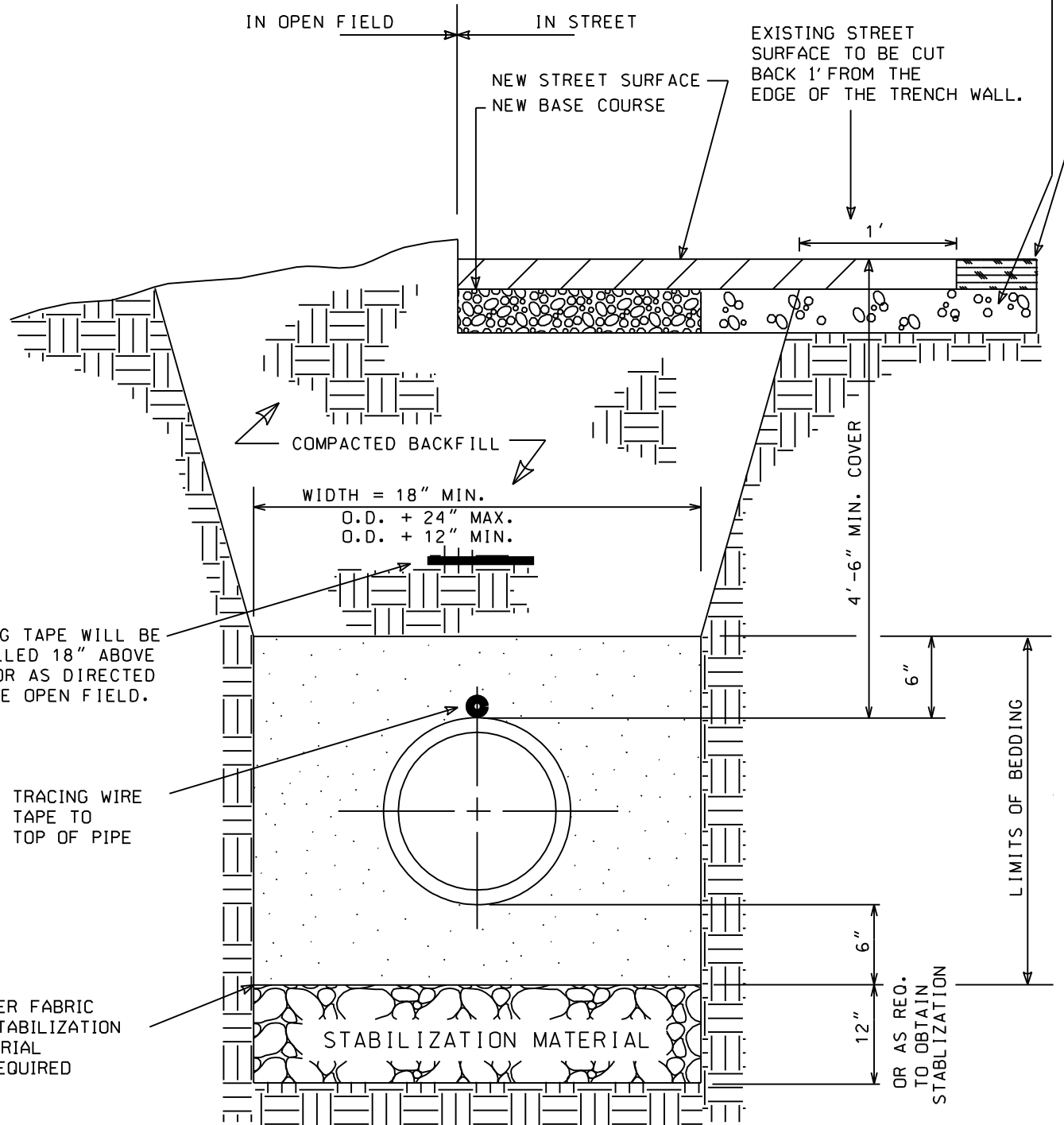


EXISTING STREET SURFACE
EXISTING BASE COURSE

IN OPEN FIELD IN STREET

EXISTING STREET SURFACE TO BE CUT BACK 1' FROM THE EDGE OF THE TRENCH WALL.

NEW STREET SURFACE
NEW BASE COURSE



WARNING TAPE WILL BE INSTALLED 18" ABOVE PIPE OR AS DIRECTED IN THE OPEN FIELD.

TRACING WIRE TAPE TO TOP OF PIPE

FILTER FABRIC IF STABILIZATION MATERIAL IS REQUIRED

WIDTH = 18" MIN.
O.D. + 24" MAX.
O.D. + 12" MIN.

4' - 6" MIN. COVER

6"

LIMITS OF BEDDING

6"

12"

OR AS REQ. TO OBTAIN STABILIZATION

NOTES:

1. BACKFILL TO BE COMPACTED TO 95% OF A.S.T.M. D-698 DENSITY IN ALL AREAS, UNLESS OTHERWISE NOTED.
2. 14 AWG. ~~STRANDED OR~~ SOLID COPPER WIRE SHALL BE INSTALLED AS TRACING WIRE ABOVE ALL NON METALIC POTABLE WATER PIPES. THE WIRE SHALL BE CONNECTED AND COME TO THE SURFACE AS DIRECTED.
3. FILTER FABRIC IS REQUIRED IF STABILIZATION MATERIAL IS USED. THE FABRIC SHALL BE INSTALLED AS SHOWN IN THE DETAIL.

TRENCH DETAIL

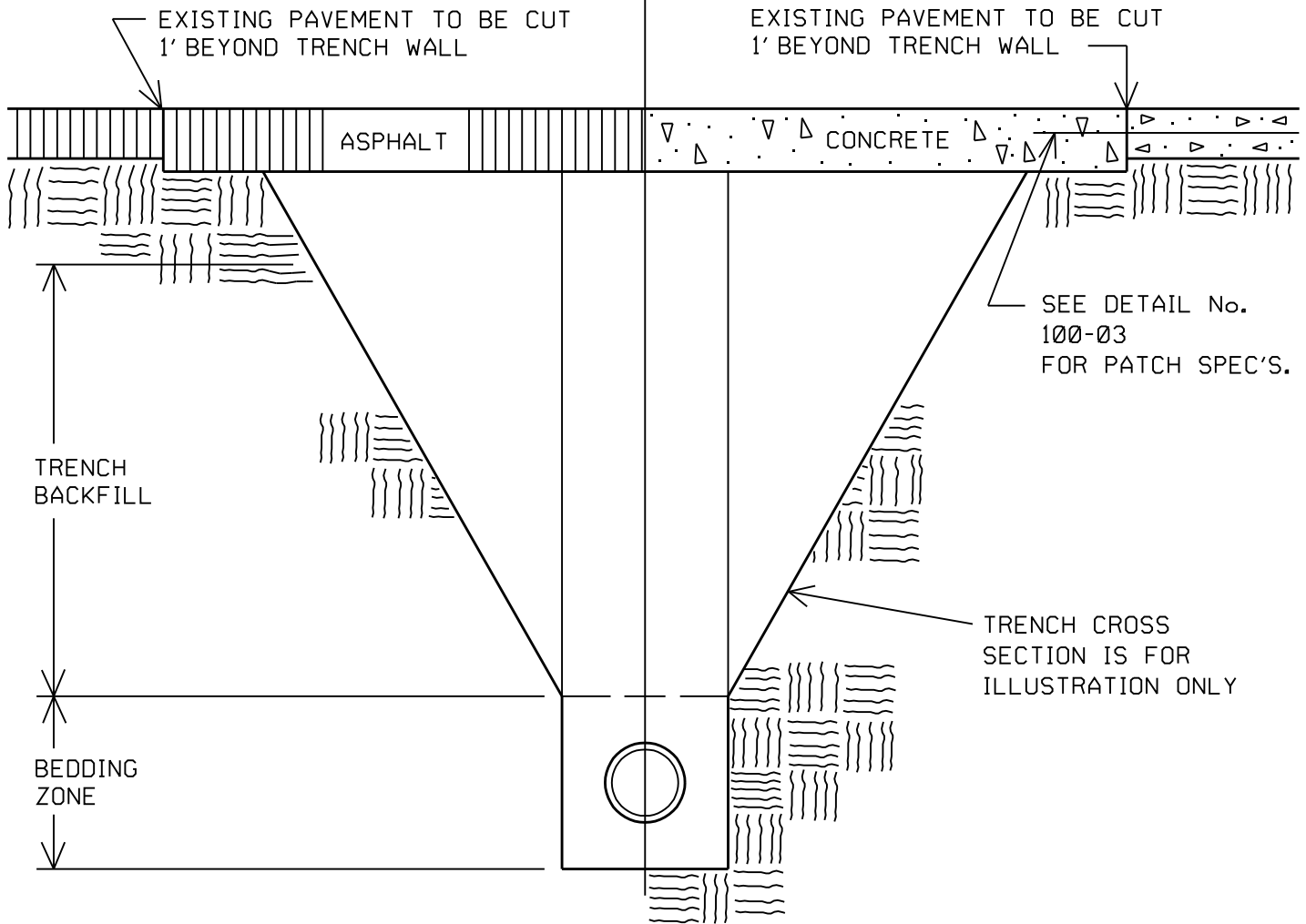
N.T.S.

3-19-93 BM
6-24-97 JR



TRENCH PATCH FOR ASPHALT PAVEMENT

TRENCH PATCH FOR CONCRETE PAVEMENT



STREET CLASSIFICATION PER L.A.C.P.			
	LOCAL	COLLECTOR	ARTERIAL
CONCRETE	10"	10"	10"
FULL DEPTH ASPHALT	6"	8"	11"

} MIN. REQ'D. THICKNESS OR MATCH EXIST. THICKNESS IF GREATER.

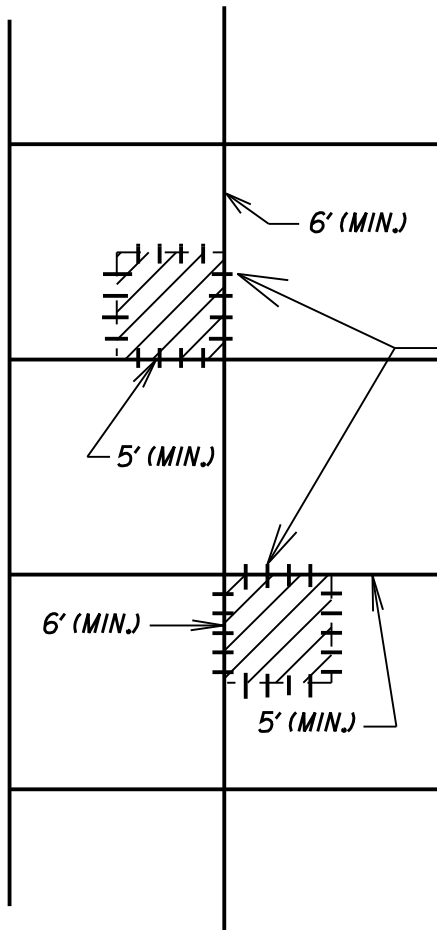
NOTES: ASPHALT SHALL BE USE TO PATCH ASPHALT
6" CONCRETE SHALL BE USED TO PATCH CONCRETE.

TYPICAL ASPHALT & CONCRETE TRENCH PATCH

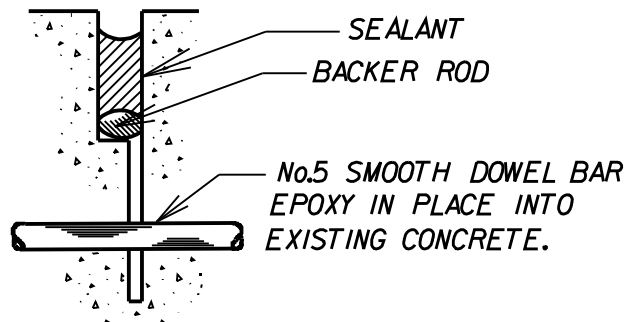
N.T.S.

REVISED: 11/5/2003
3-19-93 BM





18" No.5 SMOOTH BAR
 18" ON CENTER TRANSVERSE
 30" ON CENTER LONGITUDINALLY



SEALANT

BACKER ROD

No.5 SMOOTH DOWEL BAR
 EPOXY IN PLACE INTO
 EXISTING CONCRETE.

JOINT DETAIL

NOTE: MINIMUM REMOVE AND REPLACE PATCH SIZE
 IS 1/4 PANEL WITH MINIMUM DIMENSIONS
 AS SHOWN. (SECTION III.03)



PUBLIC WORKS DIVISION

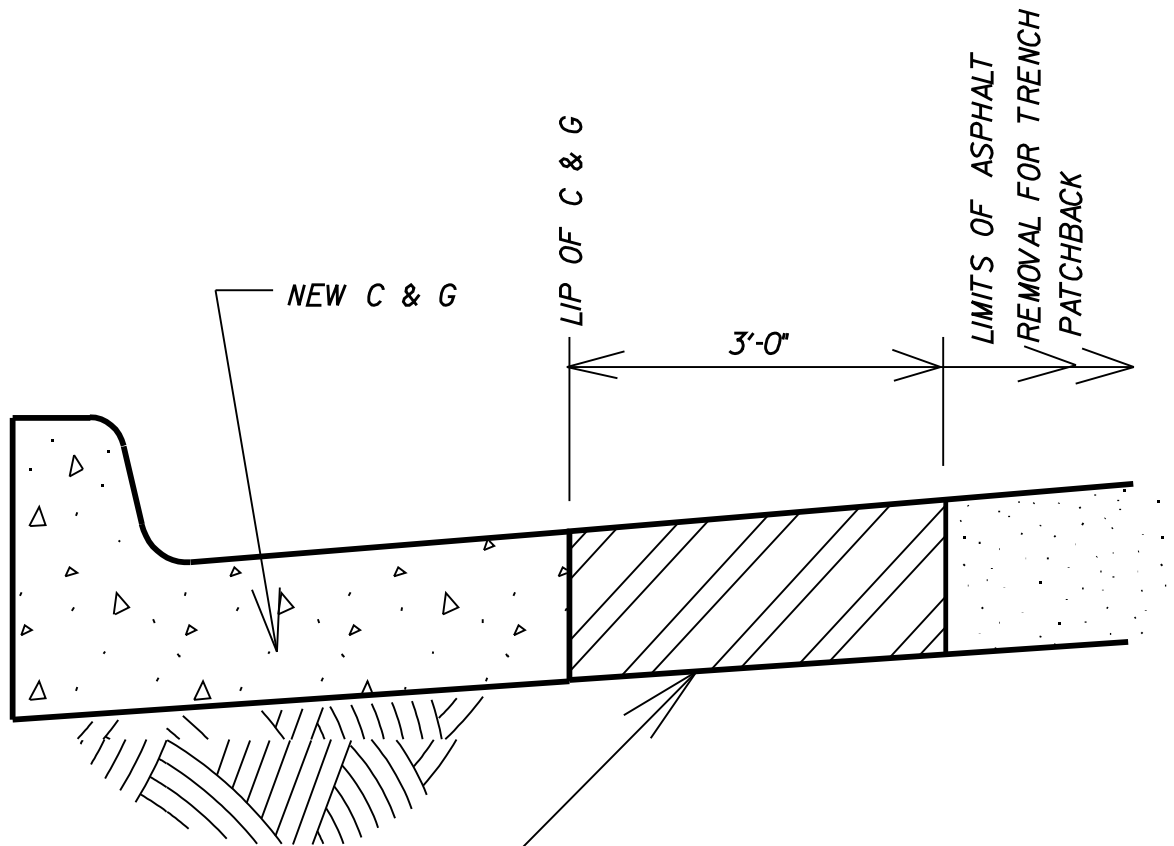
CONCRETE PAVEMENT PATCH

DETAIL 100-03

REB

DATE: MARCH, 1993

SCALE: NOT TO SCALE



IF LIMITS OF ASPHALT REMOVAL FOR TRENCH PATCHBACK FALLS WITHIN 3'-0" OF EDGE OF PAVEMENT REMOVE AND REPLACE ASPHALT TO EDGE OF PAVEMENT.
(SECTION III.02)

6-24-97 JR



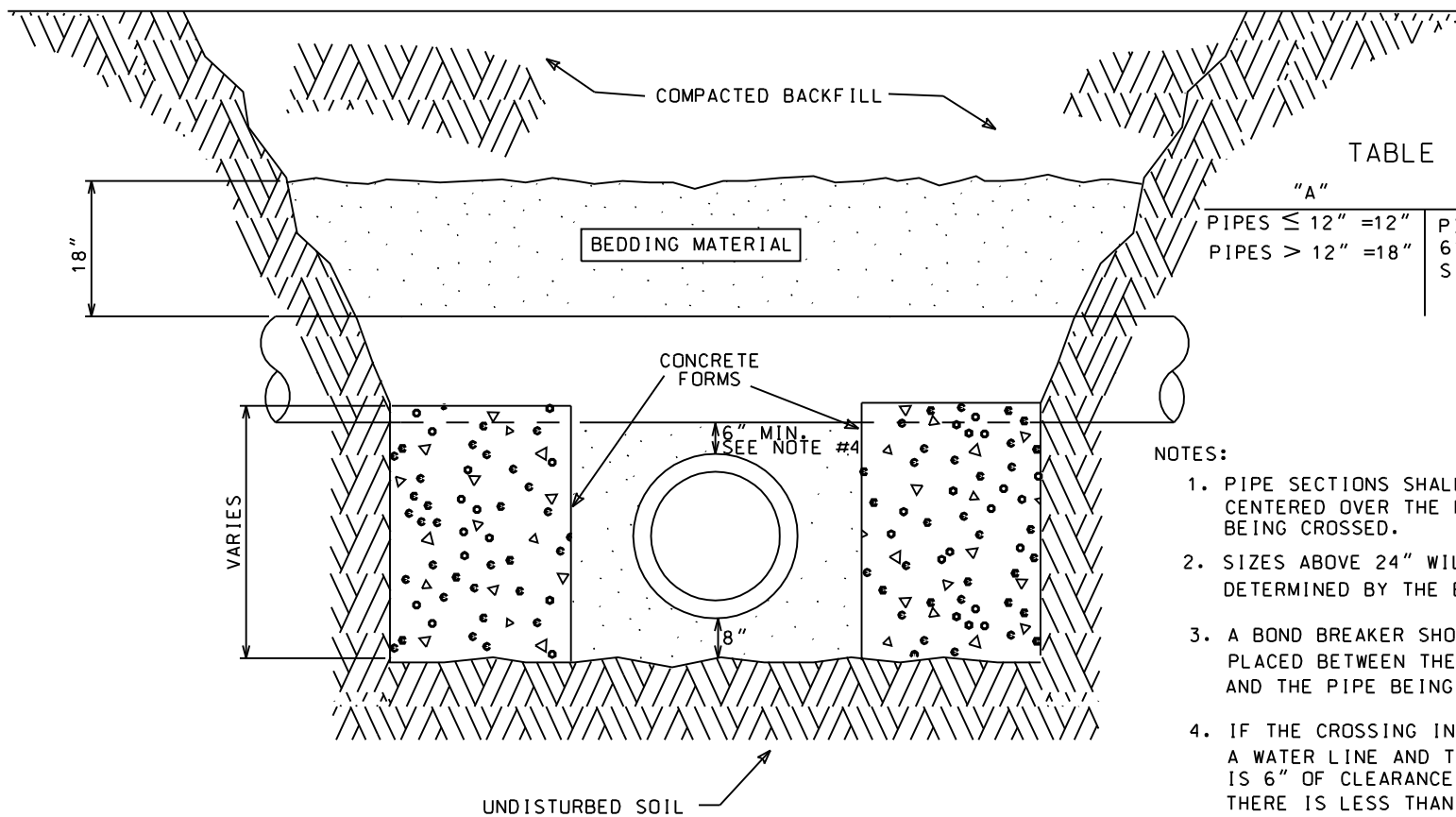
PUBLIC WORKS DIVISION

LIMITS OF ASPHALT REMOVAL
TRENCH/EDGE OF PAVEMENT
AND H.B.P. PATCHBACK
DETAIL 100-04

REB

DATE: MARCH, 1993

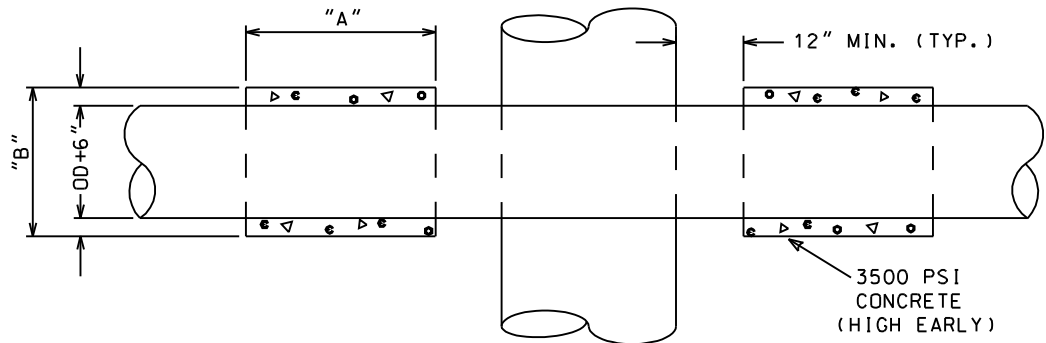
SCALE: NOT TO SCALE



TABLE

"A"	"B"
PIPES ≤ 12" = 12"	PIPE O.D. + 6" ON BOTH SIDES.
PIPES > 12" = 18"	

- NOTES:
1. PIPE SECTIONS SHALL BE CENTERED OVER THE PIPE BEING CROSSED.
 2. SIZES ABOVE 24" WILL BE DETERMINED BY THE ENGINEER.
 3. A BOND BREAKER SHOULD BE PLACED BETWEEN THE CONCRETE AND THE PIPE BEING SUPPORTED.
 4. IF THE CROSSING INVOLVES A WATER LINE AND THERE IS 6" OF CLEARANCE, OR THERE IS LESS THAN 4' OF COVER OVER THE UPPER PIPE. A FIBER BOARD INSULATION (DOW 2" EXTRUDED POLYSTYRENE IN ACCORDANCE WITH ASTM-C578 OR APPROVED EQUAL) MAY BE REQUIRED TO BE INSTALLED BETWEEN THE PIPES. THE BOARD SHOULD EXTEND 2' BEYOND THE OUTSIDE EDGES OF BOTH PIPES.



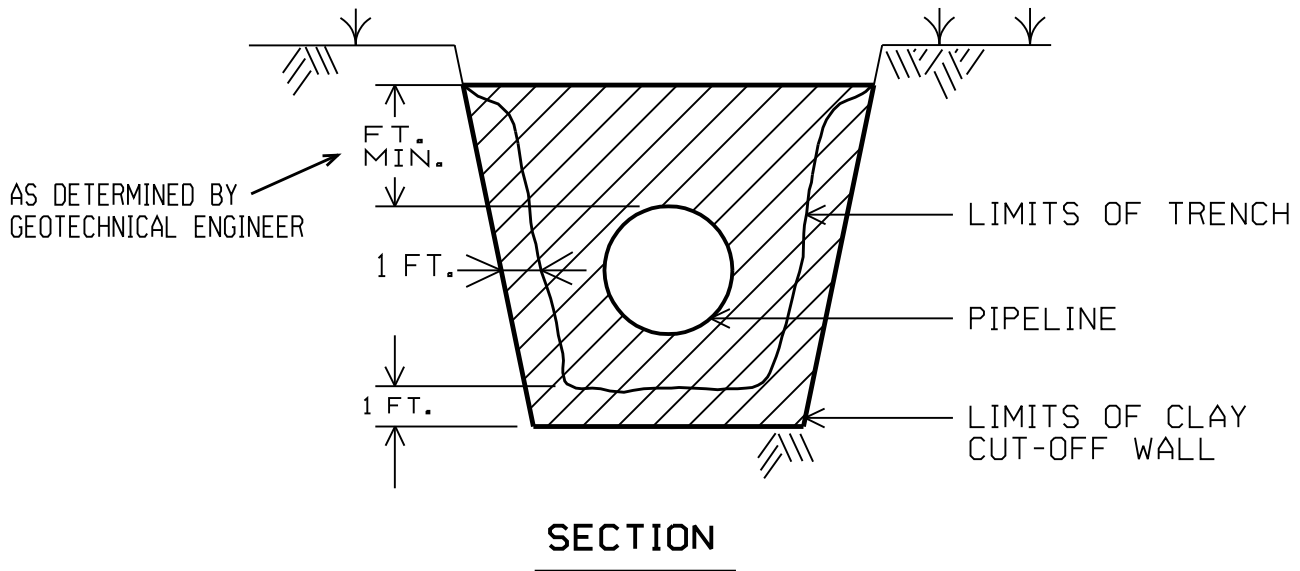
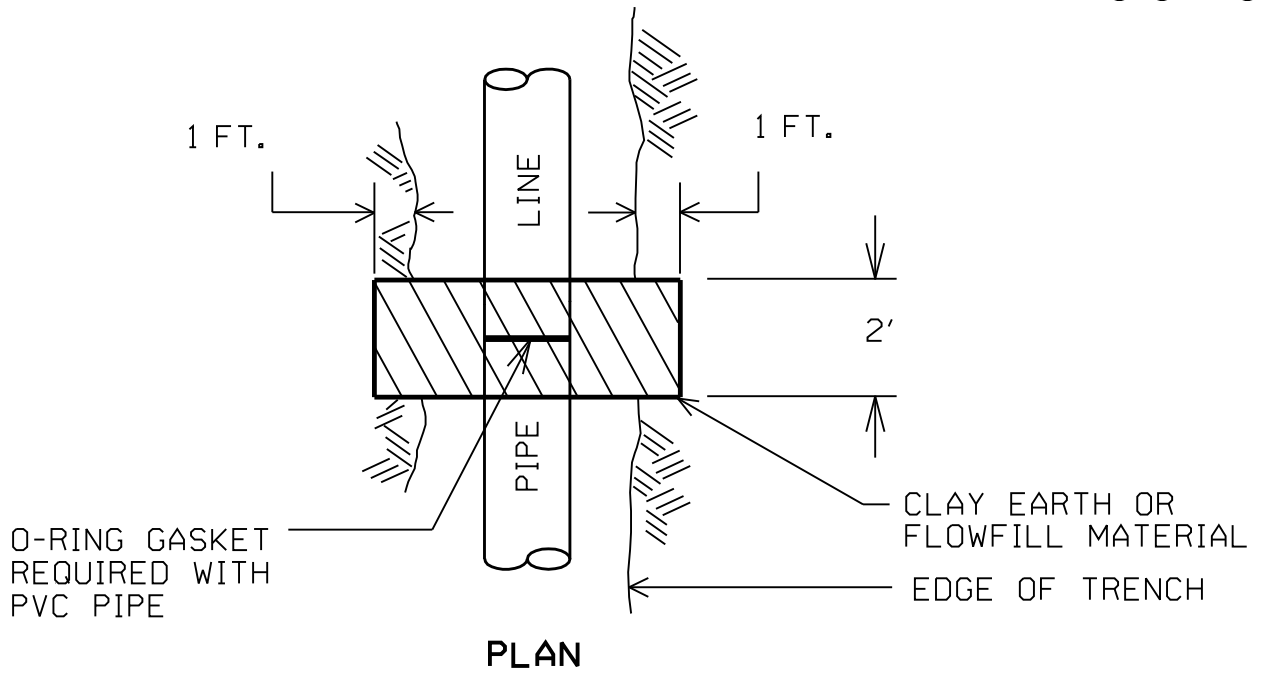
PIPE CROSSING SUPPORT PAD DETAIL

(ALSO SEE DETAIL 500-10)

21
N.T.S.



100-05



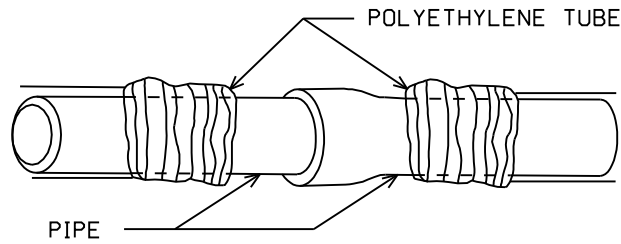
NOTES:

- 1: CLAY WALL EXTENDS A MINIMUM OF 12" INTO UNDISTURBED SOIL ON EACH SIDE AND ON BOTTOM OF TRENCH.
- 2: CLAY MATERIAL TO BE CLASSIFIED AS CL, CH, OR OH.
- 3: APPROVED FLOW-FILL MATERIAL MAY BE USED INSTEAD OF CLAY MATERIAL.

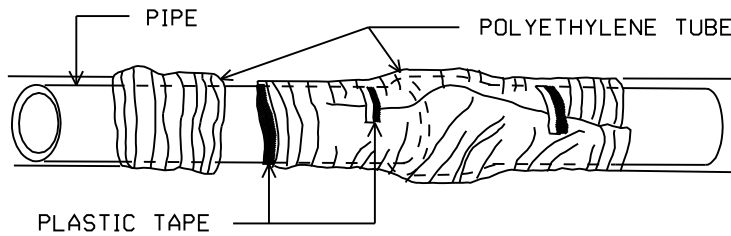
CUT-OFF WALL

N. T. S.

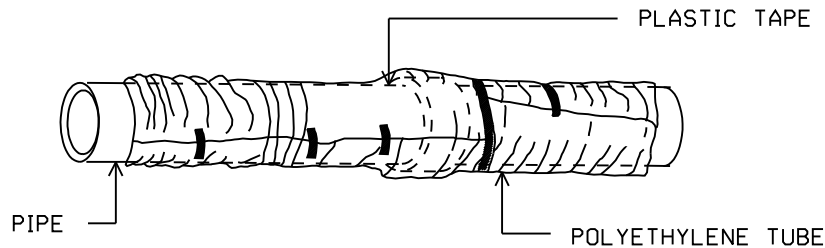




STEP 1



STEP 2



STEP 3

STEP 1 - PLACE TUBE OF POLYETHYLENE MATERIAL ON PIPE PRIOR TO LOWERING IT INTO TRENCH.

STEP 2 - PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD THE PLASTIC TUBE IN PLACE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.

TAPS : MAKE TAPS BY WRAPPING THREE LAYERS OF COMPATIBLE TAPE AROUND THE PIPE TO COVER THE TAPPING MACHINE AREA. INSTALL CORPORATION STOP THROUGH THE TAPE AND POLYETHYLENE.

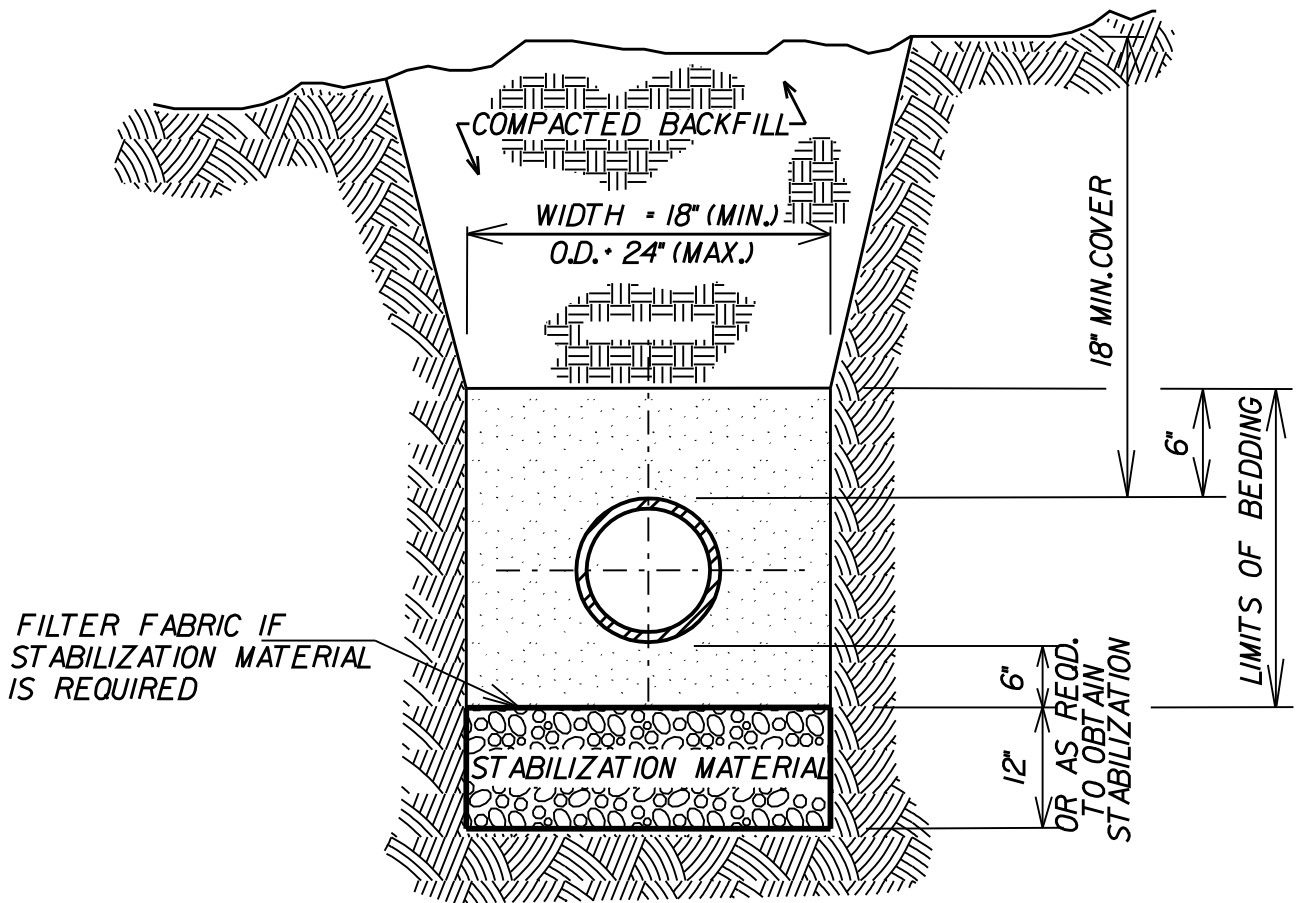
STEP 3 - OVERLAP FIRST TUBE WITH ADJACENT TUBE AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.

STEP 4 - CAREFULLY BACKFILL WITH CLEAN MATERIAL THAT WILL NOT DAMAGE ENCASEMENT.

**FIELD INSTALLATION-POLYETHYLENE
AWWA C 105 METHOD "A"**

N.T.S.





NOTES:

1. BACKFILL TO BE COMPACTED TO 90% OF A.S.T.M.D-698 DENSITY IN ALL AREAS, UNLESS OTHERWISE NOTED.
2. THE MINIMUM TRENCH WIDTH IS 18", UNLESS APPROVED OTHERWISE BY THE CITY. APPROVAL OF TRENCH WIDTHS LESS THAN 18" SHALL BE BASED ON THE DEMONSTRATION OF THE CONTRACTOR THAT SUITABLE MECHANICAL MEANS OF BACKFILL COMPACTION IS AVAILABLE AND COMPACTION IS BEING OBTAINED, OR AN APPROVED NON-SHRINKABLE FLOW FILL MATERIAL WILL BE USED FOR TRENCH BACKFILL.



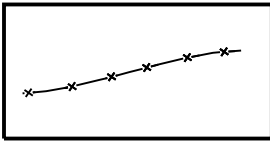
PUBLIC WORKS DIVISION

OPEN FIELD, UTILITY CABLE
BURIAL DETAIL
DETAIL 100-08

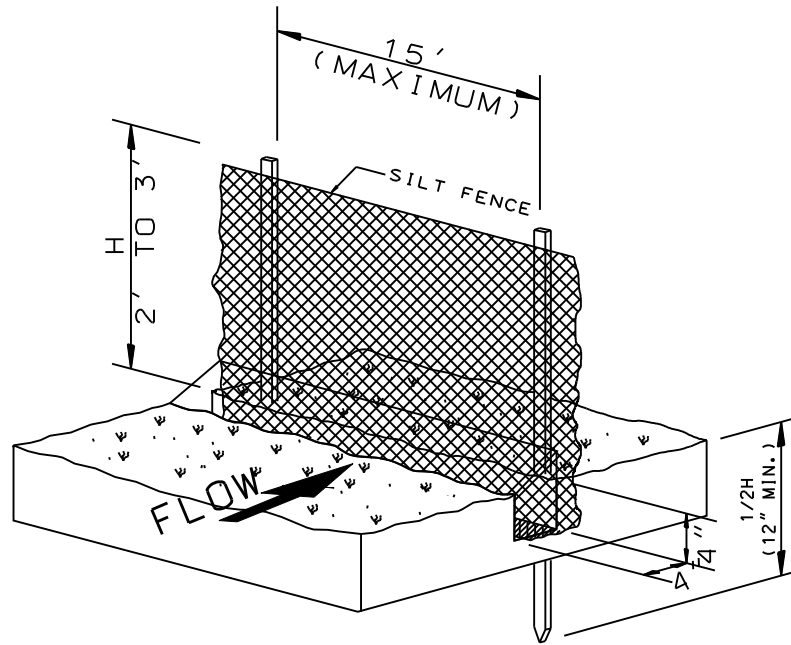
DATE: APRIL, 1993

SCALE: NOT TO SCALE

REB

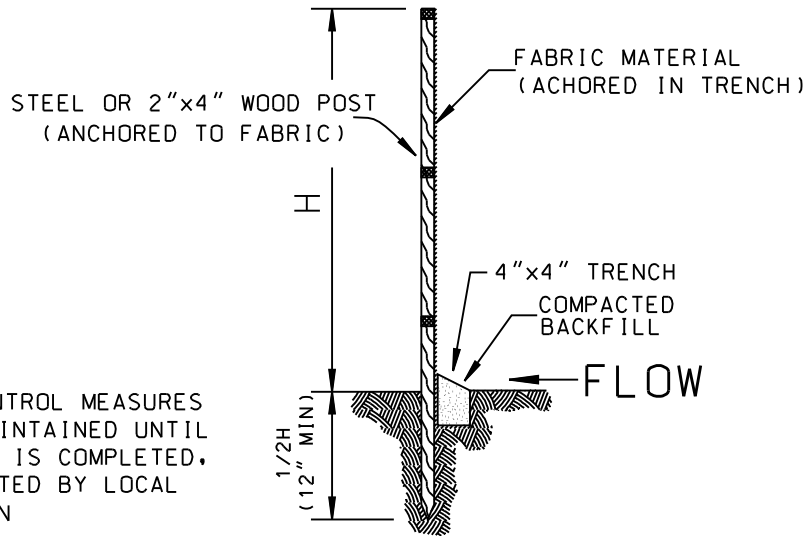


SF



SILT FENCE INSTALLATION

-NTS-



NOTE: EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL LANDSCAPING IS COMPLETED, OR AS DIRECTED BY LOCAL JURISDICTION

SECTION

-NTS-

Urban Drainage and Flood Control District
Drainage Criteria Manual (V.3)



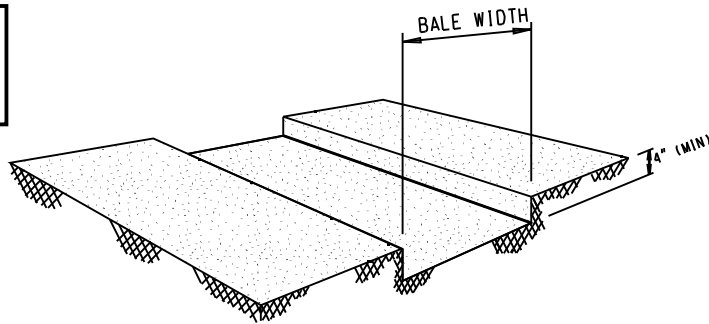
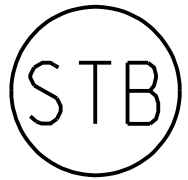
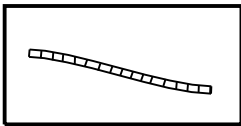
PUBLIC WORKS DIVISION

DATE: SEPTEMBER 2005

**STORM DRAINAGE
SILT FENCE EROSION BARRIER
DETAIL 100-09**

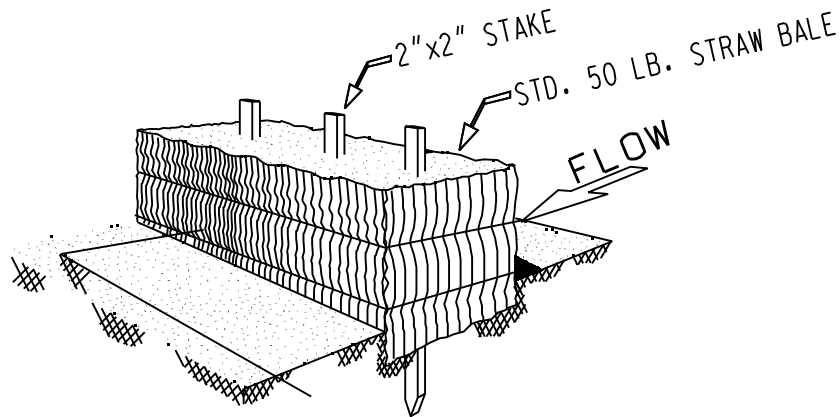
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SCALE: NOT TO SCALE



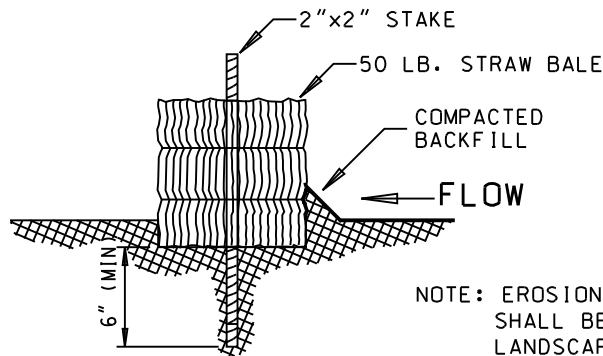
TRENCH EXCAVATION

-NTS-



STRAW BALE INSTALLATION

-NTS-



NOTE: EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL LANDSCAPING IS COMPLETED, OR AS DIRECTED BY LOCAL JURISDICTION

SECTION

-NTS-

Urban Drainage and Flood Control District
Drainage Criteria Manual (V.3)



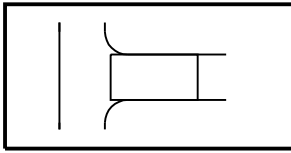
PUBLIC WORKS DIVISION

DATE: SEPTEMBER, 2005

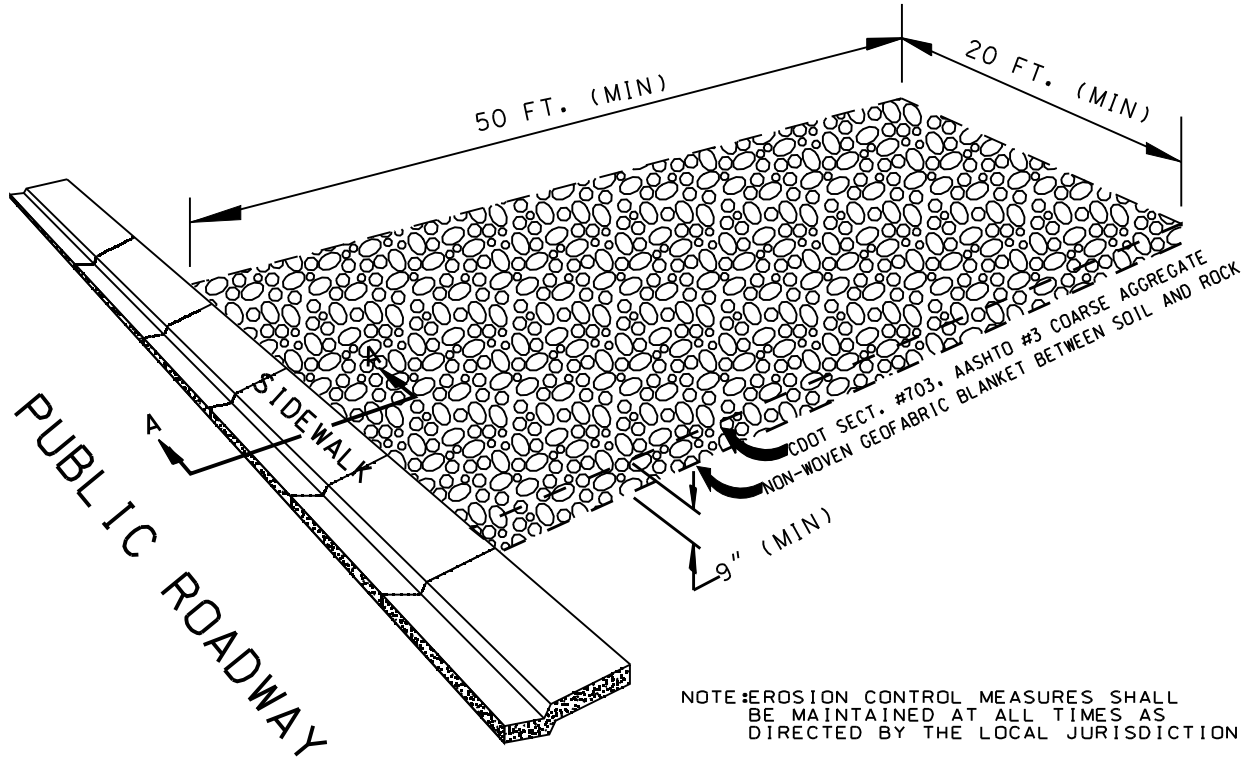
**STRAW BALE EROSION BARRIER
DETAIL 100-10**

REB

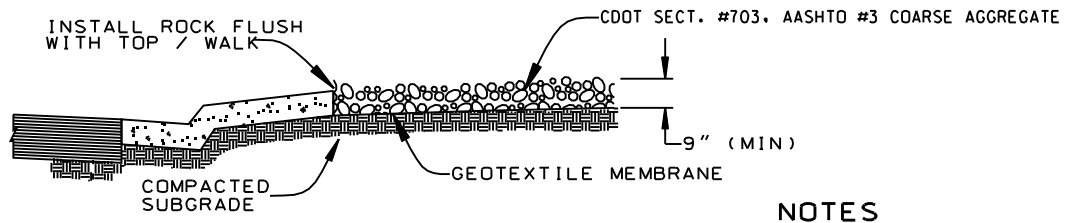
SCALE: NOT TO SCALE



CE



NOTE: EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES AS DIRECTED BY THE LOCAL JURISDICTION



SECTION A-A

-NTS-

NOTES

1. ALL ROCK TO BE REMOVED UPON COMPLETION OF CONSTRUCTION.
2. PUBLIC ROADWAY TO BE KEPT CLEAN AND FREE OF MUD, DIRT AND DEBRI AT ALL TIMES.

Urban Drainage and Flood Control District
 Drainage Criteria Manual (V.3)



PUBLIC WORKS DIVISION

DATE: SEPTEMBER, 2005

STORM DRAINAGE
 CONSTRUCTION STAGING PAD
 DETAIL 100-11

REB

SCALE: NOT TO SCALE