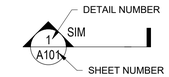
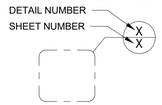
STRUCTURAL ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE
ADD	ADDITIVE
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT	ALTERNATE/ALTERNATIVE
ALUM	ALUMINUM
ANCH	ANCHOR
ARCH	ARCHITECTURE/ARCHITECTURAL
ASD	ALLOWABLE STRESS DESIGN
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AWS	AMERICAN WELDING SOCIETY
B/	BOTTOM OF
BCX	BOTTOM CHORD EXTENSION
BLDG	BUILDING
BLK	BLOCK
BM	BEAM
BOT	BOTTOM
BP	BASE PLATE/BEARING PLATE
BRG	BEARING
BTWN	BETWEEN
C	CHANNEL
CB	CONCRETE BEAM
CC	CONCRETE COLUMN
CF	CUBIC FEET (FOOT)
CFS	COLD FORMED STEEL
CFMF	COLD FORMED METAL FRAMING
CIP	CAST IN PLACE
CJ	CONTRACTION JOINT OR CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR/CLEARANCE
CMU	CONCRETE MASONRY UNIT
CO	COMPANY
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONN	CONNECTION
CONST	CONSTRUCTION
COORD	COORDINATE
CSJ	CONSTRUCTION JOINT
CTR	CENTER
CTRD	CENTERED
CY	CUBIC YARD
DEPT	DEPARTMENT
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DTL	DETAIL
DWG	DRAWING
EA	EACH
EE	EACH END
EF	EACH FACE
EHPA	EMERGENCY HURRICANE PROTECTION AREA
EJ	EXPANSION JOINT
ELEC	ELECTRIC/ELECTRICAL
ELEV	ELEVATION
ENGR	ENGINEER
EOD	EDGE OF DECK
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ SP	EQUALLY SPACED
ES	EACH SIDE
EW	EACH WAY
EX	EXISTING
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	FOUNDATION
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FIN	FINISH
FIN GR	FINISH GRADE
FL	FLOOR
FND	FOUNDATION
FS	FAR SIDE
FT	FEET/FOOT
FTG	FOOTING
FV	FIELD VERIFY
GA	GAGE/GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GEN	GENERAL
GL	GRID LINE
GS	GALVANIZED STEEL
HSA	HEADED STUD ANCHOR
HT	HEIGHT
H	HIGH
HSS	HOLLOW STRUCTURAL SECTION
HORIZ	HORIZONTAL
HD	HOT DIPPED
HDG	HOT DIPPED GALVANIZED
ID	INSIDE DIAMETER
I.F.	INSIDE FACE
IN	INCH
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP (1000 LB)
KLF	KIPS PER LINEAL FOOT
KSI	KIPS PER SQUARE INCH
KWY	KEYWAY
L	LONG
LB	POUND
Ld	DEVELOPMENT LENGTH
LGTH	LENGTH
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
LSH	LONG SIDE HORIZONTAL
LSL	LAMINATED STRAND LUMBER
LSV	LONG SIDE VERTICAL
LT WT	LIGHT WEIGHT
LVL	LAMINATED VENEER LUMBER
LW	LONG WAY
LWIC	LIGHT WEIGHT INSULATED CONCRETE
MATL	MATERIAL
MAX	MAXIMUM
MB	MASONRY BEAM
MC	MASONRY COLUMN
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MET	METAL
MFR	MANUFACTURE/MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MPH	MILES PER HOUR
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NIC	NOT IN CONTRACT
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
P/C	PRECAST CONCRETE/PILE CAP
P/T	POST TENSIONED
PAR	PARALLEL
PCB	PRECAST CONCRETE BEAM
PCC	PRECAST CONCRETE COLUMN
PCF	POUNDS PER CUBIC FEET
PCI	PRECAST/PRESTRESSED CONCRETE INSTITUTE
PEMB	PRE-ENGINEERED METAL BUILDING
PEN	PENETRATION
PERP	PERPENDICULAR
PJ	PANEL JOINT CENTERLINE
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PLMG	PLUMBING
PLY	PLYWOOD
PRE-ENG	PRE-ENGINEERED
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED
PTI	POST-TENSIONING INSTITUTE
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION
RFI	REQUEST FOR INFORMATION
RND	ROUND
RO	ROUGH OPENING
RTU	ROOF TOP UNIT
SB	SOFFIT BEAM
SCHED	SCHEDULE
SF	SQUARE FEET or STRIP FOUNDATION
SIM	SIMILAR
SPC	SPACE/SPACES
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SW	SHORT WAY
SYM	SYMMETRICAL
T/	TOP OF
TB	TIE BEAM
TC	TIE COLUMN
T&B	TOP AND BOTTOM
TCX	TOP CHORD EXTENSION
TDS	TURN DOWN SLAB
TE	THICKENED EDGE
THK	THICKNESS
TEMP	TEMPERATURE
TENS	TENSION
THD	THREAD/THREADED
THK	THICK
TOL	TOLERANCE
TRANS	TRANSVERSE
T.S.	THICKENED SLAB
TWF	THICKENED WALL FOUNDATION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VOL	VOLUME
W	WIDTH
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WALL FOOTING
WP	WATERPROOF or WORKING POINT
WS	WELDED STUD
WT	WEIGHT/STRUCTURAL TEE SECTION
WWF	WELDED WIRE FABRIC
@	AT DESIGNATION
#	POUNDS / REBAR SIZE NUMBER
+/-	PLUS OR MINUS
℄	CENTER LINE
&	AND
Sx	SECTION MODULUS
Ix	MOMENT OF INERTIA

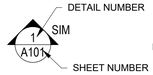
STRUCTURAL SYMBOLS AND LEGEND



SECTION / DETAIL MARK



PLAN / DETAIL MARK



ELEVATION MARK

RECESS OR STEP IN SLAB

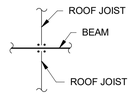
SLOPED SURFACE

PITCHED ROOF

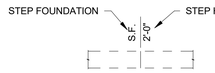
PLAN KEY NOTE


MOMENT CONNECTION

JOIST BEARING ELEVATION



BOLTED JOIST CONNECTION



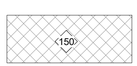
STEPPED FOUNDATION

COLUMN AND FOUNDATION TYPE MARKS

SPOT ELEVATION, TYPICALLY TOP OF ITEM TAGGED (T/WALL, T/FOUNDATION, ETC)

PANEL TYPE, SEE SCHEDULE

WALL TYPE DESIGNATION TAG



INCREASED FLOOR LOAD AREA IN PSF

WALL TYPES

CIP CONCRETE WALL

CMU WALL

NOTE: SYMBOLS AND LEGEND SHOWN ARE GENERIC AND DO NOT NECESSARILY INDICATE ACTUAL OCCURRENCES IN THESE DRAWINGS.

SPAN DIRECTION


NORTH ARROW

COLUMN GRID LINE


CIP CONCRETE COLUMN ABOVE


CONCRETE COLUMN BELOW


METAL DECK


CONCRETE SLAB ON METAL DECK


CAST-IN-PLACE CONCRETE SLAB

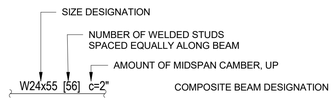

GRATING


PRECAST CONCRETE PLANK

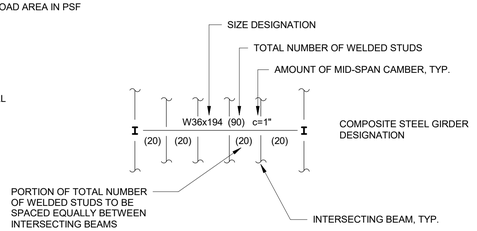

ELEVATED CAST-IN-PLACE CONCRETE SLAB


WOOD SHEATHING

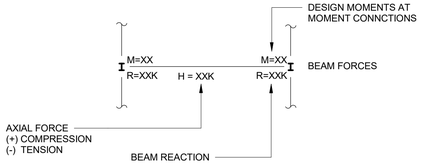

EARTH



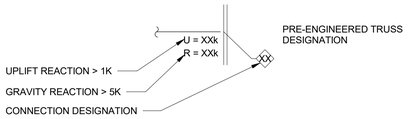
COMPOSITE BEAM DESIGNATION



COMPOSITE STEEL GIRDER DESIGNATION



BEAM FORCES



PRE-ENGINEERED TRUSS DESIGNATION

STRUCTURAL SHEET INDEX

SHEET #	SHEET TITLE
S001	ABBREVIATIONS SYMBOLS AND SHEET INDEX
S002	STRUCTURAL GENERAL NOTES
S003	STRUCTURAL GENERAL NOTES CONTINUED
S004	STRUCTURAL GENERAL NOTES CONTINUED
S006	SCHEDULES
S007	SCHEDULES
S008	SCHEDULES
S101	OVERALL FIRST FLOOR PLAN
S102	OVERALL SECOND FLOOR PLAN
S103	OVERALL THIRD FLOOR PLAN
S104	OVERALL FOURTH FLOOR PLAN
S105	OVERALL ROOF FRAMING PLAN
S106	OVERALL HIGH ROOF FRAMING PLAN
S111	SECOND FLOOR DIMENSION PLAN
S112	THIRD FLOOR DIMENSION PLAN
S113	FOURTH FLOOR DIMENSION PLAN
S114	ROOF DIMENSION PLAN
S115	HIGH ROOF DIMENSION PLAN
S201	ENLARGED MONUMENTAL STAIR FOUNDATION PLAN
S202	ENLARGED MONUMENTAL STAIR FRAMING PLAN
S203	ENLARGED MONUMENTAL STAIR SECOND FLOOR PLAN
S204	STAIR FRAMING SECTIONS
S205	STAIR FRAMING SECTIONS
S206	STAIR FRAMING DETAILS
S207	STAIR FRAMING DETAILS
S301	TRUSS PROFILES
S302	TRUSS PROFILES
S303	WALL ELEVATIONS
S304	ENLARGED PLANS
S401	PILE CAP DETAILS
S402	PILE CAP DETAILS
S403	PILE CAP DETAILS
S404	FOUNDATION SECTIONS AND DETAILS
S405	FOUNDATION SECTIONS AND DETAILS
S406	FOUNDATION SECTIONS AND DETAILS
S407	FOUNDATION SECTIONS AND DETAILS
S410	TYPICAL CONCRETE WALL DETAILS
S411	TYP MASONRY DETAILS
S412	TYP MASONRY DETAILS
S501	TYP FRAMING SECTIONS AND DETAILS
S502	TYP FRAMING SECTIONS AND DETAILS
S503	TYP FRAMING SECTIONS AND DETAILS
S504	TYP FRAMING SECTIONS AND DETAILS
S505	TYP FRAMING SECTIONS AND DETAILS
S506	TYP FRAMING SECTIONS AND DETAILS
S507	TYP FRAMING SECTIONS AND DETAILS
S508	TYP FRAMING SECTIONS AND DETAILS
S601	TYP ROOF SECTIONS AND DETAILS
S602	TYP ROOF SECTIONS AND DETAILS
S603	TYP ROOF SECTIONS AND DETAILS
S604	TYP ROOF SECTIONS AND DETAILS
S605	TYP ROOF SECTIONS AND DETAILS

1000 GENERAL NOTES:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH PROJECT SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR OPENINGS, DEPRESSIONS, EQUIPMENT WEIGHTS AND LOCATIONS, EMBEDDED ITEMS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
2. DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
3. NO STRUCTURAL MEMBER OR COMPONENT SHALL BE CUT, NOTCHED, OR OTHERWISE ALTERED UNLESS APPROVED IN WRITING BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS INCURRED BY THE ENGINEER OF RECORD FOR REVIEW OF ANY SUCH DEVIATIONS.
4. DO NOT SCALE DRAWINGS.
5. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.
6. DETAILS ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. THE APPLICABILITY OF THE DETAIL TO ITS LOCATION ON THE DRAWINGS CAN BE DETERMINED BY THE TITLE OF DETAIL. SUCH DETAILS SHALL APPLY WHETHER OR NOT THEY ARE REFERENCED AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER OF RECORD.
7. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
8. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCE AND SAFETY. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
9. THE STRUCTURAL ENGINEER'S OBLIGATIONS TO REVIEW SHOP DRAWINGS AND OTHER SUBMITTALS AND TO RETURN THEM IN A TIMELY MANNER ARE CONDITIONED UPON THE PRIOR REVIEW AND APPROVAL OF THE SHOP DRAWINGS OR SUBMITTALS BY THE CONTRACTOR AS REQUIRED IN THE CONSTRUCTION CONTRACT AND THE CONTRACTOR'S SUBMITTAL OF THE SHOP DRAWINGS AND OTHER SUBMITTALS IN ACCORDANCE WITH A WRITTEN SCHEDULE DISTRIBUTED IN ADVANCE TO THE ENGINEER IDENTIFYING THE DATES FOR THE SUBMITTAL OF THE VARIOUS SHOP DRAWINGS AND SUBMITTALS.
10. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF TLC ENGINEERING SOLUTIONS, INC. IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHALL NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK.
11. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXCEED LIFE SPAN AND TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE OWNER. THIS PROGRAM SHALL INCLUDE ITEMS SUCH AS, BUT NOT LIMITED TO, PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATINGS FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO SALT ENVIRONMENT OR OTHER HARSH CHEMICALS.
12. STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR THE DESIGN OF STEEL STAIRS, HANDRAILS, CURTAIN WALL/WINDOW WALL SYSTEMS, COLD-FORMED STEEL FRAMING, OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS. SUCH SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS.
13. IN THE PROFESSIONAL OPINION OF TLC ENGINEERING SOLUTIONS, INC. THE STRUCTURAL CONTRACT DOCUMENTS FOR THIS PROJECT HAVE BEEN PREPARED IN ACCORDANCE WITH THE DESIGN CRITERIA AS SET FORTH IN THE FLORIDA BUILDING CODE (FBC) 7th EDITION (2020)
14. NO PROVISIONS HAVE BEEN MADE FOR VERTICAL OR HORIZONTAL EXPANSION EXCEPT AS SHOWN ON CONTRACT DOCUMENTS.
15. FINISH FLOOR ELEVATION (FIRST FLOOR) OF 100'-0" IS USED AS A REFERENCE ELEVATION. ACTUAL FLOOR ELEVATION IS + 13.70'. SEE CIVIL DRAWINGS FOR ACTUAL ELEVATION.
16. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS AND USE OF CAD/REVIT FILES BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS IS PROHIBITED UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM ENGINEER OF RECORD.
17. IN THE EVENT THAT THE STRUCTURAL CONTRACTS DRAWINGS AND SPECIFICATIONS CONFLICT ON INFORMATION, THE STRUCTURAL CONTRACT DRAWINGS SHALL SUPERSEDE THE SPECIFICATIONS.

1060 DESIGN LOADS:

1. THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2020.
2. THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:

A. DEAD LOADS:

ROOFING MATERIALS	10 PSF
ROOF MEP & CEILING	15 PSF
FLOOR (3 1/2" SLAB ON 2" DECK, 5 1/2" TOTAL)	57 PSF
FLOOR (SUPERIMPOSED - MEP, CEILING)	15 PSF

B. LIVE LOADS:

ROOF (TYP)	20 PSF
FLOOR (MECH ROOM)	150 PSF
FLOOR (ELECTRICAL ROOM)	200 PSF
FLOOR (CLASSROOMS)	40 PSF
FLOOR (CORRIDORS - 2ND FL & ABOVE)	80 PSF
FLOOR (PARTITION LOAD)	15 PSF
FLOOR (STAIRS AND EXITS)	100 PSF
FLOOR (GENERAL/PUBLIC SPACES/ASSEMBLY)	100 PSF

C. WIND LOADS: PER ASCE 7-16.

ULTIMATE DESIGN WIND SPEED, Vult	158 MPH (3 SEC. GUST)
NOMINAL DESIGN WIND SPEED, Vasd	123 MPH (3 SEC. GUST)
RISK CATEGORY	III
EXPOSURE	C

THIS PROJECT IS IN A WIND-BORNE DEBRIS REGION. COMPONENTS & CLADDING SHALL BE IMPACT RESISTANT PER FBC & ASCE REQUIREMENTS.

1330 SHOP DRAWING REVIEW:

1. SHOP DRAWINGS SHALL ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS.
2. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND MARKED "APPROVED" PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. NON-CONFORMING DRAWING SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. SHOP DRAWING SUBMITTALS SHALL EITHER BE SUBMITTED ELECTRONICALLY OR SHALL INCLUDE, AT A MINIMUM, FOUR HARD COPIES. ONE SET OF PRINTS WILL BE RETAINED BY THE ENGINEER OF RECORD, ONE BY THE ARCHITECT, ONE BY THE LOCAL BUILDING DEPARTMENT (WHERE REQUIRED) AND THE CONTRACTOR SHALL MAKE PRINTS AS REQUIRED FOR DISTRIBUTION.
4. THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER OF RECORD.
5. CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER OF RECORD REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR COSTS CAUSED BY MULTIPLE RE-SUBMITTALS (MORE THAN ONE) AT ARCHITECT/ENGINEERS' CURRENT HOURLY RATES.

1331 SHOP DRAWINGS FOR SPECIALTY ENGINEERED PRODUCTS:

1. THE FOLLOWING SYSTEMS AND COMPONENTS AS A MINIMUM REQUIRE FABRICATION AND ERECTION DRAWINGS PREPARED BY A DELEGATED ENGINEER:

A. TEMPORARY WALL BRACING

B. FORMWORK AND TEMPORARY SHORING

C. ENGINEERED CANOPY & PERGOLA SYSTEMS - INCLUDING FOUNDATIONS

2. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND DRAWINGS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. SHOP DRAWINGS AND CALCULATIONS SHALL IDENTIFY SPECIFIC PRODUCT UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
3. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED UNDER THE DIRECT SUPERVISION AND CONTROL OF THE DELEGATED ENGINEER.
4. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA AS AN INDICATION THAT HE/SHE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED SET FOR THEIR RECORDS.
5. DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION (SUCH AS REINFORCING STEEL SHOP DRAWINGS OR STRUCTURAL STEEL ERECTION DRAWINGS) AND REQUIRING NO ENGINEERING, DO NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
6. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
7. REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:

A. THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.

B. THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER.

C. THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.

D. THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.

8. SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED AND WILL BE RETURNED.

1333 SUBMITTALS:

1. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
2. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

- ITEMS MARKED (D) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
- ITEMS MARKED (#) SHALL BE SUBMITTED FOR ENGINEER'S RECORD ONLY.

A. STRUCTURAL STEEL (D)

B. REINFORCING STEEL

C. FORMWORK, SHORING, RESHORING (D,#)

D. CONCRETE MIX DESIGNS

E. CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS

F. TEMPORARY WALL BRACING (D)

G. ENGINEERED CANOPY SYSTEMS (D)

H. CONCRETE MASONRY

I. AUGERCAST PILES

EOR SHALL BE PROVIDED 10 BUSINESS DAYS AFTER RECEIPT TO REVIEW SHOP DRAWING, PRODUCT DATA, AND OTHER SUBMITTALS REQUIRING EOR REVIEW. MODIFIED TURNAROUND TIME REQUESTS FOR EXTRAORDINARY CIRCUMSTANCES SUCH AS EXPEDITIED REVIEWS OF CRITICAL/TIME-SENSITIVE SUBMITTALS WILL BE CONSIDERED ON A CASE-BY-CASE BASIS, AND MIGHT REQUIRE NON TIME-CRITICAL SUBMITTALS BE DEPRIORITIZED WITH LONGER REVIEW TIMES PERMITTED, AT NO PENALTY.

RFIs - CM/GC TO PROVIDE TLC WITH 5 BUSINESS DAYS TO RESPOND TO REQUESTS FOR INFORMATION.

CONTRACTOR TO PROVIDE EOR WITH COMPREHENSIVE SCHEDULE OF SUBMITTALS 10 BUSINESS DAYS (MIN.) PRIOR TO SUBMITTING FOR REVIEW, AND PROVIDE UPDATES IF SUMBITTAL SCHEDULE IS EXPECTED TO CHANGE.

2310 FOUNDATIONS:

1. SEE THE FOLLOWING GEOTECHNICAL REPORT FOR COMPLETE GEOTECHNICAL RECOMMENDATIONS AND INSTALLATION PROCEDURES. SITE PREPARATION AND FOUNDATION INSTALLATION SHALL COMPLY WITH:

REPORT No. 229010.000
PREPARED BY: DRIGGERS ENGINEERING SERVICES INCORPORATED
TITLED: RINGLING COLLEGE OF ART & DESIGN - SIGNATURE BUILDING
DATED: OCTOBER 31, 2023

2. FOLLOW THE RECOMMENDATIONS LISTED IN THE GEOTECHNICAL REPORT FOR SITE PREPARATION WORK. AT A MINIMUM, SITE PREPARATION WORK SHALL INCLUDE:

A. STRIPPING AND GRUBBING OF THE BUILDING FOOTPRINT PLUS A MARGIN OF 5 FEET AROUND THE BUILDING, REMOVING ALL ORGANIC MATERIALS, EXISTING STRUCTURES OR PIPING, OR ANY OTHER OBJECTIONABLE MATERIALS WITHIN 1 FEET OF THE SURFACE, OR AS REQUIRED PER RECOMMENDATIONS OF GEOTECHNICAL REPORT.

B. PROOF ROLLING THE BUILDING SITE TO LOCATE ANY UNFORESEEN SOFT AREAS. ANY SOFT AREAS SHALL BE EXCAVATED AND REPLACED WITH CLEAN FILL. A DENSITY OF AT LEAST 95% FOR A DEPTH OF 2 FEET IS REQUIRED UNDER THE BUILDING FOOTPRINT.

C. ALL FILL SHALL BE CLEAN SAND AND FREE OF ORGANIC MATERIALS. COMPACT FILL IN 12 INCH (UNCOMPACTED THICKNESS) LIFTS TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE.

D. EXCAVATIONS FOR FOUNDATIONS SHALL BE COMPACTED TO 95% FOR A DEPTH OF AT LEAST 1 FOOT BELOW THE BOTTOM OF THE FOUNDATION AND SLABS.

E. DEWATERING MAY BE REQUIRED TO ACHIEVE THE REQUIRED COMPACTION VALUES, AND IF USED, SHOULD DRAW DOWN THE WATER LEVEL TO AT LEAST 2 FEET BELOW THE BOTTOM OF THE EXCAVATION.

3. SLABS ON GRADE SHALL BE PLACED OVER A 15 MIL, CLASS "A" VAPOR RETARDER. VAPOR RETARDER SHALL BE LAPPED A MINIMUM OF 6", OR AS RECOMMENDED BY THE MANUFACTURER (WHICHEVER IS GREATER) AND TAPED AT ALL JOINTS. ALL PUNCTURES IN THE VAPOR RETARDER SHALL BE REPAIRED PER MANUFACTURER'S WRITTEN INSTRUCTIONS. ALL PENETRATIONS THROUGH THE VAPOR RETARDER (COLUMNS, PLUMBING, CONDUITS, ETC) SHALL BE SEALED PER MANUFACTURER'S WRITTEN INSTRUCTIONS. VAPOR RETARDER SHALL BE CONTINUOUS UNDER WALL FOUNDATIONS OR SEALED TO EXTERIOR WALLS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

2466 AUGERCAST PILES:

1. AUGERCAST PILING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS AND INSTALLATION PROCEDURES CONTAINED IN THE GEOTECHNICAL REPORT REFERENCED ABOVE.
2. PILES SHOULD BE REINFORCED AS INDICATED IN "TYPICAL AUGERCAST PILE DETAIL".
3. GROUT SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS OF 5,000 PSI. GROUT SHALL HAVE A MAXIMUM FLOW RATE OF 15 SECONDS. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD OR LAB CYLINDER TESTS FOR REVIEW PRIOR TO USE.
4. GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM STANDARDS UTILIZING 2" X 2" CUBES. CUBES SHALL BE MADE AND CURED IN ACCORDANCE WITH ASTM C109.
5. WHEN IN CLUSTERS OF TWO OR MORE, INDIVIDUAL PILES SHALL BE INSTALLED WITHIN 3 INCHES OF DESIGN LOCATION. THE CUMULATIVE LOCATION OF PILE GROUP CENTER OF GRAVITY SHALL NOT EXCEED 1-1/2". SINGLE PILES SHALL BE INSTALLED WITHIN 1-1/2 INCHES OF DESIGN LOCATION. VARIATION FROM PLUMB SHALL NOT EXCEED 1/2 INCH IN TWO FEET.
6. ADJACENT PILES SHALL NOT BE PLACED UNTIL THE GROUT IN THE PILES HAS SET FOR 24 HOURS IN ORDER THAT THERE WILL BE NO INTER CONNECTION BETWEEN ADJACENT PILES WHILE THE GROUT IS IN A FLUID STATE.
7. AN AS-BUILT SURVEY OF PILE LOCATIONS SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES). PILES SHALL BE LOCATED ON THE AS-BUILT DRAWINGS HORIZONTALLY AND VERTICALLY FROM THE COLUMN CENTERLINES. SUBMIT THE AS-BUILT DRAWINGS TO THE STRUCTURAL ENGINEER FOR APPROVAL.
8. CONTRACTOR IS RESPONSIBLE FOR ENGINEERING COSTS ASSOCIATED WITH REDESIGNS CAUSED BY IMPROPER PILE LOCATIONS.
9. WHERE THE PILE CUTOFF IS NEAR THE SURFACE OR ABOVE THE BOTTOM OF THE EXCAVATION. METAL SLEEVES OR CASING OF THE PROPER DIAMETER AND AT LEAST 18 INCHES IN LENGTH SHALL BE PLACED AROUND THE PILE TOPS. (SPECIAL CONDITIONS MAY REQUIRE METAL SLEEVES OF ADDITIONAL LENGTH.)
10. INSTALLATION OF PILING SHALL BE MONITORED BY A LICENSED GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES) UNDER THE DIRECTION OF THE PROJECT GEOTECHNICAL ENGINEER. REPORTS OF ALL WORK SHALL BE SUBMITTED FOR REVIEW. REPORT SHALL INCLUDE PILE DEPTH, PILE GROUT VOLUME, GROUT FACTOR, CONCRETE COVERAGE ON THE REINFORCING STEEL, GROUT DELIVERY DATES, MISCELLANEOUS OBSERVATIONS, AND OTHER INFORMATION AS REQUIRED.
11. THE DESIGN IS BASED ON A MAXIMUM (PER PILE) WORKING CAPACITY OF:

DEPTH (FT)	COMPRESSION (TONS)	TENSION (TONS)
35	60	15

12. PILE DIAMETER SHALL BE 16 INCHES.
13. PILES TO BE INSTALLED TO VIRTUAL REFUSAL (PENETRATION RATE OF LESS THAN 1 FT/MINUTE UNDER THE FULL WEIGHT OF THE DRILLING EQUIPMENT AND FULL TORQUE).
14. CONTRACTOR TO HAVE PROVISIONS ON HAND TO PREDRILL THROUGH UPPER ZONE OF CEMENTED DOLOMITIC SILTS AS REQUIRED AND IN NO CASE SHALL THE PILES BE TERMINATED ABOVE A DEPTH OF 25 FEET BELOW ORIGINAL GRADE.
15. FOR BIDDING PURPOSES ASSUME THE INJECTED GROUT VOLUME WILL EXCEED THE THEORETICAL VOLUME BY 20%.

2500 PILE TESTING:

1. PILE LOAD TESTING IS REQUIRED AND SHALL INCLUDE THE FOLLOWING:

A. A MINIMUM OF 10 PROFILE PILES WITHIN THE STRUCTURE AREA AT NON-PRODUCTION LOCATIONS UNDER THE GUIDANCE OF THE PROJECT GEOTECHNICAL ENGINEER. THE PROJECT GEOTECHNICAL ENGINEER SHALL DETERMINE WHICH PILE TO BE USED FOR FULL SCALE LOAD TEST.

B. ONE COMPRESSION TEST IN ACCORDANCE WITH ASTM D1143 AND THE FLORIDA BUILDING CODE LOADED TO TWICE THE DESIGN LOAD. AFTER COMPLETION OF THIS TEST, RELOAD THE TEST PILE TO FAILURE OR THREE (3) TIMES THE DESIGN LOAD, WHICHEVER OCCURS FIRST.

C. ONE (1) TENSION TEST IN ACCORDANCE WITH ASTM D 3689 LOADED TO TWICE THE DESIGN LOAD.

D. ONE (1) LATERAL TEST IN ACCORDANCE WITH ASTM D 3966 LOADED TO TWICE THE DESIGN LOADS.

2. THE PILE CONTRACTOR SHALL PROVIDE COMPLETE TESTING MATERIALS AND EQUIPMENT, INCLUDING ADDITIONAL REINFORCING IN TEST AND REACTION PILES TO RESIST LOAD TEST. INSTALL TEST AND REACTION PILES AND PERFORM THE LOAD TESTS. THE LOAD TESTS SHALL BE MONITORED BY AN INDEPENDENT GEOTECHNICAL CONSULTANT EMPLOYED BY THE OWNER AND APPROVED BY THE ENGINEER.
3. TEST PILES SHALL NOT BECOME PART OF THE PERMANENT FOUNDATION SYSTEM, BUT SHALL BE INSTALLED WITH THE SAME EQUIPMENT, MATERIALS, AND PROCEDURES.

3302 CONCRETE:

1. SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:

CONCRETE STRUCTURE TYPE	COMPRESSIVE STRENGTH	SLUMP	COURSE AGGREGATE	MAX W/C RATIO
FOUNDATIONS	3000 PSI	4-6"	ASTM #57	0.50
SLABS-ON-GRADE	3000 PSI	3-5"	ASTM #57	0.50
MONUMENTAL STAIR SLABS (STRUCTURAL & TOPPING)	4,000 PSI	4-6"	ASTM #57	0.40
CIP WALLS (INCLUDING STEM WALLS)	4000 PSI	4-6"	ASTM #57	0.48
EXTERIOR CONCRETE SLABS/WALLS	4000 PSI	4-6"	ASTM #57	0.48
BEAMS & COLUMNS	4,000 PSI	4-6"	ASTM #89	0.48
TIE COLUMNS	4000 PSI	4-6"	ASTM #89	0.48
PILE CAPS	5000 PSI	4-6"	ASTM #57	0.40
GRADE BEAMS/PIERS	5000 PSI	4-6"	ASTM #57	0.40
SLABS ON METAL DECK	3,000 PSI	4-6"	ASTM #57	0.50
AUGER-CAST PILES	5,000 PSI	4-6"	ASTM #89	0.40

2. CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI STANDARDS AND SPECIFICATIONS.
3. ALL PUMPED CONCRETE SHALL CONTAIN A HIGH RANGE WATER REDUCING AGENT / PLASTICIZER TO INCREASE SLUMP. RESULTING SLUMP MAY INCREASE UP TO 2" ABOVE THAT NOTED ABOVE.
4. DO NOT ADD WATER AFTER INTIAL MIX AT PLANT UNLESS INCLUDED IN MIX DESIGN.
5. FLY ASH, WHEN USED, SHALL BE LIMITED TO 25% OF THE TOTAL CEMENTITIOUS MATERIAL. SLAG, WHEN USED, SHALL BE LIMITED TO 50% OF THE TOTAL CEMENTITIOUS MATERIAL. TOTAL NON-CEMENTITIOUS MATERIAL SHALL BE LIMITED TO 50% OF THE TOTAL CEMENTITIOUS MATERIAL.
6. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE.
7. CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED.
8. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE.
9. SLABS SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1-CLASS D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY.
10. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
11. CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE.
12. CONDUITS, PIPES AND SLEEVES SHALL BE PLACED AND SPACED IN ACCORDANCE WITH ACI 318, 6.3.
13. CONCRETE DESIGN MIX SUBMITTALS SHALL INCLUDE TESTED, STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318.
14. ALL COLUMNS AND BEAMS INTEGRATED IN CMU WALLS ARE 8" AND 12" NOMINAL AND 7-5/8" AND 11-5/8" ACTUAL DIMENSIONS, RESPECTIVELY. THIS IS WHAT IS REFERED TO AS TIE COLUMNS AND TIE BEAMS.
15. CONCRETE SLABS ON GRADE SHALL BE REINFORCED WITH MACRO-SYNTHETIC FIBERS AT A RATE AS SPECIFIED ON THE DRAWINGS, BUT NOT LESS THAN 3.0 LBS/CY, OR AS RECOMMENDED BY THE FIBER MANUFACTURER FOR CONTROL OR TEMPERATURE AND SHRINKAGE/CRACKING, WHICHEVER IS GREATER.
16. FOR ALL CASES WHERE FIBER REINFORCING IS SPECIFIED, CONCRETE PUMP MUST HAVE A ROUND BAR GRATE WITH A WORKING VIBRATOR MOUNTED ON THE GRATE WHEN PUMPING MACRO FIBER CONCRETE.
17. WHEN TOTAL WIDTH OF PIPES OR DUCTS CAST INTO A SLAB EXCEED 12" IN A 24" WIDTH THEN THE CONTRACTOR SHALL ADD A LAYER OF #4 @ 12" ABOVE AND PERPENDICULAR TO THE DUCT/PIPE RUNS EXTENDING 12" BEYOND THE LAST DUCT/PIPE ON EACH SIDE.
18. WHEN ADHESIVES OR WATER VAPOR IMPERMEABLE FLOOR COVERINGS ARE BEING USED ON CONCRETE SURFACES, THE CONTRACTOR SHALL VERIFY THROUGH APPROPRIATE TESTING THAT THE WATER CONTENT OF THE CONCRETE, AND VAPOR TRANSMISSION RATE THROUGH THE CONCRETE, IS WITHIN THE ALLOWABLE RANGE BEFORE INSTALLATION. THE MANUFACTURER OF THE ADHESIVE OR FLOOR COVERING SHALL REVIEW AND APPROVE THE RESULTS OF THE TESTING PRIOR TO INSTALLATION OF PRODUCTS.

THIS BUILDING IS CLASSIFIED AS A "THRESHOLD BUILDING" SPECIAL INSPECTION OF THE CONSTRUCTION IS REQUIRED BY THE STATE OF FLORIDA IN ACCORDANCE WITH CHAPTER 553 OF THE FLORIDA STATUTES. CONSTRUCTION SHALL BE INSPECTED IN ACCORDANCE WITH THE SPECIAL INSPECTION PLAN.

DISCLAIMER NOTES:

1. REF ARCHITECTURAL DRAWINGS FOR CANOPIES AND OTHER MISC. SITE STRUCTURES.
2. STRUCTURAL REVIT MODEL DISCLAIMER: ALTHOUGH MAIN STRUCTURAL MEMBERS ARE MODELED, CALL OUTS ON THE PLANS GOVERN, LINE WORK IS OCCASIONALLY UTILIZED TO INDICATE FRAMING, AND DETAILS INDICATE STEEL THAT MAY NOT BE MODELED. THEREFORE TAKE OFFS FROM THE MODEL SHOULD NOT BE RELIED ON AS AN ACCURATE MEASUREMENT OF MATERIALS, BUT MAY BE USED AS A POINT OF REFERENCE AT THE CONTRACTOR'S DISCRETION.

STRUCTURAL GENERAL NOTES

3310 REINFORCING STEEL:

1. SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST, AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.

2. PROVIDE CONCRETE COVER OVER PRIMARY REINFORCEMENT, TIES, AND STIRRUPS, AS FOLLOWS, UNLESS OTHERWISE NOTED:

LOCATION AND CONDITION	MINIMUM COVER
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	ALL BARS 3"
B. CONCRETE EXPOSED TO EARTH OR WEATHER:	
1. #6 OR GREATER	2"
2. #5 OR SMALLER	1.5"
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
1. SLABS, WALLS, AND JOISTS	#11 OR SMALLER 3/4"
2. BEAMS AND COLUMNS	ALL BARS 1.5"

4. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.
5. PROVIDE STANDARD HOOKS AT DISCONTINUOUS ENDS OF ALL TOP BARS.
6. WHERE REINFORCING IS SHOWN CONTINUOUS, SPLICE BOTTOM BARS OVER SUPPORTS AND TOP BARS AT CENTER OF SPAN. ALL OTHER LAP SPLICES SHALL BE IN ACCORDANCE WITH SPLICE TABLES AND DETAILS SHOWN ON DRAWINGS.
7. PROVIDE DOWELS INTO FOOTINGS, PILE CAPS, SUPPORT BEAMS, ETC. TO MATCH VERTICAL BARS WITH CLASS B TENSION LAP SPLICES, U.N.O.
8. AT CHANGES IN DIRECTION OF CONCRETE WALLS AND TIE BEAMS, PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL STEEL.
11. WHERE HOOKS ARE SHOWN ON THE PLANS OR DETAILS, HOOKS SHALL BE DETAILED TO EXTEND DEEP ENOUGH INTO SUPPORTING STRUCTURE TO DEVELOP THE FULL STRENGTH OF THE HOOKED BAR. PROVIDE ADDITIONAL TIES OR STIRRUPS IN SUPPORTING STRUCTURE AS REQUIRED TO SATISFY ACI 318 HOOK DEVELOPMENT, CONFINEMENT, AND ANCHORAGE CRITERIA.
12. AT CANTILEVER SLABS AND BEAMS, REINFORCING BARS IN DIRECTION OF CANTILEVER SHALL BE DETAILED TO FULLY DEVELOP THE BAR STRENGTH INTO THE SUPPORTING STRUCTURE, EITHER BY PROVIDING FULL CLASS B LAP SPLICE OR STANDARD ACI HOOKS EMBEDDED DEEP ENOUGH BEYOND SUPPORT TO DEVELOP STRENGTH OF BAR.

3314 WELDED WIRE FABRIC:

1. SHALL CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.
2. MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES.
3. USE OF FLAT MANUFACTURED SHEETS IS REQUIRED (NO ROLLS).
4. INSTALL WWF ON BRICKS OR BOLSTERS AT MID DEPTH OF SLAB U.N.O.; SPACING OF SUPPORTS SHALL BE ADEQUATE TO PREVENT SHIFTING OF WWF DURING CONSTRUCTION, BUT SHALL NOT EXCEED 24" O.C.

3321 FORMWORK AND SHORING:

1. NO STRUCTURAL CONCRETE SHALL BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28-DAY DESIGN STRENGTH.
2. DESIGN, ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET THE REQUIREMENTS SET FORTH IN ACI STANDARDS 347 AND 301.

3324 PLUMBING SLEEVES:

1. MINIMUM SLEEVE SPACING SHALL BE THREE DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE OR 6" CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER.
2. PRIOR TO CONSTRUCTION ALL SLEEVE LOCATIONS AND SIZES NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE ENGINEER.
3. PLACE TWO #3 STIRRUPS @ 3" O.C. EACH SIDE OF SLEEVE PENETRATIONS IN BEAMS.

3400 CONCRETE TESTING:

1. AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:

   A. A. ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE."

   B. B. ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED LAB CURED CYLINDER QUANTITIES AND TEST AGE AS FOLLOWS:

      (2) AT 7 DAYS
      (3) AT 28 DAYS

   ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28-DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.

3601 CHEMICAL (ADHESIVE) ANCHORS:

1. SHALL BE A TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS HILTI HIT HY200, HILTI RE500 SD, DEWALT PURE 100+, DEWALT AC200+, OR SIMPSON SET ADHESIVE SYSTEM, OR ENGINEER APPROVED SUBSTITUTION.
2. EPOXY TYPES AND BRANDS VARY IN THEIR BOND STRENGTH AND SUITABILITY OF USE, DEPENDING ON TYPE OF LOADING, ANCHOR SPACING, ETC. WHEN A PARTICULAR TYPE OF EPOXY IS SPECIFIED IN THESE DRAWINGS, A UNIQUE CALCULATION HAS BEEN MADE BASED ON THE PROPERTIES OF THAT SPECIFIC TYPE OF EPOXY FOR THE SPECIFIC CONDITION SHOWN IN THE DETAIL. SUBSTITUTION OF EPOXY TYPE IS NOT ALLOWED WHERE DETAIL SPECIFIES ONLY ONE TYPE OF EPOXY, WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD. NOT ALL EPOXY BRANDS OR TYPES WILL BE ALLOWED AS SUBSTITUTES. ICC-ES REPORTS FOR PROPOSED ANCHOR SUBSTITUTIONS MUST BE SUBMITTED TO EOR FOR REVIEW. EOR MAY REQUIRE ENGINEERED CALCULATIONS FOR REVIEW AND APPROVAL.
3. SUBSTITUTION OF EPOXIES IN ONE CONDITION SHALL NOT BE CONSTRUED AS APPROVAL TO MAKE SIMILAR SUBSTITUTION OF EPOXIES IN OTHER DIFFERING CONDITIONS. EACH SUBSTITUTION MUST RECEIVE PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD.
4. INSTALL ANCHORS IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT SPECIFIED ON DRAWINGS.
5. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI (ACI 318-14 D.9.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
6. THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE MADE AVAILABLE TO THE EOR AS REQUESTED.
7. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL HOLE CLEAN-OUT REQUIREMENTS ARE FULLY COMPLETED BY THE INSTALLERS PRIOR TO INJECTING EPOXY INTO THE HOLES IN ACCORDANCE WITH THE MANUFACTURER'S MPII.
8. NO LOAD SHALL BE APPLIED TO THE EPOXY ANCHORS UNTIL THE EPOXY HAS FULLY CURED AND HAS ACHIEVED IT'S SPECIFIED STRENGTH. CURE TIME SHALL BE PER MANUFACTURERS PUBLISHED VALUES FOR SPECIFIC PRODUCT BEING USED.
9. IF DETAIL SHOWS EPOXY ANCHORS IN SLOTTED HOLES, IT IS IMPERATIVE THAT ANY EXCESS EPOXY IS CLEANED UP FROM AROUND THE ANCHOR ROD, SO THAT IT DOES NOT INTERFERE WITH ADJUSTABILITY OF ANCHOR ROD IN SLOTTED HOLE.
10. ADHESIVE ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193 FOR CRACKED, UNCRACKED, AND SEISMIC CONCRETE RECOGNITION.
11. ADHESIVE ANCHORS IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC70.
12. EXISTING REINFORCING IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
13. ADHESIVE ANCHORS IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE INSTALLED UNTIL CONCRETE AND/OR MASONRY HAS CURED FOR AT LEAST 21-DAYS.
14. PROVIDE SPECIAL INSPECTION FOR ALL ADHESIVE ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE.
15. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY AN INSPECTOR SPECIALLY APPROVED FOR THAT PURPOSE BY THE BUILDING OFFICIAL (ACI 318-14 D.9.2.4)

3602 MECHANICAL ANCHORS:

1. SHALL BE EITHER HEAVY DUTY CONCRETE SCREW ANCHOR (SUCH AS DEWALT SCREW-BOLT +, SIMPSON TITEN HD, OR HILTI HUS-H) OR WEDGE TYPE EXPANSION ANCHOR (SUCH AS DEWALT POWER-STUD+SD1, SIMPSON WEDGE-ALL, OR HILTI KWIK BOLT TZ).
2. TYPE OF ANCHOR SHALL BE AS SPECIFIED ON THE DRAWINGS, WHILE BRAND AND MODEL OF ANCHOR MAY BE SELECTED FROM THE ABOVE LISTED ANCHORS. SUBSTITUTION ANCHORS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVED IN WRITING BY THE ENGINEER OF RECORD PRIOR TO USE. ICC-ES REPORTS FOR PROPOSED ANCHOR SUBSTITUTES MUST BE SUBMITTED TO EOR FOR REVIEW. EOR MAY REQUEST ENGINEERED CALCULATIONS FOR REVIEW AND APPROVAL.
3. IN SOME CASES OF CRITICAL LOADING OR GEOMETRIC CONDITIONS, ONLY SPECIFIC ANCHORS WILL BE ALLOWED, AS NOTED ON THE DRAWINGS. IN THESE CASES, THE SPECIFIED BRAND AND MODEL OF ANCHOR MUST BE USED.
4. INSTALL ANCHORS IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT SPECIFIED ON DRAWINGS.
5. THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND MADE AVAILABLE TO THE EOR AS REQUESTED.
6. MINIMUM EMBEDMENT DEPTH OF 1/4" TAPCONS OR POWERS TAPPER + INSTALLED IN CONCRETE SHALL BE 1.25" AND INSTALLED INTO MASONRY SHALL BE 1.5". SELECT ANCHOR LENGTH AS REQUIRED TO ACHIEVE THE SPECIFIED MINIMUM EMBEDMENT DEPTH.
7. TAPCON SCREWS, OR DEWALT TAPPER +, MAY BE REPLACED W/ 0.157" SHANK DIAMETER PAF ANCHORS (HILTI X-U, POWERS CSI, OR APPROVED EQUAL) ON A 1:1 SUBSTITUTION BASIS. MINIMUM EMBEDMENT DEPTH SHALL BE 1.25" WHEN INSTALLED INTO CONCRETE OR GROUTED MASONRY. FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS, MINIMUM EDGE DISTANCES, AND PLACEMENT LIMITATIONS (RELATIVE TO MORTAR JOINTS IN MASONRY).
8. MECHANICAL ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC 193 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION.
9. MECHANICAL ANCHORS IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106.
10. POWER ACTUATED FASTENERS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC0ES AC70.
11. EXISTING REINFORCING BARS IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
12. ANCHORS SHALL NOT BE INSTALLED IN CONCRETE AND/OR MASONRY CONSTRUCTION UNTIL THE CONCRETE AND/OR MASONRY HAS CURED FOR AT LEAST 21-DAYS.
13. PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL POST INSTALLED ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE AND THE CURRENT ICC-ES REPORT (IBC2015 TABLE 1705.3 NOTE B).

4810 MASONRY WALLS:

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO TMS 402 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND TMS 602 "SPECIFICATION FOR MASONRY STRUCTURES", LATEST EDITION.
2. MASONRY UNITS SHALL MEET ASTM C-90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH UNIT STRENGTH OF 2000 PSI ON THE NET AREA (f'm = 2000 PSI). MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C-270.
3. GROUT SHALL BE 3000 PSI MINIMUM COMPRESSIVE STRENGTH AND MEET ASTM C-476 AND HAVE A SLUMP BETWEEN 8" AND 11" WITH WATER CM RATIO OF 0.55 MAXIMUM AND WITH 3/8" MAXIMUM AGGREGATE.
4. PROVIDE HOOKED DOWELS IN FOUNDATIONS FOR VERTICAL REINFORCING ABOVE. LAP SPLICES SHALL BE PER LAP SPLICE SCHEDULE SHOWN IN TYPICAL DETAIL. REF NOTE 30.
5. BLOCK CELLS SHALL BE GROUT FILLED WITH VERTICAL REINFORCING BARS AT CORNERS, INTERSECTIONS, EACH SIDE OF OPENINGS AND AS SHOWN ON THE DRAWINGS.
6. DOWELS SHALL BE USED TO PROVIDE CONTINUITY INTO THE STRUCTURE ABOVE AND/OR BELOW, UNLESS NOTED OTHERWISE.
7. USE METAL LATH, MORTAR OR SPECIAL UNITS TO CONFINE CONCRETE AND GROUT TO AREA AS REQUIRED.
8. MASONRY SHALL BE LAID IN RUNNING BOND PATTERN UNLESS NOTED OTHERWISE. AT FILLED CELLS LAY UNITS WITH FULL BED JOINTS AROUND CELLS.
9. PROVIDE 9 GAGE GALVANIZED HORIZONTAL JOINT REINFORCING (DUR-O-WALL OR ENGINEER APPROVED SUBSTITUTION) AT ALTERNATE BLOCK COURSES. LADDER TYPE IS RECOMMENDED WITH REINFORCED FILLED CELLS. PROVIDE PREFABRICATED "TEE" OR CORNER SECTIONS AT WALL INTERSECTIONS.
10. CONTROL JOINTS SHALL BE CONSTRUCTED IN EXTERIOR CONCRETE MASONRY CONSTRUCTION AT A MAXIMUM HORIZONTAL SPACING BETWEEN JOINTS OF 25'-0" AND NOT MORE THAN 12'-6" FROM CORNERS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. CONSTRUCT INTERIOR CONTROL JOINTS AT A MAXIMUM HORIZONTAL SPACING OF 32'-0" OR 16'-0" FROM CORNERS. NO JOINTS SHALL BE LOCATED WITHIN 2'-0" OF STEEL BEAM BEARINGS. HORIZONTAL WALL REINFORCING SHALL BE STOPPED EACH SIDE OF CONTROL JOINTS. SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT CONTROL JOINTS.
11. SUBMIT PROPOSED GROUT MIX DESIGNS FOR REVIEW PRIOR TO USE. MIX NUMBER OR OTHER POSITIVE IDENTIFICATION SHALL UNIQUELY IDENTIFY MIX.
12. USE OF SUPERPLASTICIZER IS PROHIBITED.
13. CELLS TO BE GROUT FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS VERTICAL GROUT SPACE.
14. CLEANOUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF CELLS TO BE GROUT FILLED IN EACH POUR IN EXCESS OF 5 FEET IN HEIGHT. AFTER INSPECTION AND BEFORE GROUTING, THE REBAR SHALL BE TIED AT THE CLEANOUTS AND THE CLEANOUTS SHALL BE SEALED.
15. ANY OVERHANGING MORTAR OR OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED FROM THE INSIDES OF SUCH CELL WALLS.
16. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 BAR DIAMETERS.
17. CELLS CONTAINING REINFORCEMENT SHALL BE FILLED SOLIDLY WITH GROUT. SAMPLE AND TEST GROUT PER ASTM C1019.
18. GROUT SHALL BE POURED IN LIFTS OF 4 FEET MAXIMUM HEIGHT. GROUT SHALL BE CONSOLIDATED AT TIME OF PLACING BY VIBRATING AND RECONSOLIDATED LATER BY VIBRATING BEFORE PLASTICITY IS LOST.
19. WHEN TOTAL GROUT POUR EXCEEDS 5'-4" FEET IN HEIGHT, (HIGH LIFT GROUTING), THE GROUT SHALL BE PLACED IN 4-FOOT LIFTS WITH A MINIMUM OF A 30 MINUTE DELAY BETWEEN LIFTS. MINIMUM CELL DIMENSION SHALL BE IN ACCORDANCE WITH TABLE 5 OF TMS 402 (3" X 3" FOR COARSE GROUT, 12 FT. MAXIMUM POUR HEIGHT).
20. WHEN THE GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE BY STOPPING THE POUR OF GROUT NOT LESS THAN 1-1/2 INCH BELOW THE TOP OF THE UPPERMOST UNIT GROUTED.
21. WHERE CONCRETE BEAMS ARE INSTALLED IN CONCRETE MASONRY WALL, SUPPORT CONCRETE WITH 6" WIDE CONTINUOUS STRIPS OF 1/8 SQUARE MESH SOFFIT SCREENING OR PUR-O-STOP OF EQUAL CENTERED OVER BLOCK WORK. USE OF ROOFING FELT STRIPS WILL NOT BE PERMITTED.
22. PROVIDE DOVETAIL ANCHORS AT 16" C/C, UNLESS NOTED OTHERWISE, WHERE MASONRY WALLS ABUT CONCRETE SURFACES.
23. SEQUENCING IS THE RESPONSIBILITY OF THE CONTRACTOR.
24. REINFORCING SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.
25. SECURE APPROVAL OF REINFORCING SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.
26. PROVIDE STANDARD HOOKS AT ENDS OF ALL BARS WHICH TERMINATE IN TIE BEAMS OR BOND BEAMS.
27. WHERE REINFORCING IS SHOWN CONTINUOUS, LAP SPLICE BARS IN ACCORDANCE WITH SPLICE INDICATED BELOW.
28. PROVIDE DOWELS INTO FOOTINGS, PILE CAPS, SUPPORT BEAMS, ETC. TO MATCH VERTICAL BARS WITH LAP SPLICES AS FOLLOWS:

#4	24"
#5	30"
#6	48"
#7	60"

29. MECHANICAL BAR COUPLERS MAY BE USED TO SPLICE CONTINUOUS BARS, IN LIEU OF LAP SPLICES. BAR COUPLERS MUST ACHIEVE 125% OF BAR STRENGTH MINIMUM. COUPLERS MAY BE BOLTED TYPE (DAYTON D-250 BAR-LOCK S-SERIES COUPLER OR EQUAL) OR THREADED TYPE (DAYTON D310 TAPER-LOCK COUPLER OR EQUAL). COUPLERS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTALLATION RECOMMENDATIONS.
30. AT CHANGES IN DIRECTION OF BOND BEAMS, PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL STEEL.

5120 STRUCTURAL STEEL:

1. STEEL WORK SHALL BE NEW AND CONFORM TO THE ANSI/AISC 360-10 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
2. MATERIAL SHALL CONFORM TO THE FOLLOWING, EXCEPT AS NOTED:

WIDE FLANGE SHAPES	ASTM A992 (Fy=50 KSI)
ANGLES, CHANNELS AND PLATES	ASTM A36 (Fy=36 KSI)
RECTANGULAR HSS	ASTM A500, GRADE B (Fy=46 KSI)
ROUND HSS	ASTM A500, GRADE B (Fy=42 KSI)
HIGH STRENGTH BOLTS	ASTM A325 OR A490
TWIST-OFF TENSION CONTROL BOLTS	ASTM F1852
THREADED RODS	ASTM A36 (Fy=36 KSI)
HEAVY HEX NUTS	ASTM A563
HARDENED STEEL WASHERS	ASTM F436
DIRECT-TENSION-INDICATOR WASHERS	ASTM F959
ANCHOR RODS	ASTM F1554 GR. 36 (Fy=36 KSI)
SHEAR STUD CONNECTORS	ASTM A108 (Fu=65 KSI)

THIS BUILDING IS CLASSIFIED AS A "THRESHOLD BUILDING" SPECIAL INSPECTION OF THE CONSTRUCTION IS REQUIRED BY THE STATE OF FLORIDA IN ACCORDANCE WITH CHAPTER 553 OF THE FLORIDA STATUTES. CONSTRUCTION SHALL BE INSPECTED IN ACCORDANCE WITH THE SPECIAL INSPECTION PLAN.

5120 STRUCTURAL STEEL:

3. CONNECTIONS: (DELEGATED DESIGN)
   A. BOLTS SHALL BE HIGH-STRENGTH, BEARING TYPE IN SNUG TIGHT CONDITION, U.N.O. TIGHTEN BY AN AISC APPROVED METHOD.
   B. WELDING ELECTRODES SHALL BE PER AWS D1.1. RETURN FILLET WELDS FOR FRAMED CONNECTIONS 1/2" AT EACH END.
   C. FIELD CONNECTIONS SHALL BE BOLTED, EXCEPT AS NOTED OTHERWISE.
   D. DESIGN BEAM CONNECTIONS TO DEVELOP THE REACTIONS SHOWN. IF NOT SHOWN, DESIGN CONNECTIONS TO DEVELOP THE REACTIONS DUE TO THE MAXIMUM ALLOWABLE UNIFORM LOAD FOR THE BEAM SIZE AND SPAN SHOWN, ASSUMING FULL LATERAL SUPPORT PER AISC BEAM (ALLOWABLE UNIFORM LOAD) TABLE VALUE FOR THE CORRESPONDING SPAN, U.N.O.
   E. DESIGN DIAGONAL BRACING CONNECTIONS TO DEVELOP THE REACTIONS SHOWN. IF REACTIONS ARE NOT SHOWN, DESIGN CONNECTIONS TO DEVELOP FULL TENSION CAPACITY OF THE DIAGONAL BRACING MEMBER.
   F. DESIGN MOMENT CONNECTIONS TO DEVELOP THE REACTIONS SHOWN. IF REACTIONS ARE NOT SHOWN, DETAIL MOMENT CONNECTION USING FULL PENETRATION WELDS AT BEAM FLANGES.
   G. CALCULATIONS AND SHOP DRAWINGS FOR STRUCTURAL STEEL CONNECTIONS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION AND SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES).
4. HIGH STRENGTH BOLTS IN BEARING CONDITION SUPPORTING SIMPLE SPAN BEAMS NOT SUBJECT TO AXIAL LOADS MAY BE INSTALLED TO "SNUG TIGHT" CONDITION IF NORMAL, OR SHORT SLOTTED HOLES ARE USED. THE ENGINEER OF RECORD WILL BE THE ULTIMATE AUTHORITY IN THE USE OF "SNUG TIGHT" BOLTS. IF LONG SLOTTED OR OVERSIZED HOLES ARE USED, BOLTS MUST BE FULLY PRETENSIONED AND SLIP CRITICAL. PROPER SURFACE PREPARATION IS REQUIRED FOR SLIP CRITICAL BOLTS, INCLUDING OMISSION OF PRIMER OR FIRE PROOFING, AS APPROPRIATE.
5. BOLTS SHARING LOAD WITH WELDS IN A CONNECTION SHALL BE FULLY PRETENSIONED AND SLIP CRITICAL.
6. WHERE FULLY PRETENSIONED OR SLIP CRITICAL BOLTS ARE REQUIRED, TIGHTENING SHALL BE ACHIEVED USING EITHER TWIST-OFF TENSION CONTROL BOLTS OR DIRECT TENSION INDICATING WASHERS.
7. ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AND ALL FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153.
8. GROUT UNDER BEARING PLATES SHALL BE NON-METALLIC, NON-SHRINK TYPE WITH A COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI IN 28 DAYS.
9. COMPOSITE FLOOR MEMBERS ARE DESIGNED TO BE UNSHORED UNLESS OTHERWISE NOTED. THE WEIGHT OF THE WET CONCRETE WILL RESULT IN DEFLECTIONS OF THE SUPPORTING STEEL DECK, BEAMS, AND GIRDERS. ALL OVERRUNS OF CONCRETE QUANTITIES ARE TO BE ANTICIPATED AND INCLUDED IN THE CONTRACTOR'S BID. THE CONTRACTOR SHALL COORDINATE EMBEDDED ITEMS REQUIRED FOR ARCHITECTURAL, STRUCTURAL, AND MECHANICAL ELEMENTS. CONCRETE FLOORS UTILIZING UNSHORED CONSTRUCTION SHALL BE SCREEDED LEVEL.
11. THE CAMBER OF STEEL MEMBERS SHALL BE VERIFIED IN THE SHOP AND THE FIELD. WHEN NO CAMBER IS INDICATED, TURN THE MEMBER NATURAL CAMBER UP.
12. WHERE TRUSSES ARE INDICATED WITH CONTINUOUS MEMBERS, THEY SHALL BE FULL LENGTH WITHOUT SPLICES OR WELDED WITH FULL PENETRATION SHOP WELDS GROUND FLUSH WITH GRINDING IN THE DIRECTION OF APPLIED STRESS AND WITH WELD SOUNDNESS ESTABLISHED BY RADIOGRAPHIC OR ULTRASONIC INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF 4.2.5.2 OR 4.2.5.3 OF AWS D1.1. SPLICES WILL NOT BE PERMITTED AT POINTS OF MAXIMUM STRESS. FIELD SPLICES OF TENSION MEMBERS SHALL BE DESIGNED TO DEVELOP 110 PERCENT OF THE SPLICED SECTIONS.
13. APPLY FIREPROOFING TO STEEL STRUCTURE CALCULATING THE THICKNESS OF FIREPROOFING BY COMPARING THE ACTUAL MEMBER SIZE TO THE MEMBER SIZE USED IN THE DESIGNATED UL RATING AND ADJUSTING APPROPRIATELY.
14. USE INTUMESCENT PAINT ON STRUCTURAL STEEL EXPOSED TO VIEW WHICH REQUIRES FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATING AND INTUMESCENT PAINT REQUIREMENTS.
15. STEEL EXPOSED TO VIEW; DRESS ALL WELDS, REMOVE BURS, AND FILL ROLLED TRADE NAMES WITH WELD METAL AND GRIND SMOOTH. TYPICAL AT ALL ARCHITECTURALLY EXPOSED CONDITIONS.
16. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL CONFORM TO LEVEL 3 AND SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE. AESS SHALL BE SANDBLASTED (SSPC-SP6-82) PRIOR TO PRIMER COAT APPLICATION. PRIMER SHALL BE COMPATIBLE WITH FINAL PAIN COAT AND SHALL BE APPROVED BY FINISH PAINT CONTRACTOR. REF ARCH FOR FINISHES.

5122 WELDING:

1. WELDING SHALL BE DONE BY WELDERS WITH CURRENT CERTIFICATION IN ACCORDANCE WITH AWS D1.1.
2. WELDS SHOWN ON STRUCTURAL DRAWINGS ARE MINIMUM DESIGN REQUIREMENTS. THE FABRICATOR'S SHOP DRAWINGS SHALL REFLECT WELDS IN ACCORDANCE WITH AWS REQUIREMENTS.
3. FULL PENETRATION GROOVE WELDS SHALL BE INSPECTED BY ULTRASONIC TESTING. TWENTY-FIVE PERCENT OF THE WELDS SHALL BE INSPECTED AT RANDOM UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. UNLESS NOTED OTHERWISE ON THE DRAWINGS, GROOVE WELDS SHALL BE FULL PENETRATION.
5. PROVIDE FILLET WELDS AT CONTACT POINTS BETWEEN STEEL MEMBERS SUFFICIENT TO DEVELOP THE ALLOWABLE TENSILE STRENGTH OF THE SMALLER MEMBER AT THE JOINT UNLESS DETAILED OTHERWISE ON THE DRAWINGS. THE MINIMUM FILLET WELD SIZE IS 3/16" UNLESS OTHERWISE NOTED.
6. MINIMUM TENSILE STRENGTH OF ELECTRODE MATERIAL F_{EXX} = 70ksi UNLESS NOTED OTHERWISE.

5124 SHEAR STUD CONNECTORS:

1. SHEAR STUD CONNECTORS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE", SECTION 7 - STUD WELDING.
2. ATTACHMENT OF STUDS SHALL BE SUFFICIENT TO DEVELOP THE FULL CAPACITY OF EACH INDIVIDUAL STUD.
3. STUDS SHALL BE TYPE 'B', HEADED STUDS HAVING A MINIMUM TENSILE STRENGTH OF 65,000 PSI. AND SHALL BE OF LENGTH AND DIAMETER SHOWN ON STRUCTURAL DRAWINGS.
4. SEE PLANS FOR SPECIFIED NUMBER OF SHEAR CONNECTORS.
5. UNLESS NOTED OTHERWISE ON PLANS, SHEAR CONNECTORS SHALL BE EQUALLY DISTRIBUTED ALONG THE LENGTH OF BEAM.
6. MAXIMUM SPACING OF SHEAR CONNECTORS SHALL BE AS FOLLOWS:

   A. BEAMS PERPENDICULAR TO DECK SPAN = 36"
   B. BEAMS PARALLEL TO DECK SPAN = (8 x TOTAL SLAB THICKNESS)

7. SHEAR CONNECTORS SHALL BE PLACED IN A SINGLE ROW DIRECTLY OVER THE BEAM WEB, WHENEVER POSSIBLE. STUDS SHALL BE PLACED IN TWO OR THREE ROWS ONLY WHERE REQUIRED IN ORDER TO PLACE THE TOTAL NUMBER OF STUDS.
8. WHERE STEEL DECK CORRUGATIONS DO NOT ALLOW FOR AN EVEN SPACING OF SHEAR CONNECTORS WITH ONE STUD IN EACH FLUTE, ADDITIONAL STUDS IN A SECOND ROW (AND THIRD ROW WHERE REQUIRED) SHALL BE PLACED SUCH THAT THE HIGHEST DENSITY OF SHEAR CONNECTORS OCCURS NEAR THE BEAM SUPPORT.
9. SUBMIT SHOP DRAWINGS SHOWING PLACEMENT OF SHEAR CONNECTORS FOR ENGINEER'S APPROVAL.
10. SHEAR CONNECTORS SHALL BE 3/4" DIAMETER WITH 4 1/2" LONG SHEAR CONNECTORS.

STRUCTURAL GENERAL NOTES

5210 STEEL JOISTS:

1. SHALL BE THE SIZE AND SPACING AS SHOWN ON THE STRUCTURAL DRAWINGS AND SHALL BE DESIGNED, FABRICATED, INSTALLED AND BRIDGED IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE SPECIFICATIONS, LATEST EDITION. JOIST SIZES SHOWN ON PLANS ARE MINIMUM SIZES BASED ON SJI STANDARD UNIFORM GRAVITY LOAD TABLES. THE JOIST MANUFACTURER MAY INCREASE THE SIZE OF THE JOISTS, WITHIN THE SAME DEPTH CLASS, AS REQUIRED TO ACCOUNT FOR UPLIFT LOADS OR OTHER NON-STANDARD LOADS.
2. ENDS OF BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED THERETO AT TOP AND BOTTOM CHORDS. MINIMUM JOIST BRIDGING TERMINATION CONNECTIONS TO MASONRY SHALL BE L3x3x1/4x3" LONG WITH (1) 1/2" DIAMETER ANCHOR BOLT OR L4x4x1/4x0'-3" WITH (1) 1/2"x5" ANCHOR BOLT TO CONCRETE.
3. BRIDGING SHALL BE WELDED OR BOLTED AT POINTS OF CONTACT. WELD SHALL NOT DAMAGE THE JOIST. CROSS BRIDGING SHALL BE WELDED OR BOLTED AT ITS CENTER POINT. BRIDGING SHALL BE STRAIGHT FROM JOIST TO JOIST. CHANGES IN SLOPE OR DIRECTION SHALL BE MADE AT A JOIST, NOT BETWEEN JOISTS.
4. K-SERIES JOISTS SHALL BEAR A MINIMUM OF 2½" ON STEEL BEAMS AND 4" ON CONCRETE BEAMS.
5. HANGERS FOR SUPPORT OF EQUIPMENT, OR MEMBERS SUPPORTING SUCH HANGERS, SHALL BE LOCATED AT PANEL POINTS OF JOISTS, AND SHALL BE HUNG FROM THE TOP CHORD OF THE JOIST.
6. ROOF JOISTS SHALL BE DESIGNED FOR NET UPLIFT PRESSURES CALCULATED BASED ON WIND PRESSURES PROVIDED IN TABLE AND DEAD LOAD OF 10 PSF.
7. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWING SUBMITTAL SHALL INCLUDE LAYOUT, COMPONENT DESIGNATION, BRIDGING, AND PERTINENT SECTIONS AND DETAILS.
8. SUBMITTALS FOR JOISTS, OTHER THAN STANDARD SJI CATALOG SELECTIONS WHICH HAVE BEEN VERIFIED BY SJI, SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
9. JOISTS SHALL BE DESIGNED TO SUPPORT THE LOADS LISTED IN SECTION 1060, THOSE INDICATED ON PLANS, **AND AN ADDITIONAL CONCENTRATED DEAD LOAD NOT TO EXCEED 500# TO BE PLACED AT ANY PANEL ALONG THE LENGTH OF THE JOIST**. WHERE JOISTS ARE TO SUPPORT SOLAR PANELS, COORDINATE WITH APPROVED SOLAR PANEL SHOP DRAWINGS FOR LOADING. ALL JOISTS REQUIRING DESIGN TO SUPPORT LOADS INDICATED ARE CONSIDERED KSP JOISTS WHETHER SPECIFICALLY CALLED OUT AS SUCH OR NOT. DEAD LOADS SHALL BE IN ACCORDANCE WITH THE MATERIALS SHOWN WITHIN THE CONTRACT DOCUMENTS AND SHALL BE NOTED ON THE SHOP DRAWING SUBMITTAL BY THE JOIST MANUFACTURER.
10. JOIST BOTTOM CHORDS SHALL BE DOUBLE ANGLES.
11. JOISTS ARE TO BE DESIGNED TO ALLOW 1" MAXIMUM DIFFERENCE IN CAMBER BETWEEN ADJACENT PARALLEL JOISTS.
12. ALL STEEL JOISTS GREATER THAN FORTY FEET IN LENGTH REQUIRE A ROW OR BOLTED BRIDGING TO BE IN PLACE PRIOR TO SLACKENING OF HOIST LINES. (U.N.O.)
13. JOIST MANUFACTURER SHALL COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL LOADS OR PROFILE REQUIREMENTS DUE TO EQUIPMENT TO BE SUPPORTED BY OR RUNNING THROUGH ROOF STRUCTURE JOISTS. ALL ADDITIONAL LOADS OR WEBBING/PROFILE MODIFICATIONS SHALL BE CLEARLY INDICATED ON SHOP DRAWINGS SUBMITTALS.
14. WHERE ROOF JOISTS ARE USED TO BRACE STEEL ROOF BEAMS (AS SHOWN ON PLANS AND DETAILS), DESIGN JOISTS TO RESIST A 500 LB AXIAL BRACE LOAD AT EACH BRACE. THIS LOAD SHALL ACT CONCURRENTLY WITH ALL WIND LOAD CASES AND COMBINATIONS.

5230 COMPOSITE STEEL DECK:

1. SHALL BE GALVANIZED, CORRUGATED STEEL COMPOSITE DECK OF GAGE AND DEPTH INDICATED ON DRAWINGS, CONFORMING TO STEEL DECK INSTITUTE SPECIFICATION FOR COMPOSITE FLOOR DECK.
2. DECK SHALL HAVE DEFORMATIONS TO PROVIDE ADEQUATE MECHANICAL INTERLOCKING BETWEEN DECK AND CONCRETE FOR COMPOSITE ACTION.
3. PROVIDE 5/8" DIAMETER PUDDLE WELDS AT 12" C/C AT EACH SUPPORT.
4. SIDE LAPS BETWEEN DECKS SHALL BE WELDED OR W/ 1 1/2" TOP ARC SEAM WELD SIDELAP CONNECTIONS AT A MAXIMUM SPACING OF 36 INCHES.
5. BUTTON PUNCHING OF SIDE LAPS IS NOT PERMITTED.

5312 STEEL ROOF DECK:

1. SHALL BE, TYPE B, GALVANIZED G90 OF TYPE, GAGE AND DEPTH AS INDICATED ON DRAWINGS, AND SHALL CONFORM TO THE PROVISIONS OF THE STEEL DECK INSTITUTE (SDI) SPECIFICATIONS FOR STEEL ROOF DECK.
2. DECK CENTERING SHALL BE PLACED IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SHALL BE CONTINUOUS OVER AT LEAST 3 SPANS.
3. WELD PATTERN AT MAIN DECK SUPPORTS, AND SIDELAP CONNECTIONS, SHALL BE AS INDICATED ON ROOF DECK FASTENING DIAGRAM. PROVIDE 5/8" PUDDLE WELDS AT 12" O.C. ALONG EDGE SUPPORTS, UNLESS NOTED OTHERWISE.
4. METAL DECK MANUFACTURER SHALL BE A MEMBER OF THE STEEL DECK INSTITUTE AND ALL DESIGN SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS.
5. DO NOT HANG MEP SYSTEMS (DUCTWORK, ROOF DRAIN OR FIRE PROTECTION PIPING, ETC) FROM ROOF DECK. ALL EQUIPMENT IS TO BE HUNG FROM ROOF JOISTS. SEE SECTION 5210 FOR ROOF JOIST REQUIREMENTS.

5400 COLD-FORMED STEEL (CFS/CFMF) FRAMING

1. ALL COLD-FORMED STEEL ON THE PROJECT SHALL BE BY THE MANUFACTURER. NON-LOAD BEARING PARTITIONS MAY BE FRAMED UTILIZING CONVENTIONAL FRAMING WITH CATALOG DATA INDICATING THE ALLOWABLE SPANS AND USAGE OF MATERIAL FOR REVIEW. EXTERIOR STUD FRAMING, LOAD BEARING STUDS, AND ARCHITECTURAL DETAILING REQUIRING THE COLD-FORMED FRAMING TO FUNCTION IN A STRUCTURAL MANNER (SOFFITS, HEADERS IN PARTITION WALLS, ETC), SHALL BE DESIGNED BY A SPECIALTY ENGINEER AND SIGNED AND SEALED CALCULATIONS SHALL BE PROVIDED FOR REVIEW WITH SIGNED AND SEALED SHOP DRAWINGS.
2. ALL COLD FORMED STEEL FRAMING SHALL CONFORM TO THE AISI/COFS/NASPEC 2016 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS WITH SUPPLEMENT NO. 2, THE AISI MANUAL COLD-FORMED STEEL DESIGN (2013 EDITION), AISI CODE OF STANDARD PRACTICE FOR COLD-FORMED STEEL STRUCTURAL FRAMING (2015 EDITION), AISI/COFS/GP-2015 STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS (2015 EDITION) AND COLD-FORMED STEEL ENGINEERS INSTITUTE (CFSEI) PUBLICATIONS, AS MODIFIED OR CLARIFIED HEREIN.
3. STEEL STUDS, JOISTS, LINTELS, AND RUNNER TRACK MEMBERS SHALL BE OF TYPE SHOWN ON THE DRAWINGS AND SPECIFICATIONS CONFORMING TO ASTM A-446 GRADE C WITH HOT DIPPED GALVANIZED COATING CONFORMING TO ASTM A525 (CLASS G90).
4. MINIMUM STEEL GRADES (FY): 12 GA (97 MILS), 14 GA (68 MILS); 16 GA (54 MILS) STUDS AND TRACK: 50 KSI; 18 GA (43 MILS), 20 GA (33 MILS) STUDS AND TRACK: 33 KSI.
5. STRUCTURAL LIGHT GAGE CFS FRAMING AND THEIR CONNECTIONS SHALL BE AS DEPICTED ON THE STRUCTURAL PLANS AND DETAILS.
6. ATTACHMENTS, CLOSURES, HARDWARE, ETC., SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
7. SUBMIT PROPOSED LIGHT GAGE CFS MANUFACTURERS DATA AND LOAD TABLES FOR REVIEW.

5400 COLD-FORMED STEEL (CFS/CFMF) FRAMING - CONTINUED

8. SUBMIT PROPOSED LIGHT GAGE CFS MANUFACTURERS DATA AND LOAD TABLES FOR REVIEW.
9. TOLERANCES TO COMPLY WITH ASTM C955.
10. WELDING TO COMPLY WITH COLD-FORMED STEEL ENGINEERS INSTITUTE TECH NOTE 5606-1 - WELDING COLD-FORMED STEEL.
11. REPAIR DAMAGED OR UNCOATED GALVANIZED COATINGS PER ASTM A780.

    FRAMING MEMBERS SHALL BE CUT SQUARELY OR AT AN ANGLE AS REQUIRED TO FIT SQUARELY AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN PLACE UNTIL PROPERLY JOINED.
12. JOINING OF STRUCTURAL MEMBERS SHALL BE MADE WITH SELF-DRILLING SCREWS OR WELDING.
13. WIRE TYING OF FRAMING MEMBERS IN STRUCTURAL APPLICATIONS SHALL NOT BE PERMITTED.
14. ATTACHMENT OF COLLATERAL MATERIALS TO STEEL MEMBERS SHALL BE MADE WITH SELF-DRILLING SCREWS OR HARDENED SCREW SHANK NAILS.
15. STUDS SHALL SIT SQUARELY IN THE TOP AND BOTTOM RUNNER TRACK WITH FIRM ABUTMENT AGAINST TRACK WEBS. STUDS SHALL BE ALIGNED OR PLUMBED AND SECURELY FASTENED TO THE FLANGES OF BOTH TOP AND BOTTOM RUNNER TRACK.
16. BRIDGING TO BE SUPPLIED AND INSTALLED PER CFS STUD MANUFACTURER RECOMMENDATIONS (5'-0" O.C. MAX AND WITHIN 1'-0" OF DEFLECTION TRACKS).
17. LATERAL BRACING SHALL BE PROVIDED BY USE OF PLYWOOD SHEATHING, GYPSUM SHEATHING, OR BY HORIZONTAL STRAPS OR COLD-ROLLED CHANNELS. BRACING SHALL CONFORM TO SECTION D3 OF THE AISI SPECIFICATIONS.
18. COLD-FORMED STEEL FRAMING CONNECTORS SPECIFIED BY PART NUMBER OR MODEL NAME ARE STANDARD CONNECTORS FABRICATED BY THE STEEL NETWORK (TSN), RALEIGH, N.C., 888-474-4876. CONNECTORS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE LIGHT STEEL FRAMING CONNECTIONS CATALOG (LATEST EDITION) BY THE STEEL NETWORK, USING THE NUMBER/SIZE OF FASTENERS SHOWN IN THESE DRAWINGS. WHERE NUMBER/SIZE IS NOT SHOWN IN THESE DRAWINGS, USE THE FASTENERS SPECIFIED IN THE CATALOG TO OBTAIN THE MAXIMUM CAPACITY OF THE SPECIFIED CONNECTOR. SUBSTITUTION OF GENERIC BENT PLATE LIGHT GAGE CONNECTORS IS NOT ALLOWED WITHOUT DESIGN CALCULATIONS SHOWING EQUAL OR BETTER CAPACITY TO THE SPECIFIED TSN CONNECTOR, PREPARED AND SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER EXPERIENCED IN LIGHT GAGE STEEL CONNECTION DESIGN.
19. SEE SPECIALTY ENGINEERING REQUIREMENTS FOR DELEGATED DESIGN INFORMATION.

5520 RAILINGS:

1. ENGINEERED RAILING SYSTEM AND CONNECTION OF SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
2. THE CONFIGURATION OF THE RAILING SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
3. RAILING SYSTEM AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE DRAWINGS AND IN THE BUILDING CODE.
4. THE LOADS SHALL BE CLEARLY INDICATED ON SHOP DRAWINGS AND SHALL COMPLY WITH ALL APPLICABLE CODES.
5. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTIONS UTILIZED WITHIN THE RAILING SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE DRAWINGS.
6. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES).

5714 STEEL STAIRS:

1. ENGINEERED STEEL STAIR SYSTEM AND CONNECTIONS OF SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
2. THE CONFIGURATION OF THE STEEL STAIR SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
3. THE ENGINEERED STAIR SYSTEM SHALL INCLUDE THE STAIRS, LANDINGS, SUPPORT FRAMING, POSTS, HANGERS, AND CONNECTIONS TO THE BUILDING STRUCTURE, UNLESS NOTED OTHERWISE. CONNECTIONS TO THE BUILDING STRUCTURE SHALL BE COMPATIBLE WITH THE STRUCTURE SHOWN ON THE CONTRACT DRAWINGS.
4. STEEL STAIR SYSTEM AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE DRAWINGS AND IN THE FLORIDA BUILDING CODE, 7th EDITION (2020).
5. THE LOADS SHALL BE CLEARLY INDICATED ON SHOP DRAWINGS.
6. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTIONS UTILIZED WITHIN THE STEEL STAIR SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE DRAWINGS.
7. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES).

5800 ALUMINUM STRUCTURES AND ALUMINUM CANOPIES:

1. ALL ALUMINUM MEMBERS SHALL BE FABRICATED IN ACCORDANCE WITH THE ALUMINUM DESIGN MANUAL, 2015 EDITION.
2. ENGINEERED ALUMINUM CANOPY SYSTEM AND CONNECTIONS OF CANOPIES TO THE STRUCTURE INDICATED IN THESE PLANS SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
3. THE CONFIGURATION OF THE CANOPY SYSTEM SHALL BE AS INDICATED IN THE ARCHITECTURAL DRAWINGS.
4. CANOPY SYSTEM AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE PLANS AND IN THE FLORIDA BUILDING CODE/INTERNATIONAL BUILDING CODE. THE LOADS SHALL BE CLEARLY INDICTED ON THE DRAWINGS.
5. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTIONS UTILIZED WITHIN THE CANOPY SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM INDICATED IN THESE PLANS.
6. PROVIDE DISSIMILAR METAL SEPARATORS AT ALL JUNCTIONS OF ALUMINUM FRAMING AND STRUCTURAL STEEL, CONCRETE AND MASONRY.
7. IF SHOWN, FOUNDATION SIZE INDICATED FOR CANOPY SUPPORTS SHALL BE THE MINIMUM ACCEPTABLE. CANOPY MANUFACTURER SHALL SUBMIT SIGNED/SEALED CALCULATIONS BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES) INDICATING SUPPORT REACTIONS BASED ON THE WIND LOADS GIVEN IN THE FLORIDA BUILDING CODE. FOUNDATIONS SIZES MAY BE ADJUSTED AFTER CALCULATIONS HAVE BEEN APPROVED AT NO ADDITIONAL COST TO THE OWNER.

THRESHOLD INSPECTION PLAN

GENERAL

1. PER FLORIDA STATUTE §553.79, THE FOLLOWING PLAN PROVIDES SPECIFIC PROCEDURES AND SCHEDULES SO THE BUILDING CAN BE INSPECTED FOR COMPLIANCE WITH THE PERMITTED DOCUMENTS. THIS PLAN SHALL BE AVAILABLE AT THE JOBSITE FOR USE BY THE BUILDING OFFICIAL, SPECIAL INSPECTOR OR THE DESIGNATED REPRESENTATIVE. NOTWITHSTANDING THE PRECEDING, DURING THE COURSE OF CONSTRUCTION THE SPECIAL INSPECTOR MAY OBSERVE ITEMS NOT SPECIFICALLY LISTED BELOW WHICH HE DETERMINES NEED TO BE INSPECTED. FLORIDA STATUTE § 553.79 LISTS A NUMBER OF RESPONSIBILITIES THAT ARE IN NO WAY EXEMPTED BY THE FOLLOWING.
2. THIS PLAN SHALL NOT RELIEVE THE GENERAL CONTRACTOR OR HIS SUBCONTRACTORS OF ANY LIABILITY, RESPONSIBILITY OR CONTRACTUAL OBLIGATIONS RELATED TO THE CONSTRUCTION AND INSTALLATION OF THE STRUCTURAL COMPONENTS OF THE BUILDING, NOR DOES IT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO CARRY OUT HIS OWN QUALITY CONTROL INSPECTIONS AND TESTING. THIS PLAN INTENDS THAT ALL STRUCTURAL LOAD BEARING ELEMENTS INCLUDING WIND LOADED ELEMENTS BE INSPECTED FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
3. THE CONTRACTOR SHALL COOPERATE WITH AND ASSIST THE SPECIAL INSPECTOR IN PERFORMING HIS INSPECTION DUTIES AS SPECIFIED BELOW. THE SPECIAL INSPECTOR SHALL HAVE FREE ACCESS TO THE PROJECT AT ALL TIMES. THE CONTRACTOR SHALL REVIEW THIS PLAN, COORDINATE AND SCHEDULE WORK TO ACCOMMODATE THE REQUIRED INSPECTIONS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWENTY-FOUR (24) HOUR NOTICE TO THE SPECIAL INSPECTOR FOR ALL INSPECTIONS.
4. PER SECTION §553.79 5(A), THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN OF THE SHORING AND RE-SHORING SHALL INSPECT IT FOR CONFORMANCE WITH THE PLANS SUBMITTED TO THE ENFORCING AGENCY AND FURNISH A SIGNED AND SEALED LETTER TO THE SPECIAL INSPECTOR STATING THE INSTALLATION IS IN CONFORMANCE WITH THE SUBMITTED PLANS, PRIOR TO CONCRETE PLACEMENT.
5. PER SECTION §553.79 7(C), EACH SHORING AND RE-SHORING INSTALLATION SHALL BE SUPERVISED, INSPECTED AND CERTIFIED BY THE CONTRACTOR TO BE IN COMPLIANCE WITH THE SHORING DOCUMENTS.

PROCEDURES AND SCHEDULE

1. THE THRESHOLD INSPECTOR SHALL PERFORM SITE VISITS AT A FREQUENCY DETERMINED BY HIM TO SATISFY HIM THAT THE INSPECTIONS ARE BEING PERFORMED BY HIS ON-SITE REPRESENTATIVE(S) IN ACCORDANCE WITH THIS PLAN.
2. THE CONTRACTOR SHALL ADVISE THE SPECIAL INSPECTOR IN ADVANCE OF CONSTRUCTION SCHEDULES AND PLANNED OPERATIONS IN ORDER TO ASSURE TIMELY AND APPROPRIATE OBSERVATION INSPECTION.
3. THE SPECIAL INSPECTOR SHALL COOPERATE WITH THE CONTRACTOR AND SHALL REFRAIN FROM DIRECTING WORK, AS THIS IS EXPRESSLY NOT PART OF THE SPECIAL INSPECTION.

SOIL COMPACTION & FOUNDATIONS

1. CONFIRM THAT A SOILS TESTING LABORATORY MONITORS SOIL COMPACTION, AND PERFORMS TESTS TO VERIFY THAT THE INSTALLATIONS MEET THE REQUIREMENTS STATED IN THE PROJECT'S SPECIFICATIONS AND THE SOILS REPORT SUBMITTED BY UNIVERSAL ENGINEERING SERVICES.
2. VERIFY THAT FOOTINGS AND FOUNDATIONS ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. SPECIFICALLY VERIFY SIZE, REINFORCING, CONFIGURATION, LAP SPLICES, LOCATION, ADDITIONAL BARS AT CORNERS AND INTERSECTIONS, COVER ON REINFORCING AND ORIENTATION.
3. MONITOR CONSTRUCTION TO ENSURE THAT THERE HAS BEEN NO UNDERMINING OR EXCAVATION UNDER EXISTING FOOTINGS FOR ANY REASON, E.G. TO INSTALL UNDERGROUND UTILITIES AND PIPING, ETC.
4. VERIFY THAT DE-WATERING METHODS ARE MAINTAINED DURING DEEP EXCAVATIONS AND THAT PROCEDURES DO NOT ADVERSELY AFFECT THE STRUCTURAL INTEGRITY OF THE FOUNDATIONS.

CONCRETE AND REINFORCEMENT

1. CONFIRM THAT THE CONTRACTOR HAS OBTAINED APPROVED SHOP DRAWINGS FOR SPECIFIED ITEMS PRIOR TO COMMENCING WORK. THIS INCLUDES, BUT IS NOT LIMITED TO, ANCHOR BOLTS, EMBEDDED ITEMS, STEEL REINFORCING, FORMWORK, SHORING AND CONCRETE MIX DESIGNS.
2. VERIFY THAT REINFORCING STEEL IS INSTALLED PER THE CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS. SPECIFICALLY VERIFY SIZE, GRADE, LAP SPLICE LENGTH AND LOCATION, QUANTITY AND/OR SPACING, BENDS OR OFFSETS AND COVERAGE. REPORT ANY DEVIATIONS TO THE GENERAL CONTRACTOR FROM THE CONTRACT DOCUMENTS BEFORE CONCRETE IS CAST AND CONFIRM CORRECTIONS ARE MADE.
3. VERIFY THAT DOWELS, ANCHOR BOLTS AND EMBEDDED ITEMS ARE PROPERLY INSTALLED AND SECURED IN PLACE PRIOR TO CONCRETE PLACEMENT.
4. VERIFY THAT REINFORCING IS NEW BILLET STEEL AND IS CLEAN OF ALL LOOSE, FLAKING RUST OR SCALE AND IS FREE OF GREASE OR OTHER FOREIGN MATERIALS WHICH COULD REDUCE OR PREVENT BOND.
5. VERIFY THAT DEBRIS AND FOREIGN MATERIAL HAS BEEN REMOVED FROM FORMS BEFORE CONCRETE IS PLACED.
6. COLUMNS: INSPECT REINFORCING STEEL, DOVETAIL SLOTS AND OTHER EMBEDDED ITEMS. CHECK TIE SPACING, ESPECIALLY DOUBLE TIES AND TIES AT DEEP BEAM INTERSECTIONS.
7. BEAMS: INSPECT REINFORCING STEEL. CHECK TIE SPACING, INCLUDING LOCATION OF FIRST TIE. CHECK FOR HOOKED BARS. CHECK THAT HOOKED BARS EXTEND TO FAR FACE OF SUPPORT. VERIFY REINFORCING IS PLACED IN ACCORDANCE WITH DIAGRAMS AND DETAILS ON PROJECT DRAWINGS, INCLUDING ADDITIONAL REINFORCING REQUIRED AT CORNERS AND INTERSECTIONS.
8. ONE WAY SLABS: INSPECT REINFORCING STEEL, INCLUDING TEMPERATURE STEEL. CHECK THAT HOOKED BARS EXTEND TO FAR FACE OF SUPPORT.
9. CHECK THAT EXPANSION JOINT MATERIAL, ANCHORS AND OTHER EMBEDDED ITEMS ARE CORRECT AND HAVE BEEN POSITIONED AND SECURED IN PLACE SO THAT DISPLACEMENT IS NOT POSSIBLE.
    a. CHECK THAT CONDUITS PLACED IN THE SLAB ARE REASONABLY SPACED TO ENSURE INTEGRITY OF THE SLAB AND DO NOT VIOLATE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS.
    b. CONFIRM THAT LOAD CARRYING EMBEDDED ITEMS ARE PLACED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS. RELOCATION OF EMBEDDED ITEMS IN CONFLICT WITH REINFORCING WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ARCHITECT/ENGINEER.
10. OPENINGS: REPORT ALL SLAB OPENINGS LARGER THAN 12" AND NOT SHOWN ON THE CONTRACT DOCUMENTS TO THE ARCHITECT/ENGINEER. CHECK PLACEMENT OF ADDITIONAL REINFORCEMENT AROUND OPENINGS. NO SLEEVES OR OPENINGS WILL BE PERMITTED IN BEAMS WITHOUT PRIOR APPROVAL OF THE ARCHITECT/ENGINEER.
11. AS REQUIRED BY THE CONSTRUCTION DOCUMENTS, VERIFY THAT A TESTING LABORATORY IS PRESENT AT THE JOBSITE TO TAKE SLUMP TESTS AND CYLINDERS BEFORE CONCRETE IS PLACED IN FORMS.
12. CONFIRM THAT THE CONCRETE BEING PLACED AT THE JOBSITE MEETS THE PROJECT REQUIREMENTS REGARDING MIXING AND DELIVERY TIME, SLUMP, CONCRETE STRENGTH AND THAT THE PROPER MIX DESIGN IS USED.
13. VERIFY THAT THE CONTRACTOR DOES NOT ADD WATER TO THE CONCRETE AFTER SLUMP TESTS AND CYLINDERS HAVE BEEN MADE. IF ADDITIONAL WATER IS ADDED TO INCREASE SLUMP, ANOTHER SLUMP TEST IS TO BE TAKEN. IF THE SLUMP TEST DOES NOT MEET THE PROJECT'S REQUIREMENTS, THE CONCRETE IS SUBJECT TO REJECTION.
14. REVIEW THE GENERAL ARRANGEMENT OF FORMS FOR COMPLIANCE WITH FORMWORK SHOP DRAWINGS. CHECK THAT THE FORMWORK INSTALLATION, REMOVAL AND RE-SHORING PROCEDURES ARE ACCORDING TO THE CONSTRUCTION DOCUMENTS AND SUBMITTED SHOP DRAWINGS. INSPECT THE SHORING AND RE-SHORING FOR CONFORMANCE WITH THE SHORING AND RE-SHORING PLANS SUBMITTED TO THE ENFORCING AGENCY.
15. REVIEW THE TIME SEQUENCE OF FORM REMOVAL AND RE-SHORING PROCEDURES AND SCHEDULE FOR COMPLIANCE WITH FORMWORK, SHORING AND RE-SHORING DRAWINGS AND PROJECT SPECIFICATIONS.
16. FOOTING EDGES ARE TO BE FORMED UNLESS UNFORMED FOOTINGS ARE PERMITTED PER THE CONSTRUCTION DOCUMENTS. IF UNFORMED FOOTING EDGES CANNOT RETAIN SHAPE DURING PLACEMENT OF CONCRETE, THEN FOOTING EDGES SHALL BE FORMED. VERIFY THAT SLOUGHED SOIL HAS BEEN CLEANED OUT AND REMOVED FROM EXISTING FOOTING.
17. OBSERVE THE PLACEMENT OF AT LEAST 60% OF CONCRETE BEING PLACED FOR STRUCTURAL ELEMENTS TO ASSURE THAT HANDLING, PLACING, CONSOLIDATION, FINISHING AND CURING IS IN ACCORDANCE WITH THE PROJECT'S SPECIFICATIONS.
18. OBSERVATION OF PLACEMENT OF CONCRETE FOR SLABS ON GRADE, WHICH DO NOT SUPPORT BEARING WALLS, IS NOT REQUIRED BUT REINFORCEMENT MUST BE INSPECTED AS DISCUSSED ABOVE.

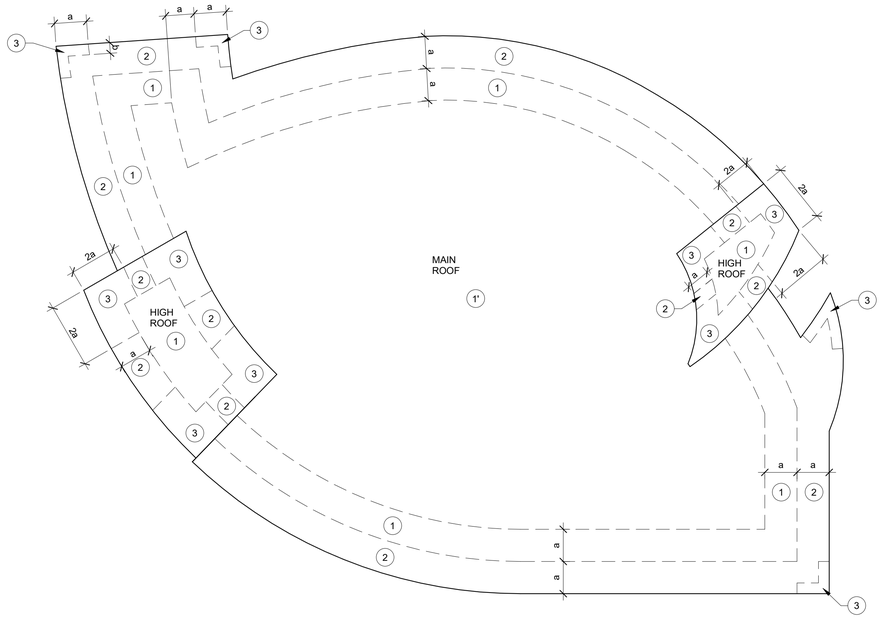
MASONRY

1. VERIFY THAT REQUIRED MASONRY SUBMITTALS, STRUCTURAL IN NATURE, HAVE BEEN ACCEPTED BY THE STRUCTURAL ENGINEER AND THAT COPIES ARE ON SITE.
2. VERIFY THAT MASONRY COMPONENTS USED ON THE JOB MATCH THE SUBMITTED ITEMS.
3. VERIFY THAT MASONRY IS PROPERLY INSTALLED. SPECIFICALLY CHECK FOR HORIZONTAL JOINT REINFORCING AND SIZE AND LOCATION OF FILLED CELL REINFORCING AND DOWELS.
4. VERIFY THAT FULL MORTAR BEDDING IS PLACED AROUND GROUT/CONCRETE FILLED CELLS.
5. VERIFY THAT INSPECTION/CLEAN-OUT HOLES ARE INSTALLED FOR **HIGHLIFT** GROUTING. ALSO, VERIFY THAT DEBRIS AND LOOSE MORTAR HAS BEEN REMOVED PRIOR TO CLOSING HOLE.
6. INSPECT AT LEAST 50% OF CONCRETE GROUT PLACEMENT FOR GROUTED MASONRY.

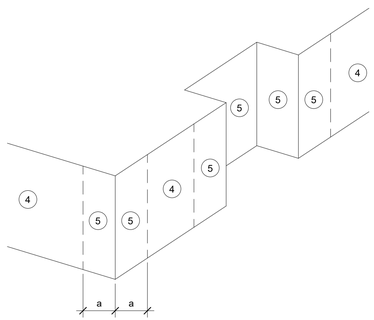
REPORTING

1. DURING AN INSPECTION, IF A DEFICIENCY IS OBSERVED AND HAS NOT BEEN CORRECTED PRIOR TO LEAVING THE SITE, THE SPECIAL INSPECTOR SHALL INFORM THE CONTRACTOR OF THE DEFICIENCY. IF THE DEFICIENCY IS DISPUTED BY THE CONTRACTOR, IMMEDIATELY INFORM THE STRUCTURAL ENGINEER AS TO THE NATURE OF THE DEFICIENCY AND ITS EXTENT.
2. ADDITIONALLY, FOR THE ITEMS FOUND IN NON-CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND NOT CORRECTED DURING THE INSPECTION, THE SPECIAL INSPECTOR SHALL MAINTAIN A LOG OF THE DEFICIENT ITEMS AT THE SITE. THE DEFICIENCIES SHALL BE CONSECUTIVELY NUMBERED AND INCLUDE DATE ITEM OBSERVED AND DATE ITEM CORRECTED. THE LOG SHALL BE SUBMITTED MONTHLY FOR REVIEW BY CONTRACTOR, ENGINEER OF RECORD AND BUILDING OFFICIAL.
3. IT IS NOT THE RESPONSIBILITY OF THE SPECIAL INSPECTOR TO SEEK A SOLUTION TO DEFICIENCIES AND UNDER NO CIRCUMSTANCES IS HE TO REDESIGN A DEFICIENT CONDITION OR ALLOW A DEVIATION WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER. THE CONTRACTOR ALONE IS RESPONSIBLE FOR CONTACTING THE STRUCTURAL ENGINEER FOR SOLUTIONS TO DEVIATIONS AND NON-CONFORMING ITEMS.
4. THE SPECIAL INSPECTOR SHALL SUBMIT AN ORIGINAL SIGNED AND SEALED COPY OF WRITTEN REPORTS FOR EACH INSPECTION TO THE ENGINEER OF RECORD A MAXIMUM OF THREE DAYS AFTER PERFORMING SUCH INSPECTION. SUBMIT INSPECTION REPORTS TO THE BUILDING DEPARTMENT MONTHLY OR AS REQUESTED BY THE BUILDING OFFICIAL.
5. THE PRESENCE OF A SPECIAL INSPECTOR IN NO WAY LESSENS THE RESPONSIBILITY OF THE CONTRACTOR TO BUILD A QUALITY STRUCTURE IN TOTAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE SPECIAL INSPECTOR SHALL IMMEDIATELY NOTIFY THE STRUCTURAL ENGINEER OF RECORD IF THERE IS ANY FAILURE BY THE CONTRACTOR TO CONFORM TO CONSTRUCTION DOCUMENTS.

THIS BUILDING IS CLASSIFIED AS A "THRESHOLD BUILDING" SPECIAL INSPECTION OF THE CONSTRUCTION IS REQUIRED BY THE STATE OF FLORIDA IN ACCORDANCE WITH CHAPTER 553 OF THE FLORIDA STATUTES. CONSTRUCTION SHALL BE INSPECTED IN ACCORDANCE WITH THE SPECIAL INSPECTION PLAN.



ROOF PRESSURE DIAGRAM
NTS



WALL PRESSURE DIAGRAM

ULTIMATE C&C WIND PRESSURES (ASCE 7-16)											
BUILDING	a (FT)	b (FT)	Vult (MPH)	Vasd (MPH)	A (SF)	ZONE 1 (PSF)	ZONE 1' (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)	ZONE 4 (PSF)	ZONE 5 (PSF)
MAIN	36	12	158	123	<10	+30 -116	+30 -67	+73 -153	+73 -153	+73 -79	+73 -78
					20	+28 -108	+28 -67	+70 -143	+70 -143	+70 -76	+70 -91
					50	+25 -98	+25 -67	+65 -130	+65 -130	+65 -71	+65 -82
					100+	+24 -91	+24 -67	+62 -120	+62 -120	+62 -68	+62 -76

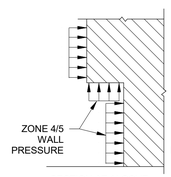
ULTIMATE C&C WIND PRESSURES (ASCE 7-16)											
						ROOF ZONE				WALL ZONE	
BUILDING	a (FT)	b (FT)	Vult (MPH)	Vasd (MPH)	A (SF)	ZONE 1 (PSF)	ZONE 1' (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)	ZONE 4 (PSF)	ZONE 5 (PSF)
HIGH ROOF	16	-	158	123	<10	+31 -120	- -	+75 -159	+75 -159	+75 -82	+75 -127
					20	+29 -112	- -	+72 -151	+72 -151	+75 -82	+75 -127
					50	+26 -102	- -	+68 -140	+68 -140	+68 -74	+68 -112
					100+	+24 -94	- -	+64 -132	+64 -132	+64 -71	+64 -101

ULTIMATE C&C WIND PRESSURE PLAN NOTES:

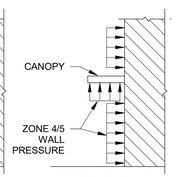
1. WIND PRESSURE TABLE IS BASED ON FBC 2020/ASCE 7-16 ULTIMATE WIND SPEED, PRESSURES SHOWN ABOVE ARE ULTIMATE COMPONENTS AND CLADDING PRESSURES.

   A - INDICATES TRIBUTARY AREA IN S.F.
   a - INDICATES END ZONE WIDTH IN FT.
   b - INDICATES CORNER ZONE WIDTH IN FT.
   Vult - INDICATES ULTIMATE DESIGN WIND SPEED IN MPH
   Vasd - INDICATES NOMINAL DESIGN WIND SPEED IN MPH

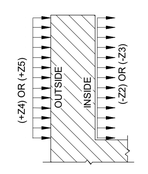
2. GROSS PRESSURES ARE FOR JOISTS, WINDOWS, DOORS, VENEER, LIGHT GAGE METAL FRAMING, METAL DECK ATTACHMENTS, ROOFING, ROOFING ACCESSORIES AND OTHER BUILDING COMPONENTS AND CLADDING.
3. GROSS PRESSURES SHALL BE LINEARLY INTERPOLATED FOR (A) NOT SHOWN IN TABLE.
4. POSITIVE PRESSURES INDICATE PRESSURES ACTING TOWARD A PROJECTED SURFACE. NEGATIVE PRESSURES INDICATE PRESSURES ACTING AWAY FROM A PROJECTED SURFACE.
5. ROOF AND ZONES (1) THRU (3)
6. WALL ZONES (4) AND (5)
7. OVERHANG ZONES (2H) AND (3H) APPLY ONLY TO ROOF OVERHANGS WHERE THE COMPONENT OR CLADDING RECEIVES PRESSURE SIMULTANEOUSLY ON BOTH SIDES (UPWARD SUCTION ON TOP AND UPWARD PRESSURE ON BOTTOM, SUCH AS AT OPEN SOFFITS), AND IS CONTINUOUS WITH FIELD OF ROOF.
8. NET DESIGN ROOF PRESSURES SHALL BE CALCULATED USING THE SELFWEIGHT (DEAD LOAD) OF THE MATERIALS. HOWEVER, THE MAXIMUM REDUCTION OF WIND UPLIFT PRESSURES SHALL BE LIMITED TO THE SELF WEIGHT OF THE ROOF SYSTEM PLUS 5 PSF FOR SUPERIMPOSED DEAD LOADS.
9. INTERNAL PRESSURE COEFFICIENT FOR ENCLOSED BUILDING EQUALS +0.18 AND -0.18
10. ROOF TOP EQUIPMENT SHALL BE DESIGNED FOR A LATERAL PRESSURE OF 122 PSF AND A SIMULTANEOUS UPLIFT PRESSURE OF 96 PSF (ROOF TOP EQUIPMENT PER FBC SECTION 1620.6 WITH Qh = 64 PSF)
11. AT ALCOVES AND CANOPIES, THE TOTAL UPLIFT PRESSURE ON THE ALCOVE SOFFIT OR CANOPY SHALL EQUAL THE WALL PRESSURE IN THAT AREA.
12. PARAPET DESIGN WIND PRESSURE LOAD CASES:
    NOTE THAT LOAD CASE A AND LOAD CASE B WIND PRESSURES ARE APPLIED INDEPENDENTLY.



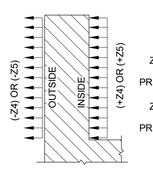
SECTION AT ALCOVE



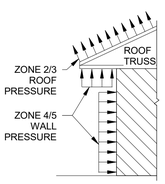
SECTION AT CANOPY
*APPLIES TO CANOPIES ATTACHED TO BUILDING, WITH OR WITHOUT ADDITIONAL COLUMN SUPPORT



PARAPET LOAD CASE A



PARAPET LOAD CASE B



SECTION AT ROOF TRUSS

DEFORMED BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE (INCHES)									
f'c (PSI)	3000								
BAR TYPE	BAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
FOOTINGS	22	29	36	43	63	72	81	91	101
COLUMN	22	29	36	43	63	72	81	91	101
WALLS	22	29	36	65	94	107	121	136	151
SLABS	22	29	36	65	94	107	121	136	151
BEAMS (TOP)	28	38	47	56	81	93	105	118	131
BEAMS (MID & BOT)	22	29	36	43	63	72	81	91	101
FILLED CELLS	SEE MASONRY NOTES								

TENSION DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE (INCHES)									
f'c (PSI)	4000								
BAR TYPE	BAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
FOOTINGS	19	25	31	37	54	62	70	79	87
COLUMN	19	25	31	37	54	62	70	79	87
WALLS	19	25	31	56	81	93	105	118	131
SLABS	19	25	31	56	81	93	105	118	131
BEAMS (TOP)	25	33	41	49	71	81	91	102	114
BEAMS (MID & BOT)	19	25	31	37	54	62	70	79	87
FILLED CELLS	SEE MASONRY NOTES								

TENSION DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE (INCHES)									
f'c (PSI)	5000								
BAR TYPE	BAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
FOOTINGS	17	23	28	34	49	56	63	71	78
COLUMN	17	23	28	34	49	56	63	71	78
WALLS	17	23	28	50	73	83	94	106	117
SLABS	17	23	28	50	73	83	94	106	117
BEAMS (TOP)	22	29	36	44	63	72	81	92	102
BEAMS (MID & BOT)	17	23	28	34	49	56	63	71	78
FILLED CELLS	SEE MASONRY NOTES								

TENSION DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE (INCHES)									
f'c (PSI)	6000								
BAR TYPE	BAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
FOOTINGS	16	21	26	31	45	51	57	64	71
COLUMN	16	21	26	31	45	51	57	64	71
WALLS	16	21	26	46	67	76	86	96	107
SLABS	16	21	26	46	67	76	86	96	107
BEAMS (TOP)	20	27	33	40	58	66	74	84	93
BEAMS (MID & BOT)	16	21	26	31	45	51	57	64	71
FILLED CELLS	SEE MASONRY NOTES								

NOTES:

1. VALUES SHALL BE INCREASED BY 1.5 IN CASES OF COVER LESS THAN d_b AND/OR SPACING LESS THAN $2d_b$.

5

T1

NOTES:
1. ALL HOOKS TO BE FABRICATED AS REQUIRED BY ACI.

STIRRUP TYPES
NTS

GRADE BEAM SCHEDULE

MARK	WIDTH (in.)	DEPTH (in.)	REINFORCEMENT					
			TOP BARS	BOTTOM BARS	ADD'L BARS (EA FACE)	STIRRUP TYPE	STIRRUP BAR	STIRRUP SPACING
GB-1	24"	32"	(8) #6	(8) #6	(2) #5 EACH SIDE	T1	#4	12" OC
GB-2	18"	24"	(6) #5	(6) #5	(1) #5 EACH SIDE	T1	#4	10" OC
GB-3	24"	32"	(4) #6	(6) #6	(1) #5 EACH SIDE	T1	#4	(12) @ 6" OC EA END 12" OC MIDDLE
GB-4	24"	22"	(5) #5	(5) #5	(1) #5 EACH SIDE	T1	#4	12" OC

CONCRETE WALL SCHEDULE

MARK	WIDTH	REINFORCEMENT	REMARKS
CW-1	8"	#5 @ 12" OC VERT AND #5 @ 12" OC HORIZ	
CW-2	8"	#7 @ 10" OC VERT AND #7 @ 10" OC HORIZ	
CW-3	8"	#7 @ 10" OC VERT AND #5 @ 10" OC HORIZ	
CW-4	8"	#5 @ 12" OC VERT AND #5 @ 6" OC HORIZ	
CW-5	8"	#7 @ 10" OC VERT AND #5 @ 6" OC HORIZ	
CW-6	12"	#5 @ 12" OC VERT AND #5 @ 12" OC HORIZ EACH FACE	
CW-7	10"	(2) LAYERS #5 @ 12" OC EACH WAY EACH FACE	

CMU WALL SCHEDULE

MARK	WIDTH	VERT REINFORCEMENT IN GROUT FILLED CELL	REMARKS
MW-1	7 5/8"	#6 @ 8" OC	

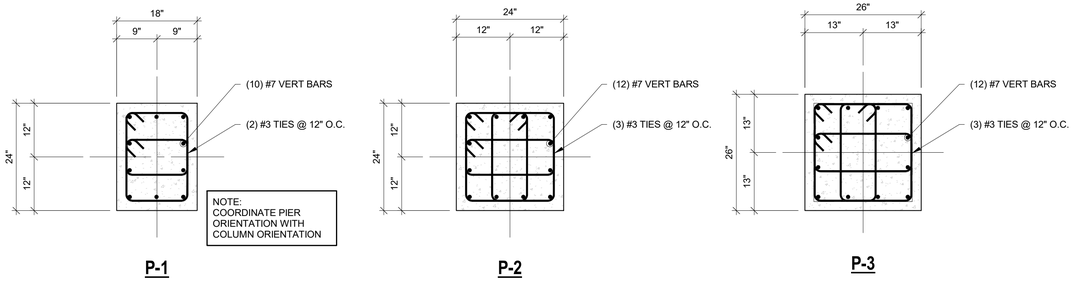
WALL FOUNDATIONS SCHEDULE

MARK	SIZE		REINFORCEMENT		REMARKS
	WIDTH	THICKNESS	LONGITUDINAL	TRANSVERSE	
WF3.0	3' - 0"	1' - 4"	(4) #5 BARS T&B	#5 TIES @ 12" OC	
WF4.0	4' - 0"	1' - 4"	(5) #5 BARS T&B	#5 TIES @ 12" OC	
WF5.0	5' - 0"	2' - 4"	(6) #5 BARS T&B	#6 TIES @ 10" OC	

TYPICAL BASE PLATE SCHEDULE

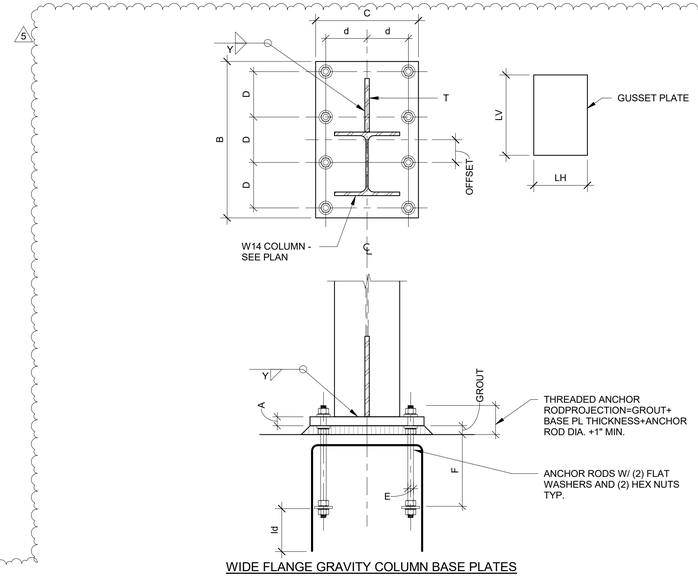
COLUMN	BASE PLATE	ANCHORS	ANCHOR LENGTH	HOLE DIAMETER	MIN WASHER PL SIZE	ANCHOR ROD EDGE DISTANCE
HSS8X8	PL 1 1/4"X16"X16"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
HSS9X9	PL 1 1/4"X17"X17"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
HSS10X10	PL 1 1/2"X18"X18"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
HSS12X12	PL 1 1/2"X20"X20"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
HSS12X6	PL 1 1/2"X14"X20"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
HSS14X14	PL 1 1/2"X22"X22"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
W10	PL 2"X20"X20"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
W12	PL 2"X21"X21"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"
W14	PL 2"X24"X24"	(4) 3/4"Ø	12"	1 5/16"	1/4" X 2"	2"

NOTES:
1. ANCHOR ROD PROJECTION: MINIMUM LENGTH AS REQUIRED TO ACCOUNT FOR NON-SHRINK GROUT, BASE PLATE THICKNESS, WASHERS/NUT, PLUS 1 1/2" MIN (THREADED LENGTH ABOVE NUT).
2. PLATE WASHER SHALL HAVE STANDARD HOLE, UNO.
3. ALL ANCHOR ROD NUTS SHALL BE "SNUG TIGHTENED" AS DEFINED BY AISC AFTER THE FOOTING CONCRETE HAS A MINIMUM OF 14 (FOURTEEN) DAYS TO CURE. (TYP UNLESS NOTED OTHERWISE).



P-1 **P-2** **P-3**

PIER TYPES
NTS



WIDE FLANGE GRAVITY COLUMN BASE PLATES

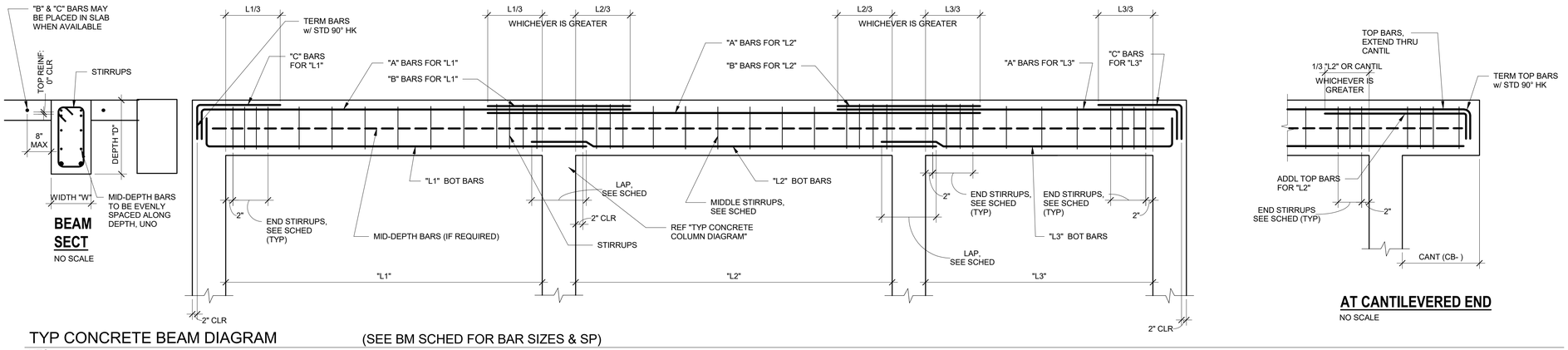
BRACED FRAME BASE PLATE & ANCHOR SCHEDULE

COLUMN SIZE	BASE PLATE					ANCHOR RODS			OFFSET FROM CENTER OF BASE PLATE	WELD	HOLE DIAMETER	MIN WASHER DIAMETER	GUSSET PLATE			ANCHOR REINFORCEMENT		
	A	B	C	D	d	E	F	NO.		Y			T	LH	LV	BAR REQ	ld	BAR SIZE
W14X99	2"	35"	23"	10"	6"	1"	18"	16	6"	9/16"	1 7/8"	3"	1"	12"	18"	26	36"	#5

NOTE: SEE DETAIL 5/S406 FOR ADDITIONAL INFORMATION

1 S006

BRACED-FRAME BASE PLATES
3/4" = 1'-0"



TYP CONCRETE BEAM DIAGRAM

(SEE BM SCHED FOR BAR SIZES & SP)

NTS

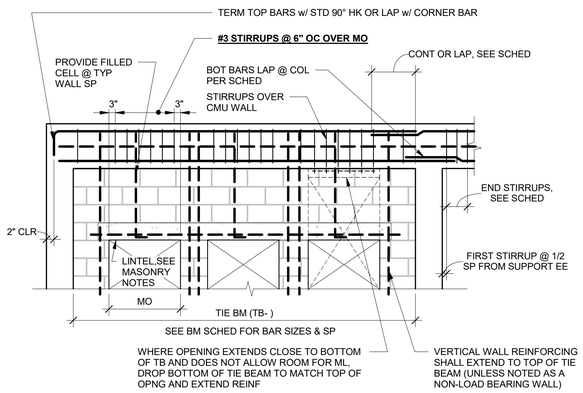
CONCRETE BEAM SCHEDULE

Type Mark	SIZE WIDTH (in.)	SIZE DEPTH (in.)	REINFORCEMENT BOTTOM BARS	TOP BARS A	TOP BARS B	TOP BARS C	MID BARS (EACH FACE)	STIRRUPS SIZE	STIRRUPS SPACING EACH END	STIRRUPS SPACING MIDDLE	REMARKS
CB-1	16"	41 3/4"	(5) #5	(5) #5			(5) #5	#4	10"	10"	
CB-2	16"	46 1/4"	(6) #6 (2)-LAYERS	(5) #5			(5) #5	#4	10"	10"	
CB-4	12"	46 1/4"	(2) #5	(2) #5			(5) #5	#3	16"	16"	
CB-5	12"	41 3/4"	(2) #5	(2) #5			(5) #5	#3	16"	16"	
CB-6	16"	46 1/4"	(4) #6	(4) #6			(5) #5	#4	10"	10"	
CB-7	16"	80"	(4) #6	(4) #6			(9) #5	#4	10"	10"	
CB-8	16"	21"	(6) #6 (2)-LAYERS	(5) #5			(1) #5	#4	(9) @ 5"	9"	
CB-9	16"	41 3/4"	(3) #6	(3) #6			(5) #5	#4	(9) @ 5"	10"	
CB-10	12"	51"	(2) #5	(2) #5			(7) #5	#4	12"	12"	
CB-11	12"	54"	(2) #5	(2) #5			(8) #5	#3	12"	12"	
CB-12	12"	16"	(2) #5	(2) #5				#3	12"	12"	
CB-13	12"	24"	(2) #5	(2) #5			(1) #5	#3	12"	12"	
CB-14	12"	22"	(3) #5	(3) #5				#3	12"	12"	
CB-15	12"	30"	(2) #5	(2) #5				#3	12"	12"	
CB-16	12"	50 1/4"	(3) #6	(3) #6			(7) #5	#3	12"	12"	

NOTE: (#)LAYERS INDICATES NUMBER OF BARS INDICATED ARE TO BE SPLIT AND PLACED IN TWO LAYERS

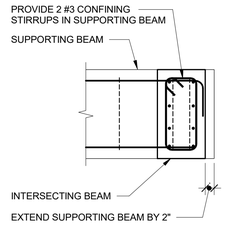
CONCRETE TIE BEAM SCHEDULE

Type Mark	SIZE WIDTH (in.)	SIZE DEPTH (in.)	REINFORCEMENT BOTTOM BARS	REINFORCEMENT TOP BARS	REINFORCEMENT MID BARS (EACH FACE)	STIRRUPS SIZE	STIRRUPS SPACING EACH END	STIRRUPS SPACING MIDDLE	REMARKS
TB-1	7 5/8"	16"	(2) #5	(2) #5		#3	16"	16"	STIRRUPS @ 6" OC OVER MO



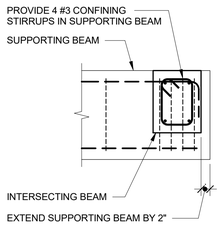
CONCRETE BEAM & TIE BEAM DIAGRAM

NTS



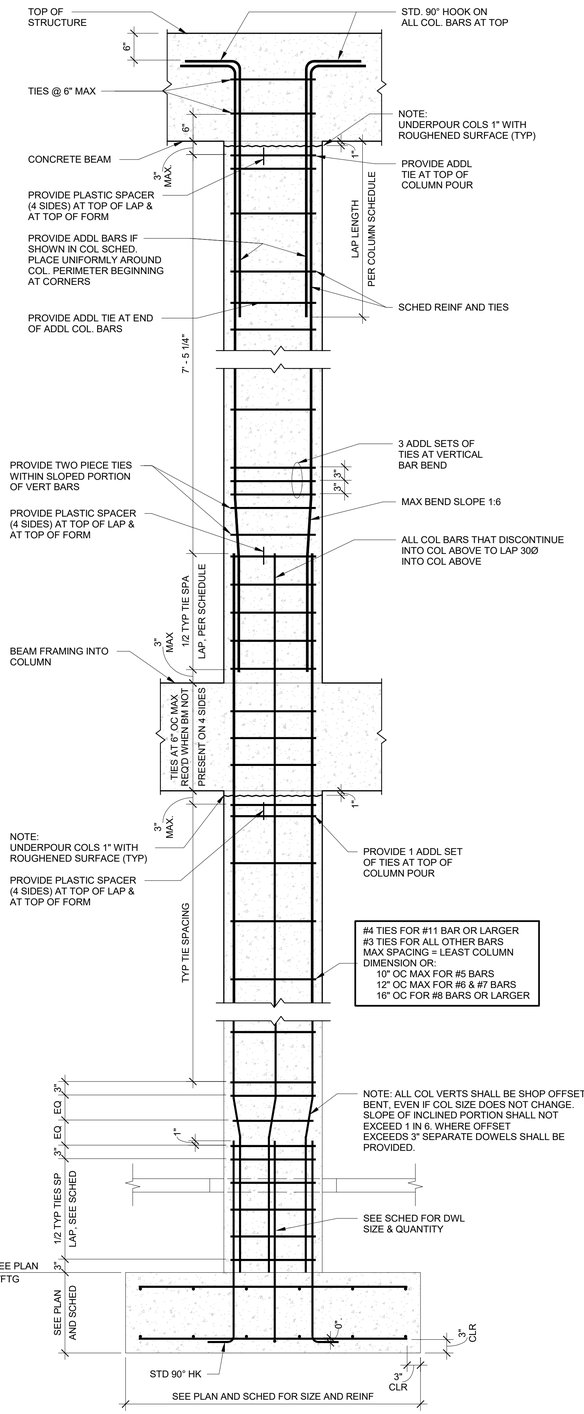
INTERSECTING BEAMS OF SAME DEPTH

NO SCALE



INTERSECTING BEAMS - SOFFIT SUPPORT

NO SCALE

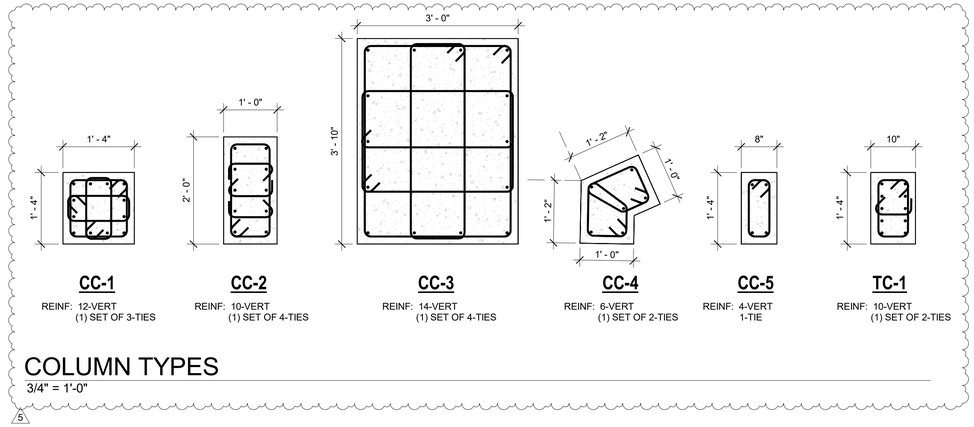


NOTES:

1. AT INTERIOR COLUMNS, TIES AT 6" CENTERS WITHIN FLOOR CONSTRUCTION MAY BE OMITTED IF BEAMS OR JOISTS FRAME CONCENTRICALLY INTO ALL FOUR SIDES OF THE COLUMN AND NO BEAM OR JOIST IS NARROWER THAN ONE HALF THE COLUMN WIDTH.
2. AT EXTERIOR COLUMNS, TIES WITHIN FLOOR CONSTRUCTION MUST BE PROVIDED.
3. THIS TYPICAL DETAIL IS APPLICABLE FOR COLUMNS WITH LESS THAN 3" OFFSET ON ANY FACE FROM COLUMN ABOVE.

TYP CONC COLUMN DIAGRAM

NTS



COLUMN TYPES

3/4" = 1'-0"

5

CONCRETE COLUMN SCHEDULE

MARK	SIZE		REINFORCEMENT		REMARKS
	WIDTH	LENGTH	VERT. RIENF.	TIES	
CC-1	16"	16"	(12) #5	#3 @ 10" OC	
CC-2	12"	24"	(10) #5	#3 @ 10" OC	
CC-3	36"	46"	(8) #5	#3 @ 12" OC	
CC-4	8"	14"	(8) #5	#3 @ 12" OC	
CC-5	8"	16"	(4) #5	#3 @ 6" OC	

5

CONCRETE TIE COLUMN SCHEDULE

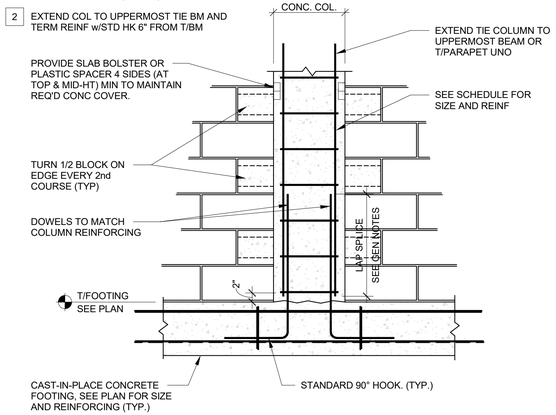
MARK	SIZE		REINFORCEMENT		REMARKS
	WIDTH	LENGTH	VERT. RIENF.	TIES	
TC-1	10"	16"	(10) #5	#3 @ 10" OC	
TC-2	8"	18"	(6) #5	#3 @ 12" OC	

5

NOTES:

1 CONCRETE COLUMNS MAY BE OVER POURED TO SUIT BLOCK COURSING. SIZES SHOWN ARE FOR MIN'S REQUIRED AND FOR COLUMN TIES (CAGES).

2 EXTEND COL TO UPPERMOST TIE BM AND TERM REINF w/STD HK 6" FROM T/BM



CONCRETE TIE COLUIMN DETAIL

NTS

FOUNDATION PLAN NOTES

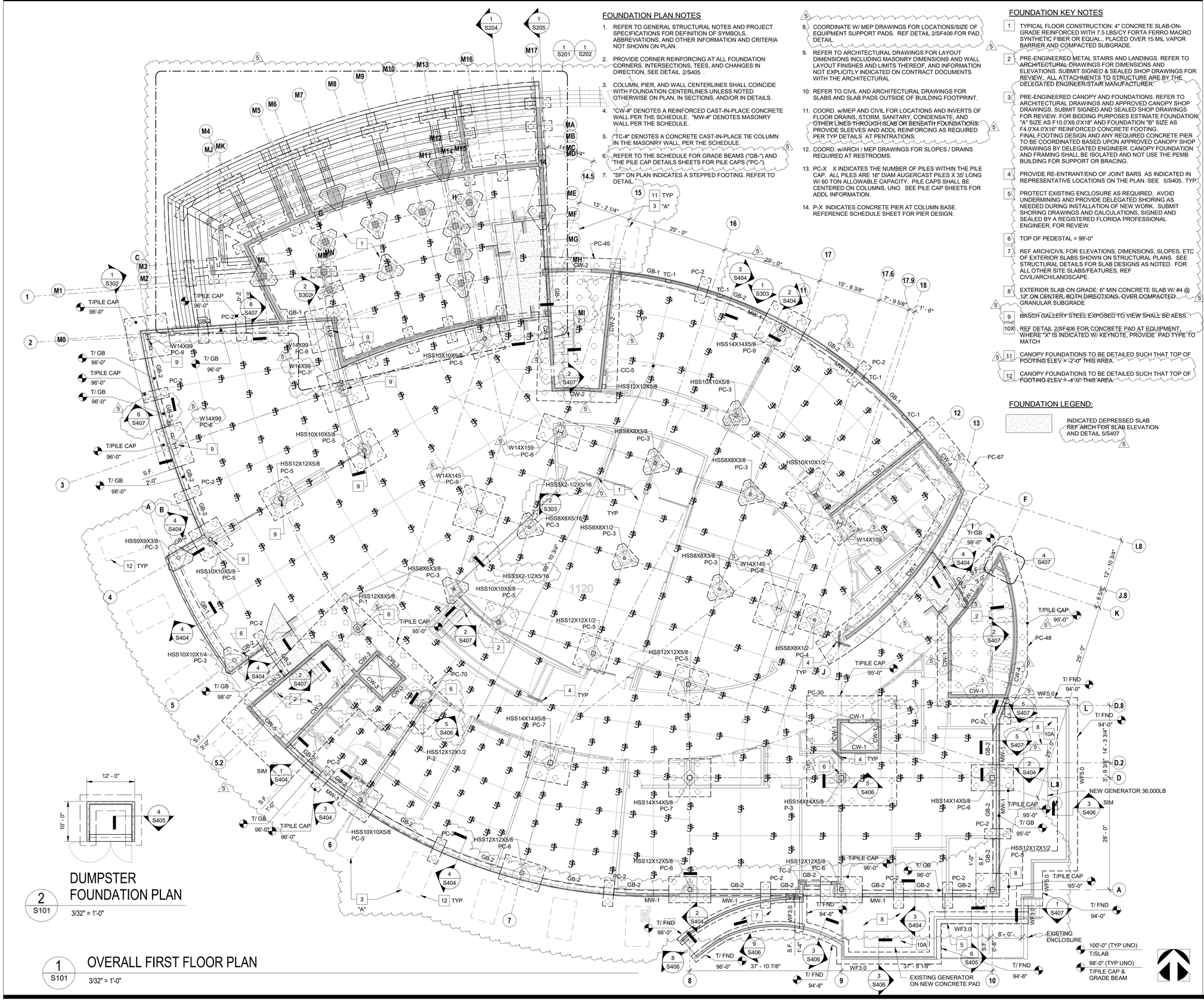
1. REFER TO GENERAL STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR DEFINITION OF SYMBOLS, ABBREVIATIONS, AND OTHER INFORMATION AND CRITERIA NOT SHOWN ON PLAN.
2. PROVIDE CORNER REINFORCING AT ALL FOUNDATION CORNERS, INTERSECTIONS, TEES, AND CHANGES IN DIRECTION, SEE DETAIL 2/S405 .
3. COLUMN, PIER, AND WALL CENTERLINES SHALL COINCIDE WITH FOUNDATION CENTERLINES UNLESS NOTED OTHERWISE ON PLAN, IN SECTIONS, AND/OR IN DETAILS.
4. "CW-#" DENOTES A REINFORCED CAST-IN-PLACE CONCRETE WALL PER THE SCHEDULE. "MW-#" DENOTES MASONRY WALL PER THE SCHEDULE.
5. "TC-#" DENOTES A CONCRETE CAST-IN-PLACE TIE COLUMN IN THE MASONRY WALL, PER THE SCHEDULE.
6. REFER TO THE SCHEDULE FOR GRADE BEAMS ("GB-") AND THE PILE CAP DETAILS SHEETS FOR PILE CAPS ("PC-").
7. "SF" ON PLAN INDICATES A STEPPED FOOTING. REFER TO DETAIL.
8. COORDINATE W/ MEP DRAWINGS FOR LOCATIONS/SIZE OF EQUIPMENT SUPPORT PADS. REF DETAIL 2/SF406 FOR PAD DETAIL.
9. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS INCLUDING MASONRY DIMENSIONS AND WALL LAYOUT FINISHES AND LIMITS THEREOF, AND INFORMATION NOT EXPLICITLY INDICATED ON CONTRACT DOCUMENTS WITH THE ARCHITECTURAL
10. REFER TO CIVIL AND ARCHITECTURAL DRAWINGS FOR SLABS AND SLAB PADS OUTSIDE OF BUILDING FOOTPRINT.
11. COORD. w/MEP AND CIVIL FOR LOCATIONS AND INVERTS OF FLOOR DRAINS, STORM, SANITARY, CONDENSATE, AND OTHER LINES THROUGH SLAB OR BENEATH FOUNDATIONS. PROVIDE SLEEVES AND ADDL REINFORCING AS REQUIRED PER TYP DETAILS AT PENTRATIONS.
12. COORD. w/ARCH / MEP DRAWINGS FOR SLOPES / DRAINS REQUIRED AT RESTROOMS.
13. PC-X X INDICATES THE NUMBER OF PILES WITHIN THE PILE CAP. ALL PILES ARE 16" DIAM AUGERCAST PILES X 35' LONG W/ 60 TON ALLOWABLE CAPACITY. PILE CAPS SHALL BE CENTERED ON COLUMNS, UNO. SEE PILE CAP SHEETS FOR ADDL INFORMATION.
14. P-X INDICATES CONCRETE PIER AT COLUMN BASE. REFERENCE SCHEDULE SHEET FOR PIER DESIGN.

FOUNDATION KEY NOTES

1. TYPICAL FLOOR CONSTRUCTION: 4" CONCRETE SLAB-ON-GRADE REINFORCED WITH 7.5 LBS/CY FORTA FERRO MACRO SYNTHETIC FIBER OR EQUAL., PLACED OVER 15 MIL VAPOR BARRIER AND COMPACTED SUBGRADE.
2. PRE-ENGINEERED METAL STAIRS AND LANDINGS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW. ALL ATTACHMENTS TO STRUCTURE ARE BY THE DELEGATED ENGINEER/STAIR MANUFACTURER.
3. PRE-ENGINEERED CANOPY AND FOUNDATIONS. REFER TO ARCHITECTURAL DRAWINGS AND APPROVED CANOPY SHOP DRAWINGS. SUBMIT SIGNED AND SEALED SHOP DRAWINGS FOR REVIEW. FOR BIDDING PURPOSES ESTIMATE FOUNDATION "A" SIZE AS F10.0'X6.0'X18" AND FOUNDATION "B" SIZE AS F4.0'X4.0'X16" REINFORCED CONCRETE FOOTING. FINAL FOOTING DESIGN AND ANY REQUIRED CONCRETE PIER TO BE COORDINATED BASED UPON APPROVED CANOPY SHOP DRAWINGS BY DELEGATED ENGINEER. CANOPY FOUNDATION AND FRAMING SHALL BE ISOLATED AND NOT USE THE PEMB BUILDING FOR SUPPORT OR BRACING.
4. PROVIDE RE-ENTRANT/END OF JOINT BARS AS INDICATED IN REPRESENTATIVE LOCATIONS ON THE PLAN. SEE 5/S405 . TYP.
5. PROTECT EXISTING ENCLOSURE AS REQUIRED. AVOID UNDERMINING AND PROVIDE DELEGATED SHORING AS NEEDED DURING INSTALLATION OF NEW WORK. SUBMIT SHORING DRAWINGS AND CALCULATIONS, SIGNED AND SEALED BY A REGISTERED FLORIDA PROFESSIONAL ENGINEER, FOR REVIEW.
6. TOP OF PEDESTAL = 99'-0"
7. REF ARCH/CIVIL FOR ELEVATIONS, DIMENSIONS, SLOPES, ETC OF EXTERIOR SLABS SHOWN ON STRUCTURAL PLANS. SEE STRUCTURAL DETAILS FOR SLAB DESIGNS AS NOTED. FOR ALL OTHER SITE SLABS/FEATURES, REF CIVIL/ARCH/LANDSCAPE.
8. EXTERIOR SLAB ON GRADE: 6" MIN CONCRETE SLAB W/ #4 @ 12" ON CENTER, BOTH DIRECTIONS, OVER COMPACTED GRANULAR SUBGRADE
9. BASCH GALLERY STEEL EXPOSED TO VIEW SHALL BE AESS.
10X. REF DETAIL 2/SF406 FOR CONCRETE PAD AT EQUIPMENT, WHERE "X" IS INDICATED W/ KEYNOTE, PROVIDE PAD TYPE TO MATCH
11. CANOPY FOUNDATIONS TO BE DETAILED SUCH THAT TOP OF FOOTING ELEV = -2'-0" THIS AREA.
12. CANOPY FOUNDATIONS TO BE DETAILED SUCH THAT TOP OF FOOTING ELEV = -4'-0" THIS AREA.

FOUNDATION LEGEND:

INDICATED DEPRESSED SLAB REF ARCH FOR SLAB ELEVATION AND DETAIL 5/S407



DUMPSTER FOUNDATION PLAN

2 / S101

3/32" = 1'-0"

OVERALL FIRST FLOOR PLAN

1 / S101

3/32" = 1'-0"

FRAMING PLAN NOTES

1. REFER TO GENERAL STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR DEFINITION OF SYMBOLS, ABBREVIATIONS, AND OTHER INFORMATION AND CRITERIA NOT SHOWN ON PLAN.
2. FRAMING SHALL BE EQUALLY SPACED BETWEEN COLUMN BAYS UNLESS OTHERWISE NOTED OR DIMENSIONED ON PLAN.
3. COORDINATE FINAL SIZE AND LOCATION OF FLOOR PENETRATIONS AND OPENINGS WITH THE APPROPRIATE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS. PROVIDE ADDITIONAL FRAMING / STRUCTURAL REINFORCEMENT FOR OPENINGS IN FLOOR DECK PER DETAIL.
4. ALL STEEL CONNECTIONS SHALL BE DELEGATED PER GENERAL NOTES REQUIREMENTS. REF DETAIL 4/S502 & 5/S502 FOR TYPICAL SHEAR & MOMENT REACTIONS TABLE, PLANS, DETAILS & TRUSS PROFILES FOR ADDITIONAL LOADS OR ALTERNATIVE SHEAR REACTIONS.
5. CANT. DENOTES CANTILEVERED BEAM OR OUTRIGGER. MOMENT CONNECTIONS REQUIRED.
6. ALL PERIMETER ANGLES, BENT PLATES, TUBES, ETC ALONG SLAB EDGE SHALL BE ROLLED TO THE CURVATURE OF THE BUILDING. DELEGATED ENGINEER TO PROVIDE SPLICES AS REQUIRED FOR FABRICATION AND INSTALLATION SUCH THAT CONTINUOUS MEMBER CAPACITY IS ACHIEVED.

FRAMING KEY NOTES

1. FLOOR CONSTRUCTION: 2" DEEP, 20 GA, VULCRAFT TYPE 'VL' GALVANIZED COMPOSITE FLOOR DECK WITH 3 1/2" CONCRETE (5 1/2" TOTAL THICKNESS). REINFORCE w/ 6x6-W2.1xW2.1 WWF. DECK SHALL RUN PERPENDICULAR TO FRAMING. IN BAYS WHERE FRAMING IS LAID OUT AT A RADIUS, IT IS ACCEPTABLE FOR DECK TO RUN AT AN ANGLE TO BEAMS UP TO A 6'-6" MAX SPAN.
2. REF TO MEP/ARCH DWGS AND APPROVED SHOP DRAWINGS FOR OPENINGS IN SLAB. REF TYP DETAIL 1/S506 FOR REINFORCING REQUIRED AT OPENINGS. ALL OPENINGS IN SLAB MUST BE SUBMITTED FOR REVIEW BY SEOR.
3. SMOKE CURTAIN EXTENTS. REF ARCH. MAX ALLOWABLE WEIGHT IS 50 LBS/FT.
4. PRE-ENGINEERED METAL STAIRS AND LANDINGS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW. ALL ATTACHMENTS TO STRUCTURE ARE BY THE DELEGATED ENGINEER/STAIR MANUFACTURER.
5. REF ARCH ELEVATIONS FOR "RIBBON" WINDOWS. WINDOWS WILL BE SEGMENTED SUCH THAT CFMF MAY FRAME AROUND THE OPENINGS. CFMF DELEGATED ENGINEER TO DESIGN AND DETAIL CFS HEADERS AND JAMBS AS REQUIRED TO SUPPORT WINDOW LAYOUT.
6. LINE OF EXTERIOR WALL EXTENTS BELOW.
7. CANTILEVERED STEEL FRAMING W/ MOMENT CONNECTIONS TO SUPPORT "FIN" OF WALL
8. CANTILEVERED CONCRETE WALL TO MATCH ARCHITECTURAL GEOMETRY - EXTEND TYP WALL REINF
9. PRE-ENGINEERED CANOPY, STAND ALONE DESIGN. DO NOT ATTACH TO THE BUILDING. REFER TO ARCHITECTURAL DRAWINGS AND APPROVED CANOPY SHOP DRAWINGS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW.
10. PRE-ENGINEERED CANOPY. REFER TO ARCHITECTURAL DRAWINGS AND APPROVED CANOPY SHOP DRAWINGS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW. CANOPY STRUCTURE SHALL STRUCTURALLY SPAN THE LONG DIRECTION AND MAY BE SUPPORTED OFF THE BUILDING CONCRETE WALLS. REF ARCH FOR CANOPY SLOPE.
11. FOLDING PARTITION SUPPORTS - REF DETAILS 1/S507 & 2/S507 FOR MISC STEEL REQUIRED
    - DENOTES VERTICAL HANGER (SEE DETAILS)
12. PROVIDE OUTRIGGER, MOMENT CONNECTED TO COLUMN, BY DELEGATED ENGINEER. RXN (UNFACTORED): 7K-FT & 2K (DEAD), 2 K-FT & 2K (LIVE)
12*. PROVIDE HSS8x4x5/16" OUTRIGGER, MOMENT CONNECTED TO COLUMN, BY DELEGATED ENGINEER. RXN (UNFACTORED): 7K-FT & 2K (DEAD), 2 K-FT & 2K (LIVE)

FRAMING LEGEND:

- INDICATED DEPRESSED SLAB 3/4" DEEP MAX. REF ARCH. PROVIDE CORNER REINF SIM TO DETAIL 5/S405
- FUTURE PIPE GRID LOCATION. TOTAL WEIGHT NOT TO EXCEED 3 PSF WITH MAXIMUM ATTACHED POINT LOADS OF 50 LBS. PIPE GRID DESIGN & ATTACHMENTS TO STRUCTURE BY DELEGATED ENGINEER/MANUFACTURER. ATTACH GRID TO STRUCTURAL STEEL BEAM FLANGES, NOT METAL DECK.

115'-0" (TYP UNO) T/SLAB

114'-6 1/2" (TYP UNO) T/BEAM

1 S102

OVERALL SECOND FLOOR PLAN

3/32" = 1'-0"

FRAMING PLAN NOTES

1. REFER TO GENERAL STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR DEFINITION OF SYMBOLS, ABBREVIATIONS, AND OTHER INFORMATION AND CRITERIA NOT SHOWN ON PLAN.
2. FRAMING SHALL BE EQUALLY SPACED BETWEEN COLUMN BAYS UNLESS OTHERWISE NOTED OR DIMENSIONED ON PLAN.
3. COORDINATE FINAL SIZE AND LOCATION OF FLOOR PENETRATIONS AND OPENINGS WITH THE APPROPRIATE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS. PROVIDE ADDITIONAL FRAMING / STRUCTURAL REINFORCEMENT FOR OPENINGS IN FLOOR DECK PER DETAIL.
4. ALL STEEL CONNECTIONS SHALL BE DELEGATED PER GENERAL NOTES REQUIREMENTS. REF DETAIL 4/S502 & 5/S502 FOR TYPICAL SHEAR & MOMENT REACTIONS TABLE, PLANS, DETAILS & TRUSS PROFILES FOR ADDITIONAL LOADS OR ALTERNATIVE SHEAR REACTIONS.
5. CANT. DENOTES CANTILEVERED BEAM OR OUTRIGGER. MOMENT CONNECTIONS REQUIRED.
6. ALL PERIMETER ANGLES, BENT PLATES, TUBES, ETC ALONG SLAB EDGE SHALL BE ROLLED TO THE CURVATURE OF THE BUILDING. DELEGATED ENGINEER TO PROVIDE SPLICES AS REQUIRED FOR FABRICATION AND INSTALLATION SUCH THAT CONTINUOUS MEMBER CAPACITY IS ACHIEVED.

FRAMING KEY NOTES

1. FLOOR CONSTRUCTION: 2" DEEP, 20 GA, VULCRAFT TYPE 'VL' GALVANIZED COMPOSITE FLOOR DECK WITH 3 1/2" CONCRETE (5 1/2" TOTAL THICKNESS). REINFORCE w/ 6x6-W2.1xW2.1 WWF. DECK SHALL RUN PERPENDICULAR TO FRAMING. IN BAYS WHERE FRAMING IS LAID OUT AT A RADIUS, IT IS ACCEPTABLE FOR DECK TO RUN AT AN ANGLE TO BEAMS UP TO A 6'-6" MAX SPAN.
2. REF TO MEP/ARCH DWGS AND APPROVED SHOP DRAWINGS FOR OPENINGS IN SLAB. REF TYP DETAIL 1/S506 FOR REINFORCING REQUIRED AT OPENINGS. ALL OPENINGS IN SLAB MUST BE SUBMITTED FOR REVIEW BY SEOR.
3. SMOKE CURTAIN EXTENTS. REF ARCH. MAX ALLOWABLE WEIGHT IS 50 LBS/FT.
4. PRE-ENGINEERED METAL STAIRS AND LANDINGS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW. ALL ATTACHMENTS TO STRUCTURE ARE BY THE DELEGATED ENGINEER/STAIR MANUFACTURER.
5. REF ARCH ELEVATIONS FOR "RIBBON" WINDOWS. WINDOWS WILL BE SEGMENTED SUCH THAT CFMF MAY FRAME AROUND THE OPENINGS. CFMF DELEGATED ENGINEER TO DESIGN AND DETAIL CFS HEADERS AND JAMBS AS REQUIRED TO SUPPORT WINDOW LAYOUT.
6. LINE OF EXTERIOR WALL EXTENTS BELOW.
7. CANTILEVERED STEEL FRAMING W/ MOMENT CONNECTIONS TO SUPPORT "FIN" OF WALL
8. CANTILEVERED CONCRETE WALL TO MATCH ARCHITECTURAL GEOMETRY - EXTEND TYP WALL REINF
9. PRE-ENGINEERED CANOPY, STAND ALONE DESIGN. DO NOT ATTACH TO THE BUILDING. REFER TO ARCHITECTURAL DRAWINGS AND APPROVED CANOPY SHOP DRAWINGS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW.
10. PRE-ENGINEERED CANOPY. REFER TO ARCHITECTURAL DRAWINGS AND APPROVED CANOPY SHOP DRAWINGS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW. CANOPY STRUCTURE SHALL STRUCTURALLY SPAN THE LONG DIRECTION AND MAY BE SUPPORTED OFF THE BUILDING CONCRETE WALLS. REF ARCH FOR CANOPY SLOPE.
11. FOLDING PARTITION SUPPORTS - REF DETAILS 1/S507 & 2/S507 FOR MISC STEEL REQUIRED
    - DENOTES VERTICAL HANGER (SEE DETAILS)
12. PROVIDE OUTRIGGER, MOMENT CONNECTED TO COLUMN, BY DELEGATED ENGINEER. RXN (UNFACTORED): 7K-FT & 2K (DEAD), 2 K-FT & 2K (LIVE)
12*. PROVIDE HSS8x4x5/16" OUTRIGGER, MOMENT CONNECTED TO COLUMN, BY DELEGATED ENGINEER. RXN (UNFACTORED): 7K-FT & 2K (DEAD), 2 K-FT & 2K (LIVE)

FRAMING LEGEND:

INDICATED DEPRESSED SLAB 3/4" DEEP MAX. REF ARCH. PROVIDE CORNER REINF SIM TO DETAIL 5/S405

FUTURE PIPE GRID LOCATION. TOTAL WEIGHT NOT TO EXCEED 3 PSF WITH MAXIMUM ATTACHED POINT LOADS OF 50 LBS. PIPE GRID DESIGN & ATTACHMENTS TO STRUCTURE BY DELEGATED ENGINEER/MANUFACTURER. ATTACH GRID TO STRUCTURAL STEEL BEAM FLANGES, NOT METAL DECK.

131'-0" (TYP UNO) T/SLAB

130'-6 1/2" (TYP UNO) T/BEAM

1 OVERALL THIRD FLOOR PLAN

S103

3/32" = 1'-0"

	Deck V3 (ALL Page)									
	Description	Deck Type	Deck Gauge	Deck Finish	Lap or Waste	Deck SQ	No of Floors	Screw Pattern	Screw Total	Comments-Add'l Loads
	Composite Floor	LF2-36	20	G60	No Lap/Waste	25.57	1 Floor	36" O/C	284	
	Composite Floor	LF2-36	20	G60	No Lap/Waste	257.17	1 Floor	36" O/C	2,862	
	Composite Floor	LF2-36	20	G60	No Lap/Waste	293.51	1 Floor	36" O/C	3,267	
	Composite Floor	LF2-36	20	G60	No Lap/Waste	301.84	1 Floor	36" O/C	3,359	
	Roof	B36	20	G90	2%	27.96	1 Floor	24" O/C	466	
	Roof	B36	20	G90	2%	277.28	1 Floor	24" O/C	5,394	

	Deck Accessories (ALL Page)				
	Label	Description	Total Length	Total Qtys	Comments-Add'l Loads
	2" Cell Closure	Cell Closure	4,670.63	6,150.00	Linear Feet
	PS1: 9"x18Ga	Pour Stop	119.65	130.00	3/S605 & SIMILAR

Qualifications:

Floor deck quoted with G60 finish

Exclusions:

R Type TCX.
Load from Solar Panel (location not found)
Pourstop (except clearly indicated on sections)

FRAMING PLAN NOTES

1. REFER TO GENERAL STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR DEFINITION OF SYMBOLS, ABBREVIATIONS, AND OTHER INFORMATION AND CRITERIA NOT SHOWN ON PLAN.
2. FRAMING SHALL BE EQUALLY SPACED BETWEEN COLUMN BAYS UNLESS OTHERWISE NOTED OR DIMENSIONED ON PLAN.
3. COORDINATE FINAL SIZE AND LOCATION OF FLOOR PENETRATIONS AND OPENINGS WITH THE APPROPRIATE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS. PROVIDE ADDITIONAL FRAMING / STRUCTURAL REINFORCEMENT FOR OPENINGS IN FLOOR DECK PER DETAIL.
4. ALL STEEL CONNECTIONS SHALL BE DELEGATED PER GENERAL NOTES REQUIREMENTS. REF DETAIL 4/S502 & 5/S502 FOR TYPICAL SHEAR & MOMENT REACTIONS TABLE, PLANS, DETAILS & TRUSS PROFILES FOR ADDITIONAL LOADS OR ALTERNATIVE SHEAR REACTIONS.
5. CANT. DENOTES CANTILEVERED BEAM OR OUTRIGGER. MOMENT CONNECTIONS REQUIRED.
6. ALL PERIMETER ANGLES, BENT PLATES, TUBES, ETC ALONG SLAB EDGE SHALL BE ROLLED TO THE CURVATURE OF THE BUILDING. DELEGATED ENGINEER TO PROVIDE SPLICES AS REQUIRED FOR FABRICATION AND INSTALLATION SUCH THAT CONTINUOUS MEMBER CAPACITY IS ACHIEVED.

FRAMING KEY NOTES

1 FLOOR CONSTRUCTION: 2" DEEP, 20 GA, VULCRAFT TYPE 'VL' GALVANIZED COMPOSITE FLOOR DECK WITH 3 1/2" CONCRETE (5 1/2" TOTAL THICKNESS). REINFORCE w/ 6x6-W2.1xW2.1 WWF. DECK SHALL RUN PERPENDICULAR TO FRAMING. IN BAYS WHERE FRAMING IS LAID OUT AT A RADIUS, IT IS ACCEPTABLE FOR DECK TO RUN AT AN ANGLE TO BEAMS UP TO A 6'-6" MAX SPAN.

2 REF TO MEP/ARCH DWGS AND APPROVED SHOP DRAWINGS FOR OPENINGS IN SLAB. REF TYP DETAIL 1/S506 FOR REINFORCING REQUIRED AT OPENINGS. ALL OPENINGS IN SLAB MUST BE SUBMITTED FOR REVIEW BY SEOR.

3 SMOKE CURTAIN EXTENTS. REF ARCH. MAX ALLOWABLE WEIGHT IS 50 LBS/FT.

4 PRE-ENGINEERED METAL STAIRS AND LANDINGS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW. ALL ATTACHMENTS TO STRUCTURE ARE BY THE DELEGATED ENGINEER/STAIR MANUFACTURER.

5 REF ARCH ELEVATIONS FOR "RIBBON" WINDOWS. WINDOWS WILL BE SEGMENTED SUCH THAT CFMF MAY FRAME AROUND THE OPENINGS. CFMF DELEGATED ENGINEER TO DESIGN AND DETAIL CFS HEADERS AND JAMBS AS REQUIRED TO SUPPORT WINDOW LAYOUT.

6 LINE OF EXTERIOR WALL EXTENTS BELOW.

7 CANTILEVERED STEEL FRAMING W/ MOMENT CONNECTIONS TO SUPPORT "FIN" OF WALL

8 CANTILEVERED CONCRETE WALL TO MATCH ARCHITECTURAL GEOMETRY - EXTEND TYP WALL REINF

9 PRE-ENGINEERED CANOPY, STAND ALONE DESIGN, DO NOT ATTACH TO THE BUILDING. REFER TO ARCHITECTURAL DRAWINGS AND APPROVED CANOPY SHOP DRAWINGS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW.

10 PRE-ENGINEERED CANOPY. REFER TO ARCHITECTURAL DRAWINGS AND APPROVED CANOPY SHOP DRAWINGS. SUBMIT SIGNED & SEALED SHOP DRAWINGS FOR REVIEW. CANOPY STRUCTURE SHALL STRUCTURALLY SPAN THE LONG DIRECTION AND MAY BE SUPPORTED OFF THE BUILDING CONCRETE WALLS. REF ARCH FOR CANOPY SLOPE.

11 FOLDING PARTITION SUPPORTS - REF DETAILS 1/S507 & 2/S507 FOR MISC STEEL REQUIRED

- DENOTES VERTICAL HANGER (SEE DETAILS)

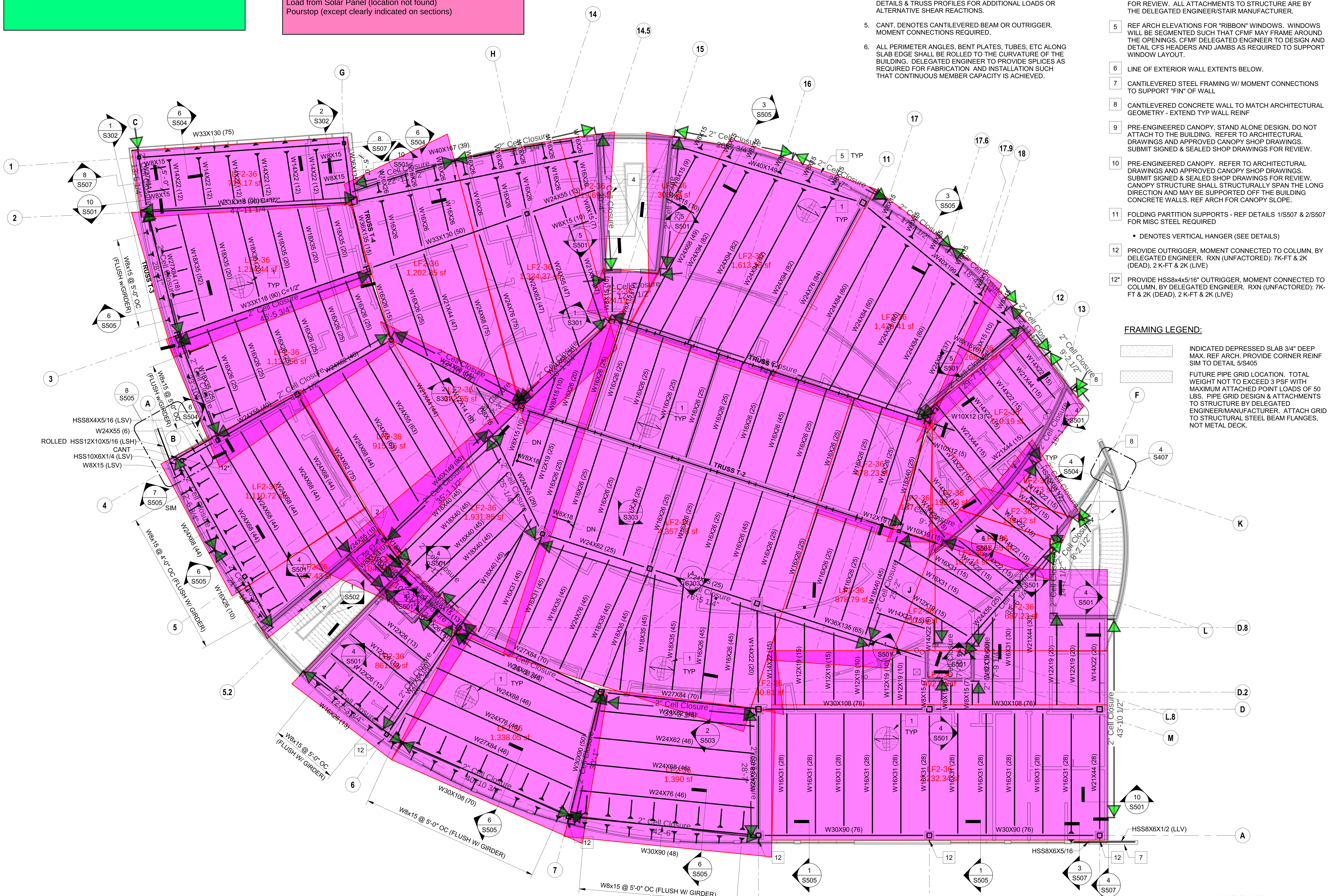
12 PROVIDE OUTRIGGER, MOMENT CONNECTED TO COLUMN, BY DELEGATED ENGINEER. RXN (UNFACTORED): 7K-FT & 2K (DEAD), 2 K-FT & 2K (LIVE)

12* PROVIDE HSS8x4x5/16" OUTRIGGER, MOMENT CONNECTED TO COLUMN, BY DELEGATED ENGINEER. RXN (UNFACTORED): 7K-FT & 2K (DEAD), 2 K-FT & 2K (LIVE)

FRAMING LEGEND:

INDICATED DEPRESSED SLAB 3/4" DEEP MAX. REF ARCH. PROVIDE CORNER REINF SIM TO DETAIL 5/S405

FUTURE PIPE GRID LOCATION. TOTAL WEIGHT NOT TO EXCEED 3 PSF WITH MAXIMUM ATTACHED POINT LOADS OF 50 LBS. PIPE GRID DESIGN & ATTACHMENTS TO STRUCTURE BY DELEGATED ENGINEER/MANUFACTURER. ATTACH GRID TO STRUCTURAL STEEL BEAM FLANGES, NOT METAL DECK.



1
S104

OVERALL FOURTH FLOOR PLAN

3/32" = 1'-0"

146'-0" (TYP UNO)
T/SLAB
145'-6 1/2" (TYP UNO)
T/BEAM

LEGEND

AREA OF ROOF TOP UNITS/OPENINGS. REF DETAILS ON S601 AND COORD W/ MEP DRAWINGS AND APPROVED MANUFACTURER DRAWINGS FOR FINAL WEIGHTS AND LOCATIONS. ENSURE OPENINGS IN ROOF DO NOT INTERFERE WITH JOIST LOCATIONS. WEIGHTS (INCLUDING CURB) SHALL NOT EXCEED THAT SHOWN ON PLAN. JOIST MANUFACTURER TO DESIGN FOR ADDITIONAL LOAD AS INDICATED. ALL JOISTS W/ ADDITIONAL LOADING SHALL BE CONSIDERED SP (SPECIAL JOISTS)

ROOF MOUNTED 6" CHILLED WATER PIPING - DESIGN JOIST FOR ADDITIONAL CONCENTRATED POINT LOAD OF 1200 LBS (LIVE). AT EACH INTERSECTION W/ PIPES, PER PIPE. REF MECH PLANS. COORDINATE W/ FINAL PIPE LAYOUT, SUPPORT LOCATIONS, AND WEIGHTS. JOIST MANUFACTURER TO DESIGN SP JOISTS TO SUPPORT ADDITIONAL WEIGHT. PIPE SUPPORTS/ ATTACHMENTS TO STRUCTURE AND THEIR DESIGN OR APPROVED PRODUCT DATA SHALL BE PROCURED & PROVIDED BY THE MECHANICAL CONTRACTOR.

ROOF MOUNTED DUCTWORK. JOIST MANUFACTURER TO DESIGN JOIST FOR ADDITIONAL CONCENTRATED POINT LOAD OF 500 LBS (LIVE) DOWN AND 2.7K UPLIFT (ULTIMATE). AT EACH INTERSECTION W/ DUCT. REF MECH PLANS. COORDINATE FINAL LAYOUT & REACTIONS W/ APPROVED SHOP DRAWINGS. DUCT SUPPORTS/ ATTACHMENTS TO STRUCTURE AND THEIR DESIGN OR APPROVED PRODUCT DATA SHALL BE PROCURED & PROVIDED BY THE MECHANICAL CONTRACTOR.

FRAMING PLAN NOTES

1. REFER TO GENERAL STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR DEFINITION OF SYMBOLS, ABBREVIATIONS, AND OTHER INFORMATION AND CRITERIA NOT SHOWN ON PLAN.
2. FRAMING SHALL BE EQUALLY SPACED BETWEEN COLUMN BAYS UNLESS OTHERWISE NOTED OR DIMENSIONED ON PLAN.
3. COORDINATE FINAL SIZE AND LOCATION OF FLOOR / ROOF PENETRATIONS AND OPENINGS WITH THE APPROPRIATE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS. PROVIDE ADDITIONAL FRAMING / STRUCTURAL REINFORCEMENT FOR OPENINGS IN FLOOR OR ROOF DECK PER DETAILS.
4. ALL JOISTS TO BE DESIGNED FOR ADDITIONAL LOADING PER STRUCTURAL REQUIREMENTS SHALL BE CONSIDERED KSP JOISTS.
5. MECHANICAL EQUIPMENT WEIGHT SHOWN ON PLANS IS PRESUMED OPERATING WEIGHT PLUS CURB WEIGHT. NOTIFY ENGINEER IMMEDIATELY IF WEIGHT OF FINAL EQUIPMENT SELECTIONS EXCEED THOSE INDICATED ON PLAN.

FRAMING PLAN NOTES

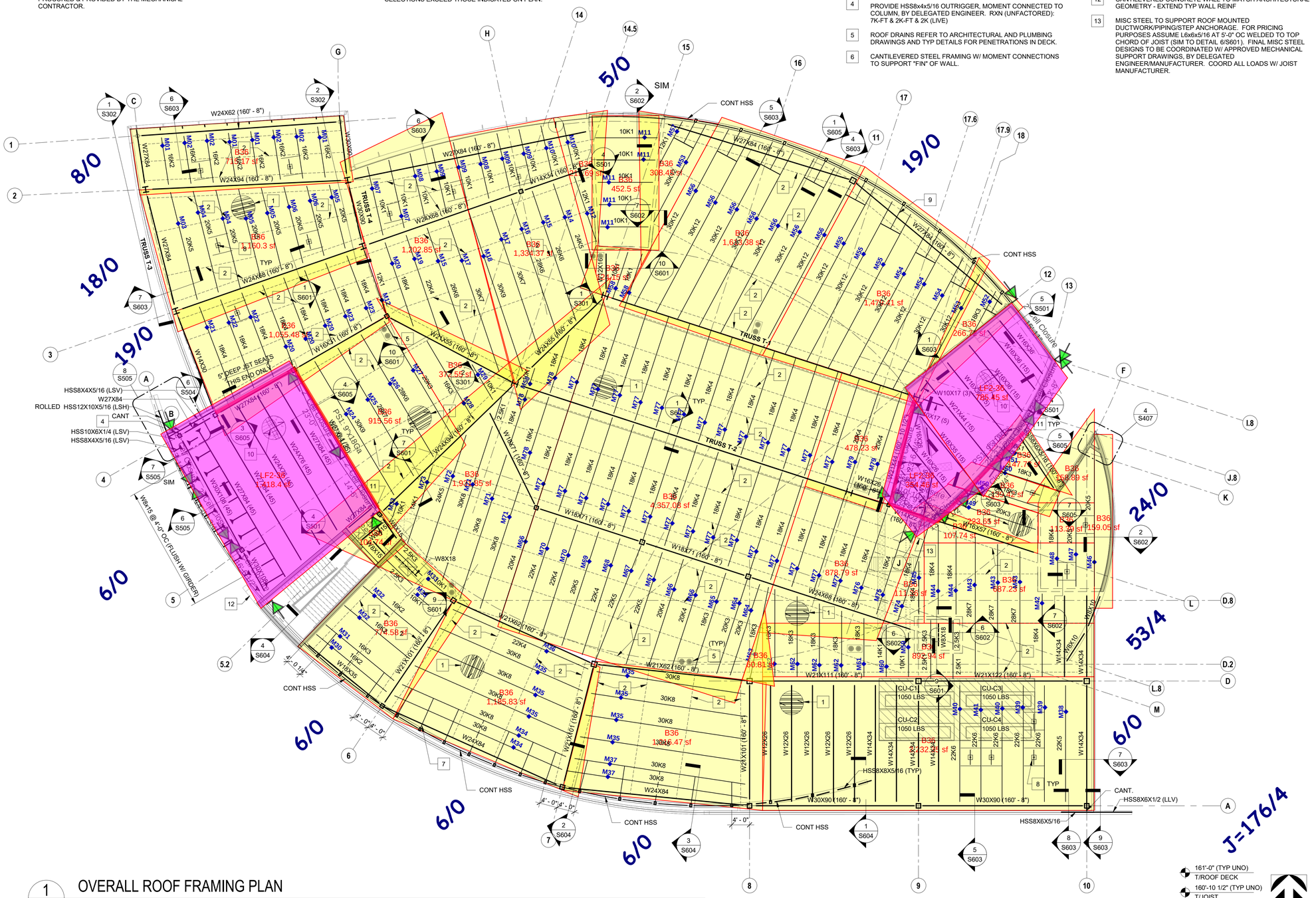
6. ALL STEEL CONNECTIONS SHALL BE DELEGATED PER GENERAL NOTES REQUIREMENTS. REF DETAIL 4/S502 & 5/S502 FOR TYPICAL SHEAR & MOMENT REACTIONS TABLE, PLANS, DETAILS & TRUSS PROFILES FOR ADDITIONAL LOADS OR ALTERNATIVE SHEAR REACTIONS.
7. K-SERIES JOISTS SHALL HAVE 2 1/2" DEEP JOIST SEATS U.N.O.
8. JOIST MANUFACTURER SHALL DESIGN ROOF JOISTS TO SUPPORT THE FOLLOWING ADDITIONAL (UNFACTORED) LOADS FOR FUTURE SOLAR PANELS - ASSUME ALL AREA NOT SUPPORTING MEP EQUIPMENT COULD RECEIVE FUTURE PANELS:
   4 PSF DEAD LOAD
   20 PSF WIND UPLIFT
9. JOIST MANUFACTURER TO DESIGN FOR ADDITIONAL LOADS FROM ROOF TOP UNITS AS SHOWN AND COORDINATE FINAL WEIGHTS, LOCATIONS AND QUANTITIES WITH MEP DRAWINGS & APPROVED SHOP DRAWINGS.

FRAMING KEY NOTES

1. 1 1/2" 20 GAGE WIDE-RIB (TYPE B) GALVANIZED STEEL ROOF DECK. DECK SHALL RUN PERPENDICULAR TO FRAMING. WHERE FRAMING IS LAID OUT AT A RADIUS, IT IS ACCEPTABLE FOR DECK TO RUN AT AN ANGLE TO BEAMS UP TO A 5'-4" MAX SPAN. PROVIDE MISC STEEL AT DECK SPANS THAT EXCEED THIS LIMIT OR WHERE JOIST RUN IN PERPENDICULAR/SKEWED TO EACH OTHER ON EITHER SIDE OF SUPPORT GIRDER PER DETAILS 7/S601 & 10/S601 (TYP).
2. JOIST BRIDGING LINES: SIZE, CONFIGURATION, AND LOCATION SHALL BE IN ACCCORDANCE WITH "SJI" REQUIRMENTS. GC TO COORDINATE WITH JOIST MANUFACTURER/SUPPLIERS APPROVED SHOP DRAWINGS.
3. JOIST "X"-BRIDGING LINES: SIZE, CONFIGURATION, AND LOCATION SHALL BE IN ACCCORDANCE WITH "SJI" REQUIRMENTS. GC TO COORDINATE WITH JOIST MANUFACTURER/SUPPLIERS APPROVED SHOP DRAWINGS. ALTERNATE HORIZONTAL BRIDGING AT MECHANICAL DUCT WORK LOCATIONS BETWEEN JOIST TO BE COORDINATED BY GC WITH JOIST MANUFACTURER FOR PROPER DESIGN PER "SJI" REQUIRMENTS.
4. PROVIDE HSS8x4x5/16 OUTRIGGER, MOMENT CONNECTED TO COLUMN, BY DELEGATED ENGINEER. RXN (UNFACTORED): 7K-FT & 2K-FT & 2K (LIVE)
5. ROOF DRAINS REFER TO ARCHITECTURAL AND PLUMBING DRAWINGS AND TYP DETAILS FOR PENETRATIONS IN DECK.
6. CANTILEVERED STEEL FRAMING W/ MOMENT CONNECTIONS TO SUPPORT "FIN" OF WALL.

FRAMING KEY NOTES

7. PARAPET KICKER FRAMING:
   SPACE AT 8'-0" OC MAX, CENTERED AROUND COLUMNS (DO NOT PLACE AT COLUMN LINE). REF DETAILS 2/S604 & 3/S604 .
8. FALL ARREST BY MANUFACTURER -
   PROVIDE MISC STEEL SUPPORTS PER DETAIL 9/S602 .
   JOIST MANUFACTURER TO DESIGN FOR ADDITIONAL LOADING PER DETAIL.
9. PARAPET KICKER FRAMING:
   REF DETAILS - PROVIDE BETWEEN EVERY OTHER JOIST SPACING.
10. FLOOR CONSTRUCTION: 2" DEEP, 20 GA. VULCRAFT TYPE 'VL' GALVANIZED COMPOSITE FLOOR DECK WITH 3 1/2" CONCRETE (5 1/2" TOTAL THICKNESS). REINFORCE w/ 6x6-W2.1xW2.1 WWF.
11. REF TO MEP/ARCH DWGS AND APPROVED SHOP DRAWINGS FOR OPENINGS IN SLAB. REF TYP DETAIL 1/SS06 FOR REINFORCING REQUIRED AT OPENINGS. ALL OPENINGS IN SLAB MUST BE SUBMITTED FOR REVIEW BY SEOR.
12. CANTILEVERED CONCRETE WALL TO MATCH ARCHITECTURAL GEOMETRY - EXTEND TYP WALL REINF
13. MISC STEEL TO SUPPORT ROOF MOUNTED DUCTWORK/PIPING/STEP ANCHORAGE. FOR PRICING PURPOSES ASSUME L6x6x5/16 AT 5'-0" OC WELDED TO TOP CHORD OF JOIST (SIM TO DETAIL 6/S601). FINAL MISC STEEL DESIGNS TO BE COORDINATED W/ APPROVED MECHANICAL SUPPORT DRAWINGS, BY DELEGATED ENGINEER/MANUFACTURER. COORD ALL LOADS W/ JOIST MANUFACTURER.



1 S105 OVERALL ROOF FRAMING PLAN

3/32" = 1'-0"

Joist Description	Quantity
M80	1
M81	2
M82	1
M83	1
M84	1
M85	1
M86	2
M87	3
M88	6
M89	2
M90	2
M91	1
M92	1

FRAMING PLAN NOTES

1. REFER TO GENERAL STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR DEFINITION OF SYMBOLS, ABBREVIATIONS, AND OTHER INFORMATION AND CRITERIA NOT SHOWN ON PLAN.
2. FRAMING SHALL BE EQUALLY SPACED BETWEEN COLUMN BAYS UNLESS OTHERWISE NOTED OR DIMENSIONED ON PLAN.
3. COORDINATE FINAL SIZE AND LOCATION OF FLOOR PENETRATIONS AND OPENINGS WITH THE APPROPRIATE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS. PROVIDE ADDITIONAL FRAMING / STRUCTURAL REINFORCEMENT FOR OPENINGS IN FLOOR DECK PER DETAIL.
4. ALL JOISTS TO BE DESIGNED FOR ADDITIONAL LOADING PER STRUCTURAL REQUIREMENTS SHALL BE CONSIDERED KSP JOISTS.
5. MECHANICAL EQUIPMENT WEIGHT SHOWN ON PLANS IS PRESUMED OPERATING WEIGHT PLUS CURB WEIGHT. NOTIFY ENGINEER IMMEDIATELY IF WEIGHT OF FINAL EQUIPMENT SELECTIONS EXCEED THOSE INDICATED ON PLAN.
6. ALL STEEL CONNECTIONS SHALL BE DELEGATED PER GENERAL NOTES REQUIREMENTS. REF DETAIL 4/S502 & 5/S502 FOR TYPICAL SHEAR & MOMENT REACTIONS TABLE, PLANS, DETAILS & TRUSS PROFILES FOR ADDITIONAL LOADS OR ALTERNATIVE SHEAR REACTIONS.
7. K-SERIES JOISTS SHALL HAVE 2 1/2" DEEP JOIST SEATS U.N.O.

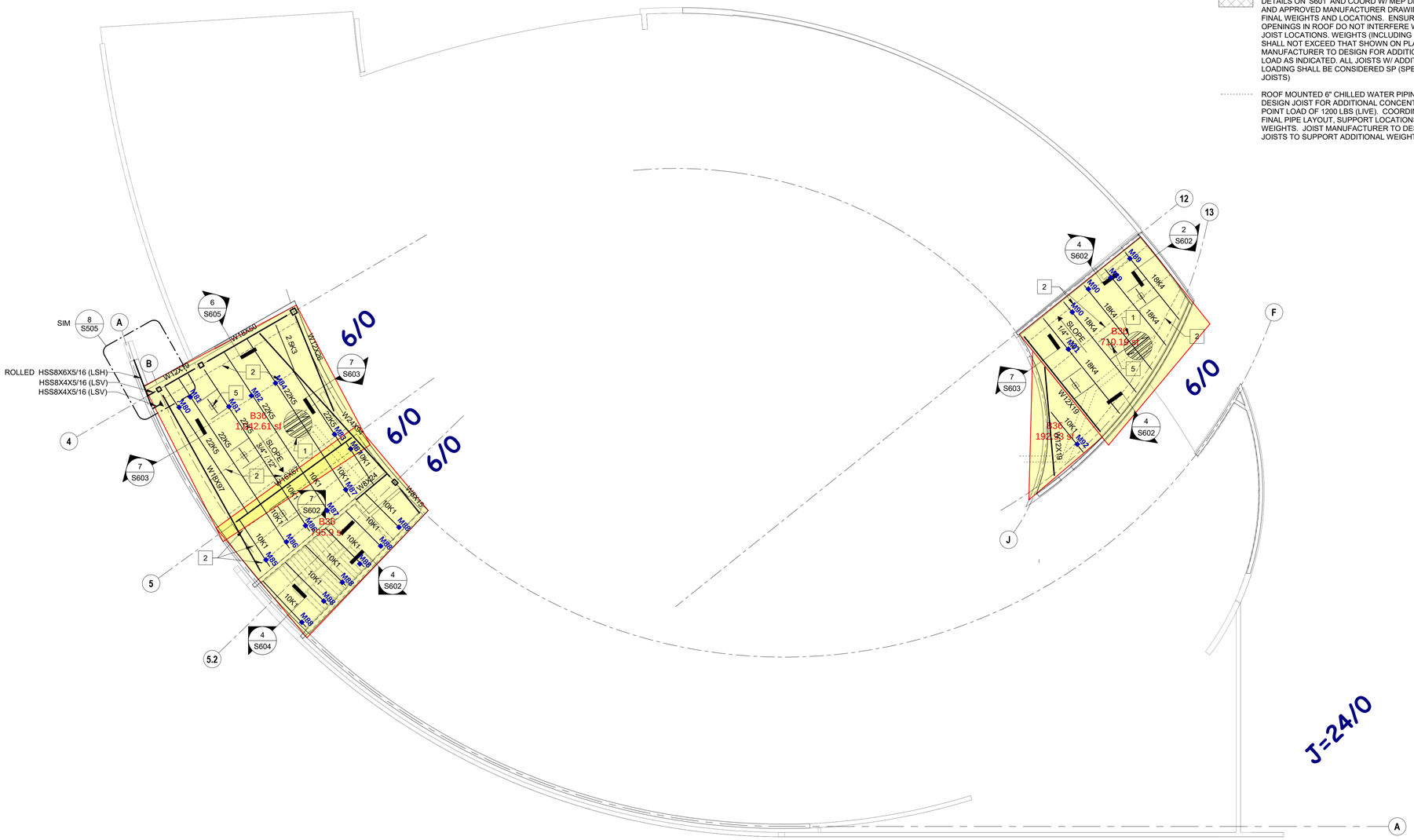
FRAMING KEY NOTES

1. 1 1/2" 20 GAGE WIDE-RIB (TYPE B) GALVANIZED STEEL ROOF DECK. REFER TO PLAN FOR INTENDED DECK SPAN DIRECTION(S).
2. JOIST BRIDGING LINES: SIZE, CONFIGURATION, AND LOCATION SHALL BE IN ACCCORDANCE WITH "SJI" REQUIRMENTS. GC TO COORDINATE WITH JOIST MANUFACTURER/SUPPLIERS APPROVED SHOP DRAWINGS.
3. JOIST "X"-BRIDGING LINES: SIZE, CONFIGURATION, AND LOCATION SHALL BE IN ACCCORDANCE WITH "SJI" REQUIRMENTS. GC TO COORDINATE WITH JOIST MANUFACTURER/SUPPLIERS APPROVED SHOP DRAWINGS. ALTERNATE HORIZONTAL BRIDGING AT MECHANICAL DUCT WORK LOCATIONS BETWEEN JOIST TO BE COORDINATED BY GC WITH JOIST MANUFACTURER FOR PROPER DESIGN PER "SJI" REQUIRMENTS.
4. ROOF DRAINS REFER TO ARCHITECTURAL AND PLUMBING DRAWINGS.
5. FALL ARREST BY MANUFACTURER - PROVIDE MISC STEEL SUPPORTS PER DETAIL 9/S602. JOIST MANUFACTURER TO DESIGN FOR ADDITIONAL LOADING PER DETAIL.

LEGEND

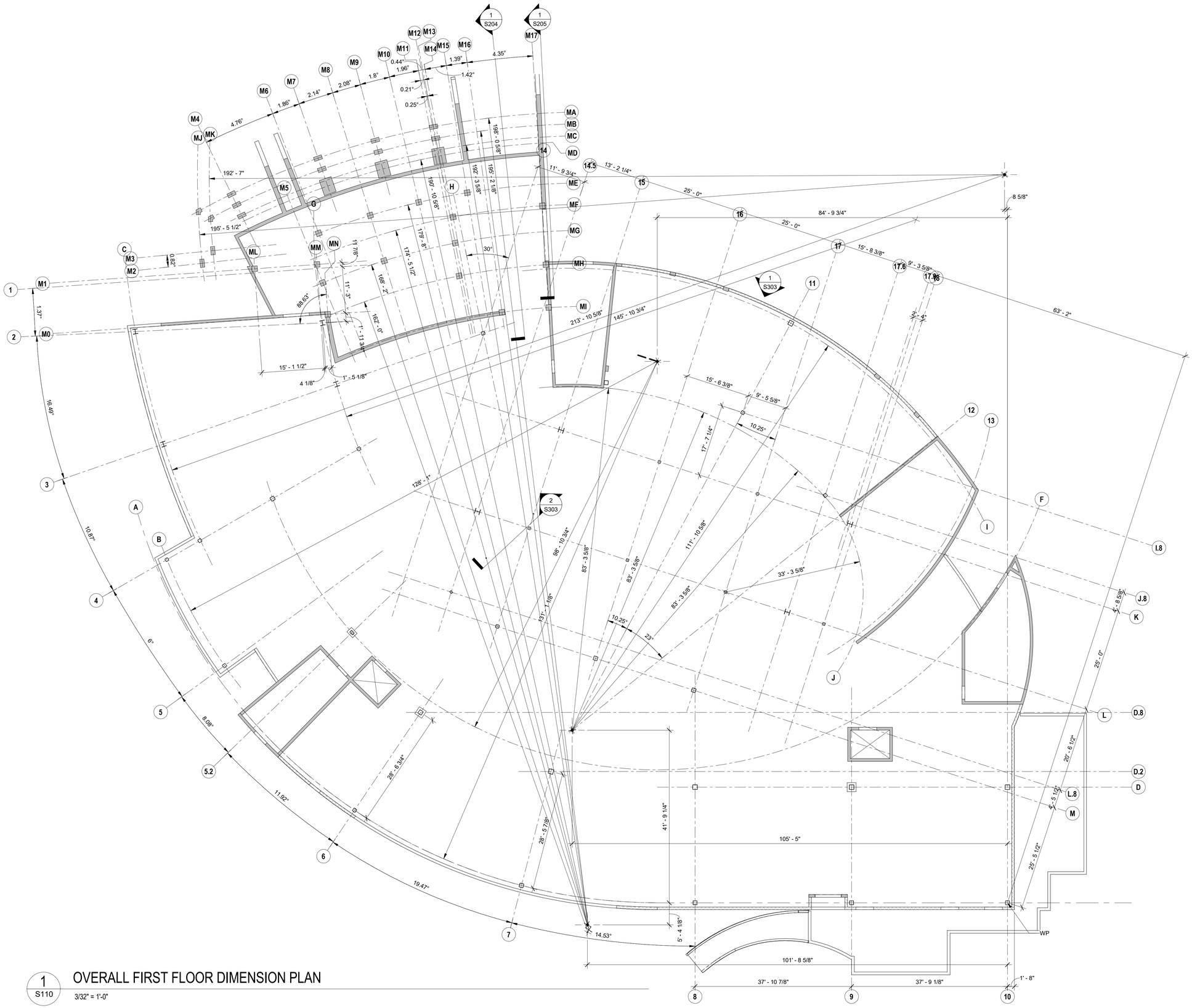
AREA OF ROOF TOP UNITS/OPENINGS. REF DETAILS ON S601 AND COORD W/ MEP DRAWINGS AND APPROVED MANUFACTURER DRAWINGS FOR FINAL WEIGHTS AND LOCATIONS. ENSURE OPENINGS IN ROOF DO NOT INTERFERE WITH JOIST LOCATIONS. WEIGHTS (INCLUDING CURB) SHALL NOT EXCEED THAT SHOWN ON PLAN. JOIST MANUFACTURER TO DESIGN FOR ADDITIONAL LOAD AS INDICATED. ALL JOISTS W/ ADDITIONAL LOADING SHALL BE CONSIDERED SP (SPECIAL JOISTS)

ROOF MOUNTED 6" CHILLED WATER PIPING - DESIGN JOIST FOR ADDITIONAL CONCENTRATED POINT LOAD OF 1200 LBS (LIVE). COORDINATE W/ FINAL PIPE LAYOUT, SUPPORT LOCATIONS, AND WEIGHTS. JOIST MANUFACTURER TO DESIGN SP JOISTS TO SUPPORT ADDITIONAL WEIGHT.



1 S106 OVERALL HIGH ROOF FRAMING PLAN

3/32" = 1'-0"



1 S110

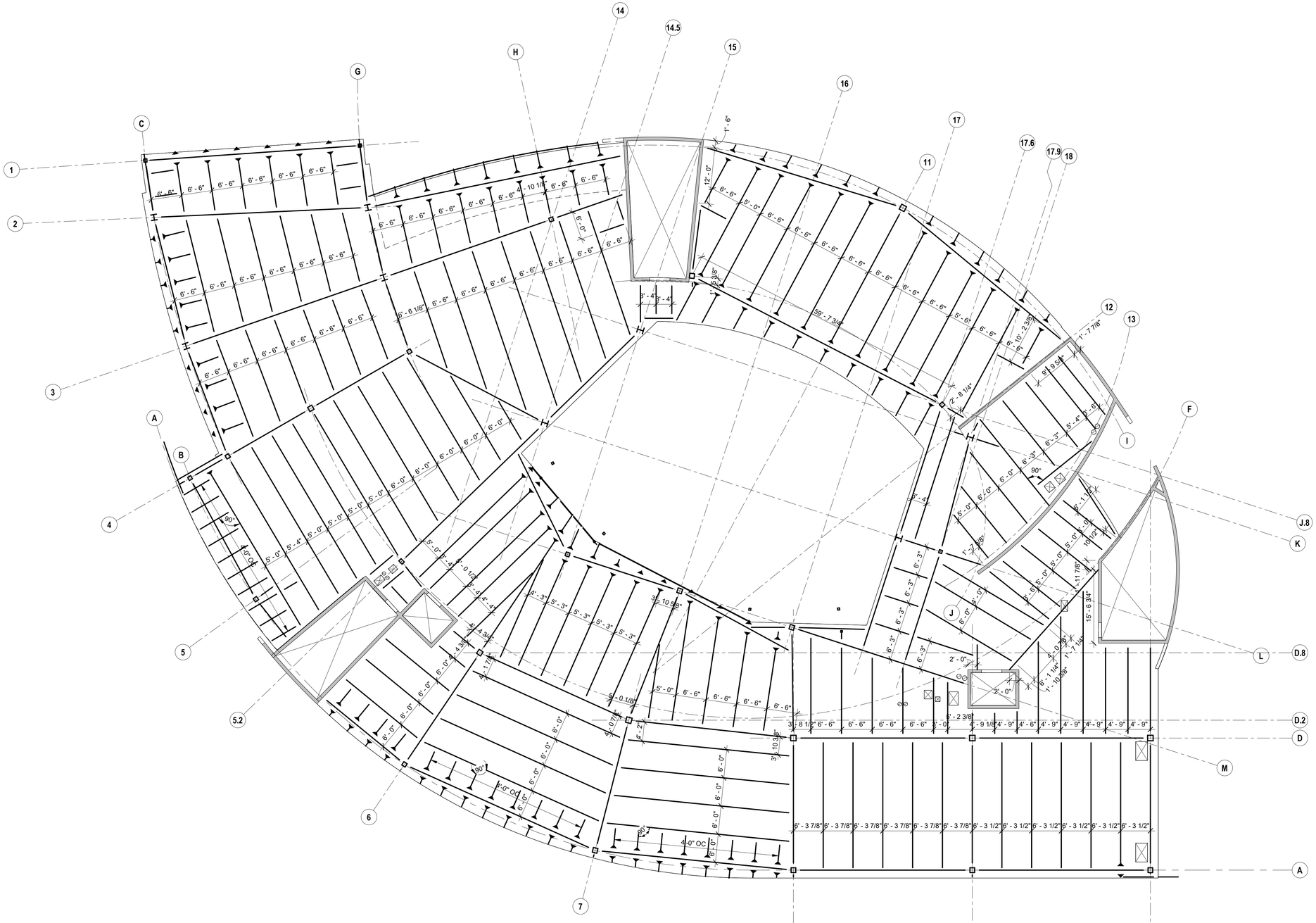
OVERALL FIRST FLOOR DIMENSION PLAN

3/32" = 1'-0"

1
S111

SECOND FLOOR DIMENSION PLAN

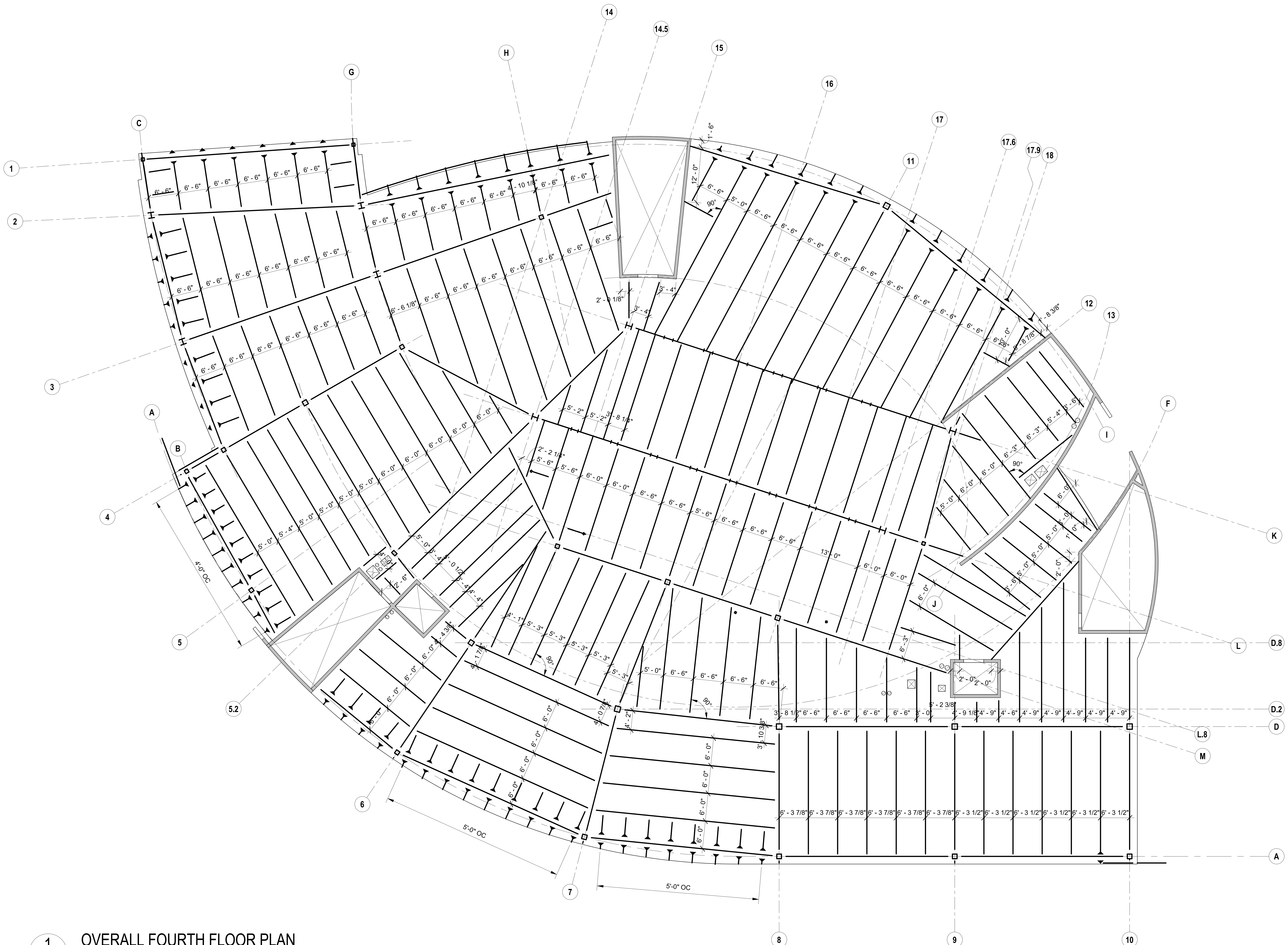
3/32" = 1'-0"



1 S112

OVERALL THIRD FLOOR PLAN

3/32" = 1'-0"



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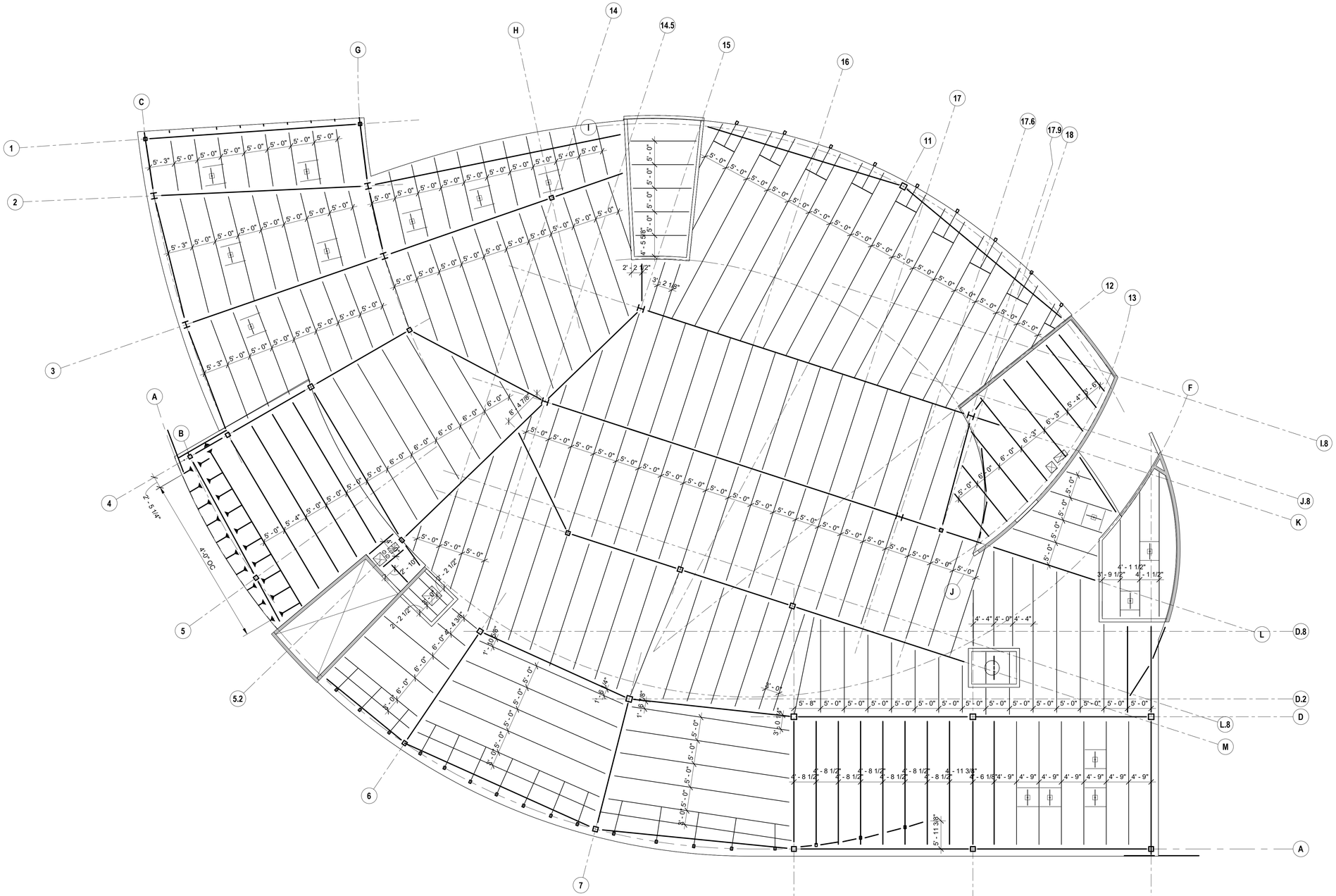
S113

OVERALL FOURTH FLOOR PLAN

3/32" = 1'-0"



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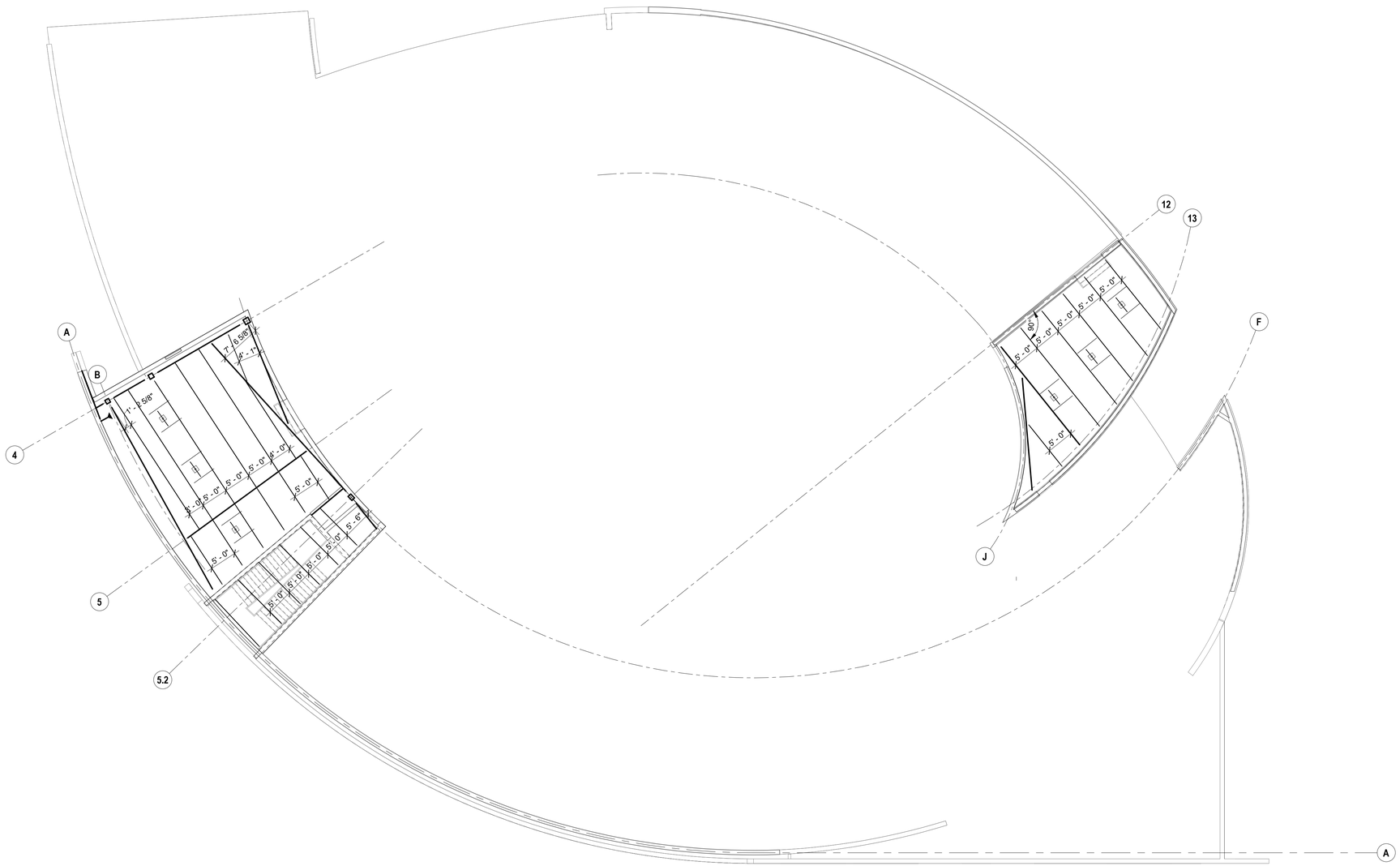
S114

OVERALL ROOF FRAMING PLAN

3/32" = 1'-0"



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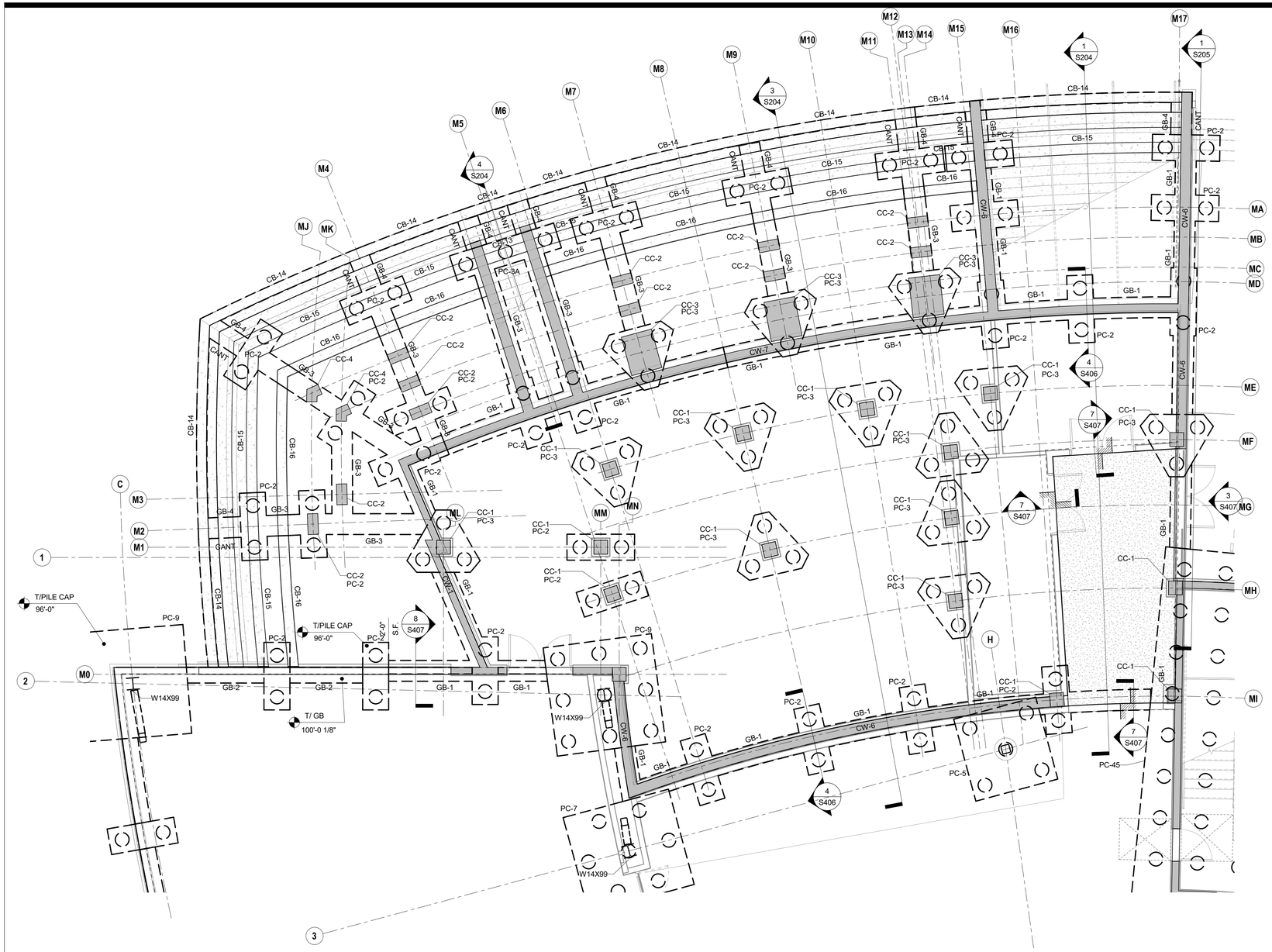
S115

OVERALL HIGH ROOF FRAMING PLAN

3/32" = 1'-0"



FOUNDATION PLAN NOTES

1. REFER TO FOUNDATION PLAN NOTES ON SHEET SF101 FOR PLAN NOTES NOT REPEATED HERE.

FOUNDATION KEY NOTES

1. REINFORCED CONCRETE RETAINING WALL - REF DETAILS FOR SIZE/REINF.
2. REINFORCED CONCRETE BUTTRESS WALLS - REF DETAILS FOR SIZE/REINF.
3. TYPICAL FLOOR CONSTRUCTION: 4" CONCRETE SLAB-ON-GRADE REINFORCED WITH 7.5 LBS/CY FORTA FERRO MACRO SYNTHETIC FIBER OR EQUAL., PLACED OVER 15 MIL VAPOR BARRIER AND COMPACTED SUBGRADE.

FOUNDATION LEGEND:

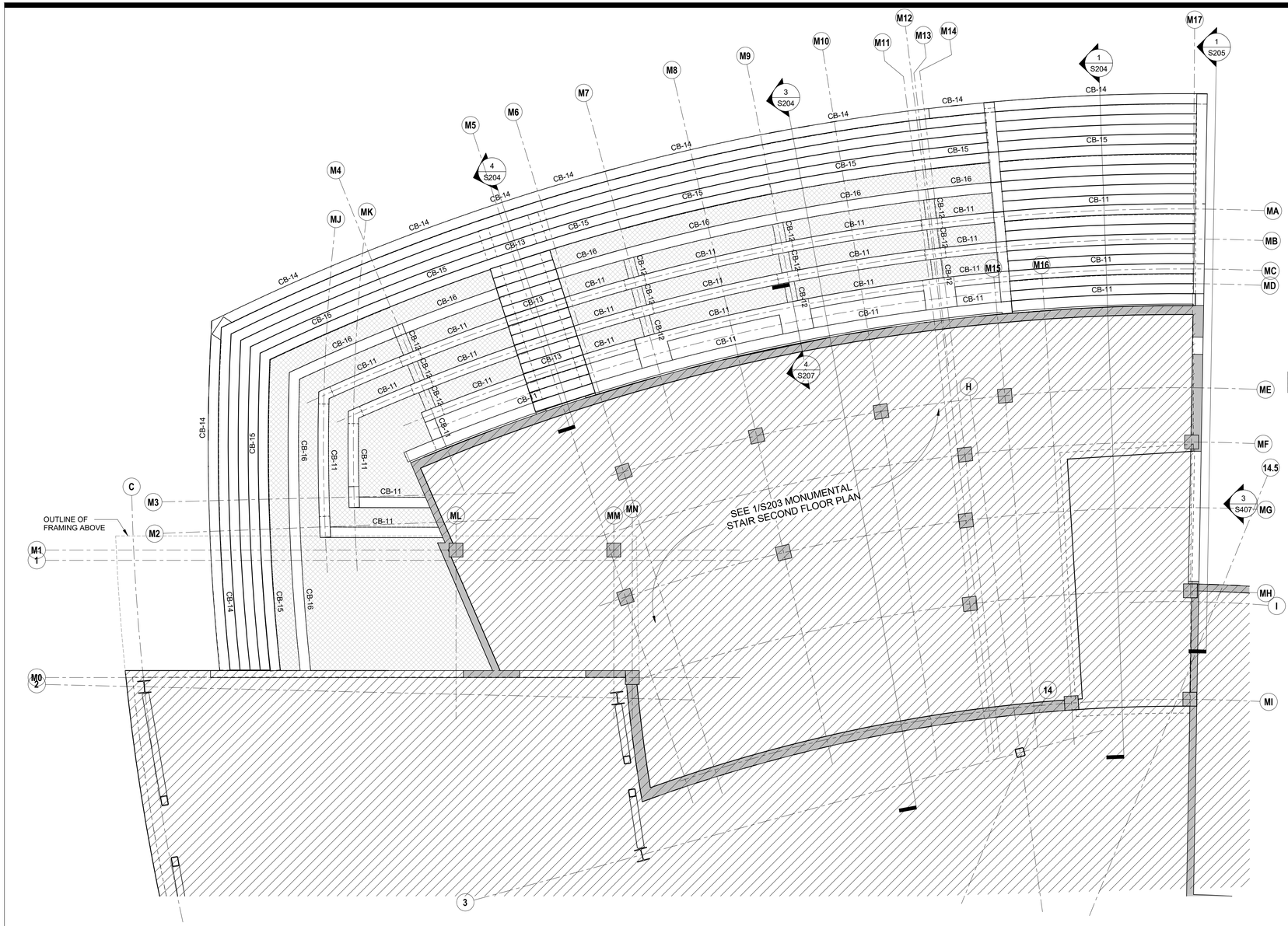
INDICATED DEPRESSED SLAB
REF ARCH FOR SLAB ELEVATION

100'-0" (TYP UNO)
T/SLAB

98'-0" (TYP UNO)
T/PILE CAP &
GRADE BEAM

1 S201 ENLARGED MONUMENTAL STAIR FOUNDATION PLAN

3/16" = 1'-0"



FRAMING PLAN NOTES

1. REFER TO FRAMING PLAN NOTES ON SHEET S102 FOR PLAN NOTES NOT REPEATED HERE.
2. REF DETAILS FOR ARCH TOPPING SLAB REINFORCEMENT.

FRAMING KEY NOTES

1. REINFORCED STRUCTURAL CONCRETE SLAB. REF PLAN FOR SIZE AND REINFORCING. STRUCTURAL SLAB IS LOCATED UNDER 4" THICK REINFORCED ARCHITECTURAL SLAB AND 8" THICK CURBS. REF STRUCTURAL DETAILS FOR REINFORCING AND ARCHITECTURAL FOR DIMENSIONS, SLOPES AND ELEVATIONS. COORDINATE W/ PLUMBING/LANSCAPE/ARCH FOR DRAINAGE.
2. 8" REINFORCED ARCHITECTURAL CONCRETE CURB ABOVE. REF STRUCTURAL DETAILS FOR SIZE AND REINFORCING. REF ARCH FOR EXTENTS AND TOP OF CURB ELEVATIONS. COORDINATE W/ PLUMBING/LANSCAPE/ARCH FOR DRAINAGE.
3. REINFORCED CONCRETE RETAINING WALL - REF DETAILS FOR SIZE/REINF.
4. REINFORCED CONCRETE TURN DOWN - REF DETAILS FOR SIZE/REINF.
5. REINFORCED CONCRETE BUTTRESS WALLS - REF DETAILS FOR SIZE/REINF.

LEGEND

ARTIFICIAL TURF - REF LANDSCAPE DRAWINGS. NO SLAB THIS AREA

XX — MIN SLAB THICKNESS IN INCHES AT LOW POINT OF SLAB. SLAB SLOPES AND INCREASES IN THICKNESS TO MEET HIGH POINT - REF SECTIONS/DETAILS.

1/S202 ENLARGED MONUMENTAL STAIR FRAMING PLAN

3/16" = 1'-0"

FRAMING PLAN NOTES

1. REFER TO FRAMING PLAN NOTES ON SHEET S102 FOR PLAN NOTES NOT REPEATED HERE.
2. REF DETAILS FOR ARCH TOPPING SLAB REINFORCEMENT.

FRAMING KEY NOTES

1. REINFORCED STRUCTURAL CONCRETE SLAB, REF PLAN FOR SIZE AND REINFORCING. STRUCTURAL SLAB IS LOCATED UNDER 4" THICK REINFORCED ARCHITECTURAL SLAB OR PAVER SYSTEM (REF ARCH). PAVER SYSTEM NOT TO EXCEED 25 PSF IN WEIGHT. REF STRUCTURAL DETAILS FOR REINFORCING AND ARCHITECTURAL FOR DIMENSIONS, SLOPES AND ELEVATIONS. COORDINATE W/ PLUMBING/LANSCAPE/ARCH FOR DRAINAGE.
2. PRE-FABRICATED CANOPY & BASE PLATE/ANCHOR BOLTS BY DELEGATED ENGINEER.
3. DRAIN LOCATIONS FOR REFERENCE. REF PLUMBING DRAWINGS AND APPROVED SHOP DRAWINGS. PROVIDE ADDITIONAL REINFORCING AT OPENINGS SIM TO DETAIL 2/S410.

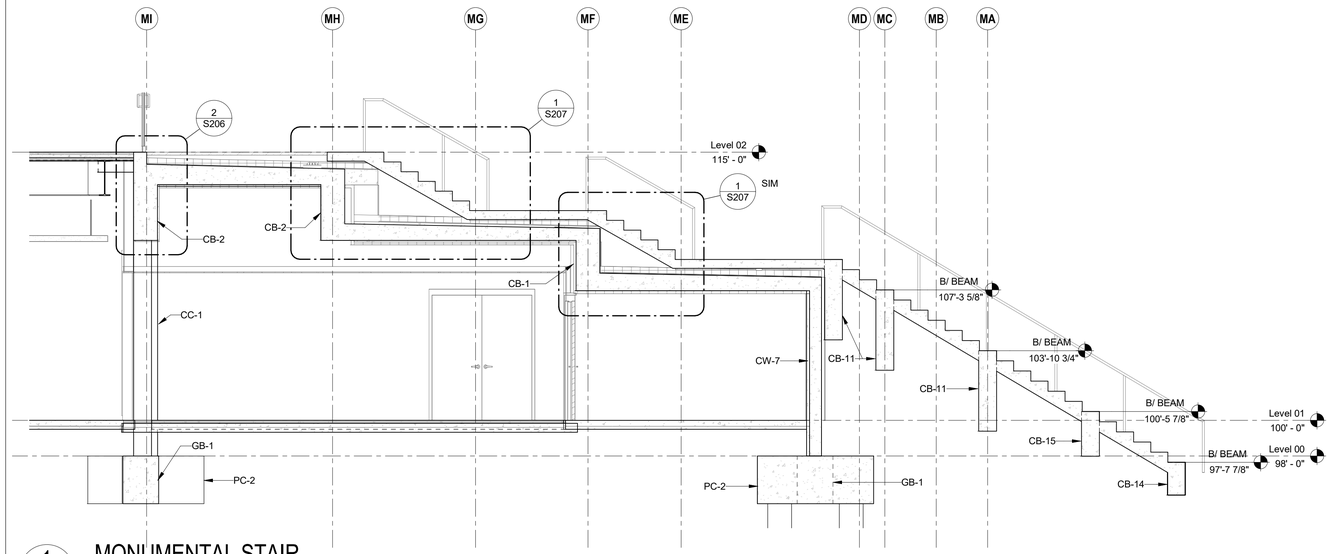
LEGEND

ARTIFICIAL TURF - REF LANDSCAPE DRAWINGS. NO SLAB THIS AREA

XX MIN SLAB THICKNESS IN INCHES AT LOW POINT OF SLAB. SLAB SLOPES AND INCREASES IN THICKNESS TO MEET HIGH POINT - REF SECTIONS/DETAILS. DO NOT EXCEED SLOPE INDICATED.

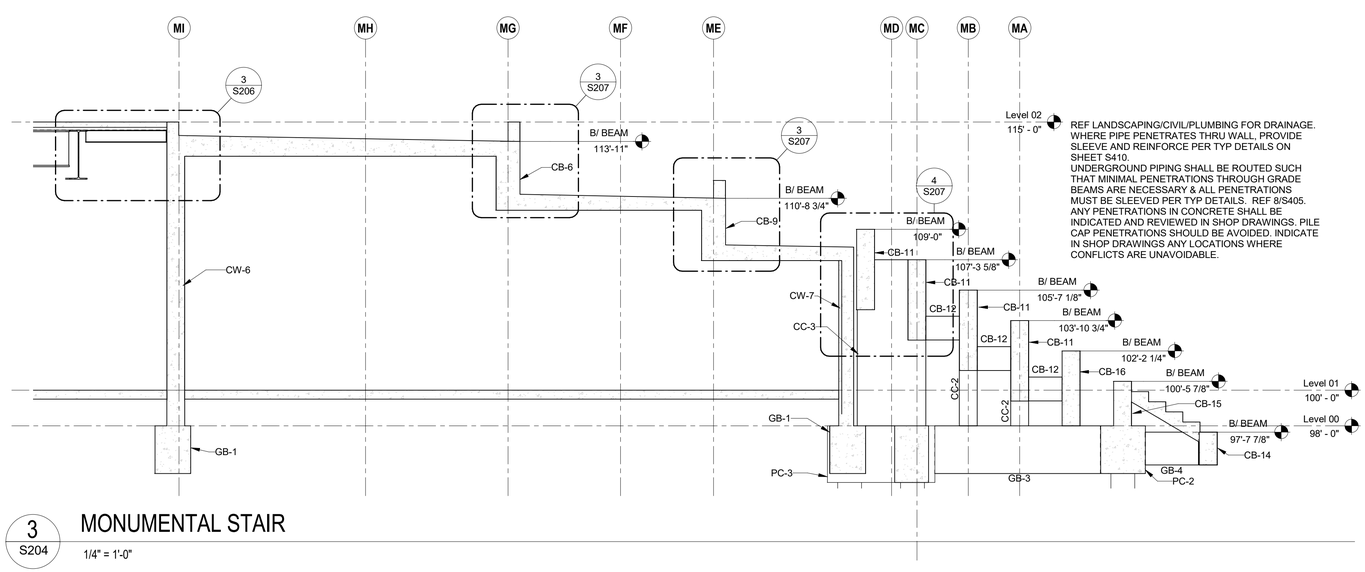
1 S203 ENLARGED MONUMENTAL STAIR SECOND FLOOR PLAN

3/16" = 1'-0"



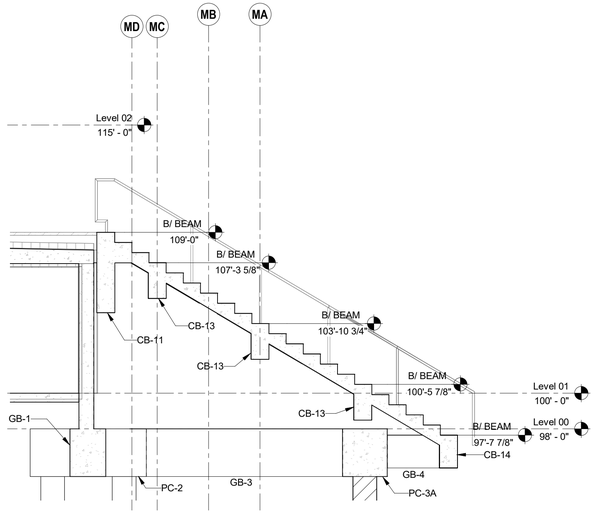
1 S204 MONUMENTAL STAIR

1/4" = 1'-0"



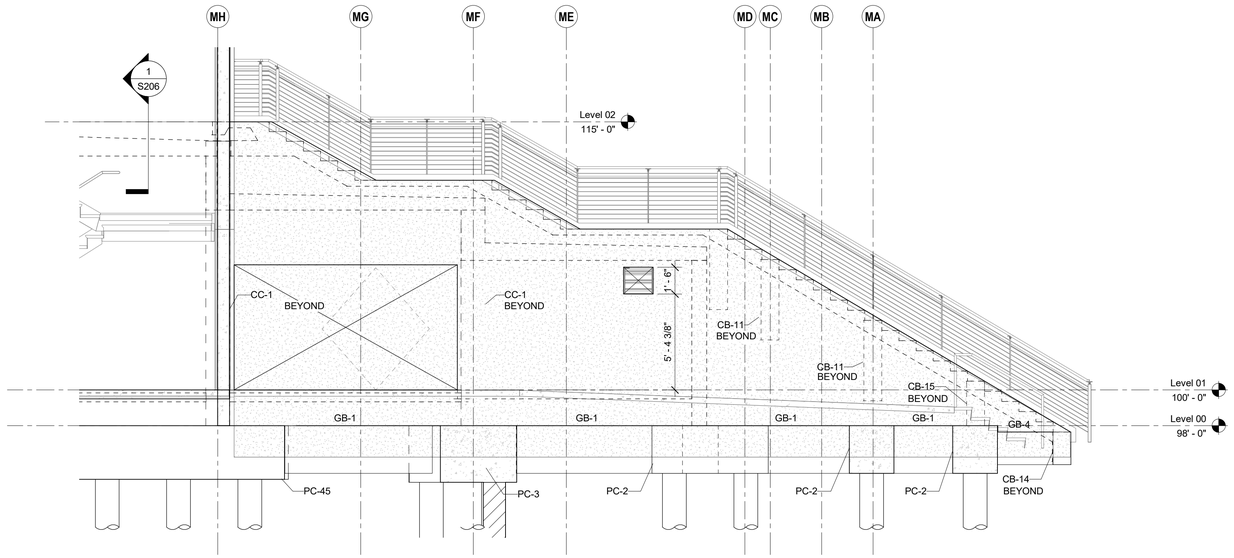
3 S204 MONUMENTAL STAIR

1/4" = 1'-0"



4 S204 MONUMENTAL STAIR

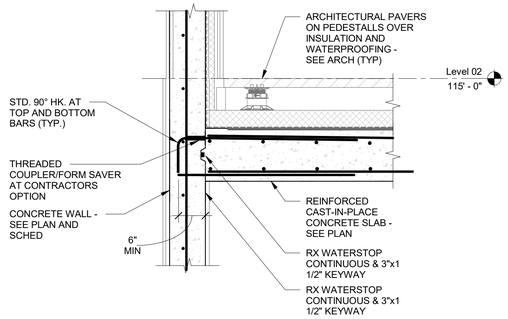
1/4" = 1'-0"

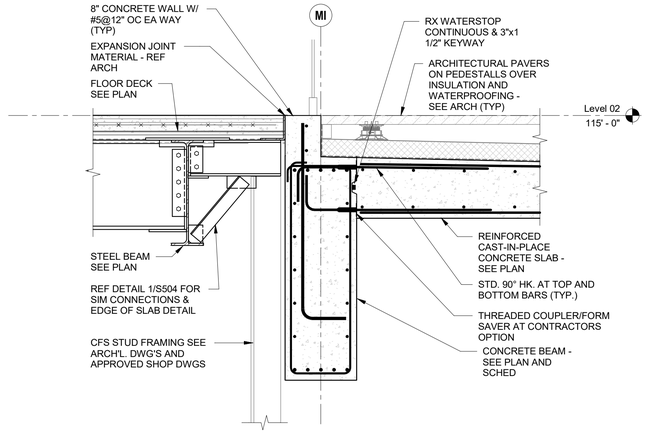


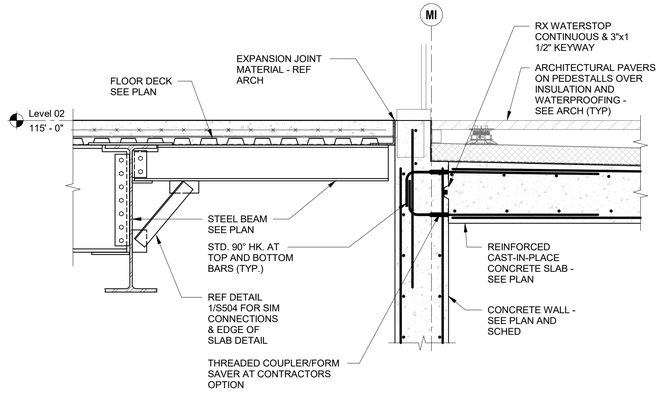
1
S205

EXTERIOR STAIR WALL ELEVATION

1/4" = 1'-0"

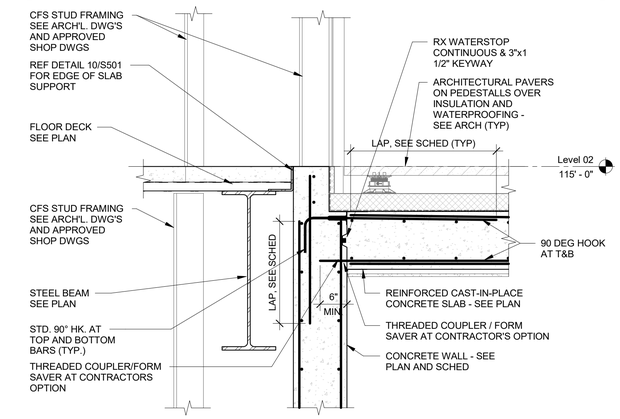






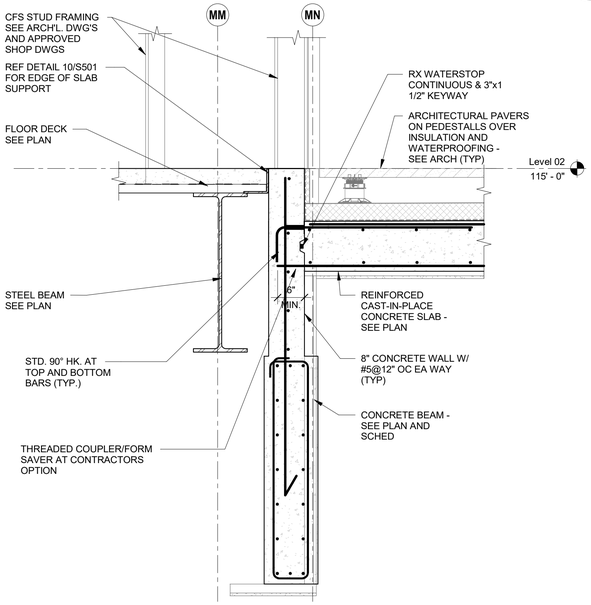
1 S206 STAIR LANDING AT CONCRETE WALL

3/4" = 1'-0"



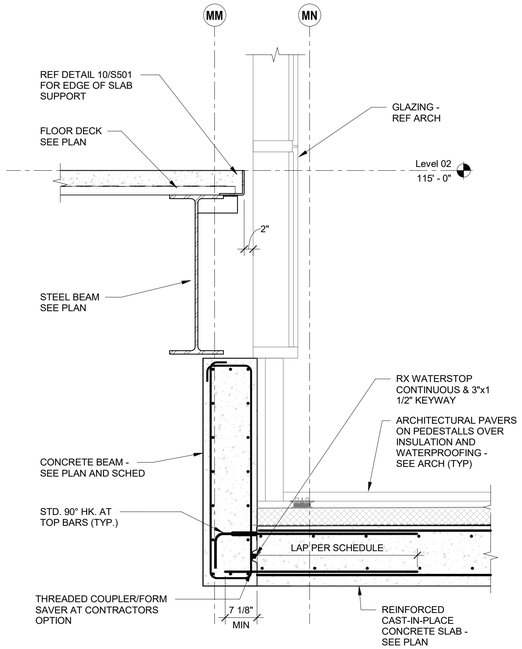
2 S206 STAIR LANDING AT ENTRY CB-2

3/4" = 1'-0"



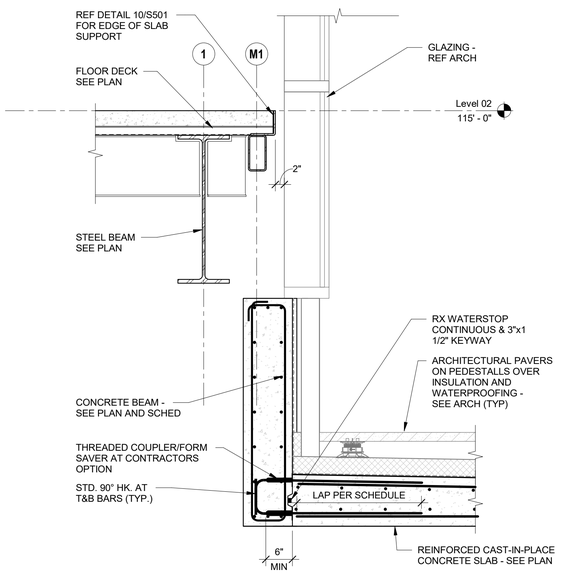
3 S206 STAIR LANDING AT ENTRY

3/4" = 1'-0"



4 S206 STAIR @ BASCH GALLERY

3/4" = 1'-0"



5 S206 STAIR @ BASCH GALLERY

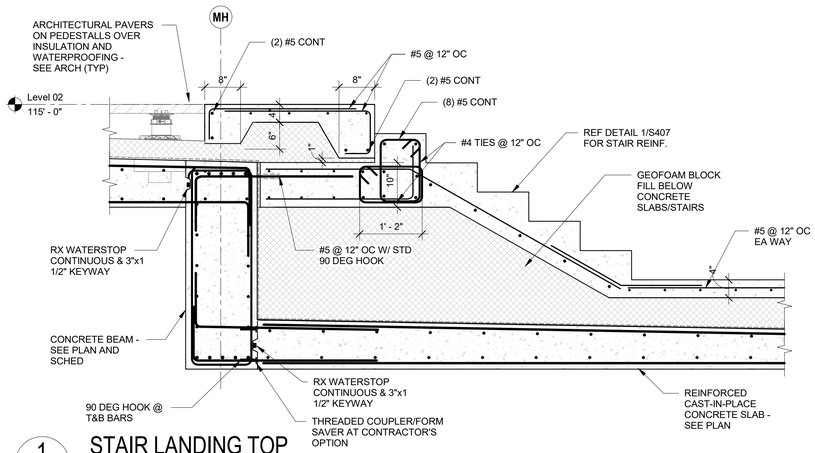
3/4" = 1'-0"

6 S206 CB-10 @ CURTIAN WALL

3/4" = 1'-0"

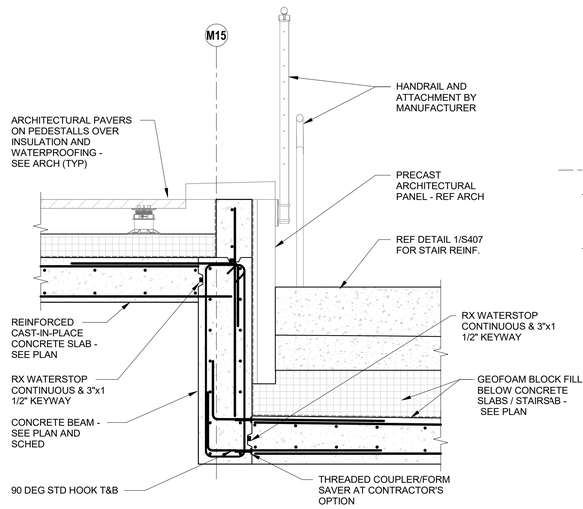
7 S206 CB-10 @ CURTIAN WALL ALONG GRID 1

3/4" = 1'-0"



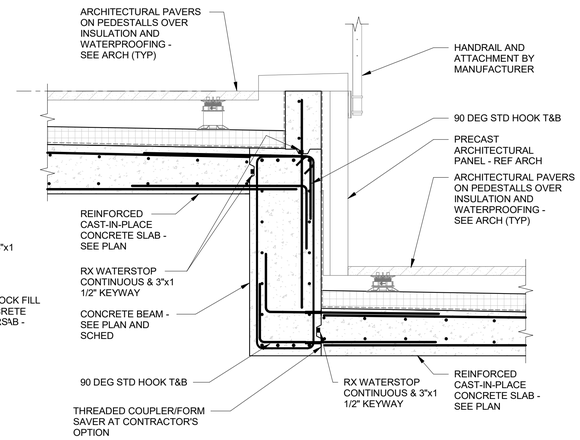
1 S207 STAIR LANDING TOP

3/4" = 1'-0"



2 S207 LANDING STEP AT STAIR

3/4" = 1'-0"

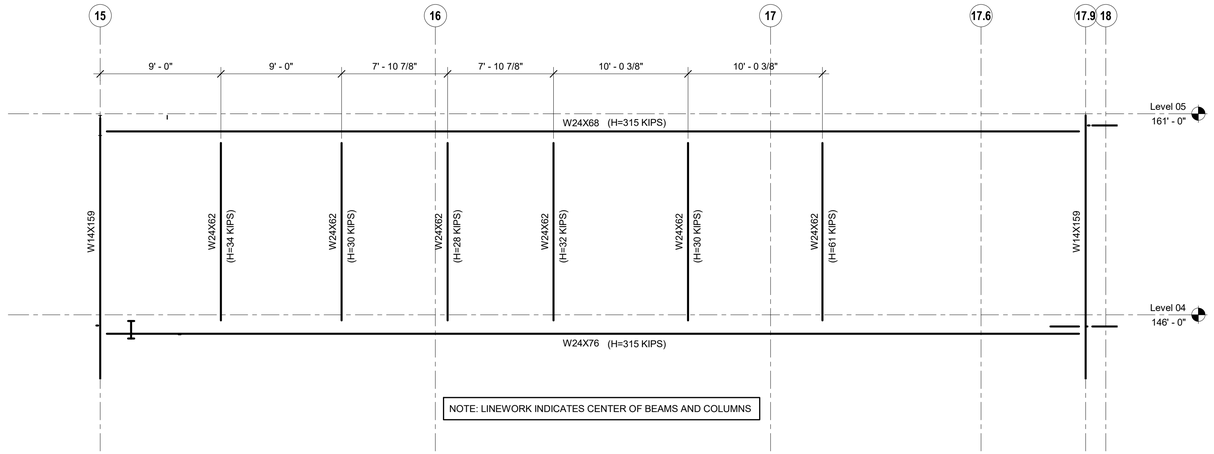


3 S207 LANDING STEP

3/4" = 1'-0"

4 S207 LANDING STEP AT CC-3

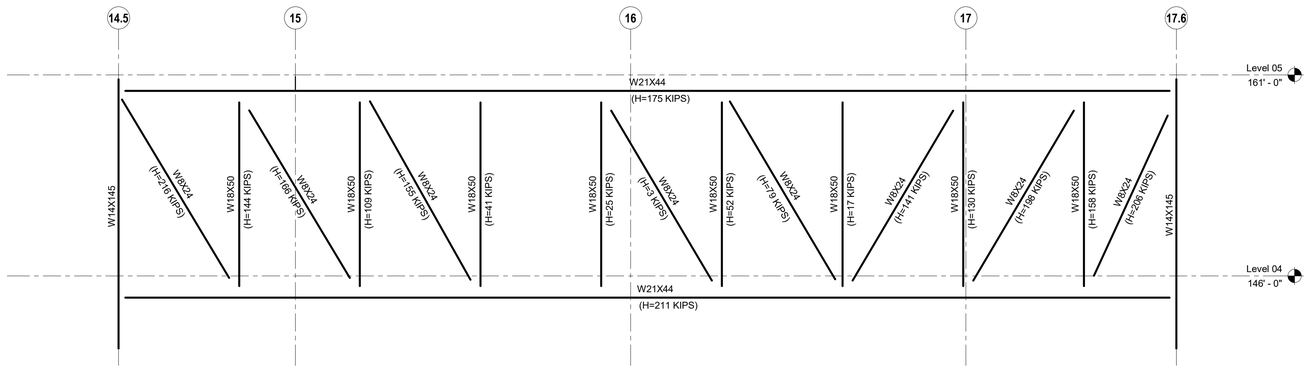
3/4" = 1'-0"



1 S301

TRUSS T-1 PROFILE @ GRID-K

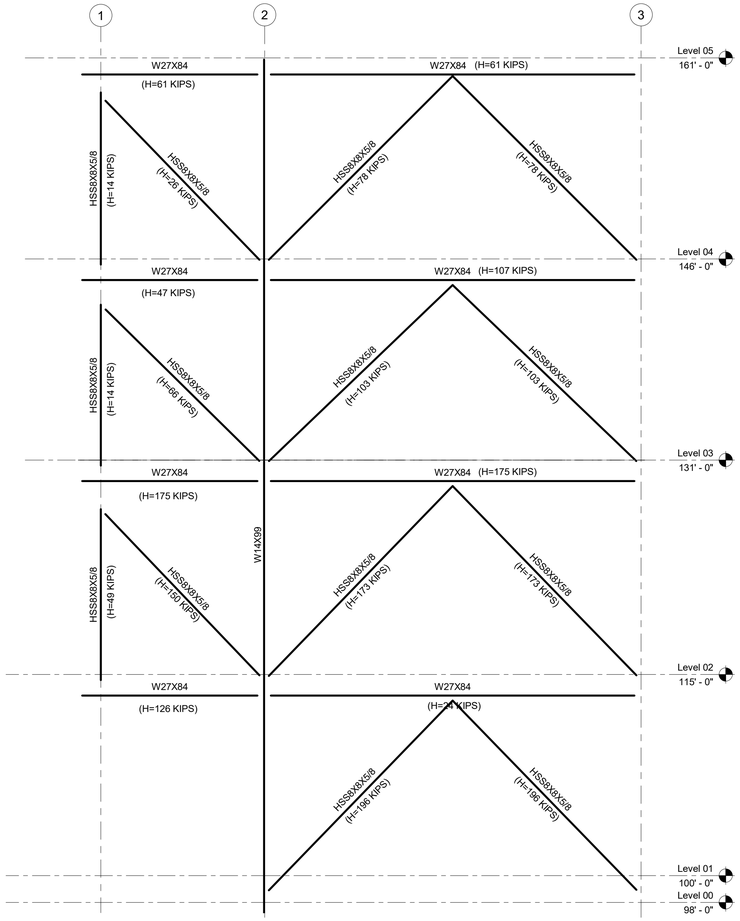
3/16" = 1'-0"



2 S301

TRUSS T-2 PROFILE @ GRID-L

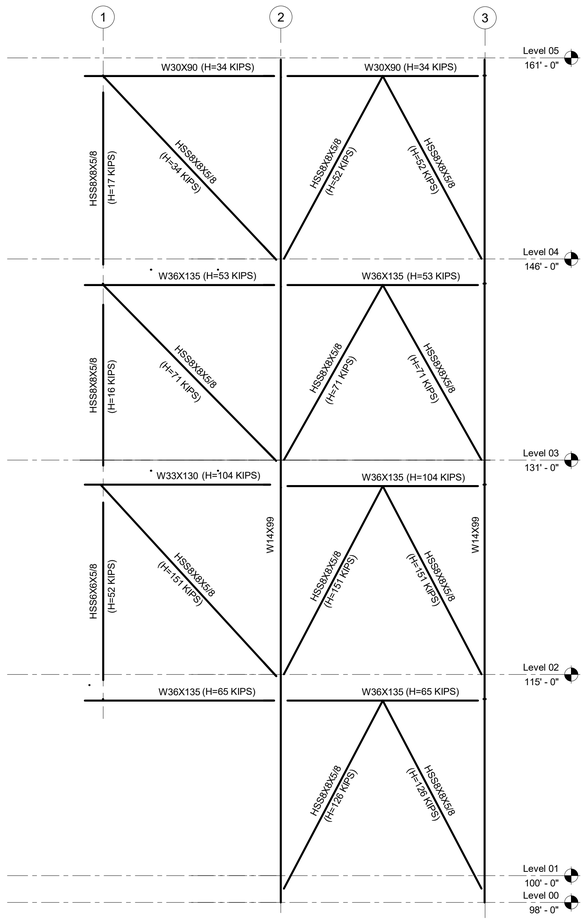
3/16" = 1'-0"



NOTE: LINEWORK INDICATES CENTER OF BEAMS AND COLUMNS

1 S302 TRUSS T-3 PROFILE

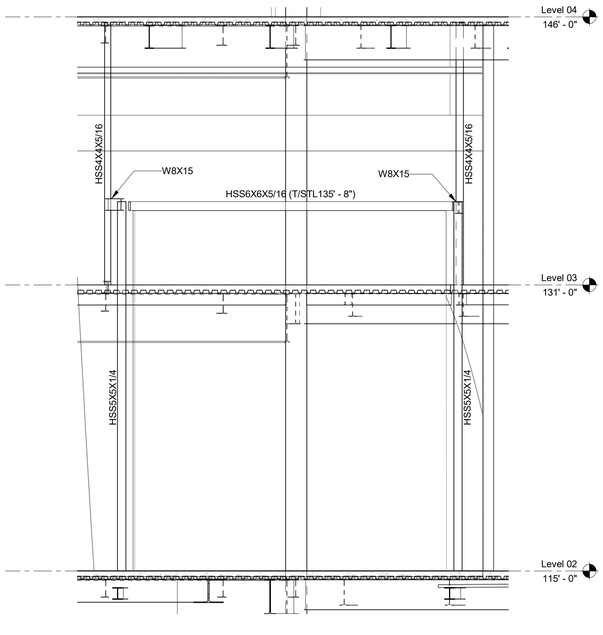
3/16" = 1'-0"



NOTE: LINEWORK INDICATES CENTER OF BEAMS AND COLUMNS

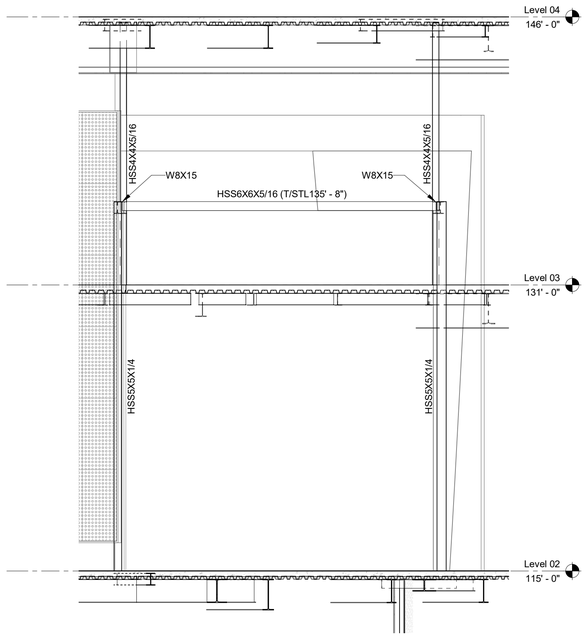
2 S302 TRUSS T-4 PROFILE

3/16" = 1'-0"



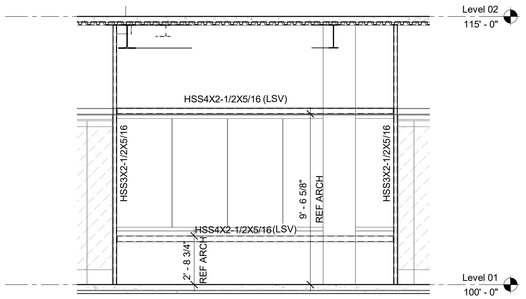
4 S303 VIDEO WALL_EAST WING

1/4" = 1'-0"



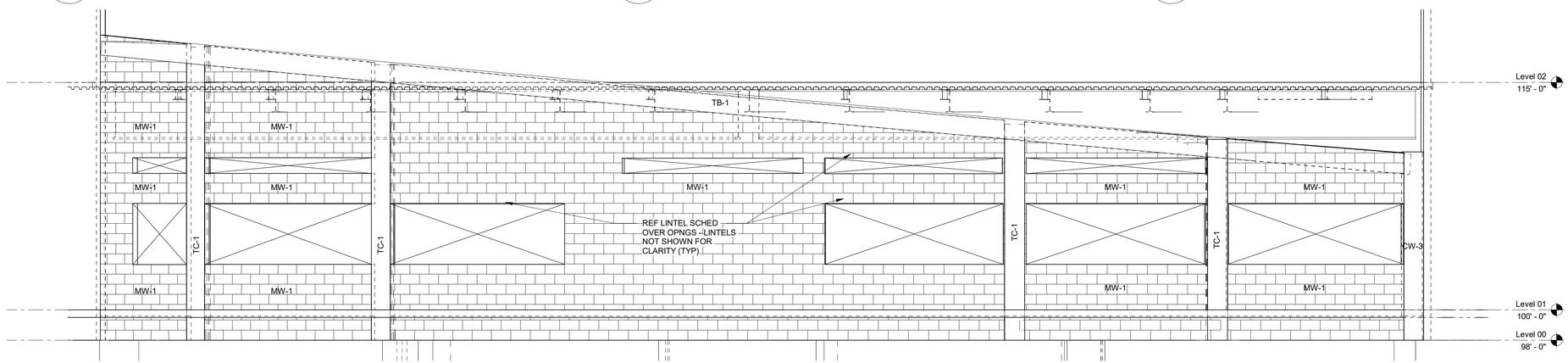
3 S303 VIDEO WALL_WEST WING

1/4" = 1'-0"



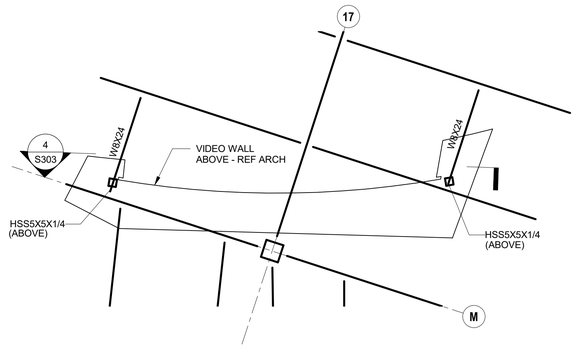
2 S303 ENTRY DESK

1/4" = 1'-0"



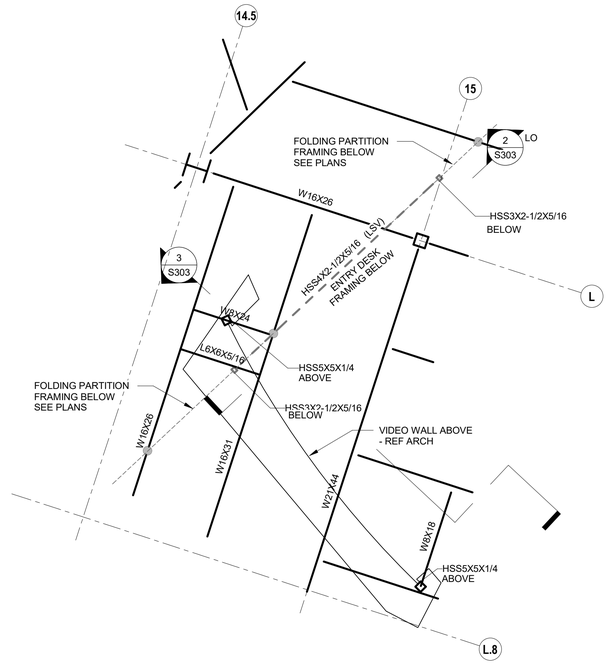
1 S303 WALL ELEVATION

1/4" = 1'-0"



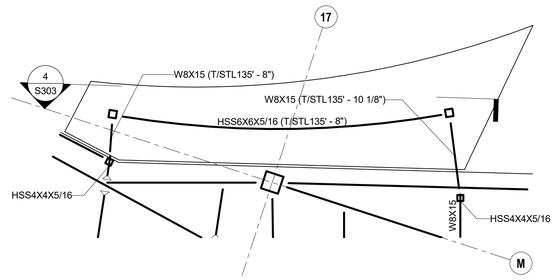
4 S304 VIDEO WALL - EAST WING - LEVEL 2

1/4" = 1'-0"



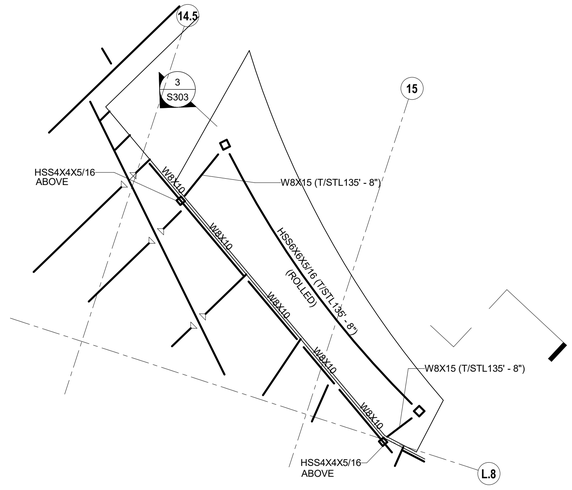
1 S304 VIDEO WALL - WEST WING - LEVEL 2

1/4" = 1'-0"



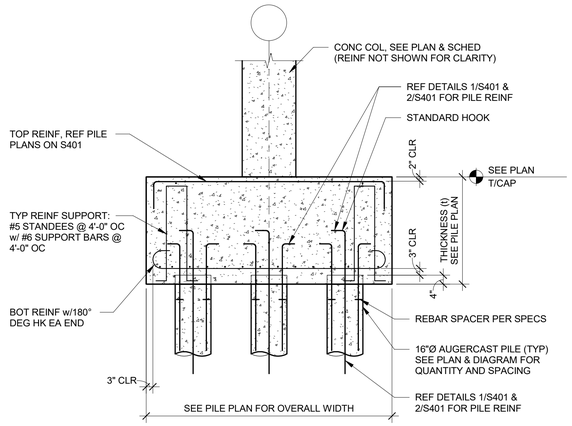
3 S304 VIDEO WALL - EAST WING - LEVEL 3

1/4" = 1'-0"



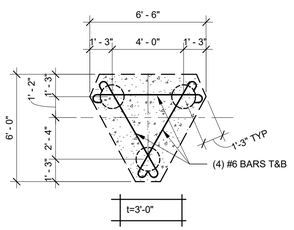
2 S304 VIDEO WALL - WEST WING - LEVEL 3

1/4" = 1'-0"



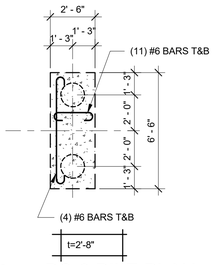
3 S401 **PILE CAP DIAGRAM**

3/8" = 1'-0"



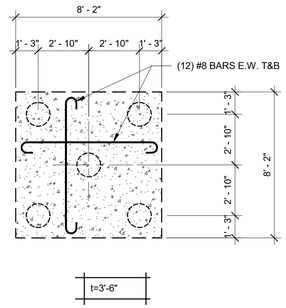
5 S401 **PC-3 PILE PLAN**

1/4" = 1'-0"



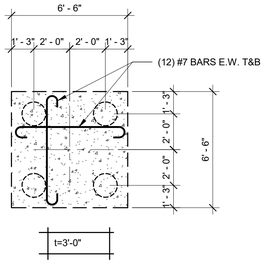
4 S401 **PC-2 PILE PLAN**

1/4" = 1'-0"



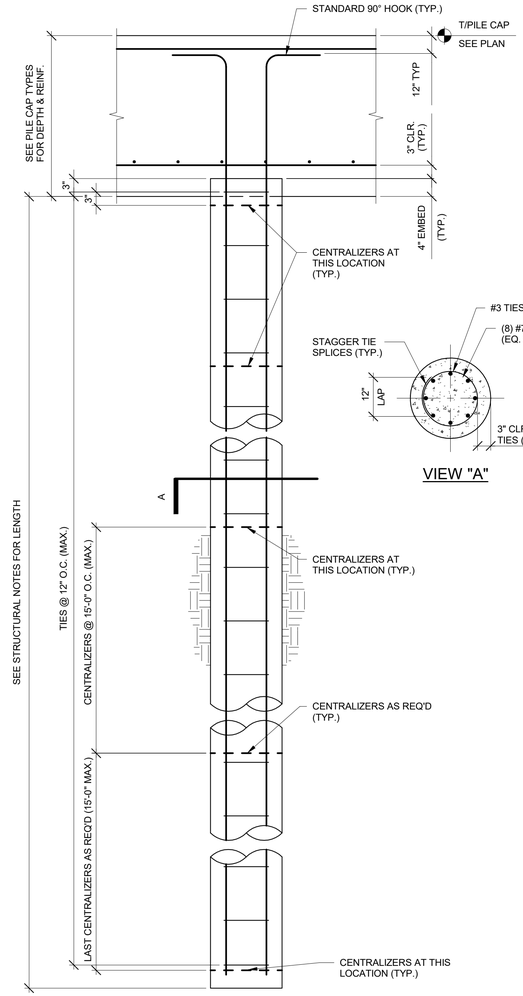
7 S401 **PC-5 PILE PLAN**

1/4" = 1'-0"



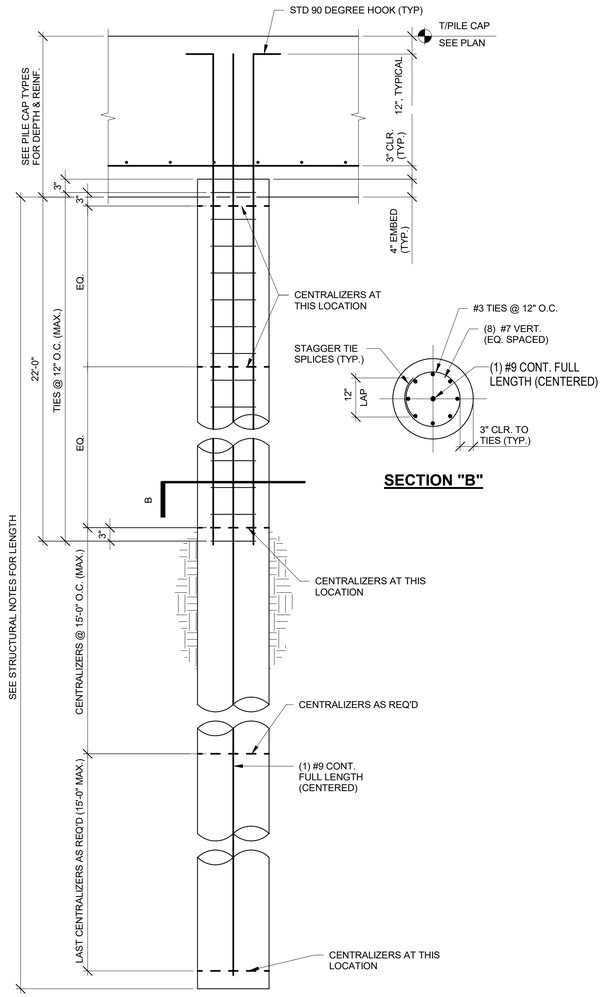
6 S401 **PC-4 PILE PLAN**

1/4" = 1'-0"



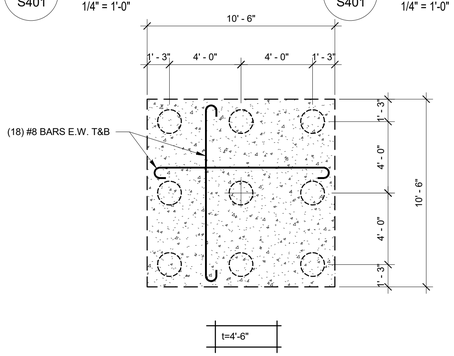
2 S401 **TYP. AUGER CAST TENSION PILE**

3/4" = 1'-0"



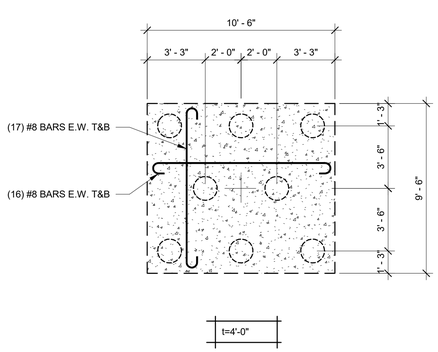
1 S401 **TYP. AUGER CAST COMPRESSION PILE**

3/4" = 1'-0"



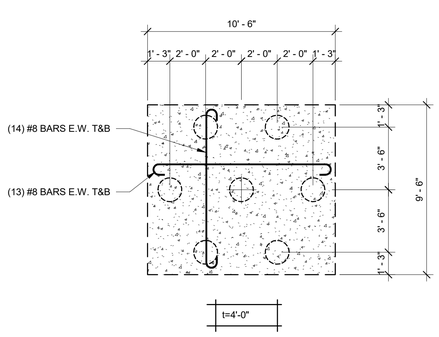
11 S401 **PC-9 PILE PLAN**

1/4" = 1'-0"



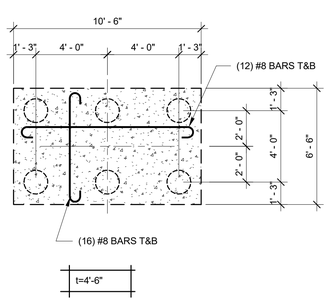
10 S401 **PC-8 PILE PLAN**

1/4" = 1'-0"



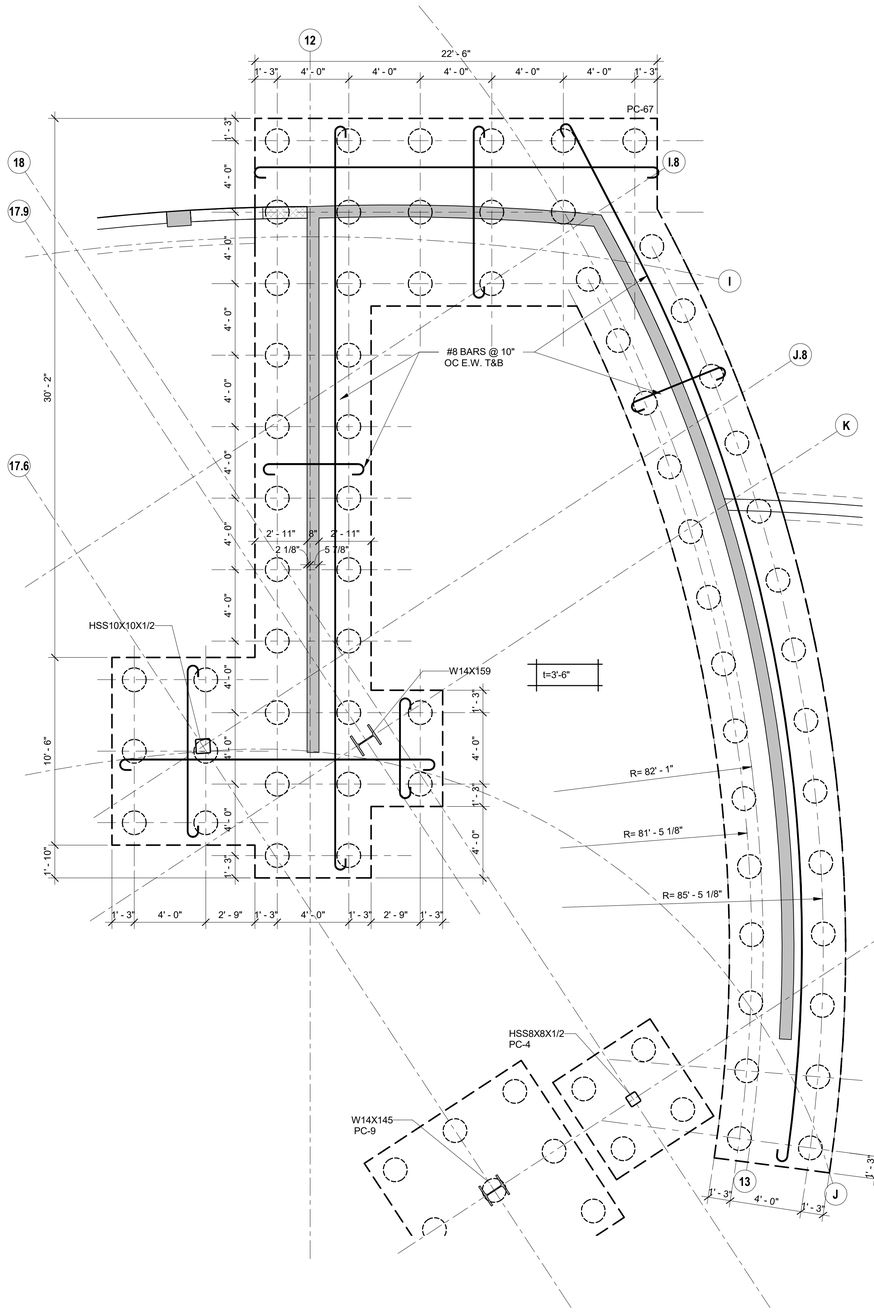
9 S401 **PC-7 PILE PLAN**

1/4" = 1'-0"



8 S401 **PC-6 PILE PLAN**

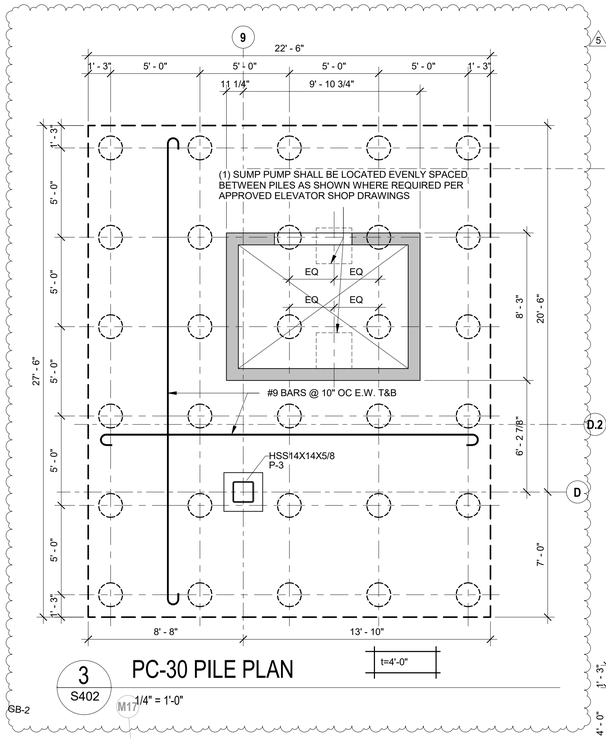
1/4" = 1'-0"



5 S402

PC-67 PILE PLAN

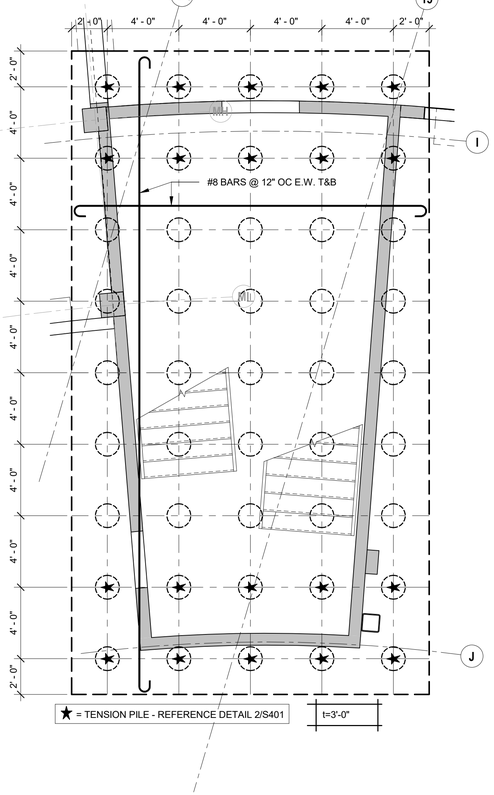
1/4" = 1'-0"



3 S402

PC-30 PILE PLAN

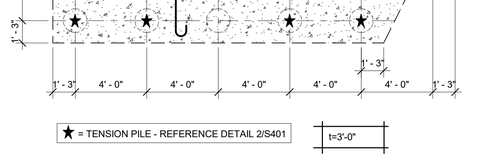
1/4" = 1'-0"



4 S402

PC-45 PILE PLAN

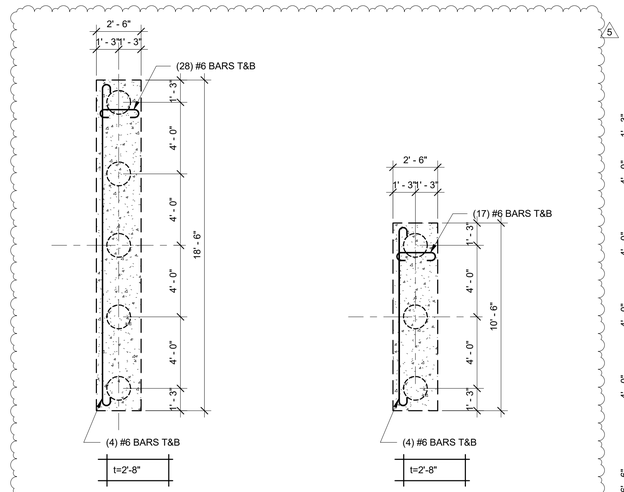
1/4" = 1'-0"



2 S402

PC-48 PILE PLAN

1/4" = 1'-0"

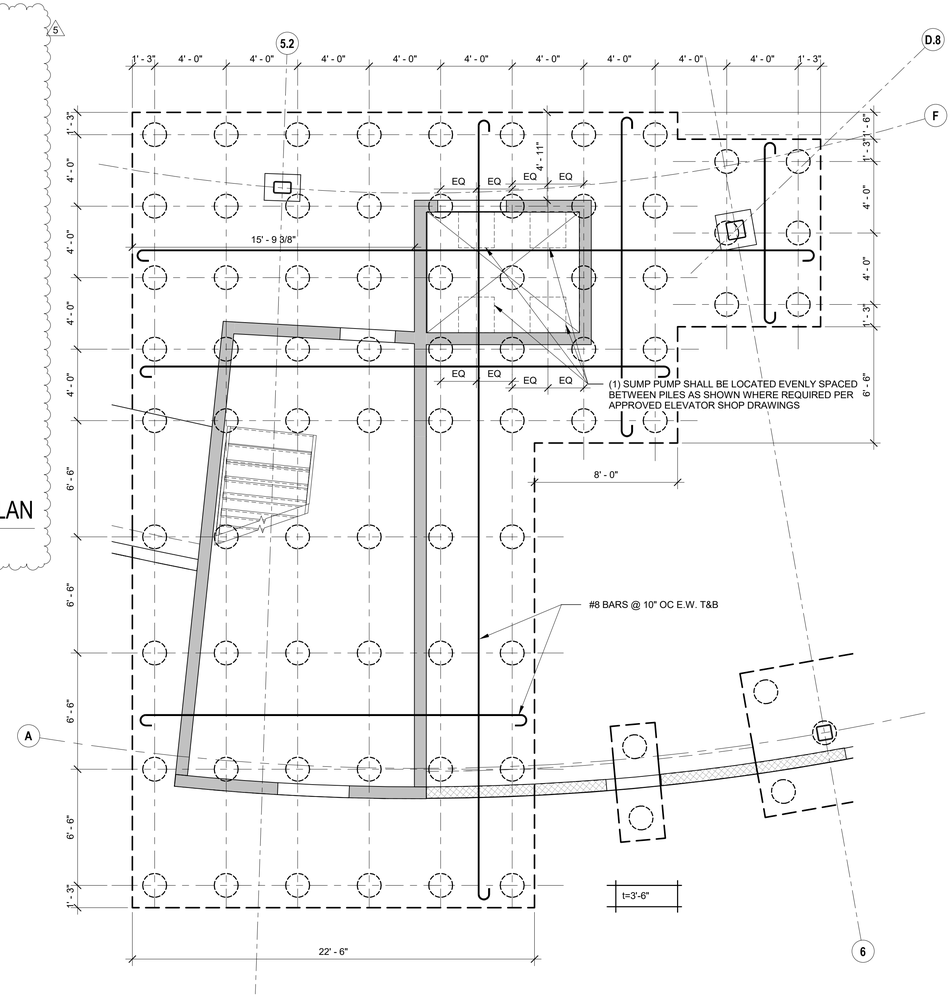


3 S403 PC-5A PILE PLAN

1/4" = 1'-0"

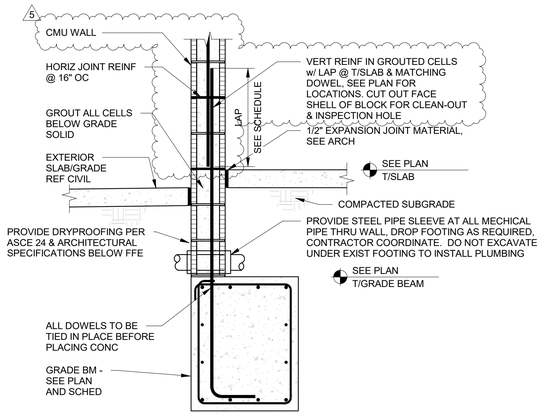
2 S403 PC-3A PILE PLAN

1/4" = 1'-0"



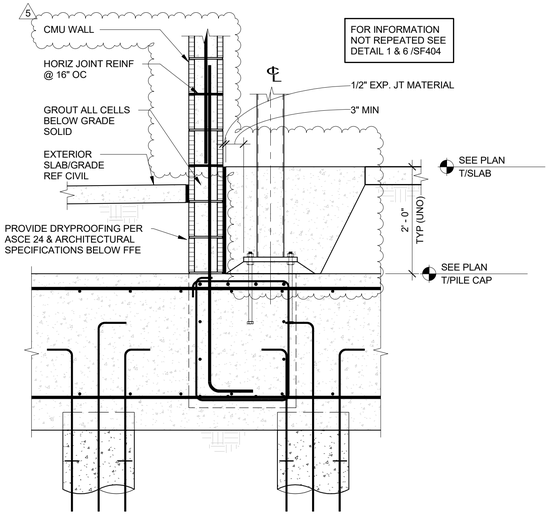
1 S403 PC-70 PILE PLAN

1/4" = 1'-0"



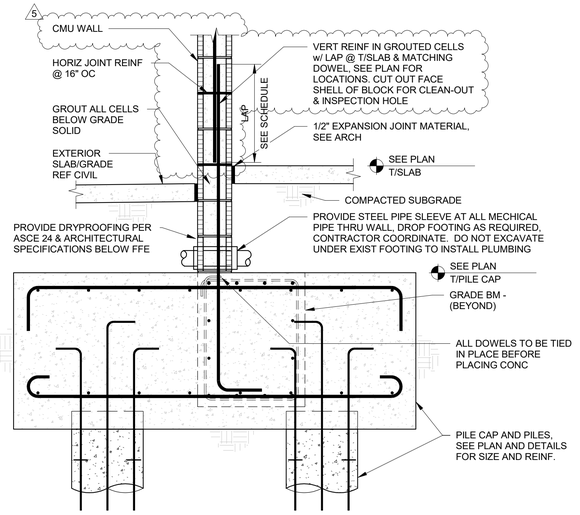
3 S404 EXT BLOCK WALL AT GRADE BEAM

3/4" = 1'-0"



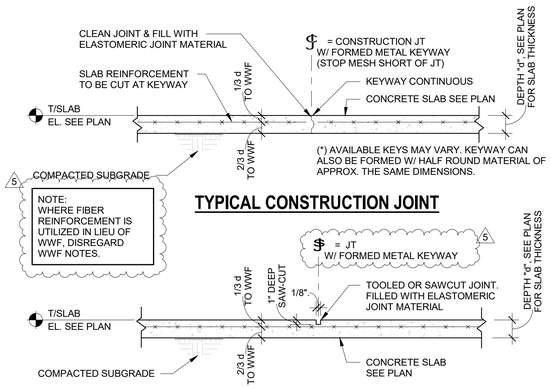
2 S404 EXT BLOCK WALL AT COLUMN

3/4" = 1'-0"



1 S404 EXT BLOCK WALL AT PILE CAP

3/4" = 1'-0"



TYPICAL CONSTRUCTION JOINT

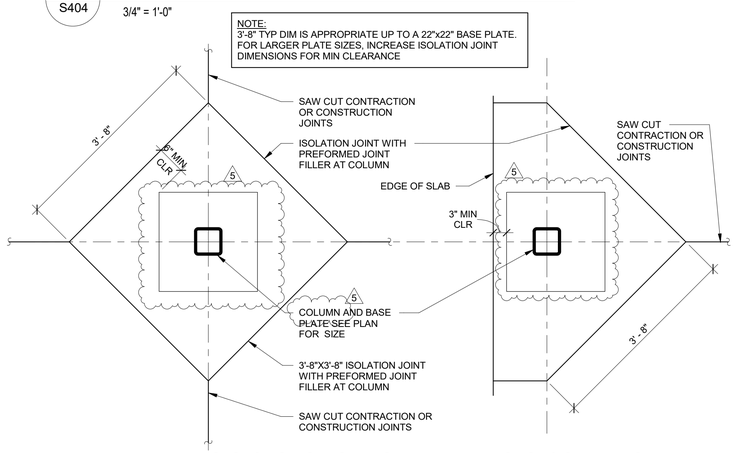
TYPICAL SAWCUT CONTROL JOINT

NOTE:

1. CJ - INDICATES CONSTRUCTION JOINT. SJ - INDICATES SAW-CUT CONTROL JOINT.
2. CONTROL JOINTS SHALL BE SAWCUT AS SOON AS POSSIBLE WITHOUT RAVELING CONCRETE (4 TO 16 HOURS AFTER PLACEMENT MAX.)
3. JOINT PLACEMENT REQUIREMENTS:
   FOR ENCLOSED/INTERIOR AREAS, 15'-0" O.C. (MAX.) EACH WAY (UNO)
   FOR OUTSIDE/EXTERIOR AREAS, 12'-0" O.C. (MAX.) EACH WAY (UNO)
4. GENERAL CONTRACTOR IS TO COORDINATE JOINT LOCATIONS WITH FLOOR FINISHES.

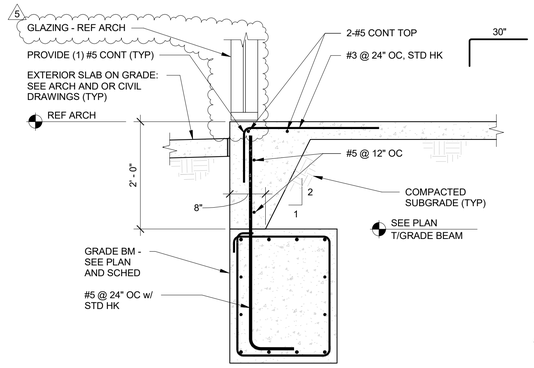
5 S404 TYPICAL SLAB CONSTRUCTION/CONTROL JOINTS

3/4" = 1'-0"



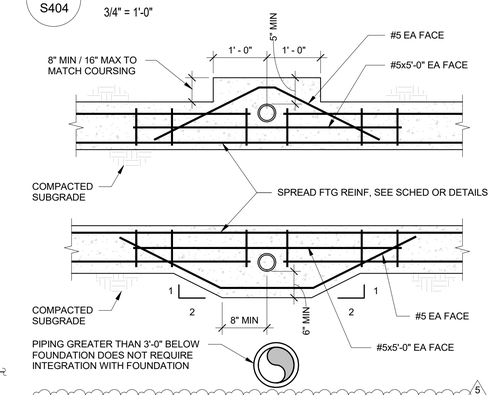
8 S404 TYP. S.O.G. SECTION JOINT DETAILS @ COLUMNS

3/4" = 1'-0"



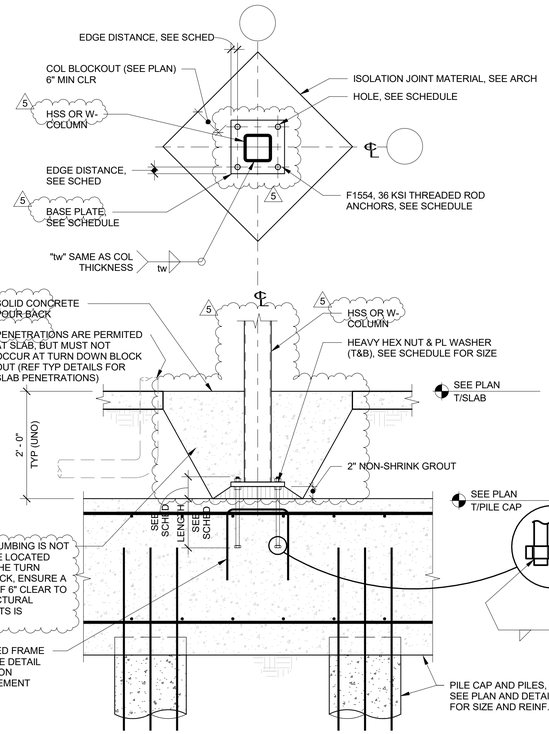
4 S404 SLAB TURN DOWN AT GRADE BEAM

3/4" = 1'-0"



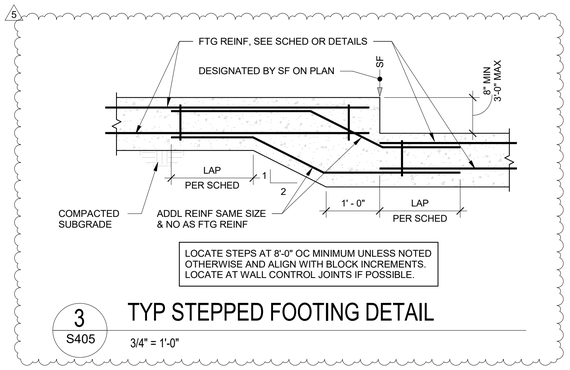
7 S404 SLEEVED FTG DETAIL

3/4" = 1'-0"



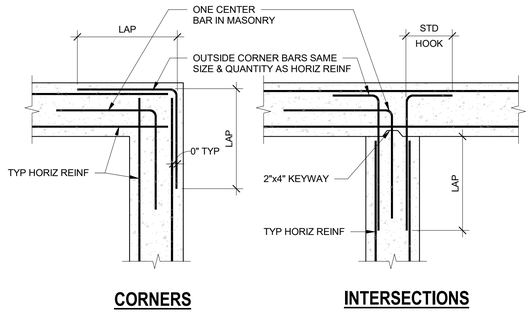
6 S404 COLUMN AT PILE CAP

3/4" = 1'-0"



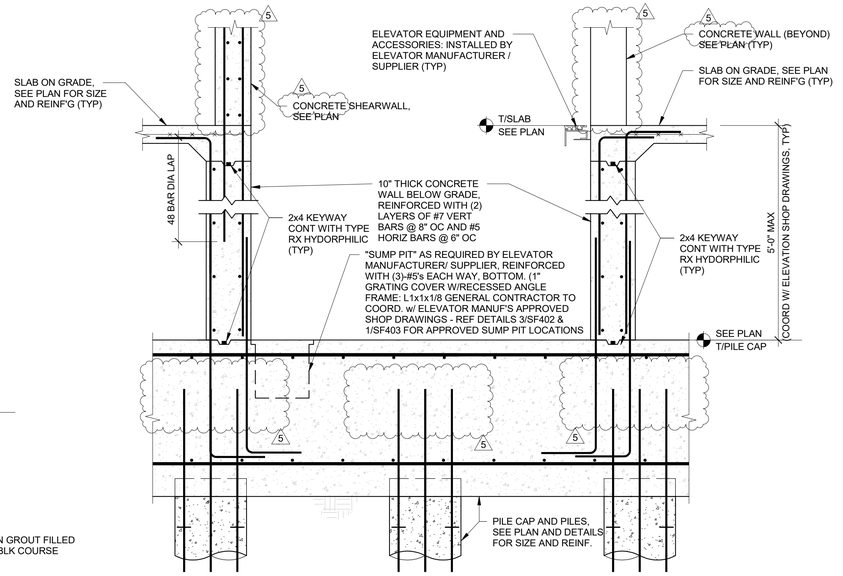
3 S405 TYP STEPPED FOOTING DETAIL

3/4" = 1'-0"



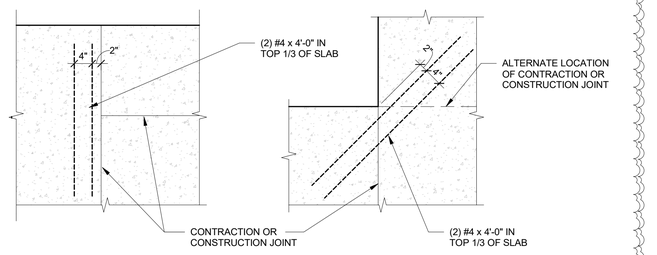
2 S405 TYP HORIZ REINF IN BEAMS, WALLS AND FTGS

3/4" = 1'-0"



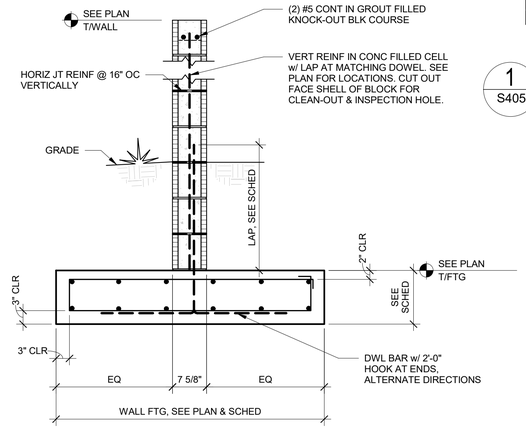
1 S405 TYPICAL ELEVATOR PIT DETAIL

3/4" = 1'-0"



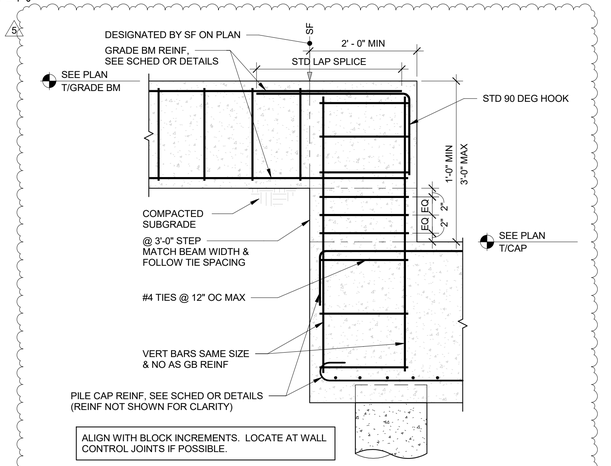
5 S405 TYP SOG JOINT AT RE-ENTANT CORNER/END JOINT INTERSECTION

3/4" = 1'-0"



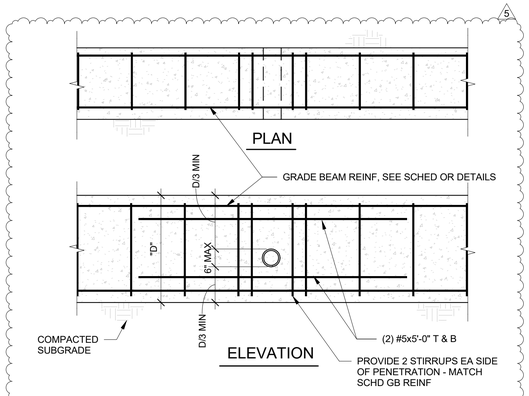
4 S405 SCREEN WALL SECTION

3/4" = 1'-0"



9 S405 TYP STEPPED GRADE BM @ PILE CAP

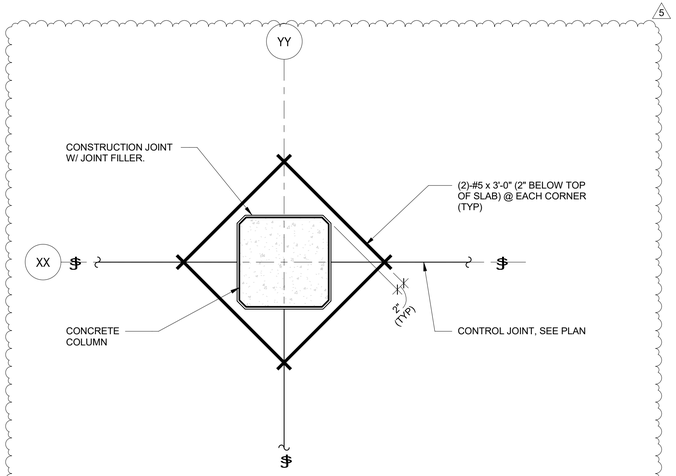
3/4" = 1'-0"



NOTE:
1. "D" DENOTES DEPTH OF GRADE BEAM. REF PLAN/SCHEDULE.
2. **DO NOT** RUN PIPING THROUGH GRADE BEAMS OR PILE CAPS UNLESS EXPLICITLY INDICATED ON STRUCTURAL DRAWINGS. SUBMIT ADDITIONAL PENETRATION REQUESTS TO THE SEOR FOR REVIEW/APPROVAL.
3. PROVIDE STEEL OR PVC PIPE SLEEVE THRU GRADE BEAM AS REQUIRED BY MEP & RELATIVE CODES. PROVIDE ADDITIONAL REINFORCEMENT SAME SIZE & NUMBER AS FOOTING. PROVIDE ADDITIONAL STIRRUPS AT 3" EACH SIDE OF SLEEVE.
4. AT GRADE BEAMS, PIPING MAY RUN BELOW CONCRETE MEMBER WITHOUT NEED FOR INTEGRATION INTO THE CONCRETE. PROVIDE MINIMUM 3" CLEARANCE FROM TOP OF PIPE TO UNDERSIDE OF GRADE BEAM.
5. FOR SPREAD FOOTING PENETRATIONS, REFER TO DETAILS 7/S404 & 7/S406.

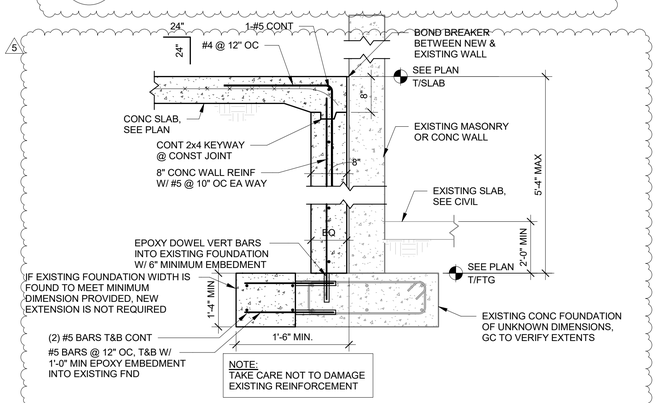
8 S405 SLEEVED FTG DETAIL AT GRADE BEAM

3/4" = 1'-0"



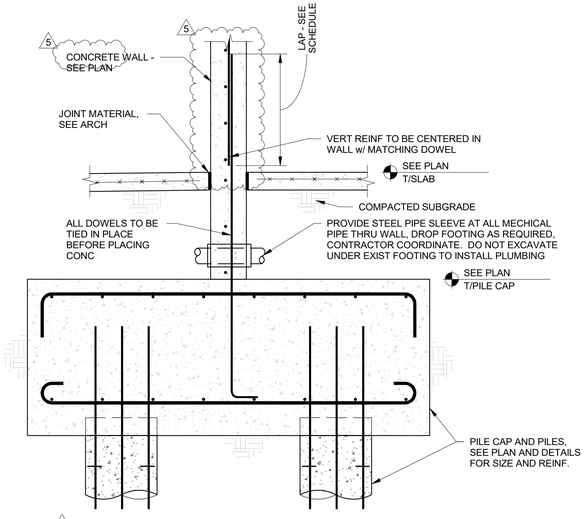
7 S405 TYPICAL ADDITIONAL SLAB REINFORCING AT COLUMNS

3/4" = 1'-0"



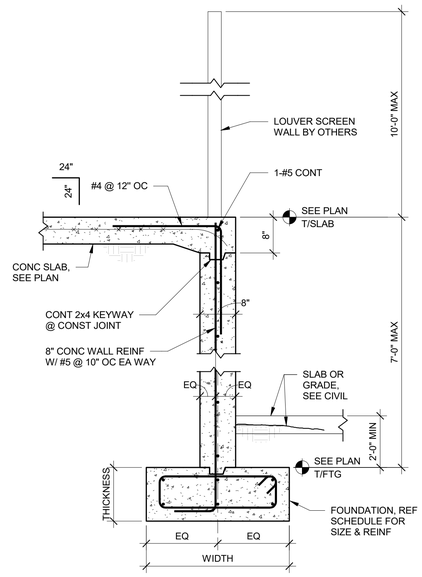
6 S405 ELEVATED EXTERIOR SLAB

3/4" = 1'-0"



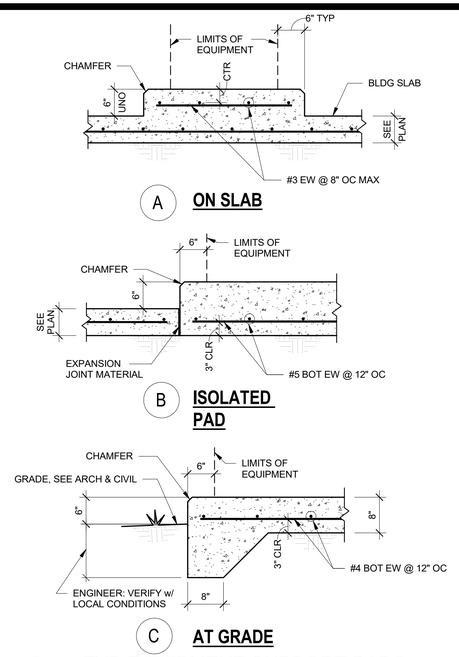
4 S406 CONCRETE WALL AT PILE CAP

3/4" = 1'-0"



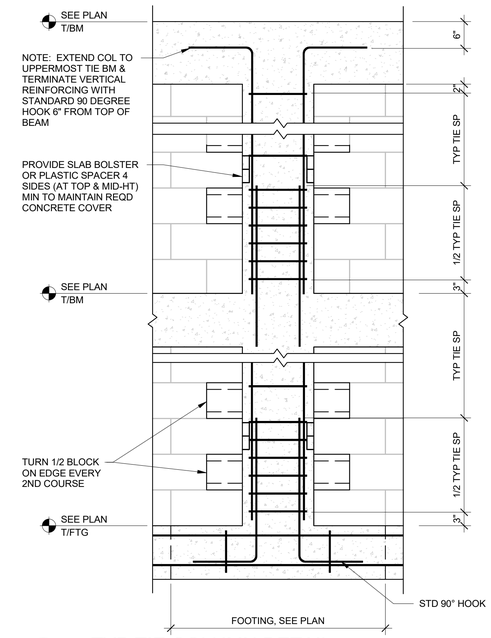
3 S406 ELEVATED EXTERIOR SLAB

3/4" = 1'-0"



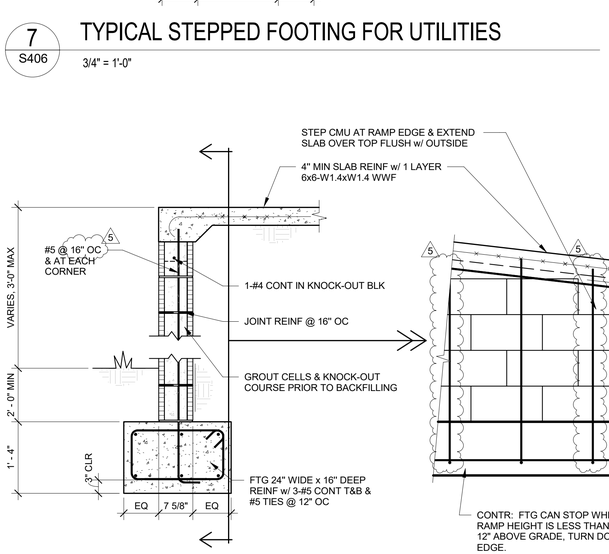
2 S406 TYP EQUIPMENT SUPPORT PADS

3/4" = 1'-0"



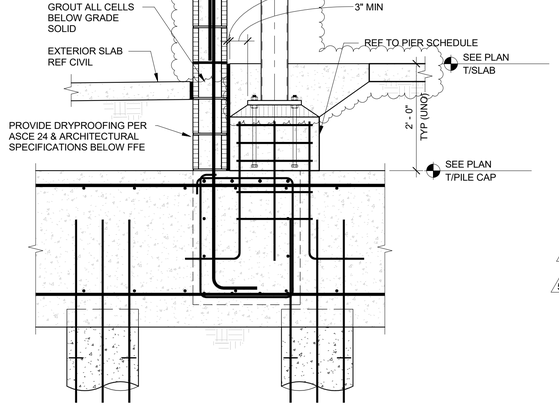
1 S406 TYP TIE COLUMN DETAIL

3/4" = 1'-0"



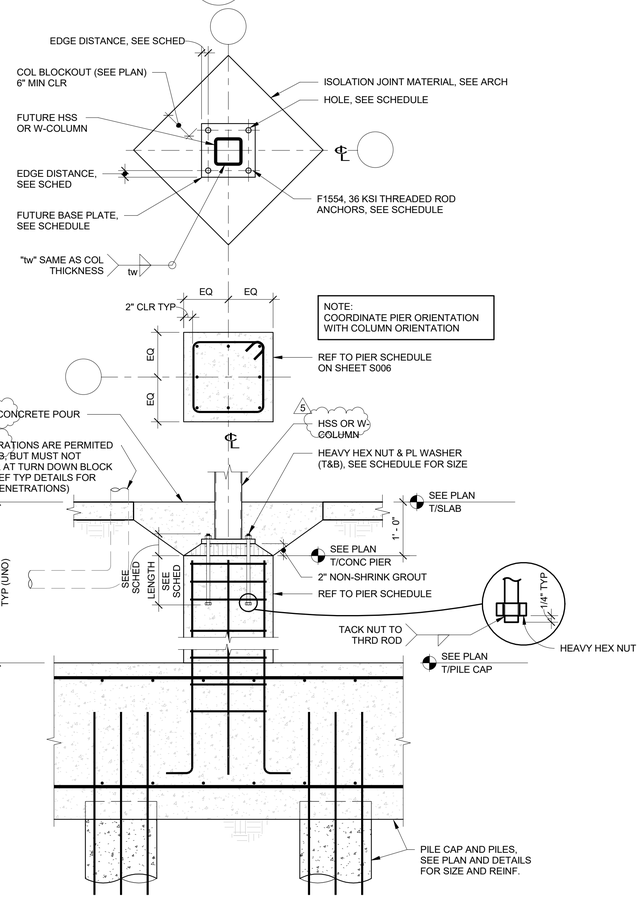
7 S406 TYPICAL STEPPED FOOTING FOR UTILITIES

3/4" = 1'-0"



6 S406 EXT BLOCK WALL AT COLUMN/PIER

3/4" = 1'-0"

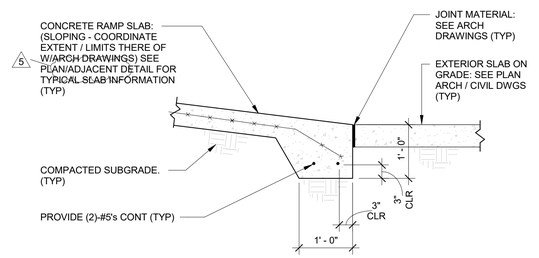


5 S406 COLUMN/PIER AT PILE CAP

3/4" = 1'-0"

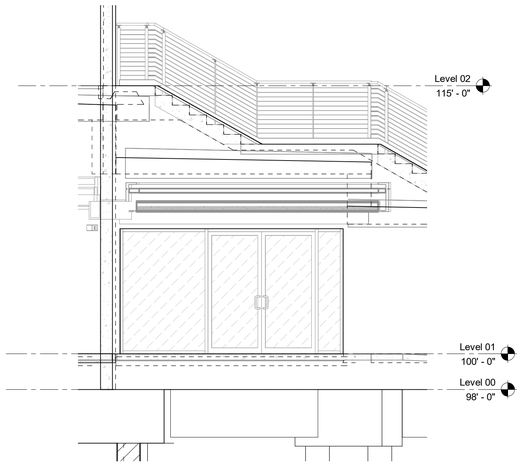
9 S406 SECTION AT RAMP SLAB

3/4" = 1'-0"



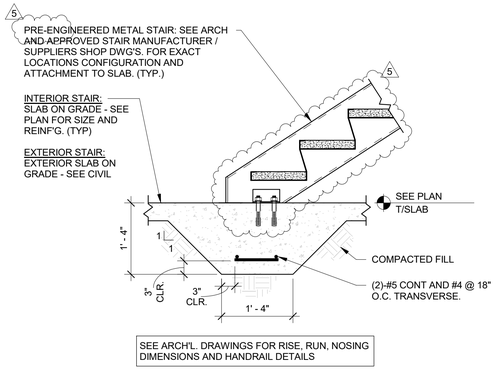
8 S406 BOTTOM OF RAMP DETAIL

3/4" = 1'-0"



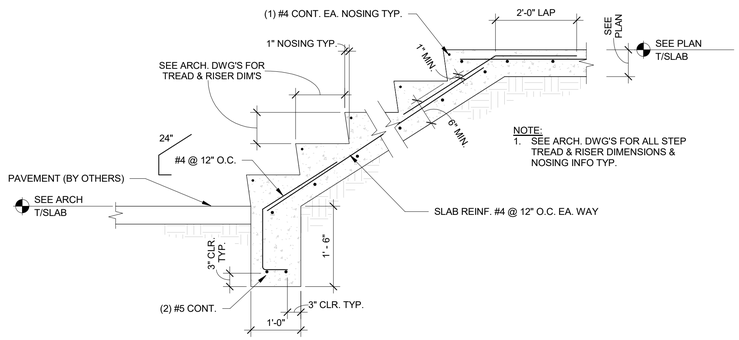
3 S407 DETAIL

1/4" = 1'-0"



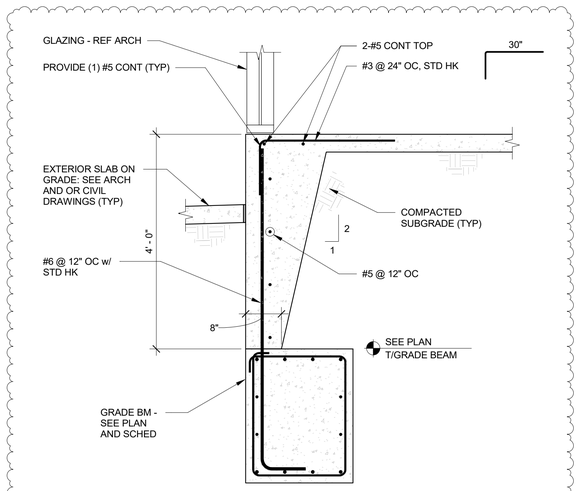
2 S407 TYPICAL PRE-ENGINEERED STAIR BASE

3/4" = 1'-0"



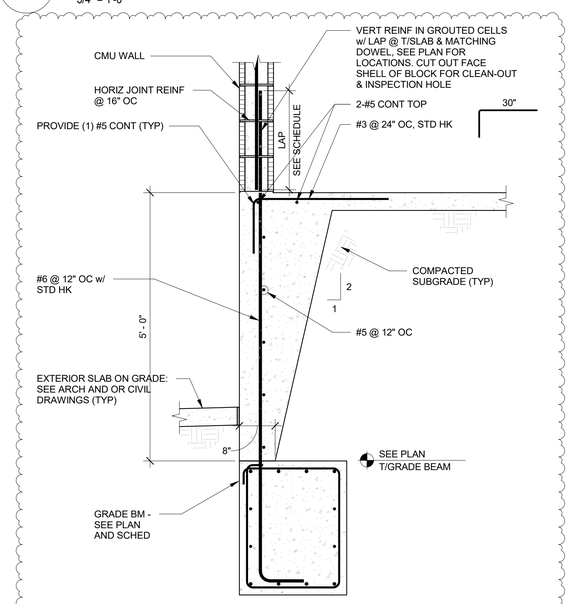
1 S407 TYPICAL CONCRETE STEPS ON GRADE

3/4" = 1'-0"



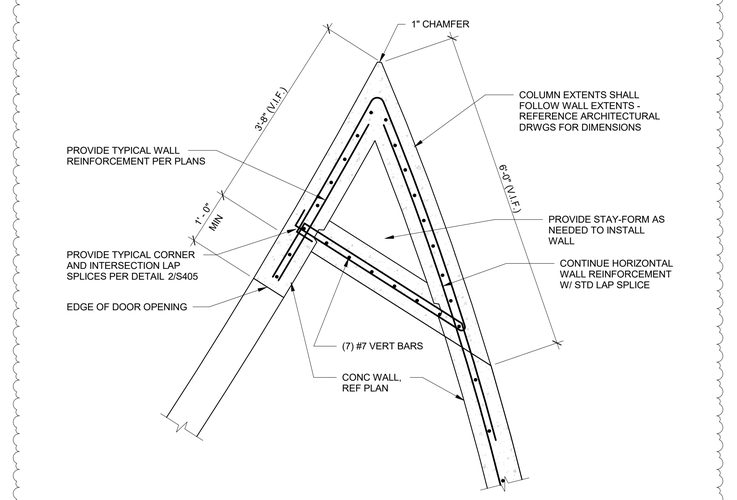
6 S407 SLAB TURN DOWN AT GRADE BEAM

3/4" = 1'-0"



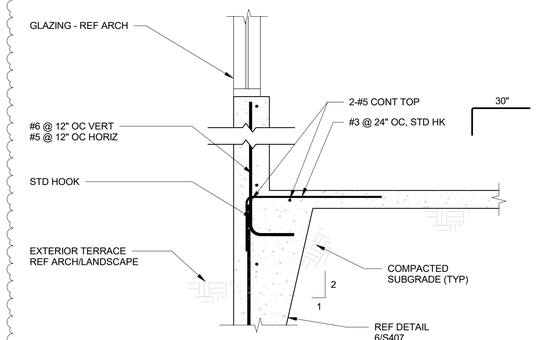
5 S407 SLAB TURN DOWN AT GRADE BEAM

3/4" = 1'-0"



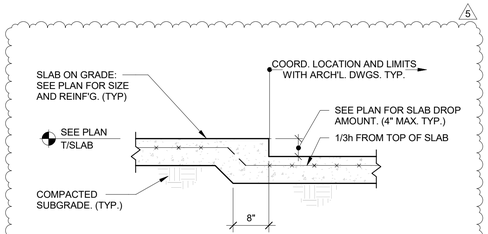
4 S407 CONCRETE TIE COLUMN AT STAIR #3

3/4" = 1'-0"



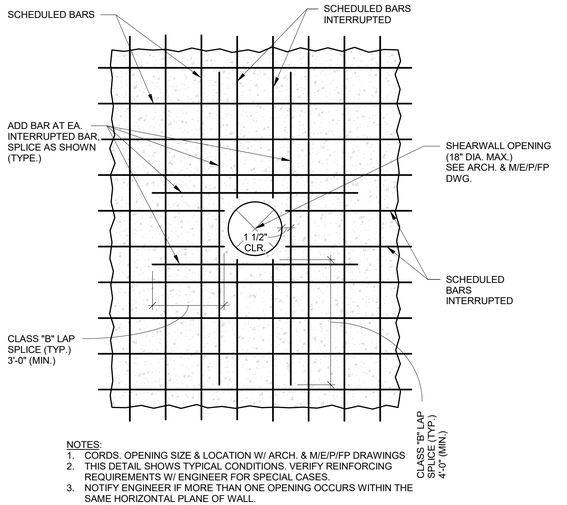
8 S407 SLAB TURN DOWN AT GRADE BEAM

3/4" = 1'-0"



7 S407 TYPICAL DEPRESSED SLAB DETAIL

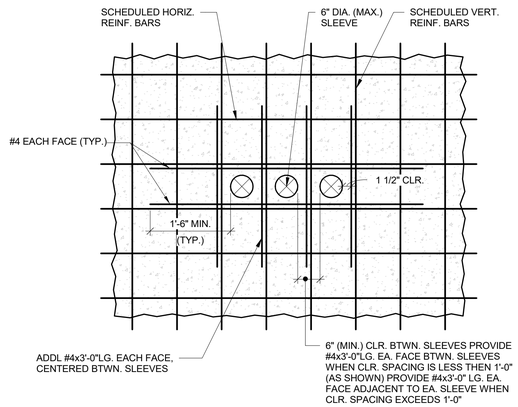
3/4" = 1'-0"



NOTES:
1. CORDS. OPENING SIZE & LOCATION W/ ARCH. & M/E/P/FP DRAWINGS
2. THIS DETAIL SHOWS TYPICAL CONDITIONS. VERIFY REINFORCING REQUIREMENTS W/ ENGINEER FOR SPECIAL CASES.
3. NOTIFY ENGINEER IF MORE THAN ONE OPENING OCCURS WITHIN THE SAME HORIZONTAL PLANE OF WALL.

3 S410 SHEAR WALL OPENING DETAIL

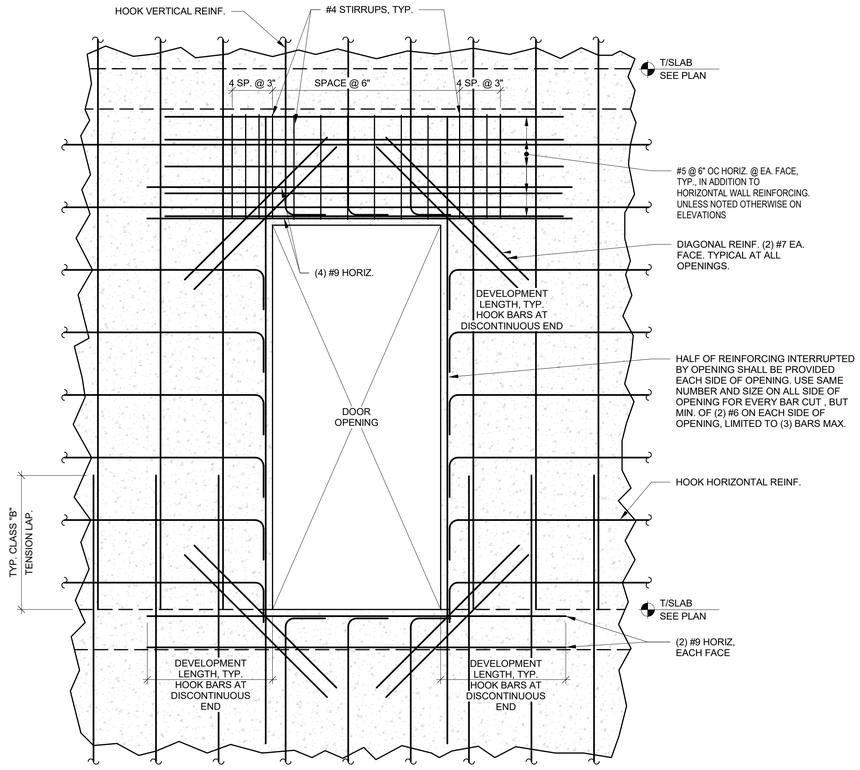
3/4" = 1'-0"



NOTES:
1. COORD. SLEEVE SIZE & LOCATION W/ ARCH. & M/E/P/FP DRAWINGS
2. COORD. SLEEVE LOCATION & SCHEDULED REINF. PLACEMENT SUCH THAT SCHEDULED REINF. IS NOT INTERRUPTED.
3. THIS DETAIL SHOWS TYPICAL CONDITIONS. VERIFY REINF. PLACEMENT W/ ENGINEER FOR SPECIAL CASES OR IF SCHED. REINF. MUST BE INTERRUPTED.

2 S410 SLEEVE THROUGH SHEAR WALL DETAIL

3/4" = 1'-0"

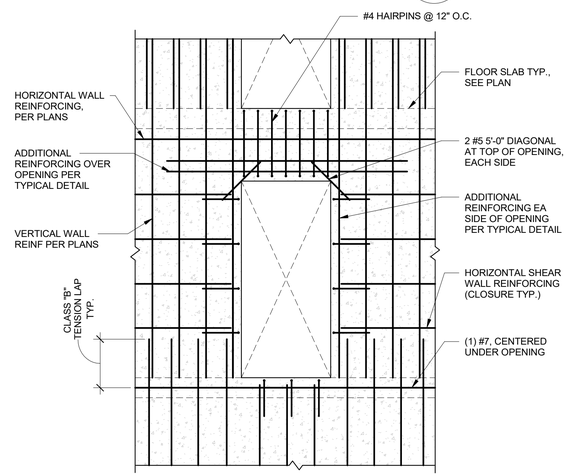


1 S410 TYPICAL DOOR OPENING DETAIL

3/4" = 1'-0"

6 S410 ADD'L REINFORCING AT OPENING IN CONCRETE WALL

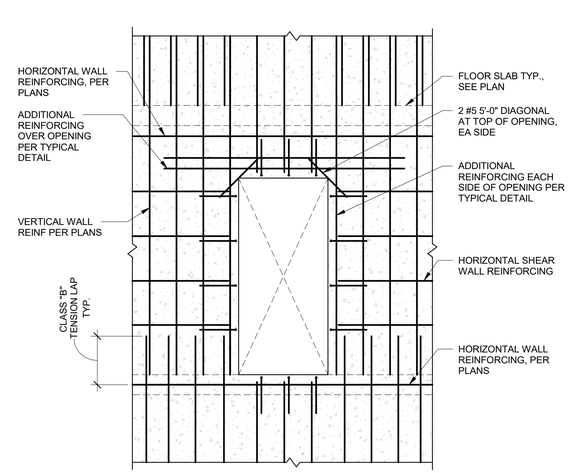
3/4" = 1'-0"



NOTE: REFER TO SHEAR WALL PLANS FOR ADDITIONAL INFO.

5 S410 TYPICAL CONCRETE WALL w/ MULTIPLE OPENINGS DETAIL

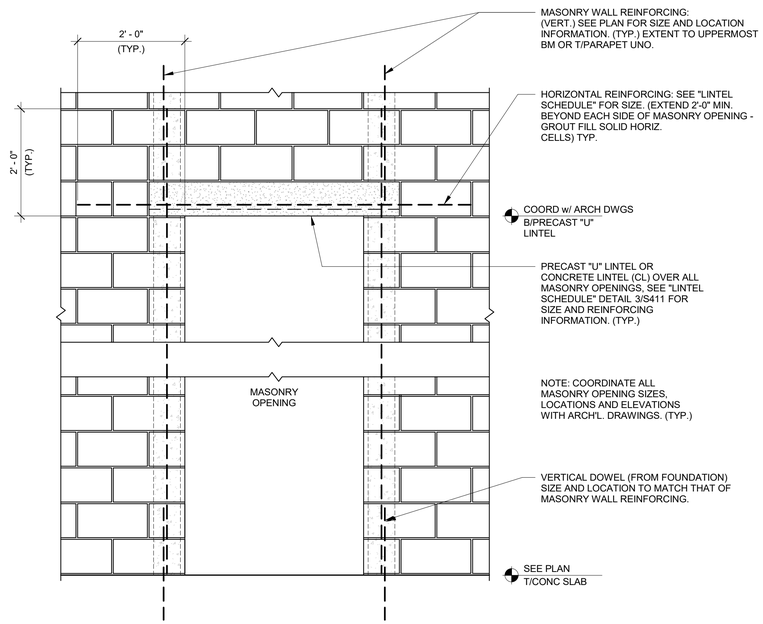
3/4" = 1'-0"



NOTE: REFER TO SHEAR WALL PLANS FOR ADDITIONAL INFO.

4 S410 TYPICAL CONCRETE WALL OPENING DETAIL

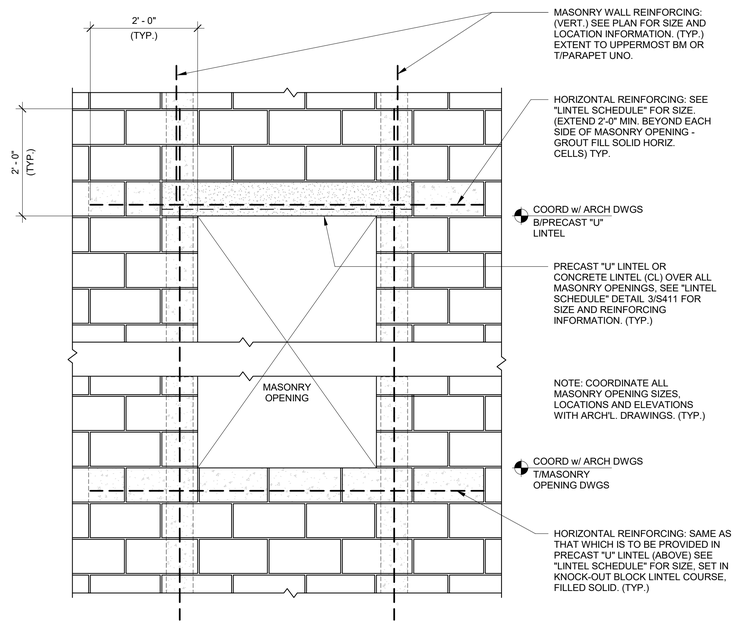
3/4" = 1'-0"



1 S411

TYPICAL REINFORCING AT MASONRY (DOOR) OPENINGS

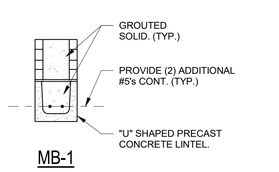
3/4" = 1'-0"



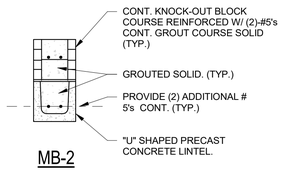
2 S411

TYPICAL REINFORCING AT MASONRY OPENINGS

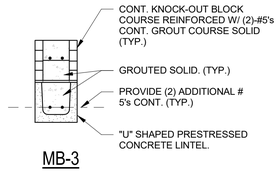
3/4" = 1'-0"



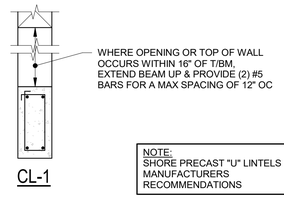
MB-1



MB-2



MB-3



CL-1

NOTE:
SHORE PRECAST "U" LINTELS PER MANUFACTURERS RECOMMENDATIONS

MASONRY LINTEL SCHEDULE (CAST-CRETE LINTEL)

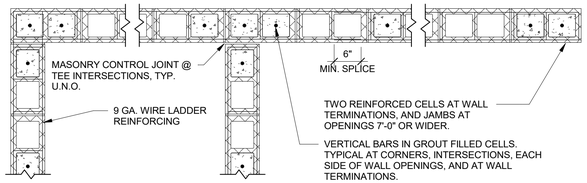
MARK	LENGTH (L)	CAST-CRETE MARK	REMARK
MB-1	2' -0"< L ≤ 5"-10"	8F16-2B/OT PRECAST	
MB-2	5' -10"< L ≤ 14'-0"	8F16-2B/2T PRECAST	
MB-3	14' -0"< L ≤ 21'-4"	8F16-2B/2T PRESTRESSED	
CL-1	2' -0"< 12'-0"	16" DEEP CONCRETE LINTEL W/ (2) #5 T/B, #3 STIRRUPS @ 6" OC	PROVIDE CL AT CURVED CMU WALLS

1. PROVIDE MASONRY LINTEL OVER ALL OPENINGS. IF NO LINTEL IS SPECIFIED, PROVIDE MB-2.
2. PROVIDE MINIMUM END BEARING OF 8". LINTELS SHALL HAVE PRE-CAST NOTCH AT BEARING ENDS TO ALLOW CONTINUATION OF FILLED CELL REINFORCING CONTINUATION.
3. MASONRY LINTEL SUBSTITUTIONS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO INSTALLATION.

3 S411

MASONRY LINTEL SCHEDULE

3/4" = 1'-0"

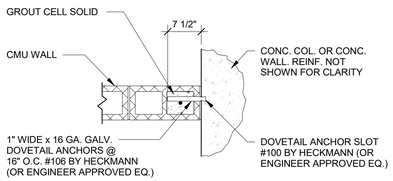


NOTES:
1. TYPICAL WIRE LADDER REINFORCEMENT FOR ALL C.M.U. WALLS SPACED @ 16" O.C. VERTICALLY. PROVIDE ADDITIONAL LAYERS ABOVE AND BELOW WINDOW AND DOOR OPENINGS.
2. SEE PLAN FOR SIZE AND SPACING OF VERT. REINF. BARS.
3. USE PREFABRICATED L-SHAPED WIRE SEGMENTS AT WALL INTERSECTIONS.
4. TERMINATE HORZ. WIRE REINFORCING AT CONTROL JOINTS.

4 S411

TYPICAL HORIZ. WALL REINF'G / VERT. CORNER REIN'G

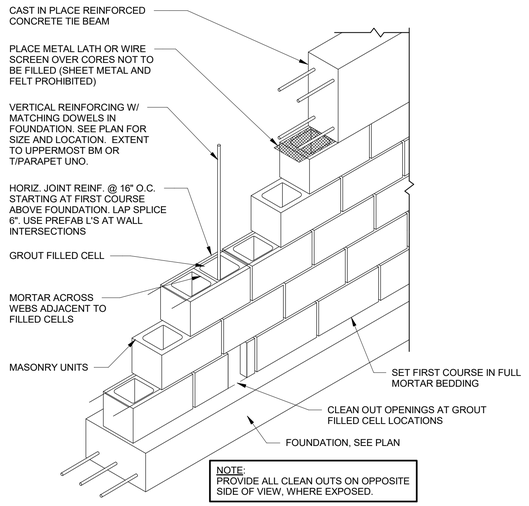
3/4" = 1'-0"



5 S411

TYPICAL CMU WANCHOR AT CONCRETE WALL OR COLUMN

3/4" = 1'-0"

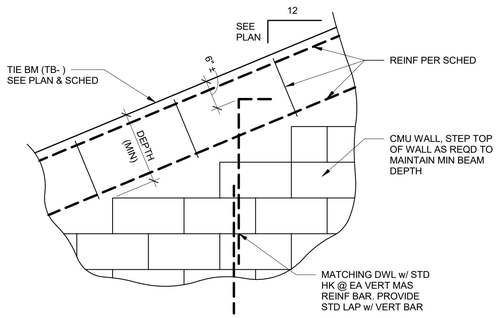


NOTE:
PROVIDE ALL CLEAN OUTS ON OPPOSITE SIDE OF VIEW, WHERE EXPOSED.

6 S411

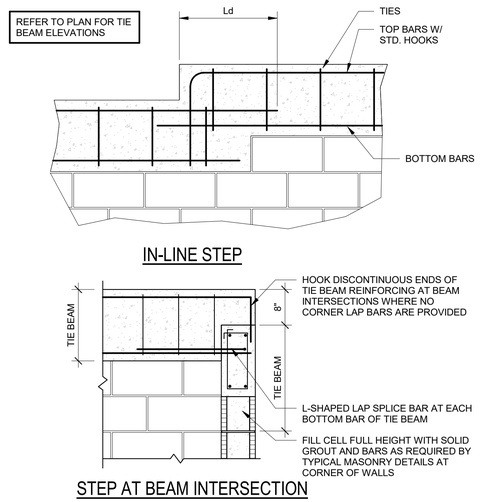
TYPICAL MASONRY WALL CONSTRUCTION

3/4" = 1'-0"



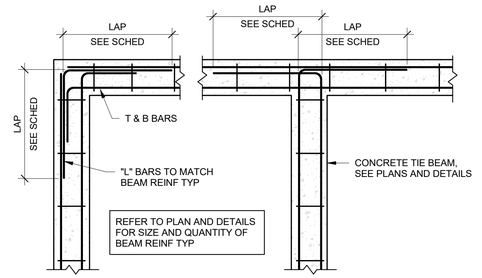
1 S412 **TYP SLOPING TIE BEAM DETAIL**

3/4" = 1'-0"



2 S412 **TYPICAL STEPPED TIE BEAM DETAIL**

3/4" = 1'-0"



3 S412 **TYPICAL CONC. TIE BEAM CORNER REINF.**

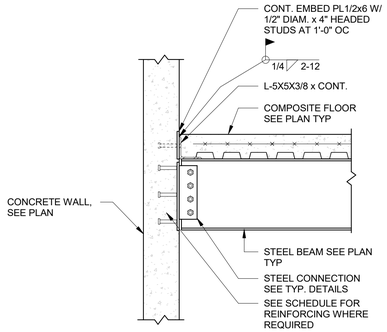
3/4" = 1'-0"

4 S412 **TYPICAL TOP OF TIE COLUMN DETAIL**

3/4" = 1'-0"

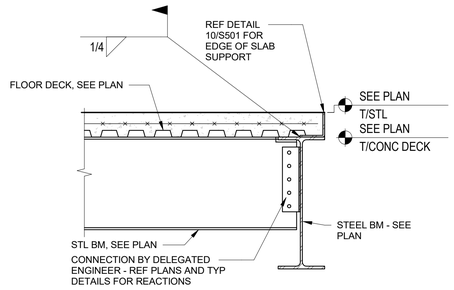
5 S412 **PRECAST LINTEL AT CONC TIE COLUMN**

3/4" = 1'-0"



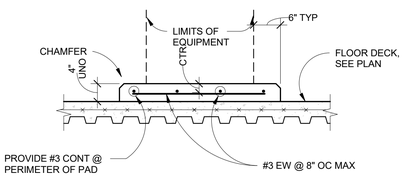
4 S501 TYP. FLOOR SECTION

3/4" = 1'-0"



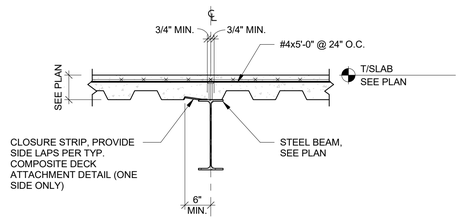
3 S501 TYP SECTION AT BEAM

3/4" = 1'-0"



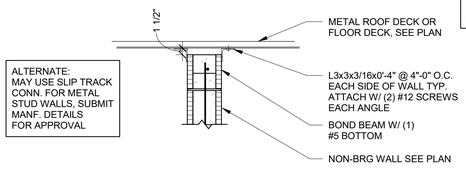
2 S501 TYP EQUIPMENT PAD AT ELEVATED FLOOR

3/4" = 1'-0"

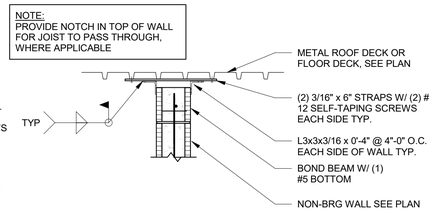


1 S501 TYP. CLOSURE SECTION @ GIRDER

3/4" = 1'-0"



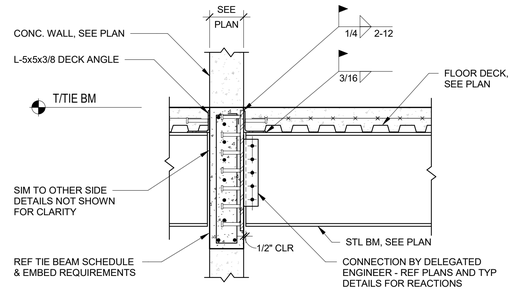
WALL TO UNDERSIDE OF STEEL DECK, PERPENDICULAR TO DECK



WALL TO UNDERSIDE OF STEEL DECK, PARALLEL TO DECK

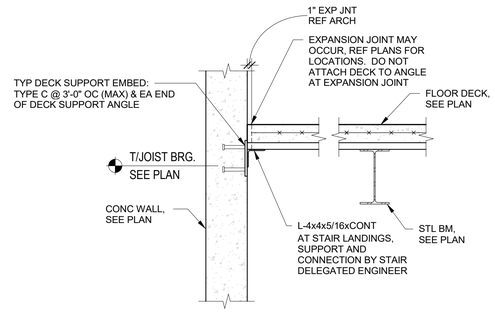
7 S501 TYP. BRACING @ TOP OF ALL NON-BRG. CMU

3/4" = 1'-0"



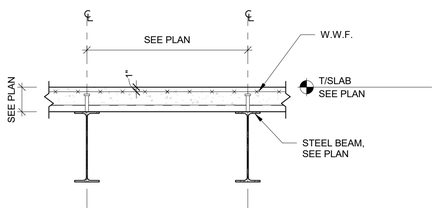
6 S501 TYP SECTION @ FLOOR BEAM TO TIE BEAM

3/4" = 1'-0"



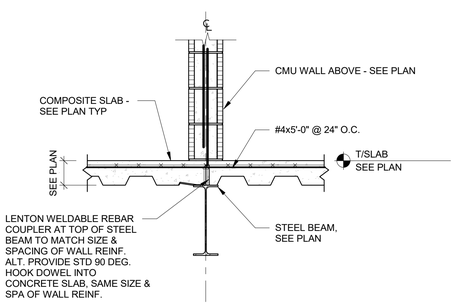
5 S501 TYP SECTION AT CONC WALL/FLOOR

3/4" = 1'-0"



9 S501 TYP. SECTION THRU COMPOSITE SLAB

3/4" = 1'-0"



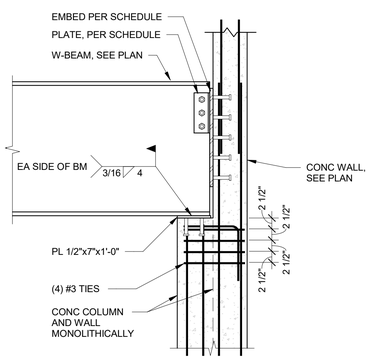
8 S501 TYP CMU ON COMPOSITE SLAB

3/4" = 1'-0"

POUR STOP SCHEDULE

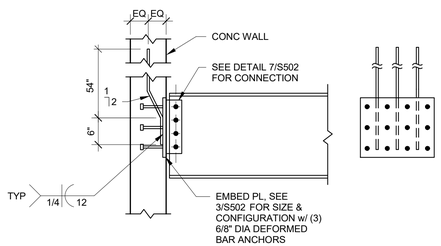
OVERHANG	POUR STOP	REMARKS
TO 5"	BENT PL 1/4"	-
5" TO 10"	BENT PL 1/4"	#4 @ 24" OC TOP (d=3'-0")
10" TO 18"	BENT PL 5/16" w/ OUTRIGGER	#4 @ 18" OC TOP (d=5'-0")

NOTE:
1. POUR STOPS MUST BE ROLLED TO THE CURVATURE OF THE SLAB EDGE.
2. SPECIFIC DETAILS MAY DICTATE A MORE STRINGENT MAX OVERHANG DIMENSION. THE SMALLEST OVERHANG DIMENSION CONTROLS.



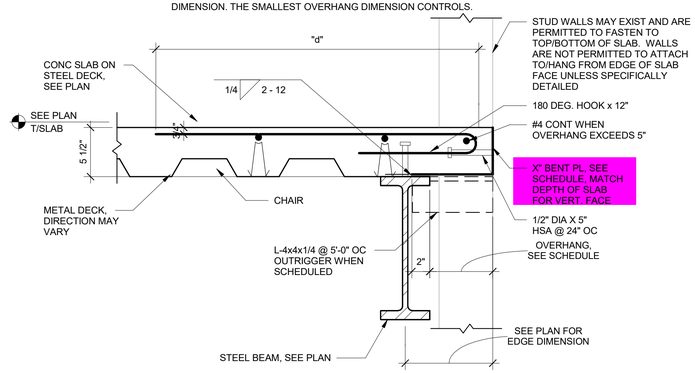
12 S501 STEEL BEAM BEARING ON CONCRETE COLUMN

3/4" = 1'-0"



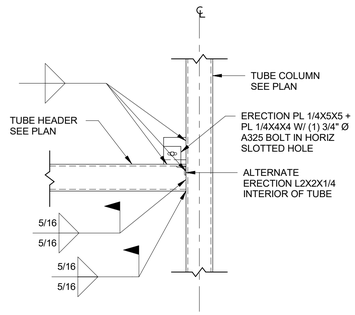
11 S501 WELDED REBAR EMBED REINFORCEMENT

3/4" = 1'-0"



10 S501 TYPICAL EDGE OF SLAB DETAIL

1 1/2" = 1'-0"

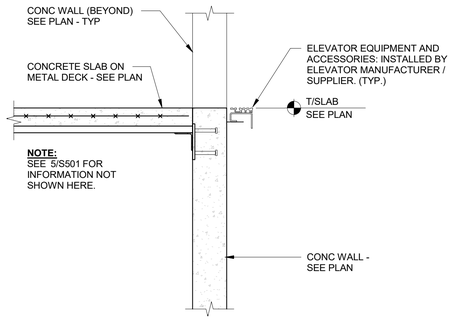


NOTES:

1. FIELD WELD SHALL BE MADE PRIOR TO APPLICATION OF ROOF OR WALL DEAD LOAD.
2. REMOVE ERECTION PLATES AFTER COMPLETION OF FIELD WELD.
3. WHERE BEAM WIDTH MATCHES COLUMN WIDTH COPE BEAM AROUND COLUMN CORNERS TO FIT COLUMN SHAPE.
4. WHERE BEAM WIDTH IS NARROWER THAN COLUMN FACE PROVIDE FILLET WELD ALL AROUND.
5. WELD AT ERECTION PLATES TO BE DETERMINED BY FABRICATOR/ERECTOR CONSIDERING ORIENTATION OF PL, MEMBER WEIGHTS, AND ERECTION FORCES.

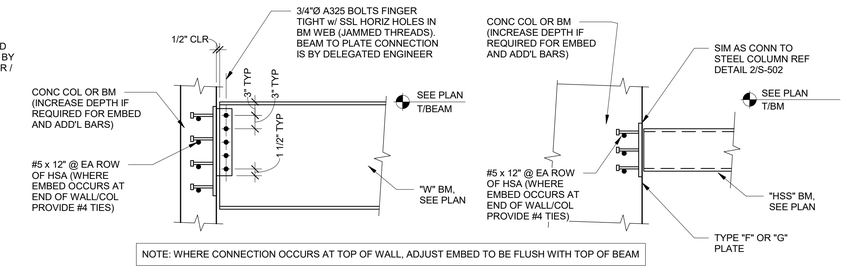
2 S502 TYPICAL TUBE TO TUBE COLUMN CONNECTION DETAIL

3/4" = 1'-0"

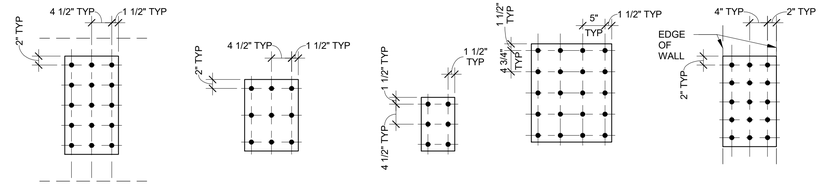


1 S502 TYP ELEVATOR WALL DETAIL

3/4" = 1'-0" (STAIR & DOOR OPENINGS SIM)



NOTE: WHERE CONNECTION OCCURS AT TOP OF WALL, ADJUST EMBED TO BE FLUSH WITH TOP OF BEAM



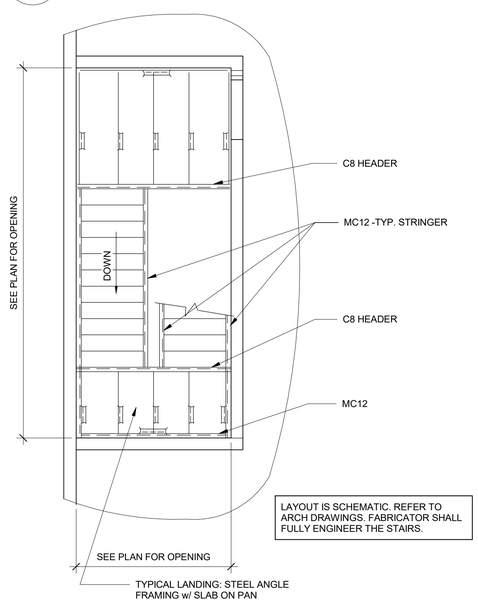
WIDE FLANGE BEAM REACTION TABLE (LRFD)	
BEAM DEPTH	SHEAR REACTION (K)
6	20
8	20
10	20
12	20
14	30
16	45
18	60
21	75
24	95
27	110
30 AND LRGR	130

NOTES:

1. TABLE ABOVE PROVIDED TO INDICATE MINIMUM *VERTICAL* SHEAR REACTION FOR BEAMS BASED ON WIDE FLANGE BEAM NOMINAL DEPTH.
2. ALL STEEL CONNECTIONS ARE BY DELEGATED ENGINEER. REFER TO GENERAL NOTES SHEET FOR REQUIREMENTS.
3. FOR MINIMUM VERTICAL SHEAR REACTIONS AT MOMENT CONNECTIONS, SEE DETAIL 4/S502.

5 S502 TYP BEAM VERTICAL SHEAR REACTION TABLE

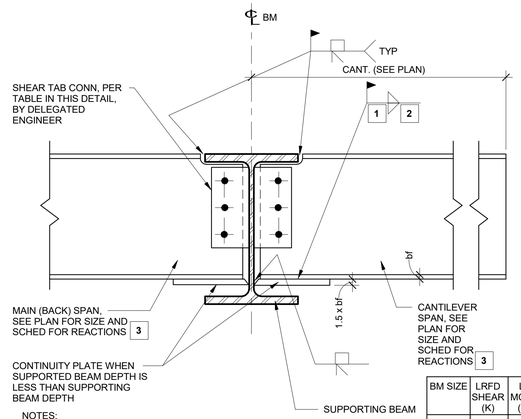
3/4" = 1'-0"



LAYOUT IS SCHEMATIC. REFER TO ARCH DRAWINGS. FABRICATOR SHALL FULLY ENGINEER THE STAIRS.

8 S502 TYP STEEL STAIR FRAMING PLAN

1/4" = 1'-0"



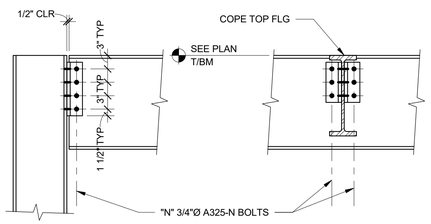
BM SIZE	LRFD SHEAR (K)	LRFD MOMENT (K-FT)
W16x26	45	80
W14x26	40	60
W12x26	40	50
W12x16	35	40
W8x15	35	40
W6x20	30	35

NOTES:

1. FILLET WELD SIZE SHALL BE MAXIMUM SIZE PER AISC SPEC 360-05, J.2.2b.
2. FILLET WELD LENGTH SHALL BE TWICE THE FLANGE WIDTH OF THE CANTILEVERED BEAM.
3. FORCES SHOWN SHALL BE ASSUMED TO ACT SIMULTANEOUSLY ON CONNECTION.

4 S502 TYP MOMENT CONN TO BEAM

1 1/2" = 1'-0"



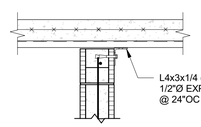
BEAM TO COLUMN **BEAM TO BEAM**

BEAM TO BEAM OR BEAM TO COLUMN SHEAR CONNECTIONS		
BEAM	ANGLE SIZE	"N" BOLTS EA LEG
W8-W12	(2) L-3 1/2"x3 1/2"x5/16"x0'-6"	(2) 3/4"Ø A325-N
W14,W16	(2) L-3 1/2"x3 1/2"x5/16"x0'-9"	(3) 3/4"Ø A325-N
W18	(2) L-3 1/2"x3 1/2"x5/16"x1'-0"	(4) 3/4"Ø A325-N
W21	(2) L-3 1/2"x3 1/2"x5/16"x1'-0"	(4) 3/4"Ø A325-N

NOTE: CONNECTIONS ARE FOR REFERENCE ONLY. DELEGATED ENGINEER TO PROVIDE CONNECTIONS PER LOADING & GEOMETRY AS SPECIFIED AND TO MEET ALL CODE PROVISIONS. REF REACTION TABLES FOR MIN DESIGN LOADS.

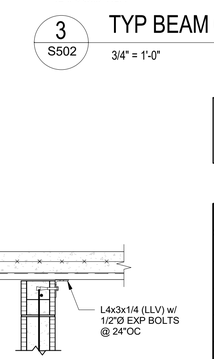
7 S502 BEAM TO COL & BEAM TO BEAM CONN

3/4" = 1'-0"



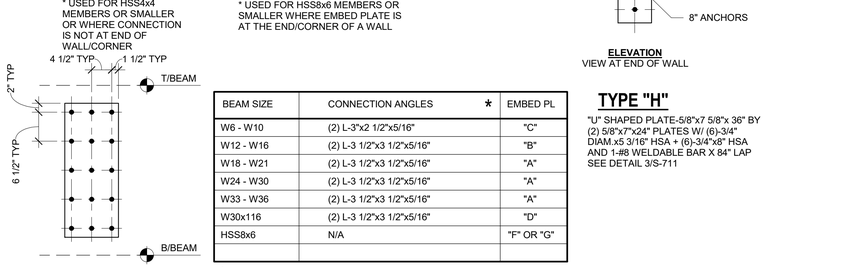
6 S502 TYP DECK SUPPORT AT LOAD BEARING CMU

3/4" = 1'-0"



TYPE "J"

PL-3/4"x12"x2'-6" w/
12-3/4"Øx8" HSA



BEAM SIZE	CONNECTION ANGLES *	EMBED PL
W6 - W10	(2) L-3"x2 1/2"x5/16"	"C"
W12 - W16	(2) L-3 1/2"x3 1/2"x5/16"	"B"
W18 - W21	(2) L-3 1/2"x3 1/2"x5/16"	"A"
W24 - W30	(2) L-3 1/2"x3 1/2"x5/16"	"A"
W33 - W36	(2) L-3 1/2"x3 1/2"x5/16"	"A"
W30x116	(2) L-3 1/2"x3 1/2"x5/16"	"D"
HSS8x6	N/A	"F" OR "G"

* USE EQUIVALENT BENT PL @ SKEWED CONDITIONS
REF PLANS UNIQUE EMBED REQUIREMENTS

TYPE "H"

"U" SHAPED PLATE-5/8"x7 5/8"x 36" BY (2) 5/8"x7"x24" PLATES W/ (6)-3/4" DIAM.x5 3/16" HSA + (6)-3/4"x8" HSA AND 1-#8 WELDABLE BAR X 84" LAP SEE DETAIL 3/S-711

NOTE: CONNECTIONS ARE FOR REFERENCE ONLY. DELEGATED ENGINEER TO PROVIDE CONNECTIONS PER LOADING & GEOMETRY AS SPECIFIED AND TO MEET ALL CODE PROVISIONS. REF REACTION TABLES FOR MIN DESIGN LOADS.

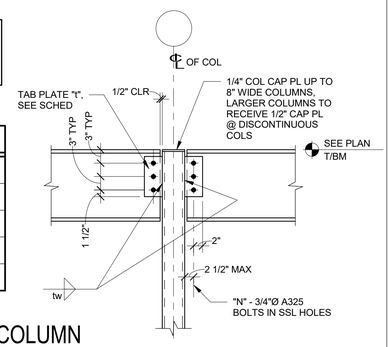
3 S502 TYP BEAM CONN AT CONC

3/4" = 1'-0"

NOTE: CONNECTIONS ARE FOR REFERENCE ONLY. DELEGATED ENGINEER TO PROVIDE CONNECTIONS PER LOADING & GEOMETRY AS SPECIFIED AND TO MEET ALL CODE PROVISIONS. REF REACTION TABLES FOR MIN DESIGN LOADS.

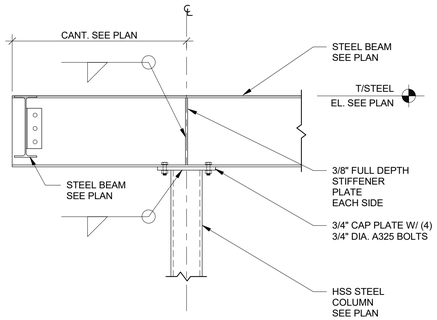
BEAM	PLATE "t"	"N" BOLTS	"tw" WELD *
W8,W10	1/4"	2	3/16"
W12,W14	1/4"	3	3/16"
W16	1/4"	3	3/16"
W18	1/4"	4	3/16"
W21	1/4"	5	3/16"

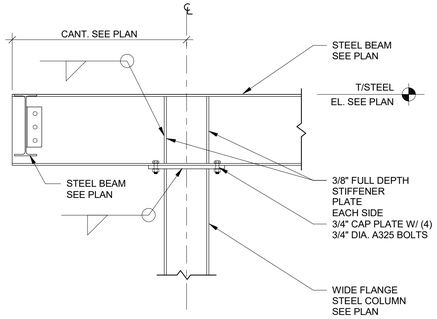
* tw SHALL BE THE EFFECTIVE THROAT FOR SKEWED CONNECTIONS

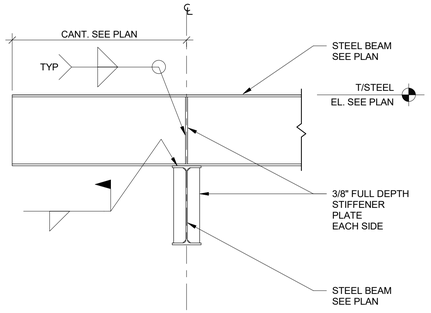


9 S502 W- BEAM AT STEEL COLUMN

3/4" = 1'-0"

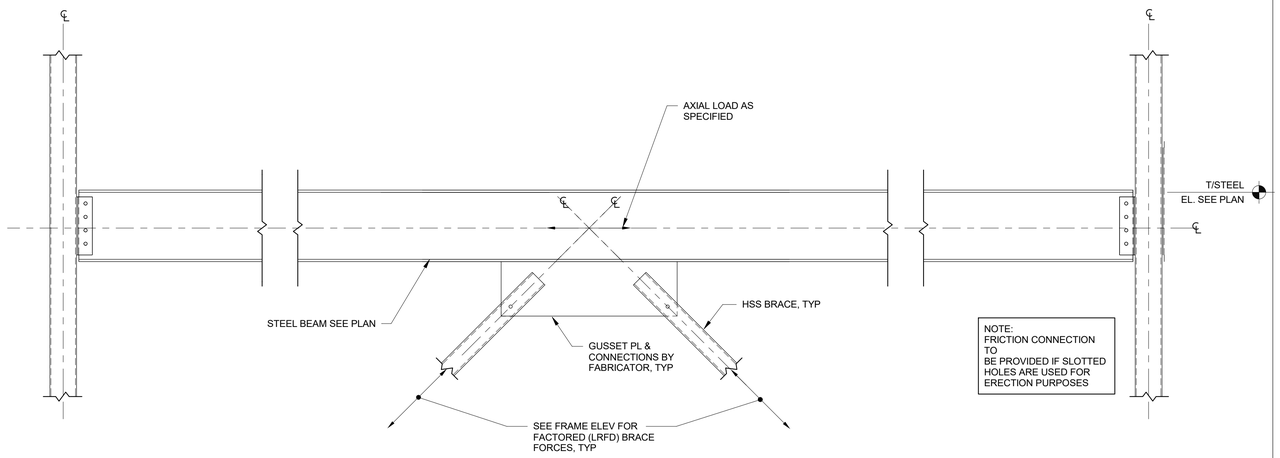






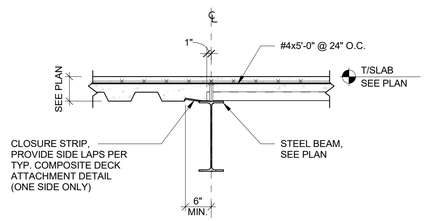
3 S503 TYP SECTION @ CANT. BEAM TO COL / BEAM CONN.

3/4" = 1'-0"



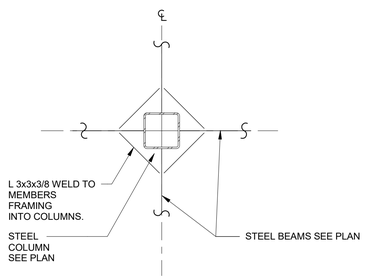
1 S503 TYP SECTION AT TOP OF CHEVRON BRACING

3/4" = 1'-0"



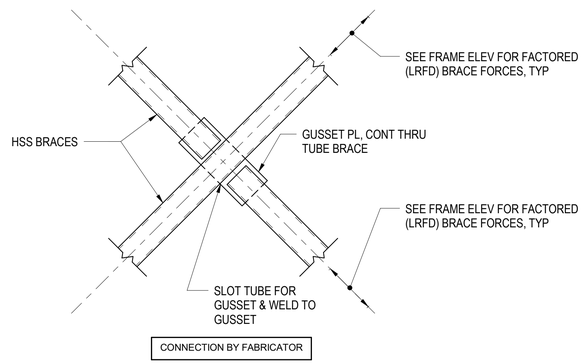
2 S503 TYP. CLOSURE SECTION AT DECK INTERSECTION

3/4" = 1'-0"



6 S503 TYP FRAMING DETAIL @ COLUMN (ALL FLOORS)

3/4" = 1'-0"

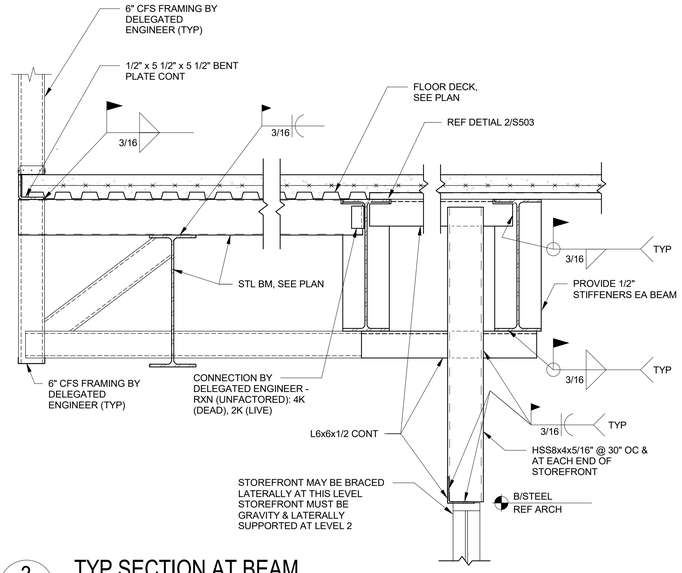


5 S503 TYPICAL BRACE INTERSECTION

3/4" = 1'-0"

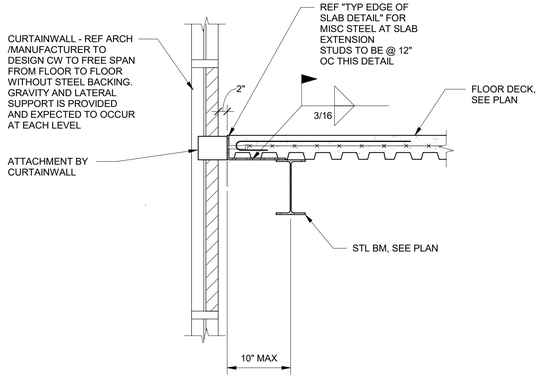
4 S503 TYPICAL BRACE CONNECTIONS

3/4" = 1'-0"



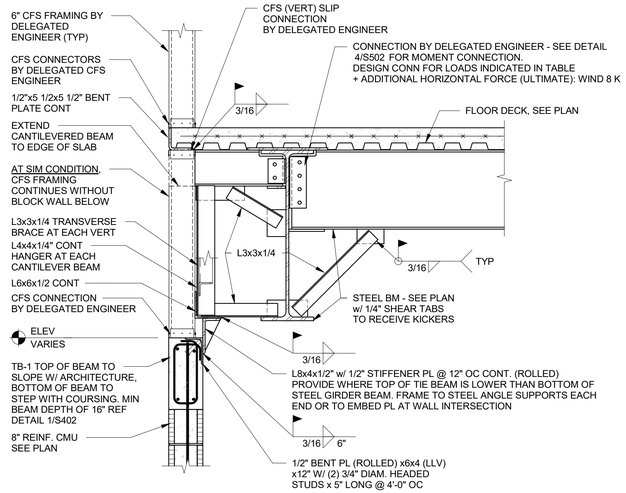
3 S504 TYP SECTION AT BEAM

3/4" = 1'-0"



2 S504 TYP SECTION AT BEAM

3/4" = 1'-0"



1 S504 TYP SECTION AT BEAM

3/4" = 1'-0"

9 S504 SECTION AT EAST CANOPY

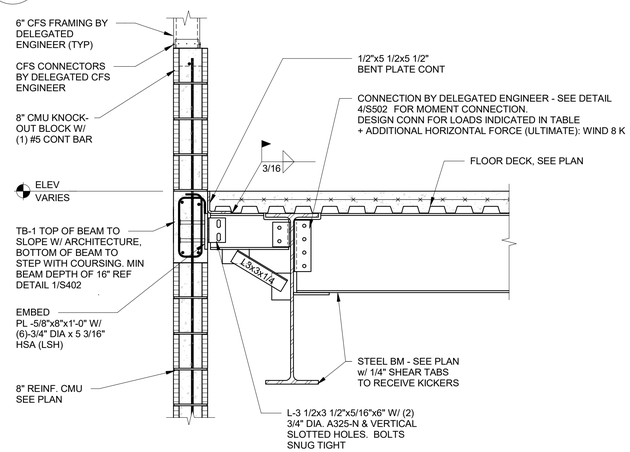
3/4" = 1'-0"

5 S504 TYP SECTION AT BEAM

3/4" = 1'-0"

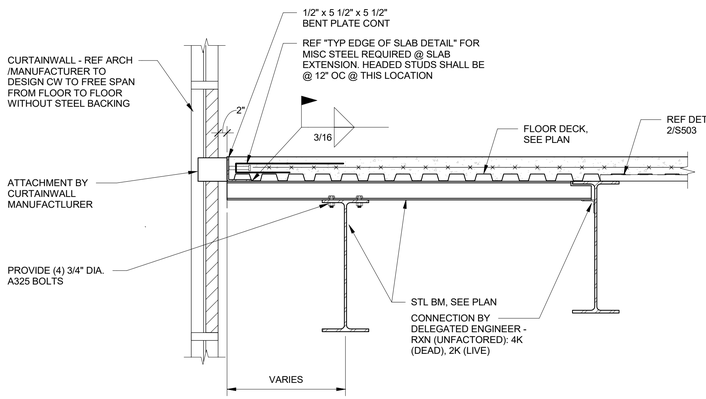
4 S504 TYP SECTION AT BEAM

3/4" = 1'-0"



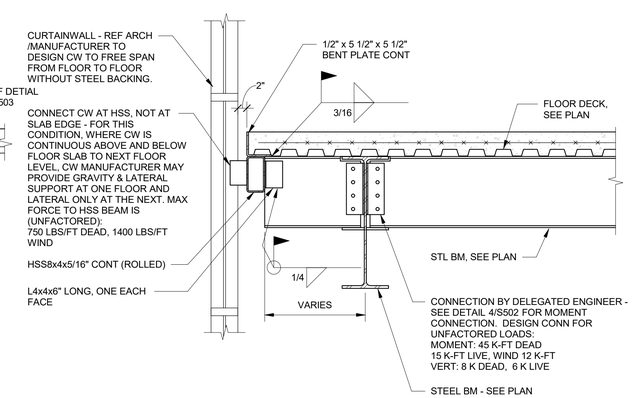
8 S504 TYP SECTION AT BEAM

3/4" = 1'-0"



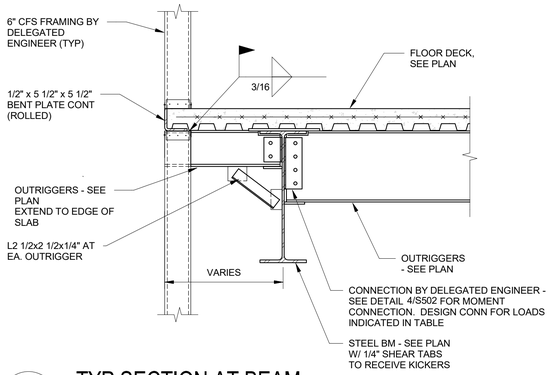
7 S504 TYP SECTION AT BEAM

3/4" = 1'-0"



6 S504 TYP SECTION AT BEAM

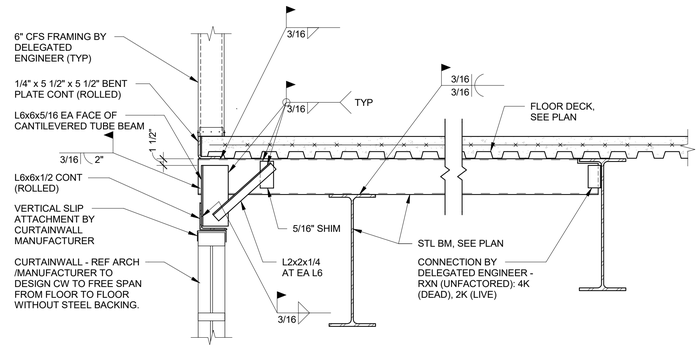
3/4" = 1'-0"



3 S505

TYP SECTION AT BEAM

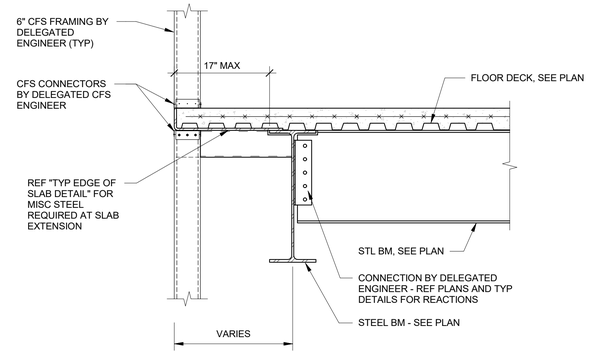
3/4" = 1'-0"



2 S505

TYP SECTION AT BEAM

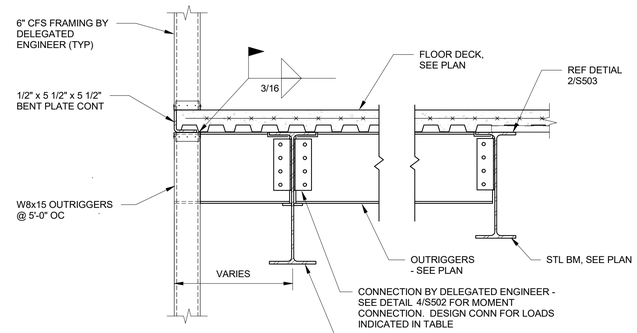
3/4" = 1'-0"



1 S505

TYP SECTION AT BEAM

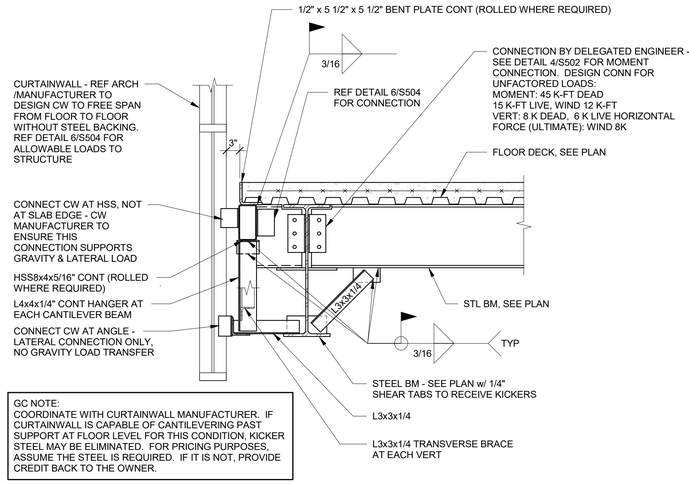
3/4" = 1'-0"



6 S505

TYP SECTION AT BEAM

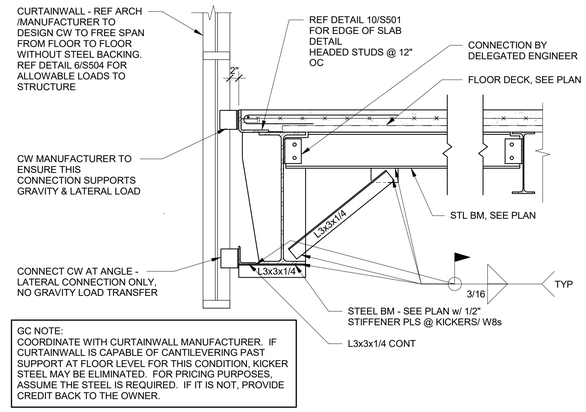
3/4" = 1'-0"



5 S505

TYP SECTION AT BEAM

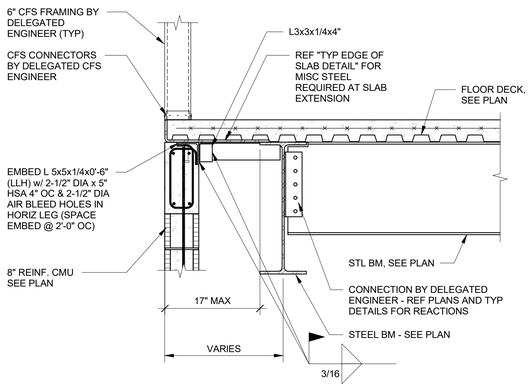
3/4" = 1'-0"



4 S505

TYP SECTION AT BEAM

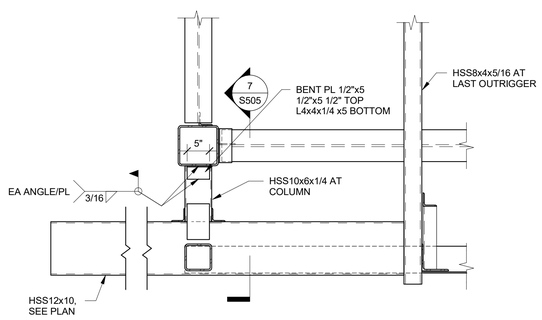
3/4" = 1'-0"



9 S505

TYP SECTION AT BEAM

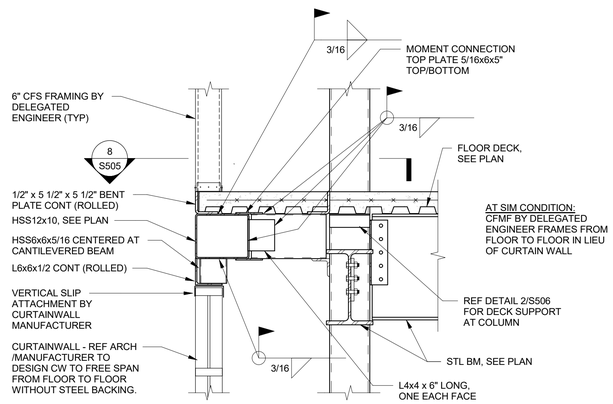
3/4" = 1'-0"



8 S505

TYP SECTION AT BEAM

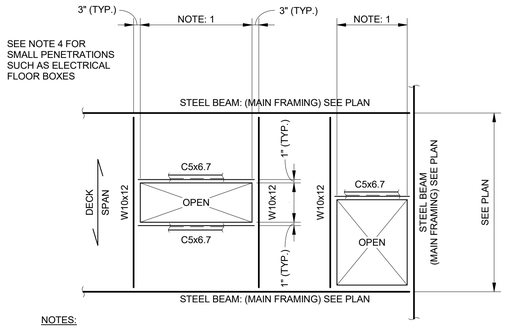
3/4" = 1'-0"



7 S505

TYP SECTION AT BEAM

3/4" = 1'-0"

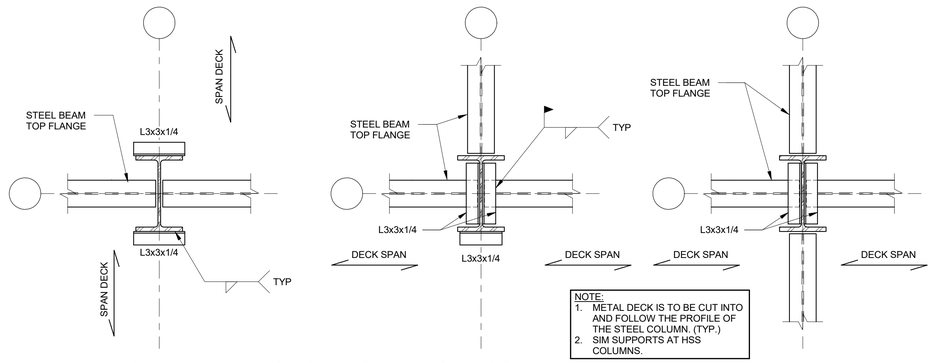


NOTES:

1. THESE DETAILS APPLY FOR THRU SLAB OPENINGS WHERE DIMENSION IS UP TO 8'-0" (MAX.) (OPENING EDGE TO OPENING EDGE). DIMENSION OF THRU SLAB OPENINGS IN THE DIRECTION PERPENDICULAR TO METAL DECK SPAN. COORDINATE EXACT SIZE, LOCATION, AND QUANTITY REQUIRED OF THRU SLAB OPENINGS WITH ARCHITECTURAL AND / OR AFFECTED TRADES DRAWINGS.
2. THRU SLAB OPENINGS SHOWN HERE ARE OF VARIOUS SIZES AND LOCATIONS (MAX SIZE PER NOTE 1). FOR THRU SLAB OPENINGS GREATER THAN 8'-0" SEE PLANS AND ADDITIONAL SECTIONS FOR FRAMING AND INFORMATION. FOR THRU SLAB OPENINGS LESS THAN OR EQUAL TO 8'-0" AND WHERE "BEAM" SIZE AT OPENING IS NOT INDICATED ON PLAN, PROVIDE MIN W10x12
3. METAL DECK MANUFACTURER / SUPPLIER IS TO PROVIDE 14 GAGE (GALV.) METAL CLOSURE EDGE ALONG THRU SLAB OPENING EDGES UNLESS OTHER- WISE NOTED IN SECTIONS / DETAILS.
4. FOR PENETRATIONS UP TO 6" WITH 4'-0" CLEARANCE TO NEXT PENETRATION, NO REINF IS REQUIRED. FOR PENETRATIONS BETWEEN 6" AND 12", REF SIM DECK REINF IN DETAIL 5/S601. WHEN PENETRATIONS ARE SPACED CLOSER THAN 4'-0" APART, CONSIDER THE PENETRATION SIZE TO BE THE FULL EXTENT FROM ONE SIDE OF THE FIRST PENETRATION, TO THE OPPOSITE SIDE OF THE LAST PENETRATION.

1 S506 TYPICAL ADD'L FRAMING FOR SLAB OPENINGS (UP TO 8'-0")

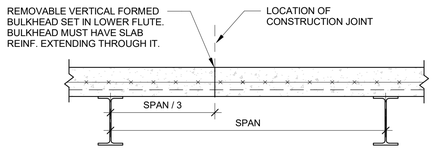
3/4" = 1'-0"



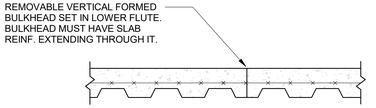
NOTE:
1. METAL DECK IS TO BE CUT INTO AND FOLLOW THE PROFILE OF THE STEEL COLUMN. (TYP.)
2. SIM SUPPORTS AT HSS COLUMNS.

2 S506 TYPICAL METAL DECK SUPPORT AT STL. COL.

3/4" = 1'-0"



PERPENDICULAR TO DECK FLUTES



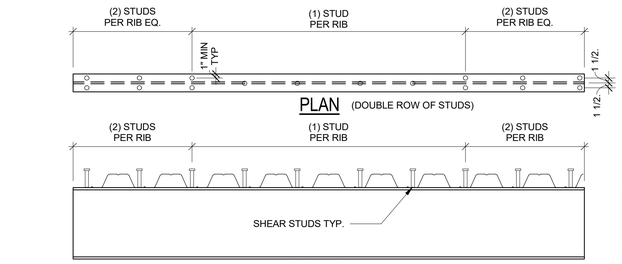
NOTE:
CONSTRUCTION JOINTS SHALL BE LOCATED NO CLOSER THAN 5'-0" FROM THE CENTER LINE OF THE NEAREST GIRDER.

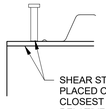
PARALLEL TO DECK FLUTES

NOTES:
1. AT CONTRACTOR'S OPTION, PREFORMED PERMANENT METAL SHEAR KEY MAY BE USED W/SLAB REINF. STOPPING EACH SIDE AND #3 DOWEL x 2'-0" CENTERED @ 18" O.C. THROUGH THE JOINT
2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING CHAIRS FOR WWF (IF USED) TO MAINTAIN CLEARANCE SHOWN. RAISING THE WWF DURING THE CONC. POUR IS NOT PERMITTED.

3 S506 TYPICAL SLAB ON METAL DECK CONSTRUCTION JOINT

3/4" = 1'-0"



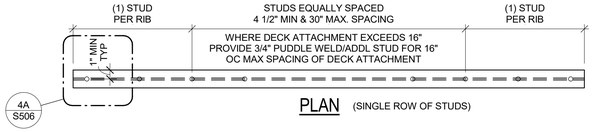


SHEAR STUD SHALL BE PLACED ON SIDE CLOSEST TO SUPPORT RELATIVE TO RIB LIP

4A S506 DETAIL

1 1/2" = 1'-0"

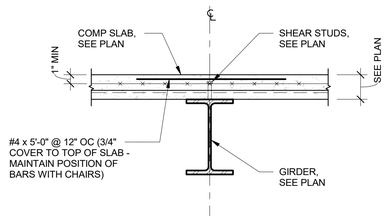
1. WHERE METAL DECK CROSSES COMPOSITE BEAMS, SHEAR STUDS SHALL BE PLACED AT RIBS. WHERE NUMBER OF SHEAR STUDS REQUIRED EXCEEDS NUMBER OF RIBS, TWO STUDS PER RIB SHALL BE PROVIDED, PLACED FROM ENDS AS SHOWN.
2. WHERE BEAM FLANGE THICKNESS IS LESS THAN 5/16", ONLY ONE ROW OF STUDS IS PERMITTED.



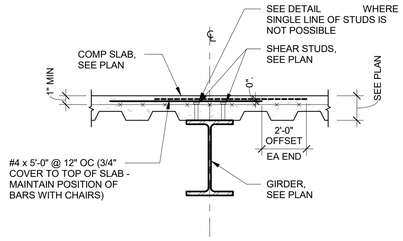
WHERE METAL DECK CROSSES COMPOSITE BEAMS, SHEAR STUDS SHALL BE PLACED AT RIBS. WHERE NUMBER OF RIBS EXCEEDS NUMBER OF STUDS REQD ONE STUD PER RIB SHALL BE PROVIDED AS REQ'D FROM ENDS OF BEAM AS SHOWN WITH THE REMAINDER EQUALLY SPACED AT 30" O.C. MAXIMUM SPACING.

4 S506 TYP. BEAM STUD PLACEMENT DETAIL

3/4" = 1'-0"



TYP COMPOSITE BEAM
(DECK RIBS PERPENDICULAR TO BM)



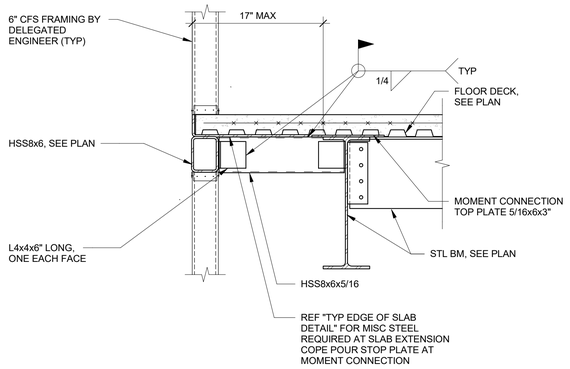
TYP COMPOSITE BEAM
(DECK RIBS PERPENDICULAR TO BM)

NOTES:

1. WHEN STUDS ARE USED, DECK MUST NOT BE LAPPED IN ORDER TO PERMIT WELDING OF STUDS THROUGH SINGLE THICKNESS OF DECK. WELDING OF STUDS TO BEAM THROUGH (2) LAYERS OF DECK SHALL NOT BE PERMITTED.
2. DECK SHALL BE FURNISHED IN MODULAR PANEL WIDTHS. ANY CUTTING THAT IS REQUIRED SHALL BE DONE BY THE DECK ERECTOR.
3. PROVIDE 1" (MIN.) PLACEMENT DISTANCE FROM FLANGE EDGE TO CENTER LINE OF SHEAR CONNECTOR STUDS.
4. METAL DECK AND TOP FLANGES OF BEAMS SHALL BE FREE FROM PAINT, WATER, EXCESSIVE SCALE RUST OR OTHER MATERIALS INJURIOUS TO WELDING.
5. METAL DECK SHALL REST TIGHTLY AGAINST BEAM FLANGE.
6. REFERENCE ABBREVIATIONS/SYBMOLS SHEET FOR COMPOSITE BEAM NOTATION.
7. WHERE BEAM FLANGE THICKNESS IS LESS THAN 5/16", ONLY ONE ROW OF STUDS IS PERMITTED. CENTER STUDS OVER WEB.
8. REF SECTION 5124 IN THE GENERAL NOTES FOR ADDITIONAL INFORMATION.
9. REF SECTION 5230 IN THE GENERAL NOTES FOR COMPOSITE DECK ATTACHMENT.

5 S506 TYPICAL COMPOSITE DECK PLACEMENT DETAILS

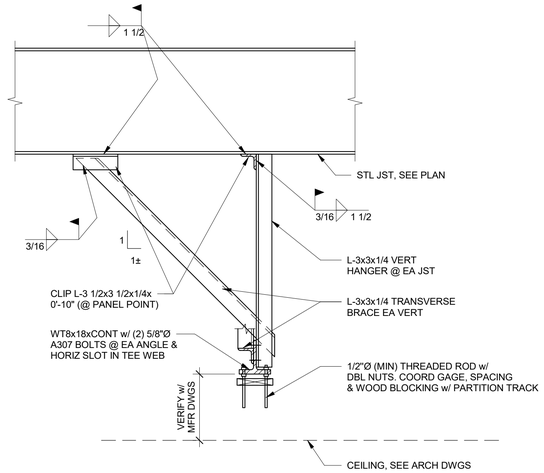
3/4" = 1'-0"



3 S507

TYP SECTION AT BEAM

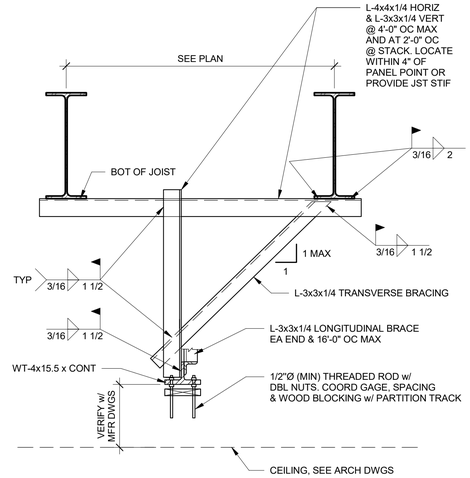
3/4" = 1'-0"



2 S507

FOLDING PARTITION SUPPORT

3/4" = 1'-0"



1 S507

FOLDING PARTITION SUPPORT

3/4" = 1'-0"

4 S507

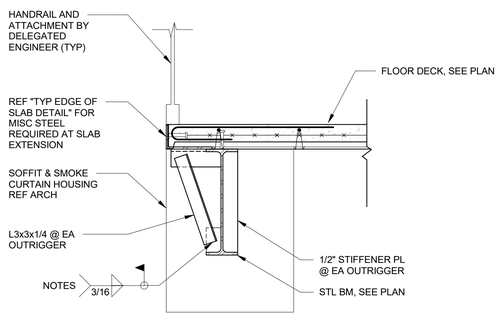
TYP SECTION AT BEAM

3/4" = 1'-0"

5 S507

EVENT SPACE - LIGHT SHELF

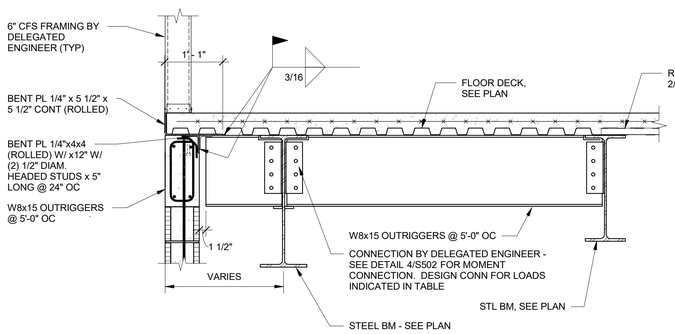
3/4" = 1'-0"



6 S507

TYP SECTION AT BEAM - SMOKE CURTAIN & HANDRAIL

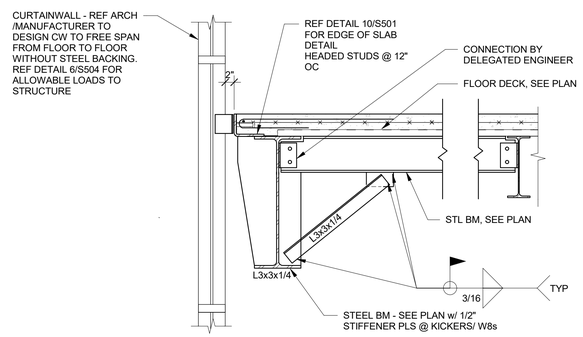
3/4" = 1'-0"



7 S507

TYP SECTION AT BEAM

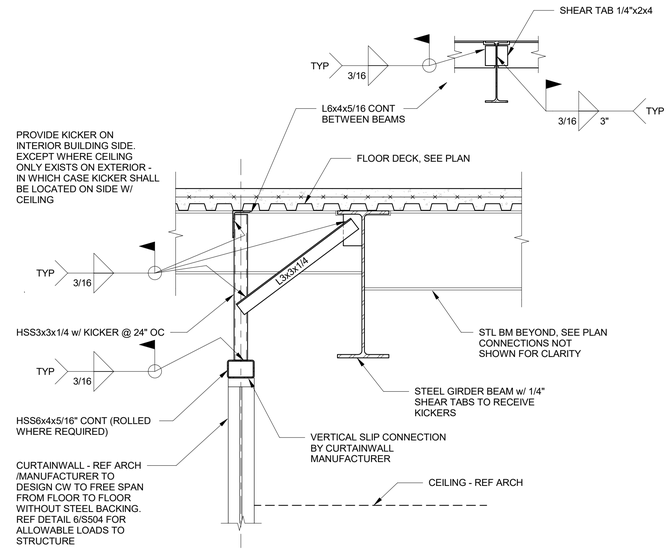
3/4" = 1'-0"



8 S507

TYP SECTION AT BEAM

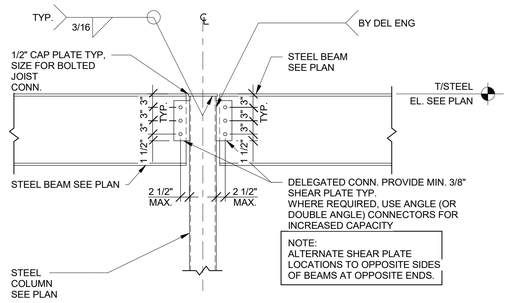
3/4" = 1'-0"



1
S508

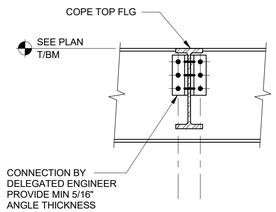
TYP SECTION AT T/CURTAIN WALL BRACE

3/4" = 1'-0"



3 S601 **TYP STEEL BEAM TO COLUMN CONNECTION**

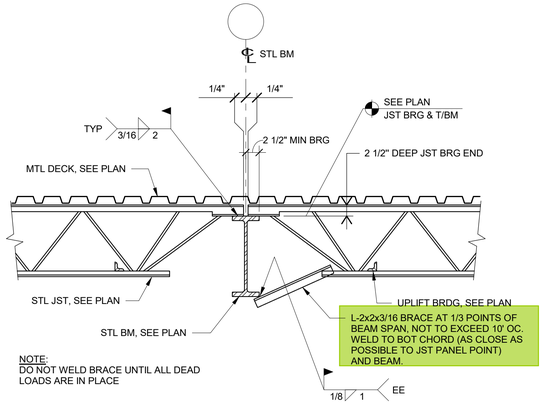
3/4" = 1'-0"



BEAM TO BEAM

2 S601 **TYP BEAM TO BEAM CONN**

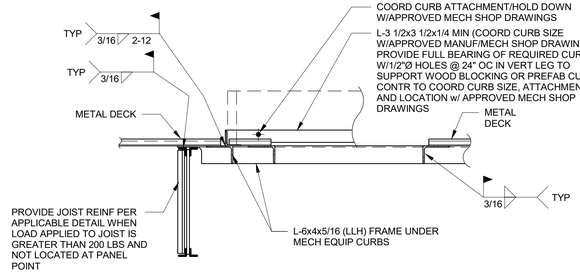
3/4" = 1'-0"



NOTE:
DO NOT WELD BRACE UNTIL ALL DEAD LOADS ARE IN PLACE

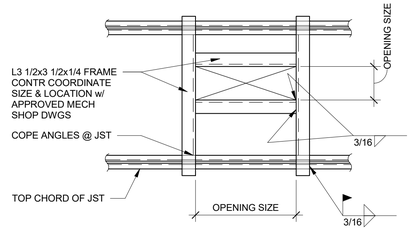
1 S601 **TYP JOIST BRG AT STEEL BEAM**

3/4" = 1'-0"



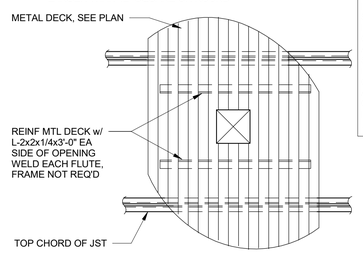
6 S601 **TYP MECH UNIT SUPPORT DETAIL**

3/4" = 1'-0"



LARGE OPENING DETAIL

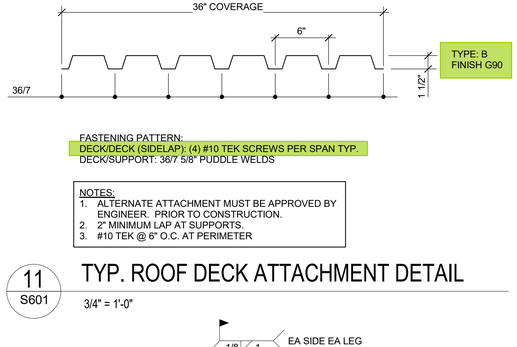
LARGER THAN 12" SQUARE OR ROUND



NOTE:
COORD. LOCATION AND SIZE REQUIREMENTS OF OPENING W/ APPROVED UNIT SHOP DRAWINGS. CURB AND CURB ATTACHMENTS/HOLD DOWNS BY MANUFACTURER .

SMALL OPENING DETAIL

SMALLER THAN 12" SQ. & LARGER THAN 6" SQ.

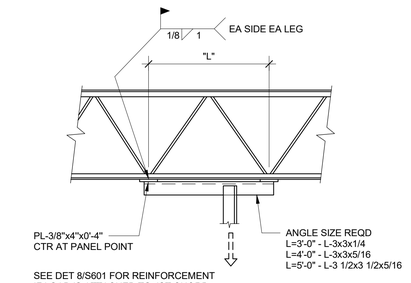


FASTENING PATTERN:
DECK/DECK (SIDELAP): (4) #10 TEK SCREWS PER SPAN TYP.
DECK/SUPPORT: 36/7 5/8" PUDDLE WELDS

NOTES:
1. ALTERNATE ATTACHMENT MUST BE APPROVED BY ENGINEER. PRIOR TO CONSTRUCTION.
2. 2" MINIMUM LAP AT SUPPORTS.
3. #10 TEK @ 6" O.C. AT PERIMETER

11 S601 **TYP. ROOF DECK ATTACHMENT DETAIL**

3/4" = 1'-0"

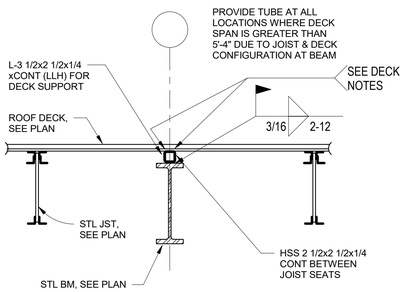


SEE DET 8/S601 FOR REINFORCEMENT IF LOAD IS ATTACHED TO JST CHORD BETWEEN PANEL POINTS

PROVIDE HANGER SUPPORT PER ABOVE DETAIL WHEN LOAD EXCEEDS 100 LBS. LOADS EXCEEDING 400 LBS AND NOT NOTED ON STRUCTURAL PLANS MUST BE BROUGHT TO THE A ATTENTION OF THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO SUPPORT.

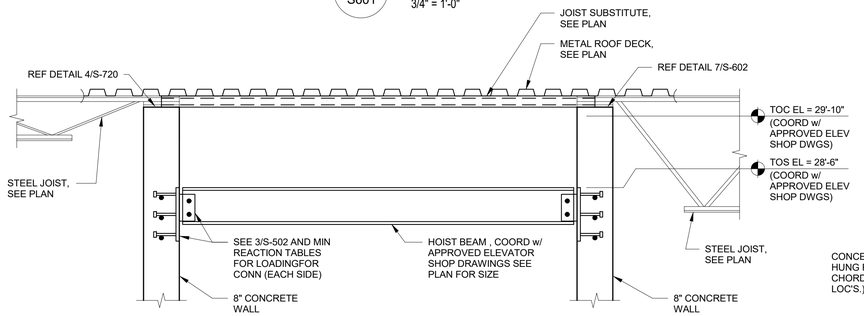
4 S601 **TYP JOIST REINFORCEMENT DETAIL**

3/4" = 1'-0"



10 S601 **TYP ADDL DECK SUPPORT AT STEEL BEAM**

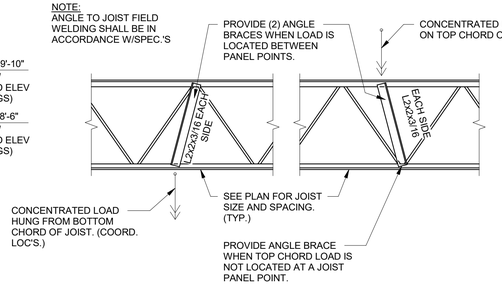
3/4" = 1'-0"



9 S601 **SECTION AT ELEVATOR HOIST BEAM**

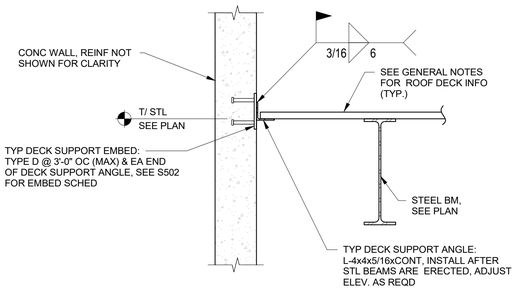
3/4" = 1'-0"

NOTE:
ANGLE TO JOIST FIELD WELDING SHALL BE IN ACCORDANCE W/SPEC.'S



8 S601 **TYP STEEL JOIST REINFORCING DETAIL**

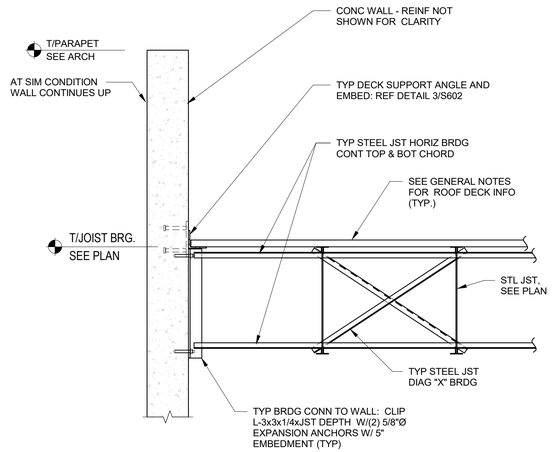
3/4" = 1'-0"



3 S602

TYP ROOF DECK SUPPORT AT CONC WALL

3/4" = 1'-0"

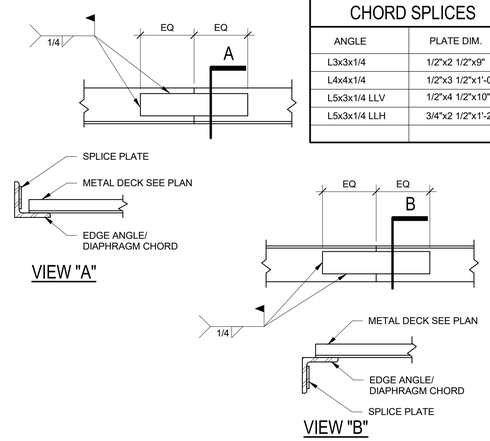


2 S602

TYP "K" SERIES JOIST BRIDGING CONN AT CONC WALL

3/4" = 1'-0"

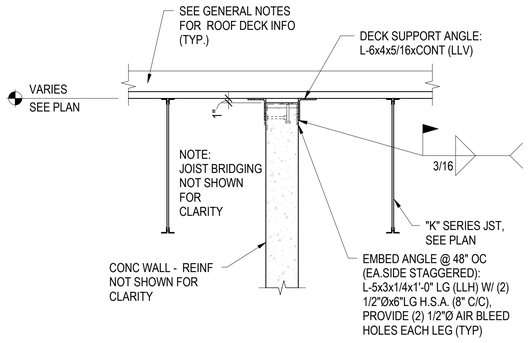
EDGE ANGLE/DIAPHRAGM CHORD SPLICES	
ANGLE	PLATE DIM.
L3x3x1/4	1/2"x2 1/2"x9"
L4x4x1/4	1/2"x3 1/2"x1'-0"
L5x3x1/4 LLV	1/2"x4 1/2"x10"
L5x3x1/4 LLH	3/4"x2 1/2"x1'-2"



1 S602

TYP. DIAPHRAGM CHORD SPLICE

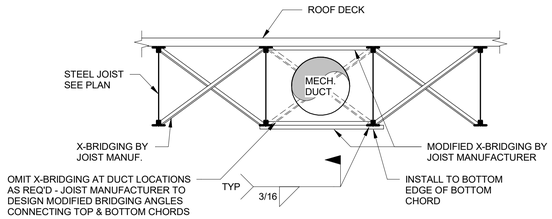
3/4" = 1'-0"



6 S602

TYP ROOF DECK SUPPORT AT CONC WALL

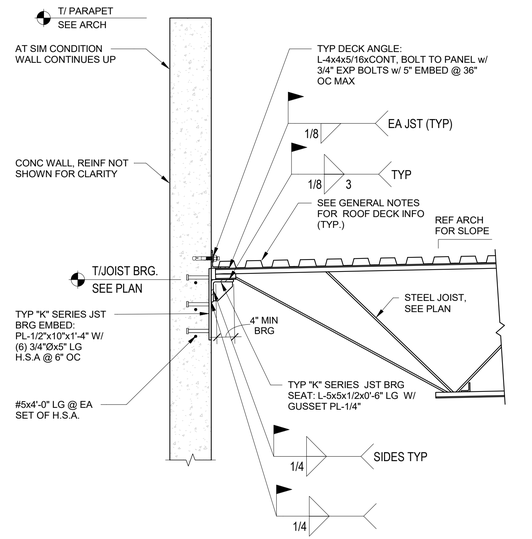
3/4" = 1'-0"



5 S602

TYP JOIST X-BRIDGING MODIFICATION @ MECH. DUCT LOCATIONS

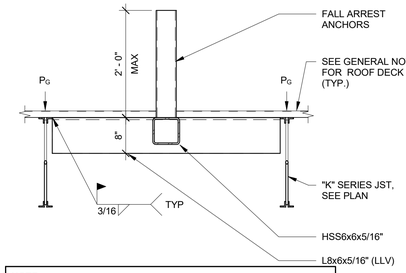
3/4" = 1'-0"



4 S602

TYP "K" SERIES JOIST BRG. AT CONC WALL

3/4" = 1'-0"

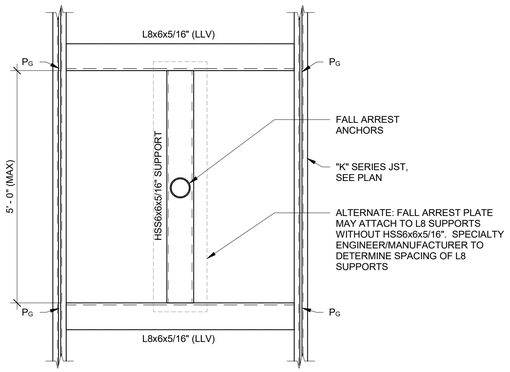


NOTE:
1. PROVIDE H-FRAME SUPPORT AT ALL HALL ARREST ANCHORS.
2. CENTER ANCHORS BETWEEN JOIST (+/- 4")
3. FALL ARREST ANCHORS AND CONNECTION TO H-FRAME ARE BY SPECIALTY ENGINEER.

9 S602

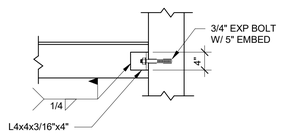
FALL ARREST SUPPORT

3/4" = 1'-0"



P_G = FRAMING GRAVITY LOAD 1K LIVE LOAD (UNFACTORED)
P_A = TOP CHORD AXIAL LOAD 2K LIVE LOAD (UNFACTORED)

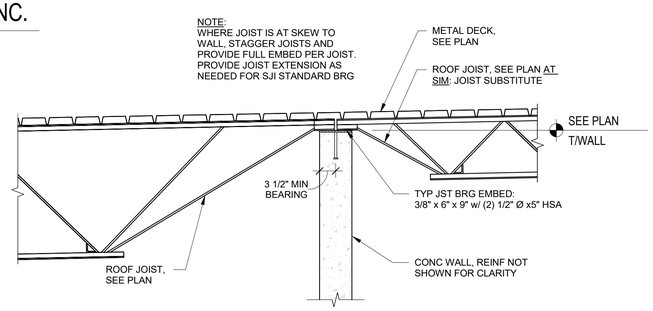
H-FRAME PLAN VIEW



8 S602

TYP DECK ANGLE SUPPORT AT CONC.

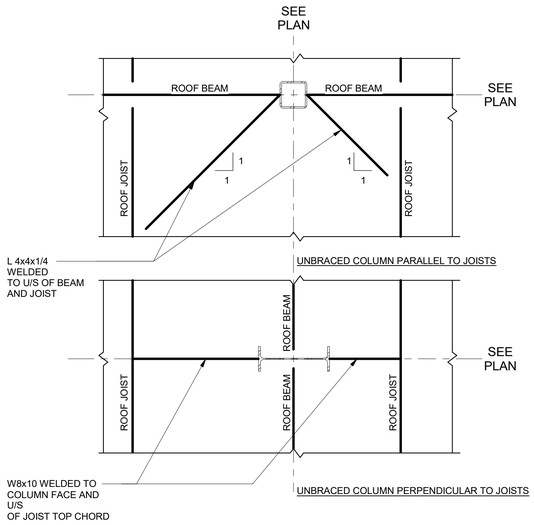
3/4" = 1'-0"



7 S602

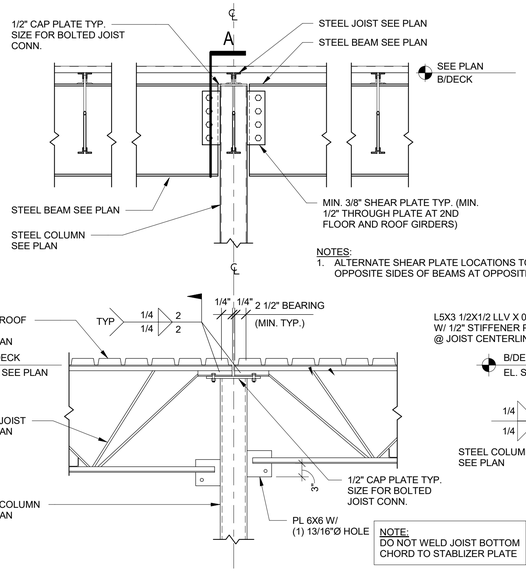
TYP JOIST BRG. ON CONC WALL

3/4" = 1'-0"



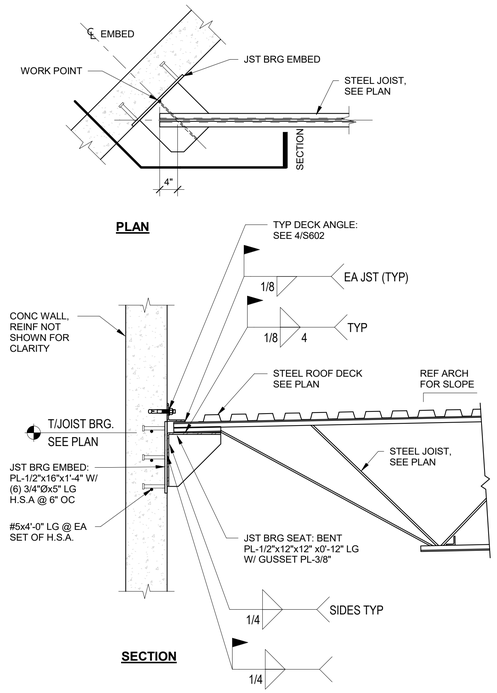
3 S603 TYP ROOF PLAN DETAIL @ UNBRACED COLUMNS

3/4" = 1'-0"



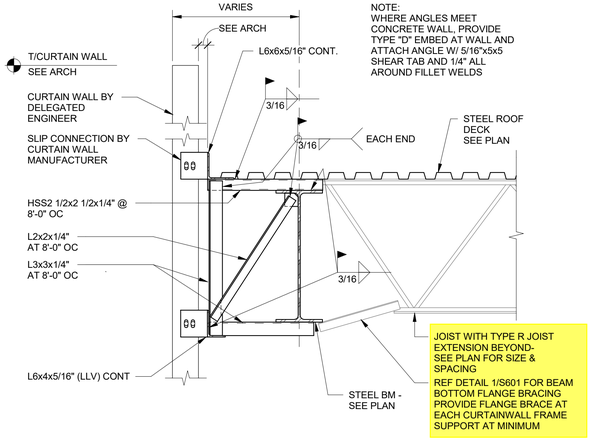
2 S603 TYP. SECTION @ ROOF

3/4" = 1'-0"



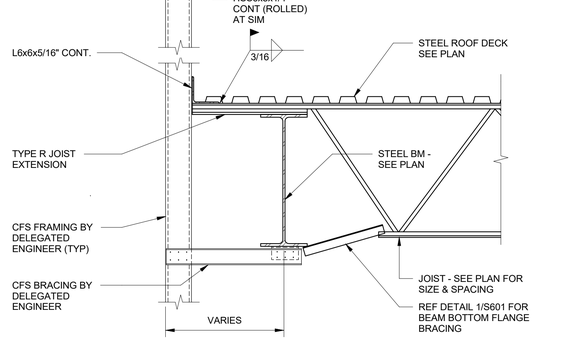
1 S603 TYP "K" SERIES JOIST BRG. ON SKEW

3/4" = 1'-0"



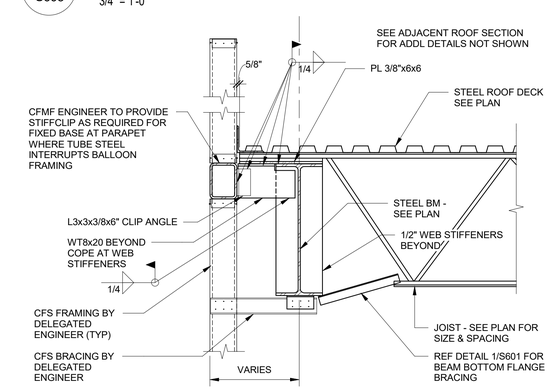
6 S603 TYP SECTION AT ROOF CURTAIN WALL PARAPET BEAM

3/4" = 1'-0"



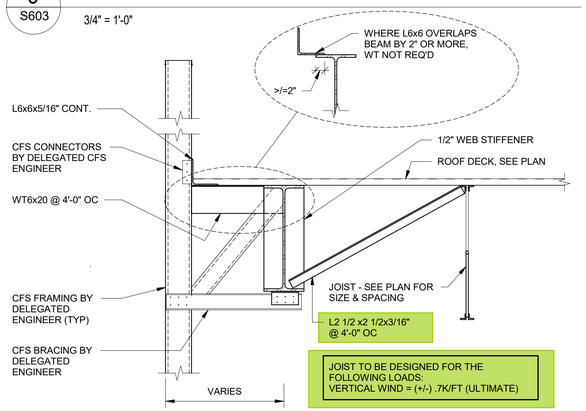
5 S603 TYP SECTION AT ROOF BEAM

3/4" = 1'-0"



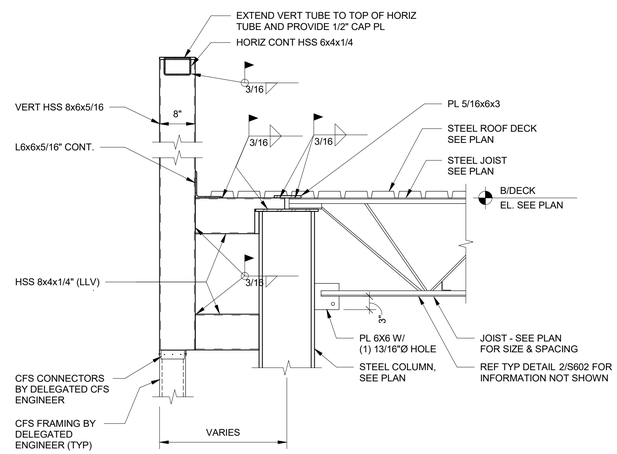
8 S603 TYP SECTION AT ROOF BEAM

3/4" = 1'-0"



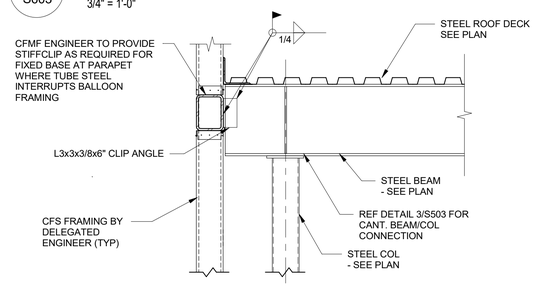
7 S603 TYP SECTION AT BEAM

3/4" = 1'-0"



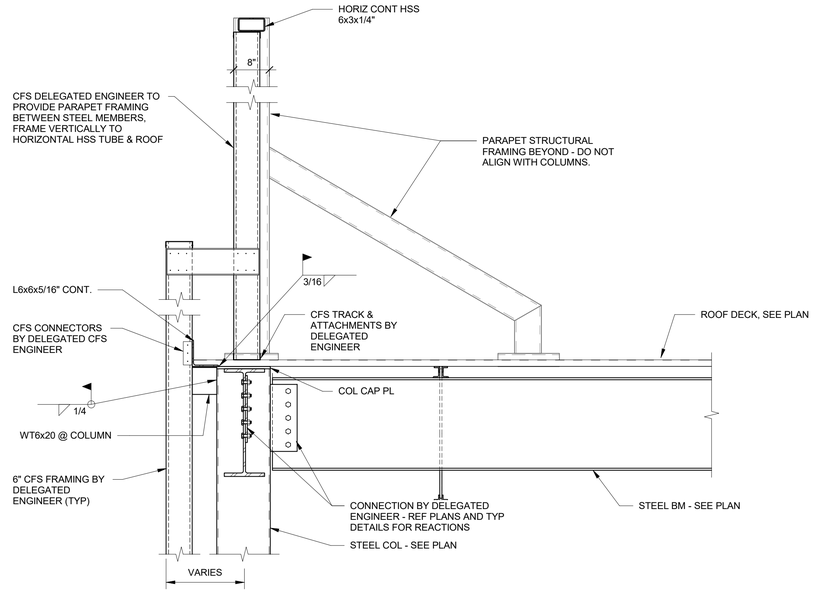
4 S603 TYP. SECTION @ ROOF COLUMN

3/4" = 1'-0"



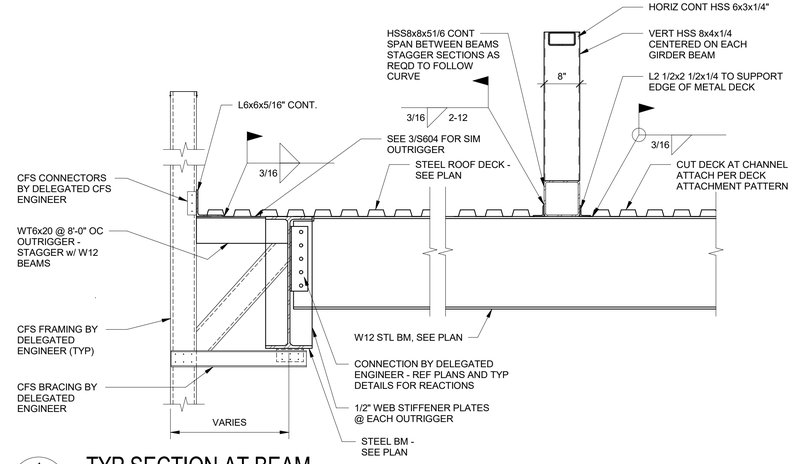
9 S603 TYP SECTION AT ROOF BEAM

3/4" = 1'-0"



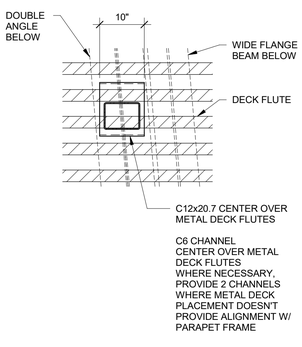
2 S604 TYP SECTION AT DOUBLE PARAPET

3/4" = 1'-0"

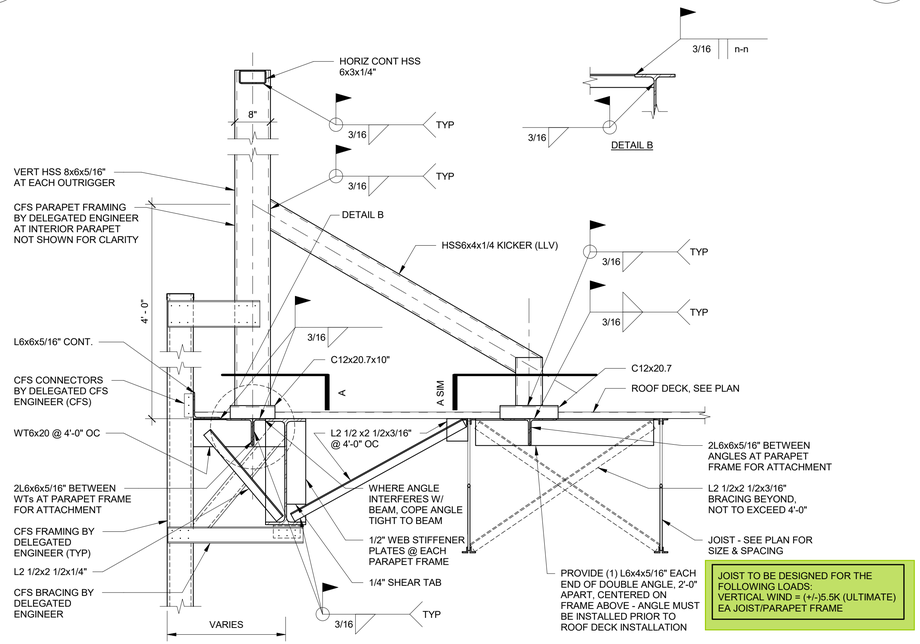


1 S604 TYP SECTION AT BEAM

3/4" = 1'-0"

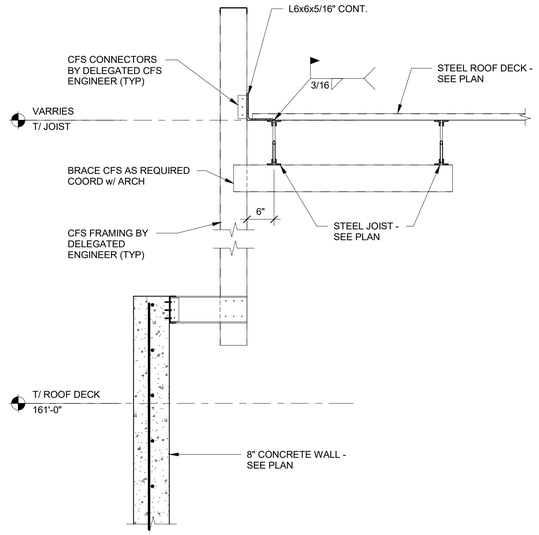


VIEW - A



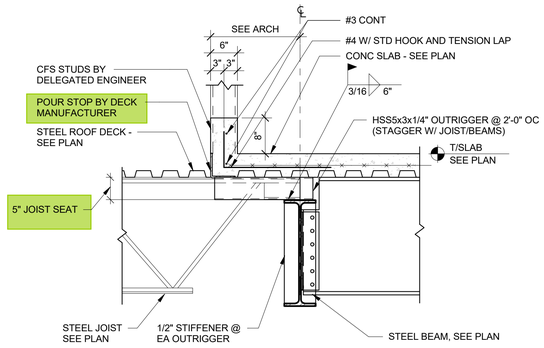
3 S604 TYP SECTION AT BEAM - PARAPET FRAME

3/4" = 1'-0"



4 S604 STAIR SECTION AT ROOF/UPPER ROOF

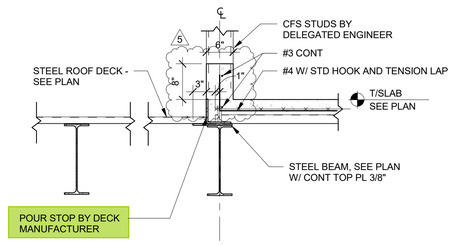
3/4" = 1'-0"



3 S605

CONC SLAB & ROOF DECK SUPPORT

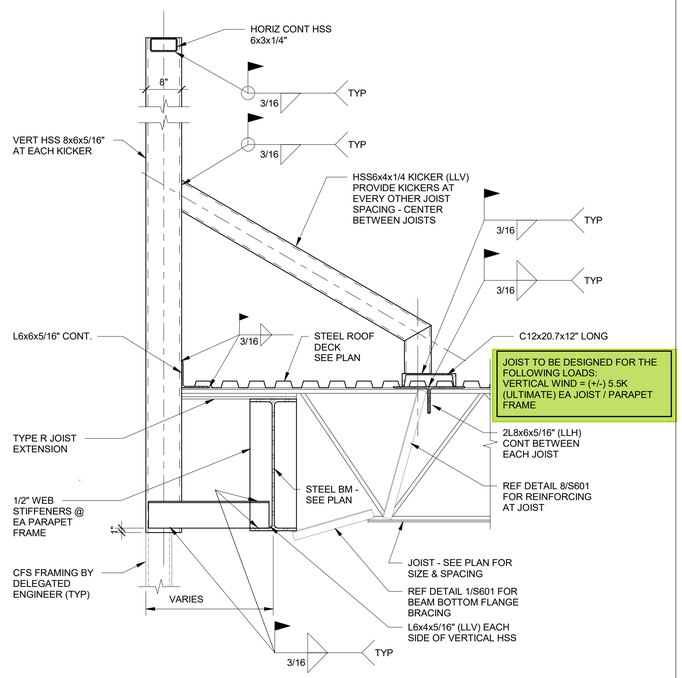
3/4" = 1'-0"



2 S605

CONC SLAB & ROOF DECK SUPPORT

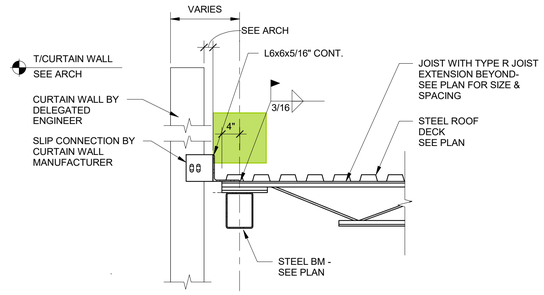
3/4" = 1'-0"



1 S605

TYP SECTION AT ROOF BEAM - PARAPET FRAMING

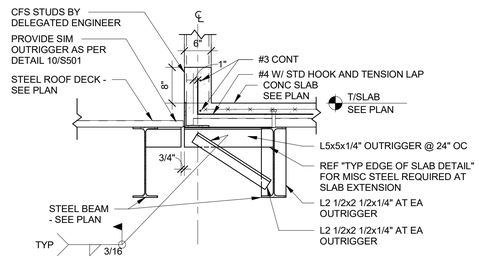
3/4" = 1'-0"



5 S605

SECTION AT ROOF CURTAIN WALL PARAPET BEAM

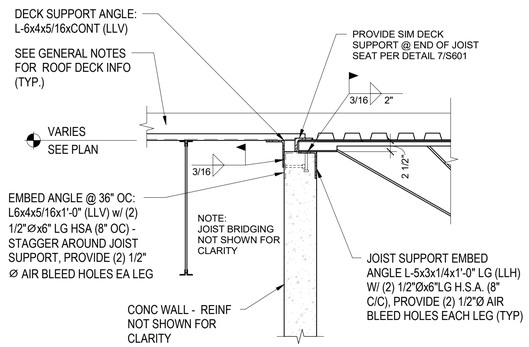
3/4" = 1'-0"



4 S605

CONC SLAB & ROOF DECK SUPPORT

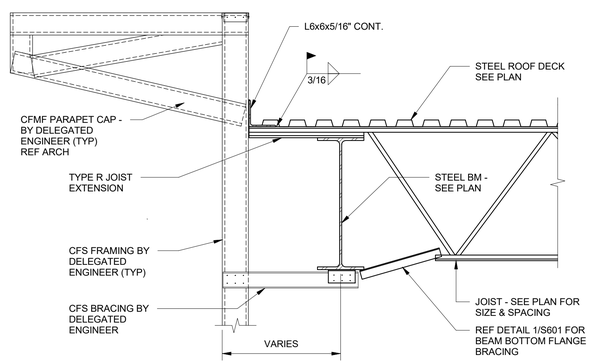
3/4" = 1'-0"



7 S605

TYP ROOF DECK SUPPORT AT CONC WALL

3/4" = 1'-0"



6 S605

TYP SECTION AT ROOF BEAM

3/4" = 1'-0"