

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		STATE		SHEET NO.
		PROJECT	ROUTE	PROJECT	PROJECT	
	VA.					

HEIGHT OF WALL "H" IN FEET	THICKNESS AT TOP "A" IN FEET	THICKNESS AT BASE IN FEET	AREA OF WALL SQ. FEET	AREA OF FOOTING SQ. FEET
2	1'-6"	1'-6"	0.750	2.875
3	1'-6"	1'-6"	2.250	2.875
4	1'-6"	1'-7/4"	3.828	2.997
5	1'-6"	2'-0"	5.862	3.513
6	1'-6"	2'-4 3/4"	8.212	4.113
7	1'-6"	2'-9 1/2"	12.060	4.615
8	1'-6"	3'-2 1/2"	14.240	5.186
9	1'-6"	3'-7 1/4"	17.813	5.762
10	1'-6"	4'-0"	21.781	6.344
11	1'-6"	4'-4 3/4"	26.148	6.927
12	1'-6"	4'-9 1/2"	30.909	7.516
13	1'-6"	5'-2 1/2"	36.070	8.105
14	1'-6"	5'-7 1/4"	41.629	8.696
15	1'-6"	6'-0"	47.587	9.288

H = HEIGHT IN FEET
A = 1'-6"
BASE = 4/10 H
WT. EARTH = 100 LBS.
RUBBLE = 150 LBS.
ANGLE OF REPOSE = 1 1/2:1

POROUS BACKFILL @ 100 LBS./CU. FT. #78 OR #8 AGGREGATE OR CRUSHED GLASS MEETING #78 OR #8 GRADATION REQUIREMENTS

3" DRAIN PIPES 8" C-C

KEEP HOLE WITH 12"x12" PLASTIC HARDWARE CLOTH OR #8 MESH OR GALVANIZED STEEL WIRE MINIMUM WIRE DIAMETER 0.03" NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE

CLASS A3 OR C1 CONCRETE

DRAIN PIPES ARE TO BE ONE CONTINUOUS LENGTH OR BELL AND SPIGOT WITH MORTARED JOINTS.

NOTE:
DEPTH OF WALL IN GROUND DETERMINED BY CONDITIONS. SHALL BE NOT LESS THAN 1'-6".
IF COMPRESSION AT TOE EXCEEDS SAFE BEARING CAPACITY OF SOIL, A SPECIAL FOOTING IS TO BE USED.

MORTAR RUBBLE RETAINING WALL-LEVEL BACKFILL

VIRGINIA DEPARTMENT OF TRANSPORTATION

REV. 8/07
1201.11

HEIGHT OF WALL "H" IN FEET	THICKNESS AT TOP "A" IN FEET	THICKNESS AT BASE IN FEET	AREA OF WALL SQ. FEET	AREA OF FOOTING SQ. FEET
3	1'-6"	1'-9 5/8"	2.362	3.213
4	1'-6"	2'-4 1/8"	4.453	3.972
5	1'-6"	3'-0"	7.087	4.788
6	1'-8"	3'-7 3/4"	10.763	5.653
7	1'-8"	4'-2 3/4"	14.642	6.518
8	1'-9"	4'-9 5/8"	19.429	7.396
9	1'-9"	5'-4 1/8"	24.531	8.269
10	1'-10"	6'-0"	30.634	9.157
11	1'-10"	6'-7 1/4"	35.970	10.038
12	1'-11"	7'-2 3/4"	44.395	10.930
13	1'-11"	7'-9 5/8"	51.968	11.816
14	2'-0"	8'-4 1/8"	60.714	12.711
15	2'-0"	9'-0"	69.530	13.595

H = HEIGHT IN FEET
BASE = 6/10 H
WT. EARTH = 100 LBS./CU. FT.
WT. RUBBLE = 150 LBS./CU. FT.
ANGLE OF REPOSE = 1 1/2:1

POROUS BACKFILL @ 100 LBS./CU. FT. #78 OR #8 AGGREGATE OR CRUSHED GLASS MEETING #78 OR #8 GRADATION REQUIREMENTS.

3" DRAIN PIPE 8" C-C

CLASS A3 OR C1 CONCRETE

KEEP HOLE WITH 12"x12" PLASTIC HARDWARE CLOTH OR #8 MESH OR GALVANIZED STEEL WIRE MINIMUM WIRE DIAMETER 0.03" NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE

DRAIN PIPES ARE TO BE ONE CONTINUOUS LENGTH OR BELL AND SPIGOT WITH MORTARED JOINTS.

H = HEIGHT IN FEET
BASE = 6/10 H
WT. EARTH = 100 LBS./CU. FT.
WT. RUBBLE = 150 LBS./CU. FT.
ANGLE OF REPOSE = 1 1/2:1

NOTE:
IF COMPRESSION AT TOE EXCEEDS SAFE BEARING CAPACITY OF SOIL, A SPECIAL FOOTING IS TO BE USED.
DEPTH OF WALL IN GROUND SHALL BE DETERMINED BY CONDITIONS.
SHALL BE NOT LESS THAN 1'-6".

MORTAR RUBBLE RETAINING WALL AND DECK SURCHARGE - LOADED

VIRGINIA DEPARTMENT OF TRANSPORTATION

REV. 8/07
1201.12

MORTAR RUBBLE RETAINING WALL AND DECK SURCHARGE - LOADED

REV. 8/07
1201.12

SPECIFICATION REFERENCE
506

PLAN NO.	PROJECT	FILE NO.	SHEET NO.