

I-5405D

TIP PROJECT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

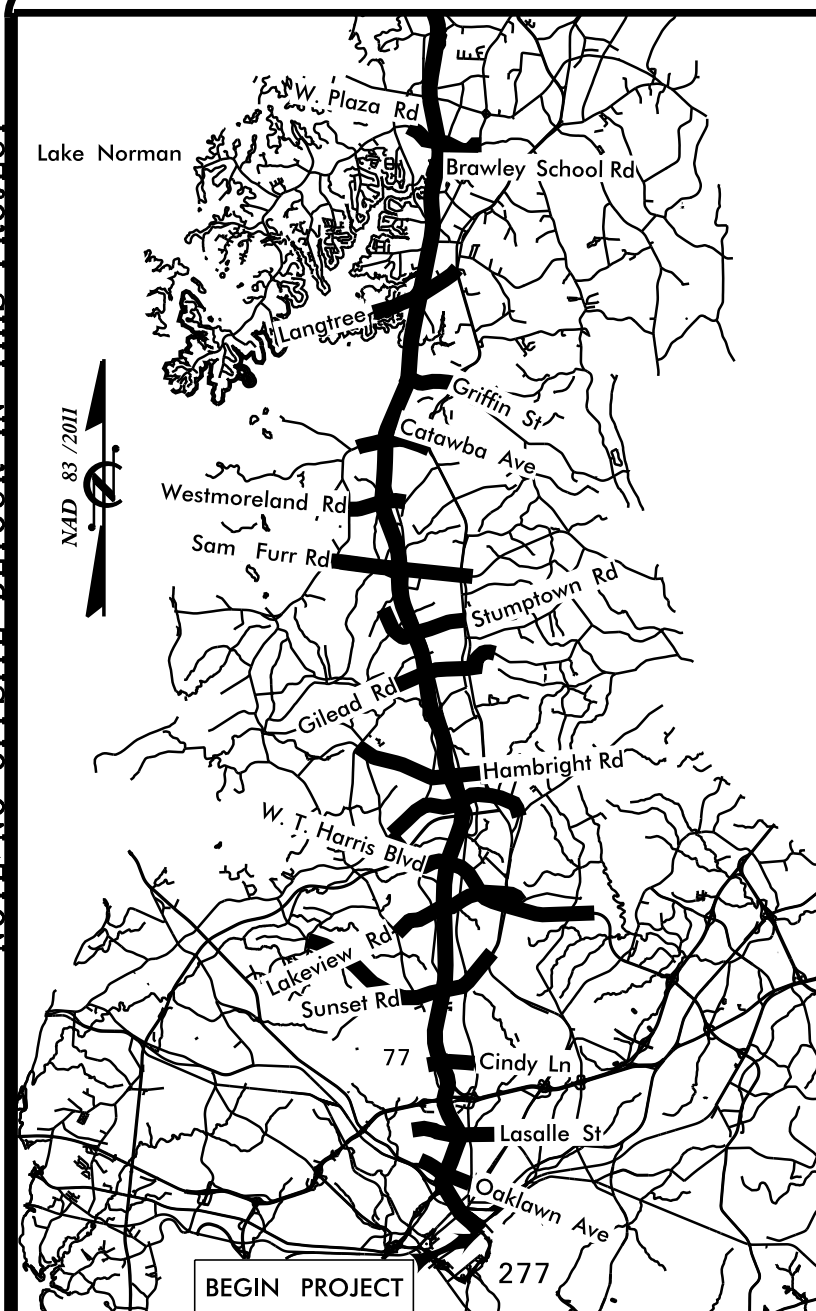
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

I-77 RAMP & RESURFACING
MECKLENBURG & IREDELL COUNTIES

NAD 83 / NA 2011

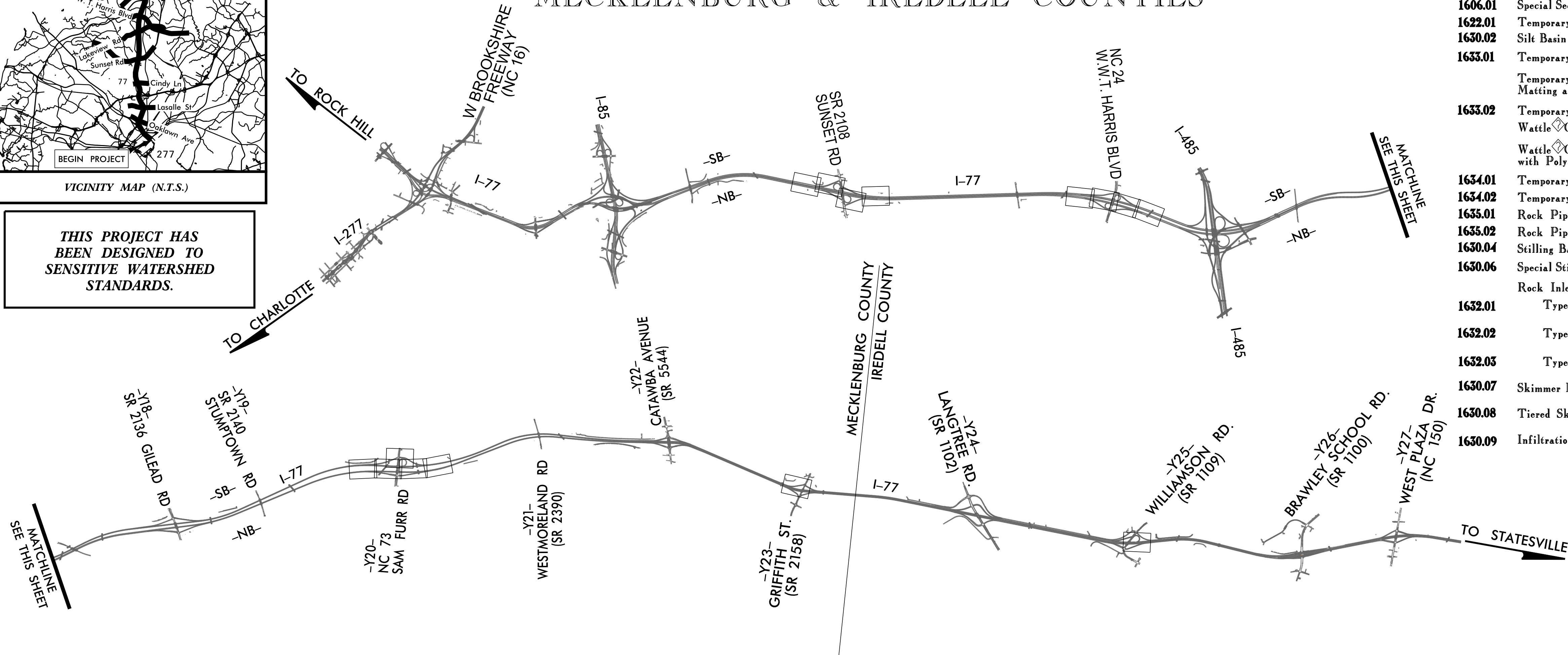


STATE	PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5405D	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45454.3.12		Const.	



VICINITY MAP (N.T.S.)

THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.



LOCATION: US 21 (SUNSET RD) SB ON RAMP & NB ON RAMP, HARRIS BLVD INTERCHANGE,
NC 73 (SAM FURR RD), SR 2158 (GRIFFITH AVE) SB ON RAMP, SR 1109
(WILLIAMSON RD) SB LOOP & NB ON RAMP

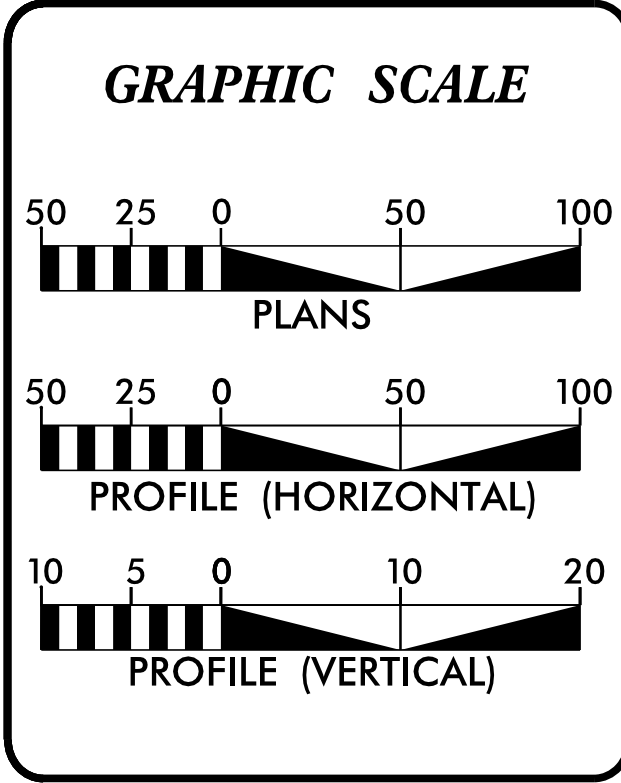
TYPE OF WORK: PAVING, PAVEMENT MARKINGS, EROSION CONTROL, & TRAFFIC MANAGEMENT

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SCF
1622.01	Temporary Berms and Slope Drains	TBSD
1630.02	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TRSCA-PAM
1633.02	Temporary Rock Silt Check Type-B	TRSCB
	Wattle Coir Fiber Wattle	WCFW
	Wattle Coir Fiber Wattle with Polyacrylamide (PAM)	WCFW-PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
1630.07	Skimmer Basin	SB
1630.08	Tiered Skimmer Basin	TSB
1630.09	Infiltration Basin	IB

NOTES:
ANY DEVIATION FROM OPTIONS GIVEN WILL
REQUIRE PRIOR APPROVAL BY THE ENGINEER.
ADDITIONAL EROSION CONTROL DEVICES MAY
BE REQUIRED AS DIRECTED BY THE ENGINEER.

THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR FINAL PHASE OF
CONSTRUCTION.



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
WITH THE REGULATIONS SET FORTH BY THE
NCG-010000 GENERAL STORMWATER CONSTRUCTION PERMIT
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL
QUALITY DIVISION OF ENERGY, MINERAL AND LAND RESOURCES.

Prepared in the Office of:
CTL ENGINEERING
3362 Six Forks Rd.
Raleigh, NC 27609
2024 STANDARD SPECIFICATIONS
Designed by:
Walter D. Roberts, III 3514
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The following roadway english standards as appear in the "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1633.03 Temporary Rock Silt Check Dam A with Matting and Flocculant
1630.02 Silt Basin Type B	1634.01 Temporary Rock Sediment Dam Type A
1630.03 Temporary Silt Ditch	1634.02 Temporary Rock Sediment Dam Type B
1630.04 Stilling Basin	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.05 Temporary Diversion	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.06 Special Stilling Basin	1636.01 Wattle Check
1630.07 Skimmer Basin with Baffles	1636.02 Silt Fence Wattle Fence
1630.08 Tiered Skimmer Basin with Baffles	1636.03 Wattle Barrier
1630.09 Earthen Dam with Skimmer	1640.01 Coir Fiber Baffle
1631.01 Matting Installation	1645.01 Temporary Stream Crossing

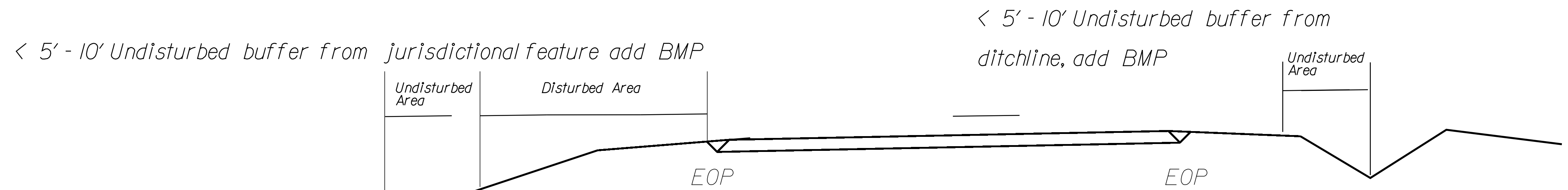
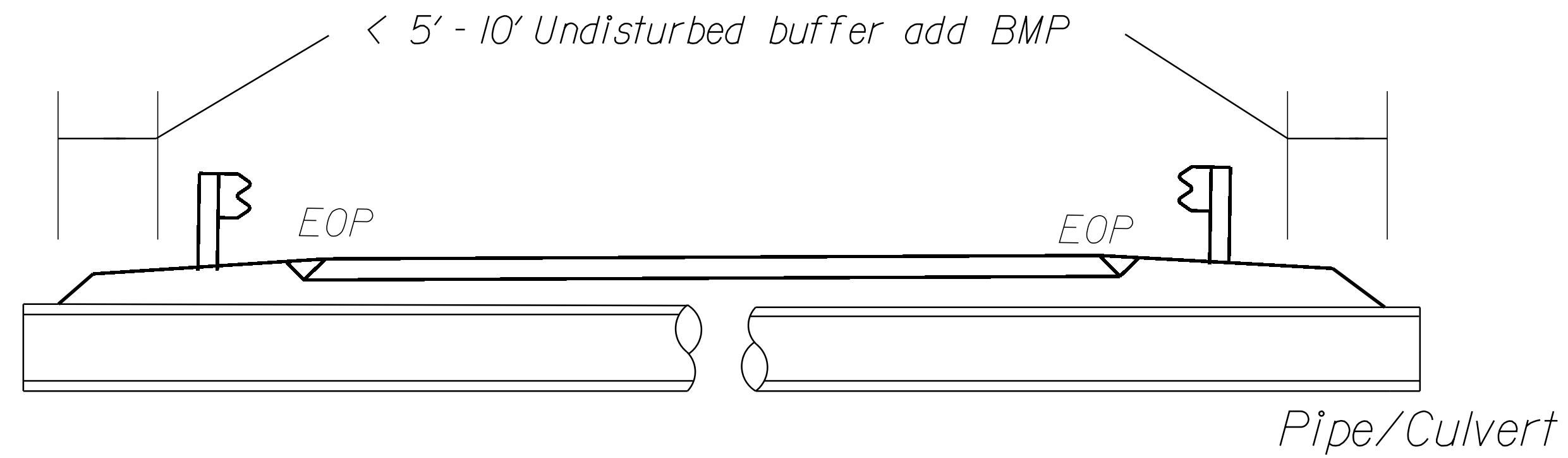
PROJECT REFERENCE NO.	SHEET NO.
I-5405D	EC-2
RW SHEET NO.	

EROSION CONTROL DETAIL

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

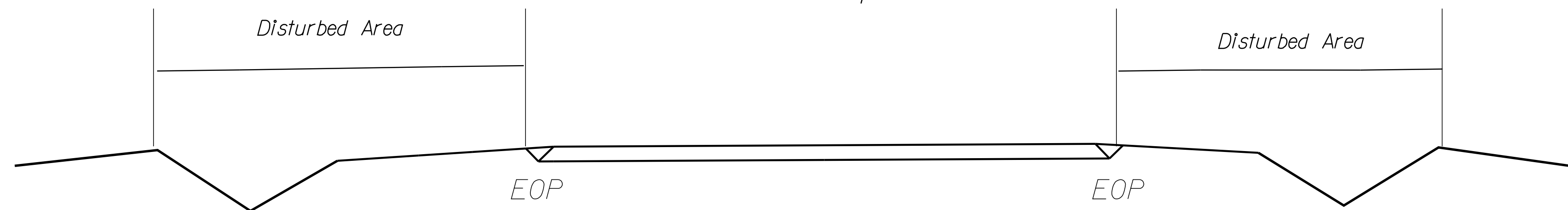
BMP's placed as necessary during ramp resurfacing and mill/fill activities. BMP's to be field located if required.

BMP Options: Wattle or Silt Fence

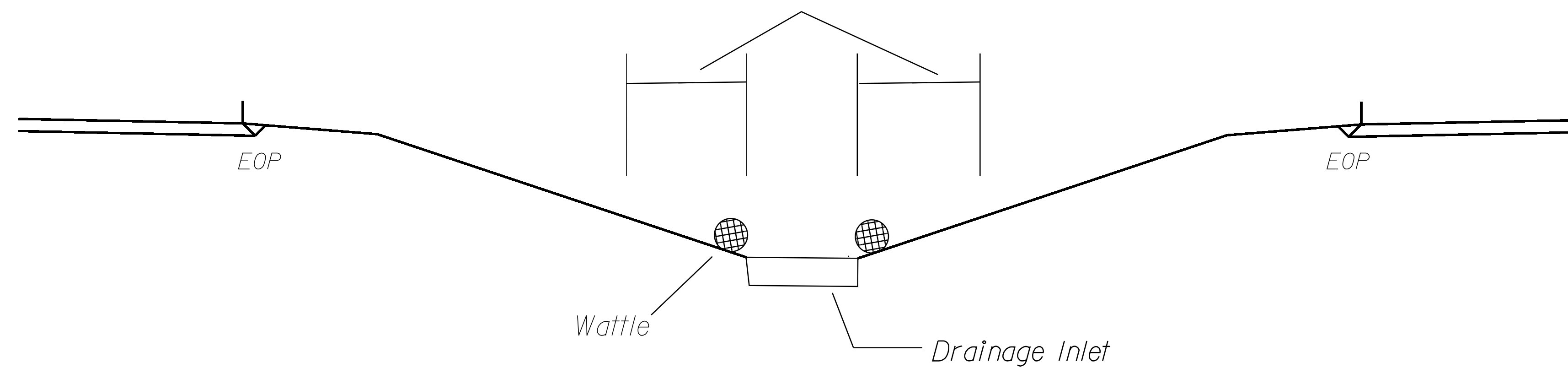


Jurisdictional Feature

Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



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



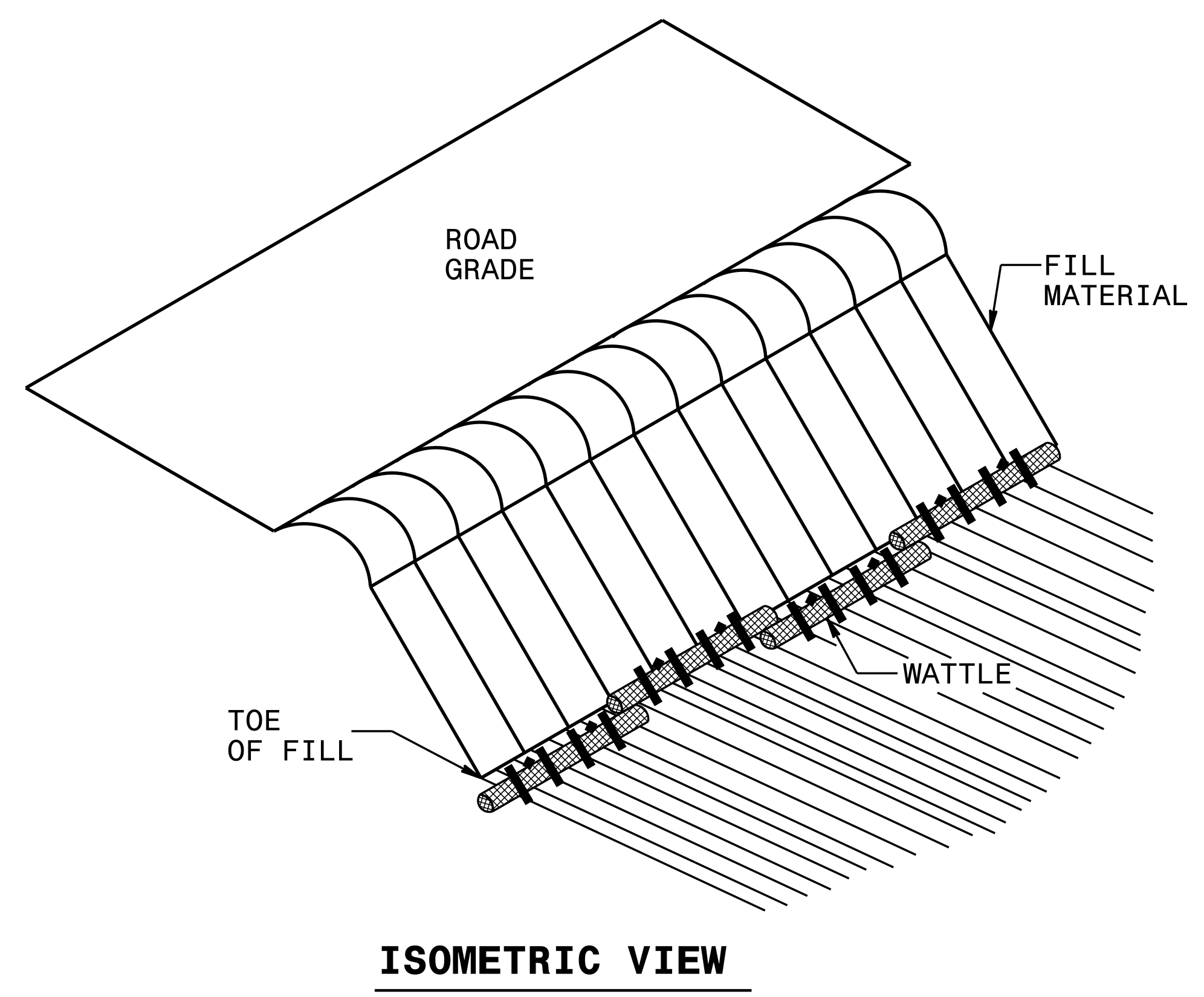
NOT TO SCALE

REVISIONS

1/9/2006 EC:\S\NCD001\1-77 Mobility Partners\80-Drawings\83-Design\83b-Sheets\EC\EC_02_PSH.dgn
 X:\P\06\EC\T\S\NCD001\1-77 Mobility Partners\80-Drawings\83-Design\83b-Sheets\EC\EC_02_PSH.dgn
 CH: [unclear]

PROJECT REFERENCE NO.	SHEET NO.
I-5405D	EC-2A
RW SHEET NO.	

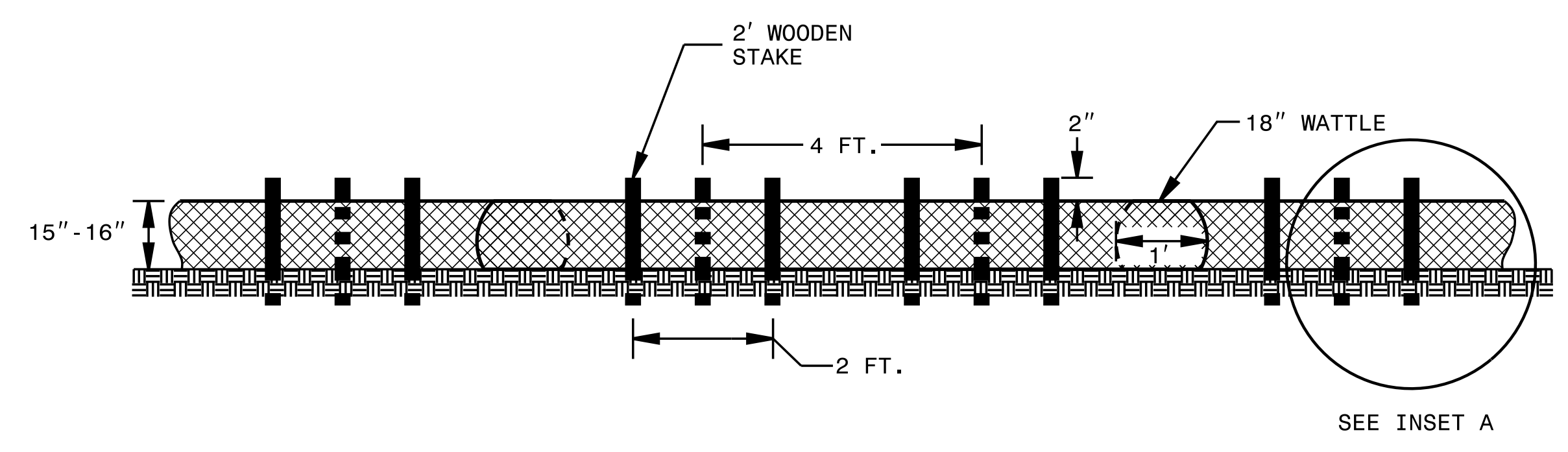
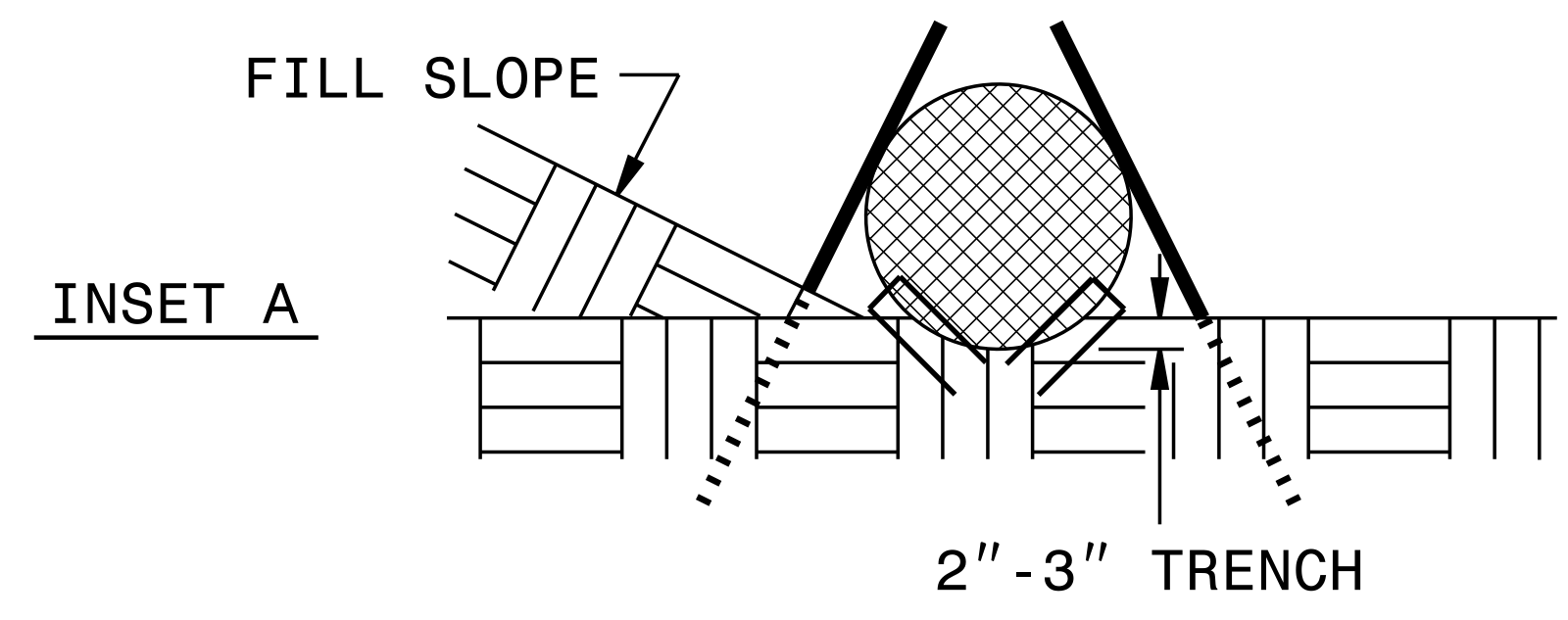
WATTLE BARRIER DETAIL



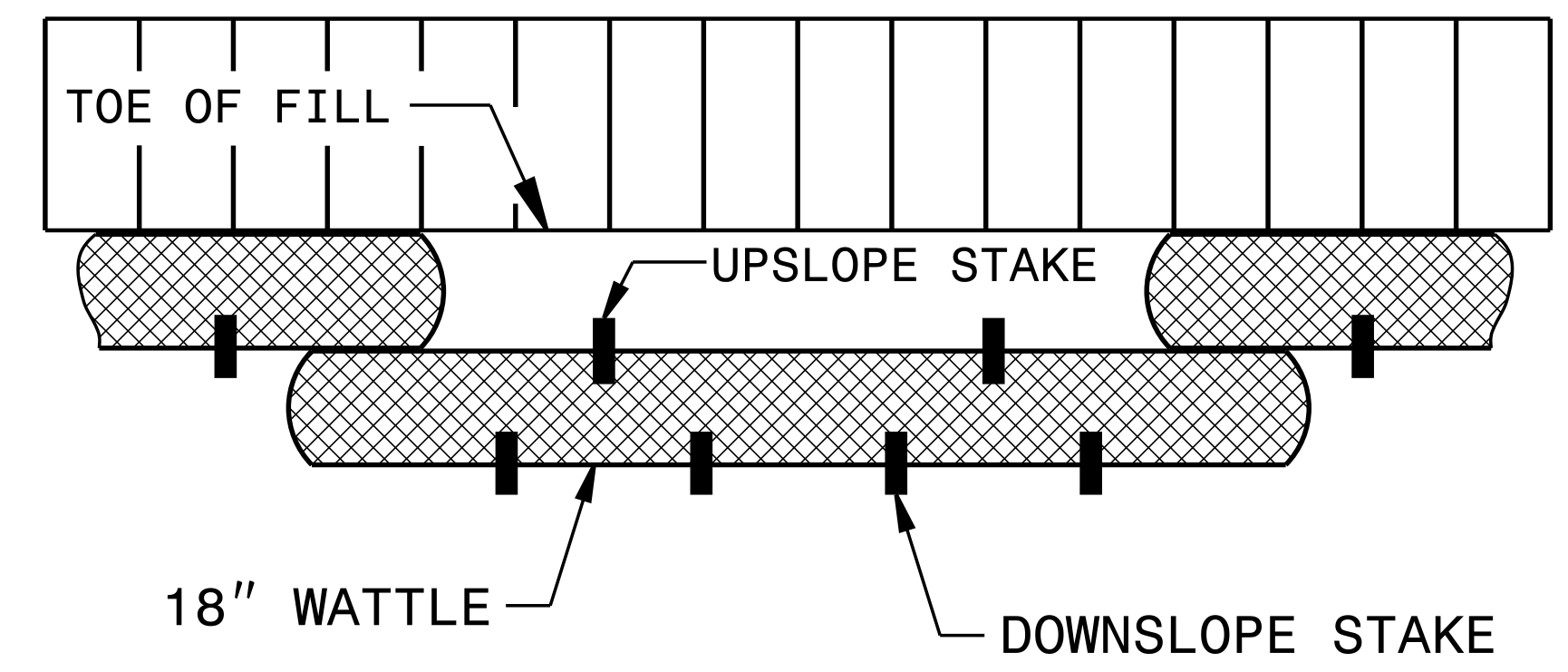
ISOMETRIC VIEW

NOTES:

- USE MINIMUM 18 IN. NOMINAL DIAMETER EXCELSIOR WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 2 TO 3 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLES ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- 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.
- FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 20 FT.
- TO BE SECURED WITH SANDBAGS OR OTHER MEANS IF USED ON PAVEMENT AT SLOTTED DRAINS.



FRONT VIEW



TOP VIEW

NOT TO SCALE

REVISIONS

1/9/2006 PROJECTS\NCDD01\1-77 Mobility Partners\80-Drawings\83-Design\83b-Sheets\EC\EC.02A.PSH.dgn
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PROJECT REFERENCE NO.	SHEET NO.
I-5405D	EC-3
RW SHEET NO.	

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

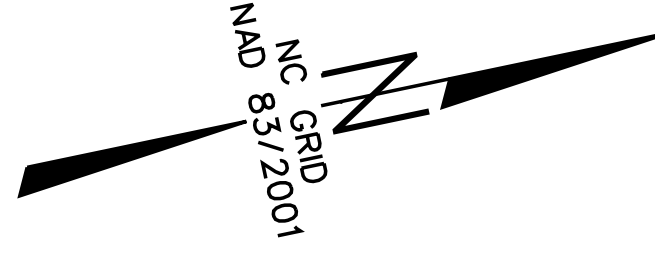
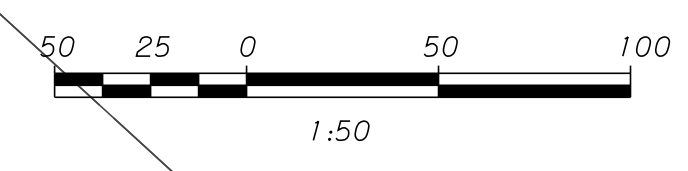
REVISIONS

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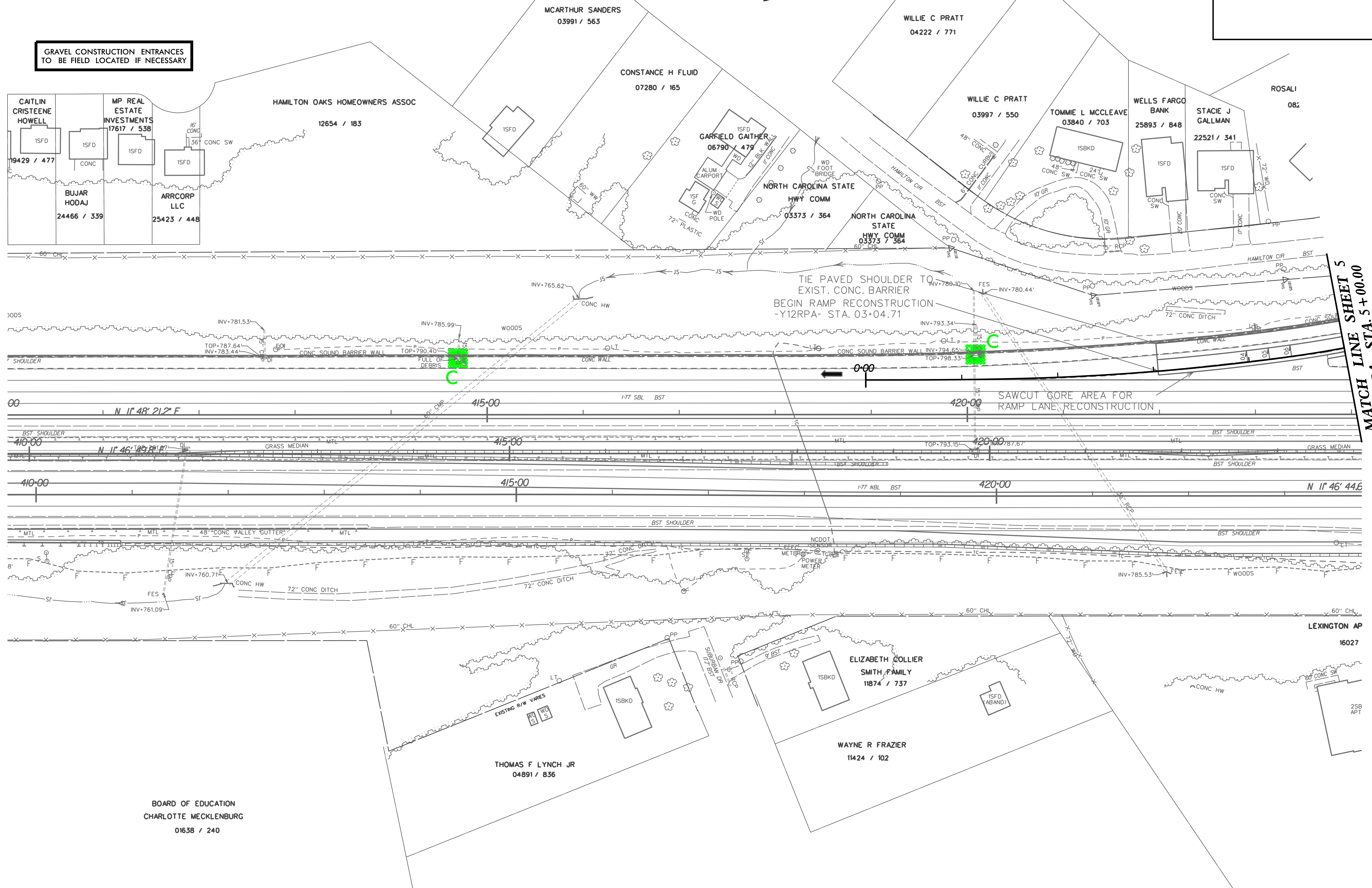
EROSION CONTROL

FINAL

PROJECT REFERENCE NO.	SHEET NO.
I-5405D	EC-4 / Const. 4
RW SHEET NO.	



GRAVEL CONSTRUCTION ENTRANCES TO BE FIELD LOCATED IF NECESSARY



MATCH LINE SHEET 5
-Y12RPA- STA. 5+00.00

REVISIONS

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BOARD OF EDUCATION
CHARLOTTE MECKLENBURG
01638 / 240

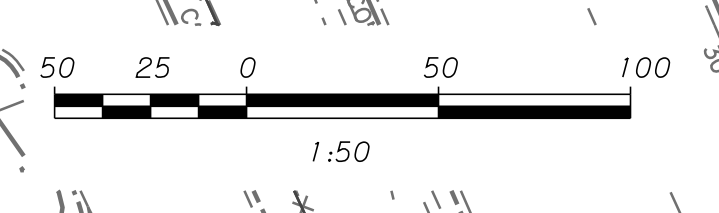
LEXINGTON AP
16027

EROSION CONTROL

FINAL

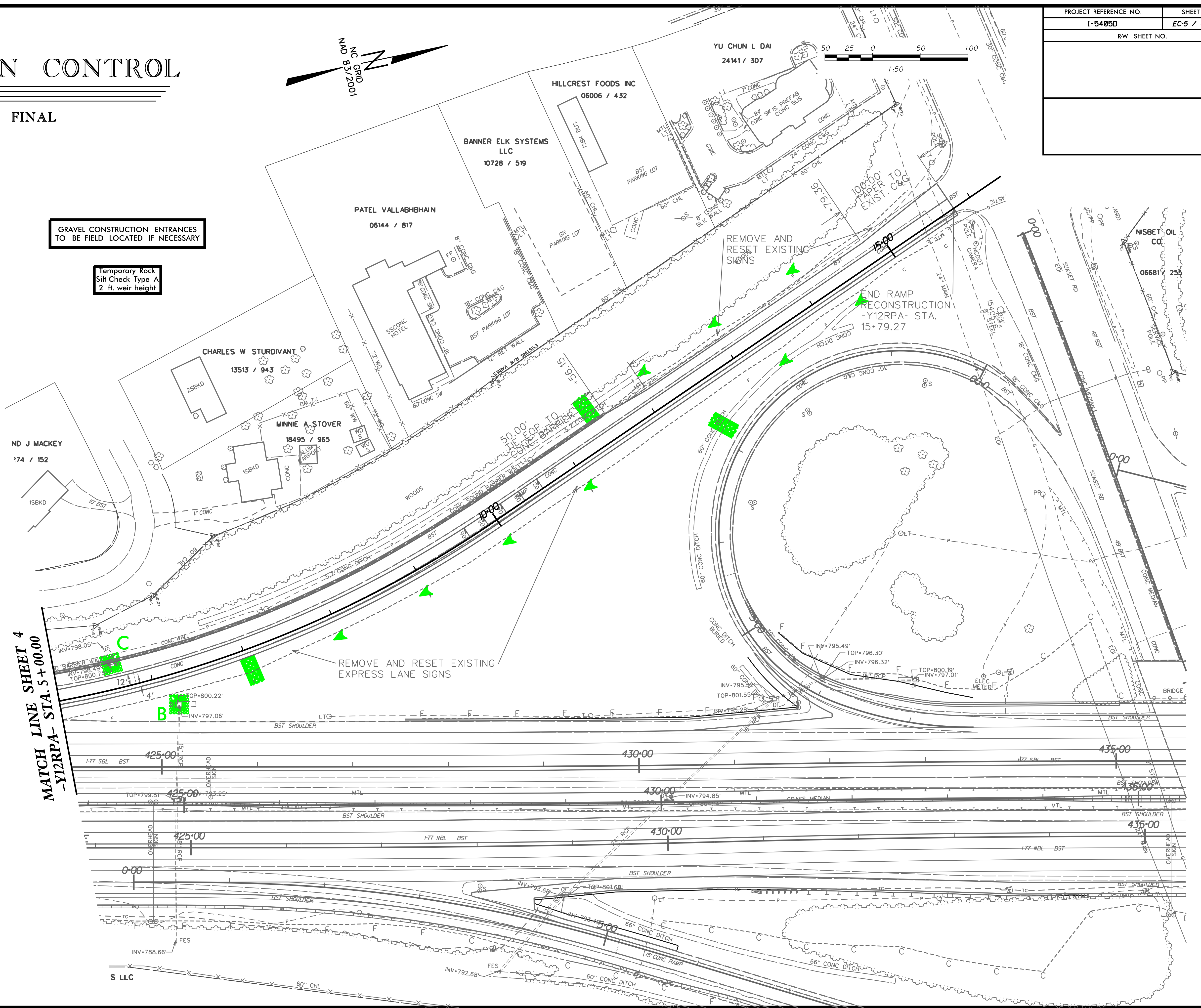
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I-5405D	EC-5 / Const.5
RW SHEET NO.	

NC GRID
NAD 83/2011



GRAVEL CONSTRUCTION ENTRANCES
TO BE FIELD LOCATED IF NECESSARY

Temporary Rock
Silt Check Type A
2 ft. weir height

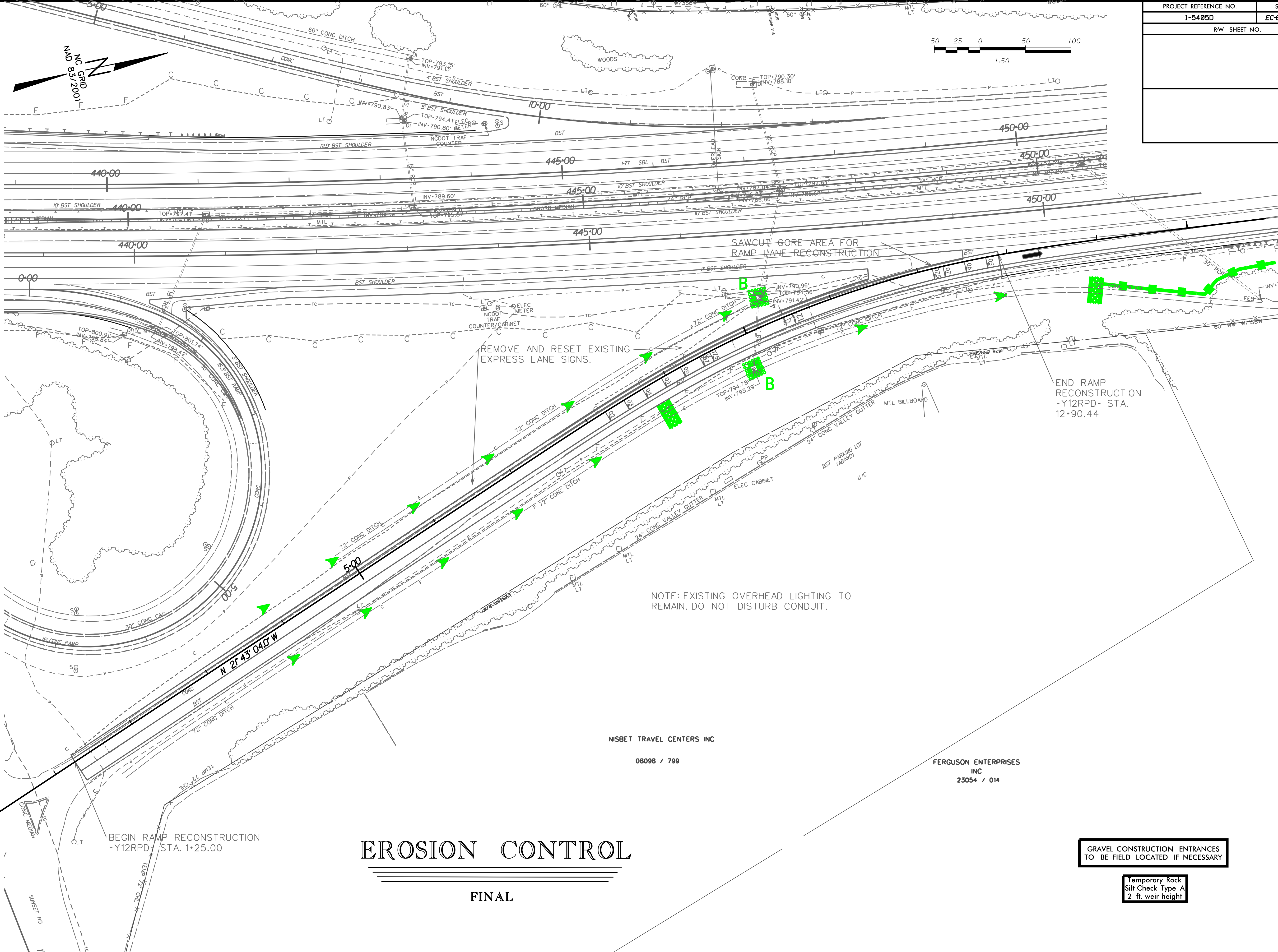
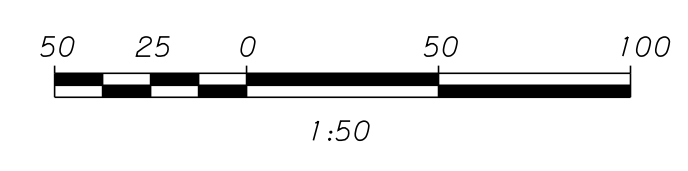


REVISIONS

MATCH LINE SHEET 4
-Y12RPA- STA. 5 + 00.00

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I-5405D	EC-6 / Const.6
RW SHEET NO.	



REVISIONS

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BEGIN RAMP RECONSTRUCTION
-Y12RPD- STA. 1+25.00

REMOVE AND RESET EXISTING
EXPRESS LANE SIGNS.

SAWCUT GORE AREA FOR
RAMP LANE RECONSTRUCTION

END RAMP
RECONSTRUCTION
-Y12RPD- STA.
12+90.44

NOTE: EXISTING OVERHEAD LIGHTING TO
REMAIN. DO NOT DISTURB CONDUIT.

NISBET TRAVEL CENTERS INC
08098 / 799

FERGUSON ENTERPRISES
INC
23054 / 014

EROSION CONTROL

FINAL

GRAVEL CONSTRUCTION ENTRANCES
TO BE FIELD LOCATED IF NECESSARY

Temporary Rock
Silt Check Type A
2 ft. weir height