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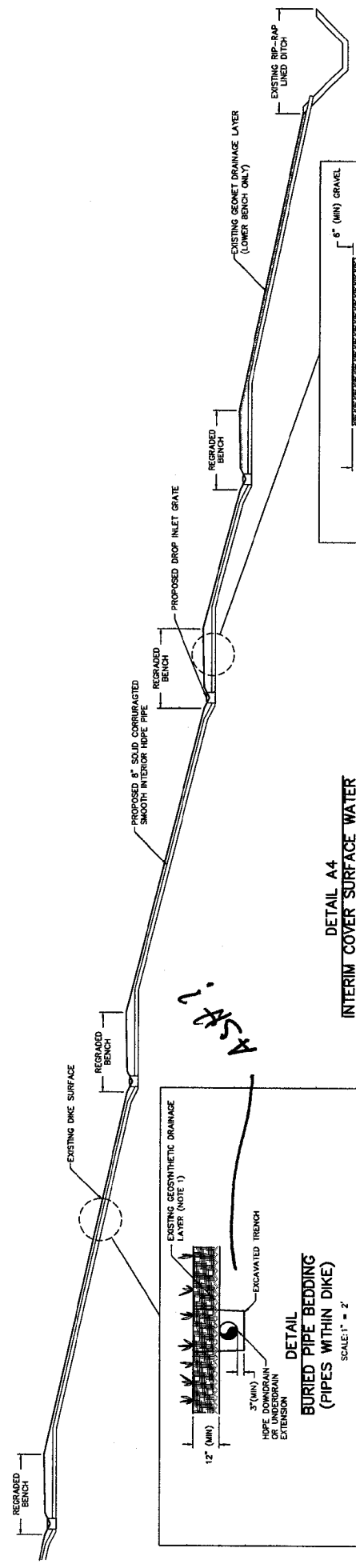
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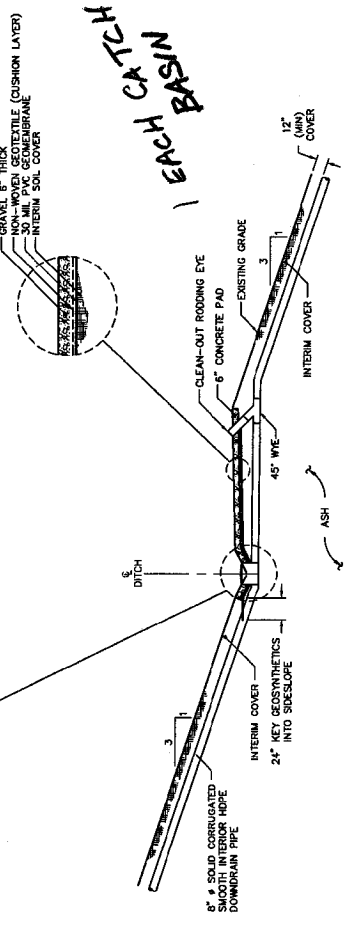
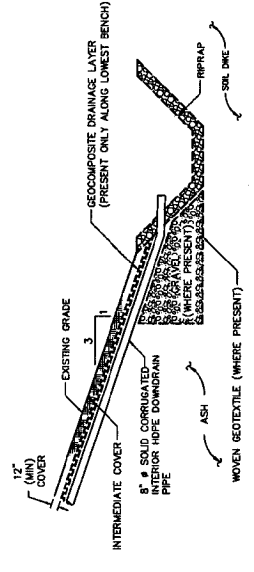
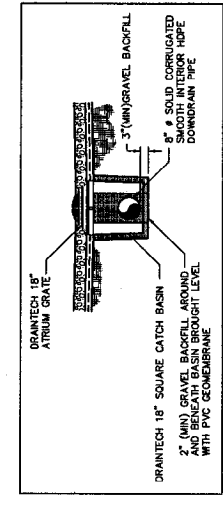
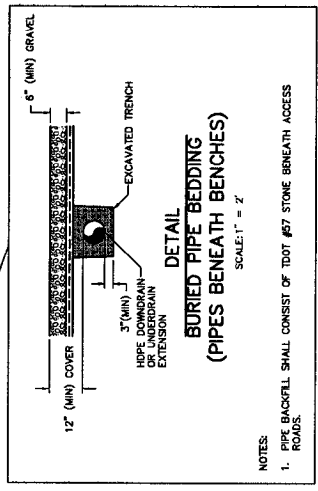
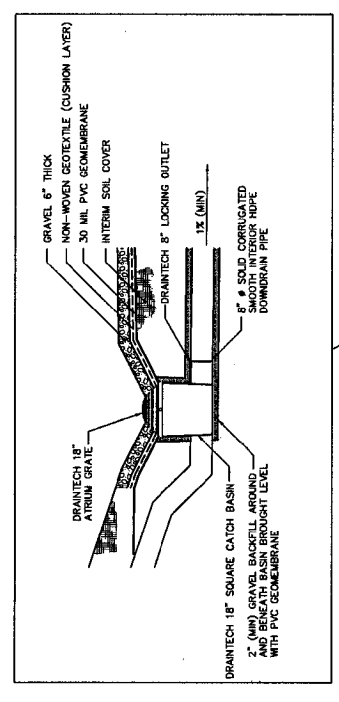
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DETAIL A4
INTERIM COVER SURFACE WATER DOWNDRAIN SYSTEM (TPO)
 SCALE: 1" = 10'

DETAIL A4
BURIED PIPE BEDDING (PIPES WITHIN DIKE)
 SCALE: 1" = 2'

DETAIL B4
DRAINAGE BENCH AT TWO-WAY DOWNDRAIN INTERSECTION
 SCALE: N.T.S.



DETAIL C4
INTERIM COVER SYSTEM AT DOWNDRAIN PIPE DRAINAGE BENCH INTERSECTION
 SCALE: 1" = 8'

DETAIL D4
INTERIM COVER SYSTEM DRAINAGE BENCH AT 2-WAY DOWNDRAIN INTERSECTION
 SCALE: 1" = 8'

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- MATERIAL SPECIFICATIONS**
1. ALL AGGREGATE AND GRAVEL SHALL MEET TENNESSEE DOT GRADATION STANDARDS. NO. 3 STONE (MIN 1-IN TO MAX 2-IN DIAMETER) SHALL BE APPLIED IN 6-IN THICK LAYER ON TOP OF THE NON-WOVEN GEOTEXTILE ALONG SURFACE WATER DRAINAGE DITCH. NO. 57 STONE (MIN 0.25-IN TO MAX 1-IN DIAMETER) SHALL BE APPLIED 6-IN THICK LAYER ON TOP OF THE NON-WOVEN GEOTEXTILE ALONG SURFACE WATER DRAINAGE DITCH. NO. 57 STONE (MIN 0.25-IN TO MAX 1-IN DIAMETER) SHALL BE APPLIED 6-IN THICK LAYER ON TOP OF THE NON-WOVEN GEOTEXTILE ALONG SURFACE WATER DRAINAGE DITCH. NO. 57 STONE (MIN 0.25-IN TO MAX 1-IN DIAMETER) SHALL BE APPLIED 6-IN THICK LAYER ON TOP OF THE NON-WOVEN GEOTEXTILE ALONG SURFACE WATER DRAINAGE DITCH.
 2. NON-WOVEN GEOTEXTILE AND 30-MIL PVC GEOMEMBRANE AND, ACROSS THE FULL WIDTH OF BENCH TOP ROADWAY, BOTH LAYERS ARE ANCHORED INTO THE UPHILL SLOPE AS ILLUSTRATED.
 3. CONCRETE PADS FOR THE CLEAN-OUT RODDING EYES SHALL BE 36-IN SQUARE, MIN 6-IN THICK CAST IN PLACE. THE FINISHED LEVEL SHALL BE SLOPED AWAY FROM THE PIPE AND FLUSH WITH SURFACE.
 4. DROP INLET GRATE SYSTEM SHALL BE COMPOSED OF THREE COMPONENTS (PRODUCT NUMBER LISTED): (1) 18-IN ATRIUM GRATE (1803508); (2) 18-IN ATRIUM GRATE (1803508); (3) 18-IN SQUARE 2-HOLE BASH (1818502); (4) 8-IN LOCKING PIPE ADAPTORS (081250). ALL COMPONENTS ARE MANUFACTURED BY DRAINTech (800-821-8710) OR APPROVED EQUIVALENT.
- RECOMMENDED INSTALLATION PROCEDURE FOR BENCH IN LOWER DIKE**
- A. DIRECT EXCAVATION
 1. STRIP TOPSOIL TO A MINIMUM WIDTH OF 3-FT COVERED ON PIPE LOCATION.
 2. CUT EXISTING GEOSYNTHETIC DRAINAGE LAYER AND PEEL BACK.
 3. EXCAVATE TRENCH TO REQUIRED DEPTH.
 4. PLACE PIPING IN TRENCH AND BACKFILL. BACKFILL SHALL CONSIST OF GRANULAR MATERIAL WHERE PIPES CROSS EXISTING BENCHES, AS INDICATED ON DETAIL B4.
 5. MAINTAIN A MINIMUM COVER OF 12-IN FOR ALL BURIED PIPES.
 6. REINSTATE GEOSYNTHETIC DRAINAGE LAYER. IF MATERIAL IS DAMAGED, PLACE NEW LAYER OF GEOSYNTHETIC DRAINAGE LAYER TO LAP EXISTING CUT EDGES (MIN 12-IN LAP).
 7. REINSTATE TOP SOIL LAYER AND RE-VEGETATE TO MATCH EXISTING.
- B. DIRECTIONAL DRILLING**
1. DIRECTION DRILLING MAY BE USED AS AN ALTERNATIVE INSTALLATION METHOD.
 2. PROVIDE ALIGNMENT CONTROL TO ENSURE INSTALLED PIPE HAS A MINIMUM OF 12-IN COVER FROM OVER TOP OF INSTALLED PIPE.
 3. CONTRACTOR SHALL ENSURE INSTALLATION METHOD DOES NOT DAMAGE EXISTING GEOSYNTHETIC DRAINAGE LAYER.
 4. REINSTATE ACCESS AND EGRESS RITS UPON COMPLETION.

SURFACE WATER DOWNDRAIN DETAILS
COAL-COMBUSTION BY-PRODUCT (ASH) DISPOSAL FACILITY

KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
 FOSSIL AND HYDRO ENGINEERING

DRAFT
 PLOT FACTOR: 1:1

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