ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 245405-, Baldwin County
BRST-3104(4)
SR 29/243 Bridge Replacement over
Fishing Creek

OFFICE Preconstruction

DATE February 28, 2006

FROM Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Babs Abubakari
Mike Thomas
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

DATE February 8, 2006

FROM Alan Smith, DAS District Design Engineer

TO Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

SUBJECT **BRST-3104 (4) Baldwin County, P.I. # 245405**
Bridge replacement on SR 29/243 Business over Fishing Creek in Milledgeville
Revised Project Concept Report

Attached is the original copy of the Revised Project Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

The above mentioned project consists of the replacement of the structurally deficient bridge on SR 29/243 Business over Fishing Creek in the City of Milledgeville. SR 29/243 will be closed during construction and traffic routed along the Milledgeville By-Pass then along SR 49. The typical section shall consists of 4 12-ft. travel lanes with a 12-ft. left turn lane provided at the intersection of Andrews Street. Urban shoulders will be utilized with curb, gutter and sidewalk each side.

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTP) and/or the State Transportation Improvement Program (STIP).

DATE 2/17/06

Joseph P Palladi
State Transportation Planning Administrator

Distribution:

Brian Summers
Harvey Keepler
Keith Golden
Joe Palladi
Jamie Simpson

Need and Purpose: *See Attached Sheets*

Description of the proposed project: *This project consists of the replacement of the structurally deficient bridge on SR 243 / 29 business over Fishing Creek. The current project length is 0.23 miles.*

PDP Classification: ☒ Minor ☐ Major

Federal Oversight: Full Oversight ☐, Exempt☒, State Funded ☐, or Other ☐

Functional Classification: *Urban Minor Arterial*

U. S. Route Number(s): *None* **State Route Number(s):** *29 / 243 Business*
County Road Number(s): *None*

Traffic (AADT) as shown in the approved concept:
Current Year: *14700 (2007)* Design Year: *17000 (2027)*

Proposed Features to be revised:

Project Length, Proposed Typical Section, Proposed Maximum grade driveway, Proposed Maximum grade Side Street, Proposed Maximum grade Mainline, Proposed Bridge Width, Traffic Control During Construction

Describe the revised feature(s) to be approved:

- Proposed Project Length: *The project limits are now revised to begin approximately 500-ft. south of the intersection of SR 29 / 243 Business and Andrews Street(M.P. 9.62+-) and continue north to approximately 1100' north of the same intersection (M.P. 9.94+-) for a total project length of 0.32 miles.*
- Proposed Typical Section: *The proposed typical section is now revised to be 4 12-ft. travel lanes with a 12-ft. left turn lane being installed on the northbound approach SR 29 / 243 Business and Andrews Street. The shoulders will be urban with curb, gutter and sidewalk each side. The shoulders will be 14'0" wide to accommodate guardrail on all approaches to the bridge.*
- Proposed Bridge Size: *The proposed bridge size is now revised to be 228' x 64' to accommodate the revised typical section.*
- Proposed Maximum grade Mainline: *8% - This is being revised because preliminary hydraulic calculations show that the existing bridge will have to be raised approximately 10-feet to meet the required flood stage freeboard*
- Maximum grade allowable Mainline: *8%*
- Proposed Maximum grade Side Street: *10%*
- Maximum grade allowable on Side Streets: *10%*
- Proposed Maximum grade driveway: *15%*
- Traffic Control During Construction: *The Off-Site Detour route is now revised to route traffic along SR 29 / US 441By-Pass, then along SR 49 to SR 243 during construction. The approximate length of this detour route is 5.07 miles long. This is necessary because the intersection of SR 29 / 243 Bus. will be raised approximately 10-ft. making the approved detour route unusable during construction.*

Updated Traffic Data (AADT):
Current Year: *14700 (2007)* Design Year: *17000 (2027)*

Programmed Schedule:

P.E. *2000* R/W: *2008* Construction: *2010*

Revised Cost Estimates:

1. Construction costs including inflation and E&C: *$2,938,275.64*
2. Right of Way Cost: *$542,500.00*
3. Utility Costs: *$300,000.00*

Is the project in a Non-Attainment area? ☐ Yes ☒ No

Recommendation:

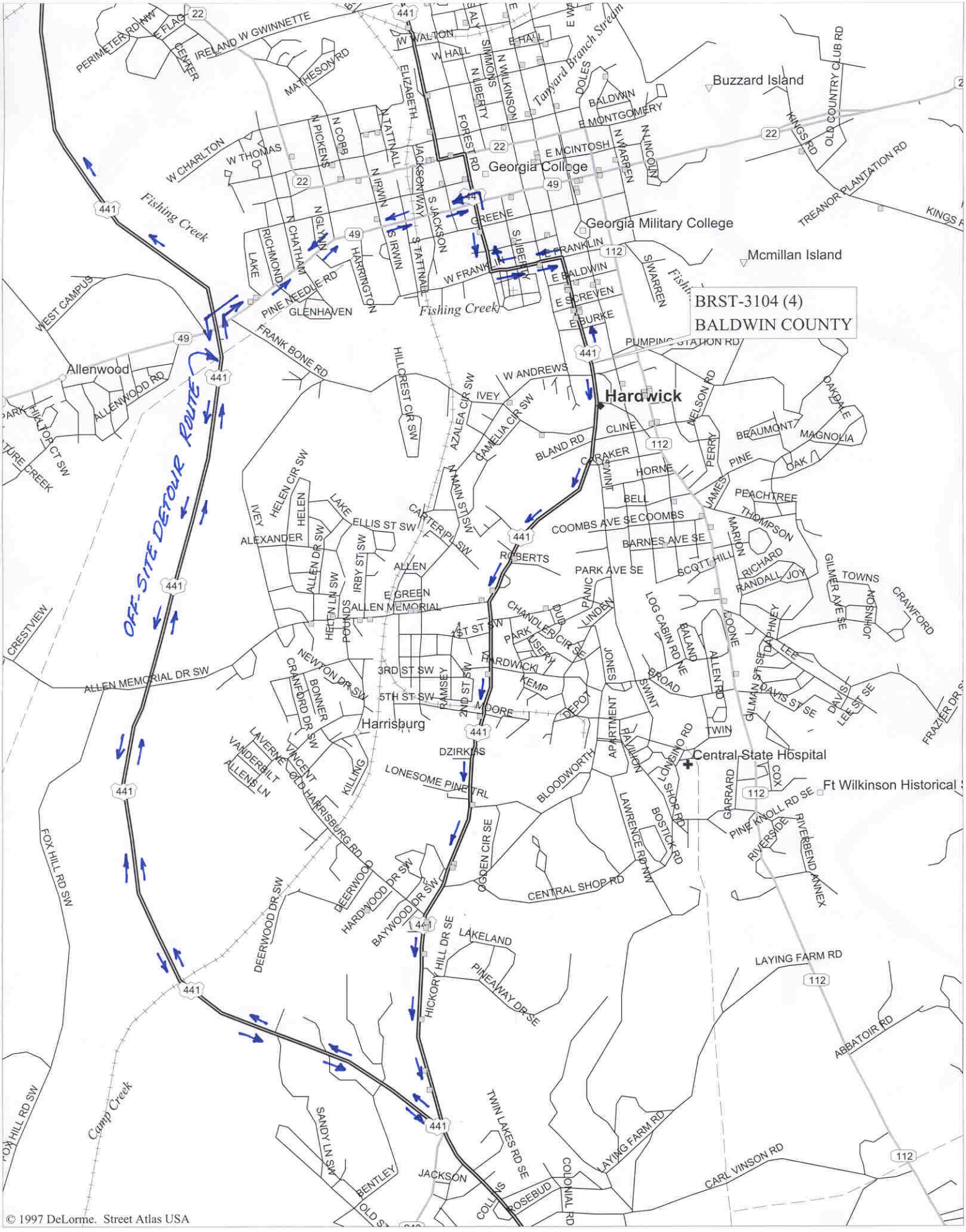
This office recommends that this concept be revised as written for implementation.

Attachments:

Location / Off-Site Detour Sketch
Typical Section
Need and Purpose Statement
Cost Estimate

Concur: _____
Director of Preconstruction

Approved: _____
Chief Engineer


BRST-3104 (4)
BALDWIN COUNTY
OFF-SITE DETOUR ROUTE
Hardwick
Allenwood
Harrisburg
Georgia College
Georgia Military College
Buzzard Island
Mcmillan Island
Central State Hospital
Ft Wilkinson Historical S
Fishing Creek
Camp Creek
Tanyard Branch Stream
PERIMETER RD NW
IRELAND W GWINNETTE
MATHESON RD
W WALTON
E HALL
W HALL
ELIZABETH
SIMMONS
N WILKINSON
N LIBERTY
FOREST RD
DOLES
BALDWIN
E MONTGOMERY
E MCINTOSH
N WARREN
N LINCOLN
OLD COUNTRY CLUB RD
KINGS RD
TREANOR PLANTATION RD
W CHARLTON
W THOMAS
N PICKENS
N CORB
N CHATHAM
N GLYNN
N IRWIN
N TATTNALL
JACKSONWAY
S JACKSON
S IRWIN
S TATTNALL
GREENE
S LIBERTY
W FRANKLIN
E FRANKLIN
E BALDWIN
E SCREVEN
E BURKE
SWARREN
RICHMOND
LAKE
HARRINGTON
PINE NEEDLE RD
GLENHAVEN
WEST CAMPUS
FRANK BONE RD
PUMPING STATION RD
HILLCREST CIR SW
W ANDREWS
IVEY
AZALEA CIR SW
CAMELIA CIR SW
NELSON RD
OAKDALE
BEAUMONT
MAGNOLIA
CLINE
BLAND RD
CRAKER
HORNE
PINE
OAK
PERRY
JAMES
PEACHTREE
THOMPSON
BELL
COOMBS AVE SE
BARNES AVE SE
MARION
SCOTT HILL
RICHARD
RANDALL
JOY
GILMER AVE SE
TOWNS
MOSLEY
JOHNS
CRAWFORD
HELEN CIR SW
HELEN
LAKE
ELLIS ST SW
ALEXANDER
ALLEN DR SW
IRBY ST SW
CARTER PL SW
MAIN ST SW
ROBERTS
PARK AVE SE
ALLEN
E GREEN
ALLEN MEMORIAL
HELEN LN SW
POUNDS
CHANDLER CIR SW
PUB
PANIC
LINDEN
LOG CABIN RD NE
BALAND
COONE
DAPHNEY
LEE
1ST ST SW
PARK
LISERY
HARDWICK
JONES
BROAD
ALLEN RD
GILMAN ST SE
DAVIS ST SE
LEE ST SE
FRAZIER DR SE
CRESTVIEW
ALLEN MEMORIAL DR SW
NEWTON DR SW
CRANFORD DR SW
BONNER
3RD ST SW
5TH ST SW
RAMSEY
2ND ST SW
KEMP
MOORE
DEPOT
SWINT
TWIN
LAVERNE
VANDERBILT
ALLENS LN
VINCENT
OLD HARRISBURG RD
KILLING
DZIRKALS
LONESOME PINE TRL
APARTMENT
PAVILION
LONG RD
BLOODWORTH
COX
GARRARD
PINE KNOLL RD SE
LO SHOR RD
BOSTICK RD
LAWRENCE RD NW
RIVERSIDE
RIVERBEND ANNEX
FOX HILL RD SW
DEERWOOD DR SW
DEERWOOD
HARDWOOD DR SW
BAYWOOD DR SW
OGDEN CIR SE
CENTRAL SHOP RD
HICKORY HILL DR SE
LAKELAND
PINEAWAY DR SE
LAYING FARM RD
ABBATOIR RD
SANDY LN SW
TWIN LAKES RD SE
BENTLEY
JACKSON
ROSEBUD
COLONIAL RD
CARL VINSON RD
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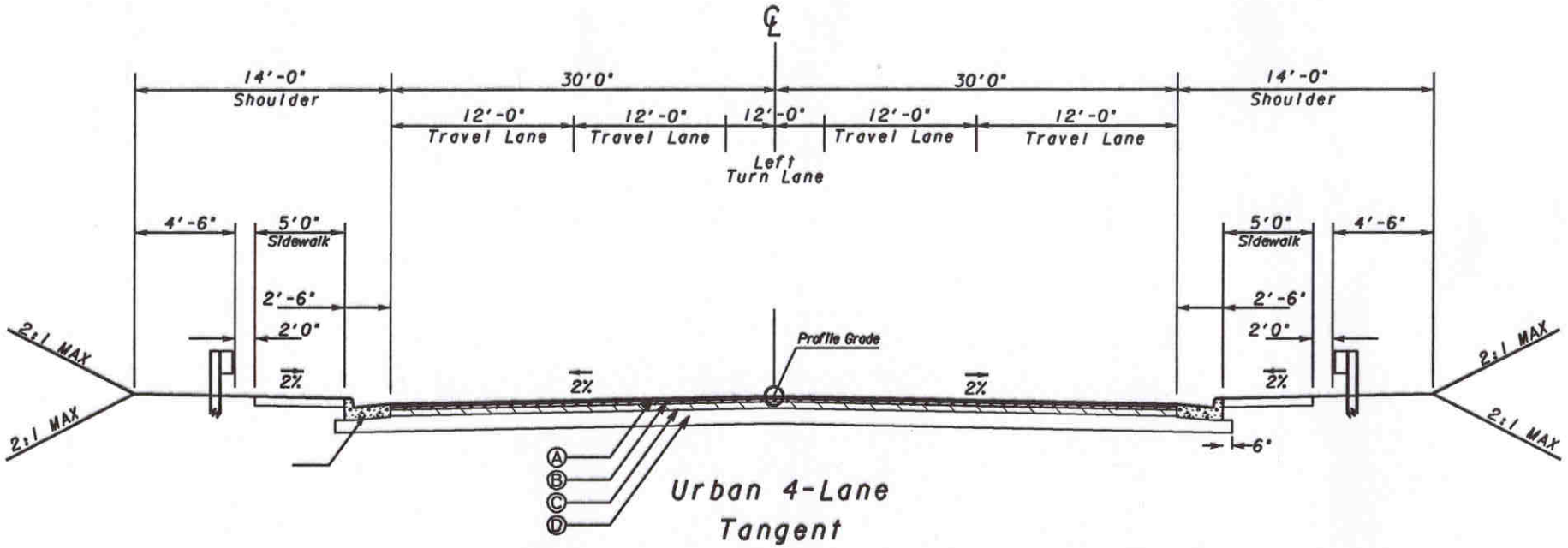

Urban 4-Lane
Tangent

NEED AND PURPOSE STATEMENT

BRST-3104 (4) BALDWIN COUNTY
P.I. # 245405
Bridge Replacement on S.R. 243 / U.S. 441 over Fishing Creek in the City of Milledgeville

Project Background

The existing bridge was constructed in 1949 The present load capacity is H-20 and the sufficiency rating for the structure is 65.4. The Department has established a policy to replace all bridges with 10" H-Piles and this bridge meets the criteria. Secondary to the bridge's structural insufficiencies, it is also functionally obsolete due to insufficient width and has been designated for replacement by the State Bridge Maintenance office.

Traffic Volumes

1998 AADT = 13300
2007 AADT = 14700
2027 AADT = 17000
K= 9%
D= 55%
T= 1.5%
24 Hour T= 2.5%
S.U.= 2%
Comb.= 0.5%

Land Use / Development

Land use along the project limits is heavily developed. There is a mix of shopping centers, office space buildings, industrial facilities and residential housing along this route. The area in the proximity to the bridge is vegetated and not developed. There has been little development in this area since the construction of the West Milledgeville By-Pass. Also, there is a current project to further lessen traffic flow in this downtown area, EDS-441 (23), Baldwin County, P.I. # 261696

Logical Termini

This project will begin at the intersection of S.R. 243 / U.S. 441 Business and West Andrews Street (M.P. 9.73) and continue north to (M.P. 9.96). The project length is 0.23 miles. This project will not create a need for any additional improvements to the route because the new bridge width will satisfy the operational capacity. The termini of the project should only include roadway length to replace the structurally deficient bridge and construct the necessary approaches.

Agency Coordination

This project is located within a mapped FEMA floodplain which will require FEMA coordination. Also, a Corps of Engineer's 404 Permit may be required.

Need and Purpose

The need exists to: replace the structurally and functionally deficient bridge on S.R. 243 / U.S. 441 Business over Fishing Creek and construct guardrail and anchorages to meet current criteria. To provide adequate width for both vehicular and pedestrian traffic flows.

BRST-3104 (4) Baldwin County, P.I. # 245405

Bridge replacement on SR 29 / 243 Business over Fishing Creek – Revised 2-7-06

Section Roadway

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	75000.00	TRAFFIC CONTROL - BRST-3104 (4)	75000.00
210-0100	1	LS	300000.00	GRADING COMPLETE - BRST 3104 (4)	300000.00
310-1201	4628	TN	20.99	GR AGGR SUBBASE CRS, INCL MATL	97141.72
318-3000	500	TN	15.84	AGGR SURF CRS	7920.00
400-3101	867	TN	55.00	ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL,	47685.00
402-1812	100	TN	46.00	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	4600.00
402-3111	1156	TN	55.00	RECYCLED ASPH CONC 19 MM MIX, GP 1 OR 2, INCL BITUM MATL &	63580.00
402-3121	2313	TN	55.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	127215.00
413-1000	850	GL	0.88	BITUM TACK COAT	748.00
432-5010	2740	SY	1.63	MILL ASPH CONC PVMT, VARIABLE DEPTH	4466.20
433-1100	510	SY	107.71	REINF CONC APPROACH SLAB, INCL CURB	54932.10
441-0018	67	SY	31.97	DRIVEWAY CONCRETE, 8 IN TK	2141.99
441-0104	1878	SY	25.44	CONC SIDEWALK, 4 IN	47776.32
441-4030	203	SY	32.58	CONC VALLEY GUTTER, 8 IN	6613.74
441-6222	3380	LF	10.01	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	33833.80
444-1000	120	LF	2.42	SAWED JOINTS IN EXIST PAVEMENTS - PCC	290.40
446-3000	300	LF	1.95	PVMT REINF FABRIC STRIPS, SELF ADHESIVE	585.00
540-1102	1	LS	65000.00	REMOVAL OF EXISTING BR, BR NO - 1	65000.00
543-1100	1	LS	950000.00	CONSTR OF BRIDGE - COMPLETE (228X64) X ($65)	950000.00
550-4118	3	EA	282.50	FLARED END SECTION 18 IN, SIDE DRAIN	847.50
603-2024	700	SY	39.38	STN DUMPED RIP RAP, TP 1, 24 IN	27566.00
603-7000	700	SY	3.14	PLASTIC FILTER FABRIC	2198.00
634-1200	10	EA	80.40	RIGHT OF WAY MARKERS	804.00
641-1100	84	LF	41.57	GUARDRAIL, TP T	3491.88
641-1200	2600	LF	9.10	GUARDRAIL, TP W	23660.00
641-5001	2	EA	401.71	GUARDRAIL ANCHORAGE, TP 1	803.42
641-5012	2	EA	1263.48	GUARDRAIL ANCHORAGE, TP 12	2526.96
668-1100	12	EA	1635.80	CATCH BASIN, GP 1	19629.60
668-1110	20	LF	166.35	CATCH BASIN, GP 1, ADDL DEPTH	3327.00
668-5000	3	EA	1211.93	JUNCTION BOX	3635.79
				Section Sub Total:	**$1,978,019.42**

Section Temporary Erosion Control

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	3	AC	435.70	TEMPORARY GRASSING	1307.10
163-0240	33	TN	213.84	MULCH	7056.72
163-0300	2	EA	1074.69	CONSTRUCTION EXIT	2149.38
163-0520	500	LF	10.50	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	5250.00
163-0530	800	LF	1.83	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	1464.00
165-0010	800	LF	1.06	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	848.00
165-0030	800	LF	1.29	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	1032.00
165-0070	800	LF	1.17	MAINTENANCE OF BALED STRAW EROSION CHECK	936.00
165-0101	2	EA	336.19	MAINTENANCE OF CONSTRUCTION EXIT	672.38
167-1000	2	EA	3742.84	WATER QUALITY MONITORING AND SAMPLING	7485.68
167-1500	12	MO	594.20	WATER QUALITY INSPECTIONS	7130.40
171-0010	1600	LF	1.76	TEMPORARY SILT FENCE, TYPE A	2816.00
171-0030	1600	LF	3.06	TEMPORARY SILT FENCE, TYPE C	4896.00
700-7000	3	TN	51.52	AGRICULTURAL LIME	154.56
700-7010	5	GL	18.43	LIQUID LIME	92.15
700-8000	3	TN	236.56	FERTILIZER MIXED GRADE	709.68
				Section Sub Total:	**$44,000.05**

Section Erosion Control

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0240	8	TN	213.84	MULCH	1710.72
700-6910	3	AC	749.98	PERMANENT GRASSING	2249.94
700-7000	4	TN	51.52	AGRICULTURAL LIME	206.08
700-7010	2	GL	18.43	LIQUID LIME	36.86
700-8000	1	TN	236.56	FERTILIZER MIXED GRADE	236.56
				Section Sub Total:	**$4,440.16**

Section SIGNING AND MARKING AND SIGNALS

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	36	SF	14.82	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	533.52
636-1031	36	SF	17.19	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	618.84
636-2080	64	LF	8.15	GALV STEEL POSTS, TP 8	521.60
636-3010	2	EA	213.26	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT	426.52
639-4004	4	EA	4383.24	STRAIN POLE, TP IV	17532.96
647-1000	1	LS	42321.59	TRAFFIC SIGNAL INSTALLATION NO - 1	42321.59
653-1501	2400	LF	0.24	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	576.00
653-1502	2400	LF	0.23	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	552.00
653-1704	22	LF	3.65	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	80.30
653-3501	2400	GLF	0.16	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	384.00
654-1001	30	EA	3.39	RAISED PVMT MARKERS TP 1	101.70
654-1003	30	EA	3.54	RAISED PVMT MARKERS TP 3	106.20
657-3054	456	GLF	1.97	PREFORMED PLASTIC SKIP PVMT MKG, 5 IN, WHITE, TP PB	898.32
657-6054	456	LF	3.97	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, YELLOW, TP PB	1810.32
				Section Sub Total:	**$66,463.87**

Total Estimated Cost: $2,092,923.50

Subtotal Construction Cost	**$2,092,923.50**
E&C Rate 10.0 %	$209,292.35
Inflation Rate 5.0 % @ 5.0 Years	$636,059.79
Total Construction Cost	**$2,938,275.64**
Right Of Way	$542,500.00
ReImb. Utilities	$300,000.00
Grand Total Project Cost	**$3,780,775.64**

Notes:

Roadway items increased due to new roadway construction vs. overlay of existing roadway, new item prices, earthwork volumes increased significantly to raise bridge 10 feet which increased the Grading Complete item.

Utility cost also increased significantly because of grade change affecting GPC transmission structures.