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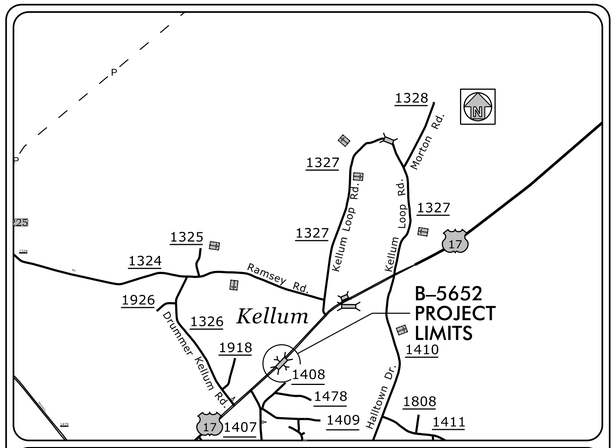
TIP PROJECT: B-5652




**VICINITY MAP**
NOT TO SCALE

# STATE OF NORTH CAROLINA
# DIVISION OF HIGHWAYS

## PLAN FOR PROPOSED
## HIGHWAY EROSION CONTROL

## *ONSLOW COUNTY*

***LOCATION: BRIDGE NO. 33 OVER WOLF SWAMP ON US 17***

***TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE***

NAD 83/2011

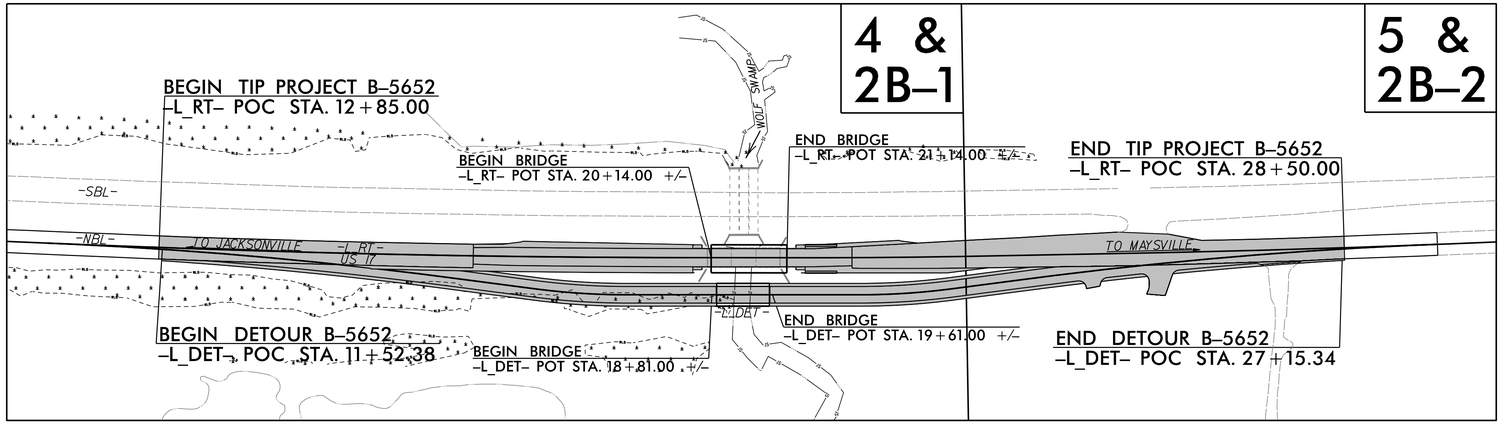
| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| N.C. | B-5652 | EC-1 | |

| STATE PROJ. NO. | F. A. PROJ. NO. | DESCRIPTION |
|---|---|---|
| 45607.1.1 | | P.E. |

## EROSION AND SEDIMENT CONTROL MEASURES

| Std. # | Description | Symbol |
|---|---|---|
| 1630.03 | Temporary Silt Ditch | TSD |
| 1630.05 | Temporary Diversion | TD |
| 1605.01 | Temporary Silt Fence | |
| 1606.01 | Special Sediment Control Fence | |
| 1622.01 | Temporary Berms and Slope Drains | |
| 1630.02 | Silt Basin Type B | |
| 1633.01 | Temporary Rock Silt Check Type-A | |
| | Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM) | |
| 1633.02 | Temporary Rock Silt Check Type-B | |
| | Wattle / Coir Fiber Wattle | EW CFW |
| | Wattle / Coir Fiber Wattle with Polyacrylamide (PAM) | |
| 1634.01 | Temporary Rock Sediment Dam Type-A | |
| 1634.02 | Temporary Rock Sediment Dam Type-B | |
| 1635.01 | Rock Pipe Inlet Sediment Trap Type-A | |
| 1635.02 | Rock Pipe Inlet Sediment Trap Type-B | |
| 1630.04 | Stilling Basin | |
| 1630.06 | Special Stilling Basin | |
| | Rock Inlet Sediment Trap: | |
| 1632.01 | Type A | A |
| 1632.02 | Type B | B |
| 1632.03 | Type C | C |
| | Skimmer Basin | |
| | Tiered Skimmer Basin | |
| | Infiltration Basin | |

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.




***GRAPHIC SCALE***

50 25 0 50 100

PLANS

***THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.***


*Prepared In the Office of:*

SUNGATE DESIGN GROUP, P.A.

905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-890

SUNGATE DESIGN GROUP, P.A.

*Designed by:*

***BRIAN ELAM, PE*** ***3195***

*NAME* *LEVEL III CERTIFICATION NO.*


Roadway Standard Drawings

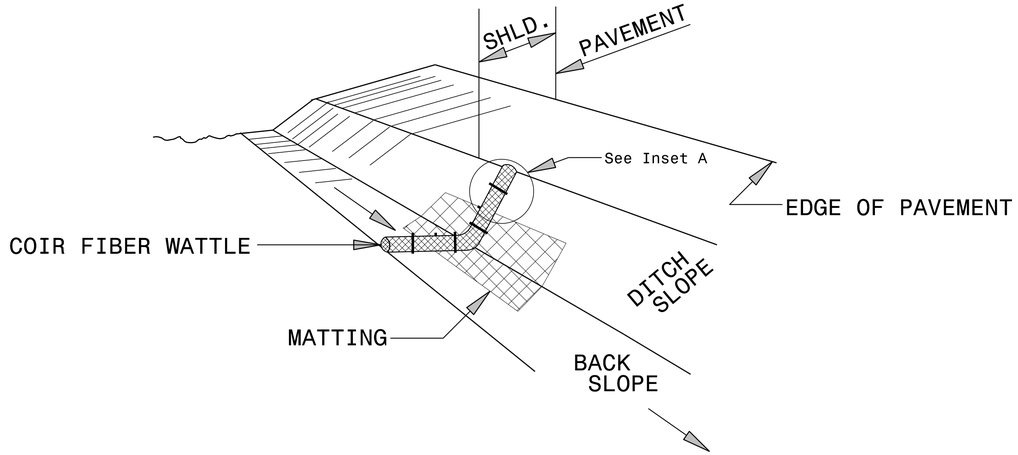
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

| | | | |
|---|---|---|---|
| 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 | 1634.01 | Temporary Rock Sediment Dam Type A |
| 1630.02 | Silt Basin Type B | 1634.02 | Temporary Rock Sediment Dam Type B |
| 1630.03 | Temporary Silt Ditch | 1635.01 | Rock Pipe Inlet Sediment Trap Type A |
| 1630.04 | Stilling Basin | 1635.02 | Rock Pipe Inlet Sediment Trap Type B |
| 1630.05 | Temporary Diversion | 1640.01 | Coir Fiber Baffle |
| 1630.06 | Special Stilling Basin | 1645.01 | Temporary Stream Crossing |
| 1631.01 | Matting Installation | | |

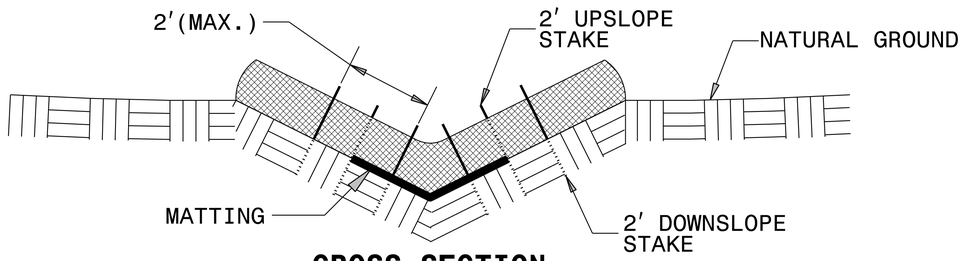
4/26/2022
B5652_Tc_dsn_psh_01.dgn
Roadway

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-2 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

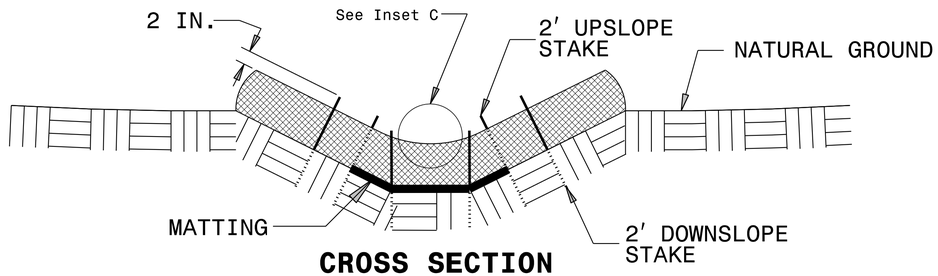
# COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL




**ISOMETRIC VIEW**




**CROSS SECTION VEE DITCH**




**CROSS SECTION TRAPEZOIDAL DITCH**

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) 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.

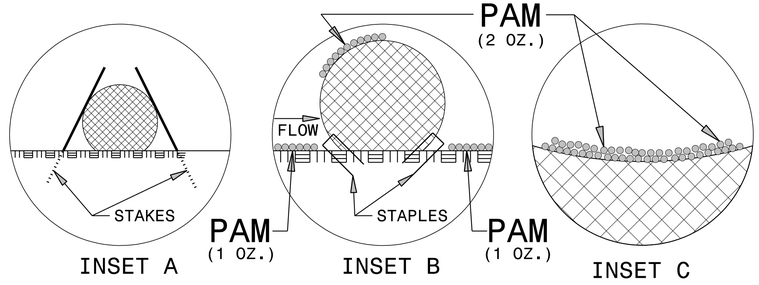
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

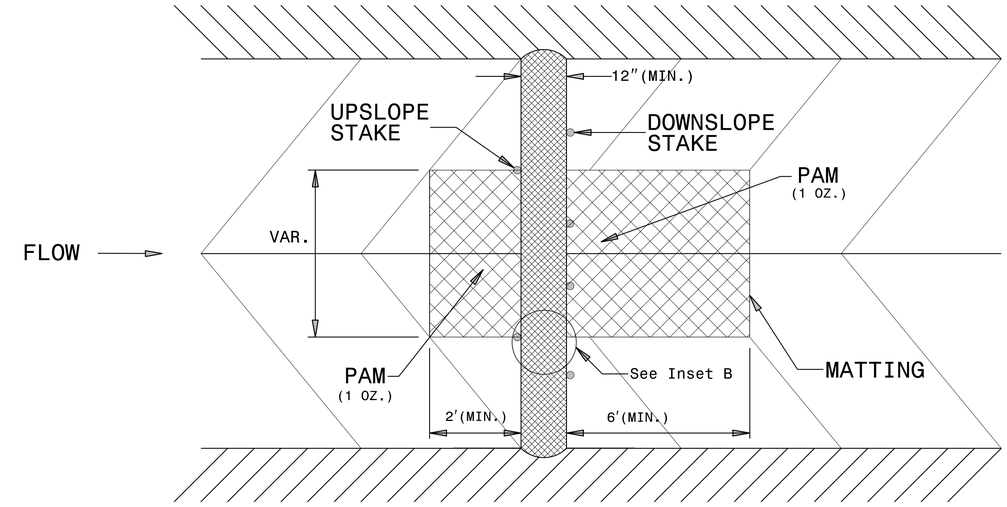
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

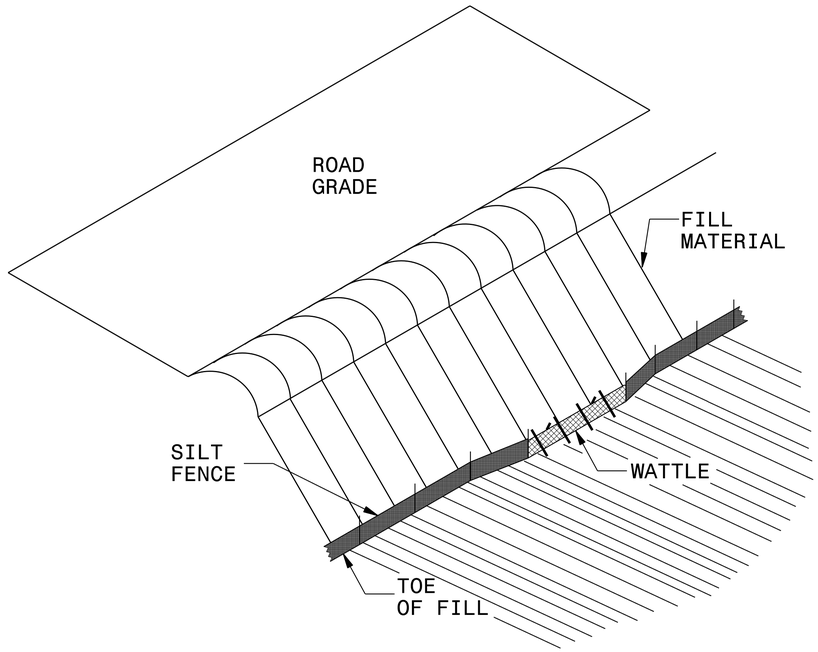


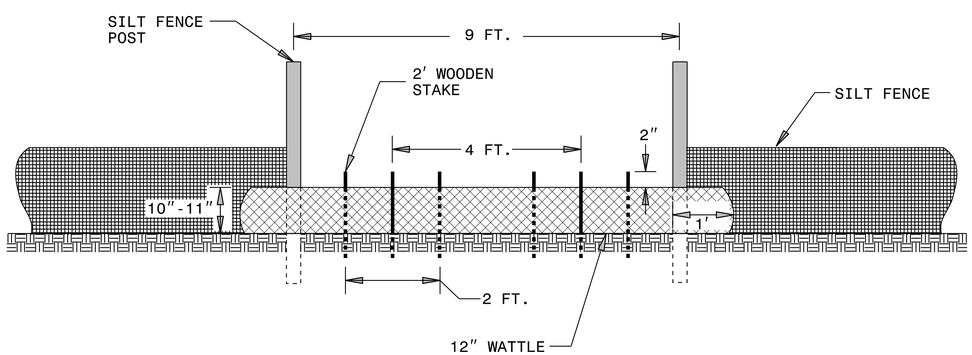

**TOP VIEW**

# SILT FENCE COIR FIBER WATTLE BREAK DETAIL

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-2A |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |




**ISOMETRIC VIEW**




**VIEW FROM SLOPE**

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE 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.

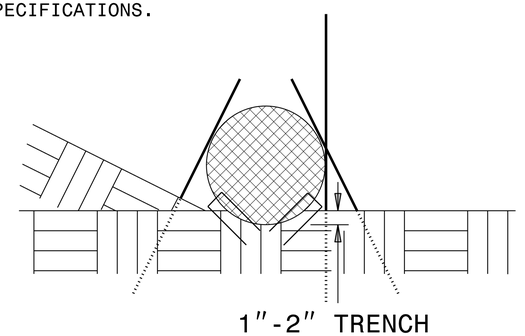
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

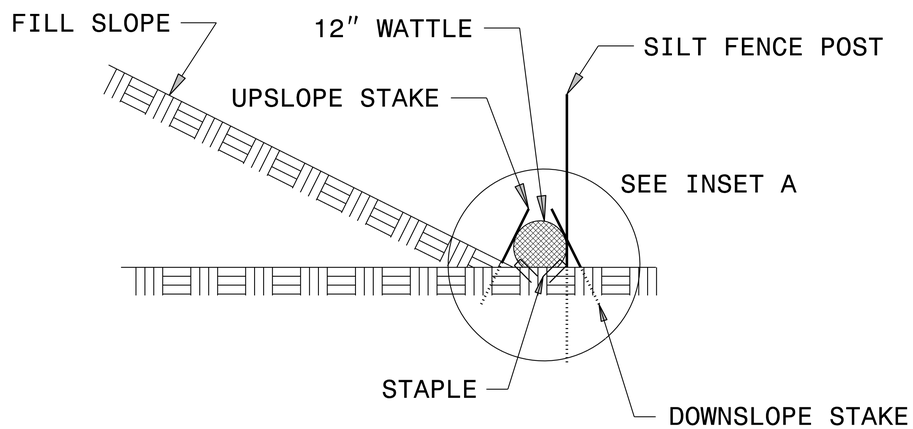
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A

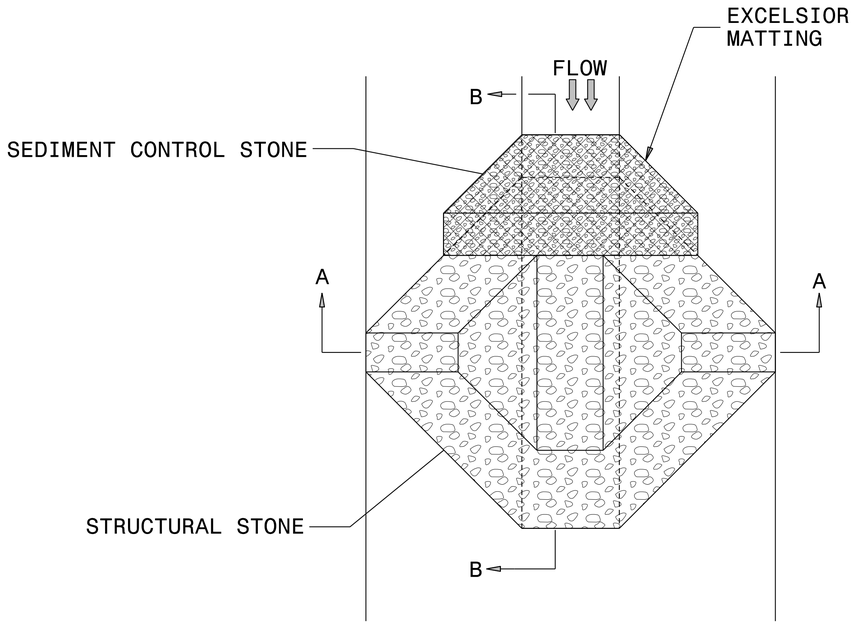


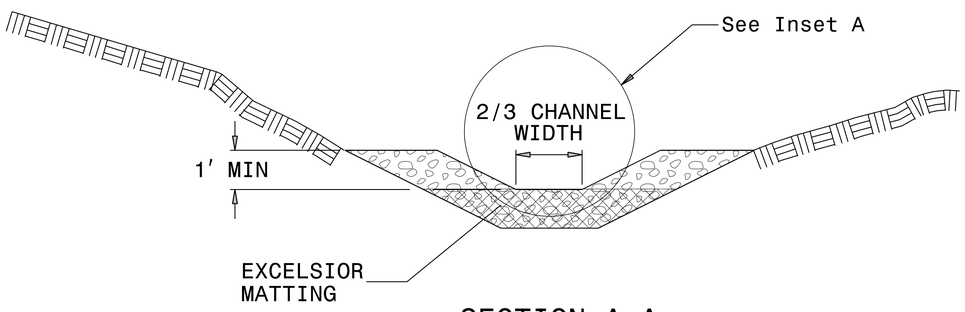

**SIDE VIEW**

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-2B |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)




PLAN




SECTION A-A

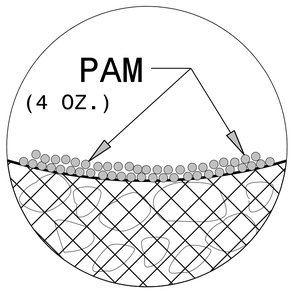
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

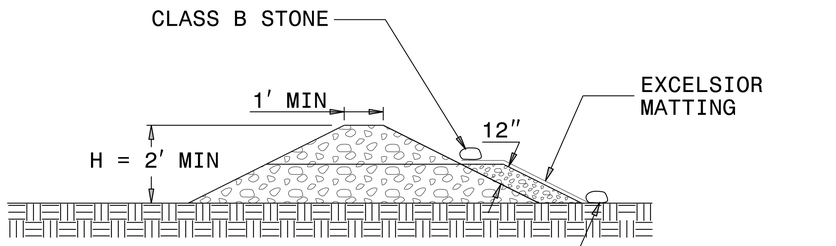
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.




INSET A



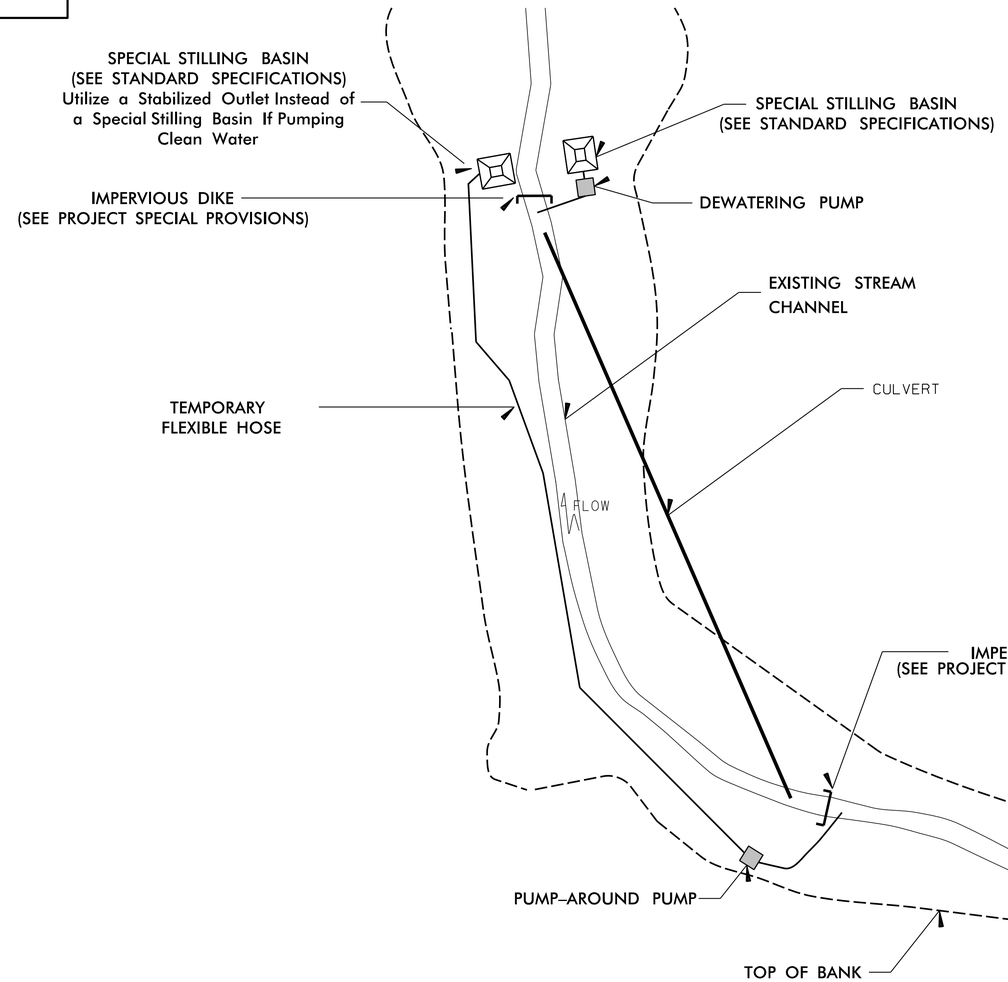

SECTION B-B

NOT TO SCALE

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-2C |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# EXAMPLE OF PUMP–AROUND OPERATION

NOTES:
1) All excavation shall be performed in only dry or isolated areas of the work zone.
2) Impervious dikes are to be used to isolate work from stream flow when necessary.
3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
4) Pumps and hoses shall be of sufficient size to dewater the work area.




SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA

1. INSTALL SPECIAL STILLING BASIN(S).
2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
5. INSTALL CULVERT(S) IN ACCORDANCE WITH THE PLANS.
6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
7. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-3 |

| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
|---|---|
| | |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

# SOIL STABILIZATION SUMMARY SHEET

## MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|---|---|---|---|---|---|
| 4 | -L- | 15+50 | 18+00 | RT | 490 |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | SUBTOTAL | 490 |
| MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER | | | | | 1575 |
| | | | | TOTAL | 2065 |
| | | | | SAY | 2100 |
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## MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
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7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-3A |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

# *SOIL STABILIZATION TIMEFRAMES*

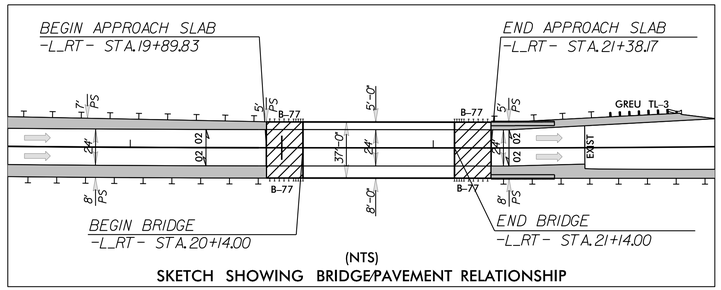
| SITE DESCRIPTION | STABILIZATION TIME | TIMEFRAME EXCEPTIONS |
|---|---|---|
| PERIMETER DIKES, SWALES, DITCHES AND SLOPES | 7 DAYS | NONE |
| HIGH QUALITY WATER (HQW) ZONES | 7 DAYS | NONE |
| SLOPES STEEPER THAN 3:1 | 7 DAYS | IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS 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. |

7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-04/CONST.04 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

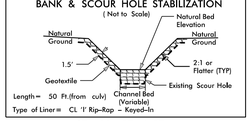



(NTS)

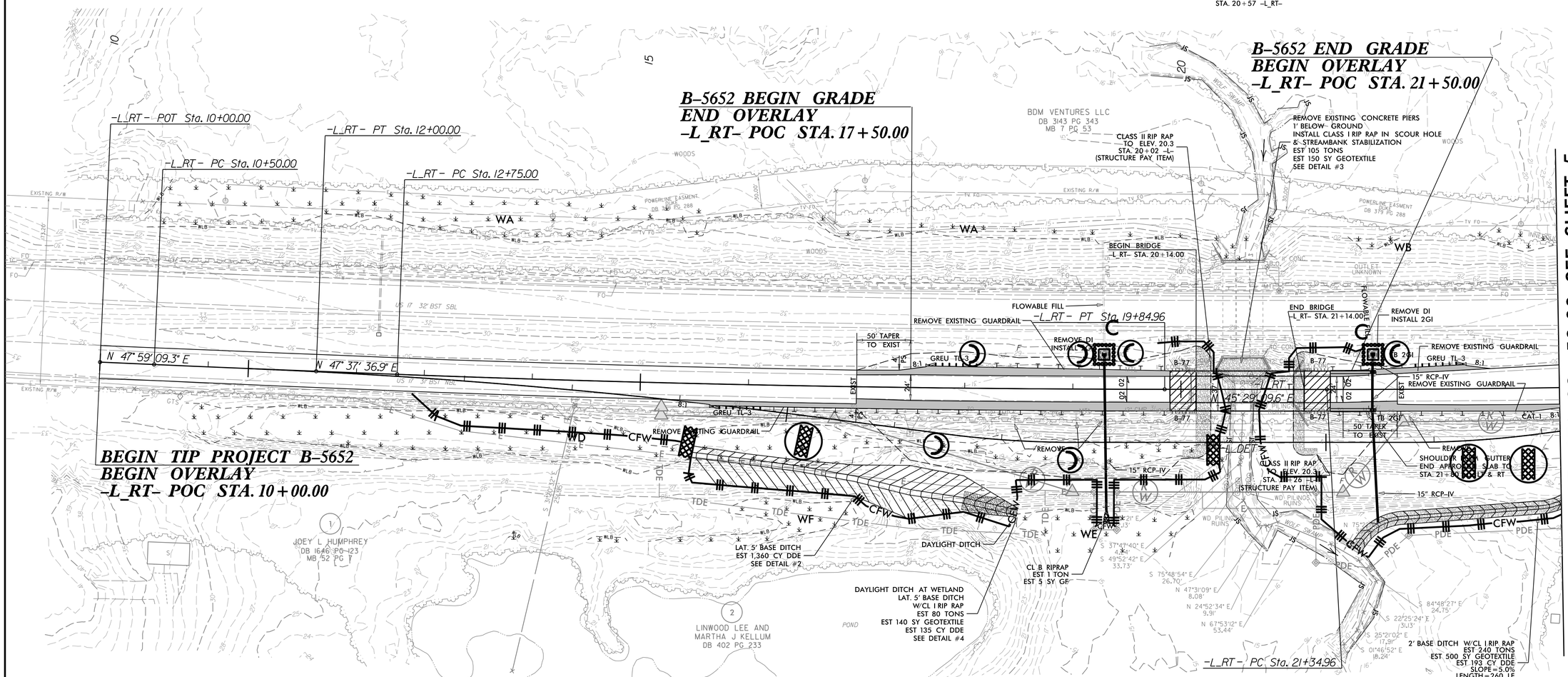
SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

NAD 83 NA 2011 NC GRID

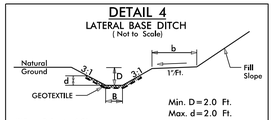
DETAIL 3
BANK & SCOUR HOLE STABILIZATION
( Not to Scale)




STA. 20+57 –L_RT–

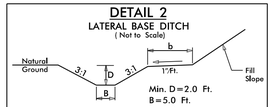



DETAIL 4
LATERAL BASE DITCH
( Not to Scale)



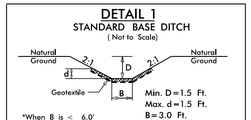

FROM STA. 18+00 TO STA. 18+50 –L_RT–

DETAIL 2
LATERAL BASE DITCH
( Not to Scale)




FROM STA. 15+50 TO STA. 18+50 –L_RT–

DETAIL 1
STANDARD BASE DITCH
( Not to Scale)




FROM STA. 21+62 TO STA. 24+00 –L_RT–

* NOTE: REMOVE ALL EXISTING PILING RUINS AS PART OF BRIDGE REMOVAL.

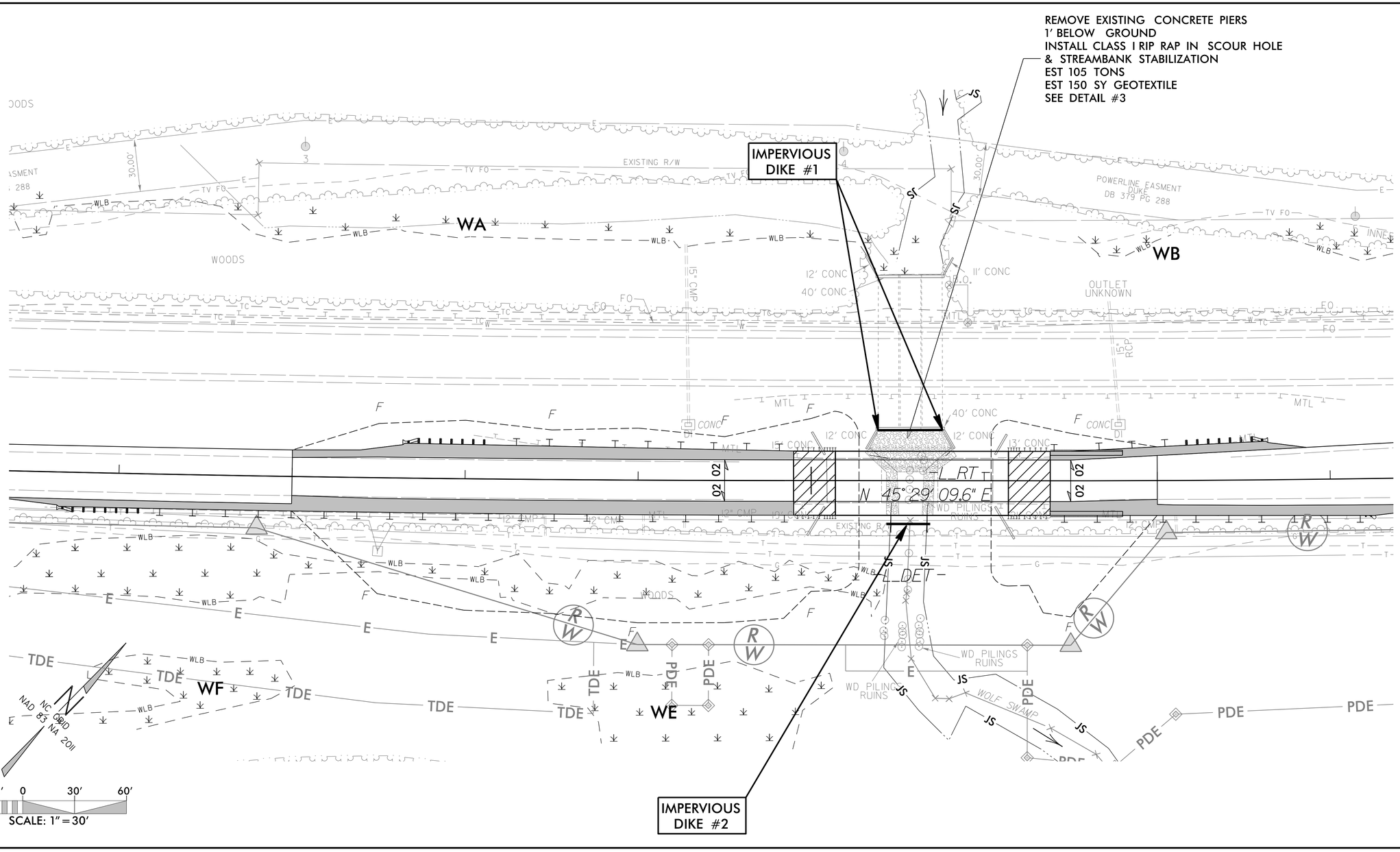
FOR –L_RT– PROFILE, SEE SHEET 6
FOR DETOUR DESIGN, SEE SHEETS 2B–1 & 2B–2

# CL 'I' RIP–RAP BANK & SCOUR HOLE STABILIZATION
# CONSTRUCTION SEQUENCE
# STA. 20 + 58 –L RT–

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-04A/CONST.04 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

## PHASE 1

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CL 'I' BANK & SCOUR HOLE STABILIZATION CONSTRUCTION.
2. INSTALL PUMPS AND TEMPORARY FLEXIBLE HOSES.
3. INSTALL IMPERVIOUS DIKES #1 AND #2. BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
4. DEWATER CONSTRUCTION AREA, UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
5. CONSTRUCT CL 'I' RIP–RAP BANK & SCOUR HOLE STABILIZATION.
6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
7. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSES.
8. DIVERT FLOW TO EXISTING CHANNEL WITH PROPOSED CL 'I' BANK & SCOUR HOLE STABILIZATION.



7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-05/CONST.05 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

MATCHLINE –L RT– STA. 23+50.00 SEE SHEET 4

NC GRID NAD 83 NA 2011

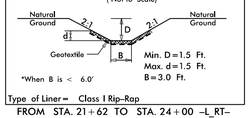
WOODS
BDM VENTURES LLC
1½SMTLBUS
ISFBUS
RWK INVESTMENTS LLC
UTILITY EASEMENT DOT DB 113 PG 694
UTILITY EASEMENT DOT DB 1468 PG 705
EXISTING R/W
+91 179' LT
+11 183' LT
+94 166.45' LT
PUE
+15 166.50' LT
72" CHL
NOTBOX
1-1" FO & 3-SBW
FIBER HOOKUP
CONC DRAIN
24" RETAIN
15" RCP
USH1 VAR BST SBL
USH1 VAR BST NBL
–L_RT–
+69 23.45' RT
–L_DET–
+29 23.51' RT
22 57' RT
RIPRAP
RETAIN
PUE
+69 46' RT
+86 50' RT
6" HDPE
+82 70' RT
48" CHL
VAR BK WALL
WOODS
ROBERT DALTON KELLUM
JAMES A WHITE AND PHYLLIS WHITE
JIMMY D AND PEGGY KELLUM
UNKNOWN
MARILYN FRESHWATER MARSHBURN
MORTON MINERALS INC
JOINT MAINTENANCE AGREEMENT DOT DB 1868 PG 911
60.00'
20.00'

***END TIP PROJECT B–5652***
***END OVERLAY***
***–L_RT– POC STA. 29+73.00***

2' BASE DITCH W/CL I RIP RAP
EST 240 TONS
EST 500 SY GEOTEXTILE
EST 193 CY DDE
SLOPE=5.0%
LENGTH=260 LF
SEE DETAIL #1

BM #2
-BL- STA 34+78.00
276 RIGHT
ELEV. 29.54'

**DETAIL 1**
STANDARD BASE DITCH
( Not to Scale)

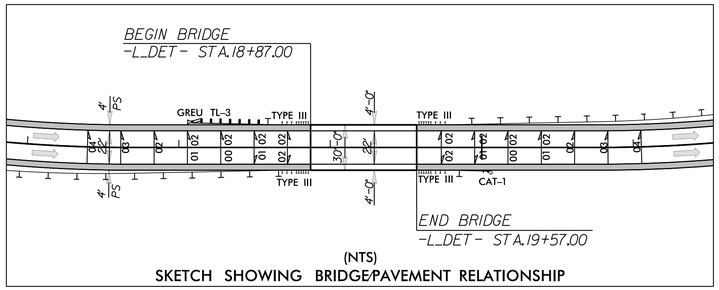



Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=3.0 Ft.
*When B is < 6.0'
Type of Liner= Class I Rip-Rap
FROM STA. 21+62 TO STA. 24+00 –L_RT–

FOR –L_RT– PROFILE, SEE SHEET 6
FOR DETOUR DESIGN, SEE SHEETS 2B–1 & 2B–2

7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-06/CONST 2B-1 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |




(NTS)
SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 18+50 to Sta. 18+87 –L_DET– RT
Sta. 19+57 to Sta. 20+00 –L_DET– RT

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

DETOUR
EROSION CONTROL FOR CONSTRUCTION SHEET 2B-1

NC GRID
NAD 83 NA 2011

10 15 20

BDM VENTURES LLC

WOODS

EXISTING R/W

POWERLINE EASEMENT DB 379 PG 288

**STA. 13+88.57 BEGIN GRADE**

**BEGIN CONSTRUCTION**
**–L_DET– STA. 11+52.38**

US 17 32' BST SBL

REMOVE GUARDRAIL

GREU TL-3

TEMPORARY GUARDRAIL

LAT. 5' BASE DITCH SEE DETAIL #2

GRADE TO DRAIN

REMOVE

BEGIN BRIDGE
-L_DET- STA. 18+87.00

TYPE III

CAT-1

CL B RIP RAP
EST 1 TON
EST 5 SY GEOTEXTILE

TEMP. 15" W/ELBOWS

END BRIDGE
-L_DET- STA. 19+57.00

TEMP 15" –L_RT–

WOLF SWAMP

WD PILINGS RUINS

1 JOEY L HUMPHREY

2 LINWOOD LEE AND MARTHA J KELLUM

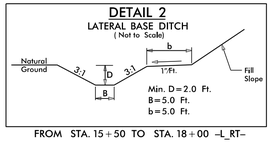
DAYLIGHT DITCH AT WETLAND POND
LAT. 5' BASE DITCH
W/CL I RIP RAP
EST 80 TONS
EST 140 SY GEOTEXTILE
SEE DETAIL #4

2' BASE DITCH W/CL I RIP RAP
EST 240 TONS
EST 500 SY GEOTEXTILE
EST 193 CY DDE
SLOPE=5.0%
LENGTH=260 LF
SEE DETAIL #1

3 ROBERT DALTON KELLUM

MATCHLINE –L DET– STA. 22+00.00 SEE SHEET 2B-2

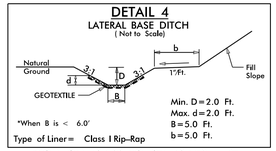
**DETAIL 2**
LATERAL BASE DITCH
( Not to Scale)




Min. D=2.0 Ft.
B=5.0 Ft.
b=5.0 Ft.

FROM STA. 15+50 TO STA. 18+00 –L_RT–

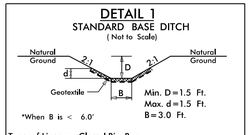
**DETAIL 4**
LATERAL BASE DITCH
( Not to Scale)




Min. D=2.0 Ft.
Max. d=2.0 Ft.
B=5.0 Ft.
b=5.0 Ft.
*When B is < 6.0'
Type of Liner= Class I Rip-Rap

FROM STA. 18+00 TO STA. 18+50 –L_RT–

**DETAIL 1**
STANDARD BASE DITCH
( Not to Scale)




Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=3.0 Ft.
*When B is < 6.0'
Type of Liner= Class I Rip-Rap

FROM STA. 21+62 TO STA. 24+00 –L_RT–

* NOTE: REMOVE ALL EXISTING PILING RUINS AS PART OF BRIDGE REMOVAL.

FOR –L_DET– PROFILE, SEE SHEET 7
FOR –L_RT– DESIGN, SEE SHEET 4 & 5

7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-07/CONST.2B-2 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

DETOUR
EROSION CONTROL FOR
CONSTRUCTION SHEET 2B-2

NC GRID
NAD 83 NA 2011

MATCHLINE -L DET- STA. 22+00.00 SEE SHEET 2B-1

STA. 24+52.10 END GRADE

END CONSTRUCTION
-L_DET- STA. 27+15.34

-L_RT-

-L_DET-

BDM VENTURES LLC

RWK INVESTMENTS LLC

ROBERT DALTON KELLUM

JAMES A WHITE AND PHYLLIS WHITE

JIMMY D AND PEGGY KELLUM

UNKNOWN

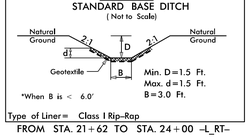
MARILYN FRESHWATER MARSHBURN

MORTON MINERALS INC

2' BASE DITCH W/CL I RIP RAP
EST 240 TONS
EST 500 SY GEOTEXTILE
EST 193 CY DDE
SLOPE=5.0%
LENGTH=260 LF
SEE DETAIL #1

BM #2
-BL- STA 34+78.00
276 RIGHT
ELEV. 29.54'

DETAIL 1
STANDARD BASE DITCH
( Not to Scale)



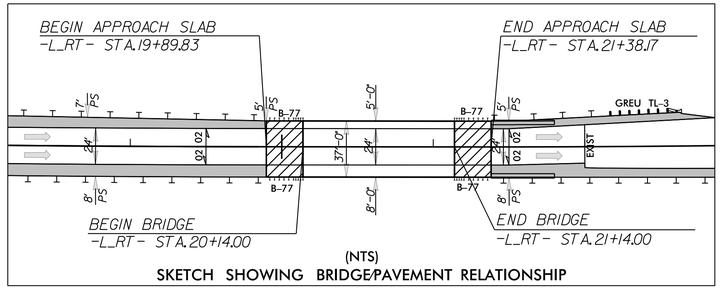

Type of Liner= Class I Rip-Rap
FROM STA. 21+62 TO STA. 24+00 -L_RT-

FOR -L_DET- PROFILE, SEE SHEET 7
FOR -L_RT- DESIGN, SEE SHEET 4 & 5

7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-08/CONST.04 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

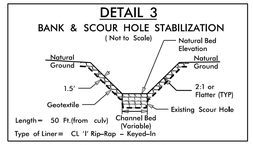



(NTS)
SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

NC GRID
NAD 83 NA 2011

DETAIL 3
BANK & SCOUR HOLE STABILIZATION
( Not to Scale)




STA. 20+57 -L_RT-

10 15 20

## B-5652 BEGIN GRADE END OVERLAY -L_RT- POC STA. 17+50.00

## B-5652 END GRADE BEGIN OVERLAY -L_RT- POC STA. 21+50.00

## BEGIN TIP PROJECT B-5652 BEGIN OVERLAY -L_RT- POC STA. 10+00.00

MATCHLINE -L RT- STA. 23+50.00 SEE SHEET 5

BDM VENTURES LLC

WOODS

EXISTING R/W

POWERLINE EASEMENT DB 3179 PG 288

US 17 32' BST SBL

WOLF SWAMP

CLASS II RIP RAP TO ELEV. 20.3 STA. 20+02 -L- (STRUCTURE PAY ITEM)

REMOVE EXISTING CONCRETE PIERS 1' BELOW GROUND
INSTALL CLASS I RIP RAP IN SCOUR HOLE & STREAMBANK STABILIZATION
EST 105 TONS
EST 150 SY GEOTEXTILE
SEE DETAIL #3

BEGIN BRIDGE
-L_RT- STA. 20+14.00

END BRIDGE
-L_RT- STA. 21+14.00

11' CONC
12' CONC
40' CONC
OUTLET UNKNOWN

FLOWABLE FILL

REMOVE EXISTING GUARDRAIL

REMOVE DI INSTALL 2GI

50' TAPER TO EXIST

GREU TL-3 8:1

B-77

15" RCP-IV

REMOVE

SHOULDER BERM GUTTER END APPROACH SLAB TO STA. 21+80 -L- LT & RT

CLASS II RIP RAP TO ELEV. 20.3 STA. 21+26 -L- (STRUCTURE PAY ITEM)

WD PILINGS RUINS

DAYLIGHT DITCH

CL B RIPRAP
EST 1 TON
EST 5 SY GF

DAYLIGHT DITCH AT WETLAND
LAT. 5' BASE DITCH
W/CL I RIP RAP
EST 80 TONS
EST 140 SY GEOTEXTILE
EST 135 CY DDE
SEE DETAIL #4

LAT. 5' BASE DITCH
EST 1,360 CY DDE
SEE DETAIL #2

2' BASE DITCH W/CL I RIP RAP
EST 240 TONS
EST 500 SY GEOTEXTILE
EST 193 CY DDE
SLOPE = 5.0%
LENGTH = 260 LF
SEE DETAIL #1

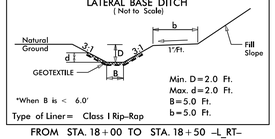
1 JOEY L HUMPHREY

2 LINWOOD LEE AND MARTHA J KELLUM

3 ROBERT DALTON KELLUM

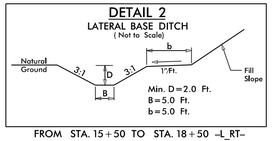
POND

DETAIL 4
LATERAL BASE DITCH
( Not to Scale)



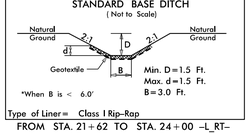

FROM STA. 18+00 TO STA. 18+50 -L_RT-

DETAIL 2
LATERAL BASE DITCH
( Not to Scale)




FROM STA. 15+50 TO STA. 18+50 -L_RT-

DETAIL 1
STANDARD BASE DITCH
( Not to Scale)




FROM STA. 21+62 TO STA. 24+00 -L_RT-

* NOTE: REMOVE ALL EXISTING PILING RUINS AS PART OF BRIDGE REMOVAL.

FOR -L_RT- PROFILE, SEE SHEET 6
FOR DETOUR DESIGN, SEE SHEETS 2B-1 & 2B-2

7/2/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| B-5652 | EC-09/CONST.05 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

MATCHLINE –L RT– STA. 23+50.00 SEE SHEET 4

NC GRID
NAD 83 NA 2011

-L_RT- PT Sta. 23+74.04

-L_RT- PC Sta. 25+51.67

-L_RT- PT Sta. 30+67.74

-L_RT- POT Sta. 32+67.74

25

30

WOODS

BDM VENTURES LLC
DB 3143 PG 343
MB 7 PG 53

1½SMTLBUS

ISFBUS

GR

RWK INVESTMENTS LLC
DB 3138 PG 152
PB 56 PAGE 224 SLIDE M-818

S 46°30'18" E
290.82'

N 05°25'09" W
142.35'

N 38°41'16" W
117.50'

0.65' EIP-R/W

0.94' EIP-R/W

EXISTING R/W

UTILITY EASEMENT
DB 1113 PG 694

UTILITY EASEMENT
DB 1468 PG 705

17.00'

72" CHL

72" CMP

24" RCP

15" RCP

RETAIN

HOTBOX

FIBER HOOKUP

CONC DRAIN

72" CHL & 3SBW

BST

TV FO

FO

TC

CONC

DI

USI7 VAR BST SBL

USI7 VAR BST NBL

N 44° 21' 14.1" E
-L_RT-

N 42° 57' 21.2" E

+69
23.45' RT

+91
179' LT

+11
183' LT

+94
166.45' LT

+15
166.50' LT

PUE

8:1

-L_DET-

+29
23.51' RT

+22
57' RT

+69
46' RT

+86
50' RT

+82
70' RT

6" HDPE

PDE

GR

N 46°21'52" W
125.31'

S 46°21'57" E
123.74'

48" CHL

VAR BK WALL

EIP

S 35°20'25" E
93.79'

S 35°20'25" E
553.12'

END TIP PROJECT B-5652
END OVERLAY
-L_RT- POC STA. 29+73.00

MORTON MINERALS INC
DB 1581 PG 737
MB 29 PG 114
MB 29 PG 165

JOINT MAINTENANCE AGREEMENT
DB 1068 PG 917

WOODS

N 42°33'55" E
242.47'

60.00'

N 50°28'10" W
190.55'

S 46°56'50" E
161.31'

S 35°24'55" W
232.82'

MARILYN FRESHWATER MARSHBURN
DB 1068 PG 917
MB 29 PG 114

UNKNOWN

ROBERT DALTON KELLUM
DB 916 PG 585

JAMES A WHITE AND
PHYLLIS WHITE
DB 4068 PG 5
PB 54 PG 129 SLIDE M-243

BM #2
-BL- STA 34+78.00
276 RIGHT
ELEV. 29.54'

JIMMY D AND
PEGGY KELLUM
DB 357 PG 40
DB 593 PG 243

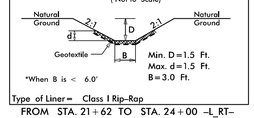
N 38°28'02" E
109.93'

S 38°23'59" E
199.28'

20.00'

2' BASE DITCH W/CL I RIP RAP
EST 240 TONS
EST 500 SY GEOTEXTILE
EST 193 CY DDE
SLOPE=5.0%
LENGTH=260 LF
SEE DETAIL #1

**DETAIL 1**
STANDARD BASE DITCH
( Not to Scale)




Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=3.0 Ft.

*When B is < 6.0'

Type of Liner= Class I Rip-Rap

FROM STA. 21+62 TO STA. 24+00 –L_RT–

FOR –L_RT– PROFILE, SEE SHEET 6
FOR DETOUR DESIGN, SEE SHEETS 2B-1 & 2B-2