

D.O.T. 66

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

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INTERDEPARTMENT CORRESPONDENCE

**FILE** P. I. No. 0003770, Bartow County **OFFICE** Preconstruction  
CSSTP-0003-00(770)  
CR 633/Glade Road Reconstruction **DATE** July 26, 2007

**FROM** *Cybil Vandy*  
Genetha Rice-Singleton, Assistant Director of Preconstruction

**TO** *ra-* SEE DISTRIBUTION

**SUBJECT** APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

**DISTRIBUTION:**

Brian Summers

Ken Thompson

Jamie Simpson

Michael Henry

Keith Golden

Angela Alexander (file copy)

Babs Abubakari

Kent Sager

BOARD MEMBER

6

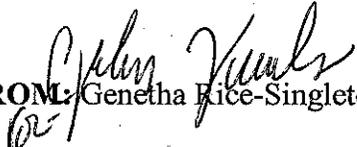
**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENTAL CORRESPONDENCE**

**FILE:** P.I. No. 0003770, Bartow County  
CSSTP-0003-00(770)  
CR 633/Glade Road Reconstruction

**OFFICE:** Preconstruction

**DATE:** July 17, 2007

  
**FROM:** Genetha Rice-Singleton, Assistant Director of Preconstruction

**TO:** David E. Studstill, Jr., P.E., Chief Engineer

**SUBJECT: PROJECT CONCEPT REPORT**

This project is the reconstruction and rehabilitation of CR 633/Glade Road from Homestead Drive (CR 605)/Apache Drive (CR 377) to Ryan Road (CR 810)/ Yacht Club Road (CR 386) for a total of 3.70 miles. The existing roadway consists of two, 12' lanes with rural shoulders. The roadway contains many horizontal and vertical curves with limiting sight distance. Many of the curves do not meet minimum AASHTO standards for 35 MPH; some do not meet standards for 25 MPH. Glade Road crosses a finger of Lake Allatoona, a waterway on the Etowah River managed by the US Army Corps Engineers. The existing bridge over Allatoona Lake (Clark Creek) is 263' x 27' with a sufficiency rating of 61. Part of the existing superstructure is below the 100-year flood elevation of 863' for Allatoona Lake. Current traffic volumes on Glade road vary from 3,705 VPD on the northern end of the project to 6,319 VPD on the southern end of the project. The base year (2010) traffic is 7,600 VPD and the design year (2030) traffic is 13,600 VPD. Crash rates in this area were 1.9 to 3.3 times the statewide accident rates for similarly classified facilities during the 2003 through 2005 study period and the injury rates were 3.0 to 4.1 times the statewide injury rates. The proposed design speed is 35 MPH.

The proposed project would improve the roadway to meet 35 MPH AASHTO design speed. In order to meet the design speed several horizontal and vertical will require realignment. A rural two lane section will be used throughout the project limits. Existing intersections at connecting streets would be upgraded as necessary to better accommodate access to and from these side streets. The project will replace the existing bridge over Allatoona Lake with a new 600' x 44' bridge on new alignment. Traffic will be maintained during construction.

Environmental concerns include requiring a Categorical Exclusion will be prepared; a Public hearing is not required; Time saving procedures is appropriate.

P.I. No. 0003770, Bartow County  
July 17, 2007

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C)	\$ 15,240,000	\$ 15,240,000	L230/L240	LR
Right-of-way & utilities *	Local	Local		

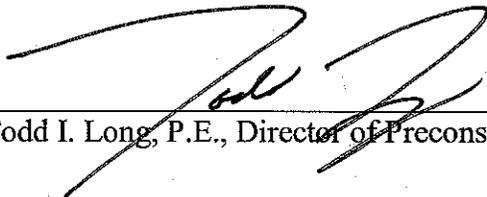
\*PMA signed 3-25-05 for Bartow County do PE, Right-of way, utilities and construction.

I recommend this project concept be approved.

GRS: JDQ

Attachment

CONCUR



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Todd I. Long, P.E., Director of Preconstruction

APPROVED



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David E. Studstill, Jr., P.E., Chief Engineer

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 6

PROJECT CONCEPT REPORT

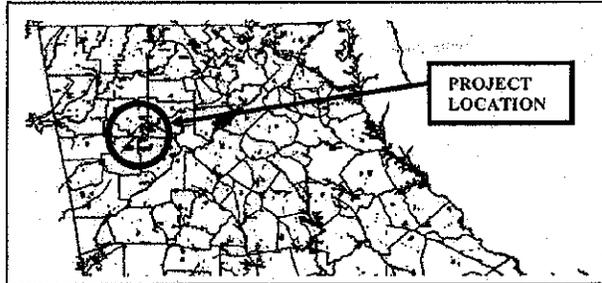
Project Number: CSSTP-0003-00(770)

County: Bartow

P. I. Number: 0003770

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6-11-2007

Cynthia D. Carr  
Project Manager

DATE 6-11-2007

Keith S. [Signature]  
District Engineer

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

DATE 6/23/07

Angela S. Alexander  
State Transportation Planning Administrator

*Pending comments on page 3.*

DATE \_\_\_\_\_

State Transportation Financial Management Administrator

DATE \_\_\_\_\_

State Environmental/Location Engineer

DATE \_\_\_\_\_

State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

Project Review Engineer

DATE \_\_\_\_\_

State Bridge and Structural Design Engineer

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

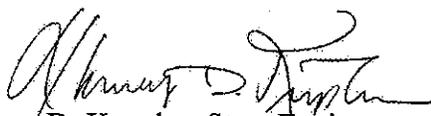
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**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** P.I. No. 0003770

**OFFICE:** Environment/Location

**DATE:** June 26, 2007

  
**FROM:** Harvey D. Keeper, State Environmental/Location Engineer

**TO:** Genetha Rice-Singleton, Assistant Director of Preconstruction

**SUBJECT: PROJECT CONCEPT REPORT  
CSSTP 0003-00(770) / Bartow County  
CR 633 / Glade Rd. from CR 238 / Bartow Carver to CR 605 / Homestead**

The above subject concept report has been reviewed. There are numerous archaeological resources located along project corridor. Will need to look at avoidance and minimization. Page 7 states that an EA will be needed. Hopefully, impacts can be reduced down enough to qualify as CE. Potential for Environmental Justice issues since we are displacing 12 (twelve) mobile homes. Will need to investigate further.

If you have any questions, please contact me at (404) 699-4401.

HDK/lc

Attachment

cc: Brian Summers  
Keith Golden  
Angela Alexander  
Kent L. Sager  
Jamie Simpson  
Paul Liles

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 6

PROJECT CONCEPT REPORT

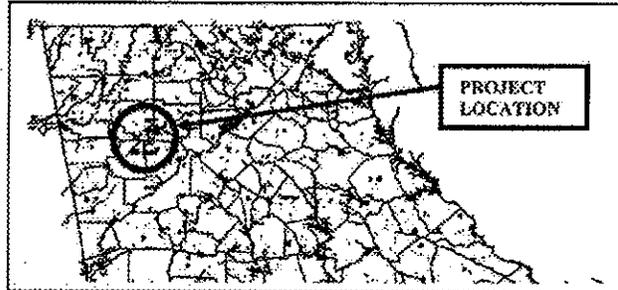
Project Number: CSSTP-0003-00(770)

County: Bartow

P. I. Number: 0003770

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6-11-2007

Curtis D. Combs

Project Manager

DATE 6-11-2007

[Signature]

District Engineer

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Planning Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Financial Management Administrator

DATE 6.25.07

[Signature]  
State Environmental/Location Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
Project Review Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Bridge and Structural Design Engineer

6/6/2007

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Page 1

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 6

PROJECT CONCEPT REPORT

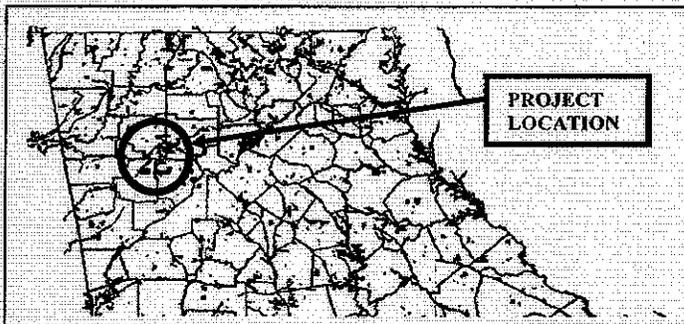
Project Number: CSSTP-0003-00(770)

County: Bartow

P. I. Number: 0003770

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6-11-2007

Curtis D. Corn

Project Manager

DATE 6-11-2007

Keith J. ...

District Engineer

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DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Planning Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Financial Management Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Environmental/Location Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
Project Review Engineer

DATE 10/3/07

Paul V. ...  
State Bridge and Structural Design Engineer

## SCORING RESULTS AS PER MOG 2440-2

<b>Project Number:</b> CSSTP-0003-00(770)		<b>County:</b> Bartow		<b>PI No.:</b> 0003770	
<b>Report Date:</b> June 11,2007		<b>Concept By:</b> DOT Office: District 6			
		Consultant- PDS&J			
<input checked="" type="checkbox"/> Concept Stage					
<b>Project Type:</b> Choose One From Each Column		<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input type="checkbox"/> Bridge Replacement <input type="checkbox"/> Building <input type="checkbox"/> Interchange Reconstruction <input type="checkbox"/> Intersection Improvement <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input checked="" type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
<b>Presentation</b>	100				
<b>Judgment</b>	100				
<b>Environmental</b>	100				
<b>Right of Way</b>	100				
<b>Utility</b>	100				
<b>Constructability</b>	100				
<b>Schedule</b>	100				

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 6

PROJECT CONCEPT REPORT

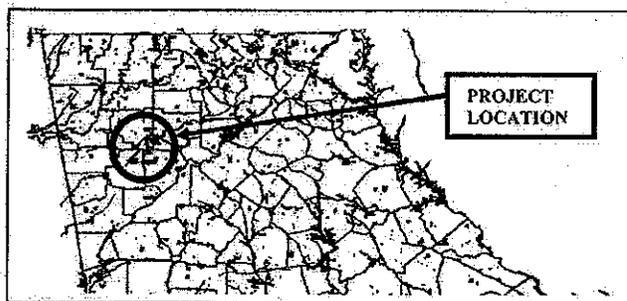
Project Number: CSSTP-0003-00(770)

County: Bartow

P. I. Number: 0003770

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6-11-2007

Curtis D. Combs

Project Manager

DATE 6-11-2007

Keith J. ...

District Engineer

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Planning Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Financial Management Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Environmental/Location Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Traffic Safety & Design Engineer

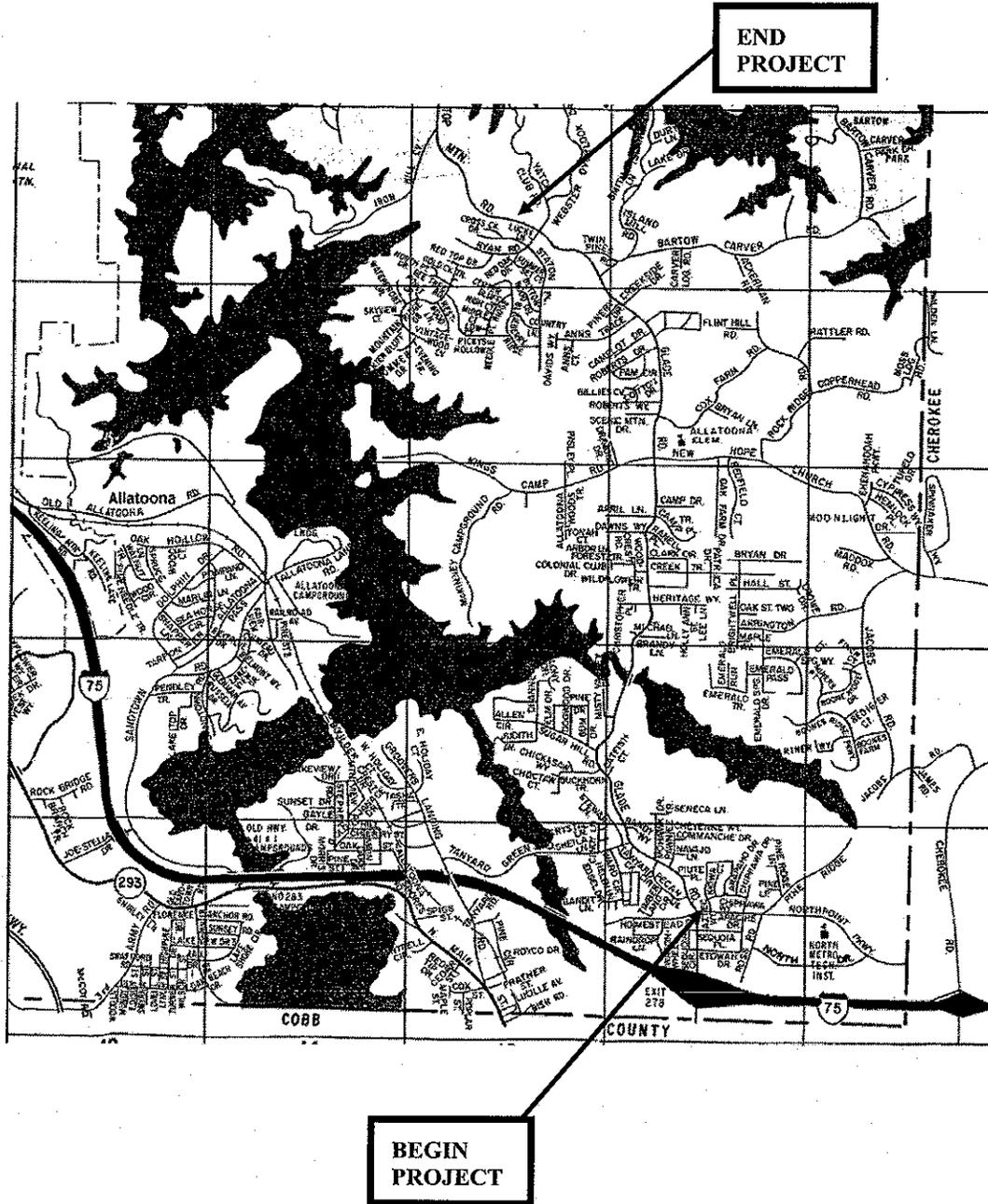
DATE \_\_\_\_\_

\_\_\_\_\_  
Project Review Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Bridge and Structural Design Engineer

# Project Location Map



### Need and Purpose:

The proposed project would consist of improvements to Glade Road (CR 633) from Homestead Drive (CR 605)/Apache Drive (CR 377) to Ryan Road (CR 810)/Yacht Club Road (CR 386), in Bartow County. The total length of the proposed project is approximately 3.7 miles. Glade Road is currently a two-lane rural roadway with rural shoulders. The roadway contains many horizontal and vertical curves with limiting sight distances, and the intersections are stopped-controlled. The posted speed limit is 30 miles per hour (mph). Many of the horizontal and vertical curves do not meet minimum AASHTO standards for a 35 mph speed design; some do not meet standards for 25 mph speed design.

The land use along Glade Road is primarily residential, with several mobile home communities and single-family subdivisions along the corridor. Glade Road crosses a finger of Lake Allatoona, a waterway on the Etowah River managed by the US Army Corps Engineers. Several recreational facilities associated with Lake Allatoona are accessed from Glade Road, including: Tanyard Creek Day Use Area, Clark Creek South, Clark Creek North, McKinney Campground, and the Glade Marina. Many of the residences along Glade Road appear to be utilized on a part-time, recreational basis.

The average daily traffic (ADT) counts taken on Glade Road reveal a variation in current traffic volumes. ADT on the northern end of the project limits serves 3,705 vehicles per day, while the southern end of the project limits serves 6,319 vehicles per day. An evaluation of existing operating conditions along the corridors shows that all intersections are currently operating at a LOS C or better in both the AM and PM peak periods. Analysis of the future estimated traffic volumes found that the only potential operational improvement to Glade Road would be the addition of traffic signals at the Homestead Drive/Apache Drive and Tanyard Creek Road intersections by the year 2020.

Historical crash data for the consecutive three-year period from 2003 through 2005 were analyzed. Table 1 presents crash data, injury data, and fatality data for Glade Road compared with the statewide average rates for Rural Minor Arterials. All rates are per 100 million vehicle miles of travel and the numbers in parentheses are statewide average rates for similar type facilities. ~~Crash rates and the associated injury and fatality rates can be expected to increase as the future travel demand along Glade Road and the cross roads increases.~~

JDP  
6/26/07

<b>TABLE 1 - CRASH HISTORY</b>						
<b>Glade Road from CR377/Apache Drive to CR810/Ryan Road</b>						
Year	Crashes	Crash Rate	Injuries	Injury Rate	Fatalities	Fatality Rate
2003	40	689 (212)	22	379(113)	2	34.44 (2.56)
2004	28	456 (243)	25	407 (134)	0	0.00 (2.77)
2005	32	523(181)	26	425 (103)	0	0.00 (2.77)

Note: All rates are per 100 million miles of travel. Numbers in parentheses are statewide average rates for **Rural Minor Arterials**.

Crash rates in this area were 1.9 to 3.3 times the statewide accident rates for similarly classified facilities during the 2003 through 2005 study period, while the injury rates were 3.0 to 4.1 times the statewide injury rates. The proposed project would include improvements to intersections and realignment of the horizontal and vertical curvature of the roadway to improve sight distances. The proposed operational improvements would increase driver visibility and would allow Glade Road to operate at an acceptable level of service through the year 2030. The proposed project would correct alignment, typical section and clear zone deficiencies and bring the roadway to within AASHTO design guidelines for the appropriate speed design, thereby reducing the number of crashes and injuries.

The Glade Road operational upgrades are included in the FY 2006-2011 Transportation Improvement Program (TIP) as project number BT-015. This project is not associated with any other construction project and would not restrict consideration of any future improvements.

**Description of the proposed project:**

The proposed project would consist of the widening and reconstruction of Glade Road (CR 633) in Bartow County from Homestead Drive (CR605)/Apache Drive (CR 377) to Ryan Road (CR 810)/Yacht Club Road (CR 386). These limits will include a distance of approximately 3.7 miles. The existing roadway consists of two 12-foot travel lanes (one in each direction) on approximately 60 feet of right-of-way. The proposed project would improve the roadway to meet 35 mph AASHTO design speed and will require horizontal and vertical realignment in several areas in order to meet the speed design. A rural two lane section will be used throughout the project limits. Existing intersections at connecting streets would be upgraded as necessary to better accommodate access to and from these side streets. The proposed project will include the replacement of the existing Glade Road Bridge over Allatoona Lake.

**Is the project located in a Non-attainment area?**

Ozone  Yes  No PM 2.5  Yes  No

This project is not modeled for air quality conformance by ARC since it is an operational and safety improvement project which will not add capacity to the roadway.

**PDP Classification:** Major X Minor \_\_\_\_\_

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

**Functional Classification:** Urban Minor Arterial – South of New Hope Road  
Rural Major Collector – North of New Hope Road

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

**Traffic (AADT):**

Current Year: (2010) 7,600 Design Year: (2030) 13,600

**Existing design features:**

- Typical Section:
  - *Two 12' lanes, Grassed shoulder*
- Posted speed 30 mph
- Minimum radius for curve: 180'
- Maximum superelevation rate for curve: N/A % (*No apparent consistent rate*)
- Maximum grade: 9.2%
- Width of right of way: Varies (60' minimum)
- Major structures:
  - *263' x 27' two-lane bridge, Glade Road over Allatoona Lake (Clark Creek)*
    - *Structure ID = 015-0122-0; Sufficiency Rating = 61.00, H-15 Loading*
    - *Part of the existing superstructure is below the 100-year flood pool elevation of 863' for Allatoona Lake*
- Major interchanges or intersections along the project: None
- Existing length of roadway segment and the beginning mile logs for each county segment: Beginning mile log 0.50; End mile log 4.20; Total length 3.70 miles

**Proposed Design Features:**

- Proposed typical section(s):
  - *Two 12' lanes*
  - *Rural shoulder, 8' usable, 2' paved*
  - *18' clear zone with 4:1 slopes; 2:1 slopes outside clear zone*
- Proposed Design Speed Mainline 35 mph
- Proposed Maximum grade Mainline: 7% Maximum grade allowable: 8%
- Proposed Maximum grade Side Street: 11% Maximum grade allowable: 11%
- Proposed Maximum grade driveway: 15% residential, 10% commercial
- Proposed Minimum radius for curve: 400' Minimum radius allowable: 371'
- Proposed Maximum superelevation rate for curve ( $e_{max}$ ): 4%
- Right of way
  - Width: Varies (80' to 100')
  - Easements: Temporary (X), Permanent (X), Utility ( ), Other ( )
  - Type of access control: Full ( ), Partial ( ), By Permit (X), Other ( )

o Number of parcels: 210

Number of displacements:

- o Business: 1
- o Residences: 12
- o Mobile homes: 12
- o Other: \_\_\_\_\_

• Structures:

- o Bridges: *Glade Road over Allatoona Lake (Clark Creek), 600' x 44', two lanes of traffic*
- o Retaining walls: *None anticipated at this time, but may be considered at certain locations to minimize property impacts.*

• Major intersections and interchanges: *N/A*

• Traffic control during construction:

- o *Existing traffic will be maintained on the project during construction.*

• Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	( )	( )	(X)
ROADWAY WIDTH:	( )	( )	(X)
SHOULDER WIDTH:	( )	( )	(X)
VERTICAL GRADES:	( )	( )	(X)
CROSS SLOPES:	( )	( )	(X)
STOPPING SIGHT DISTANCE:	( )	( )	(X)
SUPERELEVATION RATES:	( )	( )	(X)
HORIZONTAL CLEARANCE:	( )	( )	(X)
SPEED DESIGN:	( )	( )	(X)
VERTICAL CLEARANCE:	( )	( )	(X)
BRIDGE WIDTH:	( )	( )	(X)
BRIDGE STRUCTURAL CAPACITY:	( )	( )	(X)

• Design Variances:

- o *Minimum Length of Horizontal Curve –GDOT Design Policy Manual requires horizontal curves have a minimum length of 525' for 35 mph design speed. Several curves are proposed to have lengths less than 525' in order to avoid extension relocation and/or extensive earthwork. The proposed locations are as follows:*

<u>PC STA</u>	<u>PT STA</u>	<u>Curve Length</u>	<u>Nearest Intersecting Street</u>
507+07.60	509+90.11	282.51'	Pecan Circle
512+87.67	515+89.71	302.04'	Piute Lane
518+40.69	527+77.34	436.65'	Pecan Circle
525+25.41	529+72.31	446.90'	Tanyard Creek Road
535+20.63	538+18.55	297.92'	Randy Way
539+15.41	542+89.85	374.44'	Catfish Court
546+09.27	549+50.38	341.11'	Misty Valley Drive
559+61.84	862+47.71	285.87'	Brandy Lane
583+43.30	587+23.30	380.00'	Michael Lane
589+14.05	594+22.12	508.07'	Clark Circle
597+52.93	600+33.98	281.05'	Dawn's Way
609+27.30	612+41.68	314.38'	Camp Drive

<u>PC STA</u>	<u>PT STA</u>	<u>Curve Length</u>	<u>Nearest Intersecting Street</u>
617+99.19	620+99.30	300.10'	Camp Drive
634+64.72	637+92.13	327.41'	Kings Camp Road
639+24.22	642+42.09	317.86'	Cox Farm Road
643+83.14	647+10.33	327.19'	Scenic Mountain Dr.
654+54.22	658+67.08	412.89'	Roberts Way
678+13.27	682+94.80	481.52'	Creekside Drive
696+74.04	701+42.54	468.50'	Twin Pines Road
704+58.95	708+57.65	398.71'	Ryan Road

- Environmental concerns:
  - Anticipate Memorandum of Agreement with U.S. Army Corps of Engineers to mitigate impacts to the recreational property and storage capacity of Allatoona Lake. Execution of MOA may eliminate the need for a Section 4f Evaluation due to impacts to park property.
  - Section 404 Permit anticipated for the replacement of bridge over Allatoona Lake and other jurisdictional wetlands and waters,
  - Possible USTs adjacent to Glade Road just southeast of Misty Valley Road and at New Hope Church Road (no disturbance anticipated).
  - No historic resources were identified in the project corridor.
- Level of environmental analysis:
  - Are Time Savings Procedures appropriate? Yes ( ), No (X),
  - Categorical exclusion ( ),
  - Environmental Assessment/Finding of No Significant Impact (FONSI) (X), or
  - Environmental Impact Statement (EIS) ( ).
- Utility involvements: AT&T (BellSouth), Georgia Power, Atlanta Gas Light, Comcast, Acworth Cable, Bartow County Water and Sewer

VE Study Required: Yes ( ), No (X)

**Project responsibilities:**

- Design: Bartow County
- Right of Way Acquisition: Bartow County
- Relocation of Utilities: Bartow County
- Letting to contract: Georgia DOT
- Supervision of construction: Georgia DOT
- Providing material pits: N/A
- Providing detours: N/A

### **Coordination**

- Initial Concept Meeting date and brief summary: *June 7, 2005, Minutes attached*
- Concept meeting date and brief summary: *May 8, 2007, Minutes attached*
- P. A. R. meetings, dates and results: *To be determined if PAR required.*
- FEMA: *To be determined*
- U.S. Army Corps of Engineers: *Coordination ongoing, anticipate Memorandum of Agreement for lake and park impacts, anticipate Section 404 Permit*
- USCG, and/or TVA: *N/A*
- Public involvement: *PIOH held 11/28/06*
- Local government comments: *None as of this date*
- Other projects in the area: *N/A*
- Other coordination to date: *N/A*

### **Scheduling – Responsible Parties' Estimate**

- Time to complete the environmental process: *12 Months*
- Time to complete preliminary construction plans: *9 Months*
- Time to complete right of way plans: *2 Months*
- Time to complete the Section 404 Permit: *6 Months*
- Time to complete final construction plans: *9 Months*
- Time to complete to purchase right of way: *18 Months*
- List other major items that will affect the project schedule: *0 Months*

### **Other build alternates considered:**

- *Alignment with 45 mph speed design: This alternate greatly increases the number of displacements. Also, this area is mostly residential; therefore a slower speed design was more conducive to the community.*

### **Comments:**

Project Concept Report - Page 9  
Project Number: CSSTP-0003-00(770)  
P. I. Number: 0003770  
County: Bartow

**Attachments:**

1. Cost Estimates:
  - a. Construction including E&C: \$15,239,968
  - b. Right of Way: *By Locals (approx. \$3,100,000, estimate not included)*
  - c. Utilities: *By Locals (approx. \$800,000, estimate not included)*
2. Typical sections
3. Accident summaries
4. Traffic Projections
5. Capacity analysis
6. Bridge inventory
7. Minutes of Initial Concept Meeting
8. Minutes of Concept Team Meeting
9. PIOH Handout, Summary of Comments and Comment Response Letter
10. Minutes from Oct., 26, 2006 Coordination Meeting with GDOT, USACOE and FHWA
11. Project Framework Agreement (PFA)

**Summary of Costs**

Project Name: **Glade Road Improvements**  
 Project No.: **CSSTP-0003-00(770)**  
 Alt: **Final Concept**

PI No.: **0003770**  
 County **Bartow**  
 Date: **09-Apr-07**

Item Group	Cost
TRAFFIC CONTROL & STAGING	\$ 1,477,943
MISCELLANEOUS	\$ 76,260
TEMPORARY EROSION CONTROL	\$ 712,169
CLEARING & GRUBBING	\$ 664,000
EARTHWORK	\$ 1,105,460
BASE & PAVING	\$ 3,125,878
DRIVEWAYS	\$ 672,232
BRIDGES	\$ 4,158,000
RETAINING WALLS	\$ 533,500
BOX CULVERTS	\$ -
DRAINAGE	\$ 374,893
PERMANENT EROSION CONTROL & GRASSING	\$ 622,263
REMOVAL	\$ 150,000
PERMANENT CONCRETE BARRIER	\$ -
SOUND BARRIERS	\$ -
SIGNING	\$ 5,294
GUARDRAIL	\$ 113,667
FENCING	\$ -
TRAFFIC SIGNALS	\$ -
MARKING	\$ 62,956
SANITARY SEWER	\$ -
WATER DISTRIBUTION	\$ -
LIGHTING	\$ -
LANDSCAPING	\$ -
ATMS	\$ -
<b>SUBTOTAL CONSTRUCTION COST</b>	<b>\$ 13,854,516</b>
E. & C. @ 10%	\$ 1,385,452
INFLATION: @ 5% PER YEAR	\$ -
NUMBER OF YEARS: 0	
<b>TOTAL CONSTRUCTION COST</b>	<b>\$ 15,239,968</b>

**Estimate Report for file "PI0003770\_DETEST\_Input.prn"**

<b>Section TRAFFIC CONTROL &amp; STAGING</b>					
<b>Item Number</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Price</b>	<b>Item Description</b>	<b>Cost</b>
150-1000	1	LS	590000.00	TRAFFIC CONTROL -	590000.00
310-1101	6133	TN	20.00	GR AGGR BASE CRS, INCL MATL	122660.00
400-3205	0	TN	100.00	ASPH CONC 12.5 MM OGFC, GP 2 ONLY, INCL BITUM MATL & H LIME	0.00
402-1812	1158	TN	85.00	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	98430.00
402-3121	0	TN	90.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	0.00
402-3130	2038	TN	90.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM	183420.00
402-3190	1608	TN	90.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	144720.00
413-1000	803	GL	2.07	BITUM TACK COAT	1662.21
432-5010	4000	SY	2.24	MILL ASPH CONC PVMT, VARIABLE DEPTH	8960.00
541-9000	0	SF	55.00	DETOUR BRIDGE	0.00
550-1180	1200	LF	42.29	STORM DRAIN PIPE, 18 IN, H 1-10	50748.00
550-1240	0	LF	54.59	STORM DRAIN PIPE, 24 IN, H 1-10	0.00
620-0100	4800	LF	37.33	TEMPORARY BARRIER, METHOD NO. 1	179184.00
632-0003	0	EA	17400.85	CHANGEABLE MESSAGE SIGN, PORTABLE, TYPE 3	0.00
647-0220	0	EA	50000.00	TRAFFIC SIGNAL INSTALLATION, TEMPORARY	0.00
650-1100	5	EA	19631.82	IMPACT ATTENUATOR UNIT (CRASH COMPRESSION CUSHION) TYPE P-	98159.10
668-2105	0	EA	4152.58	DROP INLET, GP 1, SPLC DES	0.00
<b>Section Sub Total:</b>					<b>\$1,477,943.31</b>

<b>Section MISCELLANEOUS</b>					
<b>Item Number</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Price</b>	<b>Item Description</b>	<b>Cost</b>
153-1300	1	EA	76259.74	FIELD ENGINEERS OFFICE TP 3	76259.74
158-1000	0	HR	0.80	TRAINING HOURS	0.00
634-1200	0	EA	104.65	RIGHT OF WAY MARKERS	0.00
<b>Section Sub Total:</b>					<b>\$76,259.74</b>

<b>Section TEMPORARY EROSION CONTROL</b>					
<b>Item Number</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Price</b>	<b>Item Description</b>	<b>Cost</b>
163-0232	42	AC	564.57	TEMPORARY GRASSING	23711.94
163-0240	188	TN	178.21	MULCH	33503.48
163-0300	8	EA	2571.07	CONSTRUCTION EXIT	20568.56
163-0503	47	EA	557.26	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	26191.22
163-0522	46	EA	300.00	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS - TYPE A SILT FENCE	13800.00
163-0523	137	EA	350.00	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS - TYPE C SILT FENCE	47950.00
163-0524	46	EA	400.00	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS - STONE PLAIN RIP RAP/SAND BAGS	18400.00
163-0531	8	EA	8227.25	CONSTRUCT AND REMOVE SEDIMENT BASIN, TP 1, STA NO -	65818.00
163-0550	47	EA	305.97	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	14380.59
165-0010	12960	LF	0.97	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	12571.20
165-0030	48600	LF	1.74	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	84564.00
165-0040	228	EA	82.07	MAINTENANCE OF EROSION CONTROL CHECKDAMS/DITCH CHECKS	18711.96
165-0060	8	EA	1329.77	MAINTENANCE OF TEMPORARY SEDIMENT BASIN, STA NO -	10638.16
165-0087	47	EA	188.84	MAINTENANCE OF SILT CONTROL GATE, TP 3	8875.48
165-0101	8	EA	677.10	MAINTENANCE OF CONSTRUCTION EXIT	5416.80
165-0105	47	EA	107.01	MAINTENANCE OF INLET SEDIMENT TRAP	5029.47
167-1000	8	EA	1363.64	WATER QUALITY MONITORING AND SAMPLING	10909.12

167-1500	29	MO	1047.62	WATER QUALITY INSPECTIONS	30380.98
171-0010	12960	LF	2.08	TEMPORARY SILT FENCE, TYPE A	26956.80
171-0030	48600	LF	4.06	TEMPORARY SILT FENCE, TYPE C	197316.00
643-8200	3600	LF	3.67	BARRIER FENCE (ORANGE), 4 FT	13212.00
700-7000	126	TN	60.28	AGRICULTURAL LIME	7595.28
700-7010	105	GL	19.81	LIQUID LIME	2080.05
700-8000	26	TN	348.95	FERTILIZER MIXED GRADE	9072.70
700-8100	2100	LB	2.15	FERTILIZER NITROGEN CONTENT	4515.00
<b>Section Sub Total:</b>					<b>\$712,168.79</b>

<b>Section CLEARING &amp; GRUBBING</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
202-1000	83	AC	8000.00	CLEARING AND GRUBBING	664000.00
<b>Section Sub Total:</b>					<b>\$664,000.00</b>

<b>Section EARTHWORK</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
205-0001	126280	CY	7.00	UNCLASS EXCAV	883960.00
206-0002	22150	CY	10.00	BORROW EXCAV, INCL MATL	221500.00
206-9999	0	CY	5.00	Waste Material	0.00
208-0200	0	CY	44.19	ROCK EMBANKMENT	0.00
<b>Section Sub Total:</b>					<b>\$1,105,460.00</b>

<b>Section BASE &amp; PAVING</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-1101	32510	TN	20.00	GR AGGR BASE CRS, INCL MATL	650200.00
400-3205	0	TN	100.00	ASPH CONC 12.5 MM OGFC, GP 2 ONLY, INCL BITUM MATL & H LIME	0.00
402-1812	1620	TN	85.00	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	137700.00
402-3110	0	TN	85.00	RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	0.00
402-3121	13010	TN	90.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	1170900.00
402-3130	6090	TN	90.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM	548100.00
402-3190	6510	TN	90.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	585900.00
413-1000	6890	GL	2.07	BITUM TACK COAT	14262.30
430-0220	0	SY	45.78	PLAIN PC CONC PVMT, CL 1 CONC, 12 INCH THK	0.00
430-0620	0	SY	57.22	PLAIN PC CONC PVMT, CL HES CONC, 12 INCH THK	0.00
430-0630	0	LF	81.66	REINFORCED CONCRETE LUG ANCHORS	0.00
430-0820	0	SY	62.67	CONT REINF CONC PVMT, CL 1 CONC, 12 INCH THK	0.00
430-1220	0	SY	63.08	CONT REINF CONC PVMT, CL HES CONC, 12 INCH THK	0.00
432-5010	8400	SY	2.24	MILL ASPH CONC PVMT, VARIABLE DEPTH	18816.00
441-0104	0	SY	37.79	CONC SIDEWALK, 4 IN	0.00
441-0740	0	SY	31.41	CONCRETE MEDIAN, 4 IN	0.00
441-0754	0	SY	46.70	CONCRETE MEDIAN, 7 1/2 IN	0.00
441-6222	0	LF	17.86	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	0.00
441-6740	0	LF	15.09	CONC CURB & GUTTER, 8 IN X 30 IN, TP 7	0.00
442-0100	0	SY	42.45	ROLLER COMPACTED CONCRETE PAVEMENT	0.00
456-2012	0	GLM	920.98	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (CONTINUOUS)	0.00
500-3200	0	CY	428.86	CLASS B CONCRETE	0.00
<b>Section Sub Total:</b>					<b>\$3,125,878.30</b>

<b>Section DRIVEWAYS</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-1101	5180	TN	20.00	GR AGGR BASE CRS, INCL MATL	103600.00
318-3000	0	TN	20.00	AGGR SURF CRS	0.00

402-3110	0	TN	85.00	RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	0.00
402-3130	980	TN	90.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM	88200.00
402-3190	1300	TN	90.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	117000.00
413-1000	400	GL	2.07	BITUM TACK COAT	828.00
441-0016	0	SY	39.33	DRIVEWAY CONCRETE, 6 IN TK	0.00
441-4030	0	SY	43.86	CONC VALLEY GUTTER, 8 IN	0.00
441-6222	0	LF	17.86	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	0.00
550-2180	2640	LF	36.65	SIDE DRAIN PIPE, 18 IN, H 1-10	96756.00
550-2240	1060	LF	39.96	SIDE DRAIN PIPE, 24 IN, H 1-10	42357.60
550-2360	530	LF	64.10	SIDE DRAIN PIPE, 36 IN, H 1-10	33973.00
550-2480	0	LF	65.16	SIDE DRAIN PIPE, 48 IN, H 1-10	0.00
550-3618	120	EA	698.61	SAFETY END SECTION 18 IN, SIDE DRAIN, 6:1 SLOPE	83833.20
550-3624	50	EA	799.22	SAFETY END SECTION 24 IN, SIDE DRAIN, 6:1 SLOPE	39961.00
550-3636	30	EA	2190.76	SAFETY END SECTION 36 IN, SIDE DRAIN, 6:1 SLOPE	65722.80
550-3648	0	EA	3618.66	SAFETY END SECTION 48 IN, SIDE DRAIN, 6:1 SLOPE	0.00
<b>Section Sub Total:</b>					<b>\$672,231.60</b>

**Section BRIDGES**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
433-1000	0	SY	143.76	REINF CONC APPROACH SLAB	0.00
433-1100	0	SY	184.49	REINF CONC APPROACH SLAB, INCL CURB	0.00
433-1200	0	SY	180.97	REINF CONC APPROACH SLAB, INCL SLOPED EDGE	0.00
433-1300	0	SY	195.57	REINF CONC APPROACH SLAB, INCL BARRIER	0.00
441-0004	0	SY	51.53	CONC SLOPE PAV, 4 IN	0.00
500-9001	41580	SF	100.00	Bridge No. 1 - Glade Road Over Lake Allatoona (Replace 44x900)	4158000.00
500-9002	0	SF	0.00	Bridge No.	0.00
500-9003	0	SF	0.00	Bridge No.	0.00
500-9004	0	SF	0.00	Bridge No.	0.00
500-9005	0	SF	0.00	Bridge No.	0.00
500-9006	0	SF	0.00	Bridge No.	0.00
500-9007	0	SF	0.00	Bridge No.	0.00
500-9008	0	SF	0.00	Bridge No.	0.00
500-9009	0	SF	0.00	Bridge No.	0.00
500-9010	0	SF	0.00	Bridge No.	0.00
500-9011	0	SF	0.00	Bridge No.	0.00
500-9012	0	SF	0.00	Bridge No.	0.00
518-9001	0	SF	15.00	Raise Existing Bridge No. 2 -	0.00
518-9002	0	SF	15.00	Raise Existing Bridge No. 3 -	0.00
518-9003	0	SF	0.00	Raise Existing Bridge No. -	0.00
518-9004	0	SF	0.00	Raise Existing Bridge No. -	0.00
518-9005	0	SF	0.00	Raise Existing Bridge No. -	0.00
<b>Section Sub Total:</b>					<b>\$4,158,000.00</b>

**Section RETAINING WALLS**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
500-9510	1980	SF	75.00	Retaining Wall - Cantilever - 0-10 ft. Ht.	148500.00
500-9520	0	SF	90.00	Retaining Wall - Cantilever - 10-20 ft. Ht.	0.00
500-9530	0	SF	110.00	Retaining Wall - Cantilever - 20-30 ft. Ht.	0.00
500-9610	0	SF	65.00	Retaining Wall - Gravity - 0-10 ft. Ht.	0.00
627-1140	0	LF	186.82	TRAFFIC BARRIER V, WALL NO -	0.00
627-9510	5500	SF	70.00	Retaining Wall - MSE - 0-10 ft. Ht.	385000.00
627-9520	0	SF	75.00	Retaining Wall - MSE - 10-20 ft. Ht.	0.00
627-9530	0	SF	80.00	Retaining Wall - MSE - 20-30 ft. Ht.	0.00
627-9540	0	SF	90.00	Retaining Wall - MSE - 30-40 ft. Ht.	0.00
<b>Section Sub Total:</b>					<b>\$533,500.00</b>

**Section BOX CULVERTS**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
207-0203	0	CY	60.64	FOUND BK FILL MATL, TP II	0.00
500-3101	0	CY	594.75	CLASS A CONCRETE	0.00
511-1000	0	LB	0.94	BAR REINF STEEL	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

**Section DRAINAGE**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
500-3800	30	CY	821.78	CLASS A CONCRETE, INCL REINF STEEL	24653.40
550-1180	1056	LF	42.29	STORM DRAIN PIPE, 18 IN, H 1-10	44658.24
550-1240	792	LF	54.59	STORM DRAIN PIPE, 24 IN, H 1-10	43235.28
550-1360	594	LF	85.45	STORM DRAIN PIPE, 36 IN, H 1-10	50757.30
550-1480	264	LF	139.66	STORM DRAIN PIPE, 48 IN, H 1-10	36870.24
550-1600	66	LF	210.00	STORM DRAIN PIPE, 60 IN, H 1-10	13860.00
550-1720	0	Unavailable	0	Unavailable	0.00
550-4218	36	EA	688.02	FLARED END SECTION 18 IN, STORM DRAIN	24768.72
550-4224	27	EA	841.23	FLARED END SECTION 24 IN, STORM DRAIN	22713.21
550-4236	20	EA	1290.81	FLARED END SECTION 36 IN, STORM DRAIN	25816.20
573-2006	4400	LF	19.90	UNDDR PIPE INCL DRAINAGE AGGR, 6 IN	87560.00
615-1000	0	LF	553.46	JACK OR BORE PIPE -	0.00
668-1100	0	EA	2714.66	CATCH BASIN, GP 1	0.00
668-1110	0	LF	251.66	CATCH BASIN, GP 1, ADDL DEPTH	0.00
668-2105	0	EA	4152.58	DROP INLET, GP 1, SPCL DES	0.00
668-2110	0	LF	310.14	DROP INLET, GP 1, ADDL DEPTH	0.00
<b>Section Sub Total:</b>					<b>\$374,892.59</b>

**Section PERMANENT EROSION CONTROL & GRASSING**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0240	224	TN	178.21	MULCH	39919.04
441-0204	3248	SY	32.61	PLAIN CONC DITCH PAVING, 4 IN	105917.28
576-1010	0	LF	8.11	SLOPE DRAIN PIPE, 10 IN	0.00
576-1018	0	LF	32.37	SLOPE DRAIN PIPE, 18 IN	0.00
603-2024	1540	SY	51.41	STN DUMPED RIP RAP, TP 1, 24 IN	79171.40
603-2182	1158	SY	62.03	STN DUMPED RIP RAP, TP 3, 24 IN	71830.74
603-7000	2698	SY	4.98	PLASTIC FILTER FABRIC	13436.04
700-6910	75	AC	971.51	PERMANENT GRASSING	72863.25
700-7000	224	TN	60.28	AGRICULTURAL LIME	13502.72
700-7010	186	GL	19.81	LIQUID LIME	3684.66
700-8000	45	TN	348.95	FERTILIZER MIXED GRADE	15702.75
700-8100	3720	LB	2.15	FERTILIZER NITROGEN CONTENT	7998.00
700-9300	0	SY	6.91	SOD	0.00
710-9000	21654	SY	3.60	PERMANENT SOIL REINFORCING MAT	77954.40
715-2200	32480	SY	2.34	BITUMINOUS TREATED ROVING, WATERWAYS	76003.20
716-2000	36000	SY	1.23	EROSION CONTROL MATS, SLOPES	44280.00
<b>Section Sub Total:</b>					<b>\$622,263.48</b>

**Section REMOVAL**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
540-1101	1	EA	150000.00	REMOVAL OF EXISTING BR, STA NO -	150000.00
609-1000	0	SY	20.00	REMOVE ROADWAY SLAB	0.00
610-0714	0	SY	25.00	REM CONC MEDIAN	0.00
610-0716	0	LF	60.00	REM CONC MEDIAN BARRIER	0.00
610-1055	0	LF	1.50	REM GUARDRAIL	0.00
610-1075	0	EA	400.00	REM GUARDRAIL ANCH, ALL TYPES	0.00
610-2700	0	SY	5.00	REM CONCRETE	0.00
610-2705	0	SY	50.00	REM CONC APPROACH SLAB	0.00
610-6510	0	EA	1000.00	REM HWY SIGN, OVHD	0.00
610-9005	0	EA	30000.00	REM PORTIONS OF EXISTING RETAINING WALL -	0.00
610-9007	0	EA	50000.00	REM PORTIONS OF EXISTING CLVT, CONC, STA -	0.00
610-9099	0	EA	10000.00	REM WINGWALLS & PARAPETS, STA -	0.00
610-9310	0	EA	5000.00	REM STR SUPPORT, TP -	0.00

**Section Sub Total: \$150,000.00**

<b>Section PERMANENT CONCRETE BARRIER</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
621-3125	0	LF	335.13	CONCRETE BARRIER, TP 25S, MODIFIED	0.00
621-3126	0	LF	250.95	CONCRETE BARRIER, TYPE 26S	0.00
621-6001	0	LF	59.51	CONCRETE BARRIER, TP S-1	0.00
621-6002	0	LF	73.57	CONCRETE BARRIER, TP S-2	0.00
621-6003	0	LF	197.39	CONCRETE BARRIER, TP S-3	0.00
621-6004	0	LF	300.00	CONCRETE BARRIER, TP S-3A	0.00
621-6005	0	LF	0.00	CONCRETE BARRIER, TP S-3B	0.00
621-6008	0	LF	291.05	CONCRETE SIDE BARRIER, TP 7-CS	0.00
621-6012	0	LF	96.03	CONCRETE SIDE BARRIER, TP 7-RS	0.00
621-6013	0	LF	268.88	CONCRETE SIDE BARRIER, TP 7-TS	0.00
621-6201	0	LF	401.05	CONCRETE SIDE BARRIER, TP 2-SA	0.00
621-6202	0	LF	1020.88	CONCRETE SIDE BARRIER, TP 2-SB	0.00
621-6203	0	LF	878.83	CONCRETE SIDE BARRIER, TP 2-SC	0.00
621-6204	0	LF	0.00	CONCRETE SIDE BARRIER, TP 2-SD	0.00
621-6205	0	LF	0.00	CONCRETE SIDE BARRIER, TP 2-SE	0.00
621-6210	0	LF	0.00	CONCRETE SIDE BARRIER, TP 6-S	0.00
621-6211	0	LF	0.00	CONCRETE SIDE BARRIER, TP 6-SA	0.00
621-6212	0	LF	0.00	CONCRETE SIDE BARRIER, TP 6-SB	0.00
621-6213	0	LF	0.00	CONCRETE SIDE BARRIER, TP 6-SC	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

<b>Section SOUND BARRIERS</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
621-6012	0	LF	96.03	CONCRETE SIDE BARRIER, TP 7-RS	0.00
624-0410	0	SF	25.00	SOUND BARRIER	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

<b>Section SIGNING</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	94	SF	14.94	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	1404.36
636-1029	0	SF	16.52	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 3	0.00
636-1033	59	SF	19.27	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	1136.93
636-1041	0	SF	30.43	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	0.00
636-1072	0	SF	22.87	HIGHWAY SIGNS, ALUM EXTRUDED PANELS, REFL SHEETING, TP 3	0.00
636-2070	228	LF	8.29	GALV STEEL POSTS, TP 7	1890.12
636-2080	76	LF	11.35	GALV STEEL POSTS, TP 8	862.60
638-1001	0	EA	83661.98	STR SUPPORT FOR OVERHEAD SIGN, TP I , STA -	0.00
639-2002	0	LF	3.33	STEEL WIRE STRAND CABLE, 3/8 IN	0.00
639-3004	0	EA	8736.82	STEEL STRAIN POLE, TP IV	0.00
<b>Section Sub Total:</b>					<b>\$5,294.01</b>

<b>Section GUARDRAIL</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
402-3110	154	TN	85.00	RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	13090.00
402-3190	247	TN	90.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	22230.00
436-1000	1200	LF	10.36	ASPHALTIC CONCRETE CURB -	12432.00
641-1100	0	LF	53.72	GUARDRAIL, TP T	0.00
641-1200	2400	LF	18.49	GUARDRAIL, TP W	44376.00
641-2200	0	LF	23.56	DBL FACED GUARDRAIL, TP W	0.00
641-5001	5	EA	648.84	GUARDRAIL ANCHORAGE, TP 1	3244.20
641-5012	10	EA	1829.52	GUARDRAIL ANCHORAGE, TP 12	18295.20

642-0100	0	LF	24.79	CABLE BARRIER	0.00
642-0300	0	EA	2950.00	CABLE TERMINAL (NCHRP 350 TL-3 COMPLIANT)	0.00
<b>Section Sub Total:</b>					<b>\$113,667.40</b>

<b>Section FENCING</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
643-0010	0	LF	5.15	FIELD FENCE WOVEN WIRE	0.00
643-0105	0	LF	5.87	FIELD FENCE BARBED WIRE, 5 STRANDS	0.00
643-1171	0	LF	12.70	CH LK FENCE, ZC COAT, 8 FT, 9 GA	0.00
643-8000	0	EA	518.18	GATE, FIELD FENCE -	0.00
643-8010	0	EA	953.92	GATE, CHAIN LINK ZC COAT -	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

<b>Section TRAFFIC SIGNALS</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
647-1001	0	EA	100000.00	TRAFFIC SIGNAL INSTALLATION NO - Complete - Major Intersection	0.00
647-1002	0	EA	80000.00	TRAFFIC SIGNAL INSTALLATION NO - Complete - Minor Intersection	0.00
647-1003	0	EA	60000.00	TRAFFIC SIGNAL INSTALLATION NO - Complete - Upgrade Existing	0.00
647-1050	0	LF	20.00	TRAFFIC SIGNAL Communications Cable	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

<b>Section MARKING</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
653-0120	0	EA	70.40	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	0.00
653-1501	48400	LF	0.60	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	29040.00
653-1502	48400	LF	0.61	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	29524.00
653-1704	0	LF	5.34	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	0.00
653-1804	0	LF	1.86	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	0.00
653-3501	0	GLF	0.54	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	0.00
653-3502	0	GLF	0.31	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW	0.00
653-6004	0	SY	2.70	THERMOPLASTIC TRAF STRIPING, WHITE	0.00
653-6006	0	SY	3.32	THERMOPLASTIC TRAF STRIPING, YELLOW	0.00
654-1001	1210	EA	3.63	RAISED PVMT MARKERS TP 1	4392.30
654-1003	0	EA	3.70	RAISED PVMT MARKERS TP 3	0.00
<b>Section Sub Total:</b>					<b>\$62,956.30</b>

<b>Section SANITARY SEWER</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
660-0008	0	LF	42.72	SAN SEWER PIPE, 8 IN, PVC	0.00
660-0012	0	LF	0	SAN SEWER PIPE, 12 IN, PVC	0.00
660-0808	0	LF	108.34	SAN SEWER PIPE, 8 IN, DUCTILE IRON	0.00
660-0812	0	LF	0	SAN SEWER PIPE, 12 IN, DUCTILE IRON	0.00
660-0816	0	LF	228.06	SAN SEWER PIPE, 16 IN, DUCTILE IRON	0.00
660-0824	0	LF	214.02	SAN SEWER PIPE, 24 IN, DUCTILE IRON	0.00
668-3300	0	EA	4607.70	SAN SEWER MANHOLE, TP 1	0.00
668-3311	0	LF	498.61	SAN SEWER MANHOLE, TP 1, ADDL DEPTH, CL 1	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

<b>Section WATER DISTRIBUTION</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost

670-1080	0	LF	84.55	WATER MAIN, 8 IN	0.00
670-1120	0	LF	88.91	WATER MAIN, 12 IN	0.00
670-1160	0	LF	147.18	WATER MAIN, 16 IN	0.00
670-2080	0	EA	1100.98	GATE VALVE, 8 IN	0.00
670-2120	0	EA	2166.80	GATE VALVE, 12 IN	0.00
670-2160	0	EA	10500.00	GATE VALVE, 16 IN	0.00
670-3087	0	EA	4050.50	TAPPING SLEEVE & VALVE ASSEMBLY, 8 IN X 8 IN	0.00
670-3129	0	EA	0	TAPPING SLEEVE & VALVE ASSEMBLY, 12 IN X 12 IN	0.00
670-3170	0	EA	16800.00	TAPPING SLEEVE & VALVE ASSEMBLY, 16 IN X 16 IN	0.00
670-4000	0	EA	3683.42	FIRE HYDRANT	0.00
670-5010	0	LF	75.00	WATER SERVICE LINE, 1 IN	0.00
670-7000	0	LF	172.12	STEEL CASING -	0.00
670-8112	0	EA	0	DBL STRAP SADDLE, 12 IN X 1 IN	0.00
670-8320	0	Unavailable	0	Unavailable	0.00
670-8440	0	EA	0	DBL STRAP SADDLE, 16 IN X 1 IN	0.00
670-9710	0	EA	2811.11	RELOCATE EXIST FIRE HYDRANT	0.00
670-9720	0	EA	375.61	RELOCATE EXIST WATER VALVE, INCL BOX	0.00
670-9730	0	EA	2761.35	RELOCATE EXIST WATER METER, INCL BOX	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

**Section LIGHTING**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
681-0001	0	MI	100000.00	Street Lighting Complete	0.00
681-1365	0	EA	4200.00	LIGHTING STD, ALUM, 37 FT MH, 8.5 FT ARM	0.00
681-6364	0	EA	935.41	LUMINAIRE, TP 3, 400 W, METAL HALIDE	0.00
682-1406	0	LF	1.56	CABLE, TP XHHW, AWG NO 6	0.00
682-1408	0	LF	2.83	CABLE, TP XHHW, AWG NO 2	0.00
682-6120	0	LF	15.24	CONDUIT, RIGID, 2 IN	0.00
682-6222	0	LF	10.55	CONDUIT, NONMETL, TP 2, 2 IN	0.00
682-9010	0	EA	2273.19	SVC POLE RISER	0.00
682-9021	0	EA	1711.67	ELECTRICAL JUNCTION BOX, CONC GROUND MOUNTED	0.00
683-0001	0	EA	100000.00	Interchange Lighting Complete	0.00
683-1121	0	EA	23736.70	LIGHTING TOWER, STEEL, 120 FT MH, INCL LOWERING EQUIP	0.00
683-6586	0	EA	705.82	HIGH LEVEL LUMINAIRE, TP 5, 1000 W, HP SODIUM	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

**Section LANDSCAPING**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
702-0001	0	MI	200000.00	Landscaping Complete	0.00
702-0030	0	EA	550.00	ACER RUBRUM - 5 GAL Red Maple	0.00
702-0140	0	EA	500.00	CERCIS CANADENSIS - 1-1.5 IN. Eastern Redbud	0.00
702-0159	0	Unavailable	400.00	CHIONANTHUS VIRGINICUS - 1-1.5 IN. Fringe Tree	0.00
702-0280	0	EA	40.00	GARDENIA JASMINOIDES - 3 GAL Dwarf Gardenia	0.00
702-0472	0	Unavailable	200.00	ILEX X ATTENUATA - 1-1.5 IN. Savannah Holly	0.00
702-0507	0	EA	15.00	JUNIPERUS HORIZONTALIS - 1 GAL Creeping Juniper	0.00
702-0542	0	EA	320.00	LAGERSTROEMIA INDICA - 3 GAL Crape Myrtle	0.00
702-0559	0	EA	20.00	LIRIOPE MUSCARI - 1 GAL Border Grass	0.00
702-0636	0	EA	200.00	MAGNOLIA SOULANGIANA - 1-1.5 IN. Saucer Magnolia	0.00
702-0795	0	Unavailable	20.00	PITTOSPORUM TOBIRA - 3 GAL Dwarf Pittosporum	0.00
702-0910	0	Unavailable	4000.00	QUERCUS VIRGINIANA - 6 IN. Live Oak	0.00
702-0977	0	EA	50.00	RHAPHIOLEPIS INDICA - 3 GAL Indian Hawthorne	0.00
702-9005	0	LB	1.64	SPRING APPLICATION FERTILIZER	0.00
702-9020	0	SY	10.59	MULCH	0.00

708-1000	0	CY	42.00	PLANT TOPSOIL	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

**Section ATMS**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
935-0001	0	MI	200000.00	ATMS - Conduit Bank Complete	0.00
935-0002	0	MI	250000.00	ATMS - Fiber Complete	0.00
935-0003	0	MI	300000.00	ATMS - Cameras, Detectors & Message Signs Complete	0.00
<b>Section Sub Total:</b>					<b>\$0.00</b>

**Total Estimated Cost: ~~\$13,854,515.52~~**

**Subtotal Construction Cost \$13,854,515.52**

E&C Rate 0.0 % *1,385,410.50* \$0.00

Inflation Rate 0.0 % @ 0.0 Years \$0.00

**Total Construction Cost ~~\$13,854,515.52~~ *15,239,966***

Right Of Way \$0.00

ReImb. Utilities \$0.00

**Grand Total Project Cost ~~\$13,854,515.52~~ *15,239,966***

*ADD  
6/26/06*

**February 21, 2007**

**MEETING MINUTES**

**FROM: Susan Thomas, EPEI**

**TO: Project File**

**SUBJECT: CSSTP-0003-00(770), Bartow County, P.I. Number 0003770  
Glade Road/CR 633 Improvement Project from I-75 to Bartow Carver  
Road/CR 384**

**MEETING DATE: October 26, 2006**

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The purpose of this meeting was to introduce the proposed project to the Federal Highway Administration (FHWA) and to obtain input from the US Army Corps of Engineers (USACE) on the proposed design in the vicinity of Lake Allatoona. The group met at the Clark Creek North parking area. Representatives from GDOT District 6, FHWA, USACE, and the consultant team were in attendance. The issues discussed at the meeting are summarized below.

The proposed improvements to Glade Road would require the existing bridge over the lake to be replaced. The sufficiency rating of the existing bridge is greater than 50; however, the bridge has HS-15 loading and does not accommodate the 100-year flood. These conditions make the bridge eligible for replacement. The USACE stated they would not be interested in leaving the existing bridge in place for recreation use due to maintenance responsibilities.

The group viewed three alternative concepts for the bridge crossing. Alternatives A and B would construct a parallel bridge on the east side of the existing bridge. Alternative A would be closer to the existing alignment, but would impact several existing large power transmission poles, which may be cost prohibitive. Alternative B has a greater curve and would avoid the transmission poles, but would impact the Clark Creek Day Use north parking area. Alternative C would construct a parallel bridge on the west side of the existing bridge. This alternative would affect the Clark Creek Campground on the west side of Glade Road. Between three to five camp sites may be affected by Alternative C.

None of the three alternatives would be able to avoid the Clark Creek recreation area entirely. The next step is to minimize impacts as much as possible. USACE stated they would prefer minimizing the use of fill by utilizing pilings (even on land). The 863-foot flood elevation should be maintained. The group also discussed potentially relocating the driveway to the campground and any affected camp sites to other locations in the campground. The USACE would probably request fill calculation for various bridge lengths. The removal of the existing bridge would provide some credit against proposed fill due to the new bridge. USACE stated that only fill impact below elevation 863 would need to be mitigated.

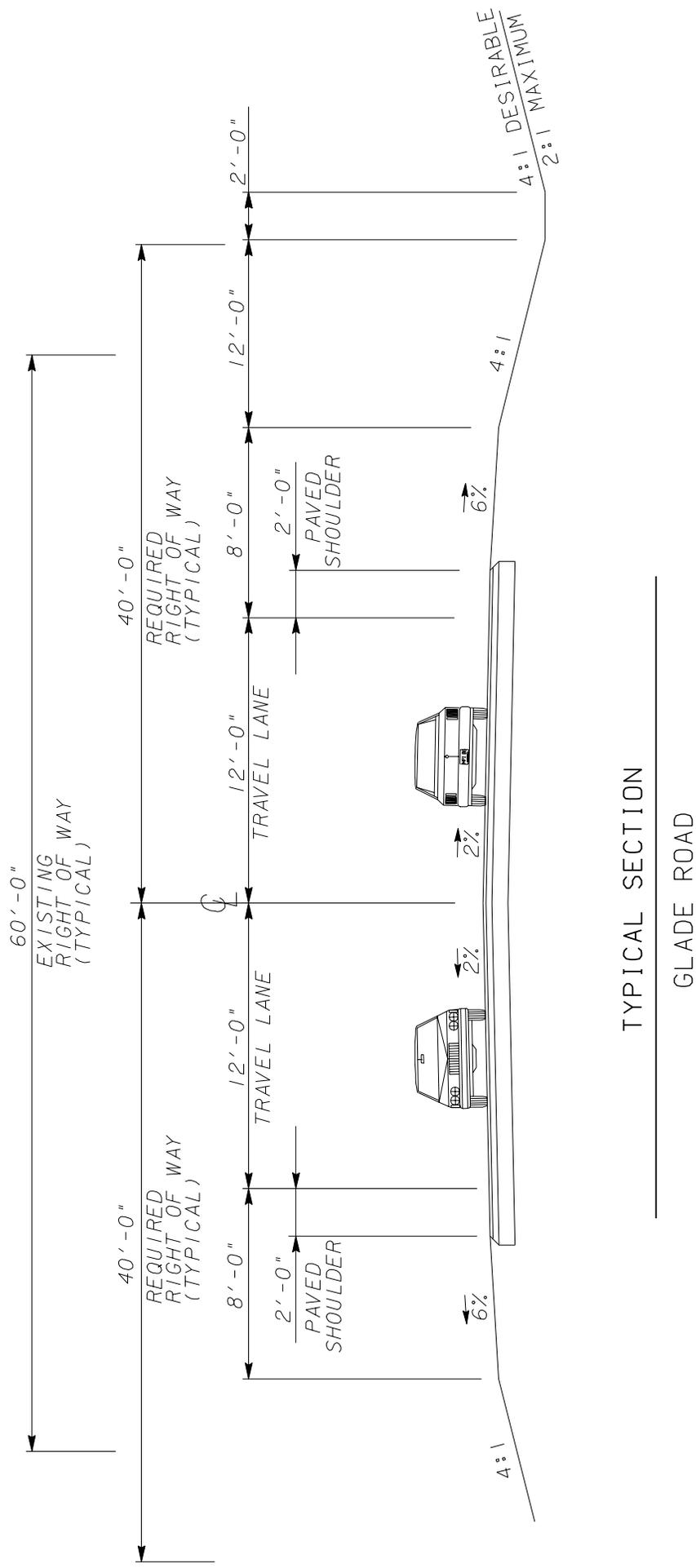
Tommy Crochet discussed the profile of the proposed bridge. USACE stated they would prefer that the profile be designed to direct the stormwater off the bridge and over land before it would discharge to the lake. USACE stated they would prefer utilities on the bridge, not underground.

USACE would like the proposed improvements to include a southbound right turn lane for access to the Clark Creek North Campground. Tommy discussed an option to minimize impacts to the north parking area by constructing a new access road that would exit on the east side of Glade Road and curve underneath the new bridge to access the campground on the west side. The USACE stated they probably would not support this option. The USACE expressed agreement that moving the existing transmission poles on the east side of Glade Road would not be feasible.

Tommy Crochet stated that not all of the proposed improvements would be constructed at the same time due to limitations on available funding. However, the environmental document would evaluate the entire project limits. Tommy stated that expanding Glade Road to four lanes is not anticipated. This may become necessary only if the public sewer were expanded to this area; sewer is currently not available. USACE asked if sidewalks would be provided. Tommy stated that sidewalks are not included in the concept at this time. USACE would like some type of fencing along the bridge to be considered as a measure to prevent jumpers.

FHWA asked if any LWCA funds were used to construct the Clark Creek day use and camping area. USACE stated that no LWCA funds were used.

FHWA stated that the level of Section 4(f) would depend on coordination with the USACE and the potential impacts to the Clark Creek day use and camping area. A *di minimus* finding could be appropriate if the USACE determines no adverse effect to the resource. The use of mitigation can be used to make the determination of no adverse effect. USACE stated that the finding would come from the USACE Mobile District Office. FHWA stated that a Memorandum of Agreement (MOA) would be appropriate. FHWA stated that an Environmental Assessment would be appropriate at this time because it is not known if there are significant impacts or not. FHWA recommended initiating coordination with the USACE Mobil District Office. USACE stated they would initiate conversations with other staff.



TYPICAL SECTION  
GLADE ROAD

TYPICAL SECTION  
 GLADE ROAD IMPROVEMENTS  
 PROJECT NO. CSSTP-0003-00(770),  
 PI NO. 0003770  
 BARTOW COUNTY  
**McGee Partners, Inc.**  
 NOVEMBER 28, 2006

**Project Number: CSSTP-0003-00(770)**

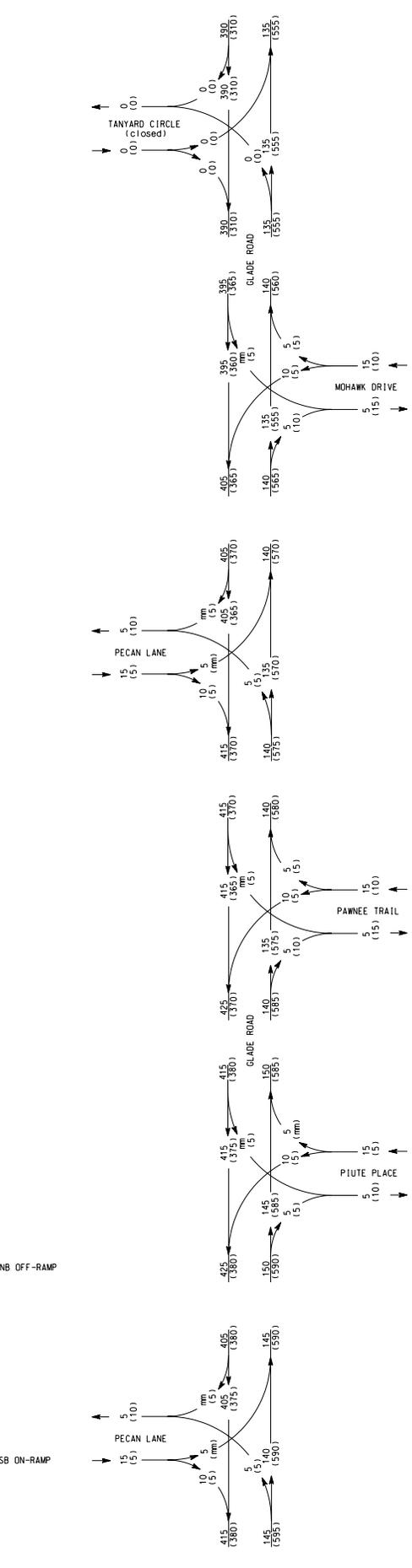
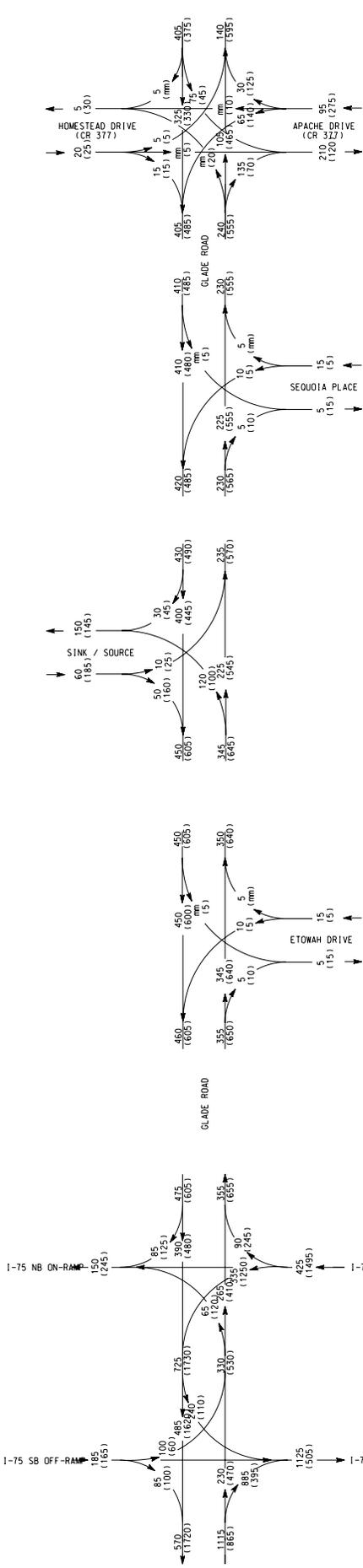
**P. I. Number: 0003770**

**County: Bartow**

**Glade Road Improvements**

<b>CRASH HISTORY</b>						
<b>Glade Road from CR377/Apache Drive to CR810/Ryan Road</b>						
<b>Year</b>	<b>Crashes</b>	<b>Crash Rate</b>	<b>Injuries</b>	<b>Injury Rate</b>	<b>Fatalities</b>	<b>Fatality Rate</b>
2003	40	689 (212)	22	379(113)	2	34.44 (2.56)
2004	28	456 (243)	25	407 (134)	0	0.00 (2.77)
2005	32	523(181)	26	425 (103)	0	0.00 (2.77)

Note: All rates are per 100 million miles of travel. Numbers in parentheses are statewide average rates for **Rural Minor Arterials**.



LEGEND:  
 100 AM PEAK HOUR TURNING MOVEMENT VOLUME  
 1:00 PM PEAK HOUR TURNING MOVEMENT VOLUME

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION

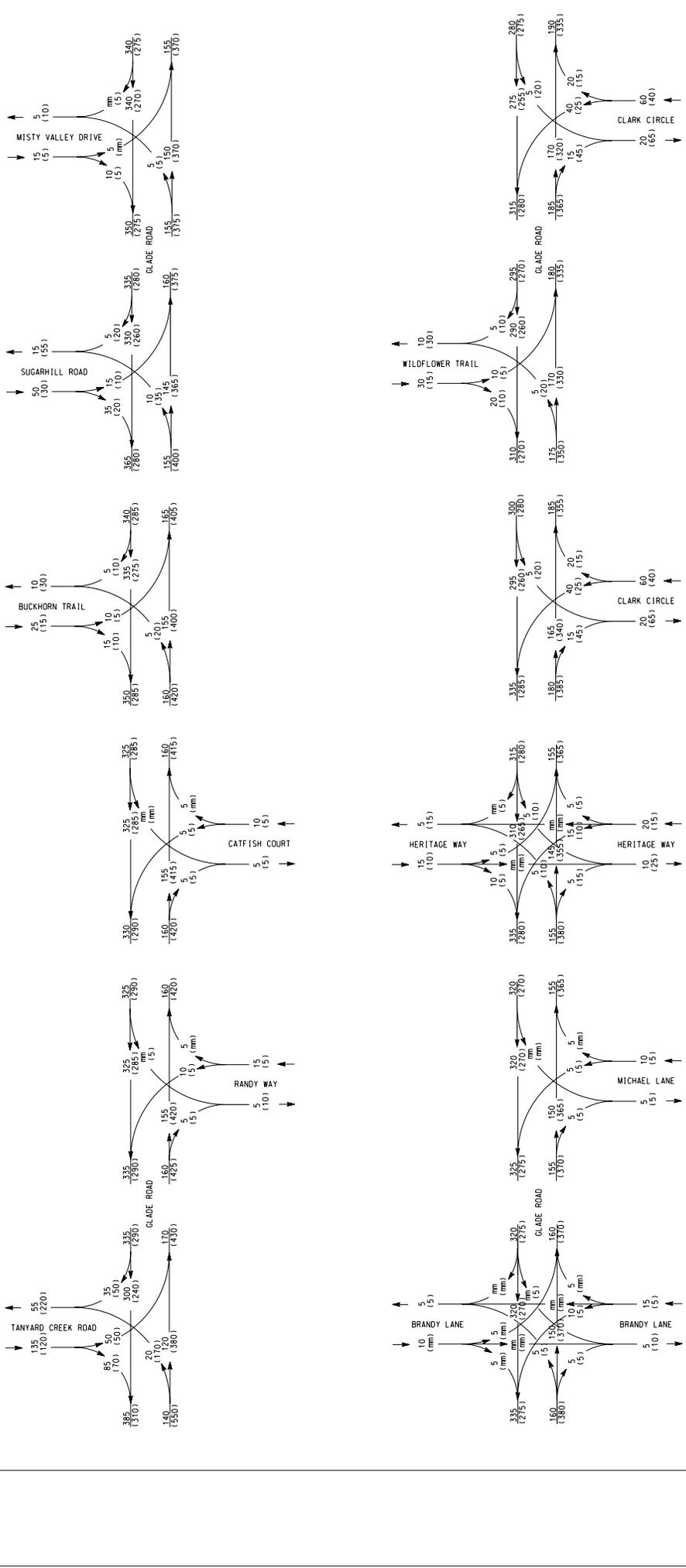
TRAFFIC DIAGRAM  
 2010 DESIGN HOURLY VOLUMES

REVISION DATES

PBS&J

OFFICE:

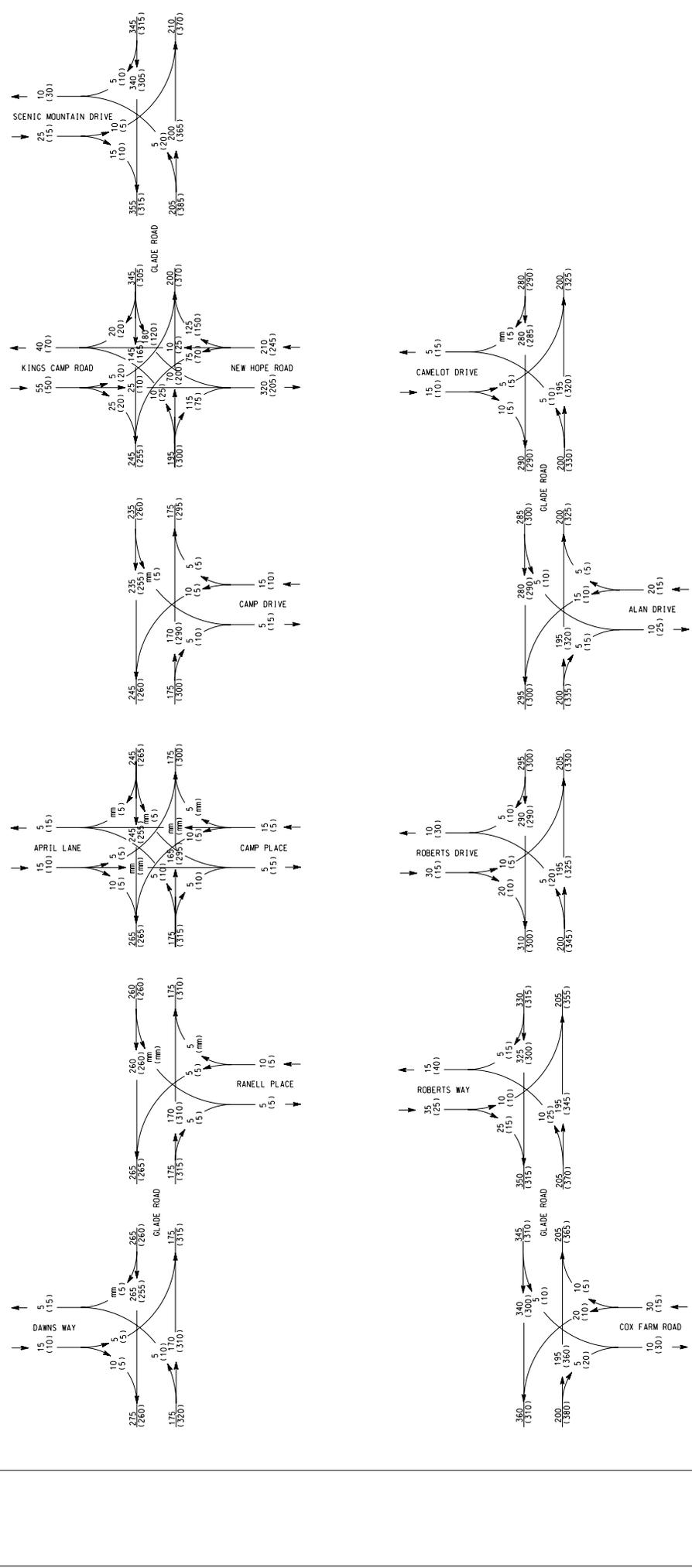
DRAWING NO. 1-12



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 (100) PM PEAK HOUR TURNING MOVEMENT VOLUME

REVISION DATES	STATE OF GEORGIA	
	DEPARTMENT OF TRANSPORTATION	
	OFFICE:	
	TRAFFIC DIAGRAM	
	2010 DESIGN HOURLY VOLUMES	
	DRAWING NO.	
	2 - 12	

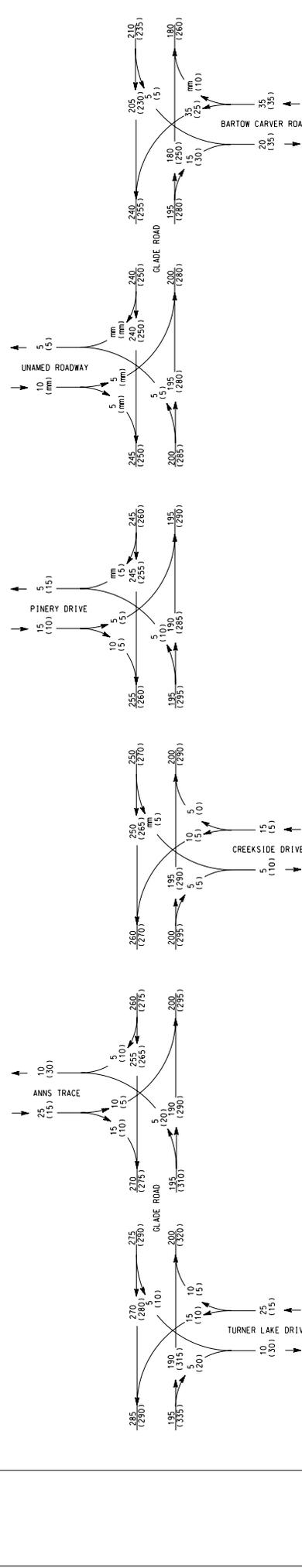




LEGEND:  
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 (100) PM PEAK HOUR TURNING MOVEMENT VOLUME

REVISION DATES	STATE OF GEORGIA	
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	TRAFFIC DESIGN	
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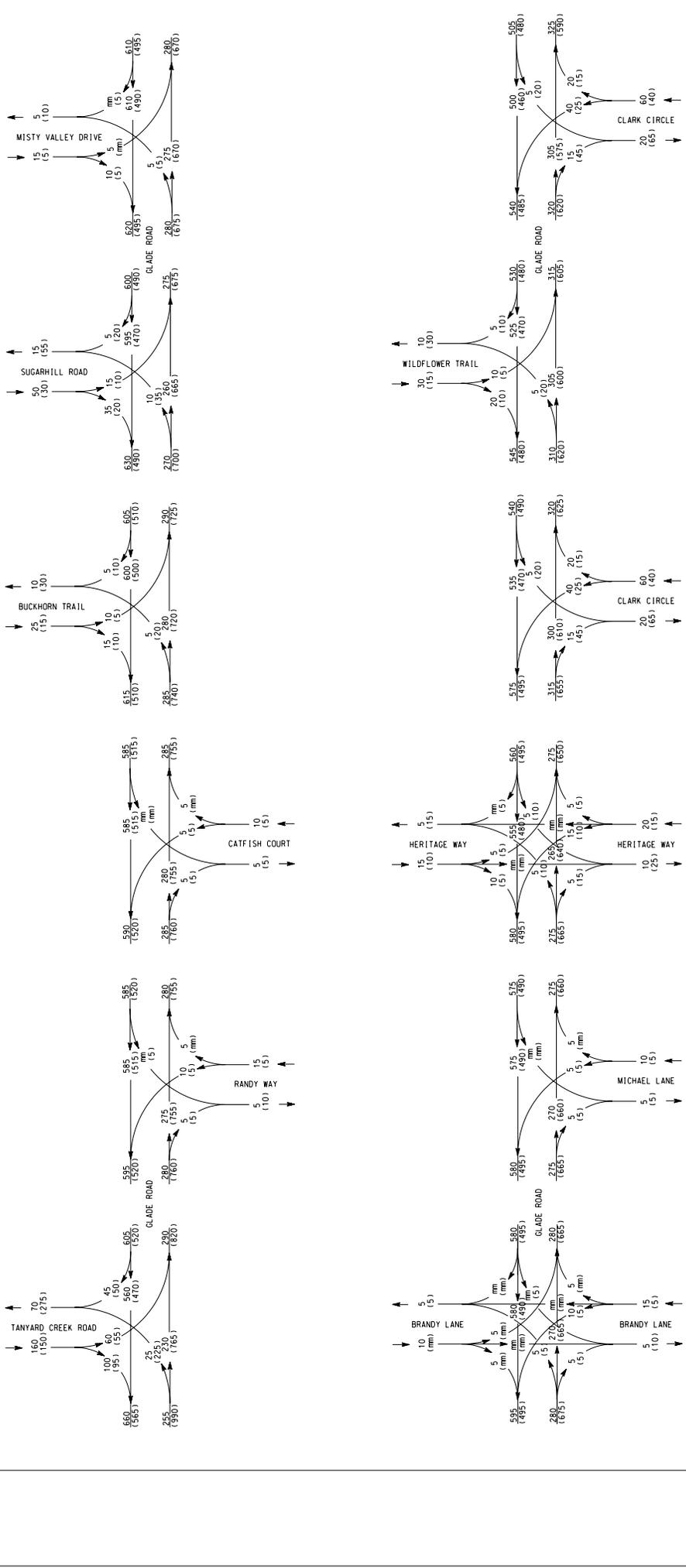


LEGEND:  
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 (100) PM PEAK HOUR TURNING MOVEMENT VOLUME

REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE:
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	2010 DESIGN HOURLY VOLUMES
	DRAWING NO. 4-12







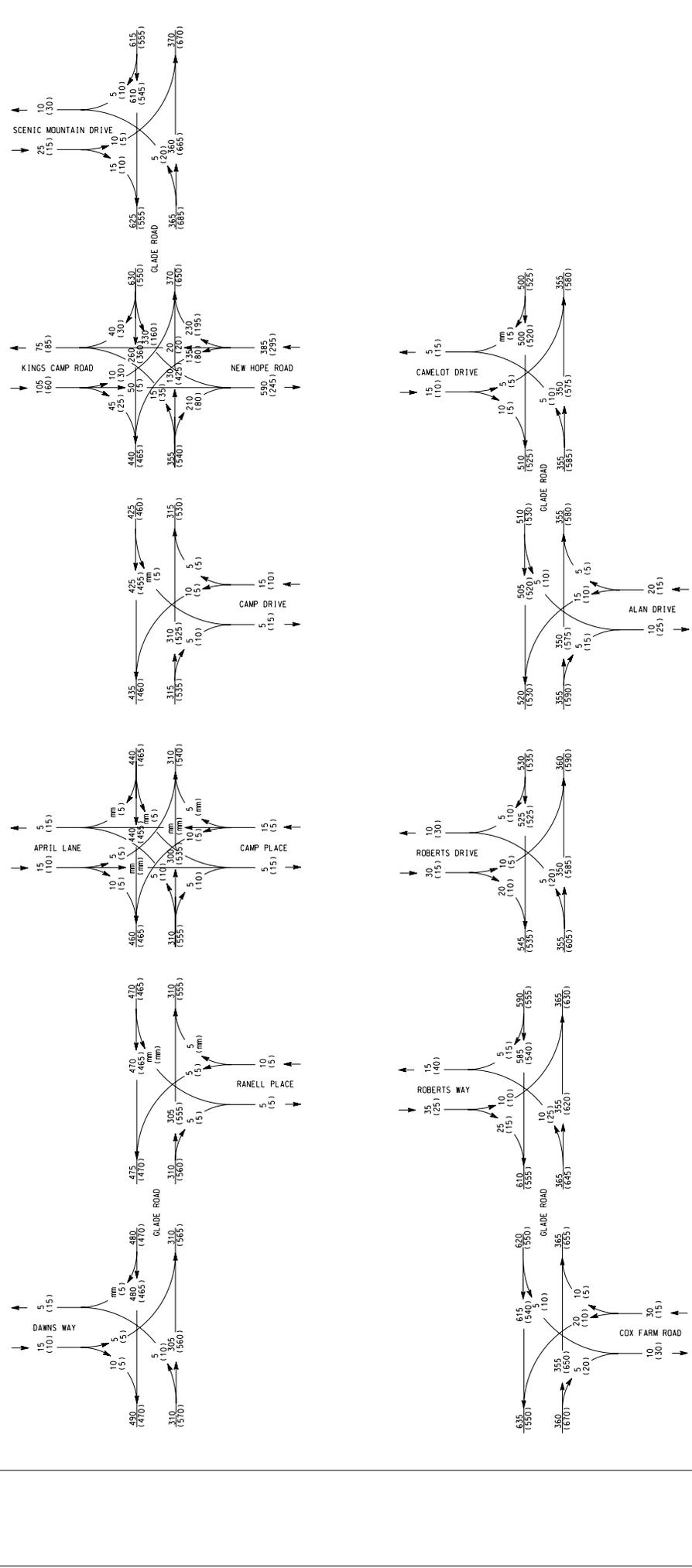
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 (1:00) PM PEAK HOUR TURNING MOVEMENT VOLUME

**PBS&J**

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE:  
 2030 DESIGN HOURLY VOLUMES

REVISION DATES


DRAWING NO.  
**6-12**

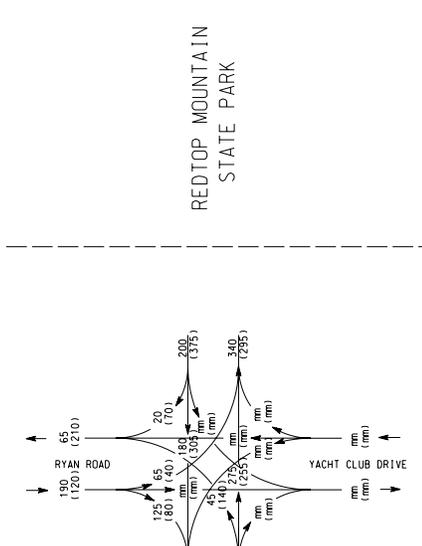
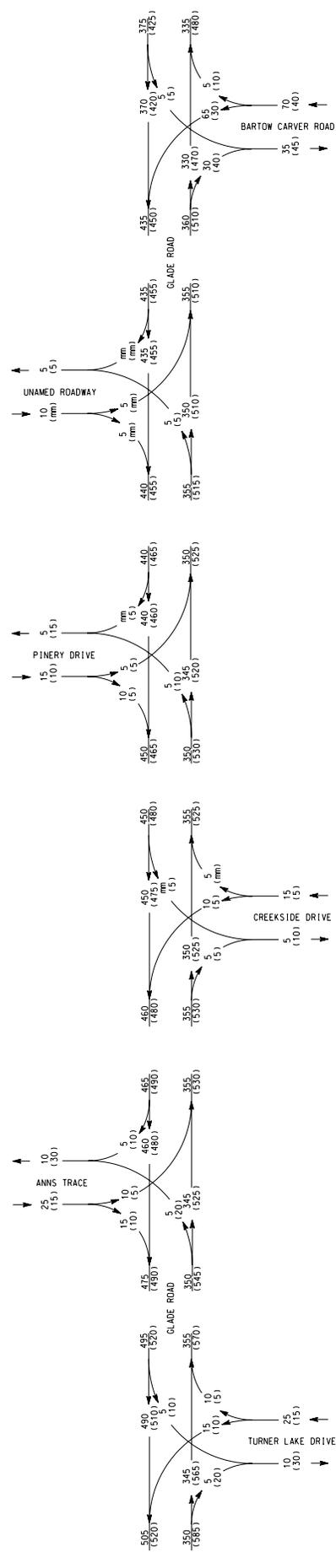


LEGEND:  
 100 AM PEAK HOUR TURNING MOVEMENT VOLUME  
 100 PM PEAK HOUR TURNING MOVEMENT VOLUME

**PBS&J**

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE:  
 2030 DESIGN HOURLY VOLUMES

REVISION DATES

REDTOP MOUNTAIN STATE PARK

LEGEND:  
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 (100) PM PEAK HOUR TURNING MOVEMENT VOLUME

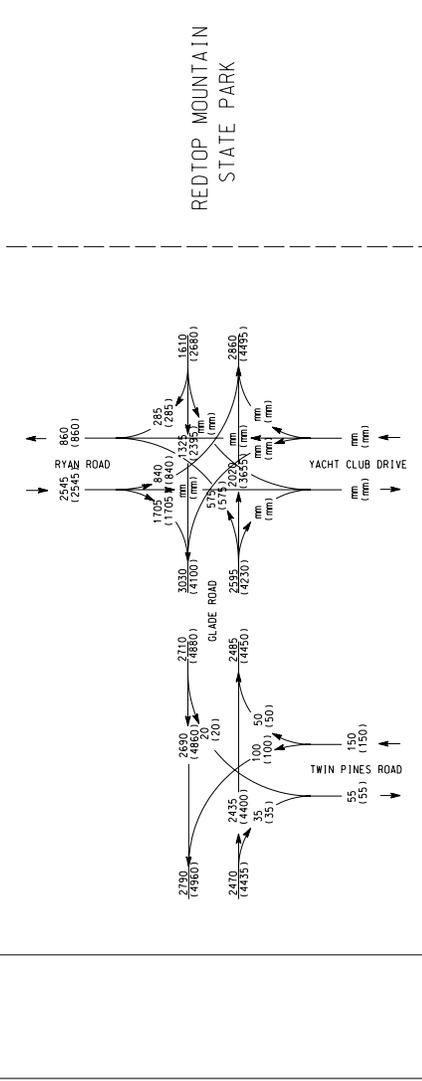
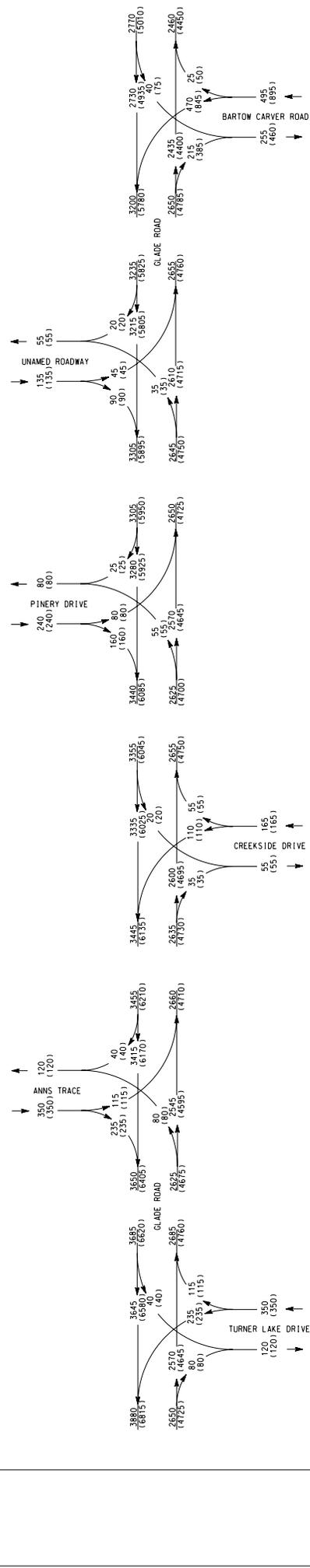
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	TRAFFIC DESIGN DIVISION
	2030 DESIGN HOURLY VOLUMES
	DRAWING NO. 8-12









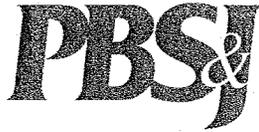


REDTOP MOUNTAIN STATE PARK

LEGEND:  
 100 2010 AVERAGE DAILY TRAFFIC VOLUME  
 (100) 2030 AVERAGE DAILY TRAFFIC VOLUME

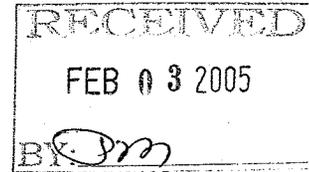
REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE:
	TRAFFIC DIAGRAM
	AVERAGE DAILY TRAFFIC VOLUMES





# Technical Memorandum

TO: Tommy Crochet  
Magee Partners, Inc.



From: James H. Evans  
Senior Transportation Planner  
PBS&J

Subject: Future Traffic Estimates for Glade Road, between Interstate 75 and Bartow Carver Road in Bartow County, Georgia.

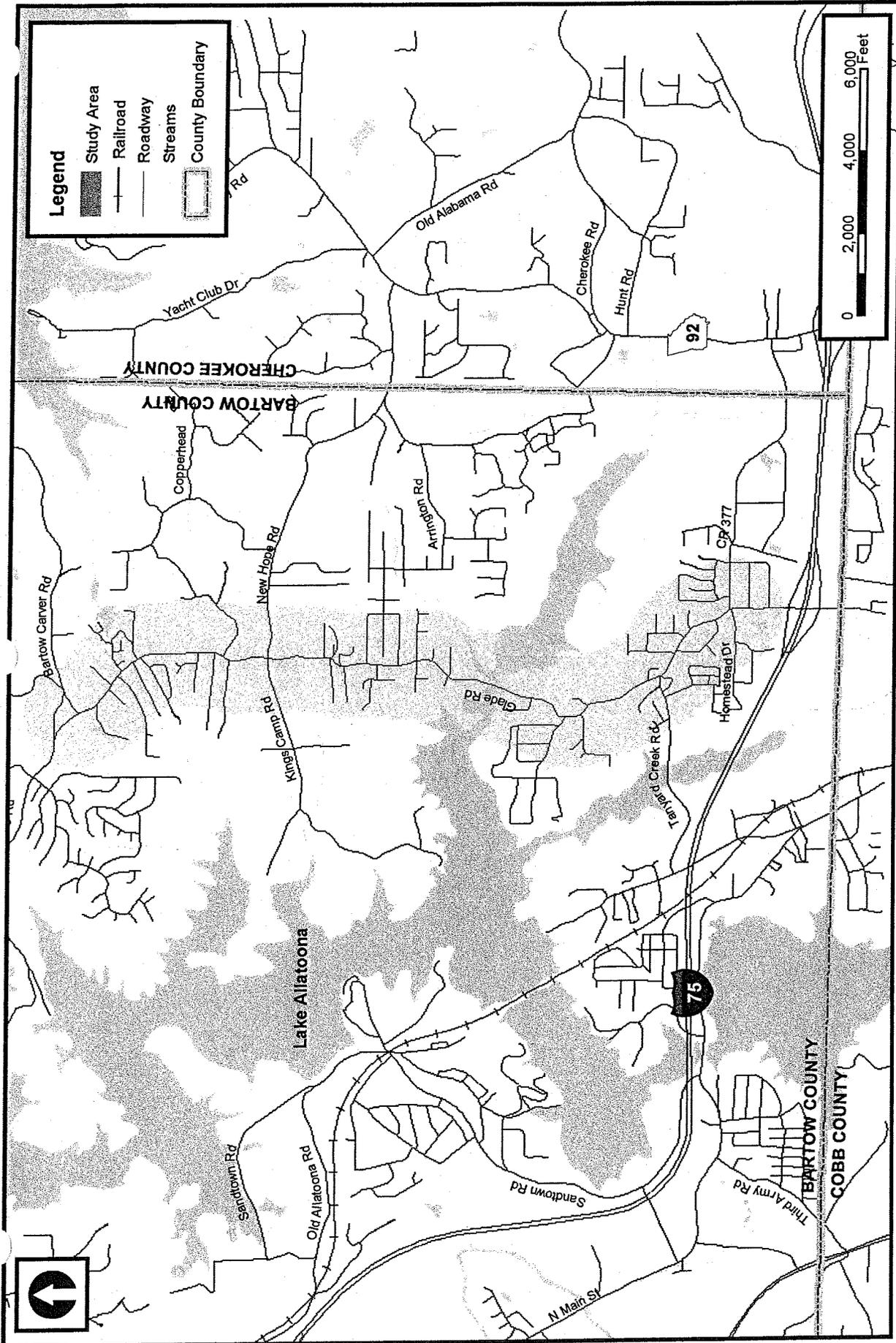
## Project Description

This memorandum outlines the procedures, assumptions and results used to analyze traffic on Glade Road in Bartow County in order to evaluate potential corridor improvements. The portion of Glade Road reviewed in this analysis lies between Interstate 75 (I-75) and Bartow Carver Road, as displayed on Exhibit 1. Utilizing existing conditions as a benchmark, traffic in the corridor was analyzed for the years 2010, 2020 and 2030. In all three scenarios, both the AM and PM peak period traffic volumes were estimated.

## Methodology

Base line traffic counts were taken on Glade Road in September 2004. Weekday turning movement counts were taken during the morning and evening peak hours at the intersections listed below.

- Glade Road @ Bartow Carver Road
- Glade Road @ New Hope Church Road
- Glade Road @ Tanyard Creek Road
- Glade Road @ CR 377
- Glade Road @ I-75 Northbound Ramp
- Glade Road @ I-75 Southbound Ramp



	<p><b>Study Area</b></p>
<p>Glade Road Bartow County, GA Project No.: CSSTP-0003-00(770) P.I. No.: 0003770</p>	

Two-way, 24-hour daily traffic counts were also taken at six locations within the Study Area and are listed below:

- Glade Road, north of Bartow Carver Road
- New Hope Church Road, east of Glade Road
- Glade Road, north of Tanyard Creek Road
- Tanyard Creek Road, west of Glade Road
- CR 377, east of Glade Road

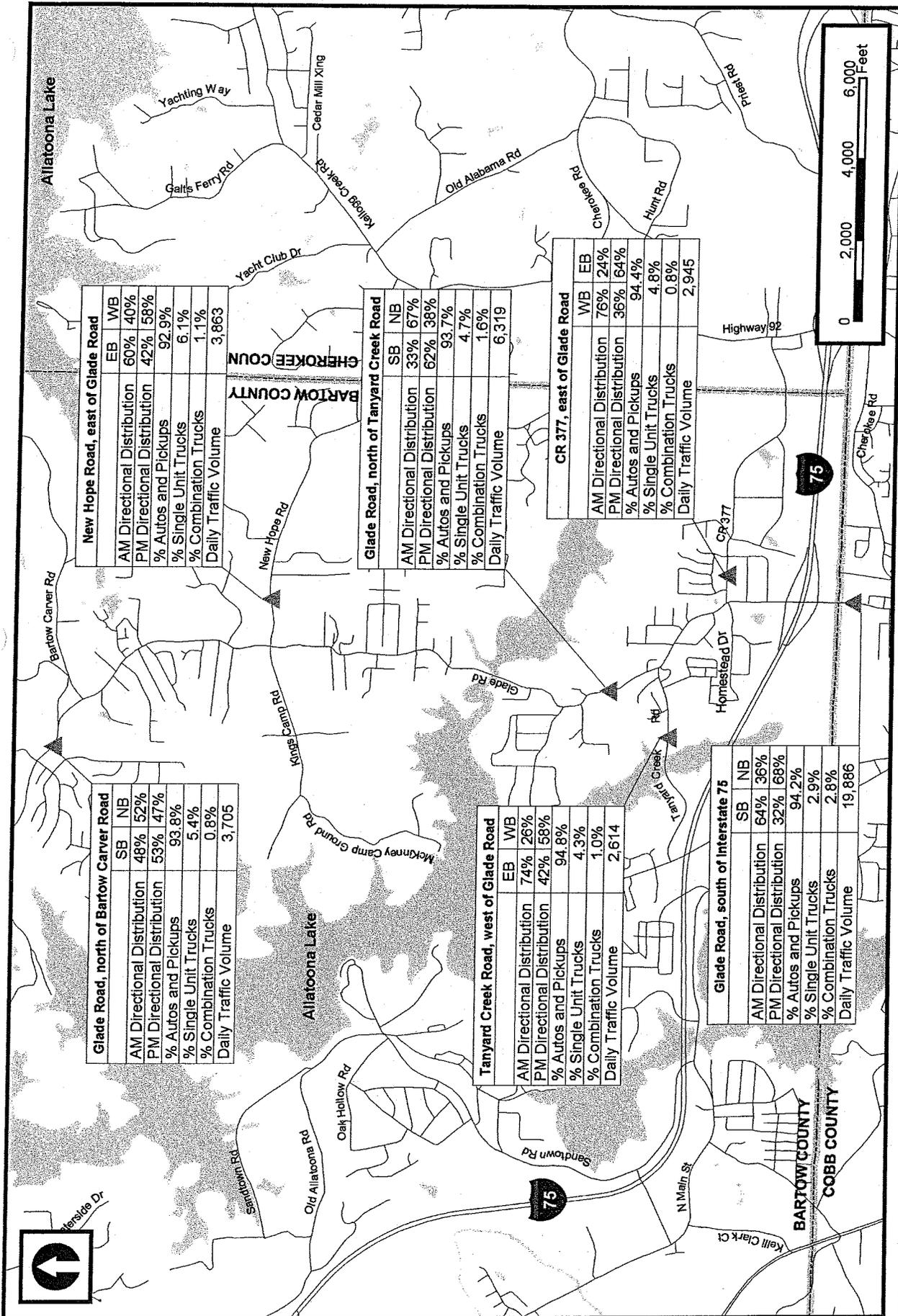
These daily traffic counts included provisions for vehicle classifications. These classifications were used in determining the percentage of trucks that are utilizing the facilities that were analyzed. Detailed traffic count data is provided as an attachment.

The average daily traffic (ADT) counts taken on Glade Road for this analysis reveal a dramatic variation in current traffic volumes. Exhibit 2 illustrates that the northern end of the project limits serves 3,705 vehicles per day and in contrast, the southern end of the project limits serves 19,886 vehicles per day. These traffic counts were used to establish the base condition for this analysis. Historical traffic trends were also examined using Georgia Department of Transportation (GDOT) Annual Coverage Count Data for the years 1997 to 2002.

There are two GDOT Annual Count Stations on Glade Road within this study area, Stations 320 and 321. Other GDOT count stations include Station 325, which is located on Red Top Mountain Road and Station 265 that is located I-75. Station locations are displayed on Exhibit 3, while the historical traffic trend data is revealed in Table 1. These historical counts were used to develop an average annual growth rate for this area. The growth rate used for in this analysis was three percent. This three percent growth rate was to determine future trends in traffic growth.

**Table 1**  
**GDOT Historical Traffic Counts**

Count Station	Roadway	1997	1998	1999	2000	2001	2002	Annual Percent Growth
265	I-75, south of Glade Rd	89,667	95,300	93,652	110,220	110,440	111,504	4%
320	Glade Rd, south of I-75	15,794	15,678	15,528	19,811	17,646	18,222	2%
321	Glade Rd, north of New Hope Church Rd	4,694	4,681	4,636	5,106	5,250	4,338	-1%
325	Red Top Mtn Rd, between I-75 and Glade Rd	2,753	2,637	3,197	3,314	3,461	3,741	5%
Average Annual Growth Rate:								3.0%



**Glade Road, north of Bartow Carver Road**

	SB	NB
AM Directional Distribution	48%	52%
PM Directional Distribution	53%	47%
% Autos and Pickups	93.8%	5.4%
% Single Unit Trucks		0.8%
% Combination Trucks		
Daily Traffic Volume	3,705	

**New Hope Road, east of Glade Road**

	EB	WB
AM Directional Distribution	60%	140%
PM Directional Distribution	42%	58%
% Autos and Pickups	92.9%	6.1%
% Single Unit Trucks		1.1%
% Combination Trucks		
Daily Traffic Volume	3,863	

**Glade Road, north of Tanyard Creek Road**

	SB	NB
AM Directional Distribution	33%	67%
PM Directional Distribution	62%	38%
% Autos and Pickups	93.7%	4.7%
% Single Unit Trucks		1.6%
% Combination Trucks		
Daily Traffic Volume	6,319	

**Tanyard Creek Road, west of Glade Road**

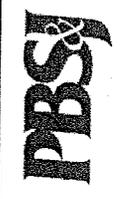
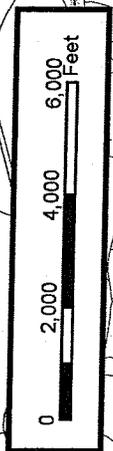
	EB	WB
AM Directional Distribution	74%	26%
PM Directional Distribution	42%	58%
% Autos and Pickups	94.8%	4.3%
% Single Unit Trucks		1.0%
% Combination Trucks		
Daily Traffic Volume	2,614	

**CR 377, east of Glade Road**

	WB	EB
AM Directional Distribution	76%	24%
PM Directional Distribution	36%	64%
% Autos and Pickups	94.4%	4.8%
% Single Unit Trucks		0.8%
% Combination Trucks		
Daily Traffic Volume	2,945	

**Glade Road, south of Interstate 75**

	SB	NB
AM Directional Distribution	64%	36%
PM Directional Distribution	32%	68%
% Autos and Pickups	94.2%	2.9%
% Single Unit Trucks		2.8%
% Combination Trucks		
Daily Traffic Volume	19,886	



**Glade Road**  
 Bartow County, GA  
 Project No.: CSSTP-0003-00(770)  
 P.I. No.: 0003770

**2004 Average Daily Traffic Volumes**



Potential corridor improvements, based upon levels of traffic, were determined by analyzing the following intersections:

- Glade Road @ CR 377
- Glade Road @ Tanyard Creek Road
- Glade Road @ New Hope Church Road
- Glade Road @ Bartow Carver Road

The traffic simulation model CORSIM was used to evaluate operating conditions along the corridor and to establish the base condition for both the AM and PM peak periods. This base condition was established by applying the geometric configurations and traffic volumes as illustrated on Exhibit 4. Next, estimates of the future traffic, which are displayed on Exhibits 5 through 7, were made based upon historical growth trends for the years 1997 to 2002. Finally, CORSIM was again utilized to evaluate operating conditions along the corridor occurring in future years. From this analysis, PBS&J was then able to determine roadway system enhancements that may be necessary in order to obtain a sufficient level of service (LOS) along the corridor.

### **Level of Service**

LOS is a measure used to describe how well traffic is operating. Traffic conditions are translated into a letter grade ranging from A to F (A being favorable, F being unfavorable). Exhibit 8 illustrates and describes each LOS and lists the average delay characteristic of each LOS. CORSIM was used to calculate the average vehicle delay at each intersection. This information was then translated into a corresponding LOS.

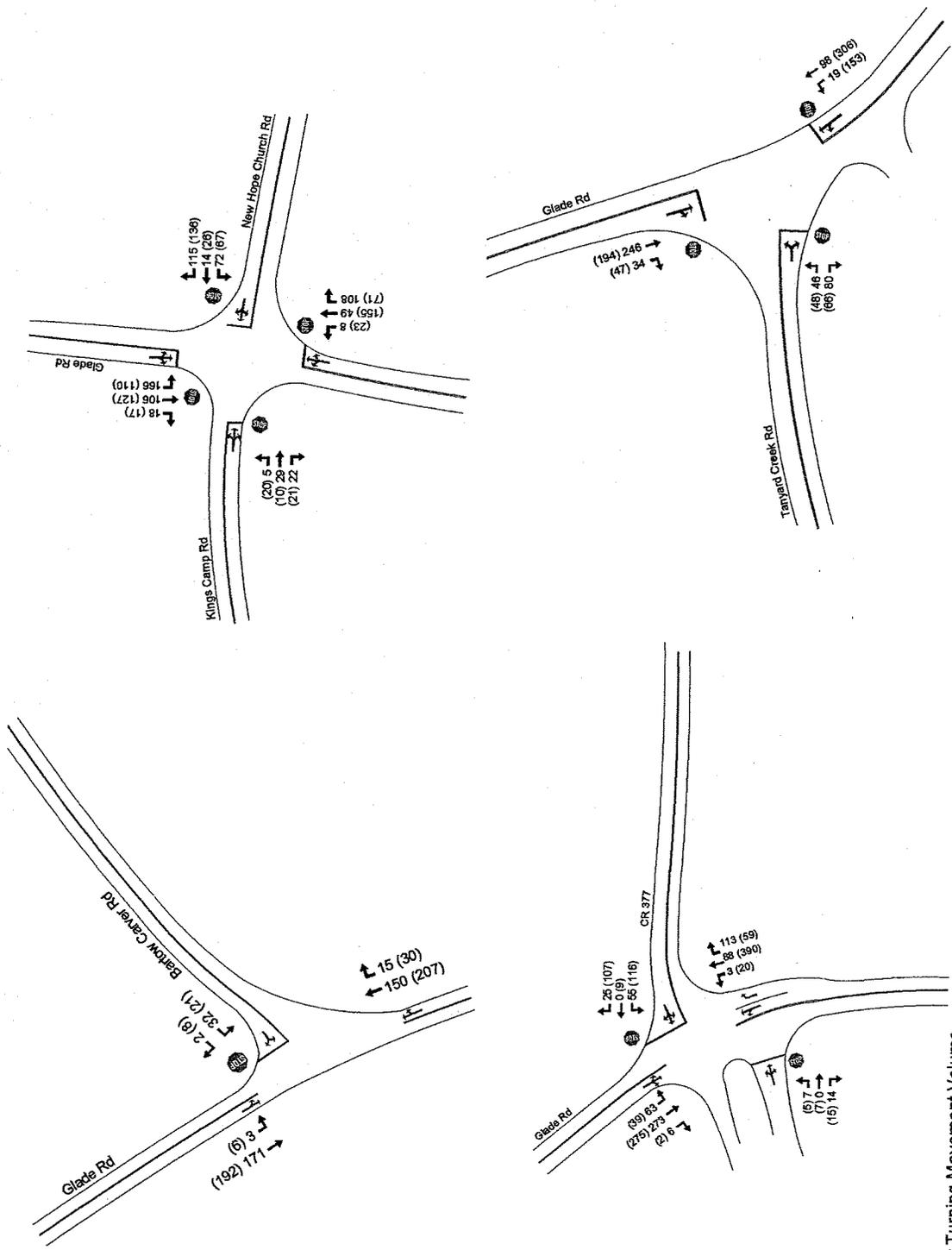
Currently, there is not an adopted LOS standard for Bartow County; therefore, for the purpose of this memorandum, a LOS D will be considered as acceptable. There were also not any existing signals among the intersections that were analyzed. CORSIM was used to provide a LOS for both unsignalized and possible signalized intersections.

### **Summary of Findings**

Table 2 summarizes the results of the CORSIM analysis for the existing conditions of the intersections in the study area. As shown in the table, all intersections currently operate at a LOS C or better in both the AM and PM peak periods; therefore, there are not any improvements necessary for the current conditions.



Not to Scale



**Legend:**

100 AM Peak Hour Turning Movement Volume

(100)PM Peak Hour Turning Movement Volume



**Glade Road**  
**Bartow County, GA**  
 Project No.: CSSTP-0003-00(770)  
 P.I. No.: 0003770

**Existing (2004)**  
**Turning Movement Counts**



Not to Scale

203 (229)  
4 (7)

3 (9)  
38 (25)

Bartow Carver Rd

18 (36)  
180 (247)

22 (21)  
127 (153)  
197 (132)

137 (162)  
16 (30)  
86 (80)

New Hope Church Rd

(23) 6  
(12) 34  
(25) 26

129 (85)  
59 (185)  
10 (27)

41 (56)  
294 (232)

Tanyard Creek Rd

(58) 55  
(78) 96

117 (365)  
23 (183)

7 (3)  
327 (328)  
75 (47)

30 (127)  
0 (11)  
66 (139)

CR 377

(6) 8  
(8) 0  
(18) 17

136 (70)  
105 (466)  
1 (23)

Legend:

100 AM Peak Hour Turning Movement Volume

(100) PM Peak Hour Turning Movement Volume

## Peak Hour Turning Movement Counts (Year 2010)



Glade Road  
Bartow County, GA  
Project No.: CSSTP-0003-00(770)  
P.I. No.: 0003770



Not to Scale

273 (308)  
6 (9)

4 (13)  
51 (33)

Bartow Carver Rd

24 (48)  
242 (332)

29 (27)  
170 (205)  
266 (277)

185 (218)  
22 (40)  
116 (107)

New Hope Church Rd

(31) 7  
(17) 46  
(33) 35

174 (114)  
80 (249)  
13 (37)

55 (75)  
395 (312)

Tanyard Creek Rd

(77) 74  
(106) 129

157 (491)  
31 (245)

10 (4)  
439 (441)  
101 (63)

41 (172)  
0 (15)  
88 (186)

CR 377

(7) 11  
(11) 0  
(24) 22

182 (94)  
142 (626)  
2 (31)

Legend

100 AM Peak Hour Turning Movement Volume

(100) PM Peak Hour Turning Movement Volume

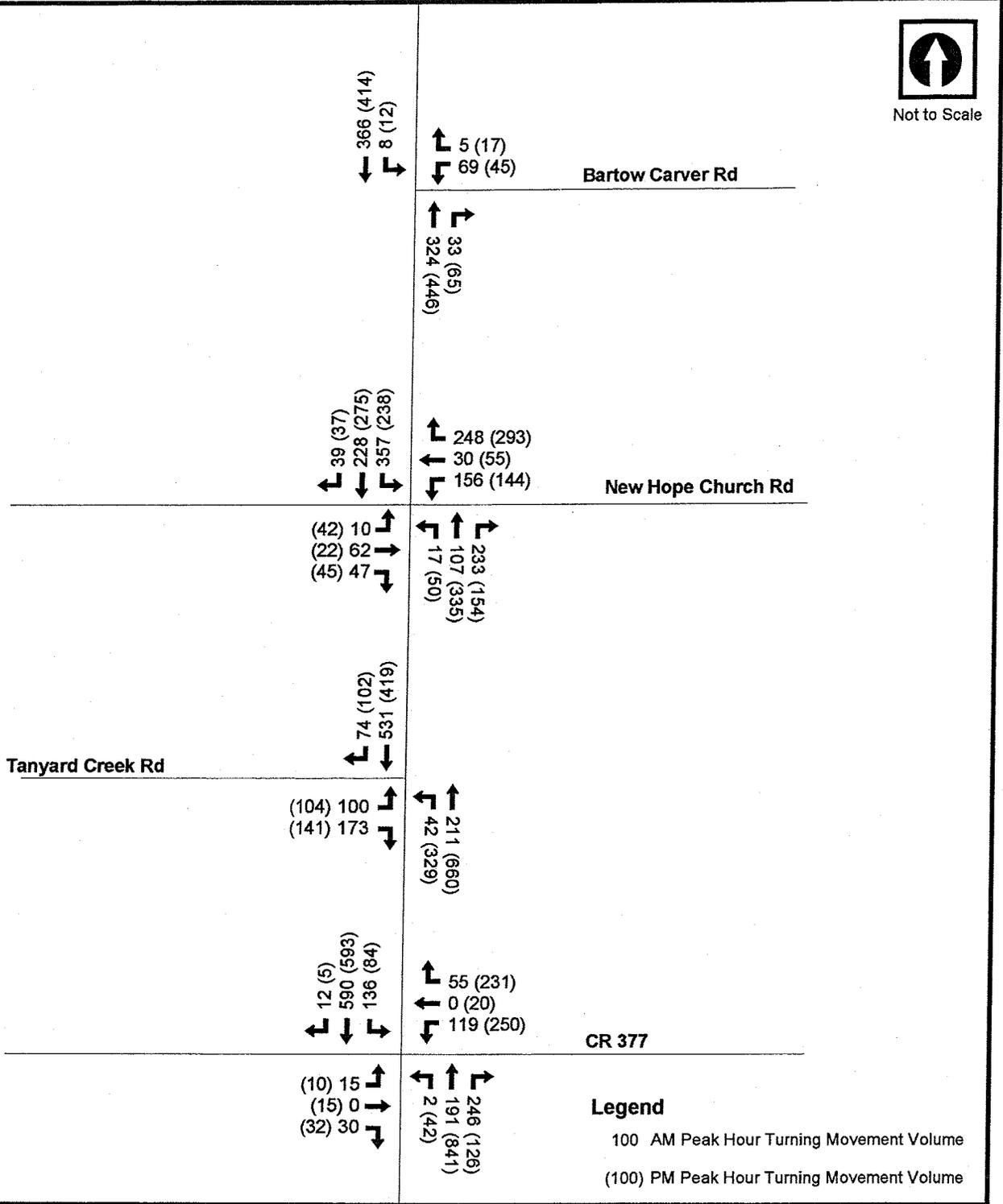
# Peak Hour Turning Movement Counts (Year 2020)



Glade Road  
Bartow County, GA  
Project No.: CSSTP-0003-00(770)  
P.I. No.: 0003770



Not to Scale

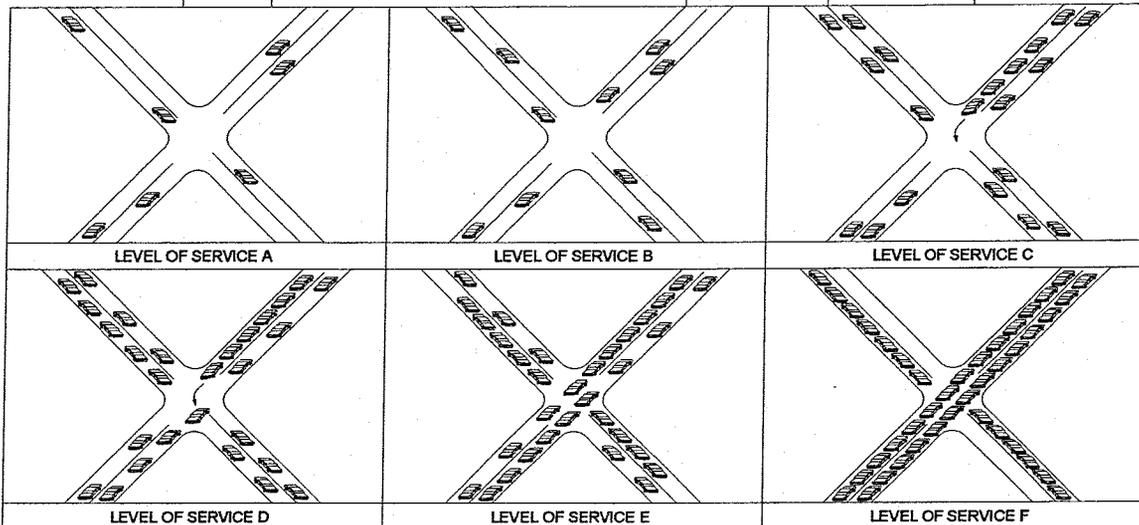


## Peak Hour Turning Movement Counts (Year 2030)



Glade Road  
 Bartow County, GA  
 Project No.: CSSTP-0003-00(770)  
 P.I. No.: 0003770

LEVEL OF SERVICE	DESCRIPTION	SIGNALIZED INTERSECTION MAXIMUM DELAY (In Seconds)	UNSIGNALIZED INTERSECTION MAXIMUM DELAY (In Seconds)
A	LITTLE OR NO DELAY. At signalized intersections, no vehicle must wait longer than one signal in order to travel through the intersection.	10.0	10.0
B	SHORT DELAYS. At signalized intersections, a vehicle might have to wait through more than one signal indication to pass through the intersection on a rare occasion.	20.0	15.0
C	AVERAGE DELAYS. At signalized intersections, a vehicle would be required to wait through more than one signal indication to pass through the intersection on an intermittent basis, and occasionally backups could occur behind left turning vehicles.	35.0	25.0
D	LONG DELAYS. At signalized intersections, delays may become extensive with some vehicles requiring two or more signal indications to pass through the intersection. However, sufficient signal cycles with lower demand are available to permit the periodic clearance of the intersection.	55.0	35.0
E	VERY LONG DELAYS. At signalized intersections, very long queues and high levels of congestion are prevalent which result in lengthy delays.	80.0	50.0
F	EXCESSIVELY LONG DELAYS. The capacity of the roadway or intersection has been exceeded resulting in extremely high levels of congestion.	>80.0	>50.0



## Level of Service Definitions and Criteria



Glade Road  
 Bartow County, GA  
 Project No.: CSSTP-0003-00(770)  
 P.I. No.: 0003770

**Table 2**  
**2004 Existing Intersection Analysis**

Intersection	Approach	Movement	Period Analyzed		
			AM	PM	
Glade Road @ CR 377	Northbound	Left	A	A	
		Overall:	A	A	
	Southbound	Left	A	A	
		Overall:	A	A	
	Eastbound	Left	A	A	
		Thru	A	A	
		Right	A	A	
		Overall:	A	A	
	Westbound	Left	A	A	
		Thru	A	C	
		Right	A	A	
		Overall:	A	A	
	<b>Intersection Total:</b>			<b>A</b>	<b>A</b>
Glade Road @ Tanyard Creek Road	Northbound	Left	A	B	
		Thru	A	B	
		Overall:	A	B	
	Southbound	Thru	A	B	
		Right	A	B	
		Overall:	A	B	
	Eastbound	Left	A	A	
		Right	A	A	
		Overall:	A	A	
	<b>Intersection Total:</b>			<b>A</b>	<b>B</b>
	Glade Road @ New Hope Church Road	Northbound	Left	A	B
			Thru	A	B
Right			A	B	
Overall:			A	B	
Southbound		Left	A	A	
		Thru	A	A	
		Right	A	A	
		Overall:	A	A	
Eastbound		Left	A	A	
		Thru	A	A	
		Right	A	A	
		Overall:	A	A	
Westbound		Left	A	A	
		Thru	A	A	
		Right	A	A	
		Overall:	A	A	
<b>Intersection Total:</b>			<b>A</b>	<b>A</b>	
Glade Road @ Bartow Carver Road	Southbound	Left	A	A	
		Overall:	A	A	
	Westbound	Left	A	A	
		Right	A	A	
		Overall:	A	A	
	<b>Intersection Total:</b>			<b>A</b>	<b>A</b>

The CORSIM analysis of the future estimated traffic volumes is summarized in Table 3. In 2010, all intersections also operate at a LOS C or better in both the AM and PM peak periods. This study found that improvements along Glade Road would not be necessary until the year 2020.

The intersection located on Glade Road at CR 377 becomes deficient during the PM peak period for the year 2020. A significant increase in background traffic for those traveling westbound on CR 377 is projected to cause excessive delay for this approach. As a result, the westbound approach has been forecasted to operate at a LOS F during the PM peak period, which in turn causes the intersection, as a whole, to become deficient. In order to improve this intersection, a westbound left-turn lane is required, which improves both the approach and total intersection level of service to a LOS C. This improvement also increases the amount of traffic traveling northbound on Glade Road; thereby, increasing the number of vehicles at the intersection located at Tanyard Creek Road. An additional improvement, a left-turn lane, is required to serve the northbound approach on Glade Road at Tanyard Creek Road. Without this improvement, the northbound approach at Tanyard Creek Road operates at a LOS E during the PM peak period. The northbound left-turn lane at this intersection improves this level of service to a LOS A.

As one can see from Table 3, the level of service along Glade Road once again becomes deficient at CR 377 during the PM peak period for the year 2030. The amount of northbound and southbound uncontrolled traffic causes excessive delay for the remaining approaches at this intersection. Without any improvements, this intersection operates at a LOS F, during the PM peak period. In order to improve this intersection, a signal is required along with providing northbound left and right-turn lanes and a southbound left-turn lane. These improvements allow the intersection of Glade Road and CR 377 to operate at a LOS B during the PM peak period.

All remaining intersections operate at a LOS D or better for both the AM and PM peak periods; therefore, there are not any further improvements necessary. Supplemental detailed results for this traffic analysis are provided as an attachment.

Table 3 cont'd

Future Year Intersection Analyses

Intersection	Approach	Movement	2010 Analysis (No improvements)		2020 Analysis (No improvements)		2020 Analysis (Improved)		2030 Analysis (No improvements)		2030 Analysis (Improved)			
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
			Glade Rd @ CR 377											
	Northbound	Left	A	A	C	A	C	A	A	A	A	C	B	
		Thru	-	-	-	-	-	-	-	-	-	-	A	A
		Right	-	-	-	-	-	-	-	-	-	-	B	B
		Overall:	A	A	C	A	C	A	A	A	A	A	A	B
	Southbound	Left	A	A	A	B	A	A	A	B	C	B	D	
		Thru	-	-	-	-	-	-	-	-	-	-	A	A
		Right	-	-	-	-	-	-	-	-	-	-	A	A
		Overall:	A	A	A	B	A	A	A	B	C	A	B	
	Eastbound	Left	A	C	A	B	A	B	A	B	B	F	B	
		Thru	A	A	A	E	A	A	A	A	A	F	A	
Right		A	A	A	A	A	A	A	A	A	F	A		
Overall:		A	A	A	C	A	C	A	A	A	F	B		
Left		A	C	A	F	A	C	A	C	C	F	B		
Thru		A	C	A	F	A	C	A	C	C	F	B		
Westbound	Left	A	C	A	F	A	F	A	A	A	F	A		
	Thru	A	C	A	F	A	F	A	A	A	F	A		
	Right	A	C	A	F	A	F	A	A	A	F	A		
	Overall:	A	C	A	F	A	F	A	A	A	F	B		
	Left	A	C	A	F	A	F	A	A	A	F	A		
	Thru	A	C	A	F	A	F	A	A	A	F	A		
<b>Intersection Total:</b>														
	Northbound	Left	A	B	A	F	A	A	C	B	F	A	B	
		Thru	A	B	A	D	A	A	A	A	A	A	D	
		Overall:	A	B	A	D	A	A	A	A	A	A	D	
		Thru	B	B	B	C	B	C	C	C	C	C	C	
	Southbound	Left	A	A	B	B	B	B	B	C	C	C	C	
		Right	A	A	A	A	A	A	A	A	A	A	B	
		Overall:	A	A	A	B	B	B	B	C	C	C	C	
		Left	A	A	A	A	A	A	A	A	A	A	A	
	Eastbound	Right	A	A	A	A	A	A	A	A	A	A	A	
		Overall:	A	A	A	A	A	A	A	A	A	A	A	
<b>Intersection Total:</b>														
Glade Rd @ Tanyard Creek Rd														

Table 3 cont'd

Future Year Intersection Analyses

Intersection	Approach	Movement	2010 Analysis (No improvements)		2020 Analysis (No improvements)		2020 Analysis (Improved)		2030 Analysis (No improvements)		2030 Analysis (Improved)	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
			<b>Glade Rd @ New Hope Church Rd</b>									
Northbound	Southbound	Left	A	B	A	C	A	B	A	B	C	D
		Thru	A	B	A	C	A	C	A	B	D	D
		Right	A	B	A	C	A	C	A	B	C	D
		Overall:	A	B	A	C	A	C	A	B	D	D
		Left	A	A	B	B	B	B	B	C	C	C
		Thru	A	A	B	B	B	B	B	C	C	C
Eastbound	Westbound	Right	A	A	A	B	B	B	C	C	C	
		Overall:	A	A	A	B	B	B	C	C	C	
		Left	A	A	A	A	A	A	A	A	A	A
		Thru	A	A	A	A	A	A	A	A	A	A
		Right	A	A	A	A	A	A	A	A	A	A
		Overall:	A	A	A	A	A	A	A	A	A	A
<b>Intersection Total:</b>												
Southbound	Westbound	Left	A	A	A	B	A	B	A	B	C	
		Overall:	A	A	A	A	A	A	A	A	A	
		Left	A	A	A	A	A	A	A	A	A	
Westbound	Intersection Total:	Right	A	A	A	A	A	A	A	A	A	
		Overall:	A	A	A	A	A	A	A	A	A	
		Left	A	A	A	A	A	A	A	A	A	

Glade Rd @ Bartow Carver Rd

## **Recommendations and Conclusions**

This analysis recommends that improvements are necessary for the years 2020 and 2030. Based on estimates for 2020 and 2030 traffic, the following improvements will be necessary in order to maintain a LOS D or better in these future years:

### 2020 Improvements

Glade Rd @ CR 377

- Provide WB left-turn lane

Glade Rd @ Tanyard Creek Rd

- Provide NB left-turn lane

### 2030 Improvements

Glade Rd @ CR 377

- Signalize
- Provide SB left-turn lane
- Provide NB left-turn lane
- Provide NB right-turn lane

# Attachments

# Attachments

## Glade Road Concept

### Existing AM Peak Hour Intersection Level of Service

Intersection	Approach	CORSIM Nodes		Movement	Existing Volumes		Delay (Sec/Veh)	LOS	
		A	B		AM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	1	1	0.0	A	
		OVERALL				1	1	0.0	A
	Southbound	13	3	Left	63	69	2.1	A	
		OVERALL				63	69	2.1	A
	Eastbound	42	3	Left	7	6	4.0	A	
		42	3	Thru	0	0	0.0	A	
		42	3	Right	14	14	4.7	A	
		OVERALL				21	20	4.5	A
	Westbound	43	3	Left	55	57	4.7	A	
		43	3	Thru	0	0	0.0	A	
		43	3	Right	25	22	3.0	A	
		OVERALL				80	79	4.3	A
	Intersection Total					165	169	3.4	A
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	19	19	4.4	A
13			4	Thru	98	88	3.9	A	
OVERALL				117	107	4.0	A		
Southbound		14	4	Thru	246	230	9.2	A	
		14	4	Right	34	31	9.3	A	
		OVERALL				280	261	9.2	A
Eastbound		40	4	Left	46	49	4.0	A	
		40	4	Right	80	75	3.8	A	
		OVERALL				126	124	3.9	A
Intersection Total					523	492	6.8	A	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	8	8	6.8	A	
		25	5	Thru	49	53	6.7	A	
		25	5	Right	108	104	7.2	A	
		OVERALL				165	165	7.0	A
	Southbound	26	5	Left	166	159	6.2	A	
		26	5	Thru	106	100	6.9	A	
		26	5	Right	18	27	6.2	A	
		OVERALL				290	286	6.4	A
	Eastbound	37	5	Left	5	7	4.3	A	
		37	5	Thru	29	35	3.9	A	
		37	5	Right	22	13	4.6	A	
		OVERALL				56	55	4.1	A
	Westbound	36	5	Left	72	74	4.8	A	
		36	5	Thru	14	15	3.6	A	
		36	5	Right	115	111	3.6	A	
		OVERALL				201	200	4.0	A
Intersection Total					712	706	5.7	A	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	3	7	0.9	A	
		OVERALL				3	7	0.9	A
	Westbound	33	6	Left	32	30	4.4	A	
		33	6	Right	2	3	2.0	A	
		OVERALL				34	33	4.2	A
Intersection Total					37	40	3.6	A	

## Glade Road Concept

### Existing PM Peak Hour Intersection Level of Service

Intersection	Approach	CORSIM Nodes		Movement	Existing Volumes		Delay (Sec/Veh)	LOS	
		A	B		PM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	20	11	2.2	A	
				OVERALL	20	11	2.2	A	
	Southbound	13	3	Left	39	41	3.2	A	
				OVERALL	39	41	3.2	A	
	Eastbound	42	3	Left	5	3	6.0	A	
				Thru	7	10	5.4	A	
				Right	15	12	5.0	A	
				OVERALL	27	25	5.3	A	
	Westbound	43	3	Left	116	118	9.0	A	
				Thru	9	9	13.3	B	
				Right	107	106	8.5	A	
				OVERALL	232	233	8.9	A	
	Intersection Total					318	310	7.6	A
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	153	142	9.8	A
Thru					306	292	8.2	A	
OVERALL					459	434	8.7	A	
Southbound		14	4	Thru	194	192	9.3	A	
				Right	47	41	9.2	A	
				OVERALL	241	233	9.2	A	
Eastbound		40	4	Left	48	54	5.0	A	
				Right	66	60	3.6	A	
				OVERALL	114	114	4.3	A	
Intersection Total					814	781	8.2	A	
Glade Road at New Hope Road (unsignalized)		Northbound	25	5	Left	23	17	13.8	B
	Thru				155	158	11.3	B	
	Right				71	61	11.0	B	
	OVERALL				249	236	11.4	B	
	Southbound	26	5	Left	110	93	6.7	A	
				Thru	127	129	8.1	A	
				Right	17	27	5.8	A	
				OVERALL	254	249	7.3	A	
	Eastbound	37	5	Left	20	22	5.7	A	
				Thru	10	17	4.6	A	
				Right	21	12	4.0	A	
				OVERALL	51	51	4.9	A	
	Westbound	36	5	Left	67	72	5.0	A	
				Thru	26	27	4.9	A	
				Right	136	130	4.2	A	
				OVERALL	229	229	4.5	A	
Intersection Total					783	765	7.6	A	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	6	8	1.5	A	
				OVERALL	6	8	1.5	A	
	Westbound	33	6	Left	21	21	4.3	A	
				Right	8	8	2.3	A	
				OVERALL	29	29	3.7	A	
Intersection Total					35	37	3.2	A	

## Glade Road Concept Year 2010 AM Peak Hour Intersection Level of Service

Intersection	Approach	CORSIM Nodes		Movement	2010 Volumes		Delay (Sec/Veh)	LOS	
		A	B		AM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	2	1	0.0	A	
				OVERALL	2	1	0.0	A	
	Southbound	13	3	Left	75	77	2.2	A	
				OVERALL	75	77	2.2	A	
	Eastbound	42	3	Left	8	5	2.4	A	
				Thru	0	0	0.0	A	
				Right	17	19	6.3	A	
				OVERALL	25	24	5.5	A	
	Westbound	43	3	Left	66	70	5.9	A	
				Thru	0	0	0.0	A	
				Right	30	25	4.1	A	
				OVERALL	96	95	5.4	A	
	Intersection Total					198	197	4.1	A
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	23	24	5.0	A
Thru					117	99	4.4	A	
OVERALL					140	123	4.5	A	
Southbound		14	4	Thru	294	269	10.3	B	
				Right	41	38	7.4	A	
				OVERALL	335	307	9.9	A	
Eastbound		40	4	Left	55	56	4.6	A	
				Right	96	95	4.5	A	
				OVERALL	151	151	4.6	A	
Intersection Total					626	581	7.4	A	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	10	8	4.5	A	
				Thru	59	55	9.1	A	
				Right	129	119	8.1	A	
				OVERALL	198	182	8.2	A	
	Southbound	26	5	Left	197	194	7.6	A	
				Thru	127	118	8.6	A	
				Right	22	30	5.8	A	
				OVERALL	346	342	7.8	A	
	Eastbound	37	5	Left	6	7	4.3	A	
				Thru	34	43	4.0	A	
				Right	26	15	3.6	A	
				OVERALL	66	65	4.0	A	
	Westbound	36	5	Left	86	89	4.5	A	
				Thru	16	18	3.7	A	
				Right	137	132	3.6	A	
				OVERALL	239	239	4.0	A	
Intersection Total					849	828	6.5	A	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	4	7	0.9	A	
				OVERALL	4	7	0.9	A	
	Westbound	33	6	Left	38	37	3.6	A	
				Right	3	4	4.5	A	
				OVERALL	41	41	3.7	A	
Intersection Total					45	48	3.3	A	

## Glade Road Concept Year 2010 PM Peak Hour Intersection Level of Service

Intersection	Approach	CORSIM Nodes		Movement	2010 Volumes		Delay (Sec/Veh)	LOS	
		A	B		PM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	23	17	1.4	A	
				OVERALL	23	17	1.4	A	
	Southbound	13	3	Left	47	48	8.8	A	
				OVERALL	47	48	8.8	A	
	Eastbound	42	3	Left	6	5	24.0	C	
				Thru	8	10	9.6	A	
				Right	18	15	5.2	A	
				OVERALL	32	30	9.8	A	
	Westbound	43	3	Left	139	141	17.7	C	
				Thru	11	11	18.0	C	
				Right	127	124	17.0	C	
				OVERALL	277	276	17.4	C	
	Intersection Total					379	371	14.9	B
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	183	184	13.0	B
Thru					365	352	11.6	B	
OVERALL					548	536	12.1	B	
Southbound		14	4	Thru	232	235	10.2	B	
				Right	56	51	9.3	A	
				OVERALL	288	286	10.0	A	
Eastbound		40	4	Left	58	60	6.0	A	
				Right	78	75	3.9	A	
				OVERALL	136	135	4.8	A	
Intersection Total					972	957	10.5	B	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	27	21	11.7	B	
				Thru	185	182	11.8	B	
				Right	85	78	11.7	B	
				OVERALL	297	281	11.7	B	
	Southbound	26	5	Left	132	115	9.0	A	
				Thru	153	157	8.4	A	
				Right	21	32	6.6	A	
				OVERALL	306	304	8.5	A	
	Eastbound	37	5	Left	23	29	5.4	A	
				Thru	12	18	5.3	A	
				Right	25	13	3.7	A	
				OVERALL	60	60	5.0	A	
	Westbound	36	5	Left	80	87	5.4	A	
				Thru	30	34	5.3	A	
Right				162	150	4.4	A		
OVERALL				272	271	4.8	A		
Intersection Total					935	916	8.2	A	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	7	7	1.7	A	
				OVERALL	7	7	1.7	A	
	Westbound	33	6	Left	25	23	7.0	A	
				Right	9	10	6.6	A	
				OVERALL	34	33	6.9	A	
Intersection Total					41	40	6.0	A	

## Glade Road Concept Year 2020 AM Peak Hour Intersection Level of Service

Intersection	Approach	CORSIM Nodes		Movement	2020 Volumes		Delay (Sec/Veh)	LOS	
		A	B		AM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	2	2	18.0	C	
				OVERALL	2	2	18.0	C	
	Southbound	13	3	Left	101	103	3.8	A	
				OVERALL	101	103	3.8	A	
	Eastbound	42	3	Left	11	12	8.0	A	
				Thru	0	0	0.0	A	
				Right	22	21	5.4	A	
	OVERALL	33	33	6.4	A				
	Westbound	43	3	Left	88	90	8.7	A	
				Thru	0	0	0.0	A	
				Right	41	39	5.2	A	
	OVERALL	129	129	7.6	A				
	Intersection Total					265	267	6.1	A
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	31	30	6.2	A
					Thru	157	140	4.5	A
OVERALL					188	170	4.8	A	
Southbound		14	4	Thru	395	378	14.8	B	
				Right	55	48	13.5	B	
				OVERALL	450	426	14.6	B	
Eastbound		40	4	Left	74	79	4.6	A	
				Right	129	123	5.3	A	
				OVERALL	203	202	5.0	A	
Intersection Total					841	798	10.1	A	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	13	13	5.1	A	
				Thru	80	71	9.7	A	
				Right	174	161	9.6	A	
				OVERALL	267	245	9.4	A	
	Southbound	26	5	Left	266	261	11.4	B	
				Thru	170	166	11.6	B	
				Right	29	36	9.7	A	
				OVERALL	465	463	11.3	B	
	Eastbound	37	5	Left	7	8	6.0	A	
				Thru	46	59	5.4	A	
				Right	35	21	4.6	A	
				OVERALL	88	88	5.3	A	
	Westbound	36	5	Left	116	123	5.7	A	
				Thru	22	22	5.5	A	
				Right	185	176	4.3	A	
OVERALL				323	321	4.9	A		
Intersection Total					1143	1117	8.6	A	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	6	6	1.0	A	
				OVERALL	6	6	1.0	A	
	Westbound	33	6	Left	51	49	4.4	A	
				Right	4	6	3.0	A	
				OVERALL	55	55	4.3	A	
Intersection Total					61	61	3.9	A	

# Glade Road Concept

## Year 2020 AM Peak Hour Intersection Level of Service improved

Intersection	Approach	CORSIM Nodes		Movement	2020 Volumes		Delay (Sec/Veh)	LOS	
		A	B		AM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	2	2	18.0	C	
				OVERALL	2	2	18.0	C	
	Southbound	13	3	Left	101	103	4.1	A	
				OVERALL	101	103	4.1	A	
	Eastbound	42	3	Left	11	12	8.5	A	
				Thru	0	0	0.0	A	
				Right	22	21	4.9	A	
				OVERALL	33	33	6.2	A	
	Westbound	43	3	Left	88	90	9.3	A	
				Thru	0	0	0.0	A	
				Right	41	39	3.5	A	
				OVERALL	129	129	7.6	A	
	Intersection Total					265	267	6.2	A
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	31	30	4.2	A
Thru					157	140	4.2	A	
OVERALL					188	170	4.2	A	
Southbound		14	4	Thru	395	378	14.5	B	
				Right	55	48	13.1	B	
				OVERALL	450	426	14.3	B	
Eastbound		40	4	Left	74	79	4.5	A	
				Right	129	123	5.3	A	
				OVERALL	203	202	5.0	A	
Intersection Total					841	798	9.8	A	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	13	13	4.6	A	
				Thru	80	71	10.0	A	
				Right	174	161	9.4	A	
				OVERALL	267	245	9.3	A	
	Southbound	26	5	Left	266	261	11.0	B	
				Thru	170	166	11.8	B	
				Right	29	36	10.3	B	
				OVERALL	465	463	11.3	B	
	Eastbound	37	5	Left	7	8	6.0	A	
				Thru	46	59	5.4	A	
				Right	35	21	4.9	A	
				OVERALL	88	88	5.3	A	
	Westbound	36	5	Left	116	123	5.8	A	
				Thru	22	22	5.2	A	
				Right	185	176	4.4	A	
				OVERALL	323	321	5.0	A	
Intersection Total					1143	1117	8.6	A	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	6	6	2.0	A	
				OVERALL	6	6	2.0	A	
	Westbound	33	6	Left	51	49	4.4	A	
				Right	4	6	4.0	A	
				OVERALL	55	55	4.4	A	
Intersection Total					61	61	4.1	A	

## Glade Road Concept Year 2020 PM Peak Hour Intersection Level of Service

Intersection	Approach	CORSIM Nodes		Movement	2020 Volumes		Delay (Sec/Veh)	LOS	
		A	B		PM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	31	32	4.1	A	
				OVERALL	31	32	4.1	A	
	Southbound	13	3	Left	63	63	10.3	B	
				OVERALL	63	63	10.3	B	
	Eastbound	42	3	Left	7	8	11.3	B	
				Thru	11	13	38.3	E	
				Right	24	19	6.3	A	
				OVERALL	42	40	17.7	C	
	Westbound	43	3	Left	186	156	228.6	F	
				Thru	15	11	228.5	F	
				Right	172	141	241.4	F	
				OVERALL	373	308	234.4	F	
	Intersection Total					509	443	166.3	F
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	245	230	27.7	D
Thru					491	454	25.2	D	
OVERALL					736	684	26.0	D	
Southbound		14	4	Thru	312	312	15.5	C	
				Right	75	67	12.5	B	
				OVERALL	387	379	15.0	B	
Eastbound		40	4	Left	77	85	7.6	A	
				Right	106	97	4.6	A	
				OVERALL	183	182	6.0	A	
Intersection Total					1306	1245	19.8	C	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	37	21	16.3	C	
				Thru	249	244	16.4	C	
				Right	114	107	16.9	C	
				OVERALL	400	372	16.5	C	
	Southbound	26	5	Left	177	158	12.0	B	
				Thru	205	210	12.0	B	
				Right	27	41	12.9	B	
				OVERALL	409	409	12.1	B	
	Eastbound	37	5	Left	31	36	6.2	A	
				Thru	17	25	7.2	A	
				Right	33	20	3.9	A	
				OVERALL	81	81	5.9	A	
	Westbound	36	5	Left	107	110	6.4	A	
				Thru	40	41	5.6	A	
Right				218	211	5.9	A		
OVERALL				365	362	6.0	A		
Intersection Total					1255	1224	11.2	B	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	9	8	1.5	A	
				OVERALL	9	8	1.5	A	
	Westbound	33	6	Left	33	30	4.0	A	
				Right	13	16	3.4	A	
				OVERALL	46	46	3.8	A	
Intersection Total					55	54	3.4	A	

# Glade Road Concept

## Year 2020 PM Peak Hour Intersection Level of Service improved without Tanyard Creek Road Improvement

Intersection	Approach	CORSIM Nodes		Movement	2020 Volumes		Delay (Sec/Veh)	LOS	
		A	B		PM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	31	32	3.9	A	
				OVERALL	31	32	3.9	A	
	Southbound	13	3	Left	63	64	8.8	A	
				OVERALL	63	64	8.8	A	
	Eastbound	42	3	Left	7	8	12.0	B	
				Thru	11	13	35.5	E	
				Right	24	19	8.5	A	
				OVERALL	42	40	18.0	C	
	Westbound	43	3	Left	186	190	26.9	D	
				Thru	15	12	20.0	C	
				Right	172	170	18.0	C	
				OVERALL	373	372	22.6	C	
	Intersection Total					509	508	19.4	C
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	245	237	47.2	E
Thru					491	471	46.2	E	
OVERALL					736	708	46.5	E	
Southbound		14	4	Thru	312	313	15.7	C	
				Right	75	67	13.3	B	
				OVERALL	387	380	15.3	C	
Eastbound		40	4	Left	77	85	8.0	A	
				Right	106	97	4.8	A	
				OVERALL	183	182	6.3	A	
Intersection Total					1306	1270	31.4	D	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	37	21	14.6	B	
				Thru	249	254	15.0	B	
				Right	114	102	18.1	C	
				OVERALL	400	377	15.8	C	
	Southbound	26	5	Left	177	158	12.9	B	
				Thru	205	208	13.5	B	
				Right	27	41	14.0	B	
				OVERALL	409	407	13.3	B	
	Eastbound	37	5	Left	31	36	5.5	A	
				Thru	17	25	5.8	A	
				Right	33	20	4.2	A	
				OVERALL	81	81	5.3	A	
	Westbound	36	5	Left	107	110	6.9	A	
				Thru	40	41	6.3	A	
				Right	218	212	6.5	A	
				OVERALL	365	363	6.6	A	
Intersection Total					1255	1228	11.6	B	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	9	8	1.5	A	
				OVERALL	9	8	1.5	A	
	Westbound	33	6	Left	33	30	3.8	A	
				Right	13	16	5.6	A	
				OVERALL	46	46	4.4	A	
Intersection Total					55	54	4.0	A	

# Glade Road Concept

## Year 2020 PM Peak Hour Intersection Level of Service improved

Intersection	Approach	CORSIM Nodes		Movement	2020 Volumes		Delay (Sec/Veh)	LOS	
		A	B		PM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	31	32	1.3	A	
				OVERALL	31	32	1.3	A	
	Southbound	13	3	Left	63	64	7.8	A	
				OVERALL	63	64	7.8	A	
	Eastbound	42	3	Left	7	8	11.3	B	
				Thru	11	13	28.2	D	
				Right	24	19	8.2	A	
				OVERALL	42	40	15.3	C	
	Westbound	43	3	Left	186	190	24.9	C	
				Thru	15	12	13.5	B	
				Right	172	170	12.6	B	
				OVERALL	373	372	18.9	C	
	Intersection Total					509	508	16.1	C
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	245	241	6.8	A
Thru					491	482	9.3	A	
OVERALL					736	723	8.5	A	
Southbound		14	4	Thru	312	311	15.7	C	
				Right	75	67	13.0	B	
				OVERALL	387	378	15.2	C	
Eastbound		40	4	Left	77	85	7.5	A	
				Right	106	97	4.6	A	
				OVERALL	183	182	6.0	A	
Intersection Total					1306	1283	10.1	A	
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	37	23	13.0	B	
				Thru	249	255	16.2	C	
				Right	114	111	15.2	C	
				OVERALL	400	389	15.8	C	
	Southbound	26	5	Left	177	158	11.7	B	
				Thru	205	208	12.0	B	
				Right	27	40	14.0	B	
				OVERALL	409	406	12.1	B	
	Eastbound	37	5	Left	31	36	7.8	A	
				Thru	17	25	6.5	A	
				Right	33	20	3.9	A	
				OVERALL	81	81	6.4	A	
	Westbound	36	5	Left	107	110	6.8	A	
				Thru	40	41	6.3	A	
Right				218	212	6.2	A		
OVERALL				365	363	6.4	A		
Intersection Total					1255	1239	11.2	B	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	9	8	2.3	A	
				OVERALL	9	8	2.3	A	
	Westbound	33	6	Left	33	30	4.4	A	
				Right	13	16	4.1	A	
				OVERALL	46	46	4.3	A	
Intersection Total					55	54	4.0	A	

## Glade Road Concept Year 2030 AM Peak Hour Intersection Level of Service

Intersection	Approach	CORSIM Nodes		Movement	2030 Volumes		Delay (Sec/Veh)	LOS	
		A	B		AM PK	CORSIM			
Glade Road at CR 377 (unsignalized)	Northbound	12	3	Left	2	3	2.0	A	
				OVERALL	2	3	2.0	A	
	Southbound	13	3	Left	136	142	10.3	B	
				OVERALL	136	142	10.3	B	
	Eastbound	42	3	Left	15	16	10.5	B	
				Thru	0	0	0.0	A	
				Right	30	28	6.4	A	
				OVERALL	45	44	7.9	A	
	Westbound	43	3	Left	119	122	23.6	C	
				Thru	0	0	0.0	A	
				Right	55	51	4.0	A	
				OVERALL	174	173	17.8	C	
	Intersection Total					357	362	13.5	B
	Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	42	44	4.2	A
Thru					211	182	4.3	A	
OVERALL					253	226	4.3	A	
Southbound		14	4	Thru	531	506	20.8	C	
				Right	74	66	18.3	C	
				OVERALL	605	572	20.5	C	
Eastbound		40	4	Left	100	114	6.2	A	
				Right	173	159	6.8	A	
				OVERALL	273	273	6.5	A	
Intersection Total					1131	1071	13.5	B	
Glade Road at New Hope Road (unsignalized)		Northbound	25	5	Left	17	18	13.7	B
					Thru	107	96	14.7	B
	Right				233	220	13.0	B	
	OVERALL				357	334	13.5	B	
	Southbound	26	5	Left	357	345	22.8	C	
				Thru	228	226	22.0	C	
				Right	39	49	21.8	C	
				OVERALL	624	620	22.4	C	
	Eastbound	37	5	Left	10	10	4.2	A	
				Thru	62	78	6.4	A	
				Right	47	31	5.0	A	
				OVERALL	119	119	5.8	A	
	Westbound	36	5	Left	156	159	9.7	A	
				Thru	30	26	10.2	B	
				Right	248	248	7.1	A	
				OVERALL	434	433	8.2	A	
Intersection Total					1534	1506	15.1	B	
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	8	9	0.7	A	
				OVERALL	8	9	0.7	A	
	Westbound	33	6	Left	69	65	6.1	A	
				Right	5	7	5.1	A	
				OVERALL	74	72	6.0	A	
				Intersection Total					82

## Glade Road Concept Year 2030 AM Peak Hour Intersection Level of Service improved

Intersection	Approach	CORSIM Nodes		Movement	2030 Volumes		Delay (Sec/Veh)	LOS
		A	B		AM PK	CORSIM		
Glade Road at CR 377 (signalized)	Northbound	12	3	Left	2	3	30.0	C
		12	3	Thru	191	167	6.3	A
		12	3	Right	246	268	11.6	B
				OVERALL	439	438	9.7	A
	Southbound	13	3	Left	136	140	11.7	B
		13	3	Thru	590	541	6.2	A
		13	3	Right	12	18	3.3	A
				OVERALL	738	699	7.2	A
	Eastbound	42	3	Left	15	17	16.6	B
		42	3	Thru	0	0	0.0	A
		42	3	Right	30	27	7.8	A
				OVERALL	45	44	11.2	B
	Westbound	43	3	Left	119	122	15.8	B
		43	3	Thru	0	0	0.0	A
		43	3	Right	55	51	3.5	A
				OVERALL	174	173	12.2	B
	Intersection Total					1396	1354	8.8
Glade Road at Tanyard Creek Road (unsignalized)	Northbound	13	4	Left	42	49	4.8	A
		13	4	Thru	211	182	4.7	A
				OVERALL	253	231	4.7	A
	Southbound	14	4	Thru	531	514	20.6	C
		14	4	Right	74	68	18.3	C
				OVERALL	605	582	20.3	C
	Eastbound	40	4	Left	100	113	6.1	A
		40	4	Right	173	161	7.1	A
				OVERALL	273	274	6.7	A
	Intersection Total					1131	1087	13.6
Glade Road at New Hope Road (unsignalized)	Northbound	25	5	Left	17	19	15.2	C
		25	5	Thru	107	97	13.0	B
		25	5	Right	233	220	13.0	B
				OVERALL	357	336	13.1	B
	Southbound	26	5	Left	357	346	22.5	C
		26	5	Thru	228	229	22.1	C
		26	5	Right	39	47	21.6	C
				OVERALL	624	622	22.3	C
	Eastbound	37	5	Left	10	9	5.3	A
		37	5	Thru	62	78	5.6	A
		37	5	Right	47	32	5.3	A
				OVERALL	119	119	5.5	A
	Westbound	36	5	Left	156	156	8.6	A
		36	5	Thru	30	24	9.0	A
		36	5	Right	248	252	6.2	A
				OVERALL	434	432	7.2	A
Intersection Total					1534	1509	14.6	B
Glade Road at Bartow Carver Road (unsignalized)	Southbound	31	6	Left	8	9	0.7	A
				OVERALL	8	9	0.7	A
	Westbound	33	6	Left	69	67	5.6	A
		33	6	Right	5	7	5.1	A
				OVERALL	74	74	5.5	A
Intersection Total					82	83	5.0	A

# BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 015-0122-0

Bartow

SUFF. RATING

61.00

## Location & Geography

\* Structure I.D.No: 015-0122-0  
 200 Bridge Information 06  
 \* 6A Feature Int: CLARK CR-ALLATOONA LAKE  
 \* 6B Critical Bridge: 0  
 \* 7A Route Number Carried: CR00633  
 \* 7B Facility Carried: GLADE ROAD  
 \* 9 Location: 4.5 MI SE OF EMERSON  
 2 DOT District: 6  
 207 Year Photo: 2004  
 \* 91 Inspection Frequency: 24 Date: 10/27/2004  
 92A Fract Crit Insp Freq: 00 Date: 02/01/1901  
 92B Underwater Insp Freq: 60 Date: 07/30/2003  
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901  
 \* 4 Place Code: 00000  
 \* 5 Inventory Route (O/U): 1  
 Type: 5  
 Designation: 1  
 Number: 09464  
 Direction: 0  
 \* 16 Latitude: 34-06.2 MMS Prefix:  
 \* 17 Longitude: 84-41.0 MMS Suffix: MP: 0.00  
 98 Border Bridge: 000 %Shared: 00  
 99 ID Number: 0000000000000000  
 \* 100 STRAHNET: 0  
 12 Base Highway Network: 1  
 13A LRS Inventory Route: 152063300  
 13B Sub Inventory Route: 0  
 \* 101 Parallel Structure: N  
 \* 102 Direction of Traffic: 2  
 \* 264 Road Inventory Mile Post: 001.84  
 \* 208 Inspection Area: 06 Initials: DEM  
 Engineer's Initial: jal  
 \* Location I.D. No.: 015-09464M-001.84N

## Signs & Attachments

\* 104 Highway System: 0  
 \* 26 Functional Classification: 16  
 \* 204 Federal Route Type: M No.: 09464  
 105 Federal Lands Highway: 0  
 \* 110 Truck Route: 0  
 206 School Bus Route: 1  
 217 Benchmark Elevation: 0000.00  
 218 Datum: 0  
 \* 19 Bypass Length: 06  
 \* 20 Toll: 3  
 \* 21 Maintenance: 70  
 \* 22 Owner: 70  
 \* 31 Design Load: 2  
 37 Historical Significance: 5  
 205 Congressional District: 07  
 27 Year Constructed: 1950  
 106 Year Reconstructed: 0000  
 33 Bridge Median: 0  
 34 Skew: 00  
 35 Structure Flared: 0  
 38 Navigation Control: 0  
 213 Special Steel Design: 0  
 267 Type of Paint: 0  
 \* 42 Type of Service on: 1  
 5  
 214 Movable Bridge: 0  
 203 Type Bridge: A-O-O-O  
 259 Pile Encasement: 3  
 \* 43 Structure Type Main: 2 04  
 45 No. Spans Main: 004  
 44 Structure Type Appr: 0 00  
 46 No. Spans Appr: 0000  
 226 Bridge Curve Horz: 0 Vert: 0  
 111 Pier Protection: 0  
 107 Deck Structure Type: 1  
 108 Wearing Surface Type: 1  
 Mc 0  
 F 0  
 225 Expansion Joint Type: 01  
 242 Deck Drains: 1  
 243 Parapet Location: 0  
 Height: 0.00  
 Width: 0.00  
 238 Curb: 1.20 1  
 239 Handrail: 1 1  
 \* 240 Median Barrier Rail: 0  
 241 Bridge Median Height: 0.00  
 Width: 0.00  
 \* 230 Guardrail Loc Dir Rear: 3  
 Fwr: 3  
 Oppo Dir Rear: 0  
 Fwr: 0  
 244 Approach Slab: 0  
 224 Retaining Wall: 0  
 233 Posted Speed Limit: 30  
 236 Warning Sign: 1  
 234 Delineator: 1  
 235 Hazard Boards: 1  
 237 Utilities Gas: 32  
 W 11  
 Ele: 00  
 Telephone: 00  
 Se: 00  
 247 Lighting Street: 0  
 Navigtion: 0  
 Aerial: 0  
 \* 248 County Continuity No.: 00

# BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 015-0122-0

Bartow

SUFF. RATING

61.00

## Programming Data

201 Project No.: US CORP OF ENGINEERS  
 202 Plans Available: 0  
 249 Prop. Proj. No. 0000000000000000  
 250 Approval Status: 0000  
 251 P.I. No.: 0000000  
 252 Contract Date: 02/01/1901  
 260 Seismic No.: 00000  
 75 Type Work: 34 1  
 94 Bridge Imp. Cost: \$ 322  
 95 Roadway Imp. Cost: \$ 55  
 96 Total Imp Cost: \$ 502  
 76 Imp. Length: 000474  
 97 Imp. Year: 0000  
 114 Future ADT: 006825 Year: 2023

## Measurements

\* 29 ADT: 004550 Year: 2003  
 109 % Trucks: 2  
 \* 28 Lanes On: 02 Under: 00  
 210 No. Tracks On: 00 Under: 00  
 \* 48 Max. Span Length: 0072  
 \* 49 Structure Length: 263  
 51 Br. Rwdy. Width: 23.90  
 52 Deck Width: 27.10  
 \* 47 Tot. Horz. Cl: 23.90  
 50 Curb/Sdewlk Width: 1.00/1.00  
 32 Approach Rdwy Width: 022  
 \* 229 Shoulder Width:  
     Rear Lt: 5.00 Type: 8 Rt: 5.00  
     Fwrd Lt: 5.00 Type: 8 Rt: 5.00  
     Pavement Width:  
         Rear: 24.00 Type: 2  
         Fwrd: 22.00 Type: 2  
     Intersection Rear: 0 Fwrd: 0  
 36 Safety Features Br. Rail: 2  
     Transition: 2  
     App. G. Rail: 1  
     App. Rail End: 1  
 53 Minimum Cl.Over: 99 ' 99 "  
     Under: N 00 ' 00 "  
 \* 228 Min. Vertical Cl  
     Act. Odm Dir: 99 ' 99 "  
     Oppo. Dir: 99 ' 99 "  
     Posted Odm. Dir: 00 ' 00 "  
     Oppo. Dir: 00 ' 00 "  
 55 Lateral Undercl. Rt: N 99.90  
 56 Lateral Undercl. Lt: 0.00  
 \* 10 Max Min Vert Cl: 99 ' 99 " Dir: 0  
 39 Nav Vert Cl: 000 Horz: 0000  
 116 Nav Vert Cl Closed: 000  
 245 Deck Thickness Main: 7.00  
     Deck Thick Approach: 0.00  
 246 Overlay Thickness: 0.00  
 212 Year Last Painted: Sup: 0000 Sub: 0000

## Ratings

65 Inventory Rating Method: 5  
 63 Inventory Rating Method: 5  
 66 Inventory Type: 2 Rating: 22  
 64 Operating Type: 2 Rating: 46  
 231 Calculated Loads  
     H-Modified: 21 0  
     HS-Modified: 23 0  
     Type 3: 21 0  
     Type 3s2: 33 0  
     Timber: 26 0  
     Piggyback: 00 0  
 261 H Inventory Rating: 17  
 262 H Operating Rating: 35  
 67 Structural Evaluation: 5  
 58 Deck Condition: 6  
 59 Superstructure Condition: 6  
 \* 227 Collision Damage: 0  
 60A Substructure Condition: 6  
 60B Scour Condition: 8  
 60C Underwater Condition: 6  
 71 Waterway Adequacy: 8  
 61 Channel Protection Cond: 8  
 68 Deck Geometry: 2  
 69 UnderClr. Horz/Vert: N  
 72 Appr. Alignment: 8  
 62 Culvert: N

## Hydraulic Data

215 Waterway Data  
     Highwater Elev.: 0000.0 Year: 1900  
     Avg. Streambed Elev.: 0000.0 Freq.: 00  
     Drainage Area: 00000  
     Area Of Opening: 000000  
 113 Scour Critical: U  
 216 Water Depth: 20.0 Br. Height: 20.5  
 222 Slope Protection: 1  
 221 Spur Dikes Rear: 0 Fwrd: 0  
 219 Fender System: 0  
 220 Dolphin: 0  
 223 Culvert Cover: 000  
     Type: 0  
     No. Barrels: 0  
     Width: 0.00 Height: 0.00  
     Length: 0 Apron: 0  
 \* 265 U/W Insp. Area: 1 Diver: RM  
 \* Location I.D. No.: 015-09464M-001.84N

## Posting Data

70 Bridge Posting Required: 5  
 41 Struct Open, Posted, Cl: A  
 \* 103 Temporary Structure: 0  
 232 Posted Loads H-Modified: 00  
     HS-Modified: 00  
     Type 3: 00  
     Type3s2: 00  
     Timber: 00  
     Piggyback: 00  
 253 Notification Date 02/01/1901  
 253 Fed Notify Date: 02/01/1901 0

# GEORGIA DEPARTMENT OF TRANSPORTATION

## Bridge Inspection Report

**District:** 6  
**Bridge Inspector:** Danny Mealer  
**Location ID:** 015-09464M-001.84N  
**Structure ID:** 015-0122-0

**Inspection Date:** 10/27/2004  
**Over:** CLARK CR-ALLATOONA LAKE  
**County:** Bartow  
**Road Name:** GLADE ROAD

**Inspection Area:** 06  
**Bridge Status:** 06

### EVALUATION & DEFICIENCIES

---

#### SubStructure:

**Year Painted:** 0000

All units including the abutments have concrete caps with (2) columns founded on spread footings.

SUBSTRUCTURE RATING DEEMED ADEQUATE FOR SUPERSTRUCTURE CAPACITY - December 2002

All units are in satisfactory condition except for minor age deterioration and minor cracking.

The top of both abutment caps are covered with debris that is retaining moisture which should be removed from the bearing areas.

#### SuperStructure:

**Year Painted:** 0000

4 spans with (4 18"X 30") continuous concrete "T" beam.  
The beams have brass bearing assemblies with steel anchor bolts.

Super = H-15 Assigned 2002 by CO.

The beams have minor deflection cracks and small areas of exposed reinforcement.  
The bearings are in good condition except for heavy corrosion of the anchor bolts.

#### Deck:

7" concrete slab poured continuous.  
Cast in place armored joints at each abutment.

Inventory rating - H 15 design

Light surface deterioration and moderate transverse cracking on top and bottom with efflorescence.  
These cracks requires sealing.

The armored joints are not sealed.  
The anchorage is cast in place and the plate is bolted down, but some bolts are missing and joints are loose.  
Abutment #1 joint is still loose but joint at abutment #4 has been repaired, 10-04.

At bents #2 and #3 the edge beams are cracked, no repairs.

#### General:

# GEORGIA DEPARTMENT OF TRANSPORTATION

## Bridge Inspection Report

**District:** 6  
**Bridge Inspector:** Danny Mealer  
**Location ID:** 015-09464M-001.84N  
**Structure ID:** 015-0122-0

**Inspection Date:** 10/27/2004  
**Over:** CLARK CR-ALLATOONA LAKE  
**County:** Bartow  
**Road Name:** GLADE ROAD

**Inspection Area:** 06  
**Bridge Status:** 06

### EVALUATION & DEFICIENCIES

Built in 1950 by the U.S. Corp of Engineers as part of the Lake Allatoona project.

CALCULATIONS FOR THIS STRUCTURE WERE DETERMINED BY THE CENTRAL OFFICE – December 2002.

This bridge is in satisfactory condition except for minor deflection cracks in beams, corrosion of bearing anchors bolts and cracking in deck and substructure.

Repairs: Clean and paint steel anchor bolts in bearings.

- Repair loose joint at abutment #1
- Clean debris from abutment caps.
- Epoxy seal the deck cracks.

Equipment used during this inspection, hand tools and binoculars, 10-27-04.

This bridge is schedule to be snooper by Donnie Carter.

Special note : this bridge is scheduled for an underwater inspection.

The waterway report will be maintained by the diving team.

County Road #633 (9464M) Glade Road

#### Condition Rating

Temp Shored: No

Component	Material	Rating	Truck Type	Gross/H-Mod	HSMOD	Tand	3-S-2	Log	Piggy
Substructure	Concrete	6	Calculated Posting	21	23	21	33	26	00
Superstructure	Concrete	6	Posting Required	No	No	No	No	No	No
Deck	Concrete	6	Existing Posting	00	00	00	00	00	00

\*\*\*School Bus Route.\*\*\*

Structure Does Not Require Posting

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

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June 14, 2005

Attendees:

David Moore	GDOT
Stanley Horton	GDOT Utilities
Debra Tatum Soulis	GDOT Local Gov't Coordinator
Andy Rickard	GDOT
Joe Ciavarro	GDOT
Ulander Gervais	GDOT OEL
Dee Corson	GDOT
Steve Bradley	Bartow County
Rusty Simmons	Army Corps of Engineers
David Kenemer	Coosa Valley RDC
Susan Thomas	Edwards Pittman Environmental
Tommy Crochet	McGee Partners, Inc.
Greg Ramsey	McGee Partners, Inc.

From: Stanley McCarley

Subject: Minutes from Initial Concept Team Meeting held June 7, 2005  
Project: CSSTP 0003-00(770)  
PI #: 0003770  
County: Bartow

The following comments were made as the agenda items were discussed:

- Posted speed limit for Glade Road is 30 mph. Traffic volume is above average for this type of road, especially at the southern end of the project corridor. The accident rates are higher than state averages.
- AASHTO 2004 and the 2002 AASHTO Roadside Design Guide will be used for this project.
- The current concept layout is a 35 mph design for horizontal and vertical alignments. A 45 mph design was also considered. However, the number of displacements and the severity of community impacts were greatly increased with this alternative.
- Dee Corson suggested considering a round-about at the Glade Road/Apache Drive and Glade Road/New Hope Road intersections in lieu of a traffic signal. The first option will be an all-way stop.
- Traffic will be maintained throughout construction.
- A rural typical section is the first option for Glade Road. Curb and gutter will be considered in areas to reduce impacts to property. A design variance would be

- required if sidewalks are not to be included with the curb and gutter.
- Utilities: Georgia Power, Adelphia, Acworth Cable, BellSouth, Bartow County Water & Sewer.
  - A Historic Resources Report has been completed and no structures are located in the corridor. The archaeology survey has not been conducted. Environmental justice may be an issue. The neighborhoods contain a large density of mobile homes. Bartow County has held meetings with a local Allatoona Community group to begin coordination for this project. Steve Bradley will provide information on these meetings to the District 6 office.
  - Context Sensitive Design will be considered for the project.
  - The park at the lake contains a campground on both sides of Glade Road. It also contains boat ramps and a day use area on the east side of Glade Road. Alternative alignments in this area and across the lake will be analyzed in order to minimize the impacts to the park, lake and facilities.
  - A PAR is not likely to be necessary unless an individual 404 permit is required for the bridge replacement.
  - A preliminary ecology survey was performed, but no endangered species have been identified.
  - No problems are anticipated with air quality and noise.
  - A Nationwide 404 permit is anticipated.
  - The limits for the project have not been finalized. Logical termini will be analyzed and determined before the next Concept Team Meeting.
  - The project is in a Non-Attainment area.
  - The project is likely exempt from federal oversight.
  - The functional classification changes from Major Collector to Minor Arterial in the middle of the project. Design criteria for an arterial will likely be applied over the entire length of the project.
  - A Public Information Open House will likely be scheduled following the next Concept Team Meeting.
  - Bartow County will handle all utility relocations; however, the plans will be distributed to the utility owners through GDOT's utility office.

Please review this and submit any additional comments you may have to me at the District Six Preconstruction Office. Thank you for your attendance and comments.

Recorded By: Greg Ramsey

JMC

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

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May 8, 2007

Attendees:

Lisa Wesley	GDOT Cartersville Area Office - Construction
Stanley Horton	GDOT District 6 Utilities
Greg Hood	GDOT District 6 Planning & Programming
Steve Sanders	GDOT District 6 Traffic Operations
Galen Barrow	GDOT District 6 Environmentalist
Joe Ciavarro	GDOT District 6 Design
Nabil Raad	GDOT Traffic Operations
Pam Digsby	GDOT District 6 R/W
Katy Allen	FHWA
Steve Bradley	Bartow County – County Administrator
Lamont Kiser	Bartow County – County Engineer
Susan Thomas	Edwards Pitman Environmental
Jill Baur	Edwards Pitman Environmental
Tommy Crochet	McGee Partners, Inc.
Ken Timpson	McGee Partners, Inc.

From: Joe Ciavarro

Subject: Minutes from Concept Team Meeting held  
May 8, 2007 at District 6, Cartersville  
Glade Road Improvements  
Project: CSSTP 0003-00(770)  
PI #: 0003770  
County: Bartow

Following introductions, Tommy Crochet presented key elements from the Draft Concept Report, of note:

- The purpose of the project is to improve safety. Crash rates are 2 to 3 times statewide averages and injury rates are 3 to 4 times statewide averages.
- The proposed project will reconstruct the 2-lane roadway to correct horizontal and vertical alignments, improving stopping and intersection sight distances.
- Approximately \$700,000 of L230 funds from ARC are programmed for FY 2009 construction. Bartow County intends to identify their highest priority section of this project and use the L230 funds for construction. Funding for the remainder of the corridor is currently in Long Range.
- The project proposes the replacement of the Glade Road bridge over Allatoona Lake (Clark Creek), which currently is designed for H-15 loading and has a sufficiency rating of 61.
- Environmental concerns include:
  - Impacts to US Army Corps of Engineers recreational property and the lake hydraulics. Coordination with the Corps will likely result in a

Memorandum of Agreement (MOA) between the Corps, FHWA, GDOT and Bartow County. (Based on an October 2006 coordination meeting with the Corps, FHWA, and GDOT.)

- There are some jurisdictional waters and wetlands that will be impacted, requiring Section 404 permitting and possible PAR.
- The Historic Resources Survey Report has been completed and approved by SHPO. There are no eligible resources in the project area.
- It is anticipated that the project will require an EA/FONSI.
- Construction costs are estimated at \$15,300,000, right of way and utilities costs are the responsibilities of Bartow County and they are estimated at \$3,100,000 and \$800,000, respectively
- A VE Study does not appear to be required.

The following comments were offered following the presentation:

- By FHWA
  - FHWA needs to be involved in the coordination with the USACOE concerning the MOA for the potential impacts to the lake and park facilities, along with any mitigation for those impacts.
  - It is possible that the MOA may not result in a Section 4(f) de minimis finding, in which case, a Section 4(f) Document would be required to address the park impacts.
  - They were concerned about the project schedule with over 200 R/W parcels and FY 09 construction funding. Tommy further elaborated that the FY 09 L230 funding, along with Bartow County SPLOST funds would be enough to reconstruct the first section of the project, which will be identified after concept approval and would likely only involve a few parcels.
  - FHWA would like to be involved in the PAR process if it is required. Edwards-Pitman noted that Bartow County would be the Permittee on any 404 Permit, but would keep FHWA informed of the process and send them copies of all reports and documents.
  - It was noted that the parks and lake hydraulics falls under the USACOE Mobile District and the Section 404 issues fall under the USACOE Savannah District.
- By District Utilities
  - The project will need to be evaluated to determine if SUE should be required.
- By District Environmentalist
  - The extents of jurisdictional wetlands and waters was reviewed and it was noted that in addition to the replacement of the bridge over Allatoona Lake, approximately 500 lin. ft. of stream (existing roadside ditch) and about 0.1 acre of wetland (integral with same roadside ditch) would be impacted.
  - This will likely require an individual 404 permit and a stream buffer variance.

Concept Team Meeting Minutes  
CSSTP-0003-00(770), Bartow Count  
May 8, 2007

- By District Design
  - It was noted that requirements in GDOT's Design Policy Manual may require a design variance for shoulder widths less than 10'. This issue needs to be evaluated and addressed in the Concept Report if applicable.
- By Traffic Operations
  - Asked if proposed horizontal curves provided for adequate stopping sight distance. Tommy responded that the horizontal and vertical curves do provide adequate sight distance and typically provides more since the alignments and clear zones were designed to provide adequate intersection sight distance at all of the side roads and most driveways along Glade Road.

Please review this and submit any additional comments you may have to me at the District Six Preconstruction Office. Thank you for your attendance and comments.

Recorded By: Tommy Crochet, McGee Partners

JMC

Concept Team Meeting  
 Glade Road Improvements, Bartow County  
 Project: CSSTP 0003-00(770), PI #: 0003770  
 Tuesday, May 8, 2007, 9:00 am  
 GDOT District 6 Conference Room

## SIGN-IN SHEET

Name	Organization/Department	email	Phone
Tommy Crochet	Mcbee Partners	Tcrochet@mcbeepartners.com	770.938.6400
Susan Thomas	EPEI	stthomas@edwards-pitman.com	770 333 9484
Ken Timpson	McGEE PARTNERS	KTIMPSON@MCGEEPARTNERS.COM	770.938.6400
Jill Baur	EPEI	jibaur@edwards-pitman.com	770-333-9484
Katy Allen	FWWA	Katy.allen@fwwa.dot.gov	404-562-3657
LISA WESLEY	GDOT	lisa.wesley@dot.state.ga.us	770 382 3729
GREG HOOD	GDOT DG	GREG.HOOD@ " " " "	770-387-3654
Steve Sanders	"	Steve.Sanders@ " "	" - 3634
Balen Barrow	GDOT DG	Balen.Barrow@ " " " "	770-387-3654
Nabil Raad	GDOT Traffic Op.	m.nabil.raad@gdot.gov	4-635-8126
STAN HORTON	GDOT UTILITIES	stan.horton@dot.state.ga.us	770-387-3616
JOSEPH CIARRRO	DG DESIGN	JOSEPH.CIARRRO@DOT.STATE...	770-387-3624
Pam Digsby	GDOT- RIW	pam.digsby@DOT.state.ga.us	770-387-3658
LAMONT KISER	BARTOW Co. - ENGR.	kiserl@bartowga.org	770-387-5067
Steve Bradley	Bartow Co. Adm.	bradleyse@bartowga.org	" " 5030



## Department of Transportation

State of Georgia

#2 Capitol Square, S.W.  
Atlanta, Georgia 30334-1002

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EARL L. MAHFUZ  
TREASURER  
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HAROLD E. LINNENKOHL  
COMMISSIONER  
(404) 656-5206  
DAVID E. STODSTILL, JR., P.E.  
CHIEF ENGINEER  
(404) 656-5277

November 28, 2006

Thank you for attending the public information open house for project CSSTP-0003-00(770), P.I. No. 0003770, the proposed reconstruction of County Road (CR) 633/Glade Road from CR 605/Homestead Way to CR 384/Bartow Carver Road. In this handout package you will find a project description, location map and comment card.

As you enter the room, you will notice displays of the proposed project. Department of Transportation (DOT) representatives, who can be identified by the nametags they are wearing, are available to discuss the project and answer your questions. Please take this opportunity to discuss the project with a DOT representative. There will be no formal presentation.

A court reporter will be available for those persons who would like to make a verbal statement about the project. You may also complete a comment card and deposit it into the box provided here or send in written comments about the project until December 12, 2006. Written comments should be sent to Mr. Harvey D. Keepler, State Environmental/Location Engineer, Georgia Department of Transportation, 3993 Aviation Circle, Atlanta, Georgia 30336-1593. Comments can also be made via the web at [www.dot.state.ga.us](http://www.dot.state.ga.us). Click on **Public Outreach** from the list of Featured Links. All comments will be made a part of the project record. We hope you will take advantage of one of these opportunities to let the Department know your view of the proposal.

The displays and plans will be available for review for ten days after the public information open house at the Georgia Department of Transportation District 6 Office located at 500 Joe Frank Harris Parkway, Cartersville, GA 30120. A copy of all comments received will be available for public review at this same location and at the Office of Environment/Location, 3993 Aviation Circle, Atlanta, GA 30336-1593, as soon as compilation is completed.

Again, thank you for attending this public information open house and for giving us your comments.

Sincerely,

A handwritten signature in black ink that reads "Todd Long" followed by a stylized monogram "SBL".

Todd Long, P.E.  
Director of Preconstruction

TL/rf/epei-slt

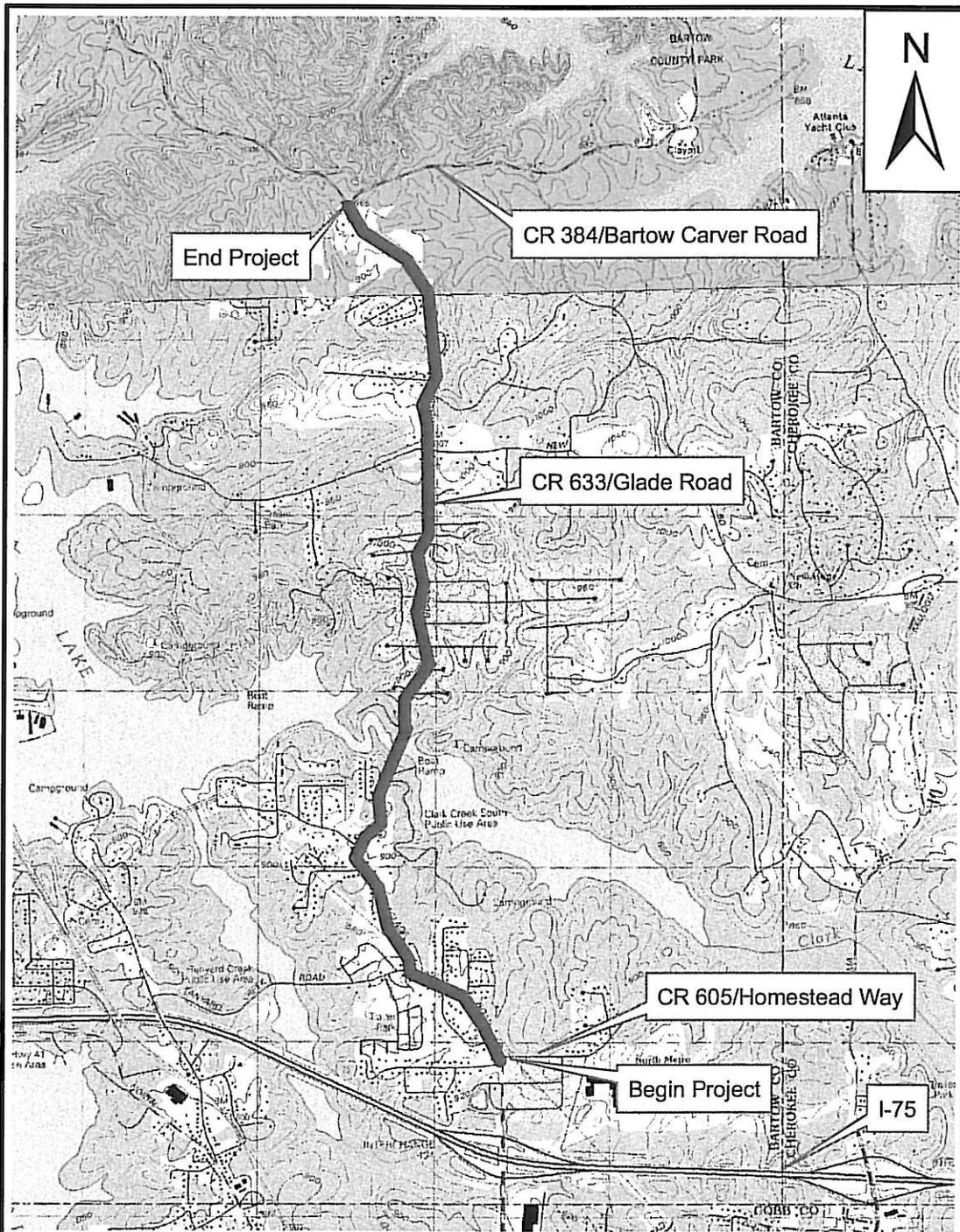
Attachments

**Project CSSTP-0003-00(770), Bartow County, P.I. Number 0003770  
CR 633/Glade Road Improvement Project  
from CR 605/Homestead Way to CR 384/Bartow Carver Road**

**Description of the Proposed Project**

The proposed project would consist of improvements to CR 633/Glade Road from CR 605/Homestead Way to CR 384/Bartow Carver Road, in Bartow County. The total length of the proposed project is approximately four miles. Glade Road is currently a two-lane rural roadway with rural shoulders. The roadway contains many horizontal and vertical curves and the intersections are stop-controlled. The posted speed limit is 30 miles per hour (mph). Many of the horizontal and vertical curves do not meet minimum AASHTO standards for a 35 mph speed design.

The proposed project would include improvements to intersections and improvements to the horizontal and vertical sight distances. The proposed operational improvements would allow CR 633/Glade Road to operate at an acceptable level of service through the year 2030. The proposed project would also correct horizontal and vertical alignment deficiencies and bring the roadway to within AASHTO design guidelines for the appropriate speed design.



PROJECT LOCATION  
 CSSTP-0003-00(770)  
 BARTOW COUNTY  
 P.I. No. 0003770



SOURCE: ACWORTH & ALLATOONA DAM, GA  
 QUADRANGLES/USGS 7.5' SERIES (TOPOGRAPHIC)

# Georgia Department of Transportation

Public Information Open House Comment Card

CSSTP-0003-00(770), Bartow County, 0003770

November 28, 2006

*Please print responses.*

Name \_\_\_\_\_

Address \_\_\_\_\_

Do you support the project?     For     Against     Conditional     Uncommitted

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**In your view, which section of Glade Road needs improvement the most?**

Pecan Circle / Pawnee Trail / Mohawk Drive

Wildflower Trail / Dawn's Way / Camp Dr.

Mohawk Drive / Tanyard Creek Road

Cox Farm Road / Roberts Way

Catfish Court / Buckhorn Trail / Sugar Hill Road

Bartow Carver Road / Twin Pines Road

Brandy Lane / Heritage Way / Wildflower Trail

Other \_\_\_\_\_

**How did you hear about this meeting?**     Radio     Newspaper     Signs     Word of Mouth

**Was the location of the meeting convenient for you to attend?**     Yes     No

**If no, please suggest a general location that is more convenient to your community.**

\_\_\_\_\_

**Was the time of the meeting convenient for you to attend?**     Yes     No

**If no, please suggest a time frame that is more convenient for you.** \_\_\_\_\_

**Were your questions answered by the DOT personnel?**     Yes     No

**Do you understand the project after attending this meeting?**     Yes     No

**Please share your suggestions on improving the way Georgia DOT conducts public meetings?**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Mail To:**

*Mr. Harvey D. Keepler, State Environmental/Location Engineer  
Georgia Department of Transportation  
3993 Aviation Circle  
Atlanta, GA 30336-1593*

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

RECEIVED  
MAR 22 2007

INTERDEPARTMENT CORRESPONDENCE

BY:  
EDWARDS-PITMAN ENV.

FILE: P. I. No. 0003770 OFFICE: Environment/Location  
DATE: January 4, 2007

FROM: Harvey D. Keeper, State Environmental/Location Engineer

TO: Distribution Below

SUBJECT: Project CSSTP-0003-00(770), Bartow County, Summary of Comments Received During the Public Comment Period - The proposed reconstruction of County Road (CR) 633/Glade Road from CR 605/Homestead Way to CR 384/Bartow Carver Road.

COMMENT TOTALS:

A total of 185 people attended the public information open house held for the subject project. From those attending, 38 comment forms, 0 letters and 0 verbal statements were received. An additional 9 comments were received during the ten-day comment period following the public information open house, for a total of 47 comments. They are summarized as follows:

No. Opposed	No. In Support	Uncommitted	Conditional
<u>4</u>	<u>28</u>	<u>7</u>	<u>8</u>

MAJOR CONCERNS:

Comments included requests to:

- build the project soon,
- add sidewalks and bicycle lanes,
- keep the speed limit the same,
- have law enforcement of the speed limit,
- use law enforcement with signalization and road use restrictions rather than construction,
- straighten the road but not to widen it,
- include traffic signals and turn lanes at major intersections,
- add sewer lines,
- stripe or improve other area roads,
- stop the project at Bartow Carver Road,
- improve drainage,
- remove the connection along Cox Farm Road,

- keep this area rural rather than commercial, and
- have litter picked up more often.

Other concerns regarded the impacts of displacing residences on the residents.

The comment card included a list of sections of road asking which section needed to be improved the most. The responses marked were:

- Pecan Circle/Pawnee Trail/Mohawk Drive: 6
- Mohawk Drive/Tanyard Creek Road: 6
- Catfish Court/Buckhorn Trail/Sugar Hill Road: 6
- Brandy Lane/Heritage Way/Wildflower Trail: 4
- Wildflower Trail/Dawn's Way/Camp Dr.: 12
- Cox Farm Road/Roberts Way: 2
- Bartow Carver Road/Twin Pines Road: 0
- All: 7
- Other: Apache and Homestead intersection: 2
- Other: Bridge: 1
- Other: Glade Road and I-75: 1

OFFICIALS:

Officials attending included the following:

Steve Bradley, Bartow County Administrator

DISPOSITION OF COMMENTS:

The following represents a breakdown of a review of comments by the offices to which they pertain:

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
District 6 Design	9, 14, 15, 17, 27, 28, 33, 37, 38, 40	Add sidewalks and bicycle lanes.
	10	Project limits should not extend to the park.
	11, 13, 17, 28	Maintain or lower the speed limit.
	12, 32, 43	Do the project quickly.
	13	Concerned about drainage affecting drinkable spring water near Dawn Way and Ranell Place.
	14	Add lane striping on Clark Circle, Creek Trail, Brightwell Lane, Arrington Road, and Jacobs Road.
	15	Support straightening but not widening.
	15	Put fencing on bridge to discourage divers.
	16	Widen Cox Road and make Cox Road a dead-end.
	17, 21	Straightening the road will increase speeding.
	17	Road needs to have a recovery area, not to be straightened out.
	17	Do not allow runoff from the road to pollute Lake Allatoona.
	26	Sight distances at intersections need attention.
	39	Improve the area with the most accidents first.
39	Add turning lanes.	

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Right-of-Way	20	Concerns about displacement of residence on health of resident.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Traffic Operations	7, 8, 45	Install a traffic signal at Homestead Drive and Apache Drive.
	11 39	Allow left turns on green at the I-75 stoplights. The main intersection has a lot of signs and is very confusing.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Planning	42	Need information about the expansion of North Metro Tech and its possible effect on traffic on Glade Road.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Environment	14, 15	Conduct meeting with a speaker then question and answer section.
	15	Name tags are not enough to identify.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Local Government	5, 11, 28, 30, 41	Traffic law enforcement is needed.
	11 17 33 44	Allow no 18 wheelers on Glade Road. Avoid commercial properties to keep area rural. Schedule state prison trash pick-up more often. Add sewer lines at the same time.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
All Letters	All	<p>Thank you for your input regarding the public information open house for the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.</p> <p>The attendees of the open house and those persons sending in comments afterwards raised the following questions and concerns. The GDOT has prepared one response to all comments so that everyone can be aware of the concerns raised and the responses given. Please find the comments, concerns, and questions listed below along with their response.</p>

Summary of Comments  
CSSTP-0003-00(770), PI No. 0003770, Bartow County  
January 4, 2007  
Page 5

McGee Partners, Inc., and Edwards-Pitman Environmental will respond to all comments on behalf of the GDOT.

Please review and email any comments to the responses to Susan Thomas (sthomas@edwards-pitman.com) and copy Galen Barrow (galen.barrow@dot.state.ga.us) by January 31, 2007.

Attached is a complete transcript of the comments received during the comment period and a copy of the public information open house handout.

If you have any questions about the comments, please either email or call Galen Barrow at (770) 387-3685.

HDK/GB/epei-slt

Attachments

**DISTRIBUTION:**

David Moore  
Howard (Phil) Copeland  
Keith Golden  
Kent Sager  
Joe Palladi, P.E.  
Susan Knudson  
DeWayne Comer



# Department of Transportation

State of Georgia

#2 Capitol Square, S.W.

Atlanta, Georgia 30334-1002

HAROLD E. LINNENKOHL  
COMMISSIONER  
(404) 656-5206

DAVID E. STUDSTILL, JR., P.E.  
CHIEF ENGINEER  
(404) 656-5277

BUDDY GRATTON, P.E.  
DEPUTY COMMISSIONER  
(404) 656-5206

EARL L. MAHFUZ  
TREASURER  
(404) 656-5224

March 1, 2007

RECEIVED  
MAR 03 2007

BY:  
EDWARDS-PITMAN ENV.

Mr. and Mrs. P.D. Matthews  
4706 Colony Dr.  
Acworth, GA 30102

Re: Project CSSTP-0003-00(770), Bartow County, P.I. No. 0003770  
The proposed reconstruction of County Road (CR) 633/Glade Road  
from CR 605/Homestead Way to CR 384/Bartow Carver Road

Dear Mr. and Mrs. P.D. Matthews:

Thank you for your input regarding the public information open house (PIOH) for the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.

Of the comments received at the public information open house, 28 were in support of the project, four were opposed to the project, seven were uncommitted, and eight were conditional.

The attendees of the public information open house and those persons sending in comments afterwards raised the following questions and concerns. The Georgia Department of Transportation (GDOT) has prepared one response to all comments so that everyone can be aware of the concerns raised and the responses given. Please find the comments, concerns, and questions listed below along with their response.

## DESIGN COMMENTS/QUESTIONS

**Comment:** Add sidewalks and bicycle lanes along CR 633/Glade Road.

**Response:** The addition of sidewalk and bicycle lanes will be given further consideration.

**Comment:** The project limits should not extend to Red Top Mountain State Park.

**Response:** The study limits for the project extended from Apache Drive to Red Top Mountain State Park. However, it may be determined that certain sections of this corridor may not require improvements.

**Comment:** The speed limit on CR 633/Glade Road should be maintained or lowered.

**Response:** The amount of traffic and type of use along Glade Road warrants a proposed 35 mph design speed per the guidelines set forth in *A Policy On Geometric Design of Highways and Streets* (AASHTO Green Book) published by the American Association of State Highway and Transportation Officials. However, this project

does not propose changing the existing posted speed limit of 30 mph. Please contact the Bartow County Sheriff's office in regard to enforcing speed limits.

**Comment:** Straightening CR 633/Glade Road would increase speeding.

**Response:** The purpose of the proposed design changes is to improve safety through the corridor. The current crash rate is approximately three times the state average for rural arterials. In order to reduce the accident rate, sight distance must be improved at several locations along Glade Road, especially at side road intersections. Some hills and curves must be adjusted to improve sight distance.

**Comment:** CR 633/Glade Road needs recovery areas and does not need to be straightened.

**Response:** All AASHTO Green Book guidelines will be followed in the design of these improvements. However, widening existing shoulders will not be enough to eliminate the number of accidents along the road. Proposed design changes will improve vertical and horizontal curves and improve shoulder width as necessary. Sight distance improvements for curves and intersections will also be improved.

**Comment:** Straighten CR 633/Glade Road but do not widen the roadway.

**Response:** No additional lanes are included in this project. The project proposes to reconstruct the existing two lanes and improve the shoulders.

**Comment:** Construct the project quickly.

**Response:** Sections of this project will be designed and constructed as expeditiously as possible as funding becomes available through Federal and State sources. Current funding programmed for this project will only be sufficient to improve one or two small sections of the roadway.

**Comment:** The project should not affect existing spring water near Dawn Way and Ranell Place.

**Response:** All storm water runoff will be maintained in existing flow patterns. No water will be redirected to areas where it is not already flowing. Storm water will be carried in existing or improved ditches and culverts. Any proposed improvements will be designed such that the drainage structures and ditches will capture any spring water and carry it away from the road.

**Comment:** Runoff from the road should not be allowed to pollute Lake Allatoona.

**Response:** Existing storm water patterns will be maintained in the proposed design. However, the federal and state governments have laws in place that must be followed in order to keep silt and runoff from adversely impacting any downstream body of water, including Lake Allatoona. Erosion control methods will be included to eliminate as much silt and runoff pollution as possible. Also, this design will be coordinated with the Army Corps of Engineers to determine the best method to control runoff to the lake.

**Comment:** Add lane striping on Clark Circle, Creek Trail, Brightwell Lane, Arrington Road, and Jacobs Road.

**Response:** Lane striping will be included inside the boundary of the project limits, as shown at the PIOH. Local roads are not currently included in these limits. This comment will be forwarded to the Bartow County Road Department for their consideration.

**Comment:** Put fencing on the bridge to discourage divers.

**Response:** Fencing will be considered in the design of the proposed bridge. This will also be coordinated with the Army Corps of Engineers.

**Comment:** Widen Cox Farm Road and make it into a dead-end road.

**Response:** This project includes only the length of Cox Farm Road necessary to improve the sight distance at the intersection of Glade Road and Cox Farm Road. We will forward this comment to the Bartow County Road Department for their consideration.

**Comment:** Sight distances at intersections need attention.

**Response:** Improving sight distances at intersections and along Glade Road is the main focus of this project in order to improve safety along the corridor.

**Comment:** Improve the area with the most accidents first.

**Response:** This is the primary focus for the planning process for this project. The history of accidents at locations along the corridor will be a primary factor in consideration of areas that will be marked for improvement.

**Comment:** Add turning lanes.

**Response:** A traffic report will be developed that will establish the warrants for the need for any additional turn lanes at intersections. Left turn and right turn lanes may be added at locations if needed to provide acceptable traffic operations or improved safety.

#### **RIGHT-OF-WAY COMMENTS/QUESTIONS**

**Comment:** Concerned about the displacement of residence and the health of the resident.

**Response:** All residential displacements will be handled with great care and all Federal Highway Administration and GDOT policies will be followed. Notification and negotiations with individual property owners will be held as early as possible in the right of way acquisition process. Properties and improvements needed for the construction of the project will be purchased at fair market value. All displaced residents are offered assistance in finding comparable housing nearby in the community and are compensated for reasonable location expenses.

#### **TRAFFIC OPERATIONS COMMENTS/QUESTIONS**

**Comment:** Allow left turns on green at the I-75 stoplights.

**Response:** This intersection is not included in the limits of this project. This comment will be forwarded to the traffic operations division at the GDOT district office in Cartersville.

**Comment:** Install a traffic signal at Homestead Drive and Apache Drive.

**Response:** This intersection is not included in the limits of this project; however, a safety improvement project was recently completed at this location. During the design phase of that project, traffic numbers did not warrant the need for a signal. If future analysis determines traffic numbers have increased to the point of warranting a signal, the intersection has been designed for possible addition of a signal. This comment will be forwarded to the Bartow County Road Department for future consideration.

**Comment:** The Glade Road, New Hope Church Road and Kings Camp intersection is very confusing and is congested with signs. What can be done to improve this?

**Response:** This intersection was evaluated in the traffic report prepared for this concept study and the four-way stop control appears to provide an adequate level of service under current traffic conditions. Final analysis of the operation will be conducted at this intersection before any final design is completed. This will determine the appropriate control measures at this location as well as any need for turn lanes. All proposed improvements to

intersections along this corridor will include easy to read warning and directional signs as required in the Manual on Uniform Traffic Control Devices published by the Federal Highway Administration.

### PLANNING COMMENTS/QUESTIONS

**Comment:** Provide information about the expansion of North Metro Tech and its possible effect on traffic on CR 633/Glade Road.

**Response:** North Metro Tech is in the process of designing a new entrance road onto their campus from Etowah Drive. This project will include improvements to the Glade Road and Etowah Drive intersection and is expected to be constructed this year. Any potential expansion for North Metro Tech and other anticipated area developments were considered in the development of future traffic volumes that are being used for the roadway improvement plans.

### ENVIRONMENTAL COMMENTS/QUESTIONS

**Comment:** Conduct meetings with a speaker followed by a question and answer session.

**Response:** Your suggestion regarding the PIOH format is appreciated. The Department has developed the current open house format to accommodate individuals with varying schedules, allowing participants to arrive at various times to review the project information and to speak with Department representatives. The information that would have been presented by a speaker was included in the handout at the PIOH. The handout is also available online at <http://www.dot.state.ga.us/>. Please select "Public Outreach" under "Featured Links" in the right column, then select "Bartow County" from the dropdown menu to access the Glade Road project information.

**Comment:** Name tags are not sufficient to identify Department representatives.

**Response:** Your comment regarding the name tags is appreciated and will be forwarded to the Public Involvement staff. If you have any questions that you were not able to ask and that are not addressed in this letter, please contact Galen Barrow at (770) 387-3685 for additional assistance.

### LOCAL GOVERNMENT COMMENTS/QUESTIONS

**Comment:** Traffic law enforcement is needed along CR 633/Glade Road.

**Response:** Please contact the Bartow County Sheriff's Office in regard to enforcing speed limits.

**Comment:** Prohibit 18-wheelers on CR 633/Glade Road.

**Response:** The project is not intended to sign Glade Road as a through truck route. However, these types of vehicles need to access local commercial properties in the daily operation of businesses in this corridor.

**Comment:** Roadside litter pickup needs to be scheduled more often.

**Response:** This comment will be forwarded to Bartow County for consideration.

**Comment:** Add sewer lines at the same time.

**Response:** Sewer lines are not planned as part of this roadway improvement project. However, this comment will be forwarded to the Bartow County Water Department for their consideration.

Mr. and Mrs. P.D. Matthews

Page 5 of 5

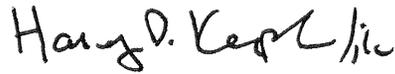
March 1, 2007

**Comment:** Avoid commercial properties to keep the area rural.

**Response:** This comment will be forwarded to Bartow County for their consideration.

If you have any questions, please call Galen Barrow at (770) 387-3685.

Sincerely,

Handwritten signature of Harvey D. Keeper in black ink.

Harvey D. Keeper

State Environmental/Location Engineer

HDK/GB/epei-slt



# Department of Transportation

HAROLD E. LINNENKOHL  
COMMISSIONER  
(404) 656-5206

DAVID E. STÜDSTILL, JR., P.E.  
CHIEF ENGINEER  
(404) 656-5277

State of Georgia  
#2 Capitol Square, S.W.  
Atlanta, Georgia 30334-1002

April 18, 2005

LARRY E. DENT  
DEPUTY COMMISSIONER  
(404) 656-5212

EARL L. MAHFUZ  
TREASURER  
(404) 656-5224

The Honorable Clarence Brown, Commission Chairman  
Bartow County  
135 W. Cherokee Ave, Suite 251  
Cartersville, Georgia 30120

Attention: Ms. Lane McMillan

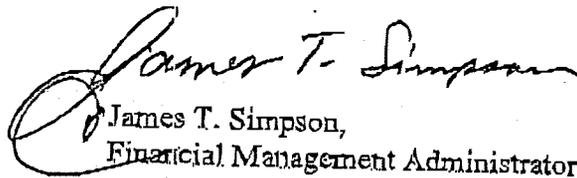
Dear Commission Chairman:

I am returning for your files an executed agreement between the Georgia Department of Transportation and Bartow County for the following projects:

**PROJECT#:STP-0003-00(768), Bartow County, P.I.#0003768**  
**PROJECT#;STP-0003-00(770), Bartow County, P.I.#0003770**

We look forward to working with you on the successful completion of the joint project. Should you have any questions, please contact Dewayne Comer at (770) 387-3619

Sincerely,

  
James T. Simpson,  
Financial Management Administrator

JTS:as

Enclosure

cc: Bob Rogers  
Kent Sager - District 6

STP-0003-00 (768) Bartow County  
STP-0003-00 (770) Bartow County

**AGREEMENT  
BETWEEN  
DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
AND  
BARTOW COUNTY  
FOR  
TRANSPORTATION FACILITY IMPROVEMENTS**

This AGREEMENT is made and entered into this 25<sup>th</sup> day of March, 2005, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the COUNTY OF BARTOW, acting by and through its of Commissioner, hereinafter called the "SPONSOR".

WHEREAS, the SPONSOR has represented to the DEPARTMENT a desire to improve the transportation facilities described in Exhibit A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the SPONSOR has represented to the DEPARTMENT a desire to participate in certain activities of the PROJECT as set forth in this AGREEMENT, and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this AGREEMENT.

STP-0003-00 (766) Bartow County  
STP-0003-00 (770) Bartow County

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the SPONSOR hereby agree each with the other as follows:

1. The SPONSOR shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities as per Exhibit "A", utility relocations, right of way acquisitions as per a future Right of Way Agreement and construction as per a future Construction Agreement. Expenditures incurred by the SPONSOR and eligible for reimbursement by the DEPARTMENT shall not be considered reimbursible to the SPONSOR until execution of this agreement and written notice to proceed for each phase.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities as per Exhibit "A", right of way acquisitions as per a future agreement or construction as per a future construction agreement.

3. It is understood and agreed by the DEPARTMENT and the SPONSOR that the funding portion as identified in Exhibit "A" of this agreement only applies to the Preconstruction Engineering Activities. Additional agreements will be required to be executed by the DEPARTMENT and the SPONSOR for the funding portion of subsequent phases.

STP-0003-00 (768) Bartow County  
STP-0003-00 (770) Bartow County

4. The SPONSOR shall be responsible for all costs for the continual maintenance and the continual operations of any and all sidewalks and the grass strip between the curb and gutter and the sidewalk within the PROJECT limits.

5. The SPONSOR shall Certify that they have read and understands the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, AND FEDERAL AUDIT REQUIREMENTS" as stated in attachment A of this Agreement and will comply in full with said provisions.

6. When applicable engineering invoicing can only be submitted following submittal and acceptance of project milestones. Project milestones are defined as approval of the Concept Report, Completion and verification of the Database Preparation, approval of the Environmental Document, submittal of Preliminary Plans for PFPR, approval of Right of Way plans, and submittal of Final Plans for letting.

7. The SPONSOR shall accomplish all of the design activities for the PROJECT. The design activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process, the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, the DEPARTMENT's Plan Presentation Guide, PROJECT schedules, and applicable guidelines of the DEPARTMENT. The SPONSOR's responsibility for design shall include, but is not limited to the following items:

STP-0003-00 (768) Bartow County  
STP-0003-00 (770) Bartow County

- a. Prepare the PROJECT concept report in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the SPONSOR as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the SPONSOR beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be modified by the SPONSOR as required by the DEPARTMENT and reapproved by the DEPARTMENT during the course of design due to public input, environmental requirements, or right of way considerations.
- b. Develop the PROJECT's base year (year facility is expected to be open to traffic) and design year (base year plus 20 years) traffic volumes. This shall include average daily traffic (ADT) and morning (am) and evening (pm) peak hour volumes. The traffic shall show all through and turning movement volumes at intersections for the ADT and peak hour volumes and shall indicate the percentage of trucks expected on the facility.
- c. Validate (check and update) the approved PROJECT concept and prepare a PROJECT Design Book for approval by the DEPARTMENT prior to the beginning of preliminary plans.
- d. Prepare environmental studies, documentation, and reports for the PROJECT that show the PROJECT is in compliance with the provisions of the National Environmental Protection Act and Georgia Environmental Protection Act, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, underground storage tanks (UST), and hazardous waste site studies required as well as any environmental

STP-0003-00 (768) Bartow County  
STP-0003-00 (770) Bartow County

reevaluations required. The SPONSOR shall submit to the DEPARTMENT all environmental documents and reports for review and approval by the DEPARTMENT and the FHWA.

- e. Prepare all public hearing and public information displays and conduct all required public hearings and public information meetings in accordance with DEPARTMENT practice.
- f. Perform all surveys, mapping, soil investigation studies and pavement evaluations needed for design of the PROJECT.
- g. Perform all work required to obtain project permits, including, but not limited to, US Army Corps of Engineers 404 and Federal Emergency Management Agency (FEMA) approvals. These efforts shall be coordinated with the DEPARTMENT.
- h. Prepare the PROJECT's drainage design including erosion control plans and the development of the hydraulic studies for the Federal Emergency Management Agency Floodways and acquisition of all necessary permits associated with the drainage design.
- i. Prepare traffic studies, preliminary construction plans including a cost estimate for the Preliminary Field Plan Review, preliminary and final utility plans, preliminary and final right of way plans, staking of the required right of way, and final construction plans including a cost estimate for the Final Field Plan Review, erosion control plans, lighting plans, traffic handling plans, and construction sequence plans and specifications including special provisions for the PROJECT.
- j. Provide certification, by a Georgia Registered Professional Engineer, that the construction plans have been prepared under the guidance of the

professional engineer and are in accordance with AASHTO and DEPARTMENT guidelines.

k. Failure of the SPONSOR to follow the DEPARTMENT's Plan Development Process will jeopardize the use of Federal funds in some or all of the categories outlined in this AGREEMENT, and it shall be the responsibility of the SPONSOR to make up the loss of that funding.

8. All Primary Consultant firms hired by the SPONSOR to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the SPONSOR with a list of prequalified consultant firms in the appropriate area-classes.

9. The PROJECT construction and right of way plans shall be prepared in English units.

10. All drafting and design work performed on the project shall be done utilizing Microstation and CAiCE software respectively, and shall be organized as per the Department's guidelines on electronic file management.

11. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the SPONSOR of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals with information furnished by the SPONSOR.

STP-0003-00 (768) Barlow County  
STP-0003-00 (770) Barlow County

12. The SPONSOR shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The SPONSOR shall perform all necessary survey efforts in order to complete the design of the bridge(s) and prepare any required hydraulic and hydrological studies. The final bridge plans shall be incorporated into this PROJECT as a part of this AGREEMENT.

13. The SPONSOR shall follow the DEPARTMENT's procedures for identification of existing and proposed utility facilities on the PROJECT. These procedures, in part, require all requests for existing, proposed, or relocated facilities to flow through the DEPARTMENT's Project Liaison and the District Utilities Engineer.

14. The SPONSOR shall address all railroad concerns, comments, and requirements to the satisfaction of the DEPARTMENT.

15. Upon the SPONSOR's determination of the rights of way required for the PROJECT and the approval of the right of way plans by the DEPARTMENT, the necessary rights of way for the PROJECT shall be acquired by the SPONSOR. Right of way acquisition shall be in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. seq., and 49 CFR Part 24, and the rules and regulations of the DEPARTMENT and in accordance with the Contract for the Acquisition of Right of Way to be prepared by the DEPARTMENT and executed between the SPONSOR and the DEPARTMENT prior to the commencement of any right of way activities. Failure of the SPONSOR to follow these requirements may result in the loss of Federal funding for the PROJECT and it

STP-0003-00 (768) Bartow County  
STP-0003-00 (770) Bartow County

will be the responsibility of the SPONSOR to make up the loss of that funding. All required right of way shall be obtained and cleared of obstructions, including underground storage tanks, prior to advertising the PROJECT for bids. The SPONSOR shall further be responsible for making all changes to the approved right of way plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to purchase the right of way or to match actual conditions encountered.

16. Upon completion and approval of the PROJECT plans, certification that all needed rights of way have been obtained and cleared of obstructions, and certification that all needed permits for the PROJECT have been obtained by the SPONSOR, the PROJECT shall be let for construction by the Department. The Department shall be solely responsible for securing and awarding the construction contract for the PROJECT.

17. The SPONSOR shall review and make recommendations concerning all shop drawings prior to submission to the DEPARTMENT. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The SPONSOR agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer diskettes and printouts, and any other data prepared under the terms of this AGREEMENT shall become the property of the DEPARTMENT if required. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to use this material without restriction or limitation and without compensation to the SPONSOR.

19. The SPONSOR shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by or on behalf of the SPONSOR pursuant to this AGREEMENT. The SPONSOR shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the SPONSOR to address the errors or deficiencies within 30 days shall cause the SPONSOR to assume all responsibility for construction delays caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The SPONSOR shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law, that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the SPONSOR pursuant to this AGREEMENT.

20. Both the SPONSOR and the DEPARTMENT hereby acknowledge that time is of the essence and both parties shall adhere to the priorities established in the approved Transportation Improvement Program/State Transportation Improvement Program (TIP/STIP) or earlier. Furthermore, all parties shall adhere to the detailed project schedule, as approved by the DEPARTMENT. In the completion of respective commitments contained herein, if a change in the schedule is needed, the DEPARTMENT shall have final authority. If, for any reason, the SPONSOR does not produce acceptable deliverables at the milestone dates defined in the current TIP/STIP, or in the approved schedule, the DEPARTMENT reserves the right to delay the

project's implementation until funds can be re-identified for construction or right of way, as applicable.

21. This AGREEMENT is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia. The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

STP-0003-00 (768) Bartow County  
STP-0003-00 (770) Bartow County

IN WITNESS WHEREOF, the DEPARTMENT and the SPONSOR have caused these presents to be executed under seal by their duly authorized representatives.

RECOMMENDED:

[Signature]  
District Engineer

[Signature]  
Director of Preconstruction

[Signature]  
Chief Engineer

DEPARTMENT OF TRANSPORTATION

BY: [Signature]  
Commissioner

ATTEST: [Signature]  
Treasurer

REVIEWED AS TO LEGAL FORM:  
[Signature] 2.4.05  
Office of Legal Services

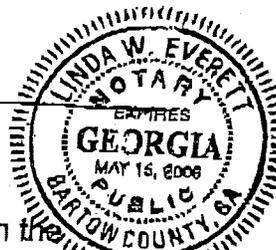
SPONSOR

BY: [Signature]  
Clarence Brown  
Bartow County Commissioner

Signed, sealed and delivered this 12th  
day of January, 2005, in the  
presence of:

[Signature]  
Witness

[Signature]  
Notary Public



This Agreement approved on the  
12th day of January, 2005

[Signature]  
County Clerk

PRE-AWARD EXAMINATION  
 No Pre-Award Examination Performed  
 No Audit Findings Reported  
By: [Signature]  
Date: 02/07/05

FEIN # 58-6001727

EXHIBIT "A"  
0003768 and 0003770 - Bartow County

Project (P.L.#, Proj #, Desc.)	Type	Prelim. Eng.		ROW		Construction		Utility Relocations
		Funding	Responsibility	Funding	Responsibility	Funding	Responsibility	
STP-0003-00 (768) P.L.# 0003768 Eulankie Road (C.R. 628) from the City of Euharlee to S.R. 113 including Connector Road to Burnt Hickory Road (C.R. 743)	Reconst. Rehabil.	100% COUNTY	COUNTY	100% COUNTY	COUNTY	80% GDOT/FED 20% COUNTY Cost Estimate = \$6,850,000* 80% = \$5,481,600* 20% = \$1,370,400*	GDOT	Funding 100% COUNTY
STP-0003-00 (770) P.L.# 0003770 Gleaze Road (C.R. 611) from Bartow/Carver Road (C.R. 384) to Homestead Drive (C.R. 605)	Reconst. Rehabil.	100% COUNTY	COUNTY	100% COUNTY	COUNTY	80% GDOT/FED 20% COUNTY Cost Estimate = \$3,850,000* 80% = \$3,080,000* 20% = \$770,000*	GDOT	Funding 100% COUNTY

\*These Estimates are from the PNR Report. The estimates are considered Preliminary and are subject to being revised. Bartow County will be responsible for matching twenty percent (20%) of the amount of the total price bid for construction.