CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0104338
Insp Area: 4

Site Address: 89 CAKEBREAD CR SAC
Parcel No: 225-1360-026

Sub-Type: NOTHR
Housing (Y/N): N

CONTRACTOR
YANCEY BROTHERS
8250 ALPINE AV STE A
SAC CA 95826

OWNER
JMRIL
89 CAKEBREAD CIR
SACRAMENTO, CA 95834

ARCHITECT

Nature of Work: 14'X20' SOLID PATIO COVER.

CONSTRUCTION LENDING AGENCY : I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.)

Lender's Name _____ Lender'sAddress _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class B License Number 731709 Date 4-9-01 Contractor Signature _____

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500.00):

_____ I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

_____ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

_____ I am exempt under Sec. _____ B & PC for this reason: _____

Date _____ Owner Signature _____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 4-9-01 Applicant/Agent Signature _____

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

_____ I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

X I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier STATE FUND Policy Number 1604244 Exp Date 11/01/2001

_____ (This section need not be completed if the permit is for $100 or less). I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 4-9-01 Applicant Signature _____

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

PAID
CITY OF SACRAMENTO
APR 9 2001
NEIGHBORHOOD PLANNING AND DEVELOPMENT SERVICES

Date of Request: _____
By: _____

CITY OF SACRAMENTO DEVELOPMENT SERVICES DIVISION
PLANNING AND ZONING INFORMATION REQUEST

Project Address: [illegible] Larkwood Cir

Assessor's Parcel Number: [illegible] 1360-026

Previous Use: [illegible]

Description of Request/Proposed Use: patio cover 280 SF

Is This a Change of Use? [illegible]

Zoning Designation: R-1-PUD

Prior Applications for Project Site(P#, Z#, DRPB#): P99-048

Comments: NOT EXCEEDING LOT COVERAGE

NOT VISIBLE FROM PUBLIC STREET NO

DESIGN REVIEW NECESSARY

Are There Any Planning Issues?: (circle one) YES (NO)

* Staff Site Plan Check Required? (Circle one) YES (NO)
* Field Inspection Required? (Circle one) YES (NO)
* Design Review/Preservation Required?: (Circle one) YES (NO)

Planning Review by/Date Michael York 4-9-01

A list of items that must be reviewed by Planning is provided on the reverse side of this form.

MICROFILM AFTER FINAL

ICBO ES EVALUATION REPORT NO ER-2621P

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

R. F. TUCKER

Registration No. 22

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DATE: 2/8/2000

EXPIRES

GENERAL NOTES:

(CONTINUED FROM SHEET NO. 1)

NOTE: EXPOSURE "B" HAS TERRAIN WHICH HAS BUILDINGS, FOREST OR SURFACE IRREGULARITIES COVERING AT LEAST 20 PERCENT OF THE GROUND LEVEL AREA EXTENDING ONE MILE OR MORE FROM THE SITE.
EXPOSURE "C" HAS TERRAIN WHICH IS FLAT AND GENERALLY OPEN, EXTENDING ONE-HALF MILE OR MORE FROM THE SITE, IN ANY FULL QUADRANT.

5. CONCRETE MIX: Fc=2500 PSI 28 DAYS. APPENDIX CHAPTER 31 DIVISION III PATIO STRUCTURES MAY BE ATTACHED TO CONCRETE SLAB WITHOUT FOOTINGS WHEN THE COLUMN LOAD IS 750# OR LESS. CONCRETE SHALL BE A MINIMUM OF 3.5 INCHES THICK AND NO CRACKS WITHIN 2'-6" OF COLUMNS. COLUMNS SHALL BE SET BACK A MINIMUM OF 4 INCHES FROM EDGE OF SLAB.

6. FOOTINGS HAVE BEEN DESIGNED FOR CLASS 5 SOIL. ALLOWABLE SOIL BEARING PRESSURE OF 1000 POUNDS PER SQUARE FOOT. STRUCTURES SUPPORTED BY FLAGPOLE TYPE COLUMNS ARE NOT ADVERSELY AFFECTED BY A 1/2 INCH LATERAL GROUND MOVEMENT AND FOOTINGS FOR THOSE STRUCTURES HAVE BEEN DESIGNED FOR AN ALLOWABLE LATERAL SOIL BEARING PRESSURE OF 200 POUNDS PER SQUARE FOOT PER FOOT OF DEPTH. SOILS OF ORGANIC CLAYS OR SILTS REQUIRE A SOIL INVESTIGATION AND SPECIALLY DESIGNED FOOTINGS. FILLS MUST BE PLACED UNDER A LABORATORY CONTROLLED COMPACTION SUBJECT TO APPROVAL OF THE BUILDING OFFICIAL.

7. ALUMINUM BOLTS TO BE 2024-T4.

8. COMMERCIAL STRUCTURES MAY BE USED FOR PARKING OF MOTOR VEHICLES PER LOCAL BUILDING CODES. APPENDIX CHAPTER 31 DIVISION III PATIO STRUCTURES MAY NOT BE USED FOR PARKING OF MOTOR VEHICLES.

9. FREESTANDING STRUCTURES SHALL NOT BE ENCLOSED IN ANY MANNER.

10. STEEL BOLTS SHALL BE ASTM A-307.

11. ALTERNATE ALUMINUM ALLOYS OF EQUAL OR HIGHER STRENGTHS MAY BE USED.

12. STEEL FASTENERS SHALL BE EITHER STAINLESS, GALVANIZED OR DOUBLE CADMIUM PLATED "AN" BOLTS.

13. HIGH STRENGTH BOLTS SHALL BE ASTM A-325.

14. EMBEDDED COLUMN SURFACES SHALL BE CLEAN AND FREE FROM OILY SURFACES.

15. PATIO STRUCTURES ARE DESIGNED IN ACCORDANCE WITH APPENDIX CHAPTER 31 DIVISION III OF THE UNIFORM BUILDING CODE.

16. HEADER SPLICES SHALL NOT BE LOCATED NEARER TO THE END OF THE STRUCTURE THAN THE FIRST INTERIOR COLUMN.

17. PATIO STRUCTURES MAY BE ENCLOSED WITH INSECT SCREENING.

18. STRUCTURES MAY BE ATTACHED TO RAFTER OVERHANGS PER SCHEDULE.

19. WHERE ALUMINUM ALLOY PARTS ARE IN CONTACT WITH DISSIMILAR METALS OTHER THAN STAINLESS, ALUMINIZED OR GALVANIZED STEEL, OR ABSORBENT BUILDING MATERIALS, LIKELY TO BE CONTINUOUSLY OR INTERMITTENTLY WET, THE FACING SURFACES SHALL BE PAINTED OR OTHERWISE SEPARATED IN ACCORDANCE WITH U.B.C. SECTION 2004.3.

20. ALL SCREWS CONFORM TO ANSI B18-6-4 AND SAE J933.

GENERAL NOTES FOR LATTICE STRUCTURES:

(PERTAINS TO LATTICE STRUCTURES ON DRAWINGS 97SC02 AND 97LT01 THRU 97LT06.)

1. SEE GENERAL NOTES, SHEET 1, SECTION 4 FOR LIVELOAD AND WIND LOADS.

2. OPEN LATTICE STRUCTURES SHALL NOT BE ENCLOSED.

REGISTERED PROFESSIONAL ENGINEER
R. F. TUCKER
NO. 26070
CIVIL
STATE OF CALIFORNIA
3-31-02

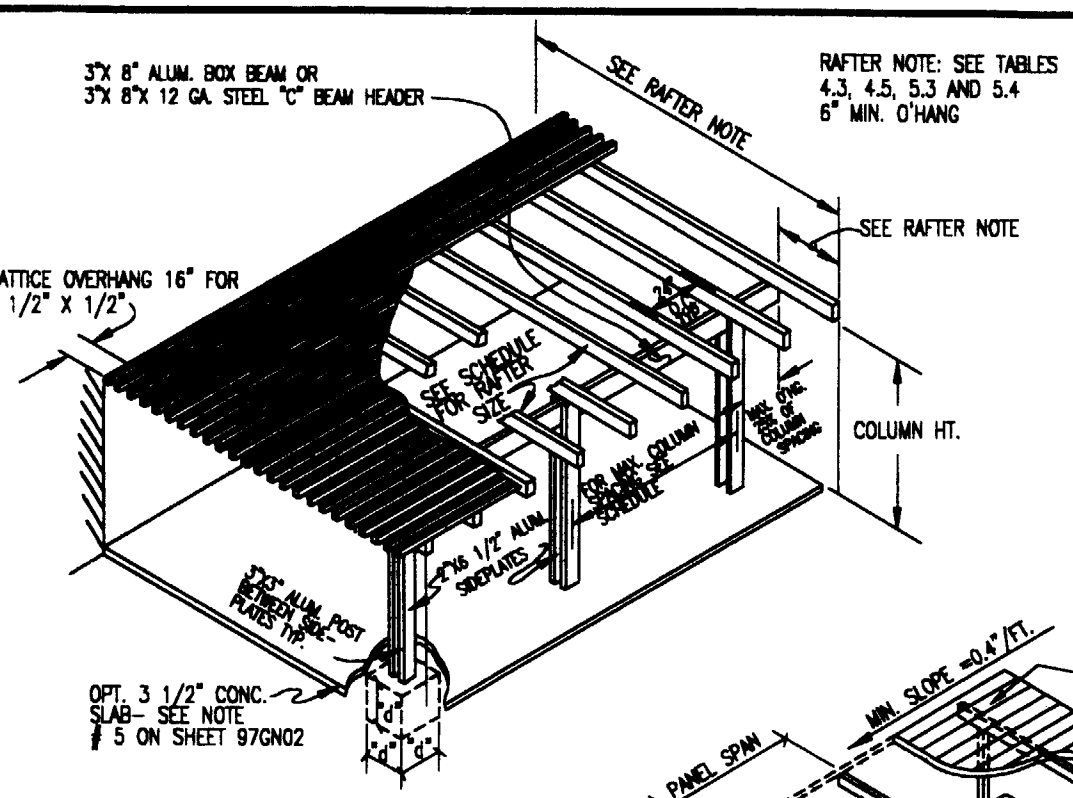
ENGINEERS STAMP

MAR 03 2000

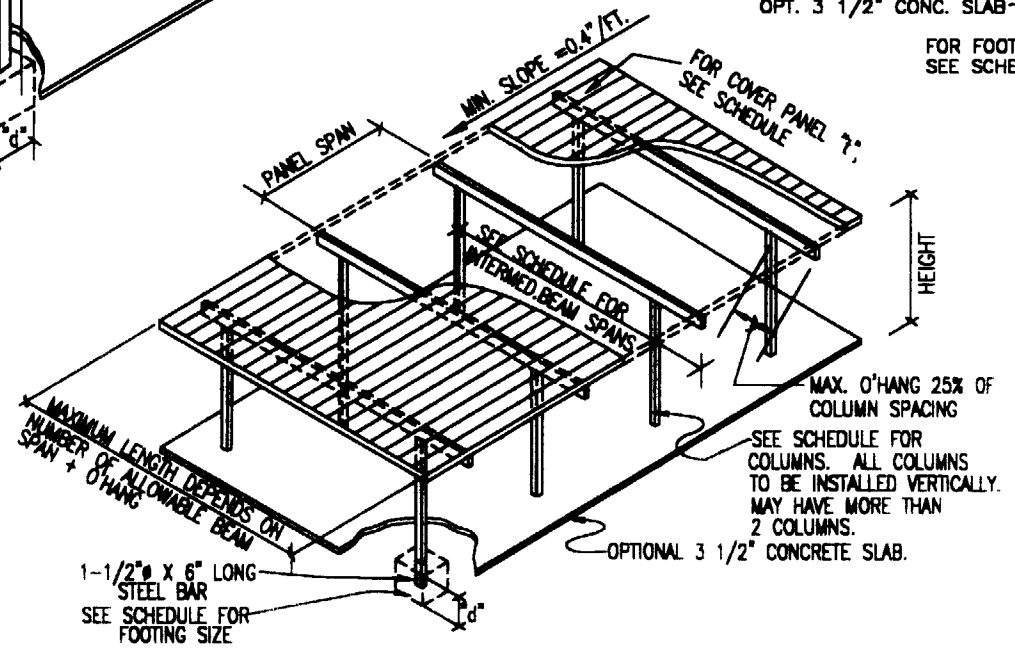
DATE	REVISION	DATE	REVISION

Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

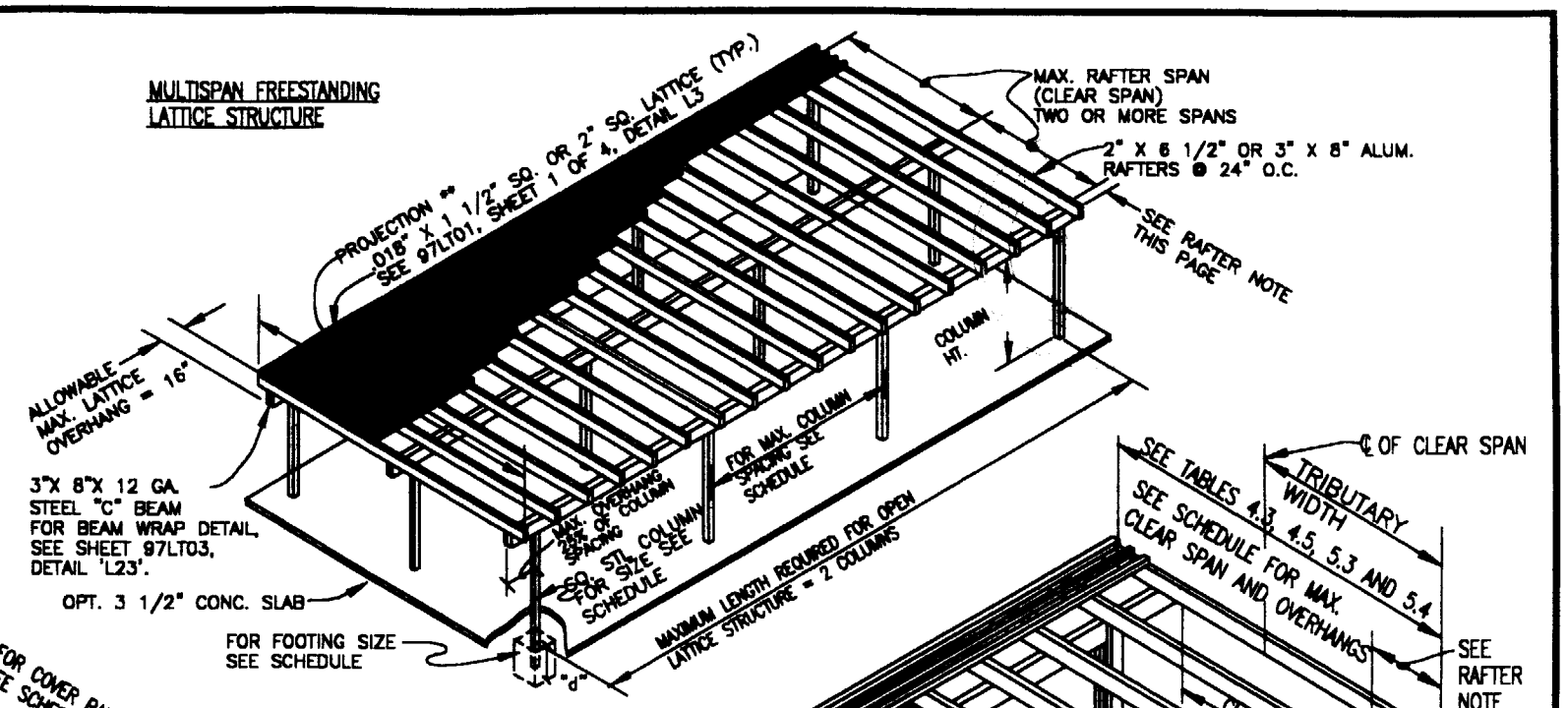
DRAWN BY: KG	ICBO ES EVALUATION REPORT NO. ER-2621P	
SCALE: NONE	DRAWING OR PART NAME: GENERAL NOTES	
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97GN02	SHEET 2 OF 2

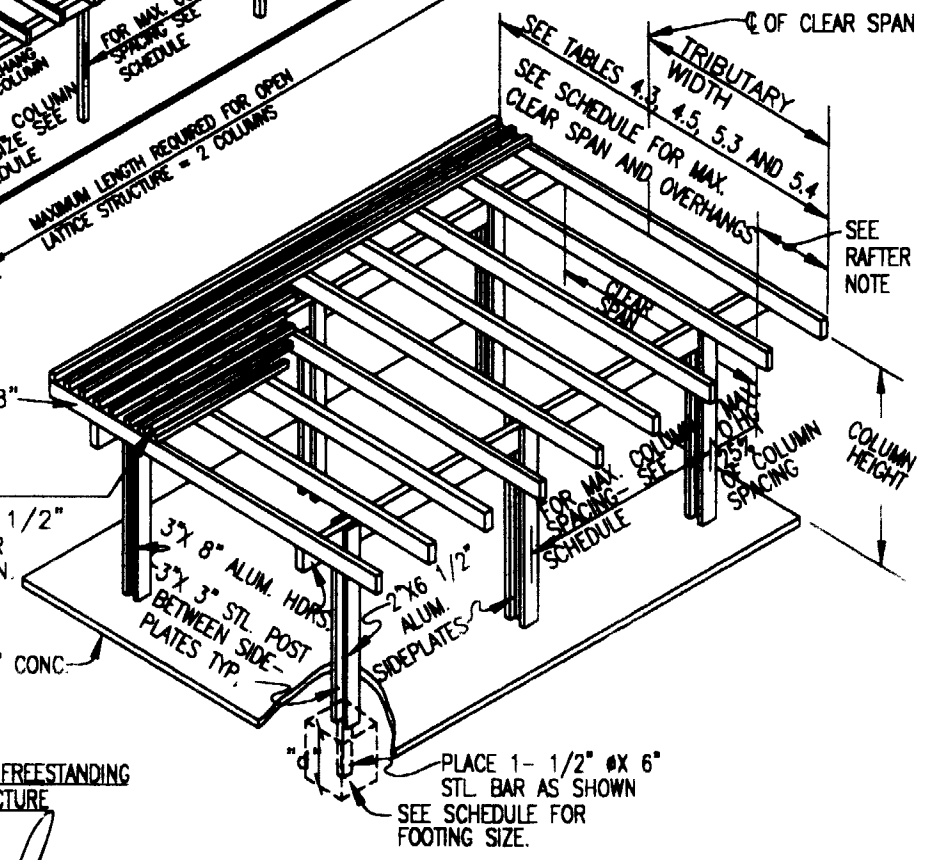


SINGLE SPAN ATTACHED
LATTICE STRUCTURE



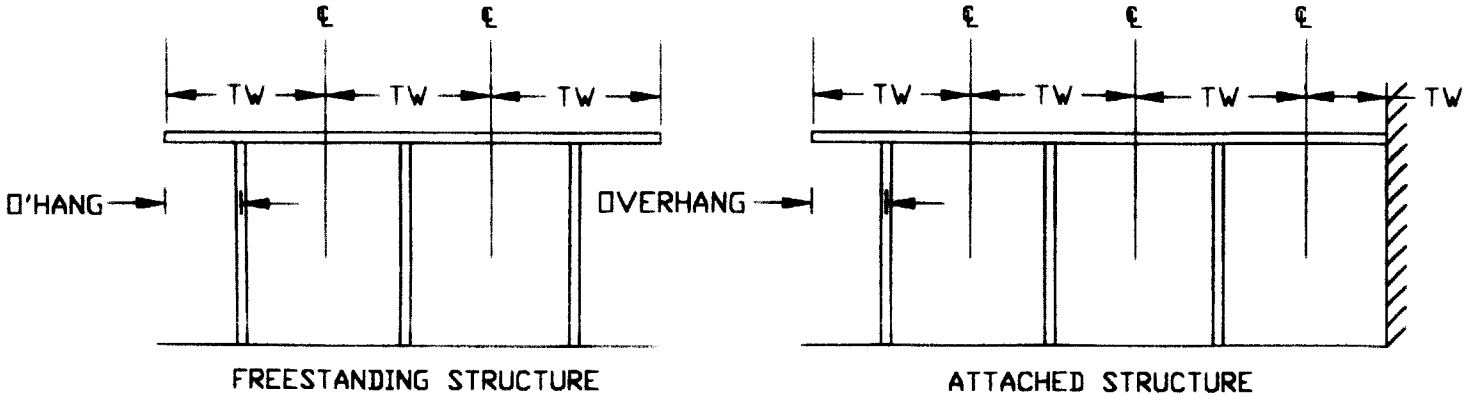
MULTISPAN FREESTANDING
LATTICE STRUCTURE





MULTISPAN FREESTANDING
STRUCTURE

SINGLE SPAN FREESTANDING
LATTICE STRUCTURE



TRIBUTARY WIDTH (TW) DIAGRAM

REGISTERED PROFESSIONAL ENGINEER
R. F. TUCKER
NO. 26070
Exp. 3-31-02
STATE OF CALIFORNIA
ENGINEERS STAMP

DATE	REVISION	DATE	REVISION
MAR 03 2000			

Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

DRAWN BY: AJF	ICBO ES EVALUATION REPORT NO. ER-2621P	
SCALE: NONE	DRAWING OR PART NAME: STRUCTURAL CONFIGURATIONS	
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97SC02	SHEET 2 OF 2

1.0 ROOF PANEL SPANS AND OVERHANGS FOR PATIO AND COMMERCIAL STRUCTURES

3 1/2" x 12" ROOF PANEL DESIGN SPAN FOR PATIO STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	12' HEIGHT 70 MPH	90 MPH	OVER HANG
10	0.018	16'-7"	16'-2"	7'-10"
	0.024	18'-8"	18'-8"	8'-7"
	0.032	20'-6"	20'-6"	9'-6"
	0.036	21'-4"	21'-4"	9'-10"
20	0.018	11'-11"	11'-11"	5'-9"
	0.024	13'-8"	13'-8"	6'-8"
	0.032	15'-11"	15'-11"	7'-6"
	0.036	17'-0"	17'-0"	7'-10"
25	0.018	10'-9"	10'-9"	5'-2"
	0.024	12'-3"	12'-3"	5'-11"
	0.032	14'-4"	14'-4"	7'-0"
	0.036	15'-4"	15'-4"	7'-3"
30	0.018	9'-10"	9'-10"	4'-9"
	0.024	11'-3"	11'-3"	5'-5"
	0.032	13'-1"	13'-1"	6'-4"
	0.036	14'-0"	14'-0"	6'-10"
40	0.018	8'-7"	8'-7"	4'-1"
	0.024	9'-10"	9'-10"	4'-9"
	0.032	11'-5"	11'-5"	5'-6"
	0.036	12'-3"	12'-3"	5'-11"
60	0.018	7'-1"	7'-1"	3'-4"
	0.024	8'-1"	8'-1"	3'-10"
	0.032	9'-5"	9'-5"	4'-6"
	0.036	10'-1"	10'-1"	4'-10"

TABLE 1.1

2 1/2" x 18" STRUCTURAL PANEL FOR PATIO COVERS

LIVE LOAD (PSF)	PANEL "t" (IN)	12' HEIGHT 70 MPH	90 MPH	OVER HANG
10	0.018	12'-4"	11'-11"	5'-9"
20	0.018	8'-10"	8'-10"	4'-3"
25	0.018	8'-0"	8'-0"	3'-10"
30	0.018	7'-4"	7'-4"	3'-6"
40	0.018	6'-5"	6'-5"	3'-0"
60	0.018	4'-10"	4'-10"	2'-5"

TABLE 1.2

2 1/2"x12" STEEL PANEL DESIGN SPANS FOR PATIO STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	12' HEIGHT 70 MPH	90 MPH	OVER HANG
10	0.0120	14'-8"	14'-8"	5'-1"
	0.0149	16'-2"	16'-2"	5'-5"
20	0.0120	8'-4"	8'-4"	4'-0"
	0.0149	11'-8"	11'-8"	4'-4"
25	0.0120	6'-9"	6'-9"	3'-4"
	0.0149	10'-6"	10'-6"	4'-0"
30	0.0120	5'-7"	5'-7"	2'-8"
	0.0149	9'-7"	9'-7"	3'-8"
40	0.0120	4'-3"	4'-3"	2'-1"
	0.0149	8'-4"	8'-4"	3'-5"
60	0.0120	2'-10"	2'-10"	1'-5"
	0.0149	5'-10"	5'-10"	2'-11"

TABLE 1.3

3 1/2" x 6" ROOF PANEL DESIGN SPAN FOR PATIO STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	12' HEIGHT 70 MPH	90 MPH	OVER HANG
10	0.018	13'-5"	13'-3"	6'-5"
	0.020	14'-5"	14'-4"	6'-11"
	0.024	16'-3"	16'-3"	7'-10"
	0.032	18'-8"	18'-8"	8'-7"
	0.036	19'-4"	19'-4"	8'-11"
20	0.018	9'-9"	9'-9"	4'-8"
	0.020	10'-5"	10'-5"	5'-0"
	0.024	11'-9"	11'-9"	5'-8"
	0.032	14'-1"	14'-1"	6'-10"
	0.036	15'-1"	15'-1"	7'-1"
25	0.018	8'-9"	8'-9"	4'-2"
	0.020	9'-5"	9'-5"	4'-6"
	0.024	10'-7"	10'-7"	5'-1"
	0.032	12'-8"	12'-8"	6'-1"
	0.036	13'-7"	13'-7"	6'-7"
30	0.018	7'-8"	7'-8"	3'-7"
	0.020	8'-8"	8'-8"	4'-1"
	0.024	9'-9"	9'-9"	4'-8"
	0.032	11'-8"	11'-8"	5'-7"
	0.036	12'-6"	12'-6"	6'-0"
40	0.018	5'-10"	5'-10"	2'-9"
	0.020	6'-11"	6'-11"	3'-3"
	0.024	8'-6"	8'-6"	4'-0"
	0.032	10'-2"	10'-2"	4'-10"
	0.036	10'-11"	10'-11"	5'-3"
60	0.018	4'-1"	4'-1"	1'-10"
	0.020	6'-3"	6'-3"	2'-2"
	0.024	7'-0"	7'-0"	3'-0"
	0.032	8'-5"	8'-5"	4'-0"
	0.036	9'-0"	9'-0"	4'-3"

TABLE 1.4

2 1/2" x 12" ROOF PANEL DESIGN SPAN FOR PATIO STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	12' HEIGHT 70 MPH	90 MPH	OVER HANG
10	0.018	12'-4"	12'-0"	5'-10"
	0.024	14'-5"	14'-5"	6'-7"
	0.032	15'-9"	15'-9"	7'-3"
	0.036	16'-5"	16'-5"	7'-6"
20	0.018	8'-11"	8'-11"	4'-3"
	0.024	11'-6"	11'-6"	5'-3"
	0.032	12'-7"	12'-7"	5'-9"
	0.036	13'-1"	13'-1"	6'-0"
25	0.018	8'-0"	8'-0"	3'-10"
	0.024	10'-5"	10'-5"	4'-10"
	0.032	11'-9"	11'-9"	5'-4"
	0.036	12'-2"	12'-2"	5'-6"
30	0.018	7'-4"	7'-4"	3'-6"
	0.024	9'-6"	9'-6"	4'-7"
	0.032	10'-11"	10'-11"	5'-0"
	0.036	11'-6"	11'-6"	5'-3"
40	0.018	6'-5"	6'-5"	3'-0"
	0.024	8'-4"	8'-4"	4'-0"
	0.032	9'-6"	9'-6"	4'-7"
	0.036	10'-0"	10'-0"	4'-9"
60	0.018	5'-4"	5'-4"	2'-6"
	0.024	6'-10"	6'-10"	3'-3"
	0.032	7'-10"	7'-10"	3'-8"
	0.036	8'-3"	8'-3"	3'-11"

TABLE 1.5

3 1/2" x 12" PANEL ALLOW. DESIGN SPAN FOR COMMERCIAL STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	EXP. B 70/90 MPH	EXPOSURE C 70 MPH	90 MPH	MAX OVER HANG
MAXIMUM ROOF HEIGHT 18'					
20	0.018	11'-11"	11'-11"	11'-5"	5'-6"
	0.024	13'-8"	13'-8"	13'-2"	6'-5"
	0.032	15'-11"	15'-11"	15'-6"	7'-6"
	0.036	16'-11"	16'-11"	16'-7"	7'-9"
25	0.018	10'-8"	10'-8"	10'-8"	5'-2"
	0.024	12'-3"	12'-3"	12'-3"	5'-11"
	0.032	14'-3"	14'-3"	14'-3"	6'-11"
	0.036	15'-3"	15'-3"	15'-3"	7'-3"
30	0.018	9'-10"	9'-10"	9'-10"	4'-8"
	0.024	11'-3"	11'-3"	11'-3"	5'-5"
	0.032	13'-1"	13'-1"	13'-1"	6'-4"
	0.036	14'-0"	14'-0"	14'-0"	6'-9"
40	0.018	8'-7"	8'-7"	8'-7"	4'-1"
	0.024	9'-10"	9'-10"	9'-10"	4'-8"
	0.032	11'-5"	11'-5"	11'-5"	5'-6"
	0.036	12'-2"	12'-2"	12'-2"	5'-11"
60	0.018	7'-1"	7'-1"	7'-1"	3'-4"
	0.024	8'-1"	8'-1"	8'-1"	3'-10"
	0.032	9'-5"	9'-5"	9'-5"	4'-6"
	0.036	10'-1"	10'-1"	10'-1"	4'-10"

TABLE 1.6

2 1/2" x 12" STEEL PANEL ALLOW. SPAN FOR COMMERCIAL STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	EXP. B 70/90 MPH	EXPOSURE C 70 MPH	90 MPH	MAX OVER HANG
MAXIMUM ROOF HEIGHT 18'					
20	0.0120	8'-9"	8'-9"	8'-9"	4'-0"
	0.0149	12'-1"	12'-1"	12'-1"	4'-4"
25	0.0120	7'-1"	7'-1"	7'-1"	4'-0"
	0.0149	10'-11"	10'-11"	10'-11"	4'-0"
30	0.0120	6'-0"	6'-0"	6'-0"	3'-4"
	0.0149	10'-0"	10'-0"	10'-0"	3'-8"
40	0.0120	4'-7"	4'-7"	4'-7"	2'-1"
	0.0149	8'-4"	8'-4"	8'-4"	3'-5"
60	0.0120	3'-2"	3'-2"	3'-2"	1'-5"
	0.0149	6'-2"	6'-2"	6'-2"	2'-11"

TABLE 1.7

2 1/2" x 18" ROOF PNL ALLOW. DSGN SPANS FOR COMM. STRUCTURES - ROOF HGT 18'

LIVE LOAD (PSF)	PANEL "t" (IN)	EXP. B 70/90 MPH	EXPOSURE C 70 MPH	90 MPH	MAX OVER HANG
20	0.018	8'-10"	8'-10"	8'-6"	4'-1"
25	0.018	8'-0"	8'-0"	8'-0"	3'-9"
30	0.018	7'-4"	7'-4"	7'-4"	3'-5"
40	0.018	6'-5"	6'-5"	6'-5"	3'-0"
60	0.018	5'-3"	5'-3"	4'-10"	2'-5"

TABLE 1.8

2 1/2" X 6" ROOF PNL ALLOW. SPAN FOR FOR COMMERCIAL STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	EXP. B 70/90 MPH	EXPOSURE C 70 MPH	90 MPH	MAX OVER HANG
MAXIMUM ROOF HEIGHT 18'					
20	0.018	9'-9"	9'-9"	9'-7"	4'-6"
	0.020	10'-5"	10'-5"	10'-2"	4'-10"
	0.024	11'-9"	11'-9"	11'-6"	5'-6"
	0.032	14'-1"	14'-1"	13'-10"	6'-8"
	0.036	15'-1"	15'-1"	14'-11"	7'-1"
25	0.018	8'-9"	8'-9"	8'-9"	4'-2"
	0.020	9'-5"	9'-5"	9'-5"	4'-6"
	0.024	10'-7"	10'-7"	10'-7"	5'-1"
	0.032	12'-8"	12'-8"	12'-8"	6'-1"
	0.036	13'-7"	13'-7"	13'-7"	6'-7"
30	0.018	7'-8"	7'-8"	7'-8"	3'-7"
	0.020	8'-8"	8'-8"	8'-8"	4'-1"
	0.024	9'-9"	9'-9"	9'-9"	4'-8"
	0.032	11'-8"	11'-8"	11'-8"	5'-7"
	0.036	12'-6"	12'-6"	12'-6"	6'-0"
40	0.018	5'-10"	5'-10"	5'-10"	2'-9"
	0.020	6'-11"	6'-11"	6'-11"	3'-3"
	0.024	8'-6"	8'-6"	8'-6"	4'-0"
	0.032	10'-2"	10'-2"	10'-2"	4'-10"
	0.036	10'-11"	10'-11"	10'-11"	5'-3"
60	0.018	4'-1"	4'-1"	4'-1"	1'-10"
	0.020	4'-9"	4'-9"	4'-9"	2'-2"
	0.024	6'-5"	6'-5"	6'-5"	3'-0"
	0.032	8'-5"	8'-5"	8'-5"	4'-0"
	0.036	9'-0"	9'-0"	9'-0"	4'-3"

TABLE 1.9

ALT. 2 1/2" x 12" PANEL ALLOW. SPAN FOR PATIO STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	12' HEIGHT 70 MPH	90 MPH	OVER HANG
10	0.018	11'-4"	11'-1"	5'-4"
	0.024	14'-8"	14'-8"	6'-8"
	0.030	15'-9"	15'-9"	7'-2"
	0.036	16'-11"	16'-11"	7'-9"
20	0.018	8'-2"	8'-2"	3'-11"
	0.024	11'-0"	11'-0"	5'-3"
	0.030	12'-7"	12'-7"	5'-8"
	0.036	13'-6"	13'-6"	6'-2"
25	0.018	7'-5"	7'-5"	3'-6"
	0.024	9'-10"	9'-10"	4'-9"
	0.030	11'-8"	11'-8"	5'-3"
	0.036	12'-7"	12'-7"	5'-9"
30	0.018	6'-9"	6'-9"	3'-2"
	0.024	9'-1"	9'-1"	4'-4"
	0.030	11'-0"	11'-0"	5'-0"
	0.036	11'-10"	11'-10"	5'-4"
40	0.018	5'-11"	5'-11"	2'-9"
	0.024	7'-11"	7'-11"	3'-9"
	0.030	9'-7"	9'-7"	4'-6"
	0.036	10'-10"	10'-10"	4'-10"
60	0.018	4'-11"	4'-11"	2'-3"
	0.024	6'-6"	6'-6"	3'-1"
	0.030	7'-11"	7'-11"	3'-8"
	0.036	9'-0"	9'-0"	4'-3"

TABLE 1.10

2 1/2" x 12" ROOF PNL ALLOWABLE SPAN FOR COMMERCIAL STRUCTURES

LIVE LOAD (PSF)	PANEL "t" (IN)	EXP. B 70/90 MPH	EXPOSURE C 70 MPH	90 MPH	MAX OVER HANG
MAXIMUM ROOF HEIGHT 18'					
20	0.018	8'-11"	8'-11"	8'-7"	4'-1"
	0.024	11'-6"	11'-6"	11'-2"	5'-2"
	0.032	12'-7"	12'-7"	12'-7"	5'-9"
	0.036	13'-1"	13'-1"	13'-1"	5'-11"
25	0.018	8'-0"	8'-0"	8'-0"	3'-9"
	0.024	10'-4"	10'-4"	10'-4"	4'-10"
	0.032	11'-8"	11'-8"	11'-8"	5'-4"
	0.036	12'-2"	12'-2"	12'-2"	5'-6"
30	0.018	7'-4"	7'-4"	7'-4"	3'-6"
	0.024	9'-6"	9'-6"	9'-6"	4'-7"
	0.032	10'-10"	10'-10"	10'-10"	5'-0"
	0.036	11'-5"	11'-5"	11'-5"	5'-2"
40	0.018	6'-5"	6'-5"	6'-5"	3'-0"
	0.024	8'-4"	8'-4"	8'-4"	3'-11"
	0.032	9'-6"	9'-6"	9'-6"	4'-6"
	0.036	10'-0"	10'-0"	10'-0"	4'-9"
60	0.018	5'-4"	5'-4"	5'-4"	2'-5"
	0.024	6'-10"	6'-10"	6'-10"	3'-3"
	0.032	7'-10"	7'-10"	7'-10"	3'-8"
	0.036	8'-3"	8'-3"	8'-3"	3'-11"

TABLE 1.11

ALT. 2 1/2" x 12" ROOF PNL ALLOW. SPAN FOR COMMERCIAL STRUCTURES

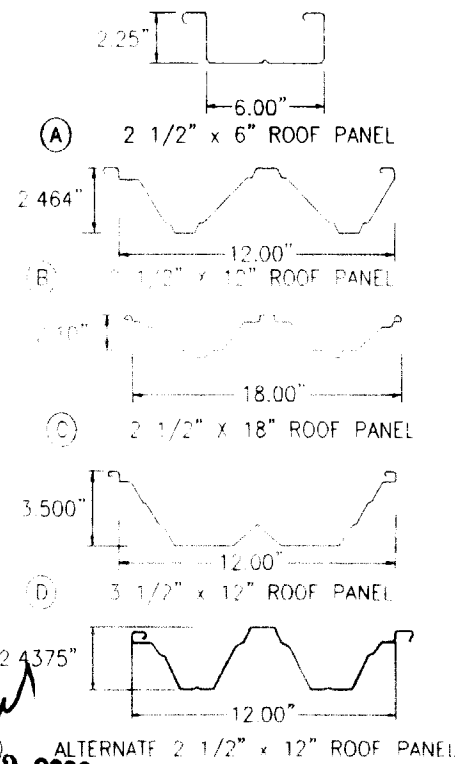
LIVE LOAD (PSF)	PANEL "t" (IN)	EXP. B 70/90 MPH	EXPOSURE C 70 MPH	90 MPH	MAX OVER HANG
MAXIMUM ROOF HEIGHT 18'					
20	0.018	8'-2"	8'-2"	7'-11"	3'-9"
	0.024	10'-11"	10'-11"	10'-7"	5'-1"
	0.032	12'-6"	12'-6"	12'-6"	5'-8"
	0.038	13'-6"	13'-6"	13'-6"	6'-2"
25	0.018	7'-4"	7'-4"	7'-4"	3'-6"
	0.024	9'-10"	9'-10"	9'-10"	4'-9"
	0.032	11'-8"	11'-8"	11'-8"	5'-3"
	0.038	12'-7"	12'-7"	12'-7"	5'-9"
30	0.018	6'-9"	6'-9"	6'-9"	3'-2"
	0.024	9'-0"	9'-0"	9'-0"	4'-4"
	0.032	11'-0"	11'-0"	11'-0"	5'-0"
	0.038	11'-10"	11'-10"	11'-10"	5'-4"
40	0.018	5'-11"	5'-11"	5'-11"	2'-9"
	0.024	7'-11"	7'-11"	7'-11"	3'-9"
	0.032	9'-7"	9'-7"	9'-7"	4'-6"
	0.038	10'-9"	10'-9"	10'-9"	4'-10"
60	0.018	4'-11"	4'-11"	4'-11"	2'-3"
	0.024	6'-6"	6'-6"	6'-6"	3'-1"
	0.032	7'-11"	7'-11"	7'-11"	3'-9"
	0.038	9'-0"	9'-0"	9'-0"	4'-3"

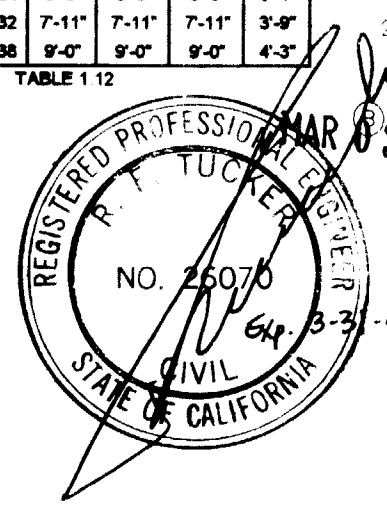
TABLE 1.12

PANEL TO PANEL FASTENING

PANEL "t" (IN)	#10 SMS FASTENER SPACING WIND LOAD PATIO/EXP B 70	90	EXPOSURE C 70	90
0.018	8'	5'	4'-8"	2'-11"
0.024	11'	5'-6"	6'-6"	3'-11"
0.032	14'	6'-8"	8'-9"	5'-2"
0.036	14'	6'-8"	8'-9"	5'-2"
0.042	14'	6'-8"	8'-9"	5'-2"

TABLE 1.13





MAR 03 2000

Amerimax
BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

ICBO ES EVALUATION REPORT ER-2621P
ROOF PANEL SPANS FOR PATIO AND COMMERCIAL STRUCTURES
PANEL SPANS FOR ALT. 2.5" PAN FOR PATIO AND COMMERCIAL STRUCTURES
SHEET 1 OF 8 DATE: 2/8/2000

2.0 FREESTANDING AND ATTACHED PATIO STRUCTURES

LIVE LOAD	TRIB WIDTH	MAX COLUMN SPACING FOR ATTACHED PATIO ON SLAB			3" SQUARE STEEL HEADER				8" ROLLFORMED C BEAM				10" ROLLFORMED C BEAM				6" I BEAM				7" I BEAM				6 1/2" ROLLFORMED HEADER				ALASKAN EXTRUDED HEADER				6 1/2" EXTRUDED HEADER				TRIB WIDTH
		USING COLUMN "A" MAX. COL. LENGTH		ALL OTHERS ON SLAB	MAX. COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		MAX COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		MAX COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		MAX COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		MAX COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		MAX. COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		MAX. COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		MAX. COLUMN SPACING	CONS. FOOTER SIZE FREE	CONS. FOOTER SIZE ATTACHED		
		8'-0"	10'-8"			FTR "d"	FTR "d"	MIN. COL.		FTR "d"	FTR "d"	MIN. COL.		FTR "d"	FTR "d"	MIN. COL.		FTR "d"	FTR "d"	MIN. COL.		FTR "d"	FTR "d"	MIN. COL.		FTR "d"	FTR "d"	MIN. COL.		FTR "d"	FTR "d"	MIN. COL.		FTR "d"	FTR "d"	MIN. COL.	
(PSF)	(FT)				(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)
30	4	5'-10"	4'-10"	6'	8'-8"	25	20	C																	5'-2"	22	15	C	11'-8"	28	22	C	9'-2"	25	18	C	4'
	5	4'-8"		4'-10"	7'-10"	23	21	C									18'-10"	30	28	E	22'-10"	31	30	E	4'-10"	22	15	C	9'-5"	25	22	C	8'-2"	25	19	C	5'
	6				7'-5"	23	22	C									17'-2"	30	30	E	20'-10"	32	32	E	4'-8"	22	15	C	7'-10"	23	22	C	7'-5"	23	19	C	6'
	7				7'-0"	23	22	C	18'-3"	31	31	E	25'-2"	34	34	E	15'-11"	31	31	E	19'-4"	32	32	E									6'-10"	23	20	C	7'
	8				6'-6"	23	23	C	17'-6"	32	32	E	24'-1"	36	36	E	14'-10"	32	32	E	18'-1"	34	34	E													8'
	9				6'-6"	25	24	D	16'-10"	33	33	E	23'-1"	37	37	F	14'-0"	33	33	E	17'-0"	35	35	E													9'
	10				6'-3"	25	25	D	16'-3"	34	34	E	22'-4"	38	38	F	13'-4"	33	33	E	16'-2"	35	35	E													10'
	11				6'-0"	26	25	D	15'-8"	34	34	E	21'-7"	38	38	F	12'-8"	34	34	E	15'-5"	36	36	F													11'
	12				5'-10"	26	25	D	15'-3"	35	35	E	21'-0"	39	39	F	12'-2"	35	35	E	14'-9"	37	37	F													12'
	13								14'-10"	36	36	E	20'-5"	40	40	F	11'-8"	36	36	E	14'-2"	38	38	F													13'
	14								14'-6"	37	37	F	19'-9"	40	40	F	11'-3"	36	36	E	13'-8"	38	38	F													14'
40	4				7'-8"	23	19	C																	4'-0"	22	14	C	8'-11"	25	20	C	8'-0"	23	17	C	4'
	5				7'-2"	23	21	C																	4'-6"	22	15	C	7'-1"	23	20	C	7'-2"	23	18	C	5'
	6				6'-9"	23	21	C									16'-4"	29	27	E	19'-10"	30	29	E									6'-5"	23	18	C	6'
	7				6'-5"	23	22	D	16'-7"	30	30	E	22'-10"	33	33	F	14'-11"	29	29	E	18'-2"	31	31	E													7'
	8				6'-1"	23	23	D	15'-10"	31	31	E	21'-10"	34	34	F	13'-10"	30	30	E	16'-9"	32	32	E													8'
	9				5'-10"	25	23	D	15'-3"	32	32	E	21'-0"	35	35	F	12'-11"	31	31	E	15'-8"	33	33	E													9'
	10				5'-6"	25	24	E	14'-9"	33	33	F	20'-3"	37	37	F	12'-2"	31	31	E	14'-10"	33	33	F													10'
	11				5'-6"	26	25	E	14'-3"	34	34	F	19'-6"	37	37	F	11'-7"	33	33	E	14'-0"	34	34	F													11'
	12				5'-4"	26	25	E	13'-10"	34	34	F	19'-1"	38	38	F	11'-0"	33	33	F	13'-5"	35	35	F													12'
60	4				6'-9"	23	18	C																													4'
	5				6'-3"	23	20	D																	4'-0"	22	13	C	6'-0"	22	17	C	6'-7"	23	16	C	5'
	6				5'-10"	22	20	D									13'-5"	28	27	E	16'-3"	30	30	E									5'-9"	22	17	D	6'
	7				5'-7"	23	21	E	14'-6"	31	31	E	19'-11"	35	35	F	12'-3"	29	29	E	14'-10"	31	31	F													7'
	8				5'-4"	23	22	E	13'-10"	32	32	E	19'-1"	38	38	F	11'-4"	30	30	E	13'-9"	33	33	F													8'
	9				5'-1"	25	23	E	13'-4"	34	34	E	18'-4"	39	39	F	10'-7"	32	32	F	12'-10"	34	34	F													9'
	10				4'-11"	25	22	E	12'-10"	34	34	E	17'-9"	40	40	F	9'-8"	34	34	F	11'-5"	35	35	F													10'

TABLE 2.1

COL	COLUMN SCHEDULE FOR ATTACHED PATIO STRUCTURES	MAX COL HGHT
A	0.024" x 3 " SQUARE ALUM COLUMN	11'-8"
B	0.032" x 1 1/2" SQUARE ALUM SCROLL COLUMN	8'-0"
B	0.027" x 3" SQUARE ALUM COLUMN	11'-4"
C	3" CLOVERLEAF ALUM. 0.040"	12'-0"
D	FLUTED COLUMN ALUM. 0.062"	12'-0"
E	3" CLOVERLEAF STEEL 0.048"	12'-0"
F	3" SQUARE STEEL COLUMN	12'-0"
G	4" SQUARE STEEL COLUMN	12'-0"
H	5" SQUARE STEEL COLUMN	12'-0"
J	6" SQUARE STEEL COLUMN	12'-0"

TABLE 2.3

COLUMN SCHEDULE FOR FREESTANDING STRUCTURES AND INTERMEDIATE COLUMNS FOR MULTISPAN STRUCTURES	
COLUMN	NOTES
E	6'-7" MAX. COLUMN HEIGHT
F	11" MAX. COLUMN LENGTH
G	12' MAX. COLUMN LENGTH
H	12' MAX. COLUMN LENGTH

TABLE 2.4

ALL COLUMNS MAY BE REPLACED WITH A STRONGER COLUMN
'A' MAY BE REPLACED W/ B-J
'B' MAY BE REPLACED W/ C-J, ETC.
LINEAR INTERPOLATION FOR ALL CALCULATIONS IS ALLOWED

GENERAL METHOD FOR USING THESE TABLES

1 CHOOSE FREESTANDING OR ATTACHED, COMMERCIAL OR PATIO STRUCTURE.
2 CHOOSE PROJECTION, WIDTH, OVERHANG, WIND LOAD AND LIVE LOAD.
3 FIND TRIBUTARY WIDTH FROM TABLE 2.6 AND DRAWINGS ON **97SD02** OF "STRUCTURAL CONFIGURATIONS".
4 CHOOSE A PANEL FROM SHEET 1 THAT HAS ADEQUATE CLEARSPAN FOR YOUR NEEDS.
5 CHOOSE A HEADER FROM SHEETS 2-5 THAT HAS ADEQUATE COLUMN SPACING.
6 USE THE FOOTER SIZE SHOWN.
7 FOR SINGLE SPAN ATTACHED PATIO, USE THE POST SHOWN.
LOOK AT THE TABLES PROVIDED FOR ALL OTHERS.
8 FIND THE O/C SPACING OF WALL CONNECTIONS ON TABLE 6.5.
9 FIND THE NUMBER OF PANEL TO HEADER FASTENERS ON TABLE A OF 97CD04 DETAIL 'AE'.
10 FIND THE APPROPRIATE DETAILS ON **97CD01** TO **97CD09**.

FOR CONCRETE PATIO SLABS
FOLLOW 1-4 ABOVE
5 CHOOSE A COLUMN LENGTH IF USING COLUMN "A" (8'-0" OR 10'-8")
6 FIND THE MAXIMUM COLUMN SPACING ON SLABS FROM TABLE 2.1
7 CHOOSE A HEADER (TABLE 2.1 OR 2.5) THAT HAS THE SAME OR GREATER COLUMN SPACING FOR THAT TRIB WIDTH AND LIVE AND WIND LOAD
8 USE COLUMN TYPE 'B' OR STRONGER (UNLESS USING COLUMN "A")
9 FOLLOW STEP 8, 9 AND 10 ABOVE.

SCHEDULE OF MAX. COLUMN SPACING, FOOTING SIZE AND COLUMN TYPE FOR PATIO APPLICATIONS

LIVE LOAD	TRIB WIDTH	0.056" x 3" x 6" HEADER				0.042" x 3" x 6" HEADER				DOUBLE 0.032" x 2" x 6" HEADER			
		MAX COLUMN SPACING	CONS. FOOTER SIZE FREE FTR "d"	CONS. FOOTER SIZE ATTACHED FTR "d"	CONS. FOOTER SIZE ATTACHED MIN. COL. TYPE	MAX COLUMN SPACING	CONS. FOOTER SIZE FREE FTR "d"	CONS. FOOTER SIZE ATTACHED FTR "d"	CONS. FOOTER SIZE ATTACHED MIN. COL. TYPE	MAX COLUMN SPACING	CONS. FOOTER SIZE FREE FTR "d"	CONS. FOOTER SIZE ATTACHED FTR "d"	CONS. FOOTER SIZE ATTACHED MIN. COL. TYPE
(PSF)	(FT)	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE	(FT)	(IN)	(IN)	TYPE
70 & 90 MPH WINDSPEED LESS THAN 12'													
10	4'-0"	12'-1"	27	23	A	14'-1"	28	24	B	13'-3"	27	23	B
	5'-0"	10'-9"	26	23	B	12'-7"	27	25	B	11'-10"	26	24	B
	6'-0"	9'-10"	25	24	B	11'-6"	26	25	C	10'-9"	26	25	B
	7'-0"	9'-1"	25	25	B	10'-7"	26	26	C	10'-0"	25	25	C
	8'-0"	8'-2"	25	25	B	9'-11"	26	26	C	9'-4"	26	26	C
	9'-0"	7'-3"	25	25	B	9'-4"	27	27	C	8'-10"	26	26	C
	10'-0"	6'-6"	25	25	B	8'-10"	27	27	C	8'-4"	27	27	C
20	4'-0"	6'-6"	25	20	B	10'-2"	26	21	C	9'-7"	25	21	C
	5'-0"	6'-10"	23	20	B	9'-1"	25	22	C	8'-6"	25	22	C
	6'-0"	5'-8"	22	20	B	8'-3"	25	23	C	7'-9	23	22	C
	7'-0"	4'-10"	23	20	B	7'-8"	23	23	C	7'-3"	23	23	C
	8'-0"	4'-3"	23	21	B	6'-9"	23	23	C	6'-9"	23	23	C
	9'-0"					6'-0"	25	23	C	6'-4"	25	24	C
	10'-0"					5'-5"	25	24	C	5'-9"	25	24	C
25	4'-0"	6'-11"	23	18	B	9'-2"	25	21	C	8'-7"	25	20	C
	5'-0"	5'-6"	22	19	B	8'-2"	25	22	C	7'-8"	23	21	C
	6'-0"	4'-7"	22	19	B	7'-3"	23	22	C	7'-0"	23	21	C
	7'-0"					6'-3"	23	22	C	6'-6"	23	22	C
	8'-0"					5'-5"	23	22	C	5'-9"	23	22	C
	9'-0"					4'-10"	25	22	C	5'-2"	25	23	C
	10'-0"									4'-7"	25	22	C
30	4'-0"	5'-9"	22	17	B	8'-4"	25	20	C	7'-10"	23	19	C
	5'-0"	4'-7"	22	18	B	7'-4"	23	21	C	7'-0"	23	20	C
	6'-0"					6'-1"	23	21	C	6'-5"	23	21	C
	7'-0"					5'-3"	23	21	C	5'-7"	23	21	C
	8'-0"					4'-7"	23	21	C	4'-10"	23	21	C
40	4'-0"	4'-4"	22	16	B	6'-11"	23	18	C	6'-10"	23	18	C
	5'-0"					5'-6"	22	19	C	5'-10"	22	19	C
	6'-0"					4'-7"	22	19	C	4'-11"	22	19	C
60	4'-0"					4'-8"	22	16	C	4'-11"	22	16	C

TABLE 2.5

TRIBUTARY WIDTHS FOR SINGLE SPAN ATTACHED STRUCTURES FOR GIVEN PROJECTION AND OVERHANG (ROUNDED UP)

PROJ (FT)	OVERHANG (FT) 0	1	2	3	4	5	6	7	8
6	3	4	4	5	N/A	N/A	N/A	N/A	N/A
7	4	4	5	5	N/A	N/A	N/A	N/A	N/A
8	4	5	5	6	6	N/A	N/A	N/A	N/A
9	5	5	6	6	7	N/A	N/A	N/A	N/A
10	5	6	6	7	7	8	N/A	N/A	N/A
11	6	6	7	7	8	8	N/A	N/A	N/A
12	6	7	7	8	8	9	9	N/A	N/A
13	7	7	8	8	9	9	10	N/A	N/A
14	7	8	8	9	9	10	10	11	N/A
15	8	8	9	9	10	10	11	11	N/A
16	8	9	9	10	10	11	11	12	12
17	9	9	10	10	11	11	12	12	13
18	9	10	10	11	11	12	12	13	13
19	10	10	11	11	12	12	13	13	14
20	10	11	11	12	12	13	13	14	14
21	11	11	12	12	13	13	14	14	15
22	11	12	12	13	13	14	14	15	15
23	12	12	13	13	14	14	15	15	16
24	12	13	13	14	14	15	15	16	16
25	13	13	14	14	15	15	16	16	17
26	13	14	14	15	15	16	16	17	17
27	14	14	15	15	16	16	17	17	18
28	14	15	15	16	16	17	17	18	18
29	15	15	16	16	17	17	18	18	19
30	15	16	16	17	17	18	18	19	19
31	16	16	17	17	18	18	19	19	20
32	16	17	17	18	18	19	19	20	20
33	17	17	18	18	19	19	20	20	21
34	17	18	18	19	19	20	20	21	21
35	18	18	19	19	20	20	21	21	22
36	18	19	19	20	20	21	21	22	22
37	19	19	20	20	21	21	22	22	23
38	19	20	20	21	21	22	22	23	23
39	20	20	21	21	22	22	23	23	24
40	20	21	21	22	22	23	23	24	24
41	21	21	22	22	23	23	24	24	25
42	21	22	22	23	23	24	24	25	25

TABLE 2.6

THIS TABLE MAY BE USED FOR COMMERCIAL, PATIO OR LATTICE STRUCTURES

REGISTERED PROFESSIONAL ENGINEER R. F. TUCKER NO. 28070 CIVIL STATE OF CALIFORNIA Exp. 3-31-02

MAR 03 2000

Amerimax
BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

ICBO ES EVALUATION REPORT ER-2621P
HEADER SPANS, COLUMN SPACING, FOOTER SIZE AND COLUMN TYPE FOR FREESTANDING AND ATTACHED PATIO STRUCTURES
SHEET 3 OF 8 DATE: 2/8/2000

3.0 FREESTANDING AND ATTACHED COMMERCIAL STRUCTURES

LIVE LOAD	TRIB WIDTH	6" I BEAM MAX. COLUMN SPACING	6" I BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7" 11' 15' 18'	6" I BEAM ATT FTR "d" (IN)	7" I BEAM MAX COLUMN SPACING	7" I BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7" 11' 15' 18'	7" I BEAM ATT FTR "d" (IN)	10" I BEAM MAX COLUMN SPACING	10" I BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7" 11' 15' 18'	10" I BEAM ATT FTR "d" (IN)
(PSF)	(FT)	(FT)			(FT)			(FT)		
90 MPH EXPOSURE C										
25	4'	22'-6"	33 35 38 40	28	24'-11"	34 36 39 41	29	30'-7"	36 38 41 43	31
	5'	20'-1"	33 35 37 39	29	22'-4"	33 35 38 40	31	27'-4"	35 37 40 42	33
	6'	18'-4"	32 34 37 38	30	20'-4"	33 35 37 39	32	24'-11"	34 36 39 41	33
	7'	17'-0"	31 33 36 37	31	18'-10"	32 34 37 38	32	23'-1"	33 35 38 40	35
	8'	15'-11"	32 32 35 36	32	17'-8"	33 33 36 37	33	21'-7"	35 35 37 39	35
	9'	15'-0"	32 32 35 36	32	16'-7"	34 34 36 37	34	20'-4"	36 36 37 39	36
	10'	14'-2"	33 33 35 36	33	15'-9"	34 34 35 36	34	19'-4"	37 37 37 38	37
	11'	13'-6"	34 34 34 35	34	15'-0"	35 35 35 36	35	18'-10"	37 37 37 37	37
	12'	13'-0"	34 34 34 35	34	14'-5"	35 35 35 35	35	18'-1"	38 38 38 38	38
	13'	12'-5"	35 35 35 35	35	13'-10"	35 35 35 35	35	17'-4"	38 38 38 38	38
	14'	12'-0"	35 35 35 35	35	13'-4	36 36 36 36	36	16'-8"	38 38 38 38	38
	15'	11'-7"	36 36 36 36	36	12'-10"	36 36 36 36	36	16'-2"	39 39 39 39	39
70 & 90 MPH EXPOSURE B / 70 MPH EXPOSURE C										
30	4'	21'-1"	29 31 34 35	27	25'-4"	30 32 34 36	29	35'-9"	32 35 37 39	32
	5'	18'-10"	28 30 32 34	28	22'-10"	30 31 34 35	30	32'-3"	34 34 37 39	34
	6'	17'-2"	29 29 31 33	29	20'-10"	31 31 33 35	31	29'-5"	35 35 36 37	35
	7'	15'-11"	30 30 30 32	30	19'-4"	32 32 32 34	32	27'-3"	36 36 36 37	36
	8'	14'-10"	30 30 30 32	30	18'-1"	33 33 33 34	33	25'-6"	36 36 36 36	36
	9'	14'-0"	31 31 31 31	31	17'-0"	33 33 33 33	33	24'-0"	37 37 37 37	37
	10'	13'-4"	32 32 32 32	32	16'-2"	35 35 35 35	35	22'-9"	38 38 38 38	38
	11'	12'-8"	32 32 32 32	32	15'-5"	35 35 35 35	35	21'-6"	38 38 38 38	38
	12'	12'-2"	33 33 33 33	33	14'-9"	35 35 35 35	35	20'-7"	39 39 39 39	39
	13'	11'-8"	33 33 33 33	33	14'-2"	36 36 36 36	36	19'-10"	39 39 39 39	39
	14'	11'-3"	34 34 34 34	34	13'-8"	36 36 36 36	36	19'-1"	40 40 40 40	40
90 MPH EXPOSURE C										
30	4'	21'-1"	33 35 37 39	28	24'-11"	34 36 39 41	29	31'-3"	36 38 41 43	32
	5'	18'-10"	32 34 37 38	29	22'-4"	33 35 38 40	31	28'-0"	35 37 40 42	33
	6'	17'-2"	31 33 36 37	30	20'-4"	33 35 37 39	32	25'-6"	34 36 39 41	34
	7'	15'-11"	30 32 35 36	30	18'-10"	32 34 37 38	32	23'-8"	35 35 38 40	35
	8'	14'-10"	31 32 35 36	31	17'-8"	33 33 36 37	33	22'-1"	36 36 38 40	36
	9'	14'-0"	32 32 33 35	32	16'-7"	34 34 36 37	34	20'-10"	36 36 37 39	36
	10'	13'-4"	33 33 33 35	33	15'-9"	34 34 35 36	34	19'-9"	37 37 37 38	37
	11'	12'-8"	33 33 33 35	33	15'-0"	35 35 35 36	35	18'-10"	37 37 37 38	37
	12'	12'-2"	34 34 34 35	34	14'-5"	36 36 36 36	36	18'-1"	38 38 38 38	38
	13'	11'-8"	34 34 34 35	34	13'-10"	36 36 36 36	36	17'-4"	39 39 39 39	39
	14'	11'-3"	35 35 35 35	35	13'-4"	36 36 36 36	36	16'-8"	39 39 39 39	39
70 & 90 MPH EXPOSURE B / 70 MPH EXPOSURE C										
40	4'	18'-4"	28 30 32 34	26	22'-3"	29 31 34 35	28	30'-7"	32 34 36 38	31
	5'	16'-4"	27 29 31 33	27	19'-10"	28 30 32 34	28	27'-4"	32 32 35 37	32
	6'	14'-11"	27 28 30 32	27	18'-2"	30 30 32 34	30	24'-11"	33 33 34 36	33
	7'	13'-10"	28 28 29 31	28	16'-9"	30 30 31 33	30	23'-1"	34 34 34 35	34
	8'	12'-11"	29 29 29 31	29	15'-8"	31 31 31 32	31	21'-7"	34 34 34 35	34
	9'	12'-2"	30 30 30 31	30	14'-10"	31 31 31 32	31	20'-4"	35 35 35 35	35
	10'	11'-7"	30 30 30 30	30	14'-0"	33 33 33 33	33	19'-4"	36 36 36 36	36
	11'	11'-0"	30 30 30 30	30	13'-5"	33 33 33 33	33	18'-9"	36 36 36 36	36
	12'	10'-7"	31 31 31 31	31	12'-10"	33 33 33 33	33	17'-11"	37 37 37 37	37
90 MPH EXPOSURE C										
40	4'	18'-4"	32 34 37 38	27	22'-3"	33 35 38 40	28	30'-7"	36 38 41 43	31
	5'	16'-4"	31 33 36 37	28	19'-10"	32 34 37 38	29	27'-4"	35 37 40 42	33
	6'	14'-11"	30 32 35 36	28	18'-2"	32 34 37 38	30	24'-11"	34 36 39 41	33
	7'	13'-10"	29 31 33 35	29	16'-9"	31 33 36 37	31	23'-1"	35 35 38 40	35
	8'	12'-11"	30 31 33 35	30	15'-8"	32 32 35 36	32	21'-7"	35 35 37 39	35
	9'	12'-2"	31 31 32 34	31	14'-10"	32 32 35 36	32	20'-4"	36 36 37 39	36
	10'	11'-7"	31 31 32 34	31	14'-0"	33 33 33 35	33	19'-4"	37 37 37 38	37
	11'	11'-0"	31 31 32 34	31	13'-5"	34 34 34 35	34	18'-9"	38 38 38 38	38
	12'	10'-7"	32 32 32 34	32	12'-10"	34 34 34 35	34	17'-11"	38 38 38 38	38
60	4'	15'-0"	30 32 35 36	25	18'-3"	32 34 37 38	27	25'-7"	34 36 39 41	30
	5'	13'-5"	29 31 33 35	26	16'-3"	31 33 36 37	28	22'-10"	33 35 38 40	31
	6'	12'-3"	29 31 33 35	27	14'-10"	30 32 35 36	29	20'-10"	33 35 37 39	32
	7'	11'-4"	28 30 32 34	28	13'-9"	30 31 33 35	30	19'-4"	33 34 37 38	33
	8'	10'-7"	28 30 32 34	28	12'-10"	31 31 33 35	31	18'-1"	34 34 37 38	34
	9'	10'-0"	29 29 31 32	29	12'-2"	33 33 33 35	33	17'-0"	34 34 36 37	34
	10'	9'-6"	30 30 31 32	30	11'-5"	33 33 33 34	33	16'-2"	35 35 36 37	35

TABLE 3.1

LIVE LOAD	TRIB WIDTH	3" CLOVERLEAF STEEL HEADER MAX. COLUMN SPACING	3" CLOVERLEAF STEEL HEADER CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7" 11' 15' 18'	3" CLOVERLEAF STEEL HEADER ATT FTR "d" (IN)	8" STEEL C BEAM MAX COLUMN SPACING	8" STEEL C BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7" 11' 15' 18'	8" STEEL C BEAM ATT FTR "d" (IN)	10" STEEL C BEAM MAX COLUMN SPACING	10" STEEL C BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7" 11' 15' 18'	10" STEEL C BEAM ATT FTR "d" (IN)	TRIB WIDTH
(PSF)	(FT)	(FT)			(FT)			(FT)			(FT)
70 MPH EXPOSURE C											
25	4'	9'-0"	23 25 27 28	17	23'-3"	29 31 34 35	24	32'-3"	32 34 37 39	27	4'
	5'	8'-0"	22 24 26 27	18	20'-10"	29 31 33 35	25	29'-11"	31 33 36 37	28	5'
	6'	7'-4"	22 24 26 27	19	19'-0"	28 30 32 34	26	27'-10"	30 32 35 37	30	6'
	7'	6'-9"	22 24 26 27	19	17'-7"	27 29 31 33	26	25'-9"	30 32 34 36	30	7'
	8'	6'-4"	22 24 26 27	20	16'-5"	27 29 31 33	27	24'-1"	31 32 34 36	31	8'
	9'	6'-0"	23 25 27 28	20	15'-6"	28 28 30 32	28	22'-9"	31 31 34 35	31	9'
	10'	5'-8"	23 25 27 28	21	14'-9"	28 28 30 32	28	21'-7"	32 32 33 35	32	10'
	11'	5'-5"	25 28 28 30	21	14'-0"	28 28 29 31	28	20'-7"	32 32 33 35	32	11'
	12'	5'-2"	25 26 28 30	22	13'-5"	29 29 29 31	29	19'-8"	33 33 33 34	33	12'
	13'	4'-11"	26 27 29 31	21	12'-11"	29 29 29 31	29	18'-11"	33 33 33 34	33	13'
	14'	4'-9"	26 27 29 31	22	12'-5"	30 30 30 31	30	18'-3"	34 34 34 34	34	14'
	15'	4'-7"	26 28 30 32	22	12'-0"	30 30 30 30	30	17'-7"	34 34 34 34	34	15'
90 MPH EXPOSURE C											
25	4'	9'-0"	27 28 31 32	21	17'-11"	31 33 36 37	26	26'-3"	35 37 40 42	30	4'
	5'	8'-0"	25 27 29 30	21	16'-0"	30 32 35 36	27	23'-6"	33 35 38 40	31	5'
	6'	7'-4"	25 27 29 30	23	14'-7"	30 32 35 36	28	21'-5"	33 35 37 39	32	6'
	7'	6'-9"	25 27 29 30	23	13'-6"	29 31 33 35	29	19'-10"	33 34 37 38	33	7'
	8'	6'-4"	25 27 29 30	24	12'-8"	30 31 33 35	30	18'-7"	34 34 37 38	34	8'
	9'	6'-0"	27 28 31 32	24	11'-11"	30 30 32 34	30	17'-6"	34 34 36 37	34	9'
	10'	5'-8"	27 28 31 32	24	11'-4"	31 31 32 34	31	16'-7"	36 36 36 37	36	10'
	11'	5'-5"	28 30 32 34	25	10'-9"	31 31 32 34	31	15'-10"	35 35 35 36	35	11'
	12'	5'-3"	28 30 32 34	26	10'-4"	32 32 32 34	32	15'-2"	36 36 36 36	36	12'
	13'	5'-1"	29 31 33 35	27	9'-11"	32 32 33 35	32	14'-6"	37 37 37 37	37	13'
	14'	4'-11"	29 31 33 35	28	9'-7"	33 33 33 35	33	14'-0"	37 37 37 37	37	14'
	15'	4'-9"	30 32 35 36	26	9'-3"	33 33 33 36	33	13'-6"	37 37 37 37	37	15'
70 & 90 MPH EXPOSURE B											
30	4'	8'-2"	23 25 27 28	20	22'-0"	28 30 33 34	27	30'-4"	31 33 36 38	31	4'
	5'	7'-4"	22 23 25 27	21	20'-5"	29 30 33 34	29	28'-2"	32 33 35 37	32	5'
	6'	6'-8"	22 23 25 27	21	19'-3"	30 30 32 33	30	26'-6"	33 33 35 37	33	6'
	7'	6'-2"	22 23 25 27	22	17'-10"	31 31 31 33	31	25'-2"	35 35 35 36	35	7'
	8'	5'-9"	22 23 25 27	22	16'-8"	32 32 32 33	32	24'-1"	36 36 36 36	36	8'
	9'	5'-5"	23 25 27 28	23	15'-9"	32 32 32 32	32	23'-1"	37 37 37 37	37	9'
	10'	5'-2"	24 25 27 28	24	14'-11"	33 33 33 33	33	21'-10"	37 37 37 37	37	10'
	11'	4'-11"	24 26 28 29	23	14'-3"	34 34 34 34	34	20'-10"	38 38 38 38	38	11'
	12'	4'-9"	24 26 28 29	24	13'-7"	34 34 34 34	34	20'-0"	38 38 38 38	38	12'
	13'	4'-6"	25 27 29 31	25	13'-1"	35 35 35 35	35	19'-2"	39 39 39 39	39	13'
	14'	4'-4"	25 27 29 31	25	12'-7"	35 35 35 35	35	18'-6"	40 40 40 40	40	14'
70 MPH EXPOSURE C											
30	4'	8'-2"	23 25 27 28	17	22'-0"	29 31 33 35	23	30'-4"	32 34 36 38	26	4'
	5'	7'-4"	22 24 26 27	18	20'-5"	29 31 33 35	25	28'-2"	31 33 36 37	28	5'
	6'	6'-8"	22 24 26 27	18	19'-0"	28 30 32 34	26	26'-6"	30 32 35 37	29	6'
	7'	6'-2"	22 24 26 27	19	17'-7"	27 29 31 33	26	25'-2"	30 32 34 36	30	7'
	8'	5'-9"	22 24 26 27	19	16'-5"	27 29 31 33	27	24'-1"	31 32 34 36	31	8'
	9'	5'-5"	23 25 27 28	20	15'-6"	27 28 30 32	27	22'-9"	31 31 34 35	31	9'
	10'	5'-2"	23 25 27 28	21	14'-9"	27 28 30 32	27	21'-7"	32 32 34 35	32	10'
	11'	4'-11"	25 26 28 30	20	14'-0"	28 28 29 31	28	20'-7"	33 33 33 35	33	11'
	12'	4'-9"	25 26 28 30	21	13'-5"	28 28 29 31	28	19'-8"	33 33 33 34	33	12'
	13'	4'-6"	26 27 29 31	21	12'-11"	28 28 29 31	28	18'-11"	34 34 34 34	34	13'
	14'	4'-4"	26 27 29 31	22	12'-5"	29 29 29 31	29	18'-3"	35 35 35 35	35	14'
90 MPH EXPOSURE C											
30	4'	8'-2"	27 28 31 32	21	17'-11"	31 33 36 37	26	26'-3"	35 37 40 42	30	4'
	5'	7'-4"	25 27 29 30	21	16'-0"	30 32 35 36	27	23'-6"	33 35 38 40	31	5'
	6'	6'-8"	25 27 29 30	22	14'-7"	30 32 35 36	28	21'-5"	33 35 37 39	32	6'
	7'	6'-2"	25 27 29 30	23	13'-6"	29 31 33 35	29	19'-10"	33 34 37 38	33	7'
	8'	5'-9"	25 27 29 30	23	12'-8"	30 31 33 35	30	18'-7"	34 34 37 38	34	8'
	9'	5'-5"	27 28 31 32	24	11'-11"	30 30 32 34	30	17'-6"	34 34 36 37	34	9'
	10'	5'-2"	27 28 31 32	24	11'-4"	31 31 32 34	31	16'-7"	35 35 36 37	35	10'
	11'	4'-11"	28 30 32 34	24	10'-9"	31 31 32 34	31	15'-10"	35 35 35 36	35	11'
	12'	4'-9"	28 30 32 34	24	10'-4"	32 32 32 34	32	15'-2"	36 36 36 36	36	12'
	13'	4'-6"	29 31 33 35	25	9'-11"	32 32 32 32	32	14'-6"	37 37 37 37	37	13'
	14'	4'-4"	29 31 33 35	26	9'-7"	33 33 33 33	33	14'-0"	37 37 37 37	37	14'
40	4'	7'-2"	25 27 29 30	20	17'-11"	31 33 36 37	26	26'-3"	35 37 40 42	30	4'
	5'	6'-4"	25 27 29 30	20	16'-0"	30 32 35 36	27	23'-6"	33 35 38 40	31	5'
	6'	5'-10"	23 25 27 28	21	14'-7"	30 32 35 36	28	21'-5"	33 35 37 39	32	6'
	7'	5'-5"	25 27 29 30	22	13'-6"	29 31 33 35	29	19'-10"	32 34 37 38	33	7'
	8'	5'-0"	25 27 29 30	23	12'-8"	30 31 33 35	30	18'-7"	34 34 37 38	34	8'
	9'	4'-9"	27 28 31 32	22	11'-11"	30 30 32 34	30	17'-6"	34 34 36 37	34	9'
	10'	4'-6"	27 28 31 32	23	11'-4"	31 31 32 34	31	16'-7"	35 35 36 37	35	10'

LIVE LOAD	PROJECTION	9 1/2" EXTRUDED HEADER MAX. COLUMN SPACING	9 1/2" EXTRUDED HEADER CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7" 11' 15' 18'	9 1/2" EXTRUDED HEADER ATT FTR "d" (IN)
(PSF)	(FT)	(FT)		
90 MPH EXPOSURE B				
25	8'	10'-0"	23 25 27 28	21
	9'	9'-5"	23 25 27 28	22
	10'	8'-11"	23 25 27 28	22
	11'	8'-6"	24 26 28 29	22
	12'	8'-2"	24 26 28 29	23
	13'	7'-10"	25 27 29 31	23
	14'	7'-6"	25 27 29 31	23
	15'	7'-3"	26 28 30 32	23
	16'	7'-0"	26 28 30 32	23
90 MPH EXPOSURE C				
25	8'	10'-0"	27 28 31 32	21
	9'	9'-5"	27 28 31 32	22
	10'	8'-11"	27 28 31 32	22
	11'	8'-6"	28 30 32 34	23
	12'	8'-2"	28 30 32 34	24
	13'	7'-10"	29 31 33 35	23
	14'	7'-6"	29 31 33 35	24
70 MPH EXPOSURE B				
30	8'	9'-2"	20 22 24 25	21
	9'	8'-7"	20 22 24 25	21
	10'	8'-2"	20 22 24 25	22
	11'	7'-9"	21 23 25 26	22
	12'	7'-5"	21 23 25 26	23
	13'	7'-2"	22 24 26 27	23
	14'	6'-10"	22 24 26 27	23
	15'	6'-7"	23 25 27 28	23
90 MPH EXPOSURE C				
30	8'	9'-2"	27 28 31 32	21
	9'	8'-7"	27 28 31 32	21
	10'	8'-2"	27 28 31 32	22
	11'	7'-9"	28 30 32 34	22
	12'	7'-5"	28 30 32 34	23
	13'	7'-2"	29 31 33 35	23
	14'	6'-10"	29 31 33 35	23
	15'	6'-7"	30 32 35 36	23
40	8'	7'-11"	25 27 29 30	20
	9'	7'-6"	27 28 31 32	21
	10'	7'-1"	27 28 31 32	21
	11'	6'-9"	28 30 32 34	21
	12'	6'-5"	28 30 32 34	22
	13'	6'-2"	29 31 33 35	22
60	7'	6'-11"	25 27 29 30	19
	8'	6'-6"	25 27 29 30	20
	9'	6'-1"	27 28 31 32	20
	10'	5'-9"	27 28 31 32	20

TABLE 3.2

COL	COLUMN DESCRIPTION FOR ALL COLUMNS SEE DETAIL "X" and "U"	MAXIMUM COLUMN HEIGHT SINGLE SPAN ATTCHED	MAXIMUM COLUMN HEIGHT FREESTANDING OR MULTISPAN ATTACHED
E	3" CLOVERLEAF STEEL COL	12'-0"	8'-7"
F	3" SQUARE STEEL COLUMN	18'-0"	11'-0"
G	4" SQUARE STEEL COLUMN	18'-0"	15'-0"
H	5" SQUARE STEEL COLUMN	18'-0"	18'-0"
J	6" SQUARE STEEL COLUMN	18'-0"	18'-0"

TABLE 3.3

REGISTERED PROFESSIONAL ENGINEER R. F. TUCKER NO. 26 CIVIL STATE OF CALIFORNIA MAR 03 2000 Exp. 3-31-02

Amerimax
BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

ICBO ES EVALUATION REPORT ER-2621P
HEADER SPANS, COLUMN SPACING, FOOTER SIZE AND COLUMN TYPE FOR FREESTANDING AND ATTACHED COMMERCIAL STRUCTURES
SHEET 5 OF 8 DATE: 2/8/2000

5.0 FREESTANDING AND ATTACHED LATTICE COMMERCIAL STRUCTURES

LIVE LOAD (PSF)	TRIB WIDTH (FT)	8" C BEAM HEADER: MAX. COLUMN SPACING (FT)	CONSTRAINED FOOTER SIZES: FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATTACHED FTR "d" (IN)	ATTACHED MIN COL TYPE
70 MPH EXPOSURE B								
20	4'	31'-9"	27	29	32	33	21	D
	5'	29'-6"	27	29	31	33	22	D
	6'	27'-9"	27	28	31	32	23	D
	7'	26'-4"	27	28	31	32	24	E
	8'	25'-3"	26	28	30	31	25	E
	9'	24'-3"	26	28	30	31	26	E
	10'	23'-5"	26	27	29	31	26	E
70 MPH EXPOSURE C								
20	4'	31'-9"	32	34	36	38	21	D
	5'	29'-6"	31	33	36	37	22	D
	6'	27'-9"	30	32	35	37	23	D
	7'	25'-8"	30	32	34	36	24	E
	8'	24'-0"	29	31	34	35	24	E
	9'	22'-8"	29	31	34	35	25	E
	10'	21'-6"	29	31	33	35	25	E
90 MPH EXPOSURE B								
20	4'	31'-9"	31	33	36	38	24	D
	5'	29'-6"	31	33	35	37	26	D
	6'	27'-9"	30	32	35	36	27	D
	7'	26'-1"	30	32	35	36	28	E
	8'	24'-4"	30	32	34	36	29	E
	9'	23'-0"	29	31	33	35	29	E
	10'	21'-9"	29	30	33	34	29	E
90 MPH EXPOSURE C								
20	4'	25'-10"	34	36	39	41	23	D
	5'	23'-1"	33	35	38	40	24	D
	6'	21'-1"	33	35	37	39	25	D
	7'	19'-6"	32	34	37	38	26	D
	8'	18'-3"	32	34	37	38	27	D
	9'	17'-2"	31	33	36	37	27	D
	10'	16'-4"	31	33	36	37	28	D
70 & 90 MPH EXPOSURE B								
25	4'	29'-6"	31	33	35	37	24	D
	5'	27'-4"	30	32	35	36	25	D
	6'	25'-9"	30	32	34	36	26	E
	7'	24'-6"	30	32	34	36	27	E
	8'	23'-5"	29	31	33	35	28	E
	9'	22'-6"	29	31	33	35	29	E
	10'	21'-9"	29	30	33	34	29	E
70 MPH EXPOSURE C								
25	4'	29'-6"	31	33	36	37	21	D
	5'	27'-4"	30	32	35	37	22	D
	6'	25'-9"	30	32	34	36	22	E
	7'	24'-6"	30	32	34	36	23	E
	8'	23'-5"	29	31	34	35	24	E
	9'	22'-6"	29	31	34	35	25	E
	10'	21'-6"	29	31	34	35	25	E

LIVE LOAD (PSF)	TRIB WIDTH (FT)	8" C BEAM HEADER: MAX. COLUMN SPACING (FT)	CONSTRAINED FOOTER SIZES: FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATTACHED FTR "d" (IN)	ATTACHED MIN COL TYPE
90 MPH EXPOSURE C								
25	4'	25'-10"	34	36	39	41	23	D
	5'	23'-1"	33	35	38	40	24	D
	6'	21'-1"	33	35	37	39	25	D
	7'	19'-6"	32	34	37	38	26	D
	8'	18'-3"	32	34	37	38	27	E
	9'	17'-2"	31	33	36	37	27	E
	10'	16'-4"	31	33	36	37	28	E
70 & 90 MPH EXPOSURE B / 70 MPH EXPOSURE C								
30	4'	27'-9"	30	32	35	37	23	D
	5'	25'-9"	30	32	34	36	25	E
	6'	24'-3"	30	32	34	36	25	E
	7'	23'-0"	29	31	34	35	27	E
	8'	22'-0"	29	31	33	35	27	E
	9'	21'-2"	29	31	33	35	28	E
	10'	20'-5"	29	31	33	35	29	E
90 MPH EXPOSURE C								
30	4'	25'-10"	34	36	39	41	23	D
	5'	23'-1"	33	35	38	40	24	E
	6'	21'-1"	33	35	38	40	25	E
	7'	19'-6"	32	34	37	38	26	E
	8'	18'-3"	32	34	37	38	27	E
	9'	17'-2"	31	33	36	37	27	E
	10'	16'-4"	31	33	36	37	28	E
70 & 90 MPH EXPOSURE B / 70 MPH EXPOSURE C								
40	4'	25'-3"	30	32	34	36	23	E
	5'	23'-5"	29	31	34	35	24	E
	6'	22'-0"	29	31	33	35	25	E
	7'	20'-11"	29	31	33	35	26	E
	8'	20'-0"	28	30	32	34	26	E
	9'	19'-2"	28	30	32	34	27	E
	10'	18'-2"	28	30	32	34	28	E
90 MPH EXPOSURE C								
40	4'	25'-3"	34	36	39	41	23	E
	5'	23'-1"	33	35	38	40	24	E
	6'	21'-1"	33	35	37	39	25	E
	7'	19'-6"	32	34	37	38	26	E
	8'	18'-3"	32	34	37	38	27	E
	9'	17'-2"	31	33	36	37	27	E
	10'	16'-4"	31	33	36	37	28	E
70 & 90 MPH EXPOSURE B AND C								
60	4'	22'-0"	33	35	37	39	22	E
	5'	20'-5"	33	35	37	39	24	E
	6'	19'-3"	32	34	37	38	24	E
	7'	17'-10"	31	33	36	37	25	E
	8'	16'-9"	31	33	36	37	26	E
	9'	15'-9"	30	32	35	36	26	E
	10'	14'-11"	30	32	35	36	26	E

TABLE 5.1

COL	COLUMN DESCRIPTION FOR ALL COLUMNS SEE DETAILS "K", "L" AND "W"	MAXIMUM COLUMN HEIGHT: SINGLE SPAN ATTACHED	FREESTANDING OR MULTISPAN ATTACHED
D	FLUTED COLUMN ALUM. 0.062	12'-0"	N/A
E	3" CLOVERLEAF STEEL 0.048"	12'-0"	8'-7"
F	3" SQUARE STEEL COLUMN	18'-0"	11'-0"
G	4" SQUARE STEEL COLUMN	18'-0"	15'-0"
H	5" SQUARE STEEL COLUMN	18'-0"	18'-0"
J	6" SQUARE STEEL COLUMN	18'-0"	18'-0"

TABLE 5.2

24" O.C. 2"x6" RAFTER CLEARSPANS MAX ROOF HEIGHT 18'

LIVE LOAD (PSF)	PANEL "t" (IN)	EXPOSURES B AND C 70 & 90 MPH	MAX OVER HANG
20	0.024	9'-10"	4'-11"
	0.032	13'-2"	6'-7"
25	0.024	8'-10"	4'-5"
	0.032	11'-9"	5'-10"
30	0.024	7'-8"	3'-10"
	0.032	10'-9"	5'-4"
40	0.024	5'-10"	2'-11"
	0.032	9'-4"	4'-8"
60	0.024	N/A	1'-11"
	0.032	7'-8"	3'-10"

TABLE 5.3

24" O.C. 3"x8" RAFTER CLEARSPANS MAX ROOF HEIGHT 18'

LIVE LOAD (PSF)	PANEL "t" (IN)	EXPOSURES B AND C 70 & 90 MPH	MAX OVER HANG
20	0.036	14'-6"	8'-6"
	0.042	19'-10"	9'-11"
25	0.036	11'-8"	7'-7"
	0.042	17'-9"	8'-10"
30	0.036	9'-9"	6'-11"
	0.042	15'-7"	8'-1"
40	0.036	7'-4"	6'-0"
	0.042	11'-9"	7'-0"
60	0.036	4'-11"	4'-11"
	0.042	7'-10"	5'-9"

TABLE 5.4

EQUIVALENT FOOTERS "d" (IN) CON-STRAINED	NONCON-STRAINED
18	18
19	20
20	22
21	23
22	24
23	26
24	27
25	29
26	31
27	33
28	35
29	36
30	38
31	39
32	40
33	41
34	43
35	44
36	46
37	47
38	48

TABLE 5.5

TRIBUTARY WIDTHS (FT) FOR SINGLE SPAN ATTACHED STRUCTURES FOR A GIVEN PROJECTION AND OVERHANG (ROUNDED UP)

PROJ. (FT)	RAFTER OVERHANG (FT) 0"	1/2"	1"	1 1/2"	2"	2 1/2"	3"
6'	3'	4'	4'	4'	4'	5'	5'
7'	4'	4'	4'	5'	5'	5'	5'
8'	4'	5'	5'	5'	5'	6'	6'
9'	5'	5'	5'	6'	6'	6'	6'
10'	5'	6'	6'	6'	6'	7'	7'
11'	6'	6'	6'	7'	7'	7'	7'
12'	6'	7'	7'	7'	7'	8'	8'
13'	7'	7'	7'	8'	8'	8'	8'
14'	7'	8'	8'	8'	8'	9'	9'
15'	8'	8'	8'	9'	9'	9'	9'
16'	8'	9'	9'	9'	9'	10'	10'
17'	9'	9'	9'	10'	10'	10'	10'
18'	9'	10'	10'	10'	10'	11'	11'
19'	10'	10'	10'	11'	11'	11'	11'
20'	10'	11'	11'	11'	11'	12'	12'
21'	11'	11'	11'	12'	12'	12'	12'
22'	11'	12'	12'	12'	12'	13'	13'
23'	12'	12'	12'	13'	13'	13'	13'
24'	12'	13'	13'	13'	13'	14'	14'
25'	13'	13'	13'	14'	14'	14'	14'
26'	13'	14'	14'	14'	14'	15'	15'
27'	14'	14'	14'	15'	15'	15'	15'
28'	14'	15'	15'	15'	15'	16'	16'
29'	15'	15'	15'	16'	16'	16'	16'
30'	15'	16'	16'	16'	16'	17'	17'
31'	16'	16'	16'	17'	17'	17'	17'
32'	16'	17'	17'	17'	17'	18'	18'
33'	17'	17'	17'	18'	18'	18'	18'
34'	17'	18'	18'	18'	18'	19'	19'
35'	18'	18'	18'	19'	19'	19'	19'
36'	18'	19'	19'	19'	19'	20'	20'
37'	19'	19'	19'	20'	20'	20'	20'
38'	19'	20'	20'	20'	20'	21'	21'
39'	20'	20'	20'	21'	21'	21'	21'
40'	20'	21'	21'	21'	21'	22'	22'
41'	21'	21'	21'	22'	22'	22'	22'
42'	21'	22'	22'	22'	22'	23'	23'

TABLE 5.6

GENERAL METHOD FOR USING THESE TABLES

1 CHOOSE FREESTANDING OR ATTACHED, COMMERCIAL OR PATIO LATTICE STRUCTURE
2 DETERMINE PROJECTION, WIDTH, OVERHANG, WIND LOAD AND LIVE LOAD.
3 FIND TRIBUTARY WIDTH FROM TABLE 5.6 AND DRAWING **97SC02.**
4 CHOOSE A RAFTER FROMTABLES 4.3, 4.5, 5.3 OR 5.4 THAT HAS ADEQUATE CLEARSPAN FOR YOUR NEEDS
5 CHOOSE A HEADER FROM TABLES 4.1, 4.2 OR 5.2 THAT HAS ADEQUATE COLUMN SPACING
6 USE THE FOOTER SIZE SHOWN.
7 USE THE COLUMN SHOWN FOR SINGLE SPAN ATTACHED PATIO.
LOOK AT THE TABLES PROVIDED FOR ALL OTHERS
8 FIND THE APPROPRIATE DETAILS IN THE "CONNECTION DETAILS" SHEETS.

FOR CONCRETE PATIO SLABS

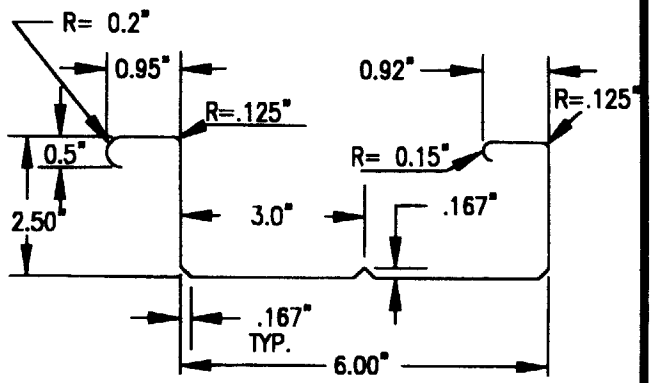
FOLLOW 1-4 ABOVE
5 FIND THE MAXIMUM COLUMN SPACING ON SLAB FROM THE DESIRED COLUMN HEIGHT
6 CHOOSE A HEADER FROM TABLE 4.1 OR 4.2 THAT CAN SPAN THAT DISTANCE FOR THAT TRIB WIDTH AND LIVE AND WIND LOAD
7 FIND THE APPROPRIATE DETAILS IN THE "CONNECTION DETAILS" SHEETS.

MAR 0 3 2000

REGISTERED PROFESSIONAL ENGINEER R. T. TUCKER NO. 26070 Exp. 7-31-02 CIVIL STATE OF CALIFORNIA

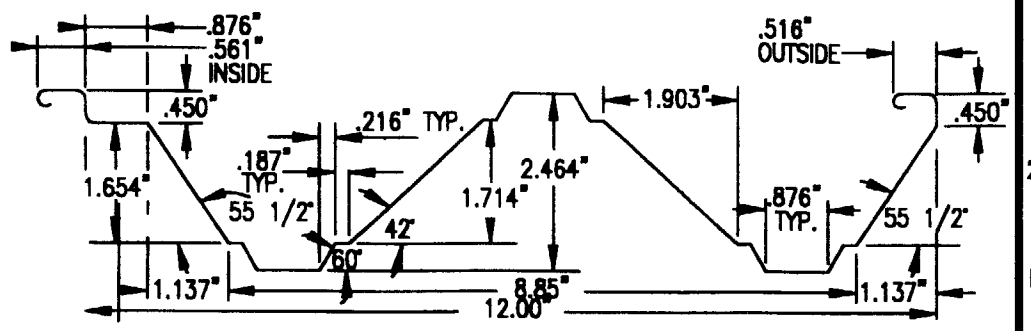
Amerimax
BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

ICBO ES EVALUATION REPORT ER-2621P
HEADER SPANS, COLUMN SPACING, FOOTER SIZE AND COLUMN TYPE FOR FREESTANDING AND ATTACHED COMMERCIAL LATTICE STRUCTURES
SHEET 7 OF 8 DATE: 2/8/2000



6" FLAT PAN

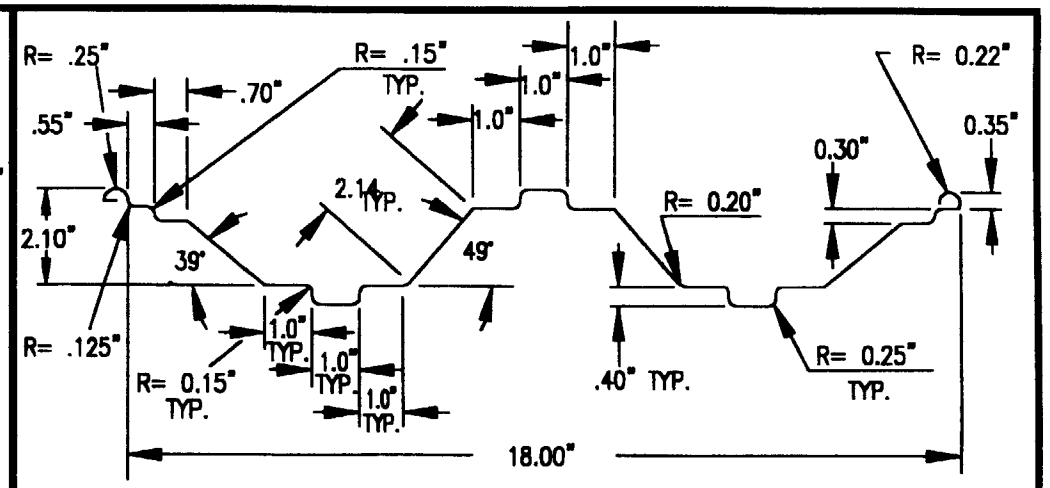
Ⓐ 6" STRUCTURAL PANEL (3006–H391 ALUM. ALLOY)



FOR STEEL PANEL: ASTM A 653 GRADE 80 STRUCTURAL QUALITY
Fy= 80 KSI STEEL

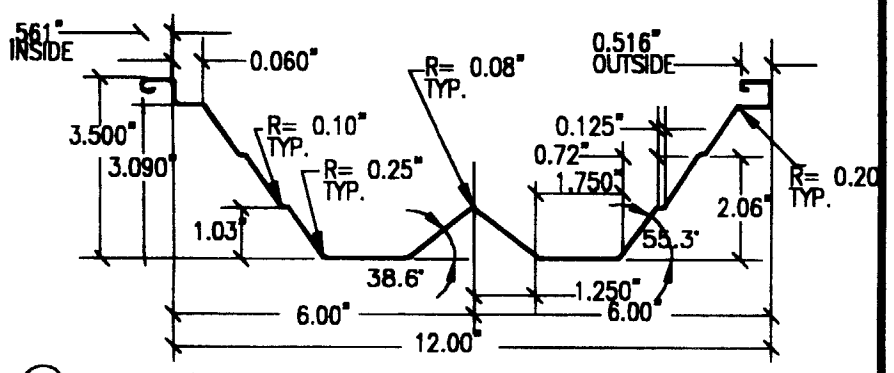
30 GA GALV T=.0157
28 GA GALV T=.0187

Ⓑ 12" STRUCTURAL PANEL (3006–H391 ALUM. ALLOY)

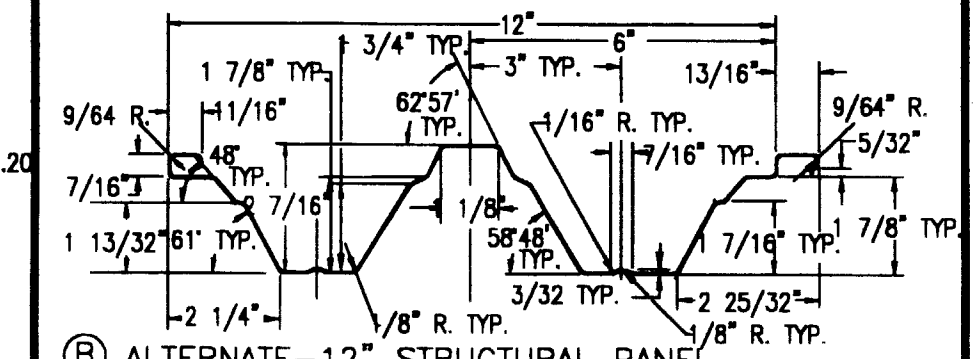


FOR STEEL PANEL: ASTM A 653 GRADE 50, SQ CLASS 1 30 GA. GALV. t=0.0157"
Fy=50 KSI STEEL

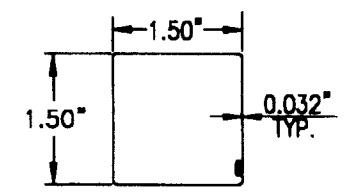
Ⓒ 18" STRUCTURAL PANEL (3006–H391 ALUM. ALLOY)



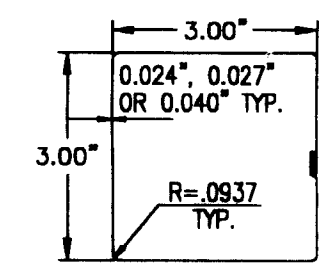
Ⓓ 3 1/2" X 12" STRUCTURAL PANEL



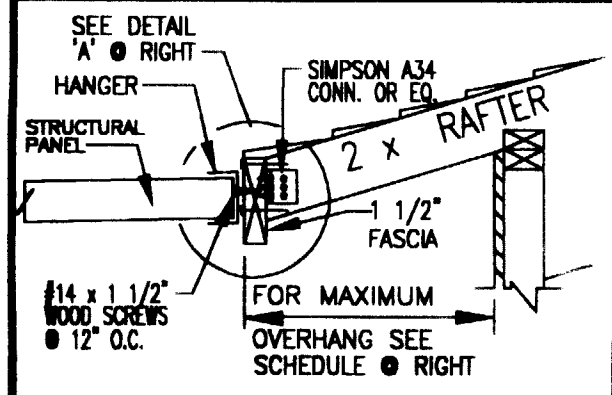
Ⓑ ALTERNATE–12" STRUCTURAL PANEL (3006–H391 ALUM. ALLOY)



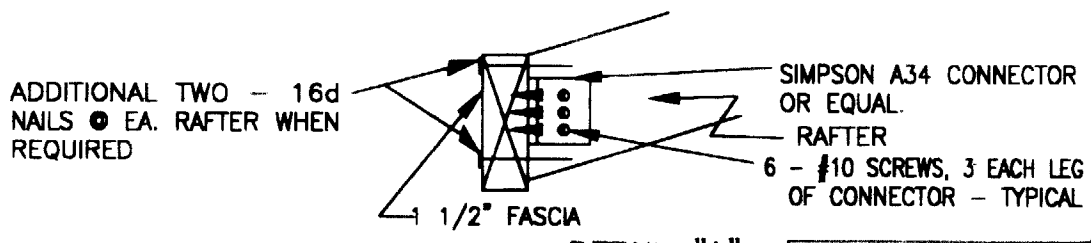
Ⓔ 1 1/2" SQUARE COLUMN (3003–H16 ALUM. ALLOY)



Ⓕ 3" SQUARE COLUMN (3003–H16 ALUM. ALLOY)



Ⓖ ALTERNATE EAVE ATTACHMENT



DETAIL "A"

SCHEDULE FOR MAXIMUM RAFTER OVERHANGS FOR AWNING PROJECTIONS

PROJ. (FT.)	2 X 4 RAFTERS @ 16" O.C. LIVELOADS (P.S.F.)						2 X 4 RAFTERS @ 24" O.C. LIVELOADS (P.S.F.)						2 X 6 RAFTERS @ 24" O.C. LIVELOADS (P.S.F.)					
	10	20	25	30	40	60	10	20	25	30	40	60	10	20	25	30	40	60
6"	28"	20"	17"	14"	11"	8"	21"	14"	12"	10"	8"	5"*	44"	33"	28"	24"	19"*	14"*
10"	26"	17"	14"	12"	9"		19"	12"	10"	8"	6"*		40"	29"	24"	21"	16"*	
12"	23"	15"	12"	10"			17"	10"	8"	7"			37"	25"	21"	18"*		
13 1/16	21"	13"	11"				15"	9"	7"				34"	23"	20"			
16"	19"						13"						32"					
18"	18"						12"						30"					
19"	17"						12"						29"					

* REQUIRES ADDITIONAL 2 – 16d NAILS ● EACH RAFTER

REGISTERED PROFESSIONAL ENGINEER
R. T. TUCKER
NO. 26070
6-31-02
CIVIL
STATE OF CALIFORNIA

MAR 03 2000

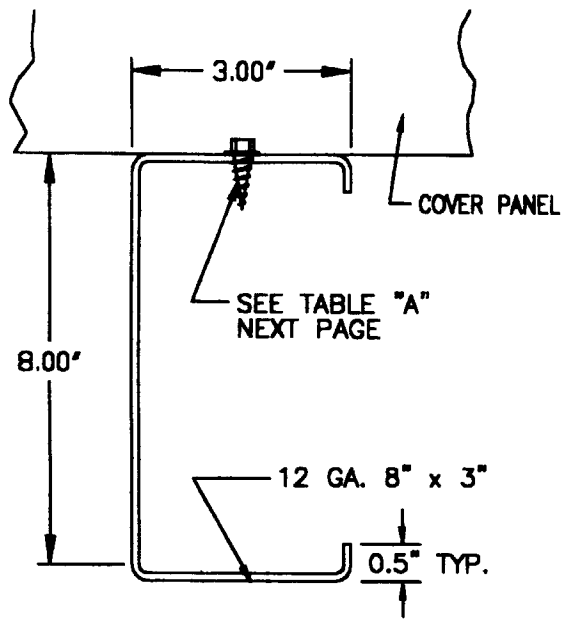
ENGINEERS STAMP

STRUCTURAL PANELS + TYP. CONNECTION DETAILS

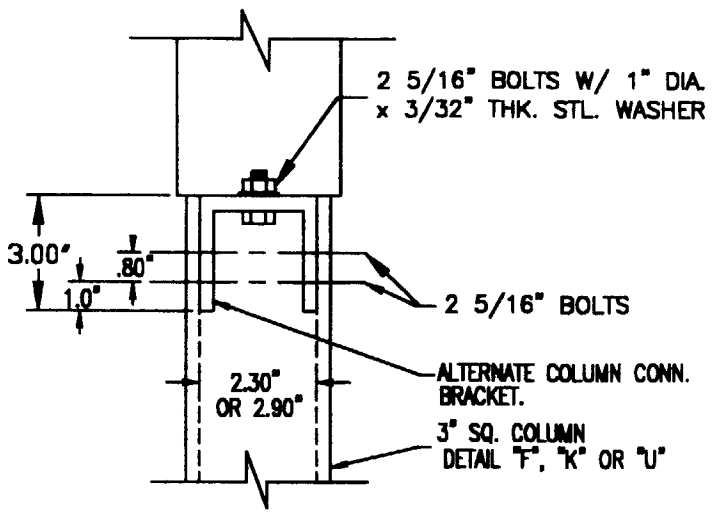
DATE	REVISION	DATE	REVISION

Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

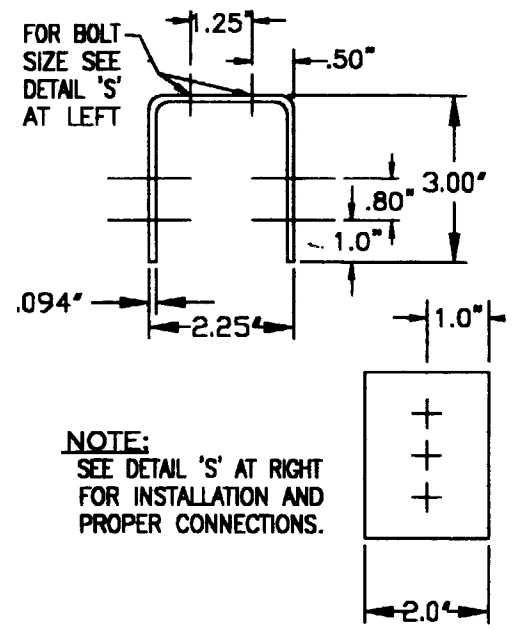
DRAWN BY: KG	ICBO ES EVALUATION REPORT NO. ER–2621P
SCALE: NONE	DRAWING OR PART NAME: COMPONENT PARTS & CONNECTION DETAILS
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97CD01
	SHEET: 1 OF 9



Ⓡ STEEL "C"– CHANNEL HEADER
(STEEL A–653 Fy=50,000 PSI)

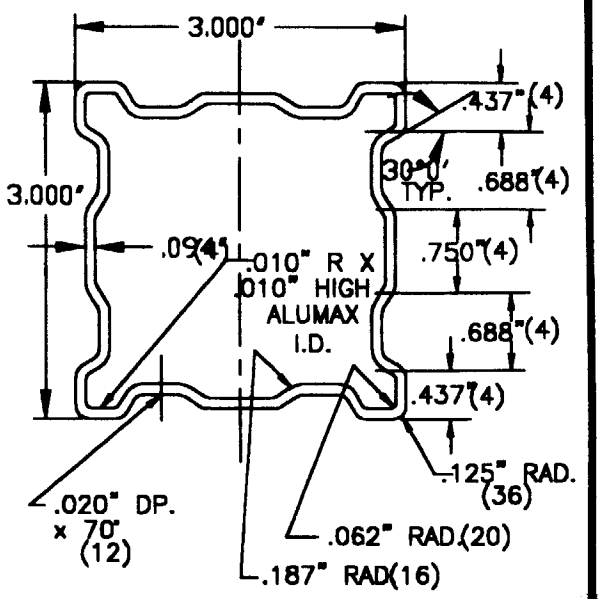


Ⓢ 3" COLUMN CONNECTIONS FOR
FASCIA HEADERS

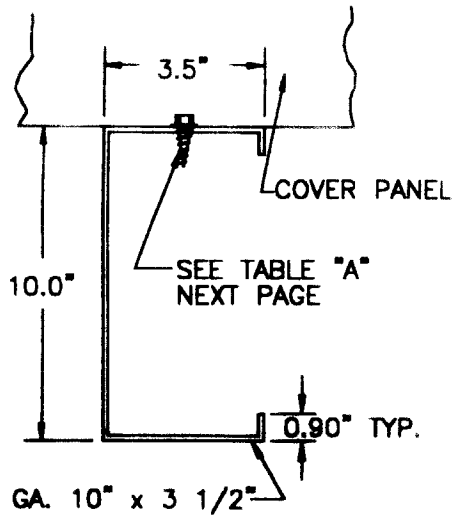


NOTE:
SEE DETAIL 'S' AT RIGHT
FOR INSTALLATION AND
PROPER CONNECTIONS.

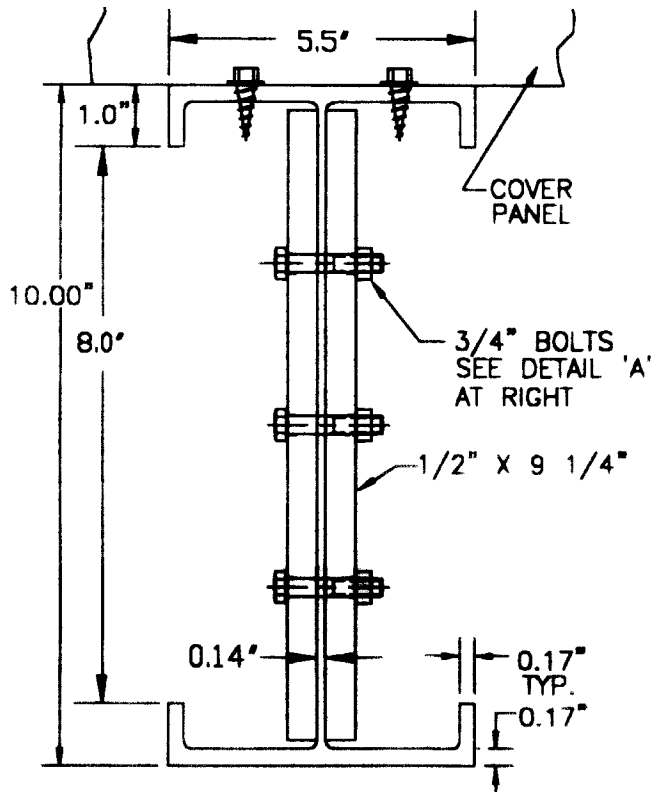
Ⓣ 3" ALTERNATE COLUMN CONN. BRACKETS
(STEEL A–653 Fy=40,000 PSI)



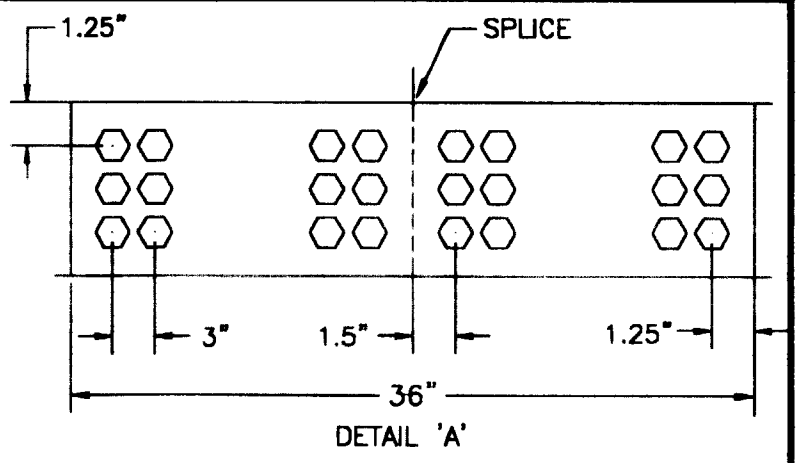
Ⓤ FLUTED COLUMN
(3" ALUM. 6063–T6)
"t" = 0.062" UNLESS OTHERWISE NOTED



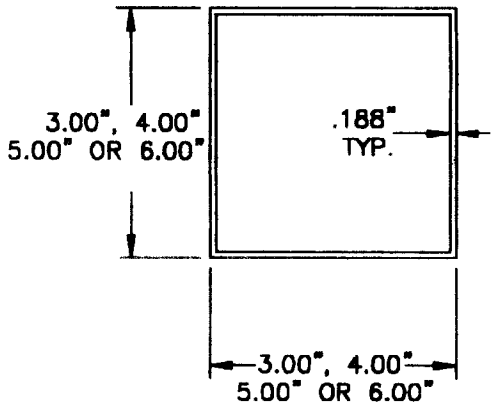
Ⓥ STEEL "C"– CHANNEL HEADER
(STEEL A–653 Fy=50,000 PSI)



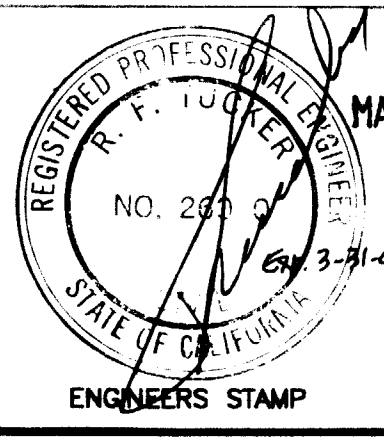
Ⓦ 10" FULL–STRENGTH SPLICE DETAIL
ASTM A 653 Fy=36 KSI



DETAIL 'A'



Ⓧ 3", 4", 5" OR 6"
STEEL COLUMN Fy=36 KSI



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DATE	REVISION	DATE	REVISION
MAR 03 2000			

Amerimax BUILDING PRODUCTS, INC.
Engineering Services
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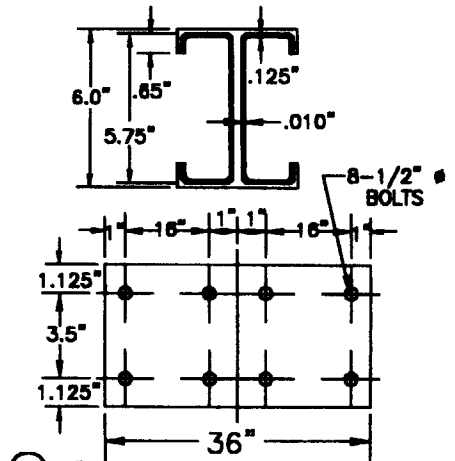
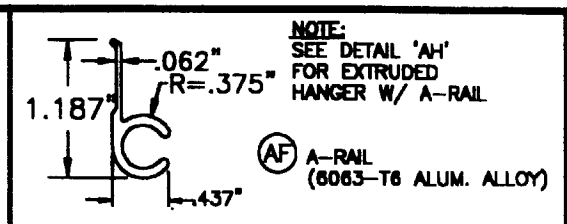
Elkhart, IN 46514

DRAWN BY: KG	ICBO ES EVALUATION REPORT NO. ER–2621P
SCALE: NONE	DRAWING OR PART NAME: COMPONENT PARTS & CONNECTION DETAILS
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97CD03
	SHEET: 3 OF 9

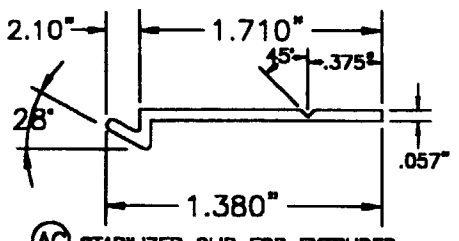


(AE) 6" W ALUM. HEADER SPLICE (6061-T6 ALUM. ALLOY)

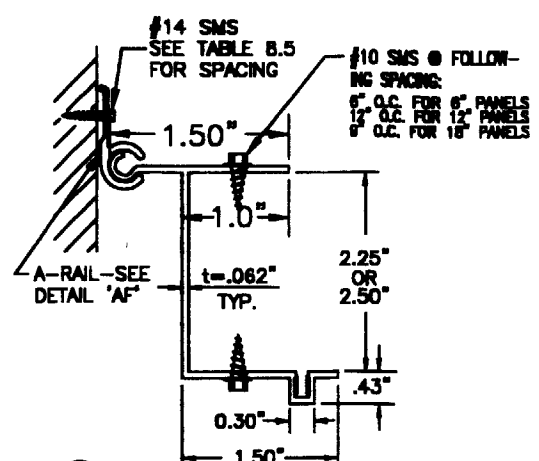


NOTE: SEE DETAIL 'AH' FOR EXTRUDED HANGER W/ A-RAIL

(AF) A-RAIL (6063-T6 ALUM. ALLOY)



(AG) STABILIZER CLIP FOR EXTRUDED HEADER 'AC' (6063-T6 ALUM. ALLOY)



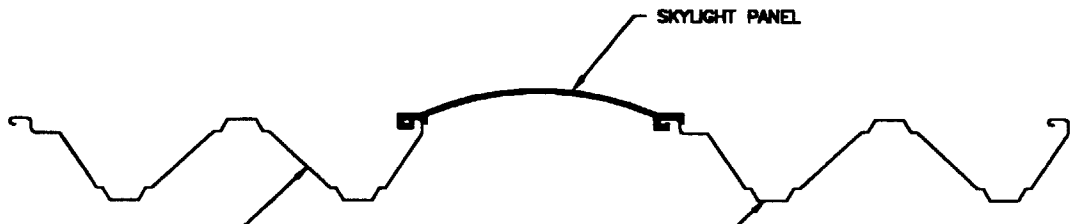
(AH) EXTRUDED HANGER (6063-T6 ALUM. ALLOY)

SCHEDULE OF ALLOWABLE SPANS FOR 6 " & 12" PANELS ADJACENT TO SKYLIGHT PANELS.

LIVELOAD (PSF)	*6" PANEL SPANS				*12" PANEL SPANS			
	t = 0.018	t = 0.024	t = 0.032	t = 0.036	t = 0.018	t = 0.024	t = 0.032	t = 0.036
10	11'-9"	14'-5"	17'-2"	17'-9"	11'-0"	13'-3"	14'-7"	15'-1"
20	8'-8"	10'-6"	12'-6"	13'-5"	7'-11"	10'-4"	11'-8"	12'-1"
25	7'-2"	9'-5"	11'-3"	12'-1"	7'-2"	9'-3"	10'-7"	11'-2"
30	6'-1"	8'-8"	10'-4"	11'-1"	6'-7"	8'-6"	9'-9"	10'-3"

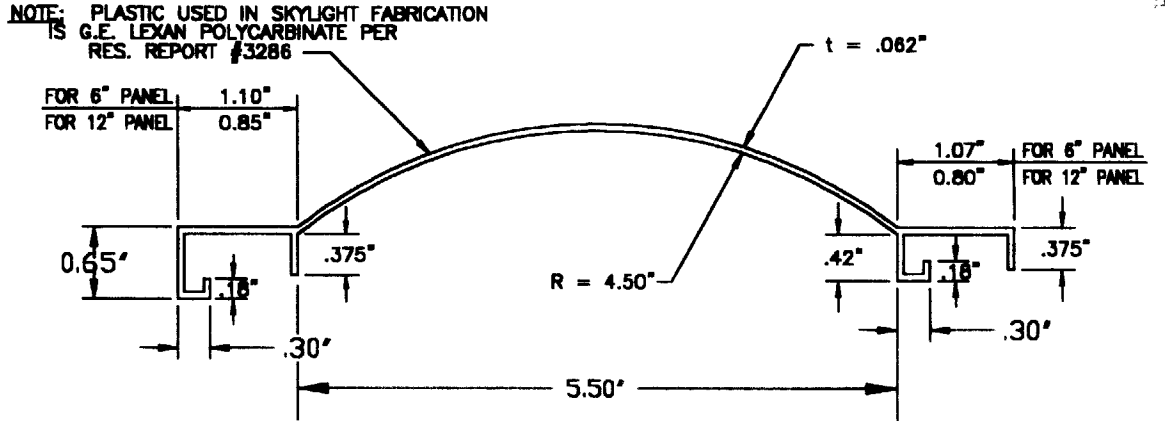
* USE A MINIMUM OF (1) SKYLIGHT PANEL PER (4) - 6' ROOF PANELS AND (1) SKYLIGHT PANEL PER (2) - 12" ROOF PANELS

FOR SKYLIGHT TO PANEL CONNECTIONS, USE THE SAME NUMBER OF SCREWS AS PANEL TO HEADER. SEE TABLE 'A' DETAIL (AE)



(AK) TYPICAL SKYLIGHT PANEL CONNECTION WITH 12" V-PANS

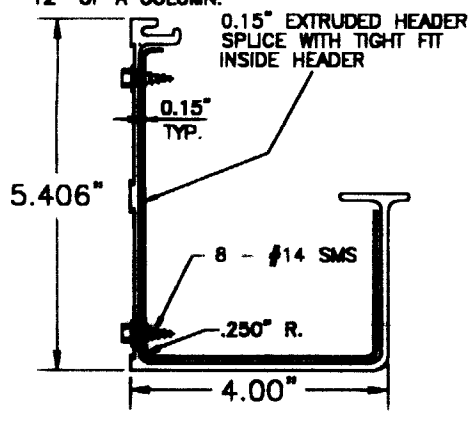
NOTE: PLASTIC USED IN SKYLIGHT FABRICATION IS G.E. LEXAN POLYCARBINATE PER RES. REPORT #3286

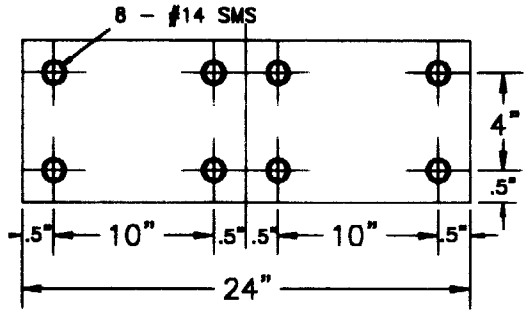


NOTE: SEE SCHEDULE ABOVE FOR ALLOWABLE SPANS FOR PANELS ADJACENT TO SKYLIGHT PANELS & NUMBER OF ROOF PANELS NEEDED FOR 1 SKYLIGHT PANEL.

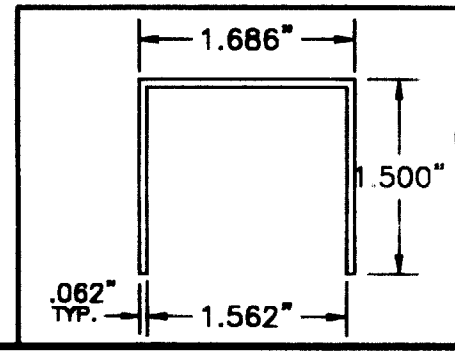
(AJ) SKYLIGHT PANEL

NOTE:
HEADER SPLICE MUST BE LOCATED WITHIN 12" OF A COLUMN.

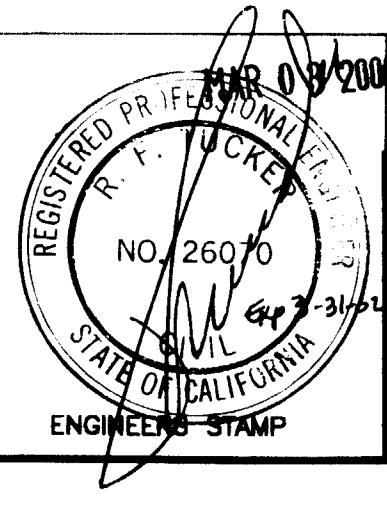




(AL) ALASKAN EXTRUDED HEADER SPLICE (6061-T6 ALUM. ALLOY)



(AM) EXTRUDED CHANNEL CONNECTOR (6063-T6 ALUM. ALLOY)



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Amerimax BUILDING PRODUCTS, INC.

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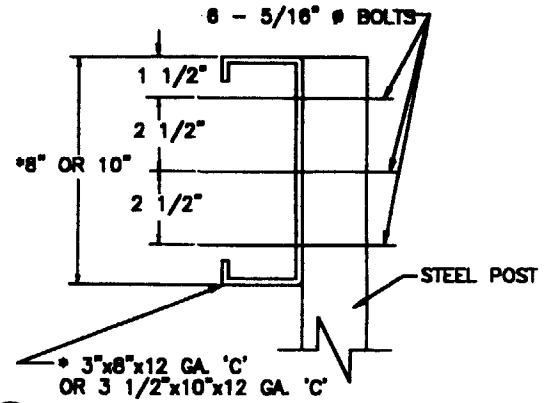
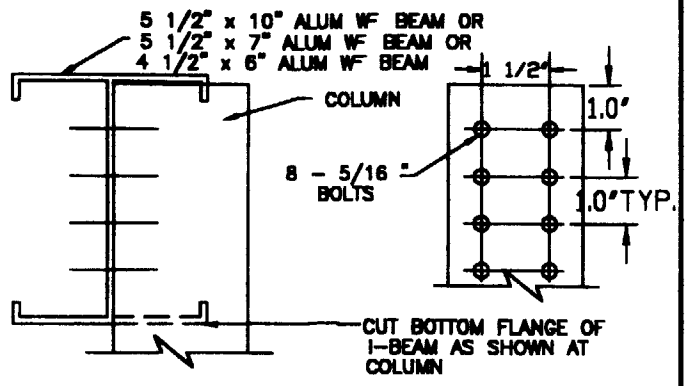
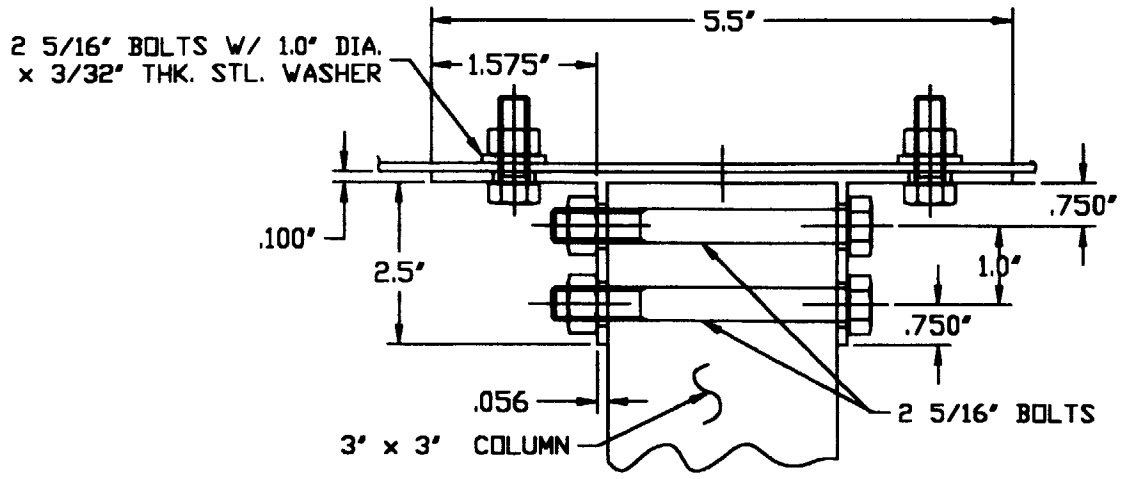


(AW) C-BEAM TO COLUMN CONNECTION

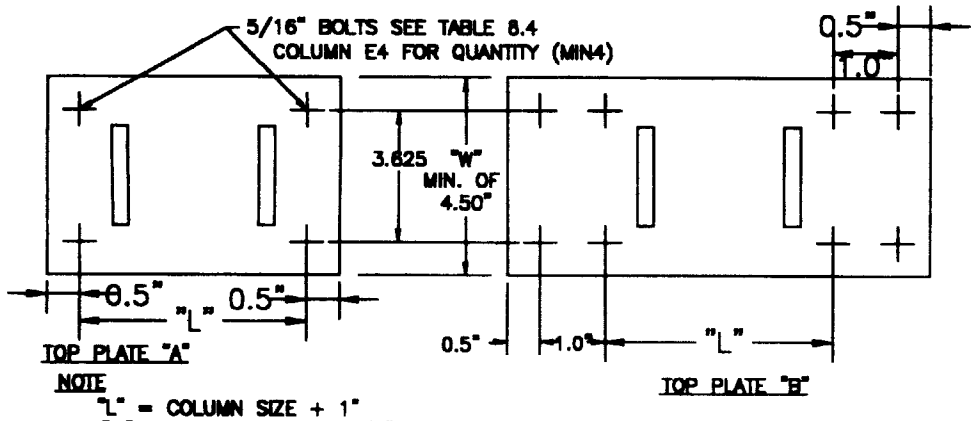


(AZ) ALTERNATE - 4 1/2" X 6" X 5 1/2" X 7" ALUM. W BEAM CONNECTION DETAIL



ALL "I" BEAMS & "C" BEAMS USE TABLE 8.3 COLUMN "J" FOR QUANTITY OF HORIZONTAL BOLTS
USE TABLE 8.4 COLUMN "N" FOR VERTICAL BOLTS.

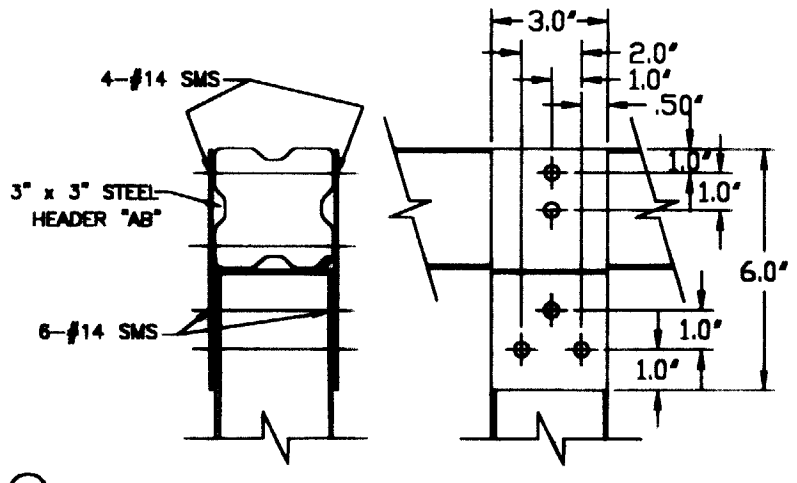
(AX) ALTERNATE 3" SQ. COLUMN CONNECTOR BRACKET
(6063-T6 ALUM. ALLOY)



NOTE
"L" = COLUMN SIZE + 1"
"W" = COLUMN SIZE + 1/2" WITH
A MINIMUM OF 4.5"

(BD) TOP PLATES 'A' & 'B' AND SCHEDULE 'B' FOR TOP PLATE CONNECTIONS WITH "I" BEAMS (Y, Z, AA) ON STEEL POSTS

(BC) 3" STEEL COLUMN TO HEADER CONN. BRACKET (6063-T6 ALUM.)



(AY) COLUMN TO HEADER CONNECTION FOR 3" X 3" STEEL HEADER "AB"

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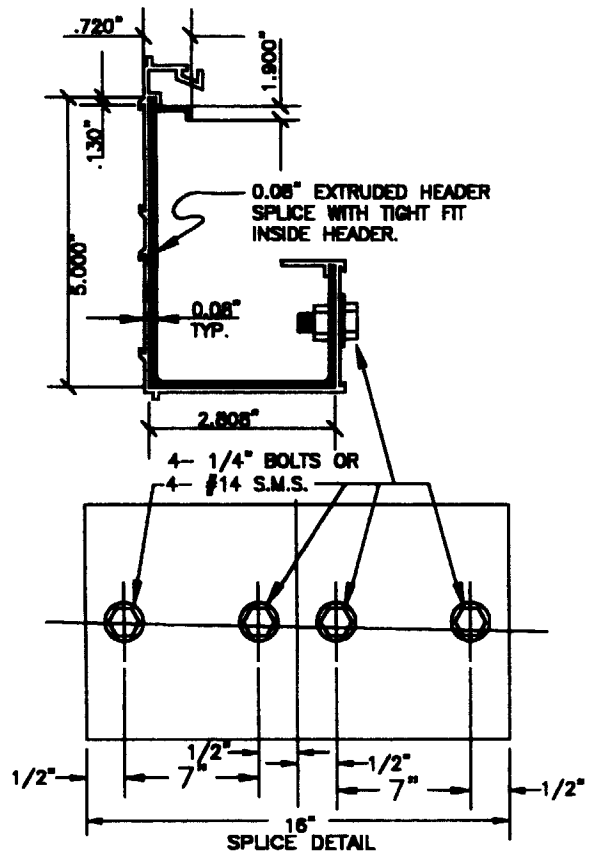
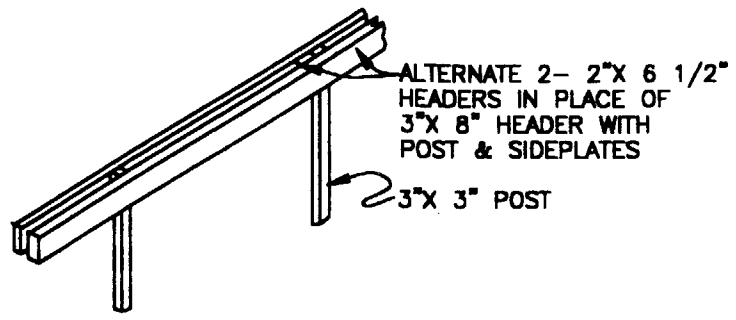
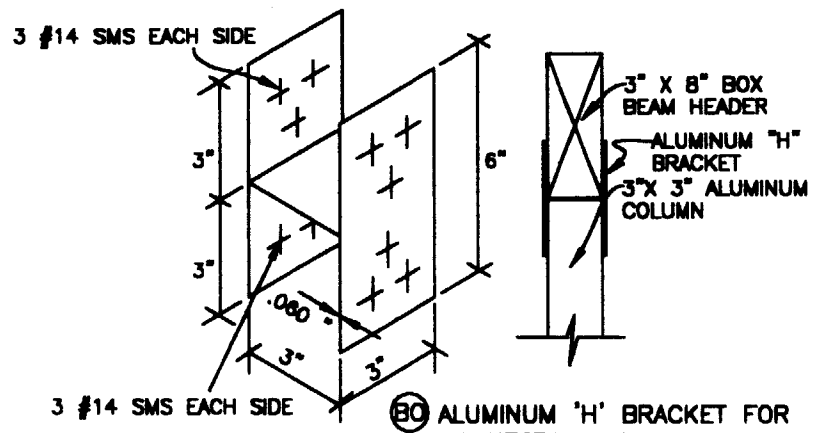
	SHEET 7 OF 9



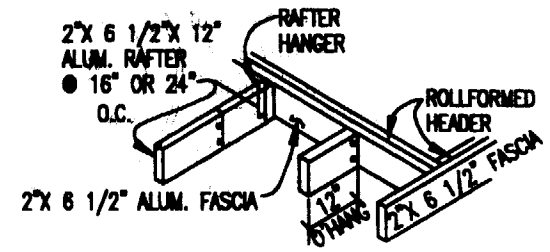
(BJ) 5 1/2" EXTRUDED HEADER SPLICE
(6061-T6 ALUM. ALLOY)



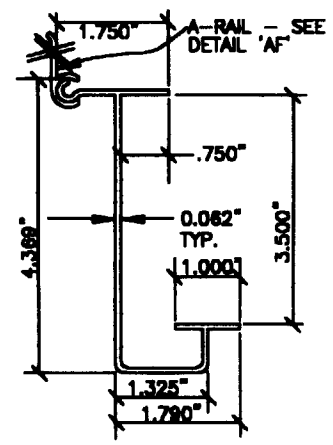
(BK) ALTERNATE 2-2" X 6 1/2" HEADERS



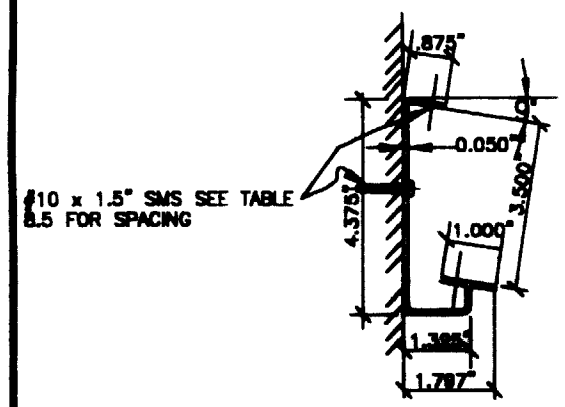
(BO) ALUMINUM 'H' BRACKET FOR CONNECTING COLUMN TO HEADER
(6063-T6 ALUM. ALLOY)



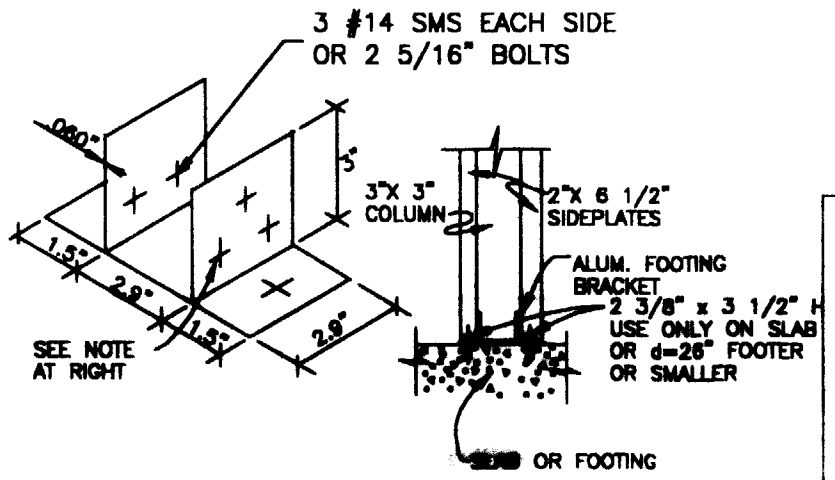
(BL) ALTERNATE-DECORATIVE FASCIA TRIM



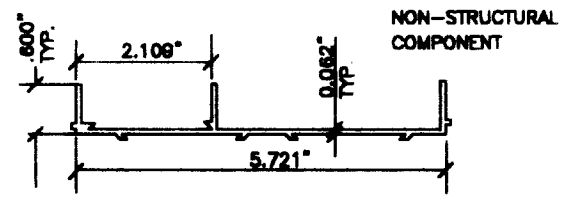
(BP) 3 1/2" "J" HANGER
(6063-T6 ALUM. ALLOY)



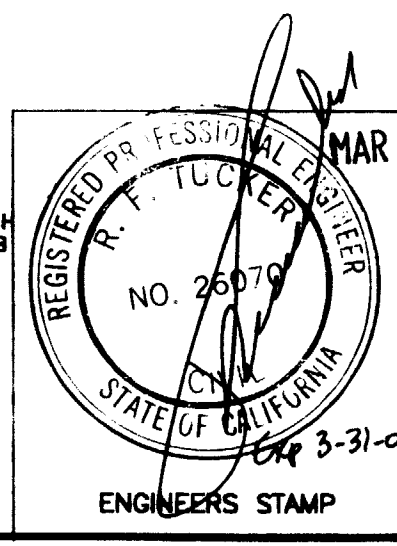
(BM) 3 1/2" "G" RAIL
(6063-T6 ALUM. ALLOY)



(BN) ALUMINUM FOOTING BRACKET FOR CONNECTING COLUMN TO CONC. [illegible] OR FOOTING
(6063-T6 ALUM. ALLOY)



(BQ) 5 1/2" EXTRUDED SIDE FASCIA
(6063-T6 ALUM. ALLOY)



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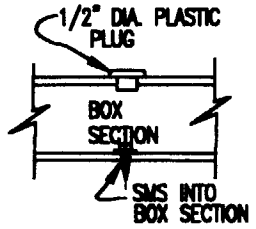
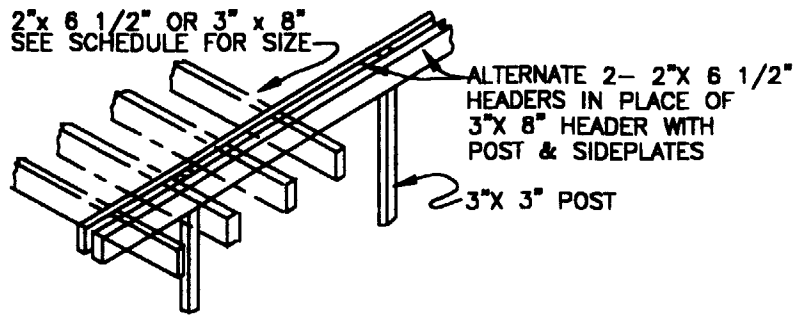
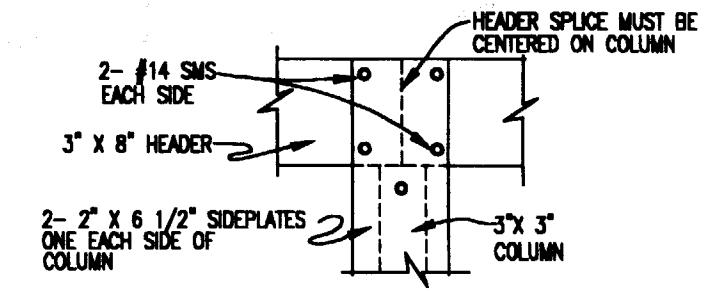


NOTE: USE PLASTIC PLUG TO FILL 1/2" DIA. ACCESS HOLES USED WHEN ATTACHING S.M.S. INTO ANOTHER BOX SECTION IN WHICH THE SMS LENGTH WOULD EXCEED 2 1/2".

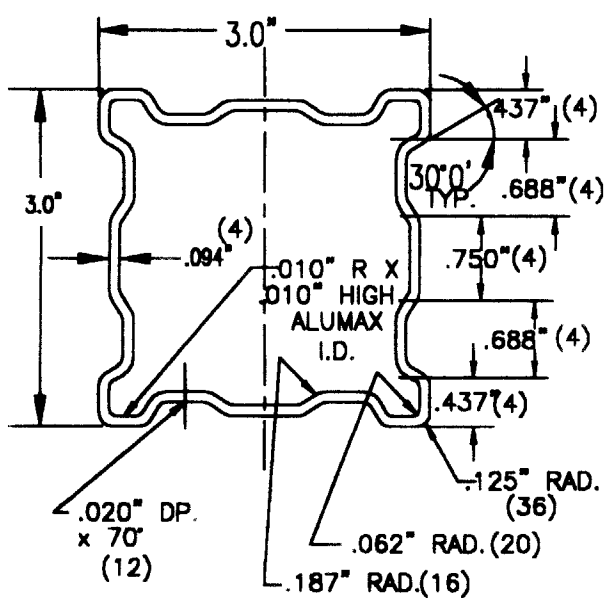
L10 PLASTIC PLUG DETAIL



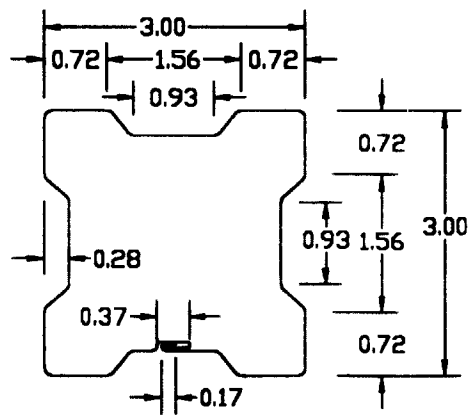
L11 ALTERNATE 2-2" X 6 1/2" HEADERS



L16 HEADER SPLICE DETAIL



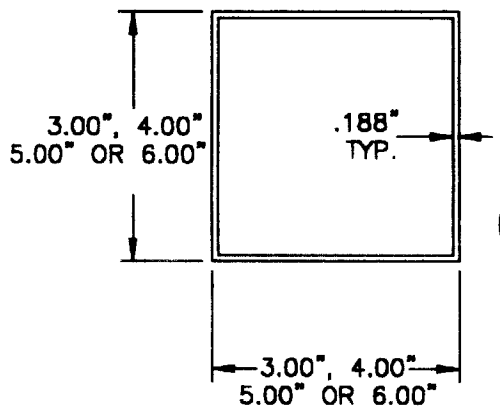
L31 FLUTED COLUMN
(3" ALUM. 6063-T6)
"t" = 0.062" UNLESS OTHERWISE NOTED



T (IN)= 0.024, 0.030, 0.040 (ALUM)
= 0.048 (STEEL)

NOTE:
COLUMNS MAY BE TRIMMED W/FLEX-ALUM. FACING.

L30 3" ALTERNATE COLUMN
(3003-H16 ALUM. ALLOY OR A-446 Fy=40 KSI STEEL)



L32 3", 4", 5" OR 6" STEEL COLUMN
Fy=36 KSI

REGISTERED PROFESSIONAL ENGINEER
R. F. TUCKER
NO. 26070
CIVIL
STATE OF CALIFORNIA
EXP. 8-31-02
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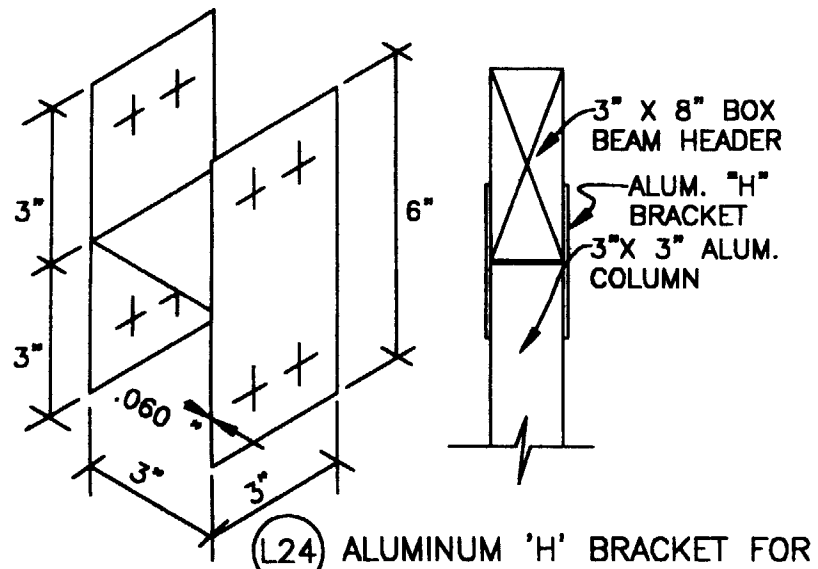
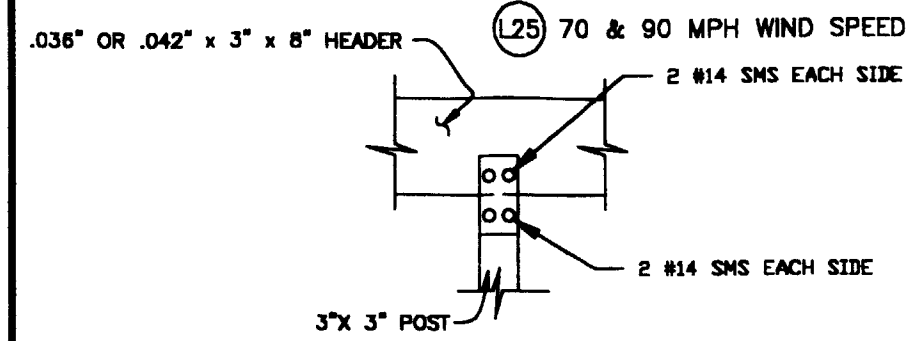
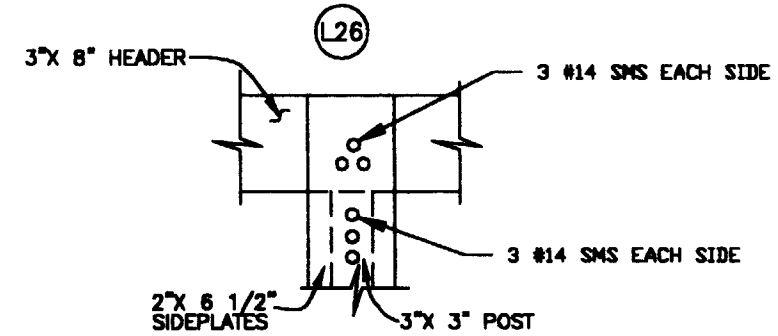


L24 ALUMINUM 'H' BRACKET FOR CONNECTING COLUMN TO HEADER (6063–T6 ALUM. ALLOY)



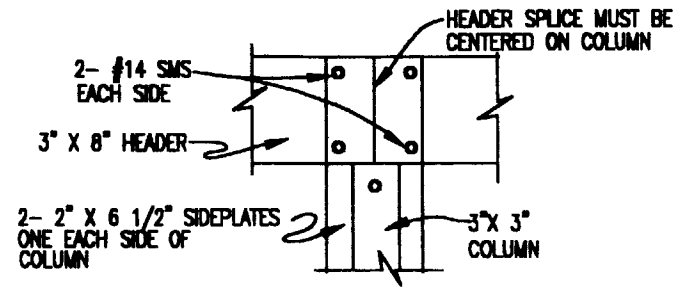
L25 70 & 90 MPH WIND SPEED

COLUMN W/ 'H' BRACKET

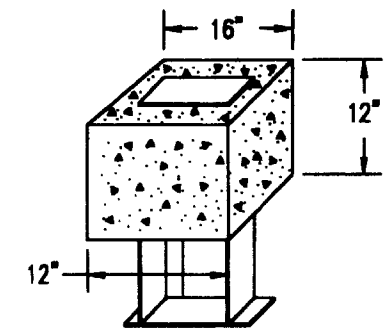


L26

COLUMN W/ SIDEPLATES

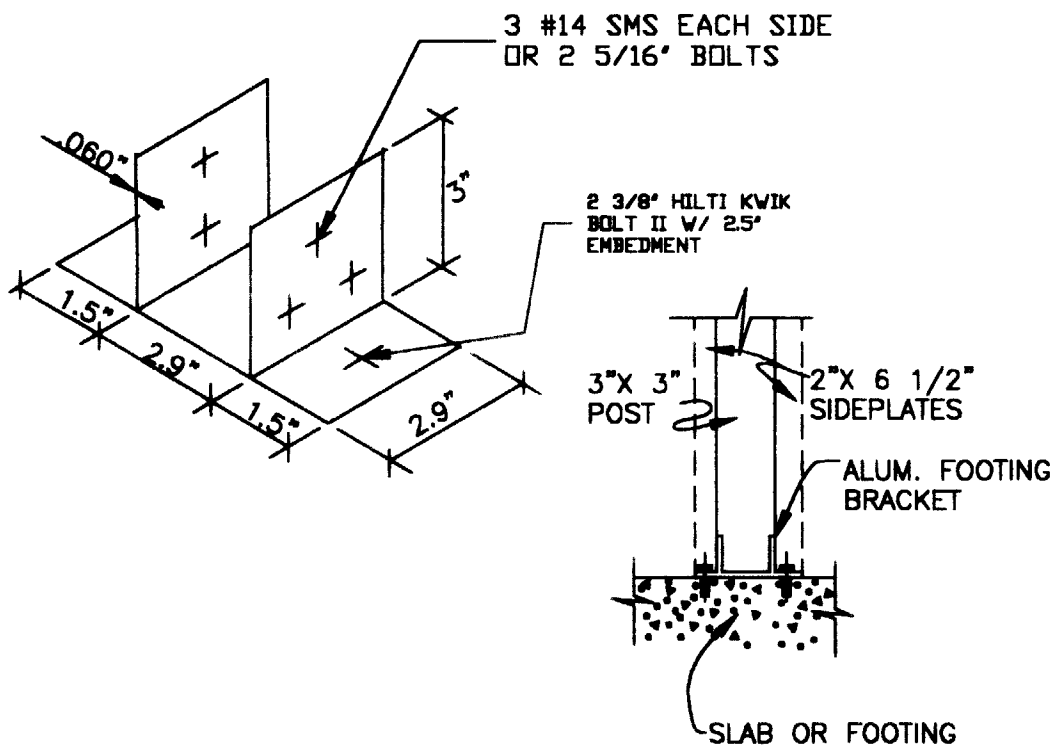


L16 HEADER SPLICE DETAIL

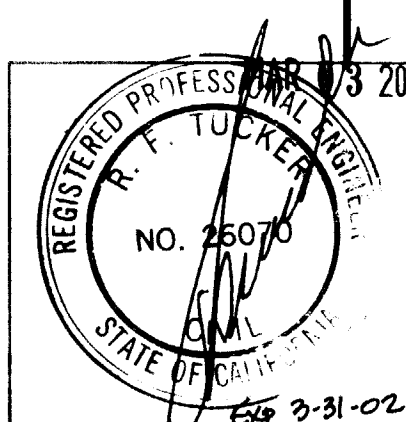


(USE ONLY FOR ATTACHED LATTICE PATIO STRUCTURE)

L33 SAFETY STAKE IN CONCRETE FOOTING



L27 ALUMINUM FOOTING BRACKET FOR CONNECTING POST TO CONC. SLAB OR FOOTING (6063–T6 ALUM. ALLOY)



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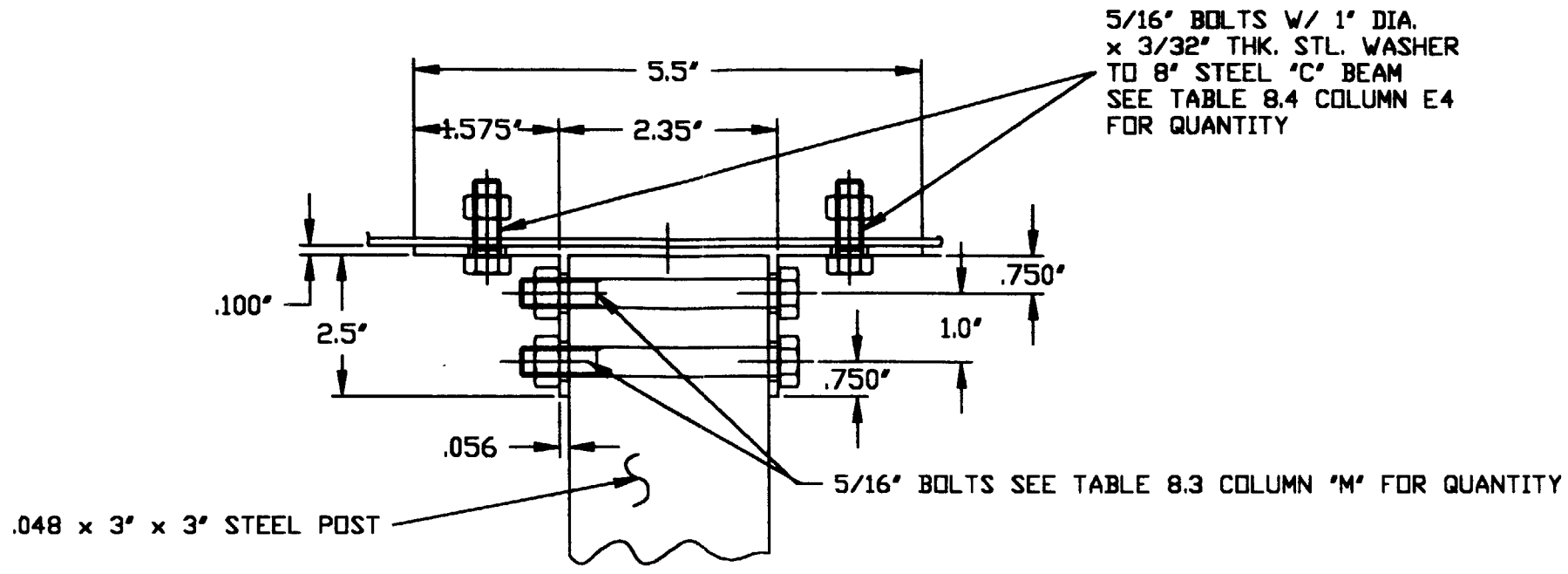
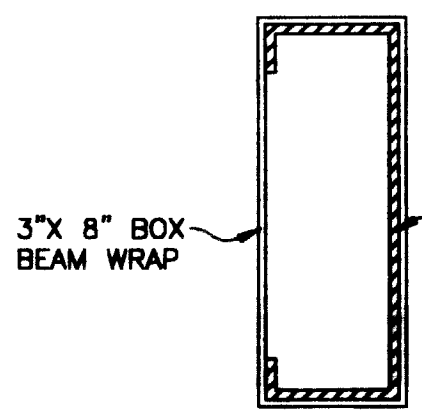


(AN) ALTERNATE 3" SQ. COLUMN CONNECTOR BRACKET
(6063–T6 ALUM. ALLOY)



(L23) 3" X 12" X 12 GA. STL. 'C' BEAM
WRAP W/ 3" X 8" ALUM. BOX BEAM

DETAIL 3" X 8" – 1 FOR ATTACHED STRUCTURES
COLUMN TO WRAPPED 3" X 8" X 12 GA.
'C' BEAM HEADER CONNECTIONS

MAR 03 2000

REGISTERED PROFESSIONAL ENGINEER R. F. TUCKER NO. 26370 EXP. 3-31-02 CIVIL STATE OF CALIFORNIA

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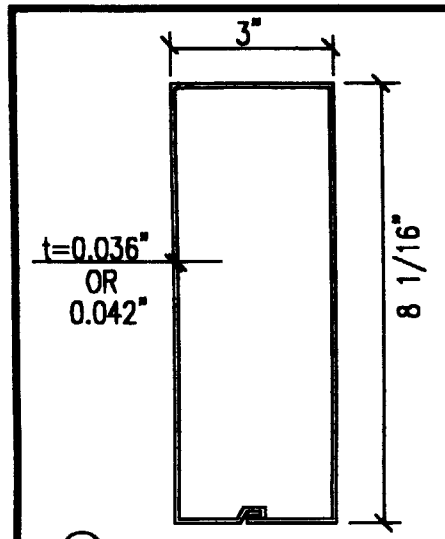
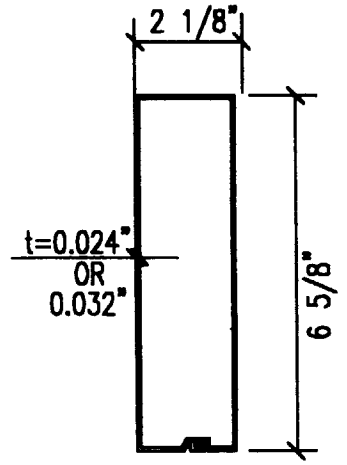
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97LT03

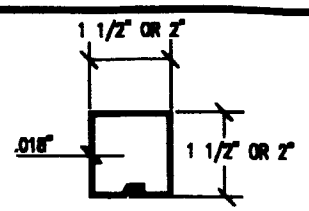
SHEET 3 OF 4



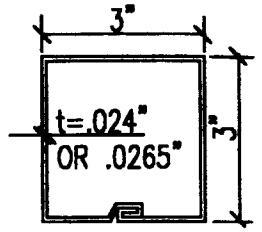
L1 HEADER
(3006-H391 ALUM. ALLOY)



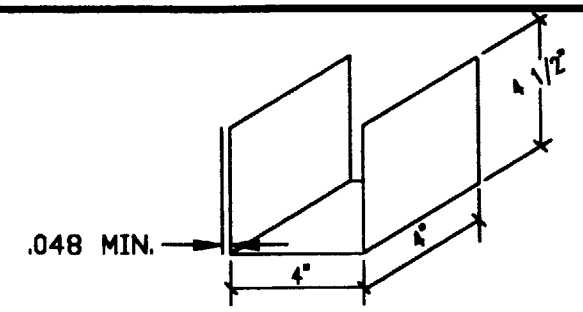
L2 RAFTER & SIDEPLATES
(3006-H391 ALUM. ALLOY)



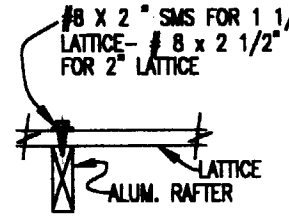
L3 LATTICE
(3105-H25 ALUM. ALLOY)



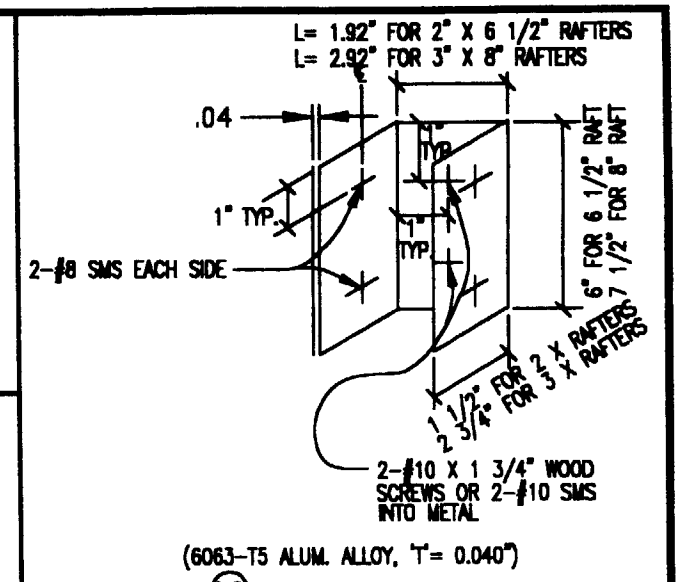
L4 COLUMN
(3006-H391 ALUM. ALLOY)



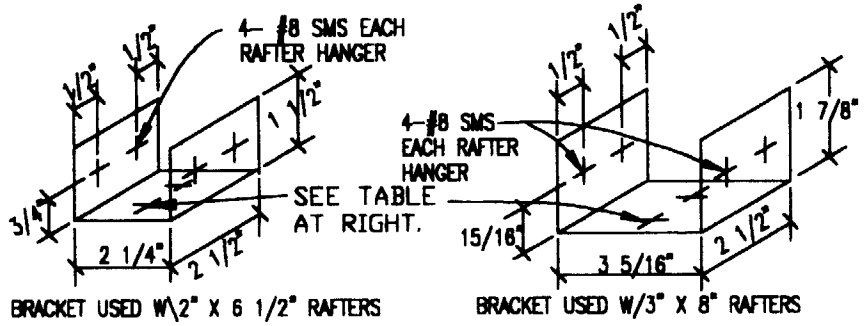
ASTM A-653 Fy=40 KSI
L5 STEEL CONNECTOR FOR WOOD COLUMN CONNECTION



L9 LATTICE TO RAFTER CONN.

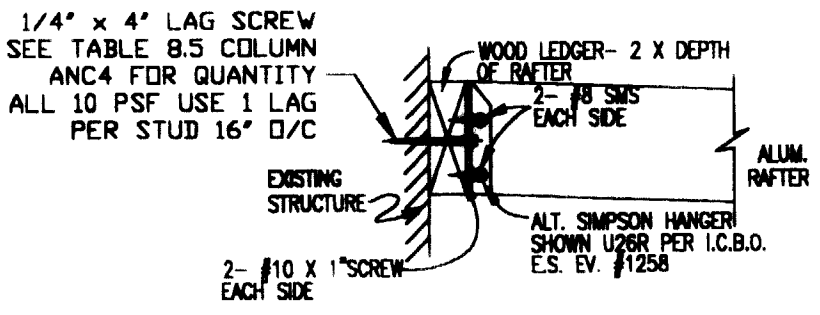


(6063-T5 ALUM. ALLOY, 't'= 0.040")
L6 RAFTER HANGER

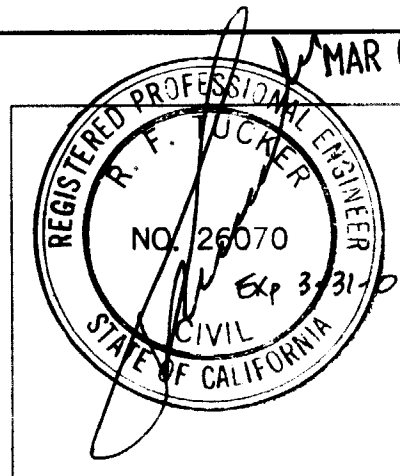


BRACKET USED W\2" X 6 1/2" RAFTERS
BRACKET USED W/3" X 8" RAFTERS
L7 RAFTER TO HEADER CONNECTION BRACKETS
(6063-T5 ALUM. ALLOY, 't'=.060")

HEADER GAGE	HEADER	DETAIL	MAXIMUM WIND LOAD	MAX TRIB	FASTENTING
.042	3" x 8" 3" x 8"	L1	90 MPH PATIO	6' 10'	2-#8 SMS EACH BRKT. 3-#8 SMS EACH BRKT.
.036	3" x 8" 3" x 8"	L1	90 MPH PATIO	5' 10'	2-#8 SMS EACH BRKT. 4-#8 SMS EACH BRKT.
.032	DBL 2 x 6	L11	90 MPH PATIO	10'	3-#8 SMS EACH BRKT.
.094	8" STEEL C	L23	90 MPH 90 EXP C	22' 10'	2-#14 SMS EACH BRKT. 2-#14 SMS EACH BRKT.



L8 ALTERNATE RAFTER TO WALL CONN.



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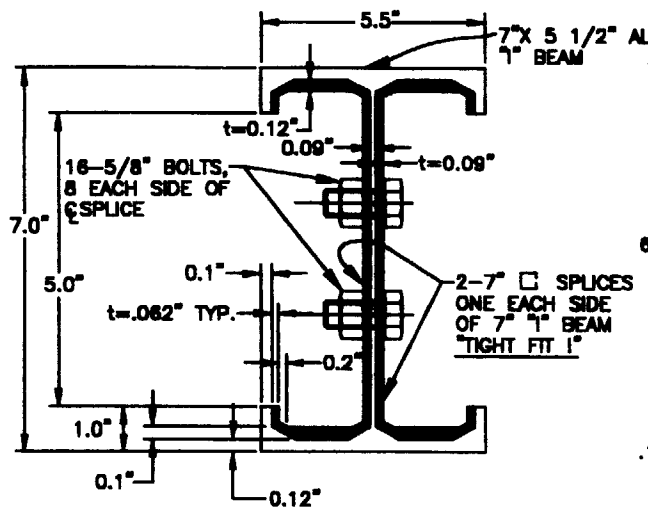
ENGINEERS STAMP

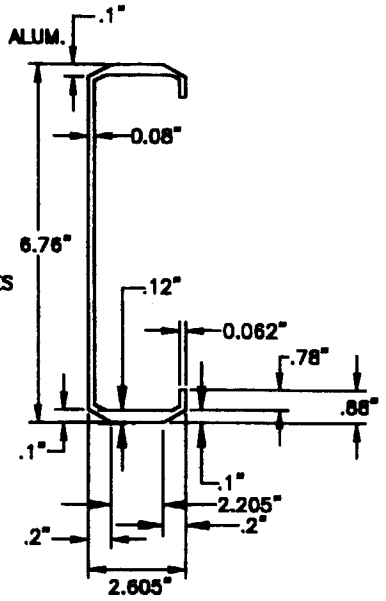
DATE	REVISION	DATE	REVISION

Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

DRAWN BY: KG	ICBO ES EVALUATION REPORT NO. ER-2621P
SCALE: NONE	DRAWING OR PART NAME: COMPONENT PARTS & CONNECTION DETAILS FOR PATIO & COMMERCIAL LATTICE STRUCTURES
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97LT01 — SHEET: 1 OF 4

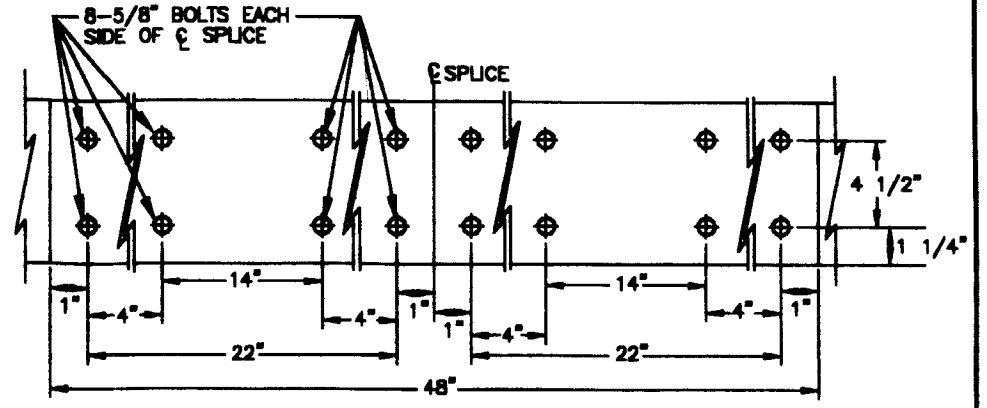


7" X 5 1/2" I-BEAM SPLICE
(6061-T6 ALUM. ALLOY)

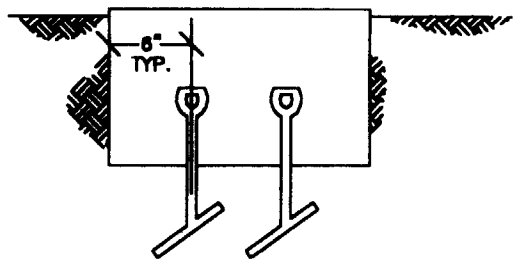


7" C SPLICES
(6061-T6 ALUM. ALLOY)

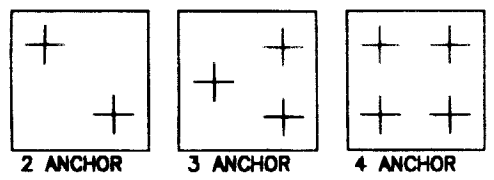
(BE) SPLICE DETAILS



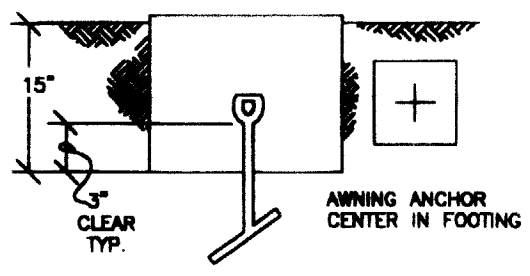
(BF) 7" X 5 1/2" ALUM. I-BEAM SPLICE BOLT LAYOUT



AWNING ANCHORS



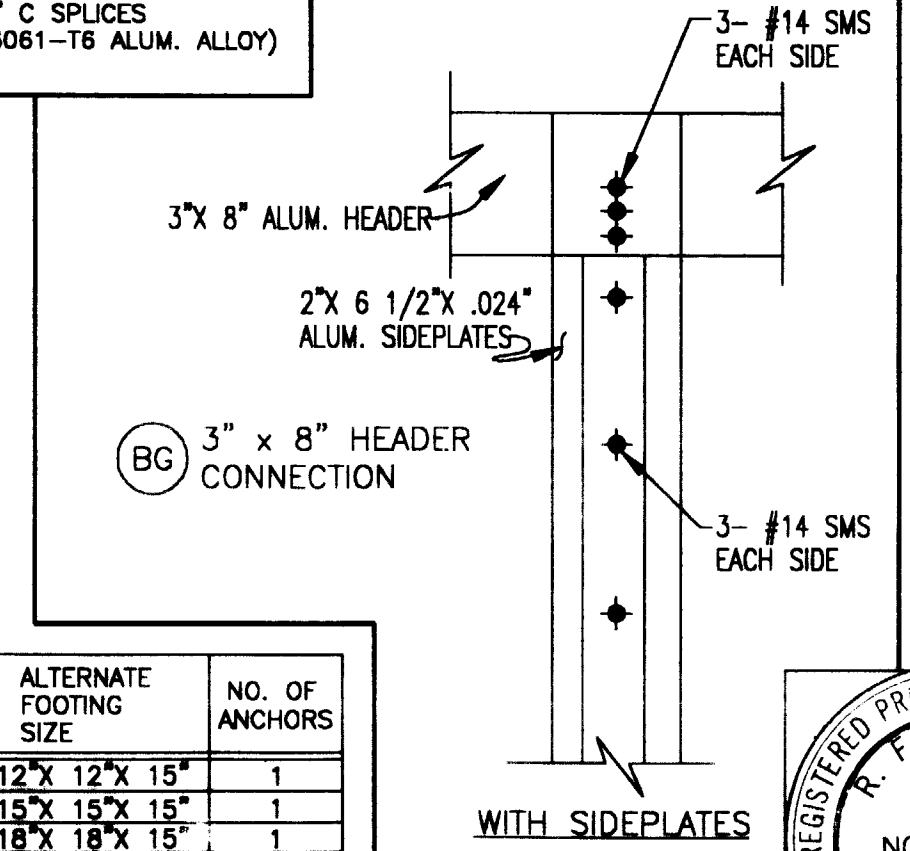
2, 3, OR 4 ANCHOR DETAIL



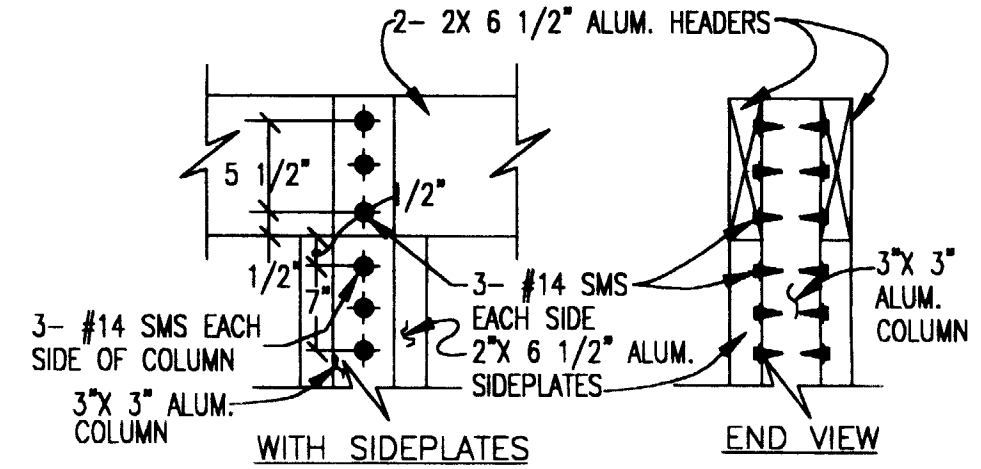
SINGLE ANCHOR DETAIL

(BI) ANCHOR DETAILS FOR ATTACHED STRUCTURES

FOOTING "d" (IN)	ALTERNATE FOOTING SIZE	NO. OF ANCHORS
18	12"X 12"X 15"	1
20	15"X 15"X 15"	1
22	18"X 18"X 15"	1
24	20"X 20"X 15"	1
26	20"X 20"X 15"	1
28	24"X 24"X 15"	2
30	24"X 24"X 15"	2
32	24"X 24"X 15"	3
34	24"X 24"X 15"	4
36	24"X 24"X 15"	4



(BG) 3" x 8" HEADER CONNECTION



(BH) DOUBLE 2" X 6 1/2" HEADER CONNECTION

REGISTERED PROFESSIONAL ENGINEER
R. F. TUCKER
NO. 26070
CIVIL
STATE OF CALIFORNIA
Exp 3-31-02

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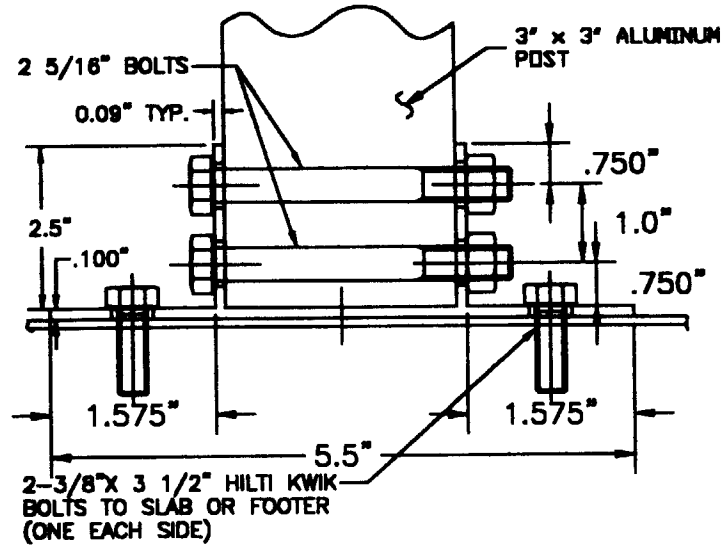
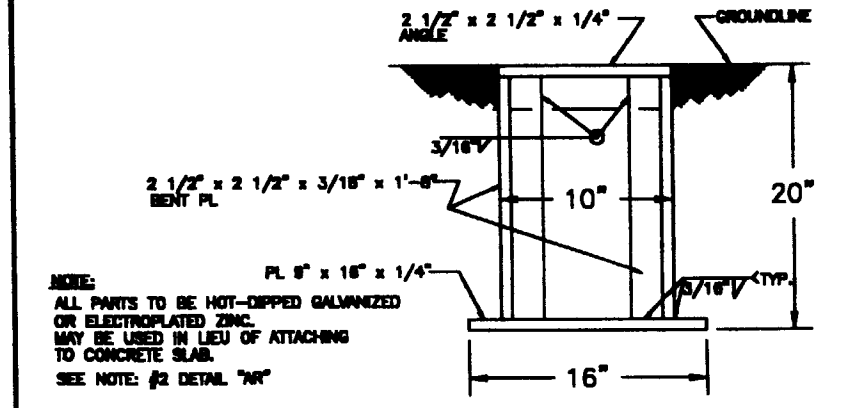
Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

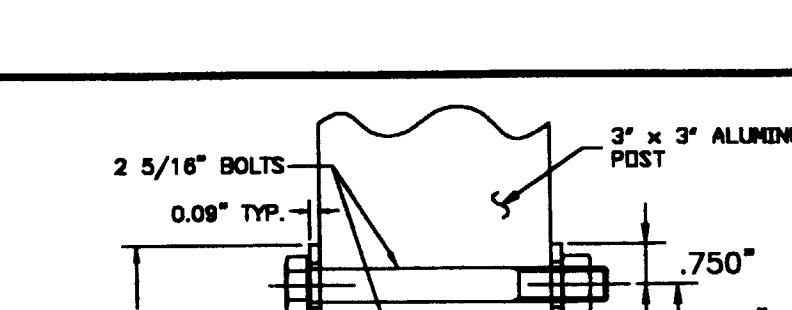
DRAWN BY: CMP	ICBO ES EVALUATION REPORT NO. ER-2621P
SCALE: NONE	DRAWING OR PART NAME: COMPONENT PARTS & CONNECTION DETAILS
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97CD08
	SHEET: 8 OF 9



(AN) ALTERNATE 3" SQ. COLUMN CONNECTOR BRACKET (6063-T6 ALUM. ALLOY)



(AP) SAFETY STAKE (ALTERNATE TO CONCRETE SLAB ATTACHMENT)

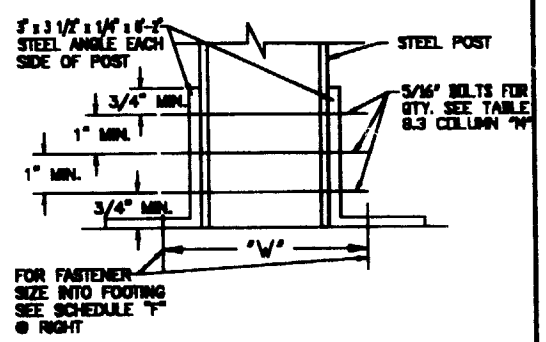


ALTERNATE TO CONCRETE SLAB ATTACHMENT

NOTES:

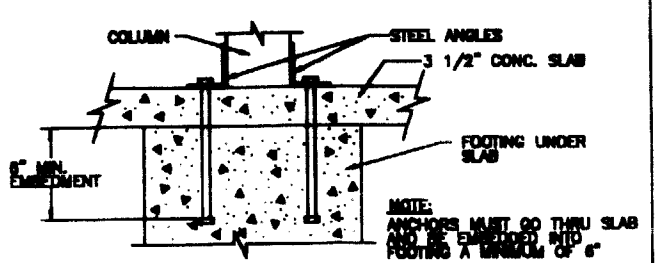
1. ALL PARTS TO BE HOT-DIP GALVANIZED OR ELECTOPLATED ZINC. MAY BE USED IN LIEU OF ATTACHING TO CONCRETE SLAB.
2. FABRICATION OF AWNING ANCHORS AND SAFETY STAKES IS BEYOND THE SCOPE OF THIS REPORT. FABRICATION DETAILS AND QUALITY CONTROL PROGRAM MUST BE SUBMITTED TO BUILDING OFFICIAL FOR APPROVAL
3. AWNING ANCHORS MAY BE USED IN THE FOLLOWING TYPES OF SOIL: SAND, GRAVEL, CLAY, SANDY GRAVEL, SILTY GRAVEL, SILTY SAND, CLAYEY SAND, CLAYEY GRAVEL, SANDY CLAY, SILTY CLAY, AND CLAYEY SILT.

(AR) AWNING ANCHOR

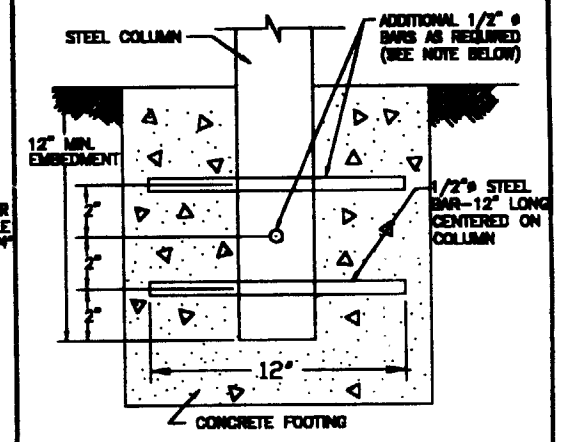


REQUIRED "W" (WIDTH)	
FASTENER SIZE	MINIMUM "W" (WIDTH)
1/4"	3"
3/8"	4 1/2"
1/2"	6"
5/8"	7 1/2"
3/4"	9"

(AS) ATTACHED STRUCTURE COLUMN TO FOOTING CONNECTION DETAIL "d" = 18" TO 32" HILTI FASTENER ALTERNATE



(AU) COLUMN CONNECTION DETAIL FOR SLAB & FOOTING ATTACHMENT



NOTE:
USE 1 - 1/2" ø STEEL BAR FOR FOOTINGS UP TO 36" CUBE. USE 2 - 1/2" ø BARS FOR FOOTINGS UP TO 48" CUBE AND 3 - 1/2" ø BARS FOR FOOTINGS UP TO 52" CUBE.

(AT) ALTERNATE FREESTANDING STRUCTURE COLUMN TO FOOTING CONNECTION DETAIL

SCHEDULE "F" - COLUMN TO FOOTING CONNECTIONS FOR 18" TO 42" FOOTING SIZES			REQUIRED TENSION FOR ANCHOR BOLTS
FOOTING SIZE "d" (INCHES)	*HILTI FASTENER (OR EQUAL) SIZE	CONNECTION TO COLUMN TUBE	
"d" = 18"	2-1/4"ø x 2" d	1-5/16"ø BOLT	430#
20"	2-3/8"ø x 2 1/2"d	↓	580#
22"	↓	2-5/16"ø BOLTS	650#
24"	↓	2-3/8"ø BOLTS	790#
26"	2-1/2"ø x 3 1/2"d	3-5/16"ø BOLTS	1330#
28"	↓	↓	1330#
30"	↓	↓	1670#
32"	2-5/8"ø x 4"d	↓	2080#
34"	X	↓	N/A
36"	X	↓	N/A
38"	X	↓	N/A
40"	X	↓	N/A
42"	X	3-3/8"ø BOLTS	N/A

*"d" SIZE IN ANCHOR BOLT OR HILTI FASTENER SIZES INDICATES DEPTH OF EMBEDMENT. EXAMPLE: 2 1/2"d INDICATES 2 1/2" EMBEDMENT OF ANCHOR "OR EQUAL" TO HILTI FASTENERS. ALTERNATE MUST BE ICBO ES. APPROVED TO PROVIDE ALLOWABLE TENSION EQUAL TO "REQ'D TENSION FOR ANCHOR BOLT" VALUES SHOWN. HILTI INDICATES HILTI KB-II ANCHOR BOLTS PER ICBO E.S. EV #4627.

(AV) FOOTING SCHEDULE

REGISTERED PROFESSIONAL ENGINEER R. F. TUCKER NO. 26070 CIVIL STATE OF CALIFORNIA
MAR 03 2000
Exp 3-31-02

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Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

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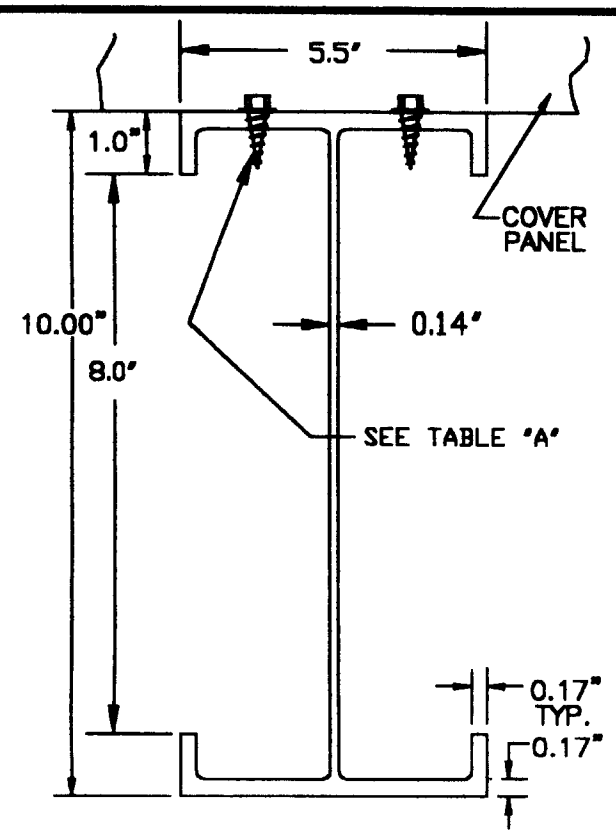
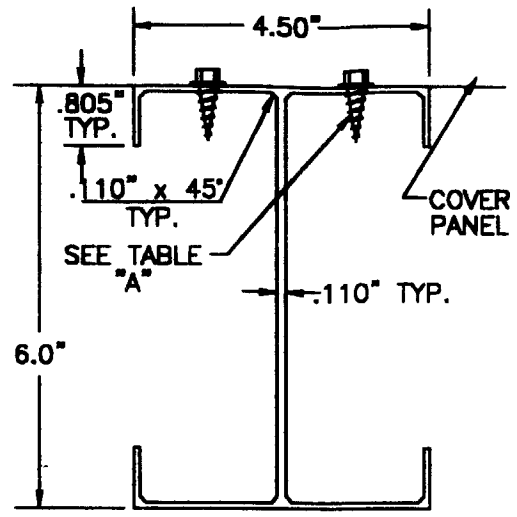
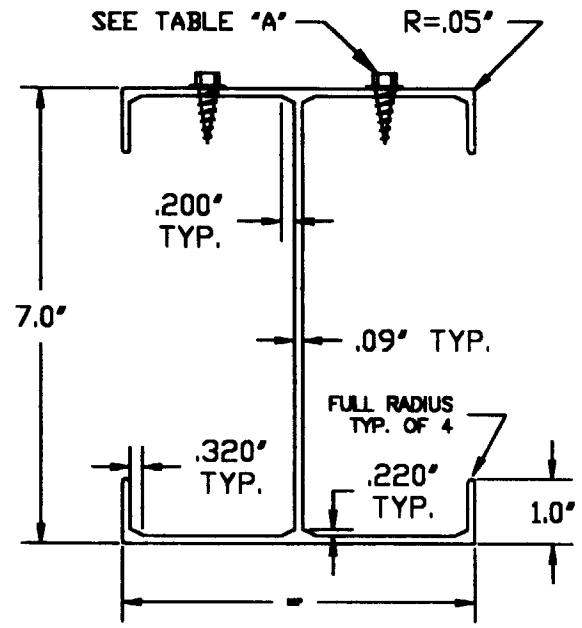
SCALE: NONE	DRAWING OR PART NAME: COMPONENT PARTS & CONNECTION DETAILS	
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97CD06	SHEET 6 OF 9



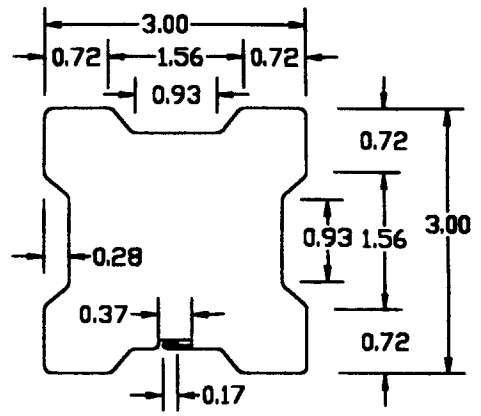
(Y) 10" X 5 1/2" W BEAM HEADER
(6061-T6 ALUM. ALLOY)



(Z) 6" W BEAM HEADER
(6061-T6 ALUM. ALLOY)

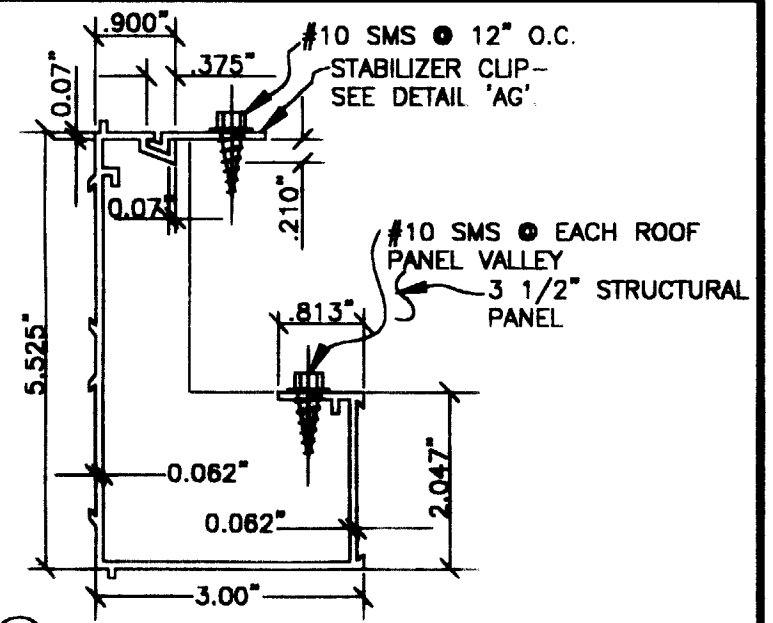


(AA) 7" X 5 1/2" W BEAM HEADER
(6061-T6 ALUM. ALLOY)

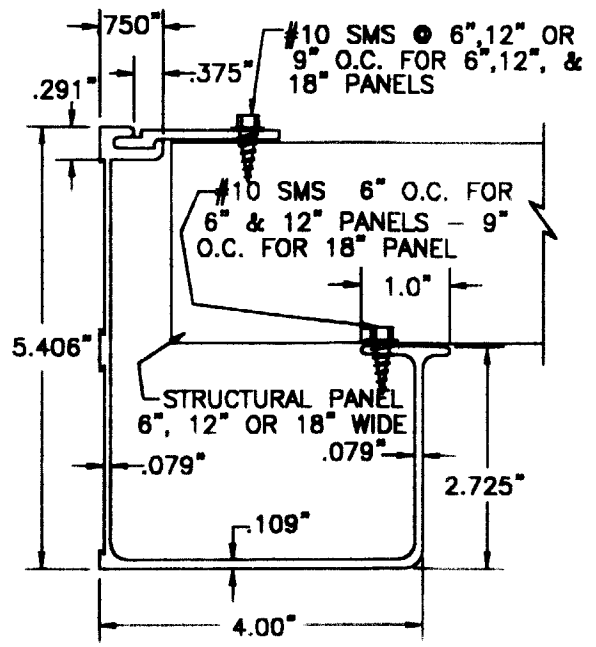


T (IN)= 0.048

(AB) 3" X 3" HEADER (STEEL)
(A-653 Fy=40 KSI STEEL)



(AC) 5 1/2" EXTRUDED HEADER
(6061-T6 ALUM. ALLOY)



(AD) ALASKAN EXTRUDED HEADER
(6061-T6 ALUM. ALLOY)

FASTENERS REQUIRED FOR PANEL TO HEADER CONNECTIONS

TABLE "A"

MAX. WIND LOAD	HEADER DESCRIPTION	MAX. TRIB WIDTH	FASTENING SCHEDULE	NOTE'S
90 MPH PATIO	ALL FASCIA	10'	2-#10 SMS PER 12" PANEL	
	STEEL CLOVER, C BEAMS, I BEAMS	12'	2-#14 SMS PER 12" PANEL	
	STEEL CLOVER, C BEAMS, I BEAMS	21'	3-#14 SMS PER 12" PANEL	
70 MPH EXP C AND 90 MPH EXP B	ALL FASCIA	10'	2-#10 SMS PER 12" PANEL	
	STEEL CLOVER, C BEAMS, I BEAMS	16'	3-#14 SMS PER 12" PANEL	SEE #1
	STEEL CLOVER, C BEAMS, I BEAMS	16'	2-#14 SMS PER 12" PANEL	SEE #2
90 MPH EXP C	ALL FASCIA	10'	2-#14 SMS PER 12" PANEL	
	STEEL CLOVER, C BEAMS, I BEAMS	16'	4-#14 SMS PER 12" PANEL	SEE #1
	STEEL CLOVER, C BEAMS, I BEAMS	16'	3-#14 SMS PER 12" PANEL	SEE #2

#1 .018 & .024 PANELS
#2 .032 & .036 PANELS

(AE) 6' PANEL USE 50% LESS SCREWS
18' PANELS USE 50% MORE SCREWS

REGISTERED PROFESSIONAL ENGINEER R. F. TUCKER NO. 26070 Exp 3-31-02 CIVIL STATE OF CALIFORNIA

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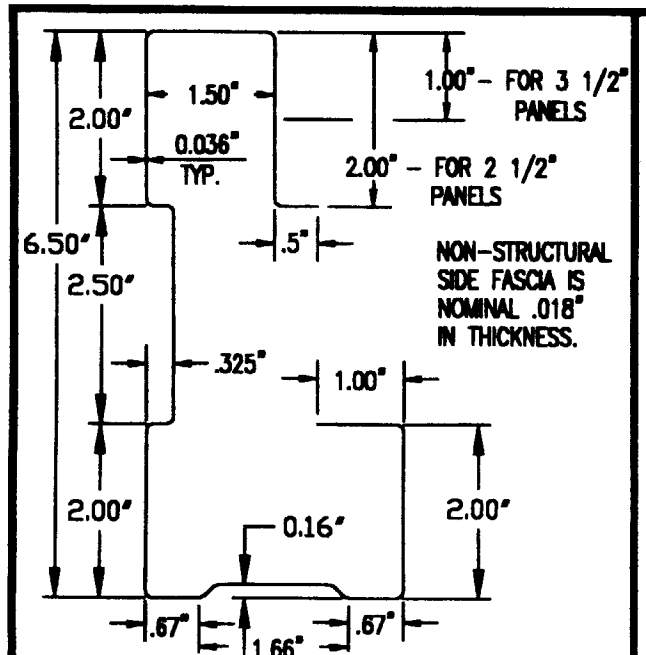
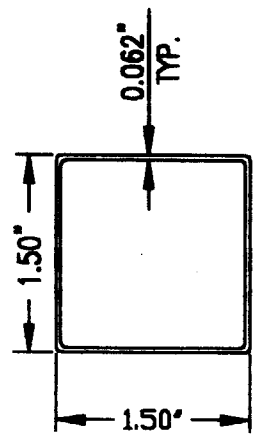
DATE	REVISION	DATE	REVISION

Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

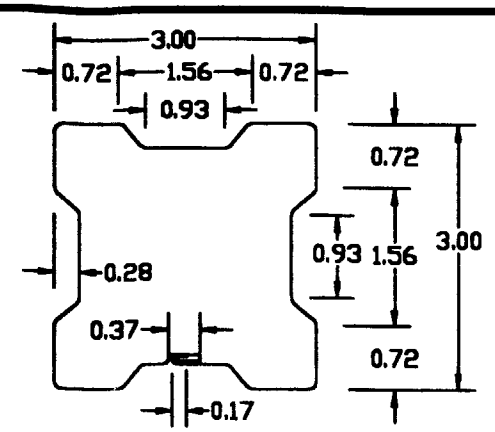
DRAWN BY: KG	ICBO ES EVALUATION REPORT NO. ER-2621P
SCALE: NONE	DRAWING OR PART NAME: COMPONENT PARTS & CONNECTION DETAILS
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97CD04
	SHEET: 4 OF 9



Ⓗ 6 1/2" ROLLFORMED HEADER (3006-H391 ALUM. ALLOY)



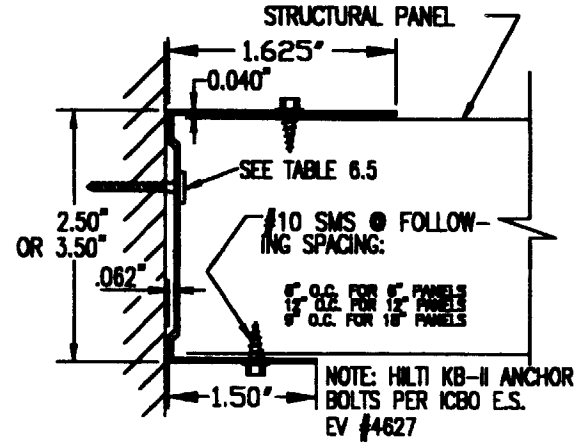
Ⓙ 2-1 1/2" SQ. X .062" EXTRUDED COLUMN (ALUM. 6063-T6)



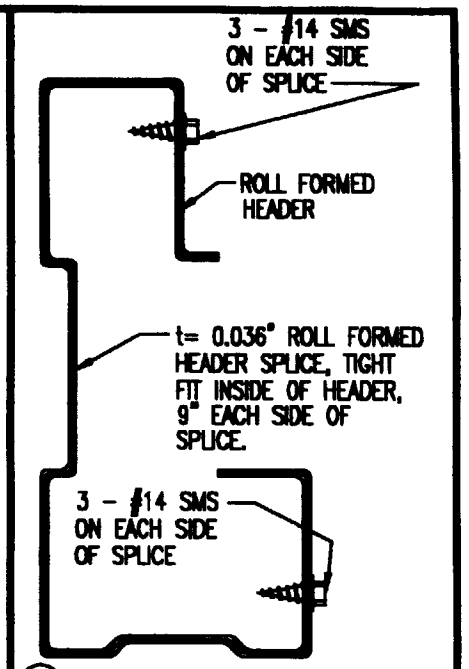
T (IN)= 0.030, 0.040 (ALUM)
= 0.048 (STEEL)

NOTE:
COLUMNS MAY BE TRIMMED W/FLEX-ALUM. FACING.

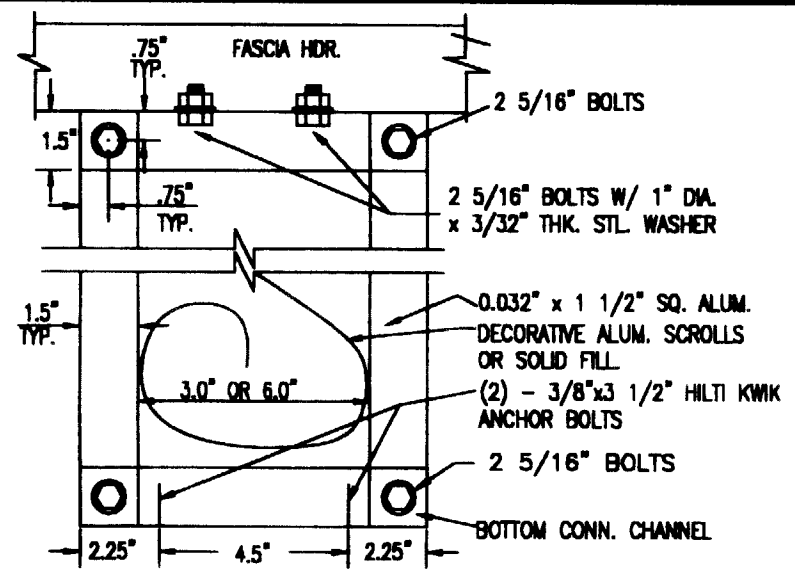
Ⓚ 3" ALTERNATE COLUMN (3003-H16 ALUM. ALLOY OR A-653 Fy=40 KSI STEEL)



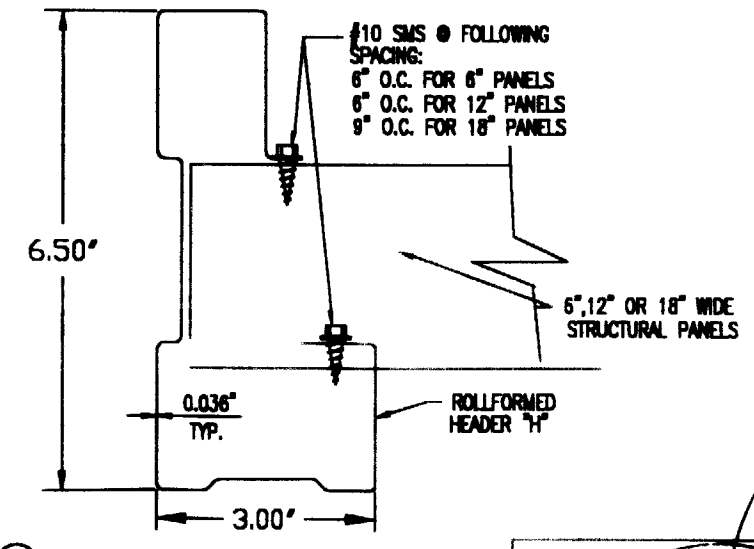
Ⓛ ROLLFORMED HANGER (3004-H36 ALUM. ALLOY)



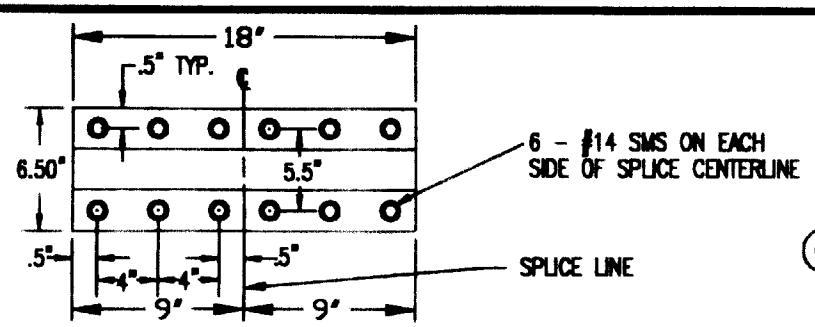
Ⓜ ROLLFORMED HEADER SPLICE (3006-H391 ALUM. ALLOY)



Ⓝ ROLLFORMED 2 COLUMN CONNECTION W/ DECOR. SCROLL (3003-H16 ALUM. ALLOY)



Ⓞ ROLLFORMED HEADER "H" CONN. DETAILS TO STRUCTURAL PANELS



Ⓠ ROLLFORMED SPLICE CONNECTION DETAILS (3006-H391 ALUM. ALLOY)

REGISTERED PROFESSIONAL ENGINEER
R. F. RUCKER
NO. 26070
Exp 3-31-02
CIVIL
STATE OF CALIFORNIA

MAR 03 2000

ENGINEERS STAMP

DATE	REVISION	DATE	REVISION

Amerimax BUILDING PRODUCTS, INC.
Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

DRAWN BY: KG	ICBO ES EVALUATION REPORT NO. ER-2621P	
SCALE: NONE	DRAWING OR PART NAME: COMPONENT PARTS & CONNECTION DETAILS	
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97CD02	SHEET 2 OF 9

6.0 COLUMN AND FASTENER REQUIREMENTS FOR COMMERCIAL AND PATIO STRUCTURES

Column Spacing multiplied by Trib Width		Minimum Column Required for Attached Stuctures					
		Live Load (psf)					
Lattice Tributary Area (sq ft)	Solid Cover Tributary Area (sq ft)	10	20	25	30	40	60
23	15	A1	A1	A1	A1	A2	C
31	20	A1	A1	A1	A2	C	C
37	24	A1	A1	A2	B	C	C
44	29	A1	A2	B	C	C	D
55	36	A1	B	C	C	C	D
62	40	A1	C	C	C	C	E
69	45	A1	C	C	C	D	E
77	50	A1	C	C	C	D	E
85	55	A2	C	C	C	D	E
92	60	A2	C	C	D	E	E
100	65	A2	C	C	D	E	E
106	68	B	C	D	D	E	E
108	70	C	C	D	D	E	E
115	75	C	C	D	E	E	E
123	80	C	C	D	E	E	E
138	90	C	D	E	E	E	E
154	100	C	D	E	E	E	F
185	120	C	E	E	E	E	F
215	140	C	E	E	E	E	F
246	160	D	E	E	E	F	G
277	180	D	E	E	E	F	G
308	200	D	E	E	F	F	G
338	220	E	E	E	F	F	G
385	250	E	E	F	F	G	G
492	320	E	F	F	G	G	G
615	400	E	F	G	G	G	H
692	450	E	G	G	G	G	H
769	500	E	G	G	G	G	H
923	600	F	G	G	G	H	H

Table 6.1

COLUMN TYPE	COLUMN DESCRIPTIONS	DETAIL	MAX COL HGHT
A1	0.024" x 3 " SQUARE ALUM COLUMN	F	10'-6"
A2	0.024" x 3 " SQUARE ALUM COLUMN	F	8'-0"
B	0.032" x 1 1/2" SQUARE ALUM SCROLL COLUMN	E, N	8'-0"
B	0.027" x 3" SQUARE ALUM COLUMN	F	11'-4"
C	3" CLOVERLEAF ALUM. 0.040"	K	12'-0"
D	FLUTED COLUMN ALUM. 0.062"	U	12'-0"
E	3" CLOVERLEAF STEEL 0.048"	K	8'-7"
F	3" SQUARE STEEL COLUMN	X	18'-0"
G	4" SQUARE STEEL COLUMN	X	18'-0"
H	5" SQUARE STEEL COLUMN	X	18'-0"
J	6" SQUARE STEEL COLUMN	X	18'-0"

Table 6.2

Table 6.3: Required Number of Fasteners for Shearing Loads

		Aluminum Material Gage (in)								Steel Gage (in)	
		0.024	0.024	0.032	0.036	0.040	0.040	0.080	0.080	0.048	0.048
		A	B	C	D	E	F	G	H	I	J
Footer Size	Design Uplift	#14 SMS	5/16" BOLT	5/16" BOLT	#14 SMS	#14 SMS	5/16" BOLT	#14 SMS	5/16" BOLT	#14 SMS	5/16" BOLT
d (in)	(lbs)	149	384	512	223	248	642	293	944	293	1380
12	75	1	1	1	1	1	1	1	1	1	1
13	96	1	1	1	1	1	1	1	1	1	1
14	119	1	1	1	1	1	1	1	1	1	1
15	147	1	1	1	1	1	1	1	1	1	1
16	178	2	1	1	1	1	1	1	1	1	1
17	214	2	1	1	1	1	1	1	1	1	1
18	254	2	1	1	2	2	1	1	1	1	1
19	298	3	1	1	2	2	1	2	1	2	1
20	348	3	1	1	2	2	1	2	1	2	1
21	403	3	2	1	2	2	1	2	1	2	1
22	463	4	2	1	3	2	1	2	1	2	1
23	529	4	2	2	3	3	1	2	1	2	1
24	602	5	2	2	3	3	1	3	1	3	1
25	680	5	2	2	4	3	2	3	1	3	1
Slab	750	6	2	2	4	4	2	3	1	3	1
26	765	6	2	2	4	4	2	3	1	3	1
27	856	6	3	2	4	4	2	3	1	3	1
28	955	7	3	2	5	4	2	4	2	4	1
29	1061	8	3	3	5	5	2	4	2	4	1
30	1175	8	4	3	6	5	2	5	2	5	1
31	1296	9	4	3	6	6	3	5	2	5	1
32	1426	n/a	4	3	7	6	3	5	2	5	2
33	1564	n/a	5	4	8	7	3	6	2	6	2
34	1710	n/a	5	4	8	7	3	6	2	6	2
35	1866	n/a	5	4	9	8	3	7	2	7	2
36	2030	n/a	6	4	n/a	9	4	7	3	7	2
37	2204	n/a	6	5	n/a	9	4	8	3	8	2
38	2388	n/a	7	5	n/a	n/a	4	9	3	9	2
39	2581	n/a	7	6	n/a	n/a	5	9	3	9	2
40	2785	n/a	8	6	n/a	n/a	5	n/a	3	n/a	3
41	2999	n/a	8	6	n/a	n/a	5	n/a	4	n/a	3
42	3224	n/a	9	7	n/a	n/a	6	n/a	4	n/a	3
43	3459	n/a	n/a	7	n/a	n/a	6	n/a	4	n/a	3
44	3706	n/a	n/a	8	n/a	n/a	6	n/a	4	n/a	3
45	3965	n/a	n/a	8	n/a	n/a	7	n/a	5	n/a	3
46	4235	n/a	n/a	9	n/a	n/a	7	n/a	5	n/a	4
47	4518	n/a	n/a	9	n/a	n/a	8	n/a	5	n/a	4
48	4812	n/a	n/a	n/a	n/a	n/a	8	n/a	6	n/a	4
49	5119	n/a	n/a	n/a	n/a	n/a	8	n/a	6	n/a	4
50	5439	n/a	n/a	n/a	n/a	n/a	9	n/a	6	n/a	4

Table 6.4: Required Number of Fasteners for Tension Loads

Aluminum Gage (in)						
0.036	0.062	0.060	0.089	0.100		
K	L	M	N	O		
5/16" BOLT	#14 SMS	5/16" BOLT	5/16" BOLT	#14 SMS	Design Uplift	Footer Size
425	115	709	1046	186	(lbs)	d (in)
1	1	1	1	1	75	12
1	1	1	1	1	96	13
1	2	1	1	1	119	14
1	2	1	1	1	147	15
1	2	1	1	1	178	16
1	2	1	1	2	214	17
1	3	1	1	2	254	18
1	3	1	1	2	298	19
1	4	1	1	2	348	20
1	4	1	1	3	403	21
2	5	1	1	3	463	22
2	5	1	1	3	529	23
2	6	1	1	4	602	24
2	6	1	1	4	680	25
2	7	2	1	5	750	Slab
2	7	2	1	5	765	26
3	8	2	1	5	856	27
3	9	2	1	6	955	28
3	n/a	2	2	6	1061	29
3	n/a	2	2	7	1175	30
4	n/a	2	2	7	1296	31
4	n/a	3	2	8	1426	32
4	n/a	3	2	9	1564	33
5	n/a	3	2	n/a	1710	34
5	n/a	3	2	n/a	1866	35
5	n/a	3	2	n/a	2030	36
6	n/a	4	3	n/a	2204	37
6	n/a	4	3	n/a	2388	38
7	n/a	4	3	n/a	2581	39
7	n/a	4	3	n/a	2785	40
8	n/a	5	3	n/a	2999	41
8	n/a	5	4	n/a	3224	42
9	n/a	5	4	n/a	3459	43
9	n/a	6	4	n/a	3706	44
n/a	n/a	6	4	n/a	3965	45
n/a	n/a	6	5	n/a	4235	46
n/a	n/a	7	5	n/a	4518	47
n/a	n/a	7	5	n/a	4812	48
n/a	n/a	8	5	n/a	5119	49
n/a	n/a	8	6	n/a	5439	50

1 Spacing between bolts and screws shall be 2.5 times the shank diameter
2 The edge distance of bolts and screws shall be 3 times the shank diameter
3 Connections shall be arranged so that the center of resistance of the connection shall coincide with the resultant line of action of the load.

Fastener Terminology
#14 SMS = #14 sheet metal or Tek screw, 3/4" minimum length
5/16" B = 5/16" Diameter Bolt
See General Notes for specifics on fasteners

1 Clearspan on this chart is the distance from the wall to the first row of columns.
2 Hilti Kwik Bolt II 1/4" diameter and 2" embedment: ICBO ER-4627 or other anchor w/ 550# shear vs wind and seismic loads
3 Masonry anchors must have a shear value of 250# for wind or seismic loads.
4 1/4" Lag screws must have 2 1/4" of penetration into studs These lag screws must have an 1/8" lead hole.
5 10 psf evaluated at 90 mph wind load (15 psf). All other loads evaluated at 90 mph exposure C.

TABLE 6.5: WALL ATTACHMENTS FOR PATIO AND COM. STRUCTURES

	ANC 1	ANC 2	ANC 3	ANC 4		
LIVE LOAD (PSF)	O/C SPACING CONCRETE ANCHORS	O/C SPACING MASONRY ANCHORS	O/C SPACING FOR #10 x 2" SMS SCREWS	CLEAR-SPAN (FT)	# OF 1/4" LAG SCREWS PER STUD 16" O/C SPACING
10	24"	24"	16"	22'	1
20	24"	16"	8"	11'	1
				17'	2
25	24"	15"	8"	11'	1
				16'	2
30	24"	14"	8"	10'	1
				14'	2
40	24"	12"	8"	13'	2
60	16"	10"	4"	11'	2

REGISTERED PROFESSIONAL ENGINEER
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MAR 0 3 2000

Amerimax
BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

ICBO ES EVALUATION REPORT ER-2621P
COLUMN AND FASTENER TABLES
SHEET 8 OF 8 DATE: 2/8/2000

4.0 FREESTANDING AND ATTACHED LATTICE PATIO STRUCTURES

LIVE LOAD	TRIB WIDTH	MAXIMUN COLUMN SPACING FOR ATTACHED LATTICE ON SLAB *HEADER MUST BE ABLE TO SPAN*				3"x6" STEEL C BEAM			
		USING COLUMN 'A' MAX. LENGTH OF COLUMN			ALL OTHER COLUMNS ON SLAB	MAX. COLUMN SPACING	CONS. FOOTING SIZE FREE "d"	ATTACHED FTR "d"	ATTACHED MIN COLUMN
(PSF)	(FT)	10'-8"	10'-0"	8'-0"		(FT)	(IN)	(IN)	TYPE
70 MPH					**10' OR LESS**				
10	4'	21'-1"	22'-0"	25'-7"	26'-3"				
	5'	16'-10"	17'-7"	20'-5"	21'-0"				
	6'	14'-1"	14'-8"	17'-0"	17'-6"				
	7'	12'-1"	12'-7"	14'-7"	15'-0"	26'-4"	27	22	C
	8'	10'-7"	11'-0"	12'-9"	13'-1"	25'-3"	26	22	C
	9'	9'-4"	9'-9"	11'-4"	11'-8"	24'-3"	26	23	C
	10'	8'-5"	8'-10"	10'-3"	10'-6"	23'-0"	26	23	C
	11'	7'-8"	8'-0"	9'-4"	9'-6"	21'-11"	25	23	C
	12'	7'-0"	7'-4"	8'-6"	8'-9"	21'-0"	25	24	C
	13'	6'-6"	6'-9"	7'-10"	8'-1"	20'-2"	25	25	C
	14'	6'-0"	6'-4"	7'-4"	7'-6"	19'-5"	25	25	C
	15'	5'-7"	5'-10"	6'-10"	7'-0"	18'-9"	25	25	C
	16'	5'-3"	5'-6"	6'-5"	6'-7"	18'-2"	26	26	C
	17'	5'-0"	5'-2"	6'-0"	6'-2"	17'-7"	25	25	C
	18'	4'-8"	4'-11"	5'-8"	5'-10"	17'-1"	26	26	C
	19'		4'-8"	5'-5"	5'-6"	16'-8"	26	26	C
	20'			5'-1"	5'-3"	16'-3"	27	27	C
	21'			4'-10"	5'-0"	15'-10"	26	26	C
	22'			4'-8"	4'-9"	15'-6"	27	27	C
90 MPH					**10' OR LESS**				
10	4'	21'-1"	22'-0"	25'-7"	26'-3"				
	5'	16'-10"	17'-7"	20'-5"	21'-0"				
	6'	14'-1"	14'-8"	17'-0"	17'-6"				
	7'	12'-1"	12'-7"	14'-7"	15'-0"	22'-2"	29	24	C
	8'	10'-7"	11'-0"	12'-9"	13'-1"	20'-9"	28	24	C
	9'	9'-4"	9'-9"	11'-4"	11'-8"	19'-7"	28	25	C
	10'	8'-5"	8'-10"	10'-3"	10'-6"	18'-6"	28	26	C
	11'	7'-8"	8'-0"	9'-4"	9'-6"	17'-8"	27	25	C
	12'	7'-0"	7'-4"	8'-6"	8'-9"	16'-11"	27	26	C
	13'	6'-6"	6'-9"	7'-10"	8'-1"	16'-3"	27	27	C
	14'	6'-0"	6'-4"	7'-4"	7'-6"	15'-8"	27	27	C
	15'	5'-7"	5'-10"	6'-10"	7'-0"	15'-2"	27	27	C
	16'	5'-3"	5'-6"	6'-5"	6'-7"	14'-8"	28	28	C
	17'	5'-0"	5'-2"	6'-0"	6'-2"	14'-3"	28	28	C
	18'	4'-8"	4'-11"	5'-8"	5'-10"	13'-10"	28	28	C
	19'		4'-8"	5'-5"	5'-6"	13'-5"	28	28	C
	20'			5'-1"	5'-3"	13'-1"	29	29	C
	21'			4'-10"	5'-0"	12'-9"	29	29	C
	22'			4'-8"	4'-9"	12'6"	29	29	C
70 MPH					**12' OR LESS**				
10	4'	21'-1"	22'-0"	25'-7"	26'-3"				
	5'	16'-10"	17'-7"	20'-5"	21'-0"				
	6'	14'-1"	14'-8"	17'-0"	17'-6"				
	7'	12'-1"	12'-7"	14'-7"	15'-0"	23'-7"	27	23	C
	8'	10'-7"	11'-0"	12'-9"	13'-1"	22'-1"	27	24	C
	9'	9'-4"	9'-9"	11'-4"	11'-8"	20'-10"	27	24	C
	10'	8'-5"	8'-10"	10'-3"	10'-6"	19'-9"	26	24	C
	11'	7'-8"	8'-0"	9'-4"	9'-6"	18'-10"	26	25	C
	12'	7'-0"	7'-4"	8'-6"	8'-9"	18'-0"	25	25	C
	13'	6'-6"	6'-9"	7'-10"	8'-1"	17'-4"	26	26	C
	14'	6'-0"	6'-4"	7'-4"	7'-6"	16'-8"	26	26	C
	15'	5'-7"	5'-10"	6'-10"	7'-0"	16'-1"	27	27	C
	16'	5'-3"	5'-6"	6'-5"	6'-7"	15'-7"	27	27	C
	17'	5'-0"	5'-2"	6'-0"	6'-2"	15'-1"	27	27	C
	18'	4'-8"	4'-11"	5'-8"	5'-10"	14'-8"	28	28	C
	19'		4'-8"	5'-5"	5'-6"	14'-4"	28	28	C
	20'			5'-1"	5'-3"	13'-11"	27	27	C
	21'			4'-10"	5'-0"	13'-7"	28	28	C
	22'			4'-8"	4'-9"	13'-3"	28	28	C
90 MPH					**12' OR LESS**				
10	4'	21'-1"	22'-0"	25'-7"	26'-3"				
	5'	16'-10"	17'-7"	20'-5"	21'-0"				
	6'	14'-1"	14'-8"	17'-0"	17'-6"				
	7'	12'-1"	12'-7"	14'-7"	15'-0"	19'-1"	30	25	C
	8'	10'-7"	11'-0"	12'-9"	13'-1"	17'-10"	29	25	C
	9'	9'-4"	9'-9"	11'-4"	11'-8"	16'-10"	29	26	C
	10'	8'-5"	8'-10"	10'-3"	10'-6"	15'-11"	28	26	C
	11'	7'-8"	8'-0"	9'-4"	9'-6"	15'-3"	28	27	C
	12'	7'-0"	7'-4"	8'-6"	8'-9"	14'-7"	28	28	C
	13'	6'-6"	6'-9"	7'-10"	8'-1"	16'-3"	27	27	C
	14'	6'-0"	6'-4"	7'-4"	7'-6"	15'-8"	27	27	C
	15'	5'-7"	5'-10"	6'-10"	7'-0"	15'-2"	27	27	C
	16'	5'-3"	5'-6"	6'-5"	6'-7"	14'-8"	28	28	C
	17'	5'-0"	5'-2"	6'-0"	6'-2"	14'-3"	28	28	C
	18'	4'-8"	4'-11"	5'-8"	5'-10"	13'-10"	28	28	C
	19'		4'-8"	5'-5"	5'-6"	13'-5"	28	28	C
	20'			5'-1"	5'-3"	13'-1"	29	29	C
	21'			4'-10"	5'-0"	12'-9"	29	29	C
	22'			4'-8"	4'-9"	12'6"	29	29	C

TABLE 4.1

LIVE LOAD	TRIB WIDTH	MAXIMUN COLUMN SPACING HEADER MUST BE ABLE TO SPAN				3"x6" STEEL C BEAM			
		USING COLUMN 'A' MAX. LENGTH OF COLUMN			ALL OTHERS ON SLAB	MAX. COLUMN SPACING	CONS. FOOTING SIZE FREE "d"	ATTACHED FTR "d"	ATTACHED MINIMUM COLUMN
(PSF)	(FT)	10'-8"	10'-0"	8'-0"		(FT)	(IN)	(IN)	TYPE
90 MPH					**12' OR LESS**				
10	17'	5'-0"	5'-2"	6'-0"	6'-2"	12'-3"	29	29	C
	18'	4'-8"	4'-11"	5'-8"	5'-10"	11'-11"	29	29	C
	19'		4'-8"	5'-5"	5'-6"	11'-7"	30	30	C
	20'		4'-5"	5'-1"	5'-3"	11'-3"	30	30	C
	21'			4'-10"	5'-0"	11'-0"	31	31	C
	22'			4'-8"	4'-9"	10'-9"	30	30	C
20	4'	11'-1"	11'-6"	13'-5"	13'-9"				
	5'	8'-10"	9'-3"	10'-9"	11'-0"				
	6'	7'-4"	7'-8"	8'-11"	9'-2"				
	7'	6'-4"	6'-7"	7'-8"	7'-10"	19'-1"	30	25	C
	8'	5'-6"	5'-9"	6'-8"	6'-10"	17'-10"	29	25	C
	9'	4'-11"	5'-2"	5'-11"	6'-1"	16'-10"	29	26	D
	10'		4'-7"	5'-4"	5'-6"	15'-11"	28	26	D
	11'			4'-10"	5'-0"	15'-3"	28	27	D
	12'			4'-6"	4'-7"	14'-7"	28	28	D
	13'					14'-0"	28	28	D
	14'					13'-6"	28	28	D
	15'					13'-0"	29	29	D
	16'					12'-7"	30	30	D
	17'					12'-3"	30	30	E
	18'					11'-11"	30	29	E
	19'					11'-7"	30	30	E
	20'					11'-3"	30	30	E
	21'					11'-0"	30	30	E
	22'					10'-9"	30	30	E
25	4'	8'-11"	9'-4"	10'-10"	11'-1"				
	5'	7'-2"	7'-5"	8'-8"	8'-11"				
	6'	5'-11"	6'-3"	7'-3"	7'-5"				
	7'	5'-1"	5'-4"	6'-2"	6'-4"	19'-1"	30	25	C
	8'	4'-6"	4'-8"	5'-5"	5'-7"	17'-10"	29	25	C
	9'			4'-10"	4'-11"	16'-10"	29	26	D
	10'					15'-11"	28	26	D
	11'					15'-3"	28	27	D
	12'					14'-7"	28	28	D
	13'					14'-0"	28	28	D
	14'					13'-6"	28	28	D
	15'					13'-0"	29	29	D
	16'					12'-7"	30	30	D
	17'					12'-3"	30	30	E
	18'					11'-11"	30	29	E
30	4'	7'-6"	7'-10"	9'-1"	9'-4"				
	5'	6'-0"	6'-3"	7'-3"	7'-5"				
	6'	5'-0"	5'-3"	6'-1"	6'-2"				
	7'		4'-6"	5'-2"	5'-4"	18'-3"	30	25	D
	8'			4'-6"	4'-8"	17'-6"	29	25	D
	9'					16'-10"	29	26	E
	10'					16'-3"	29	27	E
	11'					15'-8"	28	27	E
	12'					15'-3"	28	28	E
	13'					14'-10"	29	29	E
	14'					14'-6"	29	29	E
	15'					14'-2"	30	30	E
	16'					13'-10"	30	30	E
40	4'	5'-8"	5'-11"	6'-10"	7'-0"				
	5'	4'-6"	4'-9"	5'-6"	5'-8"				
	6'			4'-7"	4'-8"				
	7'					16'-7"	29	24	E
	8'					15'-10"	28	24	E
	9'					15'-3"	28	25	E
	10'					14'-9"	28	26	E
	11'					14'-3"	28	27	E
	12'					13'-10"	27	27	E
	13'					13'-6"	28	28	E
	14'					13'-2"	28	28	E
60	4'	3'-10"	4'-0"	4'-7"	4'-9"				
	5'								
	6'								
	7'					14'-6"	28	23	E
	8'					13'-10"	27	23	E
	9'					13'-4"	27	24	E
	10'					12'-10"	27	25	E
	11'					12'-5"	27	26	E
	12'					12'-1"	27	26	E

LIVE LOAD	TRIB WIDTH	0.036" x 3" x 8" BOX BEAM MAX. COLUMN SPACING	CONS. FOOTING SIZE FREE "d"	ATTACHED FTR "d"	ATTACHED MIN COLUMN TYPE	0.042" x 3" x 8" BOX BEAM MAX COLUMN SPACING	CONS. FOOTING SIZE FREE "d"	ATTACHED FTR "d"	ATTACHED MIN. COLUMN TYPE	DOUBLE 0.032" x 2" x 6" MAX COLUMN SPACING	CONS. FOOTING SIZE FREE "d"	ATTACHED FTR "d"	ATTACHED MIN. COLUMN TYPE
(PSF)	(FT)	(FT)	(IN)	(IN)		(FT)	(IN)	(IN)		(FT)	(IN)	(IN)	
90 MPH WINDSPEED						**12' OR LESS**							
10	4'	11'-2"	26	17	A	17'-4"	29	20	A	15'-9"	28	19	A
	5'	8'-11"	25	18	A	14'-3"	28	21	A	14'-1"	28	21	A
	6'	7'-5"	23	17	A	11'-11"	26	20	A	12'-11"	27	21	A
	7'	6'-4"	23	18	A	10'-2"	26	21	A	12'-1"	27	22	A
	8'	5'-7"	23	17	A	8'-11"	25	21	A	11'-4"	26	22	A*
	9'	4'-11"	25	18	A	7'-11"	25	20	A	10'-8"	26	23	A*
	10'	4'-5"	25	19	A	7'-2"	25	21	A	10'-2"	26	24	A*
20	4'	5'-8"	22	14	A	9'-2"	25	16	A	11'-4"	26	17	A**
	5'	4'-7"	22	15	A	7'-2"	23	16	A	10'-3"	26	19	A*
	6'					6'-1"	23	16	A	9'-4"	25	19	C
	7'					5'-3"	23	17	A	8'-8"	25	20	C
	8'					4'-7"	23	17	A	8'-1"	25	21	C
	9'									7'-8"	23	20	C
	10'									7'-3"	22	21	C
25	4'					7'-2"	23	15	A	10'-4"	26	17	A*
	5'					5'-11"	22	15	A	9'-2"	25	18	C
	6'					4'-11"	22	16	A	8'-5"	25	19	C
	7'									7'-9"	23	18	C
	8'									7'-3"	23	19	C
	9'									6'-10"	23	20	C
	10'									6'-6"	23	21	C
30	4'					6'-2"	23	15	A	9'-5"	25	16	C
	5'					4'-11"	22	15	A	8'-5"	25	18	C
	6'									7'-8"	23	17	C
	7'									7'-1"	23	18	C
	8'									6'-8"	23	19	C
40	4'					4'-8"	22	14	A	8'-2"	25	16	C
	5'									7'-4"	23	16	C
	6'									6'-2"	23	17	C
60	4'					3'-1"	22	14	A	6'-2"	23	15	C
	5'									5'-7"	22	15	C

TABLE 4.2

CLEARSPANS FOR 3 X 8 RAFTER			
LIVE LOAD (PSF)	PANEL "I" (IN)	24" O.C. 70/90 MPH	24" O.C. OVER HANG
10	0.036	23'-4"	11'-8"
	0.042	27'-2"	13'-7"
20	0.036	14'-6"	8'-6"
	0.042	19'-10"	9'-11"
25	0.036	11'-8"	7'-7"
	0.042	17'-9"	8'-10"
30	0.036	9'-9"	6'-11"
	0.042	15'-7"	8'-1"
40	0.036	7'-4"	6'-0"
	0.042	11'-9"	7'-0"
60	0.036	4'-11"	4'-11"
	0.042	7'-10"	5'-9"

TABLE 4.3

FOR 10 PSF DOUBLE RAFTERS MAY BE USED 48" O.C.

CLEARSPANS FOR 2 X 6 RAFTER			
LIVE LOAD (PSF)	PANEL "I" (IN)	24" O.C. 70/90 MPH	24" O.C. OVER HANG
10	0.024	13'-7"	6'-9"
	0.032	18'-1"	9'-0"
20	0.024	9'-10"	4'-11"
	0.032	13'-2"	6'-7"
25	0.024	8'-10"	4'-5"
	0.032	11'-9"	5'-10"
30	0.024	7'-8"	3'-10"
	0.032	10'-9"	5'-4"
40	0.024	5'-10"	2'-11"
	0.032	9'-4"	4'-8"
60	0.024	N/A	N/A
	0.032	7'-8"	3'-10"

TABLE 4.5

A* = 8' MAXIMUM COLUMN LENGTH
A**= 10' MAXIMUM COLUMN LENGTH

COL	COLUMN SCHEDULE FOR ATTACHED LATTICE PATIO STRUCTURES	MAX COLUMN HGHT
A	0.024" x 3 " SQUARE ALUM COLUMN	11'-8"
B	0.032" x 1 1/2" SQUARE ALUM SCROLL COLUMN	8'-0"
B	0.027" x 3" SQUARE ALUM COLUMN	11'-4"
C	0.040" x 3" CLOVERLEAF COLUMN	12'-0"
D	FLUTED COLUMN ALUM. 0.062"	12'-0"
E	3" CLOVERLEAF STEEL 0.048"	12'-0"
F	3" SQUARE STEEL COLUMN	12'-0"
G	4" SQUARE STEEL COLUMN	12'-0"
H	5" SQUARE STEEL COLUMN	12'-0"
J	6" SQUARE STEEL COLUMN	12'-0"

TABLE 4.4

COLUMN SCHEDULE FOR FREESTANDING STRUCTURES AND INTERMEDIATE COLUMNS FOR MULTISPAN STRUCTURES	
COLUMN	NOTES
E	8'-7" MAX. COLUMN LENGTH
F	11" MAX. COLUMN LENGTH
G	12' MAX. COLUMN LENGTH
H	12' MAX. COLUMN LENGTH

TABLE 4.6

ALL COLUMNS MAY BE REPLACED WITH A STRONGER COLUMN
'A' MAY BE REPLACED W/ B-J
'B' MAY BE REPLACED W/ C-J, ETC
LINEAR INTERPOLATION FOR ALL CALCULATIONS IS ALLOWED

MAR 0 3 2000

REGISTERED PROFESSIONAL ENGINEER R. F. TOOKER NO. 26070 EXP. 3-31-02 CIVIL STATE OF CALIFORNIA

Amerimax BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

ICBO ES EVALUATION REPORT ER-2621P

HEADER SPANS, COLUMN SPACING, FOOTER SIZE AND COLUMN TYPE FOR FREESTANDING AND ATTACHED LATTICE PATIO STRUCTURES

3.0 FREESTANDING AND ATTACHED COMMERCIAL STRUCTURES

LIVE LOAD (PSF)	TRIB WIDTH (FT)	6" I BEAM MAX. COLUMN SPACING (FT)	6" I BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATT FTR "d" (IN)	7" I BEAM MAX COLUMN SPACING (FT)	7" I BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATT FTR "d" (IN)	10" I BEAM MAX COLUMN SPACING (FT)	10" I BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATT FTR "d" (IN)
70 MPH EXPOSURE B																			
20	4'	24'-3"	26	28	30	31	24	29'-0"	27	29	31	33	26	40'-11"	29	31	34	36	29
	5'	22'-6"	26	27	29	31	26	26'-11"	27	28	31	32	27	37'-11"	30	31	33	35	30
	6'	20'-11"	28	28	29	30	28	25'-4"	28	28	30	31	28	35'-9"	32	32	33	34	32
	7'	19'-4"	27	27	28	29	27	23'-6"	29	29	29	31	29	33'-3"	33	33	33	34	33
	8'	18'-1"	28	28	28	29	28	21'-11"	30	30	30	30	30	31'-1"	34	34	34	34	34
	9'	17'-1"	28	28	28	29	28	20'-8"	30	30	30	30	30	29'-4"	34	34	34	34	34
	10'	16'-2"	29	29	29	29	29	19'-8"	31	31	31	31	31	27'-9"	35	35	35	35	35
	11'	15'-5"	30	30	30	30	30	18'-9"	31	31	31	31	31	26'-2"	35	35	35	35	35
	12'	14'-9"	30	30	30	30	30	17'-11"	32	32	32	32	32	25'-1"	36	36	36	36	36
	13'	14'-2"	31	31	31	31	31	17'-3"	33	33	33	33	33	24'-1"	36	36	36	36	36
	14'	13'-8"	31	31	31	31	31	16'-7"	33	33	33	33	33	23'-2"	37	37	37	37	37
	15'	13'-2"	31	31	31	31	31	16'-0"	34	34	34	34	34	22'-5"	37	37	37	37	37
	16'	12'-9"	31	31	31	31	31	15'-6"	34	34	34	34	34	21'-8"	37	37	37	37	37
70 MPH EXPOSURE C																			
20	4'	24'-3"	30	32	34	36	24	29'-0"	31	33	36	37	26	39'-6"	33	36	38	40	29
	5'	22'-6"	29	31	34	35	26	26'-11"	30	32	35	37	27	35'-4"	32	35	37	39	30
	6'	20'-11"	29	31	33	35	27	25'-4"	30	32	34	36	28	32'-3"	32	34	37	39	31
	7'	19'-4"	28	30	32	34	27	23'-6"	29	31	34	35	29	29'-10"	31	33	36	37	31
	8'	18'-1"	28	30	32	34	28	21'-11"	30	31	33	35	30	27'-11"	32	32	35	37	32
	9'	17'-1"	29	29	31	33	29	20'-8"	30	31	33	35	30	26'-4"	33	33	35	37	33
	10'	16'-2"	29	29	31	33	29	19'-8"	31	31	32	34	31	25'-0"	33	33	34	36	33
	11'	15'-5"	30	30	30	32	30	18'-9"	31	31	32	34	31	24'-6"	34	34	34	36	34
	12'	14'-9"	30	30	30	32	30	17'-11"	32	32	32	33	32	23'-6"	35	35	35	35	35
	13'	14'-2"	31	31	31	32	31	17'-3"	33	33	33	33	33	22'-6"	35	35	35	35	35
	14'	13'-8"	31	31	31	31	31	16'-7"	33	33	33	33	33	21'-9"	36	36	36	36	36
	15'	13'-2"	31	31	31	31	31	16'-0"	34	34	34	34	34	21'-0"	37	37	37	37	37
	16'	12'-9"	31	31	31	31	31	15'-6"	34	34	34	34	34	20'-4"	37	37	37	37	37
90 MPH EXPOSURE B																			
20	4'	24'-3"	30	32	34	36	28	29'-0"	31	33	35	37	30	40'-1"	34	36	39	40	34
	5'	22'-6"	30	32	34	36	30	26'-11"	31	32	35	36	31	35'-10"	35	35	37	39	35
	6'	20'-11"	31	31	33	34	31	25'-4"	33	33	34	36	33	32'-8"	36	36	37	38	36
	7'	19'-4"	32	32	32	33	32	23'-6"	34	34	34	35	34	30'-3"	37	37	37	38	37
	8'	18'-1"	33	33	33	33	33	21'-11"	34	34	34	34	34	28'-4"	38	38	38	38	38
	9'	17'-1"	33	33	33	33	33	20'-8"	35	35	35	35	35	26'-8"	39	39	39	39	39
	10'	16'-2"	34	34	34	34	34	19'-8"	36	36	36	36	36	25'-4"	39	39	39	39	39
	11'	15'-5"	34	34	34	34	34	18'-9"	36	36	36	36	36	24'-10"	40	40	40	40	40
	12'	14'-9"	35	35	35	35	35	17'-11"	37	37	37	37	37	23'-10"	41	41	41	41	41
	13'	14'-2"	36	36	36	36	36	17'-3"	38	38	38	38	38	22'-10"	41	41	41	41	41
	14'	13'-8"	36	36	36	36	36	16'-7"	38	38	38	38	38	22'-0"	42	42	42	42	42
	15'	13'-2"	37	37	37	37	37	16'-0"	39	39	39	39	39	21'-3"	43	43	43	43	43
	16'	12'-9"	36	36	36	36	36	15'-6"	39	39	39	39	39	20'-7"	43	43	43	43	43
90 MPH EXPOSURE C																			
20	4'	22'-6"	33	35	38	40	28	24'-11"	34	36	39	41	29	30'-7"	36	38	41	43	31
	5'	20'-1"	33	35	37	39	30	22'-4"	33	35	38	40	31	27'-4"	35	37	40	42	33
	6'	18'-4"	32	34	37	38	30	20'-4"	33	35	37	39	32	24'-11"	34	36	39	41	33
	7'	17'-0"	31	33	36	37	31	18'-10"	32	34	37	38	32	23'-1"	35	35	38	40	35
	8'	15'-11"	32	32	35	36	32	17'-8"	33	33	36	37	33	21'-7"	35	35	37	39	35
	9'	15'-0"	32	32	35	36	32	16'-7"	34	34	36	37	34	20'-4"	36	36	37	39	36
	10'	14'-2"	33	33	35	36	33	15'-9"	34	34	35	36	34	19'-4"	37	37	37	38	37
	11'	13'-6"	34	34	34	35	34	15'-0"	35	35	35	36	35	18'-10"	37	37	37	38	37
	12'	13'-0"	34	34	34	35	34	14'-5"	36	36	36	36	36	18'-1"	38	38	38	38	38
	13'	12'-5"	35	35	35	35	35	13'-10"	36	36	36	36	36	17'-4"	39	39	39	39	39
	14'	12'-0"	35	35	35	35	35	13'-4"	37	37	37	37	37	16'-8"	39	39	39	39	39
	15'	11'-7"	36	36	36	36	36	12'-10"	37	37	37	37	37	16'-2"	40	40	40	40	40
	16'	11'-3"	36	36	36	36	36	12'-5"	37	37	37	37	37	15'-7"	40	40	40	40	40
70 & 90 MPH EXPOSURE B / 70 MPH EXPOSURE C																			
25	4'	22'-6"	29	31	34	35	28	26'-11"	30	32	35	37	29	37'-11"	33	35	38	40	33
	5'	20'-7"	29	31	33	35	29	25'-0"	31	32	34	36	31	35'-3"	35	35	37	39	35
	6'	18'-9"	30	30	32	34	30	22'-9"	32	32	34	35	32	32'-2"	36	36	37	39	36
	7'	17'-4"	31	31	31	33	31	21'-1"	33	33	33	35	33	29'-9"	37	37	37	37	37
	8'	16'-3"	32	32	32	33	32	19'-9"	33	33	33	34	33	27'-10"	37	37	37	37	37
	9'	15'-4"	32	32	32	32	32	18'-7"	34	34	34	34	34	26'-3"	38	38	38	38	38
	10'	14'-6"	33	33	33	33	33	17'-8"	35	35	35	35	35	24'-11"	39	39	39	39	39
	11'	13'-10"	33	33	33	33	33	16'-10"	35	35	35	35	35	23'-6"	39	39	39	39	39
	12'	13'-3"	34	34	34	34	34	16'-1"	35	35	35	35	35	22'-6"	40	40	40	40	40
	13'	12'-9"	34	34	34	34	34	15'-6"	36	36	36	36	36	21'-8"	41	41	41	41	41
	14'	12'-3"	35	35	35	35	35	14'-11"	37	37	37	37	37	20'-10"	41	41	41	41	41
	15'	11'-10"	35	35	35	35	35	14'-5"	38	38	38	38	38	20'-2"	42	42	42	42	42

LIVE LOAD (PSF)	TRIB WIDTH (FT)	3" CLOVERLEAF STEEL HEADER MAX. COLUMN SPACING (FT)	3" CLOVERLEAF CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATT FTR "d" (IN)	8" STEEL C BEAM MAX COLUMN SPACING (FT)	8" STEEL C BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATT FTR "d" (IN)	10" STEEL C BEAM MAX COLUMN SPACING (FT)	10" STEEL C BEAM CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATT FTR "d" (IN)	TRIB WIDTH (FT)
70 MPH EXPOSURE B																				
20	4'	9'-9"	20	22	24	25	18	25'-3"	26	28	30	31	25	34'-8"	28	30	33	34	27	4'
	5'	8'-11"	20	22	24	25	19	23'-5"	26	27	29	31	26	32'-3"	29	30	32	34	29	5'
	6'	8'-2"	20	22	24	25	20	22'-0"	27	27	29	30	27	30'-4"	30	30	32	33	30	6'
	7'	7'-6"	20	21	22	23	20	20'-11"	28	28	29	30	28	28'-10"	31	31	31	33	31	7'
	8'	7'-0"	21	21	22	23	21	20'-0"	29	29	29	29	29	27'-6"	32	32	32	32	32	8'
	9'	6'-8"	21	22	24	25	21	19'-2"	30	30	30	30	30	26'-6"	33	33	33	33	33	9'
	10'	6'-4"	22	22	24	25	22	18'-2"	30	30	30	30	30	25'-7"	34	34	34	34	34	10'
	11'	6'-0"	21	23	25	26	21	17'-4"	31	31	31	31	31	24'-9"	34	34	34	34	34	11'
	12'	5'-9"	21	23	25	26	21	16'-7"	31	31	31	31	31	24'-1"	36	36	36	36	36	12'
	13'	5'-6"	22	24	26	27	22	15'-11"	31	31	31	31	31	23'-4"	36	36	36	36	36	13'
	14'	5'-4"	22	24	26	27	22	15'-4"	32	32	32	32	32	22'-6"	36	36	36	36	36	14'
	15'	5'-2"	23	25	27	28	23	14'-10"	32	32	32	32	32	21'-9"	37	37	37	37	37	15'
	16'	5'-0"	24	25	27	28	24	14'-4"	33	33	33	33	33	21'-0"	37	37	37	37	37	16'
70 MPH EXPOSURE C																				
20	4'	9'-9"	23	25	27	28	18	23'-3"	29	31	34	35	24	34'-1"	32	35	37	39	27	4'
	5'	8'-11"	23	25	27	28	19	20'-10"	29	31	33	35	25	30'-6"	32	34	36	38	28	5'
	6'	8'-2"	23	25	27	28	20	19'-0"	28	30	32	34	26	27'-10"	30	32	35	37	29	6'
	7'	7'-6"	22	24	26	27	20	17'-7"	27	29	31	33	26	25'-9"	30	32	34	36	30	7'
	8'	7'-0"	22	24	26	27	21	16'-5"	27	29	31	33	27	24'-1"	31	32	34	36	31	8'
	9'	6'-8"	23	25	27	28	21	15'-6"	28	28	30	32	28	22'-9"	31	31	34	35	31	9'
	10'	6'-4"	23	25	27	28	22	14'-9"	28	28	30	32	28	21'-7"	32	32	33	35	32	10'
	11'	6'-0"	25	26	28	30	21	14'-0"	28	28	29	31	28	20'-7"	32	32	33	35	32	11'
	12'	5'-9"	25	26	28	30	21	13'-5"	29	29	29	31	29	19'-8"	33	33	33	34	33	12'
	13'	5'-6"	26	27	29	31	22	12'-11"	29	29	29	31	29	18'-11"	33	33	33	34	33	13'
	14'	5'-4"	26	27	29	31	22	12'-5"	30	30	30	31	30	18'-3"	34	34	34	34	34	14'
	15'	5'-2"	26	28	30	32	23	12'-0"	31	31	31	32	31	17'-7"	34	34	34	34	34	15'
	16'	5'-0"	26	28	30	32	24	11'-7"	31	31	31	32	31	17'-0"	35	35	35	35	35	16'
90 MPH EXPOSURE B																				
20	4'	9'-9"	23	25	27	28	21	23'-7"	29	31	33	35	28	34'-7"	32	34	37	39	32	4'
	5'	8'-11"	23	25	27	28	22	21'-1"	29	30	33	34	29	30'-11"	33	33	36	38	33	5'
	6'	8'-2"	23	25	27	28	23	19'-3"	30	30	32	33	30	28'-3"	34	34	35	37	34	6'
	7'	7'-6"	23	23	25	27	23	17'-10"	31	31	31	33	31	26'-2"	35	35	35	36	35	7'
	8'	7'-0"	24	24	25	27	24	16'-8"	32	32	32	33	32	24'-5"	36	36	36	36	36	8'
	9'	6'-8"	24	25	27	28	24	15'-9"	32	32	32	32	32	23'-1"	37	37	37	37	37	9'
	10'	6'-4"	25	25	27	28	25	14'-11"	33	33	33	33	33	21'-10"	37	37	37	37	37	10'
	11'	6'-0"	25	26	28	29	25	14'-3"	34	34	34	34	34	20'-10"	38	38	38	38	38	11'
	12'	5'-9"	25	26	28	29	25	13'-7"	34	34	34	34	34	20'-0"	38	38	38	38	38	12'
	13'	5'-6"	26	27	29	31	26	13'-1"	35	35	35	35	35	19'-2"	39	39	39	39	39	13'
	14'	5'-4"	27	27	29	31	27	12'-7"	35	35	35	35	35	18'-6"	40	40	40	40	40	14'
	15'	5'-2"	27	28	30	32	27	12'-2"	36	36	36	36	36	17'-10"	40	40	40	40	40	15'
	16'	5'-0"	28	28	30	32	28	11'-9"	35	35	35	35	35	17'-3"	41	41	41	41	41	16'
90 MPH EXPOSURE C																				
20	4'	9'-9"	27	28	31	32	21	17'-11"	31	33	36	37	26	26'-3"	35	37	40	42	30	4'
	5'	8'-9"	27	28	31	32	22	16'-0"	30	32	35	36	27	23'-6"	33	35	38	40	31	5'
	6'	8'-0"	25	27	29	30	23	14'-7"	30	32	35	36	28	21'-5"	33	35	37	39	32	6'
	7'	7'-5"	25	27	29	30	24	13'-6"	29	31	33	35	29	19'-10"	33	34	37	38	33	7'
	8'	6'-11"	25	27	29	30	24	12'-8"	30	31	33	35	30	18'-7"	34	34	37	38	34	8'
	9'	6'-7"	27	28	31	32	25	11'-11"	30	30	32	34	30	17'-6"	34	34	36	37	34	9'
	10'	6'-2"	27	28	31	32	26	11'-4"	31	31	32	34	31	16'-7"	35	35	36	37	35	10'
	11'	5'-11"	28	30	32	34	25	10'-9"	31	31	32	34	31	15'-10"	35	35	35	36	35	11'
	12'	5'-8"	28	30	32	34	25	10'-4"	32	32	32	32	32	15'-2"	36	36	36	36	36	12'
	13'	5'-5"	29	31	33	35	26	9'-11"	32	32	32	32	32	14'-6"	37	37	37	37	37	13'
	14'	5'-3"	29	31	33	35	27	9'-7"	33	33	33	33	33	14'-0"	37	37	37	37	37	14'
	15'	5'-1"	30	32	35	36	27	9'-3"	33	33	33	33	33	13'-6"	37	37	37	37	37	15'
	16'	4'-11"	30	32	35	36	28	8'-11"	33	33	33	33	33	13'-1"	38	38	38	38	38	16'
70 & 90 MPH EXPOSURE B																				
25	4'	9'-0"	23	25	27	28	20	23'-5"	29	31	33	35	28	32'-3"	32	34	37	38	31	4'
	5'	8'-0"	22	23	25	27	21	21'-1"	28	30	33	34	29	29'-11"	33	33	35	37	33	5'
	6'	7'-4"	22	23	25	27	22	19'-3"	30	30	32	33	30	28'-2"	34	34	35	37	34	6'
	7'	6'-9"	22	23	25	27	22	17'-10"	31	31	31	33	31	26'-2"	35	35	35	36	35	7'
	8'	6'-4"	23	23	25	27	23	16'-8"	32	32	32	33	32	24'-5"	36	36	36	36	36	8'
	9'	6'-0"	24	25	27	28	24	15'-9"	32	32	32	32	32	23'-1"	37	37	37	37	37	9'
	10'	5'-8"	25	25	27	28	25	14'-11"	33	33	33	33	33	21'-10"	37	37	37	37	37	10'
	11'	5'-5"	25	26	28	29	25	14'-3"	34	34	34	34	34	20'-10"	38	38	38	38	38	11'
	12'	5'-2"	26	26	28	29	26	13'-7"	34	34	34	34	34	20'-0"	38	38	38	38	38	12'
	13'	4'-11"	25	27	29	31	25	13'-1"	35	35	35	35	35	19'-2"	39	39	39	39	39	13'
	14'	4'-9"	26	27	29	31	26	12'-7"	35	35	35	35	35	18'-6"	40	40	40	40	40	14'
	15'	4'-7"	26	28	30	32	26	12'-2"	36	36	36	36	36	17'-10"	40	40	40	40	40	15'

TABLE 3.1

LIVE LOAD (PSF)	PROJECTION (FT)	5 1/2" EXTRUDED HEADER MAX. COLUMN SPACING (FT)	CONS. FOOTER SIZE FREESTANDING FOOTER "d" (IN) COLUMN HEIGHTS 8'7"	11'	15'	18'	ATT FTR "d" (IN)
70 MPH EXPOSURE B							
20	8'	11'-2"	21	23	25	26	19
	9'	10'-6"	21	23	25	26	19
	10'	10'-0"	20	22	24	25	19
	11'	9'-6"	21	23	25	26	20
	12'	9'-1"	21	23	25	26	21
	13'	8'-9"	22	24	26	27	20
	14'	8'-5"	22	24	26	27	21
	15'	8'-1"	23	25	27	28	21
	16'	7'-10"	23	25	27	28	21
	17'	7'-7"	24	25	27	29	21
70 MPH EXPOSURE C							
20	8'	11'-2"	25	26	28	30	19
	9'	10'-6"	25	26	28	30	19
	10'	10'-0"	23	25	27	28	19
	11'	9'-6"	25	26	28	30	20
	12'	9'-1"	25	26	28	30	21
	13'	8'-9"	26	27	29	31	20
	14'	8'-5"	26	27	29	31	21
	15'	8'-1"	26	28	30	32	21
	16'	7'-10"	26	28	30	32	21
	17'	7'-7"	27	29	31	33	21
90 MPH EXPOSURE B							
20	8'	11'-2"	24	26	28	29	22
	9'	10'-6"	24	26	28	29	22
	10'	10'-0"	23	25	27	28	22
	11'	9'-6"	24	26	28	29	23
	12'	9'-1"	24	26	28	29	24
	13'	8'-9"	25	27	29	31	24
	14'	8'-5"	25	27	29	31	24
	15'	8'-1"	26	28	30	32	25
	16'	7'-10"	26	28	30	32	24
	17'	7'-7"	27	29	31	33	25
90 MPH EXPOSURE C							
20	8'	11'-2"	28	30	32	34	23
	9'	10'-6"	28	30	32	34	23
	10'	10'-0"	27	28	31	32	23
	11'	9'-6"	28	30	32	34	24
	12'	9'-1"	28	30	32	34	24
	13'	8'-9"	29	31	33	35	24
	14'	8'-5"	29	31	33	35	25
70 MPH EXPOSURE B AND C							
25	8'	10'-0"	23	25	27	28	18
	9'	9'-5"	23	25	27	28	19
	10'	8'-11"	23	25	27	28	19
	11'	8'-6"	25	26	28	30	19
	12'	8'-2"	25	26	28	30	20
	13'	7'-10"	26	27	29	31	20
	14'	7'-6"	26	27	29	31	20
	15'	7'-3"	26	28	30	32	20
	16'	7'-0"	26	28	30	32	20

TABLE 3.2

ALL FOOTERS LISTED ARE CONSTRAINED.
TO USE NONCONSTRAINED FOOTERS
SEE TABLE ON SHEET 2 OF 8

MAR 0 3 2000

64 3-31-02

Amerimax
BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

ICBO ES EVALUATION REPORT ER-2621P
HEADER SPANS, COLUMN SPACING, FOOTER SIZE AND COLUMN TYPE FOR FREESTANDING AND ATTACHED COMMERCIAL STRUCTURES
 DATE: 2/8/2000

2.0 FREESTANDING AND ATTACHED PATIO STRUCTURES

LIVE LOAD (PSF)	TRIB WIDTH (FT)	MAX. [illegible] SPACING FOR ATTACHED PATIO ON SLAB USING COLUMN "A" MAX. COL. LENGTH [illegible]	10'-6"	ALL OTHERS ON SLAB	3" CLOVERLEAF STEEL HEADER MAX. COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	8" ROLLFORMED C BEAM MAX COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	10" ROLLFORMED C BEAM MAX. COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	6" I BEAM MAX. COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	7" I BEAM MAX COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	6 1/2" ROLLFORMED HEADER MAX. COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	ALASKAN EXT. HEADER MAX. COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	5 1/2" EXTRUDED HEADER MAX. COLUMN SPACING (FT)	CONS. FOOTER SIZE FREE FTR "d" (IN)	ATTACHED FTR "d" (IN)	MIN. COL. TYPE	TRIB WIDTH (FT)
70 MPH WINDSPEED																																							
10	4'	16'-7"	13'-8"	17'	12'-3"	22	18	A																																4'
	5'	13'-3"	10'11"	13'-7"	11'-4"	21	19	B																																5'
	6'	11'-0"	9'-1"	11'-4"	10'-6"	21	20	B																																6'
	7'	9'-5"	7'-9"	9'-8"	10'-2"	21	20	C	26'-4"	27	27	D	36'-3"	30	30	E	28'-4"	25	25	C	34'-0"	26	26	D																7'
	8'	9'-5"	7'-9"	9'-8"	9'-9"	21	21	C	25'-3"	28	28	D	34'-6"	31	31	E	26'-4"	27	27	C	32'-0"	27	27	D																8'
	9'	7'-4"	6'-1"	7'-6"	9'-4"	21	21	C	24'-3"	29	29	D	33'-4"	32	32	E	25'-4"	28	28	C	30'-4"	28	28	D																9'
	10'	6'-7"	5'-5"	6'-9"	9'-0"	22	22	C	23'-0"	29	29	D	32'-3"	33	33	E	24'-3"	28	28	C	29'-0"	29	29	D																10'
	11'	6'-0"	4'-11"	6'-2"	8'-9"	22	22	C	21'-11"	30	30	D	31'-2"	34	34	E	23'-4"	28	28	C	27'-11"	30	30	D																11'
	12'	5'-6"	4'-6"	5'-8"	8'-6"	22	22	C	21'-0"	30	30	D	30'-4"	34	34	E	22'-6"	29	28	C	26'-11"	31	31	D																12'
	13'	5'-1"		5'-2"					20'-2"	31	31	D	29'-6"	35	35	E	21'-9"	30	30	C	26'-1"	32	32	D																13'
	14'	4'-9"		4'-10"					19'-5"	31	31	D	28'-5"	35	35	E	21'-2"	30	30	C	25'-4"	32	32	D																14'
	15'			4'-6"					18'-9"	31	31	D	27'-6"	36	36	E	20'-7"	31	31	C	24'-8"	33	33	D																15'
	16'								18'-2"	32	32	D	26'-7"	36	36	E	20'-1"	32	32	C	24'-1"	34	34	D																16'
	17'								17'-7"	32	32	D	25'-10"	36	36	E	19'-8"	32	32	C	23'-6"	34	34	D																17'
	18'								17'-1"	33	33	E	25'-1"	37	37	E	19'-3"	33	33	C	23'-0"	34	34	D																18'
	19'								16'-8"	33	33	E	24'-5"	37	37	E	18'-10"	33	33	C	22'-7"	35	35	D																19'
	20'								16'-3"	33	33	E	23'-10"	37	37	E	18'-6"	33	33	C	22'-2"	35	35	D																20'
	21'								15'-10"	33	33	E	23'-3"	38	38	E	18'-2"	34	34	C	21'-9"	36	36	D																21'
70 MPH WINDSPEED																																								
10	4'	16'-7"	13'-8"	17'	12'-3"	24	20	A																																4'
	5'	13'-3"	10'11"	13'-7"	11'-4"	24	21	B																																5'
	6'	11'-0"	9'-1"	11'-4"	10'-6"	23	21	B																																6'
	7'	9'-5"	7'-9"	9'-8"	10'-2"	22	22	C	23'-7"	31	29	D	34'-7"	34	33	E	28'-4"	29	28	C	34'-0"	30	29	D																7'
	8'	8'-3"	6'-10"	9'-6"	9'-9"	23	23	C	22'-1"	31	30	D	32'-4"	34	34	E	26'-8"	29	29	C	32'-0"	31	31	D																8'
	9'	7'-4"	6'-1"	7'-6"	9'-4"	24	24	C	20'-10"	30	30	D	30'-6"	35	35	E	25'-4"	30	30	C	30'-4"	32	32	D																9'
	10'	6'-7"	5'-5"	6'-9"	9'-0"	24	24	C	19'-9"	31	31	D	28'-11"	35	35	E	24'-3"	31	31	C	29'-0"	33	33	D																10'
	11'	6'-0"	4'-11"	6'-2"	8'-9"	24	24	C	18'-10"	31	31	D	27'-7"	36	36	E	23'-2"	31	31	C	27'-11"	33	33	D																11'
	12'	5'-6"	4'-6"	5'-8"	8'-6"	25	25	C	18'-0"	32	32	D	26'-5"	36	36	E	22'-1"	32	32	C	26'-11"	34	34	D																12'
	13'	5'-1"		5'-2"					17'-4"	33	33	D	25'-4"	37	37	E	21'-9"	34	34	C	25'-4"	35	35	D																13'
	14'	4'-9"		4'-10"					16'-8"	33	33	D	24'-5"	37	37	E	21'-2"	34	34	C	24'-8"	35	35	D																14'
	15'			4'-6"					16'-1"	34	34	E	23'-7"	38	38	E	20'-7"	34	34	C	24'-1"	36	36	D																15'
	16'								15'-7"	34	34	E	22'-10"	38	38	E	20'-1"	35	35	C	23'-6"	36	36	D																16'
	17'								15'-1"	34	34	E	22'-2"	39	39	E	19'-8"	36	36	C	23'-1"	36	36	D																17'
	18'								14'-8"	34	34	E	21'-6"	39	39	E	19'-2"	36	36	C	22'-4"	38	38	D																18'
	19'								14'-4"	35	35	E	20'-11"	39	39	E	18'-7"	36	36	C	21'-8"	38	38	D																19'
	20'								13'-11"	35	35	E	20'-5"	40	40	E	18'-1"	37	37	C	21'-0"	39	39	D																20'
	21'								13'-7"	35	35	E	19'-11"	40	40	E	17'-7"	37	37	C	20'-6"	39	39	D																21'
90 MPH WINDSPEED																																								
10	4'	16'-7"	13'-8"	17'	12'-3"	25	20	A																																4'
	5'	13'-3"	10'11"	13'-7"	11'-4"	25	21	B																																5'
	6'	11'-0"	9'-1"	11'-4"	10'-8"	24	22	B																																6'
	7'	9'-5"	7'-9"	9'-8"	10'-2"	24	23	C	22'-2"	30	30	D	32'-6"	34	34	E	28'-4"	31	29	C	34'-0"	32	30	D																7'
	8'	8'-3"	6'-10"	9'-6"	9'-9"	24	24	C	20'-9"	30	30	D	30'-5"	35	35	E	26'-8"	30	30	C	32'-0"	32	32	D																8'
	9'	7'-4"	6'-1"	7'-6"	9'-4"	24	24	C	19'-7"	31	31	D	28'-8"	35	35	E	25'-4"	31	31	C	30'-4"	33	33	D																9'
	10'	6'-7"	5'-5"	6'-9"	9'-0"	25	25	C	18'-6"	32	32	D	27'-2"	36	36	E	24'-3"	32	32	C	29'-0"	34	34	D																10'
	11'	6'-0"	4'-11"	6'-2"	8'-9"	25	25	C	17'-8"	32	32	D	25'-11"	37	37	E	23'-4"	33	33	C	27'-11"	34	34	D																11'
	12'	5'-6"	4'-6"	5'-8"	8'-6"	25	25	C	16'-11"	33	33	D	24'-10"	37	37	E	22'-6"	34	34	C	26'-11"	35	35	D																12'
	13'	5'-1"		5'-2"					16'-3"	33	33	D	23'-10"	38	38	E	21'-8"	34	34	C	25'-4"	35	35	D																13'
	14'	4'-9"		4'-10"					15'-6"	34	34	D	22'-11"	38	38	E	20'-9"	35	35	C	24'-8"	36	36	D																14'
	15'			4'-6"					15'-2"	34	34	D	22'-2"	39	39	E	20'-1"	36	36	C	24'-1"	36	36	D																15'
	16'								14'-8"	34	34	D	21'-6"	39	39	E	19'-6"	36	36	C	23'-6"	37	37	D																16'
	17'								14'-3"	35	35	D	20'-10"	39	39	E	19'-0"	37	37	C	23'-1"	38	38	D																17'
	18'								13'-10"	35	35	D	20'-3"	40	40	E	18'-6"	37	37	C	22'-4"	38	38	D																18'
	19'								13'-5"	36	36	D	19'-8"	40	40	E	18'-0"	38	38	C	21'-8"	39	39	D																19'
	20'								13'-1"	36	36	D	19'-2"	41	41	E	17'-6"	38	38	C	21'-0"	39	39	D																20'
	21'								12'-9"	37	36	D	18'-9"	41	41	E	17'-1"	38	38	C	20'-6"	40	40	D																21'
90 MPH WINDSPEED																																								
10	4'	16'-7"	13'-8"	17'	12'-3"	27	23	A																																4'
	5'	13'-3"	10'11"	13'-7"	11'-4"	26	24	B																																5'
	6'	11'-0"	9'-1"	11'-4"	10'-6"	26	25	B																																6'
	7'	9'-5"	7'-9"	9'-8"	10'-2"	26	26	C																																7'
	8'	8'-3"	6'-10"	9'-6"	9'-9"	26	26	C	19'-1"	32	32	D	28'-0"	36	36	E	27'-6"	32	32	C	32'-0"	33	33	D																8'
	9'	7'-4"	6'-1"	7'-6"	9'-4"	26	26	C	17'-10"	32	32	D	26'-2"	37	37	E	25'-1"	33	33	C	29'-3"	34	34	D																9'
	10'	6'-7"	5'-5"	6'-9"	9'-0"	27	26	C	16'-10"	33	33	D	24'-8"	37	37	E	23'-3"	34	34	C	27'-1"	34	34	D																10'
	11'	6'-0"	4'-11"	6'-2"	8'-9"	27	27	C	15'-11"	33	33	D	23'-5"	38	38	E	21'-9"	34	34	C	25'-4"	35	35	D																11'
	12'	5'-6"	4'-6"	5'-8"	8'-6"	28	28	C	15'-3"	34	34	D	22'-4"	38	38	E	20'-6"	35	35	C	23'-10"	36	36	D																12'
	13'	5'-1"		5'-2"					14'-7"	35	35	D	21'-4"	39	39	E	20'-6"	36	36	C	22'-8"	36	36	D																13'
	14'	4'-9"		4'-10"					14'-0"	35	35	D	20'-6"	40	40	E	19'-9"	36	36	C	21'-7"	37	37	D																14'
	15'			4'-6"					13'-6"	36	36	D	19'-9"	40	40	E	19'-0"	37	37	C	20'-7"	38	38	D																15'
	16'								13'-0"	36	36	D	19'-1"	41	41	E	18'-6"	37	37	C	19'-11"	38	38	D																16'
	17'								12'-7"	36	36	D	18'-6"	42	42	E	17'-11"	38	38	C	19'-3"	39	39	D																17'
	18'																																							18'
	19'																																							19'
	20'																																							20'
	21'																																							21'
20	4'	8'-8"	7'-2"	8'-11"	9'-9"	25	21	C																																4'
	5'	6'-11"	5'-8"	7'-1"	9'-0"	25	22	C																																5'
	6'	5'-9"	4'-9"	5'-11"	8'-6"	25	23	C																																6'
	7'	4'-11"		5'-1"	7'-8"	24	24	C																																7'
	8'				7'-5"	25	24	C																																		8'
	9'				7'-2"	26	25	C																																		9'
	10'				6'-11"	26	26	C																																		10'
	11'				6'-9"	27	27	C																																		11'
	12'																																							12'
	13'																																							13'
	14'																																							14'
	15'																																							15'
	16'																																							16'
25	4'	7'-0"	5'-9"	7'-2"	9'-0"	25	20	C																																4'
	5'	5'-7"	4'-8"	5'-9"	8'-4"	25	22	C																																5'
	6'	4'-8"		4'-9"	7'-10"	25	23	C																																6'
	7'				7'-6"	24	24	C																																		7'
	8'				7'-2"	25	25	C																																		8'
	9'				6'-10"	25	25	C																																		9'
	10'				6'-8"	26	26	C																																		10'
	11'				6'-5"	27	27	C																																		11'
	12'				6'-3"	27	27	C																																		12'
	13'																																							13'
	14'																																							14'
	15'																																							15'

EQUIVALENT FOOTERS "d" (IN)	
CONSTRAINED	NONCONSTRAINED
18	18
19	20
20	22
21	23
22	24
23	26
24	27
25	29
26	31
27	33
28	35
29	36
30	38
31	39
32	40
33	41
34	43
35	44
36	46
37	47
38	48

TABLE 2.2

THIS TABLE MAY BE USED WITH COMMERCIAL, PATIO OR LATTICE STRUCTURES

TABLE 2.1

MAR 03 2000

REGISTERED PROFESSIONAL ENGINEER R. F. TUCKER NO. 26070 EXP. 3-31-02 CIVIL STATE OF CALIFORNIA

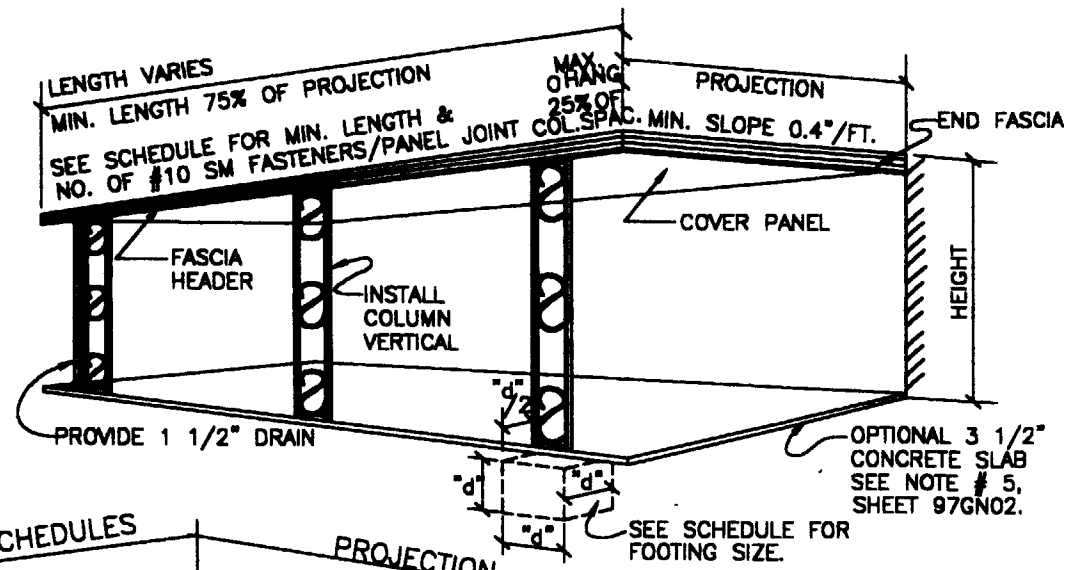
Amerimax BUILDING PRODUCTS, INC.
1140 ALL PRO DRIVE
ELKHART, IN 46514

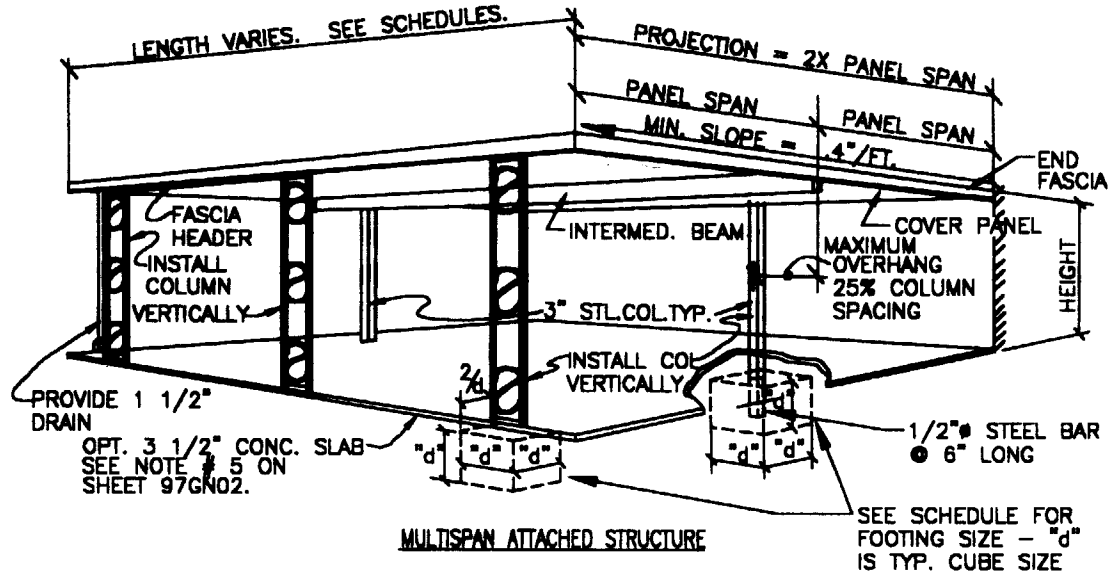
ICBO ES EVALUATION REPORT ER-2621P

HEADER SPANS, COLUMN SPACING, FOOTER SIZE AND COLUMN TYPE FOR FREESTANDING AND ATTACHED PATIO STRUCTURES

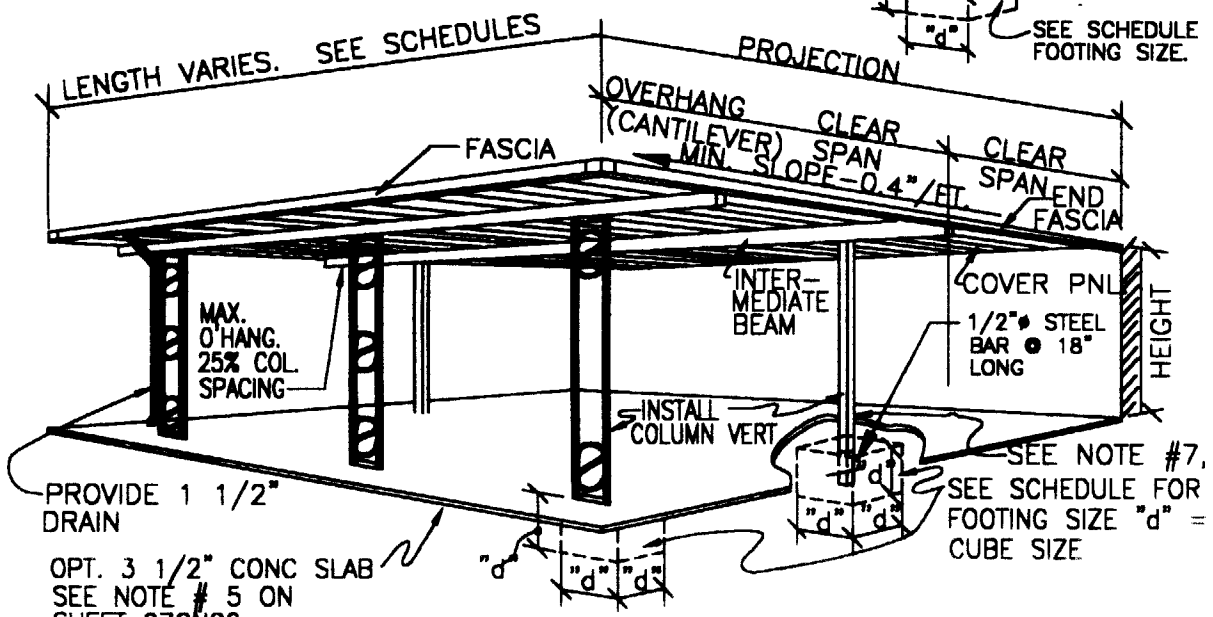
SHEET 2 OF 8 DATE: 2/8/2000

SINGLE SPAN ATTACHED STRUCTURE

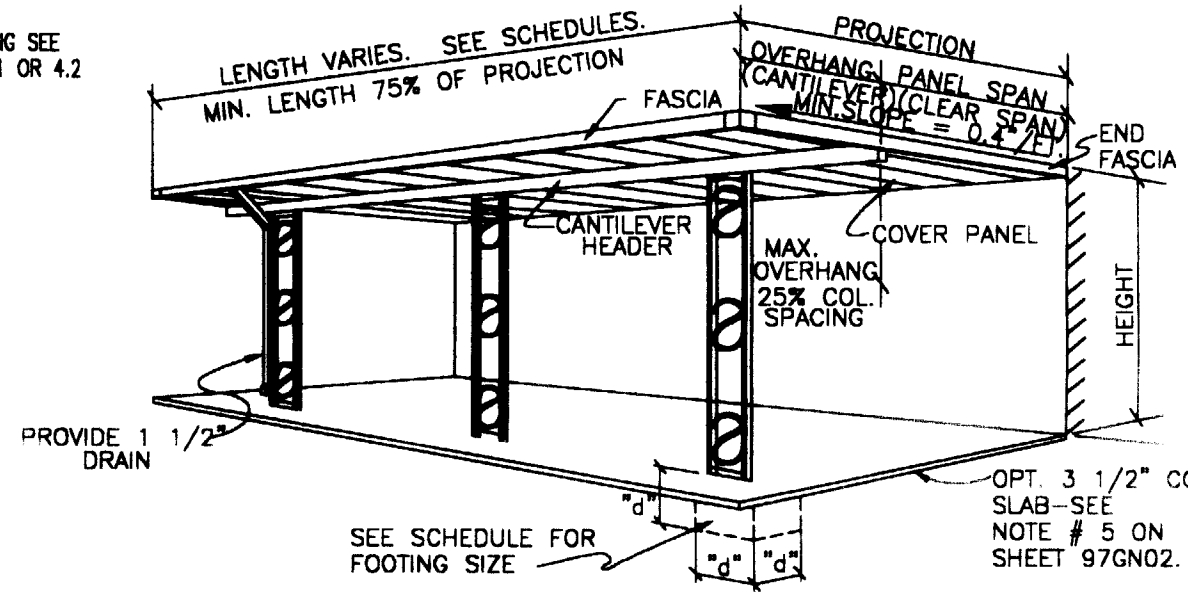




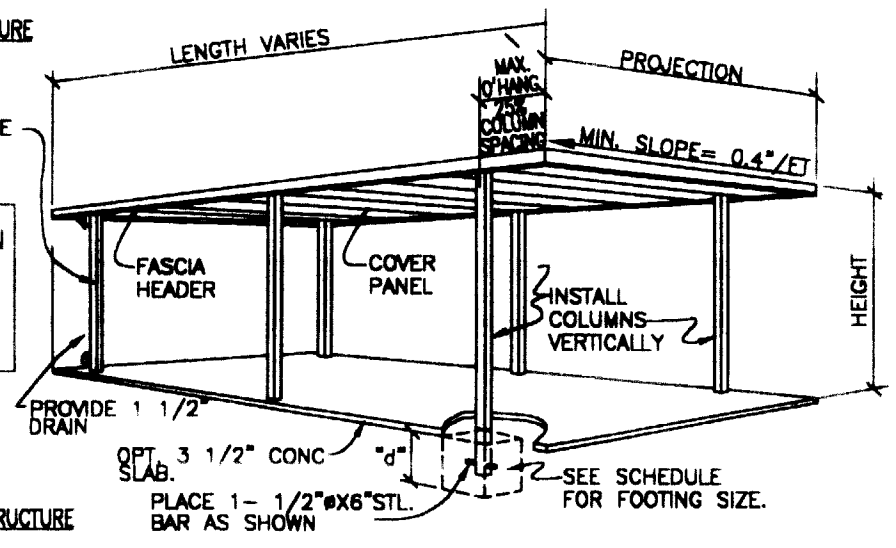
MULTISPAN ATTACHED STRUCTURE



FOR COLUMN SPACING SEE TABLES 2.1, 2.5, 4.1 OR 4.2



MULTISPAN ATTACHED CANTILEVERED STRUCTURE



SINGLE SPAN FREESTANDING STRUCTURE

NOTE: PATIO WIDTH VARIES W/ SELECTION OF HEADER, NUMBER OF COLUMNS AND LOADING CONDITIONS. SEE SCHEDULES FOR MAX. COLUMN SPACING.

SINGLE SPAN ATTACHED CANTILEVERED STRUCTURE

REGISTERED PROFESSIONAL ENGINEER R. F. NO. 26070 Exp. 3-31-02 STATE OF INDIANA

MAR 0 3 2000

ENGINEERS STAMP

DATE	REVISION	DATE	REVISION

Amerimax BUILDING PRODUCTS, INC.

Engineering Services
1140 All Pro Drive
Elkhart, IN 46514

DRAWN BY: KG	ICBO ES EVALUATION REPORT NO. ER-2621P	
CHECKED: NONE	DRAWING OR PART NAME: STRUCTURAL CONFIGURATIONS	
DATE: 2/8/2000	DRAWING OR PART NUMBER: 97SC01	SHEET: 1 OF 2