

Sec

GENERAL

- General notes and typical details apply to all structural features, unless otherwise indicated.
- If certain features are not fully shown or called out on the drawings or in the specifications, their construction shall be of the same character as for similar conditions.
- Dimensions shall not be scaled off of the drawings.
- All work shall conform to minimum standards of the 2013 California Building Code, of any codes listed in the drawings or specifications and of any regulating agencies which have authority over any portion of the work, including the State of California Division of Industrial Safety.
- Openings, pockets, etc. shall not be placed in structural members unless specifically detailed on the structural drawings. Notify the structural engineer when work requires openings, pockets, etc. in structural members not shown on the structural drawings.
- The contractor shall be responsible for coordinating the work of all trades and shall check all dimensions and holes and openings required in structural members. All discrepancies shall be called to the attention of the structural engineer and shall be resolved before proceeding with the work.
- The contract documents represent the finished structure. They do not indicate the method of construction. The contractor shall provide all measures necessary to protect life and property during construction. Such measures shall include, but are not limited to, bracing and shoring for loads due to construction equipment and materials. Observation visits to the site by the structural engineer shall not include inspection of the above items.

- Construction materials shall be spread out if placed on framed floors or roofs. Load shall not exceed the design live load per square foot. Provide adequate shoring where overload is anticipated.
- The contractor shall use extreme caution to protect all conduits, pipes, ducts, architectural finishes and utilities not indicated as being removed from damage during construction and shall restore all damaged or otherwise affected elements to their preconstruction condition, unless otherwise noted.
- The Sutro Tower transmission facilities must remain in operation at all times during the construction period. Contractor shall submit a written work plan indicating the proposed sequence and schedule of work and specific operations to be conducted, to Sutro Tower for review, prior to performing any work on site. The work plan shall be revised and resubmitted on a weekly basis to alert Sutro Tower as to the progress of work accomplished to date and current schedule for performing additional work.

- Sutro Tower is a radio transmission facility and emits high energy radio waves. The contractor shall be responsible for determining and implementing appropriate protective measures for personnel working on site.
- The contractor shall maintain a fire watch and employ the necessary protective measures when welding near flammable materials.
- The removal, cutting, drilling, etc. of existing work shall be performed with care in order not to jeopardize the structural integrity of the structure. If structural members or mechanical, electrical or architectural features not indicated for removal interferes with the new work, the Engineer shall be notified immediately and prior approval shall be obtained before removal of members.
- The contractor shall promptly repair any damage caused during operations, using materials and workmanship similar to that which was damaged.
- All removed items, materials and debris, unless otherwise noted, shall be removed promptly from the site and disposed of in a legal manner.

STRUCTURAL STEEL & MISC. METALS

- Fabrication and erection of structural steel shall be in accordance with the "Code of Standard Practice for Steel Buildings and Bridges" AISC 303-10 adopted effective April 14, 2010.
- Materials:
 - Plates: ASTM A572 grade 50 u.o.n.
 - Structural steel tubes: ASTM A500 grade B (fy = 46 ksi)
 - Structural steel pipes: ASTM A53 grade B (fy = 35 ksi)
 - Channel: ASTM A572 grade 50
 - Wide flange: ASTM A992
- All bolts are ASTM A325. Pretensioning is not required.
- Bolt holes in steel shall be 1/16 inch larger diameter than nominal size of bolt used, unless otherwise noted.
- For bolted connections, provide 1 1/2 inch edge and end distance, unless otherwise noted.
- All welds shall be prequalified or qualified by test in conformance with the "Structural Welding Code - Steel" (AWS D1.1-04) of the American Welding Society. Minimum tensile strength of weld metal shall be 70 ksi typical, unless otherwise noted. Welding electrodes shall be as recommended by their manufacturer for the position and other conditions of actual use.
- Weld symbols shown on the drawings do not necessarily differentiate between shop weld and field welds. When field welds are necessary due to construction procedure or sequence, welds shall be provided and be inspected per specifications. All welds shown as field welds shall be done in the field as indicated.
- All structural steel, miscellaneous metal and connectors exposed to weather shall be hot-dip galvanized after fabrication. Finish paint shall be in accordance with owner's specification.
- No penetrations through structural steel columns, beams or girders are allowed except as indicated on the structural drawings.
- The structural steel fabricator shall furnish shop drawings of all steel for the engineer's review before fabrication.
- A welding procedure specification (W.P.S.) per A.W.S. D1.1 shall be developed by the fabricator/erector and approved by the engineer of record or his designee. The W.P.S. shall include the welding parameters recommended by the electrode manufacturer.
- All complete joint penetration groove welds shall be inspected and tested per City of San Francisco requirements.
- Inspectors are to be S.F. City deputy inspectors and A.W.S. Q.C.I. Certified (a C.W. Inspector), reference A.W.S. D1.1-94, Section 6.1.3.1.

CONCRETE & REINFORCING STEEL

- All concrete shall be ready-mix in accordance with ASTM C94.
- Cement: ASTM C150 Type II.
- Aggregate: ASTM C33.
- Non-shrink grout: ASTM C1107, premixed, non-staining, non-shrink grout.
- Grout or concrete containing more than 0.1 percent of soluble chloride shall not be used.
- Mixes are to be reviewed by COR's testing lab and submitted to the cor for approval. do not cast concrete without approval by COR.

Concrete	strength	size	ratio	Air content
Mechanical pads	4000 psi	3/4"	0.45	1 1/2% ± 1/2%

See specifications for additional requirements. all concrete shall be hard rock aggregate, regular-weight concrete, 145 pcf, unless otherwise noted.
- Inserts: all items to be cast in concrete, such as reinforcing dowels, bolts, anchors, pipes, sleeves, etc., shall be securely positioned in the forms before placing the concrete.
- Pipes and electrical conduits shall not be embedded in structural concrete, except where specifically approved by the COR.
- Dry pack or place non-shrink grout under base plates, sill plates, etc., as required for full bearing.
- Reinforcing steel: ASTM A615 Grade 60.
- All reinforcement shall be continuous. stagger splices where possible. laps shall be per typical details, unless otherwise noted.
- Minimum clear concrete cover for reinforcement, unless otherwise noted:

Cast against earth:	3 inches
Cast in forms and exposed to earth or weather:	2 inches
#6 bar and larger:	1 1/2 inches
#5 bar and smaller:	1 inch
Not exposed to earth or weather:	1 inch
Slabs, walls and joists:	1 inch
Beams, girders and columns (to ties):	1 1/2 inches

Clearances are to closest reinforcement.

POST-INSTALLED ANCHORS

- Post-installed anchors include all adhesive anchors (reinforcing bar dowels and threaded rods) and expansion anchors set in holes drilled in existing concrete or masonry.
- Installation of post-installed anchors shall conform to all requirements of the applicable code evaluation reports and manufacturers' recommendations.
- Mark the location of all existing reinforcing in the substrate material within 12" of the proposed locations of all post-installed anchors. notify the COR of any conflicts discovered between the proposed anchor locations and the existing reinforcing prior to fabrication of any steel and prior to any hole drilling, so as to avoid disturbing, cutting, or otherwise harming the existing reinforcing.
- Holes for adhesive anchors in concrete shall be drilled. cored holes are not permitted.
- Do not install adhesive anchors in concrete if concrete strength is less than 2500 psi, age is less than 21 days, or temperature is less than 50 degrees fahrenheit.
- Adhesive anchors in concrete (reinforcing bar dowels or threaded rods):
 - HILTI "RE-500-SD" ICC ESR-2322.
 - hilti "HT-HY 150 MAX-SD" ICC ESR-3013.
 - Simpson "SET-XP" Epoxy adhesive. ICC ESR-2508.
 - Simpson "AT-XP" Anchoring adhesive IAPMO ER-263.
- Expansion anchors in concrete:
 - HILTI "KWIK-BOLT 12" ICC ESR-1917.
 - SIMPSON "STRONG BOLT 2" ICC ESR-3037.
- Anchors that fail the proof test shall be replaced by the contractor at no additional cost.
- Re-testing of replaced anchors that fail tests shall be paid for by the contractor.
- Typical embedment depths and proof loads for testing are indicated in the following tables.

POST-INSTALLED ANCHORS (CON'T)

ADHESIVE ANCHORS				
ANCHOR SIZE	TYPICAL EMBEDMENT (U.O.N.)	PROOF LOAD NORMAL WEIGHT CONCRETE	PROOF LOAD LIGHT WEIGHT CONCRETE	PROOF LOAD GROUT-FILLED CMU BLOCK
#3 OR 3/8"	3 1/2"	2100 lb.	1600 lb.	1600 lb.
#4 OR 1/2"	4 1/2"	3700 lb.	1900 lb.	1900 lb.
#5 OR 5/8"	5 1/2"	5800 lb.	2800 lb.	2800 lb.
#6 OR 3/4"	6 1/2"	6900 lb.	-	-
#7 OR 1"	7 1/2"	11500 lb.	-	-
#8 OR 1 1/8"	9 1/2"	12400 lb.	-	-
#9 OR 1 1/4"	10 1/2"	19000 lb.	-	-

EXPANSION ANCHORS				
ANCHOR SIZE	TYPICAL EMBEDMENT (U.O.N.)	PROOF TORQUE NORMAL WEIGHT CONCRETE	PROOF TORQUE LIGHT WEIGHT CONCRETE	PROOF TORQUE GROUT-FILLED CMU BLOCK
3/8"ø	2 1/2"	25 ft.-lb.	15 ft.-lb.	15 ft.-lb.
1/2"ø	3 1/4"	40 ft.-lb.	25 ft.-lb.	25 ft.-lb.
3/4"ø	5"	60 ft.-lb.	35 ft.-lb.	35 ft.-lb.
1"ø	5 1/4"	110 ft.-lb.	65 ft.-lb.	65 ft.-lb.

STATEMENT OF SPECIAL INSPECTIONS

THE FOLLOWING TESTS AND INSPECTIONS ARE REQUIRED FOR THIS PROJECT. THE TESTS AND INSPECTIONS INDICATED HERE ARE THE RESPONSIBILITIES OF THE COR'S SPECIAL INSPECTOR, AS REQUIRED BY SECTION 1704 OF THE BUILDING CODE.

STRUCTURAL INSPECTION AND TESTING

- SPECIAL INSPECTION AND TESTING ARE REQUIRED IN SECTIONS 1704, 1706, 1707 AND 1708 OF THE CBC. THE "STATEMENT OF SPECIAL INSPECTIONS," SUBMITTED WITH THE PERMIT APPLICATION, INDICATES THE SPECIFIC INSPECTIONS AND TESTS THAT ARE REQUIRED, AS WELL AS THE PERSONS OR FIRMS RESPONSIBLE FOR THIS WORK.
- ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY A CERTIFIED SPECIAL INSPECTOR FROM AN INDEPENDENT TESTING AGENCY WHO IS APPROVED BY THE GOVERNMENT AND EMPLOYED BY THE CONTRACTOR.
 - THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
 - THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT, STRUCTURAL ENGINEER AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
 - THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND APPLICABLE STANDARDS OF QUALITY AND WORKMANSHIP OF THE CBC.
- THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING INVOLVING THE COR, ARCHITECT, STRUCTURAL ENGINEER AND THE SPECIAL INSPECTOR IN ORDER TO DISCUSS THE SPECIFIC REQUIREMENTS OF THIS PROJECT.
- MATERIAL TESTING REQUIREMENTS ARE INDICATED IN THE SPECIFICATIONS AND/OR GENERAL NOTES.

CONCRETE

CONCRETE REINFORCEMENT AND CAST-IN-PLACE ANCHORS

- REINFORCING STEEL PLACEMENT. PROVIDE PERIODIC INSPECTION OF THE FOLLOWING:
 - THE REINFORCING GRADE, SIZE, NUMBER, LOCATION, AND BEND DETAILING ARE AS SHOWN ON THE DRAWINGS AND ARE IN ACCEPTABLE CONDITION.
 - ALL REQUIRED DEVICES HAVE BEEN PROPERLY INSTALLED TO SECURE THE REINFORCEMENT IN PLACE DURING THE PLACEMENT OF CONCRETE.
- INSTALLATION OF CAST-IN-PLACE ANCHORS AND OTHER EMBEDMENTS. VERIFY THE FOLLOWING:
 - THE ANCHOR DIAMETER, LENGTH, TYPE, GRADE, AND DEPTH OF EMBEDMENT INTO THE CONCRETE.
 - ALL REQUIRED ITEMS HAVE BEEN PROPERLY INSTALLED TO SECURE THE EMBEDDED ITEM DURING PLACEMENT OF CONCRETE.

CAST-IN-PLACE CONCRETE

- PROVIDE CONTINUOUS INSPECTION DURING CONCRETE PLACEMENT. VERIFY THE FOLLOWING:
 - THE CONCRETE DELIVERED TO THE JOB HAS BEEN PREPARED WITH THE APPROVED MIX DESIGN APPROPRIATE FOR THE APPLICATION AND IS TRANSPORTED AND PLACED WITHIN THE TIME AND UNDER THE CONDITIONS PERMITTED BY ASTM C94 AND THE PROJECT SPECIFICATIONS.
 - THE CONCRETE IS PLACED, CONSOLIDATED, AND FINISHED AS INDICATED ON THE DRAWINGS.
- SAMPLING OF FRESH CONCRETE: ASTM C 172, EXCEPT AS MODIFIED FOR SLUMP TO COMPLY WITH ASTM C 94.
 - SLUMP: ASTM C 143; ONE TEST AT POINT OF PLACEMENT FOR EACH SET OF COMPRESSION TEST SPECIMENS; ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY SEEMS TO HAVE CHANGED.
 - CONCRETE TEMPERATURE: ASTM C 1064; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEGREES FAHRENHEIT AND BELOW OR 80 DEGREES FAHRENHEIT AND ABOVE, AND ONE TEST FOR EACH SET OF COMPRESSIVE-STRENGTH SPECIMENS.

CONCRETE (CON'T)

POST-INSTALLED ANCHORS

- PROVIDE PERIODIC INSPECTION OF THE FOLLOWING:
 - THE SPECIFIC MANUFACTURER AND MODEL OF ANCHORS HAVE BEEN APPROVED FOR THE APPLICATION BY THE COR.
 - THE HOLES ARE DRILLED AT THE ANGLE REQUIRED AND OF THE DIAMETER AND DEPTH REQUIRED.
 - THE HOLES ARE CLEAN PRIOR TO INSTALLATION OF THE ANCHORS.
 - THE ADHESIVE PACKAGING INDICATES AN EXPIRATION DATE AND THAT THE EXPIRATION DATE HAS NOT PASSED.
 - THE ADHESIVE IS MIXED PROPERLY AND THAT THE INITIAL PORTION OF ADHESIVE COMING OUT OF THE NOZZLE IS WASTED, AS REQUIRED BY THE MANUFACTURER.
 - THE ANCHORS ARE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- PERFORM TESTS OF ANCHORS ACCORDING TO ASTM E 488 AND AS FOLLOWS:
 - TEST TEN PERCENT OF EACH APPLICATION OF ANCHORS TO THE TENSILE OR TORQUE PROOF LOAD AS INDICATED ON THE DRAWINGS.
 - ONE APPLICATION OF ANCHORS OR DOWELS SHALL BE DEFINED AS SINGLE ANCHOR. DISPLACEMENT FOLLOWING RELEASE OF LOAD SHALL RETURN TO ZERO.
 - TEST LOCATIONS ARE RANDOM AT THE DISCRETION OF THE TESTING LAB, UNLESS OTHERWISE DIRECTED BY THE COR.
 - TENSION TEST LOADS SHALL BE MAINTAINED FOR A MINIMUM OF TWO MINUTES.
- TENSION TEST CRITERIA: ANCHOR DISPLACEMENT AT THE END OF THE LOADING PERIOD SHALL BE LIMITED TO ONE-FIFTH OF THE NOMINAL ANCHOR DIAMETER. DISPLACEMENT FOLLOWING RELEASE OF LOAD SHALL RETURN TO ZERO.
- TORQUE TEST CRITERIA: TEST TORQUE MUST BE REACHED WITHIN A HALF TURN OF THE NUT, EXCEPT FOR 3/8" DIAMETER ANCHORS, FOR WHICH TEST TORQUE MUST BE REACHED WITHIN A QUARTER TURN OF THE NUT.
- IF ANY ANCHOR FAILS THE TEST, TEST ALL ANCHORS IN THE SAME APPLICATION NOT PREVIOUSLY TESTED UNTIL 10 CONSECUTIVE ANCHORS PASS

STRUCTURAL STEEL

INSPECTION AND TESTING OF WELDED JOINTS

- Inspection of welded connections shall include the following:
 - Verification that applicable and approved Welding Procedure Specifications (WPS) are available for all welds to be performed.
 - Verification that manufacturer certifications for filler metals and fluxes (welding consumables) are available for all welds to be performed.
 - Verification that base material and welding consumable selection conforms to the requirements of the approved WPS.
 - Verification that welders are appropriately qualified for the type, position, and class of weld to be performed.
 - Verification of the contractor's welder identification system.
 - Inspection of materials handling, packaging, and storage.

INSPECTION AND TESTING OF BOLTED JOINTS USING HIGH-STRENGTH BOLTS

- Inspection of connections using high-strength bolts shall include the following:
 - Verification that manufacturer certifications for fastener components are available for all joints.
 - Verification that the proper bolting procedure and fasteners (grade, type, and length) are selected for each joint detail. The fasteners shall be marked in accordance with ASTM requirements.
 - Verification that all connected plies within the grip of the bolt and any materials used under the bolt head or nut are composed of steel only.
 - Verification that the connecting elements, including the appropriate faying surface condition and hole preparation, meet applicable requirements for the joint type.
 - Verification of the nominal dimensions of bolt holes.
 - Verification that burrs larger than 1/16 inch in height have been removed or reduced to 1/16 inch in height or less from the faying surfaces of all joints.
 - Inspection and documentation of pre-installation verification testing by the installation personnel for fastener assemblies and methods used.
 - Inspection of materials handling, packaging, and storage.

OTHER STRUCTURAL STEEL INSPECTIONS

- Inspection of anchor rods and other embedments supporting structural steel shall include the verification of the following prior to the placement of concrete: diameter, grade, type, and length of the anchor rod or embedded item; and the extent or depth of embedment into the concrete.

ABBREVIATIONS

& @	And At	JST.	Joist
A.B.	Anchor bolt	K	Kips
ADD'L	Additional	KSI	Kips per Square Inch
AISC	American Institute of Steel Construction	LBS.	Pounds
ALT.	Alternate	LL	Live Load
ARCH.	Architect	L.L.H.	Long Leg Horizontal
ASD	Allowable Strength Design	L.L.V.	Long Leg Vertical
ASTM	American Society for Testing and Materials	L.V.L.	Laminated Veneer Lumber
A.W.P.A.	American Wood Preservers Assoc.	MAX.	Maximum
AWS	American Welding Society	M.B.	Machine Bolt
		M.ECH.	Mechanical
		MFR.	Manufacturer
		M.I.	Malleable Iron
BLKG.	Blocking	MIL.	Millimeter
BM.	Beam	MIN.	Minimum
B.N.	Boundary Nail	MISC.	Miscellaneous
BOCA	Building Officials and Code Administrators International, Inc.	(N)	New
BOTT.	Bottom	NO./#	Number
BRG.	Bearing	N.S.	Near Side
B.S.	Both Sides	N.T.S.	Not to Scale
BTWN.	Between	NWT	Normalweight
	California Building Code	O.C.	On Center
	Center to Center	O.O.	Outside Diameter
	California Code of Regulations	O.H.	Opposite Hand
	Control Joint	OPNG.	Opening
	Cast-in-place	OPP.	Opposite
	Center Line	OSHPD	Office of Statewide Health Planning and Development
	Ceiling		
	Clear		
	Concrete Masonry Unit	P.A.F.	Powder-Actuated Fasteners
	Column	PART.	Partial
	CONC.	PCF	Pounds per Cubic Foot
	CONN.	PL	Plate
	CONT.	PLY.	Plywood
	C.P.		Complete Penetration
	CSK	P.P.	Partial Penetration
	CTBR.	PSF	Pounds per Square Foot
	CTR.	PSI	Pounds per Square Inch
		PWJ	Plywood Web Joists
DBA	Deformed Bar Anchor		
DBL.	Double	RAD.	Radius
DC	Demand Critical (Weld)	R.D.	Roof Drain
DET., DETL.	Detail	REINF.	Reinforcing
DF	Douglas Fir	REQ.	Required
DIA., ø	Diameter	RF.	Roof
DIAG.	Diagonal	R.O.	Rough Opening
DL	Dead Load	RND.	Round
DN	Down	R.R.	Remove & Replace
DO	Ditto		
DSA	Division of the State Architect	S.A.D.	See Architectural Drawings
DWG(S).	Drawing(s)	SCHED.	Schedule
		SFRS	Seismic Force-Resisting System
(E)	Existing	SHT.	Sheet
EA	Each	SHTG.	Sheathing
E.F.	Each Face	SH.	Similar
E.J.	Expansion Joint	S.M.D.	See Mechanical Drawings
ELEV., EL.	Elevation	S.O.G.	Slab on Grade
EMB., EMBED.	Embedment	S.P.	Southern Pine
E.N.	Edge Nail	SSTL	Stainless Steel
EQ.	Equal	STAGG'D.	Staggered
EQUIP.	Equipment	STD.	Standard
E.W.	Each Way	STIFF.	Stiffener
		STRL.	Structural
		SYMM., SYM	Symmetrical
	Finish	T&B	Top and Bottom
	Face of Concrete	T&G	Tongue & Groove
	Face of Masonry	T.N.	Toe Nail
	Face of Stud	T.O.C.	Top of Concrete
	Framing	T.O.S.	Top of Steel
	Far Side	T.O.W.	Top of Wall
	Footing	TS	Tube Steel
		TYP.	Typical
GA.	Gage		
GALV.	Galvanized	UBC	Uniform Building Code
G.L.	Grid Line	U.O.N.	Unless Otherwise Noted
GLB	Glue-Laminated Beam		
GR.	Grade	VERT.	Vertical
		V.I.F., ±	Verify in Field
HDG.	Hot-dip Galvanized		
HGR.	Hanger	W/	With
HK.	Hook	W/O	Without
HORIZ.	Horizontal	WCLB	West Coast Lumber
H.S.B.	High Strength Bolt		Inspection Bureau
HSS	Hollow Structural Sections	W.P.	Working Point
HT.	Height	W.H.S.	Welded Headed Stud
		W.T.S.	Welded Threaded Stud
		W.W.F.	Welded Wire Fabric
ICBO	International Council of Building Officials	WWPA	Western Wood Products Association
ICC	International Code Council		
	Interior		
INT.	Inverted		
INV.			

GENERAL SYMBOLS AND LEGEND

	REVISION
	GRIDLINE INDICATING CENTERLINE OF CONCRETE OR PLYWOOD SHEAR WALL
	TYPICAL GRIDLINE INDICATING FACE OF CONCRETE WALL
	BUILDING SECTION OR ELEVATION
	WORK POINT, DATUM OR CONTROL POINT, FIN. FLR. ELEVATION, S.A.D.
	DETAIL REFERENCE
	PROJECT NORTH, S.A.D. FOR TRUE NORTH

SIMPSON GUMPERTZ & HEGER

Engineering of Structures and Building Enclosures

Simpson Gumpertz & Heger Inc.
100 Pine Street, Suite 1600
San Francisco, California 94111
Main: 415.495.3700 fax: 415.495.3550
www.sgh.com

Boston
Chicago
Houston
Los Angeles
New York
San Francisco
Washington, DC

Consultant

EQUIPMENT SCREEN

SUTRO TOWER

1 LA AVANZADA STREET

SAN FRANCISCO, CALIFORNIA

Project

GENERAL NOTES
ABBREVIATIONS
&
LEGEND

Drawing Title

Project No. 067199.12	Checked BW	Date 06/17/15
Drawn JT	Approved ROH	Scale NONE

Drawing No.

S0.1

Seal

Consultant

	7/26/16	REVISED FOR PERMIT	RO
	2/16/16	ISSUED FOR PERMIT	RO
No.	Date	Description	By

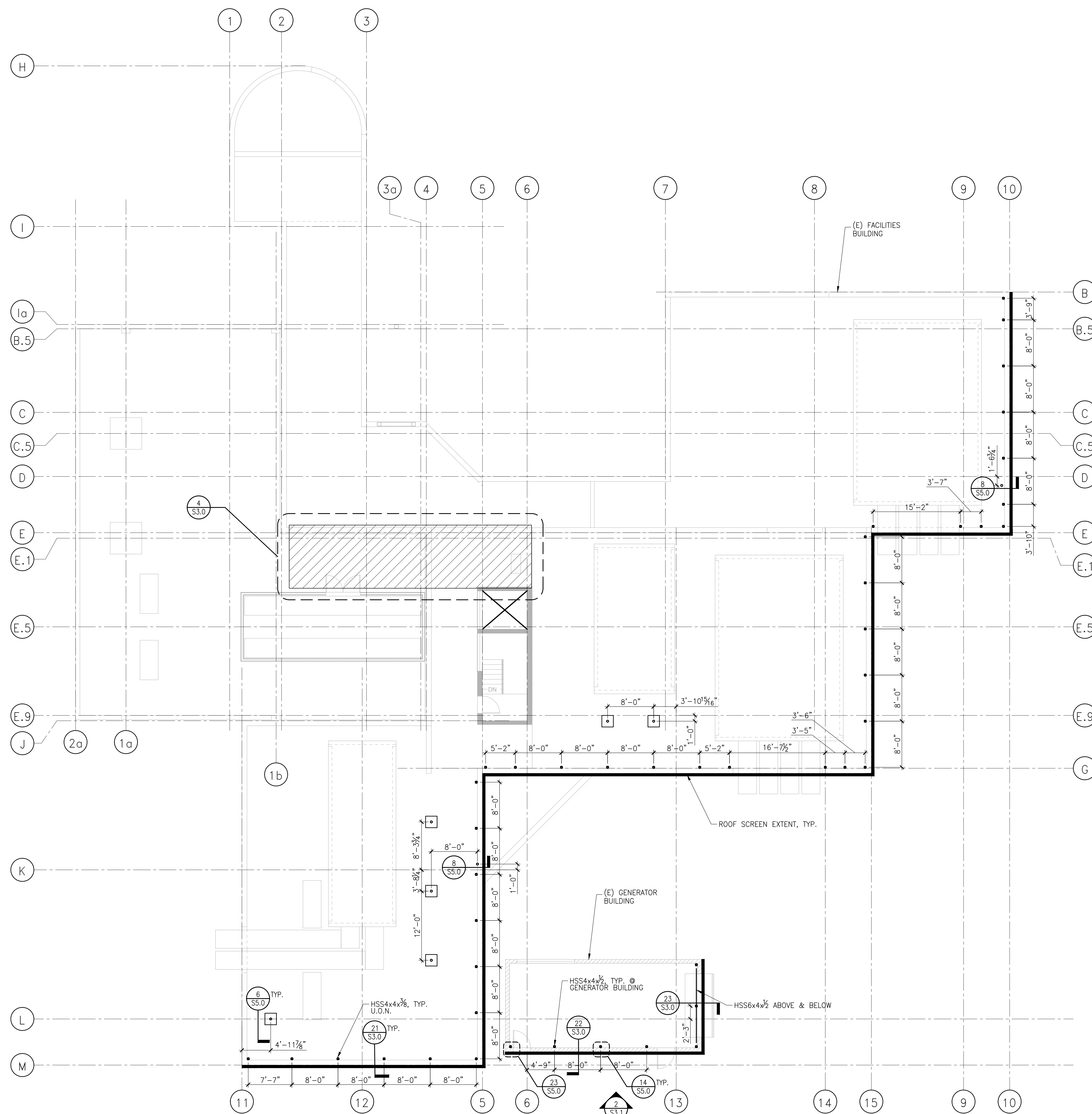
Project

Drawing Title

Drawing No.	
-------------	--

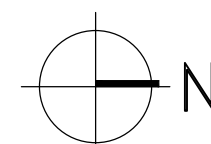
S2.0

Sec



2.0 1 ROOF PLAN

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



	7/26/16	REVISED FOR PERMIT	ROH
	2/16/16	ISSUED FOR PERMIT	ROH
No.	Date	Description	By

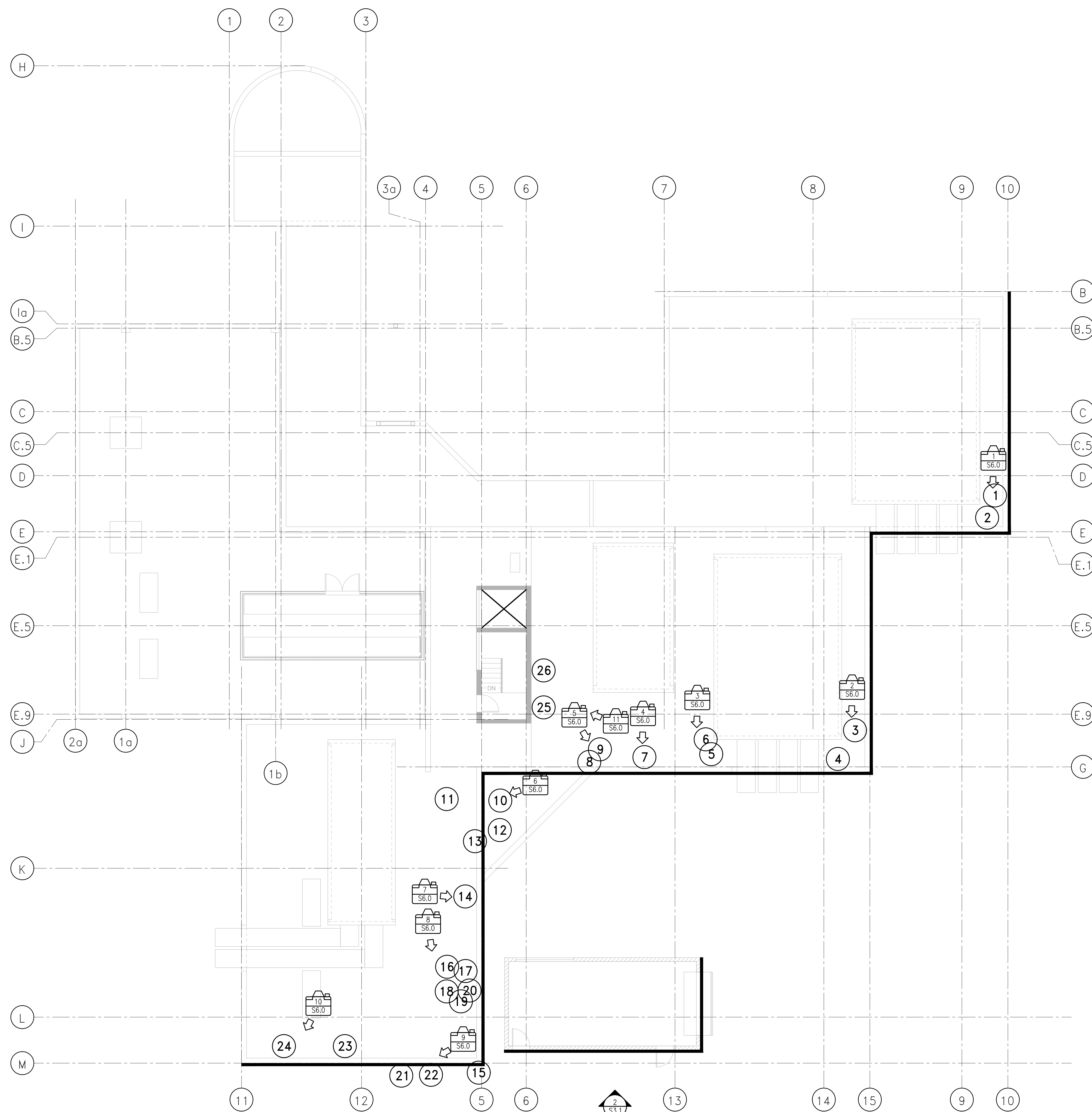
Project

Drawing Title

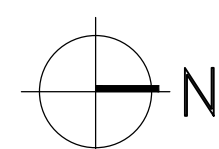
Project No. 067199.12	Checked BW	Date 06/17/15
Drawn JT	Approved ROH	Scale AS NOTED

S2.1

Sec



1 ROOF PLAN SHOWING ANTENNA LOCATIONS
SCALE: 1/8"=1'-0"



LEGEND

NEW ROOF SCREEN EXTENTS

1 APPROXIMATE LOCATION OF ANTENNA

APPROXIMATE LOCATION OF PHOTOGRAPH

1
S6.0

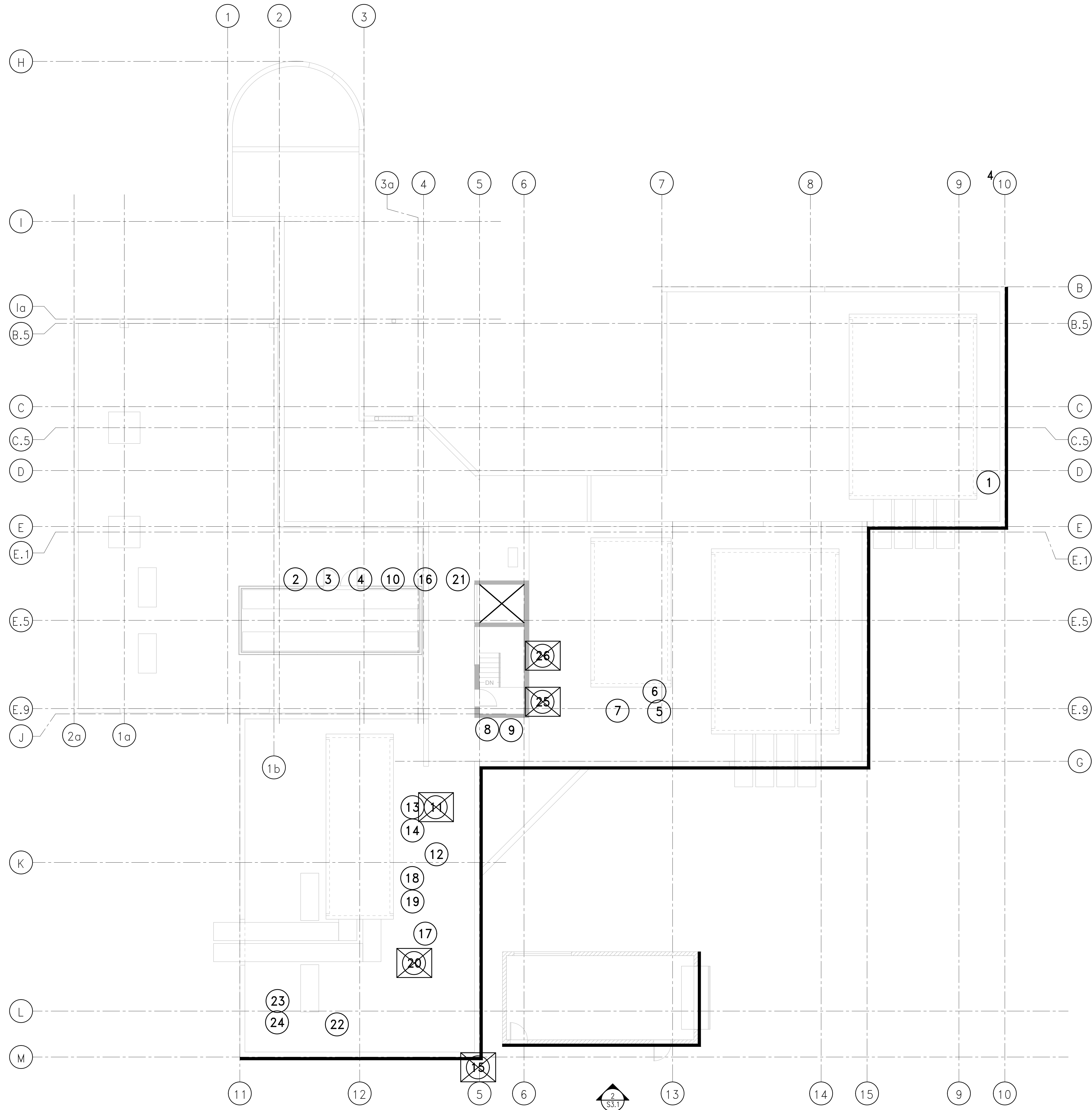
DETAIL NUMBER

SHEET NUMBER

Consultant

Antenna Relocation Index		
Antenna Reference	Antenna Photograph Reference	Notes
1	1/S6.0	Relocate to mount per 8/S5.0, mount location per S2.0
2	1/S6.0	Relocate to mount per 9/S3.0
3	2/S6.0	Relocate to mount per 9/S3.0
4	2/S6.0	Relocate to mount per 9/S3.0
5	3/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
6	3/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
7	4/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
8	5/S6.0	Relocate to existing mount
9	5/S6.0	Relocate to existing mount
10	6/S6.0	Relocate to mount per 9/S3.0
11	6/S6.0	Antenna to be removed
12	6/S6.0	Relocate to mount per 8/S5.0, mount location per S2.0
13	6/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
14	7/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
15	8/S6.0	Antenna to be removed
16	8/S6.0	Relocate to mount per 9/S3.0
17	8/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
18	8/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
19	8/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
20	8/S6.0	Antenna to be removed
21	9/S6.0	Relocate to mount per 9/S3.0
22	9/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
23	9/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
24	10/S6.0	Relocate to mount per 6/S5.0, mount location per S2.0
25	11/S6.0	Antenna to be removed
26	11/S6.0	Antenna to be removed

- LEGEND
- 1 APPROXIMATE LOCATION OF RELOCATED ANTENNA, REFER TO S2.0 FOR LOCATION OF NEW MOUNT
- ANTENNA AND ANTENNA MOUNT TO BE REMOVED
- NEW ROOF SCREEN AND SUPPORT SYSTEM SEE S2.0



1 ROOF PLAN

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

EQUIPMENT SCREEN
SUTRO TOWER
1 LA AVANZADA STREET
SAN FRANCISCO, CALIFORNIA

Project

ROOF PLAN
RELOCATED ANTENNA
LOCATIONS

Drawing Title

Project No. 067199.12	Checked BW	Date 06/17/15
Drawn JT	Approved ROH	Scale AS NOTED
Drawing No.		S2.2
Seal		

Consultant

No.	Date	Description	By
7/26/16		REVISED FOR PERMIT	ROH
2/16/16		ISSUED FOR PERMIT	ROH

**EQUIPMENT SCREEN
SUTRO TOWER
1 LA AVANZADA STREET
SAN FRANCISCO, CALIFORNIA**

Project

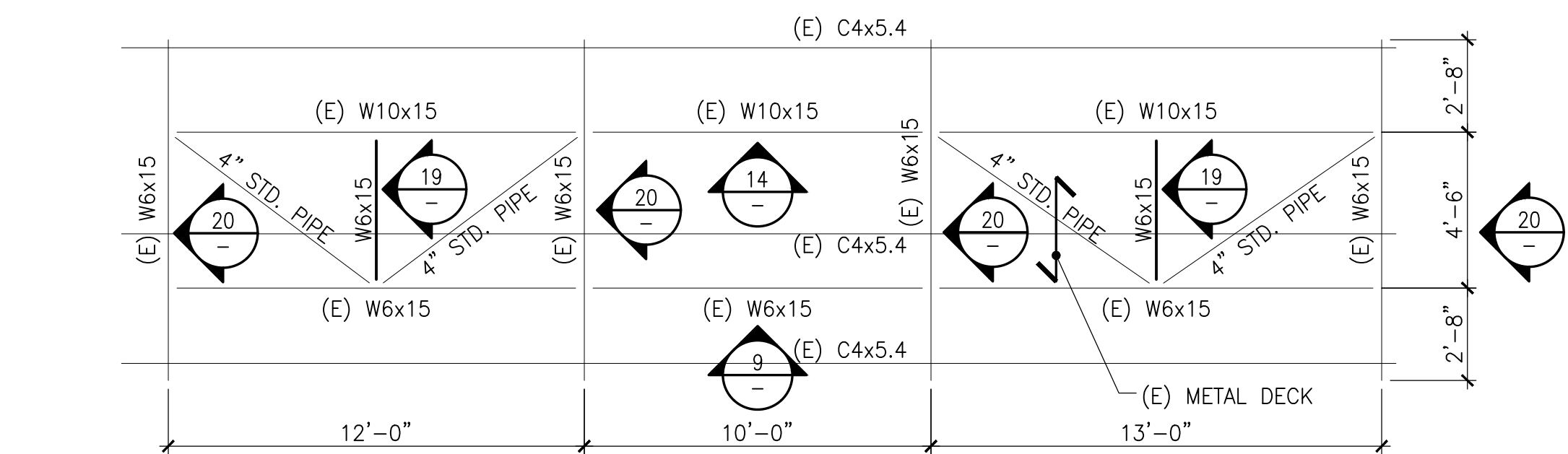
DETAILS

Drawing Title

Project No. 067199.12	Checked BW	Date 06/17/15
Drawn JT	Approved ROH	Scale AS NOTED

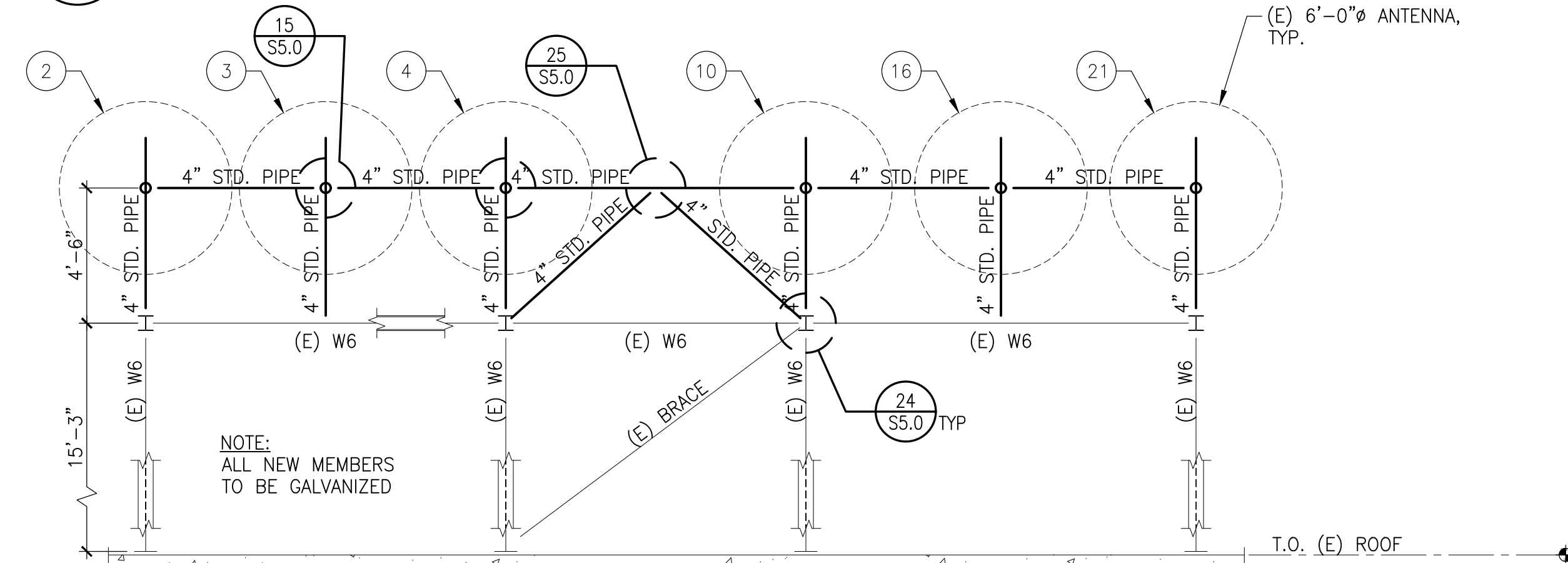
S3.0

Seal

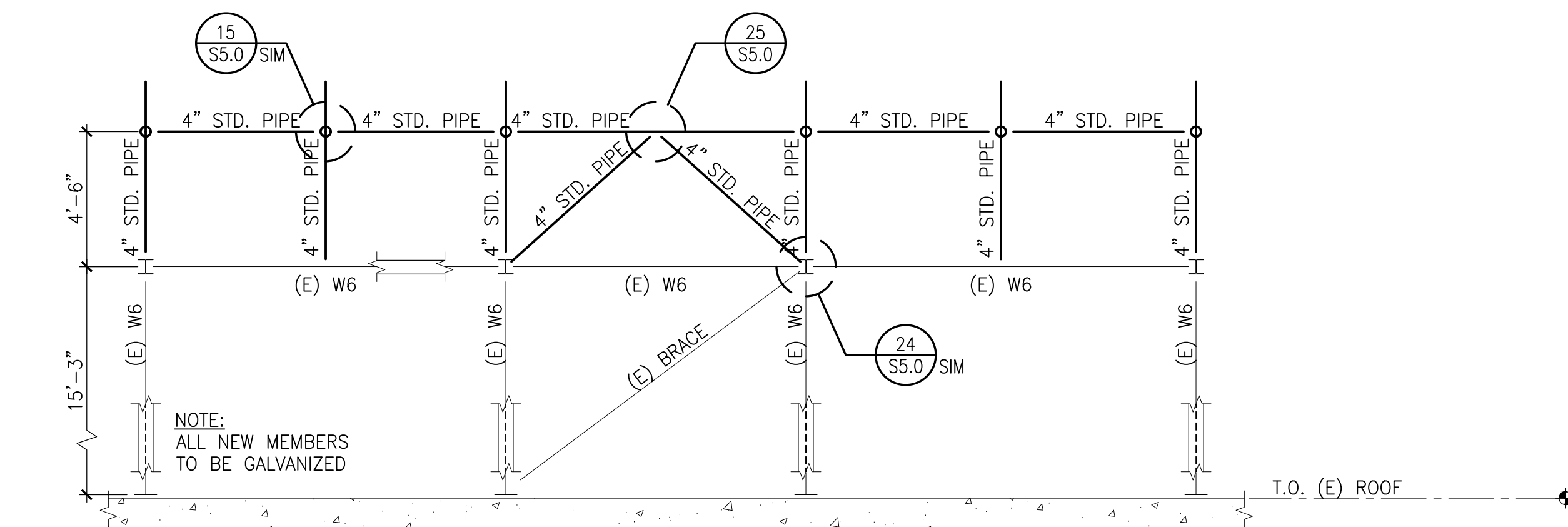


- NOTE:
1. ALL NEW MEMBERS TO BE GALVANIZED.
2. T.O.S. = +15'-3" ABOVE ROOF LEVEL

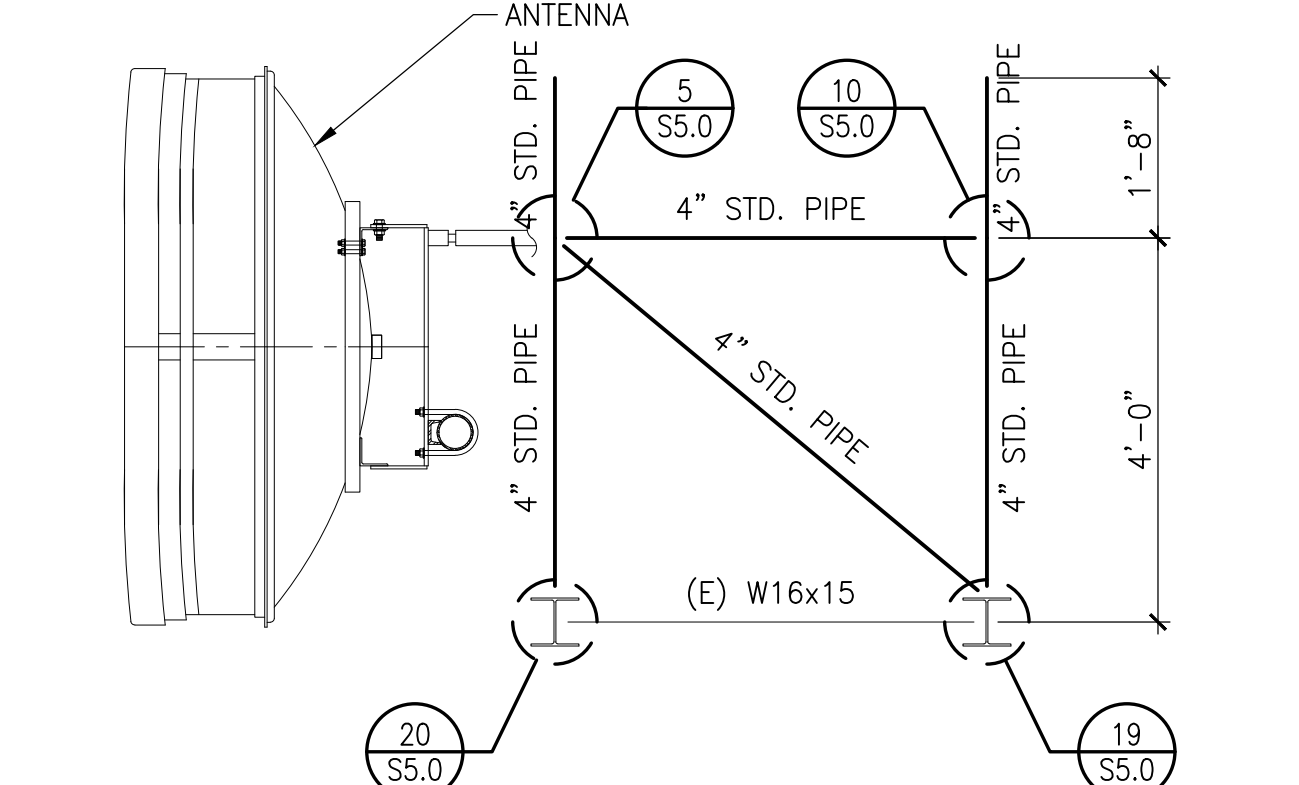
4 PLAN
SCALE: 1/4"=1'-0"



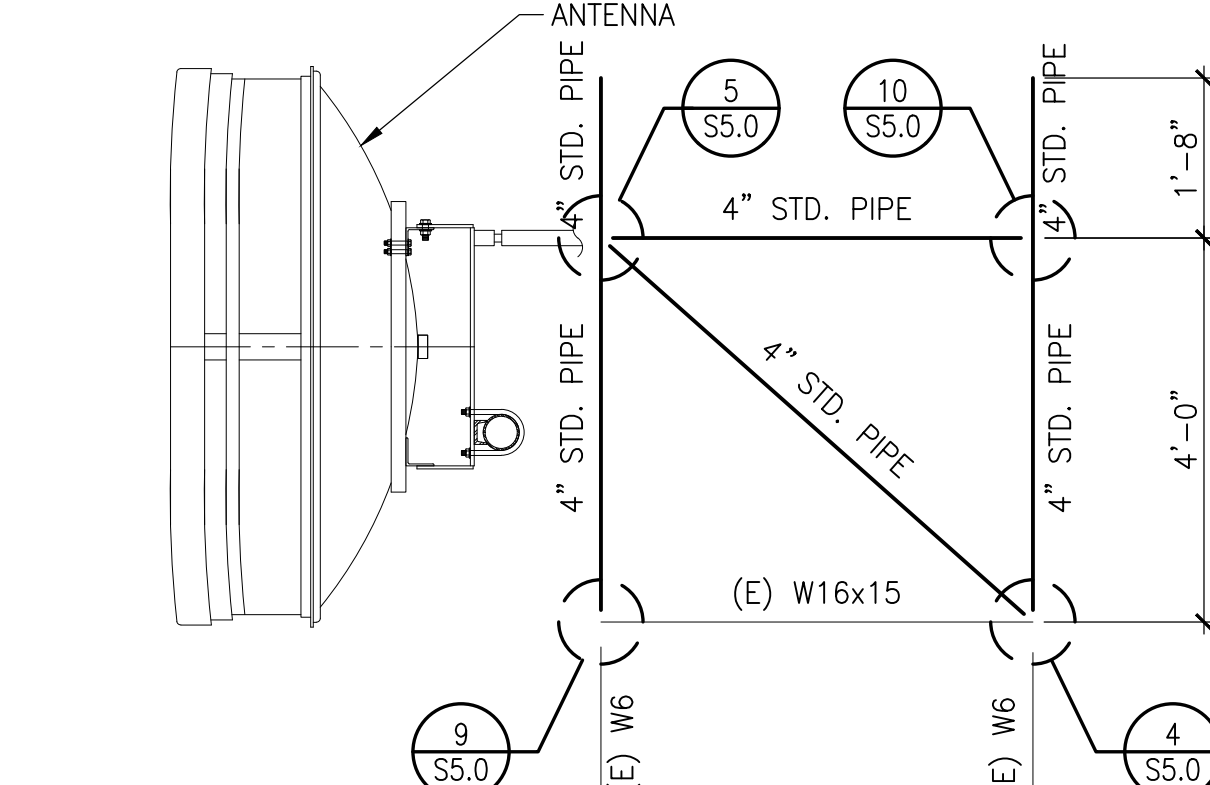
9 ELEVATION
SCALE: 1/4"=1'-0"



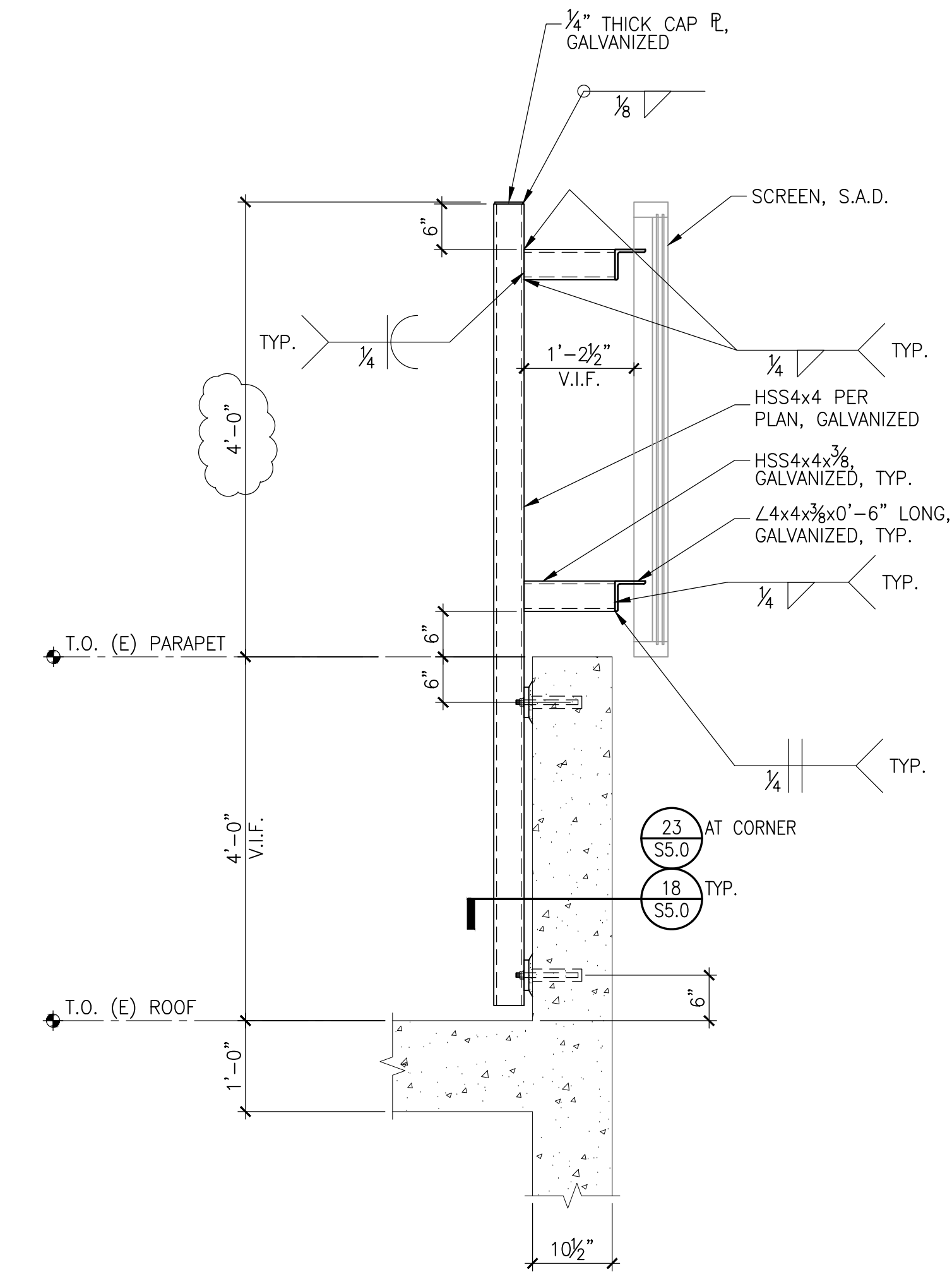
14 ELEVATION
SCALE: 1/4"=1'-0"



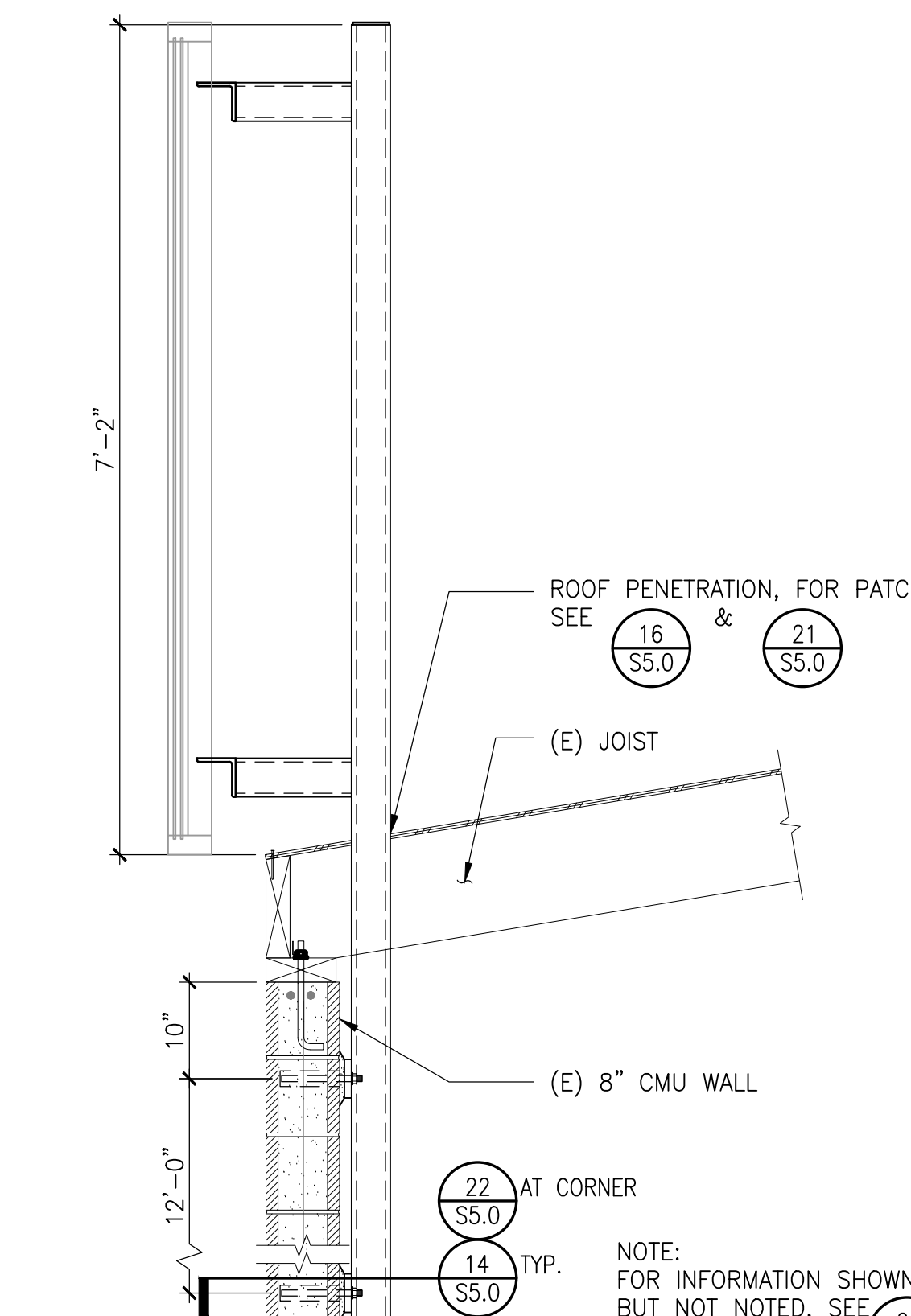
19 DETAIL
SCALE: 1/2"=1'-0"



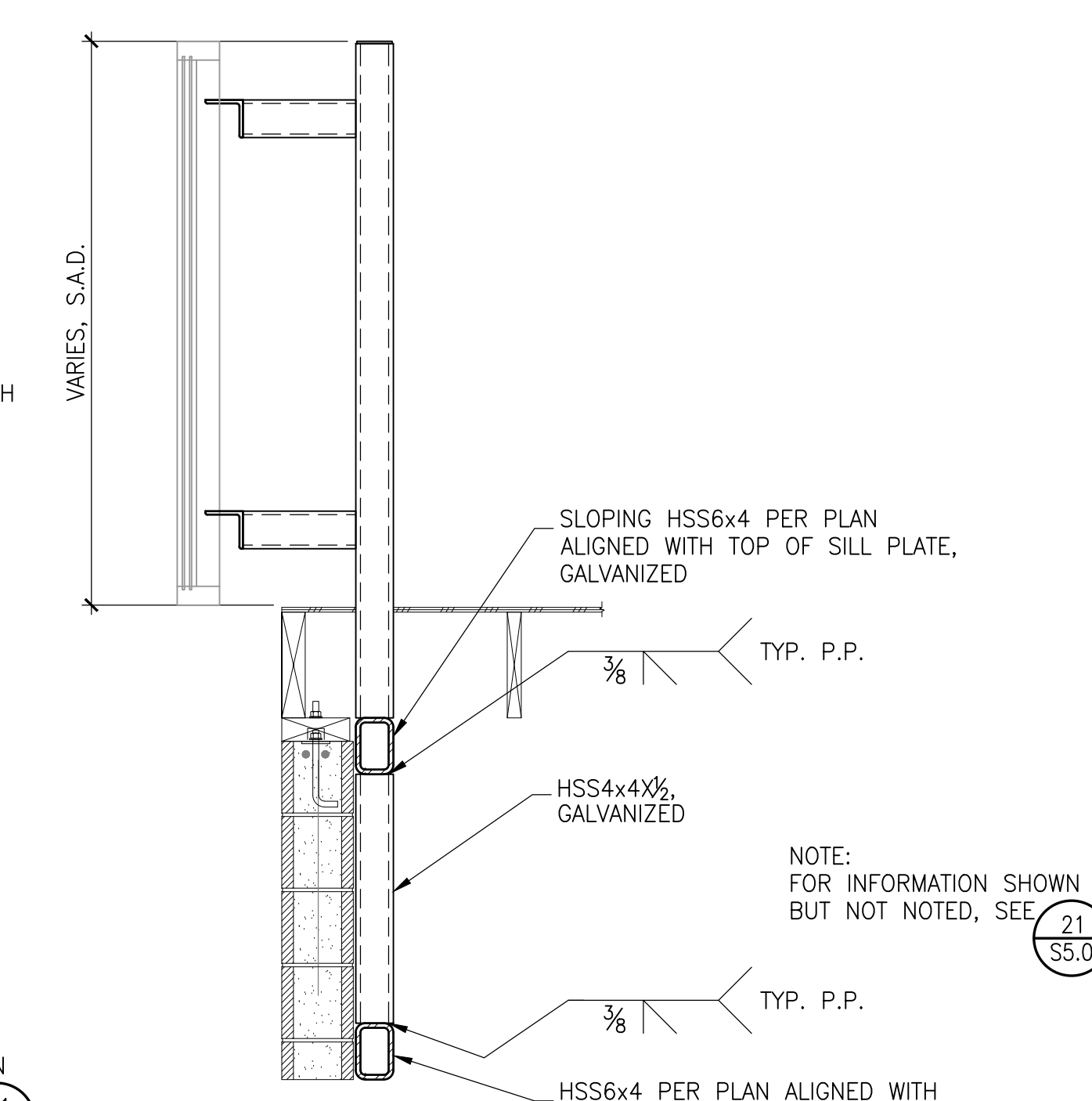
20 DETAIL
SCALE: 1/2"=1'-0"



21 PARAPET DETAIL
SCALE: 3/4"=1'-0"



22 TYPICAL TOP OF WALL AT JOISTS
SCALE: 3/4"=1'-0"



23 END WALL AND ANCHORAGE DETAIL
SCALE: 3/4"=1'-0"

Consultant

No.	Date	Description	By
7/26/16		REVISED FOR PERMIT	ROH
2/16/16		ISSUED FOR PERMIT	ROH

**EQUIPMENT SCREEN
SUTRO TOWER
1 LA AVANZADA STREET
SAN FRANCISCO, CALIFORNIA**

Project

DETAILS

Drawing Title

Project No. 067199.12	Checked BW	Date 06/17/15
Drawn JT	Approved ROH	Scale AS NOTED

\$5.0

Seal

