

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 0007177 **OFFICE** Design Policy & Support
CSBRG-0007-00(177)
Jackson County
GDOT District 1 - Gainesville **DATE** 2/29/2016
SR 334 @ Sandy Creek 11.5 miles SE of Jefferson
Bridge Replacement



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:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Darryl VanMeter, State Innovative Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Eric Duff, State Environmental Administrator
Bill DuVall, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Lee Upkins, State Utilities Engineer
Richard Cobb, Statewide Location Bureau Chief
Brent Cook, District Engineer
Brandon Kirby, District Preconstruction Engineer
Robby Oliver, District Utilities Engineer
Dylan Curtis, Project Manager
BOARD MEMBER - 9th Congressional District

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

Project Type: Bridge Replacement P.I. Number: 0007177
 GDOT District: 1 County: Jackson
 Federal Route Number: N/A State Route Number: 334
 Project Number: CSBRG-0007-00(177)

BRIDGE REPLACEMENT ALONG SR 334 @ SANDY CREEK 11.5 MI SOUTHEAST OF JEFFERSON

Submitted for approval:

[Signature] (Kimberly Hopson and Assoc) 10/5/2015
 Consultant Designer & Firm Date
Albert V. Shelby III 11/6/2015
 State Program Delivery Engineer Date
[Signature] 10/6/15
 GDOT Project Manager Date

Recommendation for approval:

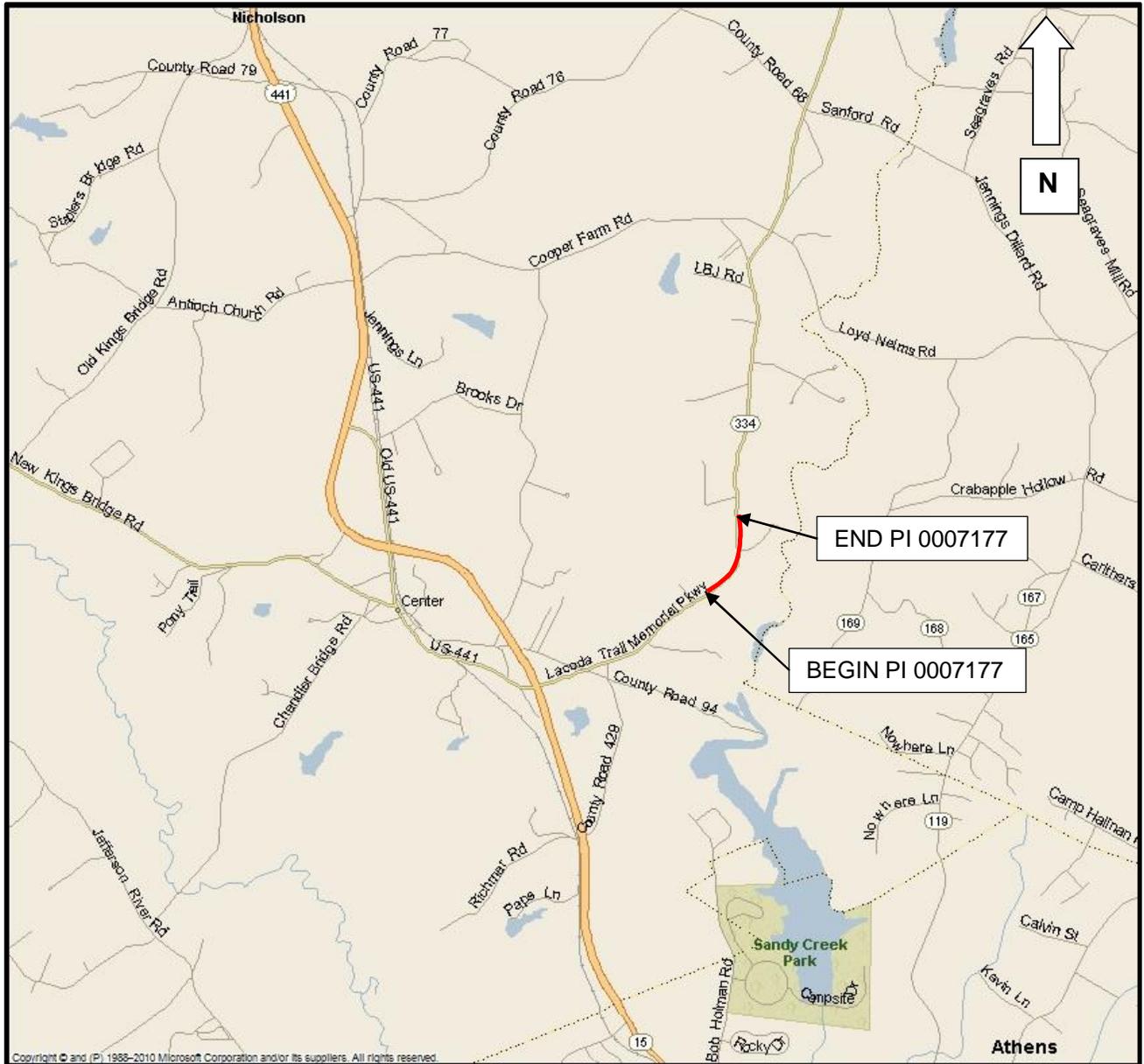
* Hiral Patel / KLP 11-15-2015
 State Environmental Administrator Date
 * Ken Werho / KLP 11-12-2015
 For State Traffic Engineer Date
 * Lisa Myers / KLP 11-12-2015
 Project Review Engineer Date
 * Lee Upkins / KLP 11-13-2015
 State Utilities Engineer Date
 * Brandon Kirby / KLP 11-17-2015
 For District Engineer Date
 * Bill DuVall / KLP 11-30-2015
 State Bridge Engineer Date
 * Recommendation on file

- MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

[Signature] X *[Signature]* 11-13-15
 State Transportation Planning Administrator Date

County: Jackson

PROJECT LOCATION MAP



County: Jackson

PLANNING AND BACKGROUND

Project Justification Statement:

The bridge on SR 334 over Sandy Creek, Structure ID 157-0030-0, was built in 1961. The bridge consists of three spans of steel girders on concrete caps and columns. This bridge was designed using an H-15 vehicle, which is below the current design standards. The structure is currently posted for weight restrictions. The overall condition of this bridge would be classified as fair. The deck is in fair condition with moderate concrete scaling and minor concrete cracking and spalls. The superstructure is in fair condition with some minor problems noted. The substructure is in fair condition with some minor concrete cracking. Due to the structural integrity of the bridge and the restrictive weight limits of the structure, replacement is recommended by the Office of Bridges and Structures.

Existing conditions:

Existing S.R. 334 at Sandy Creek is a 2 lane, rural road with 10.5'-11' wide travel lanes with varying shoulder widths ranging from approximately 5' to 8'. Paved shoulders vary from 6" to 2' while the grass portion of the shoulder varies from 4' to 6'. Existing ditches parallel portions of the roadway, while in some locations there are steep embankments immediately beyond the edge of the existing shoulders. The existing bridge over Sandy Creek is a 144-foot long, three-span concrete deck on steel beam bridge with clear width of 24-feet and a current sufficiency rating of 47.76. No utilities are attached to the existing bridge, but a water line and aerial power, telephone and cable are present along the east side of the road. Immediately north of the existing bridge, the S.R. 334 alignment contains a substandard curve which provides limited sight distance and does not meet current AASHTO guidelines. There are no accommodations for bikes or pedestrians along the existing roadway and the adjacent properties are rural with a horse pasture to the north of the existing bridge. Two bodies of water are adjacent to or within the project area. The first, Sandy Creek, parallels S.R. 334 near the beginning of the project before flowing east beneath the existing bridge structure. The other, a small pond, is located immediately to the east of S.R. 334 near the beginning of the project.

Other projects in the area:

No other projects are located within the immediate vicinity of this project.

MPO: N/A

TIP #: N/A

TIA Regional Commission: N/A (Project located within the Northeast Georgia Regional Commission)

Congressional District(s): 9

Federal Oversight: PoDI Exempt State Funded Other

Projected Traffic: ADT 24 HR T: 5.25 %
 Current Year (2013): 1300 Open Year (2020): 1400 Design Year (2040): 1800
 Traffic Projections Performed by: GDOT Office of Planning

Functional Classification (Mainline): Rural Major Collector

Complete Streets - Bicycle, Pedestrian, and/or Transit Standard Warrants:

Warrants met: None Bicycle Pedestrian Transit

The following two Bicycle Warrants are met, per Chapter 9.4.2 of the GDOT Design Policy Manual:

- "The project is on a designated (i.e., adopted) U.S., State, regional, or local bicycle route."
 - The "Jackson County Comprehensive Plan – Transportation" shows that the segment of SR 334 within the proposed project limits is part of the County's Bicycle and Pedestrian Network. This corridor is shown on the Network map as a facility requiring bicycle lanes.

County: Jackson

The proposed bikeable 10' shoulders with 6.5' paved shoulders are an appropriate accommodation in lieu of dedicated bicycle lanes due to the construction of a bridge.

- “On projects where a bridge deck is being replaced or rehabilitated and the existing bridge width allows for the addition of a bikeway without eliminating (or precluding) needed pedestrian accommodations – reference Title 23 United States Code, Chapter 2, Section 217, Part (e)”
 - The proposed project improvements include the replacement of an existing bridge deck.

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? No Yes

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? No Yes
 Preliminary Pavement Type Selection Report Required? No Yes
 Feasible Pavement Alternatives: HMA PCC HMA & PCC

DESIGN AND STRUCTURAL

Description of the proposed project: The proposed project will replace the existing S.R. 334 bridge over Sandy Creek, which currently has a sub-standard sufficiency rating of 47.76. In addition, in order to correct the currently sub-standard horizontal curvature and poor sight distance north of the bridge, the project will create a new location alignment at this curve that satisfies current AASHTO guidelines. The length of the proposed bridge replacement and associated roadway improvements is approximately 2500 ft. The project is located in the southeast corner of Jackson County, along S.R. 334 at the crossing of Sandy Creek, approximately one mile east of the intersection of Commerce Rd (US 441/S.R. 15) and S.R. 334.

Major Structures:

Structure	Existing	Proposed
ID #157-0030-0 Along S.R. 334 @ Sandy Creek	Existing bridge is a 144-foot long, three-span concrete deck on steel beam bridge with a current sufficiency rating of 47.76. Typical section includes two (2) approximately 10'-10.5' travel lanes with 1' shoulders.	The proposed bridge would be an approximately 180-foot long, three-span concrete deck on prestressed concrete beams bridge. Typical section would include two (2) 11' travel lanes with 6' shoulders.

Mainline Design Features: S.R. 334 (Rural Major Collector with ADT < 2000 on rolling terrain)

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	2	2
- Lane Width(s)	10.5' - 11'	11'	11'
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder or Border Area Width	5' – 8' (6"-2' pvd)	10'	10' (6.5' pvd)
- Outside Shoulder Slope	Unknown	6%	6%
- Inside Shoulder Width	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	55 MPH	N/A	55 MPH
Design Speed	55 MPH	45-55 MPH	55 MPH
Min Horizontal Curve Radius	838'	1060' or 960'	960'
Maximum Superelevation Rate	Unknown	6.0% or 8.0 %	8.0 %
Maximum Grade	8.2%	7.0 %	7.0 %
Access Control	By Permit	N/A	By Permit

County: Jackson

Design Vehicle	N/A	SU	SU
Pavement Type	Asphalt	N/A	Asphalt

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: N/A**Lighting required:** No Yes**Off-site Detours Anticipated:** No Yes Undetermined**Transportation Management Plan [TMP] Required:** No Yes

The proposed structure over Sandy Creek will be constructed adjacent to the existing bridge, thereby allowing existing traffic patterns to be maintained during the majority of construction activities. However, a temporary traffic control plan will be included with the design plans to show the transition from the existing to the proposed alignment.

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	No	Undeter- mined	Yes	Appvl Date (if applicable)
1. Design Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Lane Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Shoulder Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Bridge Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Horizontal Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Superelevation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Grade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Stopping Sight Distance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Cross Slope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Vertical Clearance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Lateral Offset to Obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewi ng Office	No	Undeter- -mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Intersection Sight Distance	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Intersection Skew Angle	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Lateral Offset to Obstruction	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Median Usage	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Roundabout Illumination Levels	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Complete Streets	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. ADA & PROWAG	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. GDOT Construction Standards	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

County: Jackson

12. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. GDOT Bridge & Structural Manual	Bridges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Intersection sight distance at driveways will be verified once topographic survey has been obtained.

VE Study anticipated: No Yes Completed – Date:

UTILITY AND PROPERTY

Temporary State Route needed: No Yes Undetermined

Railroad Involvement: N/A

Utility Involvements:

Windstream - Cable
 Jackson EMC - Power
 Jackson County WSUA – Water
 ATT - Communications

SUE Required: No Yes Undetermined

Public Interest Determination Policy and Procedure recommended? No Yes

Right-of-Way (ROW): Existing width: 52 ft. Proposed width: 80 ft.

Required Right-of-Way anticipated: None Yes Undetermined

Easements anticipated: None Temporary Permanent Utility Other

Anticipated total number of impacted parcels: 8
 Displacements anticipated: Businesses: 0
 Residences: 0
 Other: 0
 Total Displacements: 0

Location and Design approval: Not Required Required

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: Issues of concern include a portion of Sandy Creek which parallels S.R. 334 near the beginning of the project, an existing pond located immediately south of S.R. 334, and 2 existing residences located above steep embankments along the project corridor.

Context Sensitive Solutions Proposed: In order to reduce or eliminate impacts to the existing pond and the parallel portion of Sandy Creek, the preferred alternative will make use of the existing S.R. 334 alignment rather than requiring extensive widening near these environmentally sensitive areas. In order to avoid impacts to the existing residence located above a steep embankment immediately west of S.R. 334 and north of the existing bridge, while also correcting the substandard horizontal curve in this location, both proposed alternatives will require a new location alignment at this curve. For both alternatives, a portion of this steep embankment would need to be graded back to improve the substandard intersection sight distance for the driveway located adjacent to the bridge.

County: Jackson

ENVIRONMENTAL & PERMITS**Anticipated Environmental Document:**GEPA: NEPA: CE EA/FONSI EIS**MS4 Permit Compliance – Is the project located in a MS4 area?** No Yes**Environmental Permits/Variations/Commitments/Coordination anticipated:**

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Forest Service/Corps Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. CWA Section 404 Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. FEMA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Current FEMA maps show the project site with a Zone A floodplain
9. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Other Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Is a PAR required? No Yes Completed – Date:**Environmental Comments and Information:**

NEPA/GEPA: Historic and potentially archaeological sites may be present along the project corridor. The degree of impacts if any to those resources are unknown at this time. A CE would be required for NEPA documentation.

Ecology: The ecology field survey has been completed and the Ecology Resource Survey Report was submitted to GDOT in September 2015. The aquatic survey has been completed and the Protected Aquatic Species Survey Report was submitted to GDOT in August 2015.

History: The field survey has been completed and the Historic Resources Survey Report was submitted to GDOT in August 2015.

Archeology: The field survey has been completed and the Archeological Short Form was submitted to GDOT in September 2015.

Air Quality:Is the project located in a PM 2.5 Non-attainment area? No YesIs the project located in an Ozone Non-attainment area? No YesCarbon Monoxide hotspot analysis: Required Not Required TBD

Noise Effects: Currently the two proposed alternate alignments are both shifting the new roadway half the distance from the source to the closest receptor; therefore, it is anticipated that a Type I noise assessment will be required.

County: Jackson

Public Involvement: There are no relocations required as a result of the proposed project. A temporary on-site detour is required during construction; however, no access is proposed to change as a result of the project. Based on the project type being a bridge replacement and slight shift in the current alignment to correct the existing horizontal curve, it is not anticipated that a PIOH would be required.

Major stakeholders: Traveling public

CONSTRUCTION

Issues potentially affecting constructability/construction schedule:

Potential impacts to the schedule during construction include the restrictions for the barn swallow nesting under the existing bridge and the potential for bat restrictions in this area.

Early Completion Incentives recommended for consideration: No Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: N/A

Concept Meeting: September 11, 2015 at GDOT District 1 Office in Gainesville, GA

Other coordination to date: N/A

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Kimley-Horn and Associates, Inc.
Design	Kimley-Horn and Associates, Inc.
Right-of-Way Acquisition	GDOT
Utility Coordination/Relocation	GDOT/Utility Owners
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	N/A
Environmental Studies, Documents, & Permits	Kimley-Horn and Associates, Inc.
Environmental Mitigation	N/A
Construction Inspection & Materials Testing	GDOT

Project Cost Estimate Summary and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	GDOT	GDOT	GDOT	GDOT	N/A	
\$ Amount	\$551,291	\$326,000	\$54,000	\$1,977,659	N/A	\$2,908,950
Date of Estimate	7/24/15	7/16/15	6/17/15	2/09/16		

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

County: Jackson

ALTERNATIVES DISCUSSION

Due to the condition of surrounding roads that would need to be used for an off-site detour, along with the potential delay that would be experienced by the traveling public if S.R. 334 were temporarily closed for the bridge replacement, an on-site detour would be preferred. A proposed off-site detour would need to either utilize a state route or utilize local roads that meet state route standards. A temporary detour could utilize U.S 441. But the delay for this route is approximately 31 minutes.

Alternative selection:

Preferred Alternative 1: Construct new location alignment immediately to the south of the existing S.R. 334 alignment. Existing pavement and bridge over Sandy Creek will be used to maintain traffic while the new bridge and roadway is constructed on the new location alignment. Superelevation for the proposed horizontal curve north of the bridge shall be a maximum 6%.			
Estimated Property Impacts:	8	Estimated Total Cost:	\$2,908,950
Estimated ROW Cost:	\$326,000	Estimated CST Time:	18
Rationale: This alternative was selected because it replaces the existing sub-standard bridge, and it corrects the currently sub-standard horizontal curvature and substandard stopping sight distance north of the bridge. This alternative results in the minimal impact to existing wetlands, ponds, and streams located adjacent to the existing bridge, while also minimizing impacts to the residence located immediately southeast of the existing bridge. This alternative would also minimize additional right-of-way, since the existing right of way will be utilized. An AASHTO compliant, maximum superelevation of 6% shall be used.			

No-Build Alternative: No proposed improvements within the project limits.			
Estimated Property Impacts:	0	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	0
Rationale: The no-build alternative was not selected as it does not satisfy the need for the project. The existing sub-standard bridge would not be replaced and the overall condition of the bridge would continue to deteriorate.			

Alternative 2: Construct temporary bridge and on-site detour immediately to the south and parallel of the existing S.R. 334 alignment. Remove and replace the existing sub-standard bridge with a new structure along the existing alignment. Construct a new location alignment north of the bridge that complies with current AASHTO guidelines. Superelevation for the proposed horizontal curve shall be a maximum 8%.			
Estimated Property Impacts:	8	Estimated Total Cost:	\$3,171,183
Estimated ROW Cost:	\$291,000	Estimated CST Time:	20
Rationale: While also replacing the existing sub-standard bridge and correcting the sub-standard horizontal curvature and stopping sight distance, this alternative was not selected primarily because of the increase in construction cost and the substandard sight distance for the property located west of SR 334 near the existing bridge. This alternative would result in decreased impacts to the existing wetlands, pond, and stream located adjacent to the existing bridge. In addition, this alternative would require more right-of-way be acquired than Alternative 1.			

Comments: N/A

County: Jackson

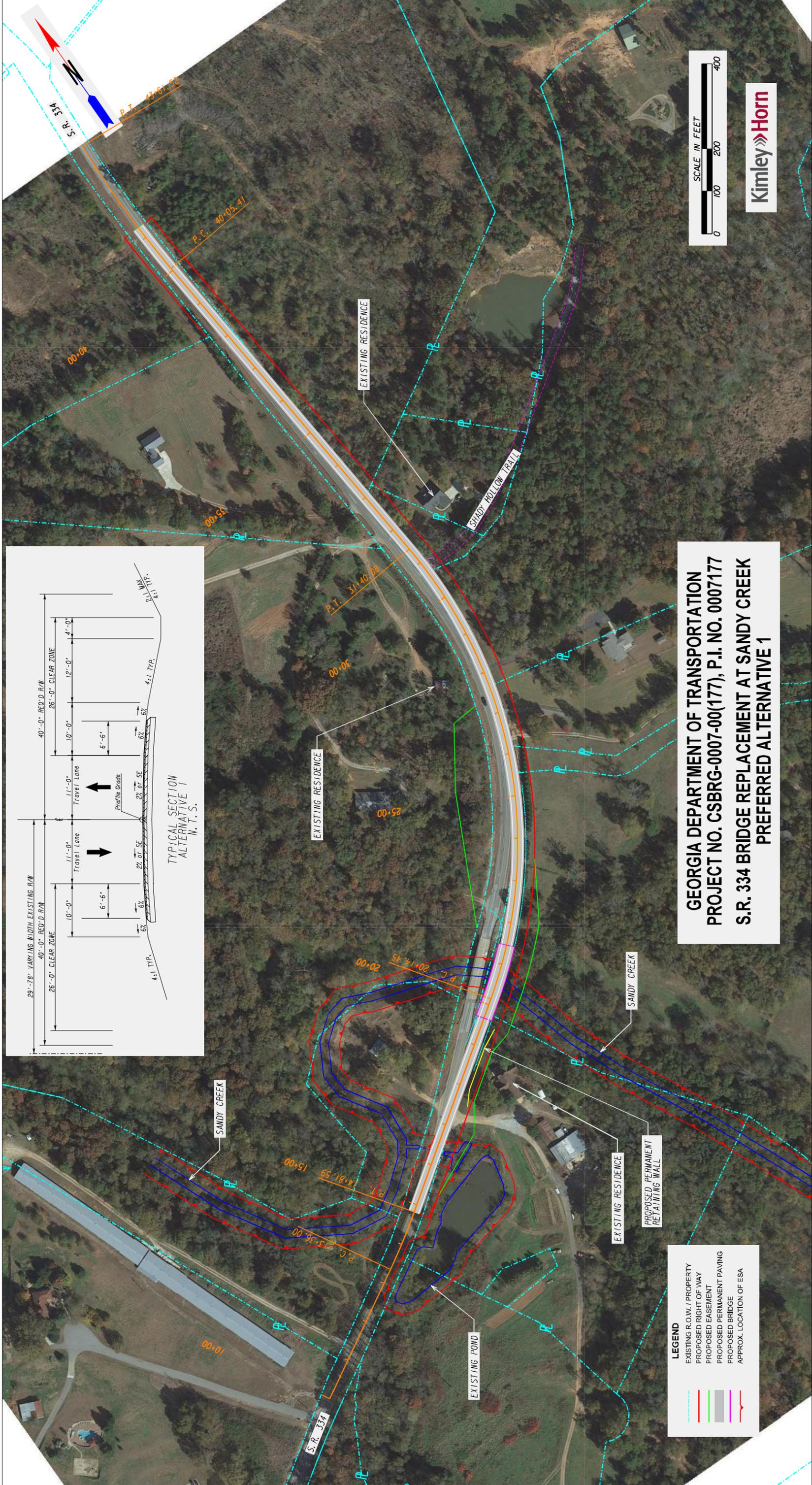
LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection and Contingencies
 - b. Completed Liquid AC Cost Adjustment forms
 - c. Right-of-Way
 - d. Utilities
4. Traffic data
5. Bridge Inventory Data Listing
6. Pavement studies (preliminary pavement design)
7. Minutes of Concept meetings

APPROVALS

Concur: *Hial P. P. P.*
Director of Engineering

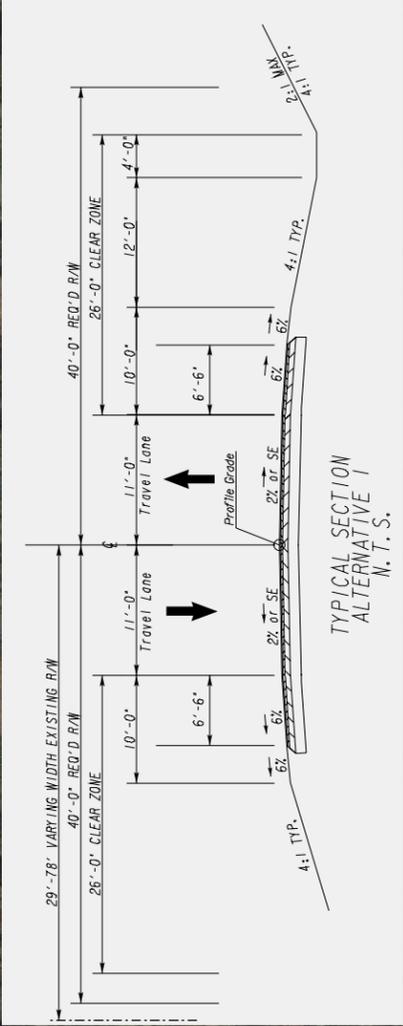
Approve: *Margaret B. P. P.* *2.23.16*
Chief Engineer Date



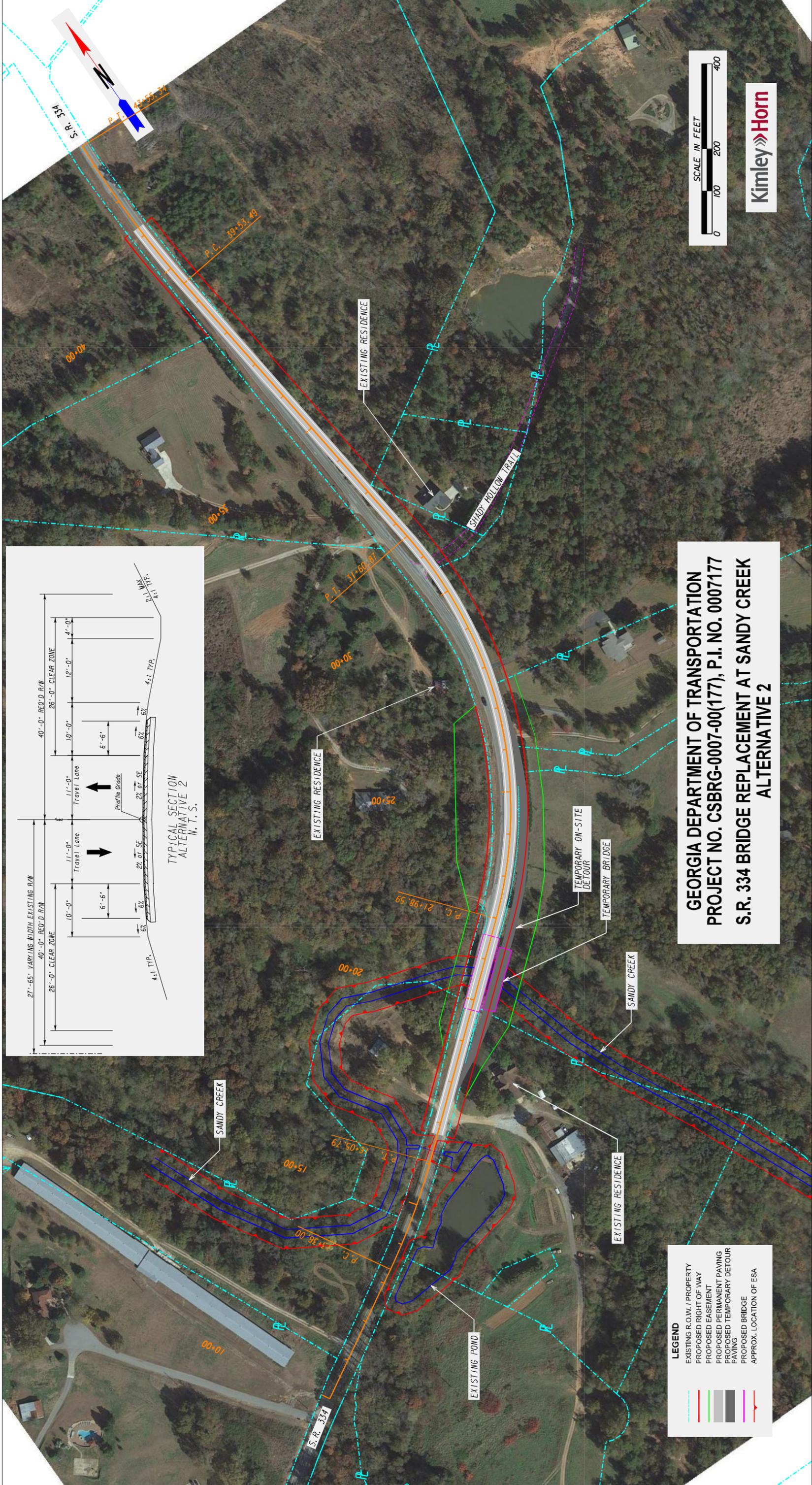
**GEORGIA DEPARTMENT OF TRANSPORTATION
PROJECT NO. CSBRG-0007-00(177), P.I. NO. 0007177
S.R. 334 BRIDGE REPLACEMENT AT SANDY CREEK
PREFERRED ALTERNATIVE 1**



- LEGEND**
- EXISTING R.O.W. / PROPERTY
 - PROPOSED RIGHT OF WAY
 - PROPOSED EASEMENT
 - PROPOSED PERMANENT PAVING
 - PROPOSED BRIDGE
 - APPROX. LOCATION OF ESA



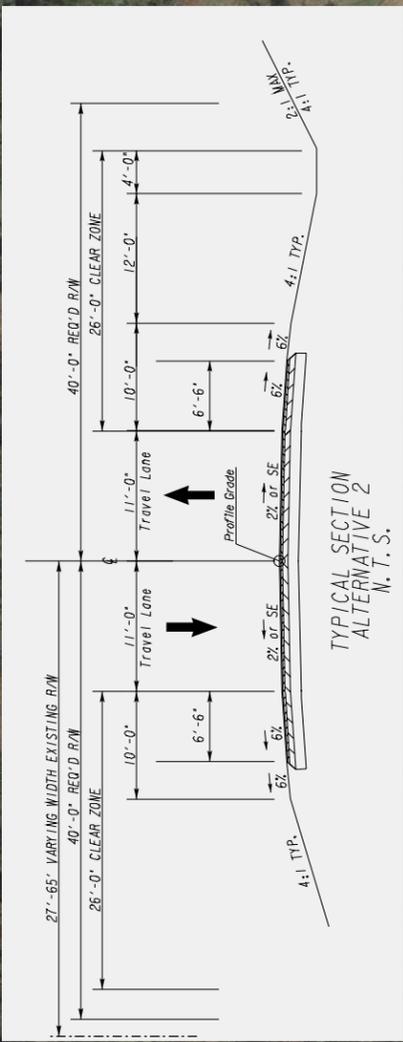
TYPICAL SECTION
ALTERNATIVE 1
N. T. S.

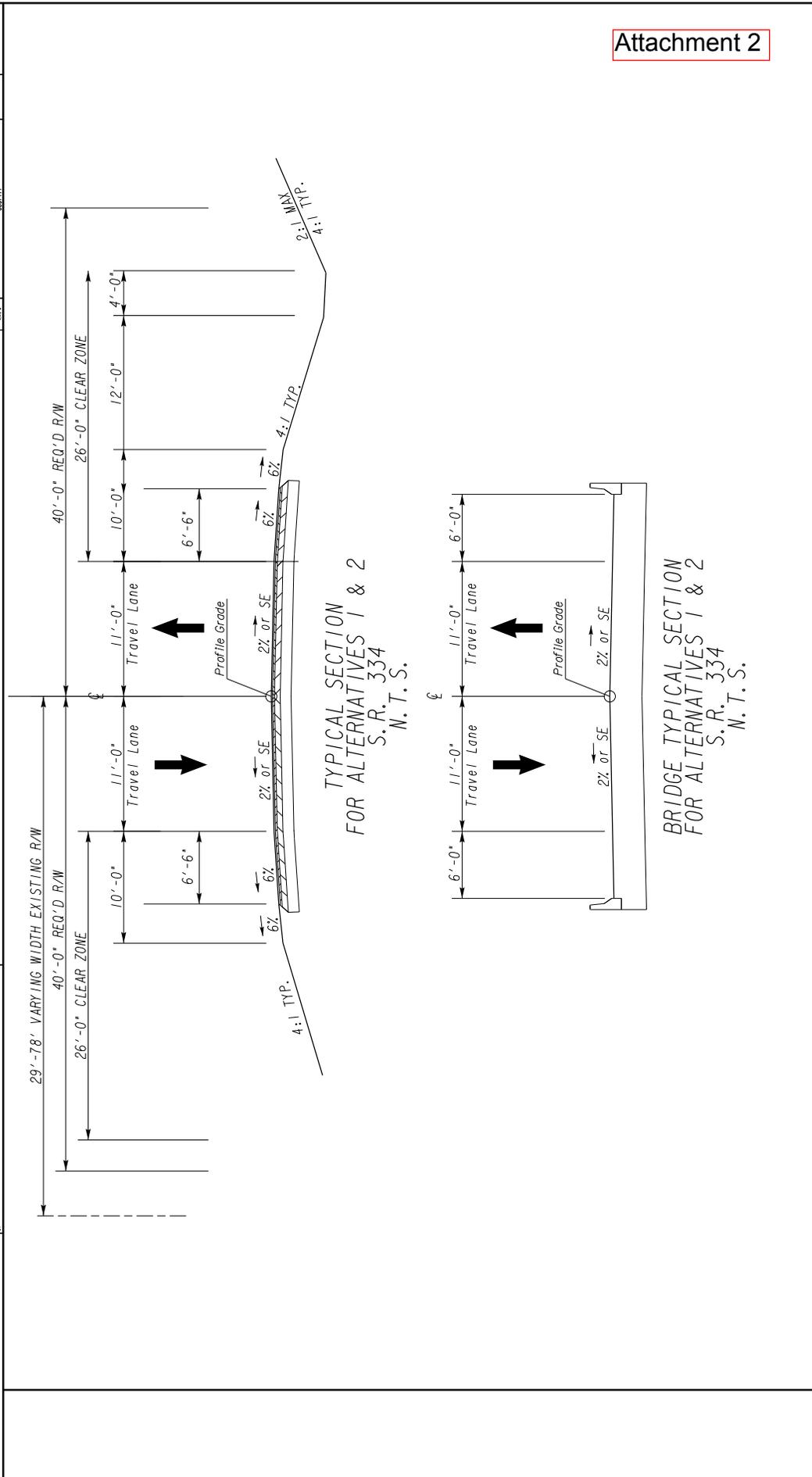


LEGEND

- EXISTING R.O.W. / PROPERTY
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENT
- PROPOSED PERMANENT PAVING
- PROPOSED TEMPORARY DETOUR PAVING
- PROPOSED BRIDGE
- APPROX. LOCATION OF ESA

**GEORGIA DEPARTMENT OF TRANSPORTATION
PROJECT NO. CSBRG-0007-00(177), P.I. NO. 0007177
S.R. 334 BRIDGE REPLACEMENT AT SANDY CREEK
ALTERNATIVE 2**





Attachment 2

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	OFFICE:	TYPICAL SECTIONS
SR 334 CONCEPT DEVELOPMENT ALTERNATIVES 1 & 2		DRAWING NO. 05-001
REVISION DATES		

PROJ. NO.: CSBRG-0007-00(177) Alternative 1
P.I. NO. 0007177
DATE: 2/9/2016

Base Construction Cost		\$	1,689,141.77
E & I	5%	\$	84,457.09
Construction Contingency	10%	\$	168,914.18
Subtotal Construction Cost		\$	1,942,513.04
Liquid AC Adjustment (50 % cap)		\$	35,146.02
Total Construction Cost		\$	1,977,659.06
R/W Acquisition (Est)		\$	326,000.00
PE			551,291.00
Utilities (Est)		\$	54,000.00

Total Project Cost \$ 2,908,950.06

STATE HIGHWAY AGENCY

DATE : 02/09/2016
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 015663162_1 SPEC YEAR: 01
DESCRIPTION: SR 334 SANDY CREEK_ALTERNATIVE 1

ITEMS FOR JOB 015663162_1

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
5	150-1000		LS	TRAFFIC CONTROL - SANDY CREEK ALTERNATIVE 1	1	\$ 50,000.00	\$ 50,000.00
10	210-0100		LS	GRADING COMPLETE - SANDY CREEK ALTERNATIVE 1	1	\$ 250,000.00	\$ 250,000.00
15	310-1101		TN	GR AGGR BASE CRS, INCL MATL	4670	\$ 24.08	\$ 112,453.60
20	402-3100		TN	REC AC 9.5 MM SP,TPI,GPIORBLL,INCL BM&HL	757	\$ 107.02	\$ 81,014.14
25	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	1326	\$ 80.86	\$ 107,220.36
30	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	1012	\$ 87.73	\$ 88,782.76
35	413-1000		GL	BITUM TACK COAT	930	\$ 3.68	\$ 3,422.40
40	433-1000		SY	REINF CONC APPROACH SLAB	210	\$ 174.74	\$ 36,695.40
45	441-0204		SY	PLAIN CONC DITCH PAVING, 4 IN	780	\$ 35.46	\$ 27,658.80
50	444-1000		LF	SAWED JTS IN EXIST PVMTS - PCC	130	\$ 5.37	\$ 698.10
55	446-2118		LF	HIGH STR PVMT REINF FABRIC, 18 IN WIDTH	1500	\$ 6.44	\$ 9,660.00
60	500-3107		CY	CL A CONC, RET WALL	85	\$ 650.00	\$ 55,250.00
65	550-2180		LF	SIDE DR PIPE 18",H 1-10	360	\$ 31.20	\$ 11,232.00
70	550-3518		EA	SAFETY END SECTION 18",STD,6:1	18	\$ 551.37	\$ 9,924.66
75	603-2181		SY	STN DUMPED RIP RAP, TP 3, 18"	55	\$ 46.95	\$ 2,582.25
80	603-7000		SY	PLASTIC FILTER FABRIC	55	\$ 5.00	\$ 275.00
85	634-1200		EA	RIGHT OF WAY MARKERS	14	\$ 118.18	\$ 1,654.52
90	641-1100		LF	GUARDRAIL, TP T	650	\$ 42.59	\$ 27,683.50
95	641-1200		LF	GUARDRAIL, TP W	85	\$ 21.00	\$ 1,785.00
100	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	2	\$ 894.99	\$ 1,789.98
105	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	3	\$ 2,002.82	\$ 6,008.46
110	643-0105		LF	FIELD FENCE BARWIRE, 5 STRANDS	750	\$ 5.00	\$ 3,750.00
115	700-6910		AC	PERMANENT GRASSING	4	\$ 748.92	\$ 2,995.68
120	700-7000		TN	AGRICULTURAL LIME	8	\$ 100.14	\$ 801.12
125	700-8000		TN	FERTILIZER MIXED GRADE	3	\$ 565.76	\$ 1,697.28
130	700-8100		LB	FERTILIZER NITROGEN CONTENT	180	\$ 2.69	\$ 484.20
135	710-9000		SY	PERM SOIL REINFORCING MAT	250	\$ 6.72	\$ 1,680.00
140	716-2000		SY	EROSION CONTROL MATS, SLOPES	7010	\$ 1.04	\$ 7,290.40
145	163-0232		AC	TEMPORARY GRASSING	2	\$ 229.33	\$ 458.66
150	163-0240		TN	MULCH	70	\$ 260.33	\$ 18,223.10
155	163-0300		EA	CONSTRUCTION EXIT	2	\$ 1,471.24	\$ 2,942.48
160	163-0520		LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	500	\$ 15.48	\$ 7,740.00
165	163-0527		EA	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	70	\$ 295.53	\$ 20,687.10
170	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	850	\$ 0.76	\$ 646.00
175	165-0041		LF	MAINT OF CHECK DAMS - ALL TYPES	70	\$ 3.62	\$ 253.40
180	165-0101		EA	MAINT OF CONST EXIT	2	\$ 538.20	\$ 1,076.40
185	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	2	\$ 226.81	\$ 453.62
190	167-1500		MO	WATER QUALITY INSPECTIONS	12	\$ 471.40	\$ 5,656.80
195	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	1700	\$ 3.24	\$ 5,508.00
200	620-0100		LF	TEMP BARRIER, METHOD NO. 1	700	\$ 33.16	\$ 23,212.00
205	643-8200		LF	BARRIER FENCE (ORANGE), 4 FT	675	\$ 1.38	\$ 931.50
210	652-5451		LF	SOLID TRAF STRIPE, 5 IN, WHITE	4815	\$ 0.18	\$ 866.70
215	652-5452		LF	SOLID TRAF STRIPE, 5 IN, YELLO	4815	\$ 0.24	\$ 1,155.60
220	657-1054		LF	PRF PL SD PVMT MKG,5",WH,TP PB	480	\$ 3.59	\$ 1,723.20
225	657-6054		LF	PRF PL SD PVMT MKG,5",YW,TP PB	480	\$ 3.67	\$ 1,761.60
230	540-1101		LS	REM OF EX BR, STA NO - 20+00	1	\$ 75,000.00	\$ 75,000.00
235	543-9000		LS	CONSTR OF BRIDGE COMPLETE - 180' X 37'	1	\$ 600,000.00	\$ 600,000.00
240	603-2024		SY	STN DUMPED RIP RAP, TP 1, 24"	300	\$ 49.97	\$ 14,991.00
245	603-7000		SY	PLASTIC FILTER FABRIC	300	\$ 4.55	\$ 1,365.00

ITEM TOTAL \$ 1,689,141.77
INFLATED ITEM TOTAL \$ 1,689,141.77

TOTALS FOR JOB 015663162_1

ESTIMATED COST: \$ 1,689,141.77
CONTINGENCY PERCENT (0%): \$ -
ESTIMATED TOTAL: \$ 1,689,141.77

PROJ. NO. CSBRG-0007-00(177) Alternative 1
 P.I. NO. 0007177
 DATE 2/9/2016

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Feb-16	\$ 1.733
DIESEL		\$ 2.069
LIQUID AC		\$ 369.00

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)				34261.65	\$ 34,261.65
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 590.40		
Monthly Asphalt Cement Price month project let (APL)			\$ 369.00		
Total Monthly Tonnage of asphalt cement (TMT)				154.75	

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm		5.0%	0
9.5 mm SP	757	5.0%	37.85
25 mm SP	1326	5.0%	66.3
19 mm SP	1012	5.0%	50.6
	3095		154.75

BITUMINOUS TACK COAT

Price Adjustment (PA)			\$ 884.37	\$ 884.37
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 590.40	
Monthly Asphalt Cement Price month project let (APL)			\$ 369.00	
Total Monthly Tonnage of asphalt cement (TMT)				3.994443857

Bitum Tack

Gals	gals/ton	tons
930	232.8234	3.99444386

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)			0	\$ -
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 590.40	
Monthly Asphalt Cement Price month project let (APL)			\$ 369.00	
Total Monthly Tonnage of asphalt cement (TMT)			0	

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

TOTAL LIQUID AC ADJUSTMENT \$ 35,146.02

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 7/16/2015 Project: CSBRG-0007-00(177)
 Revised: County: Jackson
 PI: 0007177 Preferred Alt 1

Description: SR 334 Bridge Replacement at Sandy Creek
 Project Termini: SR 334 Bridge Replacement at Sandy Creek

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 8

Land and Improvements _____ \$128,437.50

<i>Proximity Damage</i>	<i>\$0.00</i>
<i>Consequential Damage</i>	<i>\$0.00</i>
<i>Cost to Cures</i>	<i>\$0.00</i>
<i>Trade Fixtures</i>	<i>\$0.00</i>
<i>Improvements</i>	<i>\$50,000.00</i>

Valuation Services _____ \$30,000.00

Legal Services _____ \$80,400.00

Relocation _____ \$16,000.00

Demolition _____ \$0.00

Administrative _____ \$71,000.00

TOTAL ESTIMATED COSTS _____ \$325,837.50

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$326,000.00

Preparation Credits	Hours	Signature

Prepared By: Dathone Alexander CG#: 286999 07/16/2015 (DATE)

Approved By: Dathone Alexander CG#: 286999 07/16/2015 (DATE)

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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE CSBRG-0007-00(177) **OFFICE** GAINESVILLE
PI No. 0007177
SR 334, Jackson County, @ Sandy Creek, Bridge Replacement
FROM Robby Oliver, Distr. Utilities Eng. **DATE** 6/17/2015
TO Dylan Curtis, Project Manager
ATTEN
SUBJECT **PRELIMINARY UTILITY COST ESTIMATE**

As requested by your office we are furnishing you with an Updated Preliminary Utility Cost estimate for the subject project.

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
Windstream (cable)	\$30,000	
Jackson EMC (Power)	\$72,000	\$54,000
Jackson Co. WSUA(Water)	\$150,000	
ATT (Comm)	\$75,000	

TOTALS \$327,000 \$54,000
Total Non-Reimbursable Cost \$327,000
Total Reimbursable Cost \$54,000

If you have any questions, please contact Robby Oliver at 770-531-5772.

RBO

c: Lee Upkins, State Utilities Engineer
Dana Garrison, District Maintenance Engineer
File

PROJ. NO.: CSBRG-0007-00(177) Alternative 2
P.I. NO. 0007177
DATE: 2/9/2016

Base Construction Cost		\$	1,943,859.72
E & I	5%	\$	97,192.99
Construction Contingency	10%	\$	194,385.97
Subtotal Construction Cost		\$	2,235,438.68
Liquid AC Adjustment (50 % cap)		\$	39,453.15
Total Construction Cost		\$	2,274,891.83
<hr/>			
R/W Acquisition (Est)		\$	291,000.00
PE			551,291.00
Utilities (Est)		\$	54,000.00
<hr/>			

Total Project Cost \$ 3,171,182.83

STATE HIGHWAY AGENCY

DATE : 02/09/2016
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 015663162_2 SPEC YEAR: 01
DESCRIPTION: SR 334 SANDY CREEK_ATLERNATIVE 2

ITEMS FOR JOB 015663162_2

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
5	150-1000		LS	TRAFFIC CONTROL - SANDY CREEK ALTERNATIVE 2	1	\$ 50,000.00	\$ 50,000.00
10	210-0100		LS	GRADING COMPLETE - SANDY CREEK ALTERNATIVE 2	1	\$ 400,000.00	\$ 400,000.00
15	310-1101		TN	GR AGGR BASE CRS, INCL MATL	5511	\$ 23.68	\$ 130,500.48
20	402-3100		TN	REC AC 9.5 MM SP,TPI,GP1ORBL1,INCL BM&HL	714	\$ 107.56	\$ 76,797.84
25	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	1572	\$ 79.72	\$ 125,319.84
30	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	1187	\$ 86.40	\$ 102,556.80
35	413-1000		GL	BITUM TACK COAT	1059	\$ 3.59	\$ 3,801.81
40	433-1000		SY	REINF CONC APPROACH SLAB	210	\$ 174.74	\$ 36,695.40
45	441-0204		SY	PLAIN CONC DITCH PAVING, 4 IN	780	\$ 35.46	\$ 27,658.80
49	444-1000		LF	SAWED JTS IN EXIST PVMTS - PCC	130	\$ 5.37	\$ 698.10
50	446-2118		LF	HIGH STR PVMT REINF FABRIC, 18 IN WIDTH	1200	\$ 6.44	\$ 7,728.00
55	550-2180		LF	SIDE DR PIPE 18",H 1-10	360	\$ 31.20	\$ 11,232.00
60	550-3518		EA	SAFETY END SECTION 18",STD,6:1	18	\$ 551.37	\$ 9,924.66
65	603-2181		SY	STN DUMPED RIP RAP, TP 3, 18"	55	\$ 46.95	\$ 2,582.25
70	603-7000		SY	PLASTIC FILTER FABRIC	55	\$ 5.00	\$ 275.00
74	634-1200		EA	RIGHT OF WAY MARKERS	15	\$ 117.79	\$ 1,766.85
75	641-1100		LF	GUARDRAIL, TP T	85	\$ 68.66	\$ 5,836.10
80	641-1200		LF	GUARDRAIL, TP W	625	\$ 18.84	\$ 11,775.00
85	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	2	\$ 894.99	\$ 1,789.98
90	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	3	\$ 2,002.82	\$ 6,008.46
95	643-0105		LF	FIELD FENCE BARWIRE, 5 STRANDS	750	\$ 5.00	\$ 3,750.00
100	700-6910		AC	PERMANENT GRASSING	4	\$ 748.92	\$ 2,995.68
105	700-7000		TN	AGRICULTURAL LIME	7	\$ 101.17	\$ 708.19
110	700-8000		TN	FERTILIZER MIXED GRADE	3	\$ 565.76	\$ 1,697.28
115	700-8100		LB	FERTILIZER NITROGEN CONTENT	161	\$ 2.74	\$ 441.14
120	710-9000		SY	PERM SOIL REINFORCING MAT	250	\$ 6.72	\$ 1,680.00
125	716-2000		SY	EROSION CONTROL MATS, SLOPES	7010	\$ 1.04	\$ 7,290.40
130	163-0232		AC	TEMPORARY GRASSING	2	\$ 229.33	\$ 458.66
135	163-0240		TN	MULCH	70	\$ 260.33	\$ 18,223.10
140	163-0300		EA	CONSTRUCTION EXIT	2	\$ 1,471.24	\$ 2,942.48
145	163-0520		LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	500	\$ 15.48	\$ 7,740.00
150	163-0527		EA	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	80	\$ 293.92	\$ 23,513.60
155	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	850	\$ 0.76	\$ 646.00
160	165-0041		LF	MAINT OF CHECK DAMS - ALL TYPES	80	\$ 3.55	\$ 284.00
165	165-0101		EA	MAINT OF CONST EXIT	2	\$ 538.20	\$ 1,076.40
170	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	2	\$ 226.81	\$ 453.62
175	167-1500		MO	WATER QUALITY INSPECTIONS	12	\$ 471.40	\$ 5,656.80
180	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	1700	\$ 3.24	\$ 5,508.00
183	620-0100		LF	TEMP BARRIER, METHOD NO. 1	1500	\$ 32.41	\$ 48,615.00
184	643-8200		LF	BARRIER FENCE (ORANGE), 4 FT	310	\$ 1.44	\$ 446.40
185	652-5451		LF	SOLID TRAF STRIPE, 5 IN, WHITE	4420	\$ 0.19	\$ 839.80
190	652-5452		LF	SOLID TRAF STRIPE, 5 IN, YELLO	4420	\$ 0.25	\$ 1,105.00
195	657-1054		LF	PRF PL SD PVMT MKG,5",WH,TP PB	480	\$ 3.59	\$ 1,723.20
200	657-6054		LF	PRF PL SD PVMT MKG,5",YW,TP PB	480	\$ 3.67	\$ 1,761.60
209	540-1101		LS	REM OF EX BR, STA NO - 20+00	1	\$ 75,000.00	\$ 75,000.00
210	541-0001		LS	DETOUR BRIDGE - 150' X 30'	1	\$ 100,000.00	\$ 100,000.00
215	543-9000		LS	CONSTR OF BRIDGE COMPLETE - 180' X 37'	1	\$ 600,000.00	\$ 600,000.00
220	603-2024		SY	STN DUMPED RIP RAP, TP 1, 24"	300	\$ 49.97	\$ 14,991.00
225	603-7000		SY	PLASTIC FILTER FABRIC	300	\$ 4.55	\$ 1,365.00

ITEM TOTAL \$ 1,943,859.72
INFLATED ITEM TOTAL \$ 1,943,859.72

TOTALS FOR JOB 015663162_2

ESTIMATED COST: \$ 1,943,859.72
CONTINGENCY PERCENT (0%): \$ -
ESTIMATED TOTAL: \$ 1,943,859.72

PROJ. NO. CSBRG-0007-00(177) Alternative 2
 P.I. NO. 0007177
 DATE 2/9/2016

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Feb-16	\$ 1.733
DIESEL		\$ 2.069
LIQUID AC		\$ 369.00

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)				38446.11	\$ 38,446.11
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 590.40		
Monthly Asphalt Cement Price month project let (APL)			\$ 369.00		
Total Monthly Tonnage of asphalt cement (TMT)				173.65	

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm		5.0%	0
9.5 mm SP	714	5.0%	35.7
25 mm SP	1572	5.0%	78.6
19 mm SP	1187	5.0%	59.35
	3473		173.65

BITUMINOUS TACK COAT

Price Adjustment (PA)			\$ 1,007.04	\$ 1,007.04
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 590.40	
Monthly Asphalt Cement Price month project let (APL)			\$ 369.00	
Total Monthly Tonnage of asphalt cement (TMT)				4.548511876

Bitum Tack

Gals	gals/ton	tons
1059	232.8234	4.54851188

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)			0	\$ -
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 590.40	
Monthly Asphalt Cement Price month project let (APL)			\$ 369.00	
Total Monthly Tonnage of asphalt cement (TMT)			0	

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

TOTAL LIQUID AC ADJUSTMENT \$ 39,453.15

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 7/16/2015 Project: CSBRG-0007-00(177)
 Revised: County: Jackson
 PI: 0007177 Alt 2

Description: SR 334 Bridge Replacement at Sandy Creek
 Project Termini: SR 334 Bridge Replacement at Sandy Creek

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 8

Land and Improvements _____ \$92,625.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$40,000.00

Valuation Services _____ \$30,000.00

Legal Services _____ \$80,400.00

Relocation _____ \$16,000.00

Demolition _____ \$0.00

Administrative _____ \$71,000.00

TOTAL ESTIMATED COSTS _____ \$290,025.00

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$291,000.00

Preparation Credits	Hours	Signature

Prepared By: Dashone Alexander CG#: 286999 07/16/2015 (DATE)

Approved By: Dashone Alexander CG#: 286999 07/16/2015 (DATE)

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

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE CSBRG-0007-00(177), Jackson County **OFFICE** Planning
P.I. # 0007177
DATE July 7, 2014

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Albert Shelby, State Program Delivery Engineer
Attention: Derrick Brown

SUBJECT **Estimated** Traffic Assignments for SR 334 @ SANDY CREEK 11.5 MI
SOUTHEAST OF JEFFERSON.

We are furnishing estimated traffic assignments for the above project as follows:

	NO BUILD	BUILD
	BRIDGE ID 157-0030-0	BRIDGE ID 157-0030-0
2013 ADT	1300	1300
2020 ADT	1400	1400
2040 ADT	1800	1800
2013 DHV	105	140
2020 DHV	110	155
2040 DHV	145	195
D	61%	61%
K	8.0%	10.9%
T	3.50%	3.50%
S.U.	3.00%	3.00%
COMB.	0.50%	0.50%
24 HR. T.	5.25%	5.25%
S.U.	4.00%	4.00%
COMB.	1.25%	1.25%

If you have any questions concerning this information please contact Abby Ebodaghe at (404) 631-1923.

CLV/AFE

Flexible Pavement Design Analysis

Attachment 6

PI Number	0007177	County(s)	Jackson
Project Number	CSBRG-0007-00(177)	Design Name	S.R. 334
Project Description	Bridge Replacement Along S.R. 334 @ Sandy Creek 11.5 MI Southeast of Jefferson		

Traffic Data (AADTs are one-way)					Miscellaneous Data		
Initial Design Year	2020	Initial AADT, VPD	700	24 Hour Truck %	5.25	Lanes in one direction	1
Final Design Year	2040	Final AADT, VPD	900	SU Truck %	4.00	Curb & Gutter/Barrier	No
		Mean AADT, VPD	800	MU Truck %	1.25		

Design Data					
Lane Distribution Factor (%)	100.00	Soil Support Value	3.00	Single Unit ESAL	0.40
Terminal Serviceability Index	2.50	Regional Factor	1.80	Multiple Unit ESAL	1.50
		User Defined 18-KIP ESAL	0.73	Calculated 18-KIP ESAL	0.66
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
800	100.00	Single Unit Truck	4.00	0.40	13
		Multi Unit Truck	1.25	1.50	15
Total Daily ESALs					28
Total Design Period ESALs					204,400

Proposed Flexible Full Depth Pavement Structure				
Course	Material	Thickness (inches)	Structural Coefficient	Structural Value
Course 1	9.5 mm Type I Superpave	1.25	0.4400	0.55
Course 2	19 mm Superpave	2.00	0.4400	0.88
Course 3	25 mm Superpave	1.25	0.4400	0.55
		1.75	0.3000	0.53
Course 4	Graded Aggregate Base	10.00	0.1600	1.60

Required SN	3.36	Proposed pavement is 22.16% Overdesigned	Proposed SN	4.11
--------------------	------	---	--------------------	------

Design Remarks	
-----------------------	--

Prepared By	Nathan Currie, PE (Project Engineer)	3/23/2015 2:19 PM
	Date	
Recommended By	Consultant Design Phase Leader	Date
	Date	
Approved By	State Pavement Engineer	Date
	Date	

Meeting Minutes from Concept Team Meeting

CSBRG-0007-00(177), PI 0007177

Friday September 11, 2015

District 1 Office

The Concept Team Meeting for CSBRG-0007-00(177), PI 0007177 was held Friday September 11, 2015 at the District 1 office in Gainesville, Ga. Attached is the agenda and sign in sheet for the meeting.

Following are the notes from the meeting:

Dylan Curtis opened the meeting with a brief summary of the project including location and project identification. All attendees then introduced themselves and identified their role in the project. Dylan then reviewed the project schedule and then introduced Peter Coakley, Kimley-Horn Project Manager, to review the Concept Report and present the alternatives considered for the project.

The highlights of the review of the concept report are as follows:

- No anticipated design variances or exceptions.
- Public Involvement not anticipated
- 11' lanes w 6' shoulders for the road and bridge
- No PAR
- Environmental studies have been submitted
- Parcel count is 8 residential properties impacted w/ no displacements
- This is not in the Non-Attainment area

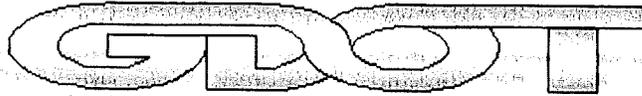
The alternatives considered were then presented with the following comments:

- Limited sight distance was identified as a major issue along the west side of the road
- An off-site detour would have a 31 minute delay
- Alternative 1 is new location east of the existing bridge with traffic maintained on the existing road with the proposed bridge being constructed just east of the existing bridge
- It was suggested to change the construction time to 18 months for Alt 1 and 20 months for Alt 2
- Harold Mull asked for 10' minimum between the existing and proposed bridges
- Alternative 2 utilizes an onsite detour
- The superelevation will be constant across the bridge
- 6' shoulders are acceptable due to low traffic volumes
- Two ESA located at south end of project (Sandy Creek and a pond)
- No utilities attached to the bridge
- Utility relocation will be necessary – water line and power on the east side of the road
- Windstream expressed concern about relocation requiring ESA impacts
- Confirm clear zone- maybe able to use 24' instead of 26'
- Contingency of 10% needs to be added to the Concept Report

The above summarizes the understanding of the KHA attendee at the meeting. Any additions, deletions, or other revisions to these minutes should be brought to the attention of the KHA attendee as soon as possible.

Prepared by: Peter Coakley

Date: September 29, 2015



Georgia Department of Transportation

CONCEPT TEAM MEETING AGENDA For PI 0007177- Jackson County

Thursday September 10, 2015

10:00 a.m.

**Meeting Location: District 1 Office large conference room located at 2505 Athens Highway,
Gainesville, GA 30507**

1. Welcome – Dylan Curtis, GDOT Project Manager
2. Sign-in sheet
3. Attendee (self) Introduction
 - a. Project Identification – Georgia Department of Transportation (GDOT) and Jackson County
 - b. Project Name: SR 334@ Sandy Creek
 - c. Project Type – Bridge Replacement
 - d. Project County: Jackson County
 - e. Project Identification Number: 0007177
4. Schedule – Dylan Curtis, GDOT Project Manager
5. Review Concept Report – Design Team
6. Review Concept Layout – Design Team
7. Assess Project Risks – Project Team
8. Review Public Involvement Plan (if applicable) – Project Team
9. Comments/questions (from attendees in the following order)
 - a. Local Government Officials
 - State
 - County
 - City
 - b. Office of Design Policy and Support
 - c. Office of Planning
 - d. Office of Financial Management
 - e. Office of Engineering Services
 - f. Office of Traffic Operations
 - g. Office of Environmental Services
 - h. District Preconstruction
 - i. Office of Right of Way
 - j. Office of Construction
 - k. GDOT Office of Utilities
 - l. Individual Utility Companies (in attendance)
 - n. Other attendees

Note: Project Site Visit to follow concept team meeting

Concept Team Mtg 0007177

Dylan Curtis
 Nathan Currie
 Peter Coakley
 ERIC MARTIN
 BRIAN SMITH
 KEVIN BOST
 Shannon Giles
 HAROLD D. MULL
 Andrew Cobb
 Lynn Palmer
 Anthony Tate
 John Cantwell
 Kim Coley
 Kevin York
 Justin Lott
 William Hunter

GDOT
 Kimley-Horn
 Kimley-Horn
 Kimley-HORN
 JACKSON EMC
 JACKSON EMC
 GDOT
 GDOT-OCE
 GDOT-OES
 GDOT DI utilities
 GDOT OPD
 WINDSTREAM-CATV
 GDOT-Planning
 GDOT-DI R/W
 GDOT-DI-Design
 GDOT DI T.O.

4)631-1606
 678-502-1878
 678-533-3906
 678-533-3947
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