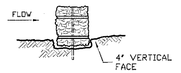
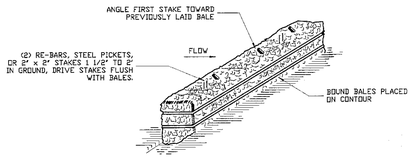
NOTE:
DRAINAGE AREA NO MORE THAN 1/4 AC. PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.




BEDDING DETAIL

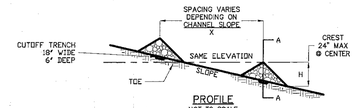



ANCHORING DETAIL

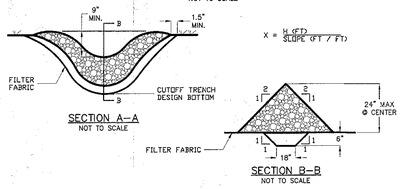
CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

## STRAW BALE DIKE DETAIL
SCALE: NONE




PROFILE
NOT TO SCALE



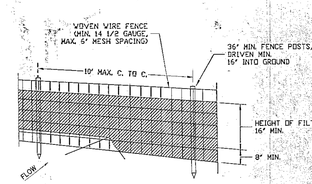

SECTION A–A
NOT TO SCALE

SECTION B–B
NOT TO SCALE

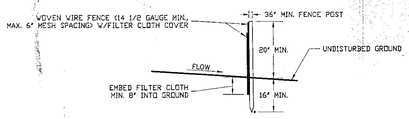
CONSTRUCTION SPECIFICATIONS

1. USE GRADED STONE 2 TO 15 INCHES IN SIZE (NYS – DOT LIGHT STONE FILL MEETS THESE REQUIREMENTS).
2. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES, AND LOCATIONS SHOWN IN THE PLANS.
3. SET SPACING OF CHECK DAMS TO ASSURE THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
4. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER, AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES – SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS – ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
   (MAXIMUM DRAINAGE AREA 2 ACRES)
7. SHALLOW SWALES REQUIRE CRESTS TO BE 6' MAX. @ CENTER.

## CHECK DAM
SCALE: NONE




PERSPECTIVE VIEW



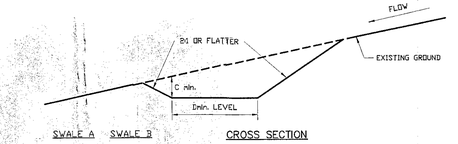

SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24' AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

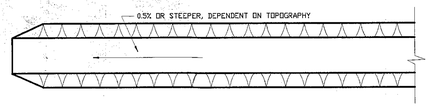
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 14 1/2 GA. 6" MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL MAY BE USED IN LIEU OF THE ABOVE METHOD PROVIDED THAT THE UNIT IS INSTALLED PER DETAILS SHOWN ABOVE

## SILT FENCE
SCALE: NONE




SWALE A SWALE B CROSS SECTION

| | SWALE A | SWALE B |
|---|---|---|
| C | 1' | 1' |
| D | 4' | 6' |




PLAN VIEW

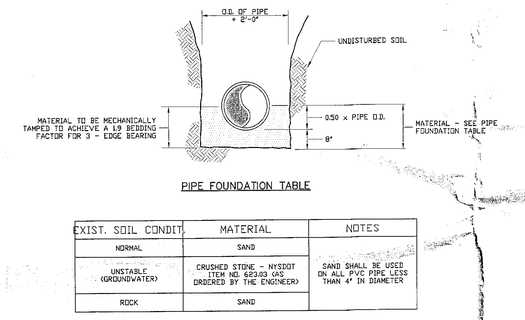
CONSTRUCTION SPECIFICTIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSION VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION, AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED, AND NOT NEEDED ON CONSTRUCTION, SHALL BE PLACED SUCH THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW

| TYPE OF TREATMENT | CHANNEL GRADE | A (5AC OR LESS) | B (5 AC – 10 AC) |
|---|---|---|---|
| 1 | 0.5–3.0% | SEED AND STRAW MULCH | SEED AND STRAW MULCH |
| 2 | 3.1–5.0% | SEED AND STRAW MULCH | SEED AND STRAW MULCH EXCELSIOR |
| 3 | 5.1–8.0% | SEED WITH JUTE OR EXCELSIOR/ SOD | LINED WITH 4–8" RIP-RAP RECYCLED CONCRETE EQUIVALENT |
| 4 | 8.1–20% | LINED WITH 4–8" RIP-RAP | ENGINEERED DESIGN |

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

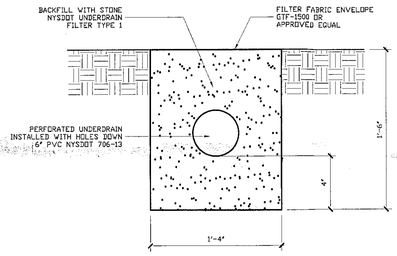
## TEMPORARY DIVERSION SWALE DETAIL
SCALE: NONE



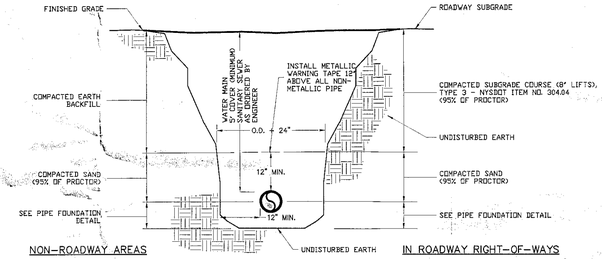

PIPE FOUNDATION TABLE

| EXIST. SOIL CONDIT. | MATERIAL | NOTES |
|---|---|---|
| NORMAL | SAND | SAND SHALL BE USED ON ALL PVC PIPE LESS THAN 4" IN DIAMETER |
| UNSTABLE (GROUNDWATER) | CRUSHED STONE – NYSDOT ITEM NO. 620.03 (AS ORDERED BY THE ENGINEER) | |
| ROCK | SAND | |

## PIPE FOUNDATION DETAILS
SCALE: NONE

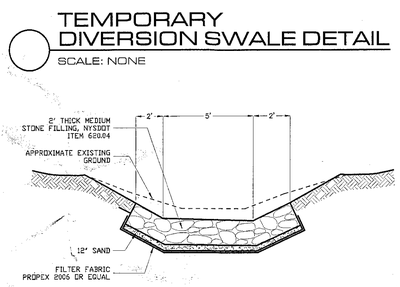



## UNDERDRAIN DETAIL
SCALE: NONE (AS REQUIRED BY ENGINEER)



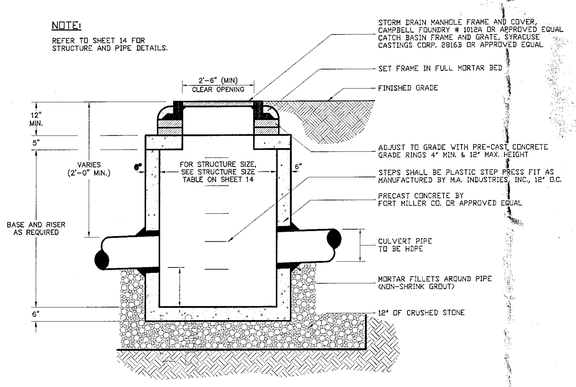

NOTE:
ALL EXCAVATION WORK SHALL CONFORM TO LATEST, APPLICABLE OSHA STANDARDS

## TYPICAL TRENCH DETAIL
SCALE: NONE

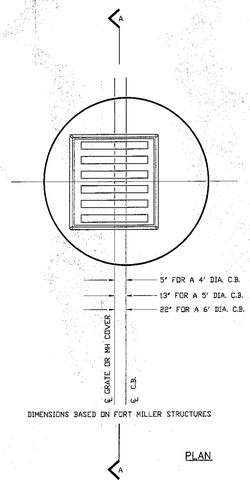



## RIP-RAP DITCH SECTION
SCALE: NONE

NOTE:
REFER TO SHEET 14 FOR STRUCTURE AND PIPE DETAILS.




SECTION A–A



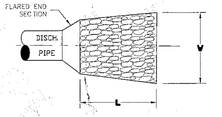

DIMENSIONS BASED ON FORT MILLER STRUCTURES

PLAN

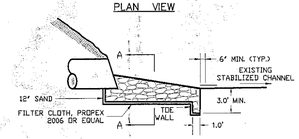
## TYPICAL CATCH BASIN AND STORM DRAIN MANHOLE DETAIL
SCALE: NONE

RIP–RAP STONE SIZE

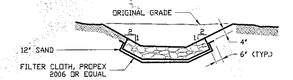
STONE GRADATION SHALL MEET THE REQUIREMENTS OF NYSDOT ITEM NO. 620.04, STONE FILLING (MEDIUM)




PLAN VIEW




PROFILE VIEW
RIP RAP TO BE EMBEDDED IN PROPOSED TRANSITION SECTION




CROSS SECTION A–A

RIP–RAP NOTES:

1. MATERIALS SHALL CONTAIN A SUFFICIENT AMOUNT OF STONES SMALLER THAN THE AVERAGE STONE SIZE TO FILL THE SPACE BETWEEN THE LARGER STONES
2. THE STONES SHALL BE PLACED SO THAT THE DIMENSION IS APPROXIMATELY EQUAL TO THE LAYER THICKNESS AND IS PERPENDICULAR TO THE SLOPE SURFACE AND THAT THE WEIGHT OF THE STONE IS CARRIED BY THE UNDERLYING MATERIAL AND NOT BY THE ADJACENT STONES. ON SLOPES, THE LARGEST STONES SHALL BE PLACED AT THE BOTTOM OF THE SLOPE. THE DRY RIP RAP SHALL BE PROPERLY ALIGNED AND PLACED SO AS TO MINIMIZE VOID SPACES BETWEEN ADJACENT STONES. THE SPACES BETWEEN THE STONE SHALL BE FILLED WITH SPALLS OF SUITABLE SIZE.

| CULVERT | | DIA. | L | W | $D_{50}$ |
|---|---|---|---|---|---|
| N. DET. BASIN | ES-15.1 | 12" | ? | ? | ? |
| | ES-81.1 | 48" | ? | ? | ? |
| | ES-12.1 | 24" | ? | ? | ? |
| | ES-29.1 | 12" | | | |
| | ES-19.1 | 15" | | | |
| W. DET. BASIN | ES-38.1 | 30" | | | |
| | ES-58.1 | 12" | | | |
| | ES-62.1 | 48" | | | |

TOWN OF BETHLEHEM, NEW YORK
PLANNING DEPT. ORIGINAL
- SCANNED -
0 1 INCHES 2

LICENSED PROFESSIONAL ENGINEER
THOMAS E. BREWER
No. 047791
STATE OF NEW YORK

PLANNING BOARD
TOWN OF BETHLEHEM
ALBANY COUNTY, NEW YORK
By direction of the Chairman,
These drawings are hereby approved.
See sheet(s) ____ for date and signature.

## RIP-RAP OUTLET PROTECTION
SCALE: NONE

BREWER ENGINEERING ASSOCIATES, P.C.
CONSULTING ENGINEERS * PLANNERS
743 COLUMBIA TURNPIKE, EAST GREENBUSH, NEW YORK 12061
PHONE: 518.477.5253 FAX: 518.477.5253

# THE VAN DYKE SPINNEY COMMUNITY CENTER

TOWN OF BETHLEHEM, COUNTY OF ALBANY
STATE OF NEW YORK

TITLE: SITE DETAILS

| DRAWN BY: | DATE: | REVISION | CHECKED BY: | DATE | REVISION |
|---|---|---|---|---|---|
| JDF | 04/01/2015 | | TEB | | |

SCALE: AS SHOWN

DRAWING NUMBER: 5 / 8

APN: 14-23