CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 9908163

Insp Area: 2

Site Address: 5064 TORONTO WY SAC Sub-Type: ASFR

Parcel No: Housing (Y/N): N

CONTRACTOR
PACIFIC BUILDERS
5421 87TH ST
SACRAMENTO CA 95826

OWNER

ARCHITECT

Nature of Work: 16 X 27 CARPORT

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 B1 License Number 21 27409 Date 7-26-99 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 7-26-99 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.

___ 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 692-98 UNIT 0002300 Exp Date 10/01/1999

(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 7-26-99 Applicant Signature _____

CITY OF SACRAMENTO PLANNING AND DEVELOPMENT SERVICES

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.

Date of Request:_____
By:_____

CITY OF SACRAMENTO DEVELOPMENT SERVICES DIVISION
PLANNING AND ZONING INFORMATION REQUEST

Project Address: 5064 [illegible]

Assessor's Parcel Number: 023 0204 006

Previous Use: _____

Description of Request/Proposed Use: ST D Patio Cover

_____

_____

Is This a Change of Use?_____

Zoning Designation: R 1

Prior Applications for Project Site(P#, Z#, DRPB#):_____

Comments:_____

_____

_____

_____

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: _____ 7-20-99

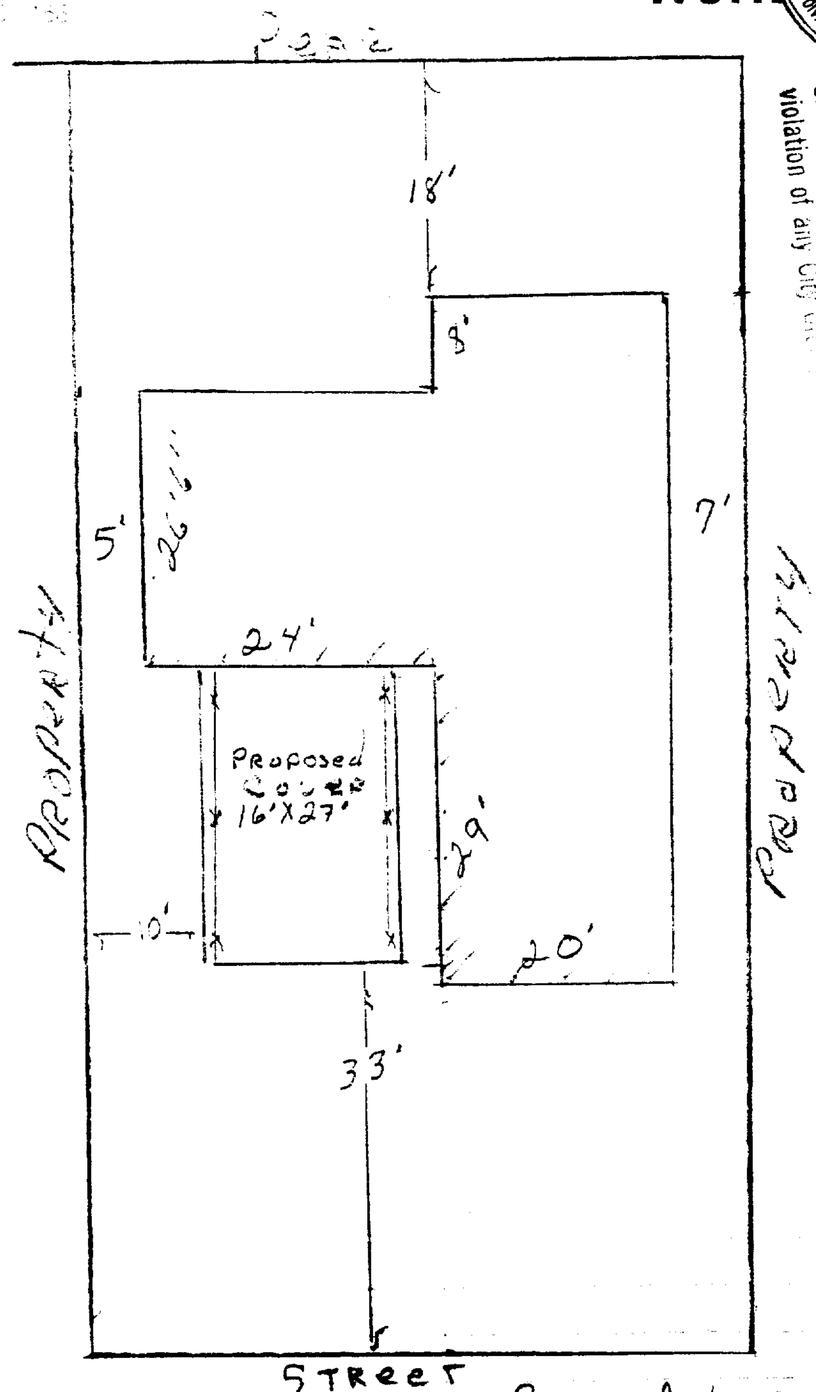
A list of items that must be reviewed by Planning is provided on the reverse side of this form.

MICROFILM AFTER FINAL

Revised 3/31/99

PACIFIC BUILDERS

Work Sheet



Reviewed by Matt P. 7/26/99

→ Requires 4"x4"-3/16" T.S. posts embedded in 2'x2'x3' deep footings per sheet 7603E-④ of the attached engineering.

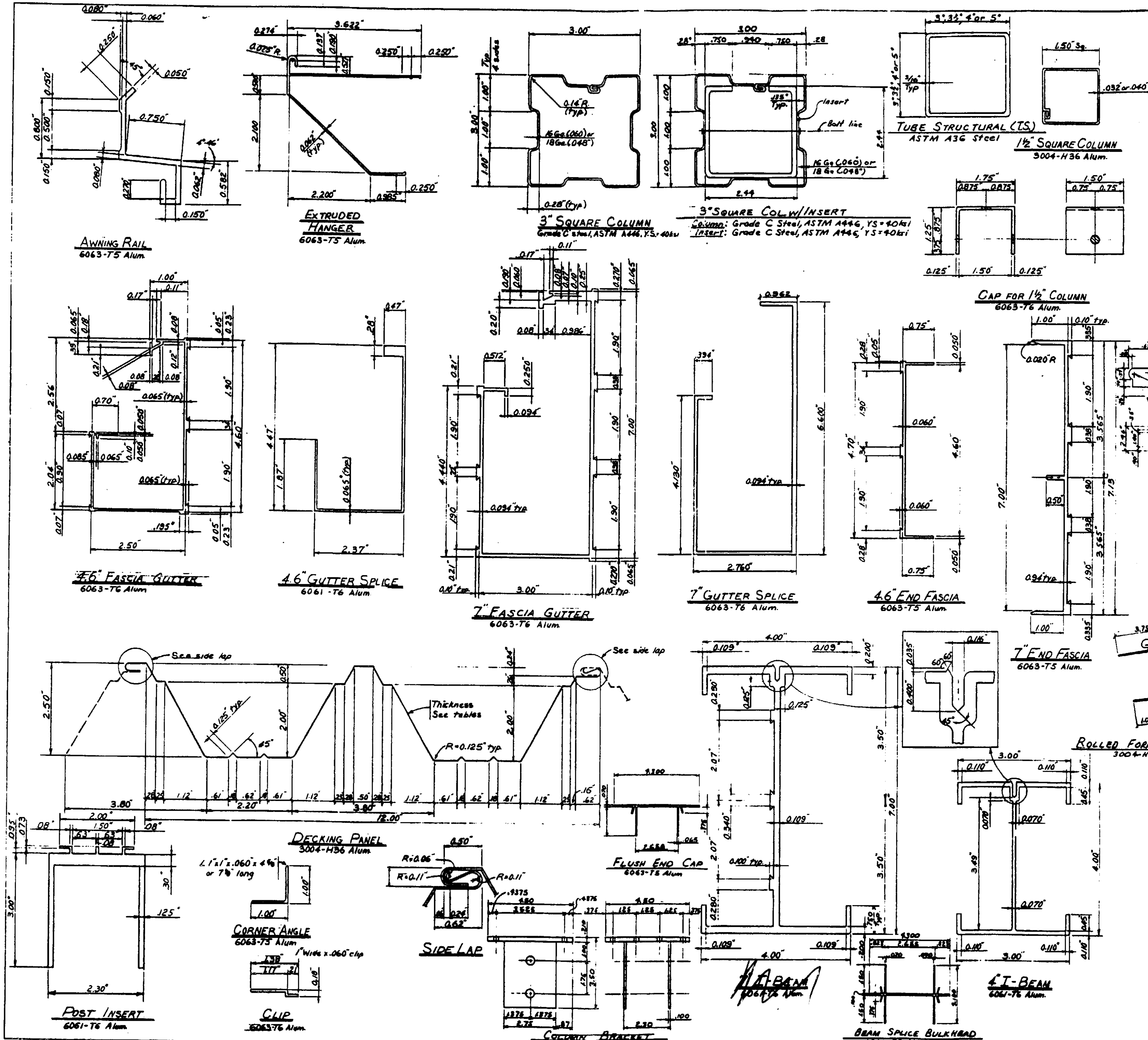
Diagram and size approved by customer

Name: OKINO

Address: 5064 TORONTO WAY

City: SACRAMENTO CA. 95820

Phone: 383-3369



GENERAL NOTES

1. Applications shall include 2 prints of a plot plan showing property lines and buildings. On the standard drawings, circle the parts, details and dimensions that are to be used for the particular job.

2. Aluminum design and stresses are according to Chap. 28, U.B.C., 1976 Edition.

3. Carry all footings down to firm undisturbed earth. The type of soil may be sand, silty or clayey sand, or silty or clayey gravel, or better. Maximum basic earth pressures are: vertical - 1000 psf, lateral - 150 psf/ft. Soil not meeting these requirements will be reviewed on an individual basis, and a soils report shall be provided unless waived by the building official.

4. Concrete: Compressive strength at 28 days - 2000 psi, 1" max. aggregate, 7.5 gal. water max. per sack of cement. Exist Concrete 2000psi min compressive strength @ 28 days.

5. Decking and beams have been designed for max. deflections of L/60 and L/90 respectively.

6. An inspection hole shall be drilled in the existing wall to verify stud spacing.

7. Aluminum surfaces in contact with cement plaster, masonry, or concrete shall be painted.

8. Where metals of unlike materials are in contact with each other, provisions shall be made to prevent deterioration through electrolytic action by painting at least one of the contact surfaces.

9. Fasteners shall be stainless, cadmium plated, galvanized steel, or 2024-T4 aluminum.

10. Provide washers under the heads and nuts of bolts or lag screws bearing on wood. Sub-bore holes for wood screws to 70% diam.

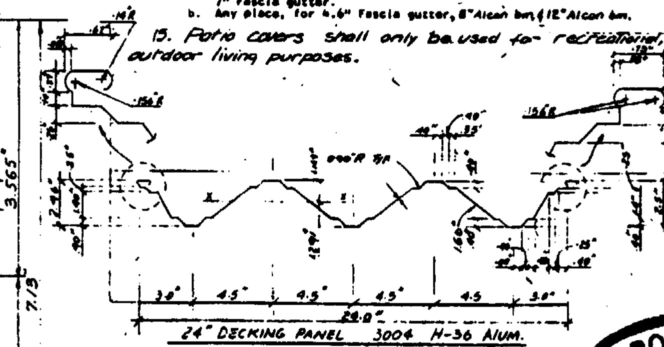
11. All deck fasteners shall be caulked with a caulking material

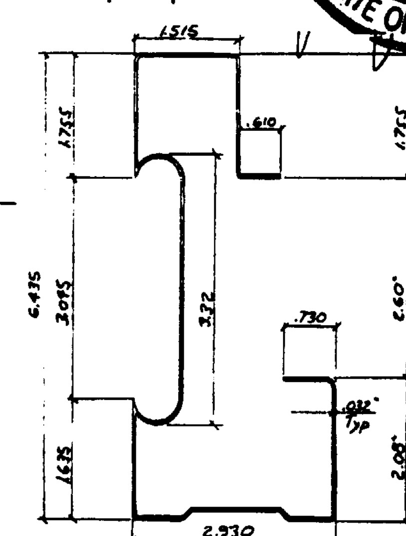
12. Drainage which would otherwise go over a public sidewalk shall be collected and diverted under the sidewalk.

13. If structure is used for residential parking, it shall not be placed over openable windows and must be designed for 20 psf live load.

14. Splices may be located only at:
a. Alternate interior spans, for 4" or 7" I-beam and for 7" Fascia gutter.
b. Any place, for 4.6" Fascia gutter, 8" Alcan bm. & 12" Alcan bm.

15. Patio covers shall only be used for recreational, outdoor living purposes.





6½" ROLLED FORMED FASCIA
3004-H36 Alum

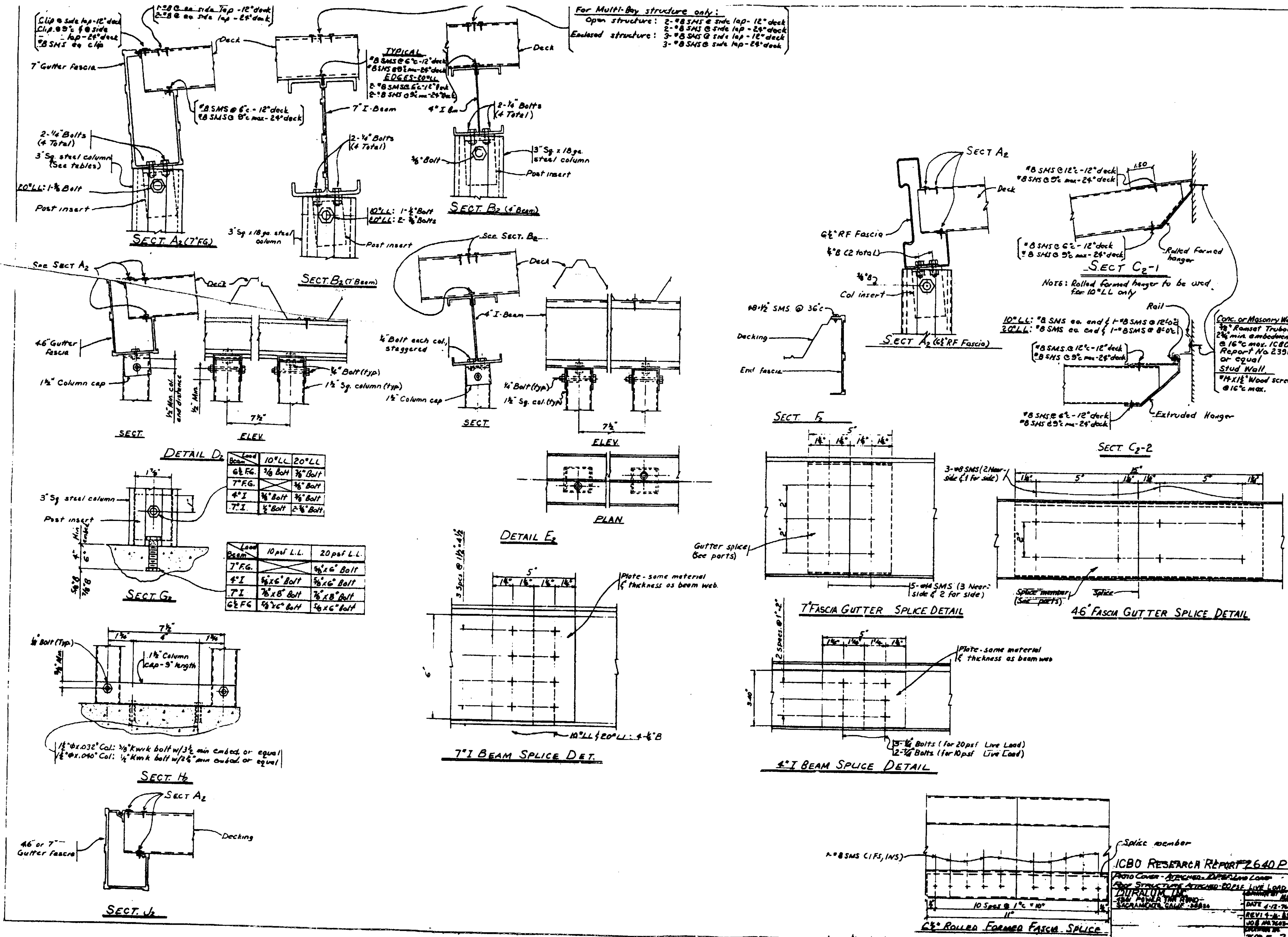
ICBO RESEARCH REPORT 2640P

PARTS - 10 PSF, 20 PSF LIVE LOAD	
DURALUM INC. 4301 POWER INN ROAD SACRAMENTO, CALIF. 95826	DRAWN BY M.C.
	DATE: 4-12-76
	REV: 4-16-85
	JOB NO. 7603-E
	DRAWING NO. 7603 E - 2

1/28/97

REGISTERED PROFESSIONAL ENGINEER JEFFREY E. HOFMANN No. C 047407 Exp. 3/31/99 CIVIL STATE OF CALIFORNIA

PACIFIC CONSULTING ENGINEERS
2150 BELL AVE., SUITE 145
SACRAMENTO, CA 95038



Beam \ Load	10#LL	20#LL
6 1/2 F.G.	3/8 Bolt	3/8" Bolt
7" F.G.		3/8" Bolt
4" I	3/8" Bolt	3/8" Bolt
7" I	1/2" Bolt	2-3/8" Bolt

Beam \ Load	10 psf L.L.	20 psf L.L.
7" F.G.		5/8" x 6" Bolt
4" I	5/8" x 6" Bolt	5/8" x 6" Bolt
7" I	7/8" x 8" Bolt	7/8" x 8" Bolt
6 1/2 FG	5/8" x 6" Bolt	5/8 x 6" Bolt

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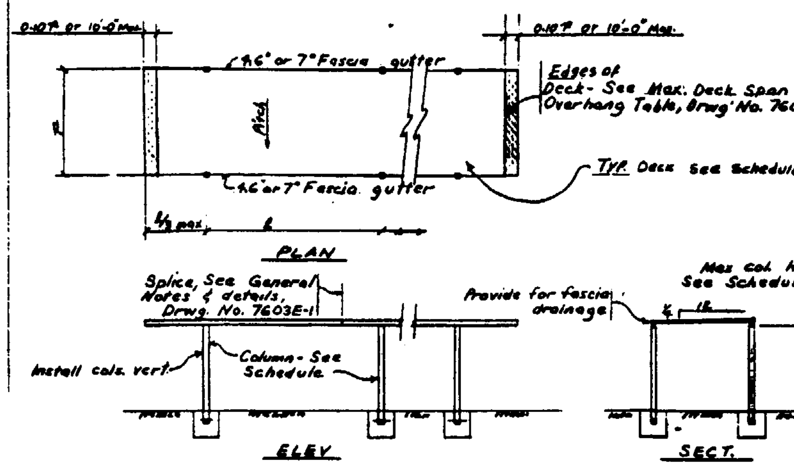
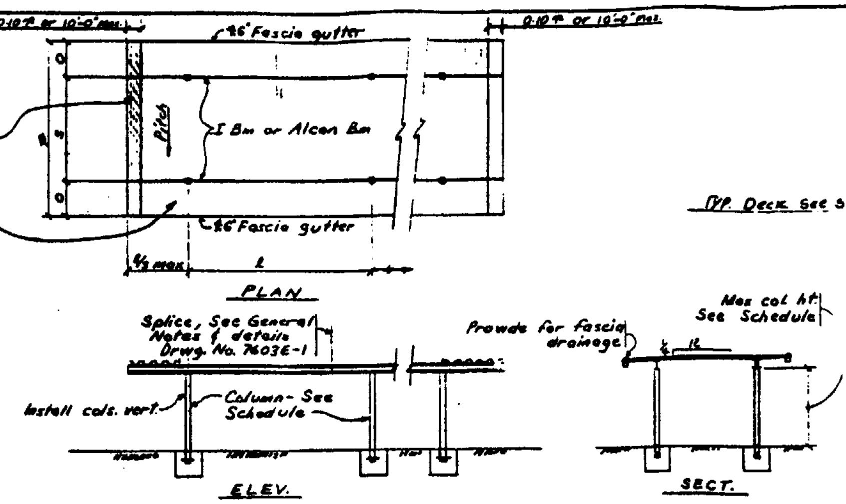
CIVIL
STATE OF CALIFORNIA

1/28/97

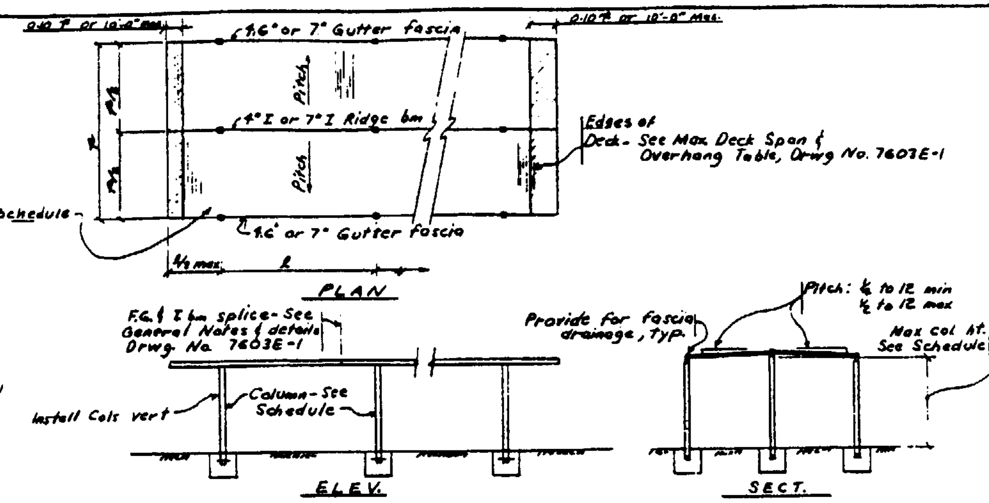
PACIFIC CONSULTING ENGINEERS
2150 BELL AVE., SUITE 145
SACRAMENTO, CA 95338



FLAT CARPORT OR PATIO COVER WITH FASCIA GUTTER



FLAT CARPORT OR PATIO COVER WITH I BEAM OR ALCAN BEAM



GABLE CARPORT OR PATIO COVER WITH I BEAM AND FASCIA GUTTER

SCHEDULE A-FLAT CARPORT OR PATIO COVER WITH FASCIA GUTTER

LIVE LOAD	20 PSF LIVE LOAD											
BEAM TYPE	7" FASCIA GUTTER											
COL. TYPE	3"Φ X .060" STEEL			3"Φ X .048" W/INSERT			TS-4X4 X 3/16			TS-5X5X 3/16		
MAX. COLUMN HT.	8'-0"			9'-6"			12'-0"			14'-0"		
PROJECTION, P	COL. SPCG.	FTG. NO SLAB	FTG. WITH SLAB	COL. SPCG.	FTG. NO SLAB	FTG. WITH SLAB	COL. SPCG.	FTG. NO SLAB	FTG. WITH SLAB	COL. SPCG.	FTG. NO SLAB	FTG. WITH SLAB
8'-0"	18'-9"	2'-6"Φ X3'-4" deep	2'-6"Φ X2'-7" deep	20'-2"	2'-6"Φ X3'-7" deep	2'-6"Φ X2'-9" deep	20'-2"	3'-0"Φ X3'-7" deep	3'-0"Φ X2'-9" deep	20'-2"	3'-0"Φ X3'-9" deep	3'-0"Φ X2'-11" deep
9'-0"	18'-3"			19'-0"			19'-0"			19'-0"		
10'-0"	17'-5"			18'-0"			18'-0"			18'-0"		
11'-0"	17'-3"			17'-2"			17'-2"			17'-2"		
12'-0"	16'-10"			16'-5"			16'-5"			16'-5"		

PACIFIC CONSULTING ENGINEERS
2150 BELL AVE., SUITE 145
SACRAMENTO, CA 95838

REGISTERED PROFESSIONAL ENGINEER
JEFFREY E. HOFMANN
NO. C 047407
Exp. 12/31/99
CIVIL
STATE OF CALIFORNIA
1/20/97

GENERAL NOTES

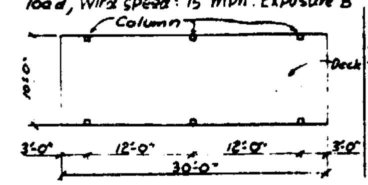
1. Structure has been designed for the following loads:
 Live Load: 20 PSF
 Wind Speed: 75 mph, Exposure B
2. Structure shall not be enclosed.
3. See Drawing No. 7603E-5 for details
4. See Drawing No. 7603E-6 for parts.
5. Carports shall be erected only in areas which are not subject to snow load

SCHEDULE-FLAT CARPORT W/I BEAM

LIVE LOAD			20 PSF LIVE LOAD											
BEAM TYPE			7" I BEAM											
COL. TYPE			3"Φ X .060" w/INSERT			TS-3½X3½X3/16			TS-4X4X3/16			TS-4X4X3/16		
MAX. COL. HT.			8'-0"			9'-6"			12'-0"			14'-0"		
PROJECTION P	MAX. PANEL SPAN S	MAX. OVERHANG O	COL. SPCG.	FTG. NO SLAB	FTG. WITH SLAB	COL. SPCG.	FTG NO SLAB	FTG. WITH SLAB	COL. SPCG.	FTG NO SLAB	FTG. WITH SLAB	COL. SPCG.	FTG. NO SLAB	FTG WITH SLAB
20'-0"	12'-0"	4'-0"	19'-0"	2'-6"Φ X4'-0" deep	2'-6"Φ X3'-4" deep	19'-0"	2'-6"Φ X4'-2" deep	2'-6"Φ X3'-4" deep	19'-0"	2'-6"Φ X4'-5" deep	2'-6"Φ X3'-4" deep	19'-0"	2'-6"Φ X4'-7" deep	2'-6"Φ X3'-6" deep
22'-0"	14'-0"	4'-0"	19'-0"			18'-6"			18'-6"			18'-6"		

USE OF TABLES

EXAMPLE: A client wants a free-stand patio cover with fascia gutters. He wants a 10'-0" projection and a length of 30'-0" to include 6-8'-0" high cols spaced at 12'-0" apart and a beam overhang of 3'-0". Design loads are: 20 PSF live load, Wind Speed: 75 mph. Exposure B

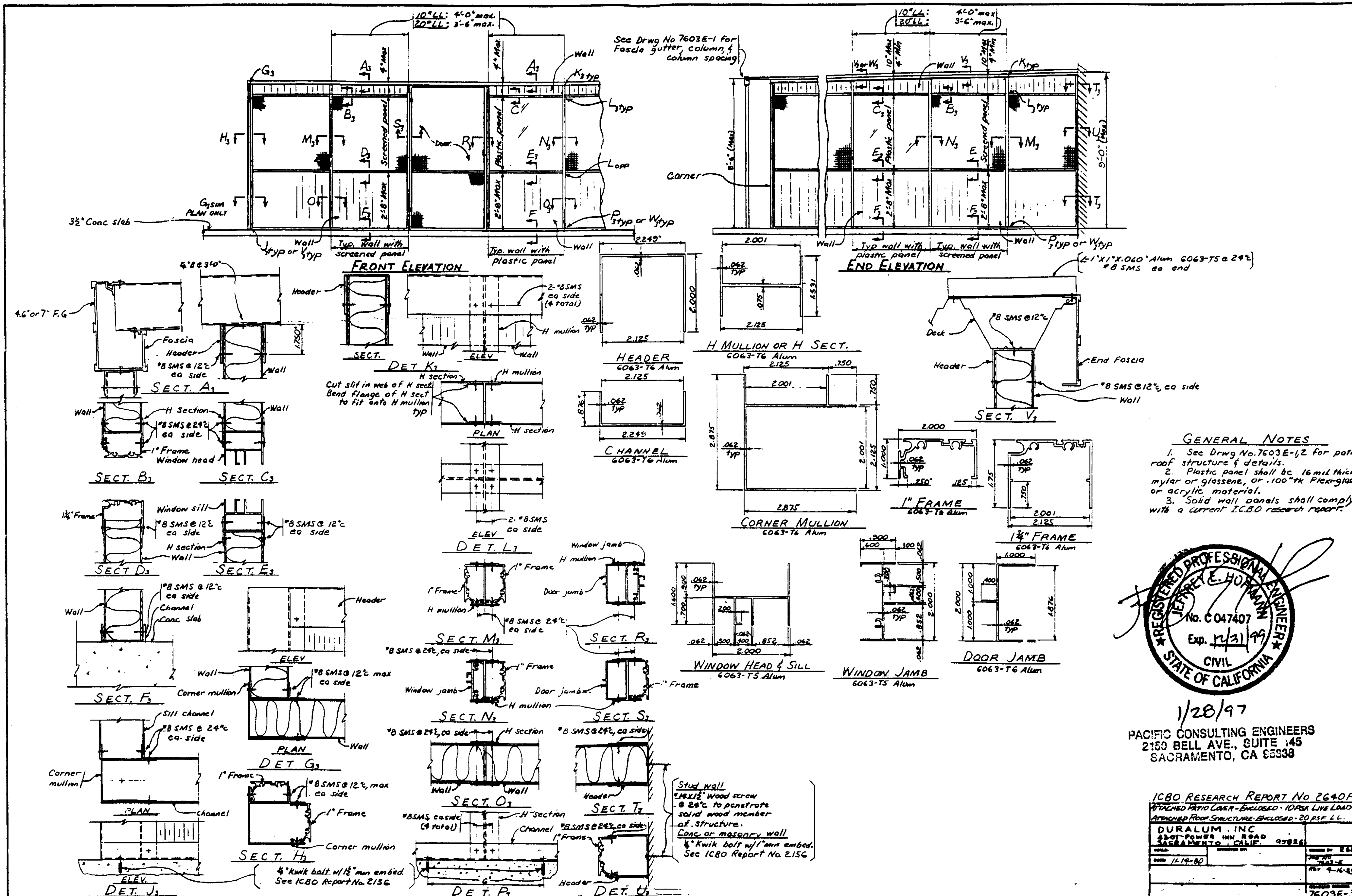


SOLUTION: From SCHEDULE A-PATIO COVER WITH FASCIA GUTTER for PSF LL, 7" fascia gutter, 3"Φ X .060" steel col, 8'-0" col. ht., 10'-0" projection: Col. spacing = 17'-9" which is greater than 12'-0" ok. Footing size is either a 2'-6"Φ x 3'-4" deep isolated ftg or if there is a 3½" or thicker slab a 2'-6"Φ x 2'-7" deep ftg.
NOTE: Other SCHEDULES shall be used similarly.

SCHEDULE-GABLE CARPORT OR PATIO COVER WITH I BEAM AND FASCIA GUTTER

LIVE LOAD	20 PSF LIVE LOAD																							
BEAM TYPE	4.6" FASCIA GUTTER WITH 4" I RIDGE BEAM												7" FASCIA GUTTER WITH 7" I RIDGE BEAM											
COL. TYPE	3"Φ X .048" STEEL			3"Φ X .048" STEEL			TS-4X4X3/16			TS-5X5X3/16			3"Φ X .060" STEEL			TS-3½X3½X3/16			TS-4X4X3/16			TS-5X5X3/16		
MAX. COL. HT	8'-0"			9'-6"			12'-0"			14'-0"			8'-0"			9'-6"			12'-0"			14'-0"		
Projection P	COL. SPCG	FTG NO SLAB	FTG WITH SLAB	COL SPCG	FTG NO SLAB	FTG WITH SLAB	COL. SPCG	FTG NO SLAB	FTG WITH SLAB	COL. SPCG	FTG. NO SLAB	FTG. WITH SLAB	COL. SPCG	FTG NO SLAB	FTG WITH SLAB	COL. SPCG	FTG NO SLAB	FTG WITH SLAB	COL SPCG	FTG NO SLAB	FTG WITH SLAB	COL SPCG	FTG NO SLAB	FTG WITH SLAB
24'-0"	8'-2"	2'-0"Φ x3'-0" deep	2'-0"Φ x2'-3" deep	8'-2"	2'-0"Φ x3'-0" deep	2'-0"Φ x2'-3" deep	8'-2"	2'-0"Φ x3'-0" deep	2'-0"Φ x2'-3" deep	8'-2"	2'-0"Φ x3'-0" deep	2'-0"Φ x2'-3" deep	16'-5"	2'-6"Φ x3'-9" deep	2'-6"Φ x3'-3" deep	16'-5"	2'-6"Φ x3'-9" deep	2'-6"Φ x3'-3" deep	16'-5"	2'-6"Φ x3'-9" deep	2'-6"Φ x3'-3" deep	16'-5"	2'-6"Φ x3'-9" deep	2'-6"Φ x3'-3" deep

FREESTAND PATIO COVER - CARPORT — 20 PSF LIVE LOAD
DURALUM, INC.
8501 POWER INN ROAD
SACRAMENTO, CA 95826
DRAWN BY: HW
DATE: 10-6-80
REV.: 4-16-85
JOB NO. 7603-E
DRAWING NO. 7603E-4



GENERAL NOTES

1. See Drwg No. 7603E-1,2 for patio roof structure & details.
2. Plastic panel shall be 16 mil thick mylar or glassene, or .100"tk Plexi-glass or acrylic material.
3. Solid wall panels shall comply with a current I.C.B.O research report.

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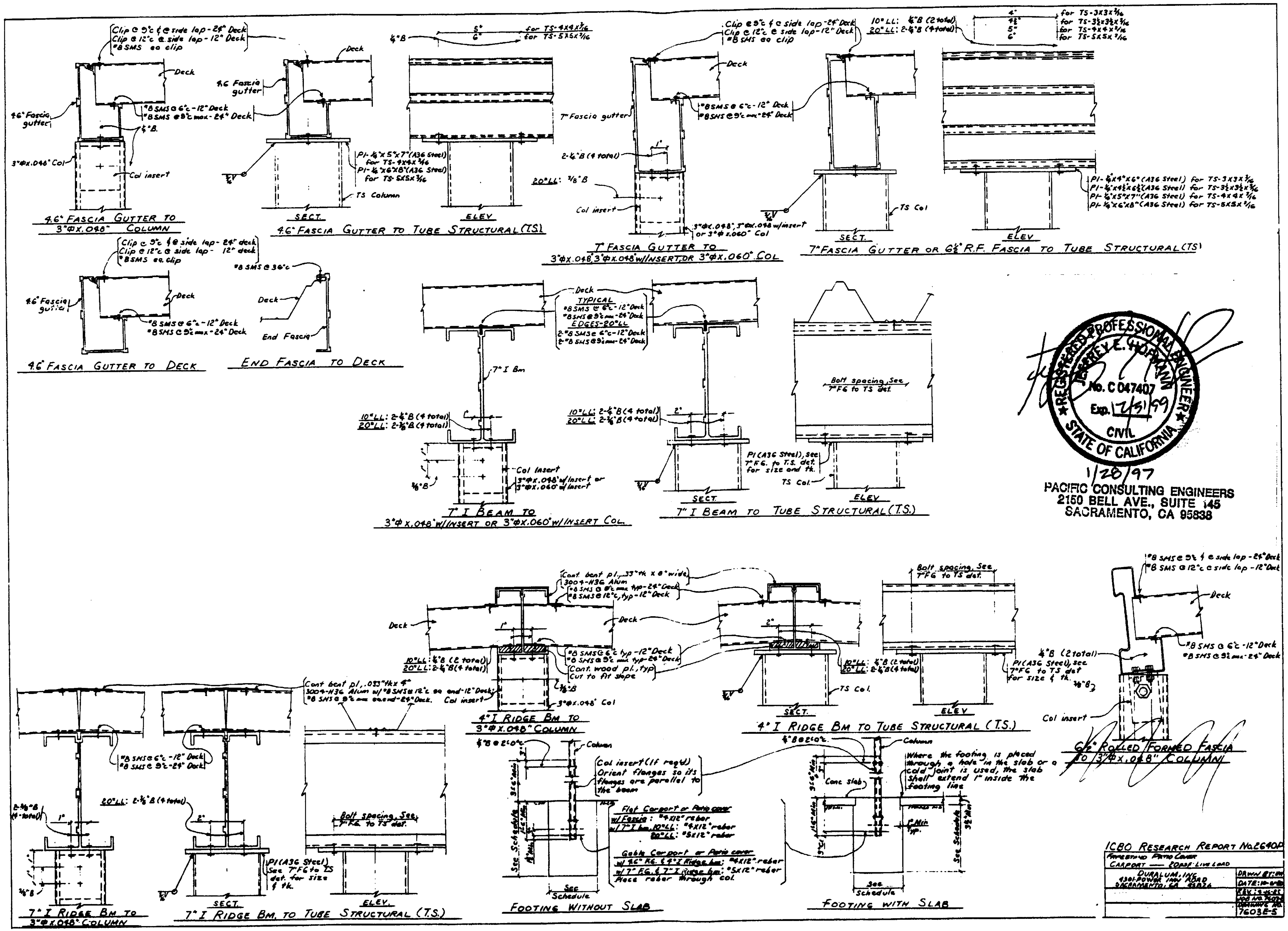
STATE OF CALIFORNIA

1/28/97

PACIFIC CONSULTING ENGINEERS
2150 BELL AVE., SUITE 145
SACRAMENTO, CA 95838

ICBO RESEARCH REPORT No 2640P
Attached Patio Cover - Enclosed - 10 Psf Live Load
Attached Roof Structure - Enclosed - 20 psf L.L.
DURALUM, INC
8301 POWER INN ROAD
SACRAMENTO, CALIF. 95826
11-14-80
REV 4-16-85
7603E-3



4.6" FASCIA GUTTER TO 3"ΦX.048" COLUMN
4.6" FASCIA GUTTER TO TUBE STRUCTURAL (TS)
7" FASCIA GUTTER TO 3"ΦX.048, 3"ΦX.048 W/INSERT, OR 3"ΦX.060" COL
7" FASCIA GUTTER OR 6½" R.F. FASCIA TO TUBE STRUCTURAL (TS)
4.6" FASCIA GUTTER TO DECK
END FASCIA TO DECK
7" I BEAM TO 3"ΦX.048" W/INSERT OR 3"ΦX.060" W/INSERT COL.
7" I BEAM TO TUBE STRUCTURAL (T.S.)
4" I RIDGE BM TO 3"ΦX.048" COLUMN
4" I RIDGE BM TO TUBE STRUCTURAL (T.S.)
6½" ROLLED FORMED FASCIA TO 3"ΦX.048" COLUMN
7" I RIDGE BM TO 3"ΦX.048" COLUMN
7" I RIDGE BM. TO TUBE STRUCTURAL (T.S.)
FOOTING WITHOUT SLAB
FOOTING WITH SLAB
SECT.
ELEV.
Deck
Col insert
TS Column
TS Col
Column
Conc slab
Bolt spacing, See 7"FG to TS det.
Where the footing is placed through a hole in the slab or a cold joint is used, the slab shall extend 1" inside the footing line
Col insert (if req'd) Orient flanges so its flanges are parallel to the beam
Flat Carport or Patio cover w/Fascia: #4x12" rebar w/7" I bm. 10" LL: #4x12" rebar 20" LL: #5x12" rebar
Gable Carport or Patio cover w/4" RG. & 4" I Ridge bm: #4x12" rebar w/7" FG. & 7" I ridge bm: #5x12" rebar Place rebar through col.
PACIFIC CONSULTING ENGINEERS
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SACRAMENTO, CA 95838
1/28/97
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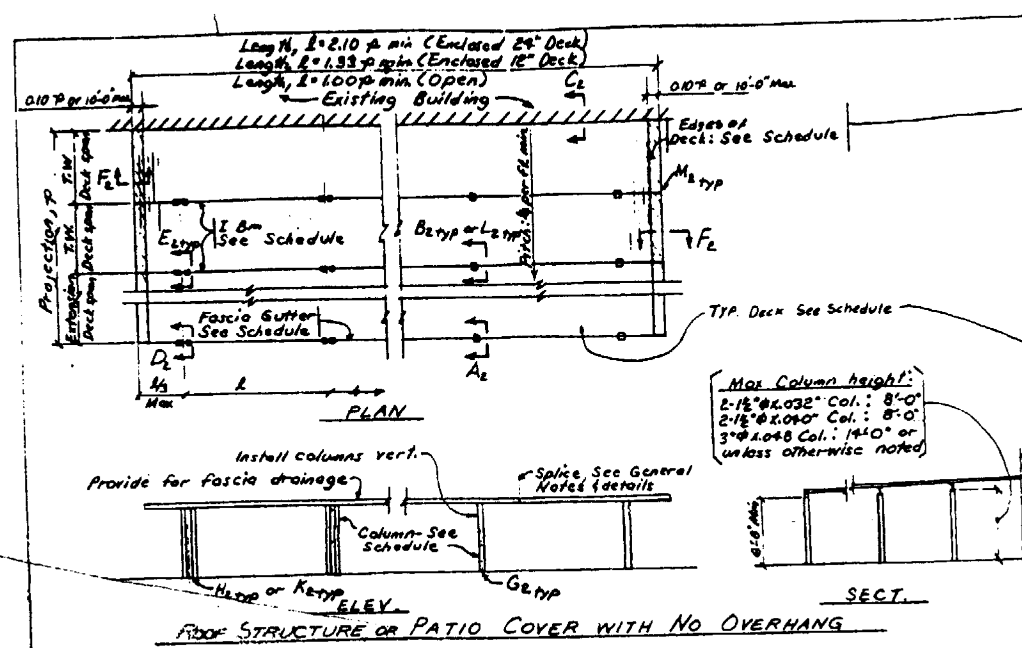
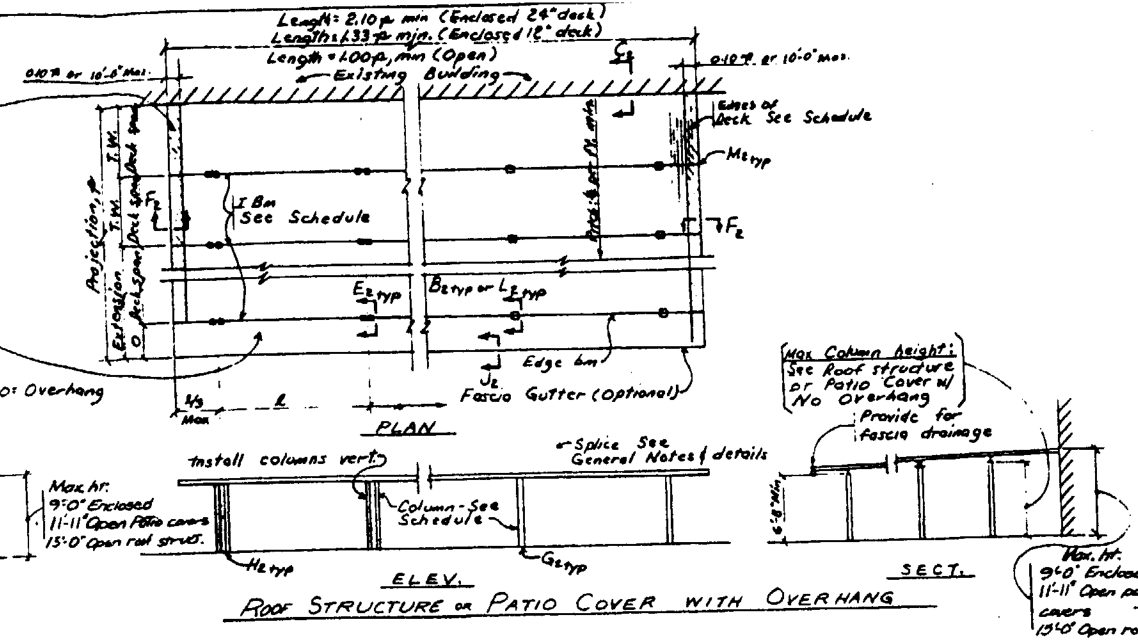
No. C 047407
Exp. 12/31/99
CIVIL
STATE OF CALIFORNIA
ICBO RESEARCH REPORT No. 2640P
CARPORT — 20PSF LIVE LOAD
DURALUM, INC.
7603E-5





Extension Table for Beams

Extension from wall or next beam	Tributary width (for single beam attached units or edge beam of multiple spans) — O, Deck Overhang 0'-0"	1'-0"	2'-0"	3'-0"	4'-0"	5'-0"
	Tributary width to be used in Schedule					
4'-0"	2'-0"	3'-0"	—	—	—	—
5'-0"	2'-6"	3'-6"	—	—	—	—
6'-0"	3'-0"	4'-0"	4'-6"	—	—	—
7'-0"	3'-6"	4'-0"	5'-0"	—	—	—
8'-0"	4'-0"	4'-6"	5'-6"	—	—	—
9'-0"	4'-6"	5'-0"	6'-0"	7'-0"	—	—
10'-0"	5'-0"	5'-6"	6'-6"	7'-6"	—	—
11'-0"	5'-6"	6'-0"	7'-0"	7'-6"	—	—
12'-0"	6'-0"	6'-6"	7'-6"	8'-0"	9'-0"	—
13'-0"	6'-6"	7'-0"	8'-0"	8'-6"	9'-6"	—
14'-0"	7'-0"	7'-6"	8'-6"	9'-0"	10'-0"	—
15'-0"	7'-6"	8'-0"	9'-0"	9'-6"	10'-6"	—
16'-0"	8'-0"	8'-6"	9'-6"	10'-0"	11'-0"	12'-0"
17'-0"	8'-6"	9'-0"	10'-0"	10'-6"	11'-6"	12'-0"
18'-0"	—	9'-6"	10'-6"	11'-0"	11'-6"	12'-6"
19'-0"	—	—	11'-0"	11'-6"	12'-0"	13'-0"
20'-0"	—	—	—	12'-0"	12'-6"	13'-6"
21'-0"	—	—	—	—	13'-0"	14'-0"
22'-0"	—	—	—	—	—	14'-6"

Schedule

10 PSF Live Load, 11.5 PSF Uplift, 11.5 PSF Wind Load
Size of cylindrical footing, diameter = height

Tributary Width T.W.	4.6" Fascia Gutter, 2-1½"φ x.032" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	2-1½"φ x.040" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	6½" RF Fascia, 3"φ x.048" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	4" I Beam, 2-1½"φ x.032" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	4" I Beam, 2-1½"φ x.040" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	4" I Beam, 3"φ x.048" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	7" I Beam, 3" ~~x.048~~ Col.: ~~Col Spcg~~	Ftg No Slab	Ftg With Slab
3'-0"	15'-11	20"	[illegible]	15'-11	20"	[illegible]	17'-2	20"	[illegible]	18'-4"	21"	12"	18'-4"	21"	[illegible]	18'-4"	21"	[illegible]	35'-2"	26"	21"
3'-6"	14'-5	20"		14'-9	20"		15'-11	21"		17'-5"	22"	12"	17'-5"	22"		17'-5"	22"		33'-5"	27"	22"
4'-0"	13'-10	21"		13'-10	21"		14'-10	21		16'-8"	22"	14"	16'-8"	22"	14"	16'-8"	23	15"	32'-0"	28"	23"
4'-6"	13'-0	2."		13'-0	22"		14'-0	22"	13"	15'-2"	22"	14"	16'-0"	23"	15"	16'-0"	23"	15"	30'-9"	28"	24"
5'-0"	12'-4	22"		12'-4	22"		13'-4	22"	14"	13'-7"	22"	14"	15'-5"	23"	16"	15'-5"	23"	16"	29'-8"	29"	25"
5'-6"	11'-9	22"	13"	11'-9	22"	13"	12'-7	22"	14"	12'-4	22"	14"	14'-10"	24"	17"	15'-0"	24"	17"	28'-9"	29"	26"
6'-0"	11'-3	22"	14"	11'-3	22"	14"	12'-2	23"	15	11'-4"	22"	14"	13'-10"	24"	17"	14'-6"	24"	18"	27'-11"	30"	27"
6'-6"	10'-5	22"	14"	10'-10	22"	14"	11'-8	23"	16"	10'-5"	22"	14"	12'-5	24"	17"	14'-2"	25"	19"	27'-2"	31"	27"
7'-0"	9'-9	22"	14"	10'-5	22"	14"	11'-3	23"	17"	9'-9"	22"	14"	11'-10"	24"	17"	13'-9"	25"	20"	26'-6"	31"	28"
7'-6"	9'-1	22"	14"	10'-1	22"	14"	10'-10	24"	17"	9'-1"	22"	14"	11'-0"	24"	17"	13'-6"	25"	20"	25'-11"	32"	29"
8'-0"	8'-6	22"	14"	9'-9	22"	14"	10'-6	24"	18"	8'-6"	22"	14"	10'-4"	24"	17"	13'-2"	26"	21"	25'-5"	32"	29"
8'-6"	8'-1	22"	14"	9'-5	22"	14"	10'-2	24"	18"	8'-0"	22"	14"	9'-9"	24"	17"	12'-11"	26"	21"	[illegible]	32"	30"
9'-0"	—	—	—	—	—	—	9'-11	24"	18"	7'-7"	22"	14"	9'-2"	24"	17"	12'-8"	26"	22"	24'-5"	33"	30"
9'-6"	—	—	—	—	—	—	9'-8	25"	19"	7'-2"	22"	14"	8'-9"	24"	17"	12'-5"	27"	22"	24'-0"	33"	31"
10'-0"	—	—	—	—	—	—	9'-5	25"	19"	6'-10"	22"	14"	8'-5"	24"	17"	12'-3"	27"	23"	23'-7"	34"	31"
10'-6"	—	—	—	—	—	—	9'-2	25"	20"	6'-6"	22"	14"	7'-11"	24"	17"	12'-0"	27"	25"	23'-2"	34"	31"
11'-0"	—	—	—	—	—	—	9'-0	25"	20"	6'-2"	22"	14"	7'-6"	24"	17"	11'-10"	28"	24"	22'-10"	34"	32"
11'-6"	—	—	—	—	—	—	8'-9	25"	20"	5'-11"	22"	14"	7'-2"	24"	17"	11'-8"	28"	24"	22'-6"	35"	32"
12'-0"	—	—	—	—	—	—	8'-7	26"	20"	5'-8"	22"	14"	6'-11"	24"	17"	11'-6"	28"	24"	22'-2"	35"	33"
12'-6"	—	—	—	—	—	—	8'-5	26"	21"	5'-5"	22"	14"	6'-7"	24"	17"	11'-4"	28"	25"	21'-10"	35"	33"
13'-0"	—	—	—	—	—	—	8'-3	26"	21"	5'-3"	22"	14"	6'-4"	24"	17"	11'-3"	29"	25"	21'-7"	36"	33"
13'-6"	—	—	—	—	—	—	8'-4	26"	21"	5'-0"	22"	14"	6'-1"	24"	17"	11'-1"	29"	25"	21'-4"	36"	34"
14'-0"	—	—	—	—	—	—	7'-11	26"	21"	4'-10"	22"	14"	5'-11"	24"	17"	11'-0"	29"	26"	21'-1"	36"	34"
14'-6"	—	—	—	—	—	—	7'-8	26"	21"	4'-8"	22"	14"	5'-8"	24"	17"	10'-10"	29"	26"	20'-10"	36"	34"

20 PSF Live Load, Wind Speed = 75 MPH, Exp. B
Size of cylindrical footing, diameter = height

Tributary Width T.W.	4.6 Fascia, 2-1½"φ x.040" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	6½" Fascia, 3"φ x.048 Col.: Col Spcg	Ftg No Slab	Ftg With Slab	7" Fascia, 3"φ x.048" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	4" I Beam, 3"φ x.048" Col.: Col Spcg	Ftg No Slab	Ftg With Slab	7" I Beam, 3"φ x.048" Col.: Col Spcg	Ftg No Slab	Ftg With Slab
3'-0"	11'-6	21"	12"	12'-5	21"	12"	22'-10	27"	22"	14'-9"	23"	16"	28'-3"	29"	25"
3'-6"	10'-8	22"	13"	11'-6	22"	13"	21'-8	28"	23"	14'-0"	24"	18"	26'-11"	30"	26"
4'-0"	10'-0	22"	14	10'-9	22"	15"	20'-2	28"	24"	13'-5"	25"	19"	25'-9"	30"	27"
4'-6"	9'-5	23"	15"	10'-2	23"	16"	19'-8	29"	25"	12'-11"	25"	20"	24'-9"	31"	28"
5'-0"	8'-8	23"	16"	9'-7	23	17"	18'-0	29"	25	12'-5"	26"	21"	23'-11"	32"	29"
5'-6"	7'-11	23"	16"	9'-2	23	17"	17'-2	30"	26"	12'-0"	26"	22"	23'-2"	33"	30"
6'-0"	7'-3"	23"	16"	8'-7	24	18	16'-5	30"	27"	11'-8"	27"	22"	22'-6"	33"	31"
6'-6"	6'-8	23"	16"	8'-5	24	19"	15'-10	30"	27"	11'-5"	27"	23"	21'-11"	34"	31"
7'-0"	—	—	—	8'-2	24	19"	15'-3	31"	28"	11'-1"	28"	24"	21'-5"	34"	32"
7'-6"	—	—	—	—	—	—	—	—	—	10'-10"	28"	24"	20'-11"	35"	33"
8'-0"	—	—	—	—	—	—	—	—	—	10'-8"	29"	25"	20'-5"	35"	33"
8'-6"	—	—	—	—	—	—	—	—	—	10'-5"	29"	25"	20'-0"	36"	34"
9'-0"	—	—	—	—	—	—	—	—	—	10'-3"	29"	26"	19'-8"	36"	34"
9'-6"	—	—	—	—	—	—	—	—	—	10'-0"	30"	26"	19'-4"	36"	35"
10'-0"	—	—	—	—	—	—	—	—	—	9'-10"	30"	27"	19'-0"	37"	35"
10'-6"	—	—	—	—	—	—	—	—	—	9'-8"	30"	27"	18'-8"	38"	36"

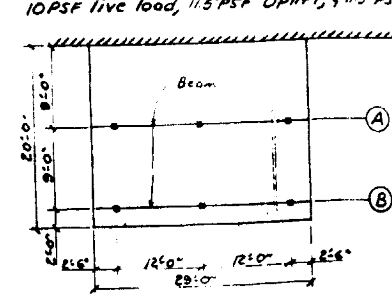
Max Deck Span & Overhang Table

12" Deck TK.	10 PSF Live Load: Typ Deck Span	Typ. Overhang	20 PSF Live Load w/respect to 7" PG. I or Alcan Bm: Typ Deck Span	Typ. Overhang	4.6" Fascia Gutter: Typ Deck Span	Typ. Overhang	Edges: Typ Deck Span	Typ. Overhang
.019"	14'-3"	4'-5"	11'-0"	3'-6"	8'-5"	3'-6"	8'-2"	3'-6"
.025"	15'-8"	4'-10"	12'-11"	3'-10"	10'-11"	3'-10"	10'-3"	3'-10"
.032"	16'-11"	5'-3"	14'-11"	4'-2"	12'-5"	4'-2"	12'-7"	4'-2"
[illegible]								
.019"	12'-6"	3'-10"	9'-6" *	3'-1"	8'-5" *	3'-1"	8'-2" *	3'-1"
.025"	13'-6"	4'-3"	10'-8"	3'-4"	10'-8"	3'-4"	9'-9"	3'-4"
.032"	14'-10"	4'-7"	11'-10"	3'-8"	11'-10"	3'-8"	11'-4"	3'-8"

* For 2 spans: ℓ = 7'-2"
For 3 or more spans: ℓ = 8'-3"

Use of Tables

Example: A client wishes to have a open-sided patio cover attached to his house. He wants a 20'-0" proj. to include 2-9'-0" bays and a 2'-0" deck overhang and a length of 29'-0" to include 3 columns spaced at 12'-0" apart and a beam overhang of 2'-6" at ea. end per bay. Design loads are: 10 PSF live load, 11.5 PSF Uplift, & 11.5 PSF wind load.



Solution:
1. Check length of attachment (29'-0") is equal or greater than the projection (ℓ = 1.00 p min; 29' ≥ 1.00 x 20'; 29' ≥ 20' min, OK). Check beam overhang is less than ⅓ beam span (2.5' < ⅓ x 12', 2.5 < 4.0', OK)
2. Deck design: For a 10 PSF live load, .019 12" Deck: Max allow. deck span = 14'-3" is greater than 9'-0" and max. allow overhang = 4'-5" is greater than 2'-0" OK.
3. Beam, column, & Ftg. Line Ⓐ: TW = 9'-0". From Schedule, for a 10 PSF LL, 4" I bm, 3"φ x.048" Col: col. spacing = 12'-8" which is greater than 12'-0", OK. Footing size is either a 26"φ x 26" deep isolated ftg, or if there a 3½" or thicker slab a 22"φ x 22" deep ftg.
4. Beam, column, & Ftg. Line Ⓑ: Extension is 9'+2' = 11'. From Extension Table for Beams, for a 11'-0" extension, 2'-0" overhang: TW = 7'-0". From Schedule, for a 10 PSF LL, 4" I beam, 3" x.048" col.: col spacing = 13'-9" which is greater than 12'-0", OK. Footing size is either a 25"φ x 25" deep isolated ftg or if there is a 3½" or thicker slab a 20"φ x 20" deep ftg.

Notes

1. Structure has been designed for the following loads:
Patio Cover: Live load = 10 PSF; Uplift wind = 11.5 psf; Horiz. wind = 11.5 PSF
Roof Structure: Live load = 20 PSF; Wind speed = 75 mph, Exposure B
2. See Drawing No 7603E-2 for dets
3. See Drawing No. 7603E-6 for parts
4. Patio covers (live load = 10 PSF) & roof structures (live load = 20 PSF) shall be erected only in areas which are not subject to snow load

REGISTERED PROFESSIONAL ENGINEER
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1/28/97

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ICBO RESEARCH REPORT No. 2640P

PATIO COVER - ATTACHED: 10 PSF LIVE LOAD ROOF STRUCTURES - ATTACHED: 20 PSF LIVE LOAD	
DURALUM, INC. 4301 POWER INN ROAD SACRAMENTO CA 95826	DRAWN BY: [illegible] DATE: 10-6-80 REV: [illegible] JOB NO.: 7603E DRAWING NO. 7603E-1