1.0 CODES AND STANDARDS:

1.1 2018 North Carolina State Building Code

1.2 "Minimum Design Loads for Buildings and other Structures" SEI/ASCE 7-16.

1.3 "Building Code Requirements for Structural Concrete (ACI 318-14)" American Concrete Institute 2014

1.4 "Manual of Standard Practice", Concrete Reinforcing Steel Institute, latest edition.

1.5 "Specification for the Design of Cold-Formed Steel Structural Members", American Iron and Steel Institute (AISI), S100-12.

1.6 "Specification for Structural Steel Buildings" AISC 360-10.

1.7 "Structural Welding Code - Steel (AWS D1.1)" and "Structural Welding Code - Reinforcing Steel (AWS D1.4)", American Welding Society.

1.8 "Standard Specifications for Joist Girders (JG-10)", "Standard Specifications for Open Web Steel Joists, K-Series (k-10)", "Standard Specifications for Long Span Steel Joist, LH Series and Deep Longspan Steel Joists, DLH Series (LH/DLH-1.1)", Steel Joist Institute

1.9 "Design Manual For Floor Decks and Roof Decks", Steel Deck Institute, latest edition.

2.0 DESIGN LOADS:
Project Located in: City of Wilmington, County of New Hanover, State of North Carolina.

2.1 Gravity Loads: (Reduced where allowed)

GRAVITY LOADS			
Case	Locations	Uniform (psf)	Concentrated (lbs) (Over 2.5'x2.5')
DEAD	Roof	20	
	Floor	72	
LIVE	Roof	20	
	Floor	100	

2.2 Snow Loads per Referenced Code.

Pg = 10 psf
I = 1.1
Ce = 0.9
Ct = 1.0

2.3 Risk Category = III

2.4 Wind Loads per Referenced Code.

Basic Design Wind Speed:
3-second Gust PER ASCE
V = 155 mph
Exposure = B

Main Wind Force Resisting System:
Building is enclosed & Internal Pressure coefficient (GCpi) = +0.18 & -0.18
Topographic Factor Kzt = 1.0
Wind Directionality Factor, Kd = 0.85

CALCULATED WIND BASE SHEAR FOR MWFRS		
Building	Vx (k)	Vy (k)
Main Building	298	270

Components & Cladding

COMPONENTS AND CLADDING WIND PRESSURE (PSF)										
Walls	Area < 10ft2		Area < 20ft2		Area < 50ft2		Area < 100ft2		Area < 500ft2	
Zone 4	40.5	-44.0	38.8	-42.2	36.2	-39.7	34.3	-38.0	30.2	-33.7
Zone 5	40.5	-54.3	38.8	-50.8	36.2	-45.7	34.3	-42.2	30.2	-33.7
Roof	Area < 10ft2		Area < 20ft2		Area < 50ft2		Area < 100ft2		Area < 500ft2	
Zone 1'	18.3	-41.2	16.8	-41.2	16.0	-41.2	16.0	-41.2	16.0	-26.0
Zone 1	18.3	-71.7	16.8	-67.9	16.0	-60.3	16.0	-56.5	16.0	-45.0
Zone 2	18.3	-94.6	16.8	-88.9	16.0	-81.3	16.0	-73.7	16.0	-60.3
Zone 3	18.3	-129.0	16.8	-117.5	16.0	-100.4	16.0	-88.9	16.0	-60.3

Notes:
1. Areas noted are effective wind areas as per ASCE 7, 26.2 definitions.
2. See figures this sheet for Zone locations.
3. Plus and minus signs signify pressures acting toward and away from surfaces, respectively.
4. Design pressures shown in table are strength design wind pressures. Allowable stress design wind pressures may be calculated by factoring the pressures by 0.6.
5. Design pressures for effective wind areas between those noted in schedule may be interpolated.
6. Tributary area = greater of LxW or LxL/3.
7. Deflections may be calculated based on 42% of these loads.

2.5 Seismic Loads per Referenced Code.

Site class = D (From Geotechnical Report)
Spectral Response Coefficients:
SS = 0.152g
S1 = 0.067g
SDS = 0.162g
SD1 = 0.107g
Cs = 0.068

Seismic Design Category = B
Seismic Importance Factor = 1.25

Basic Seismic - Force - Resisting System
STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE, EXCLUDING CANTILEVER COLUMN SYSTEMS

RX=RY=3 / ΩX=ΩY=3 / CDX=CDY=3
Building Height Limit = NL
Analysis Procedure - per Referenced Code.
Equivalent Lateral Force Procedure

CALCULATED SEISMIC BASE SHEAR FOR MWFRS		
Building	Vx (k)	Vy (k)
Main Building	115	115

2.6 Guardrail designed per Referenced Code
Guardrail:
Uniform load = 50 plf, any direction
Concentrated load = 200 lbs, any direction
Intermediate Rail: (all those except handrail)

2.7 Flood Loads:
Project is not located in a flood zone.

3.0 FOUNDATIONS:

3.1 Foundation design is based on geotechnical report #49:234839 by ECS Southeast, LLC dated June 21, 2024. This report is available in the project manual. The recommendations contained in this report are for the Contractor's information only.

3.2 Footings shall bear on strata capable of sustaining a minimum bearing pressure of 3,000 psf.

3.3 Top of footing (T/FTG) elevations are shown on the drawings or are to be determined by the Contractor in the field in accordance with the guidelines set forth in the drawings.

3.4 Bottom of exterior footings and grade beams shall bear at a minimum depth of 1'-0" below final grade for frost protection.

3.5 Testing and Inspection:
a. All areas to have slabs on grade shall be proof rolled in accordance with and under observation of the Geotechnical Engineer and approved prior to preparation for concrete placement.
b. All foundation bearing strata shall be inspected and approved by the Geotechnical Engineer prior to any concrete placement.
c. Geotechnical Engineer shall be the sole judge as to suitability of all foundation and/or slab bearing strata.
d. Footing bearing elevations shall be adjusted in the field as required to meet the design bearing pressures by additional excavation or compaction and/or backfilling or by other means acceptable to the Geotechnical Engineer.

3.6 Undercutting to remove existing fill beneath footings and slab shall be performed at the direction of the Geotechnical Engineer.

3.7 Engineered Fill: All fill material shall be selected in accordance with the Geotechnical Report Material shall be a clean, low plastic soil with a plasticity index less than 30 (less than 15 is preferred), liquid limit less than 50, and unit weight of 120 pcf (+5 pcf)

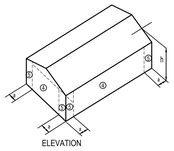
3.8 Compaction: All fill shall be placed in loose lifts not exceeding 8" in thickness and compacted to a minimum of 96% Standard Proctor (ASTM D-698) except that the top 12" shall be compacted to a minimum of 98% Standard Proctor. Moisture shall be controlled to within 3% above or below optimum content.

3.9 Remove all topsoil and organic materials. The stripping should extend at least 10' beyond the proposed construction limits.

3.10 Contractor shall review all construction considerations as outlined in the Geotechnical report and bid accordingly.

4.0 CONCRETE:

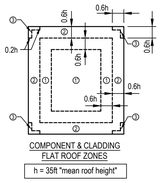
4.1 Concrete Strength:
All concrete shall be in accordance with the American Concrete Institute (ACI) 301 and 318.



ELEVATION

COMPONENT & CLADDING WALL ZONES

a = 14ft



COMPONENT & CLADDING
FLAT ROOF ZONES

h = 35ft "mean roof height"

4.2 Concrete shall have a 28 day compressive strength and density as follows:

CONCRETE STRENGTH SCHEDULE			
Location	Concrete Strength	Density	Comments
Footings	3,000 psi	±145 pcf	-
Slab-on-grade	See Schedule S3 sheets	±145 pcf	-
Elevated Slab on Deck	3,000 psi	±145 pcf	-

4.3 Concrete Mix Designs:
a. Submittals: Submit mix designs of each proposed concrete mix not less than 15 days prior to the start of work.
b. Mix designs, including water, cement ratios and slumps, shall be prepared in accordance with ACI 301-05, Section 4, Cement shall conform to ASTM C 150 Type 1 or at contractor's option, ASTM C 595 Type IP where fly ash is permitted. Normal weight aggregate shall conform to ASTM C 33 and light weight aggregate shall conform to ASTM C 330. No admixtures containing calcium chloride shall be permitted in any concrete.
c. Aggregate size shall be #57 stone for supported slabs or other formed concrete elements; #57 stone for slabs on grade and footings or other concrete elements formed from and poured against earth; #89 stone for masonry grout.
d. Water reducing admixture shall be used in all concrete.
e. Air entraining admixture in accordance with ACI 301 shall be used in all concrete exposed freezing and thawing during construction or service conditions.
f. Concrete subjected to freezing/thawing shall have a maximum water/cement ratio of 0.45 and shall contain the amount of air entraining agent specified in ACI 301-05 Section 4.
g. All columns and walls shall have superplasticizer admixture

4.4 Curing:
See specifications for curing method options and apply within two (2) hours after completion of finishing to all concrete flatwork and walls, U.N.O., other than footings and grade beams.

4.5 Use a non-corrosive, non-chloride accelerating admixture in concrete exposed to temperatures below 40°. Uniformly heat the water and aggregates to a temperature of not less than 50° Place and cure concrete in accordance with ACI 306.

4.6 When hot weather conditions exist, place and cure concrete in accordance with ACI 301. Cool ingredients before mixing to maintain concrete temp. at time of placement below 90°.

4.7 Reinforcing in all abutting concrete, including footings shall be continuous through or around all corners or intersections. Dowels or splices shall be equal in size and spacing to the reinforcing in the abutting members.

4.8 Refer to architectural drawings for door and window openings, drips, reglets, washes, masonry anchors, brick ledge elevations, slab depressions and miscellaneous embedded plates, bolts, anchors, angles, etc.

4.9 Refer to plumbing, mechanical and electrical drawings for underfloor, perimeter and other drains and for sleeves, outlet boxes, conduit, anchors, etc. The various trades are responsible for their items.

4.10 Base plates, anchor rods, support angles and other steel exposed to earth or granular fill shall be covered with a minimum of 3'' of concrete.

4.11 Fill slabs, not shown on the structural drawings and all exterior slabs to be broom finished, shall be reinforced with a minimum of 6 x 6 x W2.0 x W2.0 WWM unless noted otherwise on other drawings.

4.12 Finish surfaces to the following tolerances, according to ASTM E 1155, for a randomly trafficked floor surface:
a. Specified overall values of flatness, F(F) 25; and of levelness, F(L) 20; with minimum local values equal to ⅔ of the overall flatness and levelness values.
b. The composite F(F) and F(L) numbers shall be measured and reported within 72 hours after completion of slab concrete finishing operations and before removal of any supporting shores.

4.13 Non-shrink grout shall be pre-mixed, non-corrosive, non-metallic, non-staining containing silica sands, Portland cement, shrinkage compensating and water reducing agents. Product shall only require the addition of water. Minimum compressive strength shall be 2500 psi after one day and 7000 psi after 28 days. Grout shall be free of gas producing or air releasing and oxidizing agents and contain no corrosive iron, aluminum or gypsum.

4.14 Provide concrete grout - not mortar - for reinforced masonry lintel and bond beams where indicated on drawing or as scheduled.

4.15 Tolerance for anchor rods and other embedded items shall be per the AISC Code of Standard Practice Section 7.5.

4.16 Unless otherwise shown in the architectural drawings, provide ¾" chamfers at all column, wall, slab or beam edges that are exposed to view in the finished structure.

4.17 Concrete cover for cast-in-place concrete reinforcement:
Concrete cast against & permanently exposed to earth:.....3"
Concrete exposed to earth or weather:
No. 6 through No. 18 Bars:.....2"
No. 5 Bar and smaller:.....1½"
Concrete not exposed to weather or in contact with ground:
Slabs, Walls, Joists:
No. 11 Bar and smaller:.....¾"
Beams, Columns:
Primary Reinforcement, Ties, Stirrups:.....1½"

5.0 REINFORCING STEEL:

5.1 Reinforcing shall be domestic new billet steel conforming to ASTM A615, Grade 60 or 60S including stirrups and ties, except that reinforcing which is required to be welded shall conform to ASTM A706.

5.2 Field bending of concrete reinforcing steel is not permitted.

5.3 Welded wire mat and fabric shall conform to ASTM A184 and A185 respectively and shall be provided in flat sheets. Welded wire mat/fabric shall be lapped 0'-6" at all splices.

5.4 Bar Splices:

	f'c = 3,000psi		f'c = 4,000psi		f'c = 5,000psi	
Bar Size	Ld (in)	Class "B" Lap Splice (in)	Ld (in)	Class "B" Lap Splice (in)	Ld (in)	Class "B" Lap Splice (in)
#3	17	22	15	19	13	17
#4	22	29	19	25	17	23
#5	28	36	24	31	22	28
#6	33	43	29	37	26	34
#7	48	63	42	54	38	49
#8	55	72	48	62	43	56
#9	62	81	54	70	48	63
#10	69	90	60	78	54	69
#11	76	98	66	85	59	76

NOTES:
1. Values are based on normal weight concrete.
2. Ld = minimum embed of rebar
3. Class "B" lap splice refers to minimum distance bars must be lapped for a full tension splice.
4. For Epoxy Coated bars multiply table values by 1.2
5. For Beam Top Bars multiply table values by 1.3
6. For Top Bars in Slabs and Footings 13in and thicker multiply table values by 1.3

6.0 COLD-FORMED STEEL FRAMING:

6.1 All members shall be designed in accordance with the American Iron and Steel Institute (AISI) ''Specifications for the Design of Cold-formed Steel Structural Members'', Latest Edition.

6.2 All framing members shall be formed from corrosion-resistant steel corresponding to the requirements of ASTM A446, with a minimum yield strength of 33 ksi for joists and studs and 33 ksi for runners.

6.3 All members shown are standard designations of Steel Stud Manufacturers Association (SSMA)

6.4 Design of members indicated in structural drawings is based on minimum properties of products produced per SSMA standards of members specified. No substitution of materials is acceptable for use without prior approval of the structural engineer. Substitutions shall meet or exceed all properties produced per SSMA standards of members specified.

6.5 All shop drawing submittals shall show layout, spacing, sizes, thicknesses and types of cold-formed metal framing, fabrication, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details and attachment to adjoining work.

6.6 Shop drawings, design calculations and other structural data shall be prepared and sealed by a qualified engineer. The Structural Engineer shall be legally qualified to practice in the jurisdiction where the project is located and shall be experienced in providing engineering services of the kind indicated.

6.7 All framing components shall be cut squarely for attachment to perpendicular members or as required for an angular fit tight against abutting members. All load bearing stud/walls shall be factory assembled into panels with studs bearing squarely and fully in top and bottom tracks.

6.8 Fastening components shall be by self-drilling screws or by welding as defined below UNO on the drawings.

6.9 Screwed connections:
a. Screws shall be type S-12 or type S-4 for all framing members per manufacturer's recommendations.
b. A minimum of three (3) exposed threads shall penetrate through at joined materials.
c. Corrosion-resistant cadmium-plated screws shall be used for screws attaching metal lath, masonry ties, and other exterior materials.

6.10 Welded connections:
a. Gas metal arc welding (GMAW) shall be used for 20 ga. Or lighter members. AWSE-705-3, E-705-E, E-705-6 wire electrodes .030''-.035'' diameter shall be used with carbon dioxide, argon-oxygen or argon-carbon dioxide shielding. Welding equipment 60-100 amperes at 25 volts using 220-volt 3-phase electric service.
b. Shielded metal arc welding (SMAW) shall be used for 18 ga' and heavier members. AWS E-6012, E-6013, or E-7014 electrodes of 3⁄32'' or ⅛'' diameter shall be used. Welding equipment heat setting shall be varied dependent on material thickness.
c. All welds shall be touched up with zinc rich paint, or paint similar to that used by the framing member manufacturer.

6.11 Alignment of studs (plumbness) and walls (straightness) shall be within 1/960 of their respective heights and lengths.

6.12 Studs shall be plumbed, aligned, and securely attached to top and bottom runners. Splices in studs are not permitted.

6.13 Where manufacturer's recommendations for erection, attachment, assembly, bracing, alignment, or other installation, or assembly requirements are more stringent than indicated in these drawings, the manufacturer's recommendations shall apply.

STEEL THICKNESS						
Gauge:	Mils	Design Thickness		Minimum Thickness		Yield Strength
		Inches	mm	Inches	mm	ksi
20	33	0.0346	0.879	0.0329	0.836	33
18	43	0.0451	1.146	0.0428	1.087	33
16	54	0.0566	1.438	0.0538	1.367	50
14	68	0.0713	1.811	0.0677	1.720	50
12	97	0.1017	2.583	0.0966	2.454	50

7.0 STRUCTURAL STEEL:

7.1 All structural steel shall be of the grades indicated below, unless noted otherwise on plans or details.
Rolled shapes ASTM A992 Gr. 50
Steel pipe ASTM A53, Type E or S, Grade B, Fy-35ksi
Structural tubing ASTM A500, Grade C, Fy-50ksi
Plates and bars ASTM A36 U.N.O.
Anchor rods ASTM F1554, Grade 36 U.N.O.
Miscellaneous ASTM A36 U.N.O.

7.2 All structural steel shall be detailed, fabricated and erected in accordance with the AISC Code of Standard Practice. The fabricator is responsible for the design of connections not shown on the structural drawings. For the purpose of the connection design, the fabricator shall retain a professional engineer registered in the state where the project is located. The engineer shall seal and sign each shop drawing containing connection design. A note shall accompany the drawings stating that the seal is for ''Connection Design Only''.

7.3 Connection Design:
a. Generally, connections shown on the drawings are schematic and are intended to show the relationship of the members.
b. Connections shall be designed for one-half (1/2) the allowable uniform load on the member, as defined in Part 3, ''Allowable Loads on Beams'' tables in the AISC ''Manual of Steel Construction'', 14th Edition, See plan notes for design methodology and minimum reactions.

7.4 Bolted connections:
a. Bearing type connections shall be snug tight with A325N or A490N bolts, U.N.O. Oversized and long-slotted holes are NOT permitted U.N.O. At single shear plate connections, provide bearing type fasteners with horizontal short slotted holes. All bolts shall be snug tight. DO NOT over torque bolts.
b. Protruding bolt heads, shafts or nuts shall not extend nor prohibit the application of architectural finishes or placement of steel deck at its correct location and elevation.
c. Connection designer is responsible for verifying the axial capacity after a section is reduced for bolt holes. Member size may be increased or plates added to maintain required capacity.
d. Bolted connections shall be assembled and inspected in accordance with RCSC-2009 (Specification for Structural Joints Using High-Strength Bolts).

7.5 Welded connections:
a. All welding shall be in accordance with the ''Structural Welding Code - Steel'' (AWS D1.1) of the American Welding Society, Latest Edition.
b. Electrodes for welding shall comply with the requirements of Table 4.1.1 of the AWS code.
c. At Moment Connections and Braced Frames Provide filler Metal that has a minimum CVN Toughness of 20 ft-lbs at minus 20 degrees F, As determined by AWS classification or Manufacturer Certification.
d. Proof of welder certification shall be available at the job site during times of inspection.

7.6 Minimum plate thickness shall be 3/8'' U.N.O.; minimum bolt diameter shall be 3/4-inch U.N.O.; minimum shop weld shall be 3/16'' and minimum field weld shall be 1/4-inch U.N.O.

7.7 All re-entrant corners (such as copes and blocks) shall be cut and shaped notch free with a radius of at least 1/2-inch.

8.0 STEEL JOISTS:

8.1 All steel joists shall be designed, fabricated, and erected in accordance with the SJI Specifications.

8.2 Joist ends shall be fixed and bridging shall be placed prior to application of any loads.

8.3 End Support:
a. Minimum bearing requirements shall be in accordance with the SJI Specification. Extended joist ends for bearing on masonry shall be provided by the joist manufacturer where required to accommodate bearing conditions shown on the drawings.
b. K Series joists shall be welded to supports with ⅛" fillet welds, one each side, 2" long.
c. Bolt joists as indicated below to structural steel supports at column centerlines or where joists do not space on centerlines, bolt connections for each joist adjacent to centerline. K Series: 2 Ø ¾" diameter bolts (minimum)

8.4 Joist bridging:
a. Shall be placed in accordance with the SJI Specification U.N.O. and shall be horizontal rods or angles at top & bottom chords for all K Series joists.
b. Bridging that terminates at or is interrupted by structural steel members, shall be welded or bolted thereto. Provide diagonal (''X'') bridging for ends of bridging lines terminating at walls/beams.

8.5 Holes in joist chords are not permitted, except at bearing and bolted connections.

8.6 All joists (40) forty feet and longer shall require a row of bolted bridging to be in place before slackening of hoisting lines.

9.0 STEEL DECK:

9.1 Steel roof deck shall be galvanized, Type B, 1½" deep, 20 gauge, U.N.O.
Steel roof deck shall be galvanized, Type N, 3" deep, 22 gauge, U.N.O.

9.2 For steel roof deck spans, mechanically fasten side laps at mid-span using "Buildex", self-tapping TEKS No. 10 or larger machine screws or as noted on plan.
Provide additional sidelap fasteners where noted on plan.
Fasten roof deck to supporting members as noted on plan.

9.3 Do not hang pipes or ducts from steel roof deck. Fasten roof deck to supporting members as noted on plan.

9.4 COMPOSITE FLOOR DECK:

a. Deck shall be 2'' - 20 gauge, galvanized, composite floor deck. Vulcraft 2VLI20 or approved equal.
b. Deck shall be galvanized per ASTM A924-94 (G60)
c. Fasten composite floor deck to supporting members by not less than ¾" puddle welds or elongated welds of equal perimeter, spaced not more than 12''o.c. with a minimum 2 welds per unit at each support.
d. Mechanically Fasten Side laps and perimeter edges of panels between supports using "Buildex", self tapping TEKS No. 10 or larger carbon screws at interval not exceeding the lesser of half the span or 36 inches.

10.0 COMPOSITE BEAMS:

10.1 Composite beams and girders DO NOT require temporary shoring for construction loads (wet concrete + 20 psf) U.N.O on the drawings. Contractor is responsible for verifying the construction load imposed on the structure. Where questions as to capacity arise, Contractor shall inform the Structural Engineer prior to proceeding with any work.

10.2 See details on S1.2 for typical stud layouts.

10.3 The number of shear connectors (studs) shown is based upon obtaining the full horizontal shear capacity indicated on the AISC ''Load and Resistance Factor Design Specification for Steel Buildings'' (LRFD) Chapter ''I'' for each stud for the strength and density of concrete where used. See composite steel deck notes also.

10.4 Studs shall be ¾" diameter and shall extend not less than 1½" above the top of the steel deck and shall not have less than ½" concrete cover above top of stud after welding and shall conform to ASTM A108.

10.5 The number of studs on a beam or between any two connections along a beam is shown on the drawings. Spacing of studs within the length shown shall be as uniform as possible.

10.6 No shop paint shall be applied to any studs nor to top flanges or surfaces of members receiving field welds.

10.7 Stud capacity varies with the type and length of the stud and with the properties of the composite deck. The deck supplier shall provide deck with a configuration that does not reduce the stud capacity per AISC requirements.

10.8 Stud type, length, shear value and detailed layout shall be submitted with the composite metal deck shop drawings.

10.9 Break ceramic ferrules (arc shields) loose and remove from deck.

10.10 A stud shear connector welded through the metal deck may take the place of a ¾" puddle weld in order to secure the deck to the steel framing. Do not weld shear connectors through two layers (lapped ends) of deck units.

11.0 SHOP DRAWING SUBMITTAL:

11.1 See Project Manual

11.2 Contractor shall submit Electronic copies (PDF format) of each shop drawing for review. Shop drawings shall be reviewed by the Contractor prior to submission to the Engineer. The Contractor shall allow 10 working days for shop drawing approval.

12.0 CONSTRUCTION AND SAFETY:

12.1 Woods Engineering P.A.'s responsibility is limited to the details and information shown on these drawings. It is the responsibility of the Contractor to provide adequate safety measures required by local codes as well as OSHA Standards for the Construction Industry. This should include, but not be limited to the following:
Shoring to protect new as well as existing structures.
Necessary Scaffolding.
Material Handling Equipment.
Trench Boxing.

13.0 SPECIAL INSPECTIONS:

13.1 Refer to Sheet S1.02 and S1.03 for all Special Inspections requirements.

ABBREVIATIONS

@	AT	HT	HIP TRUSS
&	AND	IFM	INSIDE FACE OF MASONRY
AB	ANCHOR BOLTS	INT	INTERIOR
ACI	AMERICAN CONCRETE INSTITUTE	JBE	JOIST BEARING ELEVATION
ADDL	ADDITIONAL	JT	JOINT
AFF	ABOVE FINISHED FLOOR	K	KIP-S
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	KB	KICKER BRACE
		KSI	KIPS PER SQUARE INCH
AISI	AMERICAN IRON AND STEEL INSTITUTE	(L)	LONG SIDE REINFORCEMENT
		LB	LONG BAR
ALT	ALTERNATE	LBS	POUNDS
ARCH	ARCHITECTS - ARCHITECTURAL	LLH	LONG LEG HORIZONTAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LLV	LONG LEG VERTICAL
		LO	LOW
AWS	AMERICAN WELDING SOCIETY	LOC	LOCATION
B, BOTT	BOTTOM	LWC	LIGHT WEIGHT CONCRETE
BCX	BOTTOM CHORD EXTENSION	MAX	MAXIMUM
BFF	BELOW FINISHED FLOOR	MC	MOMENT CONNECTION
BLDG	BUILDING	MECH	MECHANICAL
BM	BEAM	MFR	MANUFACTURER
BOS	BOTTOM OF STEEL	MID	MIDDLE
BRG	BEARING	MIN	MINIMUM
BTWN	BETWEEN	MISC	MISCELLANEOUS
CFS	COLD FORMED STEEL	MOW	MIDDLE OF WALL
CJ	CONTRACTION JOINT	MP	MASONRY PILASTER
CL	CENTERLINE	d	NAILS - PENNY
CLR	CLEAR	No	NUMBER
CMU	CONCRETE MASONRY UNITS	NS	NEAR SIDE
COL	COLUMN	NTS	NOT TO SCALE
CONC	CONCRETE	NWC	NORMAL WEIGHT CONCRETE
CONN	CONNECTION	OC	ON CENTER
CONST JT	CONSTRUCTION JOINT	OFB	OUTSIDE FACE OF BRICK
CONT	CONTINUOUS	OFM	OUTSIDE FACE OF MASONRY
CONTR	CONTRACTOR	OFS	OUTSIDE FACE OF STUD
CSJ	COMPOSITE STEEL JOIST	OPNG	OPENING
CTRD	CENTERED	OPP	OPPOSITE HAND
DBA	DEFORMED BAR ANCHOR	PEBS	PRE-ENGINEERED BUILDING SUPPLIER
DD	DELEGATED DESIGN		
DEFL	DEFLECTION	PED	PEDESTAL
DEPR	DEPRESSION - DEPRESSED	PL	PLATE
DET	DETAIL	PSF	POUNDS PER SQUARE FOOT
DIAG	DIAGONAL	PSI	POUNDS PER SQUARE INCH
Ø	DIAMETER	PSL	PARALLEL STRAND LUMBER
DIM	DIMENSION	PLF	POUNDS PER LINEAR FOOT
DIST	DISTANCE	PT	PRESSURE TREATED
DWG(S)	DRAWING(S)	REF	REFERENCE
DWL(S)	DOWEL(S)	REINF	REINFORCING
EA	EACH	REQD	REQUIRED
ELEV	ELEVATION	(S)	SHORT SIDE REINFORCEMENT
EMBED	EMBEDDED - EMBEDMENT	SB	SHORT BAR
ENG	ENGINEER	SCHD	SCHEDULE
EOR	ENGINEER OF RECORD	SF	STEP FOOTING
EQ	EQUAL	SIM	SIMILAR
EQUIP	EQUIPMENT	SOG	SLAB ON GRADE
EF	EACH FACE	SPEC(S)	SPECIFICATION(S)
EJ	EXPANSION JOINT	SPF	SPRUCE PINE FUR
EOD	EDGE OF DECK	SQ	SQUARE
EOM	EDGE OF MASONRY	STD	STANDARD
EOS	EDGE OF SLAB	STIFF	STIFFENER
EOW	EDGE OF WALL	STIRR	STIRRUP
EW	EACH WAY	STL	STEEL
EXIST	EXISTING	STR	STRUCTURAL
EXP	EXPANSION	SW	SHEAR WALL
EXT	EXTERIOR	SYP	SOUTHERN YELLOW PINE
FDN	FOUNDATION	T	TOP
FFE	FINISHED FLOOR ELEVATION	TCX	TOP CHORD EXTENSION
FS	FAR SIDE	TOC	TOP OF CONCRETE
FTG	FOOTING	TOS	TOP OF STEEL
GA	GAUGE	TOW	TOP OF WALL
GALV	GALVANIZED	TYP	TYPICAL
GT	GIRDER TRUSS	UNO	UNLESS NOTED OTHERWISE
HD	HEADED	VB	VEHICLE BARRIER
HI	HIGH	VERT	VERTICAL
HORIZ	HORIZONTAL	VIF	VERIFY IN FIELD
HSS	HOLLOW STRUCTURAL SECTION	W	WITH
		WWF	WELDED WIRE FABRIC

DO NOT SCALE DIGITAL OR HARD COPIES OF THESE DRAWINGS:

Unless Specifically Noted - Drawings, Plans, Sections, Details, Etc. are a graphic representation of the framing conditions and/or requirements.
Rebar lengths, bends & etc. SHALL NOT be determined by scaling any drawings included in this set of documents. Lengths & sizes shall be determined by the schedules only, or specifically requested if not numerically shown. Submit a written request to Woods Engineering, PA if further clarification is needed.

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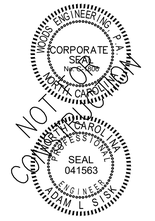

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STRIKES ENTERTAINMENT COMPLEX

5601 Oleander Drive
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28403

GENERAL NOTES

Date 11/21/2025 Scale As Noted
Drawn Job
Sheet

S1.01

NOT FOR CONSTRUCTION

Statement of Special Inspections

Project: Strikes Entertainment Complex
Location: Wilmington, NC
Owner's Representative: Strikes, LLC - David Edmunds
Owner's Address: 4927 Oleander Drive

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the 2018 North Carolina State Building Code. It includes a Schedule of Special Inspection Services applicable to this project, the name of the Special Inspector, the identity of other approved agencies retained for conducting Special Inspections, and the required inspector qualifications. This Statement of Special Inspections was prepared by the following Designers of Record:

Structural	Adam Sisk		11/21/2025
	(Type or print name)	(Signature)	(Date)
Architectural			
	(Type or print name)	(Signature)	(Date)
Mechanical			
	(Type or print name)	(Signature)	(Date)
Other			
	(Type or print name)	(Signature)	(Date)

The Special Inspector shall keep records of all special inspections and tests and shall furnish reports to the State Construction Office and the Designers of Record. Reports shall indicate if the work inspected or tested was or was not completed in conformance with the approved construction documents. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the State Construction Office and the Designers of Record. The Special Inspections program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the State Construction Office, Owner, and the Designers of Record.

Interim Report Frequency: Monthly

A Final Report of Special Inspections documenting completion of all required Special Inspections, testing, and correction of any discrepancies should be submitted prior to issuance of a Certificate of Use and Occupancy.

Job Site safety and means and methods of construction are solely the responsibility of the Contractor.

Owner's Authorization

Signature Date

Accepted by:

Signature Date

Schedule of Special Inspection Services.

The following sheets comprise the required schedule of special inspections for this project. The construction divisions which require special inspections for this project are as follows.

- ☒ Structural Steel & High Strength Bolting
- ☒ Welding of Structural Steel
- ☒ Cold-Formed Steel Deck
- ☒ Open-Web Steel Joists & Joist Girders
- ☒ Cold-Formed Steel Framing
- ☒ Concrete Construction
- ☐ Masonry Construction [a]
- ☐ Wood Construction
- ☒ Soils
- ☐ Driven Deep Foundations
- ☐ Cast-in-Place Deep Foundations
- ☐ Helical Pile Foundations
- ☐ Rammed Aggregate Piers & Stone Columns
- ☐ Sprayed Fire-Resistant Material
- ☐ Mastic & Intumescent Fire-Resistant Coatings
- ☐ Exterior Insulation & Finish System
- ☐ Fire-Resistant Penetrations & Joints
- ☐ Smoke Control
- ☐ Retaining Wall & Systems > 5 Feet
- ☒ Special Inspections for Wind Resistance
- ☐ Special Inspections for Seismic Resistance

a. The inspection frequency indicated on the following inspection tables are "C" continuous, "P" periodic, & "O" random on a daily basis.
b. Level A is the minimum inspection program for empirically / prescriptively designed masonry in Risk Category I, II or III structures. Level B is the minimum inspection program for empirically / prescriptively designed masonry in Risk Category IV structures and engineered masonry in Risk Category I, II or III structures. Level C is the minimum inspection program for engineered masonry in Risk Category IV structures. Engineered masonry structures are those designed in accordance with portions of the TMS 402-13 / ACI 530-13/ASCE 5-13 other than Part 4 or Appendix A.

Inspection Agents	Firm Name & Point of Contact	Address / Phone / E-mail
1. Special Inspector (SI-1)		
2. Testing Agency (TA-1)		
3. Testing Agency (TA-2)		
4. Geotechnical Engineer (GE-1)		
5. Other (O-1)		

Note: The inspection and testing agent(s) shall be engaged by the Owner or the Registered Design Professional of Record acting as the Owner's agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the State Construction Office, prior to commencing work.

Seismic Design Category: ☐ A ☒ B ☐ C ☐ D ☐ N/A

Basic Wind Speed (Vasd): ☐ 90-109mph ☒ 110-119mph ☐ ≥120mph N/A

Wind Exposure Category: ☒ B ☐ C ☐ D ☐ N/A

Schedule of Special Inspection Services
Structural Steel and High-Strength Bolting

Inspection Task	Task Req'd	Freq	Reference for Criteria AISC 360	Reference for Criteria NCBC	Agent
1. Fabricator Certification / Verification of Quality Control Procedures					
a. Verify fabricator qualifications	☒	C		1704.2.5.1	
b. Review material test reports & certifications	☒	C	N5.2		
c. Collect certificates of compliance from the steel fabricator at completion of fabrication	☒	C		1704.5	
2. Inspections Prior to High-Strength Bolting at Pretensioned and Slip-Critical Joints					
a. Collect manufacturer's certifications for fastener materials	☒	C	Table (Tbl) N5.6-1		
b. Fasteners are marked per ASTM requirements	☒	P	Tbl N5.6-1		
c. Ensure correct fasteners and bolting procedures are selected for joint details	☒	P	Tbl N5.6-1		
d. Verify connecting elements, including the appropriate faying surface condition and hole preparation when specified, comply with the construction documents	☒	P	Tbl N5.6-1		
e. Observe and document pre-installation verification testing by installation personal for fastener assemblies and methods	☒	P	Tbl N5.6-1		
f. Verify proper storage provided for all fastener components	☒	P	Tbl N5.6-1		
3. Inspections During High-Strength Bolting at Pretensioned and Slip-Critical Joints					
a. Ensure correct fastener assemblies placed in all holes and washers, when specified, are positioned as required	☒	P	Tbl N5.6-2		
b. Verify joint brought to snug-tight condition prior to pretensioning	☒	P	Tbl N5.6-2		
c. Verify fastener components not turned by the wrench prevented from rotating	☒	P	Tbl N5.6-2		
d. Ensure fasteners are pretensioned in accordance with RCSC, progressing from the most rigid point towards free edges	☒	P	Tbl N5.6-2		
4. Document acceptance or rejection of bolted connections after high-strength bolting is complete	☒	C	Tbl N5.6-3		
5. Structural Details					
a. Verify diameter, grade, type and length of anchor rods and other embedded items supporting structural steel	☒	P	N5.7		
b. Inspection of fabricated assemblies & erected steel framing verifying compliance with the construction documents	☒	P	N5.7		
6. Composite Construction					
a. Verify placement & installation of steel deck	☒	P	Tbl N6.1		
b. Observe placement and installation of steel headed stud anchors	☒		Tbl N6.1		
c. Document acceptance or rejection of composite construction elements	☒	P	Tbl N6.1		

Schedule of Special Inspection Services
Welding of Structural Steel

Inspection Task	Task Req'd	Freq	Code Reference AISC 360	Code Reference NCBC	Agent
1. Inspections Prior to Welding			N5.4		
a. Collect & review welding procedure specification (WPS) and verify manufacturer certifications for welding consumables	☒	C	Table (Tbl) N5.4-1		
b. Confirm weld material type & grade	☒	P	Tbl N5.4-1		
c. Confirm method of welder identification	☒	P	Tbl N5.4-1		
d. Inspection of fit-up for groove & fillet welds including access hole configuration & finish	☒	P	Tbl N5.4-1		
2. Inspections During Welding			N5.4		
a. Verify welder qualifications	☒	P	Tbl N5.4-2		
b. Verify proper control and handling of welding consumables	☒	P	Tbl N5.4-2		
c. Monitor environmental conditions	☒	P	Tbl N5.4-2		
d. Monitor proper implementation of WPS	☒	P	Tbl N5.4-2		
e. Inspection of welding techniques including no welding over cracked tack welds	☒	P	Tbl N5.4-2		
3. Inspections After Welding			N5.4, N5.5		
a. Verify welds have been cleaned	☒	P	Tbl N5.4-3		
b. Confirm the installed size, length and location of welds matches the contract documents	☒	C	Tbl N5.4-3		
c. Verify welds meet visual acceptance criteria	☒	C	Tbl N5.4-3		
d. Confirm arc strikes comply with Part 5.28 of AWS D1.1	☒	C	Tbl N5.4-3		
e. Visually observe web k-area for cracks within 3" of welded doubler plates, continuity plates and stiffeners	☒	C	Tbl N5.4-3		
f. Backing and weld tabs removed per contract documents	☒	C	Tbl N5.4-3		
g. Observe and inspect weld repair activities	☒	C	Tbl N5.4-3		
h. For Risk Category III or IV structures, conduct ultrasonic testing (UT) of CJP groove welds in materials ≥ 5/16" at butt, T- and corner joints subject to transversely applied tension loading	☐	C	N.5.5b, N5.5e		
i. For Risk Category II structures, conduct ultrasonic testing (UT) of CJP groove welds in materials ≥ 5/16" at butt, T- and corner joints subject to transversely applied tension loading	☒	P	N.5.5b, N5.5f		
j. Conduct magnetic particle testing (MT) or liquid penetrant testing (PT) at thermally cut surfaces of access holes for rolled section with tf > 2" and built-up shape with tw > 2"	☐	C	N5.5c		
k. Radiographic or ultrasonic inspection at joints subject to fatigue	☐	C	N5.5d, Tbl A-3.1		
l. Document acceptance / rejection of welded joints and members	☒	C	Tbl N5.4-3, N5.5g		

Schedule of Special Inspection Services
Cold-Formed Steel Deck

Inspection Task	Task Req'd	Freq	Reference for Criteria SDI QA/QC	Reference for Criteria NCBC	Agent
1. Prior to deck placement, verify deck and deck accessories comply with the construction documents	☒	C	Table (Tbl) 1.1		
2. Inspection Tasks After Deck Placement					
a. Verify the installation of deck & deck accessories complies with the construction documents	☒	C	Tbl 1.2		
b. Verify that deck materials' mill certifications comply with the construction documents	☒	C	Tbl 1.2		
3. Inspection Tasks Prior to Deck Welding					
a. Collect welding procedure specification (WPS)	☒	P	Tbl 1.3		
b. Collect manufacturer certifications for welding consumables	☒	P	Tbl 1.3		
c. Verify material type and grade	☒	P	Tbl 1.3		
d. Check welding equipment	☒	P	Tbl 1.3		
4. Inspection Tasks During Deck Welding					
a. Verify welder qualifications	☒	P	Tbl 1.4		
b. Verify proper control and handling of welding consumables		P	Tbl 1.4		
c. Monitor environmental conditions	☒	P	Tbl 1.4		
d. Monitor proper implementation of WPS	☒	P	Tbl 1.4		
5. Inspection Tasks After Welding					
a. Verify size and location of welds, including support, sidelap and perimeter welds	☒	C	Tbl 1.5		
b. Verify welds meet visual acceptance criteria	☒	C	Tbl 1.5		
c. Observe weld repair activities	☒	C	Tbl 1.5		
6. Inspection Tasks Prior to Mechanical Fastening					
a. Verify manufacturer installation instructions available for mechanical fasteners	☒	P	Tbl 1.6		
b. Proper tools available for fastener installation	☒	P	Tbl 1.6		
c. Verify proper storage of mechanical fasteners	☒	P	Tbl 1.6		
7. Inspection Tasks During Mechanical Fastening					
a. Observe fastener spacing and position	☒	P	Tbl 1.7		
b. Verify fasteners are installed in accordance with manufacturer's instructions	☒	P	Tbl 1.7		
8. Inspection Tasks After Mechanical Fastening					
a. Check spacing, type and installation of support fasteners	☒	C	Tbl 1.8		
b. Check spacing, type, and installation of sidelap fasteners	☒	C	Tbl 1.8		
c. Check spacing, type, and installation of perimeter fasteners	☒	C	Tbl 1.8		
d. Verify repair activities	☒	C	Tbl 1.8		
9. Document acceptance or rejection of deck & deck accessories for all phases of construction	☒	C	Tbls 1.1 thru 1.8		

Schedule of Special Inspection Services
Open-Web Steel Joists and Joist Girders

Inspection Task	Task Req'd	Freq	Reference for Criteria Standard	Reference for Criteria NCBC	Agent
1. Fabricator Certification / Verification of Quality Control Procedures					
a. Verify fabricator qualifications	☒	C		1704.2.5.1	
b. Collect certificate of compliance from steel joist producer at completion of manufacture	☒	C		1704.5, 2207.5	
2. Observe bolted and welded joist end connections	☒	P	SJI-K 5.3, 5.6, SJI-LH/ DLH 104.4, 104.7, SJI-JG 1004.4, 1004.6, SJI-CJ 104.4, 104.7	Table (Tbl) 1705.2.3	
3. Verify size, spacing and connection of standard horizontal and diagonal bridging	☒	P	SJI-K 5.4, SJI-LH/ DLH 104.5, SJI-JG 1004.5, 1004.9, SJI-CJ 104.5	Tbl 1705.2.3	
4. Verify size, spacing and connection of bridging that differs from the SJI specifications listed by Part 2207.1 of the NCBC	☒	P		Tbl 1705.2.3	

Schedule of Special Inspection Services
Cold-Formed Steel Framing

Inspection Task	Task Req'd	Freq	Reference for Criteria Standard	Reference for Criteria NCBC	Agent
1. Fabricator Certification / Verification of Quality Control Procedures					
a. Verify fabricator qualifications	☒	C		1704.2.5.1	
b. Collect certificates of compliance from the steel fabricator at completion of fabrication	☒	C		1704.5	
2. For trusses clear spanning 60 feet or more, verify that both temporary and permanent restraints and braces are installed in accordance with the approved truss submittal package.	☐	P		1705.2.4	

Schedule of Special Inspection Services
Concrete Construction

Inspection Task	Task Req'd	Freq	Reference for Criteria Standards	Reference for Criteria NCBC	Agent
1. Inspect reinforcement, including prestressing tendons, and verify placement	☒	P	ACI Ch.20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	
2. Reinforcing Bar Welding:			AWS D1.4		
e. Verify weldability of reinforcing bars other than ASTM A706 and collect reports	☒	P	ACI 26.6.4	1704.5	
f. Inspect single-pass fillet welds ≤ 5/16"	☒	P	ACI 26.6.4		
g. Inspect all welds other than single-pass fillet welds ≤ 5/16"	☒	C	ACI 26.6.4		
3. Concrete Anchors:					
a. Inspect anchors cast in concrete	☒	P	ACI 17.8.2		
b. Inspect adhesive anchors installed in hardened concrete with horizontally or upwardly inclined orientations that resist sustained tension loads	☒	C	ACI 17.8.2.4		
c. Inspect adhesive anchors installed in hardened concrete with orientations different from Item 3.b	☒	P	ACI 17.8.2		
d. Inspect mechanical anchors installed in hardened concrete	☒	P	ACI 17.8.2		
4. Collect mix designs and verify the correct mix used during installation	☒	P	ACI Ch19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	
5. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	☐	C	ASTM C172, ASTM C31, ACI 26.4, 26.12	1908.10	
6. Inspect concrete and shotcrete placement for proper application techniques	☒	C	ACI 26.5	1908.6, 1908.7, 1908.8	
7. Collect reports of preconstruction tests for shotcrete when preconstruction tests are required by NCBC Section 1908.4	☐	C		1704.5, 1908.5	
8. Verify maintenance of specified curing temperature and techniques	☒	P	ACI 26.5.3-26.5.5	1908.9	
9. Inspections for prestressed concrete					
a. Observe application of prestressing force	☐	C	ACI 26.10		
b. Inspect grouting of bonded prestressing tendons	☐	C	ACI 26.10		
10. Verify concrete strength prior to stressing of PT tendons and prior to removal of shores and forms from PT & mild beams and structural slabs	☐	P	ACI 26.11.2		
11. Inspect erection of precast members	☐	P	ACI 26.8		
12. Inspect formwork for shape, location and dimensions of the concrete member being formed	☒	P	ACI 26.11.1.2(b)		
13. Collect mill test reports for ASTM A615 rebar used by SFRS special moment frames, special structural walls or coupling beams	☐	C	ACI 20.2.2.5	1704.5	

a. References to "ACI" in this table are to the ACI 318-14.

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SPECIAL INSPECTIONS

Date 11/21/2025 Scale As Noted
Drawn Job
Sheet

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Schedule of Special Inspection Services
Soils

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agents
			Standard	NCBC	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity	☒	P		1705.6	
2. Verify excavations extend to proper depth and have reached the correct soil material	☒	P		1705.6	
3. Perform classification and testing of compacted fill materials	☒	P		1705.6	
4. Verify that materials used, densities, lift thickness and procedures used during placement and compaction of compacted fill are in accordance with the approved soils report and the construction documents	☒	C		1705.6	
5. Prior to placement of compacted fill, verify that the subgrade has been prepared in accordance with the approved soils report and the construction documents	☒	P		1705.6	

Schedule of Special Inspection Services
Special Inspections for Wind Resistance

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Prior to any work taking place, each contractor responsible for the construction of a wind-resisting system or component shall submit a written statement of contractor responsibility	☒	C		1704.4	
2. Structural Wood					
a. Verify field gluing operations pertinent to the main wind force-resisting system	☐	C		1705.11.1	
b. Inspect nailing, anchoring, and fastening of components within the main windforce-resisting system including shear walls, diaphragms, drag struts, braces & hold-downs	☐	P		1705.11.1	
3. Cold-Formed Steel Light Frame Construction					
a. Inspect welding operations at elements of the main windforce-resisting system	☒	P		1705.11.2	
b. Inspect screw attachment, bolting, anchoring, and fastening of elements within the main windforce-resisting system including shear walls, braces, diaphragms collectors, drag struts and hold-downs	☒	P		1705.11.2	
4. Wind-resisting components					
a. Inspect the fastening of roof covering, roof deck and supporting roof framing connections	☒	P		1705.11.3.1	
b. Inspect the fastening of exterior wall coverings & the wall connections to the roof / floor diaphragms & framing members	☒	P		1705.11.3.2	

Structural Wood and Cold-Formed Steel Light-Frame Construction Main Wind-Force Resisting System(s) Subject to Special Inspections:

Roof Cladding Components and Connections Subject to Special Inspections:

Wall Cladding Components and Connections Subject to Special Inspections:

FINAL REPORT OF SPECIAL INSPECTIONS

Project: Strikes Entertainment Complex

Location: Wilmington, NC 28403

Owner:

Owner's Address:

Architect of Record: John Rees

Structural Engineer of Record: Adam Sisk

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the State of Special Inspections submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments:

(Attach continuation sheets if required to complete the description of corrections).

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Special Inspector

Licensed Professional Seal

Signature Date

FINAL REPORT OF SPECIAL INSPECTIONS

AGENTS FINAL REPORT

Project: Strikes Entertainment Complex

Agent:

Special Inspector:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Agent in the Statement of Special Inspections submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments:

(Attach continuation sheets if required to complete the description of corrections).

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,

Agent of the Special Inspector

Licensed Professional Seal

Signature Date

CONTRACTOR'S STATEMENT OF RESPONSIBILITY

Each contractor responsible for the construction or fabrication of a system or component designated in the Quality Assurance Plan must submit a Statement of Responsibility.

Project: Strikes Entertainment Complex

Contractor's Name:

Address:

License No.:

Description of designated building systems and components included in the Statement of Responsibility:

Contractor's Acknowledgment of Special Requirements

I hereby acknowledge that I have received, read, and understand the Quality Assurance Plan and Special Inspection program.

I hereby acknowledge that control will be exercised to obtain conformance with the construction documents approved by the Building Official.

Signature Date

Contractor's Provisions for Quality Control

Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement.

FABRICATOR'S CERTIFICATE OF COMPLIANCE

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2 of the International Building Code must submit a Fabricator's Certificate of Compliance at the completion of fabrication.

Project: Strikes Entertainment Complex

Fabricator's Name:

Address:

Certification or Approval Agency:

Certification Number:

Date of Last Audit or Approval:

Description of structural members and assemblies that have been fabricated:

I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.

Signature Date

Title

Attach copies of fabricator's certification or building code evaluation service report and fabricator's quality control manual

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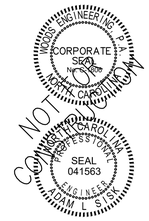

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SPECIAL INSPECTIONS

Date 11/21/2025
Scale As Noted
Drawn
Job
Sheet

S1.03

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Destination Retail Environments
and Site Planning

Wilmington
North Carolina

Ph 910
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ALL FEDERAL, STATE, AND LOCAL CODES, ORDINANCES, REGULATIONS ETC. SHALL BE CONSIDERED AS PART OF SPECIFICATIONS FOR THIS BUILDING AND SHALL TAKE PREFERENCE OVER ANYTHING SHOWN, DESCRIBED, OR IMPLIED WHERE SAME ARE AT VARIANCE

STRIKES
ENTERTAINMENT
COMPLEX

5601 Oleander Drive
WILMINGTON, NC
28403

FOUNDATION PLAN

Date 11/21/2025 Scale As Noted
Drawn Job
Sheet

S2.01

NOT FOR CONSTRUCTION

FOUNDATION PLAN NOTES:

1. SEE S1 SHEETS FOR ADDITIONAL GENERAL NOTES, MATERIAL NOTES AND MATERIAL SPECIFICATIONS. ALSO, SEE S3 SHEETS FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
2. DATUM ELEVATION = TOP OF SLAB ELEVATION = ASSUMED 0'-0" = OTHER ELEVATIONS ARE NOTED AS (+ OR -) FROM DATUM ELEVATION. SEE CIVIL FOR ELEVATIONS RELATIVE TO MSL.
3. TOP OF FOOTINGS SHALL BE (-1'-4") FROM DATUM ELEVATION, U.N.O.
4. SEE SLAB-ON-GRADE SCHEDULE S3 SHEETS.
5. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER DISCIPLINE DRAWINGS FOR OPENINGS AND DEPRESSIONS NOT SHOWN ON THESE DRAWINGS.
6. RELOCATE ANY UTILITY LINES THAT CONFLICT WITH THE FOUNDATIONS OR DROP THE FOUNDATIONS TO AN ELEVATION BELOW THE PROPOSED UTILITIES. RELOCATE ANY GRAVITY FLOW LINES THAT CONFLICT WITH SPREAD FOOTINGS AS SHOWN ON STRUCTURAL FOUNDATION PLANS. IF A GRAVITY FLOW LINE TRAVELS UNDER A CONTINUOUS STRIP FOOTING EITHER:
   a. DROP THE FOOTING ELEVATION BELOW THE PROPOSED LINE.
   b. IF THE UTILITY LINE IS < 2'-0" BELOW THE STRIP FOOTING, THEN ENCASE THE LINE IN A STEEL PIPE 2" LARGER IN DIAMETER THAN THE LINE AND EXTEND THE PIPE 1'-0" PAST EACH SIDE OF THE CONCRETE FOOTING. BACKFILL THE TRENCH WITH #57 STONE. THE BEARING CAPACITY OF THIS AREA MUST MEET OR EXCEED THE ALLOWABLE SOIL BEARING CAPACITY.
   c. IF THE UTILITY LINE IS ≥ 2'-0" BELOW BOTTOM OF FOOTING, THEN STEEL PIPE IS NOT REQUIRED. BACKFILL THE TRENCH WITH #57 STONE. THE BEARING CAPACITY OF THIS AREA MUST MEET OR EXCEED THE ALLOWABLE SOIL BEARING CAPACITY.
7. DIMENSIONS ARE FROM EDGE OF SLAB (E.O.S.) AND OUTSIDE FACE OF STUD (O.F.S.) / CURTAINWALL (O.F.CW.) TO COLUMN CENTERLINE UNLESS NOTED OTHERWISE.
8. S.F.= STEP FOOTING, SEE TYPICAL DETAIL ON S3 SHEETS - G.C. TO COORDINATE STEPS IN FOUNDATION FOR PLUMBING, ELECTRICAL AND MECHANICAL.
9. SEE S5 SHEETS FOR SHEARWALL AND BRACE FRAME INFORMATION.
10. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.

FOUNDATION LEGEND:

- Fx — SPREAD FOOTING DESIGNATION SEE SCHEDULE THIS SHEET
- SF-x — STRIP FOOTING DESIGNATION SEE SCHEDULE THIS SHEET
- WXXX / HSSXXX — STEEL COLUMN, SEE PLAN FOR SIZE AND LOCATION SEE S3 SHEETS FOR BASE PLATE DETAILS (BP-x)
- S.F. — INDICATES STEP FOOTING SEE S1 SHEETS FOR TYPICAL DETAILS
- CJ — INDICATES CONCRETE SLAB CONTRACTION JOINTS, SEE S1 SHEETS FOR TYPICAL DETAILS. SEE PLAN FOR LOCATIONS. MAXIMUM SPACING = 12' IN BOTH DIRECTIONS
- INDICATES STEEL BRACE LOCATIONS SEE PLAN & SHEET S5 SHEETS
- 0 — GRID DESIGNATION FOR CENTERLINE OF COLUMN U.N.O.
- BF #x — INDICATES STEEL BRACE LOCATIONS SEE PLAN & SHEET S5 SHEETS

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

WOODS ENGINEERING
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254 North Front Street
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www.woodseng.com

02/10/25 – PRELIM CODE MEETING
02/23/25 – UPDATED FOR DFX
03/11/25 – EQUIPMENT REVIEW
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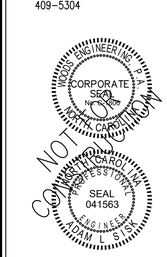
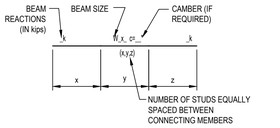


FLOOR FRAMING PLAN NOTES:

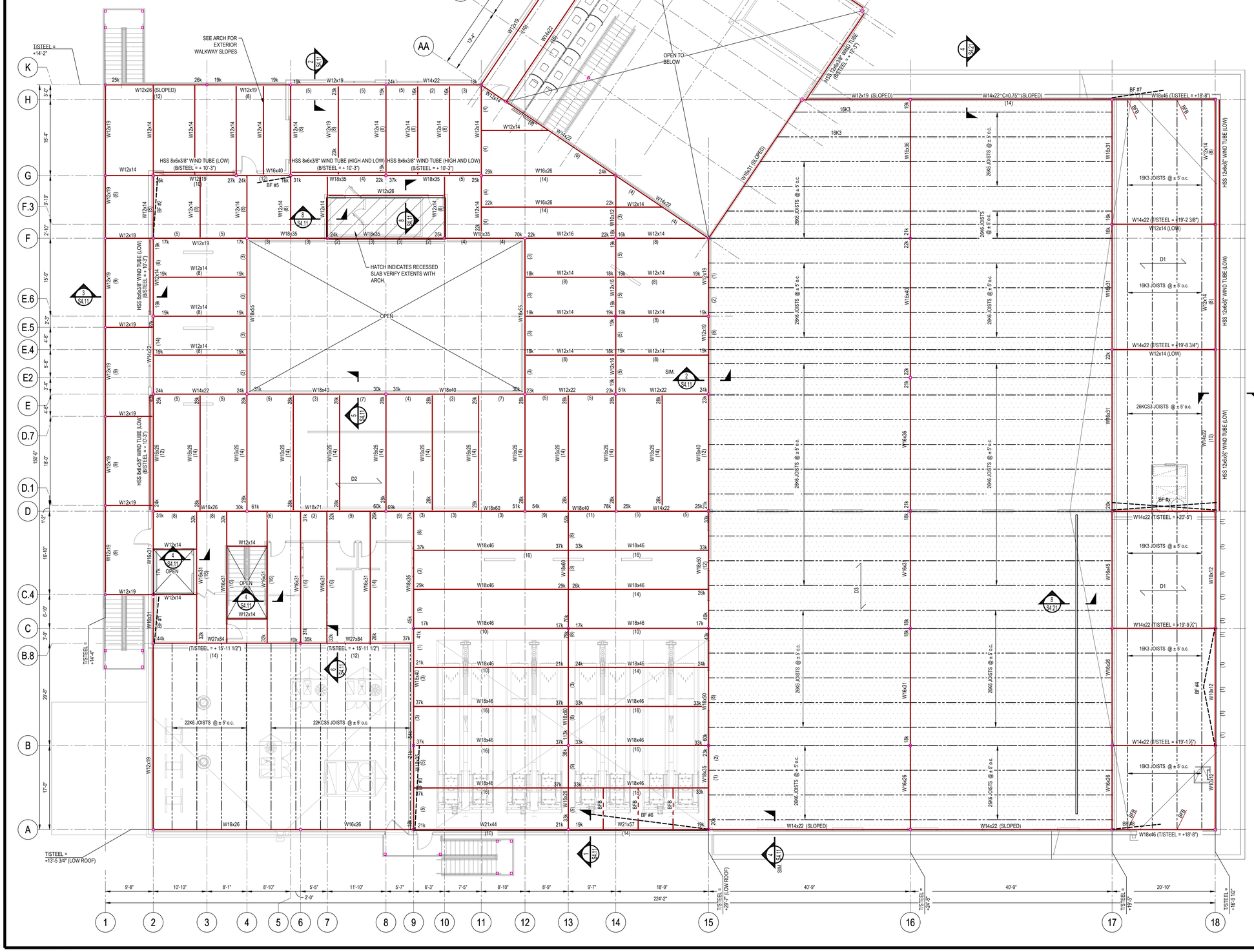
1. SEE S1 SHEETS FOR ADDITIONAL GENERAL NOTES, MATERIAL NOTES AND MATERIAL SPECIFICATIONS. ALSO, SEE S1 SHEETS FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
2. SEE FLOOR ELEVATION TABLE THIS SHEET FOR TYPICAL SLAB ELEVATIONS.
3. SEE DECK SCHEDULE ON SHEET S4.01 FOR DECKING AND ELEVATED SLAB INFORMATION.
4. PROVIDE JOIST BRIDGING PER SJI RECOMMENDATIONS.
5. J.B.E. = JOIST BEARING ELEVATION.
6. K.B. = KICKER/BRACE - SEE SECTIONS
7. T/STL = TOP OF STEEL
9. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.
10. DESIGNATIONS ON PLAN FOR BEAM REACTIONS, CAMBERS AND COMPOSITE BEAM SHEAR STUDS AS INDICATED BELOW. SEE "TYPICAL DETAILS" ON S1 SHEETS FOR STUD PLACEMENT DETAILS.

STUDS EQUALLY PLACED ALONG MEMBER.....(xx)
STUDS EQUALLY PLACED BETWEEN CONNECTING MEMBERS.....(xx/YY/ZZ)
CAMBER AT MID SPAN (UNO).....C=xx x
REACTIONS AT EACH END (KIPS).....xx + (LRFD)
(MINIMUM REACTION = 16k IF NOT SHOWN ON PLAN)(LRFD)



FLOOR FRAMING LEGEND

- W_x_ — STEEL BEAM, SEE PLAN FOR SIZE AND LOCATION
- STEEL JOIST, SEE PLAN FOR SIZE AND LOCATION
- 2x8 RAFTERS @ 16"o.c.
- BF #x — INDICATES STEEL BRACE LOCATIONS SEE PLAN & SHEET S5 SHEETS
- 0 — GRID DESIGNATION FOR CENTERLINE OF COLUMN U.N.O.
- BFB — GIRDER BOTTOM FLANGE BRACING SEE S4 SHEETS
- INDICATES ACOUSTICAL ROOF DECK SEE DECK SCHEDULE



MEZZANINE / LOW ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"
T/MEZZANINE STEEL = +14' 6-1/2" U.N.O

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MEZZANINE / LOW ROOF FRAMING PLAN

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S2.02

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ROOF FRAMING PLAN

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

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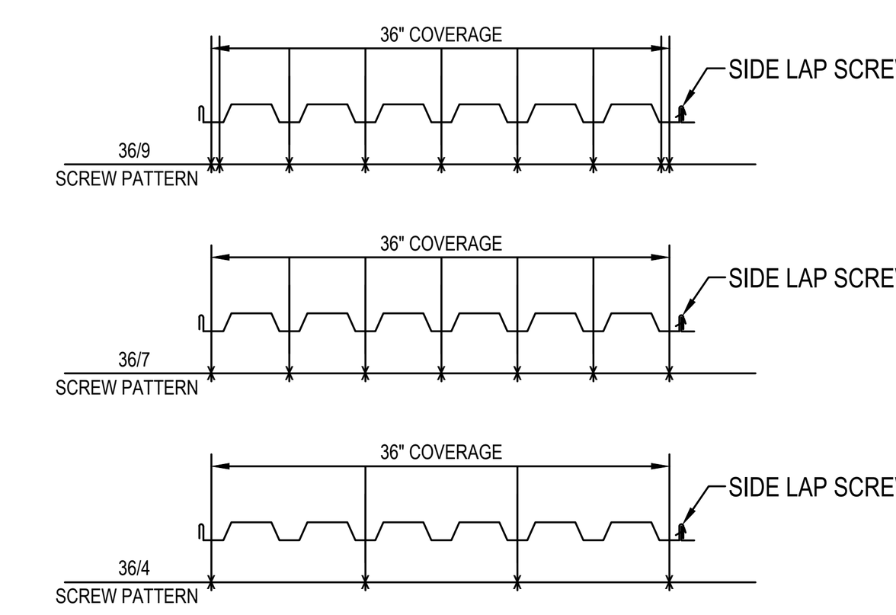
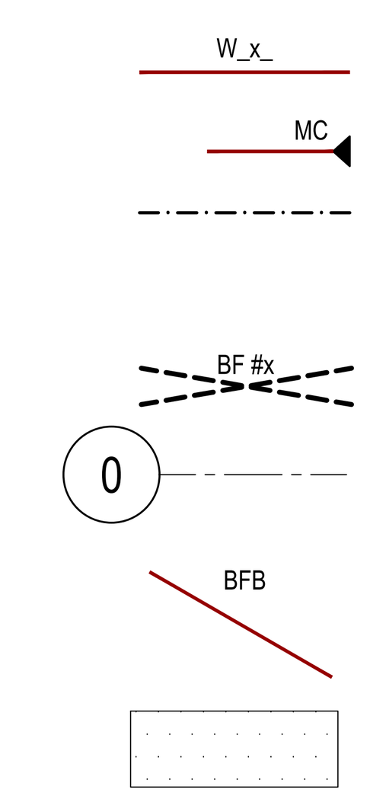
ROOF FRAMING PLAN NOTES

1. SEE S1 SHEETS FOR ADDITIONAL GENERAL NOTES, MATERIAL NOTES AND MATERIAL SPECIFICATIONS. ALSO, SEE S1 SHEETS FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
2. ELEVATIONS SHOWN ON PLAN ARE REFERENCED TO DATUM ELEVATION (0'-0") - SEE S2.01.
3. TYPICAL ROOF DECK IS 1½" DEEP, 20 ga., GALVANIZED, TYPE 'B' METAL ROOF DECK.
4. METAL ROOF DECK SHALL BE ATTACHED TO SUPPORTING MEMBERS WITH HILTI X-HSN 24 FOR STEEL THICKNESS EQUAL TO OR LESS THAN 3/8" AND HILTI X-ENP 19 OTHERWISE IN A 36/4 PATTERN U.N.O. ON PLAN - EXCEPT WITHIN 10'-0" OF ROOF EDGE PROVIDE FASTENERS IN A 36/7 PATTERN. PROVIDE (1) HILTI SCC TEK SIDELAP SCREW PER SPAN, U.N.O. ON PLAN.



5. ALL JOISTS SHALL BE DESIGNED FOR A NET UPLIFT PRESSURE OF 25 psf.
6. PROVIDE JOIST BRIDGING PER SJI RECOMMENDATIONS.
7. SEE S5 SHEETS FOR BRACE FRAME INFORMATION.
8. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.

ROOF FRAMING LEGEND



- STEEL BEAM, SEE PLAN FOR SIZE AND LOCATION
- INDICATES MOMENT CONNECTION
- STEEL JOIST, SEE PLAN FOR SIZE AND LOCATION
- INDICATES STEEL BRACE LOCATIONS SEE PLAN & SHEET S5 SHEETS
- INDICATES STEEL BRACE LOCATIONS SEE PLAN & SHEET S5 SHEETS
- GRID DESIGNATION FOR CENTERLINE OF COLUMN U.N.O.
- GIRDER BOTTOM FLANGE BRACING SEE S4 SHEETS
- INDICATES ACOUSTICAL ROOF DECK SEE DECK SCHEDULE

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ROOF FRAMING PLAN

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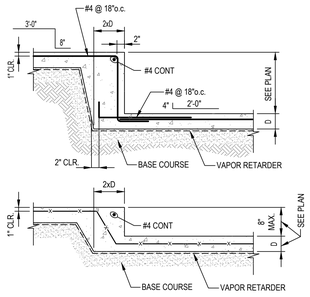
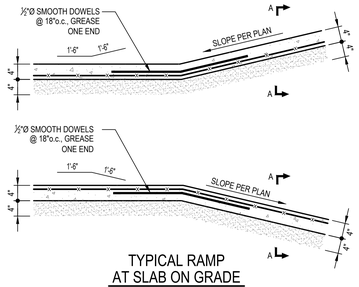
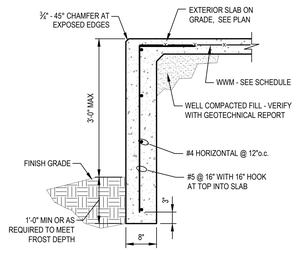


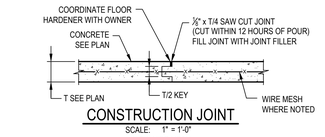
TYPICAL SLAB STEP
SCALE: 3/4" = 1'-0"



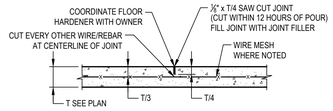
TYPICAL RAMP AT SLAB ON GRADE
SCALE: 3/4" = 1'-0"



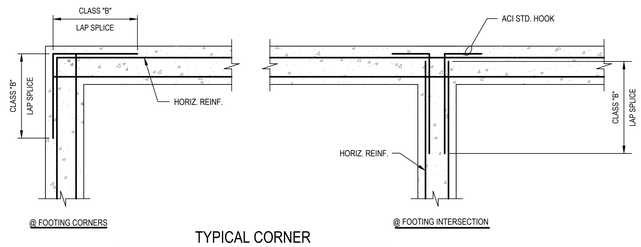
DETAIL A
SCALE: 3/4" = 1'-0"
RAMP FOOTING DETAIL



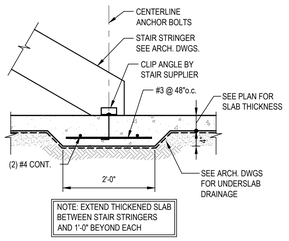
CONSTRUCTION JOINT
SCALE: 1" = 1'-0"
WITH WIRE MESH



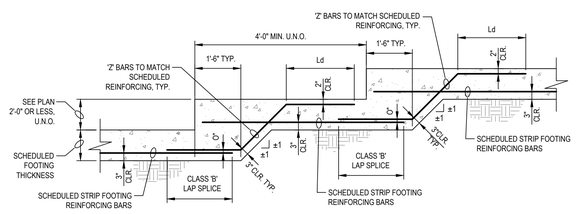
CONTRACTION JOINT
SCALE: 1" = 1'-0"
WITH WIRE MESH



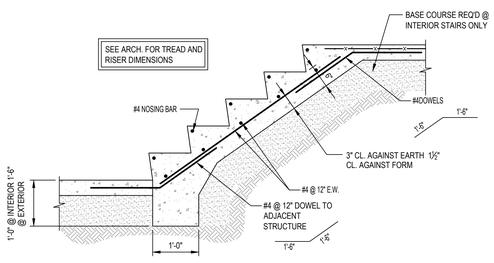
TYPICAL CORNER REINFORCING FOR CONCRETE FOOTINGS
SCALE: 3/4" = 1'-0"



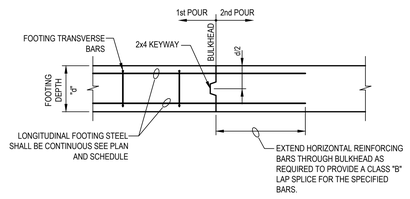
TYPICAL THICKENED SLAB @ BASE OF STAIRS
SCALE: 3/4" = 1'-0"



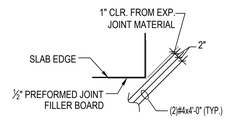
STEP FOOTING DETAIL
SCALE: 1/2" = 1'-0"



TYPICAL STAIR ON GRADE
SCALE: 3/4" = 1'-0"

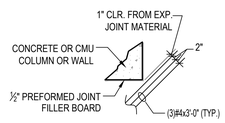


TYPICAL FOOTING CONSTRUCTION JOINT SECTION
SCALE: 3/4" = 1'-0"



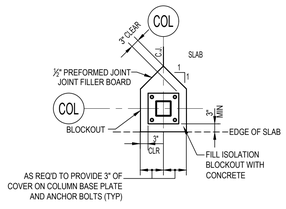
REBAR PLACEMENT @ RE-ENTRANT CORNER
NOT TO SCALE

TYP. REBAR PLACEMENT AT ALL CONDITIONS. PLACE REBAR 1" CLR. FROM TOP OF SLAB

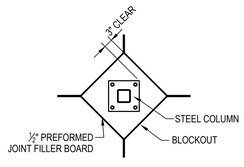


ISOLATION JOINT REBAR PLACEMENT
NOT TO SCALE

TYP. REBAR PLACEMENT AT ALL CONDITIONS. PLACE REBAR 1" CLR. FROM TOP OF SLAB



TYPICAL ISOLATION JOINT AT SLAB EDGE
NOT TO SCALE



ISOLATION JOINT DETAIL
NOT TO SCALE

SPREAD FOOTING SCHEDULE				
MARK	SIZE length x width x thickness	BOTTOM BARS EACH WAY U.N.O.		REMARKS
		BOTTOM BARS U.N.O.	TOP BARS U.N.O.	
F3	3'-0" x 3'-0" x 1'-0"	(3)#5	-	-
F4	4'-0" x 4'-0" x 1'-0"	(4)#5	-	-
F5	5'-0" x 5'-0" x 1'-0"	(5)#5	-	-
F6	6'-0" x 6'-0" x 1'-2"	(7)#6	-	-
F7	7'-0" x 7'-0" x 1'-5"	(6)#6	-	-

STRIP FOOTING (SF-X) SCHEDULE				
MARK	SIZE width x thickness x length	REINFORCEMENT (BOTTOM BARS U.N.O.)	REMARKS	TYPICAL LOCATION, U.N.O.
SF-1	0'-8" x 1'-0" CONT.	-		EXTERIOR SLAB EDGES
SF-2	2'-0" x 1'-0" x CONT.		-	EXTERIOR WALLS
SF-4	4'-0" x 2'-0" x CONT.	(5) #6 CONT. TOP AND (5) #7 BARS BOTT.	T/FTG=1'-4"	BRACE FRAME
SF-5	5'-0" x 2'-0" x CONT.	(6) #6 CONT. TOP AND (6) #7 BARS BOTT.	T/FTG=1'-4"	SEE PLAN

SLAB ON GRADE SCHEDULE							
MARK	THICKNESS	CONCRETE STRENGTH	REINFORCEMENT	AIR ENTRAINMENT	TYPICAL LOCATION	VAPOR BARRIER	COMMENTS
SOG-4	4"	3,000psi	WWM6x6xW2.0xW2.0	NO	TYP INTERIOR	15mil	-
SOG-4E	4"	4,000psi	WWM6x6xW2.0xW2.0 FLAT SHEETS	YES	TYP EXTERIOR	10mil	LIGHT BROOM FINISH
SOG-8	8"	3,000psi	#4@18"o.c. TOP EACH WAY	NO	BOWLING ALLEY	15mil	LIGHT BROOM FINISH

NOTES:
-ALL SLAB-ON-GRADES SHALL BEAR ON DRAINAGE LAYER AND WELL COMPACTED SUBGRADE PER GEOTECHNICAL REPORT. VERIFY COMPACTION AND MATERIAL WITH GEOTECHNICAL ENGINEER.

GENERAL NOTE:
DETAILS SHOWN ON THIS SHEET ARE GENERIC IN NATURE AND MAY NOT PORTRAY EXACT CONDITIONS. THESE DETAILS ARE INTENDED TO PROVIDE GENERAL GUIDELINES FOR TYPICAL CONSTRUCTION CONDITIONS.

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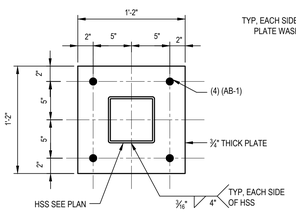
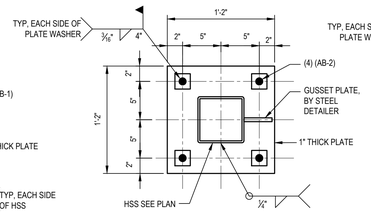
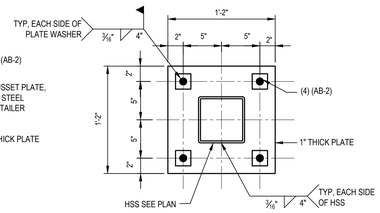


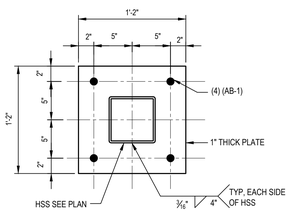
DETAIL "BP-1"
SCALE: 1 1/2" = 1'-0"
HSS5X5 AND HSS6X6 TYP. U.N.O.



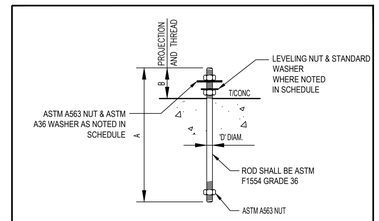
DETAIL "BP-2"
SCALE: 1 1/2" = 1'-0"
@ BRACE FRAMES WITH GUSSET



DETAIL "BP-3"
SCALE: 1 1/2" = 1'-0"
@ BRACE FRAMES WITHOUT GUSSET



DETAIL "BP-4"
SCALE: 1 1/2" = 1'-0"

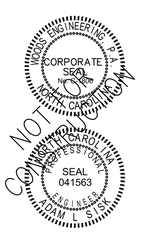


ANCHOR BOLT SCHEDULE							
MARK	BOLT DIAM. D	HOLE DIAMETER	A	B	TOP WASHER O.D. x t.	LEVELING NUT	REMARKS
AB-1	¾"	1 5/16"	1'-2"	5"	2" x ¼"	YES	2" LEVELING GROUT
AB-2	1¼"	2 1/16"	2'-4"	7"	3" x ½"	YES	2" LEVELING GROUT

NOTE: ALL ANCHOR BOLTS GREATER OR EQUAL TO 1½"Ø SHALL HAVE HEAVY HEX HEAD NUTS.

FOUNDATION SECTION NOTES

1. DO NOT SCALE SECTIONS. SEE PLANS AND SCHEDULES FOR SIZES NOT SHOWN.
2. REBAR IS SHOWN FOR REFERENCE ONLY. SEE PLANS AND SCHEDULES FOR REINFORCEMENT REQUIREMENTS. WHERE REINFORCEMENT IS SPECIFIED IN SECTIONS IT IS IN ADDITION TO SCHEDULES.
3. IF A HOOK IS SHOWN ON REINFORCEMENT A STANDARD HOOK PER ACI IS REQUIRED U.N.O.
4. IF A DISCREPANCY EXISTS BETWEEN THE SECTIONS AND PLAN THE MORE STRINGENT REQUIREMENTS SHALL APPLY
5. EPOXY FOR CMU SHALL BE HY-270.
6. EPOXY FOR CONCRETE SHALL BE HY-200.
7. FOR PRICING ASSUME ALL EXTERIOR FRAMING IS 600S162-54 @16" o.c. - FINAL DESIGN BY DD (18ga MIN.)
8. ALL CFS FRAMING AND CONNECTIONS SHOWN ARE FOR PRICING ONLY - FINAL DESIGN BY DD



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STRIKES ENTERTAINMENT COMPLEX

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BASEPLATE DETAILS

Date 11/21/2025
Scale As Noted
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Sheet

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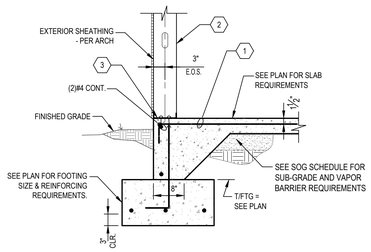
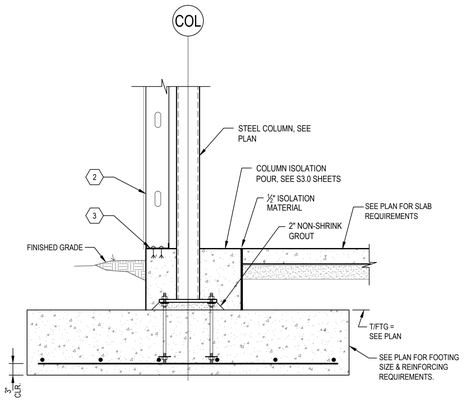
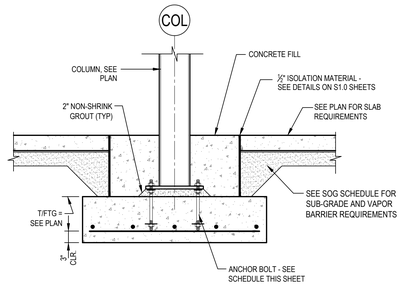


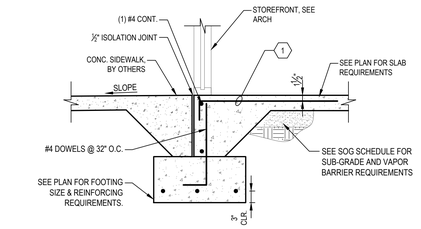
SECTION 1
SCALE: 3/4" = 1'-0"
TYPICAL PERIMETER DROPPED FOOTING



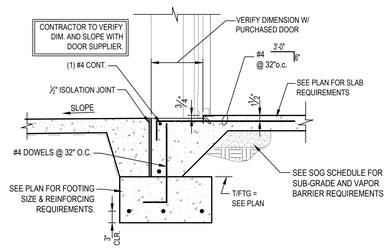
SECTION 2
SCALE: 3/4" = 1'-0"
COLUMN @ WALL FOOTING



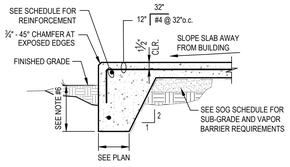
SECTION 3
SCALE: 3/4" = 1'-0"
TYPICAL INTERIOR FOUNDATION AT COLUMN



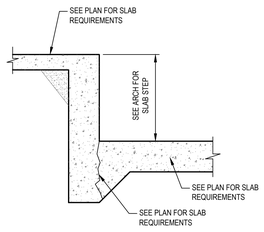
SECTION 4
SCALE: 3/4" = 1'-0"
TYPICAL INTERIOR FOUNDATION AT CURTAIN WALL



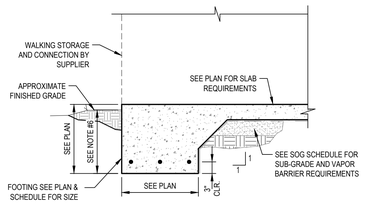
SECTION 5
SCALE: 3/4" = 1'-0"



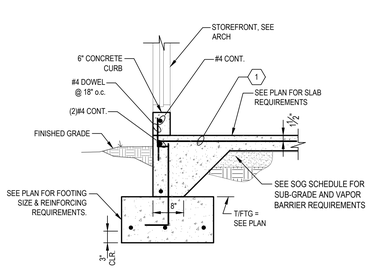
SECTION 6
SCALE: 3/4" = 1'-0"



SECTION 7
SCALE: 3/4" = 1'-0"
SLAB STEP



SECTION 8
SCALE: 3/4" = 1'-0"
TYP. AT WALK-IN STORAGE



SECTION 9
SCALE: 3/4" = 1'-0"

FOUNDATION SECTION NOTES

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3. IF A HOOK IS SHOWN ON REINFORCEMENT A STANDARD HOOK PER ACI IS REQUIRED U.N.O.
4. IF A DISCREPANCY EXISTS BETWEEN THE SECTIONS AND PLAN THE MORE STRINGENT REQUIREMENTS SHALL APPLY
5. WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.
6. SEE S-10 SHEETS FOR MINIMUM DEPTH OF FOOTING BEARING BELOW GRADE
7. ALL EPOXY FOR CONCRETE SHALL BE HILTI HY-200 OR APPROVED EQUAL
8. ALL EPOXY FOR CMU SHALL BE HILTI HY-270 OR APPROVED EQUAL

FOUNDATION SECTION FASTENING SCHEDULE

MARK	LOCATION	FASTENER REQUIREMENTS	COMMENTS
1	REBAR AT SLAB EDGE	0'-6" 2'-6" / #4 @32" o.c.	-
2	TYPICAL EXTERIOR WALL FRAMING	6" OR 8" CFS DEPENDING ON LOCATIONS	FINAL DESIGN BY DD
3	TYPICAL @ SILL	6" OR 8" TRACK DEPENDING ON LOCATIONS W/ (2) ROWS OF PAF's @ 16"o.c.	FINAL DESIGN BY DD

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FOUNDATION SECTIONS

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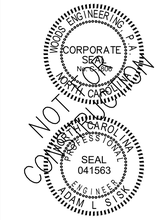
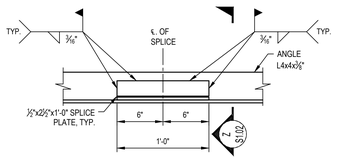
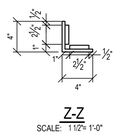
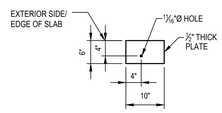




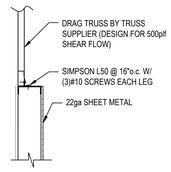
TYPICAL ANGLE SPLICE DETAIL
SCALE: 1 1/2"= 1'-0"



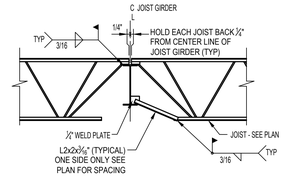
Z-Z
SCALE: 1 1/2"= 1'-0"



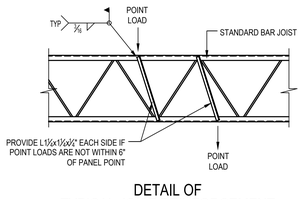
TRACK PLATE DETAIL
SCALE: 3/4"= 1'-0"



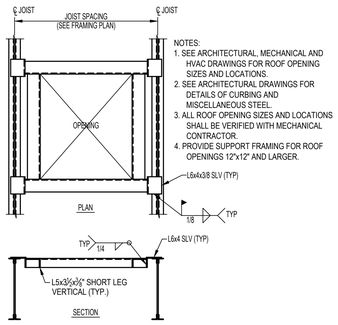
DETAIL B-B
SCALE: 3/4"= 1'-0"



SECTION "A"
SCALE: 1/2"= 1'-0"
GIRDER BOTTOM FLANGE (BRACE TYP.)

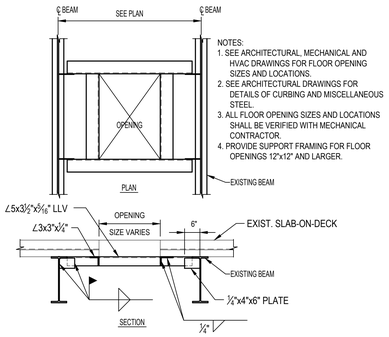


DETAIL OF
TYPICAL JOIST REINFORCEMENT
NOT TO SCALE



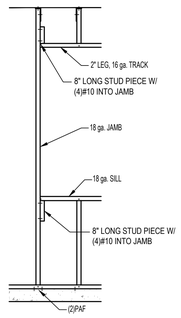
NOTES:
1. SEE ARCHITECTURAL, MECHANICAL AND HVAC DRAWINGS FOR ROOF OPENING SIZES AND LOCATIONS.
2. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF CURBING AND MISCELLANEOUS STEEL.
3. ALL ROOF OPENING SIZES AND LOCATIONS SHALL BE VERIFIED WITH MECHANICAL CONTRACTOR.
4. PROVIDE SUPPORT FRAMING FOR ROOF OPENINGS 12"x12" AND LARGER.

DETAIL OF
TYPICAL ROOF OPENING
NOT TO SCALE

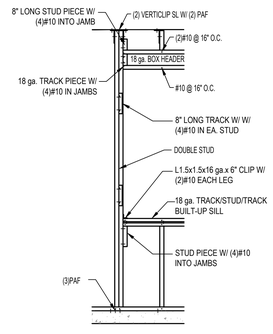


NOTES:
1. SEE ARCHITECTURAL, MECHANICAL AND HVAC DRAWINGS FOR FLOOR OPENING SIZES AND LOCATIONS.
2. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF CURBING AND MISCELLANEOUS STEEL.
3. ALL FLOOR OPENING SIZES AND LOCATIONS SHALL BE VERIFIED WITH MECHANICAL CONTRACTOR.
4. PROVIDE SUPPORT FRAMING FOR FLOOR OPENINGS 12"x12" AND LARGER.

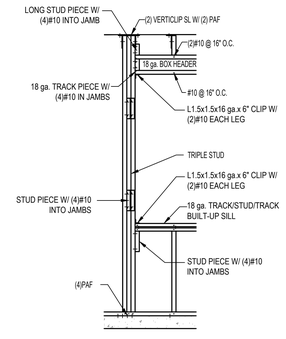
DETAIL OF
TYPICAL FLOOR OPENING
NOT TO SCALE



TYPICAL EXTERIOR WALL FRAMING
AT WINDOW OPENING UP TO 3'-4"
SCALE: 1/2"= 1'-0"



TYPICAL EXTERIOR WALL FRAMING
AT WINDOW OPENING UP TO 6'-4"
SCALE: 1/2"= 1'-0"

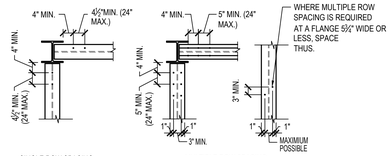


TYPICAL EXTERIOR WALL FRAMING
AT WINDOW OPENING UP TO 8'-8"
SCALE: 1/2"= 1'-0"

AT CONTRACTOR'S OPTION:
USE QUICKFRAMES
WWW.QUICKFRAMES.US

TYPICAL LIGHT GAUGE CONSTRUCTION DETAILS FOR NON-LOAD BEARING EXTERIOR WALLS

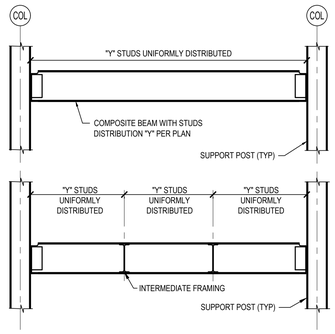
NOTE: THESE DETAILS ARE GENERIC AND ARE FOR GENERAL INFORMATION AND BUDGET PRICING. ACTUAL DESIGN BY LIGHT GAUGE SUPPLIER AND ENGINEER.



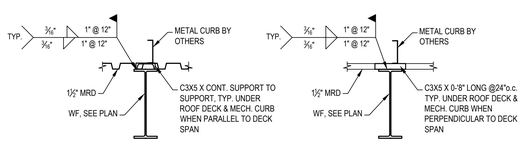
SINGLE ROW SPACING
USE SINGLE ROW SPACING EXCEPT WHEN REQUIRED BY FIELD CONDITIONS.

MULTIPLE ROW SPACING
NOTE: WHERE DECK IS CONTINUOUS OVER THE BEAMS THE DECK VALLEYS MAY CONTROL & POSSIBLY DICTATE SPACING. DECK SUPPLIER SHALL COMPLY W/ STUD CAPACITY REDUCTIONS REQUIRED TO EQUAL ORIGINAL CAPACITY.

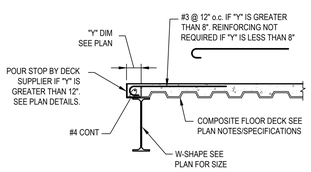
TYPICAL SHEAR STUD DETAIL
SCALE: 1/2"= 1'-0"



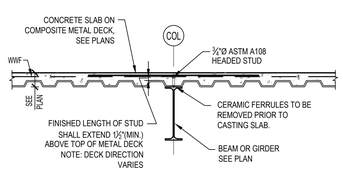
TYPICAL COMPOSITE BEAM
STUD DISTRIBUTION
SCALE: 1/2"= 1'-0"



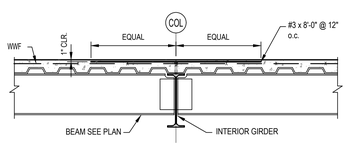
HVAC CURB DETAILS
SCALE: 3/4"= 1'-0"



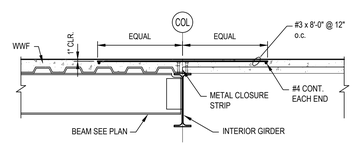
TYPICAL INTERIOR EDGE
OF FRAMED FLOOR SLAB
SCALE: 1/2"= 1'-0"



TYPICAL SHEAR STUD DETAIL
SCALE: 1/2" = 1'-0"



TYPICAL COMPOSITE
SLAB REINFORCEMENT
SCALE: 1/2"= 1'-0"



TYPICAL COMPOSITE SLAB
REINFORCEMENT @ DECK SPAN CHANGE
SCALE: 1/2"= 1'-0"

DECK SCHEDULE

MARK	DECK TYPE	THICKNESS		CONCRETE STRENGTH	REINFORCEMENT	CONC WEIGHT	TYPICAL LOCATION	COMMENTS
		CONC	TOTAL					
D1	1½" DEEP 20ga. GALVANIZED ROOF TYPE 'B'	-	1½"	-	-	-	TYP ROOF	-
D2	2" DEEP 20ga. GALVANIZED COMPOSITE TYPE "VLI" (2.0VLI20) BY VULCRAFT OR APPROVED EQUAL	3½"	5½"	3,000psi	WWM6x6xW2.1xW2.1	NORMAL	MEZZANINE	G90 COATING REQUIRED @ EXERTERIOR
D3	1 1/2" DEEP 20ga. GALVANIZED ROOF TYPE 'BA'	-	1½"	-	WWM6x6xW2.1xW2.1 OR 4lbs / cy MACRO FIBER	-	SEE PLAN	ACOUSTICAL ROOF DECKS

GENERAL NOTE:
DETAILS SHOWN ON THIS SHEET ARE GENERIC IN NATURE AND MAY NOT PORTRAY EXACT CONDITIONS. THESE DETAILS ARE INTENDED TO PROVIDE GENERAL GUIDELINES FOR TYPICAL CONSTRUCTION CONDITIONS.

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FRAMING DETAILS

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254 North Front Street
Suite 201
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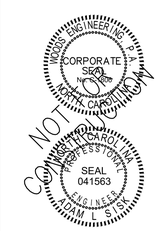
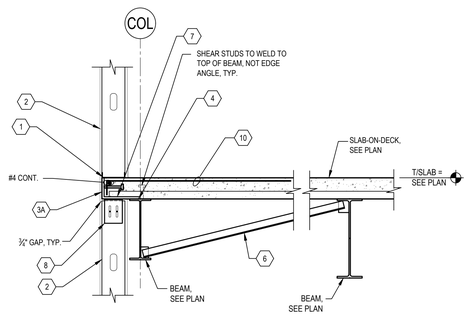
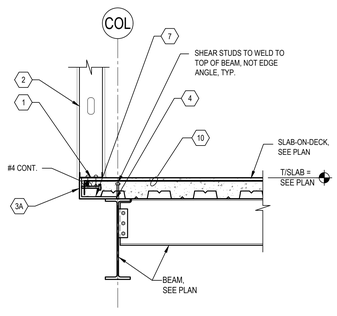
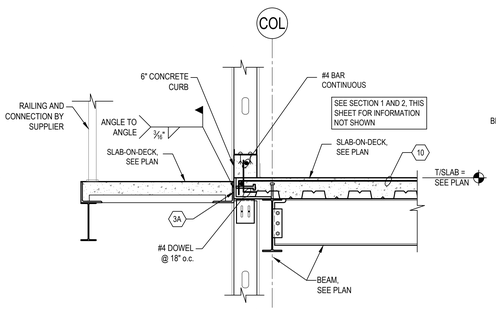




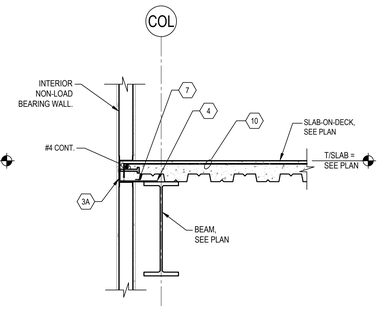
SECTION 1
SCALE: 3/4" = 1'-0"
FLOOR FRAMING AT SLAB EDGE
PERPENDICULAR TO DECK SPAN



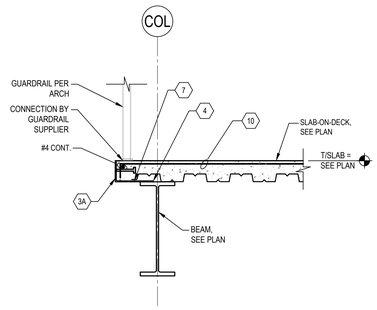
SECTION 2
SCALE: 3/4" = 1'-0"
FLOOR FRAMING AT SLAB EDGE
PARALLEL TO DECK SPAN



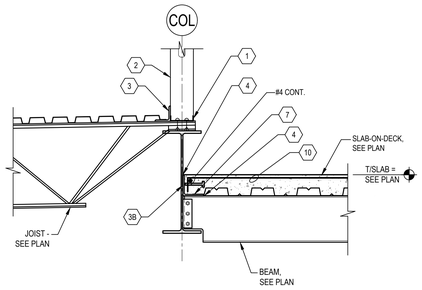
SECTION 3
SCALE: 3/4" = 1'-0"
ELEVATED EXTERIOR WALKWAY



SECTION 4
SCALE: 3/4" = 1'-0"
FLOOR FRAMING AT STAIR
AND ELEVATOR OPENINGS



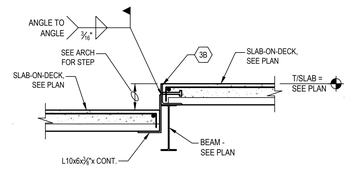
SECTION 5
SCALE: 3/4" = 1'-0"
FLOOR FRAMING AT MEZZANINE OPENINGS



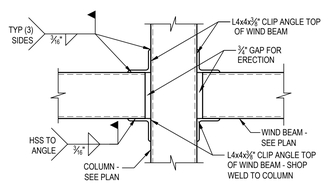
SECTION 6
SCALE: 3/4" = 1'-0"

NOT USED

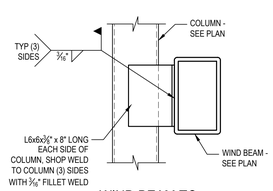
SECTION 7
SCALE: 3/4" = 1'-0"



SECTION 8
SCALE: 3/4" = 1'-0"
DROPPED BEAM CONNECTION



WIND BEAM TO
SIDE OF COLUMN CONNECTION
SCALE: 1-1/2" = 1'-0"
INTERRUPTED CONNECTION



WIND BEAM TO
FRONT OF COLUMN CONNECTION
SCALE: 1-1/2" = 1'-0"
BYPASS CONNECTION

SECTION NOTES SCHEDULE

MARK	LOCATION	REQUIREMENT	COMMENTS
1	TYPICAL CFS TRACK	600T125-54x CONT. MIN, FINAL DESIGN BY DD	-
1A	TYPICAL 8" CFS TRACK	800T125-54x CONT. MIN, FINAL DESIGNBY DD	
2	TYPICAL CFS STUD	600S162-54 @ 16"o.c. MIN, FINAL DESIGN BY DD	-
2A	TYPICAL 8" CFS STUD	800S250-68 @ 12"o.c. MIN, FINALDESIGN BY DD	
3	EDGE ANGLE	L4x4X3/8"	-
3A	TYP SLAB EDGE ANGLE AT EXTERIOR	5 1/2" x12"x3/8"x CONT BENT PLATE LLH	
3B	TYP SLAB EDGE ANGLE AT EXTERIOR	5 1/2" x5 1/2"x3/8"x CONT BENT PLATE	
4	ANGLE TO BEAM CONNECTION	3/16" 2"@12" ANGLE TO BEAM	-
5	ANGLE TO JOIST CONNECTION	3/16" ANGLE TO JOIST	-
6	BOTTOM FLANGE BRACING	L/.2x2x1/4" KICKER WHERE NOTED ON PLAN "BFB" W/ 1/2" WELD PLATES EACH END, TYP.,	-
7	DECK TO ANGLE CONNECTION	HILTI X-HSN @12"o.c. OR 3/4"Ø PUDDLE WELDS @12"o.c. TYP DECK TO ANGLE	-
8	DEFLECTION CONNECTION	CFS DEFELCTION CLIP BY DD	-
9	RIGID CONNECTION	RIGID CLIP BY DD	-
10	REBAR AT SLAB EDGE	0'-4" 4'-0" #4 @32" o.c.	-

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FRAMING SECTIONS

Date 11/21/2025
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Consulting Structural Engineers
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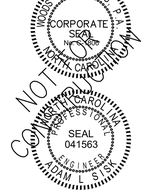
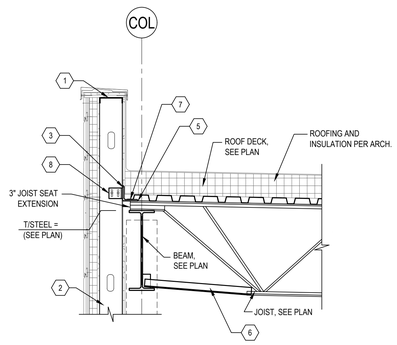
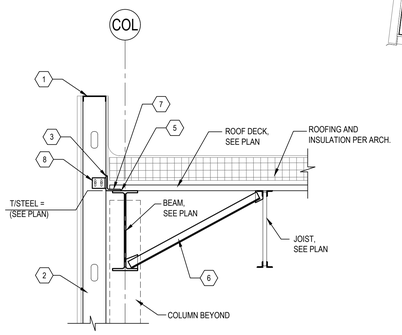
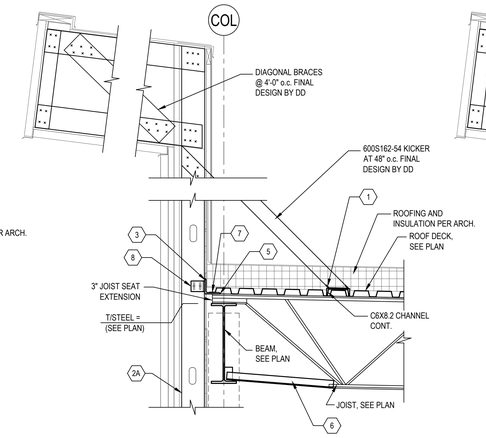




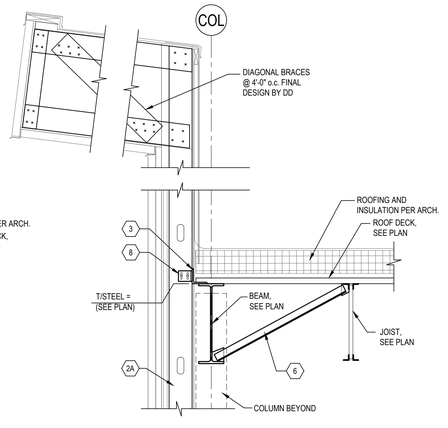
SECTION 1
SCALE: 3/4" = 1'-0"
EXTERIOR WALL PERPENDICULAR TO FLOOR JOIST



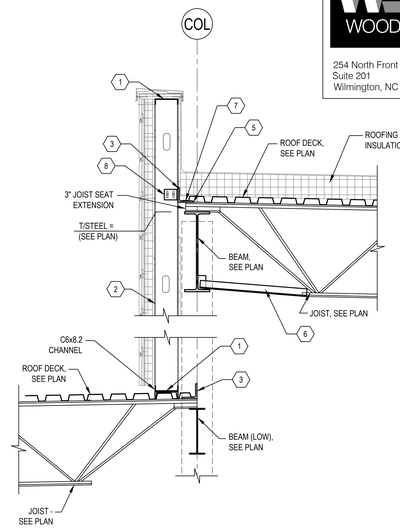
SECTION 2
SCALE: 3/4" = 1'-0"
EXTERIOR WALL PARALLEL TO FLOOR JOIST



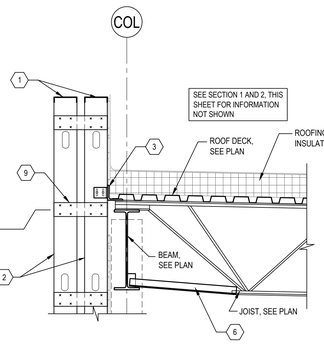
SECTION 3
SCALE: 3/4" = 1'-0"



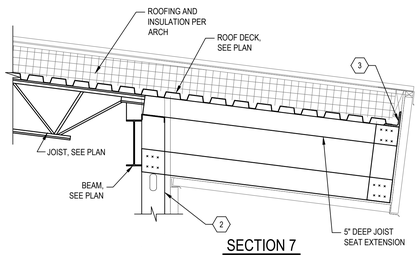
SECTION 4
SCALE: 3/4" = 1'-0"



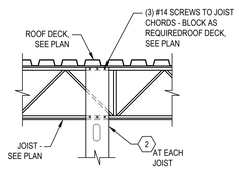
SECTION 5
SCALE: 3/4" = 1'-0"



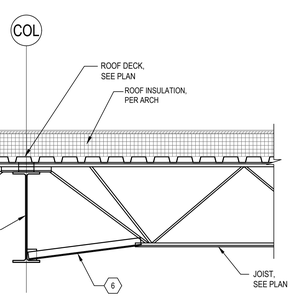
SECTION 6
SCALE: 3/4" = 1'-0"



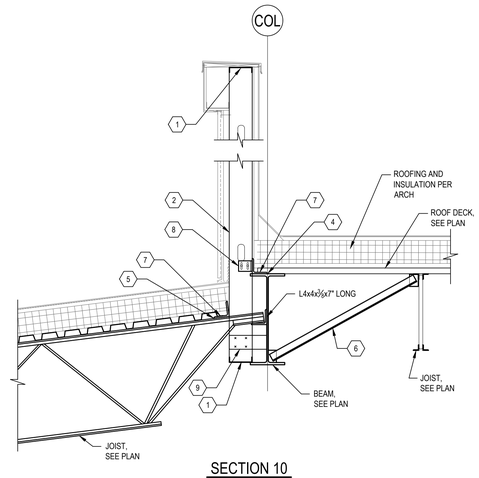
SECTION 7
SCALE: 3/4" = 1'-0"



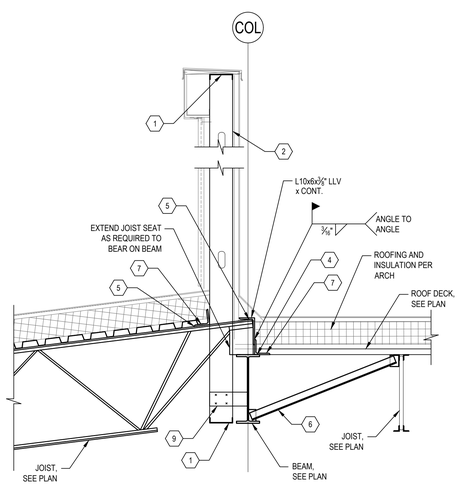
SECTION 8
SCALE: 3/4" = 1'-0"
HANGING WALL @ BOWLING ALLEY



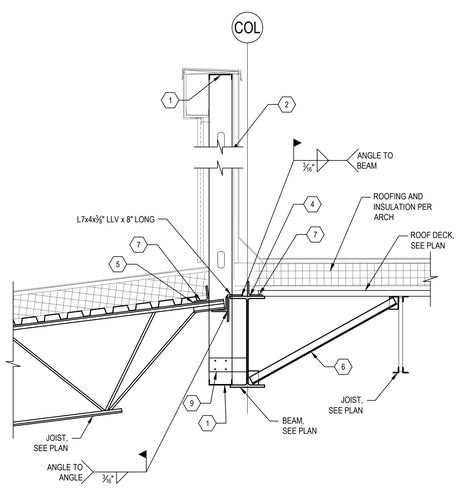
SECTION 9
SCALE: 3/4" = 1'-0"



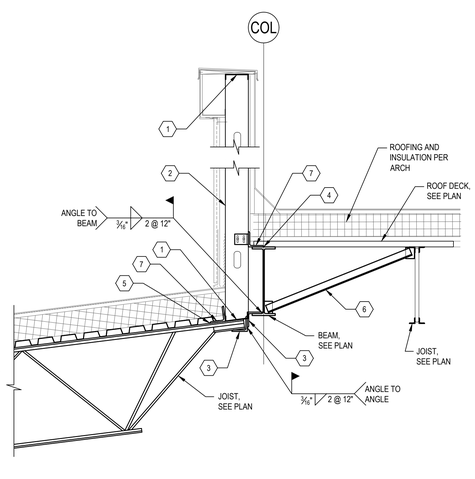
SECTION 10
SCALE: 3/4" = 1'-0"



SECTION 11
SCALE: 3/4" = 1'-0"



SECTION 12
SCALE: 3/4" = 1'-0"
CONNECTION WHERE JOIST MEETS BEAM FLANGE



SECTION 13
SCALE: 3/4" = 1'-0"
CONNECTION WHERE JOIST MEETS BEAM FLANGE

SEE S-411 FOR FASTENING NOTE SCHEDULE

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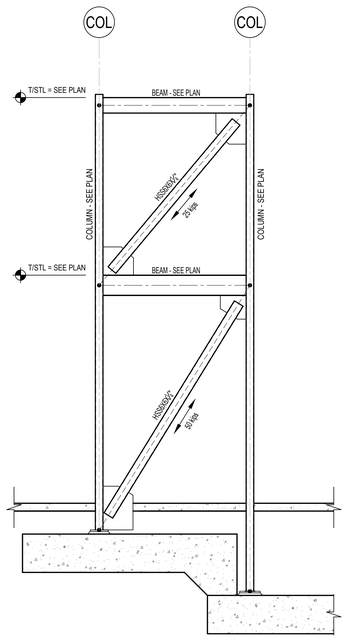
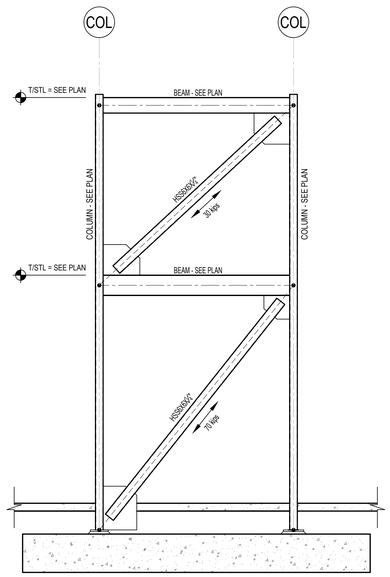
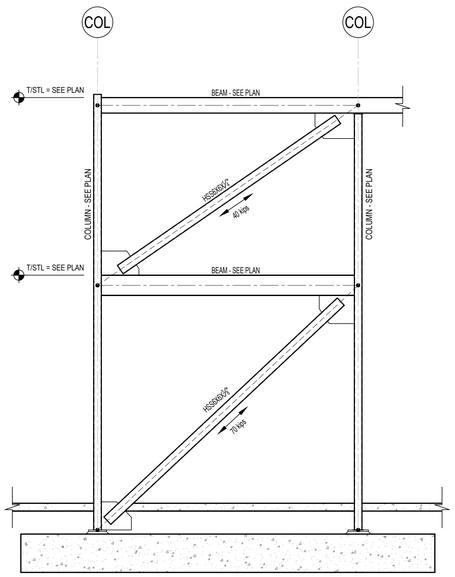


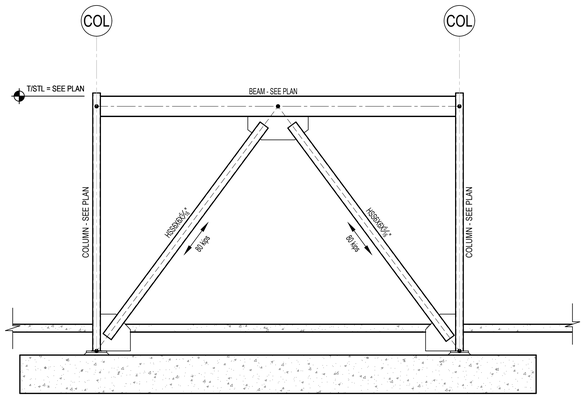
BRACE FRAME #1 ELEVATION
SCALE: 1/4" = 1'-0"



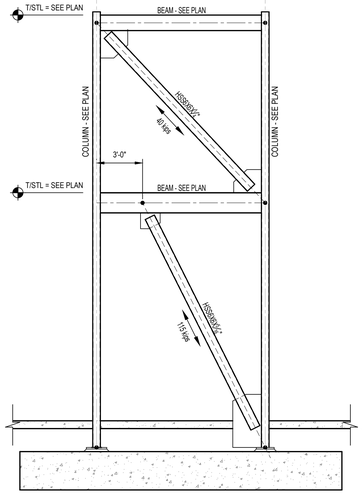
BRACE FRAME #2 ELEVATION
SCALE: 1/4" = 1'-0"



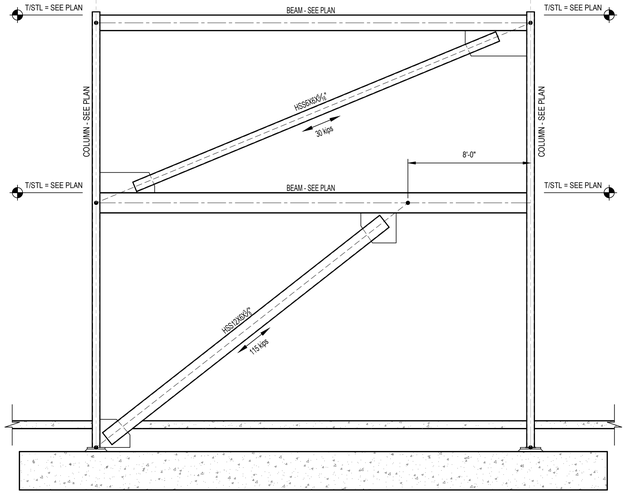
BRACE FRAME #3 ELEVATION
SCALE: 1/4" = 1'-0"



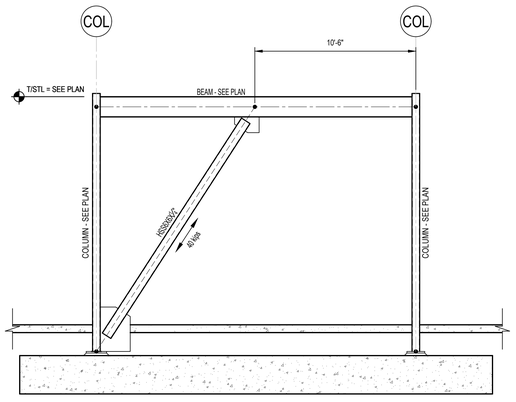
BRACE FRAME #4 ELEVATION
SCALE: 1/4" = 1'-0"



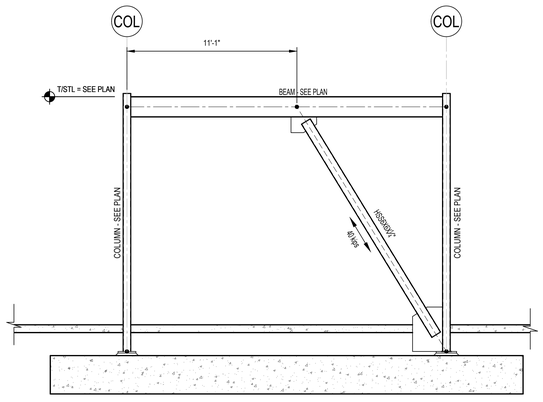
BRACE FRAME #5 ELEVATION
SCALE: 1/4" = 1'-0"



BRACE FRAME #6 ELEVATION
SCALE: 1/4" = 1'-0"



BRACE FRAME #7 ELEVATION
SCALE: 1/4" = 1'-0"



BRACE FRAME #8 ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL NOTE:
STEEL CONNECTION DESIGNER TO DESIGN FOR LRFD LOADS SHOWN

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254 North Front Street
Suite 201
Wilmington, NC 28401
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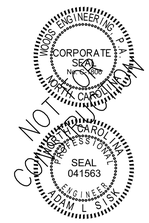

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ELEVATIONS

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