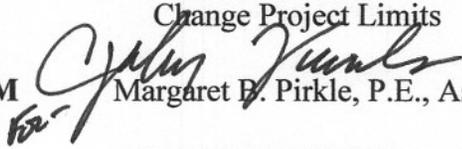


D.O.T. 66

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** P. I. No. 322960, Houston-Bibb Counties **OFFICE** Preconstruction  
NH-034-3(35)  
SR 247/US 129 to US 41  
Change Project Limits **DATE** August 15, 2005

**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  
Ben Buchan  
Thomas Howell  
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-034-3(35), Houston/Bibb Counties OFFICE Urban Design  
P.I. # 322960  
SR 247/ US 129 from Watson Blvd. in Houston Co. DATE June 1, 2005  
to US 41 in Bibb Co.

FROM <sup>127</sup>  
*James B. Buchan*  
James B. Buchan, P.E., State Urban Design Engineer

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

SUBJECT **Revised Project Concept Report**

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

The concept is being revised to change the beginning of the project limits from Green Street, mile log 19.69 to Watson Boulevard, mile log 18.97 in Houston County. The change in project limits will tie to proposed project STP-128-1(13) CT. 2, P.I. No. 342340. The median width is proposed to be revised from 20 ft. to 24 ft. The revised concept also proposes to remove project BRN-034-3(36), P.I. No. 322965 as a part of this concept report. A separate concept report was approved on March 9, 2005, for project BRN-034-3(36), that includes the NBL and SBL bridges at Echeconnee Creek and the overflow bridges. Also, the SBL NS Railroad Bridge will be replaced under project BRN-034-3(38), P.I. No. 323045.

The revised 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 8/3/05

*Joseph P. Palladi*  
State Transportation Planning Administrator

JBB:JTC

cc: Brian Summers, Project Review Engineer  
Harvey Keeper, State Environmental/Location Engineer  
Keith Golden, State Traffic Safety and Design Engineer  
Joseph P. Palladi, State Transportation Planning Administrator  
Jamie Simpson, State Transportation Financial Management Administrator  
Thomas Howell, District Three Engineer  
Paul Liles, State Bridge Design Engineer

# REVISED PROJECT CONCEPT REPORT

**Need and Purpose:** Please see Attachment No. 1.

**Project location:** The project is located in Bibb (63%) and Houston (37%) Counties. The project length is 8.72 miles beginning in Houston County and ending in Bibb County. The beginning and ending mile logs for Houston County are 19.69 and 22.40 respectively. The beginning and ending mile logs for Bibb County are 00.00 and 05.13 respectively.

**Description of the approved concept:** The approved concept proposed widening SR 247/ US 129 to a six lane section with 12 ft. lanes, a 20 ft. raised median and 10 ft. rural shoulders from Green Street to US 41. A bike lane is proposed in the shoulder from Green Street to Avondale Mill Road.

**PDP Classification:** Major   X   Minor           

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

**Functional Classification:** Urban Principal Arterial

**U. S. Route Number(s):** 129

**State Route Number(s):** 247

**Traffic (AADT) as shown in the approved concept:**

Current Year: (2008) 33,000

Design Year: (2028) 52,500

**Proposed features to be revised:** The project terminus is proposed to be extended southward to Watson Boulevard/ SR 247 Connector, mile log 18.97, to tie in with proposed project STP-128-1(13) CT. 2, PI 342340, which is located on the SR 247 Connector from Nelson Drive to SR 247 including intersection improvements. The median width is proposed to be revised to a 24 ft. raised median to meet current guidelines for arterials with a posted speed  $\geq$  55 mph. The revised report also removes project BRN-034-3(36), PI 322965, which includes the NBL and SBL bridges at Echeconnee Creek and the overflow bridges. The SBL NS Railroad Bridge will be replaced under project BRN-034-3(38), P.I. No. 323045.

**Describe the revised feature(s) to be approved:** The proposed revision of the project terminus would change the milepost from 19.69 (Green Street) in Houston County to milepost 18.97 (Watson Boulevard). The 20 ft raised median originally proposed will be changed to a 24 ft. raised median.

**Updated traffic data (AADT):**

Current Year: (2008) 32,300

Design Year: (2028) 52,000

**Programmed/Schedule:**

P.E. August 2000

R/W: 2009

Construction: Long Range

**Revised cost estimates:**

1. Construction cost including E&C
2. Right-of-Way
3. Utilities

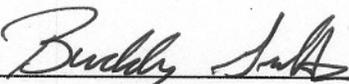
**Is the project located in a Non-attainment area?.....**      **Yes.....**      **X No.**

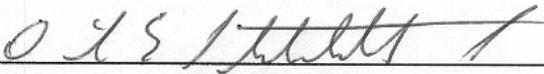
**Recommendation:** This Office recommends that the proposed revision to the concept be approved for implementation.

**Attachments:**

1. Need and Purpose
2. Sketch Map
3. Cost Estimate (Construction)
  - a. Right of Way
  - b. Utilities
4. Capacity Analysis
5. Typical Sections

• **Exempt projects**

Concur:   
Director of Preconstruction

Approve:   
Chief Engineer

## NEED AND PURPOSE STATEMENT

Attachment #1

### **PROJECT NH-034-3 (35), HOUSTON/BIBB COUNTIES P.I. NO. 322960 TIP NUMBERS WRATS1-1998 (2) and MCN-65 SR 247/US 129 FROM WATSON BOULEVARD TO US 41 IN BIBB COUNTY**

#### Background

Project NH-034-3 (35), consists of widening and improving SR 247/US 129 from Watson Boulevard (SR 247C) in Houston County to US 41/SR11/49 in Bibb County. The existing four-lane divided facility is proposed for widening to a six-lane divided roadway with a 24' raised median and a 10' outside shoulder on each side. The proposed project would also include bike lanes from Watson Boulevard (SR 247C) in Houston County to Avondale Mill Road in Bibb County. The total length of the project is approximately 8.72 miles.

The existing facility is functionally classified as an urban principal arterial. Parallel bridges are located along the project corridor at the Houston/Bibb County line over Echeconnee Creek and the Norfolk Southern Railroad. The bridge carrying the southbound lanes over the railroad will be replaced and the bridge carrying the northbound lanes over the railroad will be widened.

The project corridor is primarily a mixture of Robins AFB, rural residential and commercial development along the project's corridor in Houston County; however, in Bibb County the corridor is mainly commercial development.

State Route 247 is the only divided multi-lane roadway providing access to Robins Air Force Base (AFB), located in Warner Robins. Robins AFB is one of the largest Air Force bases in the south totaling 14,290,947 square feet of facilities. It is the home of one of the five air logistic centers responsible for worldwide management and engineering responsibility for repair, modification and overhaul of the F-15 Eagle, the C-130 Hercules, the C-141 Starlifter and the C-5 Galaxy air crafts. Robins AFB is the home of the Museum of Aviation, the second largest aviation museum in the United States Air Force. This facility hosted more than 660,000 visitors in fiscal year 1999. Robins AFB is a major economic contributor for the middle Georgia region and for the State. Robins Air Force Base is the largest single employer in Georgia and employs more that 19,800 people of whom 12,554 are civilians and 2,327 are contractors. Ninety-one percent (91%) of the base's employees reside in the five county area of Bibb, Houston, Jones, Peach and Twiggs Counties. Robins AFB is critical to the economic health of Middle Georgia and a major component of the State's economy. Robins AFB created an estimated 3 billion dollars of total economic impact for Georgia in fiscal year 1999. Its pivotal role in the region's economy will continue. In November 2000, Robins AFB Air Logistic Center was commissioned to develop a long-term depot maintenance proposal for the C-17 as it nears the end of its planned production. The final decision on the long-term maintenance of the C-17 was completed in fiscal year 2003.

The section of State Route 247 in Warner Robins met the criteria for a National Highway System designation in November of 1995 because of its connection to Robins AFB. State Route 247 is a part of the Strategic Highway Network (STRAHNET) corridor through Georgia.

## Travel Demand

The 2008 Average Annual Daily Design Traffic (AADT) on SR 247 from Watson Boulevard (SR 247C) to the Bibb County line is 32,300 AADT. From the Bibb County line to US 41/SR 11/49 the volume is 34,000 AADT. These existing traffic conditions results in an average Level of Service (LOS) "C" for this section of the SR 247/US 129 corridor.

The design traffic (2028) volumes from Watson Boulevard (SR 247C) to the Bibb County line is 52,000 VPD. From the Bibb County line to US 41/SR 11/49 the design (2028) volumes increase to 51,900 VPD.

Without the proposed improvements, the corridor will operate at LOS "D" in 2028. Widening SR 247/US 129 to a six-lane facility will improve operating conditions to LOS "C".

## Accident Data

The accident rates along SR 247/US 129 do not exceed the statewide average for a road of this type (urban principle arterial, NHS/urban minor arterial, NHS). However, a majority of the accidents that occur along this route are rear-end, angle intersecting and sideswipes. The widening of the existing facility will provide dedicated turning lanes thereby eliminating some of the accidents associated with turning movements from the existing roadway.

Please refer to the *Figure I Table*.

From Watson Boulevard in Houston County to Bibb County Line			
	2000	2001	2002
Number of Accidents	88	74	83
Accident rate per 100 *MVMT	359	306	341
Statewide Accident rate per 100 MVMT	430	473	419
Number of Injuries	51	37	38
Injury Rate	208	153	156
Statewide Injury Rate per 100 MVMT	110	143	108

Figure I Table

\*Million Vehicle Miles Traveled

From Bibb County Line to SR 11/49 in Bibb County			
	2000	2001	2002
Number of Accidents	39	88	61
Accident rate per 100 *MVMT	85	186	126
Statewide Accident rate per 100 MVMT	660	550	282
Number of Injuries	20	52	31
Injury Rate	44	110	64
Statewide Injury Rate per 100 MVMT	166	143	282

Figure I Table

\*Million Vehicle Miles Traveled

### Termini

The southern terminus of proposed project begins at the intersection of SR 247/US 129 at Watson Boulevard (SR 247C) in Houston County where there is a drop in traffic south of this intersection and the northern terminus would end at the existing six-lane intersection where SR 49/11/US 41 ties into SR 247 in Bibb County. This project will not result in the need of another project.

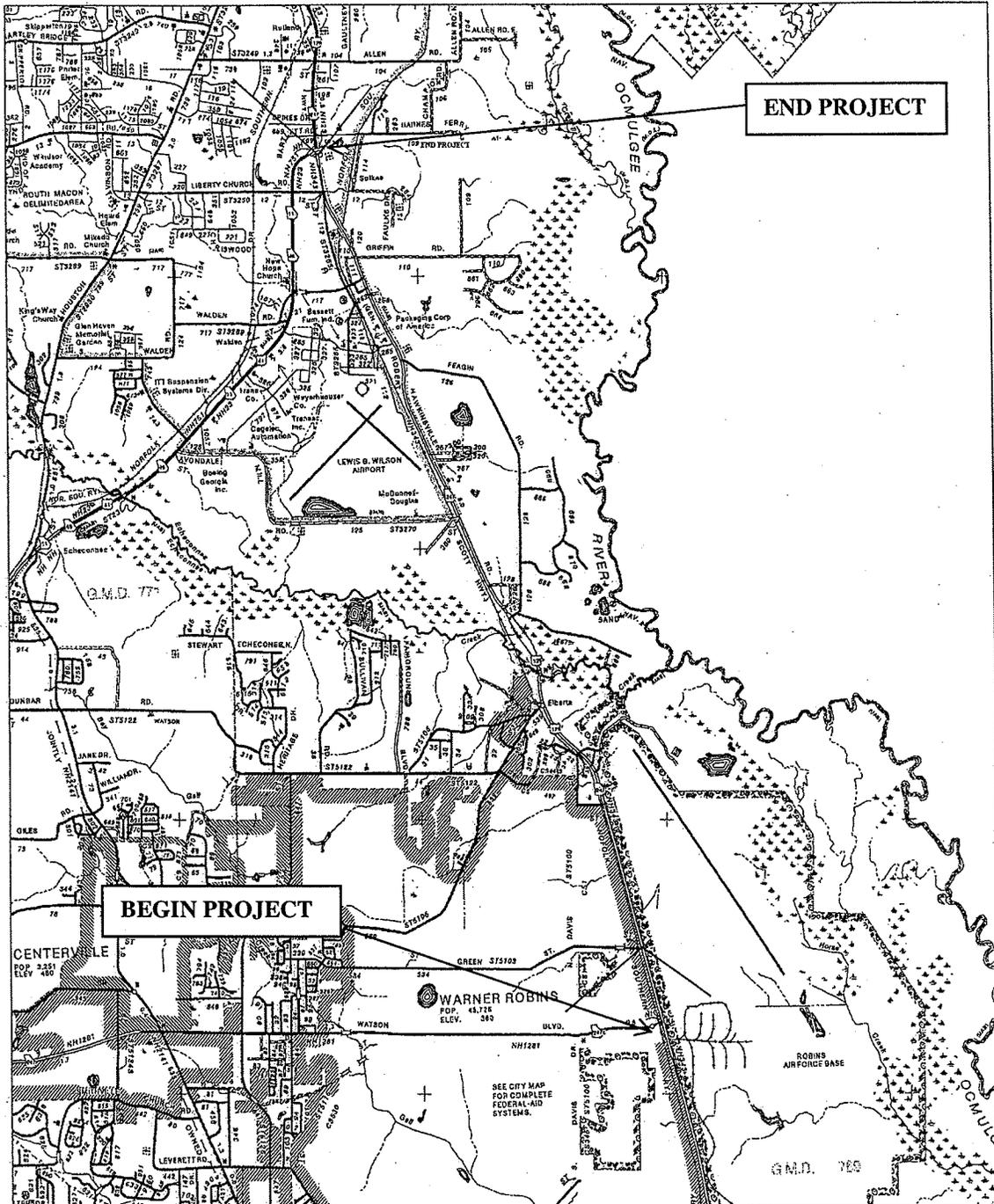
### Other Programmed Projects

County	Project No. P.I. No.	Description	FY 05-07 TIP Schedule
Houston	STP 128-1 (13) Ct. 2 342340	From Nelson Dr. to SR 247 - include intersection improvement	Q28 Lump
Bibb	NH-75-1(246) 311910	Proposed interchange at I- 75 and Sardis Church Rd.	2006 R/W 2007 CST
Bibb	STP-0000-00(566) 0000566	Extend Sardis Church from Skipper Rd. to SR 247/US 129	2007 R/W 2009 CST
Bibb	STP-034-3(37) 333090	SR 247/US 129 from Houston Co. Line to North of Sofkee	Q21 Lump RTL 12/01

### **Need & Purpose**

The need and purpose of the proposed project is to accommodate existing and future traffic demands. Additional benefits from the project will be a safer driving environment and better travel conditions for motorists. Increasing the capacity on SR 247/US 129 will provide improved operating conditions for local residential communities between Macon and Warner Robins and traffic generated by Robins AFB. Also, since the proposed route is part of the STRATNET Highway system, it is important to have the roadway network operating at a LOS which would not restrict movement of vehicles in the event of military deployment. The proposed project is included in the Long Range Transportation Plan (LRTP) for the Warner Robins Area Transportation Study (WRATS) and the Macon Area Transportation Study (MATS) FY 2005-2007 Tier 2 section of the Transportation Improvement Program (TIP).

# LOCATION SKETCH



## Estimate Report for file "322960"

Section ROADWAY ITEMS					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1.00	LS	77371.92	TRAFFIC CONTROL -	77371.92
153-1300	1.00	EA	50792.24	FIELD ENGINEERS OFFICE TP 3	50792.24
201-1500	1.00	LS	1298464.58	CLEARING & GRUBBING -	1298464.58
310-1101	87399.00	TN	14.19	GR AGGR BASE CRS, INCL MATL	1240191.81
310-5060	54468.00	SY	6.73	GR AGGR BASE CRS, 6 INCH, INCL MATL	366569.64
402-3112	47046.00	TN	47.58	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	2238448.67
402-3113	35285.00	TN	55.16	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	1946320.59
402-3121	27370.00	TN	37.02	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	1013237.40
413-1000	33417.00	GL	0.96	BITUM TACK COAT	32080.32
441-0748	4161.00	SY	33.48	CONCRETE MEDIAN, 6 IN	139310.28
441-6720	75619.00	LF	10.75	CONC CURB & GUTTER, 6 IN X 30 IN, TP 7	812904.25
550-1180	2625.00	LF	28.07	STORM DRAIN PIPE, 18 IN, H 1-10	73683.75
550-1240	2730.00	LF	32.96	STORM DRAIN PIPE, 24 IN, H 1-10	89980.8
550-1300	680.00	LF	42.71	STORM DRAIN PIPE, 30 IN, H 1-10	29042.8
550-2150	500.00	LF	21.99	SIDE DRAIN PIPE, 15 IN, H 1-10	10995.0
550-3318	10.00	EA	650.69	SAFETY END SECTION 18 IN, STORM DRAIN, 4:1 SLOPE	6506.90
550-4218	50.00	EA	422.05	FLARED END SECTION 18 IN, STORM DRAIN	21102.5
550-4224	52.00	EA	491.31	FLARED END SECTION 24 IN, STORM DRAIN	25548.12
641-1100	415.00	LF	29.19	GUARDRAIL, TP T	12113.85
641-1200	5240.50	LF	11.99	GUARDRAIL, TP W	62833.59
641-5001	3.00	EA	442.71	GUARDRAIL ANCHORAGE, TP 1	1328.12
641-5012	8.00	EA	1427.91	GUARDRAIL ANCHORAGE, TP 12	11423.28
668-1100	7.00	EA	1720.77	CATCH BASIN, GP 1	12045.39
668-2100	51.00	EA	1999.18	DROP INLET, GP 1	101958.18
<b>Section Sub Total:</b>					<b>\$9,674,254.02</b>

Section Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0300	5.00	EA	1113.37	CONSTRUCTION EXIT	5566.84
163-0550	50.00	EA	177.49	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	8874.5
165-0010	15180.00	LF	0.91	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	13813.80
165-0030	30820.00	LF	1.19	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	36675.79
171-0010	30360.00	LF	1.76	TEMPORARY SILT FENCE, TYPE A	53433.6
171-0030	61640.00	LF	3.09	TEMPORARY SILT FENCE, TYPE C	190467.59
<b>Section Sub Total:</b>					<b>\$308,832.15</b>

Section Bridge Items					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
000-0000	4515.00	SF	60.00	Bridge Widening	270900.0
540-1201	1.00	LS	79608.54	REMOVAL OF PARTS OF EXISTING BR, STA NO	79608.54
<b>Section Sub Total:</b>					<b>\$350,508.54</b>

Total Estimated Cost: \$10,333,594.70

Subtotal Construction Cost \$10,333,594.70

E&amp;C Rate 10.0 % \$1,033,359.47

Inflation Rate 0.0 % @ 0.0 Years \$0.00

**Total Construction Cost    \$11,366,954.18**

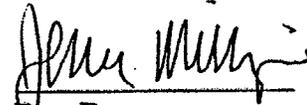
Right Of Way            \$3,815,400.00

ReImb. Utilities            \$55,000.00

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**Grand Total Project Cost    \$15,237,354.18**

# Preliminary Right of Way Cost Estimate



**Don Brown**  
Right of Way Administrator  
By: Jerry Milligan

Date: May 13, 2005

Project: NH-034-3(35)Bibb / Houston REVISED

Existing/Required R/W: Varies/Varies

Project Termini: SR 247 / US 129 from Watson Blvd. / Houston to US 41

Project Description: SR 247 / US 129 from Watson Blvd. / Houston to US 41

P.I. Number: 322960

No. Parcels: 11

**Land:**

Commercial : 1.72 acres @ \$ 200,000 / acre	\$ 344,000	
Residential : .99 acres @ \$ 10,000 / acre	<u>9,900</u>	\$ 353,900

**Improvements : Residences, misc. site improvements** 205,000

**Relocation:** Residential ( 3 )  
Commercial (3) 135,000

**Damage : Proximity (1) parcel** \$ 335,000  
**Uneconomic Remnants** 70,000 \$ 405,000

Net Cost \$ 1,098,900

Net Cost		\$ 1,098,900
Scheduling Contingency	55 %	604,395
Adm/Court Cost	60 %	1,021,977
Inflation Factor	40 %	<u>1,090,108</u>
		\$ 3,815,380

**Total Cost \$ 3,815,400**

BUCHAN Thomas  
 BOWMAN \_\_\_\_\_  
 RICHARDSON \_\_\_\_\_  
 OTHER \_\_\_\_\_  
 GROUPS \_\_\_\_\_  
 FILE \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION  
 STATE OF GEORGIA

Attachment #3b  
 URBAN DESIGN

INTERDEPARTMENT CORRESPONDENCE

FILE **NH-034-3(35), Houston/Bibb Counties, P.I. # 322960** OFFICE Thomaston  
 SR-247/US 129 from Watson Blvd/Houston to US 41 in Bibb  
 FROM Thomas B. Howell, P.E., District Engineer DATE May 10, 2005  
 TO Ben Buchan, P.E., State Urban Design Engineer  
 SUBJECT **UTILITY COST ESTIMATE**

The following is a **REVISED** utility cost estimate for facilities located within the scope of the above referenced project.

UTILITY OWNER	PUBLIC OR PRIVATE	TYPE OF UTILITY	REIMBURSABLE		NON-REIMBURSABLE	
			Houston	Bibb	Houston	Bibb
Atlanta Gas Light	Private	Nat Gas	0	0	156,540	283,460
BellSouth	Private	Tel Comm	0	0	40,000	90,000
Cox Communications	Private	TV	0	0	5,000	13,000
Georgia Power	Private	Electric	0	0	0	40,000
Macon Water Authority	Public	Water/Sewer	0	0	0	282,494
Jointly Owned Natural Gas	Public	Nat Gas	NO FACILITIES			
Alltel	Private	Tel Comm	0	0	0	5,000
Flint EMC	Private	Electric	30,000	25,000	0	0
Houston County Water	Public	Water	0	0	14,000	0
City of Warner Robins	Public	Water/Sewer	0	0	20,000	0
AT&T	Private	Tel Comm	NO FACILITIES			
ST Services	Private	Fuel Line	0	0	215,508	410,000
<b>TOTAL PROJECT COST</b>			<b>\$30,000</b>	<b>\$25,000</b>	<b>\$451,048</b>	<b>\$1,123,954</b>

If you have any questions, please call Glenn A. Williams at 706-646-6549.

KMG:GAW:pls

cc: Elaine Jackson, Secretary to Jeff Baker, P.E., State Utilities Engineer (via: e-mail)  
 Brent D'Angelo, P.E., Asst. State Utilities Engineer (via: e-mail)  
 Terry Brigman, State Utilities Preconstruction Engineer (via: e-mail)

Analyst: JTC Inter.: SR 247/ WATSON BLVD.  
 Agency: GA DOT Area Type: All other areas  
 Date: 5/25/05 Jurisd:  
 Period: AM Year : 2028  
 Project ID: NH-034-3(35), PI 322960 SR 247 fm WATSON BLVD. to US 41  
 E/W St: WATSON BLVD N/S St: SR 247

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	3	0	0	0	0	0	2	3	0	0	3	1
LG Config	L	LR					L	T			T	R
Volume	1770		160				95	2205		1060	615	
Lane Width	12.0	12.0					12.0	12.0		12.0	12.0	
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left	P	P	
Thru					Thru	P	P	
Right		P	P		Right			
Peds					Peds			
NB Left					SB Left			
Thru					Thru	P		
Right					Right	P	P	
Peds					Peds			
NB Right					EB Right			
SB Right		P	P		WB Right			
Green		13.0	16.0			31.0	3.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		0.0	0.0			0.0	0.0	

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	2103	4928	0.94	0.43	29.9	C		
LR	689	1615	0.26	0.43	14.8	B	28.6	C
Westbound								
Northbound								
L	822	3502	0.13	0.49	17.1	B		
P	2559	5187	0.96	0.49	28.5	C	28.1	C
Southbound								
P	2144	5187	0.55	0.41	17.7	B	11.5	B
R	1615	1615	0.42	1.00	0.8	A		
Intersection Delay = 23.6 (sec/veh)					Intersection LOS = C			

Analyst: JTC  
 Agency: GA DOT  
 Date: 5/25/05  
 Period: PM  
 Project ID: NH-034-3(35) PI 322960 SR 247 fm WATSON BLVD. to US 41  
 E/W St: WATSON BLVD.

Inter.: SR 247@ WATSON BLVD.  
 Area Type: All other areas  
 Jurisd:  
 Year : 2028  
 N/S St: SR 247

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	2	3	0	0	3	1
LGConfig	L		R				L	T			T	R
Volume	925		175				480	1060			2205	925
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left	P		
Thru					Thru	P	P	
Right		P	P		Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru	P	P	
Right					Right	P	P	
Peds					Peds			
NB Right					EB Right	P	P	
SB Right		P	P		WB Right			
Green		8.0	8.0			23.0	9.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		0.0	0.0			0.0	0.0	

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	1109	3502	0.93	0.32	34.2	C	28.8	C
R	1615	1615	0.12	1.00	0.2	A		
Westbound								
Northbound								
L	878	2290	0.61	0.38	18.0	B		
T	3026	5187	0.39	0.58	7.1	A	10.5	B
Southbound								
T	3026	5187	0.81	0.58	12.3	B	9.3	A
R	1615	1615	0.64	1.00	1.9	A		
Intersection Delay = 13.3 (sec/veh)					Intersection LOS = B			

Analyst: JTC Inter.: SR 247 @ MAIN GATE-GATE 2  
 Agency: GADOT Area Type: All other areas  
 Date: 5/25/05 Jurisd:  
 Period: AM Year : 2028  
 Project ID: NH-034-3(35) PI 322960 SR 247 fm WATSON BLVD. to US 41  
 E/W St: GATE 2 ROBIN AFB N/S St: SR 247/ US 129

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	3	1	1	3	0
LGConfig				L	LR	R		T	R	L	T	
Volume				95		110	1665	1225		790	1260	
Lane Width				12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	P		
Right					Right	P	P	
Peds					Peds			
WB Left	P				SB Left	P	P	
Thru					Thru	P	P	
Right		P			Right			
Peds					Peds			
NB Right		P			EB Right			
SB Right					WB Right	P	P	
Green	7.0					30.0	29.0	
Yellow	3.0					3.0	3.0	
All Red	0.0					0.0	0.0	

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS
Eastbound								
Westbound								
L	327	3502	0.32	0.09	34.4	C		
LR	177	1900	0.00	0.09	30.8	C	16.0	B
R	1615	1615	0.08	1.00	0.1	A		
Northbound								
T	2006	5187	0.92	0.39	30.5	C	19.9	B
R	1615	1615	0.84	1.00	5.5	A		
Southbound								
L	824	1805	1.07	0.83	69.1	E		
T	4288	5187	0.33	0.83	1.7	A	27.7	C

Intersection Delay = 22.9 (sec/veh) Intersection LOS = C

Analyst: JTC Inter.: SR 247 @ MAIN GATE-GATE 2  
 Agency: GADOT Area Type: All other areas  
 Date: 5/25/05 Jurisd:  
 Period: PM Year : 2028  
 Project ID: NH-034-3(35) PI 322960 SR 247 fm WATSON BLVD. to US 41  
 E/W St: GATE 2 ROBIN AFB N/S St: SR 247/ US 129

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	1	0	3	1	1	3	0
LGConfig				L	LR	R		T	R	L	T	
Volume				1615		870		1180	220	260	1515	
Lane Width				12.0	12.0	12.0		12.0	12.0	12.0	12.0	
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru		P	
Right					Right	P	P	
Peds					Peds			
WB Left		P			SB Left	P		
Thru					Thru	P	P	
Right		P			Right			
Peds					Peds			
NB Right		P			EB Right			
SB Right					WB Right	P	P	
Green	30.0					14.0	22.0	
Yellow	3.0					3.0	3.0	
All Red	0.0					0.0	0.0	

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
Westbound								
L	1401	3502	1.28	0.40	154.3	F		
LR	760	1900	0.00	0.40	13.5	B	100.9	F
R	1615	1615	0.60	1.00	1.6	A		
Northbound								
T	1522	5187	0.86	0.29	31.7	C	26.8	C
R	1615	1615	0.15	1.00	0.2	A		
Southbound								
L	337	1805	0.86	0.19	53.1	D		
T	2697	5187	0.62	0.52	13.9	B	19.6	B

Intersection Delay = 57.1 (sec/veh) Intersection LOS = E

Analyst: JTC Inter.: SR 247 /GREEN STREET  
 Agency: GA DOT Area Type: All other areas  
 Date: 5/25/05 Jurisd:  
 Period: AM Year : 2028  
 Project ID: NH-034-3(35), PI 322960 SR 247 fm WATSON BLVD. to US 41  
 E/W St: GREEN STREET N/S St: SR 247

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	2	1	2	3	1	2	3	1
LGConfig		LT	R		LT	R	L	T	R	L	T	R
Volume	75	625	600	25	75	75	150	1500	125	625	1425	50
Lane Width		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P	P		NB Left	P		
Thru		P	P		Thru	P	P	
Right		P	P		Right		P	
Peds					Peds			
WB Left		P	P		SB Left	P	P	
Thru		P	P		Thru	P	P	
Right		P	P		Right		P	
Peds					Peds			
NB Right		P	P		EB Right		P	
SB Right					WB Right		P	
Green		8.0	7.0			8.0	30.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		0.0	0.0			0.0	0.0	

Cycle Length: 65.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	907	3277	0.86	0.28	32.5	C	19.4	B
R	1267	1615	0.53	0.78	4.1	A		
Westbound								
LT	752	2716	0.15	0.28	18.1	B	11.1	B
R	1267	1615	0.07	0.78	1.7	A		
Northbound								
L	415	3368	0.40	0.12	29.2	C		
T	3272	5187	0.51	0.63	7.1	A	8.6	A
R	1267	1615	0.11	0.78	1.8	A		
Southbound								
L	771	1223	0.90	0.63	25.9	C		
T	3272	5187	0.48	0.63	6.9	A	12.6	B
R	745	1615	0.08	0.46	10.0-	A		
Intersection Delay = 12.9 (sec/veh)					Intersection LOS = B			

Analyst: JTC  
 Agency: GA DOT  
 Date: 5/25/05  
 Period: PM  
 Project ID: NH-034-3(35), PI 322960 SR 247 fm WATSON BLVD. to US 41  
 E/W St: GREEN STREET

Inter.: SR 247 /GREEN STREET  
 Area Type: All other areas  
 Jurisd:  
 Year : 2028  
 N/S St: SR 247 /US 129

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	2	1	2	3	1	2	3	1
LGConfig		LT	R		LT	R	L	T	R	L	T	R
Volume	50	75	150	125	625	625	600	1425	25	75	1500	75
Lane Width		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru		P	
Right		P	P		Right	P	P	
Peds					Peds			
WB Left		P	P		SB Left	P	P	
Thru		P	P		Thru		P	
Right		P	P		Right	P	P	
Peds					Peds			
NB Right					EB Right	P	P	
SB Right		P	P		WB Right	P	P	
Green		14.0	8.0			7.0	44.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		0.0	0.0			0.0	0.0	

Cycle Length: 85.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LT	235	2494	0.59	0.09	47.4	D	21.6	C
R	1615	1615	0.10	1.00	0.1	A		
Westbound								
LT	937	3580	0.89	0.29	41.0	D	22.8	C
R	1615	1615	0.43	1.00	0.8	A		
Northbound								
L	987	3502	0.68	0.64	18.1	B		
T	2685	5187	0.59	0.52	15.2	B	15.9	B
R	1026	1615	0.03	0.64	5.8	A		
Southbound								
L	951	3502	0.09	0.64	8.3	A		
T	2685	5187	0.62	0.52	15.7	B	14.6	B
R	1615	1615	0.05	1.00	0.1	A		
Intersection Delay = 17.6 (sec/veh)					Intersection LOS = B			

Analyst: JTC  
 Agency: WARNER ROBINS, GA  
 Date: 5/25/05  
 Period: 2028 AM  
 Project ID: SR 247 fm WATSON BLVD. to US 41  
 E/W St: ELBERTA RD

Inter.: SR 247 / ELBERTA RD  
 Area Type: All other areas  
 Jurisd:  
 Year : NH-034-3 (35)  
 N/S St: SR 247

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	0	0	0	0	1	3	0	0	3	1
LGConfig	L	LR					L	T			T	R
Volume	815		300				140	1355		2105	865	
Lane Width	12.0	12.0					12.0	12.0		12.0	12.0	
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left	P	P	
Thru					Thru	P	P	
Right		P			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		P	P
Right					Right		P	P
Peds					Peds			
NB Right					EB Right			
SB Right		P			WB Right			
Green		20.0				9.0	23.0	6.0
Yellow		3.0				3.0	3.0	3.0
All Red		0.0				0.0		

Cycle Length: 70.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	1001	3502	0.91	0.29	37.2	D		
LR	461	1615	0.72	0.29	31.9	C	35.8	D
Westbound								
Northbound								
L	340	1805	0.46	0.50	17.8	B		
T	2594	5187	0.58	0.50	13.3	B	13.7	B
Southbound								
T	2371	5187	0.99	0.46	34.4	C	26.7	C
R	1269	1615	0.76	0.79	8.2	A		
Intersection Delay = 25.1 (sec/veh)					Intersection LOS = C			

Analyst: JTC  
 Agency: WARNER ROBINS, GA.  
 Date: 5/25/05  
 Period: 2028 PM  
 Project ID: SR 247 fm WATSON BLVD. to US 41  
 E/W St: ELBERTA RD.

Inter.: SR 247 / ELBERTA RD.  
 Area Type: All other areas  
 Jurisd:  
 Year : NH-034-3 (35)  
 N/S St: SR 247

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	0	0	0	0	1	3	0	0	3	1
LGConfig	L	LR					L	T			T	R
Volume	865		140				300	2105		1355	815	
Lane Width	12.0	12.0					12.0	12.0		12.0	12.0	
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left	P	P	
Thru					Thru	P	P	
Right		P			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		P	
Right					Right		P	
Peds					Peds			
NB Right					EB Right			
SB Right		P			WB Right			
Green		17.0				8.0	21.0	
Yellow		3.0				3.0	3.0	
All Red		0.0				0.0	0.0	

Cycle Length: 55.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	1082	3502	0.89	0.31	29.0	C		
LR	499	1615	0.31	0.31	16.2	B	27.2	C
Westbound								
Northbound								
L	401	1805	0.83	0.58	27.7	C		
T	3018	5187	0.78	0.58	10.8	B	12.9	B
Southbound								
T	1980	5187	0.76	0.38	17.6	B	14.2	B
R	1204	1615	0.75	0.75	8.4	A		
Intersection Delay = 16.0 (sec/veh)					Intersection LOS = B			

Analyst: JTC Inter.: SR 247 /N. DAVIS DR  
 Agency: WARNER ROBINS, GA Area Type: All other areas  
 Date: 5/25/05 Jurisd:  
 Period: 2028 AM Year : NH-034-3 (35)  
 Project ID: SR 247 fm WATSON BLVD. to US 41  
 E/W St: N. DAVIS DR N/S St: SR 247 /US 129

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	1	1	1	3	0	1	3	1
LGConfig	L	TR			LT	R	L	TR		L	T	R
Volume	335	45	35	50	25	80	15	1080	15	50	1810	545
Lane Width	12.0	12.0			12.0	12.0	12.0	12.0		12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left	P		
Thru			P		Thru		P	
Right	P		P		Right	P		P
Peds					Peds			
WB Left		P			SB Left	P		
Thru			P		Thru		P	
Right	P		P		Right	P		P
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		6.0	10.0			5.0	42.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		0.0	0.0			0.0	0.0	

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/c	Delay	LOS	Delay	LOS
Eastbound								
L	622	3502	0.60	0.25	28.0	C		
TR	237	1775	0.38	0.13	34.1	C	29.2	C
Westbound								
LT	245	1839	0.34	0.13	33.3	C	28.2	C
R	409	1615	0.22	0.25	23.3	C		
Northbound								
L	221	1805	0.08	0.67	8.5	A		
TR	2899	5176	0.42	0.56	9.9	A	9.9	A
Southbound								
L	309	1805	0.18	0.67	6.5	A		
T	2905	5187	0.69	0.56	13.2	B	12.1	B
R	1077	1615	0.56	0.67	8.8	A		
Intersection Delay = 13.9 (sec/veh)					Intersection LOS = B			

Analyst: JTC  
 Agency: WARNER ROBINS  
 Date: 5/25/05  
 Period: 2028 PM  
 Project ID: SR 247 fm WATSON BLVD. to US 41  
 E/W St: N. DAVIS DR.

Inter.: SR 247 / N. DAVIS DR.  
 Area Type: All other areas  
 Jurisd:  
 Year : NH-034-3 (35)  
 N/S St: SR 247

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	1	1	1	3	0	1	3	1
LGConfig	L	TR			LT	R	L	TR		L	T	R
Volume	545	25	15	15	45	50	35	1810	50	80	1080	335
Lane Width	12.0	12.0			12.0	12.0	12.0	12.0		12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left	P		
Thru					Thru		P	
Right	P	P			Right	P	P	
Peds					Peds			
WB Left		P			SB Left	P		
Thru					Thru		P	
Right	P	P			Right	P	P	
Peds					Peds			
NB Right			P		EB Right	P	P	
SB Right			P		WB Right	P	P	
Green		12.0	6.0			10.0	30.0	
Yellow		3.0	3.0			3.0	3.0	
All Red		0.0	0.0			0.0	0.0	

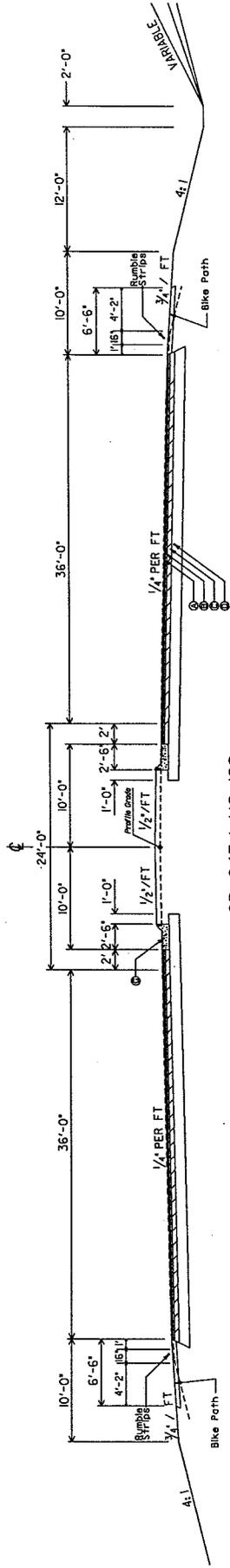
Cycle Length: 70.0 secs

Intersection Performance Summary

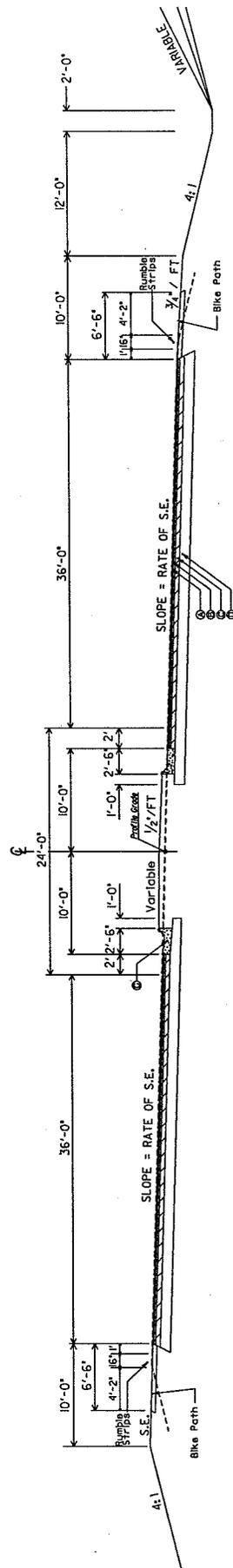
Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	944	3502	0.64	0.30	24.3	C		
TR	154	1792	0.29	0.09	34.8	C	25.0	C
Westbound								
LT		1876						
R	1615	1615	0.03	1.00	0.0+	A		
Northbound								
L	258	1805	0.15	0.14	27.5	C		
TR	2214	5166	0.93	0.43	27.9	C	27.9	C
Southbound								
L	258	1805	0.34	0.14	30.7	C		
T	2223	5187	0.54	0.43	15.8	B	13.9	B
R	1200	1615	0.31	0.74	3.7	A		
Intersection Delay =				(sec/veh)		Intersection LOS =		

STATE	PROJECT NUMBER	SHEET TOTAL
GA.	HM-924-3 (SD)	10
	REVISION DATES	

# Attachment #5



SR 247/ US 129  
TANGENT SECTION (BIKE ROUTE)  
WATSON BLVD. TO AVONDALE MILL ROAD (PROPOSED SARDIS CHURCH ROAD EXTENSION)

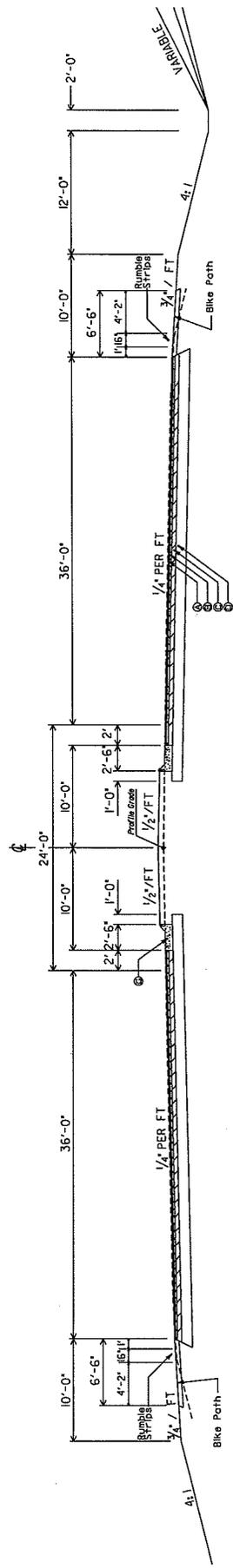


SR 247/ US 129  
SUPERELEVATED SECTION (BIKE ROUTE)  
WATSON BLVD. TO AVONDALE MILL ROAD (PROPOSED SARDIS CHURCH ROAD EXTENSION)

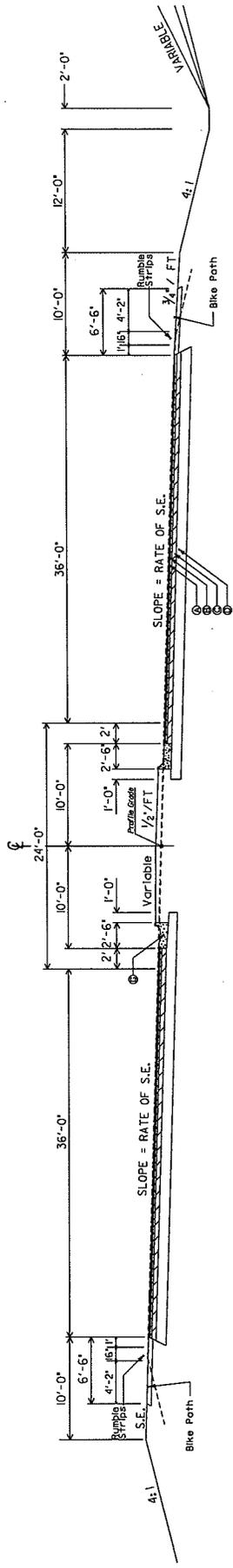
STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE OF URBAN DESIGN

TYPICAL SECTIONS  
SR 247/US 129

STATE PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CA. INF-204-3 (25)		
REVISION DATES		



SR 247/ US 129  
TANGENT SECTION  
AVONDALE MILL ROAD (PROPOSED SARDIS CHURCH ROAD EXTENSION) TO SR 11/ US 41



SR 247/ US 129  
SUPERELEVATED SECTION  
AVONDALE MILL ROAD (PROPOSED SARDIS CHURCH ROAD EXTENSION) TO SR 11/ US 41

TYPICAL SECTIONS  
SR 247/US 129

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE OF URBAN DESIGN

DRAWING NO.