ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0006327, Barrow County
CSSTP-0006-00(327)
West Winder Bypass

OFFICE Program Control

DATE October 1, 2009

FROM Genetha Rice-Singleton, Program Control Administrator

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Ron Wishon
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Paul Liles
Brent Story
Russell McMurry
Robert Mahoney
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
INTERDEPARTMENT CORRESPONDENCE

FILE CSSTP-0006-00 (327) Barrow County
P.I. No. 0006327
West Winder Bypass

OFFICE Road Design

DATE July 27, 2009

FROM Brent A. Story, P.E, State Road Design Engineer

TO Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT Revised Project Concept Report

The proposed project would widen Patrick Mill Road/CR 93 from a two-lane highway to a four-lane divided highway with a 24-ft raised median from Tom Miller Road to approximately 1,000-ft south of Burson Maddox Road. The roadway would continue north on new location, bridge over SR 8, the CSX railroad track and Bankhead Highway, cross Pearl Pentecost Road and connect SR 211. The total length of the project would be approximately 5.0 miles. The project would also include a full-diamond interchange at SR 316 and connector roadways from the West Winder Bypass to SR 8 and to Bankhead Highway.

The alignment of the proposed West Winder Bypass was revised to tie into SR 211 approximately 3,000-ft south of the original alignment. The alignment was moved to prevent impacting a historic resource.

West Winder Bypass alignment was revised to curve south and cross Pearl Pentecost Road and continue parallel to Cedar Creek through property owned by Barrow County and then tie into SR 211 at milepost 2.14.

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

Angela T. Alexander
State Transportation Planning Administrator

9/10/09
Date

BAS:JLM:NFR

cc: Ron Wishon, w/attachments
Glenn Bowman, w/attachments
Keith Golden, w/attachments
Doug Fadool (OPD), w/attachments
Angela T. Alexander, w/attachments
Angela Whitworth, w/attachments
Russell McMurry, w/attachments
Paul Liles, w/attachments

RECEIVED
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REVISED PROJECT CONCEPT REPORT

Need and Purpose:
The need for the proposed projects is to provide a bypass route on the west side of the city of Winder from SR 316 to SR 211 and to construct a grade-separated railroad crossing at the intersection of the West Winder Bypass and SR 8. The purpose is to alleviate the percentage of trucks utilizing minor arterial routes and to reduce congestion and accident rates along Patrick Mill Road, SR 8, SR 211 and Pearl Pentecost Road.

Planning Background and Project History
In the 1990's, commercial and industrial land uses began to develop along SR 8, Bankhead Highway and Patrick Mill Road. The west side of the city of Winder includes the West Winder Industrial Park, business centers and manufacturing plants. SR 8 and Bankhead Highway parallel the CSX railroad that passes through the City of Winder. Industrial and commercial traffic from this area of Barrow County primarily travel to and from the interstate system via SR 316 and SR 211. This travel pattern requires that the industrial truck traffic from this area use an at-grade railroad crossing and travel on residential collector roadways to reach SR 211 or travel through the Downtown area of the city of Winder. Currently, the only grade-separated railroad crossing for the city of Winder is the Center Street underpass located approximately 3 miles east of Patrick Mill Road. To address this need, in the year 2000, project CSSTP-0006-00 (326) Phase I, P.I. Number 0006326 was established. This project, slated for construction in 2012, includes a railroad overpass on the west side of Winder from Patrick Mill Road at Mathews School Road to Pearl Pentecost Road. This project was further expanded to Phase II of CSSTP-0006-00 (327), P.I. Number 0006327. Phase II is currently slated for long range construction and includes the Patrick Mill Road widening from SR 316 to the railroad overpass and new roadway construction from Pearl Pentecost Road to SR 211. However, now the two projects are programmed for design and construction under project number CSSTP-0006-00 (327), P.I. Number 0006327 as the West Winder Bypass.

The West Winder Bypass project would widen Patrick Mill Road/CR 93 from a two-lane to a four-lane divided highway with a 24-foot raised median from Tom Miller Road to approximately 1,000 feet south of Burson Maddox Road. The roadway would continue north on new location, bridge over SR 8, the CSX railroad track and Bankhead Highway, cross Pearl Pentecost Road and connect to SR 211. The total length of the project would be approximately 5.0 miles. The project would also include a full-diamond interchange at SR 316 and connector roadways from the West Winder Bypass to SR 8 and to Bankhead Highway.

Land Use Trends Impacting Transportation
The current land use surrounding the intersection of the Patrick Mill Road at SR 8 includes primarily industrial, manufacturing and commercial businesses. However, along Patrick Mill Road are several side streets consisting of residential subdivisions, schools and churches. The land use trend of maintaining industrial and commercial businesses in this area with residential land uses being developed on the side streets of Patrick Mill Road between SR 316 and SR 8 is reflected in the Barrow County Future Land Use Map (1999-2018).

Logical Termini

The logical southern terminus of the proposed West Winder Bypass would occur at the intersection of Tom Miller Road relocated approximately 1,000 feet south of SR 316. At this intersection, 42% of the traffic turns left onto Tom Miller Road. Tom Miller Road has two schools and there are plans to construct a third school. Tom Miller Road intersects with SR 81 near the Walton County line. Consequently, residential commuters and commercial traffic from the north side of SR 316 travel to and from Tom Miller Road.

The logical northern terminus of the proposed project is at the intersection with SR 211. It's at this intersection that West Winder Bypass joins SR 211 traffic from downtown Winder. There is a project listed on the 2030 Regional Transportation Plan that includes the widening of SR 211 from the West Winder Bypass to the I-85 interchange (BA-013), consequently, this intersection was chosen as the logical northern terminus.

Annual Daily Traffic Volumes and Levels of Service

The existing roadway of SR 8 near the CSX railroad crossing is operating at a level of service "D" under current peak hour conditions and Patrick Mill Road currently operates at level of service "C". Level of service (LOS) is a qualitative measurement of traffic flow, which ranges from "A" (unimpeded, free-flowing traffic) through "F" (virtual gridlocked traffic). These roadways currently serve local and commercial traffic in the area. The commercial, industrial and residential land uses along Patrick Mill Road and SR 8 contribute to the 6,630 vehicles per day (vpd) and 16,840 vpd, respectively on these existing facilities. Trucks contribute 34% of the 24-hour traffic volume on SR 8 and 22% of the traffic on Patrick Mill Road.

The average traffic growth rate in this area of Barrow County was determined to be 4.8% per year. However, this growth rate would not be sustained on the state routes, which are the primary routes of diversion. The state routes were increased according to their own average traffic growth rates of 2.5% for SR 211 and 2.6 % for SR 8. As a result of these traffic growth rates, it is projected that traffic will more than double by the year 2029. The West Winder Bypass project is proposed to relieve traffic on these facilities as shown in the table below.

Roadway	Current 2005 AADT (vpd)	LOS	2029 No-Build AADT (vpd)	LOS	2029 Build AADT (vpd)	LOS
Patrick Mill Rd	6,630	C	20,500	F	24,900	C*
SR 8	16,840	D	31,200	F	20,200	D
SR 211	13,860	D	25,000	F	16,200	D
Pearl Pentecost Rd	2,985	B	9,200	C	6,200	B

* Patrick Mill Road would be widened to four lanes in the build condition.

Patrick Mill Road and SR 8 are currently two-lane roadways that are inadequate to handle the projected industrial/commercial traffic of the west side of Winder. Traffic would be diverted

from SR 8, SR 211 and Pearl Pentecost Road to the West Winder Bypass, thus allowing these facilities to operate at acceptable levels of service.

Intersection levels of service were determined at each of the major intersections of the project and are shown in the table on the next page. Existing intersection levels of service range from A to D with the exception of Patrick Mill Road at Tom Miller Road/Fairlong Way, which operates at LOS F during the A.M. peak hour. This intersection may need to be signalized due to the number of left turns from Patrick Mill Road to Tom Miller Road. The projected levels of service are anticipated to decline to LOS F at all of the major intersections by the 2029 design year if no action is taken. Under the build condition, the proposed major intersections would operate at LOS D or better in the design year (2029).

Summary of HCS Analysis Results

Intersections	Existing Year 2005		No-Build Year 2029		Proposed Design Year 2029	
	AM	PM	AM	PM	AM	PM
Patrick Mill Rd @ Tom Miller Rd/Fairlong Way	F*	D*	F	F	D	C
Patrick Mill Rd @ SR 316	C	C	F	F	--	--
West Winder Bypass @ SR 316 EB Off-Ramp	--	--	--	--	C	C
West Winder Bypass @ SR 316 WB Off-Ramp	--	--	--	--	C	B
Patrick Mill Rd @ Fred Kilcrease Rd	B*	B*	F	F	C	D
Patrick Mill Rd @ Bill Rutledge Rd	C*	B*	F	F	---	---
Patrick Mill Rd @ Carl Bethlehem Rd	B*	B*	F	F	C	C
Patrick Mill Rd @ Burson Maddox Rd	B*	B*	F	F	D*	E*
Patrick Mill Rd @ Plantation Rd	B*	B*	F	F	---	---
Patrick Mill Rd @ Mathews School Rd	B*	B*	F	F	---	---
Patrick Mill Rd @ West Winder Industrial Pkwy	B*	C*	F	F	---	---
West Winder Bypass @ Mathews School Rd	---	---	---	---	C	C
Patrick Mill Rd @ SR 8	B*	D*	F	F		
Mathews School Rd @ SR 8	---	---	---	---	B	B
Bankhead Hwy @ Pearl Pentecost Rd	B*	B*	F	F	---	---
Connector Road @ Bankhead Hwy	---	---	---	---	B	B
West Winder Bypass @ Connector Road	---	---	---	---	B	B
West Winder Bypass @ Pearl Pentecost Rd	---	---	---	---	C	C
West Winder Bypass @ SR 211	---	---	---	---	B	B

* For unsignalized intersections, LOS is given for minor street approach.

Safety Improvements

An inventory of crash data from 2001 to 2003 is provided in the table on the next page. The table lists the total number of accidents and injuries coded to roadway segments of Patrick Mill Road, SR 8 and SR 211 that are improved by the West Winder Bypass project. Two fatalities were recorded during 2001 and 2003 along a short section of SR 8 at or near Patrick Mill Road. Additionally, there was one fatality at the intersection of Patrick Mill Road at SR 316 in 2001.

Crash Data
Comparison to Statewide Rates for Major Collectors

Roadway Segment	Year	No. Of Accidents	Accident Rate *(Statewide)*	No. Of Injuries	Injury Rate *(Statewide)*	No. Of Fatalities	Fatality Rate *(Statewide)*
SR 8 (1.71 mi)	**2001**	20	289 *(185)*	15	217 *(98)*	1	14.5 *(2.28)*
	2002	30	332 *(195)*	6	66 *(104)*	0	00.0 *(2.37)*
	2003	42	400 *(211)*	15	143 *(110)*	1	9.5 *(2.95)*
SR 211 (3.46 mi)	**2001**	97	488 *(185)*	32	161 *(98)*	0	00.0 *(2.28)*
	2002	88	541 *(195)*	29	178 *(104)*	0	00.0 *(2.37)*
	2003	79	451 *(211)*	29	166 *(110)*	0	00.0 *(2.95)*
Patrick Mill Rd (2.22 mi)	**2001**	28	606 *(185)*	13	281 *(98)*	1	21.6 *(2.28)*
	2002	39	802 *(195)*	11	226 *(104)*	0	00.0 *(2.37)*
	2003	47	921 *(211)*	24	470 *(110)*	0	00.0 *(2.95)*

The results indicate that Patrick Mill Road, SR 8 and SR 211, all currently have accident, injury and fatality rates above the average rates as compared to similar major collectors statewide. There were seven angle collisions and three rear-end accidents at the intersection of SR 8 and the at-grade railroad crossover. One of these accidents resulted in a fatality. Proposed construction of the West Winder Bypass would result in a decrease in traffic using the SR 8 at-grade railroad crossover and decrease traffic on SR 211. Consequently, the West Winder Bypass project would reduce the risk of various common accidents, specifically rear-end and angle collisions at intersections and at the railroad crossing.

In summary, the proposed construction of the West Winder Bypass would correct the existing roadway deficiencies, improve traffic safety and increase the capacity of the roadway to facilitate the projected traffic growth.

Other Projects in the Area

- GDOT Project 0001038 – SR 124 @ SR 211
- GDOT Project 0001816 – 6th Street/CR 326 Grade Separation @ CSX RR
- GDOT Project 0002248 – Winder Downtown Streetscape Project
- GDOT Project 0006449 – Upgrade Traffic Signals @ Various locations in Barrow County
- GDOT Project 0007356 – CR 714/North Williams Street @ CSX #640124J
- GDOT Project 0007356 – SR 8@ SR 324 & @ CR 326 & @ CR 327 & @ CR 328
- GDOT Project 110620 – I-85 from north of SR 211 to north of SR 60 in Jackson County
- GDOT Project 121730 – SR 988/Winder East bypass from SR 316 to SR 53
- GDOT Project 122870 – SR 316 in Barrow and Oconee Counties – 26 interchanges
- GDOT Project 132970 – SR 11/Winder-Monroe Hwy @ Marburg Creek south of Winder
- GDOT Project 132971 – SR 11/Winder-Monroe Hwy @ Scott Creek 1.7 miles south of Bethlehem
- GDOT Project 171290 – CR 67/Etheridge Road @ CSX Railroad #640141A
- GDOT Project M003152 – SR 211 from SR 316/US 29 to SR 11/Statham Road
- GDOT Project s007743 – Three streets in the City of Winder

Project location: The proposed West Winder Bypass is located in Barrow County west of the city of Winder. The total length of the project is approximately 5 miles. The proposed project is located along existing Patrick Mill Road from milepost 0.81 to 2.71. The project then continues on new location crossing Pearl Pentecost Road and ties into SR 211 at milepost 2.14.

Description of the approved concept: The proposed project would widen Patrick Mill Road/CR 93 from a two-lane to a four-lane divided highway with a 24-foot raised median from Tom Miller Road to approximately 1,000 feet south of Burson Maddox Road. The roadway would continue north on new location, bridge over SR 8, the CSX railroad track and Bankhead Highway, cross Pearl Pentecost Road and connect to SR 211. The total length of the project would be approximately 5.0 miles. The project would also include a full-diamond interchange at SR 316 and connector roadways from the West Winder Bypass to SR 8 and to Bankhead Highway.

PDP Classification: Major __X__ Minor _____

Federal Oversight: Full Oversight ( ), Exempt(X), State Funded( ), or Other ( )

Functional Classification: Rural Major Arterial

U. S. Route Number(s): N/A **State Route Number(s):** N/A

Traffic (AADT) as shown in the approved concept:
Base Year (2009): 18,100 Design Year (2029): 26,700

Proposed features to be revised:
The alignment of the proposed West Winder Bypass was revised to tie into SR 211 approximately 3,000 feet south of the original alignment. The alignment was moved to prevent impacting a historic resource.

Describe the revised feature(s) to be approved: West Winder Bypass alignment was revised to curve south and cross Pearl Pentecost Road and continue parallel to Cedar Creek through property owned by Barrow County and then tie into SR 211 at milepost 2.14.

Updated traffic data (AADT):
Base Year (2009): 18,100 Design Year (2029): 26,700

Programmed/Schedule:
P.E. 2005 R/W: Long Range Construction: Long Range

Revised cost estimates:

1. Construction	$ 42,116,513.66
2. Right-of-way	$ 42,750,000.00
3. Utilities	$ 2,600,000.00
Total	$ 87,466,513.66

Is the project located in a Non-attainment area? ___X___ **Yes** _____**No.** This project conforms to the Transportation Improvement Plan. It is listed as project BA-005 and described as reconstruction/new construction from 2 to 4 lanes.

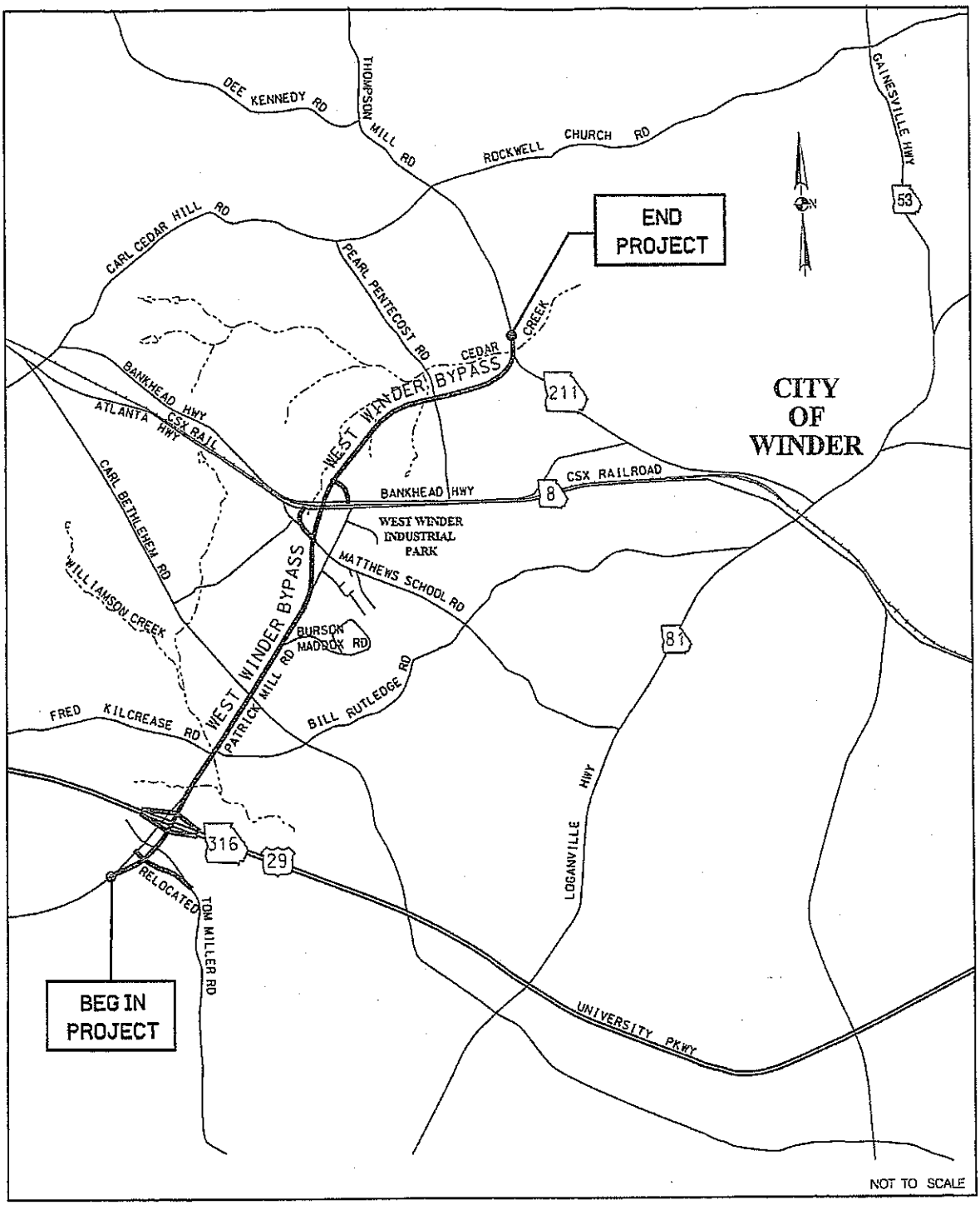
Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:
1. Sketch Map
2. Cost Estimate

- **Exempt projects**

Concur: _____ for Director of Preconstruction

Approve: _____ Chief Engineer


DEE KENNEDY RD
THOMPSON MILL RD
ROCKWELL CHURCH RD
GAINESVILLE HWY
53
END PROJECT
CARL CEDAR HILL RD
PEARL PENTECOST RD
CEDAR CREEK
BANKHEAD HWY
ATLANTA HWY
CSX RAIL
WEST WINDER BYPASS
211
CITY OF WINDER
CSX RAILROAD
BANKHEAD HWY
8
WEST WINDER INDUSTRIAL PARK
CARL BETHLEHEM RD
MATTHEWS SCHOOL RD
WILLIAMSON CREEK
BURSON MADDOX RD
81
WEST WINDER BYPASS
PATRICK MILL RD
BILL RUTLEDGE RD
FRED KILCREASE RD
316
29
LOGANVILLE HWY
RELOCATED TOM MILLER RD
BEGIN PROJECT
UNIVERSITY PKWY
NOT TO SCALE

Estimate Report for file "P.I. No. 0006327 (West Winder Bypass)"

Section Major Structures

Item Number	Quantity	Units	Unit Price	Item Description	Cost
500-3101	300	CY	639.12	CLASS A CONCRETE - CULVERT	191736.00
500-3101	300	CY	639.12	CLASS A CONCRETE - CULVERT @ WILLIAMSON CREEK	191736.00
500-3101	400	CY	639.12	CLASS A CONCRETE - CULVERT @ CEDAR CREEK	255648.00
500-3101	400	CY	639.12	CLASS A CONCRETE @ CEDAR CREEK-SR 211	255648.00
511-1000	55000	LB	0.94	BAR REINF STEEL (CULVERT @ CEDAR CREEK-SR 211)	51700.00
511-1000	39690	LB	0.94	BAR REINF STEEL - CULVERT @ WILLIAMSON CREEK	37308.60
511-1000	52920	LB	0.94	BAR REINF STEEL - CULVERT @ CEDAR CREEK	49744.80
511-1000	39690	LB	0.94	BAR REINF STEEL - CULVERT	37308.60
511-3001	45258	SF	100.00	CONC BRIDGE (CONCEPT)	4525800.00
511-3001	28783	SF	100.00	CONC. BRIDGE -OVER SR 316 (CONCEPT)	2878300.00
627-1000	9000	SF	54.02	MSE WALL FACE, 0 - 10 FT HT, WALL NO -	486180.00
627-1010	18000	SF	55.04	MSE WALL FACE, 10 - 20 FT HT, WALL NO -	990720.00
627-1020	9000	SF	58.36	MSE WALL FACE, 20 - 30 FT HT, WALL NO -	525240.00
				Section Sub Total:	**$10,477,070.00**

Section Grading and Drainage

Item Number	Quantity	Units	Unit Price	Item Description	Cost
207-0203	1300	CY	54.60	FOUND BKFILL MATL, TP II	70980.00
210-0100	1	Lump Sum	3950130.44	GRADING COMPLETE -	3950130.44
441-0204	500	SY	34.13	PLAIN CONC DITCH PAVING, 4 IN	17065.00
441-0204	500	SY	34.13	PLAIN CONC DITCH PAVING, 4 IN	17065.00
441-0600	60	CY	858.88	CONC HEADWALLS	51532.80
550-1180	1000	LF	45.96	STORM DRAIN PIPE, 18 IN, H 1-10	45960.00
550-1300	1500	LF	70.50	STORM DRAIN PIPE, 30 IN, H 1-10	105750.00
550-1301	1000	LF	83.77	STORM DRAIN PIPE, 30 IN, H 10-15	83770.00
550-1302	500	LF	86.34	STORM DRAIN PIPE, 30 IN, H 15-20	43170.00
550-1303	300	LF	103.04	STORM DRAIN PIPE, 30 IN, H 20-25	30912.00
550-1360	1500	LF	50.81	STORM DRAIN PIPE, 36 IN, H 1-10	76215.00
550-1361	1200	LF	97.64	STORM DRAIN PIPE, 36 IN, H 10-15	117168.00
550-1363	240	LF	110.44	STORM DRAIN PIPE, 36 IN, H 20-25	26505.60
550-1420	1500	LF	113.00	STORM DRAIN PIPE, 42 IN, H 1-10	169500.00
550-1421	500	LF	96.76	STORM DRAIN PIPE, 42 IN, H 10-15	48380.00
550-1423	100	LF	161.00	STORM DRAIN PIPE, 42 IN, H 20-25	16100.00
550-1481	200	LF	142.83	STORM DRAIN PIPE, 48 IN, H 10-15	28566.00
550-1482	500	LF	159.89	STORM DRAIN PIPE, 48 IN, H 15-20	79945.00
550-1483	300	LF	165.00	STORM DRAIN PIPE, 48 IN, H 20-25	49500.00
550-1541	200	LF	204.58	STORM DRAIN PIPE, 54 IN, H 10-15	40916.00
550-1542	300	LF	293.17	STORM DRAIN PIPE, 54 IN, H 15-20	87951.00
550-4118	4	EA	412.34	FLARED END SECTION 18 IN, SIDE DRAIN	1649.36
550-4130	4	EA	1137.41	FLARED END SECTION 30 IN, SIDE DRAIN	4549.64
550-4136	2	EA	873.39	FLARED END SECTION 36 IN, SIDE DRAIN	1746.78
550-4236	4	EA	1252.70	FLARED END SECTION 36 IN, STORM DRAIN	5010.80
603-2024	400	SY	54.20	STN DUMPED RIP RAP, TP 1, 24 IN	21680.00
603-2182	500	SY	61.02	STN DUMPED RIP RAP, TP 3, 24 IN	30510.00
603-7000	400	SY	5.15	PLASTIC FILTER FABRIC	2060.00
				Section Sub Total:	**$5,224,288.42**

Section Base & Paving

Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-1101	173689	TN	21.47	GR AGGR BASE CRS, INCL MATL	3729102.83
402-3121	52863	TN	63.99	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	3382703.37
402-3130	22655	TN	65.79	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	1490472.45

402-3190	27371	TN	63.78	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2,INCL BITUM MATL & H LIME	1745722.38
413-1000	4400	GL	2.00	BITUM TACK COAT	8800.00
456-2002	9	M	500.00	INDENTATION RUMBLE STRIPS - 2 FT WIDTH	4500.00
				Section Sub Total:	**$10,361,301.03**

Section Concrete Work

Item Number	Quantity	Units	Unit Price	Item Description	Cost
430-0220	35689	SY	52.84	PLAIN PC CONC PVMT, CL 1 CONC, 12 INCH THK	1885806.76
433-1000	1200	SY	153.79	REINF CONC APPROACH SLAB	184548.00
441-0016	2500	SY	42.44	DRIVEWAY CONCRETE, 6 IN TK	106100.00
441-6740	48900	LF	15.30	CONC CURB & GUTTER, 8 IN X 30 IN, TP 7	748170.00
				Section Sub Total:	**$2,924,624.76**

Section Signing and Striping and Signals

Item Number	Quantity	Units	Unit Price	Item Description	Cost
500-3101	20	CY	639.12	CLASS A CONCRETE	12782.40
636-1020	35	SF	15.19	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	531.65
636-1029	250	SF	19.84	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 3	4960.00
636-1031	395	SF	19.00	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	7505.00
636-1032	50	SF	25.13	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING TP 6	1256.50
636-1072	1400	SF	20.55	HIGHWAY SIGNS, ALUM EXTRUDED PANELS, REFL SHEETING, TP 3	28770.00
636-2070	100	LF	8.27	GALV STEEL POSTS, TP 7	827.00
636-2080	830	LF	10.87	GALV STEEL POSTS, TP 8	9022.10
636-3000	8100	LB	4.81	GALV STEEL STR SHAPE POST	38961.00
636-5010	50	EA	54.96	DELINEATOR, TP 1	2748.00
636-9094	48	LF	110.39	PILING IN PLACE, SIGNS, STEEL H, HP 12 X 53	5298.72
639-2002	1920	LF	3.38	STEEL WIRE STRAND CABLE, 3/8 IN	6489.60
639-4003	14	EA	6466.01	STRAIN POLE, TP III	90524.14
639-4004	24	EA	7288.47	STRAIN POLE, TP IV	174923.28
647-1000	1	Lump Sum	67500.00	TRAFFIC SIGNAL INSTALLATION NO. 4	67500.00
647-1000	1	Lump Sum	90000.00	TRAFFIC SIGNAL INSTALLATION NO. 1	90000.00
647-1000	1	Lump Sum	75000.00	TRAFFIC SIGNAL INSTALLATION NO. 3	75000.00
647-1000	1	Lump Sum	67500.00	TRAFFIC SIGNAL INSTALLATION NO. 5	67500.00
647-1000	1	Lump Sum	67500.00	TRAFFIC SIGNAL INSTALLATION NO. 6	67500.00
647-1000	1	Lump Sum	75000.00	TRAFFIC SIGNAL INSTALLATION NO. 7	75000.00
647-1000	1	Lump Sum	75000.00	TRAFFIC SIGNAL INSTALLATION NO. 2	75000.00
647-2150	7	EA	1838.79	PULL BOX, PB-5	12871.53
653-0110	2	EA	71.26	THERMOPLASTIC PVMT MARKING, ARROW, TP 1	142.52
653-0120	96	EA	73.54	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	7059.84
653-0170	2	EA	84.44	THERMOPLASTIC PVMT MARKING, ARROW, TP 7	168.88
653-0210	14	EA	119.31	THERMOPLASTIC PVMT MARKING, WORD, TP 1	1670.34
653-1501	95350	LF	0.68	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	64838.00
653-1502	76950	LF	0.62	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	47709.00
653-1704	4900	LF	4.53	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	22197.00
653-1804	1700	LF	2.08	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN,	3536.00

				WHITE	
653-3501	52900	GLF	0.56	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	29624.00
654-1001	200	EA	3.23	RAISED PVMT MARKERS TP 1	646.00
654-1003	1555	EA	3.70	RAISED PVMT MARKERS TP 3	5753.50
655-7000	2	EA	819.62	PAVEMENT ARROW, PREFORMED PLASTIC WITH RAISED REFLECTORS	1639.24
657-1085	11480	LF	6.55	PREFORMED PLASTIC SOLID PVMT MKG, 8 IN, CONTRAST (BLACK-WHITE), TP PB	75194.00
657-3085	1880	GLF	4.57	PREFORMED PLASTIC SKIP PVMT MKG, 8 IN, CONTRAST (BLACK-WHITE), TP PB	8591.60
657-6085	12380	LF	6.78	PREFORMED PLASTIC SOLID PVMT MKG, 8 IN, CONTRAST (BLACK-YELLOW), TP PB	83936.40
682-6233	1100	LF	5.12	CONDUIT, NONMETL, TP 3, 2 IN	5632.00
682-7043	650	LF	45.39	MULTI-CELL CONDUIT SYS, 4-WAY, FIBERGLASS	29503.50
935-1512	500	LF	9.27	OUTSIDE PLANT FIBER OPTIC CABLE, DROP, SINGLE MODE,	4635.00
935-3103	4	EA	709.98	FIBER OPTIC CLOSURE, UNDERGROUND, 24 FIBER	2839.92
935-4010	32	EA	43.93	FIBER OPTIC SPLICE, FUSION	1405.76
935-6561	2	EA	3150.00	EXTERNAL TRANSCEIVER, DROP AND REPEAT, 1300 MULTI	6300.00
935-8000	6	LS	6325.47	TESTING	37952.82
938-1200	1	EA	362.63	PROGRAMMING MONITOR, TYPE A	362.63
938-8500	1	LS	3891.67	TRAINING	3891.67
				Section Sub Total:	**$1,360,200.54**

Section Guardrail

Item Number	Quantity	Units	Unit Price	Item Description	Cost
641-1100	400	LF	48.79	GUARDRAIL, TP T	19516.00
641-1200	5000	LF	16.93	GUARDRAIL, TP W	84650.00
641-5001	8	EA	635.90	GUARDRAIL ANCHORAGE, TP 1	5087.20
641-5012	8	EA	1801.20	GUARDRAIL ANCHORAGE, TP 12	14409.60
				Section Sub Total:	**$123,662.80**

Section Traffic Control

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	Lump Sum	500000.00	TRAFFIC CONTROL -	500000.00
				Section Sub Total:	**$500,000.00**

Section Landscaping and Erosion Control

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	65	AC	707.73	TEMPORARY GRASSING	46002.45
163-0240	350	TN	199.41	MULCH	69793.50
163-0300	10	EA	1700.55	CONSTRUCTION EXIT	17005.50
163-0520	2500	LF	17.60	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	44000.00
163-0531	4	EA	8671.96	CONSTRUCT AND REMOVE SEDIMENT BASIN, TP 1, STA NO -	34687.84
165-0010	18000	LF	0.90	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	16200.00
165-0030	38000	LF	1.64	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	62320.00
165-0060	4	EA	1389.83	MAINTENANCE OF TEMPORARY SEDIMENT BASIN, STA NO -	5559.32
165-0101	10	EA	607.78	MAINTENANCE OF CONSTRUCTION EXIT	6077.80
167-1000	2	EA	1964.70	WATER QUALITY MONITORING AND SAMPLING	3929.40
167-1500	24	MO	944.75	WATER QUALITY INSPECTIONS	22674.00
171-0010	18000	LF	1.83	TEMPORARY SILT FENCE, TYPE A	32940.00
171-0030	38000	LF	4.06	TEMPORARY SILT FENCE, TYPE C	154280.00
201-1500	1	Lump Sum	3000000.00	CLEARING AND GRUBBING -	3000000.00
700-6910	65	AC	1066.58	PERMANENT GRASSING	69327.70

700-7000	180	TN	60.18	AGRICULTURAL LIME	10832.40
700-7010	165	GL	22.32	LIQUID LIME	3682.80
700-8000	23	TN	295.93	FERTILIZER MIXED GRADE	6806.39
700-8100	3450	LB	2.45	FERTILIZER NITROGEN CONTENT	8452.50
				Section Sub Total:	**$3,614,571.60**

Section Miscellaneous Items

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	Lump Sum	252016.25	RAILROAD PROTECTIVE INSURANCE	252016.25
153-1300	1	EA	76829.70	FIELD ENGINEERS OFFICE TP 3	76829.70
609-1000	13870	SY	47.62	REMOVE ROADWAY SLAB	660489.40
634-1200	200	EA	103.93	RIGHT OF WAY MARKERS	20786.00
				Section Sub Total:	**$1,010,121.35**

Total Estimated Cost: $35,595,840.50

TOTAL COST SUMMARY

Subtotal Construction Cost:	**$35,595,840.50**
Engineering and Inspection @ 5%:	$1,779,792.03
Construction Contingency @ 3%:	$1,067,875.22
Fuel Adjustment:	$1,423,851.34
Liquid AC Adjustment:	$2,249,154.58
Total Construction Cost:	**$42,116,513.66**
Right of Way:	$42,750,000.00
Utilities:	$2,000,000.00
Utility Contingency:	$600,000.00
Utility Total	$2,600,000.00
GRAND TOTAL PROJECT COST	**$87,466,513.66**

Date 7/22/09

P.I. Number "0006327" County Barrow

Project Number CSSTP000600327

Special Provision, Section 109-Measurement and Payment

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX)*

ENTER FPL DIESEL	2.509
ENTER FPM DIESEL	5.645

ENTER FPL UNLEADED	2.457
ENTER FPM UNLEADED	5.52825

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 **(CUBIC YARD)**		0.29		0.15		
Excavations paid as specified by Sections 206 **(CUBIC YARD)**		0.29		0.15		
GAB paid as specified by the ton under Section 310 **(TON)**	173689.000	0.29	50369.81	0.24	41685.36	
Hot Mix Asphalt paid as specified by the ton under Sections 400 **(TON)**		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 **(TON)**	102889.000	2.90	298378.10	0.71	73051.19	
PCC Pavement paid as specified by the square yard under Section 430 **(SY)**	35689.000	0.25	8922.25	0.20	7137.80	

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211				8.00		1.50		
Class __Concrete (CY) Section 500	1400.00	1,122.40	1571.3600	8.00	12570.88	1.50	2357.04	CLASS A CONC *BRDG CULV*
Class __Concrete (CY) Section 500		495.22		8.00		1.50		
Class __Concrete (CY) Section 500		246.73		8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
PSC Beams_____ (LF) Section 507		142.77		8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511		0.89		8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511		0.94		8.00		1.50		
Bar Reinf Steel (LB) Section 511	187300.00	0.89	166.6970	8.00	1333.58	1.50	250.05	BAR REINF STEEL*BRDG CULV*
Piling___inch (LF) Section 520		72.18		8.00		1.50		
Piling___inch (LF) Section 520		503.44		8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Drilled Caisson,___ (LF) Section 524		1,580.45		8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		

SUM QF DIESEL=	371574.62	SUM QF UNLEADED=	124481.44

DIESEL PRICE ADJUSTMENT($)	$1,072,122.82
UNLEADED PRICE ADJUSTMENT($)	$351,728.52

ASPHALT CEMENT PRICE ADJUSTMENT
(BITUMINOUS TACK COAT 125% MAX)

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS
ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

ENTER APL: 363 ENTER APM: 816.75

125.00%	INCREASE ADJUSTMENT

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
413-1000	PG 58-22	4400	18.8984	

TMT = 18.8984

PRICE ADJUSTMENT($)	$8,232.16

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL: 363 ENTER APM: 816.75

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

125.00%	INCREASE ADJUSTMENT

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
402-3121	25 mm SP	52863	5.00	2643.15	
402-3130	12.5 mm SP	22655	5.00	1132.75	
402-3190	19 mm SP	27371	5.00	1368.55	
			5.00		
			5.00		
			5.00		
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			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =	5144.45	

PRICE ADJUSTMENT($)	$2,240,922.42

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL [ ] ENTER APM [ ]

MISSING APL OR APM	MISSING APL OR APM

Use this side for Asphalt Emulsion Only		
L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT =		
REMARKS:		

Use this side for Asphalt Cement Only		
L.I.N.	TYPE	TACK (GALLONS)
TMT =		
REMARKS:		

MONTHLY PRICE ADJUSTMENT($)	MISSING APL OR APM

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX)*

DIESEL PRICE ADJUSTMENT($)	$1,072,122.82
UNLEADED PRICE ADJUSTMENT($)	$351,728.52
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	$8,232.16
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	$2,240,922.42
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	MISSING APL OR APM

REMARKS:	

TOTAL ADJUSTMENTS	$3,673,005.92

DWM 10/08

Preliminary Right of Way Cost Estimate

Phil Copeland
Right of Way Administrator
By: LaShone Alexander

Date: May 13, 2009
Project: CSSTP-0006-00(327) Barrow
Existing/Required R/W: 140 Feet/Varies
Project Termini: Tom Miller Road to SR 211
Project Description: West Winder Bypass

P.I. Number: 0006327
No. Parcels: 96

Land:

Industrial/Commercial R/W: 3,070,143 SF @ $ 4.00/SF		$ 12,280,572
Commercial R/W: 190,170 SF @ $ 8.00/SF		$ 1,521,360
Residential R/W: 34,227 SF @ $1.50/SF		51,340
Agricultural R/W: 2,446,567 @ $ 0.50/acre		1,223,283
		$ 15,076,555
Improvements : 13 residence & 1 farm buildings, site improvements landscaping & misc..		$ 1,410,000
Relocation: Residential (13)	$ 520,000	
Commercial (1)	$ 25,000	
		$ 545,000
Damage : Proximity (5)	$ 125,000	
Cost to Cure (4)	$ 80,000	
		$ 205,000
	Net Cost	$ 17,236,555

Net Cost		$ 17,236,555
Scheduling Contingency	55 %	9,480,105
Adm/Court Cost	60 %	16,029,996
		$42,746,656

Total Cost $ 42,750,000

Note: The Market Appreciation (40%) is not included in the updated Preliminary Cost Estimate.

MorelandAltobelliAssociates,Inc

2211 Beaver Ruin Road, Suite 190 • Norcross, Georgia 30071 • 770/263-5945 • Fax: 770/263-0166 • ma@maai.net

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Alben J. Joyner, Jr., Vice President
Henry E. Collins, Jr., Vice President

December 3, 2008

Mr. Jason McCook, P.E.
Georgia DOT
One Georgia Center
600 W. Peachtree St.
Atlanta, GA 30308

RE: West Winder Bypass, CSSTP-0006-00(327), PI 0006327
Utility Relocation Costs

Dear Mr. McCook,

The reimbursable utility cost of $2,000,000 in the Concept Report was based on two assumptions. The first assumption is that when the profile is developed, the profile grade of the West Winder Bypass will NOT require the 36" and 40" gas pipelines belonging to Colonial Pipeline to be relocated, and these lines will only have to be concrete encased. This cost, based on some previous costs, would be approximately $1,250,000 to do this work. The second assumption is that there will only be two 230kv electric transmission towers and two 115kv transmission towers relocated where the WWBP crosses Georgia Power Transmission's easement. This will account for the remaining $750,000 in utility relocation costs.

These costs could increase to more than $5,000,000 once the profile is finalized should Colonial have to lower the two gas lines. Some of the historical costs that I have be given for relocating/lowering the pipelines could be anywhere between $3,000,000 and $5,000,000. Also, if the grade requires more than two of each type of tower to be relocated in GPC easement, these costs could also increase. Based on older projects, the transmission tower relocation costs, historically are approximately $250,000/tower for the 230kv towers and $125,000/tower for the 115kv towers.

If you have any questions please let me know.

Sincerely,

Chris Parypinski
Project Manager