

"	INCH	DBA	DEFORMED BAR ANCHOR	HAS	HEADED ANCHOR STUD	OD	OUTSIDE DIAMETER
#	NUMBER, POUND	DBL	DOUBLE	HC	HOLLOW CORE	ОН	OVERHEAD
&	AND	DEFL	DEFLECTION	HCP	HOLLOW CORE PLANK	OPNG	OPENING
•	FEET	DEMO	DEMOLITION	HDD	HEADED ANCHOR STUD	OPP	OPPOSITE, OPPOSITE HAND
@	AT	DEPT	DEPARTMENT	HDR	HEADER	OSWJ	OPEN WEB STEEL JOIST
(E)	EXISTING	DET	DETAIL	HEX	HEXAGONAL		
(N)	NEW	DF	DOUG FIR (DOUGLAS FIR)	HM	HOLLOW METAL	P/L	PORPERTY LINE
		DIA	DIAMETER	HORIZ	HORIZONTAL	PAF	POWDER ACTUATED FASTENERS
AB	ANCHOR BOLT	DIAG	DIAGONAL	HSS	HOLLOW STRUCTURAL SHAPE	PC	PRECAST
ACI	AMERICAN CONCRETE INSTITUTE	DIAPH	DIAPHRAGM	HT	HEIGHT	PCF	POUNDS PER CUBIC FOOT
ADD	ADDENDUM, ADDITION	DIM	DIMENSION	HVAC	HEATING, VENTILATION, AIR CONDITIONING	PERF	PERFORATE, PERFORATED, PERFORMANCE
ADJ	ADJUST, ADJUSTABLE	DKG	DECKING	IDC	INTERNATIONAL PUIL DING CORE	PERIM	PERIMETER PROFESSIONAL ENGINEER
AESS AFF	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL ABOVE FINISH FLOOR	DL DWG	DEAD LOAD DRAWING	IBC ICF	INTERNATIONAL BUILDING CODE INSULATED CONCRETE FORMS	PERIM PERP	PROFESSIONAL ENGINEER PERPENDICULAR
AFF	ALTERNATE	DWG	DRAWINGS	ID	INSIDE DIAMETER	PL	PLATE
ALI	ALUMINUM	DWL	DOWEL	IN	INCH, INCHES	PLF	POUNDS PER LINEAL FOOT
APPROX	APPROXIMATELY	DWL	DOWLE	INFO	INFORMATION	PLWD	PLYWOOD
ARCH	ARCHTECTURE	EIFS	EXTERIOR INSULATED FINISH SYSTEM	INSP	INSPECTION	PNL	PANEL
ASTM	AMERICAM SOCIETY FOR TESTING AND MATERIALS	ELEV	ELEVATOR	INSUL	INSULATION	PREFAB	PREFABRICATED
AVG	AVERAGE	ENGR	ENGINEER	INT	INTERIOR	PREFIN	PREFINISHED
AWS	AMERICAN WELDING SOCIETY	EOR	ENGINEER OF RECORD			PSF	POUNDS PER SQUARE FOOT
		EQ	EQUAL	JST	JOIST	PSI	POUNDS PER SQUARE INCH
BALC	BALCONY	EQPT	EQUIP	JT	JOINT, JOINTS	PSL	PARALLEL STRAND LUMBER
BD	BOARD	ES	EACH SIDE			PT	PRESERVATIVE TREATED, POST-TENSIONED
BEV	BEVEL	EW	EACH WAY	K	KILOPOUND (1000 POUNDS)		
BKR	BACKER	EXIST	EXISTING	KIP	KILOPOUND (1000 POUNDS)	QTY	QUANTITY
BLDG	BUILDING	EXP	EXPANSION				
BLK	BLOCK	EXPO	EXPOSED	L	ANGLE, LEFT, LENGTH	RAD	RADIUS
BLKG	BLOCKING	EXT	EXTERIOR	LAM	LAMINATE, LAMINATED	RCP	REFLECTED CEILING PLAN
ВМ	BEAM			LAT	LATERAL	RD	ROOF DRAIN
ВОС	BOTTOM OF CURB	F OF F	FACE TO FACE	LB	POUND	REF	REFERENCE
BOT/BTM	BOTTOM	FAB	FABERICATIONS / FABRICATED	LF	LINEAL FEET, LINEAR FOOTAGE	REINF	REINFORCED, REINFORCING
BOW	BOTTOM OF WALL	FB	FLAT BAR	LIN	LINEAR FEET LINEAR FOOTAGE	REQ	REQUIREMENTS, REQUIRED
BP BRDG	BASE PLATE BRIDGE, BRIDGING	FDTN	FOUNDATION FROELICH ENGINEERS	LIN FT	LINEAL FEET, LINEAR FOOTAGE LIVE LOAD	REQ'D REV	REQUIRED REVISION
BRG	BEARING	FE FF	FINISH FLOOR	LL LLH	LONG LEG HORIZONTAL	RO	ROUGH OPENING
BRK	BRICK	FFE	FINISH FLOOR ELEVATION	LLV	LONG LEG VERTICAL	KO	ROUGH OF LIVING
BSMT	BASEMENT	FIN	FINISH	LNTL	LINTEL	SCHED	SCHEDULE
BU	BUILT-UP	FLR	FLOOR	LONG	LONGITUDINAL	SE	STRUCTURAL ENGINEER
		FOC	FACE OF CONCRETE	LSL	LAMINATED STRAND LUMBER	SECT	SECTION
CEM	CEMENT, CEMENTITIOUS	FOF	FACE OF FINISH	LT WT	LIGHTWEIGHT	SF	SQUARE FEET
CGS	CENTER OF GRAVITY OF STRAND	FOM	FACE OF MASONRY	LVL	LAMINATED VENEER LUMBER	SGL	SINGLE
CIP	CAST IN PLACE	FOS	FACE OF STUD			SHT	SHEET
CJ	CONTROL JOINT	FR	FIRE RATED, FIRE RESISTIVE	MANUF	MANUFACTURER, MANUFACTURED	SHTG	SHEATHING
CL	CENTER LINE	FRM	FRAMED, FRAMING	MAX	MAXIMUM	SIM	SIMILAR
CLG	CEILING	FRT	FIRE RETARDANT TREATED	MB	MACHINE BOLT	SIMP	SIMPSON STRONG TIE
CLR	CLEAR	FT	FOOT, FEET	MECH	MECHANICAL	SL	SNOW LOAD
CMU	CONCRETE MASONRY UNIT	FTG	FOOTING	MEZZ	MEZZANINE	SOG	SLAB ON GRADE
COL	COLUMN	FURRG	FURRING	MFR	MANUFACTURER, MANUFACTURED	SPEC	SPECIFICATION, SPECIFICATIONS
COMP	COMPOSITE, COMPENSATION	FUT	FUTURE	MIN	MINIMUM	SQ	SQUARE
CONC	CONCRETE	_		MISC	MISCELLANEOUS	SS	STAINLESS STEEL
COND	CONDITION	GA	GAUGE	MTL	METAL	STD	STANDARD
CONN	CONNECTION	GALV	GALVANIZED	MUL	MULLION	STIFF	STIFFENER
CONSTR	CONSTRUCTION	GC	GENERAL CONTRACTOR	N.I.	NORTH	STL	STEEL
CONT	CONTINUOUS	GEN	GENERAL GLU-LAMINATED	N	NORTH	STRUCT	STRUCTURAL
CORR	CORRIDOR	GL GLB		NIC NO	NOT IN CONTRACT	SUSP	SUSPENDED SYMMETRICAL
CTR	CENTER	GLB	GLU-LAMINATED BEAM	NO NOM	NUMBER	SYM	O HIVIIVIL I MICAL

NOM

GYPSUM BOARD

NOMINAL

NOT TO SCALE

ON CENTER

TOP AND BOTTOM TONGUE AND GROOVE

TANGENT

CTRL

CTSK

CU

CUST

CONTROL

CUBIC

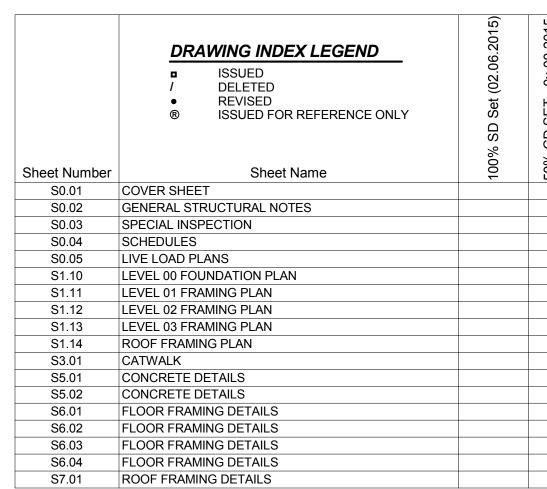
CUSTOM

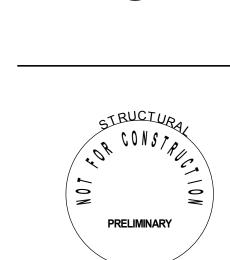
COUNTERSINK

TOC	TOP OF COLUMN, TOP OF CURB
TOF	TOP OF FOOTING
TOJ	TOP OF JOIST
TOL	TOP OF LINTEL, LANDING
TOL	TOLERANCE
TOP	TOP OF PIER, TOP OF PLATE
TOPV	TOP OF PAVEMENT
TOS	TOP OF SLAB, TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSVERSE
TRANSL	TRANSLUCENT
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
VERT	VERTICAL
VFY	VERIFY
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE (STRUCTURAL STEEL)
WR	WATER RESISTANT, WATER RESISTIVE
WS	WATERSTOP
WT	WEIGHT
WWF	WOVEN WIRE FABRIC

THICK THREADED TOP OF BEAM

Sheet Number	DRAWING INDEX LEGEND I ISSUED DELETED REVISED SISSUED FOR REFERENCE ONLY Sheet Name	100% SD Set (02.06.2015)
S0.01	COVER SHEET	
S0.01	GENERAL STRUCTURAL NOTES	
S0.02	SPECIAL INSPECTION	
S0.04	SCHEDULES	
S0.05	LIVE LOAD PLANS	
S1.10	LEVEL 00 FOUNDATION PLAN	
S1.11	LEVEL 01 FRAMING PLAN	
S1.12	LEVEL 02 FRAMING PLAN	
S1.13	LEVEL 03 FRAMING PLAN	
S1.14	ROOF FRAMING PLAN	
S3.01	CATWALK	
S5.01	CONCRETE DETAILS	
S5.02	CONCRETE DETAILS	
S6.01	FLOOR FRAMING DETAILS	
S6.02	FLOOR FRAMING DETAILS	
S6.03	FLOOR FRAMING DETAILS	
S6.04	FLOOR FRAMING DETAILS	
S7.01	ROOF FRAMING DETAILS	



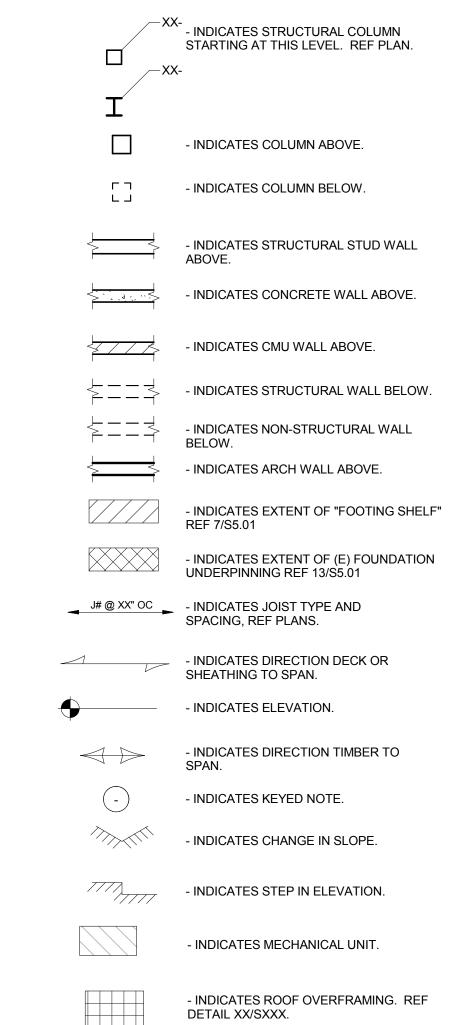


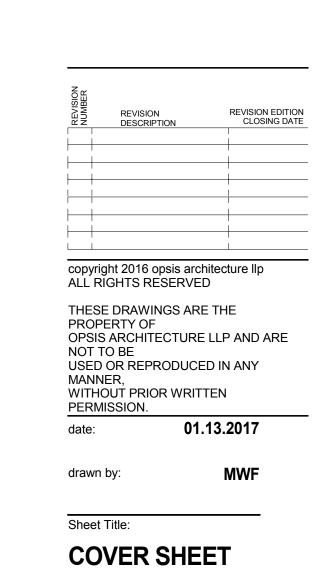
RIVOLI THEATRE



COMPLETE LEGEND

- INDICATES FOOTING TYPE, REF SCHEDULE.





13-T114

MINOR VOLUNTARY SEISMIC IMPROVEMENTS

1. THE STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, AND ELECTRICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR

COORDINATING THE REQUIREMENTS FROM THE ENTIRE SET OF CONTRACT DOCUMENTS (INCLUDING THE PROJECT SPECIFICATIONS) INTO THEIR WORK. 2. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE

PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. 3. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE.

OVER THE GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. 4. VERIFY ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS. 5. DETAILS ON THESE PLANS ARE INTENDED TO DEPICT THE GENERAL CONSTRUCTION METHODS FOR THIS STRUCTURE. CONNECTIONS, DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN THAT ARE SIMILAR TO THOSE THAT ARE SPECIFIED SHALL BE ASSUMED ONE AND THE SAME. IF QUESTIONS REGARDING THE APPLICATION OF DETAILS ARE ENCOUNTERED, NOTIFY THE ARCHITECT/ENGINEER FOR CLARIFICATION

IN A TIMELY MANNER PRIOR TO BID OPENING.

THE EDITIONS NOTED IN CHAPTER 35 OF THE IBC.

1. CONFORM TO THE 2014 OREGON STRUCTURAL SPECIALTY CODE (OSSC), BASED UPON THE 2012 INTERNATIONAL BUILDING CODE (IBC). 2. ALL REFERENCE TO OTHER CODES AND STANDARDS (ACI, ASTM, ETC.) SHALL BE FOR

TEMPORARY CONDITIONS:

 THE STRUCTURE HAS BEEN DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT REQUIRED AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.

2. CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

EXISTING CONDITIONS:

. ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS SHALL BE FIELD VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SIGNIFICANT DISCREPANCIES FROM CONDITIONS SHOWN ON THE DRAWINGS.

DESIGN CRITERIA:

. DESIGN WAS BASED ON THE STRENGTH AND DEFLECTION CRITERIA OF THE IBC. IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LOADS AND ALLOWANCES WERE USED FOR DESIGN, WITH LIVE LOADS (L.L.) REDUCED IN ACCORDANCE WITH THE IBC:

	DESIGN CRITERIA					
	GEOTECHNICAL CRITERIA					
DESIGN BASED ON						
GEOTECHNICAL REPORT BY:						
ALLOWABLE SOIL BEARING PRESSURE	1,500 PS	SF				
	LIVE LOAD CRITERIA					
EL 0.0D L IV/E L 0.4 D 0	LINUEODM LOAD (DOE)	CONCENTRATED LOAD				
FLOOR LIVE LOADS	UNIFORM LOAD (PSF)	(LBS)				
ASSEMBLEY AREAS, FIXED SEATS	60	-				
ASSEMBLEY AREAS, MOVABLE SEATS	100	-				
STAGE FLOORS	150	-				
CORRIDORS AND STAIRS	100	2,000				
CATWALKS	40	300				
NOTES:	LIVE LOADS REDUCED PER IBC MEMBER DESIGNED FOR THE MUNIFORM OR CONCENTRATED LO	ORE CRITICAL OF THE				
	SNOW CRITERIA					
DESIGN ROOF SNOW LOAD	25 PSF MINIMUM IN ACCORD	ANCE WITH THE OSSC				
SNOW DRIFT	PER OSSC AS SHOW	WN ON PLANS				
GROUND SNOW LOAD	P _g = 21 PSF IN ACCORDANCE W ANALYSIS FOR OREGON	TH 2007 SNOW LOAD				
FLAT ROOF SNOW LOAD	Pf	= 14 PSF				
SNOW EXPOSURE FACTOR	C _e	= 0.9				
SNOW LOAD IMPORTANCE FACTOR	I = 1.0					
THERMAL FACTOR	C _t = 1.0					
	WIND CRITERIA					
MAIN WIND FORCE RESISTING SYSTEM	110 MPH BASIC WIND SPEED (3-SECOND GUST)					
COMPONENTS AND CLADDING	110 MPH BASIC WIND SPEE	ED (3-SECOND GUST)				
EXPOSURE CATEGORY	В					
GUST/INTERNAL PRESSURE	GC _{pi} = +/- 0.18					
	SEISMIC CRITERIA					
RISK CATEGORY	II					
SITE CLASS	D					
IMPORTANCE FACTOR	I e	= 1				
SEISMIC DESIGN CATEGORY	D	T				
MCE SPECTRAL ACCELERATIONS	S = 0.345	S = 0.133				
SITE COEFFICIENTS	F _a = 1.524	F _V = 2.270				
DESIGN SPECTRAL ACCELERATIONS	S = 0.351	S = 0.201				
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PE					
SEISMIC LOAD RESISTING SYSTEM	NORTH-SOUTH DIRECTION	EAST-WEST DIRECTION				
RESPONSE MODIFICATION FACTOR	R =	R =				
SEISMIC RESPONSE COEFFICIENT	C =	C =				
DESIGN BASE SHEAR	V =	V =				
DEDUNDANOV FACTOR	_ =	ρ =				
REDUNDANCY FACTOR	ρ =	þ				

STRUCTURAL OBSERVATION:

 THE STRUCTURAL ENGINEER OF RECORD (SER) WILL PERFORM STRUCTURAL OBSERVATIONS BASED ON THE REQUIREMENTS OF THE IBC AT THE STAGES OF CONSTRUCTION LISTED BELOW. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SER TO PERFORM THESE OBSERVATIONS:

STRUCTURAL OBSERVATIONS								
CONSTRUCTION PHASE	OBSERVATION BY SER	COMMENTS						
PRIOR TO FIRST CONCRETE POUR	X	REF. FOOTNOTE A, B, C						
DURING INITIAL STEEL ERECTION	X	REF. FOOTNOTE A, B						
AS REQUIRED TO ADDRESS STRUCTURAL ISSUES	Х	REF. FOOTNOTE A, B						

- A. STRUCTURAL OBSERVATIONS ARE INTENDED TO VERIFY GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS. SPECIAL INSPECTIONS AND
- B. A FIELD REPORT WILL BE SUBMITTED TO THE BUILDING DEPARTMENT FOLLOWING
- C. STRUCTURAL OBSERVATION TO OCCUR AFTER THE REINFORCING STEEL HAS BEEN INSTALLED

SPECIAL INSPECTION AND TESTING:

SPECIAL INSPECTION WILL BE PROVIDED BY THE OWNER BASED ON THE REQUIREMENTS OF THE IBC AS SUMMARIZED IN THE SPECIAL INSPECTION AND TESTING PROGRAM ON SHEET ***S0.0X***. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS

FABRICATION AND CONSTRUCTION OF ALL STRUCTURAL ITEMS INCLUDING THE FOLLOWING:

	SUBMITTA	LS	
ITEM	SUBMITTAL (A, D)	DEFERRED SUBMITTAL (B, D)	COMMENTS
PIN PILES/MICRO PILES	Χ	X	REF. GEOTECH REPORT
ROCK ANCHORS	X	X	REF. GEOTECH REPORT
GEOPIERS/STONE AGGREGATE COLUMNS	Х	Х	REF. GEOTECH REPORT
CONCRETE MIX DESIGNS	X		
CONCRETE REINFORCEMENT	X		
MASONRY REINFORCEMENT	X		
REINFORCING STEEL MILL			
CERTS	Х		
CONCRETE ANCHORAGES	Х		
ANCHOR BOLT LAYOUT	X		
EMBEDDED STEEL ITEMS	Х		
SLAB-ON-GRADE CONTROL JOINT LAYOUT	Х		
PRE-CAST CONCRETE MEMBERS	X	х	
PRE-STRESSED CONCRETE MEMBERS	Х	Х	
POST-TENSIONED REINFORCEMENT	Χ	X	
STRUCTURAL BRICK PANELS	Χ	X	
STONE PANELS	X	X	
STRUCTURAL STEEL MILL CERTS	Х		
STRUCTURAL STEEL	Х		
STEEL WELDING PROCEDURES	Х		
STEEL JOISTS AND GIRDERS	Х	Х	
STEEL DECKING	Х		
STEEL FASTENERS	Χ		
GLUED LAMINATED MEMBERS	X		
PREMANUFACTURED WOOD JOISTS	X	Х	
PREMANUFACTURED WOOD TRUSSES	X	X	
CONTINUOUS ROD HOLDOWN SYSTEM	X	Х	
LIGHT GAUGE METAL FRAMING	X	X	
	Λ	Λ	
CURTAIN WALL, WINDOW WALL AND OTHER GLAZING SYSTEMS	Х	Х	
SKYLIGHTS, CANOPIES AND AWNINGS	Х	Х	
STAIRS AND RAILINGS	Х	X	
MEP ANCHORAGE AND BRACING	Х	Х	FOOTNOTE "C"

- STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. ANY MODIFICATIONS TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE
- BY THE STRUCTURAL ENGINEER OF RECORD. B. DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. CALCULATIONS SHALL BE INCLUDED FOR ALL STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED UPON THE REQUIREMENTS OF THE IBC AND AS NOTED UNDER "DESIGN
- C. THE CONTRACTOR SHALL COORDINATE THE SEISMIC RESTRAINTS OF MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT, MACHINERY, AND
- ASSOCIATED PIPING WITH THE STRUCTURE. CONNECTIONS TO THE STRUCTURE SHALL CONFORM TO ASCE 7-10 CHAPTER 13 AND BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED D. FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM, OR ADD TO, THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO

2. CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS

PER ASTM C39, UNLESS NOTED OTHERWISE, AND SHALL BE AS FOLLOWS:							
CONCRETE STRENGTHS							
DESCRIPTION	f'c (PSI)	WATER - CEMENT RATIO BY WEIGHT	ENTRAINED AIR	OTHER			
FOOTINGS, STEMWALLS	3,000	0.53	2% +/- 1.5%				
RETAINING WALLS	3,000	0.50	6% +/- 1.5%				
INTERIOR SLAB-ON-GRADE	4,000	0.48		SEE NOTE E			

- A. VERIFY CONCR B. CONCRETE MIXES SHALL BE NORMAL WEIGHT AND CONTAIN PORTLAND CEMENT
- C. AIR ENTRAINING AGENT SHALL CONFORM TO ASTM C260. D. COLUMNS THAT ARE AN INTEGRAL PART OF A WALL SHALL HAVE CONCRETE
- STRENGTH AS REQUIRED FOR COLUMNS. E. SHRINKAGE RATE, AS DETERMINED BY ASTM C157, OF CONCRETE SHALL NOT EXCEED 0.045% AT 28 DAYS. USE A SHRINKAGE REDUCING ADMIXTURE TO ACHIEVE
- THIS VALUE, IF REQUIRED.

CONFORMING TO ASTM C150 FOR TYPE I, OR TYPE II.

MINIMUM CEMENT CONTENT PER CUBIC YARD SHALL BE AS FOLLOWS:						
MINIMUM CEMENT CONTENT						
fc (PSI)	MINIMUM CEMENT CONTENT PER CUBIC YARD					
3,000	470 LBS.					
4,000	550 LBS.					
5,000	630 LBS.					

- A. FLYASH CONFORMING TO ASTM C618 "TYPE F," OR "TYPE C" MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.
- 4. THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS, ALONG WITH TEST DATA COMPLIANT WITH ACI-318 CHAPTER 5, A MINIMUM OF TWO WEEKS PRIOR TO PLACING

5. NO WATER MAY BE ADDED TO CONCRETE IN THE FIELD UNLESS IT CONFORMS TO THE

- APPROVED MIX DESIGN AND IS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER 6. A WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494 USED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS SHALL BE
- INCORPORATED INTO CONCRETE MIX DESIGNS. A HIGH RANGE WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494 "TYPE F. OR TYPE "G" MAY BE USED IN CONCRETE MIXES PROVIDED THAT THE SLUMP DOES NOT EXCEED 10-INCHES. CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION WHEREVER
- AT MID-SPAN WITH REINFORCING CONTINUING THROUGH AS IF THE JOINT DID NOT OCCUR. VERTICAL CONSTRUCTION JOINTS IN WALLS SHALL BE LOCATED MIDWAY BETWEEN COLUMNS OR PILASTERS 8. ALL NON POST-TENSIONED SLABS AND BEAMS SHALL BE CAMBERED AT MIDSPAN AN

PRACTICAL. CONSTRUCTION JOINTS IN BEAMS, JOISTS, AND SLABS SHALL BE LOCATED

- AMOUNT EQUAL TO L/480; WHERE "L" IS EQUAL TO THE CLEAR SPAN OF THE MEMBER. 9. SLEEVES, OPENING, CONDUITS, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE-THIRD THE THICKNESS OF THE SLAB AND SHALL NOT
- BE SPACED CLOSER THAN THREE DIAMETERS ON-CENTER. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE LAYOUT OF CONSTRUCTION AND CONTROL JOINTS FOR CONCRETE SLABS-ON-GRADE. THE JOINTS SHALL BE LOCATED AT MAXIMUM 12'-0" ON-CENTER EACH WAY FORMING RECTANGLES WITH A LENGTH TO WIDTH RATIO NOT EXCEEDING 1.5 IN ANY DIRECTION. CONTROL JOINTS SHALL INTERSECT AT COLUMN BLOCKOUTS, AT ENDS OF BEARING WALLS, AND
- AT ALL RE-ENTRANT CORNERS IN THE SLAB. 11. PROVIDE VERTICAL EXPANSION JOINTS IN CONTINUOUS CONCRETE ASSEMBLIES SUCH THAT THE DISTANCE BETWEEN JOINTS DOES NOT EXCEED THE LESSER OF A LENGTH-TO-HEIGHT RATIO OF 3.5 OR 40-FEET. REFERENCE ARCHITECTURAL DRAWINGS
- FOR THE LOCATION OF EXPANSION JOINTS. 12. ALL BOLTS AND/OR ANCHOR RODS EMBEDDED INTO CONCRETE SHALL CONFORM TO ASTM SPECIFICATION F1554 GRADE 36 UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- 13. ANCHOR RODS ARE TO BE LOCATED BY MEANS OF TEMPLATE. ANCHOR RODS SHALL NOT BE HAND SET. OR WET SET.
- 14. ANCHOR RODS AND EMBEDDED ITEMS SHALL BE SET IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE SECTION 7.5. 15. WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4"
- 16. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES, UNLESS NOTED 17. PREPARATION, CONSTRUCTION AND PROTECTION OF CONCRETE DURING COLD

WEATHER OR HOT WEATHER SHALL CONFORM TO ACI 318 5.12, 5.13 AND ACI 306R AND

SHORING AND RE-SHORING: SHORING AND RE-SHORING IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL

CONFORM TO ACI 347-04 AND ACI 347.2R-05.

WALLS, COLUMNS, AND BEAM

RETAINING WALLS

REINFORCING STEEL:

GRADE 60

NOT PERMITTED.

2. SHORING AND SUPPORTING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL

ADDITION, SHORING SHALL NOT BE REMOVED SOONER THAN THE FOLLOWING:

MEMBERS BEFORE THE CONCRETE STRENGTH HAS REACHED AT LEAST 70 PERCENT OF

THE SPECIFIED DESIGN STRENGTH AS DETERMINED FROM FIELD CURED CYLINDERS. IN

SHORING AND RE-SHORING

MINIMUM REMOVAL TIMF

12 HR. CUMULATIVE WITH

SURROUNDING

TEMPERATURE.

SURROUNDING

TEMPERATURE.

318—BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND "ACI 315—MANUAL OF

1. REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE TO "ACI

2. ALL REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AND GRADES

B. CONCRETE SHEAR WALL BOUNDARY ELEMENT VERTICAL REINFORCEMENT—ASTM A706,

REINFORCING STEEL SHALL CONFORM TO AWS D1.4. ALL WELDING SHALL BE DONE BY AWS

4. REINFORCING STEEL SHALL BE SECURELY TIED IN-PLACE WITH #16 ANNEALED IRON WIRE. BARS

IN BEAMS, SLABS, AND FOUNDATIONS SHALL BE SUPPORTED ON WELL-CURED CONCRETE

BLOCKS, OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE "CRSI MANUAL OF STANDARD

5. ALL REINFORCEMENT SHALL BE FREE OF LOOSE MILL AND RUST SCALE, OIL, DIRT, OR COATINGS

6. REINFORCEMENT STEEL SHALL NOT BE DISPLACED OR ALTERED FOR THE CONVENIENCE OF

7. "WET SETTING" OF REINFORCING STEEL, ANCHOR RODS, EMBEDDED PLATES AND INSERTS IS

9. THE FOLLOWING MINIMUM LAP SPLICE LENGTHS SHALL BE PROVIDED FOR ALL REINFORCING

TYPICAL LAP SPLICE SCHEDULE (IN)

A. FOR CENTER-TO-CENTER SPACING LESS THAN FOUR TIMES THE BAR DIAMETER, MULTIPLY

C. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE

MINIMUM CONCRETE COVER (CAST-IN-PLACE)

B. TABLE VALUES APPLY FOR CLEAR COVER GREATER THAN OR EQUAL TO 1-1/2". CONTACT

10. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR ALL REINFORCING

OTHER TRADES UNLESS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.

8. ALL REINFORCEMENT SHALL BE CONTINUOUS WITH ADEQUATE LAP LENGTHS AT SPLICE

STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.

C. CONCRETE COLUMN VERTICAL REINFORCEMENT—ASTM A706, GRADE 60

REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706. WELDING OF

D. CONCRETE MOMENT FRAME REINFORCEMENT—ASTM A706, GRADE 60

CERTIFIED WELDERS USING LOW HYDROGEN E70XX ELECTRODES.

OF ANY KIND THAT REDUCE THE BOND STRENGTH TO THE CONCRETE.

OP BARS | OTHER BARS

THE ABOVE VALUES BY A FACTOR OF 1.4.

ENGINEER OF RECORD IF CONDITIONS VARY.

BEAM, JOIST AND COLUMN BARS

INTERIOR WALL FACES

(NOT EXPOSED TO EARTH, OR WEATHER)

(EXPOSED TO EARTH, OR WEATHER)

CONCRETE CAST AGAINST EARTH

12" #4 @ 16" OC #4 @ 16" OC

EXTERIOR WALL FACES

D. VALUES ARE FOR UNCOATED BARS.

UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS:

E. ALL OTHER REINFORCEMENT—ASTM A615, GRADE 60

A. SMOOTH WELDED WIRE FABRIC—ASTM A185

12 HR. CUMULATIVE WITH ${oldsymbol oldsymbol oldsymbol eta}$ DO NOT BACKFILL UNTIL

50 DEGREES FARENHEIT | CONCRETE STRENGTH HAS

50 DEGREES FARENHEIT

COMMENTS

SUPPORT FORMWORK FOR

SLABS OR SOFFITS, THE

REMOVAL TIME OF THE

LATTER GOVERNS

REACHED FULL

COMPRESSIVE STRENGTH

5,000 PSI

TOP BARS | OTHER BARS | TOP BARS | OTHER BARS

1-1/2" (TO STIRRUPS, OR TIES)

3/4" (#11 AND SMALLER)

1-1/2" (#5 AND SMALLER)

2" (#6 AND LARGER)

AT EACH FACE

1. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO THE

	SUBMITTA	LS	
ITEM	SUBMITTAL (A, D)	DEFERRED SUBMITTAL (B, D)	COMMENTS
PIN PILES/MICRO PILES	Х	Х	REF. GEOTECH REPO
ROCK ANCHORS	Х	Х	REF. GEOTECH REPO
GEOPIERS/STONE AGGREGATE COLUMNS	Х	Х	REF. GEOTECH REPORT
CONCRETE MIX DESIGNS	X		
CONCRETE REINFORCEMENT	X		
MASONRY REINFORCEMENT	X		
REINFORCING STEEL MILL CERTS	X		
CONCRETE ANCHORAGES	Х		
ANCHOR BOLT LAYOUT	X		
EMBEDDED STEEL ITEMS	X		
SLAB-ON-GRADE CONTROL JOINT LAYOUT	Х		
PRE-CAST CONCRETE MEMBERS	Х	Х	
PRE-STRESSED CONCRETE MEMBERS	Х	Х	
POST-TENSIONED REINFORCEMENT	Х	Х	
STRUCTURAL BRICK PANELS	X	X	
STONE PANELS	Х	Х	
STRUCTURAL STEEL MILL CERTS	X		
STRUCTURAL STEEL	Х		
STEEL WELDING PROCEDURES	Χ		
STEEL JOISTS AND GIRDERS	Х	Х	
STEEL DECKING	Х		
STEEL FASTENERS	Х		
GLUED LAMINATED MEMBERS	Х		
PREMANUFACTURED WOOD JOISTS	Χ	X	
PREMANUFACTURED WOOD TRUSSES	Χ	X	
CONTINUOUS ROD HOLDOWN SYSTEM	Х	Х	
LIGHT GAUGE METAL FRAMING	X	X	
CURTAIN WALL, WINDOW WALL	~	~	
AND OTHER GLAZING SYSTEMS SKYLIGHTS, CANOPIES AND	X	X	
AWNINGS STAIRS AND RAILINGS	X X	X	
	^	^	
MEP ANCHORAGE AND BRACING	Х	Х	FOOTNOTE "C"

- CONSTRUCTION. ANY SUCH DETAILS ARE SUBJECT TO REVIEW AND ACCEPTANCE

ALL CONCRETE WORK SHALL CONFORM TO "ACI 318--BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND CHAPTER 19 OF THE INTERNATIONAL BUILDING

BY THE STRUCTURAL ENGINEER OF RECORD.

DESCRIPTION	f'c (PSI)	WATER - CEMENT	ENTRAINED	OTHER	11. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, REINFORCE ALL CONCRETE WALLS AS FOLLOWS:				
	, ,	RATIO BY WEIGHT	AIR		TYPICAL CONCRETE WALL REINFORCING				
TINGS, STEMWALLS	3,000	0.53	2% +/- 1.5%					THIORE GONORETE WALL	TEM ORGING
ETAINING WALLS	3,000	0.50	6% +/- 1.5%			WALL	HORIZONTAL	VERTICAL BARS	LOCATION
IOR SLAB-ON-GRADE	4,000	0.48		SEE NOTE E		SIZE	BARS	VERTIONE BY IT	200/11011
		!		•		6"	#4 @ 16" OC	#4 @ 16" OC	AT CL OF WALL
Y WATER/CEMENT RATIO WITH FLOOR COVERING MANUFACTURER FOR						8"	#4 @ 12" OC	#4 @ 12" OC	AT CL OF WALL
RETE FLOORS WITH MOISTURE SENSITIVE FLOOR COVERINGS.					10"	#4 @ 18" OC	#4 @ 18" OC	AT EACH FACE	

- 12. CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS, COLUMNS AND INTERSECTING
- 13. PROVIDE HOOKED FOOTING DOWELS OF THE SAME SIZE AND SPACING AS THE VERTICAL WALL REINFORCEMENT. LAP SPLICE DOWELS TO THE VERTICAL WALL REINFORCEMENT AND TERMINATE WITH STANDARD 90 DEGREE HOOK INTO THE FOOTING WITH A MINIMUM 6" EMBEDMENT BELOW THE TOP OF FOOTING
- 14. AT SLAB AND WALL OPENINGS, PROVIDE A MINIMUM OF TWO #5 BARS OVER, UNDER, AND AT THE SIDES OF THE OPENING. EXTEND THESE BARS A LAP DISTANCE (OR A MINIMUM OF 2'-0") PAST 15. PROVIDE ONE #5 FOR SINGLE LAYER, AND TWO #5 FOR DOUBLE LAYER REINFORCING, 4'-0"
- LONG, DIAGONALLY AT EACH CORNER OF ALL WALL AND SLAB OPENINGS. 16. REFERENCE TYPICAL DETAILS FOR THE DISPOSITION OF REINFORCEMENT AT WALL CORNERS, WALL INTERSECTIONS, AND FOR BARS IN SMALL WALL SECTIONS. 17. AT LOCATIONS WHERE BEAMS. JOISTS. OR SLABS ABUT A WALL OR COLUMN: TERMINATE ALL TOP REINFORCEMENT INTO THE WALL OR COLUMN WITH A STANDARD 90 DEGREE HOOK THAT IS
- EMBEDDED TO WITHIN TWO INCHES OF THE OPPOSING FACE OF THE WALL OR COLUMN. EXTEND ALL BOTTOM REINFORCEMENT INTO THE WALL OR COLUMN TO WITHIN 2-INCHES OF THE OPPOSING FACE OF THE WALL OR COLUMN. 18. PROVIDE #5 CARRIER BAR AT 3'-0" MAX SPACING FOR ALL SLAB, JOIST, AND WALL REINFORCING
- NOT SUPPORTED BY OTHER TRANSVERSE REINFORCEMENT. PROVIDE TWO #5 STIRRUP CARRIER BARS IN ALL BEAMS AND JOISTS CONTAINING STIRRUPS. WHERE STIRRUPS ARE NOT SUPPORTED BY REINFORCING DETAILED OR SCHEDULED IN THE STRUCTURAL DRAWINGS.
- 20. PROVIDE "CORNER" BAR AT CORNERS AND INTERSECTIONS FOR WALLS AND FOUNDATIONS EQUAL IN SIZE, NUMBER AND SPACING TO HORIZONTAL REINFORCING. SIZE CORNER BAR TO PROVIDE A FULL LAP WITH HORIZONTAL REINFORCMENT ON EACH LEG.

1. DEFORMED BAR ANCHORS (D.B.A.) SHALL BE NELSON TYPE D2L (ICC ESR-2907) OR APPROVED

- 2. HEADED SHEAR STUDS SHALL BE NELSON HEADED ANCHORS WITH FLUXED ENDS (ICC ESR-2856) OR APPROVED EQUAL.
- 3. HEADED SHEAR STUDS AND DEFORMED BAR ANCHORS SHALL BE AUTOMATICALLY END-WELDED WITH THE MANUFACTURER'S STANDARD EQUIPMENT AND IN ACCORDANCE WITH THE PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED
- AFTER FABRICATION. EMBEDDED ITEMS SHALL NOT BE LOADED, NOR SHALL WELDS BE APPLIED, FOR A MINIMUM OF 7-DAYS AFTER CASTING OF CONCRETE. APPROVED POST-INSTALLED ANCHORS ARE AS FOLLOWS:

APPROVED POST-INSTALLED CONCRETE ANCHORS TYPF ANCHOR ICC REPORT SIMPSON TITEN HD ICC ESR-2713 CONCRETI SCREW HILTI KWIK HUS-EZ ICC ESR-3027 SIMPSON SET-XP ICC ESR-2508 **EPOXY** ADHESIVE ICC ESR-3814 HILTI HIT-RE 500V3 SIMPSON STRONG-BOLT II ICC ESR-3037 **EXPANSION** HII TI KWIK BOI T TZ ICC FSR-1917

- NOTES:
- A. ANCHOR LOCATIONS AND REQUIREMENTS SHALL CONFORM TO THOSE NOTED SPECIFICALLY ON THE STRUCTURAL DRAWINGS. ALL OTHER LOCATIONS REQUIRE PRIOR
- B. ALL ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE TO THE APPLICABLE ICC REPORT. C. REINFORCEMENT SHALL NOT BE CUT IN NEW, OR EXISTING CONCRETE DURING
- INSTALLATION OF POST-INSTALLED ANCHORS. D. ANCHORS THAT ARE LEFT EXPOSED TO WEATHER SHALL BE STAINLESS STEEL, OR HOT-DIPPED GALVANIZED.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MINIMUM ASTM SPECIFICATIONS AND

STRUCTURAL	STEEL
WIDE FLANGE SECTIONS	ASTM A-992, GRADE 50 (Fy=50 KSI)
PLATES WHERE NOTED	ASTM A572, GRADE 50 (Fy=50 KSI)
CHANNELS, ANGLES, PLATESEXCEPT AS NOTED	ASTM A-36 (Fy=36 KSI)
HOLLOW STRUCTURAL SECTIONS (TUBES)	A-500, GRADE B (Fy=46KSI)
PIPE	ASTM A53, TYPE E OR S (Fy=35 KSI)

- 2. DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE "AISC SPECIFICATION FOR THE DESIGN. FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS" WITH "COMMENTARY" AND THE "CODE OF STANDARD PRACTICE," WITH EXCEPTIONS
- AS NOTED IN THE PROJECT SPECIFICATIONS. 3. REFERENCE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR MEMBERS PART OF THE SEISMIC LOAD RESISTING SYSTEM (SLRS)
- 4. BOLTS SHALL CONFORM TO THE ASTM AND RCSC SPECIFICATIONS FOR JOINTS USING A325 OR A490 HIGH STRENGTH BOLTS. BOLTS SHALL BE SNUG TIGHT UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS USED AS PART OF THE SEISMIC LOAD RESISTING SYSTEM (SLRS) NOTED
- ON THE DRAWINGS AND DETAILS SHALL BE FULLY TENSIONIONED AND ALL FAYING SURFACES SHALL BE PREPARED AS REQUIRED FOR CLASS A OR BETTER SLIP-CRITICAL JOINTS. WELDING SHALL CONFORM TO THE AWS CODES FOR ARC AND GAS WELDING IN BUILDING
- CONSTRUCTION. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDED PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 AND APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS
- ESTABLISHED BY THE FILLER-METAL MANUFACTURER. 9. FOR COMPLETE JOINT PENETRATION WELDS ASSOCIATED WITH MEMBER SPLICES AND CONNECTIONS NOT PART OF THE SLRS, WELDS SHALL BE MADE WITH FILLER METAL THAT HAS A
- MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT 40 DEGREES F. 11. WELDS SHALL BE MADE USING E70XX ELECTRODES AND SHALL BE 3/16" MINIMUM, UNLESS
- NOTED OTHERWISE ON THE DRAWINGS. 12. WELDING SHALL BE MADE BY AWS CERTIFIED WELDERS
- 13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO PRODUCE THE SHOP DRAWINGS. 14. PROVIDE NON-SHRINK GROUT UNDER ALL BASE PLATES. GROUT SHALL BE
- FACTORY-PACKAGED, 6000 PSI MINIMUM AT 28 DAYS AND SHALL COMPLY WITH ASTM C 1107. 15. PROVIDE WEEP HOLES AT ALL EXTERIOR CLOSED SECTIONS WHERE MOISTURE MAY ACCUMULATE.
- <u>LIGHT GAGE STEEL FRAMING:</u> 1. METAL STUDS SHALL BE C-STUDS WITH A MINIMUM YIELD STRENGTH OF 33KSI FOR 33
- AND 43 MILS AND 50 KSI FOR 54, 68, AND 97 MILS. 2. STUDS SHALL BE OF SAME SAME SIZE, GAUGE AND SPACING AS SHOWN ON THE
- STRUCTURAL DRAWINGS. PROVIDE BRIDGING IN CONFORMANCE WITH THE STEEL STUD MANUFACTURERS ASSOCIATION'S (SSMA) RECOMMENDATIONS ADEQUATE FOR DEVELOPMENT OF THE
- FULL MOMENT CAPACITY 4. FOR LOAD BEARING STUDS, THE TRACKS SHALL BE OVERSIZED TO PROVIDE FULL STUD
- END BEARING. 5. SCREWS SHALL BE ELCO DRIL-FLEX, OR HILTI KWIK-FLEX (ICC ER-4780).
- 6. WELDING SHALL CONFORM WITH AWS D1.3.
- 7. LOW VELOCITY FASTENERS SHALL BE 0.157" DIAMETER HILTI X-U (ICC ESR-2269).

SAWN LUMBER SHALL CONFORM TO THE WEST COAST LUMBER INSPECTION BUREAU

(WCLIB) OR THE WESTERN WOODS PRODUCTS ASSOCIATION (WWPA) GRADING RULES. ALL LUMBER SHALL BE THE SPECIES AND GRADES AS FOLLOWS:

	SAWN LUMBER	
USE	SPECIES/GRADE	Fb (PSI)BASE VALUE
LUMBER 2" TO 4" THICK	DOUGLAS FIR-LARCH NO.2	900
BEAMS 5"x5" AND GREATER	DOUGLAS FIR-LARCH NO.1	1350
POSTS	DOUGLAS FIR-LARCH NO.1	1200
T&G DECKING	DOUGLAS FIR LARCH COMMERCIAL DEX	1450

- 3. ALL DIMENSIONAL LUMBER AND TIMBERS SHALL BE KILN DRIED AND CERTIFIED IN WRITING BY THE SUPPLIER TO BE LESS THAN 19% MOISTURE CONTENT. 4. ALL LUMBER IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESERVATIVE TREATED
- (PT) PER THE AMERICAN WOOD PRESERVERS BUREAU (AWPB) UNLESS AN APPROVED MOISTURE BARRIER IS PROVIDED. ALL PT LUMBER SHALL BEAR THE AWPB QUALITY
- 5. CUTTING AND NOTCHING OF JOISTS AND STUDS SHALL CONFORM TO IBC SECTIONS 2308.8.2, 2308.9.10, 2308.10.4.2 AND THE LIMITATIONS AS NOTED ON THE STRUCTURAL DRAWINGS
- PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITION WALLS.
- PROVIDE SOLID LINES OF BLOCKING, SAME DEPTH OF FRAMING MEMBER, AT ALL BEARING POINTS. JOIST BRIDGING SHALL BE REQUIRED WHERE JOISTS HAVE A DEPTH-TO THICKNESS RATIO GREATER THAN 5-TO-1 AND WHERE ONE EDGE IS UNSUPPORTED. JOIST BRIDGING SHALL BE SPACED AT 8'-0" ON CENTER MAXIMUM.
- WOOD STRUCTURAL PANEL SHEATHING: WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS OF THE "U.S. PRODUCT STANDARD PS 1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD," THE "U.S. PRODUCT STANDARD PS 2 PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL
 - USE PANELS," OR THE "APA PRP-108 PERFORMANCE STANDARDS." UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL PANELS SHALL BE APA RATED SHEATHING, EXPOSURE 1, OF THE THICKNESS AND SPAN RATING AS FOLLOWS:

WOOD STRUCTURAL	PANEL SHEATHING
USE	THICKNESS/RATING
ROOF SHEATHING	5/8"-INDEX 40/20
FLOOR SHEATHING	7/8"-INDEX 60/32
WALL SHEATHING	1/2"-INDEX 32/16

- ALL FLOOR AND ROOF SHEATHING SHALL BE INSTALLED WITH FACE GRAIN
- PERPENDICULAR TO SUPPORTS AND END JOINTS SHALL BE STAGGERED. ROOF SHEATHING SHALL BE BLOCKED, OR HAVE EDGES SUPPORTED BY PLYCLIPS. 5. FLOOR SHEATHING PANELS SHALL BE FIELD GLUED TO THE FRAMING USING ADHESIVES
- MEETING THE APA SPECIFICATION AFG-01 OR ASTM D3498. TONGUE AND GROOVE PANELS SHALL ALSO BE GLUED AT THE T&G JOINT 6. SHEAR WALL SHEATHING SHALL BE PLYWOOD OR OSB PANELS CONFORMING TO THE REQUIREMENTS FOR ITS TYPE SPECIFIED IN DOC PS1 OR PS2. SHEAR WALL SHEATHING SHALL BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY

AND BE BLOCKED AT ALL PANEL EDGES. SHEET SIZES SHALL BE 4'X8' UNLESS AT

- BOUNDARIES OR FRAMING CHANGES. REFERENCE PLANS FOR ADDITIONAL REQUIREMENTS.
- NAILING AND FASTENERS: 1. ALL FRAMING NAILS SHALL BE OF THE SIZE AND NUMBER INDICATED ON THE DRAWINGS AND CONFORM TO THE "STANDARD SPECIFICATION OF DRIVEN FASTENERS: NAILS, SPIKES, AND STAPLES" (ASTM F1667) AND "POWER-DRIVEN STAPLES AND NAILS FOR USE IN ALL TYPES OF BUILDING CONSTRUCTION" (NER 272).
- NAILING NOT SHOWN SHALL BE AS INDICATED ON IBC TABLE 2304.9.1, OR NER-272. NAILS SHALL BE IDENTIFIED BY LABELS ATTACHED TO THEIR CONTAINERS, THAT SHOW
- THE MANUFACTURER'S NAME, NAIL SHANK DIAMETER, AND LENGTH. 4. NAIL SIZES SHALL BE AS FOLLOWS:

FRAMING NAILS					
NAIL TYPE	SHANK DIAMETER (IN)	MINIMUM PENETRATION INTO FRAMING MEMBER (IN			
6d	0.113	1.25			
8d	0.131	1.50			
10d	0.148	1.625			
12d	0.148	1.625			
164	0.148	1 625			

5. UNLESS OTHERWISE NOTED ON PLANS, PLYWOOD SHEATHING SHALL BE ATTACHED TO THE FRAMING SUPPORTS AS FOLLOWS:

	SHEATHING NAILING	
USE	PANEL EDGES	INTERMEDIATE FRAMII MEMBERS
ROOF SHEATHING	0.131" DIA @ 6" OC	0.131" DIA @ 12" OC
FLOOR SHEATHING	0.148" DIA @ 6" OC	0.148" DIA @ 12" OC
WALL SHEATHING	0.131" DIA @ 6" OC	0.131" DIA @ 12" OC

A. ALL NAILS SHALL BE COMMON NAILS EXCEPT RING SHANKS SHALL BE USED FOR

FASTENING ROOF SHEATHING. BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. ALL

BOLTS AND LAG SCREWS SHALL BE INSTALLED WITH STANDARD CUT WASHERS. ALL

INSTALLED IN STRICT CONFORMANCE TO THE MANUFACTURER'S REQUIREMENTS. ANY

ANCHOR BOLTS AT 4'-0" OC MAXIMUM AND WITHIN 1'-0" OF SILL PLATE ENDS, CORNERS

OR SPLICES, UNLESS DETAILED OTHERWISE. WASHERS TO BE MINIMUM 1/4"x3"x3" AS

A307 BOLTS SHALL HAVE CUT THREADS. PRE-DRILL HOLES FOR LAG BOLTS. SOAP THREADS OF LAGS IMMEDIATELY PRIOR TO INSTALLATION. 8. JOIST HANGERS, HOLDOWNS, AND OTHER FRAMING ACESSORIES SHALL BE MANUFACTURED BY SIMPSON STRONG TIE (OR AN APPROVED EQUAL) AND BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. HARDWARE FASTENERS SHALL BE

PRODUCT SUBSTITUTIONS TO SIMPSON SHALL MEET OR EXCEED SIMPSON'S

- PUBLISHED DESIGN CAPACITIES AND MUST HAVE A CURRENT ICC EVALUATION REPORT FOR THE APPLICABLE CODES. 9. HANGERS NOT SHOWN SHALL BE SIMPSON U-TYPE, OR B-TYPE OF THE SIZE RECOMMENDED FOR THE SPECIFIC FRAMING MEMBER SHOWN ON PLAN.
- 10. FASTENERS IN CONTACT WITH PRESERVATIVE TREATED, OR FIRE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 55 11. SILLS AT WALLS SHALL BE BOLTED TO CONCRETE WITH 5/8" DIAMETER x 7" EMBED
- 12. ALL SILL PLATES AND LEDGERS SHALL BE ANCHORED WITH A MINIMUM OF THREE FASTENERS PER PIECE.

GLUED LAMINATED MEMBERS:

STRENGTH PROPERTIES:

- 1. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH THE 'AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER" (ANSI
- A190.1), OR OTHER CODE-APPROVED DESIGN, MANUFACTURING AND QUALITY ASSURANCE PROCEEDURES.
- ADHESIVE SHALL BE WET-USE EXTERIOR WATERPROOF GLUE.
- EACH MEMBER SHALL BEAR AN AITC OR APA-EWS INDENTIFICATION MARK OR BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER
- THE SHOP OR FIELD. NOTCHING AND/OR BORING OF GLUED LAMINATED MEMBERS (EITHER IN THE SHOP, OR FIELD) IS STRICTLY PROHIBITED UNLESS AS SPECIFICALLY DETAILED IN THE
- STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. 6. GLUED LAMINATED TIMBER BEAMS SHALL BE WESTERN SPECIES WITH THE FOLLOWING

GLUED LAMINATED MEMBERS					
COMBINATION SYMBOL (SPECIES)	USE	MODULUS OF ELASTICITY (PSI)	FLEXURAL STRESS (PSI)	HORIZONTAL SHEAR STRESS (PSI)	
24F-V4 (DF/DF)	SIMPLE SPAN	1,800,000	2,400	265	
24F-V8 (DF/DF)	CANTILEVERED OR CONTINUOUS	1,800,000	2,400	265	

- 7. GLULAM MEMBERS SHALL BE OF THE FOLLOWING APPEARANCE GRADE(S), UNLESS OTHERWISE NOTED ON PLANS: ***FRAMING, INDUSTRIAL, ARCHITECTURAL, PREMIUM*** 8. GLULAM MEMBERS NOTED AS "FRR" (FIRE RESISTANCE RATED) SHALL BE LAYED UP WITH ADDITIONAL TENSION LAMINATION(S) AS REQUIRED TO MEET 1 HOUR FIRE RESISTANCE RATING PER IBC 722.6.3.4. THE QUALITY STAMP ON "FRR" BEAMS SHALL
- ENGINEERED COMPOSITE LUMBER: 1. ENGINEERED COMPOSITE WOOD PRODUCTS SUCH AS LAMINATED VENEER LUMBER (MICROLAM), PARALLEL STRAND LUMBER (PARALAM), AND LAMINATED STRAND LUMBER (TIMBERSTRAND) SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS,

INDICATE THAT THE MANUFACTURER HAS MADE THE REQUIRED LAYUP MODIFICATIONS.

MANUFACTURED BY TRUS-JOIST OR AN APPROVED EQUAL.

MEMBERS SHALL HAVE THE FOLLOWING MINIMUM DESIGN PROPERTIES:					
ENGINEERED COMPOSITE LUMBER					
COMPOSITE LUMBER TYPE	MODULUS OF ELASTICITY (PSI)	ALLOWABLE FLEXURAL STRESS (PSI)			
LSL	1,500,000	2,350			
LVL	1,900,000	2,600			
PSL	2,000,000	2,900			

FLEXURAL STRESSES NOTED ABOVE ARE FOR 12" DEEP MEMBERS. DEEPER MEMBERS SHALL BE DESIGNED FOR REDUCED STRESSES PER THE MANUFACTURER'S REQUIREMENTS. ANCHOR BOLTS:

- ANCHOR BOLTS FROM SILL PLATES TO FOUNDATION SHALL BE GALVANIZED. 2. ALL ANCHOR BOLTS SHALL HAVE A GALVANIZED PLATE WASHER BETWEEN THE SILL PLATE AND NUT.
- 3. ANCHOR BOLTS SHALL BE PLACED SO THAT PLATE WASHER IS NO MORE THAN 1/2" FROM THE SHEATHED FACE OF THE SHEARWALL. WHERE SHEATHING IS APPLIED TO BOTH SIDES OF SHEARWALL, ALTERNATE ANCHOR BOLTS. 4. ANCHOR BOLTS SHALL BE LOCATED IN THE FORMS AND TIED SUFFICIENTLY TO
- 5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD INCLUDING THE FOLLOWING INFORMATION (SIMILAR IF ALTERNATE ANCHORAGE IS SELECTED):

PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. DO NOT HAND SET OR

- A. ANCHOR BOLT MATERIAL TYPE B. ANCHOR BOLT SIZE C. OVERALL ANCHOR BOLT LENGTH
- D. ANCHOR BOLT EMBEDMENT E. ANCHOR BOLT PROJECTION (INCLUDING SUFFICIENT PROJECTION AND THREADS
- TO ALLOW FOR FIELD TOLERANCES) F. ANCHOR BOLT SPACING G. DIMENSIONS ANCHOR BOLT LAYOUT DRAWINGS SHOWING LOCATION OF ALI
- ANCHOR BOLTS H. PLATE WASHER TYPE AND LOCATIONS

PREMANUFACTURED WOOD JOISTS:

ENGINEER OF RECORD PRIOR TO BID.

- I. SILL PLATE LENGTHS AND SPLICE LOCATIONS 6. SILLS AT WALL SHALL BE BOLTED TO CONCRETE WITH 5/8" DIAMETER x 7" EMBED ANCHOR BOLTS AT 4'-0" OC MAXIMUM AND WITHIN 1'-0" OF SILL PLATE ENDS. CORNERS OR SPLICES, UNLESS NOTED OTHERWISE ON SHEARWALL SCHEDULE. HOLDOWN
- BOLTS DO NOT TAKE THE PLACE OF ANCHOR BOLT AT THE END OF THE SHEARWALL. 7. ALL SILL PLATES SHALL BE ANCHORED WITH A MINIMUM OF THREE FASTENERS PER PIECE. HOLDOWN BOLTS DO NOT TAKE THE PLACE OF ANCHOR BOLT AT THE END OF THE SHEARWALL.
- 8. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 36 STEEL. <u>FLOOR AND ROOF DECKING:</u>
- 1. ALL DECKING SHALL BE KILN-DRIED DOUGLAS FIR LARCH COMMERCIAL GRADE CONFORMING TO 1975 GRADING RULE #16 FOR WEST COAST LUMBER.
- 2. DECKING SHALL BE 4" NOMINAL THICKNESS AND SHALL BE SIDE MATCHED. 3. DECKING SHALL BE INSTALLED IN A TWO-SPAN CONTINUOUS PATTERN.

THE TONGUE AND FACE NAILED WITH ONE NAIL, USING 0.162" DIAMETER x 3 1/2" NAILS.

- 4. LAMINATED FLOOR DECKING SHALL BE LOCK-DECK AS MANUFACTURED BY DISDERO LUMBER CO., SERVICE GRADE WITH A MINIMUM 2-7/8" NET THICKNESS, END AND EDGE MATCHED, GLUE LAMINATED USING WATERPROOF ADHESIVE, MINIMUM E=1,800,000 PSI. 5. FOR 2" NOMINAL DECKING: AT EACH SUPPORT DECKING SHALL BE TOENAILED THROUGH
- COURSE NAILING NOT REQUIRED. 6. FOR 3" AND 4" NOMINAL DECKING: AT EACH SUPPORT DECKING SHALL BE TOENAILED WITH ONE 0.225" DIAMETER x 5" NAIL AND FACE NAILED WITH ONE 0.263" DIAMETER x 6" NAIL. COURSES SHALL BE SPIKED TO EACH OTHER WITH 8" SPIKES AT INTERVALS NOT TO EXCEED 30" THROUGH PREDRILLED EDGE HOLES WITH ONE SPIKE AT A DISTANCE
- NOT EXCEEDING 10" FROM THE END OF EACH PIECE. 7. FOR 2" LAMINATED DECKING: AT EACH SUPPORT DECKING SHALL BE FACE NAILED WITH TWO 0.162" DIAMETER x 3 1/2" NAILS. COURSES SHALL BE TOENAILED WITH 0.113" DIAMETER x 2" NAILS AT 30" OC.
- 8. FOR 3" AND 4" LAMINATED DECKING: AT EACH SUPPORT DECKING SHALL BE FACE NAILED WITH TWO 0.207" DIAMETER x 4 1/2" NAILS. COURSES SHALL BE TOENAILED WITH 0.131" DIAMETER x 2 1/2" NAILS AT 30" OC (0.162 x 3 1/2" NAILS AT 4" DECKING).

1. DESIGN OF THE PREMANUFACTURED JOIST SYSTEM SHALL BE THE CONTRACTORS

- RESPONSIBILITY. . PREMANUFACTURED WOOD JOISTS SHALL BE OF THE SIZE AND TYPE AS SHOWN ON THE STRUCTURAL DRAWINGS. JOISTS SHALL BE MANUFACTURED BY TRUS-JOIST, OR AN APPROVED EQUAL, AND SHALL CONFORM TO "THE "PERFORMANCE STANDARD FOR
- APA EWS I-JOISTS" (APA EWS STANDARD PRI-400). 3. ALTERNATE JOIST PRODUCTS WILL BE CONSIDERED PROVIDED THEY ARE ICC APPROVED, ARE COMPATIBLE WITH THE LOAD CAPACITY, DIMENSIONAL, AND FIRE RATING REQUIREMENTS OF THE PROJECT, AND HAVE LVL FLANGES. 4. IF ANOTHER I-JOIST PRODUCT IS TO BE SUBSTITUTED, THE SUBSTITUTED PRODUCT

MUST BE EQUAL OR GREATER IN MOMENT, SHEAR, REACTION, EI, AND PERFORMANCE

- AS THE PRODUCT SPECIFIED FOR THIS PROJECT. THE SUPPLIER SHALL BE RESPONSIBLE FOR THE COST OF ANY RE-ENGINEERING AND MODIFICATIONS TO THE STRUCTURAL PLANS OR DETAILS DUE TO THE SUBSTITUTION OF THEIR PRODUCT. 5. ALTERNATIVE PRODUCTS AND DESIGNS MUST BE APPROVED BY THE STRUCTURAL
- SPACING AS THE SPECIFIED PRODUCT. 7. ALTERNATIVE PRODUCTS MUST HAVE A CURRENT ICC REPORT BASED ON THE APPLICABLE IBC CODE. 8. CALCULATIONS OF THE PROPOSED ALTERNATE PRODUCTS MUST BE SEALED BY THE PRODUCT ENGINEER AND SUBMITTED FOR REVIEW BY THE ARCHITECT AND ENGINEER

6. ALTERNATIVE PRODUCTS MUST BE OF THE SAME DEPTH AND SAME ON-CENTER

- OF RECORD 9. JOIST SUPPLIER SHALL PROVIDE JOISTS, BRIDGING, HANGERS, BLOCKING, AND OTHER ACCESSORIES NECESSARY FOR THE PROPER ERECTION AND PERFORMANCE OF THEIR PRODUCT. THESE SHALL BE CLEARLY CALLED OUT AND DETAILED ON THE SHOP
- 10. JOIST SUPPLIER SHALL INSPECT ALL JOISTS, BEAMS, BRIDGING, HANGERS, BLOCKING, AND OTHER ACCESSORIES AFTER INSTALLATION AND PROVIDE WRITTEN VERIFICATION OF PROPER INSTALLATION OF THEIR PRODUCT TO THE ARCHITECT AND STRUCTURAL
- 11. LAMINATE MULTIPLE JOISTS WHERE INDICATED ON DRAWINGS PER THE MANUFACTURER'S RECOMMENDATIONS.

12. CAMBER ALL JOISTS AS PER MANUFACTURER'S RECOMMENDATIONS.

13. DO NOT NOTCH OR DRILL PRODUCTS, EXCEPT AS ALLOWED PER THE

MANUFACTURER'S SPECIFICATIONS. ANY PROPOSED NOTCHING OR DRILLING OF PRODUCTS REQUIRES PRIOR APPROVAL BY THE MANUFACTURER. 14. THE CONTRACTOR SHALL COORDINATE WITH THE JOIST MANUFACTURER TO PROVIDE ADDITIONAL JOISTS AND/OR ADJUST JOIST LAYOUT TO AVOID CONFLICTS WITH COLUMNS, COLUMN CONNECTIONS, CONNECTION HARDWARE, ETC.

15.	THE PREMANUFACTURED WOOD JOIST SYSTOLLOWING MINIMUM LOADS.	TEM SHALL BE DESIGNED TO RESIST THE
	PREMANUFACTURE	O WOOD JOIST LOADING
	LOADING TYPE	UNIFORMLY DISTRIBUTED LOAD (PSF)
	FLOOR LIVE LOAD	100 PSF
	FLOOR DEAD LOAD	30 PSF

FOLDING PARTITIONS AND OTHER CONCENTRATED LOADS PRIOR TO JOIST 17. THE JOIST MANUFACTURER SHALL SUBMIT DESIGNS, SHOP DRAWINGS AND CALCULATIONS BEARING THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED FOR REVIEW.

18. DEFLECTION OF MEMBERS DUE TO DESIGN LOADS SHALL NOT EXCEED THE FOLLOWING

16. CONTRACTOR TO VERIFY ALL WEIGHTS AND LOCATIONS OF CONCENTRATED LOADS

DUE TO ROOF TOP MECHANICAL UNITS, MECHANICAL PIPING, ELECTRICAL UNITS,

- FLOORS: LIVE LOAD 1/600 OF SPAN, TOTAL LOAD 1/360 OF SPAN ROOFS: LIVE LOAD - 1/240 OF SPAN, TOTAL LOAD - 1/240 OF SPAN 19. DESIGNS, SHOP DRAWINGS AND CALCULATIONS SHALL INCLUDE THE FOLLOWING
- INFORMATION: A. DEFLECTION DESIGN CRITERIA B. LIVE, SNOW, DEAD, WIND, SEISMIC AND MECHANICAL DESIGN LOADS

ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.

(UNLESS NOTED OTHERWISE):

- C. ERECTION AND PLACEMENT CRITERIA D. DETAILS OF ALL BRIDGING, BRACING, STIFFENERS, BLOCKING, CONNECTIONS & HANGERS
- E. LOCATION AND FRAMING FOR ALL EQUIPMENT LOADS OVER 500 LBS F. LOCATION AND FRAMING FOR ALL SUSPENDED WALLS AND EQUIPMENT JOIST SUPPLIER SHALL REVIEW INSTALLATION OF ALL THEIR PRODUCTS INCLUDING: JOISTS, BEAMS, BRIDGING, HANGERS, BLOCKING, AND OTHER ACCESSORIES, AFTER INSTALLATION AND PROVIDE WRITTEN VERIFICATION OF PROPER INSTALLATION TO THE

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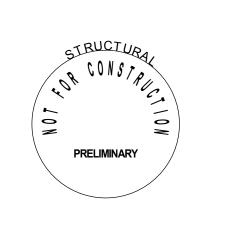
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GENERAL

		TABLE	≣ 2		
	RE	QUIRED STRUCTURAL SINSPECT		TIONS	1
SYSTEM or MATERIAL	IBC CODE	CODE or STANDARD	FREQU		REMARKS
	REFERENCE	REFERENCE FABRICA	CONTINUOUS TORS	PERIODIC	
	1704.2.5 1704.2.5.1			Х	SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES FABRICATED ON THE PREMISES OF A FABRICATOR'S SHOP. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES AND SHALL REVIEW FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENT.
FABRICATORS	1704.2.5.2				SPECIAL INSPECTIONS REQUIRED BY SECTION 1705 ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY A NATIONALLY RECOGNIZED ACCREDITING AUTHORITY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
		CONCR	ETE		
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	1909.1 TABLE 1705.3	ACI 318: 3.8.6, 8.1.3, 21.1.8		Х	SPECIAL INSPECTIONS APPLY TO ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, ADHESIVE EXPIRATION DATE, ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE
REINFORCING STEEL AND PRESTRESSING TENDON PLACEMENT	1705.3 1910.4 1901.3.2	ACI 318: 3.5 ACI 318: 7.1-7.7		Х	TOLERANCES AND REINFORCING PLACEMENT PER ACI 7.5; SPACING LIMITS FOR REINFORCING ACI 7.6 PROTECTION OF REINFORCEMENT PER ACI 7.7
WELDING REINFORCING STEEL	1705.2.2.1.2 1903.1	ACI 318: 3.5.2 AWS D1.4	Х		REFER TO STEEL FOR WELDING REQUIREMENTS
a. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706	TARIF	AWS D1.4 ACI 318: SECTION 3.5.2		Х	TABLE 1705.2.2, ITEM 2b
b. OTHER REINFORCING STEEL	TABLE 1705.2.2	AWS D1.4 ACI 318: SECTION		Х	
PLACEMENT OF BOLTS INSTALLED IN CONCRETE WHERE ALLOWABLE LOADS	TABLE 1705.3	3.5.2 ACI 318: 1.3.2.C ACI 318: 8.1.3			
HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED	1705.3 1908.5 1909.1 TABLE	ACI 318: 21.1.8 ACI 318 - APPENDIX D		Х	ALL BOLTS VISUALLY INSPECTED
VERIFYING USE OF REQUIRED MIX DESIGN(S)	1705.3 1904 1904.2 1910.2 1910.3	ACI 318: CHAPTER 4 ACI 318: 5.2-5.4		Х	
CONCRETE PLACEMENT	TABLE 1705.3	ACI 318: 1.3.2.D ACI 318: 5.9 - 5.10	Х		
CONCRETE/SHOTCRETE CURING	TABLE 1705.3 1910.9.1-3	ACI 318: 5.11-5.13		Х	SPECIAL INSPECTIONS APPLY TO SHAPE,
VERIFICATION OF FORMWORK	TABLE 1705.3	ACI 318: 6.1.1		Х	LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED
		STEE	iL		REFER TO INSPECTION OF FABRICATOR
FABRICATION OF STRUCTURAL ELEMENTS	1704.2.5.2	AISC 360 N2		Х	REQUIREMENTS APPROVAL BASED ON NATIONALLY RECOGNIZED ACCREDITING AUTHORITY
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS		AISC 360 A3.3 AISC 360 N 3.2 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		Х	MANUFACTURER'S CERTIFIED TEST REPORTS
SNUG-TIGHT JOINT HIGH-STRENGTH BOLT INSTALLATION	1705.2.1.1	RCSC 2.1 RCSC SPECIFICATION FOR STRUCTURAL JOINTS HAND BOLSS A&S FOR HAND BOLSS		Х	ALL CONNECTIONS INSPECTED AND VERIFIED SNUG
MATERIAL VERIFICATION OF STRUCTURAL STEEL	1705.2.1 2203.1 TABLE 1705.2	SPECIFIED IN CONSTRUCTION AISCOCOMENTION M2.5 AISC 360 N3.2 AISC 360 A3.1 AISC 360 M5.5		Х	CERTIFIED MILL TEST REPORTS
FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	TABLE 1705.2	APPLICABLE ASTM MATERIAL STANDARDS		Х	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF WELD FILLER METALS	TABLE 1705.2	AISC 360 N3.2 AISC 360 A3.5 APPLICABLE AWS A5 DOCUMENTS		х	MANUFACTURER'S CERTIFICATE OF COMPLIANCE
COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	TABLE 1705.2	AWS D1.1 SECTION 6	Х		ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
MULTIPASS FILLET WELDS	TABLE 1705.2	AWS D1.1 SECTION 6	Х		ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
SINGLE PASS FILLET WELDS GREATER THAN 5/16" SINGLE PASS FILLET WELDS LESS THAN	TABLE 1705.2	AWS D1.1 SECTION 6 AWS D1.1	Х	X	ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9 ALL WELDS VISUALLY INSPECTED PER AWS
OR EQUAL TO 5/16" MATERIAL VERIFICATION OF REINFORCING STEEL FOR WELDING	TABLE 1705.2 1705.2.2.1.2	SECTION 6 ACI 318: 3.5.2 AWS D1.4		X	D1.1 6.9 CERTIFIED MILL TEST REPORTS
WELDING REINFORCING EXCEPT AS NOTED OTHERWISE	TABLE 1705.2 1705.2.2.1.2	AWS D1.4 ACI 318: 3.5.2 AWS D1.4 AISC 360 N3.2 AISC 360 A3.4		X	
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS		ASC 300 A3.4 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		Х	MANUFACTURER'S CERTIFIED TEST REPORTS
VERIFYING USE OF PROPER WPS'S		AISC 360 N3.2			COPY OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER AND WELDING INSPECTOR QUALIFICATIONS	1705.2.2.1			Х	COPY OF QUALIFICATION CARDS
WELDING STAIR AND RAILING SYSTEMS	1705.2 (2.5)	AWS D1.1 SECTION 6		Х	ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9

		TABL	E 5		
	RE	QUIRED TESTING FOR	SPECIAL INSPECT	IONS	
		TESTIN	G		
SYSTEM or MATERIAL	IBC CODE	CODE or STANDARD FREQUENCY			REMARKS
	REFERENCE	REFERENCE	CONTINUOUS	PERIODIC	
		CONCR	ETE		
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	TABLE 1705.3	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	Х		FABRICATE SPECIMENS AT TIME FRESH CONCRETE IS PLACED ONCE EACH DAY FOR A GIVEN CLASS O CONCRETE, OR LESS THAN ONCE FOR EACH 150 YDS OF CONCRETE, OR LESS THAN ONCE FOR EACH 5,000 FT2 OF SURFACE AREA FOR SLABS/WALLS. ONC EACH SHIFT FROM IN-PLACE WORK OR
CONCRETE STRENGTH	TABLE 1705.3	ASTM C39	х		FROM TEST PANEL AND MINIMUM ONE SPECIMEN FOR EACH 50 CUBIC YARDS. "PRECONSTRUCTION TESTS AS REQUIRE! PER THE BUILDING OFFICIAL."
CONCRETE SLUMP	TADLE	ASTM C143	X		
CONCRETE AIR CONTENT	TABLE 1705.3	ASTM C231	X		
CONCRETE TEMPERATURE	1703.3	ASTM C1064	X		
		STEI	EL .		
MAGNETIC PARTICLE (MT) AND ULTRASONIC (UT) TESTING OF WELDS	1705.2.2	MT - AWS D1.1 6.14.4 UT - AWS D1.1 6.13 & 6.14.3	PER DRA	WINGS	



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S0.03

Job No. **13-T114**

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LEVEL 00 FOUNDATION PLAN

S1.10 Job No. **13-T114**

FOUNDATION PLAN NOTES

- A FOR A COMPLETE LEGEND OF ALL CALLOUTS AND SYMBOLS SEE COVER SHEET S0.01.
 B CONTRACTOR TO VERIFY ALL EXISTING CONSTRUCTION SHOWN IN STRUCTURAL
- C CONTRA NOTES & APPROV
- D VERIFY ARCHIT
- E REFERE AND OTI

TRACTOR TO VERIFY ALL EXISTING CONSTRUCTION SHOWN IN STRUCTURAL				
WINGS PRIOR TO CONSTRUCTION.	1	1'-4" WIDE x 10" DEEP x CONTINUOUS	(3) #4 LONGITUDINAL, #4 @ 16" OC TRANSVERSE	
TRACTOR TO LAYOUT CONTROL JOINTS PER THE CRITERIA IN STRUCTURAL ES & DETAIL 1/S5.01 AND SUBMIT TO THE DESIGN TEAM FOR REVIEW AND ROVAL.	2	4'-0" x 4'-0" x 12" DEEP	(5) #5 EACH WAY	
FY ALL DIMENSIONS AND ALL INTERIOR SLAB ON GRADEELEVATIONS WITH THE HITECTURAL DRAWINGS.	3	5'-0" x 5'-0" x 14" DEEP	(6) #5 EACH WAY	
ERENCE MECHANICAL / PLUMBING DRAWINGS FOR LOCATIONS OF FLOOR DRAINS OTHER PENETRATIONS.	4	6'-0" x 8'-0" x 16" DEEP	(9) #5 LONGITUDINAL, (7) #5 TRANSVERSE	
OTHERT ENERGY TONG.	5	6'-3" x 6'-3" x 16" DEEP	(7) #5 EACH WAY	

6'-3" x 12'-0" x 16" DEEP

FOOTING SCHEDULE

FOOTING SCHEDULE NOTES:

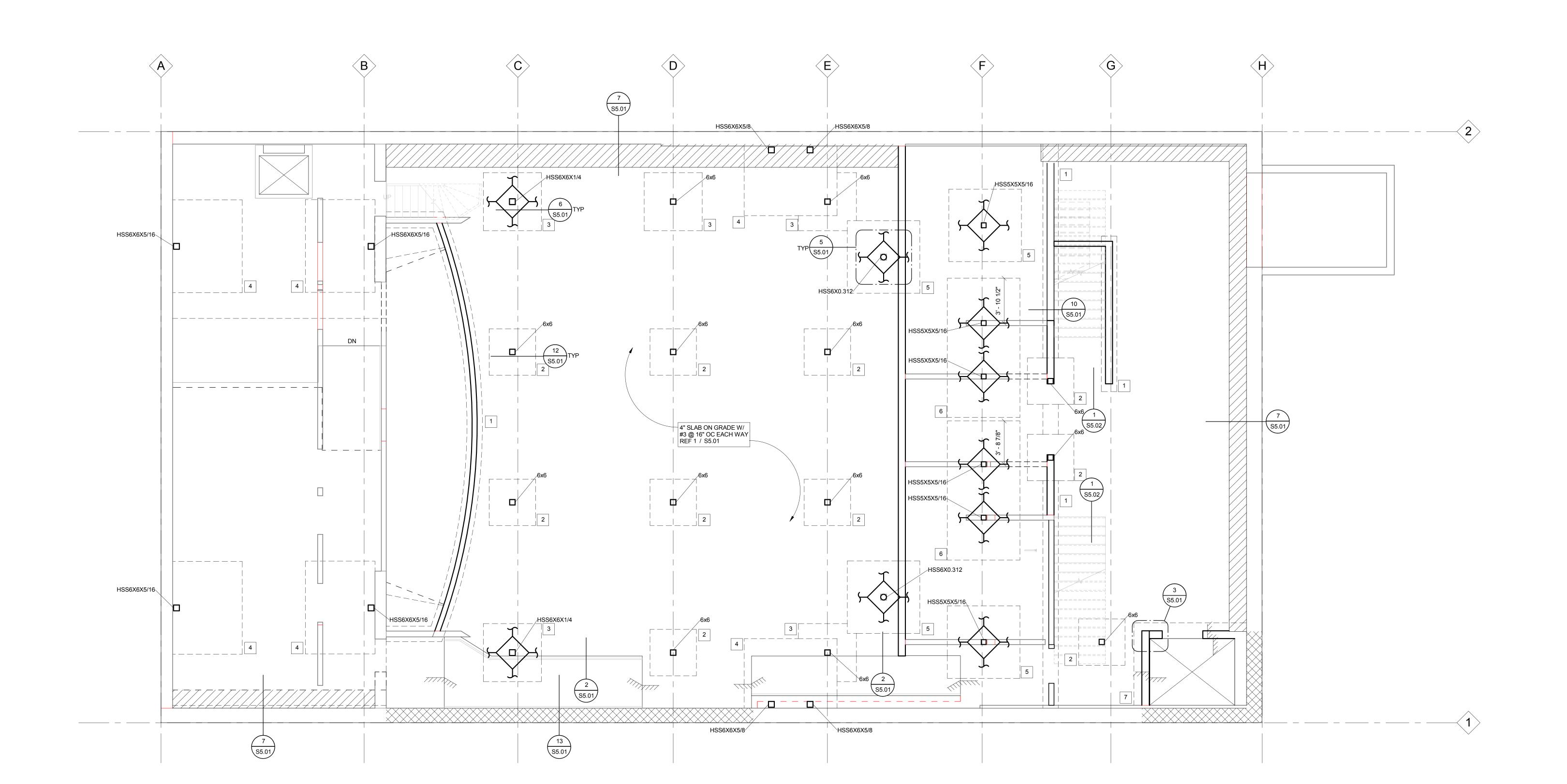
1. FOOTINGS SHALL BE CENTERED UNDER COLUMNS AND WALLS UNLESS NOTED OTHERWISE.

REINFORCING

(13) #5 LONGITUDINAL, (7) #5 TRANSVERSE

NOTES

#5 @ 12" OC EACH WAYTOP AND BOTTOM



FRAMING PLAN NOTES:

LOCATIONS.

LOCATIONS.

FLOOR PENETRATIONS.

THROUGH STEEL TRACKS.

A. REFERENCE 14/S700 FOR TOP TRACK SPLICE DETAIL B. COORDINATE LOCATIONS OF FLOOR OPENINGS,

D. COORDINATE MECHANICAL PENETRATIONS WITH

E. REFERENCE 18/S700 FOR ALLOWABLE HOLES

G. UNO ALL EXTERIOR WALL AND INTERIOR WALL

DRAINS, OR STEPS WITH ARCHITECTURAL DRAWINGS. C. REFERENCE 11,12/S700 FOR ALL HEADERS NOT NOTED ON PLAN. REFERENCE ARCHITECTURAL DRAWINGS FOR ALL WINDOW/DOOR OPENING SIZES AND

ARCHITECTURAL AND MECHANICAL DRAWINGS. REFERENCE 24/S701 FOR FRAMING AROUND TYPICAL

F. REFERENCE DETAILS 23/S701 FOR DEFLECTION HEAD DETAILS OVER NON-BEARING PARTITION WALLS. REFERENCE ARCHITECTURAL DRAWINGS FOR

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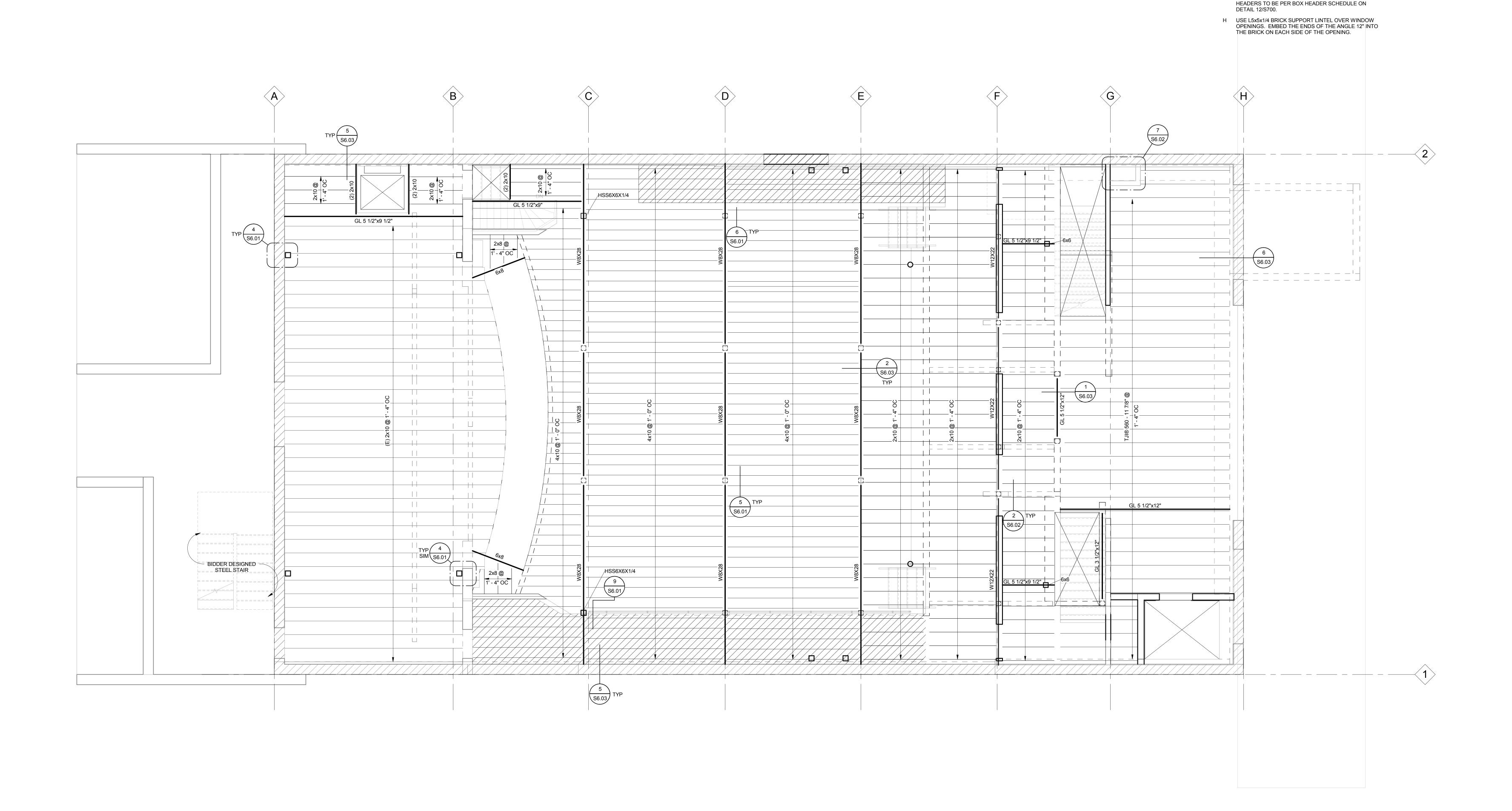
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LEVEL 01 FRAMING PLAN

S1.11 Job No. **13-T114**



FRAMING PLAN NOTES:

 A. REFERENCE 14/S700 FOR TOP TRACK SPLICE DETAIL
 B. COORDINATE LOCATIONS OF FLOOR OPENINGS, DRAINS, OR STEPS WITH ARCHITECTURAL DRAWINGS.

C. REFERENCE 11,12/S700 FOR ALL HEADERS NOT NOTED ON PLAN. REFERENCE ARCHITECTURAL DRAWINGS FOR ALL WINDOW/DOOR OPENING SIZES AND

D. COORDINATE MECHANICAL PENETRATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. REFERENCE 24/S701 FOR FRAMING AROUND TYPICAL FLOOR PENETRATIONS.

F. REFERENCE DETAILS 23/S701 FOR DEFLECTION HEAD DETAILS OVER NON-BEARING PARTITION WALLS. REFERENCE ARCHITECTURAL DRAWINGS FOR

G. UNO ALL EXTERIOR WALL AND INTERIOR WALL HEADERS TO BE PER BOX HEADER SCHEDULE ON

DETAIL 12/S700.

E. REFERENCE 18/S700 FOR ALLOWABLE HOLES THROUGH STEEL TRACKS.



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LEVEL 02

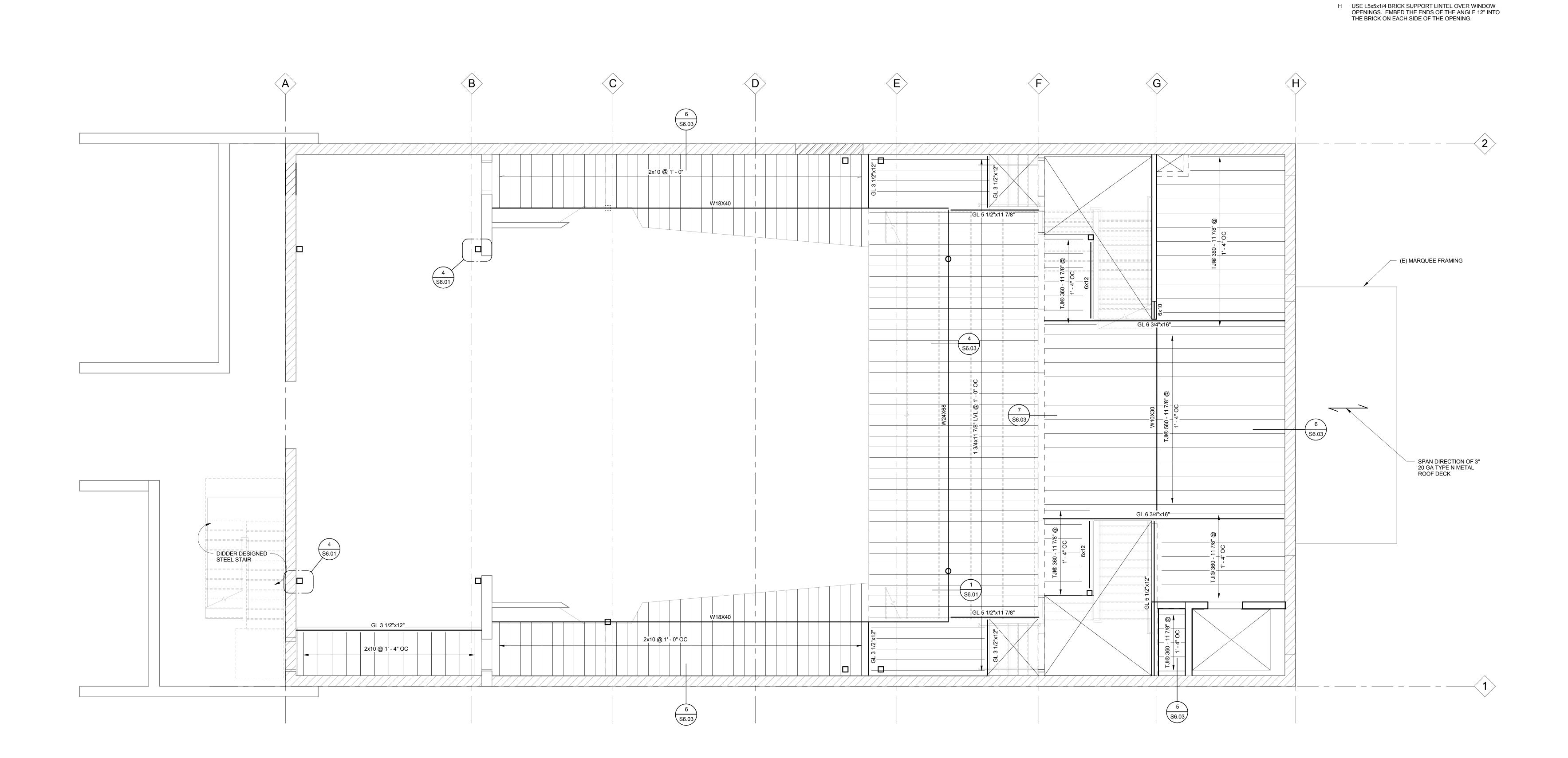
FRAMING PLAN

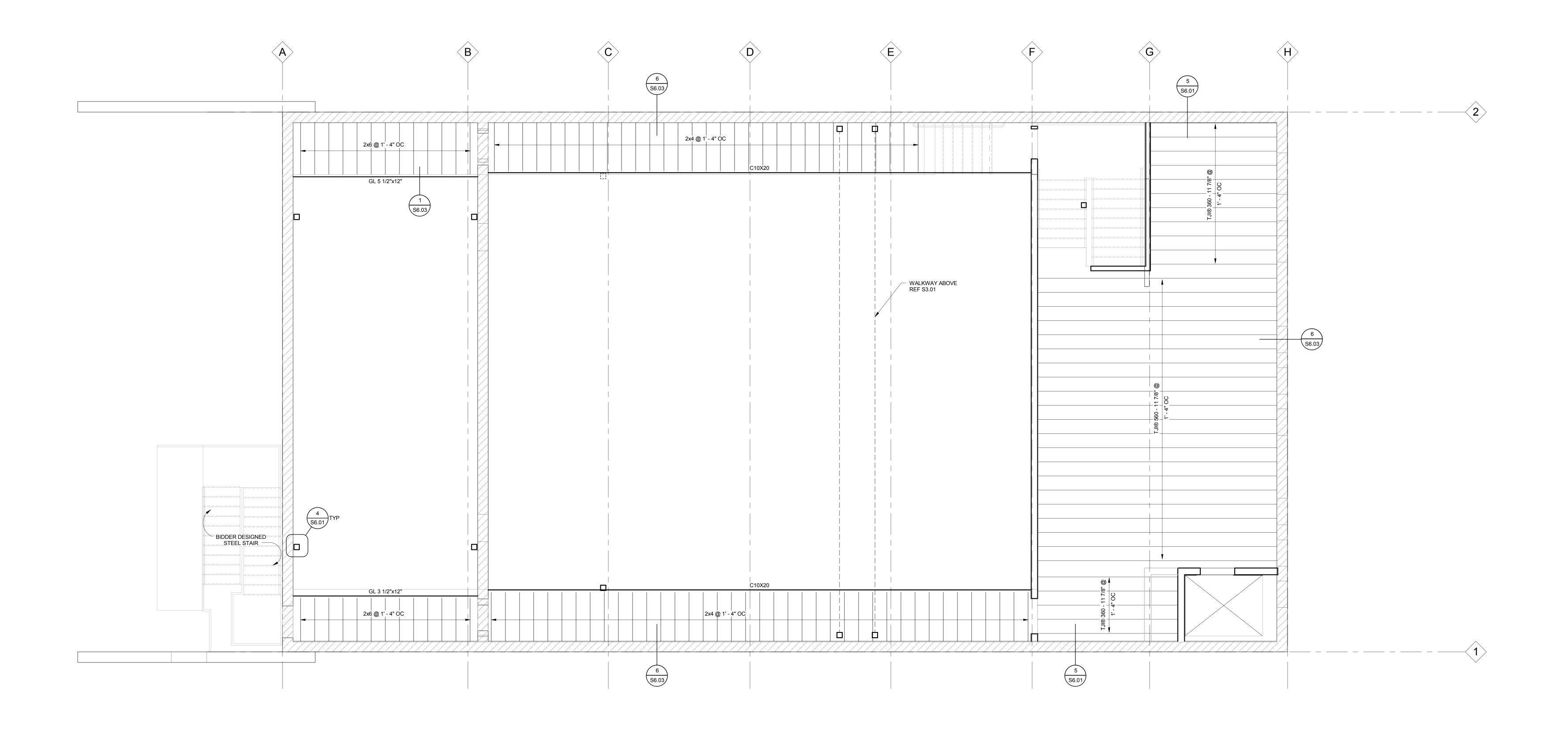
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1 LEVEL 03 FRAMING PLAN S1.13 1/4" = 1'-0" PRELIMINARY

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ENGINEERS 7

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drawn by:

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LEVEL 03

FRAMING PLAN

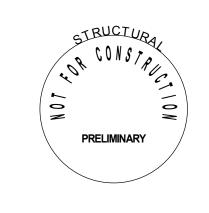
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Job No.

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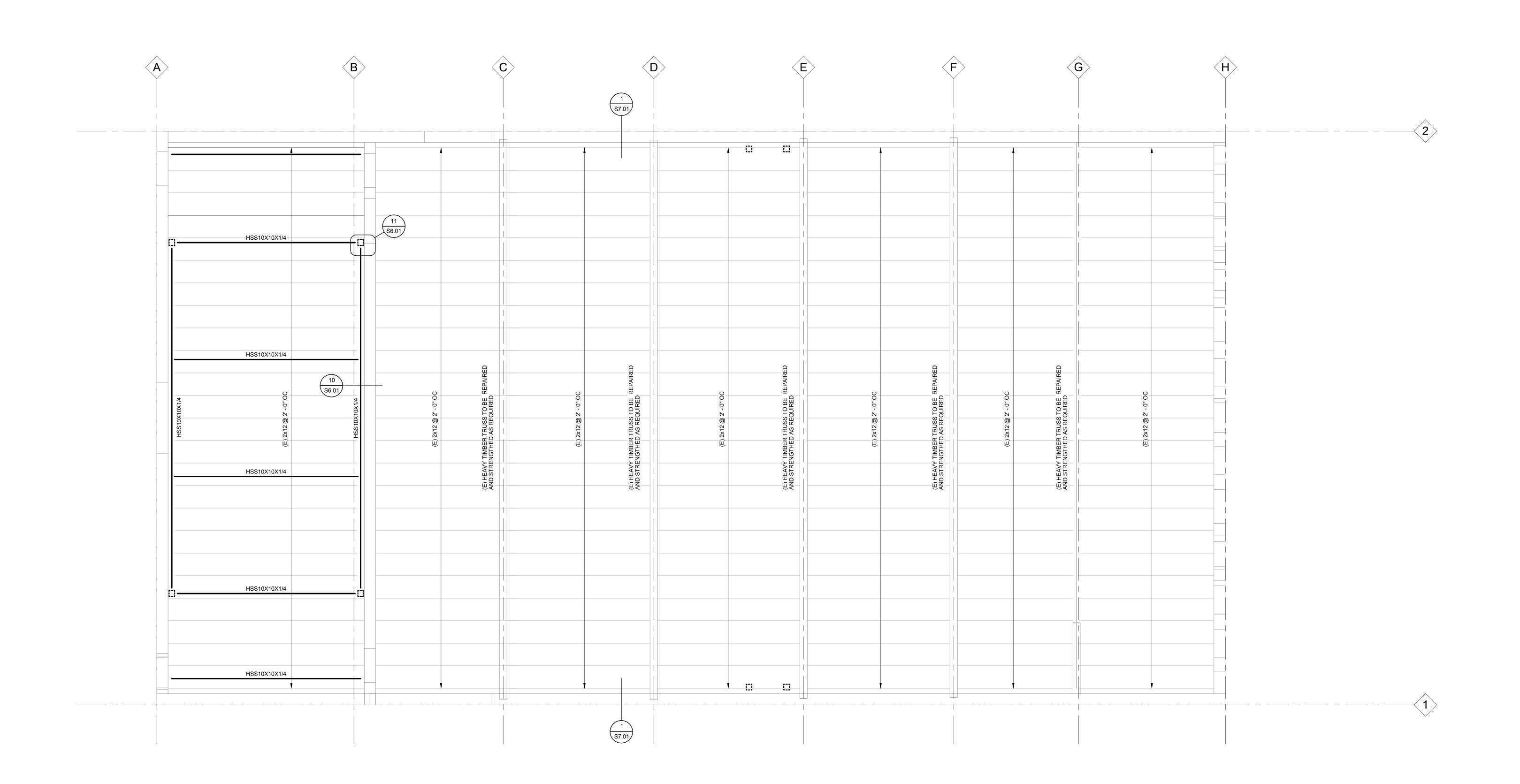
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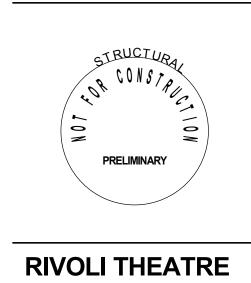
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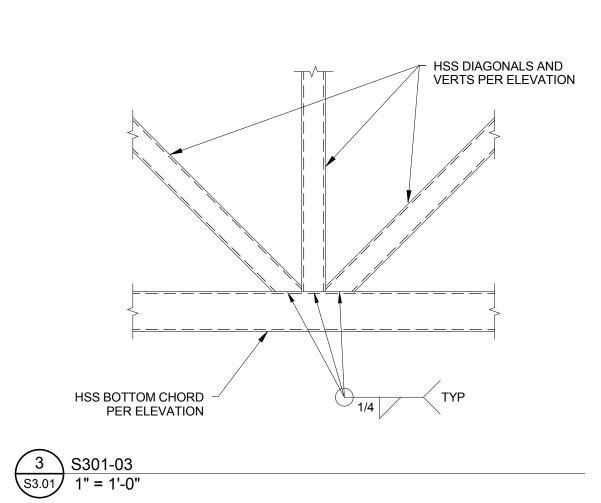
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3' - 4"

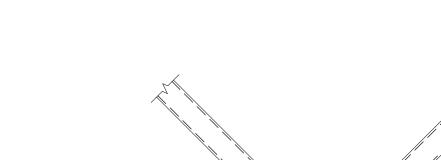
HSS TOP CHORD PER ELEVATION

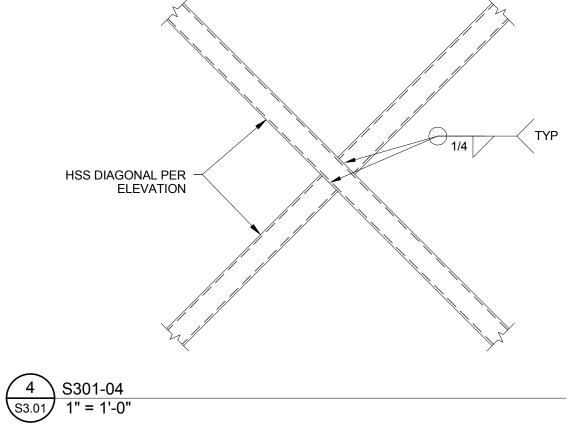
HSS VERTS PER ELEVATION

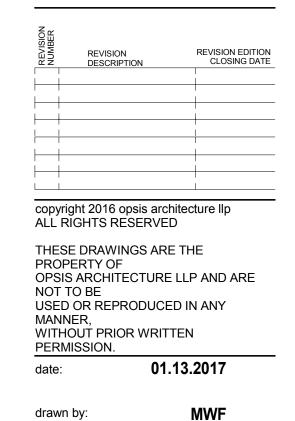
KW19-4-62 METAL GRATING

HSS BOTTOM CHORD PER ELEVATION

— 3x3x1/4 HSS @ 3'-8" OC







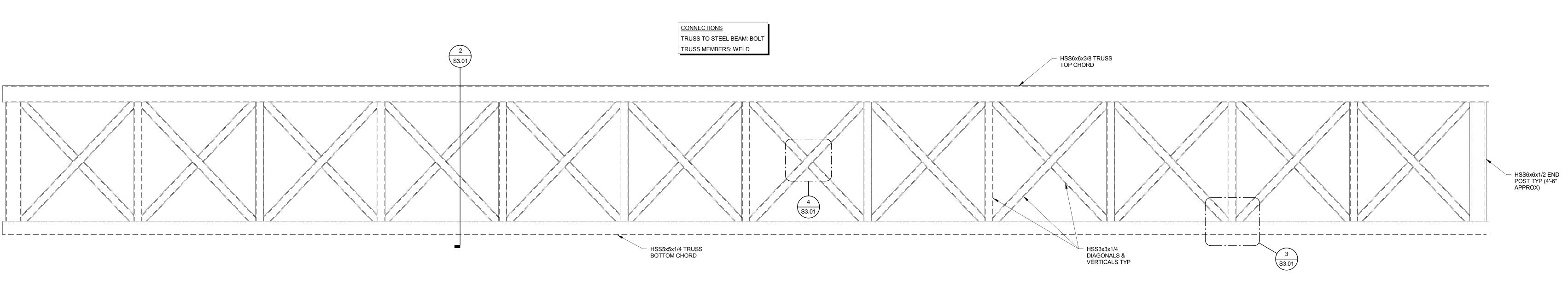
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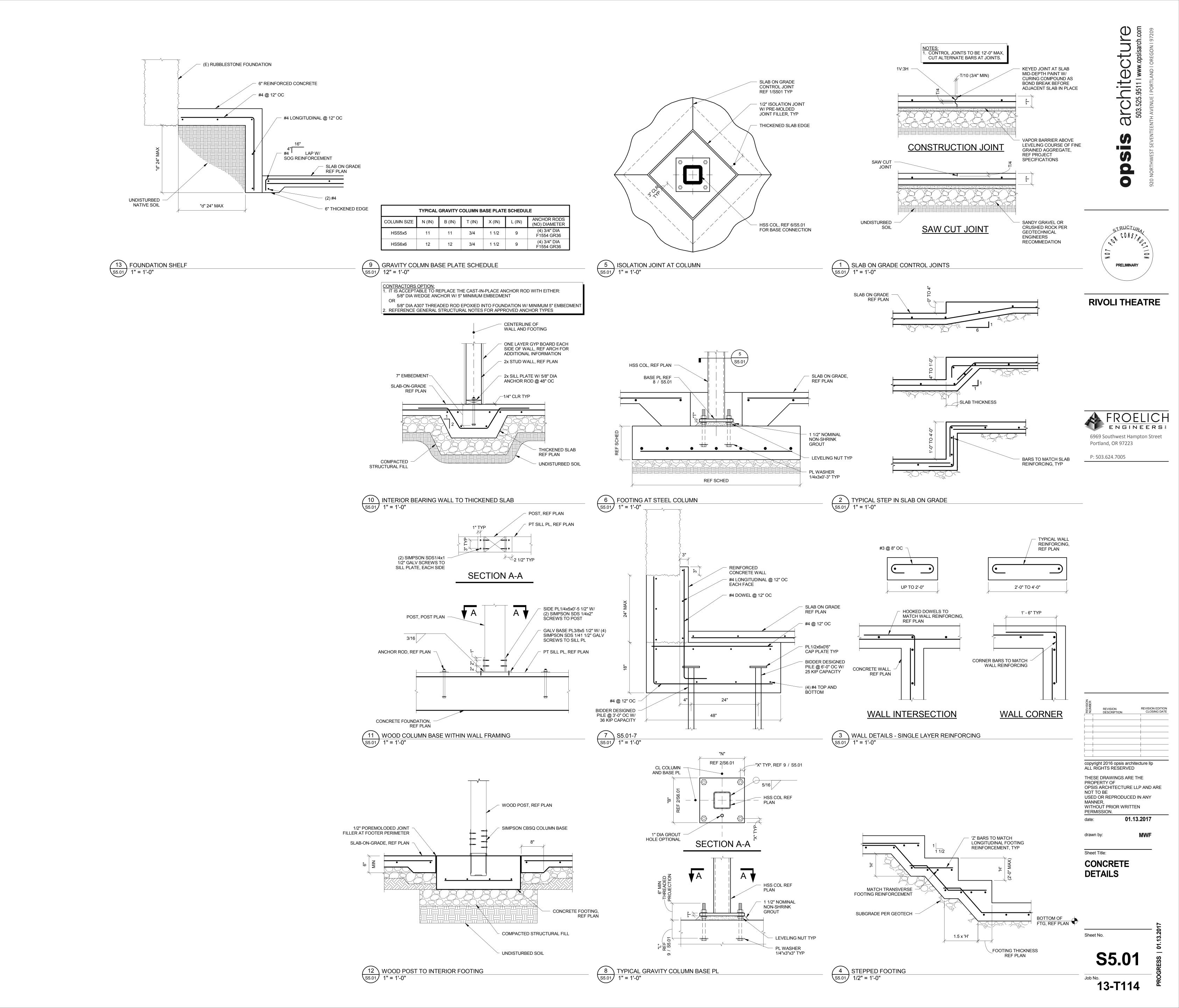
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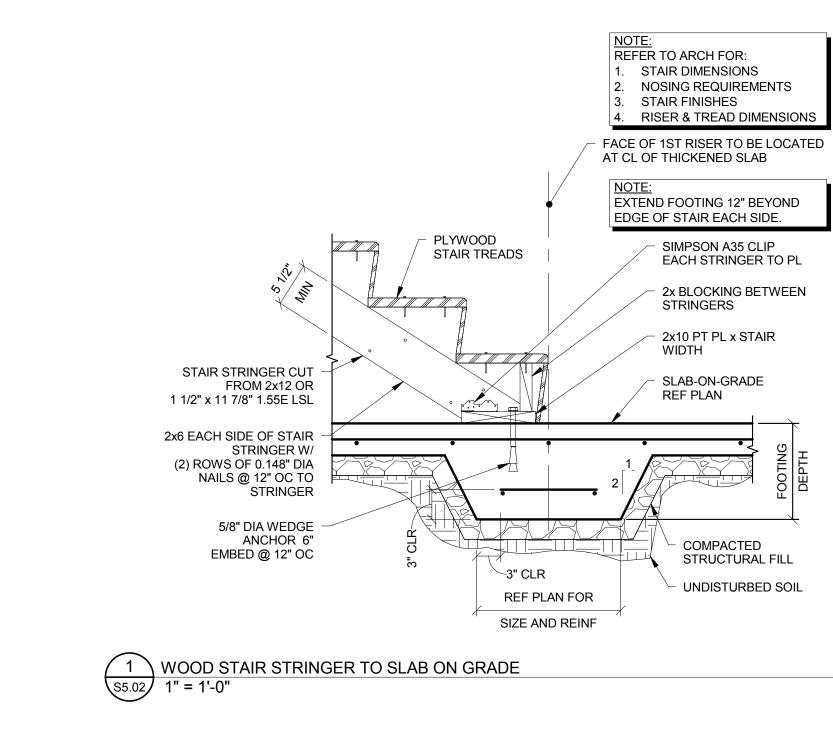
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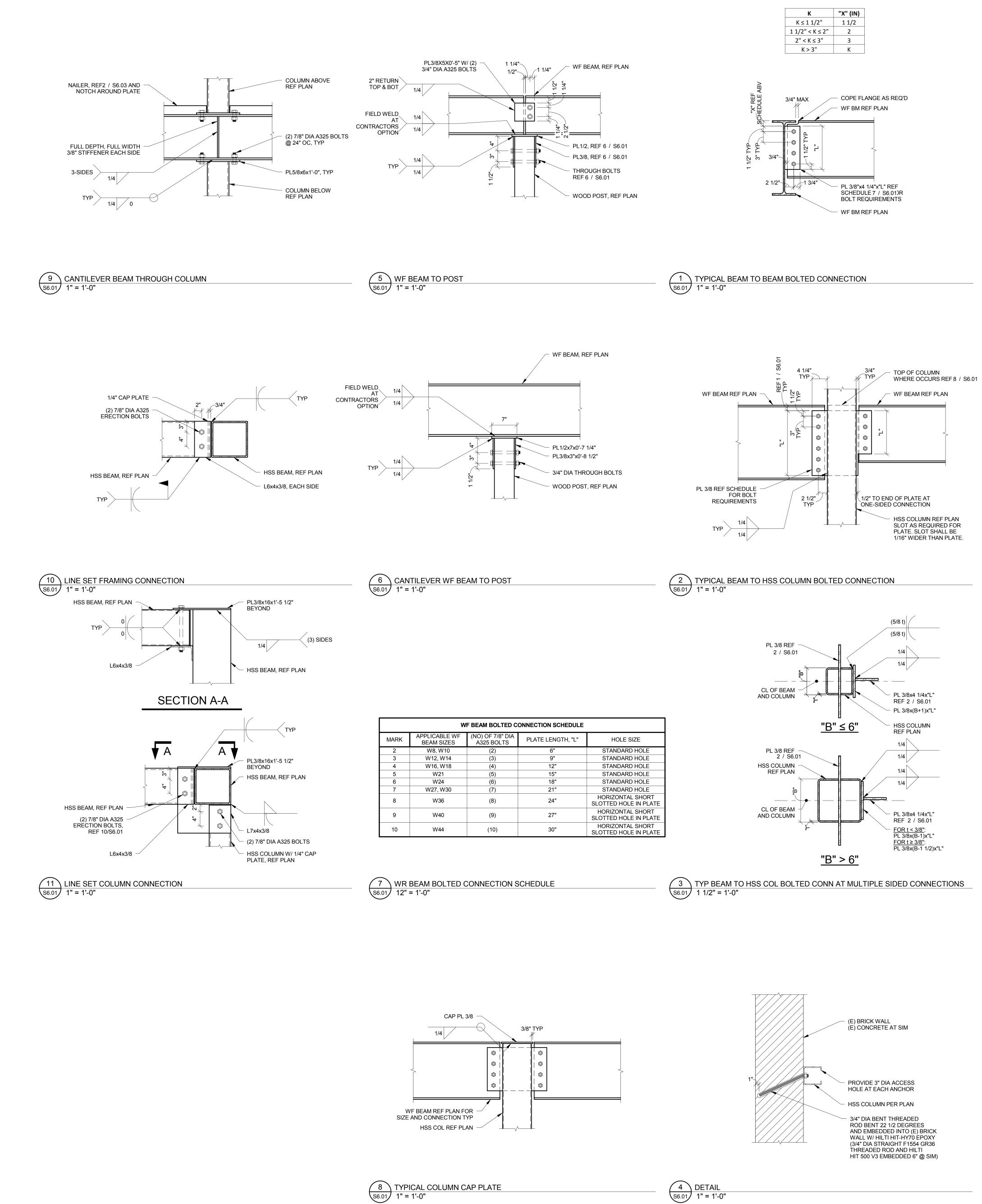
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S5.02 sg

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DETAILS

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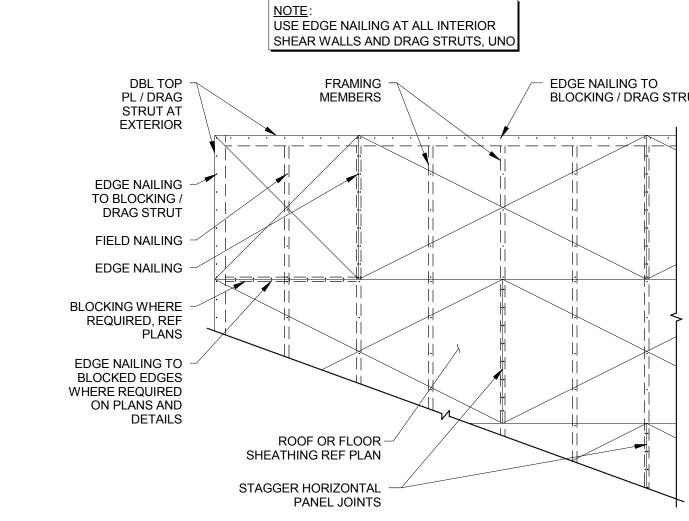
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FLOOR FRAMING



OPENING WIDTH TRIMMER KING STUD 0'-0" TO 4'-0" **(2) 2x4** **(2) 2x** **(1) 2x** **(1) 2x** 4'-1" TO 6'-0" 6'-1" TO 8'-0" REF PLAN 8'-1" AND LARGER 1 WINDOW / DOOR HEADER DETAIL AND SCHEDULE
1" = 1'-0"

HEADER SILL

(2) 2x6

OPENING WIDTH

LOAD BEARING WALLS

(2) 2x

NON-LOAD BEARING WALLS

TRIMMER

(1) 2x

REF PLAN

TRIMMER STUDS

CONT DBL TOP

CRIPPLE STUDS AS REQ'D

- (8) 0.148" DIA x 3" NAILS TO HEADER - TYP EACH SIDE

SCHEDULE BELOW

Sis

9

PRELIMINARY

RIVOLI THEATRE

FROELICH

6969 Southwest Hampton Street

Portland, OR 97223

P: 503.624.7005

HEADER REF

SIMPSON A35 (NOT REQ'D FOR OPENING

WIDTHS LESS THAN 7'-0") TYP

SILL OR SOLE PL CRIPPLE STUDS

KING STUD

(1) 2x

4' - 0" MINIMUM W/ (12) .0148" DIA x 3" NAILS EQUALLY SPACED & STAGGERED - CONTINUOUS DOUBLE TOP SPLICES PLATE SHALL OCCUR DIRECTLY OVER WALL ─ 2x STUDS STUDS BELOW

SIMPSON MSTA15 STRAP CENTERED OVER (TOP) PLATE SPLICES SHALL TOP PL SPLICE AS SHOWN OCCUR DIRECTLY OVER WALL STUDS PROVIDE 0.148" DIA x 3" NAILS AT EVERY HOLE CONT DBL -TOP PL 2x STUDS

TOP PLATE SPLICE DETAIL

1" = 1'-0"

SIMPSON A35 -CLIPS (NOT REQ'D

FOR OPENING WIDTHS LESS THAN 7'-0") TYP

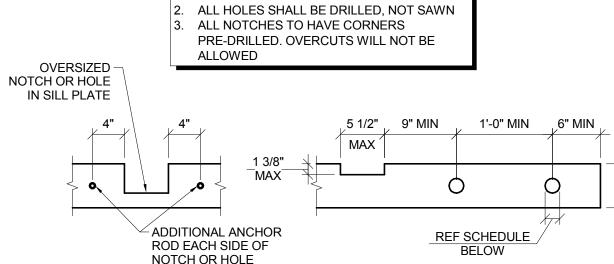
KING STUDS

REF DETAIL 10/S6.02

OPENING WIDTH

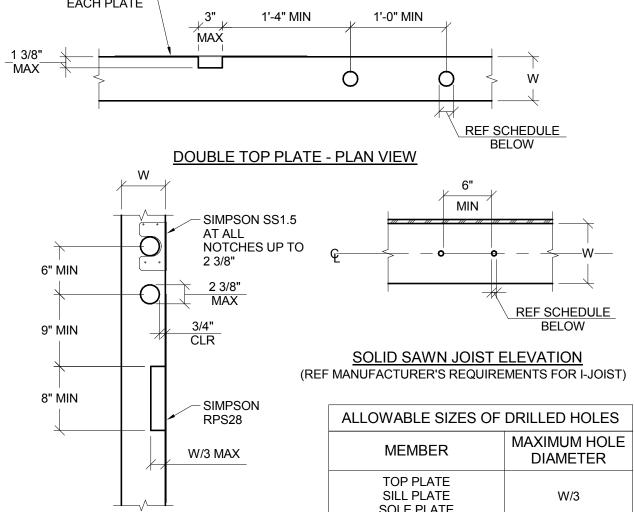
0'-0" TO 4'-0" 4'-1" TO 6'-0" 6'-1" TO 8'-0" 8'-1" AND LARGER

FOR FASTENING MULTIPLE STUDS TOGETHER



NOTES:
1. 'W' INDICATES WIDTH OR DEPTH OF MEMBER

NOTCH OR HOLE SILL OR SOLE PLATE - PLAN VIEW



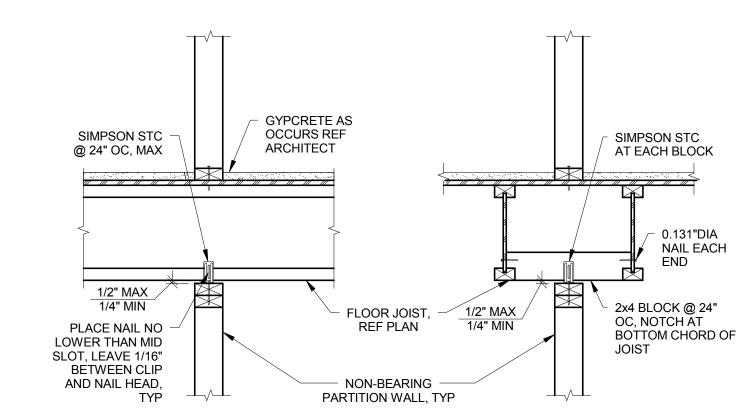
JOIST

W/8

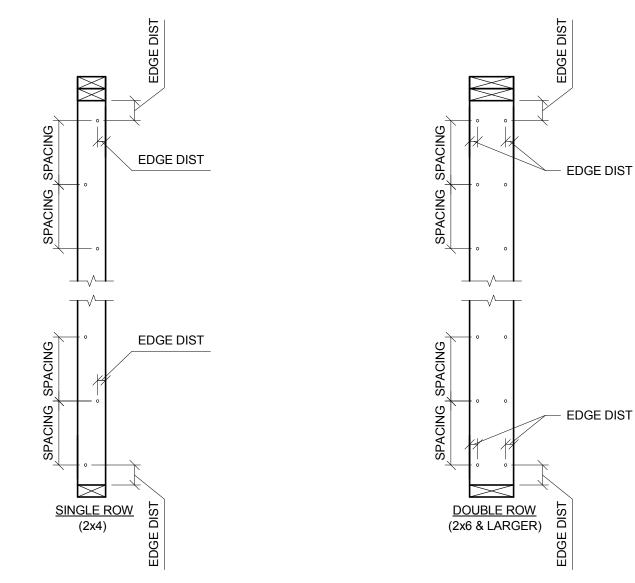
3 ALLOWABLE HOLES AND NOTCHES IN WOOD FRAMING 1" = 1'-0"

8 NOT USED S6.02 1" = 1'-0"

NOTE:
DO NOT INSTALL NON-BEARING PARTITION
UNTIL FLOOR DEAD LOAD IS IN PLACE



9 NON-BEARING PARTITION WALLS AT FLOOR 1" = 1'-0"



BUILT-UP MEMBER	FASTENER SIZE	FASTENER SPACING	FASTENER END DIST	FASTENER EDGE DIST	ROWS OF FASTENERS
(2) 2x4	0.148" x 3" NAIL	8"	2.5"	1" - 1.5"	1 - STAGGER
(3) 2x4	0.148" x 4 1/2" NAIL	8"	2.5"	1" - 1.5"	1 - STAGGER
(4) OR MORE 2x4	1/2" DIA BOLT	9"	4"	1.5"	1 - STAGGER
(2) 2x6	0.148" x 3" NAIL	8"	2.5"	1" - 1.5"	2
(3) 2x6	0.148" x 4 1/2" NAIL	8"	2.5"	1" - 1.5"	2
(4) OR MORE 2x6	1/2" DIA BOLT	9"	4"	1.25"	2

NOTES:

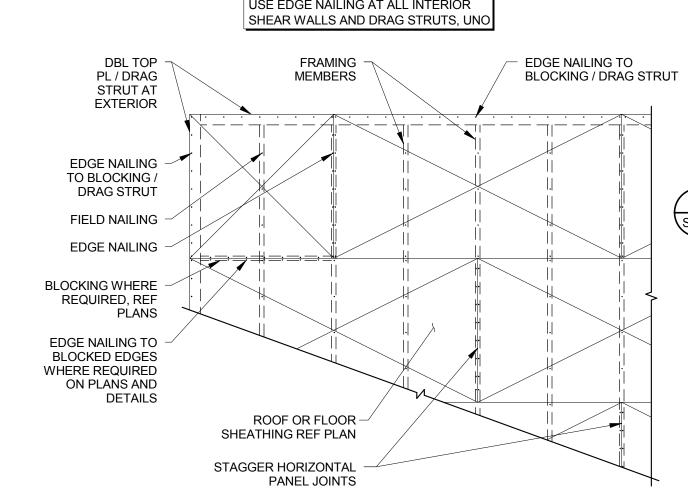
1. PLYWOOD SHEATHING OR GYP BOARD FASTENERS SHALL BE STAGGERED TO EA STUD IN BUILT-UP MEMBER.

2. NAILS & SCREWS SHALL STAGGERED EACH SIDE OF BUILT-UP MEMBER.

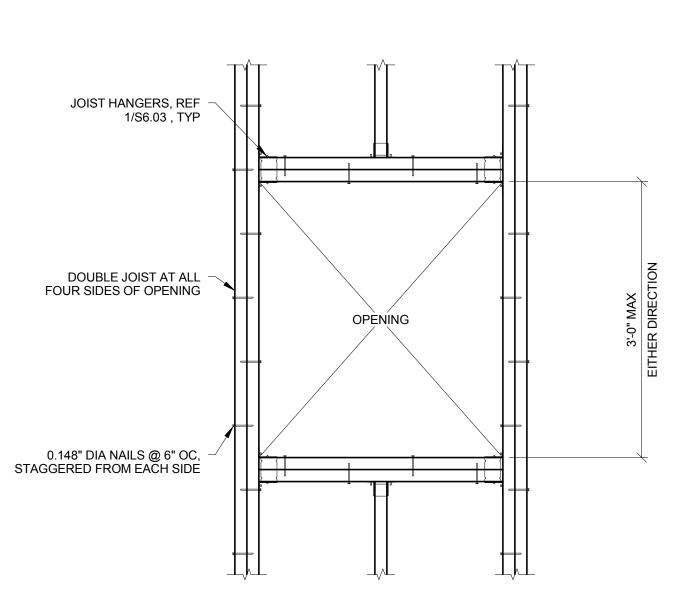
3. BOLTS SHALL HAVE STANDARD PLATE WASHERS BETWEEN WOOD AND BOLT HEAD AND NUT HEAD. NUTS TO BE TIGHTENED TO ENSURE ALL WOOD LAMS ARE IN CONTACT.
 1/4" DIA SDS SCREWS OF SAME LENGTH MAY BE SUBSTITUTED FOR NAILS W/9" SPACING & 4" END DIST.

10 S602-10 S6.02 1" = 1'-0"

5 PLYWOOD FLOOR OR ROOF DIAPHRAGM 3/8" = 1'-0"



6 NOT USED S6.02 1" = 1'-0"



SIMPSON RPS28, — EACH PLATE SOLE PLATE STUD ELEVATION

S6.02

13-T114

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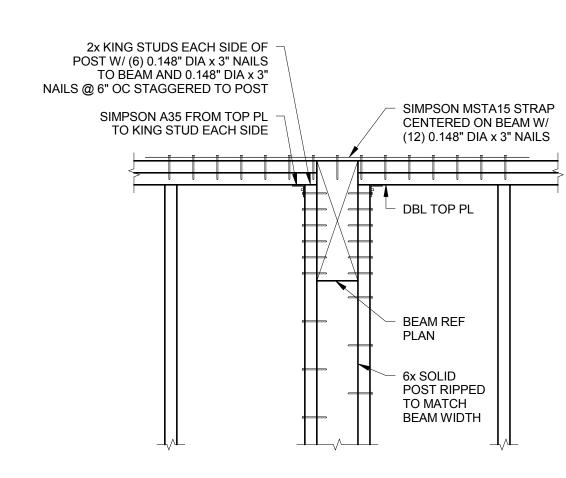
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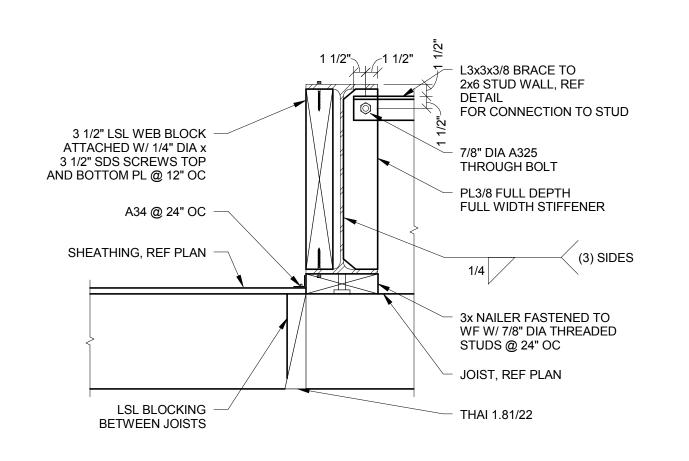
DETAILS

PERMISSION.

7 WF BRACE TO STUD WALL 1" = 1'-0"











BEAM REF PLAN

- I-JOIST REF PLAN

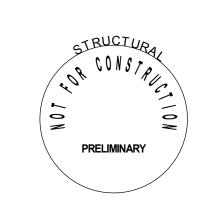
PANEL EDGE NAILING STAGGERED

I-JOIST, REF PLAN

TOP FLANGE HANGER & WEB STIFFENER (IF REQUIRED) BY JOIST MANUF

3x RIPPED CONT FLUSH W/ PL FACES W/ 5/8" DIA CARRIAGE BOLTS @ 16" OC STAGGERED

TOP FLANGE HANGER & WEB STIFFENER (IF REQUIRED) BY JOIST MANUF



RIVOLI THEATRE





N.W.		
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FLOOR FRAMING **DETAILS**

> **S6.03** 13-T114

NOTE: REFER TO ARCH FOR: 1. STAIR DIMENSIONS NOTE:
HANGERS SHALL BE:
HU210-3 AT CENTER STRINGERS
HUC210-2 AT OUTER STRINGERS 2. NOSING REQUIREMENTS 3. STAIR FINISHES4. RISER & TREAD DIMENSIONS / FLOOR SHEATHING, REF PLAN BEAM, REF PLAN JOISTS, REF PLAN SIMPSON FACE -MOUNTED HANGER AT EACH STRINGER PLYWOOD STAIR -TREADS HANGER & WEB STIFFENER (IF REQ'D) BY JOIST MANUF STAIR STRINGER CUT
 FROM 2x12 OR
 1 1/2" x 11 7/8" 1.55E LSL 2x6 EACH SIDE OF STAIR STRINGER W/
 (2) ROWS OF 0.148" DIA NAILS @ 12"
 OC TO STRINGER WOOD STAIR STRINGER TO BEAM
1" = 1'-0" NOTE: UPPER HANGERS SHALL BE: NOTE: REFER TO ARCH FOR: 1. STAIR DIMENSIONS HU26-3 AT CENTER STRINGERS HUC26-2 AT OUTER STRINGERS LOWER HANGERS SHALL BE: 2. NOSING REQUIREMENTS HU26-3 AT CENTER STRINGERS HUC26-2 AT OUTER STRINGERS 3. STAIR FINISHES 4. RISER & TREAD DIMENSIONS STAIR STRINGER CUT FROM 2x12 OR 1 1/2" x 11 7/8" 1.55E LSL PLYWOOD STAIR -TREADS LOWER HANGER — AT EACH STRINGER, REF NOTE UPPER HANGER AT EACH STRINGER, REF NOTE BEAM, REF PLAN

2x6 EACH SIDE OF STAIR STRINGER W/
(2) ROWS OF 0.148" DIA NAILS @ 12" OC
TO STRINGER

WOOD STAIR STRINGER TO INTERMEDIATE BEAM
1" = 1'-0"

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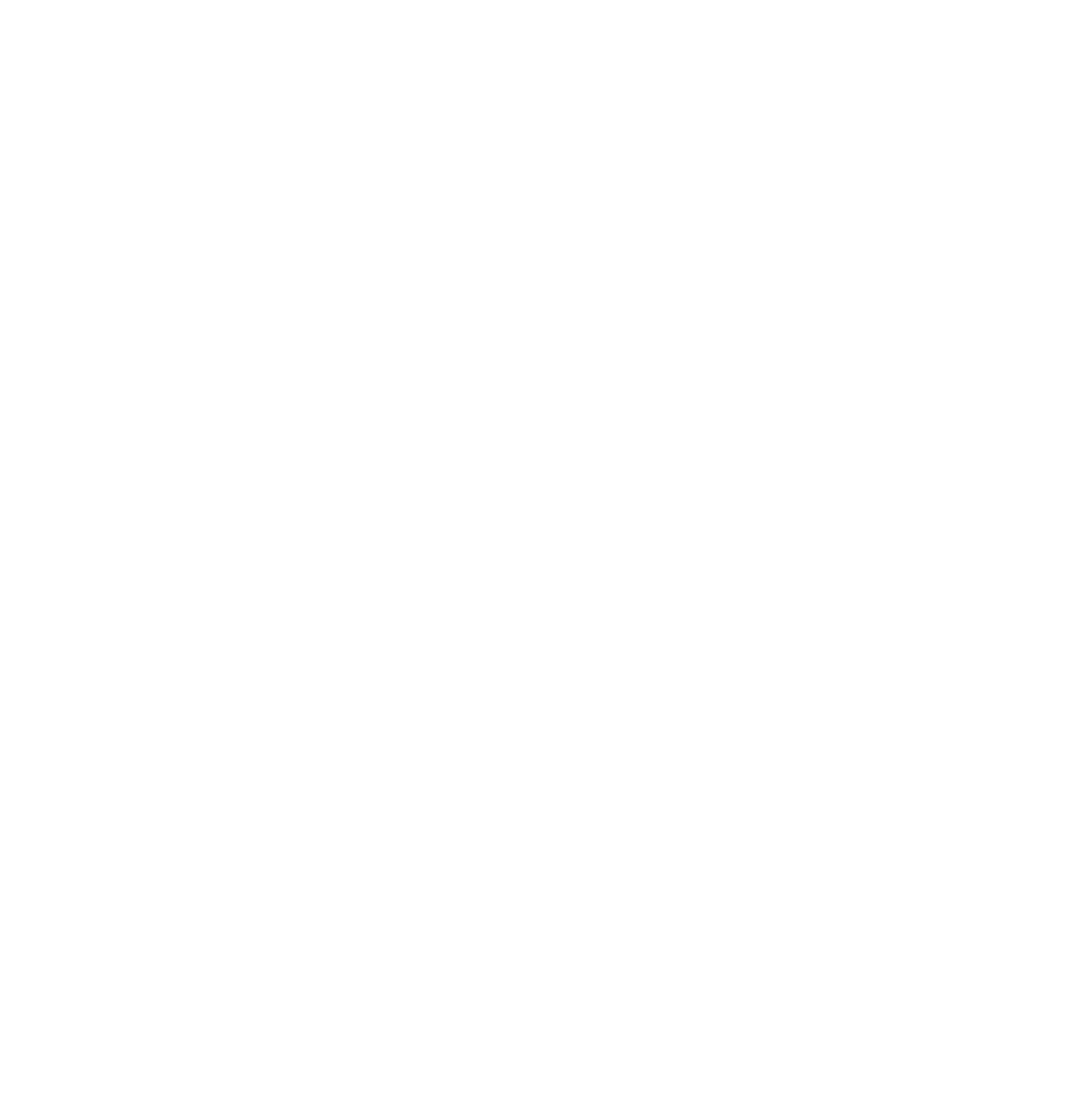
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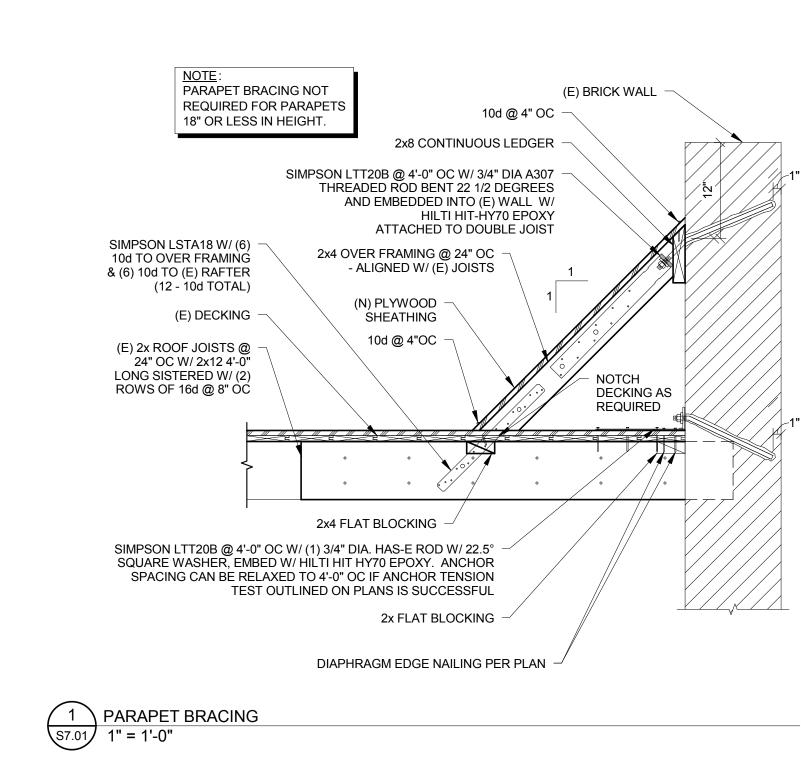
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FLOOR FRAMING
DETAILS

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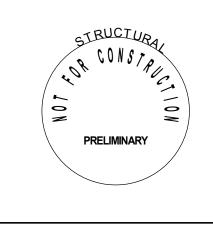
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ROOF FRAMING DETAILS

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