

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 222580-
EDS00-0441-00(045)
GDOT District 2 - Tennille
Putnam County
SR 24/US 441 from Eatonton BP @ S of
Sherwood Ave to Morgan CL

OFFICE Design Policy & Support

DATE April 12, 2012

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED CONCEPT REPORT

Attached is the approved Revised Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Andy Casey, State Roadway Design Engineer
Attn: Clay Bastian, Design Group Manager
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Lisa Myers, State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Jimmy Smith, District Engineer
Jamie Lindsey, Acting District Preconstruction Engineer
Lynn Bean, District Utilities Engineer
David Moyer, Project Manager
BOARD MEMBER - 10th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

REVISED PROJECT CONCEPT REPORT

Project Number: EDS00-0441-00(045)
County: Putnam
P. I. Number: 222580
Federal Route Number: 129/441
State Route Number: 24

The 44' depressed grassed median has been reduced to 32'

Submitted for approval: (Submit to "Concept Reports" in Outlook)

DATE 9/26/11

C. Andy Cuy
State Roadway Design Engineer

DATE 9/26/2011

Bobby Hilliard
State Program Delivery Engineer

DATE 10/5/11

Darryl H. Meyer
Project Manager

Recommendation for approval:

DATE 10-20-11

Glenn Bowman *
State Environmental Administrator

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

DATE 10-18-11

Cindy VanDyke *
State Transportation Planning Administrator

* Recommendation on file

REVISED PROJECT CONCEPT REPORT

Need and Purpose: SR 24/US 441 from the Eatonton Bypass near Sherwood Avenue to the Morgan County Line is a two lane north-south route functionally classified as a Rural Principal Arterial. It has a posted speed limit of 55 mph and is not listed as a designated bike route in the State Bicycle Plan. A proposed widening project originated via a recommendation from the Director of Preconstruction and was added to the Department's Construction Work Program by the Board in 1993. SR 24/US 441 is also identified as a Governor's Road Improvement Program (GRIP) route to address the importance of stimulating economic growth throughout the state via an improved transportation network.

Based upon traffic data information approved by the Office of Planning, the 2010 Average Annual Daily Traffic (AADT) along SR 24/US 441 in the area of this project ranges up to 9,700 AADT, which represents a level-of-service "D". Projected traffic volumes show a traffic volume range up to 14,750 AADT by the design year 2040 which represents a LOS "E". LOS "D" and LOS "E" are considered unacceptable with regards to statewide LOS performance measures, as referenced in the 2005-2035 Statewide Transportation Plan (SWTP). Analysis of the last three years of available crash data in this area show that the crash rates for this section of SR 24 were below the comparable statewide average.

To the north, this widening project ties into project #222570, which is an adjacent planned project which proposes to widen SR 24/US 441 to four lanes, starting at the Morgan/Putnam County Line. Project # 222570 has an existing (2011) AADT ranging up to 13,250 AADT which represents a LOS "D" and a design year (2040) AADT ranging up to 26,400 AADT, which represents a level-of-service "F". LOS "D" and LOS "F" are also seen as unacceptable with regards to statewide LOS performance measures as referenced in the 2005-2035 Statewide Transportation Plan (SWTP). To the south, the project would tie into an existing four lane section approximately 300 feet south of Sherwood Avenue, which is also where the Eatonton Bypass Project (PI # 0005828) is proposed to begin. Projects # 222580 and 222570 are combined in one environmental document.

Based on this information, the proposed limits accommodate the primary purpose of this project which is to address current and future capacity deficiencies along the corridor in addition to fulfilling the implementation of the GRIP corridor system.

Project location: The length of the project is 9.2 miles. This project is located within Putnam County. It begins by tying into the northern termini of the Eatonton Bypass and ends at the Putnam-Morgan County line where it ties into project EDS00-0441(044).

Description of the approved concept: Project EDS-441(45) proposes to widen the existing US 441/SR 24 roadway from 2 and 3 lanes to 4 lanes with a 44 foot grassed median. It begins by tying to the northern termini of the Eatonton Bypass, widening to the east of the existing US

441/SR 24 roadway. This concept continues to approximately 900 feet north of CR 177/Glenwood Dr., where the concept shifts to hold the existing right-of-way in order to avoid impacting an historical site to the west of US 441/SR 24. North of the historic site, approximately 1.2 miles north of CR 177/Glenwood Drive, the alignment shifts back to holding the existing pavement and widening to the east. At CR 148/Bethel Circle Road, the proposed alignment shifts to flatten the reverse curves north of CR 148/Bethel Circle Road, switches to west side widening, and avoids impacting a cemetery located to the east of US 441/SR 24. Approximately 1.4 miles north of CR 147/Bethel Church Road, the alignment shifts to hold the western existing right-of-way, and the eastern required right of way is temporarily reduced in order to avoid another cemetery to the east of US 441/SR 24. This concept continues to CR 2/Rock Eagle Road avoiding impacting the entrance to Rock Eagle State Park. Just north of CR2/Rock Eagle Road, the concept shifts to widen to the west, minimizing property impacts and avoiding the historic Thompkins Inn. The concept continues until approximately 0.3 miles north of CR 117/Harmony Drive, where the project holds the western existing right of way to avoid a historic boundary at CR 296/Union Chapel Road. At CR 97/Griffith Road, the project shifts to improve the horizontal alignment just north of CR 97/Griffith Road. Approximately 0.5 miles north of CR 97/Griffith Road, the alignment begins holding the western existing right of way in order to avoid a cemetery approximately 0.9 miles north of CR 97/Griffith Road. North of the cemetery, the alignment shifts to the west, avoiding a historic house east of the existing roadway. This concept continues to the Putnam-Morgan County line, where the project ends by tying to the southern terminus of project EDS-441(44). The total project length is 9.2 miles. Proposed right-of-way varies from approximately 250 to 360 feet.

PDP Classification: Major Minor

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

Functional Classification: Rural Principal Arterial

U. S. Route Number(s): 129/441 **State Route Number(s):** 24

Traffic (AADT) as shown in the approved concept:

Base Year: (2001) 11,500 Design Year: (2021) 19,550

Updated traffic data (AADT):

Base Year: (2020) 10,700 Design Year: (2040) 14,750

Approved/Programmed Schedule:

P.E. 2002 R/W: 2014 Construction: 2017

VE Study Required Yes (-held Sept 2007) No ()

Is the project located in an Ozone Non-attainment area? Yes () No ()

Is the project in a PM2.5 Non-Attainment area? Yes () No ()

<p>Approved Features:</p> <ul style="list-style-type: none"> The approved concept proposes to widen the existing US 441 from 2 and 3 lanes to 4 lanes with a 44 foot grassed median. 	<p>Proposed Features:</p> <ul style="list-style-type: none"> The 44 foot grassed median will be revised to a 32 foot grassed median.
<p>Reason for Change:</p> <ul style="list-style-type: none"> The VE study found that the reduction of the median width from 44 foot to 32 foot would result in cost savings for ROW acquisition as well as savings on earthwork costs. 	

Potential Environmental Impacts of Proposed Revision:

No anticipated environmental effects.

Have Proposed Revisions Been Reviewed by Environmental Staff? (x) Yes () No

Environmental Responsibilities (Studies/Documents/Permits): *GDOT*

Updated Cost Estimate	
Base Construction Cost	\$21,713,557.37
Engineering and Inspection	\$1,085,677.87
Fuel & Asphalt Adjustment	\$3,089,387.75
<u>Total Construction Cost</u>	\$25,888,622.99
Right-of-Way	\$9,850,000.00
Utilities (reimbursable)	\$1,969,900.36
Environmental Mitigation	\$16,500.00

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

Attachments:

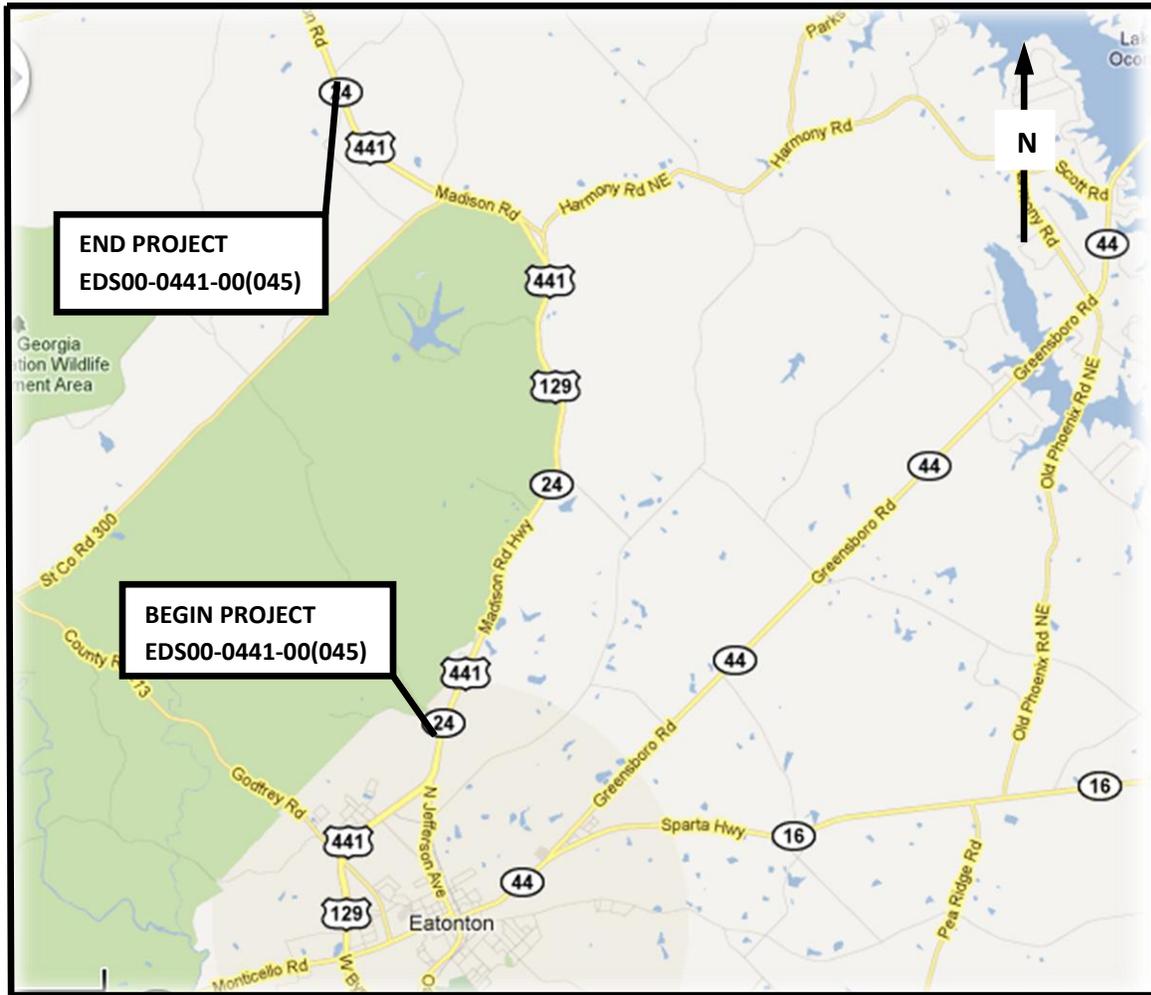
1. Sketch Map,
2. Cost Estimates:
 - Detailed Cost Estimates (CES)
 - Liquid AC Adjustments
 - Preliminary Right of Way Cost Estimate
 - Preliminary Utility Cost Estimate
 - Estimated Environmental Mitigation Cost (email)
3. Traffic
4. HSM Analysis
5. VE Implementation letter
6. Typical Sections

Exempt projects

Concur: 
Director of Engineering

Approve: 
Chief Engineer

Date: 4-10-12



Location Sketch

P.I. Number: 222580

County: Putnam

DETAILED COST ESTIMATE



Job: 222580

JOB NUMBER: 222580

FED/STATE PROJECT NUMBER EDS00-0441-00(045)

SPEC YEAR: 01

DESCRIPTION: SR 24/ US 441 FM EATONTON BP @ S OF SHERWOOD AVE. TO MORGAN

ITEMS FOR JOB 222580

0010 - ROADWAY

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0008	201-1500	1.000	LS	\$2,219,400.00	CLEARING & GRUBBING - EDS00-0441-00(045)	\$2,219,400.00
0006	205-0001	478701.000	CY	\$2.31	UNCLASS EXCAV	\$1,105,971.64
0007	206-0002	395200.000	CY	\$3.30	BORROW EXCAV, INCL MATL	\$1,303,571.15
0010	310-1101	31523.000	TN	\$17.15	GR AGGR BASE CRS, INCL MATL	\$540,619.45
0015	402-3121	85389.000	TN	\$62.00	RECYL AC 25MM SP,GP1/2,BM&HL	\$5,294,118.00
0020	402-3130	39231.000	TN	\$68.00	RECYL AC 12.5MM SP,GP2,BM&HL	\$2,667,708.00
0025	402-3190	52308.000	TN	\$65.00	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	\$3,400,020.00
0030	413-1000	42350.000	GL	\$2.65	BITUM TACK COAT	\$112,227.50
0040	441-0016	503.000	SY	\$35.00	DRIVEWAY CONCRETE, 6 IN TK	\$17,605.00
0045	441-0204	5567.000	SY	\$27.00	PLAIN CONC DITCH PAVING, 4 IN	\$150,309.00
0050	441-3999	16702.000	LF	\$16.00	CONCRETE V GUTTER	\$267,232.00
0060	641-1200	13617.000	LF	\$16.00	GUARDRAIL, TP W	\$217,872.00
0065	641-5001	34.000	EA	\$660.00	GUARDRAIL ANCHORAGE, TP 1	\$22,440.00
0070	641-5012	33.000	EA	\$1,875.00	GUARDRAIL ANCHORAGE, TP 12	\$61,875.00
SUBTOTAL FOR ROADWAY:						\$17,380,968.74

0020 - DRAINAGE

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0074	436-1000	10570.000	LF	\$6.50	ASPH CONC CURB - 6"	\$68,705.00
0075	441-0301	56.000	EA	\$1,800.00	CONC SPILLWAY, TP 1	\$100,800.00
0080	500-3200	234.000	CY	\$185.00	CL B CONC	\$43,290.00
0085	500-3800	5.000	CY	\$785.00	CL A CONC, INCL REINF STEEL	\$3,925.00
0090	511-1000	3717.000	LB	\$0.90	BAR REINF STEEL	\$3,345.30
0095	550-1180	12030.000	LF	\$33.00	STM DR PIPE 18",H 1-10	\$396,990.00
0100	550-1240	2941.000	LF	\$42.00	STM DR PIPE 24",H 1-10	\$123,522.00
0105	550-1300	1640.000	LF	\$53.00	STM DR PIPE 30",H 1-10	\$86,920.00
0135	550-2180	2200.000	LF	\$28.00	SIDE DR PIPE 18",H 1-10	\$61,600.00
0110	550-2240	518.000	LF	\$34.00	SIDE DR PIPE 24",H 1-10	\$17,612.00
0115	550-2300	120.000	LF	\$42.00	SIDE DR PIPE 30",H 1-10	\$5,040.00
0140	550-3518	21.000	EA	\$595.00	SAFETY END SECTION 18",STD,6:1	\$12,495.00
0120	550-3524	2.000	EA	\$950.00	SAFETY END SECTION 24",STD,6:1	\$1,900.00
0125	550-3618	144.000	EA	\$545.00	SAFETY END SECTION 18",SD,6:1	\$78,480.00
0145	550-3624	34.000	EA	\$725.00	SAFETY END SECTION 24",SD,6:1	\$24,650.00
0130	550-3630	10.000	EA	\$1,460.00	SAFETY END SECTION 30",SD,6:1	\$14,600.00
0150	550-4118	32.000	EA	\$500.00	FLARED END SECT 18 IN, SIDE DR	\$16,000.00
0155	550-4124	6.000	EA	\$515.00	FLARED END SECT 24 IN, SIDE DR	\$3,090.00
0160	550-4218	138.000	EA	\$540.00	FLARED END SECT 18 IN, ST DR	\$74,520.00
0165	550-4224	16.000	EA	\$630.00	FLARED END SECT 24 IN, ST DR	\$10,080.00
0170	550-4230	16.000	EA	\$735.00	FLARED END SECT 30 IN, ST DR	\$11,760.00
0175	668-2100	123.000	EA	\$1,900.00	DROP INLET, GP 1	\$233,700.00
0180	668-8011	35.000	SF	\$50.00	SAFETY GRATE, TP 1	\$1,750.00
SUBTOTAL FOR DRAINAGE:						\$1,394,774.30

DETAILED COST ESTIMATE



Job: 222580

0030 - EROSION

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0185	163-0232	99.000	AC	\$600.00	TEMPORARY GRASSING	\$59,400.00
0190	163-0240	3671.000	TN	\$250.00	MULCH	\$917,750.00
0195	163-0300	5.000	EA	\$1,800.00	CONSTRUCTION EXIT	\$9,000.00
0200	163-0503	25.000	EA	\$500.00	CONSTR AND REMOVE SILT CONTROL GATE, TP 3	\$12,500.00
0205	163-0520	200.000	LF	\$15.00	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	\$3,000.00
0210	163-0527	20.000	EA	\$240.00	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	\$4,800.00
0215	163-0528	8532.000	LF	\$3.20	CONSTR AND REM FAB CK DAM -TP C SLT FN	\$27,302.40
0216	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 325+00 RT	\$8,000.00
0217	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 417+00 RT	\$8,000.00
0218	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 497+00 RT	\$8,000.00
0219	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 530+00 RT	\$8,000.00
0220	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 570+00 RT	\$8,000.00
0221	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 615+00 LT	\$8,000.00
0222	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 635+00 LT	\$8,000.00
0223	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 655+00 LT	\$8,000.00
0224	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 690+00 RT	\$8,000.00
0225	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 705+00 LT	\$8,000.00
0226	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 756+00 RT	\$8,000.00
0227	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 125+00 LT HARMONY	\$8,000.00
0228	163-0531	1.000	EA	\$8,000.00	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 135+00 RT UN CH/GRIFFITH	\$8,000.00
0229	163-0541	62.000	EA	\$640.00	CONSTR & REM ROCK FILTER DAMS	\$39,680.00
0230	163-0542	6.000	EA	\$380.00	CONSTR & REM STONE FILTER RING	\$2,280.00
0235	163-0543	200.000	LF	\$30.00	CONSTR & REM STONE FILTER BERM	\$6,000.00
0240	163-0550	60.000	EA	\$200.00	CONS & REM INLET SEDIMENT TRAP	\$12,000.00
0245	165-0010	23000.000	LF	\$1.25	MAINT OF TEMP SILT FENCE, TP A	\$28,750.00
0250	165-0030	100000.000	LF	\$1.50	MAINT OF TEMP SILT FENCE, TP C	\$150,000.00
0255	165-0041	9210.000	LF	\$2.50	MAINT OF CHECK DAMS - ALL TYPES	\$23,025.00
0256	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 325+00 RT	\$1,500.00
0257	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 417+00 RT	\$1,500.00
0258	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 497+00 RT	\$1,500.00
0259	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 530+00 RT	\$1,500.00
0260	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 570+00 RT	\$1,500.00
0261	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 615+00 LT	\$1,500.00
0262	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 635+00 LT	\$1,500.00
0263	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 655+00 LT	\$1,500.00
0264	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 690+00 RT	\$1,500.00
0265	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 705+00 LT	\$1,500.00
0266	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 756+00 RT	\$1,500.00
0267	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 125+00 LT HARMONY	\$1,500.00
0268	165-0060	1.000	EA	\$1,500.00	MAINT OF TEMP SEDIMENT BASIN,STA NO - 135+00 RT UN CH/GRIFFITH	\$1,500.00
0269	165-0087	75.000	EA	\$205.00	MAINT OF SILT CONTROL GATE, TP 3	\$15,375.00
0270	165-0101	5.000	EA	\$700.00	MAINT OF CONST EXIT	\$3,500.00
0275	165-0105	60.000	EA	\$110.00	MAINT OF INLET SEDIMENT TRAP	\$6,600.00
0280	165-0110	62.000	EA	\$205.00	MAINT OF ROCK FILTER DAM	\$12,710.00
0285	165-0111	6.000	EA	\$140.00	MAINT OF STONE FILTER RING	\$840.00
0290	165-0112	200.000	LF	\$5.25	MAINT OF STONE FILTER BERM	\$1,050.00
0295	167-1000	15.000	EA	\$1,500.00	WATER QUALITY MONITORING AND SAMPLING	\$22,500.00
0300	167-1500	24.000	MO	\$1,000.00	WATER QUALITY INSPECTIONS	\$24,000.00
0305	171-0010	23000.000	LF	\$2.35	TEMPORARY SILT FENCE, TYPE A	\$54,050.00
0310	171-0030	100000.000	LF	\$4.00	TEMPORARY SILT FENCE, TYPE C	\$400,000.00
0335	643-8200	2260.000	LF	\$2.00	BARRIER FENCE (ORANGE), 4 FT	\$4,520.00
0340	700-6910	200.000	AC	\$1,000.00	PERMANENT GRASSING	\$200,000.00
0345	700-7000	1800.000	TN	\$65.00	AGRICULTURAL LIME	\$117,000.00
0350	700-8000	123.000	TN	\$350.00	FERTILIZER MIXED GRADE	\$43,050.00
0355	700-8100	8750.000	LB	\$2.30	FERTILIZER NITROGEN CONTENT	\$20,125.00
0360	716-1000	11300.000	SY	\$2.20	EROSION CONTROL MATS,WATERWAYS	\$24,860.00
0365	716-2000	56500.000	SY	\$1.24	EROSION CONTROL MATS, SLOPES	\$70,060.00
SUBTOTAL FOR EROSION:						\$2,439,227.40

DETAILED COST ESTIMATE



Job: 222580

0040 - SIGNING AND MARKING

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0370	636-1020	994.000	SF	\$17.00	HWY SGN,TP1MAT,REFL SH TP3	\$16,898.00
0375	636-1033	252.000	SF	\$22.00	HWY SIGNS, TP1MAT,REFL SH TP 9	\$5,544.00
0380	636-2070	2564.000	LF	\$9.00	GALV STEEL POSTS, TP 7	\$23,076.00
0385	653-0160	84.000	EA	\$100.00	THERM PVMT MARK, ARROW, TP 6	\$8,400.00
0390	653-1501	96730.000	LF	\$0.25	THERMO SOLID TRAF ST 5 IN, WHI	\$24,182.50
0395	653-1502	96730.000	LF	\$0.25	THERMO SOLID TRAF ST, 5 IN YEL	\$24,182.50
0400	653-3501	96730.000	GLF	\$0.25	THERMO SKIP TRAF ST, 5 IN, WHI	\$24,182.50
0405	653-6004	19601.000	SY	\$3.00	THERM TRAF STRIPING, WHITE	\$58,803.00
0410	654-1003	1250.000	EA	\$4.00	RAISED PVMT MARKERS TP 3	\$5,000.00
SUBTOTAL FOR SIGNING AND MARKING:						\$190,268.50

0050 - MISC.

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0415	150-1000	1.000	LS	\$198,075.00	TRAFFIC CONTROL - EDS00-0441-00(045)	\$198,075.00
0419	153-1300	1.000	EA	\$78,438.43	FIELD ENGINEERS OFFICE TP 3	\$78,438.43
0414	634-1200	269.000	EA	\$115.00	RIGHT OF WAY MARKERS	\$30,935.00
0420	643-8000	2.000	EA	\$435.00	GATE, FIELD FENCE - 6FT	\$870.00
SUBTOTAL FOR MISC.:						\$308,318.43

TOTALS FOR JOB 222580

ITEMS COST:	\$21,713,557.37
COST GROUP COST:	\$0.00
ESTIMATED COST:	\$21,713,557.37
CONTINGENCY PERCENT:	0.00
ENGINEERING AND INSPECTION:	0.00
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$21,713,557.37

PROJ. NO.	EDS00-0441-00(45)
P.I. NO.	222580
DATE	9/14/2011

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Sep-11	\$ 3.582
DIESEL		\$ 3.873
LIQUID AC		\$ 570.00

Link to Fuel and AC Index:

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

LIQUID AC ADJUSTMENTS

$PA = \left(\frac{APM - APL}{APL} \right) \times TMT \times APL$

Asphalt

Price Adjustment (PA)				3027178.8	\$	3,027,178.80
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	912.00		
Monthly Asphalt Cement Price month project let (APL)			\$	570.00		
Total Monthly Tonnage of asphalt cement (TMT)				8851.4		

ASPHALT	Tons	%AC	AC ton
Leveling	100	5.0%	5
12.5 OGFC	0	5.0%	0
12.5 mm	39231	5.0%	1961.55
9.5 mm SP	0	5.0%	0
25 mm SP	85389	5.0%	4269.45
19 mm SP	52308	5.0%	2615.4
	177028		8851.4

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	62,208.95	\$	62,208.95
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	912.00			
Monthly Asphalt Cement Price month project let (APL)			\$	570.00			
Total Monthly Tonnage of asphalt cement (TMT)				181.897524			

Bitum Tack

Gals	gals/ton	tons
42350	232.8234	181.897524

PROJ. NO.

EDS00-0441-00(45)

CALL NO.

P.I. NO.

222580

DATE

9/14/2011

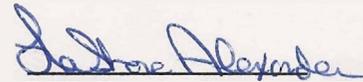
BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)						0	\$	-
Monthly Asphalt Cement Price month placed (APM)		Max. Cap	60%	\$	912.00			
Monthly Asphalt Cement Price month project let (APL)				\$	570.00			
Total Monthly Tonnage of asphalt cement (TMT)						0		

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT							\$	3,089,387.75
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Preliminary Right of Way Cost Estimate



Phil Copeland
 Right of Way Administrator
 By: LaShone Alexander

Date: June 8, 2011
Project: EDS-441 (45) Putnam UPDATE
Existing/Required R/W: Varies/Varies
Project Termini : SR 24/ US 441 from Sherwood Ave. to the County Line
Project Description: SR 24/ US 441 widening project

P.I. Number: 222580
No. Parcels: 126

Land:

Commercial			
3.19 Acres @ \$35,000/ ac.	=	\$	111,650
Residential			
63.70 Acres @ \$6,500	=	\$	414,050
Permanent Easement			
2.36 Acres @ \$ 6,500 X 50%	=	\$	7,670
Agriculture			
92.37 Acres @ \$ 4,500/ ac.	=	\$	415,665
Permanent Easement			
7.09 Acres @ \$ 4,500 X 50%	=	\$	15,950

\$ 964,985

Improvements :

Business, Houses, Mobile Homes, Motel, ,
 paving, signs, Fencing

\$ 1,808,000

Relocation:

4 Commercial @ \$ 25,000 =	\$ 100,000
23 Residential @ \$ 40,000 =	<u>\$ 920,000</u>

\$ 1,020,000

Damage :

13 Proximity	\$ 175,000
0 Cost to Cure	\$ 0
0 Consequential	<u>\$ 0</u>

\$ 175,000

\$ 3,967,985

Net Cost		\$	3,967,985
Scheduling Contingency	55 %	\$	2,182,391
Adm/Court Cost	60	\$	<u>3,690,226</u>
		\$	9,840,602

Total Cost \$ 9,850,000

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

Note: Accuracy of estimate is sole responsibility of preparer.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE EDS00-0441-00(045) Putnam County OFFICE Tennille
P.I. No. 222580 DATE March 13, 2012

FROM Lynn Bean, District Utilities Engineer

TO Bobby Hilliard, State Program Delivery Engineer
ATTN David Moyer, Project Manager

SUBJECT PRELIMINARY UTILITY COST (ESTIMATE)

As requested by your office, we are furnishing you with a Preliminary Utility Cost estimates for each utility with facilities potentially located within the project limits.

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
AT&T	\$869,247.00	\$200,000.00
Georgia Power (Transmission)	\$0.00	\$75,000.00
Georgia Power (Distribution)	\$0.00	\$40,000.00
City of Eatonton	\$73,120.00	\$0.00
Dixie Pipeline	\$191,758.36	\$275,945.36
Tri-Co EMC	\$702,000.00	\$1,066,125.00
Charter CATV	\$210,500.00	\$204,830.00
Central Georgia EMC	\$18,000.00	\$108,000.00

Total Non-reimbursement Cost: \$2,048,425.36

Total Reimbursable Cost: \$1,969,900.36

This estimate is based on first submission utility plans and information provided the various utility companies.

Please be advised this estimate could be revised when as plans progress and prior rights research is completed.

If you have any questions, please contact Jimmy Hobby at 478-552-4637.

LB/JFH

cc: Jeff Baker, State Utilities Engineer
Angela Robinson, Office of Financial Management
Kraig Collins, Area Engineer

From: [Westberry, Lisa](#)
To: [Moyer, David](#)
Cc: [Bastian, Clay](#); [Hughes, Taylor](#); [Gavins, Marvin](#)
Subject: RE: P.I. #222570/3222580, Putnam/Morgan Counties - Request for Estimated Mitigation Costs
Date: Tuesday, January 31, 2012 8:28:24 AM

David,

After going back and looking at the impacts once again, here is the breakdown for each unit:

PI 222570 = \$1500.00

PI 222580 = \$16,500.00

I realize this doesn't add up to \$100,000 that I originally quoted you, but this is a somewhat a more accurate estimate.

If there are any other questions, please let me know.

Thank you,
Lisa Westberry
Georgia Department of Transportation
600 West Peachtree Street, NW, Atlanta, GA 30308
404-631-1772

From: Moyer, David
Sent: Thursday, January 26, 2012 11:15 AM
To: Westberry, Lisa
Cc: Bastian, Clay; Hughes, Taylor; Gavins, Marvin
Subject: RE: P.I. #222570/3222580, Putnam/Morgan Counties - Request for Estimated Mitigation Costs

Lisa

Can you break this down into the separate projects? We have to submit two separate concept reports and I am not sure if this will be an equal split.

Thank You

David G. Moyer, P.E.
Associate Project Manager
Georgia Department of Transportation
Office of Program Delivery
600 West Peachtree Street
25th Floor
Atlanta, GA 30308
404-291-5880

From: Westberry, Lisa

Sent: Thursday, January 26, 2012 8:48 AM

To: Moyer, David

Cc: Pugh, Samuel; Hester, Michael

Subject: P.I. #222570/3222580, Putnam/Morgan Counties - Request for Estimated Mitigation Costs

David,

The estimated mitigation costs for the subject project will be \$100,000. This estimate takes into account the impacts as currently noted in the draft environmental document. If you have questions or need further information, please let me know.

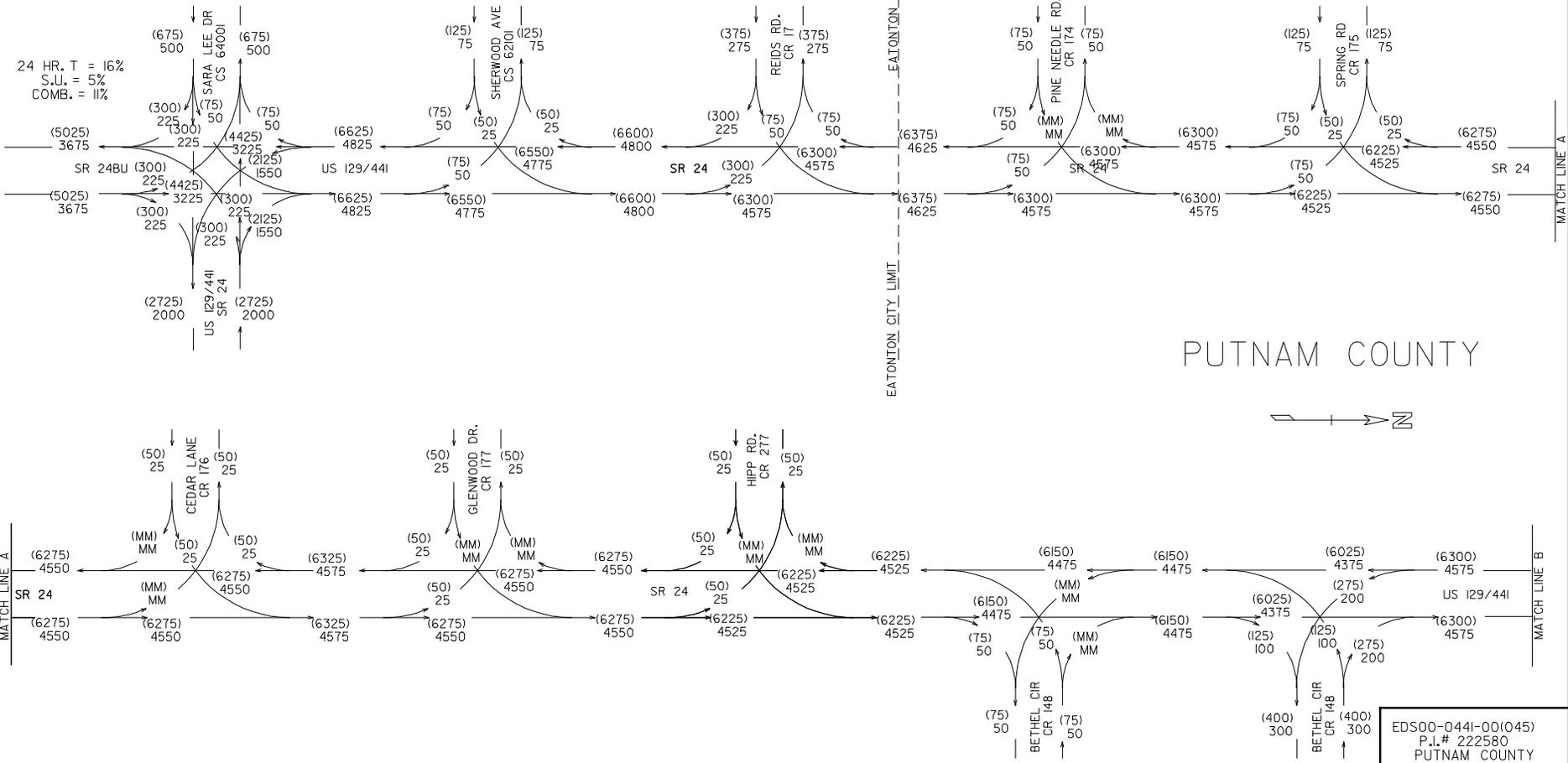
Thank you.

Lisa Westberry

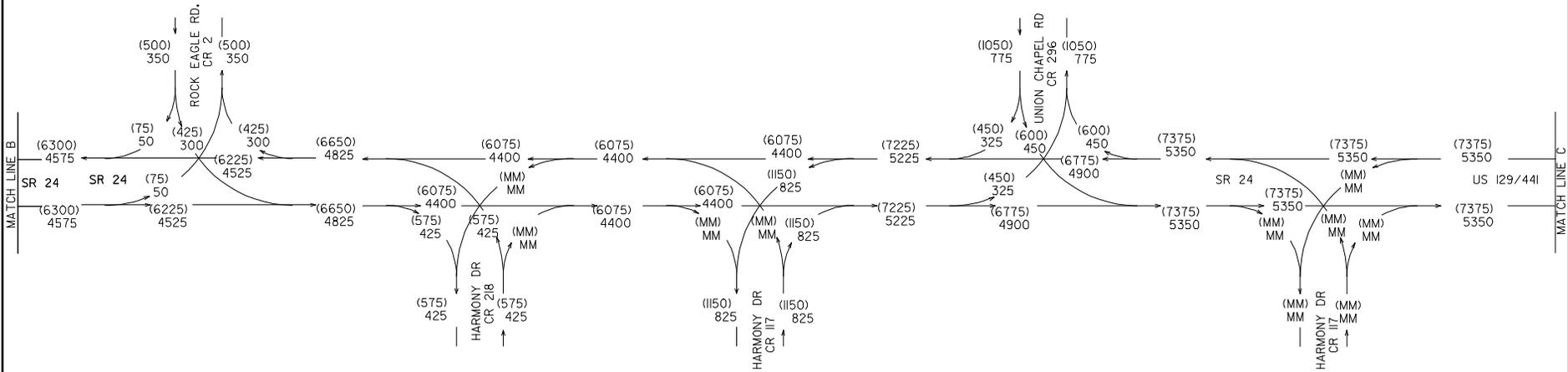
Georgia Department of Transportation

600 West Peachtree Street, NW, Atlanta, GA 30308

404-631-1772



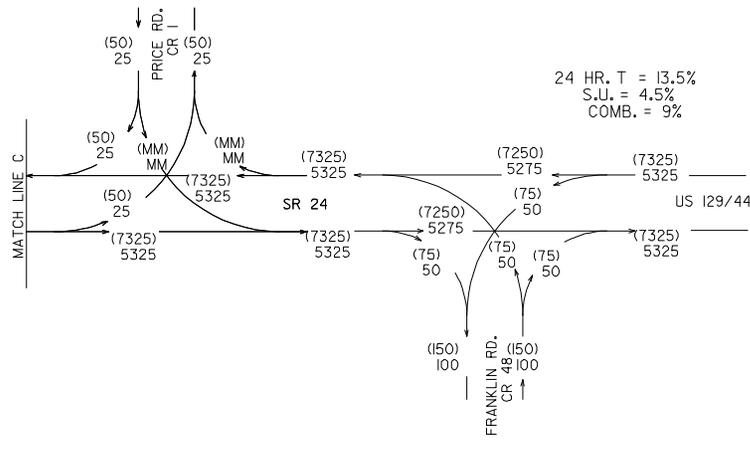
EDS00-0441-00(045)
P.L.# 222580
PUTNAM COUNTY
SR 24/US 441FM
EATONVILLE BP @ S
OF SHERWOOD AVE TO
MORGAN CL
2040 ADT = (000)
2020 ADT = 000
MTW
11/1



PUTNAM COUNTY

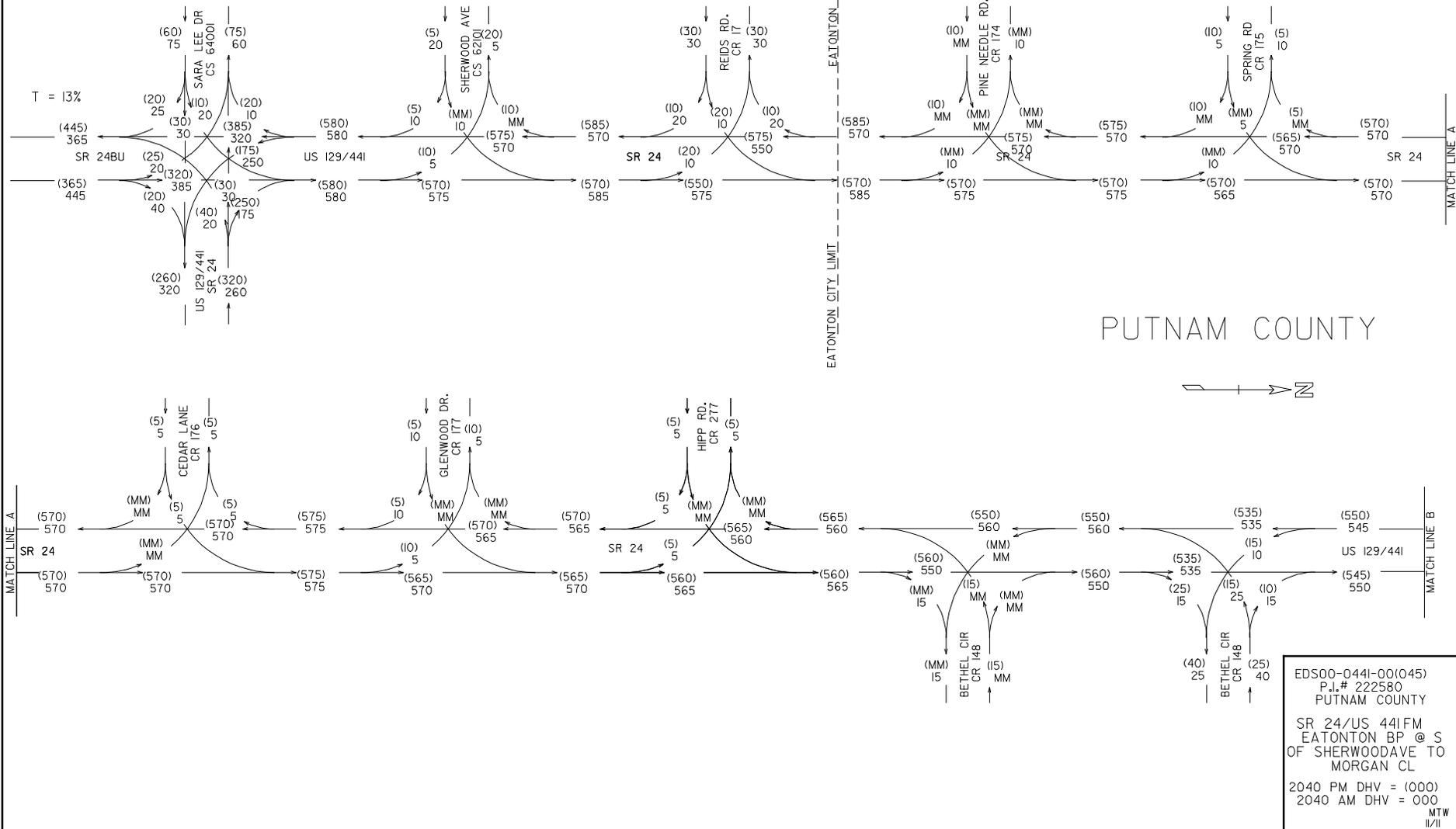


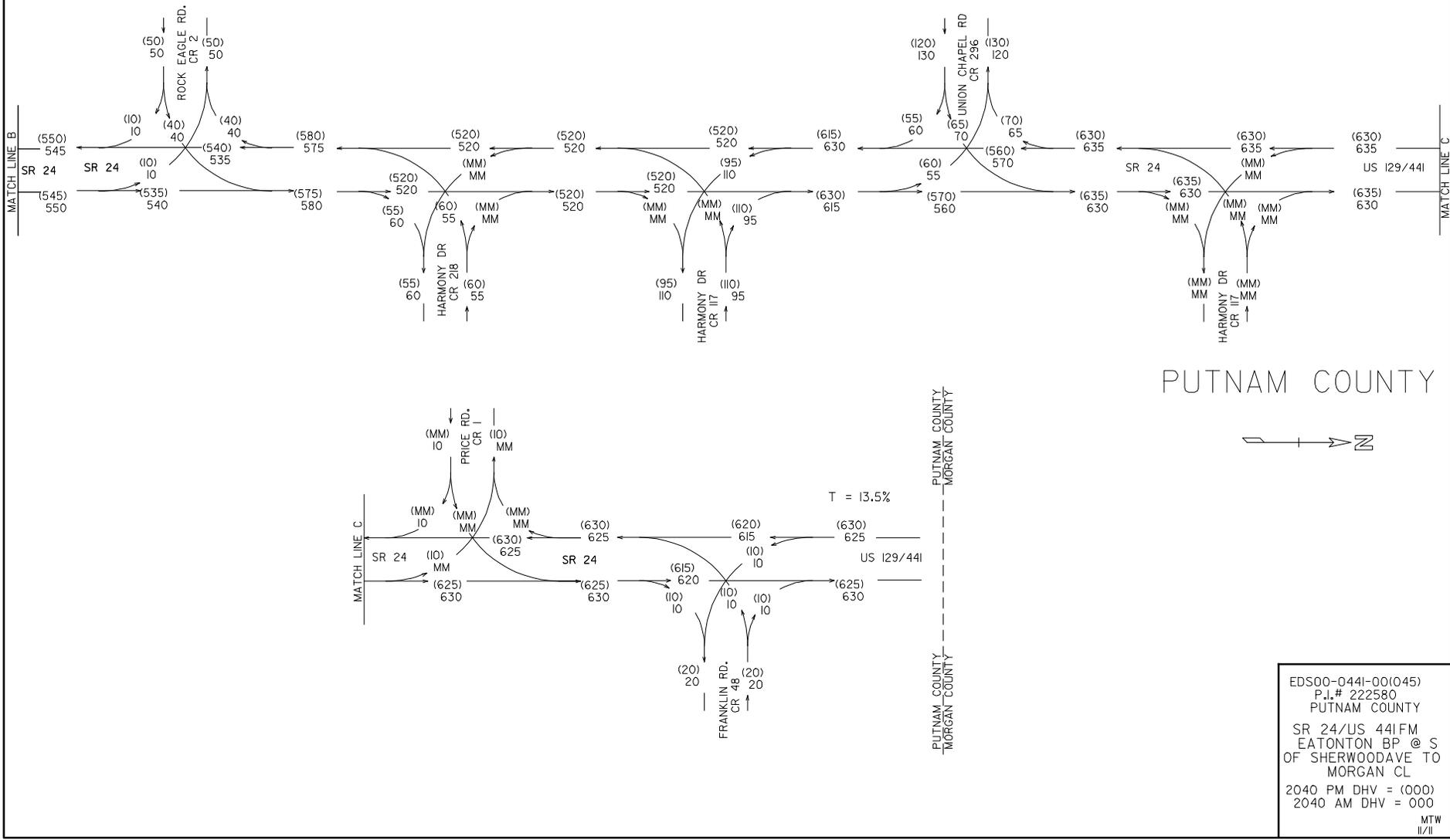
24 HR. T = 13.5%
S.U. = 4.5%
COMB. = 9%



PUTNAM COUNTY
MORGAN COUNTY

EDS00-0441-00(045)
P.I.# 222580
PUTNAM COUNTY
SR 24/US 441FM
EATONTON BP @ S
OF SHERWOODAVE TO
MORGAN CL
2040 ADT = (000)
2020 ADT = 000
MTW
11/11





HIGHWAY SAFETY MANUAL (HSM) ANALYSIS for CONCEPT REPORTS/REVISED CONCEPT REPORTS

This Concept Report/Revised Concept includes an HSM predicted average crash frequency analysis for the design year ADT using the Manual's Predictive Method. The Predictive Method analysis is based on Safety Performance Functions (SPF) for individual roadway segments and intersections that provide the crash frequency. The HSM often provides information on crash frequency distribution by collision type and severity. Some SPFs include HSM Crash Modification Factors (CMF) that adjust the SPF crash frequency to account for difference between HSM base conditions and project specific conditions such as geometric design features. The HSM includes local calibration factors to further refine predictive average crash frequency. These local factors have not yet been developed by GDOT.

Project Segment and Intersection Types analyzed

Segment				Intersection	
ID #	Type	Sta. Begin	Sta. End	ID #	Type
1	4-Lane Divided Urban/Suburban Arterial	300+00	302+66.11	1	3 Leg Minor Rd Stop Control- Urban/Suburban Arterial
2	4-Lane Divided Urban/Suburban Arterial	302+66.11	307+50.91	NA	
3	4-Lane Divided Urban/Suburban Arterial	307+50.91	321+58.96	2	3 Leg Minor Rd Stop Control- Urban/Suburban Arterial
4	4-Lane Divided Urban/Suburban Arterial	321+58.96	349+88.70	3	3 Leg Minor Rd Stop Control- Urban/Suburban Arterial
5	4-Lane Divided Rural	349+88.70	355+34.55	4	3 Leg Minor Rd Stop Control- Rural
6	4-Lane Divided Rural	355+34.55	360+85.80	5	4 Leg Minor Rd Stop Control- Rural
7	4-Lane Divided Rural	360+85.80	365+14.05	6	3 Leg Minor Rd Stop Control- Rural
8	4-Lane Divided Rural	365+14.05	454+79.71	7	3 Leg Minor Rd Stop Control- Rural
9	4-Lane Divided Rural	454+79.71	480+79.28	8	3 Leg Minor Rd Stop Control- Rural
10	4-Lane Divided Rural	480+79.28	568+65.42	9	3 Leg Minor Rd Stop Control- Rural
11	4-Lane Divided Rural	568+65.42	619+18.48	10	3 Leg Minor Rd Stop Control- Rural
12	4-Lane Divided Rural	619+18.48	680+92.84	NA	
13	4-Lane Divided Rural	680+92.84	748+70.50	11	3 Leg Minor Rd Stop Control- Rural
14	4-Lane Divided Rural	748+70.50	773+21.00	12	3 Leg Minor Rd Stop Control- Rural
15	4-Lane Divided Rural	773+21.00	783+80.01	NA	

At station 307+50.91, the median width changes and there is no intersection. At station 680+92.84, there is an intersection but it was not analyzed due to incomplete traffic data.

This 9.2 mile project was divided into 15 segments which include 12 intersections. The beginning of the project is located within the Eatonton City limits, therefore segments one through four and intersections one through three were evaluated using HSM urban/suburban criteria. The remaining segments and intersections were evaluated using HSM rural criteria. The Highway Safety Manual analysis predicts for the 2040 design year ADT, a total of 31 crashes. Two of these crashes are predicted for the urban/suburban roadway segments and 1 is predicted for the urban/suburban roadway intersections. Twenty two are predicted for the rural roadway segments and six are predicted for the rural intersections. The revised concept project report changes the median width from 44' to 32'. If the median width were to remain at 44' it would only decrease the predicted crashes for the roadway segments by 1%.

This compares to the Highway Safety Manual base condition analysis, which predicts for the 2040 design year ADT, a total of 38 crashes. Two of these crashes are predicted for the urban/suburban roadway segments and 2 are predicted for the urban/suburban roadway intersections. Twenty one are predicted for the rural roadway segments and thirteen are predicted for the rural intersections.

The slightly higher predicted crash frequency for the proposed roadway segments versus the HSM base roadway segments is due to using a 6.5' paved outside shoulder condition instead of the HSM base condition 8' paved outside shoulder. The lower predicted crash frequency for the proposed paved outside shoulder intersections versus the HSM base condition intersections is primarily due to the presence of left and right turn lanes on the proposed HSM intersections major approaches.

13	1.28	Proposed	3.637	1.0	1.04	1.0	1.0	1.0	3.783
14	0.46	Base	1.298	1.0	1.0	1.0	1.0	1.0	1.298
		Proposed	1.298	1.0	1.04	1.0	1.0	1.0	1.350
15	0.2	Base	0.564	1.0	1.0	1.0	1.0	1.0	0.564
		Proposed	0.564	1.0	1.04	1.0	1.0	1.0	0.587
Total		Base	21.139						21.139
		Proposed	21.139						21.986

HSM Predictive Method for Urban/Suburban Multi-Lane Roadway Intersections

		Urban Intersection Base Crash Frequency – Excluding Vehicle and Pedestrian/Bicycle (crashes/year)	Left Turn Lanes (base cond. = none)	Unsignalized – CMF _{2i} = 1.0 Signalized Permissive Left Turn (base cond. = permissive left turn)	Right Turn Lanes (base cond. = none)	Unsignalized – CMF _{4i} = 1.0 Signalized Right Turn On Red (base cond. = allowed)	Lighting (base cond. = none)	Red Light Cameras (base cond. = none)	Urban Intersection Adjusted Crash frequency – Excluding Vehicle and Pedestrian/Bicycle (crashes/year)	Vehicle-Pedestrian (crashes/year)	Vehicle-Bike (crashes/year)	Total Predicted Average Crash Frequency for Roadway Segment (crashes/year)
Intersection ID #	Analysis Condition	N _{spf int}	CMF _{1i}	CMF _{2i}	CMF _{3i}	CMF _{4i}	CMF _{5i}	CMF _{6i}	N _{bi}	N _{pedi}	N _{bikei}	N _{predicted int}
1	Base	0.488	1.0	1.0	1.0	1.0	1.0	1.0	0.488	0.010	0.008	0.506
	Proposed	0.488	1.0	1.0	0.86	1.0	1.0	1.0	0.420	0.009	0.007	0.436
2	Base	0.762	1.0	1.0	1.0	1.0	1.0	1.0	0.762	0.016	0.012	0.790
	Proposed	0.762	0.67	1.0	0.86	1.0	1.0	1.0	0.439	0.009	0.007	0.455
3	Base	0.377	1.0	1.0	1.0	1.0	1.0	1.0	0.377	0.008	0.006	0.391
	Proposed	0.377	0.67	1.0	0.86	1.0	1.0	1.0	0.217	0.005	0.003	0.225
	Base											
	Proposed											
	Base											
	Proposed											
	Base											
	Proposed											
	Base											
	Proposed											
Total	Base	1.627							1.627	0.034	0.026	1.687
	Proposed	1.627							1.076	0.023	0.017	1.116

HSM Predictive Method for Rural Intersections

		Intersection Base Crash Frequency – Excluding Vehicle and Pedestrian/Bicycle (crashes/year)	Intersection Skew Angle (base cond. = 0 degrees)	Signalized - CMF = 1.0 Unsignalized - Left Turn Lanes on Major Road Approaches (base cond. = none)	Signalized - Right Turn Lanes on all Approaches (base cond. = none) Unsignalized – Right Turn Lanes on Major Approaches	Lighting (base cond. = none)	Total Predicted Average Crash Frequency for Roadway Segment (crashes/year)
Intersection ID #	Analysis Condition	$N_{spf\ int}$	CMF_{1i}	CMF_{2i}	CMF_{3i}	CMF_{4i}	$N_{predicted\ int}$
4	Base	0.979	1.0	1.0	1.0	1.0	0.979
	Proposed	0.979	1.0	0.56	0.86	1.0	0.471
5	Base	0.345	1.0	1.0	1.0	1.0	0.345
	Proposed	0.345	1.0	1.0	0.86	1.0	0.296
6	Base	0.341	1.0	1.0	1.0	1.0	0.341
	Proposed	0.341	1.0	1.0	0.86	1.0	0.294
7	Base	0.783	1.0	1.0	1.0	1.0	0.783
	Proposed	0.783	1.06	0.56	0.86	1.0	0.398
8	Base	1.335	1.0	1.0	1.0	1.0	1.335
	Proposed	1.335	1.02	0.56	0.86	1.0	0.659
9	Base	1.407	1.0	1.0	1.0	1.0	1.407
	Proposed	1.407	1.08	0.56	0.86	1.0	0.729
10	Base	1.860	1.0	1.0	1.0	1.0	1.860
	Proposed	1.860	1.07	0.56	0.86	1.0	0.955
11	Base	3.455	1.0	1.0	1.0	1.0	3.455
	Proposed	3.455	1.0	0.52	0.74	1.0	1.329
12	Base	0.952	1.0	1.0	1.0	1.0	0.952
	Proposed	0.952	1.07	0.56	0.86	1.0	0.491

13	Base	1.228	1.0	1.0	1.0	1.0	1.228
	Proposed	1.228	1.08	0.56	0.86	1.0	0.636
Total	Base	12.69					12.69
	Proposed	12.69					6.26

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: EDS-441(44) & EDS-441(45) Morgan/Putnam
P. I. Nos.: 222570 & 222580
U.S. 441/S.R. 44 Widening and Reconstruction

OFFICE: Engineering Services

DATE: April 17, 2008

FROM: Brian Summers, P.E., Project Review Engineer *REN*

TO: Babs Abubakari, P.E. State Consultant Design and Program Delivery Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
EDS-441(45)				
ROADWAY (RD)				
RD-1	Reduce median width to 32' to reduce Right of Way	\$512,862	Yes	This should be done.
RD-4	Re-align roadway to reduce required Right of Way	\$93,688 (proposed) \$31,226 (actual)	Yes	This will be done from Sta. 330+00 to Sta. 430+00 but will not be done from Sta. 700+00 to 750+00 due to Environmental impacts.
RD-5	Utilize Right of Way for Sediment Basins	Design Suggestion	No	Would result in Utility conflicts since the Sediment Basin would be located where proposed Utilities would be located.
RD-6	Utilize Right of Way to consolidate driveways	Design Suggestion	No	This would affect the property owner's ability to have a direct access to the mainline and could result in a negative impact to the property values.

ALT No.	Description	Savings PW & LCC	Implement	Comments
ROADWAY (RD) - continued				
RD-7	Use RAP from existing roadway	\$1,185,638	Yes	This should be done.
RD-8	Retain existing pavement	\$373,111	Yes	This should be done where feasible.
RD-10	Relocate harmony Road to minimize new construction	\$255,200	No	Would result in additional impacts to the Terrell-Sadler Historic House.
RD-11	Adjust the Bethel Church Road alignment to enhance the safety of traffic operations	Design Suggestion	Yes	This should be done.
RD-12	Adjust the Price Road alignment to enhance the safety of traffic operations	Design Suggestion	Yes	This should be done.
EARTHWORK (EW)				
EW-1	Vertically bifurcate the roadway to reduce earthwork	\$591,800	Yes	This should be done where feasible.
EW-2	Adjust fore slopes to reduce earthwork and Right of Way	\$504,616	Yes	This should be done.
EW-3	Adjust vertical alignment to reduce Borrow Excavation	\$317,900	Yes	This should be done where feasible.
DRAINAGE (DR)				
DR-1	Route median drains to downstream side of the road	Design Suggestion	Yes	This should be done where feasible.
DR-2	Reduce/consolidate Sediment Basins , i.e., Sta. 435+00	Design Suggestion	Yes	This should be done.
DR-3	Modify Right of Way to accommodate outfall maintenance	Design Suggestion	Yes	This should be done.
DR-4	Re-evaluate the elimination of outfalls	Design Suggestion	Yes	This should be done where feasible.

ALT No.	Description	Savings PW & LCC	Implement	Comments
DRAINAGE (DR) - continued				
DR-5	Reduce cross drains	Design Suggestion	Yes	This should be done where feasible.
EDS-441(44)				
ROADWAY (RD)				
RD-31	Re-align roadway to reduce required Right of Way	\$97,144	No	Would affect almost 14,000' of roadway which would cause a major redesign effort that would require additional Environmental documentation and would impact the FY 2009 Right of Way schedule.
RD-32	Reduce median width to 32' to reduce Right of Way	\$441,259	Yes	This should be done.
RD-35	Utilize Right of Way for Sediment Basins	Design Suggestion	No	Would result in Utility conflicts since the Sediment Basin would be located where proposed Utilities would be located.
RD-36	Utilize Right of Way to consolidate driveways	Design Suggestion	No	This would affect the property owner's ability to have a direct access to the mainline and could result in a negative impact to the property values.
RD-37	Use RAP from existing roadway	\$1,051,022	Yes	This should be done.
RD-38	Retain existing pavement	\$797,714	Yes	This should be done where feasible.
RD-40	Extend five lanes with shoulders to Sta. 476+00	Design Suggestion	Yes	This should be done.
RD-42	Re-design Seven Island Road intersection	Design Suggestion	Yes	This should be done.
EARTHWORK (EW)				
EW-31	Vertically bifurcate the roadway to reduce earthwork	\$433,950	Yes	This should be done where feasible.

ALT No.	Description	Savings PW & LCC	Implement	Comments
EARTHWORK (EW) - continued				
EW-32	Adjust fore slopes to reduce earthwork and Right of Way	\$370,041	Yes	This should be done.
EW-33	Reduce vertical alignment to reduce earthwork	\$173,800	Yes	This should be done where feasible.
DRAINAGE (DR)				
DR-31	Route median drains to downstream side of the road	Design Suggestion	Yes	This should be done where feasible.
DR-32	Reduce/consolidate Sediment Basins	Design Suggestion	Yes	This should be done.
DR-33	Modify Right of Way to accommodate outfall maintenance	Design Suggestion	Yes	This should be done.
DR-34	Re-evaluate the elimination of outfalls	Design Suggestion	Yes	This should be done where feasible.
DR-35	Re-evaluate the alignment of cross drains	Design Suggestion	Yes	This should be done where feasible.

A meeting was held on March 14, 2008 to discuss the above recommendations. Jim Graybeal and Curtis Dirton with PB World, Stanley Hill and Otis Clark with Consultant Design, and Brian Summers, Ron Wishon and Lisa Myers with Engineering Services were in attendance.

Additional information was provided by the Design Consultant on March 17, 2008.

Approved:  Date: 4/21/08
Gerald M. Ross, P. E., Chief Engineer

BKS/REW

Attachments

EDS-441(44) & EDS-441(45) Morgan/Putnam

P. I. Nos.: 222570 & 222580

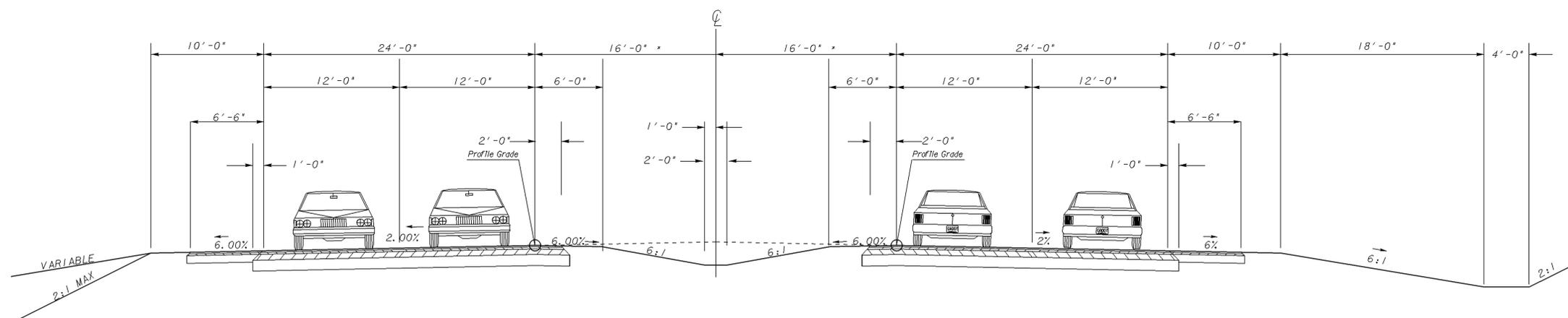
VE Study Implementation

Page 5.

c: Gus Shanine
Todd Long
Stanley Hill
Otis Clark
Rusty Merritt
Lynn Bean
Bryan Gibbs
James Magnus
Ken Werho
Nabil Raad
Larry Bowman
Lisa Myers

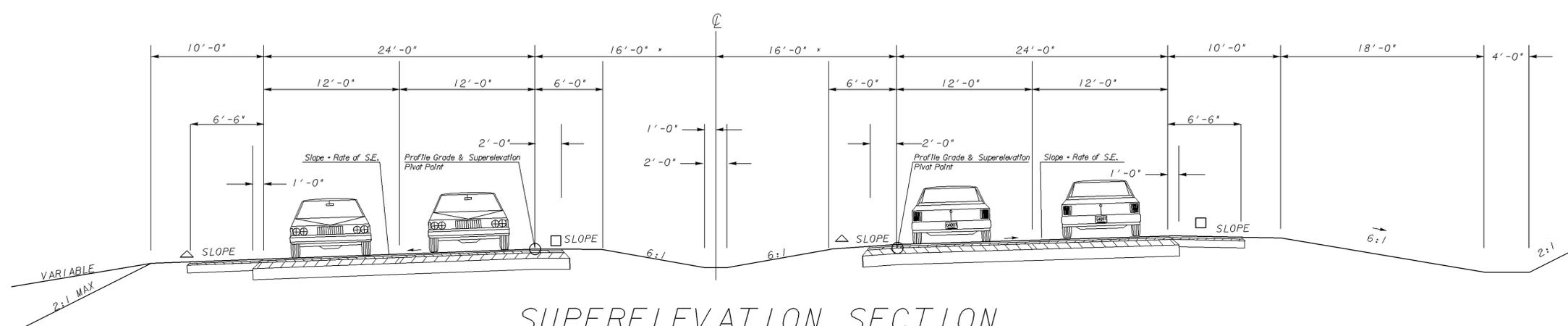
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	EDS00-0441-00(045)		

TYPICAL SECTIONS



TANGENT SECTION

*MEDIAN VARIES 22'-0" TO 16'-0" BETWEEN STATIONS 300+00 TO 309+50.91



SUPERELEVATION SECTION

NOT TO SCALE

REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: ROAD DESIGN
	TYPICAL SECTIONS
	EDS00-0441-00(045) PUTNAM COUNTY
	DRAWING No. 5-01