CITY OF SACRAMENTO

Permit No: 9804681

1231 I Street, Sacramento, CA 95814

Insp Area: 3

Site Address: 8490 ROVANA CR SAC
Parcel No: 0640010071

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

CONTRACTOR

OWNER
MARVIN L OATES

ARCHITECT

Nature of Work: FOUNDATION AND UNDERGROUND FOR NEW WAREHOUSE

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 707621 Date 6-4-98 Contractor Signature Bill Schmoll

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 6-4-98 Applicant/Agent Signature Bill Schmoll

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 California Indemnity Ins. Policy Number N5048119C

_____ (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 6-4-98 Applicant Signature Bill Schmoll

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.

CITY OF SACRAMENTO
APPLICATION FOR BUILDING PERMIT 9804681

DEVELOPMENT SERVICES DIVISION
PERMIT SERVICES DIVISION
1231 I Street, Rm. 200
Sacramento, CA 95814 (916) 264-7619 FAX 264-7046

→ *Applicant must complete ALL Unshaded areas* ←

PC # 5763 AREA # 3

ADDRESS 8490 Rovana Circle Suite
PARCEL # 238-0050-007

CONTACT	LICENCED CONTRACTOR Lic No. # 702621
Name Bill Schmalzel	Name Buzz Oates Enterprises
Address 8615 Elder Creek Rd	Address 8615 Elder Creek Rd
SAC CA Zip 95828	SAC CA Zip 95828
Phone 381-3600 FAX 381-4707	Phone 381-3600 FAX 381-4707
ARCHITECT/ENGINEER	**OWNER/TENANT**
Name Leo McGlade & Associates	Name T.M. Cobb
Address 3417 Arden Way # A	Address 2100 E. 4th ST
SAC CA Zip 95825	Santa Ana CA Zip 92705
Phone 488-8380 FAX 488-2062	Phone 714-542-2970 FAX 714-542-1066

→ Will the permittee have any employees on the jobsite? ☒ Yes ☐ No

→ If yes, WORKER'S COMPENSATION POLICY # N504 8119 C EXPIRATION DATE: 3-99

NAME OF INSURANCE COMPANY: California Indemnity Ins.

NATURE OF WORK IN DETAIL: Foundation and Underground Permit ~~on plan~~ ✓ # 5763

RECEIVED
JUN 03 1998
Building Inspection Division

DBA: VALUATION: (SEE DAVE BROCK)

FLOOD STATUS: S.C.A.T. X-1

JOB DESCRIPTION	BLDG	SHEL	APT	TI( )	REM( )	SW	FIRE	ADD	OTH
INSP. DISCIPLINES		BLDG	MECH	PLUMB	ELEC		SITE		FIRE

# Stories	1st flr Area.	Total Area	Use Zone	Occp Group	Const type	Fire Req. Y/N Spr	Fire Req. Y/N Alarm	Fed Code	Vio. File

B	L	P	M	E	F	S	D	R

COMMENTS:

REGIONAL SANITATION FEES? ☐ Yes ☐ No HEALTH DEPARTMENT? ☐ Yes ☐ No

BLDGFRM (REV 05/98)

COUNTY SANITATION DISTRICT NO. 1
SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT

SEWER IMPACT FEE

6-4-98

PERMIT AND CALCULATION SHEET

APPLICATION NO:

BLDG PERMIT NO: CITY

GENERAL INFORMATION

THIS PERMIT GOOD ONLY WHEN VALIDATED BY THE CASHIER

243305 JUN 4'98

DEPT OF SEWER/WATER

TR#

THIS PERMIT TO CONNECT EXPIRES ONE YEAR FROM DATE OF ISSUANCE

FEE CALCULATION		BUILDING USE	
INSPECTION		RESIDENTIAL SF ☐ MF ☐	
CSD-1		COMMERCIAL USE	UNITS
SRCSD	111,007		
CONSTRUCTION			
IN-LIEU			
TOTAL FEE	**111,007**		

APN: 064-0010-123,124,125

DESCRIPTION/ SUBDIVISION

LOT:

PROPERTY ADDRESS 8490 Rovana Cir

OWNER Butz Oates Enterprises

MAILING ADDRESS 8615 Elder Creek Rd.

CITY-STATE-ZIP SAC CA 95828 TELEPHONE 916 381-3600

ADDITIONAL FEES MAY BE DUE IF CHANGES IN USE INCREASE SEWER IMPACT.

APPLICANT SIGNATURE

CONSOLIDATED UTILITY BILLING USE ONLY

ACCT _____ INPUT _____ START _____

June 3, 1998
RECEIVING FAX : 371-9202
SENDING FAX : 875-6253

TO: **DAVE BROCK**
CITY OF SACRAMENTO

FROM: **DOLORES ROSS** PHONE NUMBER: 875-6679
SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT

RE: **SEWER FACILITY IMPACT FEES**
APN: **064-0010-123, 124, 125**
8490 ROVANA CIRCLE **Plan Check # 5763**

The Sewer Facility Impact Fees due for a 155,952 sq. ft. warehouse on the above three parcels which total 8.64 net acres are as follows:

Inspection (City of Sacramento)	$0
CSD-1 Fee (not in District)	$0
SRCSD Fee	$111,007
	$111,007

Dolores

cc: Bill Schmalzel
Buzz Oates Enterprises

This fee is due and payable at 827 Seventh Street, Room 105.
This fee is also subject to adjustment if the data supplied is changed.

e-mail: rossd@pwa.co.sacramento.ca.us

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

FEE SUMMARY
FOR PERMIT #9804681
as of 06/04/1998 Permit Status: APPLIED

Site Address: 8490 ROVANA CR SAC
Parcel No: 0640010071

CONTRACTOR	***OWNER***	***ARCHITECT***
	MARVIN L OATES	
Phone:	Phone:	Phone:

Nature of Work: FOUNDATION AND UNDERGROUND FOR NEW WAREHOUSE

Permit Valuation: $534,490.00
Square Footage: 0

Building Permit.....:	$4,007.88	Water Development Fee:	$32,293.12
Plan Review/Processing:	$4,164.46	Sewer Development Fee:	$0.00
Strong Motion Fee.....:	$75.36	Regional Sanitation Fee:	$0.00
Coach Recording Fee..:	$0.00	Bell Avenue Sewer.....:	$0.00
Manuf Housing Fee.....:	$0.00	Granite Park Fee.....:	$0.00
Auth to Start Work.....:	$0.00	Pocket Area Bridge.....:	$0.00
Penalty Fee.....:	$0.00	Pocket Area Road.....:	$0.00
Inspections.....:	$0.00	Quimby Park Fee.....:	$0.00
Cert of Occupancy.....:	$0.00	Housing Trust Fund.....:	$0.00
Replace Cards/Plans....:	$0.00	Natomas Dev Fees.....:	$0.00
Hsg Process/Surcharge:	$0.00	FBA-South Natomas....:	$0.00
Technology Fee.....:	$326.89	FBA-Jacinto Creek.....:	$0.00
City Bus Oper Tax.....:	$213.80	Amount Deferred.....:	$0.00
Const Excise Tax.....:	$2,870.72	Refund.....:	$0.00
Res Const Tax.....:	$0.00		
Processing Fees.....:	$17.00		
Review Fees.....:	$1,200.00	Subtotal.....:	$45,169.23
		Additional Fees.....:	$57.56
		TOTAL FEES.....:	**$45,226.79**
		Payments.....:	$45,226.79
		BALANCE DUE.....:	**$0.00**

Teichert Precast
8775 Jackson Road
Sacramento, CA 95826
916-386-6964
916-386-8128 Fax

Teichert Precast

Fax

To:	Bill S., Buzz Oates Enterprises	**From:**	Neal Hay
Fax:	381-4707	**Total Pages:**	22
Phone:	381-3600	**Date:**	7/02/98
Re:	2500 Gallon Interceptor Info.	**CC:**	

Urgent | **For Review** | Please Comment | Please Reply

Bill, attached is the information on our 2500 Gallon Interceptor.

PERMIT #97-15815

8490 Rovana Cir

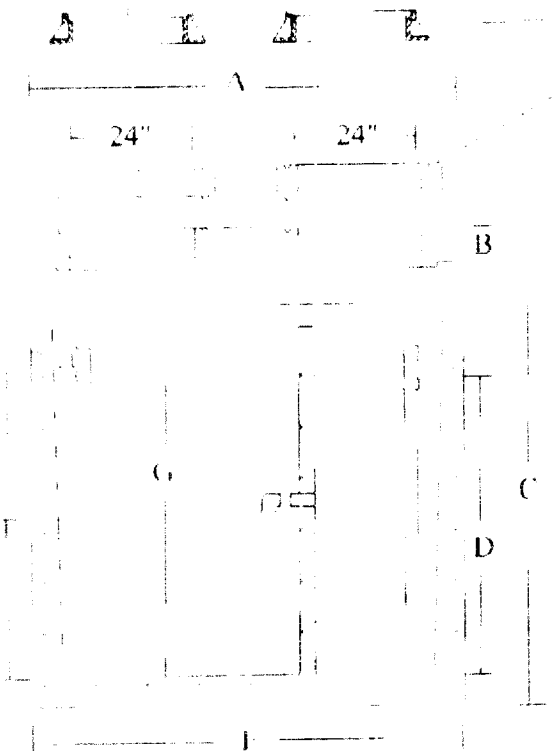
ISSUED

Sacramento
(916) 386-6964

TEICHERT PRECAST

Stockton
(209) 946-8585

Standard Interceptors

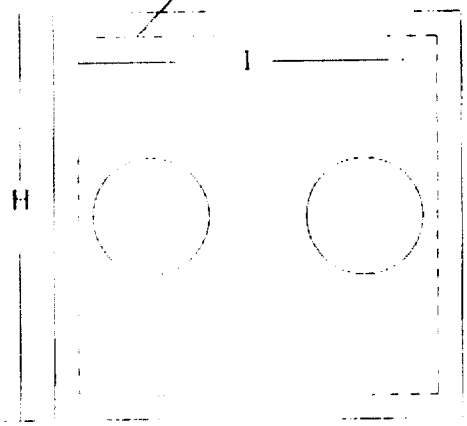


Typical Section

Cast Iron Marked "Interceptor"

Grade Rings Available in Heights of 2", 3", 6", 12" and 24"

Dotted Line Denotes Inside Diameter of Box.



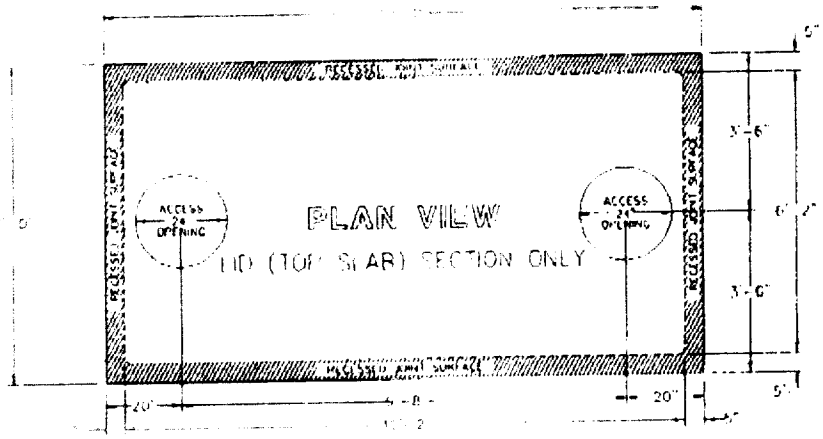
Top View

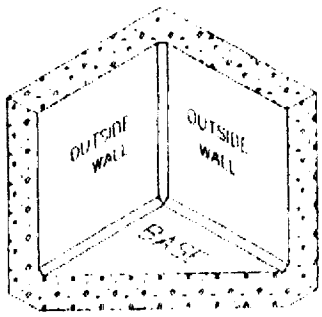
Notes

1. Wall thickness shall be a minimum of 6" at the base tapering to 4" at the top.
2. Available with absorbent pillows, coalescing plate separators and other related accessories.
3. All interceptors conform to H-20 load requirements.
4. Custom applications available.
5. All interceptors shall be poured using a minimum of 4000 psi. concrete.
6. For more detailed information, contact Teichert Precast.
7. Plumbing not included as standard item.
8. Units to be placed on level, compacted surface.

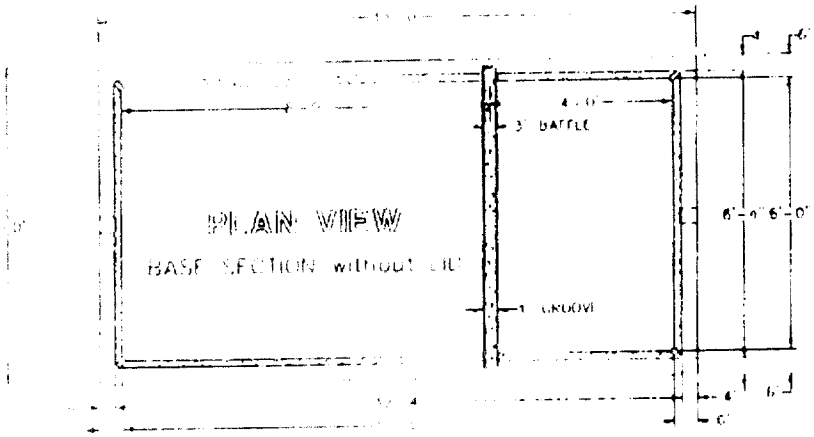
Sizes

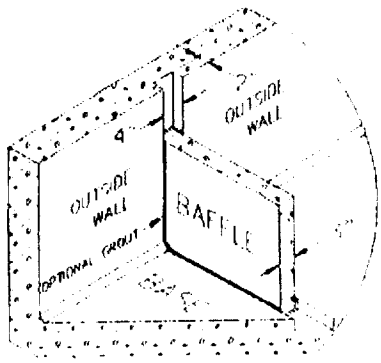
Interceptor Sizes	1,000 Gallon	1,500 Gallon	2,500 Gallon
A	7'-0"	9'-0"	13'-0"
B	7"	7"	8"
C	6'-6"	6'-6"	6'-6"
D	4'-10"	4'-10"	4'-10"
E	7'-0"	9'-0"	13'-0"
F	5'-0"	5'-0"	5'-0"
G	6'-0"	6'-0"	6'-0"
H	7'-0"	7'-0"	7'-0"
I	6'-4"	8'-4"	12'-4"



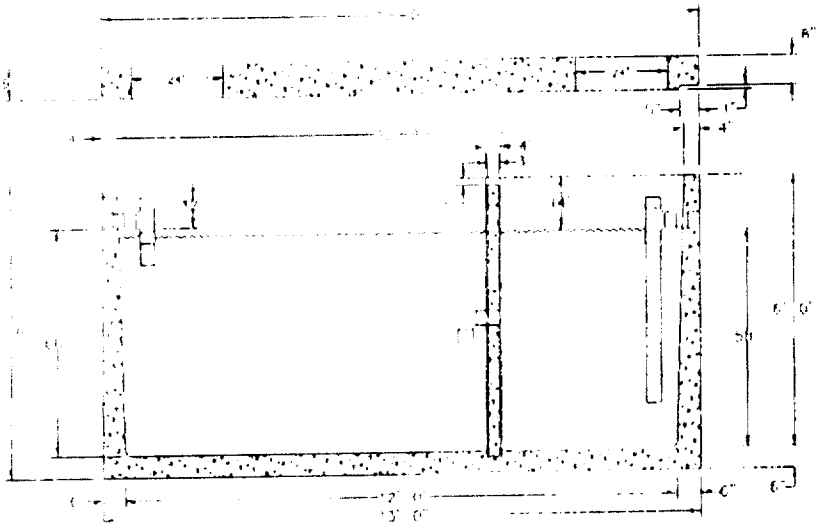


TYPICAL
INSIDE CORNER





TYPICAL
BAFFLE DETAIL



ELEVATION SECTION

SHOWING INTERIOR PIPING

LID (TOP SLAB)	19,890 LBS
BASE and WALLS	10,240 LBS
BAFFLE	2,775 LBS
TOTAL WEIGHT	32,905 LBS

SEE DRAWING [illegible] FOR REINFORCEMENT DETAILS

SCALE

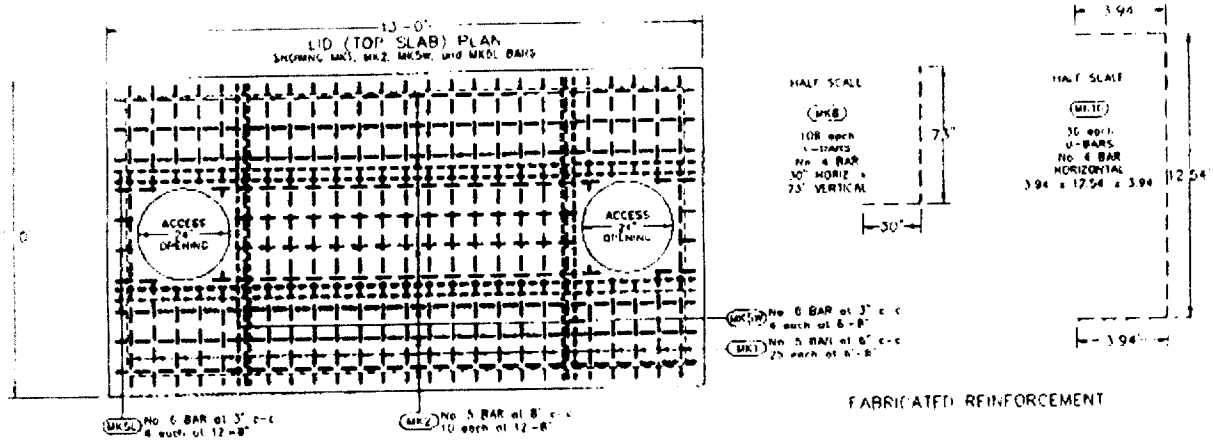
Modular Precast Concrete Units to be installed on a subgrade of sufficient compaction and density to preclude settlement of the completed structure

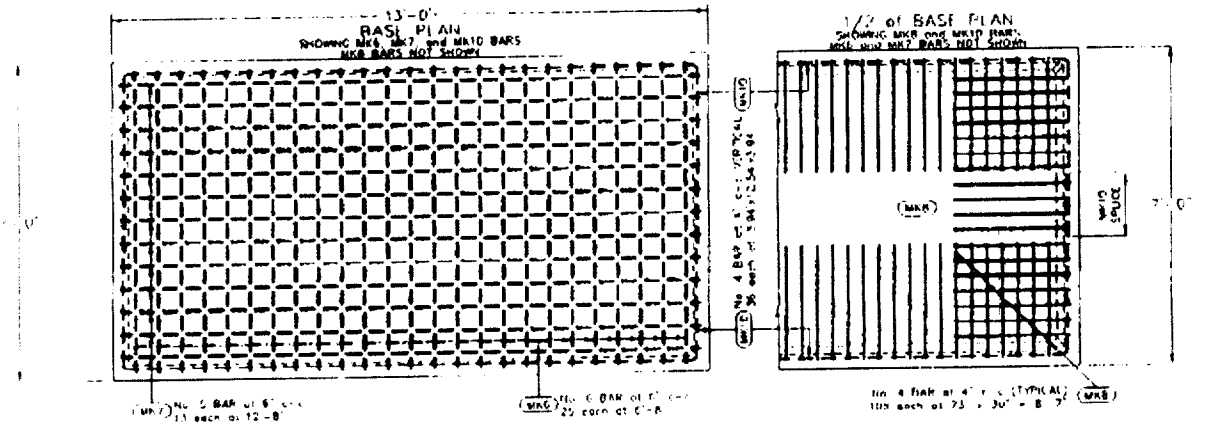
TRICHERT PRECAST

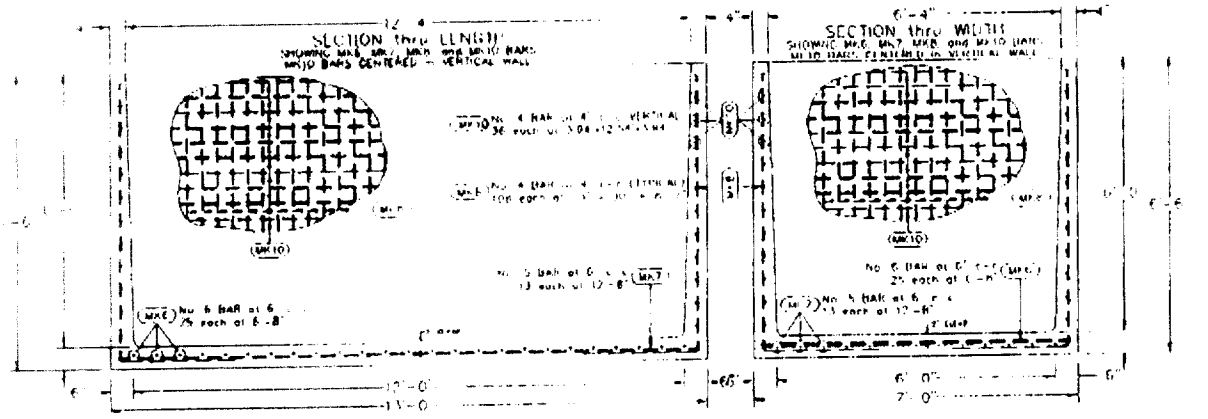
POST OFFICE BOX 15002 SACRAMENTO CALIFORNIA 95851
PHONE (916) 386-0904 F A X (916) 386 8128

2500 GALLON GREASE and OIL or SAND INTERCEPTOR

SCALE	NUMBER	DRAWING
1/4" = 1'-0"	1 of 2	TP-1/2906







SCALE

Modular Precast Concrete units to be installed on a subgrade of sufficient compaction and density to preclude settlement of the completed structure.

CONCRETE f'c = 5,000 p.s.i. (28 Day)
REINFORCEMENT fy = 60,000 p.s.i. (GRADE 60)
DESIGNED for H 20 LOADING (including IMPACT)
DESIGNED for 0' to 6' of COVER over TOP of LID
DESIGNED for HEIGHT plus COVER to bottom of BASE
DESIGNED using ULTIMATE STRENGTH DESIGN METHODS

SOIL DENSITY = 100 LBS per CUBIC FOOT (PCF)
EQUIVALENT SOIL FLUID PRESSURE = 45 LBS per CUBIC FOOT
DESIGN predicated on most stringent design criteria and/or practical engineering science
APPLICABLE CODES governing design
AASHTO ACI ASTM PCI
SPECIAL ACCOMODATIONS or DESIGNS are AVAILABLE

REFER to DRAWING 1 of 2 for GEOMETRIC and DIMENSIONAL DATA

TECHERT PRECAST

POST OFFICE BOX 15002
SACRAMENTO, CALIFORNIA 95851
PHONE (916) 386-6964 F A X (916) 386-8128

2500 GALLON GREASE and OIL or SAND INTERCEPTOR

SCALE	NUMBER	DRAWING
1/4" = 1'-0"	2 of 2	TH-12ROL

ENGINEERING and CONSTRUCTION SERVICES

Post Office Box 14245
Lenexa, Kansas 66285-0245

PHONE: (913) 888-9616
FAX: (913) 888-9616

ANALYSIS AND DESIGN OF UNDERGROUND PRECAST CONCRETE STRUCTURES USING ULTIMATE STRENGTH DESIGN METHODS

VAULT:	TEICHERT PRECAST INTERCEPTORS
SIZE:	12' x 06' x 06'

PRODUCTS INCLUDED:	ID#	COMMENTS
LID	TOP	DEPTH of COVER
		6 FEET
		OVER TOP OF STRUCTURE
BOTTOM SECTION	LOWER	
BASE OF A BOTTOM SECTION	BASE	

APPLICABLE CODES:

[1]-AASHTO STANDARD SPECIFICATIONS for HIGHWAY BRIDGES 14TH EDITION

[2]-BUILDING CODE REQUIREMENTS for REINFORCED CONCRETE ACI 318-89 & ACI 318R-89

[3]-ASTM STANDARD PRACTICE for MINIMUM STRUCTURAL DESIGN LOADING for UNDERGROUND PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES C890-78(Reapproved 1985)

[4]-PCA: DESIGN CRITERIA FOR AIRCRAFT LOADING (for wheel loading only) SHEET MS 026.02P

NOTE Code selection is predicated on most stringent design criteria and/or practical engineering science.

01-Aug-94
11:19.31 AM

ANALYSIS & DESIGN OF UNDERGROUND-PRECAST STRUCTURES *VERSION 2.3*

BASIC DESIGN PARAMETERS AND INPUT DATA
CODE REFERENCES ARE MADE WHEN APPLICABLE/OTHERWISE BASIC ENGINEERING APPLIES

Input	INPUT TYPE OF STRUCTURE "U" for Utility, "W" for Water Related			U
Input	VAULT:	TEICHERT PRECAST INTERCEPTORS	SIZE:	12' x 06' x 06'

PLACMENT OF REBAR INCHES OF COVER FROM TENSION SURFACE

	MACROS Shear&Moment	COMPONENT CHECKLIST:	PRODUCT ID	MARK WITH "X"	THICKNESS OR INSIDE HEIGHT		INCHES	
Input	A & B	LID	TOP	X	9.00	IN	2.00	Y
Input	C & D	TOP SECTION			0.00	FT	0.00	N
Input	E & F	RISER			0.00	FT	0.00	N
Input	G & H	BOTTOM SECTION	LOWER	X	6.00	FT	0.00	Y
Input	I & J	BASE OF A BOTTOM SECTION	BASE	X	6.00	IN	2.00	Y
Input		WALL THICKNESS			4.00	IN		
Input		INSIDE VAULT WIDTH(SHORT)			6.33	FT		
Input		INSIDE VAULT WIDTH(LONG)			12.33	FT		
Input	R	REBAR SCHEDULE (PRINTOUT OPTION)						Y

	DATA COMMON TO ALL COMPONENTS:	VALUE	UNITS	NOTES	
Input	fy	60,000	PSI	GRADE 60	
Input	f'c	5,000	PSI	@ 28 DAYS	
Input	DEPTH OF FILL	6.00	FEET	ON LID	USE 2' FOR HS20 LOAD.
Input	SURCHARGE HEIGHT(USE 2' WITH WHEEL LOADIN	2.00	FEET	ABOVE FIL	AASHTO 3.20.3
Input	SOIL DENSITY(120 MINIMUM)	130	PCF	DRY WT	> or = AASHTO 6.2.1
Input	EQUIVALENT SOIL FLUID PRESSURE(30 MINIMUM)	45	PCF	ON WALLS	> or = AASHTO 6.2.1
Input	WHEEL LOADING: "YES" or "NO"	WHEELOAD	YES	SPACING	AIR=2.833' ,H20=6'
Input	HS20 LOAD *DISTRIBUTED THRU SOIL*	16	KIPS@FT=	6.00	AASHTO 3.7

LOAD FACTORS:GROUP X LOADING:gamma=1.3			LF	NOTES	
LIVE LOAD FACTOR.	L=1.67	(ACI = 1.7)	2.17	gamma x L	AASHTO 3.22
DEAD LOAD FACTOR	BetaD=1.0	(ACI = 1.4)	1.30	gamma x BetaD	AASHTO 3.22
SOIL LOAD FACTOR	BetaE=1.0	(ACI = 1.7)	1.30	gamma x BetaE	AASHTO 3.22

PLAN VIEW DIMENSIONS:	VALUE	UNITS	
OUTSIDE LID/BASE WIDTH	7.00	FEET	
OUTSIDE LID/BASE LENGTH	13.00	FEET	
INSIDE VAULT WIDTH	6.33	FEET	
INSIDE VAULT LENGTH	12.33	FEET	

SUMMARY OF WEIGHTS AND SOIL LOADING(UNFACTORED) ON COMPONENTS:

WEIGHT LBS	COMPONENT	"X" FT	VERTICAL PSF	HORIZ. LOAD:PSF	POSITION OF "X" FROM TOP OF SOIL
10237.50	LID	6.00	780.00		TOP OF LID
	LID	8.75		393.75	BOTTOM OF LID
0.00	TOP SECTION	8.75		393.75	BOTTOM OF WALL
0.00	RISER	8.75		393.75	BOTTOM OF WALL
18425.00	BOTTOM SECTION	8.75		393.75	TOP OF WALL
6825.00	BASE OF A BOTTOM SECTION	14.75	1169.97	663.75	TOP OF BASE
35487.50	TOTAL WEIGHT OF CONCRETE	BUOYANCY CHECK			Y
1953.23	TOTAL WEIGHT OF REBARS	VOLUME OF VAULT		659.75	Cu. FT
110.08	LBS REBAR/TONS CONCRETE	BUOYANT FORCE		41168.4	LBS.
		SAFETY FACTOR		2.59	MIN.=1.5

PAGE 1

no input TEICHERT PRECAST INTERCEPTORS SIZE: 12' x 08' x 08' 08/01/94

A

SHEAR ANALYSIS OF LID:

CONCRETE COVER TO REBAR: 2.00 INCH

BASIC DATA

INSIDE VAULT WIDTH	6.33	FT
INSIDE VAULT LENGTH	12.33	FT
WALL THICKNESS	4	INCHES
RATIO: LENGTH:WIDTH	1.95	
ONE-WAY SLAB DESIGN:		
% OF LOAD IN SHORT DIRECTION	100.00%	AASHTO 3.24.6.1
% OF LOAD IN LONG DIRECTION	0.00%	AASHTO 3.24.6.1
SLAB THICKNESS	9	INCHES AASHTO 3.24.6.1
SHORT SPAN LENGTH	6.67	FEET
LONG SPAN LENGTH	12.67	FEET

DEAD LOADS:ultimate

SLAB	0.146	KSF
OVERBURDEN	1.014	KSF
Wudl=	1.160	KSF

LIVE LOAD:ultimate

WHEEL LOADS(P)	32	KIPS 2 WHEELS
IMPACT	20%	AASHTO 3.8.2.3
WHEEL FOOTPRINT ON LID:		ASTM C857-87
WIDTH(PARALLEL TO LONG)	11.33	FT 0.833+1.75*DEPTH OF FILL
LENGTH(PARALLEL TO SHORT)	18.17	FT 1.67+1.75*DEPTH OF FILL+
Wull	0.40	KIPS/FT CC DIMEN. of WHEELS(FT
Pu	83.33	KIPS

SHEAR ANALYSIS: SHORT DIRECTION

NOTES:

a	0.72	FT	50% OF WALL + d ACI 11.1.3.1
b	5.94	FT	LOAD LENGTH
c	0.00	FT	LOAD TO OTHER END
TOTAL	6.67	FT	SPAN LENGTH

Vu(ll)@"d"=%*(Wull)(b)((2c)+b)/2l	1.07	KIPS/FT	E= 1
Vu(dl)@ "d"=Wudl(l/2-a)	3.03	KIPS/FT	
Vu@"d"=	4.10	KIPS	ACTUAL Vu PER FT
b=	12	INCHES	WIDTH OK
d=	6.69	INCHES	
0.85Vc=0.85*2*SQRT(f'c)*b*d	9.65	KIPS	ALLOW.Vc PER FT ACI 11.3.1.1

PAGE 2

input TEICHERT PRECAST INTERCEPTORS SIZE: 12' x 06' x 06' 08/01/94

B req'd **MOMENT/As IN LID:**

BASIC DATA

INSIDE VAULT WIDTH	6.33	FT
INSIDE VAULT LENGTH	12.33	FT
WALL THICKNESS	4	INCHES
RATIO: LENGTH:WIDTH	1.95	
ONE-WAY SLAB DESIGN:		
% OF LOAD IN SHORT DIRECTION	100.00%	
% OF LOAD IN LONG DIRECTION	0.00%	
SLAB THICKNESS	9	INCHES
SHORT SPAN LENGTH	6.67	FEET
LONG SPAN LENGTH	12.67	FEET

CONCRETE COVER TO REBAR: 2.00 INCH

AASHTO 3.24.6.1
AASHTO 3.24.6.1
AASHTO 3.24.6.1

DEAD LOADS:

SLAB	0.146	KSF
OVERBURDEN	1.014	KSF
Wudl=	1.160	KSF

LIVE LOAD:

WHEEL LOADS(P)	32	KIPS
IMPACT	20%	
WHEEL FOOTPRINT ON LID:		
WIDTH(PARALLEL TO LONG)	11.33	FT
LENGTH(PARALLEL TO SHORT)	18.17	FT
Wull	0.40	KIPS/FT
Pu	83.33	KIPS

2 WHEELS
AASHTO 3.8.2.3
ASTM C857-87
0.833+1.75*DEPTH OF FILL
1.67+1.75*DEPTH OF FILL+6FT

Mid-span moment multiplication factor due degreee of fixity: 100.00%

ANALYSIS OF 1' WIDE STRIP ACI 318-89 CHAPTER 10	SHORT SPAN	LONG SPAN	
a	0.00	0.67	END TO LOAD
b	6.67	11.33	LOAD LENGTH
c	0.00	0.67	LOAD TO OTHER END
SPAN LENGTH	6.67	12.67	FEET
%OF LOAD	100.00%	0.00%	
Rll(100% OF LOAD)	1.35	2.29	KIPS
Mull@l/2=(REDUCED by "% of LOAD")	2.25	0.00	E short= 1.00 E long= 1
Mudl@l/2=(REDUCED by "% of LOAD")	6.45	0.00	FT-KIPS AT MIDSPAN/FT WIDTH
Mu@l/2	8.69	0.00	FT-KIPS AT MIDSPAN/FT WIDTH
Mwsd@l/2	5.99	0.00	FT-KIPS AT MIDSPAN/FT WIDTH
b=	12	12	INCHES WIDTH OF STRESS BLOCK
d=	6.69	6.06	INCHES
As req'd (Neg indicates As min)	0.297	0.125	SQ INCHES(min or 133% of req'd or req'd)
As provided	0.614	0.460	SQ INCHES
input REBAR SIZE #	5	5	#
input REBAR SPACING	6.0	8.0	INCHES

CRACK CONTROL:LONG WALL/INSIDE AASHTO 8.16.8.4

ZMAX	170	KIPS/INCH
fs	19.32	KSI
dc	2.31	INCHES
A=(2*dc*bar spacing) PER BAR	27.75	SQ INCHES
Z Actual=fs*(dc*A)^0.3333	77	KIPS/INCH

OK

PAGE 3

no input TEICHERT PRECAST INTERCEPTORS SIZE: 12' x 06' x 06' 08/01/94

G

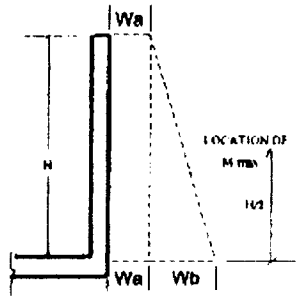
SHEAR ANALYSIS OF BOTTOM SECTION

BASIC DATA

CONCRETE COVER TO REBAR: 2.69 INCH

INSIDE VAULT WIDTH	6.33	FT
INSIDE VAULT LENGTH	12.33	FT
WALL THICKNESS	4.00	
INSIDE HEIGHT	6.00	
TWO WAY WALL DESIGN:		ASSHTO 3.24.6.1
% OF LOAD IN CANTILEVER DIRECTI	43.69%	
% OF LOAD IN LONG WALL/BENDING	56.31%	
SLAB THICKNESS	6.00	INCHES
SHORT SPAN LENGTH	6.67	FEET
LONG SPAN LENGTH	12.67	FEET
DEPTH TO TOP OF WALL	8.75	FEET
DEPTH TO BOTTOM OF WALL	14.75	FEET

SOIL LOADING CONDITION



LATERAL SOIL PRESSURES: ultimate

Wa=	0.512	KSF
Wb@"d"=	0.338	KSF
Wb	0.351	KSF

SHEAR VALUES: @TOP OF BASE

x=SPAN-"d"	5.76	FT	
Vu@"d"=	3.59	KIPS	ACTUAL Vu PER FT
b=	12.00	INCHES	OK
d=	2.63	INCHES	
0.85Vc=0.85*2*SQRT(f'c)*b*d	3.79	KIPS	ALLOW.VcPER FT

SHEAR VALUES: @END OF LONG WALL

x=SPAN-"d"	12.00	FT	
Vu@"d"=	1.73	KIPS	ACTUAL Vu PER FT ACI 11.1.3.1
b=	12.00	INCHES	OK
d=	2.00	INCHES	
0.85Vc=0.85*2*SQRT(f'c)*b*d	2.86	KIPS	ALLOW.VcPER FT ACI 11.3.1.1

PAGE 4

input TEICHERT PRECAST INTERCEPTORS SIZE: 12' x 06' x 06' 08/01/94

req'd MOMENT/As IN WALL OF BOTTOM SECTION

input required on this sheet

INSIDE VAULT WIDTH	6.33	FT
INSIDE VAULT LENGTH	12.33	FT
WALL THICKNESS	4.00	
INSIDE HEIGHT	6.00	
TWO WAY WALL DESIGN:		
% OF LOAD IN CANTILEVER DIRECTI	43.69%	
% OF LOAD IN LONG WALL/BENDING	56.31%	
SLAB THICKNESS	6.00	INCHES
SHORT SPAN LENGTH	6.67	FEET
LONG SPAN LENGTH	12.67	FEET
DEPTH TO TOP OF WALL	8.75	FEET
DEPTH TO BOTTOM OF WALL	14.75	FEET

CONCRETE COVER TO REBAR: 1.06 INCH

STIFFNESS METHOD..AASHTO 8.6
STIFFNESS METHOD..AASHTO 8.6
STIFFNESS METHOD..AASHTO 8.6

LATERAL SOIL PRESSURES:ultimate

Wa=	0.512	KSF
Wb=(@H/2)	0.176	KSF

ANALYSIS OF 1' WIDE STRIP ACI 318-89 CHAPTER 10	CANT SPAN	BENDING LONG L	BENDING CORNER	+or-M BENDING SHORT L		
SPAN LENGTH	6.00	12.67		6.67	FEET	
%OF LOAD	43.69%	56.31%	56.31%	56.31%		
Mudl due to Wa	4.03	2.89	2.89	-1.29	FT-KIPS	PER FT OF WIDTH
Mudl due to Wb	0.92	0.99	0.99	-0.44	FT-KIPS	PER FT OF WIDTH
Mu=	4.95	3.88	3.88	-1.73	FT-KIPS	PER FT OF WIDTH
Mwsd=	3.80	2.98	2.99	-1.33	FT-KIPS	PER FT OF WIDTH
b=	12	12	12	12	INCHES	WIDTH
d=	2.63	2.00	2.00	2.00	INCHES	
As req'd (Neg indicates As min)	0.466	0.506	0.507	0.183	(min or 133% of req'd or req'd)	
As provided	0.589	0.589	0.589	0.589	SQ INCHES	
input REBAR SIZE #	4	4	4	4	#	
input REBAR SPACING	4	4	4	4	INCHES	
	**	++	**	++		

** MUST HAVE REBAR INPUT WHEN CANTILEVER=100% see cell m190
++MUST HAVE REBAR SIZE=0 WHEN CANTILEVER=100% see cell m196

CRACK CONTROL:LONG WALL/INSIDE AASHTO 8.16.8.4

Z MAX	170	
fs=	26.68	KSI
dc=	1.31	INCHES
A=(2*dc*bar spacing) PER BAR	10.50	SQ-INCH
Z Actual=fs*(dc*A)^0.3333	64	

OK

PAGE 5

no input TEICHERT PRECAST INTERCEPTORS SIZE: 12' x 06' x 06' 08/01/94

SHEAR ANALYSIS OF BASE SLAB OF BOTTOM SECTION

BASIC DATA

CONCRETE COVER TO REBAR: 2.00 INCH

INSIDE VAULT WIDTH	6.33	FT	
INSIDE VAULT LENGTH	12.33	FT	
WALL THICKNESS	4.00	INCHES	
RATIO: LENGTH:WIDTH	1.95		
ONE-WAY SLAB DESIGN:			AASHTO 3.24.6.1
% OF LOAD IN SHORT DIRECTION	100.00%		AASHTO 3.24.6.1
% OF LOAD IN LONG DIRECTION	0.00%		AASHTO 3.24.6.1
SLAB THICKNESS	6	INCHES	
SHORT SPAN LENGTH	6.67	FEET	
LONG SPAN LENGTH	12.67	FEET	

DEAD LOADS:ultimate

VAULT	0.507	KSF
OVERBURDEN	1.014	KSF
Wudl=	1.521	KSF

LIVE LOAD:ultimate (Wull only) NOTES: ASTM C857-97

WHEEL LOAD(P)(above lid)	32.00	KIPS	2 WHEELS
TRANSFERRED TO BASE(ultimate)	26.76	KIPS	11.33 W OF FOOTPRINT ON LID
IMPACT	0.00%		11.33 WMAX
DISTRIBUTION AREA	91.00	FT2	18.17 L OF FOOTPRINT ON LID
Wull=	0.29	KSF	7.00 LMAX

SHEAR ANALYSIS:SHORT DIRECTION

a=50% OF WALL + d	0.47	FT	50% OF WALL + d ACI 11.1.3.1
Vu(dl)@"d"=%*Wudl*(l/2-a)	4.35	KIPS	SHORT SPAN
Vu(ll)@"d"=%*(Wull)*(l/2-a)	0.84	KIPS	SHORT SPAN
Vu@"d"=	5.19	KIPS	ACTUAL Vu PER FT
b=	12	INCHES	WIDTH OK
d=	3.69	INCHES	
0.85Vc=0.85*2*SQRT(f'c)*b*d	5.32	KIPS	ALLOW. Vu PER FT ACI 11.3.1.1

PAGE 6

input TEICHERT PRECAST INTERCEPTORS SIZE: 12' x 06' x 06' 06/01/94

req'd MOMENT/As IN BASE SLAB OF BOTTOM SECTION

BASIC DATA

CONCRETE COVER TO REBAR: 2.00

INSIDE VAULT WIDTH	6.33	FT	
INSIDE VAULT LENGTH	12.33	FT	
WALL THICKNESS	4		
RATIO, LENGTH:WIDTH	1.95		
ONE-WAY SLAB DESIGN:		USED FOR	AASHTO 3.24.6.1
% OF LOAD IN SHORT DIRECTION	100.00%	MOMENT	AASHTO 3.24.6.1
% OF LOAD IN LONG DIRECTION	0.00%	MOMENT	AASHTO 3.24.6.1
SLAB THICKNESS	6	INCHES	
SHORT SPAN LENGTH	6.67	FEET	
LONG SPAN LENGTH	12.67	FEET	

DEAD LOADS:ultimate

VAULT	0.507	KSF	35,488 LBS
OVERBURDEN	1.014	KSF	
Wudl=	1.521	KSF	

LIVE LOAD:ultimate (Wull only)

WHEEL LOAD(P)	32	KIPS	2 WHEELS
IMPACT	0%		AASHTO 3.8.2.3
DISTRIBUTION AREA	91.00	FT2	ASTM C857-87
Wull=	0.29	KSF	

Mid-span moment multiplication factor due degreee of fixity: 100.00%

ANALYSIS OF 1' WIDE STRIP ACI 318-89 CHAPTER 10	SHORT SPAN	LONG SPAN		
SPAN LENGTH	6.67	12.67	FEET	
%OF LOAD	100.00%	0.00%		
				REACTION AT END/FT WIDTH
Mudl@l/2=	8.45	0.00	FT-KIPS	PER FT WIDTH
Mull@ l/2	1.63	0.00	FT-KIPS	PER FT WIDTH
Mu@l/2	10.08	0.00	FT-KIPS	PER FT WIDTH
Mwsd@l/2	7.25	0.00	FT-KIPS	PER FT WIDTH
b=	12	12	INCHES	WIDTH
d=	3.69	3.06	INCHES	
As req'd (Neg indicates As min)	0.682	0.125	SQ INCHES	(min or 133% of req'd or req'd)
As provided	0.684	0.614	SQ INCHES	
input REBAR SIZE #	6	5	#	
input REBAR SPACING	6.0	6.0	INCHES	

CRACK CONTROL:LONG WALL/INSIDE AASHTO 8.16.8.4

Z MAX 170	170	KIPS/INCH	
fs	30.91	KSI	
dc	2.38	INCHES	OK
A=(2*dc*bar spacing) PER BAR	28.50	SQ INCHES	
Z Actual=fs*(dc*A)^0.3333	126	KIPS/INCH	

PAGE 7

REINFORCING STEEL SCHEDULE

TEICHERT PRECAST INTERCEPTORS — SIZE: 12' x 06' x 06'

input optional for MK#5's

08/01/94
11:19:31 AM

PART	CODE# COVER	MK#	SIZE	SPACING INCHES	"A"	"B"	REBAR LENGTH	NUMBER REQUIRE	TOTAL LENGTH	TOTAL WEIGHT LBS	REF SHEET	USE NOTE:
LID	TOP											
COVER FROM BOTTOM	2.00	MK#1	5	6	6.67		6.67	25	166.75	173.79	TYPE T1	INCLUDE
COVER FROM BOTTOM	2.63	MK#2	5	8	12.67		12.67	10	120.37	125.41		INCLUDE
COVER FROM BOTTOM:next to hole	2.00	MK#5W	6	3	6.67		6.67	4	26.68	40.03		INCLUDE
COVER FROM BOTTOM:next to hole	2.63	MK#5L	6	3	12.67		12.67	4	50.68	76.04		INCLUDE
TOP SECTION:				SPACING OF MK#1 MUST=MK#3 & MK#2 MUST=MK#4								
COVER FROM OUTSIDE FACE	2.00	MK#3	0	9	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	2.00	MK#4	5	8	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	2.00	MK#10	0	9	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	2.00	MK#11	0	9	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	2.00	MK#12	0	9	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
FRAMING BARS	VERT	MK#13	4	9	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
RISER:												
COVER FROM OUTSIDE FACE	1.75	MK#10	4	6	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	1.75	MK#11	4	6	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	1.75	MK#12	4	6	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
VERT. FRAMING BARS FOR MK#10,11 &12		MK#13	4	9	0.00		0.00	0	0.00	0.00		EXCLUDE
BOTTOM SECTION:	LOWER										TYPE T2D	
COVER FROM OUTSIDE FACE	1.25	MK#8	4	4	2.50	6.08	8.58	108	927.00	618.13		INCLUDE
COVER FROM OUTSIDE FACE	1.25	MK#9	5	6	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	1.75	MK#10	4	4	12.71	4.02	20.75	36	747.02	498.12		INCLUDE
COVER FROM OUTSIDE FACE	1.75	MK#11	4	4	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
COVER FROM OUTSIDE FACE	1.75	MK#12	4	4	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
FRAMING BARS	VERT	MK#13	4	9	0.00	0.00	0.00	0	0.00	0.00		EXCLUDE
BASE OF A BOTTOM SECTION	BASE			SPACING OF MK#6 MUST=MK#8 & MK#7 MUST=MK#9							TYPE T4	
COVER FROM TOP	2.00	MK#6	6	6	6.67		6.67	25	166.75	250.16		INCLUDE
COVER FROM TOP	2.75	MK#7	5	6	12.67		12.67	13	164.71	171.61		INCLUDE
TOTAL										1953.23		

MEMORANDUM

Sacramento Fire Department

To: BUILDING DEPARTMENT **Date:** 9-21-98

From: Gordon Duncan,
Fire Marshal

Subject: **FIRE SYSTEM INSPECTION**

A final inspection of the newly installed fire system at:

8490 Rovana Circle

has been conducted by Inspector H. Cooke

on 9-21-98.

98-09681-C	N/A	Underground Fire
Permit Number	Square Footage	Type Inspection

The system is acceptable by this department.

By: Ross L. Woodman,
Fire Prevention Officer II

98-92
F. D. Reference Number