



1626 Ringling Blvd., Suite 400  
Sarasota, Florida 34236  
Toll Free: (866) 927-8525  
Tel: (941) 927-8525  
jbonacci@karins.com

November 10, 2022

Eco Dwelling LLC  
16400 NW 15<sup>th</sup> Avenue  
Miami Gardens, FL 33179

Re: Plan No.: 21L0205-2021-E02R  
Building Size: 16'-0"x8'-0"  
Occupancy Classification: Residential  
Karins Approval Date: 11-10-2022

To Whom It May Concern:

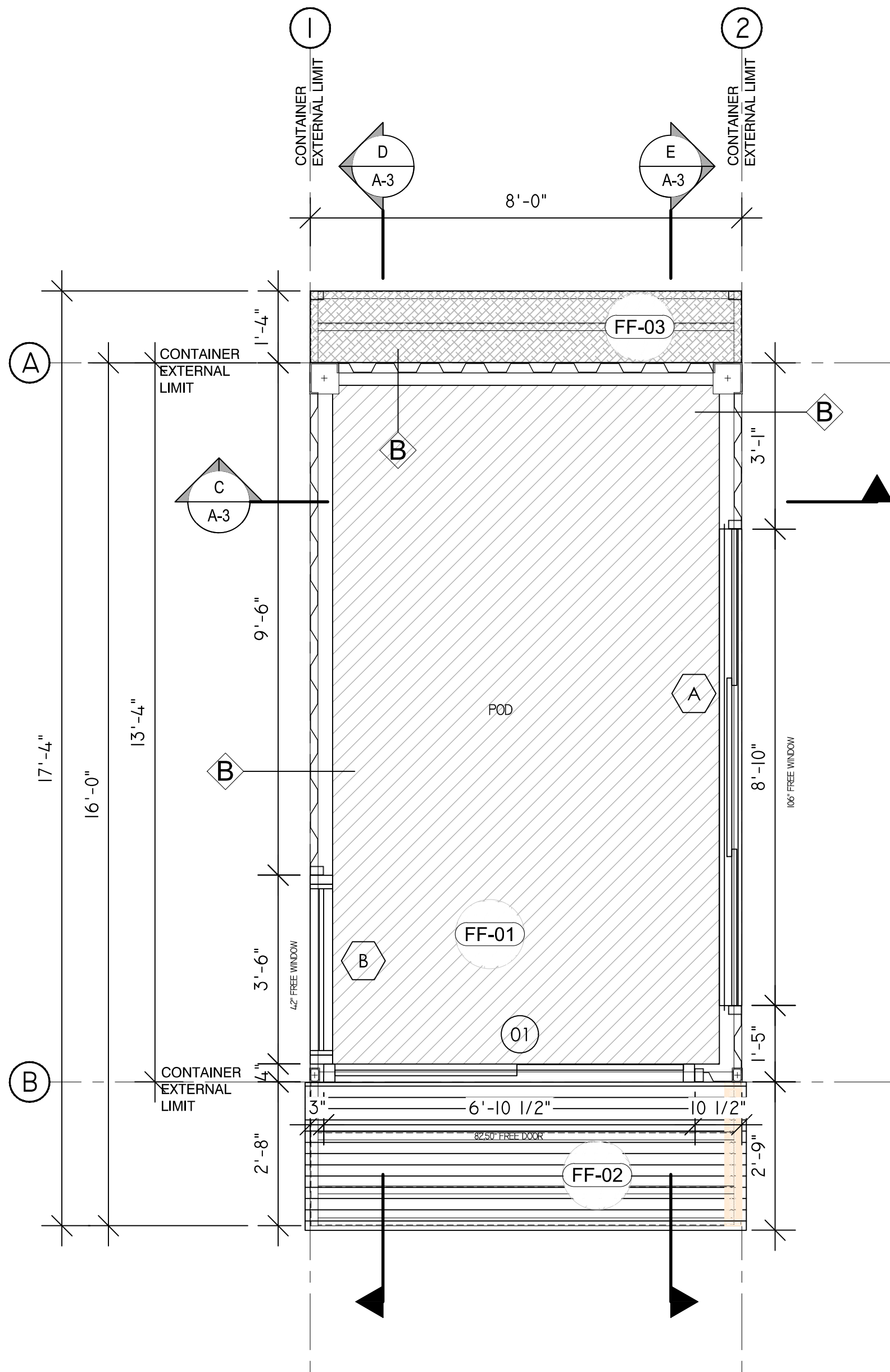
This is to confirm that Karins Engineering Group, Inc. (Karins) approved the above referenced plan under the Florida Manufactured Buildings Program administered by the Florida Department of Business & Professional Regulation (FAC Rule Chapter 61-41). Karins' review confirmed that the design complies with the 2020 Florida Residential Building Code (7th Edition), with the following limitations:

- I. The Manufactured Buildings Program approval pertains to the factory-built modular structure only (approval does not include foundation system).
- II. The foundation and anchoring system, utility connections, and items constructed and installed on-site are subject to review, approval, and inspection by the local Authority Having Jurisdiction (AHJ).
- III. See the site-installed items list on the approved plans for list of items that must be completed on-site.
- IV. Chapter 633 Fire Safety plan review and inspection are reserved for the local fire safety AHJ.
- V. This plan is valid for use only in those jurisdictions where the structural design loads are less than or equal to the design loads indicated on the approved plans.
- VI. This plan is approved for the High Velocity Hurricane Zone.

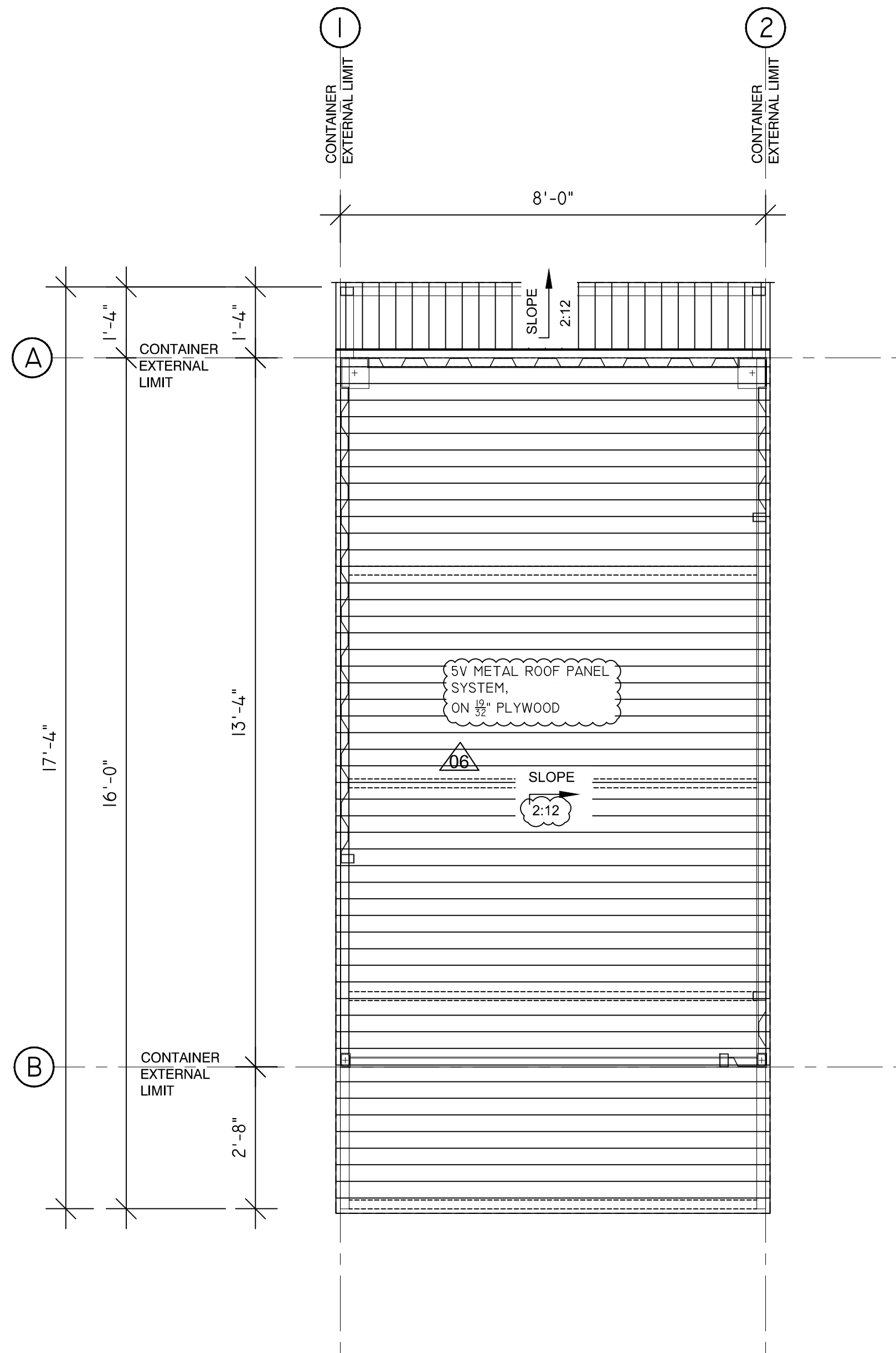
Karins' review included a review of products for compliance with 553.842(5) or FAC Chapter 61-G20-3. A set of signed and sealed plans will be retained on file at Karins, in accordance with the Manufactured Buildings Program requirements.

Sincerely,  
**Karins Engineering Group, Inc.**

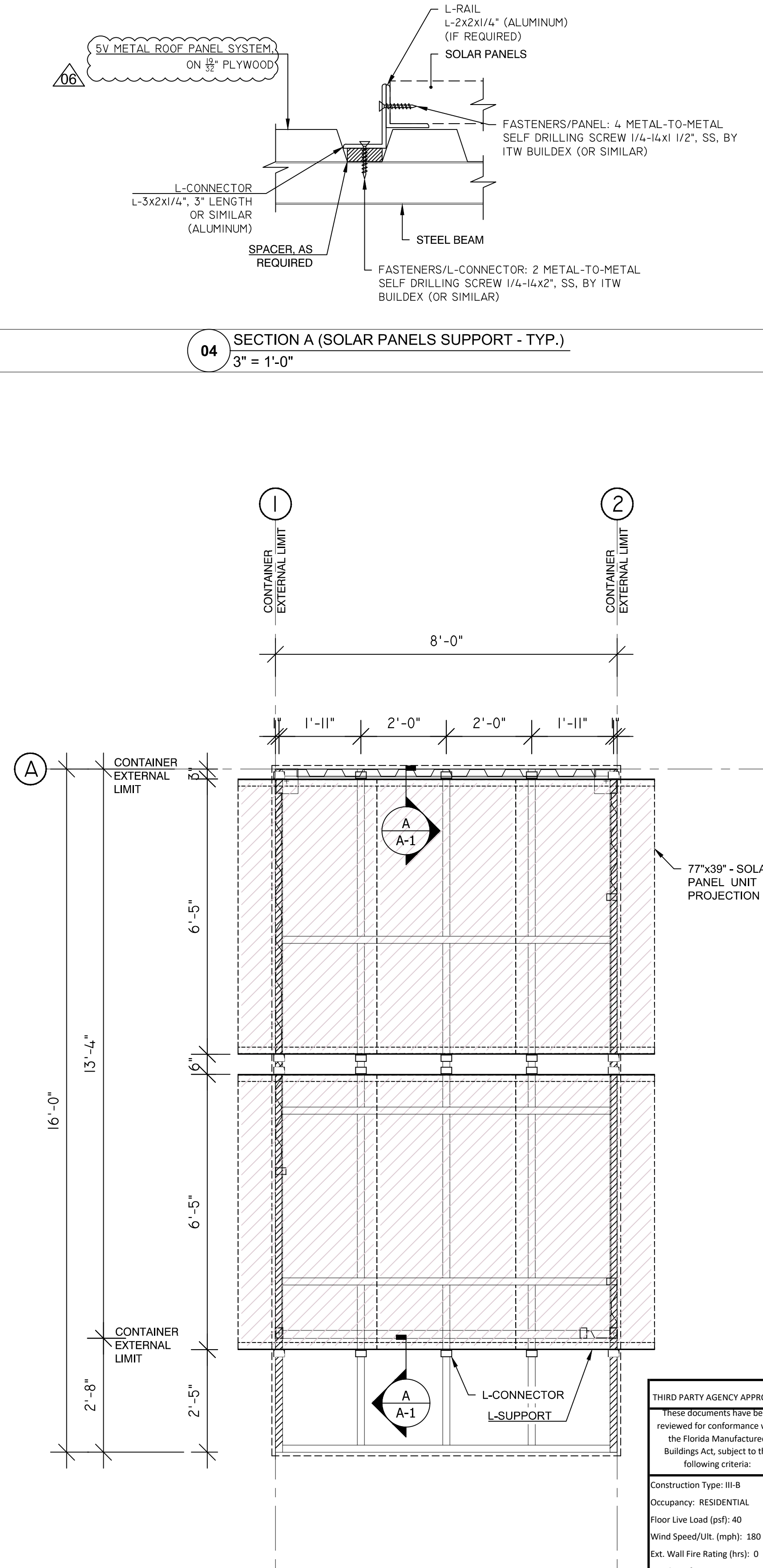
John F. Bonacci, PhD, PE  
Vice President of Engineering



01 GROUND FLOOR PLAN  
1/2" = 1'-0"



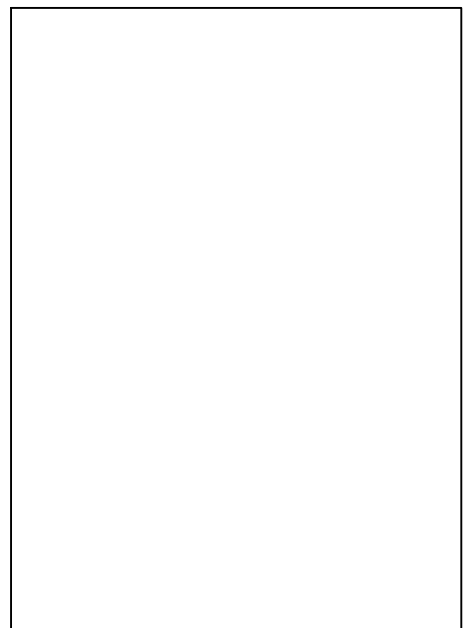
02 ROOF PLAN  
1/2" = 1'-0"



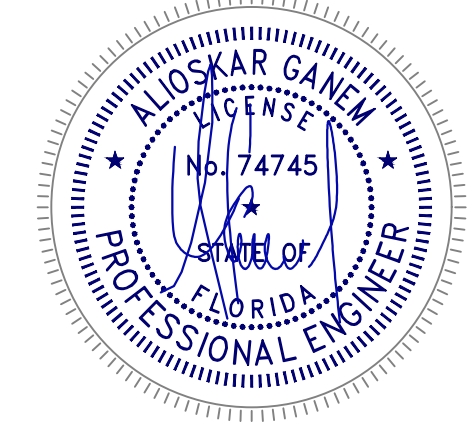
03 SOLAR PANEL ARRANGEMENT  
1/2" = 1'-0"



KEY PLAN



CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:  
POD  
(01)

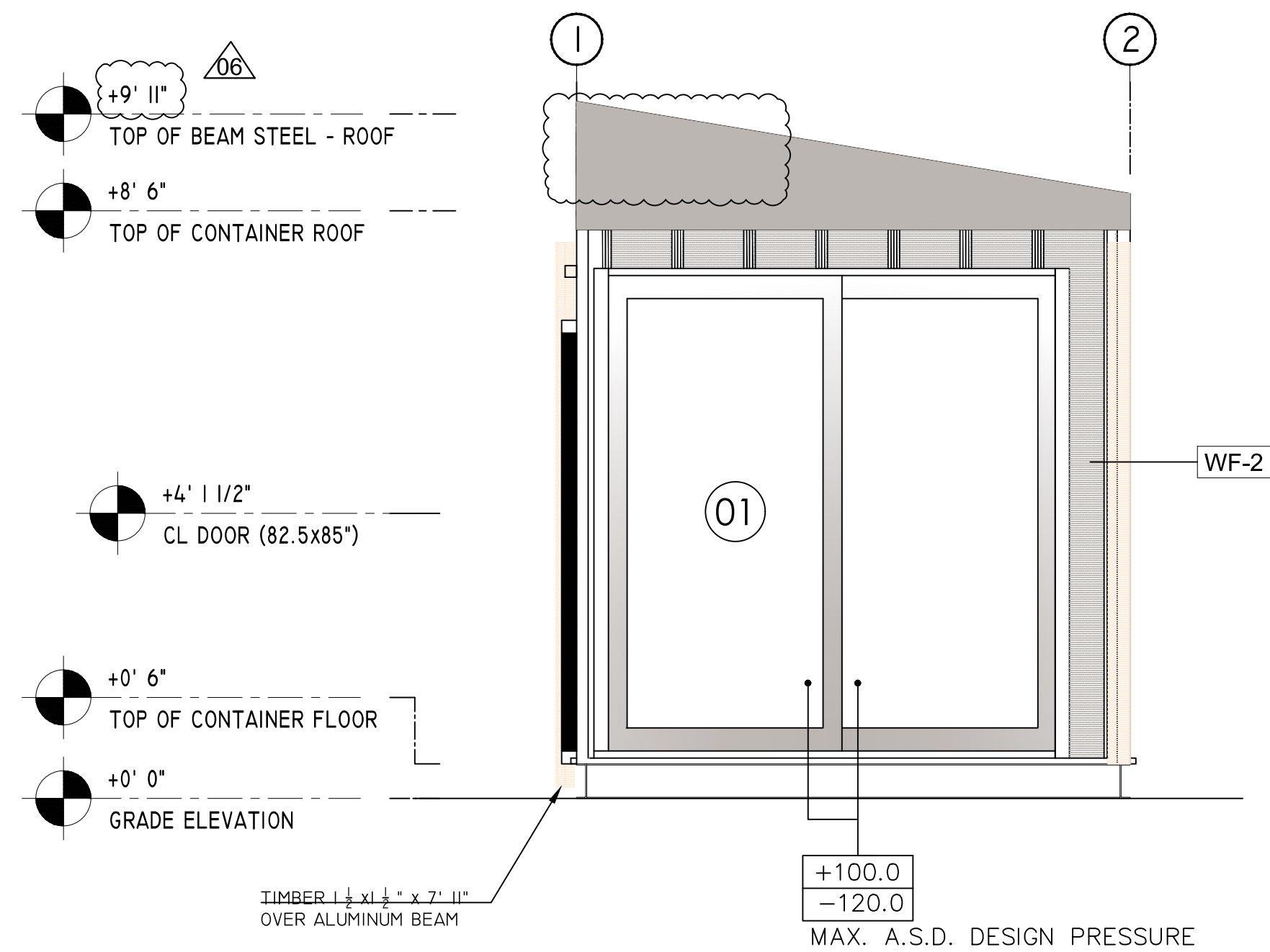
PROJECT ADDRESS:  
16400 NORTH WEST 15TH  
AVENUE, MIAMI, FL  
33169

REVISIONS	DATE
02	05/27/2021
03	07/13/2021
06	10/19/2022

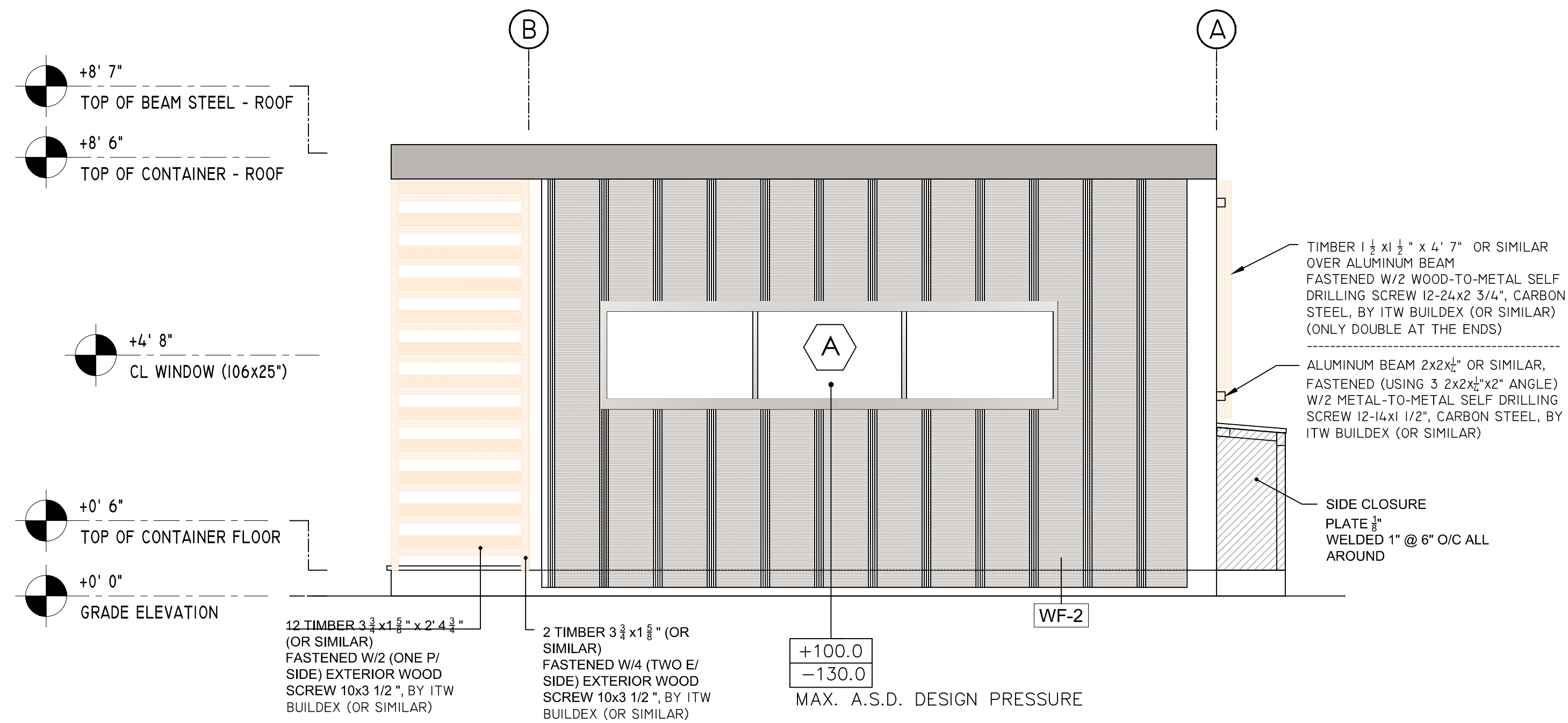
Project No:  
Scale: 2021-E02  
Date: AS NOTED  
Drawn: 02-12-2021  
Checked: A.G.  
CAD File: A.G.

Drawing Title:

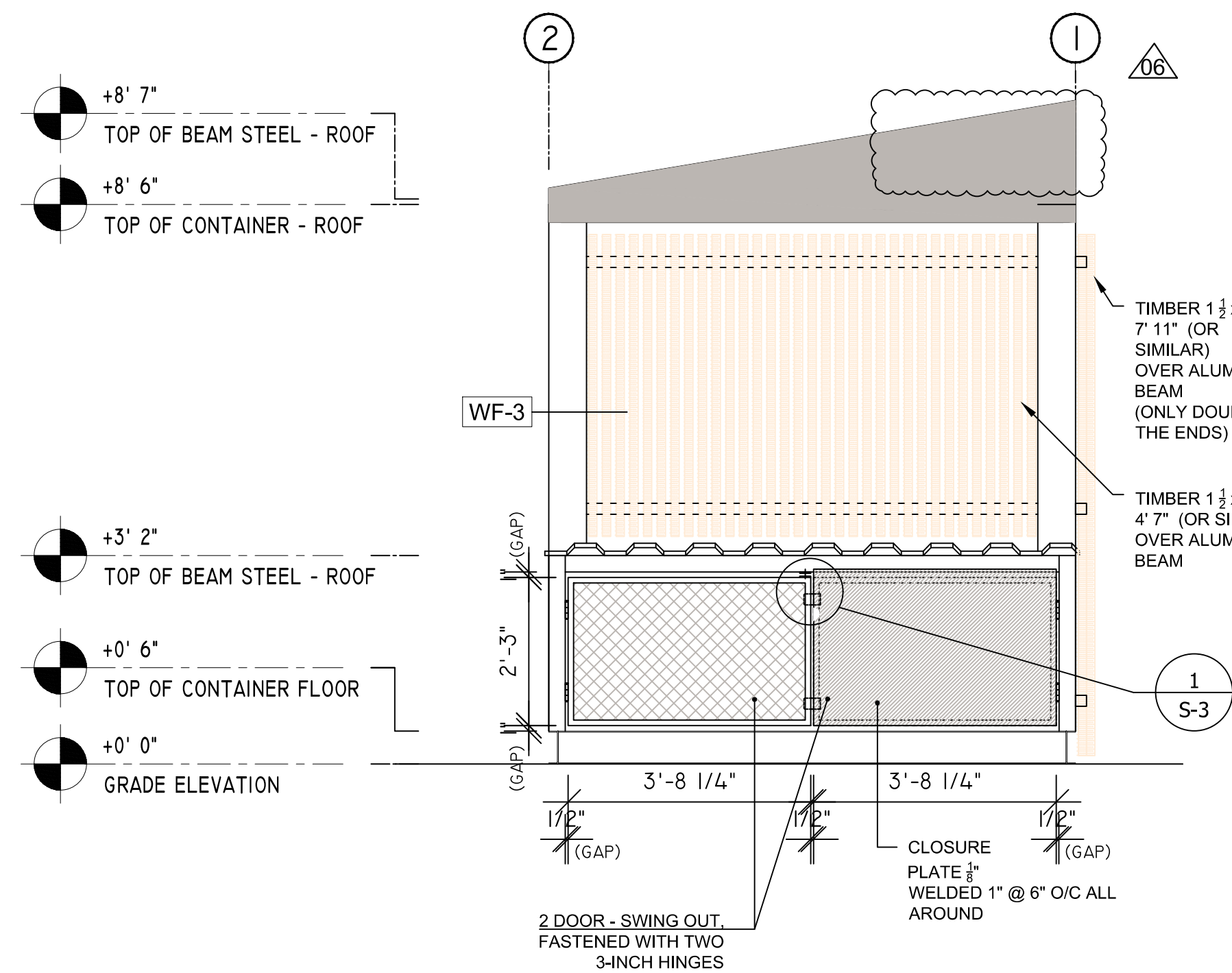
A-2



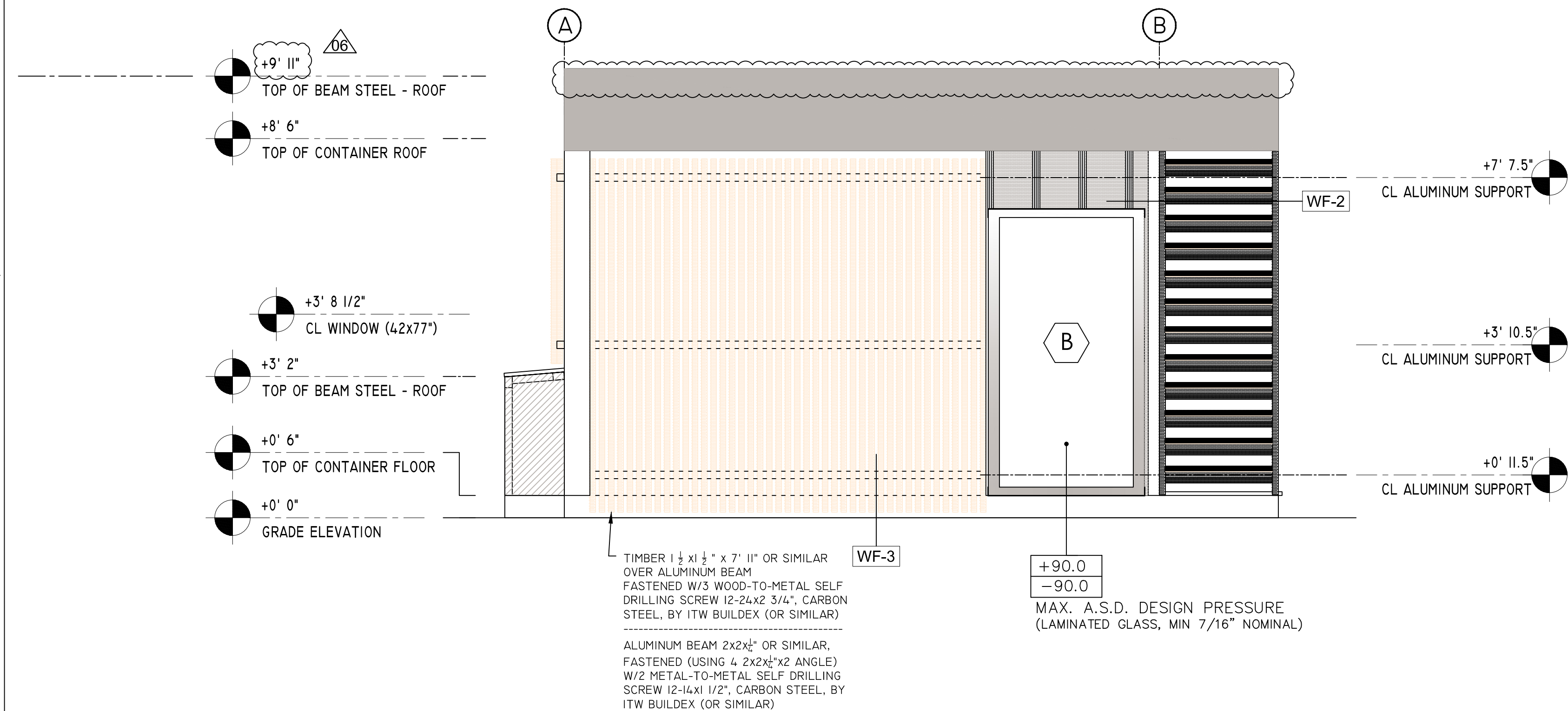
01 MAIN ELEVATION (AXIS B)  
1/2" = 1'-0"



03 LATERAL ELEVATION (AXIS 2)  
1/2" = 1'-0"



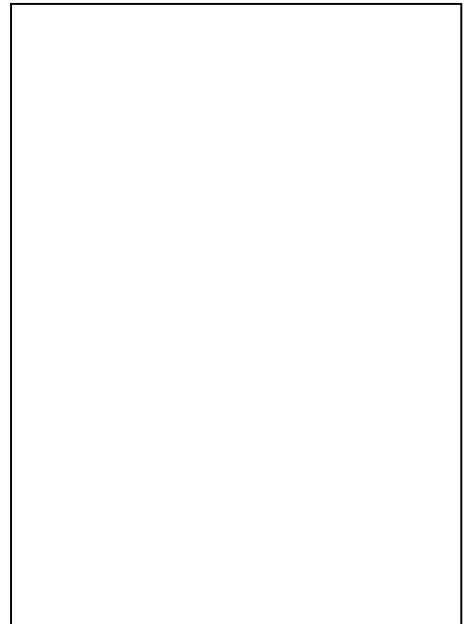
02 REAR ELEVATION (AXIS A)  
1/2" = 1'-0"



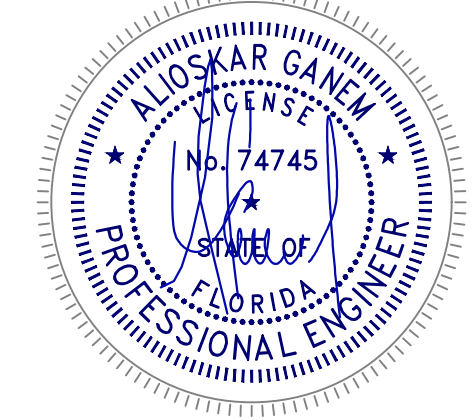
04 LATERAL ELEVATION (AXIS 1)  
1/2" = 1'-0"

APPROVED  
FL Third Party Agency  
Karins Engineering Group  
11/10/2022

KEY PLAN





CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:  
  
POD  
(01)

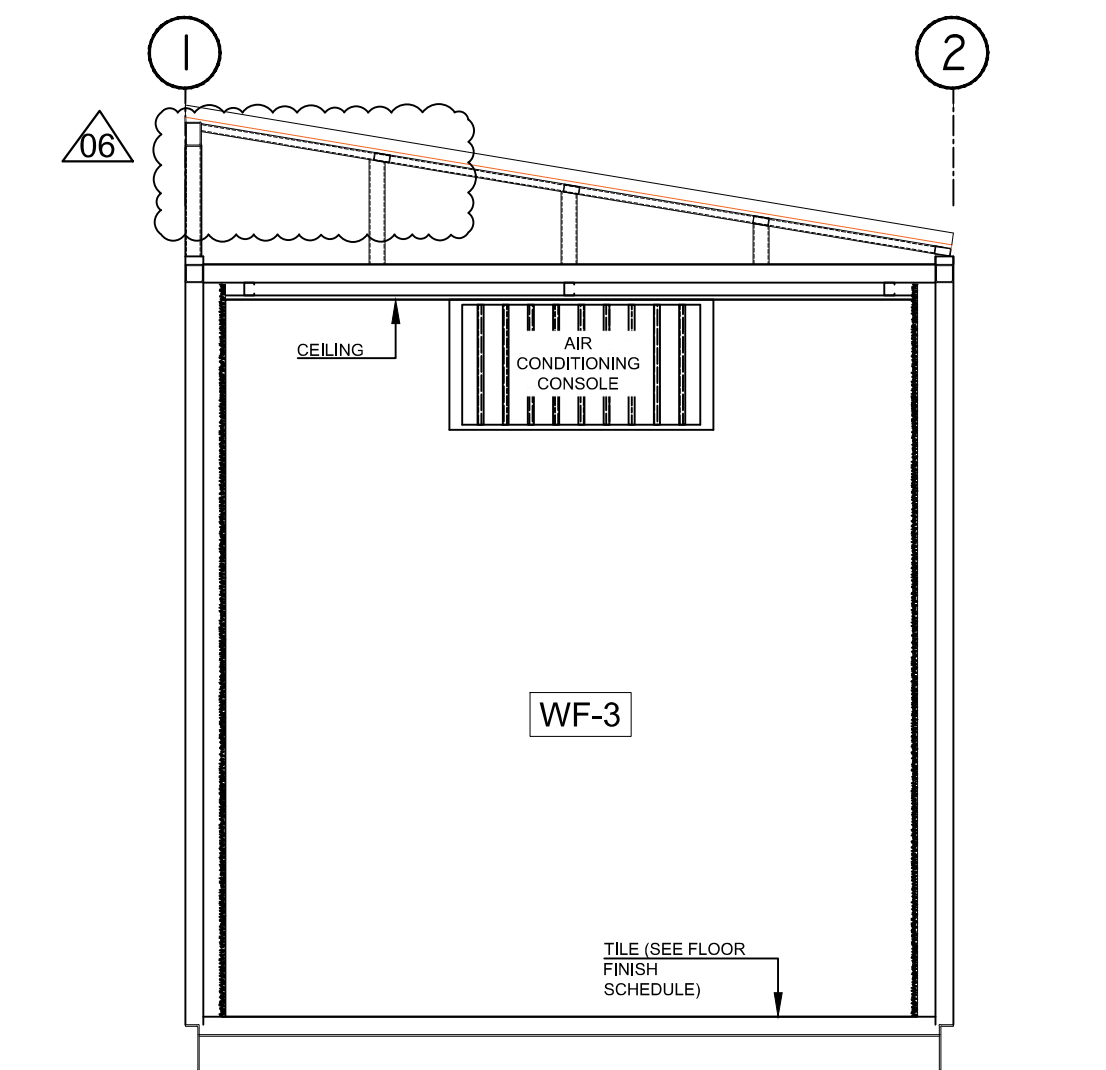
PROJECT ADDRESS:  
16400 NORTH WEST 15TH  
AVENUE, MIAMI, FL  
33169

REVISIONS	DATE
 03	07/13/2021
 06	10/19/2022

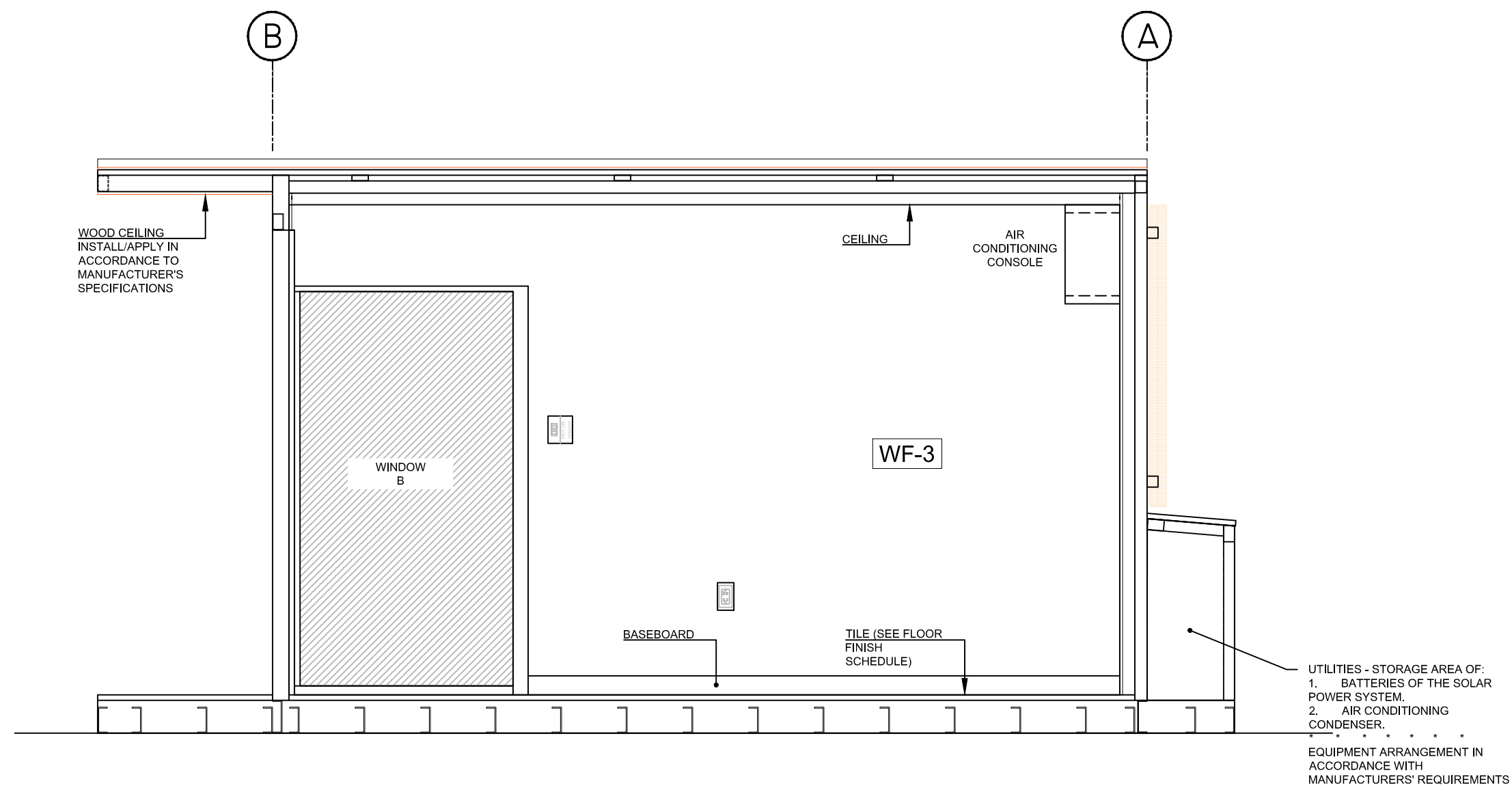
Project No:  
Scale: 2021-E02  
Date: AS NOTED  
Drawn: 02-12-2021  
Checked: A.G.  
CAD File: A.G.

Drawing Title:

A-3



01 SECTION C/A-1  
1/2" = 1'-0"



02 SECTION D/A-1  
1/2" = 1'-0"

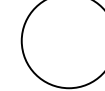
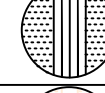

FLOOR FINISH SCHEDULE				
LEGEND	LABEL	LOCATION	DESCRIPTION	NOTES
	FF-01	OFFICE	VINYL TILE	SEE GROUND FLOOR PLAN FOR LOCATIONS OF USE. 1. 1/8" THICK 18-PLY PLYWOOD BOARD (EXISTING) + WHISPER MAT (110 MIL. PEEL & STICK MEMBRANE) + VINYL TILE INSTALL IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
	FF-02	ENTRY	CERAMIC TILE	SEE GROUND FLOOR PLAN FOR LOCATIONS OF USE. 1. 1/8" THICK 18-PLY PLYWOOD BOARD (EXISTING) + CERAMIC TILE OR SIMILAR INSTALL IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
	FF-03	UTILITIES	PLYWOOD	SEE GROUND FLOOR PLAN FOR LOCATIONS OF USE. 1. 1/8" THICK 18-PLY PLYWOOD BOARD (EXISTING)

DOOR SCHEDULE: ALL NEW EXTERIOR DOORS MUST BE IMPACT RATED Clear glass anodize aluminum									
No	LOCATION	TYPE	DESCRIPTION/REMARKS	SIZE		MATERIAL		NOTES	U-FACTOR SHGC
				WIDTH	HEIGHT	DOOR	FRAME		
1	ENTRY	SLIDING	DOUBLE	82.57'	85'	METAL/ GLASS	METAL	NOA 18-1108.02	1.04 0.33

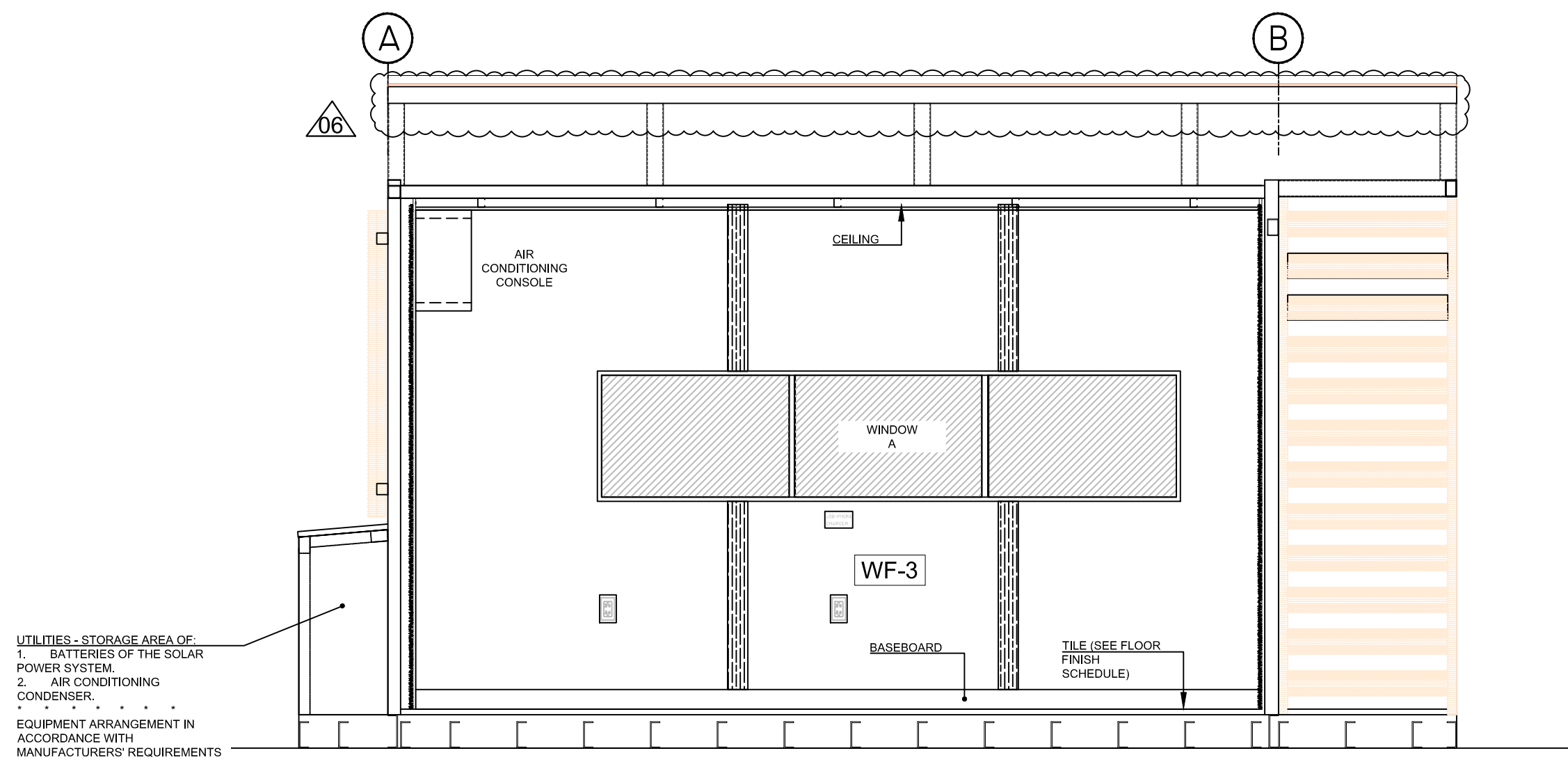
ALL OPERABLE WINDOWS AND SLIDING DOORS SHALL BE PROVIDED WITH SCREENS/WHITE/SILVER FRAME /GREEN GLASS/ FULL VIEW  
MIAMI DADE COUNTY PRODUCT APPROVAL REQUIRED ON ALL WINDOWS AND DOORS SHALL BE SUBMITTED FOR REVIEW BY ENGINEER  
ALL WINDOWS SHALL BE IMPACT RESISTANT AS PER FBC 2011 /NOA NOT OLDER THAN MAY 2012 TO BE PROVIDED BY MANUFACTURER

WINDOW SCHEDULE: Clear glass anodize aluminum windows						
No	LOCATION	GLASS TYPE	DESCRIPTION /REMARKS	MAS. OPENING		U-FACTOR SHGC
				WIDTH	HEIGHT	
A	OFFICE	IMPACT RESISTANT	HORIZONTAL SLIDER	106"	25"	NOA 19-0911.04 1.08 0.46
B	OFFICE	IMPACT RESISTANT	FIXED GLASS	42"	77"	NOA 20-0113.02 1.04 0.30

ALL OPERABLE WINDOWS AND SLIDING DOORS SHALL BE PROVIDED WITH SCREENS/WHITE FRAME /GREEN GLASS/ FULL VIEW MIAMI DADE COUNTY PRODUCT  
APPROVAL REQUIRED ON ALL WINDOWS AND DOORS SHALL BE SUBMITTED FOR REVIEW BY ENGINEER ALL WINDOWS SHALL BE IMPACT RESISTANT AS PER FBC 2010  
/NOA NOT OLDER THAN MAY 2012 TO BE PROVIDED BY MANUFACTURER

WALL FINISH SCHEDULE				
LEGEND	LABEL	LOCATION	DESCRIPTION	NOTES
	WF-01	INTERIOR	LAMINATED	SEE ELEVATIONS AND ARCHITECTURE SECTIONS FOR LOCATIONS OF USE. 1/2" GYPSUM WALL BOARD (EXISTING) + SHEET LAMINATE INSTALL/APPLY IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
	WF-02	EXTERIOR	ROOFING PANEL OR SIMILAR	SEE ELEVATIONS AND ARCHITECTURE SECTIONS FOR LOCATIONS OF USE. INSTALL/APPLY SIDING IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS OR EXISTING - 14 GA STEEL SHIPPING CORRUGATED CONTAINER SIDE WALL PANELS, PRIMED AND PAINTED.
	WF-03	EXTERIOR	STEEL CORRUGATED + TIMBER	SEE ELEVATIONS AND ARCHITECTURE SECTIONS FOR LOCATIONS OF USE. 14 GA STEEL SHIPPING CORRUGATED CONTAINER SIDE WALL PANELS, PRIMED AND PAINTED + TIMBER 1 1/2" x 4" x 12" INSTALL/APPLY IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS AND WHAT IS INDICATED IN THE DRAWINGS

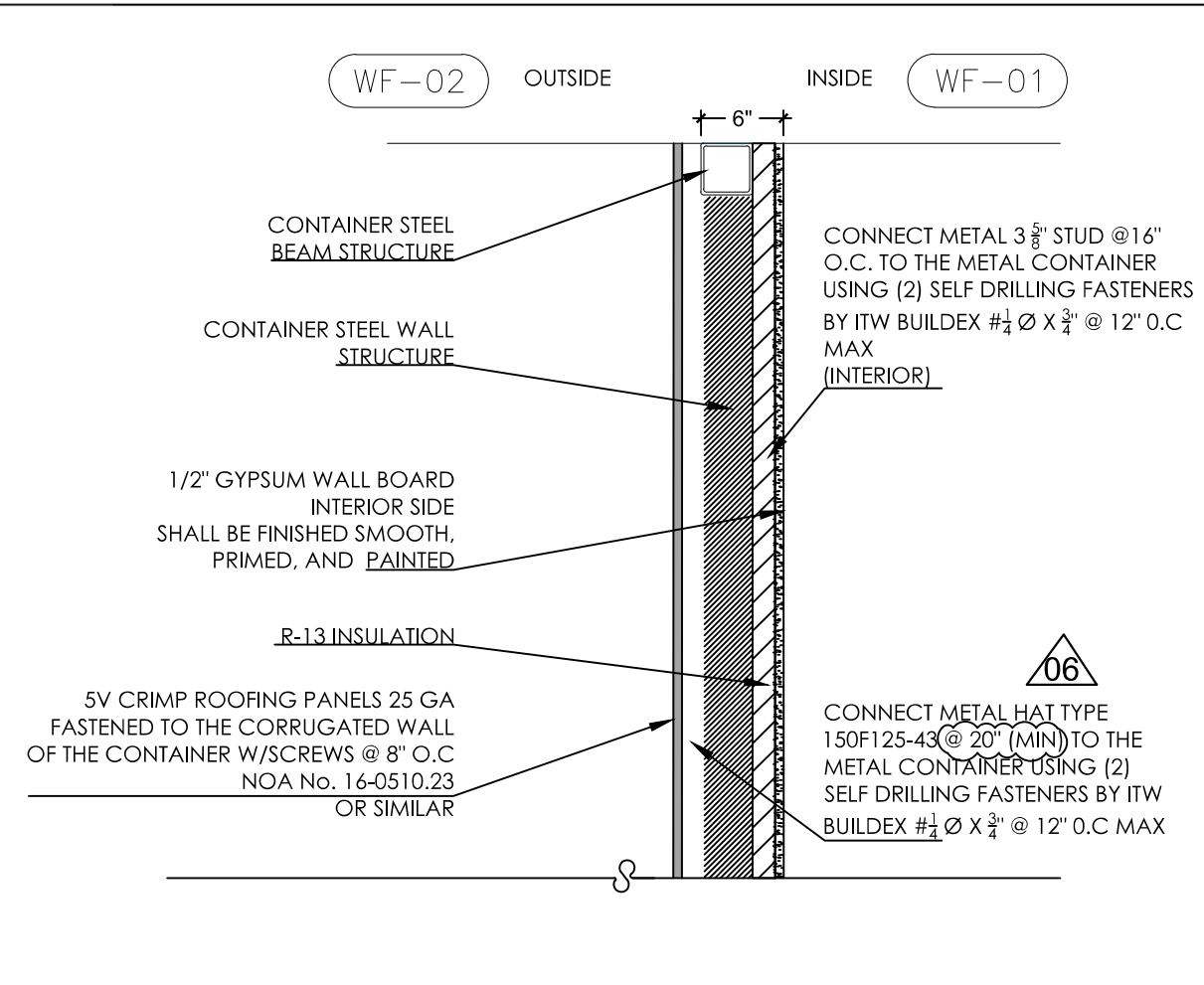
04 FINISH SCHEDULE  
N.T.S.



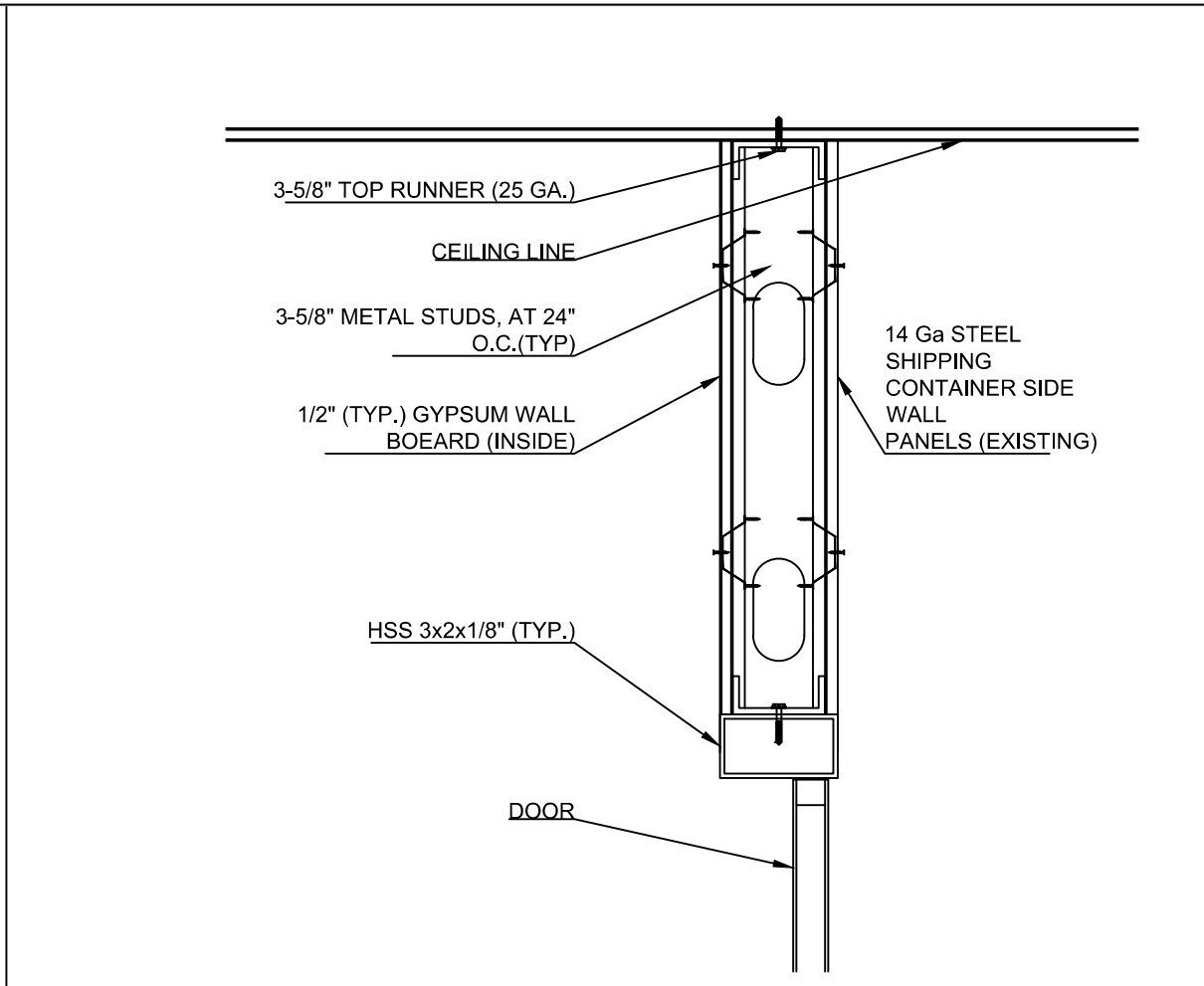
03 SECTION E/A-1  
1/2" = 1'-0"

APPROVED  
FL Third Party Agency  
Karins Engineering Group  
11/10/2022

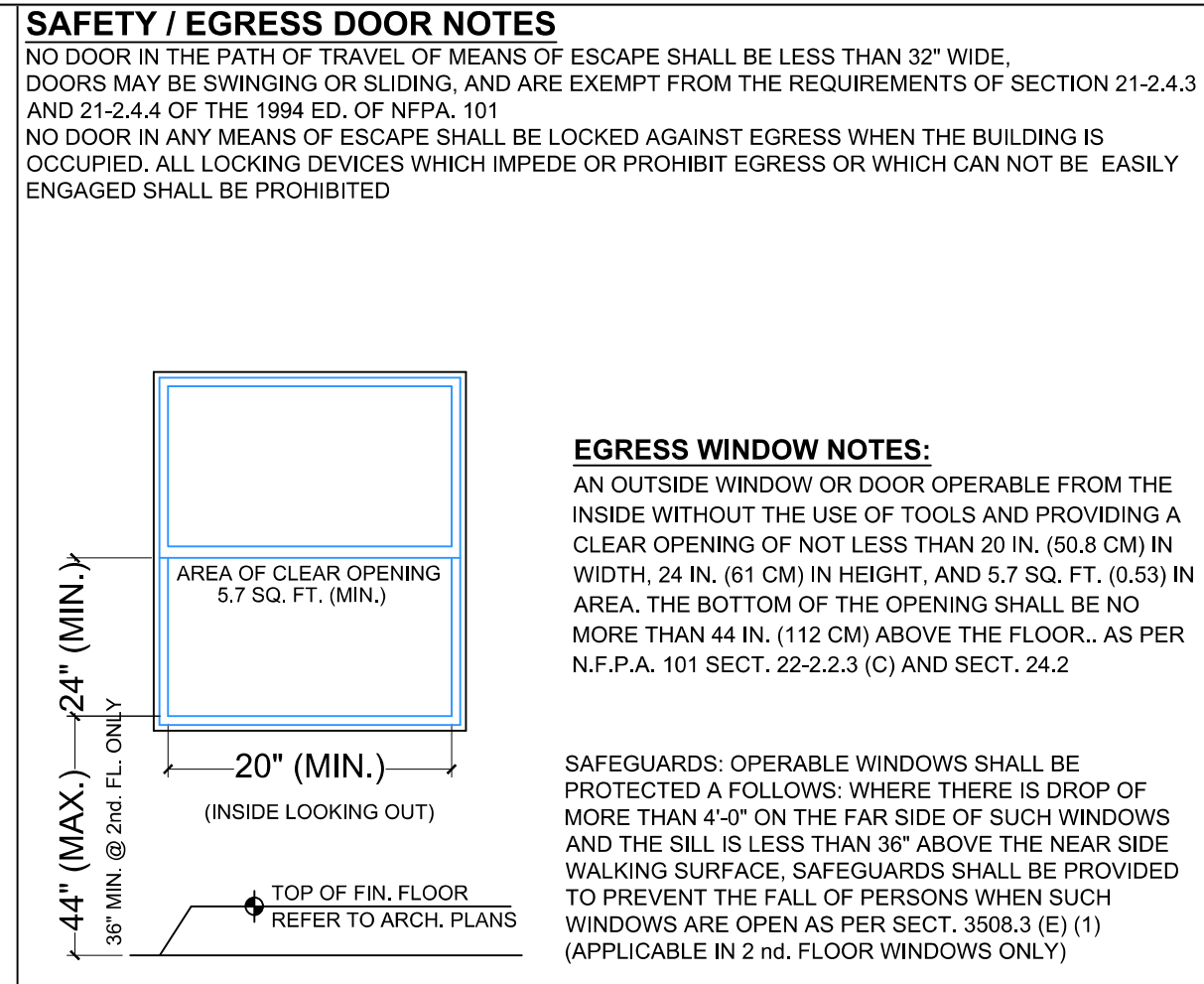




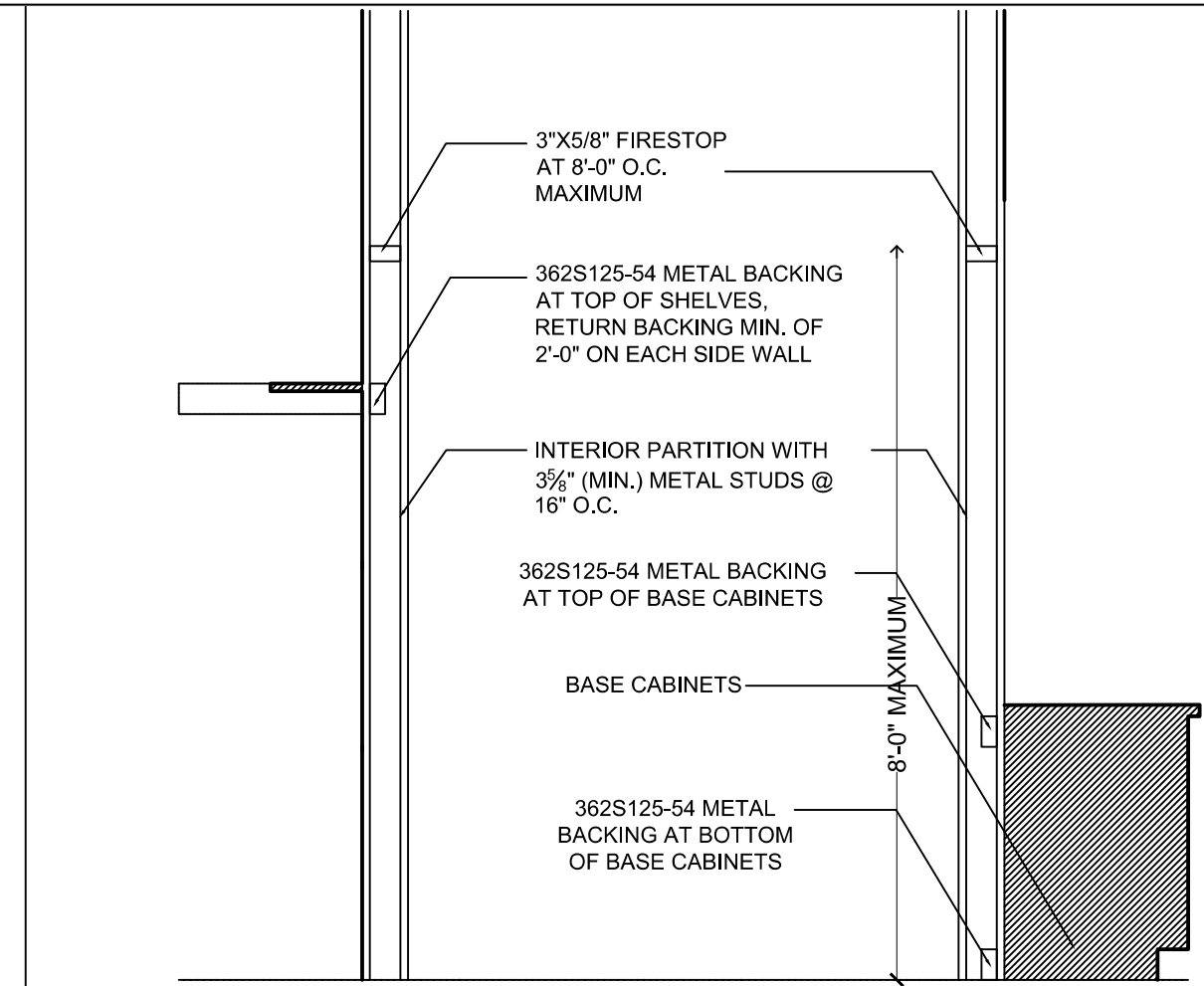
01 B TYP CONTAINER STEEL WALL STRUCTURE NTS



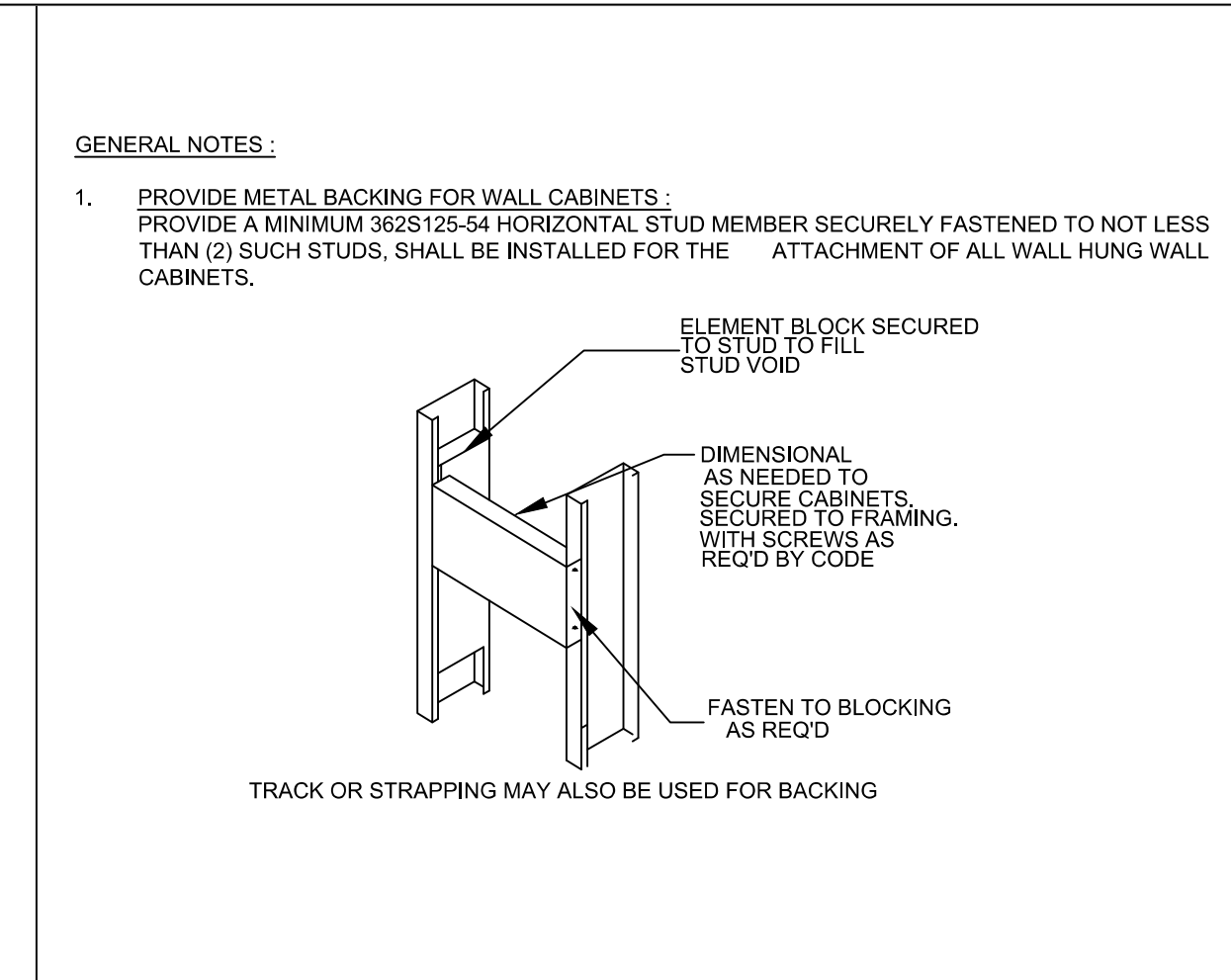
02 DOOR HEAD DETAIL NTS



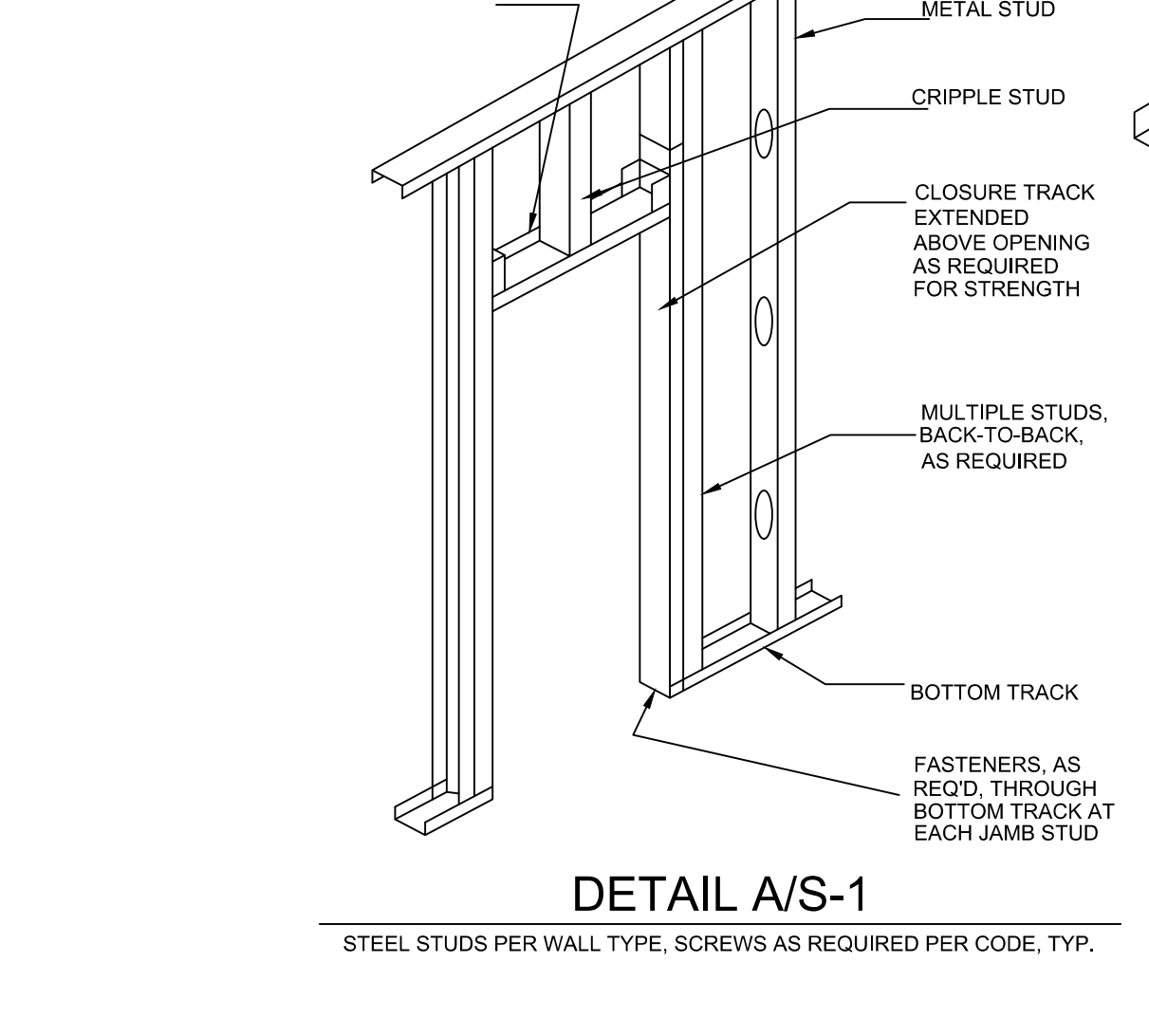
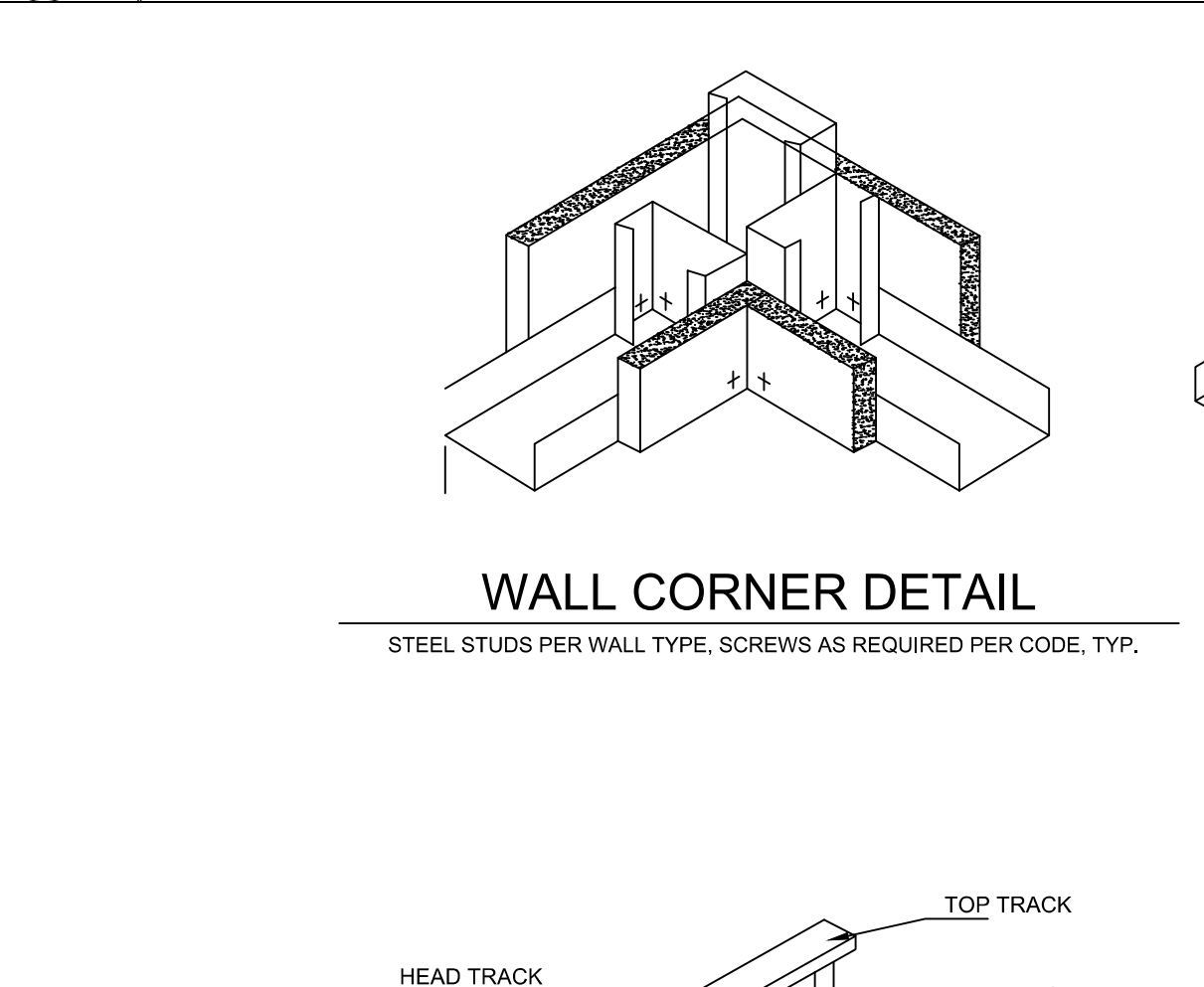
06 EGRESS WINDOW DETAIL NTS



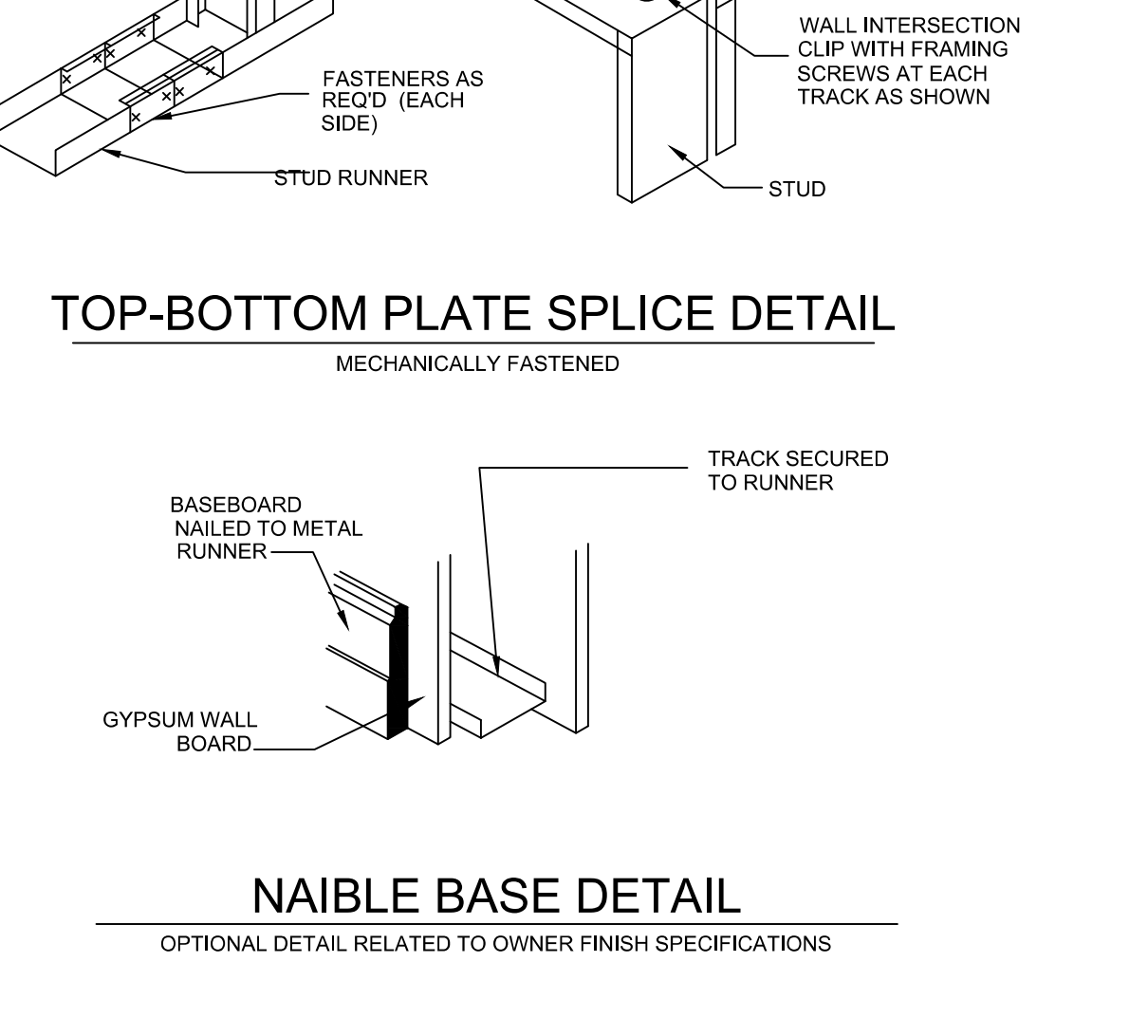
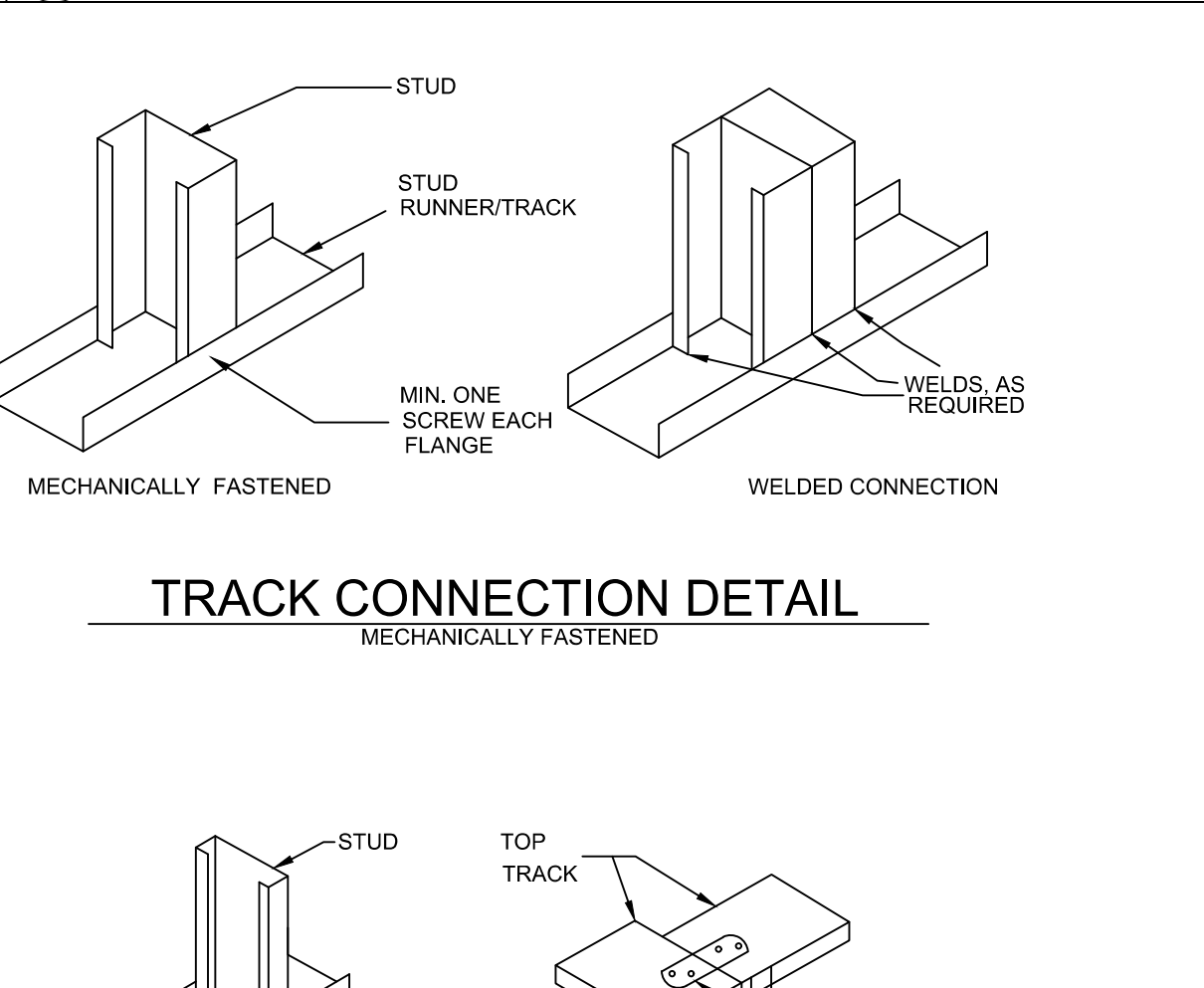
07 SHELF DETAIL NTS



08 CABINET BACKING DETAIL NTS



03 STUD CONNECTION DETAIL DETAIL NTS



03 STUD CONNECTION DETAIL DETAIL NTS

**SECTION 803**  
**WALL AND CEILING FINISHES**

803.1.1 INTERIOR WALL AND CEILING FINISH MATERIALS. INTERIOR WALL AND CEILING FINISH MATERIALS SHALL BE CLASSIFIED IN ACCORDANCE WITH ASTM E 84 OR UL 723. SUCH INTERIOR FINISH MATERIALS SHALL BE GROUPED IN THE FOLLOWING CLASSES IN ACCORDANCE WITH THEIR FLAME SPREAD AND SMOKE-DEVELOPED INDEXES.

- FOR EXIT ENCLOSURES AND EXIT PASSAGEWAYS, CORRIDORS, ROOMS AND ENCLOSED SPACES (SPRINKLERED AREA):  
CLASS C. FLAME SPREAD INDEX 76-200; SMOKE-DEVELOPED INDEX 0-450.

UL 723. TEXTILE WALL AND CEILING COVERINGS AND EXPANDED VINYL WALL AND CEILING COVERINGS SHALL HAVE A CLASS A FLAME SPREAD INDEX IN ACCORDANCE WITH ASTM E 84 OR UL 723 AND BE PROTECTED BY AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2. TEST SPECIMEN PREPARATION AND MOUNTING SHALL BE IN ACCORDANCE WITH ASTM E 2404.

**SECTION 804**  
**INTERIOR FLOOR FINISH**

804.2 CLASSIFICATION.  
INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS REQUIRED BY SECTION 804.4.1 TO BE OF CLASS I OR II MATERIALS SHALL BE CLASSIFIED IN ACCORDANCE WITH NFPA253. THE CLASSIFICATION REFERRED TO HEREIN CORRESPONDS TO THE CLASSIFICATIONS DETERMINED BY NFPA 253 AS FOLLOWS: CLASS I, 0.45 WATTS/CM<sup>2</sup> OR GREATER; CLASS II, 0.22 WATTS/CM<sup>2</sup> OR GREATER.

804.4 INTERIOR FLOOR FINISH REQUIREMENTS.  
IN ALL OCCUPANCIES, INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS IN EXIT ENCLOSURES, EXIT PASSAGEWAYS, CORRIDORS AND ROOMS OR SPACES NOT SEPARATED FROM CORRIDORS BY FULL-HEIGHT PARTITIONS EXTENDING FROM THE FLOOR TO THE UNDERSIDE OF THE CEILING SHALL WITHSTAND A MINIMUM CRITICAL RADIANT FLUX AS SPECIFIED IN SECTION 804.4.1.

804.4.1 MINIMUM CRITICAL RADIANT FLUX. INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS IN EXIT ENCLOSURES, EXIT PASSAGEWAYS AND CORRIDORS SHALL NOT BE LESS THAN CLASS II IN GROUPS A, B, E, H, M, R-1, R-2 AND S, IN ALL AREAS. FLOOR COVERING MATERIALS SHALL COMPLY WITH THE DQCF-1 "PILL TEST" (CPSC16 CFR, PART 1630).

**SECTION 302.9**  
**WALL AND CEILING FINISHES**

R302.9 FLAME SPREAD INDEX AND SMOKE-DEVELOPED INDEX FOR WALL AND CEILING FINISHES. FLAME SPREAD AND SMOKE INDEX FOR WALL AND CEILING FINISHES SHALL BE IN ACCORDANCE WITH SECTIONS R302.9.1 THROUGH R302.9.4. R302.9.1 FLAME SPREAD INDEX. WALL AND CEILING FINISHES SHALL HAVE A FLAME SPREAD INDEX OF NOT GREATER THAN 200. EXCEPTION: FLAME SPREAD INDEX REQUIREMENTS FOR FINISHES SHALL NOT APPLY TO TRIM DEFINED AS PICTURE MOLD, CHAIR RAILS, BASEBOARDS AND HANDRAILS; TO DOORS AND WINDOWS OR THEIR FRAMES; OR TO MATERIALS THAT ARE LESS THAN 1/28 INCH (0.91 MM) IN THICKNESS CEMENTED TO THE SURFACE OF WALLS OR CEILINGS IF THESE MATERIALS EXHIBIT FLAME SPREAD INDEX VALUES NO GREATER THAN THOSE OF PAPER OF THIS THICKNESS CEMENTED TO A NONCOMBUSTIBLE BACKING. R302.9.2 SMOKE-DEVELOPED INDEX. WALL AND CEILING FINISHES SHALL HAVE A SMOKE-DEVELOPED INDEX OF NOT GREATER THAN 450. R302.9.3 TESTING. TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM E 84 OR UL 723.

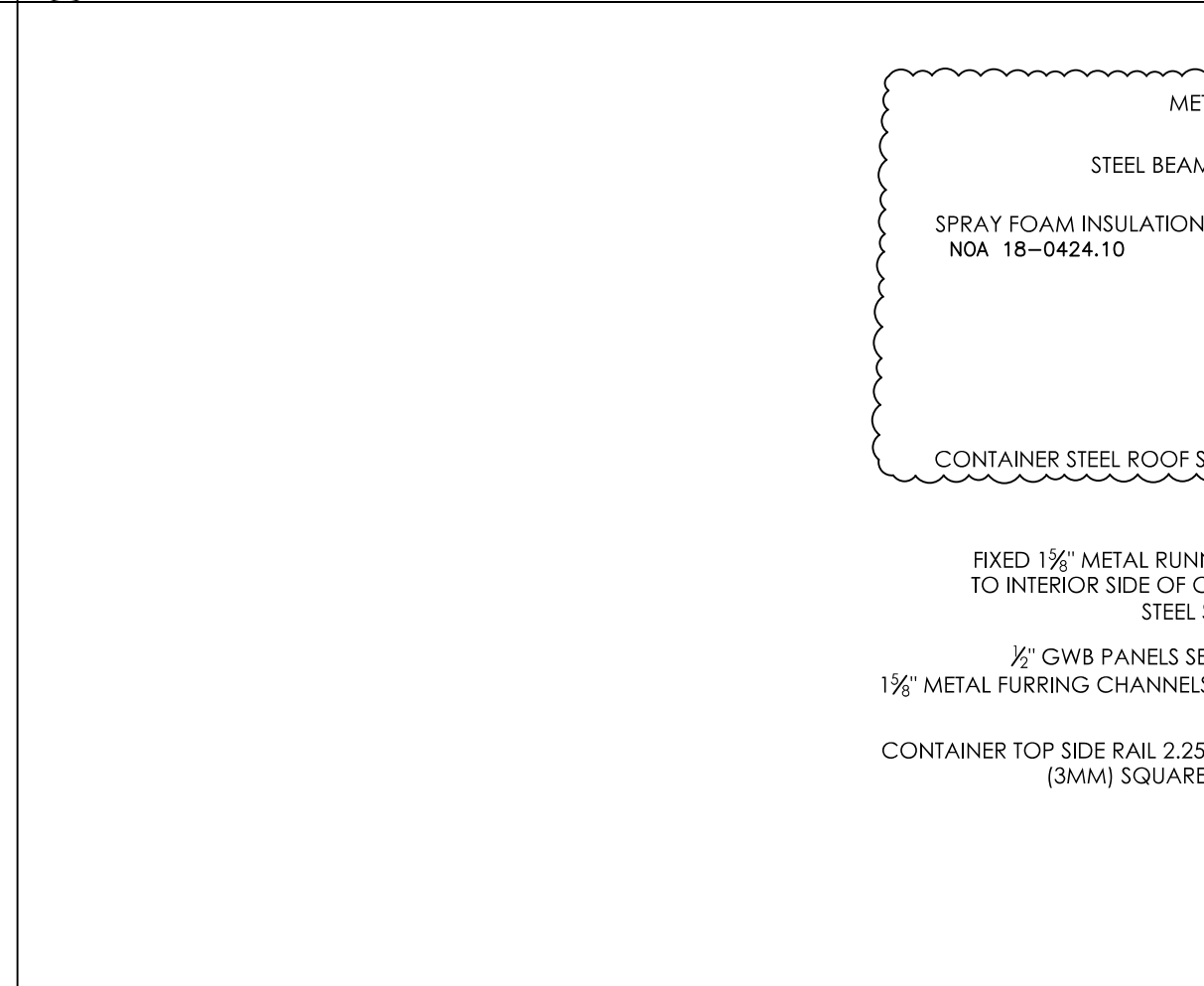
**SECTION 302.10**  
**FLAME SPREAD FOR INSULATION**

R302.10 FLAME SPREAD INDEX AND SMOKE-DEVELOPED INDEX FOR INSULATION. FLAME SPREAD AND SMOKE-DEVELOPED INDEX FOR INSULATION SHALL BE IN ACCORDANCE WITH SECTIONS R302.10.1 THROUGH R302.10.5.

R302.10.1 INSULATION. INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS AND VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR/CEILING ASSEMBLIES, ROOF/CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723.

EXCEPTIONS:  
1. WHEN SUCH MATERIALS ARE INSTALLED IN CONCEALED SPACES, THE FLAME SPREAD INDEX AND SMOKE-DEVELOPED INDEX LIMITATIONS DO NOT APPLY TO THE FACINGS, PROVIDED THAT THE FACING IS INSTALLED INSUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR OR WALL FINISH.  
2. CELLULOSE LOOSE-FILL INSULATION, WHICH IS NOT SPRAY APPLIED, COMPLYING WITH THE REQUIREMENTS OF SECTION R302.10.3, SHALL ONLY BE REQUIRED TO MEET THE SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450.  
3. FOAM PLASTIC INSULATION SHALL COMPLY WITH SECTION R316.

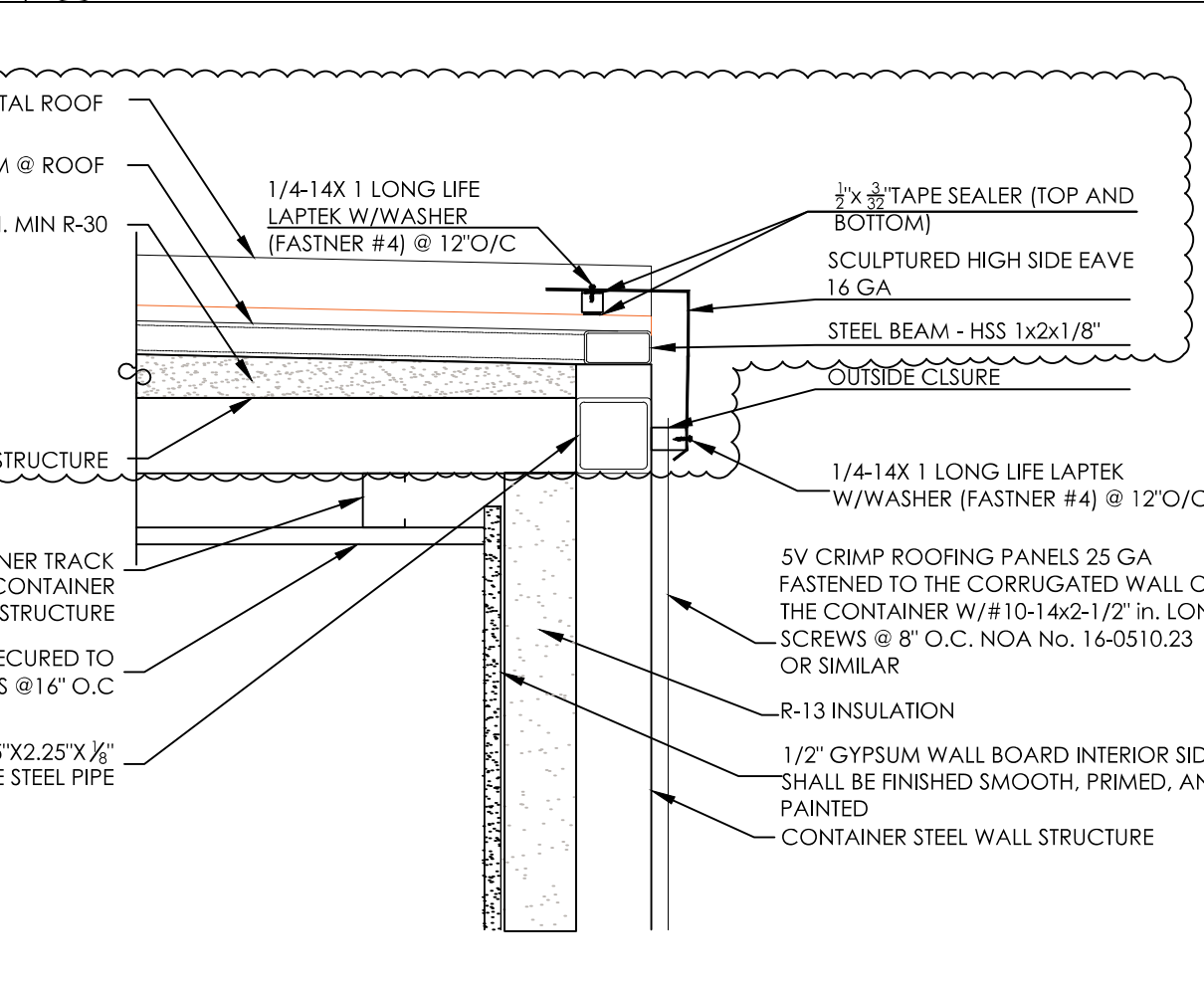
05 FINISH NOTES



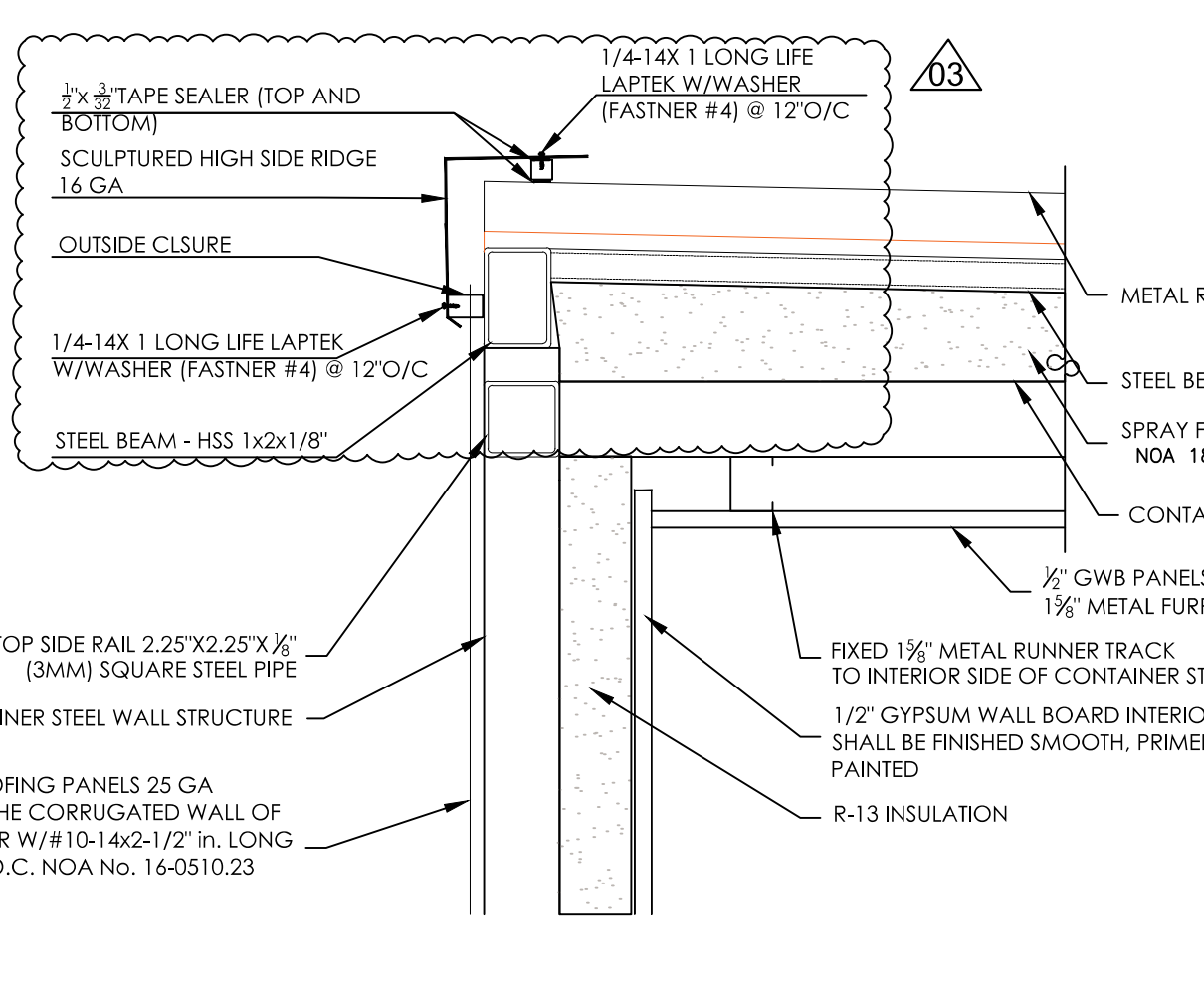
09 STEEL BEAM END DETAIL @ ROOF - EAVE NTS



10 STEEL BEAM END DETAIL @ ROOF - RIDGE NTS



09 STEEL BEAM END DETAIL @ ROOF - EAVE NTS



10 STEEL BEAM END DETAIL @ ROOF - RIDGE NTS



09 STEEL BEAM END DETAIL @ ROOF - EAVE NTS

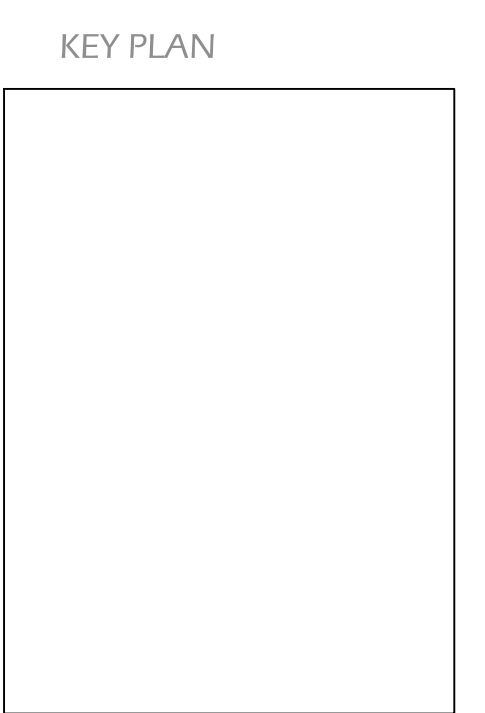


10 STEEL BEAM END DETAIL @ ROOF - RIDGE NTS

**APPROVED**  
**FL Third Party Agency**  
**Karins Engineering Group**  
**11/10/2022**

04 FINISH NOTES NTS

**GCE**  
GANEM CONSULTING ENGINEERING  
FL. CA. #31187 • FL. PE #74745  
15805 Biscayne Blvd Suite 5  
NORTH MIAMI BEACH, FL. 33160  
TEL: (786) 916-6546  
fax: (305) 848-9318  
alioskar@ganemco.com



CONSULTING ENGINEER

**ALIOSKAR GANEM**  
No. 74745  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:  
  
POD  
(01)

PROJECT ADDRESS:  
16400 NORTH WEST 15TH  
AVENUE, MIAMI, FL  
33169

REVISIONS	DATE
03	07/13/2021
06	10/19/2022

Project No: 2021-E02  
Scale: AS NOTED  
Date: 02-12-2021  
Drawn: A.G.  
Checked: A.G.  
CAD File: A.G.

Drawing Title:



STRUCTURAL NOTES

GENERAL NOTES:

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT ARCHITECTURAL DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. AS A MINIMUM, CONSTRUCTION SHALL COMPLY WITH FLORIDA BUILDING CODE LAST EDITION, ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 350, AISI MANUAL 2010, NORTH AMERICAN SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS S002-01, AND AISI SPECIFICATIONS. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUCTED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

ALL ELEMENTS, DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD, ACCORDING TO THE CONDITIONS OF THE SITE, BEFORE ITS INSTALLATION. DO NOT SCALE THE DRAWINGS. FOLLOW WRITTEN DIMENSIONS ONLY. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PART OF THE WORK.

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCES TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS WORK INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS, THE CONTRACTOR SHALL SUPPLEMENT THE MINIMUM REQUIRED FOUNDATION AND SITE PREPARATION REQUIREMENTS AND SLAB-ON-GRADE THICKNESS TO HANDLE CONSTRUCTION LOADS.

CODES:

THE STRUCTURAL FRAMING WAS DESIGNED USING THE FOLLOWING CODES

- BUILDING CODE : FLORIDA BUILDING CODE 2020 7TH EDITION
- CONCRETE : ACI 318-14
- STEEL : AISC 360-10 (14th Ed.)
- MASONRY : ACI 350-11
- WOOD : NDS 2015
- WIND : ASCE 7-16

DESIGN LOADS:

THE STRUCTURAL FRAMING WAS DESIGNED USING THE FOLLOWING SUPERIMPOSED LOADS.

DESIGN WIND:

LOADS WERE DETERMINED IN ACCORDANCE WITH ASCE 7-10 AND FBC 2020 7TH EDITION.

ROOF: 1st LEVEL:

LIVE LOAD.....30 PSF LIVE LOAD.....30 PSF  
DEAD LOAD.....25 PSF DEAD LOAD.....25 PSF

WIND:

DESIGN WIND SPEED = 180 MPH EXPOSURE D  
RISK CATEGORY II INTERNAL PRESSURE COEFFICIENT = + 0.18/- 0.18  
Kd = 0.85 (Building)

SHOP DRAWING REVIEW:

SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ENGINEER. DRAWINGS SUBMITTED WITHOUT REVIEW WILL BE RETURNED UNCHECKED. SHOP DRAWINGS IN THE FORM OF REPRODUCIBLE SEPIAS OF STRUCTURAL DRAWINGS (CONTRACT DOCUMENTS) ARE PROHIBITED WITHOUT THE EXPRESS WRITTEN PERMISSION FROM THE ENGINEER.

IN ALL INSTANCES, THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER.

CONCRETE:

THE RESISTANCE (28 DAY COMPRESSIVE STRENGTHS) AND CHARACTERISTICS OF THE CONCRETE MUST BE DEFINED BY THE DELEGATED ENGINEER, ACCORDING TO THE TYPE OF ELEMENT TO BE DESIGNED, COMPLYING WITH THE PROVISIONS OF THE NATIONAL AND LOCAL ENGINEERING CODES.

CONTRACTOR SHALL SUBMIT PROPOSED MIX DESIGNS, WITH HISTORICAL STRENGTH DATA FOR EACH SEPARATE MIX PRIOR TO CONCRETE PLACEMENT. CONCRETE SLUMP SHALL NOT EXCEED 4" +/- 1" PRIOR TO THE ADDITION OF PLASTICIZER. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ACI 301 AND ASTM C-94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME-STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM WHEN WATER IS ADDED TO THE MIX UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED 90 MINUTES. IF FOR ANY REASON THERE IS A DELAY SUCH THAT A BATCH IS HELD FOR LONGER THAN 90 MINUTES, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LABORATORY TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL CONCRETE SHALL BE CURED USING A CURING COMPOUND MEETING ASTM STANDARD C-309, TYPE 1. CURING COMPOUNDS SHALL HAVE A FUGITIVE DYE. THE CURING COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE VISIBLE WATER HAS LEFT THE UNFINISHED CONCRETE. ALL SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED IN THE WORK. OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER. REQUIRED CONCRETE COVERAGE OVER REBAR SHALL BE AS FOLLOWS:

A. 3" FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH

B. FOR CONCRETE EXPOSED TO EARTH AND/OR WEATHER:

1 1/2" FOR #5 AND SMALLER

2" FOR #6 AND LARGER

C. FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER:

3/4" FOR SLABS, WALLS, AND JOISTS

1-1/2" FOR BEAM AND COLUMN PRIMARY REINF., TIES, STIRRUPS

THE REINFORCEMENT FOR FOOTINGS AND OTHER PRINCIPAL STRUCTURAL MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST THE GROUND SHALL HAVE NOT LESS THAN 3 INCHES OF CONCRETE BETWEEN THE REINFORCEMENT AND THE GROUND CONTACT SURFACE. IF CONCRETE SURFACES AFTER REMOVAL OF THE FORM ARE TO BE EXPOSED TO THE WEATHER OR BE IN CONTACT WITH THE GROUND, THE REINFORCEMENT SHALL BE PROTECTED WITH NOT LESS THAN 2 INCHES OF CONCRETE FOR BARS LARGER THAN #5 AND 1-1/2" FOR #5 OR SMALLER BARS. EXCAVATIONS FOR CONTINUOUS FOOTINGS SHALL BE CUT TRUE TO LINE AND GRADE AND THE SIDES OF FOOTINGS SHALL BE FORMED, EXCEPT WHERE SOIL CONDITIONS ARE SUCH THAT THE SIDES OF THE EXCAVATION STAND FIRM AND SQUARE. EXCAVATIONS SHALL BE MADE TO FIRM, CLEAN BEARING SOIL.

WHEN POLYETHYLENE SHEETS ARE USED AS A VAPOR BARRIER BENEATH A GROUND FLOOR SLAB, THE SUB GRADE FOR THAT SLAB SHALL BE CONSIDERED A FORMED SURFACE FOR THE PURPOSE OF REINFORCING STEEL COVERAGE.

STRUCTURAL CONCRETE SHALL CONFORM WITH ACI-301 IT SHALL REACH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS FOR SLABS FOR BEAMS AND COLUMNS. AGGREGATES SHALL BE CLEAN AND GRADED MAXIMUM SIZES 3/4" CONCRETE ASTM C-33 SHALL CONFORM TO ASTM C-84

CONCRETE TESTING IS REQUIRED AS FOLLOWS: 1 SET OF 5 CYLINDERS FOR EVERY 50 CU. YDS. OF CONCRETE AS PER ASTM C-94

MAXIMUM PERMISSIBLE SLUMP IS 5-6" IN STRUCTURAL CONCRETE WITH THE EXCEPTION BEING SAND CEMENT GROUT

REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60, REINFORCING STEEL SHALL BE DETAILED AND FABRICATED ACCORDING TO THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". HOOK ALL DISCONTINUOUS TOP REINFORCING. PROVIDE CORNERS WITH 2# 5 X 5-0" BEND. CLEAR COVER FOR REINFORCING BARS SHALL BE:

G. BEAMS..... 3" UNFORMED FACES ..... 3"  
SLABS ..... 3/4" FORMED FACES IN  
BEAMS/COLUMNS ..... 1-1/2" CONTACT WEARTH..... 2"

REINFORCING STEEL:

REBAR SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE, AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF THE ACI STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL SUBMIT REBAR SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. HORIZONTAL AND VERTICAL BARS SHALL LAP 6 X BAR NO., UNLESS OTHERWISE NOTED. UNSCHEDULED FIELD LAPS ARE SUBJECT TO ENGINEER'S REVIEW. PROVIDE 3' X 3' CORNER BARS LAPPED AND TIED TO EACH BEAM REBAR. TYPICAL AT ALL CORNERS. THESE CORNER BARS SHALL BE THE SAME SIZE AS LONGITUDINAL BEAM BARS. SEE DETAILS FOR ADDITIONAL INFORMATION.

WELDED WIRE MESH:

WELDED WIRE MESH SHALL BE ASTM A-185, GRADE 65, FREE FROM OIL, SCALE, AND RUST, AND SHALL BE PLACED IN ACCORDANCE WITH THE ACI TYPICAL DETAILS. MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES.

STRUCTURAL STEEL:

STRUCTURAL STEEL SHALL COMPLY WITH THE PROVISIONS OF THE NATIONAL AND LOCAL ENGINEERING CODES, AND SHALL BE ACCORDING TO:

PLATE..... ASTM A-36  
HOLE STRUCTURAL SECTION (HSS)..... ASTM A-500  
SHIPPING CONTAINER ELEMENTS:  
CROSS MEMBER, SIDE WALL, ROOF, TOP SIDE RAIL .... ASTM A-242  
WEATHERING CORTEN-A

FORMWORK:

FORMWORK, SHORING, AND BRACING FOR ALL CONCRETE BEAMS, SLABS, COLUMNS, WALLS, AND FOOTINGS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ACI 347, "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK".

WOOD:

- ALL WOOD FOR BEAMS, BEARING WALLS, SOLE PLATES, TOP PLATES, BLOCKING, BRACING, LEDGERS, CRIPPLES, SILLS, ETC., SHALL BE SOUTHERN PINE NO. 2, KD-15, OR BETTER.
- MICRO-LAM BEAMS SHALL BE MANUFACTURED BY TRUS-JOIST CORP., OR APPROVED EQUAL, AND SHALL PROVIDE A MODULES OF ELASTICITY OF 2,000,000 PSI, A MIN. FLEXURAL STRESS OF 2,925 PSI, AND A MIN. HORIZONTAL SHEAR STRESS OF 285 PSI.
- ALL WOOD IN CONTACT WITH CONCRETE OR CONCRETE BLOCK SHALL BE PRESSURE-TREATED. WOOD FOR NON-STRUCTURAL USES SHALL BE RATED TO RETENTION LEVELS OF 0.25 PCF OF CHROMATED COPPER ARSENATE (CCA). WOOD FOR STRUCTURAL USE THAT SHALL BE TREATED FOR ANY REASON SHALL BE RATED TO RETENTION LEVELS OF 0.4 PCF OF CCA OR MORE.
- FOR STRUCTURAL USES, AVOID BUYING TREATED LUMBER THAT CONTAINS MORE THAN 1/2" OF HEARTWOOD.
- AVOID INHALATION OF SAWDUST PRODUCED BY PRESSURE TREATED WOOD. WEAR A DUST MASK AND WORK OUTDOORS. DISPOSE OF DUST AND SCRAP BY ORDINARY TRASH COLLECTION. DO NOT BURN IT: PRESSURE TREATED WOOD MAY PRODUCE VERY TOXIC FUMES.
- IN HIGHLY CORROSIVE ENVIRONMENTS, ALL WIND RESISTING HARDWARE INCLUDING THE HURRICANE STRAPS, SHALL BE MADE OF STAINLESS STEEL, EITHER IN CONTACT OR NOT WITH CONCRETE.
- WOOD PREVIOUSLY USED AS FORMWORK SHALL NOT BE USED AS ROOF FRAMING OR SHEATHING.
- HURRICANE STRAPS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
- HANGERS OR STRAPS THAT DO NOT MATCH EXACTLY THE ONES SPECIFIED ON THE DRAWINGS IN STEEL YIELD OR ULTIMATE STRENGTH, STEEL DIMENSIONS (LENGTH AND WIDTH), NUMBER AND DIAMETER OF HOLES FOR THE SAME SIZES OF NAILS OR BOLTS, AND/OR DO NOT HAVE THE SAME GENERAL SHAPE, WILL NOT BE ACCEPTABLE.
- ALL NAILS, SCREWS, AND BOLTS SHALL BE HOT-DIPPED GALVANIZED.

TERMITE PROTECTION:

ALL BUILDINGS SHALL HAVE PRE-CONSTRUCTION TREATMENT PROTECTION AGAINST SUBTERRANEAN TERMITES. THE RULES AND LAWS AS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES SHALL BE DEEMED AS APPROVED WITH RESPECT TO PRE-CONSTRUCTION SOIL TREATMENT FOR PROTECTION AGAINST SUBTERRANEAN TERMITES. A CERTIFICATE OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY THE LICENSED PEST CONTROL COMPANY THAT CONTAINS THE FOLLOWING STATEMENT:

"THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES."

FOUNDATION/SITE PREPARATION:

PRIOR INSTALLATION OF ANY FOOTING FOUNDATION SYSTEM FOR THE NEW BUILDING, STRUCTURES OR ADDITIONS, THE BUILDING OFFICIAL SHALL BE PROVIDED WITH A STATEMENT OF ALLOWABLE BEARING CAPACITY FROM THE ENGINEER OF RECORD. SAID STATEMENT SHALL CLEARLY IDENTIFY THE ALLOWABLE IN-PLACE BEARING CAPACITY OF THE BUILDING PAD FOR THE NEW BUILDING OR ADDITION AND VERIFY THE EXISTING SOIL CONDITIONS. THE CERTIFIED IN-PLACE BEARING CAPACITY SHALL HAVE BEEN DETERMINED BY WAY OF RECOGNIZED TEST OR RATIONAL ANALYSIS.

THE MAXIMUM SIZE OF ROCK WITHIN 12 INCHES BELOW THE FLOOR SLAB IN COMPACTED FILL SHALL BE 3 INCHES IN DIAMETER. WHERE FILL MATERIAL INCLUDES ROCK, LARGE ROCKS SHALL NOT BE ALLOWABLE TO NEST AND ALL VOIDS SHALL BE CAREFULLY FILLED WITH SMALL STONES OR SAND, AND PROPERLY COMPACTED.

WHEN FOUNDATION WALL ARE TO BE POURED SEPARATELY FROM THE FOOTING, THEY SHALL BE KEYED AND DOWELED TO THE FOOTING WITH NO LESS THAN #4 DOWELS, 20 DIAMETERS IN LENGTH ABOVE AND BELOW THE JOINT, SPACED NOT MORE THAN 4 FEET APART. WHERE FOOTING DEPTH DOES NOT ALLOW STRAIGHT DOWELS, STANDARD HOOKS WILL BE ALLOWABLE. SLAB SUBGRADE SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY, DETERMINED IN ACCORDANCE WITH ASTM D-1557.

FOR FOUNDATION DESIGN, IF REQUIRED BY THE CITY, A GEOTECHNICAL REPORT MUST BE SUBMITTED. OTHERWISE, THE ENGINEER OF RECORD MUST SUBMIT A SOIL DECLARATION.

THE SPECIALTY ENGINEER MUST FOLLOW LOCAL CODES RECOMMENDATIONS.

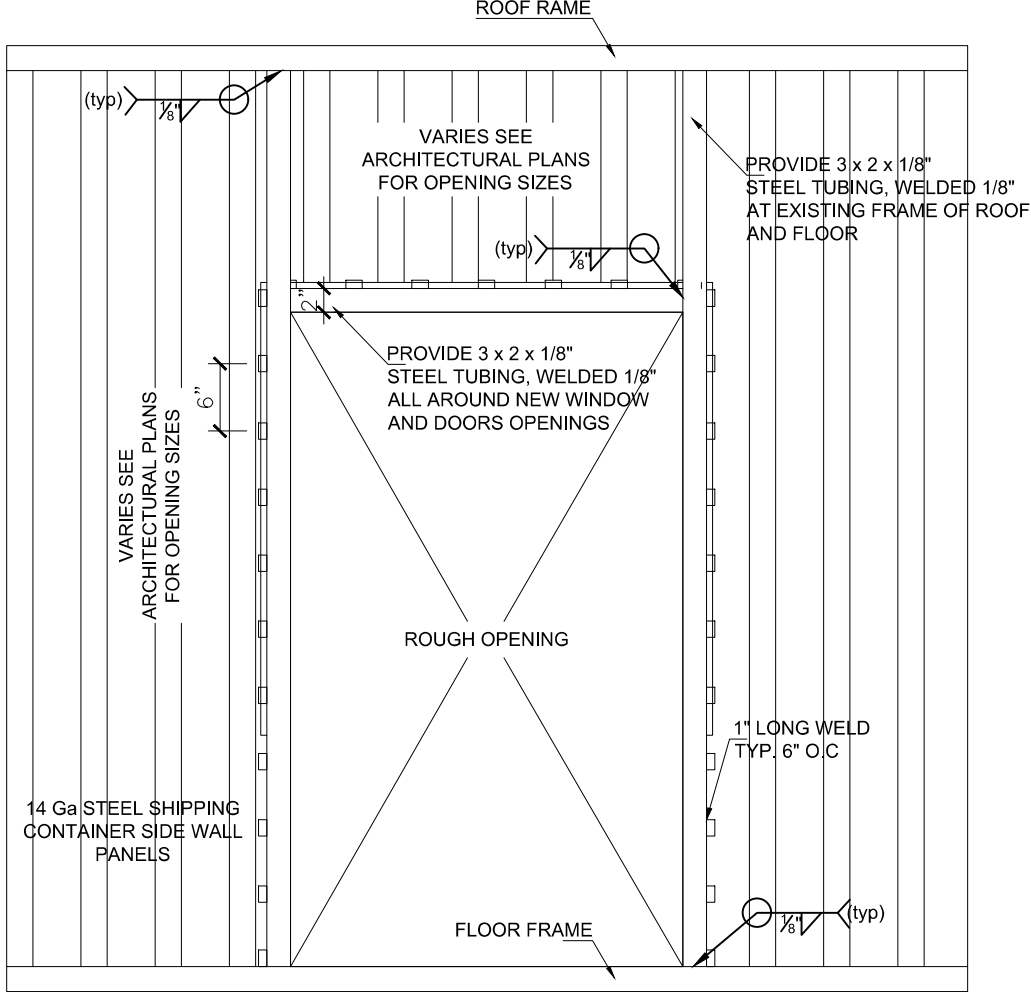
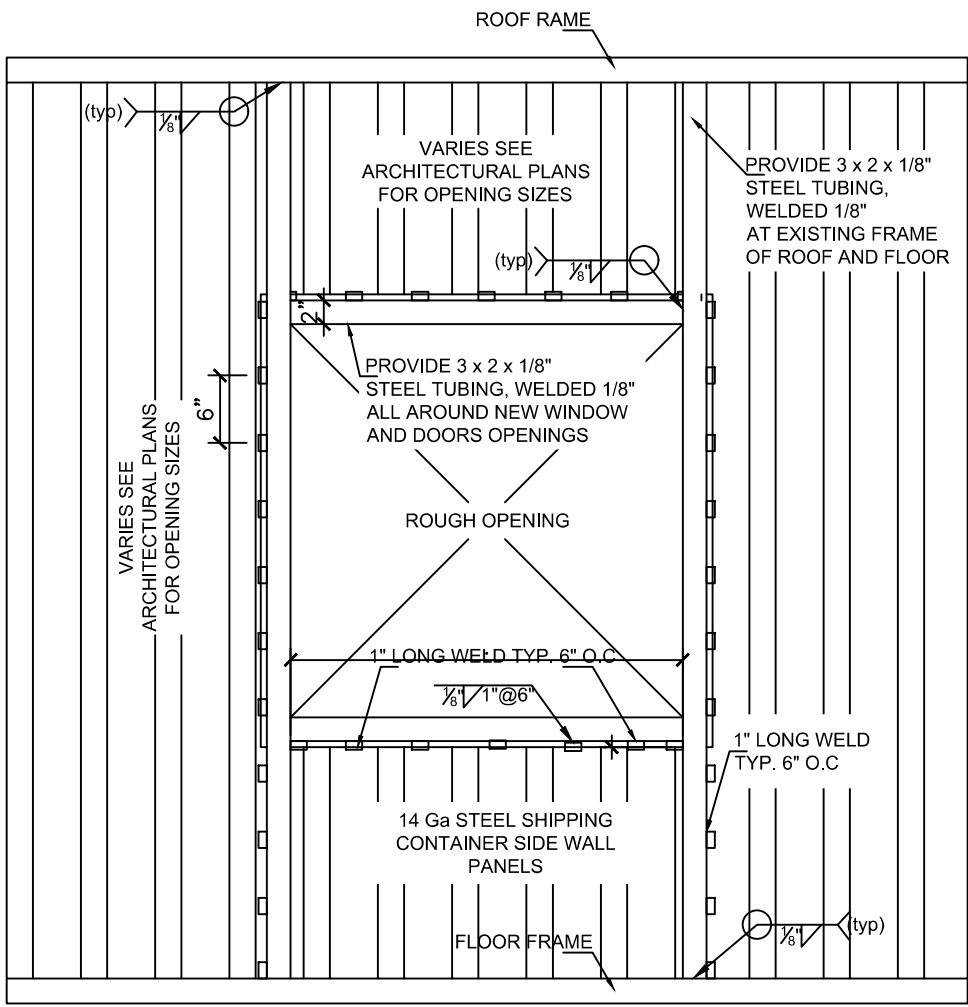
ALL DIMENSIONS REFERENCE TO ARCHITECTURAL DRAWING PRODUCT CONTROL APPROVAL AND SHOP DRAWING NOTES

NOTE:

UNDERGROUND UTILITIES MAY BE PRESENT.- DIG WITH CAUTION.- CALL UTILITY LOCATION CENTER BEFORE YOU DIG.

CONTAINER NOTES

NO MODIFICATIONS OTHER THAN PENETRATIONS NEEDED FOR PLUMBING VENTS AND PIPING SHALL BE MADE TO THE EXISTING STRUCTURE OF THE SHIPPING CONTAINER ROOF OR FLOOR CONTRACTOR TO COORDINATE LOCATION OF THE PLUMBING FIXTURES TO AVOID CONFLICT WITH EXISTING FLOOR CROSS MEMBERS AND BOTTOM SIDE RAILS



TYPICAL OPENING FRAMING DETAIL

SCALE: N.T.S.

WIND PRESSURE FOR GENERAL CALCULATIONS			
AREA (ft <sup>2</sup> )	ZONE	PRES. (+)	PRES. (-)
10	1	31.16	-95.06
10	2	31.16	-95.06
10	3	31.16	-138.66
10	4	51.46	-55.78
10	5	51.46	-68.84
20	1	26.26	-78.50
20	2	26.26	-78.50
20	3	26.26	-108.83
20	4	47.79	-52.11
20	5	47.79	-61.51

PRESSURE BASED ON ASCE 7-16 ASD CODE

KEY PLAN

CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:

POD  
(01)

PROJECT ADDRESS:

16400 NORTH WEST 15TH  
AVENUE, MIAMI, FL  
33169

REVISIONS DATE

01	04/30/2021
02	05/27/2021
04	10/20/2021
05	01/06/2022
06	10/19/2022

Project No:

Scale: 2021-E02

Date: AS NOTED

Drawn: 02-12-2021

Checked: A.G.

CAD File: A.G.

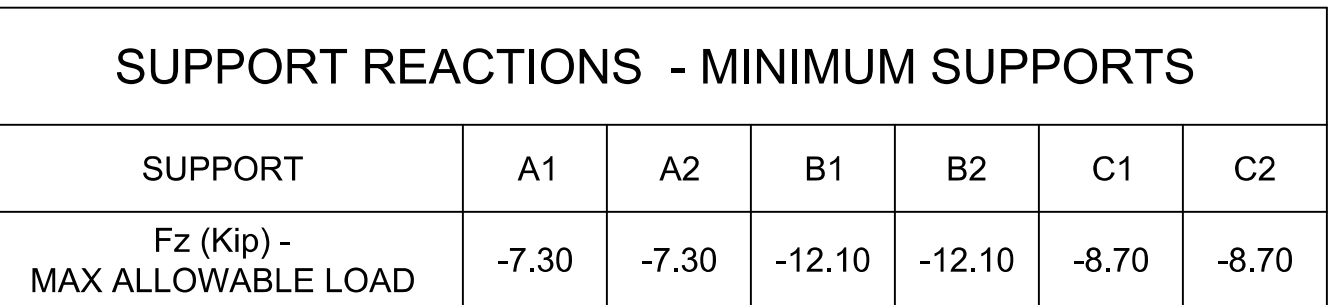
Drawing Title:



S-1

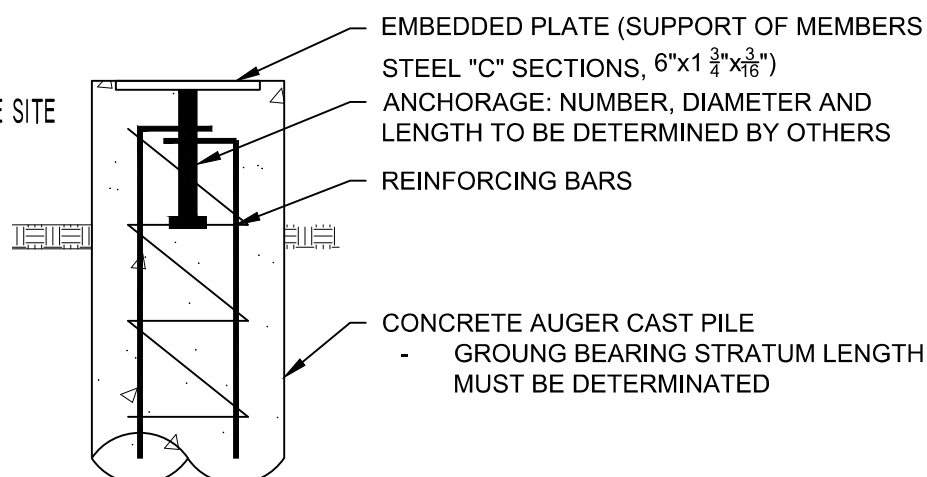
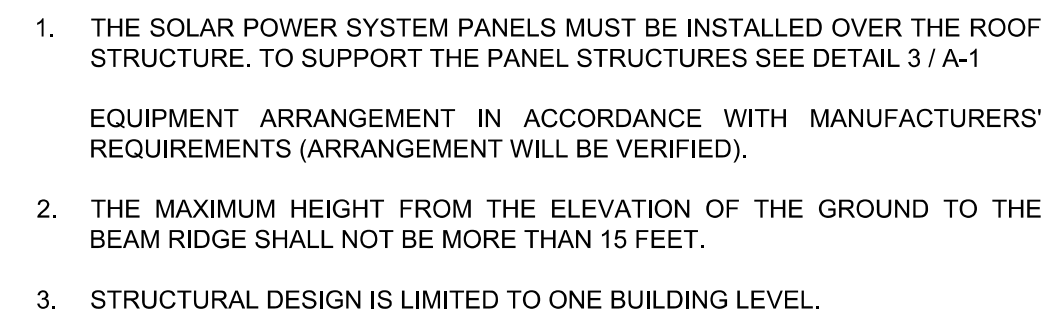
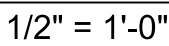
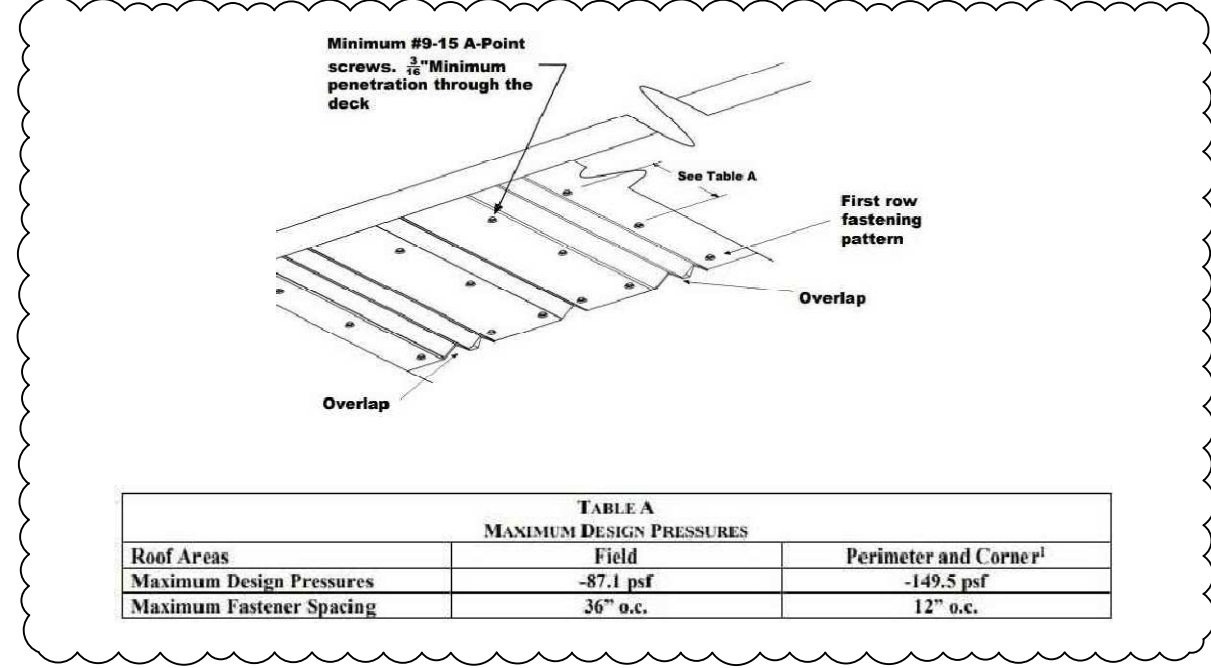


A 3D perspective diagram of a rectangular box labeled "POD". The box is oriented with its edges aligned with three axes: "AXIS 'X'" (pointing left), "AXIS 'Y'" (pointing down-right), and "AXIS 'Z'" (pointing up). Three wind directions are indicated by arrows: "WIND NORMAL TO RIDGE AXIS 'Z'" (pointing down-left), "WIND PARALLEL TO RIDGE" (pointing down-left, along the X-axis), and "WIND NORMAL TO EAVE" (pointing down-right, along the Y-axis).

06



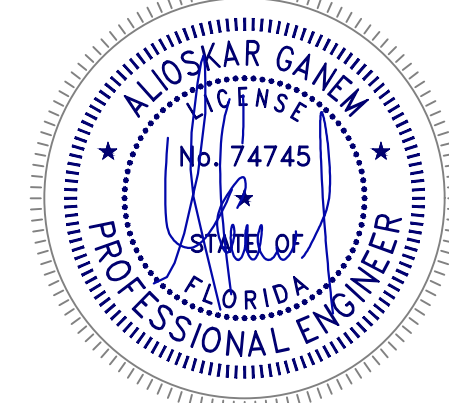
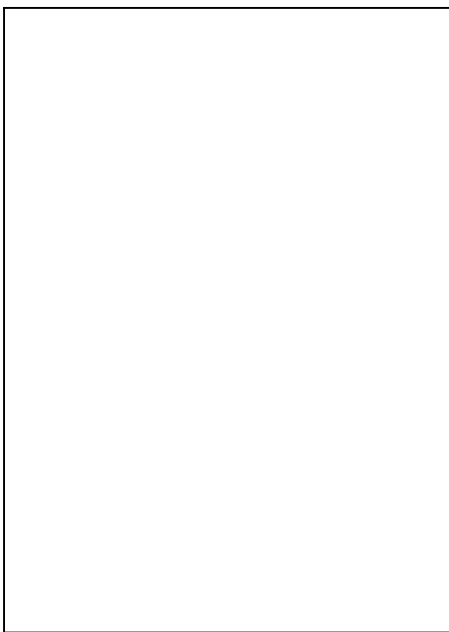
 +VAR  
 TOC. ACCORDING THE CONDITION OF THE SITE  
 +0' 0"  
 GRADE ELEVATION


$$1/2'' = 1'-0''$$

$$1/2'' = 1'-0''$$


## KEY PLAN





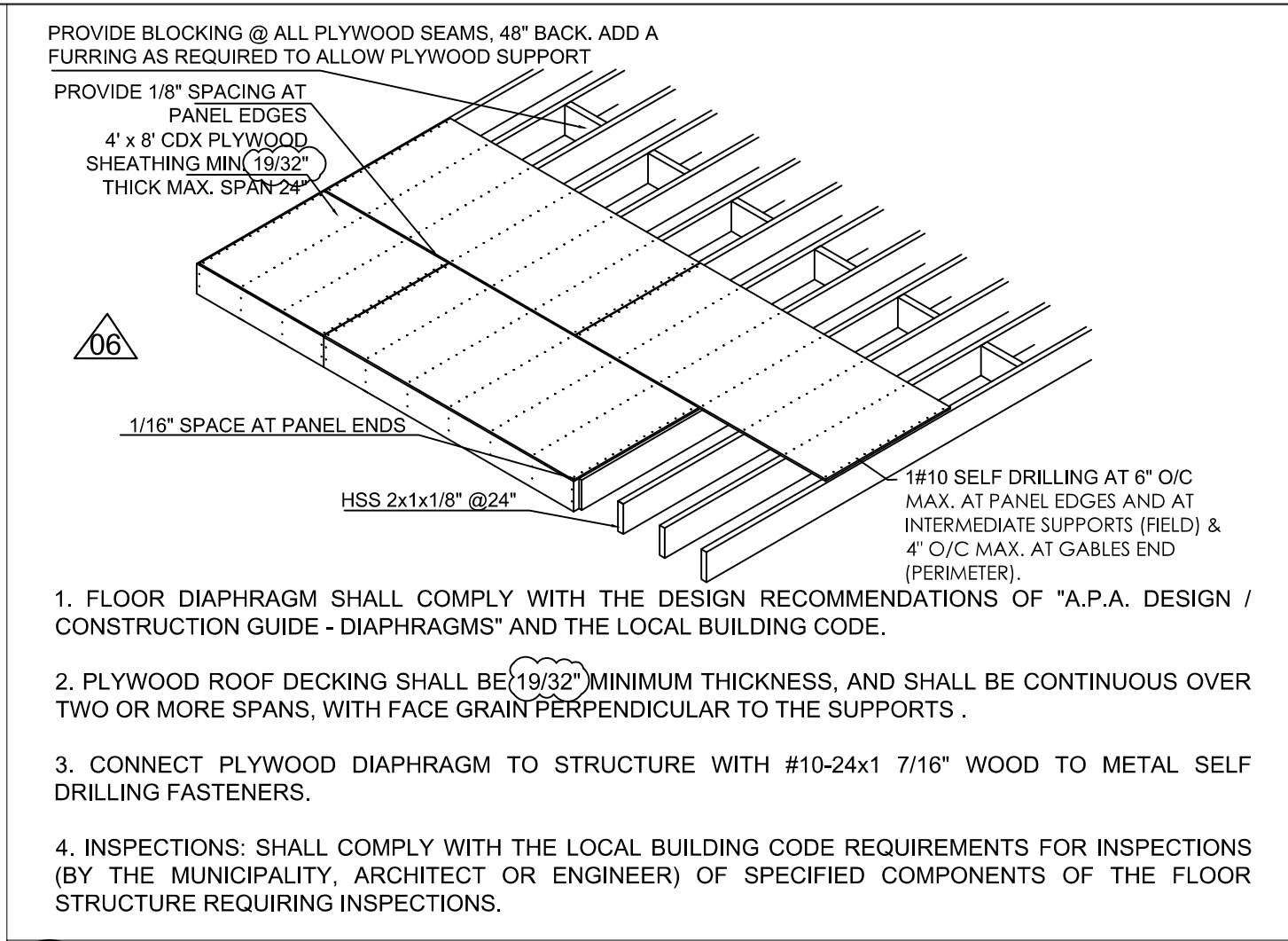


REVISIONS	DATE
01	04/30/2021
03	07/13/2021
04	10/20/2021
06	09/19/2022

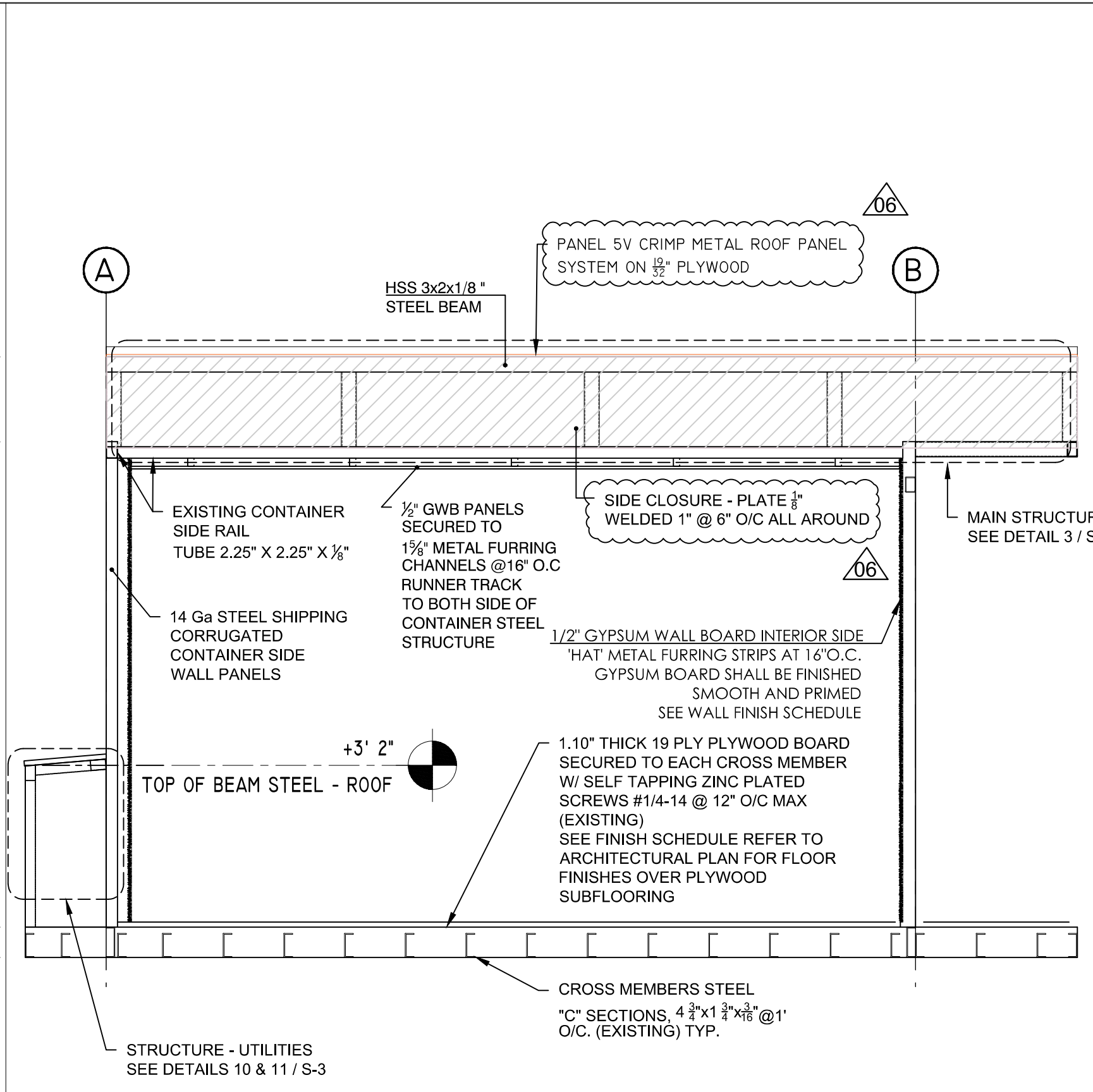
Project No: 2021-E02  
Scale: AS NOTED  
Date: 02-12-2021  
Drawn: A.G.  
Checked: A.G.  
CAD File: A.G.

Drawing Title:

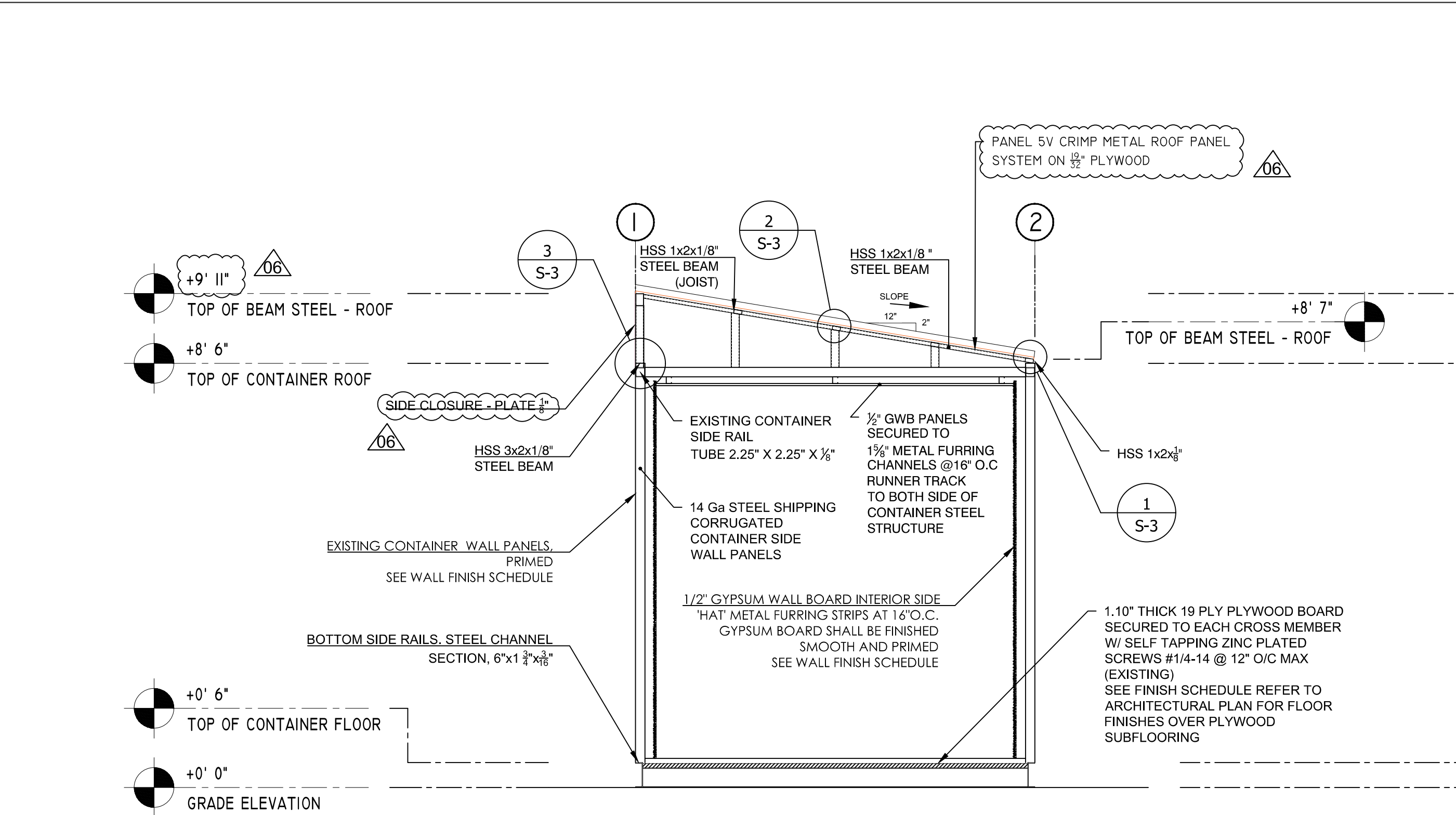
**S-3**



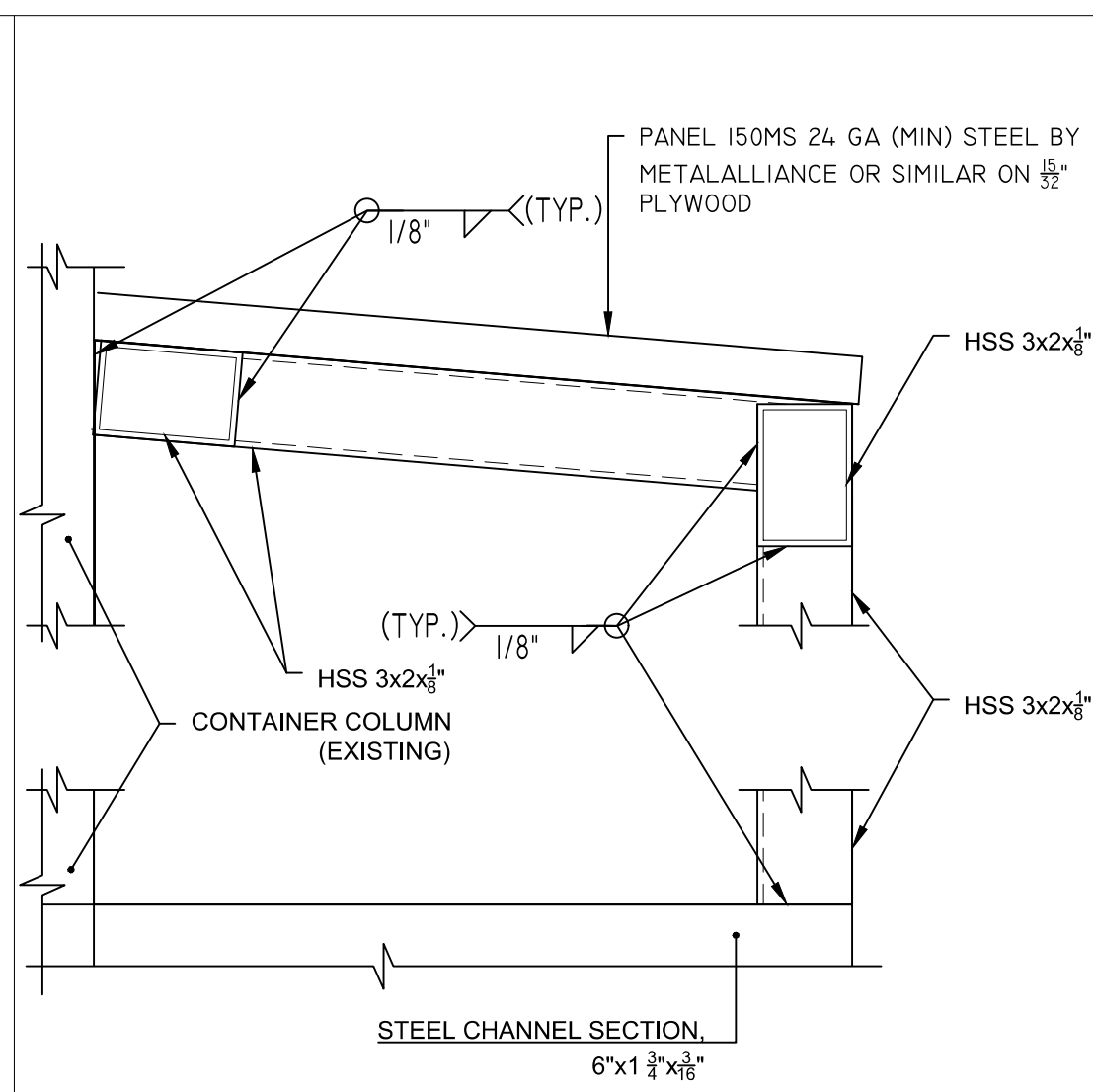
06 PLYWOOD INSTALLATION DIAGRAM  
SC: N.T.S.



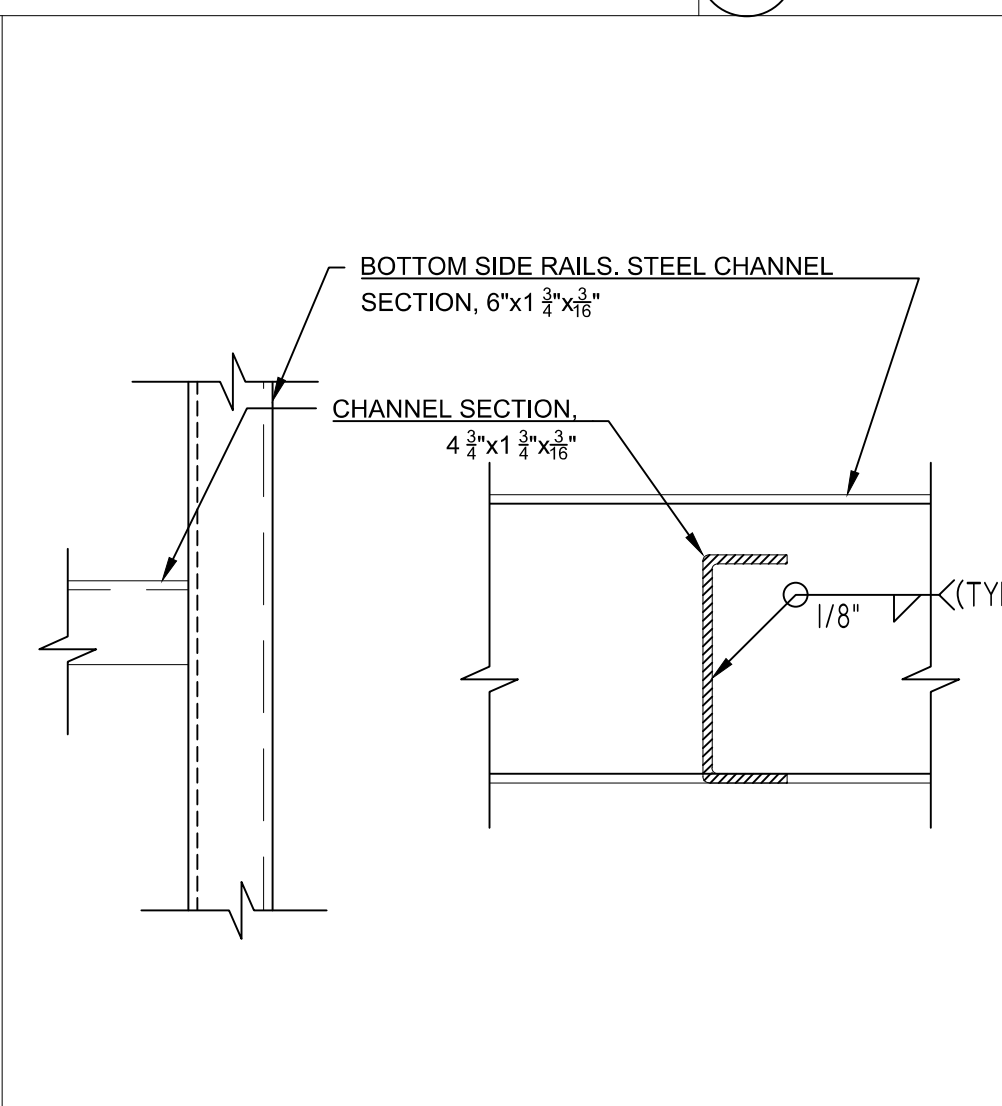
14 SECTION B/S-2 (MAIN STRUCTURE)  
1/2" = 1'-0"



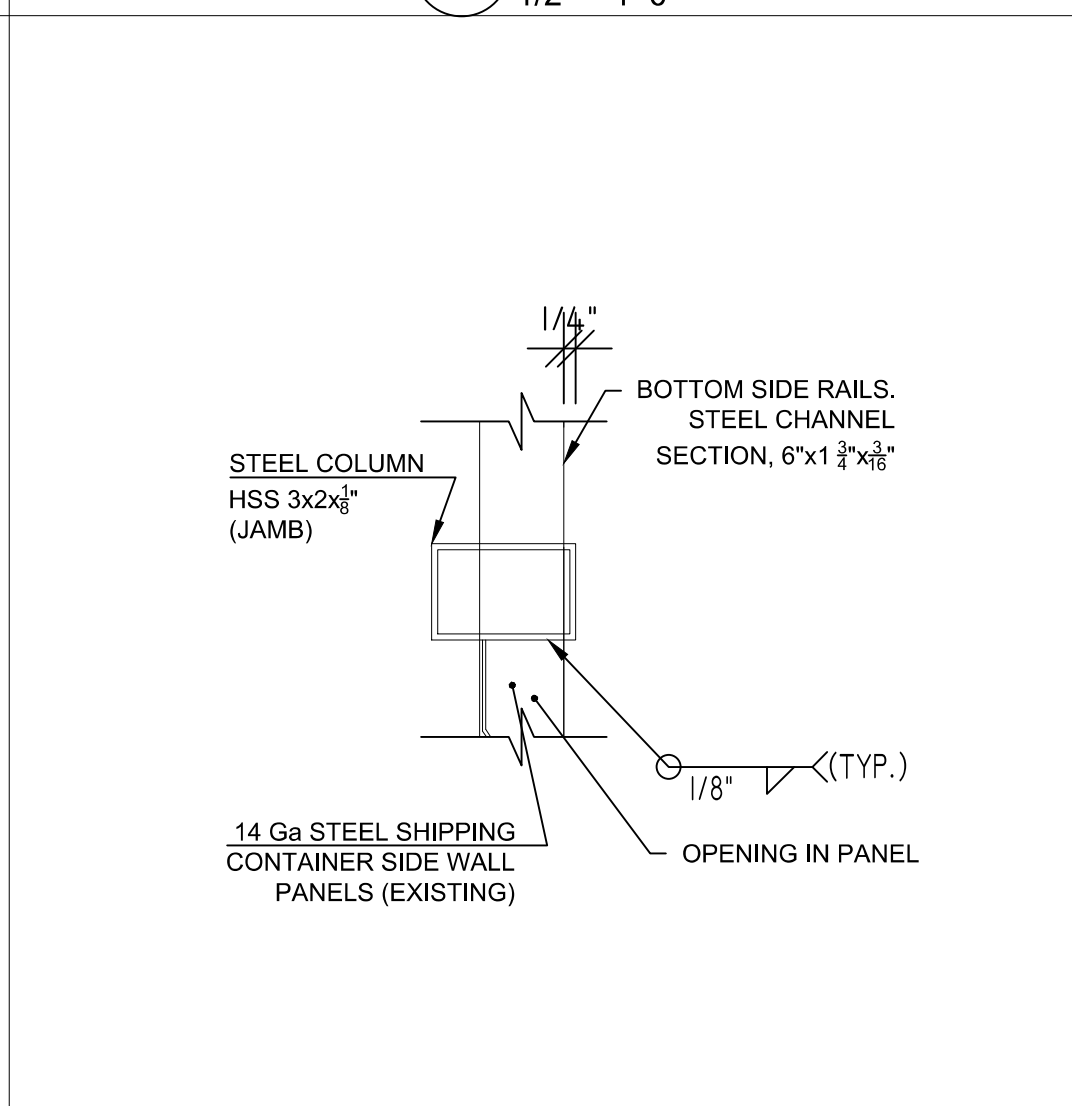
01 SECTION A/S-2 (MAIN STRUCTURE)  
1/2" = 1'-0"



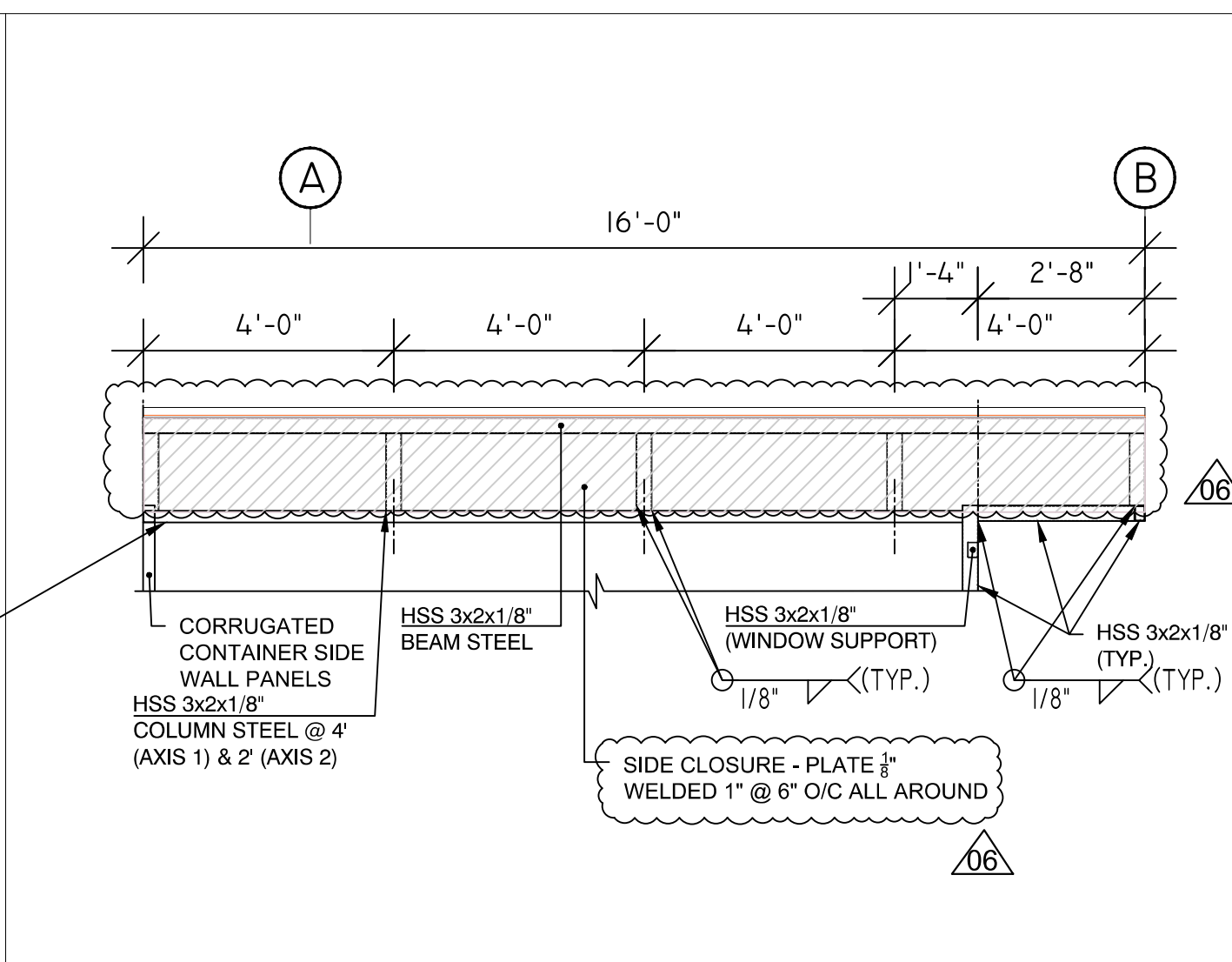
10 SECTION 1/S-2 (STRUCTURE - UTILITIES)  
3" = 1'-0"



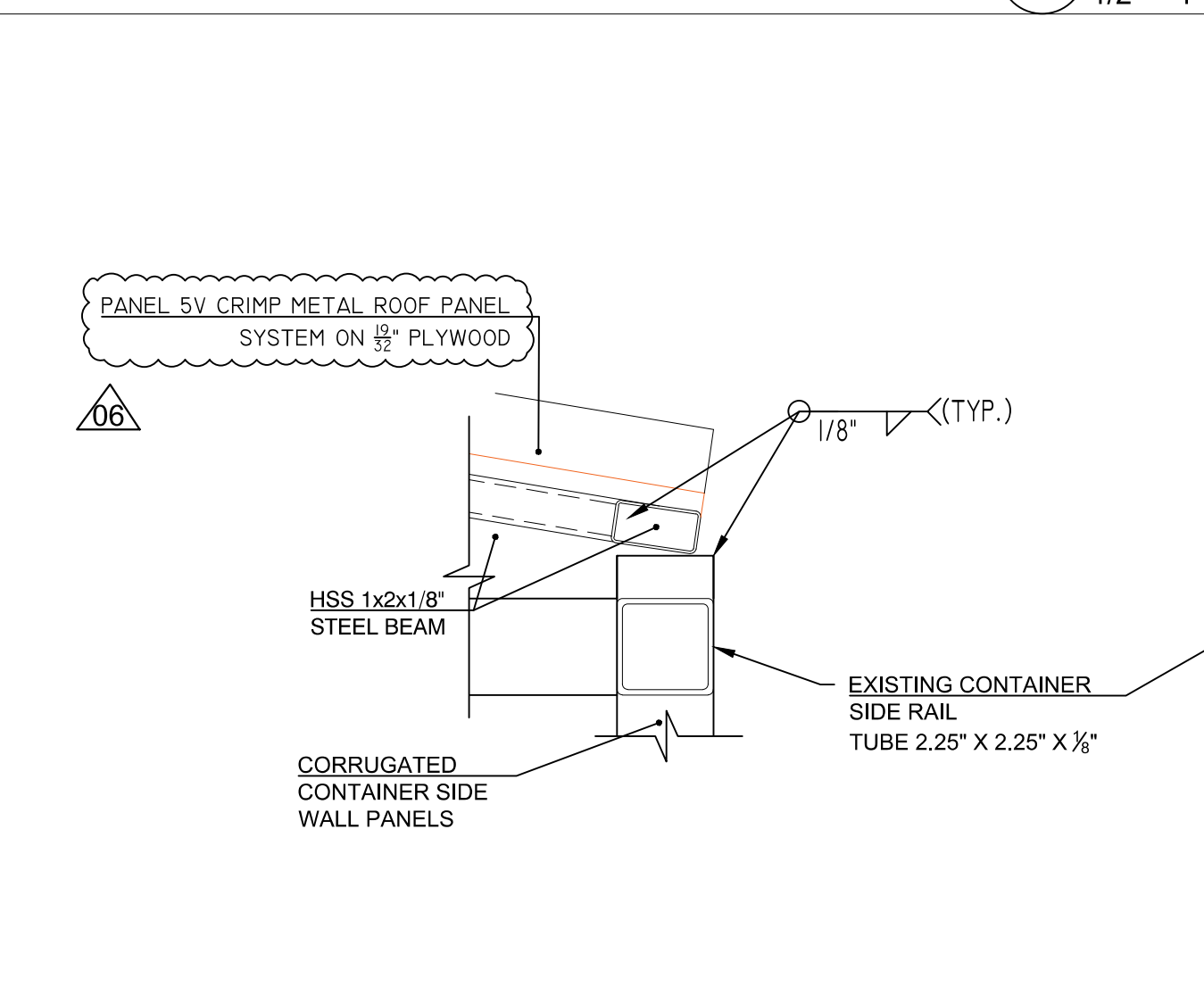
09 DETAIL 2/S-2 (CROSS STEEL - FLOOR)  
3" = 1'-0"



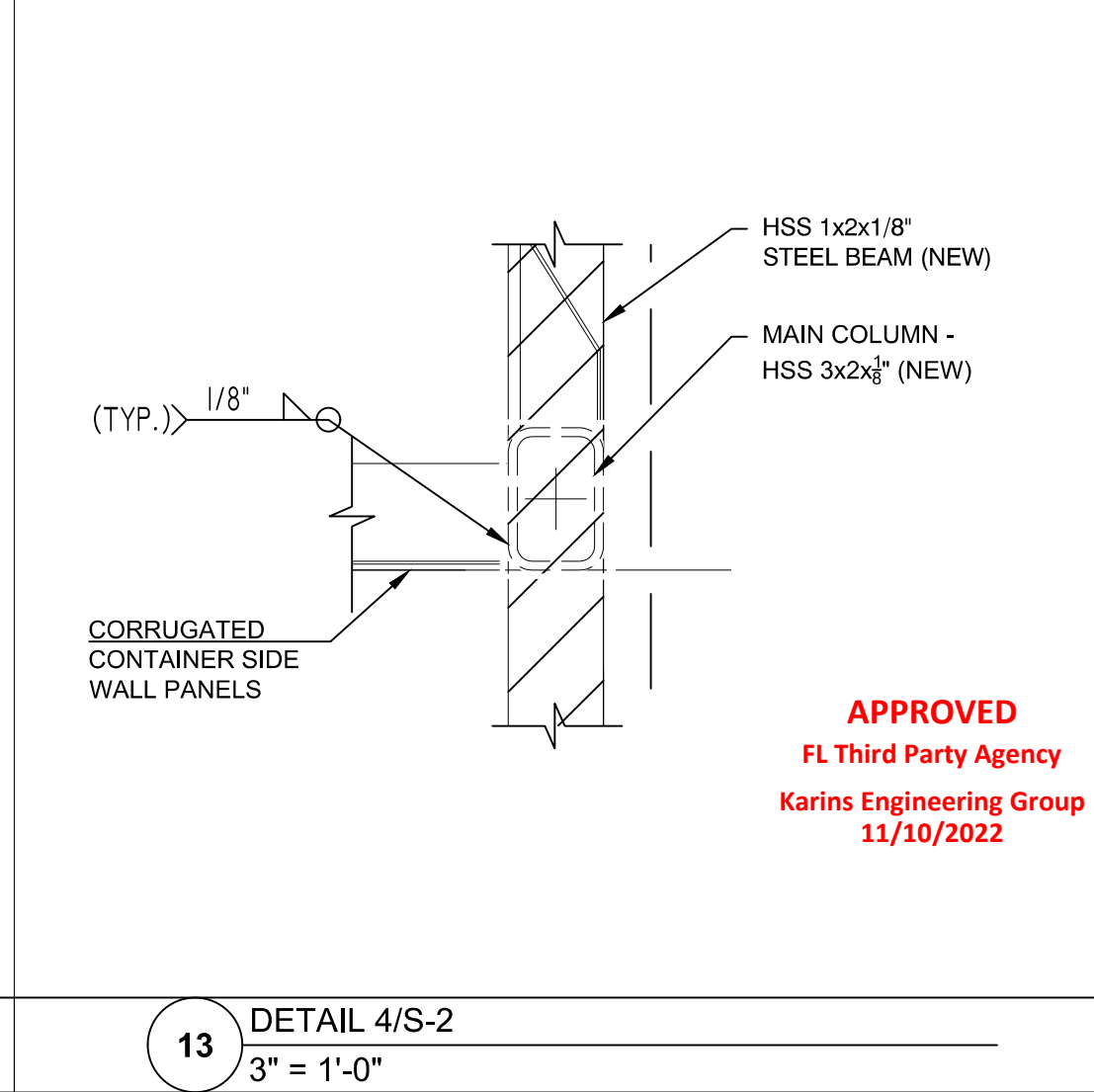
08 DETAIL 1/S-2 (JAMB)  
3" = 1'-0"



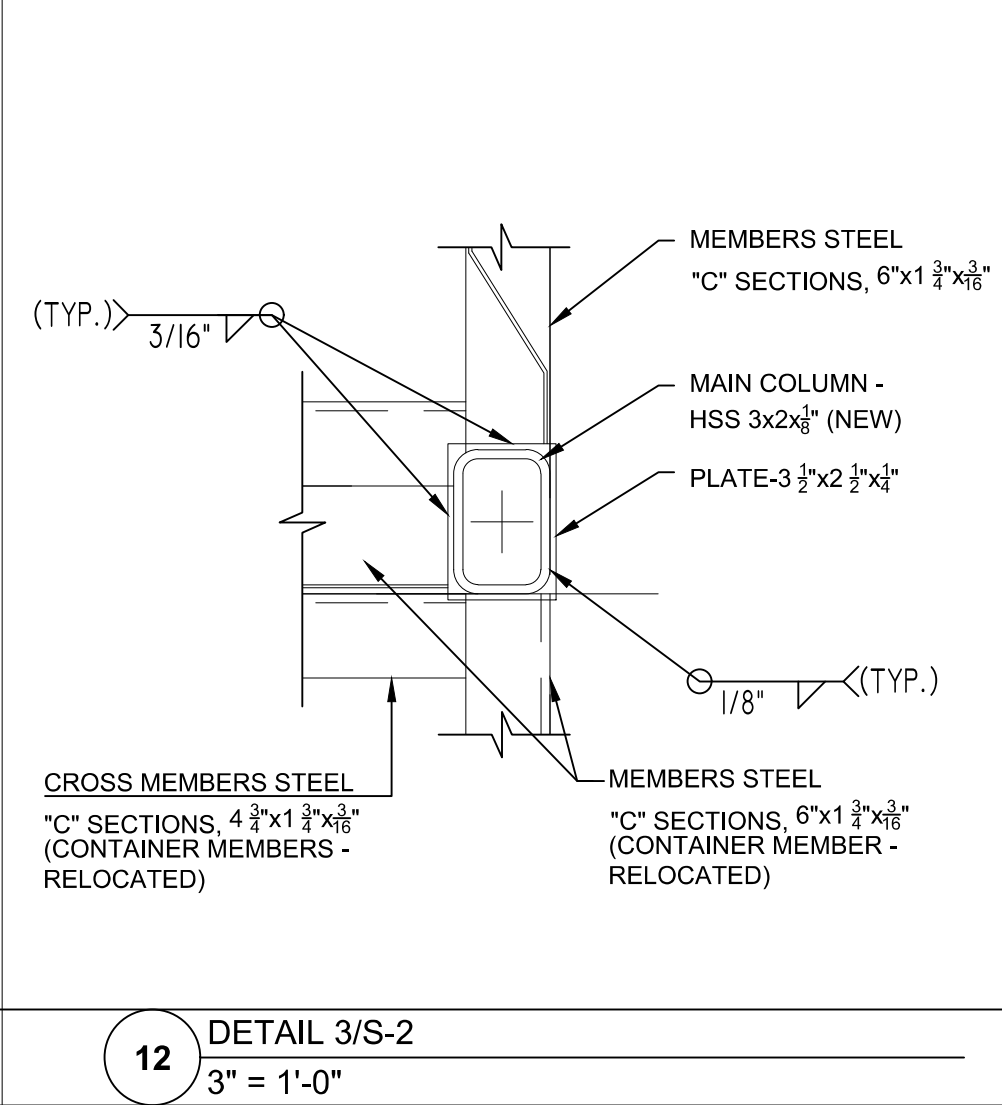
03 SECTION 1/S-3 (MAIN STRUCTURE)  
3/8" = 1'-0"



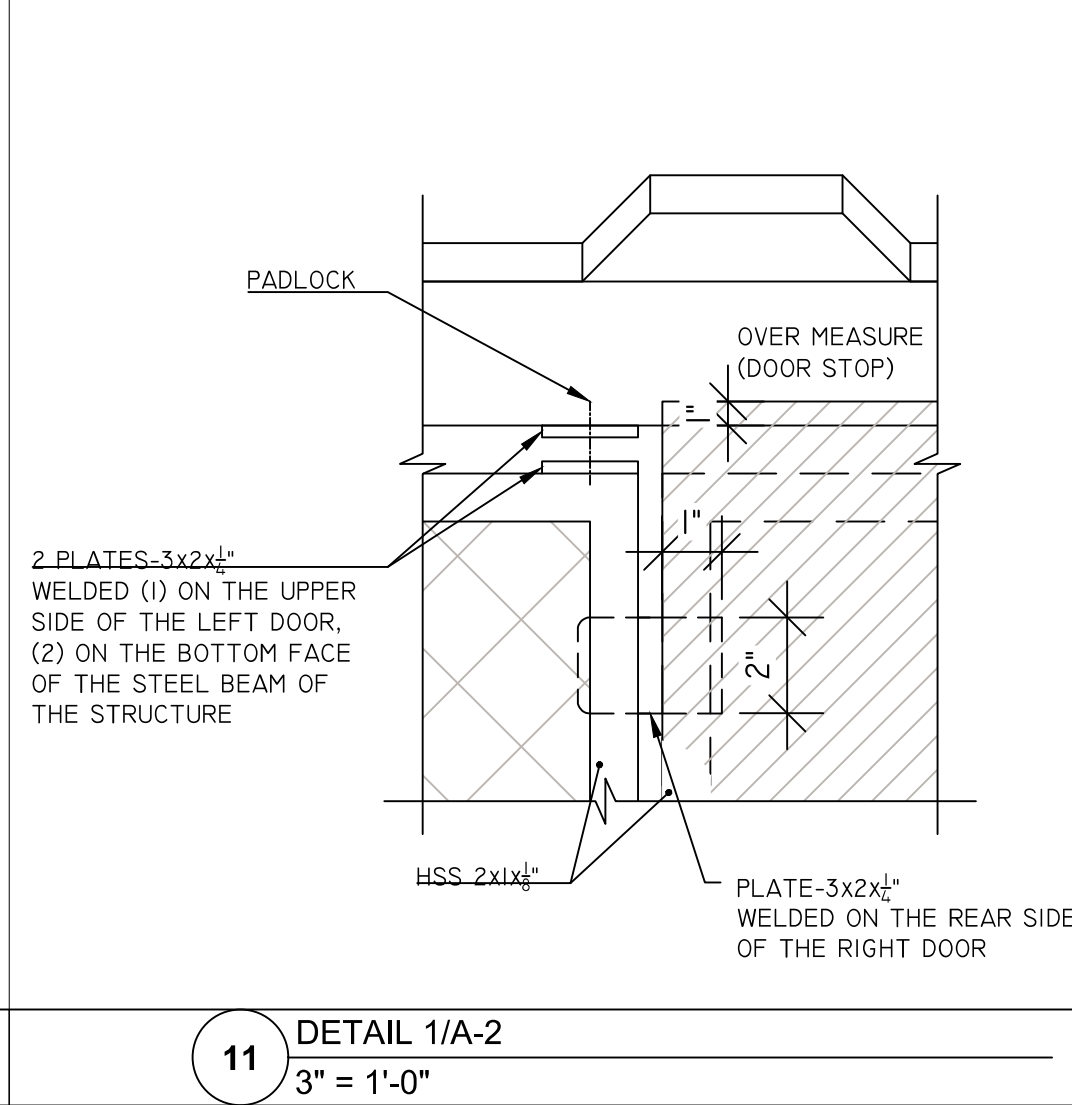
02 DETAIL 1/S-3 (FRAME AXIS 2)  
3" = 1'-0"



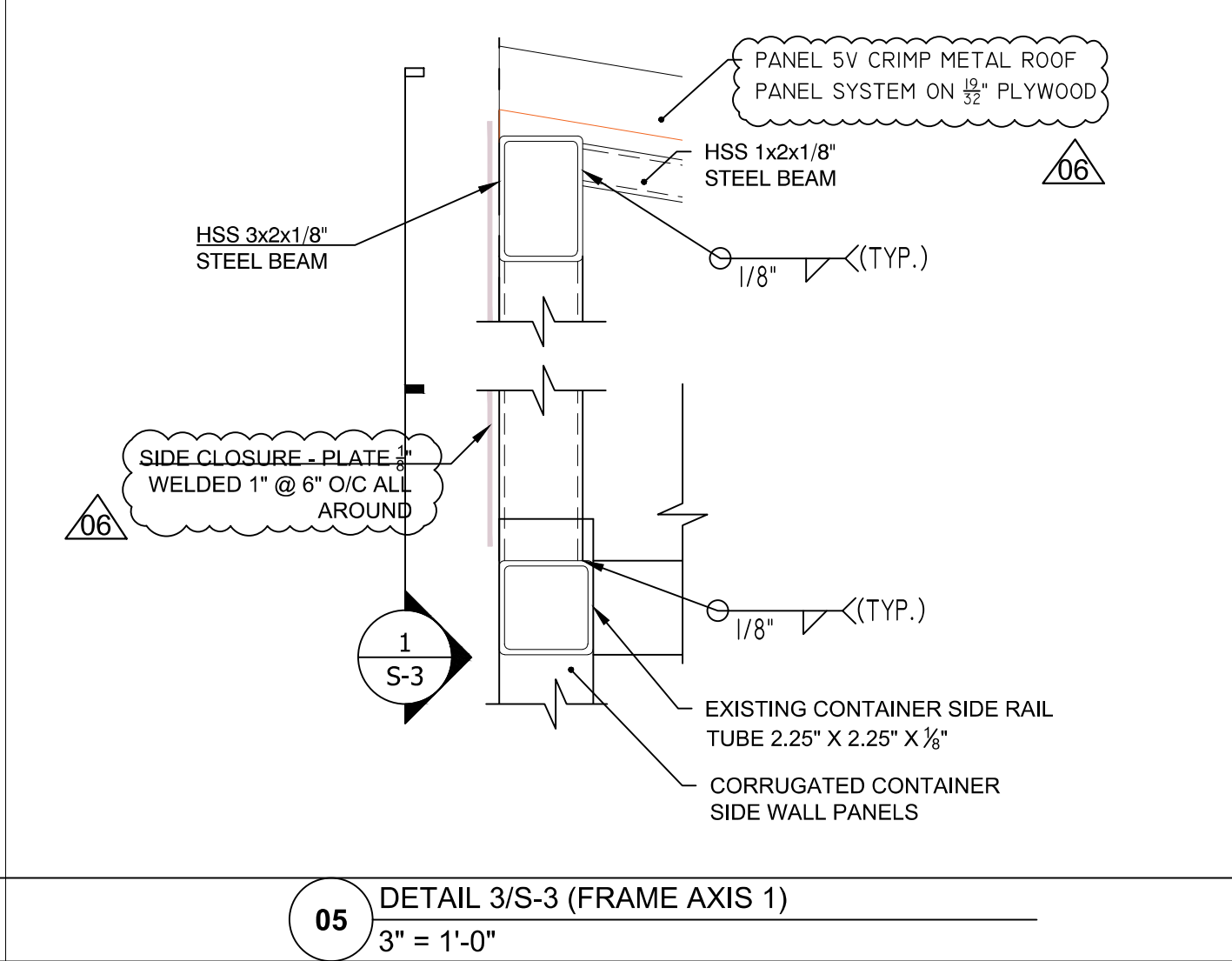
13 DETAIL 4/S-2  
3" = 1'-0"



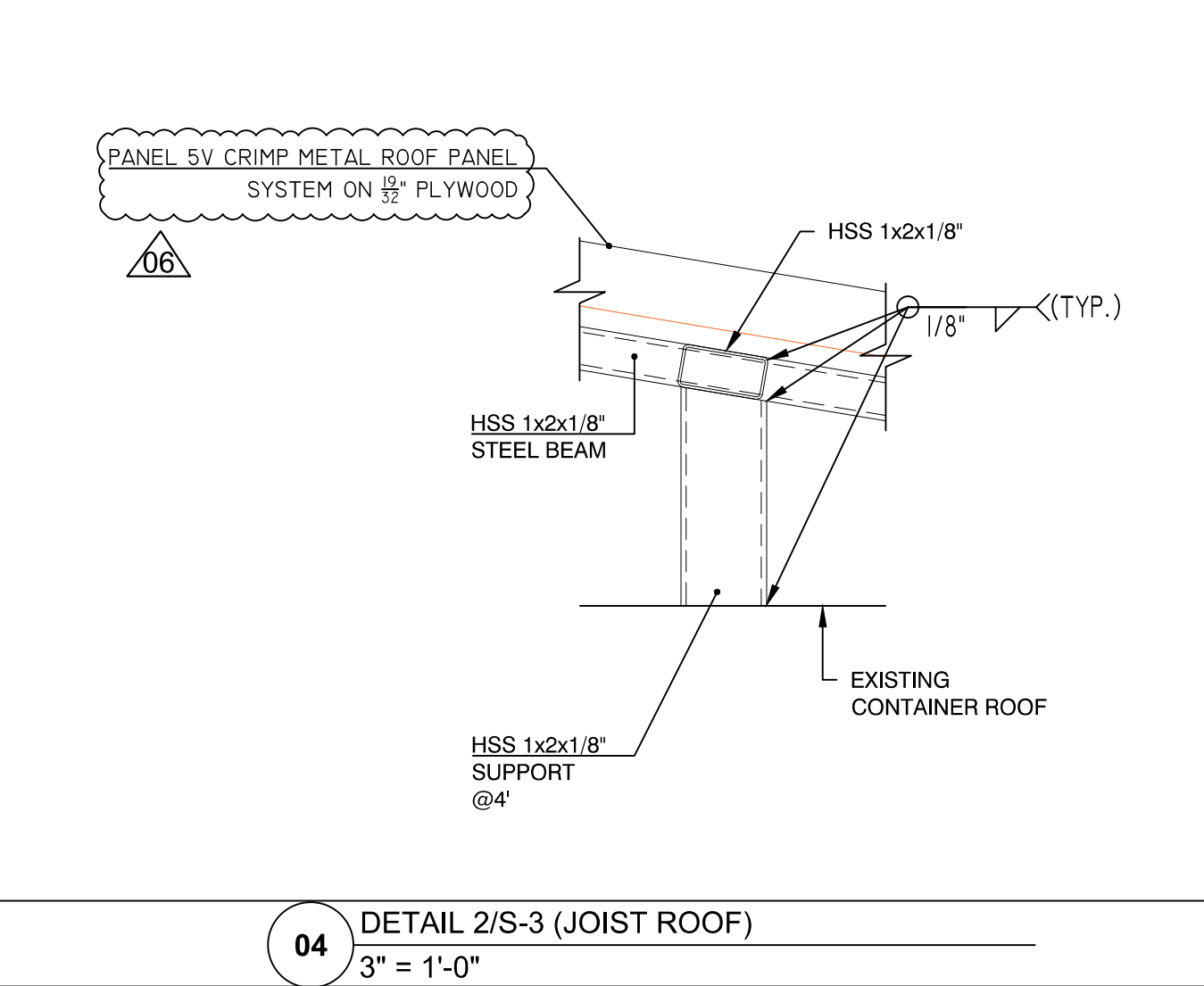
12 DETAIL 3/S-2  
3" = 1'-0"



11 DETAIL 1/A-2  
3" = 1'-0"

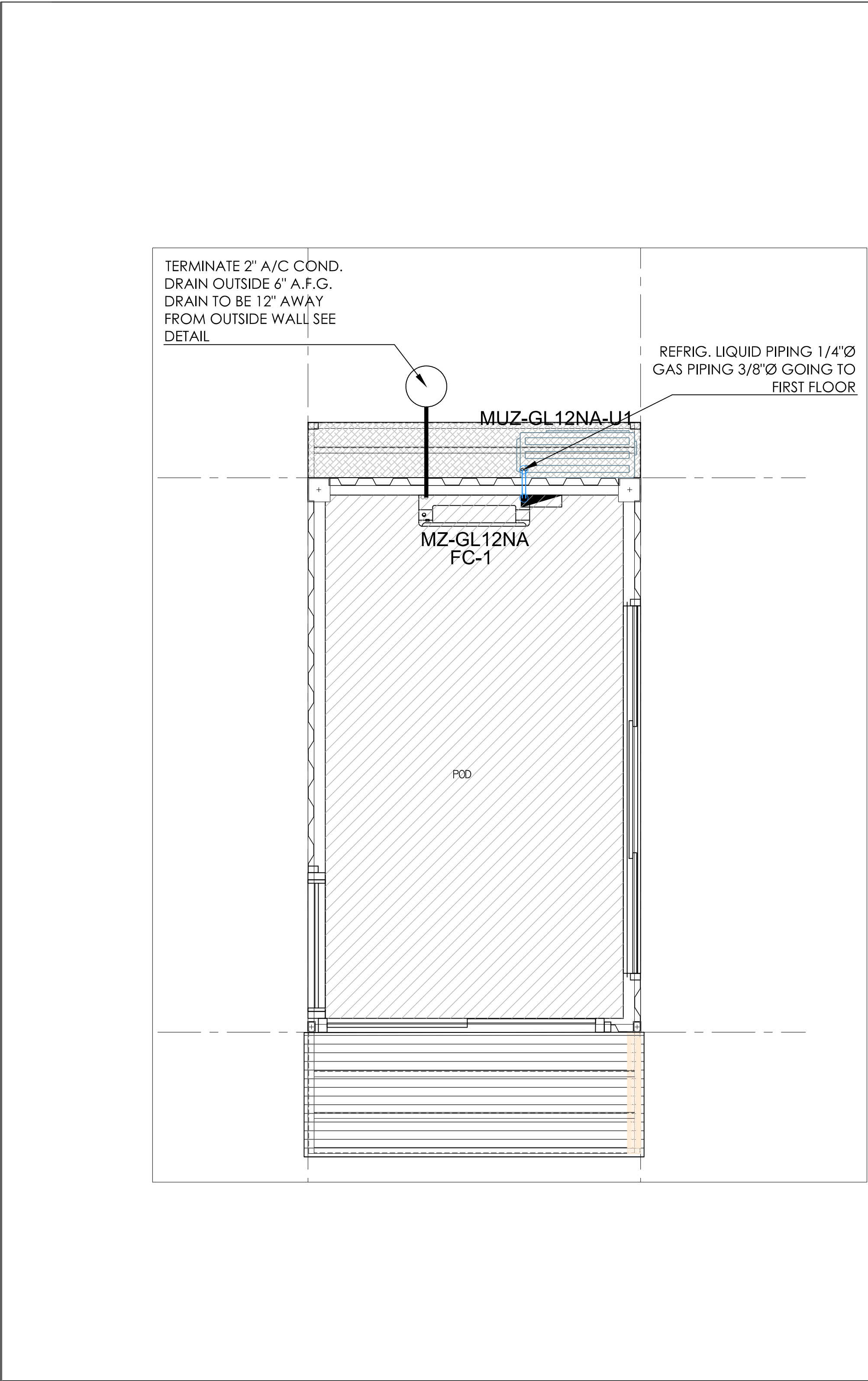


05 DETAIL 3/S-3 (FRAME AXIS 1)  
3" = 1'-0"



04 DETAIL 2/S-3 (JOIST ROOF)  
3" = 1'-0"

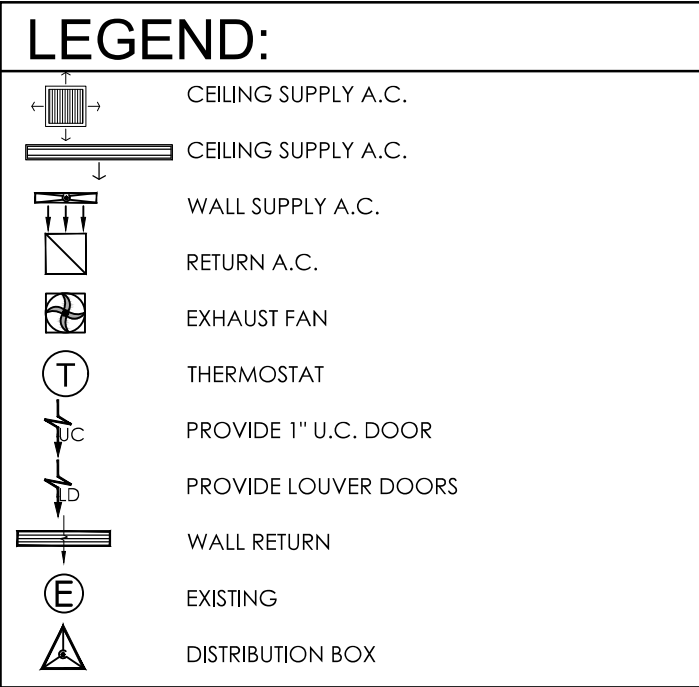
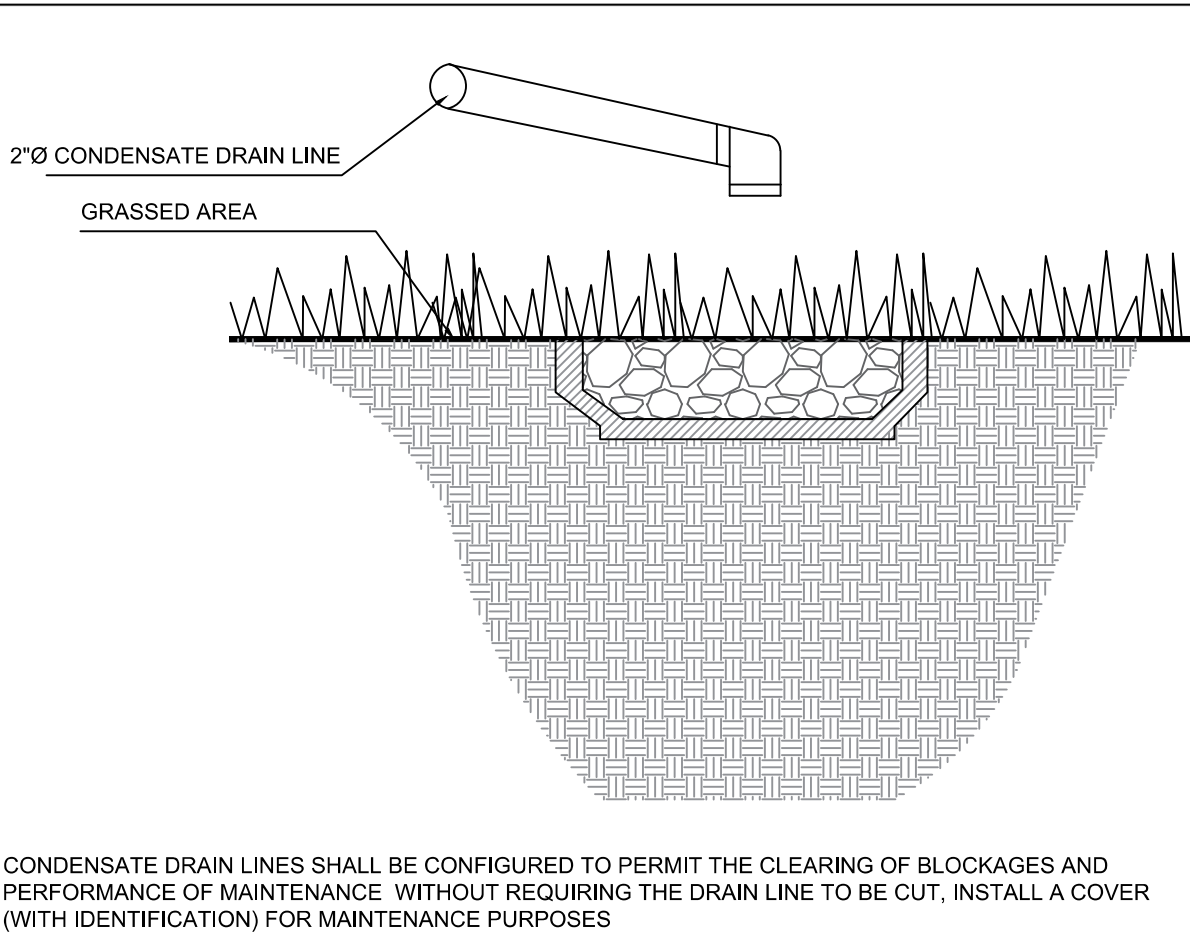




A/C NOTE:  
-A/C MUST HAVE PROGRAMMABLE THERMOSTAT  
• DUCTWORK INSULATION R-6  
• WALL INSULATION R-7.8  
• CEILING INSULATION R-30  
• U-FACTOR: 1.080  
• SHGC: 0.410

A/C STATIC PRESSURE  
1.25" S.P. WATER GAUGE  
AUXILIARY DRAIN PAN  
AUXILIARY DRAIN PAN SHALL HAVE A MINIMUM DEPTH OF 1-1/2" AND SHALL NOT BE LESS THAN 3" LARGER THAN UNIT OR COIL DIMENSIONS IN WIDTH AND LENGTH AND SHALL BE CONSTRUCTED OF NOT LESS THAN 24 GAUGE GALVANIZED SHEET METAL

O.A. NOTE:  
PROVIDE SHUTOFF DAMPER CONTROL  
SEQUENCE OF OPERATION:  
OUTSIDE AIR DAMPER TO BE CLOSED WHEN A/C UNIT IS OFF



02 NOTES

03 CONDENSATE DRAIN DRY WELL  
NTS (TYPICAL)

04 LEGEND

GENERAL H.V.A.C. NOTES:

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT FOR A COMPLETE H.V.A.C. SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE FLORIDA BUILDING CODE 2020 AND THE LATEST EDITION OF THE FOLLOWING PUBLICATIONS:  
A) ANS B9.1 MECHANICAL REFRIGERATION  
B) NFPA PAMPHLETS 90A & 91  
C) SMACNA  
D) ASHORE
- ALL AIR CONDITIONING DUCTWORK SHALL BE 1-1/2 INCH STANDARD DUTY FOLL REINFORCED FIBERGLASS WITH MANUFACTURED LOGO PRINTED ON THE VAPOR BARRIERS
- DUCT & GRILL SIZE SHOWN ARE NET FREE AREA
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION, WITH EXPOSED SURFACE CHEMICALLY TREATED TO RECEIVE PAINT TO MATCH COLOR OR AIR GUIDE OR APPROVED EQUAL
- PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
- PROVIDE TURNING VANES AND EXTRACTORS ALL ELBOWS AND TAKE OFF.
- THERMOSTATS SHALL BE COMBINATION COOLING/HEATING WITH SYSTEM COOL/AUTO/HEAT/OFF AND FAN ON/AUTO SELECTOR SWITCHES.
- FAN COIL SHALL BE MOUNTED ON A STRUCTURAL STEEL BASE WITH CONTINUOUS STRIP OF ISO MODE AROUND ITS PERIMETER, CONDENSING UNIT SHALL BE ANCHORED TO ITS BASE PER MANUFACTURER'S SPECIFICATIONS.
- REFRIGERANT PIPING SHALL BE COPPER TYPE "L" ARMAFLEX INSULATION SHALL BE PROVIDED FOR SUCTION LINES.
- PROVIDE NEW FILTERS FOR FAN COIL BEFORE STARTING. THESE FILTERS MUST ALSO BE REPLACED PRIOR TO FINAL ACCEPTANCE BY OWNER.
- ANY INCONSISTENCIES OR DISCREPANCIES MUST BE ADVISED TO THE ENGINEER OF RECORD PRIOR TO BEGIN THE JOB.

05 CHECK MARKS & AIR DISTRIBUTION SCHEDULE

06 CONDENSATE DRAIN DETAIL  
NTS (TYPICAL)

07 GENERAL NOTES  
NTS (TYPICAL)

FAN COIL UNIT (TGM OR SIMILAR)															
DESIGNATION	CFM	BTUH		ENTERING F		ELECTRICAL DATA					REF. UNIT	DIMENSIONS			NOTES
		TOTAL	SENSIBLE	RB	DB	VOLTS	PHASES	HTNG	KU	AMPS		H	W	D	
AHU - 1	360	12,000	9,000	67	80	240	1	-	-	-	MZ-GL12NA	11 5/8"	31 7/16"	9 3/4"	1/4" 3/8"

CONDENSING UNIT (TGM OR SIMILAR)									
DESIGNATION	BTUH	TEMP. ENT. CONDENSER	ELECTRICAL DATA				REF. UNIT	SEER	NOTES
			VOLTS	PHASES	WIRE	AMPS			
CU-1	30,000	95	230	1		9	15	MUZ-GL12NA-U1	23.1

09 NTS

10 NTS

08 AIR CONDITIONER SCHEDULE

11 NTS

12 NTS

13 NTS (TYPICAL)

APPROVED  
FL Third Party Agency  
Karins Engineering Group  
11/10/2022



KEY PLAN

CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:

POD  
(01)

PROJECT ADDRESS:

16400 NORTH WEST 15TH  
AVENUE, MIAMI, FL  
33169

REVISIONS DATE

Project No: 2021-E02

Scale: AS NOTED

Date: 02-12-2021

Drawn: A.G.

Checked: A.G.

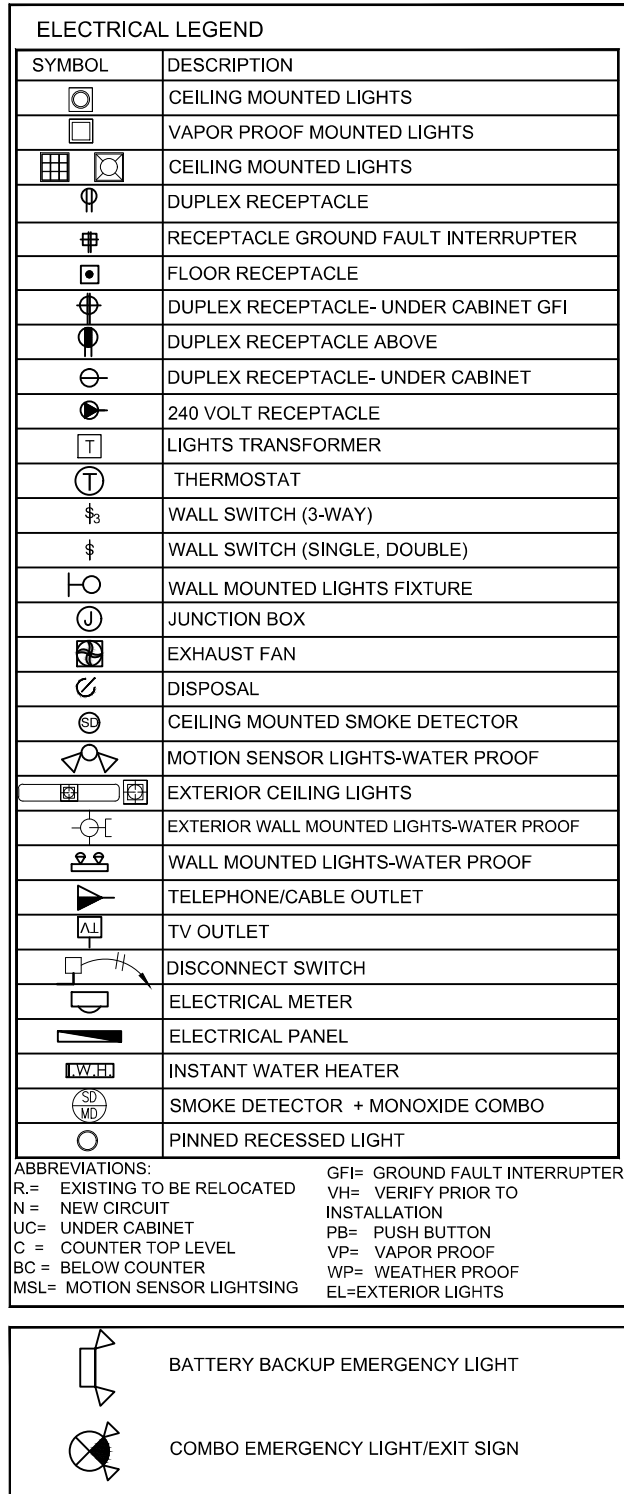
CAD File:

Drawing Title:

M-1

Sheet No: 1 OF 1





- NOTES:**
- ALL FIXTURES EQUIPMENT, OF ELEMENT SHOWN ARE TO BE PROVIDED BY CONTRACTOR UNLESS OTHERWISE NOTED.
  - ALL EXTERIOR FIXTURES TO BE WP W/GFI BREAKERS.
  - FINISH COLOR & SPECS MUST BE SIGNED OFF & APPROVED BY OWNER. SUBMIT SHOP DWGS, CUT SHEETS OF SAMPLES FOR OWNERS APPROVAL PRIOR TO ORDER OF COMMENCING ANY WORK.
  - IN ALL SPECIFIED AREAS IN 210.52, ALL NONLOCKING-TYPE 125-VOLT 15A AND 20A OUTLETS SHALL BE TAMPER RESISTANT.
  - MIN. 90% OF LAMPS TO BE HIGH EFFICIENCY.
  - ALL NEW OUTLETS SHALL BE AFCI.
  - ALL OUTLETS IN BUILDING SHALL BE TAMPERPROOF.
  - LIGHTING IN THE LABELED ENVELOPE SHALL BE IC RATED AND MEETING ASTM E 283 FOR LEAKAGE THERMAL AIR TIGHT AND HOUSING SHALL BE SEALED WITH A GASKET OR CAULK TO CEILING OR WALL. R402.4.
  - DETONATING AGENTS, NECT (110.11), ALL DISCONNECTS, SERVICE DISCONNECTS, RECEPTACLES, LUMINAIRES, APPLIANCES SHALL BE LISTED FOR THE ENVIRONMENT AND SHALL BE LABELED WP OR NEMA 3-R.
  - RECESSED LIGHT FIXTURES MUST BE IC RATED & AIR TIGHT TO PREVENT LEAKAGE FROM CONDITIONED TO UNCONDITIONED SPACES AS PER ENERGY CODE.

## 05 ELECTRICAL LOAD CALCULATIONS.



1. GUARANTEES AND RESPONSIBILITY: ALL MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM DATE OF ACCEPTANCE. ALL DEFECTS SHALL BE CORRECTED WITHOUT CHARGE, INCLUDING ALL PATCHING AND PAINTING AND OTHER INCIDENTAL REPAIRS OR REPLACEMENT.
2. WORKMANSHIP: ALL WORK SHALL BE INSTALLED IN A NEAT ORDERLY MANNER. DEVICES, PLATES, EXPOSED RACEWAYS, ENCLOSURES, COVERS, FIXTURES, ETC. SHALL BE ALIGNED PERPENDICULAR TO OR PARALLEL WITH, THE PRINCIPAL STRUCTURAL MEMBERS. THE EDGE OF THESE COVERS, PLATES ENCLOSURES, ETC., SHALL BE IN VERTICAL OR HORIZONTAL PLANE AS APPLICABLE FOR THE ITEMS INVOLVED. EXPOSED RACEWAYS SHALL BE OFFSET WHERE THEY ENTER SURFACE-MOUNTED EQUIPMENT. WIRING INSTALLED IN PANELS AND OTHER ENCLOSURES SHALL BE NEATLY LOOPED AND LACED & NOT WADDLED OR BUNDLED.
3. MATERIAL STANDARDS: ALL MATERIALS SHALL BE NEW & CONFORM TO THE APPLICABLE STANDARDS WHERE SUCH HAVE BEEN ESTABLISHED FOR THE MATERIALS IN QUESTION. THE PUBLICATIONS AND STANDARDS OF THE ORGANIZATIONS BELOW ARE APPLICABLE TO THE MATERIALS SPECIFIED HEREIN.
  - A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
  - B. UNDERWRITER'S LABORATORIES, INC. (UL)
  - C. AMERICAN STANDARDS ASSOCIATION (ASA)
  - D. NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA)
  - E. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

WHERE REFERENCE IS MADE TO TRADE NAMES OR NAMES OF MANUFACTURERS, SUCH REFERENCES ARE MADE SOLELY TO DESIGNATE AND TO IDENTIFY THE QUALITY OF THE MATERIALS OR EQUIPMENT TO BE FURNISHED, AND DOES NOT PRECLUDE THE USE OF "EQUAL" EQUIPMENT AS APPROVED BY THIS ENGINEER.

- REFERENCE STANDARDS: INSTALLATION SHALL COMPLY WITH THE REGULATIONS OF THE FOLLOWING:
- |    |  |
|----|--|
| A. | NATIONAL ELECTRICAL CODE NEC 2017.       |
| B. | FLORIDA BUILDING CODE 2020, 7th EDITION. |
5. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.
6. THE MINIMUM WIRE SIZE SHALL BE #12 AWG, UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE COPPER WITH TW INSULATION FOR SIZE #8 AND SMALLER. CONDUCTORS LARGER THAN #8 SHALL HAVE TYPE THE INSULATION, UNLESS OTHERWISE NOTED. ALL CONDUCTORS #10 AND SMALLER MAY BE SOLID AND ALL THOSE #8 AND LARGER SHALL BE STRANDED.
7. ALL RACEWAYS AND PIPES PLACED IN OR THRU A CONCRETE SLAB SHALL BE SPACED A MINIMUM OF 3 DIAMETERS OF THE LARGEST CONDUIT OR PIPE OF ANY OTHER SERVICE.
8. ALL RACEWAYS SHALL BE CARLON PY-DUIT, TYPE A, U.L. LISTED OR EQUAL. CONDUIT FITTINGS AND CEMENT SHALL BE PRODUCED BY THE SAME MANUFACTURER.
- A. RUNS IN CONCRETE IN CONTACT WITH EARTH, UNDERGROUND, EXPOSED OR IN INTERIOR WALLS OR FEEDERS 1 1/4" OR LARGER, SHALL BE RIGID STEEL OR PVC
  - B. METALLIC ELECTRICAL CONDUIT OR ROMEX MAY BE USED IN THE INTERIOR PARTITIONS AND CEILINGS.
9. OUTLET BOXES SHALL BE POLYVINYL CHLORIDE AND SHALL CONFORM TO THE N.E.M.A. STANDARDS.
10. THE DISCONNECT SWITCHES SHALL BE HORSEPOWER-RATED HEAVY DUTY, QUICK-MAKE/QUICK-BREAK IN N.E.M.A.-1 INTERIOR, 4 EXTERIOR
11. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH & INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN A PROPER WORKING ORDER. SHOULD ANY ITEMS BE MISSING, HE SHALL NOTIFY THE ARCHITECT/ENGINEER BEFORE COMMENCING WORK. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE CONTRACTOR'S FAILURE TO NOTIFY THE ARCHITECT/ENGINEER

## ELECTRICAL NOTES

1. OUTSIDE RECEPTACLES AND KITCHEN COUNTER, SHALL BE G.F.I.
2. ELECTRICAL METER AND PANEL LOCATION MAY VARY AS PER SERVICE ENTRANCE LOCATION.
3. ELECTRICAL CONTRACTOR TO COORDINATE SERVICE WITH F.P.L.
4. IF "J" BOXES SHALL COMPLY WITH N.E.C.
5. ELECTRICAL OUTLETS (RECEPTACLES AND LIGHTING) BELOW BASE FLOOR ELEVATION SHALL BE INSTALLED AT THE HIGHEST PERMITTED ELEVATION AND SHALL BE INSTALLED ON (SEPARATE) INDEPENDENT CIRCUITS FROM THOSE IN THE HABITAT AREAS.
6. NO APPLIANCES OR APPLIANCE OUTLETS SHALL BE INSTALLED BELOW BASE FLOOR ELEVATION.
7. IT IS RECOMMENDED THAT YOU CONFER WITH THE ORIGINAL OWNER AND LIGHTS TO LOCATE THE ELECTRICAL METER TO COMPLY WITH FEDERAL EMERGENCY MANAGEMENT AGENCY REQUIREMENTS.

01 ELECTRICAL FLOOR PLAN  
SCALE 1/2" = 1' - 0"

TYPE: SIEMENS,GE,SD OR EQUIV.	PANEL 'A'	BUS RATINGS: 100 A
SERVICE: 1Ø,3W		POLES: 12 MINIMUM
VOLTAGE: 120/240		FEEDER: #3
AIC:10,000		NEUTRAL: #3

CKT	SERVICES	TRIP POLE	WIRE	CON DUIT	VA	PHASE A C	CKT	SERVICES	TRIP POLE	WIRE	CON DUIT	VA
1	LIGHTS AFCI	15/1	#14	1/2	150	●	2	AC UNIT	15/2	#14	1/2	2,880
3	RECEPTACLES	20/1	#12	1/2	540	●	4					
5	C1	20/1	#12	1/2	1,000	●	6	RECEPTACLES	20/1	#12	1/2	540
7						●	8					
9						●	10					
11						●	12					

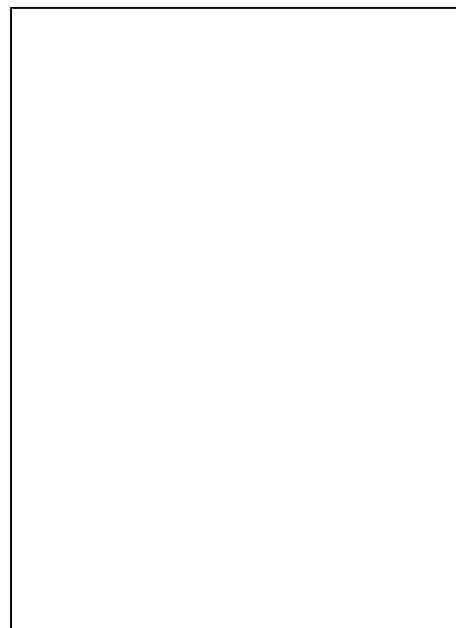
TOTAL LOAD = 5.11KW	= 21.29 AMPS
---------------------	--------------

09 ELECTRICAL PANELS.  
NTS

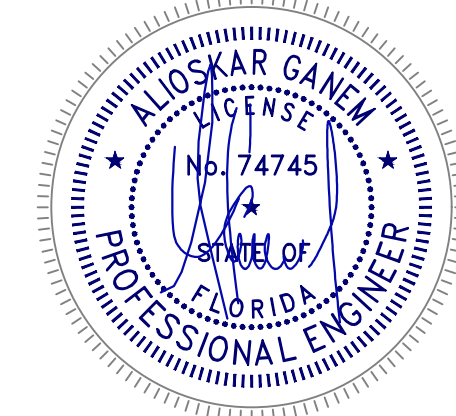


**APPROVED**  
**FL Third Party Agency**  
**Karins Engineering Group**  
**11/10/2022**

## KEY PLAN



CONSULTING ENGINEER



ALIOSKAR GANEM P.E.  
FL. LIC. No. 74745

PROJECT NAME:

POD  
(01)

PROJECT ADDRESS:

16400 NORTH WEST 15TH  
AVENUE, MIAMI, FL  
33169

REVISIONS	DATE
1	05-18-2021
2	05-27-2021

Project No: 2021-E02

Scale: AS NOTED

Date: 02-12-2021

Drawn: A.G.

Checked: A.G.

CAD File

Drawing Title:

**E-1**



**GANEM CONSULTING ENGINEERING****C.A. 31187**

15805 Biscayne Blvd. Ste 105

North Miami Florida 33160

Phone (786) 916-6546

[alioskar@ganemce.com](mailto:alioskar@ganemce.com)

November 10, 2022

JOHN BONACCI

KARINS - Fort Lauderdale

5200 NW 33rd Avenue Suite 220

Fort Lauderdale, FL 33309

RE: ECO DWELLING, LLC  
 16400 NORTH WEST 15th Av  
 Miami Gardens, FL, 33169

**LETTER OF COMPLIANCE 2020 FLORIDA BUILDING CODE, 7<sup>th</sup> EDITION**

Dear Official:

I, Alioskar Ganem, a Professional Engineer with the State of Florida, hereby attest to the best of my knowledge, belief, and professional judgment, the structural and envelope components of the structure **POD-01** are in compliance with the Florida Building Code 2020 Edition, including the High Velocity Hurricane Zone of the Florida Building. Below, is a summary of FBC compliance for HVHZ.

2020 FBC Residential - 7 <sup>th</sup> EDITION			2020 FBC Building - 7 <sup>th</sup> EDITION		
SECTION	ELEMENT	HVHZ requirements CHAPTER	Section	COMPLIANCE	REMARKS
4401	Walls	14		NOA No.: 18-0123.03 (ref)	5V CRIMP metal panel
4402	Roofing	15		NOA No.: 18-0123.03 (ref)	5V CRIMP panel
4403	General	16	1616.3.1	verified	Allowable Deflection req roof & ceiling: L/360 floor member: L/360 provided: L/600 provided: L/2000
			1620.2	verified	Wind Velocity req.: 175 mph Provided: 180 mph
			1620.3	verified	Exposure req min: C Provided: D
			1626.1	verified	windborne debris impact standards: See Section 1626.4 (3)
			1626.4(3)	See analysis below	Construction Assemblies <i>Deemed to Comply</i> with Section 1626
4408	Steel	22	2214.3	verified	<u>Standards</u> req: AISC, AISI, ASCE, ANSI/AWS, ASTM
4409	Wood	23	2322.2.3	verified	Nominal Thickness – Plywood Roof Sheathing req: 19/32"      Provided: 19/32"
4410	Glass and glazing	24		NOA No.: 20-0113.02 (ref) NOA No.: 19-0911.06 (ref) NOA No.: 18-1108.02 (ref)	Fixed Window Sliding Window Sliding Door

**FBC 1626.4 (3):**

Construction Assemblies Deemed to Comply with Section 1626 (Impact Tests for Wind-Borne Debris):

"Exterior frame walls and roofs constructed in accordance with Chapter 22 (High-Velocity Hurricane Zones) of this code sheathed with a minimum 24-gage rib-deck-type material and clad with an approved wall finish".

HVHZ requirements CHAPTER	Section		COMPLIANCE	REMARKS
22	2205	Structural Steel		
	2205.1	General	verified	Structure meets with AISC 360 requirements
	2210	Cold Formed Steel		

## GANEM CONSULTING ENGINEERING

C.A. 31187

15805 Biscayne Blvd. Ste 105

North Miami Florida 33160

Phone (786) 916-6546

[alioskar@ganemce.com](mailto:alioskar@ganemce.com)



HVHZ requirements CHAPTER	Section		COMPLIANCE	REMARKS
	2210.1	General	verified	Side and End panels meet with AISI S100 requirements
	2216	Design loads		
	2216.1		verified	Design Loads meet with chapter 16
	2217	Minimum Thickness of Material		
	2217.1		verified	Side and End panels meet with AISI S100 requirements
	2222	Cold Formed Steel Construction		
	2222.1		verified	wall panels meet with AISI S100 requirements
	2222.3	Individual Structural Members	verified	All connections are welded providing positive attachment
	2222.4	Structural Sheets	verified	Panels were designed in accordance with AISI S310-16 (analytic method, which is virtually the same as that DDM)
	2222.4.3		verified	Metal siding is 14 Ga (>24 Ga)
	2222.4.4	Deflection	verified	$0.19" (L/C:D+0.60Wz) < L/240 \quad (L/240 = 8'-6" = 0.425")$
	2222.4.5	FS = 2.50 (bending stress)	verified	Bending about the symmetric axis: $737 \text{ lb-in/in } (1.67/2.5) = 492 \text{ lb-in/in} > 119 \text{ lb-in/in} \quad (\text{ok !})$ Bending about the centroidal axis perpend to axis of symmetric: $836 \text{ lb-in/in } (1.67/2.5) = 558 \text{ lb-in/in} > 411 \text{ lb-in/in} \quad (\text{ok !})$
	2222.6	Protection Metal		Metal panel is 14 Ga > 20 gauge

If you have any questions, or need any additional information relating to this project, please do not hesitate to contact me.

Regards,



Alioskar Ganem

FL Lic 74745