

**EROSION CONTROL NOTES:**

THE EROSION CONTROL MEASURES NOTED BELOW ARE MINIMUMS AND DO NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR COMPLIANCE WITH ANY AND ALL U.S. EPA, KENTUCKY DIVISION OF WATER AND/OR LOCAL REQUIREMENTS.

CONTRACTOR SHALL ESTABLISH EROSION CONTROL MEASURES BEFORE DISTURBING SITE.

ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.

ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION, IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETED AND THE SITE IS STABILIZED.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT EROSION ONTO ADJACENT PROPERTY. ANY REMEDIAL MEASURES REQUIRED TO CORRECT DAMAGE CREATED BY EROSION SHALL BE AT THE CONTRACTOR'S EXPENSE.

TOPSOIL STOCKPILES THAT ARE NOT BEING UTILIZED FOR A PERIOD OF 14 DAYS TO BE SURROUNDED BY SILT FENCES, RE-SEEDING AND PLACED WHERE SOIL EROSION WOULD GO TO THE SEDIMENT BASIN.

SILT FENCES TO BE CLEANED OUT WHEN THEY BECOME ONE-THIRD FULL.

WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED, UNTIL SUCH TIME AS CONDITIONS PERMIT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL STORM SEWERS CLEANED OF SILT AND DEBRIS AND FUNCTIONING PROPERLY.

ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. A FIELD LOG OF INSPECTIONS SHALL BE MADE AND A COPY GIVEN TO THE OWNER.

ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL SOIL STABILIZATION HAS BEEN OBTAINED.

CONTRACTOR SHALL PROVIDE A CONCRETE WASHOUT STRUCTURE OR AREA UPSTREAM OF THE DETENTION BASIN IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS. THE LOCATION OF THE CONCRETE WASHOUT STRUCTURE/AREA SHALL BE APPROVED BY THE ENGINEER AND DESIGNATED ON THE SWPPP.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT NO MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PART OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED UNLESS THAT ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN 21 DAYS.

THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE TRACKING OF MUD ONTO PAVED ROADWAY FROM CONSTRUCTION AREAS. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

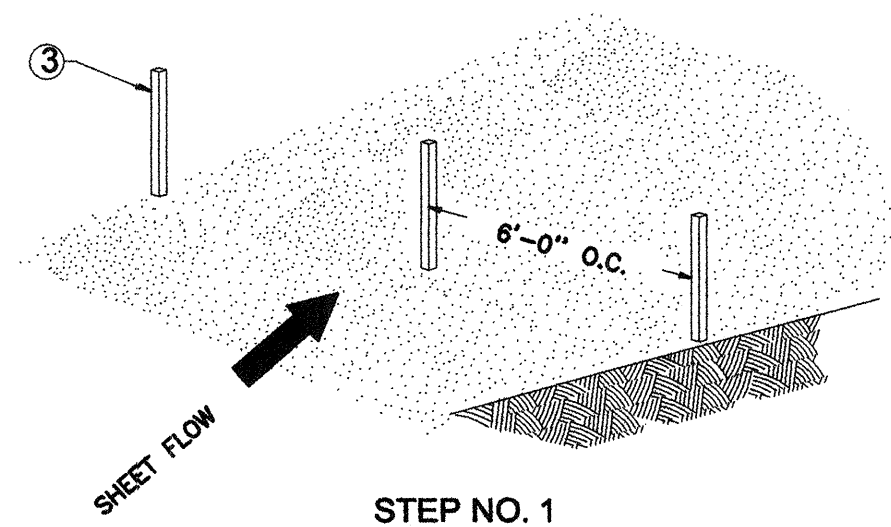
THE CONTRACTOR SHALL LIMIT ACCESS TO THE SITE TO THE CONSTRUCTION ENTRANCES. THE LOCATION OF THE CONSTRUCTION ENTRANCES SHALL BE APPROVED BY THE ENGINEER AND DESIGNATED ON THE SWPPP. THE CONTRACTOR SHALL INSTALL STONE SURFACE AT THE LOCATION WHERE CONSTRUCTION TRAFFIC LEAVES AND ENTERS THE SITE. THESE ACCESS POINTS SHALL BE MIN. 20' WIDE, 50' DEEP AND USE NO. 7 STONE OVER GEOTEXTILE FABRIC (SEE DETAILS THIS SHEET). THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND PARKING AREAS FREE FROM MUD, DIRT, DEBRIS, AND ROCK. DUST SHALL BE KEPT TO A MINIMUM BE UTILIZING SPRINKLING, CALCIUM CHLORIDE, VEGETATIVE COVER, SPRAY ON ADHESIVES OR OTHER APPROVED METHODS. THIS ENTRANCE SHALL BE MAINTAINED UNTIL THE PERMANENT ENTRANCE HAS BEEN CONSTRUCTED.

**UTILITY CONTACTS:**

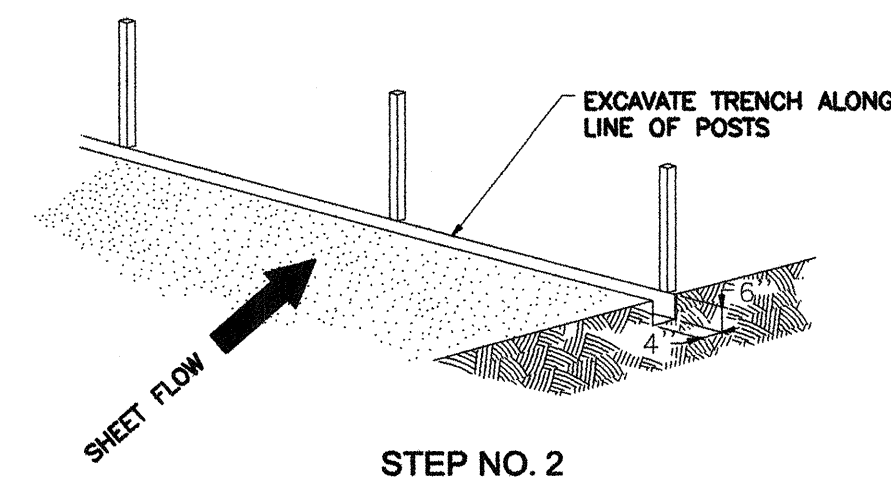
**MOREHEAD MUNICIPAL PLANT BOARD**  
CONTACT: BILLY WINKLEMAN  
135 S. WILSON AVENUE  
MOREHEAD, KY 40351  
PHONE: (606) 784-4085

**FLEMING-MASON ENERGY COOPERATIVE INC.**  
CONTACT: STEVE HARN  
P.O. BOX 328  
1449 ELIZAVILLE ROAD  
FLEMINGSBURG, KY 41041  
PHONE: (606) 845-2661  
TOLL FREE 1-800-464-3144

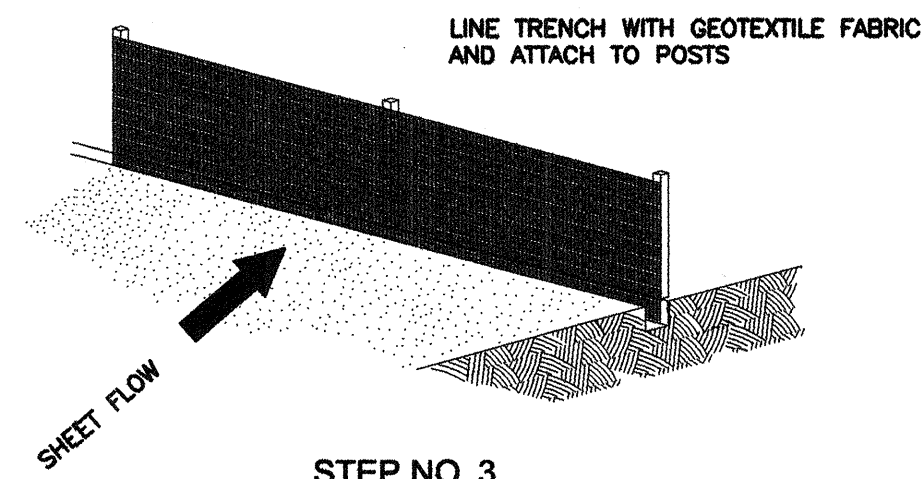
**DELTA NATURAL GAS CO INC**  
CONTACT: TIM BUCKLER  
DISTRICT OFFICE  
58 WATER STREET  
OWINGSVILLE, KY 40360  
PHONE: (606) 674-2213



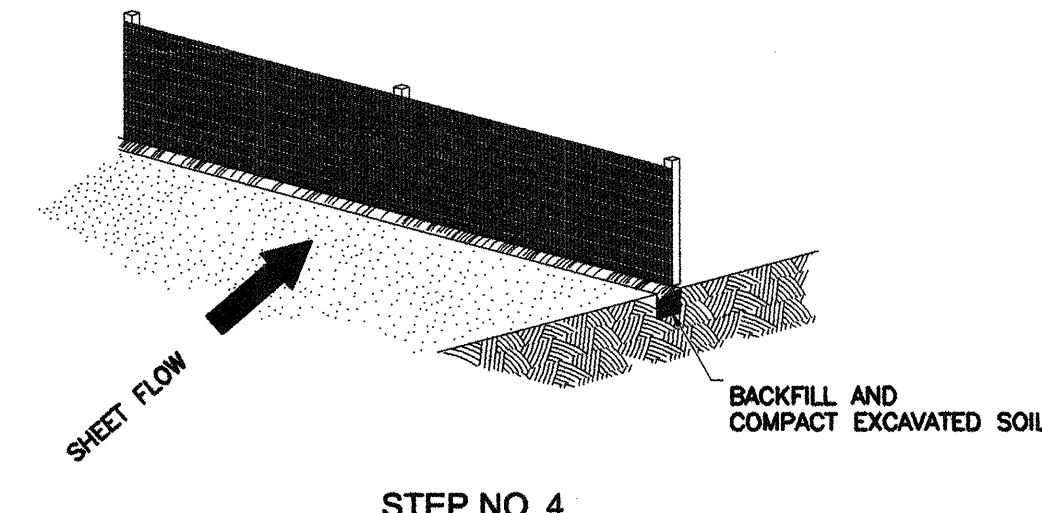
STEP NO. 1



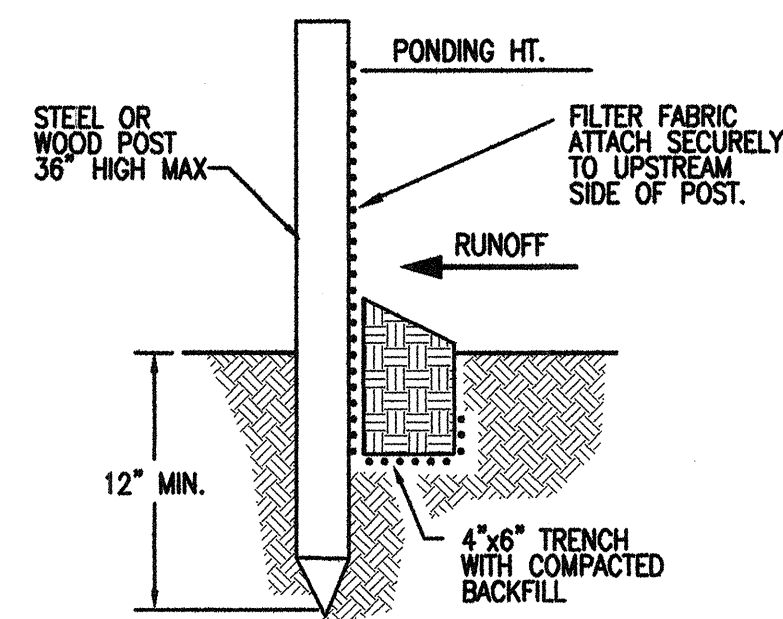
STEP NO. 2



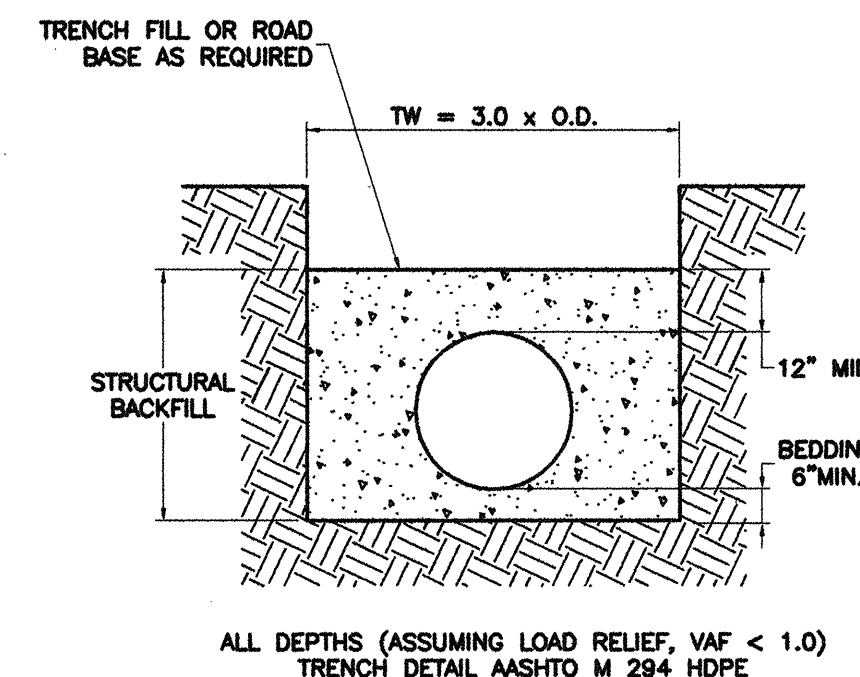
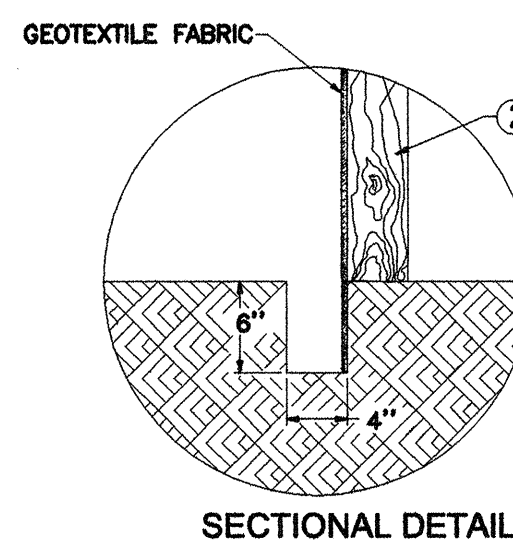
STEP NO. 3



STEP NO. 4



**TEMP. SILT FENCE DETAILS**  
N.T.S.

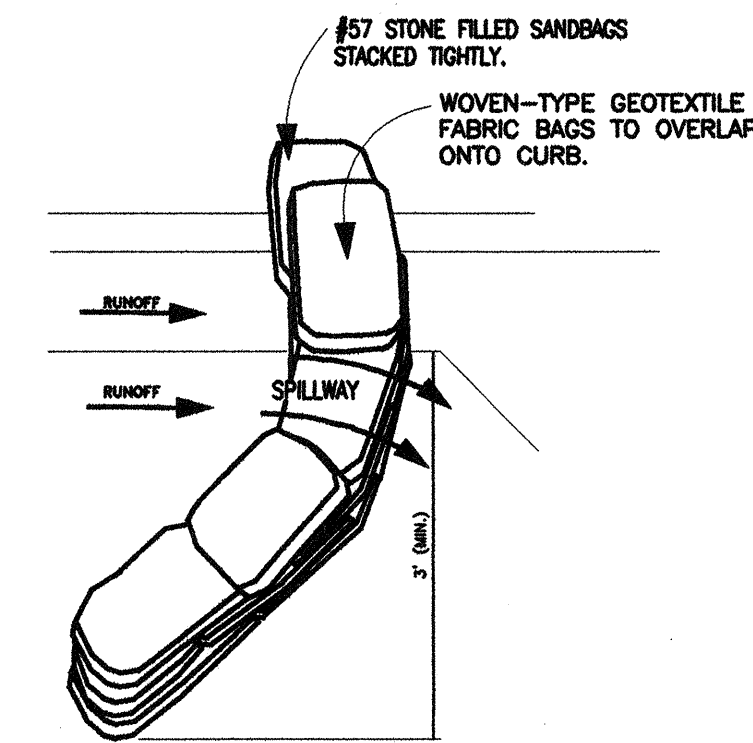
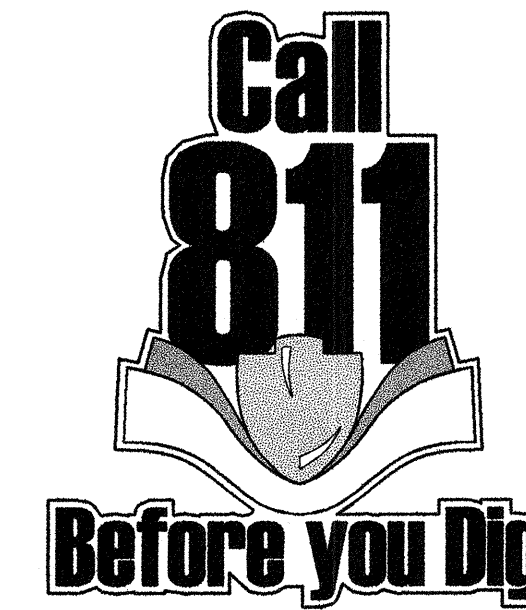


**HDPE PIPE-RECOMMENDED DESIGN AND INSTALLATION REQUIREMENTS**  
N.T.S.

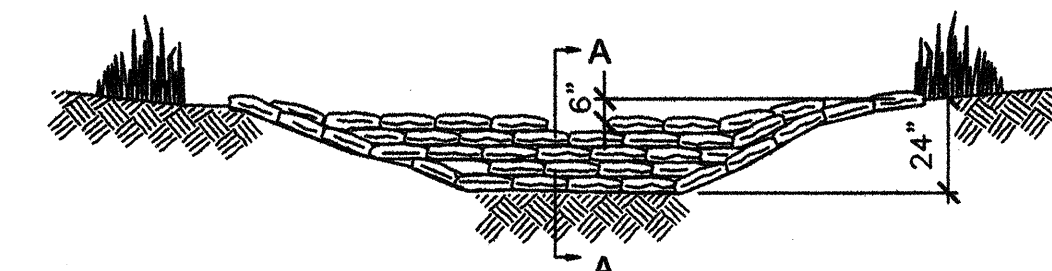
PIPE SHALL HAVE A MINIMUM PIPE STIFFNESS AS FOLLOWS:

DIAMETER	STIFFNESS (P/IN/IN)
12"	50
15"	42
18"	40
21"	N.A.
24"	34
30"	28
36"	22

**REQUIREMENTS:**  
BACKFILL, TRENCH AND DESIGN SHALL BE IN ACCORDANCE WITH AASHTO SECTION 12.  
FOR HDPE INSTALLATIONS <10' IN DEPTH, A MINIMUM TRENCH WIDTH EQUAL TO THE PIPE O.D. + 36" IS PERMITTED.  
BEDDINGS AND BACKFILL MATERIALS PER AASHTO M145 AND THEIR COMPACTED DENSITY PER AASHTO T99 SHALL BE AS SPECIFIED.  
THE INTERNAL DIAMETER OF THE PIPE BARREL SHALL NOT BE REDUCED MORE THAN 5% OF THE ACTUAL PIPE INSIDE DIAMETER WHEN MEASURED IN NOT LESS THAN 30 DAYS AFTER INSTALLATION.  
FOR THE INSTALLATION DEPTHS SHOWN ABOVE, THE WATER TABLE ELEVATION IS ASSUMED TO BE BELOW THE PIPE.  
PLASTIC PIPE MANUFACTURERS AND THEIR PROFILE WALL CROSS SECTIONS SHALL BE INDIVIDUALLY PRE-APPROVED. PVC AND HDPE MATERIALS SHALL MEET THE REQUIREMENTS OF THE APPLICABLE ASTM OR AASHTO SPECIFICATION. ADDITIONALLY, HDPE RESIN SHALL MEET THE RECOMMENDATIONS OF NCHRP REPORT #429. PVC COMPOUNDS SHALL BE LIMITED TO CELL CLASS 12454 PER ASTM D1784. PIPE SHALL BE SAMPLED AT RANDOM BY THE DOT/OWNER FOR INDEPENDENT LABORATORY RESIN TESTING. INDEPENDENT RESIN TESTING SHALL BE PAID FOR BY THE SUPPLIER, AT THE DISCRETION OF THE DOT/OWNER. FAILURE OF COMPLIANCE SHALL RESULT IN THE SUPPLIER'S APPROVAL BEING SUSPENDED.

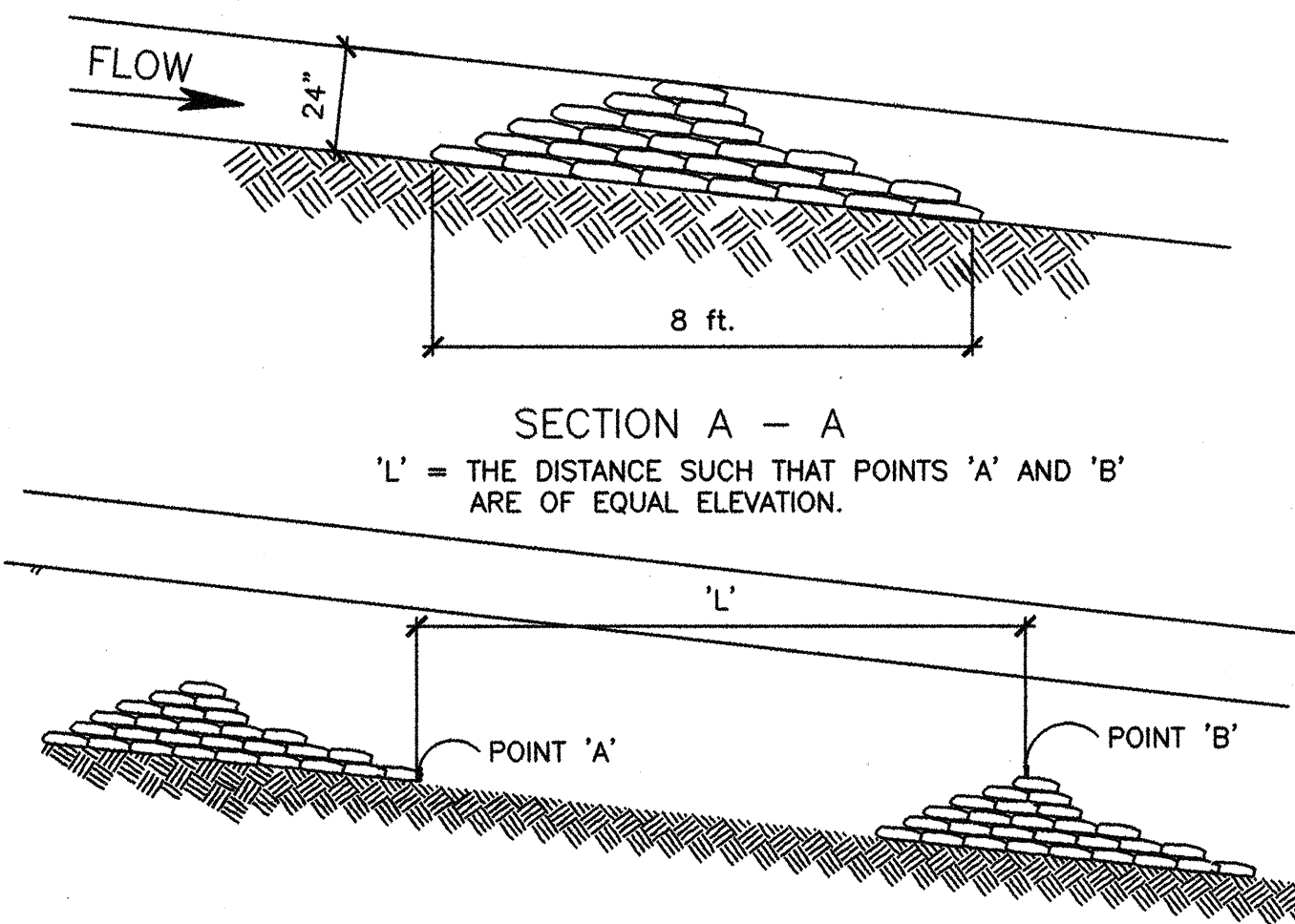


**SILT CHECK DAM TYPE "D"**  
N.T.S.



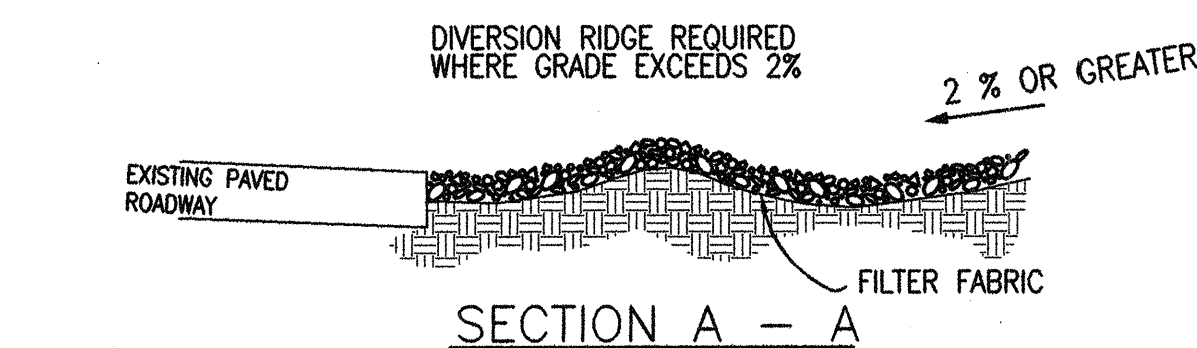
VIEW LOOKING UPSTREAM

STONE FILLED BAG CHECK DAMS MUST BE PLACED IN CHANNEL BY HAND, WITH THE TIED ENDS OF THE BAGS POINTING UPSTREAM AND THE CENTER OVERFLOW AREA AT LEAST 6" LOWER THAN THE OUTER EDGE. THE HIGHER ENDS OF THE CHECK DAM MUST TIE TO THE CHANNEL TO PREVENT BYPASS.

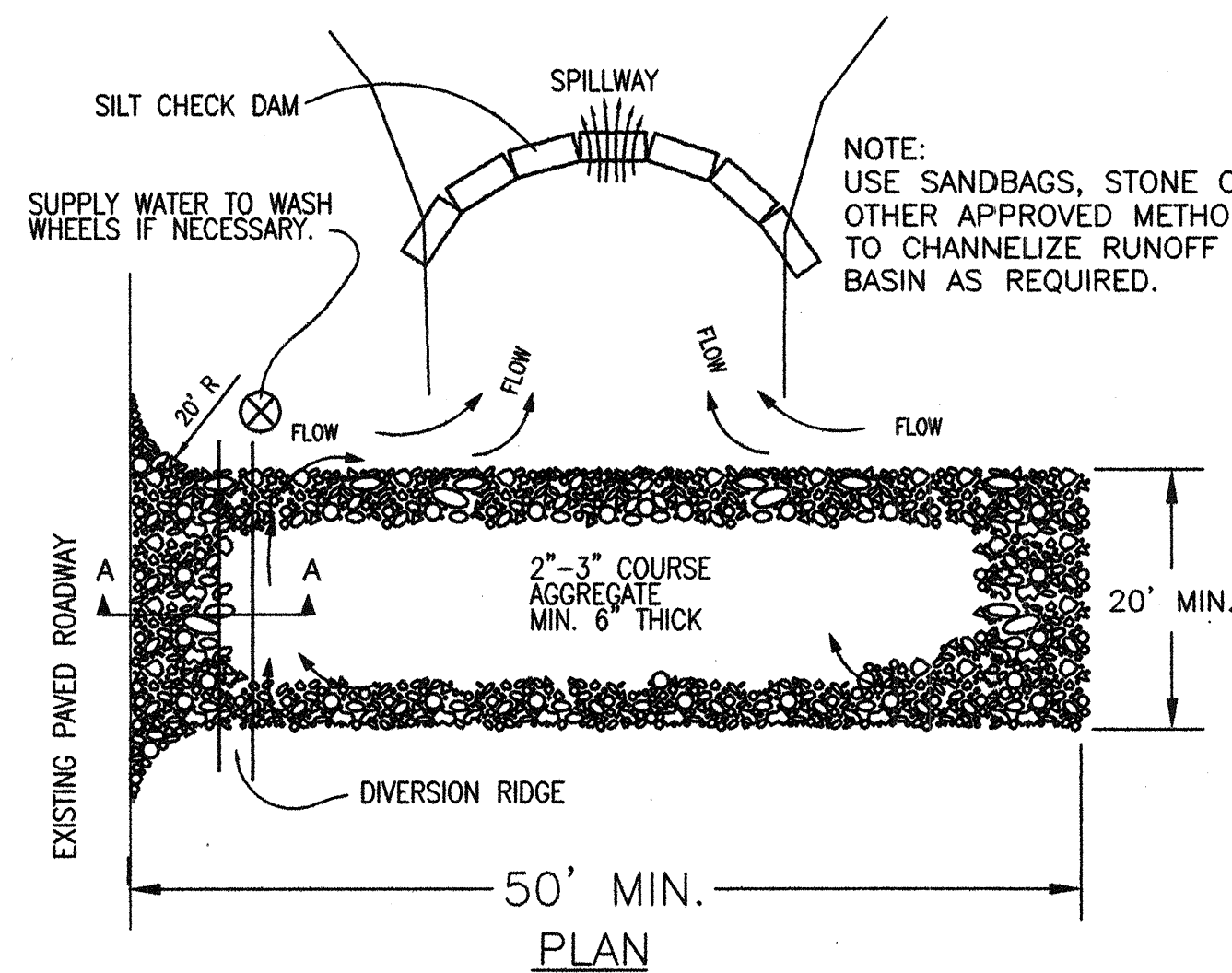


SECTION A - A  
'L' = THE DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATION.

SPACING BETWEEN CHECK DAMS  
**SILT CHECK DAM TYPE "D"**  
N.T.S.



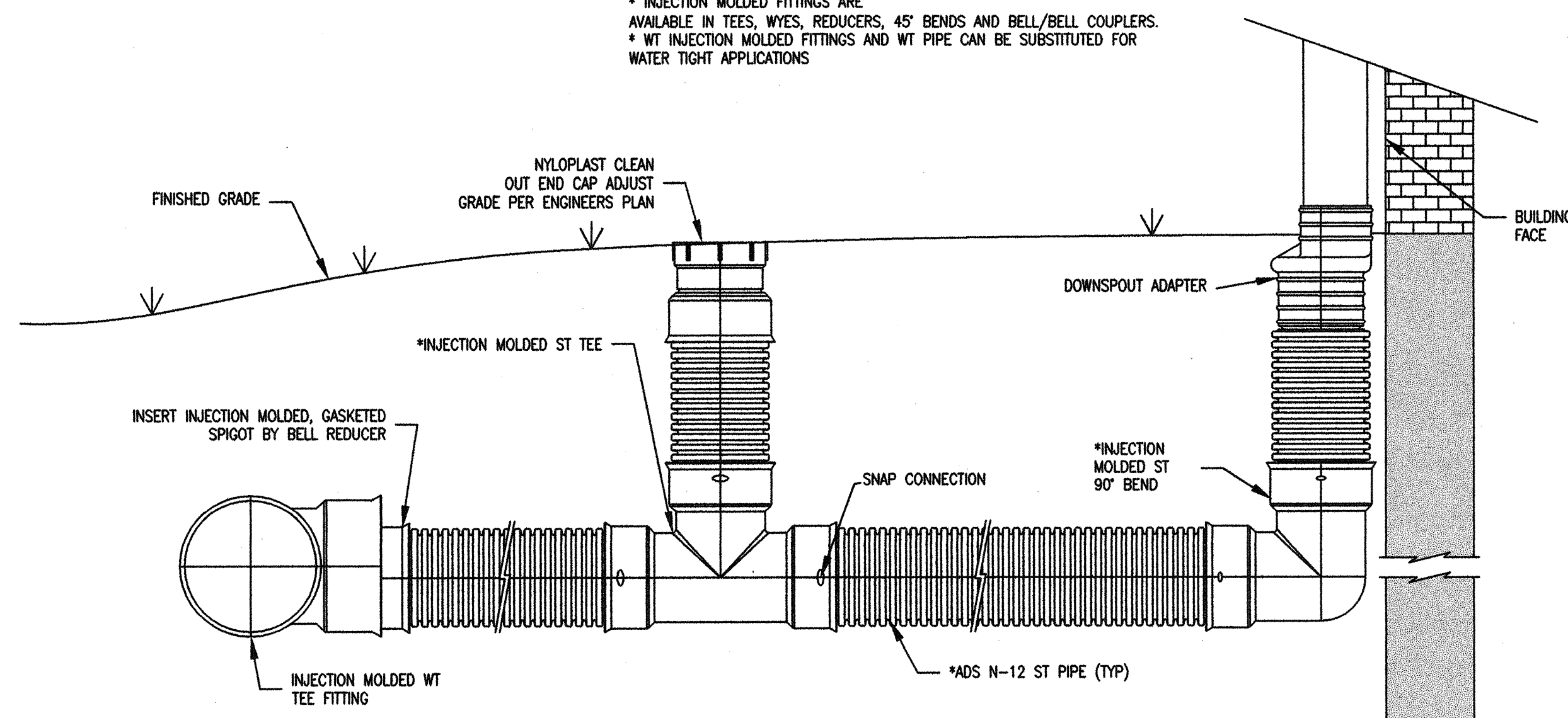
SECTION A - A



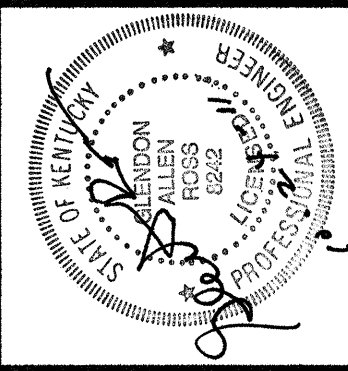
**TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT**  
N.T.S.

**NOTES:**  
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.  
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.  
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

**NOTE:**  
\* INJECTION MOLDED FITTINGS ARE AVAILABLE IN TEES, WYES, REDUCERS, 45° BENDS AND BELL/BELL COUPLERS.  
\* WT INJECTION MOLDED FITTINGS AND WT PIPE CAN BE SUBSTITUTED FOR WATER TIGHT APPLICATIONS



**ROOF DRAIN DETAIL WITH CLEANOUT**



MISCELLANEOUS DETAILS  
**PROPOSED SPECULATIVE MFG. BLDG.**  
MMRC REGIONAL INDUSTRIAL AUTHORITY  
MMRC REGIONAL BUSINESS PARK  
ROWAN COUNTY, KENTUCKY

PROJECT NO.	DATE	REVISION
2069-30	12/20/11	
DESIGNED BY: M.S.E.		
DRAWN BY: A.J.G.		
CHECKED BY: A.J.G.		
REVIEWED BY: G.A.R.		
DATE:		AS SHOWN
SCALE:		

**Engineers Architects Planners**  
**MS&E OF KENTUCKY, INC.**  
624 Wellington Way  
Levittown, KY 40503  
Phone: (859) 223-5884  
Fax: (859) 223-2807  
www.ms&e.com

DRAWING NO.  
**MD-1**  
SHEET OF