

100'-0" (LIMITS OF AGGREGATE STORAGE BED)

2'-0" 15'-0" 11'-0" 11'-0" 6'-0" 5'-0"

SYMM ABOUT

INLET FROM OTHER AREA DRAINS AS REQUIRED

50'-0" (LIMITS OF AGGREGATE STORAGE BED)

3'-0" 11'-0" 11'-0" 11'-0" 11'-0" 3'-0"

COMBINED DRAIN CLEAN-OUT (TYP)



LEGEND:

- AREA DRAIN
- LEACH LINE
- FRENCH DRAIN
- INSPECTION AND CLEAN OUT ACCESS

RAINWATER CONTAINMENT PLAN

SCALE: 3/32" = 1'-0"

NOTE:

1. FOR GENERAL NOTES, SEE DRAWING GE-10498-C-03.

OCEANSAFE
 Shaw & Sons
 Structural and Architectural Concrete
 Costa Mesa, CA 92627
 Phone: (949) 642-0660

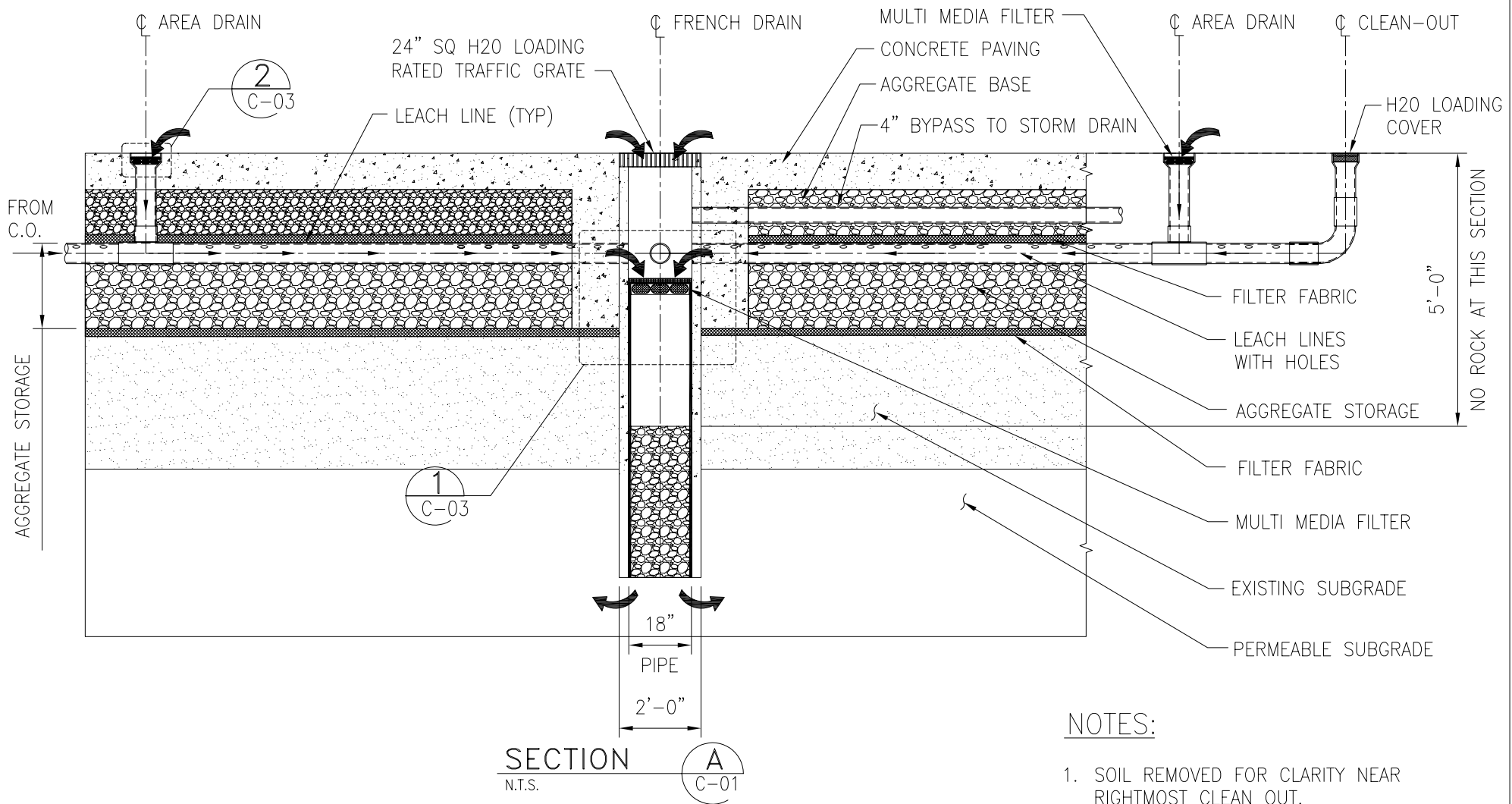
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DATE:	1/11/10	DATE:	1/12/10	INITIALS:		INITIALS:		PLOT SCALE:	1:128
REV		REVISION DESCRIPTION		BY	APP	DATE			
B		ISSUED FOR APPROVAL		LMS	DW	2/9/10			
A		ISSUED FOR REVIEW		LMS	DW	1/13/10			

Gekko Engineering Inc
 Carson, CA 90745-4215
 Phone: (310) 513-0000

GKOKO ENGINEERING PROJECT NUMBER: 10-498

OCEANSAFE
 STORM WATER MANAGEMENT SYSTEM
 TYPICAL 5000 SQ FT PLAN


GEKKO DRAWING NUMBER: GE-10498-C-01
 SHEETS: 1 of 1
 REVISION: B

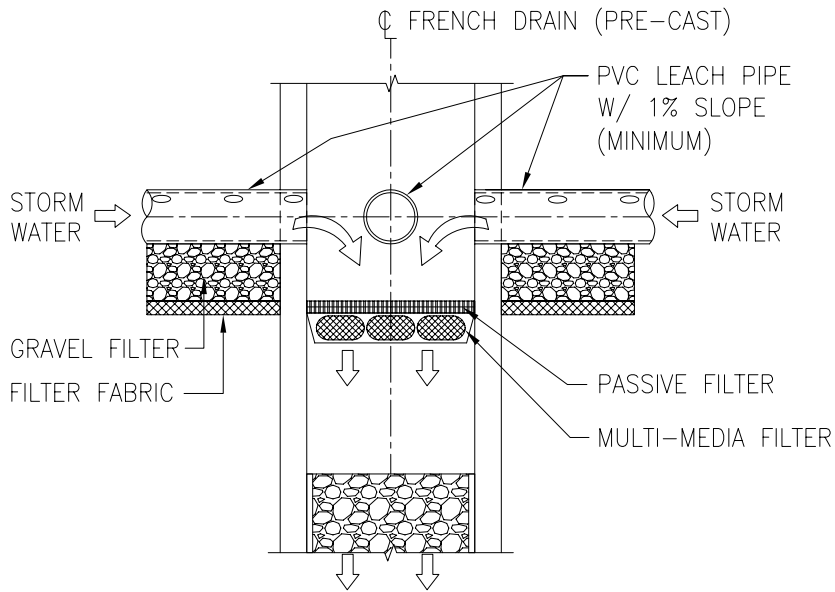


SECTION A
N.T.S. C-01

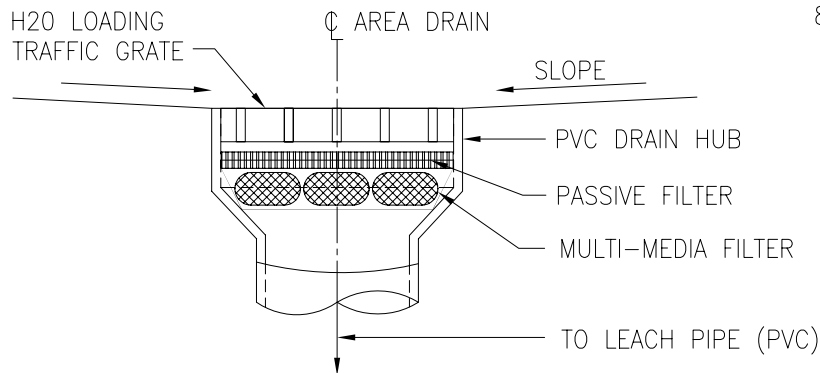
NOTES:

1. SOIL REMOVED FOR CLARITY NEAR RIGHTMOST CLEAN OUT.
2. FOR GENERAL NOTES, SEE DRAWING GE-10498-C-03.

OCEANSAFE Shaw & Sons Structural and Architectural Concrete Costa Mesa, CA 92627 Phone: (949) 642-0660	DRAWN BY: LMS DATE: 1/11/10	CHECKED BY: DW DATE: 1/12/10	SUPERVISING ENGINEER: INITIALS:	CLIENT: INITIALS:	ACAD FILENAME: GE10498C02 PLOT SCALE: 1:32
	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p>Gekko Engineering Inc Carson, CA 90745-4215 Phone: (310) 513-0000</p> </div> <div style="text-align: center;"> <p>OCEANSAFE STORM WATER MANAGEMENT SYSTEM SECTION "A"</p> </div> </div>				
	REV B A	ISSUED FOR APPROVAL ISSUED FOR REVIEW	LMS DW 2/9/10 LMS DW 1/13/10	GEEKO ENGINEERING PROJECT NUMBER: 10-498	GEEKO DRAWING NUMBER: GE-10498-C-02 SHEETS: 1 OF 1 REVISION: B




DETAIL 1
N.T.S. C-02



DETAIL 2
N.T.S. C-02

GENERAL NOTES

- OCEANSAFE BY SHAW AND SONS CONCRETE CONTRACTORS, COSTA MESA, CA (949) 642-0660.
- THESE DRAWINGS REFLECT THE DESIGN INTENT OF THE OCEANSAFE SYSTEM ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF THE SYSTEM WILL BE SHOWN ON PROJECT SPECIFIC DRAWINGS AND WILL INCORPORATE SHAW AND SONS PROPRIETARY DESIGN FEATURES NOT SHOWN HEREIN.
- A REPRESENTATIVE 5000 SQUARE FEET OCEANSAFE SYSTEM IS SHOWN. THE ACTUAL CONFIGURATION WILL DEPEND ON SPECIFIC CONDITIONS AND THE AMOUNT OF WATER TO BE TREATED.
- LEACH LINE SIZING, DRAIN LOCATIONS, TIE-IN LOCATIONS, FRENCH DRAIN DEPTH AND AGGREGATE DEPTH WILL BE DETERMINED BY SPECIFIC PROJECT CONSTRAINTS.
- ALL MATERIALS TO BE PROVIDED BY SHAW AND SONS CONCRETE CONTRACTORS.
- OCEANSATE INSTALLATION SHALL BE INSTALLED UNDER THE SUPERVISION OF AN APPROVED SHAW AND SONS REPRESENTATIVE.
- THE OCEANSAFE SYSTEM REQUIRES PERIODIC MAINTENANCE. OPERATION AND MAINTENANCE GUIDELINES WILL BE PROVIDED WITH EACH UNIQUE SYSTEM CONFIGURATION.
- A BYPASS TO A STORM WATER SYSTEM IS REQUIRED IN THE EVENT OF RAINFALL IN EXCESS OF SYSTEM DESIGN CAPACITY.

OCEANSAFE	DRAWN BY: LMS	CHECKED BY: DW	SUPERVISING ENGINEER:	CLIENT:	ACAD FILENAME: GE10498C02		
	DATE: 1/11/10	DATE: 1/12/10	INITIALS:	INITIALS:	PLOT SCALE: 1:32		
Shaw & Sons Structural and Architectural Concrete Costa Mesa, CA 92627 Phone: (949) 642-0660	▲			 Gekko Engineering Inc Carson, CA 90745-4215 Phone: (310) 513-0000	OCEANSAFE STORM WATER MANAGEMENT SYSTEM GENERAL NOTES		
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	A	ISSUED FOR REVIEW	LMS			DW	1/13/10
REV	REVISION DESCRIPTION	BY	APP	DATE			
GKCKO ENGINEERING PROJECT NUMBER: 10-498					GEEKO DRAWING NUMBER: GE-10498-C-03 SHEETS: 1 of 1 REVISION: B		

OCEANSAFE CALCULATIONS

1. DETERMINE THE PRECIPITATION VOLUME

- a. The run-off area length (ft) x Run-off Area Width (ft) x rainfall (inches) / 12 = cubic feet of water.
- b. $L_{RA} \times W_{RA} \times \frac{1}{12} = \text{Volume in ft}^3$
- c. 1 cubic foot of water = 7.48 gallons.

2. Determine Run-off Area to Oceansafe Area Ratio from Site Plan (i.e. 4:1, 5:1, 6:1, 7:1, 8:1, etc.)


e.g. 20,000 ft² RA : 5,000 ft²Oceansafe = 4:1 ratio.

3. Determine Oceansafe Aggregate Volume Requirements:

- Assuming Width of 50 ft x length 100 = 5000 ft² Oceansafe
- Assuming 1" of rain from a 20,000 ft² Run-off Area (e.i., 4:1 ratio)
- Water Volume (WV) = 20,000 x $\frac{1}{12}$ = 1,667 ft³ of Water Volume (WV)
- 1" Aggregate = 47% Void Space (Aggregate size and void space may vary).
- Aggregate Depth (inches) = $\frac{WV \times 12}{\text{Oceansafe Area} \times 0.47}$ e.g. $\frac{1667 \times 12}{5000 \times 0.47} = 8.5"$

TABLE

RUN-OFF AREA	OCEANSAFE AREA	RATIO	WATER VOLUME	MINIMUM AGGREGATE DEPTH
20,000 SQ FT	5000 SQ FT	4:1	1667 CU FT	8.50"
25,000 SQ FT	5000 SQ FT	5:1	2083 CU FT	10.63 "
30,000 SQ FT	5000 SQ FT	6:1	2500 CU FT	12.76"
35,000 SQ FT	5000 SQ FT	7:1	2917 CU FT	14.90"
40,000 SQ FT	5000 SQ FT	8:1	3334 CU FT	17.00"

<h2 style="margin: 0;">OCEANSAFE</h2> <p style="margin: 0;">Shaw & Sons Structural and Architectural Concrete Costa Mesa, CA 92627 Phone: (949) 642-0660</p>	DRAWN BY: LMS	CHECKED BY: DW	SUPERVISING ENGINEER:	CLIENT:	ACAD FILENAME: GE10498C02	<p style="margin: 0;">OCEANSAFE STORM WATER MANAGEMENT SYSTEM OCEANSAFE CALCULATIONS</p>																																					
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