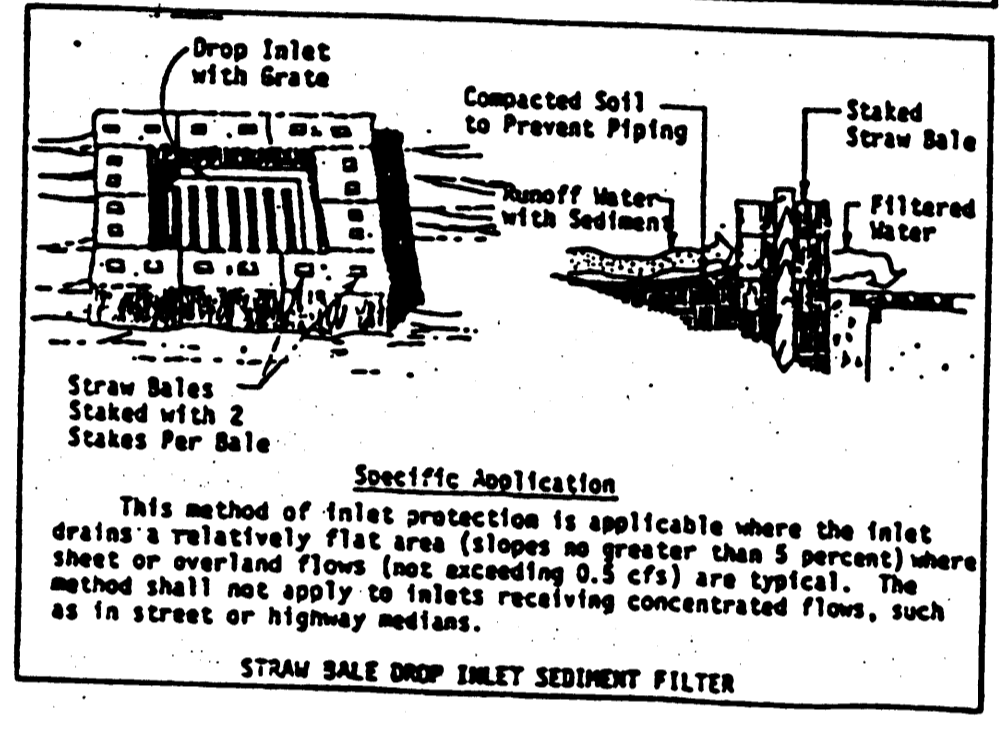
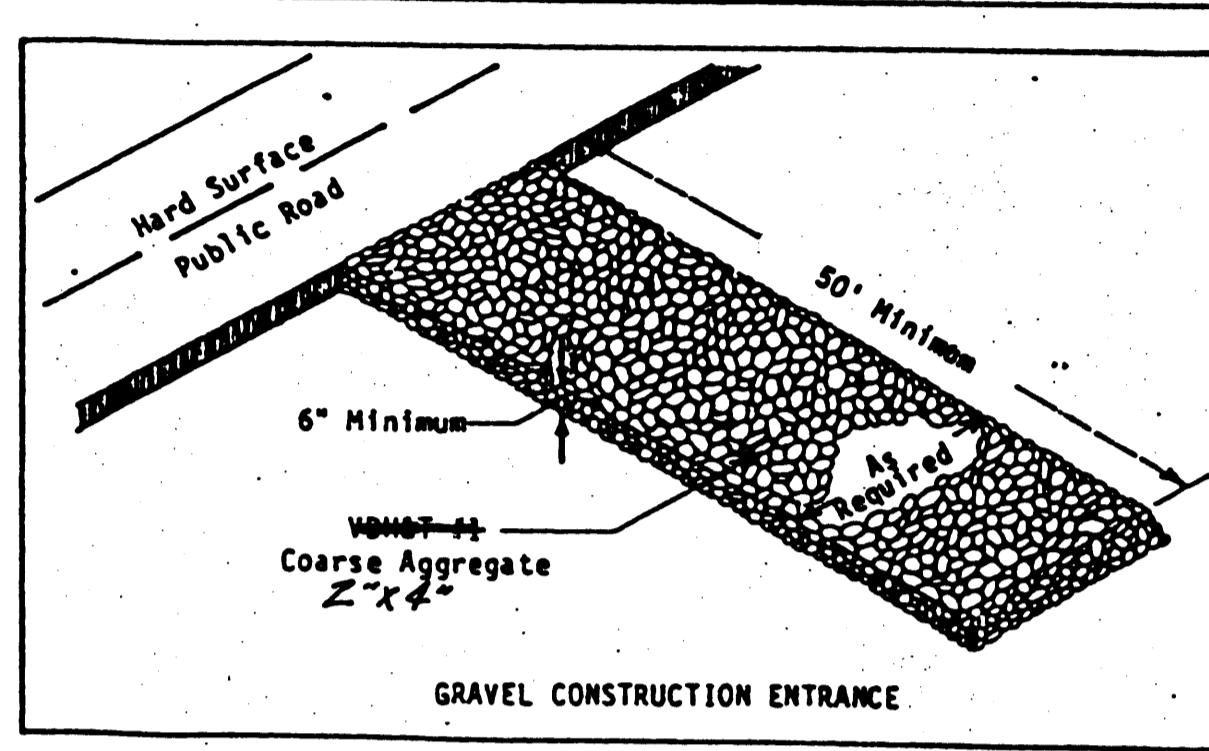
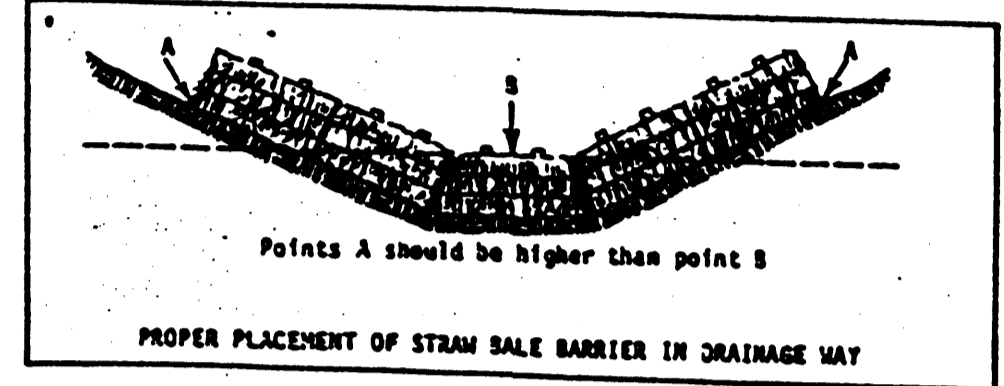
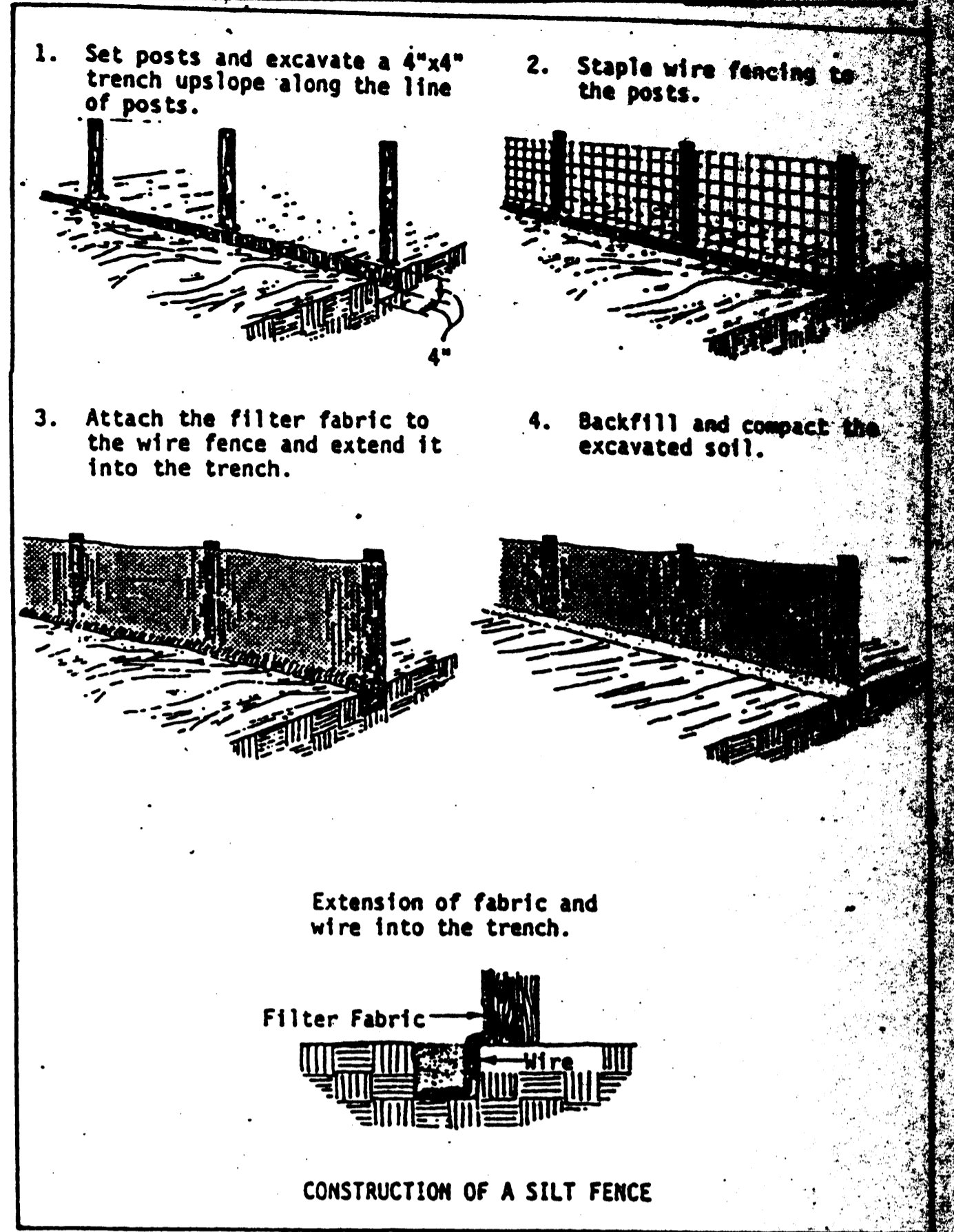
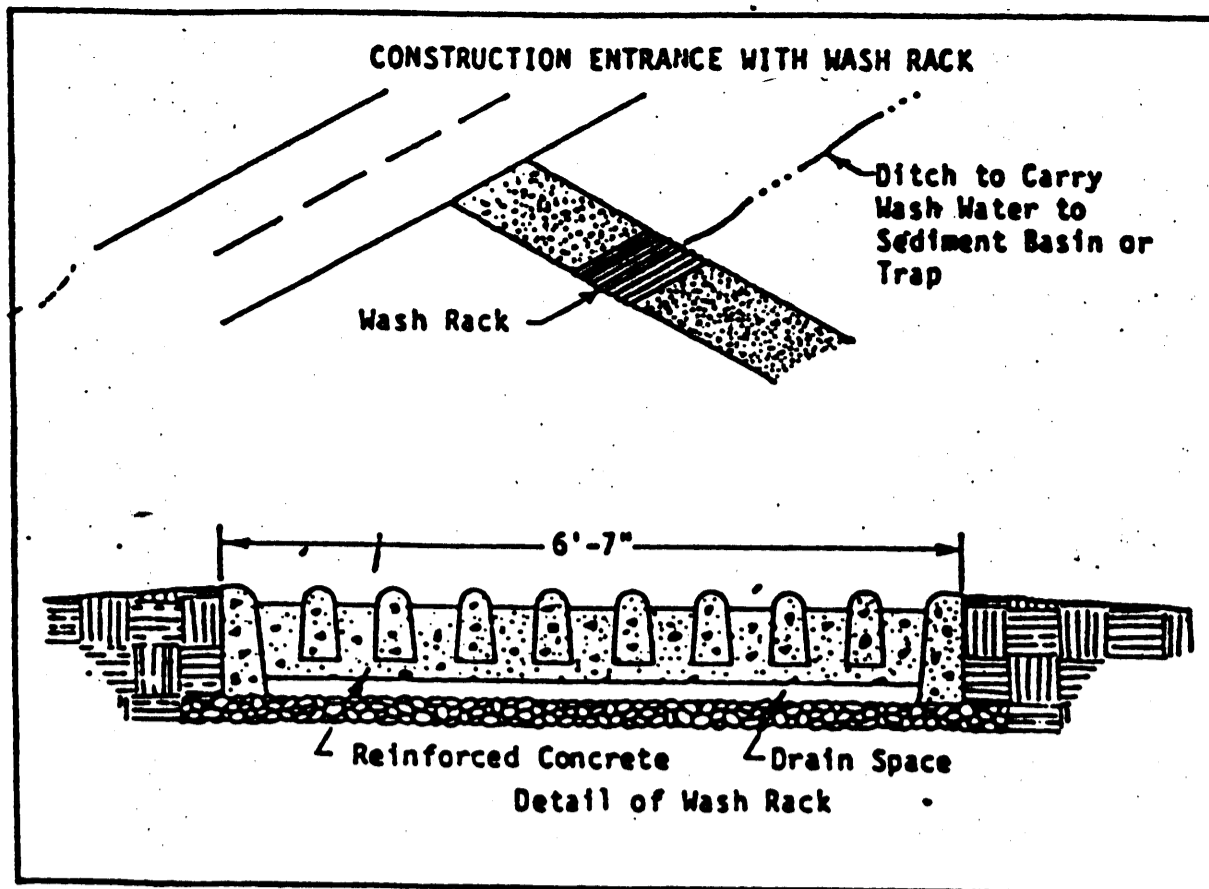
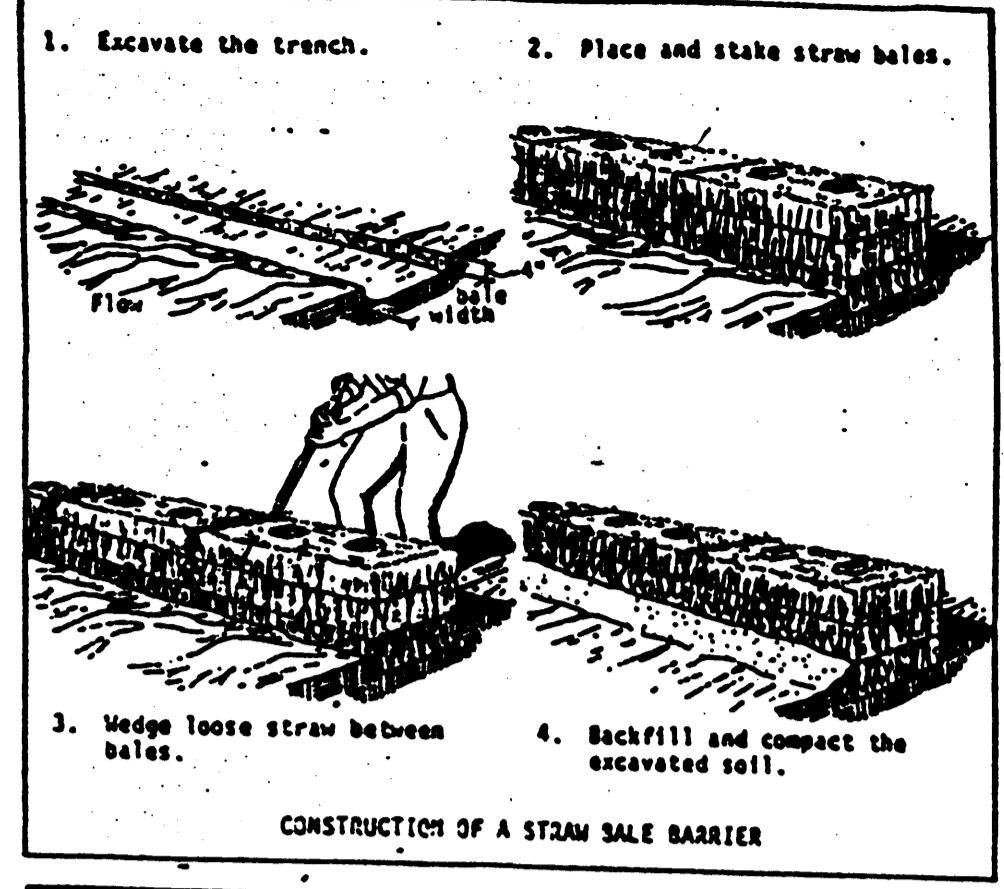
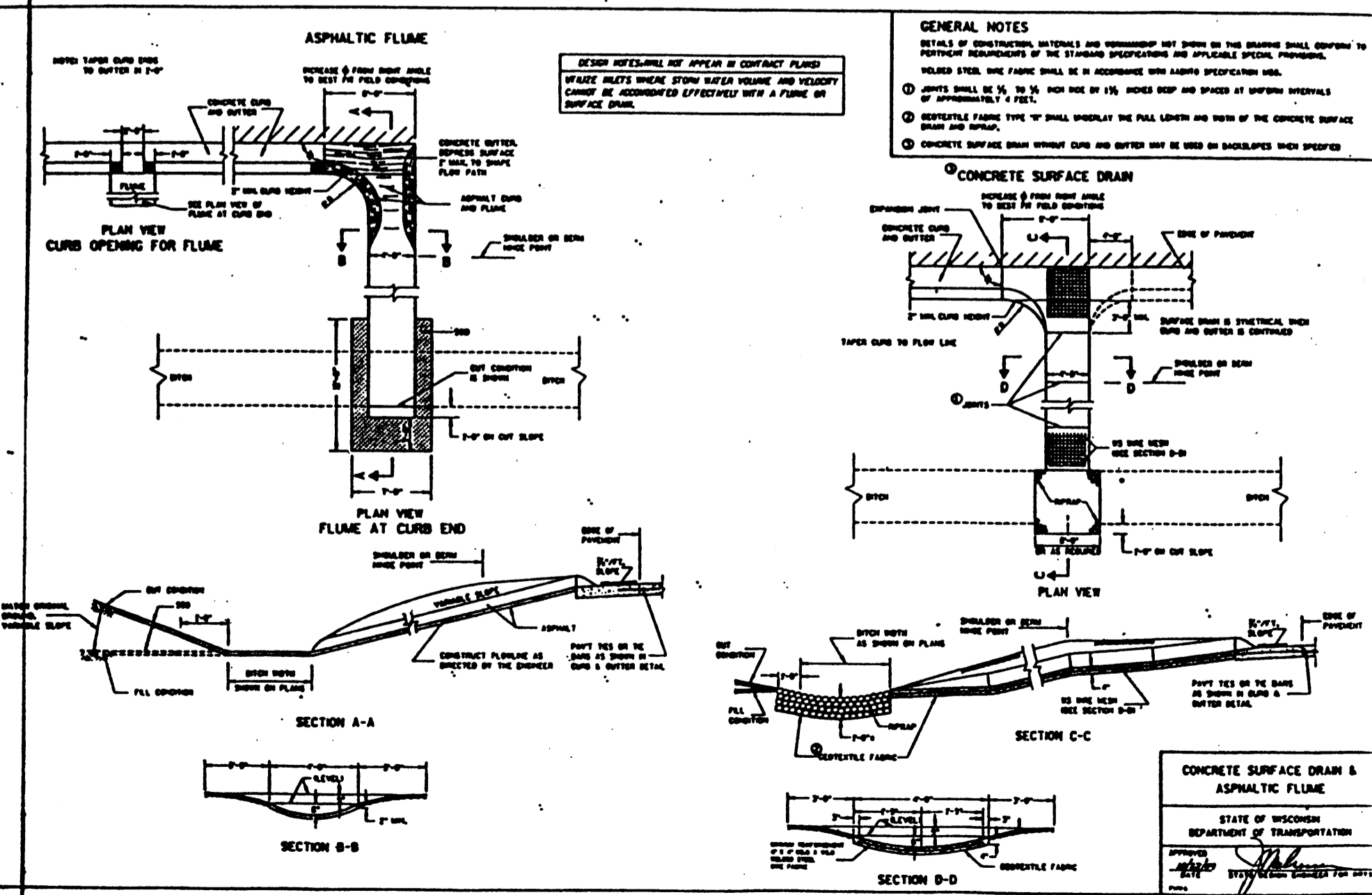
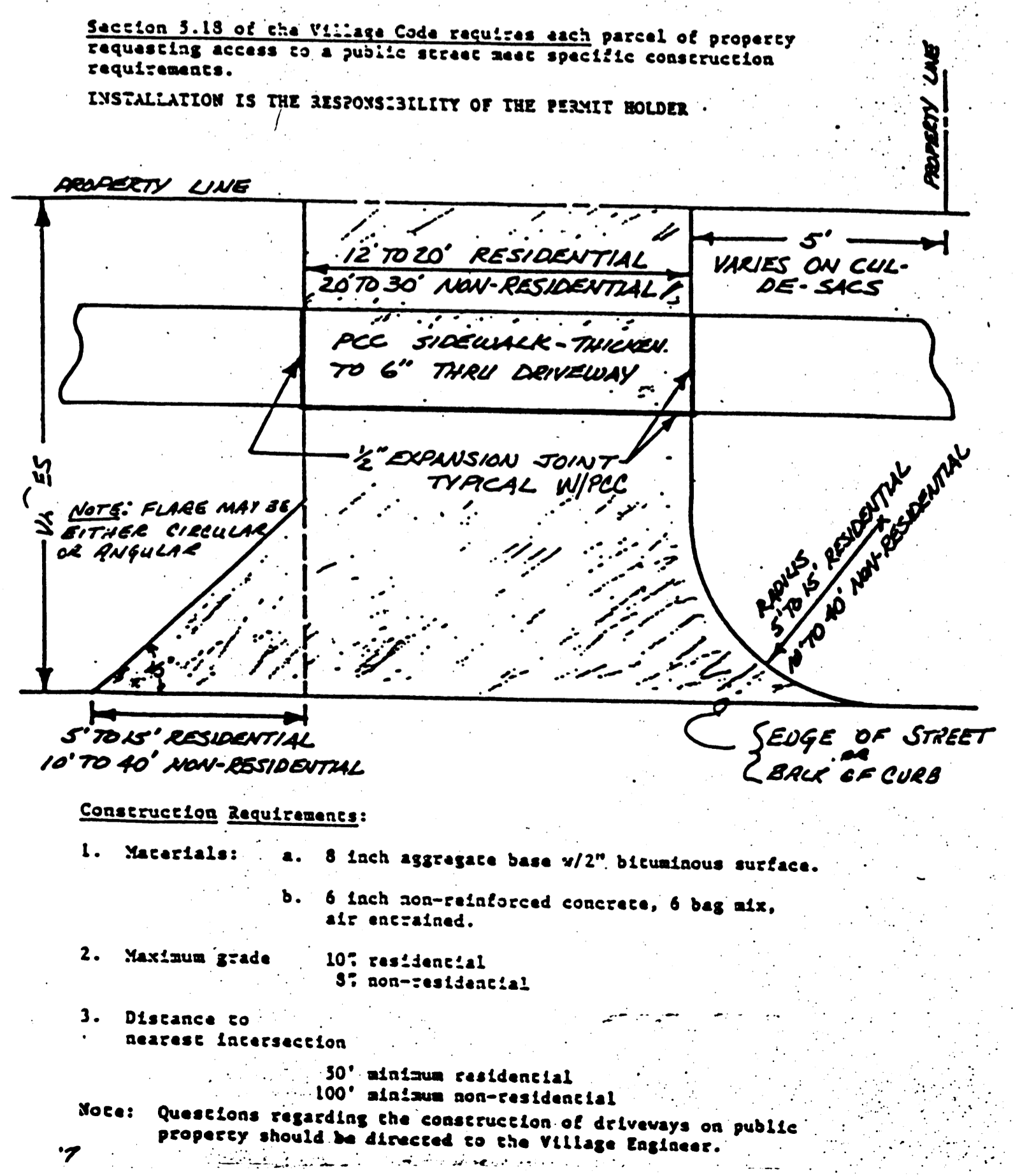


CONTROL MEASURE GROUP	CONTROL MEASURE	PLAN KEY	CONTROL MEASURE CHARACTERISTICS	TEMPORARY	PERMANENT
VEGETATIVE SOIL COVER	Temporary Seeding	⊕	TEMPORARY SEEDING FOR EROSION CONTROL. SEEDS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SEEDS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Permanent Seeding	⊕	PERMANENT SEEDING FOR EROSION CONTROL. SEEDS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SEEDS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Dormant Seeding	⊕	DORMANT SEEDING FOR EROSION CONTROL. SEEDS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SEEDS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Sodding	⊕	SODDING FOR EROSION CONTROL. SODS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SODS ARE PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Ground Cover	⊕	GROUND COVER FOR EROSION CONTROL. COVER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. COVER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
NON VEGETATIVE SOIL COVER	Mulching	⊕	MULCHING FOR EROSION CONTROL. MULCH IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. MULCH IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Aggregate Cover	⊕	AGGREGATE COVER FOR EROSION CONTROL. AGGREGATE IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. AGGREGATE IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Paving	⊕	PAVING FOR EROSION CONTROL. PAVEMENT IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. PAVEMENT IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
DIVERSIONS	Ridge Diversion	⊕	RIDGE DIVERSION FOR EROSION CONTROL. RIDGE IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. RIDGE IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Channel Diversion	⊕	CHANNEL DIVERSION FOR EROSION CONTROL. CHANNEL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. CHANNEL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Combination Diversion	⊕	COMBINATION DIVERSION FOR EROSION CONTROL. COMBINATION IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. COMBINATION IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Curb and Gutter	⊕	CURB AND GUTTER FOR EROSION CONTROL. CURB AND GUTTER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. CURB AND GUTTER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
WATERWAYS	Bare Channel	⊕	BARE CHANNEL FOR EROSION CONTROL. CHANNEL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. CHANNEL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Vegetative Channel	⊕	VEGETATIVE CHANNEL FOR EROSION CONTROL. CHANNEL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. CHANNEL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
ENCLOSED DRAINAGE	Storm Sewer	⊕	STORM SEWER FOR EROSION CONTROL. SEWER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SEWER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Underdrain	⊕	UNDERDRAIN FOR EROSION CONTROL. UNDERDRAIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. UNDERDRAIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
SPILLWAYS	Straight Pipe Spillway	⊕	STRAIGHT PIPE SPILLWAY FOR EROSION CONTROL. SPILLWAY IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SPILLWAY IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Drop Inlet Pipe Spillway	⊕	DROP INLET PIPE SPILLWAY FOR EROSION CONTROL. SPILLWAY IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SPILLWAY IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Well Spillway	⊕	WELL SPILLWAY FOR EROSION CONTROL. SPILLWAY IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. SPILLWAY IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
OUTLETS	Lined Apron	⊕	LINED APRON FOR EROSION CONTROL. APRON IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. APRON IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Embankment Sed. Basin	⊕	EMBANKMENT SEDIMENT BASIN FOR EROSION CONTROL. BASIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. BASIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
SEDIMENT BASINS	Excavated Sediment Basin	⊕	EXCAVATED SEDIMENT BASIN FOR EROSION CONTROL. BASIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. BASIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Combination Sed. Basin	⊕	COMBINATION SEDIMENT BASIN FOR EROSION CONTROL. BASIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. BASIN IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
SEDIMENT FILTERS	Barrier Filter	⊕	BARRIER FILTER FOR EROSION CONTROL. FILTER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. FILTER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Vegetative Filter	⊕	VEGETATIVE FILTER FOR EROSION CONTROL. FILTER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. FILTER IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
MUD AND DUST CONTROL	Stabilized Const. Entrance	⊕	STABILIZED CONSTRUCTION ENTRANCE FOR EROSION CONTROL. ENTRANCE IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. ENTRANCE IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		
	Dust and Traffic Control	⊕	DUST AND TRAFFIC CONTROL FOR EROSION CONTROL. CONTROL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY. CONTROL IS PLANTED IN ROWS OR STRIPS. SOIL IS COVERED IMMEDIATELY.		



TYPICAL DRIVEWAY DETAIL



PIPE INSTALLATION BY BORING OR JACKING:

Pipes may be installed by boring instead of tunneling where ground conditions are suitable and when approved by the engineer. The boring auger shall have a diameter at least 6 inches larger than the outside diameter of the bell of the pipe to be installed. A 3-inch sand cushion shall be placed in the bore hole before installing the pipe. The pipe shall be carefully pushed into place so as not to disturb the bore hole. The annular space around the pipe shall be blown full of sand to fill all voids. Sewer pipes of 16-inch diameter size and larger may be installed by the jacking and boring method using Class IV reinforced concrete pipe with tongue and groove type joints. All other pipes shall be placed inside a casing pipe installed by the jacking and boring method. Casing pipe shall be new steel pipe conforming to the latest revised specification requirements of ASTM A134 with field welded butt joints, a minimum yield strength of 35,000 psi, and the following minimum wall thickness:

Nominal Pipe Size	Minimum Wall Thickness - Inches Under Highway	Under Railroad
16-inch	0.250	0.292
18-inch	0.250	0.312
20-inch	0.250	0.344
24-inch	0.312	0.406
30-inch	0.312	0.469
36-inch	0.375	0.532
42-inch	0.375	0.563

All boring and jacking construction methods shall comply with the requirements of the railroad or highway authority. The carrier pipe shall be supported for its entire length inside the casing pipe by means of hardwood planks strapped to the casing pipe in such a way as to support the pipe at the required elevation and slope and to prevent shifting or flotation. The annular space between the carrier pipe and casing pipe shall be blown full of sand to fill all voids.

CRI

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EROSION CONTROL STANDARDS

SHEET 18