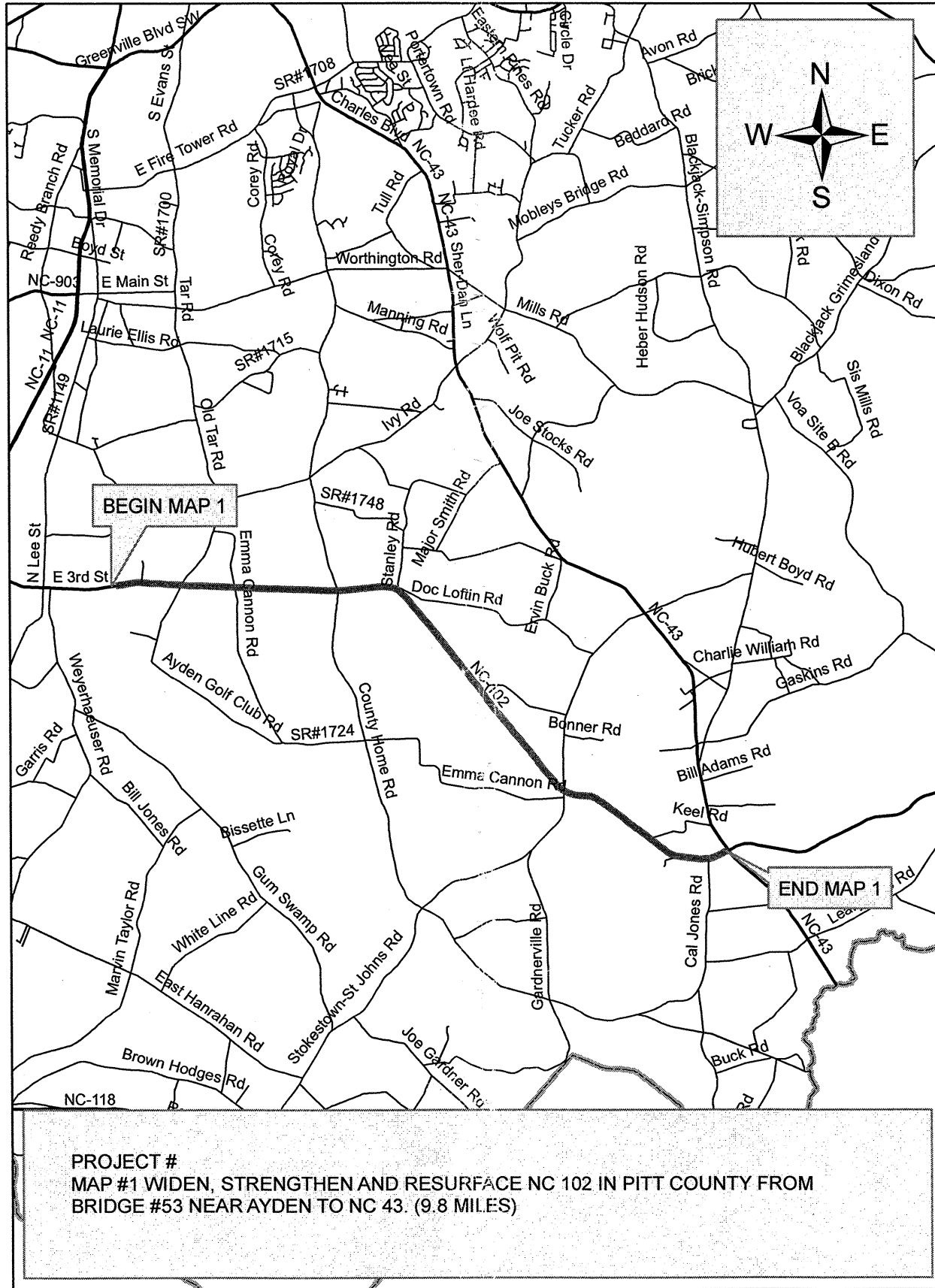


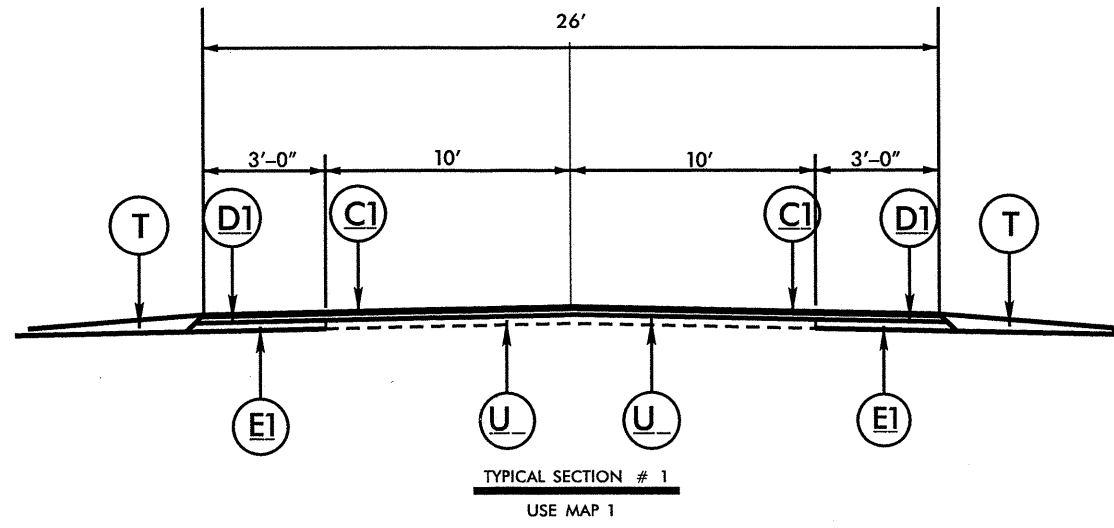
Sheet 1
200.10741.9
Pitt County



PROJECT REFERENCE NO.	SHEET NO.
2CR.10741.9	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PAVEMENT SCHEDULE	
C1	PROP APPROX, 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS PER SQ YD
D1	PROP APPROX, 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B AT AN AVERAGE RATE OF 285 LBS PER SQ YD
E1	PROP APPROX, 6" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 684 LBS PER SQ YD TO BE PLACED IN ONE LIFT
U	EXISTING PAVEMENT
T	SHOULDER RECONSTRUCTION

NC 102 WIDEN & RESURFACING WBS # 2CR.10741.9



PROJECT NO. 2CR.10741.9	SHEET NO. 3	TOTAL NO.
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SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TON	SHOULDER RECONSTRUCTION SMI	BORROW EXCAVATION CY	5" MONOLITHIC ISLAND (KEYED IN) SY	BASE COURSE, B25.0B TONS	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	PG 64-22 PLANT MIX TONS	TEMPORARY SILT FENCE LF	SEDIMENT CONTROL STONE TON	WATTLE LF	SEEDING & MULCHING ACR
2CR.10741.9	Pitt	1	NC 102	STARTING @ BRIDGE # 53 NEAR AYDEN GOING EAST TO INTERSECTION OF NC 43 AND NC 102 9.8 MILES	1	NO	9.8	26	980	19.60	4,000	60	14,295	23,619	13,879	2,558	2,500	5	100	24
TOTAL FOR MAP NO. 1							9.8		980	19.60	4,000	60	14,295	23,619	13,879	2,558	2,500	5	100	24
TOTAL FOR PROJ NO. 2CR.10741.9							9.8		980	19.60	4,000	60	14,295	23,619	13,879	2,558	2,500	5	100	24
GRAND TOTAL							9.8		980	19.60	4,000	60	14,295	23,619	13,879	2,558	2,500	5	100	24

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E	4686000000-E	4710000000-E	4810000000-E		4905000000-N
					4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	24" X 120 M WHITE THERMO LF	4" WHITE PAINT LF	4" YELLOW PAINT LF	SNOWPLOWABLE PAVEMENT MARKERS EA
2CR.10741.9	Pitt	1	NC 102	STARTING @ BRIDGE # 53 NEAR AYDEN GOING EAST TO INTERSECTION OF NC 43 AND NC 102 9.8 MILES	105,448	64,680	120	105,448	64,680	634
TOTAL FOR MAP NO. 1					105,448	64,680	120	105,448	64,680	634
TOTAL FOR PROJ NO. 2CR.10741.9					105,448	64,680	120	105,448	64,680	634
GRAND TOTAL					105,448	64,680	120	105,448	64,680	634

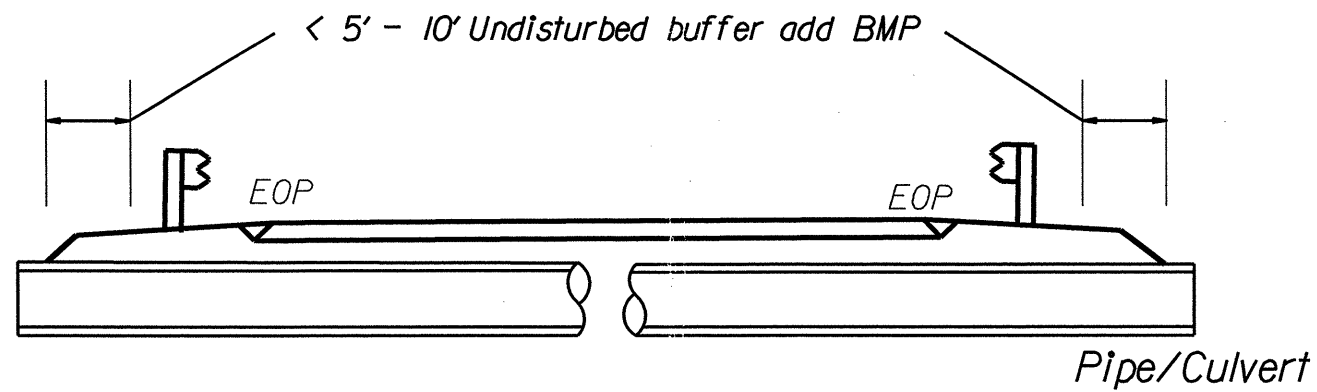
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

EROSION CONTROL DETAIL

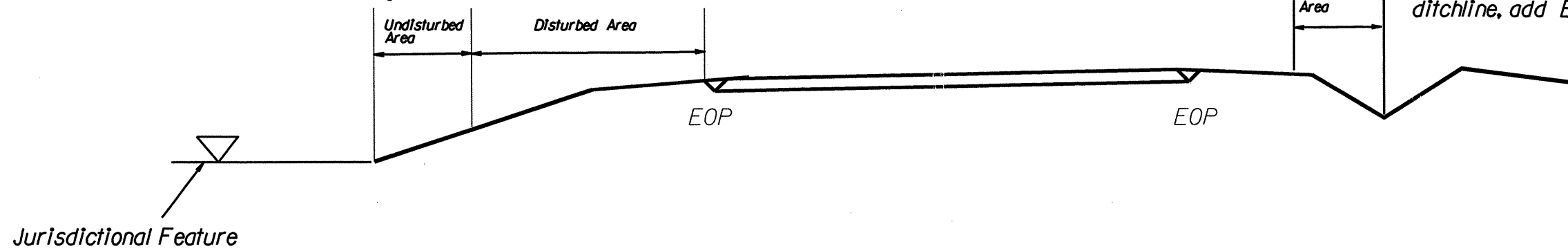
202.10741.9

PROJECT REFERENCE NO.	SHEET NO.
	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

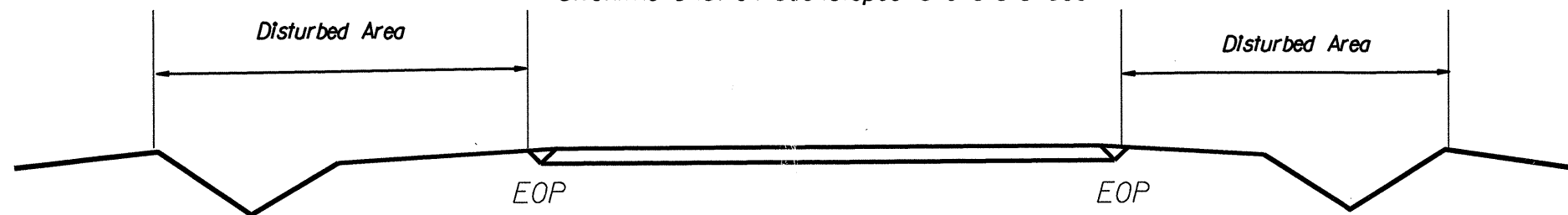


< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP

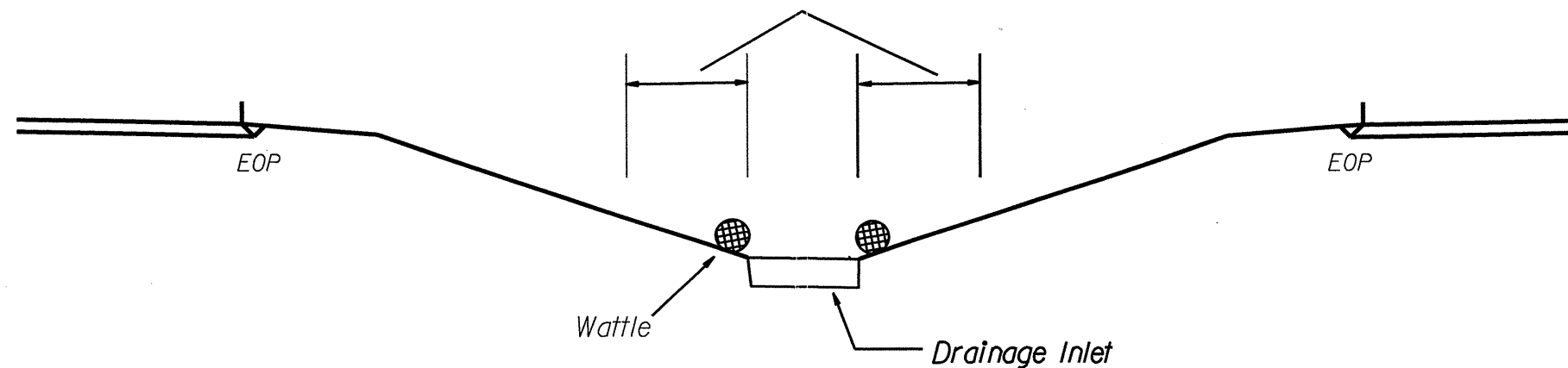
< 5' - 10' Undisturbed buffer from ditchline, add BMP



Use BMP's if shoulders and/or front slopes and/or ditchline and/or back slopes are disturbed



< 5' - 10' Undisturbed buffer from inlet, add wattle

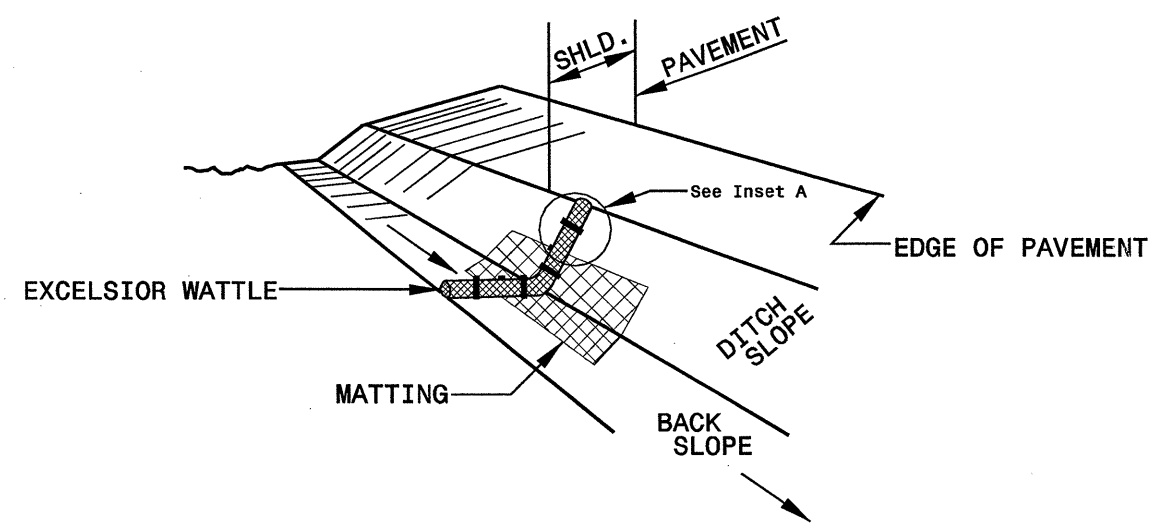


NOT TO SCALE

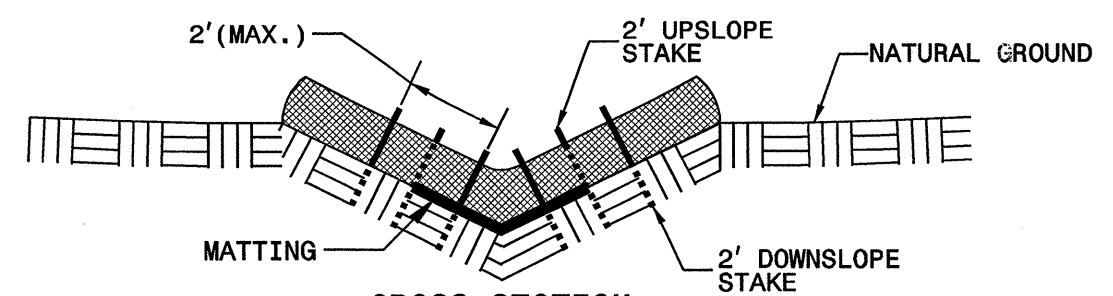
2CR10741.9

PROJECT REFERENCE NO. X-XXXX	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

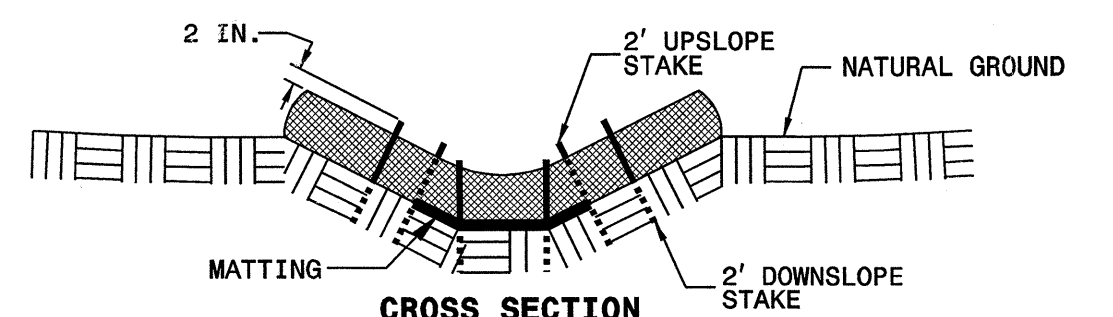
WATTLE DETAIL



ISOMETRIC VIEW

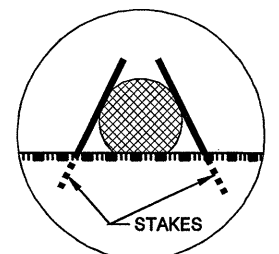


CROSS SECTION VEE DITCH

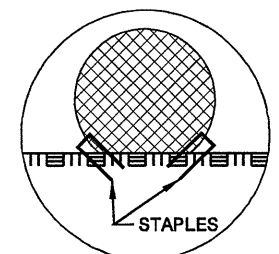


CROSS SECTION TRAPEZOIDAL DITCH

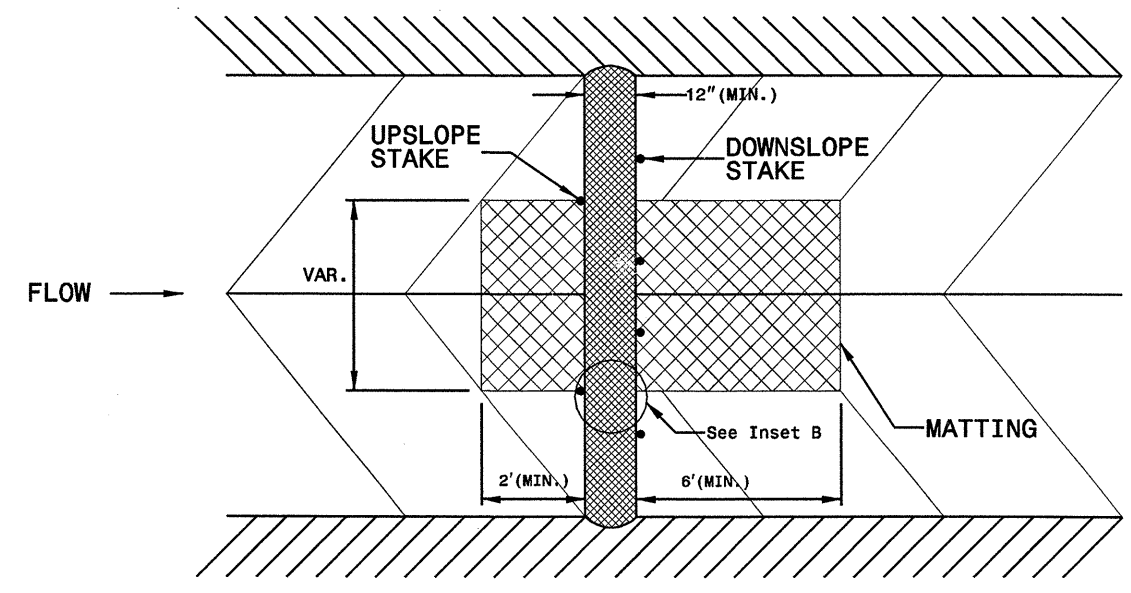
- NOTES:**
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
 - PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
 - INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
 - INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A

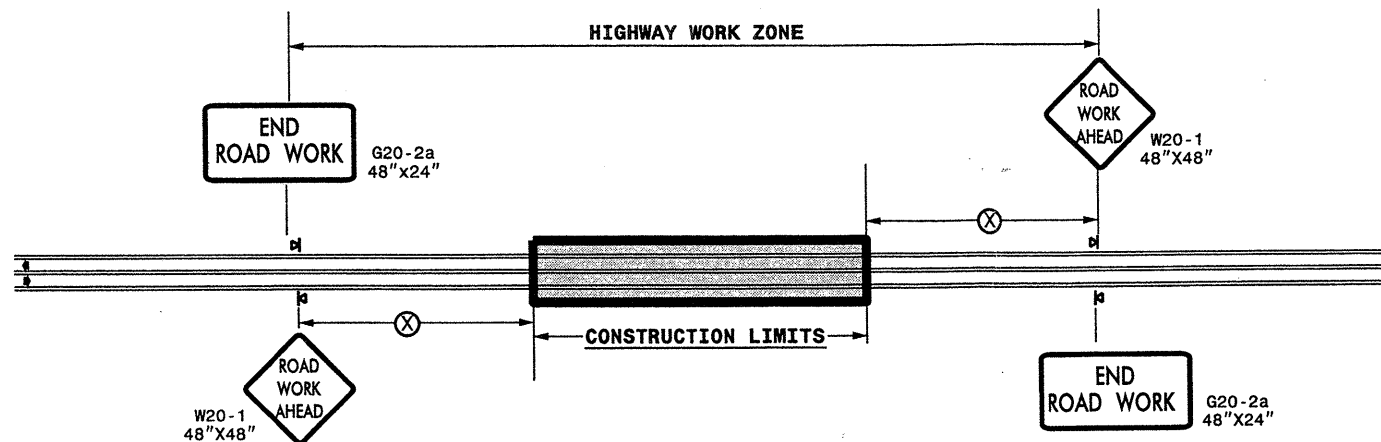


INSET B



TOP VIEW

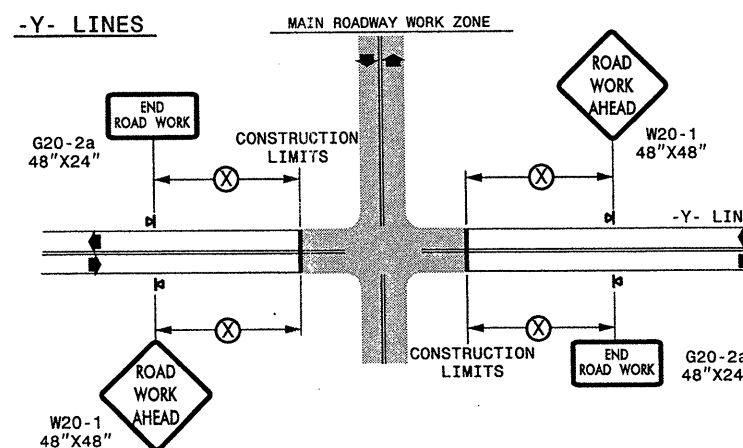
TWO-WAY UNDIVIDED ** (L-LINES)



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
≤ 50	500'
≥ 55	1000'

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCE WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- PROVIDE PORTABLE WORK ZONE SIGN STANDS, PORTABLE SIGNS AND SIGN SHEETING WHICH ARE LISTED ON THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCT LIST OR ACCEPTED AS TRAFFIC QUALIFIED BY THE TRAFFIC CONTROL UNIT.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

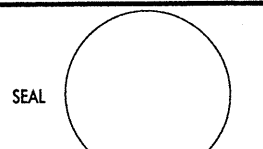

LEGEND

- ◀ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW

DETAIL DRAWING
FOR TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

SHEET 1 OF 1






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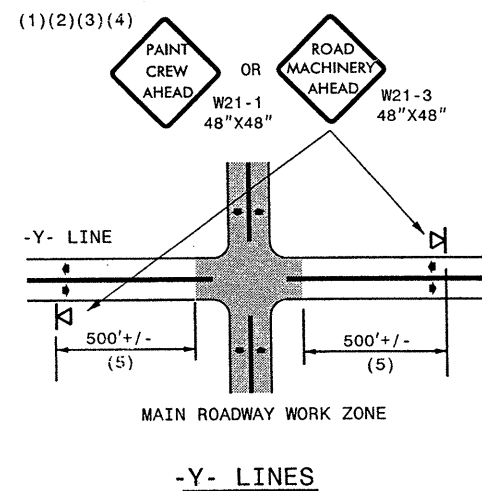
APPROVED: _____	DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED ADVANCED WORK ZONE WARNING SIGNS	
			
		DATE: 02/11	
DESIGN BY: _____			
REVIEWED BY: _____			

GENERAL NOTES

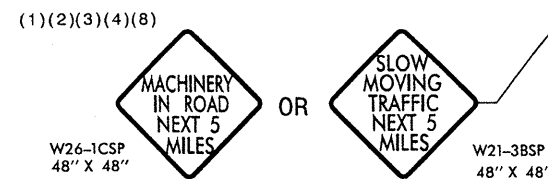
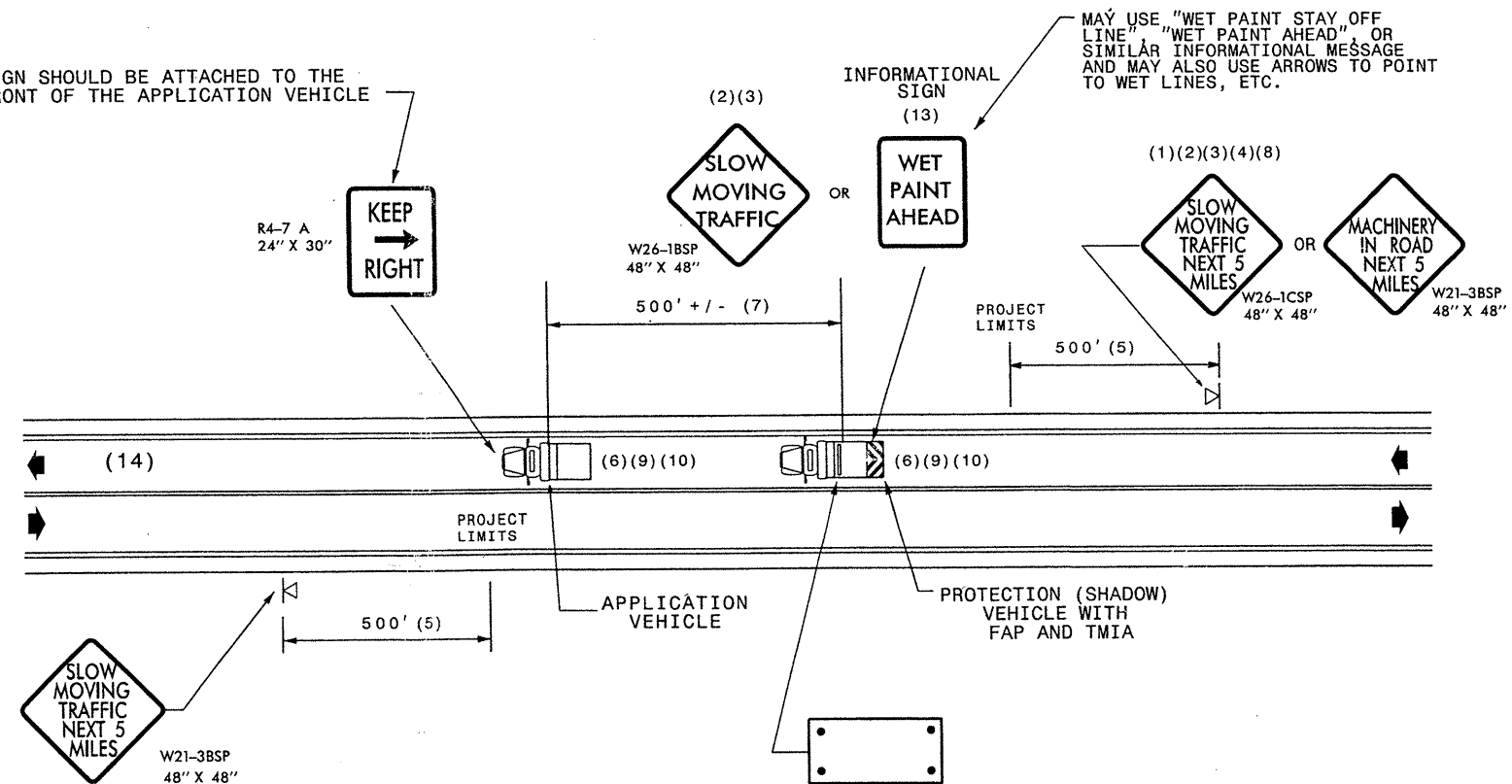
- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
 - A. TRUCK MOUNTED SIGNS
 - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
 - C. GROUND MOUNTED ADVANCE WARNING SIGNS (MUST CIRCLE TO PICK UP SIGNS)
 - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS) (MUST USE CIRCLE TO PICK UP SIGNS)
- (2) ALL ADVANCE WARNING SIGNS MUST BE 48" X 48" WITH FLUORESCENT ORANGE TYPE VII, VIII OR IX SHEETING. IF SPACE LIMITATIONS ON SHOULDER PROHIBIT A 48" X 48" SIGN, A SMALLER SIGN CAN BE USED WITH APPROVAL FROM ENGINEER.
- (3) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW PANEL AND/OR LIGHTBAR.
- (4) GROUND MOUNTED ADVANCED WARNING SIGNS SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND TO BOTTOM OF SIGN.
- (5) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.
- (6) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL (TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES). HOWEVER, THE FIRST VEHICLE MOTORISTS SEE IN THE TRAVEL LANE SHALL HAVE A TMIA.
- (7) ADJUST DISTANCE AS NEEDED TO PREVENT MOTORISTS FROM ENTERING SPACE BETWEEN THE APPLICATION AND PROTECTION VEHICLE. DISTANCE CAN BE LENGTHENED TO ACCOMMODATE SIGHT DISTANCE NEEDS.
- (8) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED FIVE (5) MILES IN LENGTH.
- (9) RADIO COMMUNICATION BETWEEN VEHICLES IS REQUIRED.
- (10) USE OF A LIGHT BAR ON ALL VEHICLES IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.
- (11) IF WORK IS PERFORMED AT NIGHT, THE WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.
- (12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.
- (13) INFORMATIONAL SIGNS SHOULD BE ACTIVITY SPECIFIC, i.e. "PAINT CREW IN ROAD". SIGNS MAY BE RECTANGULAR OR DIAMOND SHAPE. SIGN SIZE SHOULD BE BASED ON THE MOTORIST ABILITY TO RECOGNIZE SIGN WHEN TRAVELING FIVE (5) MILES ABOVE POSTED SPEED LIMIT.
- (14) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.

LEGEND

-  PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH LIGHT BAR
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
-  FLASHING ARROW PANEL, TYPE "B" (60"X30" MIN.), "CAUTION MODE"



SIGN SHOULD BE ATTACHED TO THE FRONT OF THE APPLICATION VEHICLE



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)
PLACING PAVEMENT MARKING OR MARKERS
ON TWO-LANE TWO-WAY ROADWAYS

DRAWING NUMBER 6
IMPLEMENTATION DATE: 07/01/97
REVISED: 11/03/04