



SEE TABLE ON SHEET 2 FOR DIMENSIONS  
 SEE NOTES ON SHEET 2

REVISION	BY	APPROVED	DATE
ORIGINAL*	KA	J. NAGELVOORT	01/12
UPDATED	BD	J. NAGELVOORT	08/15

CITY OF SAN DIEGO - STANDARD DRAWING

**CONCRETE ENERGY DISSIPATER**

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE

*CDungeo* 8/18/15  
 COORDINATOR R.C.E. 56523 DATE

DRAWING NUMBER **SDD-105**

CONCRETE ENERGY DISSIPATOR DIMENSIONS

Pipe Dia (in)	18	24	30	36	42	48	54	60	72
Area (sq ft)	1.77	3.14	4.91	7.07	9.62	12.57	15.90	19.63	28.27
Max Q (cfs)	21	38	59	85	115	151	191	236	339
W	5'-6"	6'-9"	8'-0"	9'-3"	10'-6"	11'-9"	13'-0"	14'-3"	16'-6"
H	4'-3"	5'-3"	6'-3"	7'-3"	8'-0"	9'-0"	9'-9"	10'-9"	12'-3"
L	7'-4"	9'-0"	10'-8"	12'-4"	14'-0"	15'-8"	17'-4"	19'-0"	22'-0"
a	3'-3"	3'-11"	4'-7"	5'-3"	6'-0"	6'-9"	7'-4"	8'-0"	9'-3"
b	4'-1"	5'-1"	6'-1"	7'-1"	8'-0"	8'-11"	10'-0"	11'-0"	12'-9"
c	2'-4"	2'-10"	3'-4"	3'-10"	4'-5"	4'-11"	5'-5"	5'-11"	6'-11"
d	0'-11"	1'-2"	1'-4"	1'-7"	1'-9"	2'-0"	2'-2"	2'-5"	2'-9"
e	0'-6"	0'-6"	0'-8"	0'-8"	0'-10"	0'-10"	1'-0"	1'-0"	1'-3"
f	1'-6"	2'-0"	2'-6"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"
g	2'-1"	2'-6"	3'-0"	3'-6"	3'-11"	4'-5"	4'-11"	5'-4"	6'-2"
Tf	8"			10"			12"		
Tb	7"			9 1/2"			10 1/2"		
Tw	7"			9 1/2"			10 1/2"		
Ta	7"			8"					

NOTES:

- DESIGN EQUIVALENT FLUID PRESSURE (EARTH LOADING) = 60 pcf MAXIMUM OUTLET VELOCITY = 35 ft/s
- CONCRETE SHALL BE 560-C-3250
- REINFORCING SHALL CONFORM TO ASTM DESIGNATION A615 AND MAY BE GRADE 40 OR 60. REINFORCING SHALL BE PLACED WITH 2" CLEAR CONCRETE COVER UNLESS NOTED OTHERWISE. SPLICES SHALL NOT BE PERMITTED EXCEPT AS INDICATED ON THE PLANS.
- FOR PIPE GRADES NOT EXCEEDING 20%, INLET BOX MAY BE OMITTED.
- IF INLET BOX IS OMITTED, CONSTRUCT PIPE COLLAR AS SHOWN.
- UNLESS NOTED OTHERWISE, ALL REINFORCING BAR BENDS SHALL BE FABRICATED WITH STANDARD HOOKS.
- 5' HIGH CHAIN LINK FENCING, EMBED POST 18" DEEP IN WALLS AND ENCASE WITH CLASS B MORTAR.
- IN SANDY AND SILTY SOIL:
  - RIP RAP AND AGGREGATE BASE CUTOFF WALL REQUIRED AT THE END OF ROCK APRON.
  - FILTER COLTH (POLYFILTER X OR EQUIVALENT) SHALL BE INSTALLED ON NATIVE SOIL BASE, MINIMUM OF 1' OVERLAPS AT JOINTS.
- RIP RAP AND SUBBASE CLASSIFICATION SHALL BE AS SHOWN ON PLANS.

SHEET 2 OF 2

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