

SURVEYED BY _____
 SUPERVISED BY _____
 DESIGNED BY _____

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	FEDERAL AID PROJECT	ROUTE	STATE PROJECT	SHEET NO.
	VA.				

RW-3

3/4" PREMOLDED JOINT FILLER
 EXPANSION JOINT
 SURFACE OF JOINT PAINTED WITH ASPHALT
 BACK OF WALL
 CONTRACTION JOINT
 * 1/4" X 6" WATERSTOP
 TOP OF WALL
 4" X 4" KEYED JOINT
 TOE OF WALL
 * 5/32" X 9" WATERSTOP
 SEE DETAIL

CONTRACTION JOINTS AT INTERVALS NOT EXCEEDING 30'.
 EXPANSION JOINTS AT INTERVALS NOT EXCEEDING 90'.
 * WATER STOPS TO BE ELASTOMERIC OR OTHER APPROVED MATERIAL. DIMENSIONS SHOWN ARE ABSOLUTE MINIMUM.

WATERSTOP DETAIL

INFINITE SURCHARGE
 H2O - S16 LIVE LOAD
 NOT LESS THAN 4'
 DECK SURCHARGE - LOADED
 #78 OR #8 AGGR. MIN. GRADE
 H - HEIGHT IN FEET.
 BASE = 6/10 H
 A = 1/6 BASE, WITH MIN. OF 1'.
 EARTH = 100 LBS.
 CONCRETE = 150 LBS.
 ANGLE OF REPOSE = 1/2:1

WEEP HOLE WITH 12" X 12" PLASTIC HARDWARE CLOTH 1/2" MESH OR OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03" NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE.

12" POROUS BACKFILL @ 100 LBS./CU. FT.

3" DRAIN PIPES 8' APART
 B = 6/10 H

CLASS C1 CONCRETE
 WATER STOP
 BATTER 1/2" PER FOOT
 6"

HEIGHT OF WALL "H" IN FEET	THICKNESS AT TOP "A" IN FEET	THICKNESS AT BASE B, 6H	COMPRESSION AT TOE LBS. SQ. FT.	AREA OF SECTION SQ. FT.
3	1'-0"	1'-9 3/8"	856	4.83
4	1'-0"	2'-4 3/4"	1141	7.43
5	1'-0"	3'-0"	1427	10.63
6	1'-0"	3'-7 1/4"	1712	14.43
7	1'-0"	4'-2 3/8"	1997	18.83
8	1'-0"	4'-9 3/8"	2283	23.83
9	1'-0"	5'-4 3/4"	2568	29.43
10	1'-0"	6'-0"	2853	35.63
11	1'-1 1/4 "	6'-7 1/4"	3139	42.98
12	1'-2 3/8 "	7'-2 3/8"	3424	51.03
13	1'-3 5/8 "	7'-9 3/8"	3709	59.78
14	1'-4 3/4 "	8'-4 3/4"	3995	69.23
15	1'-6"	9'-0"	4280	79.38

SAFE BEARING CAPACITY OF SOIL

ROCK MINIMUM	10,000 - 20,000 LBS. SQ. FT.
GRAVEL AND COARSE SAND, WELL CEMENTED.....	16,000 - 20,000 LBS. SQ. FT.
CLAY IN THICK BEDS, ALWAYS DRY.....	12,000 - 16,000 LBS. SQ. FT.
CLAY IN THICK BEDS, MODERATELY DRY.....	8,000 - 12,000 LBS. SQ. FT.
CLAY, SOFT.....	2,000 - 4,000 LBS. SQ. FT.
SAND, DRY, COMPACT, AND WELL CEMENTED.....	8,000 - 12,000 LBS. SQ. FT.
SAND, CLEAN, DRY.....	4,000 - 8,000 LBS. SQ. FT.
ALLUVIAL SOILS, ETC.....	1,000 - 2,000 LBS. SQ. FT.

NOTE: IF COMPRESSION AT TOE EXCEEDS SAFE BEARING CAPACITY OF SOIL, A SPECIAL FOOTING IS TO BE USED.

CONCRETE GRAVITY RETAINING WALLS
 INFINITE SURCHARGE AND DECK SURCHARGE - LOADED

REVISIONS: REV. 7/04 401.02

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 506

New 7/04
 SPECIAL DESIGN SECTION
 DRAWING NO. A-161

PLAN NO.	PROJECT	FILE NO.	SHEET NO.