EROSION CONTROL DETAILS

EROSION CONTROL NOTES

1. EROSION CONTROL MEASURES ARE IN ACCORDANCE WITH WESTCHESTER COUNTY BEST MANAGEMENT PRACTICES MANUAL SERIES.

2. SILT FENCE TO BE CONSTRUCTED AS FOLLOWS:
   A. EXCAVATE 6" X 6" TRENCH ALONG THE LOWER SIDE OF THE DISTURBED AREA.
   B. UNROLL FENCING A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE DOWNSTREAM WALL OF THE TRENCH.
   C. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2" ABOVE THE BOTTOM OF THE TRENCH.
   D. LAY THE TOE IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE IN CAN ALSO BE DONE BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE.

3. BALE SEDIMENT BARRIER TO BE INSTALLED AS FOLLOWS:
   A. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
   B. EACH BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
   C. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
   D. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM WATER FLOW OR DRAINAGE.

4. AREAS WHICH ARE GRADED OR CLEARED AND SUBJECT TO EROSION SHALL BE TEMPORARILY SEEDED OR STABILIZED IN ACCORDANCE WITH WESTCHESTER COUNTY BEST MANAGEMENT PREACTICES MANUAL C.R.A. STD # 5 OR STABILIZED WITH A MULCH IN ACCORDANCE WITH C.R.A. STD # 7.

5. SWALES AND SLOPES SHALL BE STABILIZED BY PLANTINGS, PERMANANT SOD, SEED, RIP RAP, OR BOULDER TOE WALL AS SOON AS POSSIBLE.

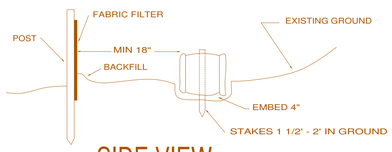
6. SILT BARRIER TO BE PLACED DOWNHILL OF DISTURBED AREA DURING CONSTRUCTION.

HT. OF WALL (H) ft	BASE HT. (Hb) in.	BASE TH., (tB) in.	WALL TH., (t) in.	d=t-2.5" in	Hs=0.5*Gam.* H^2*Ka	Ms=Hs*H/3 k-ft	Mu=1.4Ms k-ft	M=Mu/0.9 k-ft	TRY	As in^2	a=As*fy 0.85*4*12	jd=d-a/2	Mn=As*fy* jd/12	Mn>Mu/0.9	As req'd.= M*12/60*jd	VERTICAL RE-BAR USE
6.0	18.0	18.0	18.0	15.5	1.134	2.268	3.175	3.528	#5 @ 12"	0.31	0.456	15.272	23.672	yes	0.046	#5 @ 12"
7.0	18.0	18.0	18.0	15.5	1.544	3.602	5.042	5.602	#5 @ 12"	0.31	0.456	15.272	23.672	yes	0.073	#5 @ 12"
8.0	18.0	18.0	18.0	15.5	2.016	5.376	7.526	8.363	#5 @ 12"	0.31	0.456	15.272	23.672	yes	0.110	#5 @ 12"
9.0	18.0	18.0	18.0	15.5	2.552	7.655	10.716	11.907	#5 @ 12"	0.31	0.456	15.272	23.672	yes	0.156	#5 @ 12"
10.0	18.0	18.0	18.0	15.5	3.150	10.500	14.700	16.333	#5 @ 12"	0.31	0.456	15.272	23.672	yes	0.214	#5 @ 12"
11.0	24.0	21.0	18.0*	15.5	3.812	13.976	19.566	21.740	#5 @ 12"	0.31	0.456	15.272	23.672	yes	0.285	#5 @ 12"
12.0	24.0	21.0	18.0*	15.5	4.536	18.144	25.402	28.224	#6 @ 12"	0.44	0.647	15.176	33.388	yes	0.372	#6 @ 12"
13.0	24.0*	32.0*	18.0*	15.5	5.324	23.069	32.296	35.884	#7 @ 12"	0.60	0.882	15.059	45.176	yes	0.477	#7 @ 12"
14.0	24.0*	32.0*	18.0*	15.5	6.174	28.812	40.337	44.819	#7 @ 12"	0.60	0.882	15.059	45.176	yes	0.595	#7 @ 12"
15.0	24.0*	48.0*	18.0*	15.5	7.088	35.438	49.613	55.125	#8 @ 12"	0.79	1.162	14.919	58.931	yes	0.739	#8 @ 12"
16.0	24.0*	48.0*	18.0*	15.5	8.064	43.008	60.211	66.901	#9 @ 12"	1.00	1.471	14.765	73.824	yes	0.906	#9 @ 12"

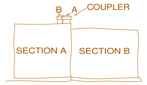
* FOR WALL HEIGHTS OVER 10 FEET BASE MUST BE WIDENED FOR 2 X LOAD FACTOR OF SAFETY.

1. BASES ARE INCREMENTAL. FOR EXAMPLE FOR 12 FT HIGH WALL BASE IS 24 INCES HIGH X 21 INCHES WIDE THEN 18 INCH WIDE WALL ON TOP.
   FOR 14 FT HIGH WALL BASE IS 32 INCHES WIDE FOR THE FIRST 24 INCHES IN HEIGHT THEN 21 INCHES FOR THE NEXT 24 INCHES THEN 18 INCH WALL.
   FOR 16 FT HIGH WALL BASE IS 48 INCHES WIDE FOR 24 INCHES, THEN 32 INCHES FOR 24 INCHES, THEN 21 INCHES FOR 24 INCHES, THEN 18 INCH WIDE WALL.
2. DIAMETER OF VERTICAL RE-BAR VARIES BY HEIGHT OF WALL.
3. UNCOVER LEDGE ROCK, THEN LEVEL SHELF IN LEDGE ROCK, THEN USE T.O.W. SHOWN ON PLAN TO DETERMINE HEIGHT OF WALL.
4. WITH THIS CHART USE HEIGHT OF WALL TO DETERMINE DIAMETER OF VERTICAL RE-BAR.

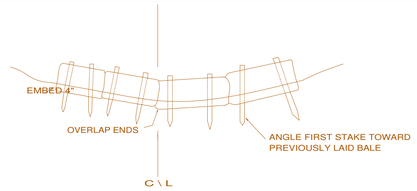
CHART FOR VERTICAL RE-BAR



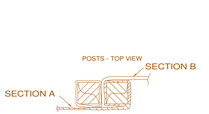
SIDE VIEW

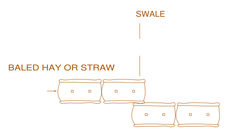


SILT FENCE

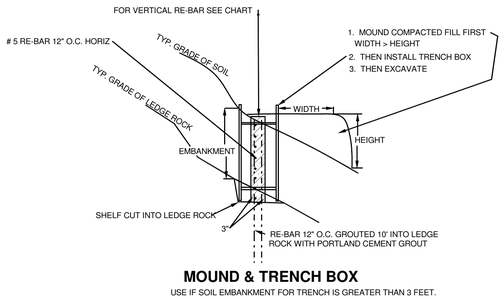


DOWNHILL VIEW





TOP VIEW

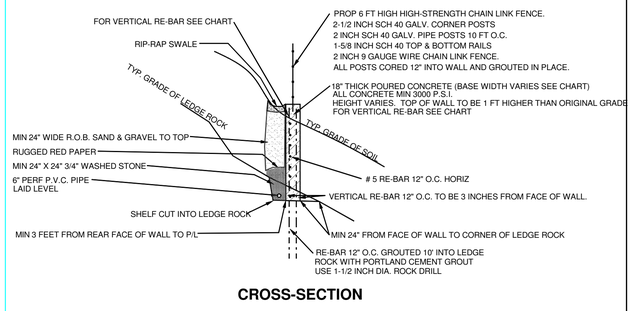


MOUND & TRENCH BOX

USE IF SOIL EMBANKMENT FOR TRENCH IS GREATER THAN 3 FEET.

1. FINDING SOLID LEDGE ROCK AT BASE OF RETAINING WALL IS ANTICIPATED.
2. IF LEDGE ROCK IS NOT FOUND, TWO OPTIONS EXIST:
3. INSTALL A CANTELEIVERED WALL WITH TOE OF BASE 2/3 AS WIDE AS HEIGHT OF WALL. HEIGHT OF TOE TO BE 1.2 X WIDTH OF BASE OF WALL, WITH # 6 REBAR 24" O.C., IN ELL SHAPE 4 FEET VERTICAL INTO WALL.
4. IF HORIZONTAL SPACE OR OTHER CONSIDERATIONS MAKE A CANTELEVERED WALL LESS DESIREABLE, USE TWO ROWS OF MCLEAN DIXIE 3-1/2" O.D. P35H HELICAL PILES, 4 FEET O.C., LENGTH TO BE DETERMINED IN FIELD BY DEVELOPMENT STRENGTH OBTAINED DURING INSTALLATION. ONE ROW TO BE INSTALLED VERTICAL UNDER CENTER OF WALL. SECOND ROAD TO BE INSTALLED BATTERED 30°, TO RESIST HORIZONTAL FORCES ON TOE OF WALL. PILE CAP TO BE A MINIMUM OF 4 FEET WIDE X 2 FEET HIGH, WITH #6 CONTINUOUS REBAR 24" O.C.

BASE OF RETAINING WALL



CROSS-SECTION

NOTES:

1. ALL RETAINING WALL CUTS OVER 4 FEET DEEP TO BE SHORED.
2. FINAL DRYWELL SIZING AND CALCULATIONS TO BE APPROVED BY ENG. DEPT.

SEAL

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FUSSELL
RETAINING WALL DESIGN

OLD ALBANY POST ROAD
TOWN OF OSSINING, NY

MAP: 80.14 BLOCK: 2 LOT: 87.1
DATE: OCTOBER 8, 2018 SCALE: 1" = 20'
REV:

PROJECT NO.
(18-167-15)

DRAWING NO.
D 18 - 8A