



COLLIN COUNTY

Construction, Myers Park Maintenance/Storage Building

IFB 2016-248

**J. D. Griffin, CPPB
Jack Hatchell Administration Building
2300 Bloomdale Road, Ste. 3160
McKinney, TX 75071**

**(P) 972-548-4116 (F) 972-548-4694
jgriffin@collincountytexas.gov**

Collin County exclusively uses IonWave Technologies, Inc. ([Collin County eBid](#)) for the notification and dissemination of all solicitations. The receipt of solicitations through any other means may result in your receipt of incomplete specifications and/or addendums which could ultimately render your bid/proposal non-compliant. Collin County accepts no responsibility for the receipt and/or notification of solicitations through any other means.

LEGAL NOTICE

By order of the Commissioners' Court of Collin County, Texas, sealed bids will be received by the Purchasing Agent, 2300 Bloomdale, Suite 3160, McKinney, TX 75071, until **2:00 P.M., Thursday, July 28, 2016**, for Invitation For Bid **Construction, Myers Park Maintenance/Storage Building (IFB No. 2016-248)**. A **Pre-Bid Site-Walk** will be held **Tuesday, July 12, 2016 at 10:00 a.m.** at Collin County Myers Park, 7117 CR 166., McKinney, TX 75071. Bidders shall use lump sum pricing. Contractor must furnish a performance and payment bond within ten (10) consecutive calendar days following award of contract. Funds for payment have been provided through the Collin County budget approved by the Commissioner's Court for this fiscal year only. Bidders may obtain detailed specifications and other documents at Office of the Purchasing Agent: Collin County Administration Building, 2300 Bloomdale, Suite 3160, McKinney, TX 75071, 972-548-4165, or by going to: <https://collincountytx.ionwave.net>. Sealed bids will be opened on **Thursday, July 28, 2016 at 2:00 P.M.** by the Purchasing Agent, 2300 Bloomdale, Suite 3160, McKinney, TX 75071. The Commissioners' Court reserves the right to reject any and all bids.

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ATTENTION:
BILL TO:

CLASSIFIEDS
ACCOUNT NO 06100315-000
COMMISSIONER'S COURT

NOTICE TO PUBLISHERS: Please publish in your issue on **Thursday, June 23, 2016** and **Thursday, June 30, 2016**. A copy of this notice and the publisher's affidavit must accompany the invoice when presented for payment.

NEWSPAPER:
DATE:
FAX:

Plano Star Courier
June 21, 2016
972-529-1684

Collin County, Texas

Bid Information

Bid Owner JD Griffin, CPPB Buyer II
Email jgriffin@co.collin.tx.us
Phone (972) 548-4116
Fax (972) 548-4694

Bid Number 2016-248
Title Construction, Myers Park
Maintenance/Storage Building

Bid Type IFB
Issue Date 06/21/2016
Close Date 7/28/2016 02:00:00 PM (CT)

Contact Information

Address 2300 Bloomdale Rd.
Ste. 3160
McKinney, TX 75071

Contact JD Griffin, CPPB Buyer II
Department Purchasing
Building Admin. Building
Floor/Room Ste.3160
Telephone (972) 548-4116
Fax (972) 548-4694
Email jgriffin@co.collin.tx.us

Ship to Information

Address 7117 County Rd. 166
McKinney, TX 75071

Contact
Department
Building
Floor/Room
Telephone
Fax
Email

Supplier Information

Company Name _____
Contact Name _____
Address _____

Telephone _____
Fax _____
Email _____

Supplier Notes

The undersigned hereby certifies the foregoing bid submitted by the company listed below hereinafter called "bidder" is the duly authorized agent of said company and the person signing said bid has been duly authorized to execute same. Bidder affirms that they are duly authorized to execute this contract; this company; corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder or other person or persons engaged in the same line of business; and that the contents of this bid as to prices, terms and conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this bid.

Signature _____ Date ____ / ____ / ____

Bid Notes

Bid Activities

Date	Name	Description
7/12/2016 10:00:00 AM (CT)	Pre-bid Site Walk	A Pre-bid Site-walk will be held by Collin County at Collin County Myers Park, 7117 County Rd. 166, McKinney, TX 75071 on Wednesday, July 12, 2016, at 10:00 a.m. in order for bidders to ask questions regarding the proposed work. Meet on the west side of the Myers Park Show Barn. Reference Attachment L for meeting location
7/21/2016 02:00:00 PM (CT)	Substitution Form Deadline	Deadline to submit a Substitution Form is 2:00 p.m., July 21, 2016. Please email form and supporting documentation to jgriffin@co.collin.tx.us
7/22/2016 05:00:00 PM (CT)	Question Deadline	Deadline to submit questions is 5:00 p.m., July 22, 2016. Please email questions to J. D. Griffin at jgriffin@co.collin.tx.us
7/22/2016 05:00:00 PM (CT)	Intent to Bid	Do you intend to submit a bid?

Bid Messages

Bid Attachments

The following attachments are associated with this opportunity and will need to be retrieved separately

Line	Filename	Description
Header	LEGAL NOTICE-2016-248.doc	Legal Notice
Header	General Instructions_Bid.docx	General Instructions_Bid
Header	Terms of Contract_Bid.docx	Terms of Contract - Bid
Header	3.0 Insurance_Requirements.doc	Insurance Requirements
Header	4.0 Special Conditions and Specifications.docx	4.0 Special Conditions and Specifications
Header	Attachment A-Prevailing Wage Rates.docx	Attachment A-Prevailing Wage Rates
Header	Attachment B.pdf	Attachment B-Site Photo
Header	Attachment C.pdf	Attachment C-Concrete Details
Header	Attachment D.pdf	Attachment D-Manufacturer's Specifications
Header	Attachment E.pdf	Attachment E-Insulation Specifications
Header	Attachment F.pdf	Attachment F-Alternate 1, Concept Sketch
Header	Attachment G.pdf	Attachment G-Alternate 2, Electrical Detail Drawing
Header	Attachment H.pdf	Attachment H-Alternate 2, Site Photo
Header	Attachment I.pdf	Attachment I-Alternate 2, Interior Light Specification
Header	Attachment J.pdf	Attachment J-Alternate 2, Exterior Light Specification
Header	Attachment K.pdf	Attachment K-Building Concept Sketch
Header	Attachment L.pdf	Attachment L-Pre-bid Location Map
Header	Product Substitution Request Form.docx	Product Substitution Request Form
Header	Construction Contract.docx	Construction Contract
Header	Payment Bond.pdf	Payment Bond
Header	Performance Bond.pdf	Performance Bond
Header	CIQ_113015.pdf	Conflict of Interest Questionnaire
Header	HB23 CIQ.docx	Information Regarding Conflict of Interest Questionnaire
Header	W9_2014.pdf	W-9

Bid Attributes

Please review the following and respond where necessary

#	Name	Note	Response
1	Calendar Days Bid	Please state the consecutive calendar days bid.	_____ (Required)

- 2 Exceptions Do you take exceptions to the specifications. If so, by separate attachment, please state your exceptions. _____ (Required)
Valid Responses: [Please Select], Yes, No
- 3 Insurance I understand that the insurance requirements of this solicitation are required and a certificate of insurance shall be submitted to the Purchasing department if I am awarded all or a portion of the resulting contract. _____ (Required)

Please initial.
- 4 Subcontractors State the business name of all subcontractors and the type of work they will be performing under this contract. _____ (Required)

If you are fully qualified to self-perform the entire contract, please respond with "Not Applicable-Self Perform".
- 5 Reference No. 1 List a company or governmental agency where these same/like products /services, as stated herein, have been provided. _____ (Required)

Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail.
- 6 Reference No. 2 List a company or governmental agency where these same/like products /services, as stated herein, have been provided. _____ (Required)

Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail.
- 7 Reference No. 3 List a company or governmental agency where these same/like products /services, as stated herein, have been provided. _____ (Required)

Include the following: Company/Entity, Contact, Address, City/State/Zip, Phone, and E-Mail.
- 8 Preferential Treatment The County of Collin, as a governmental agency of the State of Texas, may not award a contract to a nonresident bidder unless the nonresident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located (Government Code, Title 10, V.T.C.A., Chapter 2252, Subchapter A). _____ (Required)

1. Is your principal place of business in the State of Texas?

2. If your principal place of business is not in Texas, in which State is your principal place of business?

3. If your principal place of business is not in Texas, does your state favor resident bidders (bidders in your state) by some dollar increment or percentage?

4. If your state favors resident bidders, state by what dollar amount or percentage.

- | | | | |
|----|-------------------------------------|---|------------------|
| 9 | Debarment Certification | <p>I certify that neither my company nor an owner or principal of my company has been debarred, suspended or otherwise made ineligible for participation in Federal Assistance programs under Executive Order 12549, "Debarment and Suspension," as described in the Federal Register and Rules and Regulations.</p> <p>Please initial.</p> | _____ (Required) |
| 10 | Immigration and Reform Act | <p>I declare and affirm that my company is in compliance with the Immigration and Reform Act of 1986 and all employees are legally eligible to work in the United States of America.</p> <p>I further understand and acknowledge that any non-compliance with the Immigration and Reform Act of 1986 at any time during the term of this contract will render the contract voidable by Collin County.</p> <p>Please initial.</p> | _____ (Required) |
| 11 | Disclosure of Certain Relationships | <p>Chapter 176 of the Texas Local Government Code requires that any vendor considering doing business with a local government entity disclose the vendor's affiliation or business relationship that might cause a conflict of interest with a local government entity. Subchapter 6 of the code requires a vendor to file a conflict of interest questionnaire (CIQ) if a conflict exists. By law this questionnaire must be filed with the records administrator of Collin County no later than the 7th business day after the date the vendor becomes aware of an event that requires the statement to be filed. A vendor commits an offense if the vendor knowingly violates the code. An offense under this section is a misdemeanor.</p> <p>By submitting a response to this request, the vendor represents that it is in compliance with the requirements of Chapter 176 of the Texas Local Government Code.</p> <p>Please send completed forms to the Collin County County Clerk's Office located at 2300 Bloomdale Rd., Suite 2104, McKinney, TX 75071.</p> <p>Please initial.</p> | _____ (Required) |
| 12 | Disclosure of Interested Parties | <p>Section 2252.908 of the Texas Government Code requires a business entity entering into certain contracts with a governmental entity to file with the governmental entity a disclosure of interested parties at the time the business entity submits the signed contract to the governmental entity. Section 2252.908 requires the disclosure form (Form 1295) to be signed by the authorized agent of the contracting business entity, acknowledging that the disclosure is made under oath and under penalty of perjury. Section 2252.908 applies only to a contract that requires an action or vote by the governing body of the governmental entity before the contract may be signed or has a value of at least \$1 million. Section 2252.908 provides definitions of certain terms occurring in the section.</p> <p>Section 2252.908 applies only to a contract entered into on or after January 1, 2016.</p> <p>Please initial.</p> | _____ (Required) |

13 Notification Survey

In order to better serve our offerors, the Collin County Purchasing Department is conducting the following survey. _____ (Required)
We appreciate your time and effort expended to submit your bid. Should you have any questions or require more information please call (972) 548-4165.

How did you receive notice of this request?
Valid Responses: [Please Select], Plano Star Courier, Plan Room, Collin County eBid Notification, Collin County Website, Other

14 Construction Acknowledgement

Bidder, declares that the only person or parties interested in this bid are those principals named herein, that his/her bid is made without collusion with any other person, firm or corporation, that he/she has carefully examined the Contract Documents including the Advertisement for Bids, Instruction to Bidders, Construction Agreement, Specifications and the Drawings, therein referred to and has carefully examined the locations, conditions and classes of materials for the proposed work, and agrees that he/she will provide all the necessary labor, machinery, tools, equipment, apparatus and other items incidental to construction and will do all the work and furnish all the materials called for in the Contract Documents in the manner prescribed therein. _____ (Required)

Bidder hereby declares that he/she has visited the site of the Work and has carefully examined the Contract Documents pertaining to the Work covered by the above Bid, and he/she further agrees to commence work within ten (10) consecutive calendar days after date of written Notice to Proceed and to substantially complete the work on which he/she has bid within the number of days specified subject to such extensions of time allowed by Specifications.

Bidder certifies that the bid prices contained in this bid have been carefully checked and are submitted as correct and final. The prices have been shown in words and figures for each item listed in this bid and it is understood that in the event of a discrepancy, the words shall govern.

Please initial.

Line Items

#	Qty	UOM	Description	Response
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1	1	lump sum	Base Bid Grand Total	
		Manufacturer:	Manufacturer #:	\$ _____ (Required) Price

Supplier Notes: _____

Item Attributes: Please review the following and respond where necessary

#	Name	Note	Response
1	Bid Grand Total- Written in Words	The contract award will be based on the total bid price.	_____ (Required)
2	Total Material Cost Incorporated in Project- Written in Words		_____ (Required)
3	Total Labor Cost Incorporated in Project- Written in Words		_____ (Required)

2	1	lump sum	Add Alternate One: Add 36" high wainscot.	
		Manufacturer:	Manufacturer #:	\$ _____ (Required) Price

Item Notes: Bid price for Alternate One shall be an additive to base bid. Refer to Section 4.21 and Attachment F for specifications

Supplier Notes: _____

3	1	lump sum	Add Alternate Two: Add electrical power to building.	
		Manufacturer:	Manufacturer #:	\$ _____ (Required) Price

Item Notes: Bid price for Alternate Two shall be an additive to base bid. Refer to Section 4.22 and Attachments G, H, I and J for specifications.

Supplier Notes: _____

1.0 GENERAL INSTRUCTIONS

1.0.1 Definitions

1.0.1.1 Bidder: refers to submitter.

1.0.1.2 Vendor/Contractor/Provider: refers to a Successful Bidder/Contractor/Service Provider.

1.0.1.3 Submittal: refers to those documents required to be submitted to Collin County, by a Bidder.

1.0.1.4 IFB: refers to Invitation For Bid.

1.1 If Bidder does not wish to submit an offer at this time, please submit a No Bid.

1.2 Awards shall be made not more than ninety (90) days after the time set for opening of submittals.

1.3 Collin County is always conscious and extremely appreciative of your time and effort in preparing your submittal.

1.4 Collin County exclusively uses ionWave Technologies, Inc. (Collin County eBid) for the notification and dissemination of all solicitations. The receipt of solicitations through any other company may result in your receipt of incomplete specifications and/or addendums which could ultimately render your bid non-compliant. Collin County accepts no responsibility for the receipt and/or notification of solicitations through any other company.

1.5 A bid may not be withdrawn or canceled by the bidder prior to the ninety-first (91st) day following public opening of submittals and only prior to award.

1.6 It is understood that Collin County, Texas reserves the right to accept or reject any and/or all Bids for any or all products and/or services covered in an Invitation For Bid (IFB), and to waive informalities or defects in submittals or to accept such submittals as it shall deem to be in the best interest of Collin County.

1.7 All IFB's submitted in hard copy paper form shall be submitted in a sealed envelope, plainly marked on the outside with the IFB number and name. A hard copy paper form submittal shall be manually signed in ink by a person having the authority to bind the firm in a contract. Submittals shall be mailed or hand delivered to the Collin County Purchasing Department.

1.8 No oral, telegraphic or telephonic submittals will be accepted. IFB's may be submitted in electronic format via Collin County eBid.

1.9 All Invitation For Bids (IFB) submitted electronically via Collin County eBid shall remain locked until official date and time of opening as stated in the Special Terms and Conditions of the IFB.

1.10 Time/date stamp clock in Collin County Purchasing Department shall be the official time of receipt for all Invitation for Bids (IFB) submitted in hard copy paper form. IFB's received in the Collin County Purchasing Department after submission deadline shall be considered void and unacceptable. Absolutely no late submittals will be considered. Collin County accepts no responsibility for technical difficulties related to electronic submittals.

1.11 For hard copy paper form submittals, any alterations made prior to opening date and time must be initialed by the signer of the IFB guaranteeing authenticity. Submittals cannot be altered or amended after submission deadline.

1.12 Collin County is by statute exempt from the State Sales Tax and Federal Excise Tax; therefore, the prices submitted shall not include taxes.

1.13 Any interpretations, corrections and/or changes to an Invitation For Bid, and related Specifications or extensions to the opening/receipt date will be made by addenda to the respective document by the Collin County Purchasing Department. Questions and/or clarification requests must be submitted no later than seven (7) days prior to the opening/receipt date. Those received at a later date may not be addressed prior to the public opening. Sole authority to authorize addenda shall be vested in Collin County Purchasing Agent as entrusted by the Collin County Commissioners' Court. Addenda may be transmitted electronically via Collin County eBid.

1.13.1 Addenda will be transmitted to all that are known to have received a copy of the IFB/RFQ/RFP/RFI/CSP and related Specifications. However, it shall be the sole responsibility of the Bidder/Quoter/Offeror to verify issuance/non-issuance of addenda and to check all avenues of document availability (i.e. **Collin County eBid** <https://collincountvtx.ionwave.net/>, telephoning Purchasing Department directly, etc.) prior to opening/receipt date and time to insure Bidder/Quoter/Offeror's receipt of any addenda issued. Bidder/Quoter/Offeror shall acknowledge receipt of all addenda.

1.14 All materials and services shall be subject to Collin County approval.

1.15 Collin County reserves the right to make award in whole or in part as it deems to be in the best interest of the County.

1.16 Any reference to model/make and/or manufacturer used in specifications is for descriptive purposes only. Products/materials of like quality will be considered.

1.17 Bidders taking exception to the specifications shall do so at their own risk. By offering substitutions, Bidder shall state these exceptions in the section provided in the IFB or by attachment. Exception/substitution, if accepted, must meet or exceed specifications stated therein. Collin County reserves the right to accept or reject any and/or all of the exception(s)/substitution(s) deemed to be in the best interest of the County.

1.19 Minimum Standards for Responsible Prospective Bidders: A prospective Bidder must meet the following minimum requirements:

1.19.1 have adequate financial resources, or the ability to obtain such resources as required;

1.19.2 be able to comply with the required or proposed delivery/completion schedule;

1.19.3 have a satisfactory record of performance;

1.19.4 have a satisfactory record of integrity and ethics;

1.19.5 be otherwise qualified and eligible to receive an award.

Collin County may request documentation and other information sufficient to determine Bidder's ability to meet these minimum standards listed above.

1.20 Vendor shall bear any/all costs associated with it's preparation of an IFB.

1.21 Public Information Act: Collin County is governed by the Texas Public Information Act, Chapter 552 of the Texas Government Code. All information submitted by prospective bidders during the bidding process is subject to release under the Act.

1.22 The Bidder shall comply with Commissioners' Court Order No. 2004-167-03-11, County Logo Policy.

1.23 Interlocal Agreement: Successful bidder agrees to extend prices and terms to all entities that has entered into or will enter into joint purchasing interlocal cooperation agreements with Collin County.

1.24 Bid Openings: All bids submitted will be read at the county's regularly scheduled bid opening for the designated project. However, the reading of a bid at bid opening should be not construed as a comment on the responsiveness of such bid or as any indication that the county accepts such bid as responsive.

The county will make a determination as to the responsiveness of bids submitted based upon compliance with all applicable laws, Collin County Purchasing Guidelines, and project documents, including but not limited to the project specifications and contract documents. The county will notify the successful bidder upon award of the contract and, according to state law; all bids received will be available for inspection at that time.

2.0 TERMS OF CONTRACT

2.1 A bid, when properly accepted by Collin County, shall constitute a contract equally binding between the Vendor/Contractor/Provider and Collin County. No different or additional terms will become part of this contract with the exception of a Change Order.

2.2 No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All Amendments and/or Change Orders to the contract will be made in writing by Collin County Purchasing Agent.

2.3 No public official shall have interest in the contract, in accordance with Vernon's Texas Codes Annotated, Local Government Code Title 5, Subtitle C, Chapter 171.

2.4 The Vendor/Contractor/Provider shall comply with Commissioners' Court Order No. 96-680-10-28, Establishment of Guidelines & Restrictions Regarding the Acceptance of Gifts by County Officials & County Employees.

2.5 Design, strength, quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practice.

2.6 Bids must comply with all federal, state, county and local laws concerning the type(s) of product(s)/service(s)/equipment/project(s) contracted for, and the fulfillment of all ADA (Americans with Disabilities Act) requirements.

2.7 All products must be new and unused, unless otherwise specified, in first-class condition and of current manufacture. Obsolete products, including products or any parts not compatible with existing hardware/software configurations will not be accepted.

2.8 Vendor/Contractor/Provider shall provide any and all notices as may be required under the Drug-Free Work Place Act of 1988, 28 CFR Part 67, Subpart F, to its employees and all sub-contractors to insure that Collin County maintains a drug-free work place.

2.9 Vendor/Contractor/Provider shall defend, indemnify and save harmless Collin County and all its officers, agents and employees and all entities, their officers, agents and employees who are participating in this contract from all suits, claims, actions, damages (including personal injury and or property damages), or demands of any character, name and description, (including attorneys' fees, expenses and other defense costs of any nature) brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of Vendor/Contractor/Provider's breach of the contract arising from an award, and/or any negligent act, error, omission or fault of the Vendor/Contractor/Provider, or of any agent, employee, subcontractor or supplier of Vendor/Contractor/Provider in the execution of, or performance under, any contract which may result from an award. Vendor/Contractor/Provider shall pay in full any judgment with costs, including attorneys' fees and expenses which are rendered against Collin County and/or participating entities arising out of such breach, act, error, omission and/or fault.

2.10 Expenses for Enforcement. In the event either Party hereto is required to employ an attorney to enforce the provisions of this Agreement or is required to commence legal proceedings to enforce the provisions hereof, the prevailing Party shall be entitled to recover from the other, reasonable attorney's fees and court costs incurred in connection with such enforcement, including collection.

2.11 If a contract, resulting from a Collin County IFB is for the execution of a public work, the following shall apply:

2.11.1 In accordance with V.T.C.A. 2253.021, a governmental agency that makes a public work contract with a prime contractor shall require the contractor, before beginning work, to execute to the governmental entity a Payment Bond if the contract is in excess of \$25,000.00. Such bond shall

be in the amount of the contract payable to the governmental entity and must be executed by a corporate surety in accordance with Section 1, Chapter 87, Acts of the 56th Legislature, Regular Session, 1959 (Article 7.19-1 Vernon's Texas Insurance Code).

2.11.2 In accordance with V.T.C.A. 2253.021, a governmental agency that makes a public work contract with a prime contractor shall require the contractor, before beginning work, to execute to the governmental entity a Performance Bond if the contract is in excess of \$100,000.00. Such bond shall be in the amount of the contract payable to the governmental entity and must be executed by a corporate surety in accordance with Section 1, Chapter 87, Acts of the 56th Legislature, Regular Session, 1959 (Article 7.19-1 Vernon's Texas Insurance Code).

2.12 Purchase Order(s) shall be generated by Collin County to the vendor. Collin County will not be responsible for any orders placed/delivered without a valid purchase order number.

2.13 The contract shall remain in effect until any of the following occurs: delivery of product(s) and/or completion and acceptance by Collin County of product(s) and/or service(s), contract expires or is terminated by either party with thirty (30) days written notice prior to cancellation and notice must state therein the reasons for such cancellation. Collin County reserves the right to terminate the contract immediately in the event the Vendor/Contractor/Provider fails to meet delivery or completion schedules, or otherwise perform in accordance with the specifications. Breach of contract or default authorizes the County to purchase elsewhere and charge the full increase in cost and handling to the defaulting Vendor/Contractor/Provider.

2.14 Collin County Purchasing Department shall serve as Contract Administrator or shall supervise agents designated by Collin County.

2.15 All delivery and freight charges (FOB Inside delivery at Collin County designated locations) are to be included as part of the bid price. All components required to render the item complete, installed and operational shall be included in the total bid price. Collin County will pay no additional freight/delivery/installation/setup fees.

2.16 Vendor/Contractor/Provider shall notify the Purchasing Department immediately if delivery/completion schedule cannot be met. If delay is foreseen, the Vendor/Contractor/Provider shall give written notice to the Purchasing Agent. The County has the right to extend delivery/completion time if reason appears valid.

2.17 The title and risk of loss of the product(s) shall not pass to Collin County until Collin County actually receives and takes possession of the product(s) at the point or points of delivery. Collin County shall generate a purchase order(s) to the Vendor/Contractor/Provider and the purchase order number must appear on all itemized invoices.

2.18 Invoices shall be mailed directly to the Collin County Auditor's Office, 2300 Bloomdale Road, Suite 3100, McKinney, Texas 75071. All invoices shall show:

2.18.1 Collin County Purchase Order Number;

2.18.2 Vendor's/Contractor's/Provider's Name, Address and Tax Identification Number;

2.18.3 Detailed breakdown of all charges for the product(s) and/or service(s) including applicable time frames.

2.19 Payment will be made in accordance with V.T.C.A., Government Code, Title 10, Subtitle F, Chapter 2251.

2.20 All warranties shall be stated as required in the Uniform Commercial Code.

2.21 The Vendor/Contractor/Provider and Collin County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

- 2.22 The Vendor/Contractor/Provider agree to protect Collin County from any claims involving infringements of patents and/or copyrights.
- 2.23 The contract will be governed by the laws of the State of Texas. Should any portion of the contract be in conflict with the laws of the State of Texas, the State laws shall invalidate only that portion. The remaining portion of the contract shall remain in effect. The contract is performable in Collin County, Texas.
- 2.24 The Vendor/Contractor/Provider shall not sell, assign, transfer or convey the contract, in whole or in part, without the prior written approval from Collin County.
- 2.25 The apparent silence of any part of the specification as to any detail or to the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of the specification shall be made on the basis of this statement.
- 2.26 Vendor/Contractor/Provider shall not fraudulently advertise, publish or otherwise make reference to the existence of a contract between Collin County and Vendor/Contractor/Provider for purposes of solicitation. As exception, Vendor/Contractor/Provider may refer to Collin County as an evaluating reference for purposes of establishing a contract with other entities.
- 2.27 The Vendor/Contractor/Provider understands, acknowledges and agrees that if the Vendor/Contractor/Provider subcontracts with a third party for services and/or material, the primary Vendor/Contractor/Provider (awardee) accepts responsibility for full and prompt payment to the third party. Any dispute between the primary Vendor/Contractor/Provider and the third party, including any payment dispute, will be promptly remedied by the primary vendor. Failure to promptly render a remedy or to make prompt payment to the third party (subcontractor) may result in the withholding of funds from the primary Vendor/Contractor/Provider by Collin County for any payments owed to the third party.
- 2.28 Vendor/Contractor/Provider shall provide Collin County with diagnostic access tools at no additional cost to Collin County, for all Electrical and Mechanical systems, components, etc., procured through this contract.
- 2.29 Criminal History Background Check: If required, ALL individuals may be subject to a criminal history background check performed by the Collin County Homeland Security prior to access being granted to Collin County. Upon request, Vendor/Contractor/Provider shall provide list of individuals to Collin County Purchasing Department within five (5) working days.
- 2.30 Non-Disclosure Agreement: Where applicable, vendor shall be required to sign a non-disclosure agreement acknowledging that all information to be furnished is in all respects confidential in nature, other than information which is in the public domain through other means and that any disclosure or use of same by vendor, except as provided in the contract/agreement, may cause serious harm or damage to Collin County. Therefore, Vendor agrees that Vendor will not use the information furnished for any purpose other than that stated in contract/agreement, and agrees that Vendor will not either directly or indirectly by agent, employee, or representative disclose this information, either in whole or in part, to any third party, except on a need to know basis for the purpose of evaluating any possible transaction. This agreement shall be binding upon Collin County and Vendor, and upon the directors, officers, employees and agents of each.
- 2.31 Vendors/Contractors/Providers must be in compliance with the Immigration and Reform Act of 1986 and all employees specific to this solicitation must be legally eligible to work in the United States of America.
- 2.32 Certification of Eligibility: This provision applies if the anticipated Contract exceeds \$100,000.00 and as it relates to the expenditure of federal grant funds. By submitting a bid or proposal in response to this solicitation, the Bidder certifies that at the time of submission, he/she is not on the Federal Government's list of suspended, ineligible, or debarred contractors. In the event of placement on the list between the time of bid/proposal submission and time of award, the Bidder will notify the Collin County Purchasing Agent. Failure to do so may result in terminating this contract for default.

2.33 Notice to Vendors/Contractors/Providers delivering goods or performing services within the Collin County Detention Facility: The Collin County Detention Facility houses persons who have been charged with and/or convicted of serious criminal offenses. When entering the Detention Facility, you could: (1) hear obscene or graphic language; (2) view partially clothed male inmates; (3) be subjected to verbal abuse or taunting; (4) risk physical altercations or physical contact, which could be minimal or possibly serious; (5) be exposed to communicable or infectious diseases; (6) be temporarily detained or prevented from immediately leaving the Detention Facility in the case of an emergency or “lockdown”; and (7) subjected to a search of your person or property. While the Collin County Sheriff’s Office takes every reasonable precaution to protect the safety of visitors to the Detention Facility, because of the inherently dangerous nature of a Detention Facility and the type of the persons incarcerated therein, please be advised of the possibility of such situations exist and you should carefully consider such risks when entering the Detention Facility. By entering the Collin County Detention Facility, you acknowledge that you are aware of such potential risks and willingly and knowingly choose to enter the Collin County Detention Facility.

2.34 Delays and Extensions of Time when applicable:

2.34.1 If the Vendor/Contractor/Provider is delayed at any time in the commence or progress of the Work by an act or neglect of the Owner or Architect/Engineer, or of an employee of either, or of a separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Vendor/Contractor/Provider's control, or by delay authorized by the Owner pending mediation and arbitration, or by other causes which the Owner or Architect/Engineer determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Owner/Architect may determine.

2.34.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that the weather conditions had an adverse effect on the scheduled construction.

2.35 Disclosure of Certain Relationships: Chapter 176 of the Texas Local Government Code requires that any vendor considering doing business with a local government entity disclose the vendor’s affiliation or business relationship that might cause a conflict of interest with a local government entity. Subchapter 6 of the code requires a vendor to file a conflict of interest questionnaire (CIQ) if a conflict exists. By law this questionnaire must be filed with the records administrator of Collin County no later than the 7th business day after the date the vendor becomes aware of an event that requires the statement to be filed. A vendor commits an offense if the vendor knowingly violates the code. An offense under this section is a misdemeanor. By submitting a response to this request, the vendor represents that it is in compliance with the requirements of Chapter 176 of the Texas Local Government Code. Please send completed forms to the Collin County County Clerk's Office located at 2300 Bloomdale Rd., Suite 2104, McKinney, TX 75071.

2.36 Disclosure of Interested Parties: Section 2252.908 of the Texas Government Code requires a business entity entering into certain contracts with a governmental entity to file with the governmental entity a disclosure of interested parties at the time the business entity submits the signed contract to the governmental entity. Section 2252.908 requires the disclosure form (Form 1295) to be signed by the authorized agent of the contracting business entity, acknowledging that the disclosure is made under oath and under penalty of perjury. Section 2252.908 applies only to a contract that requires an action or vote by the governing body of the governmental entity before the contract may be signed or has a value of at least \$1 million. Section 2252.908 provides definitions of certain terms occurring in the section. Section 2252.908 applies only to a contract entered into on or after January 1, 2016.

NOTE: All other terms and conditions (i.e. Insurance Requirements, Bond Requirements, etc.) shall be stated in the individual IFB Solicitation documents as Special Terms, Conditions and Specifications.

3.0 INSURANCE REQUIREMENTS

3.1 Before commencing work, the vendor shall be required, at its own expense, to furnish the Collin County Purchasing Agent with certified copies of all insurance certificate(s) indicating the coverage to remain in force throughout the term of this contract.

3.1.1 **Commercial General Liability** insurance including but not limited to the coverage indicated below. Coverage shall not exclude or limit Products/Completed Operations, Contractual Liability, or Cross Liability.

- Each Occurrence: \$1,000,000
- Personal & Adv Injury: \$1,000,000
- Products/Completed Operation: \$2,000,000
- General Aggregate: \$2,000,000

3.1.2 **Workers Compensation** insurance as required by the laws of Texas, and Employers' Liability.

Employers' Liability

- Liability, Each Accident: \$500,000
- Disease-Each Employee: \$500,000
- Disease – Policy Limit: \$500,000

3.1.3 **Commercial Automobile Liability** insurance including owned, non-owned, and hired vehicles used in connection with the contract.

- Combined Single Limit – Each Accident: \$1,000,000

3.1.4 **Umbrella/Excess Liability** insurance.

- Each Occurrence/Aggregate: \$1,000,000

3.2 With reference to the foregoing insurance requirement, the vendor shall endorse applicable insurance policies as follows:

3.2.1 A waiver of subrogation in favor of Collin County, its officials, employees, volunteers and officers shall be provided for General Liability, Commercial Automobile Liability and Workers' Compensation.

3.2.2 The vendor's insurance coverage shall name Collin County as additional insured under the General Liability policy.

3.2.3 All insurance policies shall be endorsed to require the insurer to immediately notify Collin County of any decrease in the insurance coverage limits.

3.2.4 All insurance policies shall be endorsed to the effect that Collin County will receive at least thirty (30) days notice prior to cancellation, non-renewal or termination of the policy.

3.2.5 All copies of Certificates of Insurance shall reference the project/contract number.

3.3 All insurance shall be purchased from an insurance company that meets the following requirements:

3.3.1 A financial rating of A+VII or better as assigned by the BEST Rating Company or equivalent.

3.4 Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent, and shall contain provisions representing and warranting the following:

3.4.1 Sets forth all endorsements and insurance coverages according to requirements and instructions contained herein.

3.4.2 Sets forth the notice of cancellation or termination to Collin County.

4.0 SPECIAL CONDITIONS AND SPECIFICATIONS

4.1 Authorization: By order of the Commissioners' Court of Collin County, Texas sealed bids will be received for Construction, Myers Park Maintenance/Storage Building.

4.2 Purpose: The intended use/purpose for this Invitation For Bid (IFB) is to describe specifications and requirements for construction of a 40' x 60' metal building at Collin County Myers Park.

4.3 Pre-Bid Site-Walk: A pre-bid site-walk will be held at 10:00 a.m. on Tuesday, July 12, 2016 at the Collin County Myers Park, 7117 CR 166, McKinney, TX 75071. (Meet on the west side of the Myers Park Show Barn. Refer to Attachment L for meeting location) All prospective bidders are requested to have a representative present. It is the bidder's responsibility to review the site and documents to gain a full understanding of the requirements of the bid.

4.4 Term: Provide for a contract commencing on the date of the award and continuing until the project is complete.

4.5 Funding: Funds for payment for Collin County expenditures have been provided through the Collin County budget approved by the Commissioners' Court for this fiscal year only. All other participating entities expenditures have been provided through their entity's governing body for this fiscal year only. State of Texas statutes prohibit any obligation of public funds beyond the fiscal year for which a budget has been approved. Therefore, anticipated orders or other obligations that arise past the end of the current fiscal year shall be subject to budget approval.

4.6 Price Reduction: If during the life of the contract, the vendor's net prices to its customers for the same product(s) and/or services shall be reduced below the contracted price, it is understood and agreed that Collin County shall receive such price reduction.

4.7 Delivery/Completion/Response Time: Vendor shall state the number of calendar days to complete services at the County's designated location after receipt of purchase order in the space provided on Attribute 1.

4.8 Delivery/Setup/Installation Locations: Locations for delivery and installation are Collin County Myers Park, 7117 CR 166, McKinney, TX 75071. Delivery, assembly, set-up and installation shall be included in the bid price.

4.9 Testing: Testing may be performed at the request of Collin County, by an agent so designated by the County, without expense to Collin County.

4.10 Samples/Demos: When requested, samples/demos shall be furnished to the County at no expense.

4.11 Warranties: If within one year after final acceptance of the work by Collin County, any of the work or material is found to be defective or not in accordance with the specifications of the contract, the contractor shall correct it promptly after receipt of a written notice from the County

to do so. This obligation shall survive termination or completion of the contract. The County shall give such notice promptly after discovery of the condition.

The contractor shall remove from the site all portions of the work which are defective or nonconforming and which have not been corrected unless removal is waived in writing by the County.

In addition to the one year materials and workmanship warranty, the contractor shall provide a thirty (30) year manufacturer's finish warranty.

4.12 Subcontractors: Bidder shall state names of all subcontractors and the type of work they will be performing on Attribute 4. If a bidder fails to specify a subcontractor, then he shall be deemed to have agreed that he is fully qualified to perform the contract himself, and that he will fully perform the contract himself.

No bidder whose bid is accepted shall (a) substitute any subcontractor, or (b) permit a subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid without approval in writing from the Collin County Purchasing Department.

The successful bidder further agrees that Collin County and its agents, servants and employees shall not be liable for any loss or damage resulting from personal injury, physical loss, harassment of or discrimination against employee or other violations of the provisions of this contract occasioned by the acts or omissions of the successful bidder's sub-contractors, their agents or employees. The indemnification provisions of this contract shall apply to all sub-contractors.

4.13 Bonds: In accordance with V.T.C.A. 2253.021, a governmental agency that makes a public work contract with a prime contractor shall require the contractor, before beginning work, to execute to the governmental entity a Payment Bond if the contract is in excess of \$25,000.00 and a Performance Bond if the contract is in excess of \$100,000. Such bond shall be in the amount of the contract payable to the governmental entity and must be executed by a corporate surety in accordance with Section 1, Chapter 87, Acts of the 56th Legislature, Regular Session, 1959 (Article 7.19-1 Vernon's Texas Insurance Code).

4.14 Wage Scale: In accordance with The Texas Government Code, Title 10, Chapter 2258, Prevailing Wage Rates, the general prevailing wage rate has been determined for this locality for the craft or type of workman needed to execute work of a similar character of the project listed herein. The Contractor shall pay the prevailing wage rate in this locality to all his/her employees and subcontractors performing work on this project, and in no event shall the Contractor pay less than the rate shown in the following schedule. Refer to Attachment A for current prevailing wage rates.

4.15 The Contractor shall perform, track, participate, implement, and comply with storm water pollution prevention minimum control measures, protocols, and best management practices (BMP) and ensure that water quality standards are not violated in accordance with all regulations and policies as they apply to the Texas Pollutant Discharge Elimination System general permits. Applicable permits include: 1) Texas Construction General Permit (TXR150000).

Contractors will obtain permit coverage for construction activities disturbing over one acre of land (total acreage is cumulative across all portions of the project). BMPs include, but are not limited to:

- Preparing and implementing a site-specific Storm Water Pollution Prevention Plan (SWPPP) as outlined in the permit and prior to any soil disturbance.
- Installing and managing erosion and sediment control.
- Make available, upon request, permit associated documentation.
- Practicing spill prevention and good housekeeping.
- Meeting the requirements of the MS4 permit.
- Coordinating with the Public Works to schedule inspections and provide corrective actions for noted facility deficiencies.

4.16 Bid Documents: Contractor shall notify Collin County prior to bid if the bid documents are missing scope, incomplete or are contrary to actual site conditions.

4.17 Execution of Contract: The person or persons, partnership, company, firm, association or corporation to whom a contract is awarded shall within ten (10) consecutive calendar days after such award, sign the necessary contract agreements and submit the required bonds entering into the required Contract with Owner. No contract shall be binding on Owner until it has been executed by Owner or his/her duly authorized representative, and delivered to the Contractor

4.18 Substitutions: Bidders submitting a bid for all non-specified manufacturers shall submit a Product Substitution Request Form along with supporting documentation to email address jgriffin@co.collin.tx.us no later than seven (7) days prior to bid opening for review and written pre-approval. All bids for non-specified manufacturers submitted without prior approval may be rejected.

4.19 Project Requirements and Clarifications:

4.19.1 Contractor shall have minimum five (5) years' experience constructing metal frame buildings.

4.19.2 Contractor shall provide a foreman level person onsite to ensure the building is constructed per bid specifications and manufacturer's recommendations; to maintain quality control and to ensure onsite safety. Contractor shall be responsible for safety equipment and safety management.

4.19.3 Contractor shall provide all materials and labor to complete the construction as stated in the following scope/specifications and attachments.

4.19.4 Collin County shall not be responsible for Contractor's/subcontractor's personnel safety, onsite security of the construction site or security of building materials or equipment.

4.19.5 Collin County employees shall not sign for or accept site deliveries. Contractor shall have someone onsite to accept delivery of packages or building materials.

4.19.6 Contractor shall obtain all required permits from the authority having jurisdiction (AHJ). Cost for all required permits shall be included in the bid price.

4.19.7 Work hours shall be Monday through Friday, 7:00 AM to 5:00 PM. Exceptions to these work hours shall be through written authorization from Myers Park management.

4.19.8 All areas disturbed by construction shall be repaired to preconstruction condition.

4.20 Scope: Collin County is requesting the construction of an all metal building with concrete slab that meets at least the minimum specifications set forth below. Bid price shall include site grading, concrete slab, all building materials and labor required for a completed installation per the manufacturer's recommendations. Refer to Attachment K for building concept sketch

4.21 Specifications:

4.21.1 Grading:

4.21.1.1 Grade the building site area level to provide a building pad fifty (50) feet wide by seventy (70) feet long.

4.21.1.2 Remove all vegetation from the pad site and provide a level area for construction.

4.21.1.3 Haul away any excess materials offsite.

4.21.1.4 After construction is completed, fine grade around the barn with clean top soil.

4.21.1.5 Pitch the soil on a one/twelve (1/12) slope from one (1) inch below the metal siding.

4.21.1.6 Refer to Attachment B for site photo.

4.21.2 Concrete:

4.21.2.1 The forty (40) foot by sixty (60) foot concrete slab shall be six (6) inches thick using a 3,500 PSI mix.

4.21.2.2 Slab shall sit on a two (2) inch sand base using a six (6) mm vapor barrier with no voids.

4.21.2.3 Number three (3) rebar at eighteen (18) inch on center (OC); two (2) separated number six (6) rebar in perimeter beams; rebar tied at each intersection with steel ties and sitting on plastic chairs.

4.21.2.4 Slab shall have a one and one-half (1 ½) inch by one and one-half (1 ½) inch sheet ledge for the metal to drop down.

4.21.2.5 Weld plates or anchor bolts shall be set when the slab is poured.

4.21.2.6 The three (3) foot personnel door shall have full support for threshold.

4.21.2.7 Two (2) rollup door openings shall have clearances per the manufacturer's requirements with a flat surface for doors to seal.

4.21.2.8 Install number six (6) rebar as required by AHJ for the electrical ground.

4.21.2.9 Refer to Attachment C for concrete details.

4.21.3 Structure: Provide an all metal structure manufactured by Mueller Inc. (refer to Attachment D), or Collin County approved equal, using weld-up construction per the following specifications:

4.21.3.1 Width: Forty (40) feet

4.21.3.2 Length: Sixty (60) feet

4.21.3.3 Eave height: Sixteen (16) feet

4.21.3.4 Roof Pitch: Four/Twelve (4/12)

4.21.3.5 Loads:

4.21.3.5.1 Wind Load: 115 MPH

4.21.3.5.2 Snow: 1.00 PSF

4.21.3.5.3 Ground Snow: 5.00 PSF

4.21.3.5.4 Basic 20/10/140 mph frame load (IBC 12)

4.21.3.6 Wall/Roof Panels and Trim:

4.21.3.6.1 Wall/Roof Panels: U Panel, 26 gauge, painted Light Stone or Collin County approved equal.

4.21.3.6.2 Trim color: Burgundy or Collin County approved equal.

4.21.3.7 Doors:

4.21.3.7.1 Quantity two (2) each-fourteen (14) foot by fourteen (14) foot rollup doors; color: Burgundy or Collin County approved equal.

4.21.3.7.2 Quantity one (1) each-three (3) foot by seven (7) foot personnel (man) door.

4.21.3.8 Roof Vents: Standard; color: Burgundy or Collin County approved equal.

4.21.3.9 Gutter/Downspouts:

4.21.3.9.1 Five (5) inch; color: Burgundy or Collin County approved equal

4.21.3.10 Wall/Roof Insulation:

4.21.3.10.1 Three (3) inch, VRR R-10, Certainteed Metal Building Insulation 202-96 (refer to Attachment E) or Collin County approved equal, with required installation hardware.

4.22 Add Alternate One:

4.22.1 Bidder shall state lump sum price for all materials and labor to add a thirty-six (36) inch high, U panel, 26 gauge wainscot painted Burgundy, or Collin County approved equal, with required trim on all four sides of the 40' x 60' building (refer to Attachment F). Bid price for Alternate One shall be an additive to base bid.

4.23 Add Alternate Two:

4.23.1 Contractor shall provide all permits, trenching, materials and labor required to add electrical power to building from a power pole approximately one hundred twenty-five (125) feet from building site (refer to Attachment H). Bid price for Alternate Two shall be an additive to base bid.

4.23.1.1 Provide and install 200 AMP service, devices and fixtures as shown on Attachment G.

4.23.1.2 Provide and install quantity two (2) each-Utilitech model 6240-PHO fixtures (refer to Attachment J), or Collin County approved equal,

4.23.1.3 Provide and install quantity six (6) each-Light of America LED Shoplight model 8140SE fixtures (refer to Attachment I), or Collin County approved equal.

4.23.1.4 Provide and install quantity seven (7) each-duplex 120 volt receptacles, split into two (2) circuits; two (2) each-dedicated duplex 120 volt receptacles (two circuits) and quantity two (2) each-220 volt receptacles (refer to Attachment G).

4.23.1.4.1 Interior devices shall be mounted on the cross member support at or near forty-eight (48) inches. Exterior receptacles shall be mounted at eighteen (18) inches (check code before installing at listed dimensions).

Attachment A-Prevailing Wage Rates

General Decision Number: TX160289 05/06/2016 TX289

Superseded General Decision Number: TX20150289

State: Texas

Construction Type: Building

County: Collin County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016
1	01/15/2016
2	03/18/2016
3	04/01/2016
4	05/06/2016

ASBE0021-011 05/01/2013

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Duct, Pipe and Mechanical System Insulation)....	\$ 21.52	7.15

BOIL0074-003 01/01/2014

	Rates	Fringes
BOILERMAKER.....	\$ 23.14	21.55

CARP1421-002 04/01/2016

	Rates	Fringes
MILLWRIGHT.....	\$ 26.60	8.65

ELEV0021-006 01/01/2016

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 38.01	29.985+a

Attachment A-Prevailing Wage Rates

FOOTNOTES: a - A. 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked.

New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Veterans Day.

ENGI0178-005 06/01/2014

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
(1) Tower Crane.....	\$ 29.00	10.60
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above.....	\$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under.....	\$ 27.50	10.60

IRON0263-005 06/01/2015

	Rates	Fringes
IRONWORKER (ORNAMENTAL AND STRUCTURAL).....	\$ 23.00	6.55

* PLUM0100-005 05/01/2016

	Rates	Fringes
HVAC MECHANIC (HVAC Unit Installation Only).....	\$ 30.14	10.41
PIPEFITTER (Excludes HVAC Pipe Installation).....	\$ 30.14	10.41

SUTX2014-015 07/21/2014

	Rates	Fringes
BRICKLAYER.....	\$ 21.06	0.00
CARPENTER, Excludes Drywall Hanging, Form Work, and Metal Stud Installation.....	\$ 15.78	0.00
CAULKER.....	\$ 15.16	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 13.04	0.00
DRYWALL HANGER AND METAL STUD INSTALLER.....	\$ 13.00	0.00
ELECTRICIAN (Alarm Installation Only).....	\$ 20.93	3.86

Attachment A-Prevailing Wage Rates

ELECTRICIAN (Communication Technician Only).....	\$ 15.35	1.39
ELECTRICIAN (Low Voltage Wiring Only).....	\$ 17.04	1.39
ELECTRICIAN, Excludes Low Voltage Wiring and Installation of Alarms/Sound and Communication Systems.....	\$ 20.01	2.69
FORM WORKER.....	\$ 11.89	0.00
GLAZIER.....	\$ 16.46	3.94
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine).....	\$ 10.04	2.31
INSTALLER - SIDING (METAL/ALUMINUM/VINYL).....	\$ 14.74	0.00
INSTALLER - SIGN.....	\$ 15.50	0.00
INSULATOR - BATT.....	\$ 13.00	0.00
IRONWORKER, REINFORCING.....	\$ 12.29	0.00
LABORER: Common or General.....	\$ 10.52	0.00
LABORER: Mason Tender - Brick...	\$ 10.54	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 10.93	0.00
LABORER: Pipelayer.....	\$ 13.00	0.35
LABORER: Plaster Tender.....	\$ 12.22	0.00
LABORER: Roof Tearoff.....	\$ 11.28	0.00
LABORER: Landscape and Irrigation.....	\$ 10.55	0.00
LATHER.....	\$ 16.00	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 12.83	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 13.93	0.00
OPERATOR: Bulldozer.....	\$ 18.29	1.31
OPERATOR: Drill.....	\$ 15.69	0.50
OPERATOR: Forklift.....	\$ 13.21	0.81

Attachment A-Prevailing Wage Rates

OPERATOR: Grader/Blade.....	\$ 13.03	0.00
OPERATOR: Loader.....	\$ 13.46	0.85
OPERATOR: Mechanic.....	\$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 18.44	0.00
OPERATOR: Roller.....	\$ 15.04	0.00
PAINTER (Brush, Roller and Spray), Excludes Drywall Finishing/Taping.....	\$ 13.35	5.10
PAINTER: Drywall Finishing/Taping Only.....	\$ 14.24	3.83
PIPEFITTER (HVAC Pipe Installation Only).....	\$ 20.45	4.00
PLASTERER.....	\$ 16.58	0.00
PLUMBER, Excludes HVAC Pipe Installation.....	\$ 22.46	4.06
ROOFER.....	\$ 17.19	0.00
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 21.13	4.79
SHEET METAL WORKER, Excludes HVAC Duct Installation.....	\$ 24.88	5.97
SPRINKLER FITTER (Fire Sprinklers).....	\$ 37.50	0.00
TILE FINISHER.....	\$ 11.22	0.00
TILE SETTER.....	\$ 14.25	0.00
TRUCK DRIVER: 1/Single Axle Truck.....	\$ 16.00	0.81
TRUCK DRIVER: Dump Truck.....	\$ 12.39	1.18
TRUCK DRIVER: Flatbed Truck.....	\$ 19.65	8.57
TRUCK DRIVER: Semi-Trailer Truck.....	\$ 12.50	0.00
TRUCK DRIVER: Water Truck.....	\$ 12.00	4.11

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

Attachment A-Prevailing Wage Rates

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example:

PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Attachment A-Prevailing Wage Rates

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

Attachment A-Prevailing Wage Rates

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

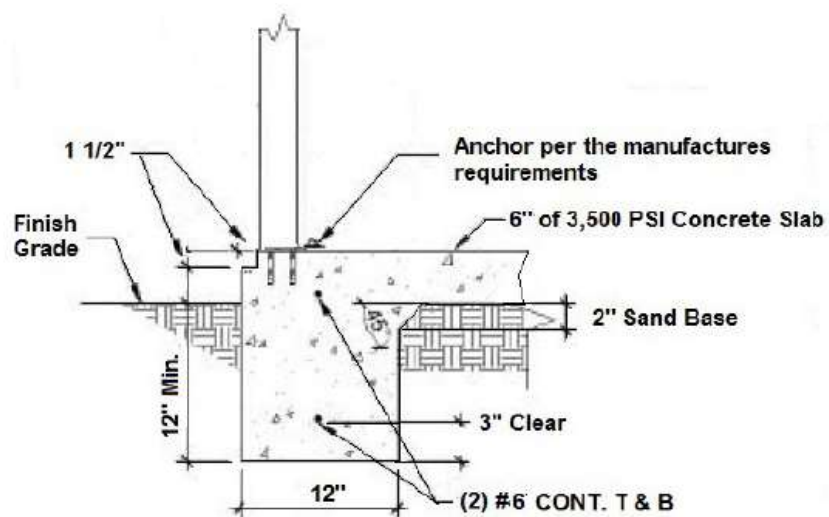
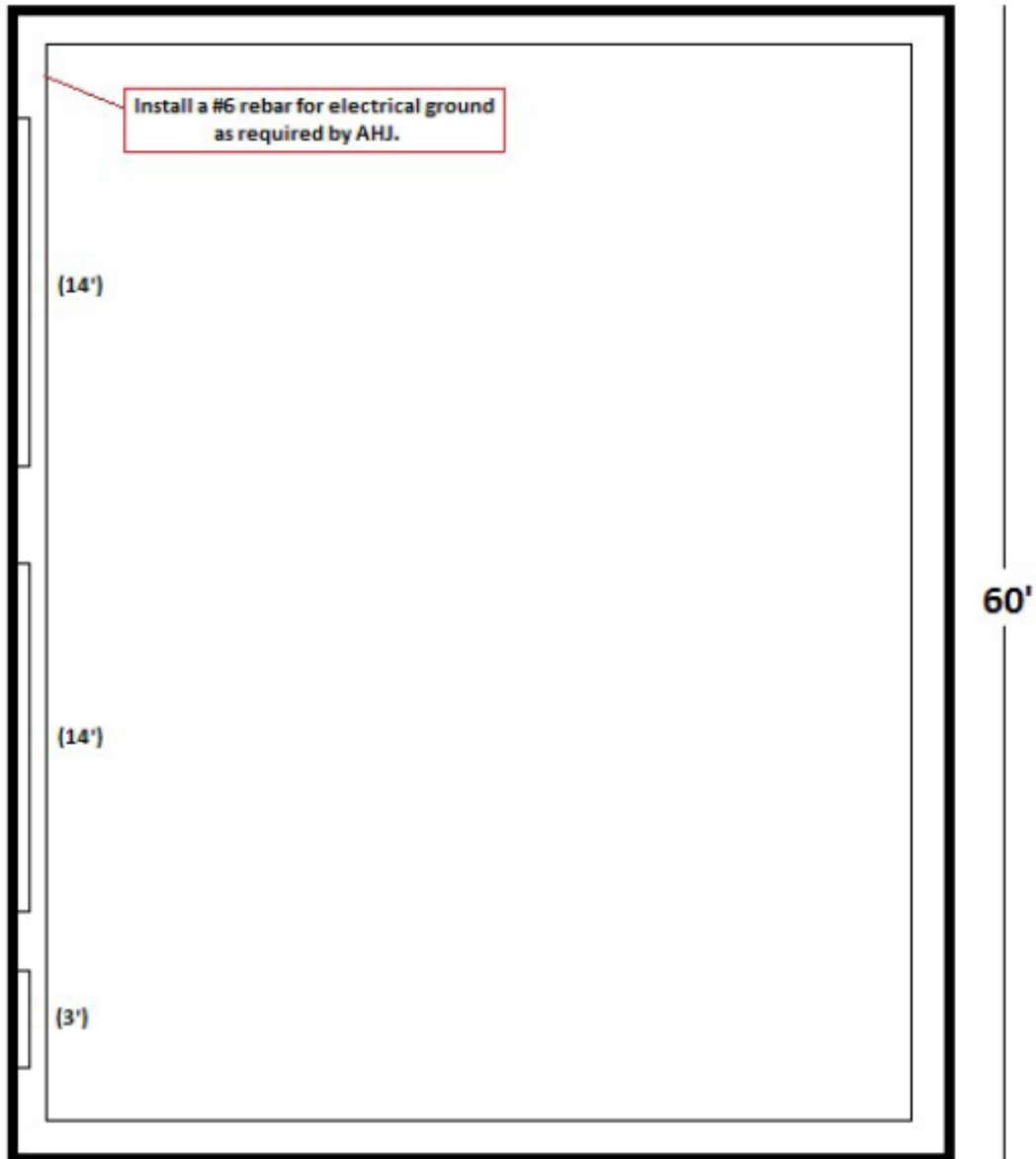
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END OF GENERAL DECISION



New Barn

Myers Park





Mueller, Inc. Project Specifications

Project Email: bjharris@co.collin.tx.us

Project Name: FY 2016 Myers Park Barn

Project Date: 5/26/2016

Building Details:

Width: 40'

Length: 60'

Height: 16'

Pitch: 4"

Standard Vents

Gutter:

5" Burgundy

Colors:

Wall: Light Stone

Roof: Light Stone

Trim: Burgundy

Rollup: Burgundy

Vents: Burgundy

Doors:

Man Door_3' x 7'

Rollup 14' x 14'

Rollup 14' x 14'

Foundation: 6" Slab





Prefab Instruction Manual

<http://www.muellerinc.com>

TABLE OF CONTENTS

- A. Site and Foundation Preparation
 - 1. General Information
 - 2. Squaring of Foundation
 - 3. Anchor Bolt Settings (Pgs. 3,4)
- B. Building Delivery and Storage
 - 1. Unloading and Preparation of Parts for Assembly
 - 2. Unloading, Handling, and Storage of Materials
 - 3. Location of Building Parts
 - 4. Care and Handling of Mueller Sheet Metal (Pgs. 4-6)
- C. Erection of Primary and Secondary Structural
 - 1. General Information
 - 2. Tools and Equipment Required (Pgs. 2,3)
 - 4. Typical Building Parts
 - 5. Raising Rigid Frames (Pgs. 5-9)
 - 10. Erecting Column and Beam Endwalls
 - 11. Erecting Remaining Frames (Pgs. 11,12)
 - 13. Assembly of Brace Cables
 - 14. Installation of Wind Bracing (Pgs. 14-17)
- D. Connection Details
 - 1. Endwalls (Pgs. 1,2)
 - 3. Column/Rafters for Main Frames
 - 4. Individual Connection Details (Pgs. 4-15)
- E. Insulation
 - 1. Wall Insulation (Pgs. 1,2)
 - 3. Roof Insulation (Pgs. 3-5)
- F. Sheeting
 - 1. Fastener Layout
 - 2. Aligning the Girts
 - 3. Screw Alignment (Pgs. 3,4)
 - 5. Installation of Wall Panels (Pgs. 5-10)
 - 11. Preparing the Eave (Pgs. 11,12)
 - 13. Installation of Roof Panels (Pgs. 13-25)
 - 26. Skylight Installation (Pgs. 26-29)
- G. Trim
 - 1. Flashing
 - 2. Peak Sheet Ridge Installation
 - 3. Typical Screw Placement for Peak Sheets/Ridge Roll
 - 4. Tape Sealant Application at Ridge Flashing
 - 5. Rake Trim
 - 6. Corner Trim
 - 7. Eave Trim (Pgs. 7-9)
 - 10. Gutter (Pgs. 10-15)
 - 16. Door Trim (Pgs. 16,17)
 - 18. Overhang Trim Details

H. Doors and Accessories

1. Personnel Doors (Pgs. 1,2)
3. Roll-Up Doors (Pgs. 3,4)
5. Windows (Pgs. 5,6)
7. Ridge Vents (Pgs. 7-10)
11. Pipe Deck Flashing

I. Glossary

1. Metal Building Terms and Definitions (Pgs. 1-9)

Section A

Site & Foundation Preparation



PREPARATION OF SITE AND FOUNDATION

1. General

Before the Mueller prefabricated steel building arrives, the site and foundation should be prepared. This includes leveling the terrain and constructing the foundation. Mueller buildings are typically designed to be placed on a permanent slab. A concrete contractor is highly recommended for this phase of the construction.

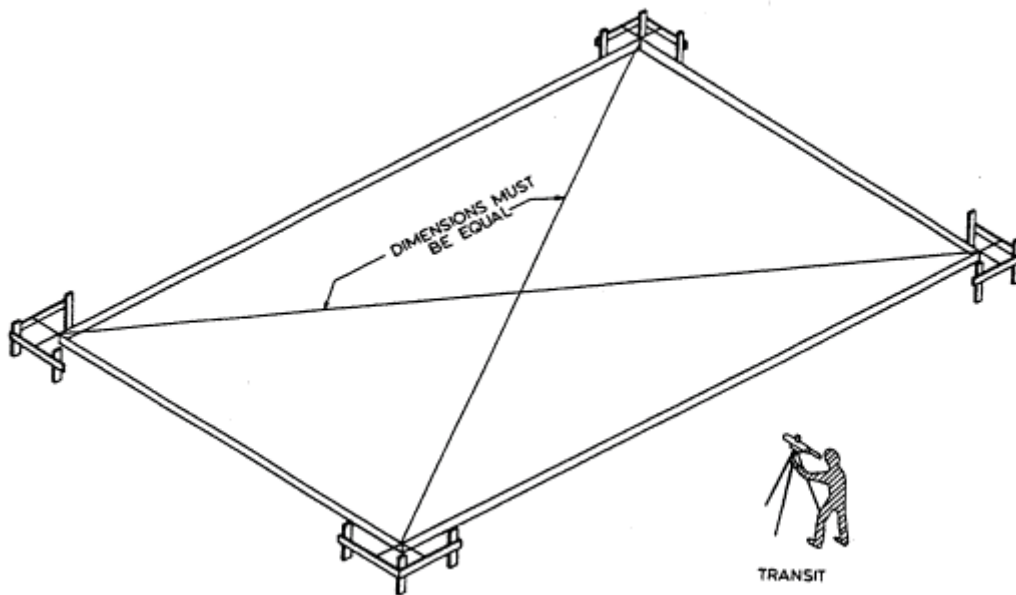
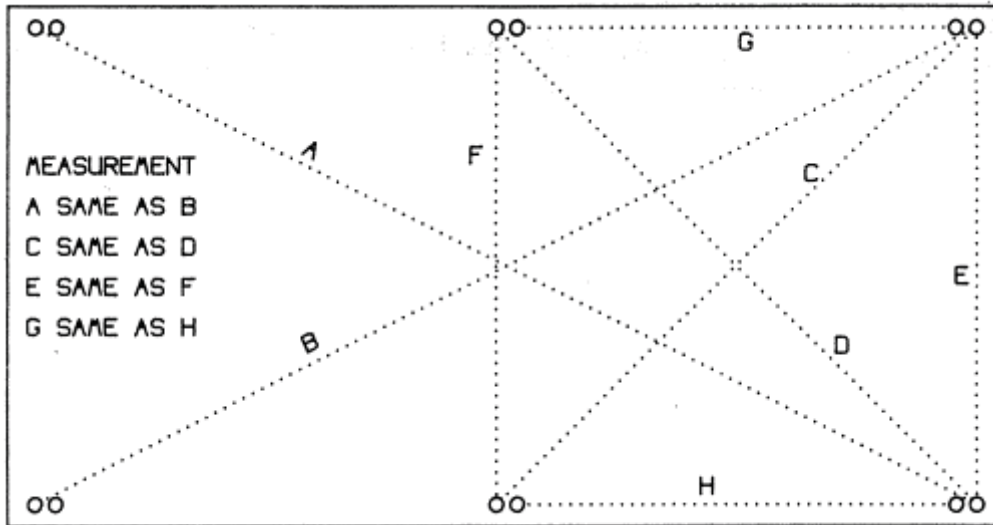
2. Procedural Steps

- A. Remove trees, debris, and other items from the building location.
- B. Smooth and level the ground where the foundation is to be made.
- C. Construct the foundation using the materials recommended by your cement contractor.

NOTE: Mueller Steel Buildings Systems will provide blueprints that show anchor bolt placement in the concrete slab. Check the anchor bolt plan thoroughly upon receipt. If you have any questions, call your Mueller Steel Building Systems Salesman.

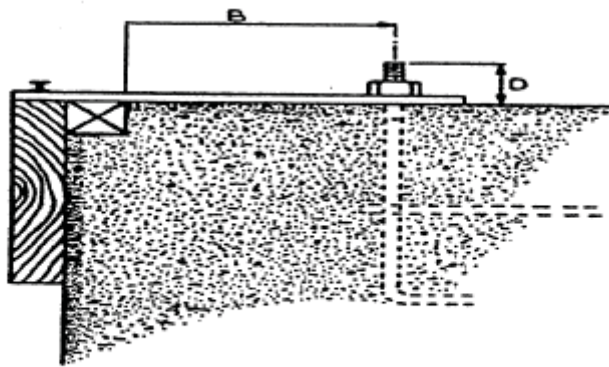
SQUARING OF FOUNDATION

For proper building erection, it is critical the foundation is square. The following examples are suggested to ensure square foundation.

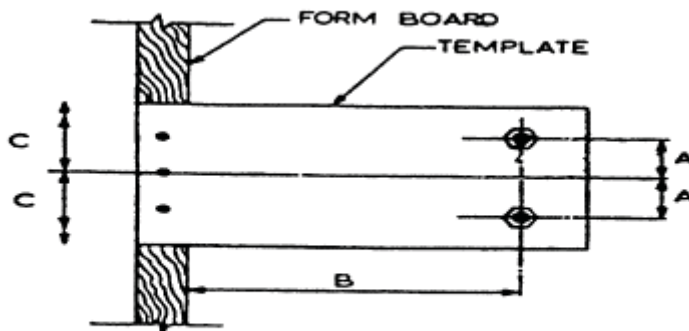


ANCHOR BOLT SETTINGS

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



PROJECTION OF ANCHOR BOLTS "D"
GIVEN ON ANCHOR BOLT PLAN.

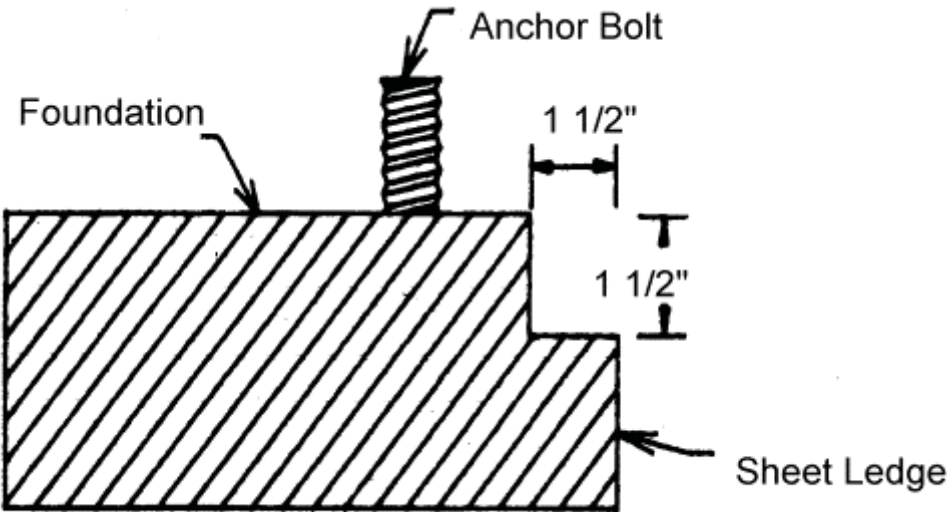
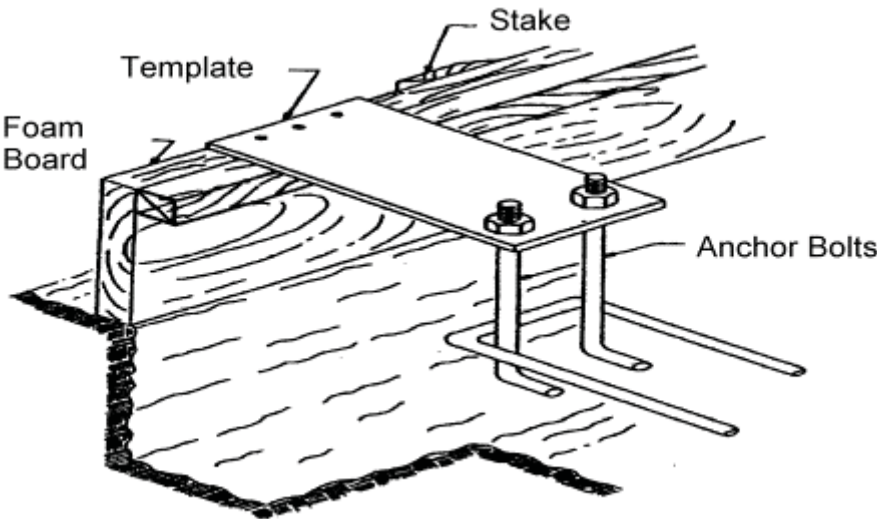


DIMENSIONS A, B, AND C AS GIVEN
ON ANCHOR BOLT PLAN.

NOTE: Measurements are from steel line to steel line.

ANCHOR BOLT SETTINGS

Refer to your anchor bolt drawing for proper sizes and dimensions.



Section B

Building Delivery And Storage



UNLOADING AND PREPARATION OF PARTS FOR ASSEMBLY

The vehicle transporting your building parts must gain access to the building site from the adjacent highway or road. Such access should be studied and prepared in advance of arrival. All obstructions, overhead and otherwise, must be removed and the access route graveled or planked if the soil will not sustain the heavy wheel loads.

A forklift or other type of power loader may be required to unload the truck and move the heavier parts to the proper locations.

When the truck arrives with the building, unload the truck promptly, stack the steel parts evenly on blocks and protect them from the weather.

Unloading and placing the steel parts of the building in the most convenient places for assembly will make the process easier and faster.

NOTE: Prolonged exposure to the weather before assembly, or stacking the steel in a haphazard way can cause the painted parts to become damaged, or the building parts to warp. Protect painted parts from moisture to prevent fading and discoloring and stack the structural steel parts so they will be straight.

After unloading the truck and before the driver leaves, ensure that all parts have been delivered.

1. Check each part against the delivery receipt. Each part is marked for identification.
2. Sign the delivery receipt if all parts are delivered.
3. If any of the parts are missing, notify the driver and note the missing items on the delivery receipt before signing.
4. Check with your salesman regarding the missing parts.

UNLOADING, HANDLING, AND STORAGE OF MATERIALS

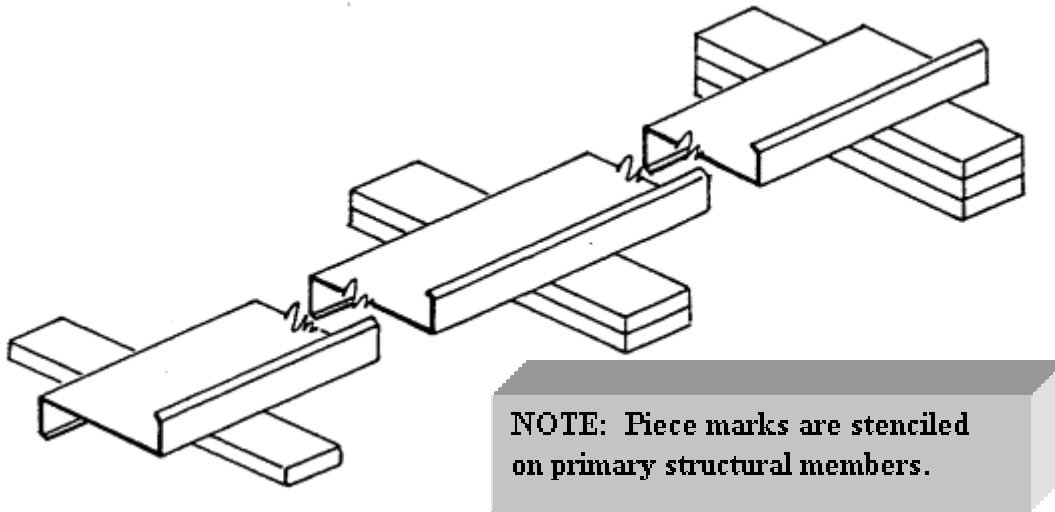
Structure

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.

Blocking under the columns and rafters protects the splice plates and the slab from damage during the unloading process. It also facilitates the placing of slings or cables around the members for later lifting and allows members to be bolted together into sub-assemblies while on the ground. Extra care should always be exercised in the unloading operation to prevent injuries from handling the 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 the same reason.

All primer should be touched up as required before erection.



LOCATION OF BUILDING PARTS

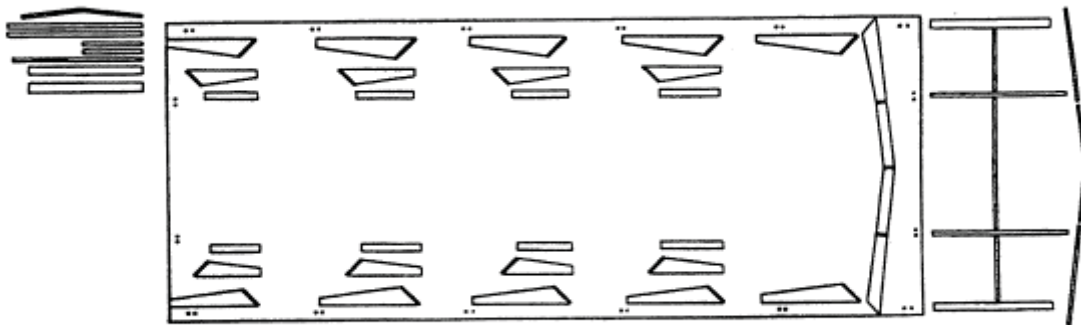
Place the parts around the foundation so that they will be in the most convenient locations for installation. For example: place the end columns and rafters at the ends of the building and the mainframe columns and rafters at the sides.

Place the bolts and nuts in a place where they will be accessible to the parts. You may want to screw the bolts and nuts together and place them with the corresponding parts. This will save time as you begin assembling the parts.

Purlins and girts, depending on the number of bundles, are usually stored near the sidewalls clear of other packages or parts.

Sheet packages are usually located along one or both sidewalls off the ground and sloping to one end to encourage drainage in case of rain.

Accessories are usually unloaded on a corner of the slab or off the slab near one end of the building to keep them as much out of the way as possible from the active area during steel erection.



NOTE: When filing claims either with the carrier, or with Mueller, Inc., the claim should indicate the item(s) in question, the bundle or container in question (if any), the actual quantity received, the quantity which should have been received, or that which was damaged. This is important for quickly retrieving the necessary information. Also, other information such as numbers, names and addresses should be indicated on claims, as well as invoice numbers.

These procedures are primarily for your protection. A shortage discovered later, can be caused by theft, misplacement, or other causes, and neither the carrier or Mueller can accept responsibility.

CARE AND HANDLING OF MUELLER SHEET METAL

Delivery: Mueller takes every precaution to insure that material is delivered to the customer damage free and fully protected from the elements during shipment. When the material is delivered to the customer it then becomes the customers responsibility to protect the material from the elements, possible theft, and other damage. The following guidelines are recommended:

HANDLING: Proper care is required in unloading and handling panel bundles in order to prevent damage.

1. Bundles should remain banded (if possible) during the unloading process. Bundles should never be lifted by the banding material.
2. Lift each bundle as close as possible to its center of gravity.
3. If the bundles are to be lifted with a crane, use a spreader bar of appropriate length and nylon band slings (do not use wire rope slings as they will damage the material).
4. Depending on the panel length, some bundles may be lifted by a forklift. When using a forklift, the forks should be spread to their maximum spacing, and the load centered on the forks. **Sheets over 25' long require two forklifts.**
5. After panel bundles are opened, individual sheets must be handled carefully to prevent panel buckling or damage to the panel coating. When removing a sheet from a bundle it should be rolled off the bundle to prevent scratching of the next sheet. Never drag or slide one sheet over another sheet. Sheets should not be picked up by the ends. Instead, lift the sheet along its longitudinal edge and carry in a vertical position. For sheets over 10' long, two or more people may be required to carry the sheet.
6. To avoid permanent black "finger printing" of Galvalume sheets, soft gloves must be worn.

WALL AND ROOF PANELS

Mueller's wall and roof panels including 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 merit cautious care in handling.

Under no circumstances should panels be handled roughly. Packages of sheets should be lifted off the truck with extreme care taken to insure that no damage occurs to ends of the sheets or to side ribs. The packages should be stored off the ground sufficiently high to allow air circulation underneath the packages. This avoids ground moisture and deters people from walking on the packages. One end of the package should always be elevated to encourage drainage in case of rain.

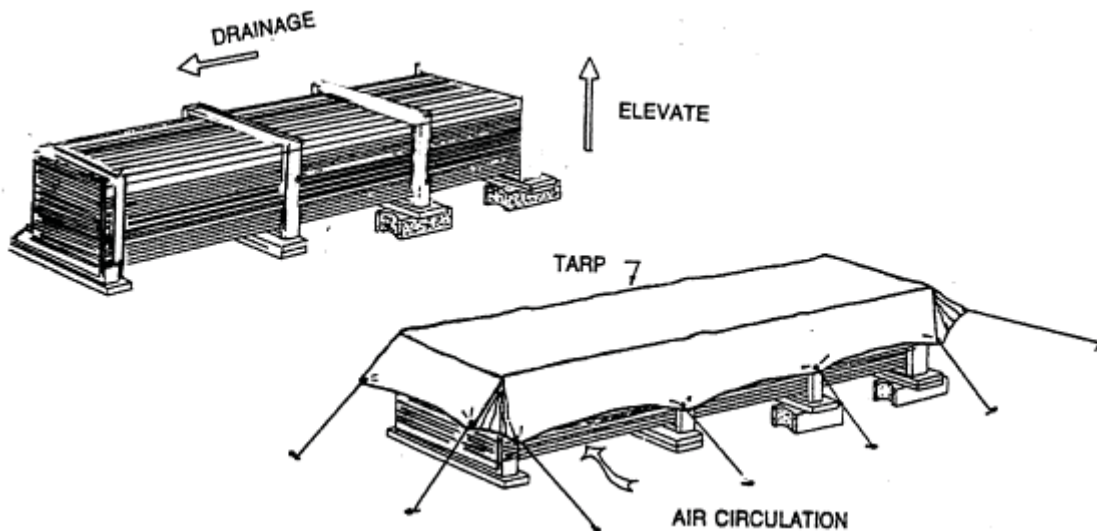
All stacked metal panels are subject, to some degree, to localized discoloration or stain when water is trapped between their closely nested surfaces. Mueller, Inc. exercises extreme caution during fabricating and shipping operations to insure that all panel stock is kept dry. However, due to climatic conditions, water formed by condensation of humid air can become trapped between stacked sheets. Water can also be trapped between the stacked sheets when exposed to rain. This discoloration caused by trapped moisture is often called wet storage stain.

The stain is usually superficial and has little effect on the appearance or service life of the panels as long as it is not permitted to remain on the panels. However, moisture in contact with the surface of the panels over an extended period can severely attack the finish and reduce the effective service life. Therefore, it is imperative that all panels be inspected for moisture upon receipt of the order. If moisture is present, dry the panels at once and store in a dry, warm place.

CAUTION: Care should always be taken when walking on panels. Use safety lines and nets when necessary! Panels can be slippery due to paint finish, wax, oil, or atmospheric conditions. Always assume panel surface is slippery and act accordingly.

STORAGE: It is recommended that sheets be stored under roof if at all possible. If sheets are to be stored outside, the following precautions should be observed:

1. The storage area should be reasonably level, and located so as to minimize handling.
2. When stored on bare ground, place a plastic ground cover under the bundles to minimize condensation on the sheets from ground moisture.
3. Store bundles at least 12 inches above ground level to allow air circulation beneath the bundle, and to prevent damage from rising water.
4. Elevate one end of each bundle slightly to permit runoff of moisture from the top of the bundle or from between sheets. A waterproof cover should be placed over the bundles to allow for air circulation under the cover.
5. Inspect stored bundles daily and repair any tears or punctures in the waterproof cover.
6. Re-cover opened bundles at the end of each workday to prevent subsequent moisture damage.



Checking order at time of delivery

Check each order carefully, as it is unloaded. Report any obvious damage or shortages to the carrier immediately. If damage or shortages are noted after delivery (at time of unpacking) notify your Mueller representative immediately. Have invoice numbers and detailed descriptions of the damage or shortage available. These procedures are for your protection. A shortage or damage discovered later, can be caused by theft, misplacement, mishandling or other causes and is not the responsibility of Mueller, Inc.

NEVER INSTALL MATERIAL IF THE QUALITY IS IN QUESTION!

Section C

Erection of Primary And Secondary Structural



GENERAL INFORMATION

Many methods and procedures are in use for erecting the structural portion of metal buildings. The techniques of raising frames vary from erecting small clear spans and endwall frames in units to erecting the larger clear spans and modular frames in sections. The erection methods used depend strictly on the type of building, the available equipment, the experience level of the crews, and the individual job conditions.

The variations in these factors preclude the establishment of a firm or specific set of erection rules and procedures. Consequently, the erection operation must be tailored by the erector to fit individual conditions and requirements. However, there are certain erection practices, pertaining to structural members, which are in general use and have proven sound over the years. Descriptions of these follow.

Erectors are cautioned not to cut primary members (rigid frame columns, rafters, end bearing frame rafters, interior columns). These are the primary support members for the frame and are designed as such. Any cutting of these members may affect the structural stability. A representative of Mueller's must be consulted prior to attempting alterations of these members.

NOTE: Do not install any material if its quality is in question. Mueller, Inc. will not be responsible for costs incurred associated with the installation and/or removal of same.

WARNING! In no case should building erection be started on green concrete. Anchor bolts may pull loose, concrete spall (chip out along edges) may occur and equipment may crush or crack slab. Consult the project engineer, not Mueller, Inc. on foundation questions.

TOOLS AND EQUIPMENT REQUIRED

The types of tools and equipment required in order to assemble and erect the building depend on the size of the building purchased. This part of the instruction manual lists the tools and equipment that are normally required for most buildings. You may wish to use more or less power equipment or different tools than are listed as the need dictates. Whatever tools are used, it is important to remember that using the recommended tools will enable the least effort and best manner of erecting the building.

If a contractor is going to erect the building for you, you will not have to concern yourself with the tool list as most contractors have the necessary tools and equipment that are required. However, reference to the following list may be of value to the contractor if he has never assembled and erected a Mueller Prefabricated Steel Building.

WARNING! Whenever using any type of power equipment, it is important to follow the manufacturer's recommendations for use. Always be aware of the dangers involved when using electric or air powered equipment.

Tools

Hammer
Centering punch
Square
Complete set of Wrenches (Open-end, socket, box-end)
Pry bar
Pipe wrench
Pliers
Vise grip pliers
Drill bits
Power drill or combination power/hammer drill
Screw gun
Power wrench (Impact wrench)
Nibbler (Electric metal cutter for cutting across the wall & roof sheets)
Level (3 foot long minimum)
Hacksaw Broom (Push)

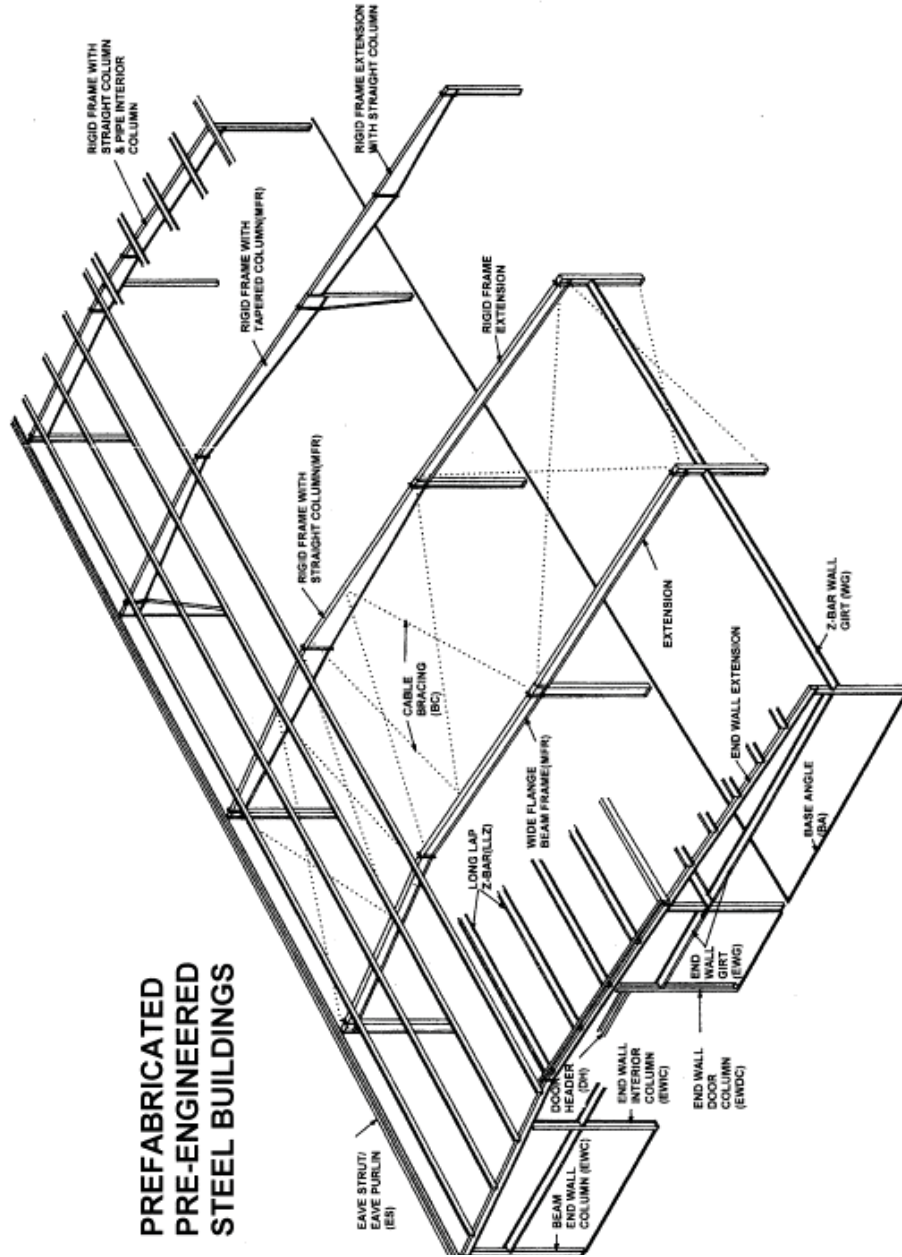
TOOLS AND EQUIPMENT (CONTINUED)

Wire brush
Caulking gun (Open barrel)
Chalk line (100' long and chalk)
Channel locks
Extension cord (#10-3, 2/4 way box, 250' long)
Fire extinguisher (#10)
First aid kit
Load binders
Plumb bob
Snips (Large bulldogs)
Tape measure (12' to 25' long, 100' long for foundation measurements)
Ladder
Chain
Rope
Hoist or forklift (Should be all-terrain)
Come-along (Power pull)
Saw horses
Safety equipment: Goggles Hard hat Gloves, Work boots, etc.
Tarps

NOTE: Additional tools may be required depending on the specific requirements of the building.

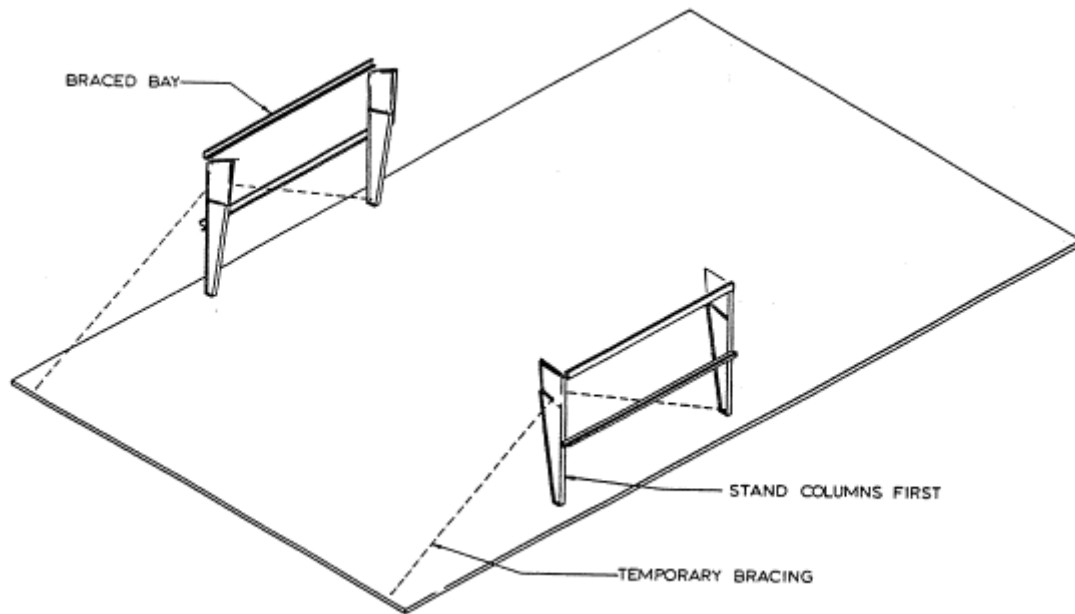
TYPICAL BUILDING PARTS

PREFABRICATED PRE-ENGINEERED STEEL BUILDINGS



RAISING RIGID FRAMES

The intermediate or interior frames nearest the bearing endwall are usually erected first. This bay usually contains the diagonal bracing. The proper completion and plumbing of this first bay is extremely important to the successful completion of the building.



Although several methods are used to erect rigid frames, it has been found most satisfactory to erect the columns first, tie them together with the girts and tighten the anchor bolts*. On small spans and short eave heights, columns can often be set in place by hand without the use of hoisting equipment. Temporary bracing should always be installed as soon as sections are lifted in place.

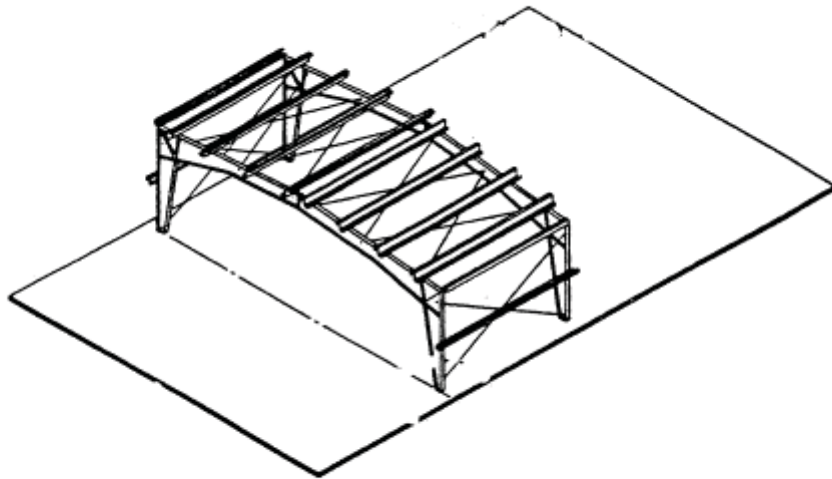
*The anchor bolt tension may need to be adjusted to seat the rafter.

RAISING RIGID FRAMES (CONTINUED)

COMPLETING AND PLUMBING THE FIRST BAY

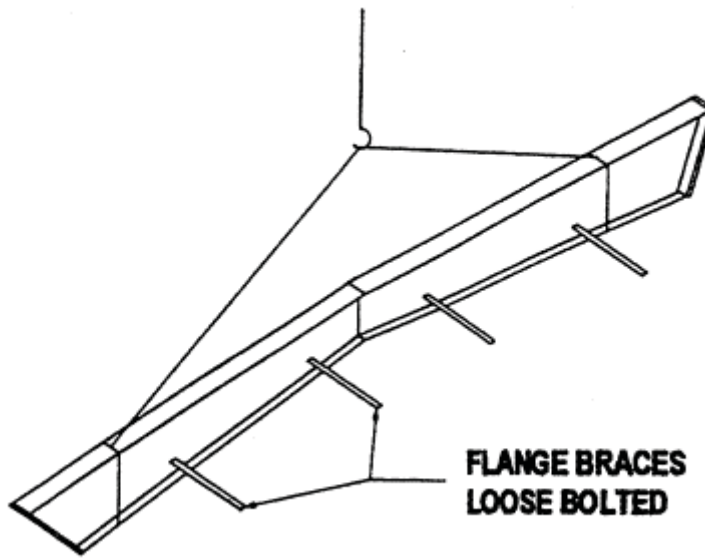
After the first intermediate or interior frames have been set, Mueller, Inc. recommends that all purlins, girts, and eave struts be installed in the braced bay and the entire bay plumbed, aligned and braced before proceeding further. If the building is designed without cable bracing, the erector is responsible for providing temporary erection bracing.

When this bay is properly and accurately plumbed and braced, the remaining members, to a large degree, will automatically plumb and align when installed. Only a final check of the building plumb remains, and few adjustments, if any, will be necessary.



RAISING RIGID FRAMES (CONTINUED)

After the columns have been erected, the ground-assembled rafter is hoisted into place and connected to the columns. The size of the rafter that can be safely handled depends on the equipment available and the experience of the erection foreman. Generally as many connections as possible are made on the ground.



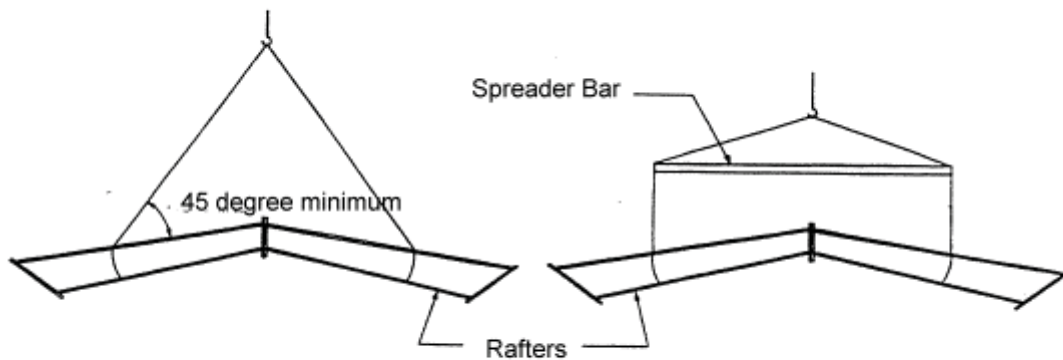
The flange brace should be bolted to the rafter prior to raising in order to save time. The hoisting equipment should never be released from the rafter until the frame is adequately braced, so it cannot buckle or tip in the longitudinal direction of the building.

NOTE: Drawing above is intended as a general rigging method. Actual rigging method. Actual rigging will vary with member configuration.

RAISING RIGID FRAMES (CONTINUED)

LIFTING CABLES AND SPREADER BARS

In all instances the length of the lifting cables should be such that the angle between the rafter and the lifting cables is no less than 45 degrees. To reduce the severe compression stresses at the ridge of the rafters that are created by the angle of lifting cables, a spreader bar is recommended, which allows the lifting cables to be parallel to each other.



NOTE: Drawing above is intended as a general rigging method. Actual rigging will vary with member configuration.

NOTE: Stay well in the clear of loads being moved by any lifting device. Hands and feet should be kept clear of moving loads and never stand under a load being lifted. Remember, **SAFETY FIRST!**

RAISING RIGID FRAMES (CONTINUED)

When the rafters consist of several roof beams, as in the case of wide buildings, a safe procedure of raising by sections and supporting the free end must be followed, regardless of the type of equipment available. In most instances the work proceeds from outside columns inward toward the peak until the entire frame is bolted into place.

The same general procedures of erection apply to either clear span or multiple span frames. In the case of the latter, the support for rafter sections during erection is generally supplied by the interior columns, themselves, making temporary supports unnecessary.

Two words of caution concerning the erection of rigid frames are in order. The first is that rigid frames, especially free ends or cantilevered sections should never be left "for the day" in an unsupported, unbraced or unguyed condition. Such practice has resulted in the total loss of considerable amounts of erected steel because of wind. The second word of caution pertains to the additional care required in the erection of multiple span frames compared to clear span frames. Frames with interior columns, because of closer supports, have much lighter sections. They are much more apt to buckle during erection than clear span frames, and consequently require greater care in rigging and handling.

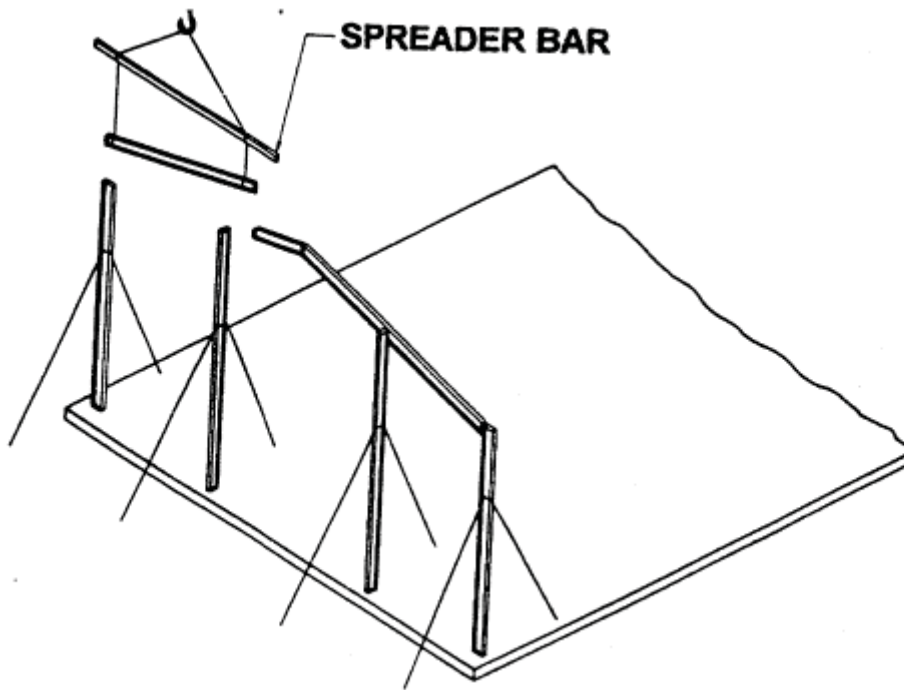
CONNECTION BOLTS

Bolts used to make connections in secondary framing members such as the purlins are usually $\frac{1}{2}$ " diameter, ASTM designation A307. All primary framing connections are made with ASTM A325 bolts, usually $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{7}{8}$ " and 1" diameters. The size and grade of the bolt are marked on the building erection drawings.

ERECTING COLUMN AND BEAM ENDWALLS

Column and beam endwalls of 50 feet or less in span may be raised into position and set on the anchor bolts as a unit. All rafters, column, girts (except outside endwall girts which connect to the sidewall girts), door headers, door jambs, clips, diagonal brace rods, etc. should be assembled on the ground with the bolts left finger tight. A spreader bar should be used to raise the endwall frame. Because of the flexibility of the column and beam frames, care must be taken in locating the points of attachment of the cables, and in raising the frame, to avoid bending about the minor axis.

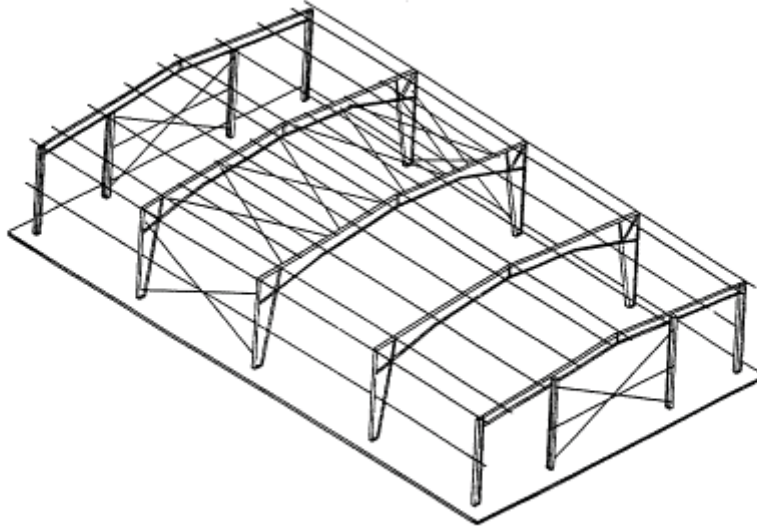
For spans of 60 feet and greater, the columns are usually erected first and then capped with the endwall rafter. The girts, headers, jambs and diagonal brace rods are then added between the end columns. During this erection process, the frame must be properly braced or guyed before the lifting lines are disengaged. Final bolt tightening should be done once the frame is plumb and square.



NOTE: Drawing above is intended as a general rigging method. Actual rigging will vary with member configuration.

ERECTING THE REMAINING FRAMES

The remaining frames are erected in like manner, initially with only a few purlins being installed in each bay, as shown below, working from one end of the building to the other. To lend overall rigidity to the structure, install flange braces to the purlins at specified locations. All purlin, girt and eave strut connection bolts are left loose so that the entire skeleton framework can be plumbed with out undue difficulty. The remaining purlins can be positioned on the rafter in each bay to facilitate the completion of the roof framing.



NOTE: Take precautions to secure structure during assembly. Temporary bracing may be required to stabilize the structure during erection. Never leave the structure unbraced.

JOINTS NOT SUBJECT TO TENSION LOADS

Joints not subject to tension loads need only be tightened to the snug tight condition, defined as the tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench.

JOINTS SUBJECT TO TENSION LOADS

Two tightening procedures are specified for A325 bolts in joints subject to tension loads, turn-of-the-nut method and direct tension indicator.

Turn-of-the-nut method – When turn-of-the-nut method is used to provide tension, first bring enough bolts to a “snug tight” condition to insure that the parts of the joints are brought into good contact with each other. Next, place bolts in all remaining bolt holes and bring to “snug tight”. Then additionally tighten all bolts – progressing from the bolts nearest the web, to the free edges. During this operation there shall be no rotation of the part not turned by the wrench.

Tightening by use of a direct tension indicator – Tightening by this means is permitted provided it can be demonstrated, by an accurate direct measurement procedure, that the bolts have been tightened to specified tension.

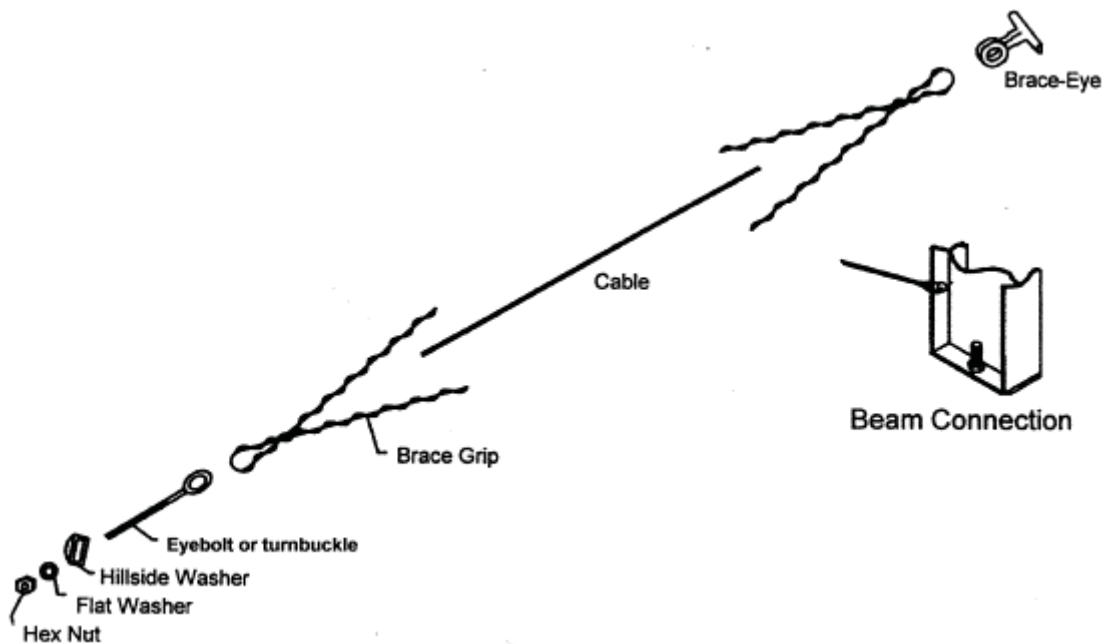
Consult latest edition of the AISC Manual of Steel Construction for more complete instructions for installing high strength bolts.

ASSEMBLY OF BRACE CABLES

1. Assembly of brace cables:

NOTE: Cable may have to be field cut to proper length.

- A. Insert grip through eyebolt.
- B. Begin wrapping the grip around the cable, matching the crossover marks.
- C. Continue until the lasts two wraps are left split the legs and apply separately.
- D. Duplicate this procedure on each end.

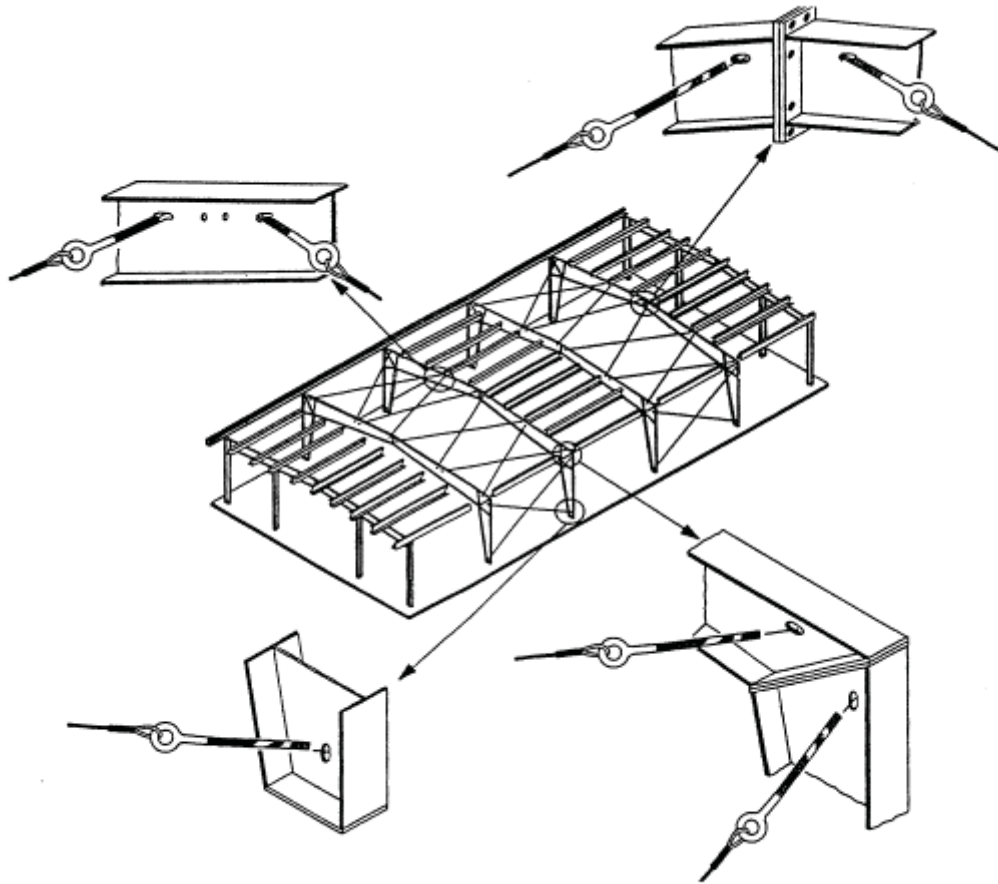


Obtain the proper tension of the strand by tightening the nuts on the eyebolts.

2. Insert the "T" section on an angle through slot until round neck rests on web plate then turn brace-eye 90 degrees.
3. Then pull brace-eye toward you until "T" section rests against back of web plate, square neck locks brace-eye in place.
4. Attach the brace-grip to the brace-eye and then attach the brace grip to the cable.

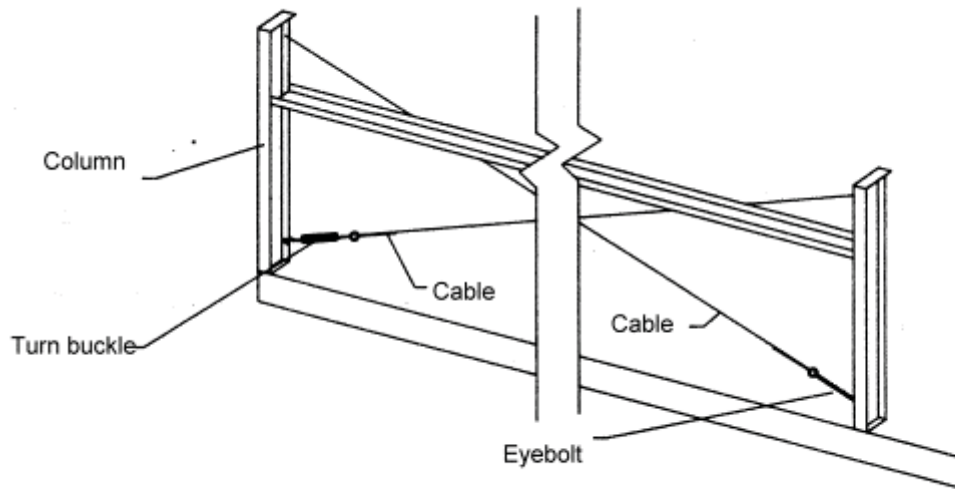
INSTALLATION OF THE WIND BRACING

Diagonal bracing in metal buildings is critical. They provide support for wind loads or other longitudinal loads, such as those created by an overhead crane in the completed structure. Many times additional temporary bracing is needed to stabilize the structure during erection. The erector should review this requirement, and the erector should provide any additional bracing. On some smaller buildings, diagonal bracing is not needed for the building design, so the erector must furnish any erection bracing needed.



INSTALLATION OF WIND BRACING (CONTINUED)

- C. Assemble the next brace cable the same way and connect to the next column to form an "X" with the other cable.

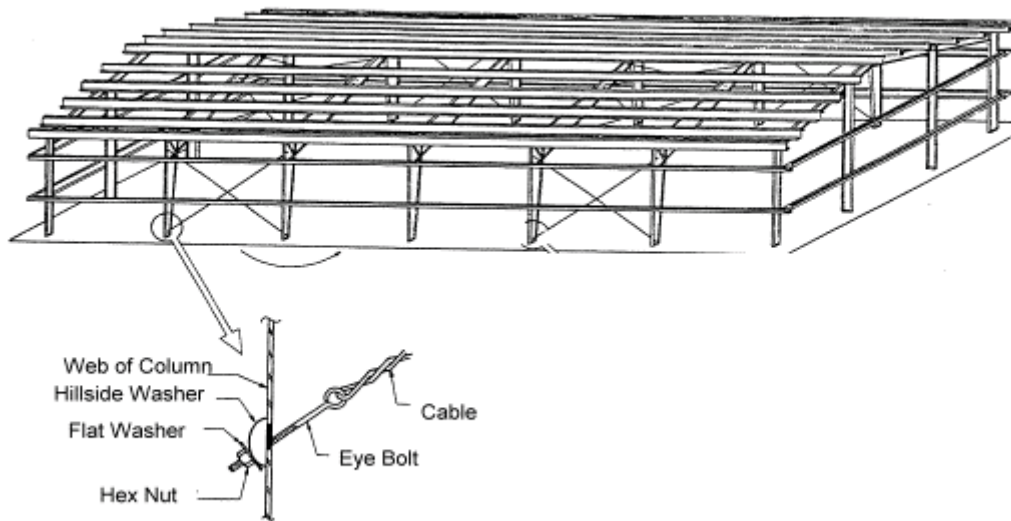


- D. To square the building, measure the length of the diagonal cables and tighten or loosen the turnbuckle/eye-bolt until the cable lengths are the same. Double-check by using a square at the corners.
- E. Brace each sidewall frame the same way so that you have an x-brace on each side. Note that the diagonal lengths may vary between the two walls, but should be the same on each x-brace.
- F. Tighten the column anchor nuts after insuring that the building is square.

The diagonal bracing is cable. It should always be installed as shown on the erection drawing and should be tensioned so that the building will not sway or rock when the wind blows. Care should be taken, however, not to over tighten and bend the structural members. The workman should watch the structural members carefully as he tightens the bracing.

INSTALLATION OF WIND BRACING (CONTINUED)

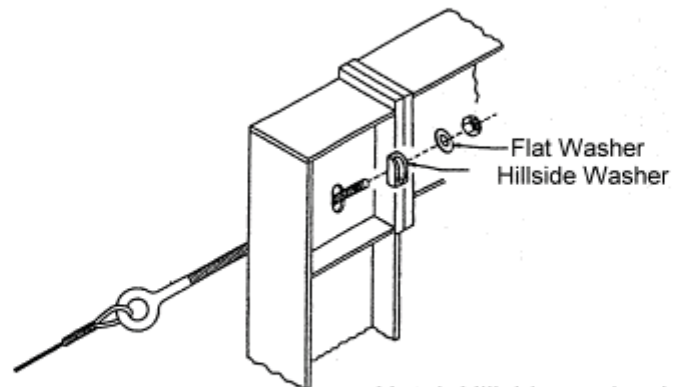
Occasionally the bracing in the wall of a building cannot be installed in the specified bay because of doors or other complications. Usually these can be moved to other bays without affecting the structural integrity of the building. However, before moving any wind bracing check with Mueller, Inc.



NOTE: Never modify a Mueller building without first contacting a Mueller representative.

INSTALLATION OF WIND BRACING (CONTINUED)

Hillside Washer Installation



Note! Hillside washer installation similar at base.

NOTE: Care should be taken not to over-tighten the wind bracing. Overtightening the bracing can cause permanent damage to the framing.

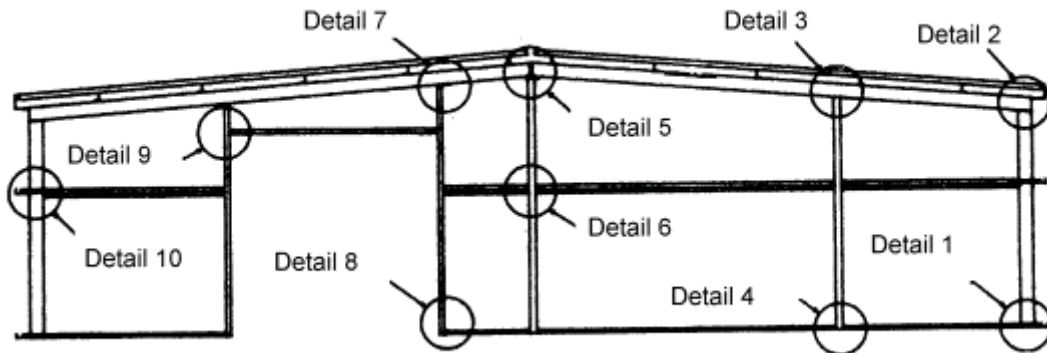
Section D

Connection Details

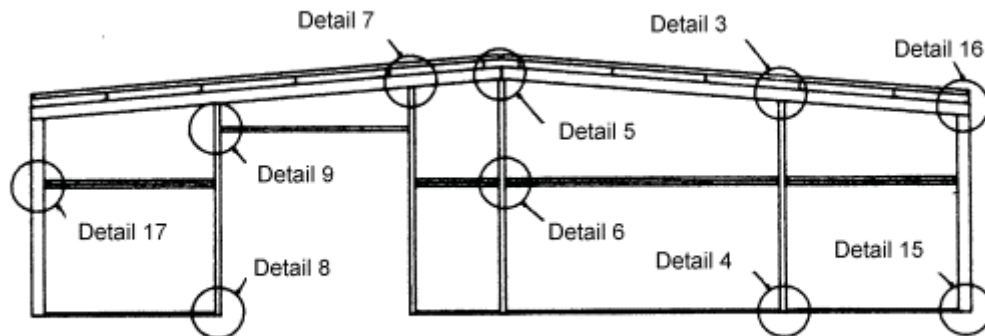


CONNECTION DETAILS

Standard Endwalls



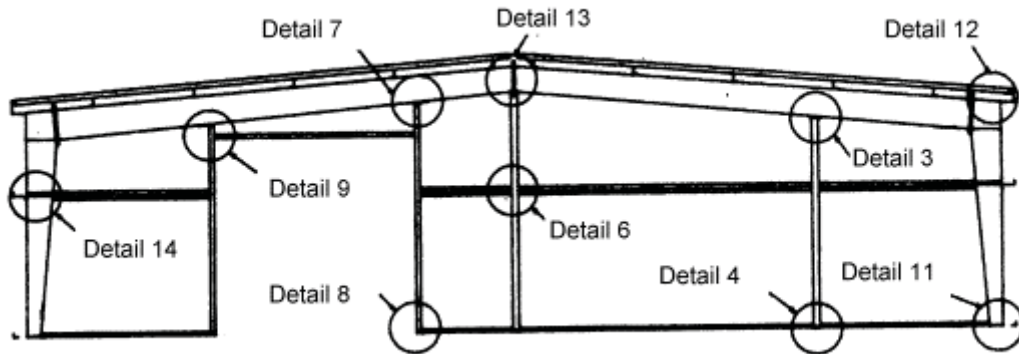
Wide flange beam endwall with bypass sidewall girts (Similar for all buildings)



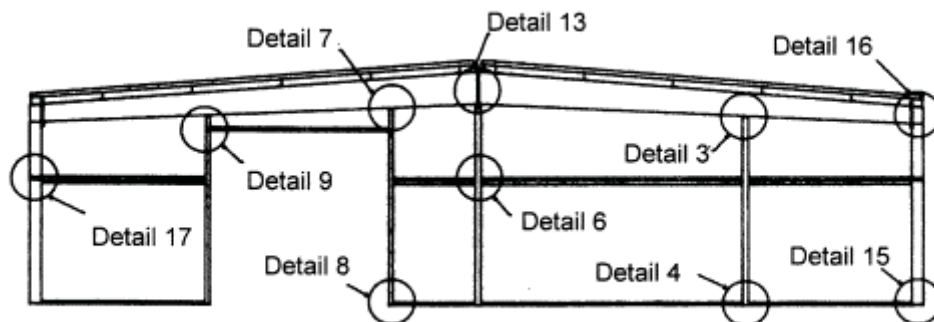
Wide flange beam endwall with flush sidewall girts (Similar for all buildings)

CONNECTION DETAILS

Expandable Endwalls

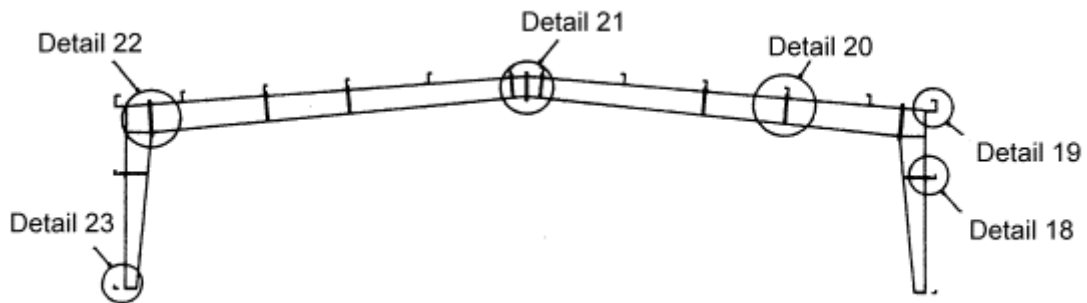


Expandable frame endwall with bypass sidewall girts
(Similar for all buildings)

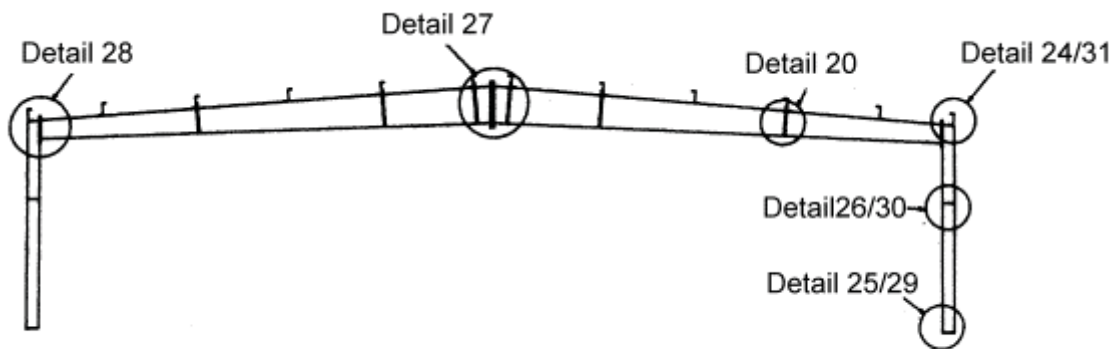


Expandable frame endwall with flush sidewall girts
(Similar for all buildings)

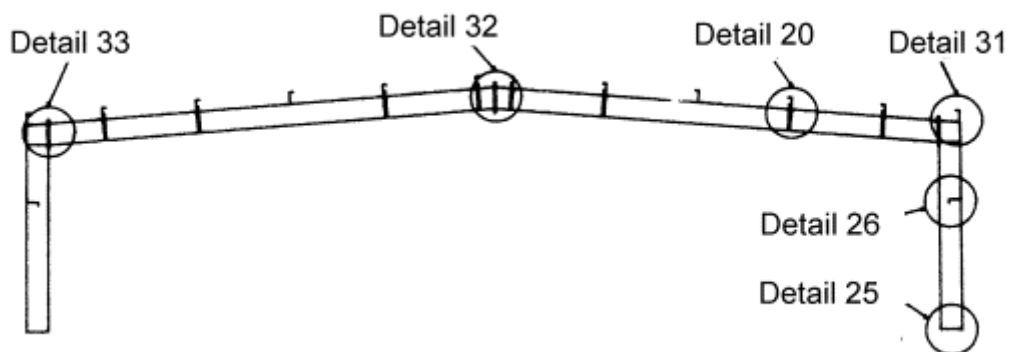
CONNECTION DETAILS



Tapered column and rafter with bypass sidewall girts
(Similar for all buildings)



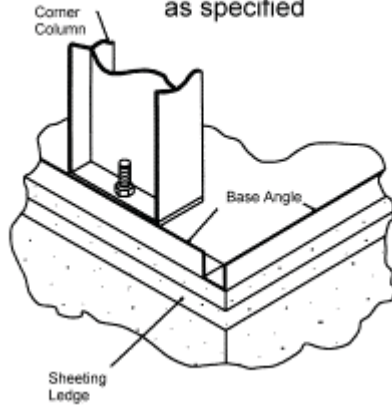
Straight column & tapered rafter with flush sidewall girts
(Similar for all buildings)



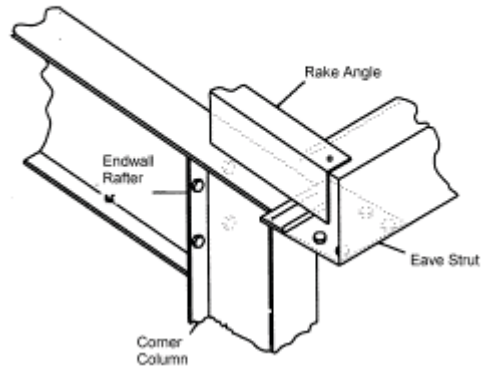
Wide flange beam mainframe with flush sidewall girts
(Similar for all buildings)

CONNECTION DETAILS

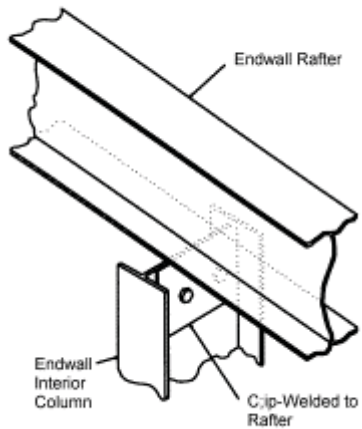
#1 Anchor Bolts: Number & Size as specified



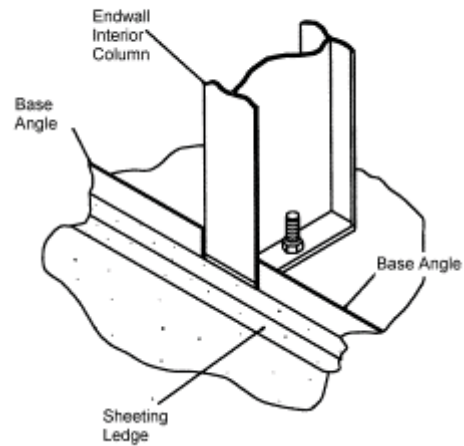
**#2 Bolts: Column/Rafter 4-5/8" x 2" A325 Bolts
Strut 4-1/2" x 1" A307 Bolts
Rake Angle/Strut 1 Self-Drill Screw**



#3 Bolts: 2 - 5/8" x 2" A325 Bolts

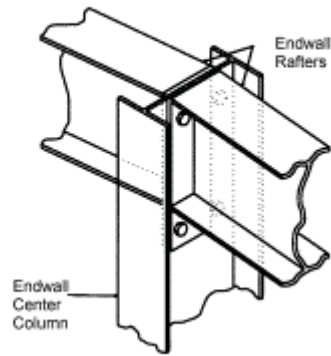


#4 Anchor Bolts: Number & Size as specified

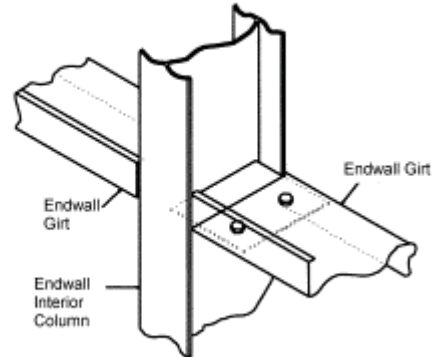


CONNECTION DETAILS

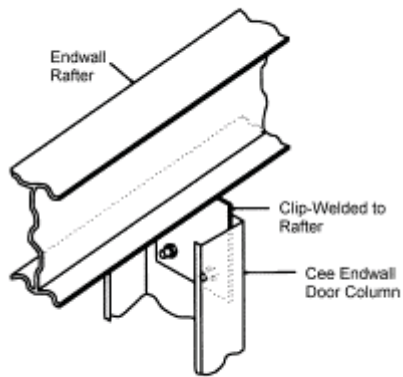
#5 Bolts: Rafter/Rafter 4-5/8"x2" A325 Bolts
Column/Rafter 2-5/8"x2" A325 Bolts



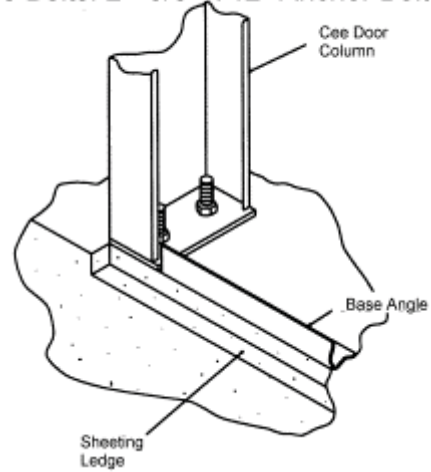
#6 Bolts: 2-1/2"x1" A307 Bolts
@ each girt



#7 Bolts: 2 - 5/8" x 2" A325 Bolts

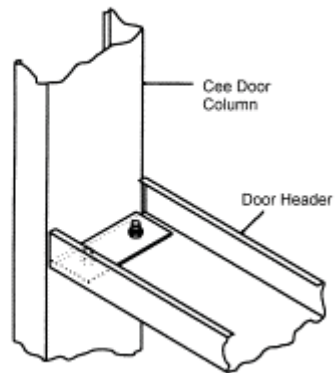


#8 Bolts: 2 - 5/8" x 12" Anchor Bolts

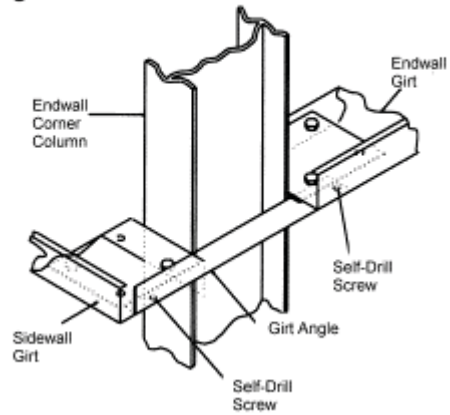


CONNECTION DETAILS

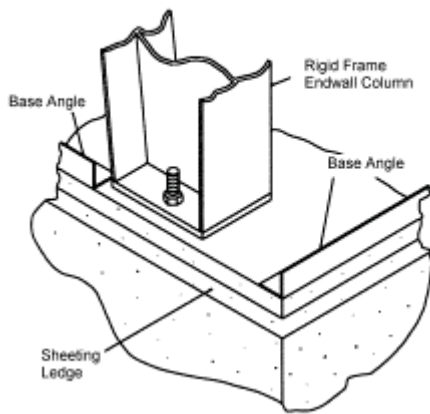
#9 Bolts: 2-1/2"x1" Flat Head Bolts



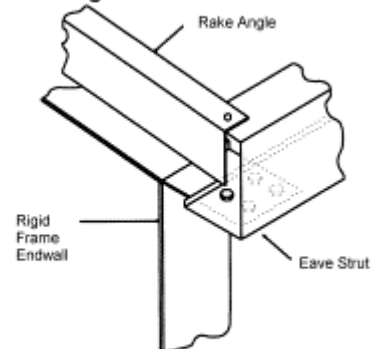
#10 Bolts: 2-1/2"x1" A307 Bolts @ Each Girt
Girt Angle/Wall Girts: Self-Drill Screws



#11 Anchor Bolts: Number & Size
as specified

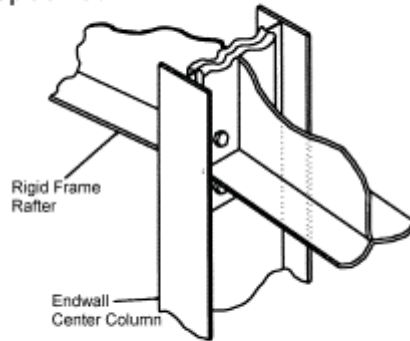


#12 Bolts: 4-1/2"x1" A307 Bolts
Rake Angle/Strut: Self-Drill Screws



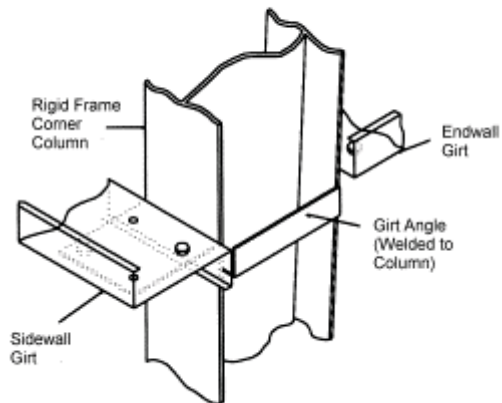
CONNECTION DETAILS

#13 Bolts: Column will be bolted with rafter connection bolts. Number & Size as specified.

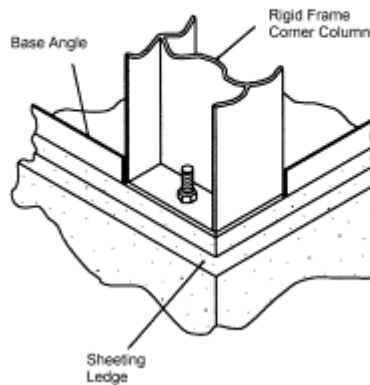


Note: Center column is bolted between Rafter Connection Plates.

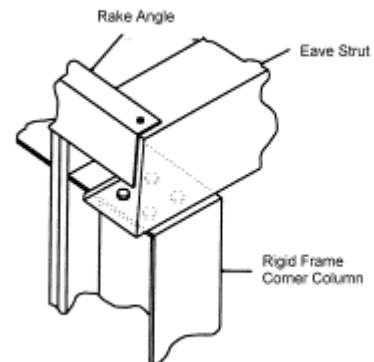
#14 Bolts: 2-1/2" x 1" A307 Bolts @ Each Girt.



#15 Anchor Bolts: Number & Size as specified

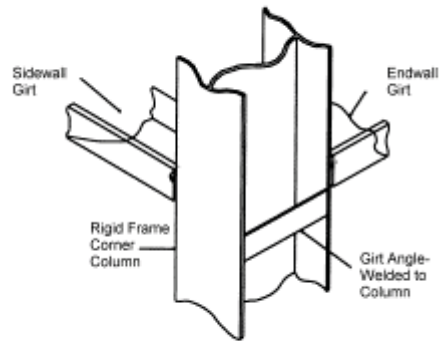


#16 Bolts: 2-1/2" x 1" A307 Bolts
Rake Angle/Eave Purlin: Self-Drill Screw

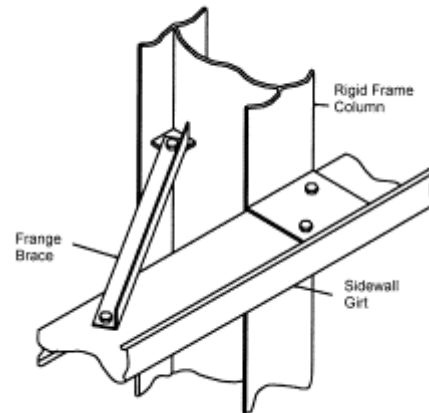


CONNECTION DETAILS

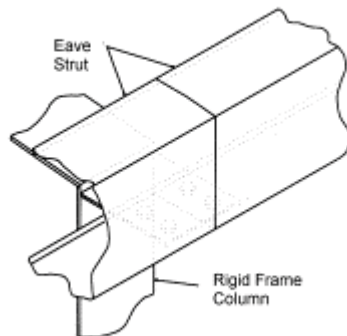
#17 Bolts: 2 - 1/2" x 1" A307 Bolts @
each girt



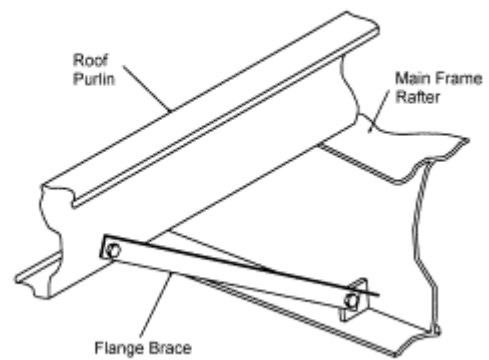
#18 Bolts: 2 - 1/2" x 1" A307 Bolts



#19 Bolts: 2-1/2" x 1" A307 Bolts
@ each Eave Strut

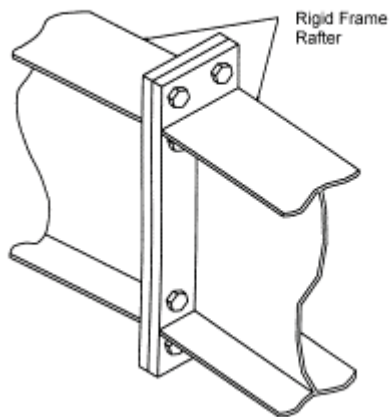


#20 Bolts: 2-1/2" x 1" A307 Bolts

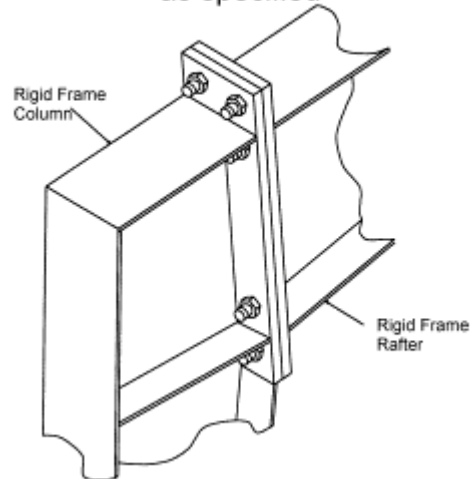


CONNECTION DETAILS

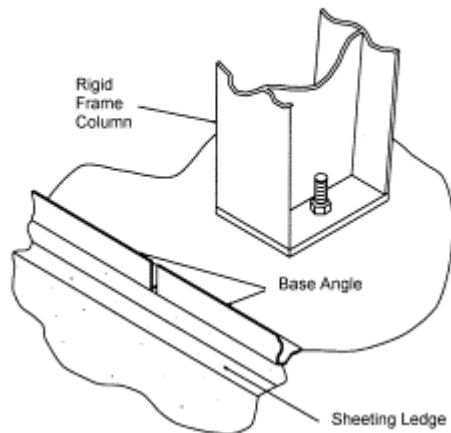
#21 Bolts: Number & Size as specified



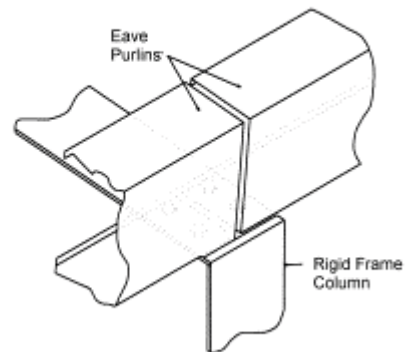
#22 Bolts: Number & Size as specified



#23 Anchor Bolts: Number & Size as specified

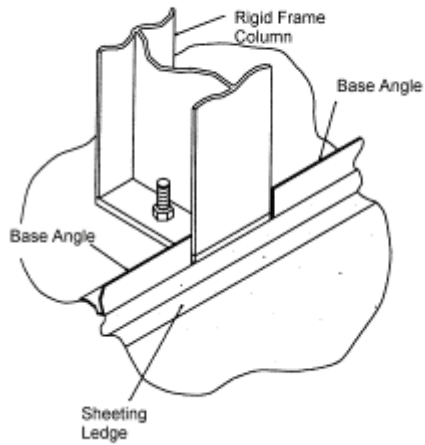


#24 Bolts: 2-1/2" x 1" A307 Bolts @ Each Eave Strut

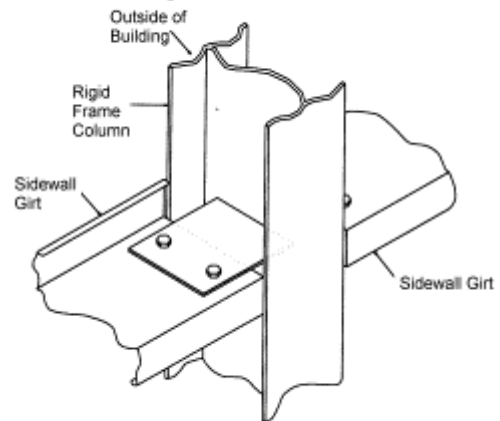


CONNECTION DETAILS

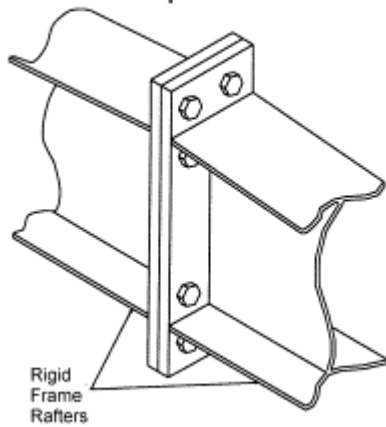
#25 Bolts: Anchor Bolts: Number & Size as specified



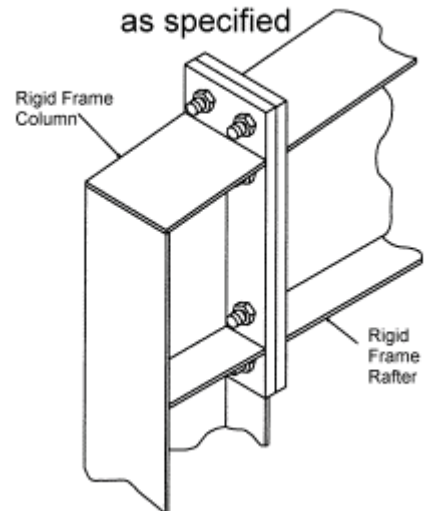
#26 Bolts: 2-1/2" x 1" A307 Bolts @ each girt



#27 Bolts: Number & Size as specified

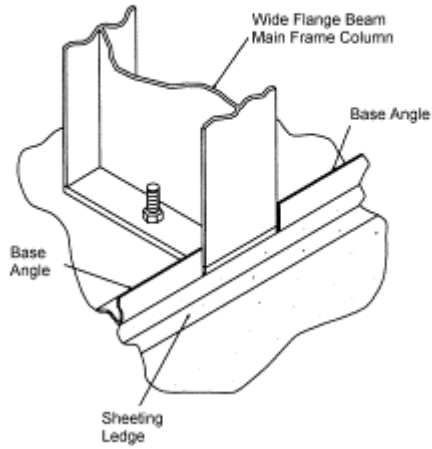


#28 Bolts: Number & Size as specified

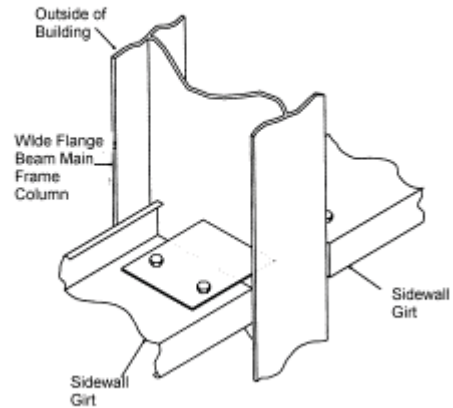


CONNECTION DETAILS

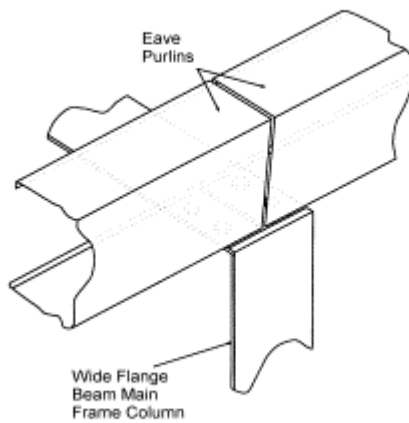
#29 Anchor Bolts: Number & Size as specified



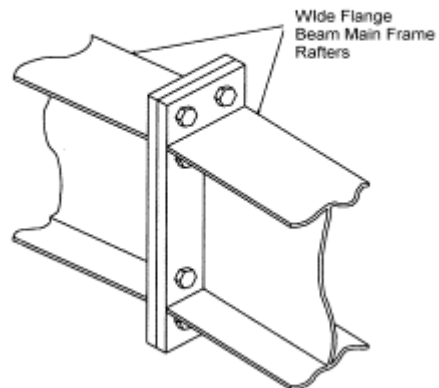
#30 Bolts: 2-1/2"x1" A307 Bolts @ each girt



#31 Bolts: 2-1/2"x1" A307 Bolts @ each Eave Purlin

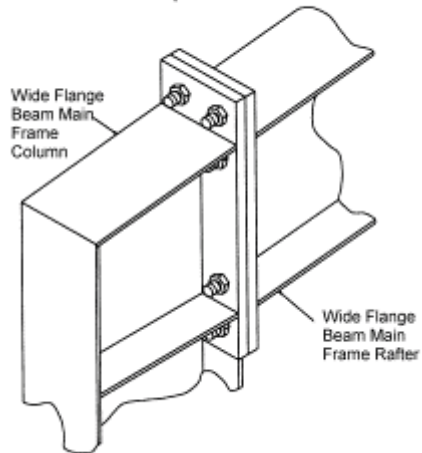


#32 Bolts: Number & Size as specified

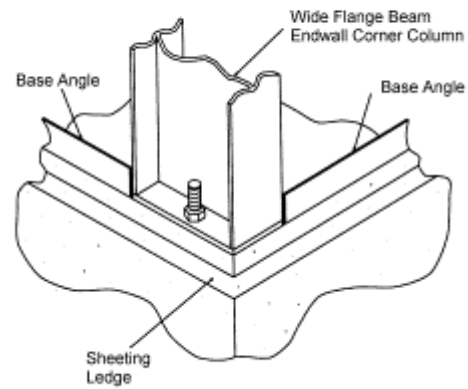


CONNECTION DETAILS

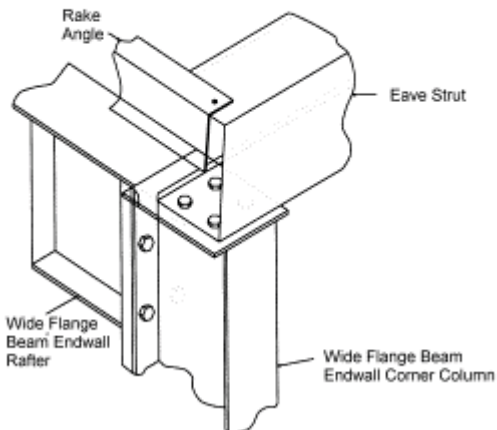
#33 Bolts: Number & Size as specified



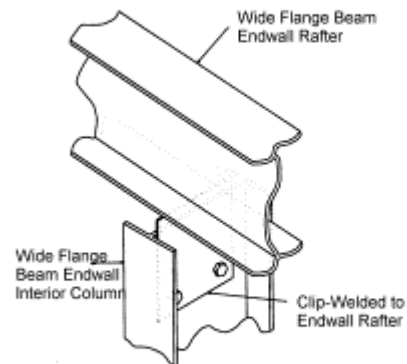
#34 Anchor Bolts: Number & Size as specified



**#35 Bolts: Column/Rafter: 4-5/8"x2" A325 Bolts
Eave Strut/Rafter: 2-1/2"x1" A307 Bolts
Rake Angle/Purlin: Self-Drill Screw**

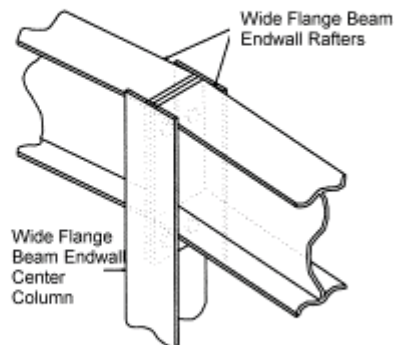


#36 Bolts: 2-5/8" x 2" A325 Bolts

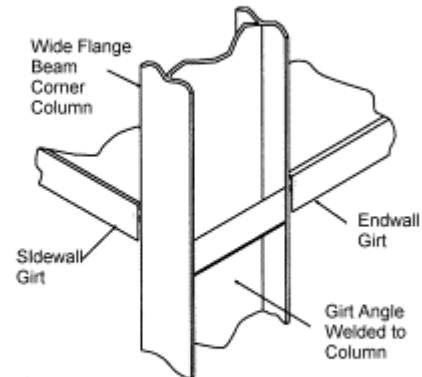


CONNECTION DETAILS

#37 Rafter/Rafter: 4-5/8"x2" A325 Bolts
Column/Rafter: 2-5/8"x2" A325 Bolts

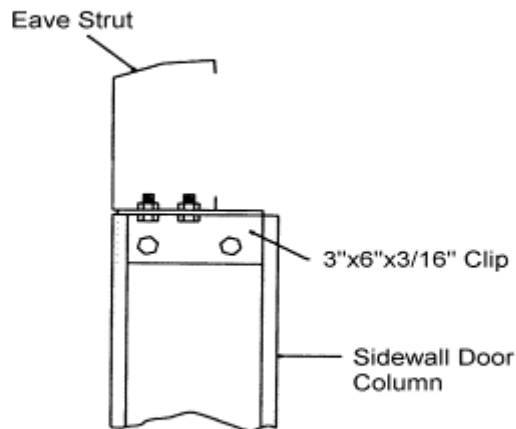


#38 Bolts: 2-1/2"x1" A307 Bolts
@ each girt



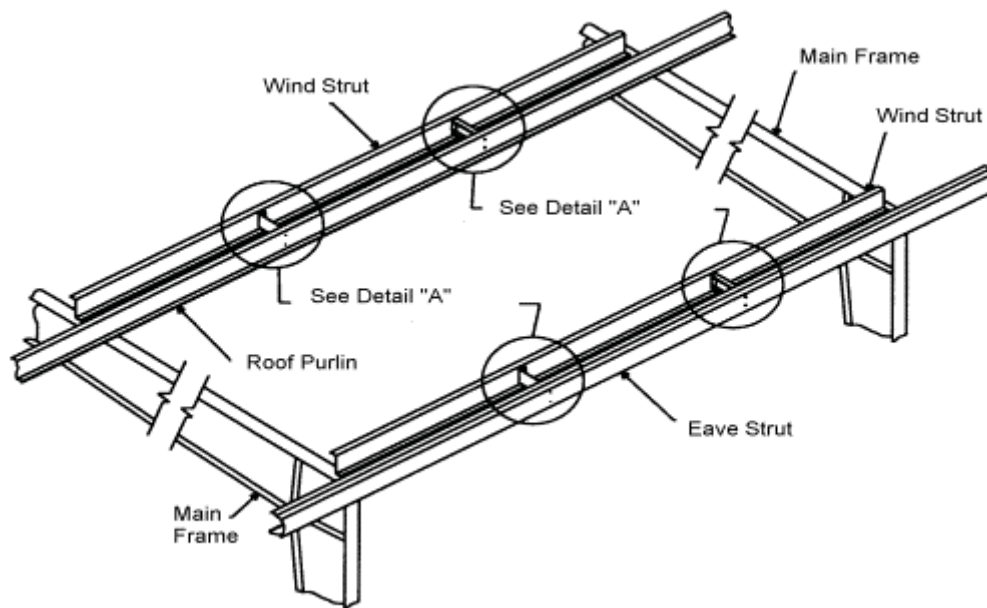
Note: Center column bolts between rafter connection plates.

#39 Bolts: 4-1/2"x1" A307 Bolts

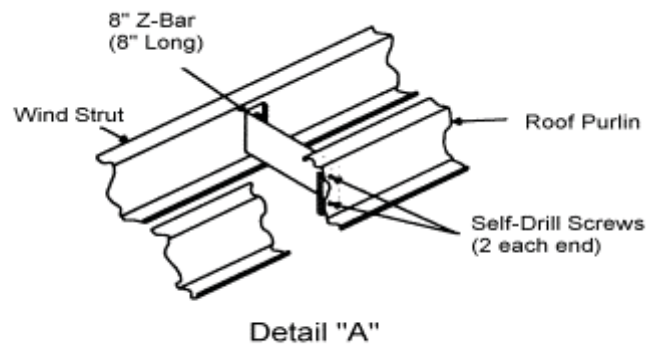


Typical Sidewall Door
Column Connection

CONNECTION DETAILS



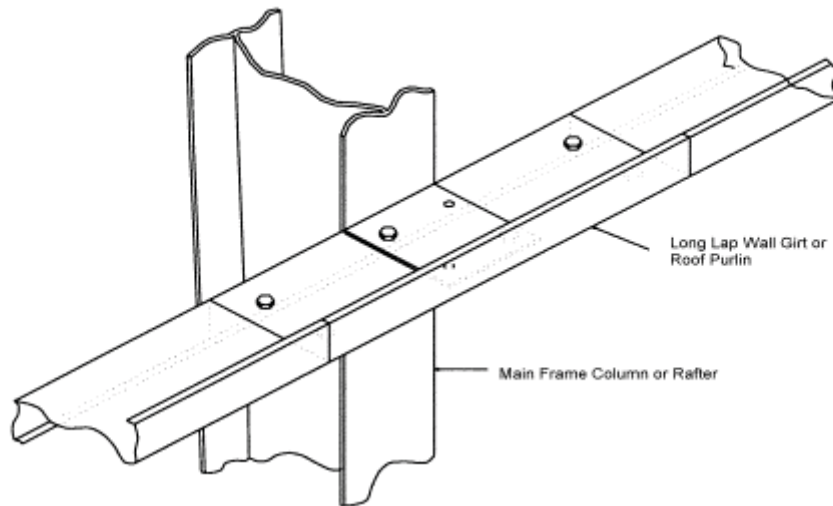
Roof Section With Struts



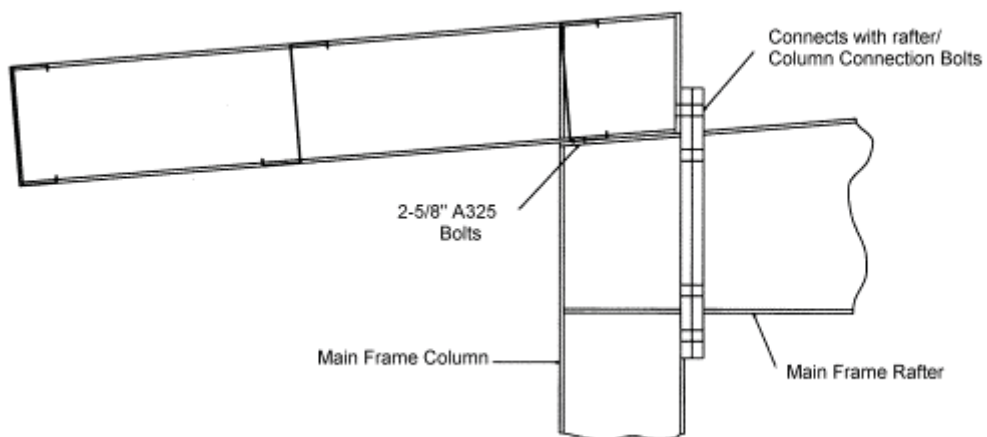
NOTE: Struts are occasionally called for by the engineer for extra bracing when the loads required cannot be adequately braced by x-bracing alone. The most common occasions are when there are several doors in the sidewalls and x-bracing cannot be used or when a heavy loading is required.

CONNECTION DETAILS

Typical Long Lap Z-Bar Connection (Bolts: 6 - 1/2" X 1" A307)



Eave Extension Connection Detail (Typical For 4' Overhangs And Less)



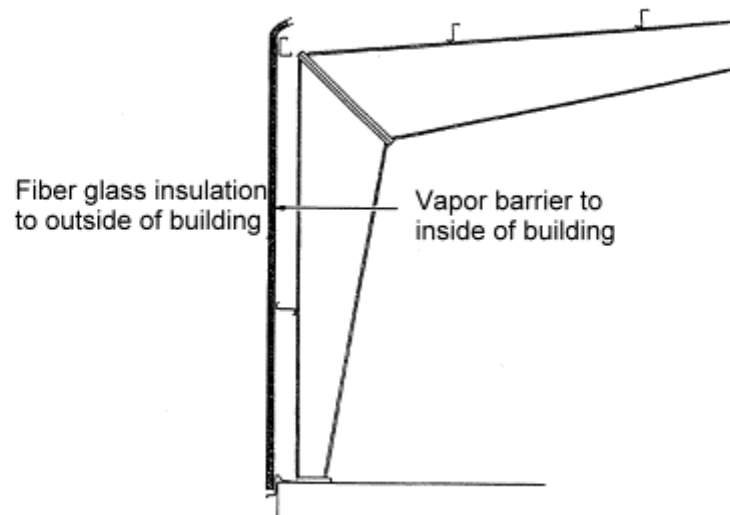
Section E

Insulation



WALL INSULATION

Fiberglass blanket insulation is the most common type used, and these instructions pertain to this type only. One side of the blanket insulation should have a vapor barrier that must face the inside of the building regardless of whether the insulation is for heating or cooling.



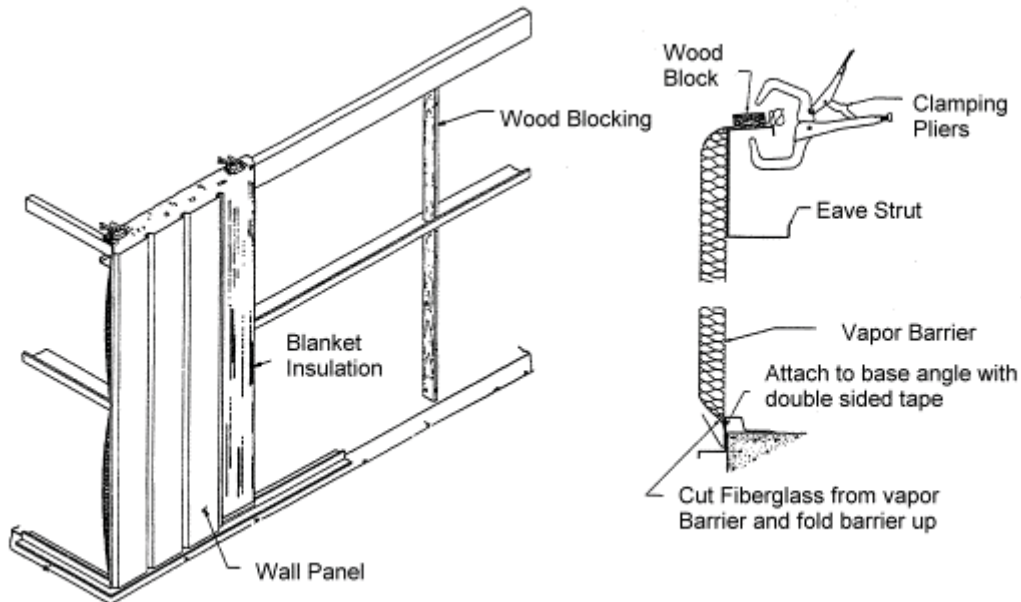
WALL INSULATION INSTALLATION

Cut the insulation to length allowing an additional 6" or more to facilitate handling. The wall panel can be used as a guide.

NOTE: The insulation must compress between the girt and the wall during installation. Insulation too thick or dense to compress adequately will induce waviness or oil canning in certain types of wall panels.

WALL INSULATION (CONTINUED)

The first run of wall insulation should be installed so that its forward edge is just ahead of the leading edge of the wall panel. This keeps the forward edge of the insulation ahead of the wall panel for joining the next blanket.

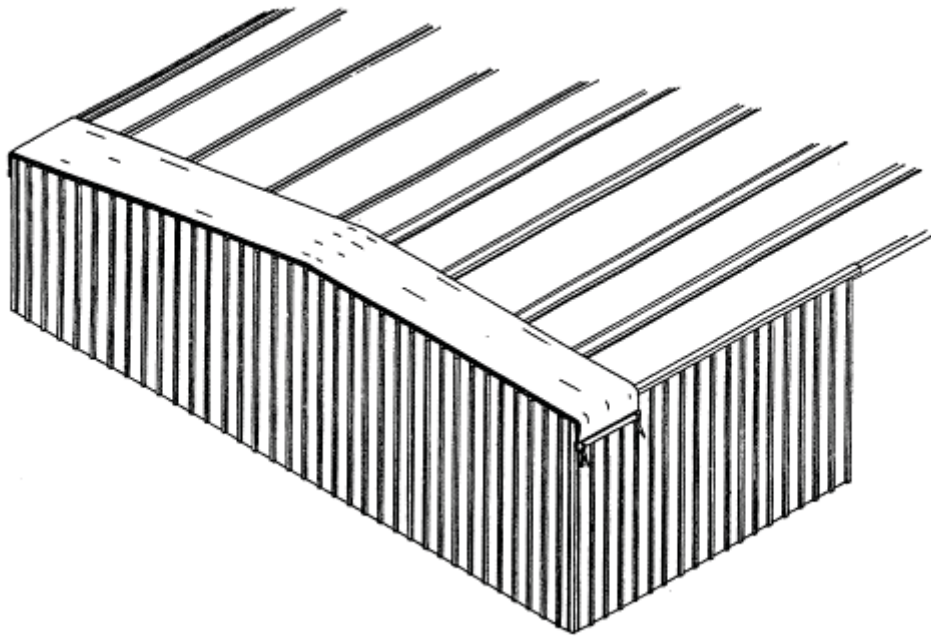


NOTE: Do not allow the insulation to wick moisture from the floor.

WARNING! Insulation has no load bearing strength. Do not lean or prop material against wall insulation. Observe all proper safety procedures when handling fiberglass insulation, such as dust masks, gloves, and long sleeved shirts, to minimize contact with the insulation

ROOF INSULATION

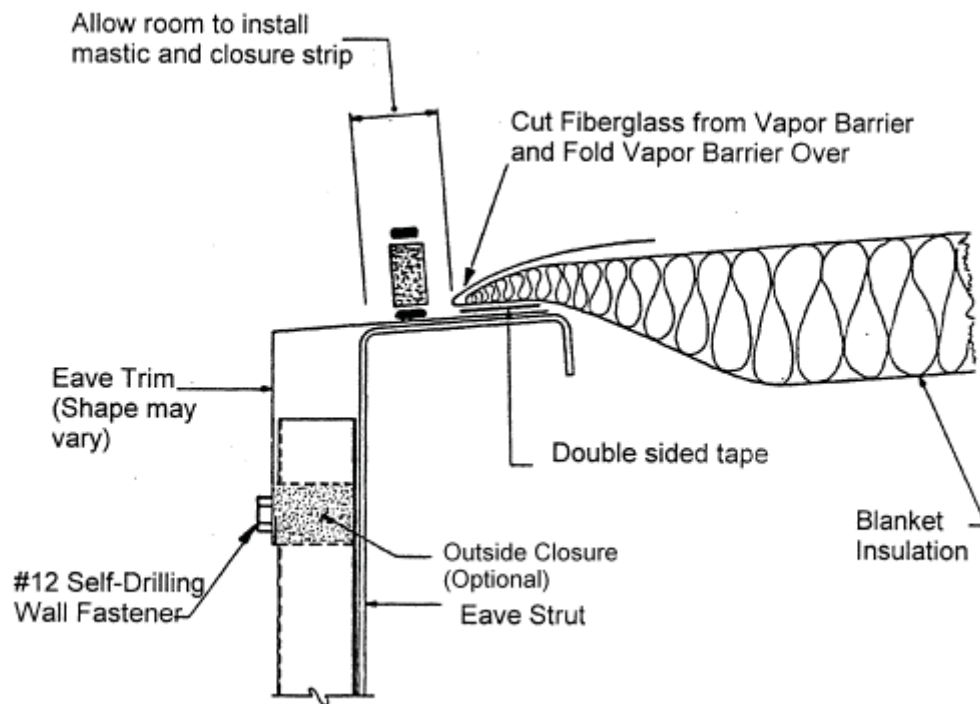
Pre cut roof insulation to reach from eave to eave allowing approximately 2 feet of additional length to facilitate handling. Hold insulation at one sidewall and roll out insulation across the purlins, vapor barrier to the inside of the building. Stretch the insulation to provide a tight and smooth inside surface.



NOTE: Insulation has no load bearing strength. Maintain body weight on approved scaffold or walk boards.

ROOF INSULATION (CONTINUED)

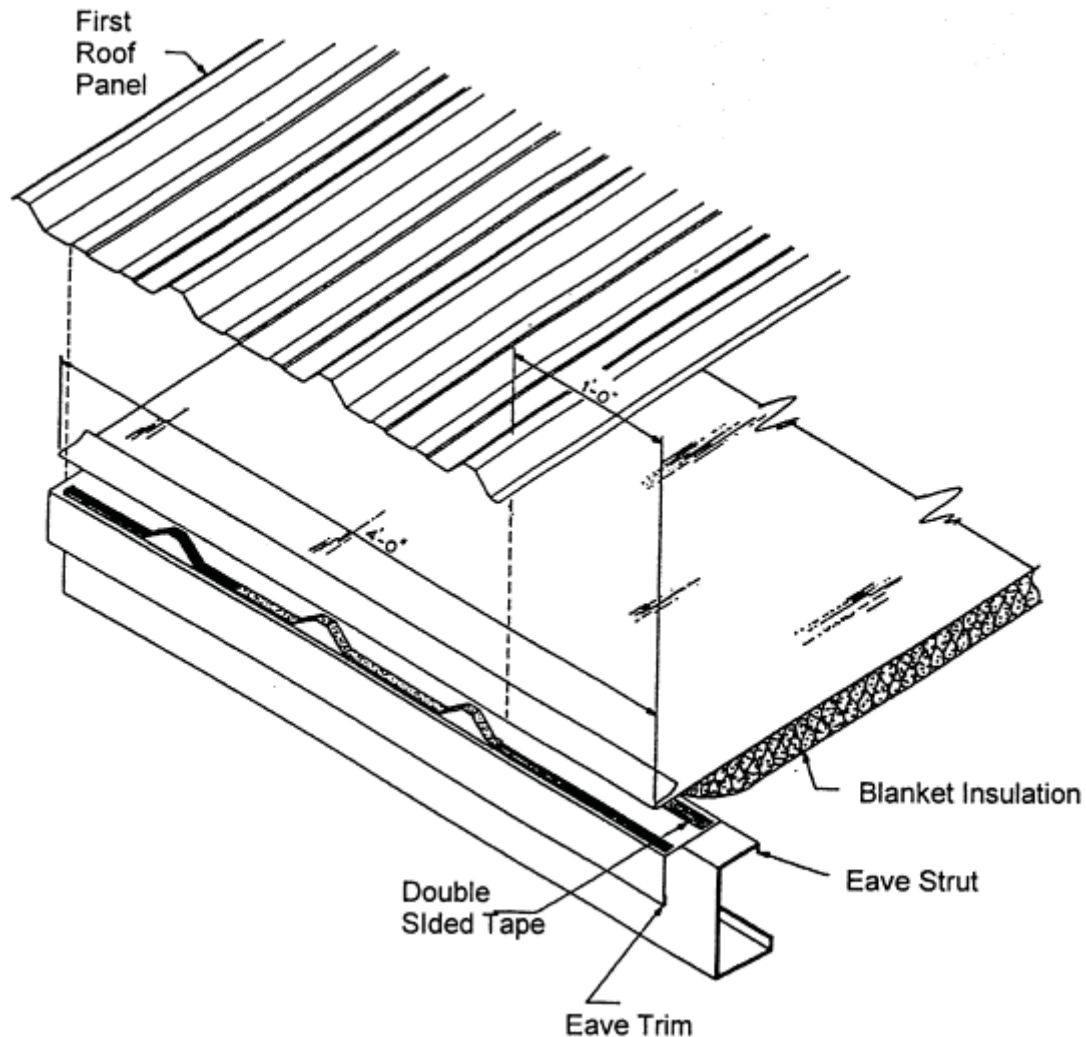
Double sided tape or contact adhesives can be used to hold insulation in place while the roof sheets are being installed. Trim excess insulation to the edge of the eave trim and cut fiberglass approximately 4 inches from end leaving only facing. Fold facing over end of blanket insulation to seal the end.



NOTE: Do not install more insulation on the roof than can be covered by roof panels before the work period ends. Do not allow the insulation to become wet.

ROOF INSULATION (CONTINUED)

Seal insulation sidelap joints by lapping 6" tab side. As on the walls, the general sequence is to install the roof sheets in conjunction with the insulation.



NOTE: The insulation sidelap must be lapped to prevent condensation and minimize temperature loss at laps.

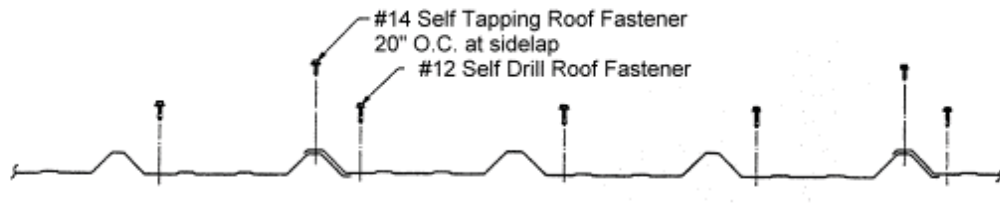
WARNING! Wipe oil and other slippery substances from roof panels. Do not step on rib of panel, near a crease in the panel, near a side edge or within five feet of the end of unsecured panel. Insulation has no load bearing strength. Maintain body weight on scaffold or walk boards.

Section F

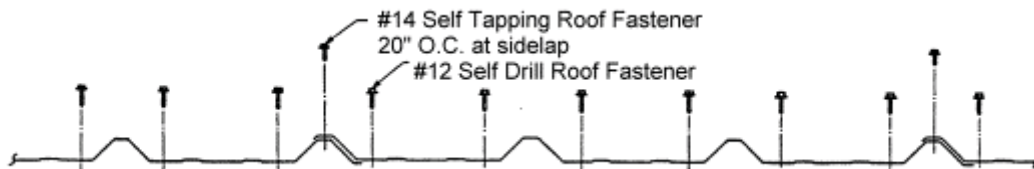
Sheeting



FASTENER LAYOUT

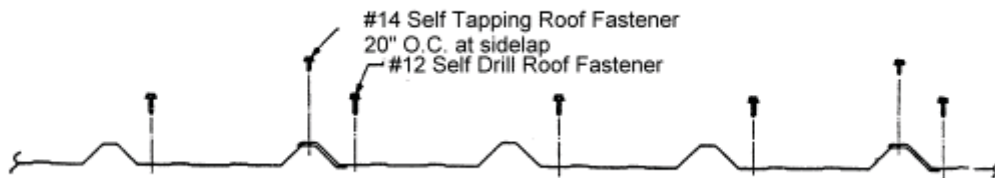


"R" and "PBR" Roof Panel Fastener Spacing
Intermediate Purlins



"R" and "PBR" Roof Panel Fastener Spacing Eave Strut, Wall and Roof Panel
End Laps, Ridge Purlin

Note! UL 90 Uplift Rated Roofs Require Fasteners At Each Side of High Ribs At
All Purlin On Certain "UL" Construction Systems And Eave Strut Locations
(Consult Your Specific Requirements Prior To Installation)

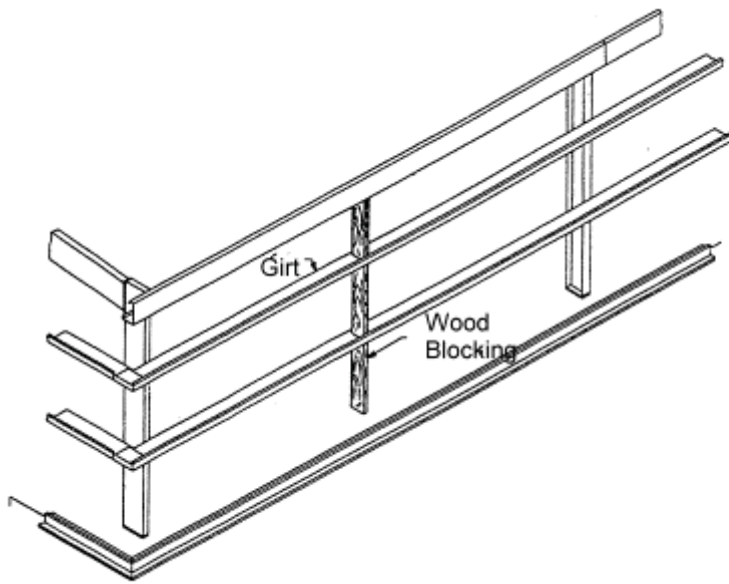


"R" and "PBR" Wall Panel Fastener Spacing
Base Angle, Intermediate Girts, Eave Strut

WARNING! Do not overdrive fasteners!!!

ALIGNING THE GIRTS

Installation of the building walls is generally done before the roof. Before starting the wall installation, check to be sure that the eave strut and girts are straight and plumb. One method of aligning the girts is to cut temporary wood blocking to the proper length and install between the lines of girts. This blocking can be moved from bay to bay, which will reduce the number of pieces required. Normally, one line of blocking per bay will be sufficient. Banding can also be used to hold the girts straight and plumb.

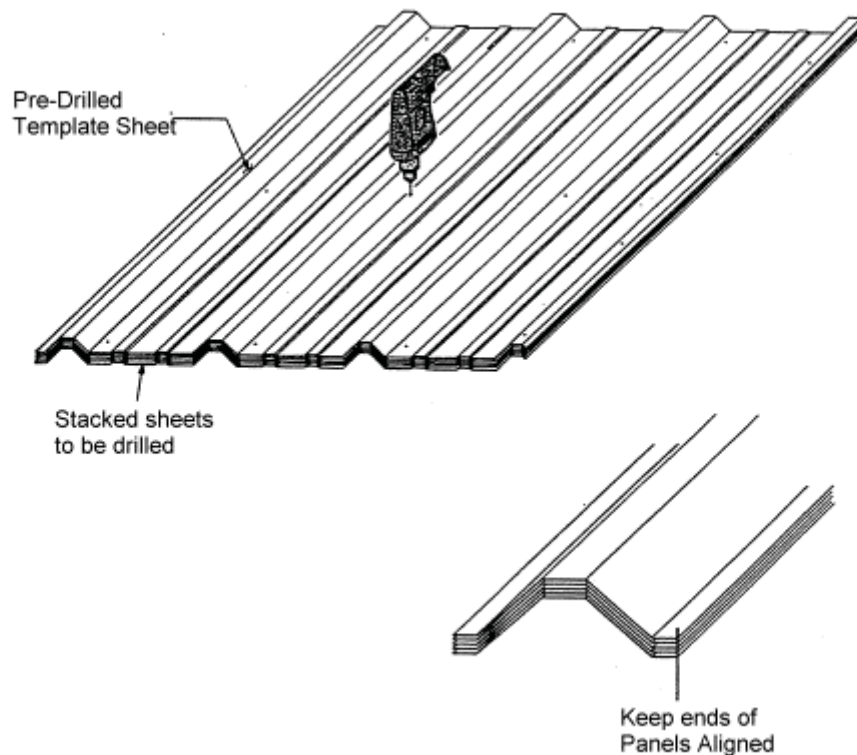


Typical construction of the wood blocking is show below. A 2 x 4 minimum board size should be used. Refer to the cross section framing drawing that accompanied the building to determine the girt spacing.



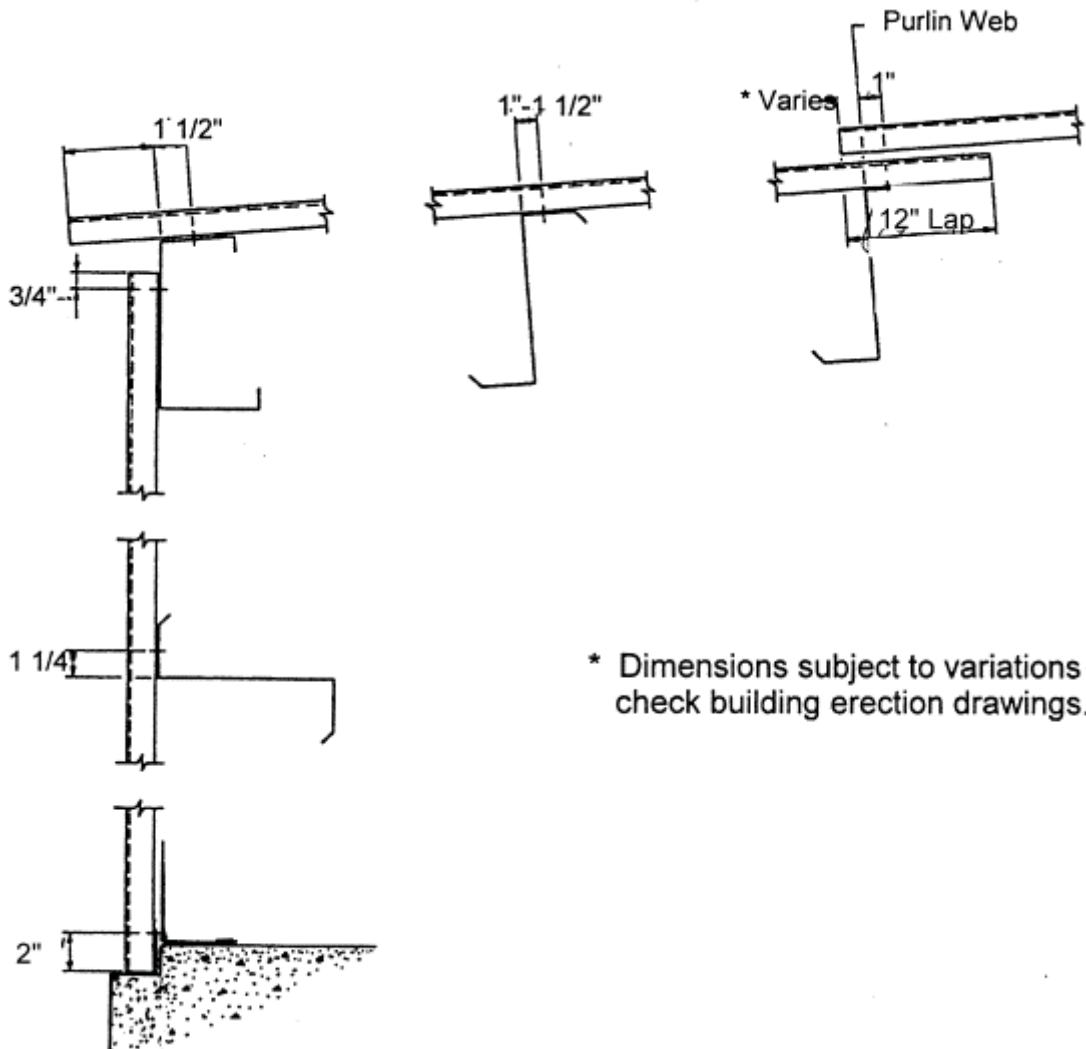
SCREW ALIGNMENT

Good alignment of the screws, especially on the wall panels, will give a professional appearance to the wall panel installation. One way this can be accomplished is by pre-drilling holes in the panels at identical locations. Up to 15 panels can be stacked together and drilled using a template panel. Use 1/8" or 5/32" diameter drill bit for panel to structural fasteners and a 1/4" diameter bit for the sidelap clearance holes. It is important to clean metal filings off panel surfaces after drilling to avoid rust stains.



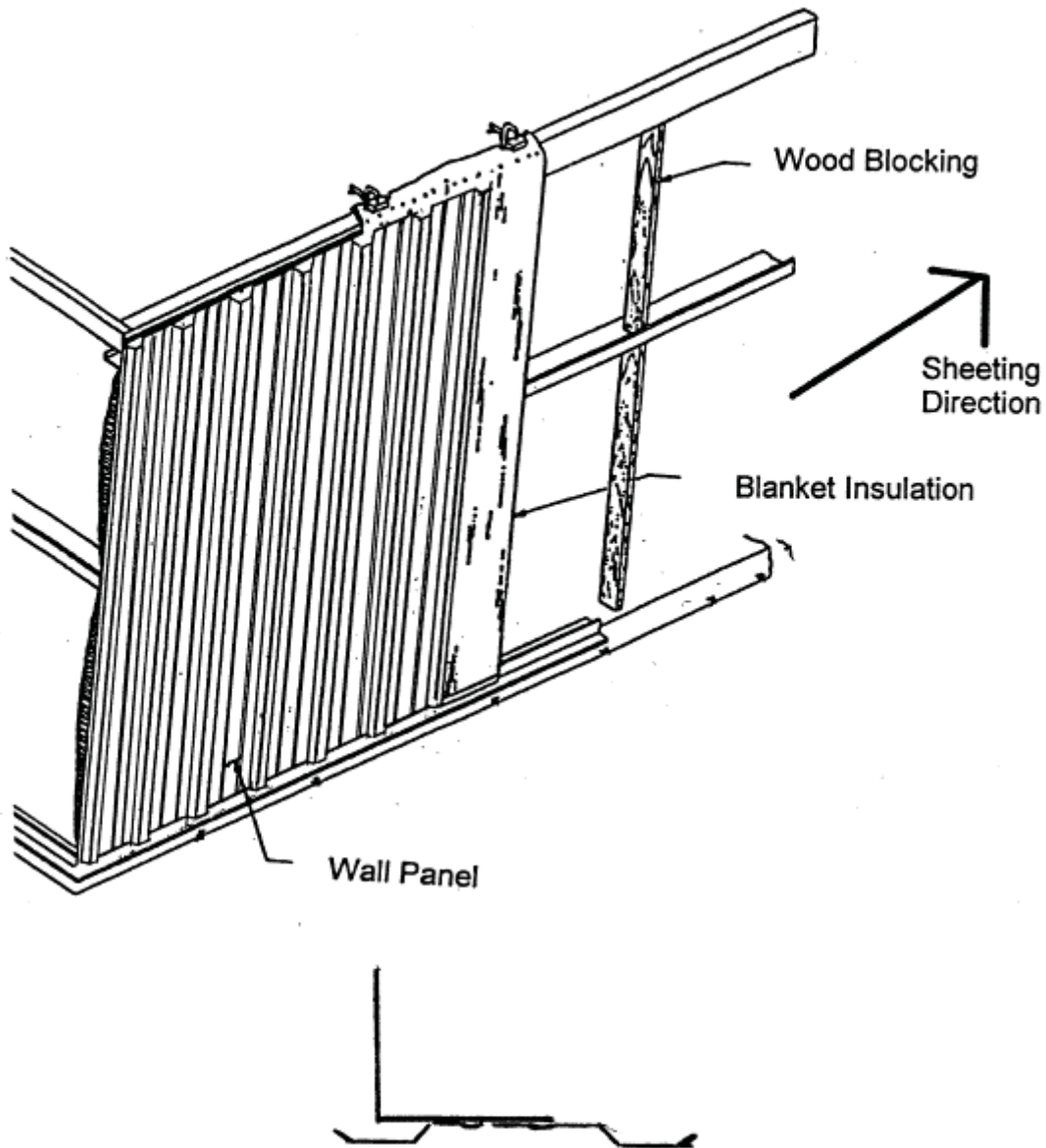
SCREW ALIGNMENT (CONTINUED)

The template panel should be laid out for the proper screw locations in accordance with the building erection drawings. Since pre-drilling will “hand” the panels, it will also be necessary to select the end of the building from which the paneling is to begin. Before drilling the template panel, it should be checked for proper hole locations against the building framework. Be sure there is no excessive deflection in the purlins and girts.



INSTALLATION OF WALL PANELS

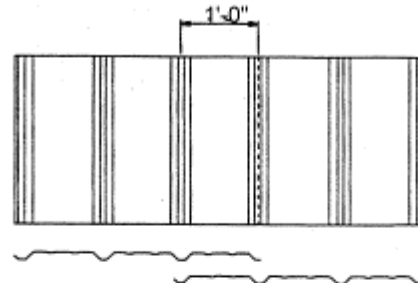
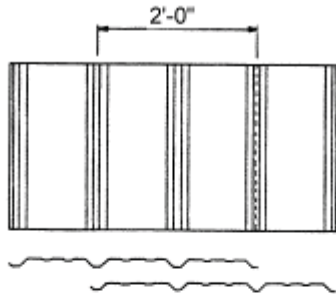
Adjoining panels are installed with the overlapping rib toward the last erected panel. Position panel to structural making sure that it is kept plumb and install fasteners at lapped rib. Check for proper coverage and correct as necessary. Install remaining fasteners.



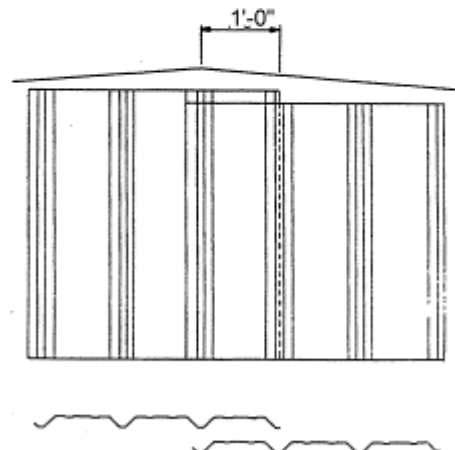
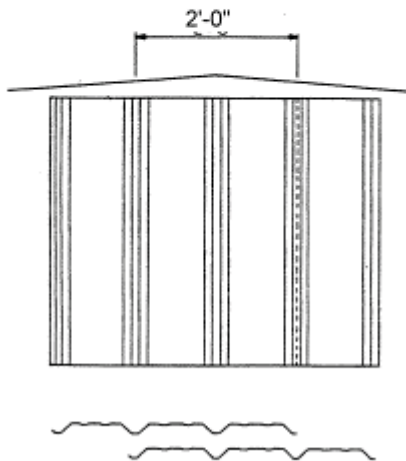
NOTE: Start first panel with major rib centered with endwall frame.

INSTALLATION OF WALL PANELS (CONTINUED)

Back lapping the panels 1 foot or 2 foot is routinely done to match panel coverage with the building width and length. On the sidewall this is done with the last panel installed. On the endwall this is normally done near the center and will be marked on the erection drawings.

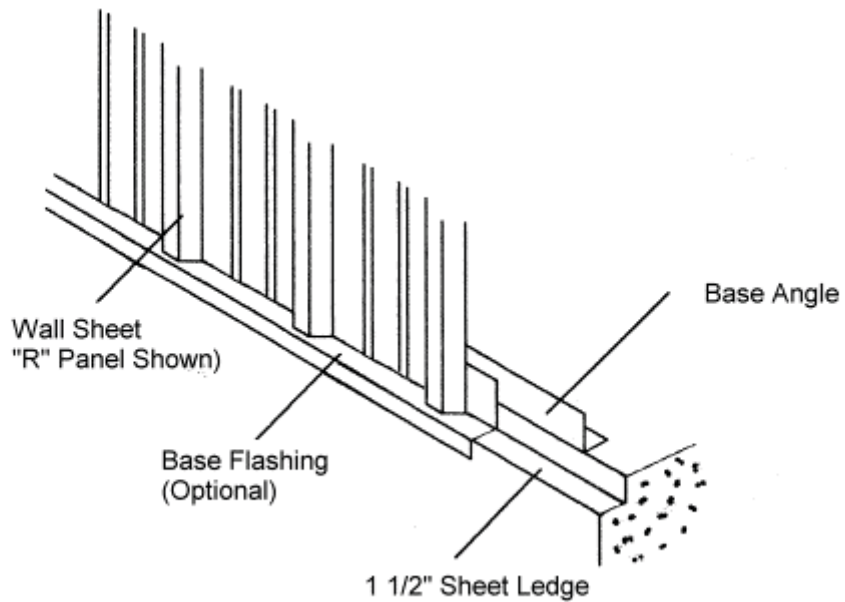


Sidewall



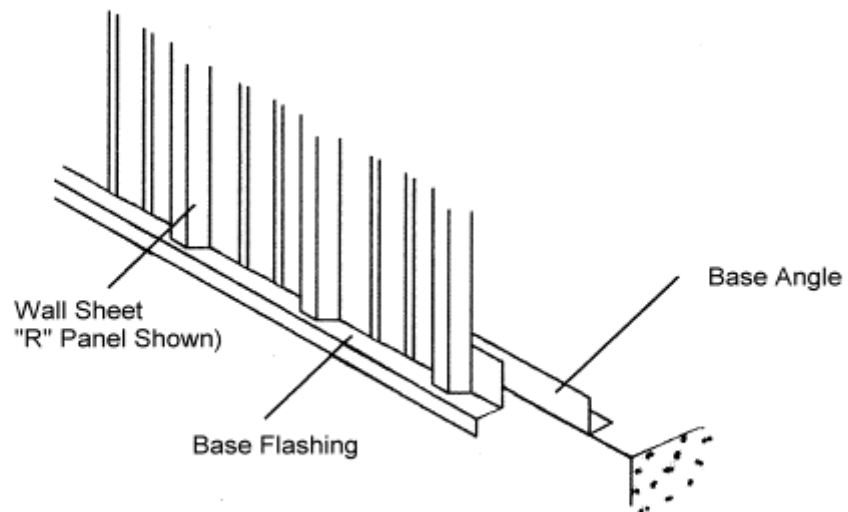
Endwall

STANDARD SHEET LEDGE



*Note: Sheets must be at least two inches off the ground, or rust may occur.

OPTIONAL SHEET LEDGE WITH EXISTING SLAB

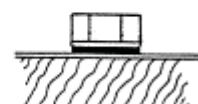
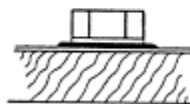
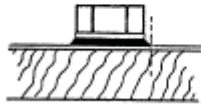


*Note: Sheets must be at least two inches off the ground, or rust may occur.

FASTENER INSTALLATION

Correct fastener installation is one of the most critical steps when installing roof 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 and RPM of 1700-2500 should be used for self-drilling screws. Discard worn sockets, these can cause the fastener to wobble during installation.



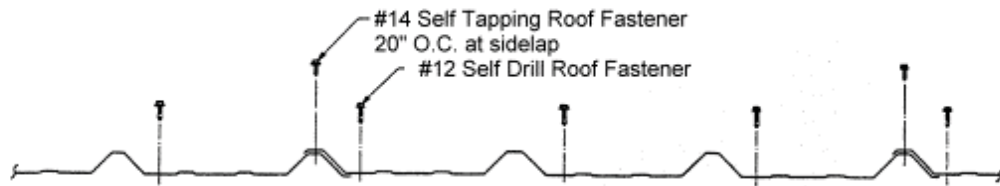
Correct degree of tightness Note slight circle of sealant	Too tight! Sealant squeezed too thin. Extrudes far beyond fastener head	Too loose! Sealant is not compressed to form seal
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NOTE: Always remove metal filings from surface of panels at the end of each work period. Rusting filings can destroy the paint finish and void any warranty.

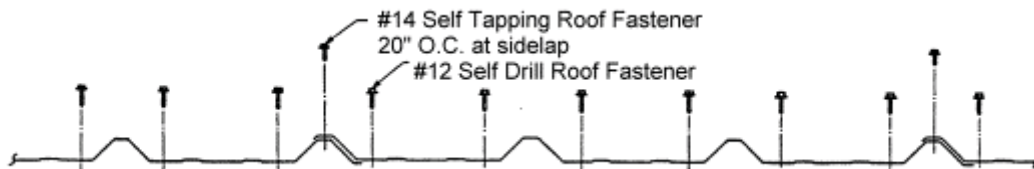
MASTIC SEALANT

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

FASTENER LAYOUT

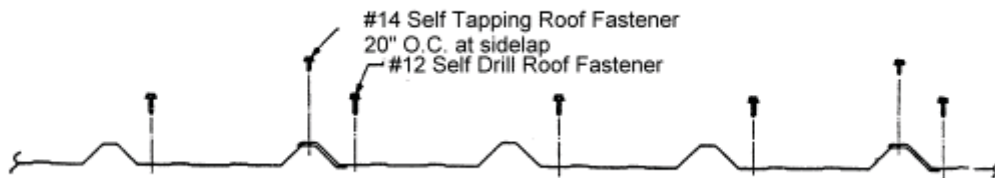


"R" and "PBR" Roof Panel Fastener Spacing
Intermediate Purlins



"R" and "PBR" Roof Panel Fastener Spacing Eave Strut, Wall and Roof Panel
End Laps, Ridge Purlin

Note! UL 90 Uplift Rated Roofs Require Fasteners At Each Side of High Ribs At
All Purlin On Certain "UL" Construction Systems And Eave Strut Locations
(Consult Your Specific Requirements Prior To Installation)



"R" and "PBR" Wall Panel Fastener Spacing
Base Angle, Intermediate Girts, Eave Strut

WARNING! Do not overdrive fasteners!!!

SAFETY NOTE! CAUTION!!! PANELS MAY BE SLICK

Because of the demands of the manufacturing process, oil has been applied to the coil stock to protect the coil, as well as the finished panel during manufacturing, shipping and storage! Metal panels must be wiped clean prior to panel installation.

NOTE: Always wear rubber sole work boots! When on the roof, use OSHA approved protection devices such as safety lines, safety nets or catch platforms.



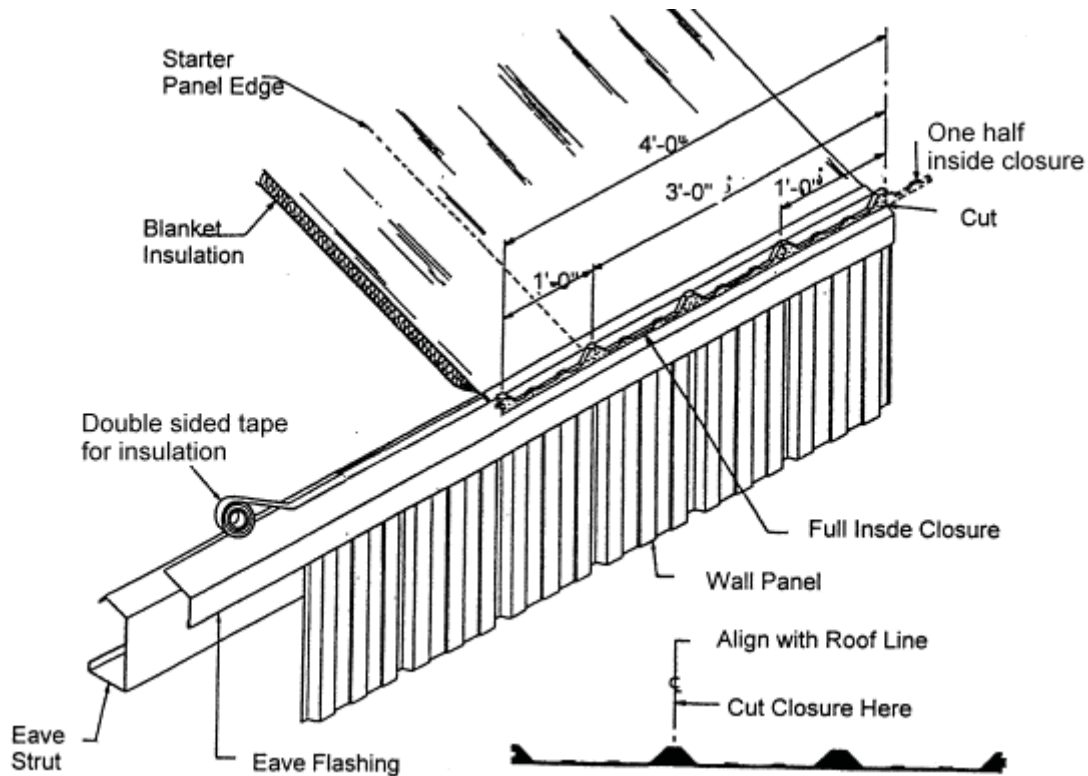
UNSECURED PANELS MAY SLIP IF STEPPED ON!

Never step on a single unsecured roof panel, or a stack of roof panels laying unattached on the purlins.

Secure each end of the panel with clamps or appropriate fasteners and place walk boards of adequate size and strength in the flat of any panels not fully secured to the purlins and supported by panels on each side. Walk boards should run the full length of the panel and be fastened together by drilling a hole near the end of each board and tied with rope to the next board. Cut a groove in the bottom of each board so the board will lie flat and not tip back and forth because of the rope.

PREPARING THE EAVE

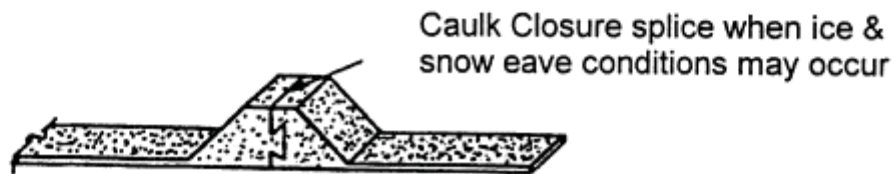
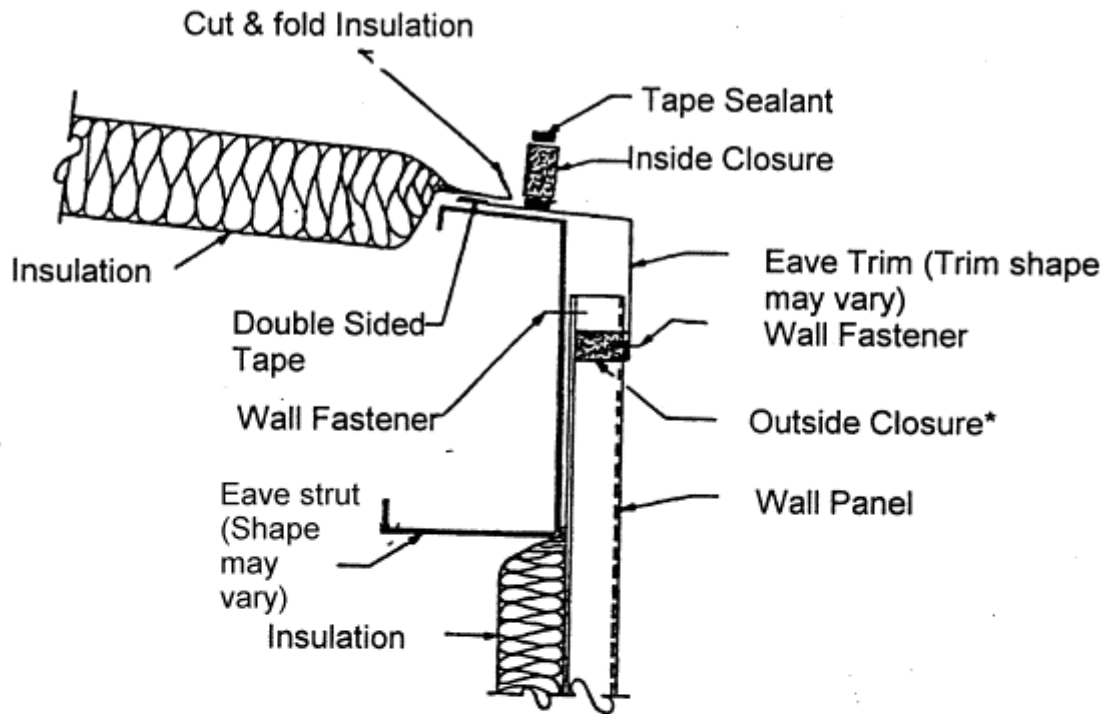
After installing the first run of insulation, prepare the eave for the first roof panel by applying tape sealant along the eave outside of the insulation and leaving release paper in place. Sealant must be applied in a straight line and without voids. Do not stretch the sealant. Use a knife to cut if necessary. Cut an inside closure strip as shown and place starter piece on top of the sealant (removing protective paper from the sealant only as required). Center the first major rib with edge of the endwall frame. Splice a full closure to the starting closure and apply along the top of the eave sealant. If roof is subject to ice and snow build-up, the splice in the closure strip must be caulked to insure weathertightness.



NOTE: Insulation has no load bearing strength. Maintain body weight on approved scaffolding or walk boards.

PREPARING THE EAVE (CONTINUED)

Along the top of the closures that have been placed along the eave, apply a second run of tap mastic. Prior to removing paper backing, check and mark for proper alignment of the first roof panel. Continue mastic and closure run along eave in preparation for the next roof panel.



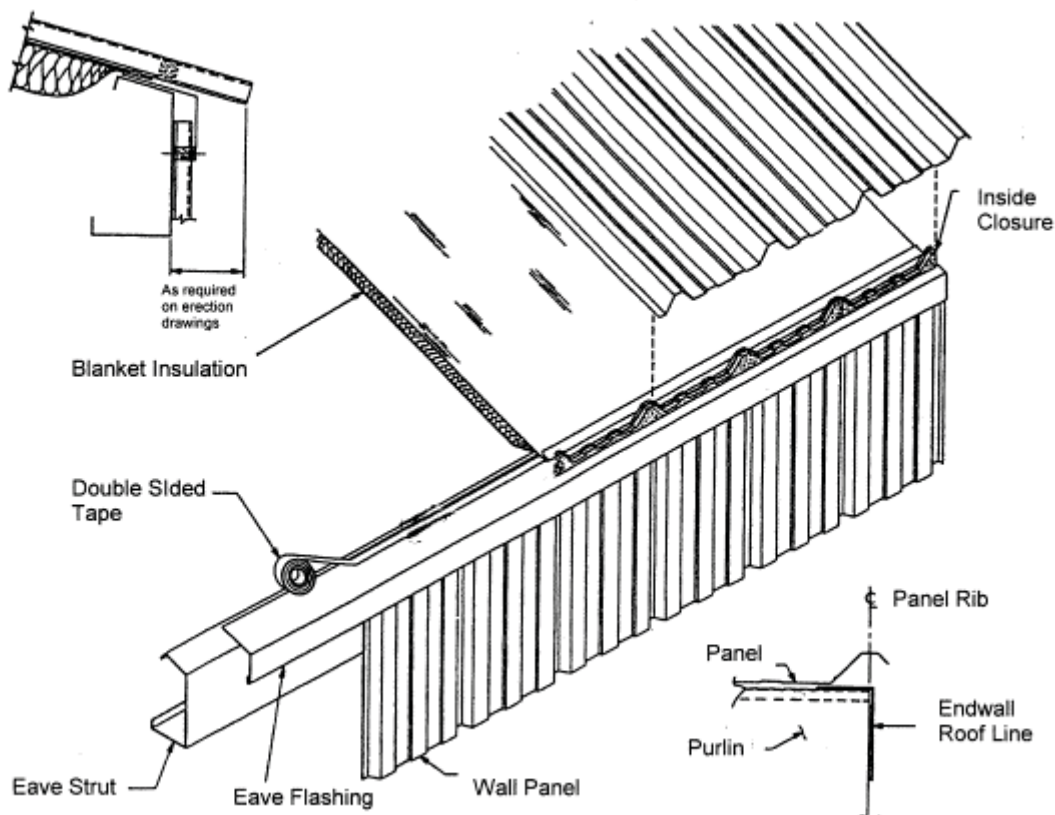
* Outside closure is optional

INSTALLATION OF FIRST ROOF PANEL

Once the eave is prepared, the first roof panel may be installed. Check the erection drawings to determine the roof overhang at the eave. Set the roof panel in place over the inside closure (after removing the paper from the mastic) insuring the major ribs of the panel nest properly with the inside closure. Align the center of the major rib of the panel edge with the edge of the endwall roofline. With the panel properly placed, secure the panel to the structure with appropriate fasteners. If the building requires more than one panel per run, do not install fasteners at the purlin located at the upslope end of the panel. These fasteners will be installed after the overlapped panel is installed.

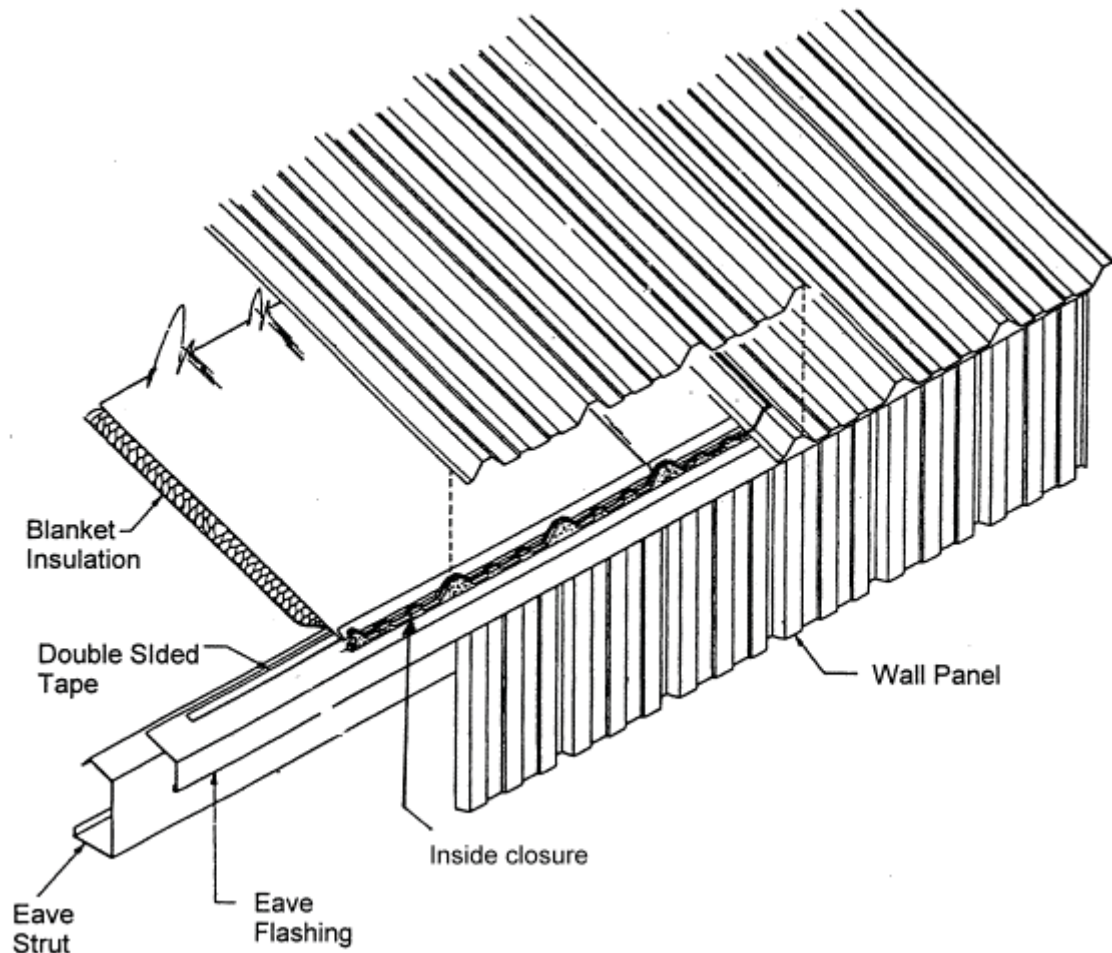
NOTE: For a professional finish, roof panel ribs should be in line with wall panel ribs.

WARNING! Do not walk on unsecured panels. Wipe oil and other slippery substances from roof panels. **SAFETY FIRST!**



INSTALLATION OF ROOF PANELS

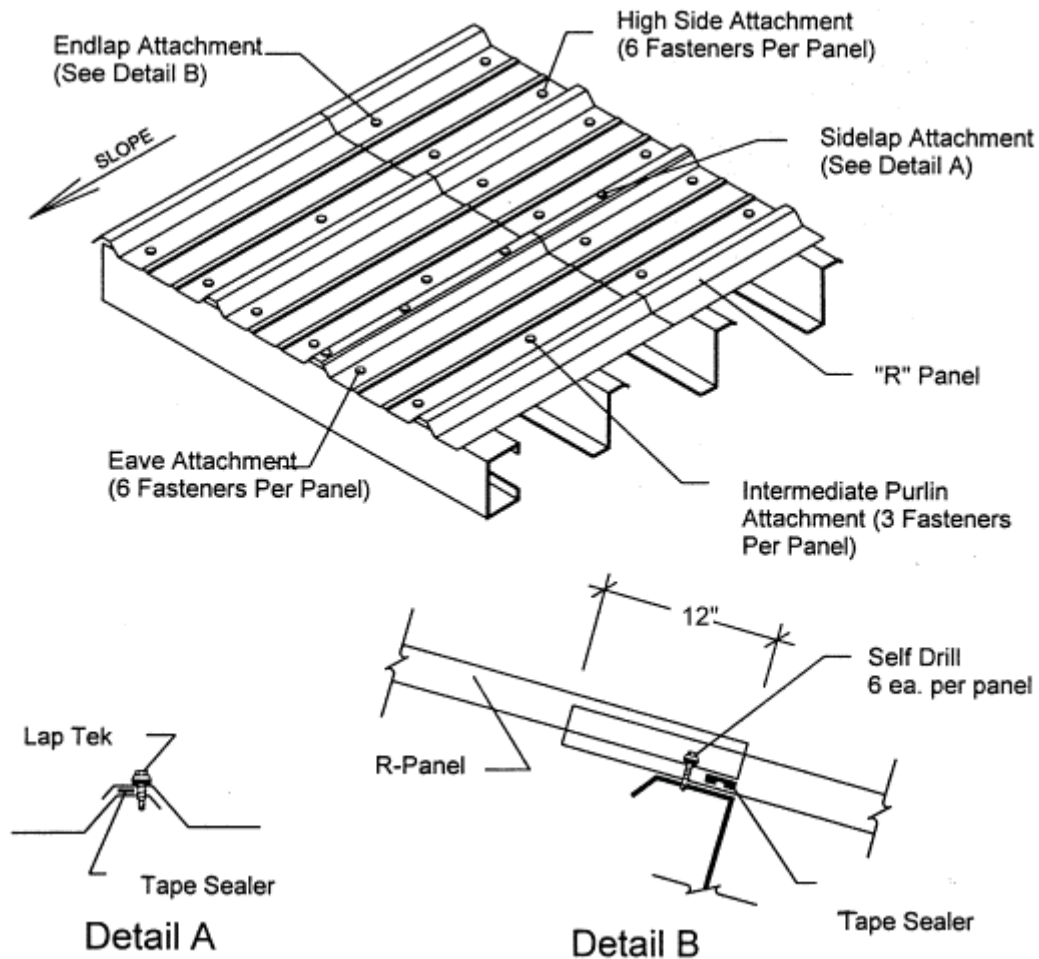
With the first panel run installed and secured, and sidelap sealant applied, the second panel run may be started. Prepare the eave with an inside closure and tape sealant as shown previously. Position the panel so that the overlapping ribs will nest properly. Be sure to check for proper overhang and panel coverage. Stitch the major ribs of the two panels together, and fasten panel to the purlins.



NOTE: If peaks sheets are being used at the ridge, it is critical that the ribs on the roof panels from both sides align.

WARNING! Sweep up all drill shavings from panels at end of each work period to avoid surface rust and damage to panel finish.

"R" PANEL



Sidelap

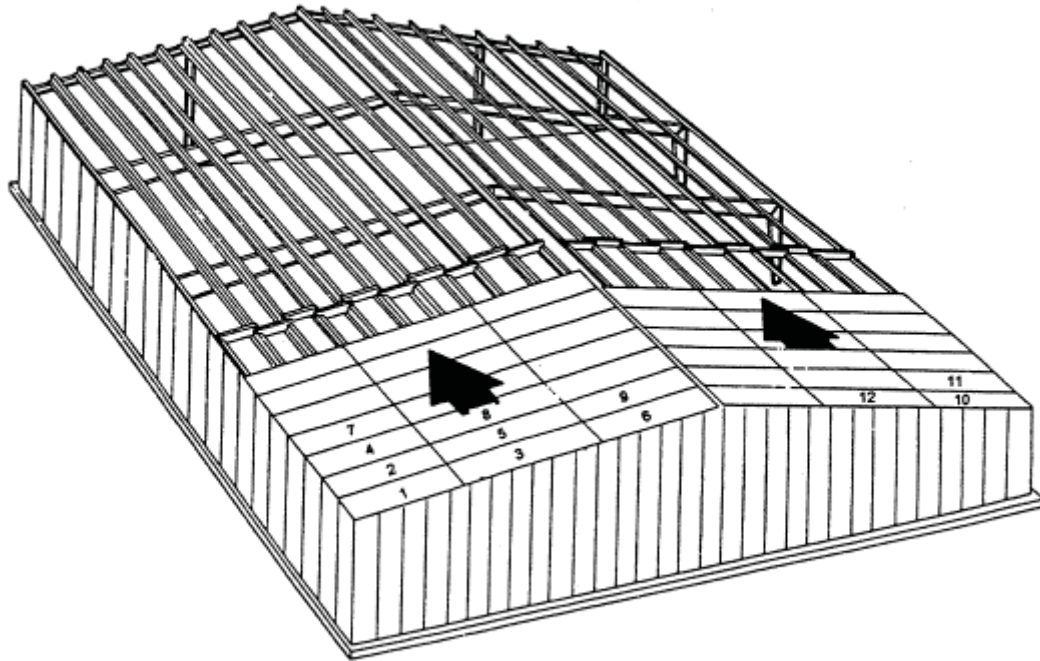
1. Tape Sealer must be installed between weather infiltration point and fastener.
2. Install Lap Tek fasteners at 20" on center.
3. When possible, install panels such that sidelaps are nested away from prevailing winds.
4. Lap Zacs are available as an alternative when long life fasteners are desired.

Endlap

1. Double bead tape sealer must be installed between weather infiltration point and fastener.
2. Install self-drilling fasteners on each side of major ribs of panel (two fasteners per foot.)
3. Zac self-drilling are available as an alternative when long life fasteners are desired.

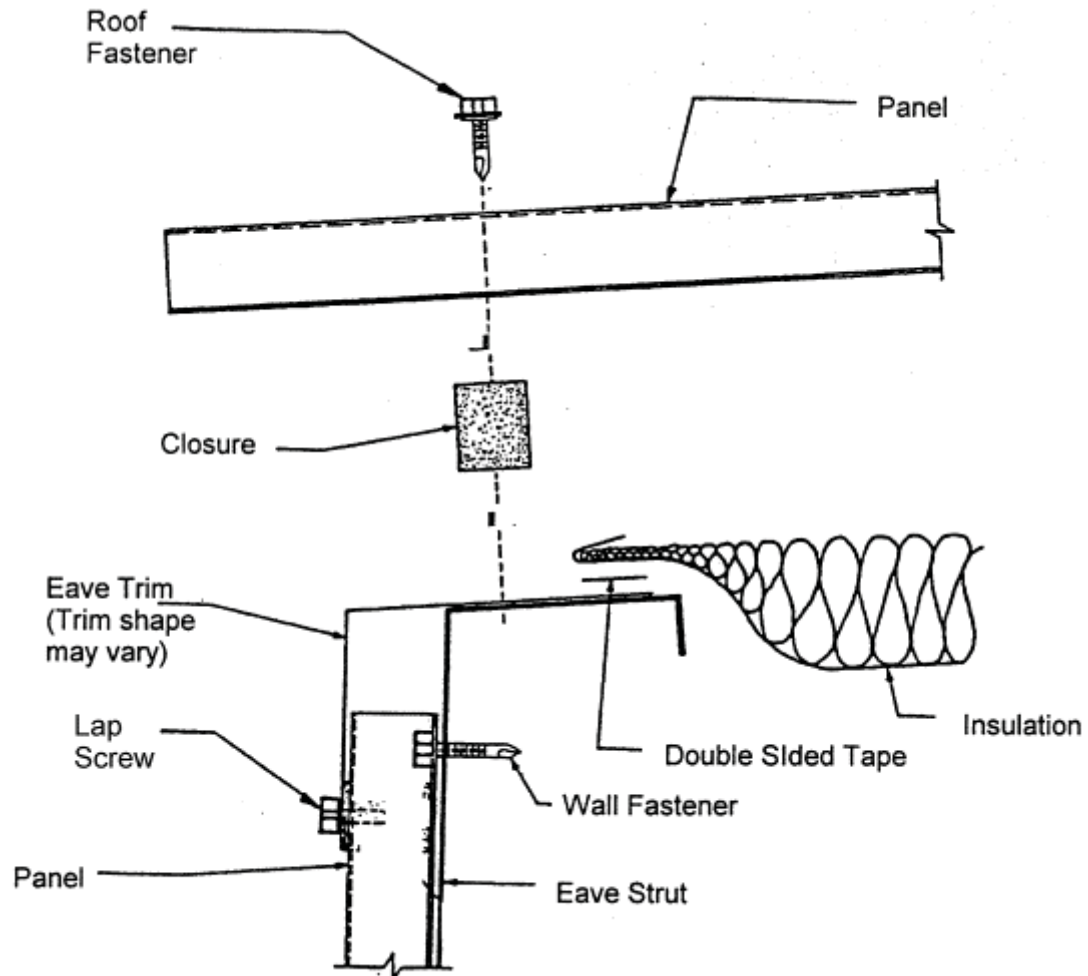
ROOF SHEETING SEQUENCE

It is recommended that both sides of the ridge of a building be sheeted simultaneously. This will keep the insulation covered for the maximum amount of time and the panel ribs can be kept in proper alignment for the ridge panel. Check for proper coverage as the sheeting progresses. **Note panel-sheeting sequence below.**



NOTE: If oil or other slippery substances are present on the roof panels, wipe them clean immediately to prevent slipping or falling. Workers should maintain a constant awareness of their location relative to the roof edge.

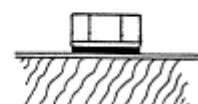
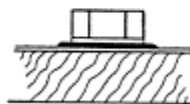
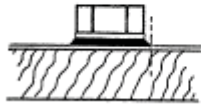
SECTION AT EAVE



FASTENER INSTALLATION

Correct fastener installation is one of the most critical steps when installing roof 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 and RPM of 1700-2500 should be used for self-drilling screws. Discard worn sockets, these can cause the fastener to wobble during installation.



Correct degree of tightness Note slight circle of sealant	Too tight! Sealant squeezed too thin. Extrudes far beyond fastener head	Too loose! Sealant is not compressed to form seal
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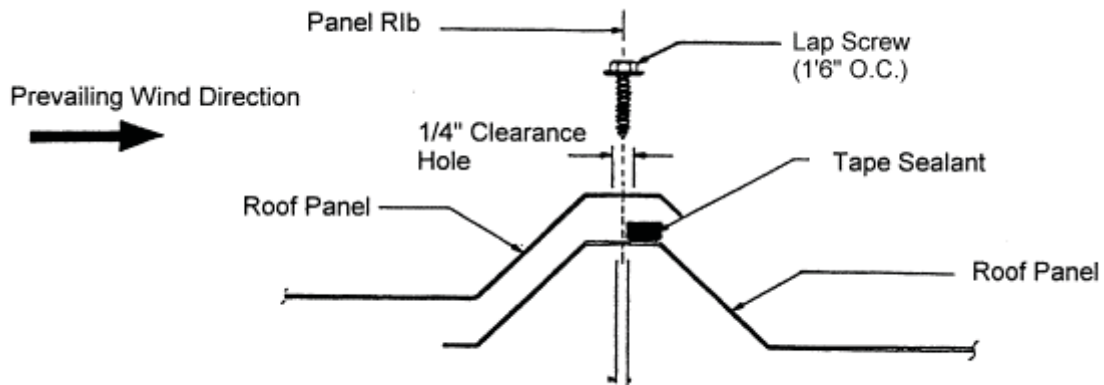
NOTE: Always remove metal filings from surface of panels at the end of each work period. Rusting filings can destroy the paint finish and void any warranty.

MASTIC SEALANT

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

SEALING THE SIDELAP

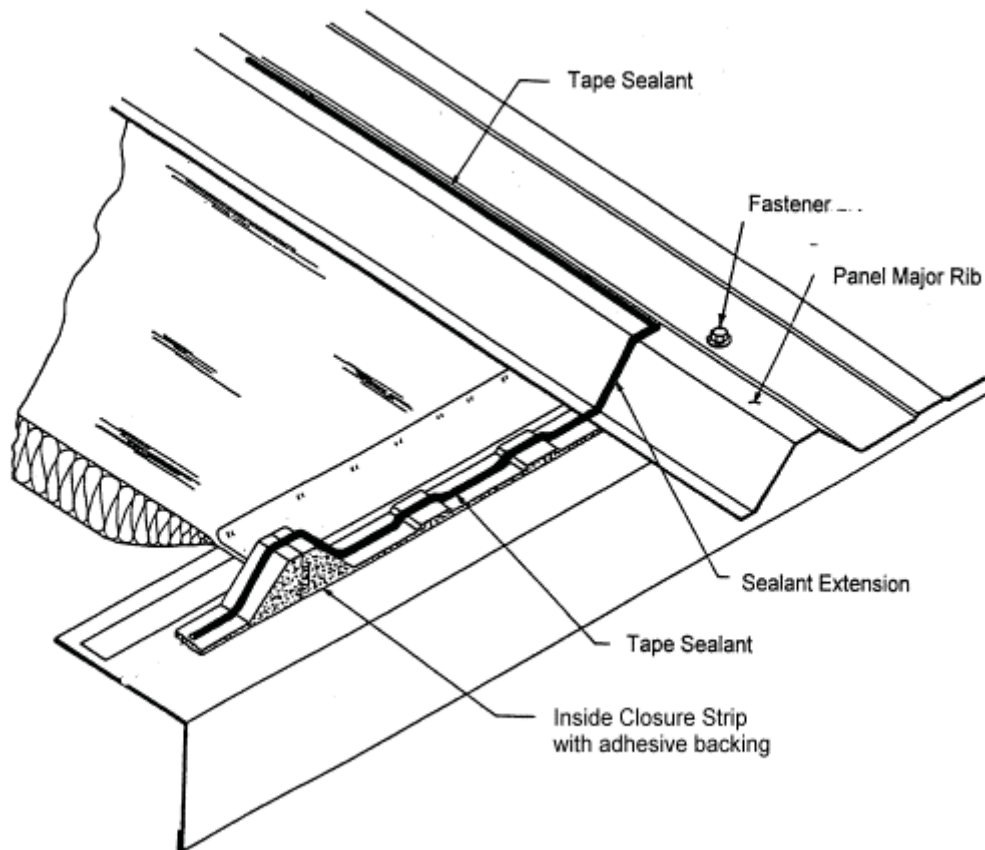
Apply the sidelap tape sealant to the weather side edge of the lower panel's major rib as shown. The tape sealant should only be applied to clean, dry surfaces. With the release paper in place, press firmly along the length of the sealant to insure proper adhesion. In removing the protective paper from the tape sealant, care should be taken not to pull the tape sealant away from the panel. Install the adjoining panel positioning the overlapping rib with care.



NOTE: Sweep up all drill shavings from panels at end of each work period to minimize surface rust and damage to panel finish.

SEALING THE EAVE

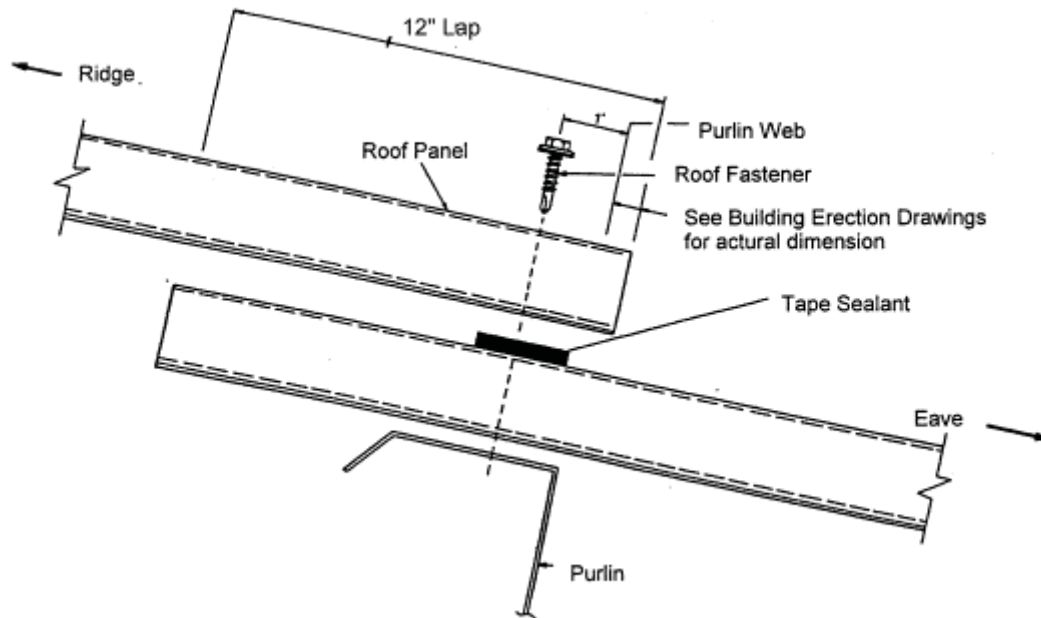
Tape sealant location at the eave is critical. To insure a weather tight seal, the sidelap sealant must extend down from the top of the rib to the sealant on the eave closure. The sealant extension must splice into the eave mastic.



NOTE: Workers should maintain a constant awareness of their location in relation to the roof edge at all times.

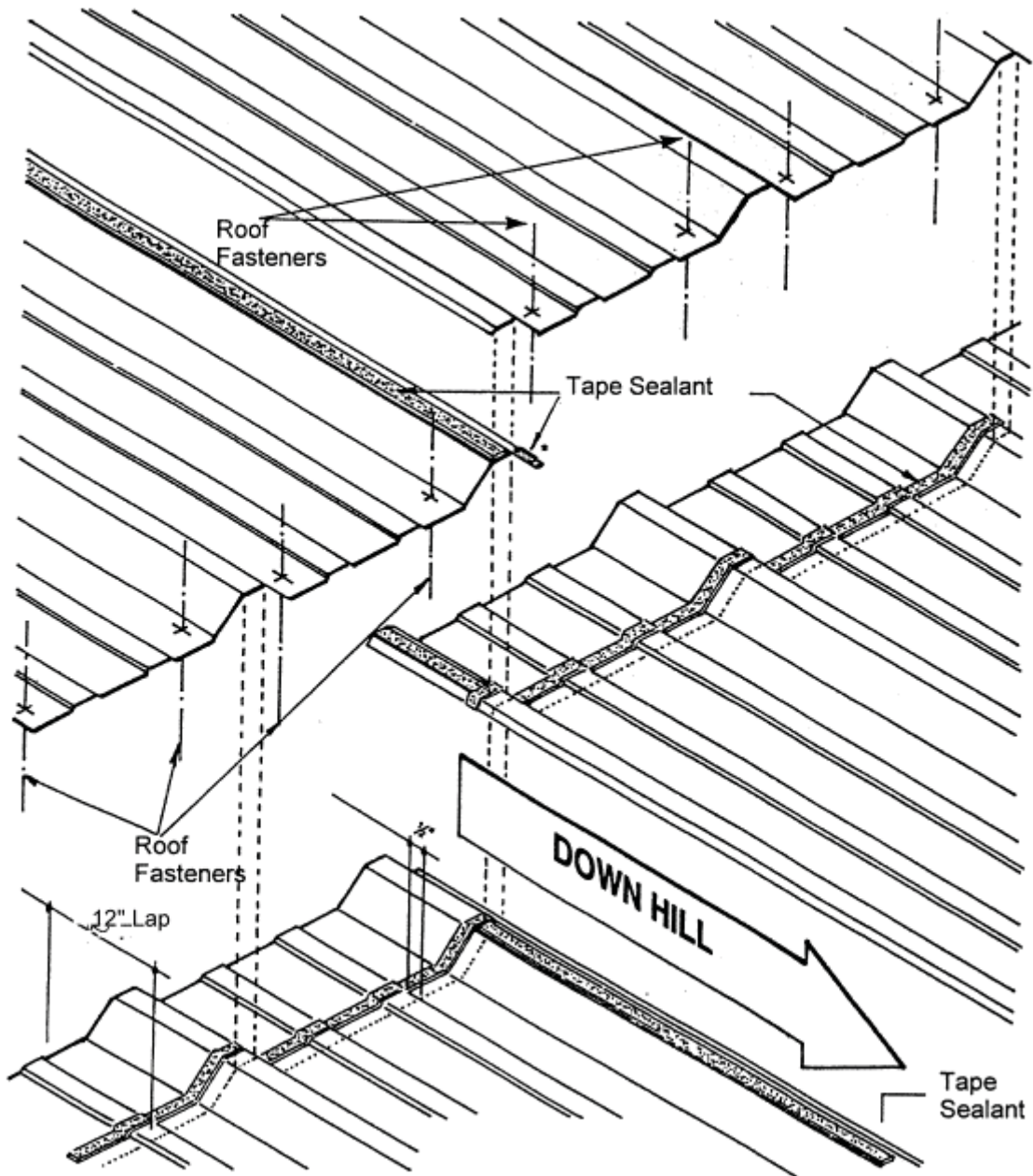
SEALING THE ENDLAPS

At the panel endlaps place a run of tape sealant across the full panel width $\frac{1}{2}$ " below the fastener line. The panel endlaps have a 6" minimum overlap located over a purlin as shown. Locate the fasteners 1" above the purlin web according to the fastener layout.



NOTE: Do not step on panel endlaps until fully secure with fasteners.

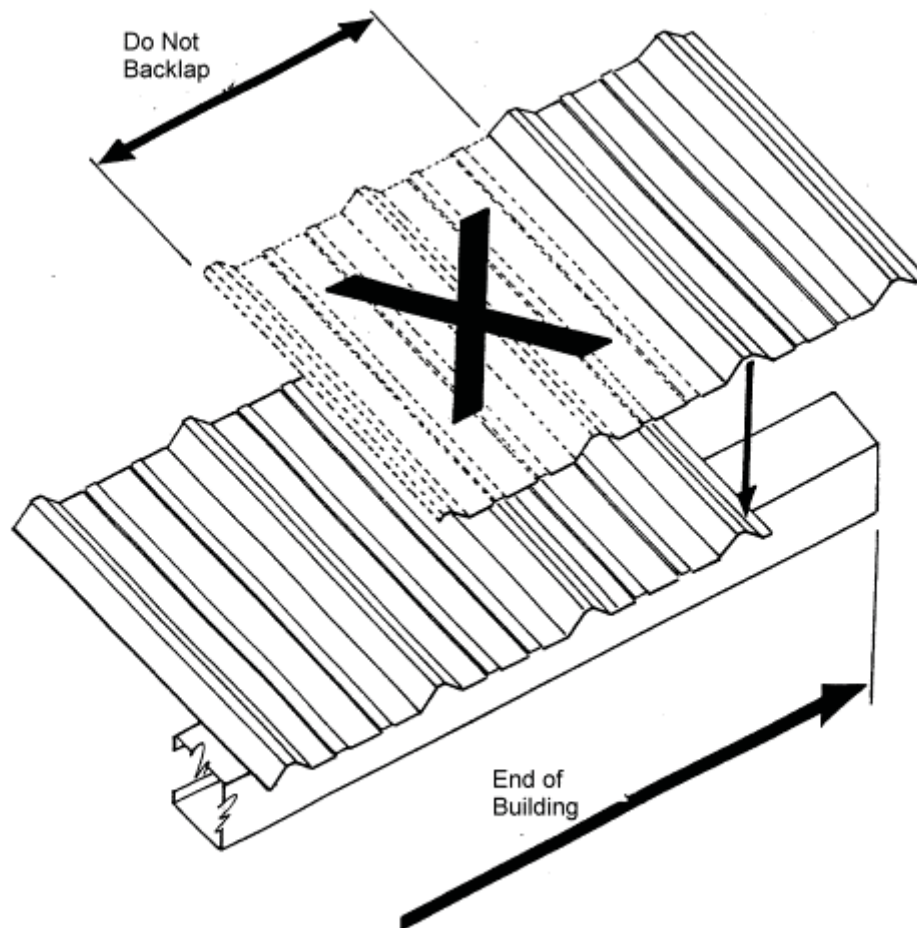
PANEL ENDLAPS



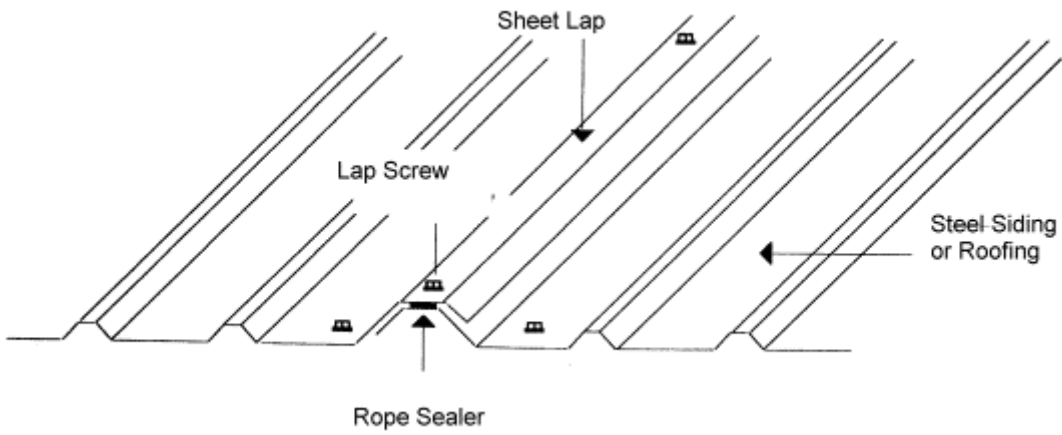
Apply tape sealant to far side of major rib to complete seal at panel lap.

INSTALLATION OF FINAL PANEL

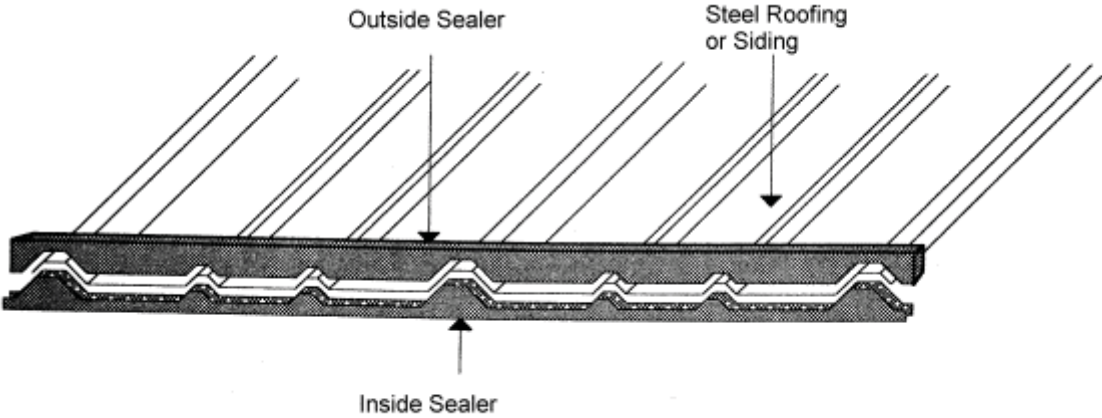
While backlapping the last roof panel (to match panel coverage with the building length) is routinely done, this installation method can compromise the integrity of the roof by trapping moisture between the panels. This moisture could, in time, create an environment conducive to rust and metal failure. Manufacturer recommends field cutting the final panel lengthwise to create the desired panel width necessary to finish off the building. The cut edge of the panel should always be installed on the outside edge, not the lap edge. The “narrow” panel should be handled with care, and foot traffic avoided until the final panel is completely installed.



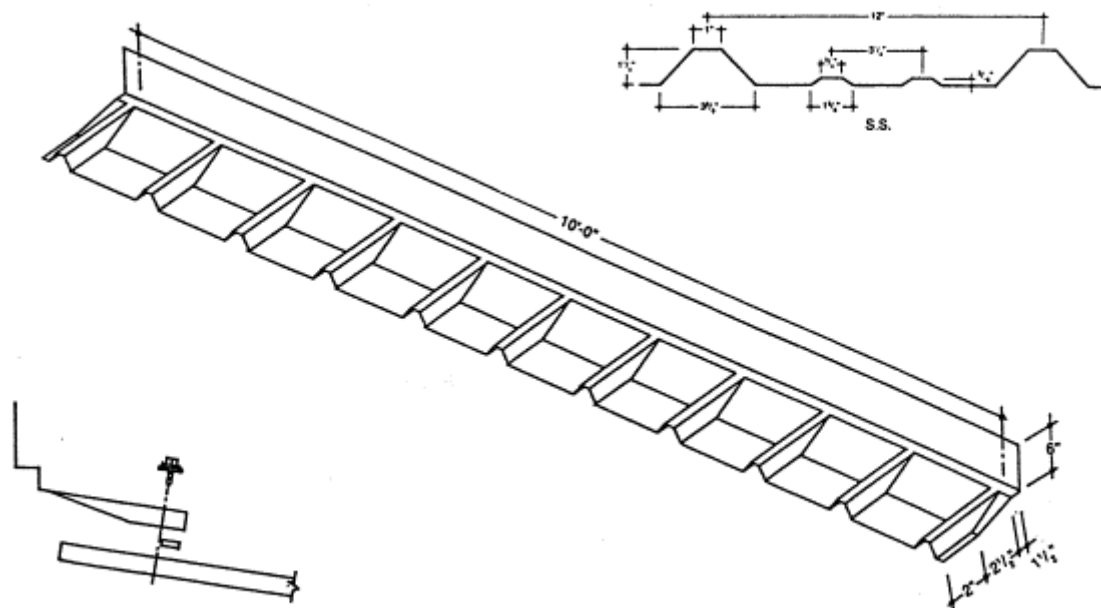
ROPE SEALER PLACEMENT



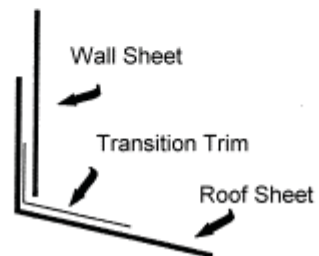
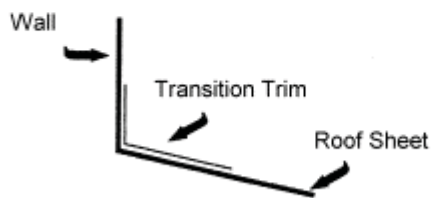
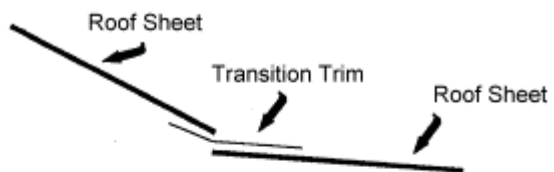
INSIDE & OUTSIDE SEALER PLACEMENT



DIE FORMED TRANSITION TRIM

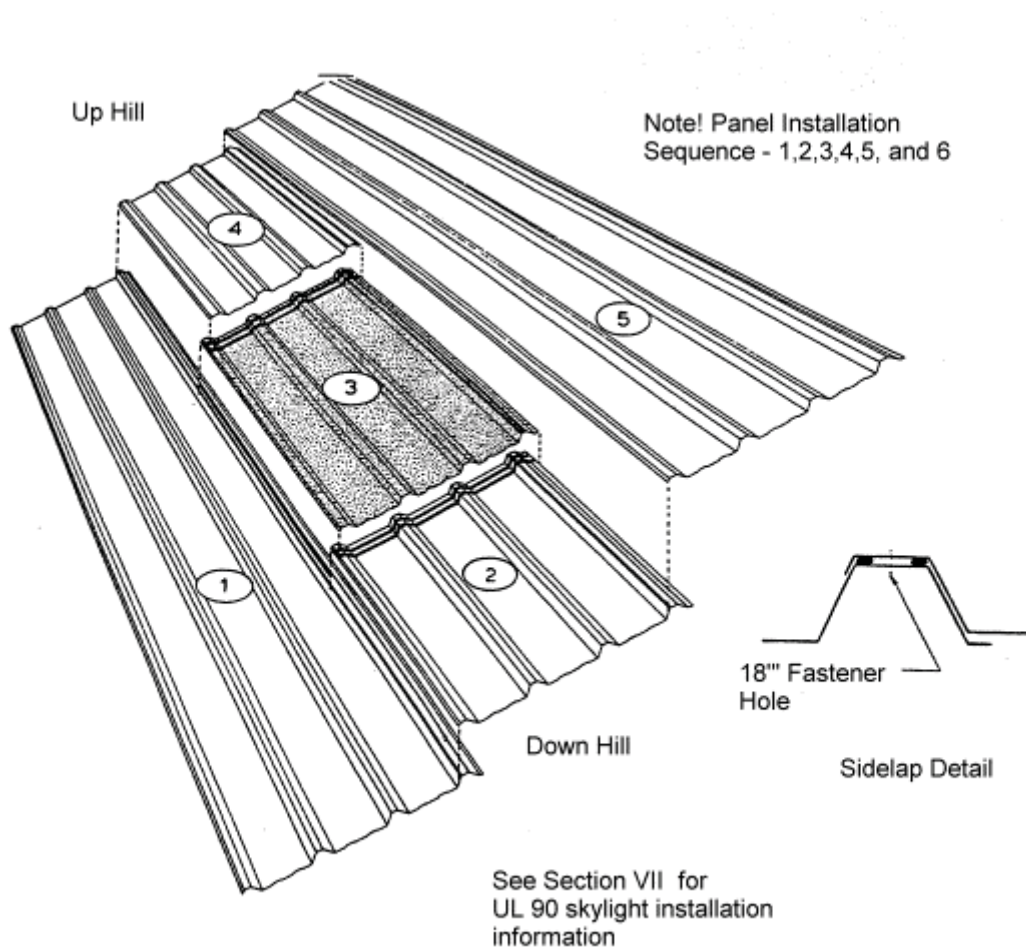


Multiple Uses:



SKYLIGHT INSTALLATION

Skylight panels are installed using the same procedures as a steel panel. Care should be taken when installing fasteners in the skylights to avoid cracking the material.



WARNING! Do not under any circumstances step or walk on surface of skylight. If foot traffic is necessary over skylight, use walk boards that are properly supported by building purlins. Placing of "DANGER, DO NOT WALK" markings on every skylight must be done without fail.

SAFETY PRECAUTIONS FOR ROOFING WORK

Manufacturer strongly recommends that erection employees be continuously trained in safe and productive work practices. Working on the roof area in the installation of roof structurals, insulation or roof panels requires proper training, correct equipment and constant alertness to minimize the danger of falls. Hard hats should be worn on job sites to prevent injury from falling objects. Safe work practices on all erection duties should be carefully reviewed with erection crews prior to beginning each job.

Never step on skylights or translucent 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. Skylights or translucent panels can never be considered as a walking surface.

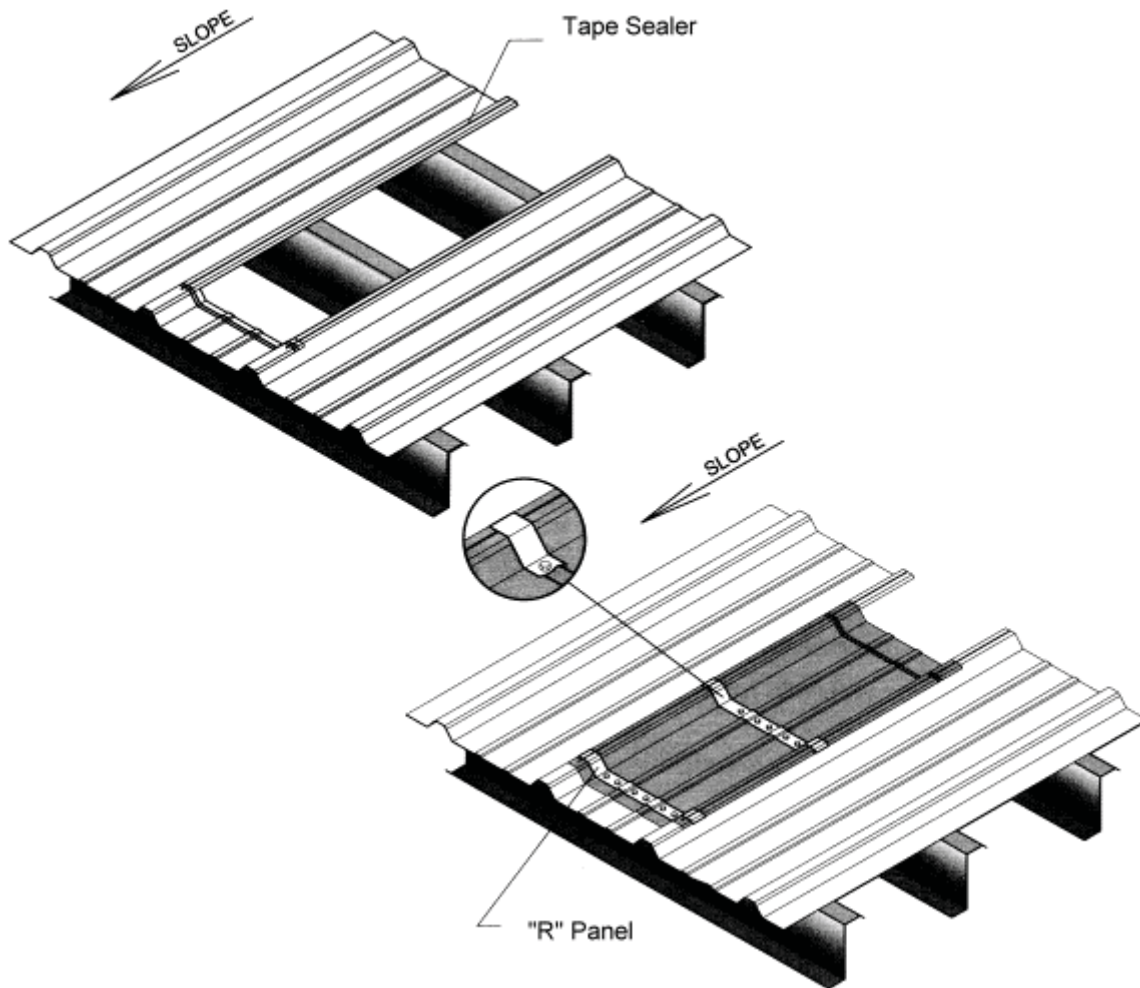
Partially attached or unattached panels should never be walked on!

DO NOT:

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

A single roof panel must never be used as a work platform.

UL 90 LIGHT TRANSMITTING PANEL INSTALLATION

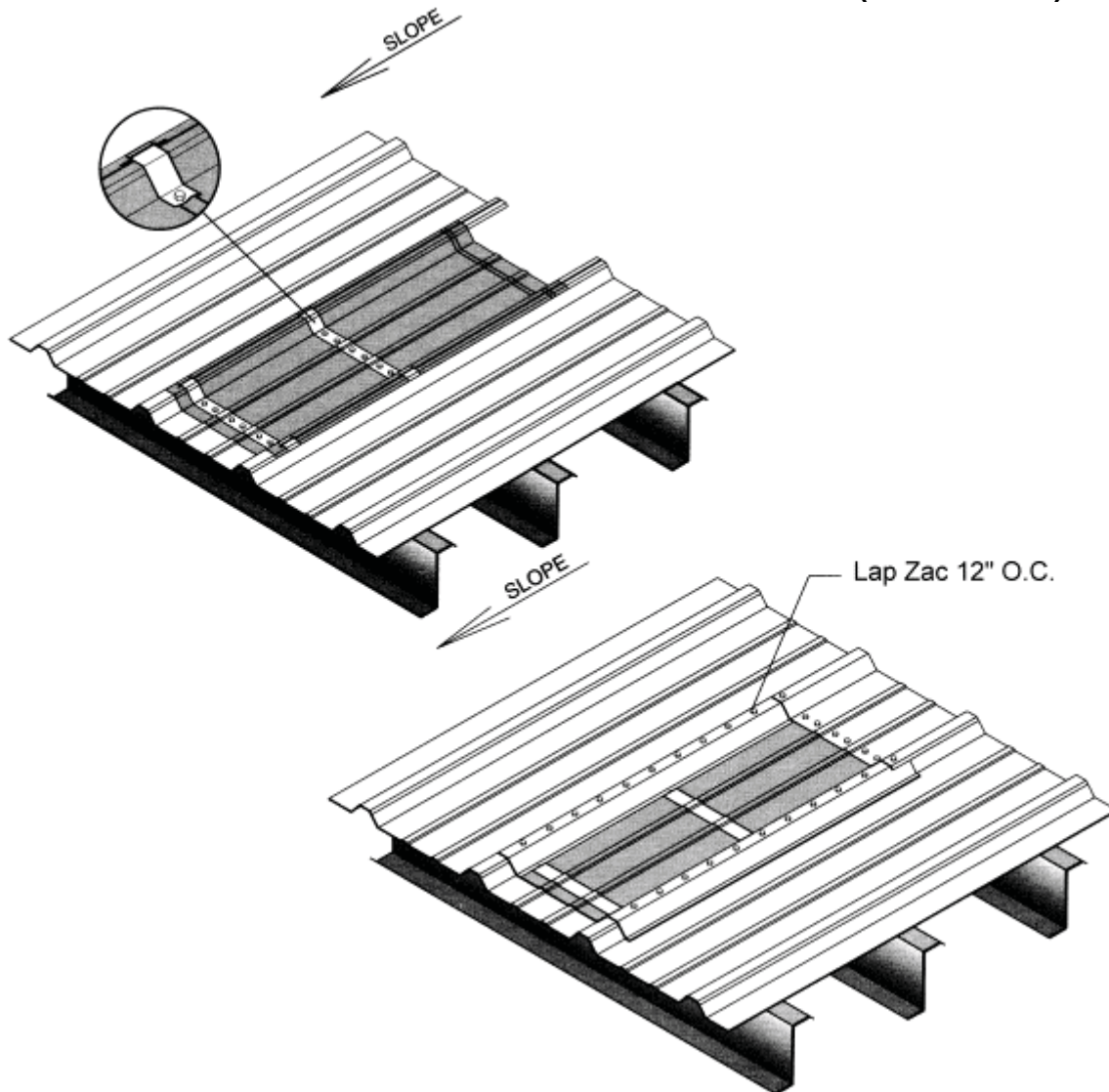


Install roof panels, leaving the light-transmitting panel run open, except for lower light transmitting panel run panel. Install tape sealer to panel sidelaps and across panel width as normal.

Lay light transmitting panel in place overlapping lower metal panel 12". Do not install any fasteners at this time. Install tape sealer down light transmitting panel side laps. Apply double run of tape sealer across light transmitting panel width at lower and middle purlins. Tape sealer should align with beginning and ending edge of top flange of purlin. At the upslope end of light transmitting panel, apply double run of tape sealer for endlap.

Install 3" long pieces of "R" panel over light transmitting panel at the lower and middle purlins. Attach to purlins with six fasteners per piece of "R" panel. Fasteners must go between the two runs of tape sealer that were installed previously.

UL 90 LIGHT TRANSMITTING PANEL INSTALLATION (CONTINUED)



Apply tape sealer across sidelaps of 3" long pieces of "R" panel. Be sure the light transmitting panel sidelaps have a complete run of tape sealer on top of the light-transmitting panel.

Install "R" panel hat section to each side of light transmitting panel with lap screws at 12" O.C. Apply tape sealer down each hat section to just downslope of exposed tape sealer running across light transmitting panel. Also apply additional tape sealer up each side of hat section aligning and sealing to the exposed tape sealer running across light transmitting panel.

Install upper metal panel in light transmitting panel run and fasten as at a normal endlap.

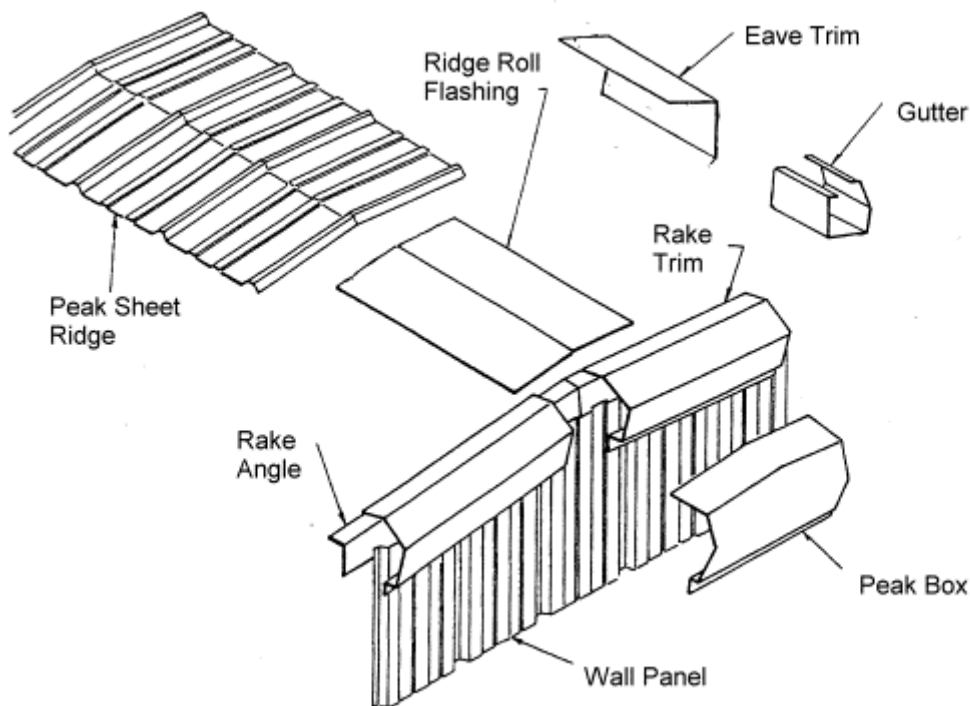
Section G

Trim



FLASHING, GUTTER AND TRIM

The correct installation of flashing, gutters, and trim cannot be overemphasized. The overall appearance of the finished building depends primarily on the quality of the installation of the flashing, gutters and trim. Keep all gutter and flashing lines straight. Make all bends sharp and neat. Be sure edges are not jagged, dented, crimped, or serrated. End joints and laps must be closely controlled.

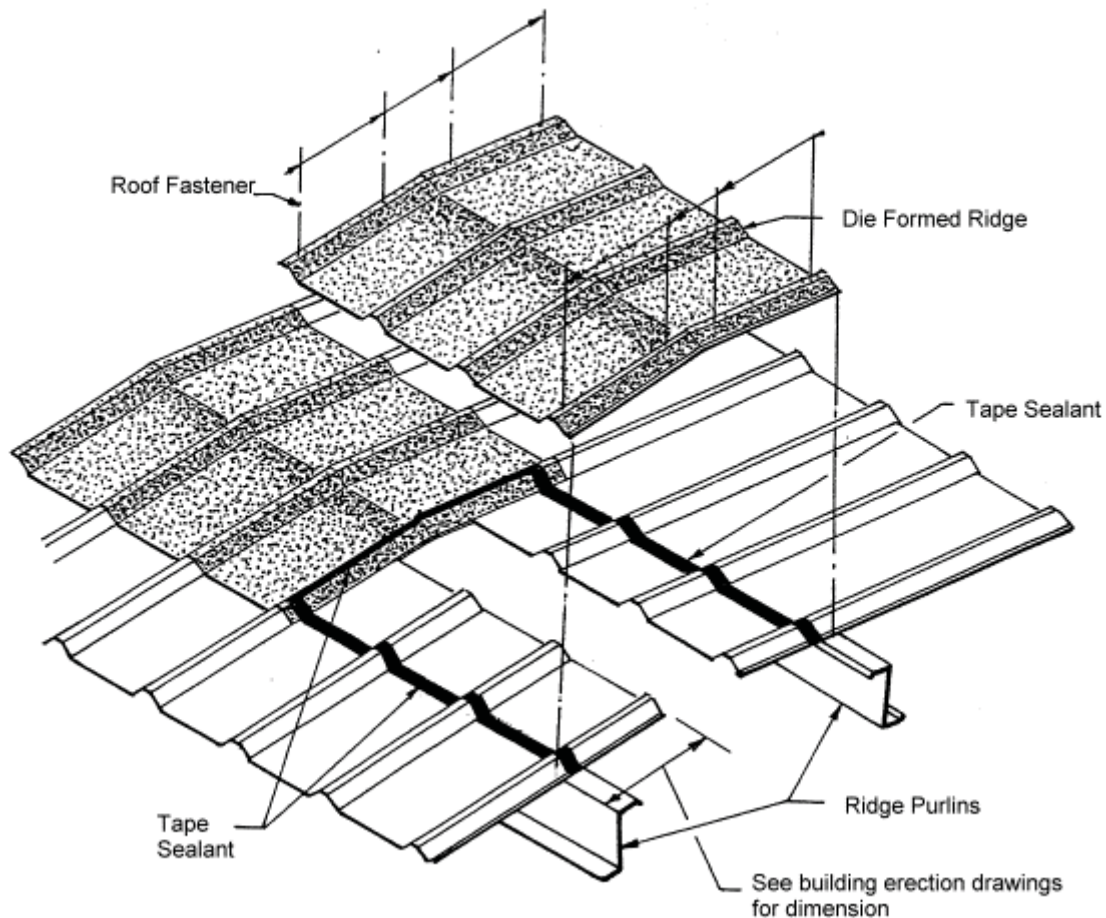


NOTE: Flashing should be stored off the ground to avoid moisture and handling damage. Elevate one end of the package above the lower end to encourage drainage in case of rain. Always wear gloves when handling sheet metal.

WARNING! Mueller trim comes with a protective film coating to aid in the prevention of scuffing. Do not allow this film to be exposed to the sun. Exposure will bond the film to the metal making removal difficult.

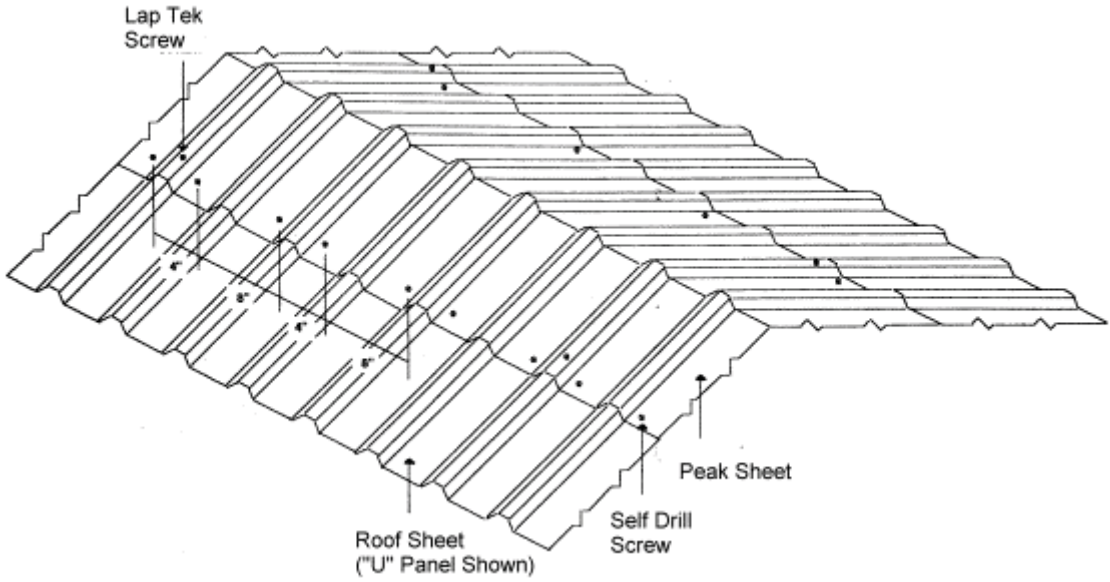
PEAK SHEET RIDGE INSTALLATION

Peak sheet ridge panels are to be installed as each side of the roof is sheeted. This will aid in keeping both sides of the roof aligned. After having installed a run of panels on each side of the roof, apply sealant to the panels as shown. Set die formed ridge panel in place and install lap and purlin fasteners. Apply tape sealant along the top of the leading rib to prepare for the next sidelap.

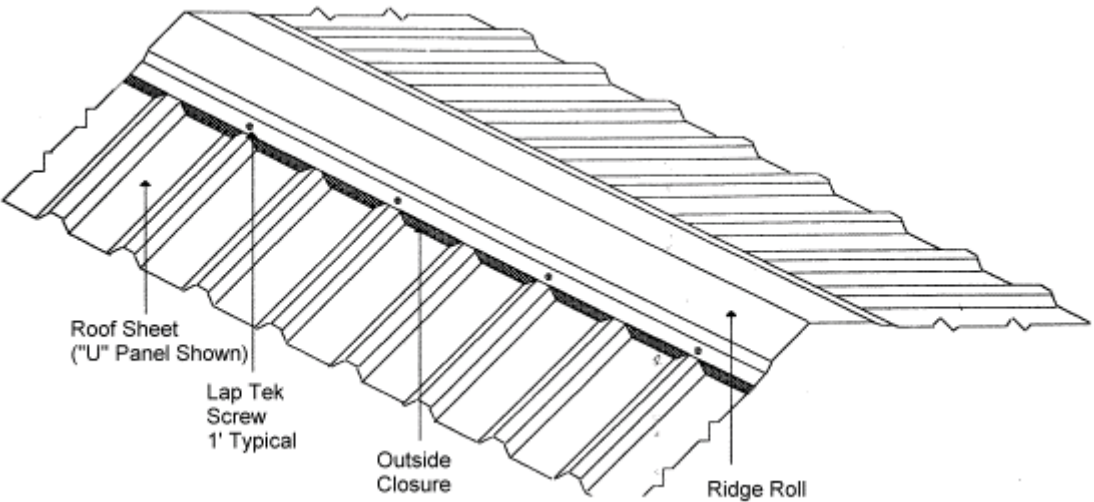


NOTE: Do not walk on unsecured ends of panels.

TYPICAL SCREW PLACEMENT ON PEAK SHEETS

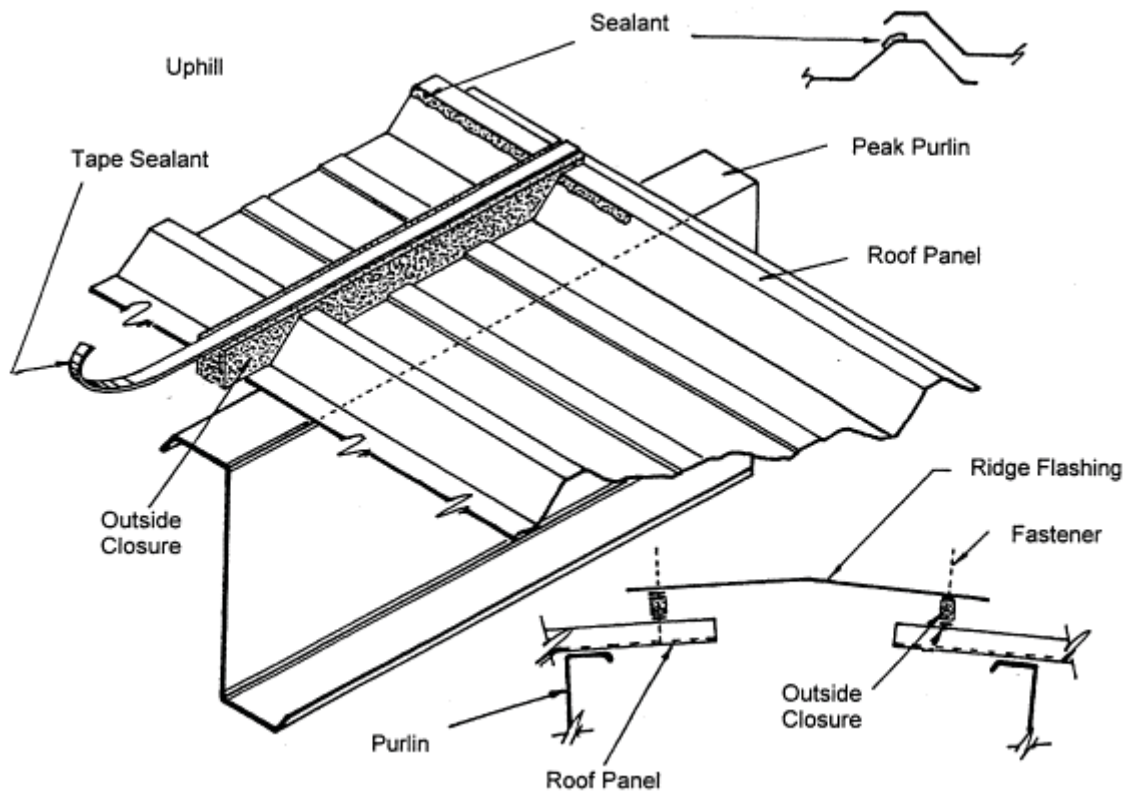


TYPICAL SCREW PLACEMENT ON RIDGE ROLL



TAPE SEALANT APPLICATION AT RIDGE FLASHING

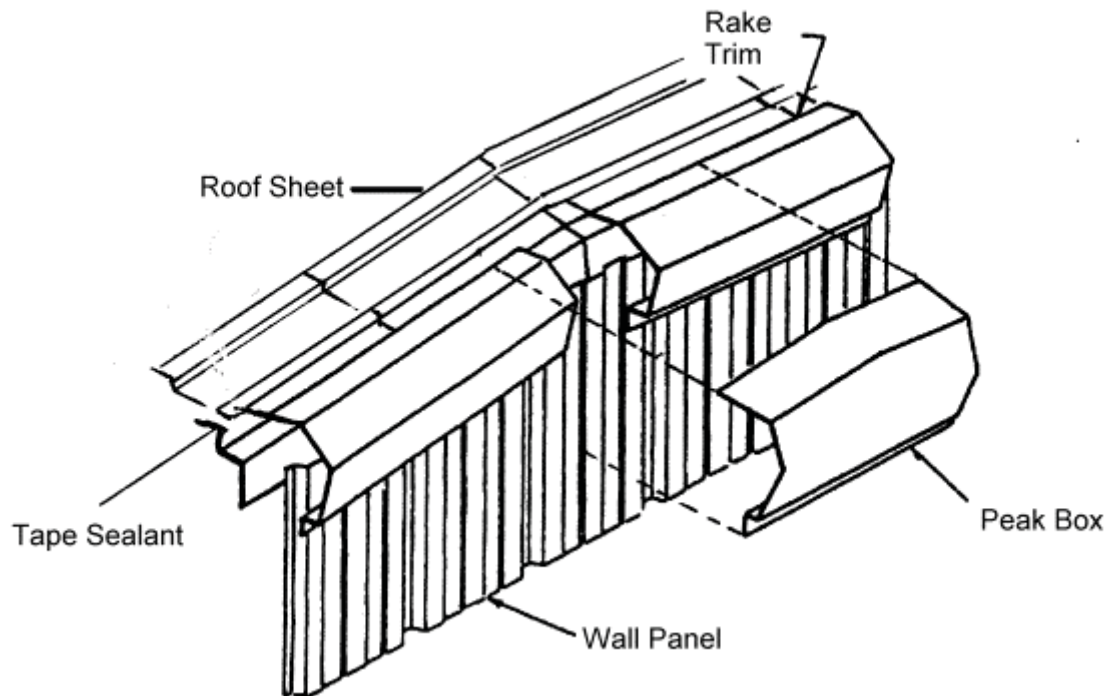
Apply panel sidelap tape sealant as shown for building with ridge flashing and outside closures. The mastic is placed along the inside edge of the major rib from the ridge purlin web line to the upper end of the panel.



RIDGE FLASHING DETAIL

RAKE TRIM AND PEAK BOX INSTALLATION

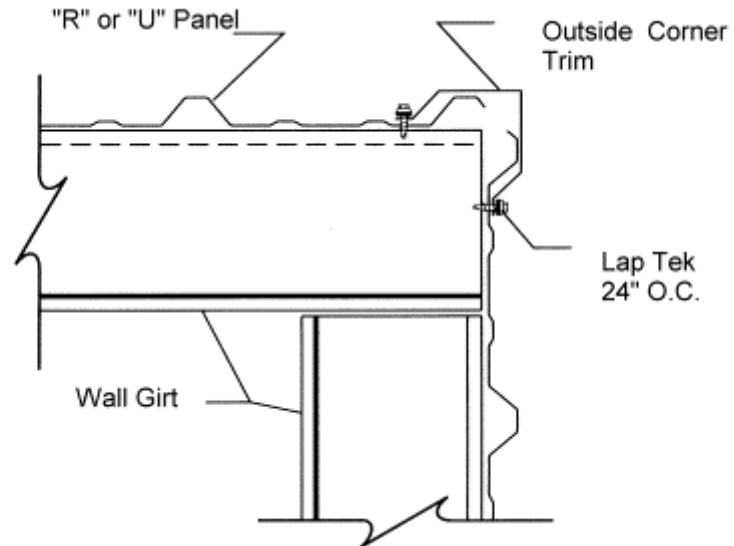
Rake trim and/or peak box should lap over rake trim a minimum of 2 inches. Attach to wall panel with lap tek screws. Peak box may be attached to rake trim with lap tek screws or rivets. Seal the connection at the roof panel with tape sealant or caulk.



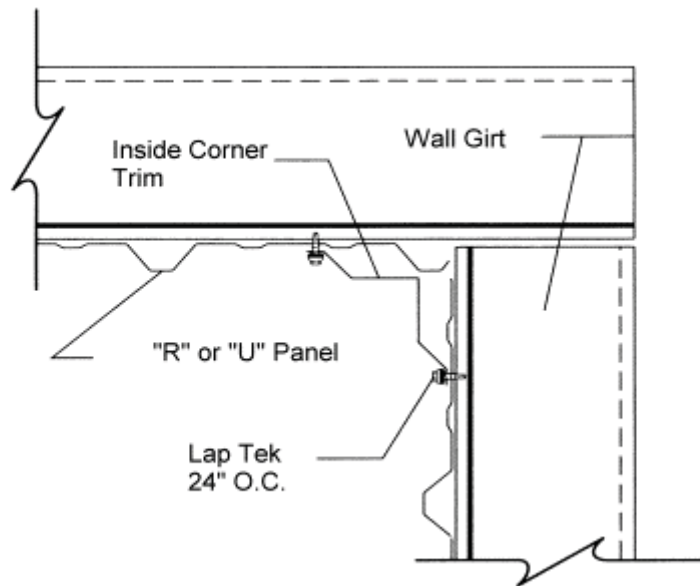
NOTE: Mueller recommends an outside closure under bottom edge of rake trim, to prevent birds from nesting in trim. This works well with buildings with less than 2:12 slope

CORNER TRIM

OUTSIDE CORNER DETAIL

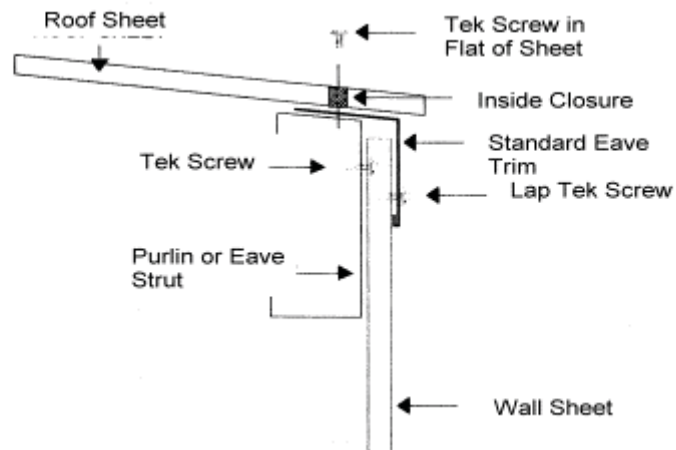


INSIDE CORNER DETAIL (Used with liner panel condition only)

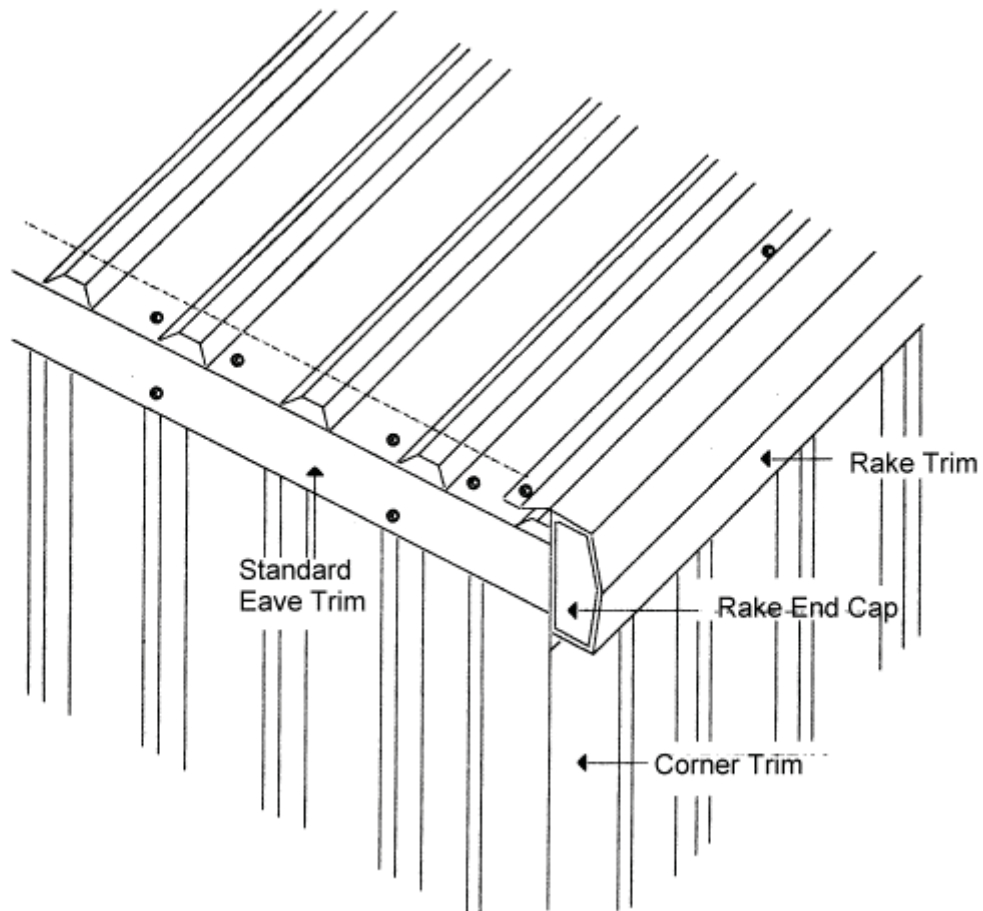


NOTE: Install corner trim with lap tek fasteners 24" O.C.

STANDARD EAVE TRIM

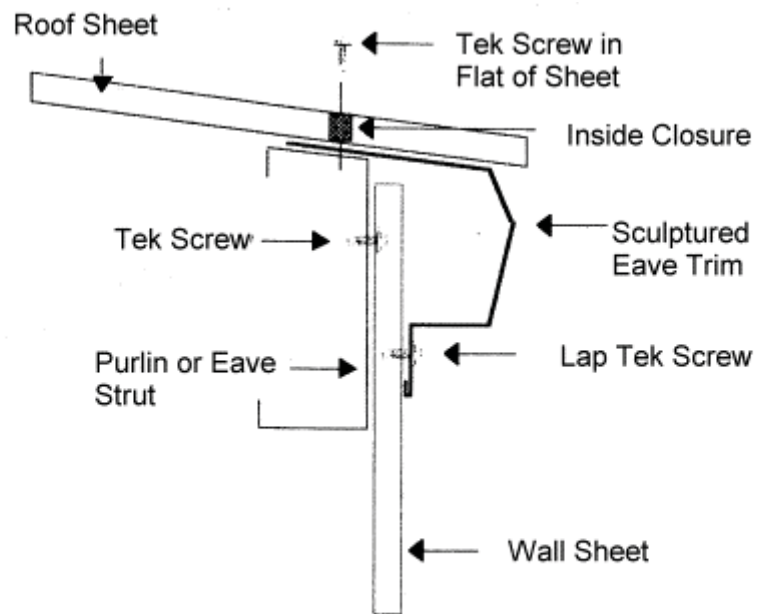


STANDARD EAVE / SCULPTURED RAKE TRIM WITH RAKE END CAP

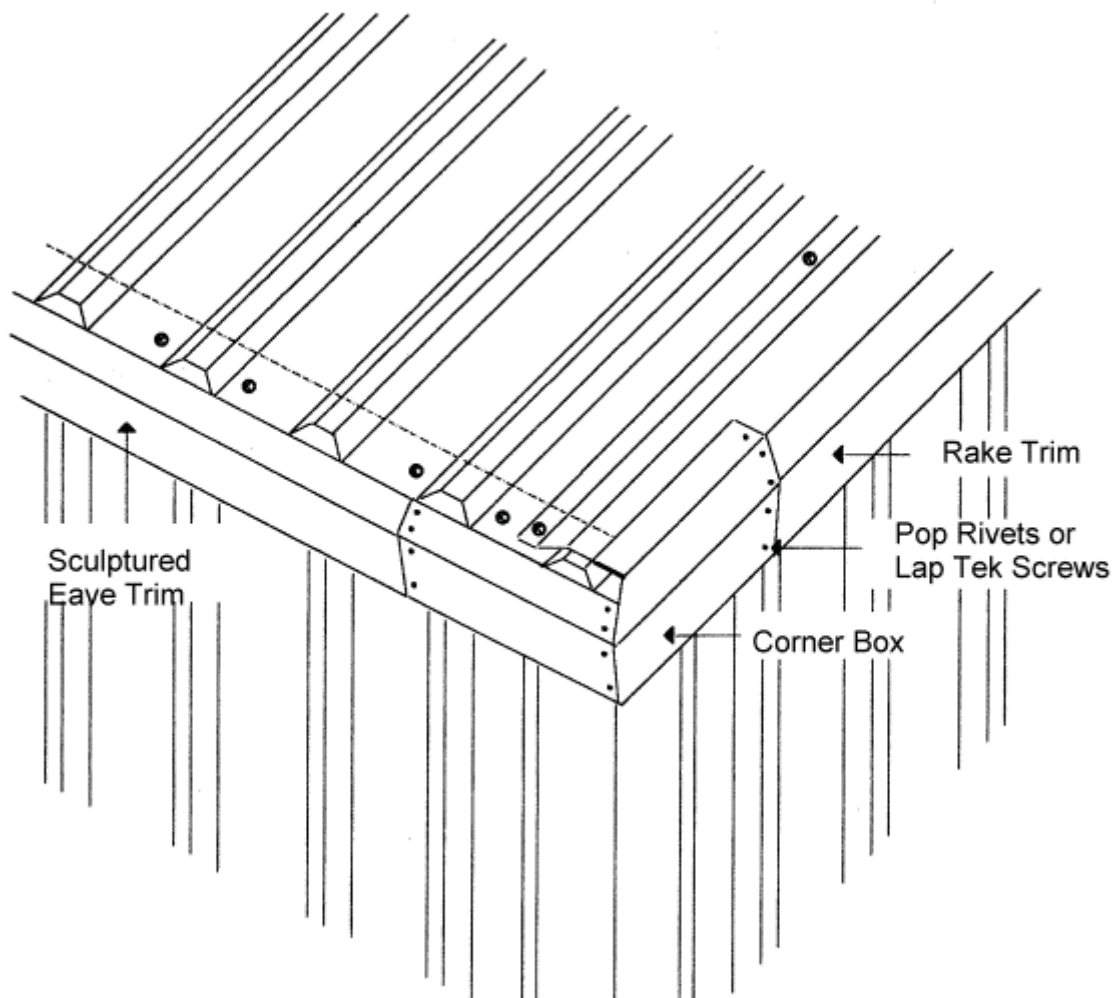


NOTE: Roof sheet should extend 2" to 3" past eave trim.

SCULPTURED EAVE TRIM

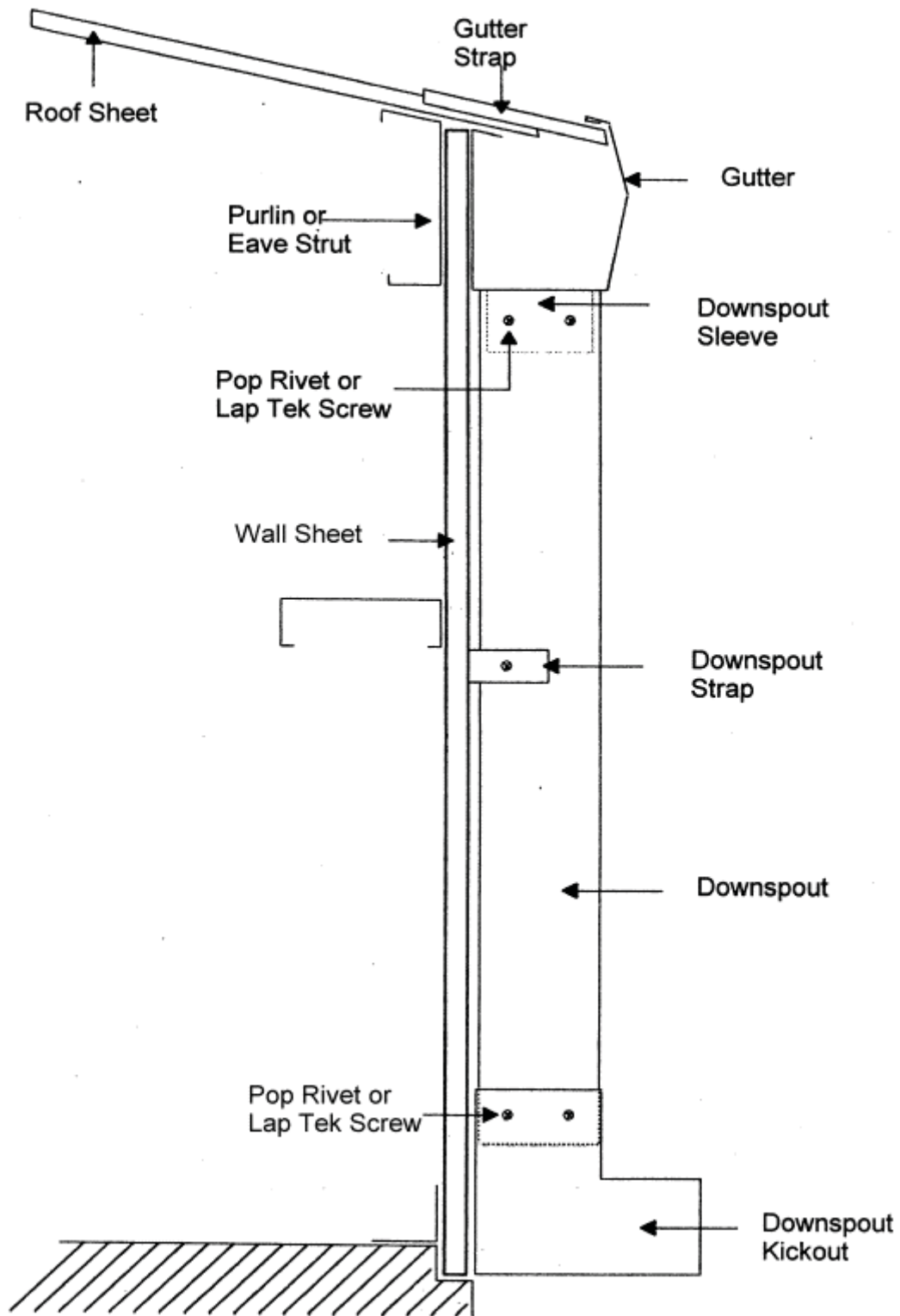


SCULPTURED EAVE / RAKE TRIM WITH CORNER BOX

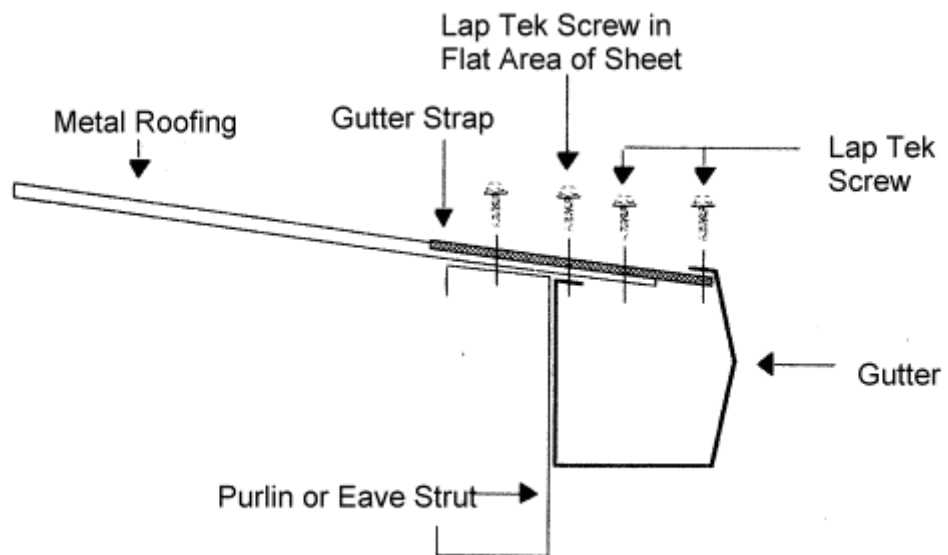


NOTE: Roof sheet should extend 2" to 3" past eave trim.

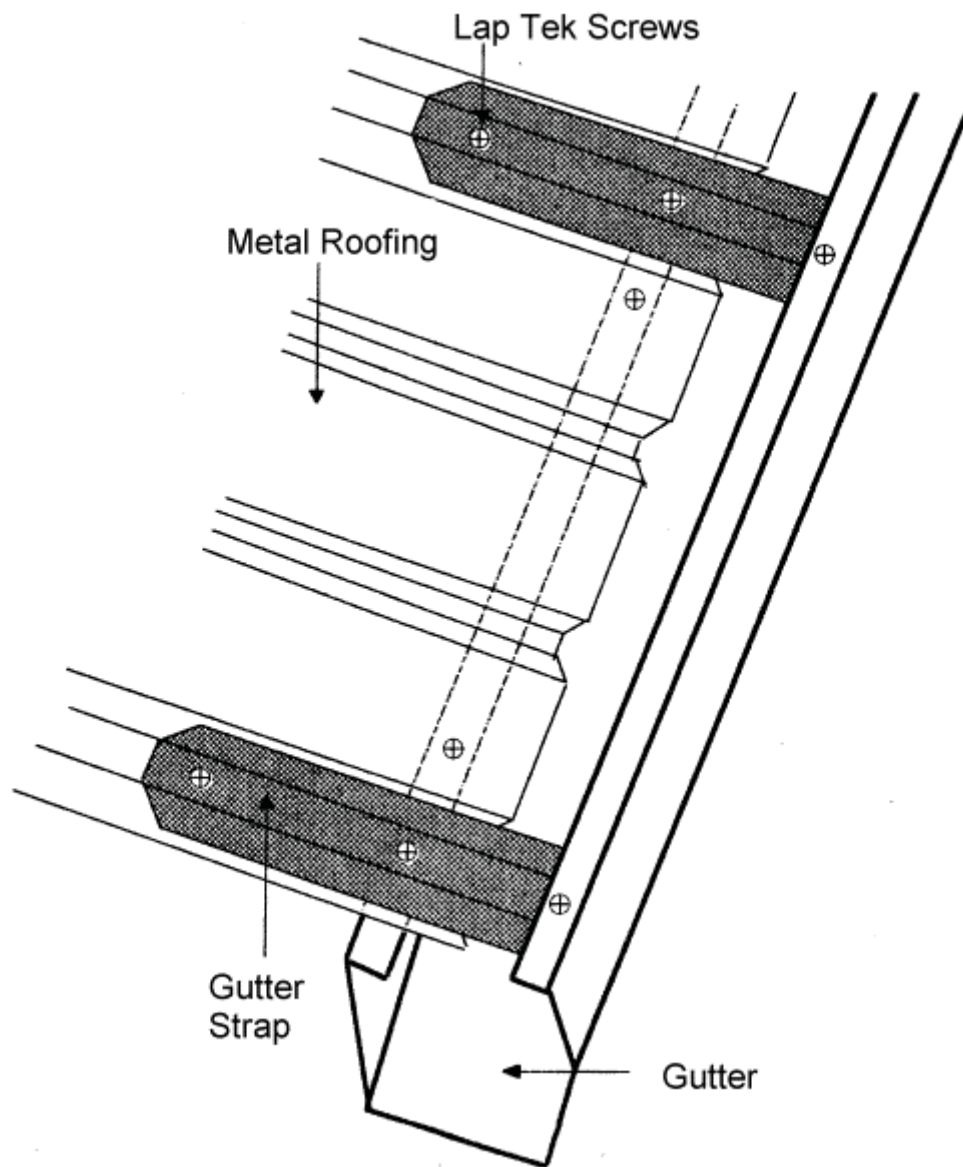
MUELLER GUTTER SYSTEM DIAGRAM



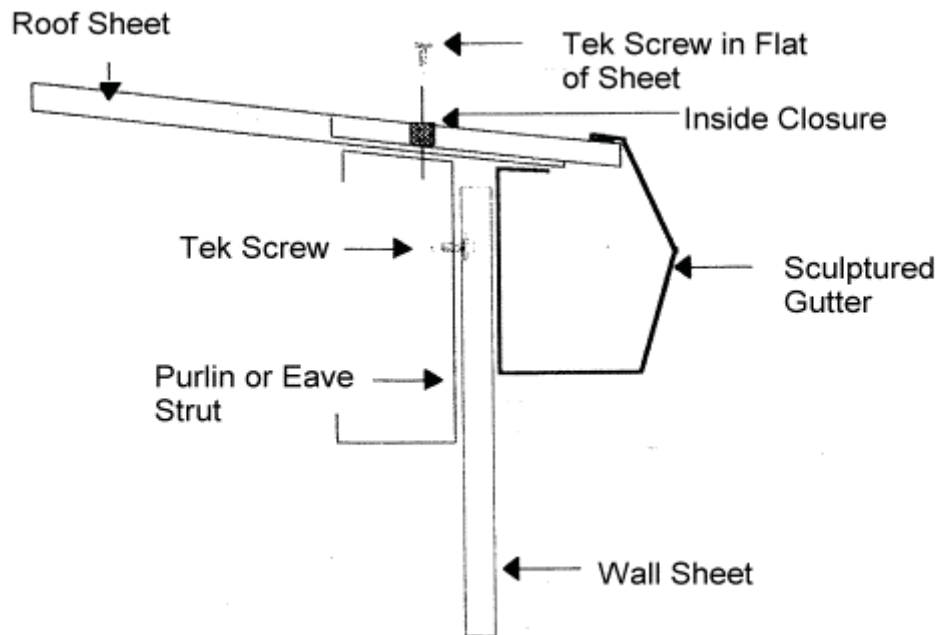
GUTTER STRAP INSTALLATION



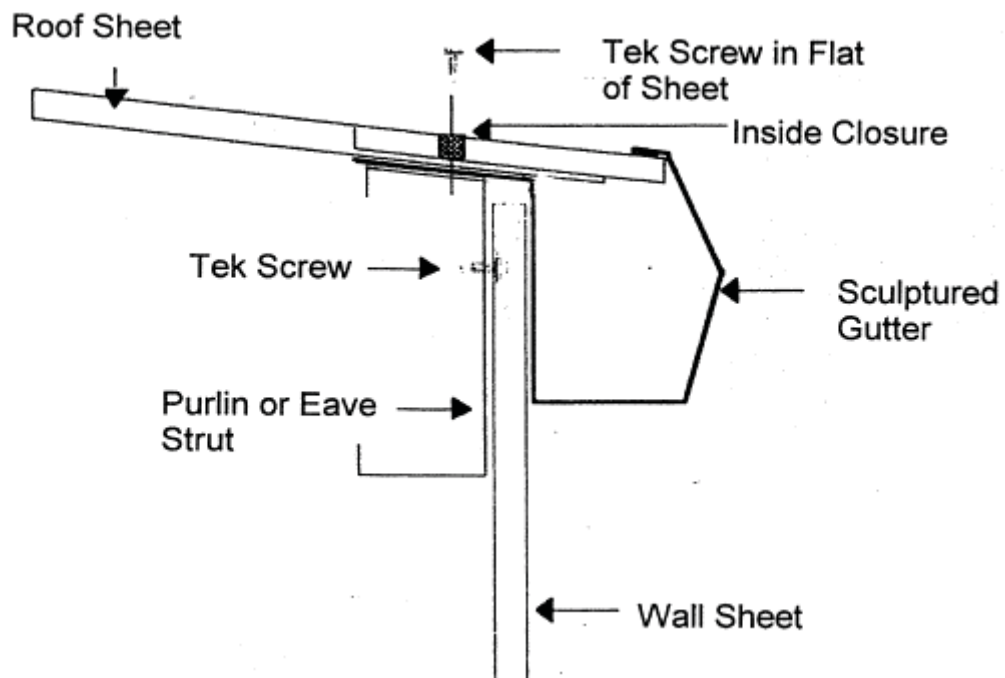
SCREW PLACEMENT



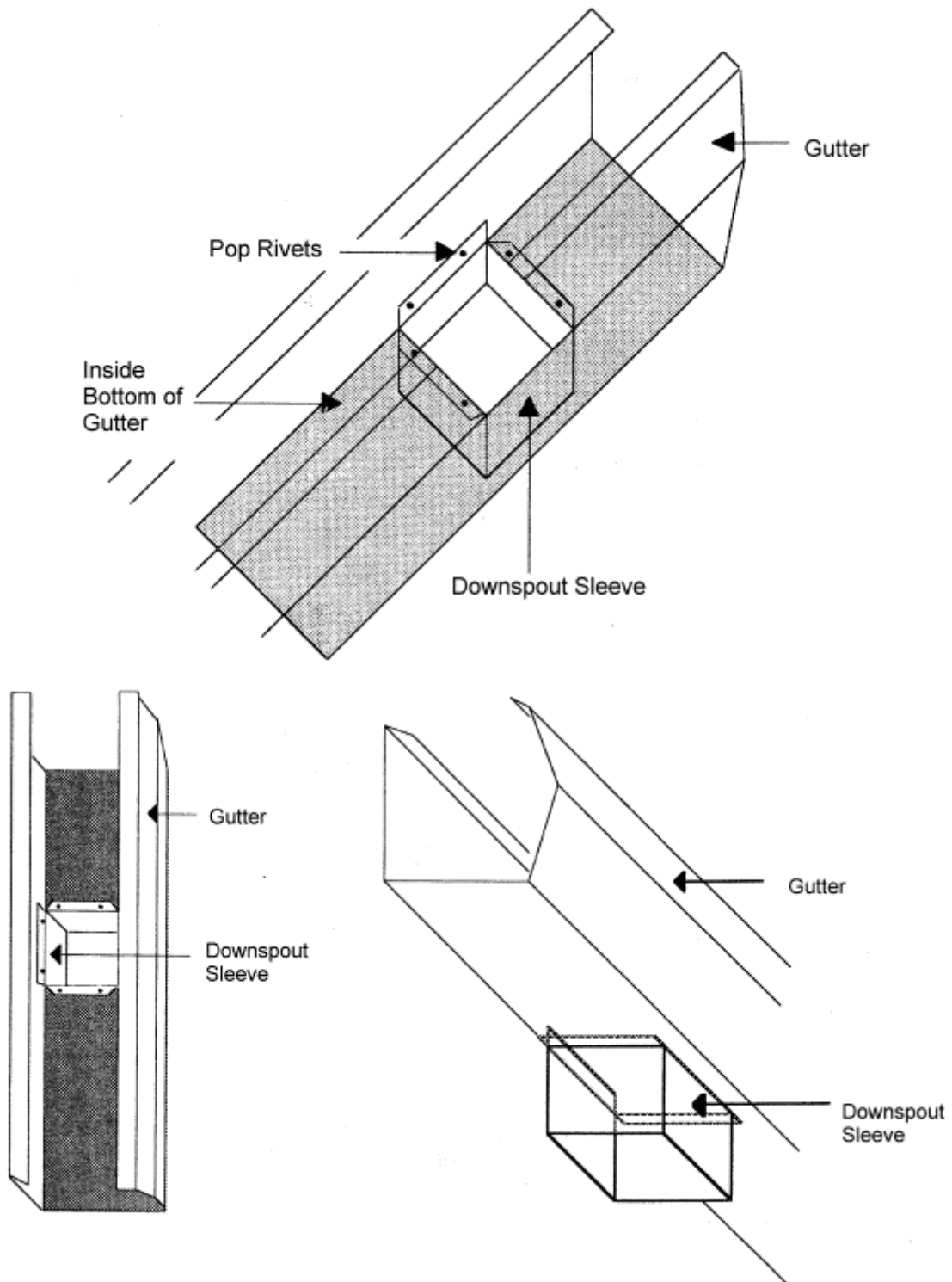
STANDARD GUTTER



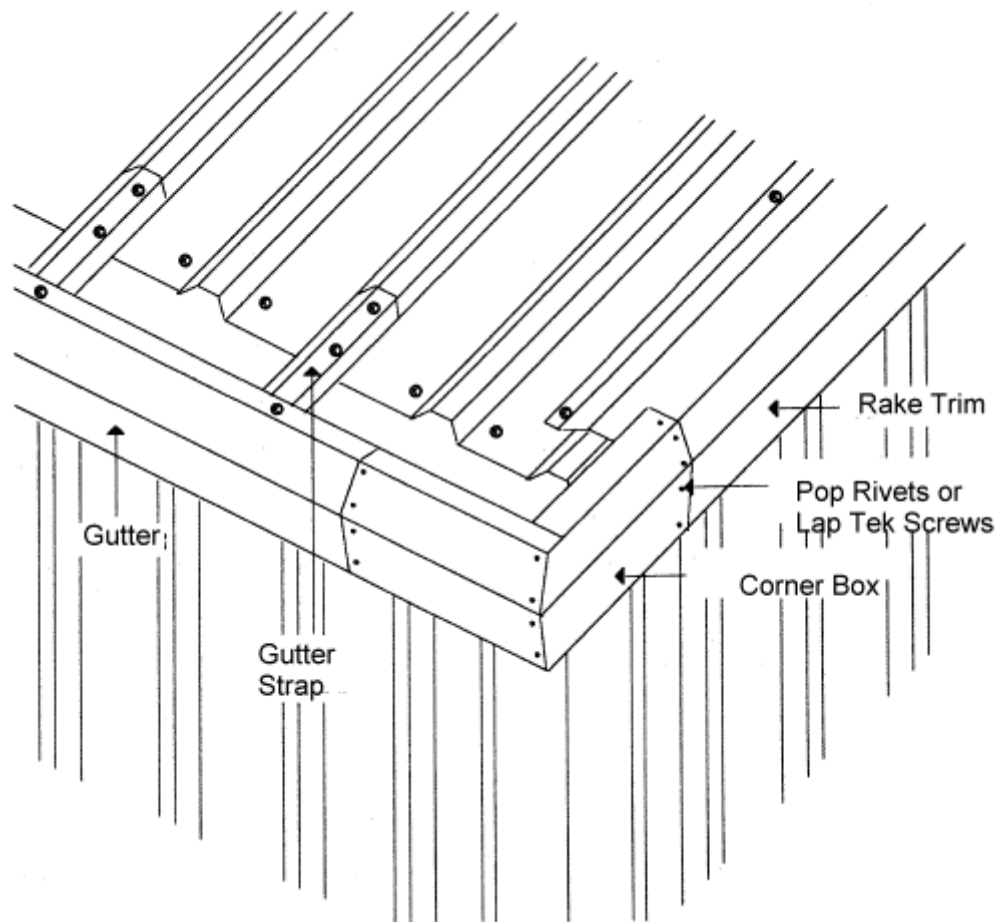
SCULPTURED GUTTER (OPTIONAL)



DOWNSPOUT SLEEVE INSTALLATION

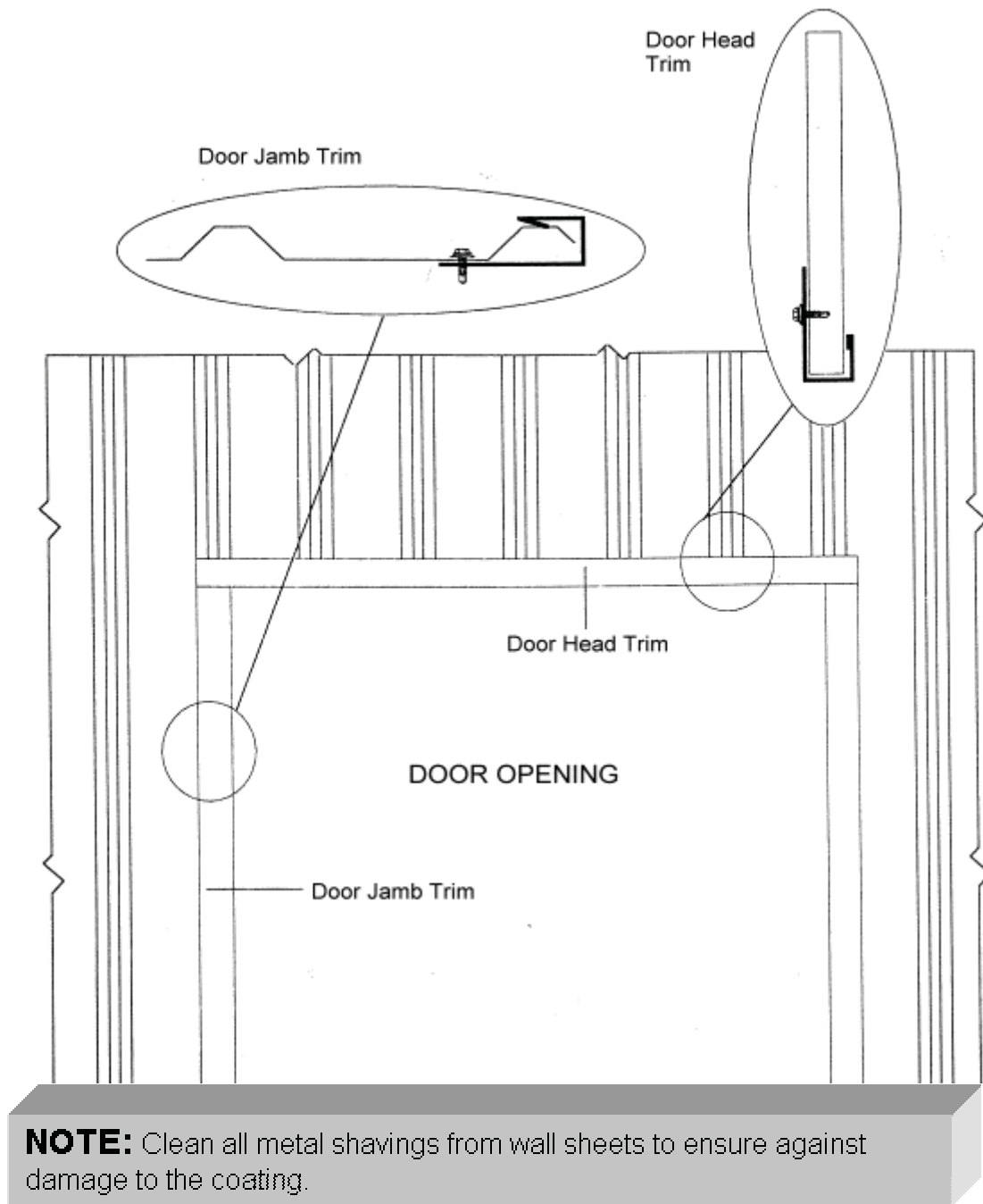


GUTTER WITH CORNER BOX

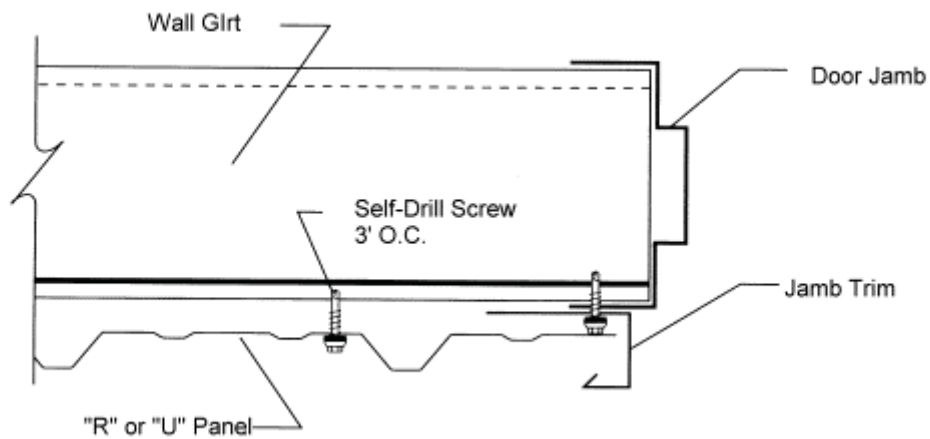


DOOR TRIM INSTALLATION

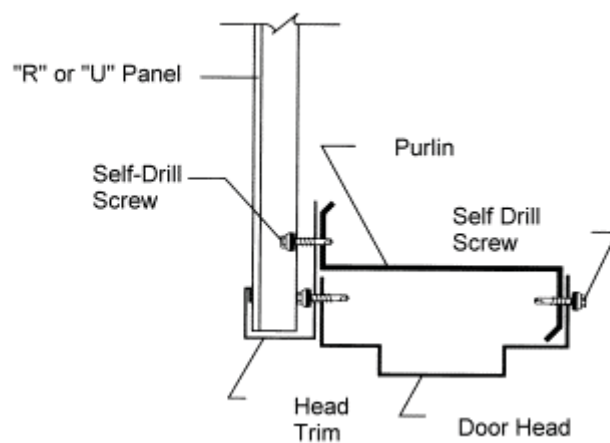
“J” trim pieces are provided to trim out edges around framed openings. “J” trim pieces should be attached to door columns and header before wall sheets are attached. After trim is attached, the trimmed wall sheets can be inserted behind the “J” trim then screwed down in place.



TYPICAL DETAILS – HEAD/JAMB



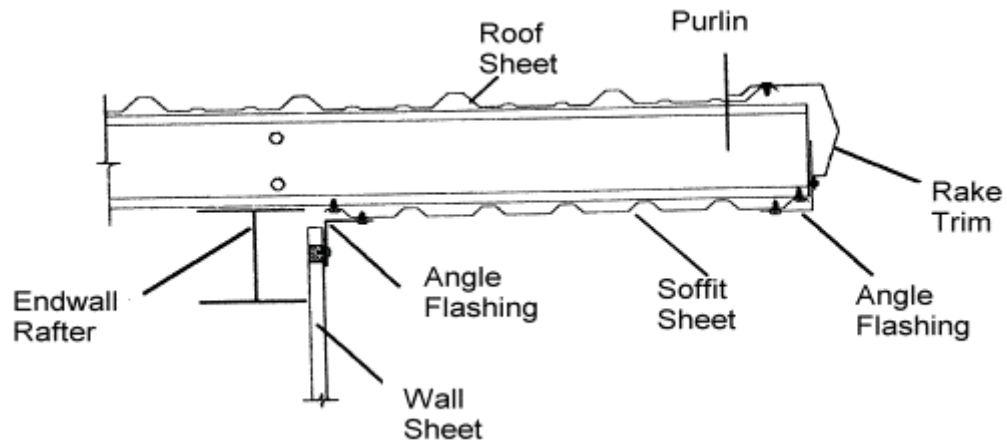
JAMB



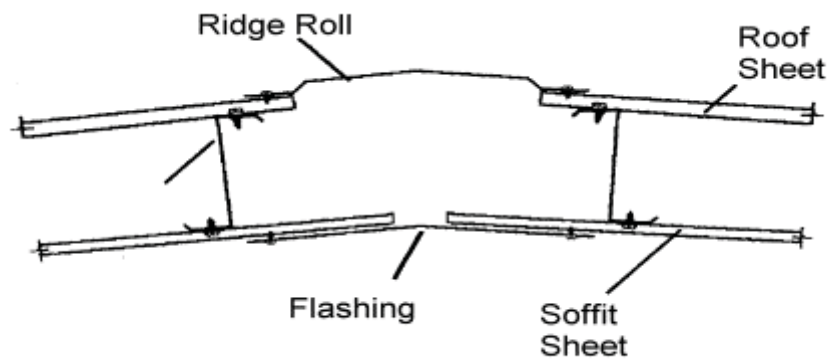
HEAD

NOTE: Install jamb and head trim with self-drilling fasteners at 3' O.C.

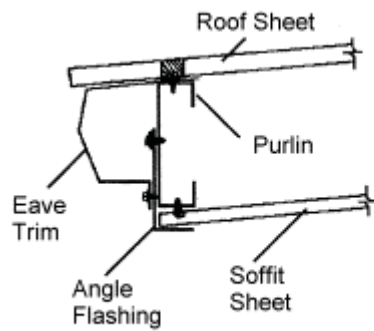
OVERHANG TRIM DETAILS



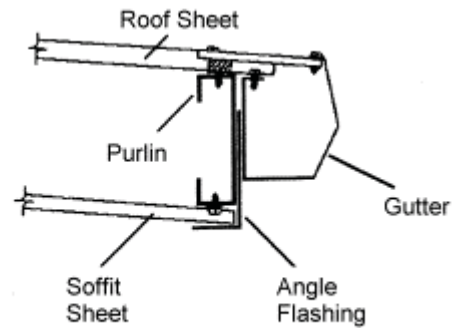
ENDWALL OVERHANG



ENDWALL OVERHANG AT RIDGE



**SIDEWALL OVERHANG
WITH EAVE TRIM**



**SIDEWALL OVERHANG
WITH GUTTER**

Section H

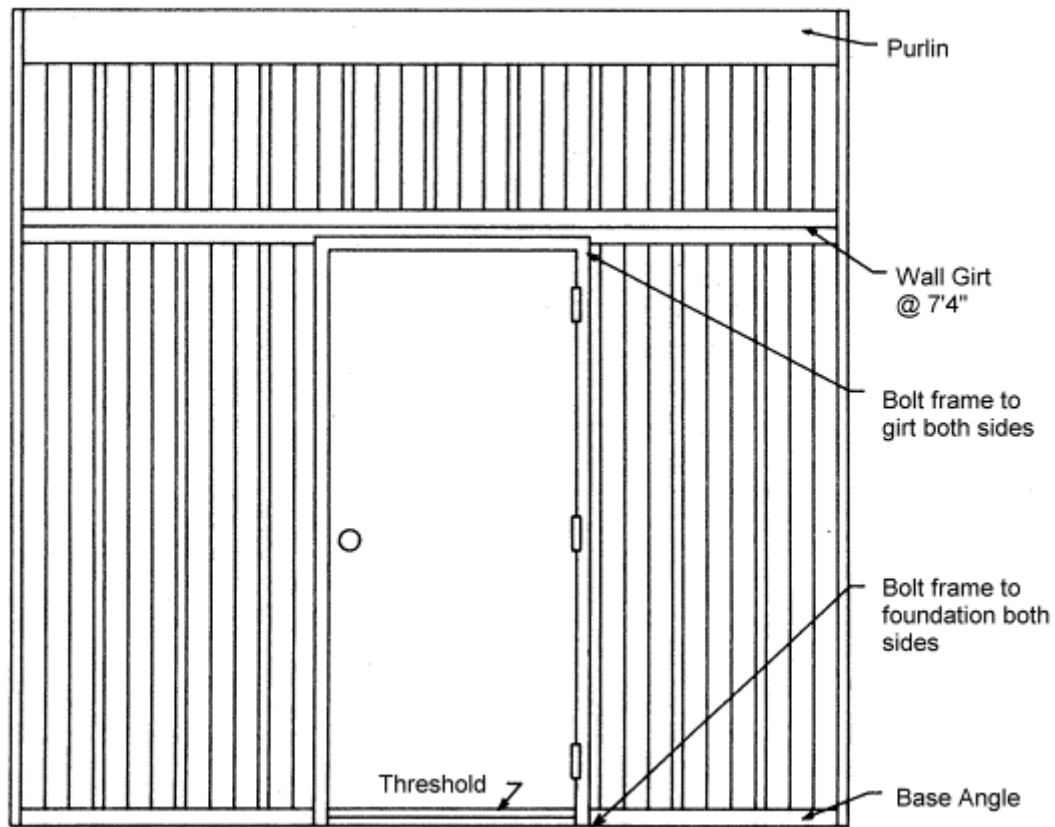
Doors and Accessories



PERSONNEL DOORS

Personnel (walk-in) doors can be installed at any location in the building. Wall girts below the standard level of seven feet four inches will have to be cut out for the doorframe.

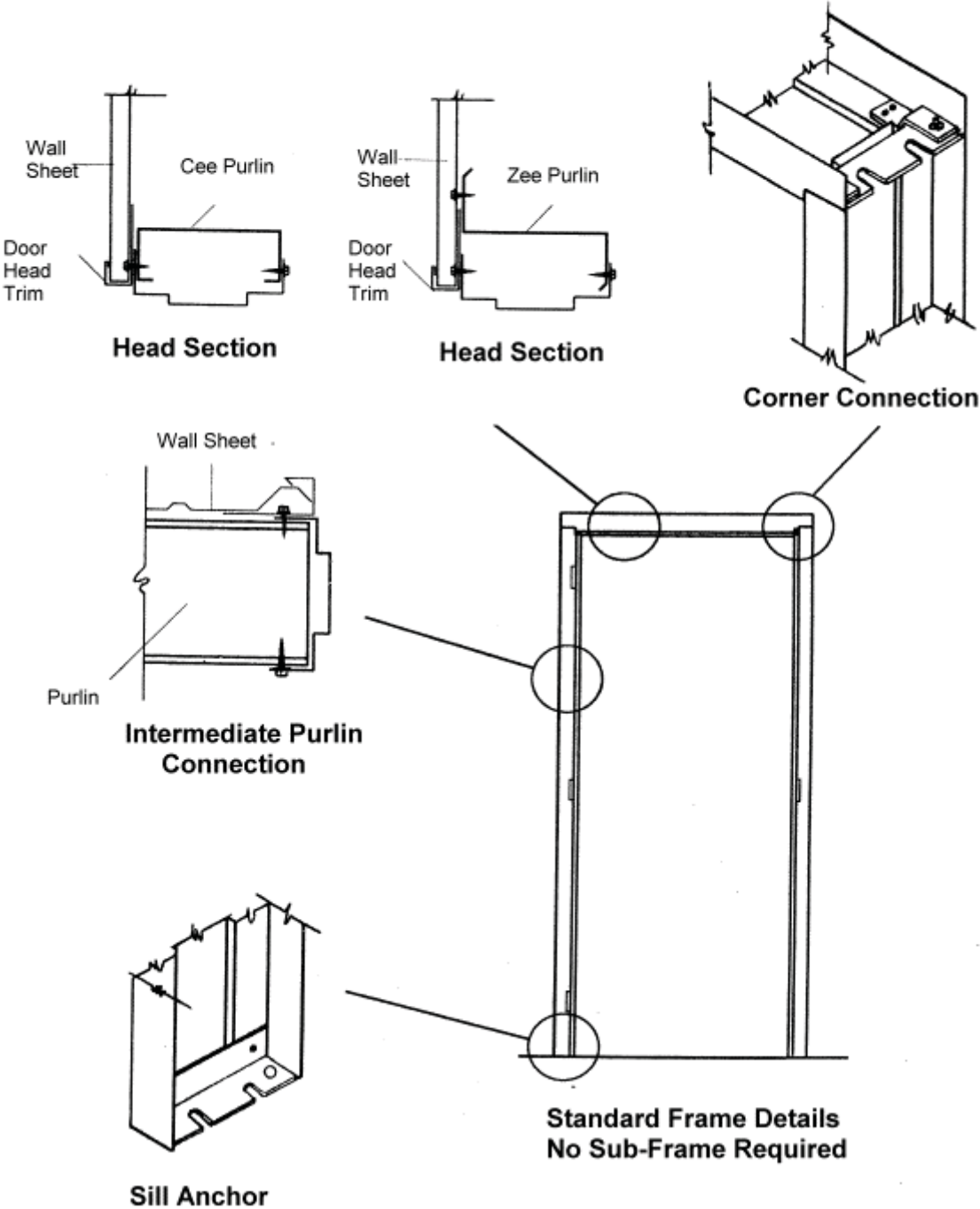
After deciding where the door is to be located and before the wall sheets are installed, attach the doorframe to the foundation and the wall girt or girts. The doorframe can be bolted to the girt and foundation where and however desired. The base angle will have to be cut out in the door opening.



Make sure the doorframe is square so the door will fit and open and close properly.

After the doorframe is installed and squared, the door can be placed on the hinges, the doorknob and locks installed, and the threshold plate placed at the bottom of the door opening.

METAL BUILDING DOOR FRAME



ROLL-UP DOORS

Instructions for Assembly

Roll –up door – Refer to manufacturer instructions. Included with door hardware

WARNING! Roll-up doors contain strong springs under high tension. **DO NOT CUT THE BANDS THAT HOLD THE DOOR UNLESS YOU HAVE THE DOOR SECURED.** The door could fly loose and cause injury if the bands are cut before installing the door on the brackets. Before taking the door down, the door should be rolled to the top and bands must be installed to prevent the door from flying open when removed from the brackets.

Read the manufacturer's instructions that come with the door before starting to install the door. Installation of the roll-up will require some means of mechanically lifting the door to the top of the door opening. More than one person is required to properly and safely install the roll-up door.

PROCEDURAL STEPS

Follow the instructions supplied with the door by the manufacturer. The following steps may help you also.

1. Install the door support brackets at the top of the door columns.
 - A. Bolt the brackets to the holes on the column as shown in figure 12.
 - B. Ensure that both door support brackets are the same distance from the floor so that the door will be level when installed.
2. Assemble the chain and sprocket wheel to turn the door drum at the end desired.

Doors that are 10 feet wide or less do not require an operating chain. Follow manufacturer's instructions.
3. Raise the assembled door to the top of the opening and place on the door support brackets.
4. Position the door squarely over the door opening so that the door will close properly.
5. Attach the door axle to the support brackets using the saddle clamps or u-bolts that are supplied with the door.

ROLL-UP DOOR REFER TO MANUFACTURER INSTRUCTIONS

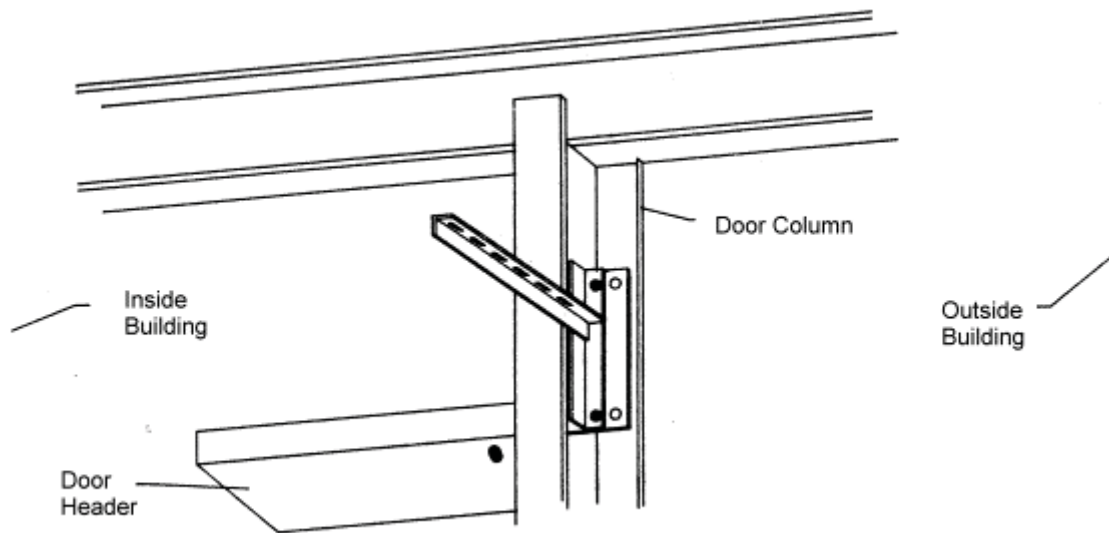


Figure 12: Door Support Brackets

6. Apply tension to the door springs by rotating the door up and toward the wall two turns. (See manufacturer's instructions supplied with the door.)

WARNING! The door is now under tension. Before cutting the bands, hold the door by the bottom angle or with the chain and do not stand directly under the door.

7. Cut the bands that hold the door and pull the door curtain down about halfway to the bottom. Secure the door in this position with a wooden 2 x 4 x 4 inch block until the guide rails and head stops are installed.
8. Install the guide rails using self-drill screws at two or three places. Ensure that the guide rails are positioned to allow the door curtain to move freely in the rails as it is raised and lowered. After correctly positioning the rails, finish attaching the rails securely with screws in the remaining holes.
9. Attach the remaining door hardware as shown in the manufacturer's instructions (Chain retainer clip and slide bolt lock.)

WARNING! When the door is rolled up to the top, the springs inside are under strong tension. Before attempting to remove the door, make certain that the curtain is secured with bands to prevent the door from unrolling rapidly and causing injury.

10. When taking the door down, reverse the steps of this procedure.

WINDOW INSTALLATION

Sliding type windows can be placed at any location that does not interfere with the building frame. Usually the top frame of the window is attached to the wall girt. After deciding where the window is to be located, cut out the opening for the window if the wall sheets are installed. If the wall sheets are not installed cut the sheets before installing. Ensure that you cut the correct size opening (figure 27). Place the window in the opening and attach the window with self-drilling screws. Ensure that the window is square and slides freely before tightening the screws.

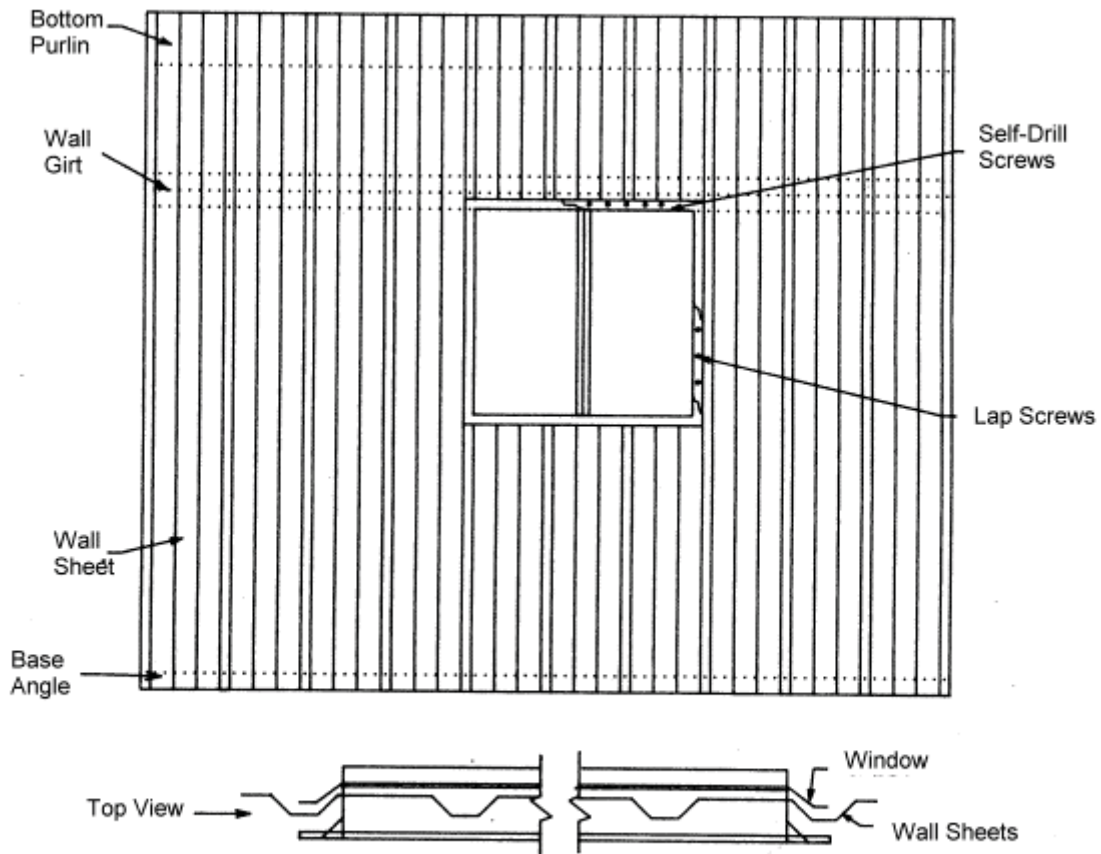
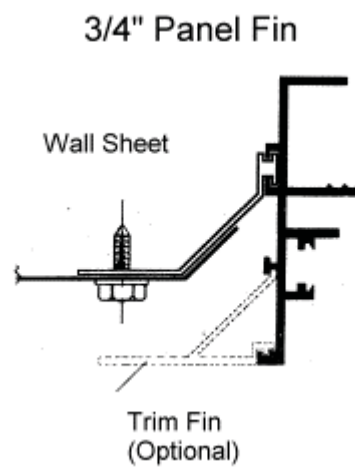
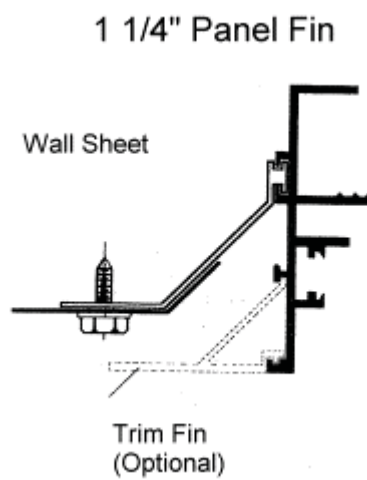
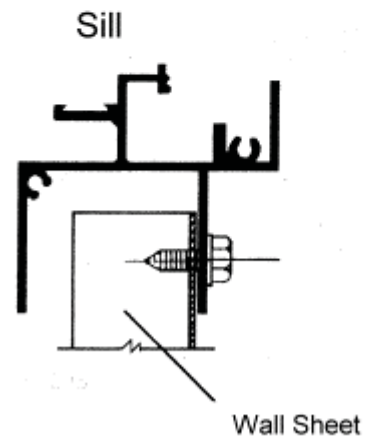
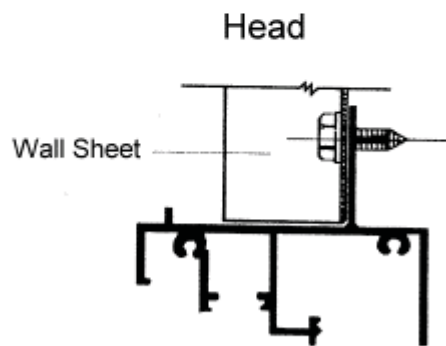
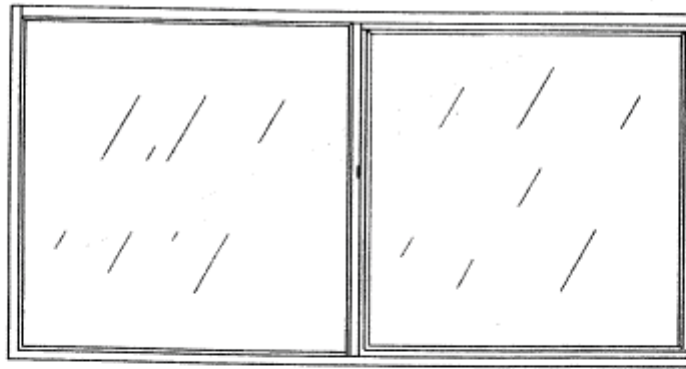


Figure 27 - Sliding Window Installation

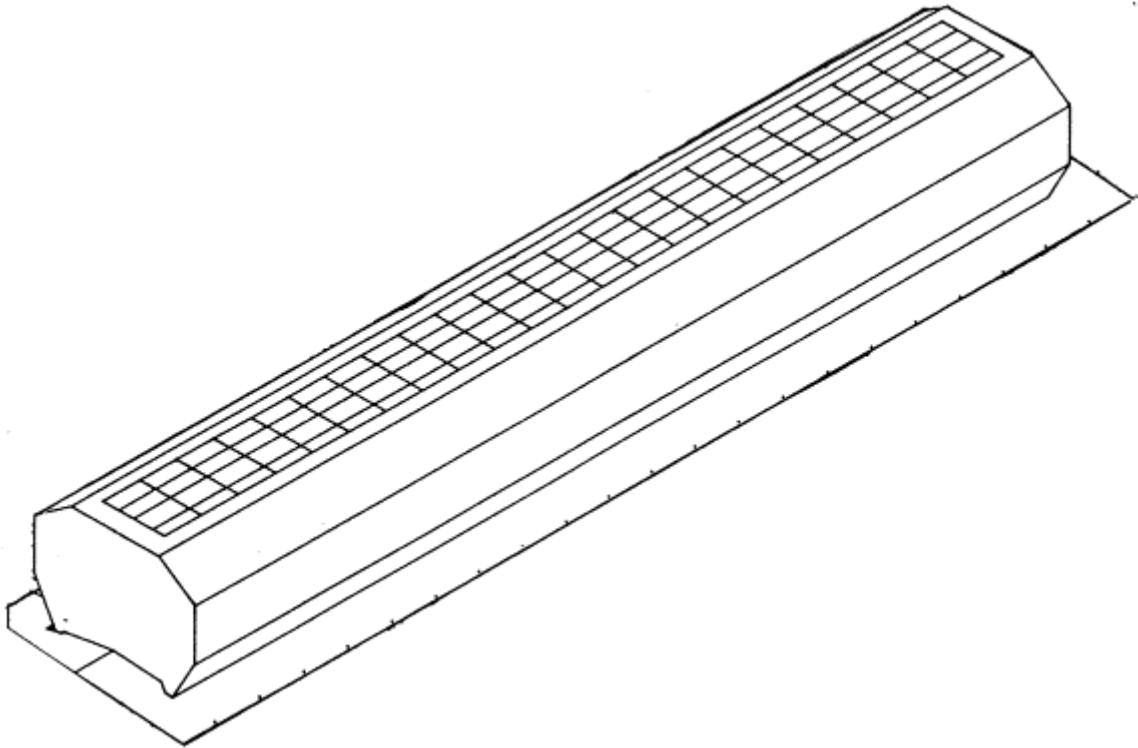
HORIZONTAL SLIDE ALUMINUM WINDOW



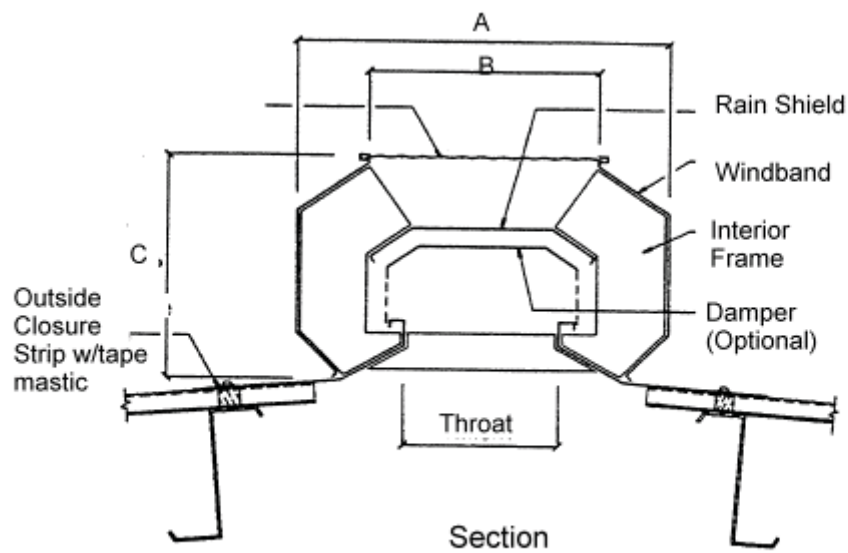
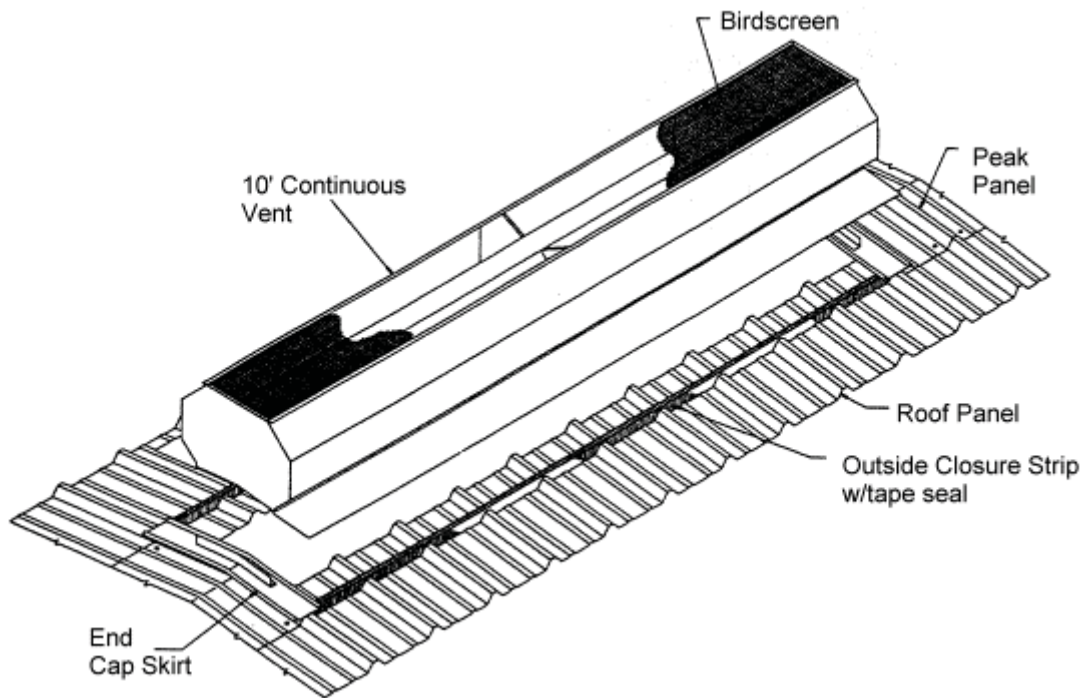
VENT INSTALLATION

Roof Ventilators (Optional)

1. Ventilators may be installed on the roof ridge after the roof sheets are on and before the ridge roll or peak sheet is installed. The ventilators are ten feet long and usually are installed at the peak and between two rafters.
2. Cut out the ridge roll or peak sheet to fit the opening of the ventilator. Ensure that the opening is cut correctly so the ventilator will fit properly and provide enough lap over the opening to prevent leaks. (The roof sheets may need to be trimmed to maximize venting.)
3. Place the ventilator over the opening. Use molded rubber outside sealers to fill the gaps between the ventilator flange and the roof sheets.
4. Attach the ventilator to the roof sheets with lap tek screws. Screw through the vent skirt to the tops of the roof sheet ribs.
5. Locate the vent adjusting pull chains as desired. (According to vents instructions.)

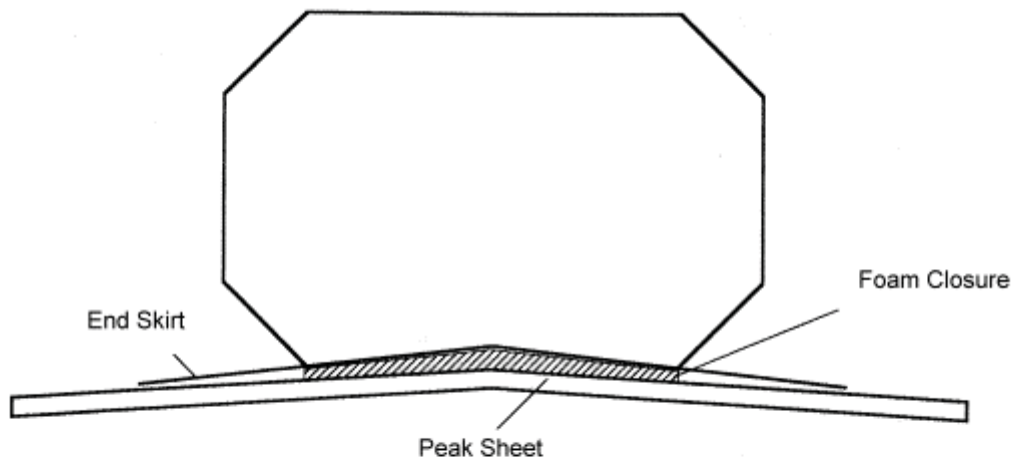
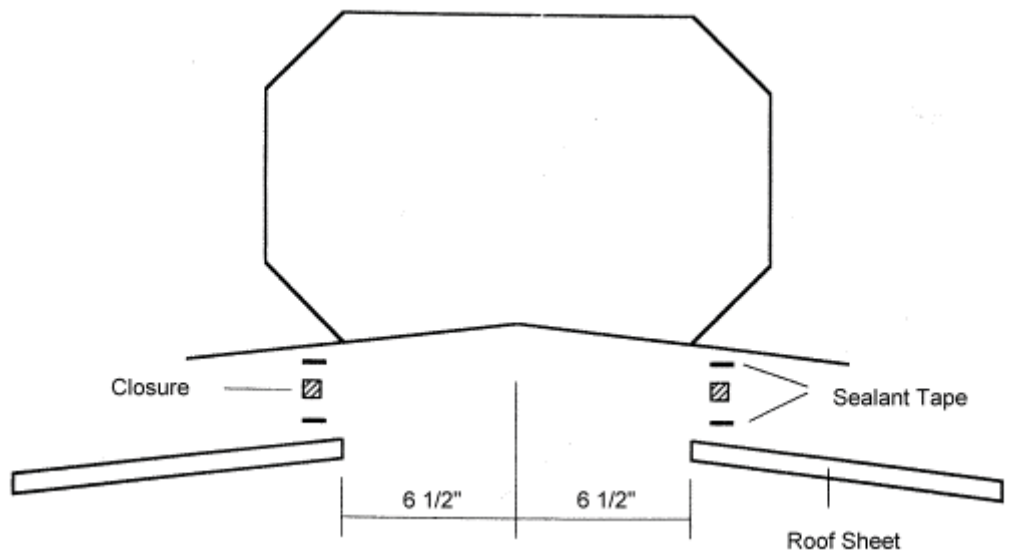


CONTINUOUS RIDGE VENTILATORS



Throat	Ga.	A	B	C
9"	26	22	12 ³ / ₄	15 ¹ / ₄
12"	26	28 ¹ / ₄	17 ¹ / ₄	19 ¹ / ₂

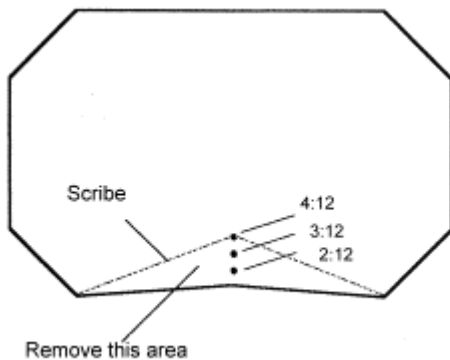
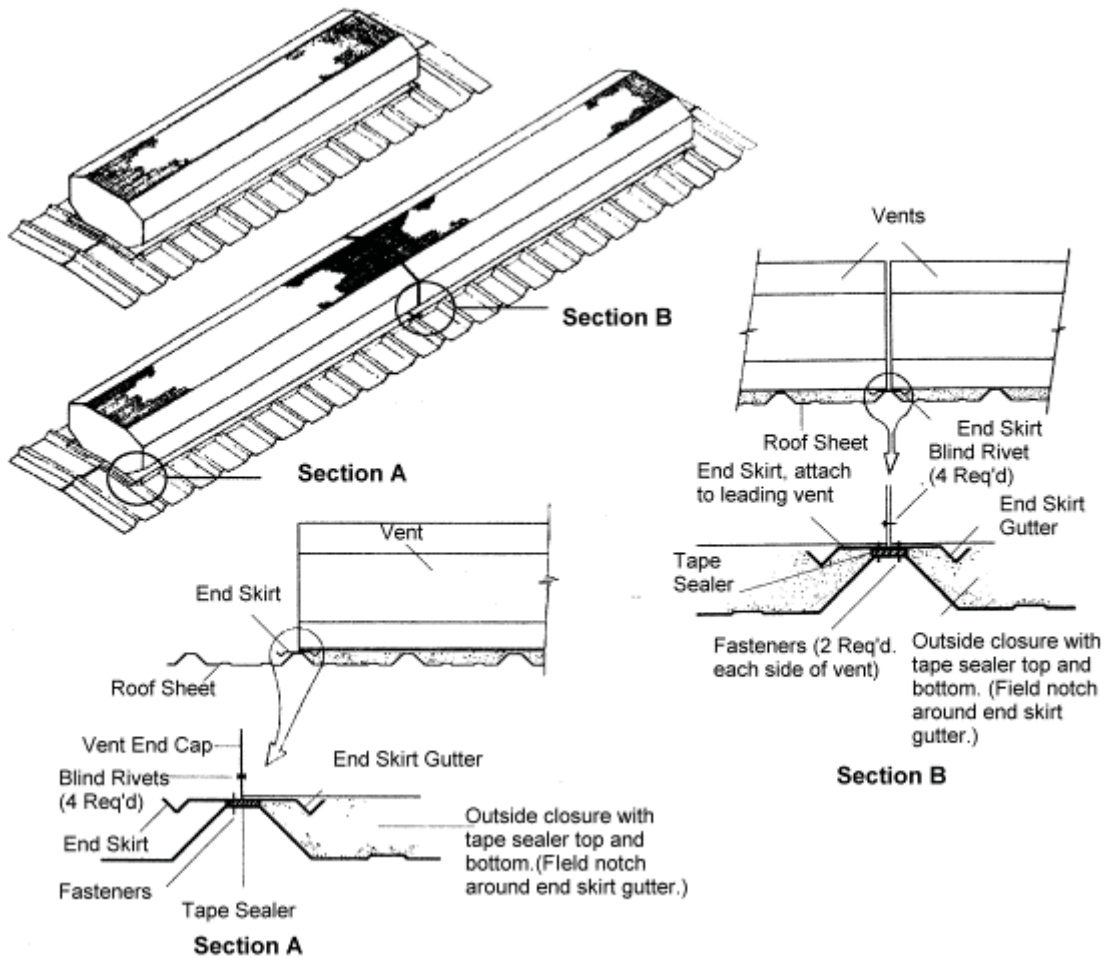
VENT SEALERS



Roof Pitch Less than 1:12

Install the end cap for 1:12 pitch roof slope and foam closure with tape sealer top and bottom.

VENT INSTALLATION



ROOF PITCH GREATER THAN 1:12

End cap is factory pre-cut to 1:12. The three dots embossed in the end cap represent 2:12, 3:12, and 4:12 roof pitches. Select the appropriate dot to represent the roof pitch, scribe two lines from lower corners of the end cap, intersecting at the dot. Remove the area described by the scribe lines and install the end skirt.

PIPE DECK FLASHING INSTALLATION



- | | | | | |
|--|---|---|--|---|
| 1. Trim
Cut opening to 20% smaller than pipe diameter. | 2. Slide
Slip master flash over pipe. | 3. Seal
Apply urethane/silicone sealant between master flash and roofing. | 4. Form
Bend aluminum base to fit irregularities. Use large slot screwdriver to press into tight angles. | 5. Fasten
Complete the seal using common weather-resistant fasteners. |
|--|---|---|--|---|

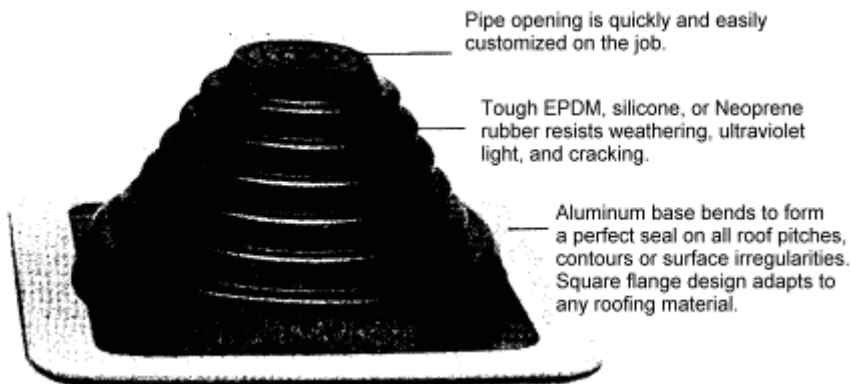
Selection Chart

Master Flash Number	Pipe Size	Base Dimension	Opening Diameter
1	¼" - 2"	4 ½"	Closed
2	1 ¼" - 3"	6"	7/8"
3	¼" - 4"	8"	Closed
4	3" - 6"	10"	2 ½"
5	4" - 7"	11"	3 ½"
6	5" - 9"	12"	4"
7	6" - 11"	14"	5"
8	7" - 13"	17"	6"

Note: Numbers 1 and 3 are closed top. When using master flash on very steep pitched roof or on surface with deep corrugation, use next largest size for increased flange flexibility.

MATERIAL INFORMATION

Material	Guarantee	Temperature Range	Applicable
Neoprene	10 years	-45 degree to +200 degree	ASTM D2000, M2 BC 510 A14, B14, C12, F17, Z1, Z2, Z3
EPDM	20 years	-65 degree to +250 degree	ASTM D2000, M3 BA 510 A14, B13, C12, F17, Z1, Z2, Z3
Silicone	20 years	-100 degree to 450 degree	ASTM D2000, M4 GE 505 A19, B37, C12, F19, Z1, Z2, Z3



Note: Specify Neoprene when Master Flash is to be exposed to petrochemicals.

Section I

Glossary

Metal Building Terms And Definitions



METAL BUILDING TERMS AND DEFINITIONS

Anchor Bolt Plan: A plan view showing the size, location and projection of all anchor bolts for the metal building system components, the length and width of the foundation (which may vary from the nominal metal building size). Column reactions (magnitude and direction) and minimum base plate dimensions may also be included.

Approval Drawings: Approval drawings may include framing drawings, elevations and sections through the building as furnished by the manufacturer for approval of the buyer. Approval by the buyer affirms that the manufacturer has correctly interpreted the overall contract requirements for the metal building system and its accessories, and the exact location of accessories in the building.

AISI: The American Iron and Steel Institute.

AISC: The American Institute of Steel Construction.

AISE: American Iron and Steel Engineers.

Aluminum-coated steel: Steel coated with aluminum for corrosion protection.

Anchor Bolts: Bolts used to anchor structural members to a foundation or other support. Usually refers to the bolts at the bottom of all column and doorjamb.

Architectural Drawing: A drawing that shows the plan view and/or elevations of the finished building for the purpose of showing the general appearance of the building, indicating all accessory locations.

ASCE: American Society of Civil Engineers.

Astragal: A closure between the two leaves of a double swing or double slide door to close the joint.

Automatic Welding: A welding operation utilizing a machine to make a continuous, unbroken weld.

Auxiliary Loads: All specified dynamic live loads other than the basic design loads which the building must safely withstand, such as cranes, material handling systems, machinery, elevators, vehicles, and impact loads.

Awning Window: A window in which the vent or vents pivot outward about the top edge giving the awning effect.

AWS: American Welding Society.

Base Angle: An angle secured to the perimeter of the foundation to support and close wall panels.

Base Plate: A plate attached to the base of a column that rests on the foundation or other support, usually secured by anchor bolts.

Bay: The space between frame centerlines or primary supporting members in the longitudinal direction of the building.

BBC: Basic Building Code (See BOCA).

Beam: A primary member, usually horizontal, that is subjected to bending loads. There are three types: simple, continuous and cantilever.

Beam and Column: A primary structural system consisting of a series of rafter beams supported by columns. Often used as the end frame of a metal building system.

Bearing Plate: A steel plate that is set on the top of a masonry support on which a beam or purlin can rest.

Bent: Primary member of a structural system.

Bill of Materials: A list of items or components used for fabrication, shipping, receiving, and accounting purposes.

Bird Screen: Wire mesh used to prevent birds from entering the building through ventilators and louvers.

Blind rivet: A small-headed pin with expandable shank for joining light gauge metal. Typically used to attach flashing, gutter, etc.

Block or Board Thermal Insulation: Rigid or semi-rigid thermal insulation preformed into rectangular units.

BOCA: Building Officials and Code Administrators International Inc.

Bonded Roof: A roof that carries a written warranty with respect to weathertightness for a stipulated number of years.

Brace Rods: Rods or cables used in roof and walls to transfer loads such as wind loads, and seismic and crane thrusts to the foundation. (Also often used to plumb buildings but not designed to replace erection cables.)

Bracing: Rods, angles or cables used in the plane of the roof and walls to transfer loads, such as wind, seismic and crane thrusts to the foundation.

Bracket: A structural support projecting from a wall or column on which to fasten another structural member. Examples are canopy brackets, lean-to brackets, and crane runway brackets.

Bridge Crane: A load-lifting system consisting of a hoist that moves laterally on a beam, girder, or bridge that in turn moves longitudinally on a runway made of beams and rails. Loads can be moved to any point within a rectangle formed by the bridge span and runway length.

Builder/Contractor: A general contractor or sub-contractor responsible for providing and erecting metal building systems.

Building Code: Regulations established by a recognized agency describing design loads, procedures, and construction details for structures. Usually applying to designated political jurisdiction (city, county, state, etc.)

Built-Up Section: A structural member, usually an "I" section, made from individual flat plates welded together.

Butt Plate: The end plate of a structural member usually used to rest against a like plate of another member in forming a connection. Sometimes called a split plate or bolted end plate.

"C" Section: A member formed from steel sheet in the shape of a block "C", that may be used either singularly or back to back.

Camber: A predetermined curvature designed into a structural member to offset the anticipated deflection when loads are applied.

Canopy: Any overhanging or projecting roof structure with the extreme end usually unsupported.

Cantilever: A projecting beam that is supported and restrained at one end only.

Capillary Action: That action which causes movement of liquids when in contact with two adjacent surfaces such as panel sidelaps.

Cap Plate: A plate located at the top of a column or end of a beam for capping the exposed end of a member.

Caulk: To seal and make weather tight the joints, seams, or voids by filling with a waterproofing compound or material.

Channel – Hot Rolled: A member formed while in a semi-molten state at the steel mill to a shape having standard dimensions and properties.

Clip: A plate or angle used to fasten two or more members together.

Closure Strip: A resilient strip, formed to the contour of ribbed panels used to close openings created by joining metal panels and flashing.

Cold Forming: The process of using press brakes or rolling mills to shape steel into desired cross sections at room temperature.

Collateral Load: All specified additional dead loads other than the metal building framing, such as sprinklers, mechanical and electrical systems, and ceilings.

Column: A primary member used in a vertical position on a building to transfer loads from main roof beams, trusses, or rafters to the foundation.

Continuity: The terminology given to a structural member, as if there were no connections.

Contractor: See builder.

Coverings: The exterior roof and wall covering for a metal building system.

Crane: A machine designed to move material by means of a hoist.

Crane Rail: A track supporting and guiding the wheels of a bridge crane or trolley system.

Crane Runway Beam: The member that supports a crane rail and is supported by columns or rafters depending on the type of crane system. On under hung bridge cranes, a runway beam also acts as a crane rail.

Curb: A raised edge on a concrete floor slab or skylight.

Curtain Wall: Perimeter wall panels that carry only their own weight and wind load.

Damper: A baffle used to open or close the throats of ventilators.

Dead Load: The dead load of a building is the weight of all permanent construction, such as floor, roof, framing, and covering members.

Deflection: The displacement of a structural member or system under load.

Design Loads: Those loads specified in building codes published by Federal, State, County, or City agencies, or in owners' specifications to be used in the design of a building.

Diagonal Bracing: See Brace Rods.

Diaphragm Action: The resistance to racking generally offered by the covering system, fasteners and secondary framing.

Door Guide: An angle or channel guide used to stabilize or keep plumb a sliding or rolling door during its operation.

Downspout: A conduit used to carry water from the gutter of a building to the ground or storm drain.

Drift pin: A tapered pin used during erection to align holes in steel members to be connected by bolting.

Eave: The line along the sidewall formed by the intersection of the planes of the roof and wall.

Eave Height: The vertical dimension from finished floor to the eave.

Eave Strut: A structural member at the eave to support roof panels and wall panels. It may also transmit wind forced from roof bracing to wall bracing.

Elastic Design: A design concept utilizing the proportional behavior of materials when all stresses are limited to specified allowable values.

End Frame: A frame at the endwall of a building to support the roof load from one half the end bay.

Erection: The on-site assembling of fabricated components to form a complete structure.

Erection Drawings: See framing drawings.

Expansion Joint: A break or space in construction to allow for thermal expansion and contraction of the materials used in the structure.

Fabrication: The manufacturing process performed in a plant to convert raw material into finished metal building components. The main operations are cold forming, cutting, punching, welding, cleaning and painting.

Fascia: A decorative trim or panel projecting from the face of a wall.

Fenestration: Windows or other panels of glass; their numbers and location.

Field: The "job site", "building site", or general market area.

Filler Strip: See closure strip.

Finial: Gable closure at ridge.

Fixed Base: A column base that is designed to resist rotation as well as horizontal or vertical movement.

Flange: The projecting edge of a structural member.

Flange Brace: A bracing member used to provide lateral support to the flange of a beam, girder or column.

Flashing: A sheet metal closure which functions primarily to provide weathertightness in a structure and secondarily, to enhance appearance.

Footing: A pad or mat, usually of concrete, located under a column, wall, or other structural member, that is used to distribute the loads from that member into the supporting soil.

Force: The action of one body on another body that changes or tends to change its state of rest or motion. A force may be expressed in pounds (Newtons), kips, or other similar units and may act in any one of the following ways:

- A. **Compression force:** A force acting on a body tending to compress the body, (Pushing action).
- B. **Shear force:** A force acting on a body that tends to slide one portion of the body against the other portion of the body. (Sliding action).

C. **Tension force:** A force acting on a body tending to elongate the body.
(Sliding action).

D. **Torsion force:** A force acting on a body that tends to twist the body.

Foundation: The substructure that supports a building or other structure.

Framed Opening: Frame work (headers and jambs) and flashing which surround an opening in the wall or roof of a building; usually for field-installed accessories such as overhead doors or powered roof exhausters.

Framing: The primary and secondary structural members (columns, rafters, girts, purlins, brace rods, etc.) that go together to make up the skeleton of a structure to which the covering can be applied.

Framing Drawings: Plans and erection instructions which identify all individual parts in sufficient detail to permit the proper erection and installation of all parts of the metal building system furnished by the seller (also known as Erection Drawings).

Gable: A triangular portion of the endwall of a building directly under the sloping roof and above the eave line.

Gable Roof: A ridged roof that terminates in gables.

Galvanized: Coated with zinc for corrosion resistance.

Girder: A main horizontal or near-horizontal structural member that supports vertical loads. It may consist of several pieces.

Girt: A secondary horizontal structural member attached to sidewall or endwall columns to which wall covering is attached and supported horizontally.

Glaze or Glazing: The process of installing glass in windows and doors.

Grade: The term used when referring to the ground elevation around a building.

Grade Beam: A concrete beam around the perimeter of a building carrying an exterior wall.

Grout: A mixture of cement, sand, and water used to fill cracks and cavities. It is often used under base plates or leveling plates to obtain uniform bearing surfaces.

Gutter: A channel member installed at the eave of the roof for the purpose of carrying water from the roof to the drains or downspouts.

Gusset Plate: A steel plate used to reinforce or connect structural elements.

“H” Section: A steel member with an “H” cross-section.

Haunch: The deepened portion of a column or rafter, designed to accommodate the higher bending moments at such points. (Usually occurs at connection of column and rafter.)

Header: A horizontal framing structural member over a door, window or other framed opening.

High Strength Bolts: Any bolt made from steel having a tensile strength in excess of 100,000 lbs. per square inch. Some examples are ASTM A-325 and A-490.

Hinged Base: See Pin connection.

Hip Roof: A roof that rises by inclined planes from all four sides of a building. The line where two adjacent sloping sides of a roof meet is called the Hip.

Hoist: A mechanical lifting device usually attached to a trolley that travels along a bridge, monorail, or jib crane. May be chain or electric operated.

Hood (Door): The metal flashing used over exterior slide door track along the full length of the door header to protect the tracks from weather and to conceal them for aesthetic purposes.

Hot-Rolled Shapes: Steel sections (angles, channels, I-beams, etc.) which are formed by rolling mills while the steel is in a semi-molten state.

ICBO: International Conference of Building Officials.

Impact Load: An assumed dynamic load resulting from the motion of machinery, elevators, craneways, vehicles, and other similar moving forces.

Impact Wrench: An electric or pneumatic device used to tighten nuts on bolts.

Insulation: Any material used in building construction to reduce heat transfer.

Internal Pressure: Pressure inside a building that is a function of wind velocity, and number and location of openings.

Jack Beam: A beam used to support another beam or truss and eliminate a column support.

Jack Truss: A truss used to support another truss or beam and eliminate a column support.

Jib Crane: A cantilevered boom or horizontal beam with hoist and trolley. This lifting machine may pick up loads in all or part of a circle around the column to which it is attached.

Jig: A device used to hold pieces of material in a certain position during fabrication.

Kick-Out (Elbow): (Turn-out) a lower downspouts section used to direct water away from a wall.

Kip: A unit of measure equal to 1,000 pounds. (4.4 KN)

Knee: The connecting area of a column and rafter of a structural frame such as a rigid frame.

Knee Brace: A diagonal brace designed to resist horizontal loads usually from wind or moving equipment. This member normally has the lower end connected to a column and the upper end connected to an eave strut.

Lean-to: A structure such as a shed, having only one slope or pitch and depending upon another structure for partial support.

Leveling Plate: A steel plate used on top of a foundation or other support on which a structural column can rest.

Liner Panel: A panel applied as an interior finish.

Live Load: Live load means all loads, including snow, exerted on a roof except dead, wind and lateral loads.

Load Indicator Washer: A washer for high-strength bolts in which pre-tension load can be measured as a function of amount of compression on raised portions of the washer.

Loads: Anything that causes a force to be exerted on a structural member.
Examples of different types are:

- A. **Dead Load**
- B. **Impact Load**
- C. **Roof Live Load**
- D. **Seismic Load**
- E. **Wind Load**
- F. **Crane Load**
- G. **Collateral Load**
- H. **Auxiliary Load**

Louver: An opening provided with fixed or movable, slanted fins to allow the flow of air.

Main Frame: An assemblage of rafters and columns that support the secondary framing members and transfer loads directly to the foundation.

Manufacturer: A party who designs and fabricates a Metal Building System.

Manufacturer's Engineer: An engineer employed by a manufacturer who is in responsible charge of the structural design of a Metal Building System fabricated by the manufacturer. The manufacturer's engineer is typically not the Engineer of Record.

Masonry: Anything constructed of materials such as bricks, concrete blocks, ceramic blocks and concrete.

Mastic: Caulking or sealant normally used in sealing roof panel laps.

MBMA: Metal Building Manufacturers Association.

Metal Building Fiber Glass Insulation: A grade of fiberglass insulation blanket specifically manufactured for lamination to a vapor retarder.

Moment: The tendency of a force to cause rotation about a point or axis.

Moment Connection: A connection between two members which transfers the moment from one side of the connection to the other side, and maintains under application of load the same angle between the connected members that exist prior to the loading. Also, a connection that maintains continuity.

Moment of Inertia: A physical property of a member, which helps define strength and deflection characteristics.

Monolithic Construction: A method of pouring concrete grade beam and floor slab together to form the building foundation without forming and pouring each separately.

Monorail: A single rail support for a material handling system. Normally a standard hot-rolled I-Beam.

Multi-Span Building: Buildings consisting of more than one span across the width of the building. Multiple gable buildings and single gable buildings with interior posts are examples.

Oil Canning: A waviness that may occur in flat areas of light gage, formed metal products. Structural integrity is not normally affected by this inherent characteristic and therefore is only an aesthetic issue.

Overhead Doors: See "Sectional Overhead Doors".

Parapet: That portion of the vertical wall of a building that extends above the roof line.

Peak: The uppermost point of a gable.

Personnel Doors: A door used by personnel access to and exit from a building.

Pier: A concrete structure designed to transfer vertical load from the base of a column to the footing.

Pin Connection: A connection designed to transfer axial and shear forces between connecting members, but not moments.

Pitch: The peak height of a gabled building divided by its overall span.

Portal Frame: A rigid frame so designed that it offers rigidity and stability in its plane. It is generally used to resist longitudinal loads where other bracing methods are not permitted.

Post: See "Column"

Post and Beam: See "Beam and Column".

Pre-painted Coil: Coil of metal that has received a paint coating.

Primary Framing: See "Main Frame".

Public Assembly: A building or space where 300 or more persons may congregate in one area.

Purlin: A horizontal structural member that supports roof covering.

Rafter: The main beam supporting the roof system.

Rake: The intersection of the plane of the roof and the plane of the endwall.

Rake Angle: Angle fastened to purlins at rake for attachment of endwall panels.

Rake Trim: A flashing designed to close the opening between the roof and endwall panels.

Reactions: The resisting forces at the column bases holding the structure in equilibrium under a given loading condition.

Rib: The longitudinal raised profile of a panel that provides much of the panel's bending strength.

Ribbed Panel: A panel that has ribs with sloping sides and forms a trapezoidal shaped void at the side lap.

Ridge: The horizontal line formed by opposing sloping sides of a roof running parallel with the building length.

Ridge Cap: A transition of the roofing materials along the ridge of a roof; sometimes called ridge roll or ridge flashing.

Rigid Connection: See "Moment Connection".

Rigid Frame: A structural frame consisting of members joined together with moment connections so as to render the frame stable with respect to the design loads, without the need for bracing in its plane.

Rolling Doors: Doors that are supported at the bottom on wheels that run on a track.

Roll-up Door: A door that opens by traveling vertically.

Roof Covering: The exposed exterior roof surface consisting of panels.

Roof Live Load: Loads that are produced (1) during maintenance by workers, equipment, and materials, and (2) during the life of the structure by movable objects and do not include wind, snow, seismic or dead loads.

Roof Overhang: A roof extension beyond the endwall or sidewall of a building.

Roof Slope: The tangent of the angle that a roof surface makes with the horizontal, usually expressed in units of vertical rise to 12 units of horizontal run.

Roof Snow Load: That load induced by the weight of snow on the roof of the structure. Usually obtained by taking a fraction of the “Ground Snow Load”.

Ropeseal: See “Sealant”.

Runway Beam: See “Crane Runway Beam”.

Runway Bracket: A bracket attached to the column of a building frame, which supports the runway beam for top-running cranes.

Sag Member: A tension member such as rods, straps or angles used to limit the deflection of a girt or purlin in the direction of its weak axis.

Screwed Down Roof System: See “Through-fastened roof system”.

Sealant: Any material that is used to seal cracks, joints or laps.

Secondary Framing: Members that carry loads from the building surface to the main framing. For example – purlins and girts.

Sectional Overhead Doors: Doors constructed in horizontally hinged sections. They are equipped with springs, tracks, counter balancers, and other hardware that roll the sections into an overhead position, clear of the opening.

Seismic Load: The lateral load acting in any horizontal direction on a structural system due to the action of an earthquake.

Self-Drilling Screw: A fastener that combines the functions of drilling and tapping.

Self-Tapping Screw: A fastener that taps its own threads in a predrilled hole.

Shipping List: See “Bill of Materials”.

Shop Primer Paint: The initial coat of primer paint applied in the shop.

Side Lap Fastener: A fastener used to connect panels together at their side lap.

Sidewall: An exterior wall that is perpendicular to the frames of a building system.

Sidewall Overhang: See “Roof Overhang”.

Sill: The bottom horizontal framing member of a wall opening such as a window or door.

Simple Connection: See “Pin Connection”.

Simple Span: A term used in structural design to describe a beam support condition at two points which offers no resistance to rotation at the supports.

Single Slope: A sloping roof in one plane. The slope is from one wall to the opposite wall.

Single Span: A building or structural member without intermediate support.

Skylight: A roof accessory to admit light, normally mounted on a curbed framed opening.

Slide Door: A single or double leaf door that opens horizontally by means of sliding on an overhead trolley.

Slope: See “Roof Slope”.

Snow Load: See “Roof Snow Load”.

Snug Tight: The tightness of a bolt in a connection that exists when all plies in a joint are in firm contact.

Soffit: A material that covers the underside of an overhang.

Soldier Column: An intermediate column used to support secondary structurals; not part of a mainframe or beam and column system.

Span: The distance between supports of beams, girders, or trusses.

Specification (Metal Building System): A statement of a set of Metal Building System requirements describing the loading conditions, design practices, materials and finishes.

Splice: A connection in a structural member.

Spud Wrench: A tool used by erectors to line up holes and to make up bolted connections; a wrench with a tapered handle.

Square: The term used for an area of 100 square feet.

Standing Seam: Side joints of roof panels that are arranged in a vertical position above the roofline.

Standing Seam Roof System: A standing seam roof system is one in which the side laps between the roof panels are arranged in a vertical position above the roof line. The roof panel system is secured to the roof substructure by means of concealed hold down clips attached with screws to the substructure, except that through fasteners may be used at limited locations such as at ends of panels and at roof penetrations.

Stiffener: A member used to strengthen a plate against lateral or local buckling. Usually a flat bar welded perpendicular to the longitudinal axis of the member.

Stitch Screw: A fastener connecting panels together at the sidelap.

Stress: A measure of the load on a structural member in terms of force per unit area.

Strut: A member fitted into a framework that resists axial compressive forces.

Tapered Members: A built up plate member consisting of flanges welded to a variable depth web.

Tensile Strength: The longitudinal pulling stress a material can bear without tearing apart.

Thermal Block: A spacer of low thermal conductance material.

Thermal Resistance (R-Value): Under steady conditions, the mean temperature difference between two defined surfaces of material or construction that induces unit heat flow through unit area. Note: Thermal resistance and thermal conductance are reciprocals. Thermal resistances are R-values, to obtain the U-factor, overall thermal transmittance; the R-value for either materials or constructions must first be evaluated because, by definition, the U-factor is the reciprocal of the sum of the individual R-values.

Through-Fastened Roof System: A through-fastened roof system is one in which the roof panels are attached directly to the roof substructure with fasteners which penetrate through the roof sheets and into the substructure.

Ton: 2000 pounds.

Track: A metal way for wheeled components; specifically, one or more lines of ways, with fastenings, ties, etc., for a craneway, monorail or slide door.

Translucent Light Panels: Panels used to admit light.

Transverse: The direction parallel to the main frames.

Trim: The light gage metal used in the finish of a building, especially around openings and at intersections of surfaces. Often referred to as flashing.

Turn-of-the-Nut Method: A method for pre-tensioning high strength bolts. The nut is turned from the "Snug tight" position, corresponding to a few blows of an impact wrench or the full effort of a man using an ordinary spud wrench, the amount of rotation required being a function of the bolt diameter and length.

Uplift: Wind load on a building that causes a load in the upward direction.

Valley Gutter: A channel used to carry off water from the "V" of roofs of multi-gabled buildings.

Vapor Barrier: Material used to retard the flow of vapor or moisture to prevent condensation from forming on a surface.

Ventilator: An accessory, usually used on the roof, that allows the air to pass through.

Walk Door: See "Personnel Door".

Wall Covering: The exterior wall surface consisting of panels.

Web: That portion of a structural member between the flanges.

Web Stiffener: See "Stiffener".

Width: The dimension of the building measured parallel to the main framing from sidewall to sidewall.

Wind Bent: See "Portal Frame".

Wind Column: A vertical member designed to withstand horizontal wind loads.

Wind Load: The load caused by the wind from any horizontal direction.

X-Bracing: Bracing system with members arranged diagonally in both directions to form an "X". See "Bracing".

"Z" Section: A member cold formed from steel sheet in the shape of a "Z".

sustainable insulation™

Specification Sheet

Metal Building Insulation 202-96

PRODUCT DESCRIPTION

Basic Use: CertainTeed Fiber Glass Metal Building Insulation 202-96 is a flexible blanket insulation furnished in rolls and intended to be laminated on one side with a suitable vapor retarder. It is used as a thermal and acoustical insulation in the roofs and sidewalls of pre-engineered metal buildings and post frame construction.

Benefits: Metal Building Insulation 202-96 reduces transmission of exterior sound to the interior of the building and absorbs reverberating sounds within the building.

Composition and Materials: The product is composed of tan, uniformly textured, inorganic fibrous glass and formed with a formaldehyde-free binding agent.

Limitations: This product is designed for use in interior (weather protected) walls and roofs of pre-engineered metal buildings. It should be laminated on a first-in, first-out basis and should be kept dry at all times during processing and end use. After lamination, packaging should not exceed a 5.5:1 compression ratio. For additional information, please refer to the appendix of the NAIMA 202-96 (Rev. 2000) standard.

Sizes: Standard available sizes as noted in table below. Contact CertainTeed for non-standard sizes.



INSTALLATION

The vapor retarder on Metal Building Insulation 202-96 should be installed toward the conditioned spaces in the building. The insulation is normally applied over or between the structural members of the building and held in place by the covering sheets or insulation support system. When using high R-Value systems, it is recommended that the cavity between the exterior metal sheet and the faced fiber glass insulation should be completely filled.

THERMAL PERFORMANCE

Nominal Thickness (Pre-Lamination)		R-Value	
in.	mm	R	RSI
3%	86	10	1.76
3%	95	11	1.94
4%	111	13	2.29
5%	133	16	2.82
6%	162	19	3.35
6%	171	21	3.70
8	203	25	4.40
9%	235	30	5.30

AVAILABLE SIZES

R-Value	Nominal Thickness		Width		Length	
	in.	mm	in.	mm	ft.	m
10	3%	76.2	36, 48, 60, 72	914, 1219, 1524, 1829	100	30.5
11	3%	88.9	36, 48, 60, 72	914, 1219, 1524, 1829	100	30.5
13	4%	101.6	36, 48, 60, 72	914, 1219, 1524, 1829	75	22.9
16	5%	133.35	36, 48, 60, 72	914, 1219, 1524, 1829	50	15.2
19	6%	127	36, 48, 60, 72	914, 1219, 1524, 1829	50	15.2
21*	6%	152.4	36, 48, 60, 72	914, 1219, 1524, 1829	45	13.7
25*	8	203.2	36, 48, 60, 72	914, 1219, 1524, 1829	30	9.1
30*	9%	203.2	36, 48, 60, 72	914, 1219, 1524, 1829	25	7.6

Non-standard widths are available and subject to an upcharge on an individual basis determined by manufacturer's capability, quantity, lead times and packaging availability. *R-21, R-25 and R-30 are made to order.

Product Name	CertainTeed Metal Building Insulation 202-96
Manufacturer	CertainTeed Corporation
Address	P.O. Box 860 Valley Forge, PA 19482-0105
Phone	610-341-7000 • 800-233-8990
Fax	610-341-7571
Website	www.certainteed.com/insulation

TECHNICAL DATA

Applicable Standards

- Model Building Codes:
 - ICC
- Material Standards:
 - ASTM C991, Type I
 - NAIMA 202-96 (Rev. 2000)

Fire Resistance

- Fire Hazard Classification:
 - UL 723, ASTM E84, NFPA 255
Max. Flame Spread Index: 25
Max. Smoke Developed Index: 50
 - CAN/ULC-S102-M88
- Non-combustible:
 - ASTM E136 / Meets requirements

Physical/Chemical Properties

- Thermal Resistance:
 - ASTM C518 and/or ASTM C177 at 75°F (24°C)
mean temperature: see table at left
- Acoustical Performance: see tables on other side
- Water Vapor Sorption:
 - ASTM C1104 / No greater than 5.0% by weight
- Corrosiveness:
 - ASTM C665 / Meets requirements for steel, copper and aluminum
- Odor Emission:
 - ASTM C1304 / Pass
- Fungi Resistance:
 - ASTM C1338 / Pass Test

Quality Assurance

CertainTeed's commitment to quality and environmental management has ensured the registration of the Athens, Chowchilla and Kansas City plants to ISO 9001:2000 and ISO 14001:2004 standards.

AVAILABILITY AND COST

Manufactured and sold throughout the United States and Canada. For availability and cost, contact your local distributor or call CertainTeed Sales Support Group in Valley Forge, PA at 800-233-8990.

WARRANTY

In as much as CertainTeed has no control over installation design, installation workmanship, accessory materials or conditions of application, CertainTeed does not warrant the performance or results of any installation containing its products.

MAINTENANCE

An inspection and preventative maintenance program for the insulation and vapor retarder system is recommended to ensure optimum performance.

TECHNICAL SERVICES

Technical assistance can be obtained either from the local CertainTeed sales representative, or by calling CertainTeed Sales Support Group in Valley Forge, PA at 800-233-8990.

FILING SYSTEMS

- CertainTeed Pub. No. 30-25-056.
- Additional product information available upon request.

SOUND ABSORPTION - UNFACED

R-Value	Nom. Thickness		Absorption Coefficients @ Octave Band Frequencies (Hz)						NRC
	in.	mm	125	250	500	1000	2000	4000	
10	3 $\frac{3}{8}$	86	0.29	0.82	1.02	0.94	0.96	0.98	0.95
11	3 $\frac{1}{2}$	95	0.39	0.91	1.01	0.92	0.93	0.98	0.95
13	4 $\frac{3}{8}$	111	0.53	0.97	1.04	0.90	0.95	0.98	0.95
16	5 $\frac{1}{4}$	133	0.67	1.05	1.02	0.92	0.98	0.99	1.00
19	6 $\frac{3}{8}$	162	0.89	1.22	1.02	0.98	1.01	1.00	1.05

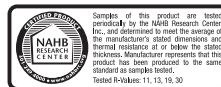
Sound absorption tested in accordance with ASTM C423 using Type A mounting per ASTM E795.

SOUND TRANSMISSION

Construction Type	Transmission Loss in dB at the Octave Frequencies						STC Rating
	125	250	500	1000	2000	4000	
ROOFS							
No Insulation	12	13	19	24	30	32	24
R-10 Faced 202-96 Insulation Over the Purlins	12	16	26	37	45	49	29
R-19 Faced 202-96 Insulation Over the Purlins	13	20	30	41	49	51	32
202-96 Insulation Over & Between the Purlins to Fill the Cavity (R-25 Combined)	14	24	34	44	53	56	36
WALLS							
No Insulation	12	14	19	19	20	27	21
R-10 Faced 202-96 Insulation Over the Girts	13	16	25	32	37	46	28
R-13 Faced 202-96 Insulation Over the Girts	13	17	26	33	38	47	29
R-13 Faced 202-96 Insulation Over the Girts 3-5/8" Steel Studs on 24" Centers with 1/2" Gyp. Board on Interior	26	40	51	60	64	65	50
R-13 Faced 202-96 Insulation Over the Girts 3-5/8" Steel Studs on 24" Centers with R-11 Batts & 1/2" Gyp. Board on Interior	31	43	55	68	73	75	54

Sound Transmission Class (STC) in accordance with ASTM E90.

- Roof construction is 24ga. standing seam roof with 8" Z purlins on 5' centers.
- Wall construction is 26ga. wall panels screwed to 8" Z girts placed on 7' centers.
- Interior metal furring wall studs were 3-5/8" by 25ga. on 24' centers.



ASK ABOUT OUR OTHER CERTAINTEED PRODUCTS AND SYSTEMS:

EXTERIOR: ROOFING • SIDING • WINDOWS • FENCE • RAILING • TRIM • DECKING • FOUNDATIONS • PIPE
INTERIOR: INSULATION • GYPSUM • CEILINGS

CertainTeed Corporation
P.O. Box 860
Valley Forge, PA 19482

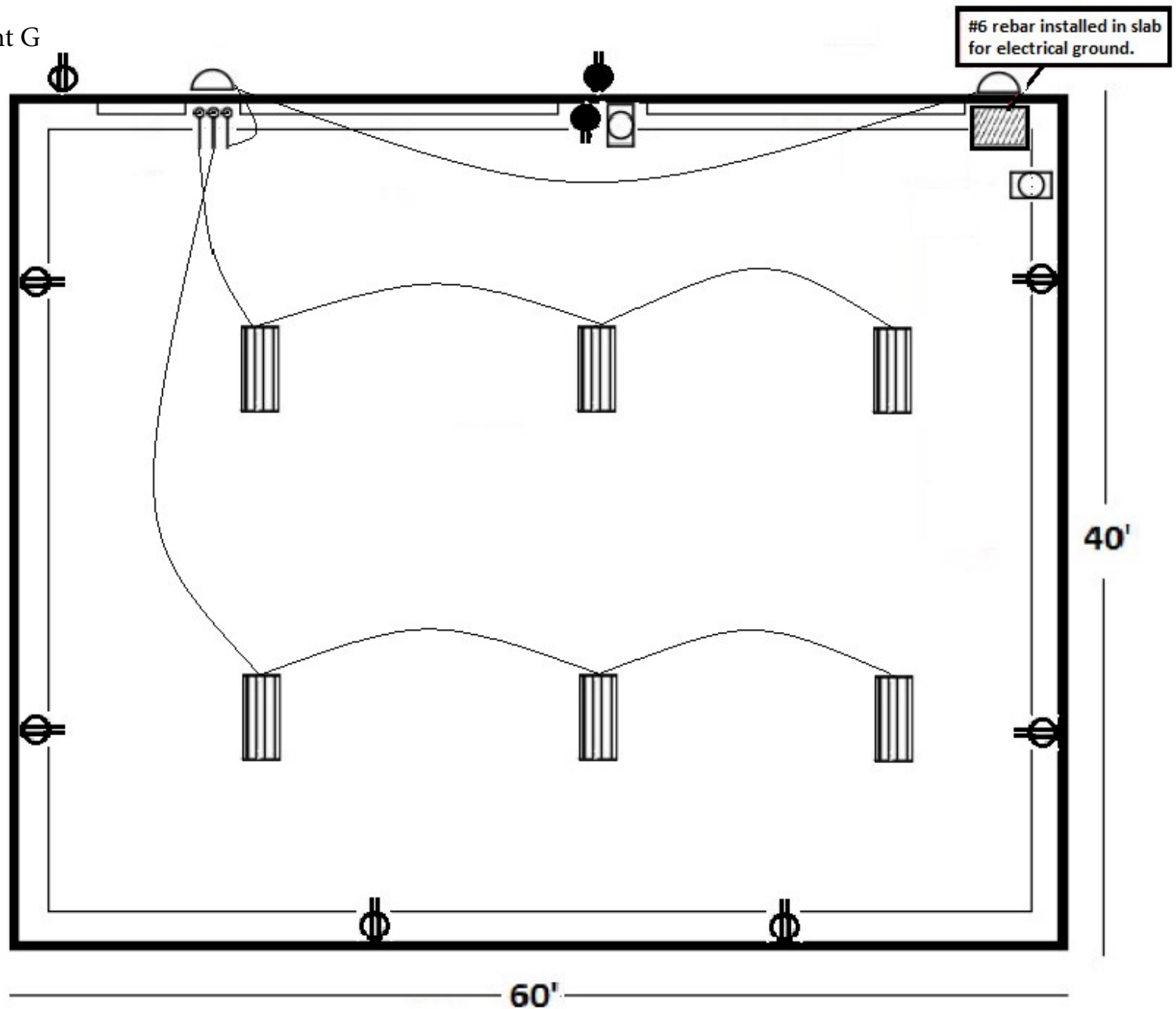
Professional: 800-233-8990
Consumer: 800-782-8777
www.certainteed.com/insulation

CertainTeed
SAINT-GOBAIN

Attachment F



Attachment G



- | | | | |
|--|--|--|---|
|  Duplex Receptacle at 48" |  Dedicated Duplex Receptacle at 48" |  200 AMP Electrical Panel |  Flood Light |
|  3 Gang Light Switch |  LED Double Light Strip |  220 Volt Plug at 48" | |

Attachment H

New Barn

125'

Power Pole

Myers Park &

Attachment I

Technical Details

- Hanging chain and hardware included
- 4,200 lumen output
- Sturdy 1-piece aluminum housing
- White reflective interior
- Electronic drivers

Light of America LED Utility Shoplight 40 watt 4200 Lumen 48"
Aluminum housing. Hanging hardware (chain) included.

Product Description

Light of America LED Utility Shoplight 40 watt 4200 Lumen 48" (4 feet) with pull On/Off. One piece Aluminum housing. Hanging hardware (chain) included.

Product Information

Technical Details

Brand	Lights of America
Part Number	8140SE
Item Weight	5.2 pounds
Product Dimensions	47.4 x 6.3 x 2.9 inches
Item model number	8140SE
Color	Silver
Shape	Reflector
Voltage	120 volts
Fixture Features	Hanging chain and hardware included, 4,200 lumen output, Sturdy 1-piece aluminum housing, White reflective interior, Electronic drivers
Type of Bulb	LED
Wattage	40 watts
Bulb Features	Instant On
Color Temperature	5000 Kelvin



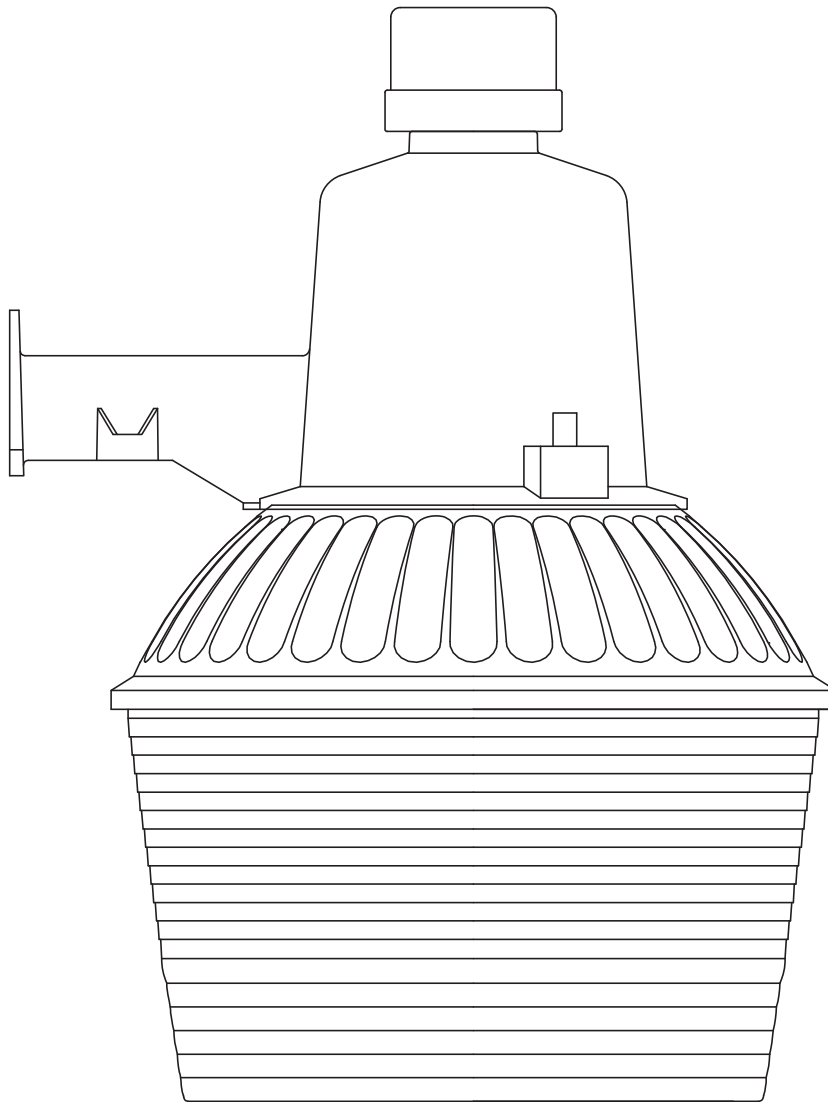


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ITEM #0593682
**DUSK-TO-DAWN
AREA LIGHT**
MODEL #6240-PHO

Français p. 13

Español p. 25



Questions, problems, missing parts? Before returning to your retailer, call our customer service department at 1-866-994-4148, 8 a.m. - 6 p.m., EST, Monday - Thursday, 8 a.m. - 5 p.m., EST, Friday.

AB14147




TABLE OF CONTENTS


Safety Information	2
Package Contents	3
Preparation	4
Installation Instructions	5
Bulb Replacement	8
Care and Maintenance	9
Troubleshooting	12
Warranty	12


SAFETY INFORMATION


Please read and understand this entire manual before attempting to assemble, operate or install the product. If you have any questions regarding the product, please call customer service at 1-866-994-4148 8 a.m. - 6 p.m., EST Monday - Thursday, 8 a.m. -5 p.m., EST, Friday.

Understanding Hazard Signal Words:


 **DANGER:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

 **WARNING:** Indicates a potentially hazardous situation that, if not avoided, may result in damage to the product.

 **WARNING:** READ AND UNDERSTAND ALL SAFETY AND OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO INSTALL OR OPERATE THIS PRODUCT.

 **DANGER:** Consult a qualified electrician if you are not certain about the installation process. All wiring must be installed in accordance with the National Electrical Code (Canadian Electrical Code in Canada). Always install wiring connections in accordance with local code, ordinances and the National Electrical Code. Please contact a qualified electrician if you have any questions regarding the installation.

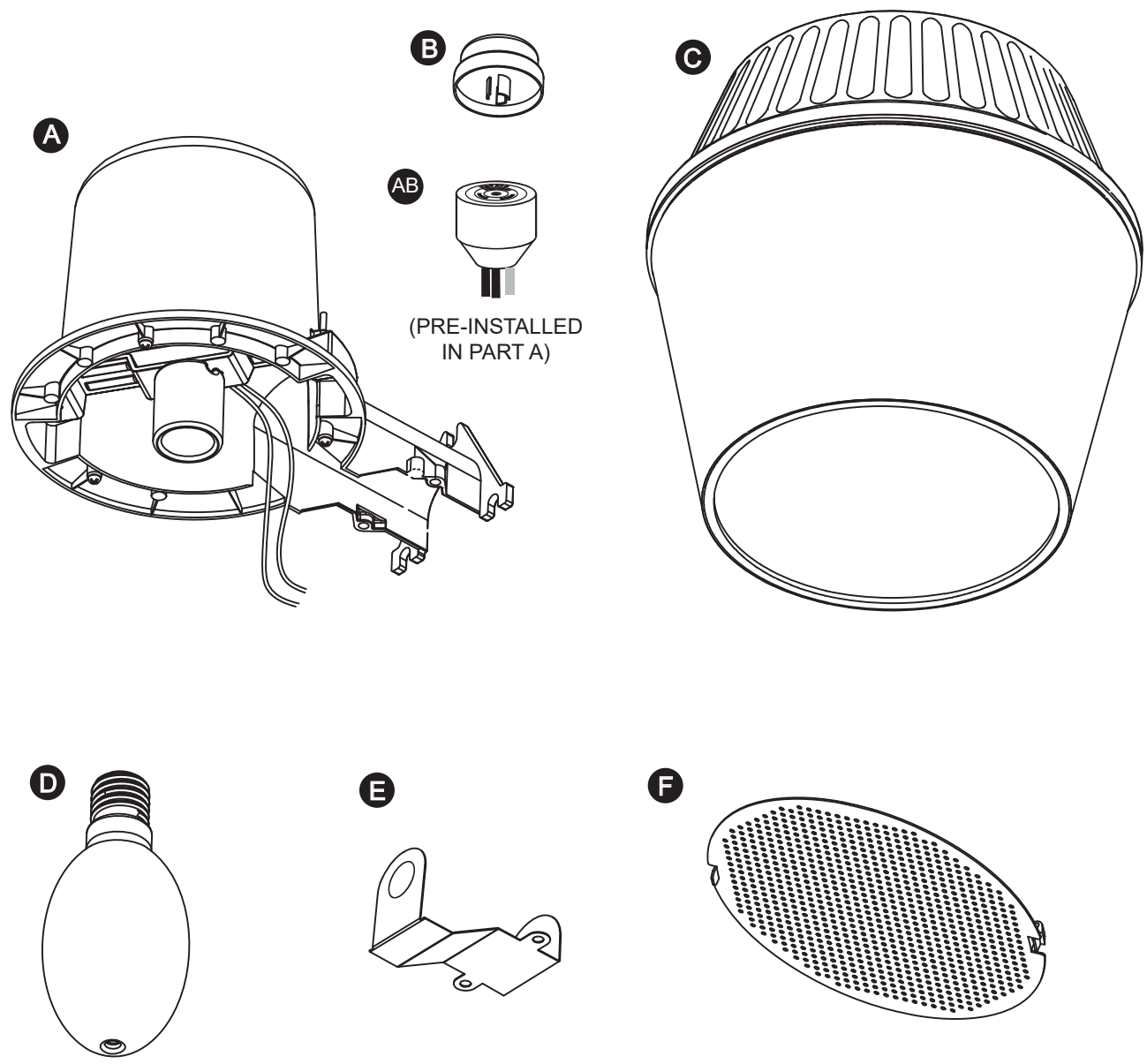
 **DANGER:** Fixture must be connected to a 120-volt, 60 hertz power source.

 **DANGER:** Turn power off at the circuit breaker or fuse box before starting installation!

 **DANGER:** DO NOT rely on wall switch alone to turn off power.

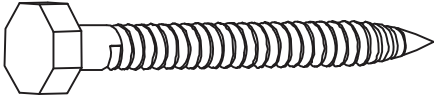






READ ALL INSTRUCTIONS! SAVE THESE INSTRUCTIONS!

PACKAGE CONTENTS



Part	Description	Quantity
A	Fixture Housing Assembly with Ground Screw	1
AB	Photocontrol Socket (pre-installed in part A)	1
B	Photocontrol	1
C	Lens Assembly	1
D	100-watt Metal Halide Type M90/E Bulb	1
E	Cover Plate	1
F	Protective Screen	1

HARDWARE CONTENTS

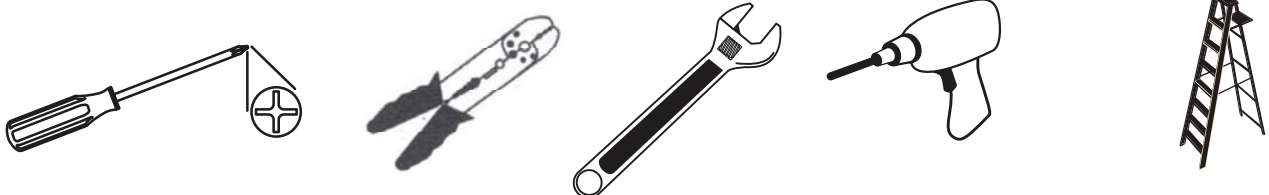
Part	Description	Quantity	Picture (Shown to size)
AA	1/4 in. x 2 in. Lag Screw	3	
BB	1/4 in. Washer	3	
CC	M4 x 18 Screw	2	
DD	M4 Washer	4	
EE	M4 Nut	2	
FF	Wire Nut	2	
GG	M4 x 5 Screw	3	 (Preinstalled in Fixture Housing)

PREPARATION

Before beginning assembly of product, make sure all parts are present. Compare parts with package contents list and diagram above. If any part is missing or damaged, do not attempt to assemble the product. Contact customer service for replacement parts. This light fixture is designed to fit standard junction boxes as defined by the National Electrical Code. As an alternative, this light fixture may be installed using conduit connection. Please contact a qualified electrician if you have any questions regarding the installation. If any part is missing or damaged, or you are unsure how to proceed with assembly, do not attempt to install or use the product.

Estimated Assembly Time: 30 - 60 minutes

Tools Required for Assembly (not included): Phillips screwdriver, small adjustable wrench, wire cutters/strippers, power drill with 3/16 in. (4.8 mm) drill bit, step ladder. (not included).

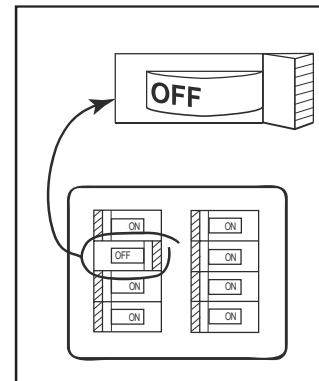


INSTALLATION INSTRUCTIONS

⚠ DANGER: Fixture must be connected to a 120 Volt, 60 Hz power source.

⚠ DANGER: Turn power off at the circuit breaker or fuse box before starting installation!

⚠ DANGER: DO NOT rely on wall switch alone to turn off power.



Step 1: Attach Fixture Housing Assembly

Select a location on a flat wall with structurally sound wood and from 10 to 25 feet (3 to 7.6 m) from the ground. The wood should be at least one inch (25 mm) thick to safely secure the fixture. The fixture (A) can be mounted with three lag screws (AA) and washers (BB) which are provided. Using the fixture (A) as a mounting template, mark three mounting holes. We suggest drilling 3/16 in. (4.8 mm) pilot holes for the lag screws. Install the bottom two (AA) with washers (BB) first. Screw in the lag screws (AA) so that there is about 3/8 in. (9.5 mm) of space under (BB). Place (A) on these two (AA) and install the top (AA) and (BB). Tighten the top (AA) first, and then tighten the remaining (AA) (see Fig 1).

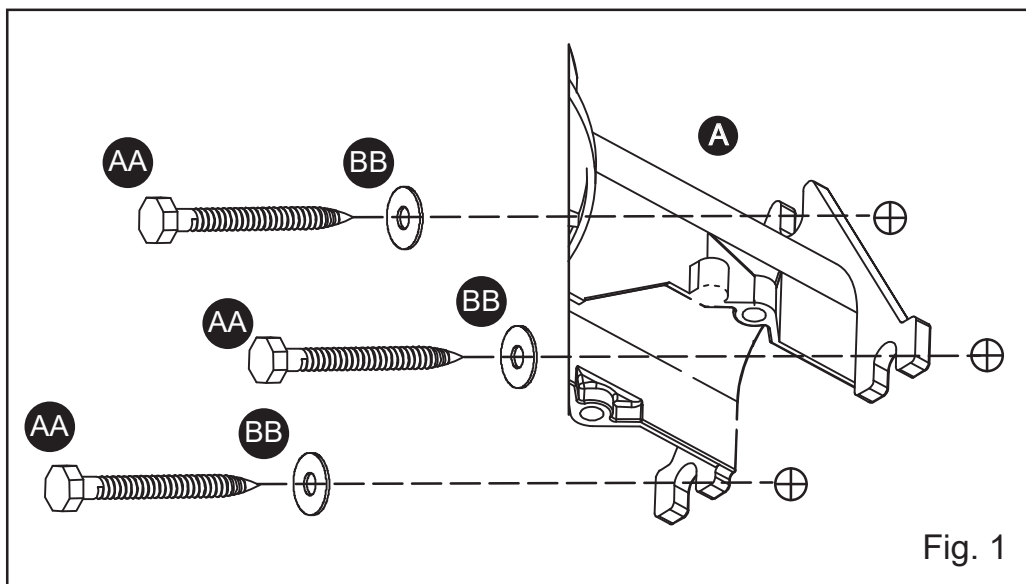


Fig. 1

Step 2: Connect Supply Wiring

Secure your outdoor cable or flexible conduit to the cover plate (E) with a fitting in accordance with the National Electrical Code (Canadian Electrical Code in Canada). Thread the black and white fixture wires through the hole in (E) as shown (see Fig 2). Connect the fixture wires to the service wires using the wire nuts (FF) provided (black to black and white to white). This fixture must be grounded. Connect the service ground wire under the head of the green ground screw and secure to the fixture.

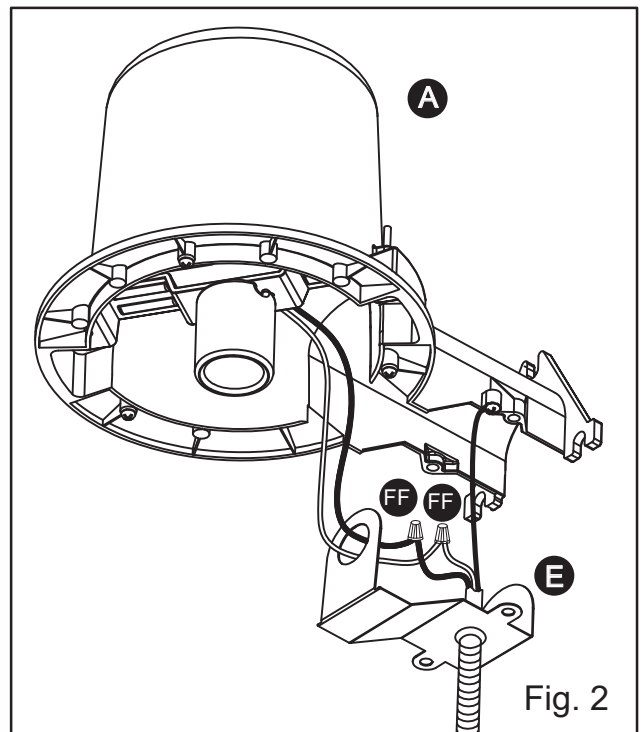


Fig. 2

Step 3: Attach Cover Plate

Install (E). Secure with the screws (CC), washers (DD) and nuts (EE) (see Fig 3).

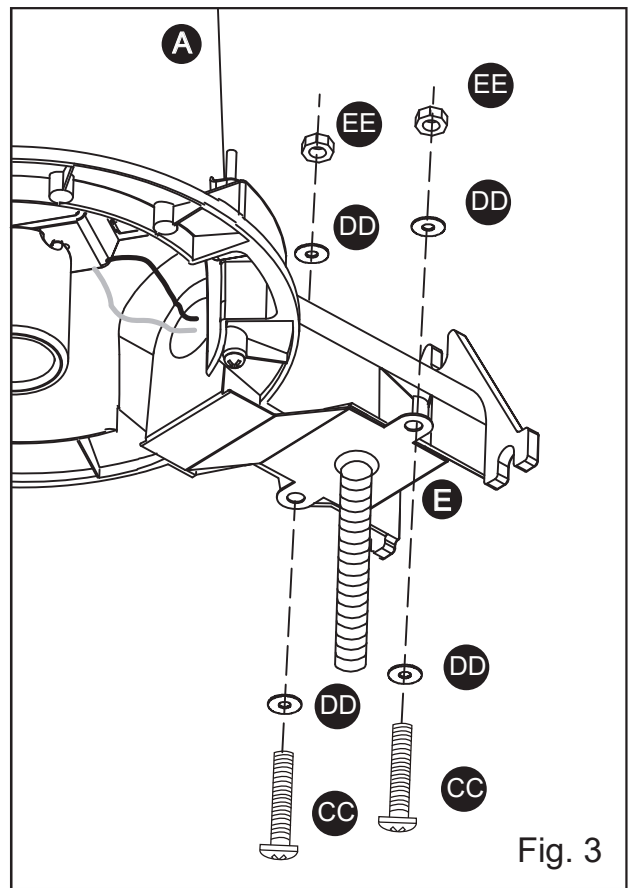


Fig. 3

Step 4: Attach Lens Assembly

Install the lens assembly (C) with three screws (GG) secured to the fixture (see Fig 4).

Step 5: Install Bulb

Screw in the 100W Metal Halide type M90/E bulb (D) provided.

Step 6: Attach Protective Screen

Install protective screen (F). Hook notch onto (C), lift and snap into place (see Fig 4).

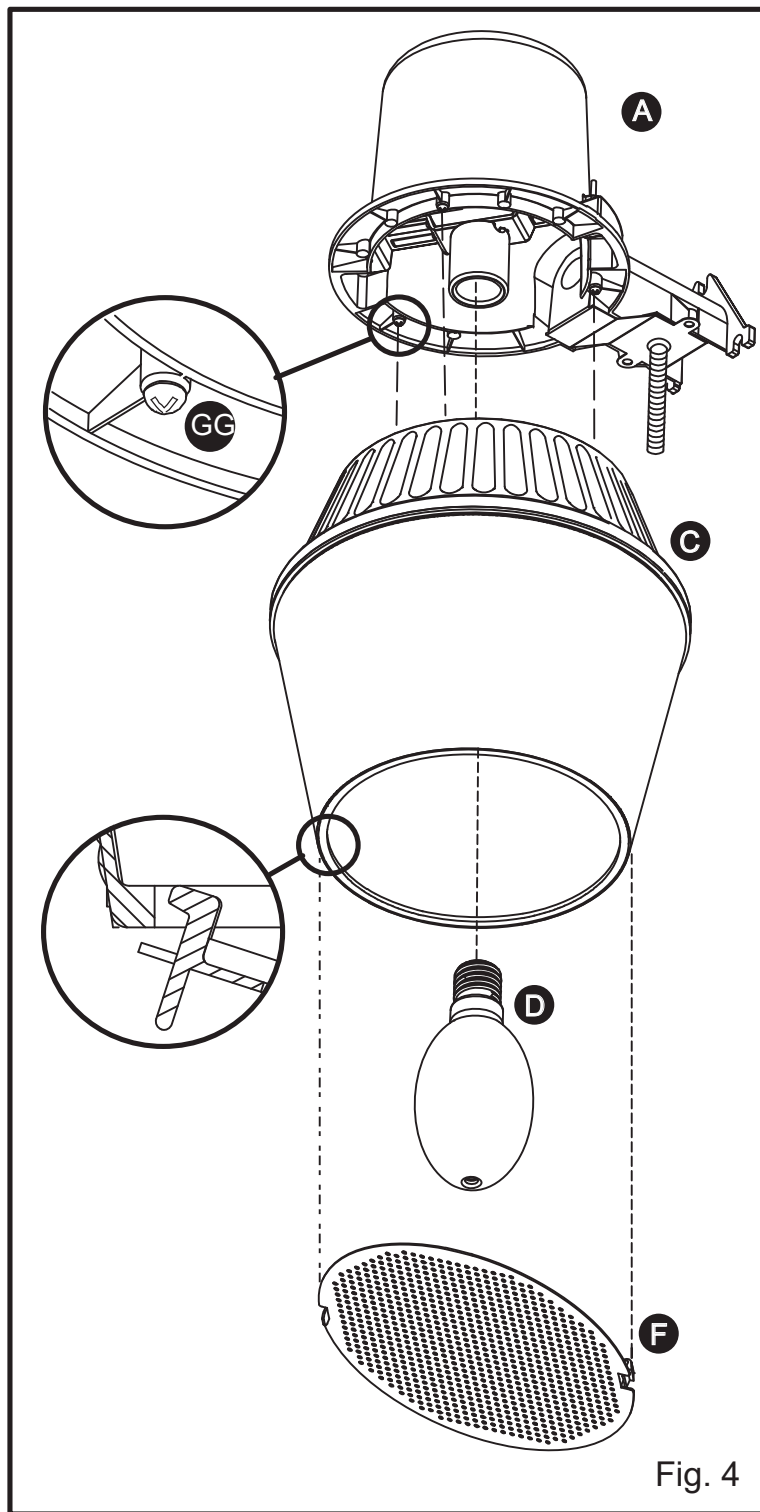


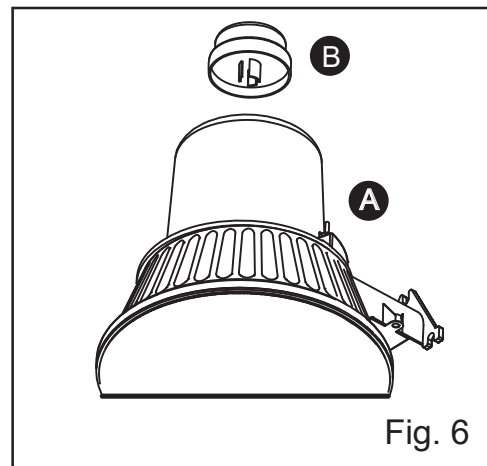
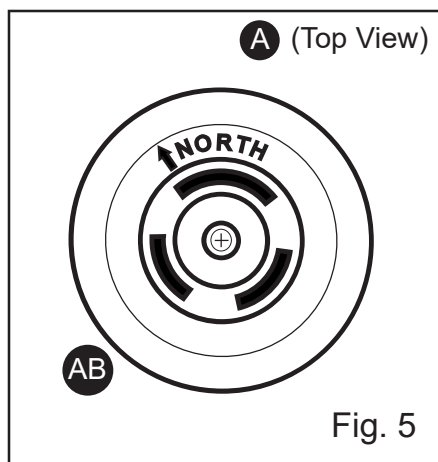
Fig. 4

Step 7: Install Photocell

For optimal performance the arrow on the photocontrol (B) should be facing north after (A) is installed. If adjustment is needed, loosen the screw in the center of the white photocontrol receptacle (AB) two turns. Rotate (AB) so that the arrow will point north when installed and retighten screw. Note: There is a stop to prevent (AB) from turning all the way around. If you have trouble turning (AB), try turning it in the other direction.

Install (B) by aligning the arrow on top of (B) with arrow on (AB). Push down and twist clockwise.

CAUTION: (B) will only plug in one way. Align the large prong on (B) with the large opening in (AB).



To test operation during the daytime, cover (B). Turn the power on. Light should turn on and reach full brightness within 10 minutes. Expose (B) to daylight. Light should turn off within two minutes. With (B) exposed, the light will operate automatically: ON at dusk and OFF at dawn.

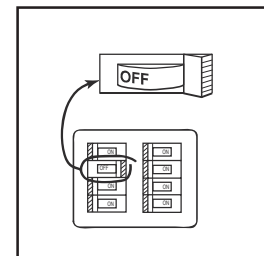
BULB REPLACEMENT

See installation steps 5 & 6

⚠ WARNING: Your Metal Halide Security Light is designed to operate safely with **ONLY** a 100-watt metal halide type M90/E bulb. **Replace with only a 100-watt Metal Halide type M90/E bulb.** Installation of any other bulb type may cause damage to the fixture.

⚠ DANGER: Turn power off at the circuit breaker or fuse box before replacing bulb.

⚠ DANGER: DO NOT rely on wall switch alone to turn off power.



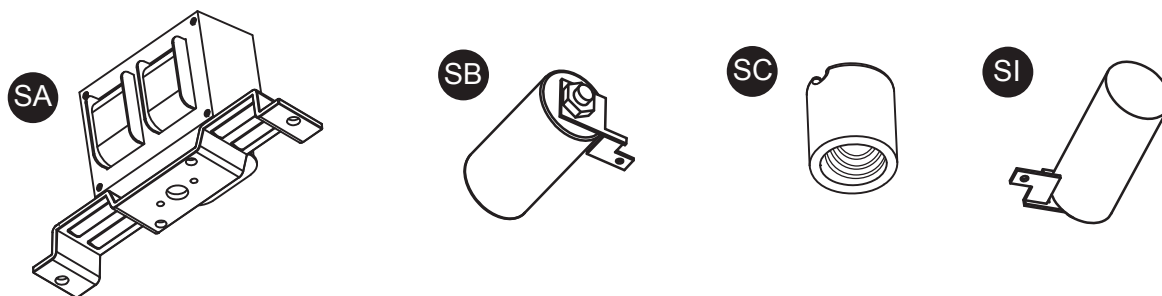
CARE AND MAINTENANCE

Ballast assembly replacement.






Ballast assembly parts are installed and tested at the time of manufacture. No further user assembly is needed.

Use a qualified electrician.

Ballast sub-assembly parts



Part	Description	Quantity
SA	Ballast	1
SB	Ignitor	1
SC	Lamp socket	1
SI	Capacitor	1

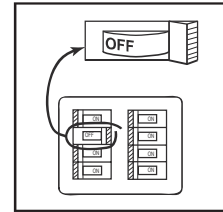
Part	Description	Quantity	Picture (Shown to size)
SD	M5 x 12 Screw	2	
SE	M5 Washer	2	
SF	M4 x 8 Screw	2	
SG	Wire Nut	5	
SH	M4 x 12 Screw	2	

CARE AND MAINTENANCE

Ballast assembly replacement.

⚠ DANGER: Turn power off at the circuit breaker or fuse box before starting ballast replacement.

⚠ DANGER: DO NOT rely on wall switch alone to turn off power.



The ballast assembly can be replaced without the cutting of any wires. Use a qualified electrician. Perform ballast replacement after removing light fixture from the wall.

Step 1: Remove protective screen (F).

Step 2: Remove bulb (D).

Step 3: Loosen the three lens assembly screws (GG) and remove lens assembly.

Step 4: Remove the two screws (SD) and washers (SE) connecting the ballast (SA) to fixture housing (A) (see Fig 7).

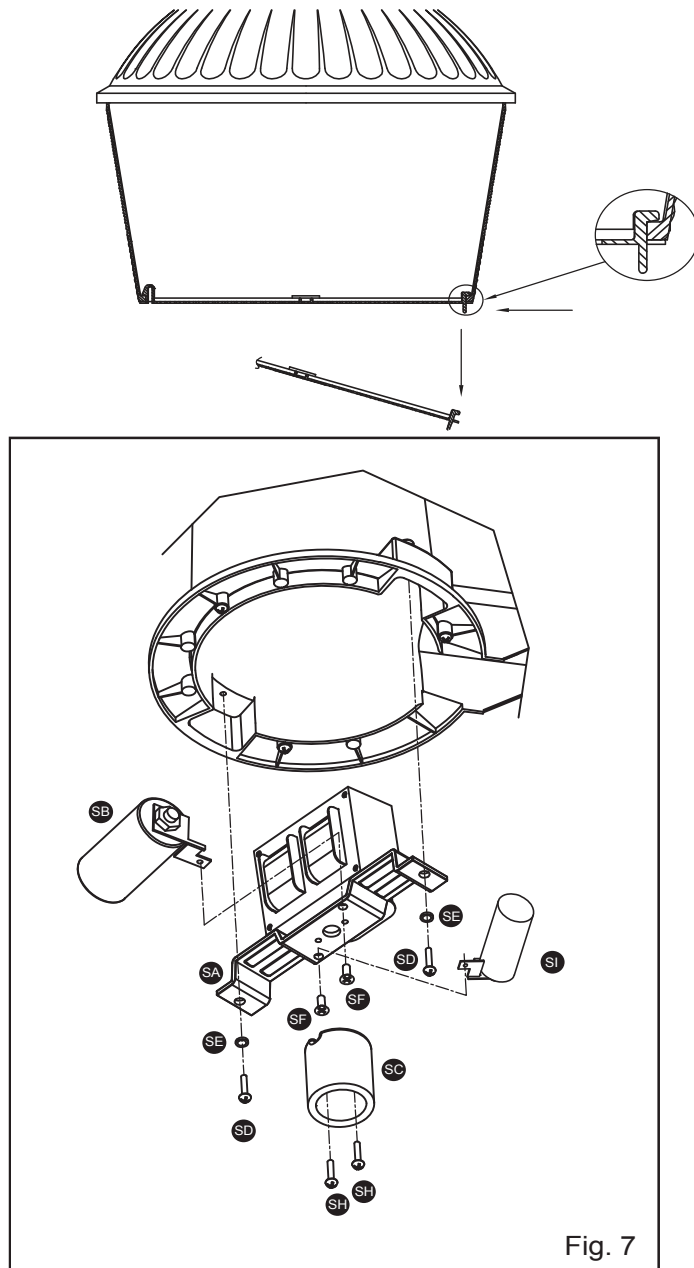


Fig. 7

Step 5: Carefully remove tape and label wires according to wiring diagram (see Fig 8).

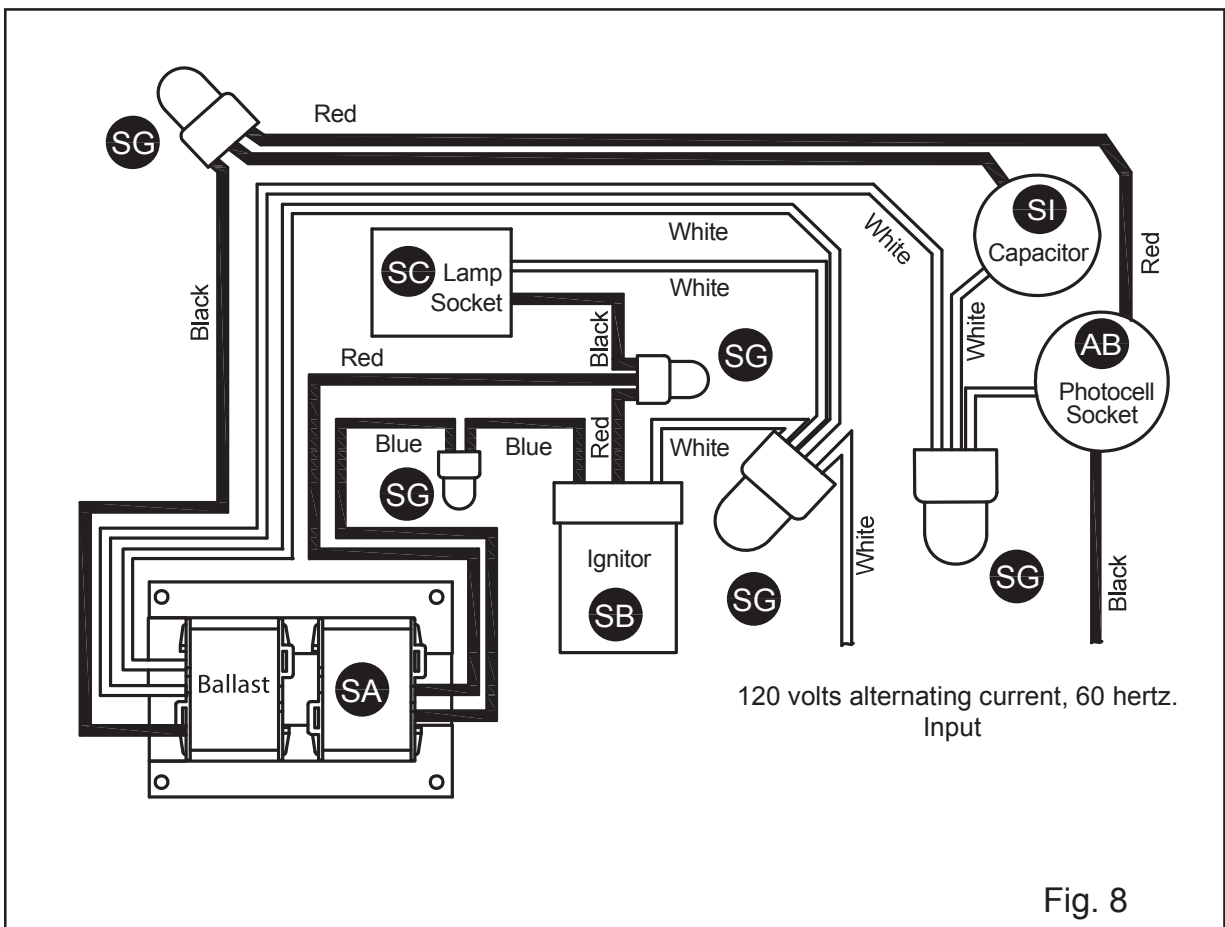
Step 6: Remove wire nuts (SG) and save for new ballast installation.

Step 7: Remove the two screws (SH) holding lamp socket (SC) to (SA).

Step 8: Remove the screw (SF) holding ignitor (SB) to ballast assembly.

Step 9: Remove the screw (SF) and capacitor (SI) to ballast assembly.

Step 10: Connect new ballast assembly by reversing steps 1 through 9.



TROUBLESHOOTING

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

Problem	Possible Cause	Corrective Action
Light will not come ON.	No power to light.	Check that the circuit is on, wall switch is on, there is power to light fixture.
Light will not come ON.	Bulb burned out.	Replace bulb with 100-watt metal halide type M90/E bulb.
Light will not come ON.	The photo control may catch other light sources (such as car lights).	Check and reposition the installation place to avoid other light source. Then light will come on again.
Light will not come ON untill after complete darkness.	Photocell allowing too much light.	Align photocell to North. Adjust photocell to allow less light to enter (see Fig. 5).
Light will not turn OFF untill full light.	Photocell not allowing enough light.	Align photocell to North. Adjust photocell to allow less more to enter (see Fig. 5).
Bulb flickers or will not fully light.	Ballast failing.	Replace ballast. See Ballast assembly replacement.

TWO-YEAR LIMITED WARRANTY

If this product (excluding light bulbs) fails due to a defect in materials or workmanship during the term of this warranty, the product will be replaced with the same or comparable model, or the purchase price will be refunded or a store credit will be provided at the retail establishment where the product was purchased at the option of the retail establishment or the manufacturer. For warranty claims return this product to the retail establishment where the product was purchased or contact customer assistance at the toll-free number: 1-866-994-4148, 8 a.m. - 6 p.m., EST, Monday - Thursday, 8 a.m. - 5 p.m., EST, Friday.

This warranty gives you specific legal rights and you may have other rights that vary from state to state. This warranty is void if damage or defect has resulted from accident, abuse, misuse or faulty repair.

IN NO EVENT WILL LIABILITY EXTEND TO ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL OR INDIRECT DAMAGES OF ANY KIND ARISING OUT OF THE USE OR MISUSE OF THIS PRODUCT. MAXIMUM LIABILITY SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

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Office

NORTH

Myers Park &
Event Center

Turn right onto Co Rd 166

Continue onto FM1461 W

Turn right onto N Lake Forest Dr

McKinney Texas 75071

Head east on W University Dr

Make a U-turn

CR 166

WEST

NEW BARN

X

Show Barn

Myers Park & Event Center
CR Rd 166
McKinney, TX 75071

SOUTH

(From Lake Forest)

PRODUCT SUBSTITUTION REQUEST FORM
(Must be submitted a minimum of 7 days before the bid date)

Bidder: _____ Project No: _____

Project: _____

Section: _____ Article/ Paragraph: _____

Proposed Substitution: _____

Manufacturer: _____ Address: _____

Telephone: _____ Proposed Model No.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its installation.

The undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by substitution.

Submitted By: _____ Signed: _____

Firm: _____ Address: _____

Phone: _____

REVIEW & ACTION (Initial)

_____ Substitution approved - Make submittals in accordance with Project requirements.
_____ Substitution approved as noted - Make submittals in accordance with Project requirements.
_____ Substitution rejected - Use specified materials.
_____ Substitution Request received too late - Use specified materials.

Signature: _____ Date: _____

Supporting Data Attached: ____ Drawings ____ Product Data ____ Samples ____ Tests ____ Reports ____ Other

END OF REQUEST FORM

CONSTRUCTION CONTRACT

This FIXED PRICE CONSTRUCTION CONTRACT BETWEEN OWNER AND CONTRACTOR (the "Contract") is made and entered into by and between COLLIN COUNTY, a political subdivision of the State of Texas (the "Owner") and _____

_____ (the "Contractor"). This Contract is executed under seal, and shall be effective on _____ ("Effective Date").

This Contract is for the construction of a project identified as _____ (the "Project").

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements stated herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the parties agree:

1. DOCUMENTS INCORPORATED BY REFERENCE

This Contract includes the plans and specifications for the Project identified thereon as such, plus the following (if any): _____

_____, all of which are hereby incorporated herein by reference and made a part hereof. Change Orders issued hereafter, and any other amendments executed by the Owner and the Contractor, shall become and be a part of this Contract. Documents not included or expressly contemplated in this Paragraph 1 do not, and shall not, form any part of this Contract. **Notwithstanding, no deviations in the Contractor's Executed Bid form from the Invitation to Bid, Construction Plans or other Contract documents prepared by the County shall be incorporated herein unless expressly provided in this Contract. Any conflict with the Contractor's Executed Bid Form and the Invitation to Bid, Construction Plans and other contract documents prepared by the County shall be construed in favor of the contract documents prepared by the County.**

2. REPRESENTATIONS OF THE CONTRACTOR

In order to induce the Owner to execute this Contract and recognizing that the Owner is relying thereon, the Contractor, by executing this Contract, makes the following express representations to the Owner:

(A) The Contractor is fully qualified to act as the contractor for the Project and has, and shall maintain, any and all licenses, permits or other authorizations necessary to act as the contractor for, and to construct, the Project;

(B) The Contractor has become familiar with the Project site and the local conditions under which the Project is to be constructed and operated;

(C) The Contractor has received, reviewed and carefully examined all of the documents which make up this Contract, including, but not limited to, the plans and specifications, and has found them in all respects to be complete, accurate, adequate, consistent, coordinated and sufficient for construction.

(D) Contractor warrants good right and title to all material, supplies, and equipment installed or incorporated in the work and agrees upon completion of all work to deliver to Owner all material, supplies, and equipment installed or incorporated in the work constructed free of any claims, liens, or charges.

3. INTENT AND INTERPRETATION

With respect to the intent and interpretation of this Contract, the Owner and the Contractor agree as follows:

(A) This Contract, together with the Contractor's and Surety's Payment, Performance Bonds, and Maintenance Bonds for the Project, if any, constitute the entire and exclusive agreements between the parties with reference to the

Project, and said Contract supersedes any and all prior discussions, communications, representations, understandings, negotiations, or agreements. This Contract also supersedes any bid documents;

(B) Anything that may be required, implied or inferred by the documents which make up this Contract, or any one or more of them, shall be provided by the Contractor for the Contract Price;

(C) Nothing contained in this Contract shall create, nor be interpreted to create, privity or any other relationship whatsoever between the Owner and any person except the Contractor;

(D) When a word, term, or phrase is used in this Contract, it shall be interpreted or construed first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage;

(E) The words "include", "includes", or "including", as used in this Contract, shall be deemed to be followed by the phrase, "without limitation";

(F) The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this Contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this Contract;

(G) The Contractor shall have a continuing duty to read, examine, review, compare and contrast each of the documents which make up this Contract, shop drawings, and other submittals and shall give written notice to the Owner of any conflict, ambiguity, error or omission which the Contractor may find with respect to these documents before proceeding with the affected work. The express or implied approval by the Owner of any shop drawings or other submittals shall not relieve the Contractor of the continuing duties imposed hereby, nor shall any such approval be evidence of the Contractor's compliance with this Contract. The Owner has prepared, or had someone prepare, documents for the Project, including the plans and specifications for the Project, which are accurate, adequate, consistent, coordinated and sufficient for construction. HOWEVER, THE OWNER MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING SUCH DOCUMENTS. The Contractor again hereby acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and will not rely upon any representations or warranties by the Owner concerning such documents, as no such representations or warranties have been or are hereby made;

(H) In the event of any conflict, discrepancy, or inconsistency among any of the documents which make up this Contract, the following shall control:

- (1) As between figures given on plans and scaled measurements, the figures shall govern;
- (2) As between large scale plans and small scale plans, the large scale plans shall govern;
- (3) As between plans and specifications, the requirements of the specifications shall govern;
- (4) As between this document and the plans or specifications, this document shall govern.

(I) The Owner's representative shall be the project manager.

4. OWNERSHIP OF THE DOCUMENTS WHICH MAKE UP THE CONTRACT

The documents which make up this Contract, and each of them, as well as any other documents furnished by the Owner, shall remain the property of the Owner. The Contractor shall have the right to keep one (1) copy of the Contract upon completion of the Project; provided, however, that in no event shall the Contractor use, or permit to be used, any portion or all of such Contract on other projects without the Owner's prior written authorization.

5. CONTRACTOR'S PERFORMANCE

The Contractor shall perform all of the work required, implied or reasonably inferable from this Contract including, but not limited to, the following:

(A) Construction of the Project;

(B) The furnishing of any required surety bonds and insurance;

(C) The provision or furnishing, and prompt payment therefor, of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, fuel, heat, light, cooling, or other utilities, required for construction and all necessary building permits and other permits required for the construction of the Project; and

(D) The creation and submission to the Owner of detailed and comprehensive as-built drawings depicting all as-built construction. Said as-built drawings shall be submitted to the Owner upon final completion of the Project and receipt and approval of same by the Owner shall be a condition precedent to final payment to the Contractor.

6. TIME FOR CONTRACTOR'S PERFORMANCE

(A) The Contractor shall commence the performance of this Contract on _____ and shall diligently continue its performance to and until final completion of the Project. The Contractor shall accomplish Substantial Completion of the Project on or before _____ (_____) days from notice to proceed;

(B) The Contractor shall pay the Owner the sum of _____ (\$_____) per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at the time of executing this Contract. When the Owner reasonably believes that Substantial Completion will be inexcusably _____ delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages;

(C) The term "Substantial Completion", as used herein, shall mean that point at which the Project is at a level of completion in strict compliance with this Contract such that the Owner or its designee can enjoy beneficial use or occupancy and can use or operate it in all respects, for its intended purpose. Partial use or occupancy of the Project shall not result in the Project being deemed substantially complete, and such partial use or occupancy shall not be evidence of Substantial Completion;

(D) All limitations of time set forth herein are material and are of the essence of this Contract.

7. FIXED PRICE AND CONTRACT PAYMENTS

(A) The Owner shall pay, and the Contractor shall accept, as full and complete payment for the Contractor's timely performance of its obligations hereunder the fixed price of _____ Dollars (\$_____). The price set forth in this Subparagraph 7(A) shall constitute the Contract Price, which shall not be modified except by Change Order as provided in this Contract.

This fixed price above is based on the quantities indicated based on the actual scope of the project as shown on the construction plans. Should the quantities of any of the items of the work as listed in the executed Proposal and Bid Form be increased, the Contractor shall perform the additional work at the unit bid prices submitted.

Should the quantities of any of the items of the work as listed in the executed Proposal and Bid Form be decreased, the Fixed Price shall be reduced accordingly based on the above unit bid prices and the Contractor shall make no claim for anticipated profits or lost overhead for any decrease in quantities. Payments will be made on actual quantities installed, as measured in place;

(B) Within ten (10) calendar days of the effective date hereof, the Contractor shall prepare and present to the Owner the Contractor's Schedule of Values apportioning the Contract Price among the different elements of the Project for purposes of periodic and final payment. The Contractor's Schedule of Values shall be presented in whatever format, with such detail, and backed up with whatever supporting information the Owner requests. The Contractor shall not imbalance its Schedule of Values nor artificially inflate any element thereof. The violation of this provision by the Contractor shall constitute a material breach of this Contract. The Contractor's Schedule of Values will be utilized for the Contractor's Payment Requests but shall only be so utilized after it has been acknowledged in writing by the Owner;

(C) The Owner shall pay the Contract Price to the Contractor in accordance with the procedures set forth in this Paragraph 7. On or before the 1st day of each month after commencement of performance, but no more frequently than once monthly, the Contractor may submit a Payment Request for the period ending the 25th day of the month to the following:

Bill Burke
Building Projects Manager
Collin County Construction and Projects
4600 Community Ave.
McKinney, TX 75071

In accordance with the Texas Prompt Payment Act and the Owner's receipt of a properly submitted and correct Application for Payment, and the issuance of a Certificate for Payment, the Owner shall make payment to the Contractor, in the amount approved by the Owner less 5% retainage. Such payment shall be adjusted for work that is incomplete or not in accordance with the Contract Documents, or that is the subject of a separate contract, or subcontract or supplier claim or lien against the Contractor or the payment bonds for the project. Notwithstanding anything herein to the contrary, Contractor shall not be paid for equipment and materials until after installation.

Each such Payment Request shall be signed by the Contractor and shall constitute the Contractor's representation that the quantity of work has reached the level for which payment is requested, that the work has been properly installed or performed in strict compliance with this Contract, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the Owner shall review the Payment Request and may also review the work at the Project site or elsewhere to determine whether the quantity and quality of the work is as represented in the Payment Request and is as required by this Contract. The Owner shall approve in writing the amount which, in the opinion of the Owner, is properly owing to the Contractor. The amount of each such payment shall be the amount approved for payment by the Owner less such amounts, if any, otherwise owing by the Contractor to the Owner or which the Owner shall have the right to withhold as authorized by this Contract. The submission by the Contractor of a Payment Request also constitutes an affirmative representation and warranty that all work for which the Owner has previously paid is free and clear of any lien, claim, or other encumbrance from subcontractors, materialmen, suppliers and other person or entity who has, or might have a claim against the Owner for the work done on the Owner's property. Furthermore, the Contractor warrants and represents that, upon payment of the Payment Request submitted, title to all work included in such payment shall be vested in the Owner;

(D) When payment is received from the Owner, the Contractor shall immediately pay all subcontractors, materialmen, laborers and suppliers the amounts they are due for the work covered by such payment. In the event the Owner becomes informed that the Contractor has not paid a subcontractor, materialman, laborer, or supplier within 10 days after the Contractor's receipt of payment, the Owner shall have the right, but not the duty, to issue future checks and payment to the Contractor of amounts otherwise due hereunder naming the Contractor and any such subcontractor, materialman, laborer, or supplier as joint payees. Such joint check procedure, if employed by the Owner, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the Owner to repeat the procedure in the future;

(E) Neither payment to the Contractor, utilization of the Project for any purpose by the Owner, nor any other act or omission by the Owner shall be interpreted or construed as an acceptance of any work of the Contractor not strictly in compliance with this Contract;

(F) The Owner shall have the right to refuse to make payment and, if necessary, may demand the return of a portion or all of the amount previously paid to the Contractor due to:

(1) The quality of a portion, or all, of the Contractor's work not being in accordance with the requirements of this Contract;

(2) The quantity of the Contractor's work not being as represented in the Contractor's Payment Request, or otherwise;

(3) The Contractor's rate of progress being such that, in the Owner's opinion, Substantial Completion or final completion, or both, may be inexcusably delayed;

(4) The Contractor's failure to use Contract funds, previously paid the Contractor by the Owner, to pay Contractor's Project-related obligations including, but not limited to, subcontractors, laborers and material and equipment suppliers;

(5) Claims made, or likely to be made, against the Owner or its property;

(6) Loss caused by the Contractor;

(7) The Contractor's failure or refusal to perform any of its obligations to the Owner. In the event that the Owner makes written demand upon the Contractor for amounts previously paid by the Owner as contemplated in this Subparagraph 7(F), the Contractor shall promptly comply with such demand;

(G) If within thirty (30) days from the date payment to the Contractor is due, the Owner, without cause or basis hereunder, fails to pay the Contractor any amounts then due and payable to the Contractor, the Contractor shall have the right to cease work until receipt of proper payment after first providing ten (10) days' written notice of its intent to cease work to the Owner.

(H) When Substantial Completion has been achieved, the Contractor shall notify the Owner in writing and shall furnish to the Owner a proposed punch list listing of those matters yet to be finished. The Owner will thereupon conduct an inspection to confirm that the work is in fact substantially complete and shall upon determining that the work is substantially complete, shall review and revise, if necessary, the proposed punch list. Upon its confirmation that the Contractor's work is substantially complete, the Owner will so notify the Contractor in writing and will therein set forth the date of Substantial Completion and furnish the final punch list of items that need to be completed for final completion. If the Owner, through its inspection, fails to find that the Contractor's work is substantially complete, and is required to repeat all, or any portion, of its Substantial Completion inspection, the Contractor shall bear the cost of such repeat inspection(s) which cost may be deducted by the Owner from any payment then or thereafter due to the Contractor. Guarantees and equipment warranties required by this Contract shall commence on the date of Substantial Completion. Upon Substantial Completion, the Owner shall pay the Contractor an amount sufficient to increase total payments to the Contractor to ninety percent (90%) of the Contract Price less any amounts attributable to liquidated damages, and less the reasonable costs as determined by the Owner for completing all incomplete work, correcting and bringing into conformance all defective and nonconforming work, and handling any outstanding or threatened claims;

(I) When the Project is finally complete and the Contractor is ready for a final inspection, it shall notify the Owner thereof in writing. Thereupon, the Owner will perform a final inspection of the Project. If the Owner confirms that the Project is complete in full accordance with this Contract and that the Contractor has performed all of its obligations to the Owner hereunder, the Owner will furnish a final Approval for Payment and the Contractor is entitled to the remainder of the unpaid Contract Price, less any amount withheld pursuant to this Contract. If the Owner is unable to issue its final Approval for Payment and is required to repeat its final inspection of the Project, the Contractor shall bear the cost of such repeat inspection(s), which costs may be deducted by the Owner from the Contractor's final payment;

(J) If the Contractor fails to achieve final completion within 30 days of (i) Substantial Completion, or (ii) the Owner's delivery to the Contractor of the punch list described in Subparagraph 7(H) herein, whichever is later, the

Contractor shall pay the Owner the sum of _____ Dollars (\$) _____) per day for each and every calendar day of unexcused delay in achieving final completion beyond the date set forth herein for final completion of the work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing this Contract. When the Owner reasonably believes that final completion will be unexcusably delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving final completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages;

(K) Prior to being entitled to receive final payment, and as a condition precedent thereto, the Contractor shall furnish the Owner, in the form and manner required by Owner, if any:

- (1) An affidavit that all of the Contractor's obligations to subcontractors, laborers, equipment or material suppliers, or other third parties in connection with the Project, have been paid or otherwise satisfied;
- (2) If applicable, consent(s) of surety to final payment;
- (3) All product warranties, operating manuals, instruction manuals and other record documents, drawings (including as-built drawings), satisfactory test results and things customarily required of the Contractor, or expressly required herein or set forth in the bid documents, as a part of or prior to Project closeout;

(L) The final Certificate for Payment will not be issued until all such warranties and guaranties have been received and accepted by the Owner, and a Certificate of Acceptance is issued.

8. INFORMATION AND MATERIAL SUPPLIED BY THE OWNER

(A) The Owner shall furnish to the Contractor, prior to the execution of this Contract, any and all written and tangible material in its possession concerning conditions below ground at the site of the Project. Such written and tangible material is furnished to the Contractor only in order to make complete disclosure of such material as being in the possession of the Owner and for no other purpose. By furnishing such material, the Owner does not represent, warrant, or guarantee its accuracy either in whole, in part, implicitly or explicitly, or at all, and shall have no liability therefor. The Owner shall also furnish, if appropriate, the legal description of the Project site, and any required survey;

(B) The Owner shall obtain all required authorizations, approvals, easements, and the like excluding the building permit and other permits or fees required of the Contractor by this Contract, or permits and fees customarily the responsibility of the Contractor;

(C) The Owner will provide the Contractor one (1) copy of the complete Contract. The Contractor will be charged, and shall pay the Owner, the actual cost of duplication for any additional copy of the Contract which it may require.

9. CEASE AND DESIST ORDER

In the event the Contractor fails or refuses to perform the work as required herein, the Owner may instruct the Contractor to cease and desist from performing further work in whole or in part. Upon receipt of such instruction, the Contractor shall immediately cease and desist as instructed by the Owner and shall not proceed further until the cause for the Owner's instructions has been corrected, no longer exists, or the Owner instructs that the work may resume. In the event the Owner issues such instructions to cease and desist, and in the further event that the Contractor fails and refuses within seven (7) days of receipt of same to provide adequate assurance to the Owner that the cause of such instructions will be eliminated or corrected, then the Owner shall have the right, but not the obligation, to carry out the work with its own forces, or with the forces of another contractor, and the Contractor shall be fully responsible and liable for the costs of performing such work by the Owner. The rights set forth herein are in addition to, and without prejudice to, any other rights or remedies the Owner may have against the Contractor.

10. DUTIES, OBLIGATIONS AND RESPONSIBILITIES OF THE CONTRACTOR

In addition to any and all other duties, obligations and responsibilities of the Contractor set forth in this Contract, the Contractor shall have and perform the following duties, obligations and responsibilities to the Owner:

(A) The Contractor is again reminded of its continuing duties set forth in Subparagraph 3(G), which are by reference hereby incorporated in this Subparagraph 10(A). The Contractor shall not perform work without adequate plans and specifications, or, as appropriate, approved shop drawings, or other submittals. If the Contractor performs work knowing or believing it involves an error, inconsistency or omission in the Contract without first providing written notice to the Owner, the Contractor shall be responsible for such work and pay the cost of correcting same;

(B) All work shall strictly conform to the requirements of this Contract;

(C) The work shall be strictly supervised, the Contractor bearing full responsibility for any and all acts or omissions of those engaged in the work on behalf of the Contractor;

(D) The Contractor hereby warrants that all labor furnished under this Contract shall be competent to perform the tasks undertaken, that the product of such labor shall yield only first-class results, that all materials and equipment provided shall be new and of high quality, that the completed work will be complete, of high quality, without defects, and that all work strictly complies with the requirements of this Contract. Any work not strictly complying with the requirements of this Subparagraph shall constitute a breach of the Contractor's warranty;

(E) The Contractor shall obtain and pay for all required permits, fees and licenses customarily obtained by the Contractor. The Contractor shall comply with all legal requirements applicable to the work;

(F) The Contractor shall employ and maintain at the Project site only competent supervisory personnel. Key supervisory personnel assigned by the Contractor to this Project are as follows:

NAME FUNCTION

So long as the individuals named above remain actively employed or retained by the Contractor, they shall perform the functions indicated next to their names unless the Owner agrees to the contrary in writing. In the event one or more individuals not listed above subsequently assumes one or more of those functions listed above, the Contractor shall be bound by the provisions of this Subparagraph 10(F) as though such individuals had been listed above;

(G) The Contractor, within fifteen (15) days of commencing the work, shall provide to the Owner, and comply with, the Contractor's schedule for completing the work. Such schedule shall be in a form acceptable to the Owner. The Contractor's schedule shall be updated no less frequently than monthly (unless the parties otherwise agree in writing) and shall be updated to reflect conditions encountered from time to time and shall apply to the total Project. Each such revision shall be furnished to the Owner. Strict compliance with the requirements of this Subparagraph 10(G) shall be a condition precedent to payment to the Contractor, and failure by the Contractor to strictly comply with said requirements shall constitute a material breach of this Contract;

(H) The Contractor shall keep an updated copy of this Contract at the site. Additionally, the Contractor shall keep a copy of approved shop drawings and other submittals. All of these items shall be available to the Owner at all regular business hours. Upon final completion of the work, all of these items shall be finally updated and provided to the Owner and shall become the property of the Owner;

(I) Shop drawings and other submittals from the Contractor do not constitute a part of the Contract. The Contractor shall not do any work requiring shop drawings or other submittals unless such shall have been approved in writing by the Owner. All work requiring approved shop drawings or other submittals shall be done in strict compliance

with such approved documents. However, approval by the Owner shall not be evidence that work installed pursuant thereto conforms to the requirements of this Contract. The Owner shall have no duty to review partial submittals or incomplete submittals. The Contractor shall maintain a submittal log which shall include, at a minimum, the date of each submittal, the date of any resubmittal, the date of any approval or rejection, and the reason for any approval or rejection. The Contractor shall have the duty to carefully review, inspect and examine any and all submittals before submission of same to the Owner;

(J) The Contractor shall maintain the Project site in a reasonably clean condition during performance of the work. Upon final completion, the Contractor shall thoroughly clean the Project site of all debris, trash and excess materials or equipment;

(K) At all times relevant to this Contract, the Contractor shall permit the Owner to enter upon the Project site and to review or inspect the work without formality or other procedure.

11. INDEMNITY

Contractor shall indemnify and hold the County, and its officers and employees, harmless from liabilities, damages, losses and costs, including, but not limited to, attorneys' fees, to the extent caused by the negligence, recklessness or intentional wrongful conduct of Contractor or other persons employed or utilized by Contractor in the performance of the Contract; provided however, that this indemnification shall be limited to the amount of this Contract.

12. NO DESIGN PROFESSIONAL

There is no architect or consulting engineer acting as Owner's agent including inspection of work or progress of Contractor in this contract. Accordingly, the Owner shall have the following duties and responsibilities:

(A) The Owner shall draft proposed Change Orders;

(B) The Owner shall approve, or respond otherwise as necessary concerning shop drawings or other submittals received from the Contractor;

(C) The Owner shall be authorized to refuse to accept work which is defective or otherwise fails to comply with the requirements of this Contract. If the Owner deems it appropriate, the Owner shall be authorized to call for extra inspection or testing of the work for compliance with requirements of this Contract;

(D) The Owner shall review the Contractor's Payment Requests and shall approve in writing those amounts which, in the opinion of the Owner, are properly owing to the Contractor as provided in this Contract;

(E) The Owner shall, upon written request from the Contractor, perform those inspections required in Paragraph 7 hereinabove;

13. CLAIMS BY THE CONTRACTOR

Claims by the Contractor against the Owner are subject to the following terms and conditions:

(A) All Contractor claims against the Owner shall be initiated by a written claim submitted to the Owner. Such claim shall be received by the Owner no later than seven (7) calendar days after the event, or the first appearance of the circumstances, causing the claim, and same shall set forth in detail all known facts and circumstances supporting the claim;

(B) The Contractor and the Owner shall continue their performance hereunder regardless of the existence of any claims submitted by the Contractor;

(C) In the event the Contractor discovers previously concealed and unknown site conditions which are materially at variance from those typically and ordinarily encountered in the general geographical location of the Project, the Contract Price shall be modified, either upward or downward, upon the written claim made by either party within seven (7) calendar days after the first appearance to such party of the circumstances. As a condition precedent to the Owner having any liability to the Contractor due to concealed and unknown conditions, the Contractor must give the Owner written notice of, and an opportunity to observe, such condition prior to disturbing it. The failure by the Contractor to give the written notice and make the claim as provided by this Subparagraph 13(C) shall constitute a waiver by the Contractor of any rights arising out of or relating to such concealed and unknown condition;

(D) In the event the Contractor seeks to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the Owner therefor, the Contractor shall strictly comply with the requirements of Subparagraph 13(A) above and such claim shall be made by the Contractor before proceeding to execute any additional or changed work. Failure of the condition precedent to occur shall constitute a waiver by the Contractor of any claim for additional compensation;

(E) In connection with any claim by the Contractor against the Owner for compensation in excess of the Contract Price, any liability of the Owner for the Contractor's cost shall be strictly limited to direct cost incurred by the Contractor and shall in no event include indirect cost or consequential damages of the Contractor. The Owner shall not be liable to the Contractor for claims of third-parties including subcontractors, unless and until liability of the Contractor has been established therefor in a court of competent jurisdiction;

(F) In the event the Contractor should be delayed in performing any task which at the time of the delay is then critical, or which during the delay becomes critical, as the sole result of any act or omission by the Owner or someone acting in the Owner's behalf, or by Owner-authorized Change Orders, unusually bad weather not reasonably anticipatable, fire or other Acts of God, the date for achieving Substantial Completion, or, as applicable, final completion, shall be appropriately adjusted by the Owner upon the written claim of the Contractor to the Owner. A task is critical within the meaning of this Subparagraph 13(F) if, and only if, said task is on the critical path of the Project schedule so that a delay in performing such task will delay the ultimate completion of the Project. Any claim for an extension of time by the Contractor shall strictly comply with the requirements of Subparagraph 13(A) above. If the Contractor fails to make such claim as required in this Subparagraph 13(F), any claim for an extension of time shall be waived.

14. SUBCONTRACTORS

The Contractor shall identify to the Owner, in writing, those parties intended as subcontractors on the Project. The Owner shall, in writing, state any objections the Owner may have to one or more of such subcontractors. The Contractor shall not enter into a subcontract with an intended subcontractor with reference to whom the Owner objects. All subcontracts shall afford the Contractor rights against the subcontractor which correspond to those rights afforded to the Owner against the Contractor herein, including those rights of Contract termination as set forth herein below.

15. CHANGE ORDERS

One or more changes to the work within the general scope of this Contract may be ordered by Change Order. The Contractor shall proceed with any such changes, and same shall be accomplished in strict accordance with the following terms and conditions:

(A) Change Order shall mean a written order to the Contractor executed by the Owner after execution of this Contract, directing a change in the work and may include a change in the Contract Price or the time for the Contractor's performance, or any combination thereof;

(B) Any change in the Contract Price resulting from a Change Order shall be determined as follows:

(1) By mutual agreement between the Owner and the Contractor as evidenced by (a) the change in the Contract Price being set forth in the Change Order, (b) such change in the Contract Price, together with any conditions or

requirements relating thereto, being initialed by both parties and (c) the Contractor's execution of the Change Order, or,

(2) If no mutual agreement occurs between the Owner and the Contractor, the change in the Contract Price, if any, shall be derived by determining the reasonable actual costs incurred or savings achieved, resulting from revisions in the work. Such reasonable actual costs or savings shall include a component for direct jobsite overhead and profit but shall not include home-office overhead or other indirect costs or components. Any such costs or savings shall be documented in the format and with such content and detail as the Owner requires.

(C) The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the work, this Contract as thus amended, the Contract Price and the time for performance by the Contractor. The Contractor, by executing the Change Order, waives and forever releases any claim against the Owner for additional time or compensation for matters relating to or arising out of or resulting from the work included within or affected by the executed Change Order;

(D) The Contractor shall notify and obtain the consent and approval of the Contractor's surety with reference to all Change Orders if such notice, consent or approvals are required by the Owner, the Contractor's surety or by law. The Contractor's execution of the Change Order shall constitute the Contractor's warranty to the Owner that the surety has been notified of, and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

(E) The owner's representative in this agreement is the project manager. No change orders or other modifications to this agreement shall be effective unless in writing and signed by the Purchasing Agent.

16. DISCOVERING AND CORRECTING DEFECTIVE OR INCOMPLETE WORK

(A) In the event that the Contractor covers, conceals or obscures its work in violation of this Contract or in violation of a directive from the Owner, such work shall be uncovered and displayed for the Owner's inspection upon request, and shall be reworked at no cost in time or money to the Owner;

(B) If any of the work is covered, concealed or obscured in a manner not covered by Subparagraph 16(A) above, it shall, if directed by the Owner, be uncovered and displayed for the Owner's inspection. If the uncovered work conforms strictly to this Contract, the costs incurred by the Contractor to uncover and subsequently, replace such work shall be borne by the Owner. Otherwise, such costs shall be borne by the Contractor;

(C) The Contractor shall, at no cost in time or money to the Owner, correct work rejected by the Owner as defective or failing to conform to this Contract. Additionally, the Contractor shall reimburse the Owner for all testing, inspections and other expenses incurred as a result thereof;

(D) In addition to its warranty obligations set forth elsewhere herein, the Contractor shall be specifically obligated to correct any and all defective or nonconforming work for a period of twelve (12) months following final completion upon written direction from the Owner.

(E) The Owner may, but shall in no event be required to, choose to accept defective or nonconforming work. In such event, the Contract Price shall be reduced by the greater of (1) the reasonable costs of removing and correcting the defective or nonconforming work, and (2) the difference between the fair market value of the Project as constructed and the fair market value of the Project had it not been constructed in such a manner as to include defective or nonconforming work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to compensate the Owner for the acceptance of defective or nonconforming work, the Contractor shall, upon written demand from the Owner, pay the Owner such remaining compensation for accepting defective or nonconforming work.

17. TERMINATION BY THE CONTRACTOR

If the Owner repeatedly fails to perform its material obligations to the Contractor for a period of thirty (30) days after receiving written notice from the Contractor of its intent to terminate hereunder, the Contractor may

terminate performance under this Contract by written notice to the Owner. In such event, the Contractor shall be entitled to recover from the Owner as though the Owner had terminated the Contractor's performance under this Contract for convenience pursuant to Subparagraph 19(A) hereunder.

18. OWNER'S RIGHT TO SUSPEND CONTRACTOR'S PERFORMANCE

(A) The Owner shall have the right at any time to direct the Contractor to suspend its performance, or any designated part thereof, for any reason whatsoever, or without reason, for a cumulative period of up to ten (10) calendar days. If any such suspension is directed by the Owner, the Contractor shall immediately comply with same;

(B) In the event the Owner directs a suspension of performance under this Paragraph 18, through no fault of the Contractor, the Owner shall pay the Contractor as full compensation for such suspension the Contractor's reasonable costs, actually incurred and paid, of:

- (1) demobilization and remobilization, including such costs paid to subcontractors;
- (2) preserving and protecting work in place;
- (3) storage of materials or equipment purchased for the Project, including insurance thereon;
- (4) performing in a later, or during a longer, time frame than that contemplated by this Contract.

19. TERMINATION BY THE OWNER

The Owner may terminate this Contract in accordance with the following terms and conditions:

(A) The Owner may, for any reason whatsoever, terminate performance under this Contract by the Contractor for convenience. The Owner shall give written notice of such termination to the Contractor specifying when termination becomes effective. The Contractor shall incur no further obligations in connection with the work and the Contractor shall stop work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The Owner may direct the Contractor to assign the Contractor's right, title and interest under termination orders or subcontracts to the Owner or its designee. The Contractor shall transfer title and deliver to the Owner such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has. When terminated for convenience, the Contractor shall be compensated as follows:

- (1) The Contractor shall submit a termination claim to the Owner specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the Owner. If the Contractor fails to file a termination claim within one (1) year from the effective date of termination, the Owner shall pay the Contractor, an amount derived in accordance with Subparagraph (3) below;
- (2) The Owner and the Contractor may agree to the compensation, if any, due to the Contractor hereunder;
- (3) Absent agreement to the amount due to the Contractor, the Owner shall pay the Contractor the following amounts:
 - (a) Contract prices for labor, materials, equipment and other services accepted under this Contract;
 - (b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Contractor's performance, plus a fair and reasonable allowance for direct jobsite overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

(c) Reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Subparagraph 19(A) of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 19(A) shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

(B) If the Contractor does not perform the work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable law, or otherwise commits a violation of a material provision of this Contract, then the Owner, in addition to any other rights it may have against the Contractor or others, may terminate the performance of the Contractor and assume possession of the Project site and of all materials and equipment at the site and may complete the work. In such case, the Contractor shall not be paid further until the work is complete. After final completion has been achieved, if any portion of the Contract Price, as it may be modified hereunder, remains after the cost to the Owner of completing the work, including all costs and expenses of every nature incurred, has been deducted by the Owner, such remainder shall belong to the Contractor. Otherwise, the Contractor shall pay and make whole the Owner for such cost. This obligation for payment shall survive the termination of the Contract. In the event the employment of the Contractor is terminated by the Owner for cause pursuant to this Subparagraph 19(B) and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under Subparagraph 19(A) and the provisions of Subparagraph 19(A) shall apply.

20. INSURANCE

The Contractor shall have and maintain insurance in accordance with the requirements of Exhibit "A" attached hereto and incorporated herein by reference.

21. SURETY BONDS

The Contractor shall furnish separate performance, payment, and maintenance bonds to the Owner. Each bond shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds and shall specifically reference paragraph 16(d) of this agreement. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both the performance bond, payment bond, and maintenance bond shall be deemed increased by like amount. The performance, payment and maintenance bonds furnished by the Contractor shall be in form provided by the Owner and shall be executed by a surety, or sureties, reasonably acceptable to the Owner.

22. PROJECT RECORDS

All documents relating in any manner whatsoever to the Project, or any designated portion thereof, which are in the possession of the Contractor, or any subcontractor of the Contractor, shall be made available to the Owner for inspection and copying upon written request by the Owner. Furthermore, said documents shall be made available, upon request by the Owner, to any state, federal or other regulatory authority and any such authority may review, inspect and copy such records. Said records include, but are not limited to, all drawings, plans, specifications, submittals, correspondence, minutes, memoranda, tape recordings, videos, or other writings or things which document the Project, its design, and its construction. Said records expressly include those documents reflecting the cost of construction to the Contractor. The Contractor shall maintain and protect these documents for no less than four (4) years after final completion of the Project, or for any longer period of time as may be required by law or good construction practice.

23. APPLICABLE LAW

The law applicable to this Contract is hereby agreed to be the law of the State of Texas and venue shall be Collin County, Texas.

24. EXPENSES FOR ENFORCEMENT

In the event either Party hereto is required to employ an attorney to enforce the provisions of this Agreement or is required to commence legal proceedings to enforce the provisions hereof, the prevailing Party shall be entitled to recover from the other, reasonable attorney's fees and court costs incurred in connection with such enforcement, including collection.

25. SUCCESSORS AND ASSIGNS

Each party binds itself, its successors, assigns, executors, administrators or other representatives to the other party hereto and to successors, assigns, executors, administrators or other representatives of such other party in connection with all terms and conditions of this Contract. The Contractor shall not assign this Contract without prior written consent of the Owner.

26. NOTICES

All notices required or permitted hereunder shall be in writing and shall be deemed to have been duly delivered hereunder if mailed by first class certified mail, postage prepaid, to the respective parties at the respective addresses:

Owner:
Bill Burke
Construction Projects Director
4600 Community Ave.
McKinney, TX 75071

Contractor:

Any party may at any time change its address for such notices by delivering or mailing to the other parties hereto, in the manner provided above, a notice of such change.

OWNER

Collin County

(TYPED NAME)

By: _____
(SIGNATURE)

Michalyn Rains, CPPO, CPPB
Purchasing Agent
2300 Bloomdale Rd., Ste. 3160
McKinney, TX 75071

(PRINTED NAME, TITLE & ADDRESS)

(DATE OF EXECUTION)

CONTRACTOR

(TYPED NAME)

By: _____
(SIGNATURE)

(PRINTED NAME, TITLE & ADDRESS)

(DATE OF EXECUTION)

EXHIBIT "A"
Contractor's and Subcontractor's Insurance:

Before commencing work, the vendor shall be required, at its own expense, to furnish the Collin County Purchasing Agent with certified copies of all insurance certificate(s) indicating the coverage to remain in force throughout the term of this contract.

1. Commercial General Liability insurance including but not limited to the coverage indicated below. Coverage shall not exclude or limit Products/Completed Operations, Contractual Liability, or Cross Liability.
 - Each Occurrence: \$1,000,000
 - Personal & Adv. Injury: \$1,000,000
 - Products/Completed Operation: \$2,000,000
 - General Aggregate: \$2,000,000
2. Workers Compensation insurance as required by the laws of Texas, and Employers' Liability.
 - Liability, Each Accident: \$500,000
 - Disease-Each Employee: \$500,000
 - Disease – Policy Limit: \$500,000
3. Commercial Automobile Liability insurance including owned, non-owned, and hired vehicles used in connection with the contract.
 - Combined Single Limit – Each Accident: \$1,000,000
4. Umbrella/Excess Liability insurance.
 - Each Occurrence/Aggregate: \$1,000,000

With reference to the foregoing insurance requirement, the vendor shall endorse applicable insurance policies as follows:

1. A waiver of subrogation in favor of Collin County, its officials, employees, volunteers and officers shall be provided for General Liability, Commercial Automobile Liability and Workers' Compensation.
2. The vendor's insurance coverage shall name Collin County as additional insured under the General Liability policy.
3. All insurance policies shall be endorsed to require the insurer to immediately notify Collin County of any decrease in the insurance coverage limits.
4. All insurance policies shall be endorsed to the effect that Collin County will receive at least thirty (30) days' notice prior to cancellation, non-renewal or termination of the policy.
5. All copies of Certificates of Insurance shall reference the project/contract number.

All insurance shall be purchased from an insurance company that meets the following requirements:

1. A financial rating of A+VII or better as assigned by the BEST Rating Company or equivalent.

Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent, and shall contain provisions representing and warranting the following:

1. Sets forth all endorsements and insurance coverages according to requirements and instructions contained herein.
2. Sets forth the notice of cancellation or termination to Collin County.

PAYMENT BOND

STATE OF TEXAS §
COUNTY OF COLLIN §

KNOW ALL MEN BY THESE PRESENTS:

That _____, a corporation organized and existing under the laws of the State of _____, and fully authorized to transact business in the State of Texas, whose address is _____ of the City of _____ County of _____, and State of _____, (hereinafter referred to as "Principal"), and _____ (hereinafter referred to as "Surety", a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (hereinafter referred to as "Owner") and unto all persons, firms and corporations who may furnish materials for or perform labor upon the buildings, structures or improvements referred to in the attached Contract, in the penal sum of _____ Dollars (\$ _____) (not less than 100% of the approximate total amount of the Contract as evidenced in the proposal) in lawful money of the United States, for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the _____ day of _____, 20_____, to which said Contract is hereby referred to and made a part hereof and as fully and to the same extent as if copied at length herein for the construction of _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that the bond guarantees the full and proper protection of all claimants supplying labor and material in the prosecution of the work provided for in said Contract and for the use of each claimant, and that conversely should the Principal faithfully perform said Contract and in all respects duly and faithfully observe and perform all and singular the covenants, conditions, and agreements in and by said Contract, agreed to by the Principal, and according to the true intent and meaning of said Contract and the claims and specifications hereto annexed, and any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modification to Surety being hereby waived, then this obligation shall be void; otherwise, to remain in full force and effect. Provided further, that if any legal action be filed on this Bond, venue shall lie in _____ Collin County, Texas.

"PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions Texas Government Code, Chapter 2253, as amended, and Chapter 3503 of the Texas Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said articles to the same extent as if they were fully copied at length herein.

Surety, for value received, stipulates and agrees that the bond shall automatically be increased by the amount of any Change Order or supplemental agreement which increases the Contract price with or without notice to the Surety and that no change, extension of time, alteration or addition to the terms of the Contract, or to the work performed thereunder, or the plans, specifications, or drawings accompanying the same, shall in anyway affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed thereunder.

The undersigned and designated agent is hereby designated by Surety herein as the agent resident to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____ 20_____.

WITNESS

PRINCIPAL

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

SURETY

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

WITNESS

The Resident Agent of the Surety for delivery of notice and service of process is:

Name: _____

Address: _____

Phone Number: _____

Note: Date of Bond must NOT be prior to date of contract.

PERFORMANCE BOND

STATE OF TEXAS §
COUNTY OF COLLIN §

KNOW ALL MEN BY THESE PRESENTS:

That _____, a corporation organized and existing under the laws of the State of _____, and fully authorized to transact business in the State of Texas, whose address is _____ of the City of _____ County of _____, and State of _____, (hereinafter referred to as "Principal"), and _____ (hereinafter referred to as "Surety", a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (hereinafter referred to as "Owner") and unto all persons, firms and corporations who may furnish materials for or perform labor upon the buildings, structures or improvements referred to in the attached Contract, in the penal sum of _____ Dollars (\$ _____) (not less than 100% of the approximate total amount of the Contract as evidenced in the proposal plus 10-percent of the stated penal sum as an additional sum of money representing additional court expenses, attorneys' fees, and liquidated damages arising out of or connected with the below identified Contract) in lawful money of the United States, for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the _____ day of _____, 20____, to which said Contract is hereby referred to and made a part hereof and as fully and to the same extent as if copied at length herein for the construction of _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal fully and faithfully executes the work and performance of the Contract in accordance with the plans specifications, and Contract Documents, including any extensions thereof which may be granted with or without notice to Surety, during the original term thereof, and during the life of any guaranty required under the Contract, and according to the true intent and meaning of said Contract and the plans and specifications hereto annexed, if the Principal shall repair and/or replace all defects due to faulty materials or workmanship that appear within a period of one year from the date of final completion and final acceptance of the work by OWNER; and if the Principal shall fully indemnify and save harmless the OWNER from all costs and damages which OWNER may suffer by reason of failure to so perform herein and shall fully reimburse and repay OWNER all outlay and expense which the OWNER may incur in making good any default or deficiency, then this obligation shall be void; otherwise, to remain in full force and effect; and in case said CONTRACTOR shall fail to do so, it is agreed that the OWNER may do said work and supply such materials and charge the same against said CONTRACTOR and Surety on this obligation. Provided further, that if any legal action be filed on this Bond, venue shall lie in _____ Collin County, Texas.

"PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions Texas Government Code, Chapter 2253, as amended, and Chapter 3503 of the Texas Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said articles to the same extent as if they were fully copied at length herein.

Surety, for value received, stipulates and agrees that the bond shall automatically be increased by the amount of any Change Order or supplemental agreement which increases the Contract price with or without notice to the Surety, but in no event shall a Change Order or Supplemental Agreement which reduces the Contract price decrease the penal sum of the Bond. And further that no change, extension of time, alteration, or addition to the terms of the Contract, or to the work performed thereunder, or the plans, specifications, or drawings accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder.

Surety agrees that the bond provides for the repairs and/or replacement of all defects due to faulty materials and workmanship that appear within a period of one (1) year from the date of completion and acceptance of the improvement by the OWNER.

The undersigned and designated agent is hereby designated by Surety herein as the agent resident to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____ 20____.

WITNESS

PRINCIPAL

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

SURETY

Printed/Typed Name _____

Title: _____

Company: _____

Address: _____

WITNESS

The Resident Agent of the Surety for delivery of notice and service of process is:

Name: _____

Address: _____

Phone Number: _____

Note: Date of Bond must NOT be prior to date of contract.

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

Signature of vendor doing business with the governmental entity

Date

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

- (a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

- (2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed;
or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

- (i) a contract between the local governmental entity and vendor has been executed; or
- (ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

- (a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

- (a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

- (1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

- (2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

INFORMATION REGARDING CONFLICT OF INTEREST QUESTIONNAIRE

During the 79th Legislative Session, House Bill 914 was signed into law effective September 1, 2015, which added Chapter 176 to the Texas Local Government Code. Recent changes have been made to Chapter 176 pursuant to HB23, which passed the 84th Legislative Session. Chapter 176 mandates the public disclosure of certain information concerning persons doing business or seeking to do business with Collin County, including family, business, and financial relationships such persons may have with Collin County officers or employees involved in the planning, recommending, selecting and contracting of a vendor for this procurement.

For a copy of Form CIQ and CIS:

http://www.ethics.state.tx.us/filinginfo/conflict_forms.htm

The vendor acknowledges by doing business or seeking to do business with Collin County that he/she has been notified of the requirements under Chapter 176 of the Texas Local Government Code and that he/she is solely responsible for complying with the terms and conditions therein. Furthermore, any individual or business entity seeking to do business with Collin County who does not comply with this practice may risk award consideration of any County contract.

For a listing of current Collin County Officers:

<http://www.collincountytexas.gov/government/Pages/officials.aspx>

The following County employees will be involved in the planning, recommending, selecting, and contracting for the attached procurement:

Department/Evaluation Team:

Bill Burke – Director of Building Projects

Brad Harris – Building Projects Coordinator

Judy Florence – Myers Park Manager

Mark Page – Myers Park Events Coordinator

Purchasing:

Michalyn Rains – Purchasing Agent

Sara Hoglund, CPPB – Asst. Purchasing Agent

J. D. Griffin – Buyer II

Commissioners' Court:

Keith Self – County Judge

Susan Fletcher – Commissioner Precinct No. 1

Cheryl Williams – Commissioner Precinct No. 2

Chris Hill – Commissioner Precinct No. 3

Duncan Webb – Commissioner Precinct No. 4

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

Print or type See Specific Instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
	5 Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	6 City, state, and ZIP code	
7 List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN) Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> on page 3. Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.	Social security number [][][] - [][] - [][][][][][] or Employer identification number [][] - [][][][][][][][]
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Part II Certification Under penalties of perjury, I certify that: 1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and 3. I am a U.S. citizen or other U.S. person (defined below); and 4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct. Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.	Signature of U.S. person ▶ Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.