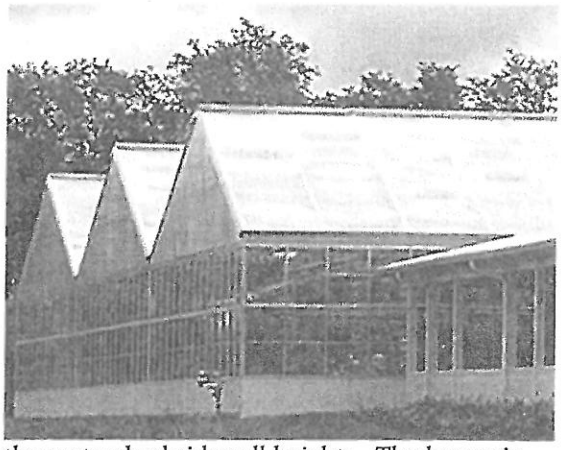
R/S II

Steel Peak

Series II: the best greenhouse value on the market today.

A custom house at a standard price

- Engineered for strength; designed for efficient construction
- Easily adapted to local structural building codes and weather conditions
- Fabricated with low-maintenance galvanized steel frame and gutters
- Glazed with a wide choice of economical materials



Steel, peak-roof R/S II series greenhouses are ideal for retailers and institutions needing a high-quality structure at an affordable price. This strong, versatile design is easily adapted to local structural building codes throughout the country.

The heart of the R/S II is a low-maintenance, galvanized, rust-resistant frame. Trusses are centered over-and attached directly to-square-tube columns, and the centerline of each member converges to a single point. This unique design, secured with a single bolt, ensures the strongest house possible, with significantly better resistance to side and downward stresses. Trusses and connectors are factory-assembled and welded, ensuring consistent quality. Fabricated from 12-gauge galvanized steel, the gutters are wide enough to walk through, and meet at a splice and sealed to guarantee tight joints. And unlike most other manufacturers, we scrutinize the entire design using the latest computerized structural member analysis, and obtain the approval of independent engineers to ensure the integrity of your house.

When you choose an R/S II, We build the house to meet your requirements-but you don't pay for more house than you need.

The design's flexibility enhances the inherent strength of the house. Structural components are selected and sized to match your environmental and load requirements. The house is available in five different widths and three standard sidewall heights. The house is infinitely expandable-we can build one or ten, and add on later, attaching to either end, either side, or both. When you choose an R/S II, we build the house to meet your local growing, weather and structural code requirements-but you don't pay for more house than you really need.

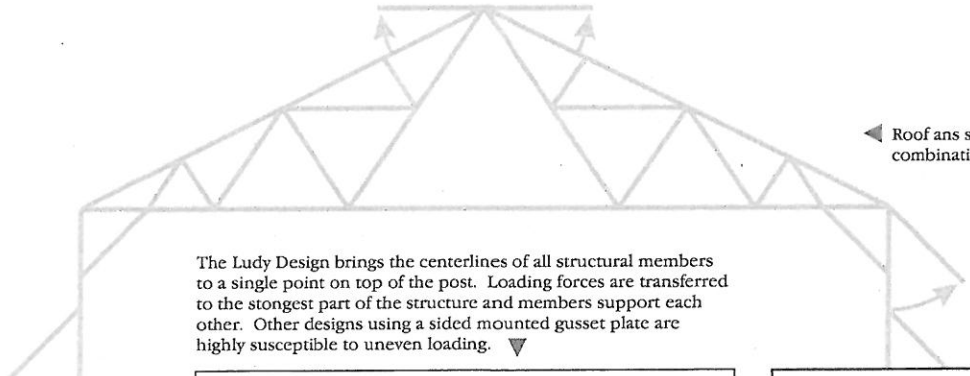
All of this adaptability adds up to affordability and long life. A broad array of materials, including energy-efficient structured sheet, easy to-install corrugated polycarbonate or metal-even glass and shade cloth-gives you the freedom to choose the most appropriate glazing for your environment, incorporating classroom space, checkout areas or storage facilities. On-site construction costs are reduced by using factory-welded, predrilled components; galvanized steel keeps maintenance expenses to a minimum.

Engineered for value from the ground up, the R/S II combines the best of two worlds: custom features at standard prices. To find out more about how the strength, flexibility and affordability of an R/S II house fits into your future, call Ludy at 1.800.255.LUDY (5839) for a consultation or quotation today.

LUDY GREENHOUSES

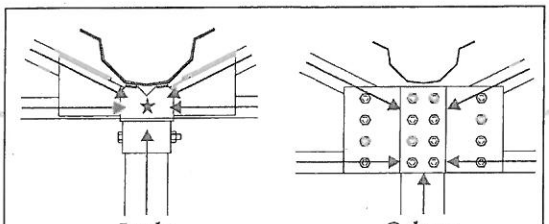
Specifications

Ludy Greenhouse Manufacturing Corporation
Box 141 ■ New Madison, Ohio 45346
Phone: 800 255 5839 ■ Fax: 937 996 8031 ■ www.ludy.com

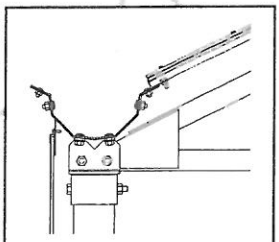


◀ Roof ans side vents are available in multitude of combinations

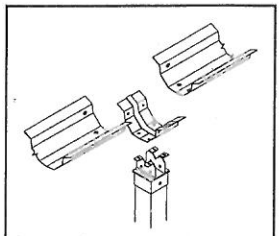
The Ludy Design brings the centerlines of all structural members to a single point on top of the post. Loading forces are transferred to the stongest part of the structure and members support each other. Other designs using a sided mounted gusset plate are highly susceptible to uneven loading. ▼



The Ludy engineering advantage



Versatile glazing



Wide, sturdy gutters

Construction

- All structrual components are pre-galvanized, rust-resestant steel. Hot-dipped galvanizing on all welded parts after fabrication is optional
- Post: square steel tubes; sized by application
- Trusses: square; factory welded design to center on and attach directly to post top with a single bolt; sized by application.
- Purlins: square or Z-type; sized by application
- Bracing: roof wind rod X-bracing, Sidewall X-bracing, gable bracing and longitudinal truss bracing included.

Gutters

- 12" wide high strength steel sealed by joining them at a gutter splice at each post.
- Various extensions lengths are available along with down spout connector and drip channels

Sizes

- Widths: 20.5, 25, 30, 35.5 and 41.5 ft (6.25, 7.62, 9.14, 10.82 and 12.65 m)
- Lengths: standard 10 or 12 foot bays; full length can be any multiple of chosen bay size.
- Sidewall: standard 8, 10, or 12 feet; higher walls available.

Glazing options

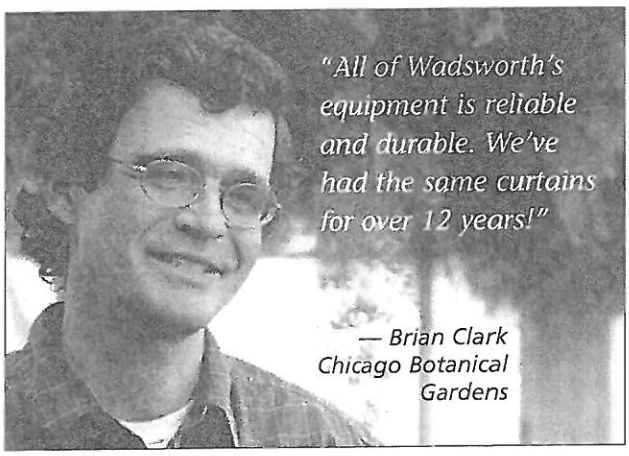
- 8mm polycarbonate structured sheet in 4 or 6 feet bar spacing.
- 16mm polycarbonate structured sheet
- Corrugated polycarbonate
- Glass (annealed, tempered or laminated)
- 16mm or 8mm acrylic structured sheet
- Corrugated metal
- Shade Cloth

R/S II

Looking for ways to combat rising heating costs?

Install PowerPull curtains and reduce your energy costs up to 40%. Wadsworth's systems reduce energy costs year-round while improving plant quality and shopper and worker comfort.

Tom's Farm Market, Huntley, IL



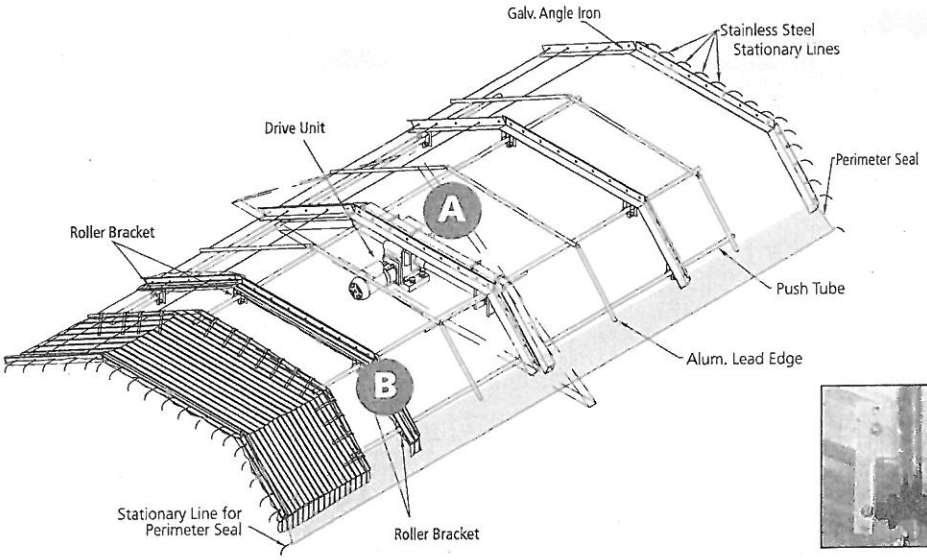
Features:

- Positive drive rack and pinion system — no cable to re-tension
- Fabric glides between stationary stainless steel lines
- Slow-moving system optimizes management of cold air spill
- Built-in safety limits protect your system
- Durable fabric— resistant to UV, heat and chemicals
- Small bundle size ensures minimal shade
- Positive seal when closed
- Flexible design, easy installation for new construction or retrofitting

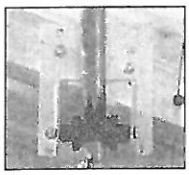
About our design

At Wadsworth, we have nearly four decades of experience with curtain systems. Over the years, we've perfected curtain design, and today we're proud to offer the longest-lasting system in the industry.

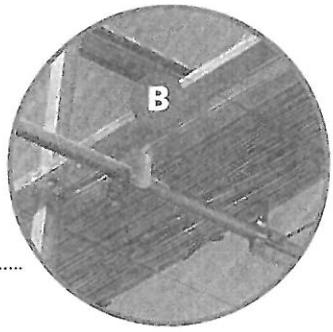
Our extensive experience means we're able to offer you any kind of curtain system you'd like, including a drum and cable system. We suggest the push/pull system because its durability, dependability and minimal maintenance pass the Wadsworth test.

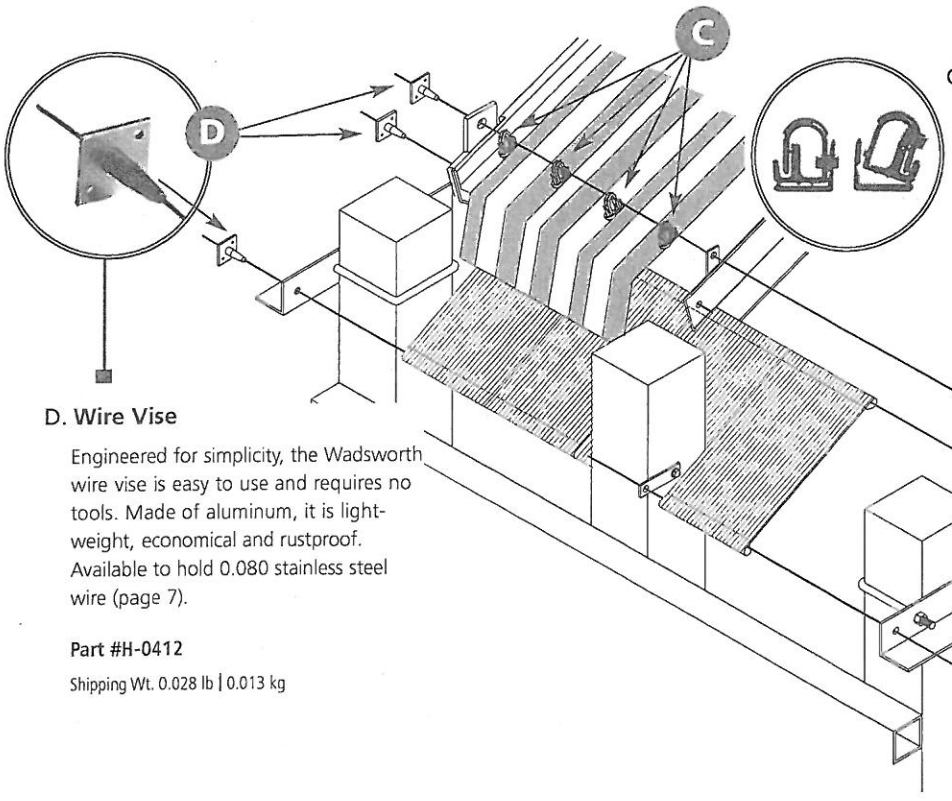


A. Drive Unit



B. Roller Bracket





C. Cloth Hanger Clip

This nylon clip has the advantage of clamping the supported fabric top and bottom with a broader holding surface than most clips. The circular leg clamps the fabric together to hold the material firmly in place.

Part #F-0503

Shipping Wt. 0.008 lb | 0.004 kg

D. Wire Vise

Engineered for simplicity, the Wadsworth wire vise is easy to use and requires no tools. Made of aluminum, it is lightweight, economical and rustproof. Available to hold 0.080 stainless steel wire (page 7).

Part #H-0412

Shipping Wt. 0.028 lb | 0.013 kg

Why Wadsworth?

Growers tell us that they prefer the push/pull system because they just install it and enjoy. Drum and cable systems require constant maintenance to re-tension the cables. Visit our website to learn more about why growers choose Wadsworth at www.WadsworthControls.com.

Pleasant View, Loudon, NH

We custom-design each curtain system to meet your needs. Call today for a quote and start saving—
1.800.821.5829 *or* **quotes@WadsworthControls.com**

Benefits:

- Improves crop quality
- Pays for itself — up to 40% in energy savings means quick return on investment
- Enhances control of environment with temperature, light and humidity control
- Heat retention — cover at night when 80% of heating occurs
- Controls light level
- Cools 10° to 15° F
- Reduces plant stress
- Reduces water consumption
- Provides customer and worker comfort
- Helps maintain uniform temperatures
- Reduces labor costs — no more white washing
- Happy plants, happier owner

Why I Chose Wadsworth

"We've got shade and blackout curtains. The black cloth is almost impervious; it provides big heat savings in the winter. In warmer weather we rely on the shade to cool. It can be 98° outside and the plants inside stay nice and cool."

— Jack Weatherford
Weatherford Farms
Stafford, TX

"We prefer Wadsworth's curtains because they are well designed, and have excellent mechanics."

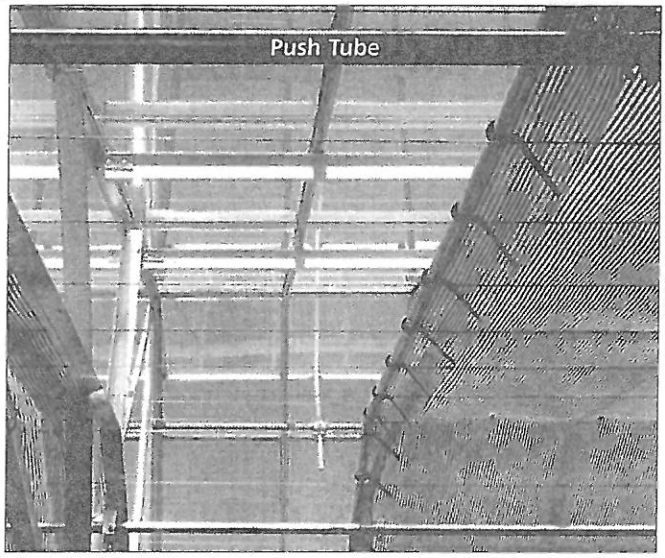
— Mark DeJong
Theo Vanden Broek
DeJong's Greenhouse
Pella, IA
www.DeJongGreenhouses.com

"We have a long relationship with Wadsworth and we know we can trust them to deliver a great system. I'm happy we went with Wadsworth; they take care of us."

— Vince Beal
Bell Nursery
Burtonville, MD
www.BellNursery.com

Attention to detail

We pay attention to every element, like the shape of our clips and the specially designed grooves in our lead edge tube. We know that these features provide the system with the smallest bundle size so your crop has maximum sun when the system is not in use.



A. Aluminum Fabric Clip

Secures fabric to 10 gauge aluminum, galv. steel angle and various other surfaces. Its serrated inner surfaces provide extra holding power to keep the fabric in place.

Part #F-0510 | Shipping Wt. 0.012 lb | 0.005kg

B. Aluminum Lead Edge Tubing

7/8" O.D. x 12' aluminum tube with continuous groove for locking the lead edge fabric clip in place.

Part #G-0121 | Shipping Wt. 0.42 lb | 0.19kg

C. Lead Edge Material Clip

Clip secure fabric around 7/8" O.D. lead edge tubing (B). The extended legs gather fabric as system uncovers.

Part #F-0505 | Shipping Wt. .036 lb | .016kg

D. Stainless Steel Wire

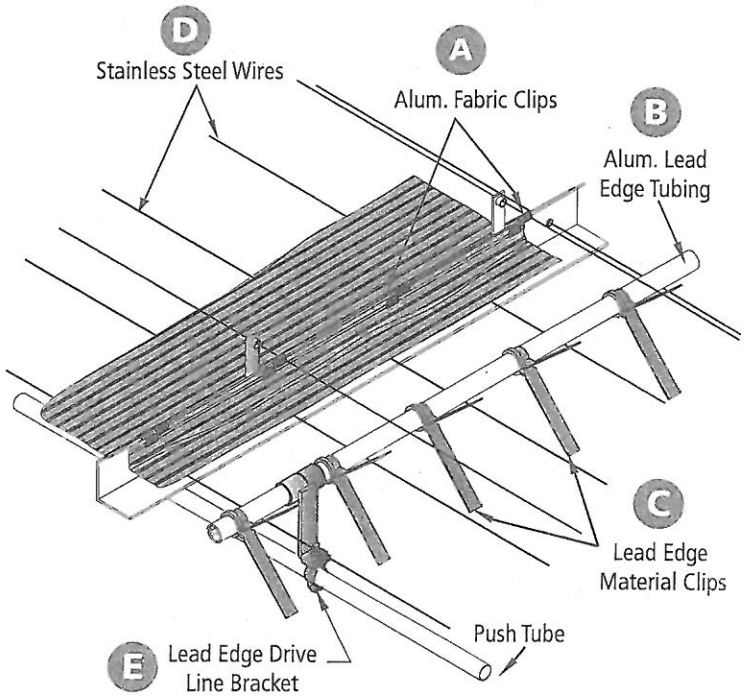
0.080 stainless steel wire is extremely durable. Fabric glides on top of lines in PowerPull Systems. Sold in 2500' and 5000' coils. Tensile strength: 1800 lbs.

Part #G-0225: 2500' | Shipping Wt. 43 lb | 20kg
Part #G-0220: 5000' | Shipping Wt. 86 lb | 39kg

E. Lead Edge Drive Line Bracket

Attaches lead edge tube to the push tube.

Part #S-9145 | Shipping Wt. .42 lb | .19kg



Glazing Schedule

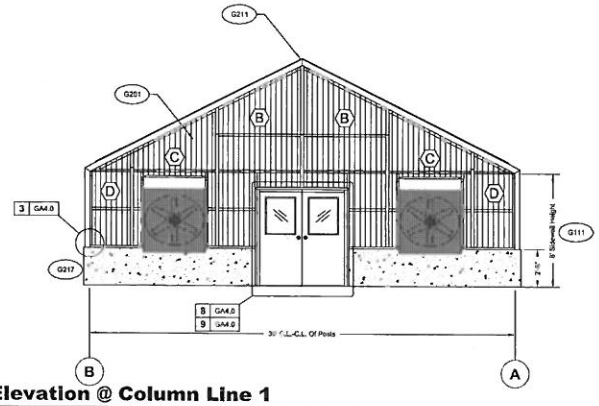
ID	Description	Location	QTY	Width	Length
A	8mm Clear Polycarbonate	Roof	24	71 1/4"	16'-6" (198")
B	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	13'-6" (162")
C	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	10'-6" (126")
D	8mm Clear Polycarbonate	Both Gable Ends	4	71 1/4"	8'-0" (96")
E	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	9'-0" (108")
F	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	8'-6" (78")
G	8mm Clear Polycarbonate	Gable Vent	8	35 1/4"	4'-0 7/8" (48 7/8")
H	8mm Clear Polycarbonate	Sidewall	24	71 1/4"	8'-0" (96")
I	8mm Clear Polycarbonate	Gable Vent	2	40 5/16"	4'-0 7/8" (48 7/8")
J					
K					
L					
M					
N					
O					
P					

Key Notes

Framing Notes:
G102 Gutter Post, typical. Refer to structural drawings for sizes.
G105 Mount on top of concrete knee wall.
G111 Side wall height, dimensions are from finished floor to bottom of the bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G118 Continuous eave.

Glazing Notes:
G201 8mm (5/16") PMA double wall installed panels.
G211 Aluminum ridge for no vents.
G217 Masonry knee wall, not by Ludy, shown for reference. Field verify dimensions.

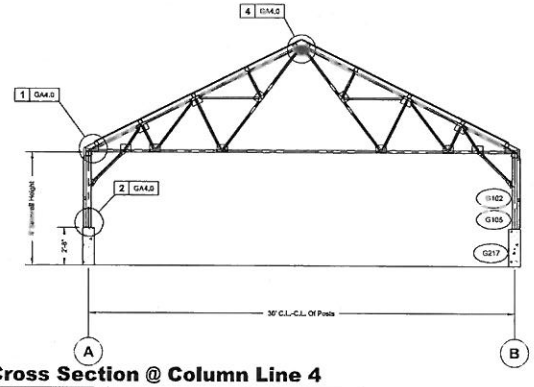
Equipment Notes:
G701 Exhaust fan, see equipment sheets for more information.
G704 Single continuous run of 4" side vent.



CL-1 | 1 | GA3.0

Elevation @ Column Line 1

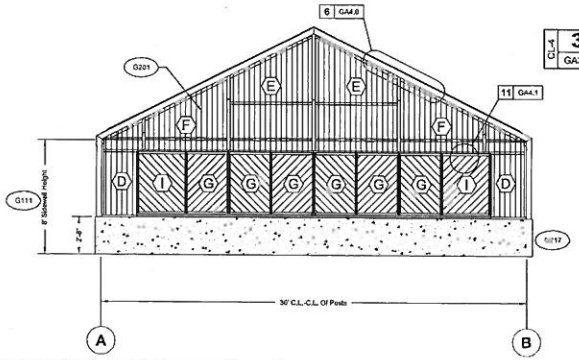
Scale:1/4" = 1'-0" at 24 x 36



CL-4 | 3 | GA3.0

Cross Section @ Column Line 4

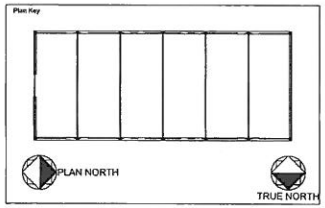
Scale:1/4" = 1'-0" at 24 x 36



CL-7 | 2 | GA3.0

Elevation @ Column Line 7

Scale:1/4" = 1'-0" at 24 x 36



Ludy Greenhouse Manufacturing Corporation ▫ 122 Railroad Street ▫ New Madison, Ohio 45346 ▫ p.937.996.1921 f.937.996.8031 ▫ Ludy.com

LUDY GREENHOUSES
Greenhouse Design and Consulting

Proud Founding Member of: NGMA

Professional Engineer In Responsible Charge of Structural Engineering is:

Childress Engineering Services, Inc.
2505 N. Plano Road, Suite 1209
Richardson, Texas 75082
(214) 451-6930
Fax: (214) 451-6931
Shirin Mitka, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Glazing Elevations

Cypress Springs High School

7909 Fry Road
Cypress, Texas 77433

Ludy Project No.

I09L608

GA3.0

Glazing Schedule

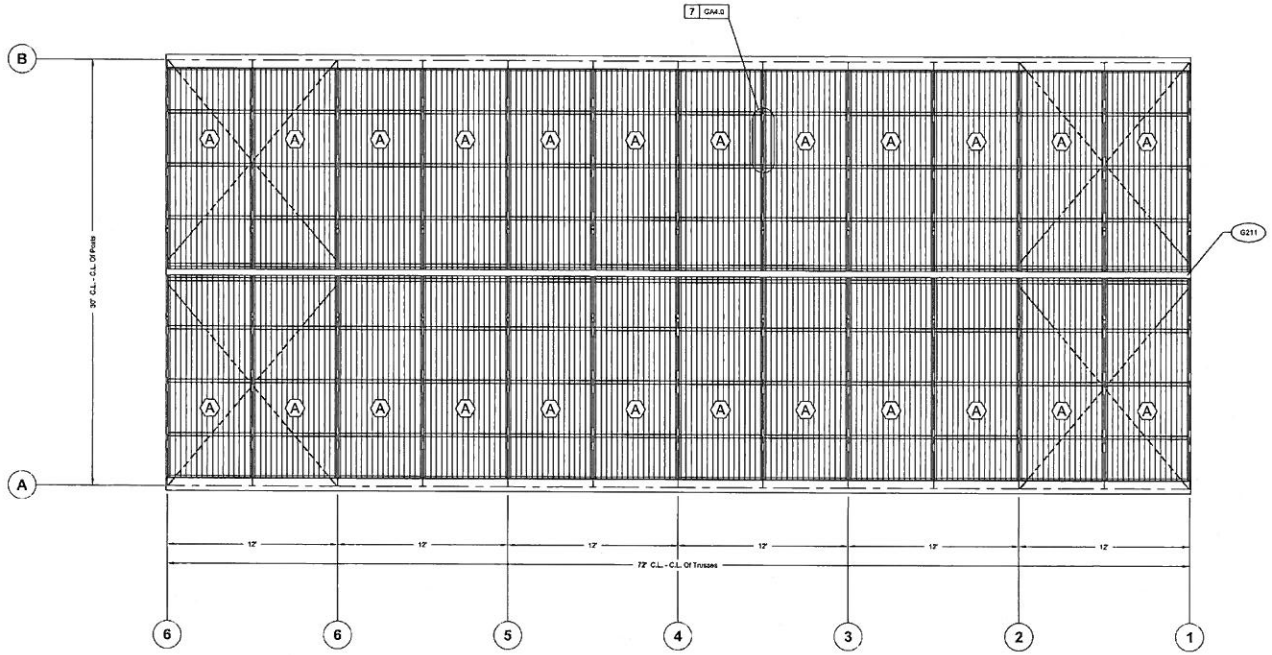
ID	Description	Location	QTY	Width	Length
A	8mm Clear Polycarbonate	Roof	24	71 1/4"	16'-6" (198")
B	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	13'-6" (162")
C	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	10'-0" (120")
D	8mm Clear Polycarbonate	Both Gable Ends	4	71 1/4"	8'-0" (96")
E	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	9'-0" (108")
F	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	6'-6" (78")
G	8mm Clear Polycarbonate	Gable Vent	6	35 1/4"	4'-0 7/8" (48 7/8")
H	8mm Clear Polycarbonate	Sidewall	24	71 1/4"	6'-0" (72")
I	8mm Clear Polycarbonate	Gable Vent	2	46 5/16"	4'-0 7/8" (48 7/8")
J					
K					
L					
M					
N					
O					
P					

Key Notes

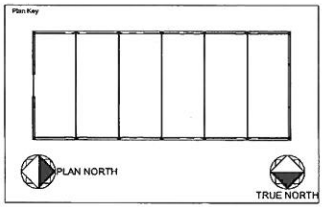
Framing Notes:
G102 Gutter Post, typical. Refer to structural drawings for sizes.
G105 Mount on top of concrete knee wall
G111 Side wall height, dimensions are from finished floor to bottom of the bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G115 Continuous eave.

Glazing Notes:
G201 8mm (5/16") thick double wall twinwall panels.
G211 Aluminum ridge for ea vents.
G217 Masonry knee wall, not by Lucy, shown for reference. Field verify dimensions.

Equipment Notes:
G701 Exhaust fan, see equipment sheets for more information.
G314 Single continuous run of ridge vent.



1 **Roof Plan**
GA2.0 Scale: 1/4" = 1'-0" at 24 x 36



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(214) 451-6630
Fax: (214) 451-6631
Shirin Mitha, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Glazing Roof Plan

Cypress Springs High School
7909 Fry Road
Cypress, Texas 77433

Ludy Project No.
I09L608

GA2.0

Glazing Schedule

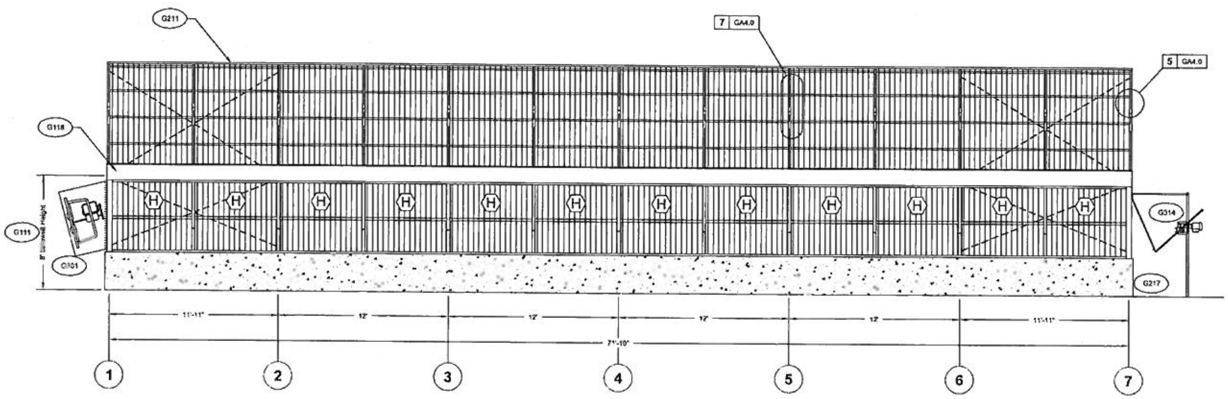
ID	Description	Location	[illegible]	Width	Length
A	8mm Clear Polycarbonate	Roof	24	71 1/4"	16'-6" (198")
B	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	13'-6" (162")
C	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	10'-6" (126")
D	8mm Clear Polycarbonate	Both Gable Ends	4	71 1/4"	8'-0" (96")
E	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	9'-0" (108")
F	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	6'-6" (78")
G	8mm Clear Polycarbonate	Gable Vent	6	35 1/4"	4'-0 7/8" (48 7/8")
H	8mm Clear Polycarbonate	Sidewall	24	71 1/4"	6'-0" (72")
I	8mm Clear Polycarbonate	Gable Vent	2	40 [illegible]16"	4'-0 7/8" (48 7/8")
J					
K					
L					
M					
N					
O					
P					

Key Notes

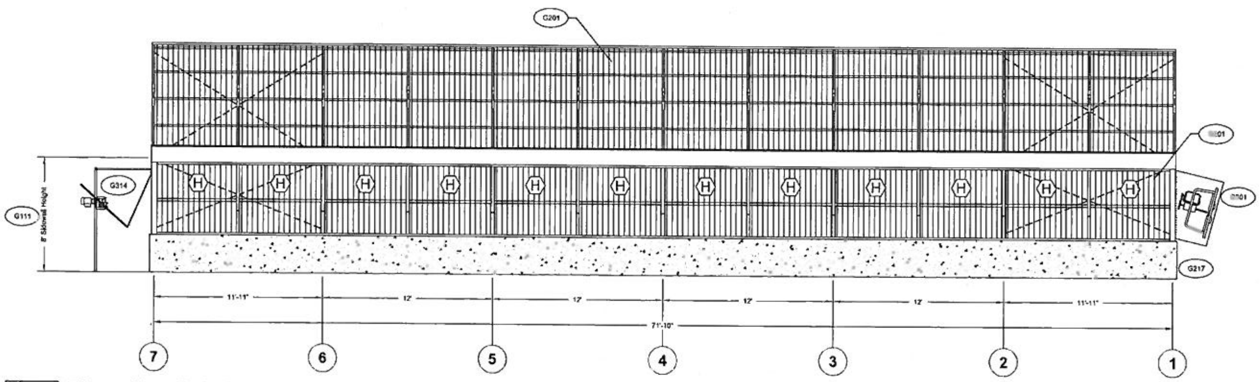
Framing Notes;
G102 Gutter Post, typical. Refer to structural drawings for sizes.
G105 Mount on top of concrete knee wall
G111 Side wall height, dimensions are from finished floor to bottom of the bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G118 Continuous eave.

Glazing Notes;
G201 8mm (5/16") thick double wall installed panels.
G211 Aluminum ridge for no vents.
G217 Masonry knee wall, not by Ludy, shown for reference. Field verify dimensions.

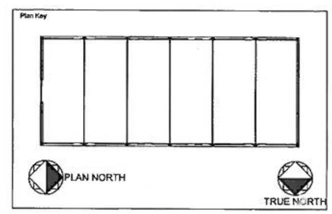
Equipment Notes:
G701 Exhaust fan, see equipment sheets for more information.
G314 Single continuous run of 4' side vent.



CL-A **1 Elevation @ Column Line A**
GA3.1 Scale:1/4" = 1'-0" at 24 x 36



CL-B **2 Elevation @ Column Line B**
GA3.1 Scale:1/4" = 1'-0" at 24 x 36



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Notice:

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[illegible] N. Plano Road, Suite 1200
Richardson, Texas 75082
(214) 451-6630
Fax: (214) 451-6631
Shirin Milka, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Elevations
Cypress Springs High School
7909 Fry Road
Cypress, Texas 77433

Ludy Project No. **I09L608**

GA3.1

Door Schedule

ID	Description	QTY	Top Panel	Bottom Panel	Rough Opening	Hinge Type	Lock set	Smash Kit	Closure
D1	(1 Pair) Aluminum Doors	1	¼" Clr Glass	Aluminum	76" x 82"	1 1/2 Pair Butt Hinges	Thumb Lock	Included	Global Closure (Included)
D2	-								
D3	-								
D4	-								
D5	-								
D6	-								
D7	-								

Equipment and Electrical Data

ID	Description	Qty	Volts	Phase	HP	Starting Amps	Full Amps	Manufacturer / Supplier
1	DCA48 Single Speed Exhaust Fan	1	115	1	1/2	-	5.5	ACME
2	DCA48 Two Speed Exhaust Fan	1	115	1	1/2	-	8	ACME
3	VT12 HA/F, Fan	2	115	1	1/10	-	1	Schaefer
4	PDP1700 Natural Gas Heater	1	115	1	1/8	-	5.1	Modine
5	8" Pad x 4' x 25' Evaporative Cooling System	1	115	1	3/10	-	9	ACME
6	VC2000LS Vent Motor - 25' Outside Apparatus Gable Vent	1	115	1	1/5	-	2.5	Wadsworth Control Systems
7	VC2001 Shade Motor	1	115	1	1/5	-	2.5	Wadsworth Control Systems
8	Slope-Flat-Slope Shade System	1	-	-	-	-	-	Wadsworth Control Systems
9	6' x 10' Freestanding Benches	8	-	-	-	-	-	Lady Greenhouse Mfg.
10	Step Up Controller & Contractor Panel	1	-	-	-	-	-	Wadsworth Control Systems
11	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-

Notes

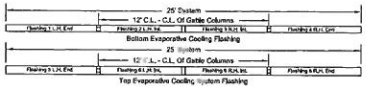
* Coordinate switch location with fixture plan if the NEC and local codes allow utilization of the supplied 4 wire 18 gauge 50' cord. the control box must be located within 20' of the gear motor. If an alternate location is desired, additional wiring and/or labor will not be furnished by Lady Greenhouse Mfg. Corp.

Key Notes

Framing Notes:
G102 Gutter Post, typical. Refer to structural drawings for sizes.
G105 Mount on top of concrete knee wall
G111 Side wall height, dimensions are from finished floor to bottom of this bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G118 Continuous eave.

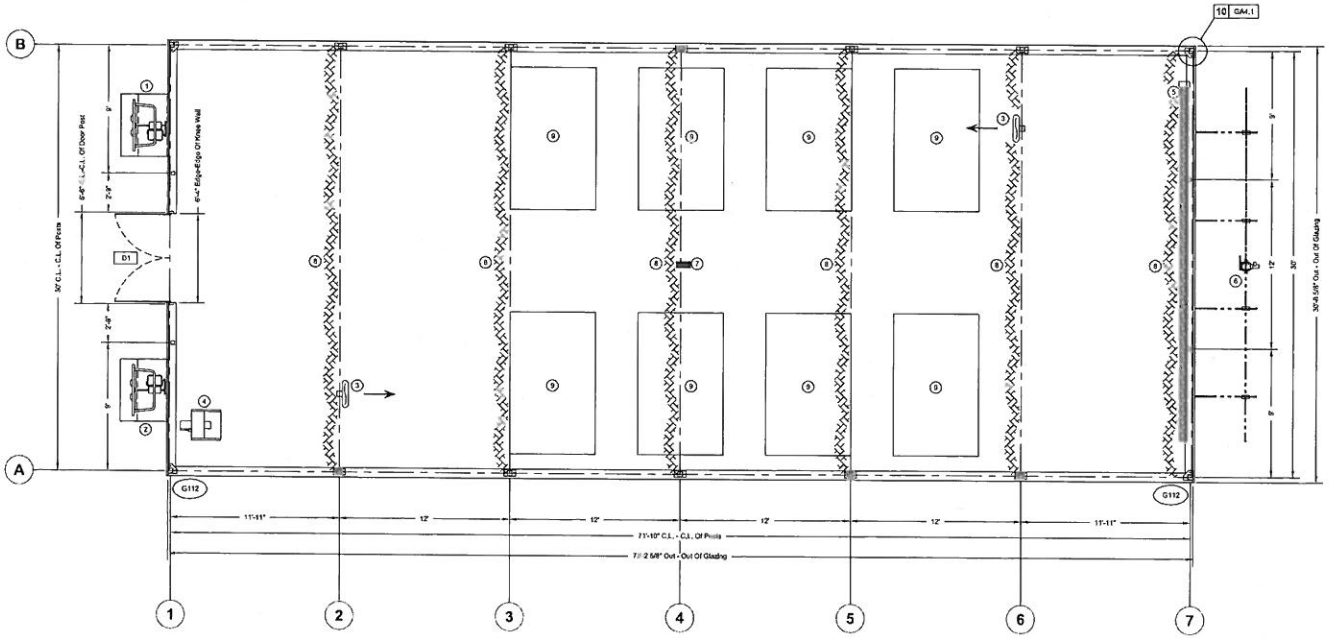
Glazing Notes:
G201 8mm (5/16") thick double wall installed panels.
G211 Aluminum ridge for all roofs.
G217 Masonry knee wall, not by Lady, shown for reference. Field verify dimensions.

Equipment Notes:
E301 Exhaust fan, see equipment sheets for more information.
E314 Single continuous run of 4' side vent.



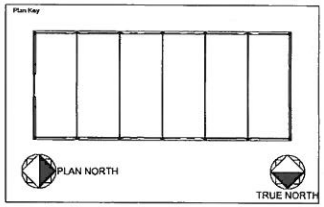
2 Evaporative Cooling Flashing Layout

GA1.0 Scale: 1/4" = 1'-0" at 24 x 36



1 Floor Plan

GA1.0 Scale: 1/4" = 1'-0" at 24 x 36



Lady Greenhouse Manufacturing Corporation 122 Railroad Street New Madison, Ohio 45346 p.937.996.1921 f.937.996.8031 Lady.com

LADY GREENHOUSES
Greenhouse Design and Consulting

Proud Founding Member of: NGMA

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(214) 454-6630
Fax: (214) 454-6631
Shibi Mitra, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Floor Plan

Cypress Springs High School

7909 Fry Road
Cypress, Texas 77433

Lady Project No.
I09L608

GA1.0

Glazing Schedule

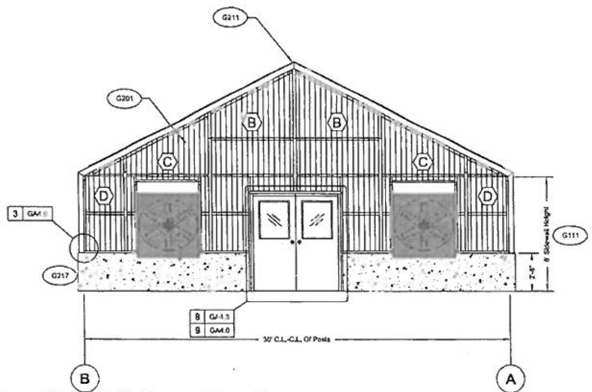
ID	Description	Location	QTY	Width	Length
A	8mm Clear Polycarbonate	Roof	24	71 1/4"	16'-6" (198")
B	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	13'-6" (162")
C	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	10'-6" (126")
D	8mm Clear Polycarbonate	Both Gable Ends	4	71 1/4"	8'-0" (96")
E	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	9'-0" (108")
F	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	6'-6" (78")
G	8mm Clear Polycarbonate	Gable Vent	6	35 1/4"	4'-0 7/8" (48 7/8")
H	8mm Clear Polycarbonate	Sidewall	24	71 1/4"	6'-0" (72")
I	8mm Clear Polycarbonate	Gable Vent	2	40 9/16"	4'-0 7/8" (48 7/8")
J					
K					
L					
M					
N					
O					
P					

Key Notes

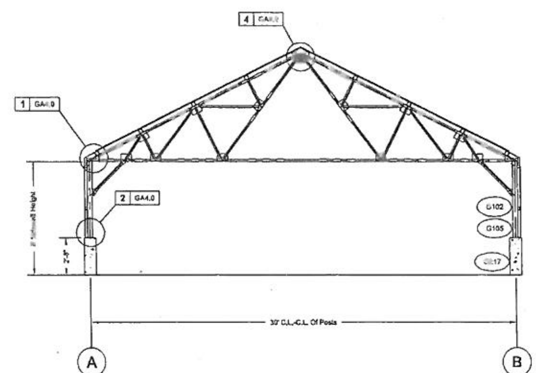
Framing Notes:
G102 Gutter Post, typical. Refer to structural drawings for sizes.
G105 Mount on top of concrete knee wall
G111 Side wall height, dimensions are from finished floor to bottom of the bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G118 Continuous eave.

Glazing Notes:
G201 8mm (5/16") thick double wall installed panels.
G211 Aluminum ridge for no vents.
G217 Masonry knee wall, not by Ludy, shown for reference. Field verify dimensions.

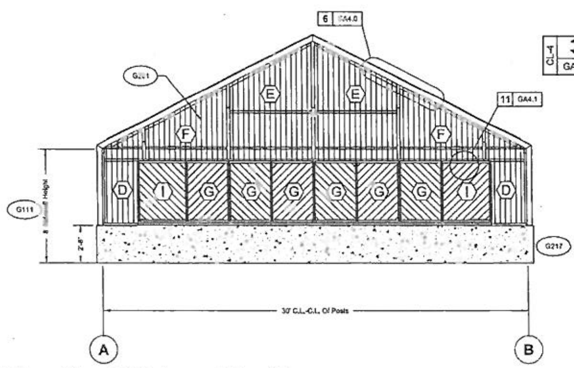
Equipment Notes:
G311 Exhaust fan, see equipment sheets for more information.
G314 Single continuous run of 4' side vent.



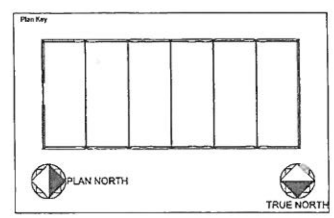
CL-1 **1** GA3.0 **Elevation @ Column Line 1**
Scale: 1/4" = 1'-0" at 24 x 36



CL-4 **3** GA3.0 **Cross Section @ Column Line 4**
Scale: 1/4" = 1'-0" at 24 x 36



CL-7 **2** GA3.0 **Elevation @ Column Line 7**
Scale: 1/4" = 1'-0" at 24 x 36



Ludy Greenhouse Manufacturing Corporation 122 Railroad Street New Madison, Ohio 45346 p.937.996.1921 f.937.996.8031 Ludy.com

LUDY GREENHOUSES
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Fax: (214) 451-6831
Shirin Milka, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Glazing Elevations

Cypress Springs High School
7909 Fry Road
Cypress, Texas 77433

Ludy Project No. **I09L608**

GA3.0

Glazing Schedule

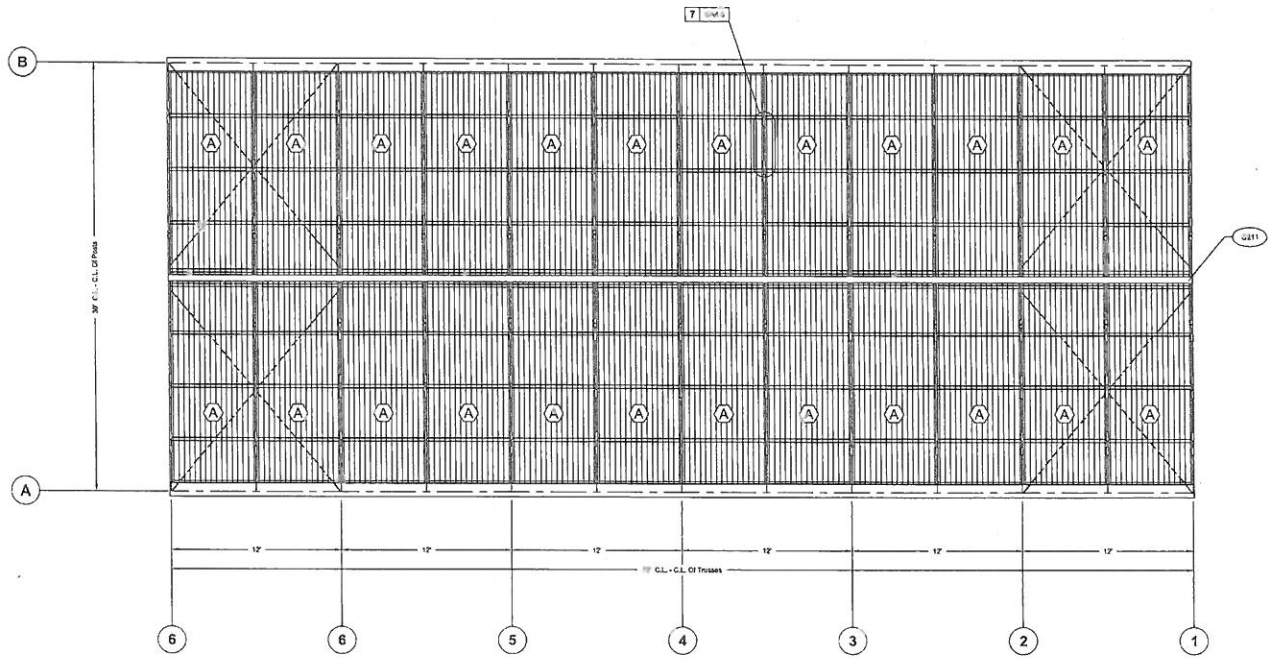
ID	Description	Location	Qty	Width	Length
A	8mm Clear Polycarbonate	Roof	24	71 1/4"	16'-0" (192")
B	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	13'-6" (174")
C	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	10'-6" (126")
D	8mm Clear Polycarbonate	With Gable Ends	4	71 1/4"	6'-0" (72")
E	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	9'-0" (108")
F	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	6'-6" (78")
G	8mm Clear Polycarbonate	Gable Vent	6	35 5/8"	4'-0 7/8" (48 7/8")
H	8mm Clear Polycarbonate	Sidewall	24	71 1/4"	6'-0" (72")
I	8mm Clear Polycarbonate	Gable Vent	2	40 5/16"	4'-0 7/8" (48 7/8")

Key Notes

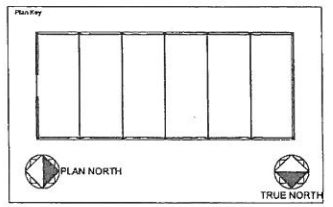
Framing Notes:
G102 Gutter Post, typical. Refer to structural drawings for sizes.
G105 Mount on top of concrete knee wall
G111 Side wall height, dimensions are from finished floor to bottom of the bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G118 Continuous eave.

Glazing Notes:
G201 8mm (5/16") thick double wall installed panels.
G211 Aluminum ridge cap as vents.
G217 Masonry knee wall, not by Ludy, shown for reference. Field verify dimensions.

Equipment Notes:
G301 Exhaust fan, see equipment sheets for more information.
G311 Single continuous run of 4' side vent.



1 Roof Plan
GA2.0 Scale: 1/4" = 1'-0" at 24 x 36



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Professional Engineer in Responsible Charge of Structural Engineering by:

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(214) 451-6810
Fax: (214) 451-6831
Justin Mitka, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Glazing Roof Plan

Cypress Springs High School
7909 Fry Road
Cypress, Texas 77433

Ludy Project No.: I09L608

GA2.0

Glazing Schedule

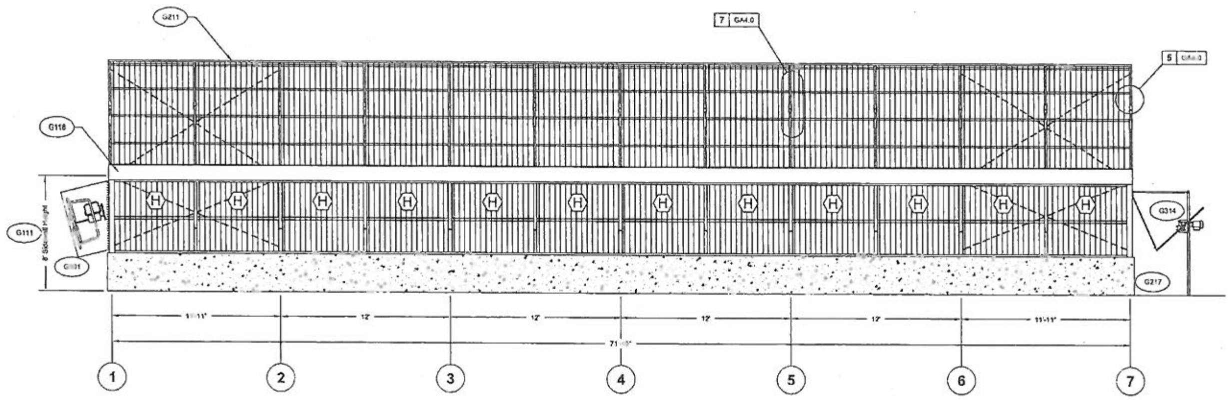
ID	Description	Location	QTY	Width	Length
A	8mm Clear Polycarbonate	Roof	24	71 1/4"	16'-6" (198")
B	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	13'-6" (162")
C	8mm Clear Polycarbonate	Gable End With Door	2	71 1/4"	10'-6" (126")
D	8mm Clear Polycarbonate	Both Gable Ends	4	71 1/4"	8'-0" (96")
E	8mm Clear Polycarbonate	Gable End with Vent	2	71 1/4"	9'-0" (108")
F	8mm Clear Polycarbonate	Gable End With Vent	2	71 1/4"	6'-4" (76")
G	8mm Clear Polycarbonate	Gable Vent	6	35 1/4"	4'-3 7/8" (51 7/8")
H	8mm Clear Polycarbonate	Sidewall	24	71 1/4"	6'-0" (72")
I	8mm Clear Polycarbonate	Gable Vent	2	40 5/8"	4'-0 7/8" (48 7/8")
J					
K					
L					
M					
N					
O					
P					

Key Notes

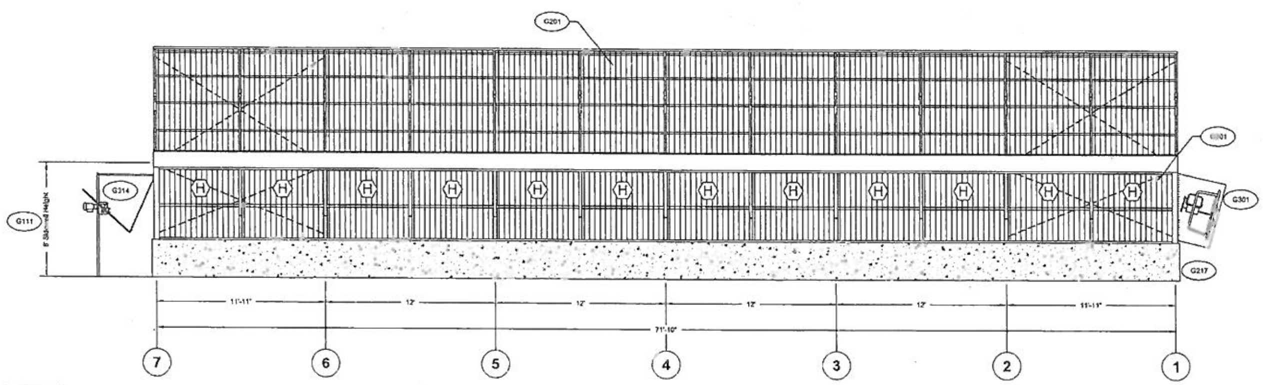
Framing Notes:
G1[illegible] Gutter Post, typical. Refer to structural drawings for size.
G1[illegible] Mount on top of concrete knee wall
G111 Side wall height dimensions are from finished floor to bottom of the bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G118 Continuous eave.

Glazing Notes:
G[illegible] 8mm (5/16") thick double wall installed panels.
G211 Aluminum ridge for no vents.
G217 Masonry knee wall, not by Ludy, shown for reference. Field verify dimensions.

Equipment Notes:
G[illegible] Exhaust fan, see equipment sheets for more information.
G314 Single continuous run of 4' side vent.

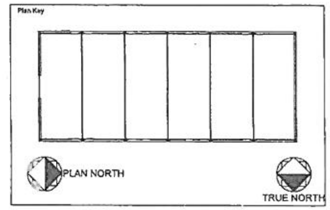


CL-A 1 GA3.1 **Elevation @ Column Line A**
Scale: 1/4" = 1'-0" at 24 x 36



CL-B 2 GA3.1 **Elevation @ Column Line B**
Scale: 1/4" = 1'-0" at 24 x 36

Plan Key



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Shirin Milks, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Elevations

Cypress Springs High School
7909 Fry Road
Cypress, Texas 77433

Ludy Project No. **I09L608**

GA3.1

Door Schedule

ID	Description	QTY	Top Panel	Bottom Panel	Rough Opening	Hinge Type	Lock set	Threshold	Closure
D1	(1 Pair) Aluminum Doors	1	¼" Clr Glass	Aluminum	76" x 82"	1 1/2 Pair Butt Hinges	Thumb Lock	Included	Global Closure (Included)
D2	-								
D3	-								
D4	-								
D5	-								
D6	-								
D7	-								

Equipment and Electrical Data

ID	Description	Qty	Volts	Phase	HP	Starting Amps	Full Amps	Manufacturer / Suppliers
1	DCA48 Single Speed Exhaust Fan	1	115	1	1/2	-	[illegible]	ACME
2	DCA48 Two Speed Exhaust Fan	1	115	1	[illegible]	-	8	ACME
3	[illegible]T12 H.A.F. Fan	2	115	1	[illegible]	-	1	Schaefer
4	PDP17[illegible] Natural Gas Heater	1	115	1	1/6	-	[illegible]	Modine
5	6" Pad x 4' x 25' Evaporative Cooling System	1	115	1	[illegible]	-	9	ACME
6	VC2000/LS Vent Motor - [illegible] Outside Apparatus Gable Vent	1	115	1	1/5	-	[illegible]	Wadsworth Control Systems
7	VC20[illegible] Shade Motor	1	115	1	1/5	-	2.5	Wadsworth Control Systems
8	Slope-Flat-Slope Shade System	1	-	-	-	-	-	Wadsworth Control Systems
9	6' x 10' Freestanding Benches	8	-	-	-	-	-	Ludy Greenhouse Mfg.
10	Step Up Controller & Contractor Panel	1	-	-	-	-	-	Wadsworth Control Systems
11	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-

Notes

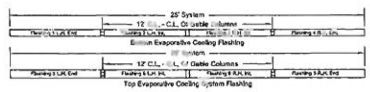
* Coordinate switch location with fixture plan & the NEC and local codes allow utilization of the supplied 4 wire 18 gauge SO cord, the control box must be located within [illegible] of the gear motor. If an alternate location is desired, additional wiring and/or labor will not be furnished by Ludy Greenhouse Mfg. Corp.

Key Notes

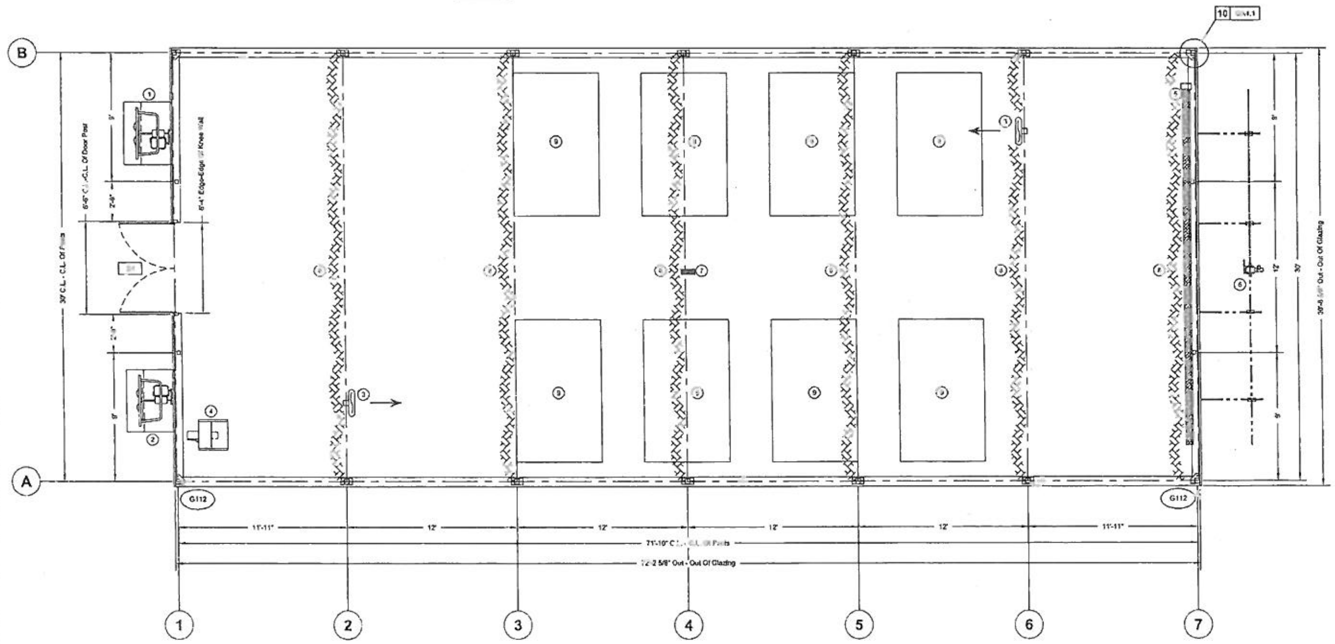
Framing Notes:
[illegible] Gutter Post, typical. Refer to structural drawings for sizes.
[illegible] Mount on top of concrete knee wall
G111 Side wall height, dimensions are from finished floor to bottom of the bottom chord.
G112 End post are offset towards interior of structure in order to achieve flush framing for glazing system.
G116 Continuous eave.

Glazing Notes:
[illegible]01 8mm (5/16") thick double wall installed panels.
G211 Aluminum ridge for no vents.
G217 Masonry knee wall, not by Ludy, shown for reference. Field verify dimensions.

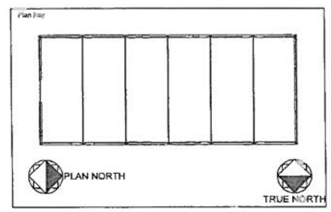
Equipment Notes:
G3[illegible] Exhaust fan, see equipment sheets for more information.
G3[illegible]4 Single continuous run of 4' side vent.



2 GA1.0 **Evaporative Cooling Flashing Layout**
Scale: 1/4" = 1'-0" at 24 x 36



1 GA1.0 **Floor Plan**
Scale: 1/4" = 1'-0" at 24 x 36



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Ludy Greenhouses — Greenhouse Design and Consulting

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Professional Engineer in Responsible Charge of Structural Engineering is:

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Richardson, Texas 75082
[illegible] 451-6830
Fax: (214) 451-6831
Shirin Mitka, P.E.

Issue Record:

Designer: C.M.

Drawing Issue Date: 11-11-09

Floor Plan

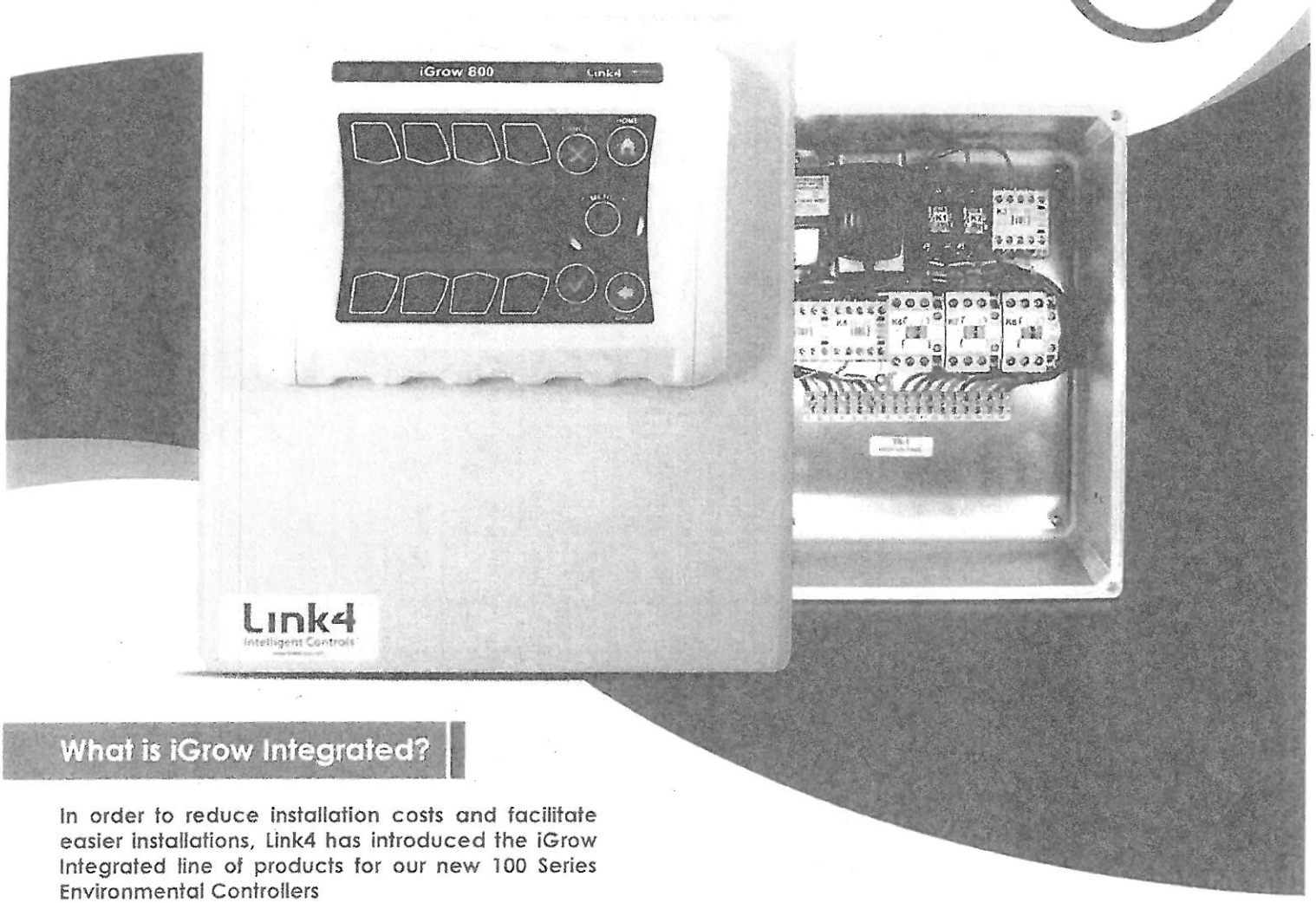
Cypress Springs High School
7909 Fry Road
Cypress, Texas 77433

Ludy Project No. I09L608

GA1.0

iGrow Integrated

Integrated Solutions Save You Money



What is iGrow Integrated?

In order to reduce installation costs and facilitate easier installations, Link4 has introduced the iGrow Integrated line of products for our new 100 Series Environmental Controllers

With a iGrow Integrated contactor relay panel you will receive a UL approved contactor panel with a 100 Series Environmental Controller, conveniently pre-mounted on the door for ease of installation. There's no need to mount two separate boxes with conduits in-between.

Paired With iGrow 400/800

- See how much energy your greenhouse is using and adjust to save money
- Discover which equipment uses the most energy
- Estimate your ROI
- Fine-tune your climate to optimize crop yields

5 Reasons to Choose iGrow Integrated

1. Pre-mounted with Link4's NEW 100 Series Controller
2. Pre-wired to eliminate wiring errors in the field
3. Pre-tested for quality and reliability
4. All-in-one solution is ready to work out of the box
5. Reduced Labor Costs and Reduced Installtion Time will Save You Money

High Voltage Directly to Your iGrow!

iGrow Integrated

Link4 CORPORATION
INTELLIGENT CONTROLS

iGrow Key Benefits

Easy Transition from Outdated Thermostats & Early Controllers

- Ideal for small or medium retrofits/new installations
- Can link multiple greenhouses

Track Energy Use and Adjust to Save Money

- iGrow 400/800 monitors energy use for each piece of equipment so you can adjust energy use or improve the greenhouse climate.

Get Advanced Control at an Affordable Price

- No other control system offers these advanced features at similar affordable price.

Easy to Operate and Modify Controls

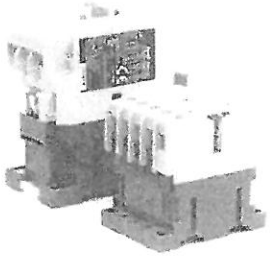
- iGrow 400/800 uses a simple touch interface and makes control changes easily, without hard wiring.

Get Instant Access to Controls — Remotely

- Download data with a just a USB stick, or easily access controls and make changes from any computer or cell phone — from any distance.

Day & Night System Control

- All day and night equipment operating set-points are monitored — even if workers use manual override — so you always know when equipment is running.



Panel Key Benefits

UL Approved Panel

- The fully UL approved panel satisfies most local electrical inspection requirements for high voltage panels.

Pre-mounted

- To ensure that our panel retains the coveted UL approval and to keep installation costs to a minimum, the Link4 iGrow Integrated comes pre-mounted with an iGrow 100 Series Environmental Controller.

Pre-wired

- We make the wiring connections for you in the factory so the iGrow Integrated contactor relay panel works right out of the box.

Pre-tested

- Each iGrow Integrated is thoroughly tested in-house to ensure quality and reliability.

Link4 Customer Service Back-up
Our experts can assist you before, during, and after installation.

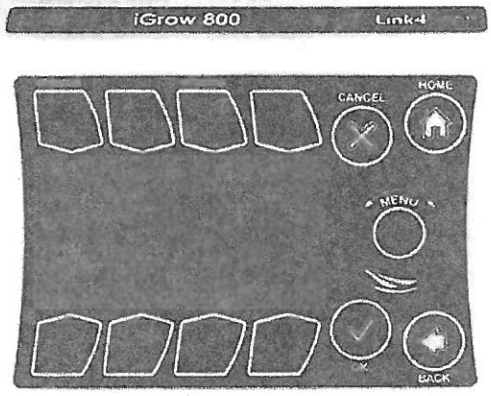
Contact your distributor or Link4 Corporation directly for more information on how the iGrow Integrated systems can maximize your energy cost savings, provide key information for smart crop management, and offer simple yet advanced control of all your greenhouse climate control elements.

Link4 Corporation
187 W. Orangethorpe Ave., Suite 101
Placentia, CA 92870
Toll Free: (866) 755-5465 (LINK)
Fax: (714) 854-7244
Email: Support@link4corp.com
www.link4corp.com

DELIVERING CONFIDENCE THROUGH INTELLIGENT ENVIRONMENTAL CONTROLS AND AUTOMATION SOLUTIONS

iGrow 400/800

Entry-Level Greenhouse Controls



Why Use a Controller?

Get real-time energy use and track run time on greenhouse heating and cooling equipment with this simple, entry-level advanced controller system. iGrow 400/800 offers four (400 Model) or eight (800 Model) different controls for:

- Exhaust Fans
- Pad Louvers
- Fan Jets
- Shade Curtains
- Perimeter Heating Systems
- Pad Pumps
- HAF Fans
- Vents
- Unit Heaters
- Other Equipment

With iGrow 400/800:

- See how much energy your greenhouse is using and adjust to save money
- Discover which equipment uses the most energy
- Estimate your ROI
- Easily transfer data to your PC for analysis
- Fine-tune your climate to optimize crop management

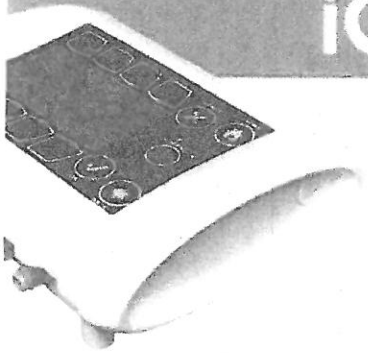
6 Reasons to Choose iGrow 400/800

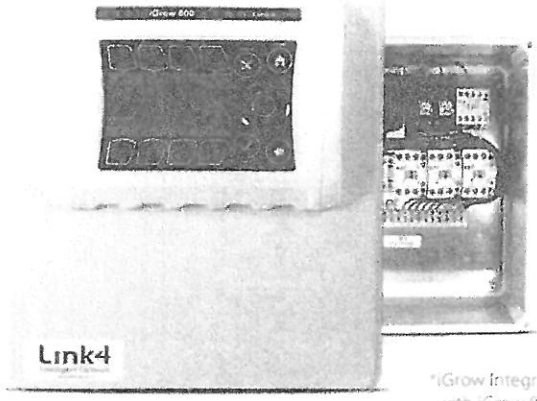
1. Easy Transition from Outdated Thermostats & Early Controllers
2. Track Energy Use and Adjust to Save Money
3. Get Advanced Control at an Affordable Price
4. Easy to Operate and Modify Controls
5. Get Instant Access to Controls — Remotely
6. Day & Night System Control

Track Energy Costs Now!

iGrow 400/800

Link4 CORPORATION





*iGrow Integrated™ pictured with iGrow 800™ controller

6 Key Benefits

Easy Transition from Outdated Thermostats & Early Controllers

- Ideal for small or medium retrofits/new installations
- Can link multiple greenhouses

Track Energy Use and Adjust to Save Money

- iGrow 400/800 monitors energy use for each piece of equipment so you can adjust energy use or improve the greenhouse climate.

Get Advanced Control at an Affordable Price

- No other control system offers these advanced features at similar affordable price.

Easy to Operate and Modify Controls

- iGrow 400/800 uses a simple touch interface and makes control changes easily, without hard wiring.

Get Instant Access to Controls — Remotely

- Download data with a just a USB stick, or easily access controls and make changes from any computer or cell phone — from any distance.

Day & Night System Control

- All day and night equipment operating set-points are monitored — even if workers use manual override — so you always know when equipment is running.

Entry-Level System & Advanced Capabilities

Accessories give additional capabilities:

- Humidity
- Light
- Rain
- Weather station
- Outdoor temperature
- Anemometer (wind speed/direction)

Optional communication components include:

- Direct network communication module
- Multiple greenhouse communication network
- Alternate data storage on MicroSD card
- Remote control access to smart cell phones

Optional iGrow Integrated™ relay panel:

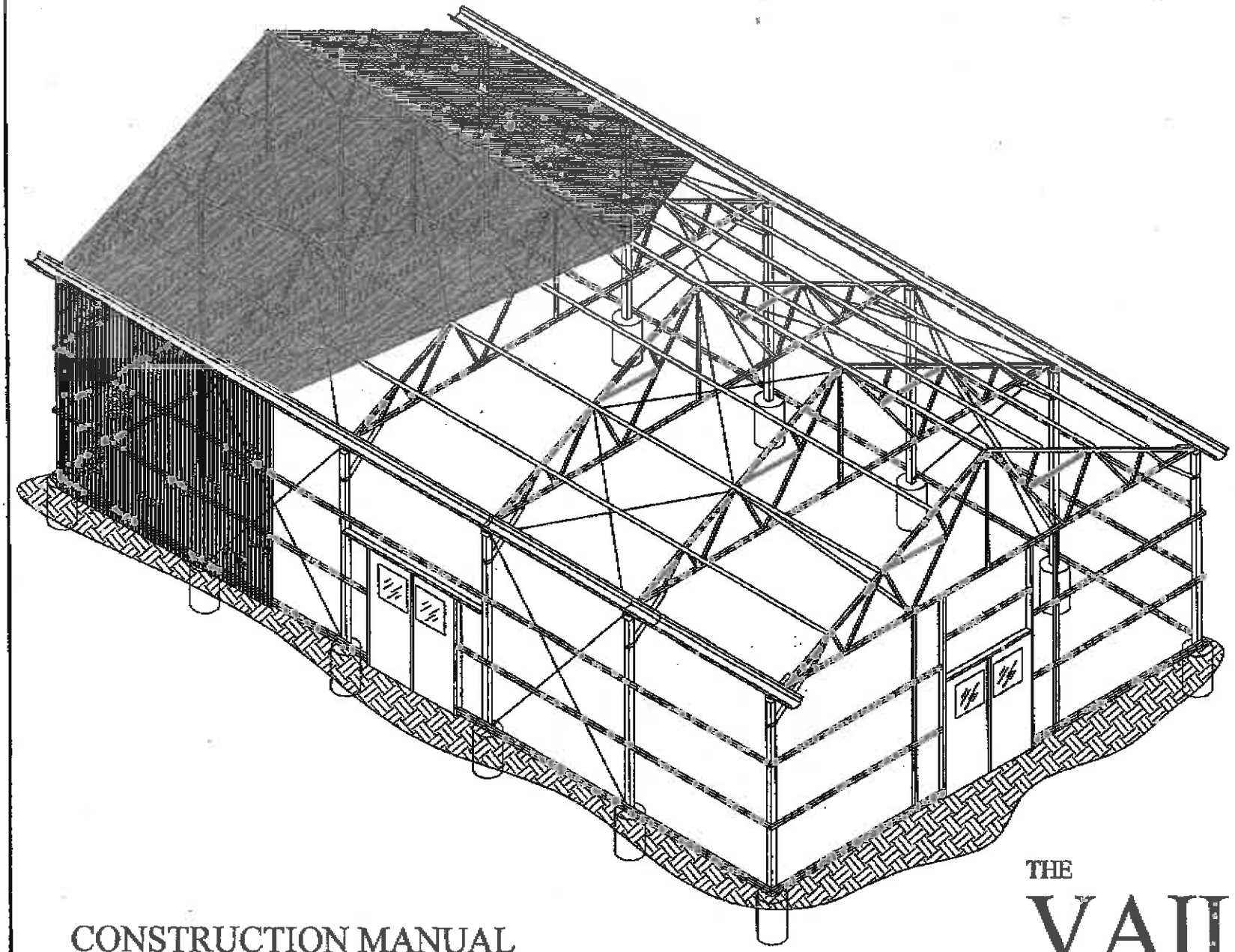
- Standard electrical outlets for simple installation
- Prewired relay panel for controller
- Two medium and two high load contactors

Link4 Customer Service Back-up
Our experts can assist you before, during, and after installation.

Contact your distributor or Link4 Corporation directly for more information on how the iGrow 400/800 Control system can maximize your energy cost savings, provide key information for smart crop management, and offer simple yet advanced control of all your greenhouse climate control elements.

Link4 Corporation
187 W. Orangethorpe Ave., Suite 101
Placentia, CA 92870
Toll Free: (866) 755-5465 (LINK)
Fax: (714) 854-7244
Email: Support@link4corp.com
www.link4corp.com

DELIVERING CONFIDENCE THROUGH INTELLIGENT ENVIRONMENTAL CONTROLS AND AUTOMATION SOLUTIONS



CONSTRUCTION MANUAL

EQUIPMENT, FRAMING, AND COVERING OPTIONAL

THE
VAIL
GREENHOUSE

FOR V-CVF 08/20/08

NEXUS GREENHOUSE CORPORATION

VAIL GREENHOUSE
GENERAL CONSTRUCTION MANUAL

READ THIS FIRST

NOTES TO BUILDER

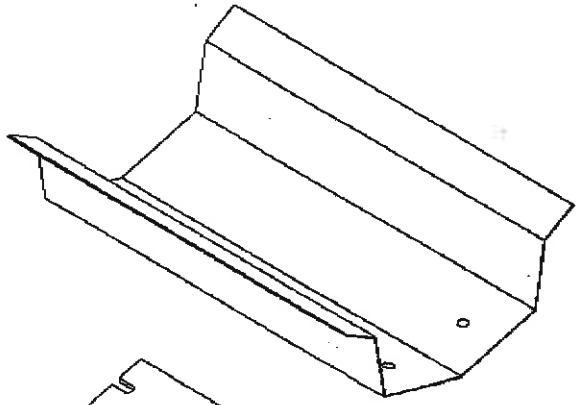
1. THIS BOOKLET IS INTENDED TO HIGHLIGHT THE DETAILS NECESSARY FOR THE CONSTRUCTION OF EACH PARTICULAR GREENHOUSE.
2. THE CONSTRUCTION BOOKLET WILL INCLUDE ONLY THOSE DETAILS PERTAINING TO YOUR HOUSE.
3. THE PARTS LIST IS CONSTRUCTED IN SUCH A WAY THAT THE STRUCTURE IS BROKEN DOWN INTO DIFFERENT SECTIONS UNDER HEADINGS SUCH AS: TRUSSES, SIDE WALL FRAMING, ETC. THE PARTS THAT ARE USED TO BUILD THOSE SECTIONS ARE LISTED UNDER THEIR RESPECTIVE HEADINGS. THIS IS ALSO DONE SO PARTS IN THE FIELD THAT CANNOT BE IDENTIFIED, CAN BE FOUND ON THE PARTS LIST.
4. WHEN CALLING NEXUS FOR CONSTRUCTION ASSISTANCE, THE JOB NUMBER AND NAME SPECIFIED ON THE PARTS LIST OR BLUEPRINTS WILL BE NEEDED.
5. IT WILL BE HELPFUL TO HAVE A COPY OF BOTH THE PARTS LIST AND CONSTRUCTION BOOKLET ON HAND WHEN CALLING NEXUS FOR CONSTRUCTION ASSISTANCE.

THIS BOOKLET AND DRAWINGS HAVE BEEN CHECKED BY_____FOR CORRECTNESS.

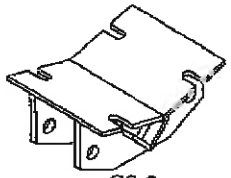
PAGE 1
DATE 08/20/08

NEXUS GREENHOUSE CORPORATION
10983 LEROY DR.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-9189

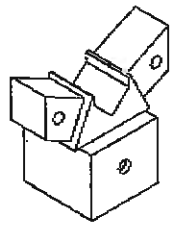
NOTES TO BUILDER



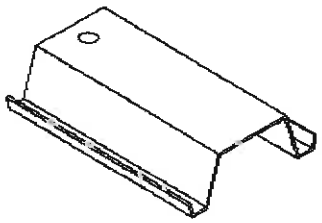
GUTTER



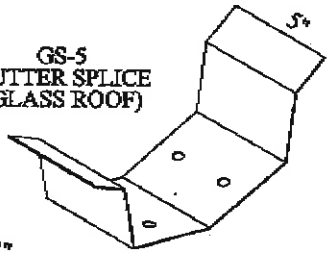
GS-2
GUTTER SADDLE



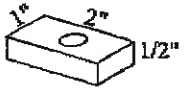
COLUMN CAP
(FOR 3" SQ. COLUMN
OR 4" COLUMN CAP
SIMILAR IN DESIGN)



PURLIN CAP

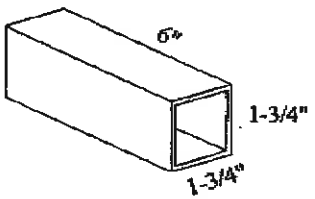


GS-5
GUTTER SPLICE
(GLASS ROOF)

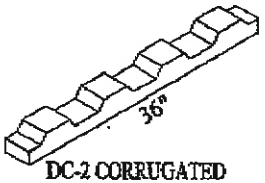


EPDM1
ADHESIVE BACKED
RUBBER SPACER
(USED AT THE
8mm ROOF ONLY
TRIPLEWALL)

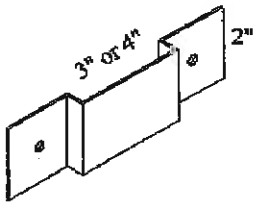
EPDM1
ADHESIVE BACKED
RUBBER SPACER
(USED AT THE
8mm ROOF ONLY
TWINWALL)



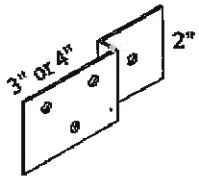
INTERNAL WALL CONNECTOR
(C-4)



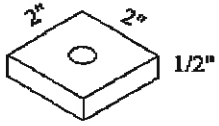
DC-2 CORRUGATED
CLOSURE STRIP
(HI-CORR.)
(GUTTER ONLY)



KNEE BRACE BRACKET
B-13 FOR 3"SQ. COLUMN
B-14 FOR 4"SQ. COLUMN

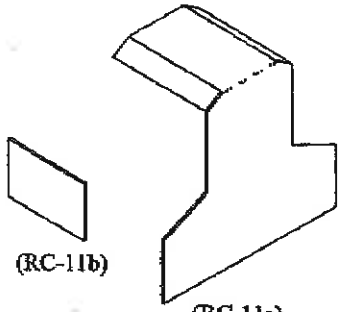


KNEE BRACE BRACKET
B-13b FOR 3"SQ. COLUMN
B-14b FOR 4"SQ. COLUMN
(SHADE OR SIDEWALL VENT)

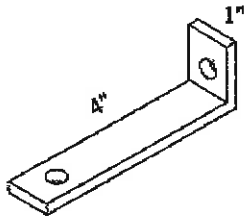


RIDGE SPACER
(RS-2)

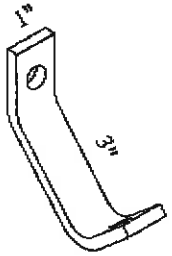
DC-1 CORRUGATED
CLOSURE STRIP
(STANDARD)



RIDGE END CAP



SINGLE BENT SWAY ROD BRACKET
(SB-1)



DOUBLE BENT SWAY ROD BRACKET
(SB-2)

NOTE: PARTS MAY VARY IN LENGTHS.
NOT ALL ITEMS SHOWN ARE USED IN EVERY GREENHOUSE INSTALLATION.

PAGE V3-A
DATE 12/22/08

NEXUS GREENHOUSE CORPORATION
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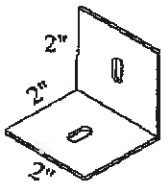
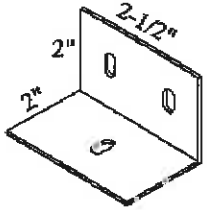
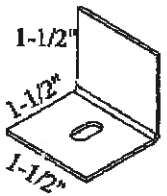
PART IDENTIFICATION
FOR THE VAIL GREENHOUSE



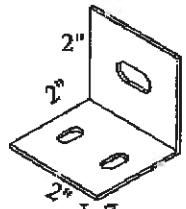
L-1
(2) HOLE ATTACHMENT LUG



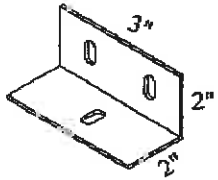
L-6
(3) HOLE ATTACHMENT LUG



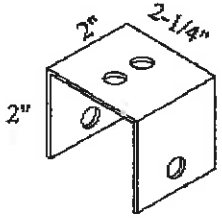
L-3B
(1) SLOTTED HOLE
ATTACHMENT LUG FOR SHUTTER



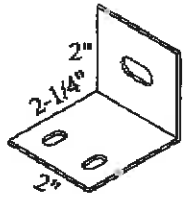
L-7
(3) SLOTTED HOLE
LUG FOR WINDOW EXTRUSIONS



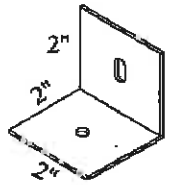
L-2
(3) HOLE ATTACHMENT LUG



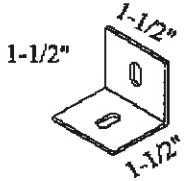
C-13a CLIP
KNEE BRACE CLIP FOR
NON-STANDARD COLUMNS



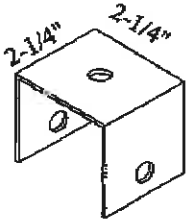
L-8
(3) SLOTTED HOLE
LUG FOR NATIONAL ROOF
SYSTEM W/ STEEL HOUSE



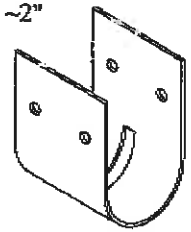
L-1A
(1) SLOTTED, (1) HOLE
ATTACHMENT LUG METL-SPAN



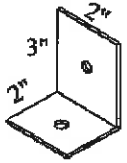
L-3
(2) HOLE ATTACHMENT LUG



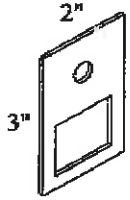
C-23 CLIP
KNEE BRACE CLIP
HEATER SUPPORTS,
AND WIND BRACING



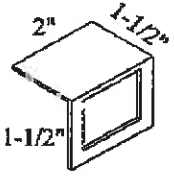
B-20 BRACKET
FOR HEATER
SUPPORTS



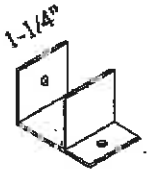
SL-23
(2) HOLE ATTACHMENT LUG



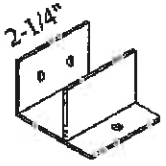
IBC-20



IBC-10



IBL-15



IBL-16

FOR INTERMEDIATE BOWS
ON POLY COVERED ROOFS

NOT ALL ITEMS SHOWN ARE USED IN EVERY GREENHOUSE INSTALLATION.

PAGE V-3B
DATE 08/21/08

NEXUS GREENHOUSE CORPORATION
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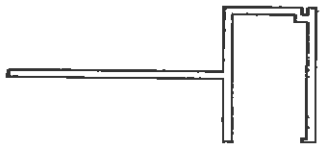
(303) 457-9199

CLIP IDENTIFICATION
FOR THE VAIL GREENHOUSE

END CAP (EC-8)

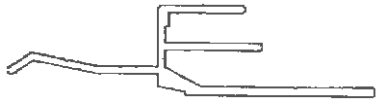
GABLE EXTRUSION CAP
(GC-35)



GABLE EXTRUSION
(GE-35)

EXTERIOR FACE

U-CAP (U-8)

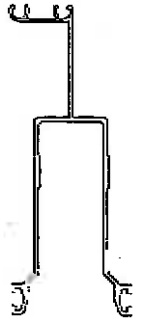


ROOF RAIL (RR-8)

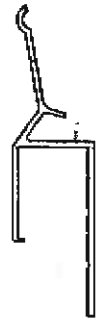
BAR CAP (BC-816)

BAR BASE (BB-816)

ROLL TRACK
(FOR CURTAIN WALLS)
(RT-1)



ROLL TRACK
(FOR ZEPHYR CURTAIN VENT)
(ZRT-7)



SIDEWALL GUTTER
RAIL (GR-11)
FOR 3"SQ. COLUMN

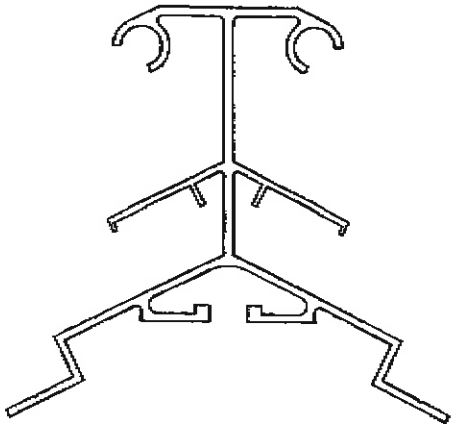
H-SPLICE
(H-8)

ALUM. FRAMING CHANNEL
(FC-12)

CAP

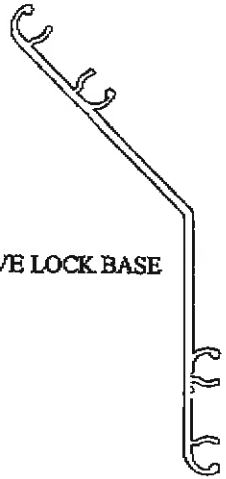
BASE

NEXUS
POLY LOCK

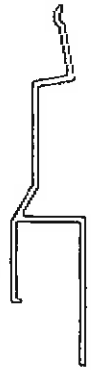


ALUMINUM RIDGE (AR-11)

DOUBLE LOCK BASE



EAVE LOCK BASE



SIDEWALL GUTTER
RAIL (GR-224)
FOR 4"SQ. COLUMN

NOTE: PARTS MAY VARY IN LENGTHS.
NOT ALL ITEMS SHOWN ARE USED IN EVERY GREENHOUSE INSTALLATION.

PAGE V-3C
DATE 08/21/08

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10983 LEROY DR.
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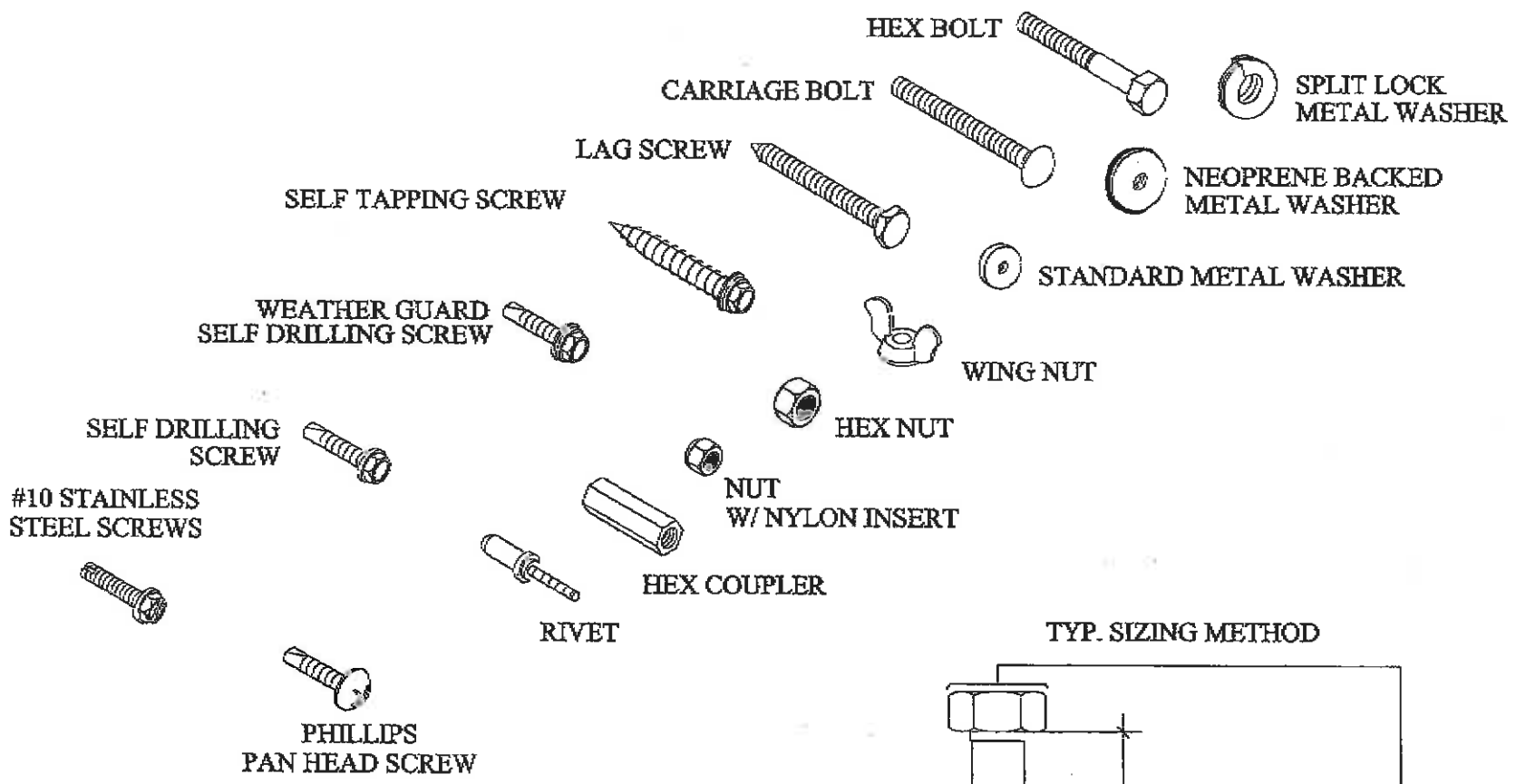
(303) 457-9199

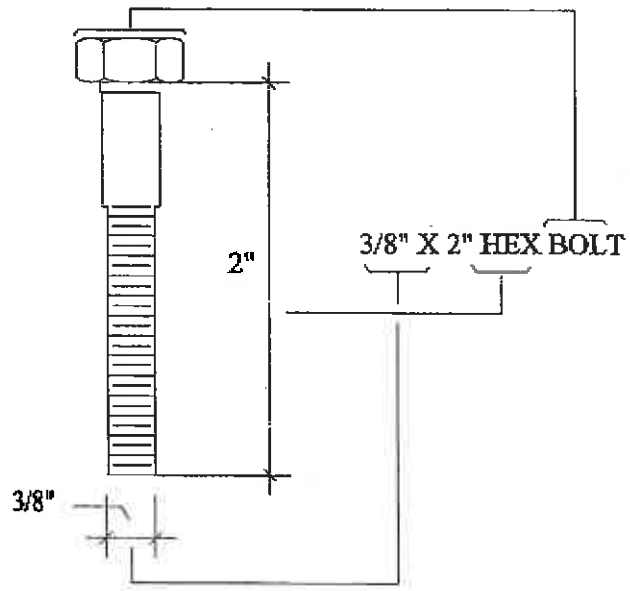
NEXUS

EXTRUSION IDENTIFICATION
FOR THE VAIL GREENHOUSE



NOTE: WHEN USING THE SELF DRILLING OR THE PAN HEAD SCREWS, NO PILOT HOLE IS NECESSARY.

TYP. SIZING METHOD



PAGE 4
DATE 08/21/08

NEXUS GREENHOUSE CORPORATION
10983 LEROY DR.
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NEXUS
(303) 457-0199

HARDWARE IDENTIFICATION

TOOLS NEEDED

TOOLS NEEDED TO CONSTRUCT A NEXUS GREENHOUSE:

COLUMN LAYOUT – SITE PREPARATION

1. TRANSIT (THIS TOOL IS IMPORTANT TO ASSURE ALL LINES ARE PERFECTLY SQUARE AND TO PLACE FALL IN WORKING LINES. NEXUS RECOMMENDS ONLY EXPERIENCED OPERATORS USE IT.)
2. SHOVEL
3. POST HOLE DIGGER
4. LEVEL
5. 100' TAPE MEASURE
6. HAMMER
7. NAILS (10d.)
8. MASONS LINES (250' MINIMUM)
9. CIRCULAR SAW
10. 2" X 4" 8' PER INTERMEDIATE BATTER BOARD– 12' PER CORNER BATTER BOARD
11. 1" X 4" 4' PER INTERMEDIATE BATTER BOARD– 8' PER CORNER BATTER BOARD

REFER TO PAGE 5D FOR ESTIMATE OF QUANTITY

GREENHOUSE CONSTRUCTION–

1. SCREW GUN WITH 5/16" AND 3/8" CHUCKS
2. WRENCHES: 1/4", 5/16", 3/8", 1/2"
3. HAMMER
4. RUBBER MALLET
5. TAPE MEASURE
6. CRESCENT WRENCH: 6" & 8"
7. SOCKETS & RATCHET: 1/4", 5/16", 3/8", 1/2"
8. CHALK LINE
9. LEVEL
10. ROPE
11. CIRCULAR SAW W/ CUTTING BLADES FOR WOOD, METAL AND VENEER BLADES FOR SHEETS.
12. POWER MITER SAW
13. 3/8" POWER DRILL
14. EXTENSION CORDS, NOTE: A DROP IN VOLTAGE OCCURS IN LONG CORDS.
15. LADDERS / LIFTS
16. CAULKING GUN
17. SAFETY EQUIPMENT AS REQUIRED

NEXUS GREENHOUSE CORPORATION
10983 LEROY DR.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-9199

IMPORTANT

IMPORTANT:

Refer to Blueprint for size and location of greenhouse. Familiarize yourself and crew with blueprints, parts, and construction booklet. Nexus recommends you completely read entire construction booklet before beginning consruction to eliminate unnecessary work and parts replacement. This also is a good time to inventory the complete job. (See unloading and inventory sheet enclosed in barrels.)

BUILDING SITE PREPARATION:

Building site should be free of all debris and obstruction. Land should be flat or graded according to desired land fall. If flat: Fall must be placed in working lines.

GREENHOUSE LAYOUT (SEE LAYOUT DETAIL)

1. Measure and stake out corners of greenhouse.
2.** Place transit over one corner, shoot lines so that building outline is perfectly square.
3. With post hole digger, dig holes for batterboards (allow 2'-3' setbacks) place horizontals 2' above grade.
4. Run mason's lines to form perimeter of building.

   Note: mason lines is offset to one side of column see column setting detail.
5. Stake out intermediate column locations.
6. Take down mason's lines.
7. Drill caisson holes as shown on caisson details. THESE ARE SUGGESTED FOOTINGS, Check with local building dept. for local soil conditions.
8. Reset mason's lines in original location. Using a magic marker, mark mason's line to represent column centerline locations.
9. Check that holes and marks on mason's lines match up. Enlarge holes with shovel if necesary.
10. You are now ready to set columns.

** NEXUS RECOMMENDS THAT ONLY EXPERIENCED OPERATORS USE THE TRANSIT TO INSURE ACCURACY.

HELPFUL HINT: CAISSON HOLES FOR GABLE POSTS, DOOR POSTS AND VENT POSTS CAN BE DRILLED AT THIS TIME ALSO, BUT POSTS SHOULD NOT BE SET AT THIS TIME.

SETTING COLUMNS (SEE COLUMN SETTING DETAIL)

1. Layout columns to the inside of the building, one column per caisson hole.
2. Measuring from the top of the column, (drilled end) make a mark equal to column height (out of ground) minus the averge batter board height (i.e., 8'0" out of ground column height (-) 2'0" average batterboard height = 6'0"). Mark the column 6'0" from the top. Make sure your line is on one of the column sides that is not drilled.
3. Mark all columns.
4. Pour concrete (2500 psi, 2-3 slump (stiff mix), 3/4" rock) see caisson details. A stiff concrete mix will allow the column to suspend itself without bracing.
5. Lower column into concrete about halfway between bottom of column and your mark, plumb and check for position in relation to mason's line. Reset if necessary.
6. Lower column so that mark on column is even with mason's line. Center column on mark located on mason's line. Keep column 1/16"-1/8" away from mason's line to eliminate distorting line. Level column. (Note: Position of holes in column should face each other running the length of the house.)
7. Repeat procedure for remaining columns.
8. Periodically return to columns previously set and check to make sure columns are plumb and on mark.
9. Allow concrete to cure for a minimum of 24 hours before setting trusses.

IMPORTANT

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10983 LEROY DR.
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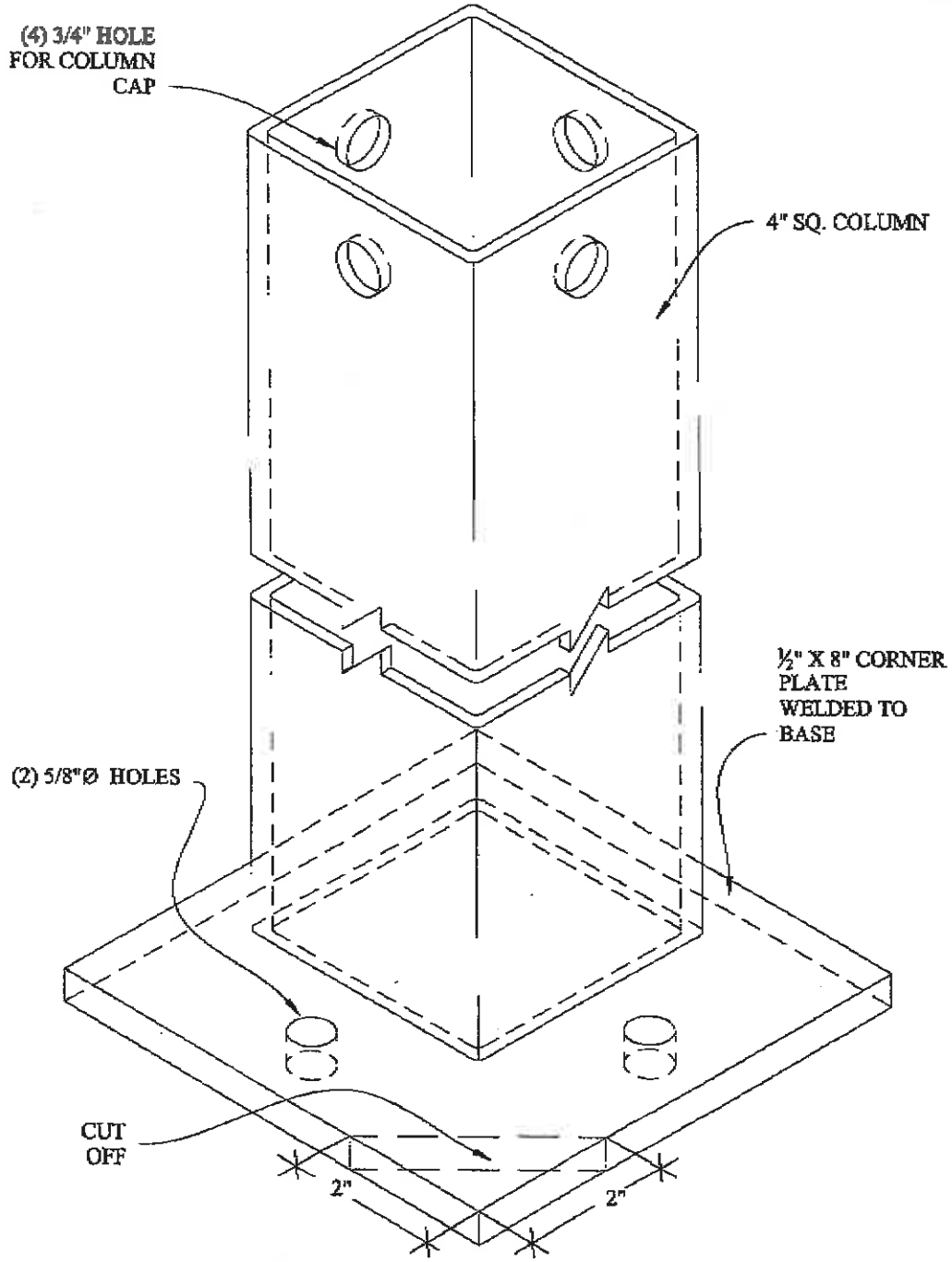
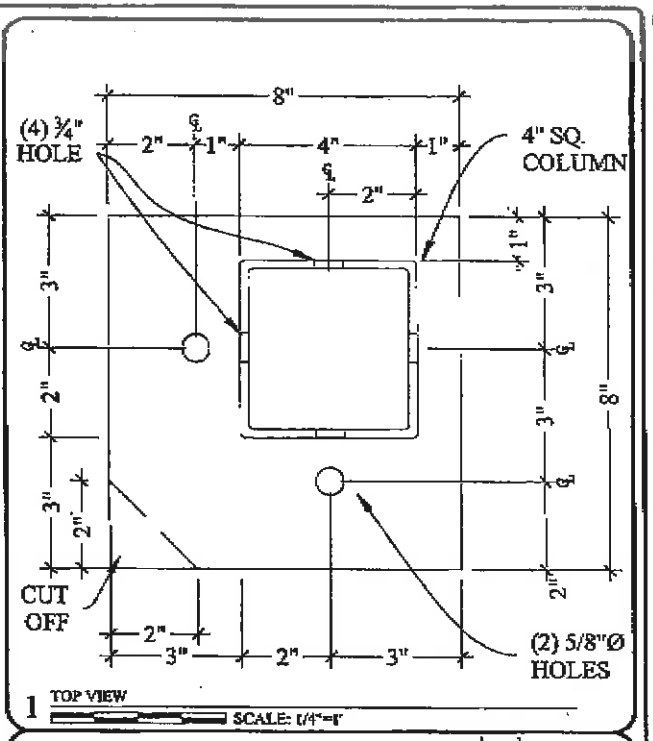
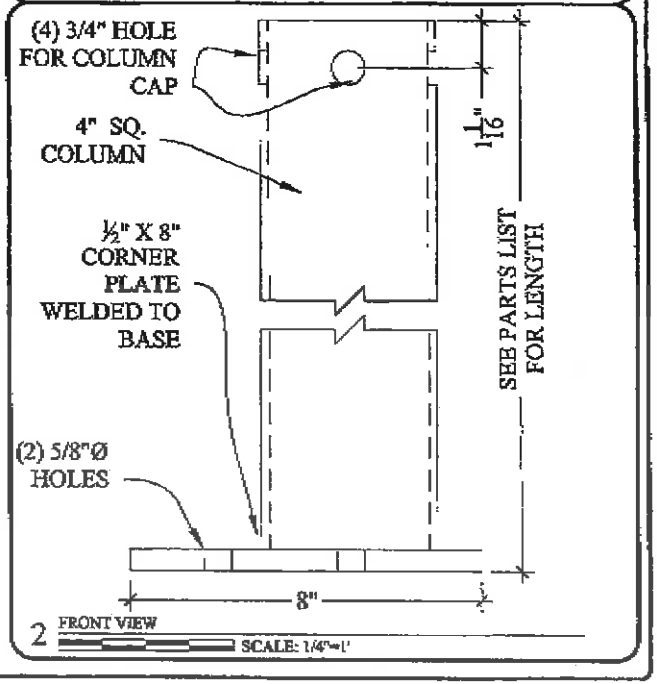
SITE PREPARATION







PAGE 3-P
DATE 08/22/08

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NORTHGLENN, COLORADO 80233
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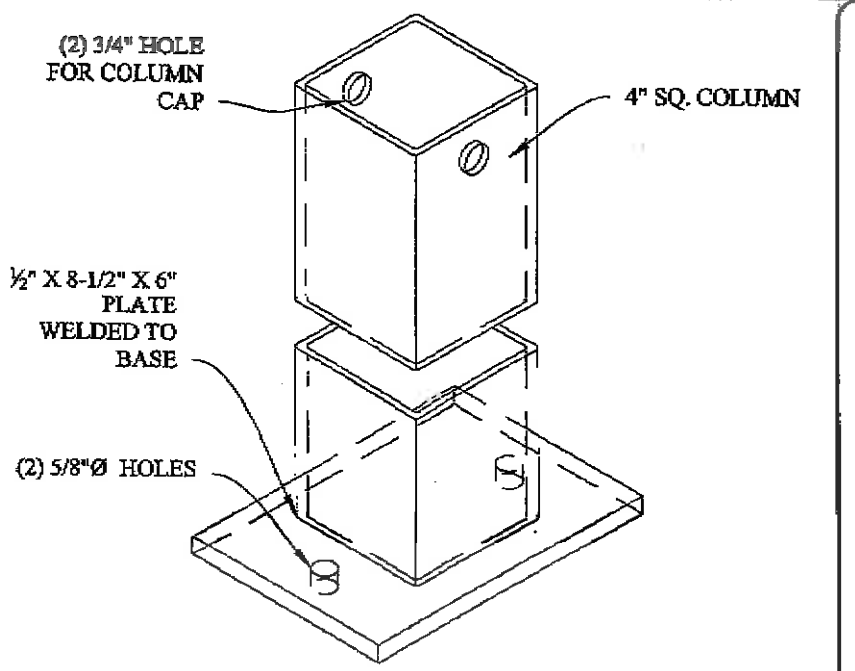
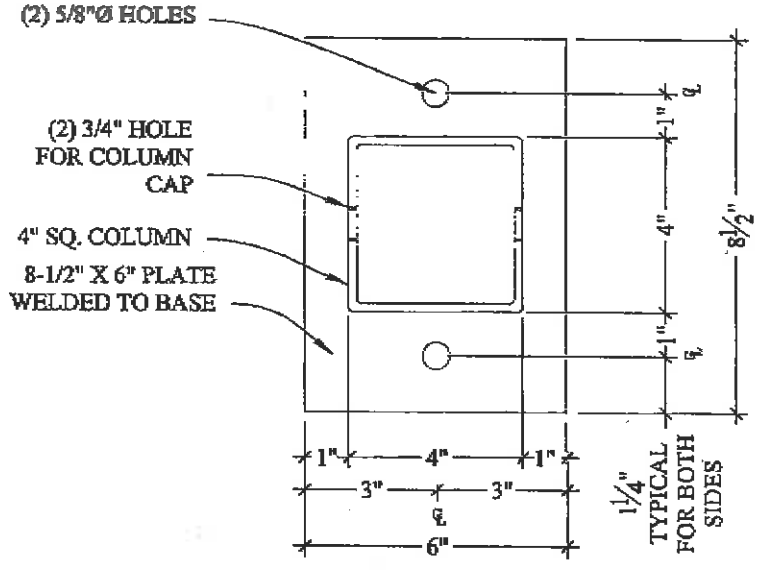
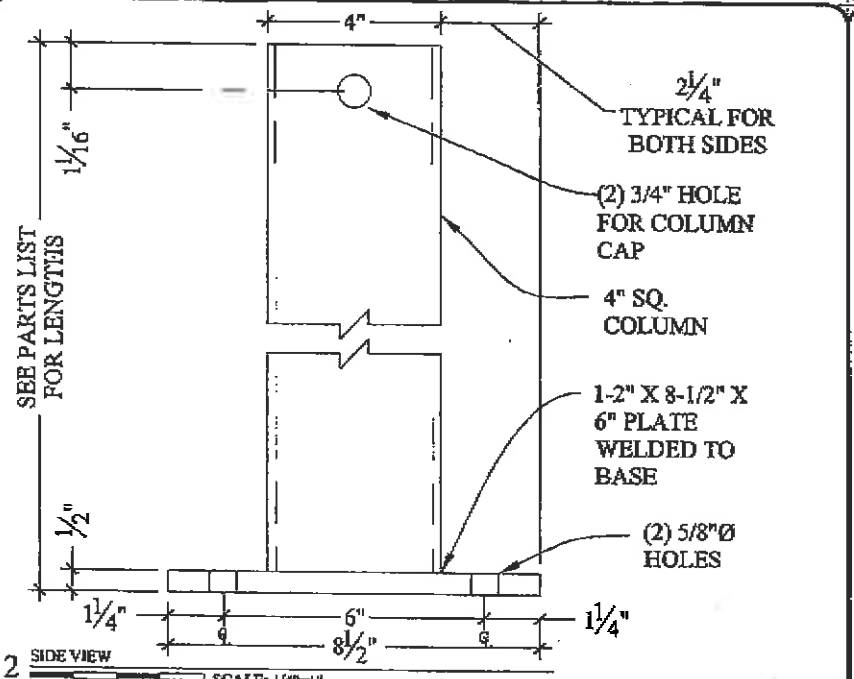
(303) 451-9199

4"SQ. COLUMN WITH
1/2" X 8"SQ. CORNER PLATE

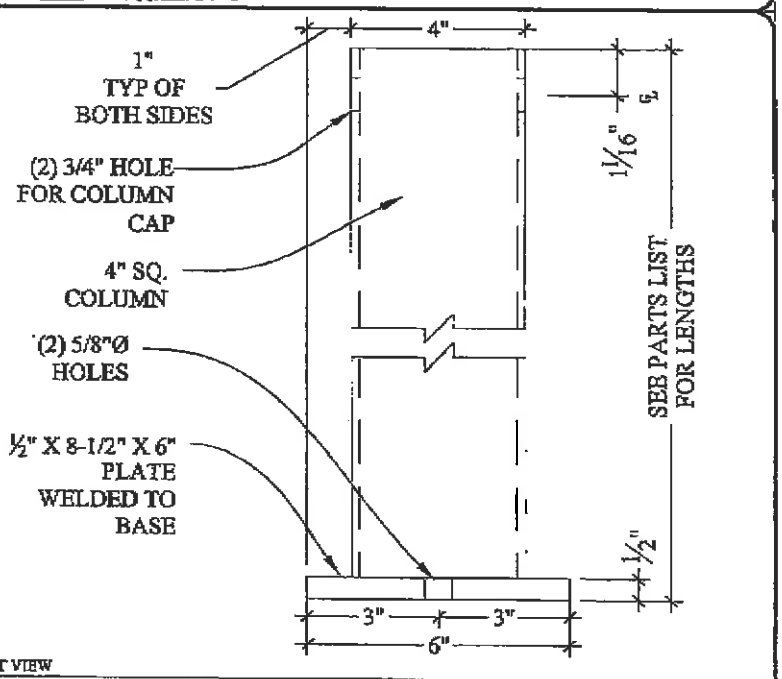




1 TOP VIEW SCALE: 1/4"=1"



2 SIDE VIEW SCALE: 1/4"=1"



3 FRONT VIEW SCALE: 1/4"=1"

PAGE V5-C
DATE 08/22/08

NEXUS GREENHOUSE CORPORATION
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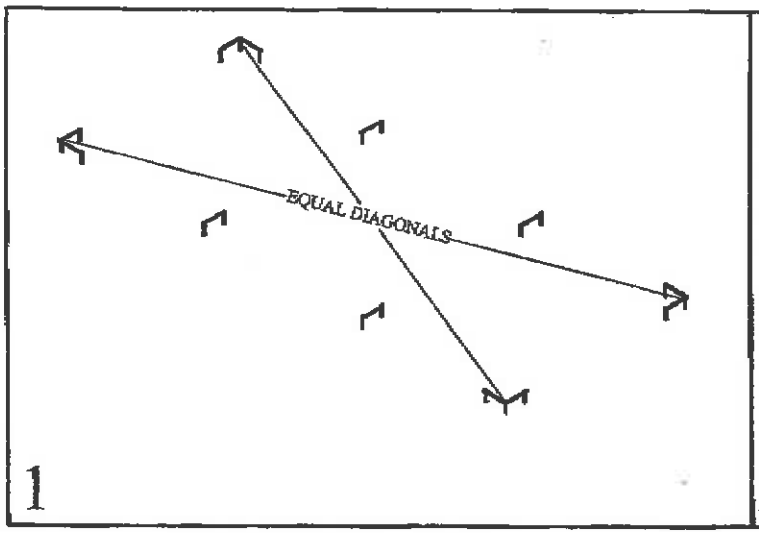
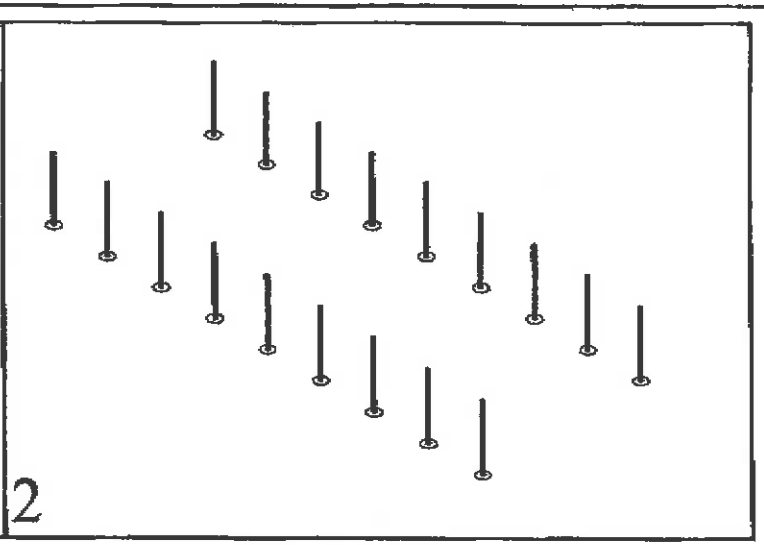
C-3-B 4"SQ. COLUMN WITH 1/2" X 6" X 8-1/2" END PLATE



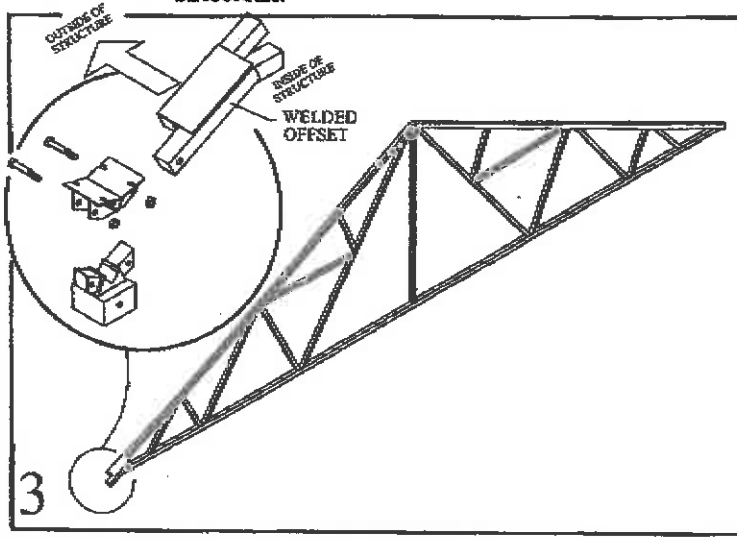
GREENHOUSE LAYOUT

1. LEVEL GROUND.
2. SET BAITER BOARDS AND ELEVATIONS.
3. CHECK LAYOUT FOR SQUARE BY MEASURING DIAGONALS.



SET COLUMNS

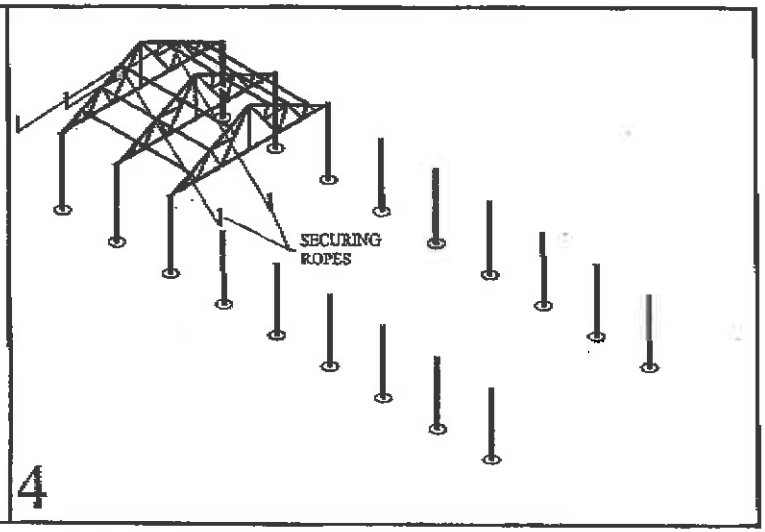
1. LAYOUT AND DIG HOLES FOR COLUMNS.
2. POUR CONCRETE (SEE COLUMN DETAILS).
3. SET COLUMNS IN PLACE.



LAYOUT AND ASSEMBLE TRUSSES

1. PLACE COLUMN CAP AND SADDLE ASSEMBLY ONTO TRUSS. (USE 1/2" X 3-1/2" HEX BOLTS)
2. NOTE THE OFFSET OF GABLE TRUSSES.
3. HAND TIGHTEN BOLTS PLUS A QUARTER TURN WITH A WRENCH.

DO NOT USE AN IMPACT WRENCH!!



ATTACH TRUSSES AND PURLINS (OPTIONAL PURLIN CAPS)

1. HANG GABLE TRUSS AT LEAST ACCESSIBLE END, AND WORK OUT NOTE THE OFFSET IS IN CORRECT LOCATION.
2. TIE OFF GABLE TRUSS USING ROPE.
3. PLACE SECOND AND THIRD TRUSSES (LINE TRUSSES) IN SAME MANNER.
4. ATTACH SIDE ROOF PURLINS (2 RUNS MIN.). ***NOTE: USE PURLIN CAPS IF APPLICABLE.*** DO NOT SET OR COMPLETELY TIGHTEN BOLTS AT THIS TIME.
5. REPEAT ABOVE PROCEDURE UNTIL STRUCTURE IS COMPLETE.

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DATE 08/22/08

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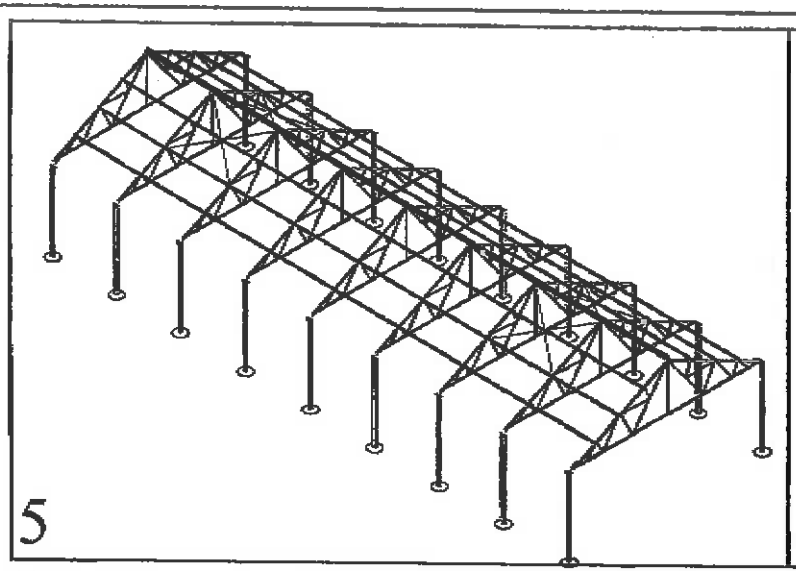
BASIC CONSTRUCTION SEQUENCE FOR THE VAIL STRUSCTURE

NEXUS GREENHOUSE CORPORATION
10403 LINCOLN DR.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-9199

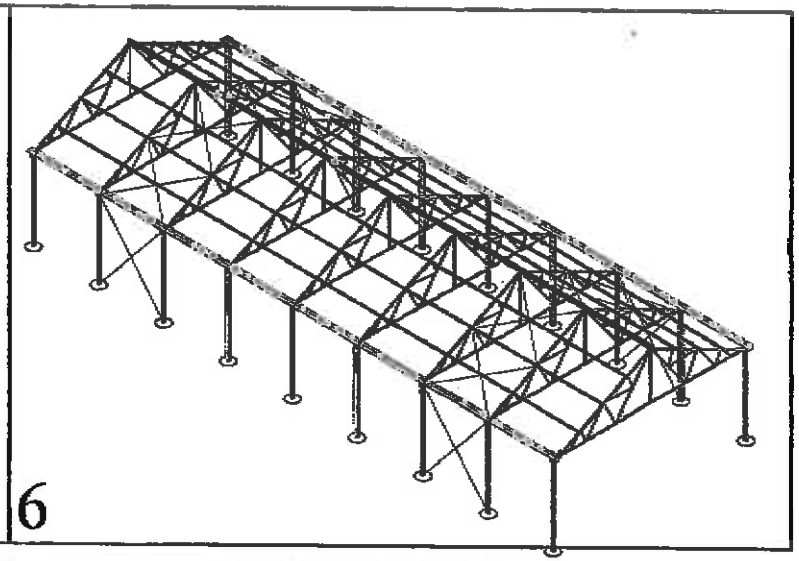
BASIC CONSTRUCTION SEQUENCE FOR THE VAIL STRUCTURE



RIDGE EXTRUSION AND UPPER SWAY ROD ATTACHMENTS

1. ATTACH RIDGE PURLIN AND RIDGE EXTRUSION AS DESCRIBED ON PAGES 10A&B
2. SET AND LOOSELY TIGHTEN PURLIN BOLTS.
3. INSTALL UPPER SWAY RODS ON ROOF ONLY.

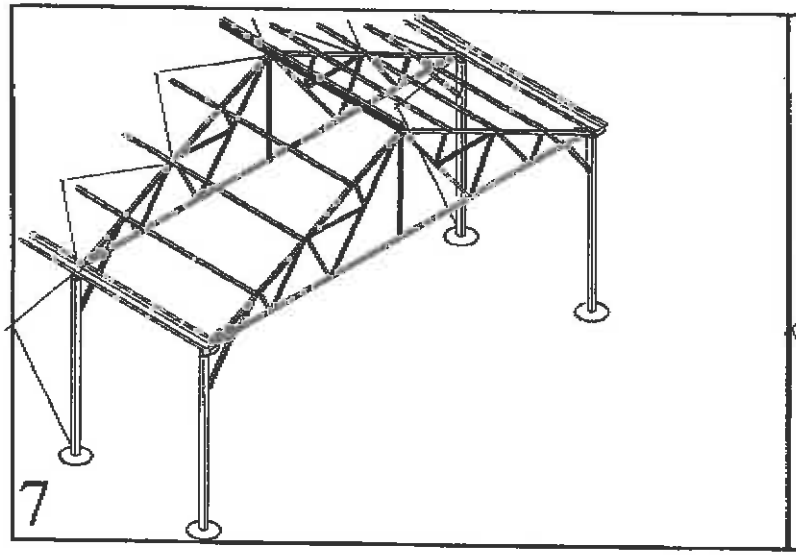
PAGES 10A - 12A-D



INSTALL GUTTERS

PAGES 13-17

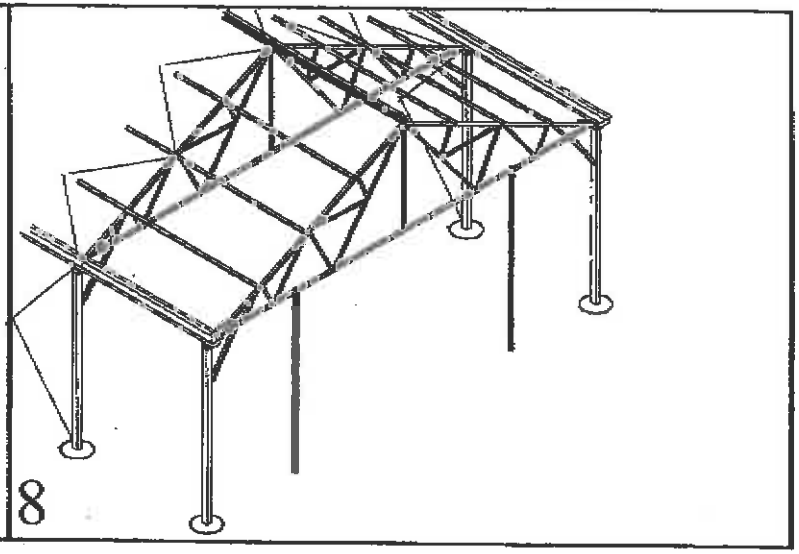
1. NOTE PROPER LAP FOR WATER DRAINAGE.
2. AFTER GUTTERS ARE INSTALLED, INSTALL THE REST OF THE SWAY RODS.
3. PLUMB STRUCTURE.



ATTACH KNEE BRACES

PAGE 18

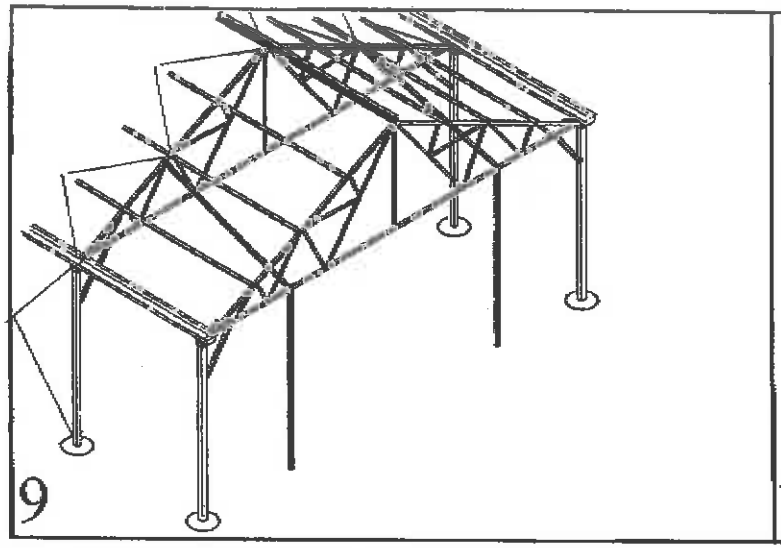
1. SEE PLANS FOR CORRECT LOCATIONS
2. VERIFY THE CORRECT BRACKETS WITH PARTS LISTS

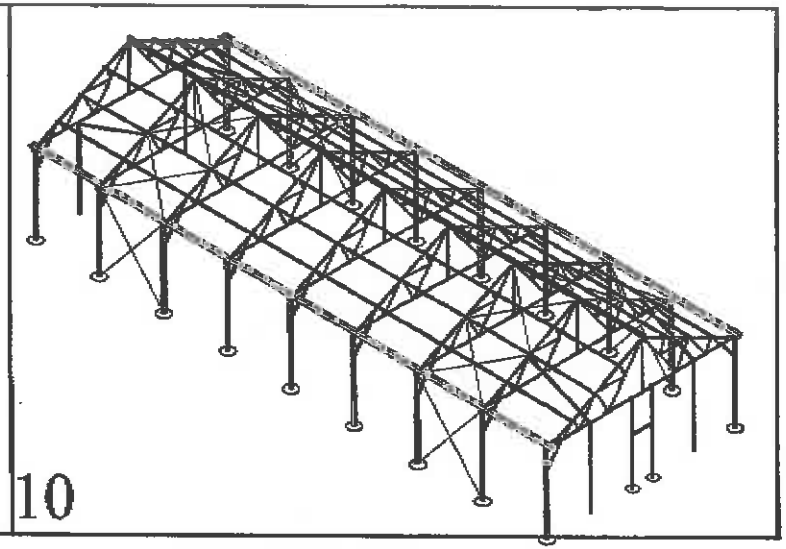


ATTACH GABLE POSTS

PAGE 19

1. SEE PLANS FOR CORRECT LOCATIONS
2. SQ. POST MAY BE SUBSTITUTED FOR 2" SQ. POSTS SEE PARTS LIST TO VERIFY SIZE AND LOCATION.



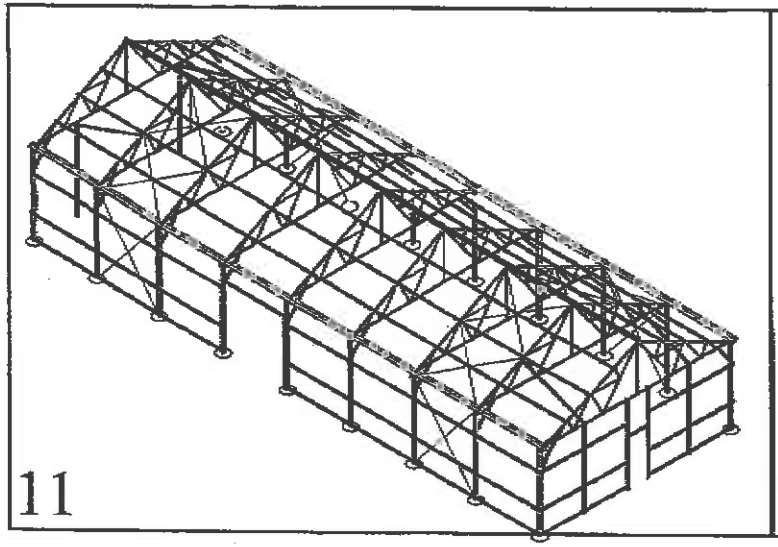


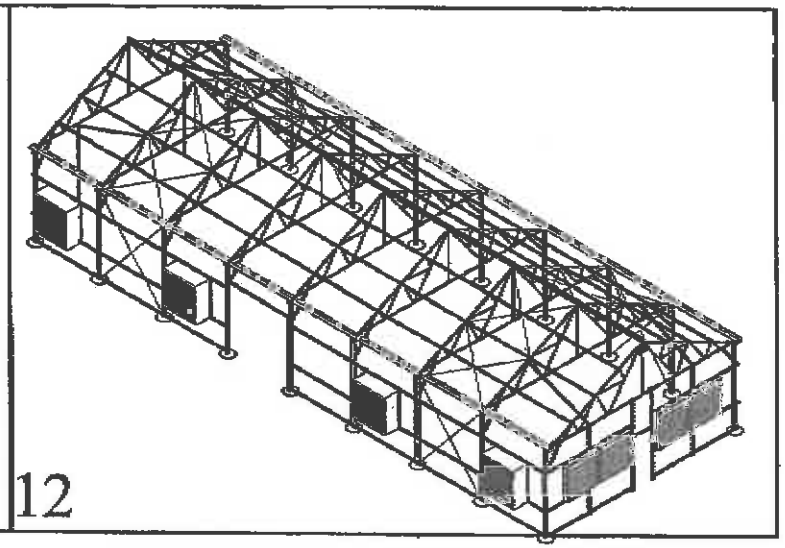
INSTALL WIND BRACING (OPTIONAL)

1. SEE PLANS FOR LOCATION
2. SEE PARTS LIST FOR LENGTHS
3. IF SHADE SYSTEM USED NO WIND BRACES ARE INCLUDED

INSTALL DOOR POSTS

1. SEE PLANS FOR LOCATION
2. CHECK DOOR SPECIFICATIONS FOR INSTALLATION.
3. DOOR FRAME ARE MODULAR AND MAY BE MOVED AT OWNERS DISCRETION





INSTALL WALL MEMBERS

1. INSTALL DOOR POSTS BEFORE WALL MEMBERS.
2. SEE PLANS FOR NUMBER OF WALL MEMBERS AND THEIR SPACINGS.

INSTALL EQUIPMENT AND EXTRUSIONS

1. SEE PLANS FOR CORRECT LOCATIONS
2. ATTACH ROOF COVERING EXTRUSIONS ie. ROOF RAILS, GABLE EXTRUSIONS FOR TWINWALL COVERING; LAYOUT BAR BASE EXTRUSIONS
3. ATTACH SIDE COVERING EXTRUSIONS ie. GUTTER RAILS, FRAMING CHANNEL etc.

PAGE V6-C
DATE 08/22/08

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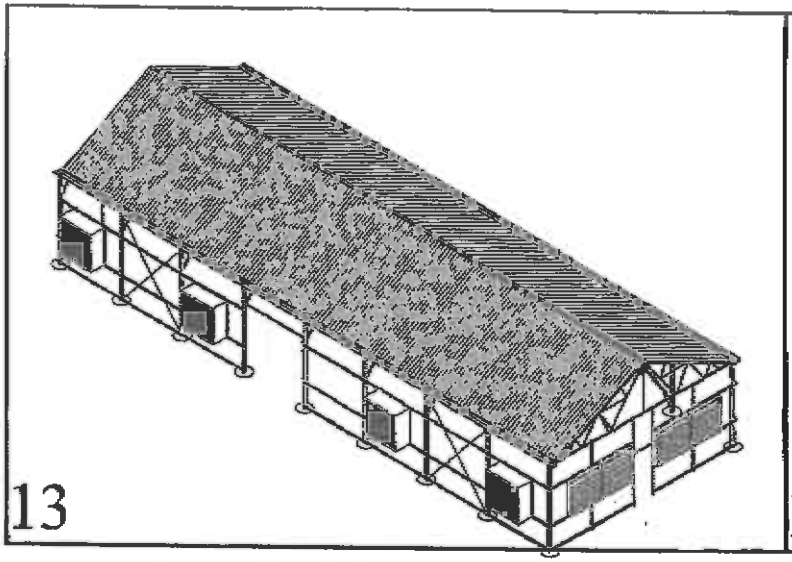
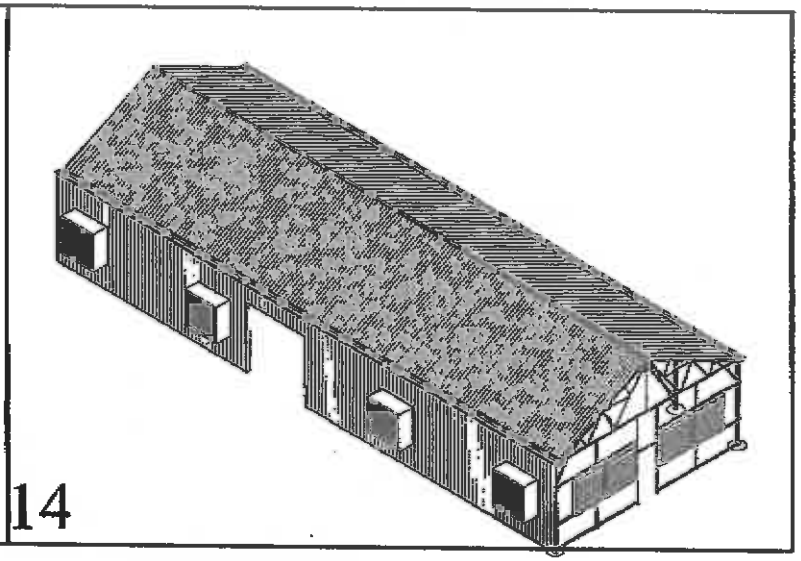
19783 LEROY CT.
NORTHGLENN, COLORADO 80233
(303) 457-9109

BASIC CONSTRUCTION SEQUENCE
FOR THE VAIL STRUCTURE



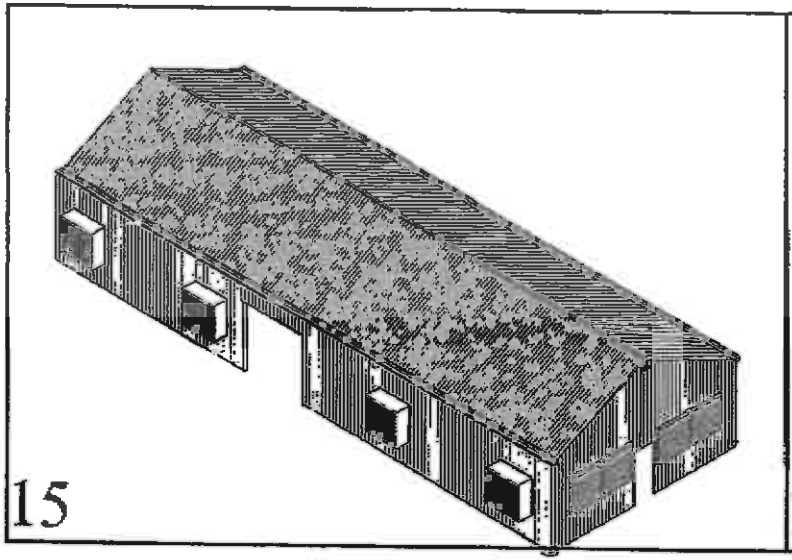
INSTALL ROOF COVERING

1. SEE MANUFACTURER INSTRUCTIONS



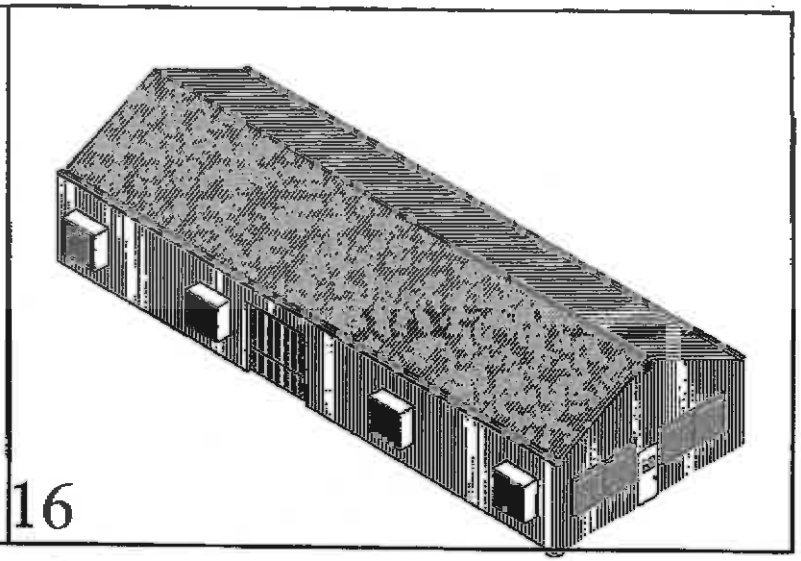
INSTALL SIDEWALL COVERING

1. INSTALL FLASHINGS WHERE APPLICABLE
2. SEE MANUFACTURER INSTRUCTIONS



INSTALL GABLE END COVERING

1. INSTALL FLASHINGS WHERE APPLICABLE
2. SEE MANUFACTURER INSTRUCTIONS



INSTALL DOORS

1. SEE MANUFACTURER INSTRUCTIONS

PAGE V6-D
DATE 08/22/08

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(DBA LINDY DIV.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-9999

BASIC CONSTRUCTION SEQUENCE FOR THE VAIL STRUCTURE

NEXUS GREENHOUSE CORPORATION
NEXUS
(303) 477-9199

TRUSS TO COLUMN ATTACHMENTS

TRUSS/COLUMN ATTCHMENT:

1. While concrete caissons cure (allow 24 hours) lay trusses out on ground. Be sure all red painted ends of the trusses are on the same side of the house. Insert column cap stub into truss ear, next seat gutter saddle on the column cap and bolt together with a 1/2"x 3-1/2" hex head bolt (***HAND TIGHTEN ONLY***) Perform the same operation on opposite side of truss, for the first house only.

2. With lifting equipment, (i.e. forklift or the like), secure first gable truss (welded offset gable trusses) to column with 1/2" hex head bolt. After truss is placed correctly, secure to ground with ropes (See Detail 7B). It is recommended to start at the least accessible gable and work toward the opposite end of the house.

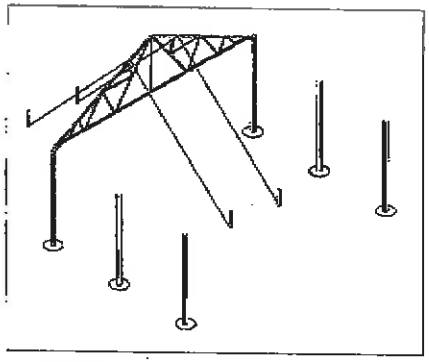
PURLIN / TRUSS ATTACHMENT:

1. Place 2nd, 3rd, etc. truss (line trusses) on columns in the same manner) then attach at least two roof purlins to trusses to help secure structure. Keep ropes intact.(Be sure to start with a roof starter purlin (red end) and proceed to line purlins (no paint) and end with finish purlin (white end)). Be sure to install the correct size, guage and type of purlin in it's correct location. ***Purlin cap, if applicable, should be installed with the purlins***. Refer to the parts lists and blueprints for lengths and locations. Use a 3/8" carriage bolt to attach purlins to truss chord. ***HAND TIGHTEN ONLY!*** Take note as to which bays contain sway rods as the brackets should be installed appropriately (see page 11).

2. Continue process until all trusses have been set and are held in place by support purlins.

3. Now return and attach all purlins to trusses along with the appropriate sway rod brackets. ***BOLTS SHOULD BE HAND TIGHTENED ONLY!!***

4. Plumb both gable trusses and secure to ground with ropes. This process will "square up" the building. Now set bolts with a hammer and tighten nuts with a wrench or ratchet.



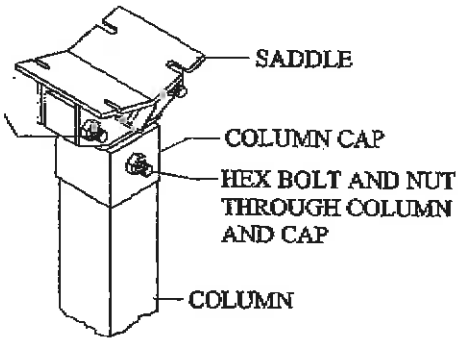
DETAIL FOR TIE OFF

!! CAUTION !!

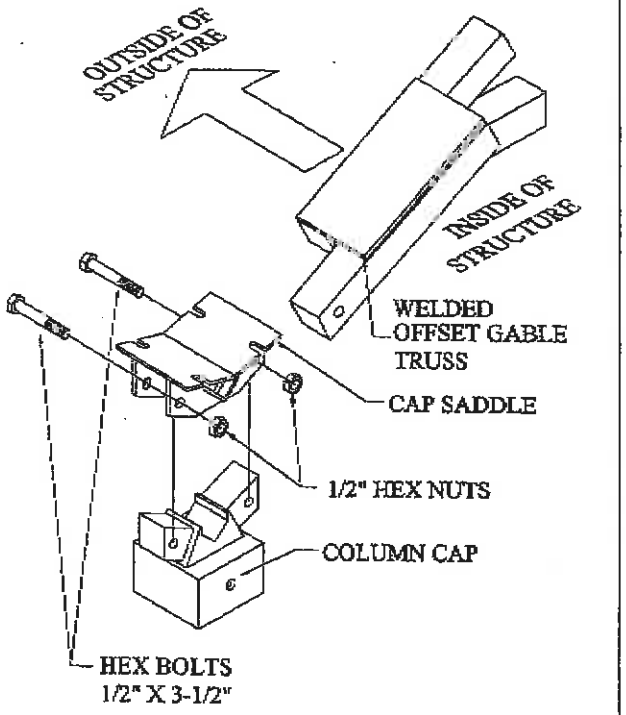
INSTALL NUTS ON 1/2" BOLTS AND TIGHTEN BY HAND. TIGHTEN AN ADDITIONAL 1/4" TURN ONLY WITH A HAND WRENCH.

CASTINGS ARE DESIGNED FOR SNUG FIT

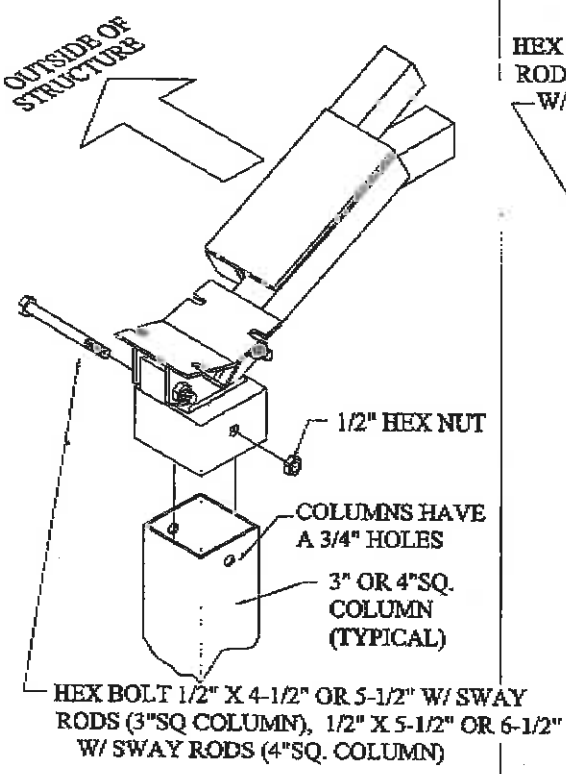
*** DO NOT USE AN IMPACT GUN ***



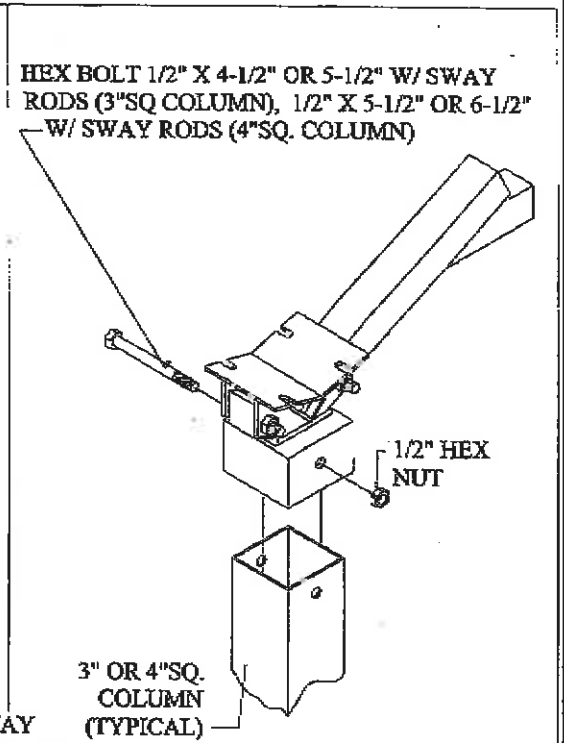
COLUMN CAP ASSEMBLED



TYPICAL COLUMN CAP ASSEMBLY



TYPICAL GABLE TRUSS ATTACHMENT



TYPICAL LINE TRUSS ATTACHMENT

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DATE 08/22/08

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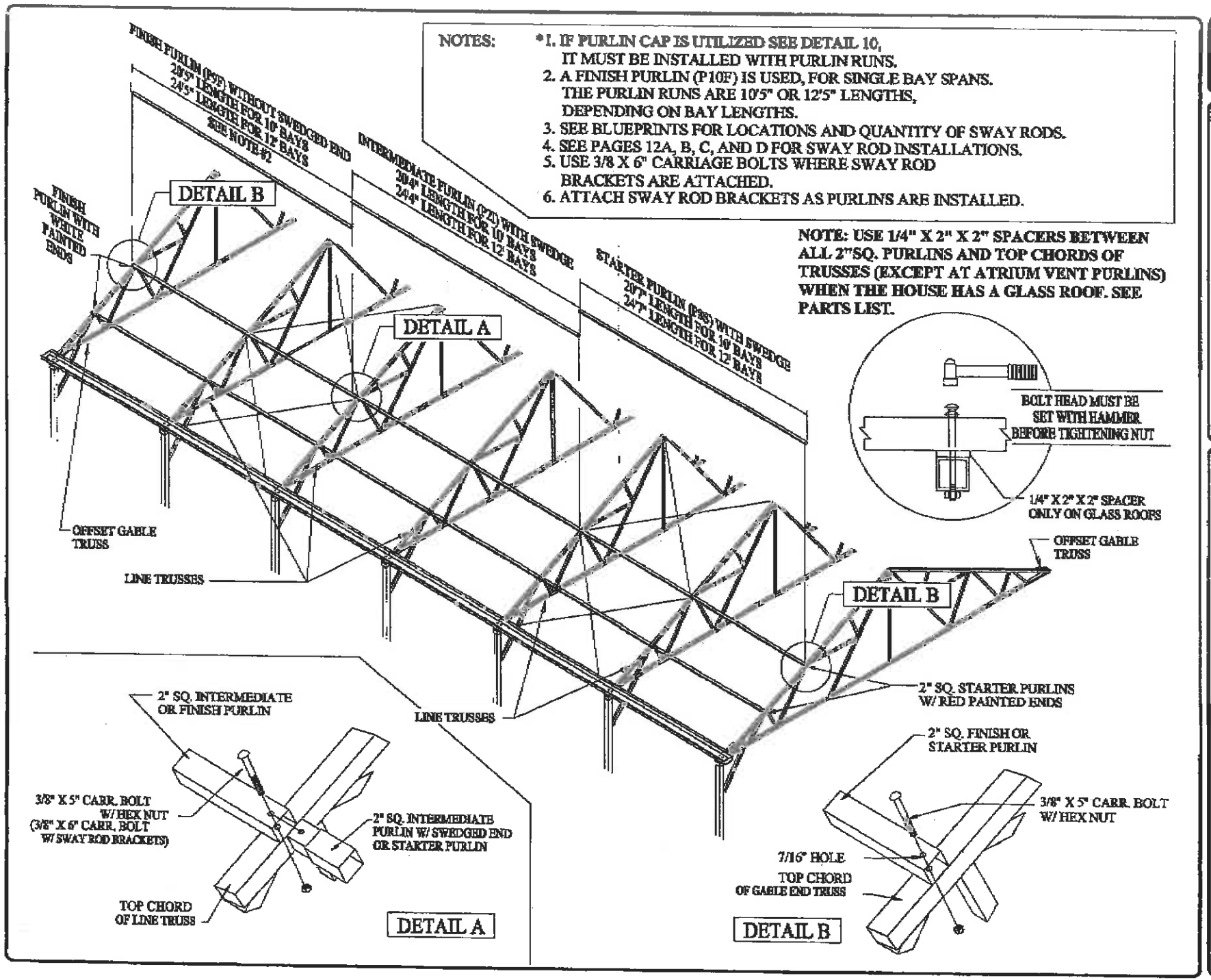
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-9199

TRUSS ATTACHMENT TO COLUMN



PAGE V9-A 02/25/11

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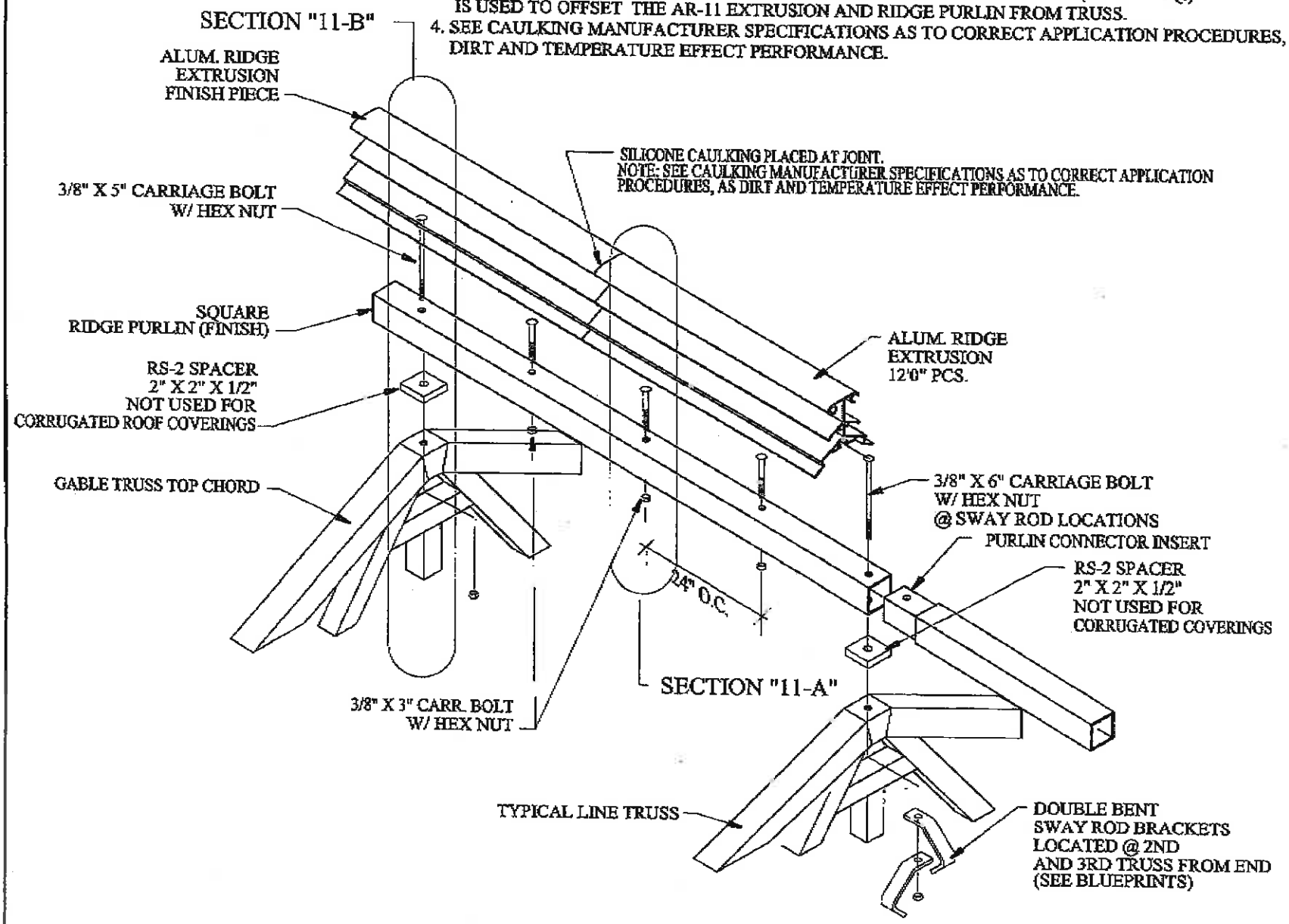
19990 LEROY DR.
NORTHGLENN, COLORADO 80233
NEXUS
(800) 467-0100

2"SQ. ROOF PURLIN INSTALLATION
FOR THE VAIL WITH 4"SQ. COLUMNS

NOTES:

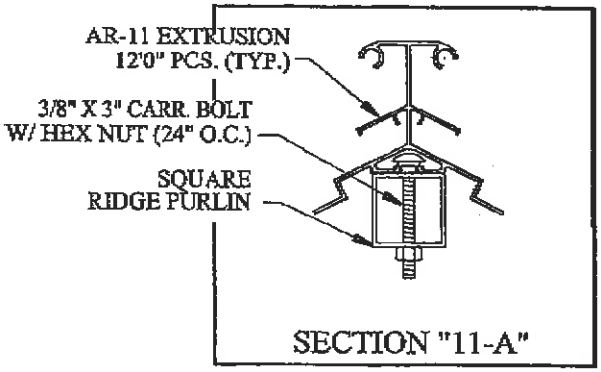
1. USE 3/8" X 6" CARRIAGE BOLTS AT TRUSSES, WHERE SWAY ROD BRACKETS ARE ATTACHED (SEE BLUEPRINTS),.
2. ATTACH SWAY ROD BRACKETS AS PURLINS ARE INSTALLED.
3. WHEN 8MM POLYCARBONATE IS USED AS COVERING, THE RS-2 SPACER (1/2" X 2" SQ.) IS USED TO OFFSET THE AR-11 EXTRUSION AND RIDGE PURLIN FROM TRUSS.
4. SEE CAULKING MANUFACTURER SPECIFICATIONS AS TO CORRECT APPLICATION PROCEDURES, DIRT AND TEMPERATURE EFFECT PERFORMANCE.



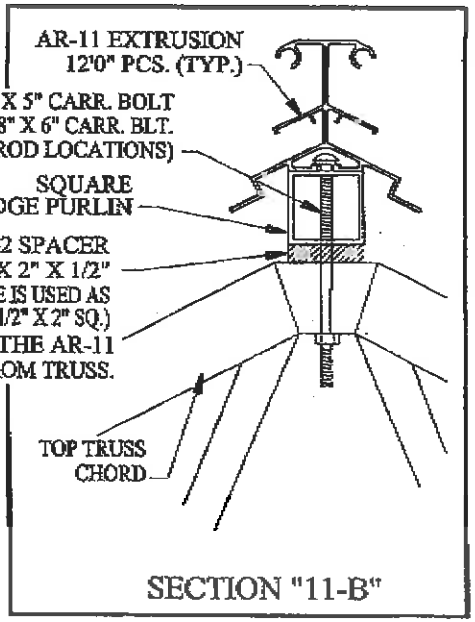
PAGE V11-A
DATE 08/27/08

NEXUS GREENHOUSE CORPORATION
10983 LARKIN DR.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-9199

RIDGE PURLIN AND
RIDGE EXTRUSION ATTACHMENT

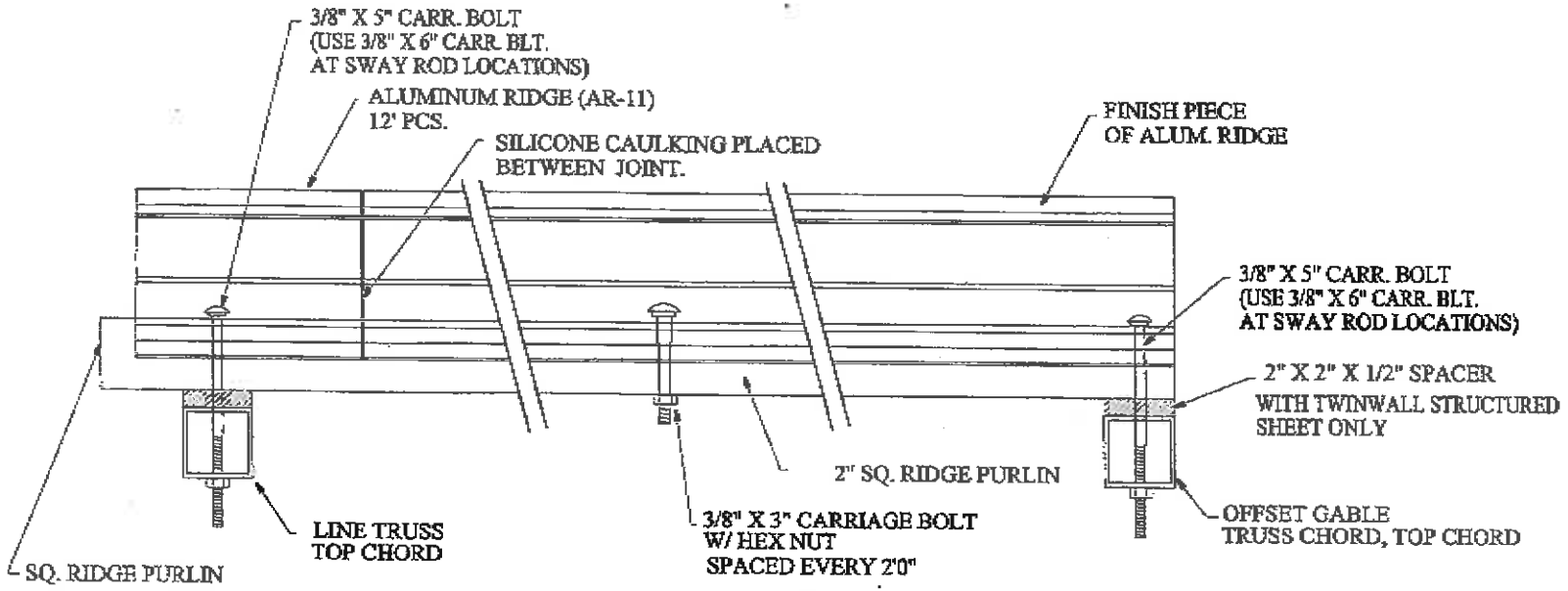


SECTION "11-A"



SECTION "11-B"

NOTE: SEE CAULKING MANUFACTURER SPECIFICATIONS, AS TO THE CORRECT APPLICATION PROCEDURES; DIRT AND TEMPERATURE EFFECT PERFORMANCE.



PAGE V11-B
DATE 01/13/09

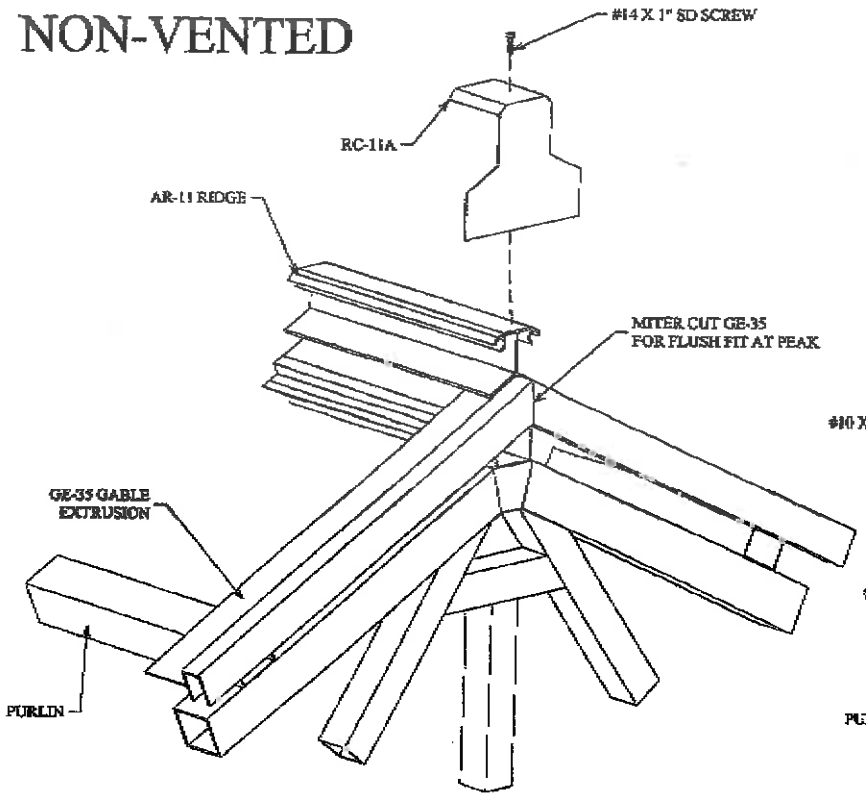
NEXUS GREENHOUSE CORPORATION
1280 LEROY DR.
NORTHGLENN, COLORADO 80233
(303) 457-9199

AR-11 ATTACHMENT FOR 8mm AND CORRUGATED VENT AND NON-VENTED ROOFS

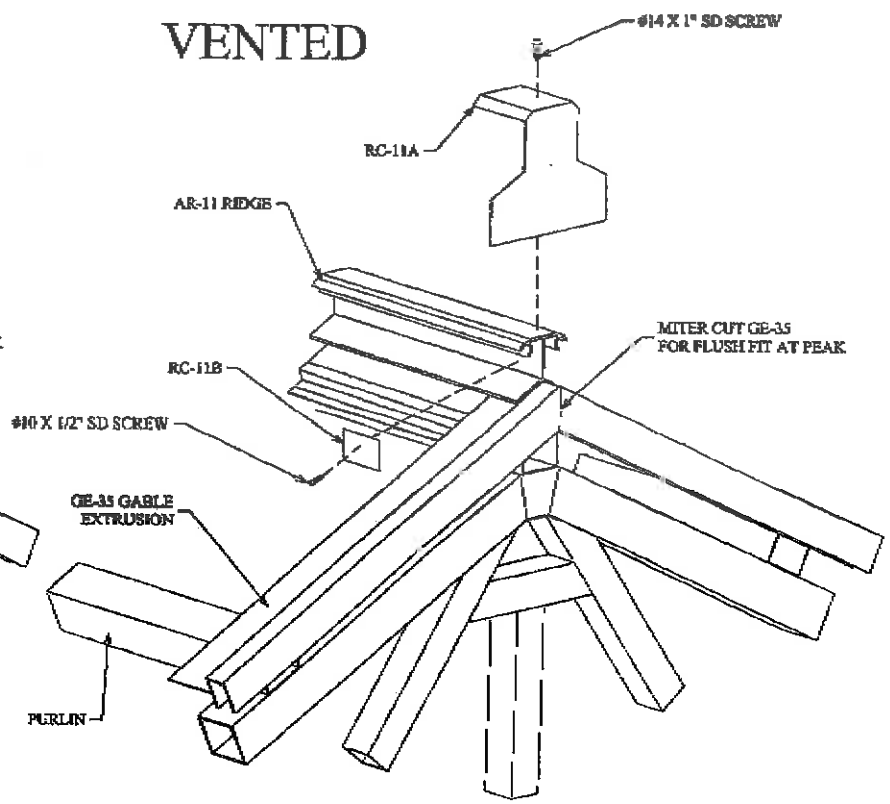
NEXUS GREENHOUSE CORPORATION
10981 LEROY DR.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-0109

RC-11 ATTACHENTS FOR VENT AND NON-VENTED ROOFS

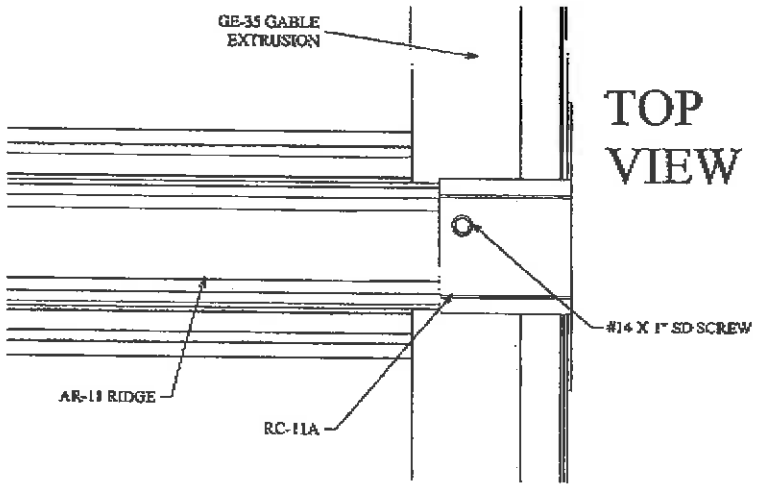
NON-VENTED



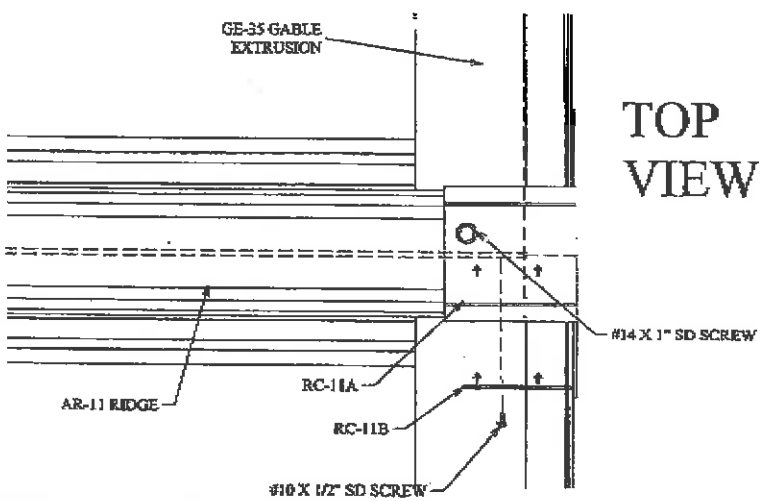
VENTED

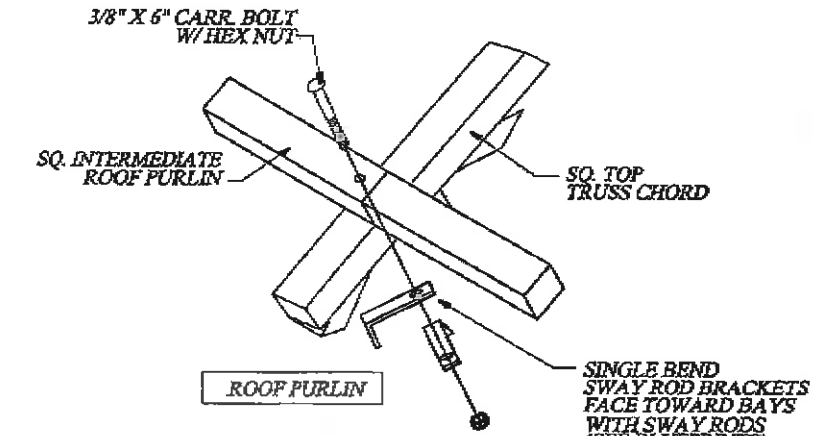


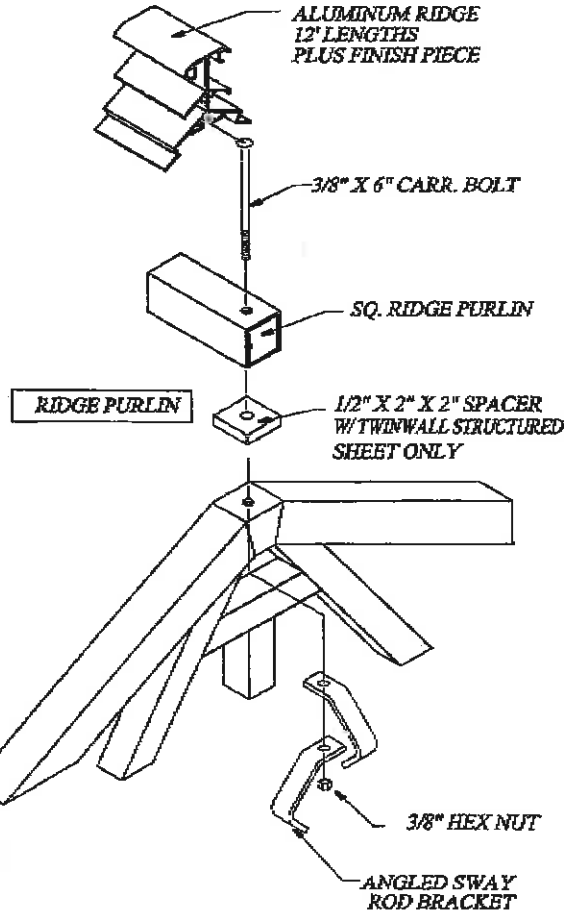
TOP VIEW

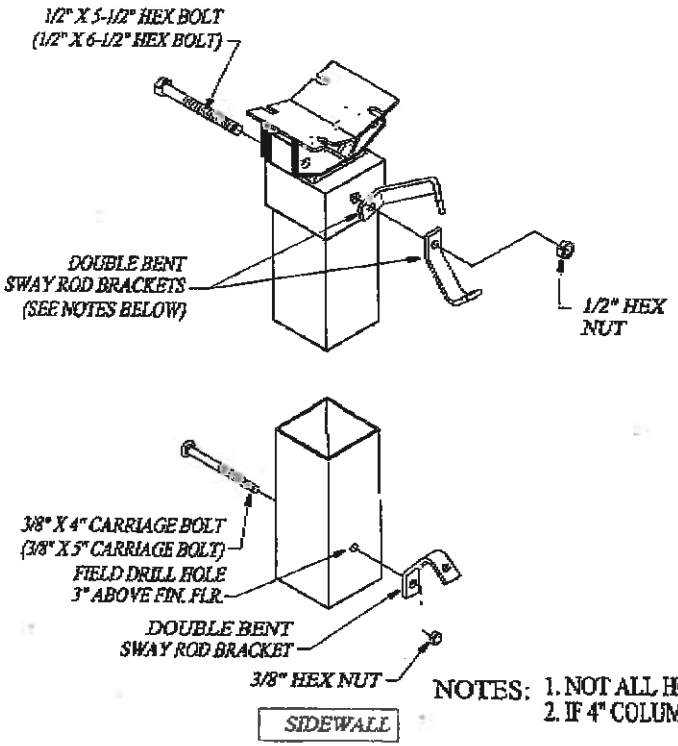


TOP VIEW









STEP 1: ATTACH A DOUBLE BENT SWAY ROD BRACKET TO COLUMN CAP USING EXISTING COLUMN CAP-TO-COLUMN BOLT.
STEP 2: FIELD DRILL A 7/16" HOLE 3" ABOVE FINISH FLOOR.
STEP 3: ATTACH ANOTHER DOUBLE BENT BRACKET IN THIS HOLE USING A 3/8" CARRIAGE BOLT.
STEP 4: AFTER GUTTERS ARE INSTALLED PLUMB BAYS, BY TIGHTENING ALL THREAD RODS INTO BRACKETS.

NOTES: 1. NOT ALL HOUSES HAVE ROOF SWAY RODS AT COLUMNS. (SEE BLUEPRINTS)
2. IF 4" COLUMNS ARE USED THE HARDWARE ITEMS IN PARENTHESIS ARE TO BE USED.

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10993 LEROY DR.
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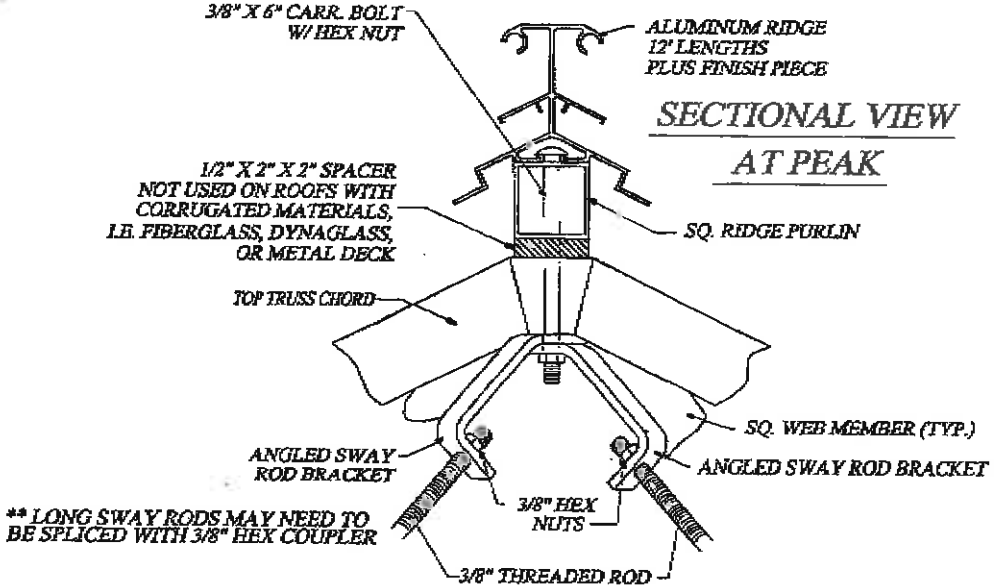
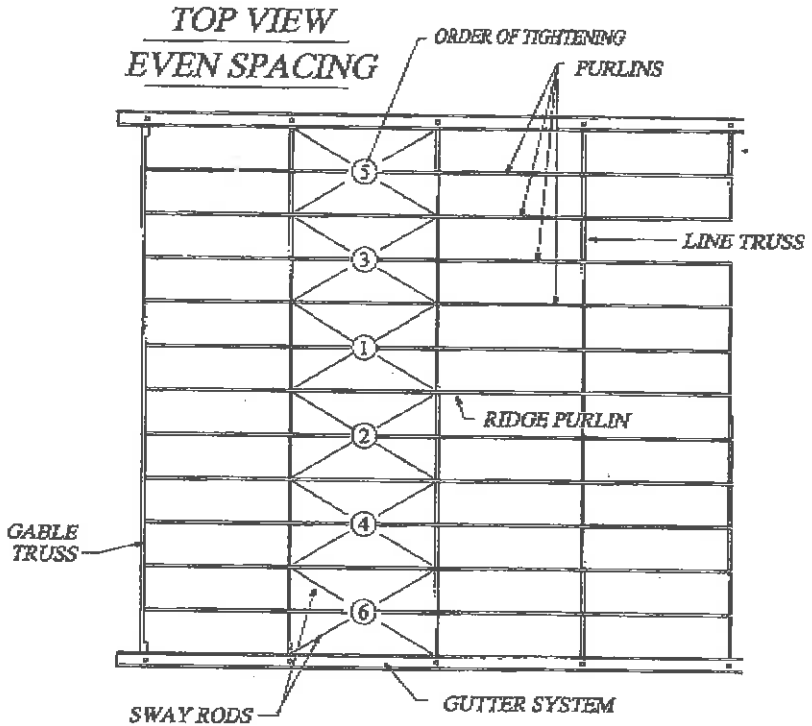
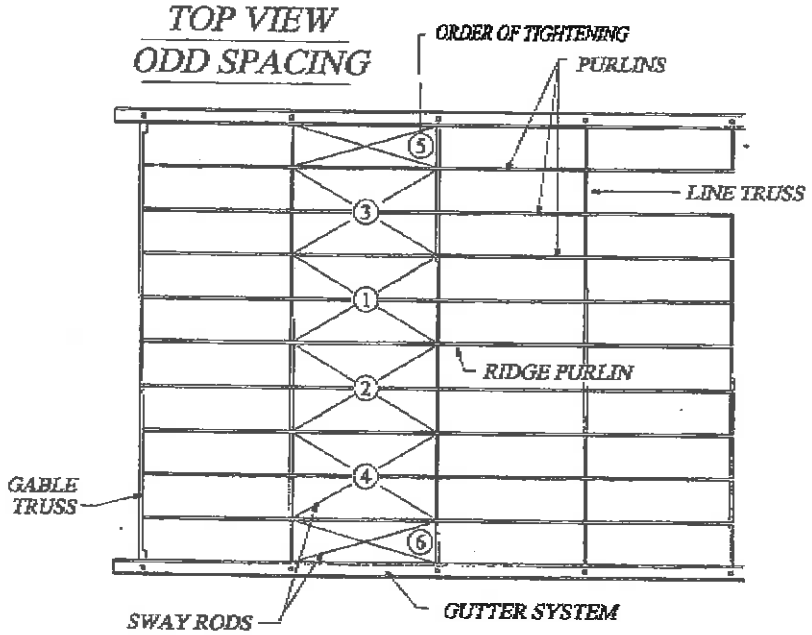
SWAY ROD BRACKET INSTALLATION W/ AR-11 RIDGE

NOTES:
1. CHECK BLUEPRINTS FOR SWAY ROD LOCATIONS
2. INSTALL RODS LOOSE INITIALLY
3. THE HOUSE SHOULD BE PLUMB BEFORE TIGHTENING SWAY RODS
4. IT IS BEST TO WORK IN CREWS OF 2, TIGHTENING THE SAME ROD PAIRS ON OPPOSING SIDES OF THE ROOF.
5. NUMBER OF ROOF PURLINS MAY VARY FROM HOUSE TO HOUSE.







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DATE 07/14/08

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19980 LIBERTY CIR.
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ADJUSTMENT PATTERN FOR SWAY RODS W/ AR-11 RIDGE

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10983 LIRICY DR.
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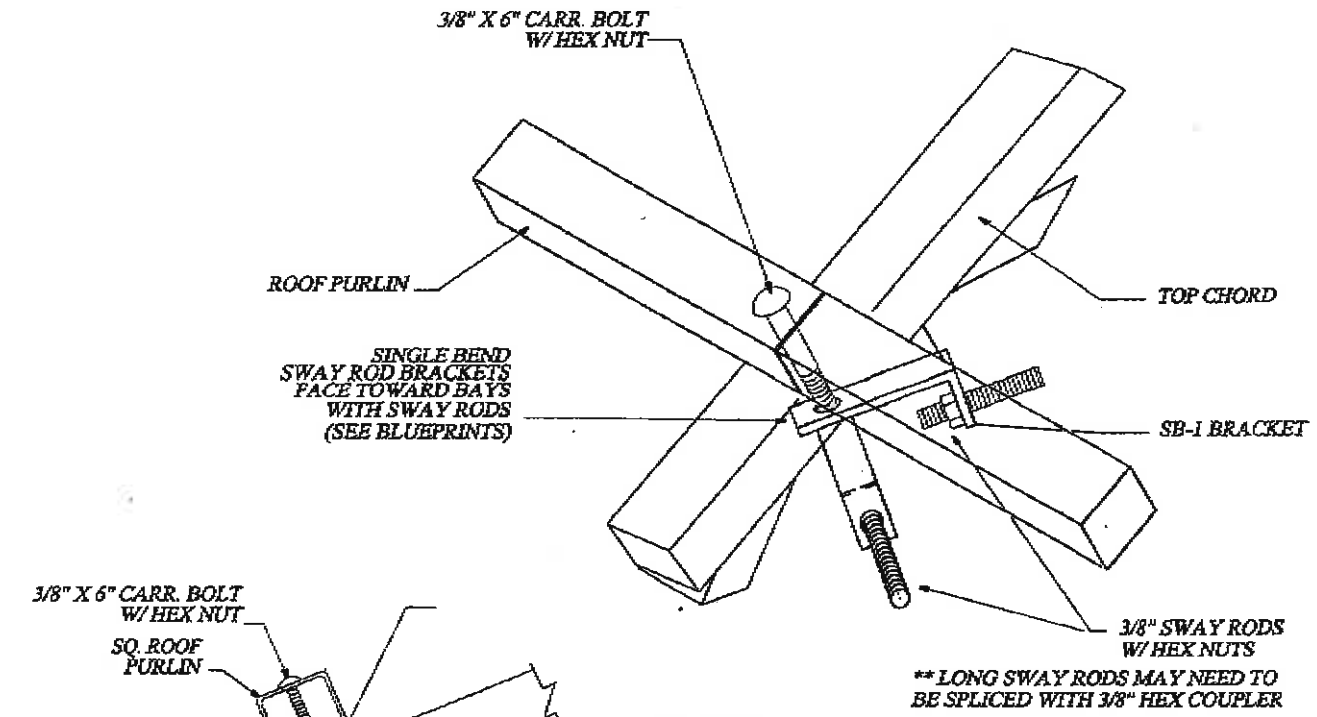
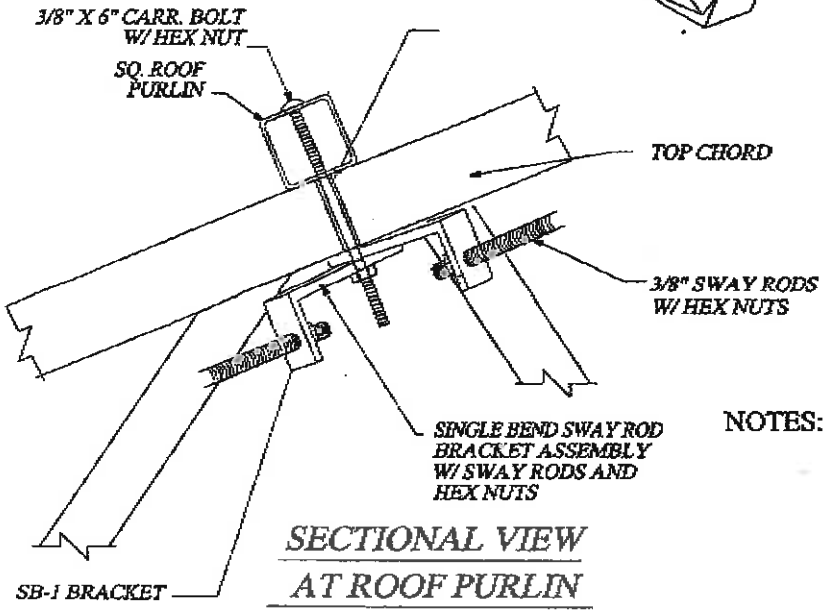
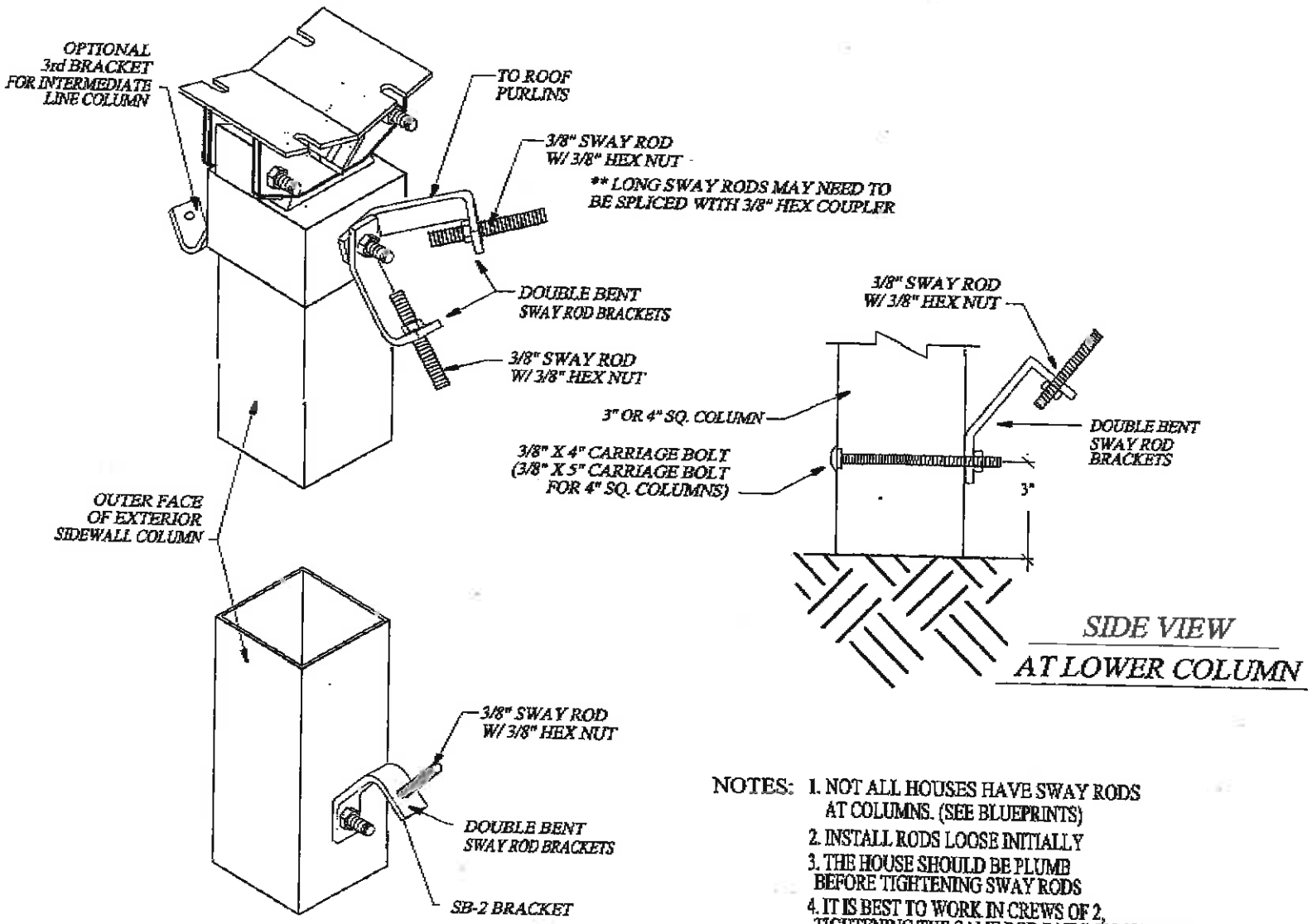
SWAY RODS INSTALLATION IN-BETWEEN WEB MEMBERS





SECTIONAL VIEW
AT ROOF PURLIN

NOTES:
1. CHECK BLUEPRINTS FOR SWAY ROD LOCATIONS
2. INSTALL RODS LOOSE INITIALLY
3. THE HOUSE SHOULD BE PLUMB BEFORE TIGHTENING SWAY RODS
4. IT IS BEST TO WORK IN CREWS OF 2, TIGHTENING THE SAME ROD PAIRS ON OPPOSING SIDES OF THE ROOF.
5. NUMBER OF ROOF PURLINS MAY VARY FROM HOUSE TO HOUSE.



NOTES:
1. NOT ALL HOUSES HAVE SWAY RODS AT COLUMNS. (SEE BLUEPRINTS)
2. INSTALL RODS LOOSE INITIALLY
3. THE HOUSE SHOULD BE PLUMB BEFORE TIGHTENING SWAY RODS
4. IT IS BEST TO WORK IN CREWS OF 2, TIGHTENING THE SAME ROD PAIRS ON OPPOSING SIDES OF THE BAY.

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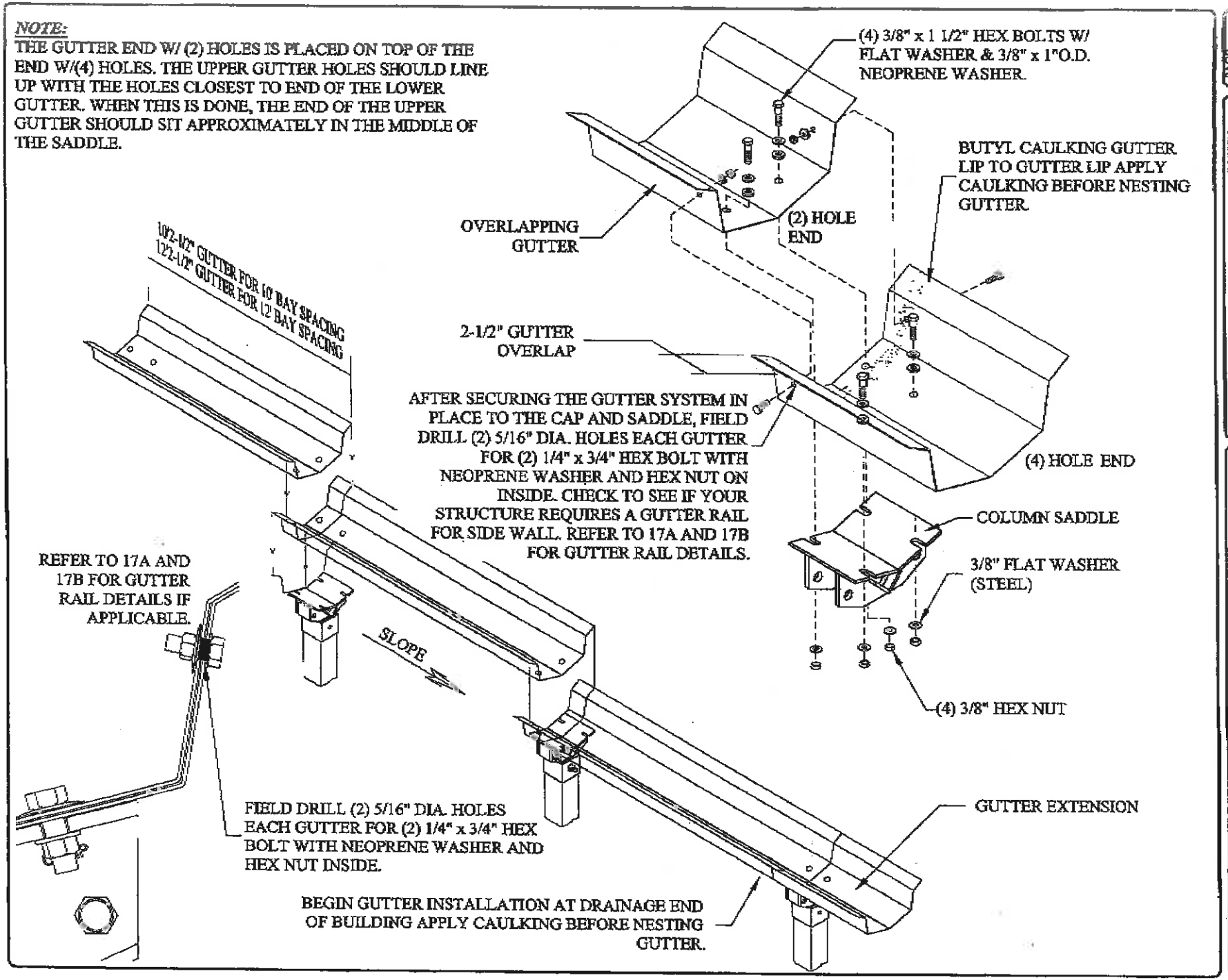
SWAY RODS INSTALLATION FOR ROOF TO COLUMN ATTACHMENTS



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DATE 08/27/08

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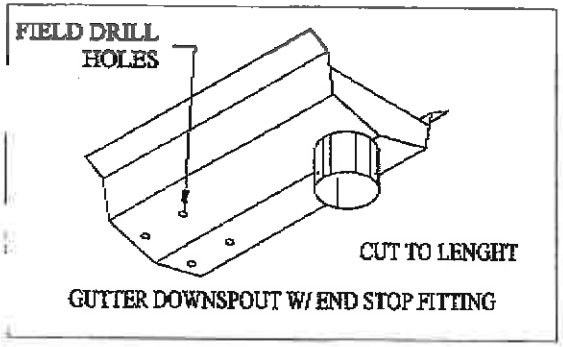
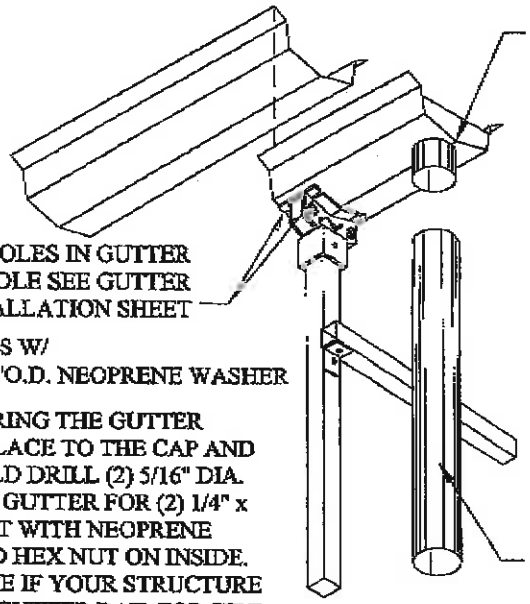
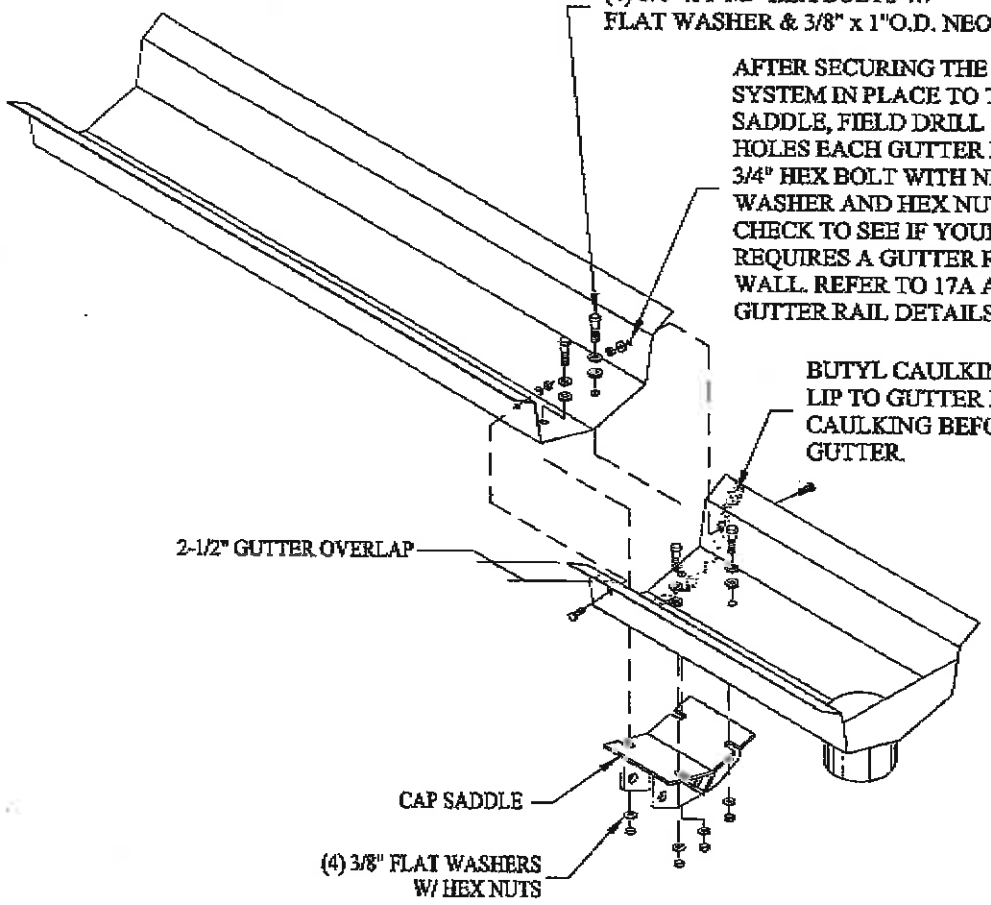
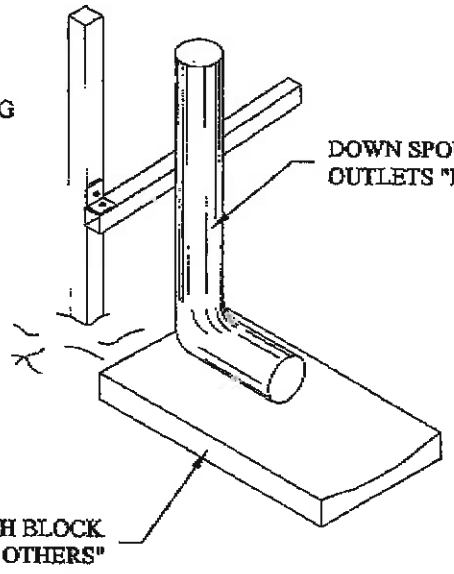
10383 LEROY DR.
NORTHGLENN, COLORADO 80233
(303) 457-5100

GUTTER SYSTEM ASSEMBLY FOR 8mm, CORRUGATED OR POLY ROOF COVERING









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DATE 08/27/08

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10982 LEROY DR.
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GUTTER DOWNSPOUT ASSEMBLY

SEAL IN...OR SEAL OUT
WHEN INSTALLED IN A SEALING APPLICATION, THE WASHER COMPRESSES AGAINST EITHER A FLEXIBLE OR AN INFLEXIBLE SURFACE TO PERMANENTLY SEAL IN OR OUT ANY OPERATING ENVIRONMENT, WHETHER NATURAL OR INDUSTRIAL. FACING MATERIALS ARE ENGINEERED TO PROVIDE OPTIMAL RESISTANCE TO WEATHERING FROM OZONE, ULTRAVIOLET LIGHT AND/OR CHEMICAL AGENTS.

CUSHIONING AND VIBRATION CONTROL
AS THE WASHER IS COMPRESSED AND FASTENED AGAINST A SUBSTRATE, THE FACING MATERIAL SERVES AS A PERMANENT CUSHION. THIS FEATURE PROTECTS THE SUBSTRATE FROM INSTALLATION DAMAGE (SPINNING FASTENER AND/OR TORQUE) AND FROM VIBRATION DAMAGE DURING THE PRODUCT'S LIFE CYCLE.

INSUFFICENT TIGHTENING
Likely to cause leakage under seal and around fastener.

CORRECT INSTALLATION
Tight against surface, Seal flows inward to seal minor fastener diameter and surface voids.

EXCESSIVE TORQUE
Causes reverse dishing. Leakage under seal possible.

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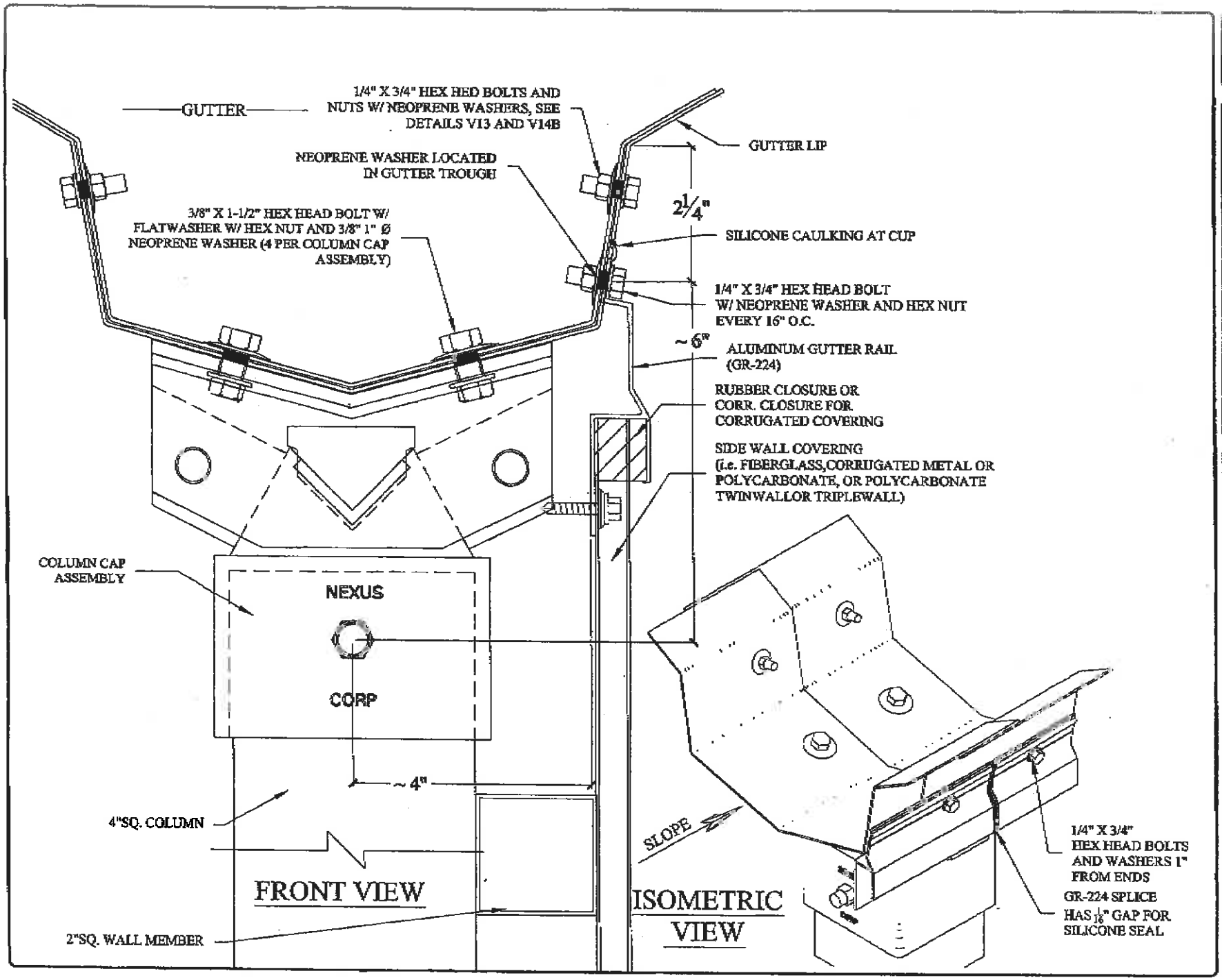
NEXUS

CORRECT BOLT TIGHTENING INSTALLATION



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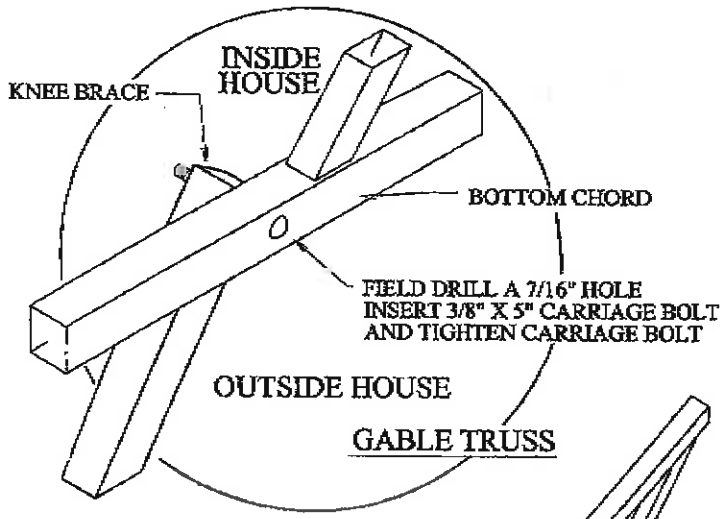
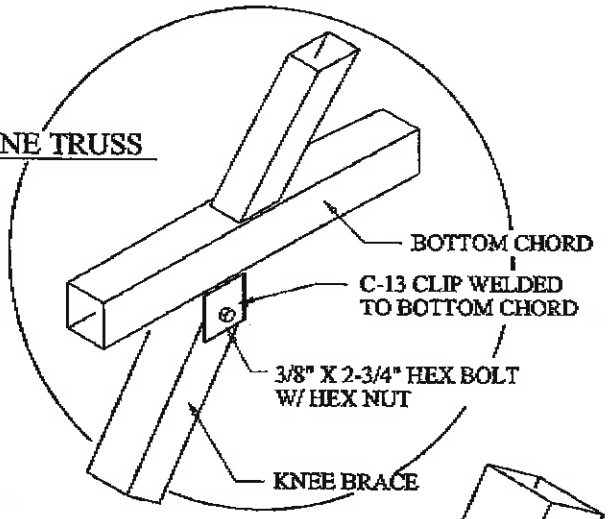
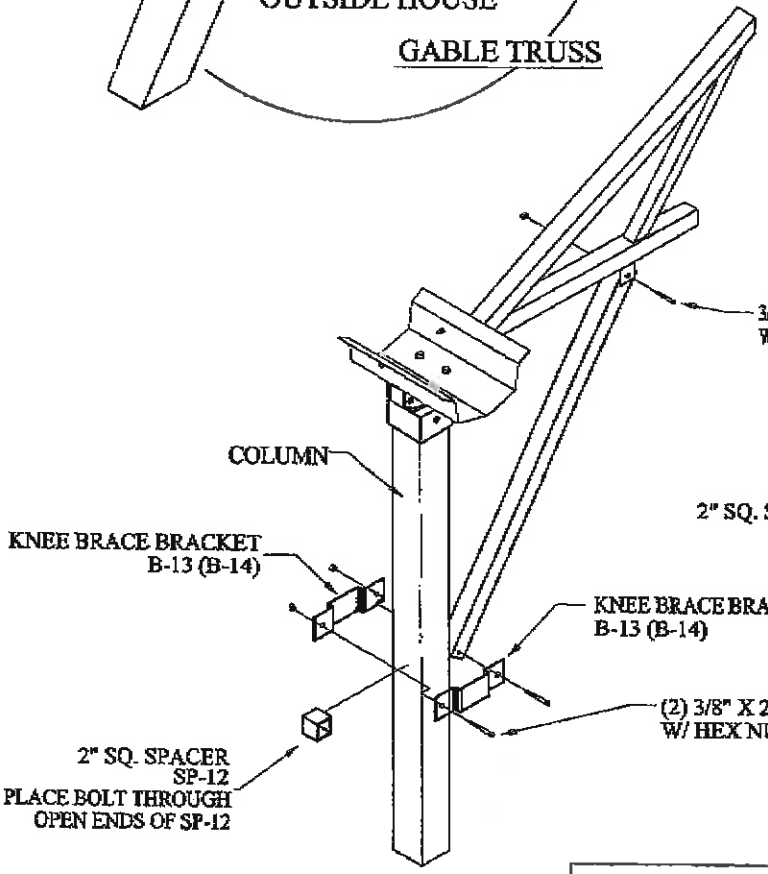
DATE 08/28/08

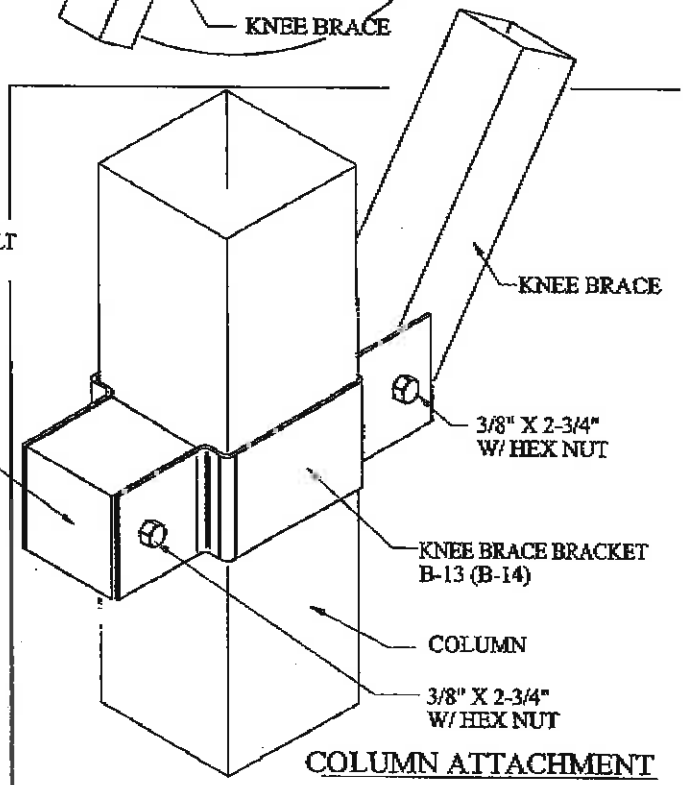
NEXUS GREENHOUSE CORPORATION
10013 LEROY DR.
NORTHGLENN, COLORADO 80233
(303) 457-9199

GR-224 GUTTER RAIL ATTACHMENT FOR 4"SQ. COLUMNS









NOTE: THE HARDWARE LISTED IN PARENTHESES IS NEEDED WHEN 4" SQ. COLUMNS ARE USED.

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DATE 08/28/08

NEXUS GREENHOUSE CORPORATION
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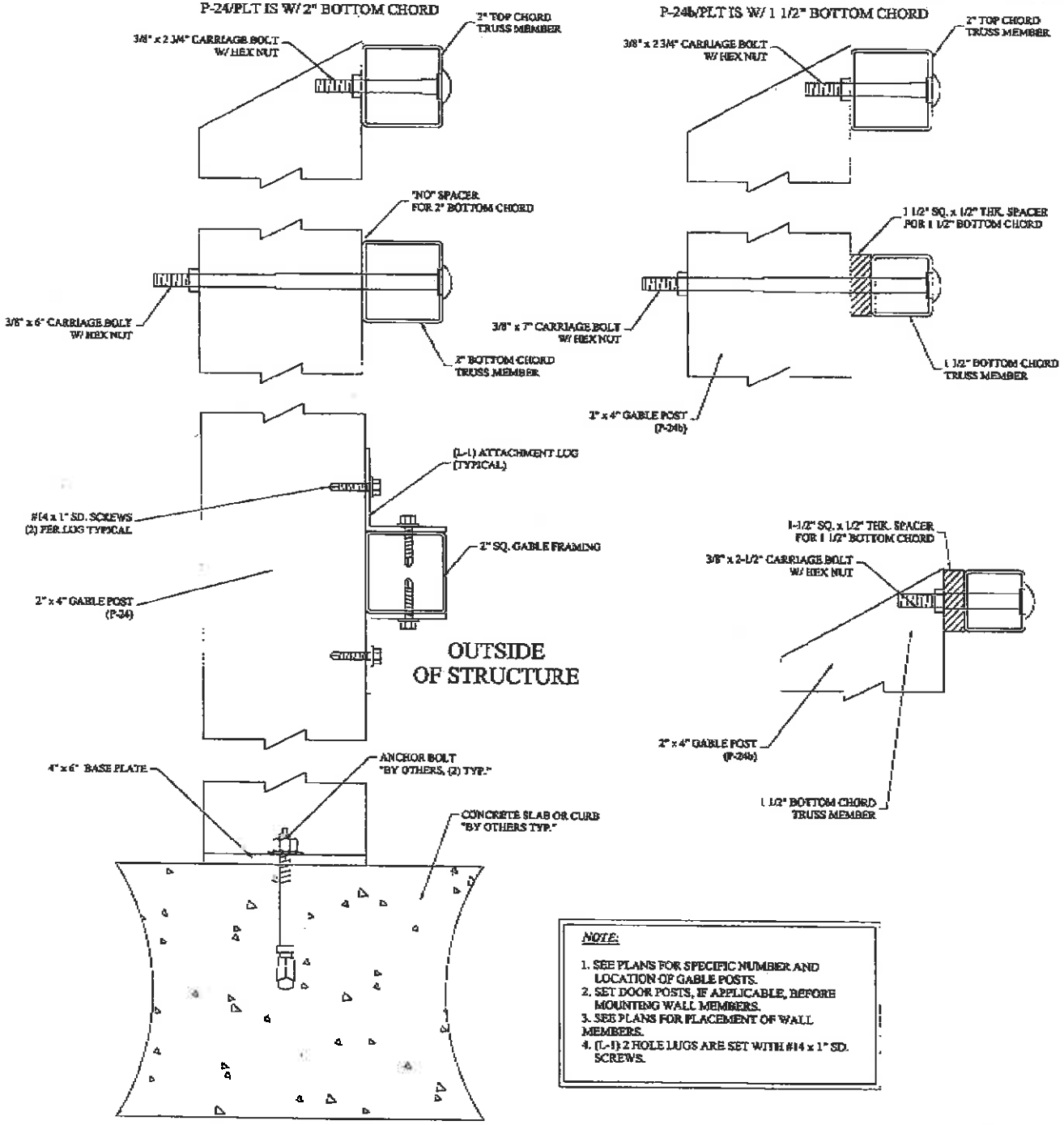
B-13 OR B-14 KNEE BRACE
ATTACHMENT AT EXTRERIOR COLUMN



NOTE:

1. SEE PLANS FOR SPECIFIC NUMBER AND LOCATION OF GABLE POSTS.
2. SET DOOR POSTS, IF APPLICABLE, BEFORE MOUNTING WALL MEMBERS.
3. SEE PLANS FOR PLACEMENT OF WALL MEMBERS.
4. (L-1) 2 HOLE LUGS ARE SET WITH #14 x 1" SD. SCREWS.

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DATE 02/22/07

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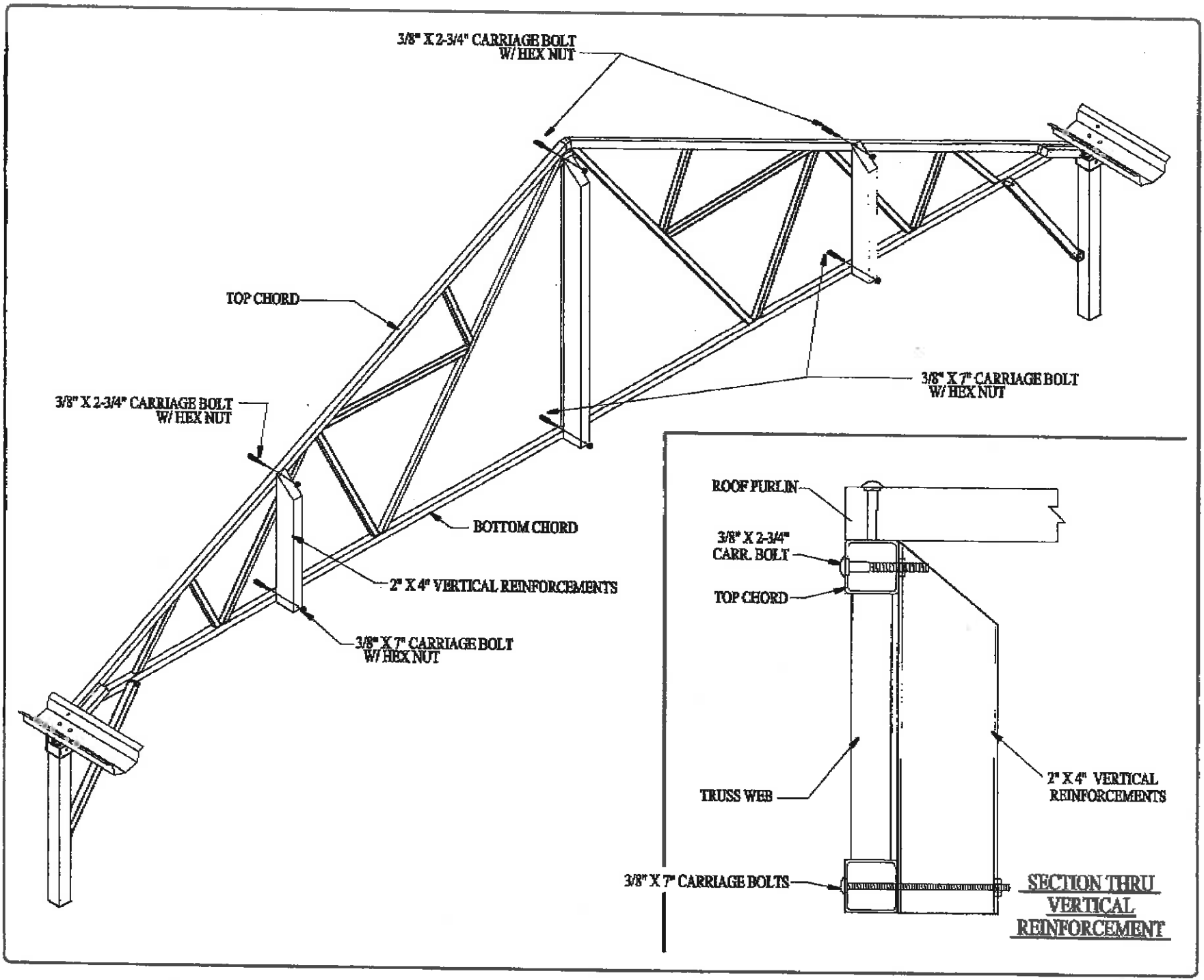
P-24/PLT GABLE POST AND FRAMING DETAIL ON BASE PLATES



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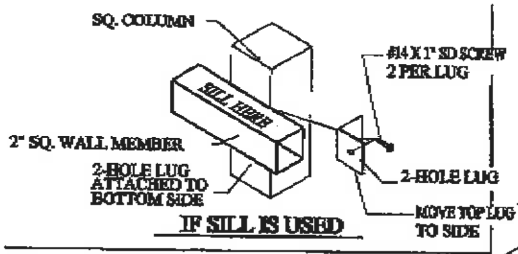
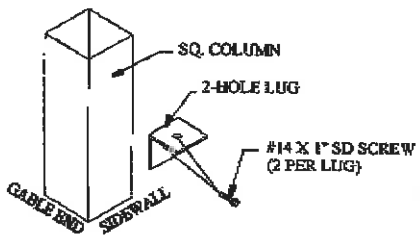
DATE 11/05/10

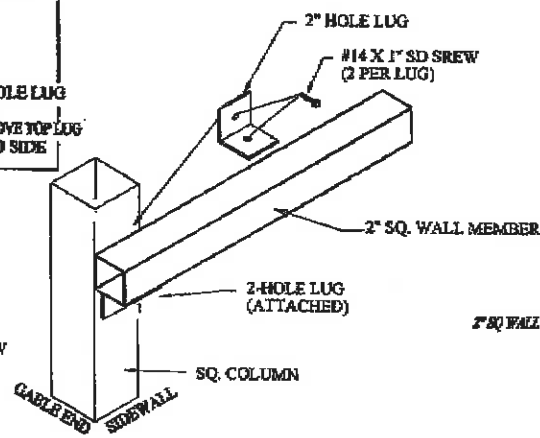
NEXUS GREENHOUSE CORPORATION
1990 LEROY DR.
NORTH GLENN, COLORADO 80233
NEXUS
(303) 457-6199

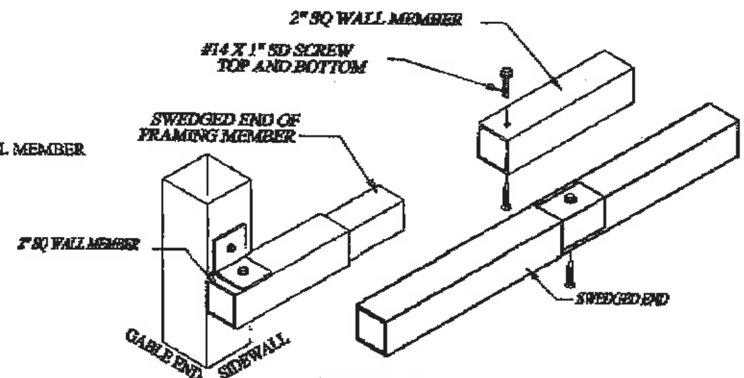
2" X 4" VERTICAL TRUSS REINFORCEMENT



IF SILL IS USED







STEP #1

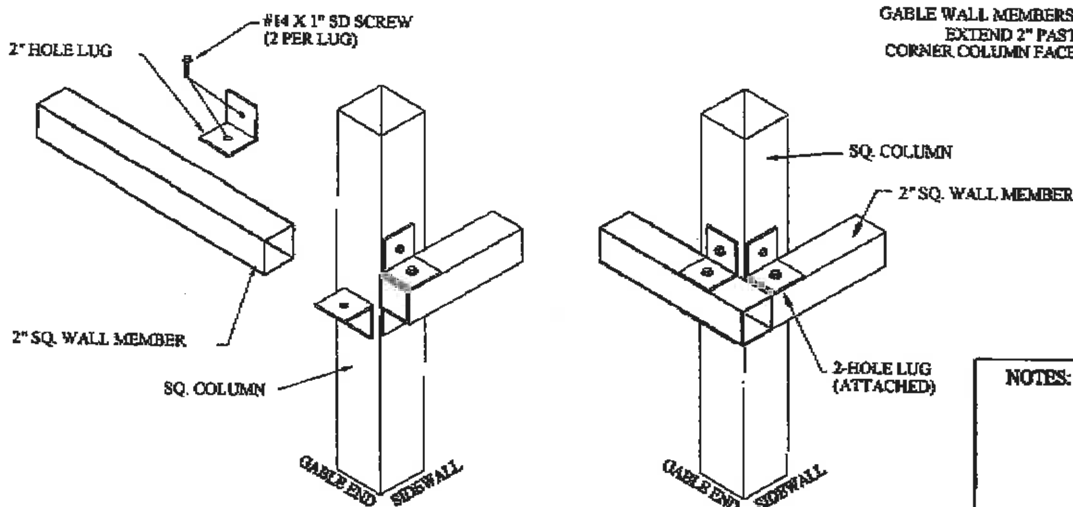
SET LOWER LUG AT THE HEIGHT SPECIFIED ON PLANS, TAKING INTO ACCOUNT THE WALL MEMBER RESTS ON TOP OF THE LUG. SEE PLANS FOR EQUIPMENT OPENINGS OR FOR MEMBER HEIGHT.

STEP #2

WALL MEMBERS REST ON THE 2-HOLE LUG AND IS POINT FASTENED W/ (2) #14 X 1" SD SCREWS TO LOWER LUG. THE UPPER LUG IS NOW ATTACHED IN SIMILAR MANNER.

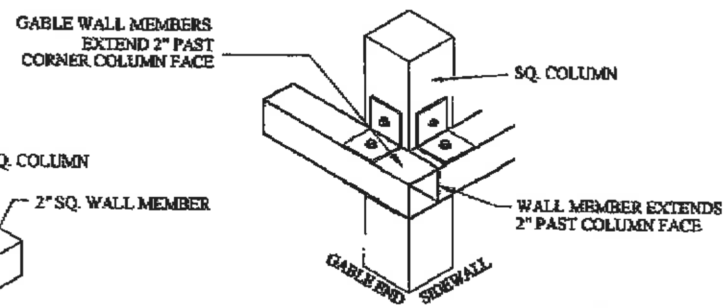
STEP #3

AT FRAMING SPLICES, THE SWEDGED END IS INSERTED AND POINT FASTENED ON THE BOTTOM OR SIDE OPPOSITE EQUIPMENT OPENING.



STEP #4

THE FINISHING WALL MEMBER CAN BE CUT TO SIZE, BUT MUST TERMINATE FLUSH WITH OUTER FACE OF COLUMN.



CORNER DETAIL

NOTES:
1. SET DOOR POSTS, IF APPLICABLE, BEFORE MOUNTING FRAMING.
2. SEE PARTS LIST FOR LENGTH OF WALL MEMBERS AND THEIR LOCATIONS. (SIDE OR GABLE)
3. LAYOUT MEMBERS AROUND PERIMETER.
4. MARK POST FOR WHERE WALL MEMBERS SHOULD GO FOR PROPER LEVELNESS.
5. A WALL MEMBER CONNECTOR MAY BE USED TO FINISH OUT THE RUN AT A CORNER COLUMN.
6. IF CAISSONS ARE TO BE USED THEN THE WALL MEMBER SHOULD BE PLACED SO THE TOP FACE IS 6" ABOVE GRADE.

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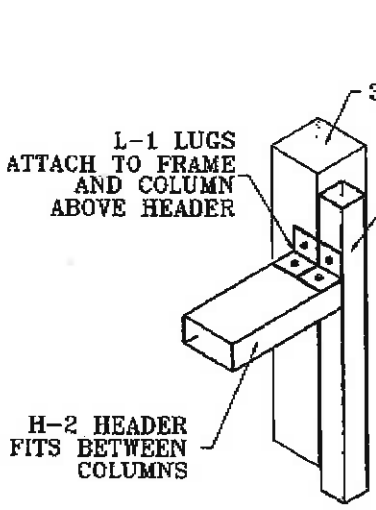
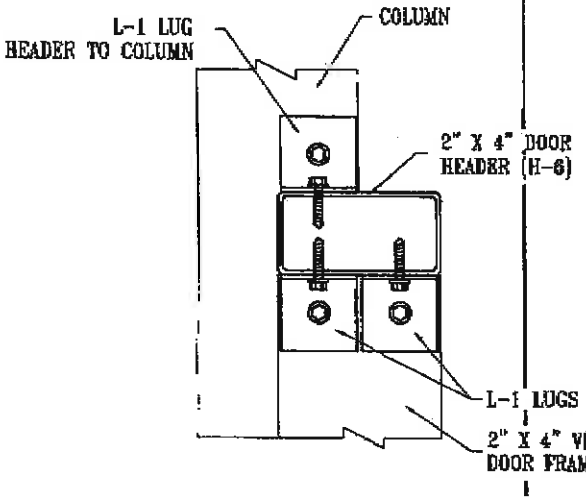
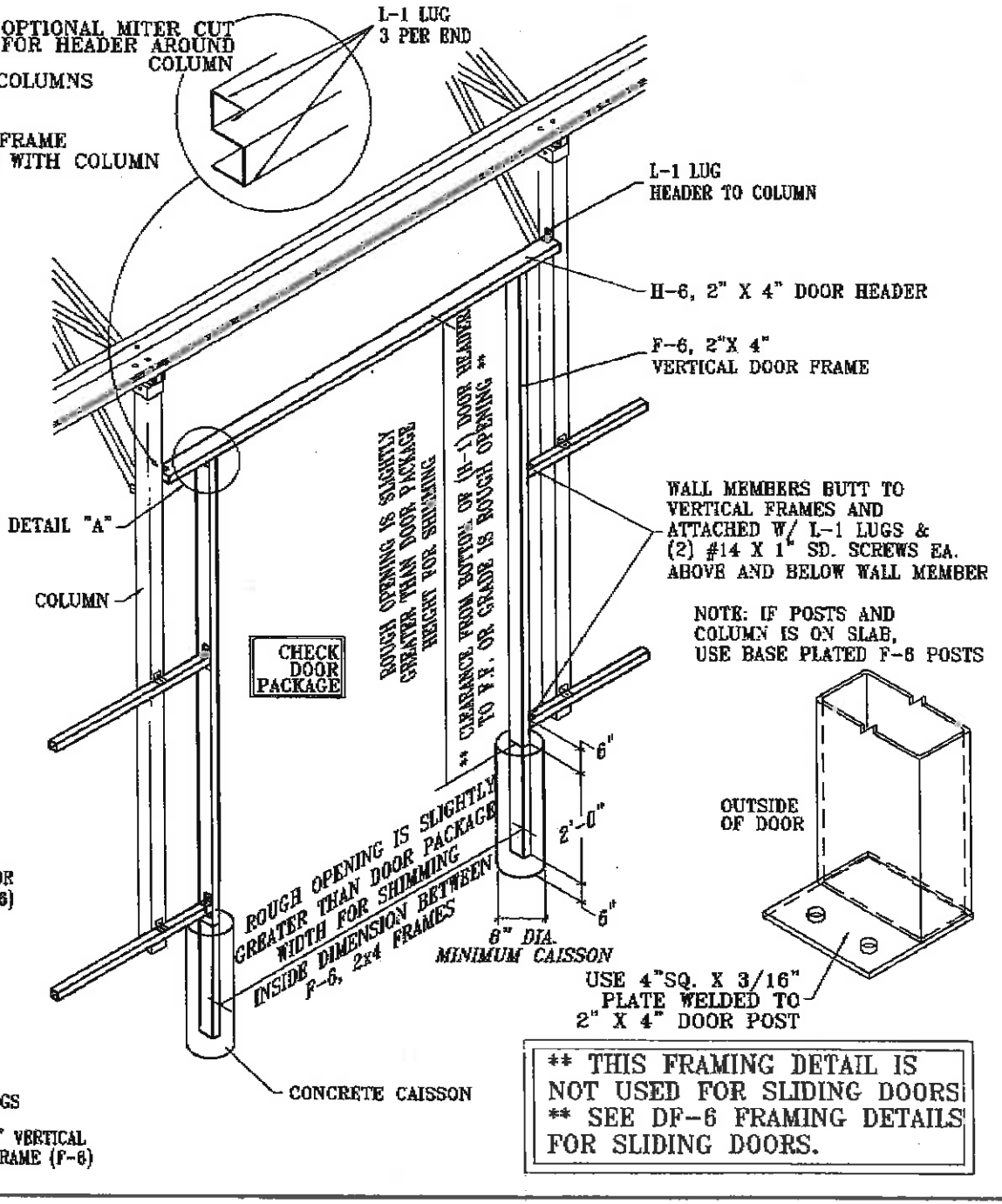
2" SQ. WALL FRAMING INSTALLATION



HEADER DETAIL WHEN A FULL BAY APPLICATION IS NEEDED WITH NO F-6 FRAMING

DETAIL "A"





** THIS FRAMING DETAIL IS NOT USED FOR SLIDING DOORS
** SEE DF-6 FRAMING DETAILS FOR SLIDING DOORS.

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NEXUS GREENHOUSE CORPORATION
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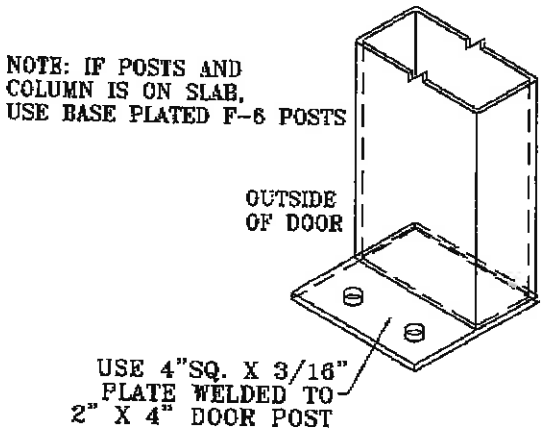
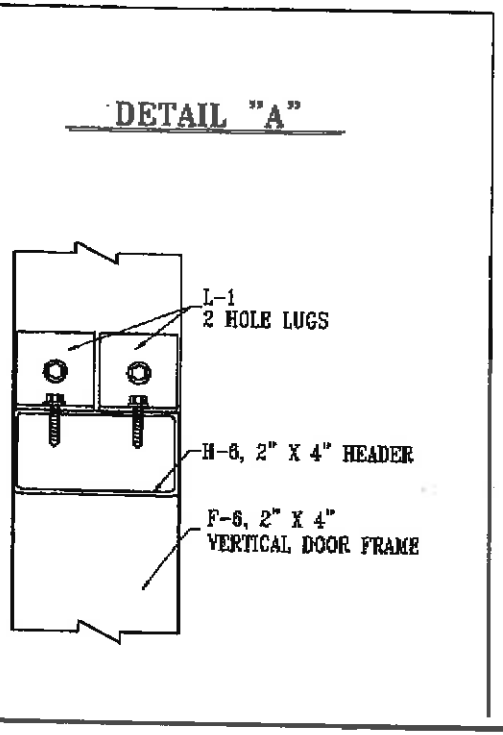
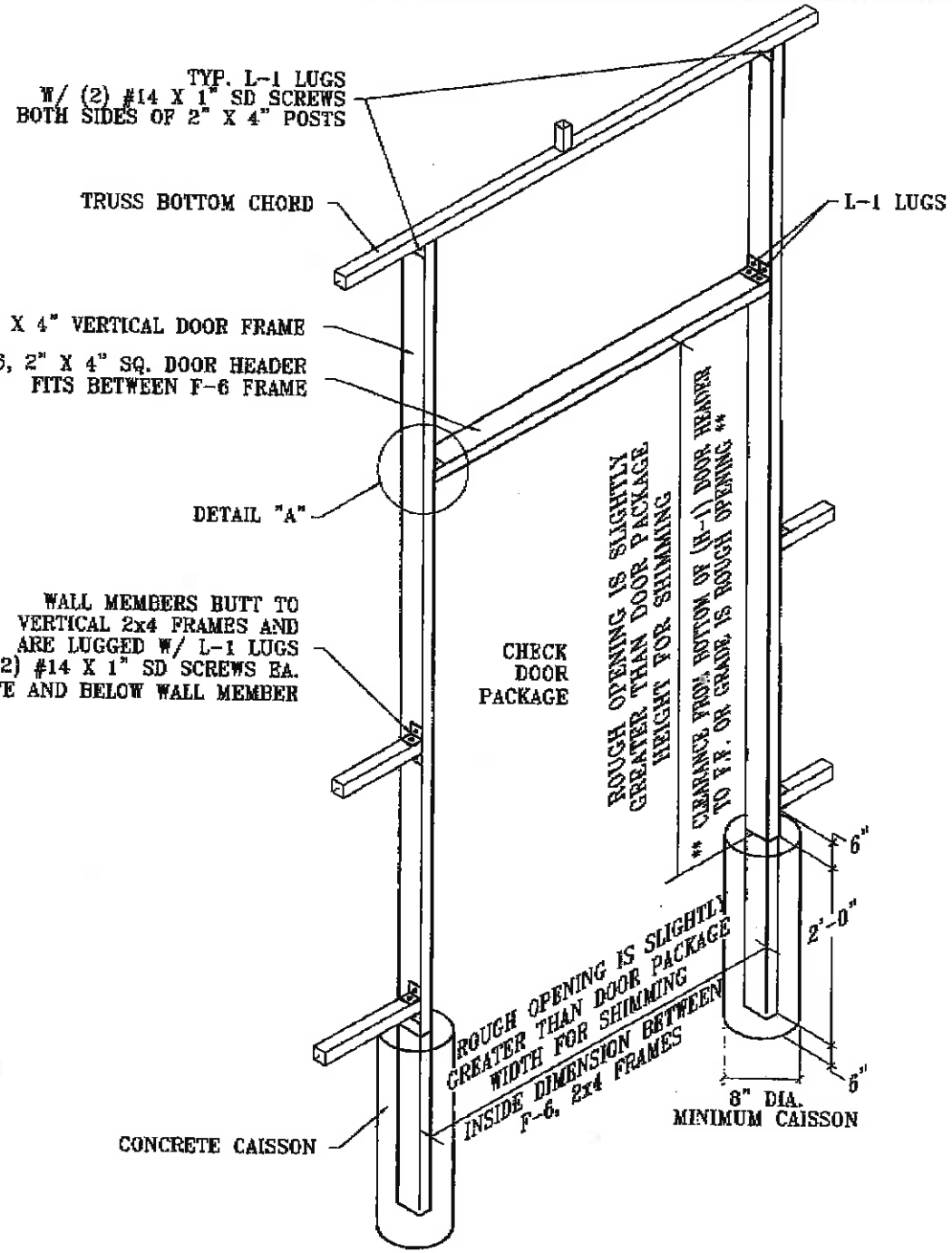
F-6 DOOR FRAMING AT SIDE WALL
INSTALLATION DETAIL

**** THIS FRAMING DETAIL IS NOT USED FOR SLIDING DOORS ** SEE DF-6 FRAMING (V21-B-F) DETAILS FOR SLIDING DOORS.**







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DATE 01/13/09

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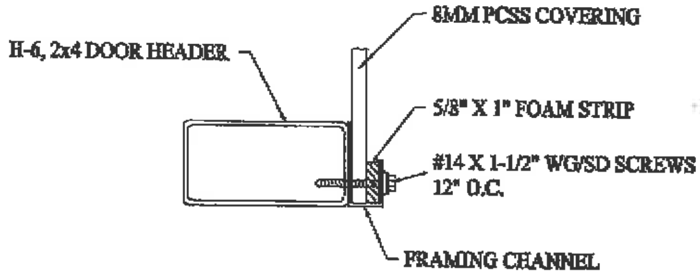
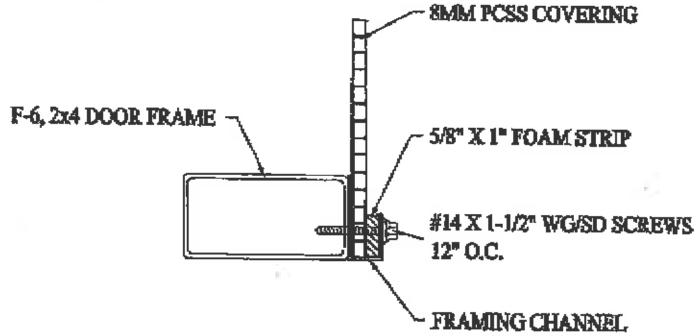
10983 LILEY CT.
NORTHGLENN, COLORADO 80233
(303) 457-9199

F-6, DOOR FRAMING AT GABLE END INSTALLATION DETAIL

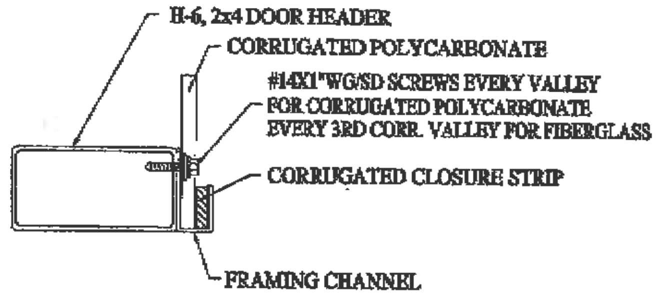
8mm POLYCARBONATE COVERING

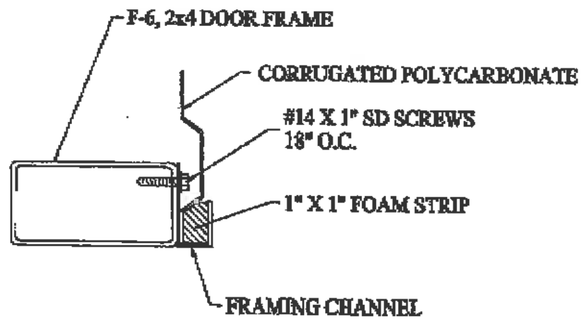


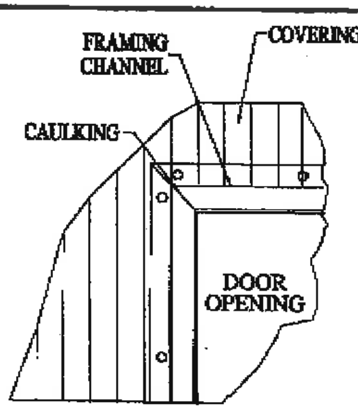


NOTES:
1. VERIFY DOOR R.O. BEFORE SETTING POSTS.
2. SET DOOR POSTS BEFORE MOUNTING WALL MEMBERS.
3. DOOR FRAME LOCATIONS ARE SHOWN ON BLUEPRINTS. VERIFY WITH OWNER BEFORE INSTALLATION.
4. EXACT PLACEMENT OF DOOR FRAMES MAY VARY FROM PLANS.
5. WALL MEMBER FRAMING IS CONTINUOUS AND MUST BE CUT OUT FOR DOORWAYS.

CORRUGATED COVERING







MITERED CORNERS

CORNERS OF FRAMING CHANNEL

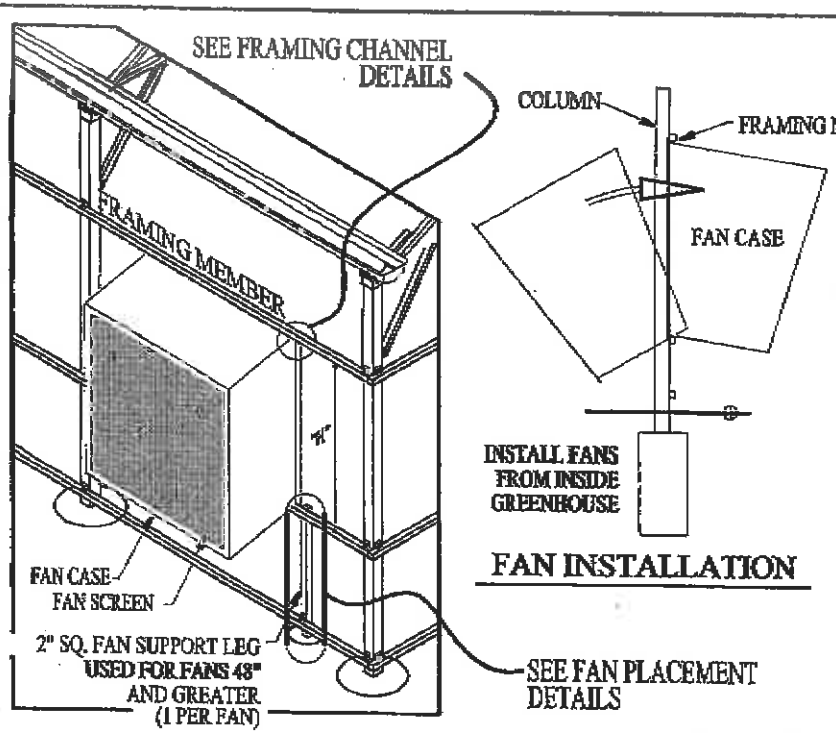
NEXUS GREENHOUSE CORPORATION

NEXUS

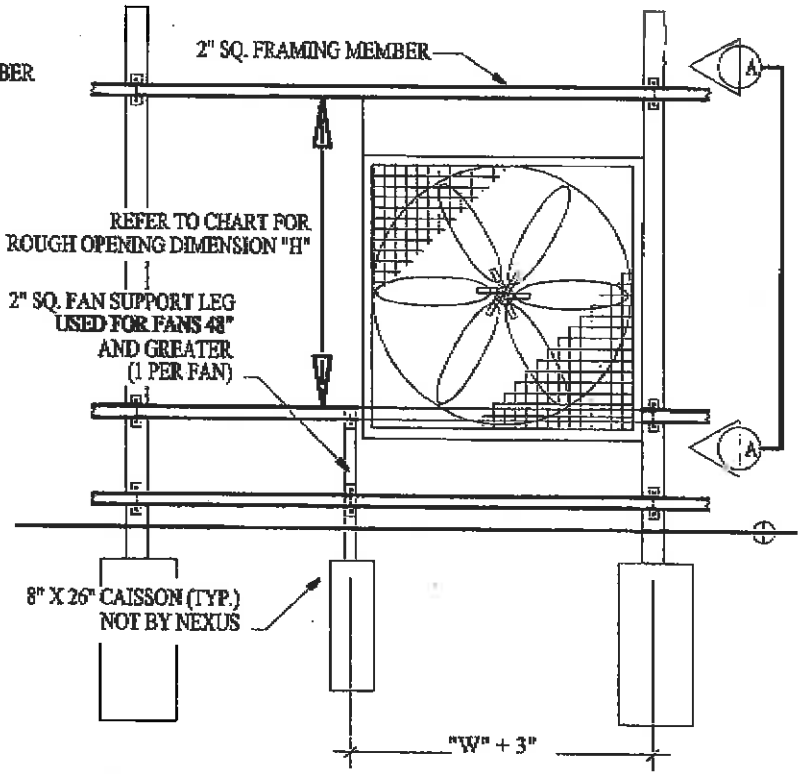
COVERING TERMINATION AT DOOR FOR POLYCARBONATES

PAGE V27

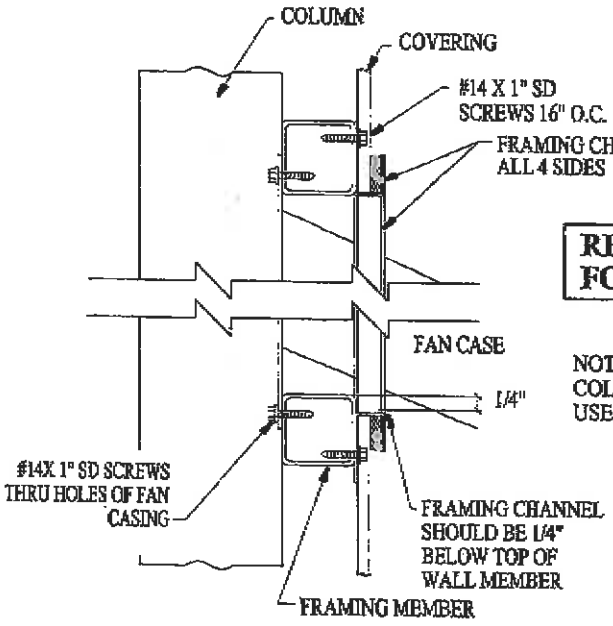
DATE 09/11/08



FAN INSTALLATION



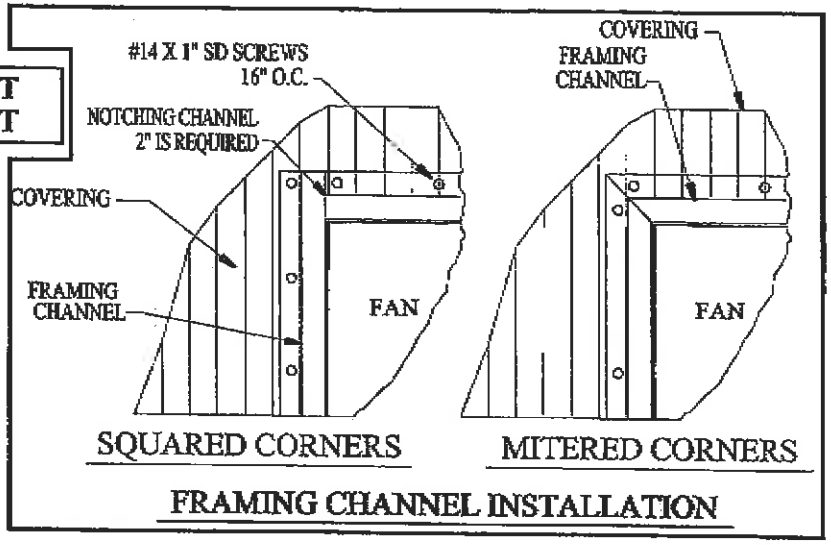
FAN PLACEMENT



SECTION A-A THRU SIDE

REFER TO BLUEPRINT FOR FAN PLACEMENT

NOTE: IF POSTS AND COLUMN IS ON SLAB, USE BASE PLATED POSTS



SQUARED CORNERS

MITERED CORNERS

FRAMING CHANNEL INSTALLATION

PAGE E01-R
REVISION 01/15/09

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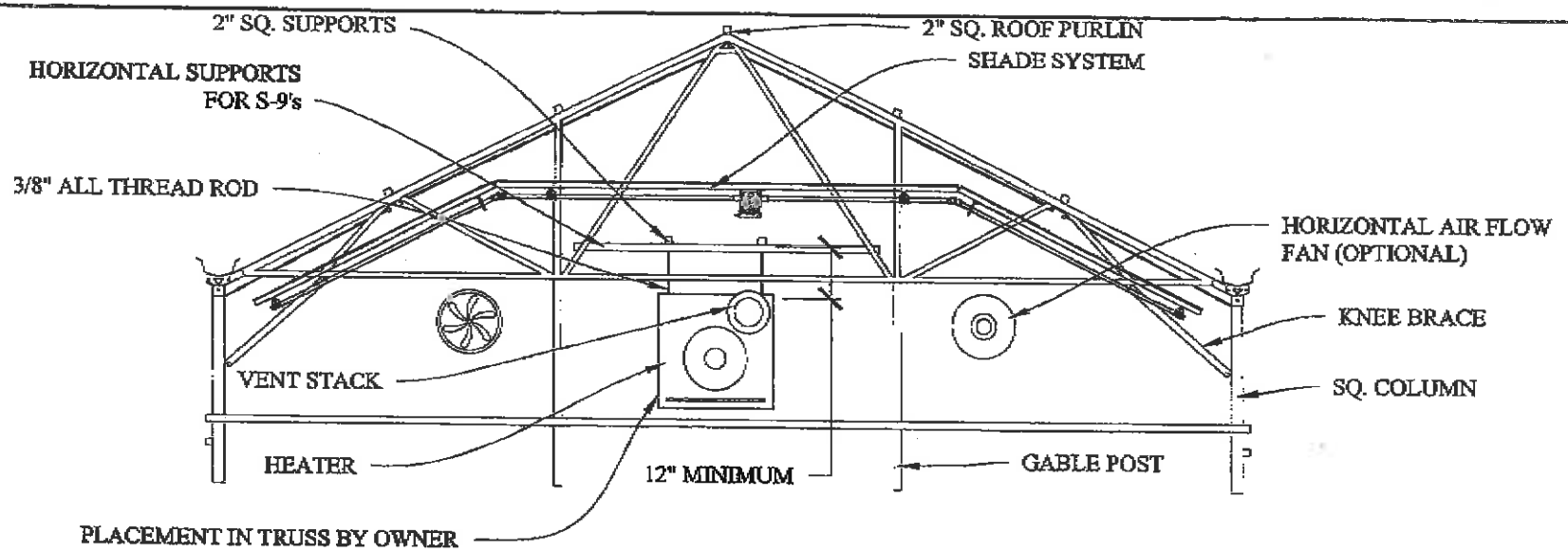
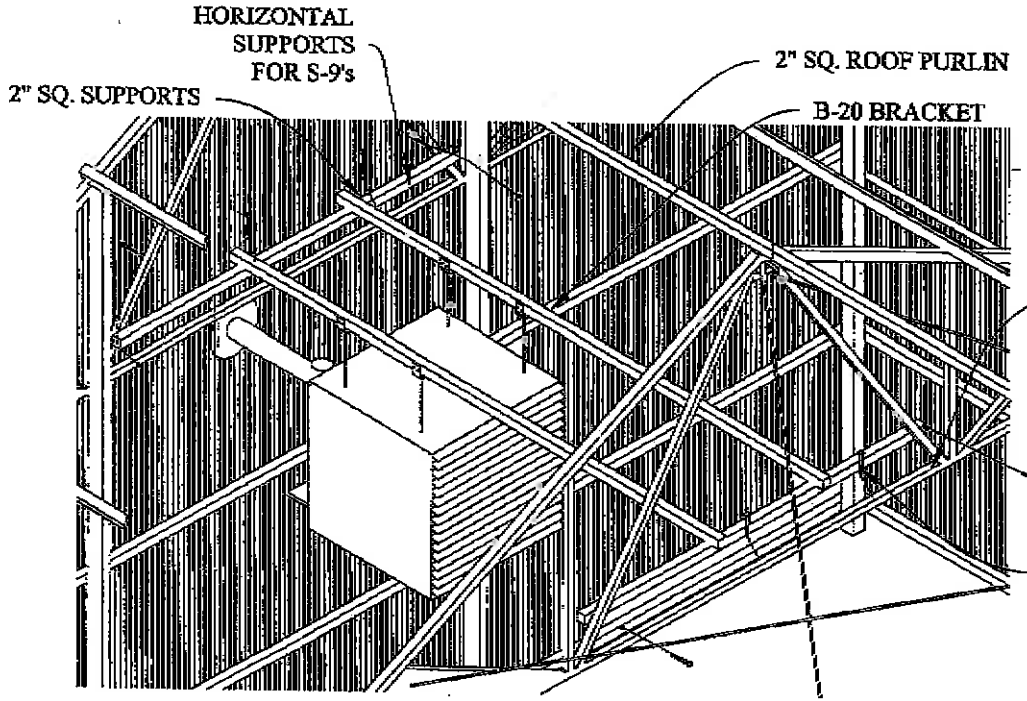
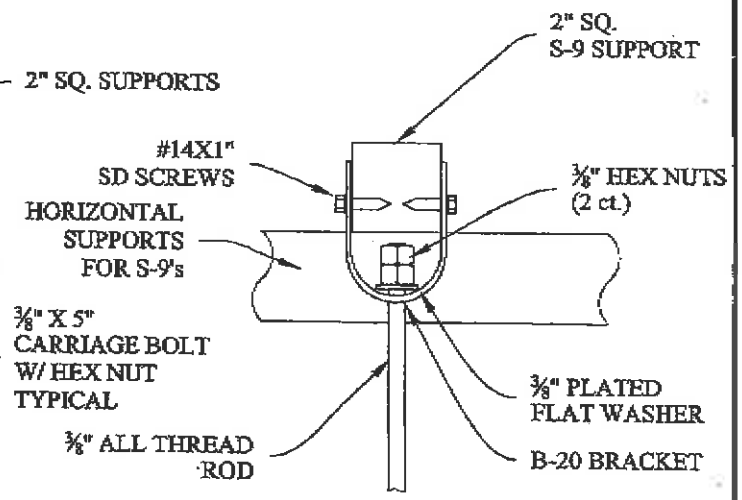
10093 LEGGY DR. NORTH GLENN, COLORADO 80233 (303) 457-0199

NEXUS

SLANT WALL EXHAUST FAN INSTALLATION







1. WHEN THE SHADE SYSTEM IS CLOSED THE HEATER SUPPORTS CLEAR THE CIERATIN.
2. VERIFY THE DISTANCE BETWEEN THE HEATER AND THE GABLE END AS PER HEATER MANUFACTURER.
3. THE HEATER PLACEMETN SHOULD BE A MINIMUM OF 12" AWAY FROM CURTAIN IN RETRACTED MODE.

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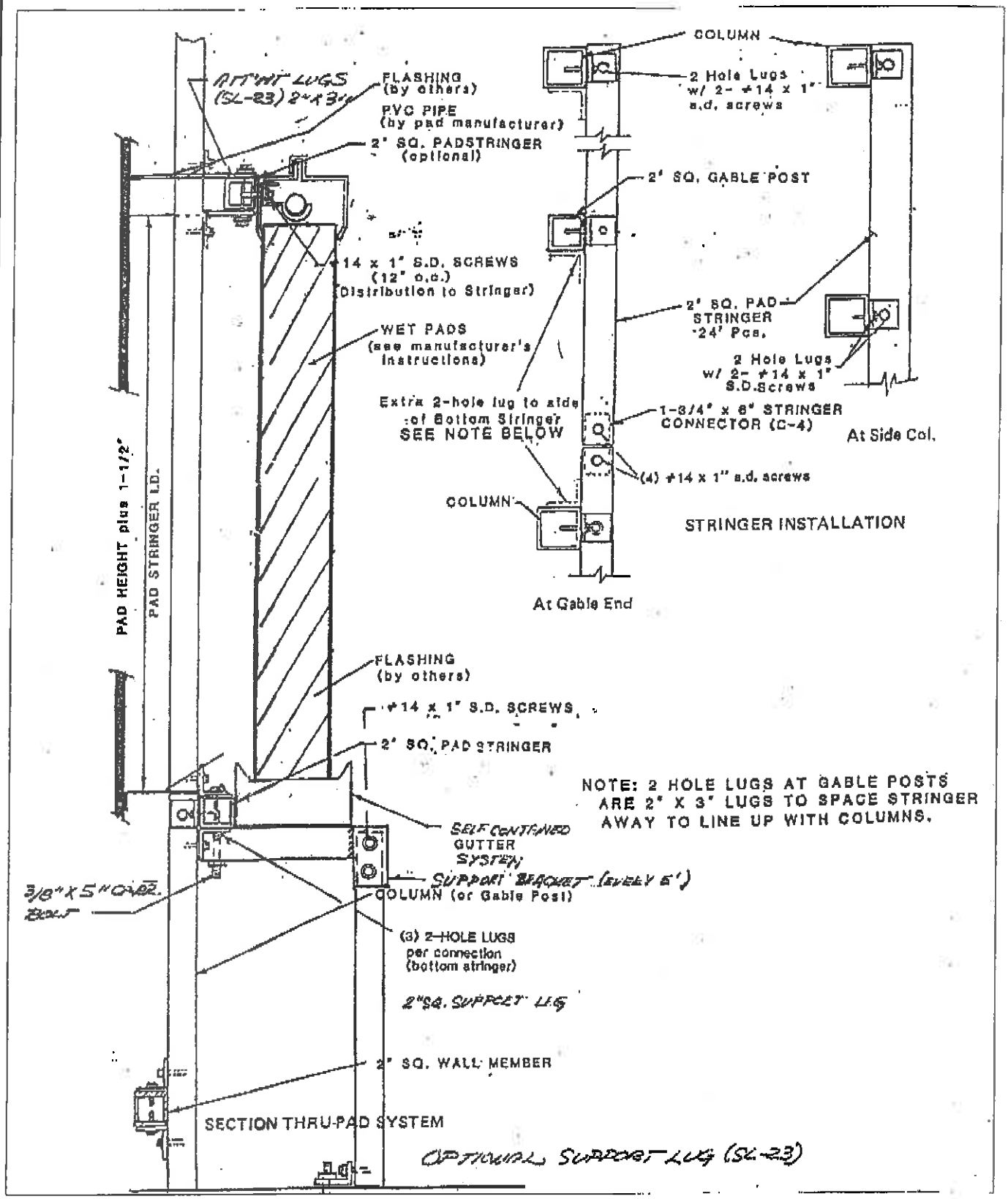
REVISION 01/15/09

NEXUS GREENHOUSE CORPORATION
NEXUS
10983 LEROY DR. NORTHGLENN, COLORADO 80233 (303) 457-9100

HEATER INSTALLATION WITH S-9 SUPPORTS WITH TRUSS-TO-TRUSS SHADE SYSTEM



PAD STRINGER INSTALLATION
QUIETAIRE SELF-CONTAINED SYSTEM

NEXUS
(303) 457-3199

NEXUS GREENHOUSE CORPORATION
10083 LEROY DR.
NORTHGLENN, COLORADO 80233

PAGE EQ7-A
DATE 01/15/09

505 North Hutchesson, Houston, Texas 77003-1396, Phone: 713 228-9421, Fax: 713 228-9425

INSTALLATION INSTRUCTIONS FOR QUIETAIRE STAINLESS STEEL COOLING SYSTEM

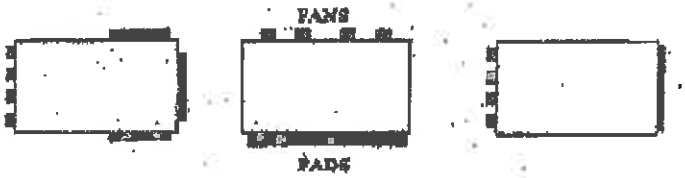
COMPONENTS

1. Cooling Pads - Pads come 4" thick and 12" wide x 24", 36", 48", 60", 72" high. Pads may be stacked for higher system.
2. Trough, pump, piping and top cover are furnished with kit.
3. Customers must furnish framing material.

LOCATION OF THE FAN AND PAD SYSTEM

The cooling pads should be placed in the opposite wall from the fans and should be no more than 250 feet apart to avoid excessive temperature rise and air velocity. The top of the pads should be located near the top of the items to be cooled.

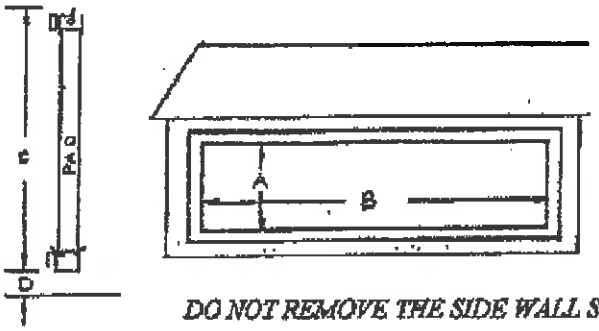
TYPICAL LAYOUT WHEN PAD TO FAN DISTANCE IS 250' OR LESS



TYPICAL LAYOUTS WHEN PAD TO FAN DISTANCE EXCESS 250'

A quality product that lives up to its name

FRAME THE OPENING



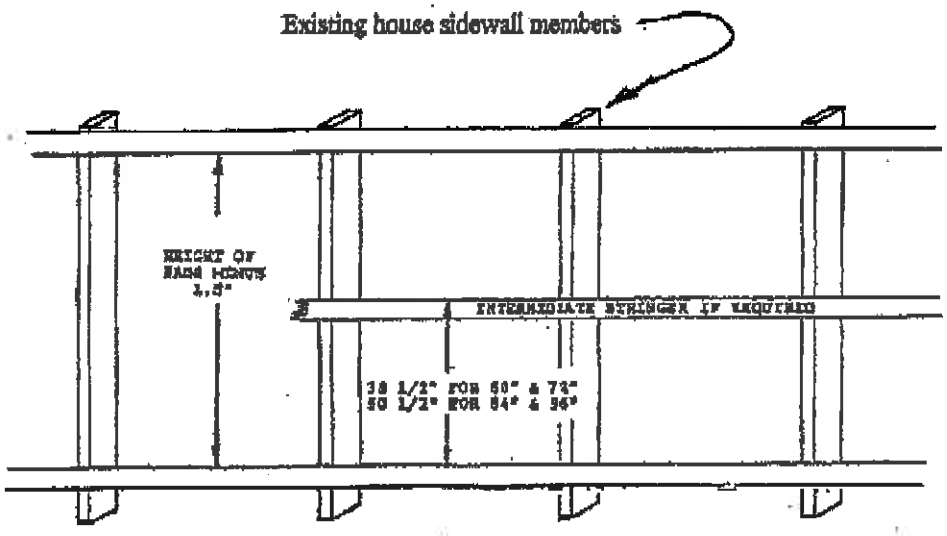
A = Height of the pad minus 1.5"
B = Length of the system
C = Pad height plus 7"
D = Clearance for pump suction

DO NOT REMOVE THE SIDE WALL STRUCTURAL MEMBERS

SUPPORT STRINGERS

The support stringers can be metal or wood and should provide a flat surface for mounting support brackets. The lower stringer should be strong enough to support 2 3/4 pounds per square foot of pad if the trough is to be hung on a stringer with brackets. The trough can also be set on blocks. The trough must be installed level.

When pads over 48" tall or two pieces are used an intermediate stringer 3/4" thick must be installed to prevent pads from blowing out. See drawing below



3/6.99

SUMP TANK

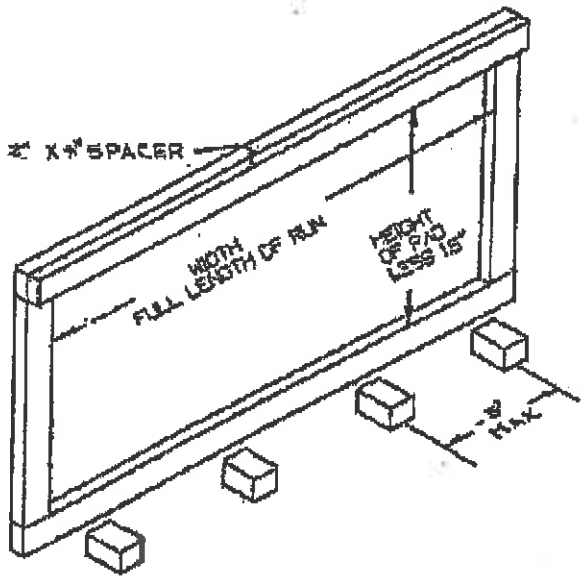
There is no need for a water collecting sump or reservoir as the trough has sufficient capacity to act as such.

INSTALLING THE SYSTEM

After all the framing has been installed and dimensions have been checked the system components can be installed. Locate all of the packages of the system and sort out the basic package that contains the fittings, end caps, the trough with pump suction hole etc. Start with this package.

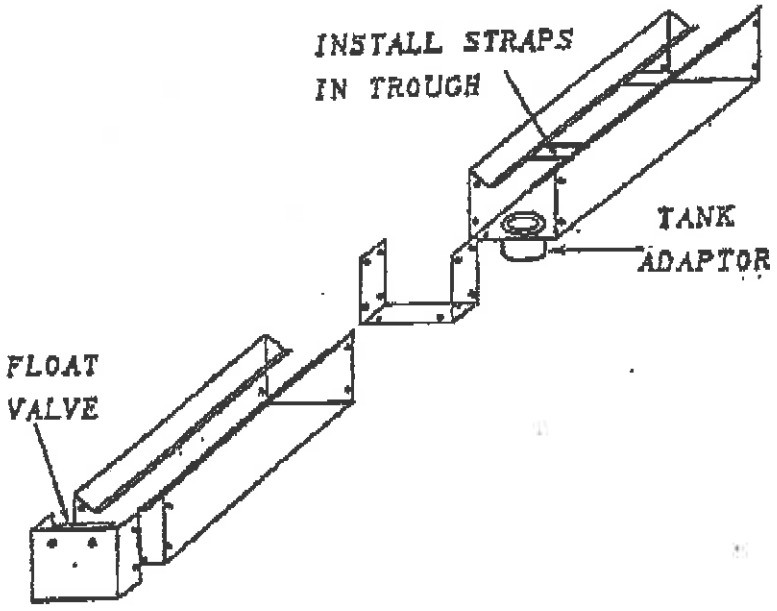
INSTALLING THE TROUGH SUPPORT

Set support blocks on a level line and place trough on the blocks



INSTALLING THE TROUGH

Install the end caps in the two sections of trough you have selected for the end sections with the mastic strips as shown. Install the end cap that will have the float valve mounted in it where you wish to bring in the water supply. Install the tank adaptor as shown. The tank adaptor may be installed at the end of short runs (up to 40') but should be in the center of longer runs.



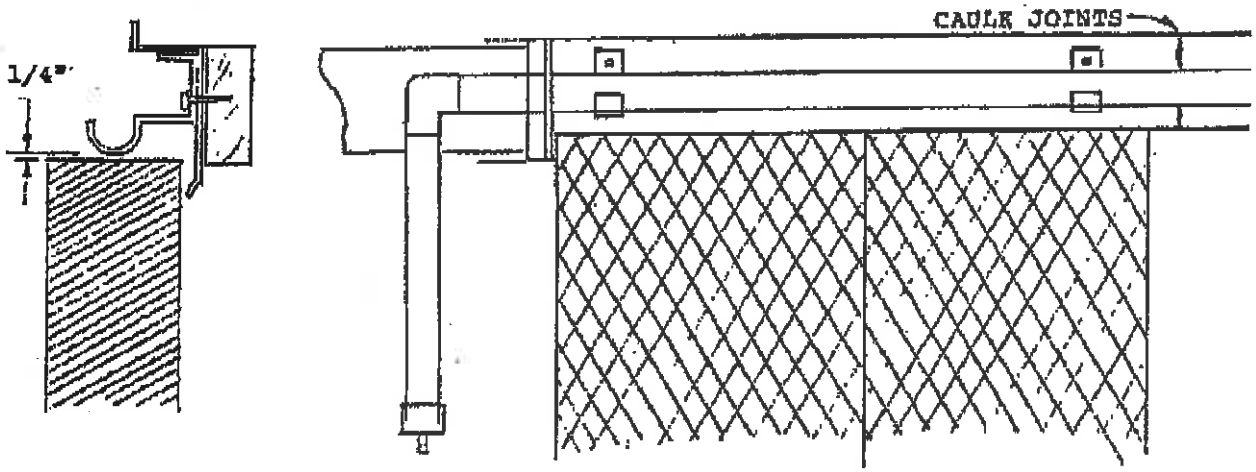
Note: No tank adaptor required when a sump pump is installed in the trough.

Place the mastic strips inside of the u connector and bolt together with the trough.

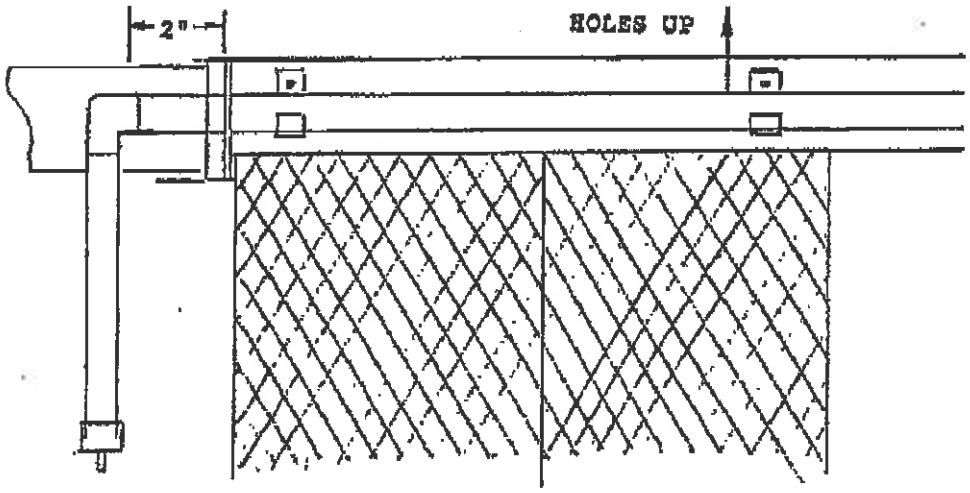
NOTE: The trough, trough ends and u connectors must be cleaned of the oil film or the mastic strips will not stick and seal.

INSTALLING THE TOP OF THE SYSTEM

Place a pad (2 if double stacked) at each end and in the middle of the trough. Next using a top cover back and pipe support mark the location of the mounting hole at each end and the middle of the system and run a chalk line through these marks. Use this line to line up the top cover back and pipe supports and install with 1/4 x 1 1/4 screws. Caulk the top cover back joints as shown.

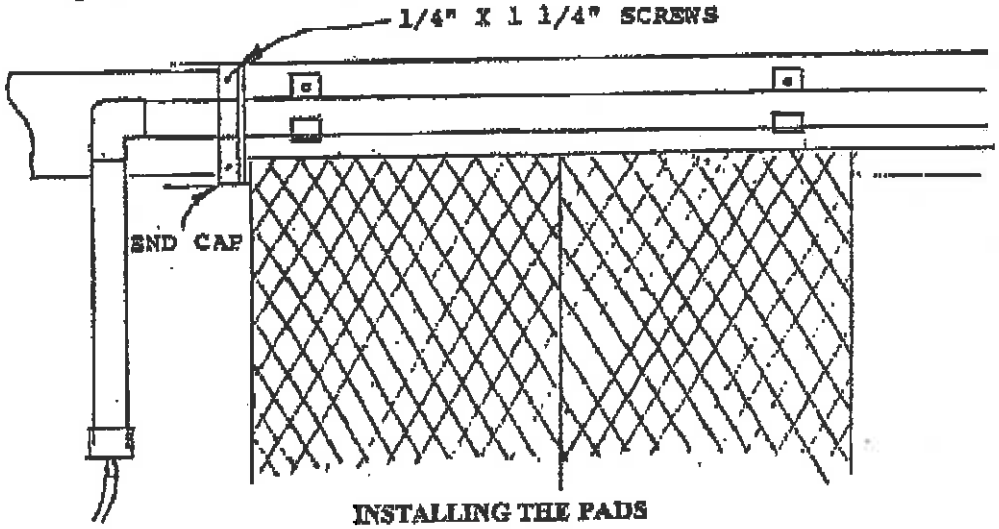


INSTALLING THE DISTRIBUTION PIPE



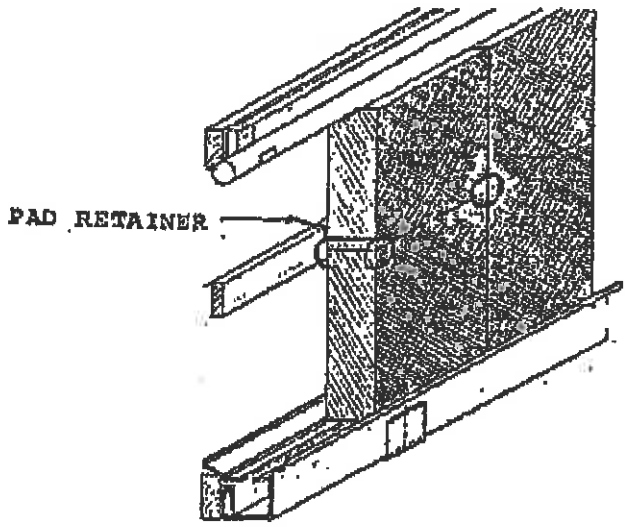
INSTALLING THE DISTRIBUTION PIPE Con't

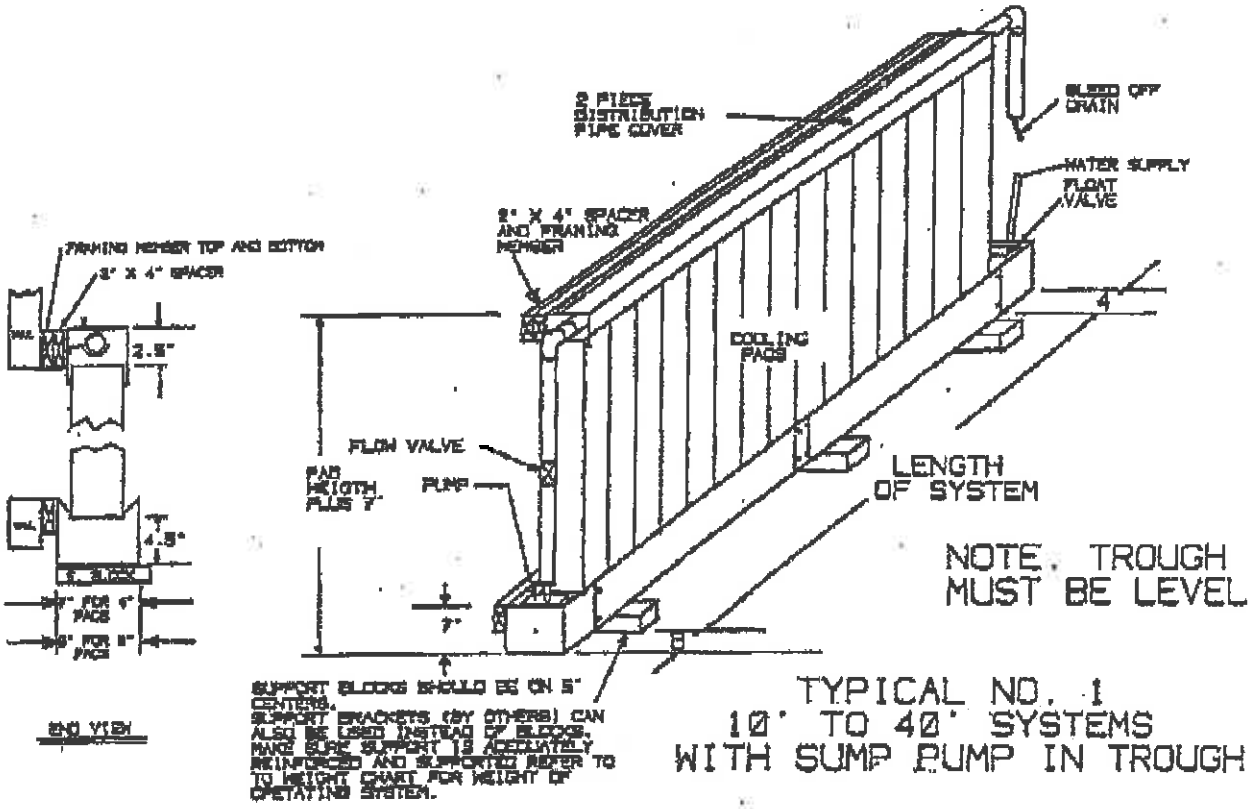
Install the end cap over the distribution pipe and secure with 2-1/4 x 1 1/4 screws as shown. Next cement an elbow, 2' piece of pipe and the treaded adapter to the distribution pipe as shown. Screw the bleed off fitting into the threaded adapter and attach the bleed off tubing as shown. The bleed off tubing should run to the out side of the housed or to a drain.



INSTALLING THE PADS

Place the pads in the trough so that they sit on the support lip. If 5' or taller one piece or two piece pads are used pad retainers are required. Install the retainers as shown on the drawing. To install or remove the pads, simply rotate the retainers 90 degrees.





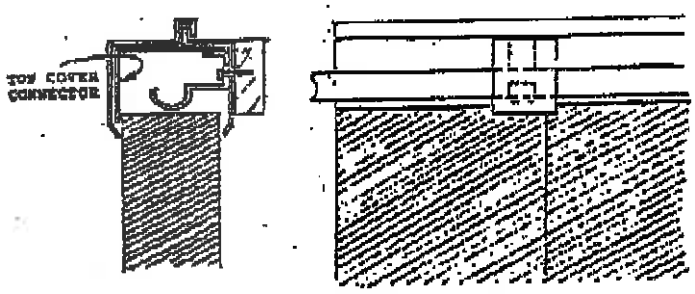
TYPICAL NO. 1
10' TO 40' SYSTEMS
WITH SUMP PUMP IN TROUGH

Wet pads and trough system weight per foot in pounds

Height	4" pads	6" pads
3'	21	28
4'	24	32
5'	27	36
6'	30	40

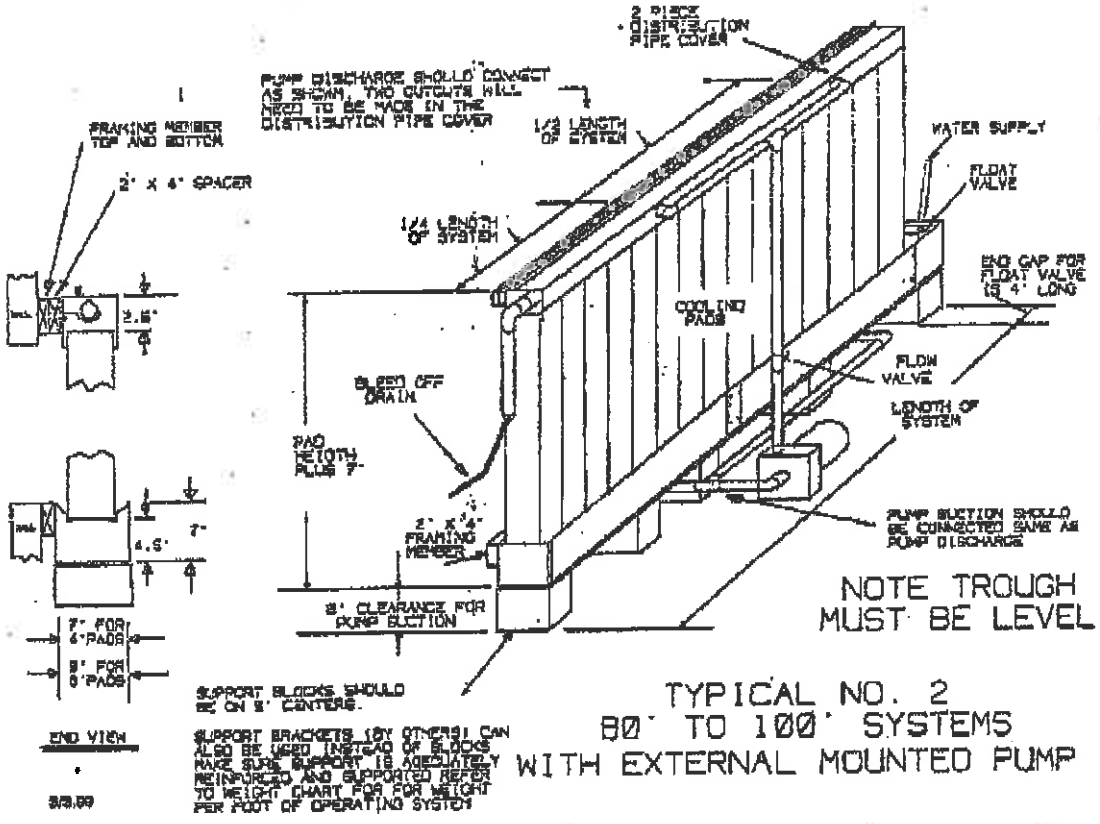
INSTALLING THE FRONT OF THE TOP COVER

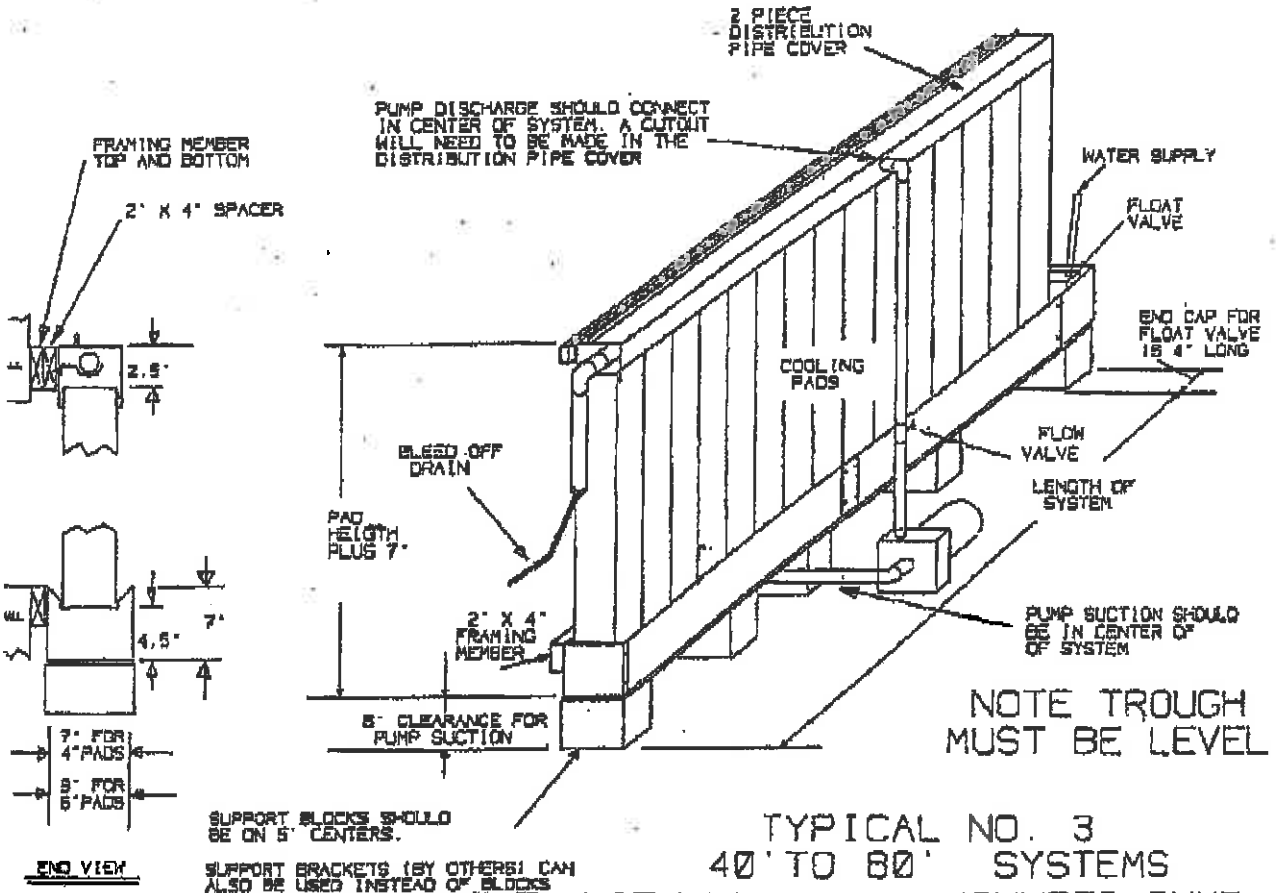
Install the first top cover section, the insert a top cover connector leaving half of it sticking out. The half sticking out will be covered with the nest top cover. Continue this process until all of the top cover is installed.



PLUMBING INSTALLATION

All items for installing the plumbing are included with the system. Refer to the drawing for assembly.

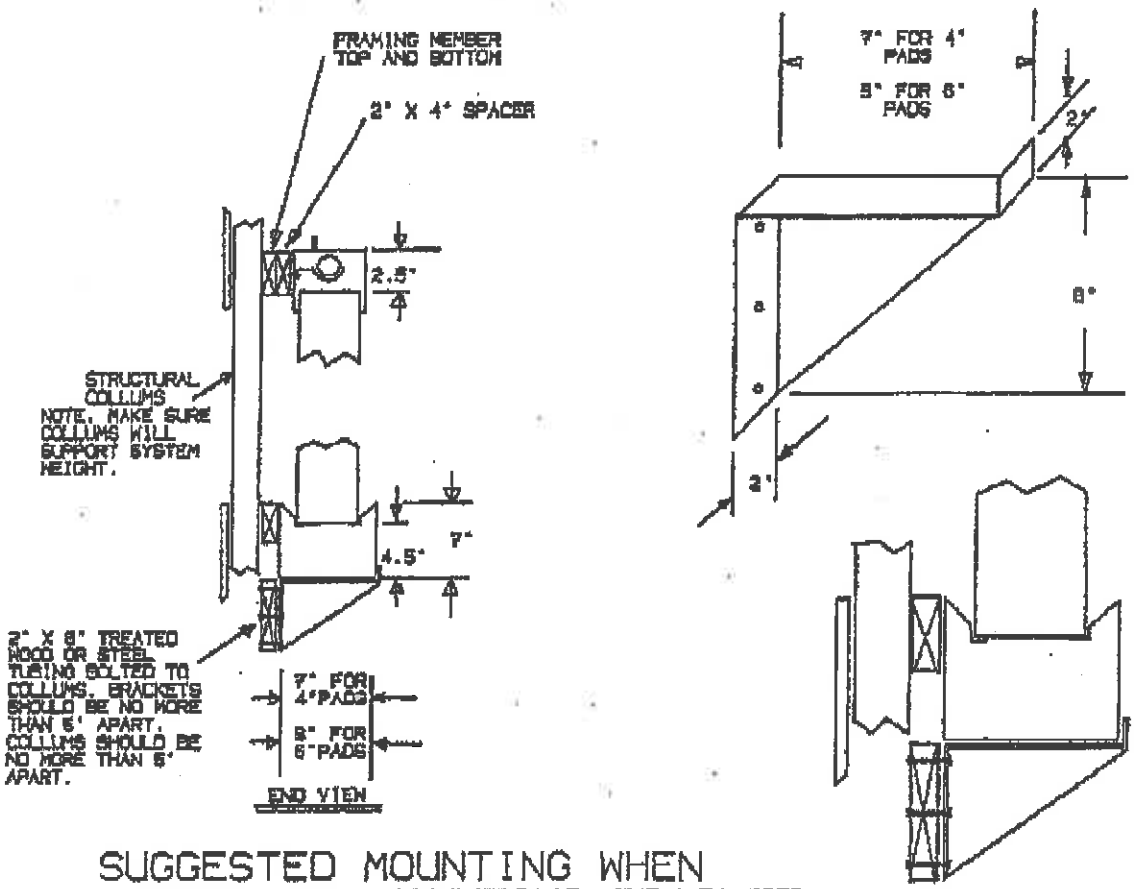




NOTE TROUGH MUST BE LEVEL

SUPPORT BRACKETS (BY OTHERS) CAN ALSO BE USED INSTEAD OF BLOCKS MAKE SURE SUPPORT IS ADEQUATELY REINFORCED AND SUPPORTED REFER TO WEIGHT CHART FOR FOR WEIGHT PER FOOT OF OPERATING SYSTEM

TYPICAL NO. 3
40' TO 80' SYSTEMS
WITH EXTERNAL MOUNTED PUMP



SUGGESTED MOUNTING WHEN USING OPTIONAL MOUNTING BRACKETS NOT INCLUDED WITH TROUGH SYSTEMS ORDER PART NO. TRMB1-4" OR TRMB1-6"WM

STARTING UP THE SYSTEM

1. Turn on the water supply and let the trough fill up through the float valve. Set the float valve so the water level is 1" to 2' below the pad support lip in the trough. Refer to the instructions packed with the float valve.

2. Prime the pump.

3. Run the system with the end plugs of the distribution pipe removed to flush out the system. Turn off the pump and replace the plugs.

4. Turn the pump back on and make sure all the distribution holes are open. Turn the pump off and install the distribution pipe front cover.

5. Turn the pump back on and adjust the flow valve so all the pads are wet.

6. If the flow valve is open too much water will leak out at the point where the top cover contacts the pads.

MAINTENANCE

1. Drain the trough and system as required to remove sediment.

2. Make sure all parts of the system are working properly. Flow valve, pump, float valve, etc.

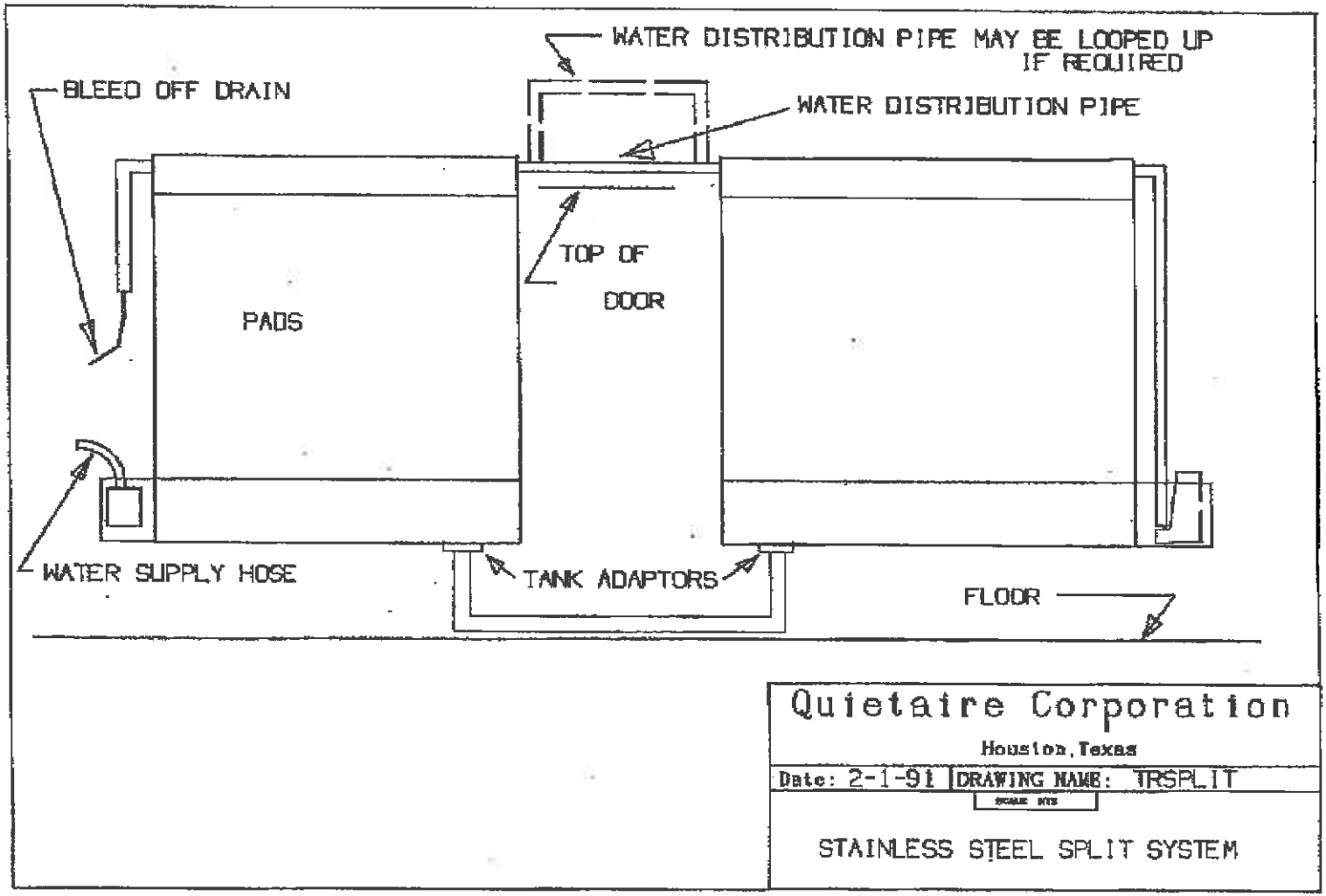
3. Check pads for algae growth. To prevent algae growth follow these suggestions.

   A. Use chlorinated make up water or well water. Do not use water form stock ponds.
   B. Run fans until pads are dry after turning off system.
   C. Keep the pads shaded to prevent sunlight form promotion algae growth.
   D. An algaecide may be added if necessary.

4. Maintain PH of the water between 6 and 9 to prevent damage to the pads.

5. Keep the sodium chloride concentrate (salt) below 40,000 ppm to prevent build up on the pads.

6. If pads are within reach of livestock or poultry a guard should be installed.


WATER DISTRIBUTION PIPE MAY BE LOOPED UP IF REQUIRED
BLEED OFF DRAIN
WATER DISTRIBUTION PIPE
TOP OF DOOR
PADS
WATER SUPPLY HOSE
TANK ADAPTORS
FLOOR
Quietaire Corporation
Houston, Texas
Date: 2-1-91
DRAWING NAME: TRSPLIT
STAINLESS STEEL SPLIT SYSTEM

TWINWALL STRUCTURAL SHEETING ROOF INSTALL

HOUSE WITH RIDGE (VAIL, GRAND TETON & TETON)

1) Prepare roof rail extrusion (12'-0" piece) for installation by drilling 3/16" weep holes every 16" O.C.

2) Install roof rail starting at the outer edge of truss, attaching with #14 x ¾" SD screws every 16" O.C. being sure that butyl tape has been applied to the roof rail beforehand.

3) Begin to install 1st bar base at gable truss by bolting it down to the roof rail with (2) ¼" x ¾" hex bolts using the outside edge of the gable truss as a guide. Continue to attach base extrusion at the roof purlins with (2) #14 x 1" SD screws by attaching the base to the lowest leg of ridge extrusion with (2) ¼' x ¾" hex head bolts. (Note if vent is utilized, attach base to vent closure.) Note: it is a good idea to use roof sheet as a guide along the edge of the base extrusion to insure it is straight.

4) Mark out for next base extrusion being sure to add ¾" to the width of the sheet. (example: 72" wide sheet + ¾" space of base) You may measure the previous base to the outside edge of the next base. Attach as previously outlined.

5) After completing the base installation, prepare bar caps and end caps for installation by first drilling a 3/16" hole 1-1/2" from the end at the center groove and then every 12" O.C. thereafter.

6) Install black gasketing into bar caps and end caps making sure an inch of gasket extends past each end which must be compressed as there are installed to compensate for any shrinkage. (Draw gasket from one end to the other.) DO NOT use silicone sprays or WD-40.

7) With the sheeting ready to be installed, the sheet spacers may be installed on each roof purlin. The spacer is an EPDM 1"sq. with a ¼" hole, with an adhesive backing. Be sure the purlin surface is clean. Sheets have a UV treated surface to be exposed to the outside. Be sure it is installed properly!

8) Proceed with a roof sheet to one end of the building and remove 1" of the protective film from top and bottom sheet. Adhere aluminum tape to top and permeable tape to bottom edge. Insert the bottom edge of the sheet into the roof rail allowing it to seal at the bottom of slot. Allow the sheet to lay on the purlins and insert it into the aluminum ridge extrusion, (or vent closure sill if present). Check sheet for proper length, the sheet should lay flat on all purlins and not buckle. If it is long, cut the sheet and reapply foil tape as described previously. Remove protective masking film from both top and bottom surfaces.

9) Install the #14 x 1-1/2" SD screws at the purlins with large metal neoprene washers. (These are separate items and assembled rubber side towards sheet.) space screws according to blueprints. Starting at the lowest purlin and working toward the top of the sheet being sure not to over tighten (crushing the cells). Install the #14 x 1" WG/SD screws every 12" at ridge.

10) Install aluminum end cap at gable end starting at the roof rail and work toward the peak using #10 x 11/16" ST/SD screws in predrilled 3/16" holes in caps. Screw will bottom out in groove of the base extrusion. Be sure gasket is compressed and above roof rail lip, as shown on details.

11) Proceed to the next sheet and repeat procedure installing bar caps as you go.

12) Clean sheet at the roof rail and install a continuous bead of silicone caulking to seal roof rail. Note: Polycarbonate sheeting will scratch. Care must be taken in handling sheets.

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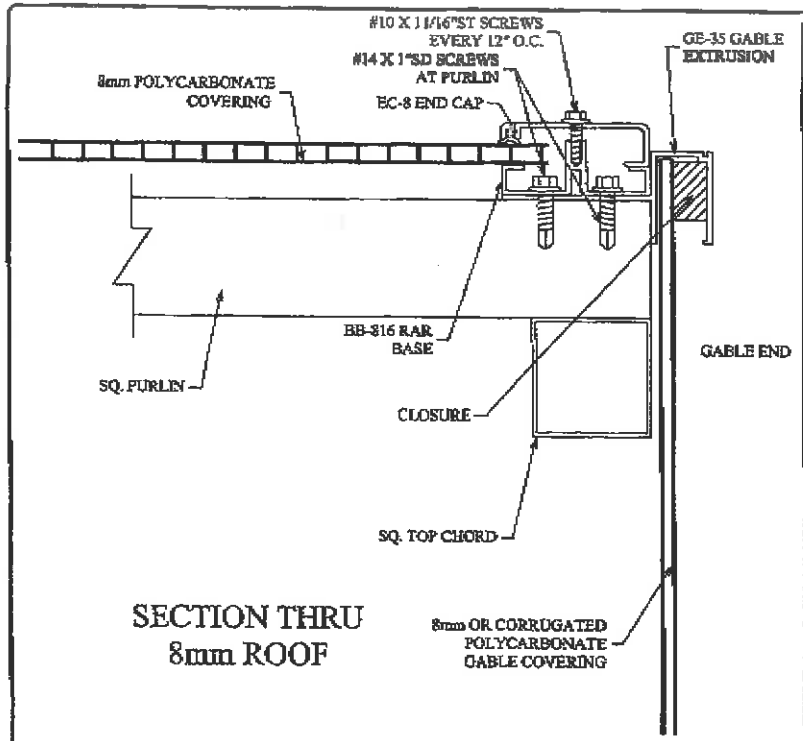
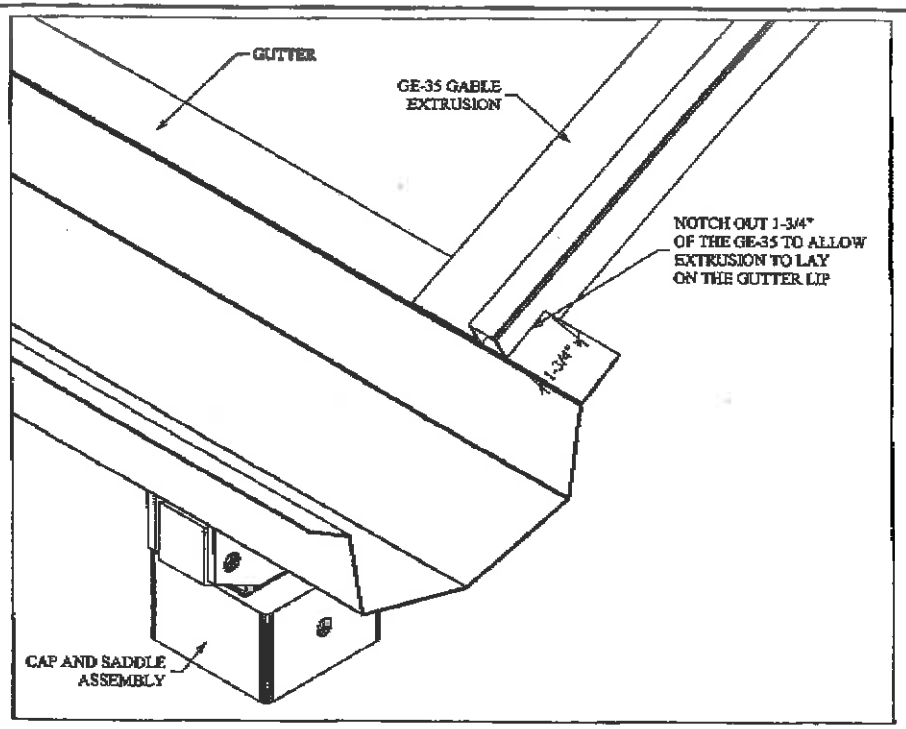
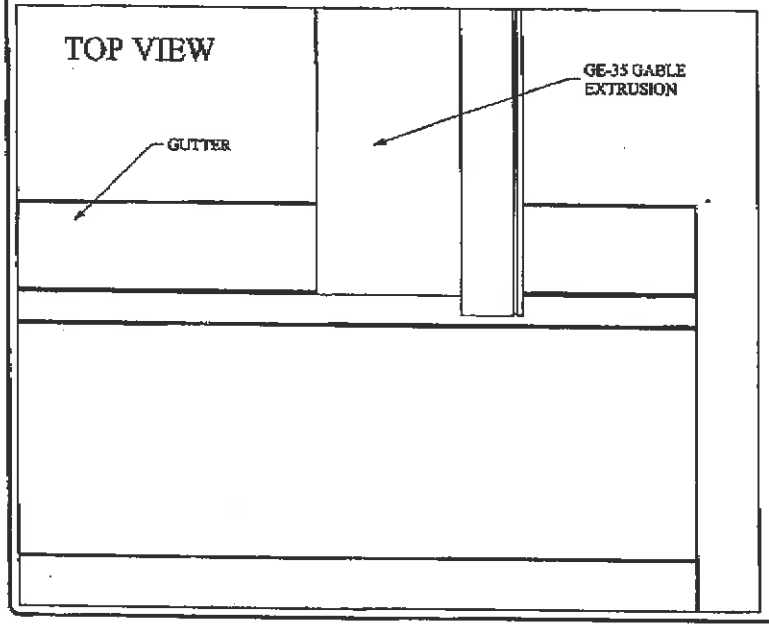
FORM CVR1-A
DATE 01/16/09

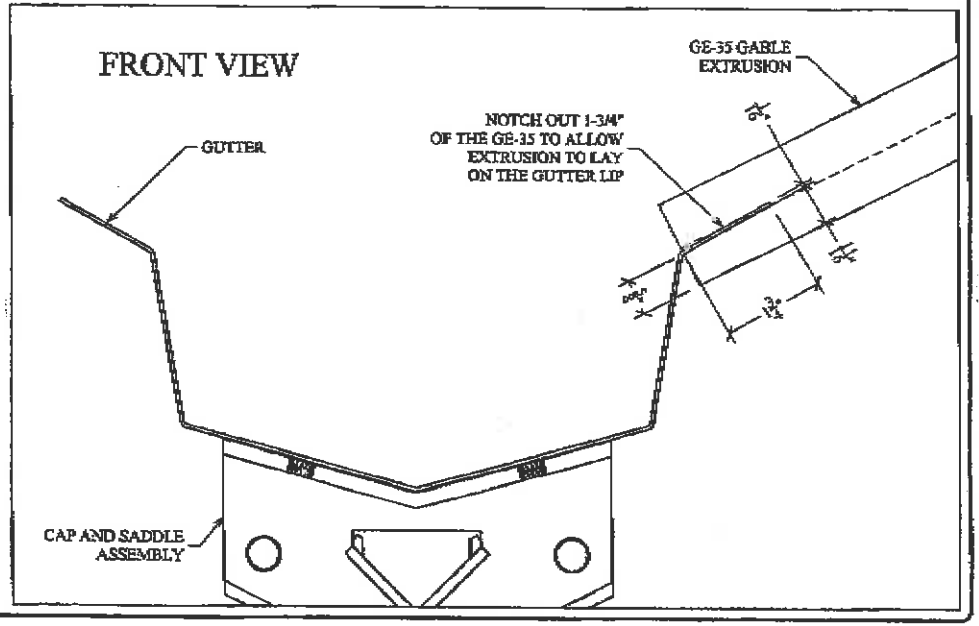
TWINWALL SHEET INSTALLATION
FOR THE VAIL STRUCTURE



SECTION THRU
8mm ROOF







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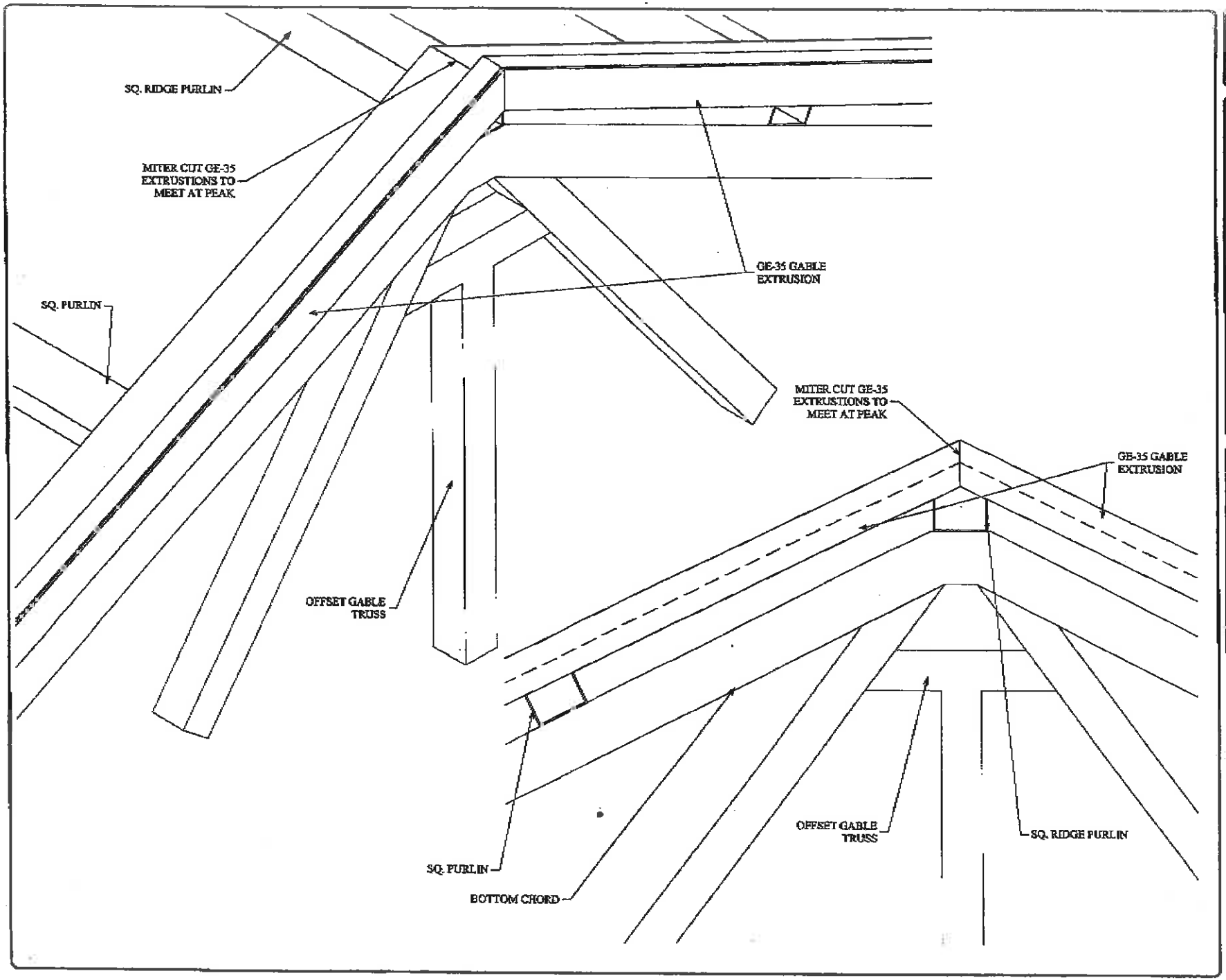
DATE 01/16/09

NEXUS GREENHOUSE CORPORATION
10988 LEROY DR.
NORTHGLENN, COLORADO 80233
(303) 457-9190

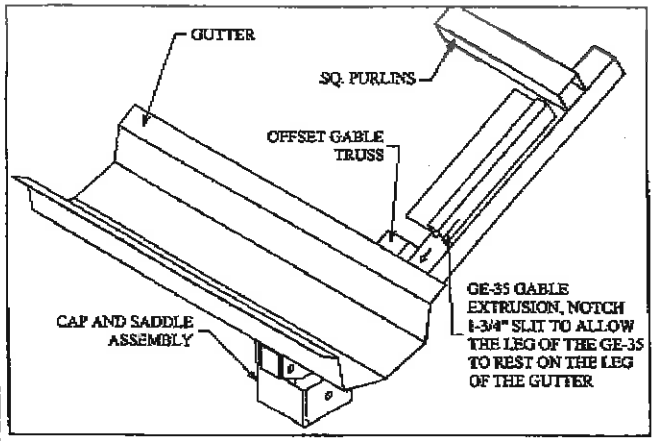
GE-35 EXTRUSION INSTALLATION
W/ 8mm POLYCARBONATE ROOF COVERING

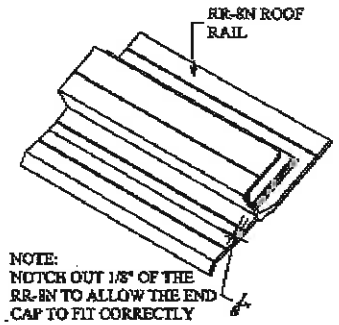


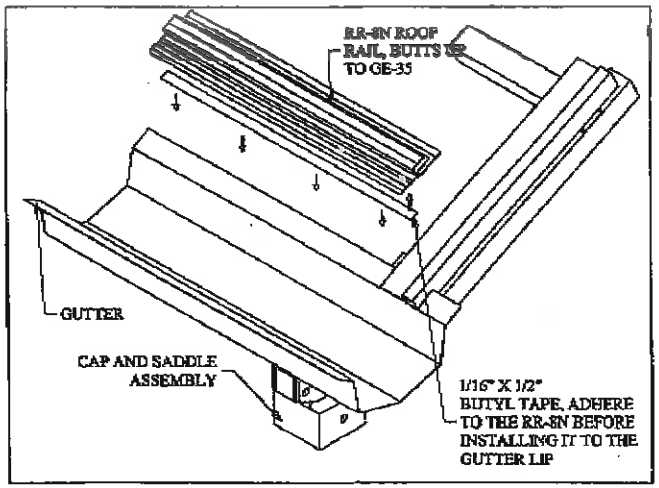
FAB# CVR2-F
DATE 01/16/09

NEXUS GREENHOUSE CORPORATION
10983 LIVINGSTON
NORTH GLENN, COLORADO 80233
NEXUS
(303) 457-9199

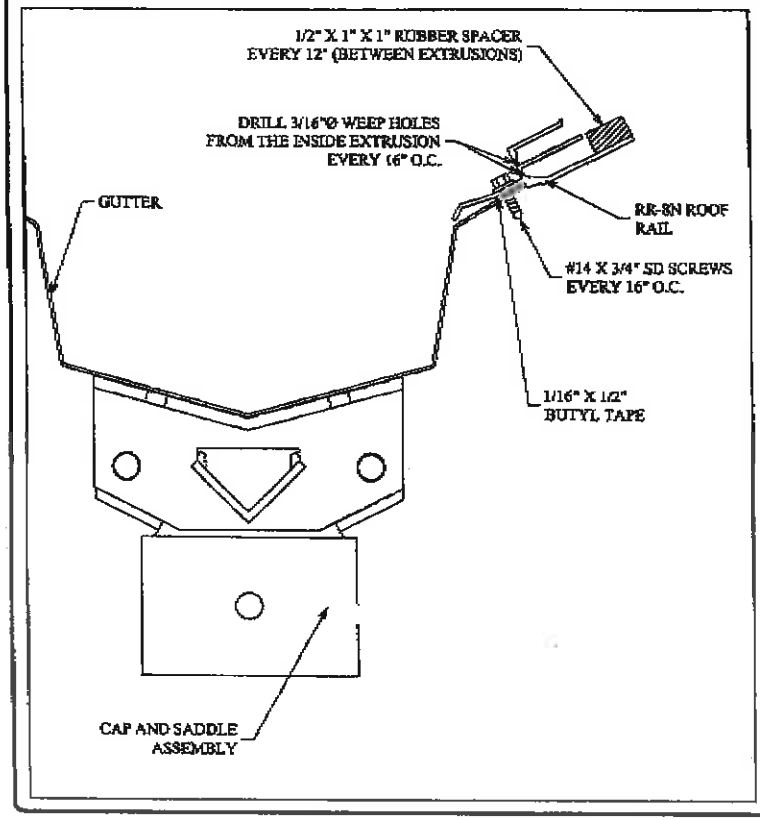
GE-35 EXTRUSION INSTALLATION
MITER CUT AT PEAK

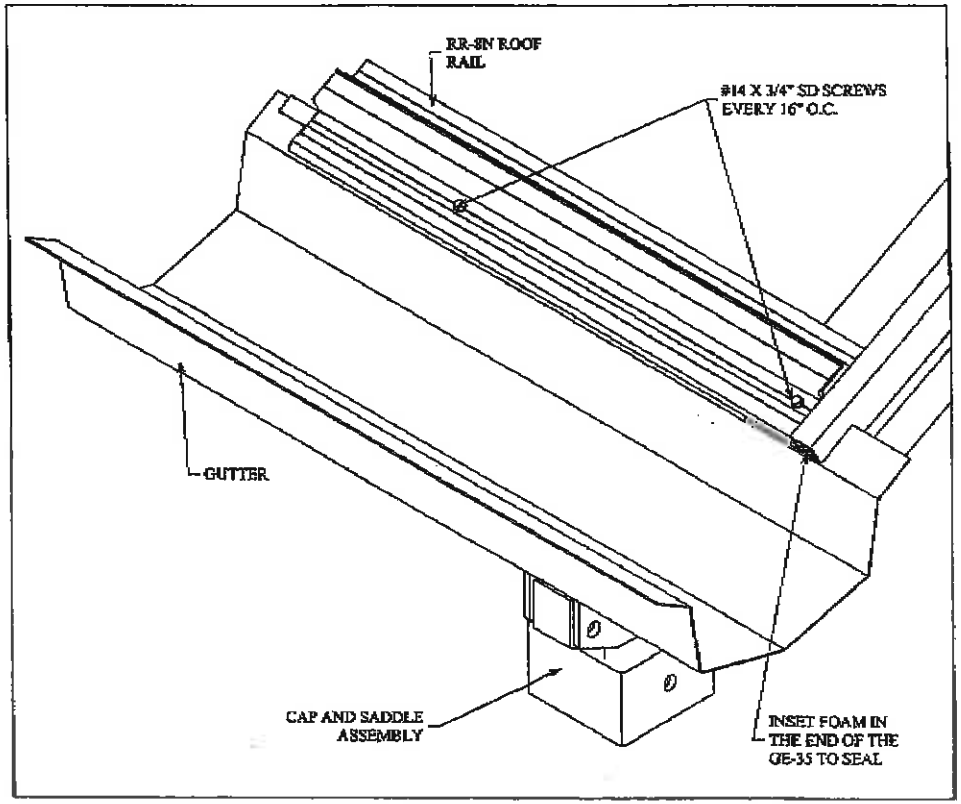






NOTE:
INSTALL ROOF RAIL AND VENT CLOSURE BEFORE THE BAR BASE EXTRUSIONS. BAR BASE AND CAP ARE SHIPPED OVER LENGTH AND REQUIRE FIELD CUTTING





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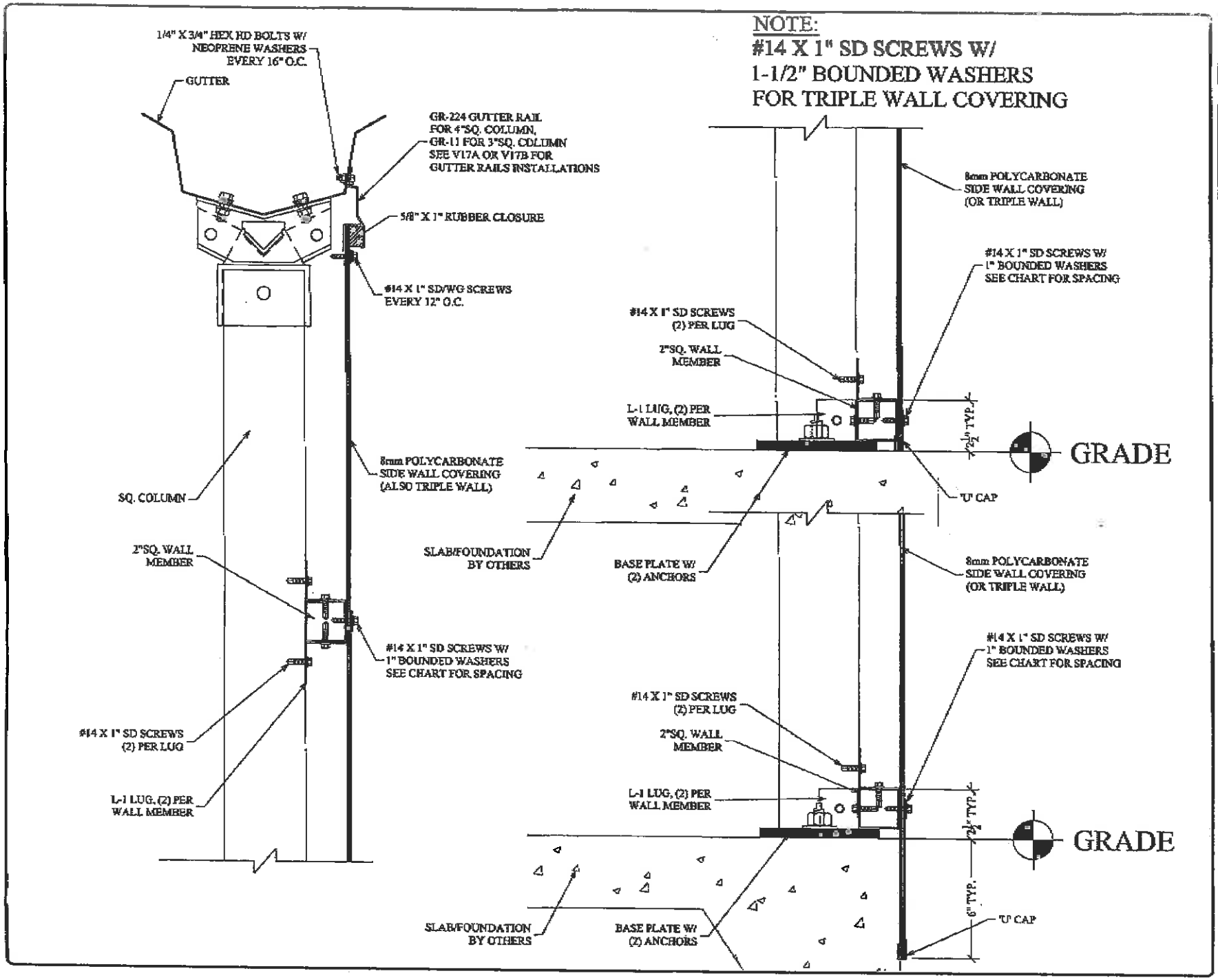
NEXUS GREENHOUSE CORPORATION
10881 LEROY DR.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 451-8100

GE-35 EXTRUSION INSTALLATION W/ ROOF RAIL EXTRUSION



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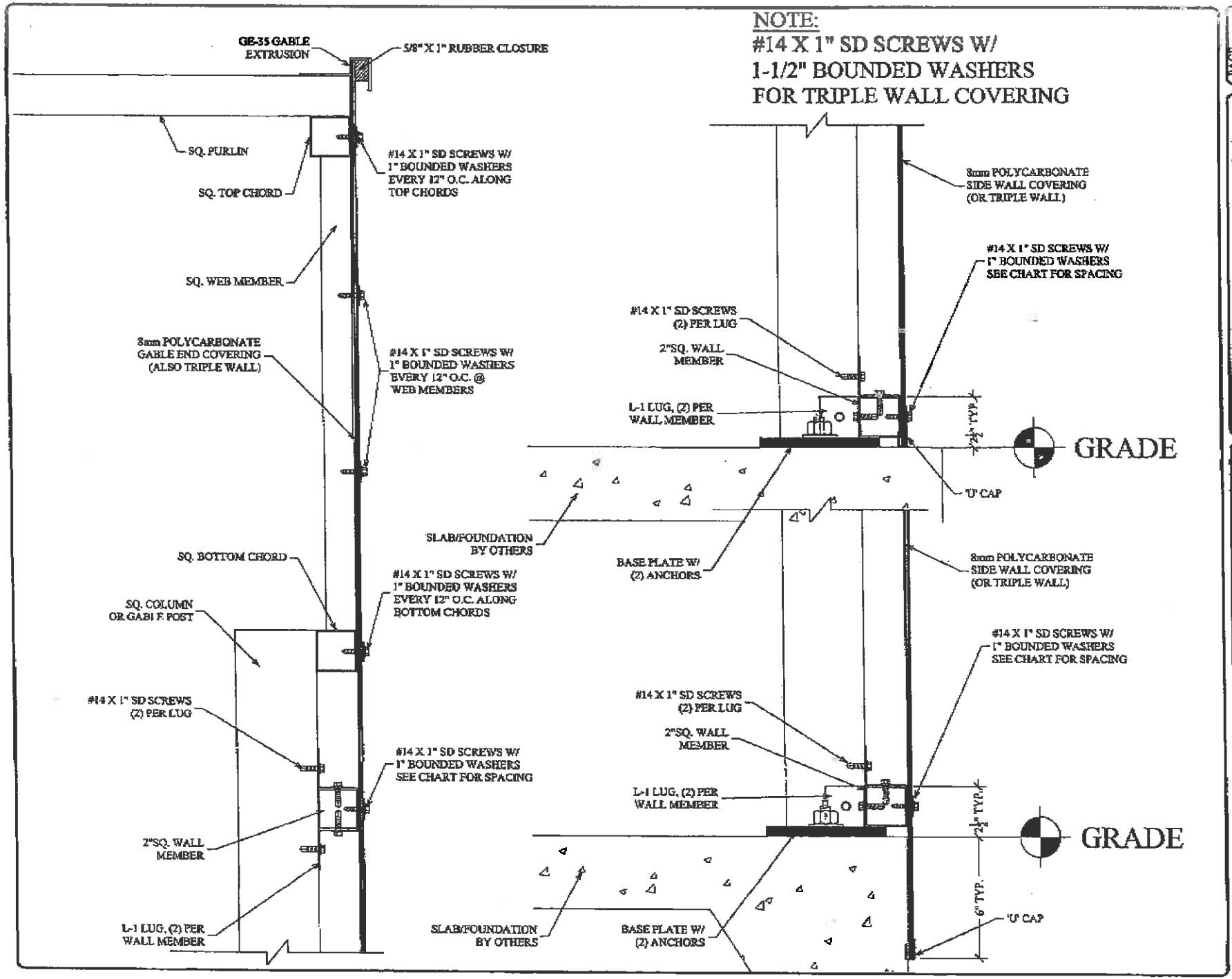
DATE 01/16/09

NEXUS GREENHOUSE CORPORATION
10543 LEROY DR.
NORTHGLENN, COLORADO 80233
NEXUS
(303) 457-9199

8mm POLYCARBONATE SIDEWALL COVERING INSTALLATION W/ BASE PLATES



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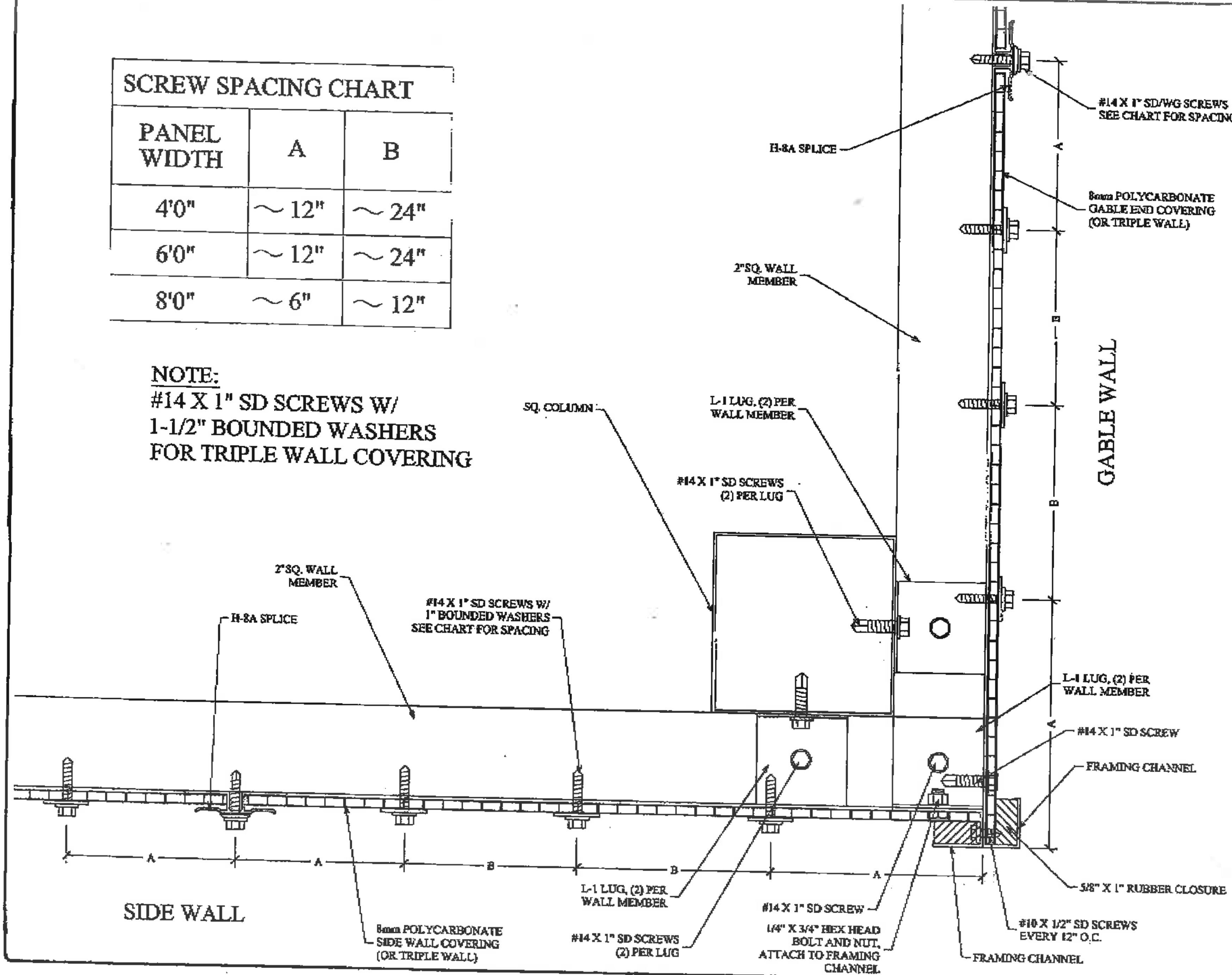
NEXUS GREENHOUSE CORPORATION
NEXUS
NORTH GLENN, COLORADO 80233
(303) 451-8189

8mm POLYCARBONATE GABLE END COVERING INSTALLATION WITH BASE PLATES

SCREW SPACING CHART		
PANEL WIDTH	A	B
4'0"	~ 12"	~ 24"
6'0"	~ 12"	~ 24"
8'0"	~ 6"	~ 12"

NOTE:
#14 X 1" SD SCREWS W/
1-1/2" BOUNDED WASHERS
FOR TRIPLE WALL COVERING



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DATE 01/16/09

NEXUS GREENHOUSE CORPORATION
10983 LEROY Dr., NORTHGLENN, COLORADO 80233
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(303) 457-9199

8mm POLYCARBONATE CORNER COVERING INSTALLATION