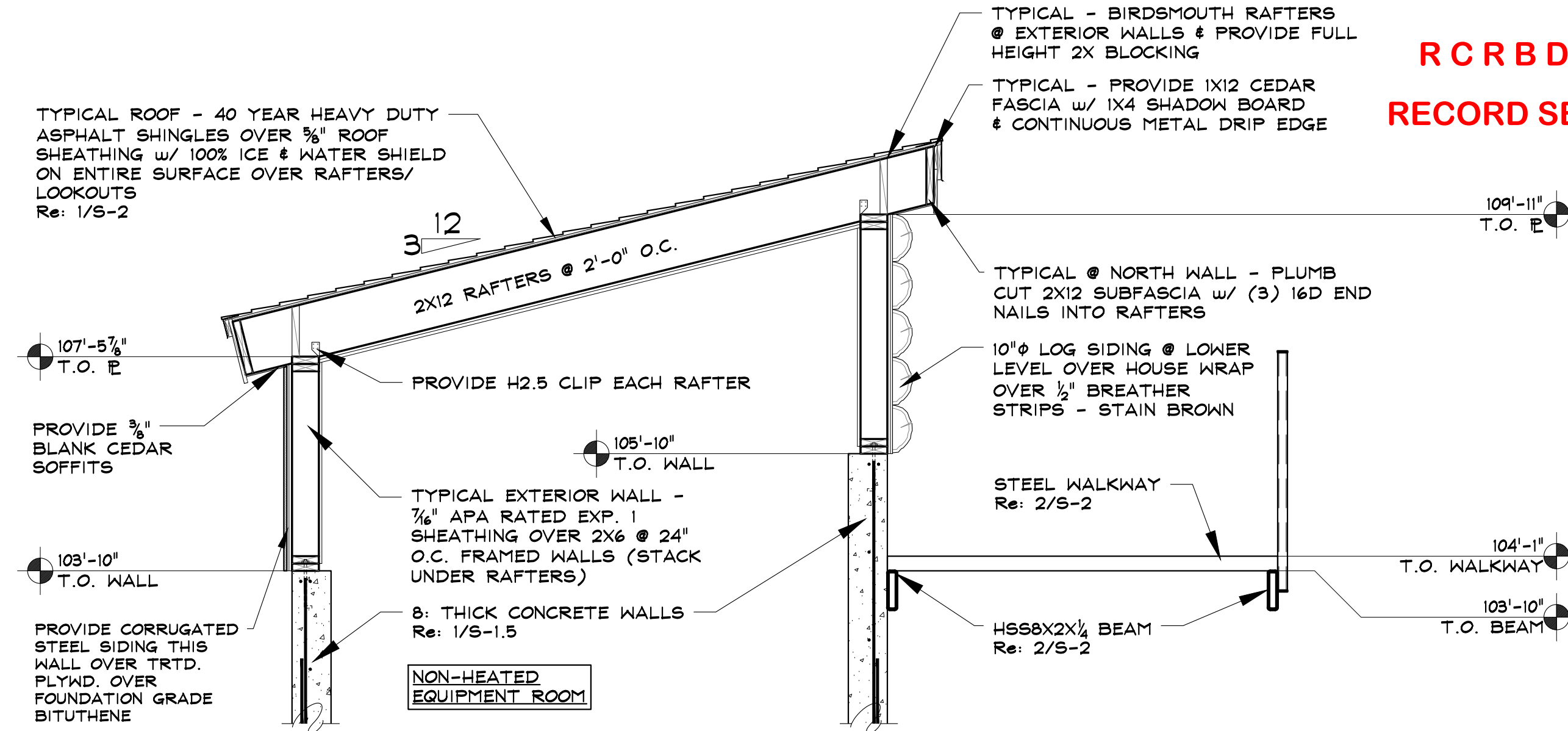
#### 5 SECTION THROUGH STAIRS

SCALE:  $\frac{1}{2}" = 1'-0"$



#### 3 ROOF SECTION - COMBINED ARCHITECTURAL & STRUCTURAL

SCALE:  $\frac{1}{2}" = 1'-0"$

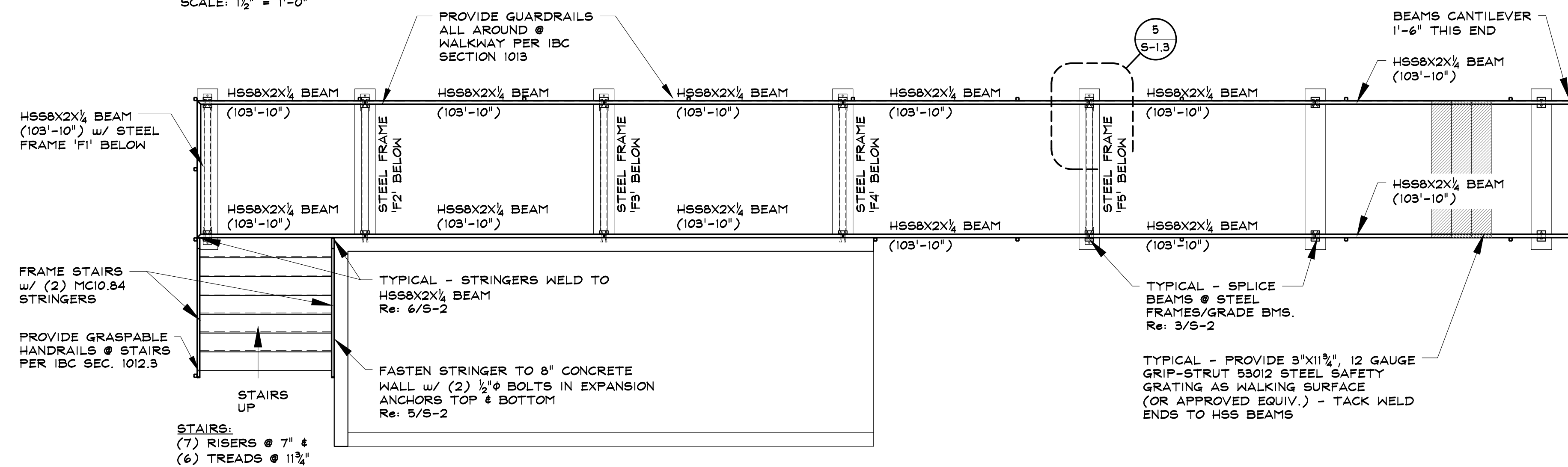


#### 2 STEEL WALKWAY FRAMING PLAN

TYPICAL - WALKWAY/STAIR SURFACE SHALL BE 3", 12 ga. GRIP-STRUT 53012 OR APPROVED EQUIVALENT

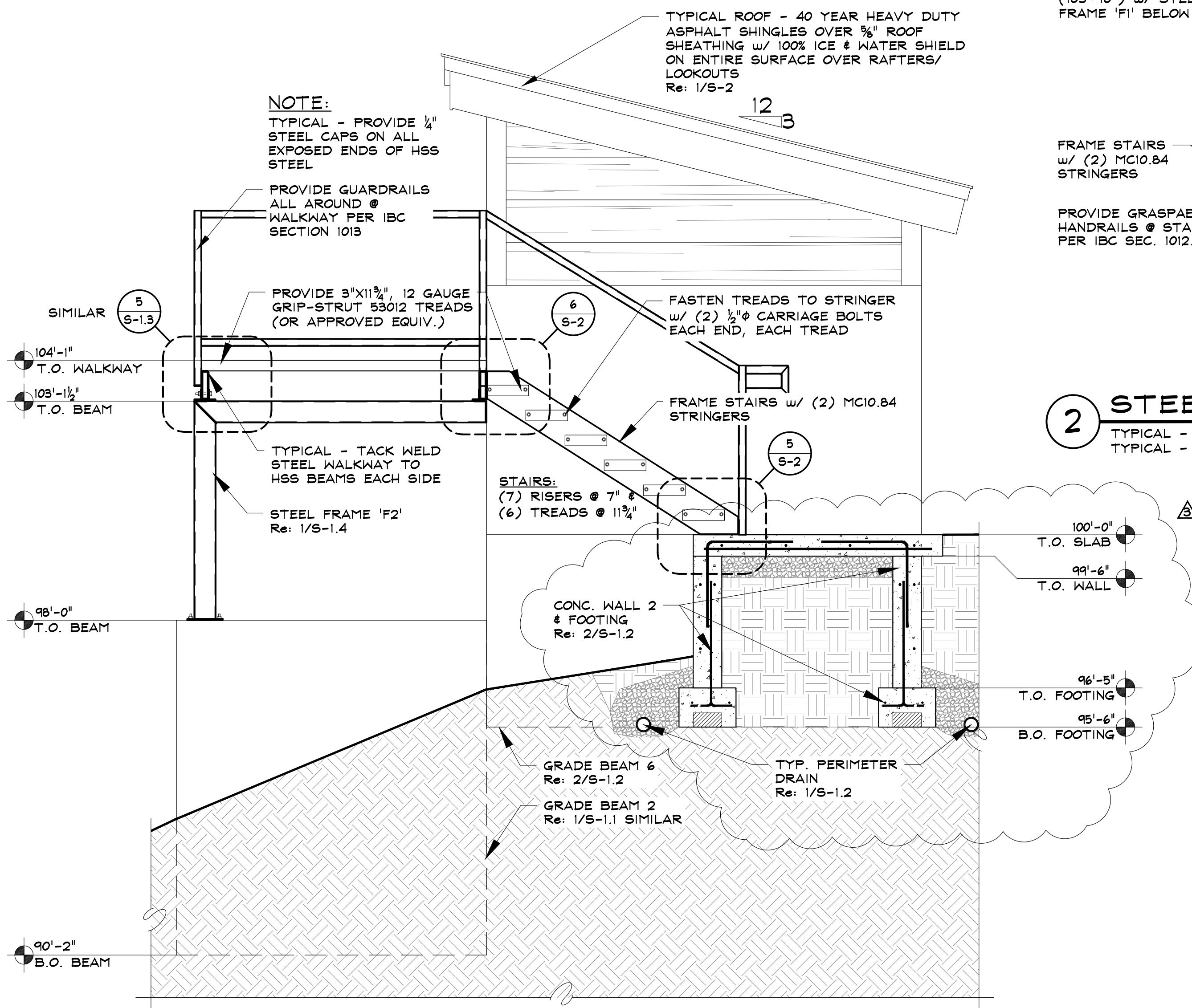
TYPICAL - ELEVATION  $\phi$  TOP OF BEAMS INDICATED THUS: (ELEV.)

SCALE:  $\frac{1}{4}" = 1'-0"$



#### 4 SECTION THROUGH STAIRS A

SCALE:  $\frac{1}{2}" = 1'-0"$

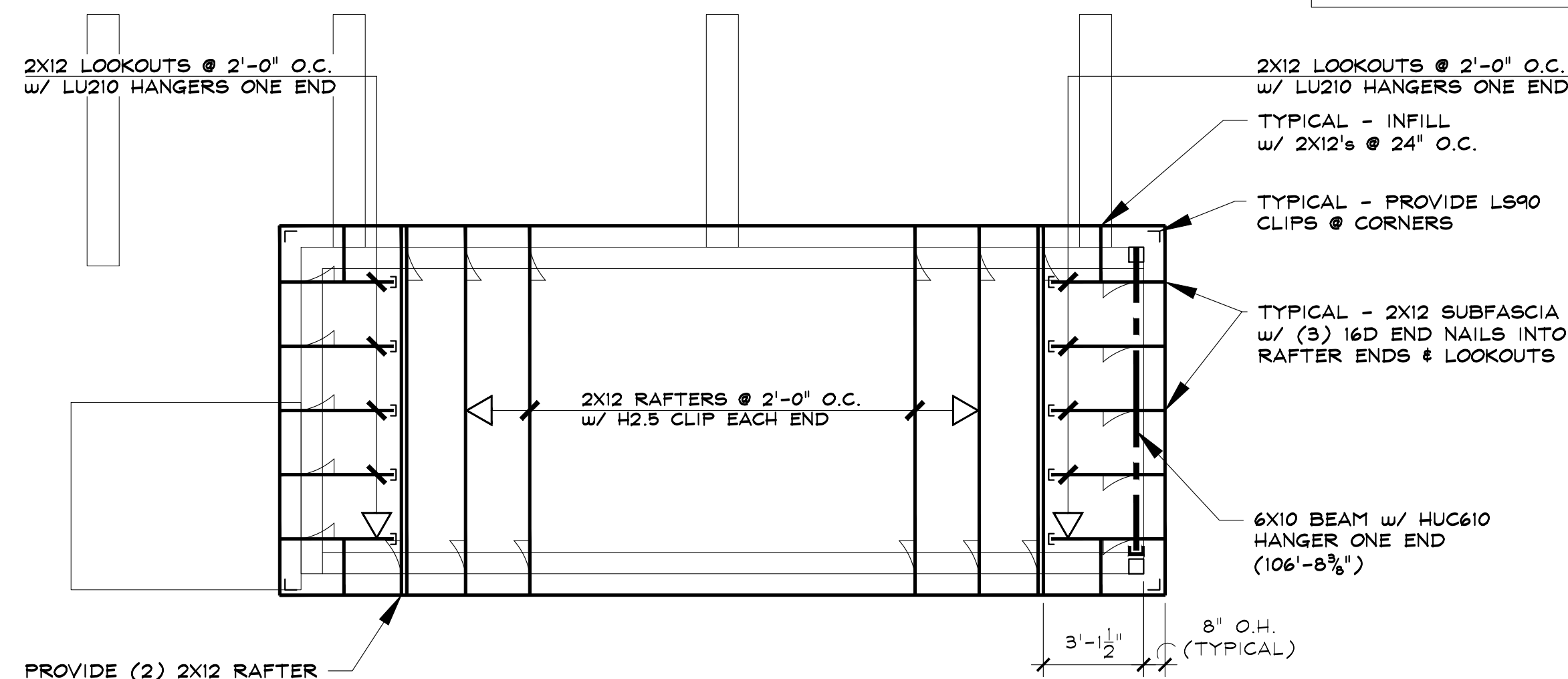


#### 1 ROOF FRAMING PLAN

TYPICAL -  $\frac{3}{8}$ " APA RATED EXPOSURE 1 40/20 SHEATHING

TYPICAL - ELEVATION  $\phi$  TOP OF BEAMS INDICATED THUS: (ELEV.)

SCALE:  $\frac{1}{4}" = 1'-0"$



RCRBD  
RECORD SET