ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0012648 **OFFICE** Design Policy & Support

Newton County
GDOT District 2 - Tennille **DATE** 11/13/2014
SR 81 @ SR 142 Intersection Improvements

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

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

Attachment

DISTRIBUTION:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Bobby Hilliard, Program Control Administrator
Albert Shelby, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Richard Cobb, Statewide Location Bureau
Jimmy Smith, District Engineer
Neal O'Brien, District Preconstruction Engineer
Jamie Lindsey, District Utilities Engineer
Daniel Chastain, Project Manager
BOARD MEMBER - 4th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT

Project Type:	Intersection Improvement	P.I. Number:	0012648
GDOT District:	2	County:	Newton
Federal Route Number:	N/A	State Route Number:	81 & 142
		Project Number:	Not assigned yet

Project Description: SR 81 at SR 142 Intersection Improvement

Submitted for approval:

Will Sheehan — 7-23-2014
Moreland Altobelli Associates, Inc. — DATE

Tom Garrett — 7/23/2014
Newton County — DATE

Albert Shelby — 7/24/14
State Program Delivery Engineer — DATE

J. P. M. Ott — 7/24/2014
GDOT Project Manager — DATE

Recommendation for approval:

HIRAL PATEL*/EKP — 8/19/2014
State Environmental Administrator — DATE

KATHY ZAHUL*/EKP — 10/3/2014
State Traffic Engineer — DATE

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).

CINDY VAN DYKE*/EKP — 10/28/2014
State Transportation Planning Administrator — DATE

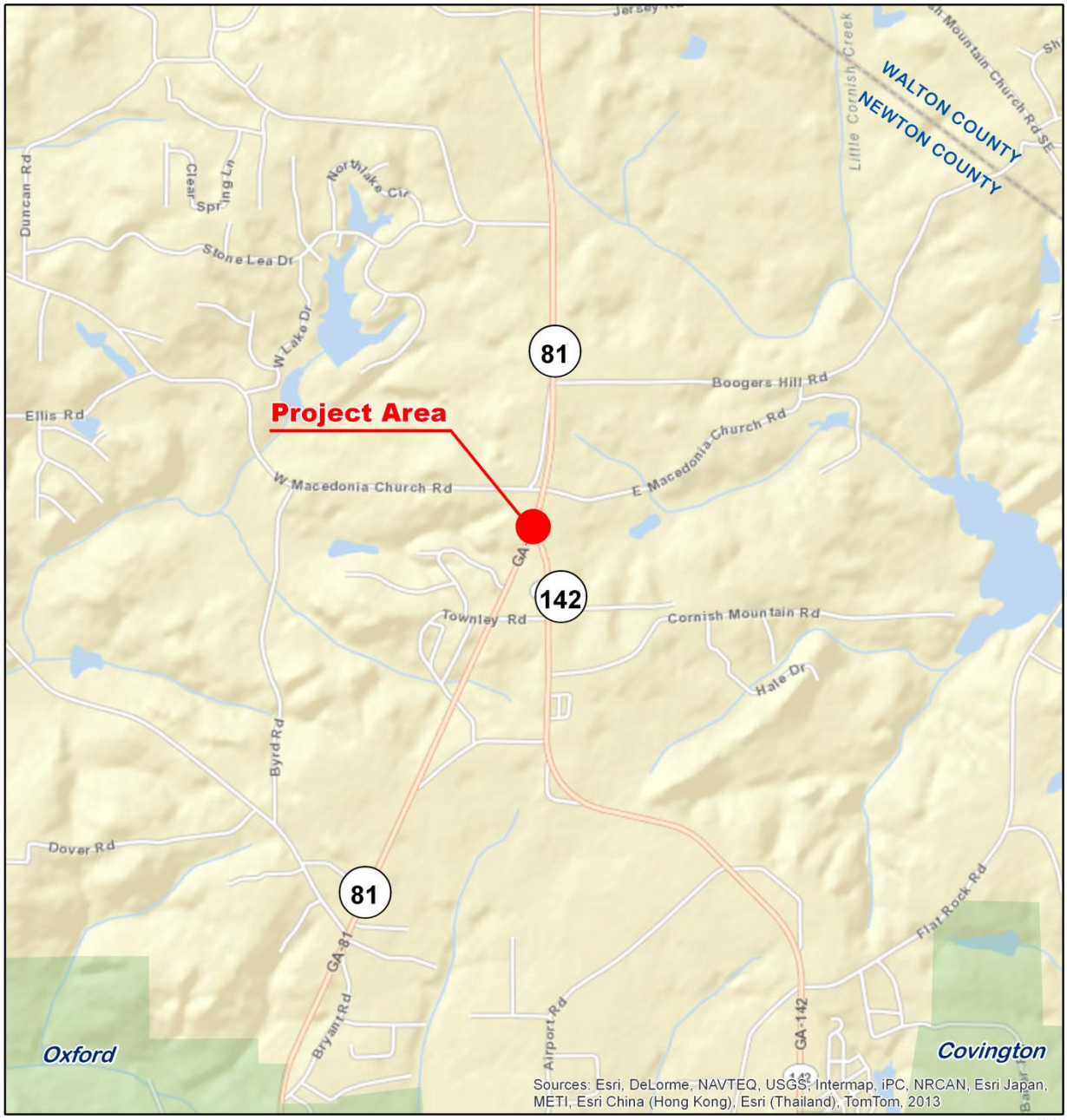
Approval:

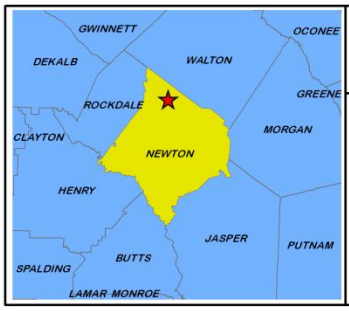
Concur: [signature] — 11/6/14
GDOT Director of Engineering — DATE

Approve: [signature] — 11/9/14
GDOT Chief Engineer — DATE

*- RECOMMENDATION ON FILE

PROJECT LOCATION





Project Location Map

Project Area

0 2,500 5,000 Feet

SR 81 at SR 142
Intersection
PI 0012648

Newton County, GA

N

PLANNING & BACKGROUND DATA

Project Justification Statement: This project was initiated by the local government of Newton County. It is an intersection improvement project intended to improve traffic flow on SR 81 and SR 142 and to reduce the potential for crashes at the intersection.

The predominate existing and projected traffic pattern at this intersection are the movements of southbound left-turns on SR 81 and the westbound right-turns on SR 142. The southbound left-turn traffic queues during the AM peak hour and the westbound right-turn traffic on SR 142 queues in the afternoon. The proposed project would realign the intersection to provide through traffic movements from southbound SR 81 to westbound SR 142 and vice versa. This realignment would increase traffic flow during the AM and PM peak hours.

The three-year crash data from 2010-2012 shown in Attachment 4 indicates that 60% of the traffic crashes are rear-end collisions, which is an indicator of traffic congestion. The proposed project would realign the intersection and increase traffic flow on SR 81 and SR 142, thereby reducing the potential for rear-end collisions.

The current Average Daily Traffic (ADT) on SR 81 is 12,400 vehicles per day (vpd) north of SR 142 and 5,200 vpd south of SR 142. The existing ADT for SR 142 is 7,400 vpd. Traffic is expected to grow by the design year 2038 to 25,800 vpd on SR 81 north of SR 142 and 10,800 vpd south of SR 142 with or without the proposed project. SR 142 is expected to grow by the design year 2038 to 15,400 vpd with or without the proposed project. The corresponding existing Level of Service (LOS) of the intersection is LOS B/C during the AM/PM peak hours. The 2038 no-build LOS at the intersection would be LOS F for both the AM and PM peak hours. The 2038 build LOS at the intersection would be LOS B/C during the AM/PM peak hours. The build condition would include realignment of the intersection, a right-turn lane on southbound SR 81 and would be traffic signal controlled by the year 2038.

Existing conditions: The intersection of SR 81 and SR 142 forms a Y-intersection with stop sign control on SR 142. There are no sidewalks or turn lanes at this intersection.

The intersection contains aerial utilities along the west side of SR 81 and along the northeast side of SR 142.

Other projects in the area: None

Description of the proposed project: The proposed intersection would be reconstructed to align the north leg of SR 81 with the east leg of SR 142. The south leg of SR 81 would form a stop-sign-controlled T-intersection with the realigned SR 142. The only turn lane proposed would be a right turn lane for the southbound SR 81 movement to continue on southbound SR 81.

The intersection realignment would have a right-of-way width of 80-100 feet. The length of the project is approximately 0.5 mile including SR 81 and SR 142.

MPO: Atlanta Regional Commission (ARC) MPO Project ID NE-101

Regional Commission: Atlanta Regional Commission RC Project ID NE-101

Congressional District(s): 4

Federal Oversight: ☒ Exempt ☐ State Funded ☐ Other

Projected Traffic: ADT

	Current Year (2013)	Open Year (2018)	Design Year (2038)
SR 81 (north leg)	12400	14400	25800
SR 81 (south leg)	5200	6000	10800
SR 142	7400	8600	15400

Traffic Projections Performed by: Moreland Altobelli Associates, Inc.

Functional Classification (Mainline): Rural Minor Arterial – SR 81 & SR 142

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:
Warrants met: ☒ None ☐ Bicycle ☐ Pedestrian ☐ Transit

DESIGN AND STRUCTURAL

Description of Proposed Project:

Major Structures: N/A

Mainline Design Features: SR 81

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	2	2
- Lane Width(s)	12'	12'	12'
- Outside Shoulder or Border Area Width	8' total (2' paved/ 6' grass)	8' total (4' paved/4' grass)	10' total (4' paved/ 6' grass)
- Outside Shoulder Slope	6%	6%	6%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	No	No	No
- Auxiliary Lanes	Yes	N/A	Yes
- Bike Lanes	No	No	No
Posted Speed	55 mph		55 mph**
Design Speed	55 mph	45-65 mph	55 mph**
Min Horizontal Curve Radius	No curve within project limits	643'/1060' (45mph DS/55mph DS) EXP	900'
Maximum Superelevation Rate	No curve within project limits	6%	6%
Maximum Grade	4%max	5%	4%max
Access Control	By Permit	By Permit	By Permit
Design Vehicle	N/A	WB-40 or SU	WB-62

*According to current GDOT design policy if applicable

** For the proposed horizontal curve between SR 81 and SR 142, the largest radius that will avoid significant impacts to the gas station property only meets a 45 mph speed design. A design exception will be pursued for horizontal curve radius in order to retain the existing 55 mph posted speed.

Major Interchanges/Intersections: SR 81 at SR 142

Lighting required: ☒ No ☐ Yes

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes
If Yes: Project classified as: ☒ Non-Significant ☐ Significant
TMP Components Anticipated: ☒ TTC ☐ TO ☐ PI

Will Context Sensitive Solutions procedures be utilized? ☒ No ☐ Yes

Design Exceptions to FHWA/AASHTO controlling criteria anticipated: The proposed curve linking SR 142 with the north leg of SR 81 only meets a 45 mph design speed. In order to maintain the current posted 55 mph speed limit and to avoid significant impacts to the gas station property, a design exception will be pursued for horizontal curve radius.

Design Variances to GDOT Standard Criteria anticipated: None

UTILITY AND PROPERTY

Temporary State Route Needed: ☒ No ☐ Yes ☐ Undetermined

Railroad Involvement: None

Utility Involvements: There is an existing aerial line running through the project limits. Other utility facilities have yet to be identified.

SUE Required: ☒ No ☐ Yes

Public Interest Determination Policy and Procedure recommended (Utilities)? ☒ No ☐ Yes

Right-of-Way: Existing width: 80-100 ft Proposed width: 80-100 ft

Required Right-of-Way anticipated: ☐ No ☒ Yes ☐ Undetermined
Easements anticipated: ☐ None ☒ Temporary ☒ Permanent ☐ Utility ☐ Other

Anticipated number of impacted parcels:		2 to 5
Displacements anticipated:	Total:	0
	Businesses:	0
	Residences:	0
	Other:	0

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:
GEPA: ☐ **NEPA:** ☒ CE ☐ PCE

MS4 Compliance – Is the project located in an MS4 area? ☐ No ☒ Yes
The project is located in Newton County which is an MS4 area; however, the project would be adding less than 5,000 square feet of new impervious area (pavement) so it should be exempt from MS4 requirements.

Environmental Permits, Variances, Commitments, and Coordination anticipated: None

Air Quality:

Is the project located in a PM 2.5 Non-attainment area?	☐ No	☒ Yes
Is the project located in an Ozone Non-attainment area?	☐ No	☒ Yes
Is a Carbon Monoxide hotspot analysis required?	☐ No	☒ Yes

NEPA/GEPA Comments & Information: An environmental screening was performed for the project. There are no anticipated wetland/stream impacts or US Army Corps of Engineers permits. Historic properties, air quality, noise effects, archeology and environmental justice communities will be examined further as part of the Categorical Exclusion (CE). There is a gas station at the northeast quadrant of the intersection with Underground Storage Tanks (UST's). Right-of-way and/or easements are anticipated on this property. It will be examined further as part of the CE document.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Project Meetings: Concept Team meeting was held on June 16, 2014. Minutes are attached.

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Newton County
Design	Newton County
Right-of-Way Acquisition	Newton County
Utility Relocation	GDOT
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	Contractor (none anticipated)
Environmental Studies, Documents, and Permits	Newton County
Environmental Mitigation	Newton County
Construction Inspection & Materials Testing	GDOT

Other coordination to date: A "Kickoff" Meeting was held on December 2, 2013. Minutes are attached.

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Utility*	CST**	Environmental Mitigation	Total Cost
Funded By	Newton County	GDOT	GDOT	GDOT	N/A	
$ Amount	$89,997	$170,000	$0	$483,375	$0 none anticipated	$743,372
Date of Estimate	12/9/2013	9/18/2014	8/29/2014	9/24/2014	N/A	

*Reimbursable Utility Costs only

**CST Cost includes: Construction, Engineering and Inspection, ~~and~~ Liquid AC Cost Adjustment, & Contingencies. EKP

ALTERNATIVES DISCUSSION

Preferred Alternative: This alternative would be reconstructed to align the north leg of SR 81 with the east leg of SR 142. The south leg of SR 81 would form a stop-sign-controlled T-intersection with the realigned SR 142.			
Estimated Property Impacts:	2 to 5	**Estimated Total Cost:**	$743,372
Estimated ROW Cost:	$170,000	**Estimated CST Time:**	9-12 months
Rationale: Traffic congestion would be reduced and would in turn reduce the potential for left-turning and rear-end collisions.			
No-Build Alternative: Newton County would not take any action to improve the intersection.			
Rationale: The intersection would continue to have traffic congestion that in turn would create the potential for rear-end and left-turning collisions.			
Alternative 1: The alternative would construct a multi-lane roundabout at the intersection.			
Estimated Property Impacts:	7	**Estimated Total Cost:**	$1,500,000
Estimated ROW Cost:	$437,500	**Estimated CST Time:**	18 months
Rationale: The travel speed on SR 81 and SR 142 would have to be reduced from 55 to 35 mph, which is undesirable and contrary to driver expections. The roundabout would have to be designed as a multi-lane to accommodate existing and projected traffic volumes. A multi-lane roundabout would require more right-of-way and impact the only two commercial properties at the intersection. Also, the construction costs would be greater than the preferred alternative and construction time would be longer. Additionally, this intersection is at a rural crossing of two major state routes and has truck traffic that would have to be accommodated within the roundabout design which is not desirable.			

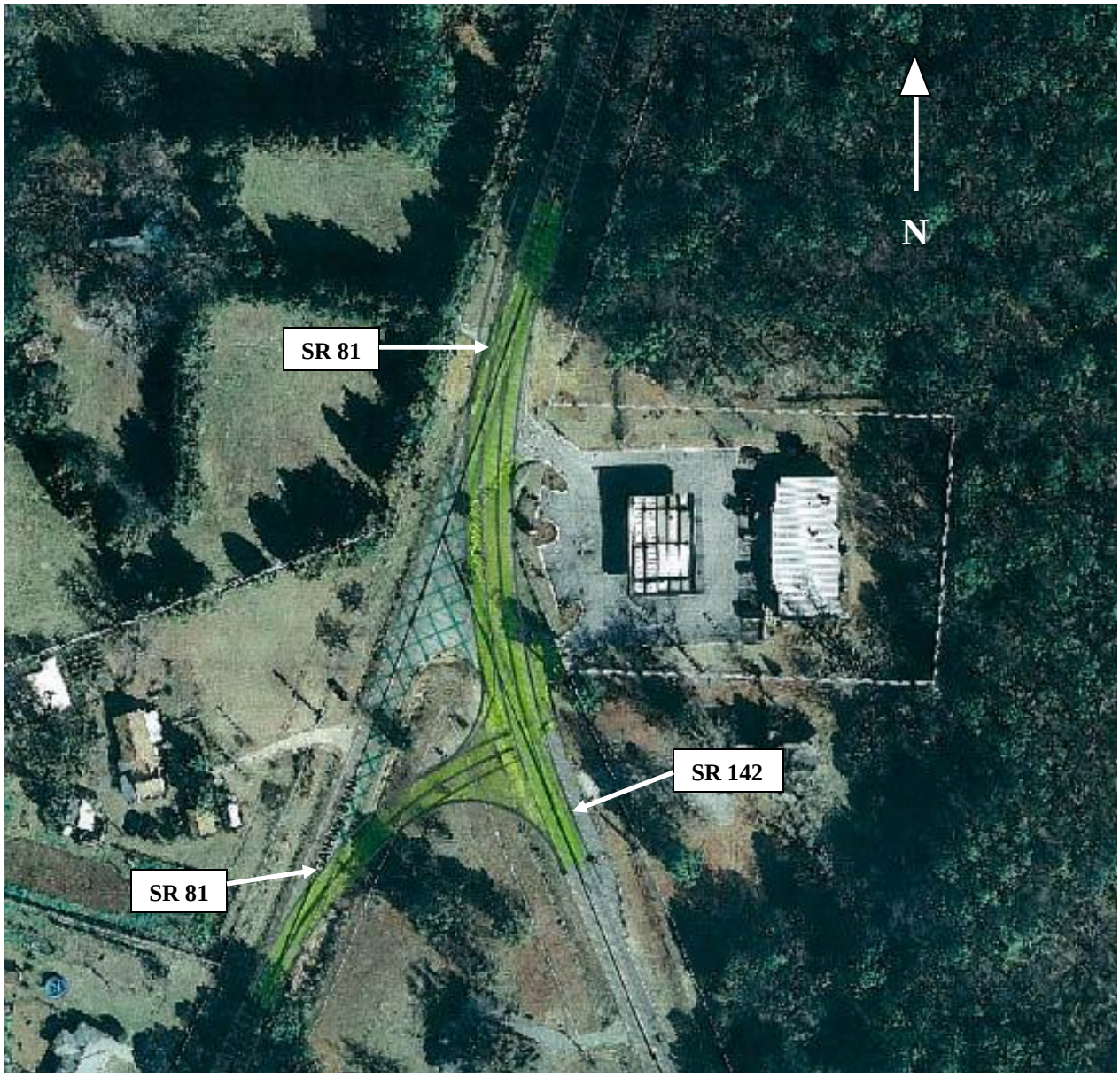
Comments/Additional Information: None

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Cost Estimates
4. Crash summaries
5. Traffic diagrams
6. Capacity analysis summary
7. Signal Warrant Analysis
8. Roundabout Analysis
9. Meeting Minutes
10. Signed Agreements

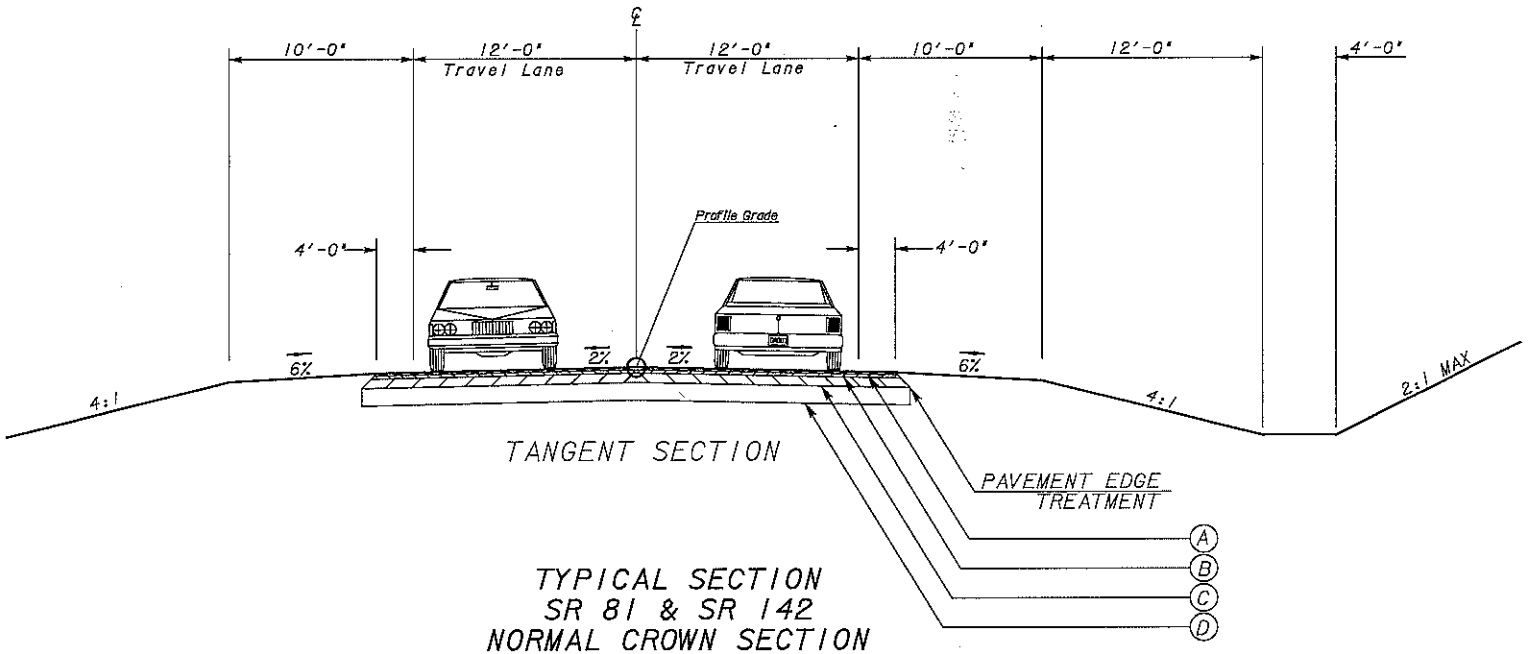
Attachment 1
Concept Layout

Concept Layout



Attachment 2
Typical Section

DATE&$$$ #USER#	TIME$$$ GRAPH'S ##PENTABLE##	FORM#	STATE GA	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS



TYPICAL SECTION
SR 81 & SR 142
NORMAL CROWN SECTION
N. T. S.

(A) - RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H-LIME
(B) - RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H-LIME
(C) - RECYLCED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H-LIME
(D) - GRADED AGGREGATE BASE COURSE

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:
TYPICAL SECTION

DRAWING No. 5-01

Attachment 3
Cost Estimates

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. **0012648**

OFFICE Office of Program Delivery

PROJECT DESCRIPTION

SR 81 at SR 142 Intersection Improvement

DATE September 24, 2014

From:

To: Lisa L. Myers, State Project Review Engineer

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Daniel Chastain

MGMT LET DATE

MGMT ROW DATE

PROGRAMMED COSTS (TPro W/OUT INFLATION)			**LAST ESTIMATE UPDATE**	
CONSTRUCTION	$	682,500.00	DATE	
RIGHT OF WAY	$	100,000.00	DATE	
UTILITIES	$	100,000.00	DATE	

REVISED COST ESTIMATES

CONSTRUCTION*	$	483,374.78
RIGHT OF WAY	$	170,000.00
UTILITIES	$	-

*Cost Contains 5 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

Cost estimate is slightly less than originally estimated.

CONTINGENCY SUMMARY

A.	CONSTRUCTION COST ESTIMATE:	$ 415,014.00	Base Estimate From CES		
B.	ENGINEERING AND INSPECTION (E & I):	$ 20,750.70	Base Estimate (A) x	5	%
C.	CONTINGENCY:	$ 21,788.24	Base Estimate (A) + E & I (B) x See % Table in "Risk Based Cost Estimation" Memo	5	%
D.	TOTAL LIQUID AC ADJUSTMENT:	$ 25,821.85	Total From Liquid AC Spreadsheet		
E.	CONSTRUCTION TOTAL:	$ **483,374.78**	(A + B + C + D = E)		

REIMBURSABLE UTILTY COSTS

UTILITY OWNER	REIMBURSABLE COST
TOTAL	$ -

ATTACHMENTS:

Detailed Cost Estimate Printout From CES
Liquid AC Adjustment Spreadsheet

GEORGIA DEPARTMENT OF TRANSPORTATION

DATE : 09/24/2014
PAGE : 1

JOB DETAIL ESTIMATE

JOB NUMBER : 0012648 SPEC YEAR: 01
DESCRIPTION: SR 81 AT SR 142 COST ESTIMATE

ITEMS FOR JOB 0012648

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - PI 0012648	1.000	75000.00	75000.00
0010	210-0100		LS	GRADING COMPLETE - PI 0012648	1.000	120000.00	120000.00
0015	310-1101		TN	GR AGGR BASE CRS, INCL MATL	2055.000	23.82	48959.55
0020	402-1812		TN	RECYL AC LEVELING,INC BM&HL	70.000	96.75	6772.97
0025	402-3130		TN	RECYL AC 12.5MM SP,GP2,BM&HL	285.000	70.46	20083.73
0030	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	675.000	75.78	51152.67
0035	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	340.000	93.22	31695.18
0040	413-1000		GL	BITUM TACK COAT	265.000	4.57	1213.42
0045	432-5010		SY	MILL ASPH CONC PVMT,VARB DEPTH	222.000	13.02	2891.60
0050	441-0748		SY	CONC MEDIAN, 6 IN	50.000	55.99	2799.77
0055	441-4020		SY	CONC VALLEY GUTTER, 6 IN	60.000	37.92	2275.31
0060	441-6012		LF	CONC CURB & GUTTER/ 6"X24"TP2	200.000	25.57	5114.00
0065	550-1240		LF	STM DR PIPE 24",H 1-10	150.000	59.42	8913.58
0070	550-2180		LF	SIDE DR PIPE 18",H 1-10	20.000	40.06	801.22
0075	550-3524		EA	SAFETY END SECTION 24",STD,6:1	4.000	1564.42	6257.68
0080	550-3618		EA	SAFETY END SECTION 18",SD,6:1	2.000	582.40	1164.82
0085	163-0001		LS	EROSION CONTROL, INCLUDING TEMPORARY GRASSING, MULCHING	1.000	10000.00	10000.00
0090	163-0300		EA	CONSTRUCTION EXIT	1.000	1335.27	1335.27
0095	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	2.000	146.08	292.18
0100	163-0525		EA	CONSTR AND REMOVE TEMPORARY DITCH CHECKS	5.000	229.55	1147.75
0105	165-0010		LF	MAINTENANCE OF TEMPORARY SILT FENCE, TYPE A	100.000	0.75	75.00
0110	165-0030		LF	MAINTENANCE OF TEMPORARY SILT FENCE, TYPE C	1600.000	0.91	91.00
0115	171-0010		LF	TEMPORARY SILT FENCE, TYPE A	100.000	2.30	230.69
0120	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	1600.000	3.30	5283.84
0125	603-2181		SY	STN DUMPED RIP RAP, TP 3, 18"	50.000	39.34	1967.16
0130	603-7000		SY	PLASTIC FILTER FABRIC	50.000	4.38	219.47
0135	700-6001		LS	GRASSING - COMPLETE	1.000	5000.00	5000.00
0140	653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	2200.000	0.62	1379.40
0145	653-1502		LF	THERMO SOLID TRAF ST, 5 IN YEL	2200.000	0.49	1097.38
0150	653-1704		LF	THERM SOLID TRAF STRIPE,24",WH	38.000	5.68	216.14
0155	653-6004		SY	THERM TRAF STRIPING, WHITE	200.000	3.67	734.59
0160	653-6006		SY	THERM TRAF STRIPING, YELLOW	20.000	3.78	75.62
0165	654-1001		EA	RAISED PVMT MARKERS TP 1	100.000	3.94	394.05
0170	654-1003		EA	RAISED PVMT MARKERS TP 3	100.000	3.78	378.97

ITEM TOTAL 415014.00
ESTIMATED TOTAL 415014.00

PROJ. NO.		CALL NO.	9/29/2009
P.I. NO.	0012648		
DATE	9/26/2014		

INDEX (TYPE)	**DATE**	**INDEX**
REG. UNLEADED	Sep-14	$ 3.335
DIESEL		$ 3.765
LIQUID AC		$ 618.00

Link to Fuel and AC Index:
http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				**25399.8**	**$ 25,399.80**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	988.80	
Monthly Asphalt Cement Price month project let (APL)			$	618.00	
Total Monthly Tonnage of asphalt cement (TMT)				68.5	

ASPHALT	**Tons**	**%AC**	**AC ton**
Leveling	70	5.0%	3.5
12.5 OGFC		5.0%	0
12.5 mm	285	5.0%	14.25
9.5 mm SP		5.0%	0
25 mm SP	675	5.0%	33.75
19 mm SP	340	5.0%	17
	1370		**68.5**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$**	**422.05**	**$ 422.05**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	988.80	
Monthly Asphalt Cement Price month project let (APL)			$	618.00	
Total Monthly Tonnage of asphalt cement (TMT)				1.138201744	

Bitum Tack Gals	gals/ton	tons
265	232.8234	1.13820174

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	988.80	
Monthly Asphalt Cement Price month project let (APL)			$	618.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

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

TOTAL LIQUID AC ADJUSTMENT	**$ 25,821.85**

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 9/2/2014 Project: SR81 @ SR142
Revised: County: Newton
PI: 0012648

Description: SR81 @ SR142 Intersection Improvements
Project Termini: SR81 @ SR142

Existing ROW: Varies
Parcels: 5 Required ROW: Varies

Land and Improvements	$64,425.00
Proximity Damage	*$0.00*
Consequential Damage	*$0.00*
Cost to Cures	*$0.00*
Trade Fixtures	*$10,000.00*
Improvements	*$5,000.00*
Valuation Services	$7,250.00
Legal Services	$40,875.00
Relocation	$10,000.00
Demolition	$1,500.00
Administrative	$45,000.00
TOTAL ESTIMATED COSTS	$169,050.00
TOTAL ESTIMATED COSTS (ROUNDED)	***$170,000.00***

Preparation Credits	Hours	Signature
Benjamin M. Garland Jr.	4	BM Garland

Prepared By: BM Garland CG#: GM 270880 9/2/14 (DATE)
Approved By: Lashone Alexander CG#: 286999 09/18/2014 (DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

allsop

SR81 @ SR142 Intersection Utility Cost Estimate

8/29/14

Utility	Quantity	Unit	Cost per unit	Non-Reinbursable Costs
Georgia Power Distribution	2	ea	$20,000.00	$40,000.00
These poles have multiple Circuits- Require bigger poles				
Includes lighting, transformers drops, guying, switches Zig-Zags, shortspans, road crossings for feeds, etc.				
CATV (Aerial)	150	Feet	$8.00	$1,200.00
1 Coax & 1 Fiber				
Cable Total				$1,200.00
AT&T Distribution				
Aerial Cable	150	Feet	$40.00	$6,000.00
Underground Cable	150	Feet	$55.00	$8,250.00
Direct Bury				
Relocate Cabinet/drops	1	EA	$15,000.00	$15,000.00
Adjust manhole to grade	1	EA	$3,500.00	$3,500.00
Phone Total				$32,750.00
Atlanta Gas Light				
4 in MP HDPE	60	Feet	$24.00	$1,440.00
Gas Service Conn	1	Ea	$2,000.00	$2,000.00
Gas Total				$3,440.00
Water				
All other size DIP	260	Feet	$68.00	$17,680.00
Long side feeds	1	Ea	$1,500.00	$1,500.00
Water Total				$19,180.00
Sanitary Sewer				
Adjust Sanitary Sewer MH	1	Ea	$10,300.00	$10,300.00
Sanitary Sewer Total				$10,300.00
			Total	$106,870.00

Attachment 4
Crash Summaries

Summary of Crash Data by Type from 2010 to 2012
Intersection of SR 81 at SR 142

Year	Total Number of Crashes	Total Number of Injuries	Right Angle	Rear-End	Left-Turn	Other Type of Collision
2010	5	7	0	4	1	0
2011	4	7	0	2	2	0
2012	1	2	0	0	1	0
Totals	10	16	0	6	4	0

Attachment 5
Traffic Diagrams

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Newton County
P.I. # 0012648

OFFICE Planning

DATE March 4, 2014

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Albert Shelby, State Program Delivery Engineer
Attention: Daniel Chastain

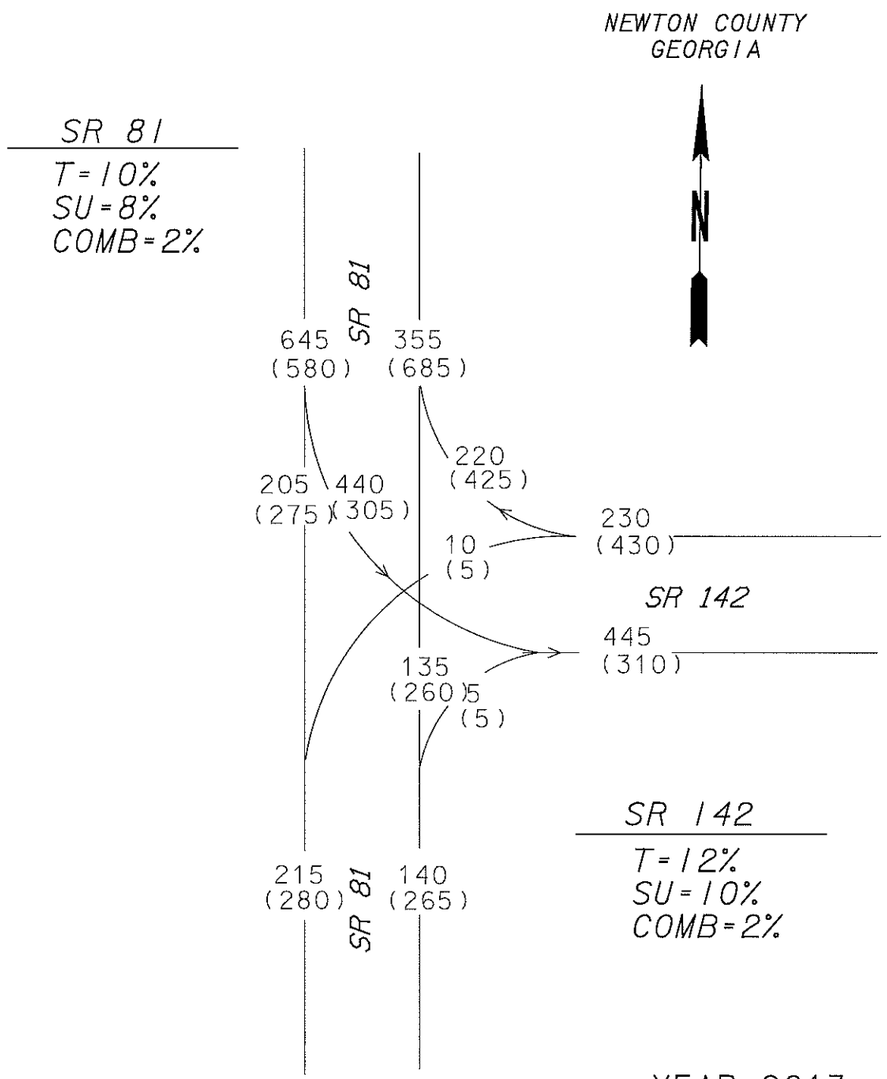
SUBJECT Design Traffic Review for SR 81 @ SR 142.

We have reviewed the consultant's Design Traffic for the above project. The Design Traffic is approved.

If you have any questions concerning this information, please contact Rhonda Niles at (404) 631-1924.

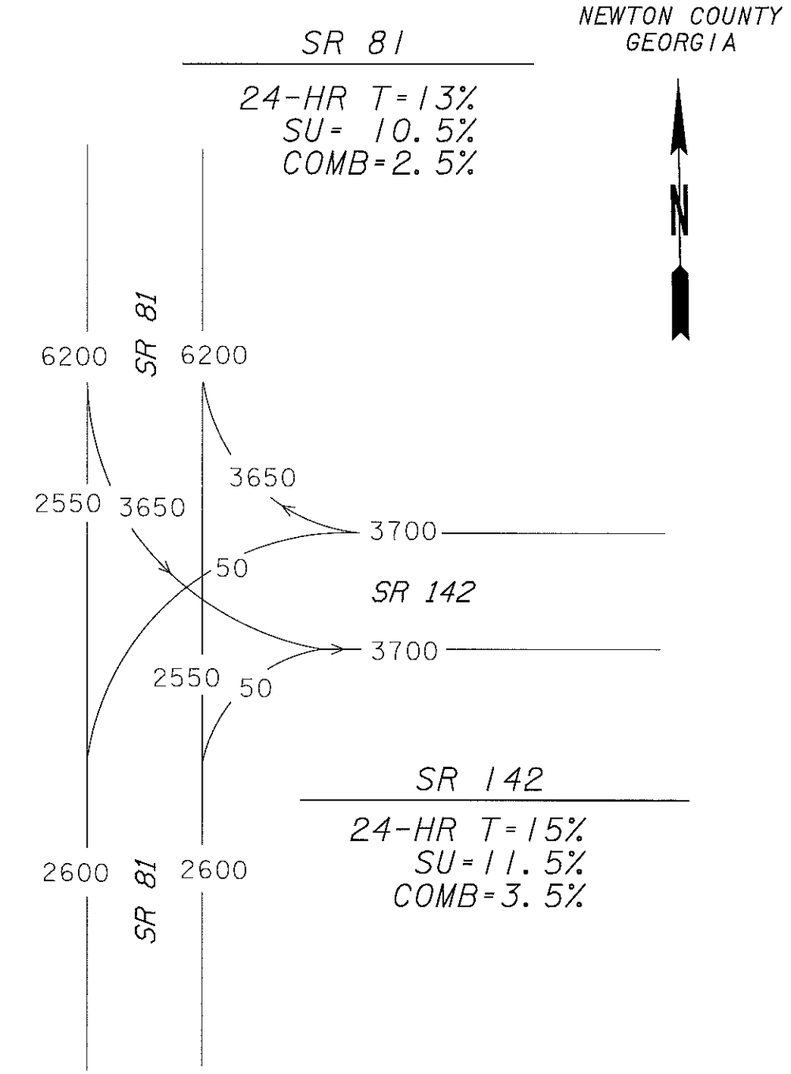
CLV/RFN

DATE TIME$$$	TIME$$$	PRF	DGN	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
$USER$		$$PENTABLE$$		NEWTON	001248		



YEAR 2013

00 AM PEAK HOUR
(00) PM PEAK HOUR



YEAR 2013

00 AVERAGE DAILY TRAFFIC

MORELAND-ALTOBELLI ASSOC., INC.
2211 BEAVER RUIN RD, SUITE 190
NORCROSS, GEORGIA 30071
(770) 263-5945

DF 2/14

NEWTON COUNTY,
GEORGIA
P. I. NO. 0012648

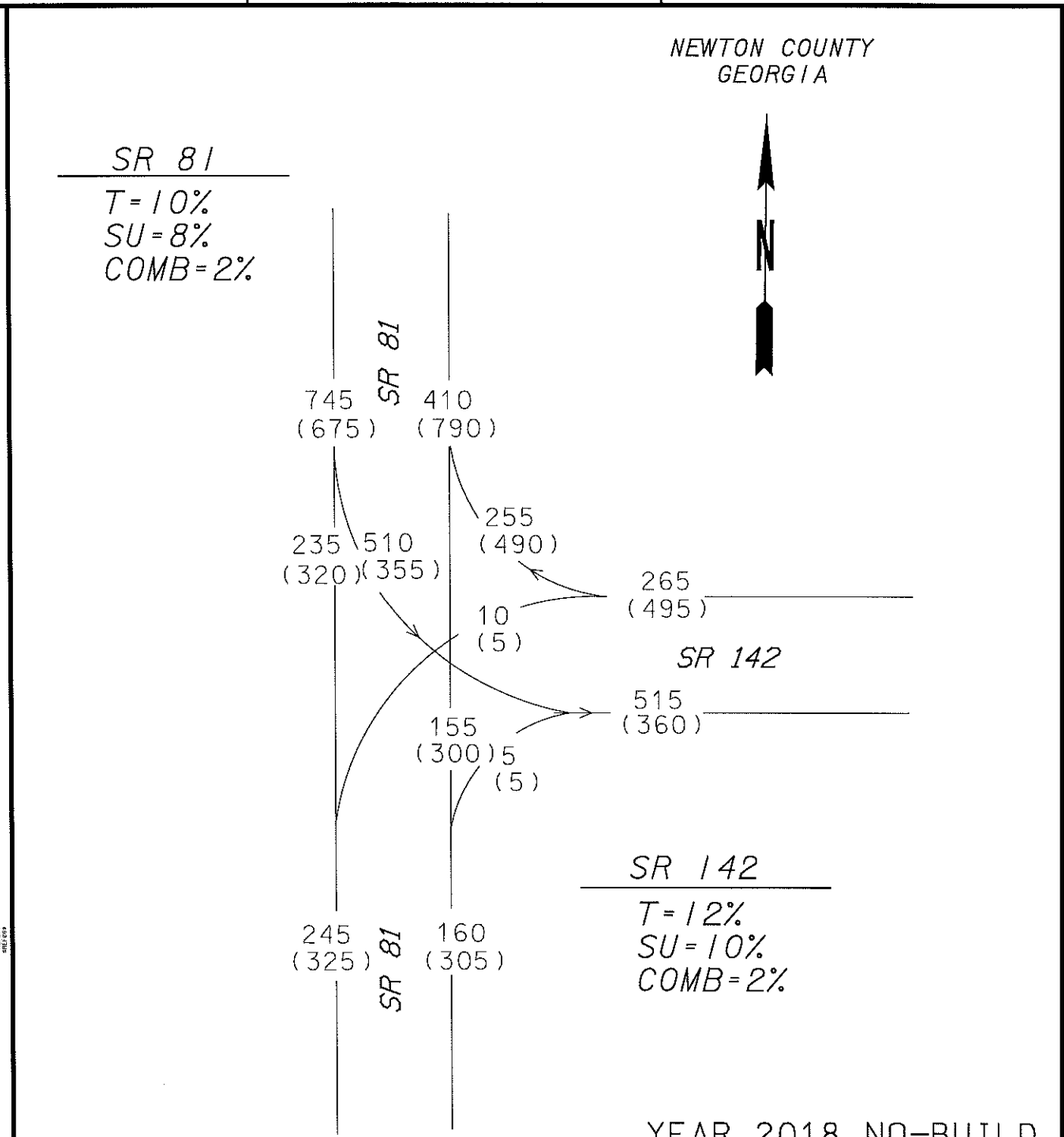
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 2

TRAFFIC FLOW DIAGRAMS
SR 81 AT SR 142
2014 EXISTING DHV & ADT

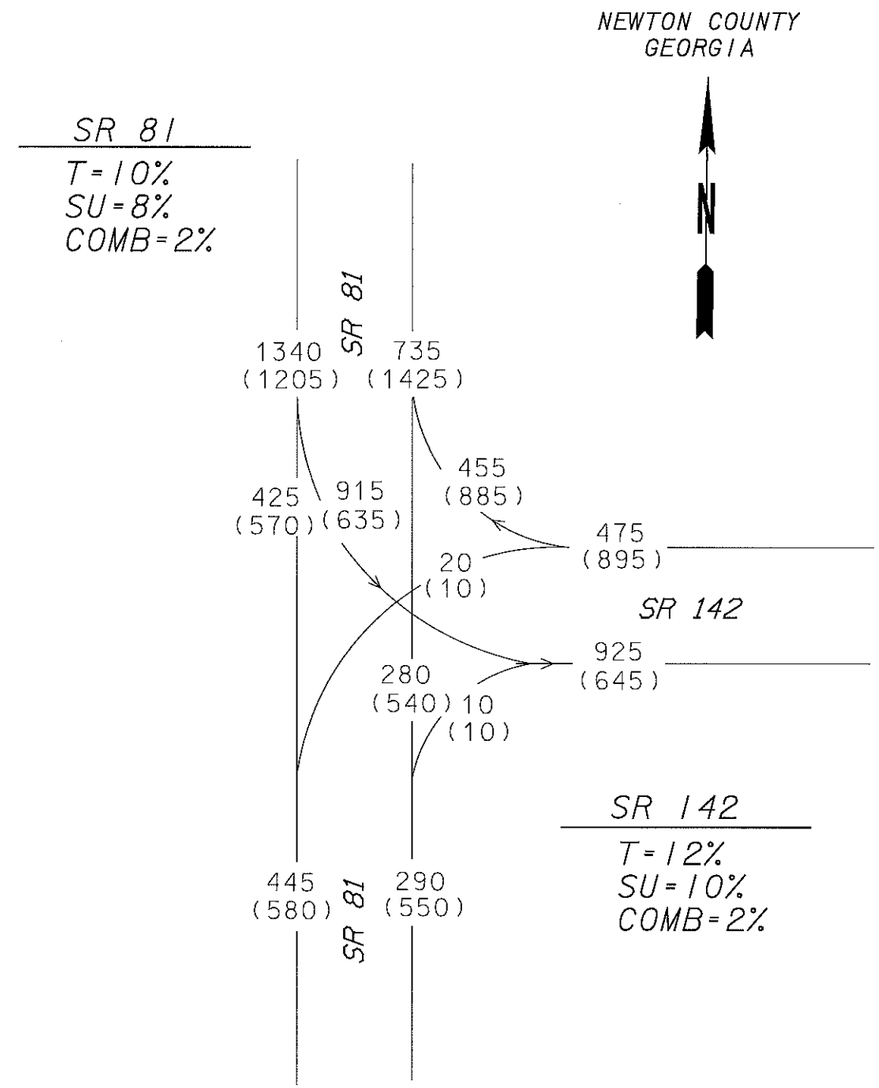
DRAWING No. 10-001

DATE/TIME$$$	TIME$$$	PRF	DGN	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
$USER$		$$PENTABLE$$		NEWTON	0012648		



YEAR 2018 NO-BUILD

00 AM PEAK HOUR
(00) PM PEAK HOUR



YEAR 2038 NO-BUILD

00 AM PEAK HOUR
(00) PM PEAK HOUR

MORELAND-ALTOBELLI ASSOC., INC.
2211 BEAVER RUIN RD, SUITE 190
NORCROSS, GEORGIA 30071
(770) 263-5945

DF 2/14

NEWTON COUNTY,
GEORGIA
P. I. NO. 0012648

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 2

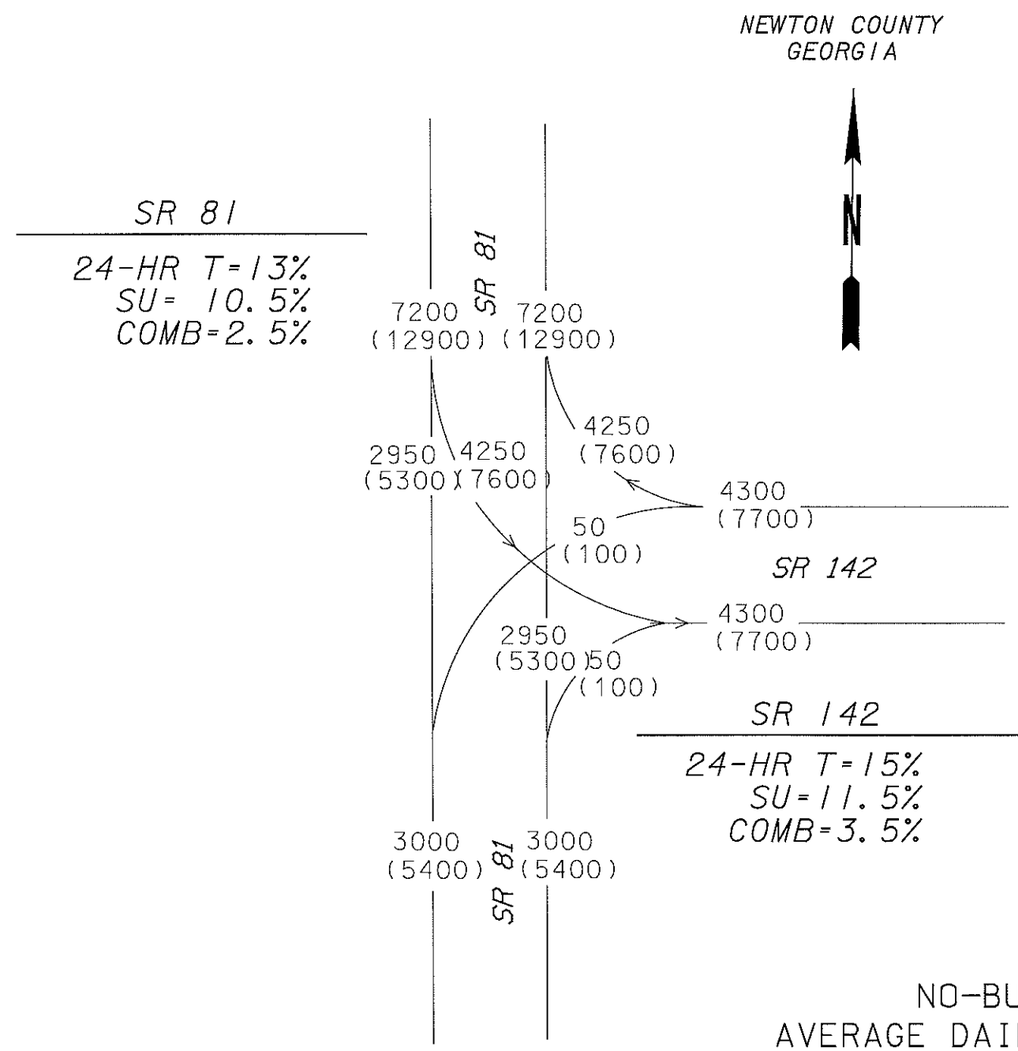
TRAFFIC FLOW DIAGRAMS

SR 81 AT SR 142

2018 & 2038 DHV NO-BUILD

DRAWING No. 10-002

DATE/TIME$$$ $USER$	TIME$$$	FRF $$PCNTABLE$$	DGN	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				NEWTON	0012648		



NO-BUILD
AVERAGE DAILY TRAFFIC

00 2018 ADT
(00) 2038 ADT

MORELAND-ALTOBELLI ASSOC., INC.
2211 BEAVER RUIN RD, SUITE 190
NORCROSS, GEORGIA 30071
(770) 263-5945

DF 2/14

NEWTON COUNTY,
GEORGIA
P. I. NO. 0012648

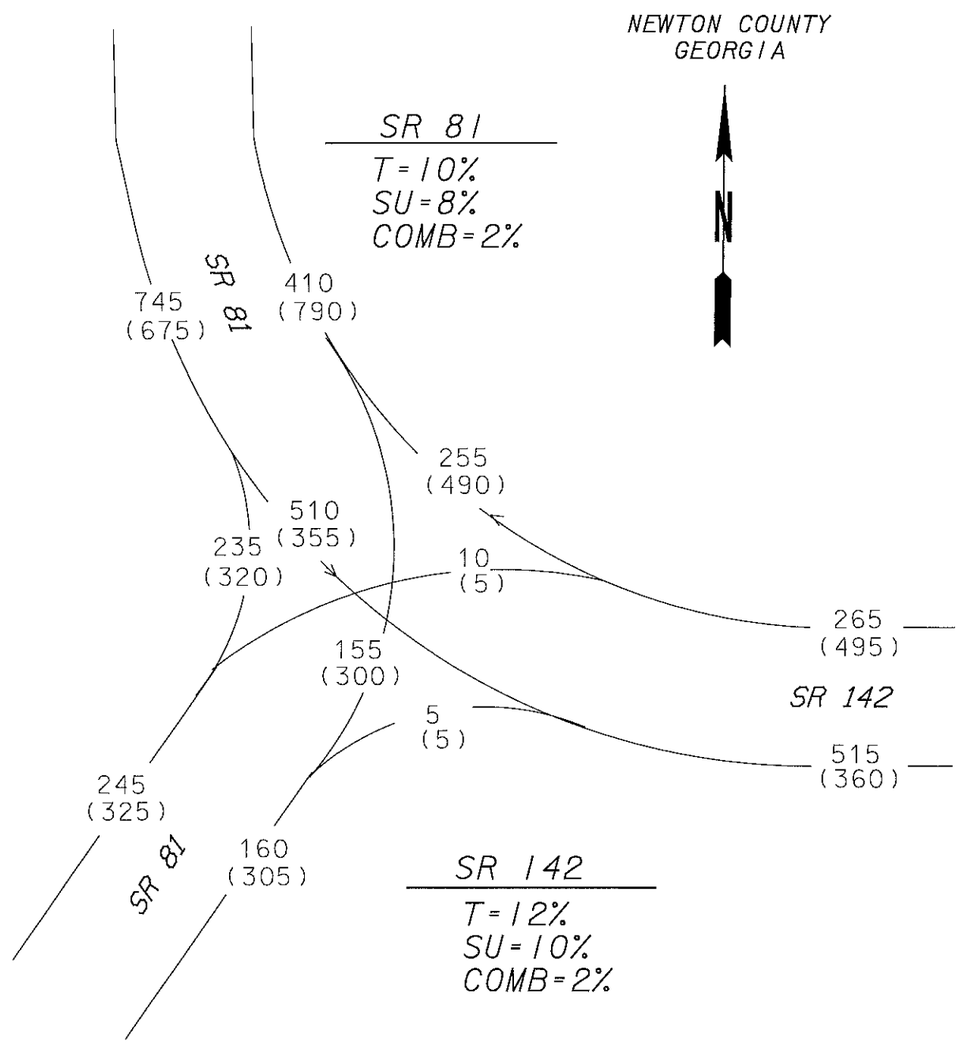
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 2

TRAFFIC FLOW DIAGRAMS
SR 81 AT SR 142
2018/2038 NO-BUILD ADT

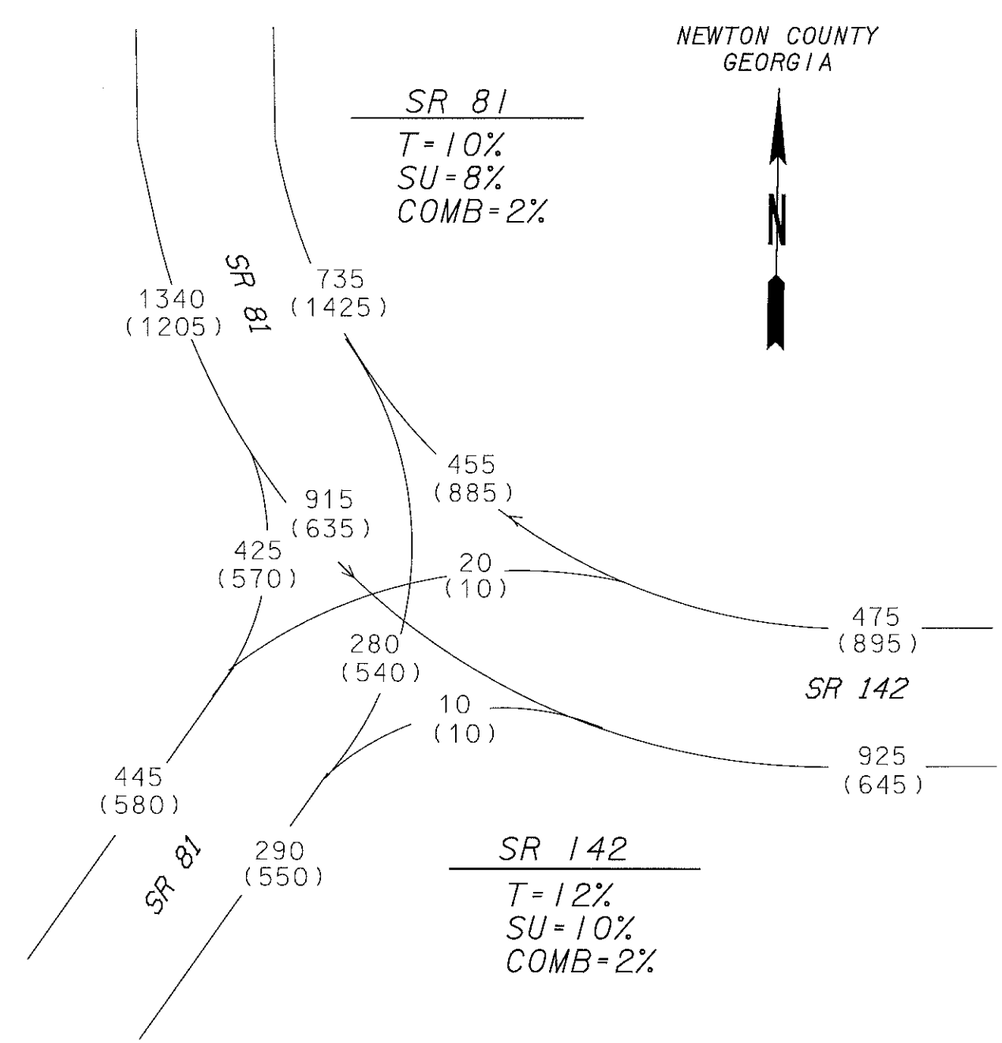
DRAWING No. 10-003

DATE/TIME$$$	TIME$$$	$FILE$	DGN	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
$USER$		$$PENTABLE$$		NEWTON	0012648		



YEAR 2018 BUILD

00 AM PEAK HOUR
(00) PM PEAK HOUR



YEAR 2038 BUILD

00 AM PEAK HOUR
(00) PM PEAK HOUR

MORELAND-ALTOBELLI ASSOC., INC.
2211 BEAVER RUIN RD, SUITE 190
NORCROSS, GEORGIA 30071
(770) 263-5945

DF 2/14

NEWTON COUNTY,
GEORGIA
P. I. NO. 0012648

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 2

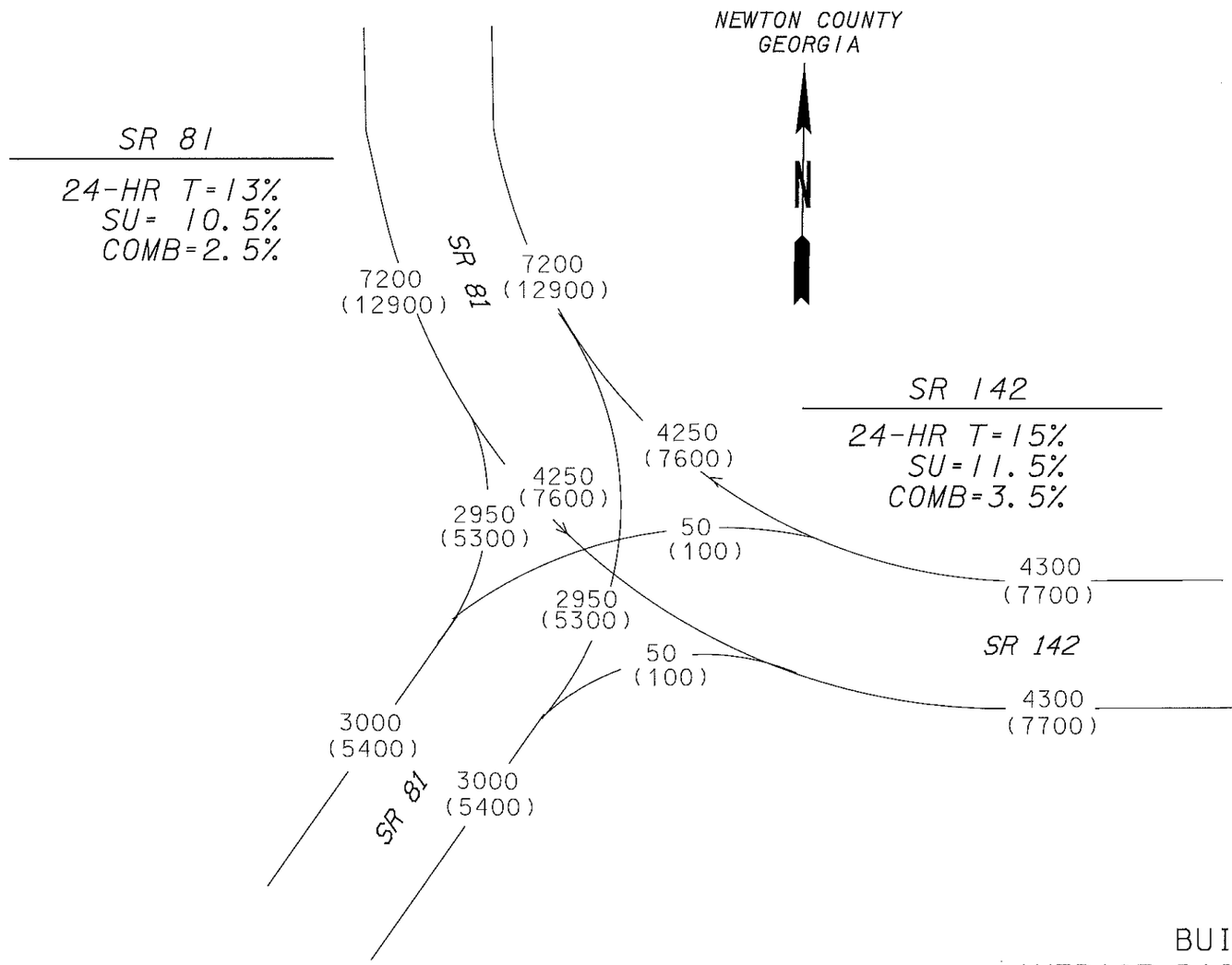
TRAFFIC FLOW DIAGRAMS

SR 81 AT SR 142

2018 & 2038 DHV BUILD

DRAWING No. 10-004

DATE/TIME$$$ $USER$	TIME$$$	$FILE$ $$PENTABLE$$	DGN	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				NEWTON	0012648		



BUILD
AVERAGE DAILY TRAFFIC

00 2018 ADT
(00) 2038 ADT

MORELAND-ALTOBELLI ASSOC., INC.
2211 BEAVER RUIN RD, SUITE 190
NORCROSS, GEORGIA 30071
(770) 263-5945

DF 2/14

NEWTON COUNTY,
GEORGIA
P. I. NO. 0012648

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 2

TRAFFIC FLOW DIAGRAMS
SR 81 AT SR 142
2018/2038 BUILD ADT

DRAWING No. 10-005

Attachment 6
Capacity Analysis Summary

SUMMARY OF CAPACITY ANALYSIS

SR 81 @ SR 142				
Intersection LOS (delay)				
Year	No-Build*		Build	
	AM	PM	AM	PM
2013	B (13.4)	C (19.0)	N/A	N/A
2018	C (16.2)	D (29.4)	A (8.8)	B (10.3)
2038	F (342.8)	F (608.2)	B (17.8)	C (28.3)

* No-Build condition is Stop-Controlled.

** Build Condition is signalized and with turning lanes.

Attachment 7
Signal Warrant Analysis

Traffic Signal Warrant Study

SR 81 at Realigned SR 142

Existing Traffic Analysis

Signal Warrants - Summary

Major Street Approaches

Northbound: **SR 142**

Number of Lanes: **1**

85% Speed < 40 MPH.

Total Approach Volume: **3,649**

Southbound: **SR 81**

Number of Lanes: **2**

85% Speed < 40 MPH.

Total Approach Volume: **6,197**

Minor Street Approaches

Eastbound: **SR 81**

Number of Lanes: **1**

Total Approach Volume: **2,550**

Warrant Summary

(Urban values apply.)

Warrant 1 - Eight Hour Vehicular Volumes ..... **Not Satisfied**

Warrant 1A - Minimum Vehicular Volume ..... **Not Satisfied**

Required volumes reached for 4 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic ..... **Not Satisfied**

Required volumes reached for 1 hours, 8 are needed

Warrant 1 A&B - Combination of Warrants ..... **Not Satisfied**

Required volumes reached for 4 hours, 8 are needed

Warrant 2 - Four Hour Volumes ..... **Not Satisfied**

Number of hours (1) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour ..... **Not Evaluated**

Warrant 3A - Peak Hour Delay ..... **Not Evaluated**

Warrant 3B - Peak Hour Volumes ..... **Not Evaluated**

Warrant 4 - Pedestrian Volumes ..... **Not Evaluated**

Warrant 5 - School Crossing ..... **Not Evaluated**

Warrant 6 - Coordinated Signal System ..... **Not Evaluated**

Warrant 7 - Crash Experience ..... **Not Evaluated**

Warrant 8 - Roadway Network ..... **Not Evaluated**

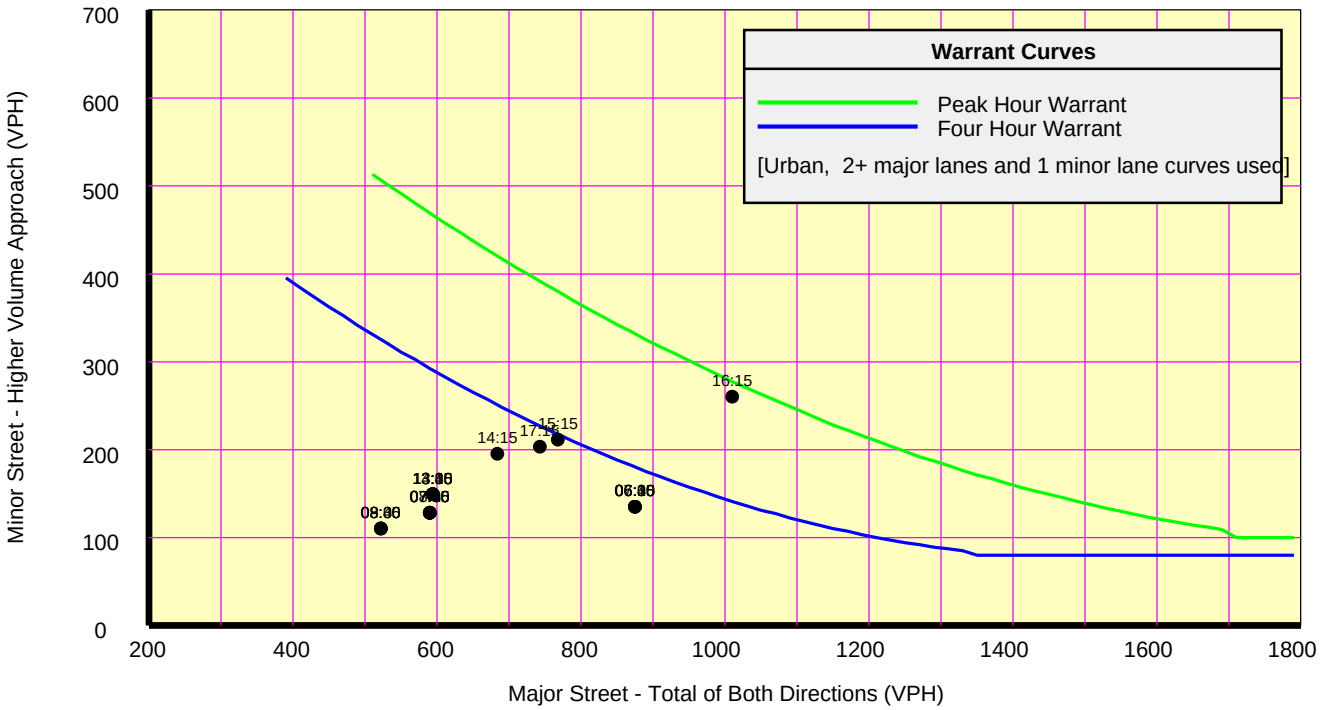
Warrant 9 - Intersection Near a Grade Crossing ..... **Not Evaluated**

Traffic Signal Warrant Study

SR 81 at Realigned SR 142

Existing Traffic Analysis

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

War 1A-Minimum Volume

Hour Begin	Major Total	Minor Vol	Minor Dir	Maj 600	Min 150
16:15	1,010	260	EB	Yes	Yes
15:15	768	211	EB	Yes	Yes
17:15	743	203	EB	Yes	Yes
14:15	684	195	EB	Yes	Yes
07:00	875	135	EB	Yes	No
06:45	875	135	EB	Yes	No
06:30	875	135	EB	Yes	No
06:15	875	135	EB	Yes	No
14:00	594	149	EB	No	No
13:45	594	149	EB	No	No
13:30	594	149	EB	No	No
13:15	594	149	EB	No	No
08:00	590	128	EB	No	No
07:45	590	128	EB	No	No
07:30	590	128	EB	No	No
07:15	590	128	EB	No	No
09:00	522	110	EB	No	No
08:45	522	110	EB	No	No
08:30	522	110	EB	No	No
08:15	522	110	EB	No	No
06:00	500	111	EB	No	No
05:45	500	111	EB	No	No
05:30	500	111	EB	No	No
05:15	500	111	EB	No	No

War 1B-Interruption of Traffic

Hour Begin	Major Total	Minor Vol	Minor Dir	Maj 900	Min 75
16:15	1,010	260	EB	Yes	Yes
07:00	875	135	EB	No	Yes
06:45	875	135	EB	No	Yes
06:30	875	135	EB	No	Yes
06:15	875	135	EB	No	Yes
16:00	768	211	EB	No	Yes
15:45	768	211	EB	No	Yes
15:30	768	211	EB	No	Yes
15:15	768	211	EB	No	Yes
18:00	743	203	EB	No	Yes
17:45	743	203	EB	No	Yes
17:30	743	203	EB	No	Yes
17:15	743	203	EB	No	Yes
15:00	684	195	EB	No	Yes
14:45	684	195	EB	No	Yes
14:30	684	195	EB	No	Yes
14:15	684	195	EB	No	Yes
14:00	594	149	EB	No	Yes
13:45	594	149	EB	No	Yes
13:30	594	149	EB	No	Yes
13:15	594	149	EB	No	Yes
08:00	590	128	EB	No	Yes
07:45	590	128	EB	No	Yes
07:30	590	128	EB	No	Yes
07:15	590	128	EB	No	Yes
09:00	522	110	EB	No	Yes
08:45	522	110	EB	No	Yes
08:30	522	110	EB	No	Yes
08:15	522	110	EB	No	Yes
06:00	500	111	EB	No	Yes
05:45	500	111	EB	No	Yes
05:30	500	111	EB	No	Yes
05:15	500	111	EB	No	Yes

War 1C-Combination of Warrants

Hour Begin	Major Total	Minor Vol	Minor Dir	Maj 720	Min 120
16:15	1,010	260	EB	Yes	Yes
06:15	875	135	EB	Yes	Yes
15:15	768	211	EB	Yes	Yes
17:15	743	203	EB	Yes	Yes
15:00	684	195	EB	No	Yes
14:45	684	195	EB	No	Yes
14:30	684	195	EB	No	Yes
14:15	684	195	EB	No	Yes
14:00	594	149	EB	No	Yes
13:45	594	149	EB	No	Yes
13:30	594	149	EB	No	Yes
13:15	594	149	EB	No	Yes
08:00	590	128	EB	No	Yes
07:45	590	128	EB	No	Yes
07:30	590	128	EB	No	Yes
07:15	590	128	EB	No	Yes
09:00	522	110	EB	No	No
08:45	522	110	EB	No	No
08:30	522	110	EB	No	No
08:15	522	110	EB	No	No
06:00	500	111	EB	No	No
05:45	500	111	EB	No	No
05:30	500	111	EB	No	No
05:15	500	111	EB	No	No

Attachment 8
Roundabout Analysis

Roundabout Analysis Tool

v 2.1
2/24/12

Welcome to GDOT's Roundabout Analysis Tool. This tool is designed for the user to determine the functionality of a proposed roundabout. The analysis is based on the 2010 Highway Capacity Manual Methodology and NCHRP Report 672, FHWA's Roundabout Informational Guide. Please read the notes in the Instructions tab before using the spreadsheet.

Analyst:	David A. Fairlie
Agency/Company:	MAAI
Date:	April, 2014
Project Name or PI#:	0012648
Year, Peak Period:	2038 AM
County/District:	NEWTON, GA
Intersection:	SR-81 @ SR-142

Insert Project Information Here in the BLUE SPACE. This information is linked to the Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

Roundabouts may not operate well if there is too much traffic entering the intersection or if the percentage of traffic on the major road is too high. Candidate intersections shall be analyzed to determine whether a roundabout will perform acceptably. Shown below are thresholds to determine if a roundabout capacity analysis is required:

# of circulatory lanes	ADTs (current/ build year)	% traffic on Major Road
Single Lane	less than 25,000	less than 90%
Multi-Lane	less than 45,000	less than 90%

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	25,800	70%
Minor Street	10,800	30%
Total volumes	36,600	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 4 mi 0 '

3 Is the proposed intersection located within a coordinated signal network? NO

Go up to next section...

Proposed Design Configuration Chart

Directions for this Section only: *(see **Instructions Tab** for other sections)*

1. Select the type of roundabout you are analyzing.
2. Key in the number of approaches and the street names at the proposed intersections.
3. Complete the Approach Characteristics Chart:
   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Multi-Lane
# of Approaches:	3
Name of Streets:	SR-81 (NB)
	SR-81 (SB)
	SR-142

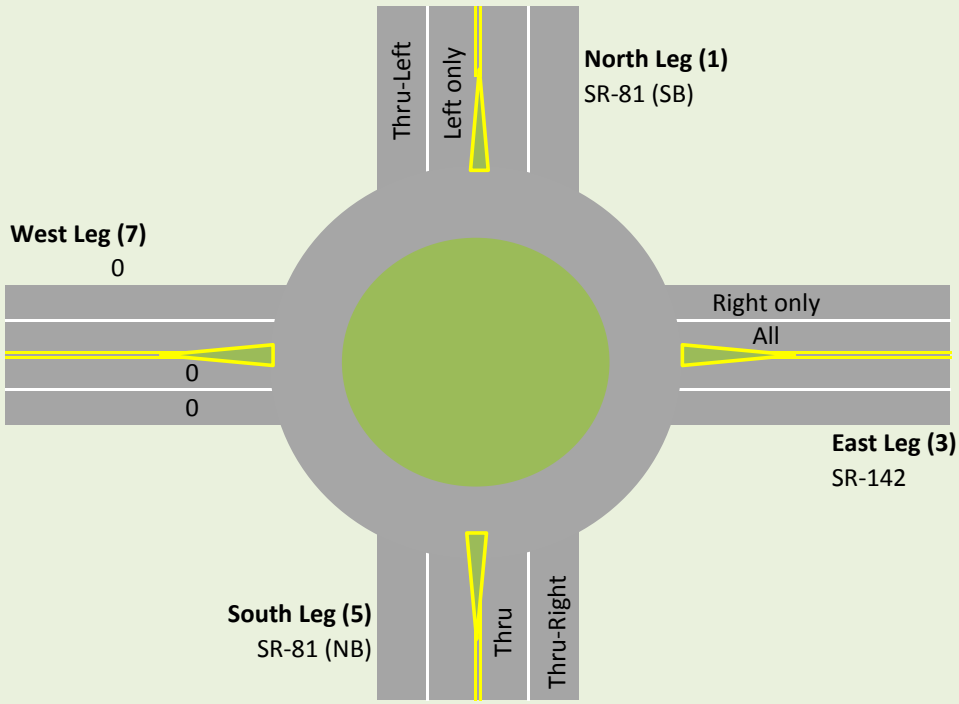
Chart Key:

Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

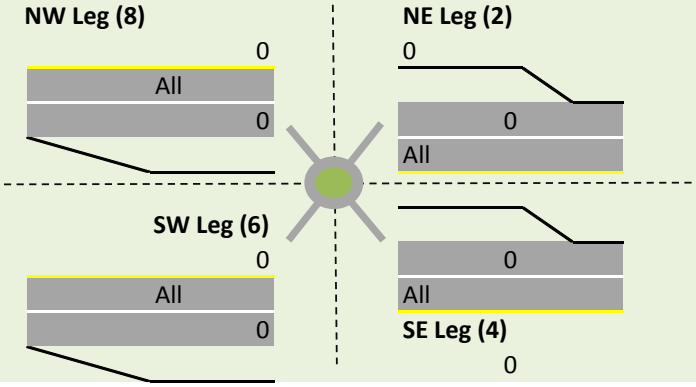
Approach Leg Characteristics:

	North Leg (1)		NE Leg (2)		East Leg (3)		SE Leg (4)	
Street Name:	SR-81 (SB)				SR-142			
Entry Lane Config	Left only	Thru-Left	All		All	Right only	All	
Bypass to Adj Leg?	No		No		No			
	South Leg (5)		SW Leg (6)		West Leg (7)		NW Leg (8)	
Street Name:	SR-81 (NB)							
Entry Lane Config	Thru	Thru-Right	All				All	
Bypass to Adj Leg?	No							

Preliminary Roundabout Rendering**



Additional Legs



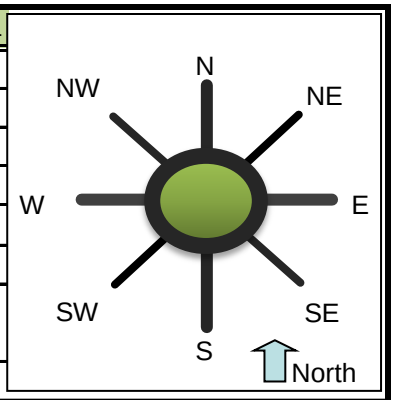
*****Note***

This roundabout sketch does not include the secondary cardinal direction legs due to restrictions in the Excel software. For complex roundabouts, a separate sketch is recommended by the designer.

General & Site Information

v2.1

Analyst:	David A. Fairlie
Agency/Co:	MAAI
Date:	April, 2014
Project or PI#:	0012648
Year, Peak Hour:	2038 AM
County/District:	NEWTON, GA
Intersection Name:	SR-81 @ SR-142



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph			455		280			
Exit	NE (2), vph								
Legs	E (3), vph	915				10			
(TO)	SE (4), vph								
	S (5), vph	425		20					
	SW (6), vph								
	W (7), vph								
	NW (8), vph								
Output	Total Vehicles	1340	0	475	0	290	0	0	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	90%	100%	88%	100%	90%	100%	100%	100%
% Heavy Vehicles	10%	0%	12%	0%	10%	0%	0%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
# of Pedestrians **(ped/hr)**	0	0	0	0	0	0	0	0
PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
F_{HV}	0.909	1.000	0.893	1.000	0.909	1.000	1.000	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	554	0	335	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	1094	0	0	0	12	0	0	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	508	0	24	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	0	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	1602	0	578	0	347	0	0	0
Conflicting flow, pcu/h	24	0	335	0	1094	0	0	0

Roundabout Type	Standard Single Lane or Urban Compact
Enter type here…	Standard Single Lane

Results: Approach Measures of Effectiveness

HCM 2010 Model (build)	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	1003	NA	722	NA	344	NA	NA	NA
Entry Flow Rates, vph	1457	NA	516	NA	315	NA	NA	NA
V/C ratio	**1.45**		**0.72**		**0.92**			
Control Delay, s/veh	**223**		**20**		**65**			
LOS	F		C		F			
95th % Queue (ft)	**1791**		**171**		**254**			
Calibrated Model (future)	**N**	**NE**	**E**	**SE**	**S**	**SW**	**W**	**NW**
Entry Capacity, vph	1188	NA	911	NA	505	NA	NA	NA
Entry Flow Rates, vph	1457	NA	516	NA	315	NA	NA	NA
V/C ratio	**1.35**		**0.64**		**0.69**			
Control Delay, sec/pcu	**176**		**14**		**25**			
LOS	F		B		C			
95th % Queue (ft)	**1691**		**131**		**143**			

Notes: v2.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

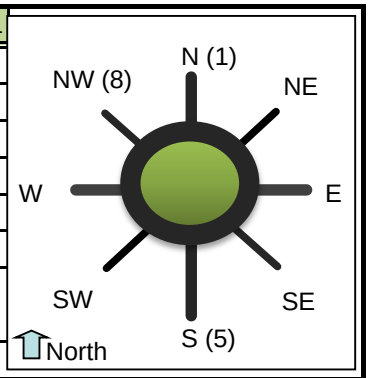
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 2010 Model)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

General & Site Information

v2.1

Analyst:	David A. Fairlie
Agency/Co:	MAAI
Date:	April, 2014
Project or PI#:	0012648
Year, Peak Hour:	2038 AM
County/District:	NEWTON, GA
Intersection:	SR-81 @ SR-142



Volumes

Entry Legs (FROM)

	N1 (1)	N2 (1)	NE1 (2)	NE2 (2)	E1 (3)	E2 (3)	SE1 (4)	SE2 (4)
Lane Designation	**Left Only**	**Left-Thru**	**SELECT**	**SELECT**	**Lf-Th-Rt**	**Right only**	**SELECT**	**SELECT**
N (1), vph					**205**	**250**		
Exit NE (2), vph								
Legs E (3), vph	**710**	**205**						
(TO) SE (4), vph								
S (5), vph		**425**			**20**			
SW (6), vph								
W (7), vph								
NW (8), vph								
Entry Volume, vph	710	630	0	0	225	250	0	0

	S1 (5)	S2 (5)	SW1 (6)	SW2 (6)	W1 (7)	W2 (7)	NW1 (8)	NW2 (8)
Lane Designation	**Thru**	**Right-Thru**	**SELECT**	**SELECT**	**SELECT**	**SELECT**	**SELECT**	**SELECT**
N (1), vph	**135**	**145**						
NE (2), vph								
E (3), vph		**10**						
SE (4), vph								
S (5), vph								
SW (6), vph								
W (7), vph								
NW (8), vph								
Entry Volume, vph	135	155	0	0	0	0	0	0

	N	NE	E	SE	S	SW	W	NW
# of Entry Flow Lanes	2	0	2	0	2	0	0	0
# of Conflict Flow Lanes	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	90%	100%	88%	100%	90%	100%	100%	100%
% Heavy Vehicles	10%	0%	12%	0%	10%	0%	0%	0%
% Bicycles	0%	0%	0%	0%	0%	0%	0%	0%
# of Pedestrians **(ped/hr)**	0	0	0	0	0	0	0	0
PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
F_{hv}	0.909	1.000	0.893	1.000	0.909	1.000	1.000	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows		N	NE	E	SE	S	SW	W	NW
Flow to	N (1), pcu/h	0	0	554	0	335	0	0	0
Leg #	NE (2), pcu/h	0	0	0	0	0	0	0	0
	E (3), pcu/h	1094	0	0	0	12	0	0	0
	SE (4), pcu/h	0	0	0	0	0	0	0	0
	S (5), pcu/h	508	0	24	0	0	0	0	0
	SW (6), pcu/h	0	0	0	0	0	0	0	0
	W (7), pcu/h	0	0	0	0	0	0	0	0
	NW (8), pcu/h	0	0	0	0	0	0	0	0
	Entry flow, pcu/h	1602	0	578	0	347	0	0	0
	Entry flow Lane 1, pcu/h	849	0	274	0	161	0	0	0
	Entry flow Lane 2, pcu/h	753	0	304	0	185	0	0	0
	Conflicting flow, pcu/h	24	0	335	0	1094	0	0	0

Results: Approach Measures of Effectiveness

HCM 2010 Model *(build yr)*	N		E		S		W	
Lane Designations	*Left Only*	*Left-Thru*	*Lf-Th-Rt*	*Right only*	*Thru*	*Right-Thru*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	1009	1010	785	798	452	478	NA	NA
Entry Flow Rates, veh/h	772	685	245	272	147	168	NA	NA
V/C ratio	**0.77**	**0.68**	**0.31**	**0.34**	**0.32**	**0.35**		
Control Delay, s/veh	**18.0**	**14.1**	**8.2**	**8.5**	**13.4**	**13.4**		
LOS	C	B	A	A	B	B		
95th % Queue (ft)	**213**	**153**	**37**	**42**	**38**	**43**		
Approach Delay, LOS	16.2 sec, LOS C		8.4 sec, LOS A		13.4 sec, LOS B			
	NE		**SE**		**SW**		**NW**	
Lane Designations	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
Entry Flow Rates, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
V/C ratio			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Control Delay, sec/pcu			#VALUE!	#VALUE!			#VALUE!	#VALUE!
LOS			#VALUE!	#VALUE!			#VALUE!	#VALUE!
95th % Queue (ft)			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Approach Delay, LOS			#VALUE!				#VALUE!	

Calibrated Model *(future yr)*	N		E		S		W	
Lane Designations	*Left Only*	*Left-Thru*	*Lf-Th-Rt*	*Right only*	*Thru*	*Right-Thru*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	1455	1459	1048	1083	499	557	NA	NA
Entry Flow Rates, veh/h	772	685	245	272	147	168	NA	NA
V/C ratio	**0.53**	**0.47**	**0.23**	**0.25**	**0.29**	**0.30**		
Control Delay, s/veh	**7.9**	**7.0**	**5.6**	**5.7**	**11.7**	**10.8**		
LOS	A	A	A	A	B	B		
95th % Queue (ft)	**90**	**71**	**25**	**28**	**33**	**35**		
Approach Delay, LOS	7.5 sec, LOS A		5.7 sec, LOS A		11.2 sec, LOS B			
	NE		**SE**		**SW**		**NW**	
Lane Designations	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
Entry Flow Rates, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
V/C ratio			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Control Delay, sec/pcu			#VALUE!	#VALUE!			#VALUE!	#VALUE!
LOS			#VALUE!	#VALUE!			#VALUE!	#VALUE!
95th % Queue (ft)			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Approach Delay, LOS			#N/A				#N/A	

v2.1

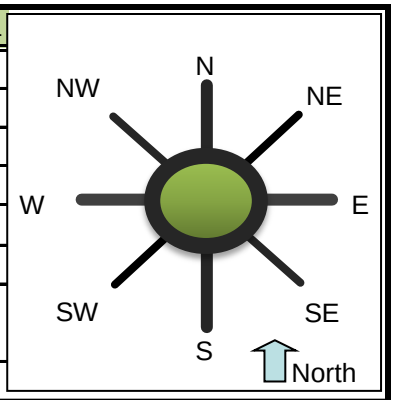
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
# of Conflicting Exit Flow Lanes	**2**	**2**	**2**	**2**	**2**	**2**
Volumes						
Entry Leg: Insert Right Turn Volume						
Exit Leg: ***(Select Input Method)***						
*Lane Flow in Exit Leg****						
Sum of inner circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
Sum of outer circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
*Critical Lane Flow (Manual) in Exit Leg****						
Volume Characteristics						
PHF (Entry Leg)						
F_{HV} (Entry Leg)						
F_{ped}						
PHF (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
F_{HV} (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
Volume Characteristics are already taken into account for Default method ONLY. Insert Values above if Manual method.						
Entry/Conflicting Flows						
Entry Flow						
Conflicting Critical Flow						
Bypass Lane Results						
Entry Capacity of Bypass, veh/h						
Flow Rates of Exiting Traffic, veh/h						
V/C ratio						
Control Delay, sec/pcu						
LOS						
95th % Queue (ft)						

General & Site Information

v2.1

Analyst:	David A. Fairlie
Agency/Co:	MAAI
Date:	April, 2014
Project or PI#:	0012648
Year, Peak Hour:	2038 PM
County/District:	NEWTON, GA
Intersection Name:	SR-81 @ SR-142



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph								
	NE (2), vph								
	E (3), vph								
	SE (4), vph								
	S (5), vph								
	SW (6), vph								
	W (7), vph								
	NW (8), vph								
Output	Total Vehicles	0	0	0	0	0	0	0	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	100%	100%	100%	100%	100%	100%	100%	100%
% Heavy Vehicles	0%	0%	0%	0%	0%	0%	0%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
# of Pedestrians **(ped/hr)**	0	0	0	0	0	0	0	0
PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
F_{HV}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	0	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	0	0	0	0	0	0	0	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	0	0	0	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	0	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	0	0	0	0	0	0	0	0
Conflicting flow, pcu/h	0	0	0	0	0	0	0	0

Roundabout Type	Standard Single Lane or Urban Compact
Enter type here…	Standard Single Lane

Results: Approach Measures of Effectiveness

HCM 2010 Model (build)	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	NA	NA	NA	NA	NA	NA	NA	NA
Entry Flow Rates, vph	NA	NA	NA	NA	NA	NA	NA	NA
V/C ratio								
Control Delay, s/veh								
LOS								
95th % Queue (ft)								
Calibrated Model (future)	**N**	**NE**	**E**	**SE**	**S**	**SW**	**W**	**NW**
Entry Capacity, vph	NA	NA	NA	NA	NA	NA	NA	NA
Entry Flow Rates, vph	NA	NA	NA	NA	NA	NA	NA	NA
V/C ratio								
Control Delay, sec/pcu								
LOS								
95th % Queue (ft)								

Notes: v2.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

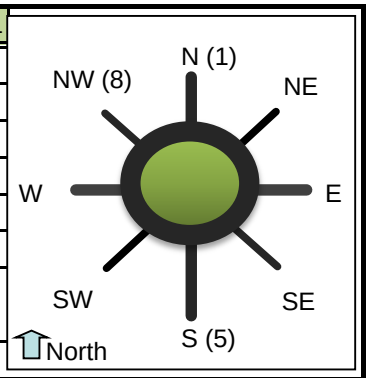
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 2010 Model)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

General & Site Information

v2.1

Analyst:	David A. Fairlie
Agency/Co:	MAAI
Date:	April, 2014
Project or PI#:	0012648
Year, Peak Hour:	2038 PM
County/District:	NEWTON, GA
Intersection:	SR-81 @ SR-142



Volumes

Entry Legs (FROM)

	N1 (1)	N2 (1)	NE1 (2)	NE2 (2)	E1 (3)	E2 (3)	SE1 (4)	SE2 (4)
Lane Designation	**Left Only**	**Left-Thru**	**SELECT**	**SELECT**	**Lf-Th-Rt**	**Right only**	**SELECT**	**SELECT**
N (1), vph					**410**	**475**		
Exit NE (2), vph								
Legs E (3), vph	**635**							
(TO) SE (4), vph								
S (5), vph		**570**			**10**			
SW (6), vph								
W (7), vph								
NW (8), vph								
Entry Volume, vph	635	570	0	0	420	475	0	0

	S1 (5)	S2 (5)	SW1 (6)	SW2 (6)	W1 (7)	W2 (7)	NW1 (8)	NW2 (8)
Lane Designation	**Thru**	**Right-Thru**	**SELECT**	**SELECT**	**SELECT**	**SELECT**	**SELECT**	**SELECT**
N (1), vph	**260**	**280**						
NE (2), vph								
E (3), vph		**10**						
SE (4), vph								
S (5), vph								
SW (6), vph								
W (7), vph								
NW (8), vph								
Entry Volume, vph	260	290	0	0	0	0	0	0

	N	NE	E	SE	S	SW	W	NW
# of Entry Flow Lanes	2	0	2	0	2	0	0	0
# of Conflict Flow Lanes	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	90%	100%	88%	100%	90%	100%	100%	100%
% Heavy Vehicles	10%	0%	12%	0%	10%	0%	0%	0%
% Bicycles	0%	0%	0%	0%	0%	0%	0%	0%
# of Pedestrians **(ped/hr)**	0	0	0	0	0	0	0	0
PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
F_{hv}	0.909	1.000	0.893	1.000	0.909	1.000	1.000	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows		N	NE	E	SE	S	SW	W	NW
Flow to	N (1), pcu/h	0	0	1077	0	646	0	0	0
Leg #	NE (2), pcu/h	0	0	0	0	0	0	0	0
	E (3), pcu/h	759	0	0	0	12	0	0	0
	SE (4), pcu/h	0	0	0	0	0	0	0	0
	S (5), pcu/h	682	0	12	0	0	0	0	0
	SW (6), pcu/h	0	0	0	0	0	0	0	0
	W (7), pcu/h	0	0	0	0	0	0	0	0
	NW (8), pcu/h	0	0	0	0	0	0	0	0
	Entry flow, pcu/h	1441	0	1090	0	658	0	0	0
	Entry flow Lane 1, pcu/h	759	0	511	0	311	0	0	0
	Entry flow Lane 2, pcu/h	682	0	578	0	347	0	0	0
	Conflicting flow, pcu/h	12	0	646	0	759	0	0	0

Results: Approach Measures of Effectiveness

HCM 2010 Model *(build yr)*	N		E		S		W	
Lane Designations	*Left Only*	*Left-Thru*	*Lf-Th-Rt*	*Right only*	*Thru*	*Right-Thru*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	1018	1019	622	642	581	604	NA	NA
Entry Flow Rates, veh/h	690	620	457	516	283	315	NA	NA
V/C ratio	**0.68**	**0.61**	**0.73**	**0.80**	**0.49**	**0.52**		
Control Delay, s/veh	**14.0**	**11.9**	**23.8**	**28.6**	**14.3**	**14.9**		
LOS	B	B	C	D	B	B		
95th % Queue (ft)	**153**	**118**	**178**	**227**	**73**	**83**		
Approach Delay, LOS	13 sec, LOS B		26.3 sec, LOS D		14.6 sec, LOS B			
	NE		**SE**		**SW**		**NW**	
Lane Designations	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
Entry Flow Rates, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
V/C ratio			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Control Delay, sec/pcu			#VALUE!	#VALUE!			#VALUE!	#VALUE!
LOS			#VALUE!	#VALUE!			#VALUE!	#VALUE!
95th % Queue (ft)			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Approach Delay, LOS			#VALUE!				#VALUE!	

Calibrated Model *(future yr)*	N		E		S		W	
Lane Designations	*Left Only*	*Left-Thru*	*Lf-Th-Rt*	*Right only*	*Thru*	*Right-Thru*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	1473	1475	768	819	698	753	NA	NA
Entry Flow Rates, veh/h	690	620	457	516	283	315	NA	NA
V/C ratio	**0.47**	**0.42**	**0.59**	**0.63**	**0.41**	**0.42**		
Control Delay, s/veh	**6.9**	**6.3**	**14.3**	**14.7**	**10.7**	**10.3**		
LOS	A	A	B	B	B	B		
95th % Queue (ft)	**71**	**59**	**112**	**128**	**54**	**57**		
Approach Delay, LOS	6.6 sec, LOS A		14.5 sec, LOS B		10.5 sec, LOS B			
	NE		**SE**		**SW**		**NW**	
Lane Designations	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*	*Lane 1*	*Lane 2*
Entry Capacity, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
Entry Flow Rates, veh/h	NA	NA	NA	NA	NA	NA	NA	NA
V/C ratio			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Control Delay, sec/pcu			#VALUE!	#VALUE!			#VALUE!	#VALUE!
LOS			#VALUE!	#VALUE!			#VALUE!	#VALUE!
95th % Queue (ft)			#VALUE!	#VALUE!			#VALUE!	#VALUE!
Approach Delay, LOS			#N/A				#N/A	

v2.1

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
# of Conflicting Exit Flow Lanes	**2**	**2**	**2**	**2**	**2**	**2**
Volumes						
Entry Leg: Insert Right Turn Volume						
Exit Leg: ***(Select Input Method)***						
*Lane Flow in Exit Leg****						
Sum of inner circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
Sum of outer circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
*Critical Lane Flow (Manual) in Exit Leg****						
Volume Characteristics						
PHF (Entry Leg)						
F_{HV} (Entry Leg)						
F_{ped}						
PHF (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
F_{HV} (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
Volume Characteristics are already taken into account for Default method ONLY. Insert Values above if Manual method.						
Entry/Conflicting Flows						
Entry Flow						
Conflicting Critical Flow						
Bypass Lane Results						
Entry Capacity of Bypass, veh/h						
Flow Rates of Exiting Traffic, veh/h						
V/C ratio						
Control Delay, sec/pcu						
LOS						
95th % Queue (ft)						

Attachment 9
Meeting Minutes

Moreland Altobelli Associates, Inc.
2211 Beaver Ruin Road, Suite 190
Norcross, Georgia 30071
Phone: 770-263-5945 Fax: 770-263-0166

MEETING MINUTES

Project:	**Crowell Rd. @ Brown Bridge Rd., PI #0012645**
	SR 81 @ SR 142, PI #0012648
Meeting:	**Concept Team Meeting**
Location:	**Newton County Administrative Bldg 2nd Floor Conference Room**
Prepared By:	Will Sheehan
Prepared On:	July 1, 2014

Meeting Date	6/16/2014
MA Project No.	NEWT016 & NEWT017
CC:	File NEWT016 File NEWT017

ATTENDEES	ORGANIZATION	EMAIL
Tom Garrett	Newton County (Engineering)	tgarrett@co.newton.ga.us
Chester Clegg	Newton County (Engineering)	cclegg@co.newton.ga.us
George Brewer	GDOT	gbrewer@dot.ga.gov
Bessie Reina	GDOT	breina@dot.ga.gov
Kedrick Collins	GDOT	kecollins@dot.ga.gov
Aaron Burgess	GDOT	aburgess@dot.ga.gov
Bobby Dollar	GDOT	rdollar@dot.ga.gov
Winton Ward	GDOT	wward@dot.ga.gov
Robert Simpson	GDOT	rosimpson@dot.ga.gov
Will Sheehan	MAAI	wsheehan@maai.net

The purpose of this meeting was to discuss the Concept Report(s) for the above referenced projects prior to distribution of the reports at GDOT. MA provided aerial layouts of the existing intersections along with printouts of the concepts as visual aids. The key points of the meeting are summarized below.

PI #0012645 – Crowell Rd. at Brown Bridge Rd.

- GDOT staff commented that the intersection angle should be verified and documented in the Concept Report. It is noted on page 3, paragraph 2 that the intersection skew angle is approximately 65 degrees; this will require a design variance which will need to be noted accordingly in the Concept Report. No improvements to the intersection angle will be proposed under this project as it is outside of the scope. However, modifications to the channelizing island in the northwest quadrant to better accommodate left turning movements are proposed.

- In addition to extending the left turn lane along Brown Bridge Rd., the signal will be modified to include left-turn arrows and loop detectors on all four approaches; this needs to be documented in Concept Report.

- An inquiry was made as to whether the concept cost estimate included quantities for overlaying the four approaches when the loop detectors are installed. It has been determined that these overlay quantities were not included and would need to be added to the cost estimate.

- Regarding the Utility Public Interest Determination Policy and Procedures, GDOT staff noted that the GDOT PM would coordinate with the District Utility Engineer to determine if these measures are recommended for this project.

- GDOT environmental/planning staff commented that the Carbon Monoxide hotspot analysis status would need to be verified and that this issue could affect the project's PCE status. MA discussed this with their planning staff and verified that the analysis would not be required as the project would reduce delay and improve operations at the intersection to a LOS C.

- *There was further email discussion on this issue after the meeting. GDOT Environmental staff indicated that the CO analysis is based on the current LOS – not the future design traffic year. MA responded that the current LOS is B, which would still not require the CO analysis. The cutoff is LOS D or worse to do the analysis.*

- The MS4 status of the project was discussed. Newton County is an MS4 area; however, the project is proposing to add less than 5,000 SF of impervious area so it should be exempt from MS4 criteria. Meeting attendees agreed.

- There is a gas station in the northwest quadrant of the intersection that may require some UST documentation although no Right-of-Way or easements are proposed on this project.

- Meeting attendees commented that the funding responsibility for Right-of-Way Acquisition and Environmental Mitigation would need to be changed in the report from GDOT to Newton County. Although no Right-of-Way Acquisition or Mitigation is anticipated for this project.

- There was a brief discussion on the Utility Cost shown in the report. This estimate was pulled from the Preconstruction Status Report.

- A comment was made that the PI number shown in the report header was missing the "6" and needs to be corrected.

<u>PI #0012648 – SR 81 at SR 142</u>

- There was a discussion regarding the proposed radius for the curve between SR 142 and the north leg of SR 81. The roadway is posted for 55 mph, but this curve only meets a 45 mph speed design. The Concept Report states that the speed limit would be lowered on this curve and advance warning signs would be placed at each approach. After further discussions, it has been decided that a better approach would be to pursue a design exception for this curve. Once/if the design variance is approved, the roadway may retain its posted 55 mph speed limit.

- The above curve radius discussion needs to be described in the Design Exception section of the report.

- Signing for SR 81 and 142 through the intersection was discussed briefly. Northbound on SR 142, a sign would be placed at the new intersection location indicating "End SR 142" and another sign would indicate SR 81 SB to the left and SR 81 NB straight ahead. Likewise, on the southbound SR 81 approach, a sign would be placed indicating "Begin SR 142" and another sign would indicate to make a right turn to stay on SR 81 southbound.

- Regarding the Utility Public Interest Determination Policy and Procedures, GDOT staff noted that the GDOT PM would coordinate with the District Utility Engineer to determine if these measures are recommended for this project.

- The MS4 status of the project was discussed. Newton County is an MS4 area; however, the project is proposing to add less than 5,000 SF of impervious area so it should be exempt from MS4 criteria. Meeting attendees agreed.

- There is a gas station located within the limits of this project. Right-of-Way and easements are proposed from this property and UST documentation is anticipated.

- Meeting attendees commented that the funding responsibility for Right-of-Way Acquisition and Environmental Mitigation would need to be changed in the report from GDOT to Newton County. No Right-of-Way Acquisition or Mitigation is anticipated for this project.

- There was a brief discussion on the Utility Cost shown in the report. This estimate was pulled from the Preconstruction Status Report; however, it was listed erroneously in the report and needs to be corrected.

- A comment was made that the PI number shown in the report header was missing the "6" and needs to be corrected.

Moreland Altobelli Associates, Inc.
2211 Beaver Ruin Road, Suite 190
Norcross, Georgia 30071
Phone: 770-263-5945 Fax: 770-263-0166

ACTION ITEMS

- Update Concept Report based on above content.
- GDOT PM to coordinate with GDOT District Utilities regarding the Public Interest Determination Policy.

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Norcross, Georgia 30071
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MEETING MINUTES

Project:	**Crowell Rd. @ Brown Bridge Rd., PI #0012645**
	SR 81 @ SR 142, PI #0012648
Meeting:	**Kickoff Meeting**
Location:	**Newton County Transportation Dep't. Conference Room**
Prepared By:	Will Sheehan
Prepared On:	December 2, 2013

Meeting Date	12/2/2013
MA Project No.	NEWT016 & NEWT017
CC:	File NEWT016
	File NEWT017

ATTENDEES	ORGANIZATION	EMAIL
Keith Ellis	Newton County (Commissioner)	kellis@co.newton.ga.us
Tom Garrett	Newton County (Engineering)	tgarrett@co.newton.ga.us
Chester Clegg	Newton County (Engineering)	cclegg@co.newton.ga.us
George Brewer	GDOT	gbrewer@dot.ga.gov
Daniel Chastain	GDOT	dchastain@dot.ga.gov
Buddy Gratton	MAAI	bgratton@maai.net
Will Sheehan	MAAI	wsheehan@maai.net

The purpose of this meeting was to kick off the above-referenced intersection improvement projects in Newton County. MA provided aerial layouts of the existing intersections along with printouts of some "preliminary" concepts as visual aids. The key points of the meeting are summarized below.

- MA will bill Newton County. Newton County will pay invoice and seek reimbursement from GDOT. If there are any large sum invoices (not anticipated given engineering budget), Newton County may have to wait to pay MA until funds are received from GDOT.

- Project will be designed in InRoads; this is specified in PFA according to GDOT personnel.

- MA will keep Mr. Chastain and/or Mr. Brewer in the loop on any submittals to Office of Environmental Services (OES), so that they may work on their end to facilitate prompt reviews.

- Schedules for each project were provided by both MA & GDOT. The schedules were similar, but the meeting consensus was to go with the slightly more aggressive MA schedule. Other notes on schedule are listed below.

  - The schedules for each project will be the same all the way through the first plan review.

  - For the simpler project (Crowell @ Brown Bridge), MA will make a request to GDOT that only one field plan review be held. GDOT personnel did not see any problems with doing that. They suggested the possibility of an email review.

  - Official GDOT Concept Meeting will be held in February.

  - GDOT personnel mentioned that PI #0012645 CST funds and PI #0012648 ROW funds had recently been moved out from FY 2016 to 2017 and from FY 2015 to 2016, respectively. The MA schedule met the previous targets. The meeting consensus was that the funds could be moved up or the plans could be shelved (if only for a few months). The final decision was deferred to a later date.

- The level of NEPA document is anticipated to be a PCE for the Crowell / Brown Bridge intersection and a CE for SR 81 / SR 142.

- Right-of-way is anticipated on SR 81 / SR 142, but not at Crowell / Brown Bridge.

- MA presented the "preliminary" concepts for SR 81 at SR 142 that had been developed by Atkins. The concepts are described below.

  - "Concept 1" consists of reconfiguring the existing intersection so that the southern leg of SR 81 tees into a re-aligned SR 81 / SR 142 curve; this would allow the more heavily travelled movement to be continuous (no stop), while putting the stop condition on the lesser movement.

  - "Concept 2" would re-align SR 142 to intersect SR 81 at 90 degrees and would add a traffic signal and turn lanes.

  - Additionally, the possibility of a roundabout was discussed. The traffic volumes on each of the 3 legs are close enough that a roundabout cannot be ruled out at this point.

  The meeting consensus was that "Concept 1" and the roundabout were probably the best options to evaluate in the Concept Report subject to the traffic analysis. Ultimately, the preferred alternative would be selected based on a variety of factors including but not limited to cost, traffic operations, right-of-way impacts, and Newton County preference.

  Newton County pointed out that truck traffic should be considered as SR 142, also called Industrial Park Blvd., leads to industrial area so there is frequent truck traffic. Another consideration is encouraging truck traffic to use SR 142 instead of SR 81 to reach I-20, thereby bypassing downtown Oxford. MA noted that "Concept 1" would handle the truck traffic more effectively than a roundabout.

- MA also presented the "preliminary" concept for Crowell Rd. at Brown Bridge Rd. This concept consisted of extension of a left-turn lane, traffic signal upgrades, and minor improvements to allow for adequate truck movements.

  - Newton County pointed out that there is a "dirt" area along Brown Bridge Rd. where the trucks had worn a path on the shoulder due to insufficient pavement width to perform left-turns. MA stated that they would overlay a truck turning template and propose modifications to allow for a proper turning movement.

- MA does not anticipate any environmental issues on either project. A thorough environmental screening will occur, but as of now, the environmental work consists simply of viewing the area on Google Earth.

  - There is a gas station within the project limits of the SR 81 / SR 142 Project. All efforts will be made not to impact gas station in order to avoid UST investigation.

  - There is also a residential property along SR 81 that the MA historian would like to take a closer look at in the field to determine if it is contributing. Even if it is contributing, it is anticipated that adverse impacts could be avoided.

<u>ACTION ITEMS</u>
- MA to schedule traffic counts and submit traffic data to GDOT.
- GDOT to update baseline schedule to match MA's.

Attachment 10
Signed Agreements

AGREEMENT

BETWEEN

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

AND

NEWTON COUNTY

FOR

TRANSPORTATION FACILITY IMPROVEMENTS

This Framework Agreement is made and entered into this _____ day of _____, 20___, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and **NEWTON COUNTY,** acting by and through its Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain portions of the PROJECT 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; and

WHEREAS, the DEPARTMENT has provided an estimated cost to the LOCAL GOVERNMENT for its participation in certain activities of the PROJECT; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another "for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide." Ga. Constitution Article IX, §III, ¶I(a).

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

1. The LOCAL GOVERNMENT has applied for and received "Qualification Certification" to administer federal-aid projects. The GDOT Local Administered Project (LAP) Certification Committee has reviewed, confirmed and approved the certification for the LOCAL GOVERNMENT to develop federal project(s) within the scope of its certification using the DEPARTMENT'S Local Administered Project Manual procedures. The LOCAL GOVERNMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities,

hereinafter referred to as "PE", all reimburseable utility relocations, all non-reimburseable utilities owned by the LOCAL GOVERNMENT, railroad costs, right of way acquisitions and construction, as specified in Attachment A, affixed hereto and incorporated herein by reference. In addition, the September 17, 2010 Planning Office memorandum titled "Preliminary Engineering Oversight for Project Managers/Project Delivery Staff", outlines the five (5) conditions when the LOCAL GOVERNMENT will be requested to fund the PE oversight activities at 100%. Attached as Attachment "C" and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT prior to the execution of this AGREEMENT or subsequent funding agreements shall not be considered for reimbursement by the DEPARTMENT. PE expenditures incurred by the LOCAL GOVERNMENT after execution of this AGREEMENT shall be reimbursed by the DEPARTMENT once a written notice to proceed is given by the DEPARTMENT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the PE, right of way acquisitions, reimbursable utility relocations, railroad costs, or construction (specified in Attachment A) affixed hereto and incorporated herein by reference, and none of the five (5) conditions apply from the Planning Office memorandum dated September 17, 2010 (specified in Attachment C).

3. The DEPARTMENT shall provide a PE Oversight Estimate to the LOCAL GOVERNMENT, if appropriate, appended as Attachment "D" and incorporated by reference as if fully set out herein. The LOCAL GOVERNMENT will be responsible for

providing payment, which represents100% of the DEPARTMENT's PE Oversight Estimate at the time of the Project Framework Agreement execution.

If at any time the PE Oversight funds are depleted within $5,000 of the remaining PE Oversight balance and project activities and tasks are still outstanding, the LOCAL GOVERNMENT shall, upon request, make additional payment to the DEPARTMENT. The payment shall be determined by prorating the percentage complete and using the same estimate methodology as provided in Attachment "D". If there is an unused balance after completion of all tasks and phases of the project, then pending a final audit, the remainder will be refunded to the sponsor.

4. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the PE. The Right of Way and Construction funding estimate levels as specified in Attachment "A" are provided herein for planning purposes and do not constitute a funding commitment for right of way and construction. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for funding applicable to other activities when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds if the PROJECT does not proceed forward to completion due to a lack of available funding in future PROJECT phases, changes in local priorities or

cancellation of the PROJECT by the LOCAL GOVERNMENT without concurrence by the DEPARTMENT.

5. In accordance with Georgia Code 32-2-2, The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance and operations of any and all sidewalks and the grass strip between the curb and sidewalk within the PROJECT limits. The LOCAL GOVERNMENT shall also be responsible for the continual maintenance and operation of all lighting systems installed to illuminate any roundabouts constructed as part of this PROJECT. Furthermore, the LOCAL GOVERNMENT shall also be responsible for the maintaining of all landscaping installed as part of any roundabout constructed as part of this PROJECT.

6. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program, hereinafter referred to as "TIP/STIP". Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment B and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the PROJECT's implementation until funds can be re-identified for right of way or construction phases, as applicable.

7. The LOCAL GOVERNMENT shall certify that the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, and FEDERAL AUDIT REQUIREMENTS" are understood and will comply in full with said provisions.

8. The LOCAL GOVERNMENT shall accomplish the PE activities for the PROJECT. The PE activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process hereinafter referred to as "PDP", 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, and all applicable design guidelines and policies of the DEPARTMENT to produce a cost effective PROJECT. Failure to follow the PDP and all applicable guidelines and policies will jeopardize the use of Federal Funds in some or all categories outlined in this agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. The LOCAL GOVERNMENT's responsibility for PE activities shall include, but is not limited to the following items:

a. Prepare the PROJECT Concept Report and Design Data Book 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 LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be updated or modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of PE due to updated guidelines, public input, environmental requirements, Value Engineering recommendations, Public Interest Determination (PID) for utilities, utility/railroad conflicts, or right of way considerations.

b. Prepare a Traffic Study for the PROJECT that includes Average Daily Traffic, hereinafter referred to as "ADT", volumes for the base year (year the PROJECT is expected to be open to traffic) and design year (base year plus 20 years) along with Design Hour Volumes, hereinafter referred to as "DHV", for the design year. DHV includes morning (AM) and evening (PM) peaks and other significant peak times. The Study shall show all through and turning movement volumes at intersections for the ADT and DHV volumes and shall indicate the percentage of trucks on the facility. The Study shall also include signal warrant evaluations for any additional proposed signals on the PROJECT.

c. Prepare environmental studies, documentation reports and complete Environmental Document for the PROJECT along with all environmental re-

evaluations required that show the PROJECT is in compliance with the provisions of the National Environmental Policy Act or the Georgia Environmental Policy Act as per the DEPARTMENT's Environmental Procedures Manual, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, community involvement, environmental justice, flood plains, underground storage tanks, and hazardous waste site studies required. The completed Environmental Document approval shall occur prior to Right of Way funding authorization. A re-evaluation is required for any design change as described in Chapter 7 of the Environmental Procedures Manual. In addition, a re-evaluation document approval shall occur prior to any Federal funding authorizations if the latest approved document is more than 6 months old. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all studies, documents and reports for review and approval by the DEPARTMENT, the FHWA and other environmental resource agencies. The LOCAL GOVERNMENT shall provide Environmental staff to attend all PROJECT related meetings where Environmental issues are discussed. Meetings include, but are not limited to, concept, field plan reviews and value engineering studies.

d. Prepare all PROJECT public hearing and public information displays and conduct all required public hearings and public information meetings with appropriate staff in accordance with DEPARTMENT practice.

e. Perform all surveys, mapping, soil investigations and pavement evaluations needed for design of the PROJECT as per the appropriate DEPARTMENT Manual.

f. Perform all work required to obtain all applicable PROJECT permits, including, but not limited to, Cemetery, TVA and US Army Corps of Engineers permits, Stream Buffer Variances and Federal Emergency Management Agency (FEMA) approvals. The LOCAL GOVERNMENT shall provide all mitigation required for the project, including but not limited to permit related mitigation. All mitigation costs are considered PE costs. PROJECT permits and non-construction related mitigation must be obtained and completed 3 months prior to the scheduled let date. These efforts shall be coordinated with the DEPARTMENT.

g. Prepare the storm water drainage design for the PROJECT and any required hydraulic studies for FEMA Floodways within the PROJECT limits. Acquire of all necessary permits associated with the Hydrology Study or drainage design.

h. Prepare utility relocation plans for the PROJECT following the DEPARTMENT's policies and procedures for identification, coordination and conflict resolution of existing and proposed utility facilities on the PROJECT. These policies and procedures, in part, require the Local Government to submit all requests for existing, proposed, and relocated facilities to each utility owner within the project area. Copies of all such correspondence, including executed agreements for reimbursable utility/railroad relocations, shall be forwarded to the DEPARTMENT's Project Manager and the District Utilities Engineer and require that any conflicts with the PROJECT be resolved by the LOCAL GOVERNMENT. If it is determined that the PROJECT is located on an on-system route or is a DEPARTMENT LET PROJECT, the LOCAL GOVERNMENT and the District Utilities Engineer shall ensure that permit applications are approved for each utility company in conflict with

the project. If it is determined through the DEPARTMENT's Project Manager and State Utilities Office during the concept or design phases the need to utilize Overhead/Subsurface Utility Engineering, hereinafter referred to as "SUE", to obtain the existing utilities, the LOCAL GOVERNMENT shall be responsible for acquiring those services. SUE costs are considered PE costs.

i. Prepare, in English units, Preliminary Construction plans, Right of Way plans and Final Construction plans that include the appropriate sections listed in the Plan Presentation Guide, hereinafter referred to as "PPG", for all phases of the PDP. All drafting and design work performed on the project shall be done utilizing Microstation V8i and InRoads software respectively using the DEPARTMENT's Electronic Data Guidelines. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the final right of way plans and construction plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to acquire the right of way and construct the PROJECT.

j. Prepare PROJECT cost estimates for construction, Right of Way and Utility/railroad relocation along with a Benefit Cost, hereinafter referred to as "B/C ratio" at the following project stages: Concept, Preliminary Field Plan Review, Right of Way plan approval (Right of Way cost only), Final Field Plan Review and Final Plan submission using the applicable method approved by the DEPARTMENT. The cost estimates and B/C ratio shall also be updated annually if the noted project stages occur at a longer frequency. Failure of the LOCAL GOVERNMENT to provide timely and accurate cost estimates and B/C ratio may delay the PROJECT's

implementation until additional funds can be identified for right of way or construction, as applicable.

k. Provide certification, by a Georgia Registered Professional Engineer, that the Design and Construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT Design Policies.

l. Provide certification, by a Level II Certified Design Professional that the Erosion Control Plans have been prepared under the guidance of the certified professional in accordance with the current Georgia National Pollutant Discharge Elimination System.

m. Provide a written certification that all appropriate staff (employees and consultants) involved in the PROJECT have attended or are scheduled to attend the Department's PDP Training Course. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

9. The Primary Consultant firm or subconsultants hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. The LOCAL GOVERNMENT shall comply with all applicable state and federal regulations for the procurement of design services and in accordance

with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act, for any consultant hired to perform work on the PROJECT.

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

11. The LOCAL GOVERNMENT 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 LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the hydraulic and hydrological studies and the design of the bridge(s). The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

12. The LOCAL GOVERNMENT unless otherwise noted in attachment "A" shall be responsible for funding all LOCAL GOVERNMENT owned utility relocations and all other reimbursable utility/railroad costs. The utility costs shall include but are not limited to PE, easement acquisition, and construction activities necessary for the utility/railroad to accommodate the PROJECT. The terms for any such reimbursable relocations shall be laid out in an agreement that is supported by plans, specifications, and itemized costs of the work agreed upon and shall be executed prior to certification by the

DEPARTMENT. The LOCAL GOVERNMENT shall certify via written letter to the DEPARTMENT's Project Manager and District Utilities Engineer that all Utility owners' exsiting and proposed facilities are shown on the plans with no conflicts 3 months prior to advertising the PROJECT for bids and that any required agreements for reimbursable utility/railroad costs have been fully executed. Further, this certification letter shall state that the LOCAL GOVERNMENT understands that it is responsible for the costs of any additional reimbursable utility/railroad confilcts that arise during construction.

13. The DEPARTMENT will be responsible for all railroad coordination on DEPARTMENT Let and/or State Route (On-System) projects; the LOCAL GOVERNMENT shall address concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT. If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A" on off-system routes, the LOCAL GOVERNMENT shall be responsible for all railroad coordination and addressing concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT for PROJECT.

14. The LOCAL GOVERNMENT shall be responsible for acquiring a Value Engineering Consultant for the DEPARTMENT to conduct a Value Engineering Study if the total estimated PROJECT cost is $10 million or more. The Value Engineering Study cost is considered a PE cost. The LOCAL GOVERNMENT shall provide project related design data and plans to be evaluated in the study along with appropriate staff to present and answer questions about the PROJECT to the study team. The LOCAL

GOVERNMENT shall provide responses to the study recommendations indicating whether they will be implemented or not. If not, a valid response for not implementing shall be provided. Total project costs include PE, right of way, and construction, reimbursable utility/railroad costs.

15. The LOCAL GOVERNMENT, unless shown otherwise on Attachment A, shall acquire the Right of way 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. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way

costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. The LOCAL GOVERNMENT shall certify that all required right of way is obtained and cleared of obstructions, including underground storage tanks, 3 months prior to advertising the PROJECT for bids.

16. The DEPARTMENT unless otherwise shown in Attachment "A" shall be responsible for Letting the PROJECT to construction, solely responsible for executing any agreements with all applicable utility/railroad companies and securing and awarding the construction contract for the PROJECT when the following items have been completed and submitted by the LOCAL GOVERNMENT:

a. Submittal of acceptable PROJECT PE activity deliverables noted in this agreement.
b. Certification that all needed rights of way have been obtained and cleared of obstructions.
c. Certification that the environmental document is current and all needed permits and mitigation for the PROJECT have been obtained.
d. Certification that all Utility/Railroad facilities, existing and proposed, within the PROJECT limits are shown, any conflicts have been resolved and reimbursable agreements, if applicable, are executed.

If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A", the LOCAL GOVERNMENT shall provide the above deliverables and certifications and

shall follow the requirements stated in Chapters 10, 11, 12 and 13 of the DEPARTMENT"s Local Administered Project Manual. The LOCAL GOVERNMENT shall be responsible for providing qualified construction oversight with their personnel or by employing a Consultant firm prequalified in Area Class 8.01 to perform construction oversight. The LOCAL GOVERNMENT shall be responsible for employing a GDOT prequalified consultant in area classes 6.04a and 6.04b for all materials testing on the PROJECT, with the exception of field concrete testing. All materials testing, including field concrete testing shall be performed by GDOT certified technicians who are certified for the specific testing they are performing on the PROJECT. The testing firm(s) and the individual technicians must be submitted for approval prior to Construction.

17. The LOCAL GOVERNMENT shall provide a review and recommendation by the engineer of record concerning all shop drawings prior to the DEPARTMENT review and approval. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. 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 LOCAL GOVERNMENT.

19. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all reports, designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the reports, designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors, omissions or deficiencies within 30 days of notification shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays and supplemental agreements caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT 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 LOCAL GOVERNMENT pursuant to this Agreement.

20. The DEPARTMENT shall be furnished with a copy of all contracts and agreements between the LOCAL GOVERNMENT and any other agency or contractor associated with construction activities. The DEPARTMENT's Project Manager shall be the primary point of contact unless otherwise specified.

21. The LOCAL GOVERNMENT shall provide the DEPARTMENT with a detailed project schedule that reflects milestones, deliverables with durations for all pertinent activities to develop critical path elements. An electronic project schedule shall be submitted to the Project Manager after execution of this agreement.

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.

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

DEPARTMENT OF TRANSPORTATION

BY: _____
Commissioner

ATTEST:

_____
Treasurer

NEWTON COUNTY

BY: _____
Keith Ellis, Chairman

Signed, sealed and delivered this _____ day of _____, 20__, in the presence of:

_____
Witness

_____
Notary Public

This Agreement approved by Local Government, the _____day of _____, 20__.

Attest

_____
Name and Title

FEIN: _____

Revised : 12/2011

Attachment "A" Funding Sources and Distribution

Project No.: 0012648

Attach "Project Manager" Project Charging Form for Approval

Preliminary Engineering Phase I

	Preliminary Engineering - Phase I					GDOT Oversight for PE (Phase I)[2]			Preliminary Engineering Grand Total (Phase I)[2]	
	Percentage	PE Amount	Maximum PE Participation Amount ($)	Participant	PE Activity Sponsor	Percentage	Amount	Participant	Percentage	Amount
1	80%	$72,000.00	$146,400.00	Federal	Local Government	#DIV/0!	$0.00	Federal	80%	$72,000.00
2	0%	$0.00	$0.00	State		#DIV/0!	$0.00	State	0%	$0.00
3	20%	$18,000.00	N/A	Local		#DIV/0!	$0.00	Local	20%	$18,000.00
4	0%	$0.00	$0.00	Other		#DIV/0!	$0.00	Other	0%	$0.00
Total	100%	$90,000.00				#DIV/0!	$0.00		100%	$90,000.00

Right of Way Phase II

	Right of Way - Phase II					
	Percentage	ROW Amount	Maximum ROW Participation Amount ($)	Participant	Acquisition By:	Acquisition Fund By:
1	80%	$80,000.00	$0.00	Federal	Local Government	Local Government
2		$0.00	$0.00	State		
3	20%	$20,000.00	N/A	Local		
4		$0.00	$0.00	Other		
Total	100%	$100,000.00				

Utility Phase IV

Utility Relocation - Phase IV	
Utility Funding By:	Railroad Funding By:
GDOT/Locals	N/A
80% / 20%	100%

Construction Phase III

	Construction - Phase III				
	Percentage	CST Amount	Maximum CST Participation Amount ($)	Participant	Letting By:
1	80%	$520,000.00	$520,000.00	Federal	Local Government
2	0%	$0.00	$0.00	State	
3	20%	$130,000.00	N/A	Local	
4	0%	$0.00	$0.00	Other	
Total	100%	$650,000.00			

Construction Oversight Phases V & VI

GDOT Oversight for CST (Phase III)[2]	
Testing (Phase V) Funding By:	Inspection (Phase VI) Funding By:
Local Government	Local Government
100%	100%

Summary of Phases II Through III

	Grand Total Phases II through III			
	Percentage	CST Amount	Maximum ROW Participation Amount ($)	Participant
1	80%	$672,000.00	$666,400.00	Federal
2	0%	$0.00	$0.00	State
3	20%	$168,000.00	N/A	Local
4	0%	$0.00	$0.00	Other
Total	100%	$840,000.00		

The funding portion identified in Attachment "A" only applies to PE. The Right of Way and Construction funding estimates are provided for planning purposes and do not constitute a funding commitment for right of way and construction.

[1]The Maximum allowable GDOT participating amounts for PE phase are shown above. Local Government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated.

[2]GDOT Oversight for PE (Phase I) is detailed in Attachment "D".

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The GDOT Oversight check shall be remitted to the District Planning and Programming Engineer along with the signed Project Framework Agreement (PFA).

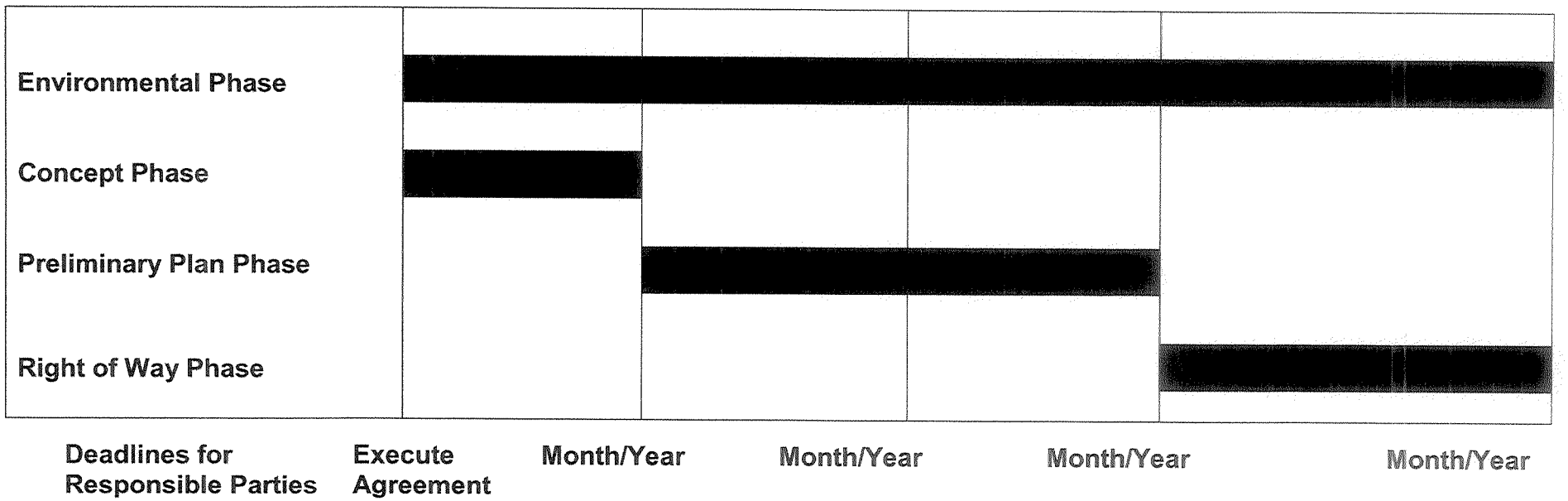
[4] Right-of-Way and Construction amounts shown are for budget planning purposes only.

NOTE: Separate GDOT P.O.s will be established for each funding phase.

ATTACHMENT "B" Project Timeline

PI # 0012648 – Newton County

Proposed Project Timeline



Annual Reporting Requirements

The Local Government shall provide a written status report to the Department's Project Manager with the actual phase completion date(s) and the percent complete/proposed completion date of incomplete phases. The written status report shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

Revised : 12/2011

ATTACHMENT "C"

D.O.T. 66

Project# 0012645 Newton

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE

OFFICE Planning

DATE September 17, 2010

FROM Angela T. Alexander, State Transportation Planning Administrator

TO Todd I. Long, PE, PTOE, Director of Planning
Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner

SUBJECT Preliminary Engineering Oversight for Project Managers/Project Delivery Staff

Note: This memo supersedes the previous PE Oversight Memo, dated August 17, 2010. PE Oversight funding for Safe Route to School (SRTS) projects are eligible for PE Oversight funds, paid for with funding from the SRTS program. No other changes were made to the memo.

As you are aware, the Department is unable to continue funding PE oversight with 100% motor fuel funds due to the decline in motor fuel revenues. As a result, the Department needs an established procedure detailing the circumstances under which the Department will fund PE oversight with federal-aid funds (matched with state motor fuel funds) and when the Department will request that the local government/project sponsor fund the Department's expenses associated with PE oversight. The PE Oversight funds will be used to fund staff man-hours and any other associated expenses incurred by any GDOT employee working on the project. Please note that the process detailed below applies equally to routes both on and off the state highway system.

GDOT Funds PE Oversight with Federal-Aid:

The Department will fund PE oversight with federal-aid funds (and matching motor fuel funds), only if a subsequent project phase (ROW, UTL, CST) is programmed within the first 4 active years of the currently approved TIP/STIP. The source of federal-aid funds to be used for the PE oversight activities is as follows:

1) Projects on the National Highway System will use NHS funds (L050) to finance GDOT's PE oversight expenses

2) Projects *not* on the National Highway System but eligible for Surface Transportation Program (STP) funds, will follow one of the scenarios below:

    a) Projects in urban areas between 5,000 and 199,999 in population will use L200 funds (with MPO approval, if applicable)

    b) Projects in urban areas with a population greater than 200,000 will use L230 funds (with MPO approval)

    c) Projects in rural areas with a population less than 5,000 will use L250 funds

    d) The Department may, at the joint discretion of the Chief Engineer and Director of Planning, apply L240 funds to any federal-aid eligible project

3) Projects which have received an earmark in federal legislation, will use a portion of the earmark funding for GDOT's PE oversight expenses, pending MPO approval if applicable. (Note: earmark funded projects could receive PE oversight funding regardless of the funding being programmed within the first 4 active years of a currently approved TIP/STIP).

4) Projects funded with Safe Route to School (SRTS) funds will use SRTS funds to finance GDOT's PE oversight expenses, regardless of whether or not a subsequent phase of the project appears in the STIP/TIP.

GDOT Requests Local Government/Project Sponsor to Fund PE Oversight:

The Department will request that the local government fund PE oversight with 100% local funds under the following conditions:

1) A subsequent phase of the project is not programmed within the first 4 active years of the Currently approved TIP/STIP

2) The MPO has elected to not approve the use of L200 or L230 funds for GDOT's PE oversight expenses

3) The project is funded with CMAQ funds

4) The project is funded with an earmark identified in federal legislation and the local government/entity which secured the earmark (or MPO, if applicable) declines to allow GDOT to use a portion of the earmark for PE oversight expenses

5) The project is currently funded entirely with local funds; however, the local government intends to secure federal funding at a future date

Once the PE oversight process is implemented, it will be the responsibility of the GDOT Project Manager to work with the GDOT Office of Financial Management to establish an appropriate amount of federal-aid funded PE oversight funding, or work with the local government to secure locally sourced PE oversight funds.

If you approve of this process, please sign below. Once an acceptable process is developed and approved by both the Chief Engineer and Director of Planning, we will provide the finalized process to the Office of Program Control for distribution to the GDOT Project Managers and incorporation into future Project Framework Agreements. If you have any questions, please contact Matthew Fowler at 404-631-1777.

Approved: _____ 9/27/10
Todd I. Long, PE, PTOE, Director of Planning — Date

Approved: _____ 10/7/20
Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner — Date

ATA:MF

ATTACHMENT D

GDOT Oversight Estimate for Consultant Project

PI Number [ ] Project Number [ ]

County [ ] Project Length [ ] Miles

Project Manager [ ] Project Cost [ ]

Project Type [ ]

Project Description [ ]

Expected Life of Project [ ] Years

Project Phase	Oversight Hours	Oversight Cost
1. Procurement	0	$ -
2. Concept Development	0	$ -
3. Database Preparation	0	$ -
4. Preliminary Design	0	$ -
5. Environmental	0	$ -
6. Final Design	0	$ -
Travel Expenses		$ -
Total Oversight Estimate	0	$ -
Percentage of Project Cost	0.00 %	

GDOT Oversight Estimate for Consultant and Locally Administered Projects - Version 2.0 - July 2011

Revised : 12/2011

ATTACHMENT E

APPENDIX E--GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Name of Contracting Entity: _____

Contract No. and Name: _____

_____

By executing this affidavit, the undersigned person or entity verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm, or entity which is contracting with the Georgia Department of Transportation has registered with, is authorized to participate in, and is participating in the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned person or entity further agrees that it will continue to use the federal work authorization program throughout the contract period, and it will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the undersigned with the information required by O.C.GA. § 13-10-91(b).

The undersigned person or entity further agrees to maintain records of such compliance and provide a copy of each such verification to the Georgia Department of Transportation within five (5) business days after any subcontractor is retained to perform such service.

_____
E-Verify / Company Identification Number

_____
Signature of Authorized Officer or Agent

_____
Date of Authorization

_____
Printed Name of Authorized Officer or Agent

_____
Title of Authorized Officer or Agent

_____
Date

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

_____ DAY OF _____, 201_

_____
Notary Public

[NOTARY SEAL]

My Commission Expires: _____

Revised : 12/2011

ATTACHMENT F

TITLE VI INTRODUCTION

As a sub-recipient of federal funds from Georgia Department of Transportation, all municipalities are required to comply with Title VI of the Civil Rights Act of 1964 which provides that:
"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected To discrimination under any program or activity receiving federal assistance under This title or carried out under this title."

Additionally, the Civil Rights Restoration Act of 1987, expanded the definition of the terms "programs and activities" to include all programs or activities of federal recipients, subrecipients, and contractors, whether or not such programs and activities are federally assisted.

The provisions of Title VI apply to all contractors, subcontractors, consultants and suppliers. And is a condition for receiving federal funds. All sub recipients must sign Title VI assurances that they will not discriminate as stated in TitleVI of the Civil Rights Act of 1964.
In the event that the sub recipient distributes federal aid funds to second tier entity, the sub-recipient shall include Title VI language in all written documents and will monitor for compliance. If, these assurances are not signed, the City or County government may be subjected to the loss of federal assistance.
All sub recipients that receive federal assistance must also include Federal Highways Administrations 1273 in their contracts. The FHWA 1273 sets out guidance for ensuring non discrimination and encouraging minority participation and outreach.
Enclosed you will find Title VI acknowledgment form and the Title VI assurances. The Title VI acknowledgment form and Title VI assurances must be signed by your local government official if it has not been signed.

TITLE VI ACKNOWLEDGEMENT FORM

The_____ assures that no person shall on the grounds or race, color, national origin or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any City or County sponsored program or activity. The_____ assures that every effort will be made to ensure non discrimination in all of its programs or activities, whether those programs are federally funded or not.
Assurance of compliance therefore falls under the proper authority of the City Council or the County Board of Commissioners. The Title VI Coordinator or Liaison is authorized to ensure compliance with provisions of this policy and with the Law, including the requirements of 23 Code of Federal Regulations (CFR) 200 and 49 CFR 21.

Official Name and Title

Date

Citations:
Title VI of the Civil Rights Act of 1964; 42 USC 2000d to 2000d-4;42 USC 4601to 4655;23 USC 109(h); 23 USC 324; DOT Order 1050.2; EO 12250; EO 12898; 28CFR 50.3

Other Nondiscrimination Authorities Expanded the range and scope of Title VI coverage and applicability

The 1970 Uniform Act (42 USC 4601)
Section 504 of the 1973 Rehabilitation Act (29 USC 790)
The 1973 Federal-aid Highway Act (23 USC 324)
The 1975 Age Discrimination Act (42 USC 6101)
Implementing Regulations (49 CFR 21 & 23 CFR 200)
Executive Order 12898 on Environmental Justice (EJ)
Executive Order 13166 on Limited English Proficiency (LEP)