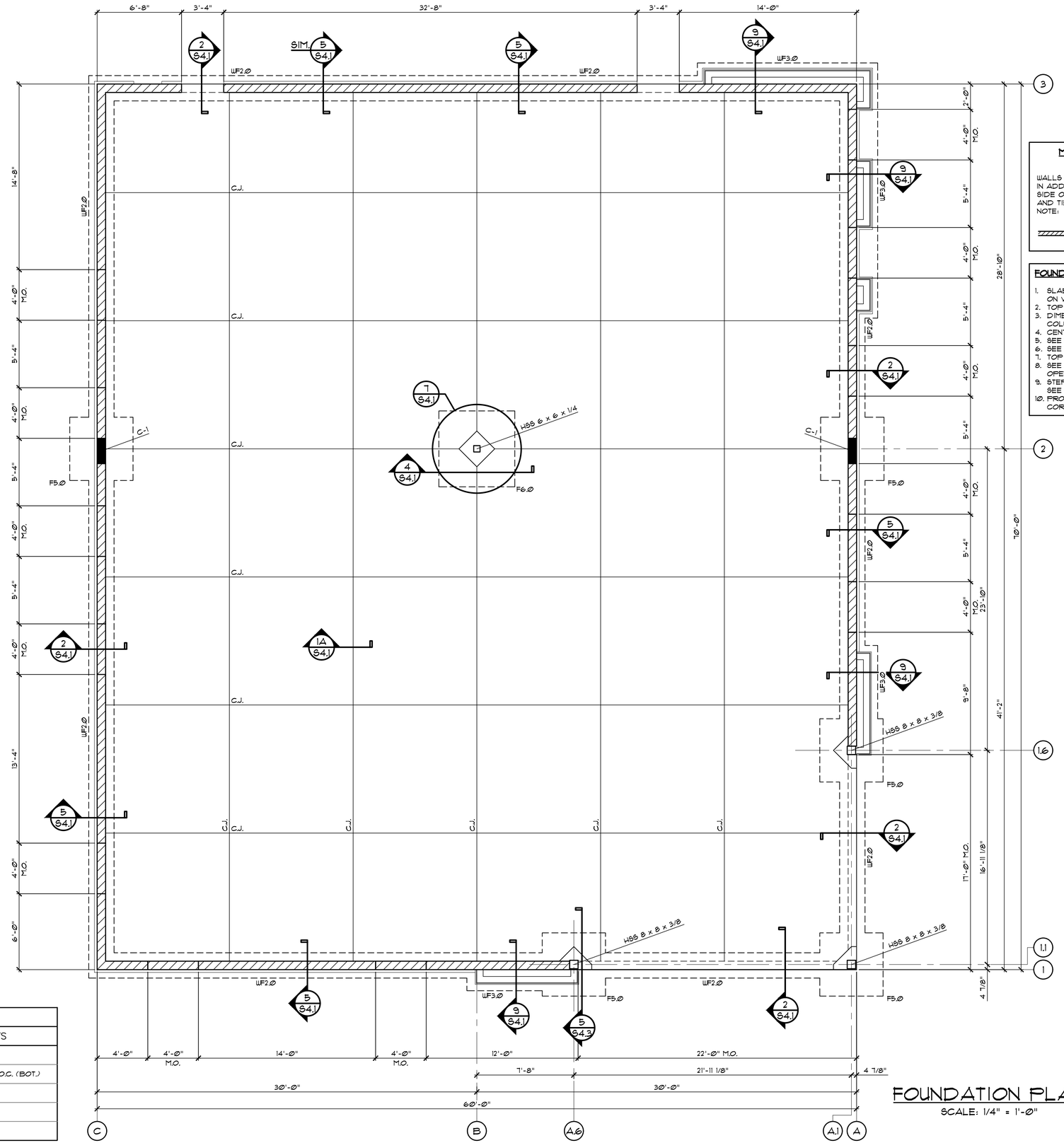


FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

NOTE: SEE ARCH. DRAWINGS FOR LOCATION OF MASONRY CONTROL JOINTS. SEE 3/S4.1. LOCATE M.C.J. AT 34'-0" O.C. (MAX.) AND 2'-0" (MIN.) FROM DOOR OR WINDOW EDGE.

FOUNDATION SCHEDULE

MARK	SIZE	THK	REINF. EA. WAY	COMMENTS
WF2.0	2'-0" x CONT.	1'-0"	(3) #5 CONT. (BOT.)	
WF3.0	3'-0" x CONT.	1'-0"	(4) #5 CONT. (BOT.)	(1) #5 TRANS. AT 12" O.C. (BOT.)
F5.0	5'-0" x 5'-0"	1'-0"	(6) #5 (BOT.)	
F6.0	6'-0" x 6'-0"	1'-4"	(7) #5 (BOT.)	

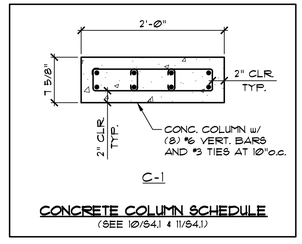
MASONRY WALL REINFORCEMENT SCHEDULE
(SEE 6/S4.1)

WALLS ARE TO BE REINFORCED AS SHOWN BELOW. IN ADDITION VERT. BARS SHALL BE PLACED @ CORNERS, EACH SIDE OF OPENINGS AND INTERSECTIONS. DOWEL INTO FOOTINGS AND TIE BEAMS. HORIZONTAL REINFORCEMENT = 9 GA. @ 16" O.C.
NOTE: FILL ALL CELLS SOLID BELOW FINISH FLOOR.

8" CMU WALL W/ #6 VERTICAL BARS AT 24" O.C.
(NOTE: PROVIDE SAME WALL REINF. ABOVE OPENINGS)

FOUNDATION PLAN NOTES

1. SLAB ON GRADE TO BE 4" THICK W/ 6 x 6 - W1.4 x W1.4 WWF ON VAPOR BARRIER AND COMPACTED FILL (U.N.O.).
2. TOP OF SLAB = 0'-0" (U.N.O.)
3. DIMENSIONS ARE TO FACE OF MASONRY AND CENTERLINE OF COLUMNS.
4. CENTER FOOTINGS UNDER CMU WALLS AND COLUMNS.
5. SEE MASONRY LEGEND FOR WALL REINFORCEMENT.
6. SEE ARCH. DWGS. FOR VENEER.
7. TOP OF FOOTING ELEVATION = -1'-4" (U.N.O.)
8. SEE ARCH. DWGS. FOR SIZE AND LOCATION OF MASONRY OPENINGS (M.O.).
9. STEP FOOTING TO MAINTAIN 1'-0" COVERAGE. (SEE 8/S4.1) SEE CIVIL DWGS. FOR FINISH GRADE.
10. PROVIDE 2'-6" x 2'-6" FOUNDATION CORNER BARS AT ALL CORNERS AND INTERSECTIONS (MATCH REINF. BARS)



C-1

CONCRETE COLUMN SCHEDULE
(SEE 10/S4.1 & 11/S4.1)

CENTER FOR INNOVATIVE STRUCTURES
3300 Henderson Blvd., Suite 202, Tampa, FL 33609
P: (813) 835-5311
Structural Engineers
Dimitrios Melandinos
PE: 60182 EB: 7242

TO THE BEST OF MY KNOWLEDGE, THE SPECIFICATIONS AND PLANS SHOWN HEREIN COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES IN EFFECT AT THIS TIME.

FISHER AND ASSOCIATES, LLC.
ARCHITECTS
PLANNERS
INTERIOR DESIGNERS
AA 26001738
2315 BELLEAIR RD. CLEARWATER, FL. 33764 (727) 443-4436

FOUNDATION PLAN
HEARTLAND DENTAL
WINTER GARDEN
AVALON & MARSH RD
WINTER GARDEN, FL 34787

RELEASED FOR:	
BID	12.11.23
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CONSTR.	

REVISIONS:

DIMITRIOS MELANDINOS
PE # 0060182

S1.1

Issue Date: 01/31/23
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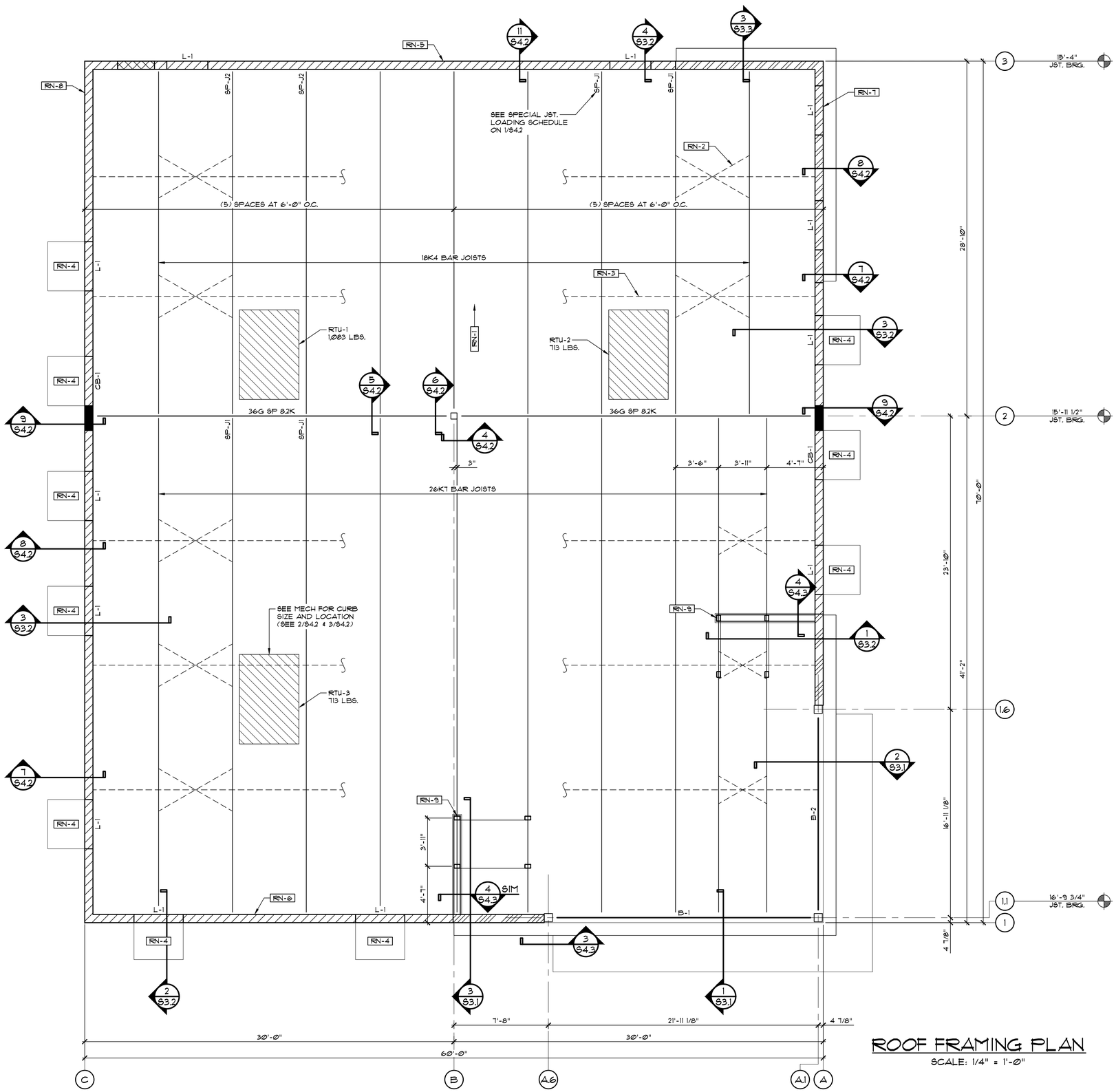


ROOF FRAMING PLAN

SCALE: 1/4" = 1'-Ø"

ROOF FRAMING PLAN NOTES

1. ROOF UPLIFT PLAN = SEE S5.1.
2. SEE FOUNDATION PLAN FOR DIMENSIONS.
3. SEE CMU LEGEND FOR TOP OF MASONRY ELEVATIONS.
4. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
5. DECK TO BE 1 1/2", TYPE "B", 22 GA. GALV. METAL DECK 3 SPAN MIN. FASTENING = AT EA. SUPPORT: (5) 5/8" Ø PUDDLE WELDS PER 36" AND BETWEEN EACH SUPPORT INSTALL (6) #Ø TEK SCREWS AT SIDELAP. WELD DECK TO CONTINUOUS DECK ANGLE w/ 5/8" Ø PUDDLE WELDS AT 6" O.C.
6. SEE CONC. BEAM / TIE BEAM SCHEDULE ON S2.1.
7. PROVIDE 2'-6" x 2'-6" TIE BEAM CORNER BARS AT ALL CORNERS AND INTERSECTIONS. (MATCH REINF. BARS.)
8. COORDINATE SIZE, WEIGHT, AND LOCATION OF ROOF TOP UNITS WITH MECHANICAL DRAWINGS (SEE 1/S4.2, 2/S4.2, & 3/S4.2)

ROOF FRAMING NOTES

RN-1	SLOPE ROOF DOWN IN THIS DIRECTION AT 1/4" PER FOOT
RN-2	INDICATES DIAGONAL BRIDGING AT END BAYS AS SHOWN
RN-3	INDICATES CONT. HORIZ. BRIDGING AS SHOWN
RN-4	INDICATES PRE-ENGINEERED ALUM. AWNING / CANTILEVERED CANOPY (SEE ARCH.)
RN-5	TB-2, BOT. / BM. = 14'-Ø"
RN-6	TB-2, BOT. / BM. = 15'-4"
RN-7	TB-1, BOT. / BM. = VARIES (SEE 1/S4.3)
RN-8	TB-1, BOT. / BM. = VARIES (SEE 2/S4.3)
RN-9	HSS 6 x 4 x 3/8 FRAME AS SHOWN (SEE 1/S3.3 & 2/S3.3)

LINTEL SCHEDULE

MINIMUM BEARING = 8"

L-1	PRECAST LINTEL w/ (1) #5 CONT. FULLY GROUTED

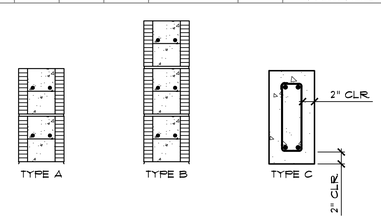
ROOF STEEL BEAM SCHEDULE

MARK	SIZE	ELEVATION	COMMENTS
B-1	HSS 8 x 8 x 3/8 (HIGH)	T.O. STL. = 24'-4"	-
	W 16 x 31 (MID. HIGH)	T.O. STL. = 16'-9 1/4"	-
	HSS 12 x 8 x 3/8 (LOW)	BOT. / STL. = 10'-Ø"	-
B-2	HSS 8 x 8 x 3/8 (HIGH)	T.O. STL. = 24'-4"	-
	W 16 x 31 (MID. HIGH)	T.O. STL. = VARIES = DECK BRG.	-
	HSS 12 x 8 x 3/8 (LOW)	BOT. / STL. = 10'-Ø"	-

TIE BEAM SCHEDULE

(SEE 6/S4.1 & 11/S4.1)

MARK	WIDTH	DEPTH	TOP REINF.	MID. REINF.	BOT. REINF.	STIRRUPS	TYPE	COMMENTS
TB-1	8"	16"	(2) #5	--	(2) #5	--	A	-
TB-2	8"	24"	(2) #5	(2) #5	(2) #5	--	B	-
CB-1	8"	15 5/8"	(2) #6	-	(2) #6	#3 AT 6"o.c.	C	BEAR MIN. 8" ON EA. SIDE OF OPENING BOT. / BM. = 9'-Ø 3/8"



TOP OF MASONRY LEGEND

(SEE 6/S4.1 FOR TYPICAL TIE BEAM CONN.)

- T.O. MAS. = 16'-8" (LADDER ACCESS)
- T.O. MAS. = 20'-Ø"
- T.O. MAS. = 22'-8"
- T.O. MAS. = 24'-4"

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ROOF FRAMING PLAN

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REVISIONS:

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S2.1

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METAL STUDS FASTENING NOTES
(U.N.O.)

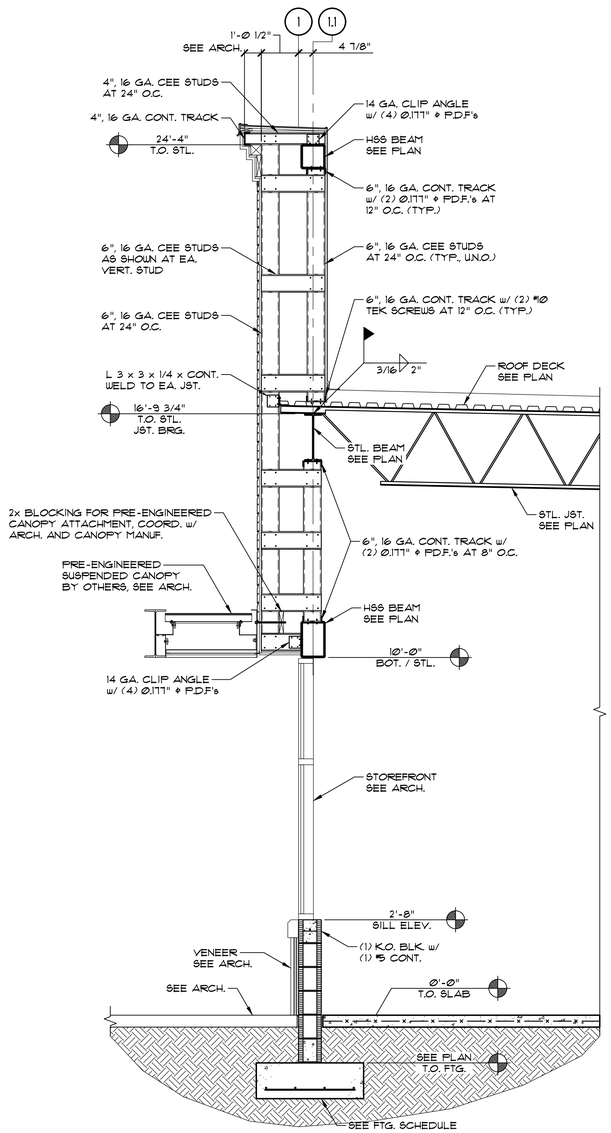
1. METAL STUDS SHALL BE CONNECTED TO STRUCTURAL STEEL w/ (2) Ø.177" ϕ P.D.F.'s
2. METAL STUDS SHALL BE CONNECTED TO METAL STUDS / CLIP ANGLES w/ MIN. (4) NO. 12-14 SCREWS
3. CONTINUOUS TRACK SHALL BE CONNECTED TO STRUCTURAL STEEL w/ (2) Ø.177" ϕ P.D.F.'s AT 24" O.C.
4. CONTINUOUS TRACK / STUDS SHALL BE CONNECTED TO CMU w/ (2) 1/4" ϕ TAPCONS AT 24" O.C.
5. CONNECT SHEATHING TO METAL STUDS w/ NO. 12-14 SCREWS AT 6" O.C.
6. 14 GA. CLIP ANGLES SHALL BE CONNECTED TO CMU w/ (2) 1/4" ϕ TAPCONS

MTL. STD WELDING NOTE:
WELD TRUSS w/ 3/32" OR 1/8" AWS TYPE E6013 OR 7014 ROD WITH A WELDING HEAT OF 80-110 AMPERES DEPENDING ON GAGE OF MATERIAL AND FIT

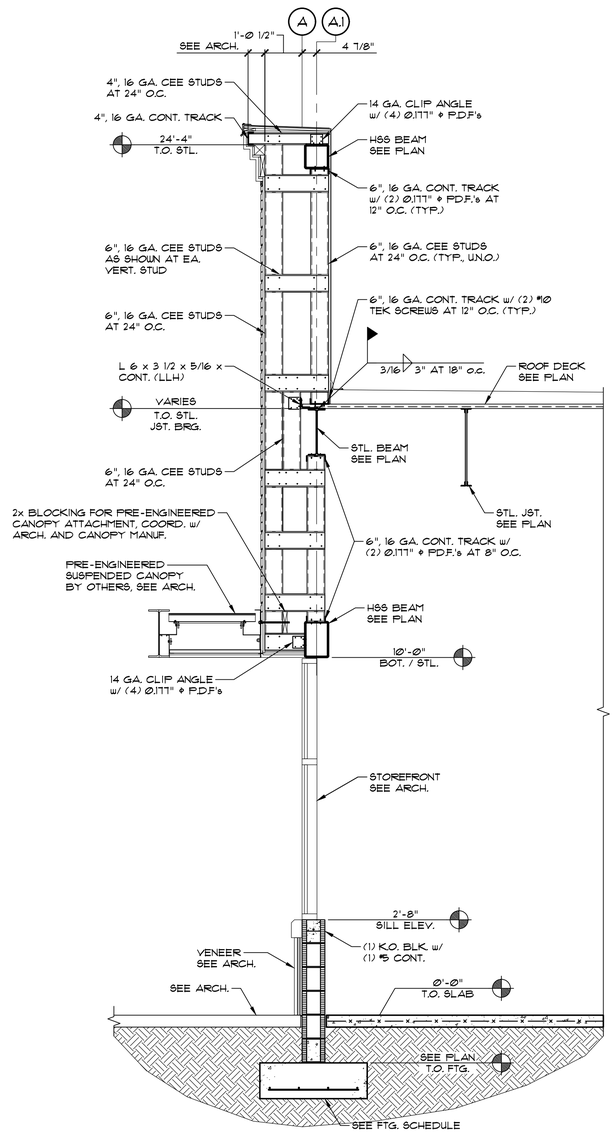
COORDINATE ALL SOFFIT HEIGHTS AND SECTIONS w/ ARCH

COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS

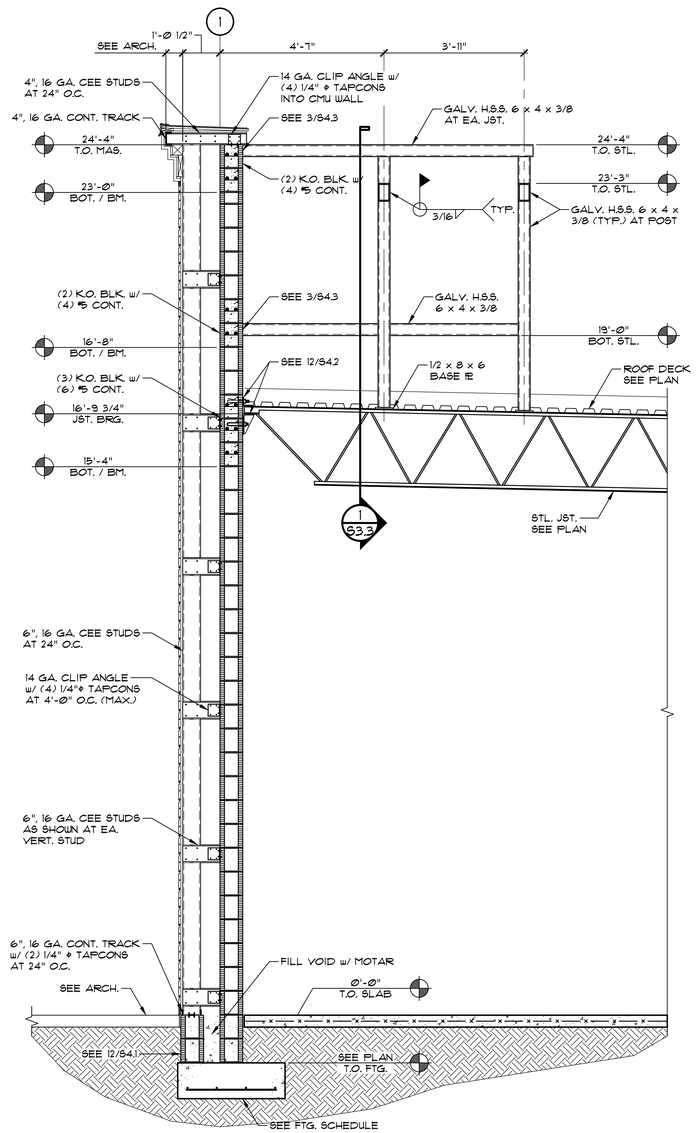
SEE ARCH FOR SHEATHING



1 / S3.1 SECTION
SCALE: 1/2" = 1'-Ø"



2 / S3.1 SECTION
SCALE: 1/2" = 1'-Ø"



3 / S3.1 SECTION
SCALE: 1/2" = 1'-Ø"

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SEE ARCH FOR SHEATHING

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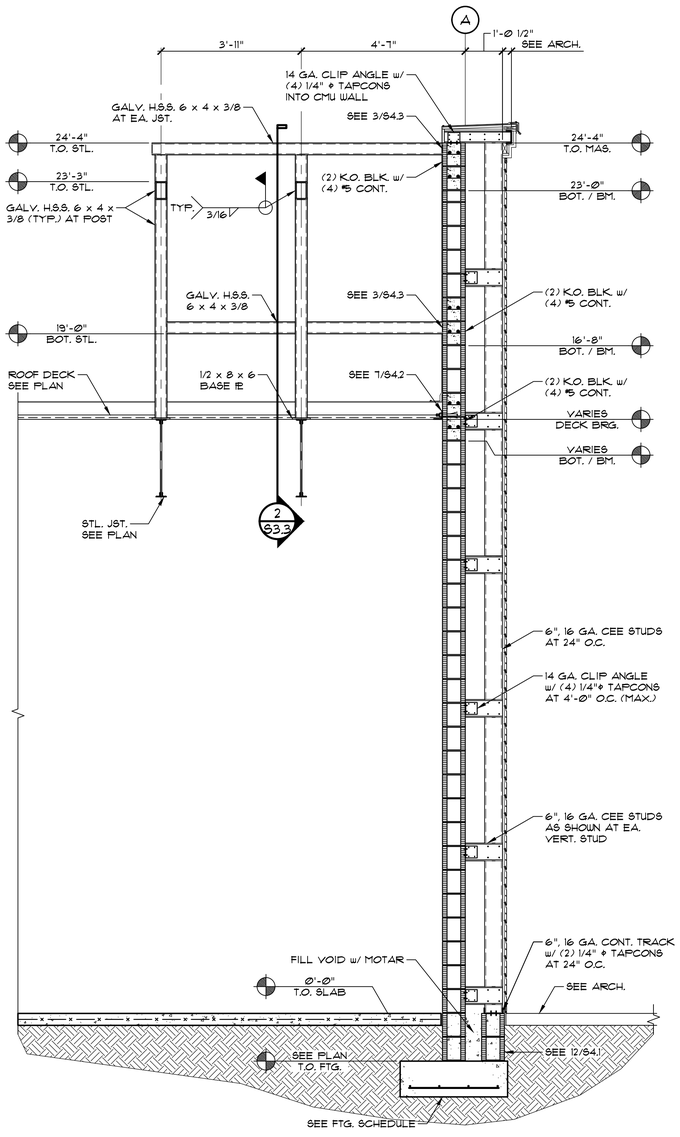
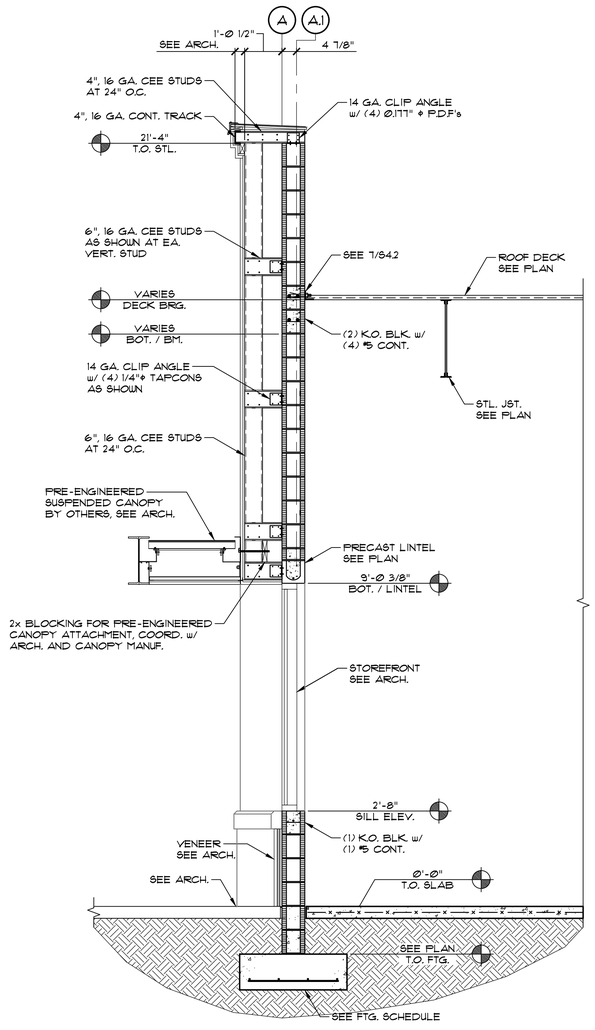


1 S3.2 SECTION
SCALE: 1/2" = 1'-Ø"



2 S3.2 SECTION
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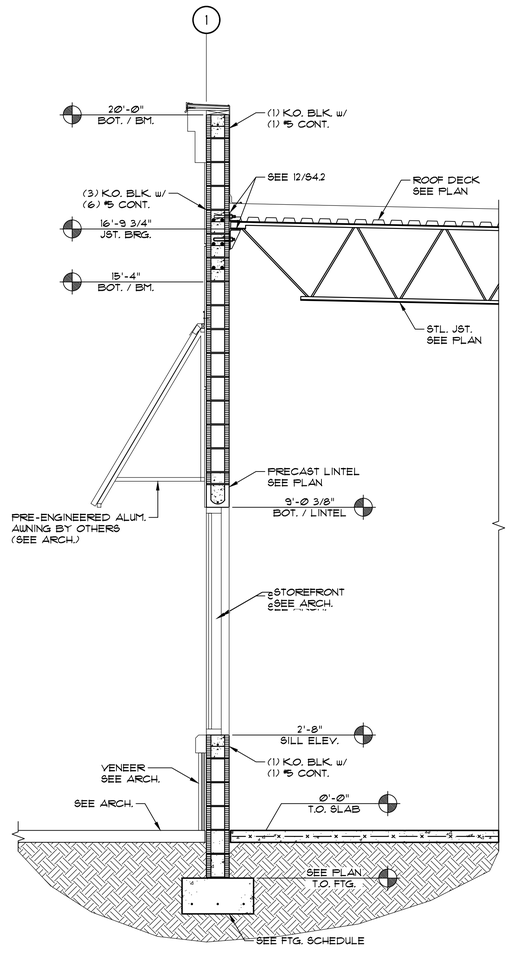

3 S3.2 SECTION
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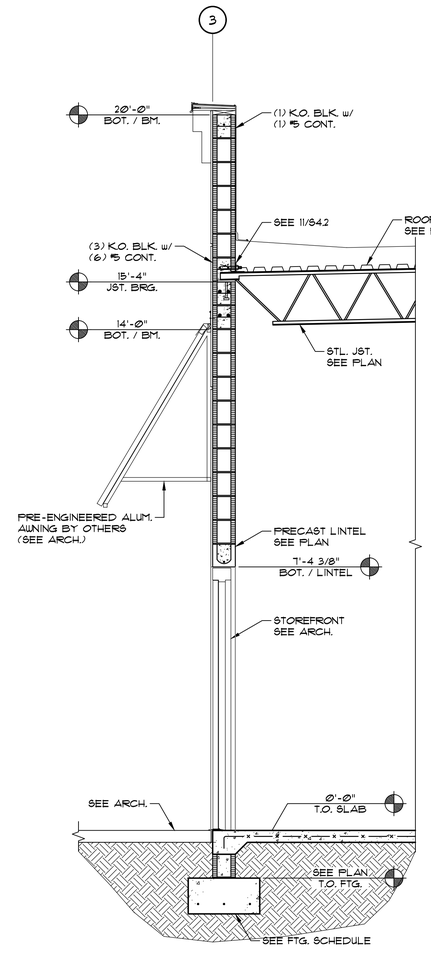

4 S3.2 SECTION
SCALE: 1/2" = 1'-Ø"

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2315 BELLFAIR RD. CLEARWATER, FL. 33764 (727) 443-4436

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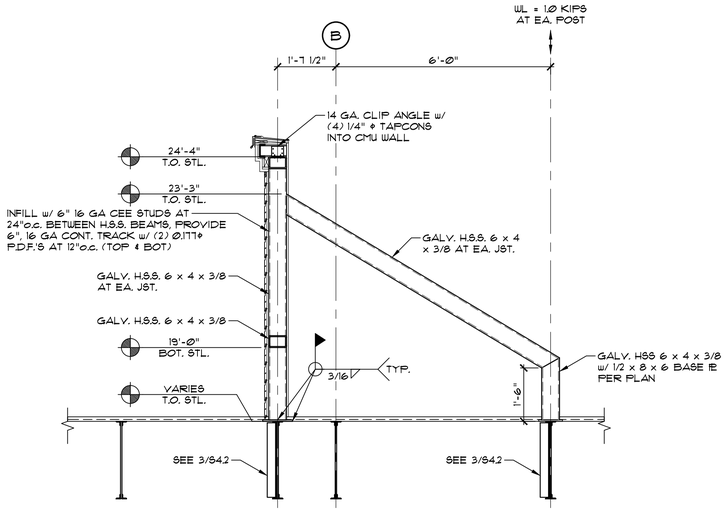
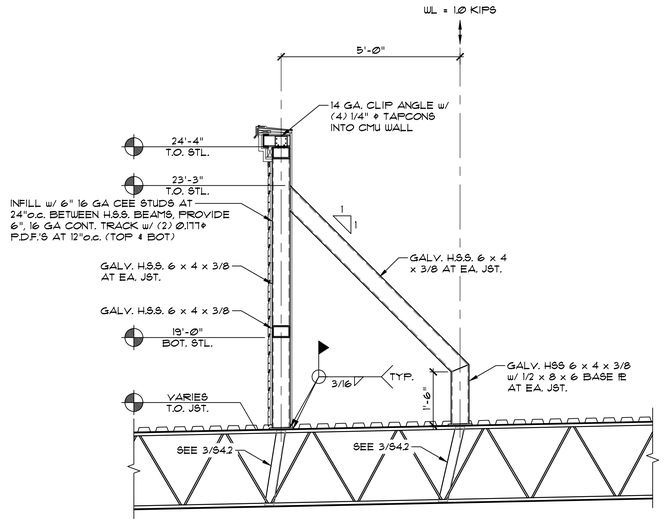


1 / S3.3 SECTION
SCALE: 1/2" = 1'-0"



2 / S3.3 SECTION
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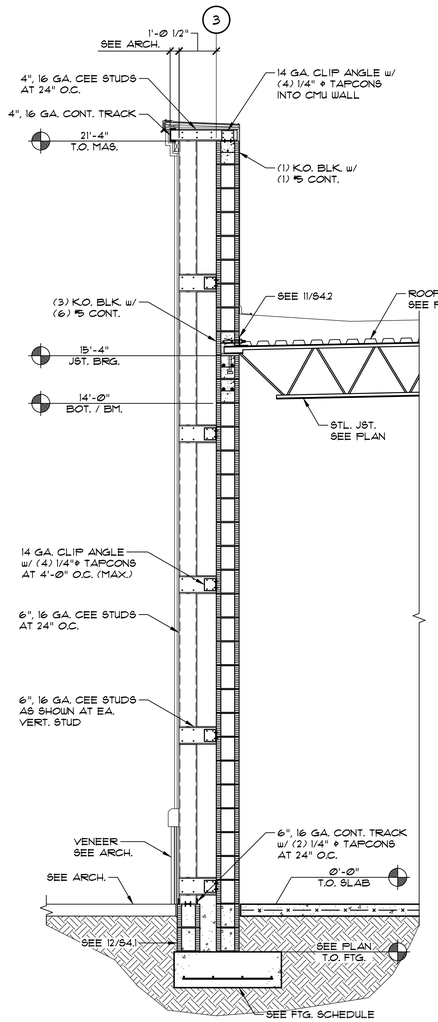

3 / S3.3 SECTION
SCALE: 1/2" = 1'-0"

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3300 Henderson Blvd., Suite 202, Tampa, FL 33609
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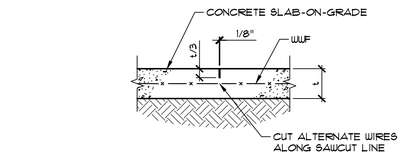
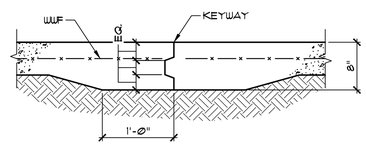


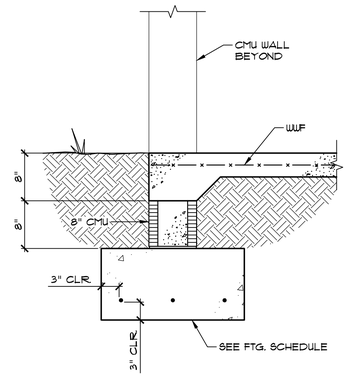
NOTE: SAWED JOINT SHALL BE SAWCUT WITHIN 12 HRS. OF CONCRETE PLACEMENT

1A S4.1 SECTION
SCALE: 1" = 1'-0"



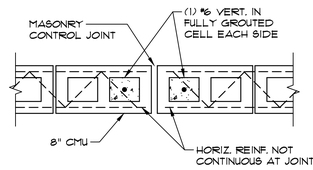
TO BE USED BY THE CONTRACTOR BETWEEN POURS

1B S4.1 SECTION
SCALE: 1" = 1'-0"



2 S4.1 SECTION
SCALE: 1" = 1'-0"

NOTE: M.C.J. NOT CONTINUOUS THRU ANY PRECAST LINTEL CONC. BEAM OR TIE BEAM



3 S4.1 SECTION
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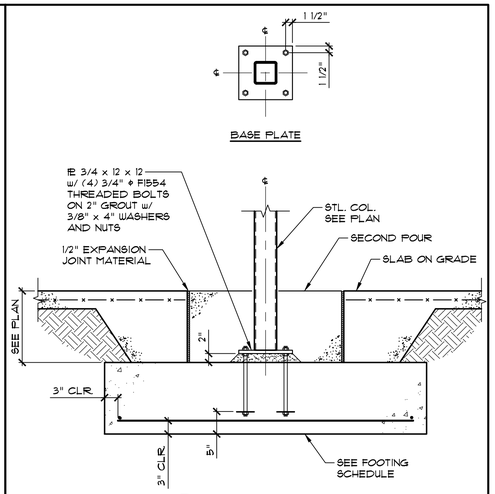
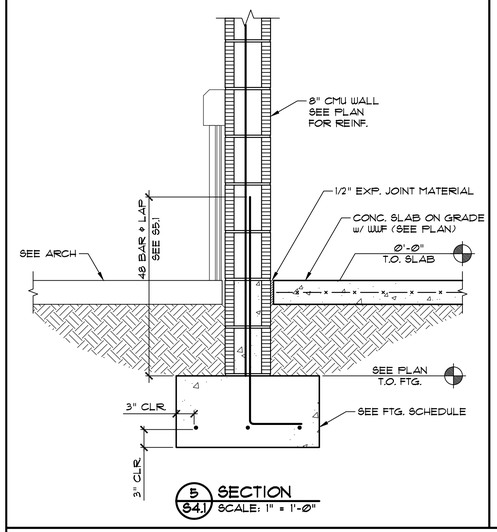
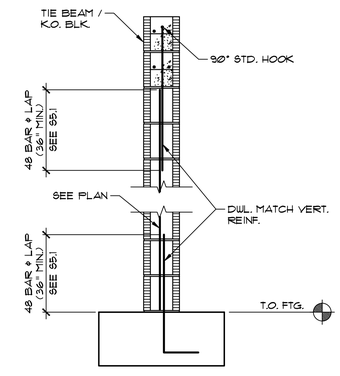


4 S4.2 SECTION
SCALE: 3/4" = 1'-0"

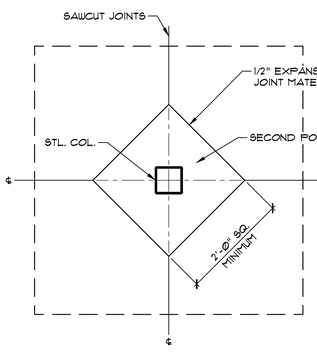


5 S4.1 SECTION
SCALE: 1" = 1'-0"

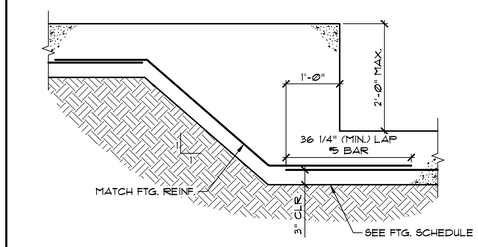


DETAIL TO BE USED BY REBAR DETAILER

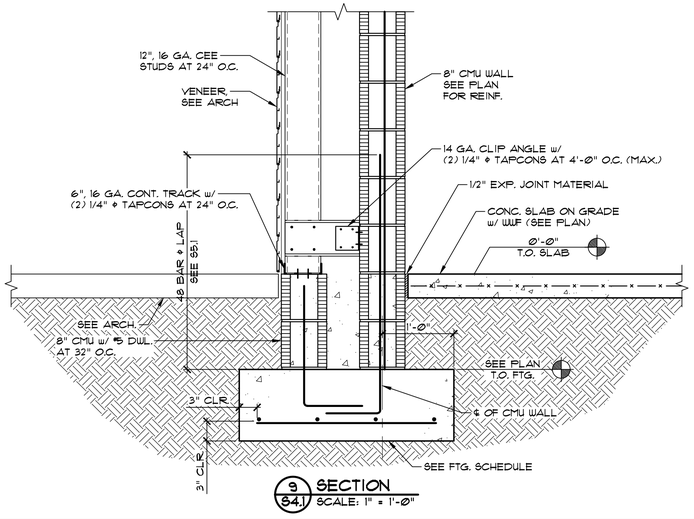
6 S4.1 SECTION
SCALE: 3/4" = 1'-0"



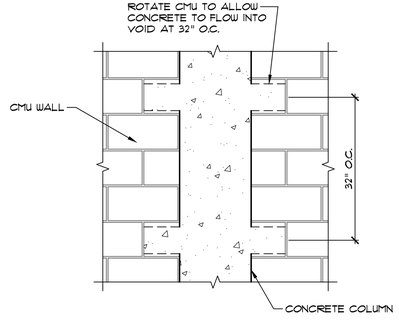
7 S4.1 SECTION
SCALE: 3/4" = 1'-0"



8 S4.1 SECTION
SCALE: 3/4" = 1'-0"



9 S4.1 SECTION
SCALE: 1" = 1'-0"



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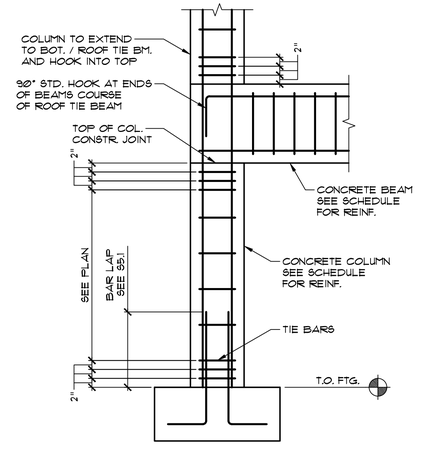

11 S4.1 SECTION
SCALE: 3/4" = 1'-0"

CENTER FOR INNOVATIVE STRUCTURES
3300 Henderson Blvd., Suite 202, Tampa, FL 33609
P: (813) 835-5311

Structural Engineers
Dimitrios Melandinos
PE: 60182 EB: 7242

TO THE BEST OF MY KNOWLEDGE, THE SPECIFICATIONS AND PLANS SHOWN HEREIN COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES IN EFFECT AT THIS TIME.

FISHER AND ASSOCIATES, LLC.
ARCHITECTS
PLANNERS
INTERIOR DESIGNERS
AA 26001738
2315 BELLEAIR RD. CLEARWATER, FL. 33764 (727) 443-4436

DETAILS

HEARTLAND DENTAL
WINTER GARDEN
AVALON & MARSH RD
WINTER GARDEN, FL 34787

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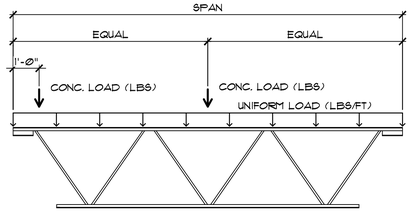
PERMIT	12.08.23
CONSTR.	

REVISIONS:

DIMITRIOS MELANDINOS
PE # 0060182

S4.1

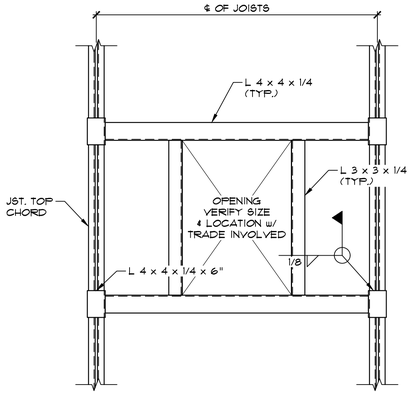
Issue Date: 01/31/23
Project No.: 23-137



JOIST LOADING SCHEDULE		
MARK	CONC. LOAD (LBS.)	UNIF. LOAD (LBS/FT)
SP-J1	500	240
SP-J2	600	240

JOISTS SUPPORTING CONCENTRATED LOADS ARE TO BE DESIGNED WITH THE FOLLOWING LOAD CONDITIONS. THE NORMAL UNIFORM LOAD IS TO BE APPLIED SIMULTANEOUSLY WITH A CONCENTRATED LOAD AT THE MIDSPAN AND AT 1'-Ø" FROM THE SUPPORT.

1 / S4.2 SECTION
SCALE: 3/4" = 1'-Ø"



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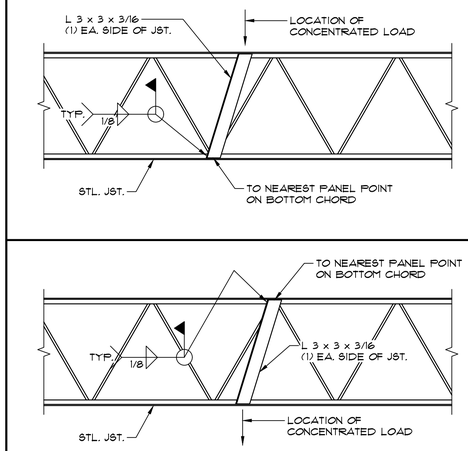

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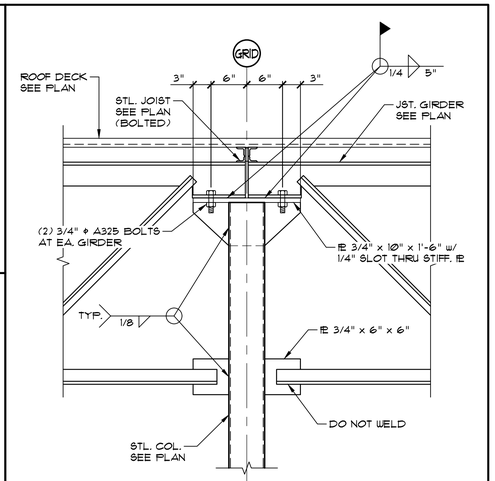

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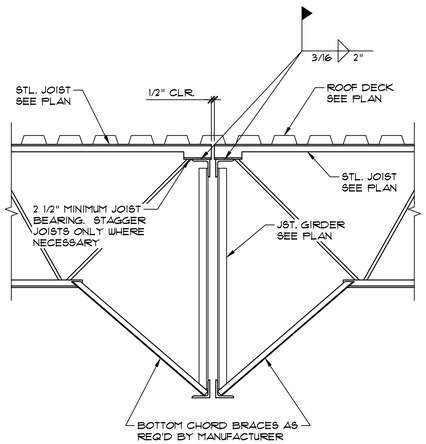

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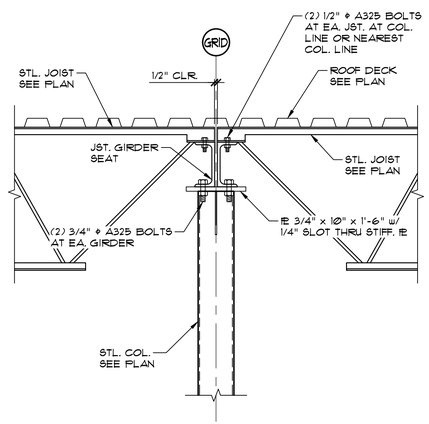
SCALE: 1" = 1'-Ø"



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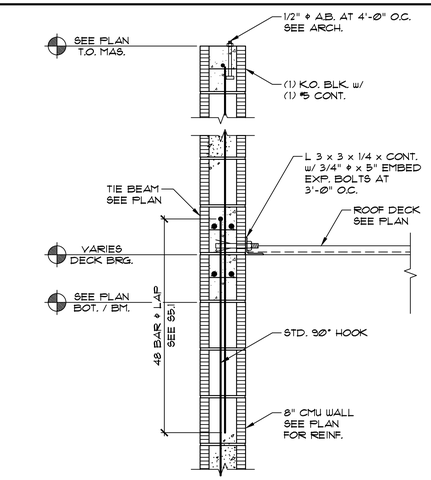
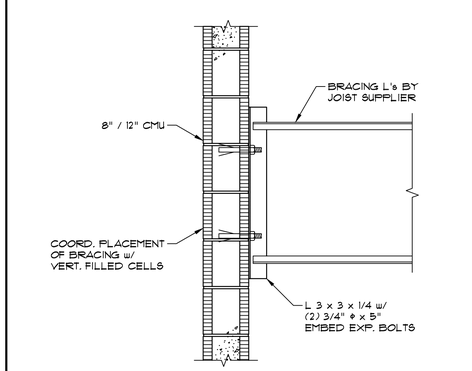


7 / S4.2 SECTION
SCALE: 1" = 1'-Ø"



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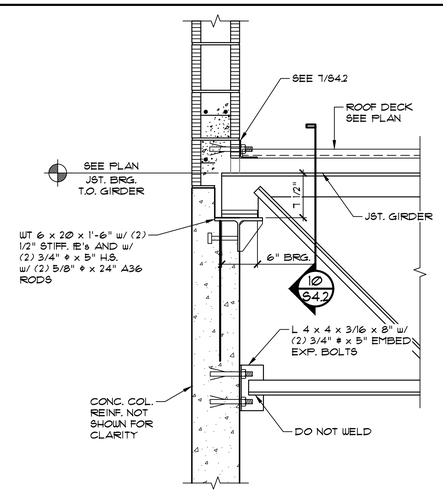

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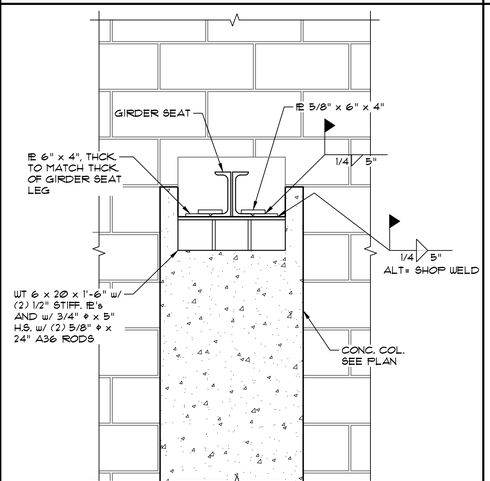

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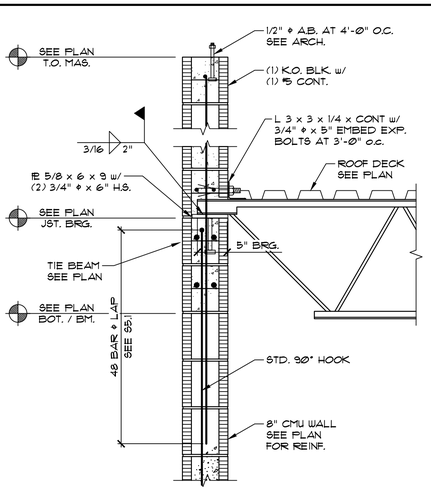

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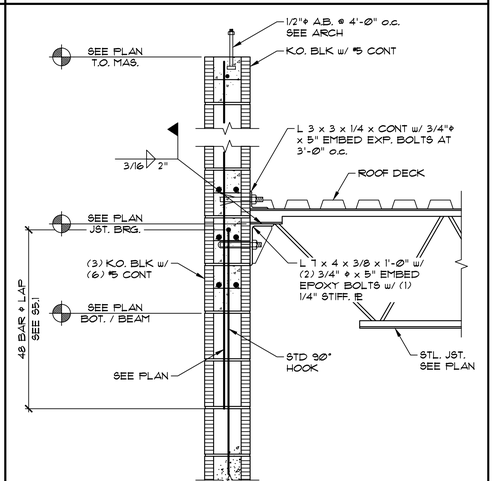
SCALE: 1" = 1'-Ø"



12 / S4.2 SECTION
SCALE: 1" = 1'-Ø"

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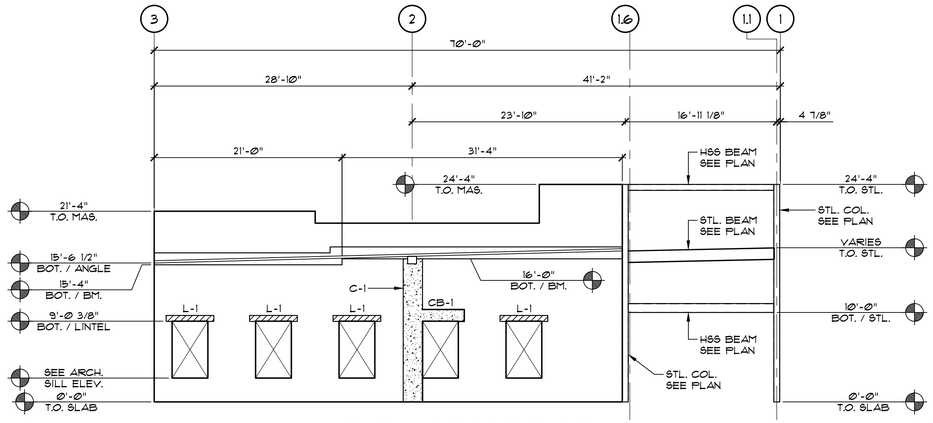
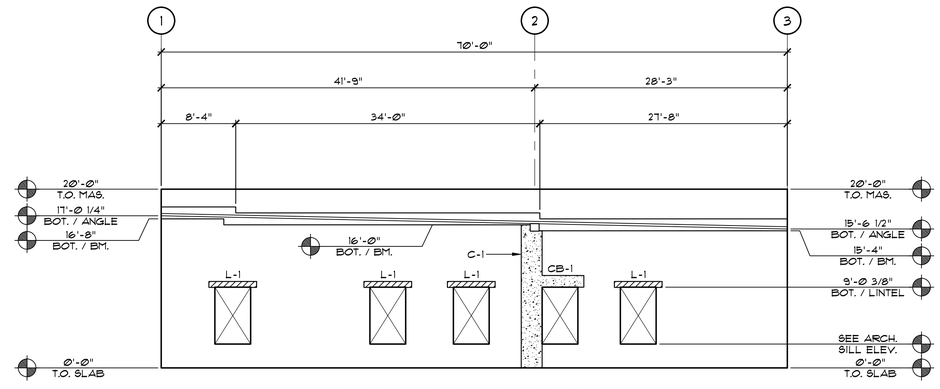


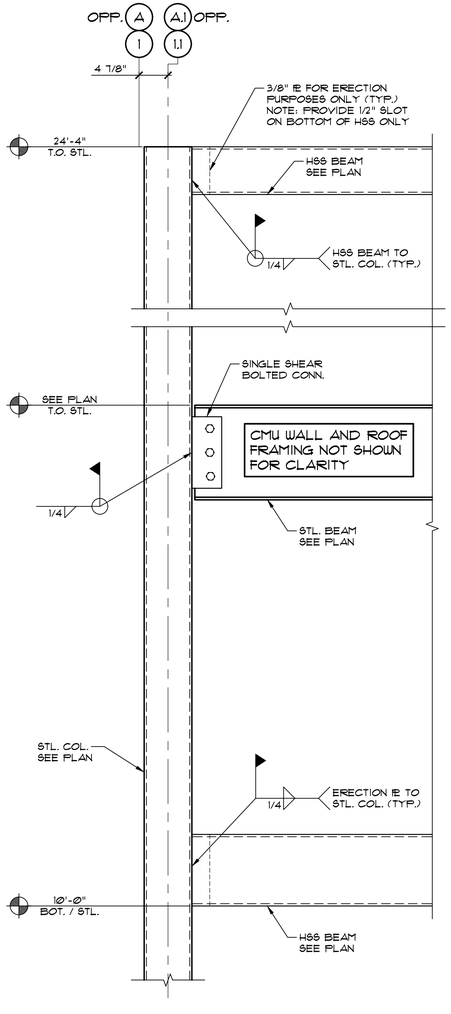
STEPS FOR DECK BEARING TIE BEAM
(FIELD VERIFY)

1 S4.3 ELEVATION
SCALE: 1/8" = 1'-0"



STEPS FOR DECK BEARING TIE BEAM
(FIELD VERIFY)

2 S4.3 ELEVATION
SCALE: 1/8" = 1'-0"



3 S4.3 SECTION
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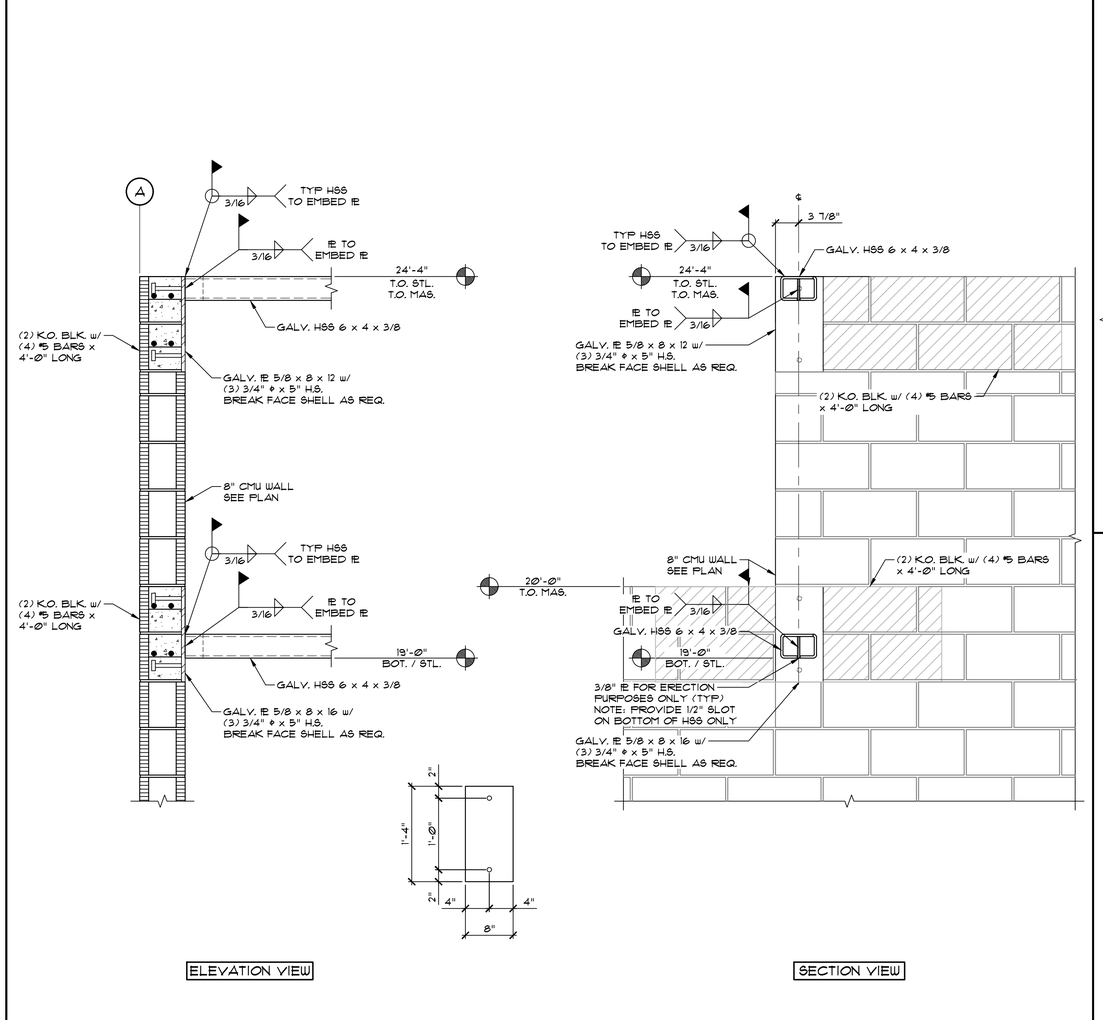

4 S4.3 SECTION
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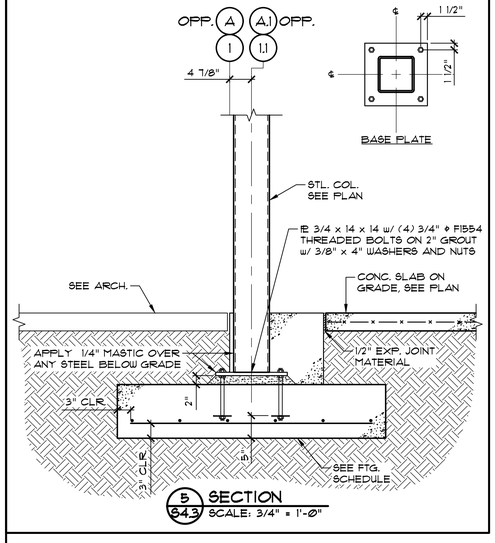

5 S4.3 SECTION
SCALE: 3/4" = 1'-0"

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3300 Henderson Blvd., Suite 202, Tampa, FL 33609
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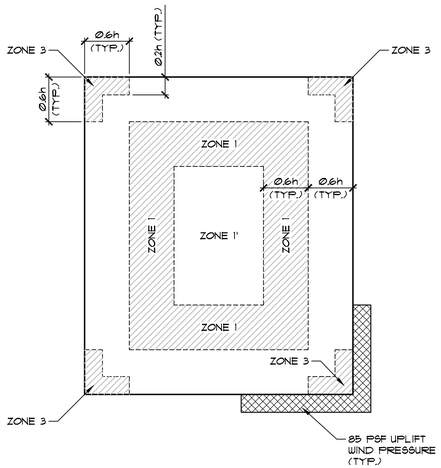
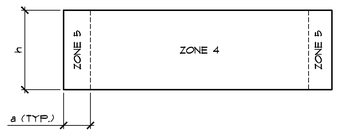


ROOF UPLIFT PLAN (PSF) - ULTIMATE

TRIB. AREA (FT^2)	ZONE 1' INTERIOR	ZONE 1 PERIMETER	ZONE 2 PERIMETER	ZONE 3 CORNERS
10	39.6	69.0	91.0	124.1
20	39.6	65.3	85.5	113.1
50	39.6	58.0	76.4	96.5
100	39.6	54.3	72.7	85.5
200	34.1	50.7	65.3	72.7
500	26.8	43.3	58.0	58.0
1000	21.3	43.3	58.0	58.0

Ø.2h = 4 ft
Ø.6h = 10 ft
h = MEAN ROOF HEIGHT

NOTE: STL. JOIST MANUFACTURER MAY REDUCE UPLIFT LOADS BY 5 PSF FOR UPLIFT DESIGN



WALL PRESSURES (PSF) - ULTIMATE

TRIB. AREA (FT^2)	ZONE 4 (+)	ZONE 4 (−)	ZONE 5 (+)	ZONE 5 (−)
10	43.3	47.0	43.3	58.0
20	41.5	45.2	41.5	54.3
50	39.6	43.3	39.6	48.8
100	36.7	40.7	36.7	47.0
200	35.2	39.6	35.2	41.5
500	32.3	36.0	32.3	36.0

a = 6 ft

STRUCTURAL NOTES

DESIGN CRITERIA
1. Building Code: Florida Building Code, 7th Edition (2020), ASCE 7−16.
2. Design Live Load:
Roof = 20 PSF (trib area = 0 − 200 SF)
per Code (trib area = 201 − 600 SF)
12 PSF (trib area = > 600 SF)
3. Design Dead Loads:
Roof = 18 PSF
4. Ultimate Design Wind Speed = 139 MPH
Nominal Design Wind Speed = 108 MPH
5. Risk Category II
6. Wind Exposure Category = C.
7. Internal Pressure (GCpi) = (+/−) 0.18 − Enclosed.
8. Other Loads: Contractor shall submit loading information for all equipment not shown on the drawings, or differing from those shown on the drawings.

MISCELLANEOUS
1. The Contractor is responsible for the means and methods of the construction of the contents of these documents. This shall include, but is not limited to, temporary bracing, shoring, tie downs and other provisions which will ensure the safety at the jobsite until the entire structural system has been installed.
2. Do not scale these drawings. Coordinate all dimensions, elevations and openings with the architectural drawings and all other trades. Report to this office any discrepancies or omissions found in the contract document.
3. The general contractor shall coordinate all aspects of all drawings prior to fabrication of any structural components and final bidding.

SUBMITTALS
1. All shop drawings shall be submitted and approved prior to construction. Allow (10) working days for approval from this office. Drawings / submittals shall be signed and sealed by a Florida licensed engineer.
2. Poured in Place Concrete:
a) Proposed concrete mix design in accordance with ACI 301 Chapter 3.
b) Detailed shop drawings of reinforcing bars showing number, size, and location.
c) Formwork and shoring drawings as required by the Florida Threshold Law.
3. Concrete Masonry Units:
a) Detailed shop drawings of reinforcing bars showing number, size, and location.
b) Type of units and compression test results.
4. Structural Steel: Detailed shop drawings showing all member sizes, welds, bolts, connection details, layout, etc, as required to fabricate and erect the steel framing.
5. Joists and Girders: Detailed shop drawings showing joists, joist girders, bridging, accessories and connections. Calculations signed and sealed by a licensed Florida engineer.
6. Metal Deck: Detailed shop drawings showing layout, type, fastening and all accessory materials.
7. Cold Formed Steel: Detailed drawings showing layout, size, gauge, bracing, fastening and all accessory materials.

SITE WORK
1. The design soil bearing pressure = 2,500 PSF
2. A soil investigation has been completed by Velocity Engineering Services, LLC, project # 22−217, dated October 7, 2022. All site preparation shall be done in accordance with this document.
3. Notify the soils engineer if the footing excavation reveals materials or conditions not anticipated in the soil's report.
4. A testing laboratory shall be retained to perform all the tests outlined in the soil's report.
5. Foundation walls that retain soil shall be braced until floors slabs are in place.

CONCRETE MASONRY UNITS
1. Blocks shall be normal weight Grade N hollow load bearing masonry units which conform to ASTM C90.
a) Net compressive test strength of units = 2000 PSI
b) f'm = 2000 PSI
2. Mortar shall be type M or S and conform to ASTM C270.
3. Fill all cells containing reinforcing with course grout.
4. Coarse grout shall conform to ASTM C476
a) 3000 PSI at 28 days
b) 3/8" aggregate
c) 8"−10" slump
5. All work shall conform to TMS 602.
6. Reinforcing bars shall be lapped 48 diameters where spliced.
7. All vertical bars shall be held in position at the top and bottom and with a minimum clearance of 1/4" to the masonry walls and one diameter between bars.
8. Horizontal reinforcing shall confirm to ASTM A82.
9. Horizontal reinforcing shall be 9 gauge (U.N.O.) ladder type Dur−o−wall (or equal) at 16" o.c. and shall be lapped a minimum of 6" at splices.
10. Store masonry on pallets and cover with visqueen.
11. Masonry shall be placed in running bond with 3/8" face shell bedding mortar joints, vertical and horizontal.
12. Grouting options
a) 4' high lifts with no observation holes.
b) 8' high lifts with observation holes. Observation holes shall be 4" x 4" sawcuts at the base course of all reinforcing.
13. Space masonry control joints at a maximum of 34'−0" o.c. (U.N.O.).
14. Masonry inspection shall be provided per TMS 402.
15. Provide a 8" x 8" reinforced precast lintels at all openings less than 8'−0" o.c. (U.N.O.) with a minimum end bearing = 8".

COLD−FORMED STEEL
1. Codes and Standards:
a) "The Specifications for the Design of Cold−Formed Steel Structural Members" by AISI
b) "Code for Welding in Building Construction, D1.0" by the AWS
c) 18 gauge and lighter = ASTM A446, Grade A minimum yield strength = 33,000 PSI.
d) 16 gauge and heavier = ASTM A446, Grade D minimum yield strength = 50,000 PSI.
e) Members shall be galvanized finish per ASTM A525 G60.
2. Provide manufacturer's recommended standard steel tracks, blocking, lintels, clips, bracing, screws, web stiffeners and accessories as needed to properly complete the framing.
3. Bridging shall be provided and installed per manufacturer's recommendations
4. Members shall not be spliced.
5. Provide members which conform to the properties shown on the drawings.
6. All framing members shall be designed by the manufacturer to support all live, dead and wind loads shown on the drawings with a maximum deflection equal to L/360 (U.N.O.).

STEEL BAR JOIST AND JOIST GIRDERS
1. Codes and Standards:
a) AISC Standard Specifications for Open Web Steel Joists
b) AISC Standard Specifications for Joist Girders
c) The Recommended Code of Standard Practice for Steel Joists and Joist Girder
d) The Steel Joist Institute
2. Steel joist manufacturer shall be a member of The Steel Joist Institute.
3. See Standard Joist Specifications for camber requirements.
4. Verify weight and location of all equipment or unique loads with contractor prior to fabrication of joists.
5. Design roof joists and bridging for the net uplift as shown on plans per Standard Joist Institute.
6. Joists, girders and accessories shall have one shop coat of paint. See architectural drawings for preferred color.
7. Joists shall bear a minimum of 4" on masonry and 2 1/2" on steel (UNO).
8. Provide bottom chord ceiling extentions where required by architect.
9. The joist bridging shall be properly installed before construction loads are applied.
10. Joist design engineer shall be provided with a copy of these documents.

GROUT − STRUCTURAL STEEL
1. Nonmetallic, Shrinkage−Resistant Grout: Premixed, nonmetallic, noncorrosive, nonstaing grout containing selected silica sands, portland cement, shrinkage compensating agents, plasticizing and water−reducing agents, complying with ASTM C1107, "Standard Specification for Packaged Dry, Hydraulic−Cement Grout (Nonshrink)," of consistency suitable for application, and a 30−minute working time. Minimum 6000 psi compressive strength.
Provide one of the following products:
a) "Euro N−S Grout;" Euclid Chemical Co.
b) "Vibroprut #11;" Lambert Corp.
c) "Crystex;" L & M Construction Chemicals, Inc.
d) "Masterflow 928 and 713;" Master Builders Technologies, Inc.
e) "Sonogrout 14;" Sonneborn Building Product − ChemRex, Inc.

POURED−IN−PLACED CONCRETE
1. Codes and Standards:
ACI 318 "Building Code Requirements for Reinforced Concrete"
ACI 315 "Details and Detailing of Concrete Reinforcement"
ACI 301 "Specifications for Structural Concrete for Buildings"
2. Concrete is to be normal weight conforming to ASTM C94:
a) Portland Cement − ASTM C150, Type I
b) Aggregates (3/4" maximum) − ASTM C33
c) Air entraining − ASTM C260
d) Water Reducing − ASTM C494
e) Flyash (20% maximum) − Class F ASTM C618
f) Water − Potable
g) Slump Range − 3" − 5"
h) Placement Time (Maximum) − 90 minutes from batch time
3. Minimum compressive strength after 28 days:
a) Footings, slab on form deck, masonry fill − 3000 PSI
b) Columns, beams, walls − 4000 PSI
4. Reinforcing steel is to be Grade 60 conforming to ASTM A615
a) Minimum lap splice as follows:

BAR SIZE	f'c	Splice Length
#6 & SMALLER	3000 psi	58 BAR Diameters
#6 & SMALLER	4000 psi	50 BAR Diameters
#7 & LARGER	3000 psi	72 BAR Diameters
#7 & LARGER	4000 psi	63 BAR Diameters

b) Minimum bar cover:
Footings, retaining wall − 3"
Columns, beams, slabs − 1 1/2"
c) Provide corner bars which match the horizontal bars at all wall footings and tie beams.
d) Welding reinforcing if required shall conform to AWS D1.4.
5. Slab−on−Grade: Installation shall conform to ACI 302.1R.
a) Welded wire fabric − ASTM A185, ASTM A497; lap mesh 6" minimum at joints.
b) Moisture barrier − 6 mil polyethylene
c) Compressive strength − 4000 PSI
d) Sawcut joints and construction joints shall be cleaned and filled with epoxy filler as required by owner.
e) Contractor shall have a thorough understanding of the owner's expectation of the slab−on−grade (cracks, levelness, etc.) and shall provide adequate equipment, labor and materials (including water−reducing agents, installation and curing procedures, etc.) to assure a slab that will be acceptable to the owner.
f) Contractor shall replace or repair (at his cost) any portion of the slab that is not acceptable to the owner.
6. Install ties, spacers, chairs, etc (per CRSI recommendations) necessary to securely hold reinforcing during concrete placement. Use plastic tips at all exposed surfaces.
7. Use internal vibrators to consolidate all concrete.
8. Concrete curing options
a) Liquid membrane forming chemical compound conforming to ASTM C309.
b) Continuous moisture in accordance with ACI 301.
9. Concrete shall be finished per architectural drawings.
10. A testing laboratory shall perform the following concrete tests for each 50 cubic yards. Send test results to the owner, architect, structural engineer and General Contractor.
a) Slump test − ASTM C143
b) Four Cylinder strength test − ASTM C39: test one cylinder after 7 days, test two after 28 days and hold one in reserve.
11. All beams shall be poured monolithically.
12. Exposed edges of columns and beams shall be chamfered 3/4" unless noted otherwise on architectural drawings.
13. Coat all forms with a commercial compound that will not bond or adversely affect the concrete.
14. The contractor is responsible for the proper design of all formwork and shoring. Design shall be performed by a licensed engineer.
15. Coordinate locations of all openings, embeds and accessories that are required by all trades. No opening or sleeve may be placed in beams or columns unless approved by the engineer.
16. Proper placement of all embeds, anchor bolts, and etc shall be verified prior to placing the concrete. Notify the engineer of any conflicts.

STRUCTURAL STEEL
1. Codes and Standards
a) AISC "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings", − Latest Edition.
b) Welds shall conform to the American Welding Society, AWS D1.1 using E70 electrodes.
c) Bolts and bolted connections shall conform to "Specifications for Structural Joints Using ASTM A325 or A490 Bolt" Use bearing type bolts with threads across the shear plane.
d) Structural steel shapes, plates, channels, angles − ASTM A36
e) W−shapes − ASTM A992 Grade 50
f) Steel tubing − ASTM A501
g) Steel pipe − ASTM A53, Type E or S, Grade B
h) Anchor bolts − ASTM F1554 (U.N.O.) w/ nuts and washers.
i) Column splices − AISC "Structural Steel Detailing" Table A−7 Page 11−A12.
2. No splices shall be allowed in any structural steel member unless shown on approved shop drawings.
3. Framing connections shall be double angle type (UNO). Design connections for 55% of the total load capacity derived from the uniform load constants table, Part 2 of the AISC Code.
4. Verify the location and size of all floor and roof openings with the appropriate sub−contractor.
5. All members except those to be field welded shall receive one coat of shop primer paint. See architectural drawings for preferred color.
6. Steel stairs shall be designed by a licensed engineer retained by the fabricator for a live load = 100 PSF.
7. No openings shall be allowed in steel members unless shown on the drawings.
8. Openings, copes, and other steel cutting shall have a 1/2" minimum radius.
9. All beams shall be fabricated and erected with the natural camber up.
10. Welds not designed shall be a fillet weld equal to 1/16" less than the least thick member, all welds shall be cleaned and painted.
11. Non−shrink grout (ASTM C 1107) to be 6000 psi (min), non−ferrous and non−corrosive.
12. A qualified testing laboratory shall be retained to perform the following tests:
a) Inspect all steel members and connections
b) Test 50% of full penetration welds.
Send copy of report to the owner, architect, engineer, and contractor.

ROOF DECK
1. Metal roof deck shall conform to the specifications of The Steel Deck Institute.
2. Metal roof deck shall be 1 1/2" deep, 22 gauge, wide rib Type B, galvanized and 80 ksi.
3. Install all decking (3) span continuous.
4. Use weld washers for decking 24 gauge and thinner.
5. End bearing shall be 1 1/2" minimum.
6. End joints shall be lapped 2" minimum.
7. See plan for fastening requirements, all welds shall be cleaned and painted.

center for innovative structures, inc.
3300 Henderson Blvd.
Suite 202
Tampa, FL 33609
P: (813) 835-5311
Structural Engineers
Dimitrios Melandinos PE 52167
C-4896

TO THE BEST OF MY KNOWLEDGE, THE SPECIFICATIONS AND PLANS SHOWN HEREIN COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES IN EFFECT AT THIS TIME.

FISHER AND ASSOCIATES, LLC.
ARCHITECTS
PLANNERS
INTERIOR DESIGNERS
AA 26001738
2315 BELLEAIR RD. CLEARWATER, FL. 33764 (727) 443-4436

GENERAL NOTES
HEARTLAND DENTAL
WINTER GARDEN
AVALON & MARSH RD
WINTER GARDEN, FL 34787

RELEASED FOR:	
BID	06.09.23
PERMIT	05.24.23
CONSTR.	−

REVISIONS:

DIMITRIOS MELANDINOS
PE # 0060182

S5.1

Issue Date: 01/31/23
Project No.: 23−137

NOT FOR CONSTRUCTION