

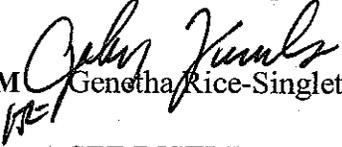
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0006908, Fulton County
CSSTP-0008-00(908)
Jones Bridge Road at Waters Road-
Intersection Improvements

OFFICE Preconstruction

DATE March 25, 2009

FROM  Genetha Rice-Singleton, Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Ron Wishon
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Rachel Brown
Paul Liles
Mike Lobdell
Scott Lee
BOARD MEMBER

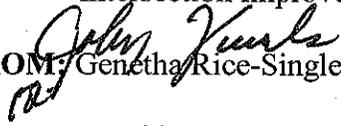
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: P.I. No. 0006908, Fulton County
CSSTP-0006-00(908)
Jones Bridge Road at Waters Road-
Intersection Improvements

OFFICE: Preconstruction

DATE: March 4, 2009

FROM:  Genetha Rice-Singleton, Assistant Director of Preconstruction

TO: Gerald M. Ross, P.E., Chief Engineer

SUBJECT: PROJECT CONCEPT REPORT

This project is the intersection improvements to Jones Bridge Road at Waters Road in the city of Johns Creek, Georgia. Jones Bridge Road is currently a two lane road with a posted speed of 45 MPH. Jones Bridge Road runs in a north-south direction from McGinnis Ferry Road to the north to Old Alabama Road to the south. Waters Road is a two lane road with a posted speed of 35 MPH. The intersection is signalized and Waters Road runs in an east-west direction and is used as a cut-through between Jones Bridge Road and Kimball Bridge Road. Jones Bridge Road serves residential developments in the vicinity of the intersection. The proposed project will improve the intersection by adding turn lanes and addressing the intersection site distance deficiencies. The projected volumes are 25,476 VPD on this section of Jones Bridge Road for the year 2011 and 37,488 VPD for the design year 2031. The existing two lane roadway would be inadequate to handle such volumes. Intersection analyses as well as the accident history and accident rates indicate that additional turn lanes are needed to handle the increased traffic volumes and improve safety.

The proposed project consists of adding a 200' right turn lane on Jones Bridge Road, extending the right turn lane on Waters Road and converting it into a free flow right. The right turn on Waters Road was the critical movement and a free flow right turn was added to handle this volume. Sidewalks (5') will be added to the north side of Jones Bridge Road and on both sides of Waters Road. A 10' multi-use trail will be added on the south side of Jones Bridge Road as per the City of Johns Creek's Multi-Use Plan. The existing 65 degree skew angle of Waters Road will be improved to meet the desirable skew angle of 90 degrees as part of this project.

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

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C)	\$1,010,000	\$ 870,000	L230	2010
Right-of-way & Utilities*	Local	Local		

P.I. No. 0006908, Fulton County

Page 2

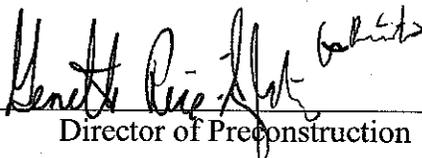
March 4, 2009

*Johns Creek signed PFA on 6-21-2007 for PE, Utilities, ROW and 20% CST.

I recommend this project concept be approved.

GRS: JDQ

Attachment

CONCUR 
Director of Preconstruction

APPROVED 
Gerald M. Ross, P.E., Chief Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

Project Number: CSSTP-0006-00(908)

County: Fulton

P. I. Number: 0006908

Federal Route Number: N/A

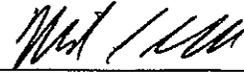
State Route Number: N/A

Intersection Improvement Project: Jones Bridge Road at Waters Road

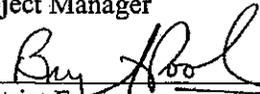
See Sheets 2 & 3 for Location Map

Recommendation for approval:

DATE 12/19/08


Project Manager

DATE 12/19/08


District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE 12-31-08


Financial Management Administrator

DATE _____

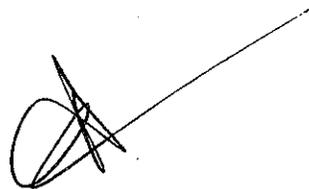
State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

Project Number: CSSTP-0006-00(908)

County: Fulton

P. I. Number: 0006908

Federal Route Number: N/A

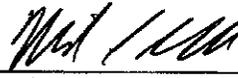
State Route Number: N/A

Intersection Improvement Project: Jones Bridge Road at Waters Road

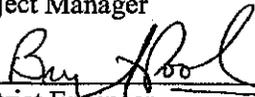
See Sheets 2 & 3 for Location Map

Recommendation for approval:

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Project Manager

DATE 12/19/08


District Engineer

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State Transportation Planning Administrator

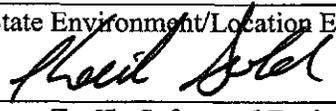
DATE _____

Office of Financial Management Administrator

DATE _____

State Environment/Location Engineer

DATE 12-22-08


State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT
Project Number: CSSTP-0006-00(908)
County: Fulton
P. I. Number: 0006908

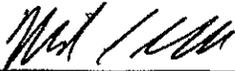
Federal Route Number: N/A
State Route Number: N/A

Intersection Improvement Project: Jones Bridge Road at Waters Road

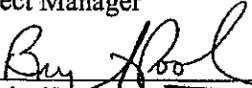
See Sheets 2 & 3 for Location Map

Recommendation for approval:

DATE 12/19/08


Project Manager

DATE 12/19/08

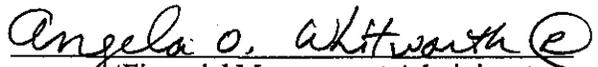

District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE 12-31-08


Financial Management Administrator

DATE _____

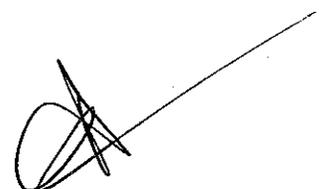
State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: P.I. No. 0006908

OFFICE: Environment/Location

PROJECT No. CSSTP-0006-00(908) / FULTON County DATE: 1/21/09

Intersection Improvement Project: Jones Bridge Rd. at Waters Rd.

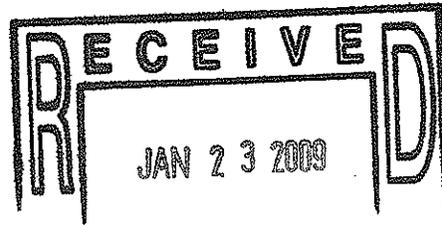
FROM: 
Glenn Bowman, P.E., State Environmental/Location Engineer
TO: Genetha Rice-Singleton, Assistant Director of Preconstruction
SUBJECT: PROJECT CONCEPT REPORT REVIEW

The Concept Report for the above project has been reviewed and it appears satisfactory for approval. It is also noted that the project does not have management directed right of way or construction dates in TPRO; however, construction is proposed for funding in 2011.

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

GB:lc

cc: Ron Wishon
Angela Whitworth
Keith Golden
Angela Alexander
Bryant Poole



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT
Project Number: CSSTP-0006-00(908)
County: Fulton
P. I. Number: 0006908

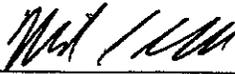
Federal Route Number: N/A
State Route Number: N/A

Intersection Improvement Project: Jones Bridge Road at Waters Road

See Sheets 2 & 3 for Location Map

Recommendation for approval:

DATE 12/19/08


Project Manager

DATE 12/19/08


District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

Office of Financial Management Administrator

DATE 1/21/09


State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT
Project Number: CSSTP-0006-00(908)
County: Fulton
P. I. Number: 0006908

Federal Route Number: N/A
State Route Number: N/A

Intersection Improvement Project: Jones Bridge Road at Waters Road

See Sheets 2 & 3 for Location Map

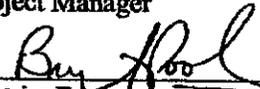
Recommendation for approval:

DATE 12/19/08



Project Manager

DATE 12/19/08



District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

Office of Financial Management Administrator

DATE _____

State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

Project Number: CSSTP-0006-00(908)

County: Fulton

P. I. Number: 0006908

Federal Route Number: N/A

State Route Number: N/A

Intersection Improvement Project: Jones Bridge Road at Waters Road

See Sheets 2 & 3 for Location Map

Recommendation for approval:

DATE _____

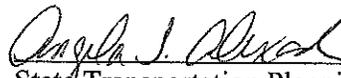
Project Manager

DATE _____

District Engineer

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

DATE 1-8-09



State Transportation Planning Administrator

DATE _____

Office of Financial Management Administrator

DATE _____

State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

NOTICE OF LOCATION AND DESIGN APPROVAL

PROJECT CSSTP-0006-00(908), Fulton County

P. I. NUMBER 0006908

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of this project.

The date of location approval is March 25, 2009

Project CSSTP-0006-00(908) located in the City of Johns Creek, Fulton County, GA is proposed to improve the existing intersection at Jones Bridge Road and Waters Road. This project includes adding a right turn lane on Jones Bridge Road, extending the right turn lane on Waters Road and converting it into a free flow right. 5' sidewalks will be added to the north side of Jones Bridge Road and on both sides of Waters Road. A 10' multi-use trail will be added on the south side of Jones Bridge Road as per the City of Johns Creek's Multi-Use Trail Plan.

The project is located entirely within Fulton County, in Land District 11, Land Lot 190. The project is also 100 percent within Congressional District 13.

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

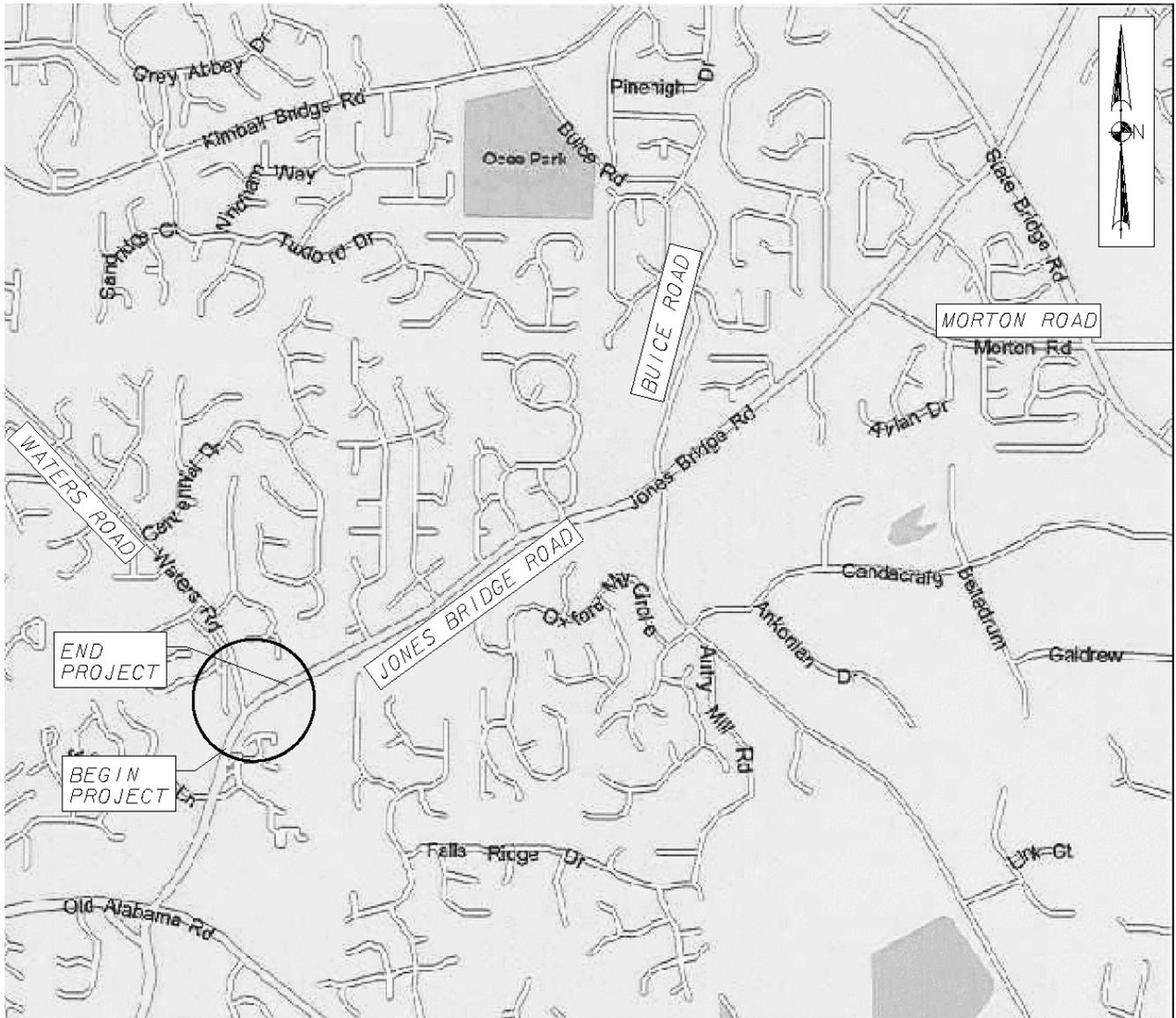
Sebastian Nesbitt
District 7 Area 2 Engineer
1269 Kennestone Circle
Marietta, GA 30066
(770) 528-3238
snesbitt@dot.ga.gov

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

Mike Lobdell, PE
District 7 Preconstruction Office
5025 New Peachtree Road
Chamblee, GA 30341
(770) 986-1257
mlobdell@dot.ga.gov

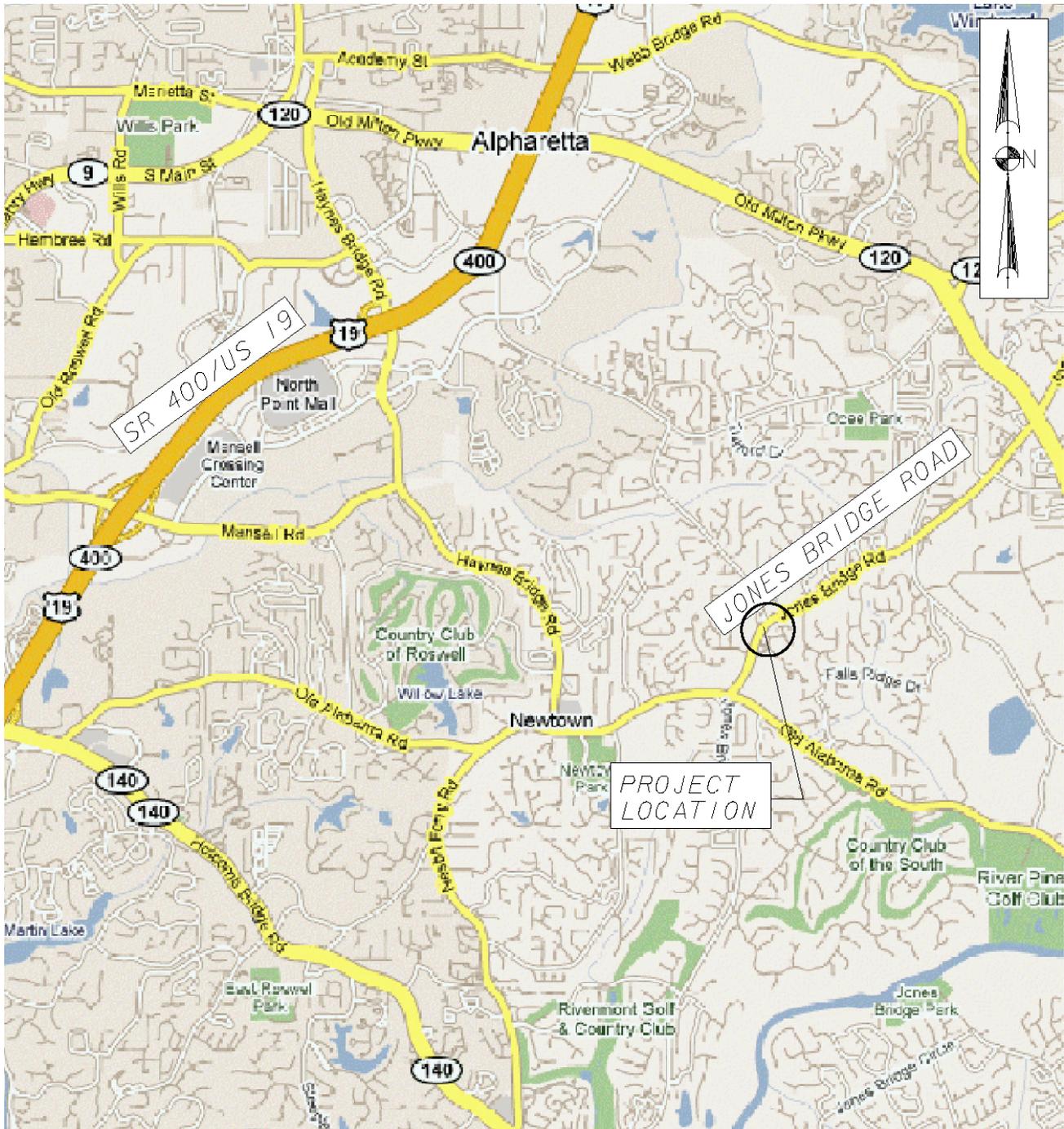
Any written request or communication in reference to this project or notice SHOULD include the Project and P. I. Numbers as noted at the top of this notice.

PROJECT LOCATION MAP



Project: CSSTP-0006-00(908) Fulton County **PI Number:** 0006908
Project Description: Jones Bridge Road at Waters Road
Intersection Improvement

PROJECT LOCATION MAP



Project: CSSTP-0006-00(908) Fulton County **PI Number:** 0006908
Project Description: Jones Bridge Road at Waters Road
Intersection Improvement

Need and Purpose:

Jones Bridge Road is a two-lane road with a posted speed limit of 45 mph. Jones Bridge Road runs in a north-south direction from McGinnis Ferry Road on the north to Old Alabama Road on the south. The area is residential in the vicinity of the intersection.

Waters Road is a two-lane road with a posted speed limit of 35 mph. The intersection is signalized and Waters Road runs in an east-west direction and is used as a cut-through between Kimball Bridge Road and Jones Bridge Road.

- Jones Bridge Road is an Urban Minor Arterial
- Waters Road is a Collector

This intersection was originally evaluated by Fulton County due to its poor level of service and increasing delays. With its establishment, The City of Johns Creek decided to continue the project by conducting a traffic study and preparing concept layouts for this intersection in order to determine the best course of action. The purpose of the proposed project is to improve the operation of the Jones Bridge Road and Waters Road intersection in the City of Johns Creek, Fulton County, Georgia.

The Average Daily Traffic (ADT) on Jones Bridge Road at this intersection is approximately 25,476 vehicles in the build year (2011) and is projected to increase to approximately 37,488 vehicles by the design year (2031).

The study intersection was initially evaluated with a no build option. This analysis demonstrated what level of service the intersection would operate at in the Build Year (2011) and Design Year (2031) if the existing facility were to remain unchanged. The table below contains the results of capacity analysis of projected volumes for the intersection in the Build and Design Years.

Table 1 – Capacity Analysis Results, No-Build

Intersection	2011		2031	
	AM Peak	PM Peak	AM Peak	PM Peak
Jones Bridge Road @ Waters Road	E (62.8)	E (57.3)	F (225.9)	F (211.4)

As shown in Table 1 above, the intersection operates at an unacceptable LOS in both the Build and Design Years during both AM and PM Peak hours.

Table 2 – Capacity Analysis Results, Build

Intersection	2011 Basic		Basic Failure Year*		Enhanced Basic Failure Year*		2031 Basic		2031 Ultimate	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Jones Bridge Road @ Waters Road	D (40.8)	C (33.2)	2015	2018	2021	2022	F (156.4)	F (137.7)	D (36.3)	D (36.8)

* = Failure is based on >LOS D

The critical movements at the intersection are the left and right turn movements off of Jones Bridge Road and the southbound right turn from Waters Road. The proposed project will extend and add turn lanes Jones Bridge Road and will add a free flow right turn lane to Waters Road in order to improve these movements and the operation of the intersection in order to maintain a LOS D for the intersection until the year 2015. The improvements required to maintain a LOS D through the design year (2031) would include providing a four lane divided section on Jones Bridge Road which is outside the scope of this project. As part of the improvements at this intersection the substandard skew angle of 65 degrees will be improved.

Accident data for this intersection for the years 2004 through 2007 are shown in Table 3.

Year	Accident			Injuries			Fatalities		
	Total	Project Rate	Statewide Avg.	Total	Project Rate	Statewide Avg.	Total	Project Rate	Statewide Avg.
2004	3	160	490	0	0	123	0	0	1.41
2005	1	50	534	0	0	135	0	0	1.56
2006	3	171	531	1	57	132	0	0	1.51
2007	3	N/A	N/A	0	N/A	N/A	0	N/A	N/A

It is anticipated that, without the proposed operational improvements, accident rates at this intersection could increase due to increased traffic volumes.

Description of the proposed project:

Project CSSTP-0006-00(908) located in the City of Johns Creek, Fulton County, GA is proposed to improve the existing intersection at Jones Bridge Road and Waters Road. This project includes adding a 200’ right turn lane on Jones Bridge Road, extending the right turn lane on Waters Road and converting it into a free flow right. The right turn lane on Waters Road was the critical movement and a free flow right turn was added to handle this traffic volume. The free flow right from Waters Road will continue onto Jones Bridge Road for approximately 950’ where it will become a trap right turn lane into Jones Ferry Lane. 5’ sidewalks will be added to the north side of Jones Bridge Road and on both sides of Waters Road. A 10’ multi-use trail will be added on the south side of Jones Bridge Road as per the City of Johns Creek’s Multi-Use Trail Plan. The existing 65 degree skew angle of Waters Road will be improved to meet the desirable skew angle of 90 degrees as part of this project.

Project Length: 0.25 miles (Jones Bridge Road)
 0.09 miles (Waters Road)

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

The project includes adding a right turn lane and lengthening the remaining left and right turn lanes as well as the modification of the existing traffic signal. This project will improve the operation at the intersection and will not add capacity.

This project conforms to the ARC’s TIP (FN-197)

PDP Classification: Major Minor X

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

Functional Classification:

Jones Bridge Road: Urban Minor Arterial
Waters Road: Collector

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

Traffic (AADT): Current Year: (2011) 25,476 Design Year: (2031) 37,488

Existing Design Features:

- Typical Section:

Jones Bridge Road - 2-12' lanes with a left turn lane and 4'-10' grass shoulders

- Posted speed 45 mph Minimum radius for curve: 711'
- Maximum super-elevation rate for curve: 4%
- Maximum grade: 2 %
- Width of right-of-way: 60' - 100'
- Major structures: N/A
- Major interchanges or intersections along the project: Jones Bridge Road at Waters Road
- Existing length of roadway segment: Jones Bridge Road (0.25 miles)

Waters Road - 2-12' lanes with a right turn lane and 4'-10' shoulders with curb and gutter

- Posted speed 35 mph Minimum radius for curve: 371'
- Maximum super-elevation rate for curve: 4%
- Maximum grade: 4 %
- Width of right-of-way: 60'
- Major structures: N/A
- Major interchanges or intersections along the project: Waters Road at Jones Bridge Road
- Existing length of roadway segment: Waters Road (0.09 miles)

Proposed Design Features:

- Proposed typical section(s):
Jones Bridge Road - Urban Section consisting of 2-12' lanes and left and right turn lanes with 16' to 20' shoulders consisting of curb and gutter and a 5' sidewalk with a 2' grass strip on the north side of the road and a 10' sidewalk/multi-use trail with a 2.5' grass strip on the south side of the road.

Waters Road - Urban Section consisting of 2-12' lanes and a left turn lane with 10' shoulders consisting of curb and gutter and 5' sidewalks with a 2' grass strip

- Proposed Design Speed Mainline 45 mph
- Proposed Maximum grade Mainline 3 % Maximum grade allowable 9 %
- Proposed Maximum grade Side Street 4 % Maximum grade allowable 10 %
- Proposed Maximum grade driveway Residential 15% , Commercial 11%
- Proposed Minimum radius of curve 1,250' Minimum radius allowable 711'
- Right-of-Way
 - Width 60'- 100'
 - Easements: Temporary (X), Permanent (X), Utility (), Other ().
 - Type of access control: Full (), Partial (), By Permit (X), Other ().
 - Number of parcels: 7 Number of displacements: 0
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0
- Structures:
 - Retaining walls: None Anticipated
- Major intersections and interchanges: Jones Bridge Road at Waters Road
- Traffic control during construction: Maintain traffic on existing alignment
- 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: None Anticipated
- Environmental issues: None Anticipated

Scheduling – Responsible Parties’ Estimate:

- Time to complete the environmental process: 9 months
- Time to complete preliminary construction plans: 6 months
- Time to complete right of way plans: 4 months
- Time to complete the Section 404 Permit: N/A
- Time to complete final construction plans: 4 months
- Time to complete the purchase of right of way: 12 months
- Time to complete the EIS reevaluation: N/A

Other alternates considered:

- Alternative 1 – No Build - This alternative was not chosen because it did not meet the projects need and purpose.
- Alternative 2 – Roundabout – Based on the guidance provided by GDOT in TOPPS 4A-2, a one lane roundabout should not be considered when the ADT of the roadway is greater than 20,000 veh/day. Jones Bridge Road will have an ADT of 24,476 veh/day in the build year. A roundabout was also studied based on research from the USDOT study; Roundabouts: An Informational Guide (FHA Publication No.FHWA-RD-00-067) and based on this information a one lane roundabout can be analyzed using its volume to capacity ratio. According to this study, roundabouts should not be designed to handle any more than 85% of its capacity. As shown in the Traffic Report for this project the alternative was not chosen because the projected volumes exceeded a single lane roundabouts capacity.
- Alternative 3 – Four Lane Jones Bridge Road - This alternative would require two through lanes in each direction on Jones Bridge Road through the intersection with Waters Road. This alternative was not chosen because these improvements were outside the scope of this project.

Attachments:

1. Cost Estimates
 - a. Construction (including E&C)
 - b. Right of Way
 - c. Utilities
2. Typical sections
3. Traffic Study
4. Location and Design Notice
5. Concept drawing
6. Meeting minutes
7. B/C Ratio

- Level of environmental analysis: CE
 - Are Time Savings Procedures appropriate? Yes (X), No ()
 - Categorical Exclusion (X)
 - Environmental Assessment/Finding of No Significant Impact (FONSI) ()
 - Environmental Impact Statement (EIS) ().

- Utility involvements:
 - Atlanta Gas/Light
 - at&t
 - Suwanee EMC
 - Georgia Power
 - Comcast
 - Fulton County Water & Sewer

VE Study Required Yes() No(X)

Project responsibilities:

- Design: City of Johns Creek/Wolverton & Associates
- Right of Way Acquisition: City of Johns Creek
- Relocation of Utilities: City of Johns Creek/utility companies
- Letting to contract: City of Johns Creek
- Supervision of construction: City of Johns Creek
- Providing material pits: Contractor
- Providing detours: N/A (no offsite detours required)

Coordination

- Initial concept meeting: 5/28/08 (minutes attached)
- Concept Meeting: 9/24/08 (minutes attached)
- P. A. R.: N/A
- FEMA, USCG, and/or TVA: N/A
- Public Involvement: PIOH required (Date and location to be determined)
- Agency Coordination: N/A
- Railroads: N/A
- Local government comments: none
- Other projects in the area:
 - Jones Bridge Road at Buice Road Intersection Improvement, Project # CSSTP-0006-00(910)
 - Jones Bridge Road at Morton Road Intersection Improvement, Project # CSSTP-0006-00(907)

Page 10
Project Concept Report
Project Number: CSSTP-0006-00(908)
P. I. Number: 0006908
County: Fulton

ATTACHMENTS

Summary of Costs

Project P.I. No.0006908

Subtotal Construction Cost	\$832,608.77
• Engineering & Inspection 5%	\$40,130.38
• Construction Contingency 5%	\$42,136.96
• Total Fuel Adjustment	\$25,514.68
• Total Liquid AC Adjustment	<u>\$68,990.94</u>
Total Construction Cost	\$1,009,381.70
• Right-of-Way-- LOCAL	\$887,714.88
• Reimbursable Utilities-- LOCAL	<u>\$23,500.00</u>
Total Project Cost	\$1,920,596.50

Estimate Report for file "0006908"

Section Roadway					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	56500.00	TRAFFIC CONTROL -	56500.00
210-0100	1	LS	50000.00	GRADING COMPLETE -	50000.00
310-1101	1820	TN	19.18	GR AGGR BASE CRS, INCL MATL	34907.60
318-3000	100	TN	22.93	AGGR SURF CRS	2293.00
402-1812	900	TN	67.28	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	60552.00
402-3121	580	TN	61.08	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	35426.40
402-3130	750	TN	62.19	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	46642.50
402-3190	290	TN	58.76	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	17040.40
413-1000	410	GL	1.99	BITUM TACK COAT	815.90
441-0016	130	SY	39.25	DRIVEWAY CONCRETE, 6 IN TK	5102.50
441-0104	2470	SY	34.43	CONC SIDEWALK, 4 IN	85042.10
441-0740	44	SY	34.63	CONCRETE MEDIAN, 4 IN	1523.72
441-6216	3150	LF	11.46	CONC CURB & GUTTER, 8 IN X 24 IN, TP 2	36099.00
446-1100	1300	LF	1.99	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	2587.00
500-9999	9	CY	221.45	CLASS B CONC, BASE OR PVMT WIDENING	1993.05
550-1180	2900	LF	39.94	STORM DRAIN PIPE, 18 IN, H 1-10	115826.00
550-1240	550	LF	43.48	STORM DRAIN PIPE, 24 IN, H 1-10	23914.00
603-2181	20	SY	33.11	STN DUMPED RIP RAP, TP 3, 18 IN	662.20
603-7000	20	SY	5.31	PLASTIC FILTER FABRIC	106.20
634-1200	10	EA	105.16	RIGHT OF WAY MARKERS	1051.60
668-1100	15	EA	2613.36	CATCH BASIN, GP 1	39200.40
668-2100	1	EA	2461.40	DROP INLET, GP 1	2461.40
668-4300	2	EA	2394.06	STORM SEWER MANHOLE, TP 1	4788.12
Section Sub Total:					\$624,535.09

Section Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
1	1	Lump Sum	28000.00	Erosion Control	28000.00
Section Sub Total:					\$28,000.00

Section Signing and Marking and Signal					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
2	1	Lump Sum	25000.00	Signing and Marking	25000.00
3	1	Lump Sum	25000.00	SIGNAL INTERCONNECT	25000.00
639-4014	4	EA	7518.42	STRAIN POLE, TP IV, INCL LUMINAIRE ARM	30073.68
647-1000	1	LS	100000.00	TRAFFIC SIGNAL INSTALLATION NO -	100000.00
Section Sub Total:					\$180,073.68

Total Estimated Cost: \$832,608.77



To: Clyde Cunningham, District Seven Utilities

From: Kevin Dye, Right-of-way/Utility Coordinator 

Date: October 6, 2008

Subject: Jones Bridge at Waters Rd., P.I. # 0006908, CSSTP-0006-00(908)
Preliminary Utility Cost Estimates

This is an intersection improvement project located within the City of Johns Creek, Fulton County. The design includes adding a 200' right turn lane onto Jones Bridge Rd. and extending the right turn lane on Waters Rd. Utilities in the immediate area along with their estimated cost for relocations are as follows:

AGL	\$0.00 (franchise agreement)
AT&T	\$0.00 (franchise agreement)
Comcast	\$0.00 (franchise agreement)
Fulton Water and Sewer	\$23,500.00
Sawnee EMC	\$0.00 (franchise agreement)
TOTAL	\$23,500.00

Please contact me at 678-512-3254 if you have any questions concerning this estimate

Cc: Project File
Mac Cranford, GDOT District 7
Chris Haggard, Wolverton and Assoc.

Department of Transportation State of Georgia

Interdepartmental Correspondence

FILE Preliminary R/W Cost Estimate **OFFICE** R/W
DATE October 17, 2008

FROM Phil Copeland, Right of Way Administrator

TO City of Johns Creek
Attention: Kevin Dye

SUBJECT **Preliminary Right of Way Cost Estimate**
Project:CSSTP-0006-00(908)
P.I. No.:006908
Description: Jones Bridge Road @ Waters Rd. Intersection Improvement

Per your request, we have reviewed the Preliminary Right of Way Cost Estimate on the above referenced project.

Please note the Cost Estimate does conform to our current guidelines.

If you have any questions, please contact Jerry Milligan at District 7 Right of Way Office at (770) 986-1541.

PC:GAM
Attachments
Cc: File

RECEIVED

OCT 20 2008

CITY OF JOHNS CREEK
PUBLIC WORKS DEPT.

Preliminary Right of Way Cost Estimate

Date: 10-16-08
 Project: CSSTP-0006-00(908) P.I. Number: 006908
 Existing/Required R/W: Variable/Variable No. Parcels: 16
 Project Termini: Jones Bridge Rd. at Jones Ferry Lane to 400' NE of Jones Bridge Rd. at Waters Rd.
 Project Description: Jones Bridge Rd. at Waters Rd. Intersection Improvements

Land:

Commercial	13,320	s.f.	@ \$10.33	/s.f. = \$137,595.60	
Residential	0	s.f.	@ \$5.74	/s.f. = \$0.00	
Commercial Easements (temporary)	53,797	s.f.	@ \$1.03	/s.f. = \$55,400.61	
Residential Easements	5,153	s.f.	@ \$0.57	/s.f. = \$2,937.21	
TOTAL					<u>\$195,933.42</u>

Improvements: signs, fencing, landscaping, brick wall **\$160,000.00**

Relocation:

Commercial @ \$25,000/parcel	=	\$ N/A	
Residential @ \$40,000/parcel	=	\$ N/A	
TOTAL			<u>\$0.00</u>

Damages: Proximity	\$ N/A	
Consequential	\$ N/A	
Cost to Cure	\$ N/A	
TOTAL		<u>\$0.00</u>

SUB-TOTAL: \$355,933.42

Net Cost		\$355,933.42
Scheduling Contingency 55 %		\$195,763.38
Adm/Court Cost 60 %		\$331,018.08
TOTAL		<u>\$882,714.88</u>

Total Cost \$882,714.88

Prepared By: Kevin Dye R/W Coordinator (City of Johns Creek)
 Reviewed / Approved: Howard P. Copeland R/W Administrator (GDOT)

Note: Accuracy of estimate is the sole responsibility of the Preparer.
 Note: The Market Appreciation(40%) is not included in this Preliminary Cost Estimate.

Special Provision, Section 109-Measurement and Payment
FUEL PRICE ADJUSTMENT (ENGLISH 125% MAX)

ENTER FPL DIESEL	2.373
ENTER FPM DIESEL	5.339

ENTER FPL UNLEADED	1.566
ENTER FPM UNLEADED	3.5235

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

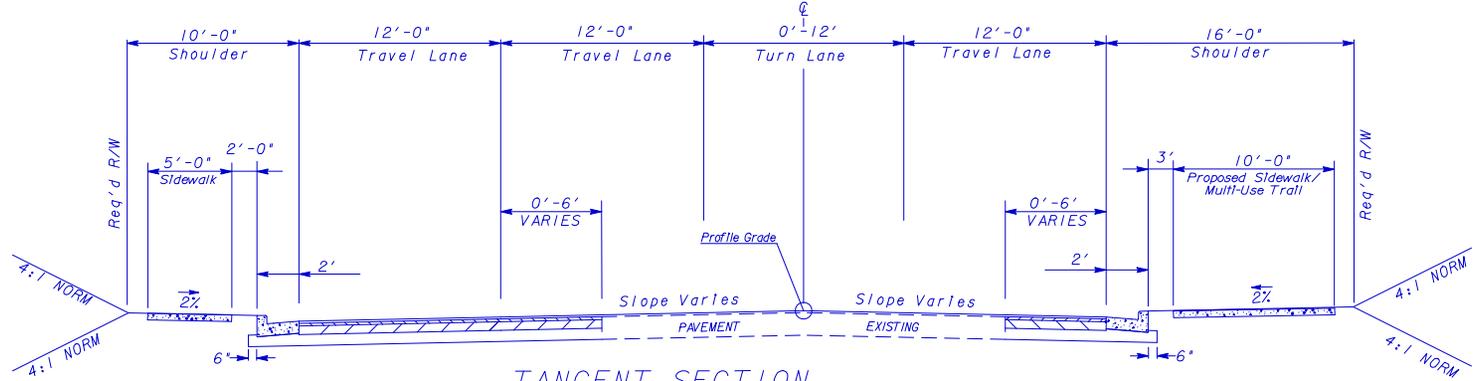
INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

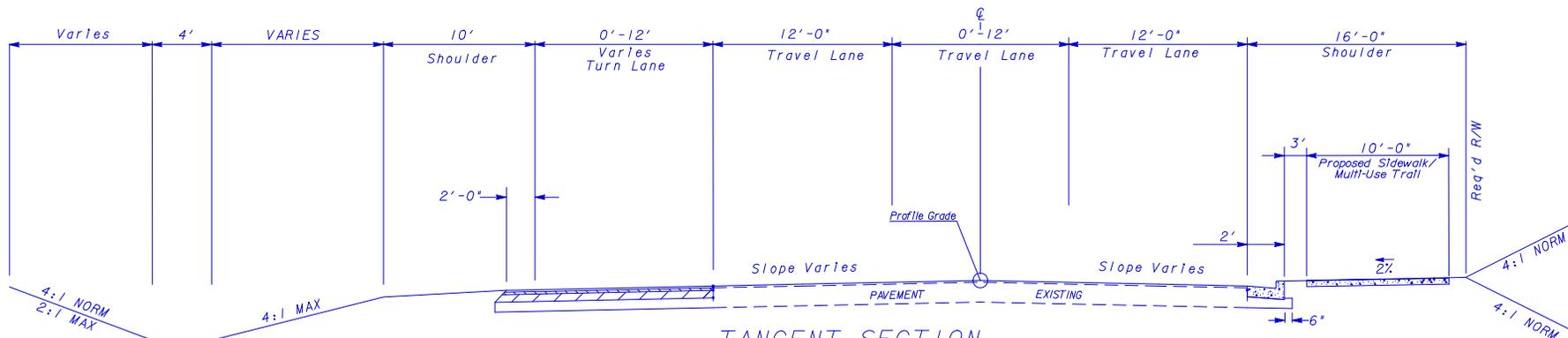
ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 (CUBIC YARD)		0.29		0.15		
Excavations paid as specified by Sections 206 (CUBIC YARD)		0.29		0.15		
GAB paid as specified by the ton under Section 310 (TON)	1920.000	0.29	556.80	0.24	460.80	
Hot Mix Asphalt paid as specified by the ton under Sections 400 (TON)		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 (TON)	2520.000	2.90	7308.00	0.71	1789.20	
PCC Pavement paid as specified by the square yard under Section 430 (SY)		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211				8.00		1.50		
Class__Concrete (CY) Section 500				8.00		1.50		
Class__Concrete (CY) Section 500				8.00		1.50		
Class__Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

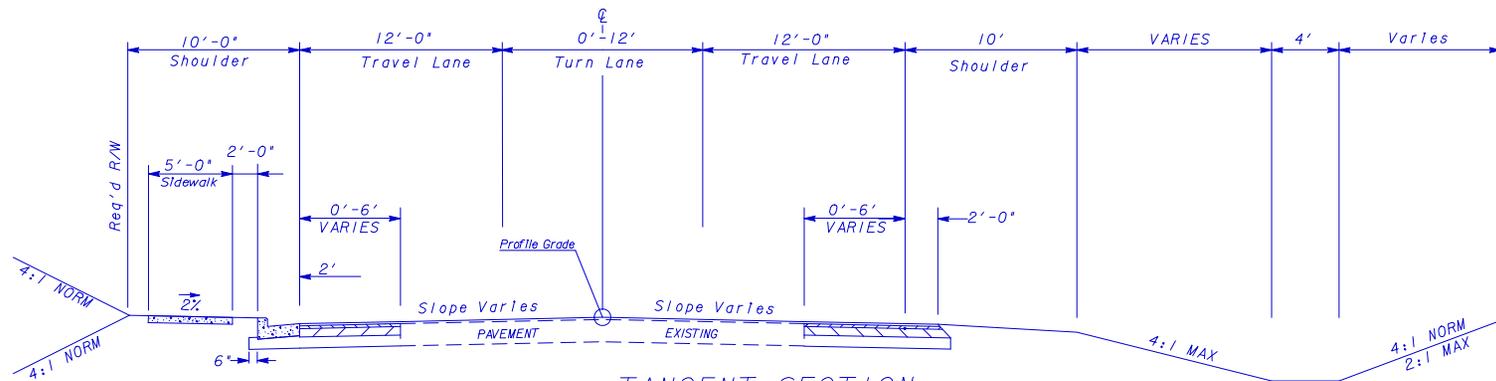
BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
PSC Beams (LF) Section 507				8.00		1.50		
PSC Beams (LF) Section 507				8.00		1.50		
PSC Beams (LF) Section 507				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511				8.00		1.50		
Piling ___ inch (LF) Section 520				8.00		1.50		
Piling ___ inch (LF) Section 520				8.00		1.50		
Piling ___ inch (LF) Section 520				8.00		1.50		
Piling ___ inch (LF) Section 520				8.00		1.50		
Piling ___ inch (LF) Section 520				8.00		1.50		
Piling ___ inch (LF) Section 520				8.00		1.50		
Drilled Caisson, (LF) Section 524				8.00		1.50		
Drilled Caisson, (LF) Section 524				8.00		1.50		
Drilled Caisson, (LF) Section 524				8.00		1.50		
Pile Encasement, (LF) Section 547				8.00		1.50		
Pile Encasement, (LF) Section 547				8.00		1.50		
SUM QF DIESEL=				7864.80	SUM QF UNLEADED=		2250.00	
DIESEL PRICE ADJUSTMENT(\$)					\$21,462.65			
UNLEADED PRICE ADJUSTMENT(\$)					\$4,052.03			



TANGENT SECTION
OVERLAY & WIDENING
JONES BRIDGE ROAD



TANGENT SECTION
OVERLAY & WIDENING
JONES BRIDGE ROAD



TANGENT SECTION
OVERLAY & WIDENING
WATERS ROAD



**TRAFFIC ENGINEERING REPORT
FOR
PROPOSED ROADWAY IMPROVEMENTS**

JONES BRIDGE ROAD AT WATERS ROAD
CITY OF JOHNS CREEK, FULTON COUNTY, GA

Prepared for the
City of Johns Creek

W&A Project No. 08-910
May 13, 2008

WOLVERTON & ASSOCIATES, INC.
6745 SUGARLOAF PARKWAY
SUITE 100
DULUTH, GA 30097
(770) 447-8999 PHONE
(770) 447-9070 FAX
www.wolverton-assoc.com

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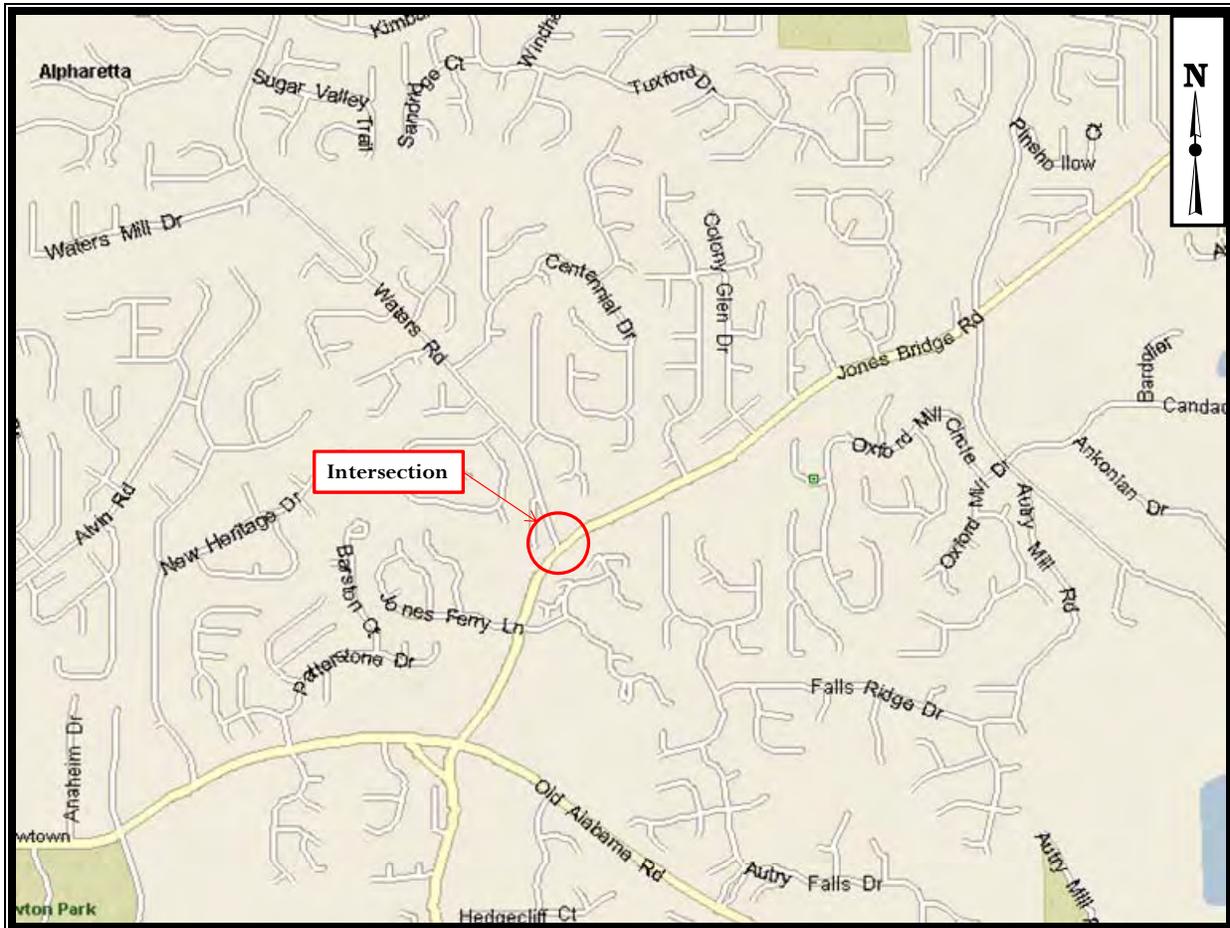
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1. INTRODUCTION

JONES BRIDGE @ WATERS TRAFFIC ENGINEERING REPORT

The purpose of this report is to analyze the intersection of Jones Bridge Road @ Waters Road in the City of Johns Creek, Fulton County, GA. A capacity analysis and accident analysis will be done for this intersection. Figure 1 illustrates the project location.

Figure 1 – Project Location Map



Methodology

A growth rate was established to project traffic from existing conditions out to Build (2011) and Design (2031) Year volumes. Then capacity analysis was conducted to show how the intersection will function in the Build and Design Years.

2. EXISTING CONDITIONS

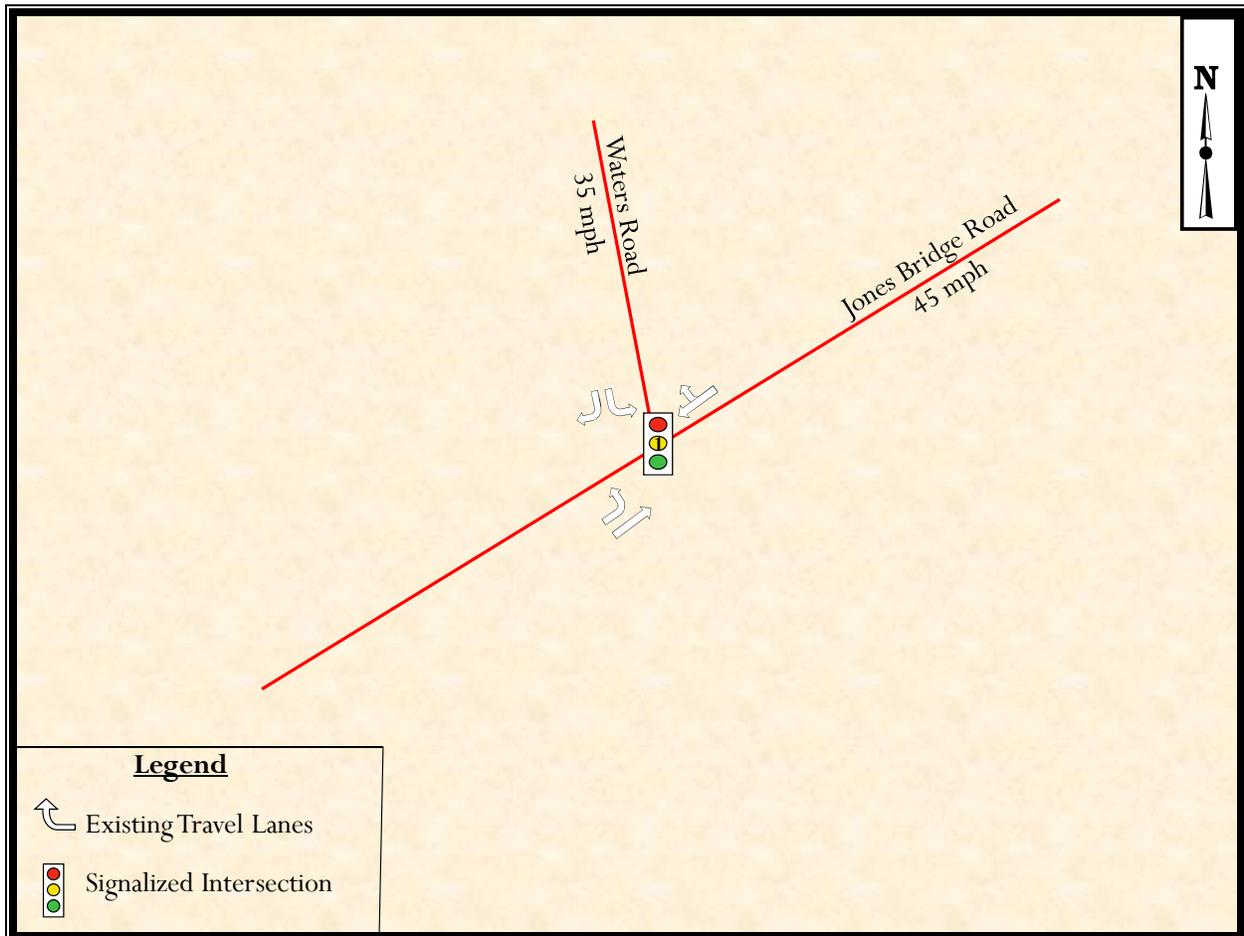
JONES BRIDGE @ WATERS TRAFFIC ENGINEERING REPORT

Jones Bridge Road is a two-lane road with a posted speed limit of 45 mph. Jones Bridge Road runs in a north-south direction from Old Alabama Road on the south to McGinnis Ferry Road on the North. In the vicinity of the intersection, the area is residential.

Waters Road is a two-lane road with a posted speed limit of 35 mph. Waters Road is signalized at the intersection of Jones Bridge Road. Waters Road runs in an east-west direction and is used as a cut-through to travel from Kimball Bridge Road to Jones Bridge Road and on to Old Alabama Road.

Figure 2 shows the existing intersection geometry and traffic control. Pictures of the project vicinity are contained in Appendix A on the CD. For the purposes of this study, Jones Bridge Road is considered north-south.

Figure 2 – Existing Lane Geometry



3. TRAFFIC DATA

JONES BRIDGE @ WATERS TRAFFIC ENGINEERING REPORT

Turning movement counts (TMCs) were collected on March 26, 2008, at the study intersection. The existing peak volumes are illustrated in Figure 3. The TMCs are provided in Appendix B on the CD.

Projected Traffic Volumes

The build and design years for this project are 2011 and 2031, respectively. A growth rate of 1.95% was found based on an average of 10 years of historical traffic data found on Jones Bridge Road in the project vicinity from the Georgia Department of Transportation website. Historical traffic data can be found in Appendix C on the CD. The standard GDOT Office of Environment and Location (OEL) volume method was used to calculate the 2011 and 2031 volumes. Figures 4 and 5 show the projected traffic volumes for the Build (2011) and Design (2031) years, respectively.

Average Daily Traffic (ADT) values were determined from the 24-hr approach counts for the intersection. Using 24-hr count data taken from the Wolverton & Associates Traffic Study for Jones Bridge Road @ Morton Road, 'K' and 'D' factors were calculated. The 'K' factor is the proportion of daily traffic occurring during the peak hour. The 'D' factor or directional factor is the percentage split of traffic traveling in either direction during a particular time of day. The TMCs were converted to ADT volumes, using a calculated 9.4% 'K' factor and calculated 'D' factor at each movement. The 1.95% per year growth rate was applied to the ADTs in order to estimate the 2011 ADTs. The 1.95% per year growth rate was applied to the 2011 ADTs to estimate the 2031 ADTs.

A diagram illustrating the 2008, 2011, and 2031 ADT's can be found in Appendix D on the CD.

Figure 3 – Existing Traffic Volumes

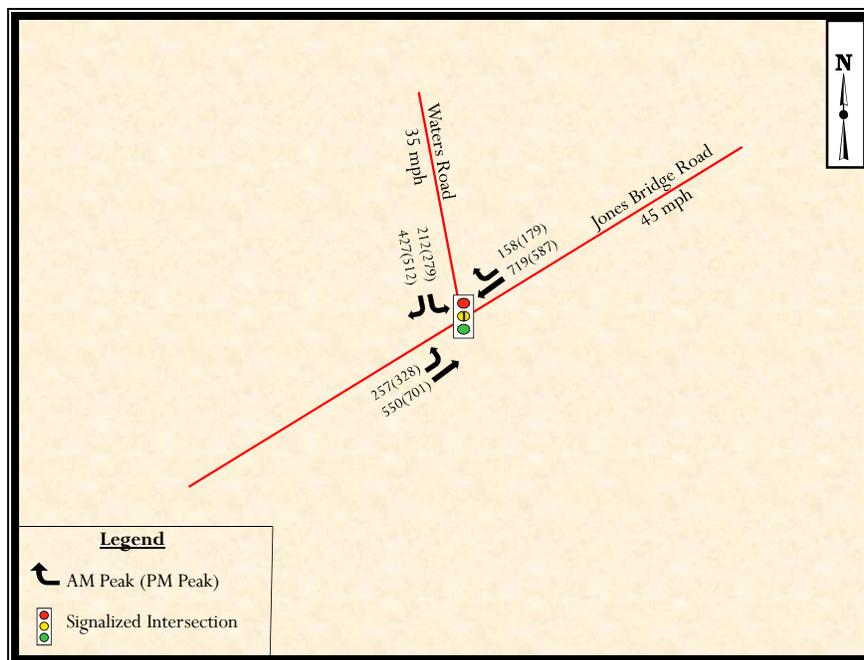


Figure 4 – Build Year (2011) Traffic Volumes

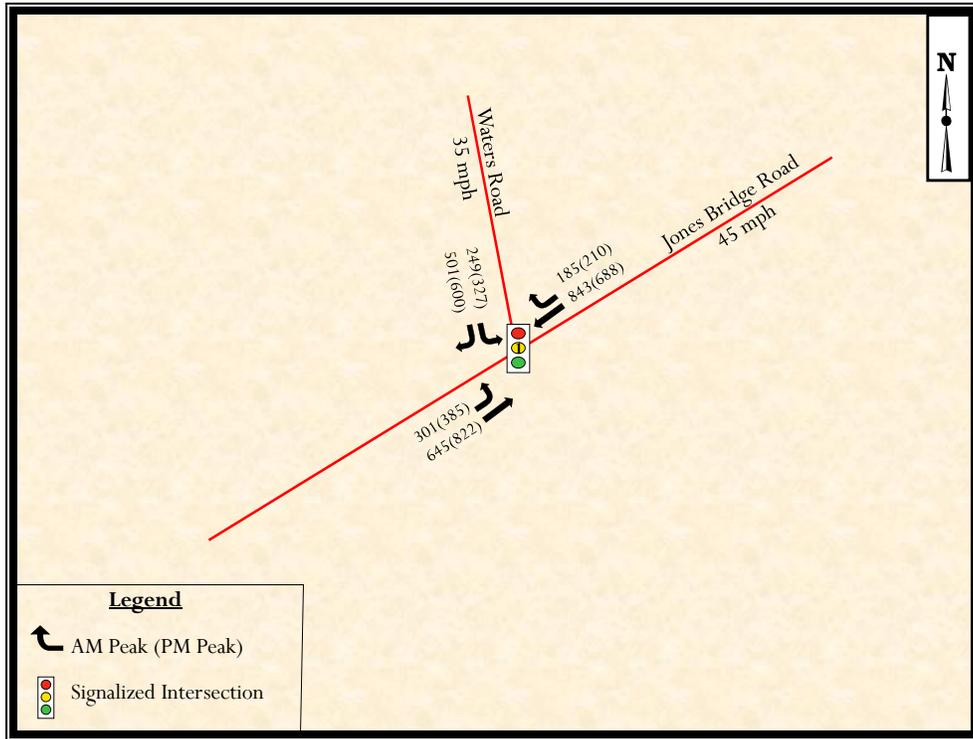
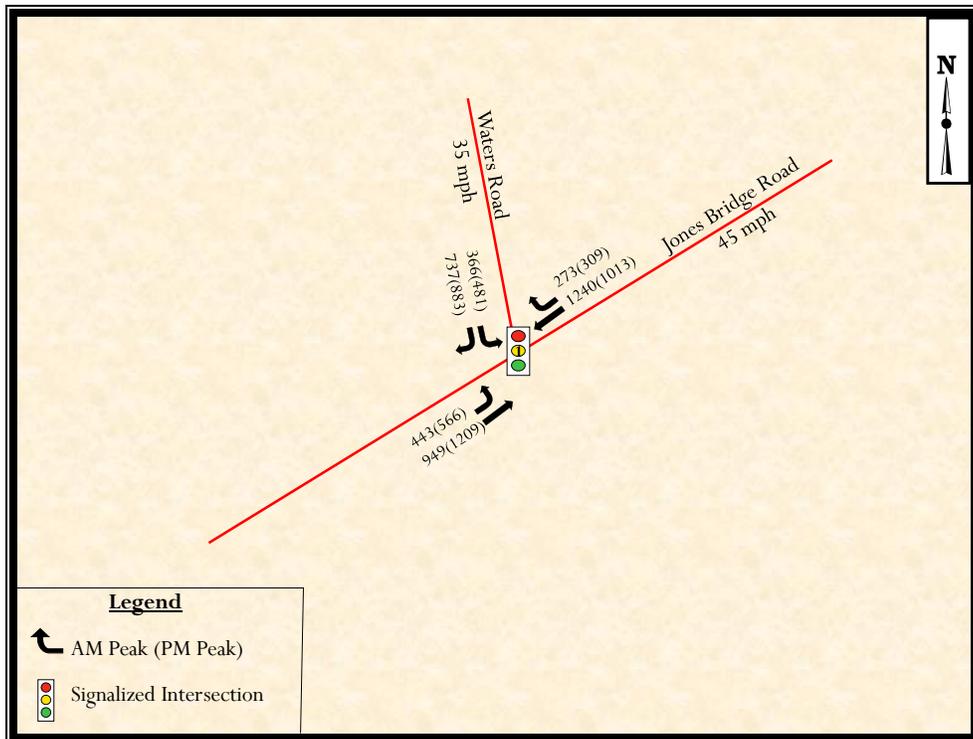


Figure 5 – Design Year (2031) Traffic Volumes



4. DATA ANALYSIS

JONES BRIDGE @ WATERS TRAFFIC ENGINEERING REPORT

Capacity

Capacity analysis was used to evaluate the projected volumes at the study intersection. This process was used to define geometry and traffic control needed to result in acceptable levels of service for the projected conditions.

The *Synchro Program* was used to conduct capacity analysis. *Synchro* implements the capacity methods of the *Highway Capacity Manual (HCM)*¹ for performing the industry standard evaluation of intersection performance. The delays used in the reports follow the procedure as recommended by the HCM.

The Highway Capacity Manual defines level of service (LOS) in terms of the amount of control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay.

The levels of service definitions for both stop controlled and signal controlled intersections are provided in Table 1.

Table 1 – Level of Service Criteria

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (SEC)	
	WITH STOP-SIGN CONTROL	WITH SIGNAL CONTROL
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: Highway Capacity Manual

The GDOT has ranges of acceptable Levels of Service based on the area. Rural, sparsely developed areas have a minimum LOS requirement of C. This is due to the expectancy of rural residents for relatively uncongested conditions and design flexibility related to lower right of way costs of impacts. The minimum LOS for urban areas is D. This reflects the greater acceptance of delay and congestion by urban residents. Additionally, the increased density of developments makes right of way costs much higher in urban areas. The project corridor is urban in nature and has a minimum LOS requirement of D.

Capacity Analysis Results

No Build

The study intersection was initially evaluated with a no build option. This analysis demonstrates what the level of service the intersection would operate at in the Years 2011 and 2031 if the existing facility were to remain unchanged. This establishes a baseline for comparing improvements.

Table 2 contains the results of capacity analysis of projected volumes for the intersection in the Build and Design Years. The values shown in parenthesis indicate the estimated delay in seconds per vehicle. Synchro printouts for the Build and Design Year no-build options are provided in Appendix E on the CD.

Table 2 – Capacity Analysis Results, No-Build

Intersection	2011		2031	
	AM Peak	PM Peak	AM Peak	PM Peak
Jones Bridge Road @ Waters Road	E (62.8)	E (57.3)	F (225.9)	F (211.4)

As shown in the table above, the intersection operates un-acceptably in both the Build and Design Years during both AM and PM Peak hours.

Build

The No-Build model was mitigated to function acceptably in the Design Year 2031. These improvements required Jones Bridge Road to be constructed as a 4-lane section instead of the current 2-lane section. This improvement will need to be completed along the entire corridor of Jones Bridge Road and is well outside the scope of this intersection improvement study. This design is considered the Ultimate option. At the direction of the City of John’s Creek, a fiscally constrained option was also analyzed and recommendations given. This Basic option mitigates the No-Build model with improvements that can be completed within the currently appropriated funds. Also, the Basic option was evaluated with a free flow eastbound right. This addition to the Basic option has no LOS improvement based on Synchro analysis; however, this addition allows traffic to maneuver through the intersection without delay. In addition to analyzing the Basic option, an Enhanced Basic option was also analyzed. This Enhanced Basic Option cannot be completed within the currently appropriated funds; however, the improvements identified extends the capacity at the intersection until 2021. Table 3 shows the Build and Design Year LOS for the Basic option, along with the Basic and Enhanced Basic option failure year, and the Ultimate option Design Year LOS. Synchro printouts for the Build and Design Year Basic, Enhanced Basic, and Ultimate options are provided in Appendix F on the CD.

Table 3 – Capacity Analysis Results, Build

Intersection	2011 Basic		Basic Failure Year*		Enhanced Basic Failure Year*		2031 Basic		2031 Ultimate	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Jones Bridge Road @ Waters Road	D (40.8)	C (33.2)	2015	2018	2021	2022	F (156.4)	F (137.7)	D (36.3)	D (36.8)

* = Failure is based on >LOS D

Table 3 shows the levels of service on the study intersection of Jones Bridge Road @ Waters Road are acceptable for the Basic option until 2015, acceptable for the Enhanced Basic until 2021, and are acceptable in the Design Year 2031 for the Ultimate option. Table 4 shows the queue lengths for the No Build and Build conditions in the Build and Design Years.

Another option that the City of John’s Creek requested that we analyze was a roundabout at the intersection. A single lane roundabout is to have an ADT no higher than 20,000 vpd in the Build Year and a circulating flow no higher than 1200 vph in the Peak Hour based on the GDOT Transportation Online Policy & Procedure System (TOPPS) report 4A-2³. The intersection in the Build Year has an ADT of 29151 vpd and a peak hour circulating flow of 3032 vph. These volumes exceed the GDOT thresholds for a single lane roundabout. A two-lane roundabout was also analyzed. Two-lane roundabouts require large sections of right-of-way (ROW) so that the radius is large enough to allow weaving between lanes within the roundabout. ROW impacts in this area would have many impacts on the surrounding area. Also, two-lane roundabouts have circulatory flow restrictions found in Exhibit 4-4 of the FHWA Publication Roundabouts: An Informational Guide No. FHWA-RD-00-067⁴. Also, according to this publication, roundabouts should never be designed to operate at more than 85 percent of their estimated capacity. In the Design Year, the highest entering approach is 1775 vph. According to Exhibit 4-4, with a maximum approach entry flow of 1800 vph, the maximum circulating flow can be approximately no more than 2700 vph. 85 percent of that number is 2295 vph. The Design Year peak circulating flow at this intersection is

4461 vph. A single or two-lane roundabout was not recommended for this intersection because the volumes exceed the accepted thresholds for installing roundabouts.

Table 4 – Queue Lengths

Intersection	Condition	Option	Movement	2011		2031		
				AM Peak	PM Peak	AM Peak	PM Peak	
Jones Bridge Road @ Waters Road	No Build		NBL	443	417	857	957	
			NB	282	314	813	1399	
			SB	1292	925	2616	2208	
			SBR					
			EBL	360	409	590	742	
			EBR	490	436	1160	1180	
	Build	Basic		NBL	311	352	820	957
				NB	250	373	875	1521
				SB	755	637	2057	1716
				SBR	44	53	184	239
				EBL	238	321	554	743
				EBR	380	362	1086	1132
		Enhanced Basic		NBL	300	340	783	822
				NB	223	340	646	1279
				SB	743	625	1957	1465
				SBR	42	9	155	182
				EBL	269	188	685	740
				EBR	52	0	289	225
		Ultimate		NBL	NA	NA	387	447
				NB	NA	NA	166	214
				SB	NA	NA	520	423
				SBR	NA	NA	60	55
				EBL	NA	NA	37	422
				EBR	NA	NA	78	55

NA = Not analyzed

5. RECOMMENDATIONS

JONES BRIDGE @ WATERS TRAFFIC ENGINEERING REPORT

Based on the analysis documented in this report, Wolverton and Associates, Inc. make the following conclusions and recommendations:

Basic Option:

1. Construct southbound right turn lane 200' in length
2. Extend eastbound right turn lane to be 300' in length
3. Extend northbound left turn lane to be 300' in length

Enhanced Basic Option:

1. Construct southbound right turn lane 200' in length
2. Construct dual eastbound right turn lanes 250' in length with the outermost right turn lane to have free flow access to Jones Bridge Road
3. Extend northbound left turn lane to be 300' in length

Ultimate Option:

1. Construct an additional northbound and southbound thru lane
2. Construct southbound right turn lane 200' in length
3. Extend northbound left turn lane to be 300' in length
4. Construct dual eastbound right turn lanes 250' in length

Table 5 summarizes the recommended storage bay lengths for the intersection in the Basic and Ultimate options. Figures 6 and 7 represent the recommended geometry for the intersection in the Basic and Ultimate conditions, respectively.

Table 5 – Recommended Storage Lengths

Option	Movement	Existing Turn Bay Length	Max Queue	Recommended Turn Bay Length (ft)
Basic	NBL	115	957	300
	SBR	N/A	239	200
	EBR	95	1132	300
Enhanced Basic	NBL	115	822	300
	SBR	N/A	182	200
	EBR	95	289	2 X 250
Ultimate	NBL	115	447	300
	SBR	N/A	60	200
	EBR	95	78	2 X 250

Figure 6 – Recommended Geometry (Basic Option)

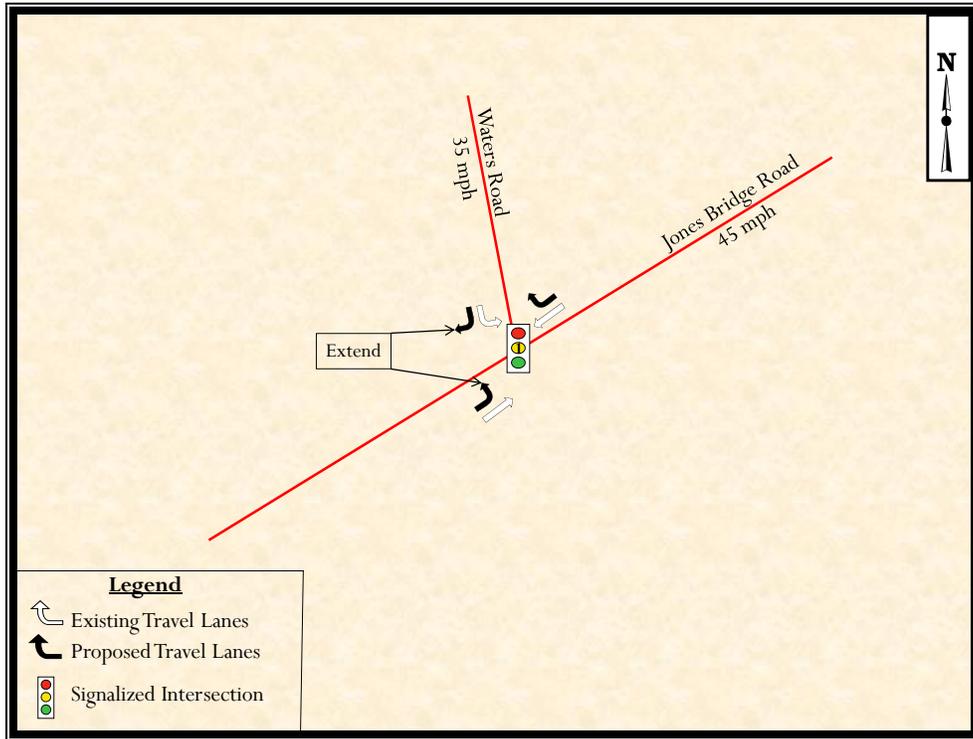


Figure 7 – Recommended Geometry (Enhanced Basic Option)

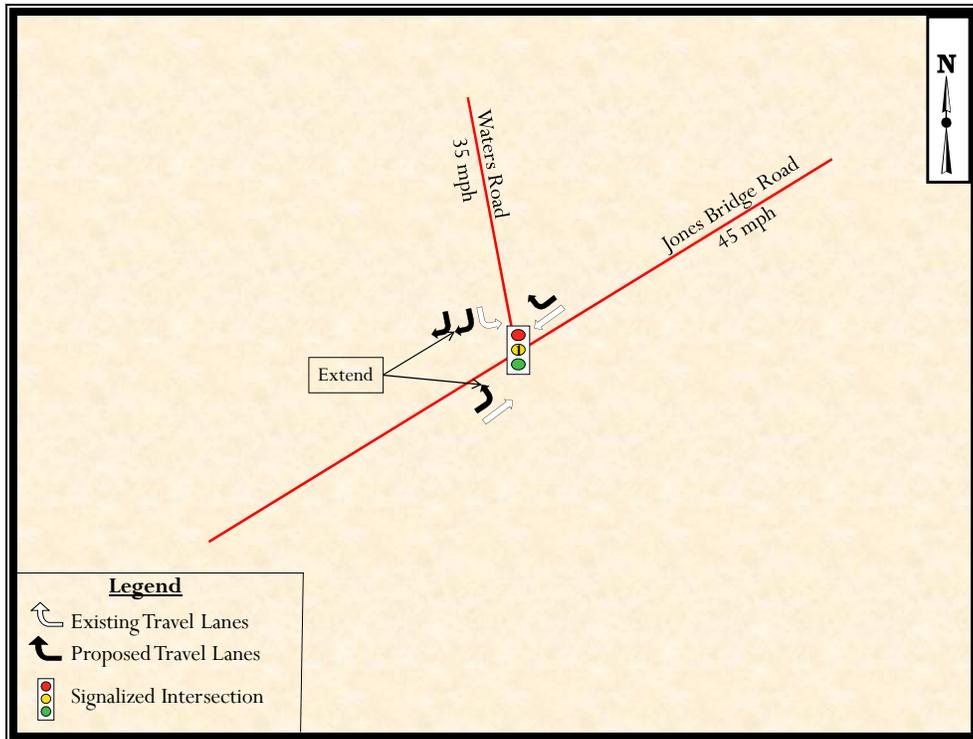
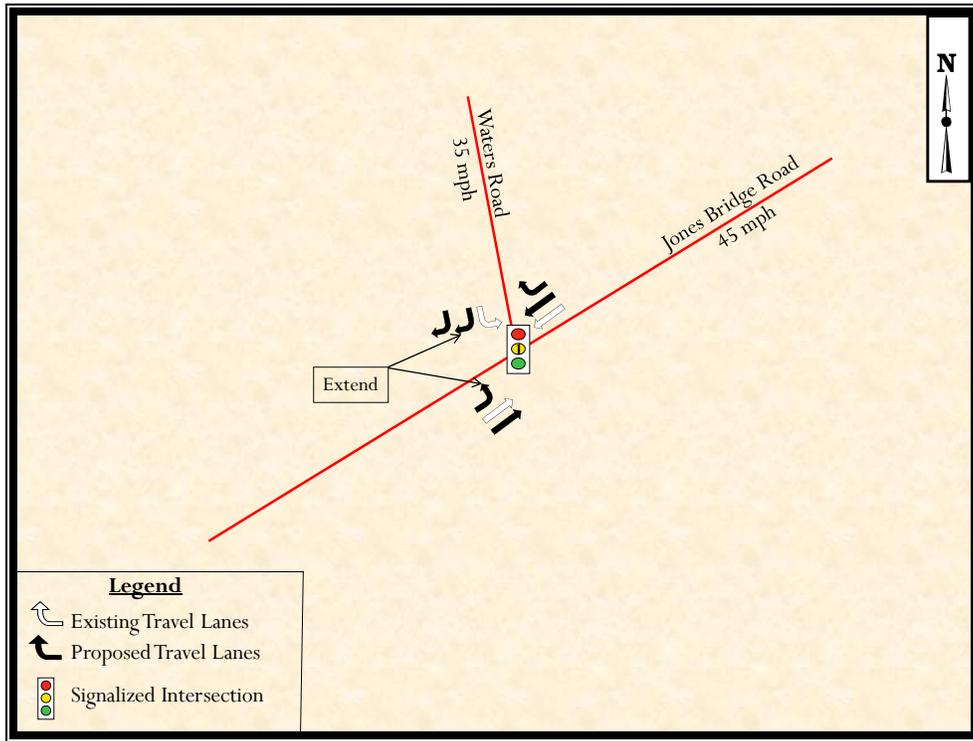


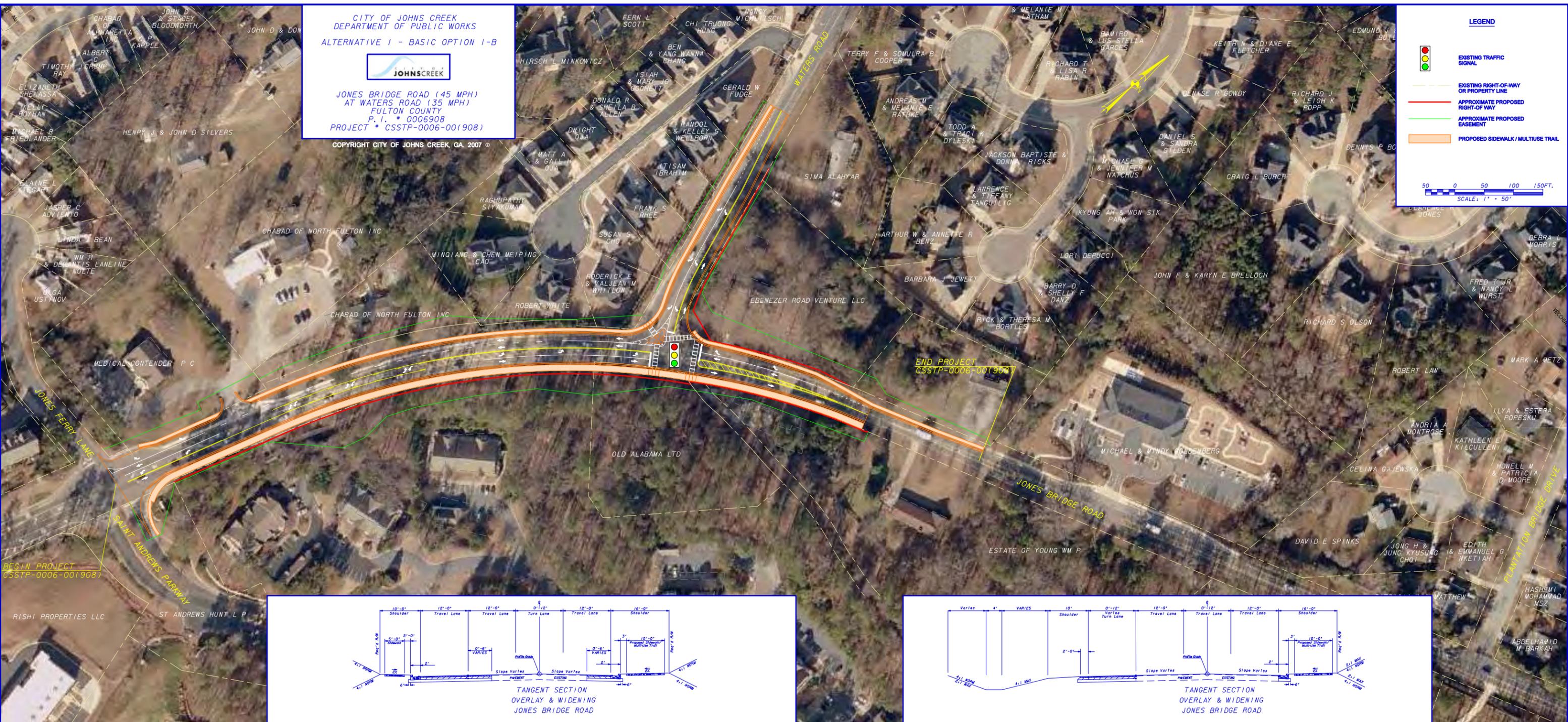
Figure 8 – Recommended Geometry (Ultimate Option)



REFERENCES

JONES BRIDGE @ WATERS TRAFFIC ENGINEERING REPORT

1. Highway Capacity Manual, HCM 2000, Transportation Research Board, Washington, DC, 2000.
2. Regulations for Driveway and Encroachment Control, GDOT, March 8, 2004.
3. GDOT TOPPS Article 4A-2, Georgia Department of Transportation, Atlanta, GA.
4. FHWA Publication No. FHWA-RD-00-067 Roundabouts: An Informational Guide, FHWA, McLean, VA, 2000.
5. Manual on Uniform Traffic Control Devices, 2003 Edition, Federal Highway Administration, Washington, DC, 2003.





MEETING MINUTES

LOCATION: City of Johns Creek
MEETING DATE: Wednesday, May 28, 2008, 2:00 PM
RE: JONES BRIDGE ROAD AT BUICE ROAD, MORTON ROAD AND WATERS ROAD
INITIAL CONCEPT TEAM MEETING
ATTENDEES: Joe Macrina – Wolverton & Associates, Inc.
Chris Haggard – Wolverton & Associates, Inc.
Mario Macrina – Wolverton & Associates, Inc.
Todd Devos – Wolverton & Associates, Inc.
Mac Cranford – GDOT District 7
Melvin Waldrop – GDOT District 7
Cindy Jenkins – City of Johns Creek
Ken Hildebrandt – City of Johns Creek
Tom Udell – City of Johns Creek

The meeting started with a welcome from Cindy Jenkins, and meeting attendees introduced themselves.

- Wolverton & Associates (W&A) started by giving an overview of each intersection.
- Mario Macrina explained that W&A investigated three different alternatives for each intersection; a fiscally constrained option, a non-fiscally constrained option, and a roundabout option.
- There was a brief discussion about the roundabout option and it was decided that the traffic volumes were too high to warrant any further consideration for a roundabout.
- W&A then presented the concept layout alternatives with cost estimates for each intersection and there were discussions about which alternative would be preferred.
- The City of Johns Creek asked for W&A to look at an additional alternative for Waters Road with a combination of alternatives 1 & 2. This new alternative would increase the substandard 65 degree skew angle to 90 degrees, add a right turn lane on Jones Bridge Road and add a free flow right turn lane off of Waters Road.
- The City also asked W&A to prepare a handout that would include the pros and cons, the levels of service/delays and the construction cost of each alternative for each intersection so they could present the information at the July 14th City Council work session.

MEETING MINUTES

LOCATION: GDOT District 7 Conference Room
MEETING DATE: Wednesday, September 24, 2008, 10:00 AM
RE: JONES BRIDGE ROAD AT BUICE ROAD, MORTON ROAD AND WATERS ROAD
CONCEPT TEAM MEETING
ATTENDEES: Chris Haggard – Wolverton & Associates, Inc.
Mario Macrina – Wolverton & Associates, Inc.
Dennis Riles – Wolverton & Associates, Inc.
Howard Anderson – Wolverton & Associates, Inc.
Ellie Cargin – Wolverton & Associates, Inc.
Mike Lobdell – GDOT District 7
Mac Cranford – GDOT District 7
Andre Netterville – GDOT District 7
Scott Lee – GDOT District 7
Alex Laffey – GDOT District 7
Pam Black – GDOT District 7
Cindy Jenkins – City of Johns Creek
Ken Hildebrandt – City of Johns Creek
Kevin Dye – City of Johns Creek

The meeting started with a welcome from Mac Cranford, and meeting attendees introduced themselves.

General:

- Mario Macrina explained that Wolverton & Associates investigated three different alternatives for each intersection; a fiscally constrained option, a non-fiscally constrained option, and a roundabout option. He then explained that the City of Johns Creek had chosen one alternative for each intersection.
- Chris Haggard, Dennis Riles and Howard Anderson then gave an overview of each intersection, highlighting potential issues to be discussed during the meeting.
- GDOT then began to comment on the concept displays and reports.
- Mac Cranford commented that the location maps needed to be revised because they were not up to date and hard to read.
- Scott asked for more information to be included in the need and purpose section. He would like to see more background on the projects and why these intersections were chosen. He would also like to see crash data.
- Mac asked for the description to include more detail about the limits of the projects
- Scott asked to explain why multi-use trails were used. Cindy Jenkins stated the multi-use trails were added as per the City's Multi-Use Trail Plan.
- Scott questioned why the ADT's for all 3 projects were the same. Mario said that Wolverton would verify the ADT values.
- Mac said the ARC TIP numbers needed to be revised to FN-196 for Morton, FN-197 for Waters, and FN-223 for Buice.
- Scott asked that the City verify the classifications of all the sideroads.

- Mac made comments about being consistent with the use of feet vs. the symbol ('). He also commented that the bullets should be consistent and filled in.
- Scott commented that the shoulder widths should be added to the existing typical section description.
- Scott commented that the grass strip should be 2' everywhere with the exception of the multi-use trail which requires a 2.5' strip in order to maintain the 5' offset from the edge of pavement.
- Scott asked that a B/C Ratio be added to the attachments along with minutes of all coordination meetings.
- Scott stated the right of way schedule should be revised to 4 months.
- Kevin Dye also stated that all fence quantities will be included in the right of way cost estimates and should be removed from the construction cost estimates.
- Mac stated the mast arm poles should be separated for each signal cost estimate.
- Mac said the allowable funds for these projects are higher than the current cost estimates. Cindy said she had different numbers than GDOT and would need to verify the allocated funds are accurate.
- Mike Lobdell suggested that these projects be moved to fiscal year 2011 in order to ensure the funds will be there when needed.
- It was decided that these three projects will remain on the same schedule throughout the design process and it is anticipated that they will be let together.
- Pam Black commented that the right of way costs seemed high. Kevin stated that he used GDOT's costs, but would revise the numbers and submit a revised cost for approval.
- Kevin also stated that he will submit the utility cost for approval.

Buice Road:

- Scott Lee asked that the sidewalk on Buice Road be extended on the south side of Jones Bridge Road to the end of the project in order to provide pedestrian access across the front of the elementary school.
- Scott asked that a wall detail be added to the Buice Road typical section. Mario stated that this wall would be a gravity wall which is shown on GDOT standard 9031L, so a detail is not required.

Morton Road:

- Scott asked why Morton Road was not extended to add a left turn lane into Wynbridge Drive to utilize the existing pavement on Jones Bridge Road. He suggested eliminating the right turn lane onto Indian Village Drive to offset the additional costs. Wolverton and the City of Johns Creek will discuss and determine whether or not to make this revision.
- Mac asked for additional information about the proposed signal at Morton Road and to include the improvements at Indian Village Drive.
- Scott questioned the amount of drainage pipe shown for the Morton Road estimate.

Waters Road:

- Scott asked why Waters Road had an additional through lane. Chris explained that Waters Road would have a free flow right turn lane and the additional lane was a receiving lane for this right turn and would become a trap right turn lane into Jones Ferry Lane.
- Mac asked to explain why Waters Road had a free flow right turn lane.
- Scott commented that the Waters cost estimate needed to have curb and gutter added to it.

Action Items:

- City of Johns Creek to verify total project funding
- City of Johns Creek to complete right of way and utility cost estimates
- Wolverton & Associates to revise concept reports and resubmit.

Benefit Cost Analysis Work Sheet	
CONGESTION Projects	
<i>AM Peak</i>	
<i>City of Johns Creek</i>	
Jones Bridge Road at Waters Road	
Congestion Benefit = Tb + CMb + Fb	
Person Time Savings Benefit (Tb)	
*Db (hrs)	0.0193056
ADT	45,085.00
Tb (\$s)	\$29,919,689.67
Commercial or Truck Time Savings Benefit (CMb)	
Db (hrs)	0.0193056
% Truck Traffic	0.02
ADT	45,085
CMb	\$3,161,695.21
Fuel Savings Benefit (Fb)	
ADT	45,085
Fb (\$s)	\$4,399,954.36
Total Congestion Benefit	\$37,481,339.24
Total Project Cost	\$1,822,085.00
B/C Ratio	20.57

Factors Used

Car Rate	13.75
Truck Rate	86.4
Gas Rate	2.75
Applicable Days/Year	250 (# work days)
Time Period Analyzed (yrs)	20 (Design year - build year)
avg. speed	27
fuel efficiency	18.36
Total Project Cost - E+C+I (mil)	22.685 (C+ROW+Util.)

Travel Time Savings

No Build (Delay - Sec)	225.9
Improvement (Delay- Sec)	156.4
Difference (Sec)	69.5
Difference (Hr)	0.019306

AM Peak Volumes

NB	912.5	725	1100
SB	787.5	835	740
EB	1477.5	1090	1865
WB	1620	1905	1335
Total	4797.5		

*Reduction in delay or **Delay Benefit (D_b)** can be defined as the difference between the peak hour travel time through the corridor without the proposed improvement and the peak hour travel time through the corridor with the proposed improvement (both directions).

Benefit Cost Analysis Work Sheet	
CONGESTION Projects	
<i>PM Peak</i>	
<i>City of Johns Creek</i>	
Jones Bridge Road at Waters Road	
Congestion Benefit = Tb + CMb + Fb	
Person Time Savings Benefit (Tb)	
*Db (hrs)	0.0204722
ADT	45,085.00
Tb (\$s)	\$31,727,786.02
Commercial or Truck Time Savings Benefit (CMb)	
Db (hrs)	0.020472222
% Truck Traffic	0.02
ADT	45,085.00
CMb	\$3,352,761.68
Fuel Savings Benefit (Fb)	
ADT	45,085.00
Fb (\$s)	\$2,626,701.24
Total Congestion Benefit	\$37,707,248.94
Total Project Cost	\$1,822,085.00
B/C Ratio	20.69

Factors Used

Car Rate	13.75
Truck Rate	86.4
Gas Rate	2.75
Applicable Days/Year	250 (# work days)
Time Period Analyzed (yrs)	20 (Design year - build year)
Avg corridor speed	15.2
fuel efficiency	18.36
Total Project Cost - E+C+I (mil)	22.685 (C+ROW+Util.)

Travel Time Savings

No Build (Delay - Sec)	211.4
Improvement (Delay- Sec)	137.7
Difference (Sec)	73.7
Difference (Hr)	0.020472

PM Peak Volumes

NB	1117.5	995	1240
SB	1105	1350	860
EB	2095	1705	2485
WB	1942.5	2210	1675
Total	6260		

*Reduction in delay or **Delay Benefit (Db)** can be defined as the difference between the peak hour travel time through the corridor without the proposed improvement and the peak hour travel time through the corridor with the proposed improvement (both directions).