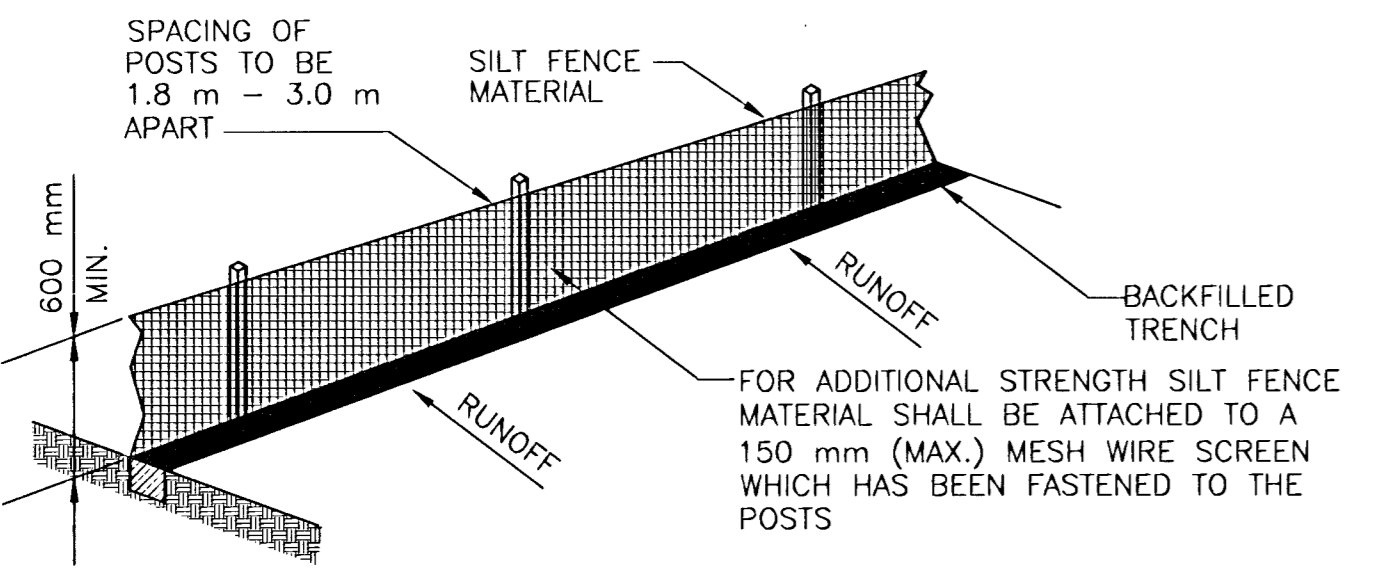


FHWA REG NO.	STATE	PROJECT NO.	YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	87 TE-0156-01	2000	6	6

DATE	
BY	
REFERENCES NOTED	
REFERENCES CHECKED	

SILT FENCE MATERIAL SPECIFICATIONS

GRAB TENSILE STRENGTH	45.3 kg MIN. (ASTM D4632)
MULLEN BURST STRENGTH	2.07 MPa MIN. (ASTM D3786)
TRAPEZOID TEAR STRENGTH	27.2 kg MIN. (ASTM D4533)
WATER FLOW RATE	227 L MIN./m ² (ASTM D4491)
UV STABILITY	70% MIN. (ASTM D4355)



SILT FENCE INSTALLATION

SILT FENCES CAN MINIMIZE SEDIMENT FROM ENTERING STREAMS AND OTHER WATER BODIES. IN ADDITION, THEY SHOULD BE INSTALLED WHERE SEDIMENT FROM SHEET FLOW OR RILL AND GULLY EROSION WILL ENTER DIRECTLY ONTO ADJACENT LANDS.

WHEN USED TO CONTROL SEDIMENT FROM STEEP SLOPES, FILTER FENCES SHOULD BE PLACED AWAY FROM THE TOE OF A SLOPE FOR INCREASED HOLDING CAPACITY.

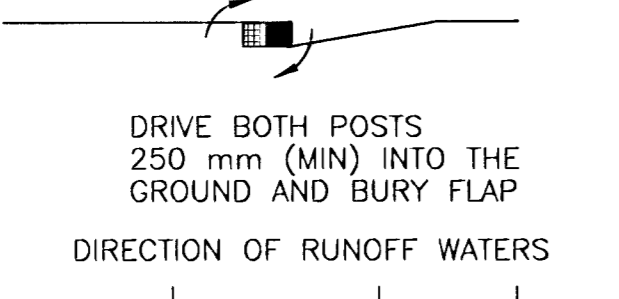
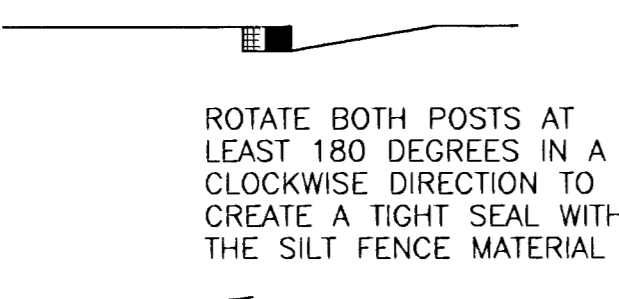
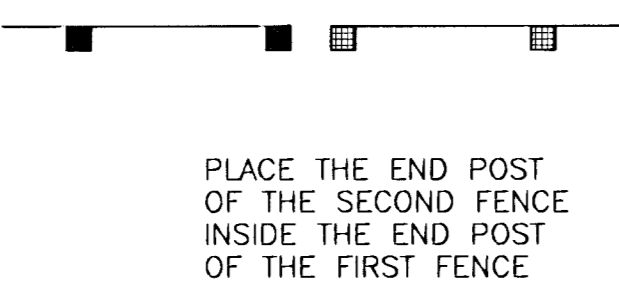
WHEN INSTALLING, IT IS IMPORTANT THE FABRIC MATERIAL BE ANCHORED INTO A TRENCH AND BACK FILLED.

ATTACHING TWO FILTER FENCES TOGETHER SHOULD BE COMPLETED IN A MANNER ILLUSTRATED IN DETAIL #1. BY WRAPPING THE MATERIAL AS ILLUSTRATED, A TIGHT FIT OF MATERIAL IS CREATED AND THE STRUCTURAL STABILITY OF THE FENCE MAINTAINED.

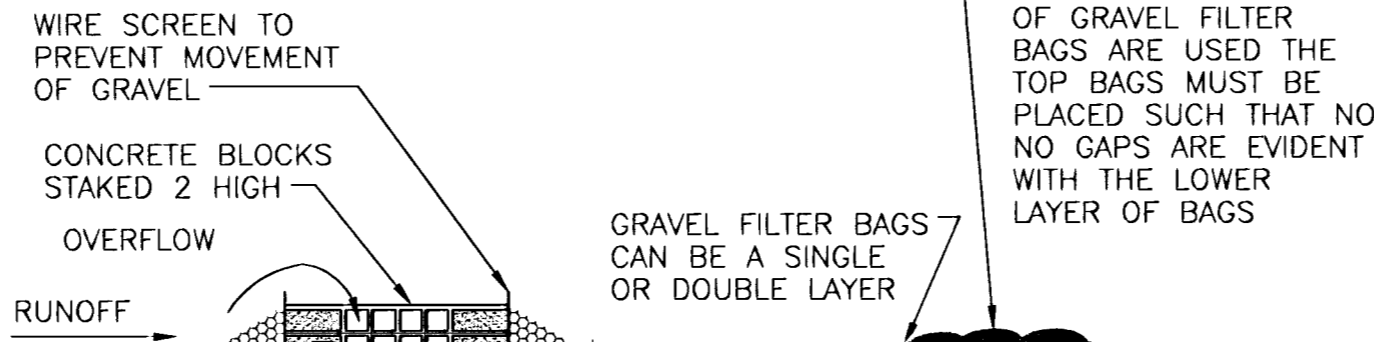
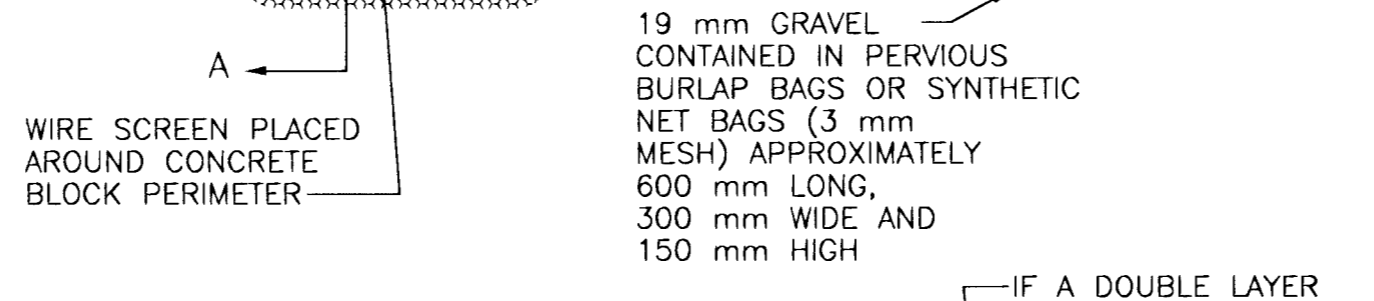
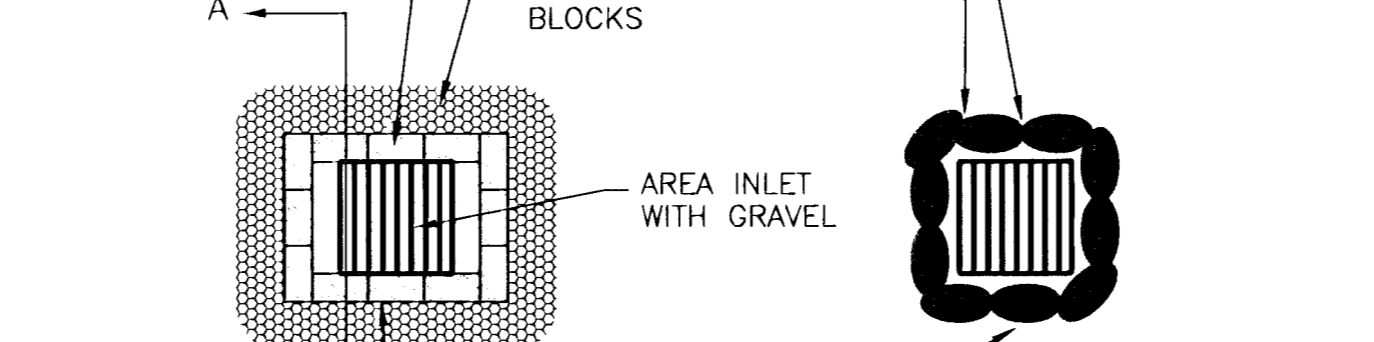
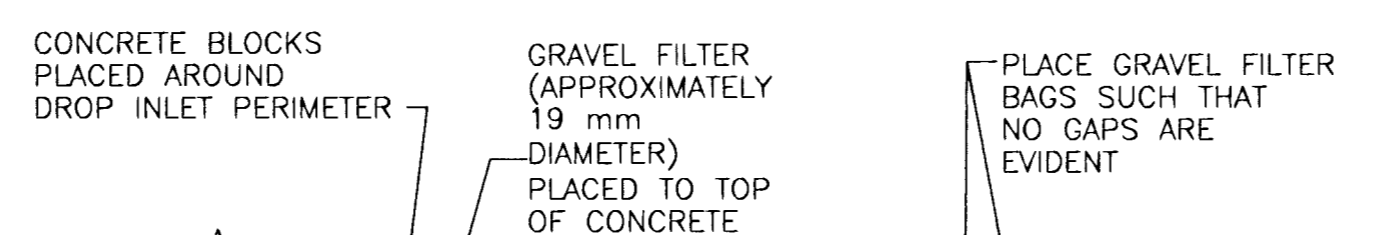
MAINTENANCE OF SILT FENCES REQUIRES THAT THE FABRIC MUST BE INSPECTED AND NEEDED REPAIRS IMPLEMENTED AFTER EVERY STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN MATERIAL REACHES A DEPTH OF ONE-HALF THE FENCE HEIGHT.

WHEN THE CONTRIBUTION DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL AND EITHER SALVAGE OR DISPOSE OF PROPERLY. BRING ALL DISTURBED AREAS TO PROPER GRADE, SMOOTH AND COMPACT. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND INLET.

ATTACHING TWO SILT FENCES



SILT FENCE DETAIL 1



CONCRETE BLOCK FILTER GRAVEL FILTER BAGS ALTERNATES FOR STRAW BALES

GRAVEL FILTER FOR AREA/DROP INLET DETAIL 2

NOTE: GRAVEL FILTERS MAY BE USED ON PAVEMENT OR BARE GROUND

GRAVEL FILTER FOR AREA/DROP INLET DETAIL 2

GRAVEL FILTERS FOR AREA INLETS

ALL STORM DRAINAGE SYSTEM INLETS SHOULD HAVE FILTERS INSTALLED TO TREAT RUNOFF BEFORE WATER IS DISCHARGED INTO A STREAM.

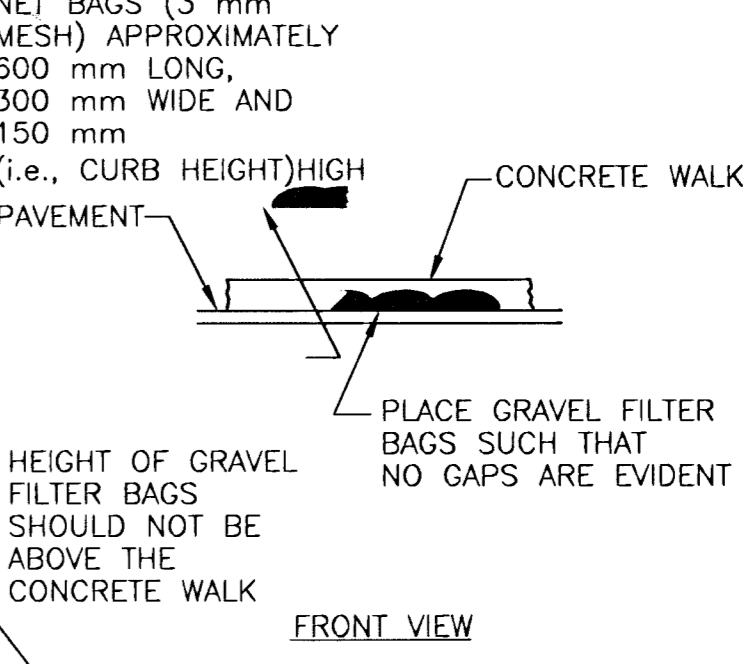
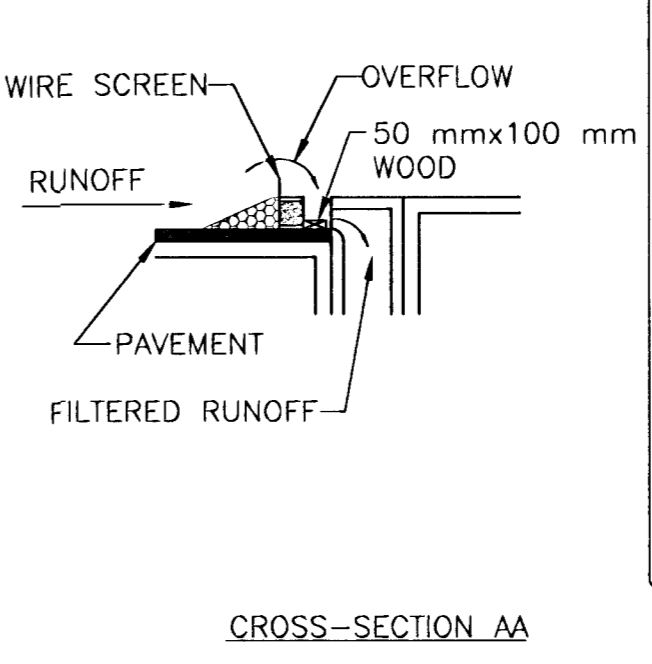
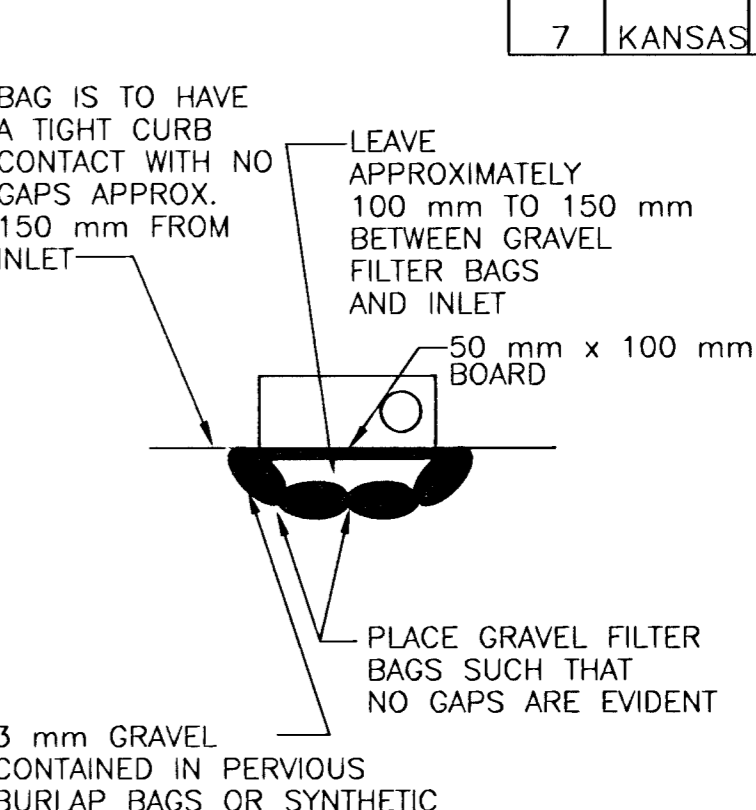
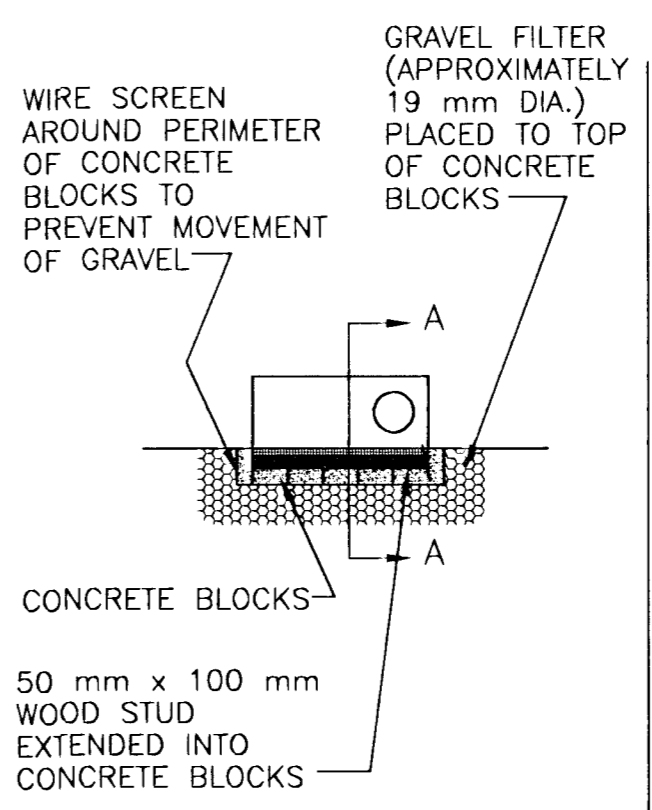
GRAVEL FILTERS WILL BE CONSTRUCTED WITH A COMBINATION OF CONCRETE BLOCKS, 13 mm WIRE SCREEN AND COARSE (APPROX. 19 mm DIAMETER) GRAVEL. USE OF GRAVEL SMALLER THAN 19 mm MAY RESULT IN CLOGGING OF PORES AND REDUCE THE AMOUNT OF WATER FLOWING INTO AN INLET.

GRAVEL FILTERS CAN BE USED IF THE IMMEDIATE AND ADJACENT AREA TO THE DRAIN CONSISTS OF SOIL OR PAVEMENT.

LAY ONE BLOCK ON EACH SIDE OF THE DRAINAGE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW FOR POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 50 mm BELOW THE REST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF BLOCKS AGAINST THE EDGE OF STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. PROVIDE ADDITIONAL SUPPORT BY PLACING 50 mm x 100 mm x 900 mm WOOD STAKES THROUGH BLOCK OPENINGS. CAREFULLY FIT WIRE MESH OVER ALL BLOCK OPENINGS TO RETAIN GRAVEL. USE CLEAN GRAVEL, 19 mm TO 13 mm IN DIAMETER, PLACED 50 mm BELOW TOP OF BLOCKS ON A 1:2 SLOPE OR FLATTER AND SMOOTH TO EVEN GRADE.

ALL GRAVEL FILTERS INSTALLED AROUND AREA DRAINS SHOULD BE INSPECTED AND REPAIRED AFTER EACH RUNOFF EVENT. SEDIMENT SHOULD BE REMOVED WHEN MATERIAL IS WITHIN 50 mm OF THE TOP OF THE FILTER. PERIODICALLY, THE GRAVEL SHOULD BE RAKED TO INCREASE INFILTRATION AND FILTERING OF RUNOFF WATER.

SEDIMENT SHOULD BE REMOVED IMMEDIATELY FROM ANY TRAVELED WAY OF ROADS AND STREETS.



CONCRETE BLOCK FILTER GRAVEL FILTER BAGS ALTERNATES FOR STRAW BALES

CURB INLET GRAVEL FILTER DETAIL 3

NOTE: GRAVEL FILTERS MAY BE USED ON PAVEMENT OR BARE GROUND

CURB INLET GRAVEL FILTER DETAIL 3

CURB INLET GRAVEL FILTERS

ALL STORM DRAINAGE SYSTEM INLETS SHOULD HAVE FILTERS INSTALLED TO TREAT RUNOFF BEFORE WATER IS DISCHARGED INTO A STREAM.

CURB INLET GRAVEL FILTERS WILL BE CONSTRUCTED WITH A COMBINATION OF CONCRETE BLOCKS, 13 mm WIRE SCREEN, COARSE (APPROX. 19 mm DIAMETER) GRAVEL AND A 50 mm x 100 mm WOOD BOARD FOR SUPPORT. USE OF GRAVEL SMALLER THAN 19 mm MAY RESULT IN CLOGGING OF PORES AND REDUCE THE AMOUNT OF WATER FLOWING INTO AN INLET.

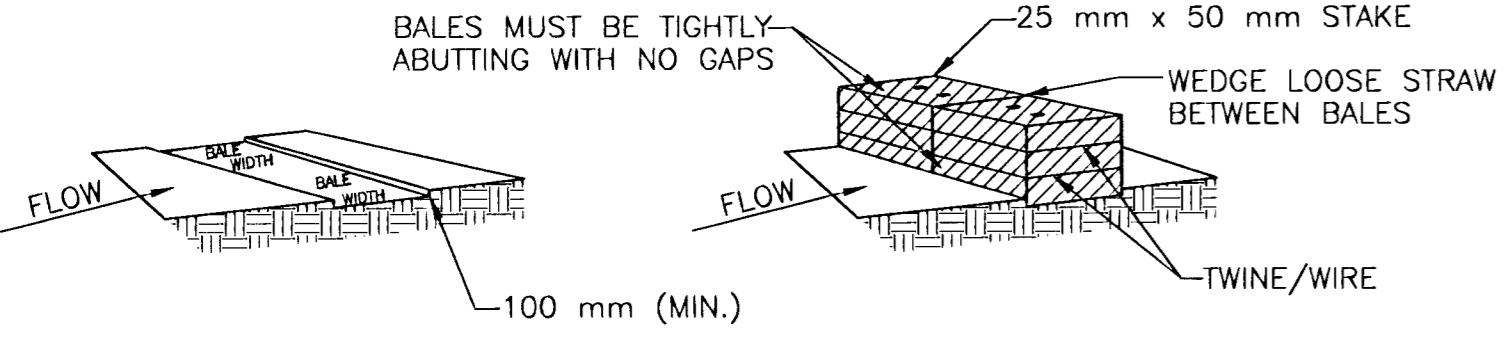
GRAVEL FILTERS CAN BE USED IF THE IMMEDIATE AND ADJACENT AREA TO THE DRAIN CONSISTS OF SOIL OR PAVEMENT.

LAY BLOCKS ON THEIR SIDE TO ALLOW FOR POOL DRAINAGE. PLACE END BLOCKS AGAINST INLET STRUCTURE FOR LATERAL SUPPORT. PLACE 50 mm x 100 mm WOOD STUD THROUGH END BLOCK'S OPENING TO PROVIDE SUPPORT FOR REMAINING BLOCKS. CAREFULLY FIT WIRE MESH OVER ALL BLOCK OPENINGS TO RETAIN GRAVEL. USE CLEAN GRAVEL, 19 mm TO 13 mm DIAMETER. PLACE 50 mm BELOW TOP OF BLOCKS ON A 1:2 SLOPE OR FLATTER AND SMOOTH TO EVEN GRADE.

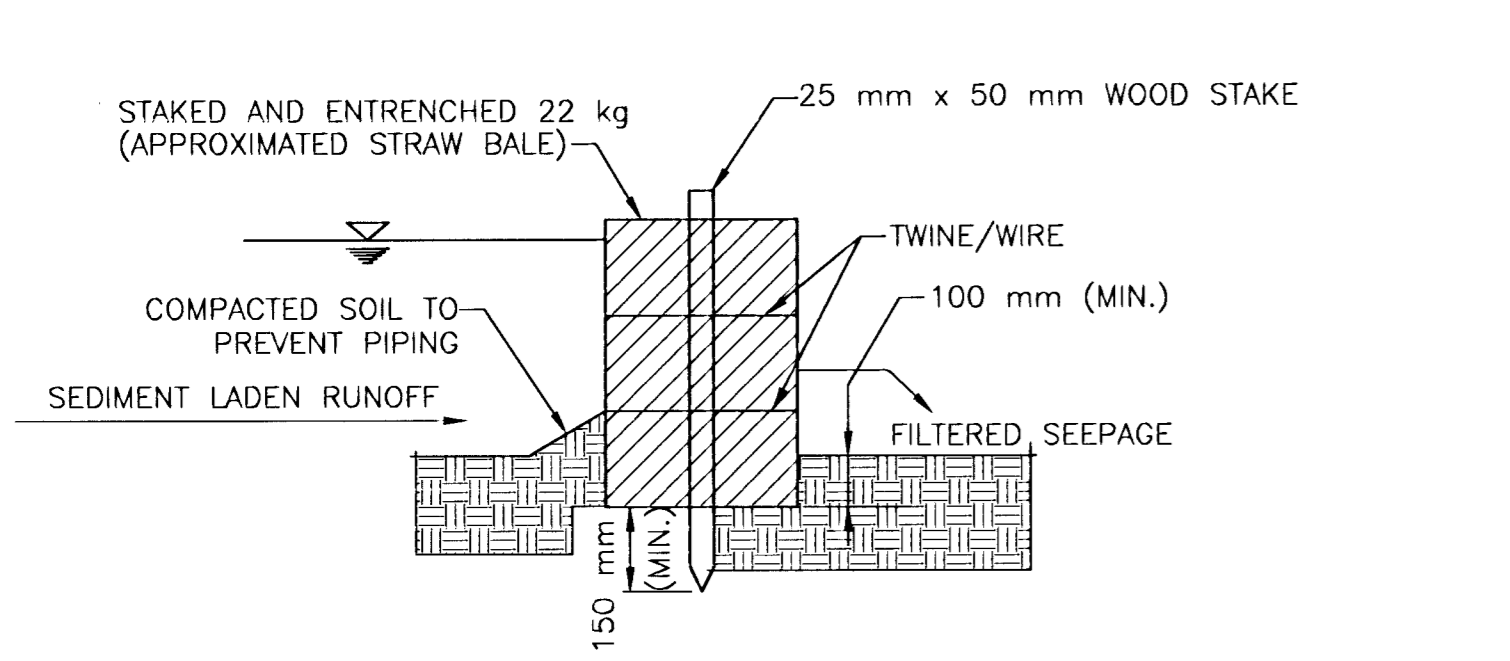
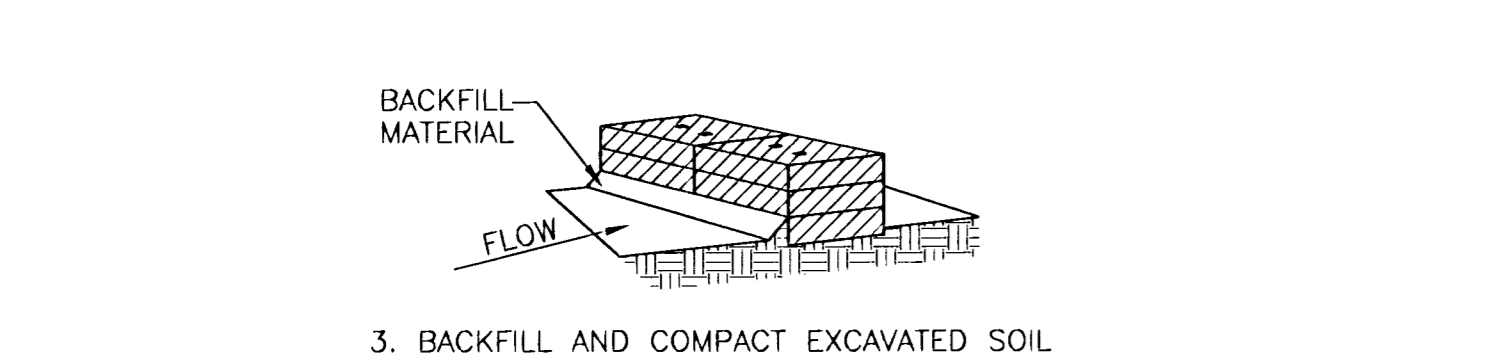
ALL CURB INLET GRAVEL FILTERS SHOULD BE INSPECTED AND REPAIRED AFTER EACH RUNOFF EVENT. SEDIMENT SHOULD BE REMOVED WHEN MATERIAL IS WITHIN 50 mm OF THE TOP OF THE FILTER. PERIODICALLY, THE GRAVEL SHOULD BE RAKED TO INCREASE INFILTRATION AND FILTERING OF RUNOFF WATERS.

SEDIMENT SHOULD BE REMOVED IMMEDIATELY FROM ANY TRAVELED WAY OF ROADS AND STREETS.

WHEN THE CONTRIBUTION DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL AND EITHER SALVAGE OR DISPOSE OF PROPERLY. BRING ALL DISTURBED AREAS TO PROPER GRADE, SMOOTH AND COMPACT. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND INLET.

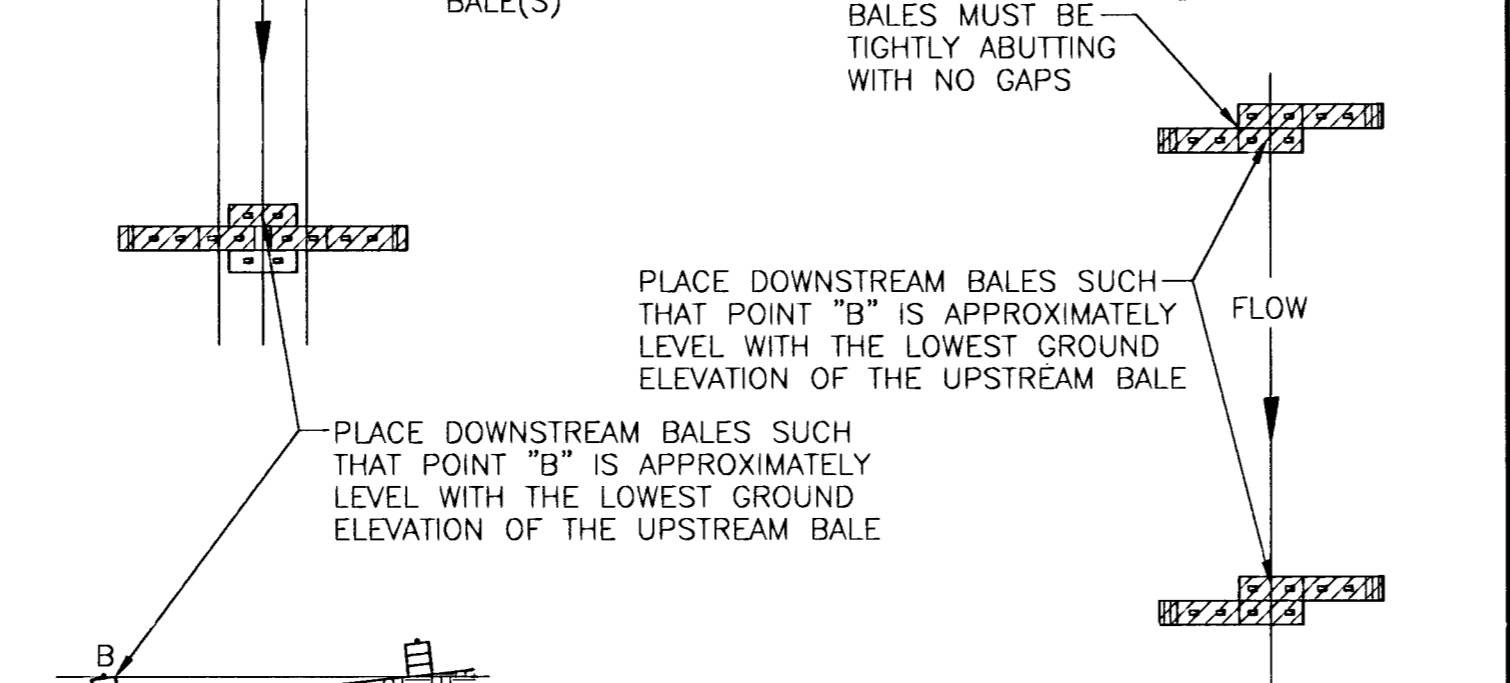
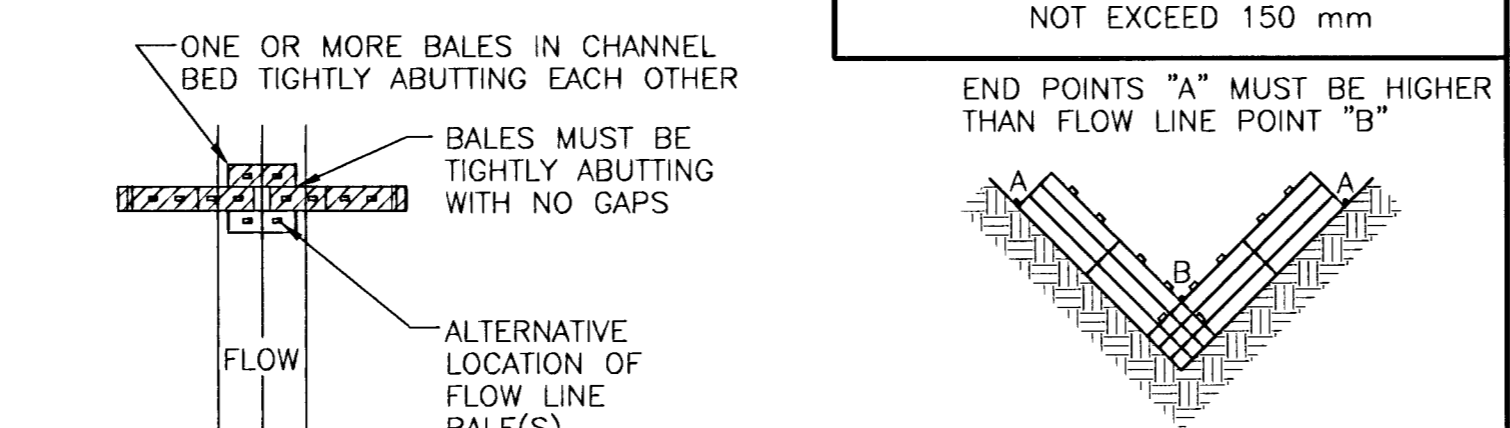
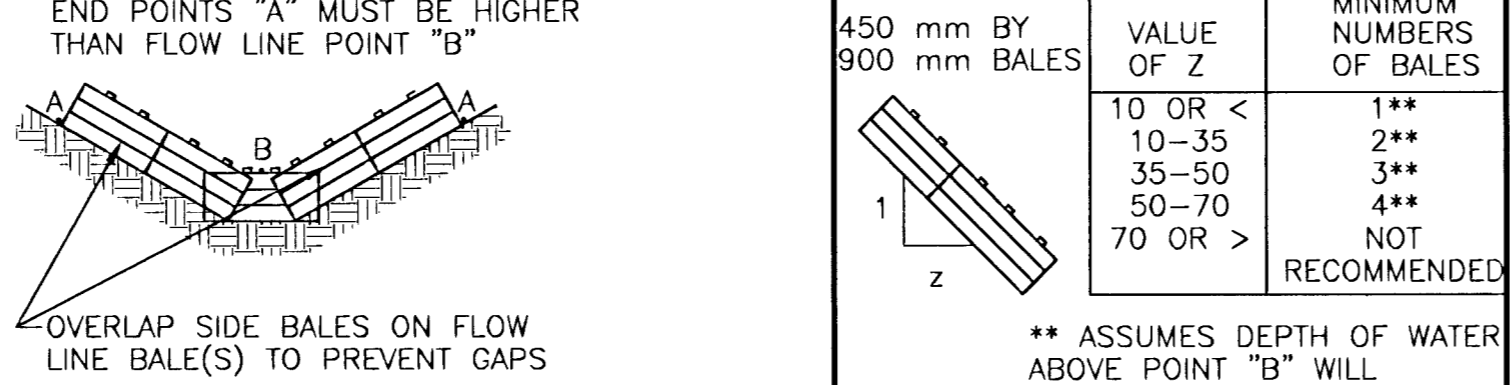


- EXCAVATE THE TRENCH
- PLACE AND STAKE STRAW BALES



CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE

STRAW BALE DIKES FOR DRAINAGE CHANNELS DETAIL 5



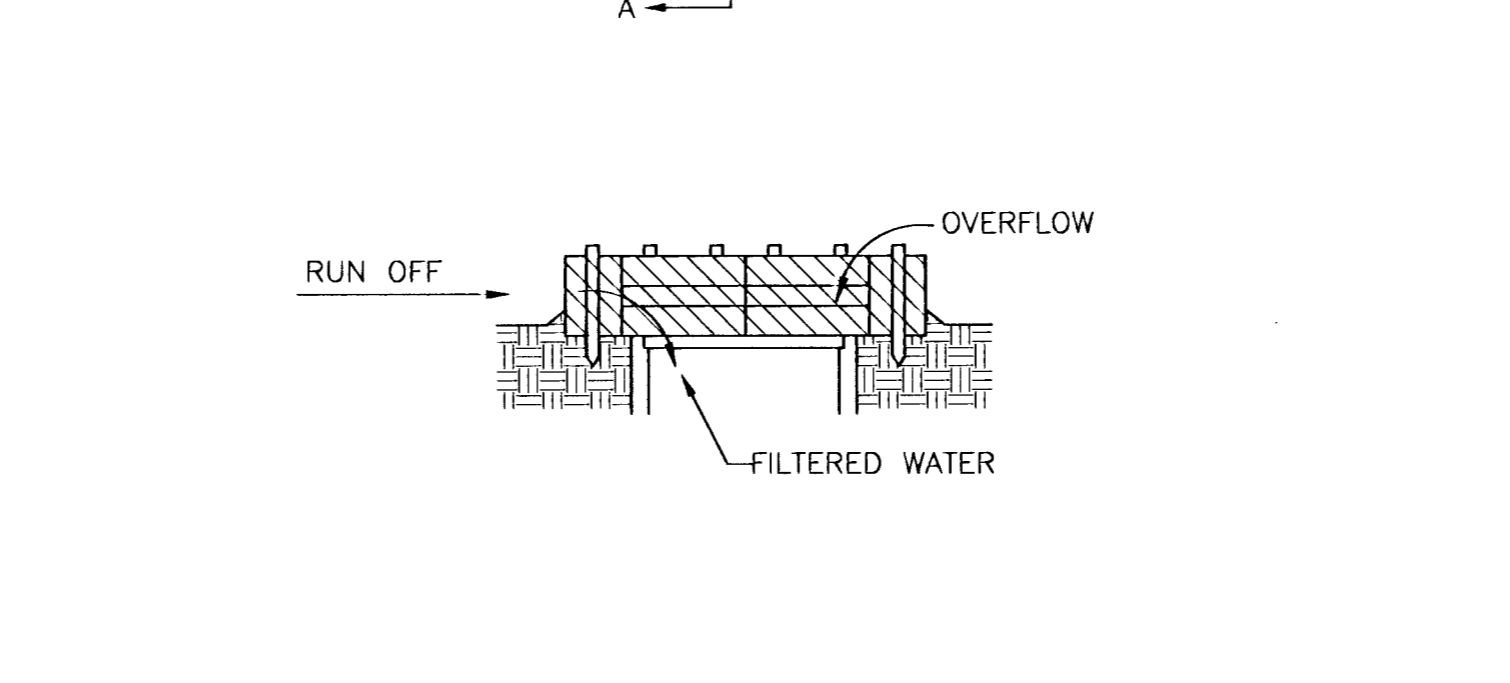
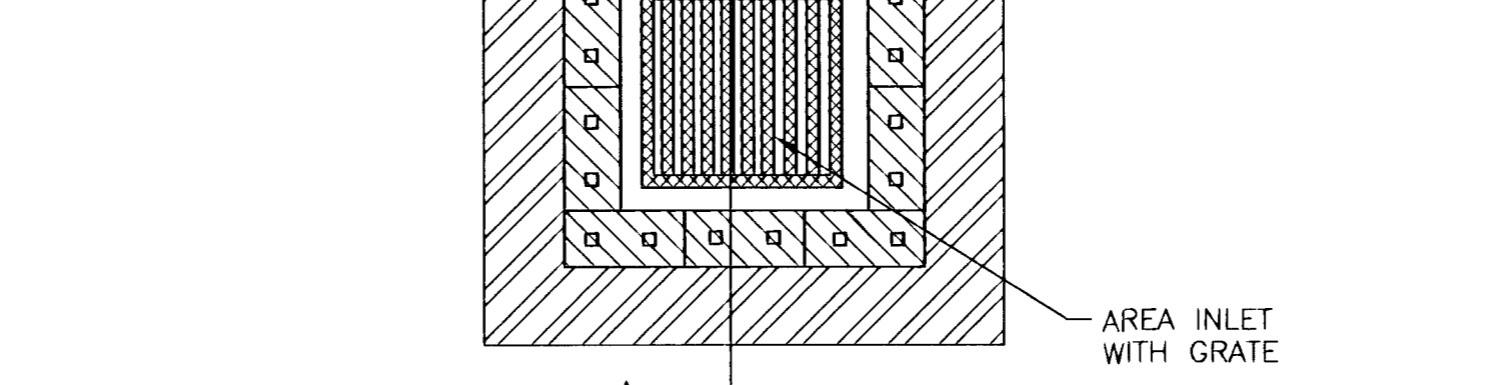
WIDE CHANNELS NARROW CHANNELS

STRAW BALE DIKES FOR DRAINAGE CHANNELS DETAIL 6

STRAW BALES ARE TO BE PLACED 100 mm IN THE SOIL. TIGHTLY ABUTTING WITH NO GAPS. STAKED AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER.

450 mm BY 900 mm BALES	VALUE OF Z	MINIMUM NUMBERS OF BALES
10 OR <	10-35	1**
	35-50	2**
	50-70	3**
	70 OR >	4**
		NOT RECOMMENDED

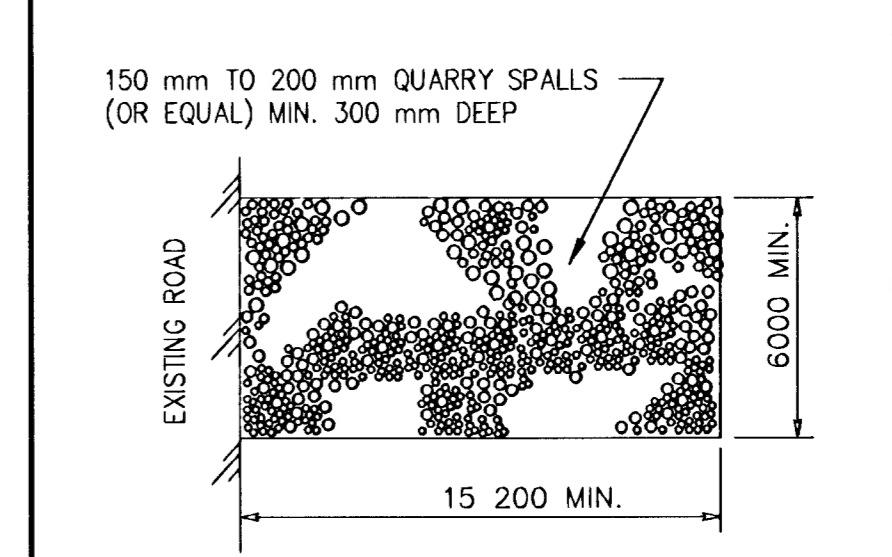
** ASSUMES DEPTH OF WATER ABOVE POINT "B" WILL NOT EXCEED 150 mm



SECTION AA

STRAW BALE FILTER FOR AREA/DROP INLET DETAIL 7

NOTE: STRAW BALE FILTERS ARE NOT TO BE USED IF ADJACENT AREA TO INLET IS PAVED. SEE DETAIL 2 FOR FILTERS ON PAVED AREA



TEMPORARY CONSTRUCTION ENTRANCE/WASH DOWN PAD DETAIL 7

EROSION AND SEDIMENT CONTROL NOTES:

- TEMPORARY STABILIZATION - TOPSOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 28 DAYS WILL BE STABILIZED WITH TEMPORARY SEED AND MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED SHALL BE RYE (GRAIN) APPLIED AT THE RATE OF 178 kg PER HECTARE. AFTER SEEDING, EACH AREA SHALL BE MULCHED STRAW. THE STRAW MULCH IS TO BE TACKED INTO PLACE BY A DISK WITH BLADES SET NEARLY STRAIGHT.
- PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY.

2					
1					
NO.	DATE	REVISIONS	BY	APP'D	
KANSAS DEPARTMENT OF TRANSPORTATION					
EROSION/SEDIMENT CONTROL DETAILS					
87 TE-0156-01			SEDGWICK COUNTY		
MKEC ENGINEERING CONSULTANTS, INC. WCHITA, KANSAS					
DESIGNED BY:	PAF	CHECKED BY:	MDK		
DRAWN BY:	DPG	DATE:	JULY 2000	SHEET	6 OF 6