

# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



## LITCHFIELD

### KENNEBEC COUNTY

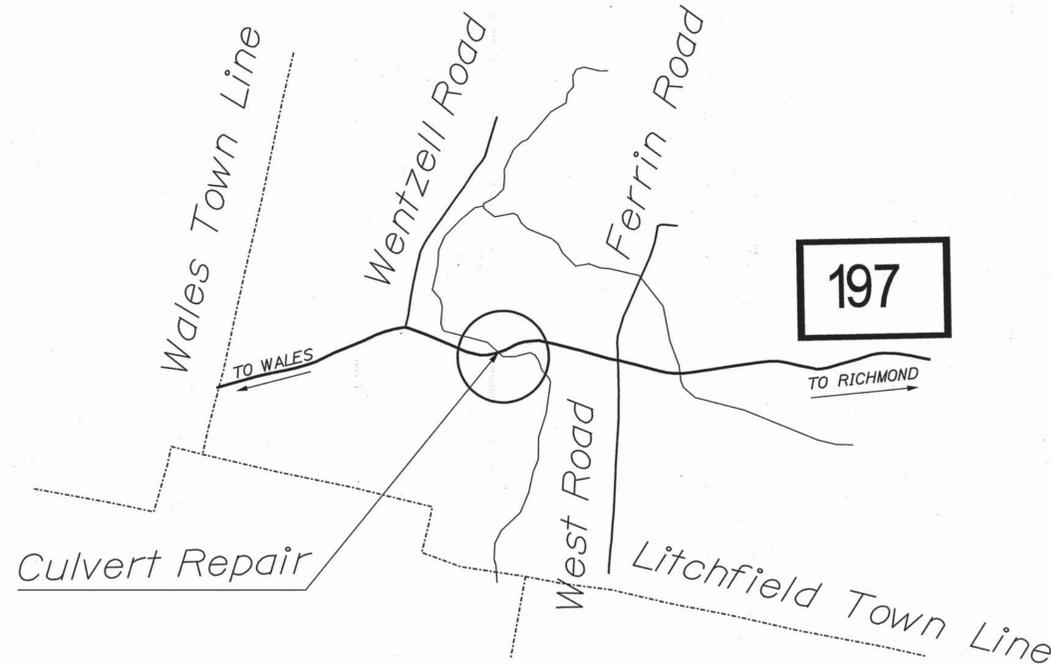
ROUTE 197

**STATE PROJECT NO. 20339.00**

PROJECT LENGTH : 0.06 MILES

PLAN LEGEND	
Town, County, State	Centerline-Existing
Property Lines	Centerline-Proposed
R/W Lines-Existing	Travelway-Existing
R/W Lines-Proposed	Travelway-Proposed
Culvert-Existing	Railroad
Culvert Proposed	Catch Basins
Curbing Existing	Manholes
Curbing Proposed	Proposed Underdrain
Type 1	Proposed Ditch
Type 3	Existing Ditch
Type 5	Utility Poles
Outline of Bodies of Water	Fire Hydrants
Ledge	Existing Water Line
Buildings	Existing San. Sewer
Trees	Existing San. Sewer Manhole
Tree Line	Guardrail-Existing
Clearing Limit Line	Guardrail-Proposed
	Guardrail-Cable, Other

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Description	Sheet No.
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TRAFFIC DATA	
Current (2014) AADT	2350
Future (2034) AADT	2820
Design Speed (mph)	45
Corridor Priority	4
Functional Class	Major/Urban Collector

MATERIALS	
CONCRETE:	CLASS "A"
REINFORCING STEEL:	ASTM A 615/A 615M, GRADE 60
BASIC DESIGN STRESSES	
SHOTCRETE:	f <sub>c</sub> = 5,000 PSI
REINFORCING STEEL:	f <sub>y</sub> = 60,000 PSI

<b>PROJECT LOCATION:</b>	RTE 197 LITCHFIELD LOCATED 1.046 MILES NORTHEASTERLY OF WALES LITCHFIELD TOWN LINE
<b>PROGRAM AREA:</b>	HIGHWAY PROGRAM
<b>SCOPE OF WORK:</b>	LARGE CULVERT REHABILITATION: CONCRETE INVERT LINING

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
APPROVED: [Signature]  
COMMISSIONER: [Signature]  
DATE: 3/11/15  
CHIEF ENGINEER: [Signature]

DATE: 3/11/15  
CHIEF ENGINEER: [Signature]

PROJECT INFORMATION	
PROGRAM	HIGHWAY
PROJECT MANAGER	SHAWN SMITH
DESIGNER	NICHOLAS HARTLEY
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 020339.00 020339.00

LITCHFIELD  
ROUTE 197  
TITLE SHEET

SHEET NUMBER  
**1**  
OF 6

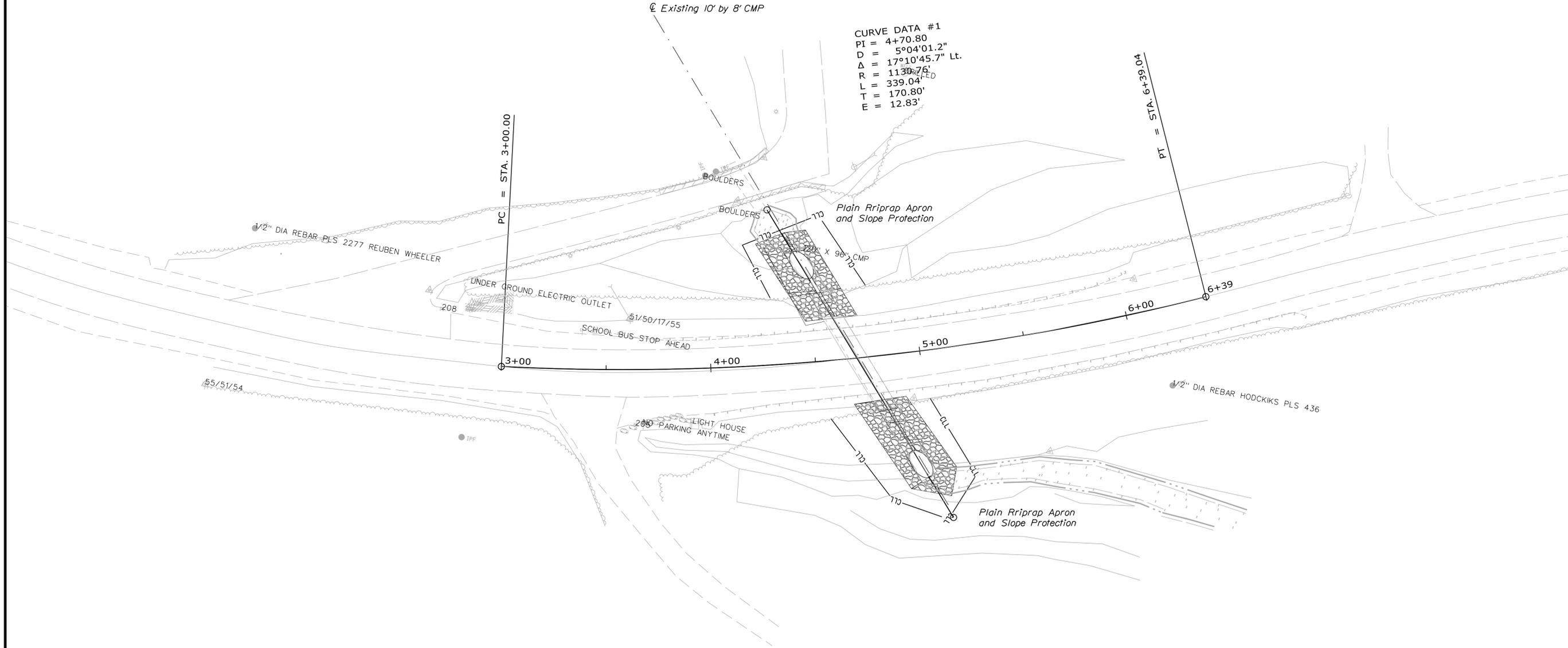
Date: 2/23/2015

Username: nicholas.w.hartley

Division: HIGHWAY

Filename: ... \00\HIGHWAY\MSTA\001\_Title.dgn

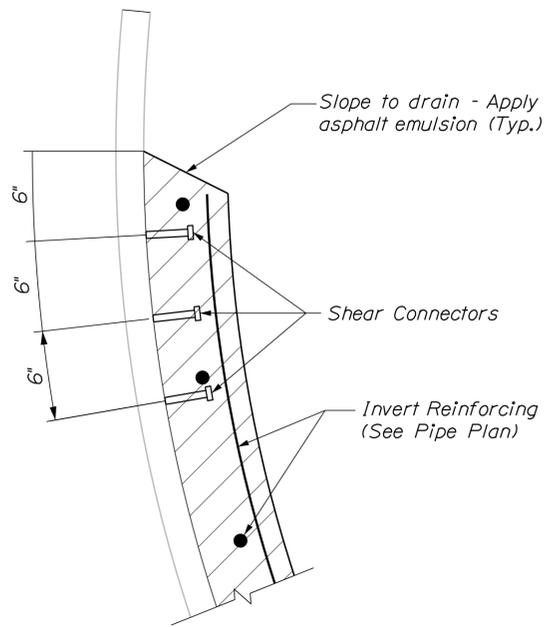




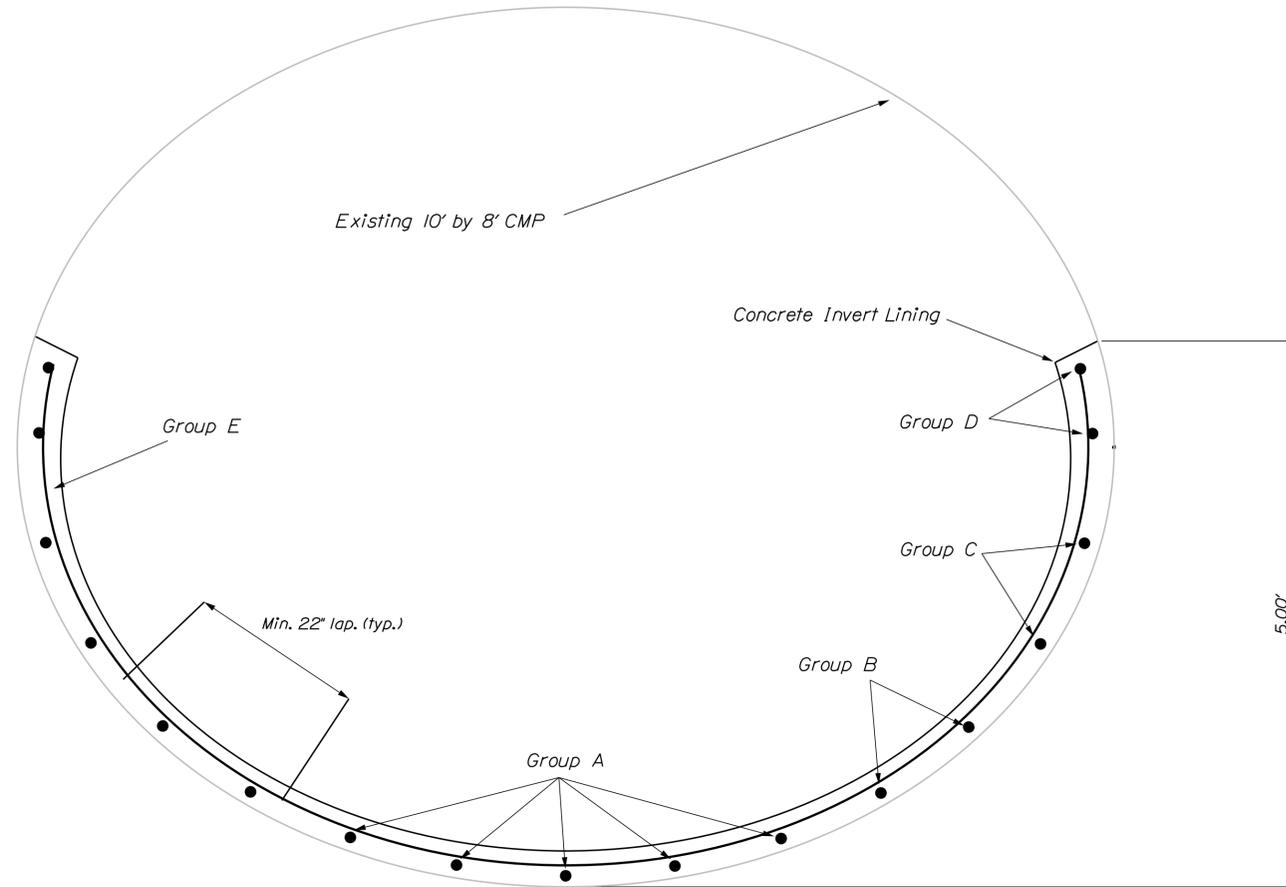
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		020339.00
LITCHFIELD ROUTE 197		WIN 020339.00
PLANS		HIGHWAY PLANS
SHEET NUMBER		3
OF 6		

PROJ. MANAGER	SHAWN SMITH	BY	DATE
DESIGN-DETAILED	N. HARTLEY		
CHECKED-REVIEWED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

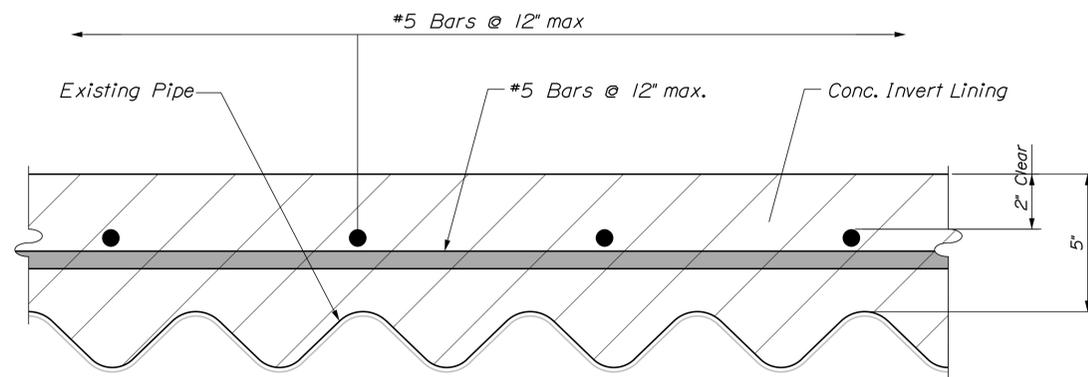
SIGNATURE	P.E. NUMBER	DATE



CONNECTION DETAIL



PLAN PIPE DETAIL



INVERT LINING SECTION

NOT TO SCALE

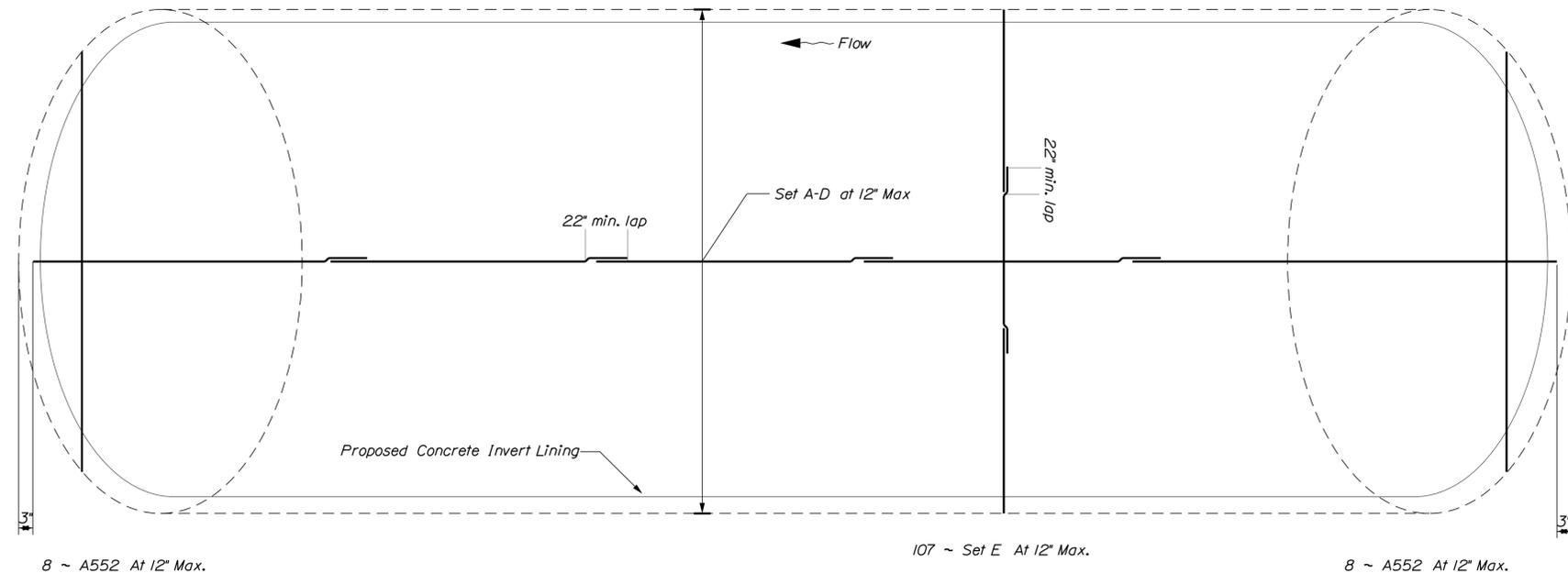
PIPE NOTES

1. Surfaces of the pipe against which concrete is to be placed shall be thoroughly cleaned so as to remove all loose corrosion. In areas where the metal is nonexistent, a preliminary concrete placement shall be made, using forms where required to fill voids and to establish the original lines of the pipe. The final placement shall then be made as shown. Payment for this work will be considered incidental to Item No. 502.325, Structural Concrete Invert Lining.
2. Three rows of shear connectors shall be staggered longitudinally at 12" spacing along each side of the culvert. Shear connectors shall be 1/2" diameter x 3" studs or machine bolts welded to the crests of the corrugations. Approximately 750 shear connectors are required. Shear connections shall not be paid for directly. Payment will be considered incidental to item 502.325 Structural Concrete Culvert Invert Lining.
3. Reinforcing steel shall have a minimum concrete cover of 2" unless otherwise shown.
4. The existing structural plate pipe may have a slight deformation requiring field bending and/or cutting of the reinforcing steel. Any cutting and bending to field fit reinforcing steel shall be considered incidental to Item No. 503.13, Reinforcing Steel-Placing
5. The concrete shall have a rough broom or gun finish along the entire length of the pipe invert.
6. Asphalt Emulsion will be considered incidental to item No. 502.325 Structural Concrete Invert Lining.

PROJ. MANAGER	SHAWN SMITH	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	N. HARTLEY					
CHECKED-REVIEWED						
DESIGNS-DETAILED						
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

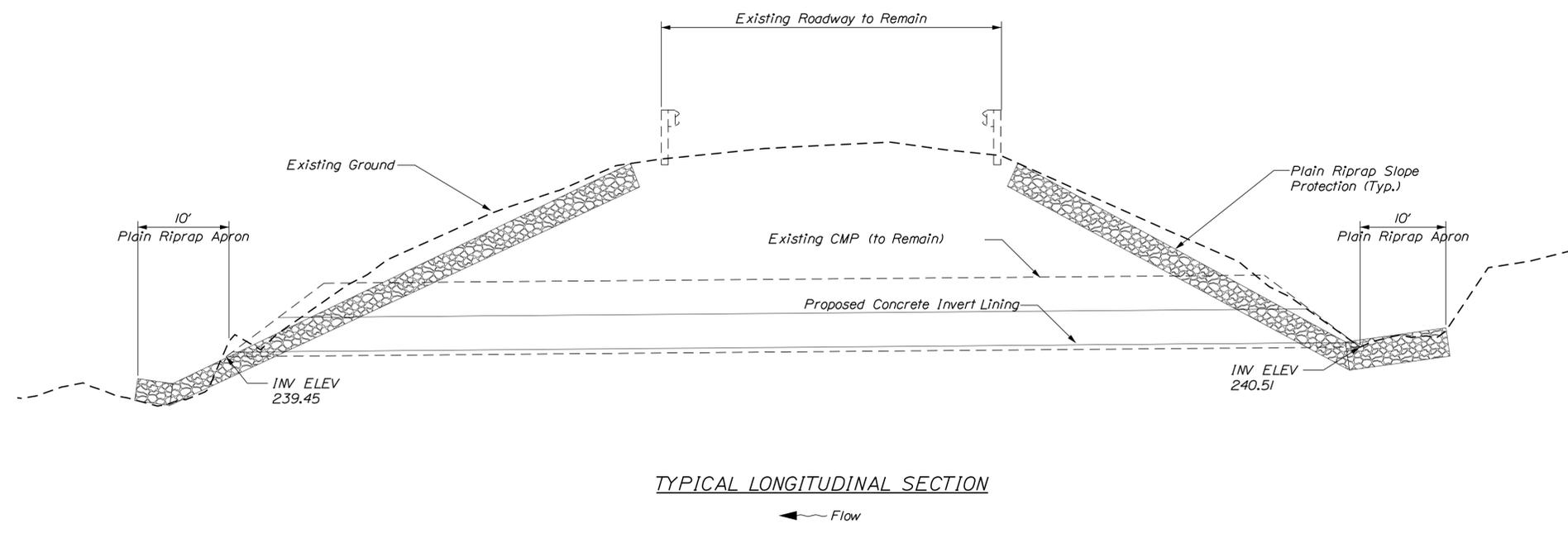
LITCHFIELD  
ROUTE 197  
STANDARD DETAILS

SHEET NUMBER  
4  
OF 6



NOTE:  
Field Bending And Cutting  
Will Be Required On Bar A552  
At Both Ends of Pipe.

**TYPICAL PIPE PLAN**  
 5 Set A = 4 ~ A500 & 1 ~ A501  
 4 Set B = 4 ~ A500 & 1 ~ A502  
 4 Set C = 4 ~ A500 & 1 ~ A503  
 4 Set D = 4 ~ A500 & 1 A504  
 107 Set E = 2 ~ A550 & 1 ~ A551  
 \* Alternate Bar Splice



TYPICAL LONGITUDINAL SECTION

NOT TO SCALE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		020339.00	
SIGNATURE		P.E. NUMBER	
DATE		DATE	
SHAWN SMITH		BY	
N. HARTLEY		DATE	
DESIGN DETAILED		REVISIONS 1	
CHECKED/REVIEWED		REVISIONS 2	
DESIGN DETAILED		REVISIONS 3	
REVISIONS 1		REVISIONS 4	
REVISIONS 2		FIELD CHANGES	
REVISIONS 3		DATE	
REVISIONS 4		DATE	
FIELD CHANGES		DATE	

LITCHFIELD  
ROUTE 197

STANDARD DETAILS

SHEET NUMBER

5

OF 6

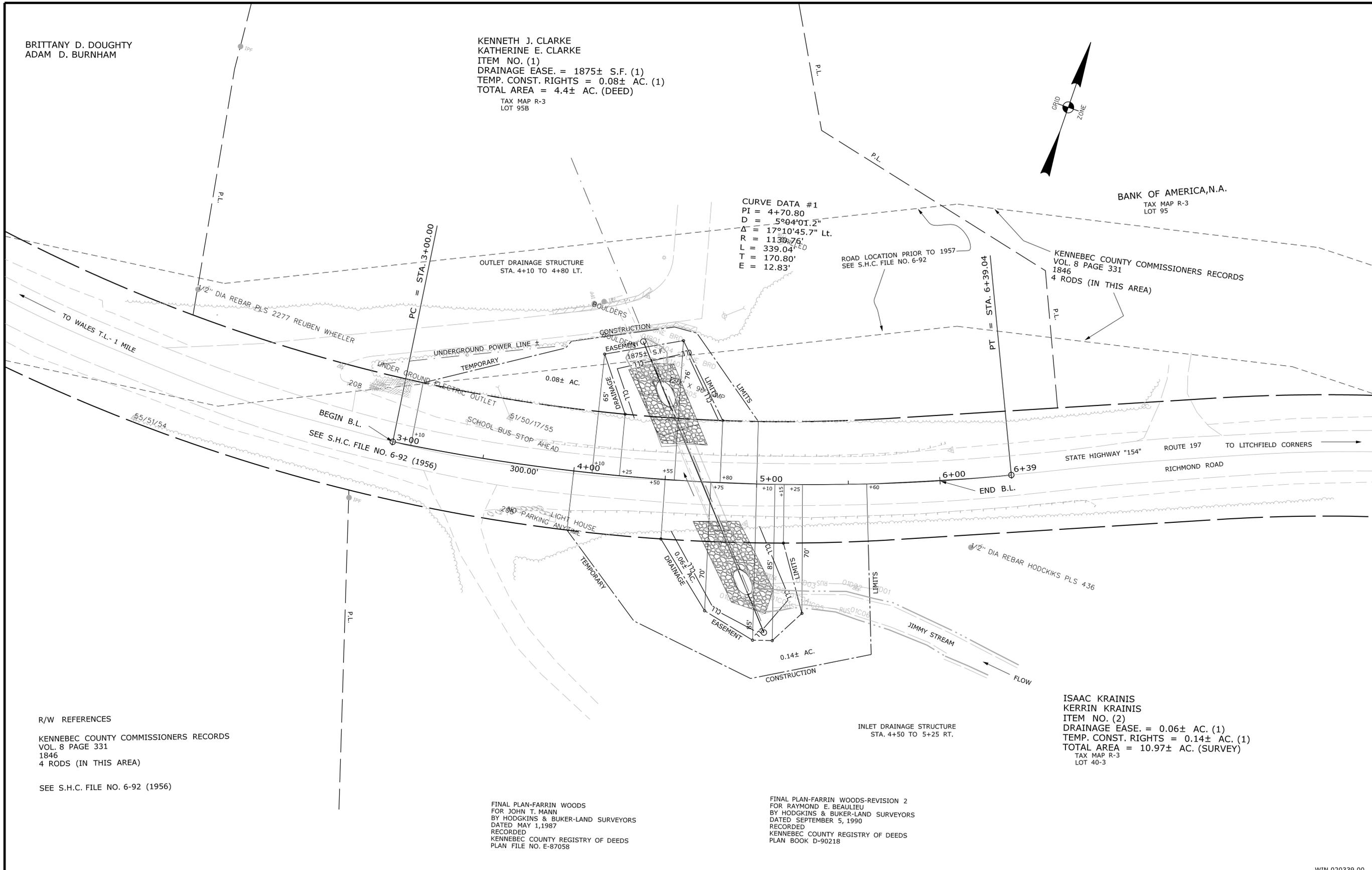
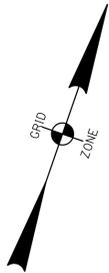
Filename: ... \HIGHWAY\MSTA\006\_RWPLAN1.dgn Division: HIGHWAY Username: nicholas.w.hartley Date: 3/12/2015

BRITTANY D. DOUGHTY  
ADAM D. BURNHAM

KENNETH J. CLARKE  
KATHERINE E. CLARKE  
ITEM NO. (1)  
DRAINAGE EASE. = 1875± S.F. (1)  
TEMP. CONST. RIGHTS = 0.08± AC. (1)  
TOTAL AREA = 4.4± AC. (DEED)  
TAX MAP R-3  
LOT 95B

BANK OF AMERICA, N.A.  
TAX MAP R-3  
LOT 95

CURVE DATA #1  
PI = 4+70.80  
D = 5°04'01.2"  
Δ = 17°10'45.7" Lt.  
R = 1130.76'  
L = 339.04'  
T = 170.80'  
E = 12.83'



R/W REFERENCES  
KENNEBEC COUNTY COMMISSIONERS RECORDS  
VOL. 8 PAGE 331  
1846  
4 RODS (IN THIS AREA)  
  
SEE S.H.C. FILE NO. 6-92 (1956)

FINAL PLAN-FARRIN WOODS  
FOR JOHN T. MANN  
BY HODGKINS & BUKER-LAND SURVEYORS  
DATED MAY 1, 1987  
RECORDED  
KENNEBEC COUNTY REGISTRY OF DEEDS  
PLAN FILE NO. E-87058

FINAL PLAN-FARRIN WOODS-REVISION 2  
FOR RAYMOND E. BEAULIEU  
BY HODGKINS & BUKER-LAND SURVEYORS  
DATED SEPTEMBER 5, 1990  
RECORDED  
KENNEBEC COUNTY REGISTRY OF DEEDS  
PLAN BOOK D-90218

ISAAC KRANIS  
KERRIN KRANIS  
ITEM NO. (2)  
DRAINAGE EASE. = 0.06± AC. (1)  
TEMP. CONST. RIGHTS = 0.14± AC. (1)  
TOTAL AREA = 10.97± AC. (SURVEY)  
TAX MAP R-3  
LOT 40-3

**SYMBOLS**

• P or • R/P	(IRON PIPE OR PIN FOUND)	○ WELL
□	(SEPTIC TANK)	○
△	(TRAVERSE POINT)	○
—	GRADING LIMIT LINE	—
—	CONSTRUCTION LIMIT LINE	—
—	PROPERTY LINE	—
—	LIMITS OF WROUGHT PORTION (L.O.W.P.)	—
—	EXISTING RIGHT OF WAY	—
—	NEW RIGHT OF WAY	—
—	NEW ROW WITHIN EXIST. ROW	—
—	CONTROL OF ACCESS	—

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.W.B.	
PROP. LINES	D.W.B.	
AREAS	D.W.B.	P.N.S.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016  
LITCHFIELD  
RIGHT OF WAY MAP

WIN 020339.00

NO.	DATE	REVISIONS DESCRIPTION	BY	PLAN FILED IN PLAN BOOK		PAGE		COUNTY RECORD		DAVID BERNHARDT COMMISSIONER JOYCE NOEL TAYLOR CHIEF ENGINEER  DATE
				NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	

STATE HIGHWAY "154"  
ROUTE 197-RICHMOND ROAD  
LITCHFIELD KENNEBEC COUNTY  
STATE PROJECT NO. 20339.00

MAY 2014	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 6-452
SCALE 1" = 25'	SHEET 1 OF 1	

SHEET NUMBER  
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OF 6