

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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

**FILE** P.I. #721308 **OFFICE** Design Policy & Support  
GDOT District 6 - Cartersville  
GDOT District 7 - Metro Atlanta  
Fulton/Cherokee Counties **DATE** May 24, 2012  
SR 140/Houze Rd. over Little River at the  
Fulton/Cherokee County Line

**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:**

Genetha Rice-Singleton, Program Control Administrator  
Bobby Hilliard, State Program Delivery Engineer  
Cindy VanDyke, State Transportation Planning Administrator  
Angela Robinson, Financial Management Administrator  
Glenn Bowman, State Environmental Administrator  
Ben Rabun, State Bridge Engineer  
Kathy Zahul, State Traffic Engineer  
Georgene Geary, State Materials & Research Engineer  
Lisa Myers, State Project Review Engineer  
Jeff Baker, State Utilities Engineer  
Ken Thompson, Statewide Location Bureau Chief  
Michael Henry, Systems & Classification Branch Chief  
DeWayne Comer, District Engineer/District Preconstruction Engineer – D6  
Kerry Bonner, District Utilities Engineer – D6  
Rachel Brown, District Engineer – D7  
Scott Lee, District Preconstruction Engineer – D7  
Jonathan Walker, District Utilities Engineer – D7  
Vinesha Pegram, Project Manager  
BOARD MEMBER - 6th Congressional District

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
PROJECT CONCEPT REPORT**

Project Type: <u>Bridge Replacement</u>	P.I. Number: <u>721308</u>
GDOT District: <u>District 7/6</u>	County: <u>Fulton/Cherokee</u>
Federal Route Number: <u>N/A</u>	State Route Number: <u>SR 140</u>

**SR 140 / Houze Rd over Little River at the Fulton/Cherokee County Line**

Submitted for approval:

<u>William J. Vojta</u> Consultant Designer & Firm or GDOT Concept/Design Phase Office Head & Office	<u>3-12-2012</u> DATE
<u>Bobby Hilliard</u> Office Head (GDOT Project Manager's Office)	<u>3-26-2012</u> DATE
<u>Jeneshia C. Repperm</u> GDOT Project Manager	<u>3-12-2012</u> DATE

Recommendation for approval:

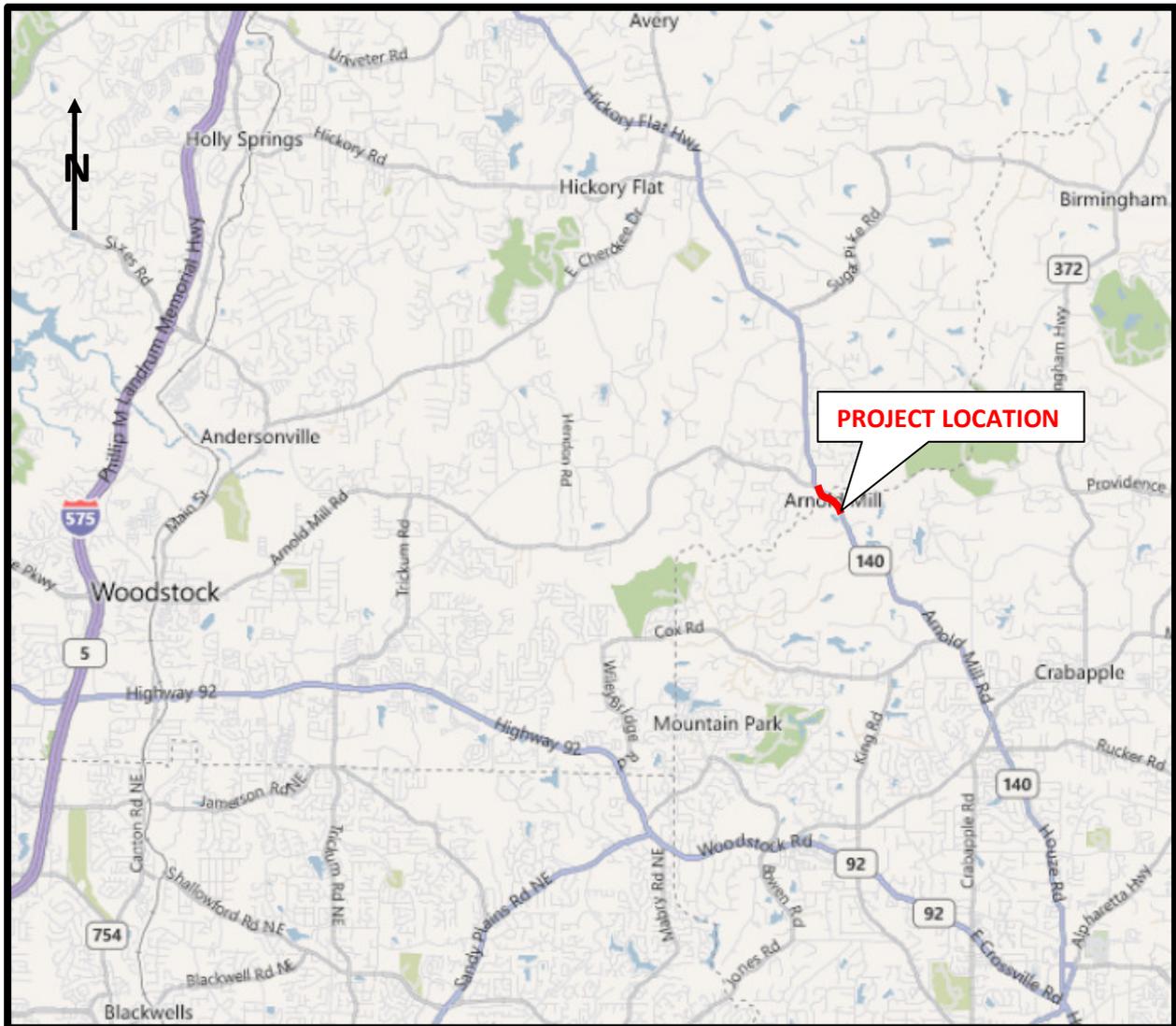
<u>GENETHA RICE-SINGLETON *TJ</u> Program Control Administrator	<u>4/13/2012</u> DATE
<u>GLENN BOWMAN *TJ</u> State Environmental Administrator (recommendation required)	<u>4/17/2012</u> DATE
<u>KATHY ZAHUL *TJ</u> State Traffic Engineer (recommendation required for roundabout projects)	<u>5/16/2012</u> DATE
<u>LISA MYERS *TJ</u> Project Review Engineer	<u>4/10/2012</u> DATE
<u>SAL PIRZAD *TJ</u> State Utilities Engineer	<u>4/10/2012</u> DATE
<u>BEW KABUKI *TJ</u> District Engineer (projects not originating in District Office) State Bridge Design Engineer (if applicable)	<u>4/17/2012</u> DATE
State Transportation Financial Management Administrator	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).

<u>Cynthia L. Vandeke</u> State Transportation Planning Administrator (recommendation required)	<u>4-11-12</u> DATE
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*\* RECOMMENDATION ON FILE*

## PROJECT LOCATION



**PROJECT NO. BRF00-0187-01(016)**  
**SR 140 / HOUZE RD OVER LITTLE RIVER @**  
**FULTON/CHEROKEE CO LINE**  
**P.I. NO. 721308**

## PLANNING & BACKGROUND DATA

### Project Justification Statement:

This bridge (Structure ID 057-0029-0; SR 140 over Little River) was built in 1952. The bridge consists of five spans of steel girders on concrete caps with concrete columns. This bridge was designed using a truck configuration that weighs less than the current state legal truck weights. The overall condition of this bridge would be classified as fair. The deck has been repaired numerous times by district personnel due to localized deck failures and is currently overlaid with asphalt. The substructure is in fair condition due to concrete cracking in the intermediate bent caps. The superstructure is in fair condition with some corrosion of the steel beams flanges and deterioration of the edge beams. Due to the structural integrity, based on the design and the existing deck conditions, replacement of the bridge is recommended.

### Description of the proposed project:

The proposed project would construct a replacement bridge for the existing structurally deficient bridge (Sufficiency Rating = 39.45) over the Little River. The preferred alternative will shift SR 140/Houze Road approximately 50 feet to the north of the existing alignment. The existing bridge will be maintained while the proposed bridge is constructed. The project typical consists of two (2) – 12 foot lanes with a 10 foot shoulder. The approximate project length is 0.31 miles and is located in Fulton and Cherokee Counties with a design speed of 45mph.

**Federal Oversight:**     Full Oversight     Exempt     State Funded     Other

**MPO:**     N/A     MPO -  
Atlanta Regional Commission Project TIP # FN-232B

**Regional Commission:**     N/A     RC –  
RC Project ID #

**Congressional District(s):** 6

### Projected Traffic AADT:

Current Year (2011): 19,270    Open Year (2017): 20,460    Design Year (2037): 25,920

**Functional Classification (Mainline):** Urban Minor Arterial Street

**Is this project on a designated bike route?**     No     YES

**Is this project located on a pedestrian plan?**     No     YES

**Is this project located on or part of a transit network?**     No     YES

## CONTEXT SENSITIVE SOLUTIONS

**Issues of Concern:** No issues have been identified that would require a context sensitive solutions. GDOT plans to coordinate with the public and local neighborhoods that will be affected by the project.

**Context Sensitive Solutions:** N/A

## DESIGN AND STRUCTURAL DATA

### Mainline Design Features: *SR 140/ Houze Road*

Feature	Existing	Standard*	Proposed
<b>Typical Section</b>			
- Number of Lanes	2	2	2
- Lane Width(s)	Varies 11 ft to 12 ft	11 ft to 12 ft	12 ft
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder Width & Type	Varies 2 ft to 10 ft	8ft	10 ft
- Outside Shoulder Slope	Varies 5% to 30%	6%	6%
- Inside Shoulder Width & Type	N/A	N/A	N/A
- Sidewalks	N/A	N/A	N/A
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	N/A	N/A
Posted Speed	45 mph		45 mph
Design Speed	45 mph	45 mph	45 mph
Min Horizontal Curve Radius	643	643	643
Superelevation Rate	8-9%	6%	6%
Grade	7%	9% max	6% to 7%
Access Control	Permit	Permit	Permit
Right-of-Way Width	80-160ft	N/A	140-230ft
Maximum Grade – Crossroad	N/A	N/A	N/A
Design Vehicle	Undetermined	WB-40 OR WB-62	WB-62
<i>Additional Items as needed</i>			

\*According to current GDOT design policy if applicable

### Major Structures:

Structure	Existing	Proposed
057-0029-0/057-00140D-026.78E	<i>This structure is a 0.05 miles (284 ft) long bridge expanding two (2) 13 foot lanes. This structure has a sufficiency rating of 39.45.</i>	<i>The proposed structure will be approximately 0.06 miles (305 ft) long. The proposed bridge width is 43.25 ft (2 – 12 ft lanes, with an 8 ft shoulder and a 1.625' barrier)</i>
Retaining walls	N/A	<i>A wall is proposed at the beginning of the project (Ulman Property) to eliminate a residential displacement.</i>
Other	N/A	N/A

**Major Interchanges/Intersections:** None

**Utility Involvements:**

Telephone: AT&T (Aerial)  
Gas: Atlanta Gas Light (on the bridge)  
Communication: AGL Network  
Cable: Comcast  
Power: Georgia Power Distribution  
Power Transmission: Georgia Power Transmission  
Water and Sewer: Fulton County Public Works  
Water and Sewer: Cherokee County Water and Sewer

**Public Interest Determination Policy and Procedure recommended (Utilities)?**  YES  NO

**SUE Required:**  Yes  No

**Railroad Involvement:** N/A

**Right-of-Way:**

Required Right-of-Way anticipated:  YES  NO  Undetermined  
Easements anticipated:  Temporary  Permanent  Utility  Other

Anticipated number of impacted parcels:	6
Anticipated number of displacements (Total):	1
Businesses:	0
Residences:	1
Other:	0

**Location and Design approval:**  Not Required  Required

**Off-site Detours Anticipated:**  No  Yes  Undetermined

**Transportation Management Plan Anticipated:**  YES  NO

**Design Exceptions to FHWA/AASHTO controlling criteria anticipated:**

FHWA/AASHTO Controlling Criteria	YES	Appvl Date (if applicable)	NO	Undetermined
1. Design Speed	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Lane Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Shoulder Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Bridge Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Horizontal Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Superelevation *Matching exist super at end of project (9%)	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Vertical Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Grade	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Stopping Sight Distance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Cross Slope	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Vertical Clearance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Lateral Offset to Obstruction	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Bridge Structural Capacity	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Design Variances to GDOT standard criteria anticipated:**

GDOT Standard Criteria	Reviewing Office	Appvl Date (if applicable)		Undetermined
		YES	NO	
1. Access Control - <i>Median Opening Spacing</i>	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Median Usage & Width	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Intersection Skew Angle	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Lateral Offset to Obstruction	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Intersection Sight Distance	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Bike & Pedestrian Accommodations	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. GDOT Drainage Manual	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Georgia Standard Drawings	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. GDOT Bridge & Structural Manual	Bridge Design	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Roundabout Illumination - <i>(if applicable)</i>	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Rumble Strips/Safety Edge	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

VE Study anticipated:  No       Yes       Completed – Date: N/A

**ENVIRONMENTAL DATA**

**Anticipated Environmental Document:**

GEPA:       NEPA:  Categorical Exclusion       EA/FONSI       EIS

**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

Per the Plan 2040 Regional Transportation Plan and FY 2012-2017 Transportation Improvement Program, this project is exempt from air quality analysis (40CFR93)

**Environmental Permits/Variations/Commitments/Coordination anticipated:**

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Forest Service/Corps Land	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. CWA Section 404 Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Other Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11. Other Commitments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Is a PAR required?  No  Yes  Completed – Date:

**NEPA/GEPA:**

A NEPA Categorical Exclusion (CE) is anticipated for this project. Preparation of the CE is underway. Section 4(f) resources (eligible historic resources) are identified within the Area of Potential Effect (APE) for the project. However, Section 4(f) impacts are not anticipated at this time.

**Ecology:**

An Ecology Assessment is underway. Waters of the US are present in the APE. Impacts to waters of the US are not known at this time. It is anticipated that a Section 404 Nationwide Permit will apply to this project.

An aquatic survey and protected species survey for Georgia aster (*Syphyotrichum georgianum*) have been completed. There is potential habitat for the Georgia aster; however, no individual species were identified during the survey. No protected species were identified during the aquatic survey. The protected species surveys are only valid for two years. New surveys will be required every two years until the project is under construction. Aquatic surveys can be conducted between May and November. GA aster surveys can be conducted between October and mid-November. Since there is suitable habitat for aquatic species, best management practices will need to be included during construction of the bridge.

**History:**

Two potentially eligible historic resources consisting of three buildings have been identified in the Historic Resources Survey Report. SHPO concurrence on these recommendations has not been received at this time. Adverse impacts to these resources are not anticipated.

**Archeology:**

An archaeology survey has been conducted within the Area of Potential Effect (APE) for this project. No sites were identified. A Short Form of Negative Findings will be prepared.

**Air & Noise:**

Air Documentation of Particulate Matter (PM2.5) analysis exemption and an air assessment documenting the project conformity are required. The project requires no analysis for highway traffic noise impacts. Therefore, a Noise Screening Assessment for Type III projects will be prepared.

**Public Involvement:**

Public Involvement Open House is planned.

**Major stakeholders:** None

**CONSTRUCTION**

**Issues potentially affecting constructability/construction schedule:** Potential issues that may affect this project are geotechnical findings (site’s earth materials may contain rock and other impervious matter), potential UST’s and hazardous materials on adjacent project site.

**Early Completion Incentives recommended for consideration:**  No  Yes

**PROJECT RESPONSIBILITIES**

**Project Activities:**

<b>Project Activity</b>	<b>Party Responsible for Performing Task(s)</b>
Concept Development	Office of Program Delivery Consultant – Reynolds, Smith and Hills, Inc.
Design	Office of Program Delivery Consultant – Reynolds, Smith and Hills, Inc.
Right-of-Way Acquisition	GDOT
Utility Relocation	Utility Owner
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, and Permits	Office of Program Delivery Consultant – Reynolds, Smith and Hills, Inc. (Edwards-Pitman Environmental – subconsultant)
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

**Lighting required:**  No  Yes

**Initial Concept Meeting:** N/A

A Concept Report was previously approved for this project in January 2002. Due to the amount of elapsed time, the project development has been re-started from the Concept Phase.

**Concept Meeting:** Concept Team Meeting was held on March 2, 2012

**Other projects in the area:**

1. Project No. STP00-0187-01(015), PI No. 721305 – Reconstruction/Rehabilitation – widening on new location as it crosses the Little River
2. Project No. CSSTP-0006-00(038), PI No. 0006038 – Reconstruction/Rehabilitation
3. Project No. CSSFR-0008-00(947), PI No. 0008947 – Safety - Guardrail

**Other coordination to date:** None

**Project Cost Estimate and Funding Responsibilities:**

	Breakdown of PE	ROW	Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT	GDOT	GDOT	GDOT	GDOT	
\$ Amount	\$564,807.51	\$3,964,000.00	310,000.00	\$2,925,387.06	\$0	\$7,764,194.57
Date of Estimate	5/6/2011	1/9/2012	2/23/2012	4/26/2012	1/30/2012	

\*CST Cost includes: Construction, Engineering and Inspection (5%), and Liquid AC Cost Adjustment.

**ALTERNATIVES DISCUSSION**

**Alternative selection:**

<b>Preferred Alternative:</b> The preferred alternative proposes to realign SR 140/Houze Road at the intersection with Little River approximately 50 feet to the north of the existing alignment.			
<b>Estimated Property Impacts:</b>	<b>6</b>	<b>Estimated Total Cost:</b>	<b>\$7,764,194.57</b>
<b>Estimated ROW Cost:</b>	<b>\$3.96 million</b>	<b>Estimated CST Time:</b>	<b>21 months</b>
<b>Rationale:</b> <i>This alternative was selected because it meets the project justification.</i>			

<b>No-Build Alternative:</b> The no-build alternative proposed no changes to the existing bridge structure.			
<b>Estimated Property Impacts:</b>	<b>None</b>	<b>Estimated Total Cost:</b>	<b>\$ 0</b>
<b>Estimated ROW Cost:</b>	<b>\$ 0</b>	<b>Estimated CST Time:</b>	<b>None</b>
<b>Rationale:</b> <i>This alternative does not meet the project justification. It does not construct a new structurally sufficient bridge structure over Little River.</i>			

<b>Alternative 1:</b> This alternative proposes realigning SR 140/Houze Road at the intersection with Little River approximately 55 feet to the south.			
<b>Estimated Property Impacts:</b>	<b>6</b>	<b>Estimated Total Cost:</b>	<b>\$6,877,287.71</b>
<b>Estimated ROW Cost:</b>	<b>\$3.96 million</b>	<b>Estimated CST Time:</b>	<b>21 months</b>
<b>Rationale:</b> <i>The realignment of SR 140 to the south will have an adverse impact to a potential eligible historic resource. Therefore, it was not pursued for additional development.</i>			

**Alternative 2:** This alternative proposes replacing the bridge on SR 140/Houze Road at the intersection with Little River in the same location as the existing bridge.

<b>Estimated Property Impacts:</b>	<b>0</b>	<b>Estimated Total Cost:</b>	<b>\$6,675,778.04</b>
<b>Estimated ROW Cost:</b>	<b>\$0</b>	<b>Estimated CST Time:</b>	<b>24 months</b>

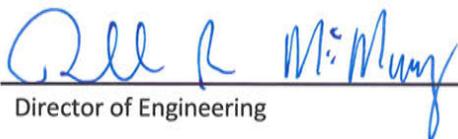
**Rationale:** *The replacement of SR 140/Houze Road bridge in the same location as the existing bridge would require closing SR140/Houze Road for 24 months during construction. Traffic would be detoured using SR140/Houze Road to SR 92/ Woodstock Road to I-575 to SR 140/Hickory Flats Hwy. This detour would use the same route to access both sides of the project. This detour route is approximately 41 miles and would create both time delays and inconvenience to the traveling public. Based on significant impacts to the traveling public, this alternative was not pursued for additional development.*

**Comments:** None

**Attachments:**

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
  - a. Construction including Engineering and Inspection
  - b. Completed Fuel & Asphalt Price Adjustment forms
  - c. Right-of-Way
  - d. Utilities (In progress)
4. Traffic Engineering Report
  - a. Crash summaries
  - b. Traffic diagrams
  - c. Capacity analysis summary
  - d. Summary of TE Study and/or Signal Warrant Analysis
5. Bridge inventory Report
6. Minutes of Concept Team meeting
7. PFA's and/or SAA's

**APPROVALS**

Concur:   
Director of Engineering

Approve:   
Chief Engineer

5.23.12  
Date

**BRF00-0187-01(016)**

**Fulton and Cherokee Counties**

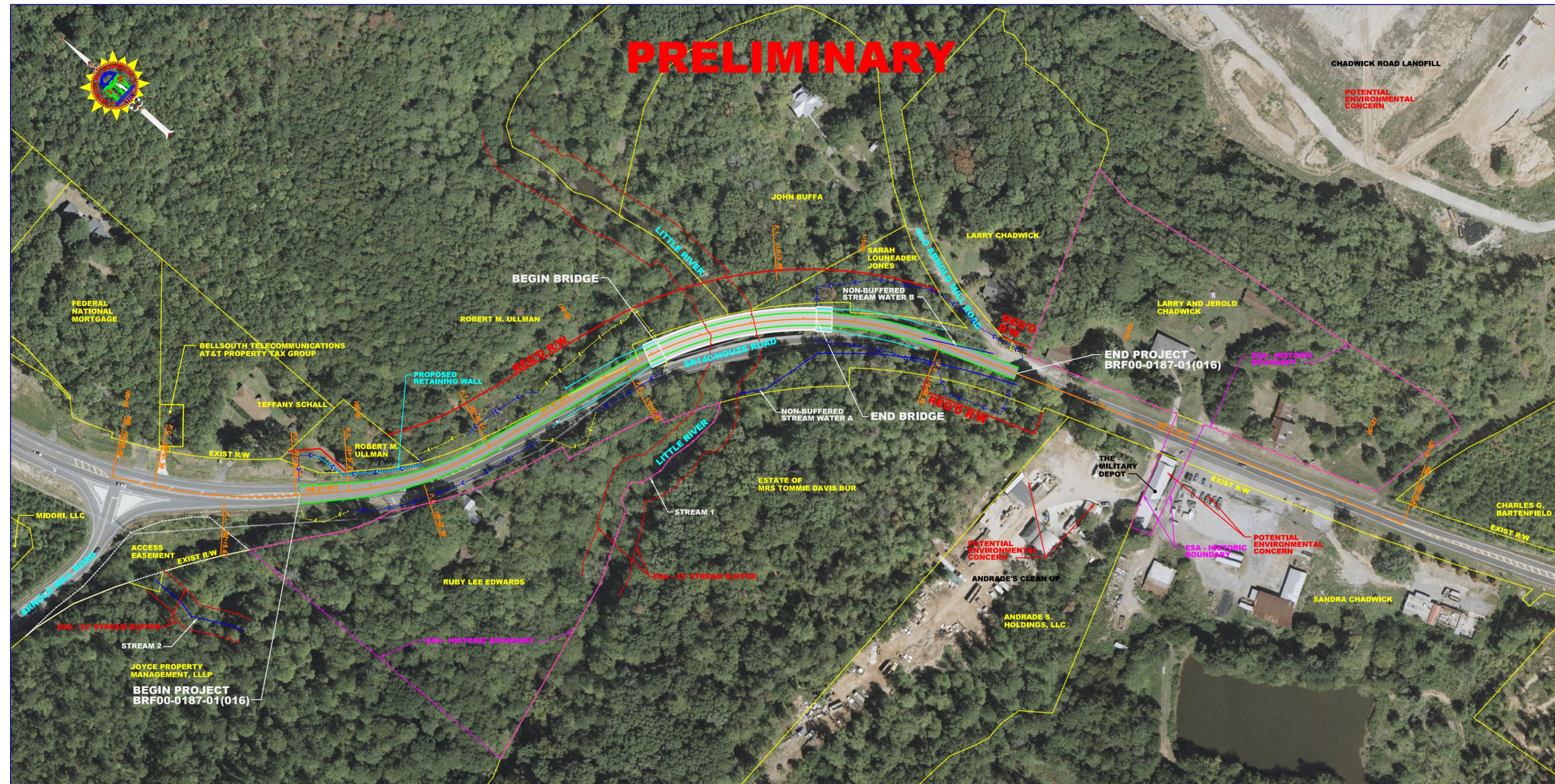
**PI # 721308**

**SR 140/Houze Road Over Little River @ Fulton / Cherokee Co. Line**

# **Concept Report**

## **Attachment 1 Concept Layout**

# PRELIMINARY



**PROJECT NO. BRF00-0187-01(016)**  
**P.I. NO. 721308**  
**FULTON/CHEROKEE COUNTIES**  
**SR140/HOUZE ROAD OVER LITTLE RIVER**  
**@ FULTON/CHEROKEE COUNTY LINE**

**RSH**  
 730 PEACHTREE STREET, SUITE 430  
 ATLANTA, GA 30308-1238  
 678-528-7200 (TEL) 404-347-9522 (FAX)

**PRELIMINARY**  
**CONCEPT LAYOUT FOR**  
**CONCEPT TEAM MEETING**  
**MARCH 2, 2012**

SCALE IN FEET  
 0 50 100 200

LEGEND	
	EXISTING PROPERTY LINE
	PROPOSED LANE
	CONSTRUCTION LIMITS
	REQUIRED RIGHT OF WAY (REQ'D R/W)
	ENVIRONMENTALLY SENSITIVE AREA (ESA) HISTORIC BOUNDARY
	ENVIRONMENTALLY SENSITIVE AREA (ESA) STREAM BUFFER

**BRF00-0187-01(016)**

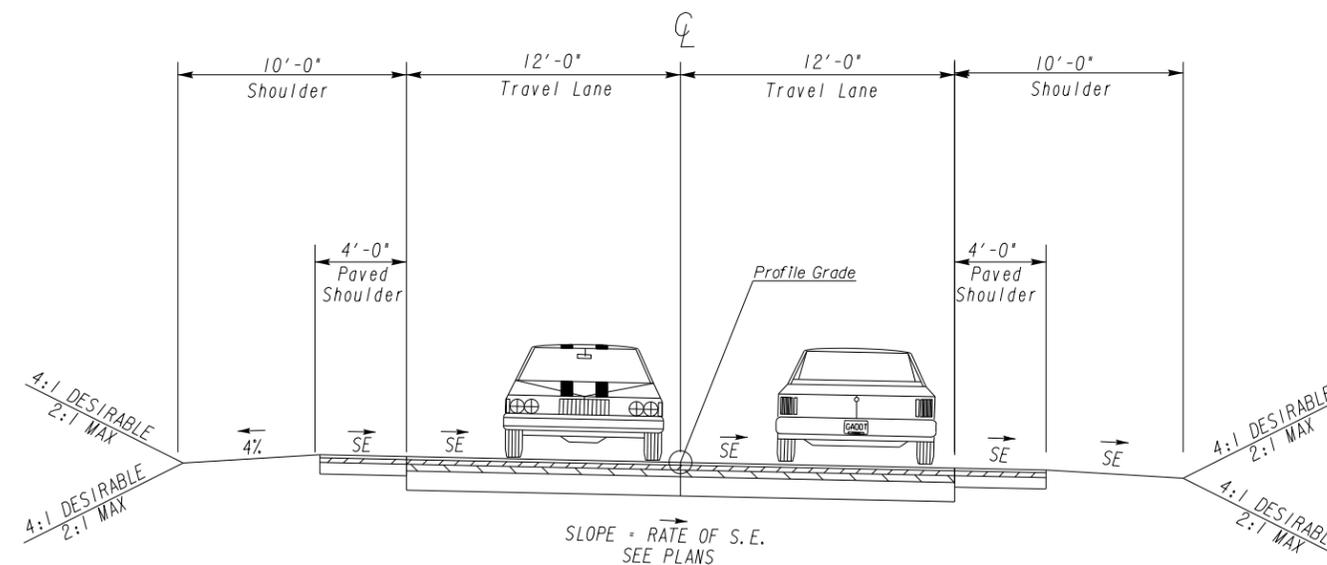
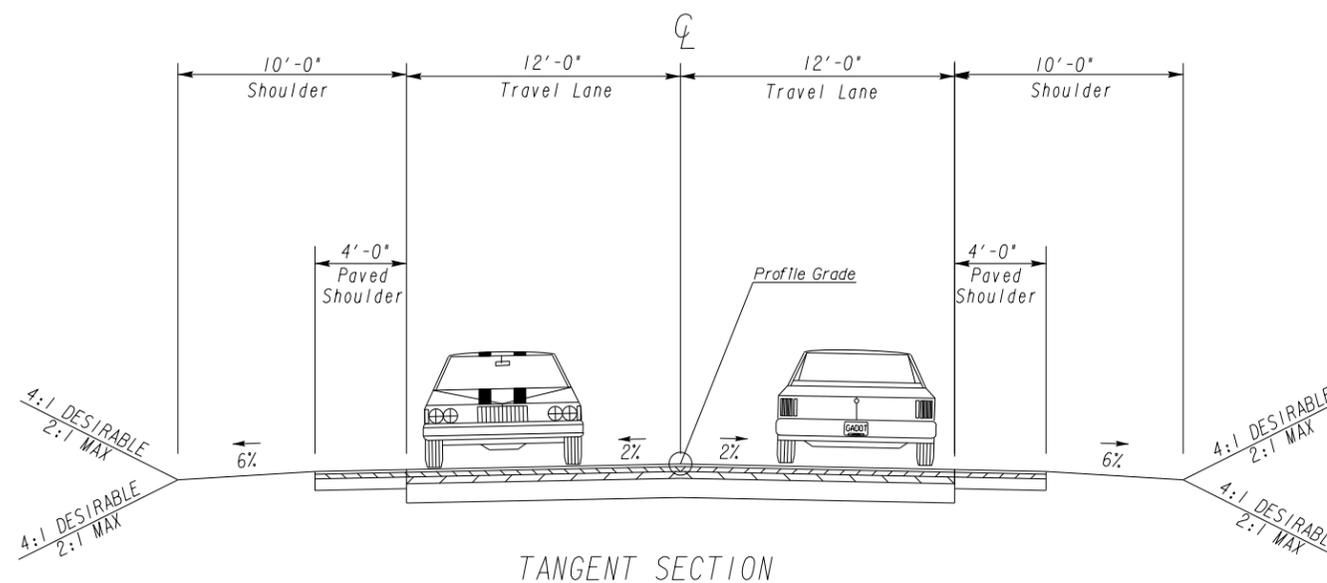
**Fulton and Cherokee Counties**

**PI # 721308**

**SR 140/Houze Road Over Little River @ Fulton / Cherokee Co. Line**

# **Concept Report**

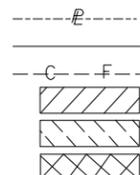
## **Attachment 2 Typical Sections**



REVISION

REVISION

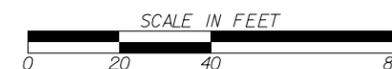
PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPES  
EASEMENT FOR CONSTR OF DRIVES



-----e----- BEGIN LIMIT OF ACCESS.....BLA  
-----f----- END LIMIT OF ACCESS.....ELA  
---C---F--- LIMIT OF ACCESS  
REQ'D R/W & LIMIT OF ACCESS



**RS&H**  
IMPROVING YOUR WORLD  
730 PEACHTREE STREET, SUITE 430  
ATLANTA, GA 30308-1238  
678-528-7200 (TEL) 404-347-9522 (FAX)



REVISION DATES

NO.	DATE	DESCRIPTION

CITY OF ROSWELL  
TRANSPORTATION DEPARTMENT  
TYPICAL SECTIONS

SR 140/HOUZE ROAD OVER LITTLE RIVER @ FULTON/CHEROKEE COUNTY LINE

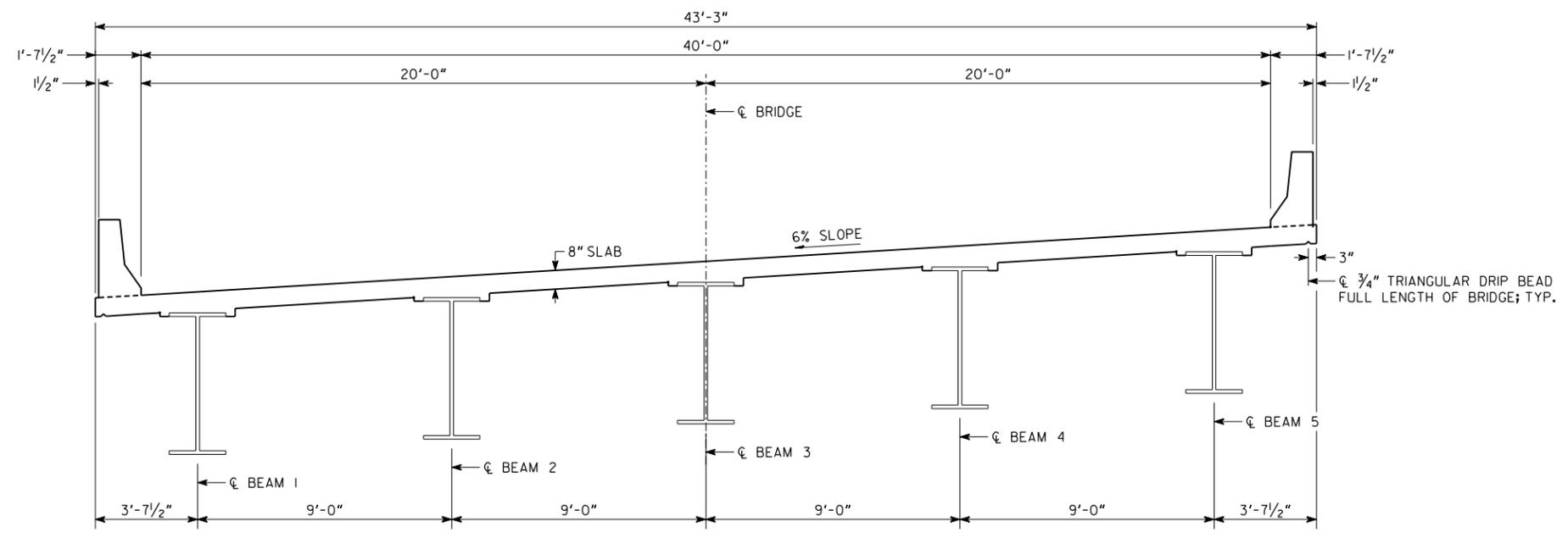
DRAWING No.  
5-

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

x:\P\121253001\_SR\_140 Houze Road\Bridge Design\deck section\Houze Deck Section.dgn

TIME\$\$\$\$

DATE\$\$\$\$



TYPICAL SECTION

BRIDGE NO. 1

DATE		REVISIONS		BY		DESIGNED MKL		CHECKED X		REVIEWED X	
GEORGIA <b>DEPARTMENT OF TRANSPORTATION</b> ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES											
TYPICAL SECTION HOUZE ROAD (S.R. 140) OVER LITTLE RIVER FULTON/CHEROKEE CO.                      BFR-187-1(I16)											
DRAWING NO. 35-XXX						BRIDGE SHEET X OF X					
SCALE: NONE						APRIL 2012					
DRAWN MKL				DESIGN GROUP X				APPROVED X			

1 INCH WHEN PRINTED FULL SIZE

**BRF00-0187-01(016)**

**Fulton and Cherokee Counties**

**PI # 721308**

**SR 140/Houze Road Over Little River @ Fulton / Cherokee Co. Line**

# **Concept Report**

## **Attachment 3**

### **Detailed Cost Estimates**

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

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INTERDEPARTMENT CORRESPONDENCE

**FILE PROJECT No.**  ,  **OFFICE**   
  
**DATE**

**P.I. No.**

**FROM**

**TO** Lisa L. Myers, Acting Project Review Engineer

**SUBJECT REVISIONS TO PROGRAMMED COSTS**

**PROJECT MANAGER**

**MNGT LET DATE**

**MNGT R/W DATE**

**PROGRAMMED COST (TPro W/OUT INFLATION)**

**LAST ESTIMATE UPDATE**

**CONSTRUCTION** \$

**DATE**

**RIGHT OF WAY** \$

**DATE**

**UTILITIES** \$

**DATE**

**REVISED COST ESTIMATES**

**CONSTRUCTION\*** \$

**RIGHT OF WAY** \$

**UTILITIES** \$

\* Costs contain  % Engineering and Inspection

**REASON FOR COST INCREASE**

Revised costs are based on proposed design using concept level topography.

**CONTINGENCY SUMMARY**

Construction Cost Estimate:	\$ 2,742,436.47	(Base Estimate)
Engineering and Inspection:	\$ 137,121.82	(Base Estimate x 5 %)
Total Liquid AC Adjustment	\$ 45,828.77	(From attached worksheet)
<b>Construction Total:</b>	<b>\$ 2,925,387.06</b>	

**REIMBURSABLE UTILITY COST**

Utility Owner

Reimbursable Cost

Atlanta Gas Light Company

\$0.00

AT&T Formerly BellSouth

\$310,000.00

Fulton County Public Works

\$0.00

Georgia Power Distribution

\$0.00

Georgia Power Transmission

\$0.00

AGL Network

\$0.00

Comcast

\$0.00

Cherokee Water & Sewerage

\$0.00

Attachments

## JOB DETAIL ESTIMATE

JOB NUMBER : BRF00-0187-01(0) SPEC YEAR: 01  
 DESCRIPTION: SR140/HOUZE RD OVER LITTLE RIVER  
 @ FULTON/CHEROKEE COUNY LINE

## ITEMS FOR JOB BRF00-0187-01(0)

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0010	150-1000		LS	TRAFFIC CONTROL - MOT	1.000	70000.00	70000.00
0015	210-0100		LS	GRADING COMPLETE - INCLUDING EARTHWORK	1.000	175000.00	175000.00
0020	310-1101		TN	GR AGGR BASE CRS, INCL MATL	2050.000	19.02	39005.64
0025	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	1450.000	64.56	93624.28
0030	402-3130		TN	RECYL AC 12.5MM SP,GP2,BM&HL	500.000	74.55	37279.68
0035	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	650.000	69.32	45058.01
0040	413-1000		GL	BITUM TACK COAT	500.000	3.08	1544.46
0045	433-1000		SY	REINF CONC APPROACH SLAB	350.000	142.05	49720.58
0050	641-1100		LF	GUARDRAIL, TP T	150.000	48.56	7284.58
0055	641-1200		LF	GUARDRAIL, TP W	700.000	16.53	11576.52
0060	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	2.000	648.00	1296.02
0065	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	2.000	1820.62	3641.25
0070	441-0303		EA	CONC SPILLWAY, TP 3	4.000	1788.15	7152.61
0075	501-3000		LS	STR STEEL, BR NO - INCLUDES JERSEY BARRIER	1.000	1800000.00	1800000.00
0080	653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	5100.000	0.40	2089.37
0085	653-1502		LF	THERMO SOLID TRAF ST, 5 IN YEL	5700.000	0.43	2451.57
0090	653-1704		LF	THERM SOLID TRAF STRIPE,24",WH	50.000	3.75	187.90
0095	657-1085		LF	PRF PL SD PVT MKG,8",B/W,TP PB	1175.000	5.84	6862.49
0100	657-6085		LF	PRF PL SD PVMT MKG,8",B/Y,TPPB	1040.000	6.29	6546.88
0105	500-3101		CY	CLASS A CONCRETE RETAINING WALL	300.000	362.92	108877.04
0110	165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	2000.000	0.59	1194.26
0115	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	4000.000	2.72	10897.20
0120	540-1102		LS	REM OF EX BR, BR NO - REMOVAL OF EXISTING BRIDGE	1.000	150000.00	150000.00
0125	636-1033		SF	HWY SIGNS, TP1MAT,REFL SH TP 9	90.000	19.34	1741.07
0130	636-2070		LF	GALV STEEL POSTS, TP 7	100.000	8.16	816.59
0135	653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	2000.000	0.47	959.86
0140	653-1502		LF	THERMO SOLID TRAF ST, 5 IN YEL	2000.000	0.50	1008.90
0145	657-1085		LF	PRF PL SD PVT MKG,8",B/W,TP PB	725.000	6.11	4434.00
0150	657-6085		LF	PRF PL SD PVMT MKG,8",B/Y,TPPB	725.000	6.56	4761.18
0155	163-0300		EA	CONSTRUCTION EXIT	1.000	1412.89	1412.89
0160	165-0101		EA	MAINT OF CONST EXIT	1.000	579.97	579.97
0165	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	1.000	815.46	815.47
0170	167-1500		MO	WATER QUALITY INSPECTIONS	21.000	379.79	7975.68
0175	643-8200		LF	BARRIER FENCE (ORANGE), 4 FT	2000.000	1.60	3203.12
0180	577-1100		EA	METAL DR INLET - CMLPT ASSMBLY	2.000	1452.09	2904.20
0185	576-1018		LF	SLOPE DRAIN PIPE, 18 IN	200.000	38.70	7741.47
0190	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	72791.72	72791.73

ITEM TOTAL 2742436.46

JOB DETAIL ESTIMATE

=====	
INFLATED ITEM TOTAL	2742436.47
-----	
TOTALS FOR JOB BRF00-0187-01(0	
ESTIMATED COST:	2742436.47
CONTINGENCY PERCENT ( 0.0 ):	0.00
ESTIMATED TOTAL:	2742436.47
-----	

<b>PROJ. NO.</b>	BRF-187-1(16)
<b>P.I. NO.</b>	721308
<b>DATE</b>	1/30/2012

CALL NO.

<b>INDEX (TYPE)</b>	<b>DATE</b>	<b>INDEX</b>
REG. UNLEADED	Jan-12	\$ 3.297
DIESEL		\$ 3.818
LIQUID AC		\$ 578.00

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)				<b>45084</b>	<b>\$</b>	<b>45,084.00</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	924.80		
Monthly Asphalt Cement Price month project let (APL)			\$	578.00		
<b>Total Monthly Tonnage of asphalt cement (TMT)</b>				<b>130</b>		

<b>ASPHALT</b>	<b>Tons</b>	<b>%AC</b>	<b>AC ton</b>
Leveling	0	5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	500	5.0%	25
9.5 mm SP		5.0%	0
25 mm SP	1450	5.0%	72.5
19 mm SP	650	5.0%	32.5
	<b>2600</b>		<b>130</b>

**BITUMINOUS TACK COAT**

Price Adjustment (PA)				<b>\$ 744.77</b>	<b>\$</b>	<b>744.77</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	924.80		
Monthly Asphalt Cement Price month project let (APL)			\$	578.00		
<b>Total Monthly Tonnage of asphalt cement (TMT)</b>				<b>2.147550461</b>		

<b>Bitum Tack</b>	<b>Gals</b>	<b>gals/ton</b>	<b>tons</b>
	500	232.8234	2.14755046

**BITUMINOUS TACK COAT (surface treatment)**

Price Adjustment (PA)				<b>0</b>	<b>\$</b>	<b>-</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	924.80		
Monthly Asphalt Cement Price month project let (APL)			\$	578.00		
<b>Total Monthly Tonnage of asphalt cement (TMT)</b>				<b>0</b>		

<b>Bitum Tack</b>	<b>SY</b>	<b>Gals/SY</b>	<b>Gals</b>	<b>gals/ton</b>	<b>tons</b>
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** **\$ 45,828.77**

**GEORGIA DEPARTMENT OF TRANSPORTATION  
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 9/28/2011 Project: BF00-0187-01(016)  
 Revised: 1/9/2012 County: Fulton County  
 PI: 721308

Description: SR 140/House Road Over Little River @ Fulton/Cherokee Co. Line  
 Project Termini: SR 140/House Road Over Little River @ Fulton/Cherokee Co. Line

Existing ROW: Varies  
 Required ROW: Varies  
 Parcels: 7

Land and Improvements \_\_\_\_\_ \$3,621,000.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$1,875,000.00

Valuation Services \_\_\_\_\_ \$12,500.00

Legal Services \_\_\_\_\_ \$79,725.00

Relocation \_\_\_\_\_ \$124,000.00

Demolition \_\_\_\_\_ \$50,000.00

Administrative \_\_\_\_\_ \$76,500.00

TOTAL ESTIMATED COSTS \_\_\_\_\_ \$3,963,725.00

**TOTAL ESTIMATED COSTS (ROUNDED) \_\_\_\_\_ \$3,964,000.00**

Preparation Credits	Hours	Signature

Prepared By: Lashone Alexander CG#: 256999 01/09/12  
 Approved By: Lashone Alexander CG#: 256999 01/09/12

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

Georgia Department of Transportation  
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

BF00-0187-01(016) Fulton County

721308

	A	B	C	D
<b>Land and Improvements</b>	<b>Agriculture</b>	<b>Residential</b>	<b>Commercial</b>	<b>Industrial</b>
1 Estimate Low (ac)	\$0.00	\$85,000.00	\$400,000.00	\$0.00
2 Estimate High (ac)	\$0.00	\$120,000.00	\$800,000.00	\$0.00
3 Estimate Used (ac)	\$0.00	\$85,000.00	\$420,000.00	\$0.00
4 Fee Simple Area (ac)	0.00	1.40	1.00	0.00
5 Fee Simple Estimate	\$0.00	\$119,000.00	\$420,000.00	\$0.00
6 Perm Esmt Area (ac)	0.00	0.00	0.00	0.00
7 Perm Esmt Factor	0%	0%	0%	0%
8 Perm Esmt Estimate	\$0.00	\$0.00	\$0.00	\$0.00
9 Temp Esmt Area (ac)	0.00	0.00	0.00	0.00
10 Temp Esmt Factor	0%	0%	0%	0%
11 Temp Esmt Estimate	\$0.00	\$0.00	\$0.00	\$0.00
12 Proximity Damages	\$0.00	\$0.00	\$0.00	\$0.00
13 Consequential Damages	\$0.00	\$0.00	\$0.00	\$0.00
14 Cost to Cures	\$0.00	\$0.00	\$0.00	\$0.00
15 Improvements	\$0.00	\$850,000.00	\$1,025,000.00	\$0.00
16 Trade Fixtures	\$0.00	\$0.00	\$0.00	\$0.00
17				
18 <b>PROPERTY TYPE TOTALS</b>	<b>\$0.00</b>	<b>\$969,000.00</b>	<b>\$1,445,000.00</b>	<b>\$0.00</b>
19	<b>SUB TOTAL PROPERTY TYPES</b>			<b>\$2,414,000.00</b>
20	Counter Offers and Condemnation Increases			\$1,207,000.00
21				
22	<b>GRAND TOTAL LANDS AND IMPROVEMENTS</b>			<b>\$3,621,000.00</b>

Georgia Department of Transportation  
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

BF00-0187-01(016) Fulton County

721308

	A	B	C	D
<b>Valuation Services</b>	<b>Agriculture</b>	<b>Residential</b>	<b>Commercial</b>	<b>Industrial</b>
1 Appraisals (# of Parcels)	0	4	3	0
2 Estimated Fees (per Parcel)	\$0.00	\$1,000.00	\$2,000.00	\$0.00
3 <b>TOTAL APPRAISALS</b>	\$0.00	\$4,000.00	\$6,000.00	\$0.00
4 Sign Estimates	0	0	0	0
5 Estimated Fees	\$0.00	\$0.00	\$0.00	\$0.00
6 <b>TOTAL SIGN ESTIMATES</b>	\$0.00	\$0.00	\$0.00	\$0.00
7 Specialty Reports	0	0	0	0
8 Estimated Fees	\$0.00	\$0.00	\$0.00	\$0.00
9 <b>TOTAL SPECIALTY REPORTS</b>	\$0.00	\$0.00	\$0.00	\$0.00
10 Septic/Well Reports	0	0	0	0
11 Estimated Fees	\$0.00	\$0.00	\$0.00	\$0.00
12 <b>TOTAL SEPTIC/WELL REPORTS</b>	\$0.00	\$0.00	\$0.00	\$0.00
13				
14				
15				
16 <b>TOTAL VALUATION FEES</b>	\$0.00	\$4,000.00	\$6,000.00	\$0.00
17	<b>SUB TOTAL VALUATION SERVICES</b>			<b>\$10,000.00</b>
18	Updates and Incidentals (Min \$2,500 or 25%)			\$2,500.00
19	<b>GRAND TOTAL VALUATION SERVICES</b>			<b>\$12,500.00</b>

Georgia Department of Transportation  
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

BF00-0187-01(016) Fulton County

721308

	A	B	C	D
	Parcels	Estimated Fees		TOTALS
1	Meeting with Attorney	7	\$125.00	\$875.00
2	Preliminary Titles	7	\$200.00	\$1,400.00
3	Closing and Final Title	7	\$300.00	\$2,100.00
4	Recording Fees	7	\$50.00	\$350.00
5	Condemnation Filing	2	\$5,000.00	\$10,000.00
6	Litigation Costs	2	\$25,000.00	\$50,000.00
7	Updates and Incidentals	2	\$7,500.00	\$15,000.00
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	<b>GRAND TOTAL LEGAL SERVICES</b>			<b>\$79,725.00</b>

Georgia Department of Transportation  
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

BF00-0187-01(016) Fulton County

721308

	A	B	C	D
	<b>Relocation</b>	<b>Displacements</b>	<b>Estimated Costs</b>	<b>TOTALS</b>
1	Business Displacement	2	\$15,000.00	\$30,000.00
2	Residential Tenant		\$20,000.00	\$0.00
3	Residential Owner	2	\$40,000.00	\$80,000.00
4	Pro-Rata Taxes	7	\$1,000.00	\$7,000.00
5	Property Pin Replacement	7	\$1,000.00	\$7,000.00
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	<b>GRAND TOTAL RELOCATION</b>			<b>\$124,000.00</b>

Georgia Department of Transportation  
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

BF00-0187-01(016) Fulton County

721308

	A	B	C	D
	<b>Demolition</b>	Items/Improvements	Estimated Costs	TOTALS
1	Residential Structures	0	\$15,000.00	\$0.00
2	Commercial Structures	2	\$25,000.00	\$50,000.00
3	Hotels/Apartments		\$60,000.00	\$0.00
4	UST's - Dispensers		\$50,000.00	\$0.00
5	Billboards		\$8,000.00	\$0.00
6	Signs - Light Standards		\$1,500.00	\$0.00
7	Water Vaults		\$15,000.00	\$0.00
8	Gas/Water Service Separation		\$2,500.00	\$0.00
9				
10				
11				
12				
13				
14				
15				
16				
17	<b>GRAND TOTAL DEMOLITION</b>			<b>\$50,000.00</b>

Georgia Department of Transportation  
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

BF00-0187-01(016) Fulton County

721308

	A	B	C	D
	Parcels	Man hours per Parcel		TOTALS
1	7	40		\$14,000.00
2	7	100		\$35,000.00
3	5	50		\$12,500.00
4	2	50		\$5,000.00
5	2	100		\$10,000.00
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	<b>GRAND TOTAL INHOUSE</b>			<b>\$76,500.00</b>

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** P.I. No. 721308 Cherokee, Fulton Counties  
SR 140/Houze Road Over Little River

**OFFICE** District 7  
Chamblee

**DATE** February 23, 2012

**FROM**   
Jonathan Walker  
District Utilities Engineer

**TO** Bobby Hilliard P.E., State Program Delivery Engineer  
**ATTN** Vinesha Pegram, P.E., Project Manager

**SUBJECT** PRELIMINARY UTILITY COST (ESTIMATE)

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

<b>FACILITY OWNER</b>	<b>NON-REIMBURSABLE</b>	<b>REIMBURSABLE</b>	<b>GRAND TOTAL</b>
Atlanta Gas Light Company	\$ 320,000.00	\$ 0.00	
AT&T Formerly BellSouth	\$ 645,000.00	\$ 310,000.00	
Fulton County Pub. Works	\$ 110,000.00	\$ 0.00	
Georgia Power Distribution	\$ 175,000.00	\$ 0.00	
Georgia Power Transmission	\$ 210,000.00	\$ 0.00	
AGL Networks	\$ 105,000.00	\$ 0.00	
Comcast	\$ 105,000.00	\$ 0.00	
Cherokee Water & Sewerage	\$ 140,000.00	\$ 0.00	
<b>Totals</b>	<b>\$ 1,810,000.00</b>	<b>\$ 310,000.00</b>	<b>\$ 2,120,000.00</b>

If you have any questions, please contact Clyde Cunningham at 770-986-1117.

BRP/JW/CAC

C: Jeff Baker, P.E., State Utilities Engineer  
Angela Robinson, Office of Financial Management  
Sebastian Nesbitt, Area Engineer

**BRF00-0187-01(016)**

**Fulton and Cherokee Counties**

**PI # 721308**

**SR 140/Houze Road Over Little River @ Fulton / Cherokee Co. Line**

# **Concept Report**

## **Attachment 4**

### **Traffic Engineering Report**



**TRAFFIC ENGINEERING REPORT**  
FOR  
PROPOSED ROADWAY IMPROVEMENTS

SR 140/HOUZE ROAD  
OVER LITTLE RIVER  
@ FULTON/CHEROKEE COUNTY LINE

FULTON/CHEROKEE COUNTIES, GEORGIA  
GDOT Project No. BRF00-0187-01(016)  
P.I. No. 721308

W & A Project No. 11-640

November 22, 2011  
REVISED: February 6, 2012  
REVISED: March 7, 2012

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

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# 1. INTRODUCTION

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## SR 140/HOUZE ROAD TRAFFIC ENGINEERING REPORT

The purpose of this report is to analyze concept improvements for the replacement of the SR 140/Houze Road bridge over Little River at the Fulton/Cherokee County line. This project will replace the existing two-lane bridge with a two-lane bridge. It will not add capacity to SR 140. Figure 1 schematically illustrates the existing roadway facility as well as the location of the study intersection of SR 140 and Arnold Mill Road.

### Methodology

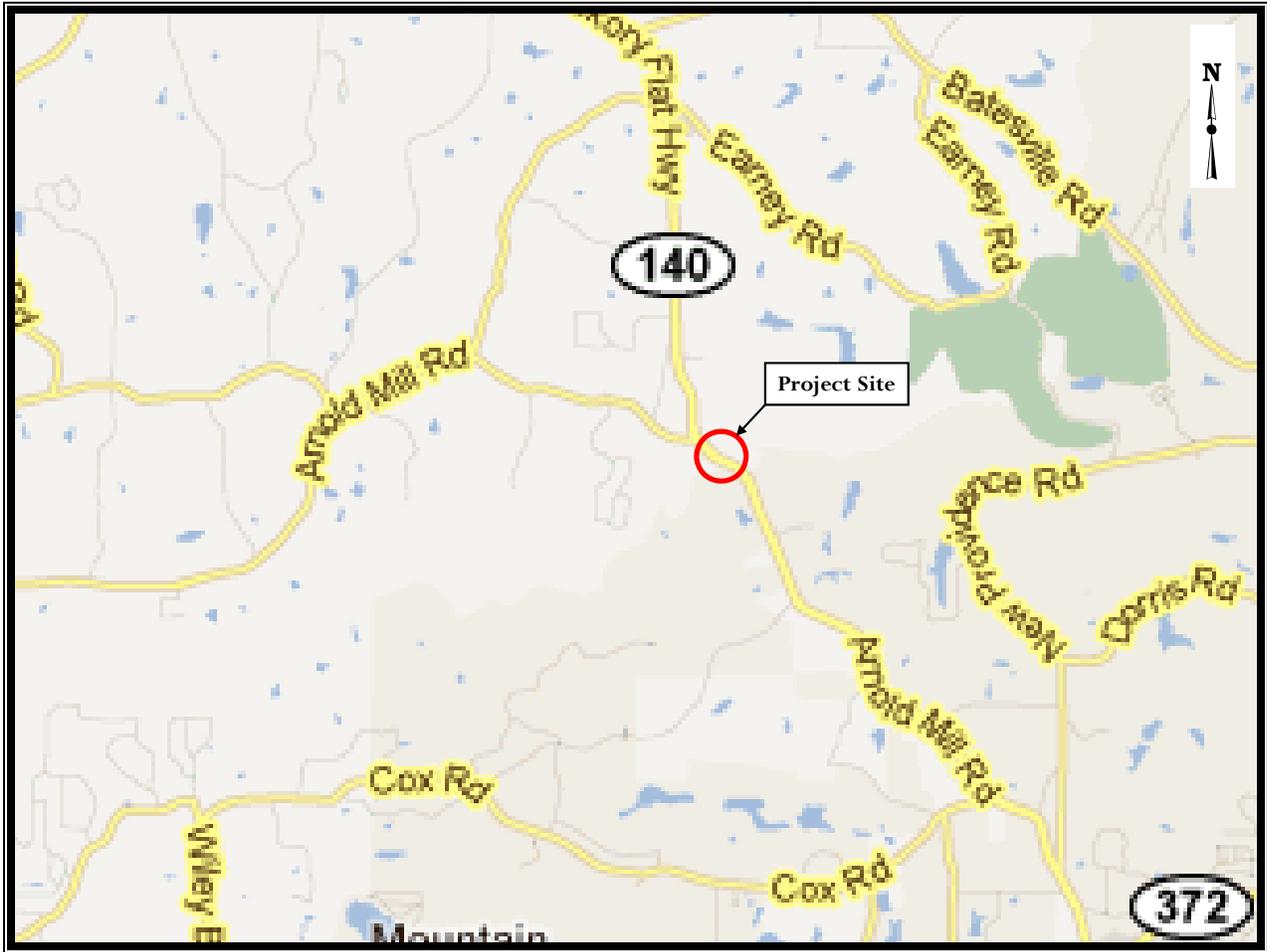
Initial evaluations were made to assess the current conditions along the corridor. Peak hour turning movement counts were conducted at the study intersection. In addition to the TMCs, 24-hour directional counts were taken on each approach to the study intersection. Traffic projections for the corridor were developed for the Opening Year 2017 and the Design Year 2037. Because this project will not add capacity to SR 140, the No-Build volumes and the Build volumes are expected to be the same. No-Build/Build models were developed and analyzed for the study intersection for the Opening Year 2017 and the Design Year 2037. Because this is a bridge replacement project, no additional improvements were identified to mitigate any inadequate levels of service (LOS) that were identified.

### Planned Improvements

In addition to the proposed project, there is one other known project that will affect the study corridor.

The other project consists of three project numbers and is STP-187-1(14), STP-187-1(15), STP-187-1(17), PI No. 721300, PI No. 721305, PI No. 621240, the widening of SR 140 from Mansell Road to East Cherokee Drive in Fulton and Cherokee Counties. The project is scheduled for construction in 2019. It is expected that any inadequate LOS that were identified as part of the bridge replacement project will be addressed as part of the widening project.

Figure 1 – Project Location Map



## 2. EXISTING CONDITIONS

---

### SR 140/HOUZE ROAD TRAFFIC ENGINEERING REPORT

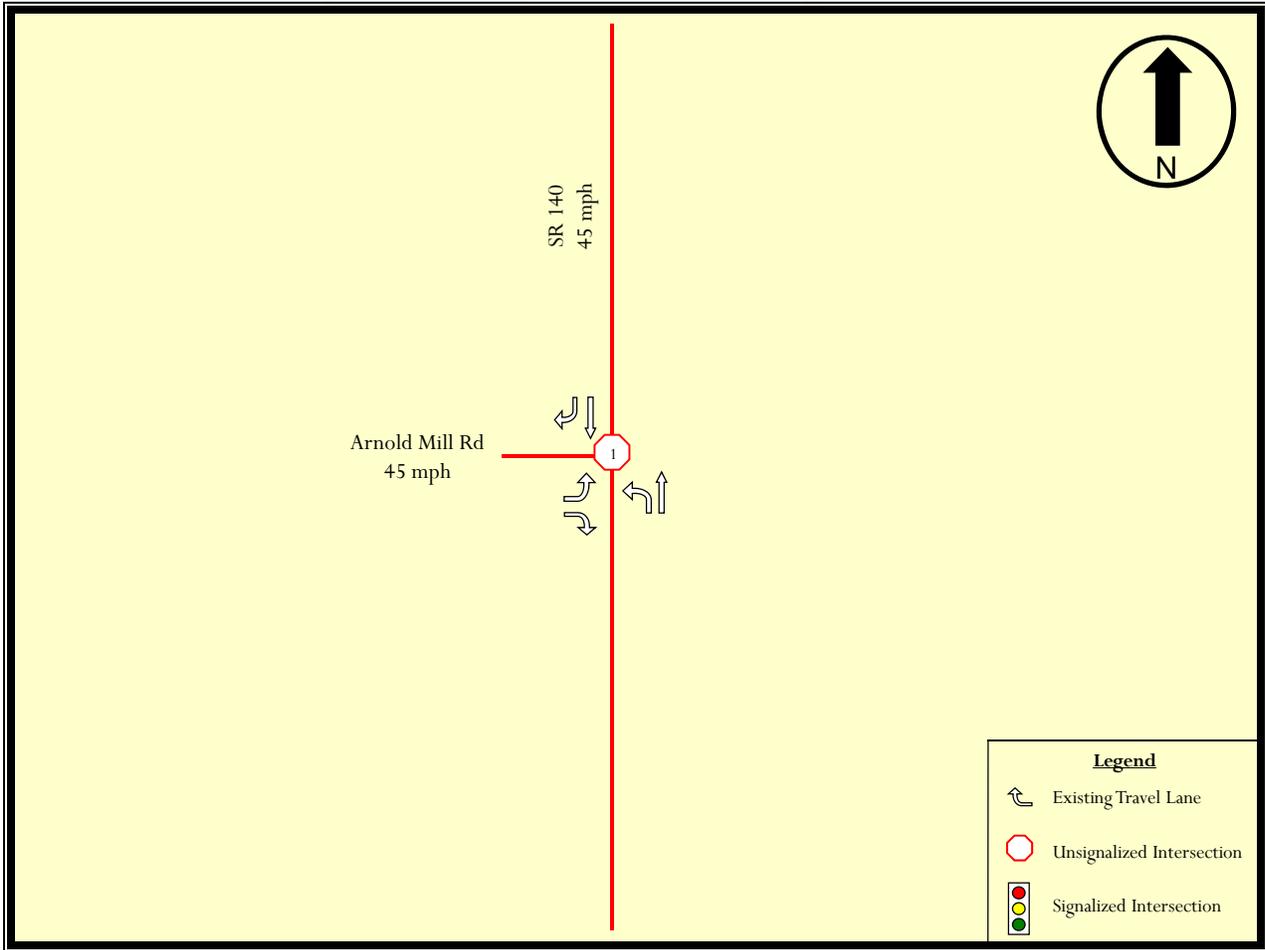
The project consists of replacing the bridge on SR 140/Houze Road over Little River.

SR 140 is a two-lane road south of Arnold Mill Road and a two-lane roadway with a center two-way left-turn lane north of Arnold Mill Road. The speed limit is 45 mph. It runs from I-575 in Canton and points beyond to the northwest to SR 400 in Roswell and points beyond to the southeast. In the project vicinity, land use along SR 140 is a mixture of residential, commercial, and undeveloped. The functional class of SR 140 is an Urban Minor Arterial.

Arnold Mill Road is a two-lane road with a 45 mph speed limit that runs west from SR 140 to Woodstock. In the project vicinity, land use along Arnold Mill Road is a mixture of residential and undeveloped. The functional class of Arnold Mill Road is an Urban Minor Arterial.

The intersection of SR 140 and Arnold Mill Road was studied. The intersection has a left turn lane and a through lane northbound on SR 140, a through lane and a right turn lane southbound on SR 140, and a left turn lane and a right turn lane eastbound on Arnold Mill Road. There is a stop sign on the left turn lane on Arnold Mill Road at SR 140. The right turn lane on SR 140 and Arnold Mill Road is controlled by a yield sign. Figure 2 illustrates the associated geometry and operation control.

Figure 2 – Existing Travel Lanes and Traffic Control



### 3. TRAFFIC DATA

---

#### SR 140/HOUZE ROAD TRAFFIC ENGINEERING REPORT

---

Turning movement counts (TMCs) and 24-hour directional volume counts were collected on each approach to the study intersection on Tuesday, October 18, 2011. The existing peak volumes are illustrated in Appendix A.

The Opening Year 2017 and Design Year 2037 traffic projections were developed for the study intersection. The future year projections based on annual growth rates were determined for the corridor.

#### **Projected Average Daily Traffic Volumes (ADT) Volumes**

Traffic on SR 140 and Arnold Mill Road is expected to increase as a result of continuing development in the region. The growth rate was calculated utilizing historic count data available from GDOT in the vicinity of the project for the years 2005 through 2010, the current ARC travel demand model's 2020 and 2040 traffic projections in the vicinity of the project, and the traffic projections for STP-187-1(14), STP-187-1(15), STP-187-1(17), PI No. 721300, PI No. 721305, PI No. 621240, the widening of SR 140 from Mansell Road to East Cherokee Drive in Fulton and Cherokee Counties.

The GDOT count stations that were utilized were Stations 0114 and 0162 in Cherokee County, and Station 0332 in Fulton County. All of these count stations are along SR 140 and Arnold Mill Road in the vicinity of the study corridor. Microsoft Excel's FORECAST function was used to estimate the Existing Year 2011, Opening Year 2017, and Design Year 2037 volumes at the count stations, and the growth rates per year were calculated. The average growth rate per year for these three count locations is 0.19% per year from 2011 to 2037.

The current ARC travel demand model's 2020 and 2040 traffic projections on SR 140 and Arnold Mill Road in the vicinity of the project show an average growth rate of 3.16% per year for 2020 to 2040.

The traffic projections for STP-187-1(14), STP-187-1(15), STP-187-1(17), PI No. 721300, PI No. 721305, PI No. 621240, the widening of SR 140 from Mansell Road to East Cherokee Drive in Fulton and Cherokee Counties, were also looked at, since they include the intersection of SR 140 and Arnold Mill Road. The project is scheduled for construction in 2019. The Opening Year for the traffic projections was 2013, and the Design Year was 2033. The average growth rate per year at the intersection of SR 140 and Arnold Mill Road was 2.86% per year from 2013 to 2033.

For this project, a growth rate of 1.0% per year was used from the Existing Year 2011 to the Opening Year 2017, and a growth rate of 3.0% per year was used from the Opening Year 2017 to Design Year 2037.

This project is to replace the existing two-lane SR 140/Houze Road bridge with a two-lane bridge. The capacity of SR 140 is not expected to increase as a result of this project. Therefore, the traffic projections were capped at the capacity of the future two-lane section. According to the Transportation Research Board's *Highway Capacity Manual, 2010*, the maximum directional hourly volume on a two-lane uninterrupted facility is 1,700 vehicles. Using the approved growth rates, it is estimated that the peak hour

volume on SR 140 will reach 1,700 vehicles in one direction between the years 2025 and 2026. The existing volumes were grown using the approved growth rates to year 2025 levels. At that point, the future two-lane section will not be able to carry any more traffic, so traffic volumes are not expected to increase between 2025 and the Design Year 2037.

The growth rates were applied to the average daily traffic (ADT) numbers to project 24-hour traffic for the Opening Year 2017 and Design Year 2037.

### **Projected Design Hour Volumes (DHV)**

Using the 24-hour counts, a K factor and D factor were calculated. The K factor is the proportion of daily traffic occurring during the peak hour. The D factor or directional factor is the percentage split of traffic traveling in either direction during a particular time of day. The K and D factors for SR 140 are 8% and 78%/22% respectively.

Design hour volumes (DHV) are obtained by applying the growth rate to the existing traffic volumes found in Appendix A. Those projected hourly volumes are checked against the ADT projections using the K and D factors.

The projected DHV and ADT for the Existing Year 2011, the Opening Year 2017, and the Design Year 2037 are illustrated in Appendix A for the No-Build/Build Scenario. Because this project will not add capacity to SR 140, the No-Build volumes and the Build volumes are expected to be the same

## 4. DATA ANALYSIS

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### SR 140/HOUZE ROAD TRAFFIC ENGINEERING REPORT

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Capacity analysis was used to evaluate the projected volumes at the study intersection. This process was used to determine the geometry and traffic control needed at the study intersection to result in adequate levels of service (LOS) for the Opening Year 2017 and Design Year 2037 conditions.

*Synchro* (1) was used to conduct capacity analysis. *Synchro* implements the capacity methods of the *Highway Capacity Manual* (HCM) (2) for performing the industry standard evaluation of intersection performance.

The HCM defines LOS in terms of the amount of control delay, including initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

The LOS definitions for both stop controlled and signal controlled intersections are provided in Table 1.

*Table 1 – Level of Service Criteria*

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

Source: *Highway Capacity Manual*

GDOT has ranges of adequate LOS based on the area classification. Rural, sparsely developed areas have a minimum LOS requirement of C. This is due to the expectancy of rural residents for relatively uncongested conditions and to design flexibility related to lower right of way costs. The minimum LOS for urban areas is D. This reflects the greater acceptance of delay and congestion by urban residents. Additionally, the increased density of developments makes right of way costs much higher in urban areas. The SR 140/Houze Road project corridor is in the Atlanta metro area and, therefore, has a minimum LOS requirement of D.

### Intersection Capacity Analysis Results

The study intersection was evaluated with the existing geometry (see Figure 2), using the Existing Year 2011, Opening Year 2017, and Design Year 2037 volumes. Table 2 contains the results of the capacity analysis. The values shown in parenthesis indicate the estimated delay in seconds per vehicle. Asterisks indicate a very high delay that is beyond the limits that can be estimated using the *Synchro* software. *Synchro* printouts are provided in Appendix B.

**Table 2 – Results of Capacity Analysis**

INTERSECTION	MOVEMENT	A.M. PEAK HOUR			P.M. PEAK HOUR		
		Existing Year 2011	Opening Year 2017	Design Year 2037	Existing Year 2011	Opening Year 2017	Design Year 2037
SR 140 & Arnold Mill Rd	EB Left	C (21.3)	D (32.0)	F (63.8)	F (152.6)	F (210.6)	F (1270.3)
	EB Right	D (34.3)	F (103.0)	F (376.4)	A (9.8)	A (9.9)	B (10.6)
	NB Left	A (9.5)	B (10.3)	B (12.0)	A (9.6)	A (9.9)	B (11.8)
	SB Right	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)

As shown in the Table 2, the study intersection is currently operating adequately, except for the eastbound left turn from Arnold Mill Road onto SR 140 northbound during the PM peak hour.

By the Year 2017, the eastbound right turn from Arnold Mill Road onto SR 140 southbound is expected to operate at LOS F during the AM peak hour if no improvements are made.

By the Year 2037, the eastbound left turn from Arnold Mill Road onto SR 140 northbound is expected to operate at LOS F during the AM peak hour if no improvements are made.

A traffic signal is not expected to be warranted for Existing Year 2011 conditions or Opening Year 2017 conditions. However, a traffic signal might be warranted for Design Year 2037 conditions. It is suggested that future conditions be monitored to determine if a traffic signal becomes warranted. The traffic signal warrant analyses are included in Appendix C.

### Roadway Segment Capacity Analysis

Roadway segment capacity analysis was also used to evaluate the projected volumes along the corridor. The generalized annual average daily volumes contained in the Georgia Regional Transportation Authority’s (GRTA) *GRTA DRI Review Package Technical Guidelines* (3) were used to evaluate the roadway segments. The GRTA guidelines define level of service (LOS) for a roadway segment based on the daily volume, the functional classification, the number of lanes, the presence of a median, the presence of left turn lanes, and the number of signals.

SR 140 is classified as an Urban Minor Arterial. For the roadway segment capacity analysis, the LOS standard was assumed to be D.

Study roadway segments were evaluated for the No-Build/Build Scenario. This analysis shows what the LOS would be on each roadway segment in the Opening Year 2017 and Design Year 2037.

Table 3 contains the results of roadway segment capacity analysis of projected volumes for the study roadway segments in the Opening Year 2017 and Design Year 2037. The volume to capacity ratio (V/C) is also shown; this is the ratio of the amount of traffic the roadway is expected to carry to the theoretical amount of traffic that the roadway could carry at the specified LOS standard.

As shown in Table 3, for the Existing Year 2011, the roadway segments are currently operating at adequate LOS.

In the Opening Year 2017, the roadway segment of SR 140 south of Arnold Mill Road is expected to operate with an inadequate LOS if no improvements are made.

In the Design Year 2037, the roadway segment of SR 140 south of Arnold Mill Road is expected to operate with an inadequate LOS if no improvements are made.

*Table 3 – Roadway Segment Capacity Analysis*

Segment	Functional Classification	LOS	# of Lanes	Undivided/ Divided	Left Turn Lanes	Adjustment Factor	# of Signals	Class	Unadjusted Capacity for LOS	Adjusted Capacity for LOS	2011			2017			2037		
											AADT	LOS	V/C	AADT	LOS	V/C	AADT	LOS	V/C
SR 140 south of Arnold Mill Rd	Urban Minor Arterial	D	2	U	N	-0.2	0	Unsignalized	24800	19840	19270	D	0.97	20460	E	1.03	25920	E	1.31
SR 140 north of Arnold Mill Rd	Urban Minor Arterial	D	2	D	Y	0.05	0	Unsignalized	24800	26040	12890	B	0.50	13680	B	0.53	17340	C	0.67
Arnold Mill Rd west of SR 140	Urban Minor Arterial	D	2	U	N	-0.2	0	Non-State Roadway	14600	11680	7120	D	0.61	7560	D	0.65	9580	D	0.82

## Crash Analysis

The crash analysis examines the crash statistics along SR 140 and compares them to the statewide averages of similar facilities. The statewide averages are calculated using crash data that is collected annually by GDOT. Crash rates are based on the number of crashes, injuries, and fatalities per million vehicle miles traveled. Crash data on the SR 140 corridor was collected for the years of 2007, 2008, and 2009. Table 4 illustrates the differences between the crash rates on SR 140 and the statewide averages. As can be seen in the table, the crash rates on SR 140 in Fulton County between the Cherokee County line and Old Chadwick Lane were below the statewide averages for all three years. The crash rates on SR 140 in Cherokee County between Arnold Mill Road and the Fulton County line exceeded the statewide averages for number of crashes and number of injuries for 2007 and 2008; this section was below the statewide averages for 2009.

**Table 4 – Crash Rates for SR 140 from Old Chadwick Ln to Arnold Mill Rd**

Section	Location	Type	2007		2008		2009	
			Statewide	SR 140	Statewide	SR 140	Statewide	SR 140
MP 0.00 - 0.41 Fulton County	SR 140 from Cherokee County line to Old Chadwick Ln	Collision	513	240	469	128	463	98
		Injuries	190	171	176	32	173	0
		Fatalities	1.48	0	1.47	0	1.10	0
MP 26.78 - 27.01 Cherokee County	SR 140 from Arnold Mill Rd to Fulton County line	Collision	513	1243	469	1064	463	177
		Injuries	190	663	176	443	173	89
		Fatalities	1.48	0	1.47	0	1.10	0

Crash data at the intersection of SR 140 and Arnold Mill Road was also obtained from GDOT for the years of 2007 through 2010. The crash data is summarized in Table 5. It appears that two to three crashes per year were of a type susceptible to correction by a traffic signal for the years 2007 through 2010. The crash data are included in Appendix D.

**Table 5 – Crash History for SR 140 at Arnold Mill Road**

Year	Rear End	Side Swipe Same Direction	Side Swipe Opposite Direction	Angle	Head On	Not a Collision with a Motor Vehicle	Total	Injury Crashes/ Number of Injuries	Fatal Crashes/ Number of Fatalities
2007	9	0	0	3	0	0	12	5/6	0/0
2008	7	0	1	2	0	0	10	3/4	0/0
2009	1	0	0	2	0	0	3	1/1	0/0
2010	7	0	1	2	0	2	12	4/4	0/0

## 5. CONCLUSIONS

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### SR 140/HOUZE ROAD TRAFFIC ENGINEERING REPORT

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

This project is to replace the existing two-lane SR 140/Houze Road bridge with a two-lane bridge. The capacity of SR 140 is not expected to increase as a result of this project. Because this project will not add capacity to SR 140, the No-Build volumes and the Build volumes are expected to be the same. The traffic projections were capped at the capacity of the future two-lane section. Using the approved growth rates, it is estimated that the volume on SR 140 will reach capacity between the years 2025 and 2026. At that point, the future two-lane section will not be able to carry any more traffic, so traffic volumes are not expected to increase between 2025 and the Design Year 2037.

For Existing Year 2011 conditions, the intersection of SR 140 and Arnold Mill Road is currently operating adequately, except for the eastbound left turn from Arnold Mill Road onto SR 140 northbound during the PM peak hour.

For the No-Build/Build Scenario in the Opening Year 2017, the intersection of SR 140 and Arnold Mill Road is expected to operate adequately, except for the eastbound right turn from Arnold Mill Road onto SR 140 southbound during the AM peak hour and the eastbound left turn from Arnold Mill Road onto SR 140 northbound during the PM peak hour.

For the No-Build/Build Scenario in the Design Year 2037, the intersection of SR 140 and Arnold Mill Road is expected to operate adequately, except for the eastbound right turn from Arnold Mill Road onto SR 140 southbound during the AM peak hour and the eastbound left turn from Arnold Mill Road onto SR 140 northbound during both peak hours.

Because this is a bridge replacement project, no additional improvements were identified to mitigate any inadequate levels of service (LOS) that were identified. STP-187-1(14), STP-187-1(15), STP-187-1(17), PI No. 721300, PI No. 721305, PI No. 621240, the widening of SR 140 from Mansell Road to East Cherokee Drive in Fulton and Cherokee Counties is scheduled for construction in 2019. It is expected that any inadequate LOS that were identified as part of the bridge replacement project will be addressed as part of the widening project.

A traffic signal is not expected to be warranted for Existing Year 2011 conditions or Opening Year 2017 conditions. However, a traffic signal might be warranted for Design Year 2037 conditions. It is suggested that future conditions be monitored to determine if a traffic signal becomes warranted.

## REFERENCES

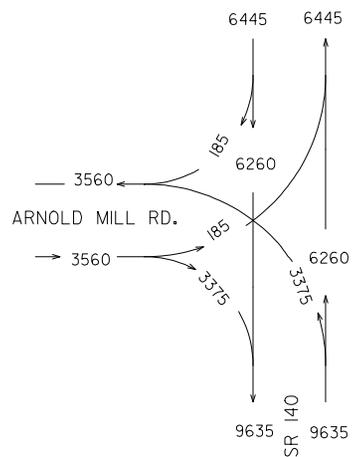
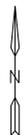
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### SR 140/HOUZE ROAD TRAFFIC ENGINEERING STUDY

1. Synchro, Version 8, Trafficware Ltd., Sugar Land, TX, 2011.
2. Highway Capacity Manual, HCM 2010, Transportation Research Board, Washington, DC, 2010.
3. GRTA DRI Review Package Technical Guidelines, Georgia Regional Transportation Authority, Atlanta, GA, 2008.

**APPENDIX A –  
Traffic Projections**

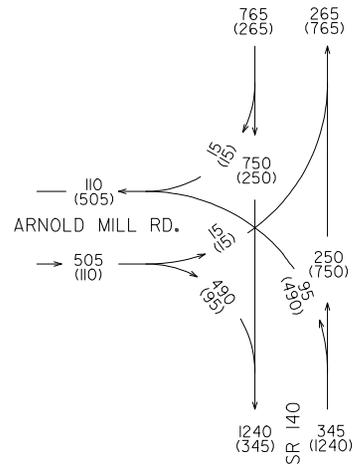
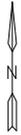
# FULTON/CHEROKEE COUNTIES



EXISTING CONDITIONS

BRFO0-0187-01 (016)  
 P.L. # 721308  
 FULTON/CHEROKEE CO.  
 SR 140/HOUZE RD OVER  
 LITTLE RIVER @  
 FULTON/CHEROKEE CO  
 LINE  
 2011 ADT = 000  
 24-HOUR TRUCK = 6.5%  
 S.U. = 5.3%  
 COMB. = 1.2%  
 JD  
 10/11

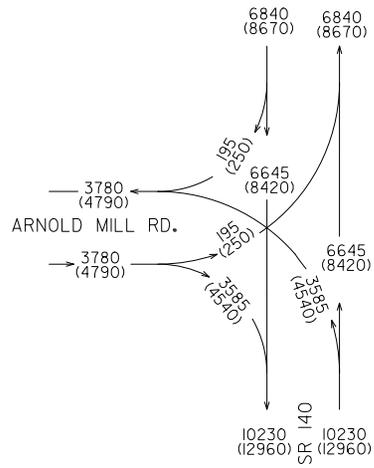
# FULTON/CHEROKEE COUNTIES



EXISTING CONDITIONS

BRFO0-0187-01 (016)  
 P.L. # 721308  
 FULTON/CHEROKEE CO.  
 SR 140/HOUZE RD OVER  
 LITTLE RIVER @  
 FULTON/CHEROKEE CO  
 LINE  
 2011 AM TMC = 000  
 2011 PM TMC = 000  
 DHV TRUCK = 6.0%  
 S.U. = 5.0%  
 COMB. = 1.0% JD  
 10/11

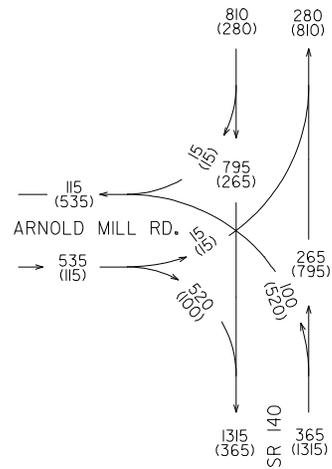
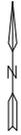
# FULTON/CHEROKEE COUNTIES



NO-BUILD/BUILD CONDITIONS

BRFO0-0187-01 (016)  
 P. L. # 721308  
 FULTON/CHEROKEE CO.  
 SR 140/HOUZE RD OVER  
 LITTLE RIVER @  
 FULTON/CHEROKEE CO  
 LINE  
 2017 ADT = 000  
 2037 ADT = (000)  
 24-HOUR TRUCK = 6.5%  
 S.U. = 5.3%  
 COMB. = 1.2%  
 JD  
 10/11

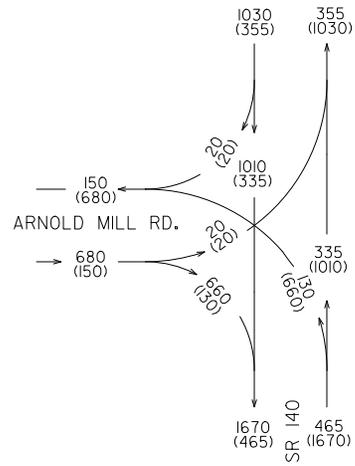
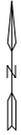
# FULTON/CHEROKEE COUNTIES



NO-BUILD/BUILD CONDITIONS

BRFO0-0187-01(016)  
 P.L. # 721308  
 FULTON/CHEROKEE CO.  
 SR 140/HOUZE RD OVER  
 LITTLE RIVER @  
 FULTON/CHEROKEE CO  
 LINE  
 2017 AM DHV = 000  
 2017 PM DHV = (000)  
 DHV TRUCK = 6.0%  
 S.U. = 5.0%  
 COMB. = 1.0%  
 JD  
 10/11

# FULTON/CHEROKEE COUNTIES



NO-BUILD/BUILD CONDITIONS

BRFO0-0187-01 (016)  
 P. I. # 721308  
 FULTON/CHEROKEE CO.  
 SR 140/HOUZE RD OVER  
 LITTLE RIVER @  
 FULTON/CHEROKEE CO  
 LINE  
 2037 AM DHV = 000  
 2037 PM DHV = 000  
 DHV TRUCK = 6.0%  
 S.U. = 5.0%  
 COMB. = 1.0%  
 JD  
 10/11

**APPENDIX B –  
Intersection Capacity Analysis**

1: SR 140 & Arnold Mill Rd

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	422	53	211	692	13
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	440	55	220	721	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1051	721	721			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1051	721	721			
tC, single (s)	6.5	*5.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	95	19	94			
cM capacity (veh/h)	231	542	863			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	10	440	55	220	721	14
Volume Left	10	0	55	0	0	0
Volume Right	0	440	0	0	0	14
cSH	231	542	863	1700	1700	1700
Volume to Capacity	0.05	0.81	0.06	0.13	0.42	0.01
Queue Length 95th (ft)	4	199	5	0	0	0
Control Delay (s)	21.3	34.3	9.5	0.0	0.0	0.0
Lane LOS	C	D	A			
Approach Delay (s)	34.0		1.9	0.0		
Approach LOS	D					

Intersection Summary						
Average Delay			10.8			
Intersection Capacity Utilization			69.2%	ICU Level of Service	C	
Analysis Period (min)			15			

\* User Entered Value

1: SR 140 & Arnold Mill Rd

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	15	95	490	750	250	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	15	97	500	765	255	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2020	255	255			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2020	255	255			
tC, single (s)	6.5	*5.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	60	89	61			
cM capacity (veh/h)	38	846	1287			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	15	97	500	765	255	15
Volume Left	15	0	500	0	0	0
Volume Right	0	97	0	0	0	15
cSH	38	846	1287	1700	1700	1700
Volume to Capacity	0.40	0.11	0.39	0.45	0.15	0.01
Queue Length 95th (ft)	34	10	47	0	0	0
Control Delay (s)	152.6	9.8	9.6	0.0	0.0	0.0
Lane LOS	F	A	A			
Approach Delay (s)	29.3		3.8		0.0	
Approach LOS	D					
Intersection Summary						
Average Delay			4.9			
Intersection Capacity Utilization			53.6%		ICU Level of Service	A
Analysis Period (min)			15			

\* User Entered Value

1: SR 140 & Arnold Mill Rd

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	15	520	100	265	795	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	16	542	104	276	828	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1312	828	828			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1312	828	828			
tC, single (s)	6.5	*5.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	89	0	87			
cM capacity (veh/h)	149	488	786			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	16	542	104	276	828	16
Volume Left	16	0	104	0	0	0
Volume Right	0	542	0	0	0	16
cSH	149	488	786	1700	1700	1700
Volume to Capacity	0.11	1.11	0.13	0.16	0.49	0.01
Queue Length 95th (ft)	9	451	11	0	0	0
Control Delay (s)	32.0	103.0	10.3	0.0	0.0	0.0
Lane LOS	D	F	B			
Approach Delay (s)	101.0		2.8		0.0	
Approach LOS	F					
Intersection Summary						
Average Delay	32.2					
Intersection Capacity Utilization	80.7%			ICU Level of Service	D	
Analysis Period (min)	15					

\* User Entered Value

1: SR 140 & Arnold Mill Rd

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	15	100	520	795	265	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	15	102	531	811	270	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2143	270	270			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2143	270	270			
tC, single (s)	6.5	*5.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	50	88	58			
cM capacity (veh/h)	30	834	1270			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	15	102	531	811	270	15
Volume Left	15	0	531	0	0	0
Volume Right	0	102	0	0	0	15
cSH	30	834	1270	1700	1700	1700
Volume to Capacity	0.50	0.12	0.42	0.48	0.16	0.01
Queue Length 95th (ft)	41	10	53	0	0	0
Control Delay (s)	210.6	9.9	9.9	0.0	0.0	0.0
Lane LOS	F	A	A			
Approach Delay (s)	36.1		3.9		0.0	
Approach LOS	E					
Intersection Summary						
Average Delay	5.4					
Intersection Capacity Utilization	56.1%			ICU Level of Service	B	
Analysis Period (min)	15					

\* User Entered Value

1: SR 140 & Arnold Mill Rd

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	20	660	130	335	1010	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	21	688	135	349	1052	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1672	1052	1052			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1672	1052	1052			
tC, single (s)	6.5	*5.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	74	0	79			
cM capacity (veh/h)	81	391	647			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	21	688	135	349	1052	21
Volume Left	21	0	135	0	0	0
Volume Right	0	688	0	0	0	21
cSH	81	391	647	1700	1700	1700
Volume to Capacity	0.26	1.76	0.21	0.21	0.62	0.01
Queue Length 95th (ft)	23	1077	20	0	0	0
Control Delay (s)	63.8	376.4	12.0	0.0	0.0	0.0
Lane LOS	F	F	B			
Approach Delay (s)	367.2		3.4	0.0		
Approach LOS	F					

Intersection Summary						
Average Delay			115.5			
Intersection Capacity Utilization			100.7%	ICU Level of Service	G	
Analysis Period (min)			15			

\* User Entered Value

1: SR 140 & Arnold Mill Rd

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	20	130	660	1010	335	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	20	133	673	1031	342	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2719	342	342			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2719	342	342			
tC, single (s)	6.5	*5.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.3			
p0 queue free %	0	83	44			
cM capacity (veh/h)	10	780	1195			
Direction, Lane #						
	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	20	133	673	1031	342	20
Volume Left	20	0	673	0	0	0
Volume Right	0	133	0	0	0	20
cSH	10	780	1195	1700	1700	1700
Volume to Capacity	2.11	0.17	0.56	0.61	0.20	0.01
Queue Length 95th (ft)	88	15	92	0	0	0
Control Delay (s)	1270.3	10.6	11.8	0.0	0.0	0.0
Lane LOS	F	B	B			
Approach Delay (s)	178.5		4.7		0.0	
Approach LOS	F					
Intersection Summary						
Average Delay			15.9			
Intersection Capacity Utilization			67.5%	ICU Level of Service	C	
Analysis Period (min)			15			

\* User Entered Value

**APPENDIX C –  
Traffic Signal Warrant Analyses**







I. SR 140 & Arnold Mill Rd Opening Year 2017 70% EB Rights Included in Minor St Volumes			without reduction for speed greater than 40 mph								with reduction for speed greater than 40 mph													
			Warrant 1				Warrant 2				Warrant 1				Warrant 2									
			Warrant 1A		Warrant 1B		Combination of 1A and 1B				Warrant 2		Warrant 1A		Warrant 1B		Combination of 1A and 1B							
			Required Volume		Required Volume		Required Volume for 80% of 1A		Required Volume for 80% of 1B		Required Minor St Volume		Required Volume Met?		Required Volume Met?		Required Volume Met?		Required Volume Met?		Required Minor St Volume		Required Volume Met?	
			Major St	Minor St	Major St	Minor St	Major St	Minor St	Major St	Minor St	Major St	Minor St	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Minor St Volume	Required Volume Met?		
		600	200	900	100	480	160	720	80			420	140	630	70	336	112	504	56					
Hour	SR 140	Arnold Mill Rd Including % of Rights	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Minor St Volume	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Volume Met?	Required Minor St Volume	Required Volume Met?	Required Minor St Volume	Required Volume Met?					
5 a.m.	780	124	Major	Minor	Major	Both	Both	284	No	Major	Both	Both	Both	Both	Both	109	Yes							
6 a.m.	1025	439	Both	Both	Both	Both	Both	181	Yes	Both	Both	Both	Both	Both	Both	80	Yes							
7 a.m.	880	521	Both	Minor	Both	Both	Both	238	Yes	Both	Both	Both	Both	Both	Both	87	Yes							
8 a.m.	1160	379	Both	Both	Both	Both	Both	141	Yes	Both	Both	Both	Both	Both	Both	80	Yes							
9 a.m.	975	205	Both	Both	Both	Both	Both	199	Yes	Both	Both	Both	Both	Both	Both	80	Yes							
10 a.m.	770	122	Major	Minor	Major	Both	Both	289	No	Major	Both	Both	Both	Both	Both	112	Yes							
11 a.m.	800	104	Major	Minor	Major	Both	Both	274	No	Major	Both	Major	Both	Both	Both	104	Yes							
12 p.m.	805	104	Major	Minor	Major	Both	Both	272	No	Major	Both	Major	Both	Both	Both	102	Yes							
1 p.m.	925	104	Major	Both	Major	Both	Both	219	No	Major	Both	Major	Both	Both	Both	80	Yes							
2 p.m.	785	85	Major	No	Major	Both	Both	282	No	Major	Both	Major	Both	Both	Both	107	No							
3 p.m.	1015	82	Major	Major	Major	Both	Both	185	No	Major	Both	Major	Both	Both	Both	80	Yes							
4 p.m.	1340	89	Major	Major	Major	Both	Both	115	No	Major	Both	Major	Both	Both	Both	80	Yes							
5 p.m.	1580	85	Major	Major	Major	Both	Both	115	No	Major	Both	Major	Both	Both	Both	80	Yes							
6 p.m.	1430	85	Major	Major	Major	Both	Both	115	No	Major	Both	Major	Both	Both	Both	80	Yes							
7 p.m.	865	71	Major	No	Major	Major	Major	244	No	Major	Both	Major	Both	Both	Both	90	No							
Number of Hours Met			4	4	4	14	4	4		4	15	6	15	13										
Number of Hours Required To Be Met			8	8	8	8	8	4		8	8	8	8	4										
Warrant Met?			No	No	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes										





**APPENDIX D –  
Crash Data**

SR 140, Arnold Mill Road in CHEROKEE COUNTY to Old Chadwick Lane in FULTON COUNTY																			
Accident No	Date	Time	County	Route Type	Route	Milelog	Intersecting Rt Type	Intersecting Rt	Injuries	Fatalities	Harmful Event	Collision	Location of Impact	Light	Surface	DirVeh1	DirVeh2	MnvrVeh1	MnvrVeh2
75470470	12/12/2007	12:51 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
75680005	12/20/2007	6:12 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Dark-Not Lighted	Wet	W	W	Straight	Stopped
75680014	12/21/2007	4:26 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	E	S	Turning Left	Straight
70960564	3/9/2007	2:21 PM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	W	E	Turning Left	Straight
73840396	9/8/2007	5:20 PM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
73560081	8/24/2007	9:48 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Straight
70020509	1/2/2007	8:50 AM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	S	S	Turning Left	Stopped
72030381	5/16/2007	5:26 PM	Cherokee	State Route	014000	26.78	2	077700	2	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	N	S	Turning Left	Negotiating a Curve
72700043	8/29/2007	3:52 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Stopped
70350655	2/5/2007	8:29 AM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Straight	Straight
73840372	9/5/2007	3:05 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	W	W	Straight	Stopped
74240010	10/1/2007	6:29 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Dark-Not Lighted	Dry	S	S	Straight	Stopped
73930560	9/15/2007	11:56 PM	Cherokee	State Route	014000	26.91			1	0	Motor Vehicle in Motion	Sideswipe - Same Direction	On Roadway	Dark-Lighted	Dry	W	N	Straight	Straight
73650306	8/27/2007	10:32 PM	Cherokee	State Route	014000	27			1	0	Guardrail Face	Not A Collision With A Motor Vehicle	On Roadway	Dark-Not Lighted	Dry	E		Negotiating a Curve	
70060102	1/5/2007	8:31 PM	Cherokee	State Route	014000	27.01			0	0	Guardrail Face	Not A Collision With A Motor Vehicle	On Shoulder	Dark-Not Lighted	Wet	E		Turning Left	
70820305	3/3/2007	1:00 AM	Fulton	State Route	014000	0.08			1	0	Guardrail Face	Not A Collision With A Motor Vehicle	Off Roadway	Dark-Not Lighted	Dry	W		Negotiating a Curve	
72440111	5/18/2007	4:02 PM	Fulton	State Route	014000	0.16			0	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	N	S	Turning Left	Straight
72440096	6/13/2007	5:23 PM	Fulton	State Route	014000	0.26			0	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	N	S	Turning Left	Straight
74270342	9/21/2007	8:05 AM	Fulton	State Route	014000	0.28			2	0	Motor Vehicle in Motion	Sideswipe - Opposite Direction	On Roadway	Daylight	Dry	N	S	Straight	Stopped
71320647	3/2/2007	7:20 AM	Fulton	State Route	014000	0.36	2	337300	2	0	Parked Motor Vehicle	Rear End	Off Roadway	Daylight	Dry	W	W	Straight	Stopped
71390156	3/10/2007	12:30 PM	Fulton	State Route	014000	0.36	2	337300	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	S	S	Straight	Stopped
75330208	11/17/2007	8:30 PM	Fulton	State Route	014000	0.41	2	005100	0	0	Animal	Not A Collision With A Motor Vehicle	On Roadway	Dark-Not Lighted	Dry	N		Straight	
80850387	3/10/2008	5:47 PM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
83100106	8/15/2008	8:00 AM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	N	N	Straight	Stopped
84770132	11/19/2008	11:57 AM	Cherokee	State Route	014000	26.78	2	077700	2	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	N	S	Turning Left	Straight
83200458	7/25/2008	3:24 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
83270479	8/25/2008	1:29 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Angle	Off Roadway	Daylight	Dry	E	E	Backing	Stopped
83550081	9/3/2008	9:14 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Straight	Stopped
83210035	6/11/2008	5:32 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Sideswipe - Opposite Direction	On Roadway	Daylight	Wet	E	S	Turning Left	Negotiating a Curve
85260046	12/19/2008	6:39 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Dark-Not Lighted	Dry	E	E	Turning Right	Stopped
83100098	8/14/2008	7:34 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Negotiating a Curve	Stopped
82290295	6/17/2008	7:52 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
84770126	11/24/2008	10:54 PM	Cherokee	State Route	014000	26.8			0	0	Deer	Not A Collision With A Motor Vehicle	On Roadway	Dark-Lighted	Wet	N		Straight	
82040143	5/29/2008	2:10 AM	Cherokee	State Route	014000	26.88			1	0	Tree	Not A Collision With A Motor Vehicle	Off Roadway	Dark-Not Lighted	Dry	E		Negotiating a Curve	
85490225	12/15/2008	6:15 AM	Fulton	State Route	014000	0.09			0	0	Motor Vehicle in Motion	Angle	On Roadway	Dark-Not Lighted	Dry	E	W	Turning Left	Negotiating a Curve
84100060	9/17/2008	3:34 PM	Fulton	State Route	014000	0.35			1	0	Motor Vehicle in Motion	Head On	On Roadway	Daylight	Dry	W	E	Turning Left	Straight
81740544	4/11/2008	5:40 PM	Fulton	State Route	014000	0.41	2	005100	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	N	N	Straight	Straight
83260119	7/1/2008	4:58 PM	Fulton	State Route	014000	0.41	2	005100	0	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	N	W	Passing	Turning Left
92190500	5/28/2009	7:05 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Angle	On Shoulder	Dawn	Dry	E	E	Turning Right	Turning Right
90300097	1/3/2009	12:52 AM	Cherokee	State Route	014000	26.93			1	0	Bridge Rail	Not A Collision With A Motor Vehicle	On Shoulder	Dark-Not Lighted	Wet	E		Turning Left	
92580214	5/15/2009	2:03 PM	Fulton	State Route	014000	0.02			0	0	Motor Vehicle in Motion	Sideswipe - Opposite Direction	On Roadway	Daylight	Dry	S	N	Turning Left	Turning Left
90390257	1/17/2009	4:00 PM	Fulton	State Route	014000	0.2			0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	N	N	Straight	Straight
92840373	6/5/2009	1:15 PM	Fulton	State Route	014000	0.36	2	337300	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	S	S	Straight	Stopped

CHEROKEE COUNTY, SR 140 @ Arnold Mill Road (CR 777)

Accident No	Date	Time	County	Route Type	Route	Milelog	Intersecting Rt Type	Intersecting Rt	Injuries	Fatalities	Harmful Event	Collision	Location of Impact	Light	Surface	DirVeh1	DirVeh2	MnvrVeh1	MnvrVeh2
70020509	1/2/2007	8:50 AM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	S	S	Turning Left	Stopped
70350655	2/5/2007	8:29 AM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Straight	Straight
70960564	3/9/2007	2:21 PM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	W	E	Turning Left	Straight
72030381	5/16/2007	5:26 PM	Cherokee	State Route	014000	26.78	2	077700	2	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	N	S	Turning Left	Negotiating a Curve
73560081	8/24/2007	9:48 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Straight
72700043	8/29/2007	3:52 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Stopped
73840372	9/5/2007	3:05 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	W	W	Straight	Stopped
73840396	9/8/2007	5:20 PM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
74240010	10/1/2007	6:29 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Dark-Not Lighted	Dry	S	S	Straight	Stopped
75470470	12/12/2007	12:51 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
75680005	12/20/2007	6:12 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Dark-Not Lighted	Wet	W	W	Straight	Stopped
75680014	12/21/2007	4:26 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	E	S	Turning Left	Straight
80850387	3/10/2008	5:47 PM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
83210035	6/1/2008	5:32 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Sideswipe - Opposite Direction	On Roadway	Daylight	Wet	E	S	Turning Left	Negotiating a Curve
82290295	6/17/2008	7:52 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
83200458	7/25/2008	3:24 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Turning Right	Turning Right
83100098	8/14/2008	7:34 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Negotiating a Curve	Stopped
83100106	8/15/2008	8:00 AM	Cherokee	State Route	014000	26.78	2	077700	1	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	N	N	Straight	Stopped
83270479	8/25/2008	1:29 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Angle	Off Roadway	Daylight	Dry	E	E	Backing	Stopped
83550081	9/3/2008	9:14 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Daylight	Dry	E	E	Straight	Stopped
84770132	11/19/2008	11:57 AM	Cherokee	State Route	014000	26.78	2	077700	2	0	Motor Vehicle in Motion	Angle	On Roadway	Daylight	Dry	N	S	Turning Left	Straight
85260046	12/19/2008	6:39 PM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Rear End	On Roadway	Dark-Not Lighted	Dry	E	E	Turning Right	Stopped
92190500	5/28/2009	7:05 AM	Cherokee	State Route	014000	26.78	2	077700	0	0	Motor Vehicle in Motion	Angle	On Shoulder	Dawn	Dry	E	E	Turning Right	Turning Right
95260126	12/1/2009	6:52 AM	CHEROKEE		ARNOLD MILL RD			HWY 140	0	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	East	East	Turning Right	Stopped
95300158	12/12/2009	8:23 PM	CHEROKEE		SR 140			ARNOLD MILL RD	1	0	Motor Vehicle In Motion	Angle	On Roadway	Daylight	Dry	North	Northeast	Turning Left	Straight
A0480490	2/10/2010	9:55 PM	CHEROKEE		HICKORY FLAT HWY			ARNOLD MILL RD	1	0	Over Turn	Not A Collision with Motor Vehicle	On Shoulder	Dark-Not Lighted	Dry	North	North	Turning Right	Stopped
A0930423	3/5/2010	7:03 AM	CHEROKEE		ARNOLD MILL RD			SR 140	0	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	East	East	Straight	Stopped
A0840270	3/9/2010	10:06 AM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	0	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	East	East	Straight	Stopped
A0840250	3/12/2010	8:40 AM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	1	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Wet	East	East	Turning Right	Stopped
A1830184	5/18/2010	7:47 AM	CHEROKEE		SR 140			ARNOLD MILL RD	0	0	Motor Vehicle In Motion	Angle	On Roadway	Daylight	Dry	North	East	Turning Left	Straight
A2450278	7/1/2010	7:30 AM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	1	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	East	East	Turning Right	Stopped
A2450327	7/1/2010	7:30 AM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	1	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	East	East	Turning Right	Stopped
	9/11/2010	11:54 AM	CHEROKEE		HICKORY FLAT HWY			ARNOLD MILL RD	0	0	Motor Vehicle In Motion	Angle	On Roadway	Daylight	Dry	South	North	Negotiating A Curve	Stopped
	10/18/2010	6:59 AM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	0	0	Motor Vehicle In Motion	Rear End	On Roadway	Dawn	Dry	South	South	Turning Right	Stopped
	10/30/2010	9:07 AM	CHEROKEE		HICKORY FLAT HWY			ARNOLD MILL RD	0	0	Motor Vehicle In Motion	Not A Collision with Motor Vehicle	On Shoulder	Daylight	Dry	North	North	Negotiating A Curve	Negotiating A Curve
	11/12/2010	9:18 AM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	0	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	South	South	Turning Right	Turning Right
	12/11/2010	8:15 PM	CHEROKEE		HICKORY FLAT HWY			ARNOLD MILL RD	0	0	Motor Vehicle In Motion	Sideswipe-Opposite Direction	On Roadway	Dark-Not Lighted	Dry	Northwest	Southeast	Straight	Straight
	2/20/2011	1:38 PM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	0	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	Southeast	Southeast	Turning Right	Stopped
	4/16/2011	1:31 PM	CHEROKEE		ARNOLD MILL RD			HICKORY FLAT HWY	0	0	Motor Vehicle In Motion	Rear End	On Roadway	Daylight	Dry	East	East	Turning Right	Turning Right

**BRF00-0187-01(016)**

**Fulton and Cherokee Counties**

**PI # 721308**

**SR 140/Houze Road Over Little River @ Fulton / Cherokee Co. Line**

# **Concept Report**

## **Attachment 5 Bridge Inventory**

**BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION**

Structure ID: 057-0029-0

Cherokee

SUFF. RATING

39.45

**Programming Data**

201 Project No.: S-0860 (1)  
 202 Plans Available: 4  
 249 Prop. Proj. No. BRF-187-1 (16)  
 250 Approval Status: 0000  
 251 P.I. No.: 721308-  
 252 Contract Date: 02/01/2006  
 260 Seismic No.: 00014  
 75 Type Work: 34 1  
 94 Bridge Imp. Cost: \$ 537  
 95 Roadway Imp. Cost: \$ 72  
 96 Total Imp Cost: \$ 763  
 76 Imp. Length: 000495  
 97 Imp. Year: 1990  
 114 Future ADT: 021555 Year: 2027

**Measurements**

\* 29 ADT: 014370 Year: 2007  
 109 % Trucks: 0  
 \* 28 Lanes On: 02 Under: 00  
 210 No. Tracks On: 00 Under: 00  
 \* 48 Max. Span Length: 0060  
 \* 49 Structure Length: 284  
 51 Br. Rwdy. Width: 26.00  
 52 Deck Width: 32.10  
 \* 47 Tot. Horz. Cl: 26.00  
 50 Curb/Sdewlk Width: 2.20/2.20  
 32 Approach Rdwy Width: 024  
 \* 229 Shoulder Width:  
     Rear Lt: 3.00 Type: 8 Rt: 3.00  
     Fwrd Lt: 3.00 Type: 8 Rt: 3.00  
 Pavement Width:  
     Rear: 24.00 Type: 2  
     Fwrd: 24.00 Type: 2  
 Intersection Rear: 0 Fwrd: 0  
 36 Safety Features Br. Rail: 2  
 Transition: 2  
 App. G. Rail: 1  
 App. Rail End: 1  
 53 Minimum Cl.Over: 99 ' 99 "  
     Under: N 00 ' 00 "  
 \* 228 Min. Vertical Cl  
     Act. Odm Dir: 99 ' 99 "  
     Oppo. Dir: 99 ' 99 "  
     Posted Odm. Dir: 00 ' 00 "  
     Oppo. Dir: 00 ' 00 "  
 55 Lateral Undercl. Rt: N 0.00  
 56 Lateral Undercl. Lt: 0.00  
 \* 10 Max Min Vert Cl: 99 ' 99 " Dir: 0  
 39 Nav Vert Cl: 000 Horz: 0000  
 116 Nav Vert Cl Closed: 000  
 245 Deck Thickness Main: 7.00  
     Deck Thick Approach: 0.00  
 246 Overlay Thickness: 0.00  
 212 Year Last Painted: Sup: 1977 Sub: 0000

**Ratings**

65 Inventory Rating Method: 2  
 63 Inventory Rating Method: 2  
 66 Inventory Type: 2 Rating: 22  
 64 Operating Type: 2 Rating: 35  
 231 Calculated Loads  
     H-Modified: 20 0  
     HS-Modified: 25 0  
     Type 3: 26 0  
     Type 3s2: 40 0  
     Timber: 36 0  
     Piggyback: 40 0  
 261 H Inventory Rating: 15  
 262 H Operating Rating: 21  
 67 Structural Evaluation: 5  
 58 Deck Condition: 5  
 59 Superstructure Condition: 5  
 \* 227 Collision Damage: 0  
 60A Substructure Condition: 5  
 60B Scour Condition: 7  
 60C Underwater Condition: N  
 71 Waterway Adequacy: 9  
 61 Channel Protection Condi: 5  
 68 Deck Geometry: 3  
 69 UnderClr. Horz/Vert: N  
 72 Appr. Alignment: 6  
 62 Culvert: N

**Hydraulic Data**

215 Waterway Data  
 Highwater Elev.: 0000.0 Year: 1900  
 Avg. Streambed Elev.: 0000.0 Freq.: 00  
 Drainage Area: 00060  
 Area Of Opening: 001890  
 113 Scour Critical: U  
 216 Water Depth: 1.1 Br. Height: 61.3  
 222 Slope Protection: 0  
 221 Spur Dikes Rear: 0 Fwrd: 0  
 219 Fender System: 0  
 220 Dolphin: 0  
 223 Culvert Cover: 000  
 Type: 0  
 No. Barrels: 0  
 Width: 0.00 Height: 0.00  
 Length: 0 Apron: 0 Diver: ZZZ  
 \* 265 U/W Insp. Area: 0

**Posting Data**

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

**BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION**

Structure ID: 057-0029-0

Cherokee

SUFF. RATNG

39.45

**Location & Geography**

**Signs & Attachments**

* Structure I.D.No:	057-0029-0	* 104 Highway System:	0	225 Expansion Joint Type:	02
* 200 Bridge Information	07	* 26 Functional Classification:	16	242 Deck Drains:	1
* 6A Feature Int:	LITTLE RIVER	* 204 Federal Route Type:	F No.: 01871	243 Parapet Location:	0
* 6B Critical Bridge:	0	105 Federal Lands Highway:	0	Height:	0.00
* 7A Route Number Carried:	SR00140	110 Truck Route:	0	Width:	0.00
* 7B Facility Carried:	SR 140	206 School Bus Route:	0		
* 9 Location:	CHEROKEE-FULTON C L	217 Benchmark Elevation:	0000.00		
2 DOT District:	6	218 Datum:	0	238 Curb:	1.20 1
207 Year Photo:	2010	* 19 Bypass Length:	11	239 Handrail:	1 1
* 91 Inspection Frequency:	24 Date: 06/30/2010	* 20 Toll:	3	* 240 Median Barrier Rail:	0
92A Fract Crit Insp Freq:	00 Date: 02/01/1901	* 21 Maintenance:	01	241 Bridge Median Height:	0.00
92B Underwater Insp Freq:	00 Date: 02/01/1901	* 22 Owner:	01	Width:	0.00
92C Other Spc. Insp Freq:	00 Date: 02/01/1901	* 31 Design Load:	2		
* 4 Place Code:	00000	37 Historical Significance:	5		
* 5 Inventory Route (O/U):	1	205 Congressional District:	06	* 230 Guardrail Loc Dir Rear:	3
Type:	3	27 Year Constructed:	1952	Fwrdr:	3
Designation:	1	106 Year Reconstructed:	0000	Oppo Dir Rear:	0
Number:	00140	33 Bridge Median:	0	Fwrdr:	0
Direction:	0	34 Skew:	00	244 Approach Slab:	3
* 16 Latitude:	34-07.0895	35 Structure Flared:	0	224 Retaining Wall:	1
* 17 Longitude:	84-23.3018	38 Navigation Control:	0	233 Posted Speed Limit:	55
98 Border Bridge:	000 %Shared: 00	213 Special Steel Design:	0	236 Warning Sign:	1
99 ID Number:	0000000000000000	267 Type of Paint:	1	234 Delineator:	1
* 100 STRAFNET:	0	42 Type of Service on:	1	235 Hazard Boards:	1
12 Base Highway Network:	1	214 Movable Bridge:	0	237 Utilities Gas:	22
13A LRS Inventory Route:	571014000	203 Type Bridge:	A-O-M-O	W	00
13B Sub Inventory Route:	0	259 Pile Encasement:	3	Ele	00
* 101 Parallel Structure:	N	43 Structure Type Main:	3	Telephone:	00
* 102 Direction of Traffic:	2	45 No. Spans Main:	005	St	00
* 264 Road Inventory Mile Post:	026.98	44 Structure Type Appr:	0	247 Lighting Street:	0
* 208 Inspection Area:	09	46 No. Spans Appr:	0000	Navigation:	0
Engineer's Initial:	sgm	226 Bridge Curve Horz:	1	Aerial:	0
		111 Pier Protection:	0		
		107 Deck Structure Type:	1		
* Location I.D. No.:	057-00140D-026.78E	108 Wearing Surface Type:	1	* 248 County Continuity No.:	00
		Mt	0		
		F	8		

**BRF00-0187-01(016)**

**Fulton and Cherokee Counties**

**PI # 721308**

**SR 140/Houze Road Over Little River @ Fulton / Cherokee Co. Line**

# **Concept Report**

## **Attachment 6**

### **Minutes of Concept Meetings**

## Meeting Minutes

Project: BRF00-0187-01(016) Fulton /Cherokee Counties  
PI No. 721308  
SR 140/Houze Road over Little River Bridge Replacement

Meeting called by: Vinesha Pegram  
Type of meeting: SR 140/Houze Road Concept Team Meeting

Attendees: Vinesha Pegram – GDOT Office of Program Delivery  
Vicki Gavalas – GDOT District 7 Planning and Programming  
Scott Lee – GDOT District 7 Preconstruction  
Geoff Morton – Cherokee County Engineer  
Jeff VanDyke – RS&H  
Joe Wheeler – RS&H  
Phillip Jackson – GDOT District 7  
Susan Thomas – Edwards-Pitman Environmental  
Larry Bowman – GDOT Office of Environmental Services  
Danah Bonny – GDOT District 7 Utilities  
Lee Upkins – GDOT District 7 Construction  
James Harry – GDOT Office of Construction  
Sharon Witherspoon – GDOT District 7 Utilities  
Olufemi Olowe – GDOT District 7 Maintenance  
Melissa Harper – GDOT Office of Construction  
Ben Rabun – GDOT Bridge Design (via teleconference)  
Andy Casey – GDOT Roadway Design (via teleconference)  
David Ray – District 6 Road Design (via teleconference)  
Kerry Bonner – District 6 Utilities (via teleconference)  
Jennifer Deems – District 6 Utilities (via teleconference)  
Lisa Wesley – District 6 Area Construction (via teleconference)

Date: March 2, 2012

Time: 10:00 a.m. to 11:45 a.m.

Site: Conference Room – GDOT District 7 Office  
5025 New Peachtree Road  
Chamblee, GA 30341

## Agenda

A copy of the agenda is attached.

### **Purpose of Meeting:**

The meeting was requested as required by the Department's Plan Development Process to discuss the draft concept report and any issues pertaining to the development of the project design.

### **Concept Team Meeting:**

#### **Welcome, Introductions, Project Identification, and Schedule**

Vinesha Pegram introduced herself and welcomed the attendees.

- The attendees (including those attending via teleconference) introduced themselves.
- Vinesha noted that the project crosses into two counties as well as two GDOT Districts (Districts 6 and 7).
- The current project schedule is as follows:
  - Concept approval – April 2012
  - Right of Way approval – October 2013
  - Construction – October 2014

#### **Project Layout – General Discussion**

Jeff VanDyke discussed the project layout display.

- There are several SR 140 projects.
- This bridge replacement project was separated from the SR 140 roadway widening project.
- The bridge replacement project concept was originally approved in 2002. Because of the amount of time that had passed, GDOT had instructed RS&H to begin the concept process from scratch.
- The project is being funded with BRF funds. Because the BRF funds are limited, it was necessary to tie the project into the existing roadway as quickly as possible.
- Several alternates were studied. The preferred alternate is the one to the north.
- Question – Are you building the bridge in the same footprint as the existing bridge? Response – No, the new bridge is being moved slightly to the north so that the new bridge may be constructed in the clear. Therefore, traffic can be maintained on the existing bridge.
- The RS&H team completed the Environmental Phase 1 (UST) study. There are a few properties which required additional testing. The Military Depot store (military surplus) which used to be a gas station. The lot next to the Military Depot used to be a tire store. The tire store was destroyed in a fire and the runoff washed into the water resources. Tentatively, there is no right of way acquisition from these parcels.
- GDOT Office of Materials and Research has concurred with the recommendation for additional testing.
- It is not clear at this time what will happen if contaminants are encountered.
- Question – Was a 4-lane widening project considered? Response – Yes. The alignment is to the south. If the 4-lane project is built, you could widen over the existing bridge.

- The PI number for the 4-lane project is 721305.
- The proposed project is to replace the existing 2-lane bridge with a 2-lane bridge.
- Question – Will the existing bridge be kept? Response – No.
- Jeff VanDyke showed several pictures of the project area.
  - There are several visible rock outcroppings. The soil investigations need to be started soon to determine the best way to address the outcroppings.
  - Question (Vicki Gavalas) – Could blasting be required for the rock outcroppings? Response – Yes. Response – If so, this needs to be included in the public outreach.
  - A picture of the bridge was shown to emphasize the height of the existing piers. The picture also showed the existing gas line that is attached to the bridge.
  - Pictures of the potentially eligible historic resources were shown.

### **Project Layout – Constructability**

Jeff discussed constructability of the bridge.

- The RS&H bridge designer (Greg Grant) has met on-site with a contractor to discuss construction methods for the bridge.
- A formal constructability review will be held during the development of the preliminary plans.
- There is a path on the Cherokee County side of the bridge that could be used for the contractor to move his equipment for construction of the bridge. A way to move the equipment is not as obvious on the Fulton County side.
- While the preliminary bridge layout has not been completed, steel beams should be a consideration for the bridge.
- Ben Rabun stated that steel beams could be used but that long term maintenance should be considered.
- The intermediated bents of the bridge will be partially removed to eliminate impacts to the river.
- Question – Do you remove the bent to two feet below ground level or can they be cut off at the top of the existing concrete web? Response – If it adds to the stability of the stream bank, they can be cut off at ground level.
- Ben Rabun stated that constructability issues will need to be addressed in the future. He added that the bent can be cut off at the web if the bent is higher on the bank. If the bent is close to the water, it should be removed two feet below ground. If the bents are left above ground, they can catch debris during flood events, which would be a maintenance problem.
- Question – How deep is the river? Response – Four to five feet.
- Sharon Witherspoon stated that they would like to know up front if the utilities are going to be attached to the bridge. Susan Thomas added that she also needs to know this from an environmental standpoint. Relocating the gas line off the bridge does not appear practical due to the steep and rocky terrain. Melissa Harper noted that the decision needed to be made early in order to be accommodated in the bridge design.

### **Review of Draft Concept Report**

- Jeff discussed the items in the draft concept report.
  - The sufficiency rating of the existing bridge is 39.45
  - The typical section of the new bridge is two 12-foot lanes with 10-foot shoulders

- Ben Rabun questioned the shoulder width saying that he thought that it should be eight feet. He said that RS&H should look at the Department's design policy to verify the shoulder width.
  - Question – Would a 10-foot shoulder be needed for maintenance? Response – the shoulder width will be verified.
  - The traffic analysis showed very slow growth for the 20-year life of the project.
  - The project is not on a bike route but there is a bike lane on the Cherokee County side of the project. The project ends before it reaches the bike lane.
  - Question – The 4-lane project shows traffic volumes for four lanes; this project shows traffic volumes for two lanes. Why are there two different concepts? Response – The traffic volume projections should be different for the two projects. A 4-lane project will carry and therefore attract more volume. However, for the 2-lane project, you cannot assume that the 4-lane project will happen. This assumption slows the growth for the 2-lane project. This project traffic volume projections must be done for 2-lanes at this time.
  - Question (Scott Lee) – Does this alignment fit the 4-lane alignment? Response – Yes.
  - The proposed grade is less than the existing.
  - Ben Rabun stated that there is no existing 3-foot shoulder on the bridge as described in the draft concept report. Jeff said that this item would be revised.
  - Jeff noted the Utility owners with facilities on the project:
    - AGL Networks (communication)
    - AT&T
    - Comcast
    - Georgia Power Distribution
    - Georgia Power Transmission
    - Atlanta Gas Light
    - Fulton County Public Works
    - Cherokee County Water and Sewer
  - Question – Is there enough right of way to accommodate the utilities? Response – Yes.
  - Georgia Power will need to move their facilities first so that the bridge can be built. They may have to move them twice (temporary location and then a final location).
  - Georgia Power is limited as to when their transmission poles can be moved. This will need to be looked at more closely as the project develops.
  - The project will have right of way and permanent easement acquisitions.
  - The estimated parcel count is 6 parcels with no displacements.
  - No design exceptions or design variances are anticipated.
  - It is not anticipated that a Value Engineering (VE) study will be required.
- Jeff and Susan Thomas discussed the environmental data.
    - The anticipated level of environmental analysis is for a Categorical Exclusion (CE).
    - The project will comply with NEPA requirements.
    - Special studies have begun.
    - An aquatic survey has been performed. The survey did not find any darters. It will be necessary to consult further with Fish and Wildlife but no problems are anticipated.
    - There was no Georgia Aster found in the project limits. It will be necessary to conduct additional surveys for Georgia Aster every two years until the project is under construction.

- There are two perennial streams on the project – Little River and a tributary.
  - No stream impacts are anticipated. However, the issue of the pier removal will need to be addressed.
  - Question – What type of footing was used for the existing footings? Response – They are probably spread footings but that is not certain. This will need to be verified.
  - If a permit is necessary, the project would qualify for a Nationwide Permit.
  - There are historically eligible resources within the project limits.
    - The Edwards House has its historical boundary on the existing right of way.
    - The Chadwick Property straddles the existing road.
  - No right of way will be required from the eligible resources.
  - The History report is currently being reviewed by the Department’s Office of Environmental Services (OES). They have not yet approved the report and concurrence from the State Historic Preservation Office (SHPO) has not been received.
  - The CE will be routed through OES and the Federal Highway Administration (FHWA) for approval.
  - Barn swallows have been found underneath the existing bridge. Removal of the existing bridge will have to be done outside of their breeding season. Ben Rabun added that this should be addressed with a special provision.
  - Question – Will there be a detour bridge? Response – No.
  - The environmental process will include public outreach.
  - The project does not have any environmental justice issues.
  - Question (Vicki Gavalas) – Will the public outreach be only in one county or will it be in both? Response – Public outreach will be in both counties but there will probably be only one meeting.
  - Vinesha requested that any project related questions from public officials be routed through the Office of Program Delivery.
  - A stream buffer variance may be required. This should be looked at as soon as possible.
  - Question (Vicki Gavalas) – When will the PIOH be held? Response (Jeff) – The PIOH is tentatively scheduled for April 2012. Response (Vicki) – The District will need 6-8 weeks notice in order to prepare the signs. Response (Jeff) - The PIOH will be requested next week.
  - Geoff Morton stated that Mountain Road Elementary School is around the corner from the project and could be used as a site for the PIOH.
  - A Practical Alternative Report (PAR) will not be required for the project.
- Sharon Witherspoon requested that utility easements be shown on the right of way plans. They would need this in order to verify eligibility for reimbursement. Vinesha responded that they would try to comply with her request.
  - It was again noted that relocation of the Georgia Power transmission facilities is seasonal.
  - Sharon Witherspoon stated that timber poles are prohibited for use for transmission. Concrete poles will be required on the relocated facilities.
  - Susan Thomas said that environmental will need to know the utility relocation impacts, if any, to the historical properties.
  - Jeff discussed the project responsibilities.
    - There was no discussion of lighting at this time.

- Jeff noted the other projects in the area.
  - Question (Geoff Morton) – Has project STP00-0187-01(025), PI 632840 been completed?  
Response – Yes. Response (Jeff) – The project will be removed from the list.
- Vinesha said that roadway funds will be required in addition to the bridge funds because of the shift in the alignment. She added that this had been discussed with Bill Duvall (Assistant State Bridge Engineer) and that he was aware of this. Ben Rabun said that they will not split fund the money and that the project will use BR funds.
- Jeff discussed the alternates for the project.
  - The south alignment (alternate 1) would have 4f impacts.
  - Question – Can we repair the existing bridge and leave it in place? Response – No.
  - Ben Rabun stated that the existing bridge has an HR15 design. The deck is narrow and it would be necessary to widen it. He added that the bridge justification statement said that bridge rehabilitation is not an option.
- Jeff discussed the traffic report.
  - There were no major issues identified in the report.
  - Phillip Jackson noted that signal warrants were not included in the report. Jeff said that he would include them.
- Jeff noted that the Project Funding Agreements (PFA) were old and dated back to the time when the bridge project and roadway project were together.

### **Comments from Attendees**

- Jeff asked the attendees if they had any final comments.
  - Program Delivery - Vinesha stated that it would not be necessary to include the PFA in final report.
  - Local Government - Geoff Morton asked when the PIOH would be held. Jeff responded that it would be held in 2-3 months. Geoff said that SR 140 is a major project for Cherokee County and that it would send a mixed message to hold a PIOH for a bridge within the corridor of a 4-lane widening project. Ben Rabun said if the TIA passes, SR 140 would be on new alignment and the bridge would be turned over to the County. Geoff said that he would prefer to have the PIOH after the TIA referendum in July. Vinesha requested that this be discussed in further detail after the concept meeting. Vicki Gavalas added that she concurred with Geoff's statements.
  - Question (Ben Rabun) – Is the PIOH on the critical path for the project? Response (Vinesha) – The PIOH is needed for the environmental document.
  - Bridge Design - Ben Rabun had no further comments.
  - Construction - Melissa Harper had no further comments.
  - Traffic Safety and Design - Phillip Jackson again requested that the signal warrants be included in the traffic report.
  - Engineering Services – no attendees at the meeting
  - Financial Management – no attendees at the meeting

- Environmental - Larry Bowman stated that the old concept showed that the project was taking a historical property. Jeff responded that the resource is not there anymore.
- District 6 personnel did not have any additional comments.
- District 7 Planning and Programming – Vicki Gavalas did not have any further comments.
- District 7 Preconstruction - Scott Lee asked if the proposed alignment could be used for a future alignment. Vinesha stated that it would cause historical and environmental impacts. Jeff said there is nothing in the bridge replacement project that would prohibit a future widening.
- Susan Thomas noted that the project can impact historical properties if both GDOT and SHPO concur that it does not cause an adverse impact to the property. For the new project, they would weigh multiple effects to see what had the least impact. She also added that there is a historical district that is outside of the coverage that is shown on the project layout map.
- Office of Right of Way – no attendees at the meeting
- District 7 Utilities had no further comments.

## **Adjourn**

The meeting was adjourned at approximately 11:45 a.m.

Attachments:

Agenda

Sign In Sheets

# CONCEPT TEAM MEETING AGENDA

BRF00-0187-01(016) Fulton / Cherokee Counties

P. I. Number: 721308

SR 140 / Houze Rd over Little River at the Fulton/Cherokee County Line

March 2, 2012

**Welcome (GDOT)**

**Introduction of Each Attendee**

**Project Identification (GDOT)**

**Project Schedule (GDOT)**

**Original Project (RS&H)**

- a. Original Concept (Approved October 1989 and January 2002)
- b. Current Project

**Project Layout (RS&H)**

- a. General Considerations
- b. Constructability

**Concept Report Review**

- a. Project Location(RS&H)
- b. Planning and Background Data (RS&H)
  - Project Justification (RS&H)
  - Functional Classification
- c. Context Sensitive Solutions (RS&H)
- d. Design and Structural Data (RS&H)
  - Utility Involvement (RS&H)
    - Gas: Atlanta Gas Light company, AGL Networks
    - Communication: AT&T, Comcast
    - Power: Georgia Power Transmission, Georgia Power Distribution
    - Water & Sewer: Fulton County Public Works, Cherokee Water & Sewerage
- e. Environmental Data (RS&H)
  - Permits
  - NEPA/GEPA
  - Ecology
  - History
  - Archeology
  - Air and Noise
  - Public Involvement (GDOT will expand)
  - Community Resources
  - Environmental Justice
  - Hazardous Materials / Underground Storage Tanks
- f. Construction(RS&H)

# CONCEPT TEAM MEETING AGENDA

BRF00-0187-01(016) Fulton / Cherokee Counties

P. I. Number: 721308

SR 140 / Houze Rd over Little River at the Fulton/Cherokee County Line

March 2, 2012

- g. Project Responsibilities(RS&H)
- h. Alternatives Discussion(RS&H)
- i. Attachments
  - Concept Layout(RS&H)
  - Typical section(RS&H)
  - Detailed Cost Estimates: (RS&H)
    - Construction including Engineering and Inspection(RS&H)
    - Completed Fuel & Asphalt Price Adjustment forms(RS&H)
    - Right-of-Way(RS&H)
    - Utilities(RS&H)
    - Environmental Mitigation(RS&H)
  - Traffic Engineering Report
    - Crash summaries(RS&H)
    - Traffic diagrams(RS&H)
    - Capacity analysis summary (RS&H)
    - Summary of TE Study and/or Signal Warrant Analysis(RS&H)
  - Bridge Inventory(RS&H)
  - Minutes of Concept meetings (to be added following Concept Meeting)
  - PFA's and/or SAA's (RS&H and GDOT)

## Comments from Attendees

- a. Program Delivery
- b. Local Government Representatives
- c. Bridge Design
- d. Engineering Services
- e. Office of Financial Management
- f. Traffic Safety and Design
- g. Environmental/Location
- h. Planning
- i. District
- j. Right of Way
- k. Utilities

## Other Comments or Concerns – Open Discussion

4/20/12  
 [Signature]

## SIGN IN SHEET

**Project:** BRF00-0187-01(016) Fulton / Cherokee Counties  
 PI # 721308  
 SR 140 / Houze Rd over Little River at the Fulton/Cherokee County Line

**Meeting:** Concept Team Meeting

**Date/Time:** March 2, 2012, 10 AM

**Location:** GDOT District 7, 5025 New Peachtree Rd, Chamblee, GA 30341

Name	Email	Phone No.	Organization	Public/City Official Affiliation (if applicable)
V. NESNA C. PEGAN	vpegan@dot.ga.gov	404-631-1587	GDOT/OPD	N/A
GLOFF MORTON	gmorton@cherokee.ga.gov	678-493-6057	CHEROKEE COUNTY	COUNTY ENGINEER
JEFF VANDYKE	jeff.vandyke@rsandh.com	678-528-7234	RS&H	
JOE WHEELER	joe.wheeler@rsandh.com	(678) 528-7225	RS&H	
PHILLIP JACKSON	pjackson@dot.ga.gov		GDOT	
SUSAN THOMAS	sthomas@edwards-pitman.com	73339484	EPEI	
LARRY BOWMAN	lbowman@dot.ga.gov	404-631-1362	GDOT/OES	
SCOTT LEE	SLEE@DOT.GA.GOV	770-986-1261	GDOT D7	
DANAH BONNY CLYDE CUNNINGHAM	dbonny@dot.ga.gov	770-986-1117	GDOT D7	
VICKI GAVALS	vgavals@dot.ga.gov	7-986-1258	D7/GDOT	
BEN RABUN	brabun@dot.ga.gov		GDOT/BRIDGE DESIGN	
LEE UPLINS	luplins@dot.ga.gov	770-986-1414	GDOT/CONSTRUCTION	D7
JAMES HARRY	jharry@dot.ga.gov	404-326-6235	GDOT-G.O. CONG	

SHARON WITHERSPOON SWITHERSPOON@dot.ga.gov (7) 986-1117 GDOT-UTILITIES

OLUFEMI OLOWE oolowe@dot.ga.gov 770-986-1780 D7 MAINT.



**BRF00-0187-01(016)**

**Fulton and Cherokee Counties**

**PI # 721308**

**SR 140/Houze Road Over Little River @ Fulton / Cherokee Co. Line**

# **Concept Report**

## **Attachment 7 PFA's and/or SAA's**

Copy of Rescission  
Letter to Cherokee  
Re: private util  
3-3-05



## Department of Transportation

HAROLD E. LINNENKOHL  
COMMISSIONER  
(404) 856-5208

PAUL V. MULLINS  
CHIEF ENGINEER  
(404) 856-5277

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

March 03, 2005

LARRY E. DENT  
DEPUTY COMMISSIONER  
(404) 856-5212

EARL L. MAHFUZ  
TREASURER  
(404) 856-5224

Honorable J. Michael Byrd  
Commission Chairman, Cherokee County  
90 N. St. Suite 310  
Canton, GA 30114

Dear Chairman Byrd:

Subject: Local Government Project Agreement  
Project No. BRF-187-1(16) Cherokee Co. PI# 721308-

The Department has for a number of years relied on you and other Local Governments to provide funding for the relocation of utilities and other costs incurred on construction projects located within the State Highway System. We appreciate your willingness to do this and have used your commitments to maximize available funding. However, upon review of this policy we have found that project delivery is often delayed when Local Governments make early commitments for often unknown costs.

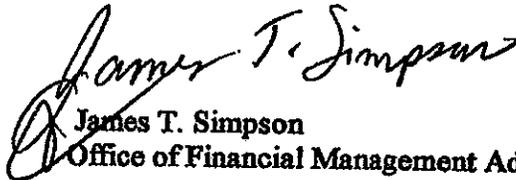
In the effort to improve project delivery, the Department has decided to adopt a new policy that is described below:

For projects that are generated by a State Highway System need, the Department will no longer request upfront Local Government commitments nor require Local Governments to bear costs for third parties. These projects will be classified as "Department Projects" hereon, and all existing Local Government Project Agreements (see attached project list) are hereby rescinded. Moving forward, the Department will assume the eligible costs for all utilities and railroads holding a property interest. However, utility adjustment/relocation costs associated with any utility that was originally installed within a public right-of-way shall remain the responsibility of each respective utility owner (Official Code of Georgia Annotated 32-6-171). Please ensure that adequate funding is budgeted for the adjustment/relocation of such utility facilities owned by your Local Government (including any associated Authority's facilities).

On local jurisdiction roads (not on the numbered State Highway System) and other priority projects, Local Governments have made substantial contributions to highway construction and we would like to continue this partnership with you. On projects where there is a strong local interest, you may support the project by entering into a formal agreement to share the costs of design, right-of-way acquisition, utilities and/or construction. These projects will be classified as "Sponsor Projects", and we will continue the partnership signified by a formal agreement that will clearly outline the respective responsibilities between the Department and the Local Government/Sponsor.

This updated policy will relieve you of some costs associated with Department projects, and will allow you to focus resources on your utility facilities or perhaps other priority projects.

Sincerely yours,



James T. Simpson  
Office of Financial Management Administrator

JTS:RR:kp

- cc: Kent Sager - District 6 Engineer
- cc: Ted Cashin - Project Manager
- cc: Jeff Baker - State Utilities Engineer
- cc: Kerry Bonner - District 6 Utilities Engineer
- cc: Bryant Poole - District 7 Engineer
- cc: Jonathan Walker - District 7 Utilities Engineer
- cc: Meredith Mason, County Engineer

Copy of Rescission  
letter to Fulton  
re: private util

3-3-05



## Department of Transportation

HAROLD E. LINNENKOHL  
COMMISSIONER  
(404) 656-5206

PAUL V. MULLINS  
CHIEF ENGINEER  
(404) 656-5277

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

March 03, 2005

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

EARL L. MAHFUZ  
TREASURER  
(404) 656-5224

Honorable Karen C. Handel  
Commission Chair, Fulton County  
141 Prvor Street, SW Ste 10028  
Atlanta, GA 30303

Dear Chairman Handel:

Subject: Local Government Project Agreement  
Project No. BRF-187-1(16) Cherokee Co. PI# 721308-

The Department has for a number of years relied on you and other Local Governments to provide funding for the relocation of utilities and other costs incurred on construction projects located within the State Highway System. We appreciate your willingness to do this and have used your commitments to maximize available funding. However, upon review of this policy we have found that project delivery is often delayed when Local Governments make early commitments for often unknown costs.

In the effort to improve project delivery, the Department has decided to adopt a new policy that is described below:

For projects that are generated by a State Highway System need, the Department will no longer request upfront Local Government commitments nor require Local Governments to bear costs for third parties. These projects will be classified as "Department Projects" hereon, and all existing Local Government Project Agreements (see attached project list) are hereby rescinded. Moving forward, the Department will assume the eligible costs for all utilities and railroads holding a property interest. However, utility adjustment/relocation costs associated with any utility that was originally installed within a public right of way shall remain the responsibility of each respective utility owner (Official Code of Georgia Annotated 32-6-171). Please ensure that adequate funding is budgeted for the adjustment/relocation of such utility facilities owned by your Local Government (including any associated Authority's facilities).

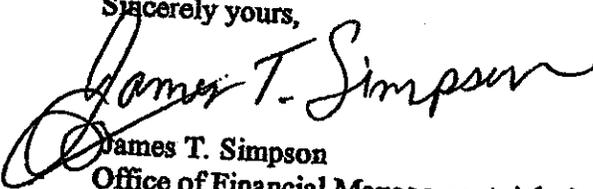
On local jurisdiction roads (not on the numbered State Highway System) and other priority projects, Local Governments have made substantial contributions to highway construction and we would like to continue this partnership with you. On projects where there is a strong local interest, you may support the project by entering into a formal agreement to share the costs of design, right-of-way acquisition, utilities and/or construction. These projects will be classified as "Sponsor Projects", and we will continue the partnership signified by a formal agreement that will clearly outline the respective responsibilities between the Department and the Local Government/Sponsor.

March 03, 2005

Page 2

This updated policy will relieve you of some costs associated with Department projects, and will allow you to focus resources on your utility facilities or perhaps other priority projects.

Sincerely yours,



James T. Simpson  
Office of Financial Management Administrator

JTS:RR:kp

- cc: Kent Sager - District 6 Engineer
- cc: Ted Cashin - Project Manager
- cc: Jeff Baker - State Utilities Engeneer
- cc: Kerry Bonner - District 6 Utilities Engineer
- cc: Bryant Poole - District 7 Engineer
- cc: Jonathan Walker - District 7 Utilities Engineer
- cc: Ernest Slaughter - Deputy Director of Public Works
- cc: Angela Parker - Interim Director of Public Works



Copy of LGPA  
Sent again to Fulton  
8-9-01  
-No response

# Department of Transportation

J. TOM COLEMAN, JR.  
COMMISSIONER  
(404) 656-5206

FRANK L. DANCHETZ  
CHIEF ENGINEER  
(404) 656-5277

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

HAROLD E. LINNENKOHL  
DEPUTY COMMISSIONER  
(404) 656-5212

BILLY F. SHARP  
TREASURER  
(404) 656-5224

August 9, 2001

Honorable Mike Kenn  
Commission Chairman, FULTON County  
141 Pryor Street, SW Ste 10028  
Atlanta, GA 30303

Dear Commission Chairman Kenn:

**SUBJECT: LOCAL GOVERNMENT PROJECT AGREEMENT**

Project No. BRF-187-1(16) Cherokee Co. PI# 721308-  
BRIDGES SR 140/HOUZE RD OVER LITTLE RIVER @ FULTON/CHEROKEE CO LINE

On 12/28/89 we sent a Local Government Project Agreement for the subject project to FULTON County. We are sending it again to see if you may now be in a position to sign it so this project can move forward.

Please indicate your support of this project by executing the attached Local Government Project Agreement. If you have any questions, feel free to call me at (404) 656-5320 or Steve Henry, District Engineer in Chamblee at your convenience.

Sincerely yours,

Herman T. Griffin P. E.  
State Transportation Programming Engineer

HTG/kp  
Attachment

cc: Steve Henry  
Chamblee District



# Department of Transportation

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

J. TOM COLEMAN, JR.  
COMMISSIONER  
(404) 656-5206

FRANK L. DANCHETZ  
CHIEF ENGINEER  
(404) 656-5277

HAROLD E. LINNENKOHL  
DEPUTY COMMISSIONER  
(404) 656-5212

BILLY F. SHARP  
TREASURER  
(404) 656-5224

August 9, 2001

## LOCAL GOVERNMENT PROJECT AGREEMENT

*In consideration of the proposed improvements, FULTON County agrees to provide or perform the following at no cost to the Georgia D.O.T. for project BRF-187-1(16) Cherokee Co., PI # 721308-: BRIDGES SR 140/HOUZE RD OVER LITTLE RIVER @ FULTON/CHEROKEE CO LINE*

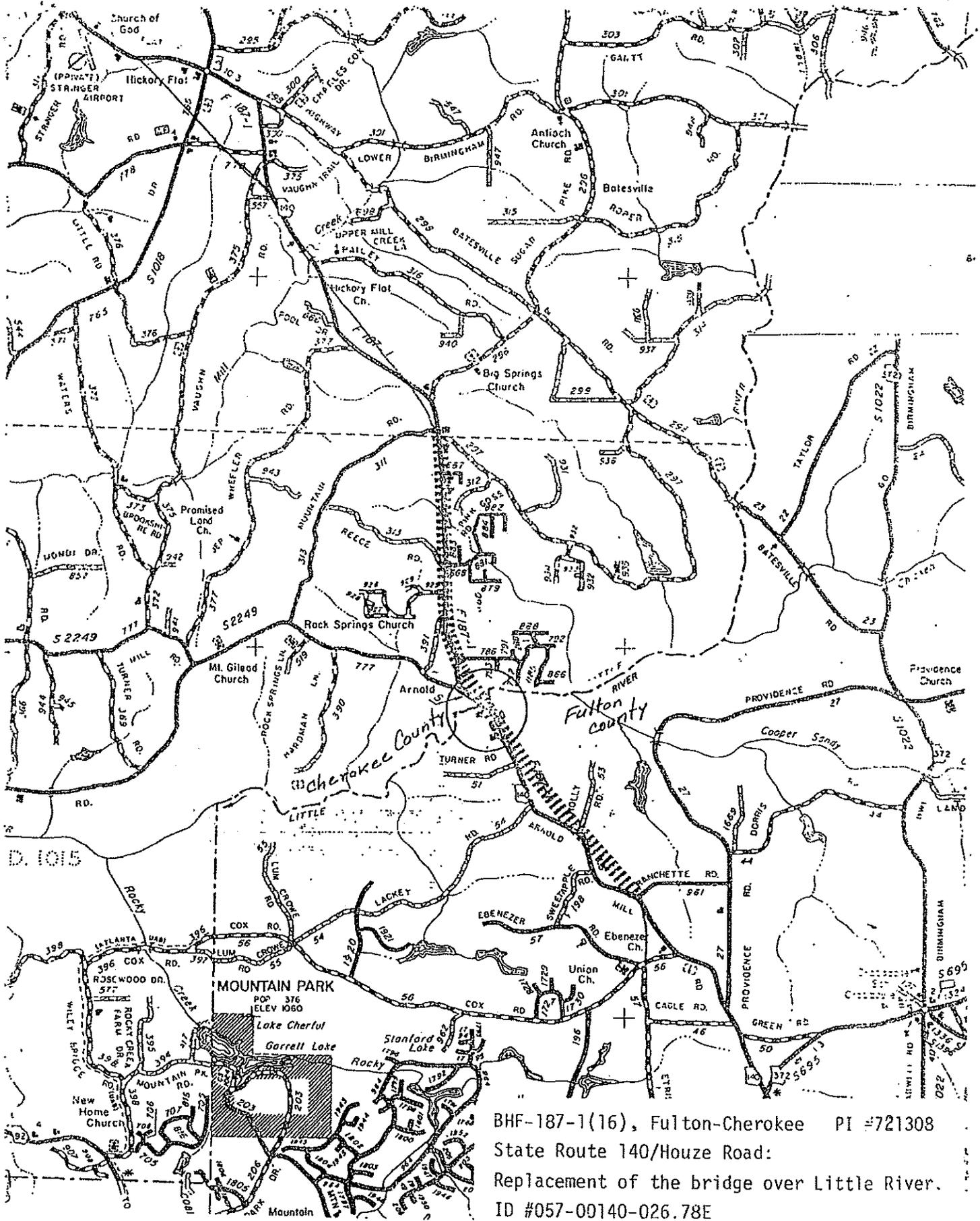
- Provide all rights-of-way and/or easements needed for the construction of the project and remove existing structures or obstructions within the rights-of-way.
- Make all utility relocations, adjustments or betterments of publicly owned utilities that are in conflict with construction of this project. Reimburse Georgia D.O.T. for any damages paid to the contractor for delay of construction caused by a delay in relocating the publicly owned utilities.
- Relocate or adjust all privately owned utilities to clear construction of this project, including adjustments at railroad crossings if required.
- Furnish detours, local borrow and waste pits as needed.
- We support this project but choose not to commit any funding, realizing this may delay the project until additional funding can be found.

**NOTE:** A similar agreement has been sent to Cherokee County.

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

APPROVED \_\_\_\_\_

City/County Official



BHF-187-1(16), Fulton-Cherokee PI #721308  
 State Route 140/Houze Road:  
 Replacement of the bridge over Little River.  
 ID #057-00140-026.78E  
 Sufficiency Rating 58.4

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

FILE

OFFICE Programming

DATE January 12, 1990

FROM

Gene Skeen, State Transportation Programming Engineer

TO

Felton D. Rutledge, District Engineer, Cartersville

SUBJECT LOCAL GOVERNMENT PROJECT AGREEMENTS

The following Local Government Project Agreements have been signed by the governmental units indicating their support of these projects.

<u>PROJECT</u>	<u>P.I.#</u>	<u>COUNTY</u>	<u>S.R./ROAD NAME</u>	<u>SIGNED BY</u>
FR-187-1(15)	721305	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.
BHF-187-1(16)	721308	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.

Your assistance in processing these agreements is appreciated, and if you have questions concerning these projects, please contact this office.

OES:jb

Attachments

cc: Dudley Ellis, w/attachment  
Rodney Tarrer, w/attachment  
Bruce Maney, w/attachment  
Walker Scott, w/attachment  
John Lively, w/attachment  
Frank Danchetz, w/attachment  
Original to General File  
Paul Mullins, District Engineer-Chamblee



ORIGINAL  
GENERAL FILES

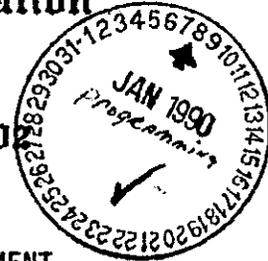
# Department of Transportation

State of Georgia

No. 2 Capitol Square

Atlanta, Georgia 30334-1002

December 28, 1989



HAL RIVES  
COMMISSIONER  
ALVA R BYROM  
STATE HIGHWAY ENGINEER

JAMES D. MCGEE  
DEPUTY COMMISSIONER  
ARTHUR A. VAUGHN  
TREASURER

## LOCAL GOVERNMENT PROJECT AGREEMENT

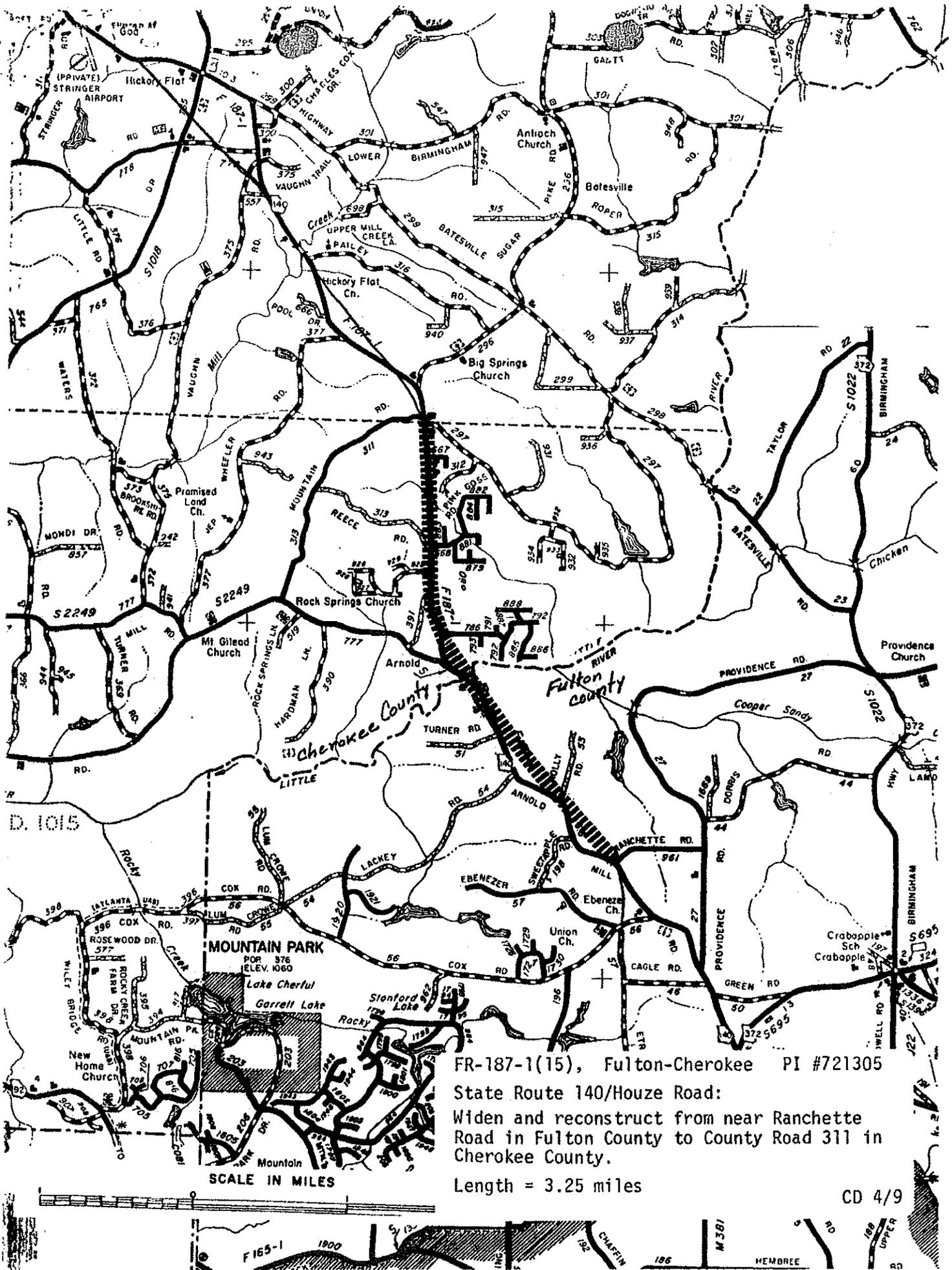
In consideration of the proposed improvements, the ~~XXXX~~ County of Cherokee agrees to provide or perform the following at no cost to the Georgia Department of Transportation for project FR-187-1(15), P.I. #721305, Fulton-Cherokee Counties:

State Route 140/Houze Road - Widening and reconstruction from the Fulton County Line to County Road 311 in Cherokee County.

- Provide all necessary rights-of-way and/or easements for the construction of this proposed project and remove existing structures or obstructions within the rights-of-way of this proposed project.
- In an expeditious manner make all utility relocations, adjustments or betterments of publicly owned utilities that are in conflict with the construction of this proposed project. ~~Reimburse Georgia D.O.T. for any damages paid to the contractor for delay of construction caused by a delay in relocating the publicly owned utilities.~~ *EW*
- To cause all privately owned utilities to be relocated or adjusted as necessary to clear construction of this proposed project, including adjustments at railroad crossings if required.
- Install no traffic signals at new locations on this proposed project without a traffic analysis and concurrence of the need for such signals by the Georgia D.O.T.
- Other:

This 3 day of January, 1990

APPROVED: *Gene Fitzgerald*  
City/County Official



FR-187-1(15), Fulton-Cherokee PI #721305  
 State Route 140/Houze Road:  
 Widen and reconstruct from near Ranchette Road in Fulton County to County Road 311 in Cherokee County.  
 Length = 3.25 miles

CD 4/9

SCALE IN MILES



F 165-1 1900



*Bellini*

Copy of LBPA  
Sent to Cherokee  
County 12-28-89  
and signed 1-3-90

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

OFFICE Programming

DATE January 12, 1990

FROM *Gene Skeen*, State Transportation Programming Engineer

TO Felton D. Rutledge, District Engineer, Cartersville

SUBJECT LOCAL GOVERNMENT PROJECT AGREEMENTS

The following Local Government Project Agreements have been signed by the governmental units indicating their support of these projects.

<u>PROJECT</u>	<u>P.I.#</u>	<u>COUNTY</u>	<u>S.R./ROAD NAME</u>	<u>SIGNED BY</u>
FR-187-1(15)	721305	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.
BHF-187-1(16)	721308	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.

Your assistance in processing these agreements is appreciated, and if you have questions concerning these projects, please contact this office.

OES:jb

Attachments

cc: Dudley Ellis, w/attachment  
Rodney Tarrer, w/attachment  
Bruce Maney, w/attachment  
Walker Scott, w/attachment  
John Lively, w/attachment  
Frank Danchetz, w/attachment  
Original to General File  
Paul Mullins, District Engineer-Chamblee

*Bittu*

Copy of LBPA  
Sent to Cherokee  
County 12-28-89  
and signed 1-3-90

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

OFFICE Programming

DATE January 12, 1990

FROM *JS* Gene Skeen, State Transportation Programming Engineer

TO Felton D. Rutledge, District Engineer, Cartersville

SUBJECT LOCAL GOVERNMENT PROJECT AGREEMENTS

The following Local Government Project Agreements have been signed by the governmental units indicating their support of these projects.

<u>PROJECT</u>	<u>P.I.#</u>	<u>COUNTY</u>	<u>S.R./ROAD NAME</u>	<u>SIGNED BY</u>
FR-187-1(15)	721305	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.
BHF-187-1(16)	721308	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.

Your assistance in processing these agreements is appreciated, and if you have questions concerning these projects, please contact this office.

OES:jb

Attachments

cc: Dudley Ellis, w/attachment  
Rodney Tarrer, w/attachment  
Bruce Maney, w/attachment  
Walker Scott, w/attachment  
John Lively, w/attachment  
Frank Danchetz, w/attachment  
Original to General File  
Paul Mullins, District Engineer-Chamblee

*Bellie*

Copy of LGPA  
Sent to Cherokee  
County 12-28-89  
and signed 1-3-90

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

OFFICE Programming

DATE January 12, 1990

FROM *Gene Skeen*, State Transportation Programming Engineer  
to Felton D. Rutledge, District Engineer, Cartersville

SUBJECT LOCAL GOVERNMENT PROJECT AGREEMENTS

The following Local Government Project Agreements have been signed by the governmental units indicating their support of these projects.

<u>PROJECT</u>	<u>P.I.#</u>	<u>COUNTY</u>	<u>S.R./ROAD NAME</u>	<u>SIGNED BY</u>
FR-187-1(15)	721305	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.
BHF-187-1(16)	721308	Fulton & Cherokee	S.R. 140/Houze Rd.	Cherokee Co.

Your assistance in processing these agreements is appreciated, and if you have questions concerning these projects, please contact this office.

OES:jb

Attachments

cc: Dudley Ellis, w/attachment  
Rodney Tarrer, w/attachment  
Bruce Maney, w/attachment  
Walker Scott, w/attachment  
John Lively, w/attachment  
Frank Danchetz, w/attachment  
Original to General File  
Paul Mullins, District Engineer-Chamblee



*Better*

## Department of Transportation

State of Georgia

No. 2 Capitol Square

Atlanta, Georgia 30334-1002

HAL RIVES  
COMMISSIONER  
ALVA R. BYROM  
STATE HIGHWAY ENGINEER

JAMES D. MCGEE  
DEPUTY COMMISSIONER  
ARTHUR A. VAUGHN  
TREASURER

December 28, 1989

Mr. Gene Hobgood  
Commissioner, Cherokee County  
130 Main Street  
Canton, Georgia 30114

Dear Mr. Hobgood:

SUBJECT: LOCAL GOVERNMENT PROJECT AGREEMENTS  
FR-187-1(15), FR-187-1(17) and  
BHF-187-1(16), Cherokee County

*See File to -*

The Office of Programming is considering recommending the addition of three projects to the Department's Construction Work Program for the widening and reconstruction on State Route 140 (1) from near Ranchette Road to County Road 311, (2) from County Road 311 north to County Road 765 and (3) for the replacement of the bridge over Little River on State Route 140.

As a prerequisite to this recommendation, Cherokee County is requested to accept the responsibility for certain items in project implementation as a condition to advance these projects. With this in mind, please advise this office of your willingness to undertake the items as checked on the attached Local Government Project Agreements by executing the Agreements and returning them to this office.

I await your decision on this matter before taking any further programming action. If you have any questions, feel free to contact this office at your convenience.

Sincerely yours,

*Oliver E. Skeen*  
Oliver E. Skeen, P. E.

State Transportation Programming Engineer

OES/b1

Attachments

cc: Paul Mullins, Chamblee  
Felton Rutledge, Cartersville



GENERAL

# Department of Transportation

State of Georgia

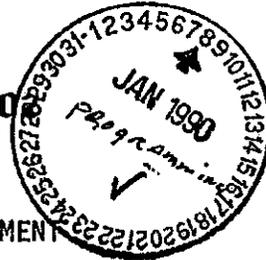
No. 2 Capitol Square

Atlanta, Georgia 30334-1000

December 28, 1989

HAL RIVES  
COMMISSIONER  
ALVA R. BYROM  
STATE HIGHWAY ENGINEER

JAMES D. MCGEE  
DEPUTY COMMISSIONER  
ARTHUR A. VAUGHN  
TREASURER



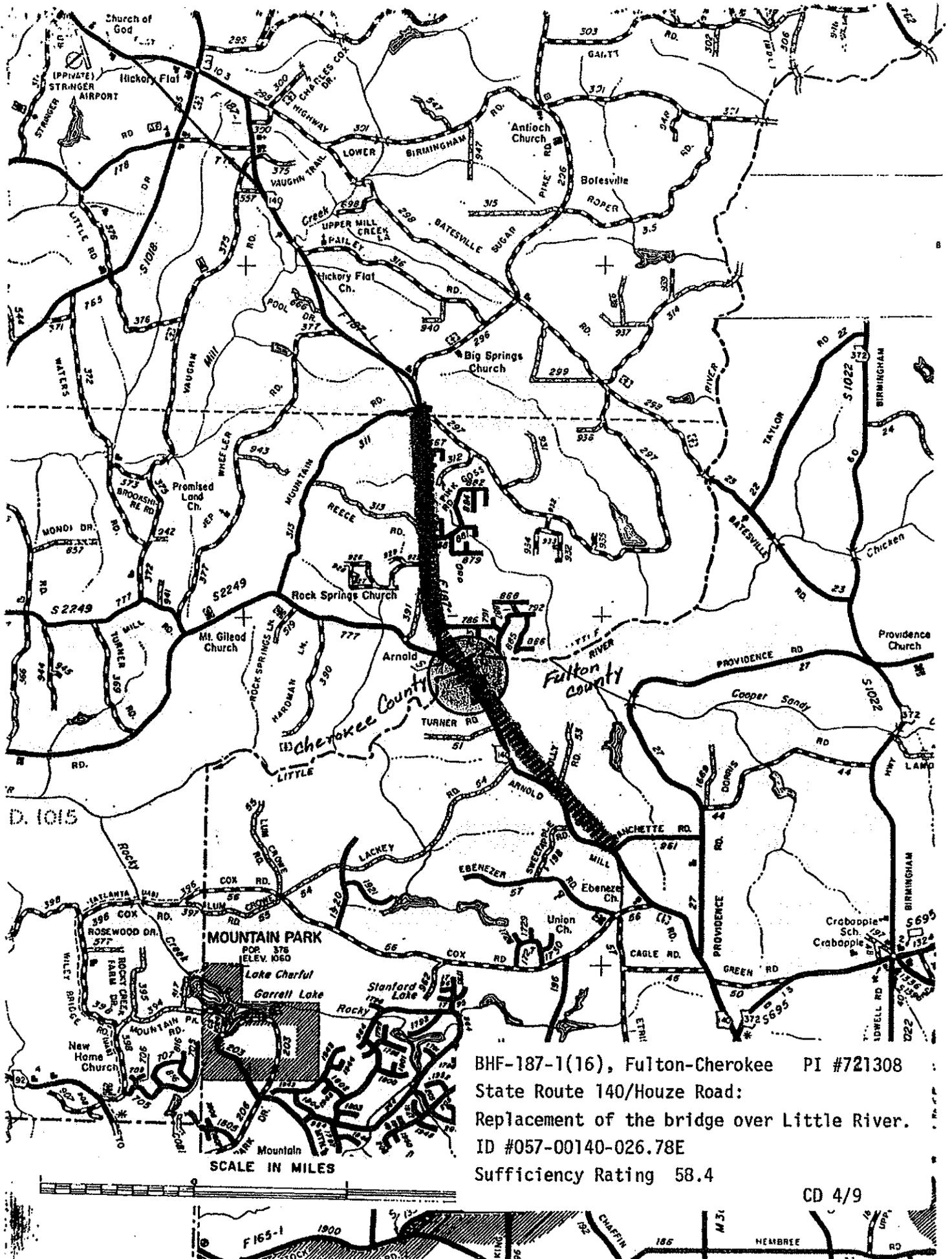
## LOCAL GOVERNMENT PROJECT AGREEMENT

In consideration of the proposed improvements, the ~~City~~ County of Cherokee agrees to provide or perform the following at no cost to the Georgia Department of Transportation for project BHF-187-1(16), P.I. #721303, Fulton-Cherokee Counties:  
State Route 140/Houze Road in Cherokee County - Replacement of the bridge over Little River. (Bridge I.D. #057-00140-026.78E)

- Provide all necessary rights-of-way and/or easements for the construction of this proposed project and remove existing structures or obstructions within the rights-of-way of this proposed project.
- In an expeditious manner make all utility relocations, adjustments or betterments of publicly owned utilities that are in conflict with the construction of this proposed project. ~~Reimburse Georgia D.O.T. for any damages paid to the contractor for delay of construction caused by a delay in relocating the publicly owned utilities.~~ *PA.*
- To cause all privately owned utilities to be relocated or adjusted as necessary to clear construction of this proposed project, including adjustments at railroad crossings if required.
- Install no traffic signals at new locations on this proposed project without a traffic analysis and concurrence of the need for such signals by the Georgia D.O.T.
- Other:

This 3 day of January, 1990

APPROVED: *[Signature]*  
City/County Official



BHF-187-1(16), Fulton-Cherokee PI #721308  
 State Route 140/Houze Road:  
 Replacement of the bridge over Little River.  
 ID #057-00140-026.78E  
 Sufficiency Rating 58.4



Department of Transportation  
State of Georgia  
No. 2 Capitol Square  
Atlanta, Georgia 30334-1002

HAL RIVES  
COMMISSIONER  
ALVA R. BYROM  
STATE HIGHWAY ENGINEER

JAMES D. MCGEE  
DEPUTY COMMISSIONER  
ARTHUR A. VAUGHN  
TREASURER

December 28, 1989

Copy of LGPA  
sent to Fulton  
County. 12-28-89  
-No response

Mr. Michael L. Lomax, Chairman  
Fulton County Board of Commissioners  
165 Central Avenue  
Atlanta, Georgia 30303

Dear Mr. Lomax:

SUBJECT: LOCAL GOVERNMENT PROJECT AGREEMENTS  
FR-187-1(14), FR-187-1(15), BHF-187-1(16),  
BRSLB-2365(1) and BRZLB-121(3), Fulton County

The Office of Programming is considering recommending the addition of five projects to the Department's Construction Work Program for the widening and reconstruction on State Route 140/Houze Road (1) from Mansell Road north to near Ranchette Road, (2) from near Ranchette Road to County Road 311, and for the replacement of the bridges over (3) Little River on State Route 140/Houze Road, (4) Chicken Creek on Hopewell Road and (5) Camp Creek on County Road 498.

As a prerequisite to this recommendation, Fulton County is requested to accept the responsibility for certain items in project implementation as a condition to advance these projects. With this in mind, please advise this office of your willingness to undertake the items as checked on the attached Local Government Project Agreements by executing the Agreements and returning them to this office.

I await your decision on this matter before taking any further programming action. If you have any questions, feel free to contact this office at your convenience.

Sincerely yours,

  
Oliver E. Skeen, P. E.

State Transportation Programming Engineer

OES/b1

Attachments

cc: Paul Mullins, Chamblee



Department of Transportation

State of Georgia

No. 2 Capitol Square

Atlanta, Georgia 30334-1002

December 28, 1989

HAL RIVES  
COMMISSIONER  
ALVA R. BYROM  
STATE HIGHWAY ENGINEER

JAMES D. McGEE  
DEPUTY COMMISSIONER  
ARTHUR A. VAUGHN  
TREASURER

LOCAL GOVERNMENT PROJECT AGREEMENT

In consideration of the proposed improvements, the ~~City~~ County of Fulton agrees to provide or perform the following at no cost to the Georgia Department of Transportation for project BHF-187-1(16), P.I. #721308, Fulton-Cherokee Counties:

State Route 140/Houze Road in Fulton County - Replacement of the bridge over Little River. (Bridge I.D. #057-00140-026.78E)

- Provide all necessary rights-of-way and/or easements for the construction of this proposed project and remove existing structures or obstructions within the rights-of-way of this proposed project.
- In an expeditious manner make all utility relocations, adjustments or betterments of publicly owned utilities that are in conflict with the construction of this proposed project. Reimburse Georgia D.O.T. for any damages paid to the contractor for delay of construction caused by a delay in relocating the publicly owned utilities.
- To cause all privately owned utilities to be relocated or adjusted as necessary to clear construction of this proposed project, including adjustments at railroad crossings if required.
- Install no traffic signals at new locations on this proposed project without a traffic analysis and concurrence of the need for such signals by the Georgia D.O.T.
- Other:

This \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_

APPROVED: \_\_\_\_\_

City/County Official



GENERAL

# Department of Transportation

State of Georgia

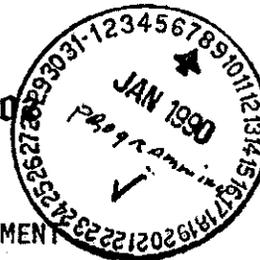
No. 2 Capitol Square

Atlanta, Georgia 30334-1000

December 28, 1989

HAL RIVES  
COMMISSIONER  
ALVA R. BYROM  
STATE HIGHWAY ENGINEER

JAMES D. MCGEE  
DEPUTY COMMISSIONER  
ARTHUR A. VAUGHN  
TREASURER



## LOCAL GOVERNMENT PROJECT AGREEMENT

In consideration of the proposed improvements, the ~~Sixty~~ County of Cherokee agrees to provide or perform the following at no cost to the Georgia Department of Transportation for project BHF-187-1(16), P.I. #721303, Fulton-Cherokee Counties:

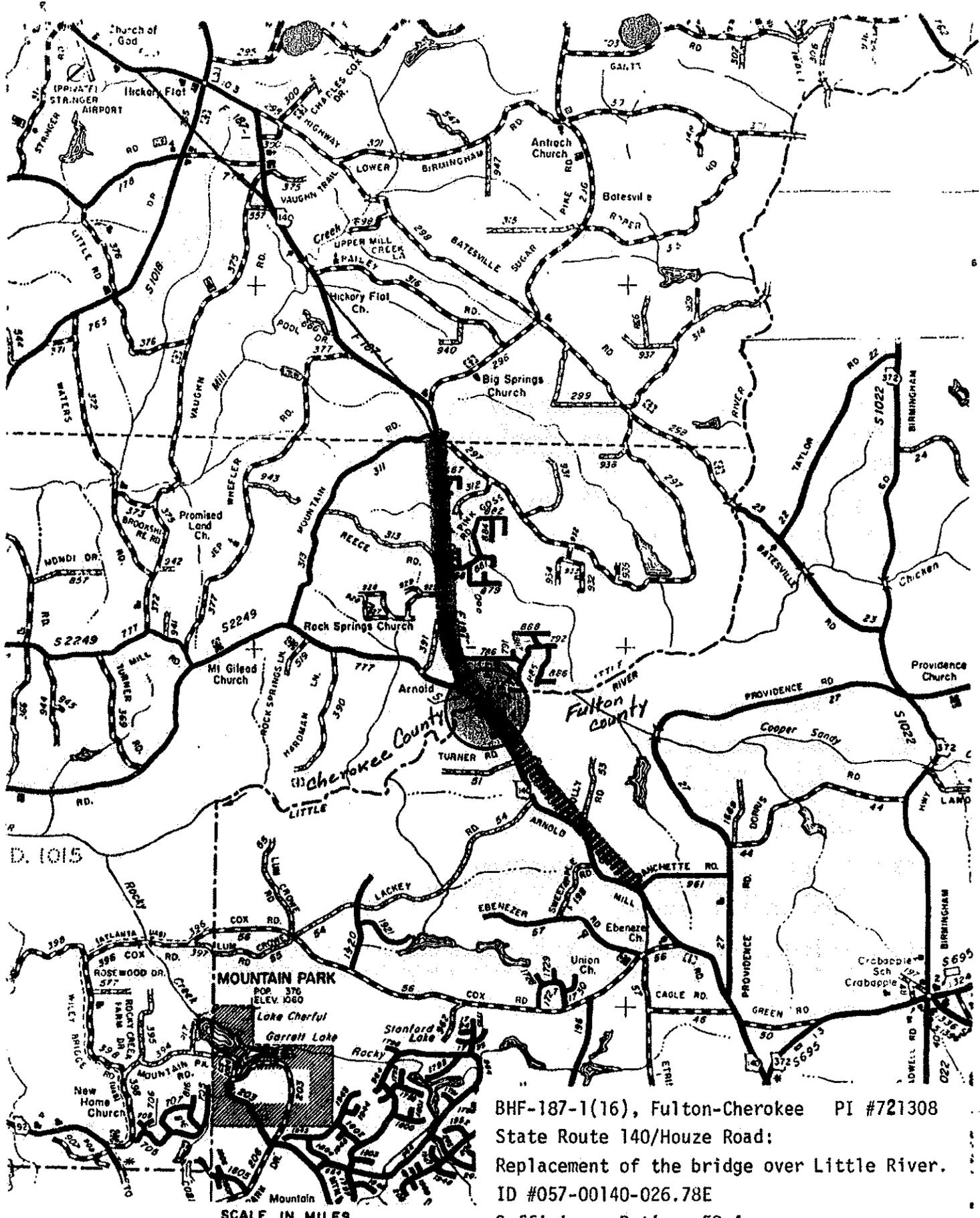
State Route 140/Houze Road in Cherokee County - Replacement of the bridge over

Little River. (Bridge I.D. #057-00140-026.78E)

- Provide all necessary rights-of-way and/or easements for the construction of this proposed project and remove existing structures or obstructions within the rights-of-way of this proposed project.
- In an expeditious manner make all utility relocations, adjustments or betterments of publicly owned utilities that are in conflict with the construction of this proposed project. ~~Reimburse Georgia P.O.T. for any damages paid to the contractor for delay of construction caused by a delay in relocating the publicly owned utilities.~~ *OK.*
- To cause all privately owned utilities to be relocated or adjusted as necessary to clear construction of this proposed project, including adjustments at railroad crossings if required.
- Install no traffic signals at new locations on this proposed project without a traffic analysis and concurrence of the need for such signals by the Georgia D.O.T.
- Other:

This 3 day of January, 1990

APPROVED: *[Signature]*  
City/County Official



BHF-187-1(16), Fulton-Cherokee PI #721308  
 State Route 140/Houze Road:  
 Replacement of the bridge over Little River.  
 ID #057-00140-026.78E  
 Sufficiency Rating 58.4