BUILDER/CONTRACTOR RESPONSIBILITIES

Drawing Validity — These drawings, supporting structural calcuations and design certification are based on the order documents as of the date of these drawings. These cocuments describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

Builder Acceptance of Drawings — Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice Sept 86 Section 4.2.1) (Mar 05 Section 4.1.1)

Code Official Approval — It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

Builder is responsible for State, Federal and OSHA safety compliance — The Builder/Contractor is responsible for applying and observing all pertinent safety rules and regulations and OSHA standards as applicable.

Building Erection — The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector. (AISC Code of Standard Practice Sept 86 Section 7.9.1) (Mar 05 Section 7.10.3)

Discrepancies — Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice Sept 86 Section 3.3) (Mar 05 Section 3.3)

Materials by Others - All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

Modification of the Metal Building from Plans — The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing vall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

Foundation Design — The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA 06 Sections 3.2.2

1/2"ø A325 BOLT GRIP TABLE

LENGTH

1 1/4" F.T.

1 3/4" F.T.

PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabrication of built—up structural framing members conform to ASTM A529, ASTM A572, ASTM A1011 SS, or ASTM A1011 HSLAS with a minimum yield point of 50 ksi. Material properties of hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with a minimum specified yield point of 50 ksi. Hot rolled angles, or other than flange braces, conform to ASTM 36 minimum. Hollow structural shaped conform to ASTM A500 grade b, minimum yield point is 42 ksi for round HSS and 46 ksi for rectangular HSS. Material properties of cold form light gage steel members conform to the requirements of ASTM A1011 SS Grade 55 or ASTM A1011 HSLAS Class 1 Grade 55, with a minimum yield point of 55 ksi.

The manufacturer does not assume any responsibility for the erection nor field supervision of the structure and or any special inspections that may be required by the local building authority during erection (including inspection of the high strength bolts or field welds) as required during erection. The coordination and the costs associated for setting up and Special Inspections are the responsibility of the Erector, Owner, Architect, or Engineer of Record.

Design is based upon the more severe loading of either the roof snow load or the roof live load.

Loads, as noted, are given within order documents and are applied in general accordance with the applicable provisions of the model code, and/or specification indicated. Neither the manufacture nor the certifying engineer declares or attests that the loads as designated are proper for the local provisions that may apply or for site specific parameters. The manufacturer's Engineer's certification is limited to design loads supplied by an Architect and/or engineer of record for the overall construction project.

This project is designed using manufacture's standard serviceability standards. Generally this means that all stresses and deflections are within typical performance limits for normal occupancy and standard metal building products. If special requirements for deflections and vibrations must be adhered to, then they must be clearly stated in the contract documents.

This metal building system is designed as enclosed. All exterior components (i.e. doors, windows, vents, etc.) must be designed to withstaind the specified wind loading for the design of components and cladding in accordance with the specified building code. Doors are to be closed when a maximum of 50% of design wind velocity is reached.

Using Standard (5x5) eave guitter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MBMA Metal Building Systems Manual. Downspout locations have not been located on these drawings. The downspouts are to be placed on the building sidewalls at a spacing not to exceed 96 feet with the first downspout from both ends of the gutter run within 25 feet of the end. Downspout spacing that does not exceed the maximum spacing will be in compliance with the building code. The gutter and downspout system as provided by the manufacturer is designed to accommodate 10.0 in/hr rainfall intensity.

Roof and wall panels have been designed in accordance with section 2222.4 of the Florida Building Code, Fifth Edition (2014). Product approval numbers for the State of Florida, Department of Community Affairs per Product Rule 9B-72:

FLORIDA APPROVAL #

FL11868.1

FL11917.3

DESCRIPTION

FOR ERECTOIR INSTALLATION

AVP WALL PANEL

PBR ROOF PANEL

DBCI DOOR 5000 SERIES

DESIGN LOADING

THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AND APPLIED AS REQUIRED BY: FBC 2017

THE BUILDER IS TO CONFIRM THAT THESE LOADS COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT.

ROOF DEAD LOAD	
SUPERIMPOSED	2.000 PSF
COLLATERAL (LIGHTS)	0.5 PSF
ROOF LIVE LOAD	20.00 PSF (REDUCIBLE)
RISK CATEGORY	<u>II — Nor</u> mal
SNOW LOAD	
GROUND SNOW LOAD (Pg)	0.0000 PSF

THERMAL FACTOR (Ct) WIND LOAD

FLAT ROOF SNOW LOAD (Pf)

SNOW EXPOSURE FACTOR (Ce)

SNOW LOAD IMPORTANCE FACTOR (Is) 1.0000

120 MPH ULTIMATE WIND SPEED 92 MPH (IBC SECTION 1609.3.1) NOMINAL WIND SPEED (Vasd)

0.00 PSF

1.0

1.00

76 MPH SERVICEABILITY WIND SPEED WIND EXPOSURE CATEGORY В 1.0

INTERNAL PRESSURE COEFFICIENT (GCpi) 0.18 /-0.18

ZONE 4, COMPONENT WIND LOAD ≤ 10FT²

23.689 PSF PRESSURE -25.663 PSF SUCTION ZONE 5, COMPONENT WIND LOAD < 10FT²

ZONES PER ASCE 7-10; FIG. 30.4-1 ZONES PRESSURES SHOWN ARE UN-FACTORED

RAIN INTENSITY 5-MINUTE DURATION, 5-YEAR

TOPOGRAPHICAL FACTOR

10.0000 IN/HOUR RECURRENCE (I1)

23.689 PSF PRESSURE -31.526 PSF SUCTION

DESCRIPTION COVER SHEET ANCHOR BOLT PLAN ANCHOR BOLT REACTIONS ANCHOR BOLT DETAILS ROOF FRAMING PLAN ROOF SHEETING PLAN FRONT SIDEWALL BACK SIDEWALL LEFT ENDWALL RIGHT ENDWALL FRAME CROSS SECTION WIND BENT ELEVATION DET1-11 STANDARD DETAILS R1-R8 INSTALLATION SHEETS

DRAWING INDEX

DRAWING STATUS

FOR APPROVAL

THESE DRAWINGS, BEING FOR APPROVAL, ARE BY DEFINITION NOT FINAL, AND ARE FOR CONCEPTUAL REPRESENTATION ONLY. THEIR PURPOSE IS TO CONFIRM PROPER INTERPRETATION OF THE PROJECT DOCUMENTS. ONLY DRAWINGS ISSUED "FOR ERECTOR INSTALLATION" CAN BE CONSIDERED AS COMPLETE.

FOR CONSTRUCTION PERMIT THESE DRAWINGS, BEING FOR PERMIT, ARE BY DEFINITION NOT FINAL. ONLY DRAWINGS ISSUED "FOR ERECTOR INSTALLATION" CAN BE CONSIDERED AS COMPLETE.

X FOR ERECTOR INSTALLATION FINAL DRAWINGS FOR CONSTRUCTION.

> FOR QUESTIONS OR ASSISTANCE CONCERNING ERECTION CALL:

800-556-3726

MONDAY - FRIDAY 7:30AM TO 5:00PM

ENGINEERING SEAL

THIS CERTIFICATION COVERS PARTS MANUFACTURED AND DELIVERED BY THE MANUFACTURER ONLY, AND EXCLUDES PARTS SUCH AS DOORS, WINDOWS, FOUNDATION DESIGN AND ERECTION OF THE BUILDING.

THESE DRAWINGS AND THE METAL BUILDING SYSTEM THEY REPRESENT ARE THE PRODUCT OF AN AFFILIATE OF NCI GROUP, INC. - 10943 N. SAM HOUSTON PARKWAY W., HOUSTON, TX 77064. THE PROFESSIONAL ENGINEER WHOSE SEAL APPEARS HEREON IS EMPLOYED BY AN AFFILIATE OF NC GROUP, INC. AND IS NOT THE ENGINEER-OF-RECORD FOR THE OVERALL PROJECT.

THE ENGINEER WHOSE SEAL APPEARS HEREON IS AN EMPLOYEE FOR THE MANUFACTURER FOR THE MATERIALS DESCRIBED FEREIN. SAID SEAL OR CERTIFICATION IS LIMITED TO THE PRODUCTS DESIGNED AND MANUFACTURED BY MANUFACTURER ONLY. THE UNDERSIGNED ENGINEER IS NOT THE OVERALL ENGINEER OF RECORD FOR THIS PROJECT.

Mar 26, 2018

Drawing has been digitally signed.

BUILDING SIZE: $50'-0" \times 100'-0" \times 20'-0"$

GXV MOS

OCATION:

LAKE CITY, FL 32055

MESCO Building Solutions

5244 Bear Creek Court Irving, TX 75061 Voice 214-687-9999 Fax 214-687-9737

BUILDING ID

SIMQUE - EXPRESS PLUMBING - 4 ROLLUP VE CUSTOMER: SIMQUE CONSTRUCTION

PHASE

SCALE

N.T.S.

OWNER: EXPRESS PLUMBING

SHEET NUMBER JOB NUMBER 16-B-41733 C1

ISSUE

No. 38305 STATE OF

FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF WASHER REQUIRED ONLY WHEN SPECIFIED.

ISSUE

DATE

WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS. ADD 5/32" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.

NOTE:

THE NUT.

GRIP

9/16" TO 1 1/16"

Over 1 1/16" TO 1 5/16"

NOTED ON ERECTION DRAWINGS

0 TO 9/16"

Over 1 5/16" TO 1 9/16" 2 1/4"

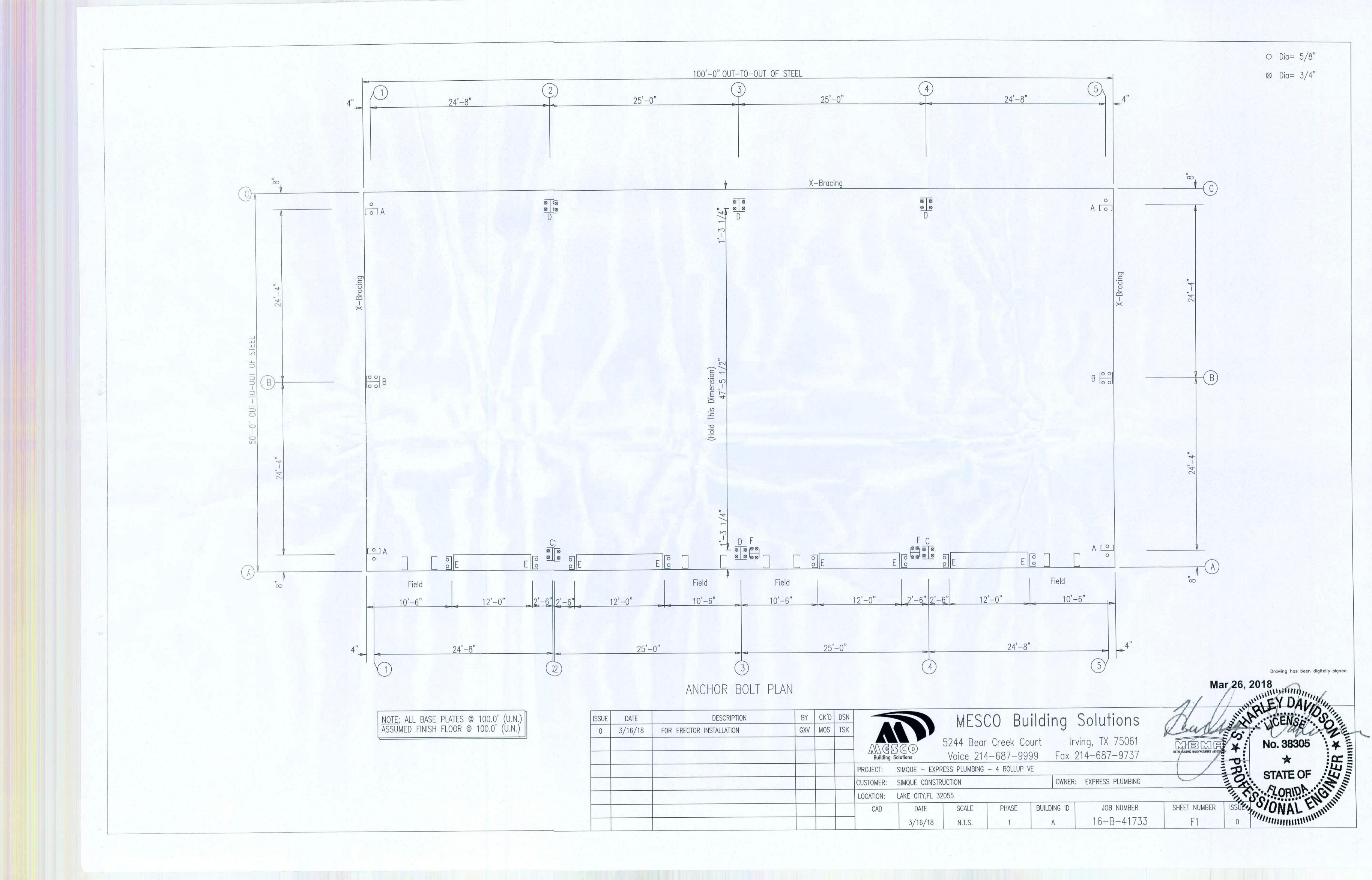
Over 1 9/16" TO 1 13/16" 2 1/2"

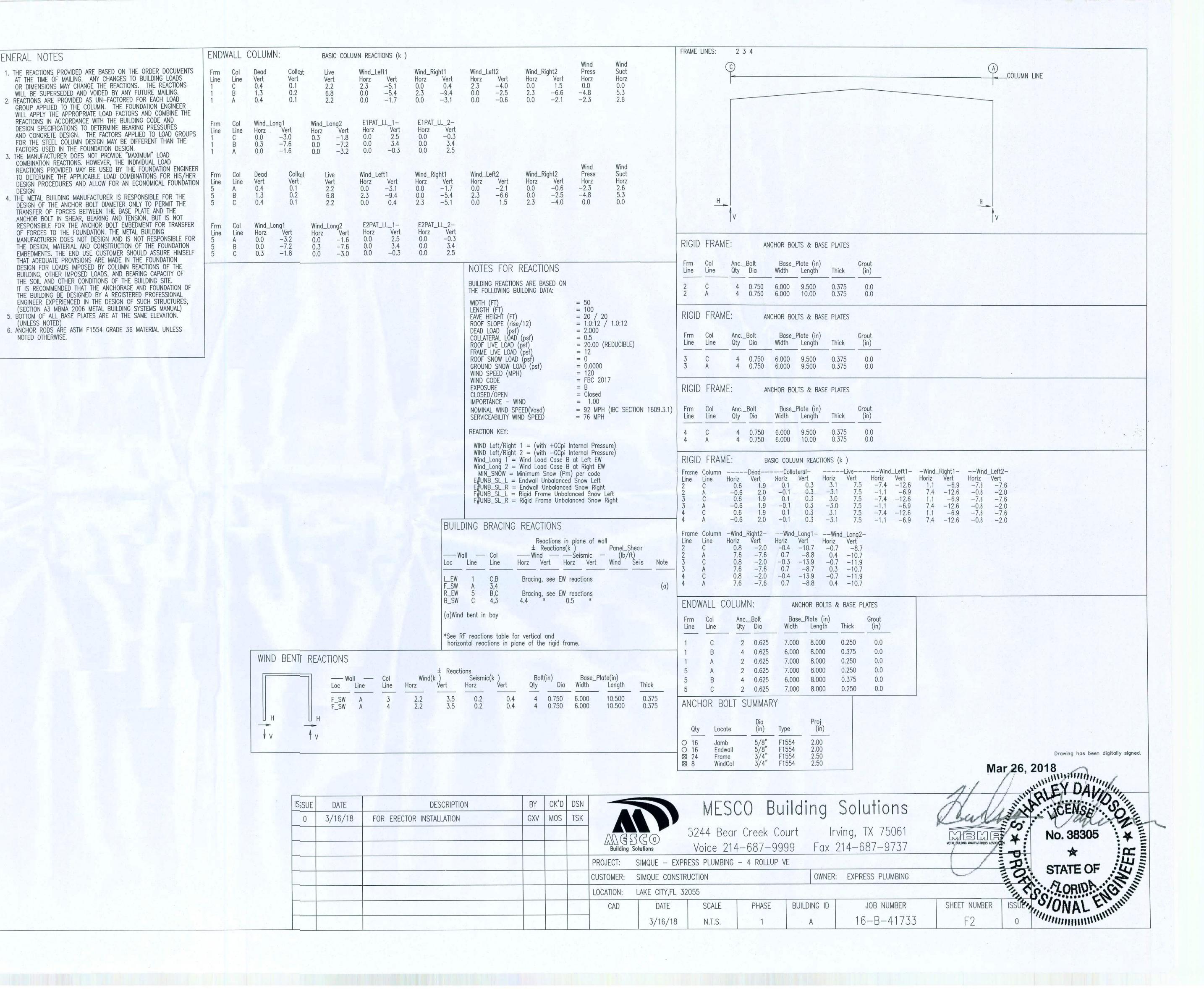
Over 1 13/16" TO 2 1/16" | 2 3/4"

F.T. DENOTES FULLY THREADED

LOCATIONS OF BOLTS LONGER THAN 2 3/4"

Rev. 4/4/2017



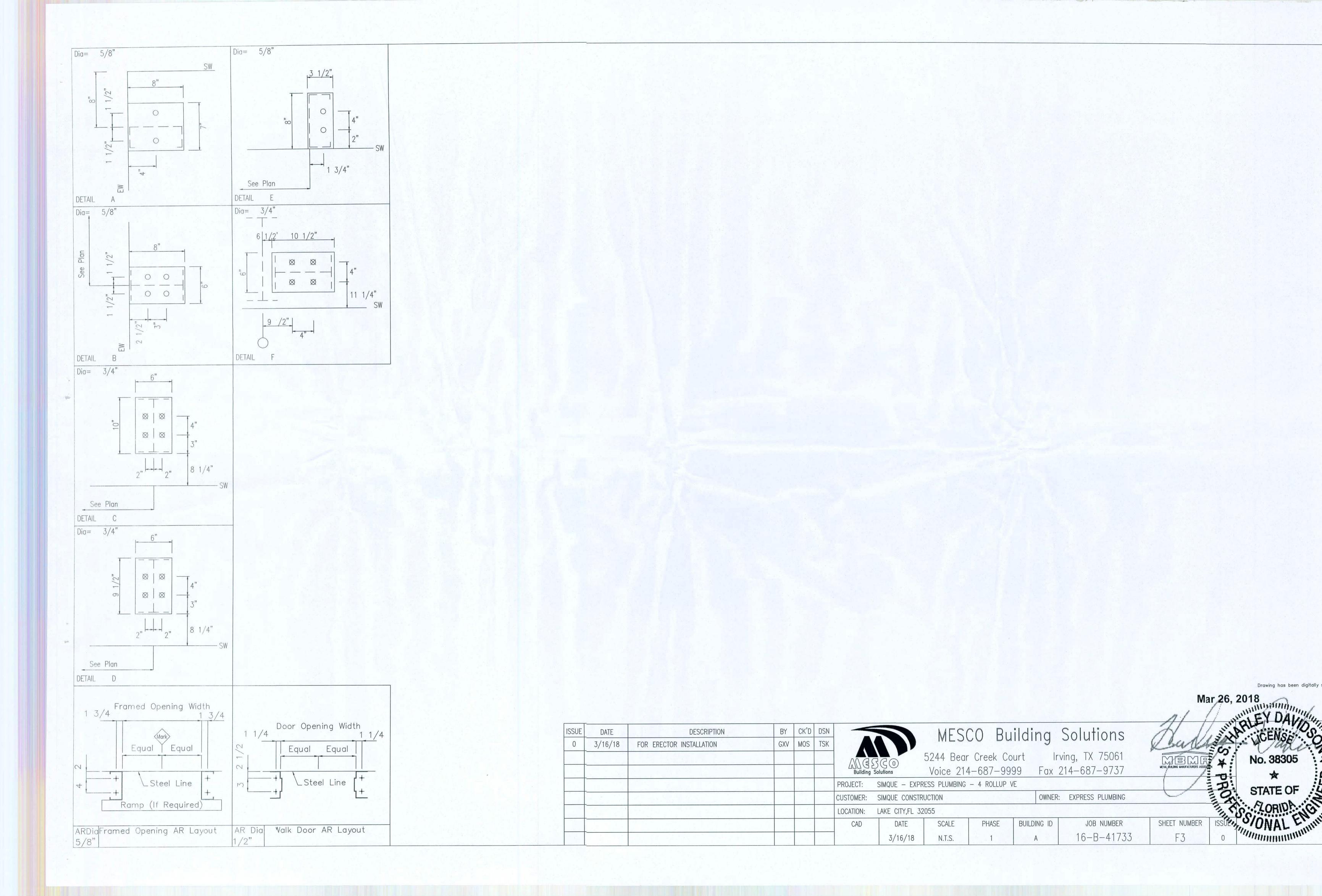


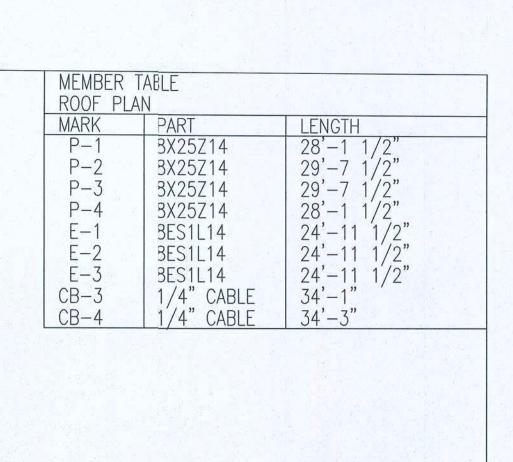
GENERAL NOTES

DESIGN

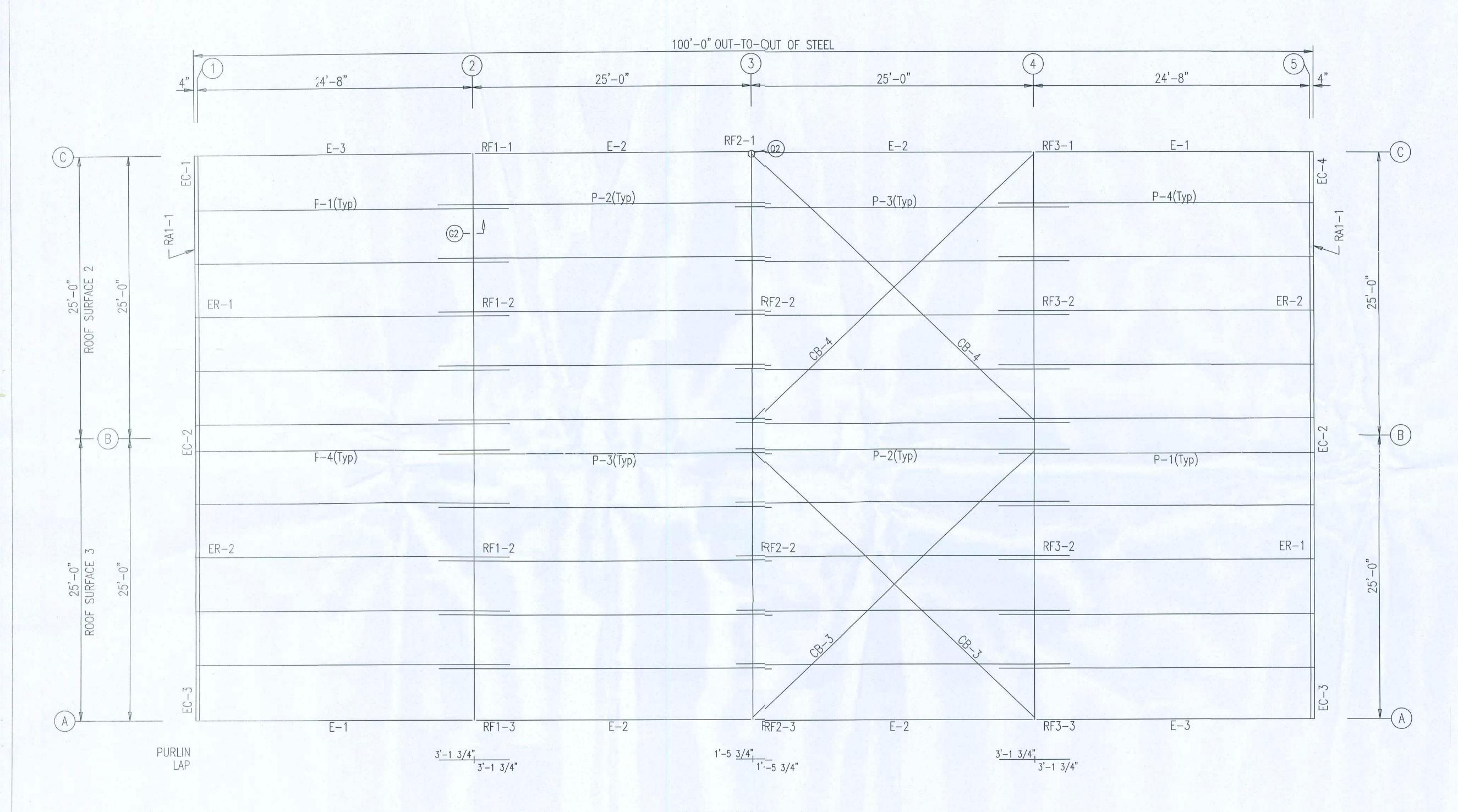
(UNLESS NOTED)

NOTED OTHERWISE.





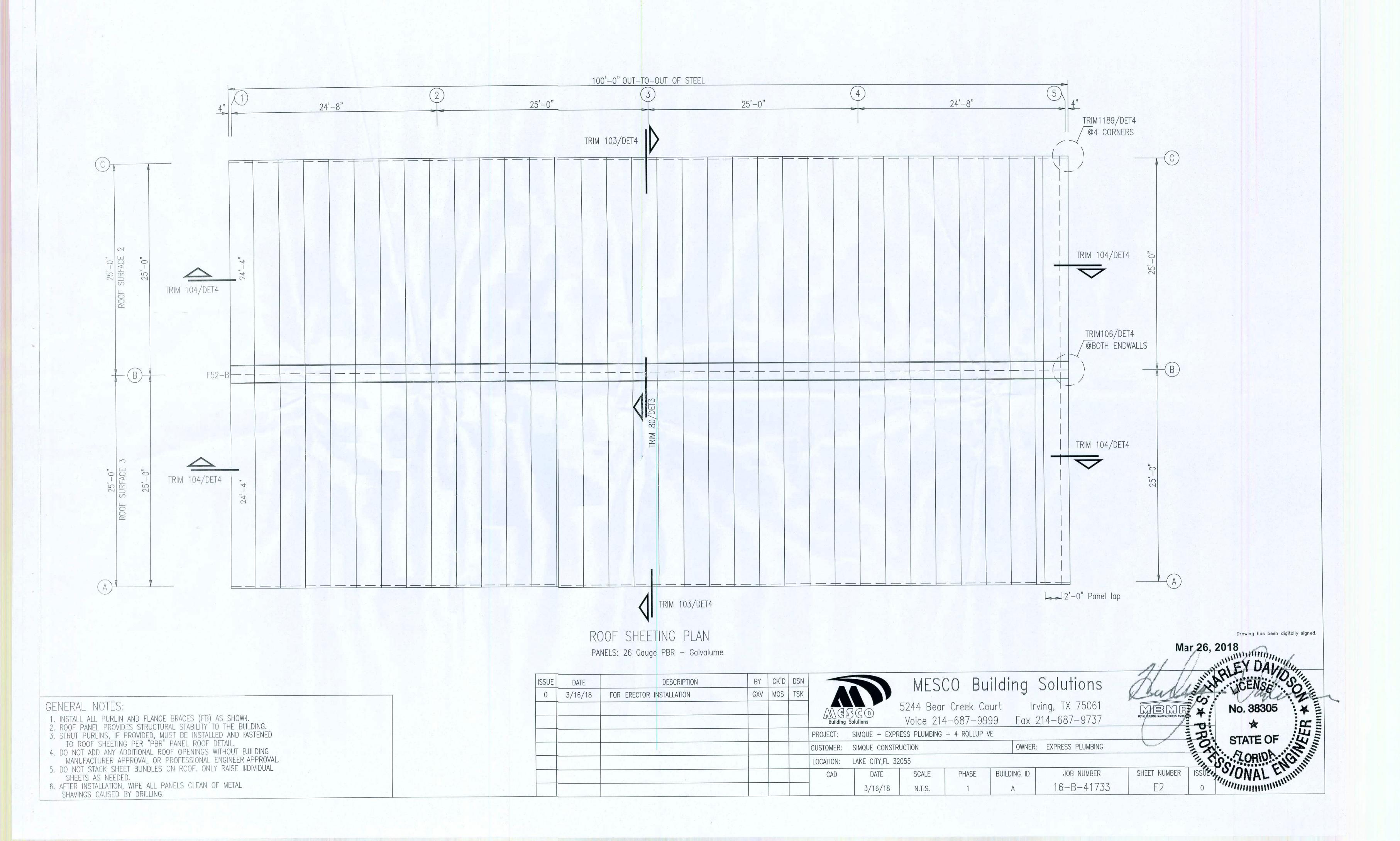
Mar 26, 2018

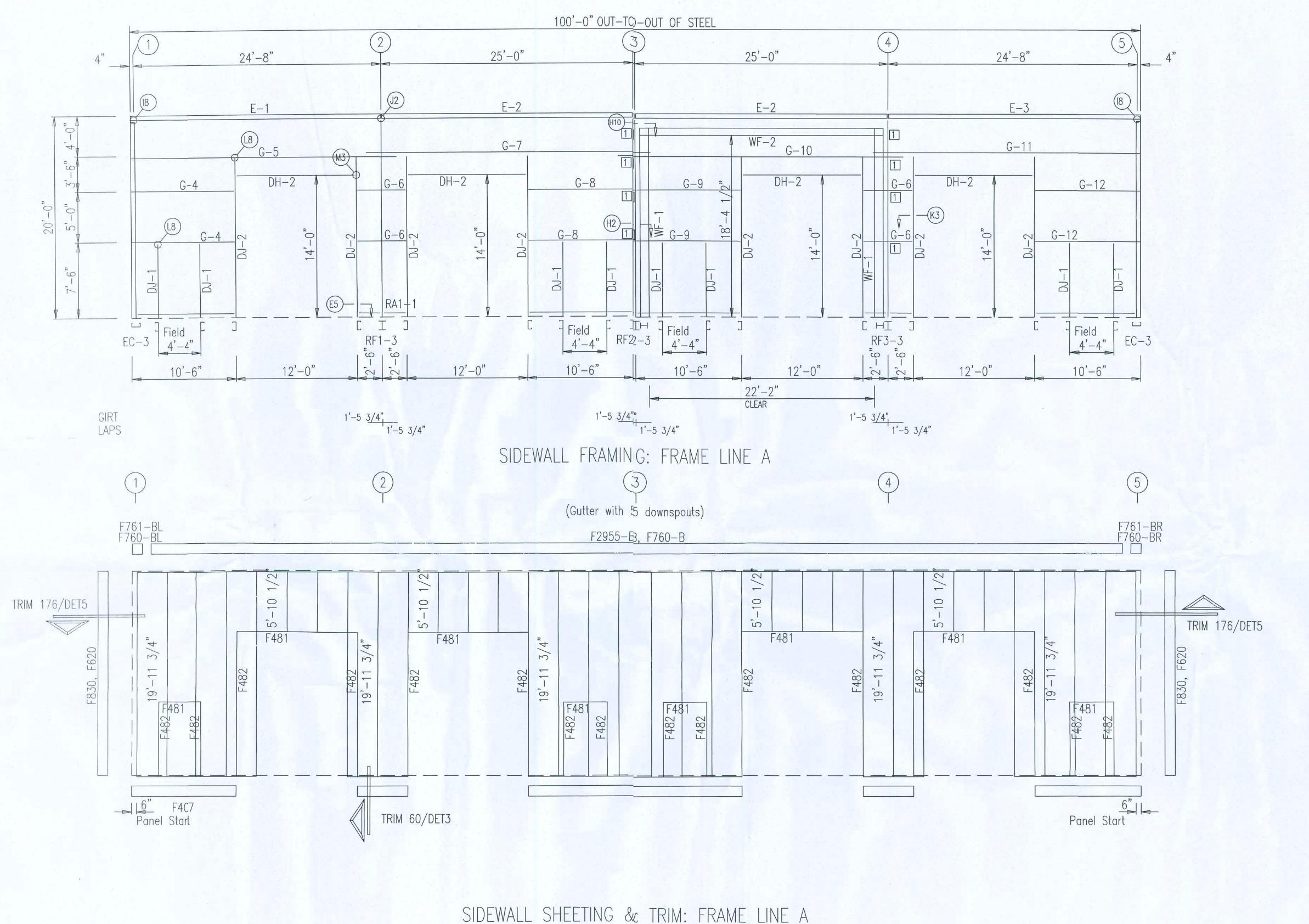


ROOF FRAMING PLAN

GENERAL NOTES:
1. INSTALL ALL PURLIN AND FLANGE BRACES (FB) AS SHOWN.
2. ROOF PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. STRUT PURLINS, IF PROVIDED, MUST BE INSTALLED AND FASTENED TO ROOF SHEETING PER "PBR" PANEL ROOF DETAIL.
4. DO NOT ADD ANY ADDITIONAL ROOF OPENINGS WITHOUT BUILDING MANUFACTURER APPROVAL OR PROFESSIONAL ENGINEER APPROVAL.
5. DO NOT STACK SHEET BUNDLES ON ROOF. ONLY RAISE INDIVIDUAL
SHEETS AS NEEDED.
6. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL
SHAVINGS CAUSED BY DRILLING.

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ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN	-	3	MFS	O RI	ildina	Solutions	A 11
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BOLT TABLE FRAME LINE A LOCATION WF-1 - WF-2 WF-1 - RF2-3 WF-1 - RF3-3 A325 A325 A325 MEMBER TABLE
FRAME LINE A

MARK PAR

WF-1 W10

WF-2 W08

DJ-1 8F2

DJ-2 8F3

DH-2 8F2

E-1 8ES

E-2 8ES

G-4 8X2

G-5 8X3

G-6 8X2

G-7 8X3

G-8 8X2

G-9 8X2

G-10 8X3

G-11 8X3

G-12 8X2 LENGTH

19'-1"
22'-1 1/2"
7'-6"
16'-0"
12'-0"
24'-11 1/2"
24'-11 1/2"
24'-11 1/2"
26'-5 1/2"
4'-4 1/2"
27'-11 1/2"
10'-2"
10'-2"
27'-11 1/2"
26'-5 1/2"
10'-2"
10'-2" W10643 W08643 8F25C16 8F35C12 8F25C16 8ES1L14 8ES1L14 8X25Z16 8X35Z13 8X25Z16 8X35Z14 8X25Z16 8X25Z16 8X35Z14 8X35Z13 8X25Z16

CONNECTION PLATES
FRAME LINE A

ID | MARK/PART

1 | SC-480

SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS: 26 Gauge AVP - Polar White

DOWNSPOUT SPACING LOCATIONS

DOWNSPOUTS ARE TO BE PLACED AT A SPACING NOT TO EXCEED S6 FT. WITH A DOWNSPOUT WITHIN 25 FT. OF EACH END OF THE GUTTER RUN.

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.

CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.

4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

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MESCO Building Solutions

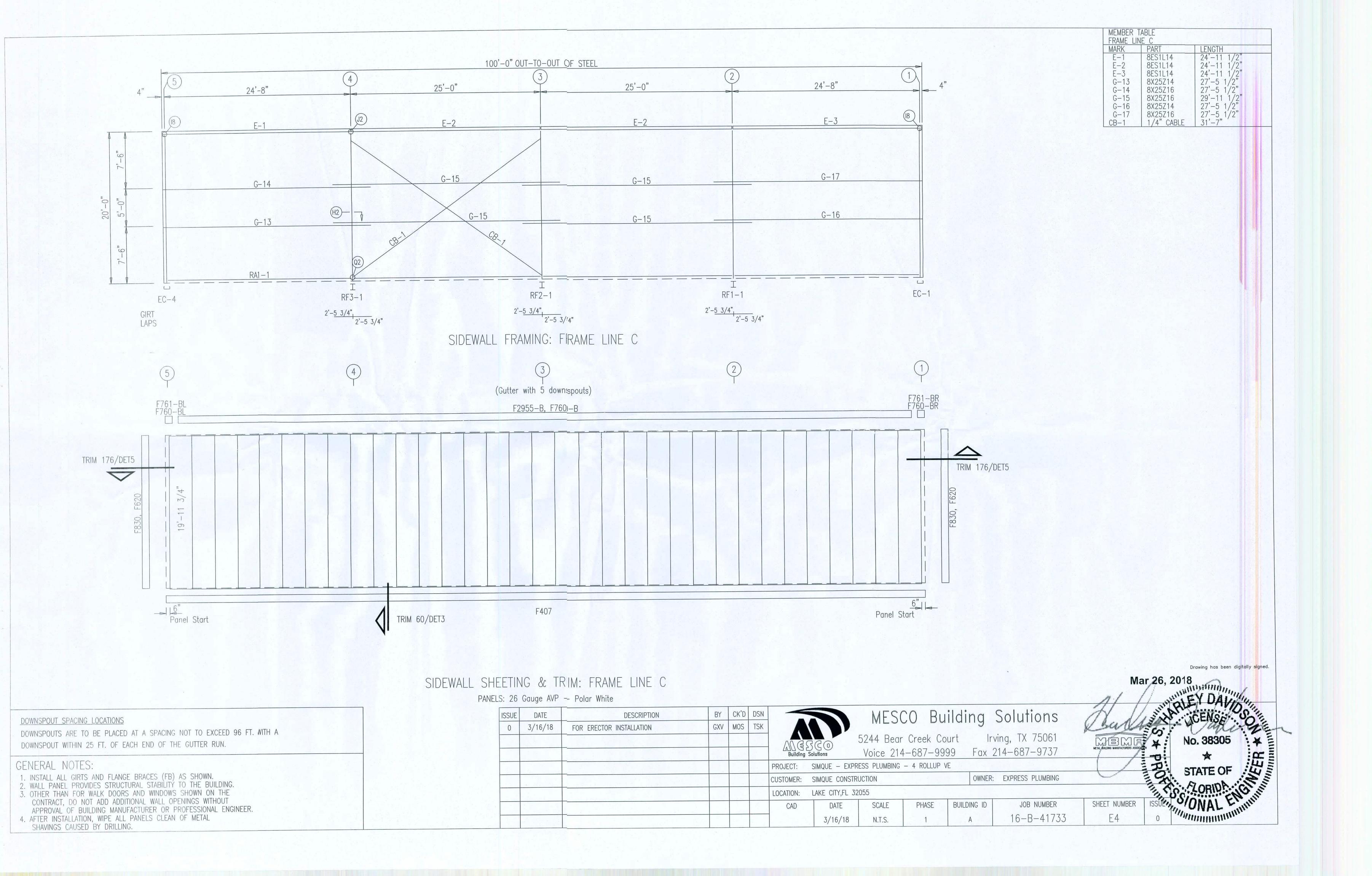
5244 Bear Creek Court Irving, TX 75061 Voice 214-687-9999 Fax 214-687-9737

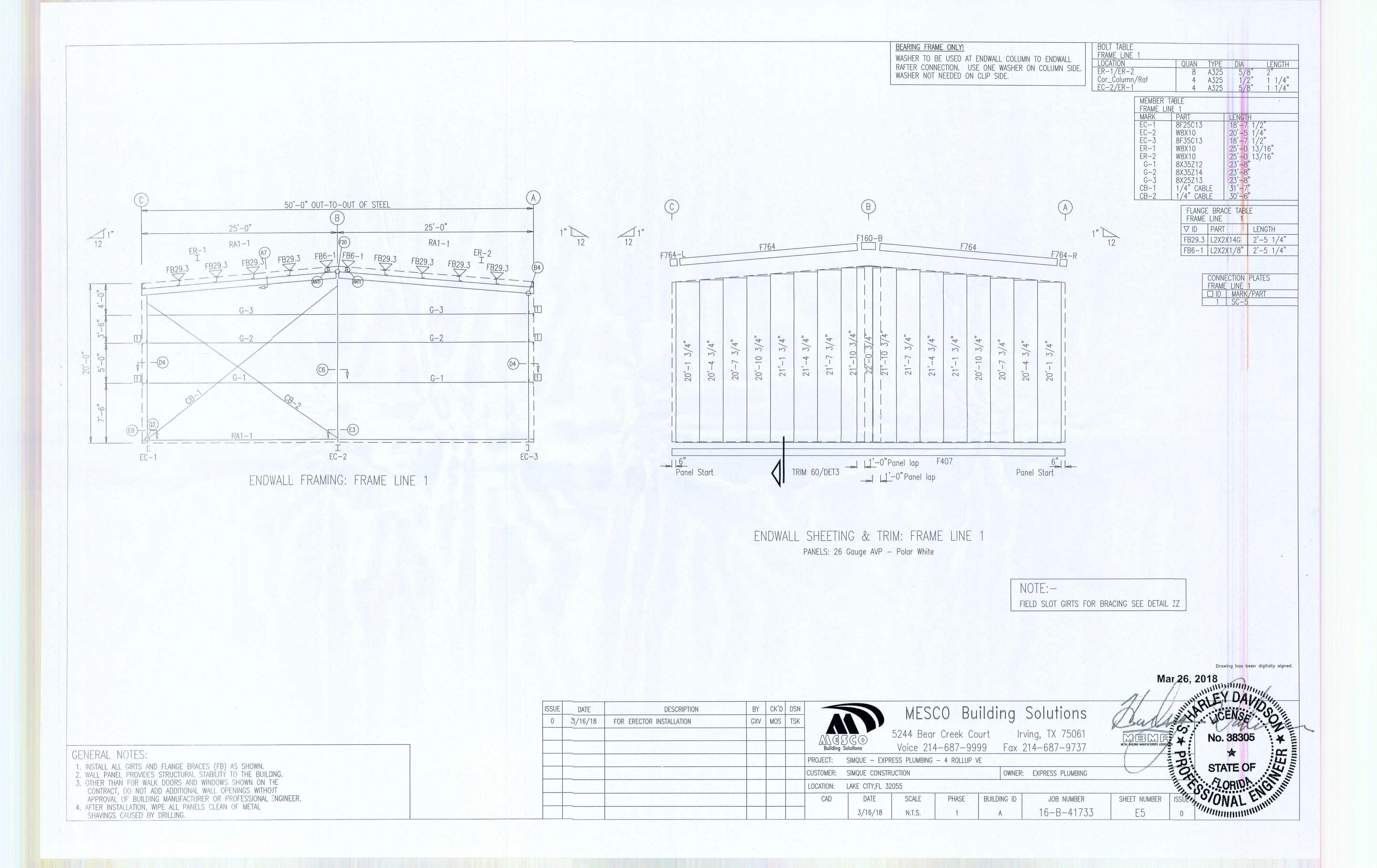
PROJECT: SIMQUE - EXPRESS PLUMBING - 4 ROLLUP VE

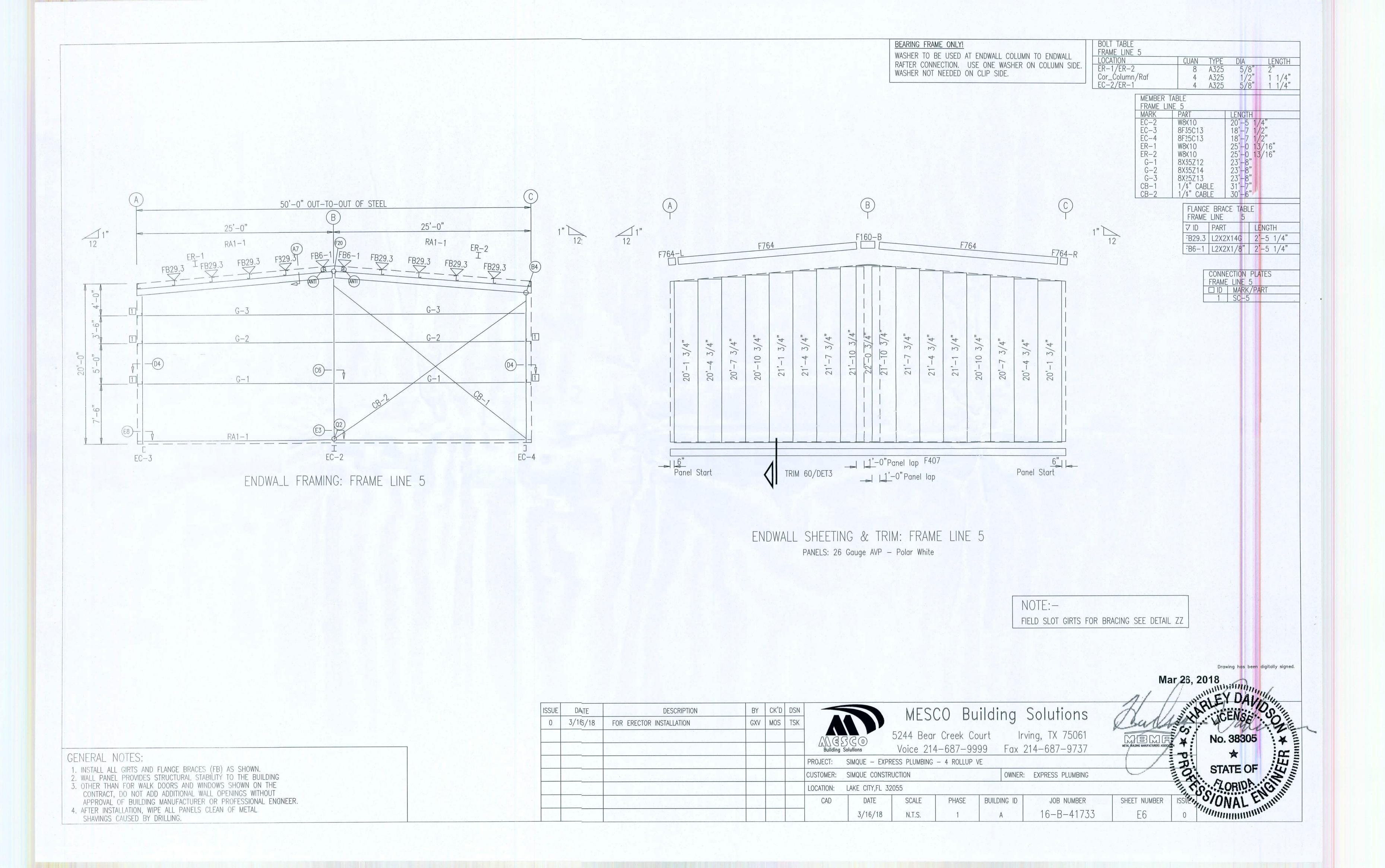
OWNER: EXPRESS PLUMBING CUSTOMER: SIMQUE CONSTRUCTION LOCATION: LAKE CITY,FL 32055

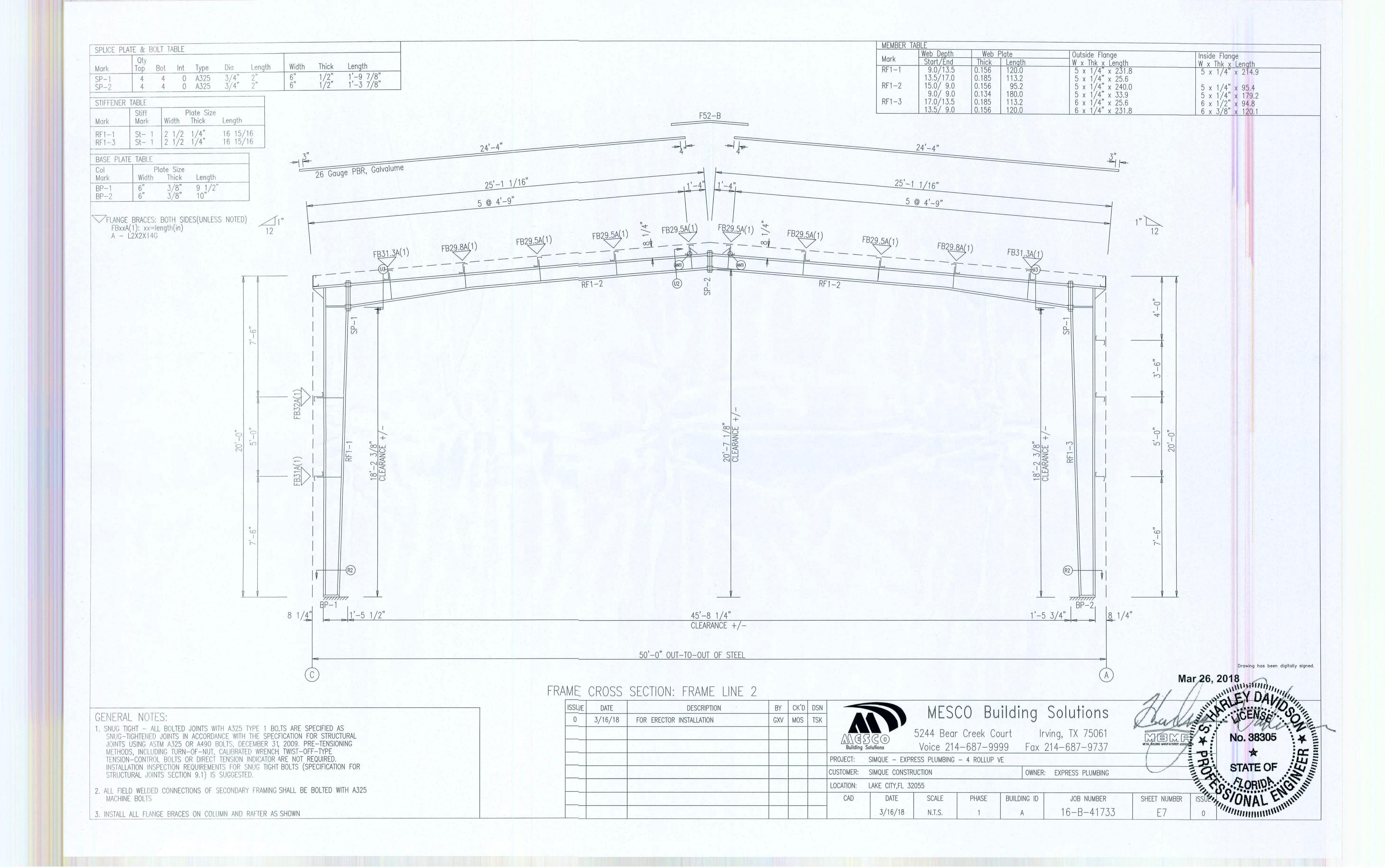
PHASE SCALE BUILDING ID JOB NUMBER CAD 16-B-41733 3/16/18 N.T.S.

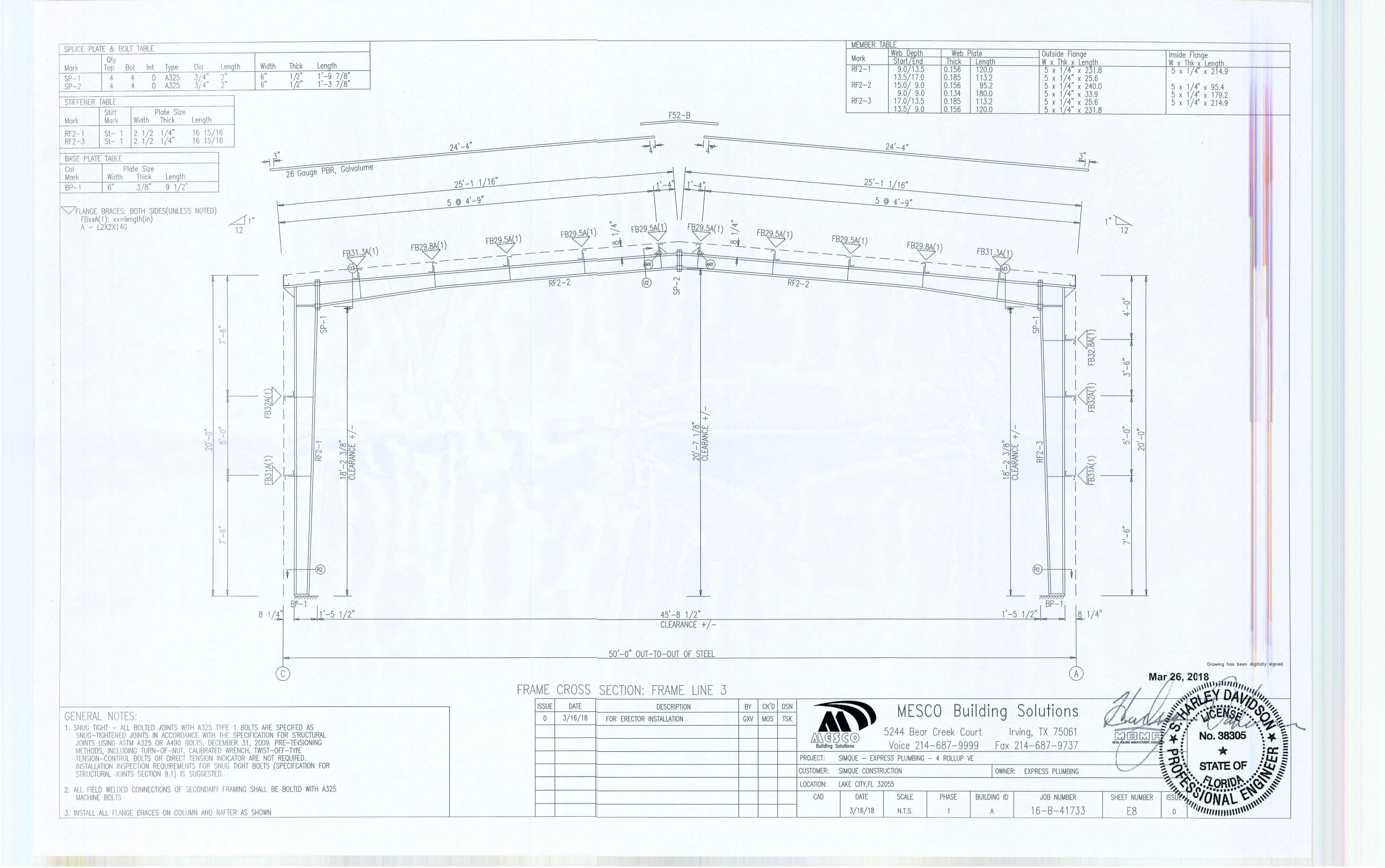
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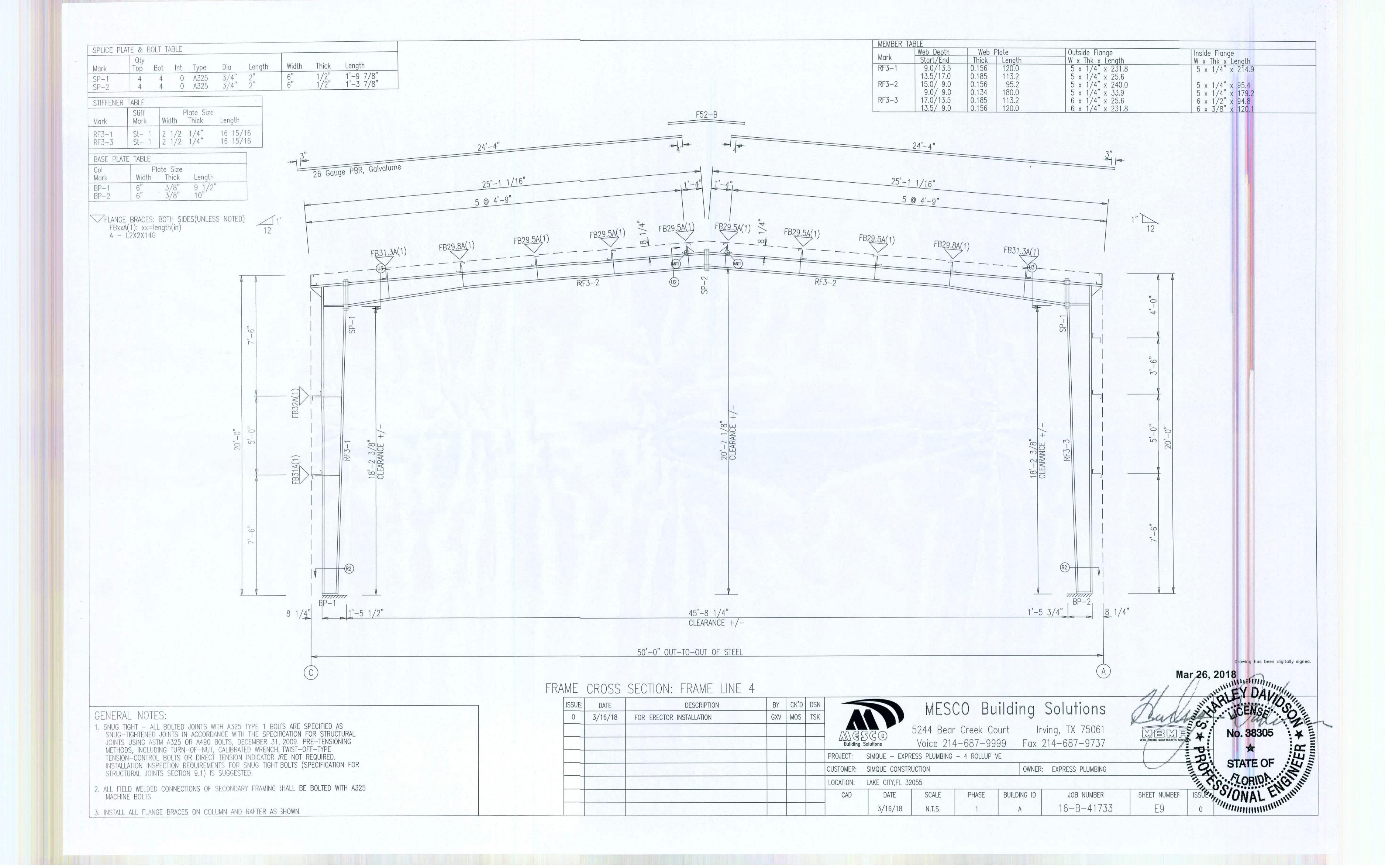


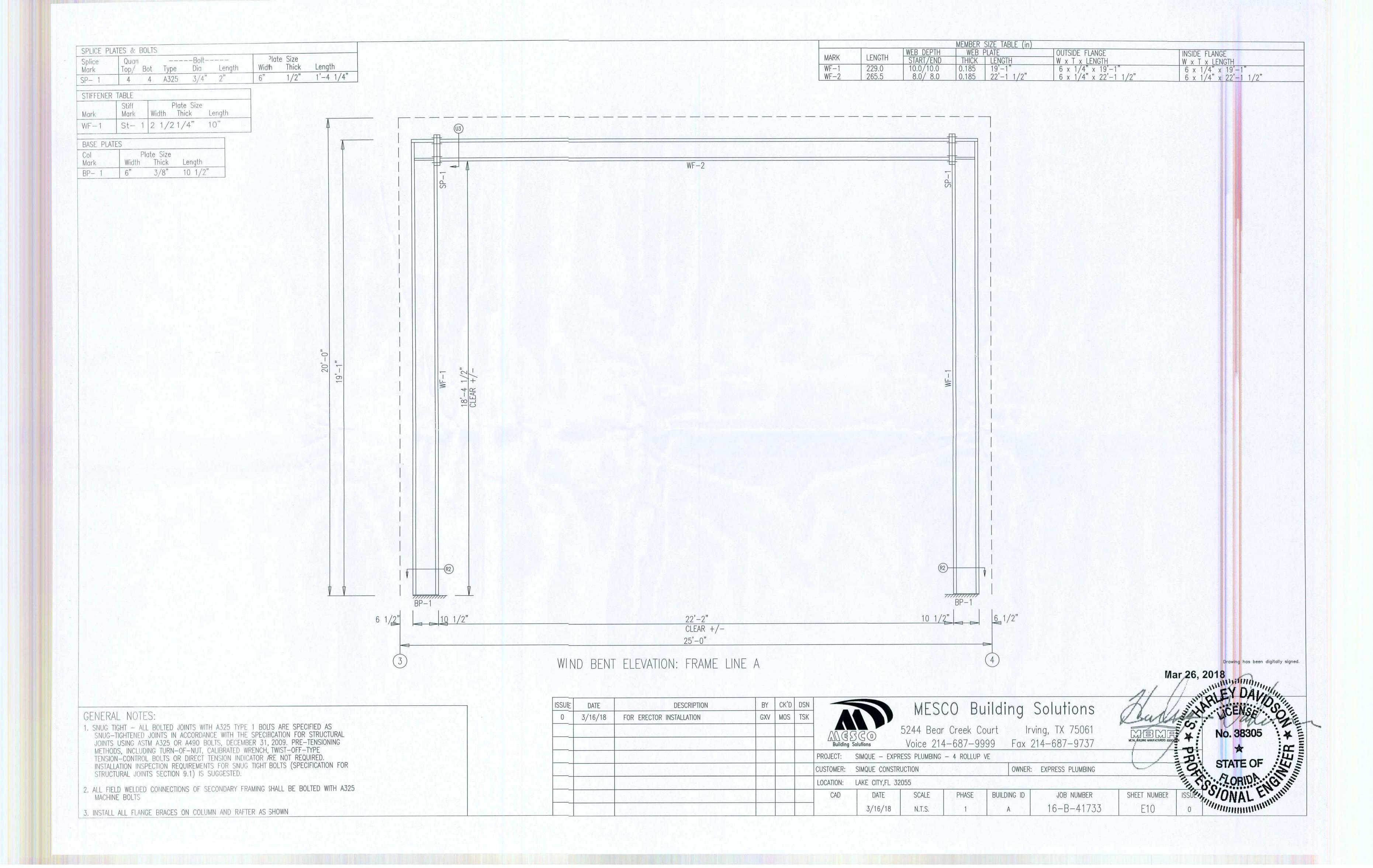


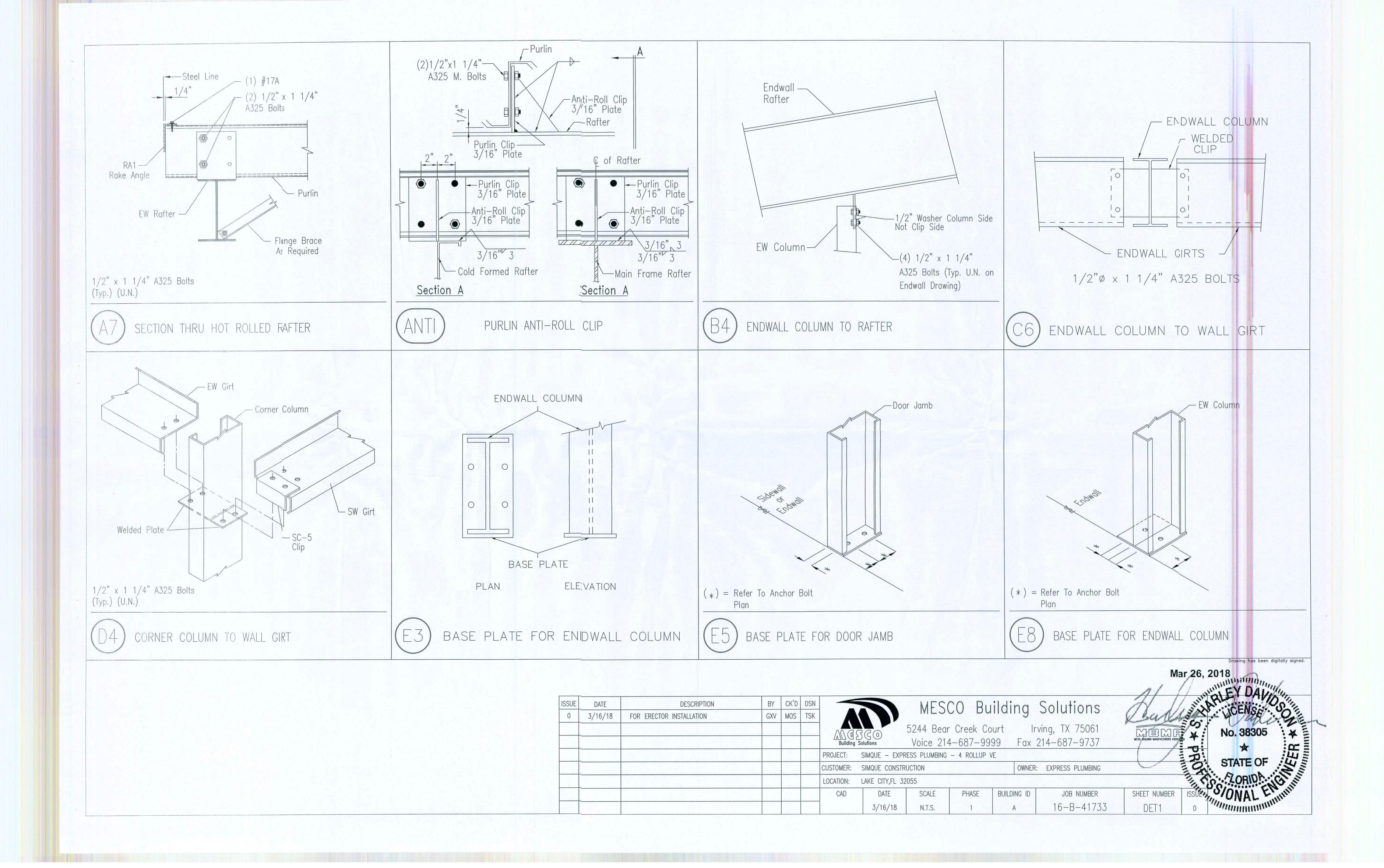


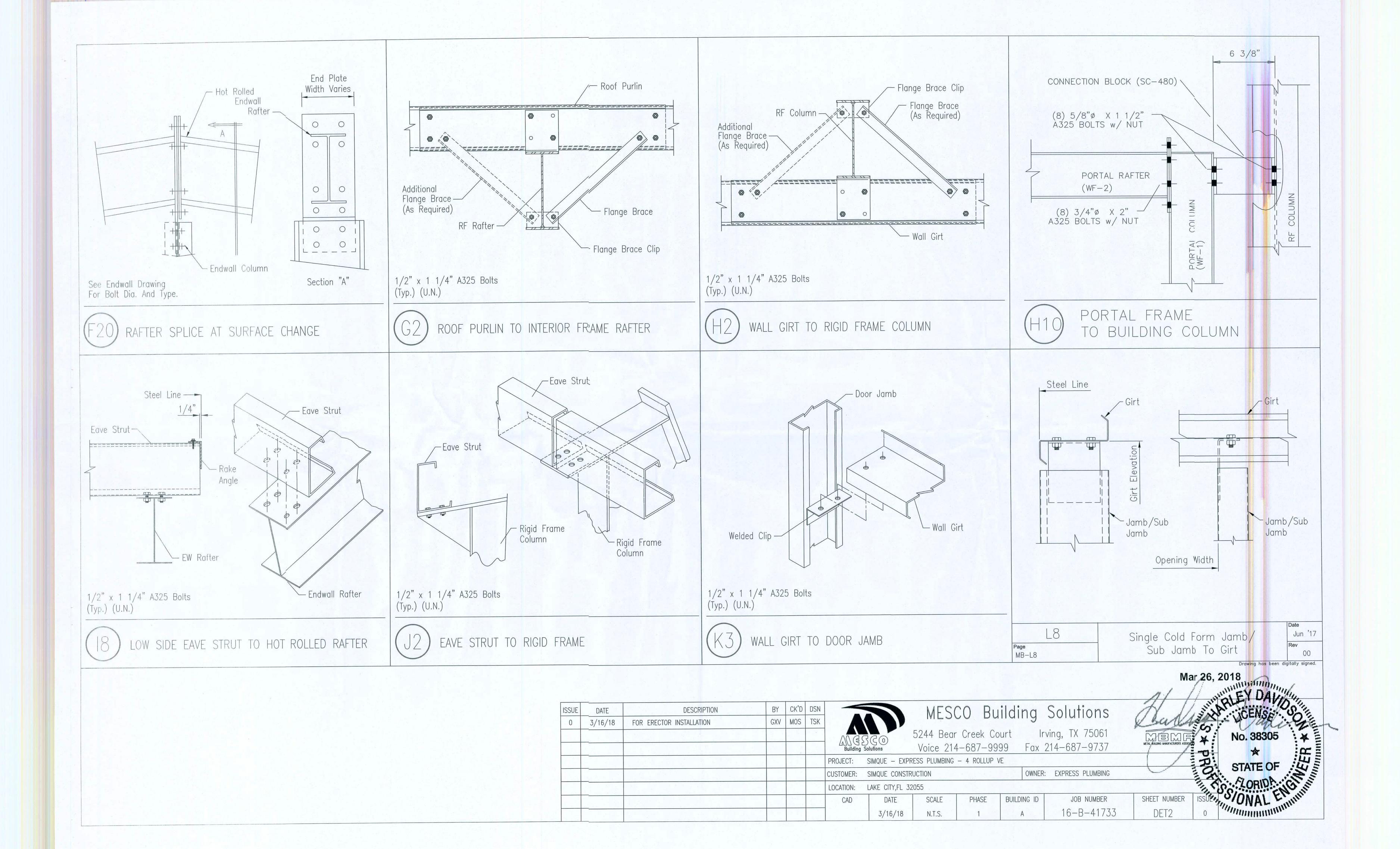


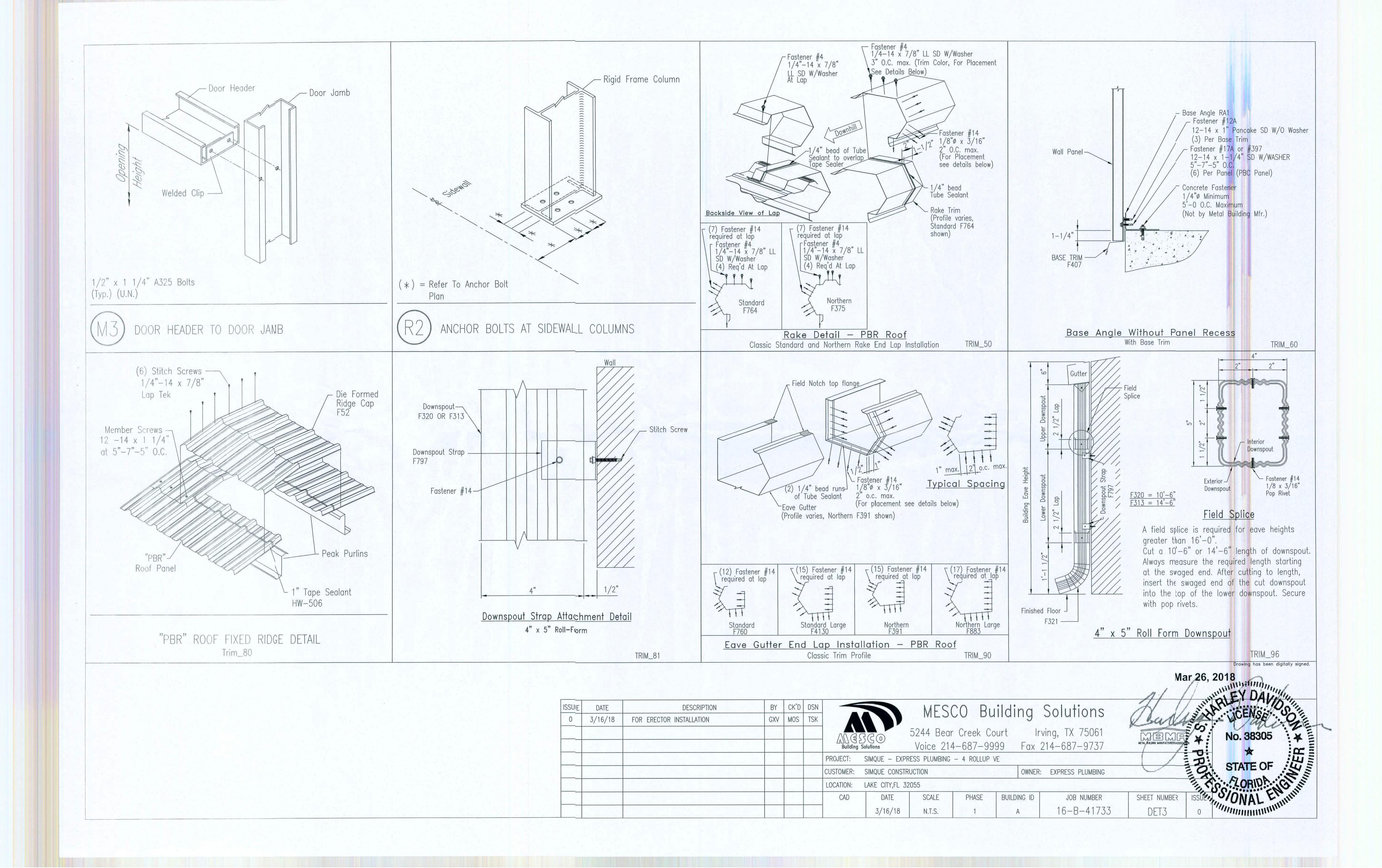


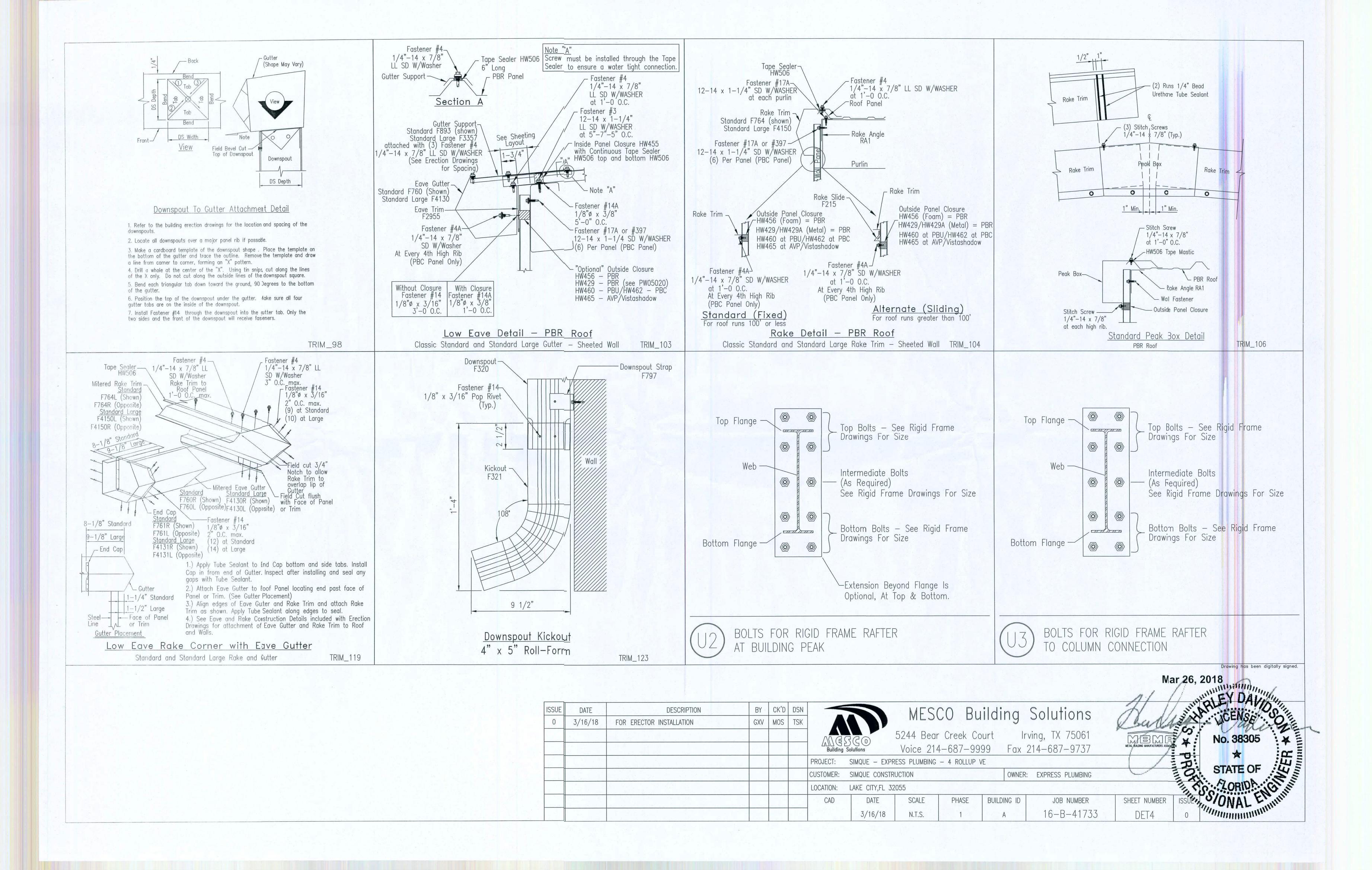


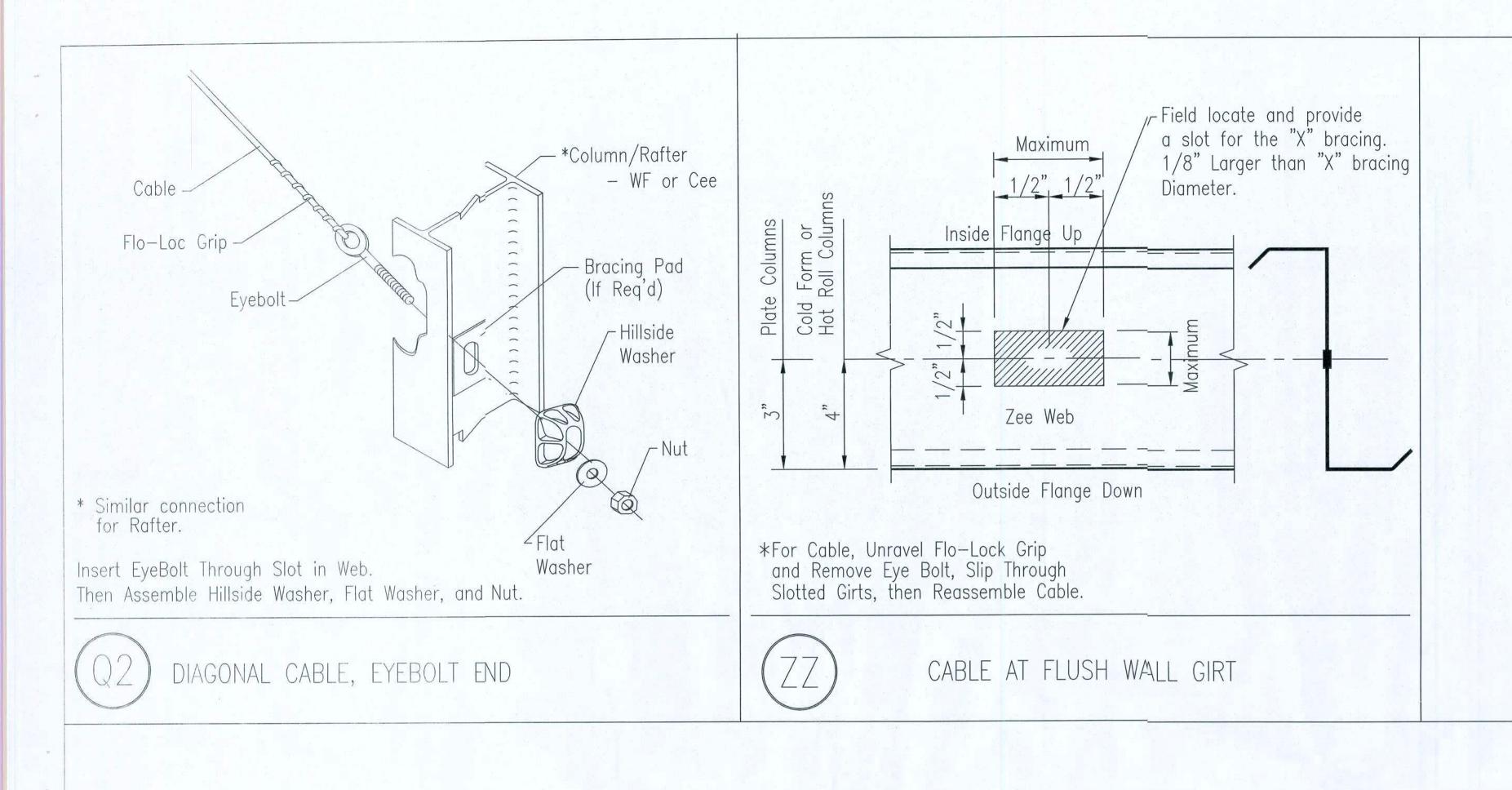


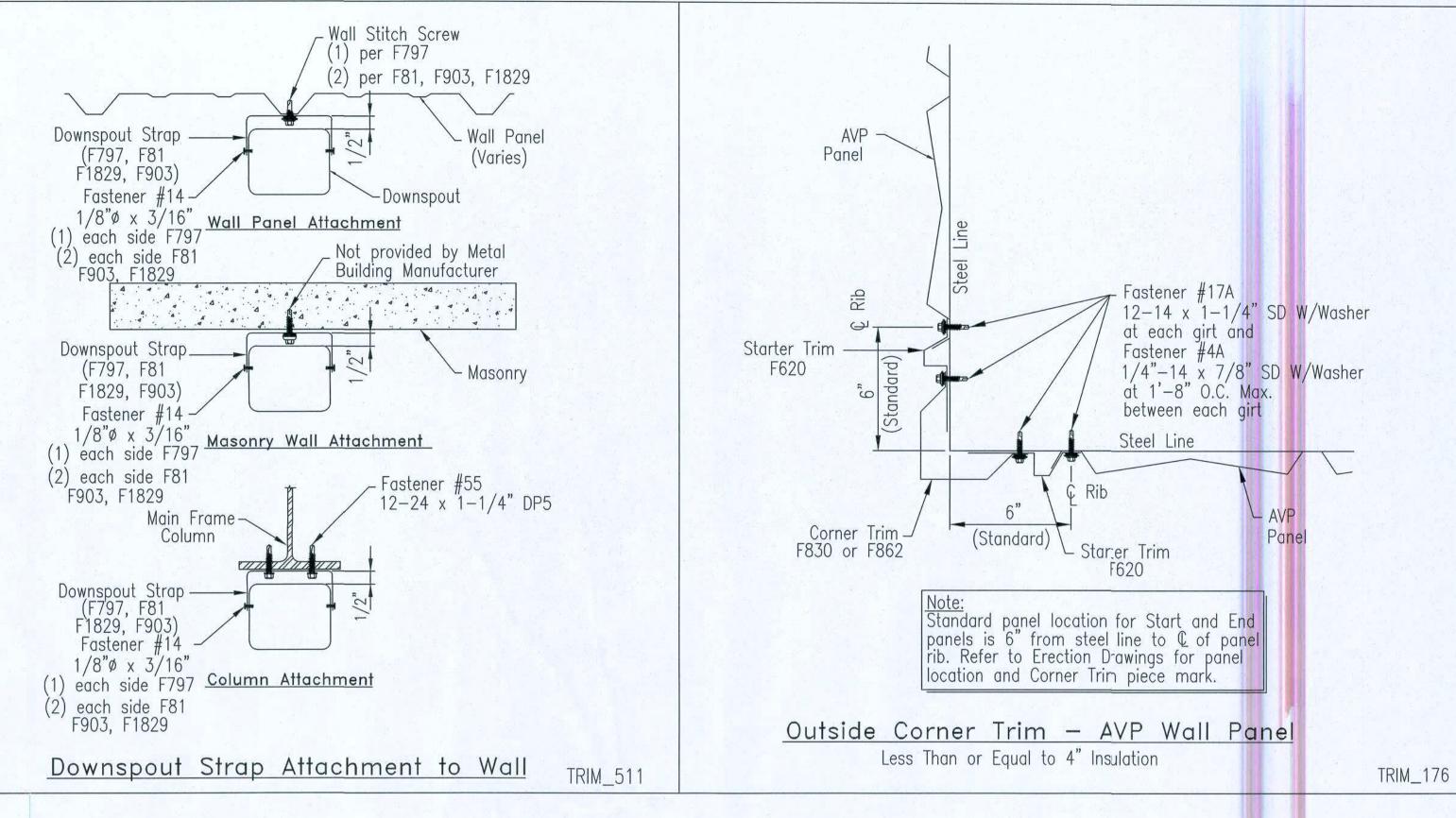




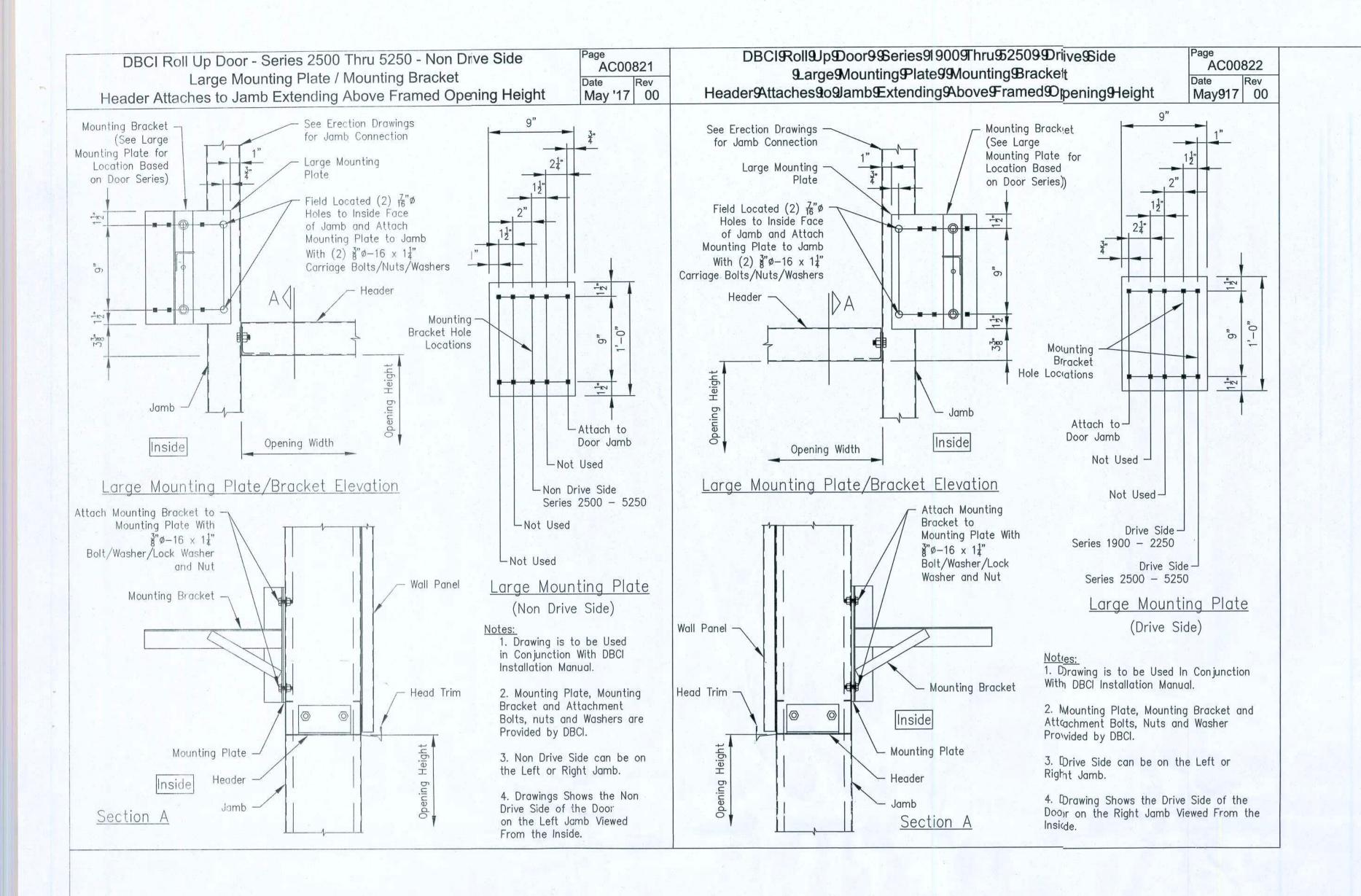








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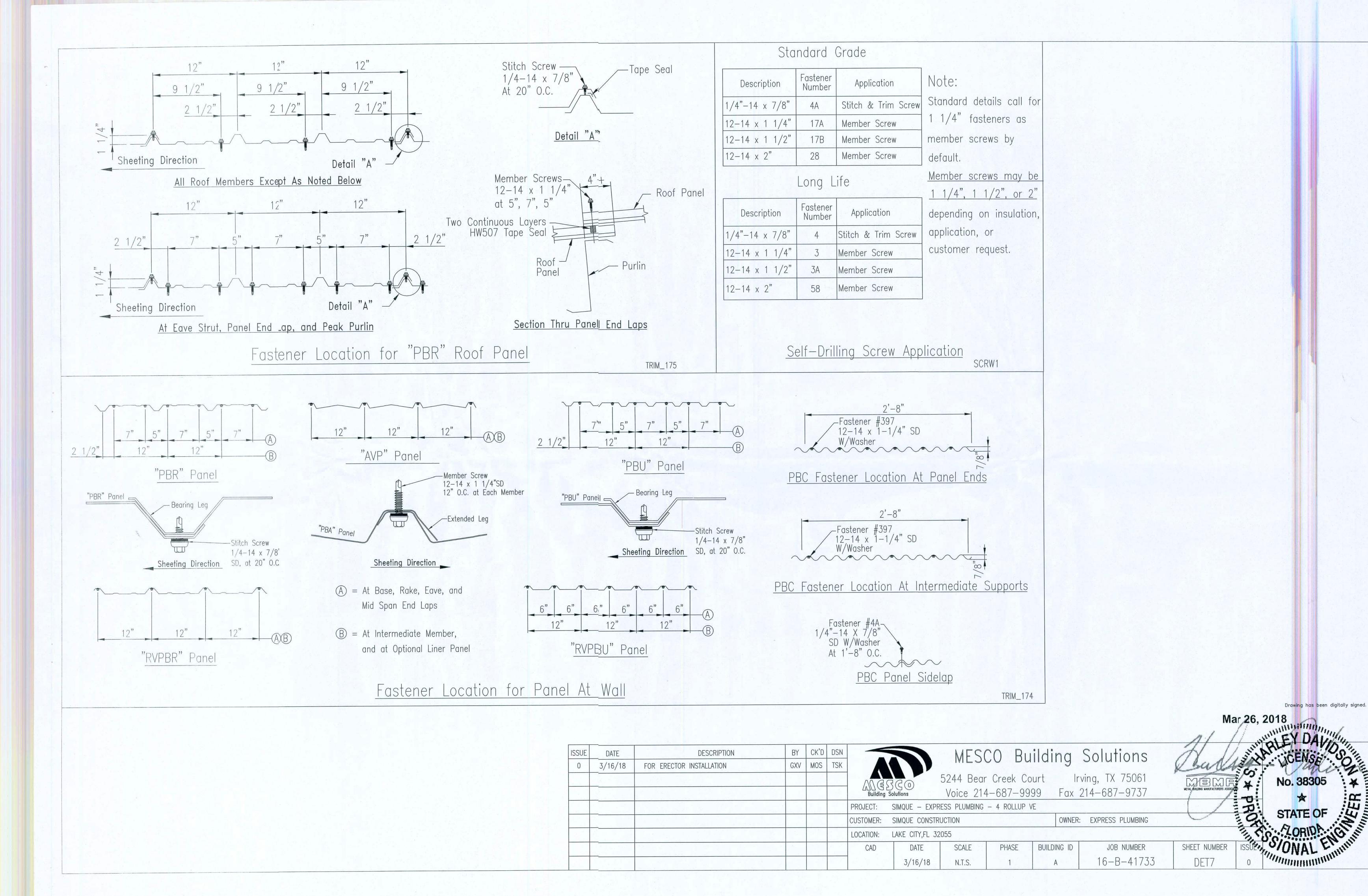
DESCRIPTION FOR ERECTOR INSTALLATION

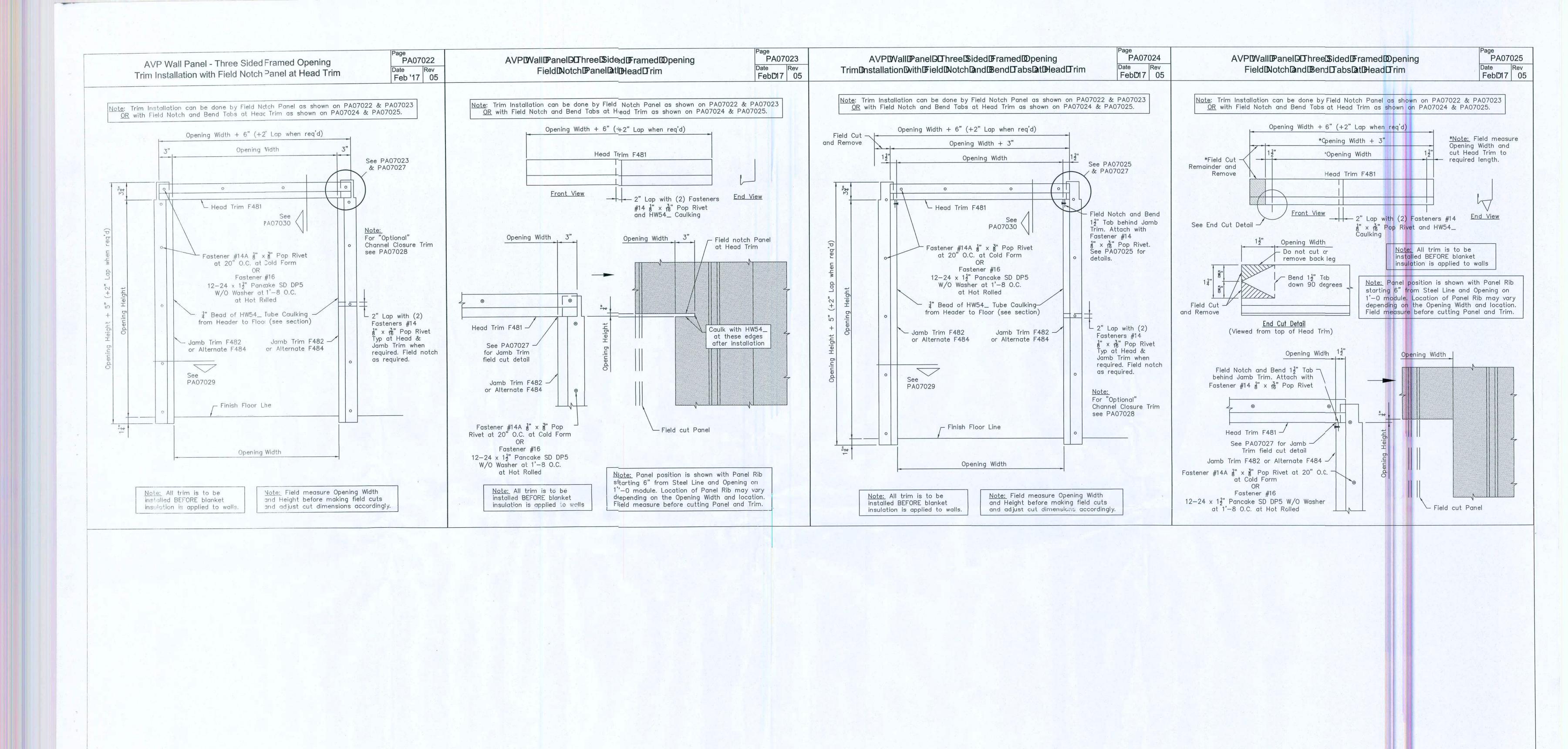
MESCO Building Solutions

Fax 214-687-9737

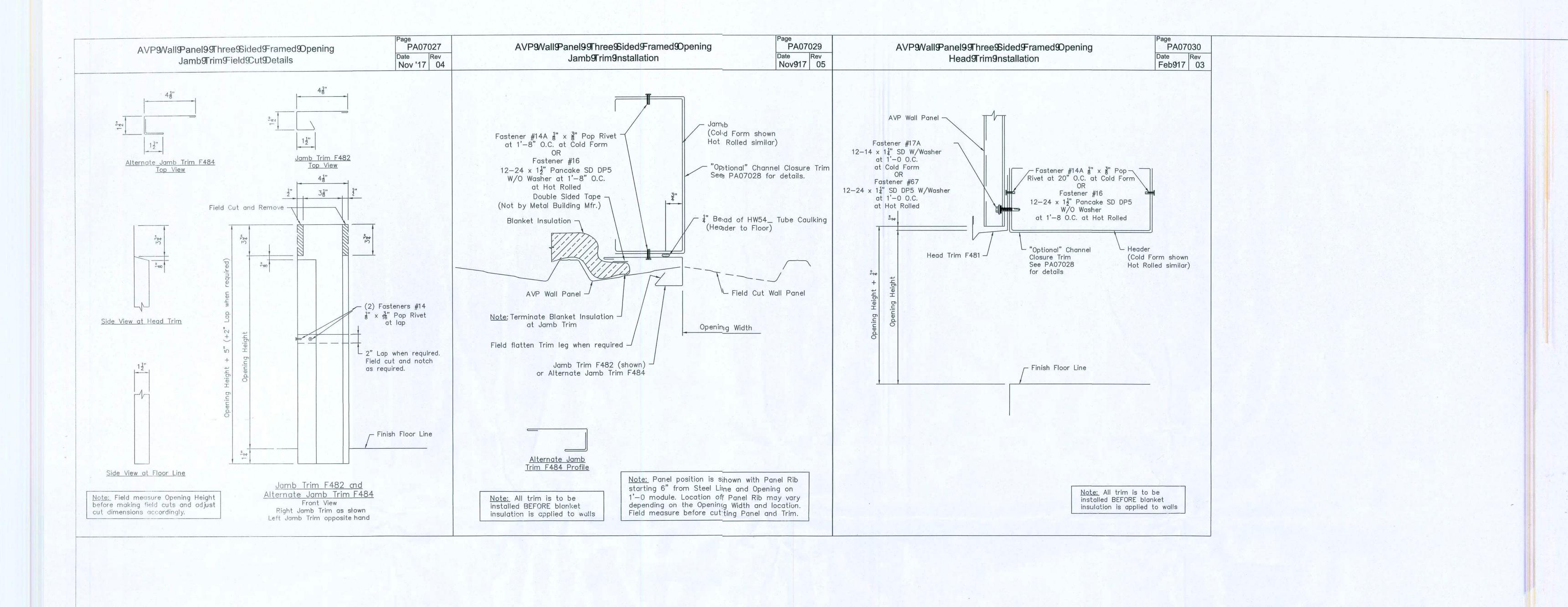
OWNER: EXPRESS PLUMBING CUSTOMER: SIMQUE CONSTRUCTION

LAKE CITY,FL 32055 SHEET NUMBER PHASE BUILDING ID JOB NUMBER 16-B-41733 DET6 3/16/18



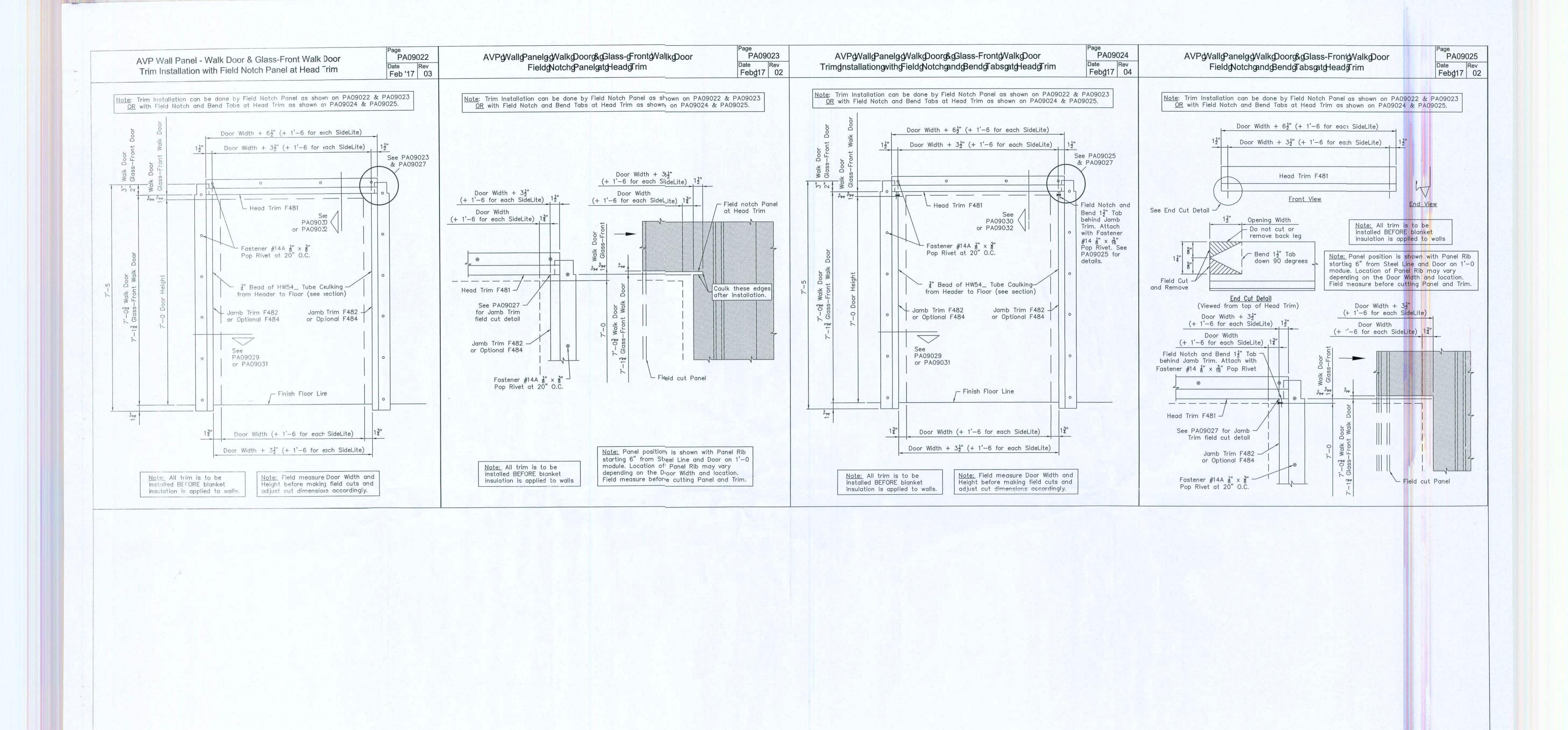


MESCO Building Solutions DESCRIPTION FOR ERECTOR INSTALLATION 5244 Bear Creek Court Irving, TX 75061 Fax 214-687-9737 OWNER: EXPRESS PLUMBING CUSTOMER: SIMQUE CONSTRUCTION LOCATION: LAKE CITY,FL 32055 SHEET NUMBER BUILDING ID JOB NUMBER PHASE DATE 16-B-41733 3/16/18 DET8

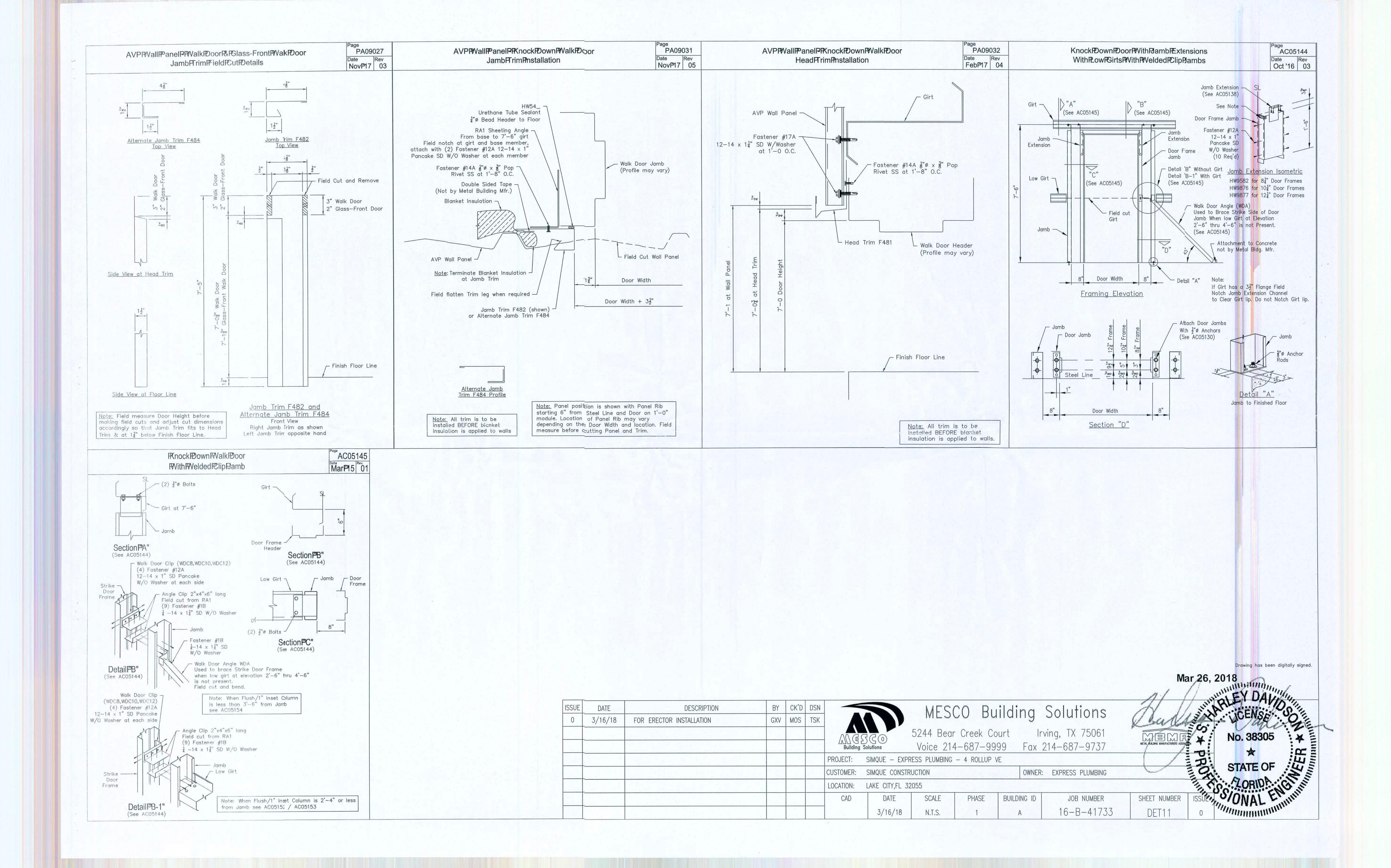


| SSUE DATE | DESCRIPTION | BY | CK'D | DSN | MESCO Building Solutions | S244 Bear Creek Court | Irving, TX 75061 | MESCO Building Solutions | Voice 214-687-9999 | Fax 214-687-9737 | FROJECT: SIMQUE - EXPRESS PLUMBING - 4 ROLLUP VE | CUSTOMER: SIMQUE CONSTRUCTION | OWNER: EXPRESS PLUMBING | CAD DATE | SCALE | PHASE | BUILDING ID | JOB NUMBER | SHEET NUMBER | ISSUE, SONAL | SONAL

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FIELD SERVICE PROCEDURES

IN ORDER TO GIVE YOU PROMPT SERVICES AND KEEP PROBLEMS TO A MINIMUM, PLEASE HANDLE ANY SHORTAGES OR BACK CHARGES IN THE FOLLOWING MANNER: CAREFULLY CHECK YOUR PACKING LIST WHILE UNLOADING. MARK ANY ITEMS, VHICH APPEAR TO BE MISSING AND NOTIFY THE FIELD SERVICE DEPARTMENT AT THE NUMBER SHOWN IN THE TITLEBLOCK AS SOON AS POSSIBLE. CALLING SOMEONE ELSE COULD DELAY THE PROPER RESPONSE.

SHORT MATERIALS - IMMEDIATELY UPON DELIVERY OF MATERIAL, QUANTITIES ARE TO BE VERIFIED BY THE CUSTOMER AGAINST QUANTITIES THAT ARE BILLED ON THE SHIPPING DOCUMENT. NEITHER THE MANUFACTURER NOR THE CARRIER IS RESPONSIBLE FOR THE MATERIAL SHORTAGES AGAINST THE QUANTITIES BILLED ON SHIPPING DOCUMENT IF SUCH SHORTAGES ARE NOT NOTED ON SHIPPING DOCUMENTS WHEN THE MATERIAL IS DELIVERED, AND THEN ACKNOWLEDGED BY THE CARRIER'S AGENT. IF THE CARRIER IS THE MANUFACTURER, CLAIMS FOR SHORTAGES ARE TO BE MADE BY THE CUSTOMER TO THE COMMON CARRIER. IF THE MATERIAL QUANTITIES RECEIVED ARE CORRECT ACCORDING TO THE QUANTITIES THAT ARE BILLED ON THE SHIPPING DOCUMENTS, BUT ARE LESS THAN THE QUANTITIES ORDERED OR THE QUANTITIES THAT ARE NECESSARY TO COMPLETE THE METAL BUILDING ACCORDING TO THE ORDER DOCUMENTS, CLAIM IS TOO BE MADE OF THE MANUFACTURER. DAMAGED OR DEFECTIVE MATERIAL - DAMAGED OR DEFECTIVE MATERIAL. REGARDLESS OF THE DEGREE OF DAMAGE, MUST BE NOTED ON THE SHIPPING DOCUMENTS BY THE CUSTOMER AND ACKNOWLEDGED IN WRITING BY THE CARRIER'S AGENT. THE MANUFACTURER IS NOT RESPONSIBLE FOR MATERIAL DAMAGED IN UNLOADING OF PACKAGED OR NESTED MATERIALS, INCLUDING, BUT NOT LIMITED TO: FASTENERS, SHEET METAL, "C" & "Z" SECTIONS & COVERING PANELS THAT BECOME WET AND/OR DAMAGED BY WATER WHILE IN THE POSSESSION OF OTHERS. PACKAGED OR NESTED MATERIAL THAT BECOMES WET IN TRANSIT MUST BE UNPACKED UNSTACKED AND DRIED BY THE CUSTOMER. IF THE CARRIER IS THE MANUFACTURER, THE CUSTOMER MUST MAKE CLAIM FOR DAMAGE DIRECTLY TO THE MANUFACTURER. IF THE CARRIER IS A COMMON CARRIER, THE CUSTOMER MUST MAKE THE CLAIM FOR DAMAGE TO THE COMMON CARRIER. THE MANUFACTURER IS NOT LIABLE FOR ANY CLAIM WHATSOEVER INCLUDING. BUT NOT LIMITED TO LABOR CHARGES OF CONSEQUENTIAL DAMAGES RESULTING FROM THE CUSTOMER'S USE OF DAMAGED OF DEFECTIVE MATERIALS THAT CAN BE DETECTED BY VISUAL INSPECTION. OIL CANNING IS NOT CAUSE FOR REJECTION

EXCESSIVE MATERIAL — THE MANUFACTURER RESERVES THE RIGHT TO RECOVER ANY MATERIAL DELIVERED IN EXCESS OR THOSE REQUIRED BY THE ORDER DOCUMENTS.

INITIAL CLAIM — IN THE EVENT OF ERROR, THE CUSTOMER MUST PROMPTLY MAKE A WRITTEN OR VERBAL "INITIAL CLAIM" TO THE MANUFACTURER FOR THE CORRECTION OF DESIGN, DRAFTING, BILL OF MATERIALS OF FABRICATION ERROR.

THE "INITIAL CLAIM" INCLUDES:

- 1. DESCRIPTION OF THE NATURE AND EXTENT OF THE ERRORS, INCLUDING QUANTITIES.
 2. DESCRIPTION OF THE NATURE AND EXTENT OF PROPOSED CORRECTIVE WORK INCLUDING ESTIMATED MAN—HOURS.
- 3. MATERIAL TO BE PURCHASED FROM OTHER THAN THE MANUFACTURER, INCLUDING ESTIMATED QUANTITIES AND COST.
- 4. MAXIMUM TOTAL COST OF PROPOSED CORRECTIVE WORK AND MATERIAL TO BE PURCHASED FROM OTHER THAN THE MANUFACTURER.

R1 - 01

AUTHORIZATION FOR CORRECTIVE WORK

NORMAL ERECTION OPERATIONS INCLUDE THE CORRECTION OF MINOR MISFITS BY MODERATE AMOUNTS OF REAMING, CHIPPING, WELDING OR CUTTING AND THE DRAWING OF ELEMENTS INTO LINE THROUGH THE USE OF DRIFT PINS. ERRORS WHICH CANNOT BE CORRECTED BY THE FOREGOING MEANS OR WHICH REQUIRE MAJOR CHANGES IN THE MEMBER CONFIGURATION SHOULD BE REPORTED IMMEDIATELY TO THE OWNER AND FABRICATOR BY THE ERECTOR, TO ENABLE WHOEVER IS RESPONSIBLE EITHER TO CORRECT THE ERROR OR TO APPROVE THE MOST EFFICIENT AND ECONOMICAL METHOD OF CORRECTION TO BE USED BY OTHERS. (AISC 303–10, SECTION 7.14) (MAR 05 SECTION 7.14) IF THE ERROR IS THE FAULT OF THE MANUFACTURER, AN "AUTHORIZATION FOR CORRECTIVE WORK" MUST BE ISSUED IN WRITING BY THE MANUFACTURER TO AUTHORIZE THE CORRECTIVE WORK AT A COST NOT TO EXCEED THE MAXIMUM TOTAL COST SET FORTH.

ALTERNATIVE CORRECTIVE WORK OTHER THAN THAT PROPOSED IN THE "INITIAL CLAIM" MAY BE DIRECTED BY THE MANUFACTURER IN THE "AUTHORIZATION OF CORRECTIVE WORK." ONLY THE FIELD SERVICE DEPARTMENT MAY AUTHORIZE CORRECTIVE WORK.

FINAL CLAIM — THE "FINAL CLAIM" IN WRITING MUST BE FORWARDED BY THE CUSTOMER TO THE MANUFACTURER WITHIN TEN (10) DAYS OF COMPLETION OF THE CORRECTIVE WORK AUTHORIZED BY THE MANUFACTURER.

THE "FINAL CLAIM" MUST INCLUDE:

- 1. ACTUAL NUMBER OF MAN-HOURS BY DATE OF DIRECT LABOR USE ON CORRECTIVE WORK AND ACTUAL HOURLY RATES OF PAY.
- 2. TAXES AND INSURANCE ON TOTAL ACTUAL DIRECT LABOR.
 3. OTHER DIRECT COSTS ON ACTUAL DIRECT LABOR.
- 4. COST OF MATERIAL (NOT MINOR SUPPLIES) AUTHORIZED BY THE MANUFACTURER TO BE PURCHASED FROM OTHER THAN THE MANUFACTURER, INCLUDING COPIES OF PAID INVOICES.
- 5. TOTAL ACTUAL DIRECT COST OF CORRECTIVE WORK (SUM OF 1, 2, 3 & 4). THE "FINAL CLAIM" MUST BE SIGNED AND CERTIFIED TRUE AND CORRECT BY THE CUSTOMER. "FINAL CLAIMS" ARE CREDITED TO THE CUSTOMER BY THE MANUFACTURER IN AN AMOUNT NOT TO EXCEED THE LESSER OF THE MAXIMUM TOTAL COST SET FORTH IN WRITING IN THE "AUTHORIZATION FOR CORRECTIVE WORK" OR TOTAL ACTUAL DIRECT COST OF CORRECTIVE WORK.

** IMPORTANT NOTE ** - COST OF EQUIPMENT (RENTAL OR DEPRECIATION), SMALL TOOLS, SUPERVISION, OVERHEAD AND PROFIT ARE NOT SUBJECTED TO CLAIMS.

SHIPMENT ARRIVAL TIME — EVERY EFFORT WILL BE MADE TO SEE THAT THE CARRIER ARRIVES AT THE JOBSITE ON THE REQUESTED DAY AND AT THE REQUESTED HOUR. MANUFACTURER MAKES NO WARRANTY AND ACCEPTS NO RESPONSIBILITY FOR COSTS ASSOCIATED WITH A SHIPMENT NOT ARRIVING AT A REQUESTED TIME UNLESS A SEPARATE AGREEMENT HAS BEEN MADE IN WRITING FOR A GUARANTEED ARRIVAL TIME.

R1 - 02

UNLOADING, HANDLING, AND STORING MATERIALS

STRUCTURAL — A GREAT AMOUNT OF TIME AND TROUBLE CAN BE SAVED IF THE BUILDING PARTS ARE UNLOADED AT THE BUILDING SITE ACCORDING TO A PRE—ARRANGED PLAN. PROPER LOCATION AND HANDLING OF COMPONENTS WILL ELIMINATE UNNECESSARY HANDLING.

NOTE: PIECE MARKS ARE STENCILED ON PRIMARY STRUCTURAL MEMBERS AT LOWER END, 11'—0" FROM END.

LINSPECT ALL SHIPMENTS PRIOR TO RELEASING THE TIE-DOWNS FOR LOADS THAT MAY HAVE SHIFTED DURING TRANSIT!

REMEMBER, SAFETY FIRST!

FIGURE THE COLUMNS AND RAFTERS PROTECTS THE SPLICE PLATES AND THE SLAB FROM DAMAGE DURING THE UNLOADING PROCESS. IT ALSO FACILITATES THE PLACING OF SLINGS OR CABLES AROUND THE MEMBERS FOR LATER LIFTING AND ALLOWS MEMBERS TO BE FROM TO SUB-ASSEMBLIES WHILE ON THE GROUND. EXTRA CARE SHOULD FALWAYS BE EXERCISED IN THE UNLOADING OPERATION TO PREVENT INJURIES FROM HANDLING THE STEEL AND TO PREVENT DAMAGE TO MATERIALS AND THE CONCRETE SLAB.

IIF WATER IS ALLOWED TO REMAIN FOR EXTENDED PERIODS IN BUNDLES OF PRIMED PARTS SUCH AS GIRTS, PURLINS, ETC., THE PIGMENT WILL FADE AND THE PAINT WILL GRADUALLY SOFTEN REDUCING ITS BOND TO THE STEEL. THEREFORE, UPON RECEIPT OF A JOB, ALL FRANCE OF PRIMED PARTS SHOULD BE STORED AT AN ANGLE TO ALLOW ANY TRAPPED WATER TO DRAIN AWAY AND PERMIT AIR CIRCULATION FOR DRYING. PUDDLES OF WATER SHOULD NOT BE ALLOWED TO COLLECT AND REMAIN ON COLUMNS OR RAFTERS FOR THE SAME REASON.

THE COAT OF SHOP PRIMER IS INTENDED TO PROTECT THE STEEL FRAMING FOR ONLY A SHORT PERIOD OF EXPOSURE TO ORDINARY ATMOSPHERIC CONDITIONS. THE COAT OF SHOP FPRIMER DOES NOT PROVIDE THE UNIFORMITY OF APPEARANCE, OR THE DURABILITY AND CORROSION RESISTANCE OF A FIELD APPLIED FINISH COAT OF PAINT OVER A SHOP PRIMER.

TOUCH-UP OF THESE MINOR ABRASIONS IS THE RESPONSIBILITY OF THE END CUSTOMER.

*ALL PRIMER SHOULD BE TOUCHED UP AS REQUIRED BEFORE ERECTION! — SEE R1—06 TITLED

**"SHOP PRIMED STEEL"

TEMPORARY SUPPORTS

TEMPORARY SUPPORTS, SUCH AS TEMPORARY GUYS, BRACES, FALSE WORK, CRIBBING OR OTHER ELEMENTS REQUIRED FOR THE ERECTION OPERATION WILL BE DETERMINED AND FURNISHED AND INSTALLED BY THE ERECTOR. THESE TEMPORARY SUPPORTS WILL SECURE THE STEEL FRAMING, OR ANY PARTLY ASSEMBLED STEEL FRAMING, AGAINST LOADS (COMPARABLE IN INTENSITY TO THOSE FOR WHICH THE STRUCTURE WAS DESIGNED, RESULTING FROM WIND, SEISMIC FORCES AND ERECTION OPERATIONS, BUT NOT THE LOADS RESULTING FROM THE PERFORMANCE OF WORK BY OR THE ACTS OF OTHERS, NOR SUCH UNPREDICTABLE LOADS AS THOSE DUE TO TORNADO, EXPLOSION OR COLLISION. (SECT. 7.9.1 AISC CODE OF STANDARD PRACTICE, 9TH ED.).

ROOF AND WALL PANELS

MANUFACTURER'S WALL AND ROOF PANELS INCLUDING COLOR COATED, GALVALUME & GALVANIZED, PROVIDE EXCELLENT SERVICE UNDER WIDELY VARIED CONDITIONS. ALL UNLOADING & ERECTION PERSONNEL SHOULD FULLY UNDERSTAND THAT THESE PANELS ARE QUALITY MERCHANDISE, WHICH MERITS CAUTIOUS CARE IN HANDLING.

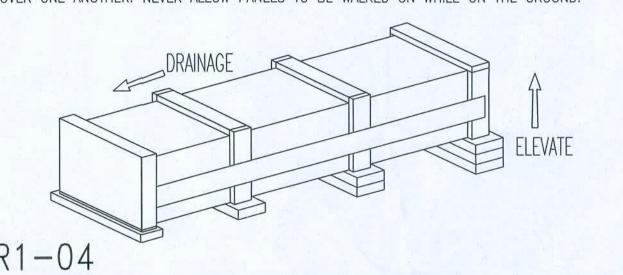
UNDER NO CIRCUMSTANCES SHOULD PANELS BE HANDLED ROUGHLY. PACKAGES OF SHEETS SHOULD BE LIFTED OFF THE TRUCK WITH EXTREME CARE TAKEN TO INSURE THAT NO DAMAGE OCCURS TO ENDS OF THE SHEETS OR TO SIDE RIBS. THE PACKAGES SHOULD BE STORED OFF THE GROUND SUFFICIENTLY HIGH TO ALLOW AIR CIRCULATION UNDERNEATH THE PACKAGES. THIS AVOIDS GROUND MOISTURE & DETERS PEOPLE FROM WALKING ON THE PACKAGES. ONE END OF THE PACKAGE SHOULD ALWAYS BE ELEVATED TO ENCOURAGE DRAINAGE IN CASE OF RAIN

THE MFGR EXERCISES EXTREME CAUTION DURING FABRICATING AND SHIPPING OPERATIONS TO INSURE THAT ALL PANEL STOCK IS KEPT DRY. HOWEVER, DUE TO CLIMATIC CONDITIONS, WATER FORMED BY CONDENSATION OF HUMID AIR CAN BECOME TRAPPED BETWEEN STACKED SHEETS. WATER CAN ALSO BE TRAPPED BETWEEN THE STACKED SHEETS WHEN EXPOSED TO RAIN. THIS MAY CAUSE DISCOLORATION CAUSED BY TRAPPED MOISTURE.

THE STAIN IS USUALLY SUPERFICIAL & HAS LITTLE EFFECT ON THE APPEARANCE OR SERVICE LIFE OF THE PANELS AS LONG AS IT IS NOT PERMITTED TO REMAIN ON THE PANELS. HOWEVER, MOISTURE IN CONTACT WITH THE SURFACE OF THE PANELS OVER AN EXTENDED PERIOD CAN SEVERELY ATTACK THE FINISH & REDUCE THE EFFECTIVE SERVICE LIFE. SEE R1-07 "DAMAGE FROM CONDENSATION OR TRAPPED WATER."

CAUTION: CARE SHOULD ALWAYS BE TAKEN WHEN WALKING ON PANELS. USE SAFETY LINES AND NETS WHEN NECESSARY! PANELS ARE SLIPPERY. WIPE DRY ANY MOISTURE OR SURFACE MATERIAL THAT HAS PUDDLED FROM BUNDLES STORED ON A SLOPE. DEW, FROST, OR OTHER FORMS OF MOISTURE GREATLY INCREASE THE SLIPPERINESS OF THE PANELS. ALWAYS ASSUME PANEL SURFACE IS SLIPPERY & ACT ACCORDINGLY. NEVER WALK OR STEP ON SKYLIGHTS OR TRANSLUCENT PANELS!

USE WOOD BLOCKING TO ELEVATE & SLOPE THE PANELS IN A MANNER THAT WILL ALLOW MOISTURE TO DRAIN. WOOD BLOCKING PLACED BETWEEN BUNDLES WILL PROVIDE ADDITIONAL AIR CIRCULATION. WHEN HANDLING OR UNCRATING THE PANELS, LIFT RATHER THAN SLIDE THEM APART. BURRED EDGES MAY SCRATCH THE COATED SURFACES WHEN SHEETS ARE SLID OVER ONE ANOTHER. NEVER ALLOW PANELS TO BE WALKED ON WHILE ON THE GROUND.



DAMAGE DURING CONSTRUCTION

THE QUALITY OF WORKMANSHIP IN STEEL ERECTION, CONSTRUCTION PRACTICES, AND HANDLING METHODS USED DURING THE CONSTRUCTION OF THE METAL BUILDING CAN SIGNIFICANTLY AFFECT THE APPEARANCE AND PERFORMANCE OF THE BUILDING PANELS. PANEL DAMAGE DURING CONSTRUCTION CAN BE THE RESULT OF FAULTY INSTALLATION METHODS AND/OR CARELESSNESS.

OVERDRIVEN FASTENERS CAUSE INDENTATIONS OR SHALLOW POCKETS IN THE PANEL AROUND THE FASTENER HEAD. RAIN WATER OR CONCENSED MOISTURE COMBINED WITH ATMOSPHERIC POLLUTANTS (PRINCIPALLY SULFUR DIOXIDES) AND DIRT PARTICLES COLLECT IN THESE POCKETS. THE COMBINATION OF POLLUTANTS AND WATER CREATES ACID SOLUTIONS THAT WILL CAUSE CORROSION DAMAGE TO THE PANEL AND FASTENER. RAIN MAY WASH SOME POLLUTANTS AWAY, BUT MOISTURE IN THE FORM OF HIGH HUMDITY CAN KEEP THESE AREAS WET AND CONTINUE THE PROBLEM. OVERDRIVING THE FASTENER ALSO FORCES THE SEALING WASHER FROM UNDER THE FASTENER HEAD CREATING A LEAK AT HIS POINT. PROPER TORQUE ADJUSTMENT OF THE SCREW GUN OR PREFERABLY THE USE OF A DEPTH GAUGE WILL ELIMINATE THE PROBLEM OF OVERDRIVEN FASTENERS.

IT IS EXTREMELY IMPORTANT THAT ALL DRILL SHAVINGS FROM THE INSTALLATION OF PANEL FASTENERS AND FILLINGS FROM THE SAW CJTTING OF PANELS BE REMOVED FROM THE PANEL SURFACE. CORROSION CAN OCCUR IN A MATER OF HOURS WHEN THESE SHAVINGS OR FILLINGS ARE NOT REMOVED AND ARE ALLOWED TO COME IN CONTACT WITH WATER OR CONDENSED MOISTURE. WHEN PANELS ARE PRE-DRILLED OR CUT IN THE STACK PRIOR TO ERECTION ALL SHAVINGS OR FILLINGS MUST BE CLEANED FROM BOTH SIDES OF THE PANEL. TO PREVENT CORROSION OF THE PANEL BY THESE PARTICLES IT IS IMPERATIVE THAT THE ROOF BE SWEPT CLEAN AT LEAST DAILY AND CERTAINLY AT JOB COMPLETION. THE FINAL CLEANING OF THE ROOF SHOULD BE DONE PRIOR TO INSTALLING THE GUTTER SO THAT THE SHAVINGS ARE NOT DEPOSITED INTO THE GUTTER AND LEFT TO CORRODE. ANY OTHER FOREIGN OBJECTS OR DEBRIS LEFT BY CONSTRUCTION PERSONNEL SHOULD ALSO BE REMOVED FROM THE ROOF. DURING THE ERECTION OF THE ROOF AND THE INSTALLATION OF EQUIPMENT SUCH AS AIR CONDITIONING UNITS, ETC...

PERSONNEL WALKING ON THE PANELS CAN CAUSE DAMAGE. WORKMEN SHOULD STEP OR WALK IN THE BROAD FLAT AREAS OF THE PANEL AND AVOID STEPPING ON THE PANEL ENDS AND EDGES WHICH CAN BE BENT BY CARELESS HANDLING. IF THIS DAMAGE IS SEVERE, THE EDGES MUST BE STRAIGHTENED PRIOR TO ERECTION SINCE THE APPEARANCE AND/OR WEATHER TIGHTNESS OF THE PANEL COULD BE AFFECTED. DRAGGING ONE PANEL ACROSS ANOTHER CAN CUT OR ABRADE THE COATING CAUSING UNSIGHTLY MARKS ON THE PANEL SURFACE.

ATTEMPTS TO ERECT PANELS DURING WINDY CONDITIONS SHOULD BE AVOIDED TO PREVENT DAMAGE AND FOR SAFETY CONSIDERATIONS.

LEAVING DIRT PILED AGAINST THE EXTERIOR WALL PANELS AT THE FOUNDATION WILL CAUSE PANEL DAMAGE. THIS DIRT MAY BE WET OR AT LEAST WILL CONTAIN SOME MOISTURE. MUD MAY HAVE BEEN SPLASHED ONTO THE WALL DURING CONSTRUCTION. CORROSION DAMAGE MAY OCCUR WHERE THIS DIRT OR MUD CONTACTS THE PANELS. IN AREAS WHERE LIME STABILIZATION OF THE SOIL IS REQUIRED, CORROSION DAMAGE FROM THE SOIL'S CONTENT WILL BE ACCELERATED AND MOST LIKELY BE SEVERE ALL DIRT MUST BE REMOVED FROM THE PANEL WALLS AT THE COMPLETION OF THE WORK. PRE—PAINTED PANELS MAY REQUIRE TOUCH—UP IF THE COATING HAS BEEN DAMAGED DURING HANDLING OR ERECTION.

THE APPEARANCE OF THE BLDG. MAY BE AFFECTED IF DAMAGED SPOTS OR SCRATCHES ARE LOCATED IN HIGHLY VISIBLE PLACES SUCH AS AROUND DOORS, WINDOWS, ETC... IF THE DAMAGE IS EXTENSIVE THEN REPLACEMENT OF THE ENTIRE PANEL SHOULD BE CONSIDERED.

R1 - 05

Erection Guide

R1
Date Jul '13 0

TYPES OF FINISHES

ALL STRUCTURAL MEMBERS OF THE METAL BUILDING SYSTEM NOT FABRICATED OF CORROSION RESISTANT MATERIAL OR PROTECTED BY A CORROSION RESISTANT COATING ARE PAINTED WITH ONE COAT OF SHOP PRIMER MEETING THE PERFORMANCE REQUIREMENTS OF SPC PAINT SPECIFICATION NO. 15. THE COAT OF SHOP PRIMER IS INTENDED TO PROTECT THE STEEL FRAMING FOR ONLY A SHORT PERIOD OF EXPOSURE TO ORDINARY ATMOSPHERC CONDITIONS. SHOP PRIMED STEEL WHICH IS STORED IN THE FIELD PENDING ERECTION SHOJLD BE KEPT FREE OF THE GROUND AND SO POSITIONED AS TO MINIMIZE WATER-HOLDING OCKETS, DUST, MUD AND OTHER CONTAMINATION OF THE PRIMER FILM. REPAIRS OF DAMAGE TO PRIMED SURFACES AND/OR REMOVAL OF FOREIGN MATERIAL DUE TO IMPROPER FIELD STORAGE OR SITE CONDITIONS ARE NOT THE RESPONSIBILITY OF THE MANUFACTURER. THE MANUFACTURER IS NOT RESPONSIBLE FOR DETERIORATION OF THE SHOP COAT OF PRIMER OR CORROSION THAT MAY RESULT FROM EXPOSURE TO ATMOSPHERIC AND ENVIRONMENTAL CONDITIONS, NOR THE COMPATIBILITY OF THE PRIMER TO ANY FIELD APPLIED COATING. MINOR ABRASIONS TO THE SHOP COAT (INCLUDING GALVANIZING) CAUSED BY HANDLING, LOADING, SHIPPING UNLOADING AND FRECTION AFTER PAINTING OR GALVANIZING ARE UNAVOIDABLE. (MBMA 06 IV 4.2.4)

GALVALUME IS THE TRADE NAME FOR A PATENTED STEEL SHEET & COIL PRODUCT HAVING A COATING OF CORROSION RESISTANT ALUMINUM-ZINC ALLOY. THE ALLOY MIXTUFE IS BALANCED TO OBTAIN THE COATING THAT RETAINS THE CORROSION RESISTANCE & HEAT REFLECTIVITY OF ALUMINUM & THE SACRIFICIAL ACTION OF GALVANIZED. THE BEST PROPERTIES OF BOTH ALUMINUM & ZINC ARE COMBINED IN THIS COATING & OFFER ADDED SERVICE LIFE FOR BUILDING PANELS.

USING GALVALUME STEEL AS A SUBSTRATE, PRE-PAINTED STEEL IS GIVEN AN ADDITIONAL RUST INHIBITOR PRIMER COAT. THIS PRIMER COAT FURTHER INCREASES THE CORROSON RESISTANCE. THESE COATINGS ARE APPLIED TO THE EXTERIOR SURFACE OF THE PANELS AND THE WASH COAT, DESIGNED ONLY FOR INTERIOR USE, IS APPLIED ON THE OPPOSITE SINE, GALVALUME AND PRE-PAINTED STEEL CAN GIVE EXCELLENT SERVICE FOR MANY YEARS IF A FEW RULES CONCERNING THEIR CARE AND MAINTENANCE ARE OBSERVED. ALL OF THESE FNISHES ARE FOUALLY SUBJECT TO DAMAGE AND CORROSION WHEN CARE IS NOT PROVIDED

PAINT AND COATING MAINTENANCE

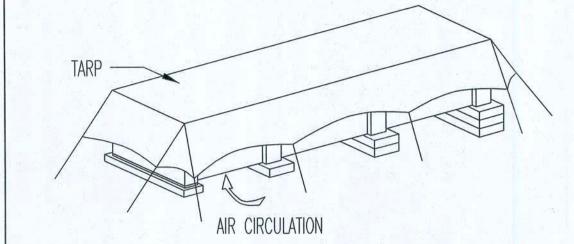
REMOVE SMUDGE MARKS FROM BARE GALVALUME (R). FORMULA 409 HAS PRC/EN TO BE SOMEWHAT EFFECTIVE. LIGHTLY RUB WITH A CLEAN CLOTH AND RINSE WITH WATER. DO NOT RUB MORE THAN REQUIRED TO REMOVE SMUDGE. NO PRODUCT WILL REMOVE ALL SMUDGE MARKS. REMOVE RUST STAINS. SOFT SCRUB WITHOUT BLEACH HAS PROVEN TO BE SOMEWHAT EFFECTIVE, LIGHTLY RUB WITH A SOFT CLOTH AND RINSE WITH WATER. DO NOT RUB MORE THAN REQUIRED TO REMOVE STAIN. NO PRODUCT WILL COMPLETELY REMOVE RUST STAINS. TO TOUCH-UP SCRATCHES IN PAINT (NOT TO BARE METAL), CLEAN AREA TO BE PAINTED WITH MILD DETERGENT. RINSE THOROUGHLY AND DRY. USING A SMALL ARTIST'S BRUSH, LIGHTLY APPLY A MINIMAL AMOUNT OF COLOR MATCHED TOUCH-UP PAINT REQUIRED 10 FILL / COVER THE SCRATCH. CONTACT BUILDING MANUFACTURER FOR ASSISTANCE WITH OR)ERING / PURCHASING TOUCH-UP PAINT AS NEEDED.

R1 - 06

DAMAGE FROM CONDENSATION OR TRAPPED WATER

IT IS EXTREMELY IMPORTANT THAT THE PANELS BE MONITORED FOR EVIDENCE OF TRAPPED WATER OR MOISTURE CONDENSATION WHILE AWAITING ERECTION. HIGH HUMIDITY CONDITIONS WITH TEMPERATURE CYCLING WILL CAUSE CONDENSATION BETWEEN THE PANELS WITHIN THE BUNDLE. CONDENSATION CAN OCCUR FREQUENTLY NEAR THE SEA COAST OR OTHER LARGE BODIES OF WATER.

IF JOBSITE COVERS ARE USED, THEY SHOULD BE TIED AWAY FROM THE BUNDLE AT THE CORNERS TO ALLOW AIR CIRCULATION AROUND THE BUNDLE. THIS WILL HELP PREVENT MOISTURE EVAPORATING FROM THE GROUND OR BUILDING FLOOR FROM CONDENSING ON THE PANELS. PLASTIC OR OTHER IMPERMEABLE COVERS ARE NOT RECOMMENDED. IMMEDIATE ACTION IS REQUIRED IF THE PANELS ARE FOUND TO BE WET FROM ANY CAUSE. THE BUNDLES MUST BE OPENED AND EACH PANEL UNSTACKED AND THOROUGHLY DRIED ON BOTH SIDES. RE-STACKING THE PANELS AT A SLIGHT ANGLE TO EACH OTHER TO PREVENT NESTING WILL ALLOW AIR CIRCULATION AND ASSIST IN KEEPING THE PANELS DRY. IN SEVERE CONDITIONS LARGE FANS CAN BE USED TO CIRCULATE AIR BETWEEN THE UNSTACKED PANELS AND ACCELERATE DRYING. DAMAGE TO THE PANEL COATING OCCURS WHEN PANELS BECOME WET AND ARE ALLOWED TO STAY WET. DAMAGE CAN OCCUR TO NESTED PANELS WITHIN 24-48 HOURS. THIS DAMAGE SHOWS AS CORROSION AND DISCOLORATION OF THE PANEL SURFACE AND IS COMMONLY CALLED WET STORAGE STAIN, ZINC OXIDATION, OR "WHITE RUST".



A SOFTENING OF THE PAINT FILM CAN OCCUR WITH PRE-PAINTED STEEL UNDER WET STORAGE CONDITIONS AND THE DURABILITY OF THE PANEL FINISH SUBSTANTIALLY DECREASED. BARE GALVANIZED AND GALVALUME PANELS REACT MORE QUICKLY TO SURFACE OXIDATION SINCE THEY LACK THE ADDITIONAL PROTECTION OF PAINT. ZINC COATED OR GALVALUME PANELS UNDER NORMAL EXPOSURE FORM A ZINC OR ALUMINUM OXIDE FILM ON THEIR SURFACE ALLOWING A SLOW OXIDATION PROCESS CALLED "WEATHERING" TO OCCUR THAT INHIBITS FURTHER CORROSION. IN NESTED BUNDLES CONSTANT CONTACT OF THE PANELS WITH CONDENSED OR TRAPPED WATER PREVENTS THIS WEATHERING PROCESS.

RAPID OXIDATION OF THE ZINC OR ZINC ALUMINUM COATING CAN NOW OCCUR AND MAY LEAD TO "RED RUST" IN A SHORT TIME. IF DISCOLORATION OR STAINS ARE MINOR, A HOUSEHOLD CLEANER OF THE TYPE USED ON PORCELAIN SINKS AND BATHTUBS MAY BE USED TO REMOVE THE STAINS. WIRE BRUSHING OR USING ABRASIVE MATERIALS SHOULD BE AVOIDED SINCE SCRATCHING OR REMOVAL OF THE COATING COULD OCCUR. PANELS WITH SIGNIFICANT DAMAGE SHOULD BE REPLACED BY THE BUYER BEFORE ERECTION.

R1 - 07

SAFETY COMMITMENT

THE BUILDER/CONTRACTOR IS RESPONSIBLE FOR APPLYING AND OBSERVING ALL PERTINENT SAFETY RULES AND OSHA STANDARDS AS APPLICABLE.

THE BUILDING MANUFACTURER HAS A COMMITMENT TO MANUFACTURE QUALITY BUILDING COMPONENTS THAT CAN BE SAFELY ERECTED. HOWEVER, THE SAFETY COMMITMENT AND JOB SITE PRACTICES OF THE ERECTOR ARE BEYOND THE CONTROL OF THE BUILDING

T IS STRONGLY RECOMMENDED THAT SAFE WORKING CONDITIONS AND ACCIDENT PREVENTION PRACTICES BE THE TOP PRIORITY OF ANY JOB SITE.

-OCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, WHETHER STANDARD STATUTORY OR CUSTOMARY, SHOULD ALWAYS BE FOLLOWED TO HELP INSURE WORKER SAFETY. MAKE CERTAIN ALL EMPLOYEES KNOW THE SAFEST AND MOST PRODUCTIVE WAY OF ERECTING A

BUILDING. EMERGENCY PROCEDURES SHOULD BE KNOWN TO ALL EMPLOYEES. DAILY MEETINGS HIGHLIGHTING SAFETY PROCEDURES ARE ALSO RECOMMENDED. THE USE OF HARD HATS, RUBBER SOLE SHOES FOR ROOF WORK, PROPER EQUIPMENT FOR HANDLING MATERIAL AND SAFETY NETS WHERE APPLICABLE, ARE RECOMMENDED.

FOR PURPOSES OF DETERMINING LIFT REQUIREMENTS, NO BUNDLE SUPPLIED BY THE MANUFACTURER WILL EXCEED 4.000 POUNDS. FOR FURTHER INFORMATION ALSO REFERENCE THE BILL OF MATERIALS FOR INDIVIDUAL MEMBER WEIGHTS OF OTHER STRUCTURAL MEMBERS. IF ADDITIONAL INFORMATION IS REQUIRED CONTACT THE FIELD SERVICE DEPARTMENT.

ICE AND SNOW REMOVAL

EXCESSIVE ICE AND SNOW SHOULD BE REMOVED FROM ROOF IMMEDIATELY TO PREVENT DAMAGE TO ROOF AND POSSIBLE COLLAPSE. DO NOT USE METAL TOOLS TO REMOVE THE ICE OR SNOW AS THIS CAN DAMAGE THE PAINT AND/OR GALVALUME COATINGS. ALSO, BE CAREFUL AROUND FPLUMBING PIPES AND FLASHINGS. BE EXTREMELY CAREFUL IF YOUR ROOF HAS LIGHT TRANSMITTING PANELS. THESE PANELS WILL NOT SUPPORT A PERSON'S WEIGHT AND WILL BE DIFFICULT OR IMPOSSIBLE TO SEE IF THEY ARE COVERED WITH ICE AND SNOW. SEE 2002 MBMA LOW-RISE BUILDING SYSTEMS MANUAL APPENDIX AS FOR DETAILS ON SNOW REMOVAL FPROCEDURES. THESE PROCEDURES SHOULD COMMENCE WHEN HALF OF THE DESIGN ROOF SNOW LOAD SHOWN ON THIS SHEET IS REALIZED.

DEBRIS REMOVAL

'ANY FOREIGN DEBRIS SUCH AS SAWDUST, DIRT, LEAVES, ANIMAL DROPPINGS, ETC. WILL CAUSE (CORROSION OF THE ROOF, GUTTERS, TRIM, ETC. IF LEFT ON BUILDING SURFACE FOR A LONG ENOUGH TIME. THE ROOF SHOULD BE PERIODICALLY INSPECTED FOR SUCH CONDITIONS AND IF FFOUND, THEY SHOULD BE RECTIFIED IN A MANNER CONSISTENT WITH THESE ROOF MAINTENANCE (GUIDELINES, NEVER ALLOW TREATED LUMBER OR CONCRETE/MORTAR/GROUT TO COME IN CONTACT WITH ROOF PANELS, ESPECIALLY GALVALUME (R), FOR EXTENDED PERIODS OF TIME.

PERIODIC INSPECTION

'ALL HIGH-STRENGTH BOLTS SHALL BE PERIODICALLY INSPECTED FOR TIGHTNESS, PARTICULARLY IN CRANE BUILDINGS AND AFTER ANY SEISMIC ACTIVITY OR WIND ACTIVITY. THE CRANE MANUFACTURER WILL SPECIFY A MINIMUM PERIOD BUT IT SHOULD NOT EXCEED 2 YEARS.

** KEEP ROOF FREE OF DEBRIS AND KEEP DEBRIS OUT OF GUTTER TO ALLOW WATER TO QUICKLY [DRAIN FROM ROOF. * DO NOT USE WOOD BLOCKING TO HOLD EQUIPMENT OFF OF PANEL SEAMS. THIS BLOCKS THE FLOW OF WATER AND HOLDS MOISTURE. ** DO NOT ALLOW ROOFTOP AC UNITS OR EVAPORATIVE COOLERS TO DRAIN ONTO THE ROOF.

** ANYTHING THAT TRAPS OR HOLDS MOISTURE ON A ROOF WILL CAUSE PREMATURE CORROSION.

ROOF MAINTENANCE GUIDELINES

INSPECT ROOF FOR DAMAGE AFTER HEAVY STORMS.

* INSPECT AND RESEAL AS NECESSARY ALL ROOF CURBS AND OTHER PENETRATIONS WITH URETHANE SEALANT.

* ALWAYS GET MANUFACTURER APPROVAL BEFORE MAKING ANY MODIFICATIONS TO THE ROOF. * REPAINT ANY AREAS THAT ARE SUSCEPTIBLE TO RUST AS REQUIRED

* WHEN PERFORMING ROOF MAINTENANCE, ALWAYS TAKE THE FOLLOWING PRECAUTIONS: * USE FALL PROTECTION AND OTHER SAFETY EQUIPMENT AS REQUIRED.

* DO NOT WALK ON ROOF FLASHINGS SUCH AS GUTTER, RAKE, HIP OR RIDGE FLASH. * DO NOT WALK ON LIGHT TRANSMITTING PANELS (LTPS). THEY WILL NOT SUPPORT A PERSON'S WEIGHT.

* GUARD ALL LTPS AND ROOF OPENINGS. * STEP ONLY IN THE PANEL FLAT DIRECTLY ON OR IN CLOSE PROXIMITY TO A SUPPORTING

ROOF STRUCTURAL. * AFTER OTHER TRADES HAVE BEEN ON THE ROOF FOR ANY REASON. INSPECT THE ROOF FOR DAMAGE CAUSED BY WORKERS INCLUDING CHEMICAL OR SOLVENT SPILLS, SCRATCHES IN THE PAINT OR GALVALUME (R) COATING, EXCESSIVE FOOT TRAFFIC AND PUNCTURES. MAKE SURE THAT ANY DEBRIS OR SCRAP LEFT BEHIND BY THE WORKERS IS REMOVED FROM THE ROOF IMMEDIATELY. AVOID USING CUTOFF SAWS AND WELDING EQUIPMENT OVER THE ROOF. IN CASES WHERE THIS IS NOT POSSIBLE, THE ROOF MUST ADEQUATELY PROTECTED.

FOOT TRAFFIC

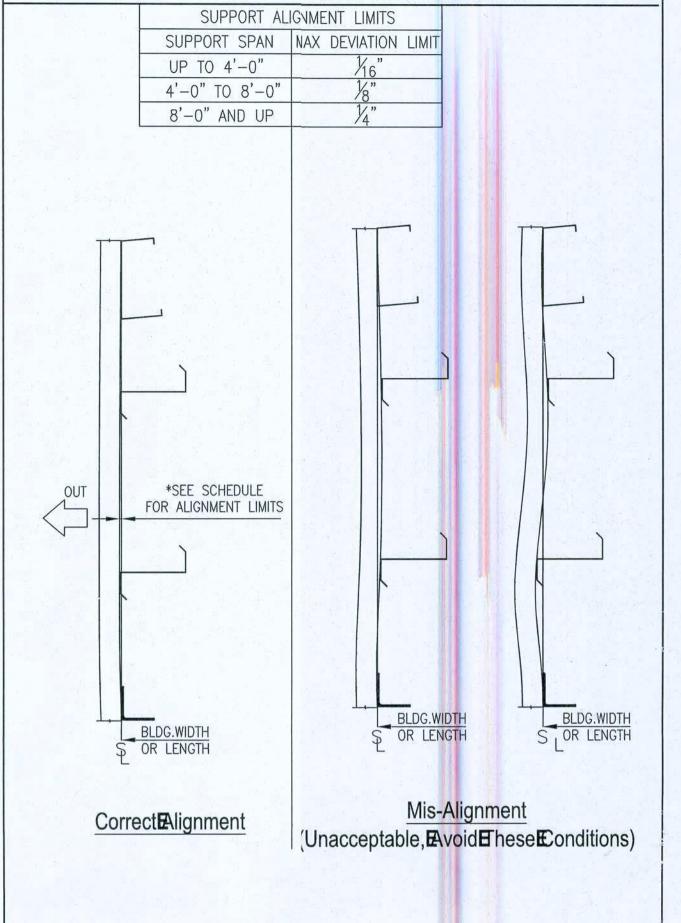
KEEP FOOT TRAFFIC TO A MINIMUM. HEAVY FOOT TRAFFIC CAN CAUSE PONDING ON LOW PITCHED ROOFS. THIS IS PARTICULARLY TRUE JUST UPSLOPE FROM THE EAVE AND AT ENDLAPS. ALWAYS WALK IN THE FLAT OF THE PANEL NEAR A SUPPORTING ROOF STRUCTURAL DO NOT WALK ON TRIM OR IN GUTTERS. ON BARE GALVALUME ® ROOFS, EXCESSIVE FOOT TRAFFIC MAY CAUSE BLACK BURNISH MARKS. IF REGULAR FOOT TRAFFIC IS PLANNED FOR A ROOF. PROVISIONS SHOULD BE MADE FOR A PROPERLY DESIGNED AND INSTALLED ROOF WALKWAY SYSTEM. IN ORDER TO LIMIT ACCESS TO THE ROOF, ROOF HATCHES OR ACCESS LADDERS SHOULD BE LOCKED AT ALL TIMES. A SIGN SHOULD BE POSTED AT THE POINT OF ACCESS, STATING THAT ONLY AUTHORIZED PERSONNEL ARE ALLOWED ONTO THE ROOF. IN ADDITION, A LOG BOOK SHOULD BE KEPT OF ALL VISITS TO THE ROOF AND THE REASON FOR SUCH VISITS.

DISSIMILAR METALS

R1 - 09

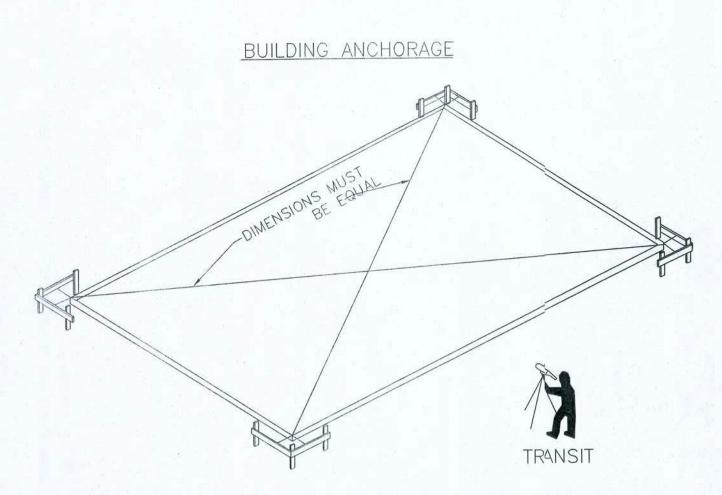
NEVER ALLOW YOUR ROOF TO COME IN CONTACT WITH, OR WATER RUNOFF FROM, ANY DISSIMILAR METAL INCLUDING BUT NOT LIMITED TO: COPPER, LEAD OR GRAPHITE. THIS INCLUDES COPPER AND ARSENIC SALTS USED IN TREATED LUMBER, CALCIUM USED IN CONCRETE, MORTAR AND GROUT.

Secondary Bteel Alignment For Fall EMP Projects



|R1-10|

Erection Equide



- 1. To determine that the foundation is square, measure diagonal dimensions to be sure they are of equal length.
- 2. To determine that the foundation is level, set up a transit or level and use a level rod to obtain the elevation at all cdumns.
- 3. Carefully check the location of all anchor bolts against the Anchor Bolt Setting Plan furnished by the Manufacturer. Al dimensions must be identical to assure a proper start—up.

AISC CODE OF STANDARD PRACTICE TOLERANCES FOR SETTING ANCHOR RODS

- 7.5.1. Anchor rods, foundation bolts and other embedded items shall be set by the owner's designated representative for construction in accordance with embedment drawings that have been approved by the owner's designated representatives for design and construction. The variation in location of these items from the dimensions shown in the embedment drawings shall be as follows:
- (a) The variation in dimension between the centers of any two anchor rods within an anchor—rod group shall be equal to or ess than 1/8 in. [3 mm].
- (b) The variation in dimension between the centers of adjacent anchor—rod groups shall be equal to or less than 1/4 in.

 [6 mm].
- (c) The variation in elevation of the tops of anchor rods shall be equal to or less than plus or minus 1/2 in. [13 mm].
- (d) The accumulated variation in dimension between centers of the anchor—rod groups along the column line through multiple anchor—rod groups shall be equal to or less than 1/4 in. per 100 ft [2 mm per 10000 mm], but not to exceed a total of 1 in. [25 mm]
- (e) The variation in dimension from center of any anthor—rod group to the column line through that group shall be equal to or less than 1/4 in.

 [6 mm].

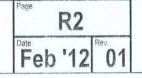
The tolerances that are specified in (b), (c) and (d) shal apply to offset dimensions shown in the structural design drawings, measured parallel and perpendicular to the nearest column line, for individual cdumns that are shown in the structural design drawings as offset from column ines.

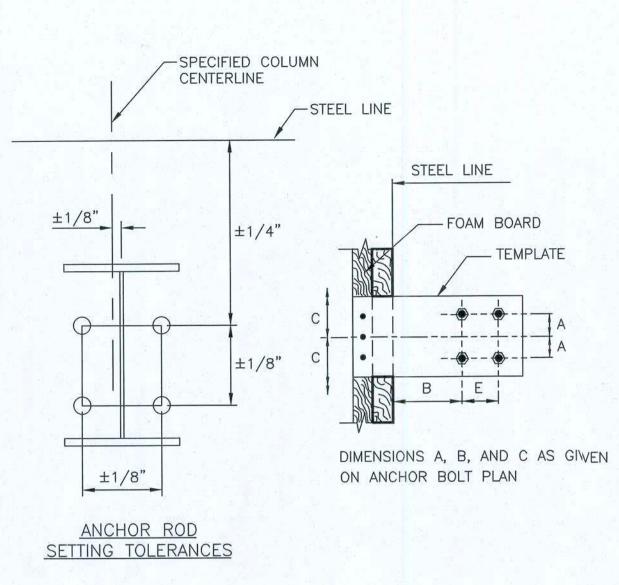
- 7.5.2. Unless otherwise specified in the contract documents, anchor rods shall be set with their longitudinal axis perpendicular to the theoretical bearing surface.
- 7.5.3. Embedded items and connection materials that are part of the work of other trades, but that will receive structural steel, shall be located and set by the owner's designated representative for construction in accordance with an approved embedment drawing. The variation in location of these items shall be limited to a magnitude that is consistent with the tolerances that are specified in Section 7.13 for the erection of the structural steel.

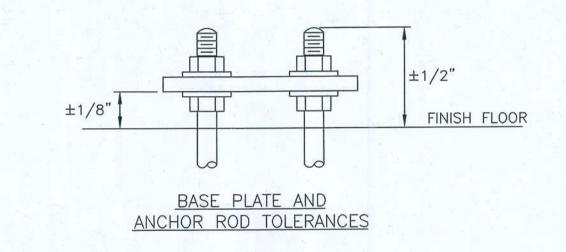
7.5.4. All work performed by the owner's designated representative for construction shall be completed so as not to delay or interfere with the work of the fabricator and the erector. The owner's designated representative for construction shall conduct a survey of the as—built locations of anchor rods, foundation bolts and other embedded items, and shall verify that all items covered in Section 7.5 meet the corresponding tolerances When corrective action is necessary, the owner's designated representative for construction shall obtain the guidance and approval of the owner's designated representative for design.

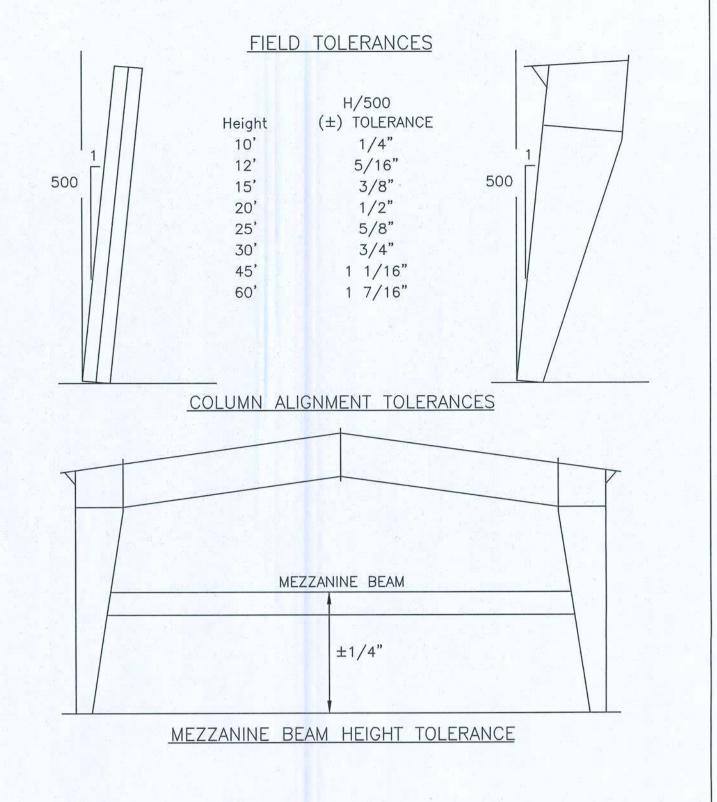
It is extremely important that anchor bolts be placed accurately in accordance with the Anchor Bolt Setting Plan. All anchor bolts should be held in place with a template or similar means, so that they will remain plumb and in correct location during placing of the concrete. A final check should be made after the completion of the concrete work and prior to the steel installation. This will allow any necessary corrections to be made before the costly installation labor and equipment arrives.

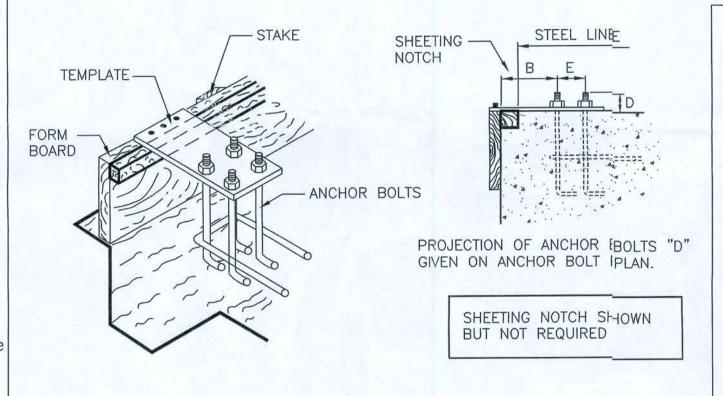
Erection Equide

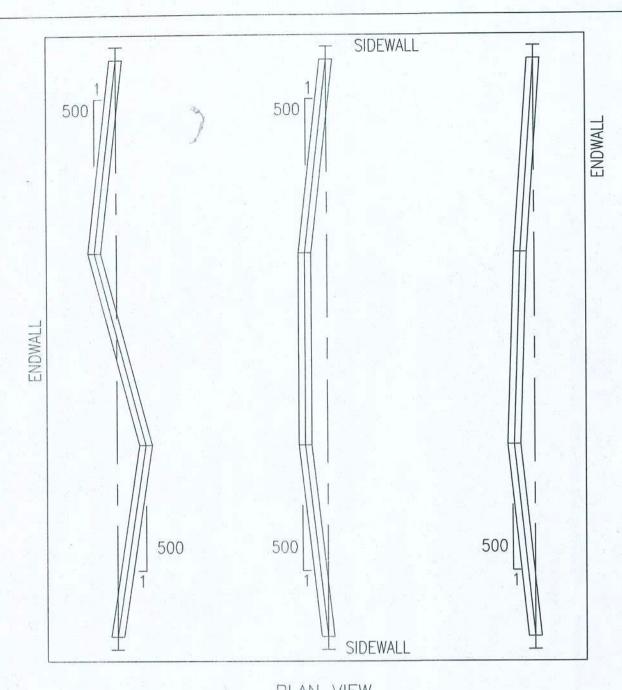






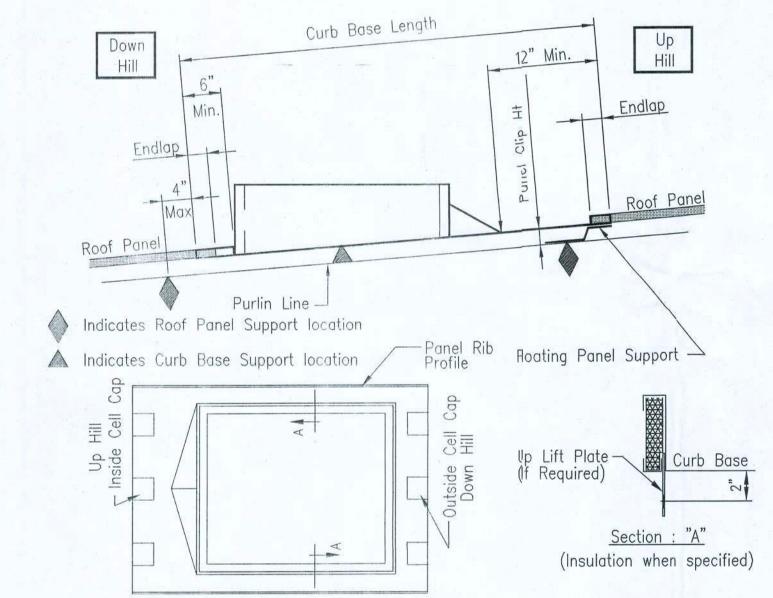






PLAN VIEW

ALIGNMENT TOLERANCE FOR MEMBERS WITH FIELD SPLICES

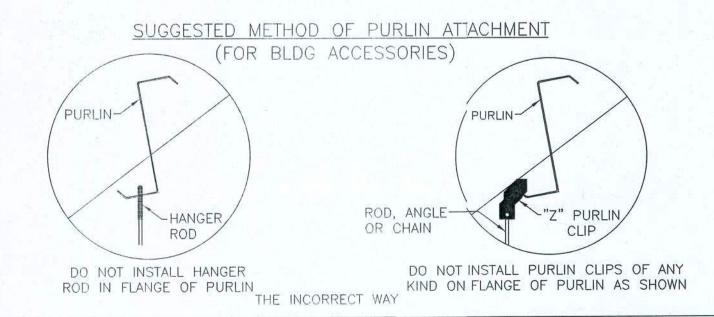


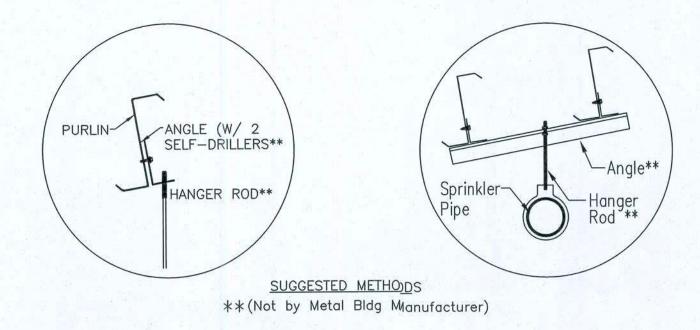
The curb details shown illustrate the building manufacturers recommended curb style and installation method. It is the erector / installer's responsibility to provide the proper curb style and install them in accordance with the procedures established by these details. Failure by the erector / installer to follov these recommendations may result in the curbs damaging the roof system or excluded from warranties.

All roof curbs to be:

- 1. .080 Aluminum or 18ga. Stainless (No Galvalume/Nc Galvanized)
- Panel rib to rib installation (No flat skirt or lay—over Curbs)
 Installed over low end / under high end application for water flow at panel splice
- 4. Up lift prevention for clip applied roof systems are required if:
- a. Wind load exceeds 110 mph or
- b. Curb base crosses a purlin
- Supported on (4) four side by primary or secondary framing
 Max Single Curb weight Recommend = 1500#

Roof Curbs
(When not Supplied by Building Manufacturer)



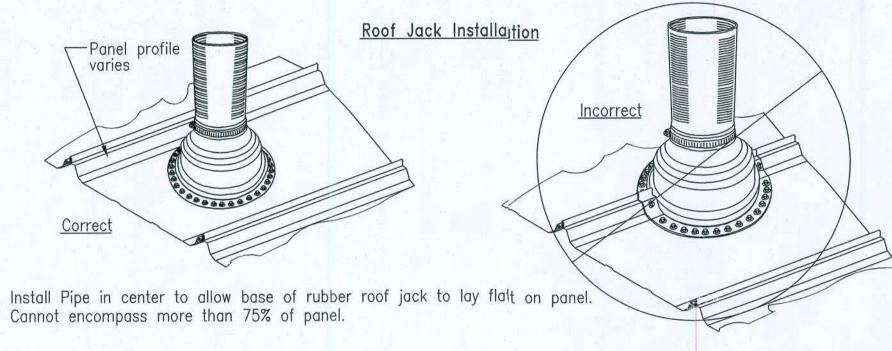


An angle is self—tapped to the web of the purlin to catch hanger rod. This method does not preclude other forms of attachment to the purlin web.

The total hanger load shall not exceed the design collateral load for the building. A sample calculation is shown below:

5' (purlin spacing) x 5' (hanger spacing) x: 6 psf (collateral load) = 150 lbs. See cover sheet for design collateral load for this building.

Note: If this building is designed for 0 psf collaterall load, then adding any suspended system (ie. duct work, piping, lights, ceilings, etc.) will correspondingly reduce the design live load.



□ Do not use galvanized roof jacks, lead hats or other residential grade roof jacks. These roof jacks do not have 20—year service life and, in the case of lead hats, will cause galvanic corrosion of the roof panels.

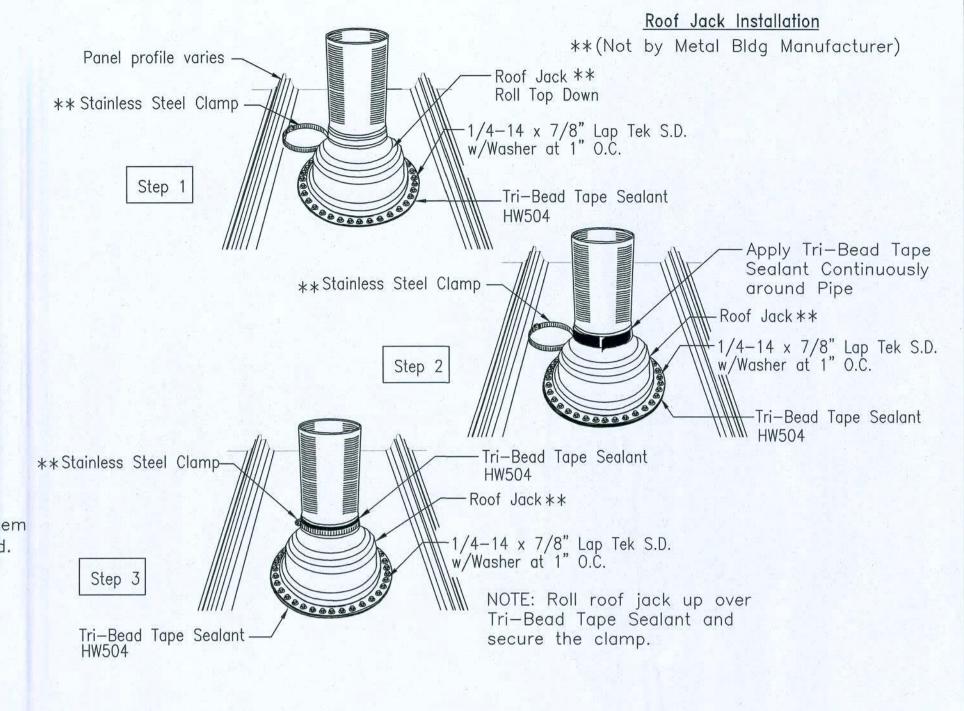
Use EPDM rubber roof jacks with an integral aluminum band bonded into the perimeter of the base. For high temperature applications (200—400 degrees Fahrenheit) use silicone rubber roof jacks. Retrofit rubber roof jacks are awailable for applications in which the top of the pipe is inaccessible, eliminating the possibility of sliding the roof jack over the top of the pipe.

Do not use tube caulk/silicone to seal roof jack to the roof panels. Use only tape sealant as supplied by Metal Bldg Manufacturer. Fasten the roof jack to the roof panels with 1/4"-14 x 7/8" Lap Tek Stitch Screws at 1" on center around base of roof jack.

Roll down the top of the roof jack and apply tape sealant continuously around the exposed portion of the pipe. Roll the top of the roof jack back over the tape sealant. Apply the stainless steel clamp over top of roof jack and firmly tighten to form a secure compression seal.

Do not install a pipe through the standing seam off the roof panel. Keep pipe penetration in center of panel to allow the base of the rubber roof jack to seal to the pan of the panel. If a pipe must be installed through a panel seam, or if the pipe diameter is so large to block the flow of water down the roof panel, you must install a "pipe curb" into the roof and then seal the pipe curb with rubber roof jack. For pipes in which top cannot be accessed, a two-piece pipe curb is available.

☐ In Northern climates, protect all pipe penetrations from moving ice or snow with a snow retention system immediately up slope from the pipe.



Erection Eguide R2

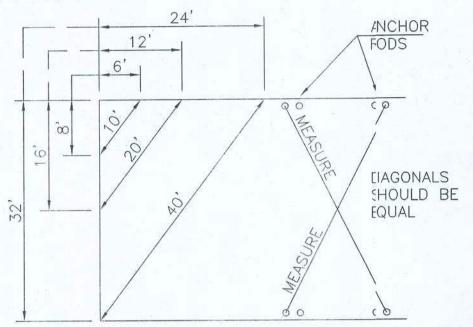
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PRE-ERECTION NOTES:

The following notes, procedures and suggested recommendations are important parts of the pre-erection process.

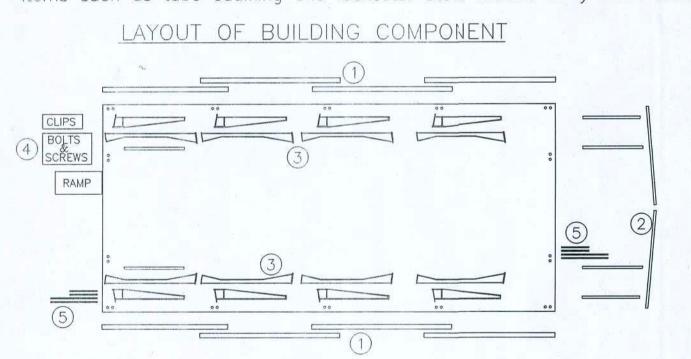
1.) Prior to the time the erection crew arrives, a responsible person should check the job site for foundation readiness, square, and accuracy and Anchor Rod size and location.

The drawing shown below indicates a method which may be used to check the foundation and bolts for square.



Measure along adjacent sides of foundation using a pair of dimensions shown. If the diagonal distance between these points is as noted, the corner is square. Diagonal measurements between opposite Anchor Rods will indicate if these bolts are set square.

- 2.) When unloading the building, carefully check off each item from the packing list. Bundles and boxes will have a list attached indicating the contents.
- 3.) Unload and layout the building columns on the foundation.
- 4.) Unload the rafters onto the foundation so that they can be erected from whichever end of the building you wish to start Your crane will move from one end of the building to the other while standing columns and hanging rafters.
- 5.) Layout the girts and purlins on dunnage or wood blocking around the foundation as near as possible to where they vill be installed.
- 6.) Unload and place trim crates out of the way, since these will be the last required.
- 7.) Unload and place panels and insulation out of the way.
- NOTE: In extremely cold conditions, the vinyl facing on insulation will become brittle, requiring very careful handling.
- 8.) Avoid lifting panel stacks with cables, chains or other devices which could panel bundles for moisture between the panels. This is especially important with galvalume or galvanized panels. The panel finish must be protected at all times before and during erection to preserve the appearance and function of the panels.
- 9.) All hardware boxes should be protected from theft and moisture, especially items such as tube caulking and locksets. Store mastic away from heat.



- . Girts, Eave Struts and Purlins
- End Frames and Endpost
- Main Frames 4. Clips, Bolts, Screws, ETC.
- 5. Endwall Girts
- 1.) Layout primary and secondary framing around the slab as shown.
- 2.) Place components and crates on the slab or on wood blocking to prevent contact with the ground.
- 3.) Block one end of components higher than other end to allow drainage of
- 4.) Leave one end of the building open for erection equipment access.
- 5.) Construct temporary ramp of timbers from grade to slab to prevent damage to concrete edge from equipment traffic.
- 6.) Install clips and flange braces onto columns and rafters before these members are in the air. Clip and flange brace ocations are shown on erection drawings.

GENERAL ERECTION NOTES

- 1.) All clips, flange braces, bolts, bracing systems, ETC. must be installed as shown on erection drawings.
- 2.) It is extremely important, especially during construction, that panels at the eaves, rakes and ridges be kept secure.
- 3.) Column bases must not be lag screwed or "RED HIEADED" to concrete unless specified on erection drawings for the building.
- 4.) Tighten column wind brace rods/cables (exterior and interior) before
- 5.) High strength bolts (A325) must be used where specified.

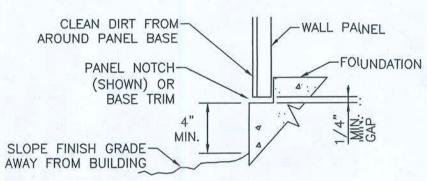
TEMPORARY CONSTRUCTION BRACING

- 1.) It is the responsibility of the erector to maintain stability of the structure during all stages of erection, particularly when left overnight.
- 2.) Temporary supports, such as temporary guys, braces or other elements shall be the total and complete responsibility of the erector. The temporary supports required shall be determined and furnished by the erector.
- 3.) Temporary construction supports shall be provided wherever necessary to accommodate all construction loads to which the structure may be subjected, left in place as long as may be required for safety.

PANEL CAUTIONS AND NOTES

To minimize potential of corrosive action at the bottom edge of wall panels, the contractor must assure that the following procedures are followed:

1.) The concrete foundation should be cured for a minimum of seven (7) days before wall panels are installed. (un-cured concrete is highly alkaline and metal panels can undergo varying degrees of corrossive attack when in direct contact with the concrete.) After the first week of the curing cycle, the reaction between metallic coatings on steel and the concrete is essentially

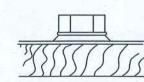


- 2.) Top of finish grade at building to be a minimum of four (4) inches below bottom of panel.
- 3.) Finish grade is to slope away from building to insure proper drainage.
- damage the panel. Upon unloading, and every morning thereafter, inspect he 4.) Upon completion of finish grading, all dirt is to be cleaned from around base of wall panel where it may have collected in panel notch or on base trim.

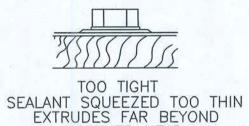
FASTENER INSTALLATION

Correct fastener installation is one of the most critical steps when installing roof/wall panels. Drive the fastener in until it is tight and the washer is firmly seated. Do not overdrive fasteners. A slight extrusion of neoprene around the washer is a good visual tightness check.

Always use the proper tool to install fasteners. A fastener driver (screw gun) with a RPM of 1700-2000 should be used for self-drilling, screws. A 500-600 RPM fastener driver should be used for self-tapping screws. Discard worn sockets, these can cause the fastener to wobble during installattion.



TIGHTNESS
NOTE SLIGHT CIRCLE OF
SEALANT



TOO LOOSE SEALANT IS NOT COMPRESSED TO FORM SEAL

NOTE: Always remove metal filings from surface of panels at the end of each work period. Rusting filings can destroy the paint finish and void any warranty.

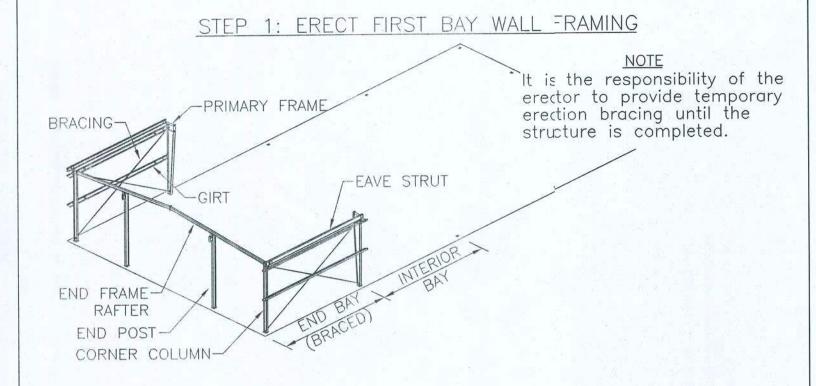
FASTENER HEAD

MASTIC SEALANT

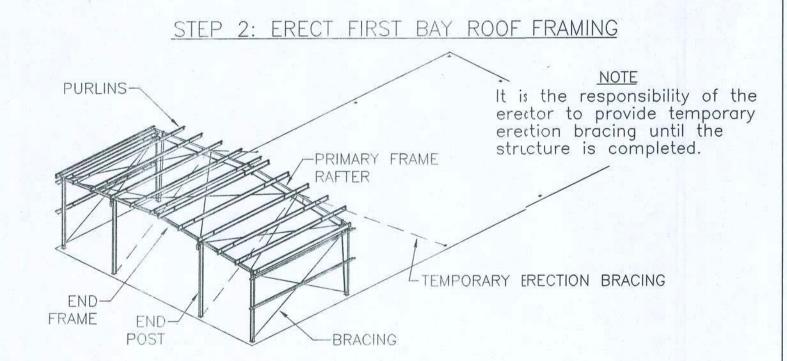
Proper mastic application is critical to the weather tightness of a building. Mastic should not be stretched when installed. Apply only to clean, dry surfaces. Keep only enough mastic on the roof that can be installed in a day. During warm weather, store mastic in a cool dry place. During cold weather (below 60°) mastic must be kept warm (60°-90°) until application. After mastic has been applied, keep protective paper in place until panel is ready to be installed.

IMPORTANT NOTE:

- All details, recommendations and suggestions contained in the ERECTION GUIDE tightening roof rods/cables. Roof rods/cables are tightened from eave to peak. portion of this drawings set are for general guidelines only, and not meant to be all—inclusive. Industry accepted installation practices with regard to all areas not specifically discussed in this section should be followed. Only experienced, knowledgeable installers familiar with accepted practices should be used to assure a quality project.
 - It is emphasized that the Manufacturer is only a manufacturer of metal building components and is not engaged in the installation of its products. Opinions expressed by the Manufacturer about installation practices noted in the ERECTION GUIDE are intended to represent only a guide as to the sequencing and how the components could be assembled to create a building. Both the quality and safety of installation and the ultimate customer satisfaction with the completed building are determined by the experience, expertise, and skills of the installation crews, as well as the equipment available for handling the materials. Actual installation operations, techniques and site conditions are beyond the Manufacturers control.



- 1A: Determine from erection drawings furnished with the building the location of the first braced bay. Framing for this bay will be erected first.
- 1B: Stand adjacent primary frame column and corner column over the anchor rods. Shim or chip out under the base plate if required to ensure that the base is level, at the correct elevation, and is in full contact with the foundation. Plumb and align the columns and install washers and nuts onto the Anchor Rods.
- NOTE: The end frame may be a bearing frame with the rafter supported by end posts, or a rigid frame with the rafter self—supporting, and not attached to the end posts. The procedure shown is for a bearing frame. If the building has a rigid end frame, it is erected the same as interior frames as described in steps 1 and 2.
- 1C: Attach wall girts to the primary frame column and corner column. Bolt girts to the corner column with two bolts. Bolt girt to primary frame column with one bolt through the column flange and secure bolt with sub-nut (see detail on erection drawings).
- 1D: Install the eave strut by bolting to the top of the columns. Refer to the erection drawings and attach column flange brace where shown. Flange braces may be required on one or both sides of the columns. If a flange brace connects to a girt in the adjacent bay, that brace will be bolted to the girt after the adjacent bay girts are installed.
- NOTE: As wall girts are installed around the building, framing for factory located framed openings and accessory framing to which the girts attach should be installed. Field located accessory framing may be installed at the same time as girts or at a later time.
- 1E: Install wall bracing systems (rods, cables, knee bracing, portal bracing) at this time but do not tighten completely until the bay is plumbed.
- 1F: Repeat steps 1B thru 1E for wall framing on the opposite side of the building.
- 1G: Attach clips to the end posts and stand these posts over the Anchor Rods. follow the procedure as described for corner columns in step 1B.
- 1H: Bolt required clips and flange braces to the end rame rafter sections and lift into place atop the end posts. Bolt rafter sections to corner column and end post cap plates. Bolt rafter sections together at peak.

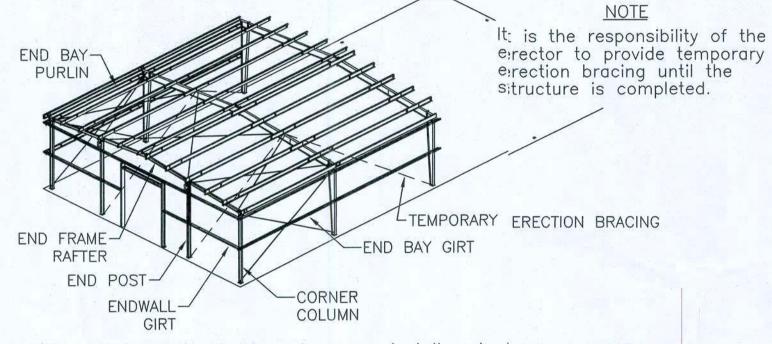


CAUTION

- Until rafters are bolted in place with purlins and flange braces installed, they are easily damaged by incorrect or careless handling procedures. Use extreme caution when lifting rafters. Two booms should be used to lift any pinched rafter section 80 feet or more in length.
- 2A: Bolt primary frame rafter together at peak connection (unless rafter length requires lifting in sections). Attach the required clips and flange braces to the rafter before lifting since these items are more easily installed on the ground. Lift rafter into place between sidewall columns and install bolts in rafter to column knee connections.
- 2B: Install end bay purlins from end frame rafter to the first interior frame rafter. The end bay purlins will overlap the interior bay purlins at the frame as described in step 1C. Complete flange brace connection to purlins.
- 2C: Install roof bracing systems but do not tighten completely until the bay is plumbed.
- 2D: Plumb and square the first bay. After alignment, tighten wall bracing first and the roof bracing working from eave to peak. Tighten any remaining bolts.

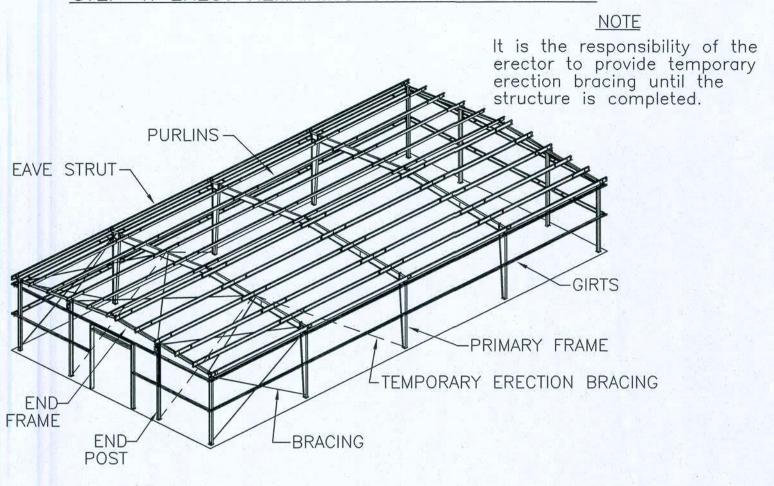
Plumbing and aligning a total structural system begins with the first braced bay and continues through completion. Accurate alignment of the first bay is essential for correct alignment of succeeding bays. The installer is responsible for choosing the best method suited for plumbing and aligning the structural system.

STEP 3: ERECT ENDWALL GIRTS AND FIRST INTERIOR BAY NOTE



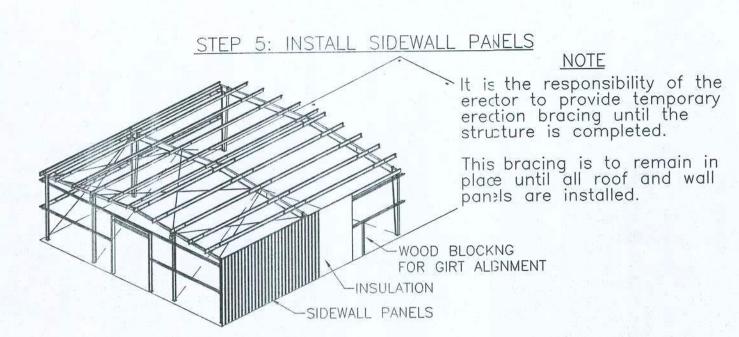
- 3A: After end frame is plumb and square, install endwall girts and flange braces for end post if required.
- 3B: Attach wall girts to the primary frame columns (see step 1C).
- 3C: Install eave struts (see step 1D).
- 3D: Attach roof purlins for this bay to the two rafters. Purlins will bolt to the rafter flange in the same manner as girts to column flanges (see step 1C). connect flange braces to purlins.
- 3E: Check alignment, plumb and square the two bays just erected. Tighten all bolts and bracing.

STEP 4: ERECT REMAINING STRUCTURAL FRAMING



Starting at the opposite end of the first bay erected, install the remaining interior frames, girts, purlins, eave struts, bracing, end frames and end posts using the procedures described in the preceding steps. Be sure all wall girts, roof purlins and flange braces as shown on the erection drawings are installed. Constant checks should be made to ensure the building is square, plumb and aligned.

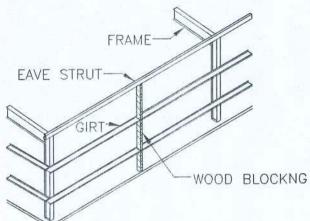
All X—Bracing should be checked that it is installed to a taut condition with all slack removed. Do not tighten beyond this state.



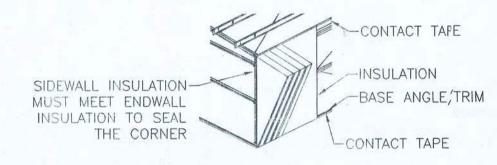
5A: Before installing wall panels, the girts must be aligned to a level position so that there is no visible sag. This should be done directly ahead of panel installation.

Girt leveling may be accomplished by standing a section of gable angle vertically against the outside girt flanges at approximate mid—bay location. When girts are level, attach the girt flanges to the angle with vise grip pliers or temporary screws. Wood blocking cut to fit the spaces may also be used for alignment.

NOTE: Temporary girt blocking is not recommended on concealed fastener panels. The removal of the blocks after panel installation can cause oil canning.

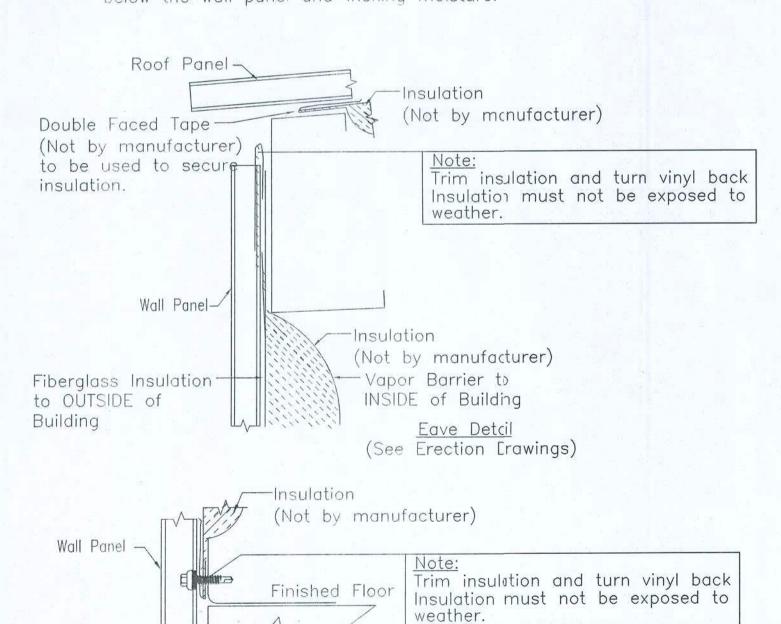


NOTE: Wall panel type and installation details will vary. Refer to the erection drawings and details for the specific panel used for your building.



5B: If walls are to be insulated, place a continuous run of contact tape along the eave strut and base member.

NOTE: At the base, cut off the insulation a minimum of 1/2" above the bottom of the wall panel. This will prevent the insulation from hanging below the wall panel and wicking moisture.



(See Erection Drawings)

Starting at a building corner, attach the first piece of blanket insulation to the contact tape on the eave strut. Pull tight and adhere to tape at the base. It is recommended that insulation not be installed more than 6 feet ahead of panels.

<u>Base Detail</u>

Erection Eguide R4

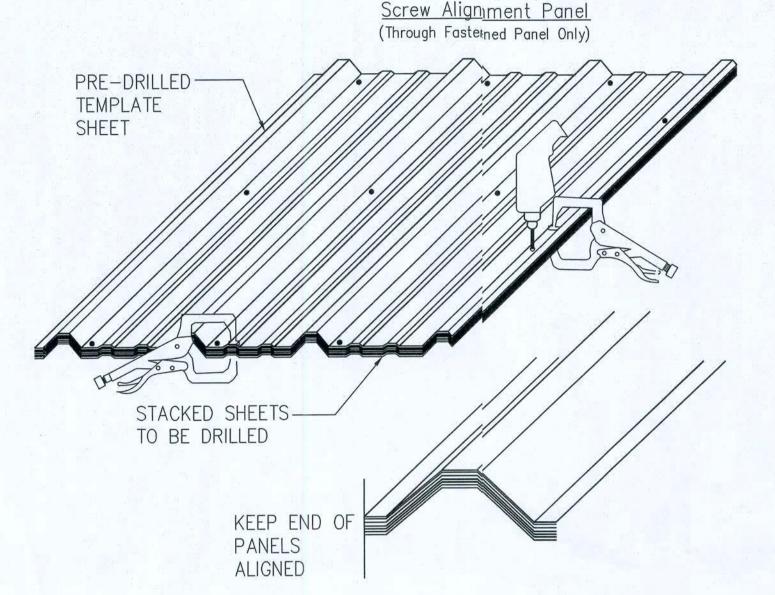
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5C: Sidewall panels should be installed so that the panel sidelap is in a direction away from the prevailing wind. (refer to appropriate lap detail included with erection drawings.)

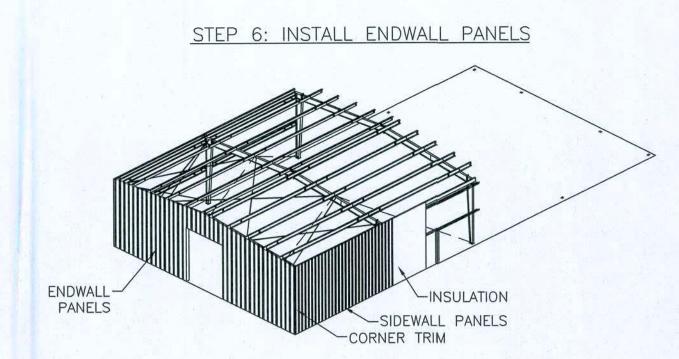
5D: Install remaining sidewall insulation and panels, being careful to maintain correct panel coverage. It is suggested that the foundation be marked in increments of panel width to allow visual checking of panel coverage as installation progresses.

NOTE: Check periodically to ensure that all panels; are aligned and plumb.

5E: At the finishing corner of a sidewall, the last panel may required additional lap or trimming for installation of corner trim refer to the details in the erection drawings.



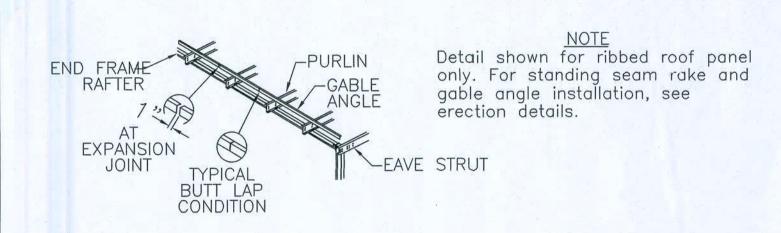
NOTE: After drilling panels, it is important to clean metal filings off all panel surfaces, including between panels that are not installed that day, to avoid rust stains.



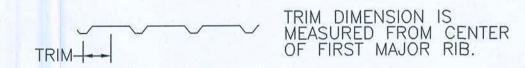
6A: Install gable angles/supports onto the ends of purlins and eave struts. This angle is to butt—up to each other or is spliced as required except at expansion joints where a one inch gap is maintained between ends of adjacent sections to allow for expansion.

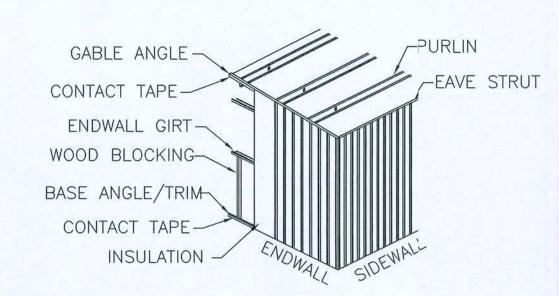
Gable angle splices may occur on or between purlins and the angle must be attached to each purlin and the eave strut.

NOTE: Wall panel type and installation details will vary. Refer to the erection drawings and details for the specific panel used for your building.



6B: See erection drawings sheeting layouts for panel starting dimensions, panel trim locations, and lap locations.





6C: Align and level girts on endwall.

6D: If the walls are to be insulated, place a continuous run of contact tape along the gable angle and base member. Starting at the corner of the endwall, attach the first piece of insulation to the contact tape on the gable angle, pull tight and adhere to tape at the base. Cut off excess insulation. It is recommended that insulation not be installed more than 6 feet ahead of panels.

NOTE: At the base cut off the insulation a minimum of 1/2 inch above the bottom of the wall panel. This will prevent the insulation from hanging below the wall panel and wicking moisture.

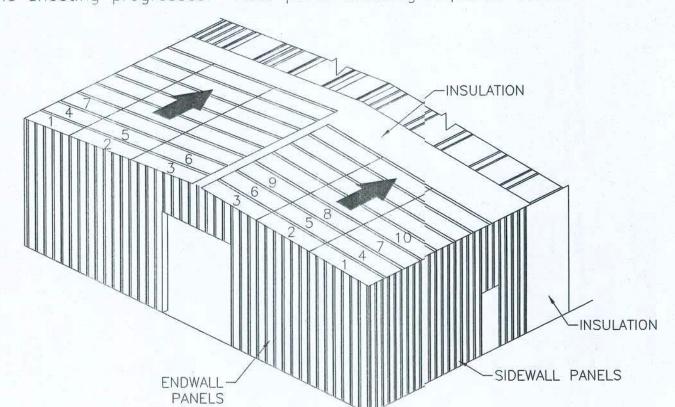
6E: Start at the corner, trim panel (if required) and set in place. Refer to corner details in the erection drawings for the panel starting distance from the corner, When the panel is located and plumb, install fasteners.

6F: Install remaining endwall insulation and panels, being careful to maintain the correct panel coverage as suggested in step 5D.

6G: Install corner trim.

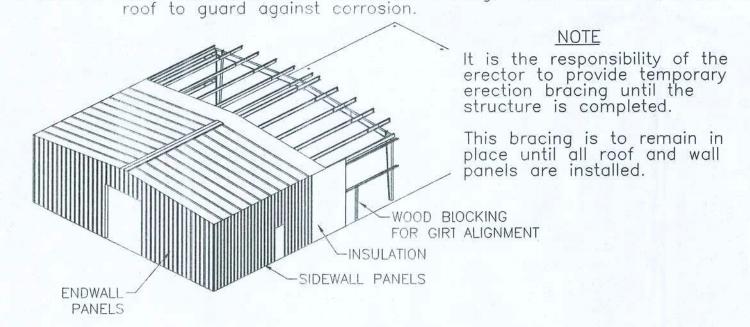
STEP 7: INSTALL ROOF PANELS

- 7A: Install eave trim over top of sidewall panels and eave struts with fasteners per erection drawings eave detail.
- 7B: If the roof is insulated, place a continuous run of contact tape along top of eave struts at both sidewalls. Lay a starter roll of blanket insulation from eave to eave across roof and secure to contact tape. (refer to packing list for width of insulation starter roll). It is recommended that insulation be installed no more than 6 feet ahead of panels.
- NOTE: For PBR roofs with a ridge panel, it is recommended that both sides of the ridge of a building be sheeted simultaneously. This will keep the insulation covered for the maximum amount of time and the panel ribs can be kept in proper alignment for the ridge panel. This is critical on the "PBR" panels so that the ridge caps can be properly installed. Check for proper coverage as the sheeting progresses. Note panel—sheeting sequence below!

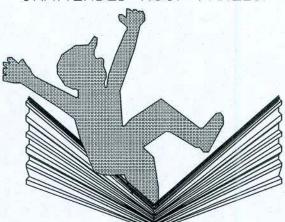


- 7C: Install the first run of roof panels across the building from eave to eave, or eave to ridge. To allow proper installation of rake trim, the starting location for the first panel must be as shown in rake details included with the erection drawings. When the first run is properly located and aligned with the correct endlaps and eave overhang, fasten to purlins. Roof panels should be installed so that the sidelap is in a direction away from the prevailing wind. Refer to appropriate lap detail.
- 7D: Install remaining roof insulation and panels. To avoid accumulative error due to panel coverage gain or loss, properly align each panel before it is fastened. Occasional checks should be made to ensure that correct panel coverage is maintained. Special attention should be given to fastener, mastic and closure requirements. Refer to details with erection crawings.
- 7E: At finishing end of roof, the last panels may require field modification for installation of rake trim. Refer to rake details. DO NOT BACK LAP THROUGH FASTENED ROOF SHEETS.
- NOTE: Roof panel types and installation requirements will vary. Refer to the appropriate details for the specific panel used.

IMPORTANT: Loose fasteners, blind rivets, drill shaving, ETC.. must be removed from



NEVER STEP ON LIGHT TRANSMITTING PANELS, TRANSLUCENT PANELS, OR UNATTENDED ROOF PANELS.



Panels May Collapse If Not Properly Secured!

Roof panels must be completely attached to the purlins and to panels on either side before they can be a safe walking surface. Light transmitting panels or translucent panels can never be considered as a walking surface.

Partially attached or unattached panels should never be walked on!

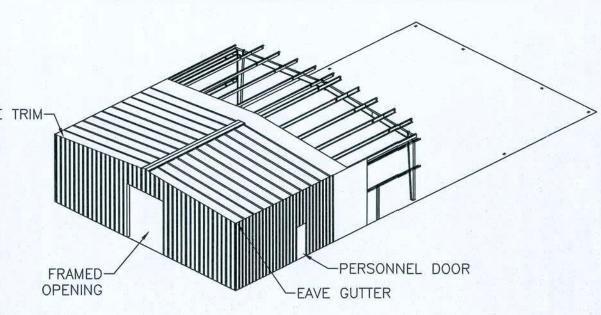
Do Not:

1. Step on rib at edge of panel.

- 2. Step near crease in rib at edge of panel.
- 3. Step within 5 feet of edge on unsecured panel.

A single roof panel must never be used as a work platform. An OSHA approved runway should be used for work platforms! (Consult OSHA Safety and Health Regulations for the Construction Industry). Safety First!

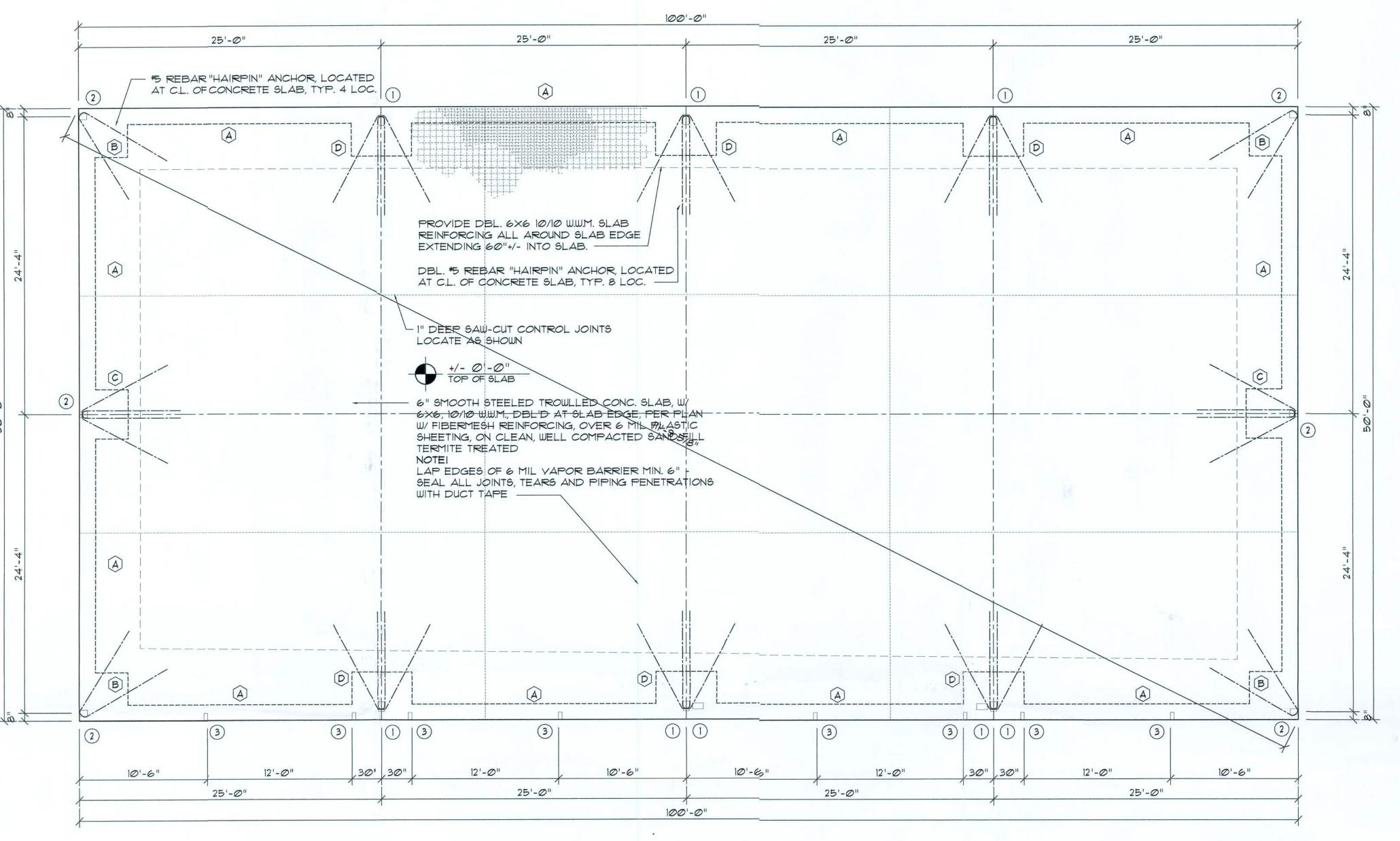
STEP 8: INSTALL TRIM AND ACCESSORIES



- 8A: Install rake trim and gable closure.
- 8B: If included with the building, install the eave gutter, corner closures and
- NOTE: Remove all loose fasteners, blind rivets, drill shavings, etc... from gutter to guard against corrosion.
- 8C: Install accessories (doors, windows, louvers, etc...) not previously installed. Refer to the appropriate details for installation instructions.

IMPORTANT:

Remove debris from roof and wall surfaces during installation and after.
Clean surface of sheeting as required to remove smudges and touch—up any minor/mild scratches with color match touch—up paint.



ANCHOR BOLT / FOUNDATION SIZING:

THE ANCHOR BOLT DIAMETERS AND DEVELOPED LENGTHS INDICATED IN THIS DRAWING WERE DETERMINED USING SHEAR FRICTION THEORY AS DESCRIBED IN AISC DESIGN GUIDE No.T, SECTION 9.2, ASSUMING AN ANCHOR BOLT MATERIAL OF ASTM A30T OR A36. THE COMBINED FORCES ACTING AT THE BASE OF THE STEEL FRAME RESULTING IN A VERTICAL REACTION ACTING UPON THE FOUNDATION WERE DEVELOPED AS FOLLOWS:

T = Td + Tsf

WHERE

T = TOTAL TENSILE FORCE PER BOLT

Td = TENSILE FORCE PER EOLT DUE TO DIRECTLY APPLIED LOAD = P/N

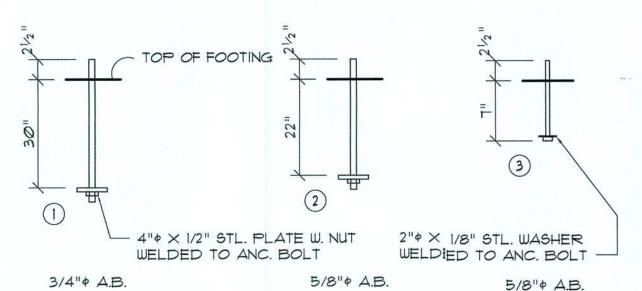
Tsf = TENSILE FORCE PER EOLT DUE TO SHEAR FRICTION = V / (n × u)

WHERE

- P = P = TOTAL UPLIFT TO BE RESISTED BY ANCHOR BOLT GROUP V = V = TOTAL SHEAR FORCE TO BE RESISTED BY ANCHOR BOLT GROUP
- n = n = NUMBER OF ANCHOR BOLTS
 u = u = COEFFICIENT OF FRICTION (TAKEN AS Ø.7 FOR UNGROUTED BASE
 PLATES OR Ø.9 FOR GROUTED BASE PLATES)

Foundation PLAN

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



NOTE! ALL ANCHOR BOLTS ARE ASTM GRADE A36 STEEL ROD, THREADED 3", OR GRADE A307,

BLACK, AND FREE FROM RUST AND SCALE

NOTE!

SCALE: 1" = 1'-0"

ALL DOOR/ENTRY OPENINGS INDICATED ARE NET SIZE; AND REQUIRE 2 *3 ANCHOR BOLTS AT EACH SIDE OF THE OPENING REFER TO METAL BUILDING SHOP DRAWINGS FOR DETAIL

Anchor Bolt DETAILS

- FOOTING SCHEDULE

 (A) 16" × 18" × CONTINUOUS, FOOTING, W/
 2 *5 REBAR, BOTTOM, CONT.,
 LAP SPLICE ALL REBAR A MINIMUM
 OF 40 BAR DIAMETERS TYPICAL
- B 48" × 48" × 28", FOOTING, W/ 5 *5 REBAR, EA. WAY, TOP & BOTTOM, CONT., BATTER SIDES OF FOOTING MIN. 15° -SEE SLAB DETAIL, BELOW
- B 48" X 48" X 30", FOOTING, W/ 5 #5 REBAR, EA. WAY, TOP & BOTTOM, CONT., BATTER SIDES OF FOOTING MIN. 15° -SEE SLAB DETAIL, BELOW
- D 48" × 60" × 34"", FOOTING, W/ 5 #5

 REBAR, TOP & BOTTOM, LONG WAY &
 1 #5 REBAR, TOP & BOTTOM, SHORT WAY

 BATTER SIDES OF FOOTING MIN. 15° SEE SLAB DETAIL, BELOW

STRUCTURAL DESIGN CRITERIA:

I. THE DESIGN COMPLIES WITH THE REQUIREMENTS OF THE 2017 FLORIDA BUILDING CODE - SECTION 1609 AND OTHER REFERENCED CODES AND SPECIFICATIONS. ALL CODES AND SPECIFICATIONS SHALL BE LATEST EDTION AT TIME OF PERMIT.

2. WIND LOAD CRITERIA: RISK CATAGORY: 2, EXPOSURE "C"

BASED ON ANSI/ASCE 7-10. 2017 FBC 1609-A WIND VELOCITY: VULT = 120 MPH

3. ROOF DESIGN LOADS:
SUPERIMPOSED DEAD LOADS: 20 PSF
SUPERIMPOSED LIVE LOADS: 20 PSF

5. WIND NET UPLIFT: ARE AS INDICATED ON PLANS

	ZONE	AREA	Yult 110 MPH	Vult 120 MPH	Yult 130 MPH	Vult 140 MPH
27°	1 1 1	10 20 50	12.0 / -19.9 11.4 / -19.4 10.0 / -18.6	14.9 / -23.7 13.6 / -23.0 11.9 / -22.2	17.5 / -27.8 16.0 / -27.0 13.9 / -26.0	20.3 / -32.3 18.5 / -31.4 16.1 / -30.2
F 7° TO	2 2 2	10 20 50	12.5 / -34.7 11.4 / -31.9 10.0 / -28.2	14.9 / -41.3 13.6 / -38.0 11.9 / -33.6	17.5 / -48.4 16.0 / -44.6 13.9 / -39.4	20.3 / -56.2 18.5 / -51.7 16.1 / -45.7
ROOF	3 3 3	10 20 50	12.5 / -51.3 11.4 /-47.9 10.0 / -43.5	14.9 / -61.0 13.6 / -57.1 11.9 / -51.8	17.5 / -71.6 16.0 / -67.0 13.9 / -60.8	20.3 / -83.1 18.5 / -77.7 16.1 / -70.5
MALL	4 4 4	10 20 50	21.8 / -23.6 20.8 / -22.6 19.5 / -21.3	25.9 / -34.7 24.7 / -26.9 23.2 / -25.4	30.4 / -33.0 29.0 / -31.6 27.2 / -29.8	35.3 / -38.2 33.7 / -36.7 31.6 / -34.6
MM	555	10 20 50	21.8 / -29.1 20.8 / -27.2 19.5 / -24.6	25.9 / -34.7 24.7 / -32.4 23.2 / -29.3	30.4 /-40.7 29.0 / -38.0 27.2 / -34.3	35.3 / -47.2 33.7 / -44.0 31.6 / -39.8

	EXPOSURE AIDING COMPON		
BLDG HEIGHT	EXPOSURE "B"	EXPOSURE "C"	EXPOSURE
15	1.00	1.21	1.47
2Ø 25	1.00	1.29	1.55
	1.00	1.35	1.61
30	1.00	1.40	1.66

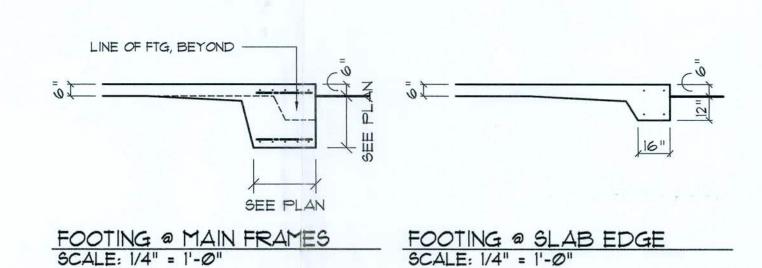
NOTE!
REFER TO THE METAL BUILDING SHOP
DRAWINGS PREPARED BY GENERAL STEEL
CORPORATION, FOR EXACT LOCATION
OF ALL EMBEDDED ANCHOR BOLTS.

NOTE!
ADDED FILL SHALL BE APPLIED IN 12" LIFTS EA. LIFT SHALL BE CONPACTED TO 98% DRY
COMPACTION PER THE "MODIFIED PROCTOR"
METHOD.

NOTE!
THE DESIGN WIND SPEED FOR THIS
PROJECT IS 120 MPH PER 2017 FBC 6th ED. 1609
AND LOCAL JURISDICTION REQUIREMENTS

NOTE!
ALL ANCHOR BOLTS ARE ASTM GRADE A36
STEEL ROD, THREADED 3 1/2", BLACK AND
FREE FROM RUST AND SCALE

NOTE!
THIS PROJECT IS TYPE 5 UNPROTECTED
CONSTRUCTION PER 2017 FBC TABLE 503
AND TABLE 600



REVISION:

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DRAWN:

DAVID SIMQUE CONSTRUCTION
LAKE CITY, FLORIDA

Celebrating 46 Years of Service 9 1972 - 2018 N.P. Geisler, Architect

MAUL SLER 1758 NW Brown Ro FCT Lake City, FL 3205 ertified 386–365–4355

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23 APR 2018

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GENERAL STRUCTURAL NOTES

GENERAL:

I. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN AND EXTENT OF THE WORK AND ARE PARTIALLY DIAGRAMMATIC.

2. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR

3. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR AND ALL THE SUBCONTRACTORS SHALL VERIFY ALL GRADES, LINES, LEVELS, DIMENSIONS AND COORDINATE EXISTING CONDITIONS AT THE JOB SITE WITH THE PLANS AND SPECIFICATIONS. THEY SHALL REPORT ANY INCONSISTENCIES OR ERRORS IN THE ABOVE TO THE ARCHITECT/ENGINEER BEFORE COMMENCING WORK. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL LAY OUT THEIR WORK FROM ESTABLISHED REFERENCE POINTS AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS IN CONNECTION WITH THEIR WORK.

4. IF ANY ERRORS OR OMISSIONS APPEAR IN THE DRAWINGS, GENERAL NOTES OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF SUCH OMISSION OR ERROR PRIOR TO PROCEEDING WITH ANY WORK WHICH APPEARS IN QUESTION. IN THE EVENT OF THE CONTRACTOR'S FAILING TO GIVE SUCH AN ADVANCED NOTICE, HE SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIONS AND THE COST OF RECTIFYING THE SAME.

5. THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS TOGETHER WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND OTHER TRADE DRAWINGS AND SHOP DRAWINGS, TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, BOLT SETTING, SLEEVES, DIMENSIONS, ETC. NOTIFY ARCHITECT/ENGINEER, IN WRITING, OF ANY POTENTIAL CONFLICTS BEFORE PROCEEDING WITH THE

ONLY AFTER THEY HAVE BEEN THOROUGHLY REVIEWED BY THE CONTRACTOR FOR CONSTRUCTION METHODS, DIMENSIONS AND OTHER TRADE REQUIREMENTS, AND STAMPED WITH THE CONTRACTOR'S APPROVAL STAMP. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ENGINEERING DESIGN BY DELEGATED ENGINEERS, ERRORS OR OMISSIONS AS A RESULT OF REVIEWING ANY SHOP DRAWINGS. ANY ERRORS OR OMISSIONS MUST BE MADE GOOD BY THE CONTRACTOR, IRRESPECTIVE OF RECEIPT, CHECKING OR REVIEW OF DRAWINGS BY THE ENGINEER AND EVEN THOUGH WORK IS DONE IN ACCORDANCE WITH SUCH DRAWINGS.

2. BEFORE STRUCTURAL INSPECTIONS CAN BE MADE ON A PORTION PRODUCT APPROVAL, MANUFACTURER'S DATA AND OTHER RELATED INFORMATION, MUST BE REVIEWED AND ACCEPTED BY THE ARCHITECT-OF-RECORD AND APPROVED BY THE BUILDING DEPARTMENT.

3. SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION SHOWN ON THE STRUCTURAL PLANS (RELATED TO THE DELEGATED DESIGN) INCLUDING ALL DESIGN LOADS, IN ADDITION TO THE INFORMATION REQUIRED BY THE

4. ARCHITECT WILL REVIEW ALL SUBMITTED SHOP DRAWINGS, PREPARED AND SIGNED AND SEALED BY THE CONTRACTOR'S DELEGATED ENGINEER, ONLY FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT, REQUIRED LOADING

5. CONTRACTOR SHALL SUBMIT TO THE ARCHITECT TWO SETS OF BLUE PRINTS OF THE STRUCTURAL SHOP DRAWINGS FOR ARCHITECT REVIEW, BE USED TO MAKE THE PRINTS REQUIRED FOR SHOP DRAWING DISTRIBUTION.

CONSTRUCTION MEANS AND METHODS:

I. THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE OR PROCEDURES, SAFETY PRECAUTIONS, SHORES, RESHORES, LATERAL NOR ASSURE LIABILITY FOR THE JOB SAFETY, TEMPORARY SHORING AND BRACING AND THE PERFORMANCE OF THE CONTRACTOR.

3. PROVIDE ALL SHORING, BRACING AND SHEETING AS REQUIRED FOR SAFETY, STRUCTURAL STABILITY AND FOR THE PROPER EXECUTION OF THE WORK. REMOVE WHEN WORK IS COMPLETED.

4. PROVIDE AND MAINTAIN GUARD LIGHTS AT ALL BARRICADES, RAILINGS, OBSTRUCTIONS IN THE STREETS, ROADS OR SIDEWALKS AND ALL TRENCHE'S OR PITS ADJACENT TO PUBLIC WALKS OR ROADS.

5. AT ALL TIMES, PROVIDE PROTECTION AGAINST WEATHER (RAIN, WIND, STORMS OR THE SUN), SO AS TO MAINTAIN ALL WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE.

6. AT THE END OF THE DAYS WORK, COVER ALL WORK LIKELY TO BE DAMAGED. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S

7. THE CONTRACTOR SHALL PAY FOR ALL DAMAGES TO ADJACENT STRUCTURES, SIDEWALKS AND TO STREETS OR OTHER PUBLIC PROPERTY OR PUBLIC UTILITIES.

THEY ARE NOT INTENDED TO BE SCALED FOR ROUGH-IN MEASUREMENTS, OR TO SERVE AS SHOP DRAWINGS OR PORTIONS THEREOF.

SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL

SHOP DRAWINGS AND DELEGATED ENGINEERING:

I. ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR ARCHITECT'S REVIEW

OF THE STRUCTURE, ALL RELATED SHOP DRAWINGS, DELEGATED ENGINEERING,

DELEGATED ENGINEER'S DESIGN.

AND COORDINATION WITH THE STRUCTURAL DESIGN.

BEFORE STARTING FABRICATION. THE ARCHITECT WILL RETURN ONE MARKED UP AND STAMPED COPY TO THE CONTRACTOR. THE MARKED-UP COPY SHALL

BRACING AND PROGRAMS IN CONNECTION WITH THE PROJECT, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OUR SERVICES DO NOT GUARANTEE

2. THE CONTRACTOR IS RESPONSIBLE AND SHALL COMPLY WITH THE SAFETY REQUIREMENTS OF THE 2010 FLORIDA BUILDING CODE AND APPLICABLE LOCAL, STATE AND FEDERAL LAWS.

FOUNDATIONS: (SPREAD FOOTINGS)

I. FOUNDATIONS ARE DESIGNED TO BEAR ON WELL COMPACTED GRADE OR CLEAN FILL OF AN ALLOWABLE BEARING CAPACITY OF 1,000 PSF MINMUM. FOR REQUIRED SOIL BEARING CAPASITIES GREATER THAN 1,000 PSF, A CERTIFIED TESTING LABORATORY SHALL BE ENGAGED BY THE OWNER TO VERIFY THAT THE REQUIRED BEARING CAPACITY WAS OBTAINED. SAID SOIL CAPACITY SHALL BE CERTIFIED AND TESTED BY A FLORIDA REGISTERED FOUNDATION ENGINEER, PRIOR TO CASTING OF CONCRETE IN THE FOOTINGS.

2. NATURAL GRADE (OR FILL) BELOW FOOTINGS SHALL BE COMPACTED TO 98 % MODIFIED PROCTOR (ASTM D-1557).

3. TOP OF WALL FOOTINGS TO BE AT THE SAME ELEVATION AS TOO OF COLUMN PAD FOOTINGS. STEP WALL FOOTING FROM HIGHER COLUMN FOOTING TO THE LOWER ONE (AS DETAILED ON THE PLANS).

4. BOTTOM OF ALL FOOTINGS TO BE A MINIMUM 1'-6" BELOW THE TOP OF CONCRETE SLAB ON GRADE (UNLESS OTHERWISE NOTED) OR MINIMUM 1'-0" BELOW FINISHED GRADE, WHICHEVER IS LOWER. IN THE EVENT THAT THE SLAB STEPS ON EACH SIDE OF THE FOOTING, THE FOOTING SHALL BE 1'-6" BELOW TOP OF THE LOWER SLAB.

5. REINFORCING IN THE CONTINUOUS WALL FOOTINGS (MONOLITHIC SHALL EXTEND CONTINUOUSLY THRU ALL FOOTING PADS.

6. ALL LONGITUDINAL REBARS IN THE CONTINUOUS WALL FOOTINGS, SHALL BE CONTINUED AT BENTS AND CORNERS BY BENDING THE REEARS 48 BAR DIAMETERS AROUND THE CORNERS OR ADDING MATCHING CORNER BARS,

7. ALL FOOTINGS SHALL BE 12" MINIMUM THICKNESS.

8. WHEN GEO-TECHNICAL REPORTS ARE PROVIDED, ALL RECOMENDATIONS OF THE SOILS ENGINEER SHALL BE FOLLOWED AND THE DESIGN SOIL BEARING PRESSURE SHALL BE AS RECOMMENDED IN SUCH REPORTS, AND SUPERCEEDS PRESSURES INDICATED HEREIN.

CONCRETE SLABS ON GRADE:

I. ALL INTERIOR AND EXTERIOR SLABS AND WALKWAYS AS SHOWN ON THE STRUCTURAL OR ARCHITECTURAL PLANS, SHALL BE FOUR INCHES THICK MINIMUM REINFORCED WITH 6 X 6 - WI.4 X WI.4 WELDED WIRE FABRIC

2. ALL SLABS ON GRADE TO BE CONSTRUCTED IN ACCORDANCE WITH LATEST A.C.I - "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (A.C.I.

3. JOINTS SHALL BE PROVIDED IN ALL INTERIOR SLABS ON GRADE AT LOC. INDICATED ON THE PLANS DIVIDING THE SLAB INTO SQUARE PANELS NOT TO EXCEED 20 X 20 FT. IN SIZE. CAST SLAB IN LONG ALTERNATE STRPS. PROVIDE A CONTRACTION JOINT BETWEEN EACH STRIP. SEE PLAN FOR SAW-CUT, CONTRACTION AND ISOLATION JOINT DETAILS.

4. PROVIDE SAW-CUT JOINTS AT ALL SIDEWALKS AT A MAXIMUM SPACING OF FIVE FEET ON CENTERS AND ISOLATION JOINTS AT 20 FEET O.C.

3. ALL CONCRETE TO BE REGULAR WEIGHT WITH A DESIGN STRENGTH OF 3,000 P.S.I. AT 28 DAYS. MAXIMUM SLUMP 5".

4. ALL REINFORCING TO BE NEW BILLET STEEL CONFORMING TO THE LATEST A.S.T.M. A-615 GRADE 60, FABRICATED IN ACCORDANCE WITH C.R.S.I. MANUAL OF STANDARD PRACTICE AND PLACED IN ACCORDANCE WITH A.C.I. 315 AND C.R.S.I. MANUAL OF STANDARD PRACTICE.

FOOTINGS:

SLABS ON GRADE:

6. BEAM REINFORCEMENT: LAPPED 36 BAR DIAMETER OR MINIMUN 18 INCHES. BOTTOM BARS SPLICED ONLY AT SUPPORTS, TOP BARS SPLICED ONLY AT MID-SPAN. ALL TOP BARS HOOKED AT NONCONTINUOUS EDGES (U.O.N.). ALL HOOKS TO BE STANDARD 90 DEGREE HOOKS AS REQUIRED

7. ADDED REINFORCEMENT: PROVIDE ADDITIONAL CORNER BARS BENT 36 INCHES MINIMUM EACH WAY AT "L" AND "T" CORNERS IN CUTER FACES OF ALL BEAMS TO MATCH ALL HORIZONTAL BAR (TOP, BOTTOM AND INTERMEDIATE REBARS).

8. SEE PLAN FOR MINIMUM SIZE CONCRETE TIE BEAM REQUIREMENTS.

AND NON-MONOLITHIC) SHALL BE SPLICED 40 BAR DIAMETERS MINIMUM AND

EXTENDING 48 BAR-DIAMETERS INTO FOOTING EACH SIDE OF CORNER OR BENT.

(UNLESS OTHERWISE NOTED).

5. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12" AND COMPACTED TO 98 % MODIFIED PROCTOR (ASTM D-1557) WITHIN A DISTANCE OF 3 FEET BEYOND ALL FOOTING EDGES. TAKE AT LEAST ONE DENSITY TEST FOR EACH 1,600 SQ.FT. OF AREA AND 12" BELOW SURFACE. SEND RESULTS OF THE TEST TO OWNER, ARCHITECT AND ENGINEER.

CONCRETE AND REINFORCING:

1. CONCRETE DESIGN AND REINFORCEMENT IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (A.C.I. 318 -LATEST EDITION) AND WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" - (A.C.I. 315 - LATEST EDITION).

2. ALL CONCRETE WORK IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING" (A.C.I. 301 - LATEST EDITION). PRODUCTION OF CONCRETE, DELIVERY, PLACING AND CURING TO BE IN ACCORDANCE WITH "HOT WEATHER CONCRETING" (A.C.I. 305R - LATEST EDITION).

5. CONCRETE COVER UNLESS OTHERWISE DETAILED ON DRAWINGS

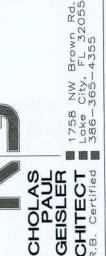
(TOP \$ SIDES) 2" CENTERED W/SLAB

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REVISION:

DRAWN:





DATE: 23 APR 2018

COMM: 2K1827

SHEET:

