BID/ RFP ADDENDUM
DATE: 03/15/24
BID/RFP No: 2024-08
BID/ RFP TITLE: GREENHOUSE

MERCED COMMUNITY COLLEGE DISTRICT
Chuck Hergenraeder, Dir. Of Purchasing & Risk Mgr.
3600 M Street, Merced, California 95348-2898
Email: purchasingbids@mccd.edu

ADDENDUM 2

This addendum contains clarification and additional information, which modifies the conditions of the above referenced BID/RFQ as follows:

1. **Question:** Is there an Add Alt?
Answer: No Add Alt. Please disregard laboratory case work and shades shown on alternate bid proposals items one and two on page 17 of the Bid.

2. **Question:** Does the District already have the greenhouses and the Instructions?
Answer: Yes, see attached.

3. **Question:** The Summary of Work, page 5 mentions (2) Containers, can you provide more information?
Answer: See Engineer's Addendum 1.

4. **Question:** Can we provide packing lists?
Answer: Yes, see attached.

5. **Question:** Who will fence off the 2 Acre lot?
Answer: Contractor.

6. **Question:** Will the contractor need a 5-year experience minimum to build the large greenhouse?
Answer: Yes, large greenhouse requires contractor or subcontractor to have a minimum of 5 years verifiable experience installing similar types of greenhouses. Please include references with your bid response.

7. **Question:** Will there be a CoolWall or Fans?
Answer: Yes, see attached manual.

8. **Question:** Will there be road access to the greenhouse location?
Answer: Yes, East side facing G Street.

9. **Question:** Large greenhouse is Windandy Greenhouse, what Brand are the (2) smaller greenhouses?
Answer: The smaller greenhouses are Conley's Greenhouse.

10. **Question:** Will the level of the greenhouse floor need to be raised?
Answer: Refer to Bid Specs.

11. **Question**: Is there a Budget?
Answer: N/A

12. **Question:** Is there additional Specs?
Answer: Yes, see attached Additional Bid Specs.

All other bidding contract and construction drawing documents, stipulations, dated and times remain unchanged, in full effect and by reference become a part of this addendum.

SPECIAL NOTE:

It is the responsibility of each Bidder to acknowledge all addenda by signing below and submitting a copy of each addendum with their respective bid.

I HAVE READ AND UNDERSTAND THESE MODIFICATIONS TO THE ABOVE BID:

_____

All other bidding contract and construction drawing documents, stipulations, dated and times remain unchanged, in full effect and by reference become a part of this addendum.

GREENHOUSE
MEGASTORE

SHIPMENT

Shipment Number: SSH0762992
Shipment Date: 11/21/2023

Bill
To: Merced Comm College Dist
Andrew Codd
3600 M St
Merced, CA 95348
USA

Ship
To: Merced Comm College Dist
Andrew Codd
3600 M St
PO 0050858
Merced, CA 95348
USA

Ship Via

Customer ID C003129
P.O. Number PO 0050858
P.O. Date 10/12/2023
Our Order No. SO00080563
SalesPerson Nathan George

Item No.	Description	Unit	Shipped	Ordered	Back Ordered
CF-246P-S448	24' Premium 1200 Series Cold Frame Pkg, 6' Walls 24' x 48' w/6' Sidewalls, 6' Centers	Each		2	2
DR-PL20S-3068	Plyco Series 20 Insulated Door 3'W x 6' 8"H Includes Falcon Lever/Lockset Includes ADA Threashold Includes Commander Pack RHOS	Each		2	
DR-TR944WL8-X-8M	Trac-Rite 944WL Roll-Up Door 8'W x 8'H, motorized 944WL, DR, 8-0x8-0, BWHT Model: 944WL Size: 8-0 x 8-0 Guides for 8-0 Opening Color: Bright White Mounting Surface: Metal (1) Space Guard Latch Draftstops Brush Seals Touch-up Paint Winding Bar Shaft Extension Bottom Bar Weight	Each		2	

checked for invoice 11/19/24 Luis Olivier

Warehouse Activity Header: Type: Pick. No.: PK0584182..PK0584182

Location Code SA-CA
No. PK0584182

Assigned User ID
Sorting Method Shelf or Bin

Ship To: C003129
Merced Comm College Dist
Andrew Codd
3600 M St
PO 0050858
Merced, CA 95348
USA

Sales Order: SO00080563
Assembly Order: A088300

Due Date	Item No.	Parent Item	Description	Zone Code	Bin Code	Qty. (Base)	Qty. Handled
10/12/23	PC-CL-C	CF-246P-S448	Corrugated Foam Closures	PICK	A01-1A	50	50
10/05/23	EV-QF	EV-SS6-01	Quietaire Evap System Filter	PICK	B01-1A	2	2
10/12/23	PCP-AC-10	CF-246P-S448	Top Sealing Aluminum Tape 1" x 150'	PICK	B01-3D	2	2
10/12/23	PCP-AC-10		Top Sealing Aluminum Tape 1" x 150'	PICK	B01-3D	1	1
10/12/23	PCP-AC-20	CF-246P-S448	Vent Tape 1.5" x 108'	PICK	B01-3E	2	2
10/12/23	PCP-AC-20		Vent Tape 1.5" x 108'	PICK	B01-3E	1	1
10/05/23	EV-QP	EV-SS6-01	Quietaire Evap System Pump	PICK	B01-4F	2	2
10/05/23	SN-TMA-15	EV-SS6-01	PVC Threaded Male Adapter for 1-1/2" pipe (schedule 40)	PICK	B02-2D	6	6
10/05/23	EV-TMB-4	EV-SS6-01	Evap System Trough Mounting Bracket for 4" & 6" pads	PICK	B02-2E	6	6
10/05/23	EV-TMB-4	EV-SS6-05	Evap System Trough Mounting Bracket for 4" & 6" pads	PICK	B02-2E	2	2
10/12/23	EV-GC1-636		Evaporative Cooling Pads, Coated 1 Side 6" x 36"	PICK	C10-1A	11	11
10/12/23	EV-GC1-636		Evaporative Cooling Pads, Coated 1 Side 6" x 36"	PICK	D11-3A	19	19
10/12/23	CF-SD	CF-246P-S448	Storm Door White 36" x 80-81"	PICK	F04-1A	2	2
10/12/23	CT-VC109	CF-246P-S448	VC109 Two Stage Thermostat	PICK	G01-2K	2	2
10/12/23	FA-VK-12	CF-246P-S448	Schaefer HAF Fan VK12, 12" diameter, 115v	PICK	G03-1A	4	4
10/12/23	FA-SFSH-36	CF-246P-S448	Schaefer Aluminum Shutter 36" diameter	PICK	G05-1B	5	5
10/12/23	FA-SFSH-36		Schaefer Aluminum Shutter 36" diameter	PICK	G05-1B	4	4

Warehouse Activity Header: Type: Pick. No.: PK0584182..PK0584182

10/12/23	GF-9002-PVC	CF-246P-S448	Spring Top Lock-Wiggle Wire 6' 4-1/2" Coated Galvanized Spring-Wiggle Wire	PICK	H01-2		56	56
10/12/23	GF-9002-PVC	CF-246P-S448	Spring Top Lock-Wiggle Wire 6' 4-1/2" Coated Galvanized Spring-Wiggle Wire	PICK	H01-2		32	32
10/12/23	GF-6AC-50100	CF-246P-S448	Thermal AC Greenhouse Film, 6 mil 50' x 100'	PICK	H09-4		2	2
10/12/23	CPC-MAX-513	CF-246P-S448	Dynaglas Solarsoft Max Corrugated Polycarbonate 49.6" x 13'	PICK	K02-3		8	8
10/12/23	CPC-MAX-514	CF-246P-S448	Dynaglas Solarsoft Max Corrugated Polycarbonate 49.6" x 14'	PICK	K02-4		12	12
10/12/23	CF-GA298	CF-246P-S448	Alum Arch End Combo 290" R 24' 1200 Series A0000167	PICK	K02-6		8	8
10/12/23	CF-GA180	CF-246P-S448	Purlin 5" x 12'4" 1200 series 20, 24, 30'w ridge P0000850	PICK	K03-1		8	8
10/12/23	CPC-MAX-510	CF-246P-S448	Dynaglas Solarsoft Max Corrugated Polycarbonate 49.6" x 10'	PICK	K03-2		8	8
10/12/23	CG-CON-KC12W	CF-246P-S448	Kool Cell Girt K0000786 12' long	PICK	K03-5		8	8
10/12/23	CF-GA091	CF-246P-S448	1200 Series Arch 24' (1/2 arch) C0055357	PICK	K04-1		36	36
10/12/23	CF-GA342	CF-246P-S448	Jamb Door Sliding, 12' J0000111	PICK	K04-2		4	4
10/12/23	CF-GA420	CF-246P-S448	Column Tube T-22, 1-5/8" x 14' C0000504	PICK	K04-6		8	8
10/12/23	CF-GA190	CF-246P-S448	Purlin 5" x 12'4" 1200 series 20, 24, 30'w sides P0000860	PICK	K06-1		16	16
10/12/23	CF-GA125	CF-246P-S448	Shutter Fan Support 5" Girt	PICK	K06-1A		8	8
10/12/23	CF-GA861	CF-246P-S448	Cross Tube C0055358 24' 1200 1 pc	PICK	K06-2		14	14
10/12/23	CF-HH-3010	CF-246P-S448	Heater Hanger Tube 2x2x11GA H0030100	PICK	K06-3		4	4
10/12/23	CF-GA700	CF-246P-S448	Eve Girt 12' for 1200 series cold frame	PICK	K07-3		4	4
10/12/23	CF-GA312	CF-246P-S448	Girt 5" x 12' 4" (endwall girt) G0000312	PICK	K08-1		28	28
11/07/23	FA-VRS-1260		Motorized Shutter Kit for 12-60" shutters, #1260 Motor	PICK	L02-1C	33	6	6
10/12/23	FA-IB	CF-246P-S448	Inflation Blower, 60 CFM	PICK	L02-2D		2	2
10/12/23	CF-GA045	CF-246P-S448	Bolt/HH 3/8 x 1-3/4	PICK	L03-0A		14	14
10/12/23	CF-GA170	CF-246P-S448	Nut Hex Coarse 1/2" 1/2-13 Zinc	PICK	L03-0B		36	36
10/12/23	CF-GA060	CF-246P-S448	Bolt/HH 1/2 x 2-1/2 A-307 Zinc	PICK	L03-0E		36	36
10/12/23	CF-GA155	CF-246P-S448	Nut Hex Pltd Coarse 5/16" 5/16-18 Zinc1	PICK	L03-1D		72	72
10/12/23	GA-1005		EPDM Spacer, 100/Bag W9970300	PICK	L03-1E		2	2

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10/12/23	CF-GA250	CF-246P-S448	Turnbuckle T0000132	PICK	L03-1F	4	4
10/12/23	GA-1006A		Glazing Cap Screws #10 x 1/2" 100/bag	PICK	L03-1G	3	3
10/12/23	GA-B3814	CF-246P-S448	Bolt/HH 3/8 x 1-1/4 B9970450	PICK	L03-2B	16	16
10/12/23	GA-B3827	CF-246P-S448	Bolt/HH 3/8 x 2-3/4 B9970510 extra bag?	PICK	L03-2D	8	8
10/12/23	CF-GA460	CF-246P-S448	Tab End Girt T0030890	PICK	L03-2F	16	16
10/12/23	CT-VC15-HRDW	CF-246P-S448	J&D Single Stage Thermostat VC115: hardwired	PICK	L03-3A	2	2
10/12/23	CF-HH-3013	CF-246P-S448	Heater Hanger Threaded Rod 3/8" x 12" H0030130	PICK	L04-0A	8	8
10/12/23	CF-HH-3011	CF-246P-S448	Heater Hanger Angel H0030110	PICK	L04-0B	16	16
10/12/23	CF-HH-1451	CF-246P-S448	Heater Hanger Flat Bar Washer H0021451	PICK	L04-0C	8	8
10/12/23	GA-1010		Tek Screw, #10-16 x 1-1/2 100/bag, with Washer	PICK	L04-0E	3	3
10/12/23	GA-1001	CF-246P-S448	Tek Screw #10-16 x 1-1/4 MAG LIFE	PICK	L04-1A	32	32
10/12/23	CF-GA230	CF-246P-S448	Tek Screw, 10-16 x 3/4" #10 Zinc, HWH w/o washer S9970010	PICK	L04-1B	172	172
10/12/23	CF-GA030	CF-246P-S448	Bolt/HH - 1/4" x 3/4" 1/4-20 Zinc gr5	PICK	L04-1C	72	72
10/12/23	CF-GA034	CF-246P-S448	Carriage Bolt 5/16" x 3-1/2" B9971530	PICK	L04-1D	72	72
10/12/23	CF-GA040	CF-246P-S448	Bolt/HH 3/8 x 1 3/8-16 Zinc gr 5	PICK	L04-1E	72	72
10/12/23	CF-GA050	CF-246P-S448	Bolt/HH 3/8 x 2-1/4 A-307 Zinc	PICK	L04-1F	126	126
10/12/23	CF-GA150	CF-246P-S448	Nut Hex Coarse 1/4" Zinc 43834	PICK	L04-1G	108	108
10/12/23	CF-GA160	CF-246P-S448	Nut Hex Pltd Coarse 3/8" 3/8-16 Zinc	PICK	L04-1H	276	276
10/12/23	CF-GA140	CF-246P-S448	Cable Clamps Galv 3/16" C9970230	PICK	L04-2C	16	16
10/12/23	CF-GA260	CF-246P-S448	Eyebolt welded 3/8" x (3" shank) T0000330	PICK	L04-2D	4	4
10/12/23	CF-GA270	CF-246P-S448	Tab Turnbuckle w/ bend (2) 9/16" hole 1200 Series T0035920	PICK	L04-2E	4	4
10/12/23	CF-GA330	CF-246P-S448	Splice Gable End Connector S0001100	PICK	L04-2F	4	4
10/12/23	CF-GA240	CF-246P-S448	Tek Screw HWH w/o washer 14-14, 1" Galv	PICK	L04-2G	220	220
10/12/23	CF-GA913	CF-246P-S448	Bolt/HH 1/4" x 3/4" Grade 5 Cad Pltd B9970030	PICK	L04-2J	16	16
10/12/23	CF-GA1016	CF-246P-S448	Nut Hex Plasted Coarse 1/4"	PICK	L04-2K	16	16

Warehouse Activity Header: Type: Pick, No.: PK0584182..PK0584182

10/12/23	FA-SFSH-36	CF-246P-S448	Schaefer Aluminum Shutter 36" diameter	PICK	M04-1A	1
10/12/23	CF-GA473	CF-246P-S448	Tab Side Girt Wood, 2-7/8" Column T0030700	PICK	N01-1-2	36
10/12/23	CF-GA871	CF-246P-S448	Chord Support Tube C0055359 for 24' 1200 1 pc 34"	PICK	N01-3-11	14
10/12/23	CF-HH-3012	CF-246P-S448	Heater Hanger Mounting U H0030120	PICK	N01-3-9	8
10/12/23	CF-GA135	CF-246P-S448	Conn Column to ArchClamp 2-7/8 1200 Series 1100 6' C0155501	PICK	P01-1A	36
10/12/23	CF-GA136	CF-246P-S448	Conn Column To Arch 1200 Series C0155490	PICK	P01-1A	0
10/12/23	CF-GA472	CF-246P-S448	Base to Wood Clamp (2-7/8") C0101700	PICK	P01-1B	36
10/12/23	GA-BC001	CF-246P-S448	Brace Cable 3/16" x 1' Vinyl Coated Galvanized Cable	PICK	P01-2A	80
10/12/23	GA-BC001	CF-246P-S448	Brace Cable 3/16" x 1' Vinyl Coated Galvanized Cable	PICK	P01-2A	80
10/12/23	CF-GA295	CF-246P-S448	Alum Combo Straight 7' A0000254	PICK	R02-1	8
10/12/23	CF-HH-0450	CF-246P-S448	Heater Hanger Support Tube 1/2" (3ft) H0020450	PICK	R05-1A	4
10/17/23	PCP-EX-GB-16		Aluminum Glazing Bar 16' A0070389 16' section	PICK	R06-1	16
10/17/23	PCP-EX-GC816		Aluminum Glazing Cap A0070379 16' section	PICK	R06-1	16
10/12/23	CF-HH-1450	CF-246P-S448	Heater Hanger Adj Flat Bar To Arch 8' H0021450	PICK	R06-5	8
10/05/23	EV-TR6-01	EV-SS6-01	Stainless Steel Trough for 6" pads 10' starter system	PICK	S01-1	2
10/05/23	EV-TR6-05	EV-SS6-05	Stainless Steel Trough for 6" pads 5' extension	PICK	S02-1	2
10/12/23	CG-CON-KC12W	CF-246P-S448	Kool Cell Girt K0000786 12' long	PICK	S05-5	0
10/12/23	GF-9002-PVC	CF-246P-S448	Spring Top Lock-Wiggle Wire 6' 4-1/2" Coated Galvanized Spring-Wiggle Wire	PICK	T05-1	0
10/12/23	GF-9002-PVC	CF-246P-S448	Spring Top Lock-Wiggle Wire 6' 4-1/2" Coated Galvanized Spring-Wiggle Wire	PICK	T05-1	0
10/12/23	CF-GA180	CF-246P-S448	Purlin 5" x 12'4" 1200 series 20, 24, 30'w ridge P0000850	PICK	U01-1	0
10/12/23	CF-GA190	CF-246P-S448	Purlin 5" x 12'4" 1200 series 20, 24, 30'w sides P0000860	PICK	U02-1	0
10/12/23	GF-9001D-12	CF-246P-S448	Spring Lock Deep Base 12' section, aluminum	PICK	U04-1	16
10/12/23	CF-GA085	CF-246P-S448	1200 Series Column Tube, 2-7/8 x 8' (6' sidewalls) 1200 Series 4' and 6' walls & 1100 series 6' walls	PICK	V08-1A	36
10/12/23	CF-GA700	CF-246P-S448	Eve Girt 12' for 1200 series cold frame	PICK	V09-2	0

Warehouse Activity Header: Type: Pick, No.: PK0584182..PK0584182

10/12/23	CF-GA125	CF-246P-S448	Shutter Fan Support 5" Girt	PICK	V11-2	0
10/12/23	CF-GA091	CF-246P-S448	1200 Series Arch 24' (1/2 arch) C0055357	PICK	V13-7	0
10/12/23	CF-GA136	CF-246P-S448	Conn Column To Arch 1200 Series C0155490	PICK	W05-1A	36
10/12/23	CF-GA220	CF-246P-S448	Splice Chevron ASMB, 9-1/2" 1200 Series S0000995	PICK	WH2-FLR1-3	18

Warehouse Activity Header: Type: Pick, No.: PK0582983..PK0582983

Location Code	DA-IL	**Ship To:**	C003129	**Sales Order:**	SO00080563
No.	PK0582983		Merced Comm College Dist	**Assembly Order:**	
			Andrew Codd		
Assigned User ID	GM\DEANA.FORD		3600 M St		
Sorting Method	Shelf or Bin		PO 0050858		
			Merced, CA 95348		
			USA		

Due Date	Item No.	Parent Item	Description	Zone Code	Bin Code	Qty. (Base)	Qty. Handled
10/17/23	GF-9008		3-1/8" Hose Clamp	PICK	BRC510A	2	
10/17/23	GF-9012		PV Plug for Inflation Kit	PICK	BRC510A	2	
10/17/23	GF-9016		1/4"- 20 x 1" Phillips Pan Head Machine Screw	PICK	BRC510B	6	
10/17/23	GF-9017		1/4"- 20 Nylon Insert Lock Nut	PICK	BRC510B	6	
10/17/23	GF-9010		Air Transfer Gasket	PICK	BRC510C	4	
10/17/23	GF-9011		Inflation Blower Mounting Bracket	PICK	BRC510D	2	
10/17/23	FA-VSF-30300		Commercial Shutter Fan VES30, 30" diameter	PICK	D146	2	MB

luis 11-15-23

48" x 40" x 41"
149 Lbs

250

Bill of Lading

Shipment ID / BOL Number	Pickup Carrier Name
SM01602106	**Estes Express Lines**
	Phone: 309-862-3311 Fax No: 309-862-3332

Ready Date: 11/7/2023

Shipper Name:	Greenhouse Megastore / BFG Supply						
Address:	70 East Gate Dr						
City:	Danville	**State/Province:**	IL	**Postal Code:**	61834	**Country:**	USA
Contact:	Bryan Hobbs	**Phone:**	(217)709-1837	**Fax:**			

Destination Name:	MERCED COMM COLLEGE DIST						
Address:	3600 M ST PO0050858						
City:	Merced	**State/Province:**	CA	**Postal Code:**	95348	**Country:**	USA
Contact:	ANDREW CODD	**Phone:**	(209)386-6778	**Fax:**			

Pieces	Container	HM	Description	Item Reference	Dimensions (in)	CL	NMFC #	Cubic Feet	Weight (lbs)
1	Pallets		FANS, NOI, IN BOXES, CRATES OR DRUMS		48 x 40 x 41	250	64580	45.6	149
1	**Total**							**45.6**	**149**

SPECIAL INSTRUCTIONS: DO NOT DOUBLE STACK CALL 24 HOURS BEFORE

REFERENCE NUMBERS:
Order #: SO80563

ADDITIONAL SERVICES:
- Limited Access Dropoff
- CALIFORNIA COMPL. SURCHARGE
- Liftgate

luis
11-15-23

Liability Limitation for loss or damage on this shipment may be applicable. See 49 U.S.C. s 14706(c)(1)(A) and (B).

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classification and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations. **This is to certify that the herein-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the department of transportation.**

Freight Charges Terms: PRE-PAID
Bill freight charges to:

BFG SUPPLY CO
C/O AFS
PO BOX 18170
SHREVEPORT, LA 71138

Phone: (318)798-2111
Fax: (318)798-2111

11-7-23

Shipper **Date** **Carrier - Received in Good Order** **Date**

Printed on Tuesday, November 7, 2023

Entered By: Bryan Hobbs

Picking List
IGCUSA

November 7, 2023
7:21:09 AM

GM\BRYAN.HOBBS

Warehouse Activity Header: Type: Pick, No.: PK0582983..PK0582983

Location Code DA-IL
No. PK0582983

Assigned User ID GM\DEANA.FORD
Sorting Method Shelf or Bin

Ship To: C003129
Merced Comm College Dist
Andrew Codd
3600 M St
PO 0050858
Merced, CA 95348
USA

Sales Order: SO00080563
Assembly Order:

Due Date	Item No.	Parent Item	Description	Zone Code	Bin Code	Qty. (Base)	Qty. Handled
10/17/23	GF-9008		3-1/8" Hose Clamp	PICK	BRC510A	2	
10/17/23	GF-9012		PV Plug for Inflation Kit	PICK	BRC510A	2	
10/17/23	GF-9016		1/4"- 20 x 1" Phillips Pan Head Machine Screw	PICK	BRC510B	6	
10/17/23	GF-9017		1/4"- 20 Nylon Insert Lock Nut	PICK	BRC510B	6	
10/17/23	GF-9010		Air Transfer Gasket	PICK	BRC510C	4	
10/17/23	GF-9011		Inflation Blower Mounting Bracket	PICK	BRC510D	2	
10/17/23	FA-VSF-30300		Commercial Shutter Fan VES30, 30" diameter	PICK	D146	2	MB

luis 11-15-23

48" x 40" x 41"
149 Lbs

Warehouse Activity Header: Type: Pick. No.: PK0585808..PK0585808

Location Code DA-IL
No. PK0585808

Assigned User ID GM\DEANA.FORD
Sorting Method Shelf or Bin

Ship To: C003129
Merced Comm College Dist
Andrew Codd
3600 M St
PO 0050858
Merced, CA 95348
USA

Sales Order: SO00080563
Assembly Order:

Due Date	Item No.	Parent Item	Description	Zone Code	Bin Code	Qty. (Base)	Qty. Handled
10/17/23	GF-9003		Inflation Fan Jumper Kit	PICK	L248C	2	

505 North Hutcheson, Houston, Texas 77003-1399, Phone: 713 228-9421, Fax: 713 228-9425

INSTALLATION INSTRUCTIONS FOR QUIETAIRE
STAINLESS STEEL COOLING SYSTEM

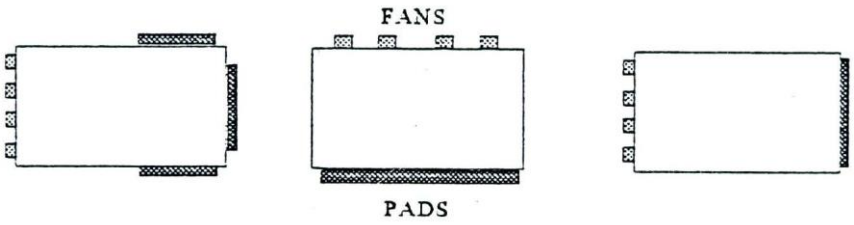
COMPONENTS

1. Cooling pads- pads come 4" thick and 12" wide X 24", 36", 48", 60", and 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.

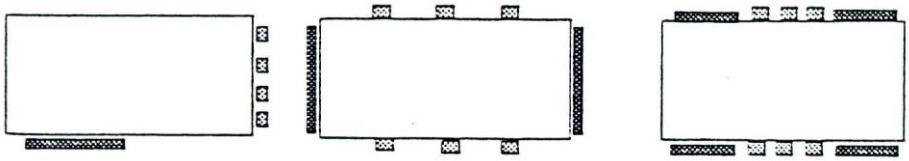
LOCATION OF THE FAN AND PAD SYSTEM

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.

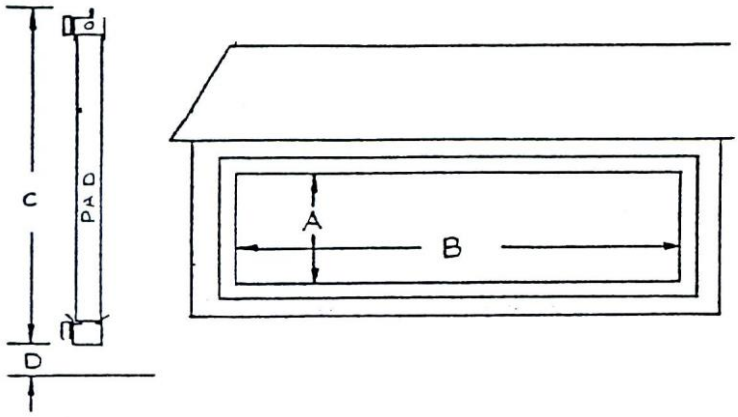
TYPICAL LAYOUT WHEN PAD TO FAN DISTANCE IS 250' OR LESS



TYPICAL LAYOUTS WHEN PAD TO FAN DISTANCE EXCESS 250'



FRAME OPENING



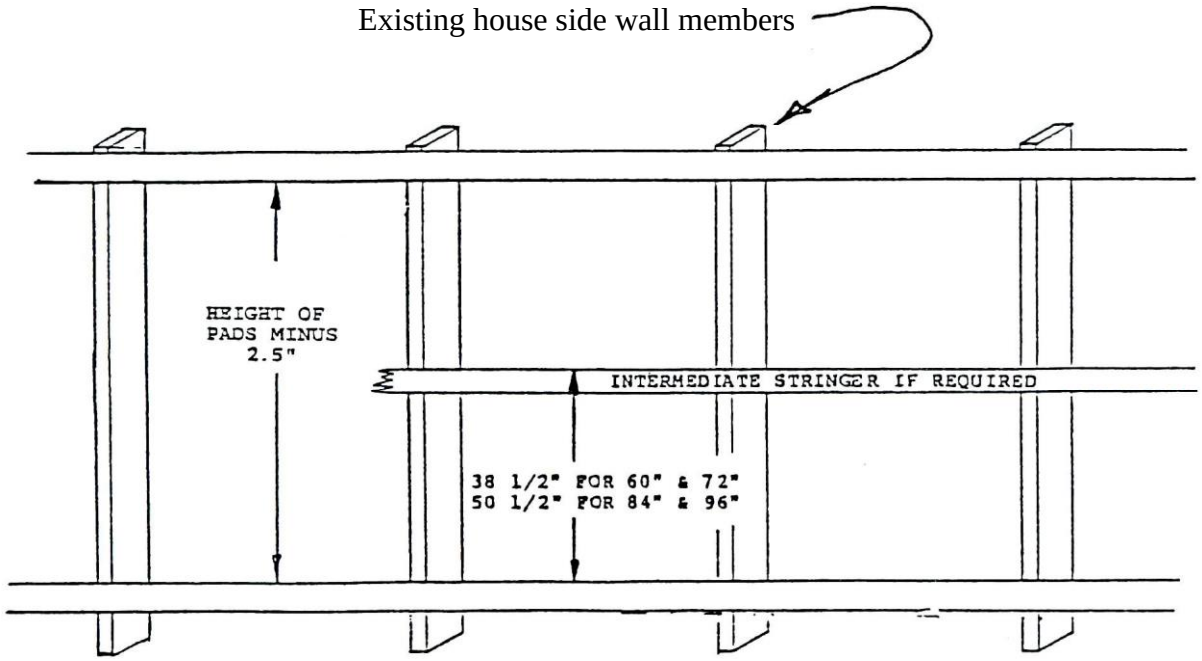
A= Height of the pad minus 2.5”
B= Length of the system
C= Pad height plus 7”
D= Clearance for pump suction

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 ¾ 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 rough must be installed level.

When pads over 48” tall or two pieces are used an intermediate stringer ¾” thick must be installed to prevent pads from blowing out. See drawing below



SUMP TANK

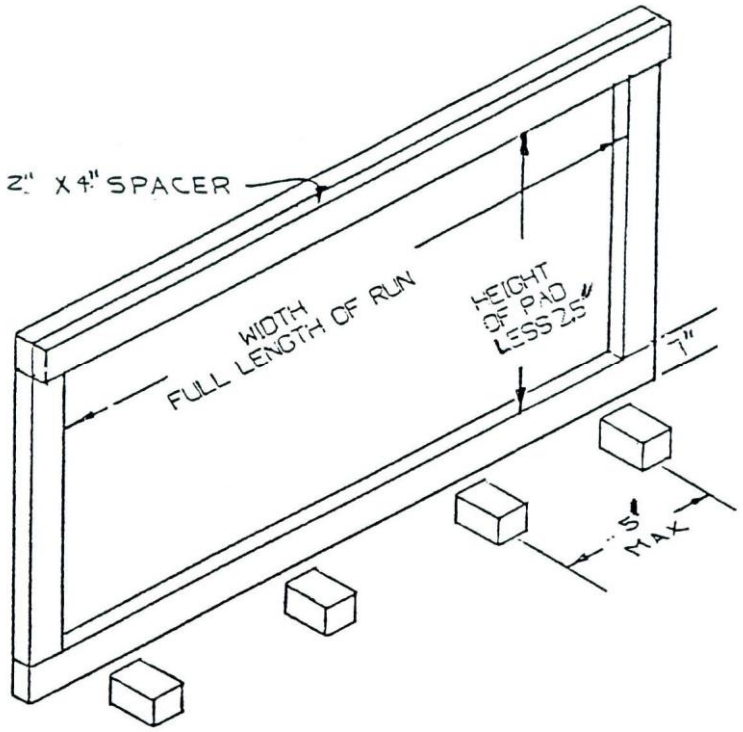
There is no need for a water collecting sump or reservoir as the trough ahs sufficient capacity to act as such.

INSTALLING THE SYSTEM

After all the framing has been installed and dimension shave 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

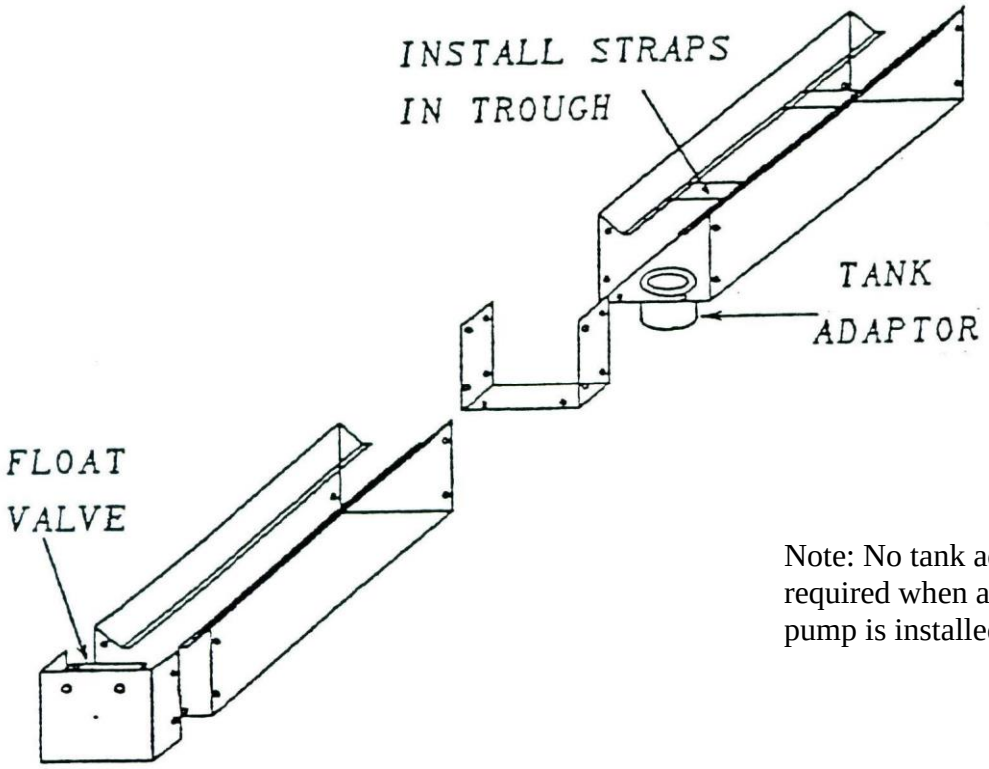
Set support blocks on a level line and place trough on the blocks



To top of blocks of bracket

See typical drawing page 7 **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.



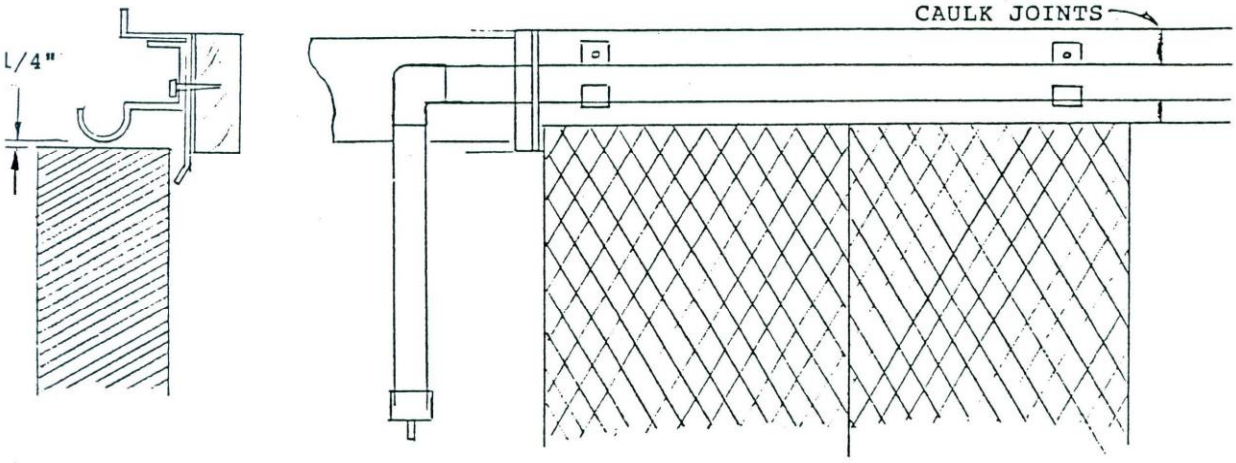
Note: No tank adaptor required when a sump pump is installed in trough.

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

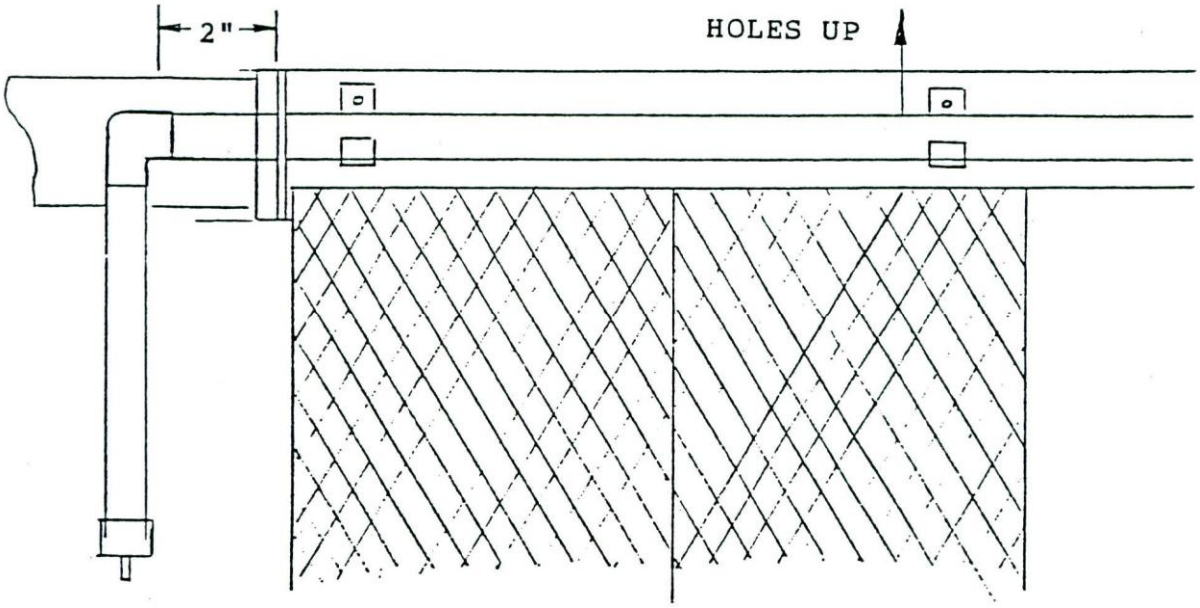
NOTE: The trough, trough ends and u connectors must be cleaned of the oil film or the mastic strips will not stick and seal. Acetone works best and leaves no oily residue.

INSTALLING THE TOP OF THE SYSTEM

Place a pad (2 if double stacked) at each end and in the idle 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 ¼ X 1 ¼ screws. Caulk the top cover back joints as shown.

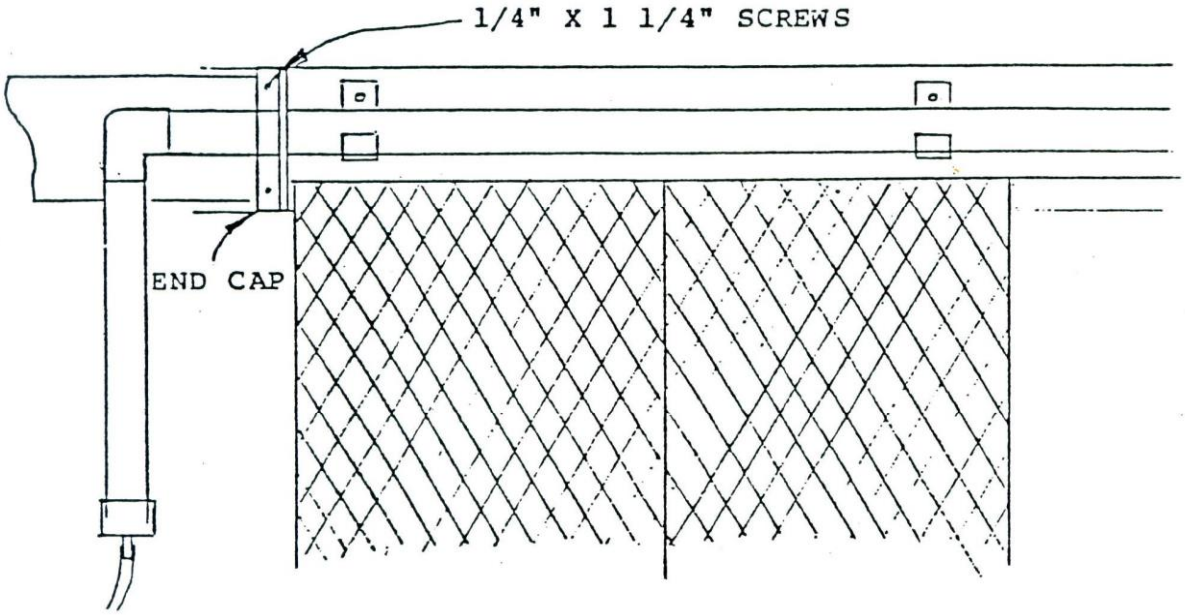


INSTALLING THE DISTRIBUTION PIPE



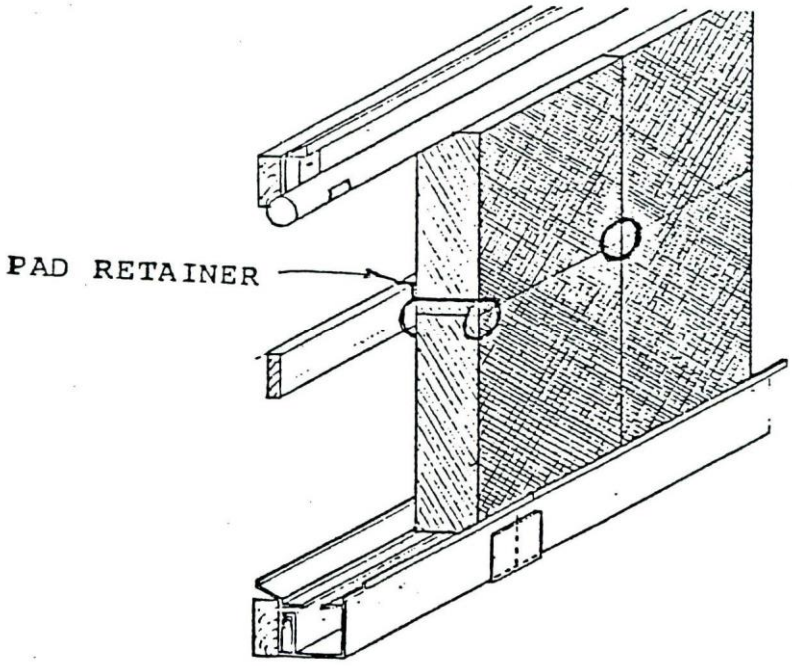
INSTALLING THE DISTRIBUTION PIPE Con't

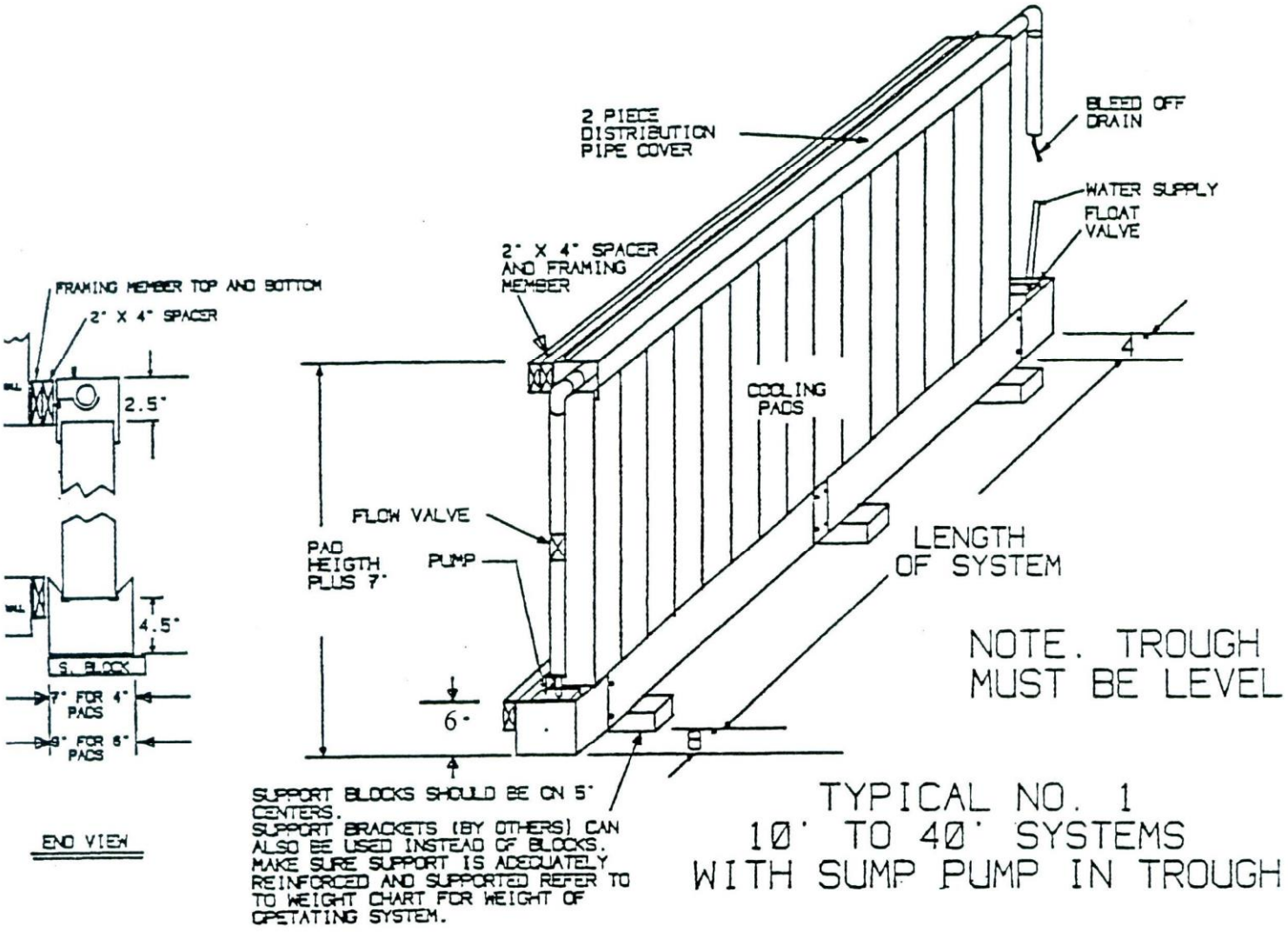
Install the end cap over the distribution pipe and secure with 2-1/4 X 1 ¼ screws as shown. Next cement an elbow, 2' piece of pipe and the treaded adapter to the distribution pipe as shown. Screw the bleed off fitting into the threaded adapter and attach the bleed off tubing as show, the bleed off tubing 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.



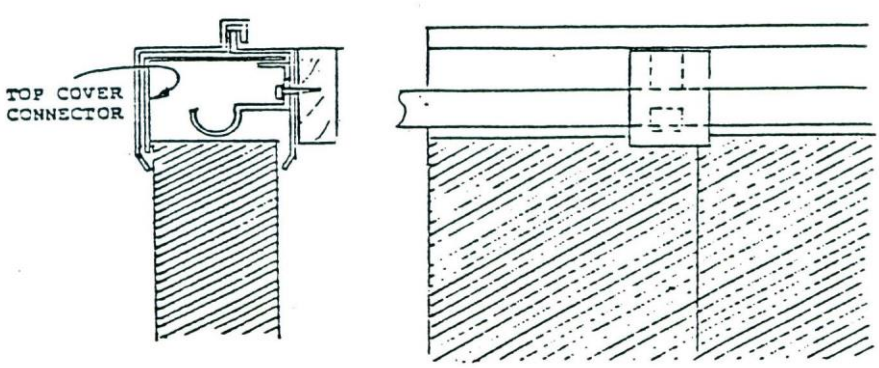


Wet pads and trough system
weight per foot in pounds

Height	4” pads	6” pads
3’	21	28
4’	24	32
5’	27	36
6’	30	40

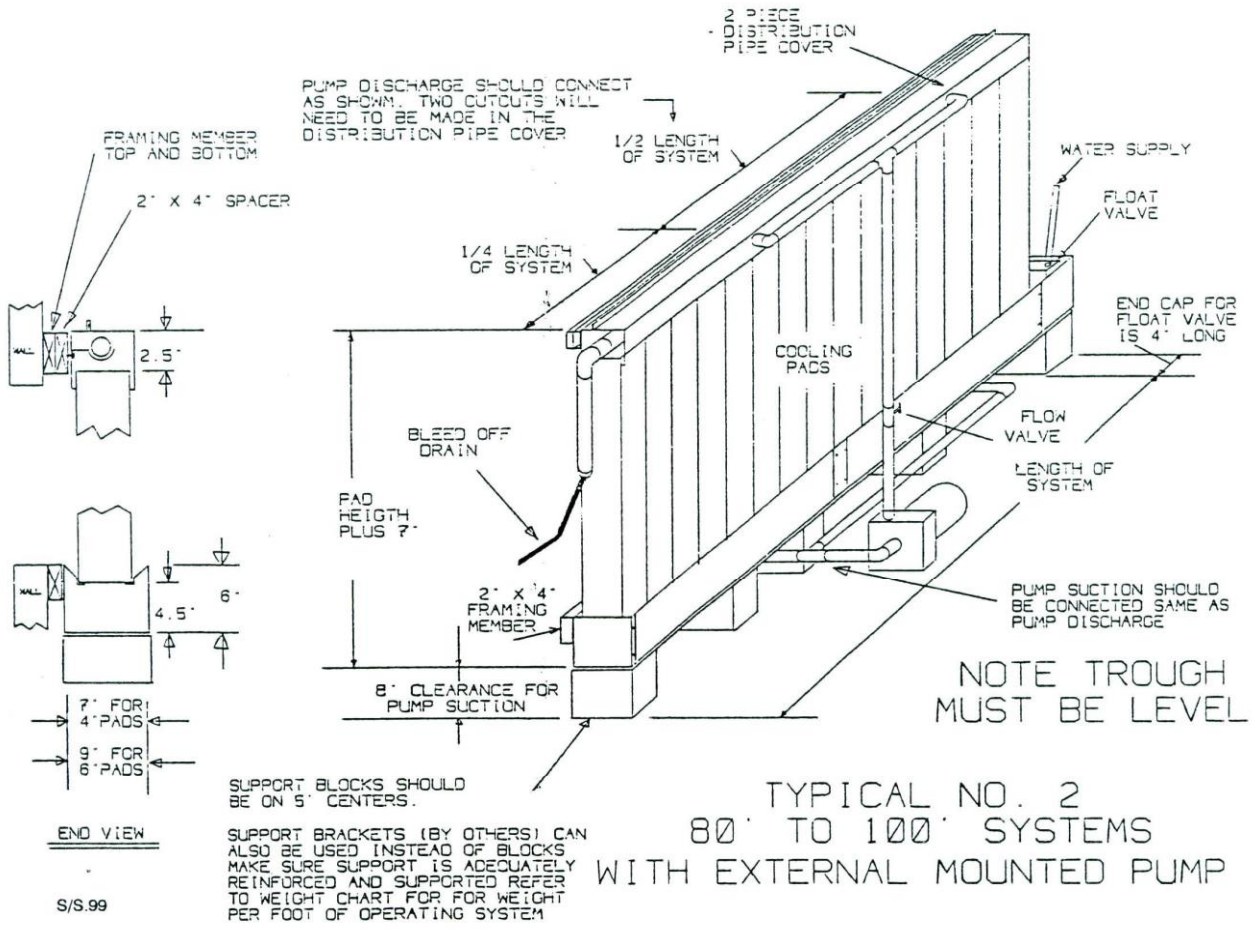
INSTALLING THE FRONT OF THE TOP COVER

Install the first top cover section, the insert a top 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.

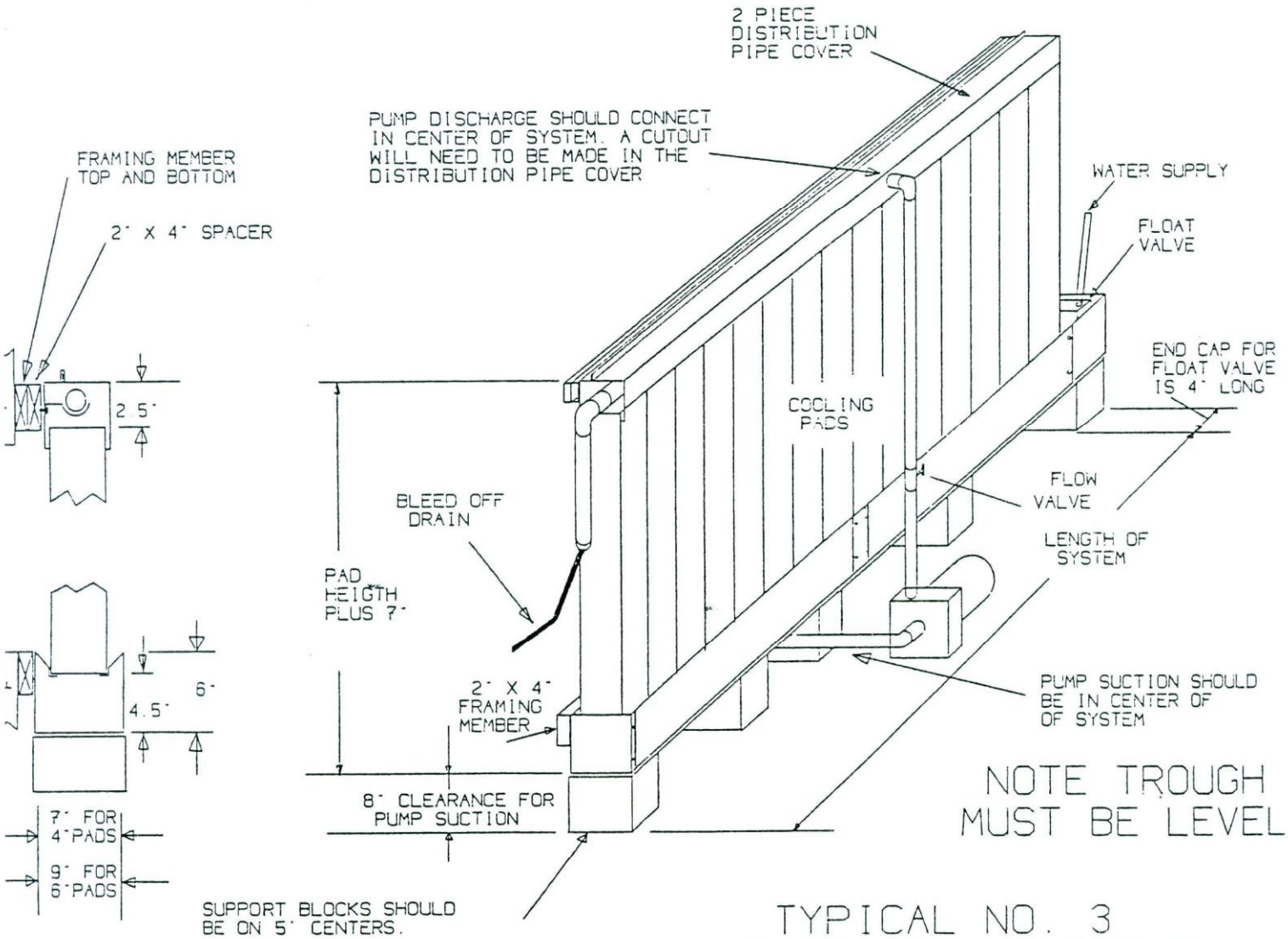


PLUMBING INSTALLATION

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

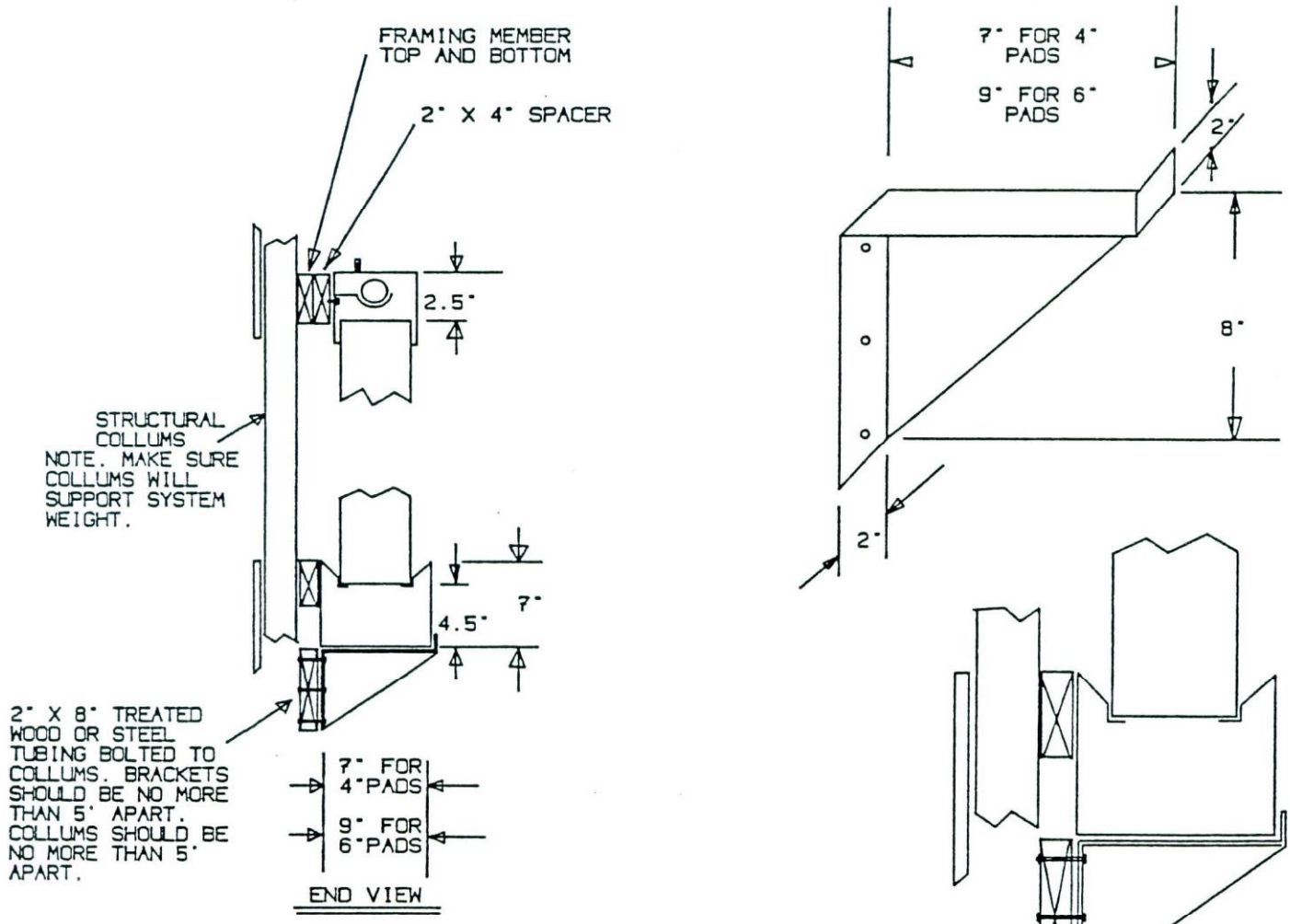


TYPICAL NO. 2
80' TO 100' SYSTEMS
WITH EXTERNAL MOUNTED PUMP



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

OPTIONAL MOUNTING BRACKETS



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

Page

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 contact 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 growths 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 from 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.

SUPERIOR ROLLFORM STRENGTH
CONLEY'S
GREENHOUSE MANUFACTURING & SALES
EST. 1946

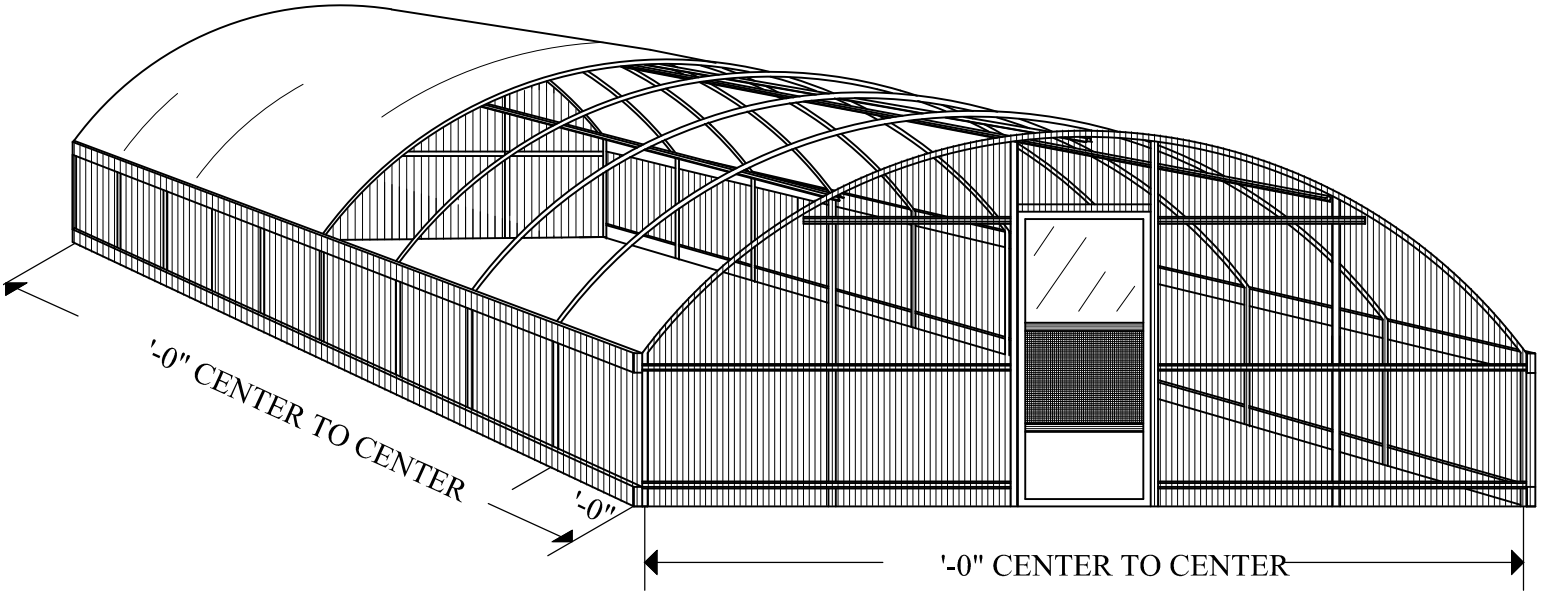
4344 MISSION BLVD. MONTCLAIR, CA. 91763
(909) 627-0981 (800) 377-8441
FAX (909) 628-3774

SERVING AGRICULTURE SINCE 1946 A DIVISION OF JOHN L. CONLEY, INC.

GENERAL CONTRACTORS LICENSE NO. 323391-B

COLD FRAME 1200
GREEN HOUSE SYSTEM

IMPORTANT!!!!!
NON - CODE COLD FRAMES REPRESENT A NON - CODE- NON ENGINEERED DESIGN WITH CERTIFICATION UNAVAILABLE. IT IS NOT RECOMMENDED THAT THIS HOUSE BE UTILIZED IN REGIONAL AREAS REPRESENTING SNOW OR HIGH WIND FACTORS.



20'-0" or 24'-0" WIDE WITH LEGS

INSTRUCTION MANUAL

INTRODUCTION

SHOULD YOU HAVE ANY QUESTIONS CONCERNING THESE INSTRUCTION, COMPONENTS ETC..., PLEASE CONTACT US DIRECTLY. WE WELL BE GLAD TO ANSWER ANY QUESTIONS CONCERNING OUR MANUFACTURED PRODUCT.

INCLUDED IN THIS PACKAGE ARE INSTRUCTIONS AND DETAILED DRAWINGS PERTAINING TO YOUR CONLEY'S GREENHOUSE SYSTEM. STUDY THE INSTRUCTIONS BEFORE BEGINNING CONSTRUCTION TO BECOME FAMILIAR WITH OUR PRODUCT AND HOW IT IS ASSEMBLED.

STORE ALL MATERIALS OFF THE GROUND ON WOOD BLOCKS. PROTECT ALL YOUR MATERIALS FROM THEFT AND/OR DAMAGE. YOU MAY WISH TO DISCUSS BUILDERS RISK INSURANCE WITH YOUR INSURANCE AGENT.

DISCLAIMER

THE FOLLOWING INSTRUCTIONS ARE GIVEN AS SUGGESTED GUIDELINES FOR GENERAL INSTRUCTIONS. CONLEY'S MANUFACTURING AND SALES OR ANY OF THEIR EMPLOYEES SHALL NOT BE RESPONSIBLE RESULTING FROM PURCHASERS IMPLEMENTATION OF THESE INSTRUCTIONS. PURCHASERS ALONE SHALL RESPONSIBLE FOR CONFORMANCE WITH ALL APPLICABLE LAWS, ORDINANCES, AND SAFETY STANDARDS IN CONSTRUCTING THIS GREENHOUSE AND ALL EQUIPMENT INSTALLED THEREIN.

NOTICE TO CONLEY'S CUSTOMERS PROTECT YOURSELF FROM ADDED COSTS

ALL PRODUCTS ARE SOLD F.O.B. SHIPPING POINT, AND THE ATTACHED MEMORANDUM COPY OF BILL OF LADING THAT INDICATES THAT MATERIAL SHIPPED HAS NOW, BY LAW, BECOME YOUR PROPERTY AND IS AN ACKNOWLEDGMENT BY THE TRANSPORTATION COMPANY OF THE RECEIPT OF THE MATERIALS IN GOOD CONDITION.

SAFE DELIVERY OF THIS SHIPMENT IS NOW THE RESPONSIBILITY OF THE CARRIER WHO ACTS AS YOUR AGENT. WE WILL BE GLAD TO RENDER ASSISTANCE TO TRACE AND RECOVER LOST GOODS.

EXAMINE THE SHIPMENT CAREFULLY BEFORE SIGNING THE FREIGHT BILL. IF ANY DAMAGE IS NOTED, OR OF THE NUMBER OF PIECES DOES NOT AGREE WITH THE BILL OF LADING, INSIST THAT SHORTAGE OR DAMAGE BE NOTED ON THE FREIGHT BILL BY THE CARRIERS AGENT. FAILURE TO DO SO MAY JEOPARDIZE YOUR RECOVERY.

DO NOT REFUSE SHIPMENT AS THIS IS YOUR PROPERTY AND REFUSAL CAUSES UNNECESSARY DELAYS AND SHORTAGE EXPENSES. ARRANGE WITH CARRIER WITHIN 15 DAYS TO INSPECT AND MAKE REFERENCE THERE TO ON THE FREIGHT BILL. CONSULT YOUR CARRIER FOR DISPOSITION OF DAMAGED ARTICLES.

MAKE YOUR CLAIM PROMPTLY, THE TRANSPORTATION COMPANY WILL NOT CONSIDER A CLAIM UNLESS IT IS PRESENTED WITHIN (9) MONTHS FROM THE DATE OF SHIPMENT. CARRIERS AGENT WILL ASSIST YOU IN PREPARING A CLAIM.

CLAIMS FOR LOSS OR DAMAGE AND TRANSPORTATION CHARGES RESULTING FROM SHIPPING, MUST NOT BE DEDUCTED FROM THE INVOICE, NOR PATENT INVOICES WITH HELD AWAITING ADJUSTMENT OF SUCH CLAIMS, SINCE IT IS THE FUNCTION OF THE CARRIER TO GUARANTEE SAFE DELIVERY.

CHECK THE ITEMS RECEIVED WITH THE INVOICE. OF THERE IS ANY DISCREPANCY CONTACT US IMMEDIATELY GIVING FULL PARTICULARS. CLAIMS FOR SHORTAGE ATTRIBUTED TO OUR COUNT IN PACKAGE MUST BE MADE WITHIN 10 DATES FORM THE SHIPMENT IS RECEIVED.

NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT A RETURN GOODS TAG AND SHIPPING INSTRUCTIONS FROM THE FACTORY.

WARRANTY

CONLEY'S MANUFACTURING AND SALES, THEIR EMPLOYEES OR REPRESENTATIVES, WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO GREENHOUSE COVERINGS, STRUCTURES, CROPS OR EQUIPMENT WHEN USED IN CONDUCTION WITH OUR TUBE - LOCK, OR ANY OTHER LOCKING DEVICE MANUFACTURED BY CONLEY'S MANUFACTURING AND SALES OR OTHERS.

GRADE AND PREPARE THE BUILDING SITE

1. REMOVE THE GRASS AND DEBRIS DOWN TO SOLID SOIL.

2. LOCATE THE BUILDING CORNERS AND SET THE GRADING STAKES 5' BEYOND THE CORNERS.

3. A TRANSIT LEVEL IS NEEDED TO SURVEY THE AREA OF THE BUILDING. IN ORDER TO INSURE PROPER DRAINAGE AND EVEN HEATING, THE WIDTH SHOULD BE SET LEVEL AND THE LENGTH SHOULD BE SET LEVEL WITHIN APPROXIMATELY 1%.

4. CUT AND FILL THE SITE UNTIL IT IS AT THE RECOMMENDED GRADE.

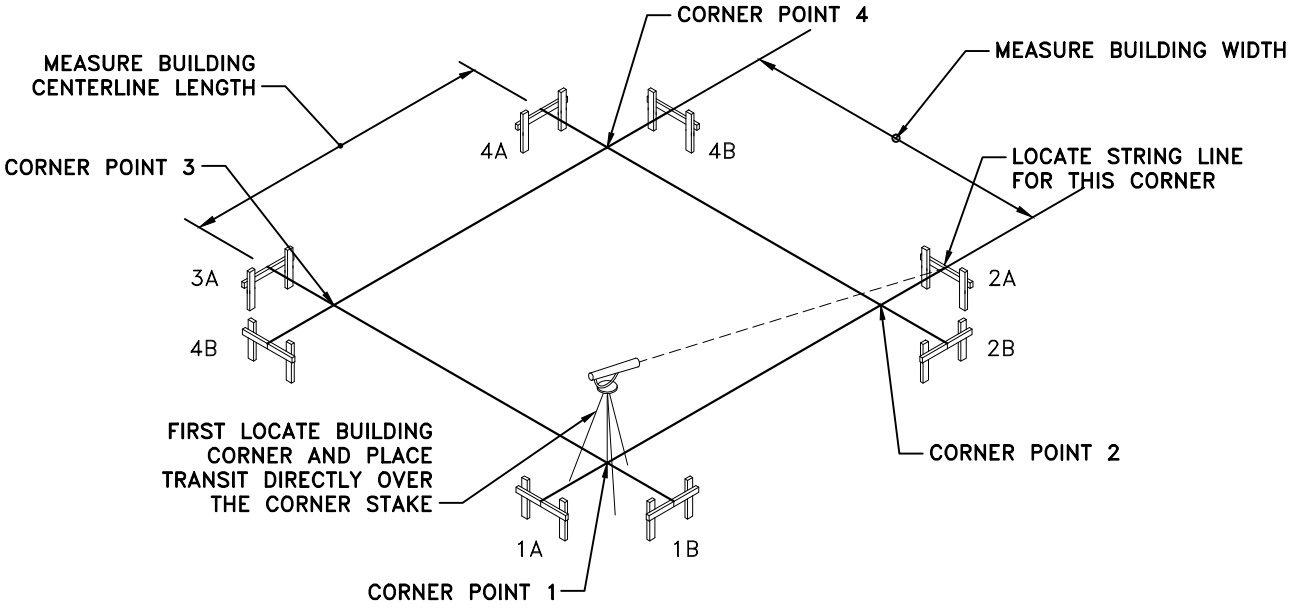
LAYOUT AND SQUARE THE FOUNDATION

1. ROUGHLY LOCATE THE CORNERS OF THE BUILDING AND DRIVE IN THE CORNER STAKES.

2. SET BATTER BOARDS APPROXIMATELY 6' (OR ADEQUATE DISTANCE FROM AUGER CLEARANCE) BACK FROM THE CORNERS IN EACH DIRECTION. SET INTERMEDIATE BATTER BOARDS OF THE BUILDING IS LONGER THAN 50 FEET TO KEEP THE LINES FROM SAGGING OR BLOWING IN THE WIND.

3. LOCATE THE FIRST BUILDING CORNER POINT AND MARK IT WITH A STAKE OR NAIL HEAD.

4. MEASURE FROM CORNER POINT 1, THE SPECIFIED DIMENSION OF THE BUILDING, TO LOCATE CORNER POINT 2. PULL A TIGHT LINE BETWEEN BATTER BOARD "1A" AND BATTER BOARD "2A", MAKING SURE THE LINE PASSES OVER CORNER POINT 1 AND CORNER POINT 2. FASTEN THE LINE THE BATTER BOARDS AND CHECK IT WITH TRANSIT. MAKE SURE THE BATTER BOARDS AND LINES ARE LEVEL (SEE FIG. 1). VARIATIONS IN THIS WILL ULTIMATELY AFFECT THE EAVE HEIGHT.



SEE PAGE 7 FOR GUTTER CONNECTED HOUSES

FIGURE 1 - LOCATING CORNER POINT 2

5. TO LOCATE THE THIRD CORNER POINT (FIG 2), YOU MAY USE ONE OF TWO METHODS, THE DIAGONAL METHOD OR THE TRIANGLE METHOD.

THE DIAGONAL METHOD - RUN A LINE DIAGONALLY ACROSS FROM CORNER TO CORNER AND ADJUST THE LINES UNTIL THE DIAGONAL DIMENSIONS ARE EQUAL. (SEE FIGURE 3).

THE TRIANGLE METHOD - CREATE A 90 ∅ ANGLE FROM THE FIRST LINE USING CORNER POINT 1 AS A VERTEX. THIS ANGLE MAY BE ACCOMPLISHED BY USING TWO TAPE MEASURES AND THE CHART LISTED BELOW (SEE FIGURE 4) (USE THIS METHOD FRO LARGER BUILDINGS WHERE THE LENGTH OF THE DIAGONAL EXCEEDS THE 100 FOOT TAPE MEASURE). WHEN YOU'VE LOCATED CORNER POINT 3, PULL YOUR SECOND LINE BETWEEN BATTER BOARD "1B" AND BATTER BOARD "3B" MAKING SURE IT PASSES OVER CORNER POINT 1 AND CORNER POINT 3. CHECK WITH TRANSIT MAKING SURE THAT BATTER BOARDS AND LINES ARE LEVEL (SEE FIG. 2.)

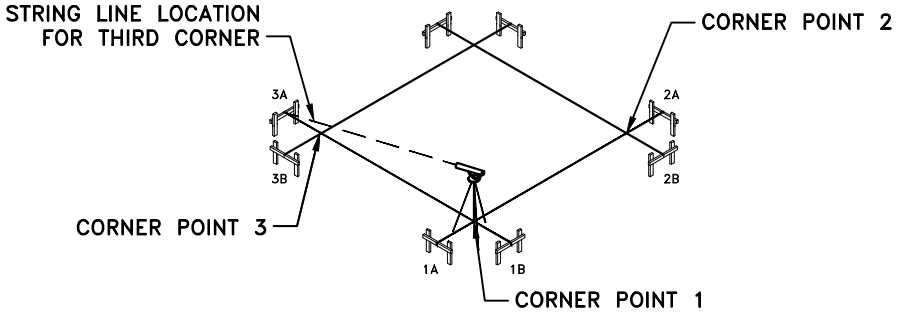


FIGURE 2 - LOCATING CORNER POINT 3

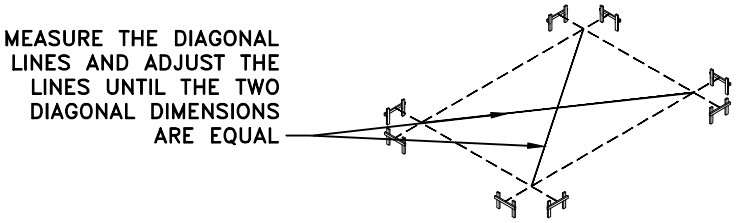


FIGURE 3 - DIAGONAL METHOD

DIMENSION A^2 +	DIMENSION B^2 +	DIMENSION C^2
20'	15'	25'
24'	18'	30'
28'	21'	35'
32'	24'	40'
36'	27'	45'
40'	30'	50'

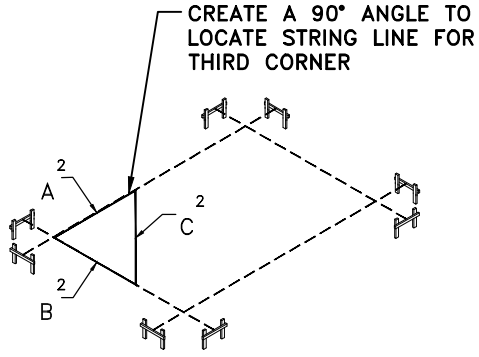


FIGURE 4 - TRIANGLE METHOD

6. TO LOCATE THE FOURTH CORNER POINT (FIGURE 5), USING TWO TAPE MEASURES, FROM CORNER POINT 3 AND CORNER POINT 2, THE SPECIFIED LENGTH AND WIDTH. THE POINT AT WHICH THESE LINES INTERSECT WILL BE CORNER POINT 4.

7. NOW YOU MAY PULL YOUR LAST TWO LINES AND FASTEN THEM TO THE APPROPRIATE BATTER BOARDS. BE SURE TO CHECK THE LEVEL OF YOUR LINES (FIGURE 5).

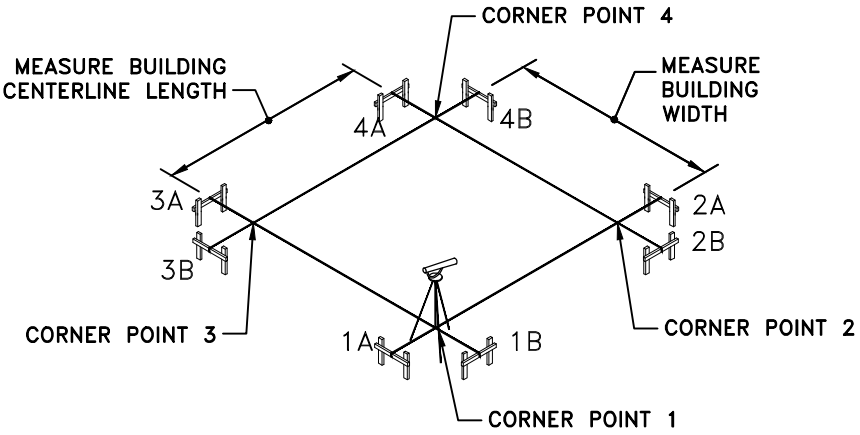


FIGURE 5 - LOCATING CORNER POINT 4

FIND COLUMN CENTERS

1. MARK THE CORNER POINTS ON THE LINES, AND USE A 100 FOOT TAPE MEASURE TO MARK THE INTERMEDIATE HOLE CENTERS ON THE LINES.

2. USING A LEVEL FOR VERTICAL ACCURACY, MARK THE HOLE CENTERS ON THE GROUND WITH NAILS. PAINT THE NAIL HEADS WITH FLUORESCENT PAINT.

3. MEASURE DOWN THE WIDTH OF THE LINES AND MARK THE END WALL UPRIGHT CENTERS IN THE SAME MANNER.

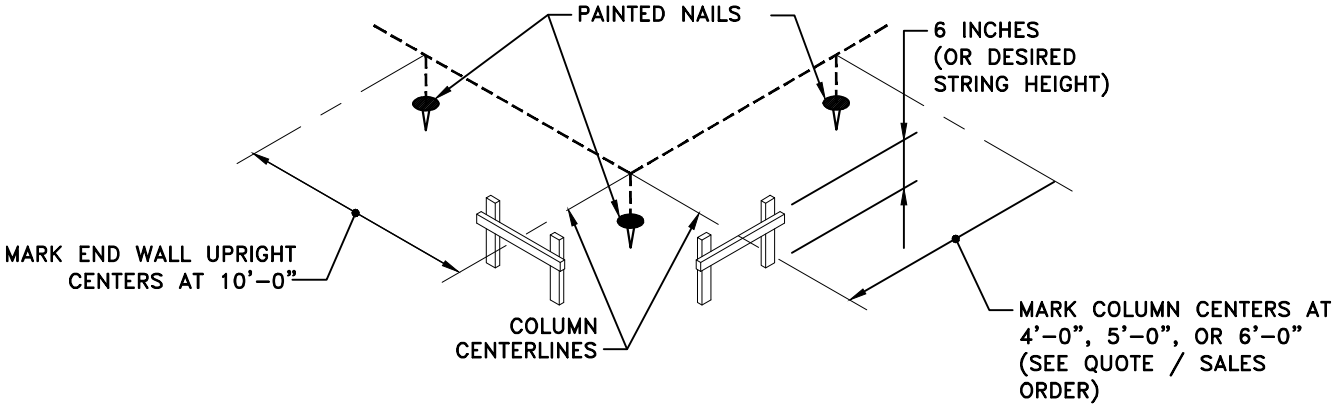


FIGURE 6 - LOCATING COLUMN CENTERS

AUGER COLUMN HOLES

1. AT THE POINT THAT THE LINES MEET THE BATTER BOARDS, CLEARLY AND ACCURATELY MARK THE PLACEMENT OF THE LINES. MAKE SURE ALL THE BATTER BOARDS ARE MARKED.

2. REMOVE THE LINES.

3. AUGER HOLES TO REQUIRED DIMENSIONS.

4. AFTER DIGGING THE HOLES FOR END WALL UP RIGHTS, REFILL LOOSELY WITH DIRT, UNTIL READY FOR USE, (SEE FIGURE 9-PAGE 7).

CAUTION

BE SURE THERE ARE NO UNDERGROUND OR OVERHEAD ELECTRICAL WIRES, WATER PIPES, GAS LINES, ETC...ON OR NEAR THE JOB SITE.

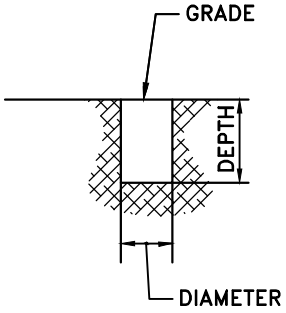


FIGURE 7 - AUGER HOLE

OFFSETTING THE LINES

1. OFFSETTING OF THE LINES SHOULD BE DONE THE DAY THE CONCRETE IS POURED AND NOT LEFT OVERNIGHT TO PREVENT STRETCHING OR KNOCKING DOWN LINES.

2. TO FIND THE COLUMN SET LINES, YOU MUST RESTRING THE FOUNDATION LAYOUT. FROM THE CENTER LINE MARKS ON THE BATTER BOARDS, MEASURE 1/2 THE SIZE OF THE COLUMN AND MOVE THE LINES TO THAT MARK. (ALWAYS MOVE THE LINES IN THE SAME DIRECTION TO PREVENT CONFUSION AND MISPLACEMENT OF COLUMNS (SEE FIGURE 8) THESE OFFSET STRINGS WILL HELP AS GUIDES WHEN ALIGNING IN THE COLUMNS DURING THE CEMENTING PROCESS.

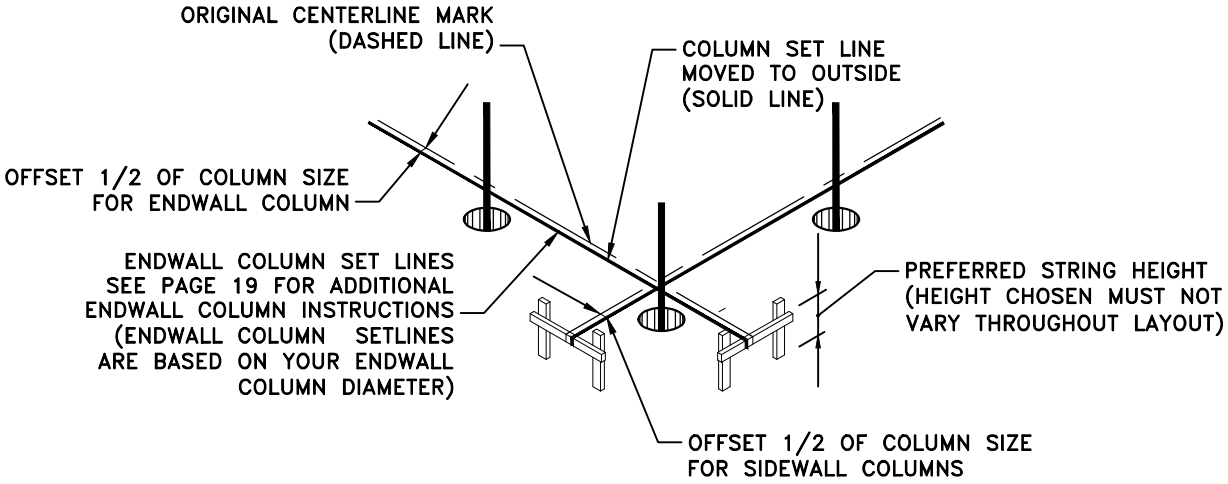
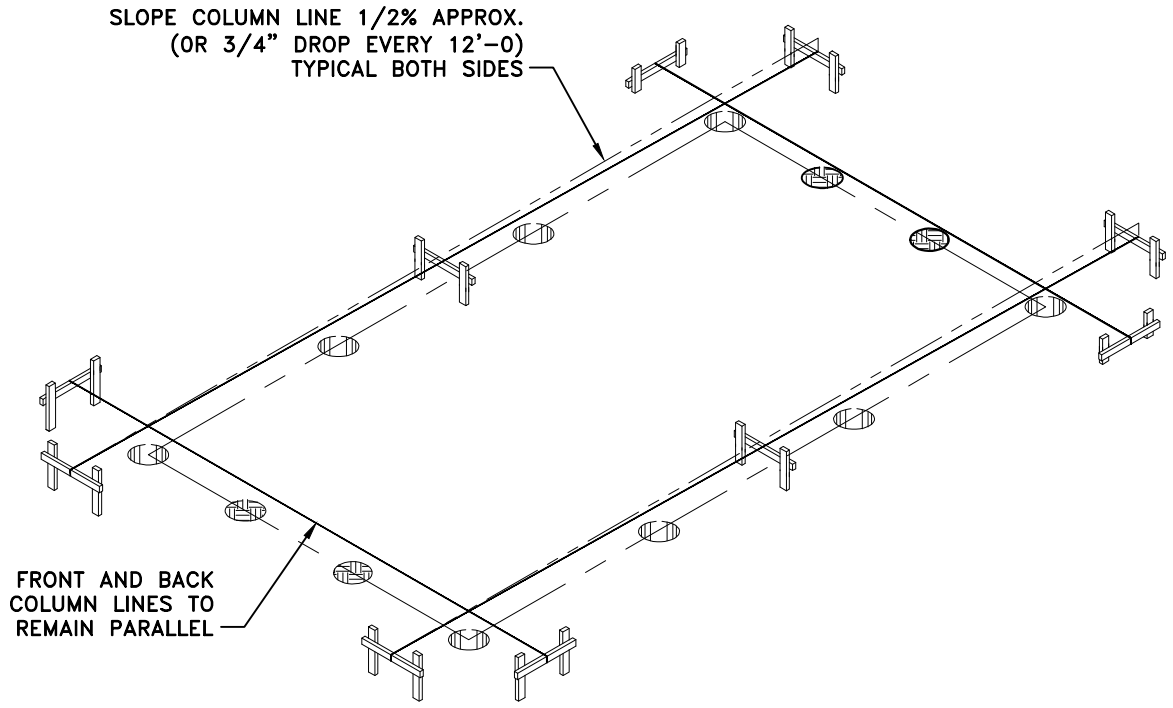


FIGURE 8 - OFFSETTING OF THE COLUMN SET LINES

SLOPE LINES (GUTTER BUILDINGS ONLY)

1. SLOPE THE COLUMN LINES ALONG THE LENGTH OF THE FOUNDATION KEEPING THE FRONT AND BACK COLUMN LINES PARALLEL. THIS WILL INSURE PROPER DRAINAGE 9.



NOTE: THIS TECHNIQUE TO BE USED WITH GUTTER HOUSES ONLY

FIGURE 9 - SLOPING COLUMN LINES

MARK CENTERS ON COLUMNS

1. FROM THE CENTER LINE, MARK ON THE BATTER BOARDS (NOT THE COLUMN SET MARK) THE LENGTH OF LINES, AND MARK THE INTERMEDIATE CENTERS.

2. MARK THE END WALL UPRIGHTS IN THE SAME MANNER. PLEASE NOTE THAT THE OFFSETS FOR END WALL INTERMEDIATE COLUMNS MAY BE DIFFERENT THAN THE OFFSET OF THE SIDE WALL COLUMNS DUE TO THE DIFFERENCE IN COLUMN SIZE. THE CENTER LINES OF COLUMNS MUST BE THE CENTER LINE END WALL COLUMNS.

MARK COLUMNS

1. TO FIND THE ABOVE GROUND COLUMN HEIGHT, MEASURE FROM THE TOP OF THE COLUMN, THIS DISTANCE, AND SUBTRACT THE STRING HEIGHT. MARK THE COLUMN AT THIS POINT WITH A FELT TIP MARKER. CONTINUE WITH REMAINING COLUMNS. (SEE FIGURE 10).

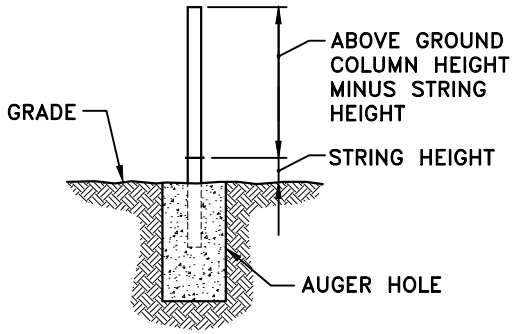


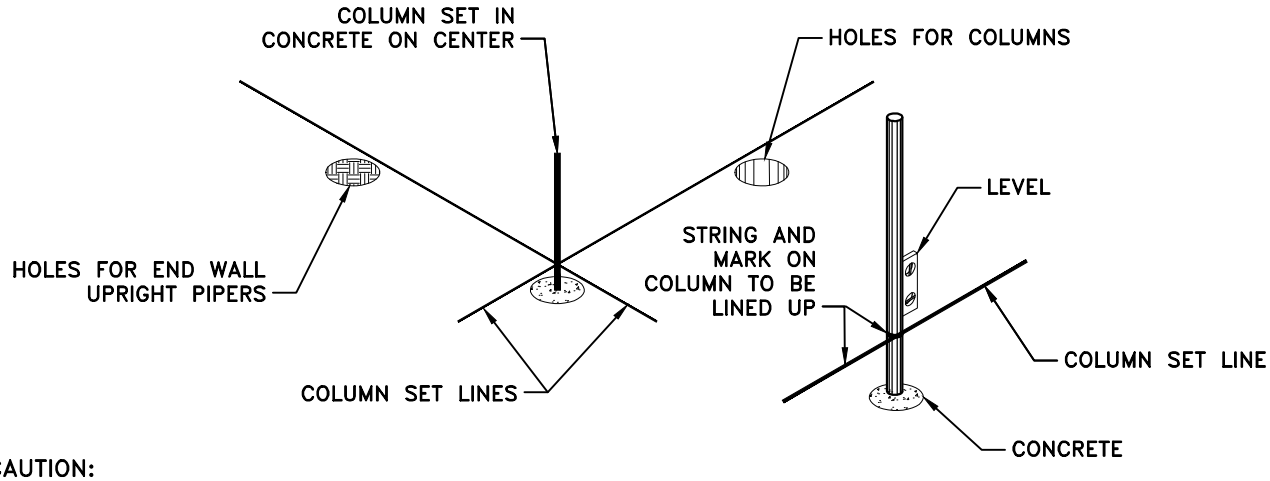
FIGURE 10 - MARKING COLUMNS

SET COLUMNS

1. POUR CONCRETE INTO THE FIRST HOLE. (2) 1/2" SLUMP IS THE MOST POPULAR MIX TO SUPPORT COLUMNS.

2. PUSH THE COLUMN INTO THE CONCRETE AT THE CENTER MARK ON THE STRING (BE SURE THE COLUMN ISN'T ACTUALLY TOUCHING STRING) UNTIL THE MARK ON COLUMN LINES UP WITH THE STRING. THE COLUMN MUST BE PLUMB IN BOTH DIRECTIONS BEFORE MOVING ON TO THE NEXT COLUMN.

3. MOVE ON TO THE NEXT COLUMN, POUR CONCRETE THEN SET THE COLUMN. NEVER POUR ALL THE CONCRETE FIRST THEN GO BACK AND SET COLUMNS, AS THE CONCRETE SETS UP TOO FAST.



CAUTION:

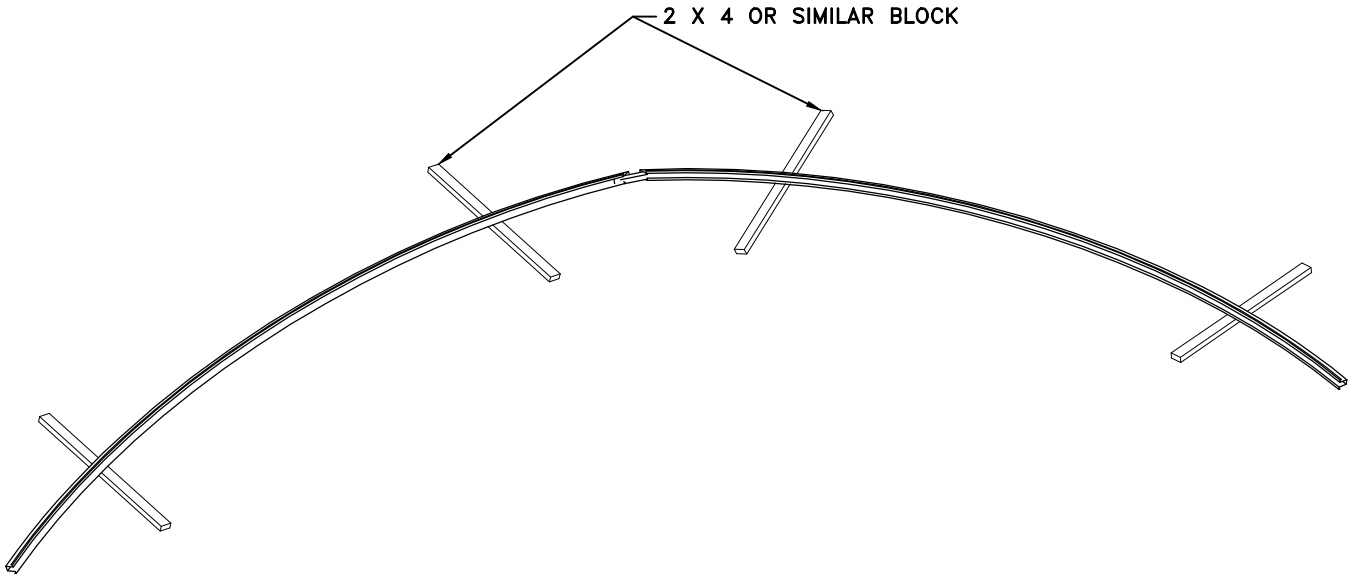
1. PLACE THE FIRST THREE ARCHES INTO THE FIRST THREE AUGURED HOLES. (SEE PAGE 6 FOR HOLE AUGURING).

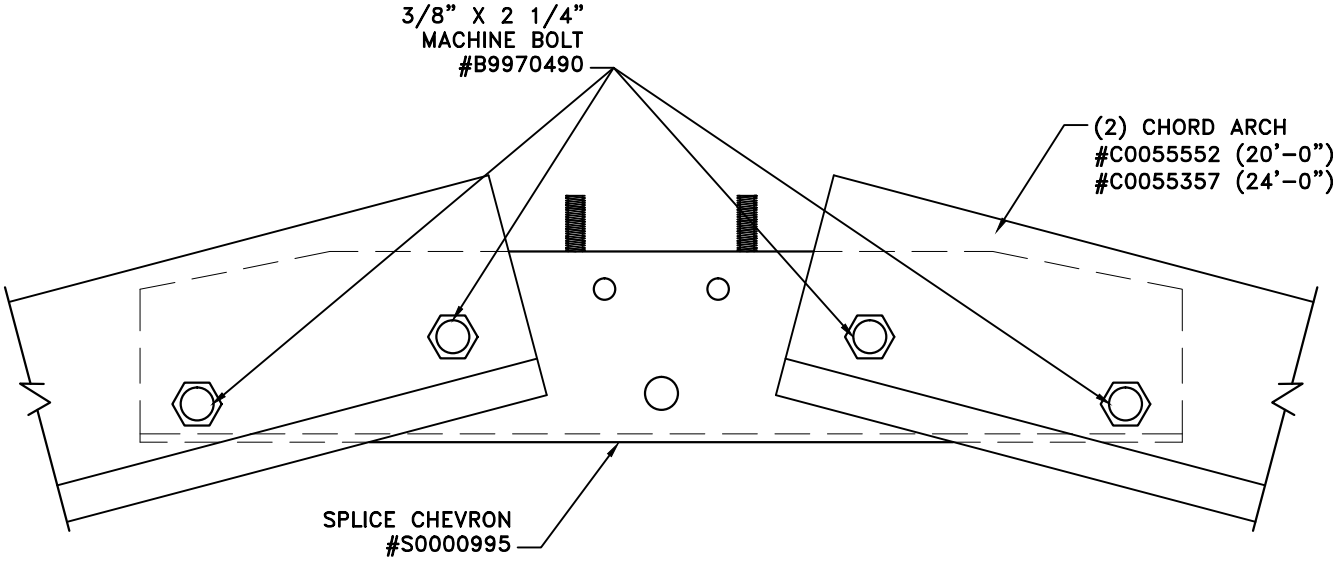
FIGURE 11 - SETTING THE COLUMNS

ARCH ASSEMBLY

1. ASSEMBLE THE ARCHES USING (4) 2 X 4 BLOCKS TO LIFT THE ARCHES OFF THE GROUND FOR ASSEMBLY.

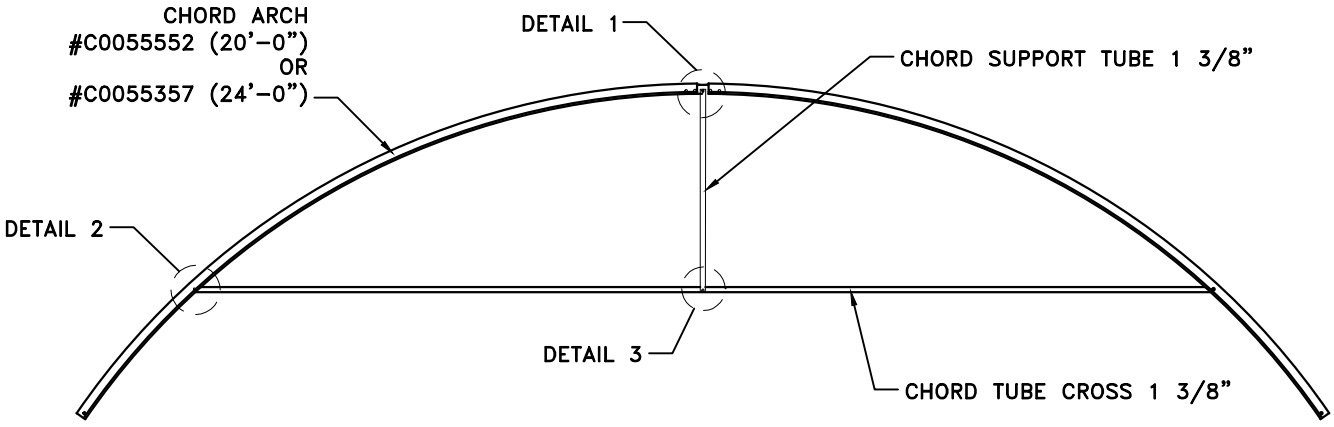
2. ATTACH THE ARCH HALVES TO THE CHEVRON SPLICE WITH (4) 3/8" X 2 1/4" MACHINE BOLTS.



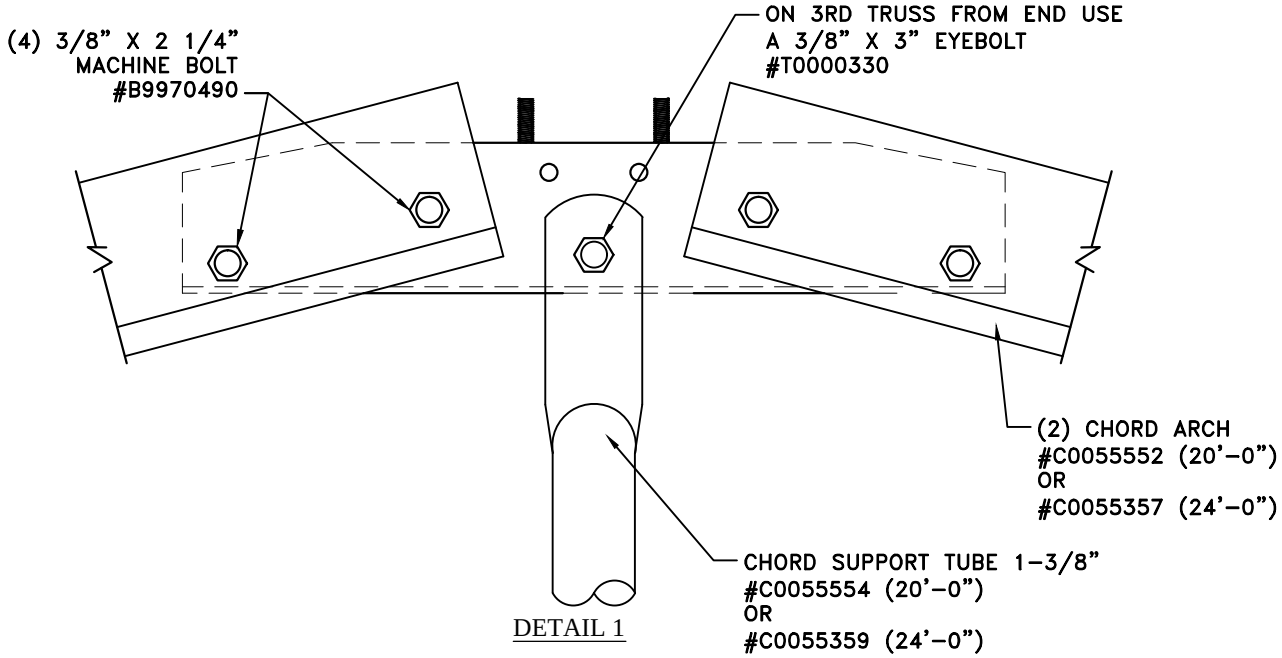


OPTIONAL STRUCTURAL UPGRADE I

(NOT USED ON ENDWALLS)

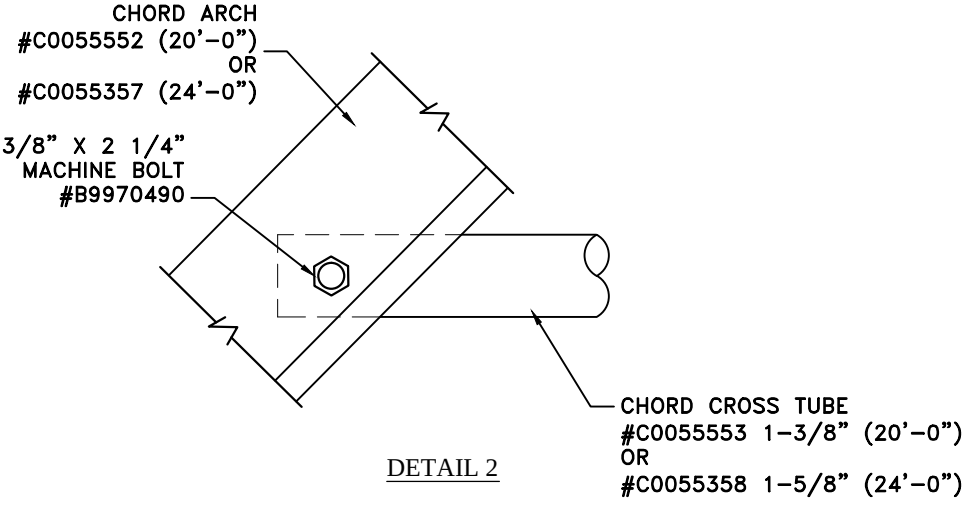


1. ATTACH THE CHORD SUPPORT TUBES TO THE CHEVRON SPLICE WITH (4) 3/8 X 2 1/4" MACHINE BOLT. PLACE 1 SUPPORT TUBE ON EACH SIDE OF THE CHEVRON SPLICE.



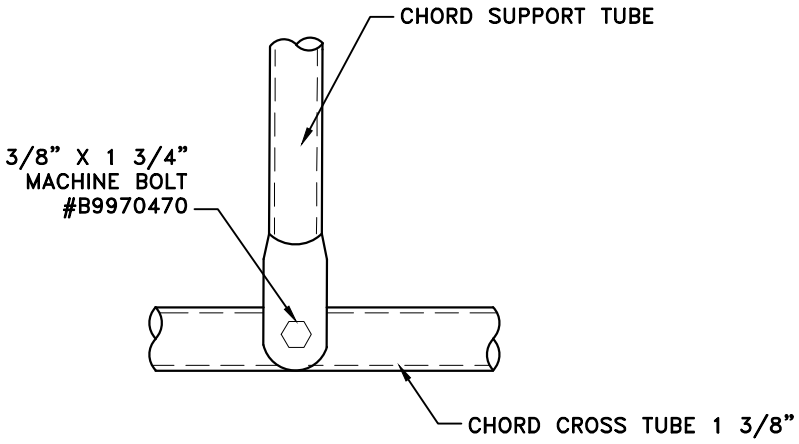
DETAIL 1

2. ATTACH EACH END OF THE CROSS BRACE TO THE CHORD ARCH WITH A 3/8" X 2 1/4" MACHINE BOLTS.

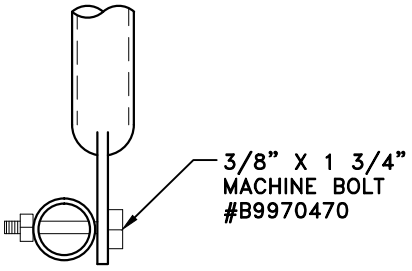


DETAIL 2

3. ATTACH THE CHORD SUPPORT TUBES TO THE CHORD CROSS TUBE WITH A 3/8" X 1 3/4" MACHINE BOLT PER CHORD SUPPORT.



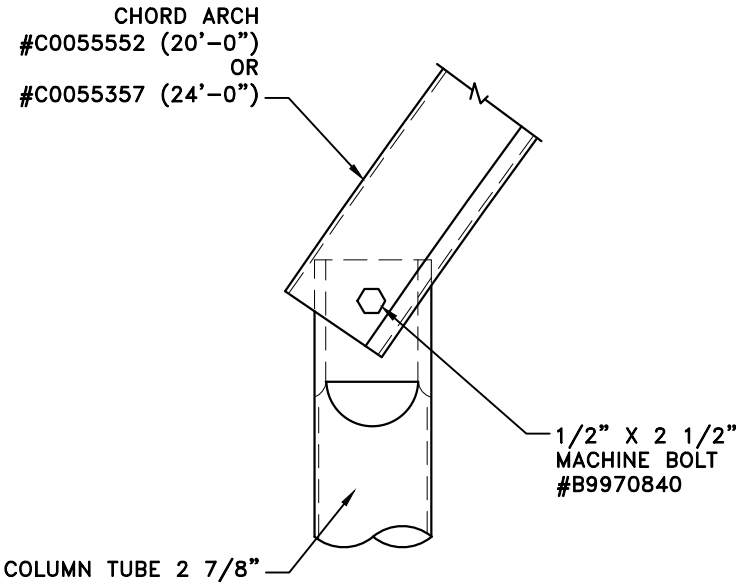
FRONT VIEW



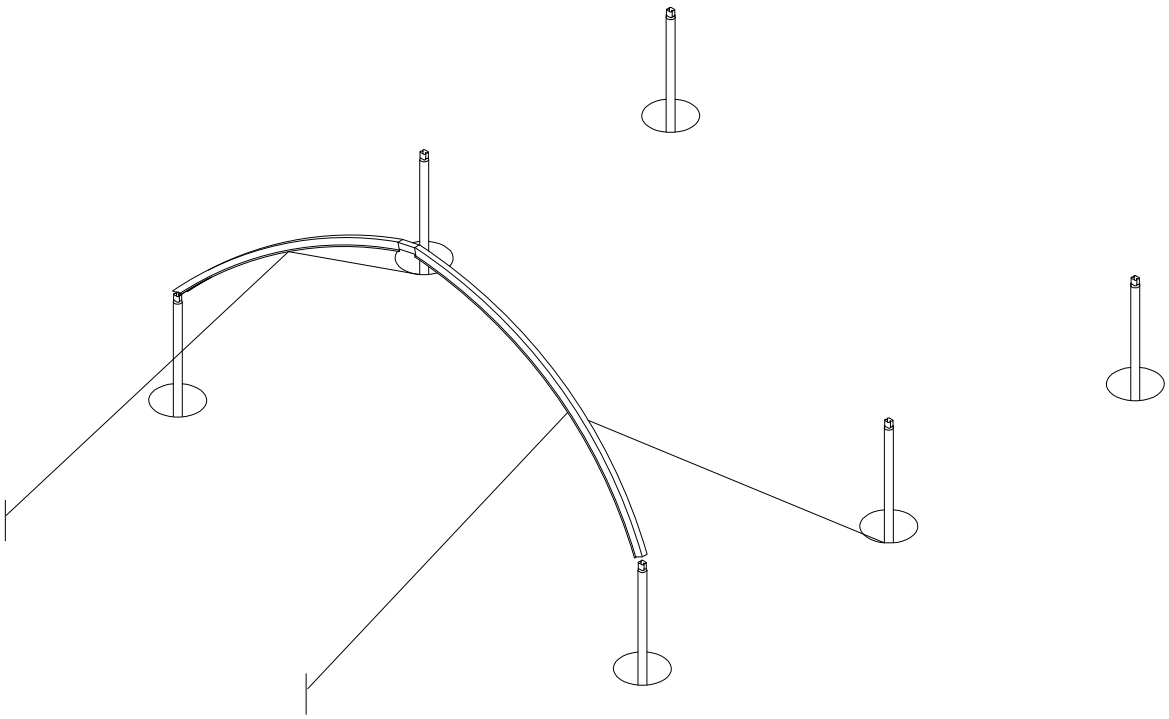
SIDE VIEW

ARCH INSTALLATION

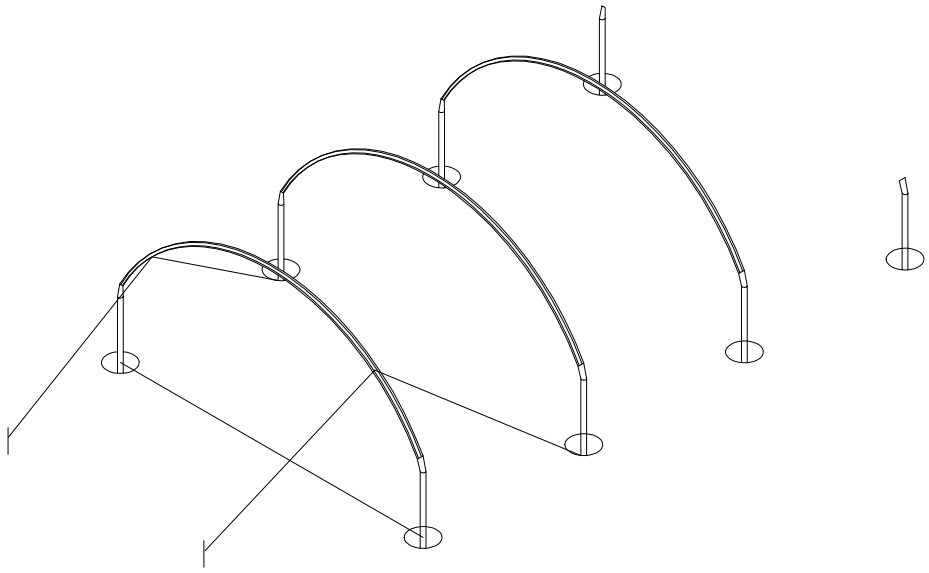
1. SLIDE THE CHORD ARCH OVER THE FORMED END OF THE 2 7/8" COLUMN AND SECURE IT WITH A 1/2" X 2 1/2" MACHINE BOLT. (TYPICAL FOR ALL ARCH COLUMN TO CONNECTIONS).



2. TIE OFF THE ARCH USING ROPES OR CABLES TO MAKE THE ATTACH PLUMB AND SQUARE. (MATERIALS FOR SECURING COLUMNS ARE NOT SUPPLIED BY CONLEY'S MANUFACTURING AND SALES.)

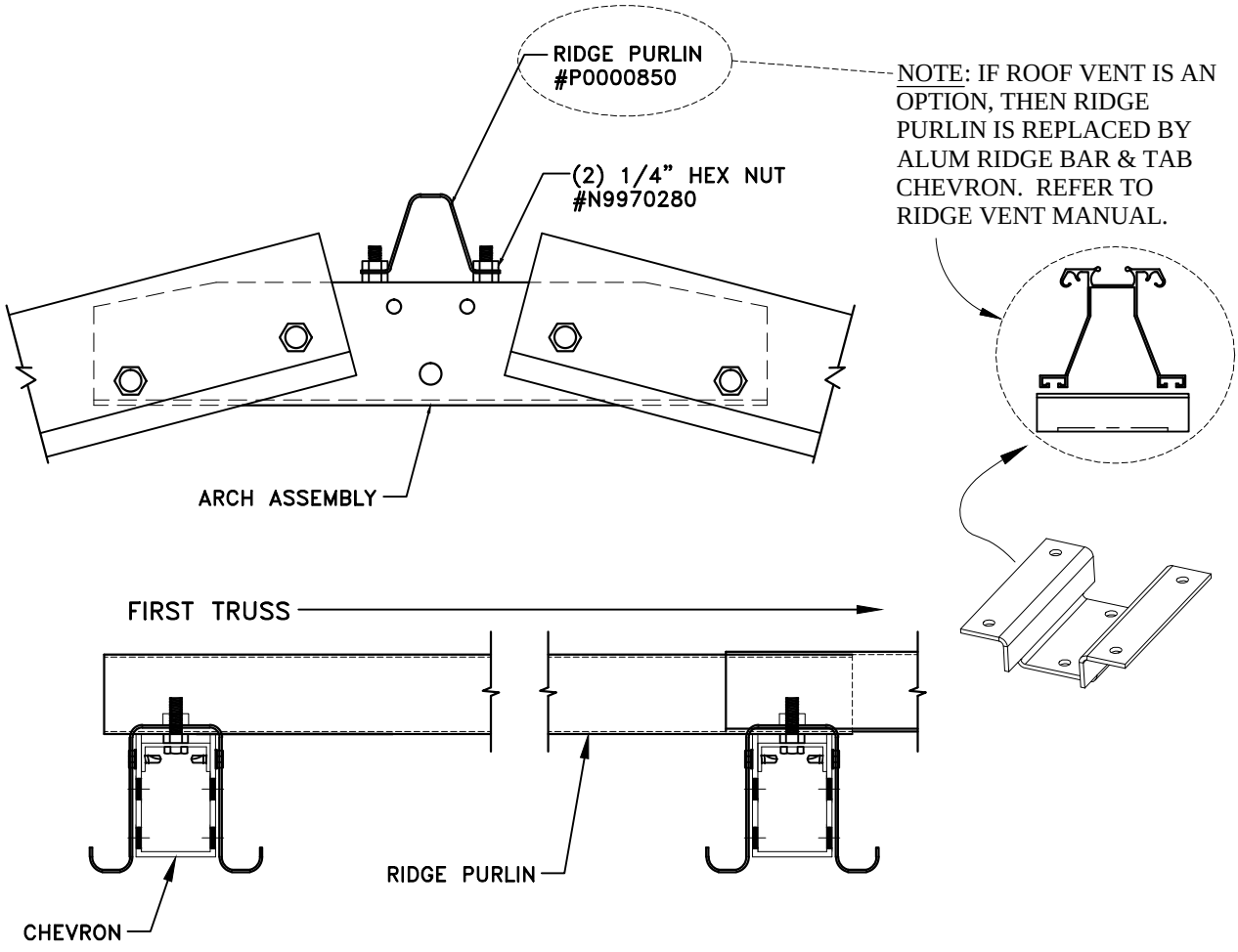


3. BOLT TWO OR MORE ARCHES TO THE LEGS USING (2) 1/2" X 2 1/2" MACHINE BOLT PER ARCH.



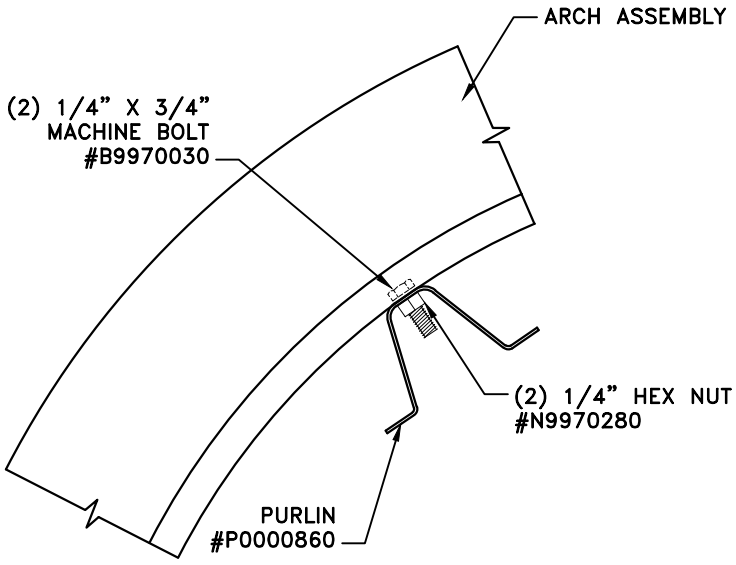
RIDGE PURLIN INSTALLATION

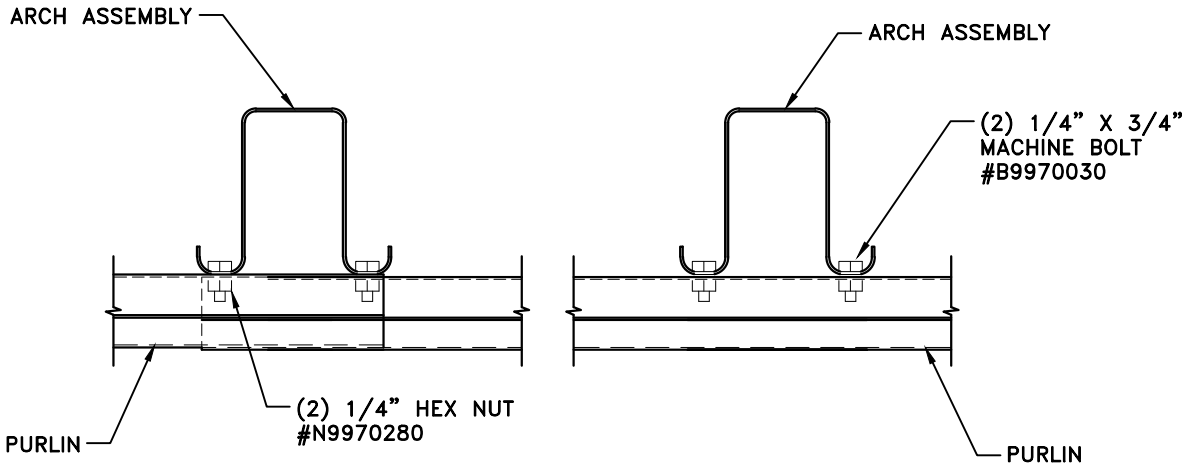
1. ATTACH THE RIDGE PURLIN TO THE TOP PLATE ON THE CHEVRON SPLICE USING (2) 1/4" NUTS.



ARCH AND PURLIN INSTALLATION

1. ATTACH THE PURLINS TO THE FIRST AND SECOND ARCHES WITH (2) 1/4" X 3/4" MACHINE BOLTS.





2. ATTACH TWO MORE ARCHES. OVERLAP THE RIDGE PURLIN AT THE THIRD ARCH AND BOLT IT TO THE THIRD AND FOURTH ARCHES WITH (2) 1/4" X 3/4" MACHINE BOLTS PER ARCH.

3. OVERLAP THE QUARTER POINT PURLINS AT THE THIRD ARCH AND BOLT THEM TO THE THIRD AND FOURTH ARCHES. (SEE NOTE 1 FOR BOLT INFORMATION.)

INSTALLATION REMAINING ARCHES AND PURLINS

1. INSTALL THE REMAINING ARCHES, TWO AT A TIME, AND THE PURLINS UNTIL THE FULL LENGTH OF THE BUILDING IS COMPLETE.

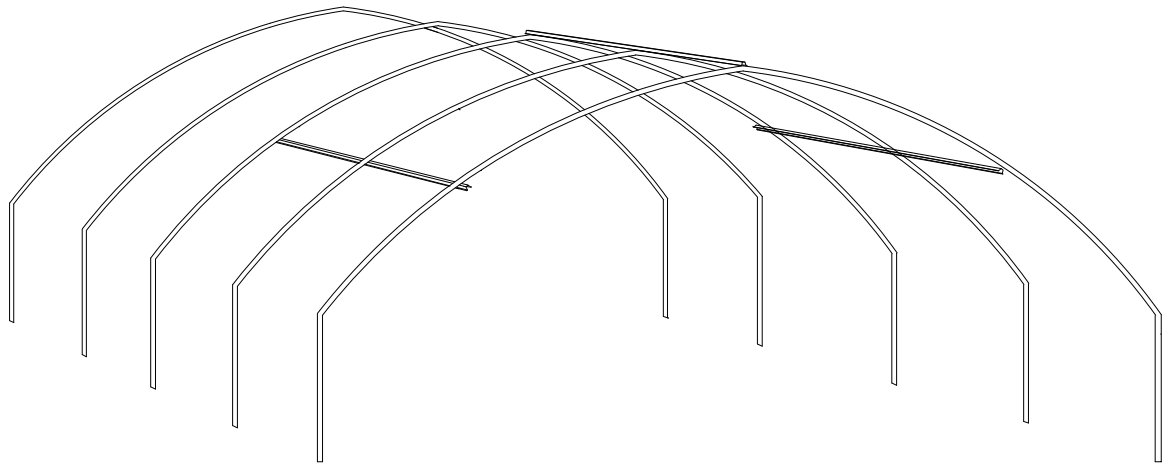


FIGURE 12 - 3 PURLIN OPTION

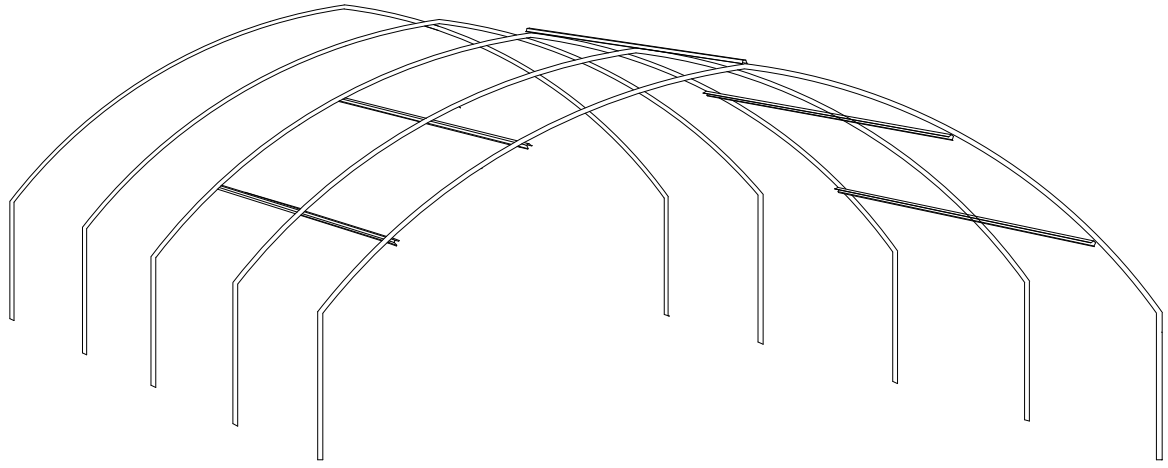
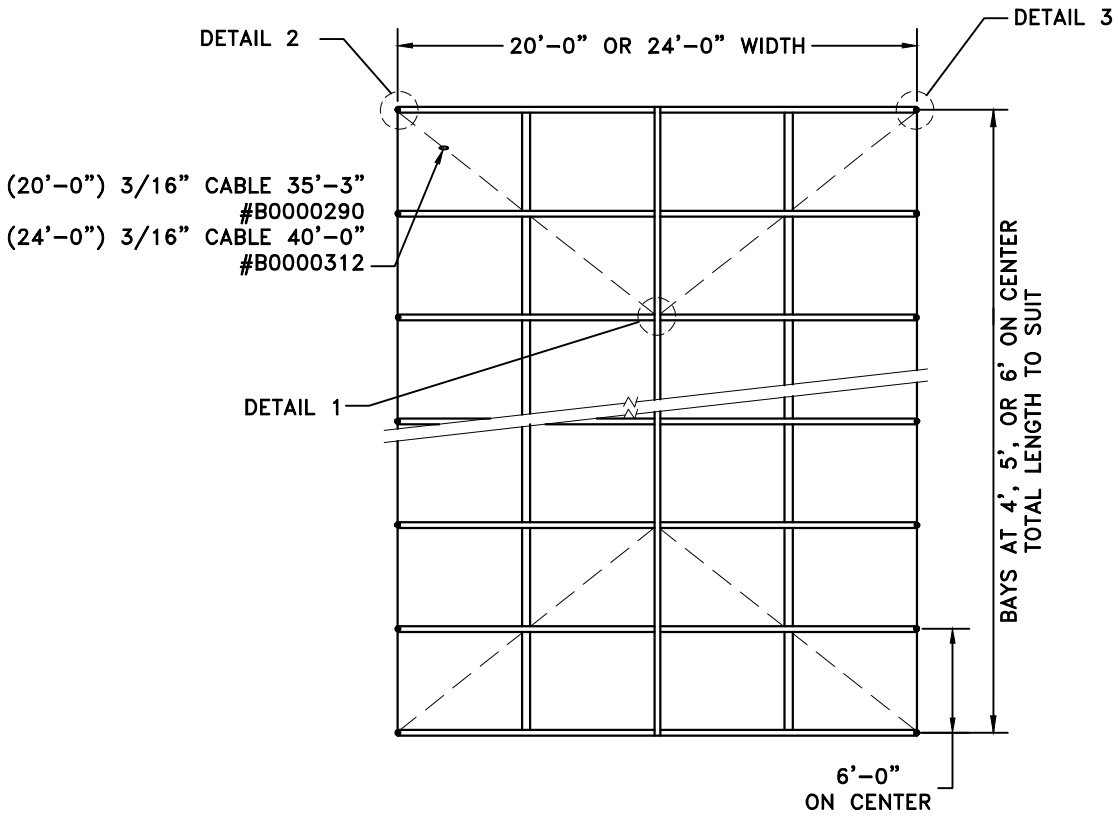
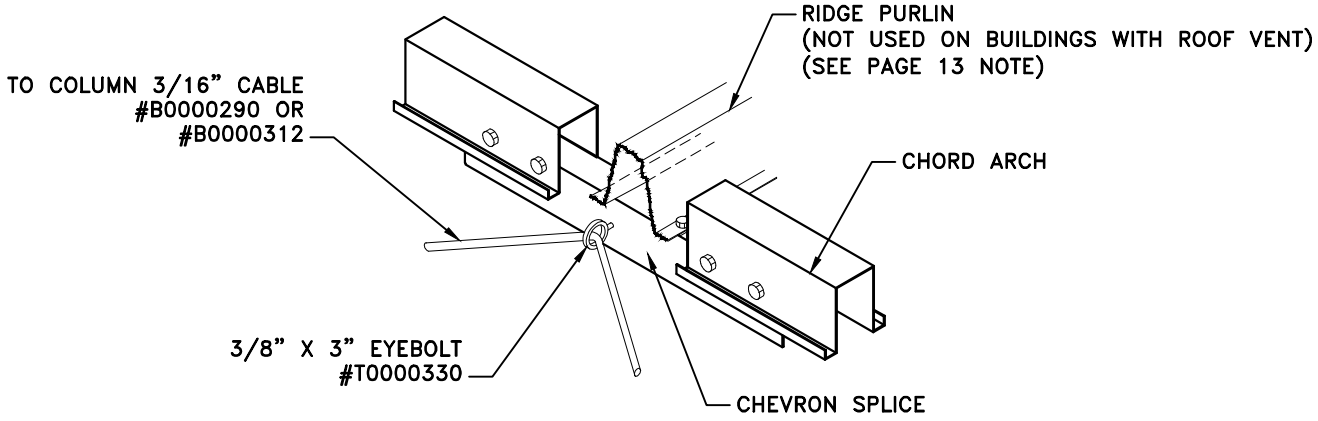


FIGURE 13 - 5 PURLIN OPTION

INSTALLATION OF CABLE BRACING



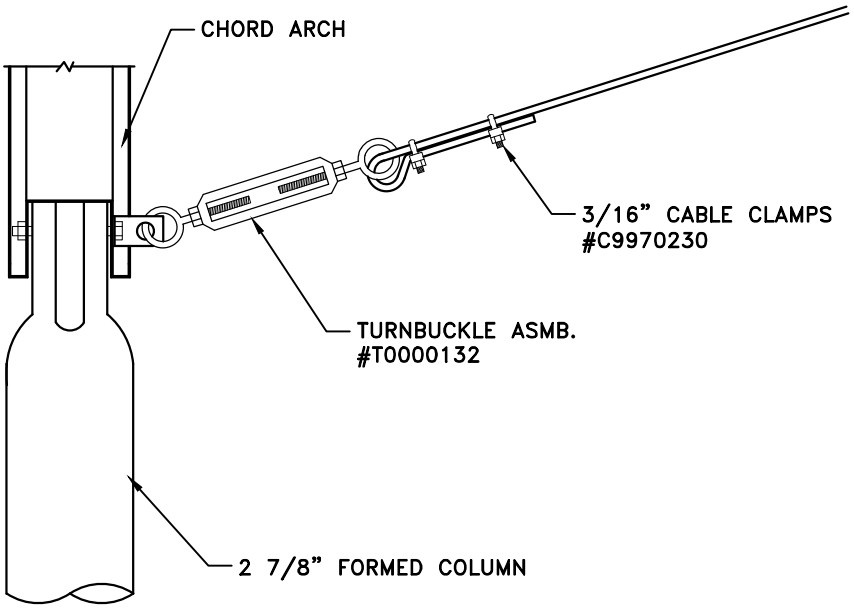
1. 12'-0" IN FROM THE END OF THE BUILDING, RAP THE MIDDLE OF THE 1/4" BRACE CABLE THROUGH EYE BOLT, AND BACK OVER THE CHEVRON SPLICE.



DETAIL 1

2. ATTACH THE 3/8" TURNBUCKLE TO ONE SIDE OF THE ARCH AT THE COLUMN TO ARCH CONNECTIONS.

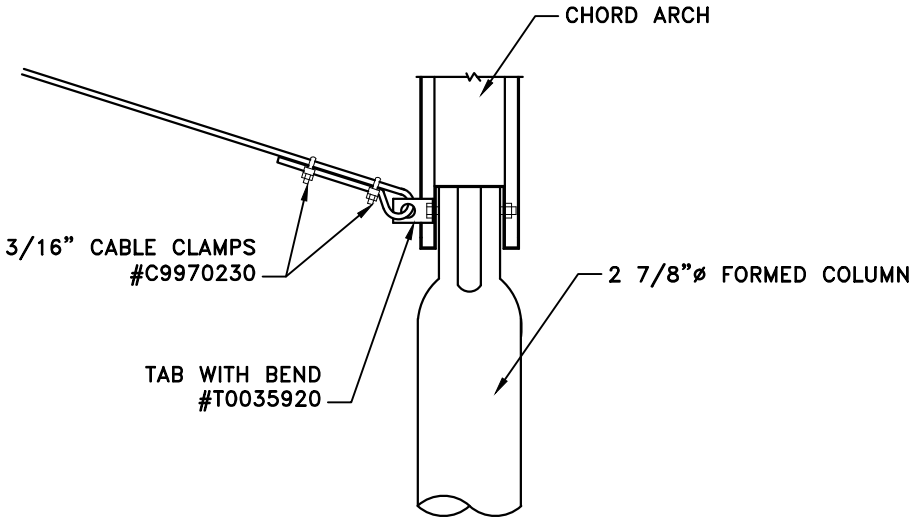
3. ATTACH THE 3/16" CABLE TO THE TURNBUCKLE WITH (2) 3/16" CABLE CLAMPS.



DETAIL 2

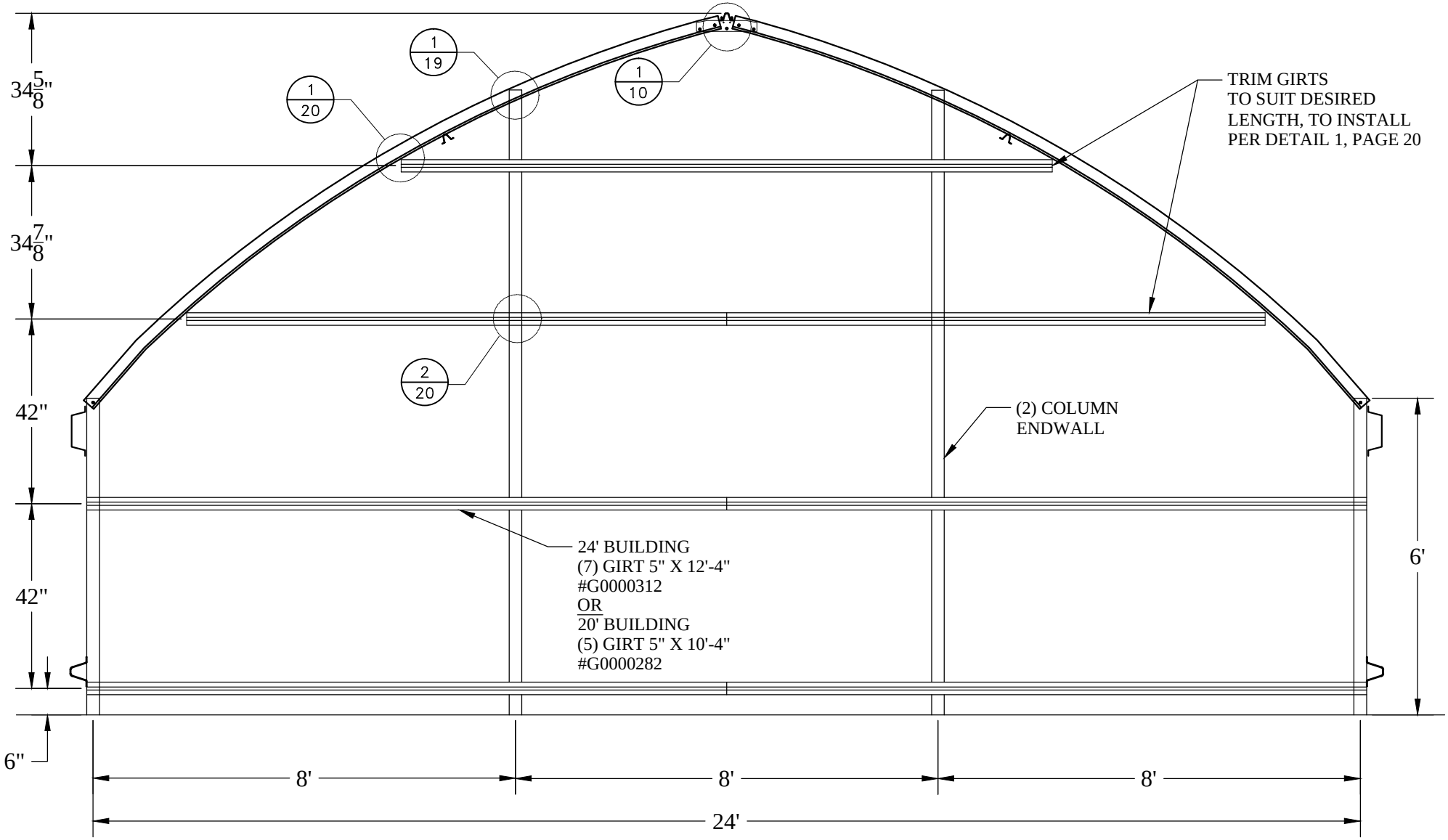
4. ATTACH THE BENT TAB TO THE OPPOSITION SIDE FROM THE TURNBUCKLE AT THE COLUMN TO CHORD ARCH CONNECTION.

5. ATTACH THE 3/16" CABLE TO THE BENT TAB WITH (2) 3/16" CABLE CLAMPS.



DETAIL 2

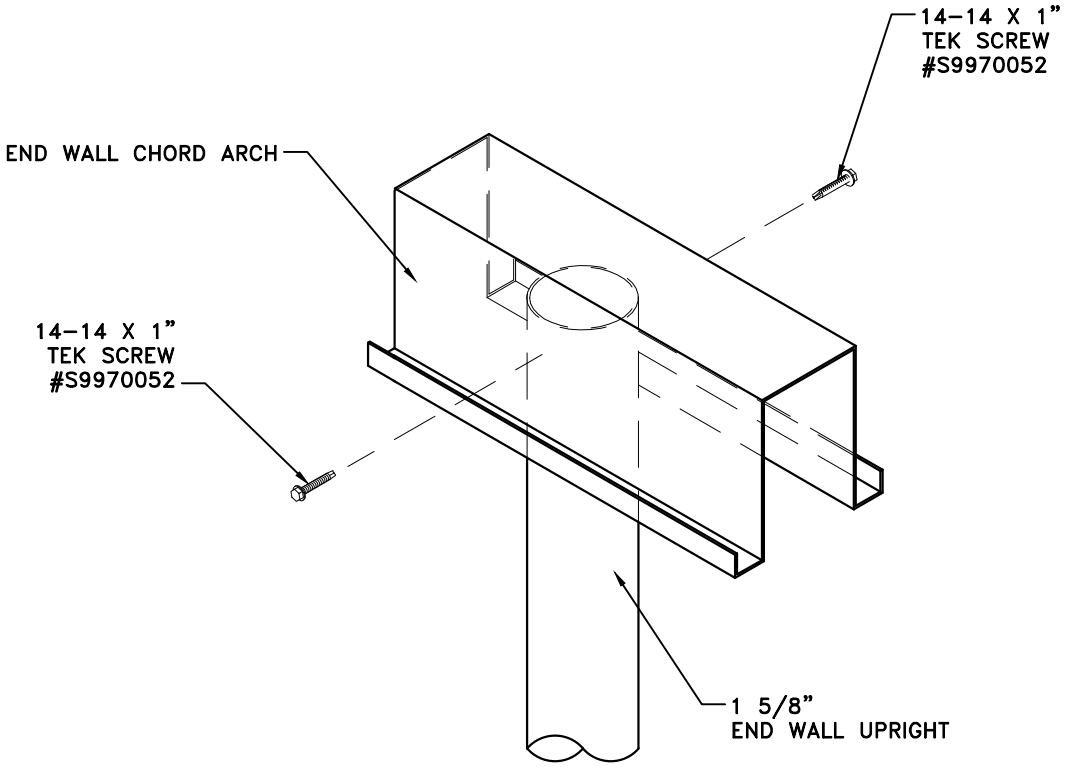
END WALL LAYOUT 24'-0" BUILDING WITH 6' SIDE WALL HEIGHT



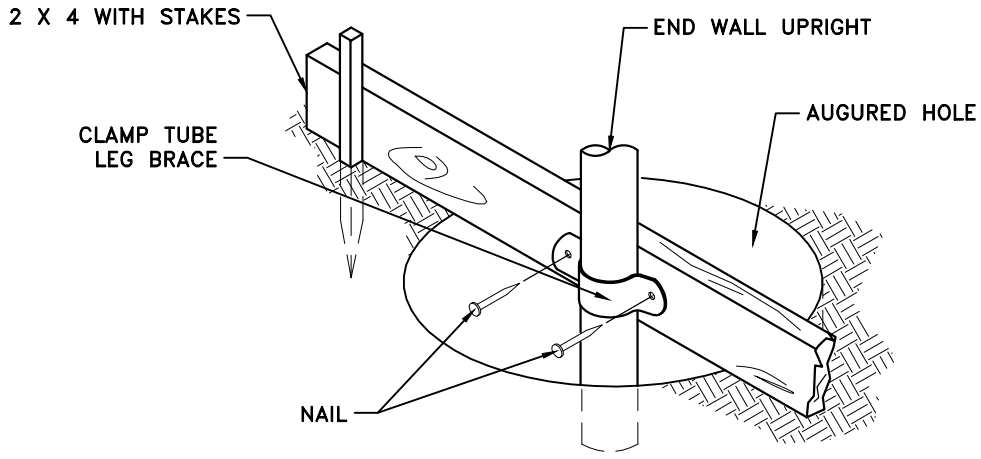
END WALL UPRIGHT INSTALLATION

1. PUT THE BOTTOM OF THE END WALL UPRIGHT INTO THE AUGURED FOOTING HOLE.

2. SLIP THE OPPOSITE END OF THE END WALL UPRIGHT INSIDE OF THE END WALL CHORD ARCH AND SECURE WITH (2) 14-14 X 1" TEK SCREW AT EACH SIDE OF THE CHORD.



3. BEFORE POURING THE CEMENT, SLIP (1) CLAMP TUBE LEG BRACE ON EACH END WALL COLUMN TUBE. STAKE 2 X 4'S IN PLACE KEEPING THE COLUMNS PLUMB IN BOTH DIRECTIONS AND TEMPORARILY NAIL THE CLAMP TUBE LEG BRACES TO THE 2 X 4'S (SEE DETAIL 2 BELOW). THIS IS DONE TO HELP SUPPORT THE WEIGHT OF THE BUILDING WHILE THE CEMENT IS CURING. WAIT A MINIMUM OF 24 HOURS BEFORE REMOVING 2 X 4'S. USE THE OFFSETTING LINES TO PROPERLY ALIGN THE COLUMN INTO THE AUGUR HOLE (SEE PAGE 6).

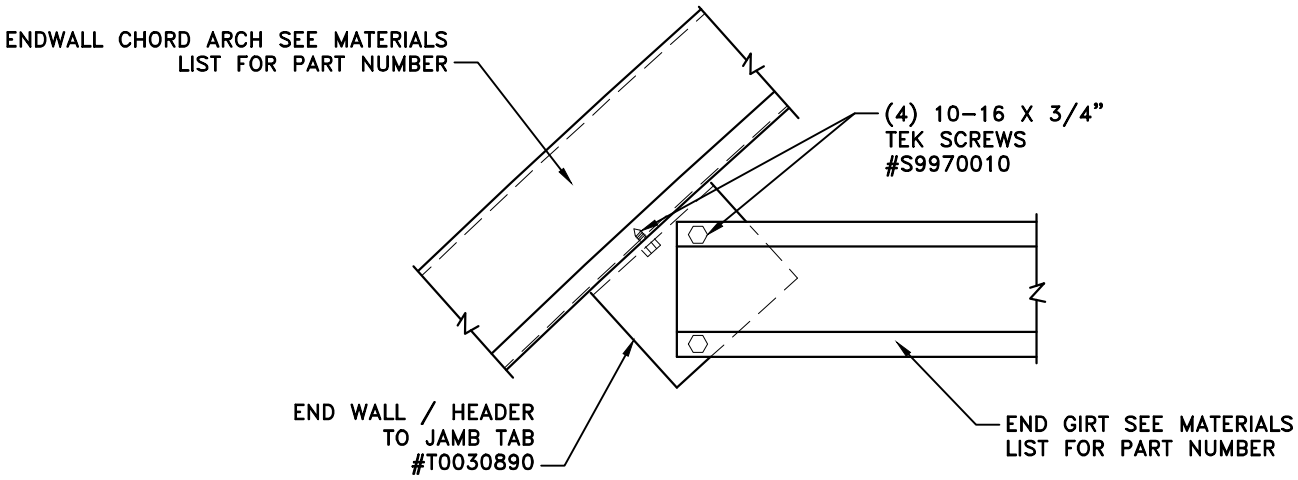


DETAIL 2

END WALL GIRT CONNECTIONS

1. DRILL SCREW THE END WALL / HEADER TO JAMB TAB TO THE END WALL ARCH, THE END WALL AND THE UPRIGHTS WITH (2) 10-16 X 3/4" TEK SCREWS.

2. LEVEL AND DRILL SCREW THE END GIRTS TO THE TABS WITH (2) 10-16 X 3/4" TEK SCREWS.

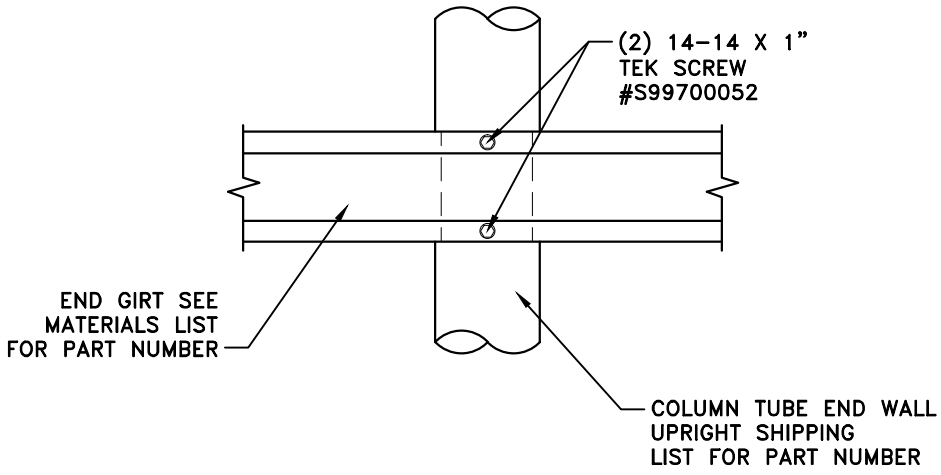


DETAIL 1

3. LEVEL AND DRILL SCREW THE END GIRT TO THE TABS WITH (2) 10-16 X 3/4" TEK SCREWS AT EACH TAB.

4. SECURE THE END GIRTS TO THE END WALL UPRIGHTS WITH (2) 10-16 X 3/4" TEK SCREWS. (SEE DETAIL 2 BELOW).

5. END WALL GIRTS ARE TYPICALLY SPACED OUT EVENLY, TO SUPPORT THE END WALL COVERING. GIRTS CAN BE SPACED OUT AS FAR AS 48" IF NEEDED.



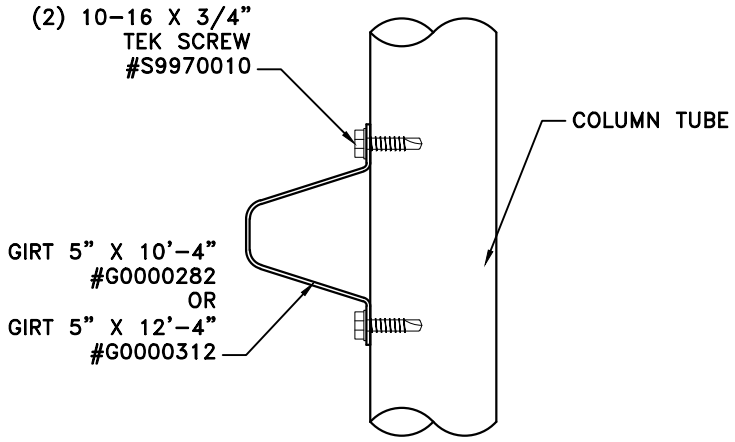
DETAIL 2

END WALL UPRIGHT INSTALLATION

1. MARK THE COLUMNS WITH THE GIRT LOCATIONS.

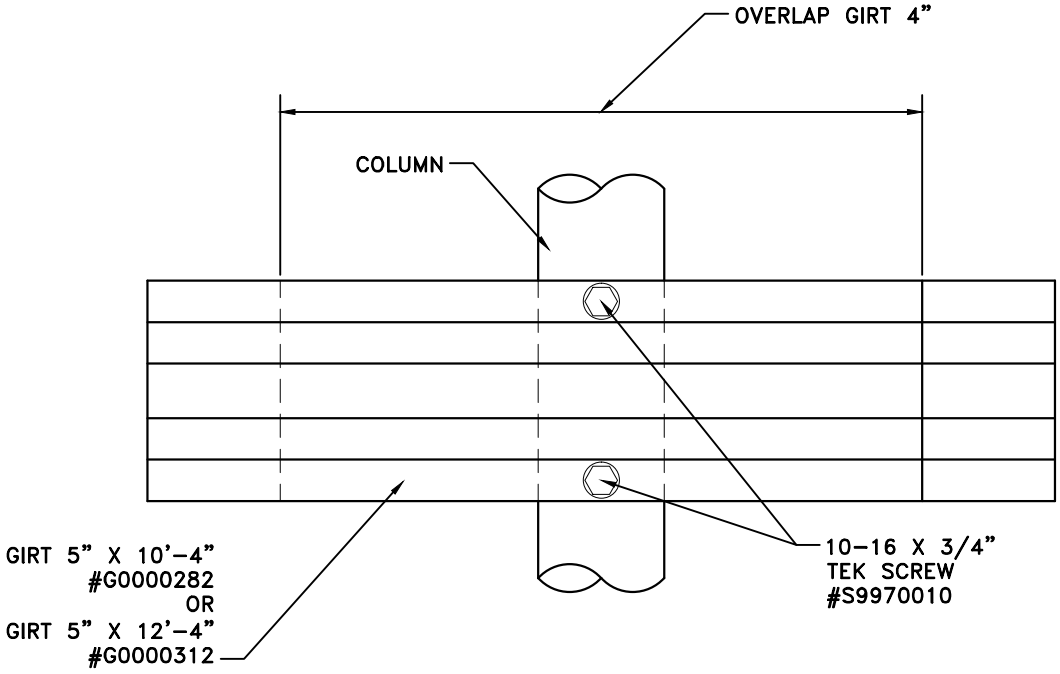
2. CLAMP THE GIRTS TO THE COLUMN AND ADJUST TO MAKE THEM LEVEL.

3. SECURE THE GIRTS TO THE COLUMNS WITH (2) 10-16 X 3/4" TEK SCREWS PER COLUMN.



DETAIL 1

4. SPICE THE GIRTS BY OVERLAPPING THEM AND SECURING BOTH GIRTS TO THE COLUMN WITH (2) 10-16 X 3/4" TEK SCREW PER COLUMN.



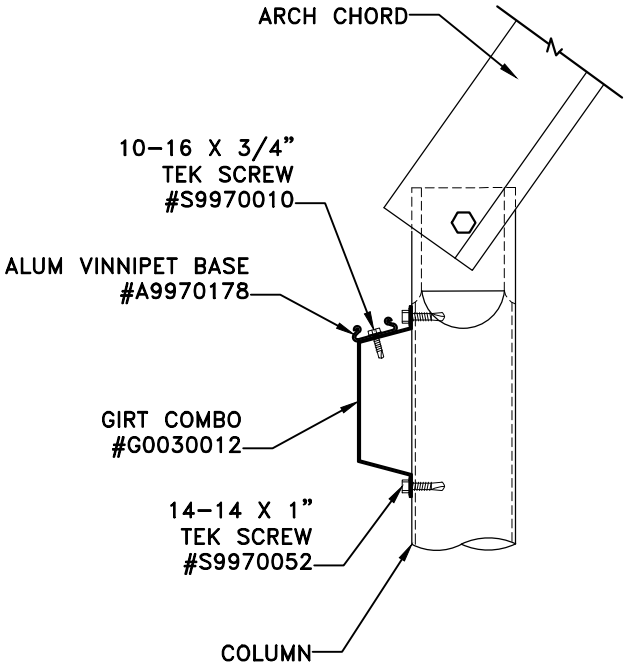
DETAIL 2

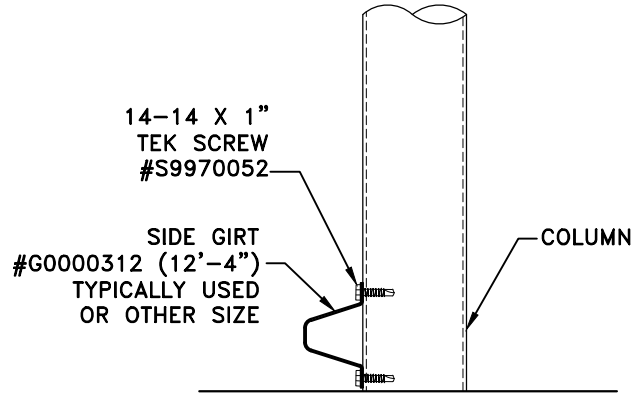
COVERING TRIM INSTALLATION
SIDE WALL / ROOF CONNECTION

1. **GIRT COMBO PROVIDED [DETAIL 1] (PART#: G0030012)**
   ATTACH THE GIRT COMBO TO EACH COLUMN WITH (2) #14 TEK SCREWS, NEAR THE TOP OF THE COLUMNS. AT SPICE, OVERLAP BY GIRT BY 4". ATTACH THE ALUM VINNIPET BASE TO THE TOP OF THE GIRT COMBO WITH A 10-16 X 3/4" TEK SCREW AT 12" ON CENTER.

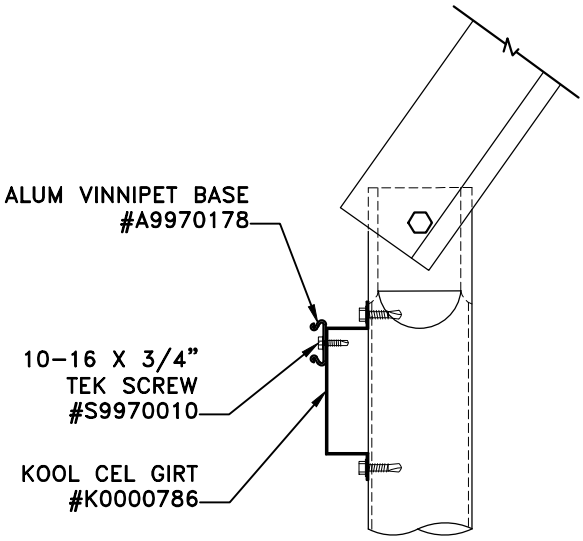
2. **KOOL CEL GIRT PROVIDED [DETAIL 2] (PART#: K0000786)**
   ATTACH THE KOOL CEL SPLICE PLATE (S0000950) TO EACH COLUMN, NEAR THE TOP OF THE COLUMNS WITH (2) #14 TEK SCREWS. ATTACH THE KOOL CEL GIRT TO THE KOOL CEL SPLICE PLATES WITH (2) #14 TEK SCREWS, APPROXIMATELY AS SHOWN IN DETAIL 2 BELOW. ATTACH THE ALUM VINNIPET BASE TO THE UPPER PORTION OF THE GIRT WITH A 10-16 X 3/4" TEK SCREW AT 12" ON CENTER.

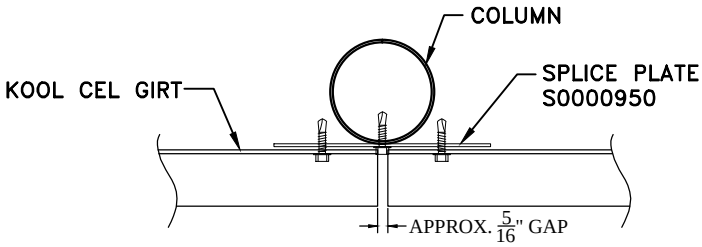
3. ATTACH THE 5" GIRT WITH (2) 14-14 X 1" TEK SCREWS AT EACH COLUMN.



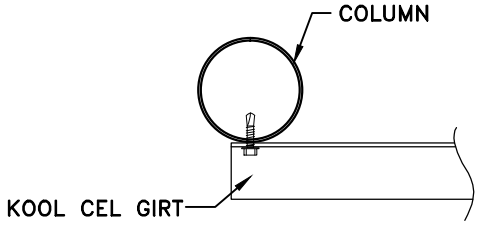


DETAIL 1





TOP VIEW SPLICE

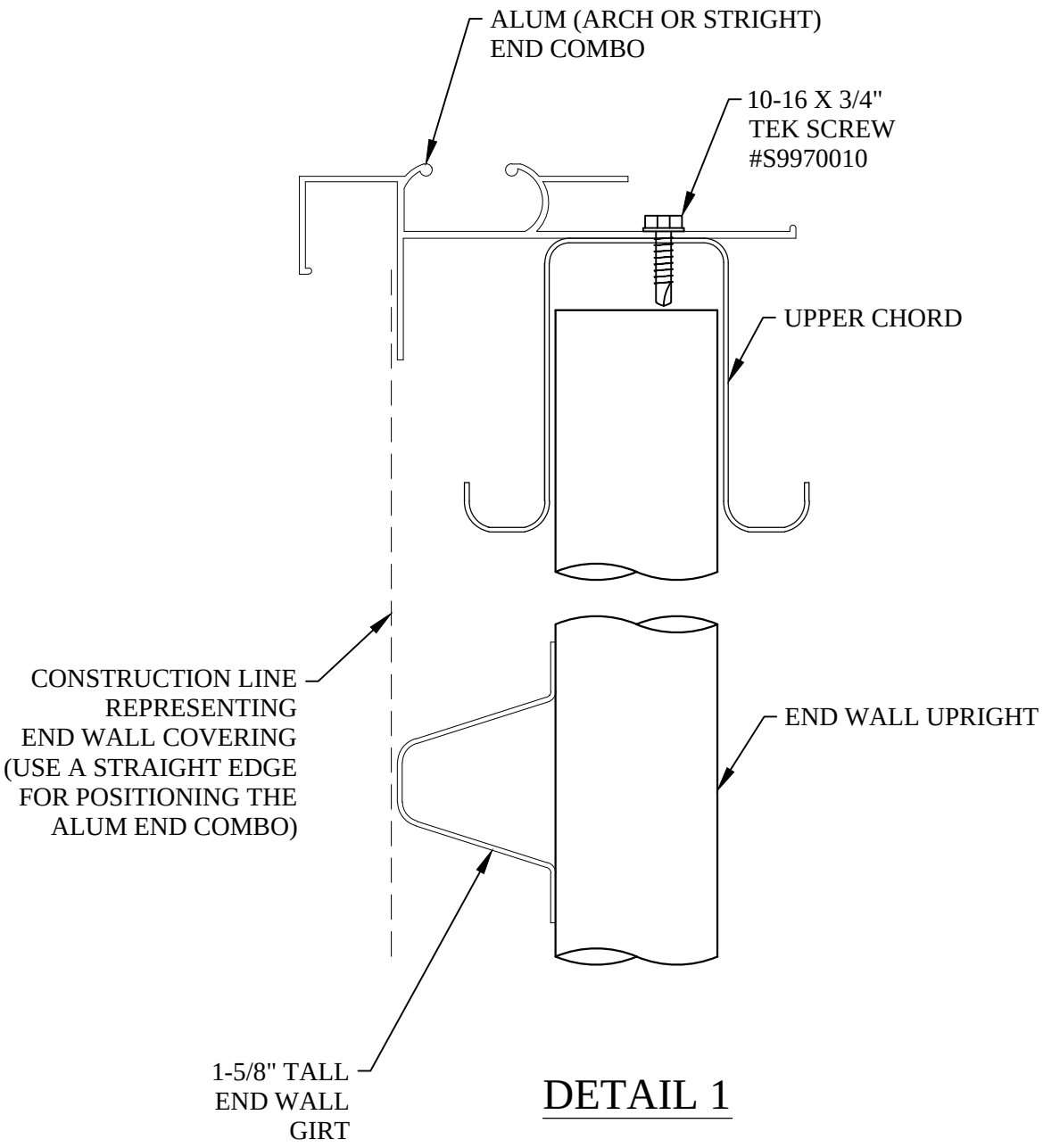


TOP VIEW SPLICE @ CORNERS

DETAIL 2

COVERING TRIM INSTALLATION
END BAR COMBO (CORRUGATED)

1. FOR FIBERGLASS END WALL COVERING, USE AN ALUMINUM ARCH END COMBO. ATTACH IT TO THE END WALL ARCH WITH 10-16 X 3/4" TEK SCREWS AT 16" ON CENTER.



DETAIL 1

INSTALLATION OF POLY COVERING ON ARCHED BUILDINGS

1. ON SINGLE BUILDINGS, ROLL OUT THE POLY LENGTHWISE NEXT TO BUILDING.

2. WAD UP THE POLY (APPROX. EVERY 20') AND TIE IT WITH ROPES ON THE SIDE OF THE POLY FURTHEST FROM THE BUILDING.

3. THROW ROPES OVER THE BUILDING AND PULL THE POLY ONTO THE BUILDING. REPEAT THIS PROCEDURE FOR MULTIPLE LAYERS OF POLY.

4. INSTALLING POLY REQUIRES A MINIMUM OF FOUR PEOPLE, TWO PEOPLE TO HOLD THE POLY IN PLACE AT THE END OF THE BUILDING, ONE ON EACH SIDE. THE OTHER TWO PEOPLE STARTING AT THE OPPOSITE END OF BUILDING TO INSTALL THE TUBE LOCK CAP SIMULTANEOUSLY, ON EACH SIDE OF BUILDING. SEE PAGE 30 FOR POLY LOCKING INSTRUCTIONS.

5. SECURE THE TUBE LOCK CAP WITH TEK SCREWS AT EACH END.

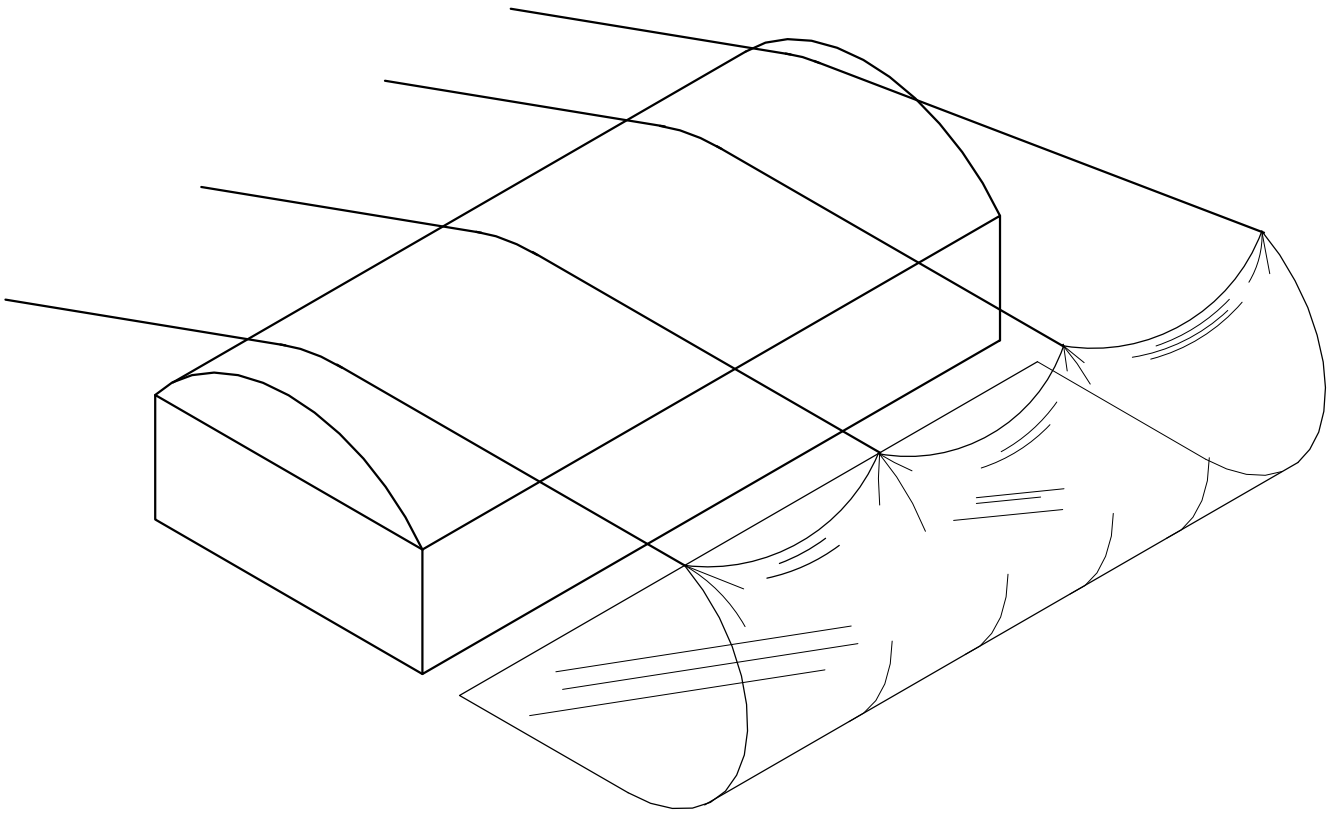
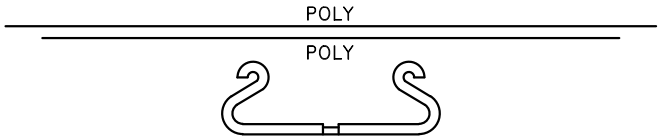


FIGURE 14 - POLY INSTALLATION

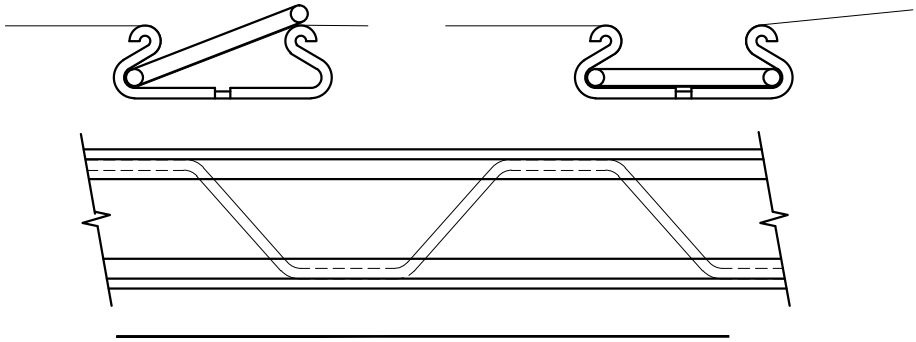
INSTALLATION OF POLY COVERING WITH VINNIPET SPRING

NOTE: TEK SCREW ALL VINNIPET BASE AT A MINIMUM OF 12" ON CENTER

1. APPLY POLY FILM (ONE OR MORE LAYERS) OVER PREVIOUSLY INSTALLED VINNIPET BASE.

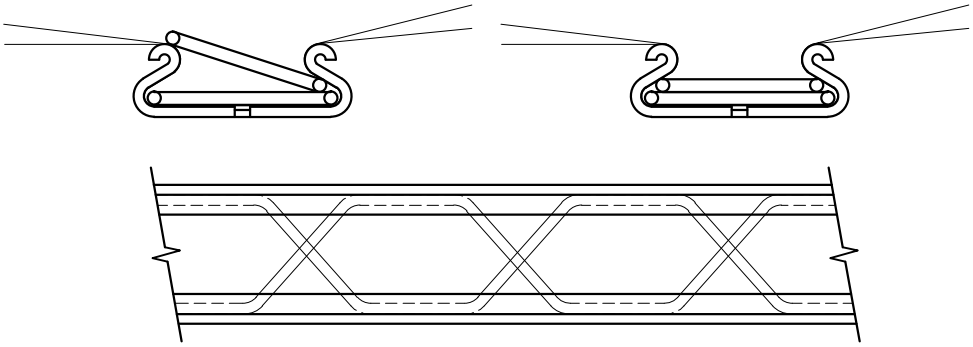


2. INSERT ONE EDGE OF THE VINNIPET SPRING INTO THE VINNIPET BASE. KEEPING POLY TIGHT WEAVE THE VINNIPET SPRING INTO THE BASE SECURING THE POLY.



USE DOUBLE CLIPS WHEN INSTALLING 32' OR WIDER POLY, DOUBLE POLY, AND/OR BUILDING IS LOCATED IN HIGH WIND AREA.

3. INSERT ONE EDGE OF THE SECOND VINNIPET SPRING INTO THE VINNIPET BASE. KEEPING POLY TIGHT WEAVE THE SECOND VINNIPET SPRING INTO THE BASE SECURING THE POLY.



WARRANTY CONLEY'S MFG. AND SALES, THEIR EMPLOYEES OR REPRESENTATIVES, WILL NOT BE RESPONSIBLE FOR ANY DAMAGE TO GREENHOUSE COVERING, STRUCTURES, CROPS OR EQUIPMENT WHEN USED IN CONJUNCTION WITH OUR TUBE - LOCK, OR ANY OTHER LOCKING DEVICE MFG,D BY C.M.S. OR OTHERS.