

MAP SYMBOL KEYS

NOT ALL SYMBOLS APPEAR ON ALL MAPS

- 2' CONTOUR
- 10' CONTOUR
- 2' PROPOSED CONTOURS
- 10' PROPOSED CONTOURS
- 1090 CONTOUR ELEVATION LABELS
- X 1083.2 EXISTING SPOT ELEVATIONS
- X 1083.2 PROPOSED SPOT ELEVATIONS
- PERENNIAL STREAM / RIVER
- ROCKLINED SPILLWAYS
- DD DIVERSION DITCH
- CD CHANNELS (INFLOW/OUTFLOW)
- UNDERDRAIN PIPES
- EXISTING WETLANDS
- CONSTRUCTED WETLAND
- SSB STAKED STRAW BALES
- SSF SUPER FILTER FENCE BARRIERS
- NPDES NPDES BOUNDARY LINE
- BvB SCS SOIL UNIT BOUNDARY

PROJECT LOCATION

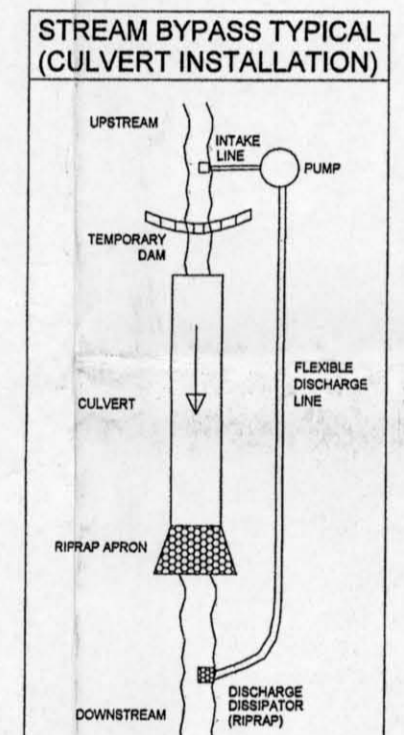
CLEARFIELD TWP - CAMBRIA CO
HASTINGS USGS QUADRANGLE

CAMBRIA COUNTY

DEAN AND GALLITZIN TOWNSHIPS

SITE LOCATION

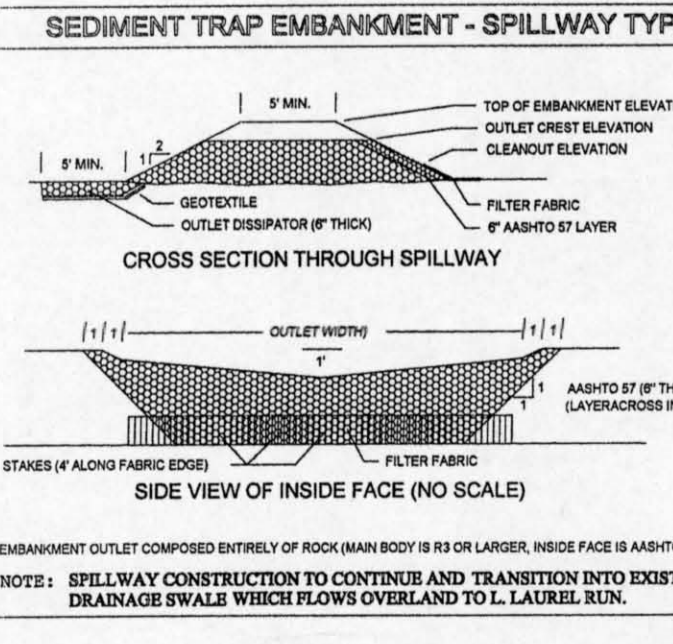
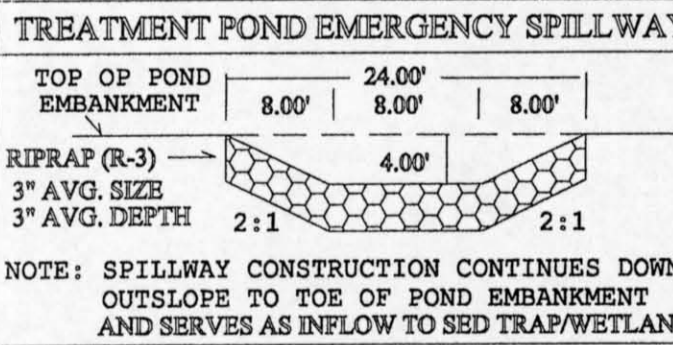
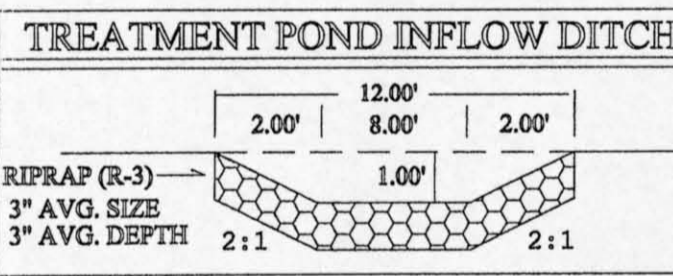
- ### GENERAL CONSTRUCTION SEQUENCE
- NOTE: CONTRACTOR MUST COMPLETE EACH CONSTRUCTION ITEM BEFORE BEGINNING THE NEXT CONSTRUCTION ITEM.
- SITE PREPARATION
 - INSTALL DOWNGRADIENT EAS CONTROLS (FILTER FENCE, ST. STRAW BALES)
 - DEVELOP ACCESS ROAD SEGMENT 7 TO STAGING AREA, INSTALL CULVERT CV-5
 - INITIATE CLEARING/GRUBBING OF DIVERSION DITCH AND SEDIMENT TRAP AREAS
 - CONTINUE CLEARING/GRUBBING ONLY AFTER ITEMS 5 AND 6 ARE CONSTRUCTED
 - EXCAVATE AND STOCKPILE TOPSOIL FROM AREAS TO BE AFFECTED
 - WATER MANAGEMENT DURING CONSTRUCTION
 - CONSTRUCT UPGRADIENT DIVERSION DITCH DD-2
 - CONSTRUCT SEDIMENT TRAP ST-2
 - CONSTRUCT BYPASS DITCH BPD-2 AND OXIDATION CHANNEL
 - INSTALL CULVERT GROUPS CV-4 AND CV-5 IN BYPASS DITCH BPD-2
 - TREATMENT SYSTEM CONSTRUCTION
 - EXCAVATE TREATMENT SYSTEM IMPOUNDMENTS
 - CONSTRUCT TREATMENT SYSTEM DOWNGRADIENT AND SIDE EMBANKMENTS
 - CONSTRUCT INLET CHANNEL AND PRINCIPAL SPILLWAY CHANNELS
 - CONSTRUCT RIPRAP EMERGENCY SPILLWAY
 - INSTALL TREATMENT SYSTEM LINES
 - INSTALL DEWATERING PIPES AND DRAIN PIPE IN VERTICAL FLOW POND
 - PLACE AND SPREAD REAGENT (LIMESTONE) IN VERTICAL FLOW POND
 - PLACE AND SPREAD REDUCING LAYER (COMPOST) IN VERTICAL FLOW POND
 - REVEGETATION AND REMOVAL OF TEMPORARY BMPs
 - RESOLV EMBANKMENT OUTSLOPES AND ADJACENT AFFECTED AREAS
 - REVEGETATE EMBANKMENT OUTSLOPES AND ADJACENT AFFECTED AREAS
 - OPEN INFLOW CHANNEL BARRIER AND ROUTE DISCHARGE TO SYSTEM
 - REMOVE TEMPORARY (DOWNGRADIENT) BMPs AFTER VEGETATION IS STABLE
 - CONVERT SEDIMENT TRAP TO REPLACEMENT WETLAND AND REVEGETATE



- ### MAINTENANCE / DISPOSAL PLAN
- ALL EAS / STORMWATER MANAGEMENT STRUCTURES TO BE INSPECTED WEEKLY AND AFTER EACH STORM EVENT
 - STORMWATER MANAGEMENT STRUCTURES TO BE CLEANED/REPAIRED AS NEEDED.
 - INSPECTION AND MAINTENANCE RESPONSIBILITIES:
 - DURING CONSTRUCTION: GENERAL CONTRACTOR
 - POST - CONSTRUCTION: CLEARFIELD CREEK WATERSHED ASSOCIATION
 - SPECIFIC MAINTENANCE INSTRUCTIONS
 - SEDIMENT LEVELS TO BE MONITORED AND REMOVED FROM SEDIMENT TRAP ANNUALLY
 - CLEANOUT CRITERIA: (SL - 218.0" OR IF ACCUMULATION EXCEEDS 1.0', MAINTENANCE TO CONTINUE UNTIL TRAP IS CONVERTED TO REPLACEMENT WETLANDS, THEN CLEANOUT TO PRESERVE VEGETATION. CONTRACTOR TO SET A CLEANOUT STAKE MARKED AT THE CLEANOUT ELEVATION.
 - SEDIMENT LEVELS TO BE MONITORED AND REMOVED FROM CULVERTS ANNUALLY OR WHEN 10% OF INLET IS BLOCKED BY SEDIMENT (ELEV. VARIES)
 - SEDIMENT LEVELS TO BE MONITORED WEEKLY AND REMOVED IMMEDIATELY FROM SILT FENCE AREAS WHEN ACCUMULATION EXCEEDS 6"
 - DAMAGED SECTIONS WILL BE IMMEDIATELY REPAIRED
 - SEDIMENT LEVELS TO BE MONITORED AND REMOVED FROM COLLECTION DITCHES ANNUALLY OR WHEN ACCUMULATIONS INHIBIT VEGETATIVE GROWTH (GRASS LINER)
 - MAINTAIN ALL VEGETATED AREAS UNTIL A UNIFORM 70% COVER IS ACHIEVED
 - SPECIFIC DISPOSAL INSTRUCTIONS
 - DESIGNATED SEDIMENT DISPOSAL AREA: DOWNSLOPE BOUNDARY OF ADJ. STAGING AREA IMMEDIATELY ABOVE DOWNGRADIENT SILT FENCE BARRIER
 - REPAIR AND MAINTENANCE: CLEAN-OUT MATERIAL
 - ALL CONSTRUCTION DEBRIS WILL BE COLLECTED AND SEGREGATED. APPROPRIATE MATERIALS WILL BE RECYCLED. NON-RECYCLABLES: HAULED TO APPROVED LANDFILL

LIMITS OF EARTH DISTURBANCE

THE LIMITS OF EARTH DISTURBANCE FOR THIS PART OF THE PROPERTY ARE COINCIDENT WITH THE NPDES BOUNDARY LINE AND INCLUDE THE STAGING AREA, DITCHES, TREATMENT PONDS AND SED TRAP. NOTE: THE SED TRAP WILL BE CONVERTED TO A REPLACEMENT WETLAND AFTER CONSTRUCTION.



NPDES BOUNDARIES

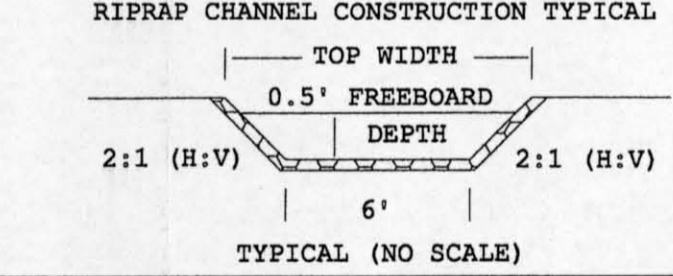
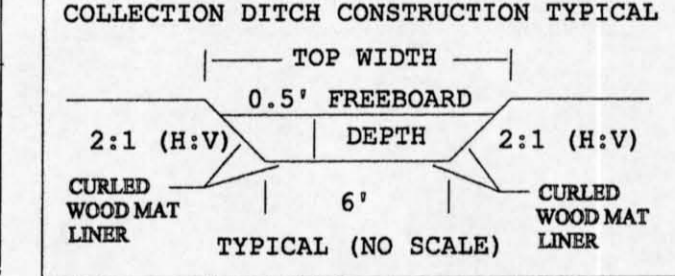
THE NPDES BOUNDARY IS SHOWN ON THE MAP AND IS SPECIFIC TO THIS PART OF THE PROPOSED PROJECT AND IS LABELED AS: NPDES

WATERS OF THE COMMONWEALTH

OVERLAND FLOW FROM BMPs ASSOCIATED WITH THIS PART OF THE PROPERTY WILL BE ROUTED TO LITTLE LAUREL RUN (CH. 93 DES: CW7)

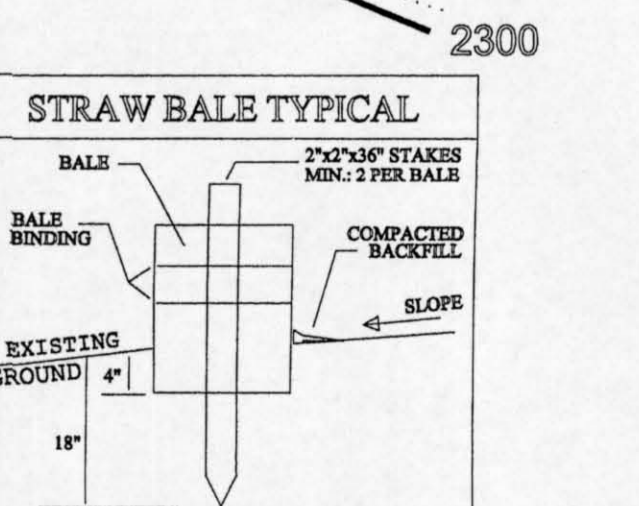
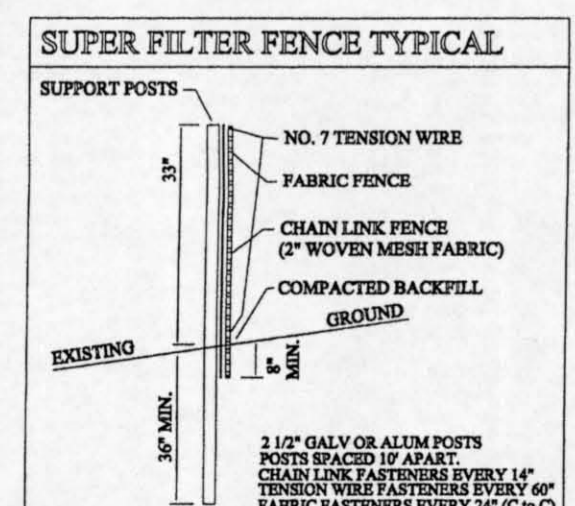
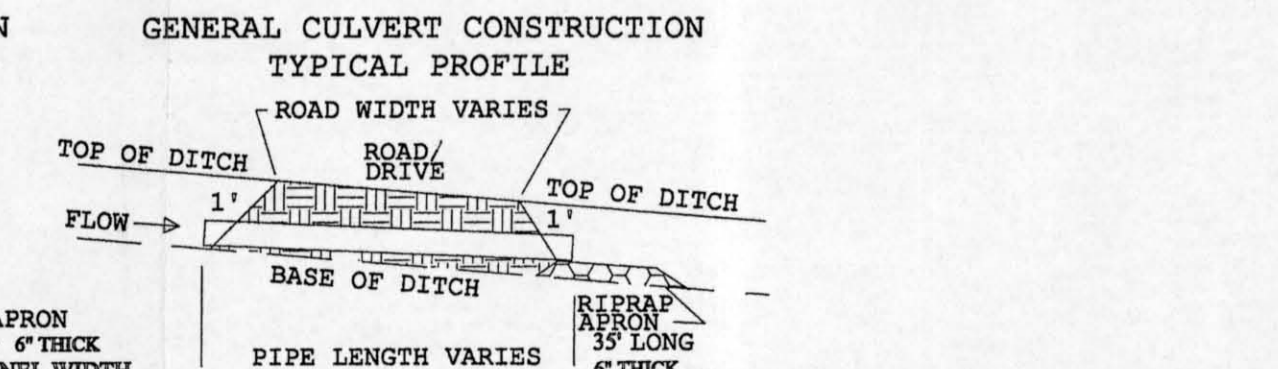
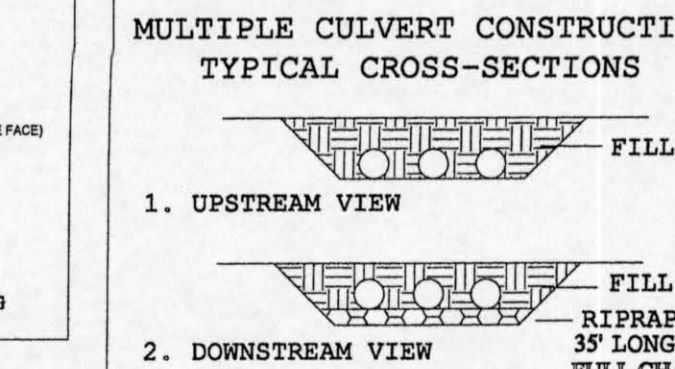
STRUCTURAL BMPs: COLLECTION DITCHES / RIPRAP CHANNELS

MAP KEY	CHANNEL FUNCTION	WATER LINES	AREA (AC)	WATER COMPONENTS (CFS)	DESIGN DATA (CFS)	CHANNEL DESIGN DATA (CFS)	CONSTRUCTION DIMENSIONS (FT)	WIDTHS (FT)	DEPTHS (FT)	FLOW (CFS)	W.F.B.		
DD-2	UG DIVERSION	W-MAT GRASS	3.62	7.72	(10)	6.84	360	9.20	6.00	10.50	0.61	1.11	
BYP-2	CONST BYPASS	3" RIPRAP (R3)	1.10	3.20	3.00	(100)	6.20	250	15.90	3.00	6.30	0.34	0.84
OXY-1	OXIDIZE AMD	15" RIPRAP (R7)	1.10	3.20	3.00	(100)	6.20	250	15.90	3.00	6.30	0.34	0.84



STRUCTURAL BMPs: CULVERT GROUPS / OUTLET PROTECTION

MAP KEY	FUNCTION OF CULVERT GROUP	WATER LINES	AREA (AC)	WATER COMPONENTS (CFS)	DESIGN DATA (CFS)	CULVERT GROUP DESIGN PARAMETERS (CFS)	CONSTRUCTION DIMENSIONS AND SPECIFICATIONS	TAIL MATL	LONG SLOPE	OUTLET NSA	SIZE	THICK	LONG	LONG	(%)	(%)	(%)
CV-5	SM PIT + ROAD RUNOFF (SEG 4)	1.10	1.10	1.66	(100)	1.66	1	1.66	4.74	MIN. FVC(40)	40	1.00	RR APRON	R3	3	6	35
CV-6	AMD FLOW: ROAD SEGMENT 4	1.10	3.20	3.00	(100)	6.20	1	6.20	5.09	MIN. FVC(40)	40	1.00	RR DITCH	R3	3	6	
CV-8	AMD/BYPASS FLOW: ACC ROAD	1.10	3.20	3.00	(100)	6.20	1	6.20	5.09	MIN. FVC(40)	40	1.00	RR DITCH	R3	3	6	



EXCAVATION NOTE: ALLOWABLE SLOPES

CUT/FILL SLOPES ASSOCIATED WITH THIS PROJECT SHALL NOT EXCEED 3:1 (H:V) IN THE FIELD.

- ### SOIL AMENDMENTS / MULCH
- AGRICULTURAL LIMESTONE 3.0 TONS/ACRE
 - FERTILIZER (N-P-K) 120-200-200 LBS./ACRE
 - MULCH (STRAW) 3.0 TONS/ACRE

SEED MIXTURES

STABILIZATION DESCRIPTION	SPECIES	RATE LB/AC	PURITY (%)	GERM (%)	WEED (%)
1. TEMPORARY STABILIZATION	ANNUAL RYEGRASS	10.0	95	85	0.15
	DEBERTONGUE	8.0	95	75	0.10
2. GENERAL STABILIZATION	PERENNIAL RYEGRASS	20.0	95	85	0.15
	TALL FESCUE	15.0	95	75	0.10
	BIRDSFOOT TREFOIL	15.0	95	80	0.15
3. CHANNEL STABILIZATION	TALL FESCUE	50.0	95	80	0.10

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PLAN REVISIONS:

DATE	DESCRIPTION
DEC 2005	ORIGINAL SUBMISSION

5 SYSTEM DESIGN PLAN

SITE: KLONDIKE PASSIVE TREATMENT SYSTEM - 2
DEAN AND GALLITZIN TOWNSHIPS
CAMBRIA COUNTY, PA

OWNER:

SPONSOR:
CLEARFIELD CREEK WATERSHED ASSOCIATION
216 BELDIN HOLLOW ROAD
ASHVILLE, PA 16613

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PLOT DATE: SCALE:
DEC 2005 HOR: 1" = 40'
VER: 40 DU