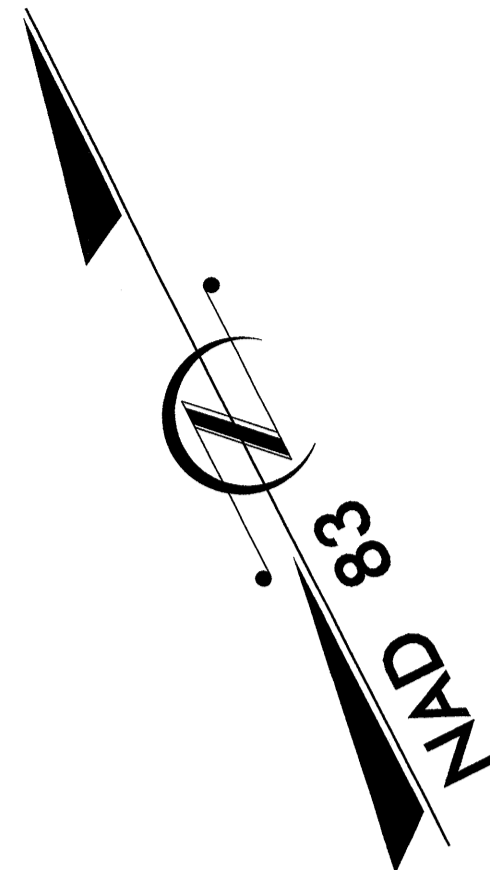


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4668	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

TIP PROJECT: B-4668

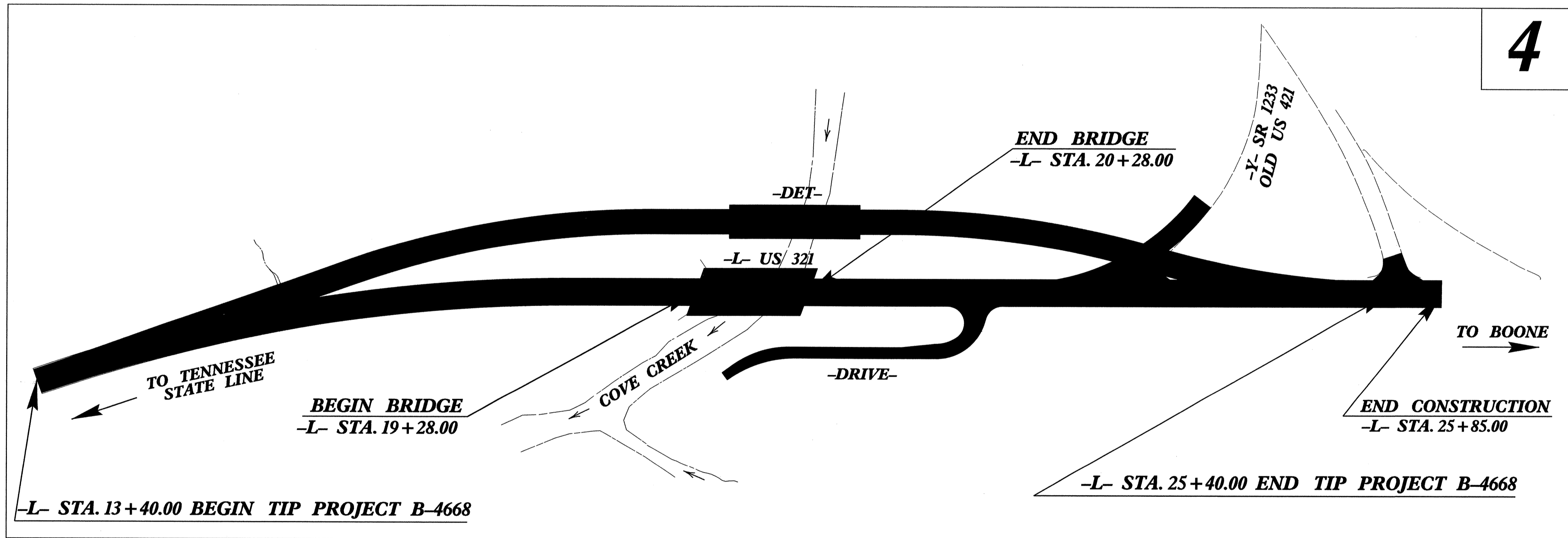


STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
WATAUGA COUNTY

LOCATION: BRIDGE NO. 29 OVER COVE CREEK ON US 321
TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

EROSION AND SEDIMENT CONTROL MEASURES

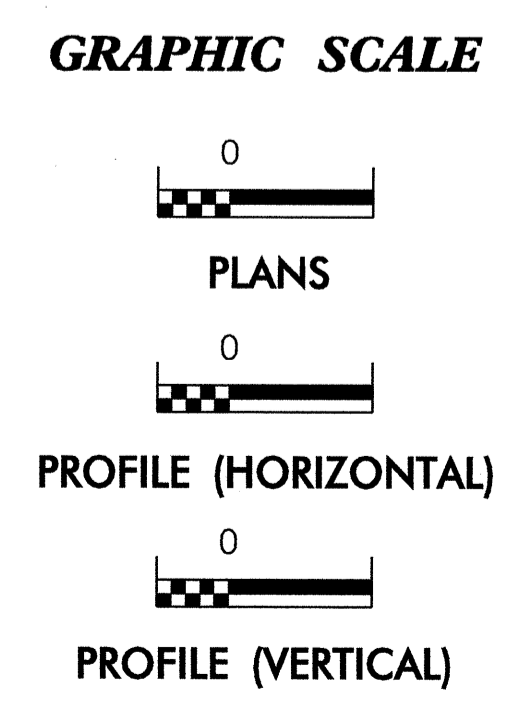
Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	▲▲▲▲▲
1622.01	Temporary Berms and Slope Drains	—
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	⊗
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	⊗
1633.02	Temporary Rock Silt Check Type-B	▶
	Wattle / Coir Fiber Wattle	⌒
	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
1632.05	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭



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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT
 Refer To E. C. Special Provisions for Special Considerations.



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 CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:
ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27611
2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

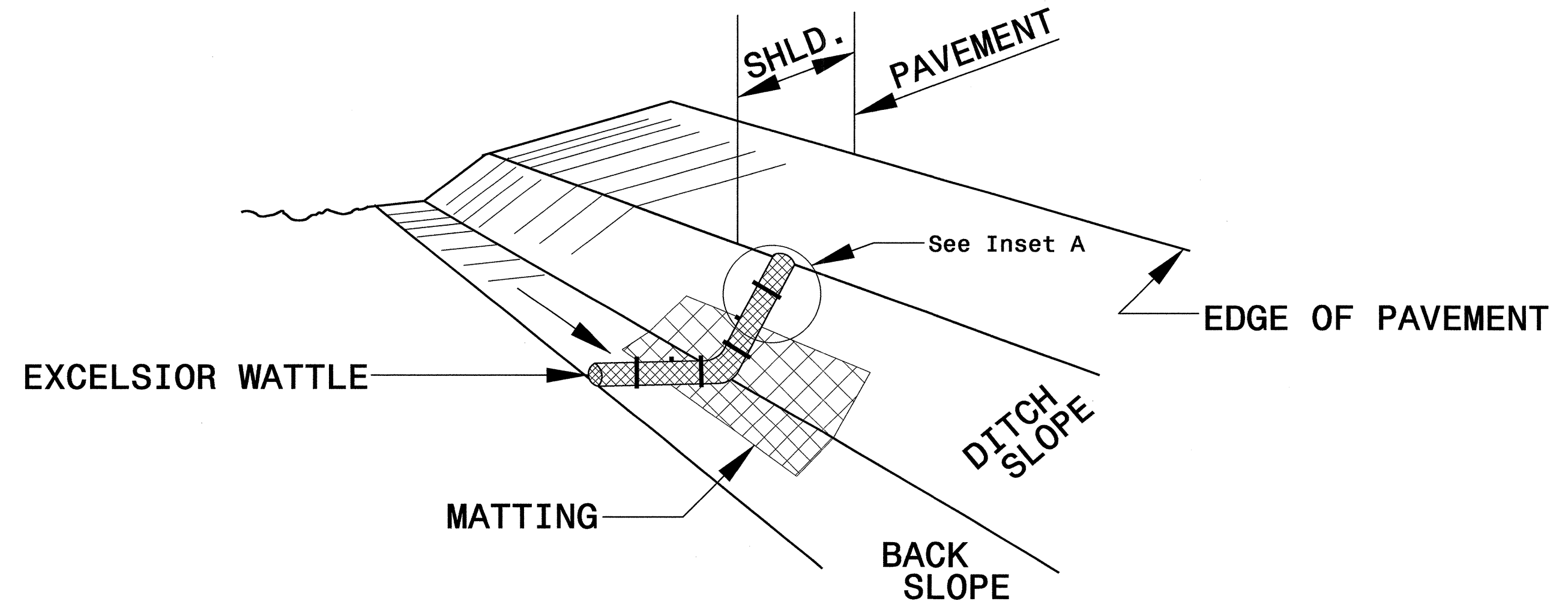
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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	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	

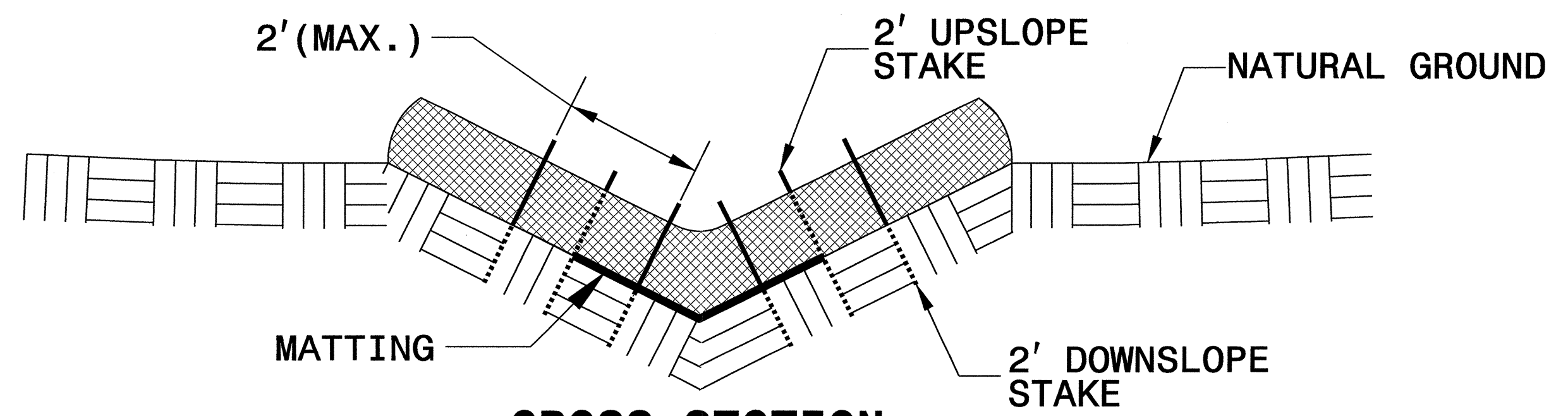
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 mehencok\at\REN\237968

PROJECT REFERENCE NO. B-4668	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

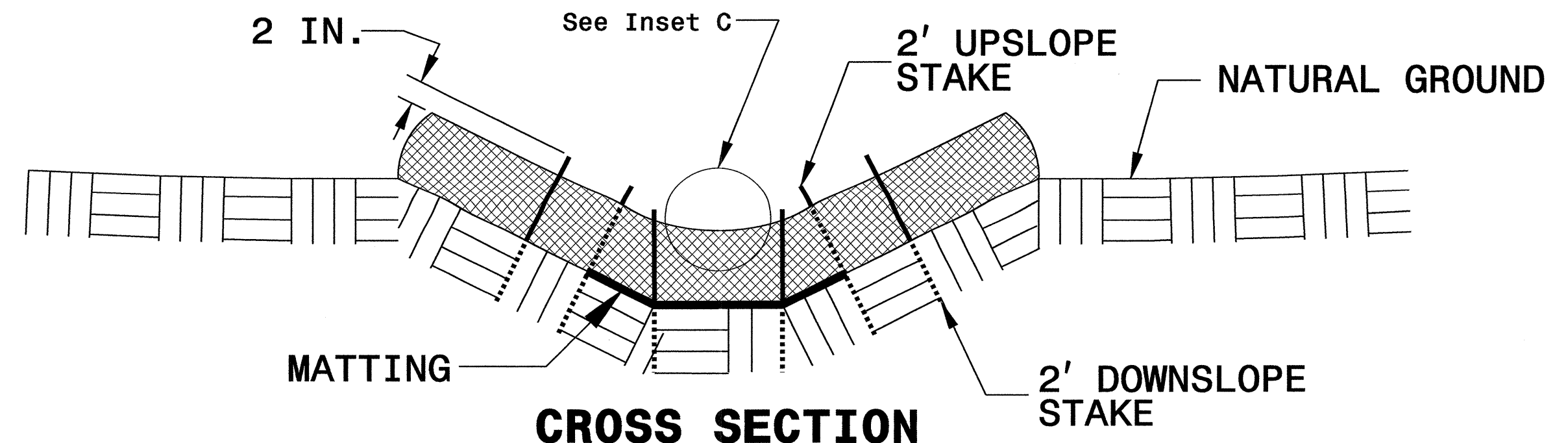
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



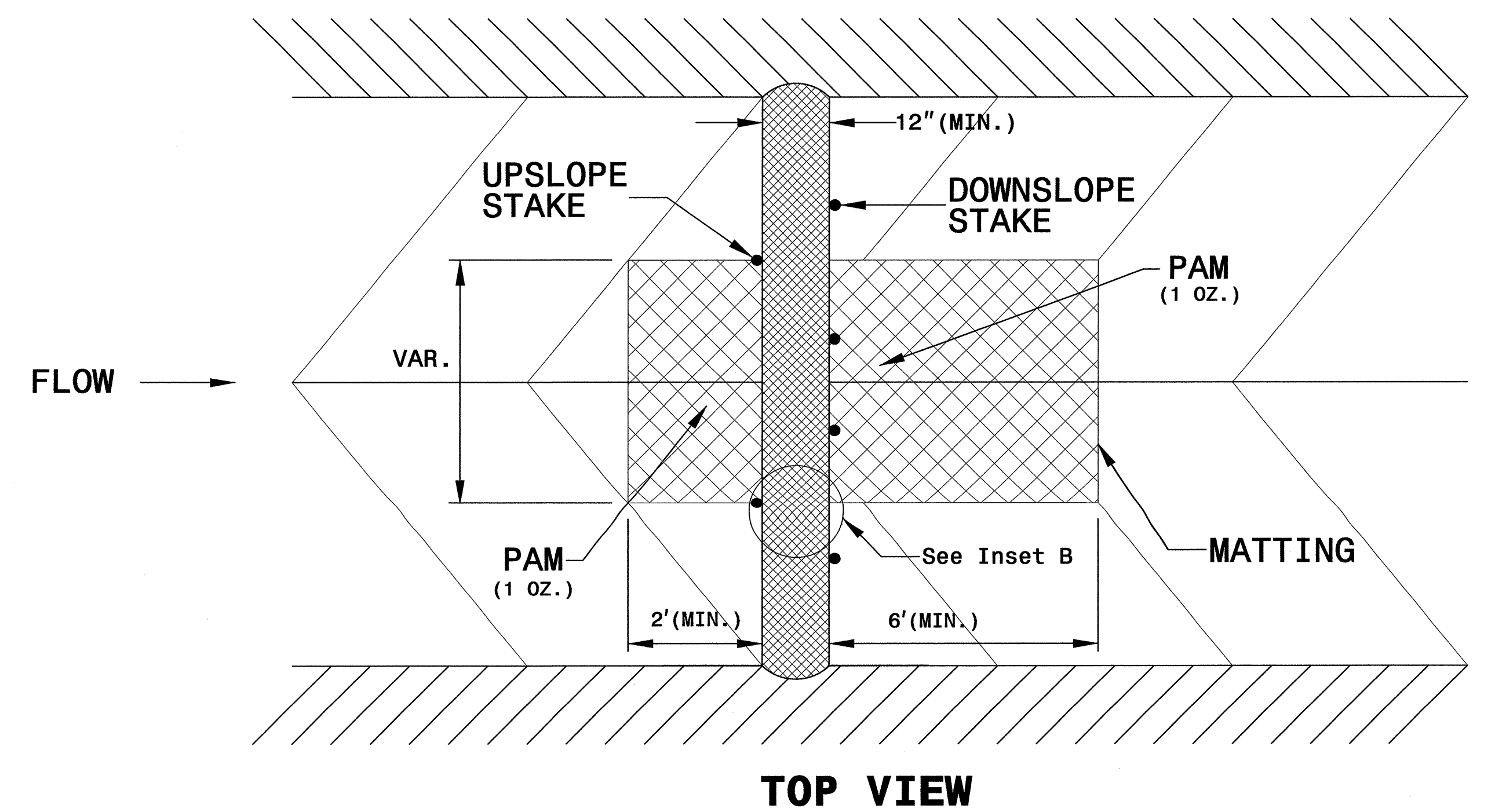
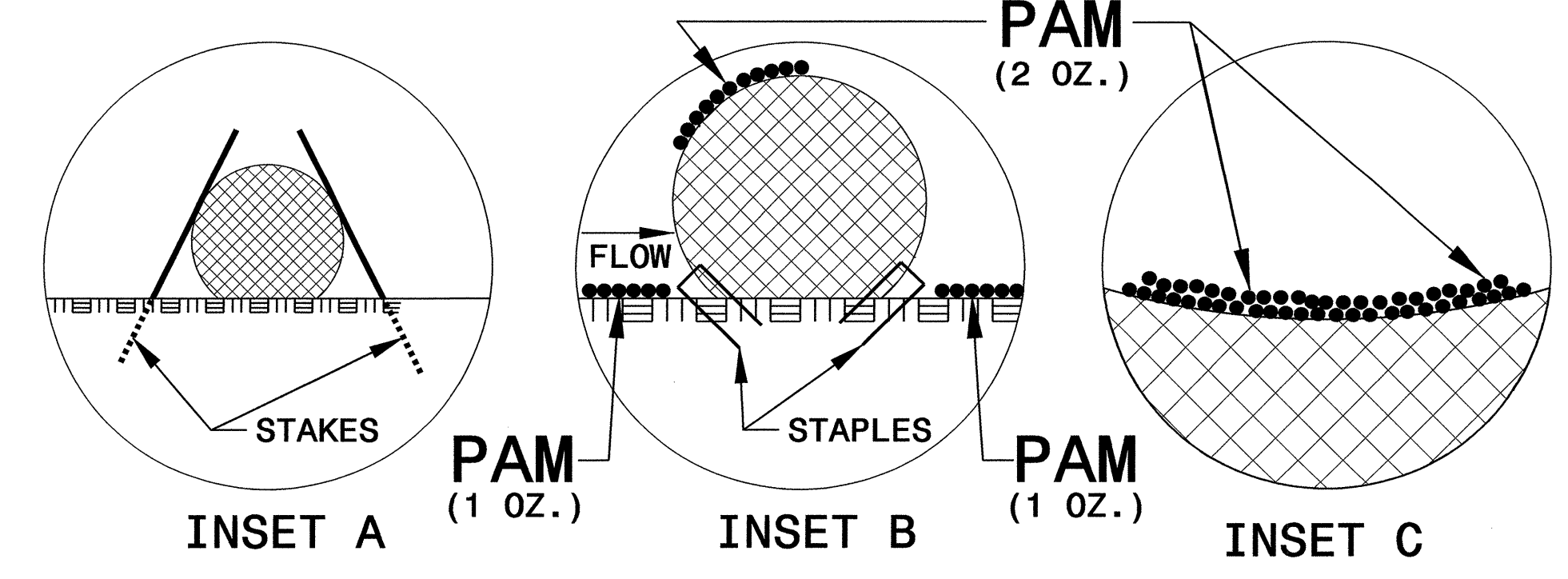
CROSS SECTION VEE DITCH



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.
- 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.



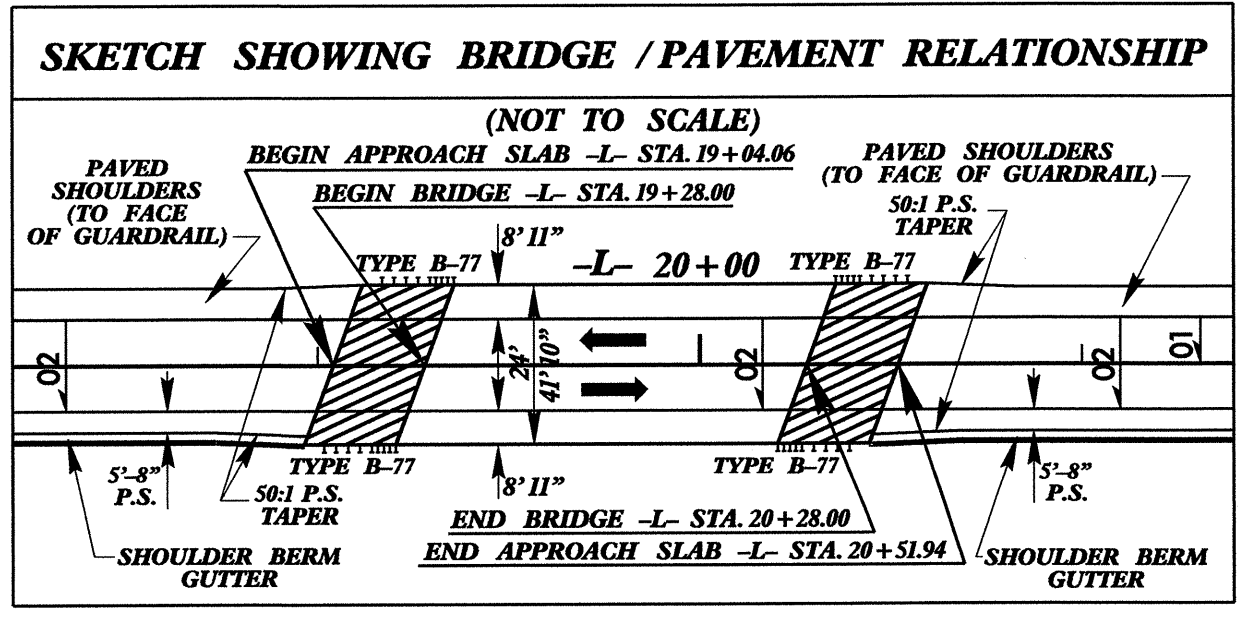
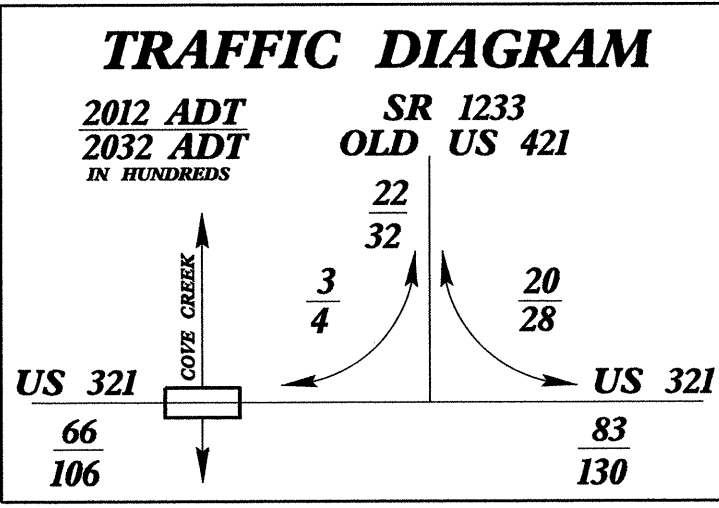
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-4668</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

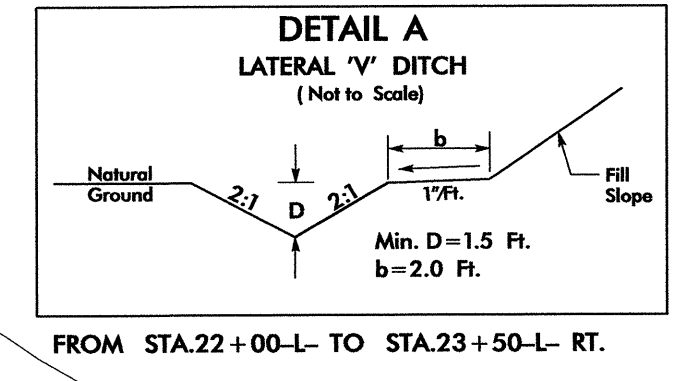
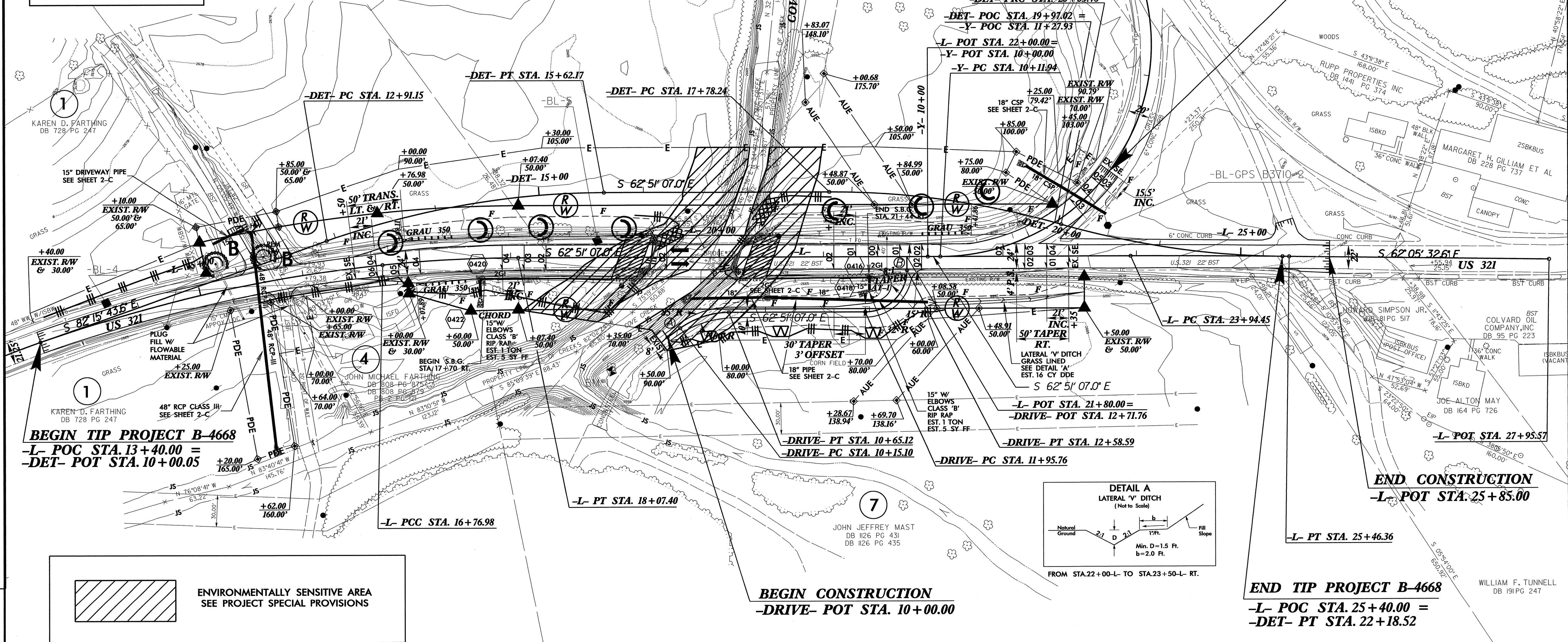
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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

PROJECT REFERENCE NO. B-4668	SHEET NO. EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4



ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

-L-			-DET-			-Y-			-DRIVE-		
PI Sta 13+53.05	PI Sta 17+42.25	PI Sta 24+70.41	PI Sta 14+27.97	PI Sta 18+91.60	PI Sta 21+11.64	PI Sta 14+09.59	PI Sta 10+40.96	PI Sta 12+35.76	PI Sta 10+40.96	PI Sta 12+35.76	PI Sta 12+35.76
PC Sta 10+17.06	$\Delta = 5' 51'' 39.5''$ (RT)	$\Delta = 0' 45'' 34.4''$ (RT)	$\Delta = 19' 24'' 36.6''$ (RT)	$\Delta = 16' 07'' 49.4''$ (RT)	$\Delta = 125' 57'' 13.2''$ (LT)	$\Delta = 35' 49'' 34.3''$ (RT)	$\Delta = 35' 49'' 34.3''$ (RT)	$\Delta = 90' 00'' 00.0''$ (LT)	$\Delta = 35' 49'' 34.3''$ (RT)	$\Delta = 90' 00'' 00.0''$ (LT)	$\Delta = 90' 00'' 00.0''$ (LT)
$N 84' 45'' 11.37'' E$ (BACK)	$D = 4' 29'' 37.6''$	$D = 0' 30'' 00.0''$	$D = 7' 09'' 43.1''$	$D = 7' 09'' 43.1''$	$D = 15' 24'' 09.5''$ (LT)	$D = 71' 37'' 11.0''$	$D = 71' 37'' 11.0''$	$D = 143' 14'' 22.0''$	$D = 71' 37'' 11.0''$	$D = 143' 14'' 22.0''$	$D = 143' 14'' 22.0''$
$\Delta = 26' 32'' 02.1''$ (RT)	$L = 130.42'$	$L = 151.91'$	$L = 225.22'$	$L = 271.02'$	$L = 271.02'$	$L = 445.85'$	$L = 445.85'$	$L = 62.83'$	$L = 445.85'$	$L = 62.83'$	$L = 62.83'$
$D = 4' 01'' 14.7''$	$T = 65.27'$	$T = 75.96'$	$T = 136.82'$	$T = 113.36'$	$T = 215.06'$	$T = 397.65'$	$T = 25.86'$	$T = 40.00'$	$T = 397.65'$	$T = 25.86'$	$T = 40.00'$
$L = 659.92'$	$R = 1,275.00'$	$R = 11,459.16'$	$R = 800.00'$	$R = 800.00'$	$R = 108.18'$	$R = 202.82'$	$R = 80.00'$	$R = 40.00'$	$R = 202.82'$	$R = 80.00'$	$R = 40.00'$
$T = 335.99'$	$SE = 0.04$	$SE = NC$	$SE = 0.04$	$SE = 0.04$	$SE = SEE PLANS$	$SE = SEE PLANS$	$SE = NC$	$SE = NC$	$SE = SEE PLANS$	$SE = NC$	$SE = NC$
$R = 1,425.00'$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$
$SE = 0.04$							$\odot N 81' 19'' 18.7'' E$	$\odot N 27' 08'' 53.0'' E$			
$RO = SEE PLANS$											

NOTE: INCIDENTAL MILLING AS DIRECTED BY THE ENGINEER FOR STA. -L- 22+25.00 TO 23+15.00.

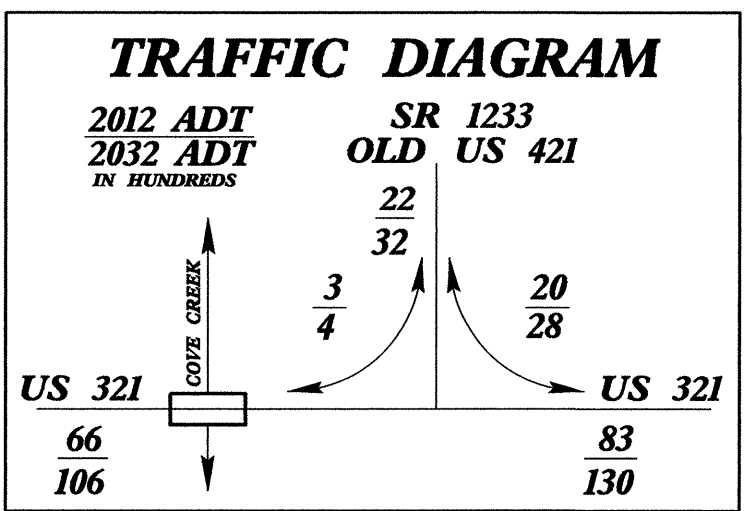
- NOTES:
- FOR -DET- PLAN VIEW SEE SHEET 2-C.
 - FOR -L- AND -DET- PROFILE SEE SHEET 5.
 - FOR -Y- AND -DRIVE- PROFILE SEE SHEET 6.
 - ALL RIGHT OF WAY AND EASEMENTS ARE REFERENCED FROM -L-.
 - ALL DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE ON PLANS.
 - FOR STRUCTURE PLANS SEE SHEETS S-1 THRU S-XX.

10/27/11 RIGHT OF WAY REVISION: PARCEL NO. 2 HAS BEEN CHANGED TO PARCEL NO. 1. DW

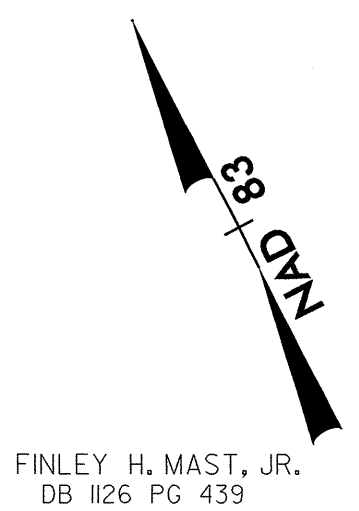
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CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 2-C

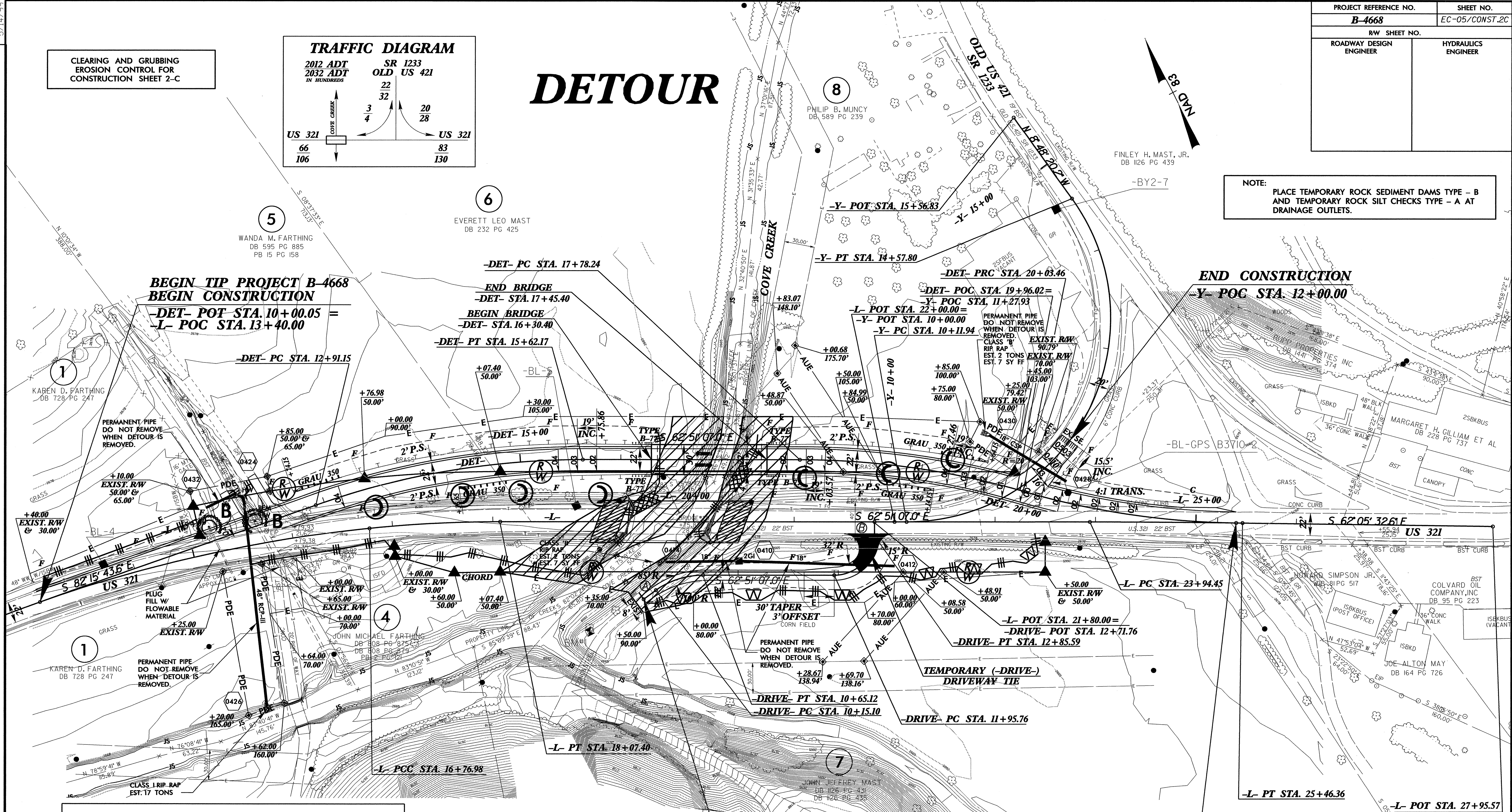


DETOUR



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

10/27/11 RIGHT OF WAY REVISION: PARCEL NUMBER 2 HAS BEEN CHANGED TO PARCEL NUMBER 1. DWN



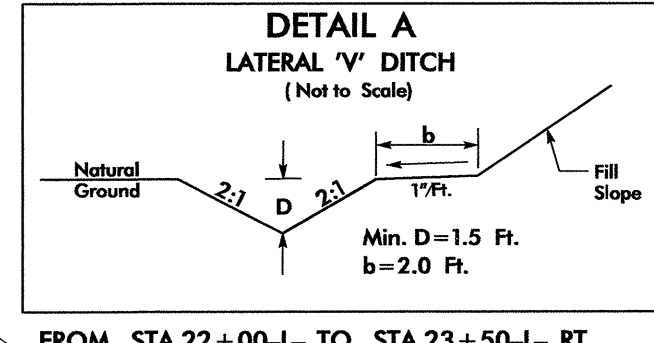
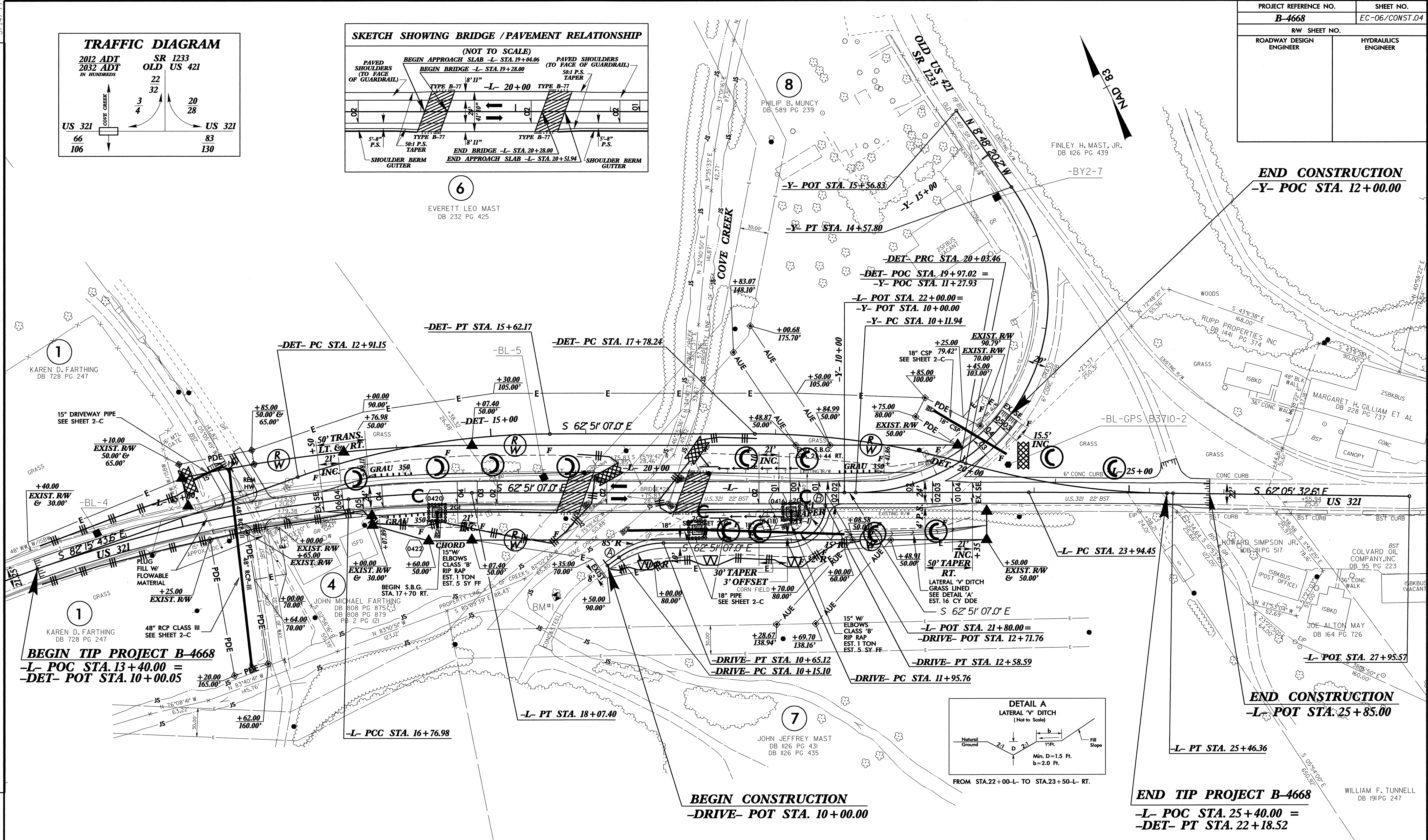
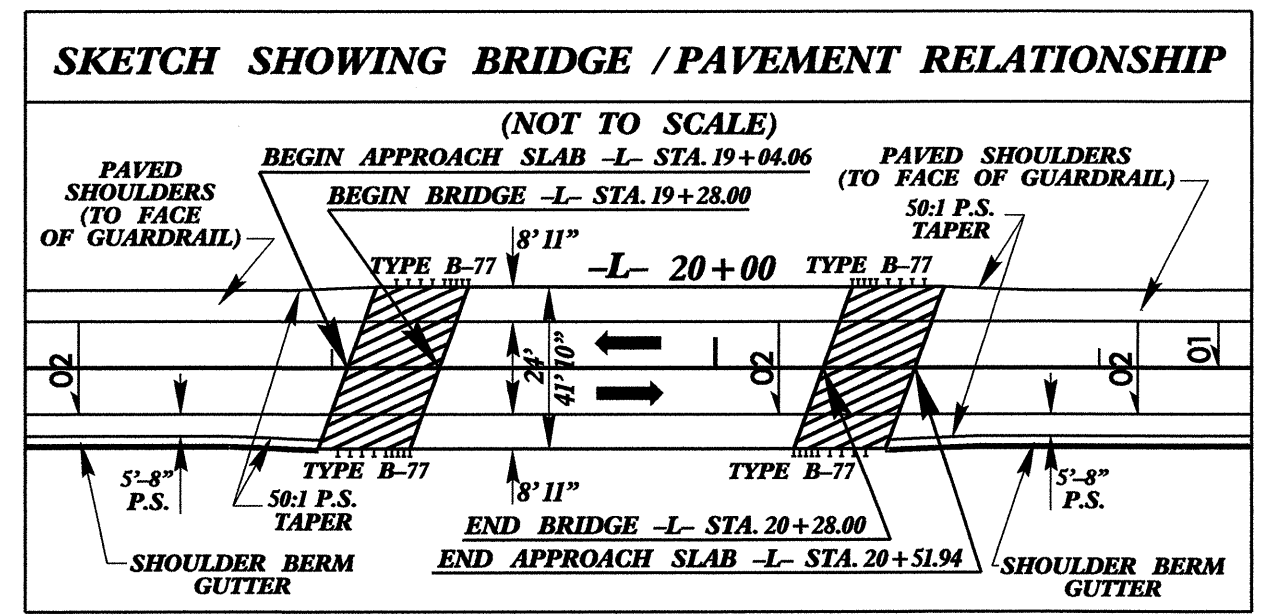
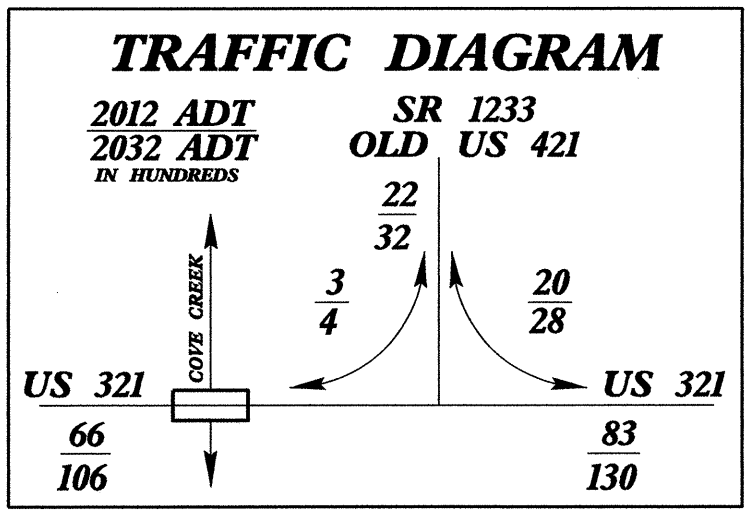
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

-L-			-DET-			-Y-		-DRIVE-	
PI Sta 13+53.05	PI Sta 17+42.25	PI Sta 24+70.41	PI Sta 14+27.97	PI Sta 18+91.60	PI Sta 21+11.64	PI Sta 14+09.59	PI Sta 10+40.96	PI Sta 12+35.76	
PC Sta 10+17.06	Δ = 5' 51" 39.5" (RT)	Δ = 0' 45" 34.4" (RT)	Δ = 19' 24" 36.6" (RT)	Δ = 16' 07" 49.4" (RT)	S 62° 07' 27.7" E (AHEAD)	Δ = 125' 57" 13.2" (LT)	Δ = 35' 49" 34.3" (RT)	Δ = 90' 00" 00.0" (LT)	
N 84° 45' 11.37" E (BACK)	D = 4' 29" 37.6"	D = 0' 30" 00.0"	D = 7' 09" 43.1"	D = 7' 09" 43.1"	Δ = 15' 24" 09.5" (LT)	D = 28' 15" 00.0"	D = 71' 37" 11.0"	D = 143' 14" 22.0"	
Δ = 26' 32" 02.1" (RT)	L = 130.42'	L = 151.91'	L = 271.02'	L = 225.22'	L = 445.85'	L = 50.02'	L = 50.02'	L = 62.83'	
D = 4' 01" 14.7"	T = 65.27'	T = 75.96'	T = 136.82'	T = 113.36'	L = 215.06'	T = 25.86'	T = 25.86'	T = 40.00'	
L = 659.92'	R = 1,275.00'	R = 11,459.16'	R = 800.00'	R = 800.00'	R = 800.00'	R = 202.82'	R = 80.00'	R = 40.00'	
T = 335.99'	SE = 0.04	SE = NC	SE = 0.04	SE = 0.04	SE = SEE PLANS	SE = NC	SE = NC	SE = NC	
R = 1,425.00'	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	
SE = 0.04									
RO = SEE PLANS									

TEMPORARY DRIVEWAY TIE

NOTES:
 1.) FOR -L- PLAN VIEW SEE SHEET 4.
 2.) FOR -L- AND -DET- PROFILE SEE SHEET 5.
 3.) FOR -Y- AND -DRIVE- PROFILE SEE SHEET 6.
 4.) ALL RIGHT OF WAY AND EASEMENTS ARE REFERENCED FROM -L-.
 5.) ALL DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE ON PLANS.
 6.) FOR STRUCTURE PLANS SEE SHEETS S-1 THRU S-X.

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-L-			-DET-			-Y-		-DRIVE-	
PI Sta 13+53.05	PI Sta 17+42.25	PI Sta 24+70.41	PI Sta 14+27.97	PI Sta 18+91.60	PI Sta 21+11.64	PI Sta 14+09.59	PI Sta 10+40.96	PI Sta 12+35.76	
PC Sta 10+17.06	$\Delta = 5' 51'' 39.5''$ (RT)	$\Delta = 0' 45'' 34.4''$ (RT)	$\Delta = 19' 24'' 36.6''$ (RT)	$\Delta = 16' 07'' 49.4''$ (RT)	S 62° 07' 27.7" E (AHEAD)	$\Delta = 125' 57'' 13.2''$ (LT)	$\Delta = 35' 49'' 34.3''$ (RT)	$\Delta = 90' 00'' 00.0''$ (LT)	
N 84° 45' 11.37" E (BACK)	D = 4' 29' 37.6"	D = 0' 30' 00.0"	D = 7' 09' 43.1"	D = 7' 09' 43.1"	$\Delta = 15' 24'' 09.5''$ (LT)	$\Delta = 28' 15'' 00.0''$	D = 71' 37' 11.0"	D = 143' 14' 22.0"	
$\Delta = 26' 32'' 02.1''$ (RT)	L = 130.42'	L = 151.91'	L = 271.02'	L = 225.22'	D = 7' 09' 43.1"	L = 445.85'	L = 50.02'	L = 62.83'	
T = 4' 01' 14.7"	T = 65.27'	T = 75.96'	T = 136.82'	T = 113.36'	T = 215.06'	T = 397.65'	T = 25.86'	T = 40.00'	
L = 659.92'	R = 1,275.00'	R = 11,459.16'	R = 800.00'	R = 800.00'	T = 108.18'	R = 202.82'	R = 80.00'	R = 40.00'	
T = 335.99'	SE = 0.04	SE = NC	SE = 0.04	SE = 0.04	R = 800.00'	SE = SEE PLANS	SE = NC	SE = NC	
R = 1,425.00'	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	SE = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	
SE = 0.04									
RO = SEE PLANS									

NOTE: INCIDENTAL MILLING AS DIRECTED BY THE ENGINEER FOR STA. -L- 22+25.00 TO 23+15.00.

NOTES:

- 1.) FOR -DET- PLAN VIEW SEE SHEET 2-C.
- 2.) FOR -L- AND -DET- PROFILE SEE SHEET 5.
- 3.) FOR -Y- AND -DRIVE- PROFILE SEE SHEET 6.
- 4.) ALL RIGHT OF WAY AND EASEMENTS ARE REFERENCED FROM -L-.
- 5.) ALL DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE ON PLANS.
- 6.) FOR STRUCTURE PLANS SEE SHEETS S-1 THRU S-XX.

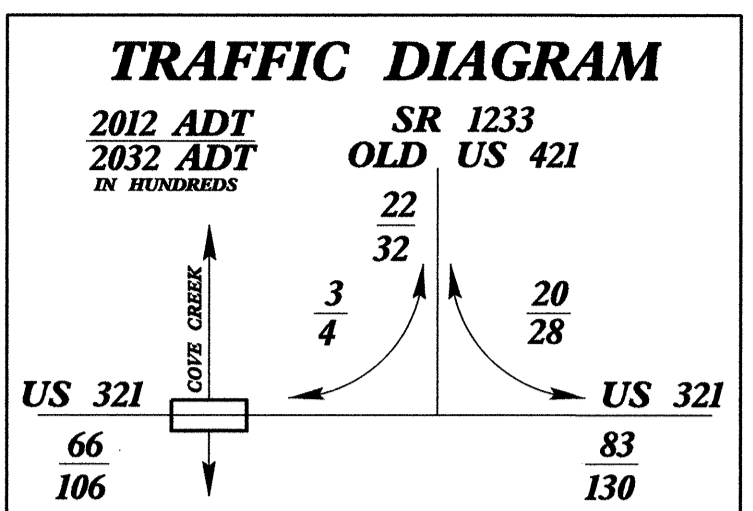
REVISIONS
10/27/11 RIGHT OF WAY REVISION: PARCEL NO. 2 HAS BEEN CHANGED TO PARCEL NO. 1. DW

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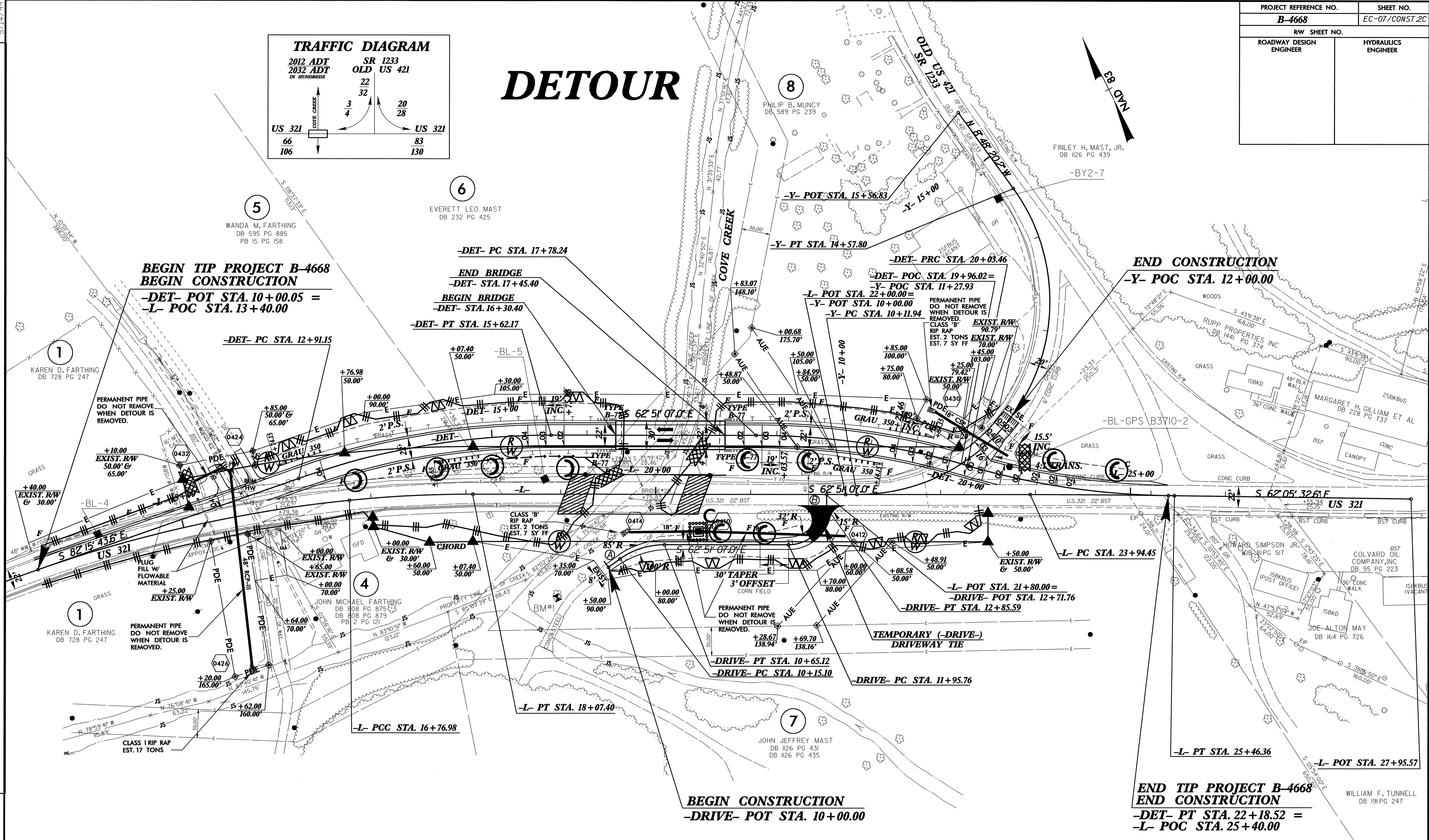
5/14/95

WILLIAM F. TUNNELL
DB 191 PG 247

PROJECT REFERENCE NO.	SHEET NO.
B-4668	EC-07/CONST.2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DETOUR



-L-			-DET-			-Y-			-DRIVE-		
PI Sta 13+53.05	PI Sta 17+42.25	PI Sta 24+70.41	PI Sta 14+27.97	PI Sta 18+91.60	PI Sta 21+11.64	PI Sta 14+09.59	PI Sta 10+40.96	PI Sta 12+35.76			
PC Sta 10+17.06	$\Delta = 5' 51'' 39.5''$ (RT)	$\Delta = 0' 45'' 34.4''$ (RT)	$\Delta = 19' 24'' 36.6''$ (RT)	$\Delta = 16' 07'' 49.4''$ (RT)	$\Delta = 62' 07'' 27.7''$ E (AHEAD)	$\Delta = 125' 57'' 13.2''$ (LT)	$\Delta = 35' 49'' 34.3''$ (RT)	$\Delta = 90' 00'' 00.0''$ (LT)			
$N 84' 45'' 11.37''$ E (BACK)	$D = 4' 29'' 37.6''$	$D = 0' 30'' 00.0''$	$D = 7' 09'' 43.1''$	$D = 7' 09'' 43.1''$	$\Delta = 15' 24'' 09.5''$ (LT)	$D = 28' 15'' 00.0''$	$D = 71' 37'' 11.0''$	$D = 143' 14'' 22.0''$			
$\Delta = 26' 32'' 02.1''$ (RT)	$L = 130.42'$	$L = 151.91'$	$L = 271.02'$	$L = 225.22'$	$D = 7' 09'' 43.1''$	$L = 445.85'$	$L = 50.02'$	$L = 62.83'$			
$D = 4' 01'' 14.7''$	$T = 65.27'$	$T = 75.96'$	$T = 136.82'$	$T = 113.36'$	$L = 215.06'$	$T = 397.65'$	$T = 25.86'$	$T = 40.00'$			
$L = 659.92'$	$R = 1,275.00'$	$R = 11,459.16'$	$R = 800.00'$	$R = 800.00'$	$T = 108.18'$	$R = 202.82'$	$R = 80.00'$	$R = 40.00'$			
$T = 335.99'$	$SE = 0.04$	$SE = NC$	$SE = 0.04$	$SE = 0.04$	$R = 800.00'$	$SE = SEE PLANS$	$SE = NC$	$SE = NC$			
$R = 1,425.00'$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$SE = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$	$RO = SEE PLANS$			
$SE = 0.04$					$RO = SEE PLANS$						
$RO = SEE PLANS$											

TEMPORARY DRIVEWAY TIE

NOTES:

- FOR -L- PLAN VIEW SEE SHEET 4.
- FOR -L- AND -DET- PROFILE SEE SHEET 5.
- FOR -Y- AND -DRIVE- PROFILE SEE SHEET 6.
- ALL RIGHT OF WAY AND EASEMENTS ARE REFERENCED FROM -L-.
- ALL DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE ON PLANS.
- FOR STRUCTURE PLANS SEE SHEETS S-1 THRU S-X.

10/27/11 RIGHT OF WAY REVISION: PARCEL NUMBER 2 HAS BEEN CHANGED TO PARCEL NUMBER 1. D/W

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