

T.I.P. NO.	SHEET NO.
B-4050	UC-1

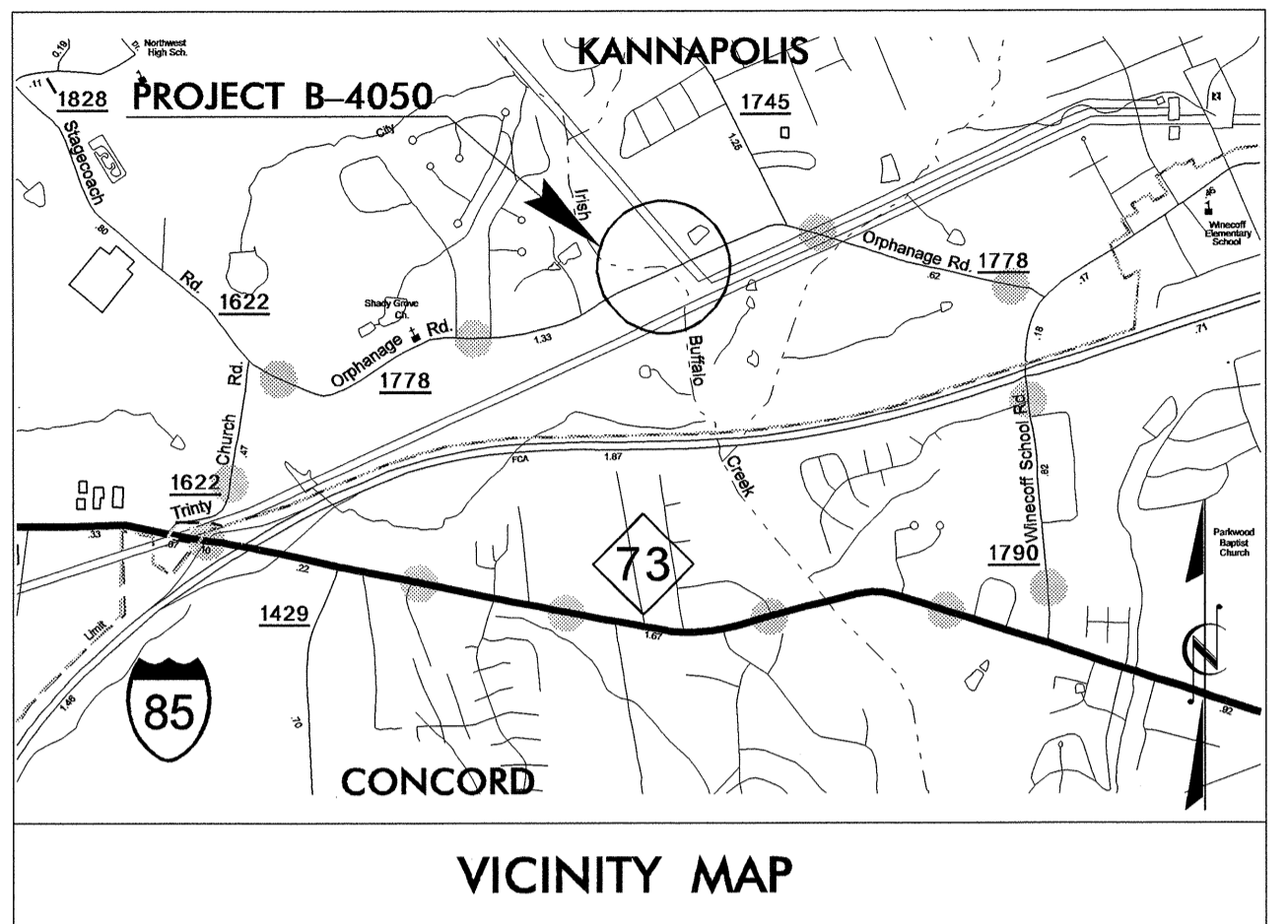
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS  
CABARRUS COUNTY**

**LOCATION: BRIDGE NO. 30 OVER IRISH BUFFALO CREEK ON  
SR 1778 (ORPHANAGE ROAD)**

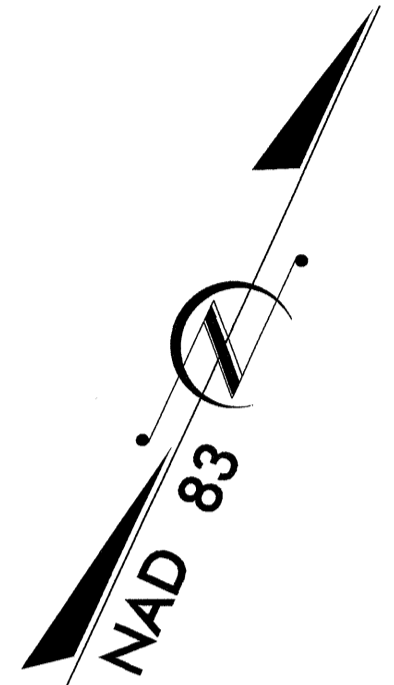
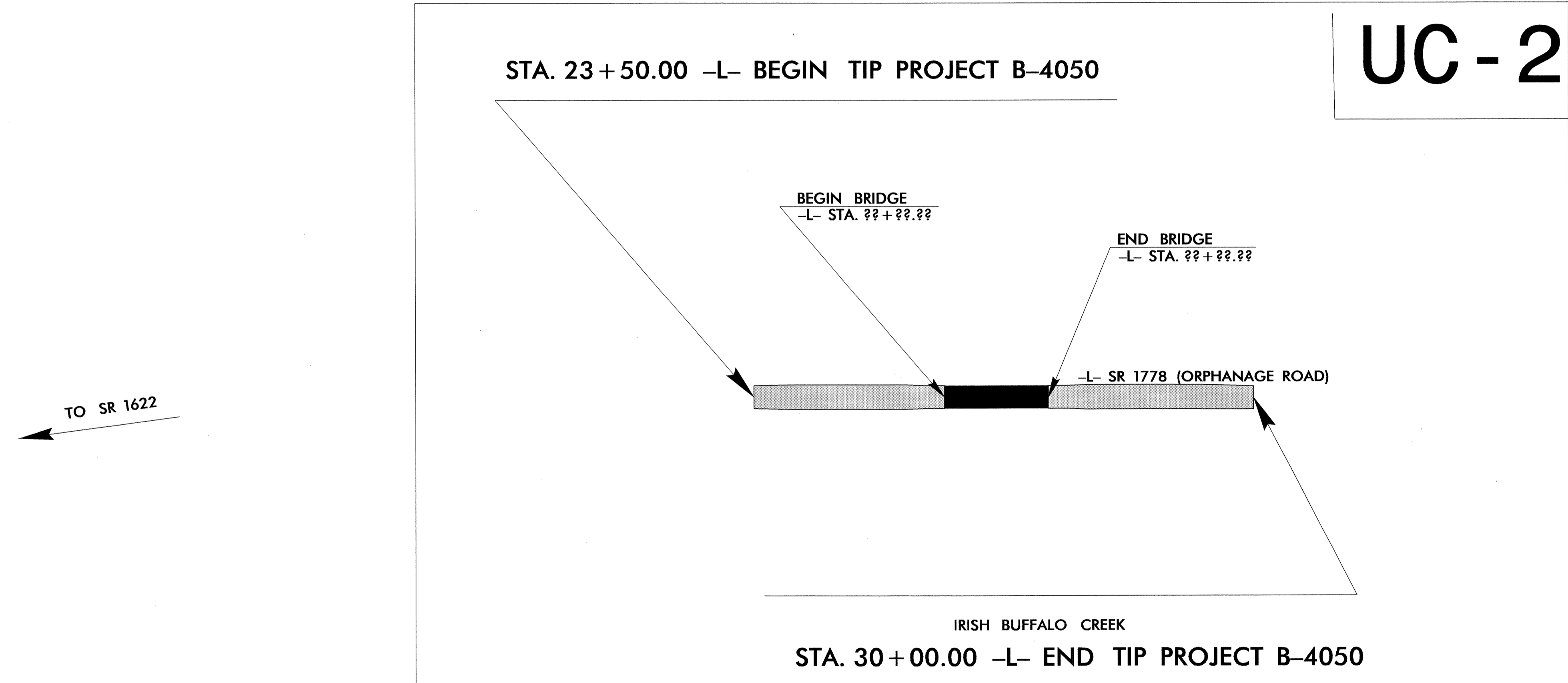
**TYPE OF WORK: WATER AND SEWER LINE RELOCATION**

**TIP PROJECT: B-4050**

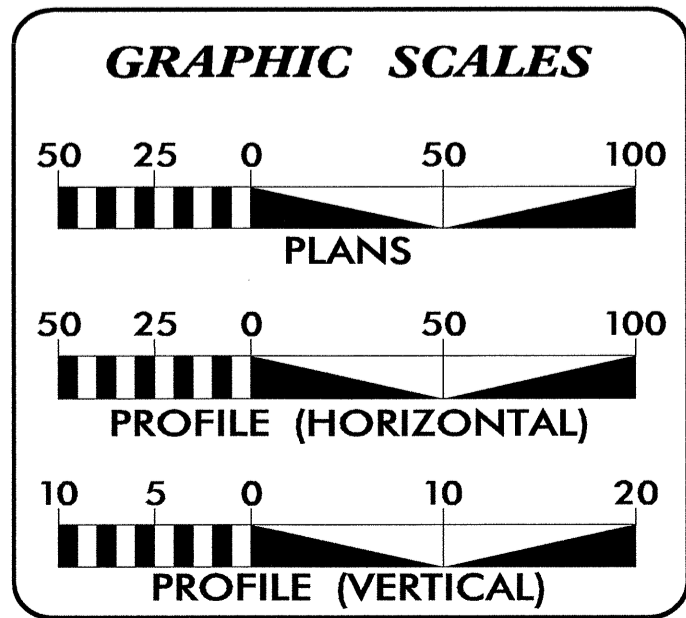


●●●● DETOUR ROUTE

**UC - 2**

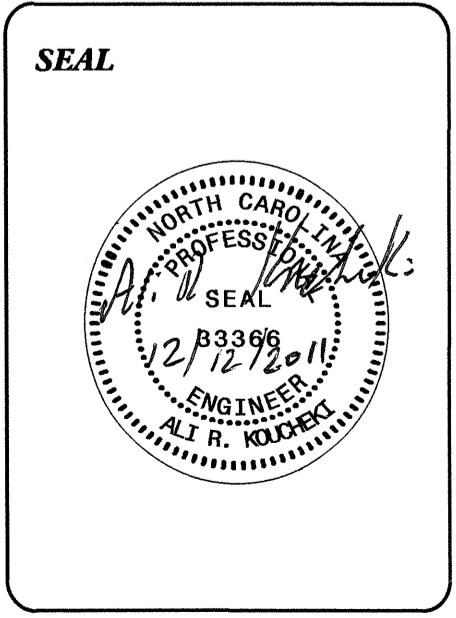


**ALL WATER PIPE SHALL BE  
DUCTILE IRON RESTRAINED JOINT PIPE.**



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY CONSTRUCTION PLAN SHEET

WATER AND SEWER OWNERS ON PROJECT
(1) WATER CITY OF KANNAPOLIS



PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
UTILITIES ENGINEERING  
SECTION**

1591 MAIL SERVICES CENTER  
RALEIGH NC 27699-1591  
PHONE (919) 250-4128  
FAX (919) 250-4119

**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**Carl Barclay, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**Ali Koucheh, P.E.** UTILITIES PROJECT DESIGNER

12-DEC-2011 13:41 R:\Utilities\RDY-Ut\Proj\b4050\_rdy-fsh\_uc-1.dgn \$\$\$USERNAME\$\$\$

2012 ROADWAY STANDARD DRAWINGS  
 STD. NO.  
 DIVISION 10-UTILITIES  
 1515.02-FIRE HYDRANT

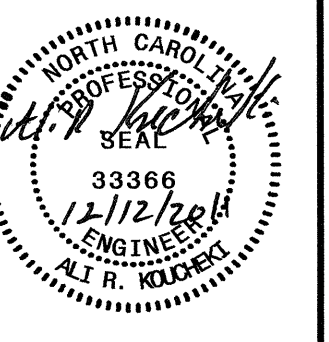
NOTE: THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 1550 AND SECTIONS 102 AND 107 OF THE STANDARD SPECIFICATIONS CONCERNING THE TRENCHLESS INSTALLATION. NO DAMAGE IS ALLOWED TO THE ROADWAY, STRUCTURE, WETLAND OR STREAM BY THE TRENCHLESS INSTALLATION. THE CONTRACTOR'S ENGINEER SHALL DESIGN AND CERTIFY THE INSTALLATION METHOD AND PROVIDE ON SITE OVERSIGHT

-L-			-DRV1-	-DRV2-
PI Sta 20+29.83	PI Sta 29+10.52	PI Sta 33+45.92	PI Sta 10+24.61	PI Sta 10+52.95
$\Delta = 2' 34" 29.0" (RT)$	$\Delta = 0' 36" 56.5" (RT)$	$\Delta = 0' 16" 20.1" (LT)$	$\Delta = 29' 29" 54.5" (RT)$	$\Delta = 45' 46" 03.5" (RT)$
$D = 0' 38" 11.8"$	$D = 0' 34" 22.6"$	$D = 0' 15" 37.6"$	$D = 114' 35" 29.6"$	$D = 114' 35" 29.6"$
$L = 404.44'$	$L = 107.46'$	$L = 104.54'$	$L = 25.74'$	$L = 39.94'$
$T = 202.25'$	$T = 53.73'$	$T = 52.27'$	$T = 13.16'$	$T = 21.00'$
$R = 9,000.00'$	$R = 10,000.00'$	$R = 22,000.00'$	$R = 50.00'$	$R = 50.00'$
$SE = SEE PLANS$	$SE = SEE PLANS$	$SE = SEE PLANS$	$SE = SEE PLANS$	$SE = SEE PLANS$

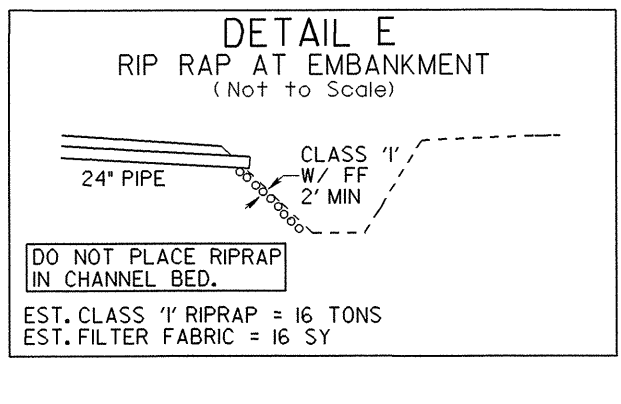
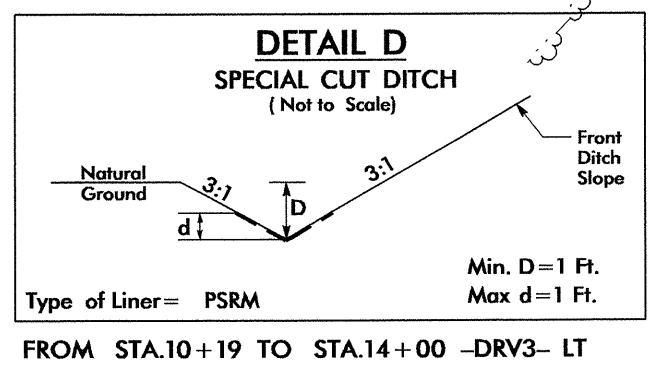
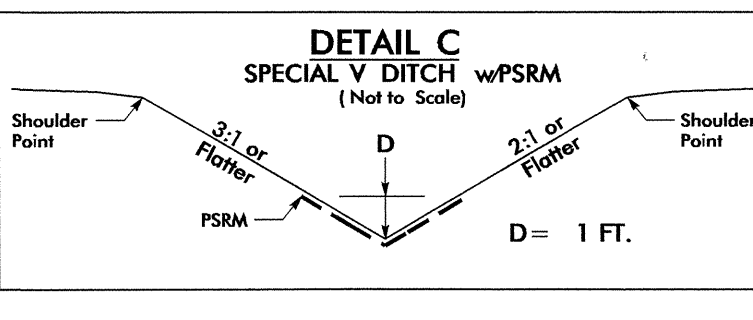
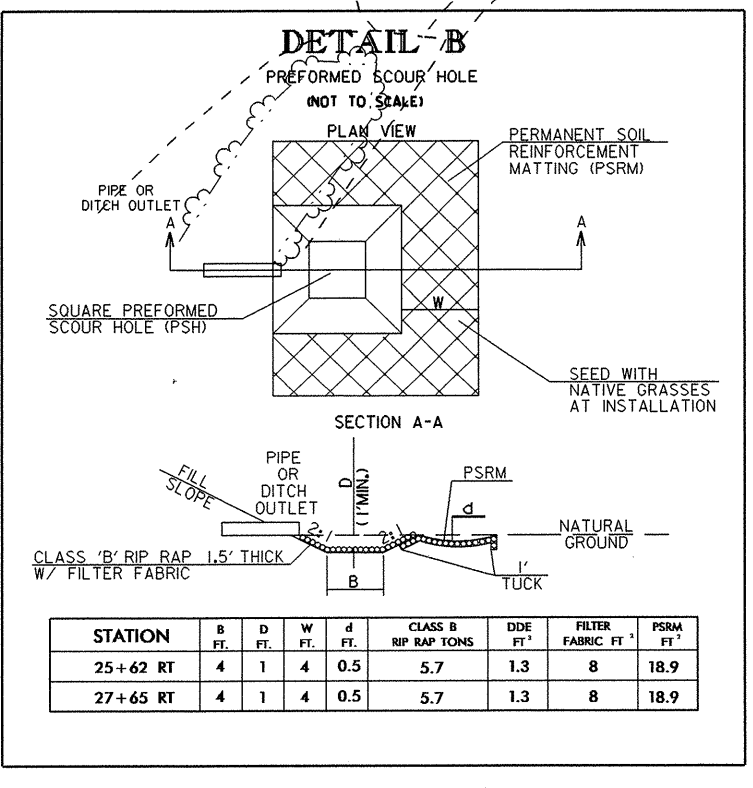
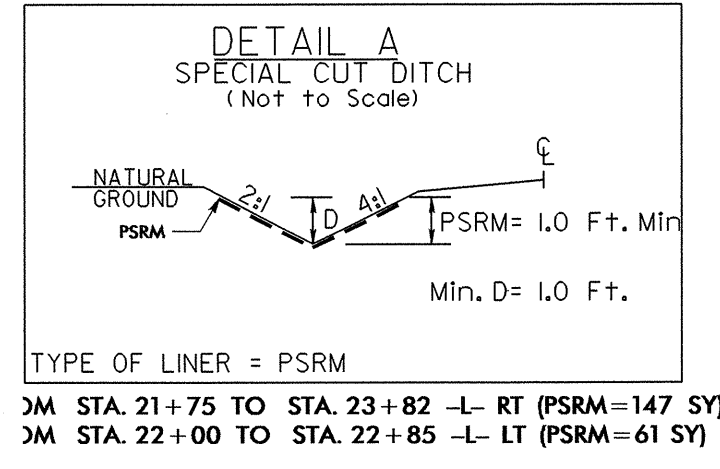
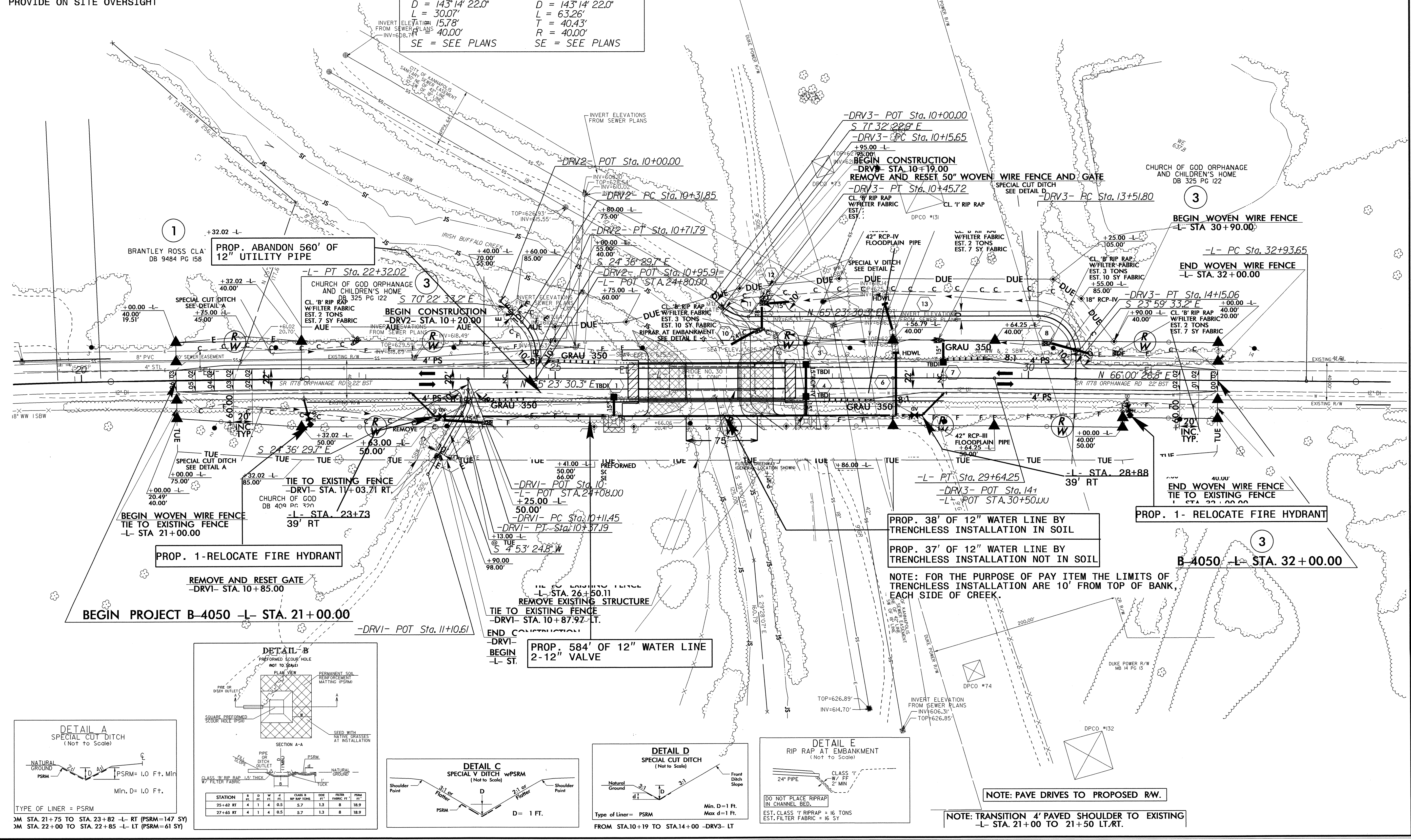
  

-DRV3-	
PI Sta 10+31.43	PI Sta 13+92.23
$\Delta = 43' 04" 06.8" (LT)$	$\Delta = 90' 36" 56.5" (RT)$
$D = 143' 14" 22.0"$	$D = 143' 14" 22.0"$
$L = 30.07'$	$L = 63.26'$
$T = 15.78'$	$T = 40.43'$
$R = 40.00'$	$R = 40.00'$
$SE = SEE PLANS$	$SE = SEE PLANS$

PROJECT REFERENCE NO. B-4050 SHEET NO. UC-2  
 DESIGNED BY: ARK  
 DRAWN BY: ARK  
 CHECKED BY: CAB  
 APPROVED BY: CAB  
 REVISED:  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151  
 UTILITY CONSTRUCTION PLANS ONLY



UTILITY CONSTRUCTION



NOTE: PAVE DRIVES TO PROPOSED R/W.  
 NOTE: TRANSITION 4' PAVED SHOULDER TO EXISTING -L- STA. 21+00 TO 21+50 LT/RT.

5/14/09  
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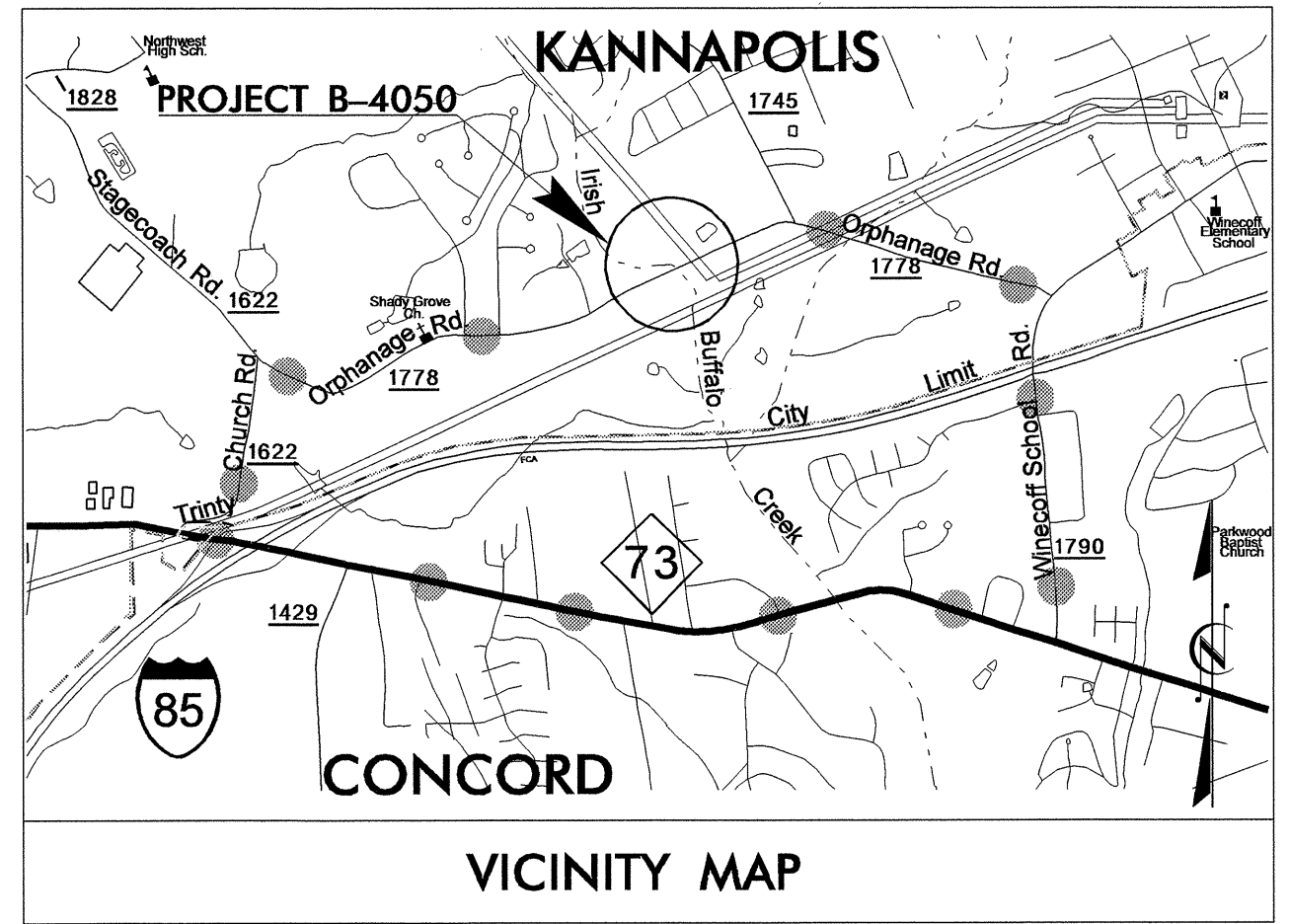
T.I.P. NO.	SHEET NO.
B-4050	UO-1

See Sheet 1-A For Index of Sheets  
 See Sheet 1-B For Conventional Symbols  
 See Sheet 1-C For Survey Control Sheet

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

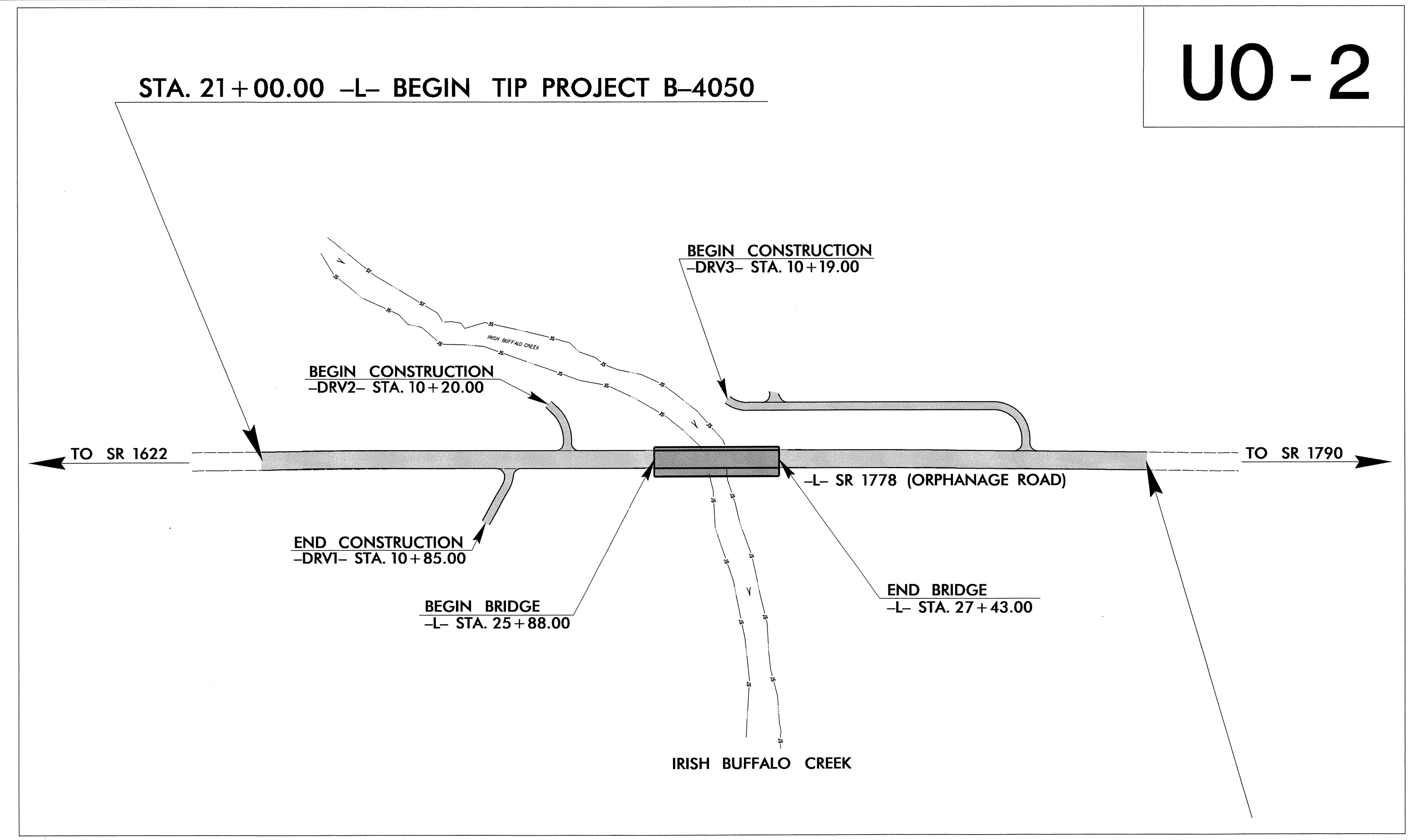
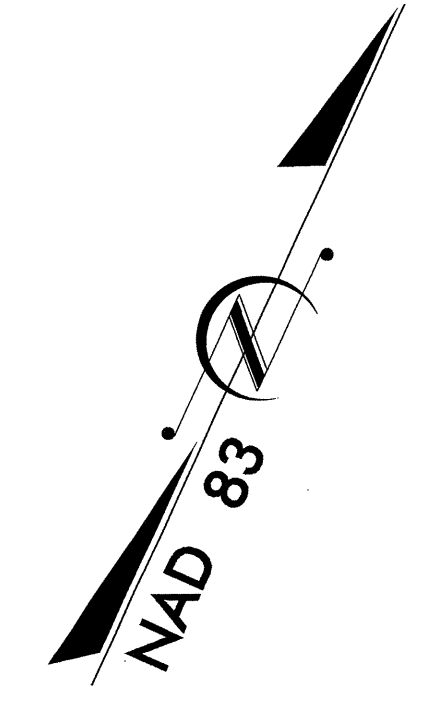
**UTILITIES BY OTHERS PLANS  
 CABARRUS COUNTY**

**LOCATION: BRIDGE NO. 30 OVER IRISH BUFFALO CREEK ON  
 SR 1778 (ORPHANAGE ROAD)**  
**TYPE OF WORK: RELOCATION OF POWER, TELEPHONE AND GAS LINE**

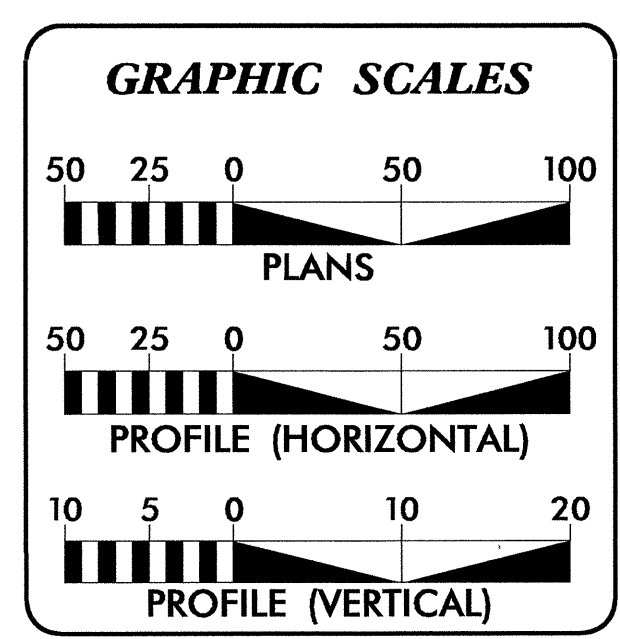


●●●●● DETOUR ROUTE

**UO-2**



**TIP PROJECT: B-4050**



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITY BY OTHERS PLAN SHEETS

UTILITY OWNERS ON PROJECT
(1) DUKE ENERGY DISTRIBUTION
(2) DUKE ENERGY TRANSMISSION
(3) WINDSTREAM COMMUNICATION
(4) TIME WARNER CABLE
(5) PSNC ENERGY GAS

PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
 UTILITIES ENGINEERING  
 SECTION**

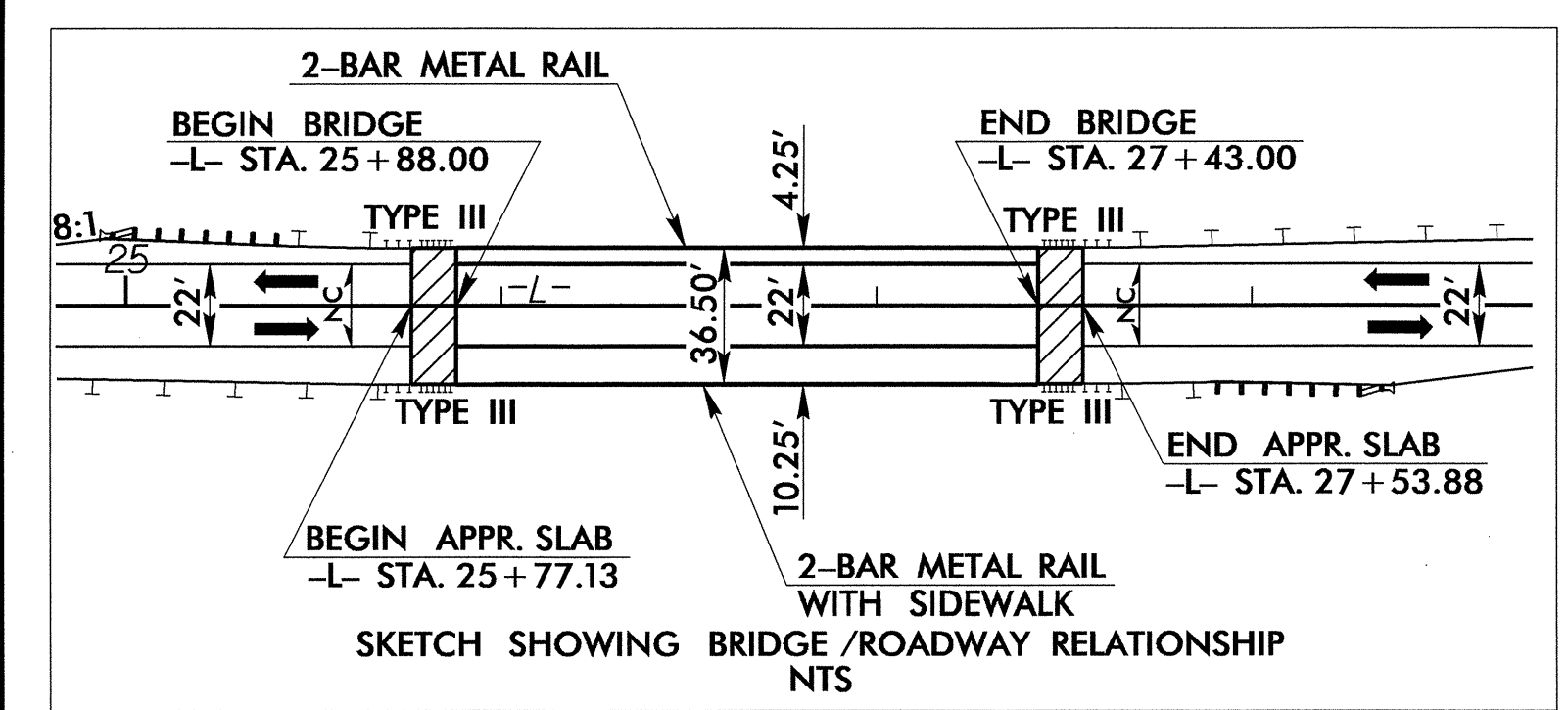
1591 MAIL SERVICES CENTER  
 RALEIGH NC 27699-1591  
 PHONE (919) 707-6690  
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**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**CARL BARCLAY, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**ALI KOUCHEKI, P.E.** UTILITIES PROJECT DESIGNER

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UTILITIES BY OTHERS

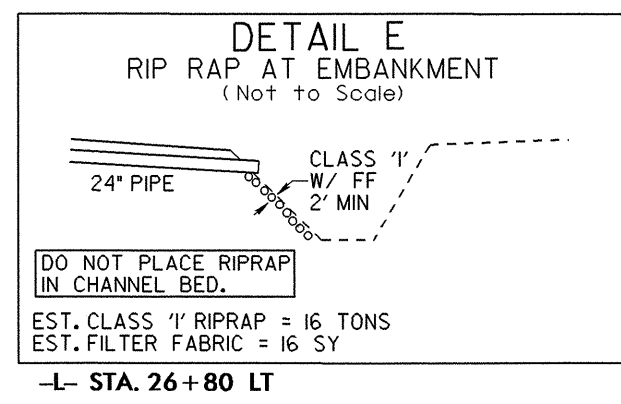
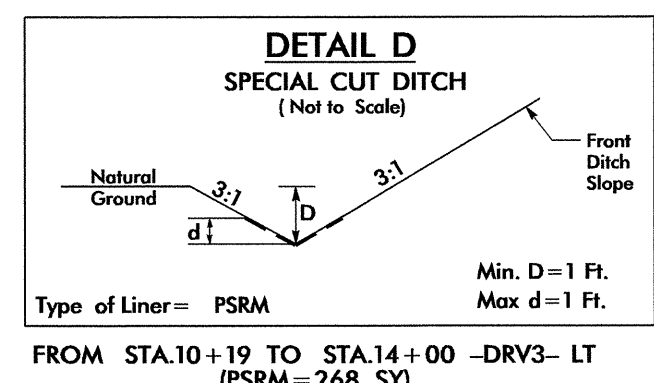
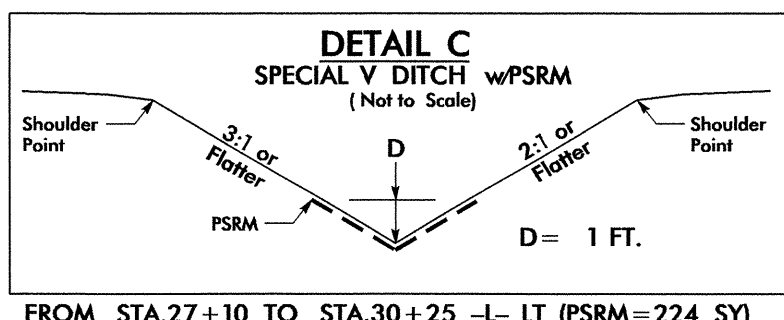
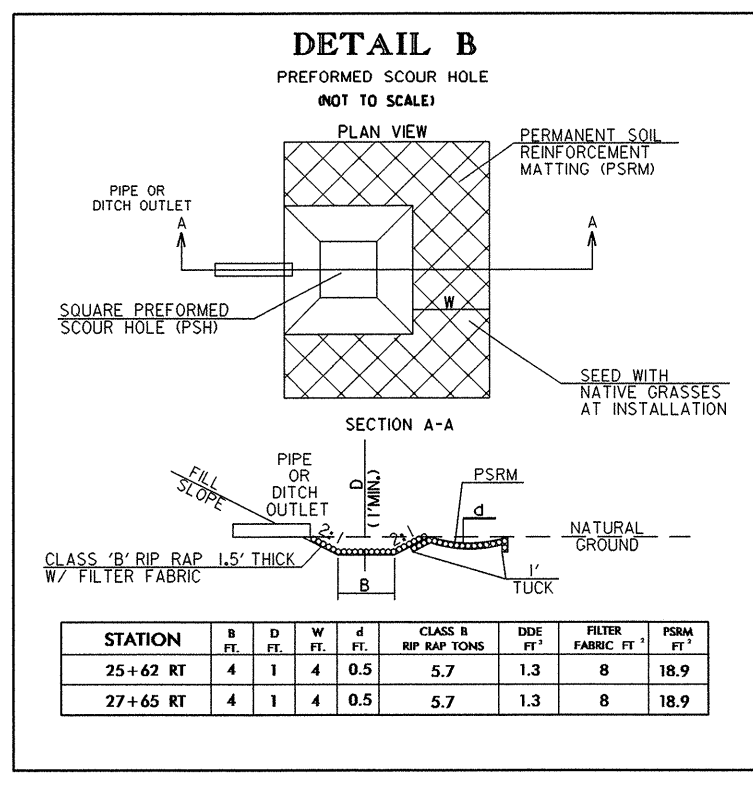
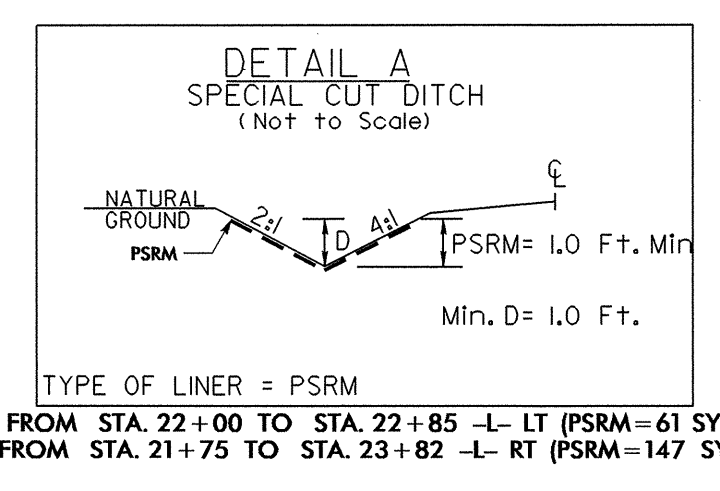
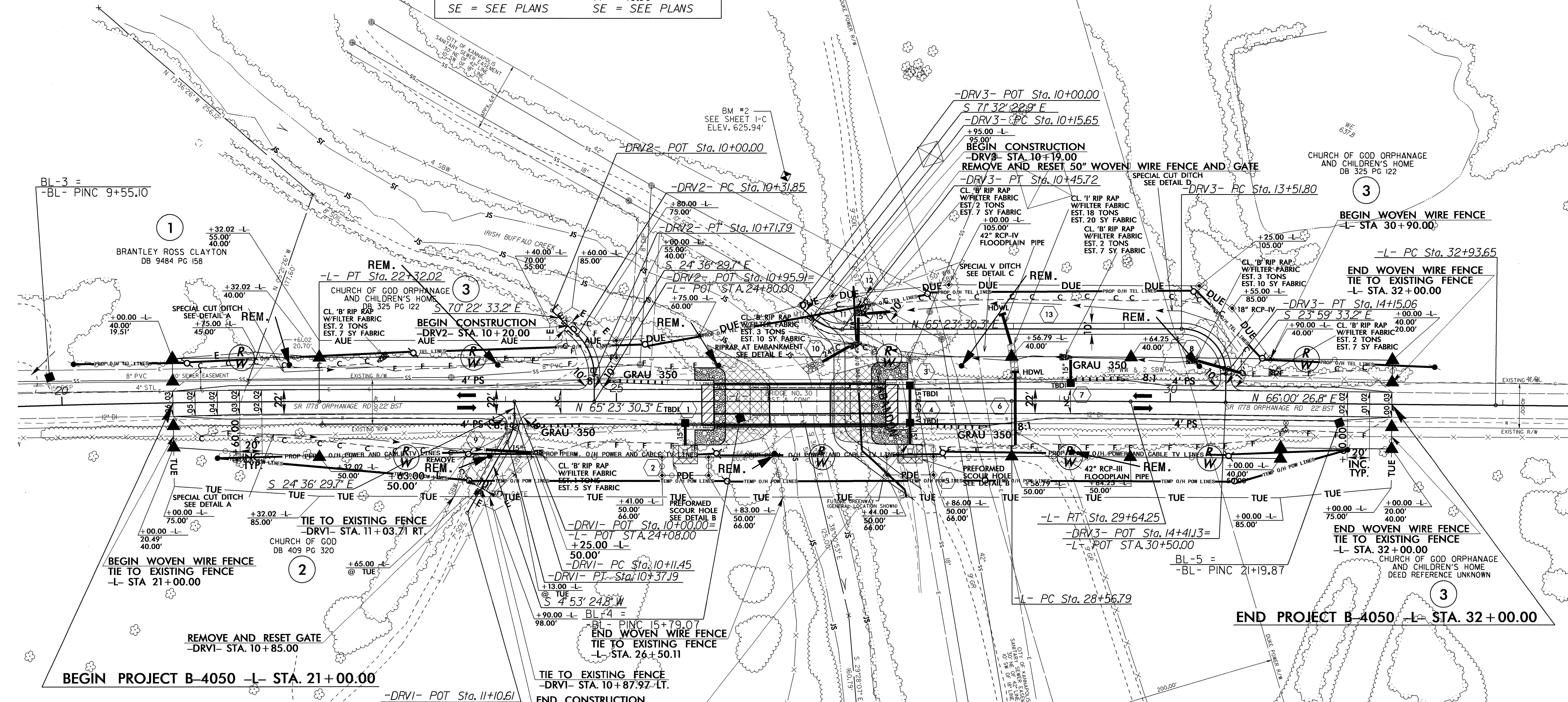
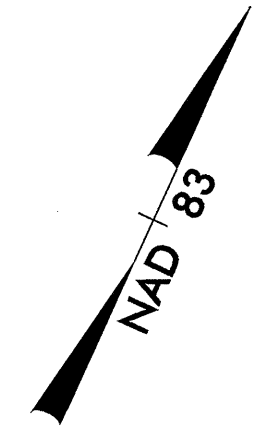
NOTE:  
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



-L-			-DRV1-		-DRV2-	
PI Sta 20+29.83	PI Sta 29+10.52	PI Sta 33+45.92	PI Sta 10+24.61	PI Sta 10+52.95		
$\Delta = 2^{\circ} 34' 29.0''$ (RT)	$\Delta = 0^{\circ} 36' 56.5''$ (RT)	$\Delta = 0^{\circ} 16' 20.1''$ (LT)	$\Delta = 29^{\circ} 29' 54.5''$ (RT)	$\Delta = 45^{\circ} 46' 03.5''$ (RT)		
$D = 0^{\circ} 38' 11.8''$	$D = 0^{\circ} 34' 22.6''$	$D = 0^{\circ} 15' 37.6''$	$D = 114^{\circ} 35' 29.6''$	$D = 114^{\circ} 35' 29.6''$		
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$R = 9,000.00'$	$R = 10,000.00'$	$R = 22,000.00'$	$R = 50.00'$	$R = 50.00'$		
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS		

-DRV3-	
PI Sta 10+31.43	PI Sta 13+92.23
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$L = 30.07'$	$L = 63.26'$
$T = 15.78'$	$T = 40.43'$
$R = 40.00'$	$R = 40.00'$
SE = SEE PLANS	SE = SEE PLANS



- AUE - AUE - AUE -  
AERIAL UTILITY EASEMENT

NOTE: PAVE DRIVES TO PROPOSED RW.  
NOTE: TRANSITION 4' PAVED SHOULDER TO EXISTING  
-L- STA. 21+00 TO 21+50 LT/RT,  
-L- STA. 31+50 TO 32+00 LT/RT.  
SEE SHEET 5 FOR -L- PROFILE  
SEE SHEET 5 FOR -DRV1- PROFILE  
SEE SHEET 5 FOR -DRV2- PROFILE  
SEE SHEET 6 FOR -DRV3- PROFILE  
SEE SHEETS S-1 THRU S-27 FOR STRUCTURE PLANS

REVISIONS

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