Town of Mesilla, New Mexico

THE PLANNING, ZONING AND HISTORICAL APPROPRIATENESS COMMISSION (PZHAC) WILL HOLD A REGULAR MEETING AT THE MESILLA TOWN HALL, 2231 AVENIDA DE MESILLA.

MONDAY, APRIL 4, 2022, AT 2:30 P.M

AGENDA

1. **PLEDGE OF ALLEGIANCE**
2. **ROLL CALL AND DETERMINATION OF A QUORUM**
3. **CHANGES / APPROVAL OF AGENDA**
4. **PUBLIC INPUT**

   The public is invited to address the commission for up to 3 minutes. You can also email your comments to joep@mesillanm.gov at least twenty-four (24) hours prior to the meeting.
5. **APPROVAL OF CONSENT AGENDA**

   Note: Items on the Consent Agenda, indicated by an asterisk (*), will be voted on with one motion unless a commissioner requests that a specific item be removed for discussion.

   a. ***PZHAC MINUTES:** March 21, 2022, Regular Minutes
6. **NEW BUSINESS**

   a. **PZHAC Case #061363** - Raley Acres Replat of Lot 2 (BK 23 PG 135-136 - 1034492), submitted by Leopoldo Quintana to build a premanufactured metal building on said property, **Zoned: Rural Farm (RF).**

   b. **PZHAC Case #061364** – 2043 Calle De Correo, submitted by Alison Tinsley to install a residential rooftop solar system, **Zoned: Historic Residential (HR).**

   c. **PZHAC Case #061365** – 3260 Hwy 28, submitted by Roman Prieto to install a solar panel structure. **Zoned: Residential Agriculture (RA)**

   d. **PZHAC Case #061368**- 2305 Calle De Colon, submitted by Gerard Nevarez to coat exterior of house with elastomeric and clear coat wood on gate, no changes in colors. **Zoned Historic Residential (HR)**

   e. **PZHAC Case #061370** – 2795 Calle De Sur, submitted by DJ Walker Construction (Jill Kerr New property owner) to remove existing roofing, inspect and replace decking as needed. Install new single ply membrane to manufactures specifications. **Zoned: Residential Agriculture (RA)**

   f. **PZHAC Case #061371** – 331 Capri Arc submitted by Frances Williams to install a ground mounted solar system. **Zoned: Historic Residential (HR)**

   g. **Discussion** – Pappas-Williamson Summary Subdivision a Replat of U.S.R.S. Tract 11A-199 & 11A-198A within the Town of Mesilla, Doña Ana County, N.M. in Section 25, T.23S R.IE of U.S.R.S. Surveys (2532 Calle De Norte)
7. **COMMISSIONERS / STAFF COMMENTS**
8. **ADJOURNMENT**

NOTICE

If you need an accommodation for a disability to enable you to fully participate in the hearing or meeting, please contact us at 524-3262 at least 48 hours prior to the meeting.

Posted on 4/1/2022 at the following locations: Town Hall - 2231 Avenida de Mesilla; Public Safety Building - 2670 Calle de Parian; Mesilla Community Center - 2251 Calle de Santiago; Shorty's Food Mart - 2290 Avenida de Mesilla; Ristramnn - 2531 Avenida de Mesilla, and the U.S. Post Office - 2253 Calle de Parian.

Town of Mesilla, New Mexico

THE PLANNING, ZONING AND
HISTORICAL APPROPRIATENESS COMMISSION (PZHAC)
MONDAY, MARCH 21, 2022, 2:30 PM

MINUTES

1. PLEDGE OF ALLEGIANCE

Chair Yolanda Lucero led the Pledge of Allegiance.

2. ROLL CALL AND DETERMINATION OF QUORUM

Commissioners Lucero, Daniel Jones, Eric Walkinshaw, Davie Salas, and Gerard Nevarez were present. Community Development Coordinator Joe Padilla declared a quorum.

3. CHANGES/APPROVAL OF THE AGENDA

Motion to approve agenda was made by Commissioner Jones and seconded by Commissioner Walkinshaw.

Roll Call Vote:
Commissioner Jones - Yes
Commissioner Walkinshaw - Yes
Commissioner Lucero - Yes
Commissioner Salas - Yes
Commissioner Nevarez - Yes

Motion passed.

4. PUBLIC INPUT

None

5. APPROVAL OF CONSENT AGENDA

a. **PZHAC MINUTES:** March 7, 2022, Regular Minutes

Motion to approve the Consent Agenda was made by Commissioner Jones and seconded by Commissioner Nevarez

Roll Call Vote:
Commissioner Jones - Yes

Commissioner Walkinshaw - Yes
Commissioner Lucero - Yes
Commissioner Salas - Yes
Commissioner Nevarez - Yes

Motion passed.

6. NEW BUSINESS

a. PZHAC CASE #061102 – 2785 Bolt submitted by Mr. Steven Sypher. Renewal of permit for an ongoing project to complete the structure. **Zoned: Historic Residential (HR)**

Motion to approve was presented by Commissioner Jones and seconded by Commissioner Nevarez.

Staff presented facts of the case. Discussion followed. Mr. Maese from CID was present to answer questions.

Commissioner Narvaez moved to amend the motion by requiring the color of the stucco be added to the application and meets Code standards.

Discussion followed.

Roll Call Vote:
Commissioner Jones - Yes
Commissioner Walkinshaw – Yes
Commissioner Lucero - Yes
Commissioner Salas - Yes
Commissioner Nevarez - Yes

Motion passed.

Motion by Commissioner Nevarez to approve with the amendment of requiring the color of the stucco be added to the application and meets Code standards.

Roll Call Vote:
Commissioner Jones - Yes
Commissioner Walkinshaw - Yes
Commissioner Lucero - Yes
Commissioner Salas - Yes
Commissioner Nevarez - Yes

Motion passed.

b. PZHAC CASE #061355 – 2481 Calle de Cura submitted by Mrs. Soltero to replace the windows in the front of her home. **Zoned: Historical Residential (HR)**

Motion to approve was presented by Commissioner Jones and seconded by Commissioner Salas.

Staff presented facts of the case. Discussion followed.

Roll Call Vote:
Commissioner Jones - Yes
Commissioner Walkinshaw - Yes
Commissioner Lucero - Yes
Commissioner Salas - Yes
Commissioner Nevarez - Yes

Motion passed.

c. **PZHAC CASE #061357** – 2939 Estrada Road submitted by Mr. Gallegos to install a fence on his property. The fence material will be wooden post and horse wiring. **Zoned: Residential Agricultural (RA)**

Motion to approve was presented by Commissioner Nevarez and seconded by Commissioner Salas.

Staff presented the facts of the case. Discussion followed.

Commissioner Narvaez moved to amend the motion by requiring that the right of entry on both properties be added to the application and meets Code standards.

Roll Call Vote:
Commissioner Jones - Yes
Commissioner Walkinshaw - Yes
Commissioner Lucero - Yes with condition
Commissioner Salas - Yes with condition
Commissioner Nevarez - Yes with condition

Motion passed.

Motion by Commissioner Nevarez to approve with the amendment of requiring that the right of entry on both properties be added to the application and meets Code standards.

Roll Call Vote:
Commissioner Jones - Yes
Commissioner Walkinshaw - Yes
Commissioner Lucero - Yes
Commissioner Salas - Yes
Commissioner Nevarez - Yes

Motion passed.

d. **PZHAC CASE #061360** – 2100 Stithes Road submitted by Mr. Adrian Aguirre to build a metal garage with concrete foundation, additional concrete pad and remove the existing carport. **Zone: Residential Agriculture (RA)**

Motion to approve was presented by Commissioner Jones and seconded by Commissioner Salas.

Staff presented the facts of the case. Discussion followed.
Motion passed, Vote 5-0.

7. COMMISSON/STAFF COMMENTS

Commissioner Nevarez thanked Community Dev. Coordinator Padilla for preparing the packets which are very useful.

Community Dev. Coordinator Padilla acknowledged the help and support of Clerk/Treasurer Bush in refining the agenda and the minutes.

8. ADJOURNMENT

Meeting adjourned at 3:05 p.m.

APPROVED THIS 4th DAY OF APRIL 2022.

_____

Yolanda Lucero
Chair

ATTEST:

_____

Joe Padilla
Community Development Coordinator

BOARD ACTION FORM

AGENDA DATE
PZHAC: April 04, 2022, **BOT:**

ITEM: PZHAC **Case #061363** – Raley Acres Replat of Lot 2 (BK 23 PG 135-136 - 1034492) Stanford Ave., submitted by Leopoldo Quintana to build a premanufactured metal building on said property, **Zoned: Rural Farm (RF).**

BACKGROUND AND ANALYSIS: This case was not reviewed by the Architectural Styles Committee (ASC) it is in the Rural Farm (RF).

Mr. Leopoldo Quintana purposes to build premanufactured metal building

IMPACT:

- The PZHAC has jurisdiction to recommend approval of the applicant's request for approval of this request to the BOT.
- The applicant has the authority to make an application request to the PZHAC and BOT.
- Due process was provided to the applicant.

Specific findings of fact:

- The proposed work is on applicant's property and not in Town of Mesilla right-of-way.

ALTERNATIVES:

The Planning, Zoning and Historical Appropriateness Commission (PZHAC) may:

1. Recommend approval of this case with findings stated above.
2. Recommend approval of this case with findings stated above and conditions.
3. Deny the application.

DEPARTMENT RECOMMENDATIONS:

SUPPORTING INFORMATION:

- Application
- Plans

OFFICIAL USE ONLY:
Case # 061363
Fee $ 915.50

Fee $1500
Review $100.50

TOWN OF MESILLA
ZONING APPROVAL

PERMISSION TO CONDUCT WORK
OR
OBTAIN A COMMERCIAL/RESIDENTIAL BUILDING PERMIT FROM CID

2231 Avenida de Mesilla, P.O. Box 10, Mesilla, NM 88046 (575) 524-3262 ext. 104

CASE NO._____ ZONE: RF CODE: RE APPLICATION DATE:_____

Leopoldo Quintana — Name of Property Owner
575-556-4424 — Property Owner's Telephone Number
1103 Juniper Ave — Property Owner's Mailing Address
Las Cruces — City
NM — State
88001 — Zip Code
Leo890254@Gmail.com — Property Owner's E-mail Address
Carlos Gonzalez — Contractor's Name & Address (If none, indicate Self)
575-317-5793 — Contractor's Telephone Number
_____ — Contractor's Tax ID Number
_____ — Contractor's License Number

Address of Proposed Work: Rojey Acres Replat of Lot 2 (BK 23 PG 135-136 - 103492)

Description of Proposed Work: ~~Horse Barn~~ Remanufactured Metal Building

$ 100,000 — Estimated Cost
Signature of Applicant
3-14-22 — Date

Signature of property owner: _____

With the exception of administrative approvals, all permit requests must undergo a review process from staff, PZHAC and/or BOT before issuance of a zoning permit. **Plan sheets are to be no larger than 11 x 17 inches or shall be submitted electronically.**

FOR OFFICIAL USE ONLY

PZHAC
- ☐ Administrative Approval
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with conditions

BOT
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with Conditions

PZHAC APPROVAL REQUIRED: ___ YES ___ NO BOT APPROVAL REQUIRED: ___ YES ___ NO

CID PERMIT/INSPECTION REQUIRED: ___ YES ___ NO ___ SEE CONDITIONS

CONDITIONS: _____

PERMISSION ISSUED/DENIED BY: _____ ISSUE DATE: _____

THIS APPLICATION SHALL INCLUDE ALL OF THE FOLLOWING:

1. ____ Plot plan with legal description to show existing structures, adjoining streets, driveway(s), improvements & setbacks. Verification shall show that the lot was **LEGALLY** subdivided through the Town of Mesilla or that the lot has been in existence prior to February 1972.
2. ____ Site Plan with dimensions and details.
3. ____ Foundation plan with details.
4. ____ Floor plan showing rooms, their uses and dimensions.
5. ____ Cross section of walls
6. ____ Roof and floor framing plan
8. ____ Proof of legal access to the property.
9. ____ Drainage plan.
10. ____ Details of architectural style and color scheme (checklist included for Historical zones) – diagrams and elevations.
11. ____ Proof of sewer service or a copy of septic tank permit; proof of water service (well permit or statement from the Public Utility providing water services).
12. ____ Proof of legal access to the property.
13. ____ Other information as necessary or required by the City Code or Community Development Department (See other side.)

The following are requirements to be included with all building permit applications for new structures or additions to existing structures, as well as other construction or fixtures that will be permanent in nature and affect the appearance or use of the property. (This includes fences, well houses, storage units, metal sheds, photo-voltaic panels that can be seen from the ground, etc.)

BUILDING PERMIT REQUIREMENTS

A. Completed application, including:
   1. Applicant's name
   2. Applicant/property owners contact information
   3. Physical address of property
   4. Description of work to be done, including dimensions of any construction or repairs
   5. Value of work to be done
   6. Property owner's signature on the application

B. Include all information required in the checklist at the bottom of the application.

C. Additional information required:

_____

_____

_____

_____

Stanford St.

Layer Visibility:

- [x] Roads
- [ ] City Limits
- [ ] MLS Zones
- [ ] Address Labels
- [x] 2014 Aerial Photo
- [x] Parcels

ACCOUNTNUMBER:	R0400805	PARCELNUMBER:	4007137260243
OWNERNAME:	QUINTANA LEOPOLDO A	MAILADDR1:	1103 JUNIPER AVE
CITY:	LAS CRUCES	STATE:	NM
ZIP:	88001	LOT:	2A
BLOCK:		SUBNAME:	RALEY ACRES REPLAT OF LOT 2 (BK 23 PG 135-136 - 1034492)
TRS:	23S 2E 30	SITUSADDRS:	STANDFORD ST
TOTALACRES:	5		

METAL DEPOTS
YOUR METAL CONSTRUCTION SOLUTION
A Cornerstone Building Brands Company

June 30, 2020

DIVERGENT SOLUTIONS
5450 SOUTH CABALLO ROAD
TUCSON, AZ 85746

17-B-68454
DIVERGENT SOLUTIONS
5450 SOUTH CABALLO ROAD
TUCSON, AZ 85746

40'-0" x 60'-0" x 15'-6"

To Whom It May Concern:

This is to certify that materials for the subject structure have been designed in accordance with the order documents, specifically as shown per the attached Engineering Design Criteria Sheet.

Aspects of code compliance as related to use or occupancy, such as sprinkler requirements, are not addressed by these documents.

These materials, when properly erected on an adequate foundation in accordance with the erection drawings as supplied and using the components as furnished, will meet the attached loading requirements.

This certification does not cover field modifications or the design of materials not furnished by Metal Depots.

The attached design criteria information is to remain with and form part of this Letter of Certification.

The calculations and the metal building they represent are the product of Metal Depots or a division of its affiliate Cornerstone Building Brands. The engineer whose seal appears hereon is employed by either Metal Depots or a division of its affiliate Cornerstone Building Brands and is not the engineer of record for this project.

Cordially,

Metal Depots
Materials for Metal Buildings
A Cornerstone Building Brands Company

Jay S. Surmieda, P.E.
Design Engineer

Expires 6/30/2021

This document has been digitally signed.

METAL DEPOTS
YOUR METAL CONSTRUCTION SOLUTION
A Cornerstone Building Brands Company

Building Code ..... IBC 15
Risk Category..... II - Normal

Roof Dead Load
Superimposed.....2.000 psf
Collateral.....0.5 psf (Total)
(0.00 psf Ceiling, 0.5 psf Other)
Roof Live Load..... 20.00 psf Yes reduction
Snow
Ground Snow Load (Pg)..... 5.00 psf
Snow Load Importance Factor (Is) 1.00
Snow Exposure Factor (Ce)..... 1.00
Thermal Factor (Ct)..... 1.00
Flat Roof Snow Load (Pf)..... 3.5 psf
Minimum Roof Snow Load (Pm)..... 5.00 psf
Wind
Ultimate Wind Speed (Vult)..... 115 mph
Nominal Wind Speed (Vasd)..... 89 mph (IBC Section 1609.3.1)
Serviceability Wind Speed ..... 76 mph
Wind Exposure Category ..... B
Internal Pressure Coef (GCpi) 0.18/-0.18
Loads for components not provided by building manufacturer
Wall Edge Zones 23.77 psf pressure -31.77 psf suction
Other Wall Zones 23.77 psf pressure -25.78 psf suction
These values are the maximum values required based on a 10 sq ft area.
Components with larger areas may have lower wind loads.
Seismic
Seismic Importance Factor (Ie) 1.00
Seismic Design Category..... B
Soil Site Class..... D
Ss..... 0.272 g Sds ..... 0.287 g
S1..... 0.077 g Sd1 ..... 0.123 g
Analysis Procedure..... Equivalent Lateral Force

Location...Int RF	Front SW	Back SW	Left EW	Right EW
System..... H	H	H	H	H
R..... 3	3	3	3	3
Cs..... 0.096	0.096	0.096	0.096	0.096

Design Base Shear in kips (V) Transverse 1.34 Longitudinal 1.35
Basic Structural System (from ASCE 7-10 Table 12.2-1)
System - Basic Force Resisting System
H - Steel System not Specifically Detailed for Seismic Resistance
C4 - Steel Ordinary Moment Frames
B3 - Steel Ordinary Concentric Braced Frames
G2 - Cantilevered Column System
R - Response Modification Coefficient
Cs - Seismic Response Coefficient

RALEY ACRES REPLAT OF LOT 2

BEING A REPLAT OF LOT 2, RALEY ACRES
FILED MARCH 25, 2002, IN BOOK 20, PAGES 37–38
DONA ANA COUNTY RECORDS,
ALSO BEING U.S.R.S. TRACTS 11D-6A1A2,
11D-6A1A3, 11D-6A1A4 AND 11D-6B
TOWN OF MESILLA, DONA ANA COUNTY, NEW MEXICO
SCALE:1"=100' FEBRUARY, 2007

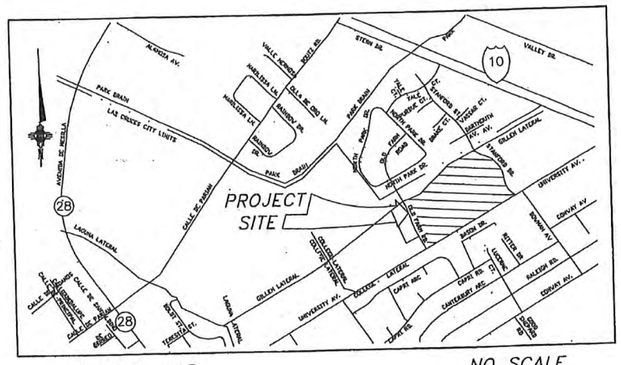
24.520 ACRES TOTAL

DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT THE FOREGOING TRACT OF LAND AND REAL ESTATE SITUATE WITHIN THE LIMITS OF THE TOWN OF MESILLA, DONA ANA COUNTY, NEW MEXICO, BEING A REPLAT OF LOT 2, RALEY ACRES, FILED MARCH 25, 2002, IN BOOK 20, PAGES 37–38, DONA ANA COUNTY RECORDS; ALSO BEING U.S.R.S. TRACTS 11D-6A1A2, 11D-6A1A3, 11D-6A1A4 AND 11D-6B;

AS THE SAME APPEARS ON THIS PLAT TO WHICH THIS DEDICATION IS ATTACHED AND MADE A PART HEREOF, AND THE PLAT HAS BEEN SUBMITTED TO AND CHECKED BY THE PLANING COMMISSION OF THE TOWN OF MESILLA, AS BY THE STATUTE PROVIDED FOR AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS. THE STREETS, ALLEYS PUBLIC WAYS, PARKS, AND OTHER PUBLIC PROPERTY AS SHOWN HEREON ARE DEDICATED TO THE PUBLIC FOR ITS USE FOREVER.

ELECTRIC, TELEPHONE, GAS, WATER, SANITARY AND STORM SEWER, CABLE TELEVISION FACILITIES AND OTHER FRANCHISED PUBLIC UTILITIES WILL BE INSTALLED UNDERGROUND OR OVERHEAD IN OR ALONG STREETS, ALLEYS, UTILITY EASEMENTS, PUBLIC AREAS AND IN LOT OWNER'S FACILITIES. ALL INSTALLATIONS SHALL CONFORM WITH THE NATIONAL ELECTRIC SAFETY CODE AND OTHER APPLICABLE LOCAL CODES IN EFFECT. THE UTILITY EASEMENTS, AS SHOWN HEREON, ARE GRANTED FOR UNDERGROUND PIPELINES, OVERHEAD AND UNDERGROUND CABLES, POLES, ANCHORS, CONDUCTORS, CONDUITS, TRANSFORMER INSTALLATIONS, INCLUDING PADMOUNT AND CONVENTIONAL PULLBOXES, MANHOLES, SERVICE FACILITIES AND ALL OTHER NECESSARY EQUIPMENT FOR UNDERGROUND OR AERIAL DISTRIBUTION SYSTEMS, TOGETHER WITH THE OVERHANG OF SERVICE WIRES, AND WITH THE RIGHT OF INGRESS AND EGRESS THERETO FOR THE INSTALLATION, OPERATION, INSPECTION, REPAIR, MAINTENANCE REPLACEMENT, RENEWAL AND REMOVAL THEREOF, AND ALSO THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS. BUILDINGS AND STRUCTURES OF A PERMANENT NATURE, EXCEPT FENCES, BOUNDARY WALLS, WALKWAYS, AND ROADWAYS WILL BE PROHIBITED FROM BEING BUILT ON OR OVER ANY EASEMENT. EXCEPTIONS TO THE ABOVE MUST BE OBTAINED FROM ALL THE AFFECTED UTILITY COMPANIES. THE REPLAT HEREON SHOWN IS TO BE KNOWN AS RALEY ACRES REPLAT OF LOT 2.



VICINITY MAP

NO SCALE

CV 2009–2789

INSTRUMENT OF OWNERSHIP: AS FILED JANUARY 18, 2005
IN DEED BOOK 580 PAGE(S) 821–822, DONA ANA COUNTY RECORDS.
I, THE UNDERSIGNED OWNER, HEREBY SET MY HAND AND SEAL
THIS 10th DAY OF October 2010.

GARY L. SANDLER
1006 CRAIG COURT
LAS CRUCES NM 88001

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME
THIS 10th DAY OF October 2010.
BY:
MY COMMISSION EXPIRES 1-15-13
Karen E. Wootton
NOTARY PUBLIC SEAL

OFFICIAL SEAL
KAREN E. WOOTTON
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 1-15-13

INSTRUMENT OF OWNERSHIP: AS FILED JULY 8, 2002
IN DEED BOOK 348 PAGE(S) 536–537, DONA ANA COUNTY RECORDS.
I, THE UNDERSIGNED OWNER, HEREBY SET MY HAND AND SEAL
THIS 10th DAY OF October 2010.
Leticia P. Segovia
ANDY SEGOVIA LETICIA P. SEGOVIA
6719 VISTA DEL RANCHO
NE, ALBUQUERQUE NM 87113

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME
THIS 10th DAY OF October 2010.
BY:
MY COMMISSION. EXPIRES 1-16-13
Karen E. Wootton
NOTARY PUBLIC SEAL

OFFICIAL SEAL
KAREN E. WOOTTON
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 1-15-13

INSTRUMENT OF OWNERSHIP: AS FILED APRIL 19, 2001
IN DEED BOOK 264 PAGE(S) 876–878, DONA ANA COUNTY RECORDS.
I, THE UNDERSIGNED OWNER, HEREBY SET MY HAND AND SEAL
THIS 9 DAY OF September 2010.
Myrtle Raley by Geraldine E Bustos
MYRTLE RALEY

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME
THIS 9th DAY OF September 2010.
BY: Geraldine E. Bustos
MY COMMISSION EXPIRES 1-20-13
Cynthia M Lopez
NOTARY PUBLIC

OFFICIAL SEAL
CYNTHIA M. LOPEZ
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 1-20-13

INSTRUMENT OF OWNERSHIP: AS FILED JULY 11, 1990
IN DEED BOOK 342 PAGE(S) 614–615, DONA ANA COUNTY RECORDS.
I, THE UNDERSIGNED OWNER, HEREBY SET MY HAND AND SEAL
THIS 2 DAY OF Sept 2010.
Pauline Bustos
PAULINE BUSTOS
P.O. BOX 226
MESILLA PARK, NM 88047

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME
THIS 2nd DAY OF September 2010.
BY: Pauline Bustos
MY COMMISSION EXPIRES 1-20-13
Cynthia M Lopez
NOTARY PUBLIC

OFFICIAL SEAL
CYNTHIA M. LOPEZ
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 1-20-13

Karen E. Wootton
KAREN WOOTTON: AS SPECIAL MASTERS

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME
THIS 12th DAY OF OCTOBER 2010.
BY:
MY COMMISSION EXPIRES 06/13/12
NOTARY PUBLIC SEAL

OFFICIAL SEAL
DANIEL D. JAMES
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 06/13/12

STATE OF NEW MEXICO}
COUNTY OF DONA ANA } PLAT NO. 5022 RECEPTION NO. 34492

I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD THE 13 DAY OF December, 2010 AT 3:37 O'CLOCK AND DULY RECORDED IN PLAT BOOK NO. 23, PAGES 135-136 AND FILED IN THE RECORDS OF COUNTY CLERK, DONA ANA COUNTY, NEW MEXICO THIS 13 DAY OF December, 2010.

COUNTY CLERK (SEAL)

STATE OF NEW MEXICO COUNTY CLERK DONA ANA COUNTY

UTILITY APPROVAL

EASEMENTS SHOWN HEREON AND UTILITIES LAYOUTS ON THE UTILITY LAYOUT SHEETS, COPIES OF WHICH HAVE BEEN PRESENTED TO COMCAST OF NEW MEXICO, INC, ARE SATISFACTORY TO MEET THE NEEDS FOR INSTALLATION OF (UNDERGROUND ONLY) (OVERHEAD ONLY) (UNDERGROUND AND/OR OVERHEAD) CABLE TELEVISION FACILITIES.

COMCAST OF NEW MEXICO, INC.
BY: DATE: 4/29/10

EASEMENTS SHOWN HEREON AND UTILITY LAYOUT ON THE UTILITY LAYOUT SHEETS, COPIES OF WHICH HAVE BEEN PRESENTED TO THE ELECTRIC COMPANY, AND SATISFACTORY TO MEET THE NEED FOR THE INSTALLATION OF (UNDERGROUND ONLY) (OVERHEAD ONLY) (UNDERGROUND AND/OR OVERHEAD) (UNDERGROUND AND DESIGNATED OVERHEAD FEEDER) ELECTRICAL UTILITIES.

EL PASO ELECTRIC COMPANY
BY: DATE: 4/26/10

EASEMENTS SHOWN HEREON AND UTILITIES LAYOUTS ON THE UTILITY LAYOUT SHEETS, COPIES OF WHICH HAVE BEEN PRESENTED TO QWEST TELEPHONE COMPANY, ARE SATISFACTORY TO MEET THE NEEDS FOR INSTALLATION OF (UNDERGROUND ONLY) (OVERHEAD ONLY) (UNDERGROUND AND/OR OVERHEAD) TELEPHONE UTILITIES.

QWEST TELEPHONE COMPANY

QWEST COMMUNICATIONS, INC., DISCLAIMER

This plat has been approved for easement purposes only. the signing of this plat does not in any way guarantee telephone service to the subdivision.

BY: DATE: 4/29/10

MESILLA TOWN BOARD OF TRUSTEES APPROVAL

THE ACCOMPANYING SUBDIVISION BEING WITHIN THE CORPORATE LIMITS OF THE TOWN OF MESILLA HAS BEEN PRESENTED AND APPROVED BY THE BOARD OF TRUSTEES OF THE TOWN OF MESILLA.

ATTEST: Nora L. Barraza ATTEST:
MAYOR TOWN CLERK

MESILLA TOWN PLANNING COMMISSION APPROVAL

THIS PLAT HAS BEEN SUBMITTED TO AND CHECKED BY THE PLANNING AND ZONING COMMISSION OF TOWN OF MESILLA AND IS HEREBY APPROVED AS TO THE PLATTING AND AT TO THE CONDITIONS OF THE DEDICATION AND IN ACCORDANCE WITH THE LAND SUBDIVISION REGULATIONS OF THE TOWN OF

MESILLA, NEW MEXICO, THIS 21st DAY OF October, 2010.

Gina Gentile
SECRETARY CHAIRMAN

I, JORGE MOY, A NEW MEXICO PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

JORGE MOY N.M.P.S. 5939 5/3/10

JORGE MOY NEW MEXICO 5939 PROFESSIONAL SURVEYOR

PAGE 1 OF 2

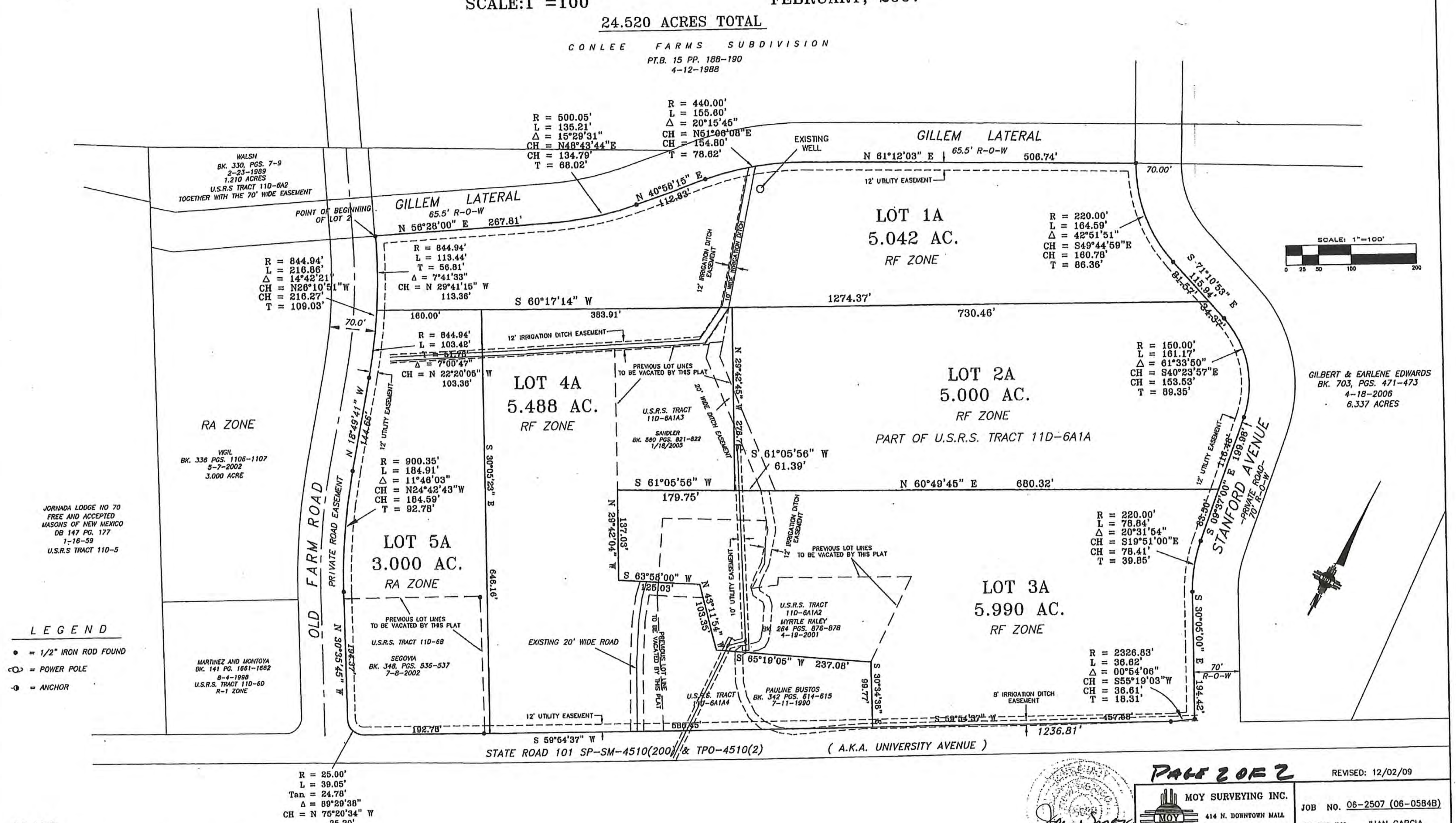
REVISED: 12/02/09

MOY SURVEYING INC. 414 N. DOWNTOWN MALL LAS CRUCES, NEW MEXICO 88001 PHONE: (505) 525-9683 FAX: (505) 524-3238	JOB NO. 06-2507 (06-0584B) DRAWN BY JUAN GARCIA FIELD BY KENNY/VICTOR DATE 2/24/07 SCALE:1"=100'

RALEY ACRES REPLAT OF LOT 2

BEING A REPLAT OF LOT 2, RALEY ACRES
FILED MARCH 25, 2002, IN BOOK 20, PAGES 37-38
DONA ANA COUNTY RECORDS,
ALSO BEING U.S.R.S. TRACTS 11D-6A1A2,
11D-6A1A3, 11D-6A1A4 AND 11D-6B
TOWN OF MESILLA, DONA ANA COUNTY, NEW MEXICO
SCALE:1"=100'   FEBRUARY, 2007

24.520 ACRES TOTAL



NOTES
1. 1/2" IRON RODS SET AT ALL CORNERS UNLESS OTHERWISE NOTED.
2. DASHED LINED PARCELS THAT ARE NOT PART OF THE SUBDIVISION WERE DIVIDED WITHOUT THE APPROVAL OF THE TOWN OF MESILLA. THE PARCELS WERE DIVIDED FOR FAMILY PURPOSES ONLY.

PAGE 2 OF 2

REVISED: 12/02/09

MOY SURVEYING INC.
414 N. DOWNTOWN MALL
LAS CRUCES, NEW MEXICO
88001
PHONE: (505) 525-9863
FAX: (505) 524-3238

JOB NO. 06-2507 (06-0584B)
DRAWN BY JUAN GARCIA
FIELD BY KENNY/VICTOR
DATE 2/24/07 SCALE:1"=100'

3326
#109
3326

136

BUILDER/CONTRACTOR RESPONSIBILITIES

Drawing Validity – These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents 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 June 15 2016 Section 4.2.1, 4.4.1)

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 June 15 2016 Section 7.9.1, 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 June 15 2016 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 wall 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 12 Chapter 4 Section 3.2.2 and Appendix A3)

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, or ASTM A1011 with 55 ksi min. yield, except flanges wider than 12" and thicker than 3/8", all flanges thicker than 1", and all webs thicker than 3/8" are 50 ksi min. yield. Rod X–bracing conforms to ASTM A529 or ASTM A572 with 50 ksi min. yield. Cable X–bracing conforms to ASTM A475 7 Strand Extra High–Strength grade. Hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with 50 ksi min. yield. Hot rolled angles, other than flange braces, conform to ASTM A36 minimum. Round and rectangular HSS conforms to ASTM A500 Grade B. Cold–formed steel secondary framing Members conform to ASTM A1011 or ASTM A653 Grade 55 with 55 ksi min. yield.

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 withstand 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.

ENGINEERING DESIGN CRITERIA

Building Code..... IBC 15
Building Risk Category..... II – Normal

Roof Dead Load
Superimposed..... 2.000 psf
Collateral..... 0.5 psf (Total)
(0.00 psf Ceiling 0.5 psf Other)
Roof Live Load.....20.00 psf (reducible)

Snow
Ground Snow Load (Pg)..... 5.00 psf
Snow Load Importance Factor (Is) 1.00
Snow Exposure Factor (Ce)..... 1.00
Thermal Factor (Ct)..... 1.00
Flat Roof Snow Load (Pf)..... 3.5 psf
Minimum Roof Snow Load (Pm)..... 5.00 psf

Wind
Ultimate Wind Speed (Vult)..... 115 mph
Nominal Wind Speed (Vasd)..... 89 mph
Serviceability Wind Speed..... 76 mph
Wind Exposure Category..... B
Internal Pressure Coefficient (GCpi) 0.18 / –0.18
Loads for components not provided by building manufacturer.
Wall Edge Zones 23.77 psf pressure
–31.77 psf suction
Other Wall Zones 23.77 psf pressure
–25.78 psf suction
These values are the maximum values required based on a 10 square foot area.
Components with larger areas may have lower wind loads.
Zones per ASCE 7–10; FIG. 30.4–1
Zones pressures shown are Un–Factored

Seismic
Seismic Importance Factor (Ie)..... 1.00
Seismic Design Category..... B
Soil Site Class..... D
Ss..... 0.272 g Sds..... 0.287 g
S1..... 0.077 g Sd1..... 0.123 g
Analysis Procedure..... Equivalent Lateral Force

Location...	Int	RF	Front SW	Back SW	Left EW	Right EW
System.....	H		H	H	H	H
R.....	3		3	3	3	3
Cs.....	0.096		0.096	0.096	0.096	0.096

Design Base Shear in kips (V) Transverse 1.34
Design Base Shear in kips (V) Longitudinal 1.35

System – Basic Force Resisting System
H – Steel System not Specifically Detailed for Seismic Resistance
C4 – Steel Ordinary Moment Frames
B3 – Steel Ordinary Concentric Braced Frames
G2 – Cantilevered Column System
R – Response Modification Coefficient
Cs – Seismic Response Coefficient
Transverse – Direction Parallel to the Rigid Frames
Longitudinal – Direction Perpendicular to the Rigid Frames

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.

☒ FOR ERECTOR INSTALLATION
Final drawings for construction.

For questions or assistance Concerning Erection call:
1–800–531–2731
Monday–Friday 7:30am to 5:00pm

ENGINEERING SEAL

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. 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.

Drawing has been digitally signed

Registered Professional Engineer (Civil)
CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.

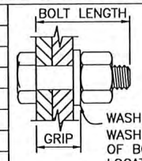
Expires 6/30/2021

Download panel installation manuals from:
www.ncimanuals.com

Descargue los manuales de instalación del panel desde:
www.ncimanuals.com

1/2"ø A325 BOLT GRIP TABLE

GRIP	LENGTH
0 TO 9/16"	1 1/4" F.T.
Over 9/16" TO 1 1/16"	1 3/4" F.T.
Over 1 1/16" TO 1 5/16"	2"
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"
LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS	
F.T. DENOTES FULLY THREADED	



NOTE:
FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED. 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.

Building Descriptions

Building ID	Width(ft)	Length(ft)	Height(ft)	Slope
Building A	40	60	15.5	3.0:12

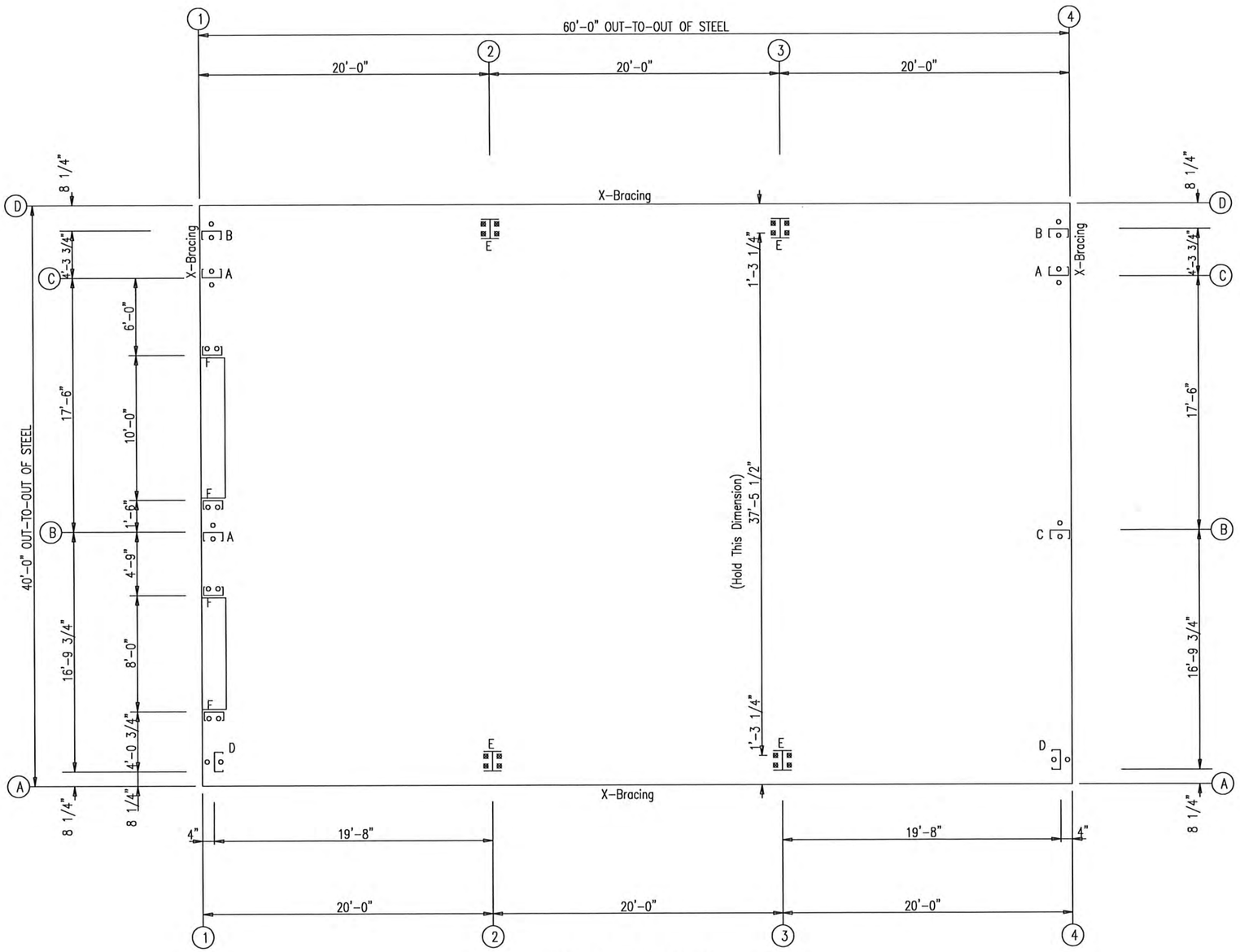
ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

NCI METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	C1	0

Rev. 4/16/2020



ANCHOR BOLT PLAN

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	F1	0

Drawing has been digitally signed.
Registered Professional Engineer (Civil)
CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.
Expires 6/30/2021

GENERAL NOTES

1. THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2. REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.
3. THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN
4. THE METAL BUILDING MANUFACTURER IS RESPONSIBLE FOR THE DESIGN OF THE ANCHOR BOLT DIAMETER ONLY TO PERMIT THE TRANSFER OF FORCES BETWEEN THE BASE PLATE AND THE ANCHOR BOLT IN SHEAR, BEARING AND TENSION, BUT IS NOT RESPONSIBLE FOR THE ANCHOR BOLT EMBEDMENT FOR TRANSFER OF FORCES TO THE FOUNDATION. THE METAL BUILDING MANUFACTURER DOES NOT DESIGN AND IS NOT RESPONSIBLE FOR THE DESIGN, MATERIAL AND CONSTRUCTION OF THE FOUNDATION EMBEDMENTS. THE END USE CUSTOMER SHOULD ASSURE HIMSELF THAT ADEQUATE PROVISIONS ARE MADE IN THE FOUNDATION DESIGN FOR LOADS IMPOSED BY COLUMN REACTIONS OF THE BUILDING, OTHER IMPOSED LOADS, AND BEARING CAPACITY OF THE SOIL AND OTHER CONDITIONS OF THE BUILDING SITE. IT IS RECOMMENDED THAT THE ANCHORAGE AND FOUNDATION OF THE BUILDING BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER EXPERIENCED IN THE DESIGN OF SUCH STRUCTURES, (SECTION A3 MBMA 2006 METAL BUILDING SYSTEMS MANUAL)
5. BOTTOM OF ALL BASE PLATES ARE AT THE SAME ELEVATION. (UNLESS NOTED)
6. ANCHOR RODS ARE ASTM F1554 GRADE 36 MATERIAL UNLESS NOTED OTHERWISE.

BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	Reactions in plane of wall ± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel Shear (lb/ft) Wind	Seis
L_EW	1	D,C	Bracing, see EW reactions					
F_SW	A	2,3	2.7 *		0.7 *			
R_EW	4	C,D	Bracing, see EW reactions					
B_SW	D	3,2	2.7 *		0.7 *			

*See RF reactions table for vertical and horizontal reactions in plane of the rigid frame.

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind Press Horz
1	D	0.0	0.0	−0.3	−0.1	−1.7	−5.4	0.0	6.2	−1.7	−5.4	0.0	6.4	0.0
1	C	0.5	0.1	2.9	0.5	0.0	2.1	1.7	−8.0	0.0	3.2	1.7	−7.1	−1.6
1	B	0.6	0.1	4.1	0.7	0.0	−2.8	0.0	−4.2	0.0	−1.7	0.0	−3.1	−3.0
1	A	0.3	0.0	1.4	0.2	0.0	−1.4	0.0	−1.5	0.0	−0.7	0.0	−0.8	0.0

Frm Line	Col Line	Wind Suct Horz	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seis_Left Horz	Seis_Left Vert	Seis_Right Horz	Seis_Right Vert	−MIN_SNOW− Horz	−MIN_SNOW− Vert	E1UNB_SL_L− Horz	E1UNB_SL_L− Vert
1	D	0.0	0.0	2.3	−0.5	−1.7	−0.3	−1.0	0.0	1.0	0.0	−0.1	0.0	−0.2
1	C	1.8	0.5	−5.3	0.0	0.0	0.0	0.9	0.3	−1.0	0.0	0.7	0.0	0.7
1	B	3.4	0.0	−3.2	0.0	−3.7	0.0	0.0	0.0	−0.1	0.0	1.0	0.0	0.6
1	A	0.0	0.0	−0.9	0.0	−1.8	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0

Frm Line	Col Line	E1UNB_SL_R− Horz	E1UNB_SL_R− Vert
1	D	0.0	0.0
1	C	0.0	0.1
1	B	0.0	0.8
1	A	0.0	0.3

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind Press Horz
4	A	0.2	0.0	1.4	0.2	0.0	−1.5	0.0	−1.4	0.0	−0.8	0.0	−0.7	0.0
4	B	0.6	0.1	4.1	0.7	0.0	−4.2	0.0	−2.8	0.0	−3.1	0.0	−1.7	−3.0
4	C	0.5	0.1	2.9	0.5	−1.7	−8.0	0.0	2.1	−1.7	−7.1	0.0	3.2	−1.6
4	D	0.0	0.0	−0.3	−0.1	0.0	6.2	1.7	−5.4	0.0	6.4	1.7	−5.4	0.0

Frm Line	Col Line	Wind Suct Horz	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seis_Left Horz	Seis_Left Vert	Seis_Right Horz	Seis_Right Vert	−MIN_SNOW− Horz	−MIN_SNOW− Vert	E2UNB_SL_L− Horz	E2UNB_SL_L− Vert
4	A	0.0	0.0	−1.8	0.0	−0.9	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.3
4	B	3.4	0.0	−3.7	0.0	−3.2	0.0	−0.1	0.0	0.0	0.0	1.0	0.0	0.8
4	C	1.8	0.0	0.0	−0.5	−5.3	−0.3	−1.0	0.0	0.9	0.0	0.7	0.0	0.1
4	D	0.0	0.5	−1.7	0.0	2.3	0.0	1.0	0.3	−1.0	0.0	−0.1	0.0	0.0

Frm Line	Col Line	E2UNB_SL_R− Horz	E2UNB_SL_R− Vert
4	A	0.0	0.0
4	B	0.0	0.6
4	C	0.0	0.7
4	D	0.0	−0.2

NOTES FOR REACTIONS

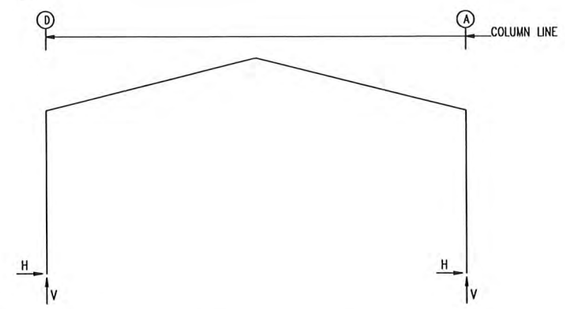
BUILDING REACTIONS ARE BASED ON THE FOLLOWING BUILDING DATA:

WIDTH (FT)	= 40
LENGTH (FT)	= 60
EAVE HEIGHT (FT)	= 15.5 / 15.5
ROOF SLOPE (rise/12)	= 3.0:12 / 3.0:12
DEAD LOAD (psf)	= 2.000
COLLATERAL LOAD (psf)	= 0.5
ROOF LIVE LOAD (psf)	= 20.00
FRAME LIVE LOAD (psf)	= 12
ROOF SNOW LOAD (psf)	= 3.5
GROUND SNOW LOAD (psf)	= 5.00
MINIMUM ROOF SNOW LOAD (psf)	= 5.00
WIND SPEED (MPH)	= 115
WIND CODE	= IBC 15
EXPOSURE	= B
CLOSED/OPEN	= Closed
IMPORTANCE − WIND	= 1.00
IMPORTANCE − SEISMIC	= 1.00
SEISMIC ZONE	= B

REACTION KEY:

WIND Left/Right 1 = (with +GCpi Internal Pressure)
WIND Left/Right 2 = (with −GCpi Internal Pressure)
Wind_Long 1 = Wind Load Case B at Left EW
Wind_Long 2 = Wind Load Case B at Right EW
MIN_SNOW = Minimum Snow (Pm) per code
E1UNB_SL_L = Endwall Unbalanced Snow Left
E1UNB_SL_R = Endwall Unbalanced Snow Right
F1UNB_SL_L = Rigid Frame Unbalanced Snow Left
F1UNB_SL_R = Rigid Frame Unbalanced Snow Right

FRAME LINES: 2 3



RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Bolt Qty	Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Thick	Grout (in)
2*	D	4	0.750	6.000	9.500	0.375	0.0
2*	A	4	0.750	6.000	9.500	0.375	0.0

2* Frame lines: 2 3

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead Horiz	Dead Vert	Collateral Horiz	Collateral Vert	Live Horiz	Live Vert	Snow Horiz	Snow Vert	Wind_Left1 Horiz	Wind_Left1 Vert	Wind_Right1 Horiz	Wind_Right1 Vert
2*	D	0.4	1.3	0.1	0.2	1.7	4.8	0.5	1.4	−4.4	−7.6	1.4	−4.4
2*	A	−0.4	1.3	−0.1	0.2	−1.7	4.8	−0.5	1.4	−1.4	−4.4	4.4	−7.6

Frame Line	Column Line	−Wind_Left2− Horiz	−Wind_Left2− Vert	−Wind_Right2− Horiz	−Wind_Right2− Vert	−Wind_Long1− Horiz	−Wind_Long1− Vert	−Wind_Long2− Horiz	−Wind_Long2− Vert	−Seismic_Left Horiz	−Seismic_Left Vert	Seismic_Right Horiz	Seismic_Right Vert
2*	D	−4.8	−4.7	1.0	−1.5	0.5	−8.0	−0.1	−7.2	−0.2	−0.2	0.2	0.2
2*	A	−1.0	−1.5	4.8	−4.7	0.1	−7.2	−0.5	−8.0	−0.2	0.2	0.2	−0.2

Frame Line	Column Line	−Seismic_Long Horiz	−Seismic_Long Vert	−MIN_SNOW− Horiz	−MIN_SNOW− Vert	F1UNB_SL_L− Horiz	F1UNB_SL_L− Vert	F1UNB_SL_R− Horiz	F1UNB_SL_R− Vert
2*	D	0.0	−0.5	0.7	2.0	0.4	1.4	0.4	0.9
2*	A	0.0	−0.5	−0.7	2.0	−0.4	0.9	−0.4	1.4

2* Frame lines: 2 3

ENDWALL COLUMN: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Bolt Qty	Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Thick	Grout (in)
1	D	2	0.625	7.000	8.000	0.250	0.0
1	C	2	0.625	7.000	8.000	0.250	0.0
1	B	2	0.625	7.000	8.000	0.250	0.0
1	A	2	0.625	7.000	8.000	0.250	0.0
4	A	2	0.625	7.000	8.000	0.250	0.0
4	B	2	0.625	7.000	10.00	0.250	0.0
4	C	2	0.625	7.000	8.000	0.250	0.0
4	D	2	0.625	7.000	8.000	0.250	0.0

ANCHOR BOLT SUMMARY

	Qty	Locate	Dia (in)	Type	Proj (in)
○	8	Jamb	5/8"	F1554	2.00
○	16	Endwall	5/8"	F1554	2.00
☒	16	Frame	3/4"	F1554	2.50

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

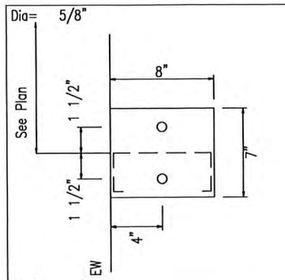
METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17−B−68454	F2	0

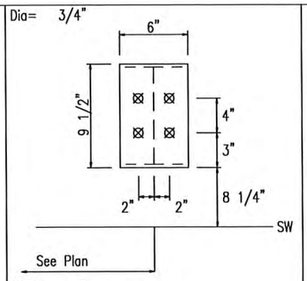
Drawing has been digitally signed.
Registered Professional Engineer (Civil)
CERTIFICATE NO. 59792
JAY S. SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.
Expires 6/30/2021

Dia= 5/8"



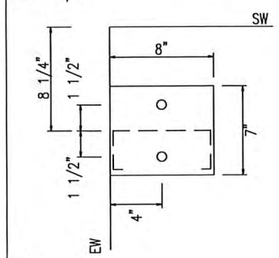
DETAIL A

Dia= 3/4"



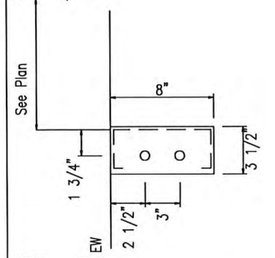
DETAIL E

Dia= 5/8"



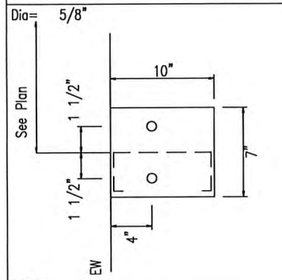
DETAIL B

Dia= 5/8"



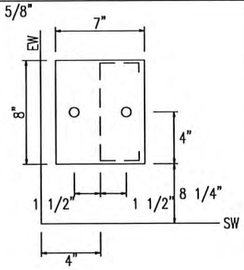
DETAIL F

Dia= 5/8"

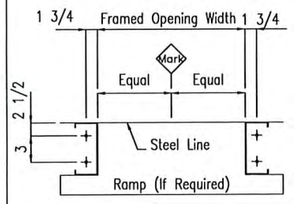


DETAIL C

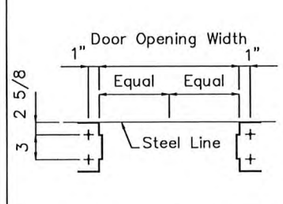
Dia= 5/8"



DETAIL D



ARDia	Framed Opening AR Layout
5/8"	



AR Dia	Walk Door AR Layout
1/2"	

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS

CUSTOMER: DIVERGENT SOLUTIONS — OWNER: DIVERGENT SOLUTIONS

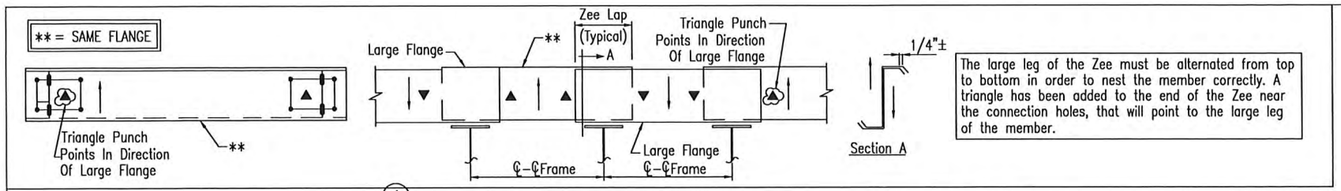
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	F3	0

Drawing has been digitally signed.

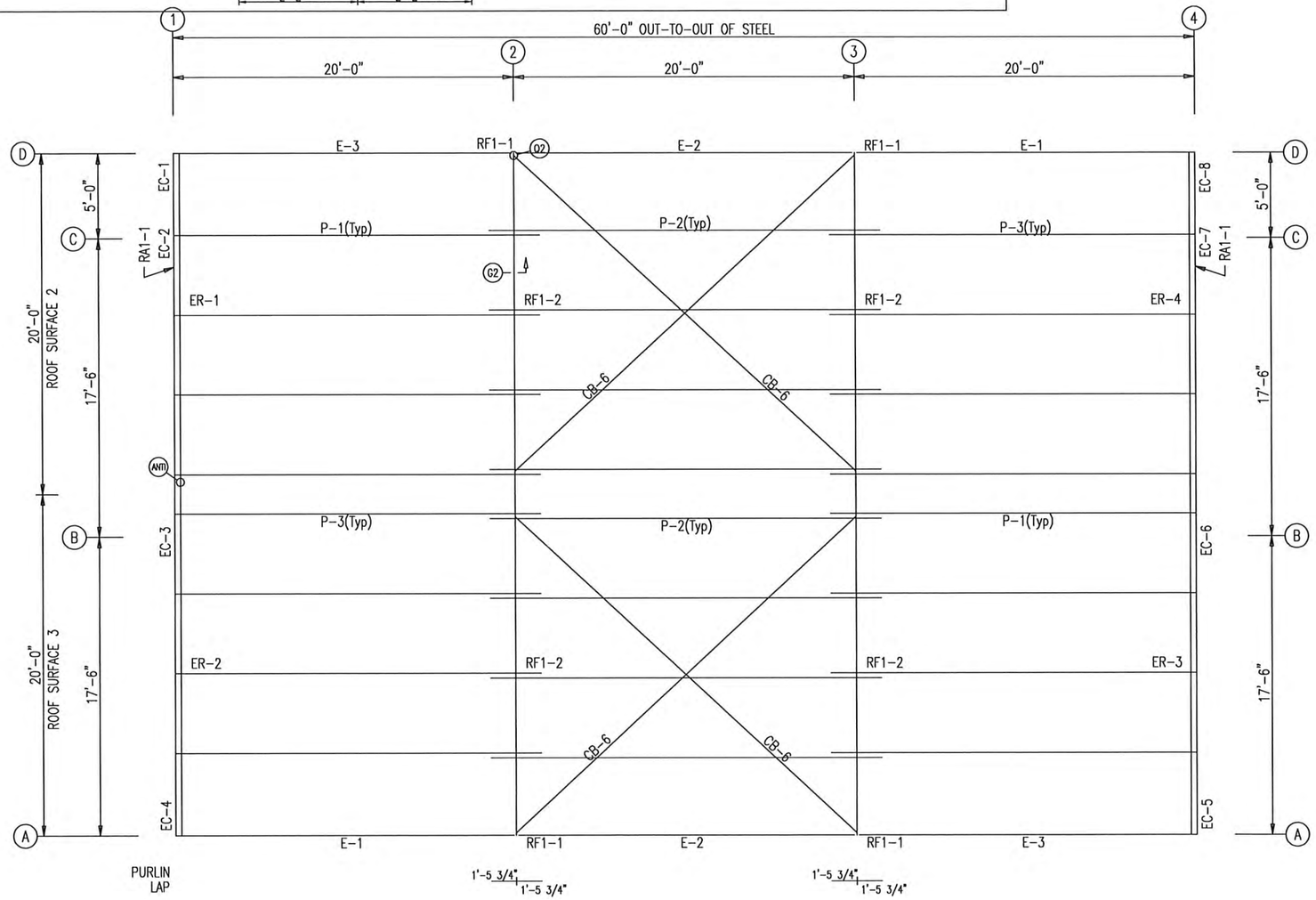
Registered Professional Engineer (Civil)
CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Jul 03, 2020
Date Signed
ARIZONA, U.S.A.

Expires 6/30/2021



The large leg of the Zee must be alternated from top to bottom in order to nest the member correctly. A triangle has been added to the end of the Zee near the connection holes, that will point to the large leg of the member.

MEMBER TABLE ROOF PLAN		
MARK	PART	LENGTH
P–1	8X25Z16	21'–5 1/2"
P–2	8X25Z16	22'–11 1/2"
P–3	8X25Z16	21'–5 1/2"
E–1	8ES3L14	19'–11 1/2"
E–2	8ES3L14	19'–11 1/2"
E–3	8ES3L14	19'–11 1/2"
CB–6	3/8" CABLE	27'–6"



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.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
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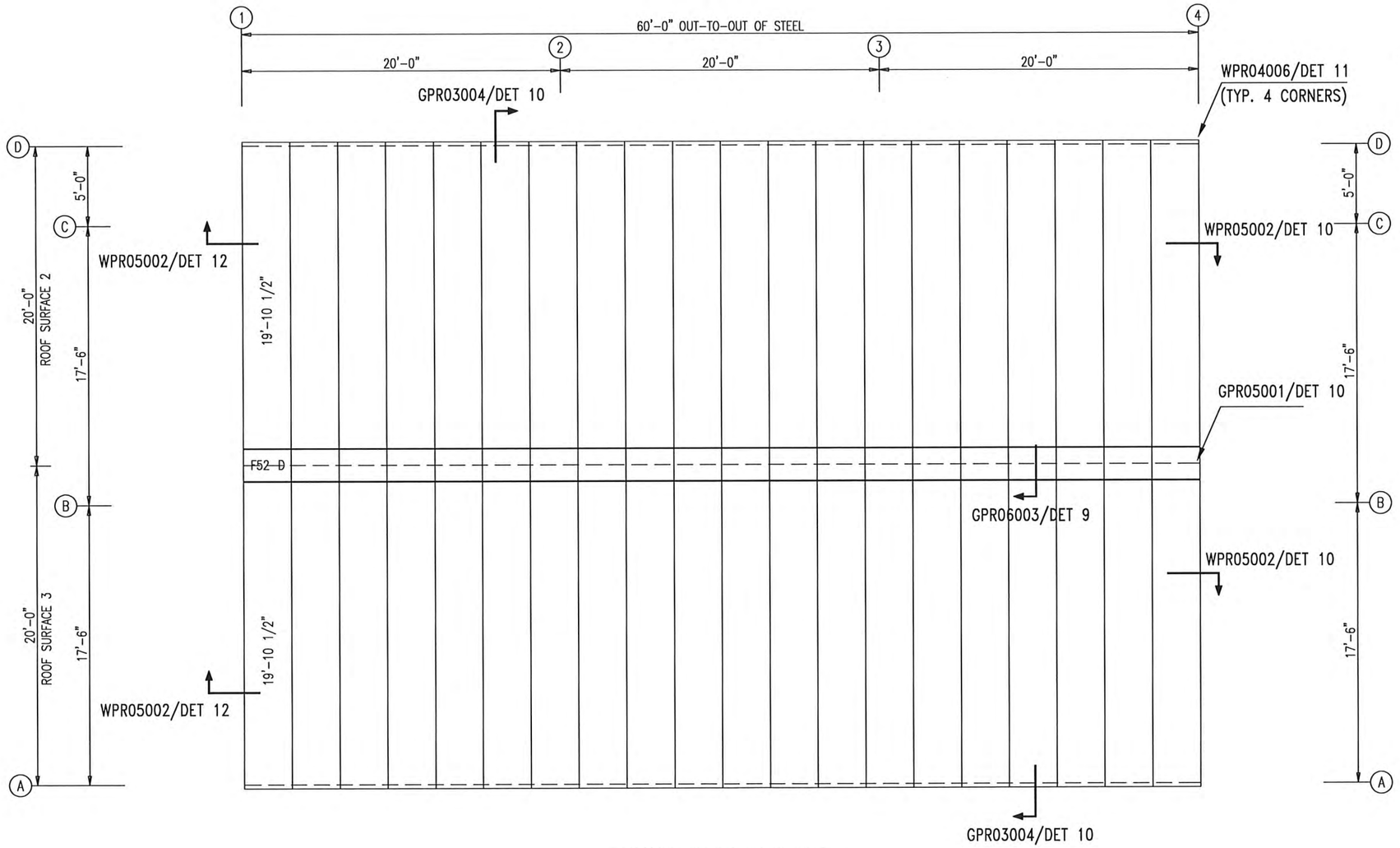
JAY S. SURMIEDA
Jul 03, 2020
Date Signed
ARIZONA, U.S.A.
Expires 6/30/2021

PBR ROOF SHEETING NOTE:
PBR ROOF PANELS ARE TO BE FIELD CUT IF THE PANELS EXTEND OUTSIDE OF THE ROOF PLANE, PANELS ARE NOT TO BE BACK LAPPED.



ROOF SHEETING PLAN

PANELS: 26 Gauge PBR – Polar White

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.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

MBCI METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	E2	0

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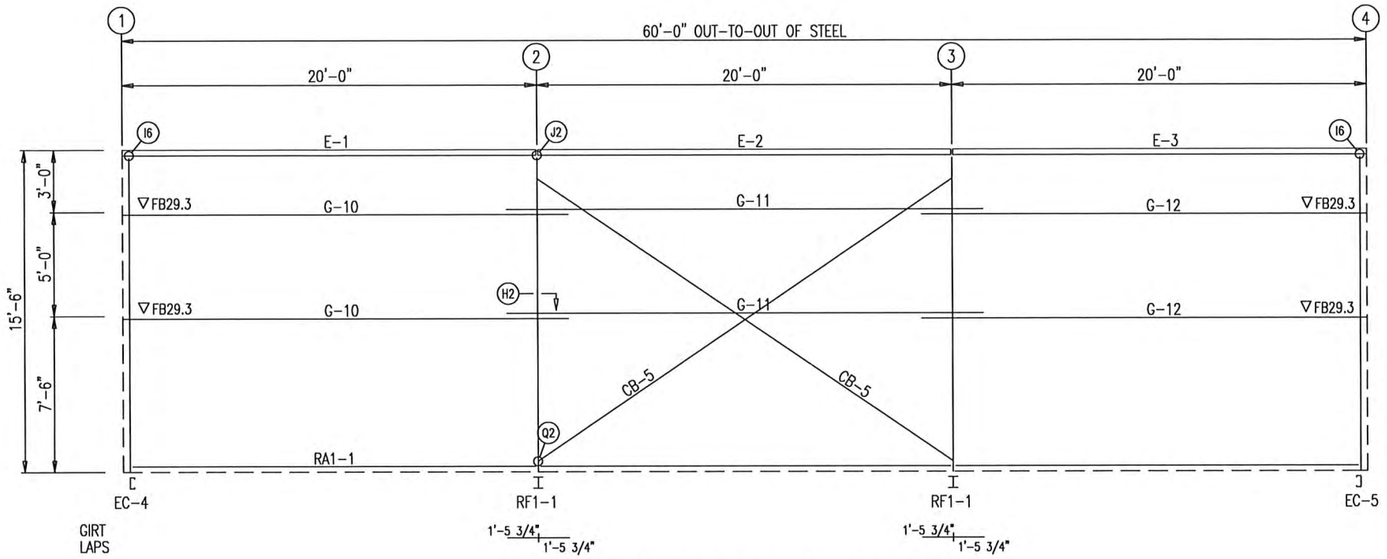
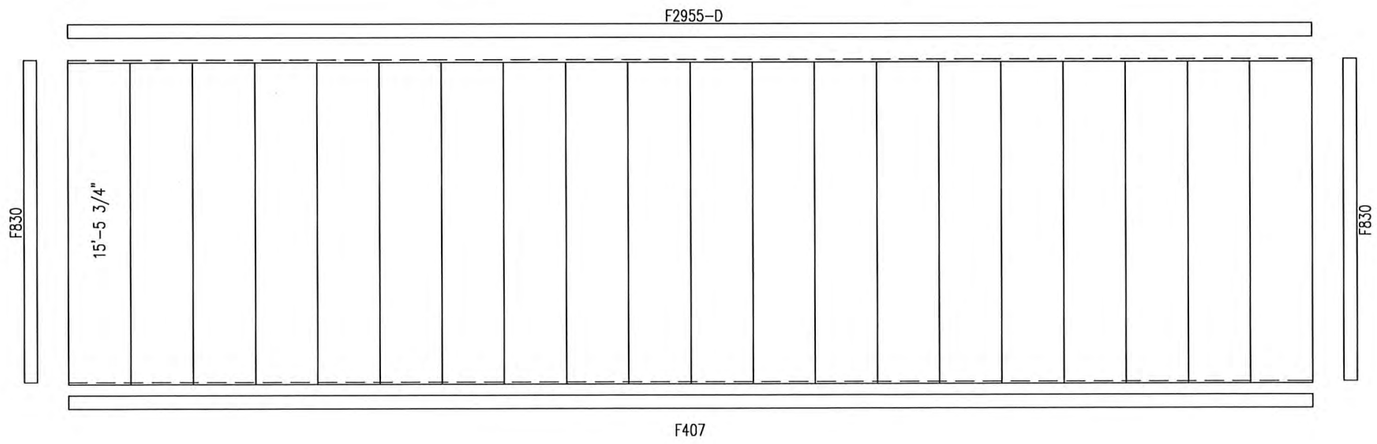
MEMBER TABLE FRAME LINE A		
MARK	PART	LENGTH
E-1	8ES3L14	19'-11 1/2"
E-2	8ES3L14	19'-11 1/2"
E-3	8ES3L14	19'-11 1/2"
G-10	8X25Z16	21'-5 1/2"
G-11	8X25Z16	22'-11 1/2"
G-12	8X25Z16	21'-5 1/2"
CB-5	3/8" CABLE	24'-11"

FLANGE BRACE TABLE FRAME LINE 1		
▽ ID	PART	LENGTH
FB29.3	L2X2X14G	2'-5 1/4"



SIDEWALL FRAMING: FRAME LINE A



SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS: 26 Gauge PBR – Polar White

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE 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.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

MBCI METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

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ARIZONA, U.S.A.
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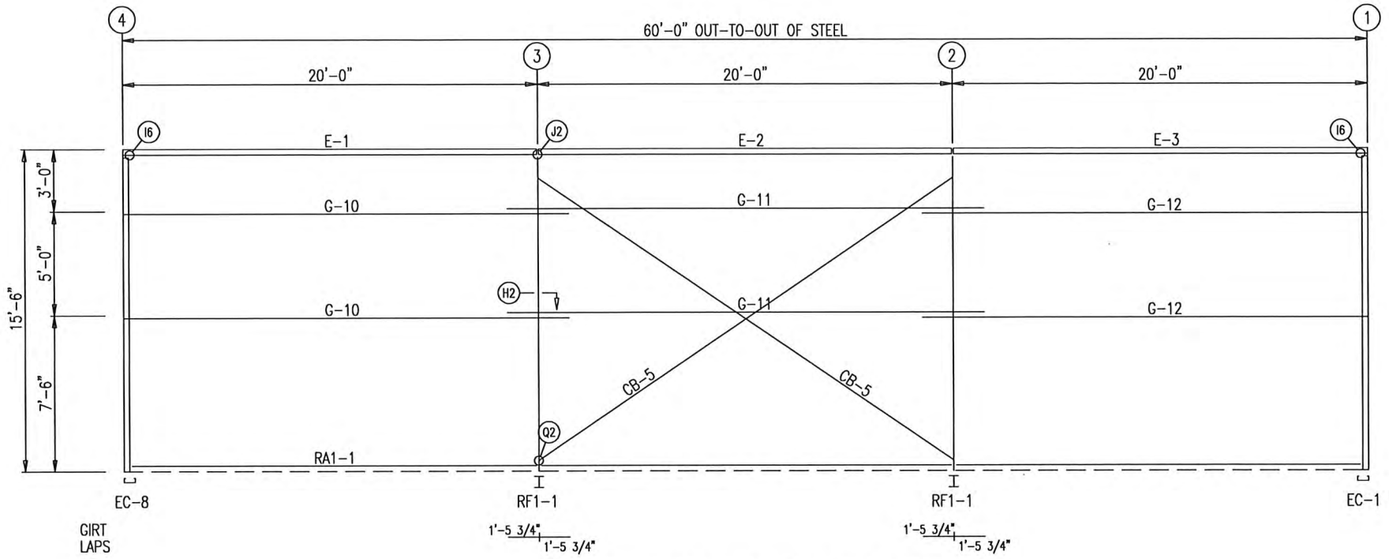
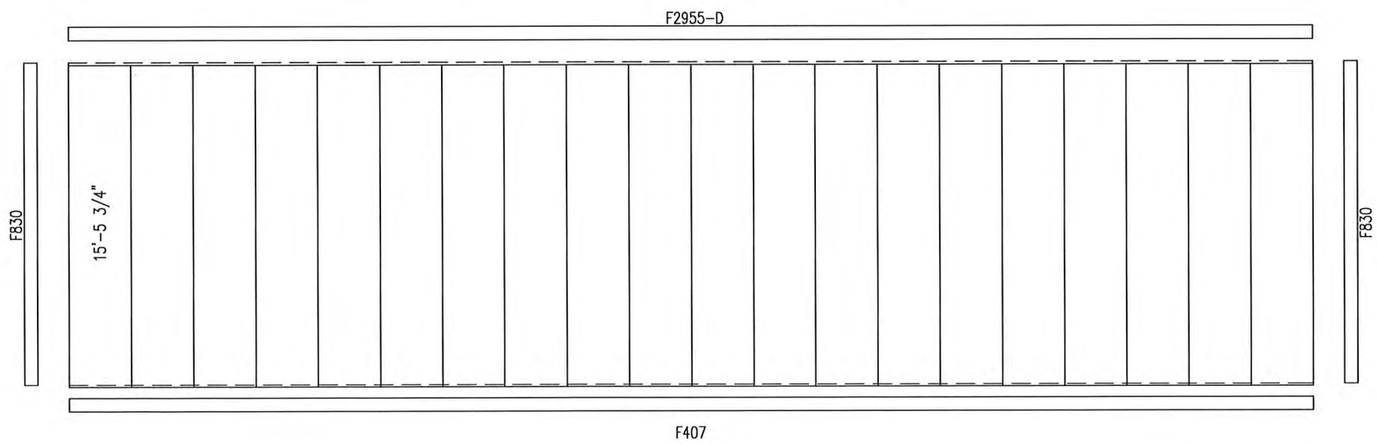
MEMBER TABLE FRAME LINE D		
MARK	PART	LENGTH
E-1	8ES3L14	19'-11 1/2"
E-2	8ES3L14	19'-11 1/2"
E-3	8ES3L14	19'-11 1/2"
G-10	8X25Z16	21'-5 1/2"
G-11	8X25Z16	22'-11 1/2"
G-12	8X25Z16	21'-5 1/2"
CB-5	3/8" CABLE	24'-11"



SIDEWALL FRAMING: FRAME LINE D



SIDEWALL SHEETING & TRIM: FRAME LINE D

PANELS: 26 Gauge PBR – Polar White

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
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3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE 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.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	E4	0

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ARIZONA, U.S.A.
Expires 6/30/2021

BEARING FRAME ONLY!

WASHER TO BE USED AT ENDWALL COLUMN TO ENDWALL RAFTER CONNECTION. USE ONE WASHER ON COLUMN SIDE. WASHER NOT NEEDED ON CLIP SIDE.

BOLT TABLE
FRAME LINE 1

LOCATION	QUAN	TYPE	DIA	LENGTH
ER-1/ER-2	4	A325	5/8"	1 3/4"
EC-1/ER-1	4	A325	1/2"	1 1/4"
Int_Column/Raf	4	A325	1/2"	1 1/4"
EC-4/ER-2	4	A325	5/8"	1 1/2"
Strut	2	A325	1/2"	1 1/4"

MEMBER TABLE
FRAME LINE 1

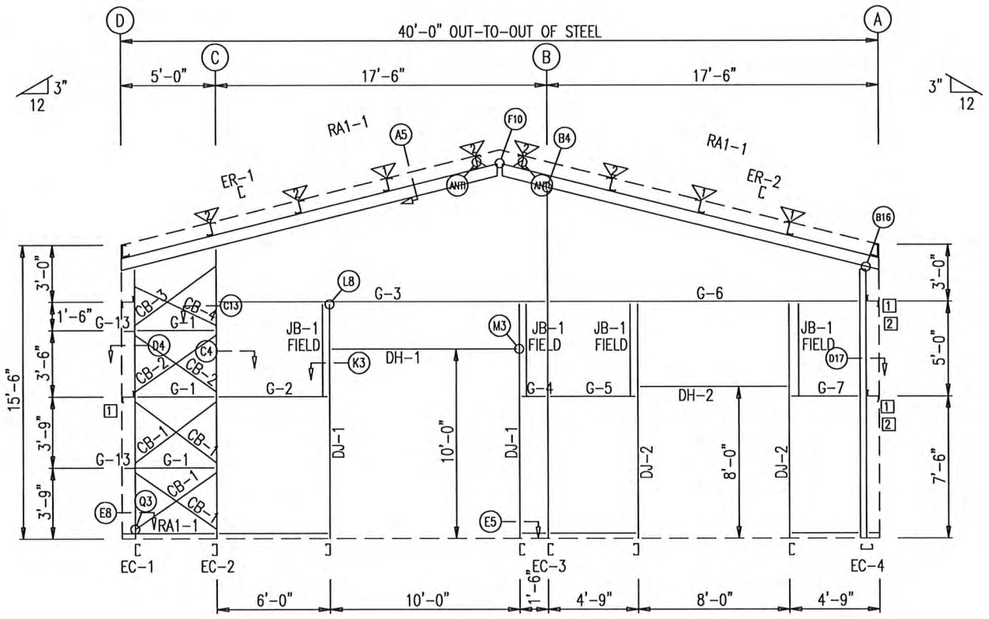
MARK	PART	LENGTH
EC-1	8F35C12	14'-2 5/16"
EC-2	8F35C12	15'-3 1/4"
EC-3	8F35C12	18'-4 3/4"
EC-4	8F35C12	14'-5 5/16"
ER-1	8F35C13	20'-9 1/8"
ER-2	8F35C13	20'-9 1/8"
DJ-1	8f35C12	12'-6"
DJ-2	8f35C12	12'-6"
DH-1	8f35C14	10'-0"
DH-2	8f35C14	8'-0"
G-1	8X25Z16	3'-7 3/4"
G-2	8X25Z16	5'-8"
G-3	8X35Z14	17'-5 1/2"
G-4	8X25Z16	1'-2"
G-5	8X25Z16	4'-1 1/4"
G-6	8X35Z14	15'-9 1/2"
G-7	8X25Z16	3'-0 3/4"
G-13	8X25Z16	7 1/2"
JB-1	8F35C12	5'-0"
CB-1	1/2" DIA. ROD	5'-10"
CB-2	1/2" DIA. ROD	5'-9"
CB-3	1/2" DIA. ROD	5'-11"
CB-4	1/2" DIA. ROD	5'-5"

FLANGE BRACE TABLE
FRAME LINE 1

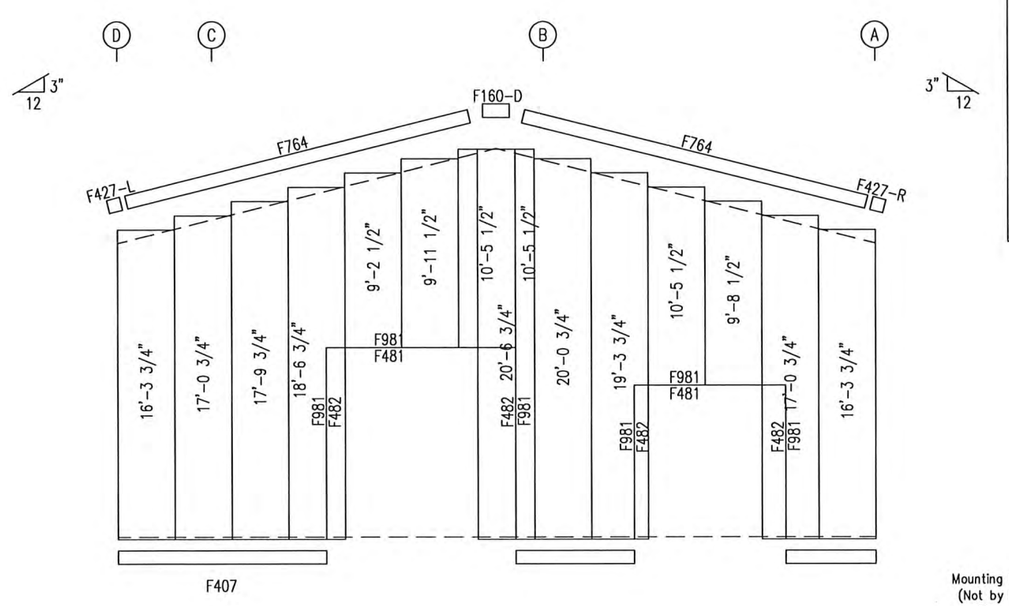
▽ ID	PART	LENGTH
FB29.3	L2X2X14G	2'-5 1/4"
FB6-1	L2X2X1/8	2'-5 1/4"

CONNECTION PLATES
FRAME LINE 1

□ID	MARK/PART
1	SC-5
2	PC-30

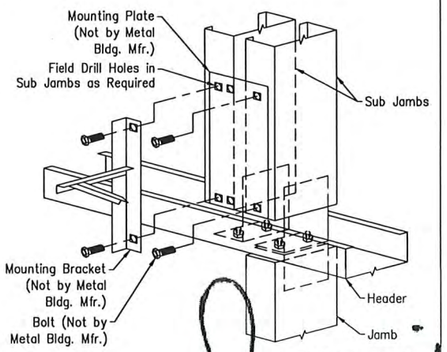


ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Gauge PBR – Polar White



GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE 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.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	E5	0

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CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Jul 03, 2020
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ARIZONA, U.S.A.

Expires 6/30/2021

BEARING FRAME ONLY!

WASHER TO BE USED AT ENDWALL COLUMN TO ENDWALL RAFTER CONNECTION. USE ONE WASHER ON COLUMN SIDE. WASHER NOT NEEDED ON CLIP SIDE.

BOLT TABLE
FRAME LINE 4

LOCATION	QUAN	TYPE	DIA	LENGTH
ER-3/ER-4	4	A325	5/8"	1 3/4"
EC-5/ER-3	4	A325	5/8"	1 1/2"
Int_Column/Raf	4	A325	1/2"	1 1/4"
EC-8/ER-4	4	A325	1/2"	1 1/4"
Strut	2	A325	1/2"	1 1/4"

MEMBER TABLE
FRAME LINE 4

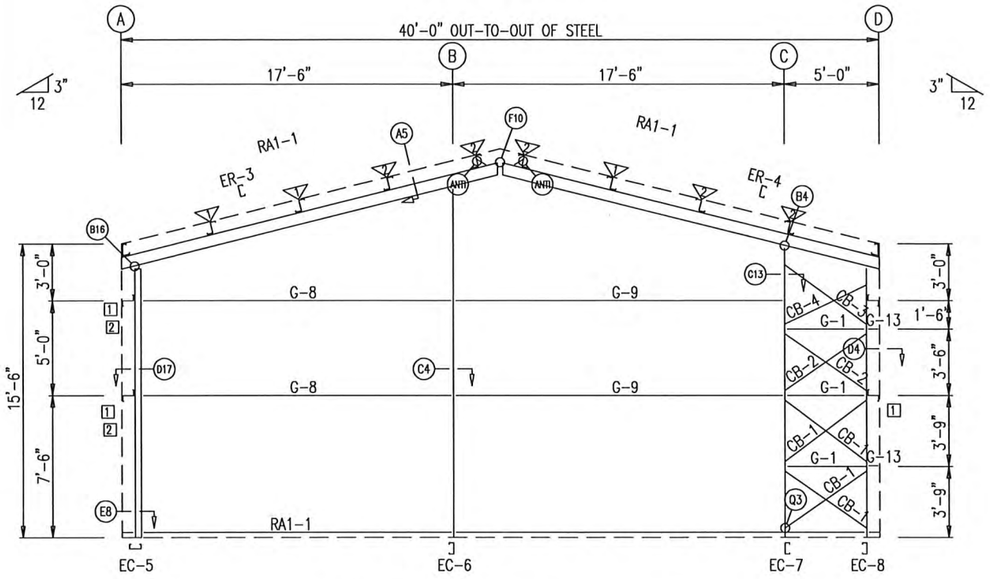
MARK	PART	LENGTH
EC-5	8F35C14	14'-5 5/16"
EC-6	10F35C13	18'-4 3/4"
EC-7	8F35C12	15'-3 1/4"
EC-8	8F35C12	14'-2 5/16"
ER-3	8F35C13	20'-9 1/8"
ER-4	8F35C13	20'-9 1/8"
G-1	8X25Z16	3'-7 3/4"
G-8	8X25Z16	15'-9 1/2"
G-9	8X25Z16	17'-5 1/2"
G-13	8X25Z16	7 1/2"
CB-1	1/2" DIA. ROD	5'-10"
CB-2	1/2" DIA. ROD	5'-9"
CB-3	1/2" DIA. ROD	5'-11"
CB-4	1/2" DIA. ROD	5'-5"

FLANGE BRACE TABLE
FRAME LINE 4

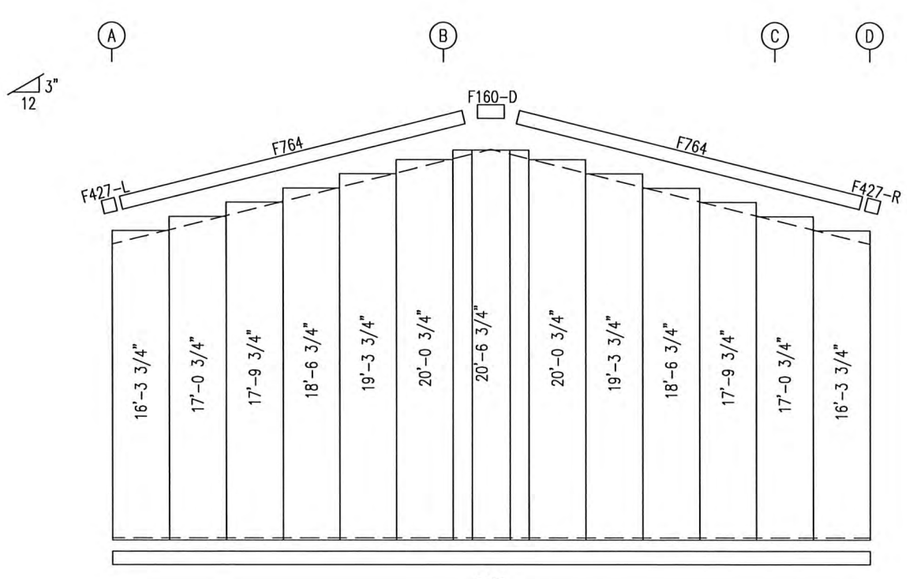
▽ ID	PART	LENGTH
FB29.3	L2X2X14G	2'-5 1/4"
FB6-1	L2X2X1/8	2'-5 1/4"

CONNECTION PLATES
FRAME LINE 4

□ID	MARK/PART
1	SC-5
2	PC-30



ENDWALL FRAMING: FRAME LINE 4



ENDWALL SHEETING & TRIM: FRAME LINE 4

PANELS: 26 Gauge PBR – Polar White

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE 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.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
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MBCI METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	E6	0

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Expires 6/30/2021

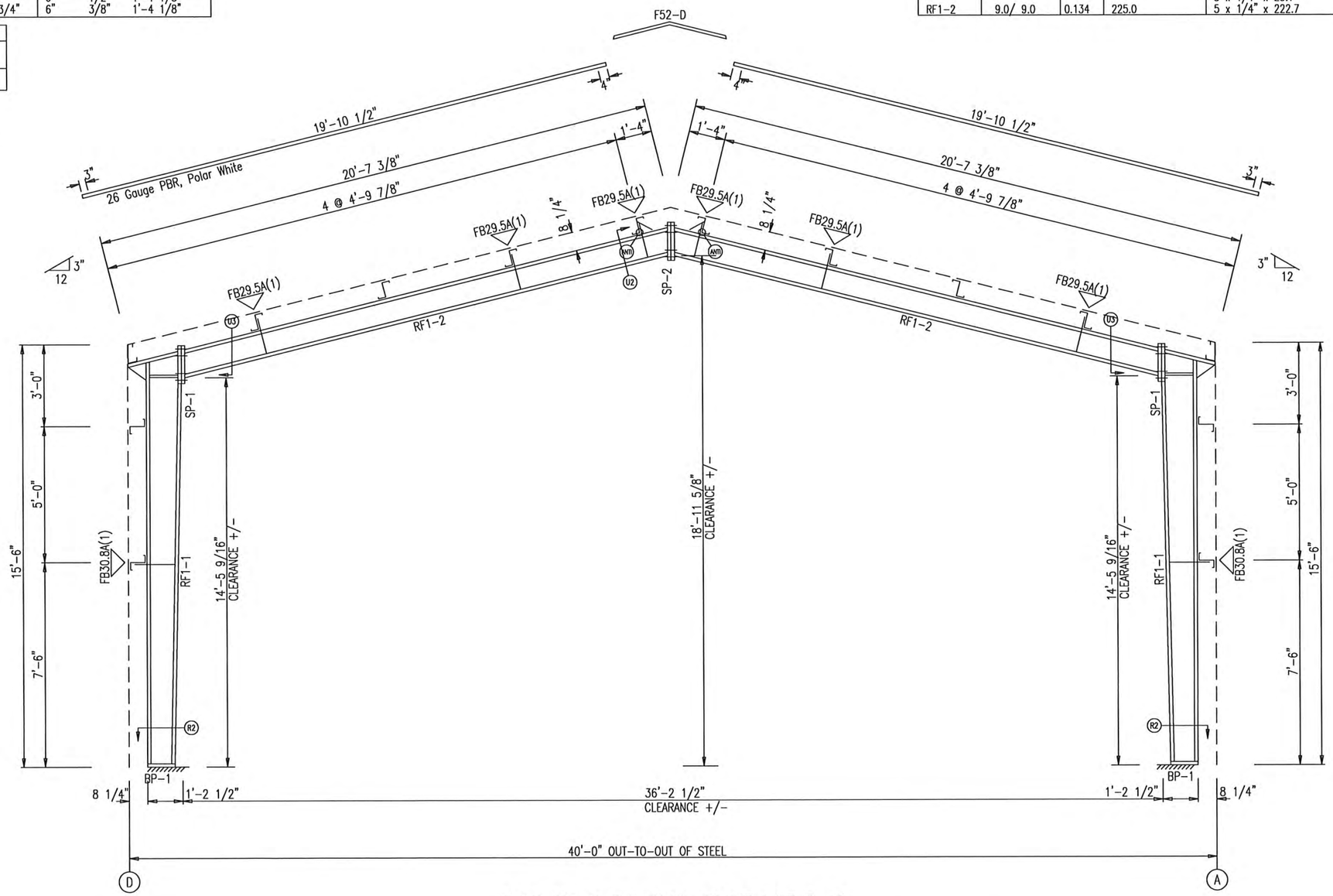
SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	3/4"	2"	6"	1/2"	1'-4 1/8"
SP-2	4	4	0	A325	3/4"	1 3/4"	6"	3/8"	1'-4 1/8"

STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF1-1	ST1	2 1/2	1/4"	14"

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	6"	3/8"	9 1/2"

▽FLANGE BRACES: FBxx (1 or 2)
xx=length(in)
(1) One Side; (2) Two Sides
A - L2X2X14G

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	9.0/14.0	0.134	182.5	5 x 1/4" x 178.9 5 x 1/4" x 23.1	5 x 1/4" x 170.0
RF1-2	9.0/ 9.0	0.134	225.0	5 x 1/4" x 222.7	5 x 1/4" x 222.7



RIGID FRAME ELEVATION: FRAME LINE 2 3

GENERAL NOTES:

1. SNUG TIGHT - BOLTED JOINTS WITH A325 TYPE 1 BOLTS GREATER THAN 1/2" DIAMETER ARE SPECIFIED AS PRE-TENSIONED JOINTS IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING CAN BE ACCOMPLISHED BE USING THE TURN-OF-NUT METHOD OF TIGHTENING, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR AS ACCEPTABLE TO THE INSPECTING AGENCY AND BUILDING OFFICIAL. INSTALLATION INSPECTION REQUIREMENTS FOR PRE-TENSIONED JOINTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.2) USING TURN-OF-NUT/CALIBRATED WRENCH/TWIST OFF TYPE TENSION CONTROL BOLTS/DIRECT TENSION INDICATOR] METHOD IS SUGGESTED. THE CONNECTIONS ON THIS PROJECT ARE NOT SLIP CRITICAL.
2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.
3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	E7	0

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CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.
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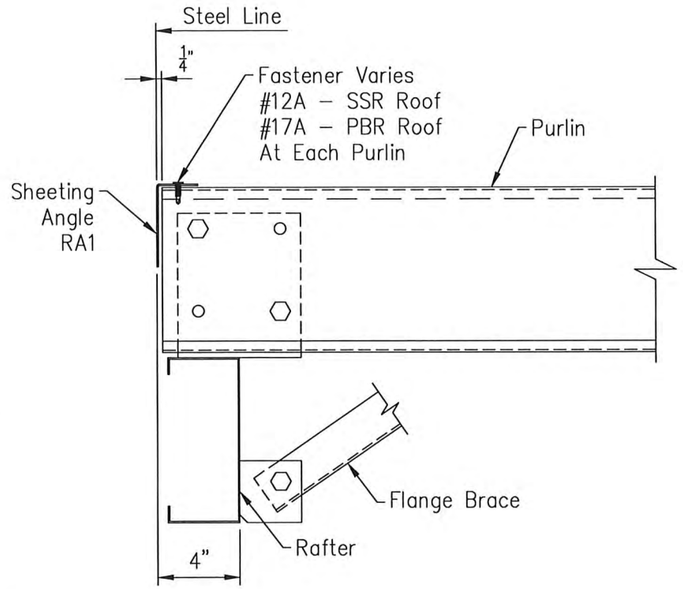
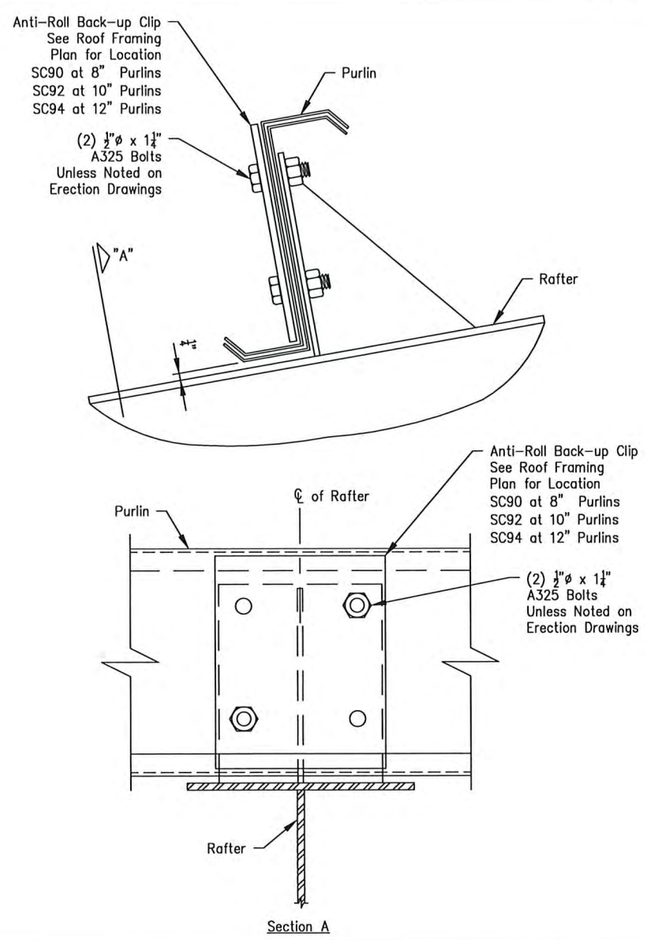
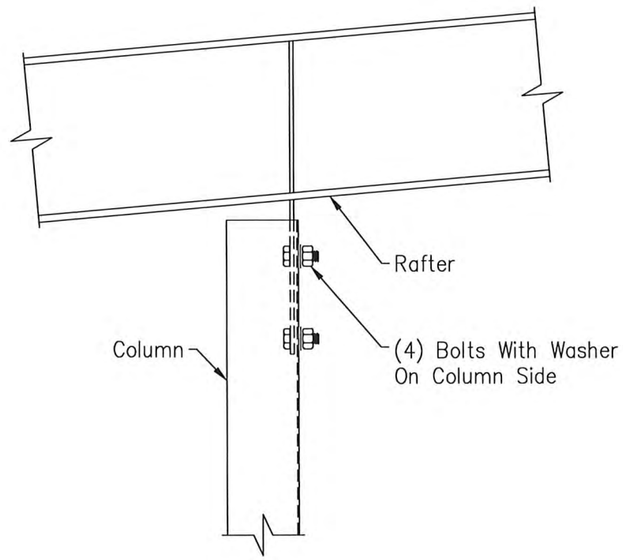


A5	Purlin To Bearing Frame Single Cold Form Rafter	Date Nov '19
Page MB–A5		Rev 01

Purlin with Anti-Roll Back-up Clip at Rafter

Page	
CF02035	
Date Dec '14	Rev 04





B4	Cold Form Endwall Column To Rafter	Date Jun '17
Page MB–B4		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	DET1	0

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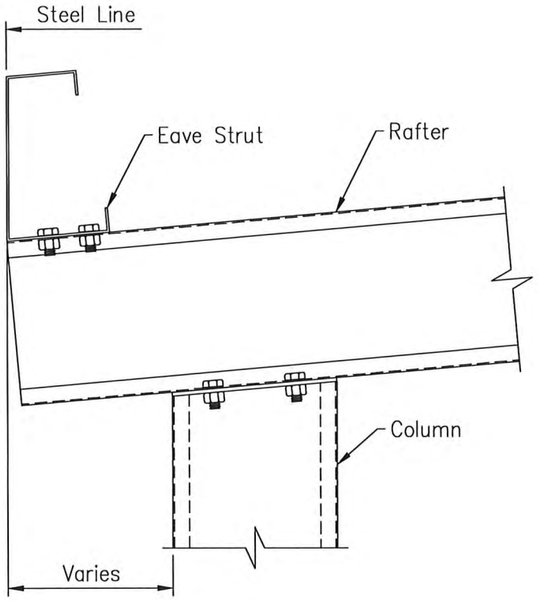
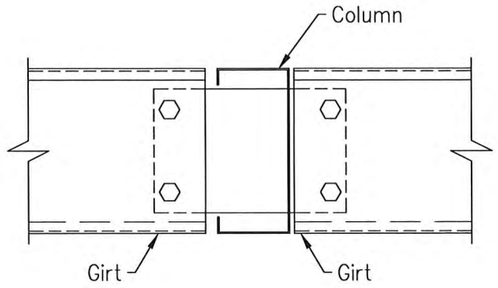
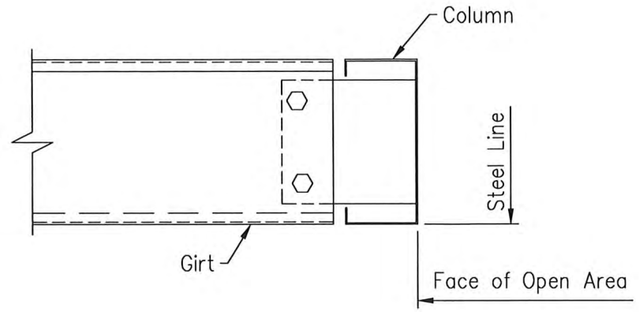


B16	Corner Column To Bearing Frame Single Cold Form Rafter	Date Jun '17
Page MB–B16		Rev 00



C4	Girt To Cold Form Column	Date Jun '17
Page MB–C4		Rev 00



C13	Girt To Cold Form Endwall Column – Partially Open	Date Jun '17
Page MB–C13		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
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OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	DET2	0

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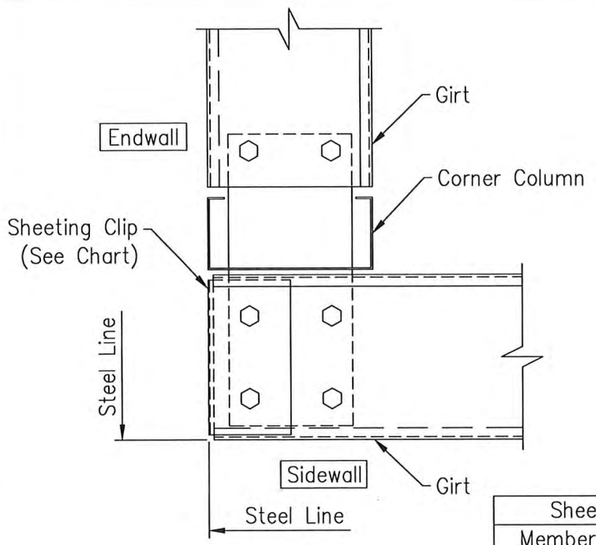
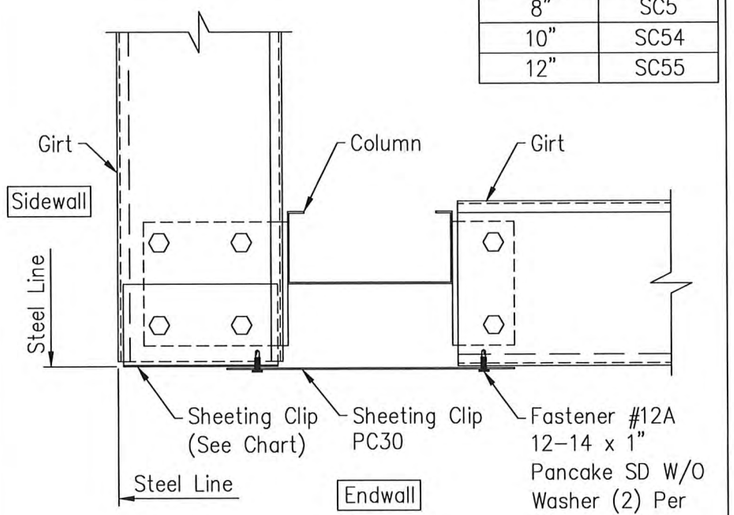


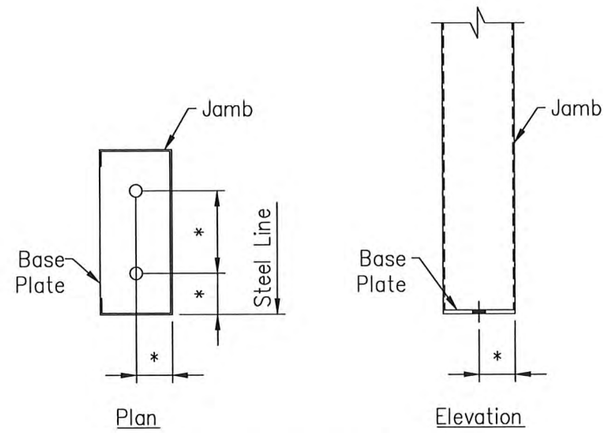
Sheeting Clip	
Member	Piece Mark
8"	SC5
10"	SC54
12"	SC55

D4	Girt To Cold Form Corner Column	Date Oct '19
Page MB-D4		Rev 01



Sheeting Clip	
Member	Piece Mark
8"	SC5
10"	SC54
12"	SC55

D17	Girt To Cold Form Rotated Corner Column	Date Jun '17
Page MB-D17		Rev 00



* – Refer To Anchor Rod Setting Plan For Dimension

E5	Door Jamb Base Plate	Date Dec '18
Page MB-E5		Rev 01

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
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OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	DET3	0

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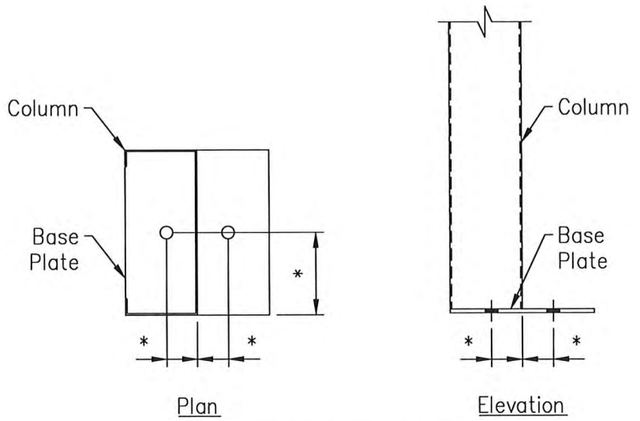
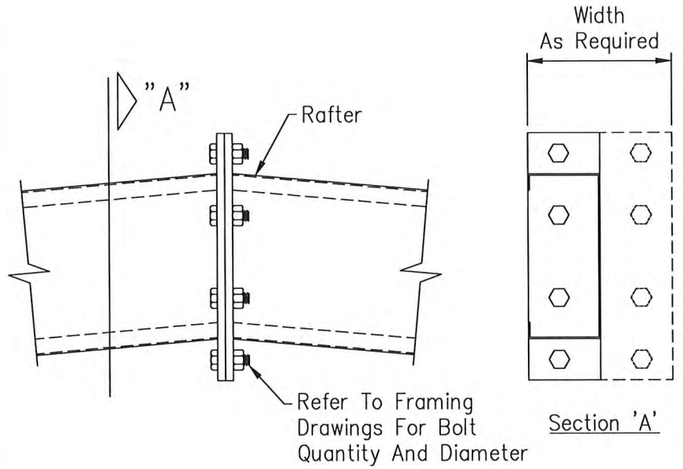
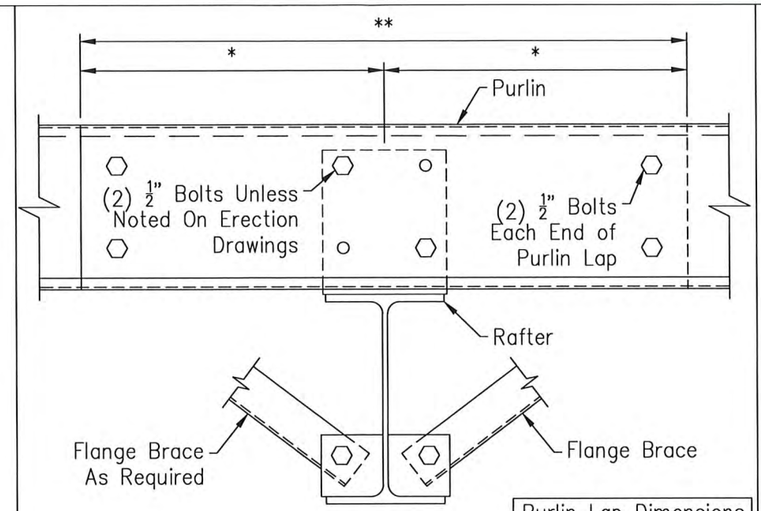


* – Refer To Anchor Rod Setting Plan For Dimension

E8	Cold Form Endwall Column Base Plate	Date Dec '18
Page MB–E8		Rev 01



F10	Endwall Bearing Frame – Cold Form Rafter Splice At Ridge	Date Jun '17
Page MB–F10		Rev 00



Purlin Lap Dimensions	
*	**
1'–5¾"	2'–11½"
2'–5¾"	4'–11½"
3'–1¾"	6'–3½"

G2	Purlin To Rigid Frame	Date Sep '19
Page MB–G2		Rev 01

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
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LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	DET4	0

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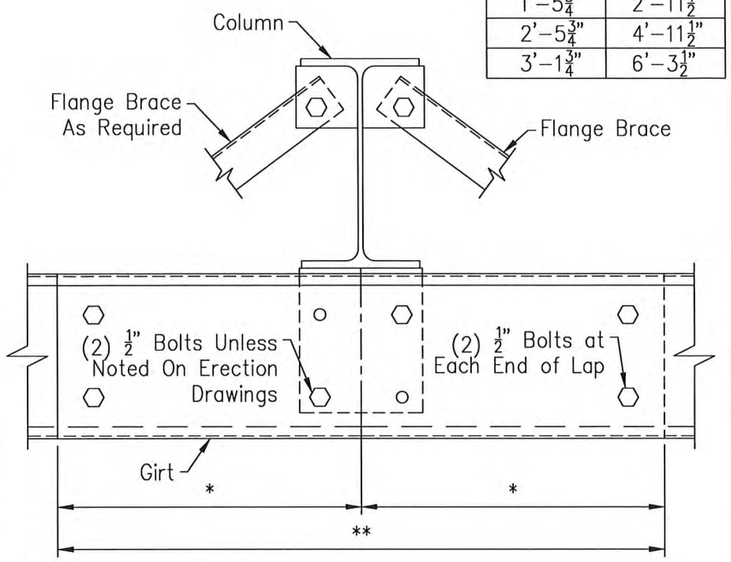
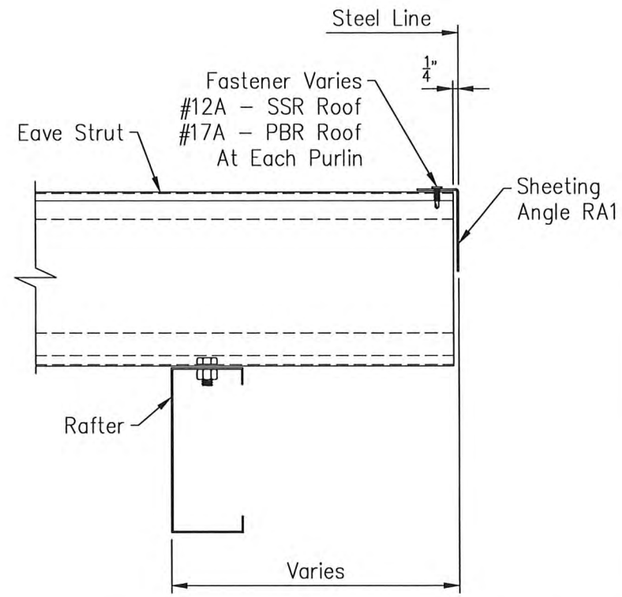
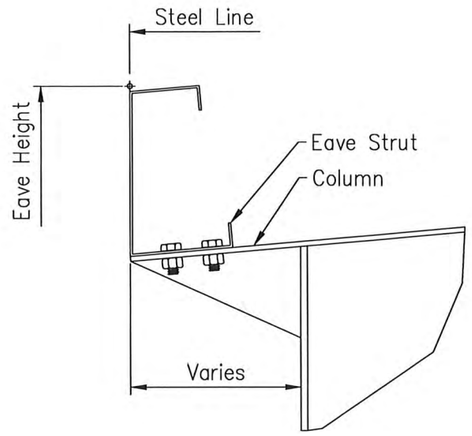
Girt Lap Dimensions	
*	**
1'–5¾"	2'–11½"
2'–5¾"	4'–11½"
3'–1¾"	6'–3½"



H2	Girt To Rigid Frame	Date Sep '19
Page MB–H2		Rev 01



I6	Low Side Eave Strut To Bearing Frame – Cold Form	Date Jun '17
Page MB–I6		Rev 00



J2	Eave Strut To By–Pass Rigid Frame At Interior	Date Dec '17
Page MB–J2		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
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LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	DET5	0

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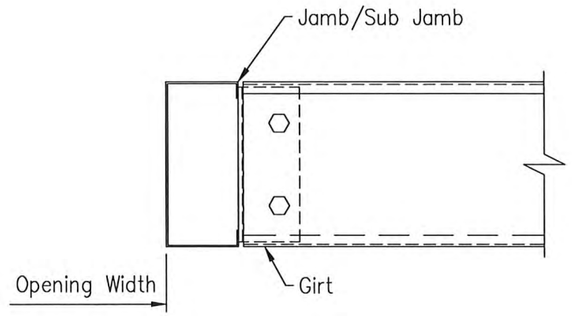
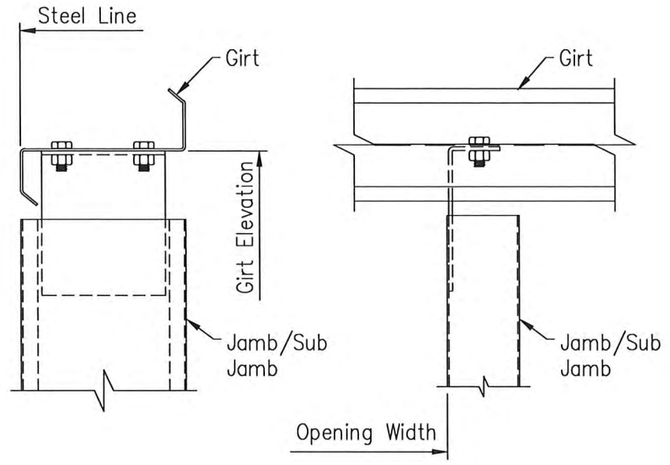
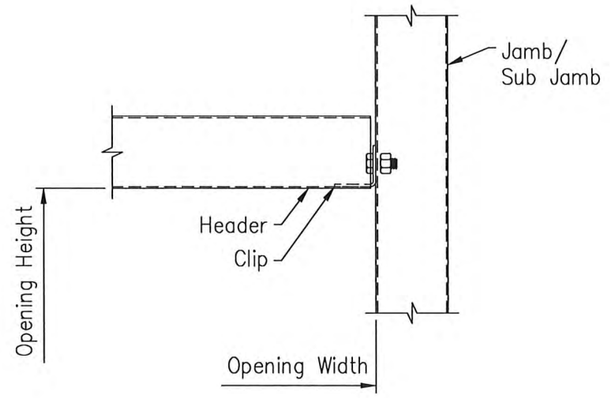


K3	Girt To Single Cold Form Jamb/Sub Jamb	Date Dec '17
Page MB-K3		Rev 00



L8	Single Cold Form Jamb/ Sub Jamb To Girt	Date Jun '17
Page MB-L8		Rev 00



M3	Header To Cold Form Jamb/Sub Jamb	Date Dec '17
Page MB-M3		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	DET6	0

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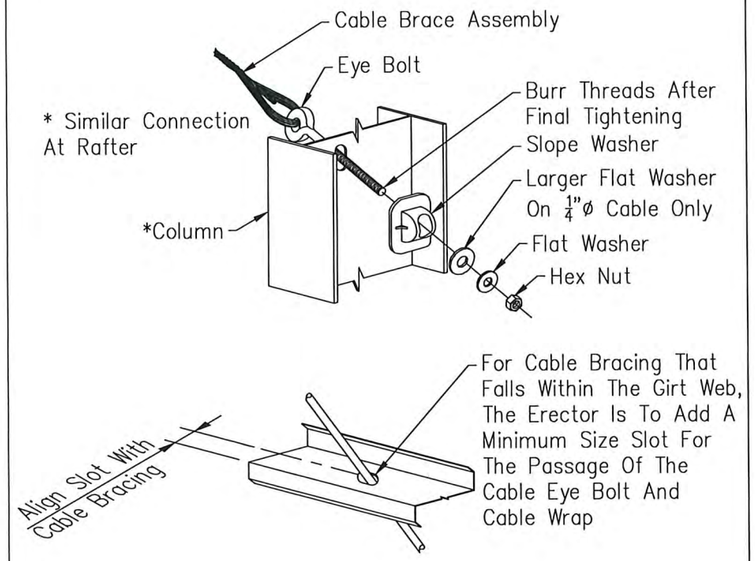
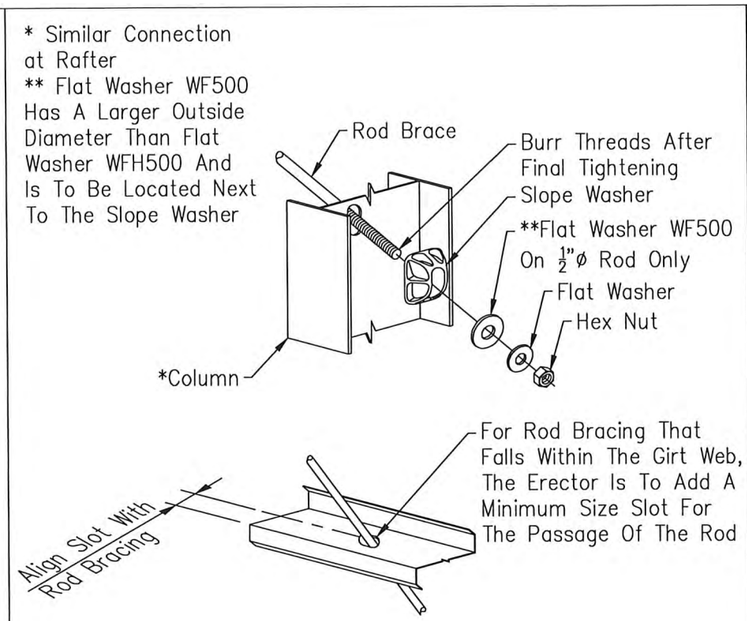
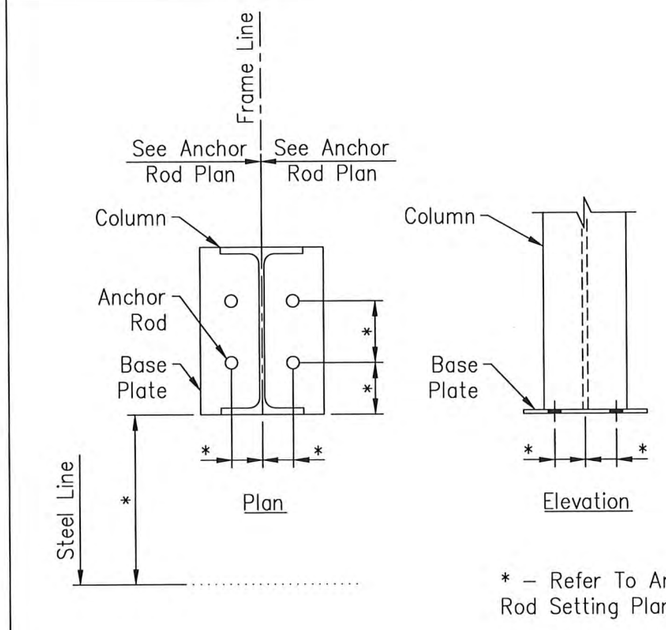


Q2	Cable Brace Attachment At Web	Date Mar '18
Page MB-Q2		Rev 01



Q3	Rod Brace Attachment At Web	Date Mar '18
Page MB-Q3		Rev 01



R2	Anchor Rods At Frame Column	Date Dec '17
Page MB-R2		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

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OWNER: DIVERGENT SOLUTIONS
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CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
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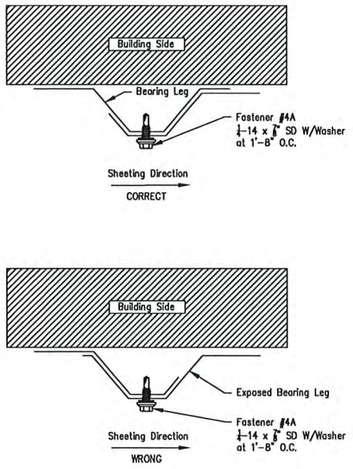
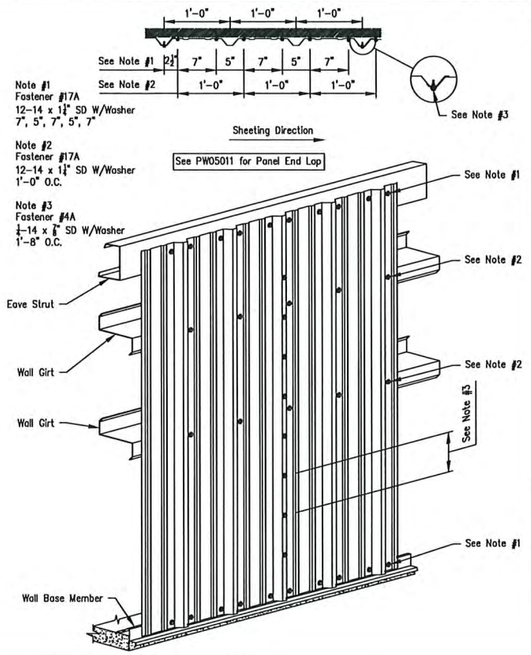
PBR Wall Panel
Panel Side Lap

Page PW05002 | Date Mar '19 | Rev 03



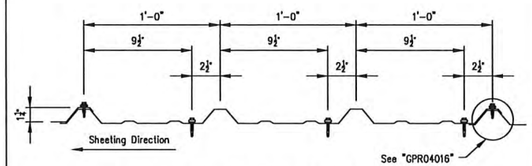
PBR Wall Panel
Fastener Location

Page PW05003 | Date Aug '15 | Rev 04

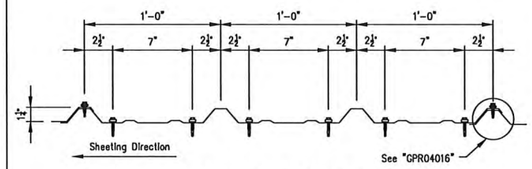


PBR Roof Panel
Fastener And Tape Sealant Location

Page GPR00011 | Date Apr '19 | Rev 01



All Roof Members Except As Noted Below



At Eave Strut, Panel End Lap And Peak Purlin

Note:
Screw patterns shown satisfy U.L. 90 requirements for roof.

Screw Application

Page TH06006 | Date May '19 | Rev 01

Standard Grade

Description	Fastener Number	Application
1/4"-14 x 7/8" Type 2	4A	Stitch & Trim Screw
12-14 x 1 1/4" Type 2	17A	Member Screw (Up To 4" Insulation)
12-14 x 1 1/2" Type 2	17B	Member Screw (Up To 6" Insulation)

Long Life

Description	Fastener Number	Application
1/4"-14 x 7/8" Type 1	4	Stitch & Trim Screw
12-14 x 1 1/4" Type 2	3	Member Screw (Up To 4" Insulation)
12-14 x 1 1/2" Type 2	3A	Member Screw (Up To 6" Insulation)

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
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MBCI METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
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OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
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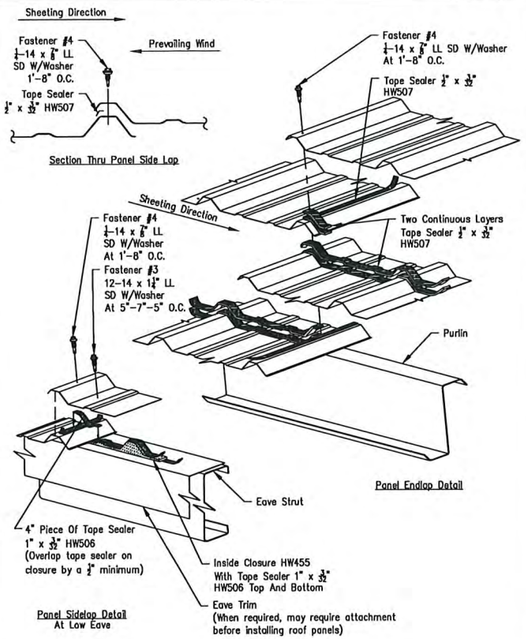
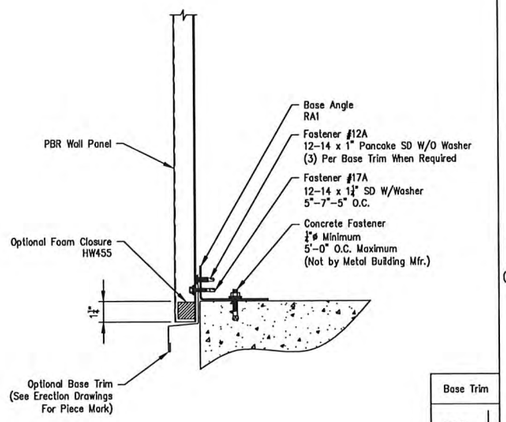
PBR Roof Panel
Side Lap And End Lap Details

Page GPR04016 | Date Apr '19 | Rev 04



PBR Wall Panel
Base Angle Without Panel Recess

Page PW02101 | Date Apr '18 | Rev 02

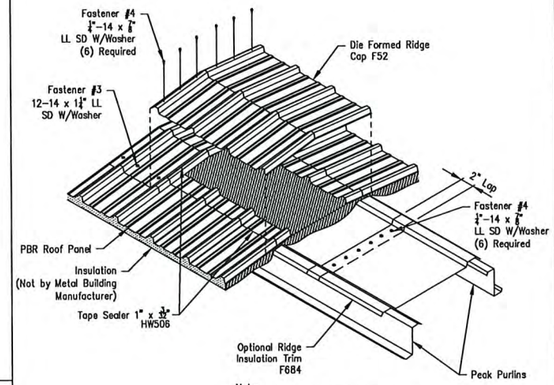


Base Trim
F406
F407
F408

Wall panel must be held off of base trim a minimum of 1" to prevent bottom of wall panel from rusting.

PBR Roof Panel
Fixed Ridge Detail

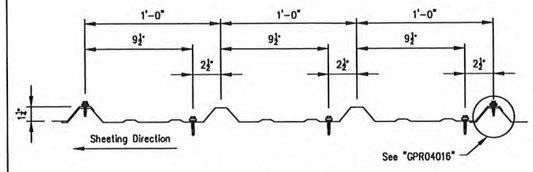
Page GPR06003 | Date Apr '19 | Rev 04



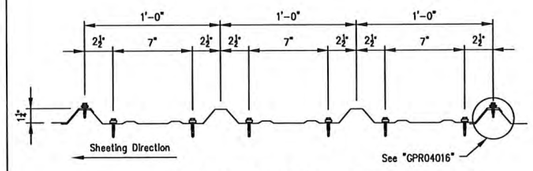
Note:
Install optional ridge insulation trim F684 as insulation and roof sheeting is being applied. Temporary attachment, if required, is not by metal building manufacturer.

PBR Roof Panel
Fastener And Tape Sealant Location

Page GPR00011 | Date Apr '19 | Rev 01



All Roof Members Except As Noted Below



At Eave Strut, Panel End Lap And Peak Purlin

Note:
Screw patterns shown satisfy U.L. 90 requirements for roof.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
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WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
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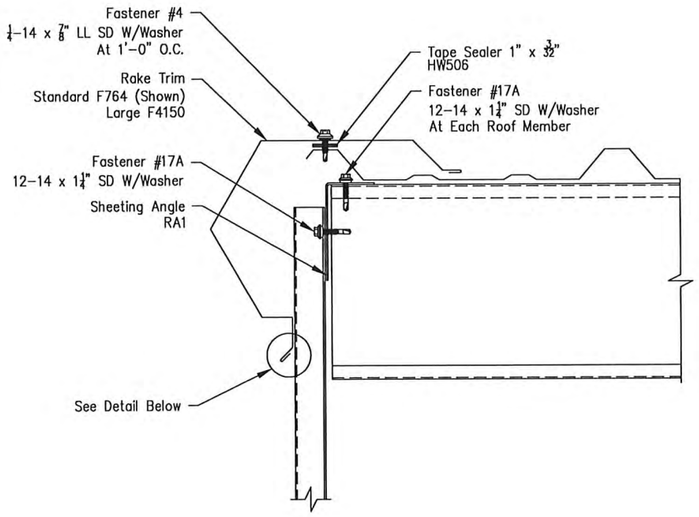
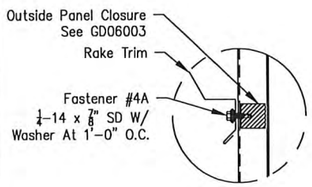
PBR Roof Panel - Southern Standard And Southern Large Classic Rake Trim - Sheeted Wall

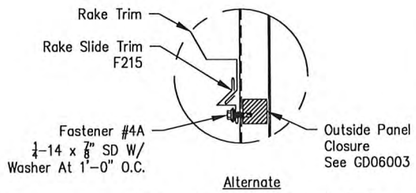
Page WPR05002 | Date May '19 | Rev 08





Standard

For Roof Runs 100'–0" Or Less

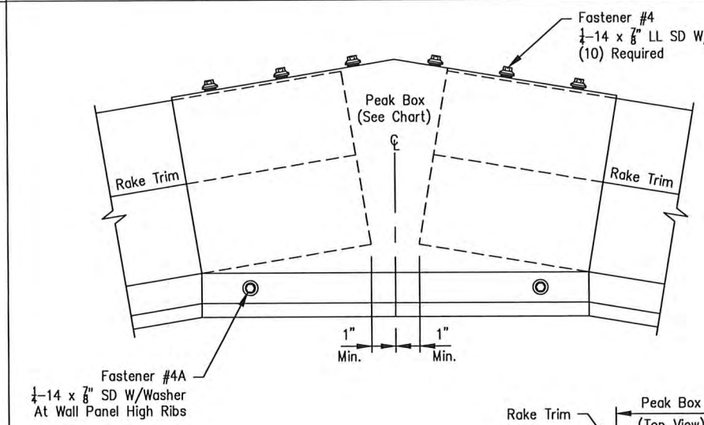


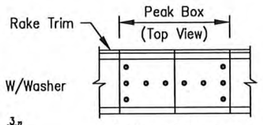
Alternate

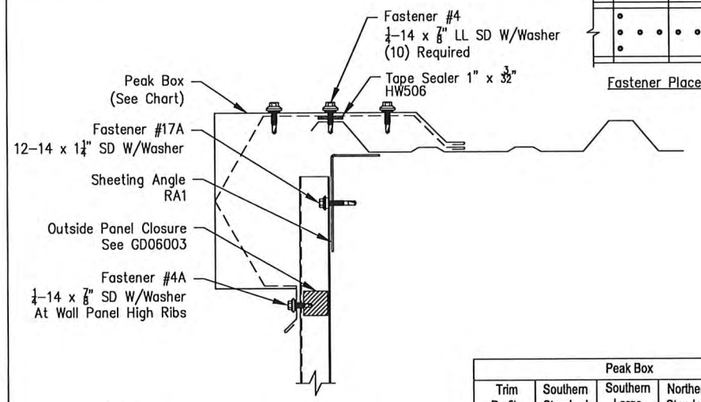
For Roof Runs Greater Than 100'–0"

PBR Roof Panel Peak Box At Fixed Ridge

Page GPR05001 | Date Apr '19 | Rev 06





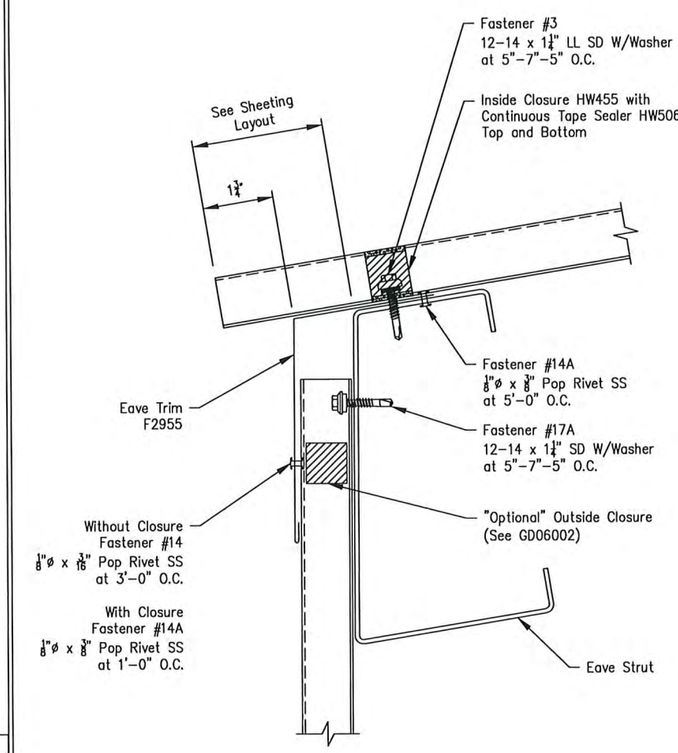


Note:
Flashing profile varies dependent on the building order. Attachment as illustrated is applicable for all profiles.

Peak Box				
Trim Profile	Southern Standard	Southern Large	Northern Standard	Northern Large
Cascading	F1519	F1585	F1672	F1760
Classic	F160	F4153	F381	F1024
Contoured	F2219	F2285	F2372	F2460
Signature	F916	F3853	F236	F1018

PBR Panel Flat Eave Trim - Sheeted Wall

Page GPR03004 | Date Feb '17 | Rev 05



ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

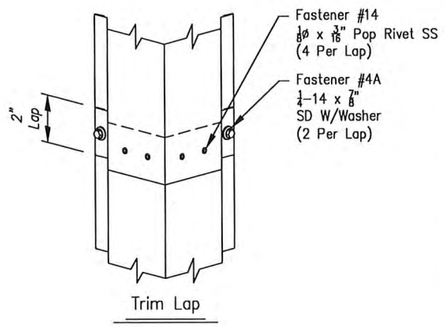
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	DET10	0

Drawing has been digitally signed.
Registered Professional Engineer (Civil)
CERTIFICATE NO. 59792
JAY S. SURMIEDA
Jul 03, 2020
Date Signed
ARIZONA, U.S.A.

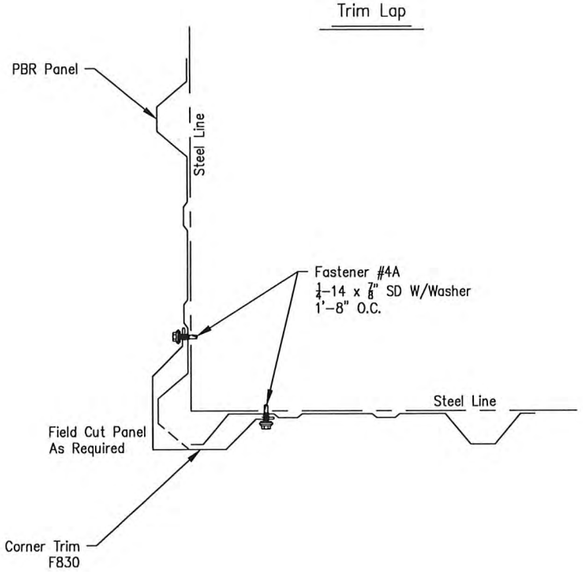
Expires 6/30/2021

PBR Wall Panel
Outside Corner - On Module

Page PW03001 | Date Apr '19 | Rev 08

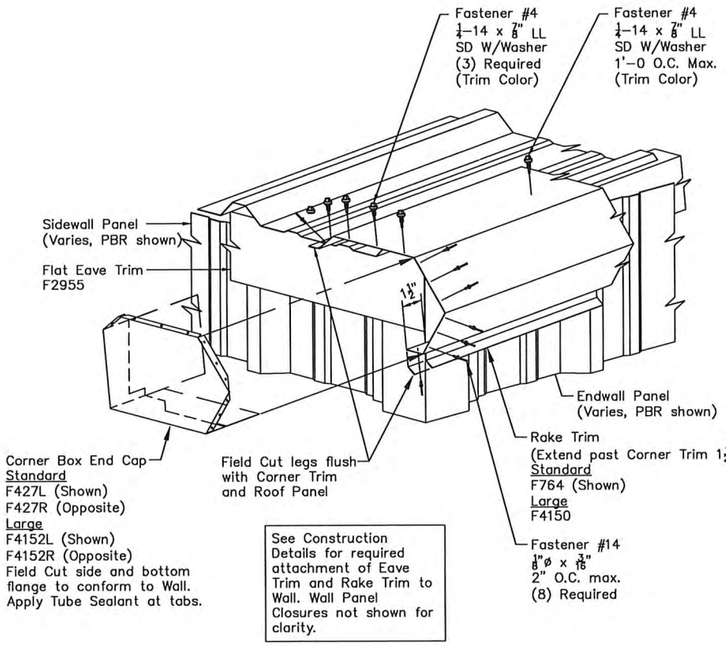


Trim Lap

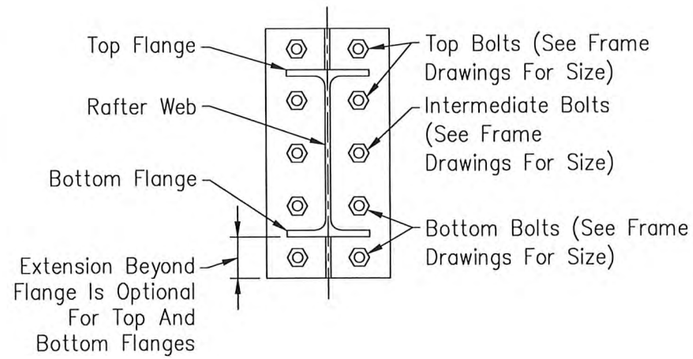


PBR Roof Panel - Southern Standard and Southern Large
Low Eave Rake Corner with Flat Eave Trim - 1¼" Wall Panel

Page WPR04006 | Date Jul '17 | Rev 05



See Construction Details for required attachment of Eave Trim and Rake Trim to Wall. Wall Panel Closures not shown for clarity.



U2	Bolts At Rigid Frame Ridge Rafter Connection	Date Jun '17
Page MB–U2		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS | OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	DET11	0

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Registered Professional Engineer (Civil)
CERTIFICATE NO. 59792
JAY S. SURMIEDA
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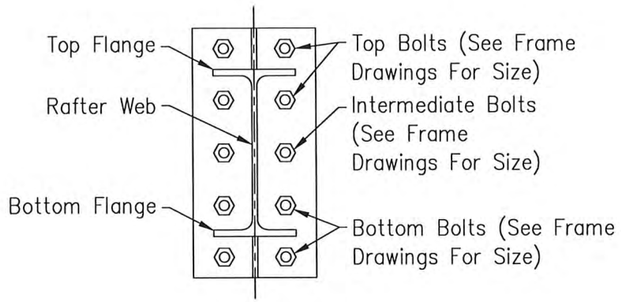
ARIZONA, U.S.A.

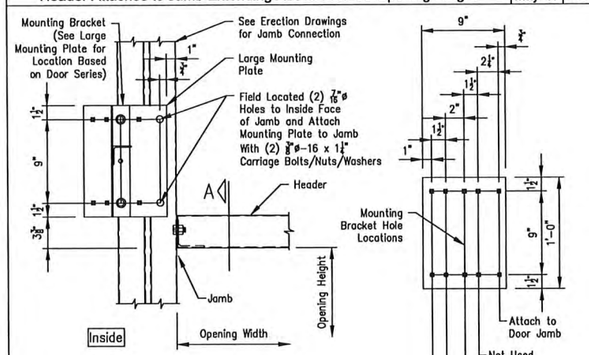
Expires 6/30/2021



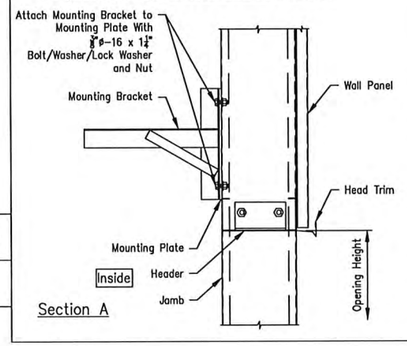
U3	Bolts At Rigid Frame Rafter To Column Connection	Date Jun '17
Page MB–U3		Rev 00

DBCI Roll Up Door - Series 2500 Thru 5250 - Non Drive Side
Large Mounting Plate / Mounting Bracket
Header Attaches to Jamb Extending Above Framed Opening Height

Page AC00821 | Date May '17 | Rev 00



Large Mounting Plate/Bracket Elevation



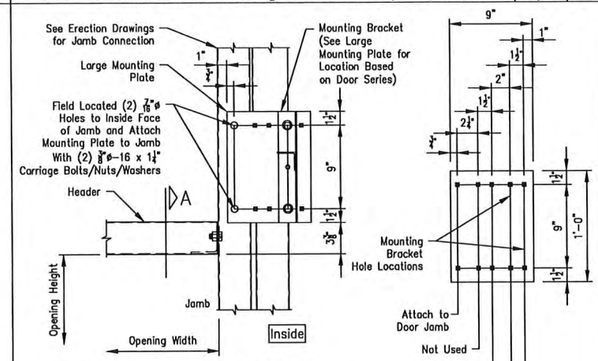
Section A

Large Mounting Plate
(Non Drive Side)

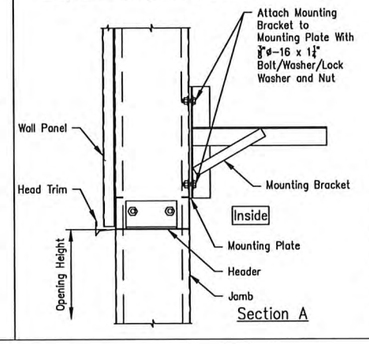
Notes:
1. Drawing is to be Used in Conjunction With DBCI Installation Manual.
2. Mounting Plate, Mounting Bracket and Attachment Bolts, nuts and Washers are Provided by DBCI.
3. Non Drive Side can be on the Left or Right Jamb.
4. Drawings Shows the Non Drive Side of the Door on the Left Jamb Viewed From the Inside.

DBCI Roll Up Door - Series 1900 Thru 5250 - Drive Side
Large Mounting Plate / Mounting Bracket
Header Attaches to Jamb Extending Above Framed Opening Height

Page AC00822 | Date May '17 | Rev 00



Large Mounting Plate/Bracket Elevation



Section A

Large Mounting Plate
(Drive Side)

Notes:
1. Drawing is to be Used In Conjunction With DBCI Installation Manual.
2. Mounting Plate, Mounting Bracket and Attachment Bolts, Nuts and Washer Provided by DBCI.
3. Drive Side can be on the Left or Right Jamb.
4. Drawing Shows the Drive Side of the Door on the Right Jamb Viewed From the Inside.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17–B–68454	DET12	0

Drawing has been digitally signed

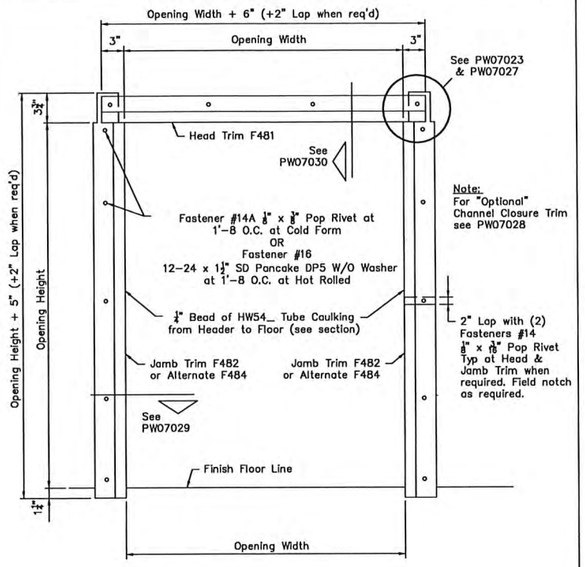
Registered Professional Engineer (Civil)
CERTIFICATE NO. 59792
JAY S. SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.

Expires 6/30/2021

PBR Wall Panel - Three Sided Framed Opening
Trim Installation with Field Notch Panel at Head Trim

Page PW07022 | Date Sep '14 | Rev. 03

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



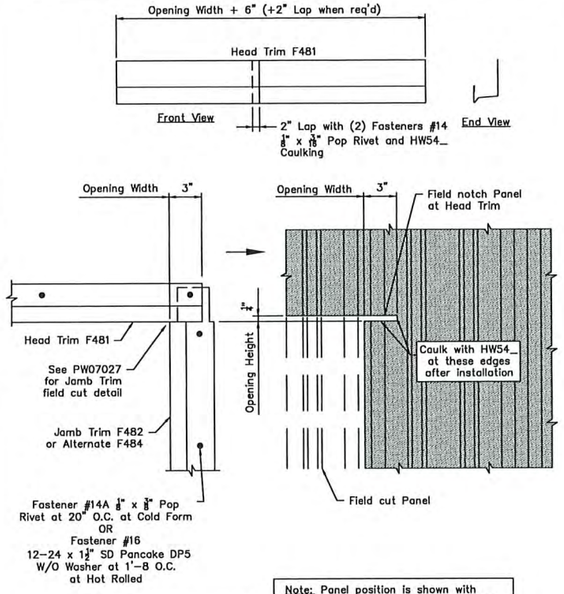
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening
Field Notch Panel at Head Trim

Page PW07023 | Date Sep '14 | Rev. 03

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



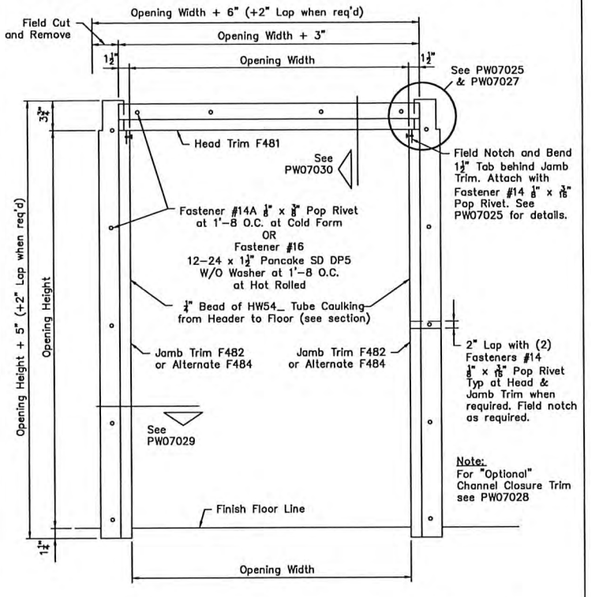
Note: All trim is to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib and Opening on 1'-0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Three Sided Framed Opening
Trim Installation with Field Notch and Bend Tabs at Head Trim

Page PW07024 | Date Sep '14 | Rev. 03

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



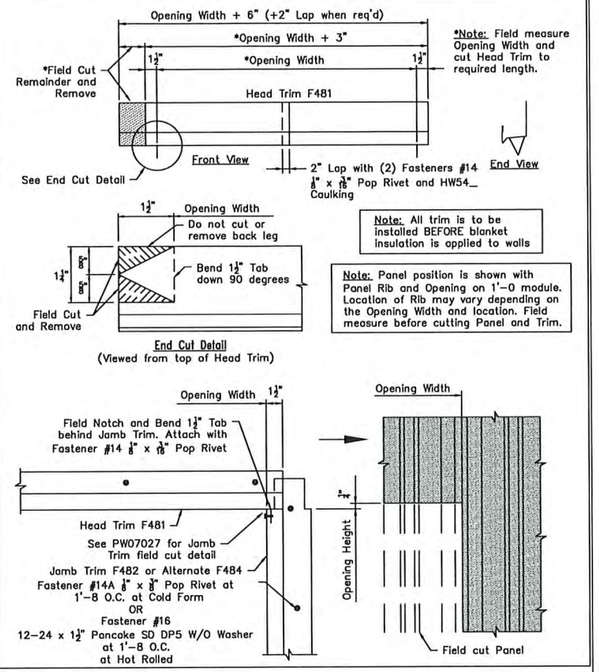
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening
Field Notch and Bend Tabs at Head Trim

Page PW07025 | Date Sep '14 | Rev. 03

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



STANDARD FRAMED OPENING DETAILS (PBR WALL PANEL)

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	DET13	0

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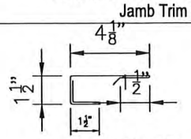
Registered Professional Engineer (Civil)
CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.

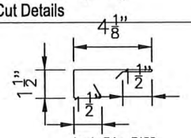
Expires 6/30/2021

PBR Wall Panel - Three Sided Framed Opening
Jamb Trim Field Cut Details

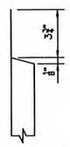
Page PW07027 | Date Sep '14 | Rev. 01



Alternate Jamb Trim F484
Top View

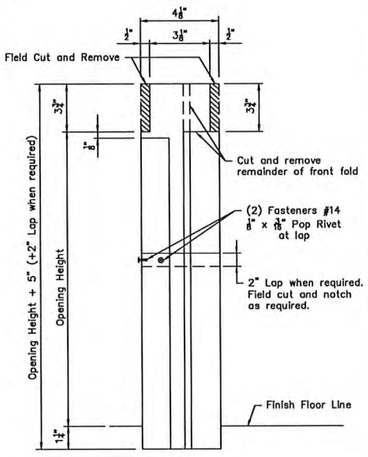


Jamb Trim F482
Top View



Side View at Head Trim

Side View at Sill Trim

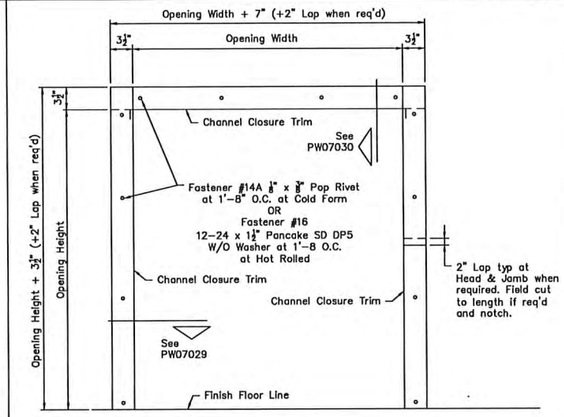


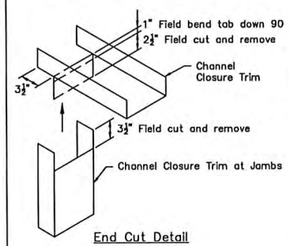
Jamb Trim F482 and
Alternate Jamb Trim F484
Front View
Right Jamb Trim as shown
Left Jamb Trim opposite hand

Note: Field measure Opening Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening
"Optional" Channel Closure Trim

Page PW07028 | Date Mar '15 | Rev. 03





End Cut Detail

Optional
Channel Closure Trim Piece Mark

F981	– 8" Member	F2993	– 10 1/4" Member
F2994	– 8 1/4" Member	F169	– 12" Member
F982	– 10" Member	F2995	– 12 1/4" Member

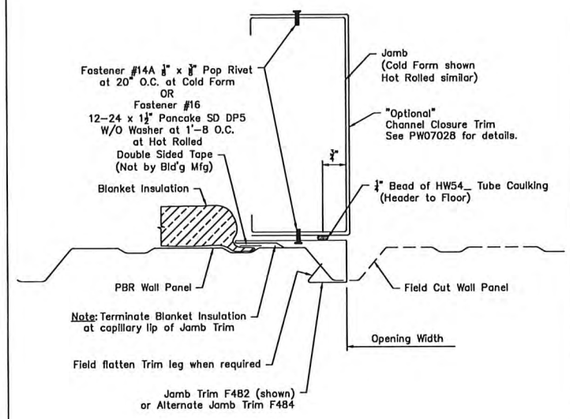
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

Note: The interior leg of the Channel Closure Trim is to be oriented (±1/8") to match the interior leg of the Header or Jamb.

PBR Wall Panel - Three Sided Framed Opening
Jamb Trim Installation

Page PW07029 | Date May '14 | Rev. 02



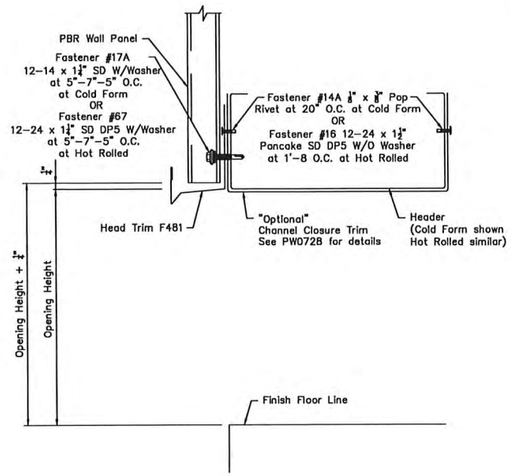
Alternate Jamb
Trim F484 Profile

Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Opening on 1'-0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Three Sided Framed Opening
Head Trim Installation

Page PW07030 | Date Mar '14 | Rev. 01



Note: All trim is to be installed BEFORE blanket insulation is applied to walls

STANDARD FRAMED OPENING DETAILS (PBR WALL PANEL) CONT.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	DET14	0

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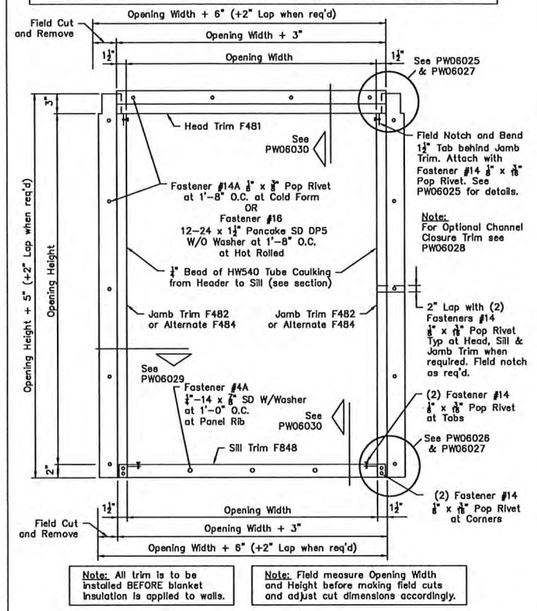
CERTIFICATE NO. 59792
JAY S. SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.
Expires 6/30/2021

PBR Wall Panel - Four Sided Framed Opening
Trim Installation With Field Notch and Bend Tabs at Head Trim

Page PW06024 | Date Apr '19 | Rev 05

Note: Trim Installation can be done by Field Notch Panel as shown on PW06022 & PW06023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW06024 & PW06025.

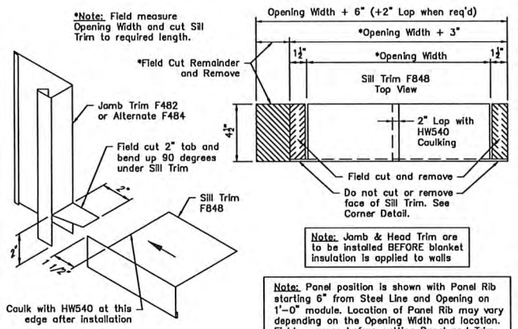


Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Four Sided Framed Opening
Sill Trim Installation

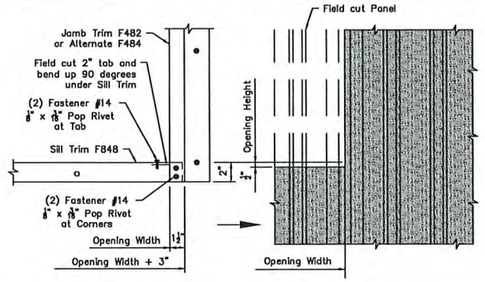
Page PW06026 | Date Nov '17 | Rev 03



Corner Detail

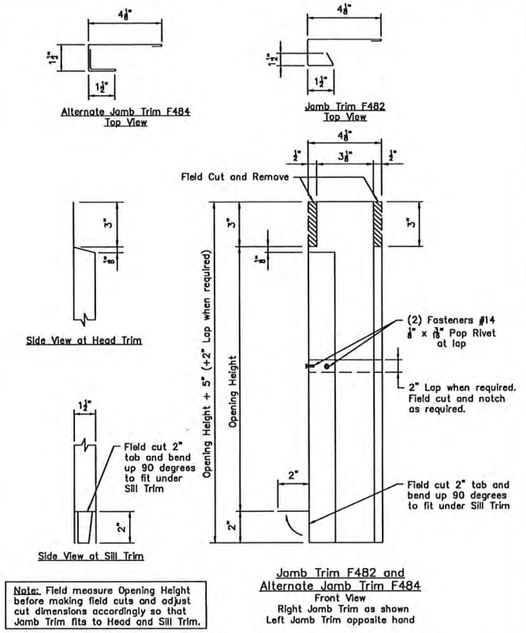
Note: Jamb & Head Trim are to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib starting 6" from Steel Line and Opening on 1'-0" module. Location of Panel Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.



PBR Wall Panel - Four Sided Framed Opening
Jamb Trim Field Cut Details

Page PW06027 | Date May '19 | Rev 03

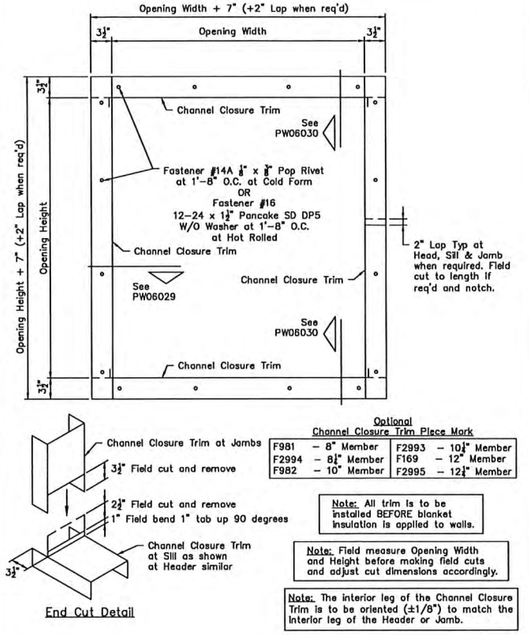


Note: Field measure Opening Height before making field cuts and adjust Jamb Trim fits to Head and Sill Trim.

Jamb Trim F482 and Alternate Jamb Trim F484
Front View
Right Jamb Trim as shown
Left Jamb Trim opposite hand

PBR Wall Panel - Four Sided Framed Opening
Optional Channel Closure Trim

Page PW06028 | Date Sep '16 | Rev 04



End Cut Detail

Optional Channel Closure Trim Piece Mark

F981	– 8" Member	F2993	– 10¼" Member
F2994	– 8¼" Member	F169	– 12" Member
F982	– 10" Member	F2995	– 12¼" Member

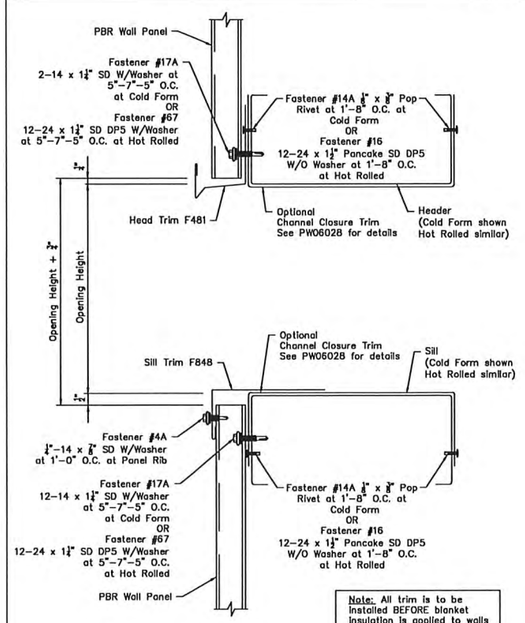
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

Note: The interior leg of the Channel Closure Trim is to be oriented (±1/8") to match the interior leg of the Header or Jamb.

PBR Wall Panel - Four Sided Framed Opening
Head and Sill Trim Installation

Page PW06030 | Date Sep '16 | Rev 02



Note: All trim is to be installed BEFORE blanket insulation is applied to walls

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

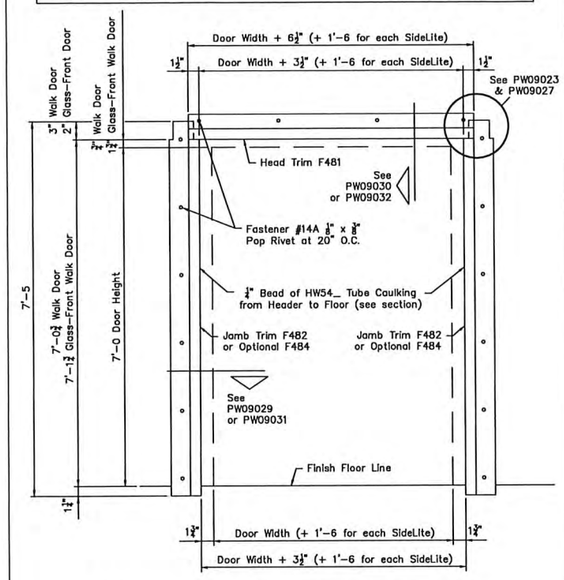
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	DET15	0

Drawing has been digitally signed.
Registered Professional Engineer (Civil)
CERTIFICATE NO. 59792
JAY S. SURMIEDA
Jul 03, 2020
Date Signed
ARIZONA, U.S.A.
Expires 6/30/2021

PBR Wall Panel - Walk Door & Glass-Front Walk Door Trim Installation with Field Notch Panel at Head Trim

Page PW09022 | Date May '14 | Rev. 01

Note: Trim Installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.



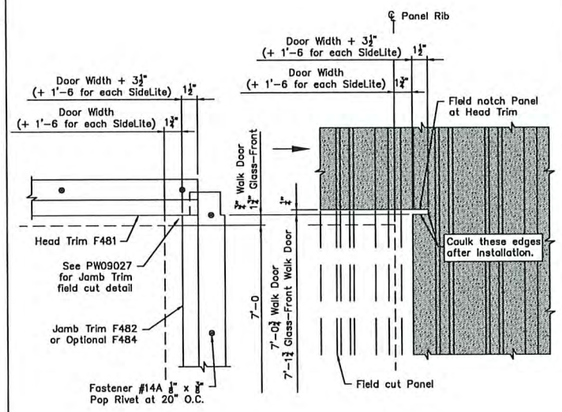
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Door Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Walk Door & Glass- Front Walk Door Field Notch Panel at Head Trim

Page PW09023 | Date Dec '11 | Rev. 00

Note: Trim Installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.



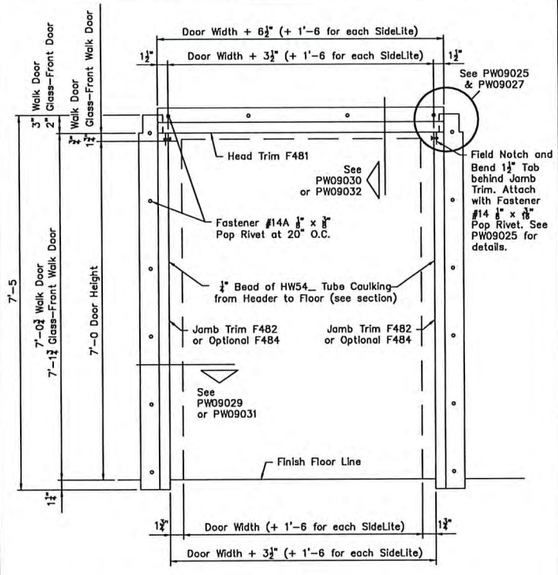
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Door on 1'-0 module. Location of Rib may vary depending on the Door Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Walk Door & Glass-Front Walk Door Trim Installation with Field Notch and Bend Tabs at Head Trim

Page PW09024 | Date May '14 | Rev. 01

Note: Trim Installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.



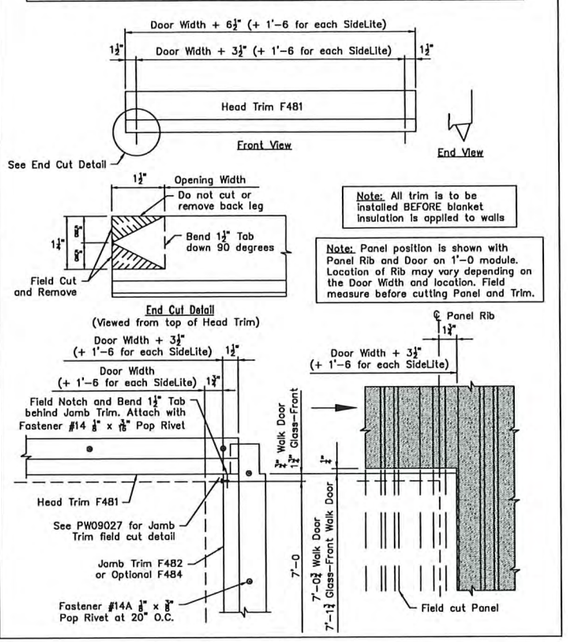
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Door Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Walk Door & Glass-Front Walk Door Field Notch and Bend Tabs at Head Trim

Page PW09025 | Date Dec '11 | Rev. 00

Note: Trim Installation can be done by Field Notch Panel as shown on PW09022 & PW09023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW09024 & PW09025.



STANDARD WALKDOOR DETAILS (PBR WALL PANEL)

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	DET16	0

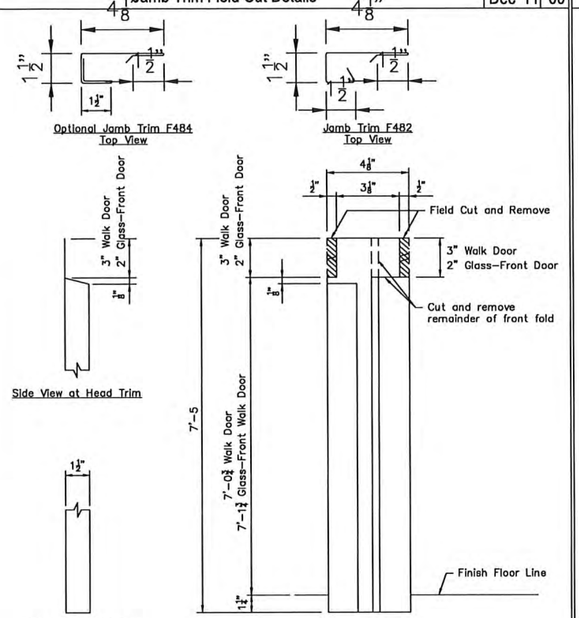
Drawing has been digitally signed

Registered Professional Engineer (Civil)
CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.

Expires 6/30/2021

PBR Wall Panel - Walk Door & Glass-Front Walk Door Jamb Trim Field Cut Details

Page PW09027 | Date Dec '11 | Rev. 00

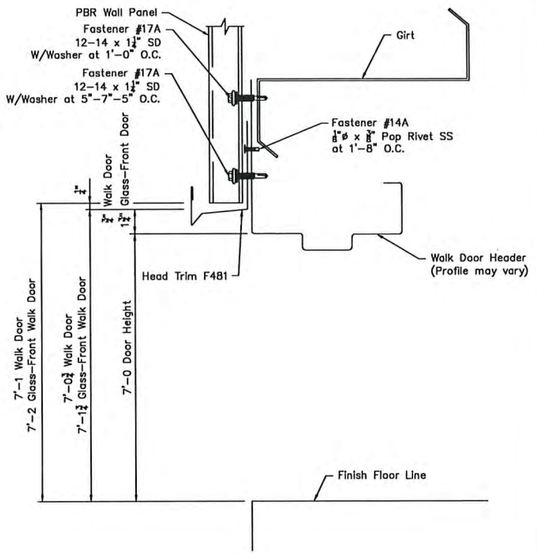


Jamb Trim F482 and Optional Jamb Trim F484
Front View
Right Jamb Trim as shown
Left Jamb Trim opposite hand

Note: Field measure Door Height before making field cuts and adjust cut dimensions accordingly so that Jamb Trim fits to Head Trim & at 1 1/2" below Finish Floor Line.

PBR Wall Panel - Pre-Assembled Walk Door & Glass-Front Walk Door Head Trim Installation

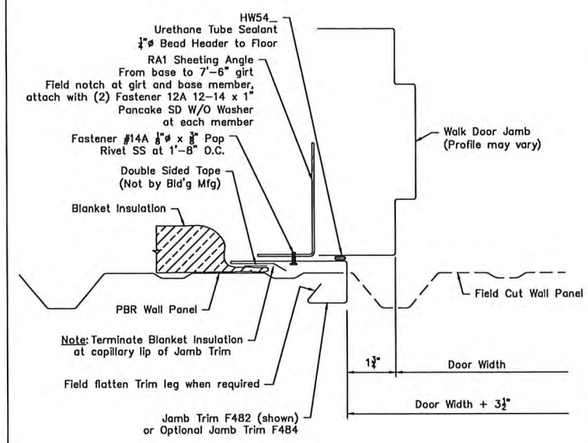
Page PW09030 | Date Mar '15 | Rev. 02



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

PBR Wall Panel - Knock Down Walk Door Jamb Trim Installation

Page PW09031 | Date Mar '15 | Rev. 02



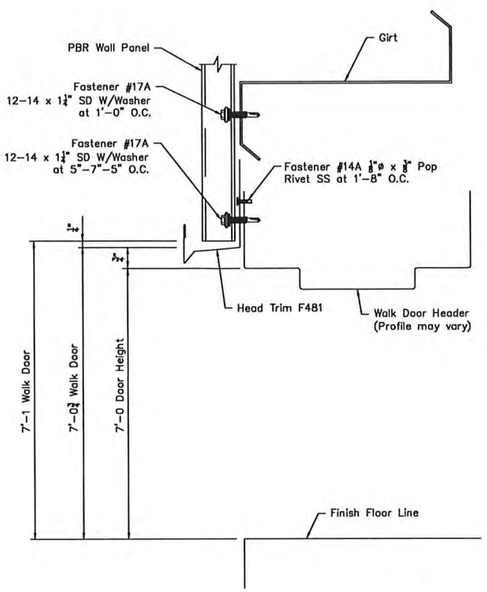
Optional Jamb Trim F484 Profile

Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Door on 1'-0 module. Location of Rib may vary depending on the Door Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Knock Down Walk Door Head Trim Installation

Page PW09032 | Date Mar '15 | Rev. 02



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

STANDARD WALKDOOR DETAILS (PBR WALL PANEL) CONT.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS
40602 HIGHWAY 290
WALLER, TX 77484

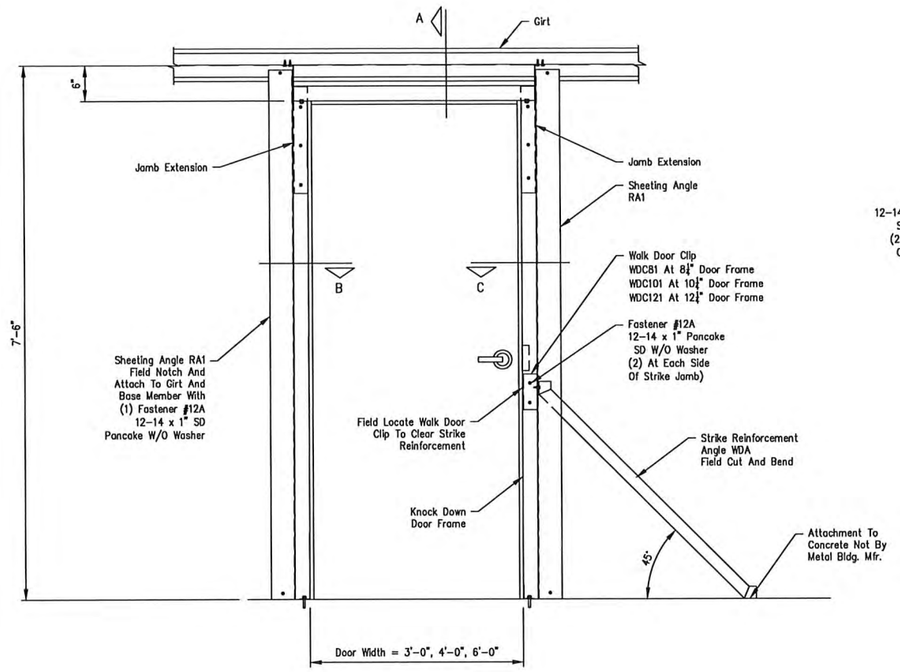
PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	7/ 1/20	N.T.S.	1	A	17-B-68454	DET17	0

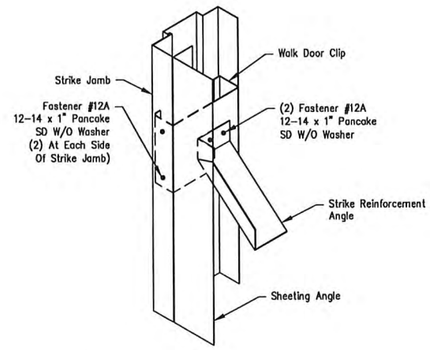
Drawing has been digitally signed

Registered Professional Engineer (Civil)
CERTIFICATE NO.
59792
JAY S.
SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.

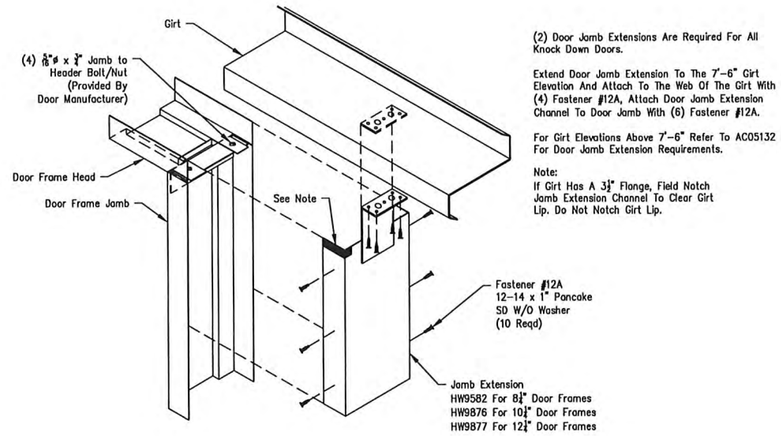
Expires 6/30/2021



Door Elevation



Walk Door Clip/Strike Reinforcement Angle Isometric



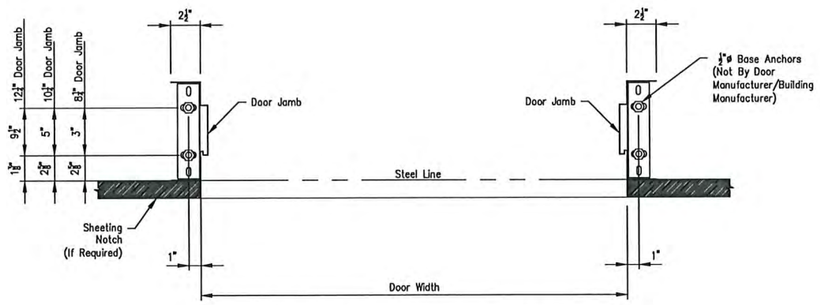
Door Jamb Extension Isometric

(2) Door Jamb Extensions Are Required For All Knock Down Doors.

Extend Door Jamb Extension To The 7'-6" Girt Elevation And Attach To The Web Of The Girt With (4) Fastener #12A, Attach Door Jamb Extension Channel To Door Jamb With (6) Fastener #12A.

For Girt Elevations Above 7'-6" Refer To AC05132 For Door Jamb Extension Requirements.

Note:
If Girt Has A 3½" Flange, Field Notch Jamb Extension Channel To Clear Girt Lip. Do Not Notch Girt Lip.

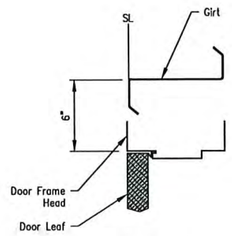


The Adequacy Of The ⅜"ø Base Anchor Is Not The Responsibility Of The Building Manufacturer. The Adequacy Of These Base Anchors Should Be Determined By A Qualified Foundation Engineer.

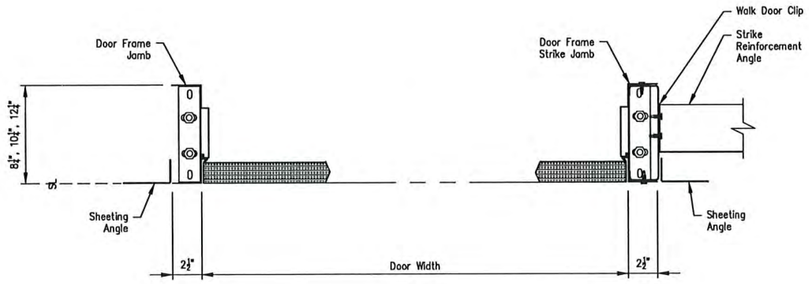
Verify Door Jamb Base Clip Dimensions With Patterns Shown Prior To Placement Of Door Anchors And Adjust Patterns If Needed.

Note: 12¼" Frames May Not Have Kerf Door Frame Feature Depending On Door Manufacturer.

Knock Down Door Anchor Placement



Section A



Section B

Section C

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	7/ 1/20	FOR ERECTOR INSTALLATION	KD	HPD	EV

METAL DEPOTS

40602 HIGHWAY 290
WALLER, TX 77484

PROJECT: DIVERGENT SOLUTIONS
CUSTOMER: DIVERGENT SOLUTIONS
OWNER: DIVERGENT SOLUTIONS
LOCATION: TUCSON, AZ 85746

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	7/ 1/20	N.T.S.	1	A	17-B-68454	DET18	0

Drawing has been digitally signed.
Registered Professional Engineer (Civil)
CERTIFICATE NO. 59792
JAY S. SURMIEDA
Date Signed Jul 03, 2020
ARIZONA, U.S.A.
Expires 6/30/2021

Knock Down Door - Girt At 7'-6" Without Low Girt

Page	
AC05200	
Date	Rev
Nov '18	00

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:

1. Carefully Check Your Packing List While Unloading.
2. Mark Any Items Which Appear To Be Missing And Notify The Field Service Department At The Number Shown In The Title Block As Soon As Possible. Calling Someone Else Could Delay The Proper Response.

INITIAL CLAIM:
In The Event Of An Error, The Customer Must Promptly Make A Written Or Verbal "Initial Claim" to The Manufacturer For The Correction Of Design, Drafting, Bill Of Materials Or 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. Materials To Be Purchased From Other Than the Manufacturer, Including Estimated Quantities and Cost.
4. Maximum Total Cost Of Proposed Corrective Work And Materials To Be Purchased From Other Than The Manufacturer.

SHORT MATERIALS:
Immediately Upon Delivery Of Materials, Quantities Are To Be Verified By The Customer Against Quantities That Are Billed On The Shipping Documents. Neither The Manufacturer Nor The Carrier Is Responsible For Material Shortages Against The Quantities Billed On The Shipping Documents If Such Shortages Are Not Noted On The Shipping Documents When The Material Is Delivered And 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 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 To Be Made To 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 By The Carrier's Agent. The Manufacturer Is Not Responsible For Material Damaged In Unloading Of Packages Or Nested Materials, Including, But Not Limited To: Fasteners, Sheet Metal, "C" And "Z" Sections And Covering Panels That Become Wet And/Or Damaged By Water While In The Possession Of Others. Packaged Or Nested Material That Become Wet In Transit Must Be Unpacked, Unstacked And Dried By The Customer. If The Carrier Is The Manufacturer, The Customer Must Make Claim For Damaged 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 Customer's Use Of Damaged Or Defective Materials That Can Be Detected By Visual Inspection.

EXCESSIVE MATERIAL:
The Manufacturer Reserves The Right To Recover Any Material Delivered In Excess Of Those Required By The Order Documents.

OIL CANNING IS NOT A CAUSE FOR REJECTION

Authorization For Corrective Work

Normal Erection Operations Include The Correction Of Minor Misfits By Amounts Of Reaming, Chipping, Welding Or Cutting And The Drawing Of Elements Into Line Through The Use Of Drift Pins. Errors That Cannot Be Corrected By The Foregoing Means Or Which Require Major Changes In The Member Configuration Should Be Reported Immediately To The Owner And The Fabricator By The Erector, To Enable Whoever Is Responsible Either To Correct The Error Or Approve The Most Efficient And Economical Method Of Correction To Be Used By Others. (AISC 303-10, 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 (10) Days Of The Completion Of The Corrective Work Authorized By The Manufacturer.

THE "FINAL CLAIM" MUST INCLUDE:

1. Actual Number Of Man-Hours By Dated Of Direct Labor Use On Corrective Work And Actual Hourly Rate Of Pay.
2. Taxes And Insurance On Total Actual Direct Labor.
3. Other Direct Costs On Actual Direct Labor.
4. Cost Of Materials (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, And 4). The "Final Claims Are Credited To The Customer By The Manufacturer In The Amount Not To Exceed The Lesser Of The Maximum Total Cost Set Forth In The "Authorization For Corrective Work" Or The Total 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 Hour. Manufacturer Makes No Warranty And Accepts No Responsibility For Costs Associated With A Shipment Not Arriving At The Requested Time Unless A Separate Agreement Has Been Made In Writing For A Guaranteed Arrival Time.

Unloading, Handling And Storage

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 The Primary Structural Members At The Lower End, 1'-0" From The End. Inspect All Shipments Prior To Releasing The Tie-downs For Loads That May Have Shifted During Transit.

REMEMBER SAFETY FIRST:
Blocking Under Columns And Rafters Protect The Splice Plates And The Slab From Damage During The Unloading Process. It Also Facilitates The Placing Of Slings And Cables Around Members For Later Lifting And Allows Members To Be Bolted Together Into Sub-assemblies While On The Ground. Extra Care Should Always Be Exercised In The Unloading Operation To Prevent Injuries From Handling Steel And To Prevent Damage To Materials And The Concrete Slab. If 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 Bundles 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 Same Reason.

The Coat Of Shop Primer Is Intended To Protect The Steel Framing Only For A Short Period Of Exposure To Ordinary Atmospheric Conditions. The Coat Of Shop Primer Does Not Provide The Uniformity Of Appearance, Or The Durability And Corrosion Resistance Of A Field Applied Finish Coat Of Paint Over Shop Primer.

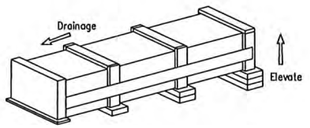
Roof And Wall Panels

Manufacturer's Roof And Wall Panels Include Color Coated, Galvalume, And Galvanized, Provide Excellent Service Under Widely Varied Conditions. All Unloading And Erection Personnel Should Fully Understand That These Panels Are Quality Merchandise, Which Merits Cautious Care And Handling.

UNDER NO CIRCUMSTANCES SHOULD PANELS BE HANDLED ROUGHLY
Packages Of Sheets Should Be Lifted Off The Truck With Extreme Care Taken To Ensure 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 And Deters People From Walking On The Packages. One End Of The Package Should Be Elevated To Encourage Drainage In Case Of Rain. The Manufacturer Exercises Caution During Fabrication An Shipping Operations To Ensure That All Panel Stock Is Kept Dry. However Due To Climatic Conditions, Water Formed By Condensation Of Humid Air Become Trapped Between Sheets. Water Can Also Be Trapped Between The Stacked Sheets When Exposed To Rain. This May Discoloration Caused By Trapped Moisture. The Stain Is Usually Superficial And Has Little Effect On The Appearance Or Service Life Of The Panels As Long As It Not Permitted To Remain On The Panel. However, Moisture In Contact With The Surface Of The panel Over An Extended Period Can Severely Attack The Finish And Reduce The Effective Service Life. See R1-07 Titled "Damage From Condensation Or Trapped Water".

CAUTION:
Care Should Always Be Taken When Walking On Panels. Use Safety Lines And Net When Necessary. Panels Are Slippery, Wipe Dry Any Moisture Or Surface Material That Has Puddle 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 And Act Accordingly. Never Walk Of Step On Skylights Or Translucent Panels.

Use Wood Blocking To Elevate And Slope The Panels In A Manner That Allows 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.



Roof And Wall Panel Damage During Construction

The Quality Of Workmanship In Steel 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 Condensation 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 Form Of High Humidity Can Keep These Areas Wet And Continue The Problem. Overdriving The Fastener Also Forces The Sealing Washer From Under The Head Creating A Leak At This 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 Cutting Of Panels Be Removed From The Panel Surface. Corrosion Can Occur In A Matter Of Hours When These Shavings Or Fillings Are Not Removed And Are In Contact With Water Or Condensed Moisture. When Panels Are Pre-Drilled Or Cut In The Stock Prior To Erection All Shavings 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 Such Equipment As Air Condition Units, Etc..

Personnel Walking On The Panel 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 Straighten 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 Of 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 Contain Some Moisture. Mud May Have Splashed Onto The Wall During Construction. Corrosion Damage May Occur Where This Dirt Or Mud Contacts The Panel. 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 Time Of Completion Of Work. Pre-Painted Panels May Require Touch-up If The Coating Has Been Damaged During Handling Or Erection.

The Appearance Of The Building May Be Affected If Damaged Spots Or Scratches Are Located In Highly Visible Places Such As Around Doors, Windows, Etc.. If Damage Is Extensive Then Replacement Of The Entire Panel Should Be Considered.

Types Of Finishes

SHOP PRIMED STEEL:
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 SSPC 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 Atmospheric Conditions. Shop Primed Steel Which Is Stored In The Field Pending Erection Should Be Kept Free Of The Ground And So Positioned As To Minimize Water Holding Pockets, Dust, Mud And Other Contamination Of The Primer Film. Repairs Of Damaged 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 Erection After Painting Or Galvanizing Are Unavoidable. (MBMA 2012, Chapter IV 4.2.4).

GALVALUME:
Galvalume Is The Trade Name For A Patented Steel Sheet And Coil Product Having A Coating Of Corrosion Resistant Aluminum-Zinc Alloy. The Mixture Is Balanced To Obtain The Coating That Retains The Corrosion Resistance And Heat Reflectivity Of Aluminum And Galvanic Protection Of Zinc. The Best Properties Of Both Aluminum And Zinc Are Combined In This Coating And Offer Added Service Life For The Building.

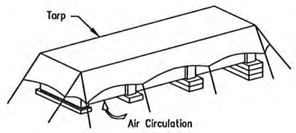
Pre-Painted:
Using Galvalume Steel As A Substrate, Pre-Painted Steel Is Given An Additional Rust Inhibitor Primer Coat. This Primer Coat Further Increases The Corrosion Resistance. These Coatings Are Applied To The Exterior Surface Of The Panels And A Wash Coat Designed Only For Interior Use, Is Applied On The Opposite Side. 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 Finishes Are Equally Subject To Damage And Corrosion When Care Is Not Provided.

PAINT AND COATING MAINTENANCE:
Remove Smudge Marks From Bare Galvalume:
Formula 409 Has Proven To Be Somewhat Effective. Lightly Rub With A Clean Cloth And Rinse With Water. Do Not Rub More Than Required To Remove Smudge Marks. No Product Will Remove All Smudge Marks.
Remove Rust Stains:
Soft Scrub Without Bleach Has Proven To be Somewhat Effective. 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 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 Pain Required To Fill/Cover The Scratch. Contact The Building Manufacturer For Assistance With Ordering/Purchasing Touch-Up Paint As Needed.

Damage From Condensation Or Trapped Water

It Is Extremely Important That The Panels Be Monitored For Evidence Or Trapped Water Or Moisture Condensation While Awaiting Erection. High Humidity Conditions With Temperature Cycling Will Cause Condensation Between 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 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 Un-Stacked And Thoroughly Dried On Both Sides. Re-Stacking The Panel At A Slight Angle To Each Other To Prevent Nesting Will Allow Air Circulation And Assist in Keeping The Panel Dry. In Severe Conditions Large Fans Can Be Used To Circulate Air Between The Un-Stacked 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 to 48 Hours. This Damage Shows 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 Decrease. 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 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 Stains. Wire Brushing Or Abrasive Materials Should be Avoided Since Scratching Or Removal Of The Coating Could Occur. Panel With Significant Damage Should Be Replaced By The Buyer Prior To Erection.

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 Manufacturer.

It Is Strongly Recommended That Safe Working Conditions And Accident Prevention Practices Be The Top Priority Of Any Job Site.

Local, State And Federal Safety And health Standards, Whether Standard Statuary Or Customary, Should Always Be Followed To Help Ensure Worker Safety.

Make Sure 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 The 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 Structural Members. If Additional Information Is Required Contact The Field Service Deportment.

ICE AND SNOW REMOVAL:
Excessive Ice And Snow Removal Should Be Removed From The 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 Pipes And Flashing's.
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 Or Snow. See MBMA Low-Rise Building Systems Manual, Appendix A8 For Details On Snow Removal Procedures. These Procedures Should Commence When Half Of The Design Roof Snow Load 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 The Building Surface For A Long Enough Time. The Roof Should Be Periodically Inspected For Such Conditions And If Found, 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 For Extended Periods Of Time.

PERIODIC INSPECTION:
All High-Strength Shall Be Periodically Be Inspected For Tightness. Particularly In Crane Buildings And After Seismic Or Wind Activity. The Crane Manufacturer Will Specify A Minimum Period But It Should Not Exceed Two Years.

DRAINAGE:

1. Keep Roof Free Of Debris And Keep Debris Out Of Gutter To Allow Water Quickly Drain From The Roof.
2. Do Not Use Wood Blocking To Hold Equipment Off The Panel Seams. This Blocks The Flow Of Water And Hold Moisture.
3. Do Not Allow Rooftop AC Units Or Evaporative Coolers To Drain Onto The Roof.
4. Anything That Traps Or Holds Moisture On A Roof Will Cause Premature Corrosion.

Roof Maintenance Guidelines

1. Inspect Roof For Damage After Heavy Storms.

2. Inspect And Reseal As Necessary All Roof Curbs And Other Penetrations With Urethane Sealant.

3. Always Get Manufacturer Approval Before Making Any Modifications To The Roof.

4. Repaint Any Areas That Are Susceptible To Rust As Required.

5. When Performing Roof Maintenance, Always Take The Following Precautions:
   a. Use Fall Protection And Other Safety Protection As Required.
   b. Do Not Walk On Roof Flashing Such As Gutter, Rake, Hip Or Ridge Flash.
   c. Do Not Walk On Light Transmitting Panels (LTP's). They Will Not Support A Person's Weight.
   d. Guard All LTP's And Roof Openings.
   e. Step Only In The Panel Flat Directly On Or In Close Proximity To A Supporting Roof Structural.

6. 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 Coating, Excessive Foot Traffic And Punctures. Make Sure That All Debris Or Scrap Left Behind By Workers Is Removed From The Roof Immediately. Avoid Using Cutoff Saws And Welding Equipment Over The Roof. 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 Walkway System. In Order To Limit Access To The Roof, Roof Hatches Or Access Ladders Should Be Locked At All Times. A Sign Posted At The Access Site Stating That Only Authorized Personnel Are Allowed On The Roof. In Addition A Log Book Should Be Kept Of All Visits To The Roof And The Reason For Such Visits.

DISSIMILAR METALS:
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.

Never Step On Light Transmitting Panels (LTP's) 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 LTP's) 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.

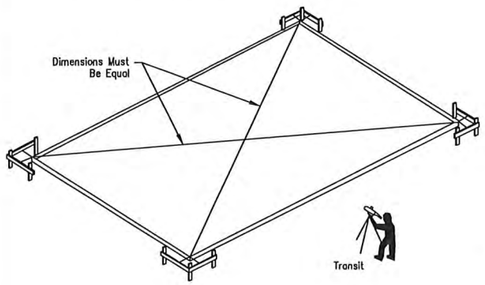
2. Step Near Crease In Rib At Edge Of Panel.

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!

Building Anchorage

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 Columns.
3. Carefully Check The Location Of All Anchor Rods Against The Anchor Rod Setting Plan Furnished By The Manufacturer. All Dimensions Must Be Identical To Assure A Proper Start-up.

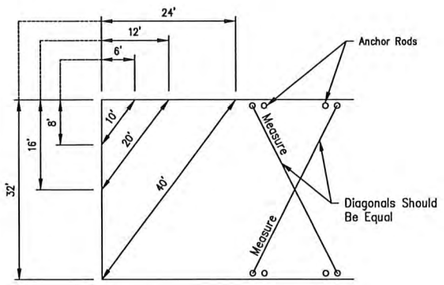


Pre-Erection Notes:

The Following Notes, Procedures And Suggested Recommendations Are Important Parts Of The Pre-Erection Process.

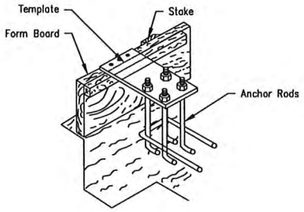
1.) Prior To The Time The Erection Crew Arrives, A Responsible Person Should Check The Job Site For Foundation Readiness, Square, And Accuracy And Anchor Rod Size And Location.

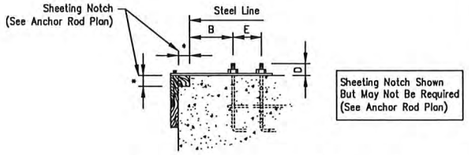
The Drawing Shown Below Indicates A Method Which May Be Used To Check The Foundation And Bolts For Square.



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.

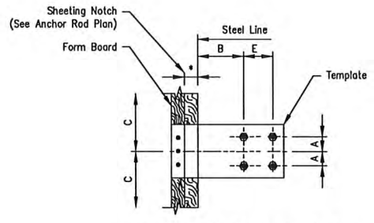
It Is Extremely Important That Anchor Rods Are Placed Accurately And In Accordance With The Anchor Rod Setting Plan. All Anchor Rods Should Be Held In Place With A Template Or Similar Means, So That They Will Remain Plumb And In Correct Location During The Placement Of The Concrete. A Final Check Should Be Made After Completion Of The Concrete Work And Prior To The Steel Installation. This Will Allow Necessary Corrections To Be Made Before Costly Installation Labor And Equipment Arrives.





Sheeting Notch Shown But May Not Be Required (See Anchor Rod Plan)

Projection Of Anchor Rods (D) Given On Anchor Rod Plan

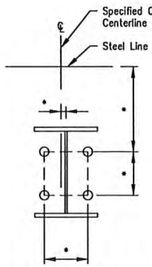


Dimensions A, B, And C Given On Anchor Rod Plan

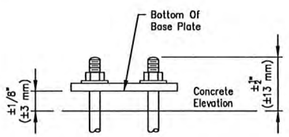
AISC Code Of Standard Practice For Steel Building And Bridges Tolerances For Setting Anchor Rods

Anchor Rod Diameter, Inches (mm) *Horizontal Variation, Inches (mm)

¾" and ⅞" (19 And 22 mm)	¼" (6 mm)
1", 1¼", 1½" (25, 31, 38 mm)	⅜" (10 mm)
1¾", 2", 2½" (44, 50, 63 mm)	½" (13 mm)



ANCHOR ROD SETTING TOLERANCES



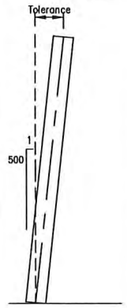
BASE PLATE AND ANCHOR ROD TOLERANCES

* Horizontal Variations Vary Depending On Anchor Rod Diameter. See Above

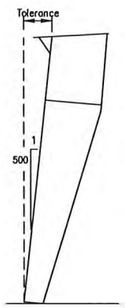
Erection Tolerances

ERECTION BRACING:
It Is The Responsibility Of The Erector To Determine, Furnish And Install All Temporary Supports Such As Temporary Guys, Beams, Falsework, Cribbing, Or Other Elements Required For The Erection Operation (In Accordance With Section 7.10.3 Of ANSI/ASC 303, Code Of Standard Practice For Steel Building And Bridges).

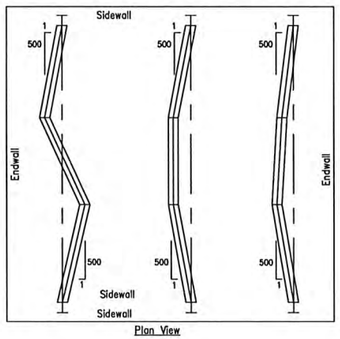
COLUMN ALIGNMENT TOLERANCES



Height	Tolerance (±) H/500
10'	¼"
12'	5/16"
15'	⅜"
20'	½"
25'	⅝"
30'	¾"
45'	1 1/16"
60'	1 7/16"

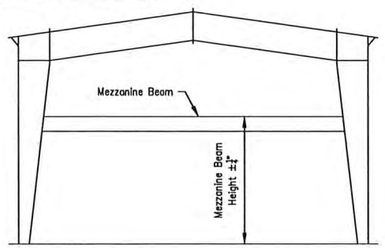


ALIGNMENT TOLERANCE FOR MEMBERS WITH FIELD SPLICES



Plan View

MEZZANINE BEAM HEIGHT TOLERANCE



General Erection Notes

1.) All Structural Framing Members, Purlins, Girts, Clips, Flange Braces, Bolts, Bracing Systems, Roof And Wall Panels, 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.

Panel Cautions And Notes

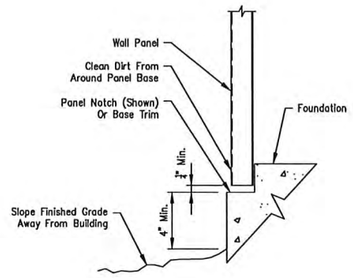
To Minimize Potential Of Corrosive Action At The Bottom Edge Of Wall Panels, The Contractor Must Assure That The Following Procedures Are Followed:

1.) The Concrete Foundation Should Be Cured For A Minimum Of Seven (7) Days Before Wall Panels Are Installed. (Uncured Concrete Is Highly Alkaline And Metal Panels Can Undergo Varying Degrees Of Corrosive 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 Halted.

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 Ensure Proper Drainage.

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 Installation.

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.

Correct Compression Of Sealing Washer | Too Tight Compression Of Sealing Washer | Too Loose Compression Of Sealing Washer

Tape And Tube Sealant

Proper Tape And Tube Sealant Application Is Critical To The Weather Tightness Of A Building. Tape Sealant Should Not Be Stretched When Installed. Apply Only To Clean, Dry Surfaces. Keep Only Enough Sealants On The Roof That Can Be Installed In A Day. During Warm Weather, Store Sealants In A Cool Dry Place. During Cold Weather (below 60°) Sealants Must Be Kept Warm (60°-90°) Until Application. After Tape Sealant Has Been Applied, Keep Protective Paper In Place Until Panel Is Ready To Be Installed.

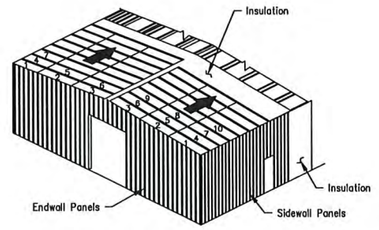
Important Note

All Details, Recommendations And Suggestions Contained In This Erection Guide 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. 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.

PBR Roof Panels

For PBR Roofs With Ridge Panels, It Is Recommended That Both Sides Of The Ridge 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.



Install The First Run Of Roof Panels Across The Building From Eave To Eave Or Eave To Ridge. To Allow Proper Installation Of The Rake Trim, The Starting Location For The First Panel Must Be As Shown In The Rake Details Included With The Erection Drawings. When The First Run Is Properly Located And Aligned With The Correct Endlaps And Eave Overhangs, Fasten To Purlins. Roof Panels Should Be Installed So That The Sidelap Is In A Direction Away From Prevailing Wind. Refer To Appropriate Lap Details Included With The Erection Drawings.

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, Sealant and Closure Requirements. Refer To Details Included With The Erection Drawings.

At Finishing End Of Roof, The Last panels May Require Field Modification For Installation Of Rake Trim. Refer To Rake Details Included With The Erection Drawings. DO NOT BACK LAP THROUGH FASTENED ROOF PANELS.

NOTE: Roof Types And Installation Requirements Will Vary. Refer To The Appropriate Details For Specific Panel Used.

IMPORTANT: Loose Fasteners, Blind Rivets, Drill shavings, Etc.. Must Be Removed From The Roof To Guard Against Corrosion.

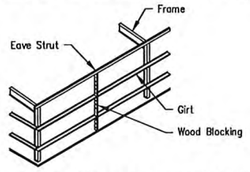
Wall Panels

Proper Horizontal And Vertical Alignment Of Supporting Structure (Girts Or Other Framing) Is The Responsibility Of The Installer. Failure To Align The Secondary members Properly Prior To Wall Installation Can Have A Direct Impact On The Final Appearance And Performance Of The Installed Wall System For Which The Metal Building Manufacturer Is Not Responsible.

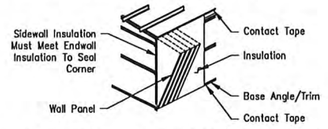
Before Installing Wall Panels, The Girts Must Be Aligned To A Level Position So That There Is No Visible Sag. This Should Be Done Directly Ahead Of Panel Installation.

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.



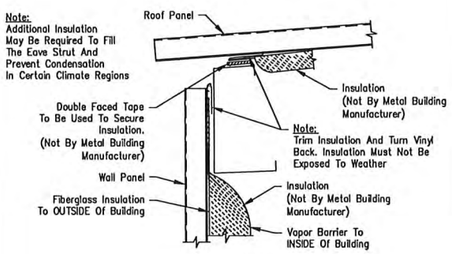
Note:
Wall Panel Type And Installation Details Will Vary. Refer To The Erection Drawings And Details For The Specific Panel Used For Your Building.



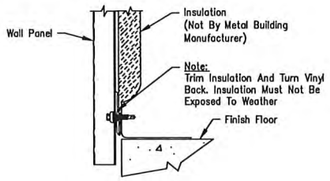
If Walls Are To Be Insulated With Blanket Insulation Over Girt Girt Flanges, Base And Eave, Place A Continuous Run Of Contact Tape Along The Eave Strut And Base Member.

Note:
At The Base, Cut Off The Insulation A Minimum Of ½" Above The Bottom Of The Wall Panel. This Will Prevent The Insulation From Hanging Below The Wall Panel And Wicking Moisture.

Note:
Additional Insulation May Be Required To Fill The Eave Strut And Prevent Condensation In Certain Climate Regions



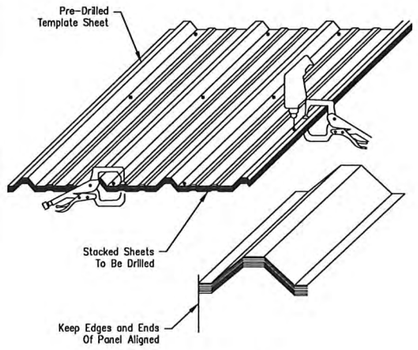
Eave Detail
(See Erection Drawings)



Base Detail
(See Erection Drawings)

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.)

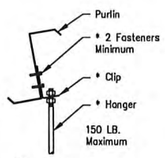
Note:
Check Periodically To Ensure That All Panels Are Aligned And Plumb.



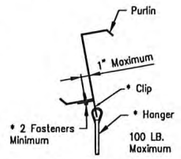
Screw Alignment Panel
(Through Fastened Panel Only)

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.

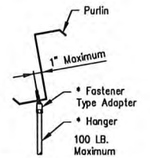
Suggested Method Of Purlin Attachment For Building Accessories



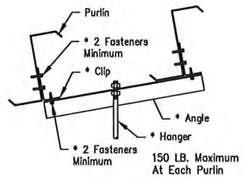
Clip Connection To Purlin Web



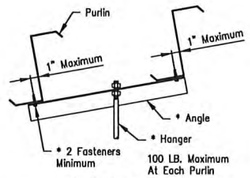
Clip Connection To Purlin Flange



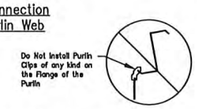
Fastener Type Adapter To Purlin Flange



Clip Connection To Purlin Web



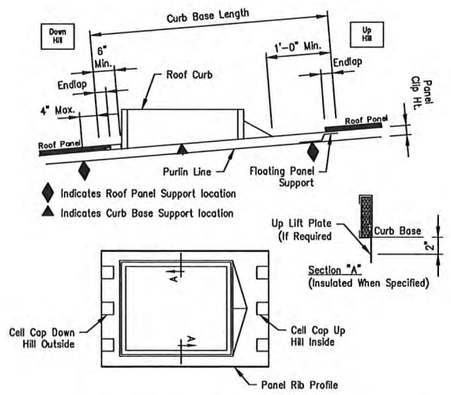
Angle Connection To Purlin Flange



* Denotes Material Not Provided By Metal Building Manufacturer.

The Total Hanger Load Shall Not Exceed The Design Collateral Load For The Building. Example:
5'-0 (Purlin Spacing) X 5'-0 (Hanger Spacing) X 6 PSF (collateral Load) = 150 Lbs.
See Cover Sheet For Design Collateral Load For This Building.
Note: If The Building Is Designed For 0 PSF Collateral Load, Then Adding Any Suspended System (i.e. Duct Work, Piping, Lights, Ceilings, Etc.) Will Correspondingly Reduce The Design Live Load.

Roof Curbs When Not Supplied By Building Manufacturer

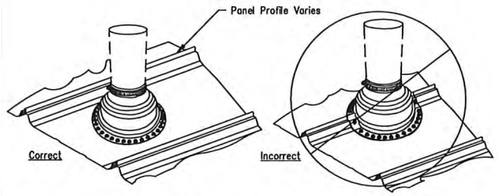


The Curb Details Shown Illustrate The Building Manufacturers Recommended Curb Style And Installation Method. It Is The Erector/Installer's Responsibility To Provide The Proper Curb Style And Install Them In Accordance With The Procedures Established By These Details. Failure By The Erector/Installer To Follow These Recommendations May Result In The Curbs Damaging The Roof System Or Excluded From Warranties.

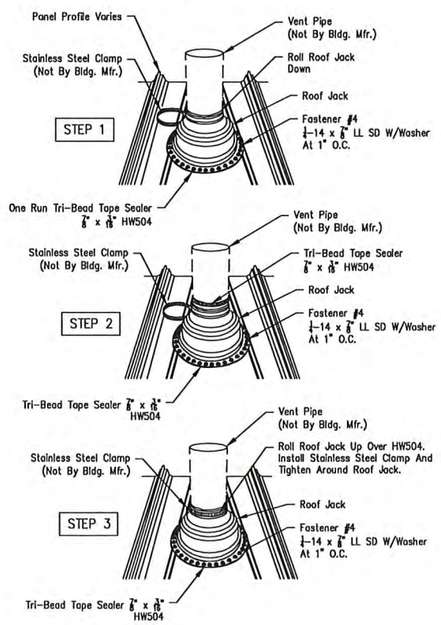
All Roof Curbs To Be:
1. .080 Aluminum Or 18 Ga. Stainless Steel (No Galvalume® Or Galvanized).
2. Panel Rib To Panel Rib (No Flat Skirt Or Lay-Over Curbs).
3. Installed With Down Hill End Over Panel And Up Hill End Under Panel Application For Water Flow At Panel Splice.
4. Up Lift Prevention For Clip Applied Roof Systems Are Required If:
   a. Wind Loads Exceed 110 MPH.
   b. Curb Base Crosses A Purlin.
5. Supported on (4) Sides By Primary Or Secondary Framing.
6. Maximum Single Curb Weight Recommended Is 1500 Lbs.

Roof Jack Installation when Not Supplied By Building Manufacturer

General Installation Notes
? 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 Case Of Lead Hats Will Cause Galvanic Corrosion Of The Roof Panel.
? Use EPDM Rubber Roof Jacks With An Integral Aluminum Band Bonded Into The Perimeter Of The Base. EPDM Roof Jacks Have A Temperature Range From -65F To 212F. Use Silicone Roof Jacks For High Temperatures. Silicone Roof Jacks Have A Temperature Range Of -100F To 437F.
? Retrofit Roof Jacks Are Available 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 Sealant To Seal The Roof Jack To The Roof Panels. Use Roll Tape Sealer Between The Roof Jack And The Roof Panel And Attach The Roof Jack To The Roof Panel With Fastener #4 ¾" - 14 X ⅞" LL SD W/washer At 1" O.C. Around The Base Of The Roof Jack. See Table Below For Quantities.
? Trim The Top Of The Roof Jack To Fit Over The Pipe, Roll Down The Roof Jack Over The Pipe And Apply Tape Sealer For The Perimeter Of The Roof Jack Base Between The Roof Jack And The Roof Panel. Apply Tape Sealer Around The Pipe And Install A Stainless Steel Clamp (Not By Bldg. Mfr.) Over The Top Of The Roof Jack And Firmly Tighten To Form A Secure Compression Seal.
? If The Pipe Diameter Is So Large To Block The Flow Of Water Down The Roof Panel, A Flat Base Roof Curb Must Be Installed Into The Roof And The Roof Jack Will Be Sealed To The Curb. A Two Piece Curb May Be Required When The Top Of The Pipe Is Inaccessible.
? In Northern Climates, The Pipe Penetration Should Be Protected From Moving Ice Or Snow With A Snow Retention System Immediately Up Slope From The Pipe.



Install Pipe In Center To Allow Base Of Roof Jack To Lay Flat on Panel. Cannot Encompass More Than 75% Of Panel.



BOARD ACTION FORM

AGENDA DATE
PZHAC: April 04, 2022, **BOT:**

ITEM: PZHAC **Case #061364** – 2043 Calle De Correo, submitted by Alison Tinsley to install a residential rooftop solar system, **Zoned: Historic Residential (HR).**

BACKGROUND AND ANALYSIS: This case was reviewed by the Architectural Styles Committee (ASC) it was discussed about panel placement and Hight and would it comply with the town code 18.33. it is in the Historic Residential Zone (HR)

Organ Mountain Solar & Electric is proposing an installation of a roof top solar system.

IMPACT:

- The PZHAC has jurisdiction to recommend approval of the applicant's request for approval of this request to the BOT.
- The applicant has the authority to make an application request to the PZHAC and BOT.
- Due process was provided to the applicant.

Specific findings of fact:

- The proposed work is on applicant's property and not in Town of Mesilla right-of-way.

ALTERNATIVES:
The Planning, Zoning and Historical Appropriateness Commission (PZHAC) may:

1. Recommend approval of this case with findings stated above.
2. Recommend approval of this case with findings stated above and conditions.
3. Deny the application.

DEPARTMENT RECOMMENDATIONS:

SUPPORTING INFORMATION:

- Application
- Plans

OFFICIAL USE ONLY:
Case # 06164
Fee $ 359.50
Fee $ 310.00
Review 49.50

TOWN OF MESILLA
ZONING APPROVAL

PERMISSION TO CONDUCT WORK
OR
OBTAIN A COMMERCIAL/RESIDENTIAL BUILDING PERMIT FROM CID

2231 Avenida de Mesilla, P.O. Box 10, Mesilla, NM 88046 (575) 524-3262 ext. 104

CASE NO._____ ZONE: _____ CODE:_____ APPLICATION DATE:_____

Alison Tinsley — Name of Property Owner
575-640-3764 — Property Owner's Telephone Number
2043 Calle De Correo | Las Cruces | NM | 88005 — Property Owner's Mailing Address | City | State | Zip Code
alisontinsley48@gmail.com — Property Owner's E-mail Address
Organ Mountain Solar & Electric — Contractor's Name & Address (If none, indicate Self)
575-202-9268 — Contractor's Telephone Number
03-401215-00-0 — Contractor's Tax ID Number
394801 — Contractor's License Number

Address of Proposed Work: 2043 Calle De Correo Las Cruces, NM 88005

Description of Proposed Work: Residential Rooftop Solar Installation

$ 25,690 — Estimated Cost
Scott Burns — Signature of Applicant
3/15/2022 — Date

Signature of property owner: _____

With the exception of administrative approvals, all permit requests must undergo a review process from staff, PZHAC and/or BOT before issuance of a zoning permit. Plan sheets are to be no larger than 11 x 17 inches or shall be submitted electronically.

FOR OFFICIAL USE ONLY

PZHAC
- ☐ Administrative Approval
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with conditions

BOT
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with Conditions

PZHAC APPROVAL REQUIRED: ___ YES ___ NO BOT APPROVAL REQUIRED: ___ YES ___ NO

CID PERMIT/INSPECTION REQUIRED: ___ YES ___ NO ___ SEE CONDITIONS

CONDITIONS: _____

PERMISSION ISSUED/DENIED BY: _____ ISSUE DATE: _____

THIS APPLICATION SHALL INCLUDE ALL OF THE FOLLOWING:

1._____ Plot plan with legal description to show existing structures, adjoining streets, driveway(s), improvements & setbacks. Verification shall show that the lot was **LEGALLY** subdivided through the Town of Mesilla or that the lot has been in existence prior to February 1972.
2._____ Site Plan with dimensions and details.
3._____ Foundation plan with details.
4._____ Floor plan showing rooms, their uses and dimensions.
5._____ Cross section of walls
6._____ Roof and floor framing plan
8._____ Proof of legal access to the property.
9._____ Drainage plan.
10._____ Details of architectural style and color scheme (checklist included for Historical zones) – diagrams and elevations.
11._____ Proof of sewer service or a copy of septic tank permit; proof of water service (well permit or statement from the Public Utility providing water services).
12._____ Proof of legal access to the property.
13._____ Other information as necessary or required by the City Code or Community Development Department (See other side.)

The following are requirements to be included with all building permit applications for new structures or additions to existing structures, as well as other construction or fixtures that will be permanent in nature and affect the appearance or use of the property. (This includes fences, well houses, storage units, metal sheds, photo-voltaic panels that can be seen from the ground, etc.)

BUILDING PERMIT REQUIREMENTS

A. Completed application, including:
   1. Applicant's name
   2. Applicant/property owners contact information
   3. Physical address of property
   4. Description of work to be done, including dimensions of any construction or repairs
   5. Value of work to be done
   6. Property owner's signature on the application

B. Include all information required in the checklist at the bottom of the application.

C. Additional information required:

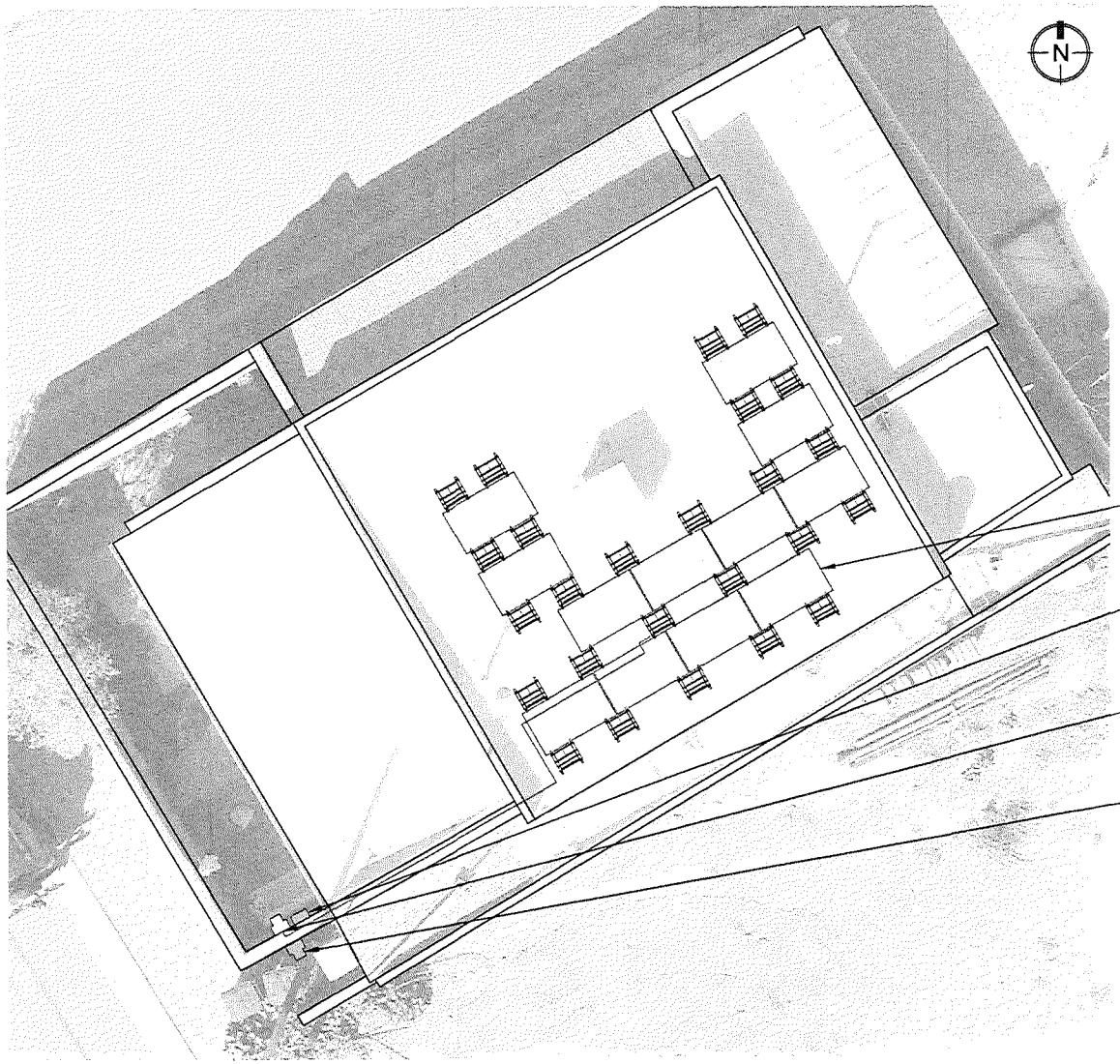
_____

_____

_____

_____

Note:
-Special Access Instructions: None.



1 Site Plan
Scale: 1/8" = 1'-0"

0 1' 4' 8' 16'
1/8" 1" 2"

Site

2 Vicinity Map
Scale: CUSTOM

Roof Mounted Array
12 x Panasonic EverVolt Modules
with Enphase Microinverters

Existing Main Service Disconnect & Panel
(Outside)

Customer Generation AC Disconnect /
Production Meter / AC Combiner Panel /
Data Monitoring Unit
(Outside)

Existing Utility Meter (Outside)

SHEET NOTES	
1	Exact location of equipment and conduit is subject to minor variations during installation.
2	Estimated annual energy production is based on existing site conditions and this array layout. Annual variations in weather and module degradation will affect production.

Design Approval

I approve of this design showing all equipment and locations, and estimated production. Any change to this design may result in delays and additional costs.

Approved By: _____

Date: _____

ORGAN MOUNTAIN SOLAR & ELECTRIC

Organ Mountain Solar
400 South Compress Road
Suite D
Las Cruces, NM 88005
(575) 288-1792
NM Electrical Contractor's
License # 394801

Owner

Alison Tinsley
Coss Realestate
Utility-Interactive Photovoltaic System
System Size = 4.44 kWdc
2043 Calle de Correo
Mesilla, NM 88046

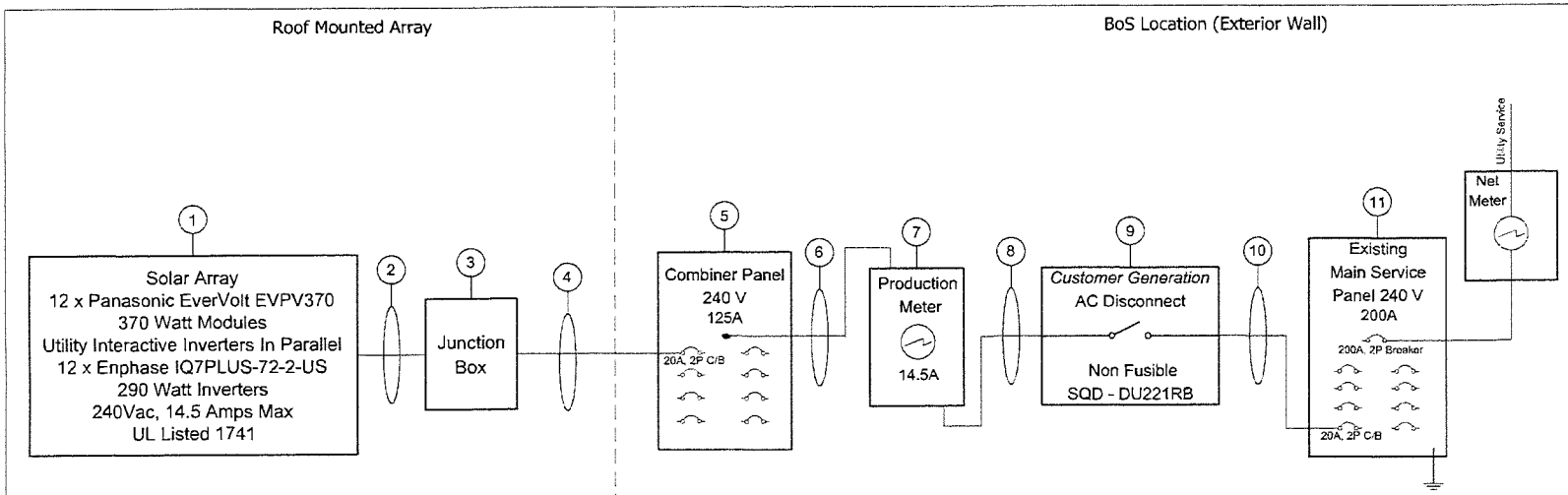
DESIGNER:
Polizois Dallis

REV	DESCRIPTION	DATE
0	Initial Release	3/3/22

DESIGN SUMMARY	
Number of Modules	12
Module Tilt Angle	10°
Module Azimuth	145°
Average Annual Shading	2.00%
Year 1 Production Estimate	8015 kWh

SITE PLAN

PV-1.0



Inverters AC Capacity: 12 x 290 W = 3.48 kWac
Array STC Watts: 12 x 370 W = 4.44 kWdc
Combined Fault Current: 69.6 Arms; 3 cycles

Electrical System Notes

1. All electrical components are UL listed where warranted
2. PV system shall be installed in accordance with Article 690 of the 2017 National Electric Code
3. Electrical lugs used with multiple conductors shall be rated for both multiple conductors and circular mil
4. Bond bushings shall be used on concentric and eccentric metal knockouts
5. EMT conduit shall include expansion joints where required

Grounding Notes

1. A grounding electrode system in accordance with NEC 690.47 and 250.50 through 250.53 and 250.166 shall be provided
2. All grounds shall be connected to the main service ground in the existing Main Service

Keyed Notes

1. Roof Mounted Array ($T_{expected\ low}$ = 10 F, $T_{ambient}$ = 100 F) and 1x #6 AWG bare Cu per rack.
2. MicroInverter Conductors, TC-ER Cable , 2 x #12 AWG, 90 C wet rated.
3. J-Box type 3R pass-through enclosure for wire transition or equivalent.
4. ½" EMT (min) contains 2x #10 AWG THWN-2 (current carrying conductors) and 1x #10 AWG THWN-2 (EGC).
   ~50' AC run at 0.75% Vdrop for #10 AWG THWN-2
5. Enphase IQ Combiner+, X-IQ-AM1-240-2, NEMA 3R, 125A rated panel with pre-wired IQ Envoy (data monitoring).
6. ¾" EMT (min) contains 2x #8 AWG THWN-2 (current carrying conductors), 1x #8 AWG THWN-2 (neutral) and 1x #8 AWG THWN-2 (EGC).
   ~5' AC run at 0.05% Vdrop for #8 AWG THWN-2
7. Milbank U5934XL, NEMA 3R, 100 A meter enclosure.
8. ¾" Nipple (min) contains 2x #8 AWG THWN-2 (current carrying conductors), 1x #8 AWG THWN-2 (neutral) and 1x #8 AWG THWN-2 (EGC).
   ~5' AC run at 0.05% Vdrop for #8 AWG THWN-2
9. Square D DU221RB, NEMA 3R, 30A rated non fusible disconnect.
10. ¾" EMT or PVC (min) contains 2x #8 AWG THWN-2 (current carrying conductors), 1x #8 AWG THWN-2 (neutral) and 1x #8 AWG THWN-2 (EGC).
    ~10' AC run at 0.09% Vdrop for #8 AWG THWN-2

TOTAL AC Vdrop = 0.94%

Keyed Notes

11. Existing Load Center with a 200 Amp Bus Bar, a 200 Amp Main Breaker and a new 20 Amp solar back feed CB.

ORGAN MOUNTAIN SOLAR & ELECTRIC
Organ Mountain Solar
400 South Compress Road
Suite D
Las Cruces, NM 88005
(575) 288-1792
NM Electrical Contractor's License # 394801

Owner
Alison Tinsley
Coss Realestate
Utility-Interactive Photovoltaic System
System Size = 4.44 kWdc
2043 Calle de Correo
Mesilla, NM 88046

DESIGNER:
Polizois Dallis

REV	DESCRIPTION	DATE
0	Initial Release	3/3/22

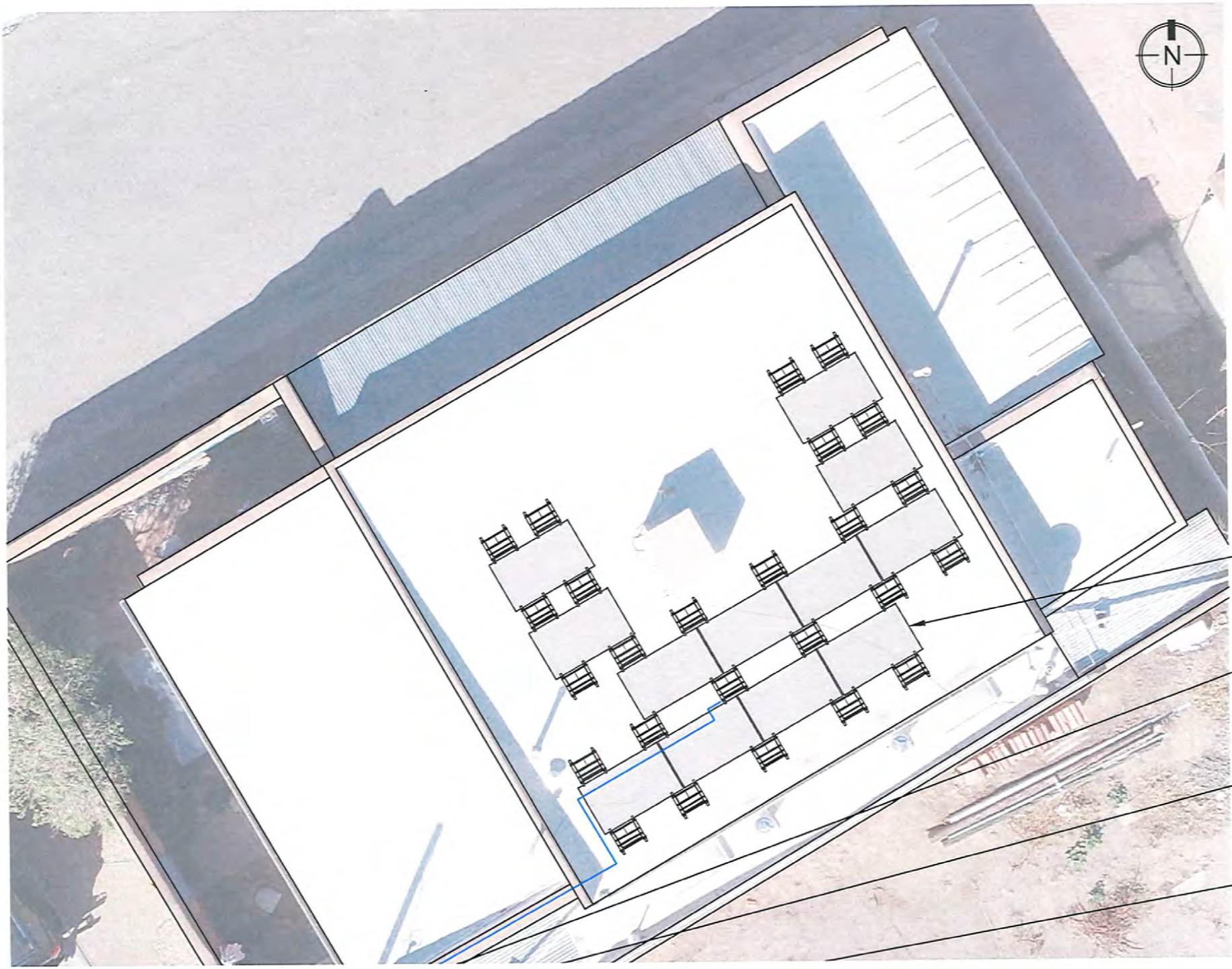
DESIGN SUMMARY

Number of Modules	12
Module Tilt Angle	10°
Module Azimuth	145°
Year 1 Production Estimate	8015 kWh

ONE-LINE DIAGRAM

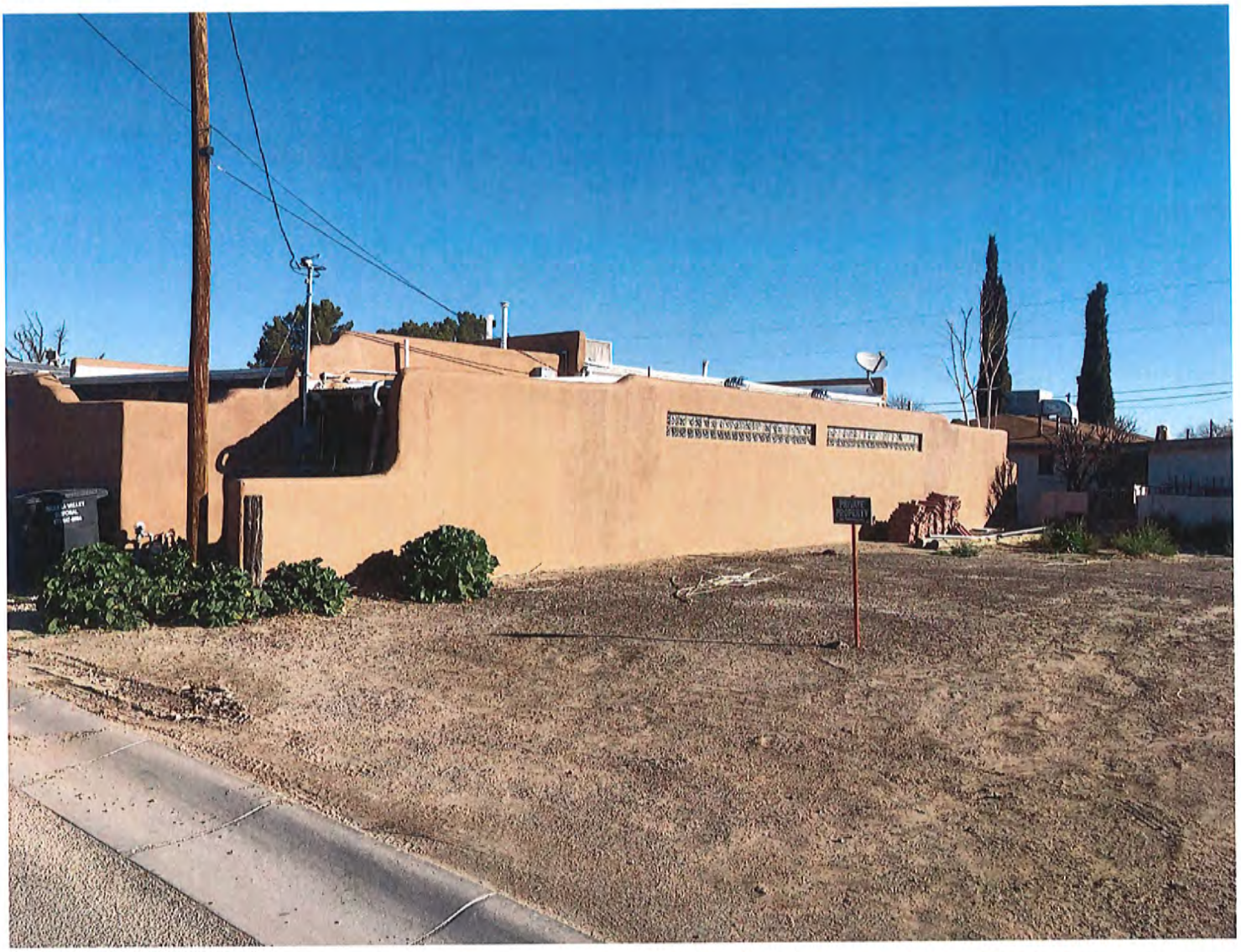
PV-3.0

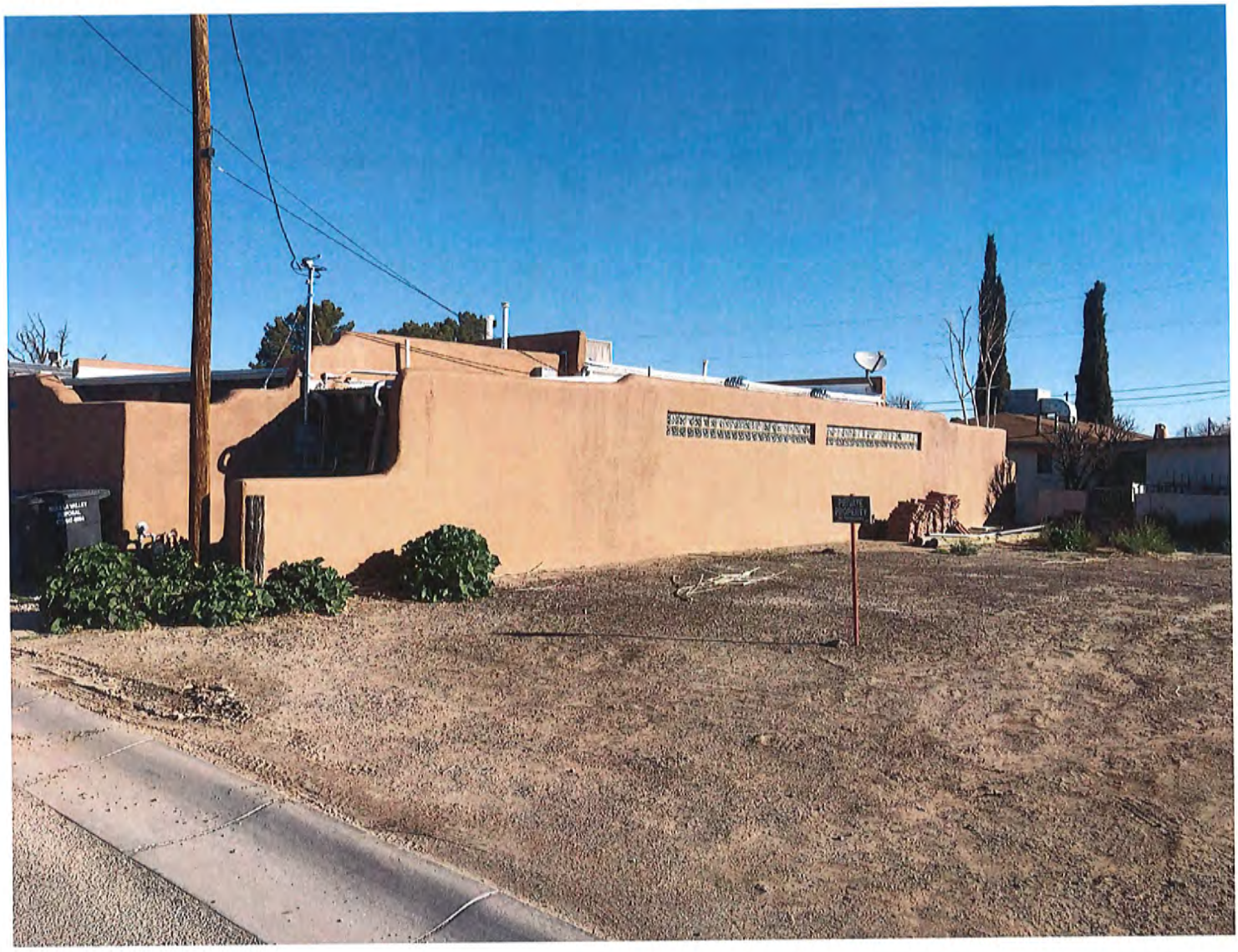
Note:
-Special Access Instructions: None.



Site

2





ACTION FORM

AGENDA DATE
PZHAC: April 04, 2022, **BOT:**

ITEM: PZHAC **Case #061365** – 3260 Hwy 28, submitted by Roman Prieto to install a solar panel canopy. **Zoned: Residential Agriculture (RA)**

BACKGROUND AND ANALYSIS: Although this property is in the Residential Agriculture Zone this case was reviewed by the Architectural Styles Committee (ASC) and had no issues moving it forward

Yellow Bird Services LLC proposes to install one solar structure with twenty four (24) panels, seven (7) panels will be wired to the shop utility, the remaining seventeen (17) panels will wired to the home utility.

IMPACT:

- The PZHAC has jurisdiction to recommend approval of the applicant's request for approval of this request to the BOT.
- The applicant has the authority to make an application request to the PZHAC and BOT.
- Due process was provided to the applicant.

Specific findings of fact:

- The proposed work is on applicant's property and not in Town of Mesilla right-of-way.

ALTERNATIVES:
The Planning, Zoning and Historical Appropriateness Commission (PZHAC) may:

1. Recommend approval of this case with findings stated above.
2. Recommend approval of this case with findings stated above and conditions.
3. Deny the application.

DEPARTMENT RECOMMENDATIONS:

SUPPORTING INFORMATION:

- Application
- Plans

OFFICIAL USE ONLY:
Case # 061365
Fee $ 783.50

TOWN OF MESILLA
ZONING APPROVAL

PERMISSION TO CONDUCT WORK
OR
OBTAIN A COMMERCIAL/RESIDENTIAL BUILDING PERMIT FROM CID

2231 Avenida de Mesilla, P.O. Box 10, Mesilla, NM 88046 (575) 524-3262 ext. 104

CASE NO._____ ZONE: _____ CODE:_____ APPLICATION DATE:_____

Roman Prieto — Name of Property Owner
575-621-2456 — Property Owner's Telephone Number
3260 Highway 28 — Property Owner's Mailing Address
Mesilla — City
NM — State
88046 — Zip Code
Property Owner's E-mail Address
Yellow Bird Services LLC — Contractor's Name & Address (If none, indicate Self)
575-915-4791 — Contractor's Telephone Number
46-3931729 — Contractor's Tax ID Number
820200 — Contractor's License Number
Address of Proposed Work: 3260 Highway 28, Mesilla, NM
Description of Proposed Work: Please see attachment

$ 51,158.07 — Estimated Cost
Lora Mecknay — Signature of Applicant
03/15/2022 — Date
Signature of property owner:

With the exception of administrative approvals, all permit requests must undergo a review process from staff, PZHAC and/or BOT before issuance of a zoning permit. Plan sheets are to be no larger than 11 x 17 inches or shall be submitted electronically.

FOR OFFICIAL USE ONLY

PZHAC
- ☐ Administrative Approval
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with conditions

BOT
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with Conditions

PZHAC APPROVAL REQUIRED: ___ YES ___ NO BOT APPROVAL REQUIRED: ___ YES ___ NO

CID PERMIT/INSPECTION REQUIRED: ___ YES ___ NO ___ SEE CONDITIONS

CONDITIONS: _____

PERMISSION ISSUED/DENIED BY: _____ ISSUE DATE: _____

THIS APPLICATION SHALL INCLUDE ALL OF THE FOLLOWING:

1. _____ Plot plan with legal description to show existing structures, adjoining streets, driveway(s), improvements & setbacks. Verification shall show that the lot was **LEGALLY** subdivided through the Town of Mesilla or that the lot has been in existence prior to February 1972.
2. _____ Site Plan with dimensions and details.
3. _____ Foundation plan with details.
4. _____ Floor plan showing rooms, their uses and dimensions.
5. _____ Cross section of walls
6. _____ Roof and floor framing plan
8. _____ Proof of legal access to the property.
9. _____ Drainage plan.
10. _____ Details of architectural style and color scheme (checklist included for Historical zones) – diagrams and elevations.
11. _____ Proof of sewer service or a copy of septic tank permit; proof of water service (well permit or statement from the Public Utility providing water services).
12. _____ Proof of legal access to the property.
13. _____ Other information as necessary or required by the City Code or Community Development Department (See other side.)

Roman Prieto

Layer Visibility:

- [x] Roads
- [ ] City Limits
- [ ] MLS Zones
- [ ] Address Labels
- [x] 2014 Aerial Photo
- [x] Parcels

ACCOUNTNUMBER:	R0401614	PARCELNUMBER:	4006138450221
OWNERNAME:	RANCHO IJIR LLC	MAILADDR1:	2114 WEST UNION AVE
CITY:	LAS CRUCES	STATE:	NM
ZIP:	88005	LOT:	
BLOCK:		SUBNAME:	
TRS:	23S 1E 36	SITUSADDRS:	3260 HIGHWAY 28
TOTALACRES:	2.79		

- Account Search
- View Created Report(s)
- Help?
- Logout Public

Account: R0401614 Real Property Account *Mill Levy does not include Special District Rates such as: Lower Rio Grande Flood Levy, Hueco Levy, Mclead Watershed Levy, Caballo Soil and Water Conservation Levy, and La Union Watershed Levy.

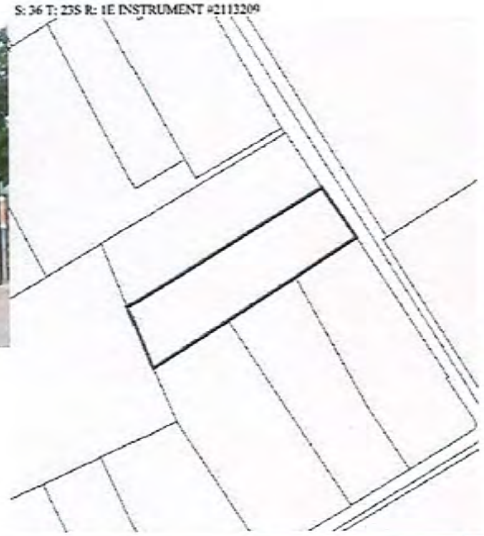
RANCHO IJIR LLC
2114 WEST UNION AVE
LAS CRUCES, NM 88005

Account: R0401614
Tax Area: 2DIN_R - 2DIN_R
Acres: 2.800

Parcel: 4-006-138-450-221
Situs Address:
3260 HIGHWAY 28
Mesilla, 88046

Neighborhood S11 - MESILLA

Legal Description
S: 36 T: 23S R: 1E INSTRUMENT #2113209



Property Line

N

3260 Hwy 28
Mesilla NM, 88046

Not to Scale

One solar structure with 24 panels. 7 panels will be wired to the shop Utility. The remaining 17 will be wired to the home Utility.

Utility Meter & Main Service Panel

AC Disconnect

REC Meter

Combiner Box

Service Pole w/ transformers

> 100' from Street

At least 12" from eave of both buildings.

> 100' from Property Line

Shop

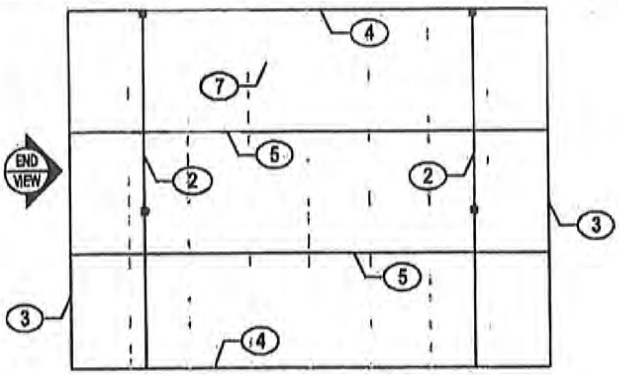
Combiner Box

REC Meter

AC Disconnect

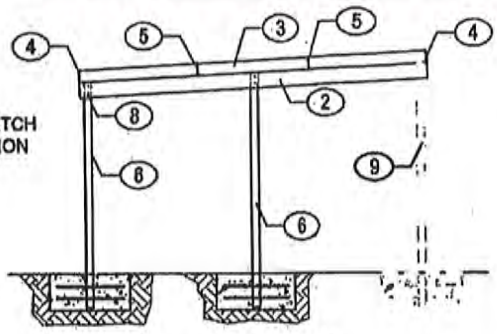
24 Jinko JKM410M-72HL-V Modules
24 Enphase IQ7plus-72-2-US Microinverters
Mounted on ≈ 526sqft Solar Support.

Utility Meter & Indoor Main Service Panel

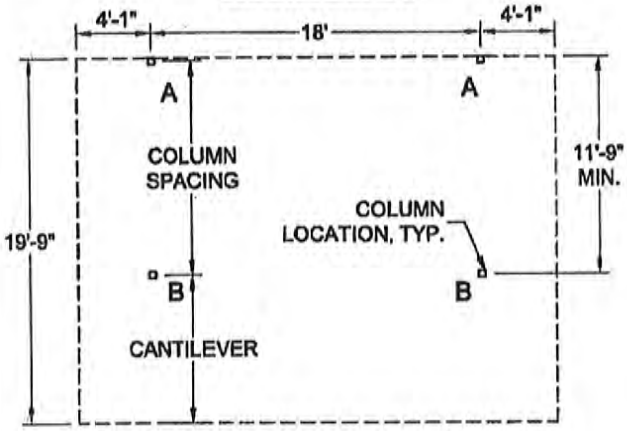


FRAMING PLAN

NOTE:
CANOPY CAN PITCH EITHER DIRECTION



END VIEW



NOTES:
1. MAX. CANTILEVER IS 8-0"
2. MAX. COLUMN SPACING IS 18'-9"

FOUNDATION PLAN

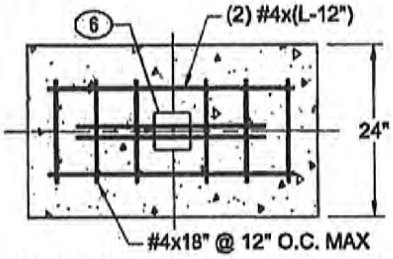
KEYED NOTES

1. NOT USED
2. (2) 10x2.5 14 GA.
3. 8" GALVANIZED CHANNEL
4. EXTERIOR SUPER PURLIN, 0.063" THICK, 75 KSI
5. INTERIOR SUPER PURLIN, 0.074" THICK, 75 KSI
6. (4) 4"x4" 14 GA. SQ. TUBING, 13' MAX. CLRNC.
7. SOLAR PANEL, TYP.
8. MIN. (2) ½" DIA. BOLTS W/ NUT & WASHER
9. ALTERNATE COLUMN LOCATION

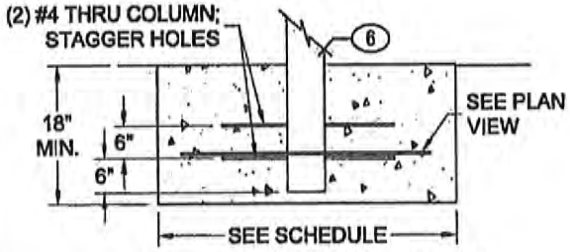
24" FOOTING TABLE
(AS CONFIGURED IN PLAN)

Ftg	Length @ 18"x24"	SF @ 24"	CF
A	3'-6"	5.25	10.5
B	6'-2"	12.25	24.5

TOTAL VOL. OF CONC. = 35.0



24" WIDE FOOTING PLAN VIEW

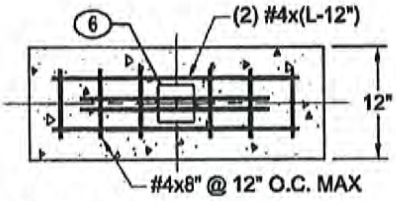


TYPICAL FOOTING SECTION

12" FOOTING TABLE
(AS CONFIGURED IN PLAN)

Ftg	Length @ 18"x12"	SF @ 12"	CF
A	7'-0"	10.5	10.5
B	16'-4"	24.5	24.5

TOTAL VOL. OF CONC. = 35.0



12" WIDE FOOTING PLAN VIEW

GENERAL NOTES:

1. THIS DRAWING IS INTENDED TO BE ADJUSTABLE TO FIT VARYING FIELD CONDITIONS. THE "B" COLUMNS CAN BE ADJUSTED TO THE MAX. COLUMN SPACING SHOWN. A/B FOOTING SIZES MUST BE PROPORTIONALLY ADJUSTED, AND THE OVERALL TOTAL CF OF CONCRETE MUST BE MAINTAINED.
2. TYPICAL FOOTING IS 24" WIDE x 18" DEEP BUT CAN BE VARIED AS SHOWN IN THE FOOTING TABLE.
3. FOUNDATION PLAN DIMENSIONS ARE NOMINAL AND MAY VARY BY 8" ±. CONTRACTOR IS RESPONSIBLE FOR FINAL LAYOUT TO ACCOMMODATE PANELS.
4. SOLAR PANEL SUPPORT MEMBERS ARE "SUPER PURLINS" SUPPLIED BY POWERS SOLAR FRAMES LLC.
5. USE MIN. (2) 1/2" DIA. BOLTS W/ NUT & WASHER AT COLUMN AND BEAM CONNECTIONS AND #12 TEK SCREWS FOR MISC. ATTACHMENTS.
6. FOOTING "LENGTH" DEPENDENT UPON COLUMN SPACING, USE STRAIGHT LINE INTERPOLATION.

DESIGN LOADS:

MIN. ROOF WIND LOAD 25 PSF
MIN. ROOF DEAD LOAD 5 PSF
LIVE LOAD ELIMINATED BY PANELS

SEISMIC:

SEISMIC GROUP 1
IMPORTANCE FACTOR, I = 1.0
SOILS SITE CLASS D

WIND:

3-SECOND GUST = 105 MPH
NOMINAL SPEED = 81 MPH
PRESSURE (0-30 FT) = 20 PSF
IMPORTANCE FACTOR, I = 1.0
EXPOSURE "B"
RISK CATEGORY I

NOT TO SCALE

LILLEY ENGINEERING INC.
5160 CALLE BELLISIMA LAS CRUCES, NM 88011 (575) 521-0006

3x8 SOLAR PANEL CANOPY

3260 AVENIDA DE MESILLA
LAS CRUCES, NM

PROJECT	210407
CLIENT	YELLOWBIRD
DRAWING NO.	YELLOWBIRD
REV. NO.	0
DRAWN BY	DL
DATE	03/07/22

1 of 1

DIRECTORY OF PAGES	
PV-1	PROJECT SUMMARY
PV-2	SITE PLAN
PV-3	SINGLE-LINE DIAGRAM
PV-4	SAFETY LABELS
APPENDIX	MODULE DATASHEET
	DISCONNECT DATASHEET
	INVERTER DATASHEET

PROJECT DETAILS	
PROPERTY OWNER	ROMAN PRIETO
PROPERTY ADDRESS	3260 AVENIDA DE MESILLA, LAS CRUCES, NM 88005 US
ZONING	RESIDENTIAL
USE AND OCCUPANCY CLASSIFICATION	ONE- OR TWO-FAMILY DWELLING GROUP (GROUP R3)
AHJ	COUNTY OF DOÑA ANA
UTILITY COMPANY	EL PASO ELECTRIC CO
ELECTRICAL CODE	2017 NEC (NFPA 70)
FIRE CODE	2012 IFC
OTHER BUILDING CODES	2015 NM RES. BUILDING CODE 2015 NM PLUMBING CODE 2015 NM MECHANICAL CODE

CONTRACTOR INFORMATION	
COMPANY	YELLOW BIRD SERVICES, LLC
LICENSE NUMBER	380200
ADDRESS	351 N 17TH ST, LAS CRUCES, NM 88005
PHONE NUMBER	(575) 523-9089
CONTRACTOR SIGNATURE	

1 PV-1 PLOT SCALE: NTS

2 PV-1 LOCALE SCALE: NTS

SCOPE OF WORK

THIS PROJECT INVOLVES THE INSTALLATION OF A GRID-INTERACTIVE PV SYSTEM. PV MODULES WILL BE MOUNTED USING A PREENGINEERED MOUNTING SYSTEM. THE MODULES WILL BE ELECTRICALLY CONNECTED WITH DC TO AC POWER INVERTERS AND INTERCONNECTED TO THE LOCAL UTILITY USING MEANS AND METHODS CONSISTENT WITH THE RULES ENFORCED BY THE LOCAL UTILITY AND PERMITTING JURISDICTION.

THIS DOCUMENT HAS BEEN PREPARED FOR THE PURPOSE OF DESCRIBING THE DESIGN OF A PROPOSED PV SYSTEM WITH ENOUGH DETAIL TO DEMONSTRATE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS. THE DOCUMENT SHALL NOT BE RELIED UPON AS A SUBSTITUTE FOR FOLLOWING MANUFACTURER INSTALLATION INSTRUCTIONS. THE SYSTEM SHALL COMPLY WITH ALL MANUFACTURERS LISTING AND INSTALLATION INSTRUCTIONS, AS WELL AS ALL APPLICABLE CODES. NOTHING IN THIS DOCUMENT SHALL BE INTERPRETED IN A WAY THAT OVERRIDES THEM. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL CONDITIONS, DIMENSIONS, AND DETAILS IN THIS DOCUMENT.

SYSTEM DETAILS	
DESCRIPTION	NEW GRID-INTERACTIVE PV SYSTEM WITH NO ENERGY STORAGE
DC RATING OF SYSTEM	9.84KW
AC RATING OF SYSTEM	6.96KW
AC OUTPUT CURRENT	29.0A
INVERTER(S)	24 X ENPHASE IQ7PLUS-72-2-US
MODULE	JINKO JKM410M-72HL-V
ARRAY WIRING	(1) BRANCH OF 7 IQ7PLUS-72-2-US MICROINVERTERS (1) BRANCH OF 9 IQ7PLUS-72-2-US MICROINVERTERS (1) BRANCH OF 8 IQ7PLUS-72-2-US MICROINVERTERS

INTERCONNECTION DETAILS	
POINT OF CONNECTION	NEW LOAD-SIDE AC CONNECTION PER NEC 705.12(B)(2)(3)(B) AT MSP
UTILITY SERVICE	120/240V 1Φ
LOCATION	MAIN SERVICE PANEL W/200A BUSBAR 200A MCB

SITE DETAILS	
RECORD LOW	-23°C (-10°F)
AVERAGE HIGH	35°C (95°F)
RISK CATEGORY	II
WIND EXPOSURE CATEGORY	C

P-173221

YELLOW BIRD Solar

GRID-TIED SOLAR POWER SYSTEM

PRIETO RESIDENCE
3260 AVENIDA DE MESILLA
LAS CRUCES, NM 88005

PROJECT SUMMARY

DOC ID: 173221-213629-1
DATE: 2/25/22
CREATOR: W.K.
REVIEWER:

REVISIONS

PV-1

1 / PV-2 SITE PLAN
SCALE: 1" = 30'

GENERAL NOTES	
1	EQUIPMENT LIKELY TO BE WORKED UPON WHILE ENERGIZED SHALL BE INSTALLED IN LOCATIONS THAT SATISFY MINIMUM WORKING CLEARANCES PER NEC 110.26.
2	CONTRACTOR SHALL USE ONLY COMPONENTS LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE INTENDED USE.
3	CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL EQUIPMENT, CABLES, ADDITIONAL CONDUITS, RACEWAYS, AND OTHER ACCESSORIES NECESSARY FOR A COMPLETE AND OPERATIONAL PV SYSTEM.
4	ALL EMT CONDUIT FITTINGS SHALL BE LISTED AS WEATHERPROOF FITTINGS AND INSTALLED TO ENSURE A RAINTIGHT FIT, PER NEC 358.42.

1. (N) PRODUCTION METER, OUTDOOR
2. (N) VISIBLE, LOCKABLE, READILY-ACCESSIBLE AC DISCONNECT LOCATED WITHIN 10 FT OF UTILITY METER, OUTDOOR
3. (E) MAIN SERVICE PANEL (MSP), OUTDOOR
4. (E) GAS METER, OUTDOOR. NO NEW ELECTRICAL EQUIPMENT SHALL BE INSTALLED WITHIN 36 INCHES OF CENTER OF GAS METER OR RISER.
5. (N) PROPOSED GROUND-MOUNTED PHOTOVOLTAIC ARRAY. 24 PV MODULES (SILVER FRAME, CLEAR BACKSHEET), 15° TILT, 237° AZIMUTH
6. (E) UTILITY METER, OUTDOOR
7. (N) AC COMBINER, OUTDOOR., OUTPUT CIRCUIT CONDUCTORS SHALL BE RUN IN EMT CONDUIT OVER ROOF NO CLOSER THAN 0.5" ABOVE ROOF SURFACE

P-173221

YELLOW BIRD Solar

GRID-TIED SOLAR POWER SYSTEM

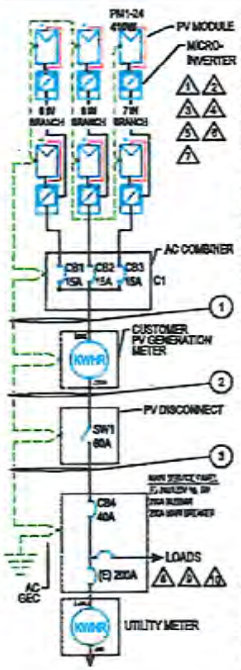
PRIETO RESIDENCE
3260 AVENIDA DE MESILLA
LAS CRUCES, NM 88005

SITE PLAN

DOC ID: 173221-213629-1
DATE: 2/25/22
CREATOR: W.K.
REVIEWER:

REVISIONS

PV-2



MODULES

REF.	QTY.	MAKE AND MODEL	PMAX	PTC	ISC	IMP	VOC	VMP	TEMP. COEFF. OF VOC	FUSE RATING
PM1-24	24	[illegible]	410W	382W	10.09A	9.60A	50.4V	42.7V	-0.14%/°C (-0.28%/°C)	20A

INVERTERS

REF.	QTY.	MAKE AND MODEL	AC VOLTAGE	GROUND	RATED POWER	MAX OUTPUT CURRENT	MAX INPUT CURRENT	MAX INPUT VOLTAGE	WEIGHTED EFFICIENCY
IQ-24	24	ENPHASE IQ7PLUS-72-2-US	240V	NOT SOLIDLY GROUNDED	295W	1.21A	15.0A	65V	97.0%

DISCONNECTS

REF.	QTY.	MAKE AND MODEL	RATED CURRENT	MAX RATED VOLTAGE
SW1	1	SQUARE D D222NRB OR EQUIV.	60A	240VAC

OCPDS

REF.	QTY.	RATED CURRENT	MAX VOLTAGE
CB1-3	3	15A	240VAC
CB4	1	40A	240VAC

SYSTEM SUMMARY

	BRANCH 1	BRANCH 2	BRANCH 3
INVERTERS PER BRANCH	9	8	7
MAX AC CURRENT	10.89A	9.68A	8.47A
MAX AC OUTPUT	2,610W	2,320W	2,030W
ARRAY STC POWER	8,940W		
ARRAY PTC POWER	8,142W		
MAX AC CURRENT	20A		
MAX AC POWER OUTPUT	6,800W		
DERATED AC POWER OUTPUT	6,800W		

NOTES

1. THE DC AND AC CONNECTORS OF THE ENPHASE IQ7PLUS-72-2-US AND ARE LISTED TO MEET REQUIREMENTS AS A DISCONNECT MEANS AS ALLOWED BY NEC 690.15(D). MATING CONNECTORS SHALL COMPLY WITH NEC 690.33.
2. THE ENPHASE IQ7PLUS-72-2-US HAS A CLASS II DOUBLE-INSULATED RATING AND DOES NOT REQUIRE GROUNDING ELECTRODE CONDUCTORS (GEC) OR EQUIPMENT GROUNDING CONDUCTORS (EGC). THE RATING INCLUDES GROUND FAULT PROTECTION (GFP). TO SUPPORT GFP, USE ONLY PV MODULES EQUIPPED WITH DC CABLES LABELED PV WIRE OR PV CABLE.
3. ENPHASE SYSTEM MEETS REQUIREMENTS FOR PHOTOVOLTAIC RAPID SHUTDOWN SYSTEM (PVRSS), AS PER NEC 690.12(B).
4. MICROINVERTER BRANCH CIRCUIT CONDUCTORS ARE MANUFACTURED ENPHASE Q CABLE® LISTED FOR USE IN 20A OR LESS CIRCUITS OF ENPHASE IQ MICROINVERTERS. THEY ARE ROHS, OIL RESISTANT, AND UV RESISTANT. THEY CONTAIN TWO 12 AWG CONDUCTORS OF TYPE THHN/THWN-2 DRY/WET AND CERTIFIED TO UL3003 AND UL 9703.
5. DC PV CONDUCTORS ARE NOT SOLIDLY GROUNDED. NO DC PV CONDUCTOR SHALL BE WHITE OR GRAY-COLORED
6. ALL METAL ENCLOSURES, RACEWAYS, CABLES AND EXPOSED NONCURRENT-CARRYING METAL PARTS OF EQUIPMENT SHALL BE GROUNDED TO EARTH AS REQUIRED BY NEC 250.4(A) AND PART III OF ARTICLE 250 AND EQUIPMENT GROUNDING CONDUCTORS SHALL BE SIZED ACCORDING TO NEC 690.45. THE GROUNDING ELECTRODE SYSTEM SHALL ADHERE TO NEC 690.47(A) AND NEC 250.166. THE DC GROUNDING ELECTRODE SHALL BE SIZED ACCORDING TO NEC 250.166 AND INSTALLED IN COMPLIANCE WITH NEC 250.64.
7. MAX DC VOLTAGE OF PV MODULES 52.2V AT -23°C (-13.33°C - 25°C) X -0.14 (%/C + 50.4V = 57.2V).
8. POINT-OF-CONNECTION IS ON LOAD SIDE OF SERVICE DISCONNECT, IN COMPLIANCE WITH NEC 705.12(B)(2)(3)(B). OUTPUT IS BACKFED THROUGH BREAKER IN MAIN PANEL.
9. THE BREAKER SHALL BE LOCATED AT THE OPPOSITE END OF THE BUSBAR FROM THE MAIN BREAKER. THE BREAKER SHALL NOT BE MARKED FOR "LINE" AND "LOAD".
10. PV SYSTEM DISCONNECT SHALL BE A VISIBLE KNIFE-BLADE TYPE DISCONNECT THAT IS ACCESSIBLE AND LOCKABLE BY THE UTILITY. THE DISCONNECT SHALL BE LOCATED WITHIN 10 FT OF UTILITY METER. DISCONNECT SHALL BE GROUPED IN ACCORDANCE WITH NEC 230.72.

CONDUCTOR AND CONDUIT SCHEDULE W/ELECTRICAL CALCULATIONS

ID	TYPICAL	CONDUCTOR	CONDUIT / CABLE	CURRENT-CARRYING CONDUCTORS IN CONDUIT / CABLE	OCPD	EGC	TEMP. CORR. FACTOR	FILL FACTOR	CONT. CURRENT	MAX. CURRENT (125%)	BASE AMP.	DERATED AMP.	TERM. TEMP. RATING	AMP. @ TERM. TEMP. RATING
1	1	6 AWG THHN-2, COPPER	0.75" DIA. EMT	2	40A	6 AWG THWN-2, COPPER	0.58 (23°C)	1.0	29.04A	36.3A	75A	72A	75°C	65A
2	1	6 AWG THWN-2, COPPER	0.75" DIA. EMT	2	40A	6 AWG THWN-2, COPPER	0.58 (23°C)	1.0	29.04A	36.3A	75A	72A	75°C	65A
3	1	6 AWG THWN-2, COPPER	0.75" DIA. EMT	2	40A	6 AWG THWN-2, COPPER	0.58 (23°C)	1.0	29.04A	36.3A	75A	72A	75°C	65A

GENERAL ELECTRICAL NOTES

1. UTILITY HAS 24-HR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AT THE SERVICE ENTRANCE.
2. CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT PER NEC ARTICLE 300.6 (C) (1) AND ARTICLE 310.10 (D).
3. CONDUCTORS EXPOSED TO WET LOCATIONS SHALL BE SUITABLE FOR USE IN WET LOCATIONS PER NEC ARTICLE 310.10 (C).

GROUNDING NOTES

1. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED PER THE REQUIREMENTS OF NEC ARTICLES 250 & 690
2. PV MODULES SHALL BE GROUNDED TO MOUNTING RAILS USING MODULE LUGS OR RACKING INTEGRATED GROUNDING CLAMPS AS ALLOWED BY LOCAL JURISDICTION. ALL OTHER EXPOSED METAL PARTS SHALL BE GROUNDED USING UL-LISTED LAY-IN LUGS.
3. INSTALLER SHALL CONFIRM THAT MOUNTING SYSTEM HAS BEEN EVALUATED FOR COMPLIANCE WITH UL 2703 "GROUNDING AND BONDING" WHEN USED WITH PROPOSED PV MODULE.
4. IF THE EXISTING MAIN SERVICE PANEL DOES NOT HAVE A VERIFIABLE GROUNDING ELECTRODE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A SUPPLEMENTAL GROUNDING ELECTRODE.
5. AC SYSTEM GROUNDING ELECTRODE CONDUCTOR (GEC) SHALL BE A MINIMUM SIZE #8AWG WHEN INSULATED, #6AWG IF BARE WIRE.
6. EQUIPMENT GROUNDING CONDUCTORS SHALL BE SIZED ACCORDING TO NEC ARTICLE 690.45, AND BE A MINIMUM OF #10AWG WHEN NOT EXPOSED TO DAMAGE, AND #6AWG SHALL BE USED WHEN EXPOSED TO DAMAGE
7. GROUNDING AND BONDING CONDUCTORS, IF INSULATED, SHALL BE COLOR CODED GREEN, OR MARKED GREEN IF #4AWG OR LARGER

1 PV-3 SINGLE-LINE DIAGRAM
SCALE: NTS

P-173221

YELLOW BIRD Solar

GRID-TIED SOLAR POWER SYSTEM

PRIETO RESIDENCE
3260 AVENIDA DE MESILLA
LAS CRUCES, NM 88005

SINGLE-LINE DIAGRAM

PROJECT ID: 173221
DATE: 02/25/22
CREATED BY: W.K.
CHECKED BY:

REVISIONS

PV-3

C1 - AC COMBINER
(MODEL NOT SPECIFIED)
3

SW1 - DISCONNECT
(SQUARE D DU222RB)
4 5 6

MSP - MAIN SERVICE PANEL
1 2 5 6 7
8

1 SEE NOTE NO. 4 (MSP)

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE 'OFF' POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY.

NEC690.56(C)(1)

3 AC COMBINER PANEL (C1)

! WARNING !
THIS EQUIPMENT FED BY MULTIPLE SOURCES. TOTAL RATING OF ALL OVERCURRENT DEVICES, EXCLUDING MAIN OVERCURRENT DEVICE SHALL NOT EXCEED AMPACITY OF BUSBAR.

NEC705.12(B)(2)(3)(C)

2 POINT-OF-INTERCONNECTION OR AT MAIN SERVICE DISCONNECT (MSP)

! CAUTION !
POWER TO THIS BUILDING IS ALSO FROM GROUND WITH DISCONNECTS AS SHOWN

INSTALLED BY YELLOW BIRD SERVICES, LLC • 575-523-8089

NEC690.56(B),705.10

4 EACH DISCONNECTING MEANS FOR PHOTOVOLTAIC EQUIPMENT (SW1)

! WARNING !
ELECTRIC SHOCK HAZARD. TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.

NEC690.13(B)

5 AC DISCONNECT (SW1, CB4 IN MSP)

NEC690.54

6 AC SOLAR DISCONNECT (SW1, CB4 IN MSP)

NEC690.13(B)

7 ANY AC ELECTRICAL PANEL THAT IS FED BY BOTH THE UTILITY AND THE PHOTOVOLTAIC SYSTEM (MSP)

! WARNING !
DUAL POWER SOURCE. SECOND SOURCE IS PHOTOVOLTAIC SYSTEM.

NEC705.12(B)(3)

8 SOLAR BREAKER (MSP)

! WARNING !
INVERTER OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE.

NEC705.12(B)(2)(3)(B)

LABELING NOTES

1	ALL PLAQUES AND SIGNAGE REQUIRED BY 2017 NEC AND 2012 IFC WILL BE INSTALLED AS REQUIRED.
2	LABELS, WARNING(S) AND MARKING SHALL COMPLY WITH ANSI Z535.4, WHICH REQUIRES THAT DANGER, WARNING, AND CAUTION SIGNS USED THE STANDARD HEADER COLORS, HEADER TEXT, AND SAFETY ALERT SYMBOL ON EACH LABEL. THE ANSI STANDARD REQUIRES A HEADING THAT IS AT LEAST 50% TALLER THAN THE BODY TEXT, IN ACCORDANCE WITH NEC 110.21(B).
3	A PERMANENT PLAQUE OR DIRECTORY SHALL BE INSTALLED PROVIDING THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC SYSTEM DISCONNECTING MEANS IF NOT IN THE SAME LOCATION IN ACCORDANCE WITH NEC 690.56(B).
4	LABEL(S) WITH MARKING, "TURN RAPID SHUTDOWN SWITCH TO THE 'OFF' POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY," SHALL BE LOCATED WITHIN 3 FT OF SERVICE DISCONNECTING MEANS THE TITLE SHALL UTILIZE CAPITALIZED LETTERS WITH A MINIMUM HEIGHT OF 3/8" IN BLACK ON A YELLOW BACKGROUND, AND REMAINING TEXT SHALL BE CAPITALIZED WITH A MINIMUM HEIGHT OF 3/16" IN BLACK ON WHITE BACKGROUND

P-173221

YELLOW BIRD Solar

GRID-TIED SOLAR POWER SYSTEM

PRIETO RESIDENCE
3260 AVENIDA DE MESILLA
LAS CRUCES, NM 88005

SAFETY LABELS

DOC ID: 173221-213629-1
DATE: 2/25/22
CREATOR: W.K.
REVIEWER:

REVISIONS

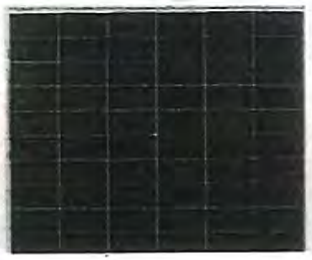
PV-4

jinkosolar.us

JinKO Solar
Making Your Trust to Solar

Eagle HC 72M G2
390-410 Watt
MONO PERC HALF CELL MODULE

Positive power tolerance of 0~+3%



KEY FEATURES

Diamond Cell Technology
Uniquely designed high performance 5 busbar mono PERC half cell

High Voltage
UL and IEC 1500V certified; lowers BOS costs and yields better LCOE

Higher Module Power
Decrease in current loss yields higher module efficiency

Shade Tolerance
More shade tolerance due to twin arrays

PID FREE
Reinforced cell prevents potential induced degradation

Strength and Durability
Certified for high snow (5400Pa) and wind (2400 Pa) loads

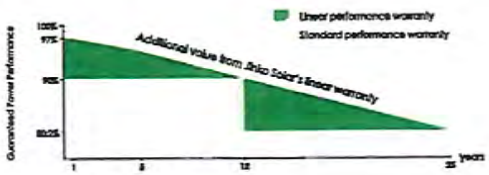
- ISO9001:2008 Quality Standards
- ISO14001:2004 Environmental Standards
- OHSAS18001 Occupational Health & Safety Standards
- IEC61215, IEC61730 certified products
- UL1703 certified products

Nomenclature:
JKM410M-72HL-V

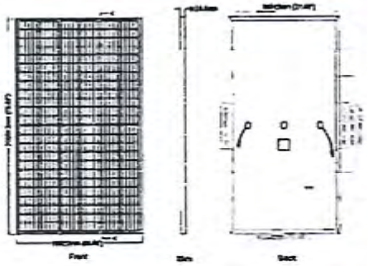
Code	Cell	Code	Cell	Code	Certification
null	Full	null	Normal	null	1000V
H	Half	L	Diamond	V	1500V

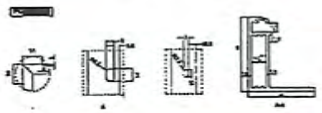
LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty



Engineering Drawings



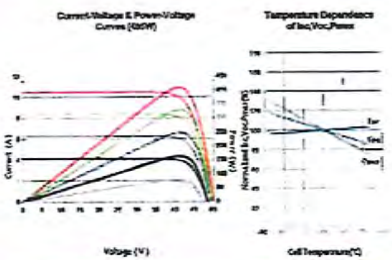


Packaging Configuration

(Two pallets = One stack)

26pcs/pallet, 52pcs/stack, 572pcs/40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	Mono PERC Diamond Cell (158.75 x 158.75 mm)
No.of Half-cells	144 (6x24)
Dimensions	2008×1002×40mm (79.06×39.45×1.57 inch)
Weight	22.5 kg (49.6 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated
Output Cables	12AWG, (+) 1400mm(55.12 in), (-) 1400mm(55.12 in) or Customized Length
Fire Type	Type 1

SPECIFICATIONS

Module Type	JKM390M-72HL-V		JKM395M-72HL-V		JKM400M-72HL-V		JKM405M-72HL-V		JKM410M-72HL-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	390Wp	294Wp	395Wp	298Wp	400Wp	302Wp	405Wp	306Wp	410Wp	310Wp
Maximum Power Voltage (Vmp)	41.1V	38.1V	41.4V	38.3V	41.7V	38.8V	42.0V	38.8V	42.3V	40.0V
Maximum Power Current (Imp)	9.48A	7.54A	9.55A	7.60A	9.60A	7.66A	9.65A	7.72A	9.69A	7.76A
Open-circuit Voltage (Voc)	49.5V	46.6V	49.5V	46.2V	49.8V	48.5V	50.1V	48.7V	50.4V	48.9V
Short-circuit Current (Isc)	10.12A	8.03A	10.23A	8.08A	10.36A	8.16A	10.48A	8.22A	10.60A	8.26A
Module Efficiency STC (%)	18.35%		18.83%		19.06%		20.13%		20.36%	
Operating Temperature (°C)	-(0°C~+85°C									
Maximum System Voltage	1500VDC(UL)/1500VDC(IEC)									
Maximum Series Fuse Rating	20A									
Power Tolerance	0~+3%									
Temperature Coefficients of Pmax	-0.35%/°C									
Temperature Coefficients of Voc	-0.28%/°C									
Temperature Coefficients of Isc	0.048%/°C									
Nominal Operating Cell Temperature (NOCT)	45±2°C									

STC: Irradiance 1000W/m² | Cell Temperature 25°C | AM=1.5

NOCT: Irradiance 800W/m² | Ambient Temperature 20°C | AM=1.5 | Wind Speed 1m/s

* Power measurement tolerance: ± 3%

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

Product data sheet
Characteristics

DU222RB
SWITCH NOT FUSIBLE GD 240V 60A 2P NEMA3R

Product availability : Stock - Normally stocked in distribution facility

Price* : 353.00 USD

Main

Product	Single Throw Safety Switch
Line Rated Current	60 A
Certifications	UL listed
Enclosure Rating	NEMA 3R
Disconnect Type	Non-fusible disconnect
Factory Installed Neutral	None
Mounting Type	Surface
Number of Poles	2
Electrical Connection	Lugs
Duty Rating	General duty

Ordering and shipping details

Category	00108 - D & DU SW,NEMA3R, 30-200A
Discount Schedule	DE1A
GTIN	00785901491491
Nbr. of units in pkg.	1
Package weight(Lbs)	4.6500000000000004
Returnability	Y
Country of origin	MX

Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including:
------- Substance 1	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
------- More information	For more information go to www.p65warnings.ca.gov

Contractual warranty

Warranty period	18 months

Enphase IQ 7 and IQ 7+ Microinverters

The high-powered smart grid-ready Enphase IQ 7 Micro™ and Enphase IQ 7+ Micro™ dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase IQ Envoy™, Enphase IQ Battery™, and the Enphase Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.

Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable

- Optimized for high powered 60-cell and 72-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

*The IQ 7+ Micro is required to support 72-cell modules.

To learn more about Enphase offerings, visit **enphase.com**

ENPHASE.

Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	IQ7-60-2-US / IQ7-60-B-US		IQ7PLUS-72-2-US / IQ7PLUS-72-B-US	
Commonly used module pairings[1]	235 W - 350 W +		235 W - 440 W +	
Module compatibility	60-cell PV modules only		60-cell and 72-cell PV modules	
Maximum input DC voltage	48 V		60 V	
Peak power tracking voltage	27 V - 37 V		27 V - 45 V	
Operating range	16 V - 48 V		16 V - 60 V	
Min/Max start voltage	22 V / 48 V		22 V / 60 V	
Max DC short circuit current (module Isc)	15 A		15 A	
Overvoltage class DC port	II		II	
DC port backfeed current	0 A		0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit			

OUTPUT DATA (AC)	IQ 7 Microinverter		IQ 7+ Microinverter	
Peak output power	250 VA		295 VA	
Maximum continuous output power	240 VA		290 VA	
Nominal (L-L) voltage/range[2]	240 V / 211-264 V	208 V / 183-229 V	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)	1.21 A (240 V)	1.39 A (208 V)
Nominal frequency	60 Hz		60 Hz	
Extended frequency range	47 - 68 Hz		47 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms		5.8 Arms	
Maximum units per 20 A (L-L) branch circuit[3]	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)	11 (208 VAC)
Overvoltage class AC port	III		III	
AC port backfeed current	0 A		0 A	
Power factor setting	1.0		1.0	
Power factor (adjustable)	0.85 leading ... 0.85 lagging		0.85 leading ... 0.85 lagging	

EFFICIENCY	@240 V	@208 V	@240 V	@208 V
Peak efficiency	97.6 %	97.6 %	97.5 %	97.3 %
CEC weighted efficiency	97.0 %	97.0 %	97.0 %	97.0 %

MECHANICAL DATA	
Ambient temperature range	-40°C to +65°C
Relative humidity range	4% to 100% (condensing)
Connector type (IQ7-60-2-US & IQ7PLUS-72-2-US)	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)
Connector type (IQ7-60-B-US & IQ7PLUS-72-B-US)	Friends PV2 (MC4 intermateable). Adaptors for modules with MC4 or UTX connectors: - PV2 to MC4: order ECA-S20-S22 - PV2 to UTX: order ECA-S20-S25
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)
Weight	1.08 kg (2.38 lbs)
Cooling	Natural convection - No fans
Approved for wet locations	Yes
Pollution degree	PD3
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure
Environmental category / UV exposure rating	NEMA Type 6 / outdoor

FEATURES	
Communication	Power Line Communication (PLC)
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Envoy.
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690.
Compliance	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.

1. No enforced DC/AC ratio. See the compatibility calculator at https://enphase.com/en-us/support/module-compatibility
2. Nominal voltage range can be extended beyond nominal if required by the utility.
3. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

To learn more about Enphase offerings, visit **enphase.com**

ENPHASE.

2018-11-19

ACTION FORM

AGENDA DATE
PZHAC: April 04, 2022, **BOT:**

ITEM: PZHAC **Case #061368** – 2305 Calle De Colon, submitted by Gerard Nevarez to coat exterior of house with elastomeric and clear coat wood on gate, no changes in colors. **Zoned Historic Residential (HR)**

BACKGROUND AND ANALYSIS: This case was reviewed by the Architectural Styles Committee (ASC) and had no issues moving it forward

Gerard Nevarez is proposing to coat exterior of house with elastomeric no change to house exterior color and clear coat wood on gate, no changes in colors

IMPACT:

- The PZHAC has jurisdiction to recommend approval of the applicant's request for approval of this request to the BOT.
- The applicant has the authority to make an application request to the PZHAC and BOT.
- Due process was provided to the applicant.

Specific findings of fact:

- The proposed work is on applicant's property and not in Town of Mesilla right-of-way.

ALTERNATIVES:
The Planning, Zoning and Historical Appropriateness Commission (PZHAC) may:

1. Recommend approval of this case with findings stated above.
2. Recommend approval of this case with findings stated above and conditions.
3. Deny the application.

DEPARTMENT RECOMMENDATIONS:

SUPPORTING INFORMATION:

- Application
- Plans

OFFICIAL USE ONLY:
Case #061368
Fee $129.50
Bsct $110.00
Renw $19.50

TOWN OF MESILLA
ZONING APPROVAL

PERMISSION TO CONDUCT WORK
OR
OBTAIN A COMMERCIAL/RESIDENTIAL BUILDING PERMIT FROM CID

2231 Avenida de Mesilla, P.O. Box 10, Mesilla, NM 88046 (575) 524-3262 ext. 104

CASE NO.______ ZONE: ______ CODE:______ APPLICATION DATE:______

Gerard Nevarez
Name of Property Owner

575 642 3938
Property Owner's Telephone Number

PO Box 1102 Mesilla NM 88046
Property Owner's Mailing Address / City / State / Zip Code

mesillaj3@aol.com
Property Owner's E-mail Address

Josh Krause (Nova) 2706 Claude Dove Dr.
Contractor's Name & Address (If none, indicate Self)

575.640.0713
Contractor's Telephone Number

Contractor's Tax ID Number: ______

Contractor's License Number: ______

Address of Proposed Work: 2305 Calle de Colon

Description of Proposed Work: Coat exterior of house with elastomeric. No change from current house exterior color. Clear coat on wood gate same color

$6000
Estimated Cost

[signature]
Signature of Applicant

03.18.22
Date

Signature of property owner: [signature]

With the exception of administrative approvals, all permit requests must undergo a review process from staff, PZHAC and/or BOT before issuance of a zoning permit. **Plan sheets are to be no larger than 11 x 17 inches or shall be submitted electronically.**

FOR OFFICIAL USE ONLY

PZHAC
- ☐ Administrative Approval
- ☐ Approved Date: ______
- ☐ Disapproved Date: ______
- ☐ Approved with conditions

BOT
- ☐ Approved Date: ______
- ☐ Disapproved Date: ______
- ☐ Approved with Conditions

PZHAC APPROVAL REQUIRED: ✓ YES ___ NO   BOT APPROVAL REQUIRED: ___ YES ___ NO

CID PERMIT/INSPECTION REQUIRED: ___ YES ___ NO ___ SEE CONDITIONS

CONDITIONS: ______

PERMISSION ISSUED/DENIED BY: ______   ISSUE DATE: ______

THIS APPLICATION SHALL INCLUDE ALL OF THE FOLLOWING:

1.____ Plot plan with legal description to show existing structures, adjoining streets, driveway(s), improvements & setbacks. Verification shall show that the lot was **LEGALLY** subdivided through the Town of Mesilla or that the lot has been in existence prior to February 1972.
2.____ Site Plan with dimensions and details.
3.____ Foundation plan with details.
4.____ Floor plan showing rooms, their uses and dimensions.
5.____ Cross section of walls
6.____ Roof and floor framing plan
8.____ Proof of legal access to the property.
9.____ Drainage plan.
10.____ Details of architectural style and color scheme (checklist included for Historical zones) – diagrams and elevations.
11.____ Proof of sewer service or a copy of septic tank permit; proof of water service (well permit or statement from the Public Utility providing water services).
12.____ Proof of legal access to the property.
13.____ Other information as necessary or required by the City Code or Community Development Department (See other side.)

Gerard Nevarez

Layer Visibility:

- [x] Roads
- [ ] City Limits
- [ ] MLS Zones
- [ ] Address Labels
- [x] 2014 Aerial Photo
- [x] Parcels

ACCOUNTNUMBER:	R0400572	PARCELNUMBER:	4006138208035
OWNERNAME:	NEVAREZ GERARD R	MAILADDR1:	PO BOX 1102
CITY:	MESILLA	STATE:	NM
ZIP:	88046-1102	LOT:	
BLOCK:		SUBNAME:	
TRS:	23S 1E 36	SITUSADDRS:	2305 CALLE DE COLON
TOTALACRES:	0		

Google Maps 2305 Calle De Colon

Imagery ©2022 Maxar Technologies, U.S. Geological Survey, Map data ©2022 Google 50 ft

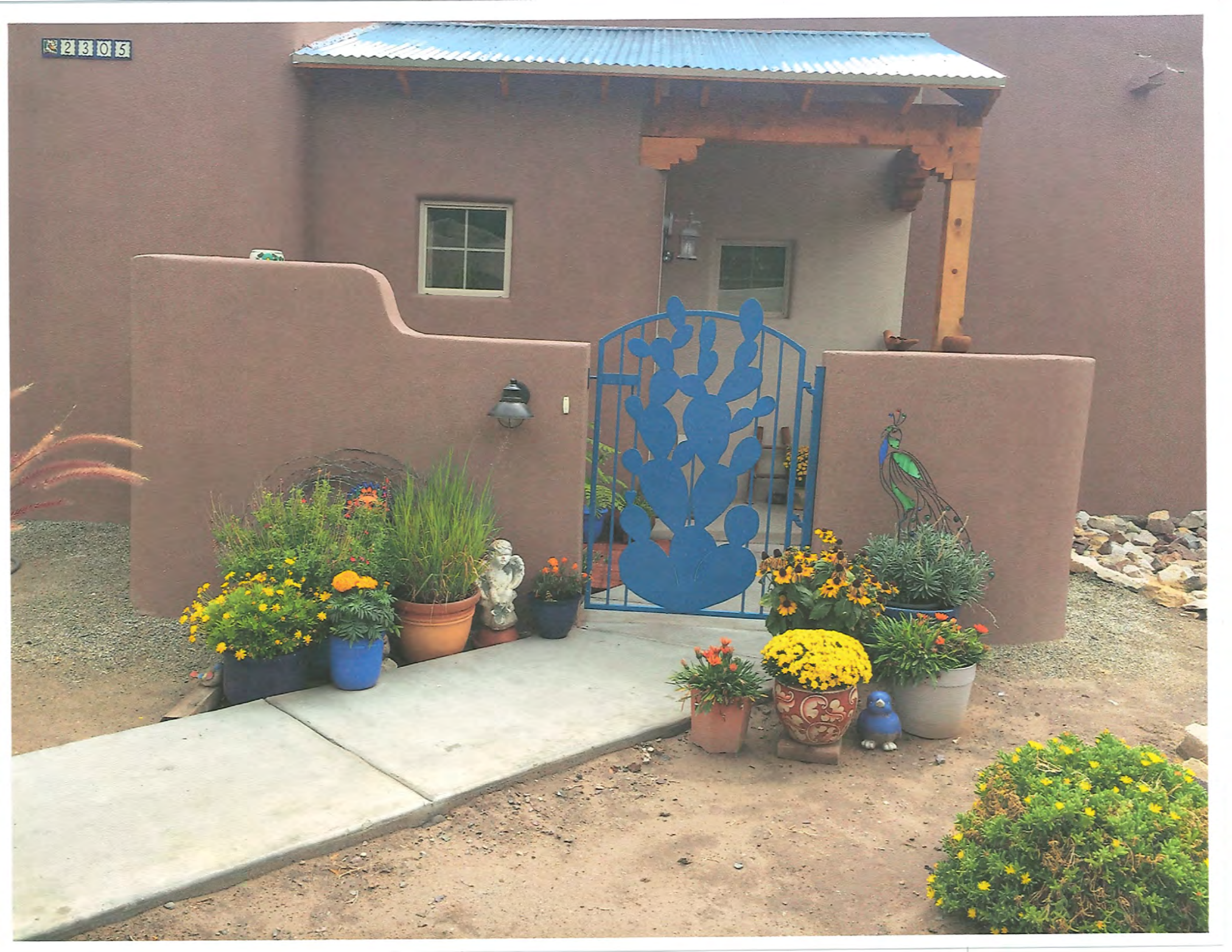
2305 Calle De Colon

Building

Directions Save Nearby Send to your phone Share

2305 Calle De Colon, Las Cruces, NM 88005

Photos


2305

ACTION FORM

AGENDA DATE
PZHAC: April 04, 2022, **BOT:**

ITEM: PZHAC **Case #061370 – 2795** Calle De Sur, submitted by DJ Walker Construction (Jill Kerr New property owner) to remove existing roofing, inspect and replace decking as needed. Install new single ply membrane to manufactures specifications. **Zoned: Residential Agriculture (RA)**

BACKGROUND AND ANALYSIS: This case was not reviewed by the Architectural Styles Committee (ASC) due to zoning area. This project was recently passed by the PZHAC Commission but due to new property owner and change of project marital new application was submitted

DJ Walker Construction to remove existing roofing, inspect and replace decking as needed. Install new single ply membrane to manufactures specifications. **Zoned: Residential Agriculture (RA)**

IMPACT:

- The PZHAC has jurisdiction to recommend approval of the applicant's request for approval of this request to the BOT.
- The applicant has the authority to make an application request to the PZHAC and BOT.
- Due process was provided to the applicant.

Specific findings of fact:

- The proposed work is on applicant's property and not in Town of Mesilla right-of-way.

ALTERNATIVES:
The Planning, Zoning and Historical Appropriateness Commission (PZHAC) may:

1. Recommend approval of this case with findings stated above.
2. Recommend approval of this case with findings stated above and conditions.
3. Deny the application.

DEPARTMENT RECOMMENDATIONS:

SUPPORTING INFORMATION:

- Application
- Plans

OFFICIAL USE ONLY:
Case # 061370
Fee $ 95.00
Fee 80.00
Comm 15.00

TOWN OF MESILLA
ZONING APPROVAL

PERMISSION TO CONDUCT WORK
OR
OBTAIN A COMMERCIAL/RESIDENTIAL BUILDING PERMIT FROM CID

2231 Avenida de Mesilla, P.O. Box 10, Mesilla, NM 88046 (575) 524-3262 ext. 104

CASE NO. 061370 ZONE: RA CODE: RR APPLICATION DATE: _____

Jill Kerr — 919-360-3033
Name of Property Owner — Property Owner's Telephone Number

PO Box 1220 — Mesilla — NM — 88046
Property Owner's Mailing Address — City — State — Zip Code

jillsherene kerr@gmail.com
Property Owner's E-mail Address

DT Walker Construction LLC
Contractor's Name & Address (If none, indicate Self)

575-644-0049 — 27-0098917 — 360618
Contractor's Telephone Number — Contractor's Tax ID Number — Contractor's License Number

Address of Proposed Work: 2795 Calle del Sol Mesilla NM 88005

Description of Proposed Work: Remove existing roofing to exposed decking. Inspect and replace decking as needed. Install new single ply membrane to manufacturers specifications.

$ 16786.20 — Estimated Cost
Signature of Applicant
3/22/2022 — Date

Signature of property owner: X [signature] 3/23/22

With the exception of administrative approvals, all permit requests must undergo a review process from staff, PZHAC and/or BOT before issuance of a zoning permit. Plan sheets are to be no larger than 11 x 17 inches or shall be submitted electronically.

FOR OFFICIAL USE ONLY

PZHAC
- ☐ Administrative Approval
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with conditions

BOT
- ☐ Approved Date: _____
- ☐ Disapproved Date: _____
- ☐ Approved with Conditions

PZHAC APPROVAL REQUIRED: ___ YES ___ NO BOT APPROVAL REQUIRED: ___ YES ___ NO

CID PERMIT/INSPECTION REQUIRED: ___ YES ___ NO ___ SEE CONDITIONS

CONDITIONS: _____

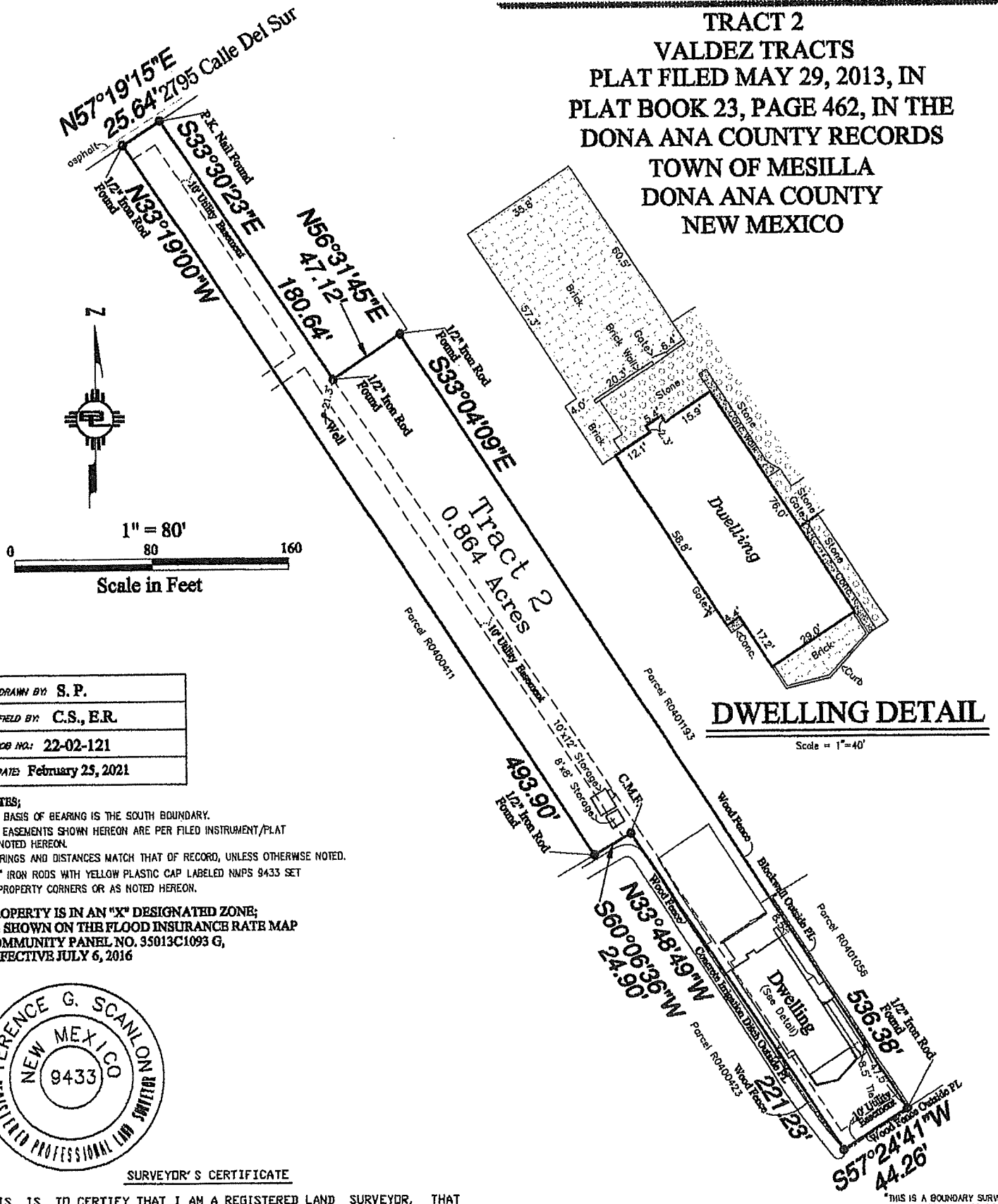
PERMISSION ISSUED/DENIED BY: _____ ISSUE DATE: _____

THIS APPLICATION SHALL INCLUDE ALL OF THE FOLLOWING:

1. _____ Plot plan with legal description to show existing structures, adjoining streets, driveway(s), improvements & setbacks. Verification shall show that the lot was **LEGALLY** subdivided through the Town of Mesilla or that the lot has been in existence prior to February 1972.
2. _____ Site Plan with dimensions and details.
3. _____ Foundation plan with details.
4. _____ Floor plan showing rooms, their uses and dimensions.
5. _____ Cross section of walls
6. _____ Roof and floor framing plan
8. _____ Proof of legal access to the property.
9. _____ Drainage plan.
10. _____ Details of architectural style and color scheme (checklist included for Historical zones) – diagrams and elevations.
11. _____ Proof of sewer service or a copy of septic tank permit; proof of water service (well permit or statement from the Public Utility providing water services).
12. _____ Proof of legal access to the property.
13. _____ Other information as necessary or required by the City Code or Community Development Department (See other side.)

PLAT OF SURVEY

TRACT 2
VALDEZ TRACTS
PLAT FILED MAY 29, 2013, IN PLAT BOOK 23, PAGE 462, IN THE DONA ANA COUNTY RECORDS
TOWN OF MESILLA
DONA ANA COUNTY
NEW MEXICO



DWELLING DETAIL

Scale = 1"=40'

DRAWN BY:	S. P.
FIELD BY:	C.S., E.R.
JOB NO.:	22-02-121
DATE:	February 25, 2021

NOTES;

THE BASIS OF BEARING IS THE SOUTH BOUNDARY.

ALL EASEMENTS SHOWN HEREON ARE PER FILED INSTRUMENT/PLAT AS NOTED HEREON.

BEARINGS AND DISTANCES MATCH THAT OF RECORD, UNLESS OTHERWISE NOTED.

1/2" IRON RODS WITH YELLOW PLASTIC CAP LABELED NMPS 9433 SET AT PROPERTY CORNERS OR AS NOTED HEREON.

PROPERTY IS IN AN "X" DESIGNATED ZONE; AS SHOWN ON THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 35013C1093 G, EFFECTIVE JULY 6, 2016

TERENCE G. SCANLON
NEW MEXICO
9433
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY MADE BY ME OR UNDER MY DIRECTION AND THAT IT IS TRUE AND CORRECT, MEETING THE MINIMUM REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

February 25, 2021
DATE OF SURVEY

TED G. SCANLON - PLS NO. 9433
2990 N. MAIN STREET, STE. 3C, LAS CRUCES, NEW MEXICO 88001

"THIS IS A BOUNDARY SURVEY PLAT OF AN EXISTING TRACT OR TRACTS OF LAND. IT IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT."

BORDERLAND
ENGINEERS AND SURVEYORS LLC.
2990 N. MAIN STREET, STE. 3C
Las Cruces, New Mexico 88001
Phone: (575) 522-1443
Fax: (575) 522-9958

The State of New Mexico } **Know All Men by These Presents:**

County of DONA ANA }

That I, LETICIA A. VALDEZ,

of the County of Hidalgo and State of Texas for and in consideration of

the sum of TEN AND NO/100-- DOLLARS,

to me in hand paid by RAUL VALDEZ

of the County of Dona Ana and State of New Mexico the receipt of which

is hereby acknowledged, do by these presents BARGAIN, SELL, RELEASE, AND FOREVER

QUIT CLAIM unto the said RAUL VALDEZ

his heirs and assigns, all my right, title and interest in and to that certain tract or

parcel of land lying in the County of Dona Ana, New Mexico described as follows, to-wit:

A tract of land situated in Dona Ana County, New Mexico, being part of U.S.R.S. Tract 11B-50, Southwest of the Town of Mesilla, Dona Ana County, New Mexico and more particularly described as follows, to wit:

BEGINNING at the Northwest corner of the tract herein described, whence the Northwest corner of U.S.R.S. Tract 11B-50 at a point on the South line of a County Road, (University Avenue Extension), being N. 34 56' W. a distance of 180.00 feet; thence N. 55 45' 30" E. 47.13 feet to the Northeast corner of this tract; thence S. 33 50' E. 535.78 feet to the Southeast corner of this tract; thence S. 56 21' W. 45.6 feet to the Southwest corner of this tract; thence N. 34 06' W. 536.28 feet to the place of beginning containing 0.57 acres of land, more or less.

Subject to all convenants, easements and restrictions of record.

SUBJECT, also, to the mortgage thereon executed in favor of Utah Mortgage Loan Corporation, dated January 31, 1977, filed for record in the office of the County Clerk of Dona Ana County, New Mexico on February 7, 1977, as Reception No. 12089, as recorded in Mortgage Book 244 at Pages 884-887, which mortgage as to the unpaid balance thereof the grantees herein agree to assume and pay according to all of its terms and conditions.

To Have and to Hold the said premises, together with all and singular the rights, privileges and appurtenances thereto in any manner belonging unto the said Raul Valdez

his heirs and assigns forever, so that neither I the said

LETICIA A. VALDEZ

nor my heirs, nor any person or persons claiming under me shall, at any time hereafter, have, claim or demand any right or title to the aforesaid premises or appurtenances, or any part thereof.

Witness my hand at McAllen, Texas this the 3rd

day of December A. D. 19 8[illegible]

Witness Examples of Signature

Leticia A. Valdez

THE STATE OF TEXAS
COUNTY OF Hidalgo

BEFORE ME, the undersigned, a Notary Public in and for said County and State on this day personally appeared
Leticia A. Valdez
known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to
me that She executed the same for the purposes and consideration therein expressed.
GIVEN UNDER MY HAND AND SEAL OF OFFICE,
this the 3rd day of December A. D. 81

Notary Public in and for Hidalgo County, Texas

THE STATE OF TEXAS,
COUNTY OF

BEFORE ME, the undersigned, a Notary Public in and for said County and State on this day personally appeared

known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to
me that he executed the same for the purposes and consideration therein expressed.
GIVEN UNDER MY HAND AND SEAL OF OFFICE,
this the day of A. D. 19

Notary Public in and for County, Texas

STATE OF NEW MEXICO, COUNTY OF DONA ANA, ss:

I hereby certify that this instrument was filed for record:
Rec. No. 41277 Bk. 275 Pg. 162-163 Records of Dona Ana County

GLADYS HANSEN - DONA ANA COUNTY CLERK
By: [signature] DEPUTY

RETURN TO: [illegible]
ADDRESS: [illegible]

163

(COUNTY CLERK SEAL)

THE STATE OF TEXAS,
COUNTY OF

I, County Clerk of the foregoing instrument of writing with its certificate of authentication, was filed for
record in my office on the day of A. D. 19
at o'clock M., and duly recorded the day of
A. D. 19 in the Records of said County
WITNESS MY HAND and the seal of the County Court of said County, at the office in
County, Texas

By Deputy

Quit-Claim Deed

14794

Doña Ana County, NM Parcel Map

Leticia Duarte Benavidez, County Assessor

Map | Legend

Map Layers

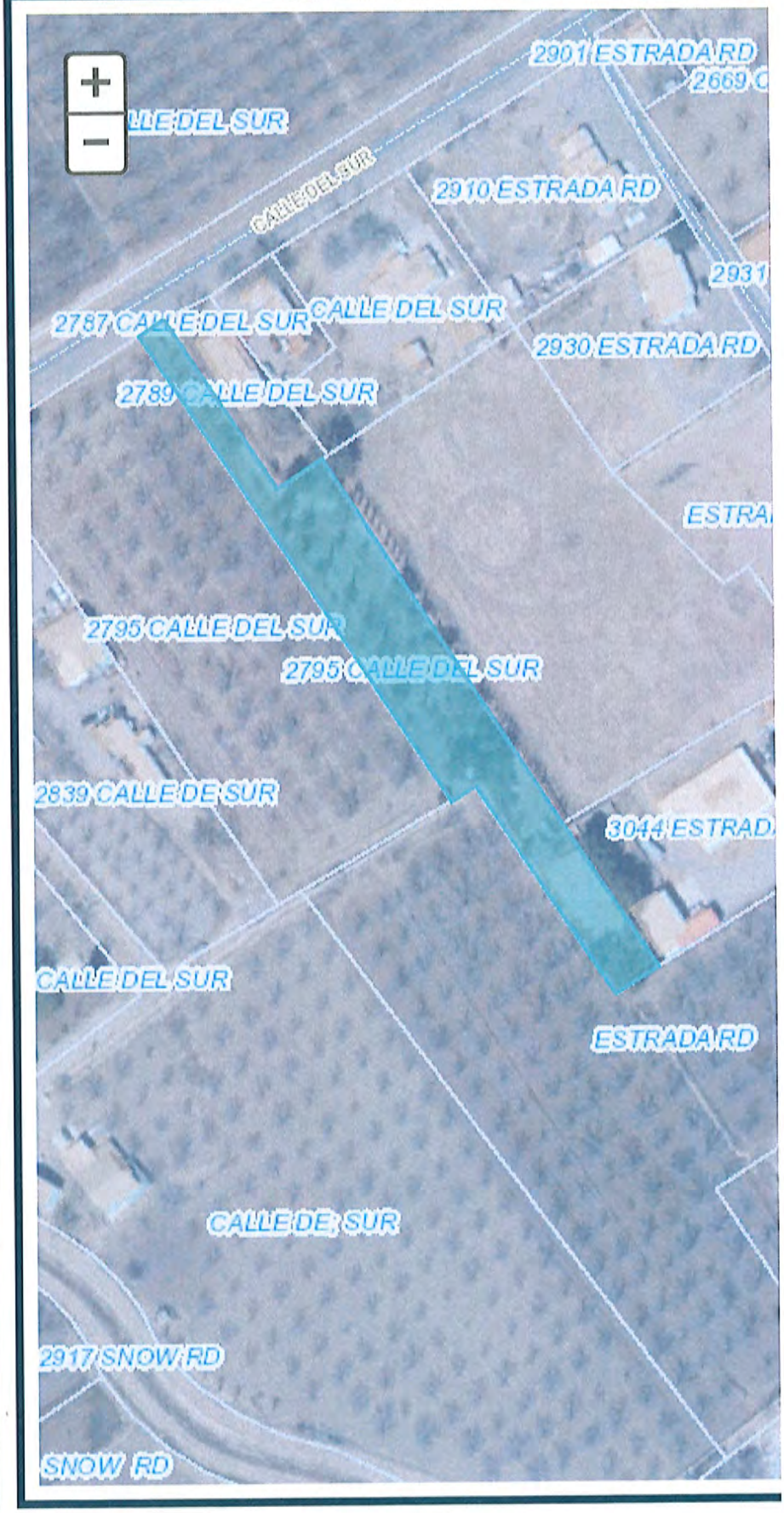
Layer Visibility:

- [x] Roads
- [x] Buildings
- [x] City Limits
- [ ] MLS Zones
- [x] Address Labels
- [x] 2014 Aerial Photo
- [x] Parcels

Select Search Type:
Account Numbe

Enter Value:
2795 Calle del Sur

Search



Proposal

D.J. Walker Construction LLC License #360618
Office(575-644-0049) Darrell 575-644-0049
518 N. 17th Street Las Cruces NM 88005

Date: 3/22/2022
W.O. #: 2022016
Estimator Darrell Walker
Phone 575-644-0049

Customer: Jill Kerr
Address: 2795 Calle Del Sur
Mesilla NM
Contact: Jill 1-919-360-3033

Inspection	The roof on this residence is a 3 Tab Asphalt Shingle. The shingles are aged and near the end of the expected roof life at this time. The pitch on the roof is not consistent with the West side at 2.5:12 and the East side at 1.5:12. That being said the current code and Manufacturer Installation Requirement will not allow a shingle to be installed on any slope less than 2:12. It is our recommendation to remove all roofing to exposed decking and install a new 3 Ply Built Up Roof (BUR). I have also given an option on this proposal for an upgrade to a Energy Star Rated Single Ply Roofing System.

Scope of Work	Re-Roof Section of Single Family Dwelling		
Product	**Detailed Description**	**Quantity**	**Line Total**
1.00	Roof	30.52 SQ	12,208.00
Permit	Mesilla NM approval and permitting with State CID office		Included
Preparation	Remove all existing shingles system down to deck. *Please note that if additional layer of roofing are present that will be additional charges for labor and dump fees.*	4-8 tons	1,068.20
Decking	Inspect decking for water damage. I decking needs to be replaced it will be billed a $2.00 per Square foot. Decking inspection by State CID office is required		TBD
Drip Edge	26 GA 2.5" X 2.5" metal drip edge not painted	2S0 LF	Included
A/C	Existing HVAC unit is on a curb this will remain in place	1 EA	Included
Penetrations	Replace plumbing boots	4 EA	Included
	Reseal JV & stack vents	2 EA	Included
Vents	Detach and rewet existing Turbine vents	2 EA	Included
Skylights	Remove and replace 5-2'X4' Self flashing dual dome (cloud type)	5 EA	1,000.00
Base	GAF 75# base sheet manually attached	1 EA	Included
Ply Sheet	GAF Gafglass ply 4 sheet (mop application)	1 EA	Included
Cap Sheet	GAF 90# Granulated Cap Sheet (mop application)	30.52 SQ	Included
Option 1	Optional installation of a Energy Star Rated White DuroLast 40 Mil Single Ply Membrane This option has a 15 Year Manufacturers Warranty. Add this amount to the total for this option Additional amount to be paid by Buyer per conversatoin with realtor Jaret Lane	Accepted	2,510.00
Warranty	*3 Year labor along with a 20 Year Manufacturers Material Waranty*		
		sub total	16,786.20
		tax	1,142.08
		total	17,928.28
		deposit	
		total	

Customer Signature X Jill S. Kerr 3/23/22

Company Representative X

ARBITRATION: All disputes between the parties arising out of or related to any agreement term, or any breach or alleged breach of this contract will be decided by arbitration. No arbitration proceeding under this provision shall include any person or entity not a party to this agreement except by prior written consent. This written consent must specifically refer to this agreement's arbitration provision, describe the matter to be arbitrated, and be signed by the Builder and/or Contractor. An arbitration proceeding involving an additional person or entity is limited to the parties and matter described in the consent.

WARRANTY. Installation Warranties require that inspections are s completed on an annual basis. All Asphalt based roofing materials require maintenance at least every 2 years to maintain you installation warranty. We offer free inspections annually however any required maintenance will by at the expense of the home owner.

Phone 575-644-0049, email: djwalkerconstruction@gmail.com
www.aplusexteriorsandroofing.com

Proposal

D.J. Walker Construction LLC License #360618
Office(575-644-0049) Darrell 575-644-0049
518 N. 17th Street Las Cruces NM 88005

Customer: Jill Kerr
Address: 2795 Calle Del Sur
Mesilla NM
Contact: Jill 1-919-360-3033

Date: 3/22/2022
W.O. #: 2022016
Estimator Darrell Walker
Phone 575-644-0049

Inspection	The roof on this residence is a 3 Tab Asphalt Shingle. The shingles are aged and near the end of the expected roof life at this time. The pitch on the roof is not consistent with the West side at 2.5:12 and the East side at 1.5:12. That being said the current code and Manufacturer Installation Requirement will not allow a shingle to be installed on any slope less than 2:12. It is our recommendation to remove all roofing to exposed decking and install a new 3 Ply Built Up Roof (BUR). I have also given an option on this proposal for an upgrade to a Energy Star Rated Single Ply Roofing System.

Scope of Work Re-Roof Section of Single Family Dwelling

Product	Detailed Description	Quantity	Line Total
1.00	**Roof**	30.52 SQ	12,208.00
Permit	Mesilla NM approval and permitting with State CID office		Included
Preparation	Remove all existing shingles system down to deck. *Pleose note thot if additionol loyer of roofing are present that will be additionol charges for labor and dump fees.*	4-8 tons	1,068.20
Decking	Inspect decking for water damage. I decking needs to be replaced it will be billed a $2.00 per Square foot. Decking inspection by State CID office is required		TBD
Drip Edge	26 GA 2.5" X 2.5" metal drip edge not painted	250 LF	Included
A/C	Existing HVAC unit is on a curb this will remain in place	1 EA	Included
Penetrations	Replace plumbing boots	4 EA	Included
Vents	Reseal JV & stack vents	2 EA	Included
Skylights	Detach and rewet existing Turbine vents	2 EA	Included
Base	Remove and replace 5-2'X4' Self flashing dual dome (cloud type)	5 EA	1,000.00
Ply Sheet	GAF 75# base sheet manually attached	1 EA	Included
Cap Sheet	GAF Gafglass ply 4 sheet (mop application)	1 EA	Included
	GAF 90# Granulated Cap Sheet (mop application)	30.52 SQ	Included
Option 1	**Optional installation of a Energy Star Rated White DuroLast 40 Mil Single Ply Membrane** **This option has a 15 Year Manufacturers Warranty. Add this amount to the total for this option** **Additional amount to be paid by Buyer per conversatoin with realtor Jaret Lane**	Accepted	2,510.00
Warranty	*3 Year labor along with a 20 Year Manufacturers Material Waranty*		
		sub total	16,786.20
		tax	1,142.08
		total	17,928.28
		deposit	
		total	

Customer Signature X 3/23/22

Compony Representative X

ARBITRATION: All disputes between the parties arising out of or related to any agreement term, or any breach or alleged breach of this contract will be decided by arbitration. No arbitration proceeding under this provision shall include any person or entity not a party to this agreement except by prior written consent. This written consent must specifically refer to this agreement's arbitration provision, describe the matter to be arbitrated, and be signed by the Builder and/or Contractor. An arbitration proceeding involving an additional person or entity is limited to the parties and matter described in the consent.

WARRANTY. Installation Warranties require that inspections are s completed on an annual oasis. All Asphalt based roofing materials require maintenance at least every 2 years to maintain you installation warranty. We offer free inspections annually however any required maintenance will by at the expense of the home owner.

Phone 575-644-0049, email: djwalkerconstruction@gmail.com
www.aplusexteriorsandroofing.com

DURO-LAST® 40-MIL MEMBRANE

Advantages:
Duro-Last® 40-Mil (DL40) is an excellent choice for projects requiring a long lasting, energy efficient roofing membrane. The membrane is available in custom-fabricated sections or as roll goods. A complete line of custom-fabricated accessories and parapets are available for use with DL40.

Description:
DL40 is composed of PVC film laminated to both sides of a reinforcement fabric (weft-inserted scrim).

Duro-Last membranes must not be used with Duro-Last EV membranes.

PVC Film – Proprietary thermoplastic PVC formulation of resins, plasticizers, stabilizers, biocides, flame retardants, and U.V. absorbents.

- PVC film above weft-inserted scrim – 17 mil, nominal

Weft-Inserted Scrim – An 18 x 14 polyester fabric construction with weft insertion, composed of 840 x 1000 denier threads, provides superior tear and puncture resistance. The polyester thread is treated to prevent wicking.

Total Thickness – 40 mil, nominal.

Weight – 0.22 lb. per square foot.

Colors – White, tan, gray and dark gray.

R-Value – 0.1 R (0.1 $ft^2 \cdot °F \cdot hr/Btu$).

Available Configurations:

Custom-fabricated Sections – DL40 is available in custom-fabricated sections as listed within the Ordering and Estimating section on the Duro-Last website.

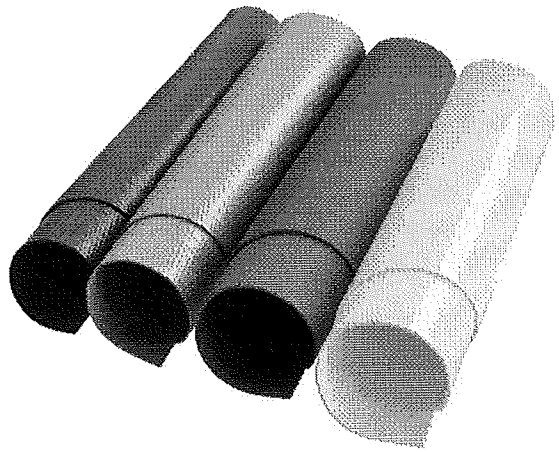
Roll Dimensions[1]

Width	Length (max.)	Roll Area	Approx. Weight	Approx. Coverage[2]
64 inches	150 ft.	800 sq. ft.	176 lb.	725 sq. ft.
64 inches	100 ft.	534 sq. ft.	118 lb.	483 sq. ft.
64 inches	50 ft.	267 sq. ft.	59 lb.	241 sq. ft.
32 inches	100 ft.	267 sq. ft.	59 lb.	217 sq. ft.
12 inches	100 ft.	100 sq. ft.	22 lb.	N/A
8 inches	100 ft.	67 sq. ft.	15 lb.	N/A

[1] Custom rolls of maximum 64 in. by 240 ft. may be produced upon request.

[2] Assuming 6-inch overlap.

Energy Efficiency:
White DL40 is an excellent product for complying with California Title 24, LEED® and other energy efficiency programs requiring the use of a highly reflective roof membrane.



Cool Roof Rating Council (CRRC)

	CRRC ID	Solar Reflectance		Thermal Emittance		Solar Reflective Index (SRI)	
		Initial	3-yr	Initial	3-yr	Initial	3-yr
White	0610-0001a	0.86	0.74	0.89	0.89	108	91
Tan	0610-0005	0.39	0.33	0.89	0.89	43	35
Gray	0610-0004	0.47	0.40	0.89	0.89	54	45
Dark Gray	0610-0006	0.26	0.25	0.87	0.89	25	25

LEED & LEED-EB Credits – White DL40 alone can obtain 1 credit in either U.S. Green Building Council's LEED or LEED-EB programs. In combination with other design criteria the membrane may help attain other credits.

LEED Credit Category	Duro-Last Attribute
Sustainable Sites Credit 7.2 Heat Island Effect: Roof	Solar Reflective Index (SRI) = 111

LEED-EB Credit Category	Duro-Last Attribute
Sustainable Sites Credit 6.2 Heat Island Effect: Roof	Thermal Emittance = 0.87

Warranty:
The following warranties are available for projects utilizing DL40. Contact Duro-Last for warranty details.

Available Warranties	
Supreme	15-Year NDL Warranty
Ultra	15-Year NDL High Wind Warranty[1]
Basic	15-Year NDL Warranty[1]
Residential	15-Year Residential Material Limited Warranty[1]

[1] Excludes consequential damage coverage.

Created: 09/01/2012 Revised: 11/19/2013, 05/28/2014, 06/05/2014, 01/23/2015, 05/18/2015, 01/22/2016, 02/15/2016, 08/15/2017, 03/29/2019, 12/02/2020, 09/23/2021

Codes and Standards:
Underwriters Laboratories (US & Canada), UL Evaluation Report (ER10128), FM Approvals, Canadian Construction Materials Centre (CCMC 13299-L), State of Florida, Miami-Dade County, Texas Department of Insurance.

Storage:
Store rolls lengthwise on pallets. Use tarps to keep rolls dry.

Membrane Attachment:

Mechanically Fastened – DL40 may be mechanically fastened to a variety of roof deck and wall materials. An appropriate slip sheet, insulation or cover board may be required. Refer to the Duro-Last Mechanically Fastened Roofing System Specification for custom-fabricated system requirements. If using roll goods, refer to the Duro-Last Roll Good Mechanically Fastened Roofing System Specification.

Induction welded – Induction welding may be used to attach DL40. An appropriate slip sheet, insulation or cover board may be required. Refer to the Duro-Bond® Induction Weld Roofing System Specification for system requirements.

Adhered – DL40 may be adhered to a variety of properly prepared roof decks, walls, cover boards and insulations. Refer to the Adhered Roofing System Specification for system requirements.

Physical Properties:
DL40 has been subjected to the tests required by ASTM D4434 "*Standard Specification for Poly (Vinyl Chloride) Sheet Roofing*" and has been classified as a Type IV, internally reinforced sheet. The results of each test are listed below. ASTM's Overall Thickness requirements for the membrane are plus or minus 10% (nominal) of the listed Typical Value.

Physical Property	Test Method	ASTM D4434 Requirement	Result	Typical Value
Overall Thickness	ASTM D751	≥ 0.036 and ≤ 0.044 in. (≥ 36 and ≤ 44 mil)	PASS	0.040 in. (40 mil), nominal
Thickness Over Scrim	ASTM D7635	≥ 0.016 in.	PASS	0.017 in. (17 mil)
Breaking Strength[1]	ASTM D751 Grab Method	≥ 275 lbf./in.	PASS	441 x 355 lbf./in.
Elongation[1]	ASTM D751 Grab Method	≥ 25%	PASS	28% x 31%
Seam Strength	ASTM D751 Grab Method	≥ 330 lbf. (75% of Breaking Strength.)	PASS	360 lbf.
Tear Strength[1]	ASTM D751 Procedure B	≥ 90 lbf.	PASS	125 x 136 lbf.
Low Temp. Bend	ASTM D2136	Must pass at -40° F.	PASS	PASS
Heat Aging	ASTM D3045	Conditioned for 56 days in oven maintained at 176° F.	PASS	PASS
Accelerated Aging	ASTM G155	10,000 hours total test time. Irradiance level of 0.35 W/m^2-340nm. Cycle: 102 minutes light, 18 minutes light + H_20 spray, 63±2.5° C black panel, 30±5% RH	PASS	PASS
Dimensional Stability[1]	ASTM D1204	Conditioned for 6 hours in oven maintained at 176° F. Allowable change: ≤ 0.5%	PASS	-0.45% x -0.40%
Water Absorption	ASTM D570	Immersed in water at 158° F for 168 hours. Allowable weight change: ≤ 3%	PASS	2.6%
Static Puncture	ASTM D5602	≥ 33 lbf.	PASS	56 lbf.
Dynamic Puncture	ASTM D5635	≥ 14.7 ft-lbf. (20 J)	PASS	≥ 14.7 ft-lbf. (20 J)

[1] Typical values are shown for both machine and cross machine directions. The machine direction results are listed first.

Additional Tests

Fungi Resistance	ASTM G21	No Sustained Growth or Discoloration
Moisture Vapor Transmission	ASTM E96, Proc. B, Method A	< 0.35 U.S. perms

Created: 09/01/2012 Revised: 11/19/2013, 05/28/2014, 06/05/2014, 01/23/2015, 05/18/2015, 01/22/2016, 02/15/2016, 08/15/2017, 03/29/2019, 12/02/2020, 09/23/2021

SECTION 3 - - - IMPLEMENTATION

ROOF PREPARATION

RECOVER – Built-up Roofs (BUR)

a. If the BUR is gravel surfaced and the pea gravel or crushed stone is 1/4 - 3/8-inch (6 - 10 mm) in size, it must be leveled and maintained at 4 lb./ft^2 (20 kg/m^2). A minimum 3/8-inch (10 mm) fan fold board, supplied by Duro-Last, approved recover board, or 1-inch (25 mm) thick insulation must be used to overlay the gravel.

b. If the loose stone on an old BUR is vacuumed or swept, A minimum 3/8-inch (10 mm) fan fold board, supplied by Duro-Last, approved recover board, or 1-inch (25 mm) thick insulation must be used to overlay the existing system. CAUTION: Removing more than the loose gravel may affect the fire rating. Contact the Duro-Last Engineering Services Department for assistance regarding fire rated assemblies.

c. If the BUR is a smooth or granular surfaced application, and is free of sharp edges and debris, it can be recovered with an approved slip sheet, although Duro-Last fan fold board is recommended.

d. EPS insulation cannot be used over coal tar pitch or asphalt without a slip sheet between the coal tar pitch and the insulation as well as between the membrane and the insulation. Duro-Last underlayments are approved for direct application over aged coal tar pitch roofs.

e. When roofing over asphalt or coal tar roofs (including tear-off), an approved separator sheet must be used. Asphalt-based products are incompatible with the Duro-Last roofing membrane. Note: Should the Duro-Last membrane become soiled with roofing asphalt, the affected membrane must be cleaned immediately using approved cleaners and procedures. If the asphalt cannot be properly cleaned from the membrane, the affected membrane must be removed and new membrane installed, or overlay the affected area with an approved slip sheet and new membrane. Extreme caution should be taken if you are doing a tear-off while installing the membrane.

RECOVER – Single-Ply Roofs

a. The existing single-ply roofing membrane must be cut free from the entire roof perimeter, cut free around all penetrations, and cut in between fastener rows prior to the installation of the Duro-Last membrane. When reroofing after a tear-off, caution should be used to prevent the Duro-Last membrane from contacting incompatible materials. (See "Substrate Separation", page 4)

b. If the existing system is mechanically fastened, there is often a problem with loose fasteners. Because of this problem, cut the membrane open and remove all loose fasteners before installing the slip sheet.

c. If a PVC membrane has been installed directly over styrene insulation without a separation sheet, then the old membrane must be removed, damaged insulation replaced, and an approved slip sheet installed.

d. If the existing membrane is ballasted and the Duro-Last membrane is to be mechanically fastened, it is necessary to do fastener pullout tests on the deck. Also, the type of insulation and its density needs to be determined to ensure that the insulation will meet the Duro-Last specification. (See "Substrate Separation", page 4). Be aware that if the existing insulation is "loose-laid" it must be fastened with an approved fastening pattern (See Detail 1020).

RECOVER – Metal Roof Recover/Retrofit

a. The metal roof panel must be clean, smooth, and free of sharp edges and loose foreign material. Damaged areas and other factors affecting the installation of the Duro-Last roofing system must be repaired prior to the installation of the membrane.

b. A metal roof panel must be separated from the Duro-Last membrane by using a recover board of at least 7/16-inch thick (11 mm) hardboard (gypsum), plywood, or oriented strand board (OSB) or 1-inch (25 mm) rigid insulation. When 1-inch rigid insulation is used, flute filler must be used and must consist of polyisocyanurate insulation. Note: According to International Building Code (IBC), the use of above-deck thermal insulation (including extruded or expanded EPS) is covered with an approved roof covering and

passes the tests of FM 4450 or UL 1256 when tested as an assembly. The gaps between the ribs of the metal and the insulation fill cannot exceed the recover board manufacturer's recommendation for spanability. Flute filler must be fastened as needed to hold the flute fill in place. (Note: Duro-Last fanfold may be used if the flutes are filled with no gaps exceeding 1/4-inch total in between metal ribs.)

c. Insulation/recover board must be neatly fitted to the roof deck and its penetrations. Four by eight -feet (1.2 x 2.4 m) boards must be attached with a minimum of five fasteners/distribution plates. See details 1020 & 1030 found in the detail section of this manual for mechanical attachment of additional sizes of recovery boards. Gaps between insulation/recovery boards cannot exceed 1/4-inch (6 mm) in width. No more insulation/recovery board will be installed than can be covered with membrane and completed before the end of the day's work or before the onset of inclement weather. Duro-Last fasteners and plates as well as approved fastening patterns are required for attachment of all insulation/recover board. Contact the Duro-Last Engineering Services Department with any questions.

d. High-density wood fiberboard is acceptable on metal building recovers when the building slope is at least 1-inch (25 mm) vertical for every 12-inches (305 mm) horizontal. High-density wood fiber will not be accepted as flute filler.

e. Plywood is acceptable to recover metal roofs. The minimum thickness, if it is being used as recover board, shall be 7/16-inch (11 mm). Fasteners must penetrate through both the plywood and the existing metal roof.

f. If plywood will be acting as the new substrate for membrane attachment, the plywood must be a minimum of 9/16-inch (14 mm) thick and a pull-test must be conducted on the new lumber to determine the proper lap spacing and attachment along the tab. Contact the local building authority to determine compliance of deck attachment to the building structure. Note: It is the responsibility of the contractor to ensure that the weight requirements of the building are not exceeded when installing additional materials over pre-engineered buildings.

NEW CONSTRUCTION

a. All concrete surfaces must be troweled smooth. If the concrete surface is not smooth, a minimum 3/8-inch (10 mm) fan fold board, supplied by Duro-Last, is required.

b. The roof deck or existing roof system must be clean, smooth, free of sharp edges, and loose foreign material. Damaged areas and other factors affecting the installation of the Duro-Last roofing system must be repaired prior to the installation of the membrane.

c. A metal deck must be separated from the Duro-Last membrane by at least 7/16-inch (11 mm) hardboard (gypsum, plywood, or oriented strand board) or 1-inch (25 mm) rigid insulation. It is the responsibility of the contractor to ensure that the selected insulation is adequate to span the flutes of the deck. If it is not, the flutes must be filled with an approved insulation. See "Insulation Selection and Installation" for further details.

d. All plywood surfaces must be smooth and free of all foreign material. Gaps between sheets of plywood should not exceed 1/4-inch (6 mm). Prior to the installation of the membrane an approved slip sheet or duct tape must be installed over any H-clips if they are used on any plywood decking.

INSTALLATION

WOOD NAILER

Wood nailers must be a #2 grade lumber, or better and must be fastened to the deck, wall or existing secured nailer in such a manner that they resist 180 lb. of force per linear foot (2,643 N/M) of nailer in any direction. Fasteners used to attach wood nailers must be spaced no greater than 18-inches (455 mm) apart. Wood nailers are required in any situation where 1-inch (25 mm) or greater of insulation is added to the roof perimeter edge. The top of the nailers must be flush with the top of the insulation. Wood nailers are not required at a change of plane such as the intersection between a parapet wall and the decking.

Duro-Last Engineering Services requires that for nailers and other lumber supports identified as ACQ or CA treated, only stainless steel fasteners be used. Additionally, for all new construction, untreated lumber should be used for nailers with standard e-coated fasteners. Further, treated lumber dating 2003 or earlier is acceptable for use with e-coated fasteners as lumber prior to 2003 of age is unlikely to contain the copper based treatments.

INSULATION SELECTION AND INSTALLATION

Insulation products must be neatly fitted to the roof deck and its penetrations. 4 x 8-feet (1.2 x 2.4 m) insulation boards must have a minimum of five fasteners/distribution plates installed per board. No gap should exceed 1/4-inch (6 mm) in width. No more insulation products should be installed than can be covered with membrane and completed before the end of the day's work or before the onset of inclement weather. Duro-Last fasteners and Duro-Last plates as well as approved fastening patterns are required for attachment of all insulation products.

The minimum compression characteristics of insulation products as determined by ASTM D-1621 will be as follows:

- Polyisocyanurate products: 20 psi (137.8 kPa)
- Fiberglass products: 16 psi (110.3 kPa)
- Extruded polystyrene products: 25 psi (172.3 kPa)
- Expanded polystyrene products: 15 psi (124.1 kPa) and 1.5 pcf (24 kg/m^3) density (certified) and a minimum 1-inch (25 mm) thick.
- Expanded polystyrene products covered with or laminated to a hardboard facer: 12 psi (82.7 kPa) and 1.25 pcf (20 kg/m3) densities and a minimum of 1-inch (25 mm) thick.

PERIMETER MEMBRANE INSTALLATION

a. The first fastening tab on all perimeter roof sections that have tabs parallel with the roof edge or parapet wall, must be between 24 - 36 inches (610 - 915 mm) from the edge or the wall. If the parapet wall is greater than 24-inches (610 mm) tall, the perimeter tab may be placed up to 63-inches (1.6 m) away from the roof edge when utilizing roof sections with maximum lap spacing of 60-inches (1.5 m) on center.

b. When using roof sections with fastening tabs spaced 120-inches (3 m), the first tab along all perimeter roof edges must be located 24 - 36-inches (610 – 915 mm) from the edge. The second tab must be placed 84 - 96-inches (2130 – 2440 mm) from the edge. Parapet wall height does not change this requirement.

c. On buildings with multiple roof levels, treat all roof edges as perimeter edges if they stand 3-feet (915 mm) or more above adjacent or surrounding roof areas.

d. On buildings located in high wind zones (greater than 110 mph [177 km/h]) or on structures that are 40-feet (12 m) or taller, additional wind tabs and/or increased fastener density may be required. Contact the Duro-Last Engineering Services department for assistance.

MEMBRANE INSTALLATION

a. The prefabricated roof section is unrolled and positioned on the deck to expose the first securement tab. The securement tab is mechanically fastened to the deck with approved fasteners and stress distribution plates (see "Fastener Selection and Deck Types", page 6). The roof section is then unfolded and pulled taut to remove any wrinkles exposing the second securement tab. This process is repeated until the entire roof section has been mechanically fastened to the deck, including all securement tabs and edges. The next section of roofing membrane is then positioned to provide a minimum 6-inches (152 mm) overlap. The above procedure is repeated for each roof section.

b. The edge of the stress distribution plate must be installed flush with the outside edge of a fastening tab.

c. The maximum fastener spacing is 18-inches (457 mm) on center in rows 60-inches (1.5 m) apart. For tab spacing greater than 60-inches (1.5 m), the maximum fastener spacing is 12-inches (305 mm) on center. (Refer to the Fastener Spacing Table, page 7.)

d. When installing membrane, ensure that the appropriate side of the membrane is exposed to elements. For white and gray membrane, the smooth side should be exposed. On the tan membrane, it will be the embossed side of the membrane that should be exposed.

e. If the membrane is attached to the support structure beneath the roof deck, special precautions must be taken. If the membrane is attached to a steel purlin structure, all fasteners must penetrate a minimum of 1-3/4-inch (44 mm) from the top of the purlin using Duro-Last purlin fasteners. If the membrane is being attached to a wood truss structure, all fasteners must penetrate a minimum of 1-inch (25 mm) from the top surface of the truss with approved Duro-Last fasteners.

HOT-AIR WELDING

a. Position the membrane so that the top membrane overlaps the bottom membrane a minimum of 6-inches (152 mm). Ensure the welding area is dry, clean and free of foreign material.

b. Weld the top membrane to the bottom membrane using a hand-held welder or an automatic welding machine, and silicone roller. A minimum 1-1/2-inch (38 mm) wide continuous weld is required.

c. All field-welded seams must be inspected with a tack claw or similar tool (cotter key extractor), and all deficiencies repaired prior to inspection by Duro-Last.

FLASHINGS

a. The Duro-Last membrane must not contact surfaces which maintain or exceed temperatures of 120 °F including all insulated chimney pipes, exhaust pipes, and combustible fuel pipes.

b. All flashings must be terminated at a minimum of 8-inches (203 mm) above the roof surface.

c. See "Mechanically Fastened" details section for installation references.

TWO WAY AIR VENT

a. Install Duro-Last Two-Way Air Vents following these guidelines:

   1. Install at a rate of one vent for every 1,000 ft^2 of deck area.
   2. Do not install the vents near drains or in valleys.
   3. Evenly space the vents across the roof area and center them between fastening tabs.

b. It is the contractor's responsibility to ensure that adequate secondary drainage exists to prevent flooding during extreme weather when water could infiltrate the two-way vent.

c. See Details 5020 for installation references.

ROOF DRAINS AND SCUPPERS

a. Drain Assemblies with Clamping Rings

   1. All existing roofing materials must be removed from drain bowl and clamping ring.
   2. Use Duro-Caulk Plus between the membrane and clamping ring (1/2 tube minimum).
   3. After the Duro-Last membrane is properly installed onto the bowl and the clamping ring set in place, all bolts securing the ring must be installed to provide constant, even compression on the sealant. If bolts are broken or missing, replacements must be installed.

b. Duro-Last Drain Boots

1. If the Duro-Last drain boot is to be used, apply one-half (1/2) tube of sealant minimum to the outside of the drain boot and insert it into the drain.
2. Install composite compression drain rings as low into the drain as possible.

c. See Details 2011, 2020, 2021, 2025, 2030, 2041, 2050, 2060, 2061, 2070 and 2071 for installation references.

EXPANSION JOINTS

a. See Details 1140, 1150, 1160, 1170 and 6160 for installation references.

PITCH PAN

a. Use pitch pans only when standard Duro-Last flashings cannot be used.

b. Only Duro-Last Duro-Caulk Plus or approved sealer may be used when creating a pitch pan.

c. See Details 4030, 4040 and 4045 for installation references.

WALKWAY PAD

a. Duro-Last Roof Trak® III Walkway Pad is recommended at all roof access points, service units and high traffic areas. The risk of potential third party damage to the Duro-Last roofing system may increase should the building owner choose not to utilize the Duro-Last Roof Trak III Walkway Pad. Note: Prior to inspection of the installation by Duro-Last, attach only one side of any Walkway Pads that will be covering any field seams. This will allow the Duro-Last Technical Representative to inspect the entire field seam. After the inspection, hot-air weld the remaining side to complete the attachment of the pad.

CAUTIONS AND WARNINGS

1. Duro-Last Roofing, Inc. is not responsible for damage that may occur as a result of moisture created from condensation occurring within or beneath a roof deck subassembly or building.
2. All Polystyrene insulation (Styrofoam, Formular, Dow, EPS, etc. - blue, white, gray, green, or pink) must have an approved non-styrene facer or an approved slip sheet covering when installed in direct contact with existing or new PVC membranes. Polyethylene or polypropylene facers are acceptable only after testing, and approval by Duro-Last for compatibility.
3. Phenolic foam is not an approved insulation in new construction or re-roofing applications. The Duro-Last roofing system may not, under any circumstance, be installed over phenolic foam.
4. Perlite and wood/mineral fiber-boards are not acceptable substrates for the Duro-Last membrane. (See #5 below for exception on wood fiber board)
5. High density wood fiber boards are only acceptable on a metal roof that is being retrofitted where the slope of the roof will be 1-inch (25.4 mm) per 12-inch (305 mm) slope or greater.
6. If asbestos is encountered, the building owner must be notified at once. The owner is solely responsible for determining the proper course of action.
7. A Duro-Last roof shall not be installed over areas of roofs if one or more of the following conditions exist:
   a. The building structure is not sufficient to handle the load of the completed system.
   b. It is not possible to find an approved fastener that will properly hold in the substrate.
   c. Roofs are subject to hot embers, slag, or burning debris.
   d. Incompatible chemicals exhausted directly onto the roof or may come in contact with the roof in liquid form. (See "Chemical Resistance", page 4)
   e. Steam is exhausted directly onto the roof that is in excess of 120° F (49° C).

ACTION FORM

AGENDA DATE
PZHAC: April 04, 2022, **BOT:**

ITEM: PZHAC **Case #061371** – 331 Capri Arc submitted by Frances Williams to install a ground mounted solar system. **Zoned: R-1**

BACKGROUND AND ANALYSIS: Although this property is in the R-1 Zone this case was reviewed by the Architectural Styles Committee (ASC) and had no issues moving it forward

Solar Smart Living LLC is proposing installation of ground mounted solar system, with ten (10) photovoltaic modules. **Zoned: R-1**

IMPACT:

- The PZHAC has jurisdiction to recommend approval of the applicant's request for approval of this request to the BOT.
- The applicant has the authority to make an application request to the PZHAC and BOT.
- Due process was provided to the applicant.

Specific findings of fact:

- The proposed work is on applicant's property and not in Town of Mesilla right-of-way.

ALTERNATIVES:
The Planning, Zoning and Historical Appropriateness Commission (PZHAC) may:

1. Recommend approval of this case with findings stated above.
2. Recommend approval of this case with findings stated above and conditions.
3. Deny the application.

DEPARTMENT RECOMMENDATIONS:

SUPPORTING INFORMATION:

- Application
- Plans

DocuSign Envelope ID: 538E8D70-E87E-4159-8CED-078377EAA9F2

OFFICIAL USE ONLY:
Case # 061371
Fee $ 233.00

Fee $200.00
Review $33.00

TOWN OF MESILLA
ZONING APPROVAL

PERMISSION TO CONDUCT WORK
OR
OBTAIN A COMMERCIAL/RESIDENTIAL BUILDING PERMIT FROM CID

2231 Avenida de Mesilla, P.O. Box 10, Mesilla, NM 88046 (575) 524-3262 ext. 104

CASE NO.____________ ZONE: ________ CODE:____________ APPLICATION DATE:____________

Francis Williams
Name of Property Owner

(575) 496-6185
Property Owner's Telephone Number

331 Capri Arc — Las Cruces — NM — 88005
Property Owner's Mailing Address — City — State — Zip Code

frank@nmsu.edu
Property Owner's E-mail Address

Solar Smart Living, LLC - 108 Ray Ward Pl, Santa Teresa NM 88008 (Applicant: Paulina Olivas)
Contractor's Name & Address (If none, indicate Self)

(575) 400-2995 — 3-20375-4488-2 — 361818
Contractor's Telephone Number — Contractor's Tax ID Number — Contractor's License Number

Address of Proposed Work: 331 Capri Arc, Las Cruces NM 88005

Description of Proposed Work: Installation of groundmounted solar system. 10 photovoltaic modules to be installed.

$ 15,000.00
Estimated Cost

Signature of Applicant [signature]

3/24/22
Date

Signature of property owner: Frank Williams
55D84CC08A64481...

With the exception of administrative approvals, all permit requests must undergo a review process from staff, PZHAC and/or BOT before issuance of a zoning permit. Plan sheets are to be no larger than 11 x 17 inches or shall be submitted electronically.

FOR OFFICIAL USE ONLY

PZHAC
- ☐ Administrative Approval
- ☐ Approved Date: ____________
- ☐ Disapproved Date: ____________
- ☐ Approved with conditions

BOT
- ☐ Approved Date: ____________
- ☐ Disapproved Date: ____________
- ☐ Approved with Conditions

PZHAC APPROVAL REQUIRED: ___ YES ___ NO BOT APPROVAL REQUIRED: ___ YES ___ NO

CID PERMIT/INSPECTION REQUIRED: ___ YES ___ NO ___ SEE CONDITIONS

CONDITIONS: ____

PERMISSION ISSUED/DENIED BY: ______________________ ISSUE DATE: ____________

THIS APPLICATION SHALL INCLUDE ALL OF THE FOLLOWING:

1._____ Plot plan with legal description to show existing structures, adjoining streets, driveway(s), improvements & setbacks. Verification shall show that the lot was **LEGALLY** subdivided through the Town of Mesilla or that the lot has been in existence prior to February 1972.
2._____ Site Plan with dimensions and details.
3._____ Foundation plan with details.
4._____ Floor plan showing rooms, their uses and dimensions.
5._____ Cross section of walls
6._____ Roof and floor framing plan
8._____ Proof of legal access to the property.
9._____ Drainage plan.
10._____ Details of architectural style and color scheme (checklist included for Historical zones) – diagrams and elevations.
11._____ Proof of sewer service or a copy of septic tank permit; proof of water service (well permit or statement from the Public Utility providing water services).
12._____ Proof of legal access to the property.
13._____ Other information as necessary or required by the City Code or Community Development Department (See other side.)

The following are requirements to be included with all building permit applications for new structures or additions to existing structures, as well as other construction or fixtures that will be permanent in nature and affect the appearance or use of the property. (This includes fences, well houses, storage units, metal sheds, photo-voltaic panels that can be seen from the ground, etc.)

BUILDING PERMIT REQUIREMENTS

A. Completed application, including:
   1. Applicant's name
   2. Applicant/property owners contact information
   3. Physical address of property
   4. Description of work to be done, including dimensions of any construction or repairs
   5. Value of work to be done
   6. Property owner's signature on the application

B. Include all information required in the checklist at the bottom of the application.

C. Additional information required:

_____

_____

_____

_____

ONE LINE DIAGRAM & SITE MAP
SSL

Rooftop Photovoltaic Array

Panels 10_ea

190 Azimuth
Flush Mount

25° Tilt
Rapid Shutdown Compliant

Central Inverter Rating:
Inverter Manufacturer = Solaredge Inverter
Model # = SE 3800H - US
Max DC Voltage Rating = 480V
Max Power = 5000W
Nominal AC Voltage = 120/240VAC
Number of Phases = 1
Max AC Current = 16 A

PV Production Meter
Meter Socket 250 V
100 Amp rated, Milbank
U5934 w/ Isolated Neutral

3800 W
Inverter

10 AWG
L1, L2, N
12 AWG EGC

M

Photovoltaic
Unfused **Customer Generation Disconnect**
Rated 30 Amps
Within 10' of revenue meter

10 AWG
L1, L2, N
12 AWG EGC

Outdoor Load Center
100 A Main
20 Amp Backfed Breaker
Attached placard
"Photovoltaic system connected"

100 A

10 AWG
L1, L2, N
12 AWG EGC

20 A

To Utility

Revenue Meter

M

Panel Ratings
Bus Amp Rating = 100A
Service Voltage = 120/240 VAC
Main OCPD Rating = 100A
Inverter OCPD Rating = 20 Amp Backfed Breaker

PV Array Information w/ Optimizers
Number of Modules in Series String = 10
Maximum Current per String = 12 A
Max DC Voltage = 480 VDC
Max Vmp per String = 380 VDC

10 AWG Conductors
12 AWG Equipment Ground
Up to 6 Current Carrying Conductors per Conduit
Voltage Drop < 1% if linear distance is less than 125 Ft
3/4" Conduit or Greater

Notes & distances
- Weather proof one line electric diagram of generating facility will be located at the point of service connection to the utility
- PV array on roof of residence.
- All AC equipment located by Utility Meter
- Inverter located by meter
- Photovoltaic AC Disconnect to main service panel within 5'
- Main service panel to revenue meter within 5'
- Photovoltaic AC Disconnect to revenue meter within 10'
- Photovoltaic AC Disconnect is lockable and visible within sight to revenue meter

Estimated Annual DG System

Output 7240 kWh per year

N
W E
S

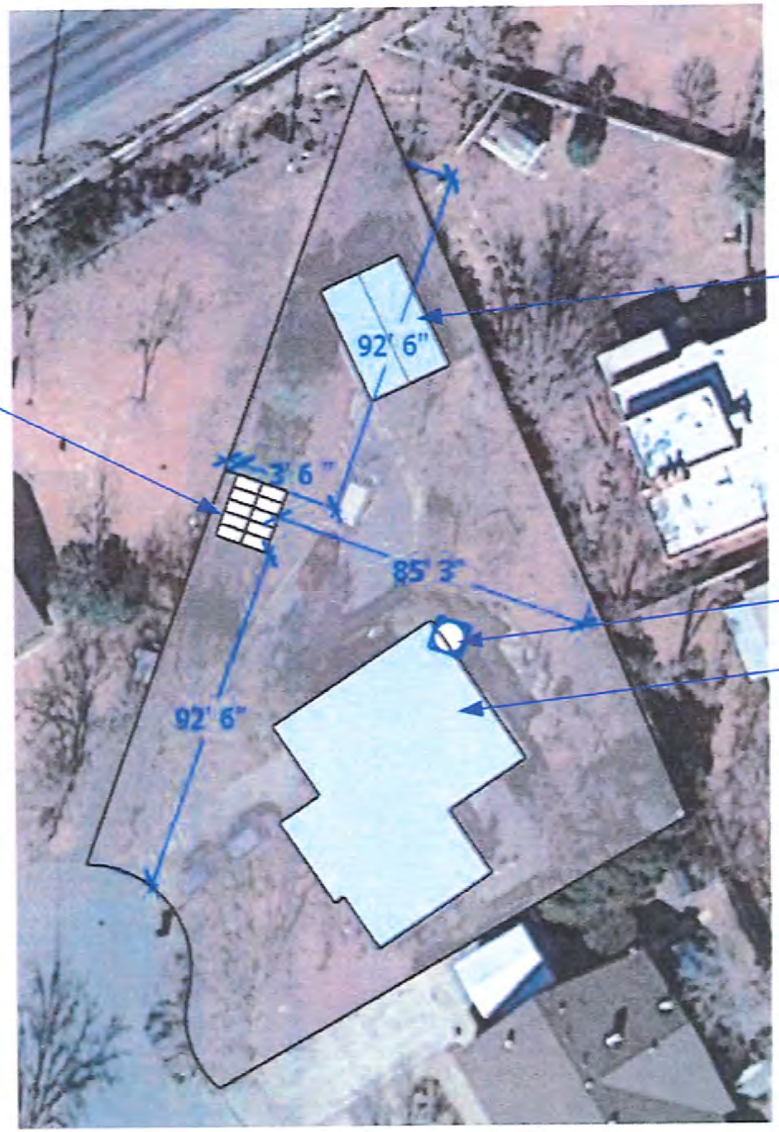
PV Module Ratings @ STC
Module Manufacturer = Trina
Module Model # = Tallmax
Max Power Current (Imp) = 9.92 A
Max Power Voltage (Vmp) = 40.3 V
Open Circuit Voltage (Voc) = 47.4 V
Short Circuit Current (Isc) = 10.45 A
Max Series Fuse (OCPD) = 20 A
Maximum Power (Pmax) = 400 W
Max System Voltage = 1500V
Voc Temp Coefficient = -0.36 % /°C

SOLAR
SMART LIVING

Customer Name:	Francis D Williams
	(575) 496-6185
Total System Size:	3.8 kW AC / 4.05 kW DC @ STC
	10 Solar Panels
Install Address:	331 Capri Arc
	Las Cruces NM 88005
Date:	Mar 10, 2022

Installer Name:	Solar Smart Living, LLC
Installer Address:	108 Ray Ward Place
	Santa Teresa, NM 88008
Phone:	(915) 400-2995
Contact:	Javier Perea (915) 474-5824
Email:	jperea@SolarSmartLiving.com

SITE MAP
SSL



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INVERTERS

Single Phase Inverter with HD-Wave Technology

for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US / SE7600H-US / SE10000H-US / SE11400H-US

12-25 YEAR WARRANTY

Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking 99% weighted efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)

solaredge

/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/ SE7600H-US / SE10000H-US / SE11400H-US

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5[1]							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A
Power Factor	1, Adjustable - 0.85 to 0.85							
GFDI Threshold	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380				400			Vdc
Maximum Input Current @240V[2]	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Maximum Input Current @208V[2]	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600kΩ Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
CEC Weighted Efficiency	99						99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption	< 2.5							W

[1] For other regional settings please contact SolarEdge support

[2] A higher current source may be used; the inverter will limit its input current to the values stated

NEW

CanadianSolar

HiKu

SUPER HIGH POWER POLY PERC MODULE

395 W ~ 420 W

CS3W-395|400|405|410|415|420P

MORE POWER

- 24 % higher power than conventional modules
- Up to 4.5 % lower LCOE
  Up to 2.7 % lower system cost
- Low NMOT: 42 ± 3 °C
  Low temperature coefficient (Pmax): -0.37 % / °C
- Better shading tolerance

MORE RELIABLE

- Lower internal current, lower hot spot temperature
- Minimizes micro-crack impacts
- Heavy snow load up to 5400 Pa, wind load up to 3600 Pa*

* For detail information, please refer to Installation Manual.

25 years linear power output warranty*

12 years enhanced product warranty on materials and workmanship*

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2015 / Quality management system
ISO 14001:2015 / Standards for environmental management system
OHSAS 18001:2007 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730: VDE / CE / MCS / KS / INMETRO
UL 1703 / IEC 61215 performance: CEC listed (US)
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / IEC 60068-2-68: SGS
UNI 9177 Reaction to Fire: Class 1 / Take-e-way

* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

CANADIAN SOLAR (USA), INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. No. 1 module supplier for quality and performance/price ratio in IHS Module Customer Insight Survey. As a leading PV project developer and manufacturer of solar modules with over 38 GW deployed around the world since 2001.

CANADIAN SOLAR (USA), INC.
3000 Oak Road, Suite 400, Walnut Creek, CA 94597, USA | www.canadiansolar.com/na | sales.us@canadiansolar.com

SOLAR
SMART LIVING

Customer Name:	Francis D Williams
	(575) 496-6185
Total System Size:	3.8 kW AC / 4.05 kW DC @ STC
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Installer Name:	Solar Smart Living, LLC
Installer Address:	108 Ray Ward Place
	Santa Teresa, NM 88008
Phone:	(915) 400-2995
Contact:	Javier Perea (915) 474-5824
Email:	jperea@SolarSmartLiving.com

Project Details

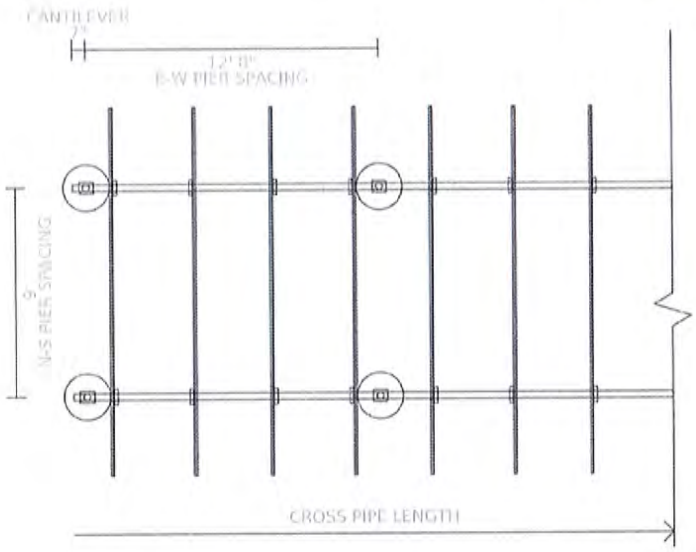
Name	331 Capri Arc	**Date**	03/24/2022
Location	331 Capri Arc, Las Cruces, NM 88005	**ASCE code**	7.10
Total modules	10	**Wind speed**	120 mph
Module	Canadian Solar: CS3W-405P (40mm)	**Snow load**	0 psf
Dimensions	82.99" x 41.26" x 1.57" (2108.0mm x 1048.0mm x 40.0mm)	**Wind exposure**	B
Total watts	4,050 kW	**Piers**	4
		Concrete	2.56 yd^3

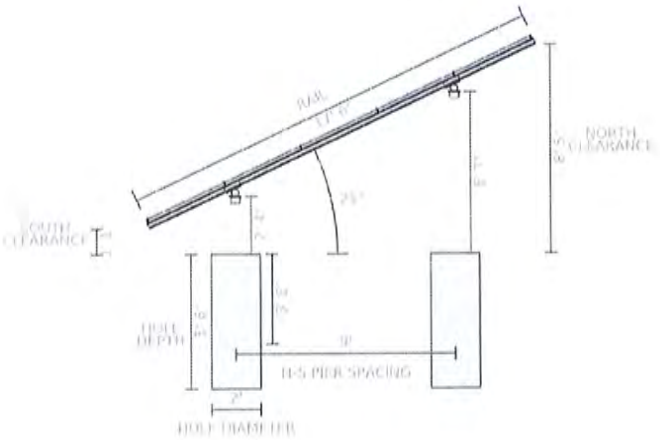
Substructure & Foundation

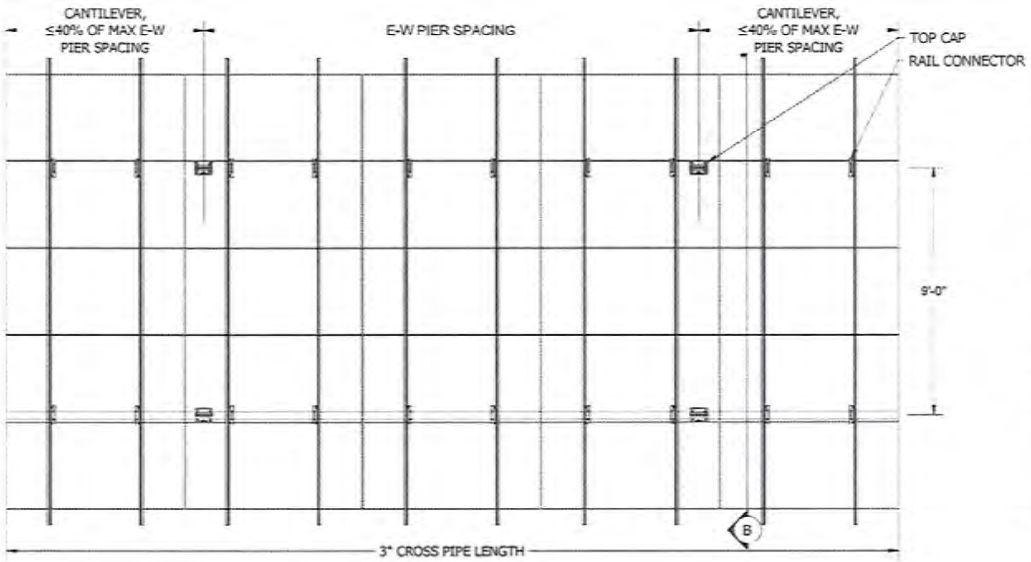
Tilt	25°	**South facing grade**	0°
Pipe/tubing diameter	3"	**Soil class**	4
Foundation type	Concrete	**Hole diameter**	24"

Sub array #1

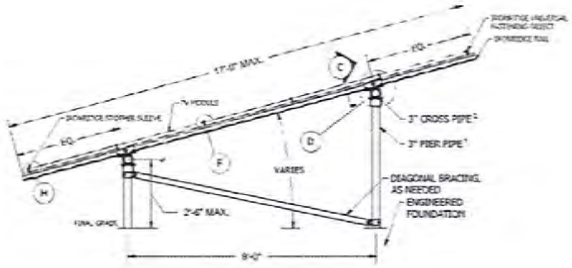
Rows	5	**Columns**	2	**Repeats**	1
Area	13' 10" (EW) × 17' 6" (NS)	**Rail type**	XR1000	**Diagonal bracing**	no
E/W spacing	12' 8"	**Rail cantilever**	3' 9"	**Pipe cantilever**	7"
Piers/repeat	4	**Total south piers**	2 (6')	**Total north piers**	2 (10' 3")
Total cross pipes	2 (13' 10")	**Total pipe length**	60' 2"		
Shear	1,437 lbs	**Moment**	3,593 ft-lbs	**Uplift**	-1,771 lbs



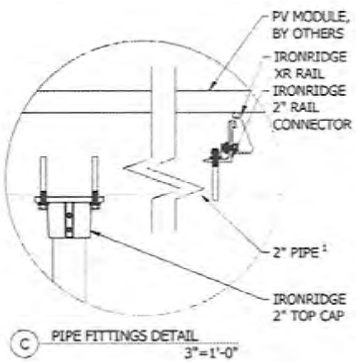




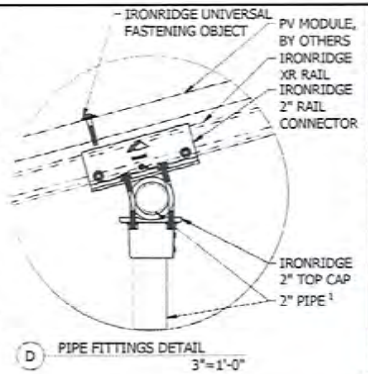
A 5-UP - PV SYSTEM PLAN DETAIL
Scale: 1/2"=1'-0"



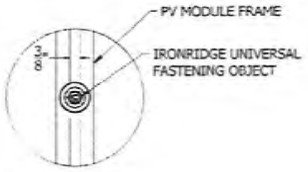
B 5-UP - PV SYSTEM SIDE SECTION
Scale: 1/2"=1'-0"



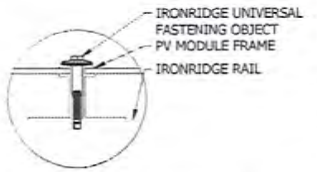
C PIPE FITTINGS DETAIL
3"=1'-0"



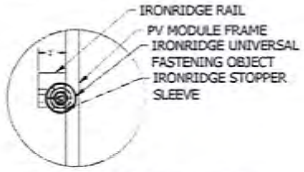
D PIPE FITTINGS DETAIL
3"=1'-0"



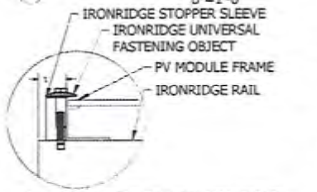
E DETAIL, MID CLAMP PLAN
6"=1'-0"



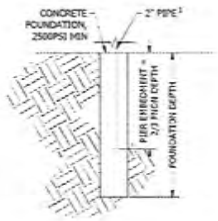
F DETAIL, MID CLAMP FRONT
6"=1'-0"



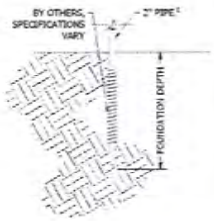
G DETAIL, END CLAMP (UFO) PLAN
6"=1'-0"



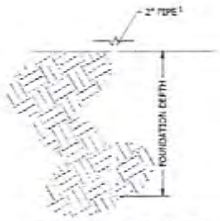
H DETAIL, END CLAMP (UFO) FRONT
6"=1'-0"



J DRILL/POUR FOUNDATION
Scale: 1/2"=1'-0"

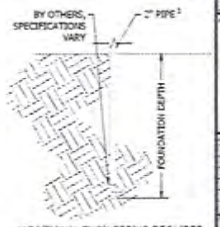


K EARTH SCREW FOUNDATION
Scale: 1/2"=1'-0"



*ADDITIONAL ENGINEERING REQUIRED

L DRIVEN PIER FOUNDATION
Scale: 1/2"=1'-0"



*ADDITIONAL ENGINEERING REQUIRED

M HELICAL PILE FOUNDATION
Scale: 1/2"=1'-0"

1. SCHEDULE 40 PIPE OR ALLIED MECHANICAL TUBING (8GA WALL THICKNESS)

IRONRIDGE
1495 ZEPHYR AVE. HAYWARD, CA 94544
800.227.6523 IRONRIDGE.COM

IRONRIDGE
GROUND MOUNT SYSTEM

CLIENT NAME
PROJECT NAME
PROJECT ADDRESS
SYSTEM MODS

WIND SPEED, MPH
SNOW LOAD, PSF
EXPOSURE CAT
RISK CAT
MODULE TYPE
MODULE VOC
MODULE QTY

72-CELL GENERIC

NOT FOR CONSTRUCTION

PV SYSTEM DETAILS
5-UP 3" (UFO)

2.09 GM
JUNE 2018
IR 6.0
24X36

Starling Madison Lofquist, Inc.
Consulting Structural and Forensic Engineers
5224 South 39th Street, Phoenix, Arizona 85040
tel: (602) 438-2500 fax: (602) 438-2505 ROC#291316 www.smleng.com

IronRidge
28357 Industrial Boulevard
Hayward, CA 94545

July 1, 2019

Attn: Mr. Corey Geiger, VP New Markets, IronRidge Inc.

Subject: Ground Mounting System – Structural Analysis – 5 Module (XR1000)

Dear Sir:

We have analyzed the subject ground mounted structure and determined that it is in compliance with the applicable sections of the following Reference Documents:

Codes: ASCE/SEI 7-10 Min. Design Loads for Buildings & Other Structures
ASCE/SEI 7-16 Min. Design Loads for Buildings & Other Structures
International Building Code, 2015 Edition
International Building Code, 2018 Edition
Other: AC428, Acceptance Criteria for Modular Framing Systems Used to Support PV Modules, dated Effective November 1, 2012 by ICC-ES
Aluminum Design Manual, 2015 Edition
IronRidge Exhibit EX-0002

The structure is a simple column (pier) and beam (cross pipe) system. The piers & cross pipes are ASTM A53 Grade B standard weight (schedule 40) steel pipes or Allied Mechanical Tubing. Please refer to Exhibit EX-0002 for approved pipe geometry and material properties. The tops of the piers are connected in the E-W direction by the cross pipes which cantilever over and extend past the end piers. The cross pipes are connected by proprietary IronRidge XR1000 Rails spanning up and down the slope which cantilever over and extend past the top and bottom cross pipes. There are typically two rails per column of modules. The modules are clamped to the rails by the IronRidge Module Mounting Clamps as shown in the attached Exhibit.

Gravity loads are transferred to the piers and foundations by the rails and cross pipes acting as simple beams. For lateral loads the system is either a cantilever structure or, when diagonal braces are provided, a braced frame. The effect of seismic loads (for all design categories A-F) have been determined to be less than the effect due to wind loads in all load conditions and combinations.

The pier spacing in the N-S direction is 9'-0". The pier spacing in the E-W direction is selected from load tables determined by the structural design for the specified slope, wind load, and snow load. The governing criteria for the pier spacing is either the spanning capacity of the cross pipes or the cantilever capacity of the pier. Simplified Load Tables 1A-F & 2A-F are included herein for reference.

More comprehensive information covering all load combinations is available at the IronRidge website, IronRidge.com.

Table 2A - MAXIMUM PIER SPACING (in)											
3" Unbraced Pipe Frame	Snow	Slope (deg)									
Wind Speed & Exposure Category	psf	0	5	10	15	20	25	30	35	40	45
100 mph Exposure B	0	206	206	202	196	187	179	172	147	126	107
	10	182	182	180	178	176	175	172	147	126	107
	20	155	155	155	154	155	157	158	147	126	107
	30	145	146	145	144	146	149	152	147	126	107
	40	133	133	133	132	135	139	142	147	126	107
	50	121	121	122	123	126	130	135	142	126	107
	60	111	111	112	113	119	123	128	135	126	107
105 mph Exposure B	0	206	206	194	189	179	172	157	133	114	97
	10	182	182	176	174	172	170	157	133	114	97
	20	155	155	152	151	152	153	154	133	114	97
	30	145	146	143	142	144	146	148	133	114	97
	40	133	133	131	131	133	136	140	133	114	97
	50	121	121	122	122	125	128	132	133	114	97
	60	111	111	112	113	118	122	126	133	114	97
110 mph Exposure B	0	206	206	187	182	173	165	143	122	104	89
	10	182	182	172	170	167	165	143	122	104	89
	20	155	155	149	148	149	149	143	122	104	89
	30	145	146	141	140	141	143	143	122	104	89
	40	133	133	129	129	131	134	137	122	104	89
	50	121	121	120	120	123	126	130	122	104	89
120 mph Exposure B	0	198	203	174	169	160	153	120	102	87	74
	10	178	180	164	162	158	153	120	102	87	74
	20	153	154	144	143	143	143	120	102	87	74
	30	143	145	136	135	136	137	120	102	87	74
	40	131	132	126	125	127	129	120	102	87	74
	50	121	121	118	117	119	122	120	102	87	74
130 mph Exposure B	0	186	191	163	158	149	139	103	87	74	63
	10	171	174	157	154	149	139	103	87	74	63
	20	148	150	139	138	137	136	103	87	74	63
	30	140	141	132	131	131	131	103	87	74	63
	40	128	130	123	122	123	124	103	87	74	63
	50	119	120	115	114	116	118	103	87	74	63
140 mph Exposure B	0	175	180	153	148	140	120	89	75	64	55
	10	164	167	150	147	140	120	89	75	64	55
	20	144	146	134	133	131	120	89	75	64	55
	30	136	138	128	127	126	120	89	75	64	55
	40	125	127	119	118	119	119	89	75	64	55
	50	117	118	112	111	113	114	89	75	64	55
150 mph Exposure B	0	165	170	144	139	132	104	77	65	56	48
	10	158	161	143	139	132	104	77	65	56	48
	20	140	142	130	128	126	104	77	65	56	48
	30	132	134	124	122	121	104	77	65	56	48
	40	123	124	116	115	115	104	77	65	56	48
160 mph Exposure B	0	157	161	136	131	124	92	68	57	49	42
	10	152	155	136	131	124	92	68	57	49	42
	20	136	138	125	123	121	92	68	57	49	42
	30	129	131	120	118	117	92	68	57	49	42
	40	120	121	113	111	111	92	68	57	49	42

Notes: see page 14

Soil Class 4											
Table 4A - MINIMUM FOUNDATION DEPTHS (in)											
3" Pipe Frame Unbraced	Pier Dia (in)	Slope (deg)									
Wind Speed & Exposure Category		0	5	10	15	20	25	30	35	40	45
100 mph Exposure B	12	42	42	48	60	66	78	90	90	90	90
	16	36	36	42	54	60	72	78	78	78	78
	20	36	36	36	48	54	66	72	72	72	72
	24	36	36	36	42	54	60	66	66	66	66
105 mph Exposure B	12	42	42	48	60	72	78	90	90	90	90
	16	36	36	42	54	60	72	78	78	78	78
	20	36	36	36	48	54	66	72	72	72	72
	24	36	36	36	48	54	60	66	66	66	66
110 mph Exposure B	12	42	42	48	60	72	84	90	90	90	90
	16	36	36	42	54	66	72	78	78	78	78
	20	36	36	42	48	60	66	72	72	72	72
	24	36	36	36	48	54	60	66	66	66	66
120 mph Exposure B	12	42	54	54	66	72	84	90	90	90	90
	16	36	42	48	54	66	78	78	78	78	78
	20	36	36	42	54	60	66	72	72	72	72
	24	36	36	36	48	54	66	66	66	66	66
130 mph Exposure B	12	48	54	60	66	78	90	90	90	90	90
	16	36	42	48	60	66	78	78	78	78	78
	20	36	36	42	54	60	72	72	72	72	72
	24	36	36	42	48	60	66	66	66	66	66
140 mph Exposure B	12	54	60	60	72	78	90	90	90	90	90
	16	42	48	48	60	72	78	78	78	78	78
	20	36	36	42	54	66	72	72	72	72	72
	24	36	36	42	54	60	66	66	66	66	66
150 mph Exposure B	12	54	66	66	78	84	90	90	90	90	90
	16	42	48	54	60	72	78	78	78	78	78
	20	36	42	48	60	66	72	72	72	72	72
	24	36	36	42	54	60	66	66	66	66	*
160 mph Exposure B	12	60	72	72	84	84	90	90	90	90	90
	16	48	54	54	66	78	78	78	78	78	78
	20	36	42	48	60	72	72	72	72	72	72
	24	36	36	42	54	66	66	66	66	66	*

Notes: see page 52

Notes for Tables 3 & 4:

1. Concrete Weight = 145 pcf / f'c = 2500 psi
2. Provide Air Entraining Admixture for freeze and thaw cycles as required for colder climates.
3. Skin Friction per 2018 IBC & 2015 IBC 1810.3.3.1.4 & 5
4. Top 1'-0" of soil neglected for Skin Friction
5. Snow Load = 0 psf – tabulated values are conservative for Snow Loads > 0 psf
6. * indicates special foundation required. Contact IronRidge
7. Resistance to corrosion and/or sulfate attack, along with possible adverse effects due to expansive soils has not been considered in these foundation recommendations. SML Engineers assumes no liability with regard to these items.
8. Soil classification is to be determined and verified by the end user of this certification letter.

The analysis assumes that the array, including the connections and associated hardware, are installed in a workmanlike manner in accordance with the IronRidge Ground Mount Installation Manual and generally accepted standards of construction practice. Verification of PV Module capacity to support the loads associated with the given array shall be the responsibility of the Contractor or Owner and not IronRidge or Starling Madison Lofquist.

Please feel free to contact me at your convenience if you have any questions.

Respectfully yours,

Tres Warner, P.E.
Design Division Manager

Tres J Warner

Digitally signed by Tres J Warner
DN: c=US, o=Starling Madison Lofquist Inc, ou=A01410C00000174 6F7B422200005 3B6, cn=Tres J Warner
Date: 2020.12.30 13:42:36 -07'00'

12/28/2020 EXP. 12/31/22