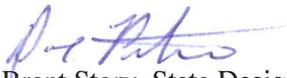


DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0008358, 0008359, 0010236 **OFFICE** Design Policy & Support
Chatham County
GDOT District 5 - Jesup **DATE** 2/27/2015
Interchange: I-516 at DeRenne Avenue and
Operational Improvements on DeRenne
Avenue/SR 21

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

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

Attachment

DISTRIBUTION:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Ben Rabun, 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
Mike Bolden, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Richard Cobb, Statewide Location Bureau Chief
Karon Ivery, District Engineer
Will Murphy, District Preconstruction Engineer
Dallory Rozier, District Utilities Engineer
David Moyer, Project Manager
BOARD MEMBER - 1st Congressional District

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

Project Type: New Facility/System Enhancement & Operations P.I. Number: 0008358, 0008359 and 0010236
 GDOT District: Five County: Chatham
 Federal Route Number: I-516 State Route Number: SR 21
 Project Number: _____

I-516 Eastern Terminus Interchange at DeRenne (PI# 0008358): a new location, median-divided 4-lane arterial, with a proposed interchange on the west end of the project beginning where I-516 currently transitions to DeRenne Avenue (SR 204) and connecting to White Bluff Road on the east end of the project.
East DeRenne from Abercorn Street to Harry S. Truman Pkwy (PI# 0008359): replaces the existing two-way left-turn lane with a landscaped median, improve signalized intersections, enhance ped/bike accommodations
SR 21 From CS 346/Mildred Street to SR 204 (PI# 0010236): improve the existing raised median to better control access along with enhanced accommodation for pedestrians and cyclists.

Submitted for approval:

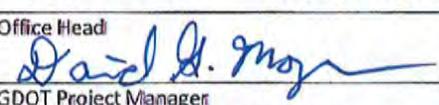
Robert Hume, P.E. / Kimley-Horn and Associates, Inc.  12/19/14

Consultant Designer & Firm or GDOT Concept/Design Phase Office Head & Office DATE

MICHAEL WEINER  12-22-14

Local Government Albert Shelby DATE 1/5/15

Office Head DATE

David D. Moyer   12/22/14

GDOT Project Manager DATE

Recommendation for approval:

Program Control Administrator DATE

* HIBAL PATEL 7/27/2014

State Environmental Administrator DATE

* KATHY ZAHUL 7/23/2014

State Traffic Engineer DATE

* LISA MYERS 7/15/2014

Project Review Engineer DATE

* NICHOLAS FIELDS 1/10/2015

State Utilities Engineer DATE

District Engineer DATE

* BEN TABUN 7/15/2014

State Bridge Design Engineer 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).

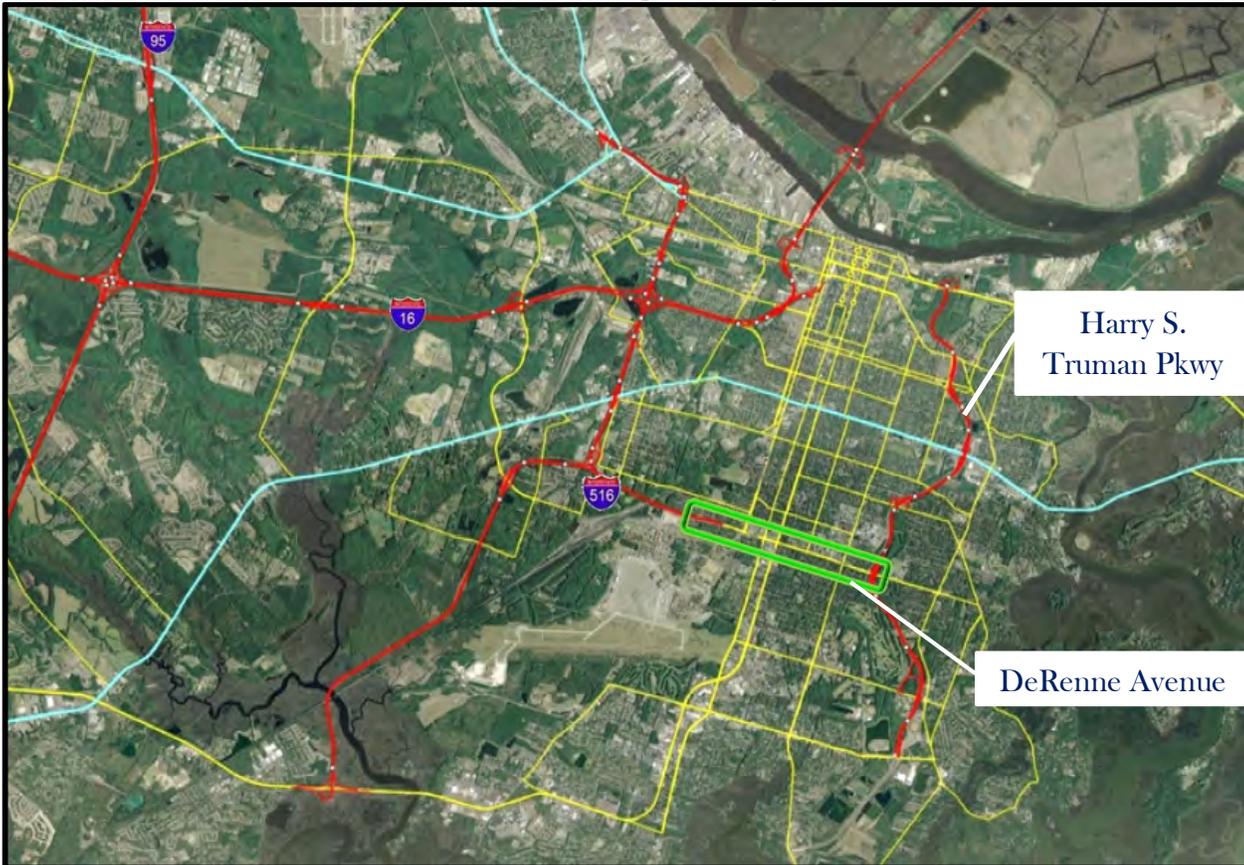
* CYNTHIA L. VANDYKE 7/15/2014

State Transportation Planning Administrator DATE

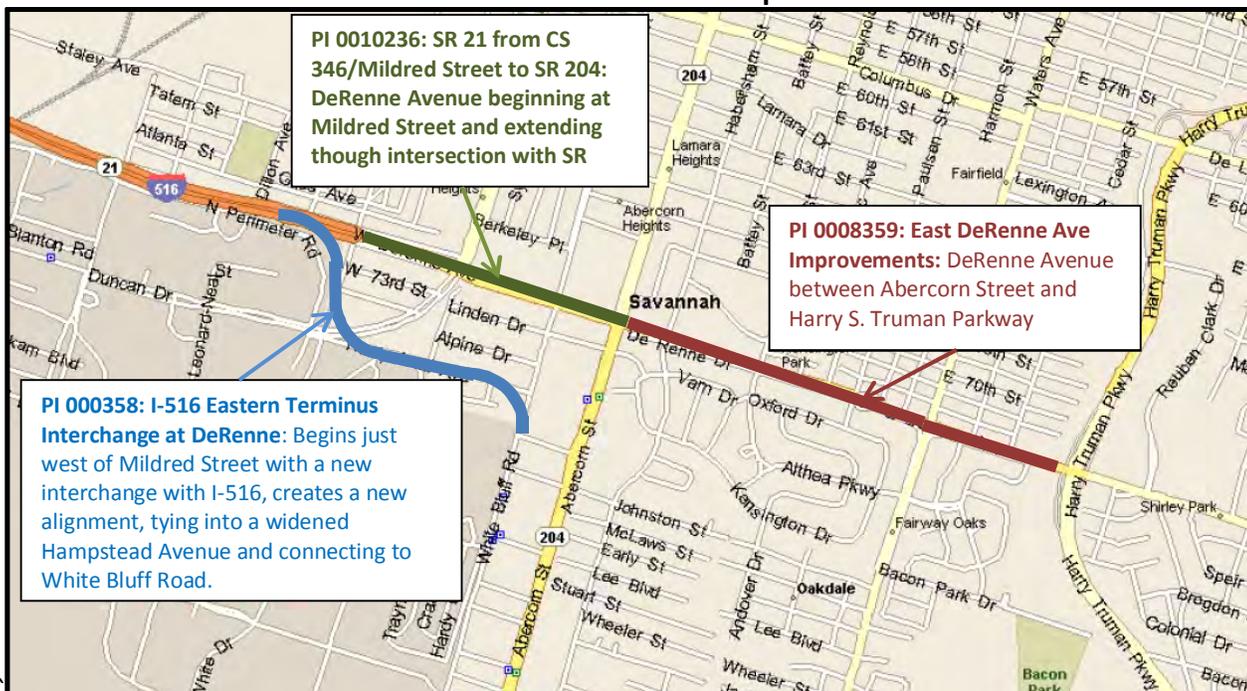
* RECOMMENDATION ON FILE 

PROJECT LOCATION

Regional Map



Location Map



PLANNING & BACKGROUND DATA

Project Justification Statement:

DeRenne Avenue is a major arterial (six-lane and five-lane) connecting two high-capacity, controlled-access facilities (I-516 and the Truman Parkway) that serves as a critical east-west connection within the City of Savannah and Chatham County. In addition to regional travel conveyance, DeRenne Avenue also provides access to and from Hunter Army Airfield, two regional hospitals (St. Joseph’s Candler and Memorial University Medical Center, one of only four Level I trauma centers in Georgia), a large technical college, and several public schools. The abundance of peak-hour travel demand on DeRenne Avenue, coupled with the transition from free flow travel on I-516 to a signal-controlled arterial, results in heavy congestion along DeRenne Avenue that restricts regional travel and mobility. In addition to heavy congestion, the pedestrian network along DeRenne Avenue is fragmented, bike lanes are not present and poor access management along the corridor make DeRenne Avenue less than suitable for alternative modes of transportation.

DeRenne Avenue congestion is summarized within Table 1 below. Table 1 represents the intersection delay and corresponding level of service (LOS) at the signalized intersections along DeRenne Avenue and White Bluff Road for 2012 existing, 2020 no build and 2040 no build conditions. The current peak-hour delay for all intersections along DeRenne Avenue west of Habersham Street are LOS E or F, while all are projected to operate at LOS F in 2040 under no build conditions. These intersections currently experience delay in the range of 105 and 209 seconds per vehicle during the AM peak hour. The existing operations of the signalized intersections along DeRenne Avenue east of Abercorn Street generally fall into two categories: the two intersections with Habersham Street and Waters Avenue currently operate at LOS D and E with a range of 38 to 56 seconds of delay during the AM and PM peak hours, while the remaining intersections within this segment generally operate at LOS B and C with a range of 10 to 21 seconds of delay.

Table 1: Level of Service Summary for Signalized Intersections							
Intersection	Peak Hour	2012 Existing		2020 No Build		2040 No Build	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
DeRenne Avenue & Montgomery Street	AM Peak	F	209.0	F	154.9	F	194.4
	PM Peak	E	67.3	E	77.6	F	114.5
DeRenne Avenue & Bull Street/White Bluff Road	AM Peak	F	165.6	F	153.2	F	192.6
	PM Peak	F	81.5	F	89.0	F	119.3
DeRenne Avenue & Abercorn Street	AM Peak	F	105.0	E	75.3	F	105.6
	PM Peak	E	59.3	E	65.9	F	89.9

DeRenne Avenue & Habersham Street	AM Peak	D	41.9	C	33.0	E	57.7
	PM Peak	D	38.2	D	39.6	E	61.5
DeRenne Avenue & Reynolds Street	AM Peak	B	18.1	B	10.7	B	11.7
	PM Peak	B	15.8	A	9.5	B	12.4
DeRenne Avenue & Paulsen Street	AM Peak	B	18.6	C	20.4	C	26.4
	PM Peak	C	20.5	C	20.3	C	25.7
DeRenne Avenue & Waters Avenue	AM Peak	D	55.0	E	61.6	E	78.8
	PM Peak	E	56.4	D	52.4	E	69.7
DeRenne Avenue & Truman Parkway SB Ramps	AM Peak	B	13.9	B	17.7	C	25.3
	PM Peak	B	10.6	A	9.4	B	12.6
DeRenne Avenue & Truman Parkway NB Ramps	AM Peak	B	19.8	C	20.1	C	22.1
	PM Peak	B	18.3	B	12.5	B	15.2
White Bluff Road at Hampstead Avenue	AM Peak	C	21.5	C	22.8	C	28.9
	PM Peak	B	19.6	C	20.7	C	24.7
White Bluff Road at Johnston Street	AM Peak	B	16.8	B	11.5	B	13.0
	PM Peak	B	16.3	B	12.2	B	13.6
White Bluff Road at Stephenson Avenue	AM Peak	C	28.1	C	26.5	C	28.7
	PM Peak	D	47.4	C	32.4	D	37.2

Note: Existing signal timings were obtained from the City of Savannah and were used for 2012 existing conditions, while optimized cycle lengths and splits were used for 2020 and 2040 no build conditions; therefore, due to the priority given to DeRenne Avenue traffic under existing timings, the overall intersection performance at some locations modeled better for future conditions than for 2012 conditions.

Congestion along DeRenne Avenue was identified as one of five principal transportation issues in the Savannah Area within the Connecting Savannah plan developed by the Chatham County-Savannah Metropolitan Planning Commission (MPC) in 2005. This project is identified in the Framework Mobility

County: Chatham

Plan within the Coastal Region Metropolitan Planning Organization (CORE) Connections 2035 Long Range Transportation Plan (LRTP) as “DeRenne Avenue Improvements/Congestion Mitigation”. The 2035 LRTP was adopted by the CORE Board on September 17, 2009.

In 2008, the City of Savannah hired a transportation consultant to study DeRenne Avenue’s congestion. The effort was referred to as “Project DeRenne” and was funded by local tax revenues collected through a prior year (1997) SPLOST. The final document was endorsed by the Project Advisory Committee and adopted by Savannah’s Mayor and Alderman in June of 2010. Subsequently, the current TIP (FY 2014-2017) has been amended to include Preliminary Engineering (locally funded) and GDOT oversight. Project DeRenne encompasses three projects: PI 0008358 (I-516 Eastern Terminus Interchange), 0008359 (East DeRenne Avenue Improvements) and 0010236 (West DeRenne Avenue Improvements).

The project corridor is defined as extending west of the unsignalized intersection of DeRenne Avenue and Mildred Street (along I-516), eastward along DeRenne Avenue (GA 21) through the intersection with Abercorn Street (GA 204) to the ramp intersections with the Harry S. Truman Parkway. The western limit of the project corridor is intended to represent the typical western limit of queuing on I-516 associated with peak-hour congestion. The eastern limit of the study area is where DeRenne Avenue intersects the high-capacity, controlled-access facility at the Harry S. Truman Parkway (via a grade-separated interchange) and mainline traffic volumes (AADT) drop considerably (from 28,310 vpd to 16,250 vpd). The needs within the western segment of the project corridor (defined as west of Mildred Street extending through Abercorn Street (SR 204)) are defined by severe congestion, high intersection delay, poor access management and challenging accommodations for pedestrians. The needs within the eastern portion of the corridor (east of Abercorn Street to the Truman Parkway) are defined by poor access management, challenging accommodations for pedestrians, and no accommodations for bicycles.

Project DeRenne (PI 0008358 (I-516 Eastern Terminus Interchange), 0008359 (East DeRenne Avenue Improvements) and 0010236 (West DeRenne Avenue Improvements)) is necessary to reduce severe traffic queuing, ease congestion, improve the operational efficiency of DeRenne Avenue (specifically the heavy eastbound to southbound and northbound to westbound movements), reduce the number of conflict points throughout the corridor, and better accommodate all modes of travel within the project corridor.

Description of the proposed project:

Project DeRenne consists of three projects:

- PI 0008358: I-516 Eastern Terminus Interchange at DeRenne (Referred to as the Boulevard Option)
The Boulevard Option consists of a new connection via an interchange with I-516 (just west of Mildred Street) continuing along the alignment of a widened Hampstead Avenue (four-lane divided section with multi-use path) to a realignment of White Bluff Road (approximately 4,800LF). The project will include elevation of the inbound travel lanes over reconfigured access to Hunter Army Airfield and elevation of the outbound travel lanes over I-516/DeRenne Avenue. The project begins approximately 1,400’ west of the DeRenne Avenue and Montgomery Street intersection and ends approximately 500’ south of the current intersection of Hampstead Avenue and White Bluff Road. Montgomery Street will be reconstructed from a four lane divided roadway to a two-lane, median-divided neighborhood street with on-street parking, 8-foot sidewalks and a planting strip. This section of Montgomery Street is approximately 1,400 LF. The existing intersection of White Bluff

County: Chatham

Road with Hampstead Avenue will be modified such that the through movement becomes northbound to westbound and eastbound to southbound with the remaining leg of White Bluff (connecting to DeRenne Avenue) teed into the outside of the new curve. Bicycle and pedestrian traffic to and from the Hunter Army Airfield will be accommodated on a multi-use path south of the Hampstead alignment that connects on the east to the pedestrian enhanced intersection with White Bluff. Landscaping, pedestrian lighting and street lighting will be included. Trees used along the corridor will be acceptable GDOT street trees. Utility relocations, other than when a direct conflict exists, are not anticipated within the scope of this project.

- PI 0010236: SR 21 From CS 346/Mildred Street to SR 204 (Referred to as West DeRenne Avenue Improvements)

The West DeRenne Avenue Improvements Project operates in conjunction with the Boulevard Option (PI 0008358 described above) to improve the portion of DeRenne Avenue (GA 21) between Mildred Street and the intersection of Abercorn Street (inclusive), approximately 2,600 LF. These improvements include:

- Providing access management by closing existing mid-block median breaks;
- Optimizing the intersection configurations at Montgomery Street, White Bluff Road and Abercorn Street to reflect the change in travel patterns with the implementation of the Boulevard; and
- Incorporation of enhanced pedestrian accommodations along the corridor and at the intersections.

- PI 0008359: East DeRenne from Abercorn Street to Harry S. Truman Pkwy (Referred to as East DeRenne Avenue Improvements):

The East DeRenne Avenue Improvement Project improves the segment of DeRenne Avenue between Abercorn Street and the Harry S. Truman Parkway, approximately 6,300 LF. This portion of DeRenne Avenue is on the National Highway System. These improvements include:

- Providing access management through conversion of the existing two-way left-turn lane to a raised, planted median;
- Optimizing the intersection configuration of DeRenne Avenue and Waters Avenue to minimize delay through re-striping of the existing roadway;
- Develop a parallel bicycle facility utilizing DeRenne Drive; and
- Incorporation of enhanced pedestrian accommodations along the corridor and at the signalized intersections.

Federal Oversight: Full Oversight Exempt State Funded Other

MPO: CORE MPO

MPO Project ID: TIP # 0008358, 0000359 and 0010236

Regional Commission: Coastal Georgia RC

RC Project ID

Congressional District(s): 1

Projected Traffic: ADT

Current Year (2012):

- DeRenne Avenue from I-516 to Mildred Street: 59,380 VPD
- DeRenne Avenue from Mildred Street to Abercorn Street : 59,380 to 39,450 VPD
- DeRenne Avenue from Abercorn Street to Truman Parkway: 41,100 to 28,130 VPD

Open Year (2020):

- *Build Condition*
 - Boulevard from I-516 to White Bluff Road: 29,250 to 26,755 VPD
 - DeRenne Avenue from I-516 to Mildred Street: 66,970 to 37,720 VPD
 - DeRenne Avenue from Mildred Street to Abercorn Street : 37,720 to 41,570 VPD
 - DeRenne Avenue from Abercorn Street to Truman Parkway: 46,310 to 31,710 VPD
- *No- Build Condition*
 - DeRenne Avenue from I-516 to Mildred Street: 61,810 VPD
 - DeRenne Avenue from Mildred Street to Abercorn Street : 61,810 to 41,070 VPD
 - DeRenne Avenue from Abercorn Street to Truman Parkway: 42,780 to 29,280 VPD

Design Year (2040):

- *Build Condition*
 - Boulevard from I-516 to White Bluff Road: 33,950 to 31,055 VPD
 - DeRenne Avenue from I-516 to Mildred Street: 77,740 to 43,790 VPD
 - DeRenne Avenue from Mildred Street to Abercorn Street : 43,790 to 48,280 VPD
 - DeRenne Avenue from Abercorn Street to Truman Parkway: 53,750 to 36,810 VPD
- *No- Build Condition*
 - DeRenne Avenue from I-516 to Mildred Street: 68,310 VPD
 - DeRenne Avenue from Mildred Street to Abercorn Street : 68,310 to 45,390 VPD
 - DeRenne Avenue from Abercorn Street to Truman Parkway: 47,280 to 32,360 VPD

Traffic count collection locations (peak-hour intersection turning-movements and 24-hour tube counts) are attached in Appendix 5.

Traffic Projections Performed by: *Kimley-Horn*

Functional Classification (Mainline):

Existing Roadways:

- Urban Interstate Principal Arterial (I-516 from the beginning of the project corridor to Mildred Street)
- Urban Freeway and Expressway (Along DeRenne Avenue from Mildred Street to Montgomery Street)
- Urban Principle Arterial (Along DeRenne Ave from Montgomery Street to Truman Parkway)

Proposed Alignment: Boulevard: Urban Principal Arterial

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project?

No

Yes

Is this project on a designated Bike Route, Pedestrian Plan, or Transit Network?

None Bike Route Pedestrian Plan Transit Network

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? No Yes

The Preliminary Pavement Evaluation Summary Report is attached.

Preliminary Pavement Type Selection Report Required? No Yes

The pavement costs are not expected to exceed one-third of total construction costs.

Feasible Pavement Alternatives: HMA PCC HMA & PCC

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern:

Traffic congestion along DeRenne Avenue between I-516 and the Harry S. Truman Parkway is a highly contentious local/regional issue due to the conflicting interests between vehicular travel demand, associated land use decline, a challenging pedestrian environment and no accommodation for bicycles. Exacerbating the situation, two prior efforts undertaken to study and develop traffic solutions ended in public discord and community resentment. The community continues to seek relief to the significant traffic congestion problem, but appears resolute in their desire that the developed solution be context sensitive.

Context Sensitive Solutions:

The City of Savannah has initiated a project (referred to as Project DeRenne) to work jointly with the affected DeRenne corridor communities (neighborhoods, businesses, institutions, military, etc.) to develop a framework plan guiding the development and refinement of transportation and land-use based solutions for DeRenne Avenue. This effort is well under way and will guide and feed directly into the design and public involvement components of this design project.

DESIGN AND STRUCTURAL DATA

PI 0008358: Boulevard Connector (between I-516 and ramps to/from Montgomery St./HAAF)

Mainline Design Features: New Alignment, Pavement, Bridges, Retaining Walls, Curb and Gutter, Drainage, Ramps, Roundabout

Roadway Name/Identification: Boulevard (between I-516 and Hunter Interchange)/ Urban Principal Arterial

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	N/A	4	4
- Lane Width(s)	N/A	11'-12'	11' & 12'***
- Median Width & Type	N/A	20' RAISED	10' MEDIAN w/ 6' RAISED***
- Outside Shoulder or Border Area Width & Type	N/A	10' RURAL / 6.5' PAVED	10' RURAL / 6.5' PAVED

- Outside Shoulder Slope	N/A	6%	6%
- Inside Shoulder Width & Type	N/A	6' TOTAL / 2' PAVED	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	N/A		35
Design Speed	N/A	45	45
Min Horizontal Curve Radius	N/A	711'	711'
Superelevation Rate	N/A	4%	4%
Grade	N/A	6%	6%
Access Control	N/A	FULL	FULL
Right-of-Way Width	N/A	AS NEEDED	200'
Maximum Grade – Crossroad	N/A	9%	9%
Design Vehicle	N/A	WB-40/WB-62	WB-67

*According to current GDOT design policy if applicable

**Per VE Implementation Plan, 11' inside lanes with 12' outside lanes from I-516 to Hunter Interchange

***Per VE Implementation Plan, 4' median with barrier from I-516 to Hunter Interchange was requested. However, through coordination with GDOT, the 4' median would not allow for sufficient sight distance nor distance between the inside travel lane and the median barrier. The current concept proposes a 10' median with a 6' monolithic concrete island.

Major Structures:

Structure	Existing	Proposed
1	None	Bridge over Hunter Army Airfield Interchange. The bridge is approximately 110' long and 75' wide with a 10' median, 4 travel lanes and 8' shoulders.
2	None	Bridge for westbound ramp over Interstate 516. The bridge is approximately 458' long and 37' wide with 2 travel lanes, an 8' inside shoulder and 6' outside shoulder.
3	None	Retaining wall for grade separation of northbound and southbound travel lanes along Boulevard near Interstate 516
4	None	Retaining walls for westbound ramp after crossing over Interstate 516

County: Chatham

PI 0008358: Boulevard (between Boulevard Connector and White Bluff Road)**Mainline Design Features:** Roadway Widening, Pavement, Curb and Gutter, Drainage, Traffic Signal, Multi-Use Path**Roadway Name/Identification:** Boulevard between Hunter Interchange and White Bluff/Urban Principal Arterial

Feature	Existing**	Standard*	Proposed
Typical Section			
- Number of Lanes	2	4	4
- Lane Width(s)	9.5'	11'-12'	11'
- Median Width & Type	N/A	20' RAISED	20' RAISED
- Outside Shoulder Width & Type	9' GRASS	12' URBAN W/ 2.5' C&G	LT - 12' URBAN W/ 2.5' C&G RT - 23' URBAN W/ 2.5' C&G
- Outside Shoulder Slope	8%	2%	2%
- Inside Shoulder Width & Type	N/A	N/A	N/A
- Sidewalks	N/A	5'	LT – 5' RT – 10' MULTI- USE PATH
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	4'	N/A
Posted Speed	35 MPH		35 MPH
Design Speed	35 MPH	45 MPH	40 MPH
Min Horizontal Curve Radius	371'	711'	533'
Superelevation Rate	4%	4%	4%
Grade	2%	6%	6%
Access Control	PERMITTED	PERMITTED	PERMITTED
Right-of-Way Width	60'	AS NEEDED	100'
Maximum Grade – Crossroad	3%	9%	9%
Design Vehicle	SU/BUS-40	WB-40/WB-62	WB-40/ WB-62

*According to current GDOT design policy if applicable

** Existing roadway is Hampstead Avenue (Urban Collector Street)

Major Structures: N/A

County: Chatham

PI 0008359: East DeRenne Avenue Improvements**Mainline Design Features:** Intersection Improvements, Sidewalk, Raised Medians, Traffic Signals**Roadway Name/Identification:** E. DeRenne Ave/Urban Principal Arterial

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4	4	4
- Lane Width(s)	12'	11'-12'	11'
- Median Width & Type	14' FLUSH	20' RAISED	18' RAISED
- Outside Shoulder Width & Type	10' URBAN W/ 2.5' C&G	12' URBAN W/ 2.5' C&G	15' URBAN W/ 2.5' C&G
- Outside Shoulder Slope	N/A	N/A	N/A
- Inside Shoulder Width & Type	N/A	N/A	N/A
- Sidewalks	5'	5'	8'
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	4'	N/A
Posted Speed	40		40
Design Speed	40	45	45
Min Horizontal Curve Radius	533'	711'	711'
Superelevation Rate	4%	4%	4%
Grade	2%	6%	6%
Access Control	PERMITTED	PERMITTED	PERMITTED
Right-of-Way Width	90'	AS NEEDED	90'
Maximum Grade – Crossroad	3%	9%	9%
Design Vehicle	WB-40/WB-62	WB-40/WB-62	WB-40/WB-62

*According to current GDOT design policy if applicable

Major Structures: N/A

PI 0010236: West DeRenne Avenue Improvements**Mainline Design Features:** Intersection Improvements, Sidewalk, Raised Medians, Traffic Signals**Roadway Name/Identification:** W. DeRenne Ave/Urban Principal Arterial

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	6	4	6
- Lane Width(s)	10'-11'	11'-12'	11'
- Median Width & Type	16' RAISED	20' RAISED	16' RAISED
- Outside Shoulder Width & Type	10' URBAN W/ 2.5' C&G	12' URBAN W/ 2.5' C&G	15' URBAN W/ 2.5' C&G
- Outside Shoulder Slope	N/A	N/A	N/A
- Inside Shoulder Width & Type	N/A	N/A	N/A
- Sidewalks	5'	5'	8'

County: Chatham

- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	4'	N/A
Posted Speed	40		40
Design Speed	40	45	45
Min Horizontal Curve Radius	533'	711'	711'
Superelevation Rate	4%	4%	4%
Grade	2%	6%	6%
Access Control	PERMITTED	PERMITTED	PERMITTED
Right-of-Way Width	100'	AS NEEDED	100'
Maximum Grade – Crossroad	3%	7%	7%
Design Vehicle	WB-40/WB-62	WB-40/WB-62	WB-40/WB-62

*According to current GDOT design policy if applicable

Major Structures: N/A

Major Interchanges/Intersections:

The project segment of DeRenne Avenue is a six and five-lane major arterial connecting two high-capacity, controlled-access facilities (I-516 and the Harry S. Truman Parkway). At the western end of the project, I-516 currently ends and DeRenne Avenue begins (with no interchange). Moving eastward from I-516, the first major intersection with DeRenne Avenue (GA 21) is Montgomery Street (minor arterial to the north and entrance road to Hunter Army Airfield to the south). Approximately 1,400 feet east of Montgomery Street is the combined intersection with Bull Street (minor arterial to the north) and White Bluff Road (major arterial to the South), followed in approximately 900 feet by the intersection with Abercorn Street (GA 204, major arterial) and the terminus of GA 21. Moving eastward from Abercorn Street (GA 204), DeRenne Avenue intersects a number of north/south collectors and local streets before the diamond interchange configuration with the Harry S. Truman Parkway.

The major intersections or interchanges that being modified are as a follows:

- DeRenne Avenue at Montgomery Street: modify the existing intersection based on a reduced cross section for Montgomery Street (from a 4 lane to 2 lane roadway) and improve pedestrian accommodations (including refuge islands).
- DeRenne Avenue at White Bluff Road: modify the existing intersection to improve pedestrian accommodations (including refuge islands).
- DeRenne Avenue at Abercorn Street (SR 204): modify the existing intersection to improve pedestrian accommodations (including refuge islands).
- DeRenne Avenue at Waters Street: modify the existing intersection to redistribute the existing lanes for better peak-hour operation and improved pedestrian accommodations (including refuge islands).
- Proposed Boulevard at White Bluff Road: reconfigure the existing intersection of Hampstead Avenue and White Bluff Road to connect the proposed four-lane, divided Boulevard (widened Hampstead Avenue) to existing White Bluff Road south of Hampstead Avenue. Existing White Bluff Road north of Hampstead Avenue will tee into the realigned roadway as the third leg of the intersection. The intersection will include improved pedestrian accommodations (including refuge islands).

County: Chatham

- Proposed Boulevard at Montgomery Street: the proposed Boulevard includes a grade-separated interchange with Montgomery Street. The interchange is generally configured as a diamond. The eastern ramps terminate into a modern roundabout intersection with Montgomery Street. The western ramps terminate at the Hunter Army Airfield security gate.

Utility Involvements: Specific utility conflicts will not be determined until preliminary design. However, potential utilities that may be impacted include:

- Georgia Power Electric
- Atlanta Gas Light Natural Gas
- AT&T Telecommunications
- Comcast Telecommunications
- Level 3 Telecommunications
- Sanitary Sewer City of Savannah
- Storm Drain City of Savannah
- Water City of Savannah

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

SUE Required: No Yes

Railroad Involvement:

No railroads are located within the project corridor.

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

Warrants met: None Bicycle Pedestrian Transit

Pedestrian: All three projects warrant pedestrian accommodations as there are existing and planned pedestrian travel generators along with existing pedestrian traffic in all three project areas.

Bicycle: All three projects warrant bicycle accommodations as they are identified on the CORE MPO Non-Motorized Transportation Plan and there are bicycle travel generators along DeRenne Avenue. Together these projects will provide bicycle accommodations to connect the proposed Truman Linear Trail Park (on the eastern end of the project adjacent to the Harry S. Truman Parkway) to existing bicycle facilities at Hunter Army Airfield (on the western end of the project).

Right-of-Way: PI 0008358: Boulevard Option

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

Anticipated number of impacted parcels:	32
Displacements anticipated: Total:	21
Businesses:	5

Residences: 15
 Other: 1

Right-of-Way: PI 0008359: East DeRenne Avenue Improvements

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

Anticipated number of impacted parcels: 16
 Displacements anticipated: Total: 0
 Businesses:
 Residences:
 Other:

Right-of-Way: PI 0010236: West DeRenne Avenue Improvements

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

Anticipated number of impacted parcels: 29
 Displacements anticipated: Total: 0
 Businesses:
 Residences:
 Other:

Location and Design approval: Not Required Required

Off-site Detours Anticipated: No Undetermined Yes

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

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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	

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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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Shoulder Width: Per the Value Engineering Implementation Plan, Alternative 58-9.1, the median width will be reduced to 4 feet along the connector with a barrier-separated median for savings of \$785,000. This results in the need for a design exception for the inside shoulder width along the connector.

Lateral Offset to Obstruction: The location of the proposed required features (lighting, landscaping, etc.) have not been designed. While a variance is not anticipated, is undetermined if one will be needed at this time.

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undeter-mined	Yes	Appvl Date (if applicable)
1. Access Control - Median Opening Spacing	DP&S	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Median Usage & Width	DP&S	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Intersection Sight Distance	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Bike, Pedestrian & Transit Accommodations	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Georgia Standard Drawings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. GDOT Bridge & Structural Manual	Bridge Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Roundabout Illumination	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Access Control- Median Opening Spacing: As currently envisioned, East DeRenne Avenue will include consecutive median openings for left-over access at Ranger Street and Sanders Street, just east of the signalized intersection with Waters Avenue. The spacing between the Waters Intersection and the Sanders median opening is 630'; the spacing between the Sanders median opening and the Ranger median opening is 520'.

Median Usage and Width: The City of Savannah is requesting a variance be approved for the median width of East DeRenne Avenue. The project plans an 18-foot planted median for this segment of roadway to remove the existing 14-foot flush median for access management. By decreasing the

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median width and decreasing the travel lane widths from 12' to 11', this would allow the median to be constructed while maintaining a majority of the existing outside curb and gutter and limit impacts to the businesses along the corridor. This planted median is consistent with the tradition and character of Savannah's boulevards (Victory Drive, Oglethorpe Avenue).

Lateral Offset to Obstruction: The location of the proposed required features (lighting, landscaping, etc.) have not been designed. While a variance is not anticipated, it is undetermined if one will be needed at this time.

VE Study anticipated: No Yes Completed – Date: 6/10/2013

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: NEPA: CE EA/FONSI EIS

Project Air Quality:

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

MS4 Compliance – Is the project located in an MS4 area? No Yes

MS-4 was applied to PI 0008358: Boulevard Option. The corridor was divided into five drainage basins and analyzed for pre-development vs. post-development impervious coverage. Drainage basins that experienced less than one additional acre of impervious coverage (in drainage basins between 27 and 165 acres) were assumed to have negligible impacts imposed by the proposed corridor improvements. As such, no stormwater BMP's have been proposed. Conceptually, drainage basins C and E will utilize a series of rain gardens and dry detention ponds in order to achieve water quality and quantity requirements respectively. Dry detention ponds were sized by the post development vs. pre development runoff volume for both the 1-yr and 25-yr 24-hour storm events. Each dry detention pond was sized to exceed the net increase in runoff volume for each of the respective storm events.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Other Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ARPA Permit for archaeology survey on Hunter Army Air Base
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:

NEPA/GEPA: Preliminary investigations for preparation of the NEPA document have been initiated. A screening of affected Environmental Justice communities has been completed.

A Section 4(f) evaluation is likely. The proposed alignment is located through a residential community west of Montgomery Street and south of DeRenne Avenue. The alignment would displace residential properties that are potentially eligible for the National Register.

The proposed project along DeRenne Avenue passes through a Traditional Cultural Property associated with the B’nai B’rith Synagogue. Consultation with the orthodox Jewish community near the project area will be required, and included in the EA.

Ecology: An ecology survey has been completed and Draft Ecology Assessment Report submitted to GDOT for review. Waters of the US and state waters are present within the area of potential effect and will be impacted. The ecology survey included a survey for protected species known to occur in Chatham County and their suitable habitat.

History: A Historic Resources Survey report has been completed and approved by GDOT. SHPO concurrence was received on July 27, 2013, for the survey report. An Assessment of Effect will be required for the preferred alternative. The following resources are recommended as potentially eligible:

Name of Resource	Date of Construction	Type and/or Style	Location	National Register Recommendation
Resource #2 University Place Historic District	Subdivided 1946 Constructed 1940-1963	Residential Subdivision	Linden Drive and Birchfield Drive from Mildred Street to Montgomery Street	Eligible
Resource #13 Poplar Place Historic District	1948-1956	Residential Subdivision	Linden Drive, Alpine Drive and Hampstead Avenue between Rodgerwood Drive and White Bluff Road	Eligible
Resource #27 Savannah Globe	1955	Hortonsphere - Natural Gas Storage Tank	14 E 73 rd Street	Eligible

Name of Resource	Date of Construction	Type and/or Style	Location	National Register Recommendation
Resource #30 Tatemville Historic District	Ca. 1890- present	Historic District	Roughly bounded by the ACL Railroad to the west, E. 62 nd Street to the north, Montgomery Street to the east, and DeRenne Avenue to the south	Eligible
Resource #33 Sylvan Terrace Historic District	1954	Mid-20 th Century Subdivision	Roughly bounded by Montgomery Street to the west, Thackery Place to the north, Bull Street to the east, and Berkeley Place to the south	Eligible
Resource #36 Manor Estates Historic District	1950-1970s	Mid-20 th Century Subdivision	Roughly bounded by Abercorn Street to the west, 66 th Street Lane to the north, Habersham Street to the east, and DeRenne Avenue to the south	Eligible
Resource #37 B'nai B'rith Jacob Synagogue <i>Eruv</i>	1952	Traditional Cultural Property	Roughly bounded by Abercorn Street from Stephenson Avenue to DeRenne Avenue and Montgomery Street from DeRenne Avenue to W. 61 st Street to the west, 61 st Street to the north, Reynolds Street from E. 61 st Street to DeRenne Avenue and Waters Avenue from DeRenne Avenue to Stephenson Avenue to the east, and Stephenson Avenue to the south	Eligible

Archeology: A screening of known archaeological sites has been conducted for the project area. One previously recorded site is south of the project area, within the Hunter Army Air Base. Eight previous projects were identified within the search area for the proposed project. A Phase I archaeology survey will be conducted once plans showing the proposed right of way have been developed.

Air & Noise: An Air Assessment has been prepared to assess impacts to air quality from the preferred alternative, and approval by GDOT was received on November 4, 2013. A Type I Noise Assessment

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using TNM 2.5 has been prepared for the preferred alternative, and approval by GDOT was received on October 15, 2013. A noise barrier analysis will developed as an addendum to the Type I assessment.

Public Involvement: In accordance with the NEPA process, the City of Savannah held a Public Information Open House (PIOH) on April 23, 2013, from 3:00 to 7:00 pm, at Savannah Technical College’s Eckburg Auditorium. Approximately 165 people attended the meeting and 123 written and oral comments were received at the PIOH and during the following 10-day comment period. Of the comments received, 70 were in support of the project, 5 opposed the project, 35 were conditional, and 13 were uncommitted. A summary of this meeting can be found in Appendix 12.

Prior to the PIOH, extensive public engagement was conducted by the City of Savannah as a part of an extensive major investment study of alternatives. Outreach was focused on forming and maintaining a Project Advisory Committee, establishing Guiding Principles and obtaining public input and feedback to aid in the development and local adoption of multi-modal transportation solutions along DeRenne Avenue. The City of Savannah continually keeps the public informed of project updates through their Citizen Office and through use of the project website, newsletters, attending neighborhood meetings and hosting neighborhood drop-ins.

Major stakeholders:

- City of Savannah
- Chatham County
- Hunter Army Airfield
- Savannah Metropolitan Planning Commission
- Orthodox Jewish Community of Savannah
- Jewish Education Alliance
- Historic Savannah Foundation
- Traveling public
- DeRenne corridor businesses
- St. Joseph’s Candler Hospital
- Memorial University Medical Center
- Savannah Technical College
- All adjacent residential neighborhoods
- Key corridor business owners and/or leaders

ROUNDBABOUTS

Roundabout Lighting agreement/commitment letter received:

 No

 Yes

Planning Level assessment:

At the request of Hunter Army Airfield, a roundabout intersection is being considered as part of the Boulevard interchange with Montgomery Street near the Montgomery Gate entrance of Hunter Army Airfield. This design concept emerged as a part of the City of Savannah’s “Project DeRenne” (PI’s 0008358, 0008359, and 0010236) and in coordination with the base’s Chief Master Planner and at the time Garrison Commander. A concept sketch and roundabout rendering can be found in appendix. A memo summarizing

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the basic operational characteristics of a single-lane modern roundabout intersection at the ramp terminal as well as an overview of the projected operational performance of the subject intersection can be found in the appendix.

Feasibility Study:

A feasibility study is not needed as Project DeRenne is a linear project where a roundabout is proposed.

Peer Review required: No Yes Completed – Date:**CONSTRUCTION****Issues potentially affecting constructability/construction schedule:**

The footprint of Hunter Army Airfield (~5,400 acres) limits and consolidates east/west regional travel in the vicinity of this project to I-516/DeRenne Avenue. As such, it will be critical that construction activities are planned so as to maintain adequate travel capacity for I-516/DeRenne Avenue at all times.

Early Completion Incentives recommended for consideration: No Yes**PROJECT RESPONSIBILITIES****Project Activities:**

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Kimley- Horn
Design	Kimley- Horn
Right-of-Way Acquisition	TBD between GDOT and City of Savannah
Utility Relocation	TBD between GDOT and City of Savannah
Letting to Contract	TBD between GDOT and City of Savannah
Construction Supervision	TBD between GDOT and City of Savannah
Providing Material Pits	TBD between GDOT and City of Savannah
Providing Detours	TBD between GDOT and City of Savannah
Environmental Studies, Documents, and Permits	Kimley-Horn and Edwards-Pitman Environmental
Environmental Mitigation	TBD between GDOT and City of Savannah
Construction Inspection & Materials Testing	TBD between GDOT and City of Savannah

Lighting required: No Yes

Initial conversations have occurred between GDOT and the City of Savannah regarding the intent to install and maintain project lighting particularly at the interchange with I-516 and the roundabout.

Initial Concept Meeting:

The Initial Concept Meeting for all three projects was held on August 9, 2012, at the City of Savannah Civic Center. See Appendix H for meeting notes.

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Prior to the Initial Concept Meeting, a series of meetings were held between GDOT, FHWA and the City of Savannah to discuss Project DeRenne. These meetings were not officially referenced as the initial concept meeting; however they were conducted so the City could receive GDOT feedback on the project and process followed. These meetings occurred on:

- July 20, 2010: GDOT Project Coordination Meeting in Savannah, Georgia
- October 20, 2010: Project Coordination Meeting with FHWA and GDOT, FHWA offices, Atlanta, Georgia
- November 22, 2011: GDOT Project Coordination/Kick-Off Meeting via video conference between Jessup and Atlanta
- December 13, 2011: GDOT Environmental Coordination Meeting via video conference between Atlanta and Jessup.

Meeting notes for these meetings are included in the appendix.

Concept Meeting: The Final Concept meeting was held on September 6, 2013, at the City of Savannah Civic Center. Meeting notes for these meetings are included in the appendix.

Other projects in the area:

- Truman Parkway V (PI #0002921) – a new four-lane roadway from Whitfield Avenue to Abercorn Street. Project is under construction and is not adjacent to this project.
- I-516/Lynes Parkway Widening (PI #522850) – widening from four to six lanes from the Veterans Parkway to Mildred Street. This is identified as a Priority 1C Highway Project and is adjacent to this project.

Other coordination to date:

The City of Savannah has been in regular communication with Hunter Army Airfield (HAAF) pertaining to the proposed project and any anticipated influence and/or impacts to the base and/or base operations. These discussions have led to the development of a draft Memorandum of Understanding between the City and HAAF that recognizes that the proposed project provides mutual benefits to both parties and memorializing their intent to cooperate on further development of the project. At this time, the MOU has been prepared by HAAF and is under review by the City of Savannah.

Project Cost Estimate and Funding Responsibilities:

PI 0008358: Boulevard Option

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
By Whom	Local	A portion by local	TBD	TBD	TBD	
\$ Amount	\$3.5M	\$6.4M	\$1.2M	\$32.2M	\$1.2M	\$44.5M
Date of Estimate	10/6/2014	9/12/2014	4/15/2014	9/18/2014	8/14/2014	

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

PI 0008359: East DeRenne Avenue Improvements

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
By Whom	Local	Local	TBD	TBD	TBD	
\$ Amount	\$764,000	\$200,000	\$460,000	\$5.9M	\$65,000	\$7.4M
Date of Estimate	10/6/2014	9/12/2014	4/15/2014	9/18/2014	7/26/2013	

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

PI 0010236: West DeRenne Avenue Improvements

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
By Whom	Local	Local	TBD	TBD	TBD	
\$ Amount	\$765,000	\$700,000	\$260,000	\$3.0M	\$475,000	\$5.2M
Date of Estimate	10/6/2014	9/12/2014	4/15/2014	9/18/2014	7/26/2013	

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

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: Boulevard Option			
Estimated Property Impacts:	TBD	Estimated Total Cost:	\$44.3M
Estimated ROW Cost:	\$6.4M	Estimated CST Time:	TBD
Rationale: The Boulevard Option addresses traffic congestion by splitting the I-516 terminus volume into the north/south component and east/west component. The north/south component, attempting to get around Hunter Army Airfield, is provided a more direct route to White Bluff Road, thereby reducing the through volumes on the adjacent section of DeRenne Avenue (AM and PM) by approximately one half. This option meets the goals outlined in the Project Justification, is overwhelmingly supported by the public in attendance at the PIOH and the designated Project Advisory Committee, and has been endorsed by the City of Savannah’s Mayor and Aldermen.			

No-Build Alternative:			
Estimated Property Impacts:	\$0	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	n/a
Rationale: The No Build Alternative does not meet any of the goals outlined in the Project Justification.			

Alternative 1: Intersection Improvement Alternative			
Estimated Property Impacts:	TBD	Estimated Total Cost:	\$10.9M
Estimated ROW Cost:	\$3.4M	Estimated CST Time:	TBD
Rationale: The Intersection Improvements Alternative provides eastbound capacity improvements that ease eastbound to southbound (inbound) congestion (mostly during the AM peak), it does not improve the reciprocal northbound to westbound (outbound heavy lefts from Montgomery Street, White Bluff Road and Abercorn Street) congestion (mostly during the PM peak). Therefore, it does not satisfy many of the goals outlined in the Project Justification.			

Alternative 2: Continuous Flow Intersection at White Bluff Road and DeRenne Avenue			
Estimated Property Impacts:	TBD	Estimated Total Cost:	
Estimated ROW Cost:		Estimated CST Time:	TBD
Rationale: <p>Upon a recommendation from GDOT, a Continuous Flow Intersection (CFI) was considered as an alternative to the Boulevard Option (PI 008358). A CFI was considered at the intersection of White Bluff Road and DeRenne Avenue. This is the location of the highest concentration of left turns (from White Bluff (NB) onto DeRenne (WB)) within the study area. CFI’s are noted to remove the conflict between left-turning vehicles and oncoming mainline traffic by introducing a left-turn bay placed to the left of oncoming traffic. The following observations were made regarding its application:</p> <ul style="list-style-type: none"> • CFI’s are noted to generally be effective at reducing delay by shifting the conflicting movements (between left turns and the opposing through movement) away from the intersection allowing for simultaneous operation. For this project, the heavy conflict is not between the left and the opposing through movement, but between the northbound left and the crossing through movements (along DeRenne Avenue). In this application of a CFI, delay would not be reduced, but potentially increased. • The additional laneage required for a CFI would cause significant impact to adjacent land uses in the vicinity of the intersection. • Additional access control along both corridors would be required for its implementation. • Implementation of a CFI at White Bluff does not address similar turning movement conflicts at Montgomery/DeRenne and Abercorn/DeRenne. <p>With a base understanding for the impacted movements at the subject intersection, the need and purpose of this project in conjunction with the observations listed above, it is our opinion that utilizing a CFI to address the left turn volumes onto DeRenne Avenue during the peak hour is not a competitive alternative.</p>			

Alternative 3: Elevated Expressway			
Estimated Property Impacts:	TBD	Estimated Total Cost:	TBD
Estimated ROW Cost:	TBD	Estimated CST Time:	TBD
<p>Rationale: The local MPO previously studied implementing an elevated expressway over top of DeRenne Avenue, connecting I-516 to the Harry S. Truman Parkway. This alternative would allow local access at ground level with through movements flowing on the elevated roadway. This alternative does not address the source of the congestion which is the heavy flow of traffic between I-516 and the north/south roadways including Montgomery Street, White Bluff Road and Abercorn Street. This alternative was strongly opposed by the public and eliminated from further consideration.</p>			
Alternative 4: Widen DeRenne Avenue			
Estimated Property Impacts:	TBD	Estimated Total Cost:	TBD
Estimated ROW Cost:	TBD	Estimated CST Time:	TBD
<p>Rationale: The local MPO studied widening DeRenne Avenue between I-516 and Abercorn Street from 6 to 8 lanes and between Abercorn Street and the Harry S. Truman Parkway from 4 to 6 lanes. This alternative does not address the source of the congestion which is the heavy flow of traffic between I-516 and the north/south roadways including Montgomery Street, White Bluff Road and Abercorn Street. This alternative was strongly opposed by the public and eliminated from further consideration.</p>			

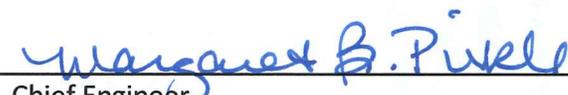
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Attachments:

1. Concept layout
2. Typical sections
3. Detailed cost estimates
4. Crash summaries
5. Approved traffic diagrams
6. Traffic capacity analysis summary
7. Roundabout data
8. Hydrology Study for MS4 Permit
9. Preliminary Pavement Evaluation Summary Report
10. Highway Safety Manual Crash Reduction Factor Calculations
11. Minutes of Concept meetings
12. Minutes of any meetings that shows support or objection to the concept
13. PFA's
14. VE Implementation Letter

APPROVALS

Concur: 
Director of Engineering

Approve: 
Chief Engineer

2.19.15
Date

Preconstruction Status Report

PI Number: 0008358

I-516 @ CS 1503/DERENNE AVE

COUNTY: Chatham	MPO: Savannah TMA	PRIORITY CD:	
LENGTH (MI): 0.2	TIP #: 2006-H-06	DOT DIST: 5	
PROJ NO: CSSTP-0008-00(358)	MODEL YR: 2030	CONG. DIST: 1	
PROJ MGR: Moyer, David	TYPE WORK: Preliminary Engineering	BIKE: Y	
AOHD INITIALS: BWS	CONCEPT: NL 4U(MED 20)	MEASURE: E	
OFFICE: Program Delivery	PROG TYPE: Other	SUFF:	
CONSULTANT: Local Design, Local PE funds	BOND PROJ:		
SPONSOR: Savannah	DESIGN FIRM: Kimley-Horn and Associates, Inc.		

BASELINE LET DAT: 7/10/17	MGMT LET DATE:	Print Date: 12/22/14
SCHED LET DATE: 12/22/27	MGMT ROW DATE: 5/15/15	Page 1
LIGHTING TYPE: None	WHO LETS?: Not a Let Project	
	LET WITH:	

BASE START	BASE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%
3/23/12	9/20/12	Concept Development Summary	1/12/12		96
5/18/12	5/18/12	Concept Meeting	9/6/13	9/6/13	100
9/21/12	9/21/12	Management Concept Approval Complete			0
4/20/12	8/9/12	VE Study Summary	3/27/12	7/18/13	100
11/2/12	11/2/12	Public Information Open House Held	4/23/13	4/23/13	100
9/21/12	10/3/14	Environmental Summary	4/20/12		21
12/13/13	3/6/14	Pub Hear Held/Com Resp (EA/FONSI, GEPA)			0
9/21/12	11/15/12	Database Summary	1/2/12		89
9/21/12	9/21/12	Field Survey Summary	2/1/12		22
11/16/12	8/7/14	Preliminary Roadway Plans			0
3/22/13	8/15/13	Preliminary Bridge Design Summary			0
11/3/14	11/3/14	PFPR Inspection			0
11/4/14	2/23/15	R/W Plans Preparation			0
2/24/15	4/24/15	R/W Plans Final Approval			0
12/10/14	12/12/14	L & D Approval			0
5/22/15	5/22/15	R/W Authorization			0
2/22/13	7/16/13	Soil Survey Summary			0
8/16/13	1/7/14	BFI Report Summary			0
12/15/14	11/4/16	Final Construction Plans			0
1/15/14	9/23/14	Final Bridge Plans Preparation			0
12/15/14	4/3/15	Buffer Variance Applied for			0
1/17/17	1/17/17	FFPR Inspection			0
4/28/17	4/28/17	Submit Final Plans			0
5/19/17	5/19/17	Construction Authorization			0

Bridge: 2 BRIDGES REQUIRED

EIS: WillMissFY2015RWWillCertBy5Aug15 | EANotApvd | Alimia/Earhart 12Dec14

EMG: PRELIMINARY ENGINEERING

Engr Services: VE Implementation Approved 7/8/13;

LGPA: PFA REQ SAVANNAH DO PE|\$54K FOR GDOT IN-HOUSE REVIEW|ROW|UTIL & CST 4-10-12|NOTIFICATION LETTER SENT TO SAVANNAH 1-8-07.

Planning: This is first of 3 projects the locals call "Project Derenne", which was on Nov 5, 2013 voter-approved SPLOST list specifying \$11.8 M for "DeRenne Right of Way Acquisition".

Prog. Develop: ONLY FOR PE OVERSIGHT PROJECT

Programming: CONFIRMED EXEMPT PER FHWA 6-1-2014|ADDED BY SAVANNAH MPO|CHECK REC \$54K - \$15K TO MATCH Q23 & \$39K FOR ADDITIONAL PE OVERSIGHT 5-2012

STIP: new 4 lane roadway- improve access to Hunter Army Airfield @ Montgomery Street entrance- improve mobility and connectivity -

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2007	2007	\$75,000.00	Q23	AUTHORIZED	7/2/07
PE	2012	2012	\$39,000.00	40450	AUTHORIZED	7/2/07
PE	2012	2012	\$2,000,000.00	LOC	AUTHORIZED	7/2/07
PE	2014	2014	\$2,000,000.00	LOC	AUTHORIZED	7/2/07
PE	2016	2016	\$2,088,000.00	LOC	PRECST	7/2/07
ROW	2018	2018	\$6,200,000.00	M230	PRECST	
CST	2030	2030	\$32,181,931.15	LOC	PRECST	

COST EST AMTS			STIP AMOUNTS		
Activity	Cost	Fund	Activity	Cost	Fund
PE	\$6,202,000.00	8/4/14	PE	\$0.00	40450
ROW	\$6,200,000.00	8/4/14	PE	\$5,588,000.00	LOC
CST	\$32,181,931.15	10/14/14	PE	\$0.00	Q23
			ROW	\$7,500,000.00	M230
			CST	\$0.00	LOC

District Comments

OPD-DGM 12/12/14
 City of Savannah Mike Weiner 9126516603
 KH Rob Hume 7042583267

Behind schedule. Need PCRf once Hampstead issue resolved. Proposed Solution to be shown to City Council for approval.

FHWA, GDOT, City of Savannah, and Popular Place/Hampstead residents met May 7 to discuss concerns. City re-evaluating design approach on Hampstead ave.

Concept Submitted 7/9/14 Addressing comments.
 IJR approved by FHWA 6/17/14
 Cost Estimates 9/22/14
 ROW \$6,147,198
 CST 32,181,931.15

Pre Parcel CT	Total Parcel in ROW System:	Cond Filed:	Acquired by: N/R
Under Review	Options Pending:	Relocations:	Acquisition MGR:
Released:	Condemnations - Pend:	Acquired:	R/W Cert Date:

Preconstruction Status Report

PI Number: 0008359

EAST DERENNE FROM SR 204 TO HARRY S TRUMAN PKWY

COUNTY: Chatham	MPO: Savannah TMA	PRIORITY CD:	
LENGTH (MI): 1.2	TIP #: 2011-H-01	DOT DIST: 5	
PROJ NO: CSSTP-0008-00(359)	MODEL YR: 2030	CONG. DIST: 1	
PROJ MGR: Moyer, David	TYPE WORK: Preliminary Engineering	BIKE: Y	
AOHD INITIALS: BWS	CONCEPT: OPERATIONAL IMP	MEASURE: E	
OFFICE: Program Delivery	PROG TYPE: Other	SUFF:	
CONSULTANT: Local Design, Local PE funds	BOND PROJ:		
SPONSOR: Savannah	DESIGN FIRM: Kimley-Horn and Associates, Inc.		

BASELINE LET DAT: 7/10/17	MGMT LET DATE:	Print Date: 12/22/14
SCHED LET DATE: 12/22/27	MGMT ROW DATE: 5/15/15	Page 2
LIGHTING TYPE: None	WHO LETS?: Not a Let Project	
	LET WITH:	

BASE START	BASE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%
3/23/12	9/20/12	Concept Development Summary	1/12/12		96
5/18/12	5/18/12	Concept Meeting	9/6/13	9/6/13	100
9/21/12	9/21/12	Management Concept Approval Complete			0
4/20/12	8/9/12	VE Study Summary	3/27/12	7/18/13	100
11/2/12	11/2/12	Public Information Open House Held	4/23/13	4/23/13	100
9/21/12	10/3/14	Environmental Summary	4/6/12		21
12/13/13	3/6/14	Pub Hear Held/Com Resp (EA/FONSI, GEPA)			0
9/21/12	11/22/12	Database Summary	12/25/12		87
9/21/12	9/21/12	Field Survey Summary	12/25/12		0
11/23/12	8/14/14	Preliminary Roadway Plans			0
11/3/14	11/3/14	PFPR Inspection			0
11/4/14	2/23/15	R/W Plans Preparation			0
2/24/15	4/24/15	R/W Plans Final Approval			0
12/10/14	12/12/14	L & D Approval			0
5/22/15	5/22/15	R/W Authorization			0
3/1/13	7/23/13	Soil Survey Summary			0
12/15/14	11/4/16	Final Construction Plans			0
12/15/14	4/3/15	Buffer Variance Applied for			0
1/17/17	1/17/17	FFPR Inspection			0
4/28/17	4/28/17	Submit Final Plans			0
5/19/17	5/19/17	Construction Authorization			0

Bridge: NO BRIDGE REQUIRED
EIS: WillMissFY2015RWWWillCertBy5Aug15 I EANotApvd I Alimia/Earhart 14Nov14
EMG: PRELIMINARY ENGINEERING
Engr Services: VE Implementation Approved 7/8/13
LGPA: PFA SGN SAVANNAH DO PE|§13,600 FOR GDOT IN-HOUSE REVIEW|ROW|UTIL & CST 8-24-12|NOTIFICATION LETTER SENT TO SAVANNAH 1-8-07.
Prog. Develop: ONLY FOR PE OVERSIGHT PROJECT
Programming: CONFIRMED EXEMPT PER FHWA 6-1-2014|ADDED BY SAVANNAH MPO|CHECK REC \$13,600 TO MATCH Q23 FOR PE OVERSIGHT 5-2012|#1 10-2012

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2007	2007	\$68,000.00	Q23	AUTHORIZED	7/2/07
PE	2012	2012	\$500,000.00	LOC	AUTHORIZED	7/2/07
PE	2014	2014	\$70,000.00	LOC	AUTHORIZED	7/2/07
PE	2016	2016	\$456,000.00	LOC	PRECST	7/2/07
ROW	2017	2017	\$190,000.00	LOC	PRECST	
CST	2019	2019	\$5,882,076.15	LOC	PRECST	

COST EST AMTS			STIP AMOUNTS		
PE	\$1,094,000.00	8/4/14	Activity	Cost	Fund
ROW	\$190,000.00	8/4/14	PE	\$1,206,000.00	LOC
CST	\$5,882,076.15	10/14/14	PE	\$0.00	Q23
			ROW	\$200,000.00	LOC
			CST	\$0.00	LOC

District Comments

OPD-DGM 12/12/14
 City of Savannah Mike Weiner 9126516603
 KH Rob Hume 7042583267

Behind schedule. Need PCRf once Hampstead issue resolved. Proposed Solution to be shown to City Council for approval.

FHWA, GDOT, City of Savannah, and Popular Place/Hampstead residents met May 7 to discuss concerns. City re-evaluating design approach on Hampstead ave.

Concept Submitted 7/9/14 Addressing comments
 IJR approved by FHWA 6/17/14
 Cost Estimates 9/22/14
 ROW \$188,711
 CST 5,882,076.15

Pre Parcel CT	Total Parcel in ROW System:	Cond Filed:	Acquired by: N/R
Under Review	Options Pending:	Relocations:	Acquisition MGR:
Released:	Condemnations - Pend:	Acquired:	R/W Cert Date:
			DEEDS CT:

Preconstruction Status Report - Primary County

PI Number: 0010236

SR 21 FROM CS 346/MILDRED STREET TO SR 204

COUNTY: Chatham	MPO: Savannah TMA	PRIORITY CD:
LENGTH (MI): 0.6	TIP #: 2011-H-02	DOT DIST: 5
PROJ NO:	MODEL YR: 2030	CONG. DIST: 1
PROJ MGR: Moyer, David	TYPE WORK: Miscellaneous Improvements	BIKE: Y
AOHD INITIALS: BWS	CONCEPT: OPERATIONAL IMP	MEASURE:
OFFICE: Program Delivery	PROG TYPE: Reconstruction/Rehabilitation	SUFF:
CONSULTANT: Local Design, Local PE funds	BOND PROJ:	
SPONSOR: Savannah		
DESIGN FIRM: Kimley-Horn and Associates, Inc.		

BASELINE LET DAT: 7/10/17	MGMT LET DATE:	Print Date: 12/30/14
SCHED LET DATE: 5/19/27	MGMT ROW DATE: 5/15/15	Page: 123
LIGHTING TYPE: None	WHO LETS?: Not a Let Project	
	LET WITH:	

BASE START	BASE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%
3/23/12	9/20/12	Concept Development Summary	1/12/12		96
5/18/12	5/18/12	Concept Meeting	9/6/13	9/6/13	100
8/10/12	8/10/12	PM Submit Concept Report	7/9/14	7/9/14	100
9/21/12	9/21/12	Management Concept Approval Complete			0
11/2/12	11/2/12	Public Information Open House Held	4/23/13	4/23/13	100
9/21/12	10/3/14	Environmental Summary	4/6/12		23
12/13/13	3/6/14	Pub Hear Held/Com Resp (EA/FONSI, GEPA)			0
9/21/12	11/15/12	Database Summary	12/25/12		89
11/16/12	8/7/14	Preliminary Roadway Plans			0
9/21/12	1/31/13	UST Summary			0
10/6/14	10/31/14	PFPR Request (OES)			0
11/3/14	11/3/14	PFPR Inspection			0
11/4/14	2/23/15	R/W Plans Preparation			0
2/24/15	4/24/15	R/W Plans Final Approval			0
12/10/14	12/12/14	L & D Approval			0
3/3/15	4/20/17	ROW Acquisition Summary			0
5/22/15	5/22/15	R/W Authorization			0
2/22/13	7/16/13	Soil Survey Summary			0
12/15/14	11/4/16	Final Construction Plans			0
1/17/17	1/17/17	FFPR Inspection			0
4/28/17	4/28/17	Submit Final Plans			0
5/19/17	5/19/17	Construction Authorization			0

Bridge: NO BRIDGE REQUIRED
EIS: WillMissFY2015RWWWillCertBy5Aug15 I EANotApvd I Alimia/Earhart 14Nov14
Engr Services: VE Implementation Approved 7/8/13;
LGPA: PFA SGN SAVANNAH DO PE|\$65K FOR GDOT IN-HOUSE REVIEW|ROW|UTIL & CST 9-6-12.
Programming: CONFIRMED EXEMPT PER FHWA 6-1-2014|ADDED BY SAVANNAH MPO|CHECK REC \$65K FOR PE OVERSIGHT 5-2012

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2012	2012	\$65,000.00	40450	AUTHORIZED	
PE	2012	2012	\$500,000.00	LOC	AUTHORIZED	
PE	2014	2014	\$166,000.00	LOC	AUTHORIZED	
PE	2016	2016	\$456,000.00	LOC	PRECST	
ROW	2017	2017	\$750,000.00	LOC	PRECST	
CST	2019	2019	\$3,046,982.59	LOC	PRECST	

COST EST AMTS			STIP AMOUNTS		
PE	\$1,187,000.00	8/4/14	Activity	Cost	Fund
ROW	\$750,000.00	7/15/14	PE	\$0.00	40450
CST	\$3,046,982.59	10/14/14	PE	\$1,156,000.00	LOC
			ROW	\$750,000.00	LOC
			CST	\$0.00	LOC

District Comments

OPD-DGM 12/23/14
 City of Savannah Mike Weiner 9126516603
 KH Rob Hume 7042583267

Behind schedule. Need PCRf once Hampstead issue resolved. Proposed Solution to be shown to City Council for approval.

FHWA, GDOT, City of Savannah, and Popular Place/Hampstead residents met May 7 to discuss concerns. City re-evaluating design approach on Hampstead ave.

Concept Submitted 7/9/14
 IJR approved by FHWA 6/17/14
 Cost Estimate 9/22/14
 ROW \$747,248
 CST 3,046,982.59

Pre Parcel CT	Total Parcel in ROW System:	Cond Filed:	Acquired by: N/R	DEEDS CT:
Under Review	Options Pending:	Relocations:	Acquisition MGR:	
Released:	Condemnations - Pend:	Acquired:	R/W Cert Date:	

APPENDIX

CONCEPT LAYOUT









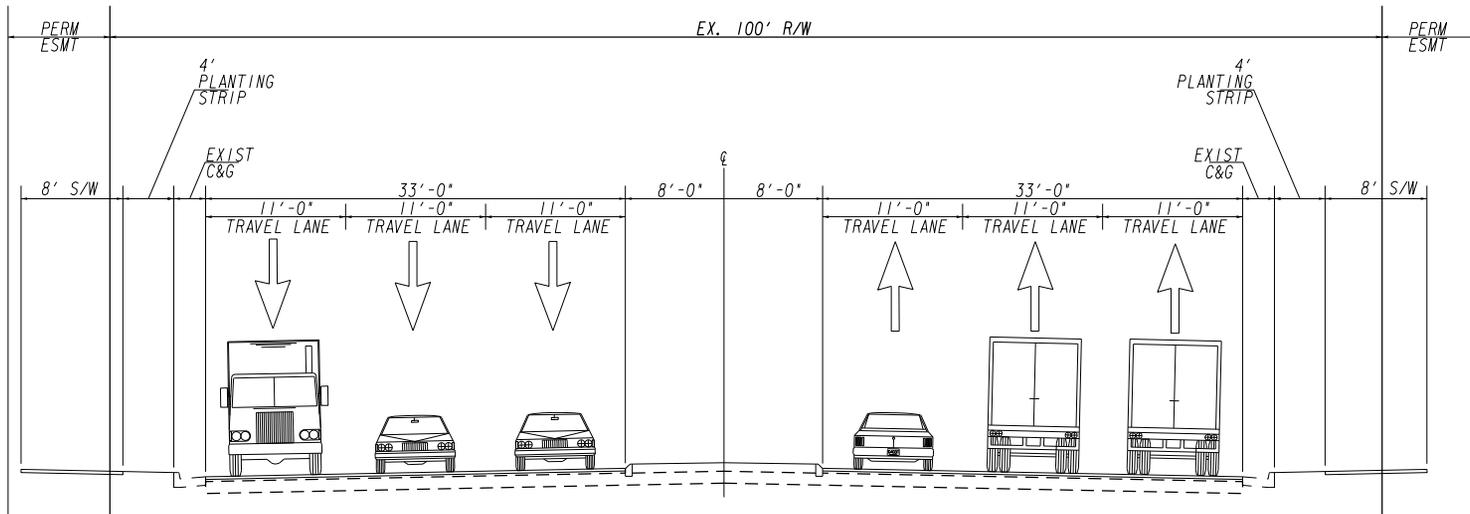




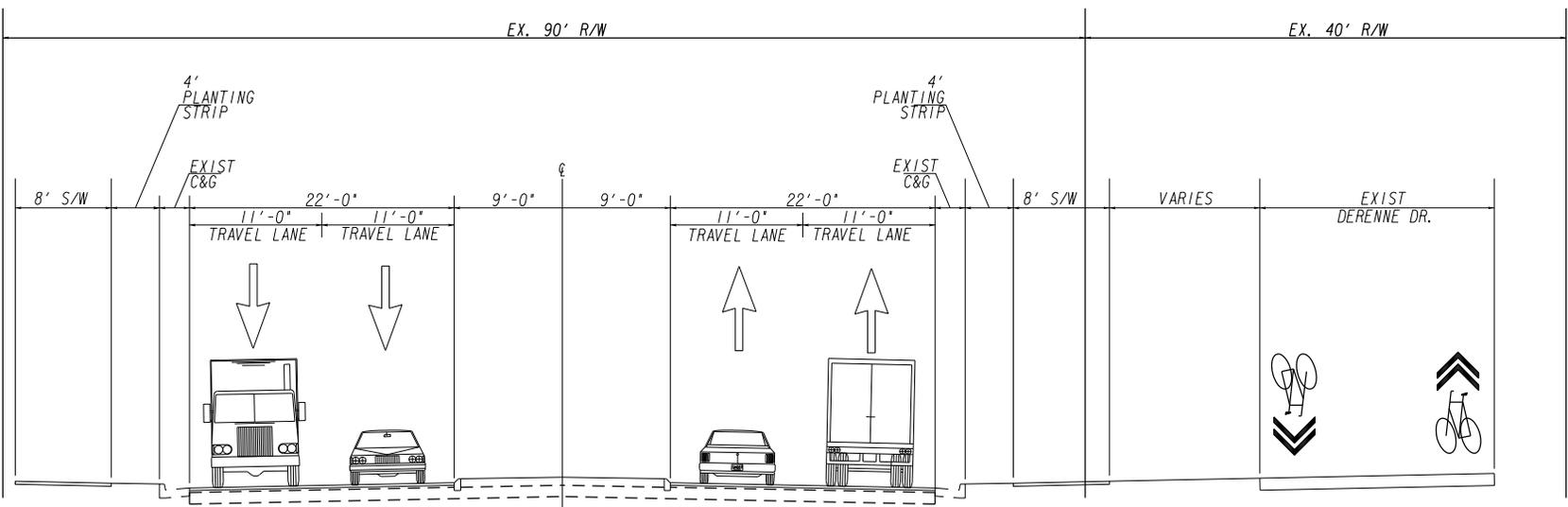
CONTINUATION FROM
E DERENNE CONCEPT SHEET 3

CONTINUATION FROM
E DERENNE CONCEPT SHEET 3

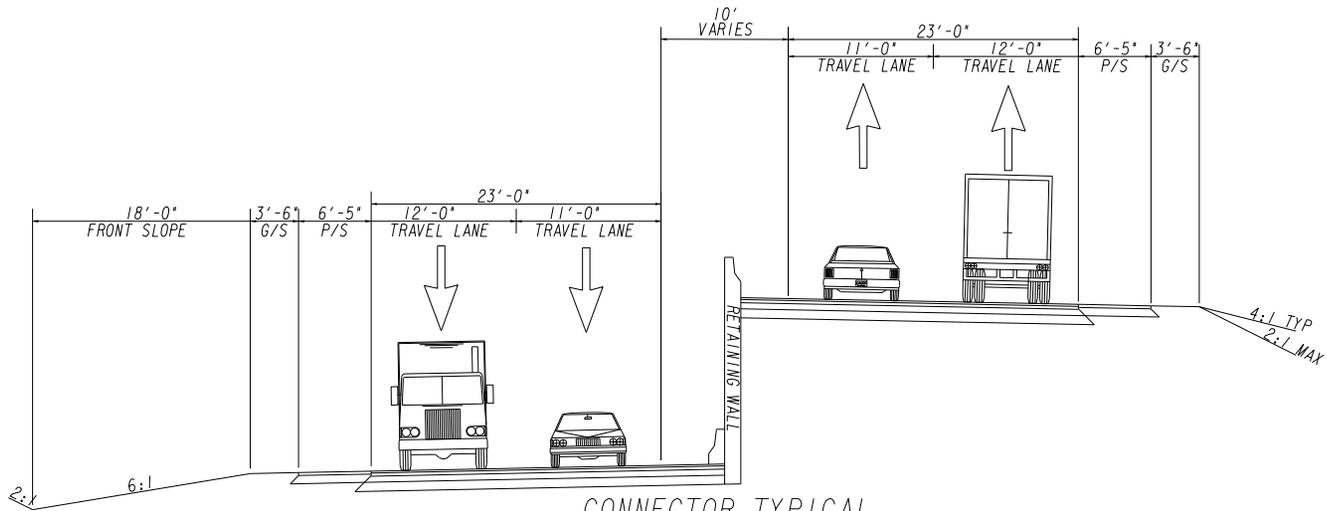
TYPICAL SECTIONS



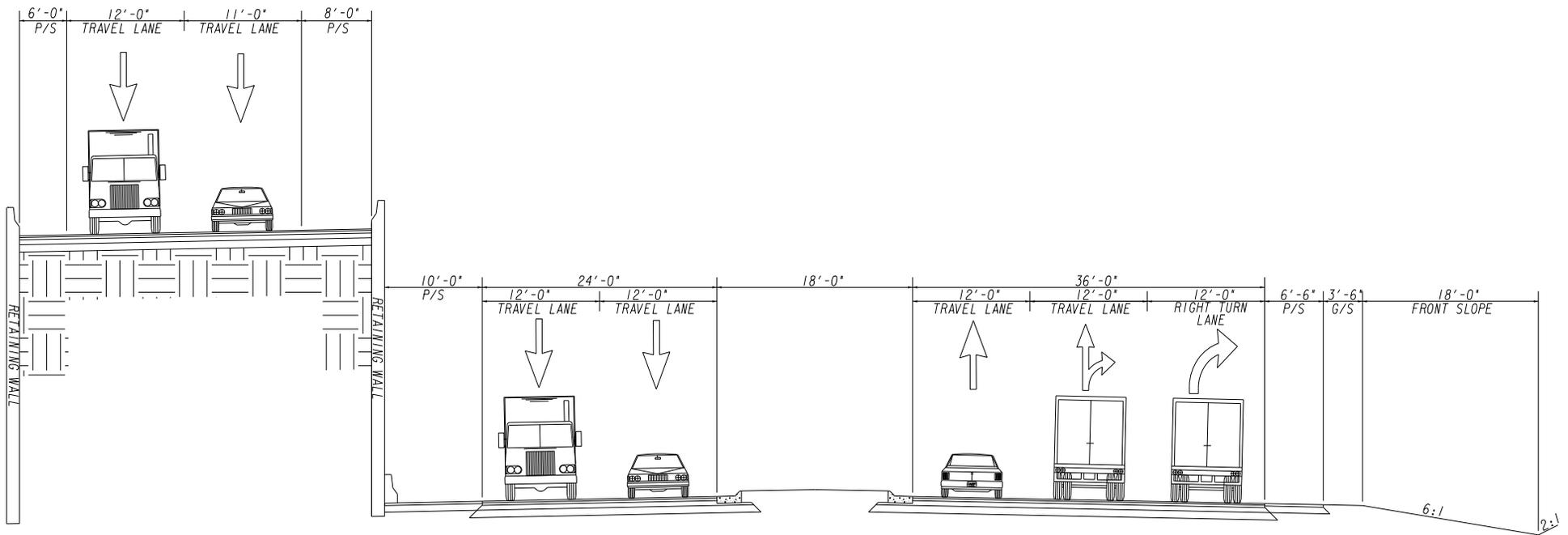
WEST DERENNE AVE TYPICAL



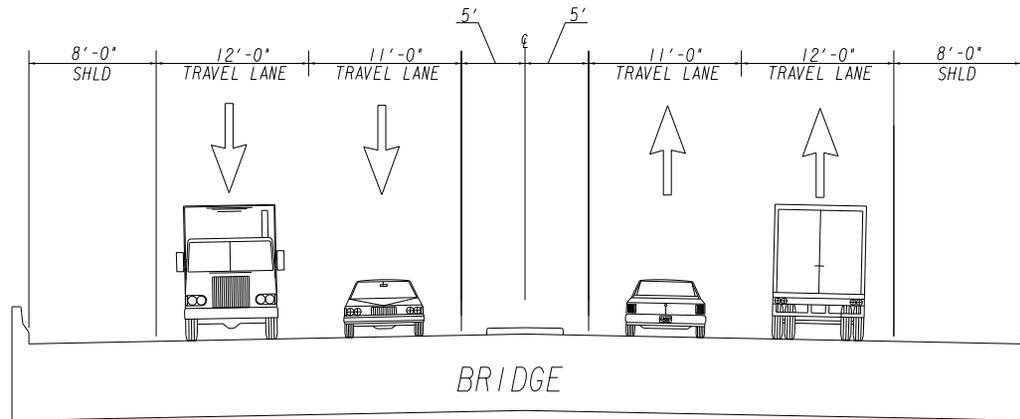
EAST DERENNE AVE TYPICAL



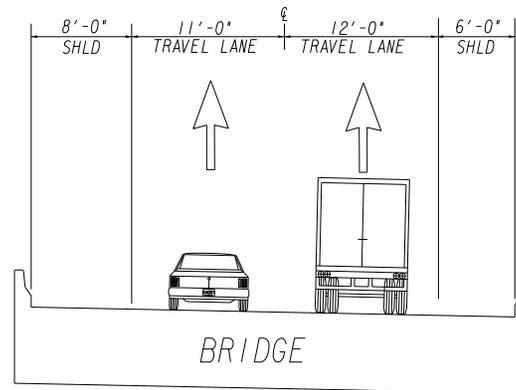
CONNECTOR TYPICAL
FROM DERENNE FLYOVER BRIDGE TO HUNTER INTERCHANGE



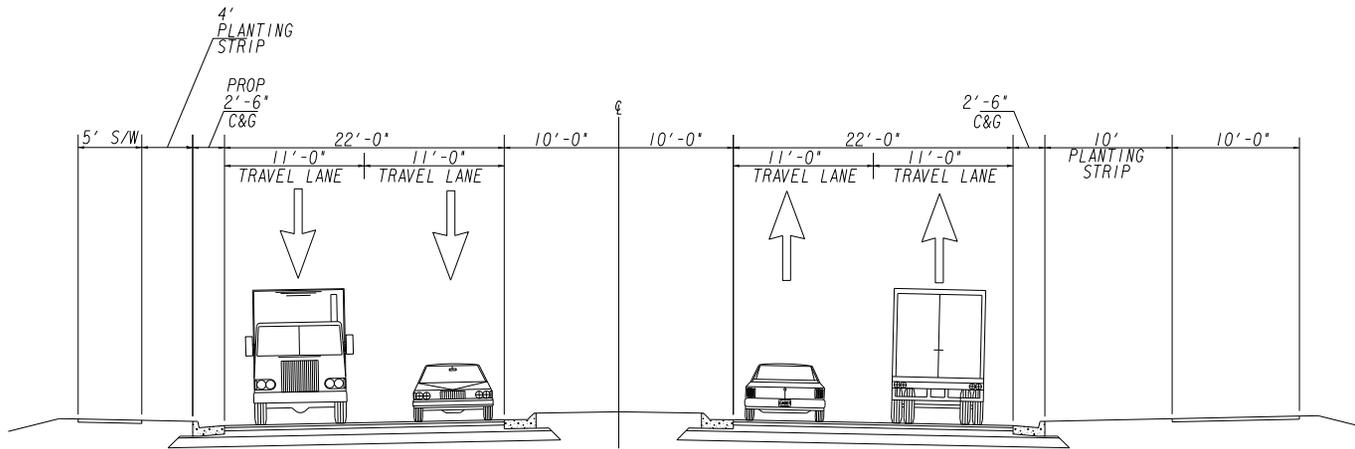
I-516 / DERENNE AVE TYPICAL



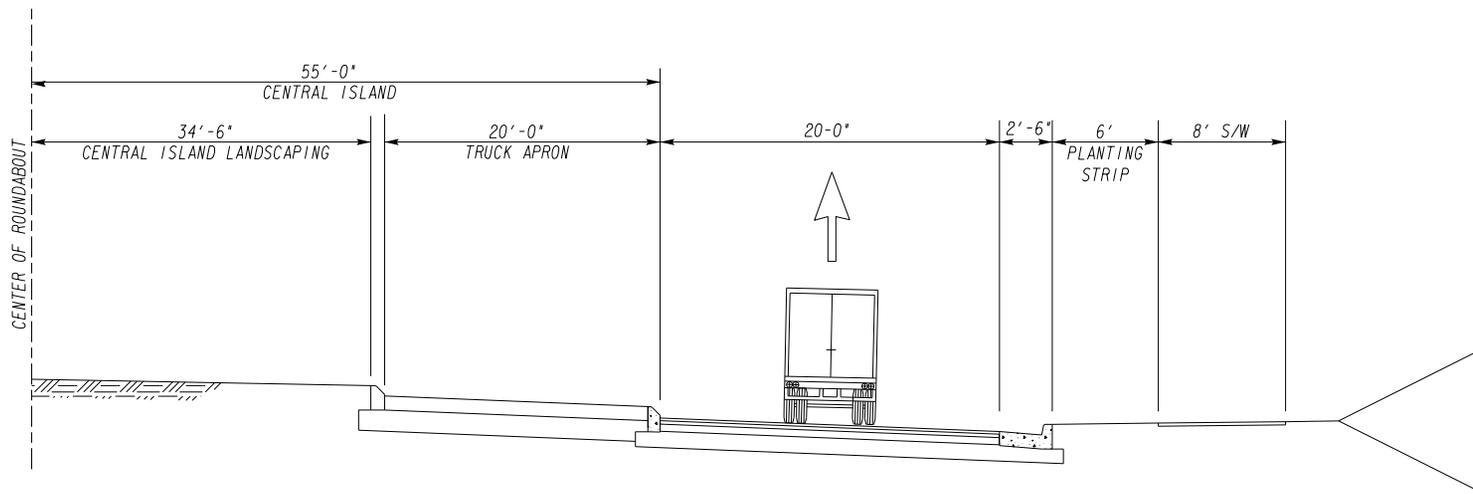
HUNTER ARMY AIRFIELD BRIDGE TYPICAL



DERENNE AVE FLYOVER TYPICAL



BOULEVARD TYPICAL
FROM HUNTER INTERCHANGE TO WHITE BLUFF RD



ROUNDAABOUT TYPICAL
HUNTER INTERCHANGE

DETAILED COST ESTIMATES

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 8358

OFFICE Program Delivery

PROJECT DESCRIPTION

I-516 @ CS 1503/DeRenne Ave.

DATE September 22, 2014

 From: Albert V. Shelby



To: Lisa L. Myers, State Project Review Engineer

Subject: **REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER David G. Moyer

MGMT LET DATE

MGMT ROW DATE 5/15/2015

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$ 49,634,565.91

DATE 5/1/2013

RIGHT OF WAY \$ 6,200,000.00

DATE 8/4/2014

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$ 32,181,931.15

RIGHT OF WAY \$

UTILITIES \$

*Cost Contains 10 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

ROW estimate updated 8/4/14. A 10% contingency was selected based on the "Risk Based Cost Estimation" memo which gives a range of 10% to 20% for this type of project at this stage. Based on what is currently known about this project a low risk was selected. The Concept has been reviewed and pending minor corrections is expected to be approved. The better defined concept has resulted in a lower construction cost.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	27,510,811.98	Base Estimate From CES
B. ENGINEERING AND INSPECTION (E & I):	\$	1,375,540.60	Base Estimate (A) x 5 %
C. CONTINGENCY:	\$	2,888,635.26	Base Estimate (A) + E & I (B) x 10 % See % Table in "Risk Based Cost Estimation" Memo
D. TOTAL LIQUID AC ADJUSTMENT:	\$	406,943.31	Total From Liquid AC Spreadsheet
E. CONSTRUCTION TOTAL:	\$	32,181,931.15	(A + B + C + D = E)

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
TOTAL	\$ -

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS
Liquid AC Adjustment Spreadsheet

STATE HIGHWAY AGENCY

DATE : 12/19/2014

PAGE : 1

JOB ESTIMATE REPORT

=====

JOB NUMBER : 0008358 SPEC YEAR: 01
 DESCRIPTION: PROJECT DERENNE - BOULEVARD CONCEPT

COST GROUPS FOR JOB 0008358

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
SIGNPCTO	SIGNS (PERCENT OF JOB)	37654.321	2.00000	75308.64	Y
EROCPCO	EROSION CONTROL (PERCENT OF JOB)	37654.321	5.00000	188271.60	Y
EROCPCO	EROSION CONTROL (PERCENT OF JOB)	37654.321	2.00000	75308.64	Y
DRNGEA	DRAINAGE (EA)	1.000	2000000.00000	2000000.00	Y
LSCPPCTO	LANDSCAPING (PERCENT OF JOB)	37654.321	10.00000	376543.21	Y
LTNG	LIGHTING (EA)	1.000	100000.00000	100000.00	Y
MISC	MISCELLANEOUS (LS)	2.000	50000.00000	100000.00	Y
LTNG	LIGHTING (EA)	1.000	850000.00000	850000.00	Y
ACTIVE COST GROUP TOTAL				3765432.09	
INFLATED COST GROUP TOTAL				4365167.80	

ITEMS FOR JOB 0008358

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0008358	1.000	3000000.00	3000000.00
0010	151-1000		LS	MOBILIZATION - 0008358	1.000	1500000.00	1500000.00
0015	210-0100		LS	GRADING COMPLETE - 0008358	1.000	5000000.00	5000000.00
0040	310-1101		TN	GR AGGR BASE CRS, INCL MATL	47600.000	16.02	762659.58
0049	402-1802		TN	RECYL AC PATCHING, INCL BM&HL	205.000	112.51	23066.10
0050	402-1812		TN	RECYL AC LEVELING, INC BM&HL	85.000	99.43	8452.14
0051	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	10800.000	69.93	755294.87
0052	402-3600		TN	RECY AC 12.5, SMA, GP2 ON, INCLP-, BM&HL	4900.000	130.00	637000.00
0053	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	5750.000	72.83	418801.88

0054	413-1000	GL	BITUM TACK COAT	4825.000	2.56	12365.99
0056	432-0206	SY	MILL ASPH CONC PVMT/ 1.50" DEP	9500.000	2.55	24306.80
0058	433-1000	SY	REINF CONC APPROACH SLAB	850.000	150.23	127696.73
0059	439-0022	SY	PLN PC CONC PVMT CL3 10" THK	23590.000	67.90	1601854.18
0065	441-0104	SY	CONC SIDEWALK, 4 IN	3575.000	30.17	107864.90
0070	441-0108	SY	CONC SIDEWALK, 8 IN	400.000	50.59	20238.02
0075	441-0754	SY	CONC MEDIAN, 7 1/2 IN	620.000	47.93	29719.09
0080	441-4030	SY	CONC VALLEY GUTTER, 8 IN	400.000	49.98	19993.22
0085	441-5008	LF	CONC HEADER CURB, 6 IN, TP 7	4150.000	12.68	52649.39
0090	441-5010	LF	CONC HDR CURB, 6 IN, TP 9	350.000	12.00	4200.00
0095	441-6222	LF	CONC CURB & GUTTER/ 8"X30"TP2	9635.000	13.34	128569.15
0100	441-6740	LF	CONC CURB & GUTTER/ 8"X30" TP7	12250.000	13.59	166487.06
0105	543-9000	LS	CONSTR OF BRIDGE COMPLETE - BR NO. 1, 41'-3" X 458' BRIDGE	1.000	2267100.00	2267100.00
0110	543-9000	LS	CONSTR OF BRIDGE COMPLETE - BR NO. 2, 75'-3" X 110' BRIDGE	1.000	910525.00	910525.00
0115	550-1180	LF	STM DR PIPE 18",H 1-10	15350.000	29.19	448151.23

STATE HIGHWAY AGENCY

DATE : 12/19/2014

PAGE : 2

JOB ESTIMATE REPORT

0120	550-1240	LF	STM DR PIPE 24",H 1-10	4400.000	36.55	160848.16
0125	550-1300	LF	STM DR PIPE 30",H 1-10	2200.000	52.72	115988.91
0130	611-8000	EA	ADJUST CATCH BASIN TO GRADE	20.000	1435.86	28717.32
0135	621-4020	LF	CONCRETE SIDE BARRIER, TY 2	530.000	275.00	145750.00
0140	627-1010	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 8358	24500.000	27.02	662089.23
0145	627-1160	LF	TRAFFIC BARRIER H, WALL NO - 0008358	1250.000	225.00	281250.00
0150	641-1100	LF	GUARDRAIL, TP T	150.000	53.52	8028.19
0155	641-1200	LF	GUARDRAIL, TP W	1000.000	18.51	18518.61
0160	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	5.000	1928.01	9640.06
0165	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 1	1.000	150000.00	150000.00
0170	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 2 (MODIFICATION)	1.000	75000.00	75000.00
0175	668-1100	EA	CATCH BASIN, GP 1	166.000	2141.02	355410.17

ITEM TOTAL						20038235.96
INFLATED ITEM TOTAL						23229807.45

TOTALS FOR JOB 0008358

ESTIMATED COST:	27594975.28
CONTINGENCY PERCENT (30.0):	8278492.58
ESTIMATED TOTAL:	35873467.86

PROJ. NO.

N/A

CALL NO.

P.I. NO.

0008358

DATE

9/18/2014

INDEX (TYPE)

REG. UNLEADED

Sep-14 \$ 3.335

DIESEL

\$ 3.765

LIQUID AC

\$ 618.00

Link to Fuel and AC Index:

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

LIQUID AC ADJUSTMENTS

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

Asphalt

Price Adjustment (PA)				399258.9	\$	399,258.90
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80		
Monthly Asphalt Cement Price month project let (APL)			\$	618.00		
Total Monthly Tonnage of asphalt cement (TMT)				1076.75		

ASPHALT	Tons	%AC	AC ton
Leveling	85	5.0%	4.25
12.5 OGFC		5.0%	0
12.5 mm	4900	5.0%	245
9.5 mm SP		5.0%	0
25 mm SP	10800	5.0%	540
19 mm SP	5750	5.0%	287.5
	21535		1076.75

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	7,684.41	\$	7,684.41
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80			
Monthly Asphalt Cement Price month project let (APL)			\$	618.00			
Total Monthly Tonnage of asphalt cement (TMT)				20.72386195			

Bitum Tack

Gals	gals/ton	tons
4825	232.8234	20.7238619

PROJ. NO.

N/A

CALL NO.

P.I. NO.

0008358

DATE

9/18/2014

BITUMINOUS TACK COAT (surface treatment)

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

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

TOTAL LIQUID AC ADJUSTMENT							\$	406,943.31
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**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 8359

OFFICE Program Delivery

PROJECT DESCRIPTION

East DeRenne from SR 204 to Harry S. Truman Parkway.

DATE September 26, 2014

From: Albert V. Shelby



To: Lisa L. Myers, State Project Review Engineer

Subject: **REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER David G. Moyer

MGMT LET DATE

MGMT ROW DATE 5/15/2015

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$ 5,395,779.95

DATE 5/1/2013

RIGHT OF WAY \$ 190,000.00

DATE 8/4/2014

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$ 5,882,076.15

RIGHT OF WAY \$

UTILITIES \$

*Cost Contains 10 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

ROW estimate updated 8/4/14. A 10% contingency was selected based on the "Risk Based Cost Estimation" memo which gives a range of 10% to 20% for this type of project at this stage. Based on what is currently known about this project a low risk was selected.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	5,025,513.69	Base Estimate From CES	
B. ENGINEERING AND INSPECTION (E & I):	\$	251,275.68	Base Estimate (A) x	5 %
C. CONTINGENCY:	\$	527,678.94	Base Estimate (A) + E & I (B) x	10 %
			See % Table in "Risk Based Cost Estimation" Memo	
D. TOTAL LIQUID AC ADJUSTMENT:	\$	77,607.84	Total From Liquid AC Spreadsheet	
E. CONSTRUCTION TOTAL:	\$	5,882,076.15	(A + B + C + D = E)	

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
TOTAL	\$ -

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS
 Liquid AC Adjustment Spreadsheet

STATE HIGHWAY AGENCY

DATE : 09/18/2014

PAGE : 1

JOB ESTIMATE REPORT

=====

JOB NUMBER : 0008359 SPEC YEAR: 01
 DESCRIPTION: PROJECT DERENNE - EAST DERENNE CONCEPT

COST GROUPS FOR JOB 0008359

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
EROCPC	EROSION CONTROL (PERCENT OF JOB)	13636.364	5.00000	68181.82	Y
LSCPPC	LANDSCAPING (PERCENT OF JOB)	13636.364	65.00000	886363.64	Y
ITSPCT	INTELLIGENT TRANS. SYSTEMS (PCT OF JOB)	13636.364	10.00000	136363.64	Y
SIGNPC	SIGNS (PERCENT OF JOB)	13636.364	7.00000	95454.55	Y
EROCPC	EROSION CONTROL (PERCENT OF JOB)	13636.364	2.00000	27272.73	Y
DRNGEA	DRAINAGE (EA)	1.000	150000.00000	150000.00	Y
ACTIVE COST GROUP TOTAL				1363636.38	
INFLATED COST GROUP TOTAL				1580828.30	

ITEMS FOR JOB 0008359

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0008359	1.000	200000.00	200000.00
0010	151-1000		LS	MOBILIZATION - 0008359	1.000	105000.00	105000.00
0015	210-0100		LS	GRADING COMPLETE - 0008359	1.000	1000000.00	1000000.00
0035	310-1101		TN	GR AGGR BASE CRS, INCL MATL	350.000	24.76	8668.43
0040	402-1802		TN	RECYL AC PATCHING, INCL BM&HL	925.000	93.51	86499.31
0045	402-1812		TN	RECYL AC LEVELING, INC BM&HL	370.000	90.75	33579.96
0047	402-3600		TN	RECY AC 12.5, SMA, GP2 ON, INCLP-, BM&HL	3700.000	130.00	481000.00
0049	413-1000		GL	BITUM TACK COAT	1350.000	3.14	4252.23
0054	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	42200.000	1.74	73680.78
0055	441-0104		SY	CONC SIDEWALK, 4 IN	6950.000	27.42	190628.01
0058	441-0108		SY	CONC SIDEWALK, 8 IN	775.000	48.23	37383.01
0059	441-0754		SY	CONC MEDIAN, 7 1/2 IN	1450.000	44.75	64894.79

0060	441-4030	SY	CONC VALLEY GUTTER, 8 IN	1600.000	46.73	74772.69
0061	441-5008	LF	CONC HEADER CURB, 6 IN, TP 7	7000.000	12.68	88806.20
0062	441-6022	LF	CONC CURB & GUTTER, 6"X30"TP2	750.000	19.17	14377.61
0063	500-9999	CY	CL B CONC,BASE OR PVM T WIDEN	40.000	188.78	7551.39
0064	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 1 (MODIFICATION)	1.000	75000.00	75000.00
0065	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 2 (MODIFICATION)	1.000	75000.00	75000.00
0070	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 3 (MODIFICATION)	1.000	75000.00	75000.00
0075	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 4 (MODIFICATION)	1.000	75000.00	75000.00
0080	550-1180	LF	STM DR PIPE 18",H 1-10	2000.000	33.87	67753.20
0085	611-8000	EA	ADJUST CATCH BASIN TO GRADE	62.000	1435.86	89023.69
0090	668-1100	EA	CATCH BASIN, GP 1	20.000	2177.22	43544.59

ITEM TOTAL 2971415.89

STATE HIGHWAY AGENCY

DATE : 09/18/2014

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JOB ESTIMATE REPORT

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INFLATED ITEM TOTAL	3444685.40
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TOTALS FOR JOB 0008359

ESTIMATED COST:	5025513.69
CONTINGENCY PERCENT (30.0):	1507654.11
ESTIMATED TOTAL:	6533167.80

PROJ. NO.

N/A

CALL NO.

P.I. NO.

0008359

DATE

9/18/2014

INDEX (TYPE)

REG. UNLEADED

Sep-14 \$ 3.335

DIESEL

\$ 3.765

LIQUID AC

\$ 618.00

Link to Fuel and AC Index:

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

LIQUID AC ADJUSTMENTS

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

Asphalt

Price Adjustment (PA)				75457.8	\$	75,457.80
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80		
Monthly Asphalt Cement Price month project let (APL)			\$	618.00		
Total Monthly Tonnage of asphalt cement (TMT)				203.5		

ASPHALT	Tons	%AC	AC ton
Leveling	370	5.0%	18.5
12.5 OGFC		5.0%	0
12.5 mm	3700	5.0%	185
9.5 mm SP		5.0%	0
25 mm SP		5.0%	0
19 mm SP		5.0%	0
	4070		203.5

BITUMINOUS TACK COAT

Price Adjustment (PA)			\$	2,150.04	\$	2,150.04
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80		
Monthly Asphalt Cement Price month project let (APL)			\$	618.00		
Total Monthly Tonnage of asphalt cement (TMT)				5.798386245		

Bitum Tack

Gals	gals/ton	tons
1350	232.8234	5.79838624

PROJ. NO.

N/A

CALL NO.

P.I. NO.

0008359

DATE

9/18/2014

BITUMINOUS TACK COAT (surface treatment)

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

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

TOTAL LIQUID AC ADJUSTMENT							\$	77,607.84
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**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 10236

OFFICE Program Delivery

PROJECT DESCRIPTION

SR 21 from CS 346/Mildred Street to SR 204

DATE September 26, 2014

JMB

From: Albert V. Shelby



To: Lisa L. Myers, State Project Review Engineer

Subject: **REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER David G. Moyer

MGMT LET DATE

MGMT ROW DATE 5/15/2015

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$ 2,981,697.12

DATE 5/1/2013

RIGHT OF WAY \$ 750,000.00

DATE 8/4/2014

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$ 3,046,982.59

RIGHT OF WAY \$

UTILITIES \$

*Cost Contains 10 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

ROW estimate updated 8/4/14. A 10% contingency was selected based on the "Risk Based Cost Estimation" memo which gives a range of 10% to 20% for this type of project at this stage. Based on what is currently known about this project a low risk was selected.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	2,633,359.69	Base Estimate From CES
B. ENGINEERING AND INSPECTION (E & I):	\$	131,667.98	Base Estimate (A) x 5 %
C. CONTINGENCY:	\$	276,502.77	Base Estimate (A) + E & I (B) x 10 % See % Table in "Risk Based Cost Estimation" Memo
D. TOTAL LIQUID AC ADJUSTMENT:	\$	5,452.15	Total From Liquid AC Spreadsheet
E. CONSTRUCTION TOTAL:	\$	3,046,982.59	(A + B + C + D = E)

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
TOTAL	\$ -

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS
Liquid AC Adjustment Spreadsheet

STATE HIGHWAY AGENCY

DATE : 09/18/2014

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JOB ESTIMATE REPORT

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JOB NUMBER : 0010236 SPEC YEAR: 01
 DESCRIPTION: PROJECT DERENNE - WEST DERENNE CONCEPT

COST GROUPS FOR JOB 0010236

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
SIGNPCTO	SIGNS (PERCENT OF JOB)	6666.667	7.00000	46666.67	Y
EROCPCO	EROSION CONTROL (PERCENT OF JOB)	6666.667	5.00000	33333.33	Y
EROCPCO	EROSION CONTROL (PERCENT OF JOB)	6666.667	2.00000	13333.33	Y
LSCPPCTO	LANDSCAPING (PERCENT OF JOB)	6666.667	67.00000	446666.67	Y
ITSPCTO	INTELLIGENT TRANS. SYSTEMS (PCT OF JOB)	6666.667	10.00000	66666.67	Y
DRNGEA	DRAINAGE (EA)	1.000	60000.00000	60000.00	Y
ACTIVE COST GROUP TOTAL				666666.67	
INFLATED COST GROUP TOTAL				772849.38	

ITEMS FOR JOB 0010236

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0010236	1.000	250000.00	250000.00
0010	151-1000		LS	MOBILIZATION - 0010236	1.000	100000.00	100000.00
0015	210-0100		LS	GRADING COMPLETE - 0010236	1.000	600000.00	600000.00
0023	310-1101		TN	GR AGGR BASE CRS, INCL MATL	150.000	26.69	4004.85
0024	402-1802		TN	RECYL AC PATCHING, INCL BM&HL	65.000	129.55	8421.40
0025	402-1812		TN	RECYL AC LEVELING, INC BM&HL	26.000	107.02	2782.72
0035	402-3600		TN	RECY AC 12.5, SMA, GP2 ON, INCLP-, BM&HL	260.000	130.00	33800.00
0045	413-1000		GL	BITUM TACK COAT	94.000	4.84	455.77
0049	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	2900.000	3.46	10057.00
0050	439-0022		SY	PLN PC CONC PVMT CL3 10" THK	835.000	82.43	68835.81
0055	441-0104		SY	CONC SIDEWALK, 4 IN	3650.000	30.08	109800.40
0060	441-0108		SY	CONC SIDEWALK, 8 IN	410.000	50.50	20707.03

0065	441-0754	SY	CONC MEDIAN, 7 1/2 IN	1300.000	45.15	58696.96
0070	441-4030	SY	CONC VALLEY GUTTER, 8 IN	1040.000	47.71	49628.37
0075	441-5008	LF	CONC HEADER CURB, 6 IN, TP 7	2850.000	12.68	36156.81
0080	441-6022	LF	CONC CURB & GUTTER, 6"X30"TP2	300.000	22.40	6720.10
0085	500-9999	CY	CL B CONC,BASE OR PVMT WIDEN	15.000	197.20	2958.14
0090	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 1 (MODIFICATION)	1.000	75000.00	75000.00
0095	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 2 (MODIFICATION)	1.000	75000.00	75000.00
0100	550-1180	LF	STM DR PIPE 18",H 1-10	1000.000	35.63	35634.11
0105	611-8000	EA	ADJUST CATCH BASIN TO GRADE	24.000	1435.86	34460.78
0110	668-1100	EA	CATCH BASIN, GP 1	10.000	2177.22	21772.29

ITEM TOTAL						1604892.53
INFLATED ITEM TOTAL						1860510.30

STATE HIGHWAY AGENCY

DATE : 09/18/2014

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JOB ESTIMATE REPORT

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TOTALS FOR JOB 0010236	

ESTIMATED COST:	2633359.69
CONTINGENCY PERCENT (30.0):	790007.91
ESTIMATED TOTAL:	3423367.60

PROJ. NO.

N/A

CALL NO.

P.I. NO.

0010236

DATE

9/18/2014

INDEX (TYPE)

REG. UNLEADED

Sep-14 \$ 3.335

DIESEL

\$ 3.765

LIQUID AC

\$ 618.00

Link to Fuel and AC Index:

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

LIQUID AC ADJUSTMENTS

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

Asphalt

Price Adjustment (PA)				5302.44	\$	5,302.44
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80		
Monthly Asphalt Cement Price month project let (APL)			\$	618.00		
Total Monthly Tonnage of asphalt cement (TMT)				14.3		

ASPHALT	Tons	%AC	AC ton
Leveling	26	5.0%	1.3
12.5 OGFC		5.0%	0
12.5 mm	260	5.0%	13
9.5 mm SP		5.0%	0
25 mm SP		5.0%	0
19 mm SP		5.0%	0
	286		14.3

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	149.71	\$	149.71
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80			
Monthly Asphalt Cement Price month project let (APL)			\$	618.00			
Total Monthly Tonnage of asphalt cement (TMT)				0.403739487			

Bitum Tack

Gals	gals/ton	tons
94	232.8234	0.40373949

PROJ. NO.

N/A

CALL NO.

P.I. NO.

0010236

DATE

9/18/2014

BITUMINOUS TACK COAT (surface treatment)

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

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

TOTAL LIQUID AC ADJUSTMENT							\$	5,452.15
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Parcel #	Name	PIN	Property Address	Type	2014 Assessed Values	Land Values	Total Land Area	Value Per Sq. Ft.	Req'd R/W	R/W Value	R/w Value (+ 20%)	R/w Value (+ 20%) + Escalation ²	
67	TODD BARBARA A	2-0128 -01-006	130 W Derenne	Comm - Glass Masters	\$ 590,700.00	\$ 590,700.00	26,136	\$ 22.60	1,070	\$ 24,183.08	\$ 29,019.70	\$ 36,144.71	West DeF
68	BLAINE BELFORD CHRISTY JR TRUS	2-0128 -01-013	38 W Derenne	Comm	\$ 947,600.00	\$ 541,500.00	23,958	\$ 22.60	810	\$ 18,307.66	\$ 21,969.20	\$ 27,363.14	West DeF
69	AUTOZONE INC #0420	2-0128 -01-014	30 W Derenne	Comm - Autozone	\$ 1,521,800.00	\$ 1,102,600.00	48,787	\$ 22.60	1,590	\$ 35,934.45	\$ 43,121.34	\$ 53,708.63	West DeF
70	STARRCHEX LLC	2-0128 -01-011	100 W Derenne	Comm - Checkers	\$ 794,900.00	\$ 673,400.00	33,105	\$ 20.34	910	\$ 18,510.62	\$ 22,212.74	\$ 27,666.49	West DeF
71	AUSTIN LESLIE & STEVEN	2-0128 -01-002A	12 W Derenne	Comm - Arbys	\$ 781,100.00	\$ 623,800.00	27,600	\$ 22.60	1,150	\$ 25,991.67	\$ 31,190.00	\$ 38,847.87	West DeF
72	SELF STORAGE ASSOCIATES L P	2-0128 -01-015	5321 Bull	Comm - Self Storage	\$ 2,201,300.00	\$ 942,000.00	148,772	\$ 22.60	290	\$ 6,554.00	\$ 7,864.80	\$ 9,795.79	West DeF
73	KONTER HARRIETT K TRSTE*	2-0128 -01-008	14 W Derenne	Comm	\$ 872,700.00	\$ 728,500.00	32,234	\$ 22.60	1,050	\$ 23,730.38	\$ 28,476.45	\$ 35,468.09	West DeF
74	BRYTAN COPORATION	2-0128 -01-009	2 W Derenne	Comm	\$ 1,105,900.00	\$ 798,400.00	35,327	\$ 22.60	520	\$ 11,752.14	\$ 14,102.57	\$ 17,565.08	West DeF
75	TYSON WILLIAM V JR & YVONNE K	2-0128 -02-005	1 E Derenne	Comm	\$ 588,700.00	\$ 493,500.00	21,838	\$ 22.60	3,560	\$ 80,449.67	\$ 96,539.61	\$ 120,242.33	West DeF
76	LEWIS COMMERCIAL PROPERTIES LL	2-0128 -02-004	40 E Derenne	Comm	\$ 3,625,000.00	\$ 2,898,000.00	194,277	\$ 14.92	3,180	\$ 47,435.57	\$ 56,922.68	\$ 70,898.53	West DeF
148	LANIER MARION T III	2-0129 -06-013	249 Birchfiled Dr	Res	\$ 31,900.00	\$ 12,700.00	7,200	\$ 1.76	360	\$ 635.00	\$ 762.00	\$ 949.09	Bld
170	PATEL DEVENDRAKUMAR & CHARULAT	2-0127 -01-036	125 W Derenne Ave	Comm	\$ 1,465,600.00	\$ 1,028,500.00	45,510	\$ 22.60	1,340	\$ 30,283.23	\$ 36,339.88	\$ 45,262.17	West DeF
171	SELF DONALD W & CAROL ANN ET A	2-0127 -01-032	121 W Derenne Ave	Comm	\$ 751,400.00	\$ 153,900.00	13,623	\$ 11.30	460	\$ 5,196.65	\$ 6,235.98	\$ 7,767.06	West DeF
172	FROST SHELBY J	2-0127 -01-030	111 W Derenne Ave	Comm	\$ 580,200.00	\$ 312,700.00	27,675	\$ 11.30	910	\$ 10,282.10	\$ 12,338.51	\$ 15,367.91	West DeF
173	HARVEY LEROY E JR & LANA F*	2-0127 -01-029	107 W Derenne Ave	Comm	\$ 154,800.00	\$ 22,200.00	12,780	\$ 1.74	430	\$ 746.95	\$ 896.34	\$ 1,116.41	West DeF
174	HARVEY LEROY E JR & LANA F*	2-0127 -01-028	105 W Derenne Ave	Comm - Vacant Lot	\$ 142,800.00	\$ 142,800.00	12,637	\$ 11.30	450	\$ 5,085.07	\$ 6,102.08	\$ 7,600.28	West DeF
175	101 WEST DERENNE COMMERCIAL	2-0127 -01-027	101 W Derenne Ave	Comm	\$ 258,200.00	\$ 201,200.00	12,880	\$ 11.30	410	\$ 4,633.00	\$ 5,559.60	\$ 6,924.61	West DeF
176	BOSTARR REAL ESTATE LLC	2-0127 -01-026A	29 W Derenne Ave	Comm	\$ 753,400.00	\$ 417,000.00	36,900	\$ 11.30	1,230	\$ 13,900.00	\$ 16,680.00	\$ 20,775.33	West DeF
177	LYNN INVESTMENTS LLC	2-0127 -01-023	11 W Derenne Ave	Comm	\$ 307,800.00	\$ 117,500.00	10,400	\$ 11.30	350	\$ 3,954.33	\$ 4,745.19	\$ 5,910.25	West DeF
178	A & C JEWELRY & DESIGN INC	2-0127 -01-022	9 W Derenne Ave	Comm	\$ 361,300.00	\$ 133,900.00	11,850	\$ 11.30	390	\$ 4,406.84	\$ 5,288.20	\$ 6,586.58	West DeF
179	MARKS DONALD S	2-0127 -01-021	7 W Derenne Ave	Comm	\$ 202,800.00	\$ 22,200.00	11,738	\$ 1.89	390	\$ 737.60	\$ 885.13	\$ 1,102.44	West DeF
180	MOYE WALLACE D	2-0127 -01-020	5 W Derenne Ave	Comm	\$ 183,200.00	\$ 131,400.00	11,625	\$ 11.30	370	\$ 4,182.19	\$ 5,018.63	\$ 6,250.82	West DeF
181	SMITH-MOORE LLC	2-0127 -01-018	5411 White Bluff Rd	Comm	\$ 640,100.00	\$ 574,600.00	25,425	\$ 22.60	460	\$ 10,395.91	\$ 12,475.09	\$ 15,538.02	West DeF
209	ASHTON SAVANNAH LP	2-0127 -06-002	135 Hampstead Ave	Comm - Apartments	\$ 5,840,800.00	\$ 2,410,291.94	212,923	\$ 11.32	24,810	\$ 280,849.20	\$ 337,019.04	\$ 419,765.06	Bld
210	STATE OF GEORGIA	2-0127 -06-003	Hampstead Rd	Comm - Access Road	\$ 45,800.00	\$ 12,800.00	27,878	\$ 0.46	3,030	\$ 1,391.20	\$ 1,669.45	\$ 2,079.33	Bld
232	9 HAMPSTEAD LLC	2-0127 -04-012	W 76th St	Comm - Vacant Lot	\$ 9,800.00	\$ 9,800.00	3,870	\$ 2.53	600	\$ 1,519.38	\$ 1,823.26	\$ 2,270.91	Bld
233	RUTLAND S L JR	2-0127 -04-002A	5711 White Bluff Rd	Comm - Tire Store	\$ 106,400.00	\$ 78,000.00	17,727	\$ 4.40	1,370	\$ 6,028.09	\$ 7,233.71	\$ 9,009.76	Bld
235	RUTLAND S L JR	2-0127 -04-001	5711 White Bluff Rd	Comm - Tire Store	\$ 410,700.00	\$ 321,000.00	36,480	\$ 8.80	5,300	\$ 46,636.51	\$ 55,963.82	\$ 69,704.23	Bld
236	STATE OF GEORGIA	2-0165 -01-002	5717 White Bluff Rd	Comm - Campus	\$ 4,732,000.00	\$ 631,800.00	1,376,060	\$ 0.46	660	\$ 303.03	\$ 363.64	\$ 452.92	Bld
244	LEWIS COMMERCIAL PROPERTIES LL	2-0127 -02-001	7 E Derenne	Comm - Strip Mall	\$ 2,753,300.00	\$ 1,273,700.00	102,366	\$ 12.44	2,300	\$ 28,618.00	\$ 34,341.60	\$ 42,773.26	West DeF
245	LEWIS COMMERCIAL PROPERTIES LL	2-0127 -02-009	5401 Abercorn Street	Comm - CVS	\$ 2,491,200.00	\$ 1,409,600.00	61,420	\$ 22.95	1,310	\$ 30,064.93	\$ 36,077.92	\$ 44,935.88	West DeF
248	LEWIS COMMERCIAL PROPERTIES LL	2-0128 -02-006	5225 Abercorn	Comm - Mike Hostilo	\$ 955,700.00	\$ 714,300.00	31,128	\$ 22.95	440	\$ 10,096.76	\$ 12,116.11	\$ 15,090.90	West DeF
249	LIBBY B MCLEOD	2-0128 -04-019	5208 Abercorn Street	Nursing Home	\$ 165,000.00	\$ 83,100.00	15,500	\$ 5.36	1,260	\$ 6,755.23	\$ 8,106.27	\$ 10,096.55	West DeF
250	I-HENG CHIANG	2-0128 -04-018	104 E. DeRenne Avenue	Residential	\$ 167,900.00	\$ 81,500.00	15,200	\$ 5.36	80	\$ 428.95	\$ 514.74	\$ 641.12	East DeR
251	MICHAEL K WAKELY & PATRICIA CHILDERS-WAKELY	2-0128 -04-017	106 E. DeRenne Avenue	Residential	\$ 152,000.00	\$ 80,700.00	12,800	\$ 6.30	770	\$ 4,854.61	\$ 5,825.53	\$ 7,255.83	East DeR
281	BSD PARTNERS LTD LP	2-0113 -21-005	210 E. DeRenne Avenue	Medical Office Park	\$ 11,096,800.00	\$ 3,525,000.00	300,128	\$ 11.74	610	\$ 7,164.44	\$ 8,597.33	\$ 10,708.18	East DeR
282	SAINT JOSEPHS/CANDLER MEDICAL	2-0113 -21-008	0 E. DeRenne Avenue	Common Area	\$ -	\$ 438,033.40	43,803	\$ 10.00	250	\$ 2,500.00	\$ 3,000.00	\$ 3,736.57	East DeR
283	MEDICAL PROPERTIES	2-0113 -21-007	230 E. DeRenne Avenue	Medical Offices	\$ 6,854,600.00	\$ 1,383,200.00	95,396	\$ 14.50	230	\$ 3,334.90	\$ 4,001.88	\$ 4,984.43	East DeR
284	S J C PROPERTIES	2-0113 -21-002	5361 Reynolds Street	Medical Offices	\$ 1,867,100.00	\$ 844,100.00	58,217	\$ 14.50	110	\$ 1,594.91	\$ 1,913.89	\$ 2,383.80	East DeR
310	MOU LLC ATTN TAX DEPARTMENT	2-0113 -18-002	700 E. DeRenne Avenue	Misc. Retail	\$ 2,983,400.00	\$ 1,782,400.00	71,438	\$ 24.95	1,150	\$ 28,692.85	\$ 34,431.42	\$ 42,885.14	East DeR
311	BLACK HOLDINGS LLC	2-0114 -30-001	800 E. DeRenne Avenue	Misc. Retail	\$ 2,386,500.00	\$ 1,596,800.00	64,000	\$ 24.95	190	\$ 4,740.50	\$ 5,688.60	\$ 7,085.28	East DeR
312	BELLSOUTH COMMUNICATIONS	2-0114 -30-011	0 72nd Street	Public Utility Operations	\$ 1,258,200.00	\$ 636,953.95	33,240	\$ 19.16	120	\$ 2,299.20	\$ 2,759.04	\$ 3,436.45	East DeR
313	TRUST OF JF & JM SOMMERS	2-0114 -30-009	5817 Waters Avenue	Convenience Store	\$ 533,300.00	\$ 376,400.00	15,086	\$ 24.95	290	\$ 7,235.58	\$ 8,682.70	\$ 10,814.50	East DeR
332	WILLIAM HUGHES SMITH JR	2-0125A -05-014	0 Waters Avenue	Comm. Vacant Land	\$ 161,300.00	\$ 161,300.00	6,465	\$ 24.95	1,930	\$ 48,152.98	\$ 57,783.57	\$ 71,970.78	East DeR
349	WEST REALTY INTERESTS LLC	2-0125A -04-008	1202 E. DeRenne Avenue	Misc. Retail	\$ 328,200.00	\$ 130,500.00	9,000	\$ 14.50	170	\$ 2,465.00	\$ 2,958.00	\$ 3,684.26	East DeR
350	TINA NGUYEN	2-0125A -04-010	1210 E. DeRenne Avenue	Office Buildings	\$ 207,500.00	\$ 130,500.00	9,000	\$ 14.50	210	\$ 3,045.00	\$ 3,654.00	\$ 4,551.14	East DeR
351	WEST REALTY INTERESTS LLC	2-0125A -04-035	1212 E. DeRenne Avenue	Office Buildings	\$ 222,900.00	\$ 140,700.00	9,700	\$ 14.51	220	\$ 3,191.13	\$ 3,829.36	\$ 4,769.56	East DeR
352	VALE ROYAL INTERESTS LLC	2-0125A -04-011	1216 E. DeRenne Avenue	Laundry	\$ 363,100.00	\$ 320,500.00	26,000	\$ 12.33	430	\$ 5,300.58	\$ 6,360.69	\$ 7,922.39	East DeR
356	VCA GREATERSAVANNAH ANIMAL HOSPITAL INC	2-0125A -03-044	1350 E. DeRenne Avenue	Veterinary Office	\$ 872,700.00	\$ 373,500.00	37,897	\$ 9.86	610	\$ 6,011.95	\$ 7,214.34	\$ 8,985.63	East DeR
												\$ 504,231.29	Bld
												\$ 690,799.13	West DeF
												\$ 195,815.07	East DeR
												\$ 1,390,845.50	

Notes:

1. PINs 2-0127 -02-006 and 2-0127 -02-005 PARCEL A RECOMBINATION OF A POPOPLAR GROVE TCT PRB 47P 96 ONE NEW PIN 2-0127 -02-009
2. Escalation for planning purposes is 5% per year until April 2018 (mid point of negotiations)

Derenne Project Cost Estimates

Parcel #	Name	PIN	No.	Address	Type	Assessed	20%	Estimated	Title	Appraisal Fee	Relocation Exp	Total Expenses	Total + Escalation ¹
130	Frederick Smith	2-0129 -05-002	264	Birchfield Dr	TOCC	\$ 33,800.00	\$ 6,760.00	\$ 40,560.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 61,037.00	\$ 76,023.00
131	PV&T RENTALS, LLC	2-0129 -05-003	260	Birchfield Dr	OCC	\$ 31,600.00	\$ 6,320.00	\$ 37,920.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 58,397.00	\$ 72,734.82
145	Jacob Englehardt	2-0129 -06-001	265	Birchfield Dr	TOCC	\$ 32,500.00	\$ 6,500.00	\$ 39,000.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 59,477.00	\$ 74,079.99
146	Terriceta Andrews	2-0129 -06-015	263	Birchfield Dr	OCC	\$ 27,900.00	\$ 5,580.00	\$ 33,480.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 53,957.00	\$ 67,204.70
147	Rodney M Stafford	2-0129 -06-014	257	Birchfield Dr	OCC	\$ 32,200.00	\$ 6,440.00	\$ 38,640.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 59,117.00	\$ 73,631.60
158	Ronald & Patsy Jones	2-0129-06-002	5527	Montgomery Street	C	\$ 376,000.00	\$ 75,200.00	\$ 451,200.00	\$ 127.00	\$ 2,000.00	\$ 80,000.00	\$ 533,327.00	\$ 664,271.19
159	Malcolm T Cook	2-0129 -06-017	5511	Montgomery Street	C	\$ 172,900.00	\$ 34,580.00	\$ 207,480.00	\$ 127.00	\$ 2,000.00	\$ 20,000.00	\$ 229,607.00	\$ 285,980.86
160	Stars & Stripes Self Storage	2-0129 -06-016	5503	Montgomery Street	C	\$ 704,500.00	\$ 140,900.00	\$ 845,400.00	\$ 127.00	\$ 2,000.00	\$ 80,000.00	\$ 927,527.00	\$ 1,155,256.46
161	Mark A Bradley	2-0129-07-006	5514	Montgomery Street	TOCC	\$ 48,100.00	\$ 9,620.00	\$ 57,720.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 78,197.00	\$ 97,396.18
162	Mark A Bradley	2-0129-07-007	5510	Montgomery Street	TOCC	\$ 189,500.00	\$ 37,900.00	\$ 227,400.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 247,877.00	\$ 308,736.57
163	Mark A Bradley	2-0129-07-008	5508	Montgomery Street	C	\$ 105,500.00	\$ 21,100.00	\$ 126,600.00	\$ 127.00	\$ 2,000.00	\$ 80,000.00	\$ 208,727.00	\$ 259,974.34
202	James E Coy & Edward Kluttz	2-0127 -09-017	2	Hampstead Ave	C	\$ 196,400.00	\$ 39,280.00	\$ 235,680.00	\$ 127.00	\$ 2,000.00	\$ 20,000.00	\$ 257,807.00	\$ 321,104.62
211	Deo Vindice LLC	2-0127 -08-007	109	Hampstead Ave	C	\$ 160,200.00	\$ 32,040.00	\$ 192,240.00	\$ 127.00	\$ 2,000.00	\$ 80,000.00	\$ 274,367.00	\$ 341,730.48
212	JS Davis Rental Prop	2-0127 -08-006	105	Hampstead Ave	TOCC	\$ 56,200.00	\$ 11,240.00	\$ 67,440.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 87,917.00	\$ 109,502.67
213	Charles E Smith	2-0127 -08-005	101	Hampstead Ave	TOCC	\$ 49,300.00	\$ 9,860.00	\$ 59,160.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 79,637.00	\$ 99,189.74
225	Edward C Smith	2-0127 -04-009	25	Hampstead Ave	TOCC	\$ 54,400.00	\$ 10,880.00	\$ 65,280.00	\$ 127.00	\$ 350.00	\$ 20,000.00	\$ 151,037.00	\$ 188,120.10
226	Susan & Samuel Watkins	2-0127 -04-008	11	Hampstead Ave	C	\$ 169,100.00	\$ 33,820.00	\$ 202,920.00	\$ 127.00	\$ 2,000.00	\$ 40,000.00	\$ 245,047.00	\$ 305,211.74
227	9 Hampstead LLC	2-0127 -04-007	9	Hampstead Ave	C	\$ 180,800.00	\$ 36,160.00	\$ 216,960.00	\$ 127.00	\$ 2,000.00	\$ 100,000.00	\$ 319,087.00	\$ 397,430.28
228	Enmark Station	2-0127 -04-016	0	Hampstead Ave	VL	\$ 95,500.00	\$ 19,100.00	\$ 114,600.00	\$ 127.00	\$ 2,000.00	\$ -	\$ 116,727.00	\$ 145,386.19
229	William Simon	2-0127 -04-017	5701	Whitebluff Rd	C	\$ 164,300.00	\$ 32,860.00	\$ 197,160.00	\$ 127.00	\$ 2,000.00	\$ 80,000.00	\$ 279,287.00	\$ 347,858.46
234	Donald Howard	2-0127 -04-002	5709	Whitebluff Rd	C	\$ 223,800.00	\$ 44,760.00	\$ 268,560.00	\$ 127.00	\$ 2,000.00	\$ 80,000.00	\$ 350,687.00	\$ 436,788.82
		2-0129 -05-001	281	W 73rd St	TOCC	\$ 32,000.00	\$ 6,400.00	\$ 38,400.00	\$ 127.00	\$ 275.00	\$ 20,000.00	\$ 58,802.00	\$ 73,239.26
					Sub Totals	\$ 3,104,500.00	\$ 620,900.00	\$ 3,725,400.00	\$ 2,667.00	\$ 25,500.00	\$ 860,000.00	\$ 4,737,649.00	\$ 5,900,852.07

Forclousure Nov. 2013 sold to BI

Notes:

1. Escalation for planning purposes is 5% per year until April 2018 (mid point of negotiations)

Finklea, Brady

From: Moyer, David <dmoyer@dot.ga.gov>
Sent: Friday, October 03, 2014 9:49 AM
To: Finklea, Brady
Subject: FW: CSBRG-0007-00(128), Chatham County, CR 787/Islands Expressway Over Wilmington River, P. I. No. 7128

fyi

From: Jones, Ruthie
Sent: Friday, September 26, 2014 3:23 PM
To: Moyer, David; Alexander, Lashone
Subject: RE: CSBRG-0007-00(128), Chatham County, CR 787/Islands Expressway Over Wilmington River, P. I. No. 7128

David,

This project involves 100% of Local funds for ROW, our office only have to approve the estimate if it will be used to negotiate from the cost estimate or if federal funds were involved in the ROW phase and needed to be authorized. You can go ahead and use the attached estimate for the annual update.

Thanks

From: Moyer, David
Sent: Wednesday, September 24, 2014 2:43 PM
To: Alexander, Lashone; Jones, Ruthie
Subject: FW: CSBRG-0007-00(128), Chatham County, CR 787/Islands Expressway Over Wilmington River, P. I. No. 7128

Lashone, Ruthie

Is this estimate approved? I would like to use it for the annual update if it is.

Thank You,

From: William Gordon [<mailto:wjgordon@chathamcounty.org>]
Sent: Wednesday, August 27, 2014 4:30 PM
To: Dixon, Emory D
Cc: Murphy, Will; Jones, Ruthie; Moyer, David; Nathaniel Panther; Leon Davenport
Subject: CSBRG-0007-00(128), Chatham County, CR 787/Islands Expressway Over Wilmington River, P. I. No. 7128

Emory,

Attached for project right of way funding authorization, please find the detailed right of way cost estimate for the referenced project. If you should have any questions or comments, please call me.

William J. Gordon
Property Acquisition Manager
Dept. of Engineering
(912) 652-7805
Fax: (912) 777-5635
wjgordon@chathamcounty.org

Project DeRenne
 Concept Utility Cost Opinion

		I-516 Eastern Terminus Interchange at DeRenne		East DeRenne		West DeRenne	
		PI #: 0008358		PI #: 0008359		PI #: 0010236	
Utility	Potential Owner	Reimbursable	Non-Reimbursable	Reimbursable	Non-Reimbursable	Reimbursable	Non-Reimbursable
Electric	Georgia Power	\$0	\$368,676	\$0	\$84,150	\$0	\$50,188
Natural Gas	Atlanta Gas Light	\$0	\$39,240	\$0	\$20,880	\$0	\$9,570
Sanitary Sewer	City of Savannah	\$0	\$53,350	\$0	\$30,800	\$0	\$36,575
Tele-communications	Multiple	\$0	\$383,040	\$0	\$158,400	\$0	\$72,600
Water	City of Savannah	\$0	\$67,705	\$0	\$58,575	\$0	\$27,085
Contingency (30%)		\$0	\$273,603	\$0	\$105,842	\$0	\$58,805
TOTAL		\$0	\$1,185,614	\$0	\$458,647	\$0	\$254,823

Utility	Quantity	Unit Cost	Units	Total		Assumption
				Reimbursable	Total Non-Reimbursable	
Electric						
Power Pole (basic)	12	\$4,500	EA	\$0	\$54,000	
Power Pole (3-phase)	18	\$8,000	EA	\$0	\$144,000	
Power Pole (Transmission)	3	\$11,500	EA	\$0	\$34,500	3 conflicts - contingent as location is unknown
OH Electric Relocation	3420	\$20	LF	\$0	\$68,400	30% of project length
UG Electric Relocation	1142	\$30	LF	\$0	\$34,260	10% of project length
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Electric Contingency	0.1	\$335,160		\$0	\$33,516	
Natural Gas						
Gas line	1140	\$20	LF	\$0	\$22,800	10% of project length and 6" avg size
Gas Valve	22	\$450	EA	\$0	\$9,900	1 per 500 LF along project
<reserved>				\$0	\$0	
20% Natural Gas Contingency	0.2	\$32,700		\$0	\$6,540	
Sanitary Sewer						
8" DIP	220	\$75	LF	\$0	\$16,500	8" avg size, 20 LF replacement per 1000 LF and at intersections
Manhole	8	\$4,000	EA	\$0	\$32,000	1 per 1500 LF along project
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Sanitary Contingency	0.1	\$48,500		\$0	\$4,850	
Telecommunications						
OH Telecom	3420	\$30	LF	\$0	\$102,600	30% of project length
UG Telecom	1140	\$40	LF	\$0	\$45,600	10% of project length
Duct Bank	342	\$500	LF	\$0	\$171,000	3% of project length
<reserved>				\$0	\$0	
20% Telcom Contingency	0.2	\$319,200		\$0	\$63,840	
Water						
DIP Water Line	220	\$65	LF	\$0	\$14,300	10" avg size, 20 LF replacement per 1000 LF and at intersections
Water Meter	15	\$750	EA	\$0	\$11,250	1 per 750 LF along project
Water Valve	15	\$1,000	EA	\$0	\$15,000	1 per 750 LF along project
Fire Hydrant	6	\$3,500	EA	\$0	\$21,000	1 per 2000 LF along project
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Water Contingency	0.1	\$61,550		\$0	\$6,155	
Contingency						
30 % of subtotal	0.3			\$0.00	\$273,603.30	Concept Level Contingency
TOTAL				\$0	\$1,185,614	

Assumptions

- Project length for the connector is approximately 11200 LF. This length can be broken out into 4 distinct segments, each with unique design intentions as indicated below.
 - [Segment A] Existing DeRenne Avenue improvements - 3500 LF
General design intent for segment A is to maintain existing road location and minimize utility impacts when possible.
 - [Segment B] New road, new alignment - 3000 LF
General design intent for segment B will be new road, new alignment
 - [Segment C] Existing Montgomery Street improvements - 2000 LF
General design intent for segment C is to maintain existing road location and minimize utility impacts when possible.
 - [Segment D] Existing Hampstead Avenue improvements - 2700 LF
General design intent for segment D is to widen asymmetrically to the south
- Power
 - Segments A, B, C: Assume no 3-phase power impacts, but assume 1 basic/lighting pole per 750 LF (approx. 12 poles)
 - Segment D: Assume entire 3-phase line from Roger Wood to White Bluff will be relocated (approx 18 3-phase poles)
- Storm Drainage
 - Segment A, B, C, D: Assume minimal or no closed drainage system
- Water line material is unknown. DIP is the assumed replacement material for this cost opinion.
- Assume 1 water line conflict each 1000 LF along the project with 20 LF being replaced at each conflict.
- Assume 1 water line conflict at each major intersection with 20 LF being replaced at each conflict.
- Sanitary sewer material is unknown. DIP is the assumed replacement material for this cost opinion

PI: 0008359
 Project DeRenne
 East DeRenne
 Utility Impact Assessment

Date: 4/15/2014
 By: RDH
 Checked By:

Utility	Quantity	Unit Cost	Units	Total		Assumption
				Reimbursable	Total Non-Reimbursable	
Electric						
Power Pole (basic)	6	\$4,500 EA		\$0	\$27,000	1 per 1000 LF along project
Power Pole (3-phase)	1	\$8,000 EA		\$0	\$8,000	1 conflict - contingent as location is unknown
Power Pole (Transmission)	1	\$11,500 EA		\$0	\$11,500	1 conflict - contingent as location is unknown
OH Electric Relocation	600	\$20 LF		\$0	\$12,000	10% of project length
UG Electric Relocation	600	\$30 LF		\$0	\$18,000	10% of project length
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Electric Contingency	0.1	\$76,500		\$0	\$7,650	
Natural Gas						
Gas line	600	\$20 LF		\$0	\$12,000	10% of project length and 6" avg size
Gas Valve	12	\$450 EA		\$0	\$5,400	1 per 500 LF along project
<reserved>				\$0	\$0	
20% Natural Gas Contingency	0.2	\$17,400		\$0	\$3,480	
Sanitary Sewer						
8" DIP	160	\$75 LF		\$0	\$12,000	8" avg size, 20 LF replacement per 1500 LF and at intersections
Manhole	4	\$4,000		\$0	\$16,000	1 per 1500 LF along project
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Sanitary Contingency	0.1	\$28,000		\$0	\$2,800	
Telecommunications						
OH Telecom	600	\$30 LF		\$0	\$18,000	10% of project length
UG Telecom	600	\$40 LF		\$0	\$24,000	10% of project length
Duct Bank	180	\$500 LF		\$0	\$90,000	3% of project length
<reserved>				\$0	\$0	
20% Telcom Contingency	0.2	\$132,000		\$0	\$26,400	
Water						
DIP Water Line	200	\$65 LF		\$0	\$13,000	10" avg size, 20 LF replacement per 1000 LF and at intersections
Water Meter	15	\$750 EA		\$0	\$11,250	1 per 400 LF along project
Water Valve	15	\$1,000 EA		\$0	\$15,000	1 per 400 LF along project
Fire Hydrant	4	\$3,500 EA		\$0	\$14,000	1 per 1500 LF along project
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Water Contingency	0.1	\$53,250		\$0	\$5,325	
Contingency						
30 % of subtotal	0.3			\$0.00	\$105,841.50	Concept Level Contingency
TOTAL				\$0	\$458,647	

Assumptions

- Project length is ~6050 LF
- General design intent is to maintain existing road location and minimize utility impacts.
- Per record drawings - avg water line size along E DeRenne is 10" and is located on North Side of road
- Per record drawings - avg water line size for crossings at intersections is 8"
- Water line material is unknown. DIP is the assumed replacement material for this cost opinion.
- Assume 1 water line conflict each 1000 LF along the project (6) with 20 LF being replaced at each conflict.
- Assume 1 water line conflict at each major intersection (4) with 20 LF being replaced at each conflict.
- Per record drawings - avg 8" sanitary sewer exists for approx. 1/3 of the project length
- Sanitary sewer material is unknown. DIP is the assumed replacement material for this cost opinion

PI: 0010236
 Project DeRenne
 West DeRenne
 Utility Impact Assessment

Date: 4/15/2014
 By: RDH
 Checked By:

Utility	Quantity	Unit Cost	Units	Total		Assumption
				Reimbursable	Total Non-Reimbursable	
Electric						
Power Pole (basic)	3	\$4,500 EA		\$0	\$12,375	1 per 1000 LF along project
Power Pole (3-phase)	1	\$8,000 EA		\$0	\$8,000	1 conflict - contingent as location is unknown
Power Pole (Transmission)	1	\$11,500 EA		\$0	\$11,500	1 conflict - contingent as location is unknown
OH Electric Relocation	275	\$20 LF		\$0	\$5,500	10% of project length
UG Electric Relocation	275	\$30 LF		\$0	\$8,250	10% of project length
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Electric Contingency	0.1	\$45,625		\$0	\$4,563	
Natural Gas						
Gas line	275	\$20 LF		\$0	\$5,500	10% of project length and 6" avg size
Gas Valve	6	\$450 EA		\$0	\$2,475	1 per 500 LF along project
<reserved>				\$0	\$0	
20% Natural Gas Contingency	0.2	\$7,975		\$0	\$1,595	
Sanitary Sewer						
8" DIP	150	\$75 LF		\$0	\$11,250	8" avg size, 20 LF replacement per 500 LF and at intersections
Manhole	6	\$4,000		\$0	\$22,000	1 per 500 LF along project
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Sanitary Contingency	0.1	\$33,250		\$0	\$3,325	
Telecommunications						
OH Telecom	275	\$30 LF		\$0	\$8,250	10% of project length
UG Telecom	275	\$40 LF		\$0	\$11,000	10% of project length
Duct Bank	83	\$500 LF		\$0	\$41,250	3% of project length
<reserved>				\$0	\$0	
20% Telcom Contingency	0.2	\$60,500		\$0	\$12,100	
Water						
DIP Water Line	95	\$65 LF		\$0	\$6,175	10" avg size, 20 LF replacement per 1000 LF and at intersections
Water Meter	7	\$750 EA		\$0	\$5,156	1 per 400 LF along project
Water Valve	7	\$1,000 EA		\$0	\$6,875	1 per 400 LF along project
Fire Hydrant	2	\$3,500 EA		\$0	\$6,417	1 per 1500 LF along project
<reserved>				\$0	\$0	
<reserved>				\$0	\$0	
10% Water Contingency	0.1	\$24,623		\$0	\$2,462	
Contingency						
30 % of subtotal	0.30			\$0.00	\$58,805.31	Concept Level Contingency
TOTAL				\$0	\$254,823	

Assumptions

- Project length for West DeRenne: 2750
- General design intent for West DeRenne is to maintain existing road location and minimize utility impacts as much as possible.
- Per record drawings - water line size along West DeRenne is 12" on North Side and 2" on South side of road
- Per record drawings - avg water line size for crossings at intersections is 6"
- Water line material is unknown. DIP is the assumed replacement material for this cost opinion.
- Assume 1 water line conflict each 1000 LF along the project with 20 LF being replaced at each conflict.
- Assume 1 water line conflict at each major intersection with 20 LF being replaced at each conflict.
- Per record drawings - sanitary sewer exists on both sides of West DeRenne for entire length of project. Size unknown so assume 8".
- Sanitary sewer material is unknown. DIP is the assumed replacement material for this cost opinion
-
-
-
-

PRELIMINARY DRAWING
FOR DISCUSSION ONLY

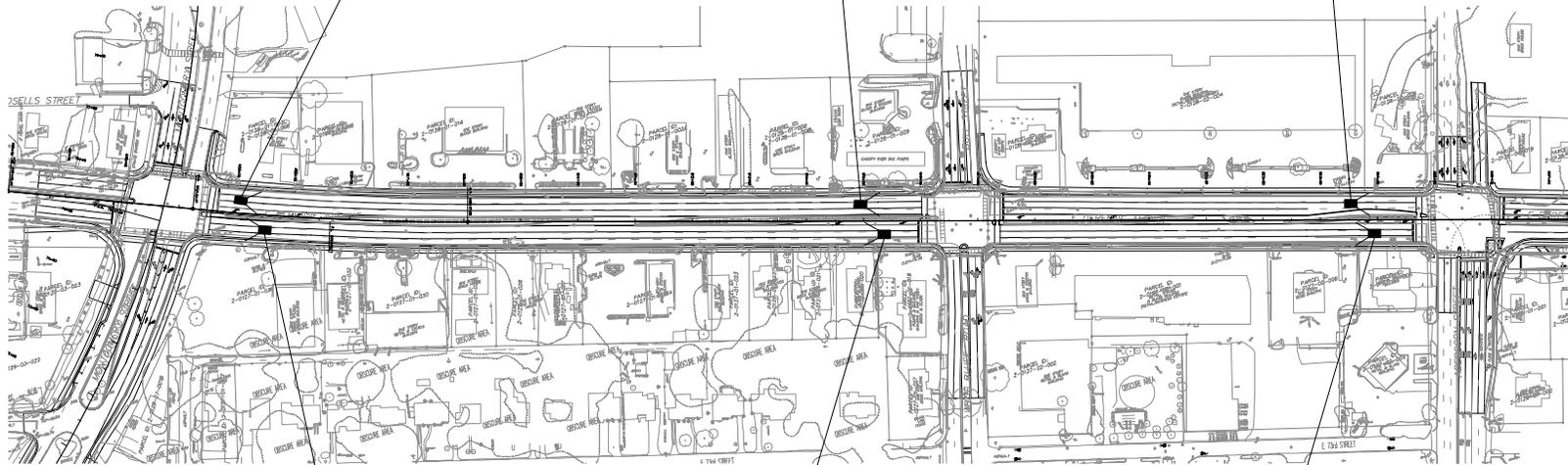
MARCH 7, 2014



GRAPHIC SCALE IN FEET
0 50 100 200

UTILITY IMPACT ASSUMPTIONS:

1. WEST DERENNE PROJECT LENGTH: ~2,750 LF
2. GENERAL DESIGN INTENT FOR WEST DERENNE IS TO MAINTAIN EXISTING ROAD LOCATION AND MINIMIZE UTILITY IMPACTS WHERE POSSIBLE.
3. PER RECORD DRAWINGS - WATER LINE SIZE ALONG WEST DERENNE IS 12" ON NORTH SIDE AND 2" ON SOUTH SIDE OF ROAD.
4. PER RECORD DRAWINGS - AVG WATER LINE SIZE FOR CROSSINGS AT INTERSECTIONS IS 8"
5. WATER LINE MATERIAL IS UNKNOWN. DIP IS THE ASSUMED REPLACEMENT MATERIAL FOR THIS COST OPINION.
6. ASSUME 1 WATER LINE CONFLICT EACH 1000 LF ALONG THE PROJECT WITH 20 LF BEING REPLACED AT EACH CONFLICT.
7. ASSUME 1 WATER LINE CONFLICT AT EACH MAJOR INTERSECTION WITH 20 LF BEING REPLACED AT EACH CONFLICT.
8. PER RECORD DRAWINGS - SANITARY SEWER EXISTS ON BOTH SIDES OF WEST DERENNE FOR ENTIRE LENGTH OF PROJECT. SIZE UNKNOWN SO ASSUME 8".
9. SANITARY SEWER MATERIAL IS UNKNOWN. DIP IS THE ASSUMED REPLACEMENT MATERIAL FOR THIS COST OPINION.

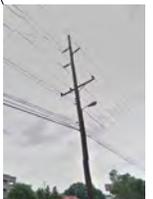
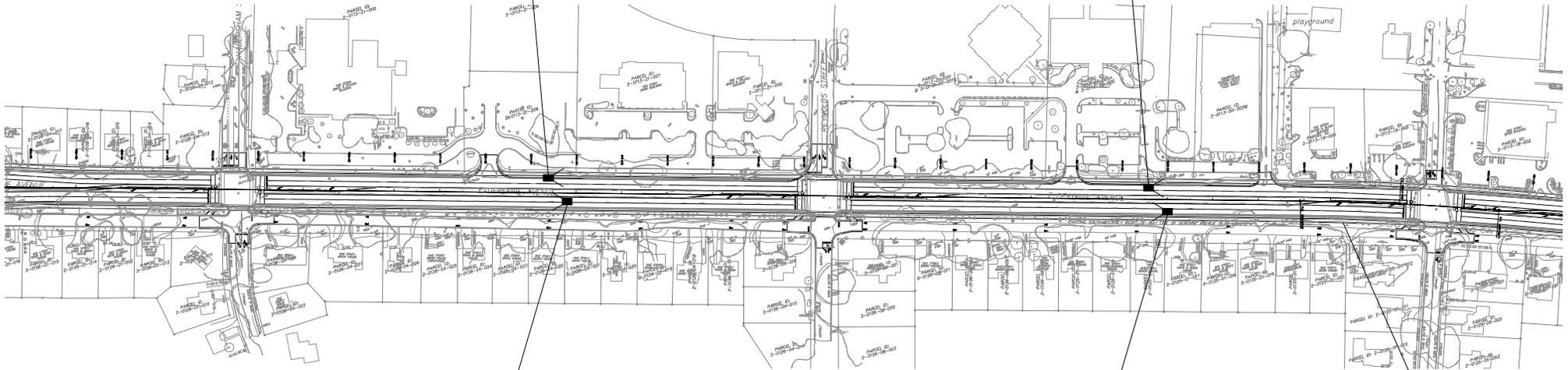
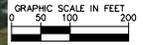


WEST DERENNE
UTILITY COST ASSUMPTIONS

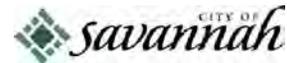


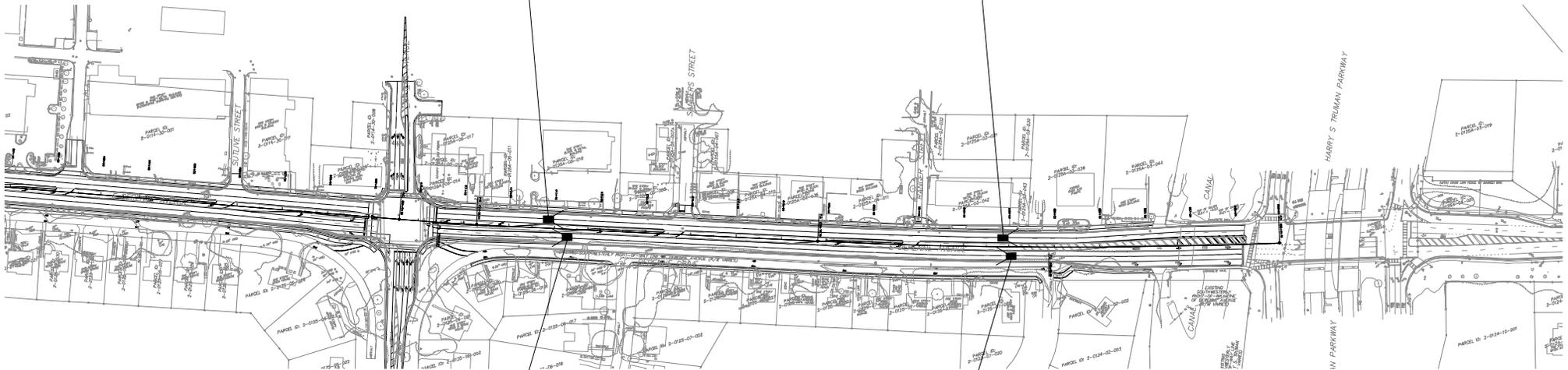
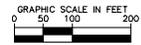
UTILITY IMPACT ASSUMPTIONS:

1. EAST DERENNE PROJECT LENGTH: ~6,050 LF
2. GENERAL DESIGN INTENT FOR WEST DERENNE IS TO MAINTAIN EXISTING ROAD LOCATION AND MINIMIZE UTILITY IMPACTS WHERE POSSIBLE.
3. PER RECORD DRAWINGS - AVG WATER LINE SIZE ALONG E DERENNE IS 10" AND IS LOCATED ON NORTH SIDE OF ROAD.
4. PER RECORD DRAWINGS - AVG WATER LINE SIZE FOR CROSSINGS AT INTERSECTIONS IS 8"
5. WATER LINE MATERIAL IS UNKNOWN. DIP IS THE ASSUMED REPLACEMENT MATERIAL FOR THIS COST OPINION.
6. ASSUME 1 WATER LINE CONFLICT EACH 1000 LF ALONG THE PROJECT (6) WITH 20 LF BEING REPLACED AT EACH CONFLICT.
7. ASSUME 1 WATER LINE CONFLICT AT EACH MAJOR INTERSECTION (4) WITH 20 LF BEING REPLACED AT EACH CONFLICT.
8. PER RECORD DRAWINGS - AVG 8" SANITARY SEWER EXISTS FOR APPROX. 1/3 OF THE PROJECT LENGTH.
9. SANITARY SEWER MATERIAL IS UNKNOWN. DIP IS THE ASSUMED REPLACEMENT MATERIAL FOR THIS COST OPINION.



EAST DERENNE
SEGMENT 1
UTILITY COST ASSUMPTIONS



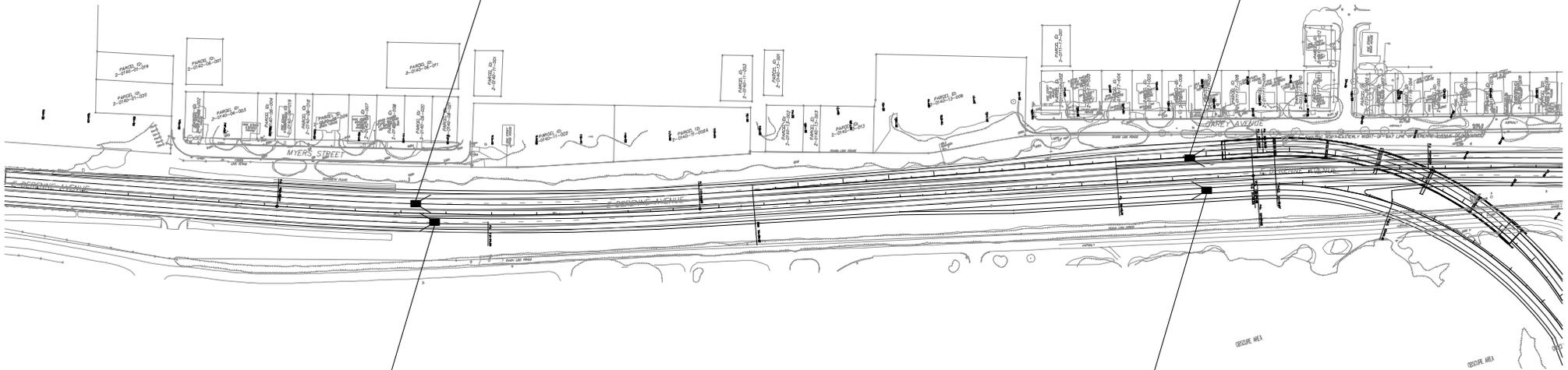
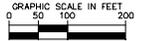


EAST DERENNE
SEGMENT 2
UTILITY COST ASSUMPTIONS



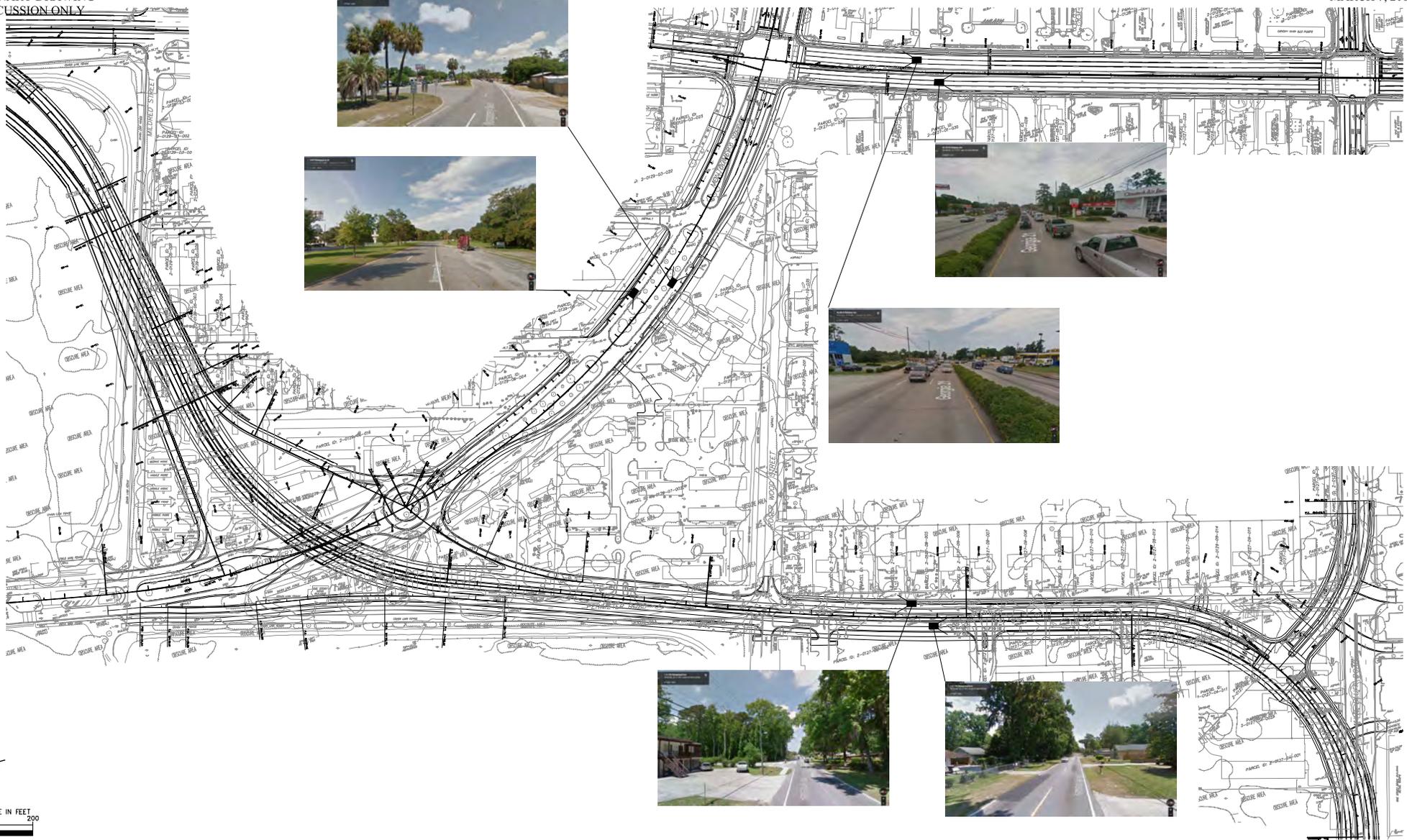
UTILITY IMPACT ASSUMPTIONS:

1. PROJECT LENGTH FOR THE CONNECTOR IS APPROXIMATELY 11200 LF. THIS LENGTH CAN BE BROKEN OUT INTO 4 DISTINCT SEGMENTS, EACH WITH UNIQUE DESIGN INTENTIONS AS INDICATED BELOW.
 - 1.A. [SEGMENT A] EXISTING DERENNE AVENUE IMPROVEMENTS - 3500 LF - GENERAL DESIGN INTENT FOR SEGMENT A IS TO MAINTAIN EXISTING ROAD LOCATION AND MINIMIZE UTILITY IMPACTS WHEN POSSIBLE.
 - 1.B. [SEGMENT B] NEW ROAD, NEW ALIGNMENT - 3000 LF - GENERAL DESIGN INTENT FOR SEGMENT B WILL BE NEW ROAD, NEW ALIGNMENT
 - 1.C. [SEGMENT C] EXISTING MONTGOMERY STREET IMPROVEMENTS - 2000 LF - GENERAL DESIGN INTENT FOR SEGMENT C IS TO MAINTAIN EXISTING ROAD LOCATION AND MINIMIZE UTILITY IMPACTS WHEN POSSIBLE.
 - 1.D. [SEGMENT D] EXISTING HAMPSTEAD AVENUE IMPROVEMENTS - 2700 LF - GENERAL DESIGN INTENT FOR SEGMENT D IS TO WIDEN ASSYMETRICALLY TO THE SOUTH.
2. POWER
 - 2.1. SEGMENTS A, B, C: ASSUME NO 3-PHASE POWER IMPACTS, BUT ASSUME 1 BASIC LIGHTING POLE PER 750 LF (APPROX. 12 POLES).
 - 2.2. SEGMENT D: ASSUME ENTIRE 3-PHASE LINE FROM ROGER WOOD TO WHITE BLUFF WILL BE RELOCATED (APPROX. 18 3-PHASE POLES).
3. ASSUME MINIMAL OR NO CLOSED STORM DRAINAGE SYSTEM FOR ALL 4 SEGMENTS.
4. WATER LINE MATERIAL IS UNKNOWN. DIP IS THE ASSUMED REPLACEMENT MATERIAL FOR THIS COST OPINION.
5. ASSUME 1 WATER LINE CONFLICT EACH 1000 LF ALONG THE PROJECT WITH 20 LF BEING REPLACED AT EACH CONFLICT.
6. ASSUME 1 WATER LINE CONFLICT AT EACH MAJOR INTERSECTION WITH 20 LF BEING REPLACED AT EACH CONFLICT.
7. SANITARY SEWER MATERIAL IS UNKNOWN. DIP IS THE ASSUMED REPLACEMENT MATERIAL FOR THIS COST OPINION.



I-516 EASTERN TERMINUS INTERCHANGE AT DERENNE
SEGMENT 1
UTILITY COST ASSUMPTIONS





I-516 EASTERN TERMINUS INTERCHANGE AT DERENNE
SEGMENT 2
UTILITY COST ASSUMPTIONS



Finklea, Brady

From: Moyer, David <dmoyer@dot.ga.gov>
Sent: Friday, October 03, 2014 9:43 AM
To: Finklea, Brady
Subject: FW: DeRenne Utility Costs

FYI

From: Scott, Teresa
Sent: Wednesday, September 24, 2014 2:50 PM
To: Moyer, David
Cc: Rozier, Dallory; Shenk, George
Subject: RE: DeRenne Utility Costs

Good afternoon David,

There is no formal process or approval needed from our office. You, the City of Savannah and the consultant may use the estimate that you all feel comfortable with. But, our office is not in agreement with the estimate you provided us to review. George and I have discussed this and believe there may be some items that were not taken into consideration. Of course, we also know that this estimate can, and will, be updated throughout the project development.

From: Moyer, David
Sent: Thursday, September 18, 2014 11:01 AM
To: Shenk, George
Cc: Scott, Teresa; Rozier, Dallory
Subject: RE: DeRenne Utility Costs

George

I believe the utilities office is in agreement with the attached cost estimate. Is there a process for this approval to be shown. A cover letter or signature approval line. For ROW we forward to Atlanta for approval. How does the Utilities office handle this?

Thank You,

From: gshenk@dot.ga.gov [<mailto:gshenk@dot.ga.gov>]
Sent: Wednesday, May 21, 2014 8:32 AM
To: Brady.Finklea@kimley-horn.com; Moyer, David
Cc: MWeiner@Savannahga.Gov; Rob.Hume@kimley-horn.com; Scott, Teresa; Rozier, Dallory; Ferguson, Allen; dennie.murphy@amec.com
Subject: RE: DeRenne Utility Costs

Brady,

It appears that you may avoided the conflicts with Georgia Power Transmission poles but even though the pole line is currently on the R/W of DeRenne be advised that back in the 60's and 70's that portion was SR 26 Loop and before it was widened the pole line may have been on an easement and that would still give GPC prior rights if their poles are impacted.

Thanks for the additional information,
George

From: Brady.Finklea@kimley-horn.com [<mailto:Brady.Finklea@kimley-horn.com>]

Sent: Thursday, May 15, 2014 8:36 PM

To: Shenk, George A.; Moyer, David

Cc: MWeiner@Savannahga.Gov; Rob.Hume@kimley-horn.com; Scott, Teresa; Rozier, Dallory; Ferguson, Allen; donnie.murphy@amec.com

Subject: RE: DeRenne Utility Costs

George,

Thank you for your comments. To help answer your questions, I have attached the typical sections for East and West DeRenne from the concept report. Also attached is a PDF of how the proposed sidewalk typically interacts with the utility poles east of Reynolds.

The Georgia Power poles on the south side of DeRenne seem to be in the area separating DeRenne Avenue from DeRenne Drive, so they should be sitting entirely within right-of-way rather than an easement. With this, would the Prior Rights be applicable here?

As shown on the typical section, we will be replacing the existing 5' sidewalk with an 8' sidewalk and 4' planting strip on the south side of DeRenne east of Reynolds. In most cases, as shown in the PDF of the concept design, this sidewalk work will be able to fit between the existing curb and gutter and the utility poles. In areas where the sidewalk will be in conflict with the utility poles, the sidewalk will shift toward DeRenne Ave, reducing the planting strip width but avoiding the utility conflict. This hasn't been drawn up in our concept as of yet, it is still the typical offsets from the back of curb right now, but as we move into preliminary design this will be addressed. The idea is to avoid these utility conflicts as much as possible given the large amount of overhead lines that they are carrying.

I hope this answers your questions. Let me know if you have any further questions.

Thanks,

Brady Finklea, PE

Kimley-Horn | 2000 South Blvd. Suite 440, Charlotte, NC 28203

Direct: 704 409 1820

From: Shenk, George A. [<mailto:gshenk@dot.ga.gov>]

Sent: Wednesday, May 14, 2014 9:23 PM

To: Finklea, Brady; Moyer, David

Cc: MWeiner@Savannahga.Gov; Hume, Rob; Scott, Teresa; Rozier, Dallory; Ferguson, Allen; Donnie Murphy

Subject: RE: DeRenne Utility Costs

Brady,

I realize that these project are still in the early concept stage.

I have reviewed your revised assumptions and it appears you have taken a great deal into consideration, the area of concern is on south side of the east DeRenne starting at Reynolds and proceeding east, this segment is where Georgia Power has a Transmission line, usually these are on an acquired easement, therefore giving them Prior Rights and therefore are fully reimbursable if they have to relocate when they are in conflict with the proposed construction, even though the line is currently on wooden poles GPC-T in the past has replaced these poles with concrete when they are required to relocate at a cost of \$125,000.00 per pole and this does not take into account any additional easements, that being said I have a few questions.

Have you developed any typical sections?

Are there any areas that there will be any work outside of the current curb and gutter, especially on the south side of DeRenne east of Reynolds?

Are the sidewalks going to be widened, especially on the south side of DeRenne east of Reynolds?

If the answers to the last 2 questions are no then the assumptions you have made appear to be in line with what our office may estimate.

One other comment and recommendation would be the project 0008358, I-516 interchange going to White Bluff, we would strongly suggest that you perform a SUE investigation.

If you have any other questions or comments please let us know.

Thanks,

George

George Shenk
AMEC
GDOT Utility Coordinator
District 5 Utility Office
912-530-4408 Office
678-580-9753 Cell

From: Brady.Finklea@kimley-horn.com [<mailto:Brady.Finklea@kimley-horn.com>]
Sent: Monday, May 12, 2014 4:39 PM
To: Moyer, David; Shenk, George A.
Cc: MWeiner@Savannahga.Gov; Rob.Hume@kimley-horn.com
Subject: RE: DeRenne Utility Costs

- Project DeRenne - Concept Utility Costs-final.pdf (6.1 MB)

Download the attachments by [clicking here](#).

David and George,

As discussed, attached via the link above is the revised utility costs for your review. The reimbursable costs have been moved to the non-reimbursable column. Let me know if you have any further questions.

Brady Finklea, PE
Kimley-Horn | 2000 South Blvd. Suite 440, Charlotte, NC 28203
Direct: 704 409 1820

From: Moyer, David [<mailto:dmoyer@dot.ga.gov>]
Sent: Monday, May 12, 2014 3:55 PM
To: Finklea, Brady
Subject: FW: DeRenne Utility Costs

FYI

From: Shenk, George A.
Sent: Monday, May 12, 2014 2:20 PM
To: Moyer, David
Cc: Scott, Teresa
Subject: FW: DeRenne Utility Costs

David,
I have been tasked with handling all project in Chatham, as Teresa now has the duties of assisting the DUE. When you have a few minutes would give me a call (cell is the best) so we can discuss your request to Teresa. There are several items that differ greatly in Teresa's estimate and the items that Kimley-Horn are assuming.
Thanks,
George

George Shenk
AMEC
GDOT Utility Coordinator
District 5 Utility Office
912-530-4408 Office
678-580-9753 Cell

From: Scott, Teresa
Sent: Thursday, May 08, 2014 2:31 PM
To: Shenk, George A.
Subject: FW: DeRenne Utility Costs

Please review and respond. I did an estimate based on worst case, so they were much higher. I've attached them for you to look at.

From: Moyer, David
Sent: Thursday, May 08, 2014 11:07 AM
To: Scott, Teresa
Subject: FW: DeRenne Utility Costs

Teresa

Can you look these estimates over and let me know if you think they are acceptable. I will submit them for updating TPRO if you think they are good.

Thank You,

From: Brady.Finklea@kimley-horn.com [<mailto:Brady.Finklea@kimley-horn.com>]
Sent: Monday, May 05, 2014 12:58 PM
To: Moyer, David
Cc: MWeiner@Savannahga.Gov; Rob.Hume@kimley-horn.com
Subject: DeRenne Utility Costs

David,

As Rob discussed with you last week in Atlanta, attached are the updated utility costs for the three DeRenne projects. We have included a summary as well as detailed calculations and assumptions (following the summary). As you know, Teresa Scott's office had developed concept-level utility costs for the 3 projects last fall. In conversation with her following her cost development, she expressed that she knew the estimates were extremely high and that she typically does not like to send out these estimates this early on in the plan development phase. As such, the City of Savannah had us develop costs using our familiarity with proposed project impacts. Let me know if you have any questions. We will plan to include these costs in the updated Concept Report.

Thanks,

Kimley»Horn

Brady Finklea, PE

Kimley-Horn | 2000 South Blvd. Suite 440, Charlotte, NC 28203

Direct: 704 409 1820

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The Georgia DOT Teens in the Driver Seat initiative is a peer-to-peer program that educates teens and parents on the dangers of distracted driving, delivers safe driving messages, and helps prevent teens from becoming a statistic. Car crashes are the number one killer of teenagers in America. Almost 6,000 teens die every year in preventable car crashes, which means a teenage driver dies every 15 minutes. Help to drive down these numbers. Visit <http://www.t-driver.com/whatyoucando/get-started/gainfo/> to get more information on teen driving; visit us at <http://www.dot.ga.gov>; or follow us on <http://www.facebook.com/GeorgiaDOT> and <http://twitter.com/gadepoftrans>.

Environmental Mitigation

8/14/2014

	Length	Height	Estimated Cost	Contingency (30%)	Total Cost	
Blvd						
Noise Wall 1	1155'	12'	\$277,163	\$83,149	\$360,312	
Noise Wall 2	1423'	12-22'	\$498,435	\$149,531	\$647,966	
Cultural Resources			\$100,000	\$30,000	\$130,000	
				Total	\$1,138,278	\$1.2M
W DeRenne						
Noise Wall 3	1302'	10-14'	\$315,044	\$94,513	\$409,557	
Cultural Resources			\$50,000	\$15,000	\$65,000	
				Total	\$474,557	\$475,000
E DeRenne						
Cultural Resources			\$50,000	\$15,000	\$65,000	
				Total	\$65,000	\$65,000

*Cultural Resources account for items such as photo documentation, landscaping and context studies

CRASH SUMMARIES

DeRenne Corridor Crash Data

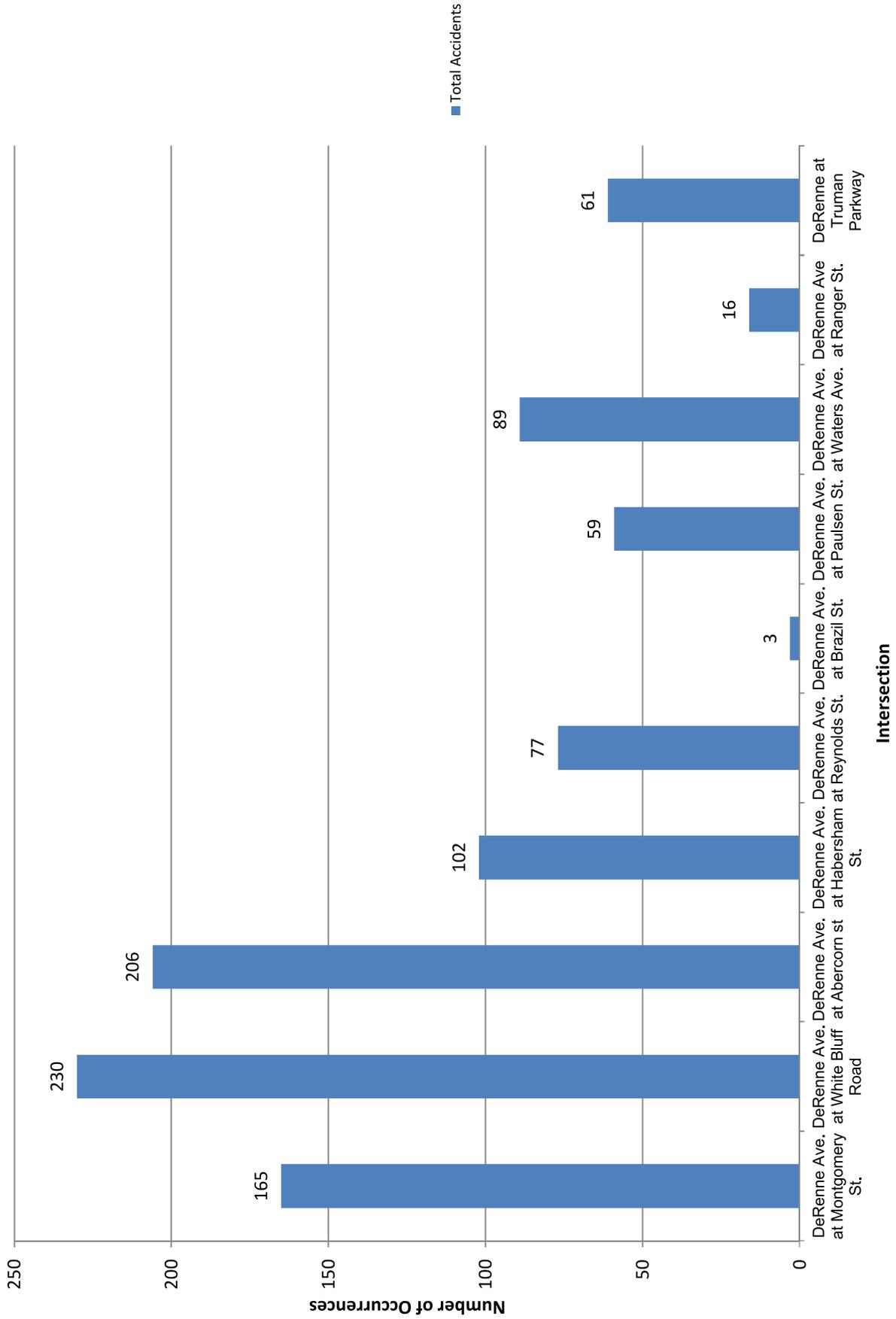


Table 1: DeRenne Avenue at Montgomery Street				
	2010	2011	2012	Total
Crashes	36	66	63	165
Fatalities	0	0	0	0
Injuries	4	3	5	12
PDO	32	63	58	153



Table 2: DeRenne Avenue at White Bluff Road				
	2010	2011	2012	Total
Crashes	71	87	72	230
Fatalities	0	0	0	0
Injuries	6	10	12	28
PDO	65	77	60	202



Table 3: DeRenne Avenue at Abercorn Street				
	2010	2011	2012	Total
Crashes	71	70	65	206
Fatalities	0	0	0	0
Injuries	6	16	6	28
PDO	65	54	59	178



Table 4: DeRenne Avenue at Habersham Street				
	2010	2011	2012	Total
Crashes	30	40	32	102
Fatalities	0	0	0	0
Injuries	3	4	5	12
PDO	27	36	27	90



Table 5: DeRenne Avenue at Reynolds Street				
	2010	2011	2012	Total
Crashes	21	31	25	77
Fatalities	0	0	0	0
Injuries	2	1	6	9
PDO	19	30	19	68



Table 6: DeRenne Avenue at Brazil Street				
	2010	2011	2012	Total
Crashes	0	3	0	3
Fatalities	0	0	0	0
Injuries	0	0	0	0
PDO	0	3	0	3



Table 7: DeRenne Avenue at Paulsen Street				
	2010	2011	2012	Total
Crashes	20	24	15	59
Fatalities	0	0	0	0
Injuries	2	2	3	7
PDO	18	22	12	52



Table 8: DeRenne Avenue at Waters Avenue				
	2010	2011	2012	Total
Crashes	21	34	34	89
Fatalities	0	0	0	0
Injuries	3	6	4	13
PDO	18	28	30	76



Table 9: DeRenne Avenue at Ranger Street				
	2010	2011	2012	Total
Crashes	1	7	8	16
Fatalities	0	0	0	0
Injuries	0	1	1	2
PDO	1	6	7	14



Table 10: DeRenne at Truman Parkway				
	2010	2011	2012	Total
Crashes	13	32	16	61
Fatalities	0	0	0	0
Injuries	1	2	2	5
PDO	12	30	14	56



Table 11: DeRenne Corridor				
	2010	2011	2012	Total
Crashes	284	394	330	1008
Fatalities	0	0	0	0
Injuries	27	45	44	116
PDO	257	349	286	892



Table 12: Hampstead Avenue at Montgomery Street				
	2010	2011	2012	Total
Crashes	1	6	3	10
Fatalities	0	0	0	0
Injuries	0	1	1	2
PDO	1	5	2	8



Table 13: Hampstead Avenue at White Bluff Road				
	2010	2011	2012	Total
Crashes	32	31	18	81
Fatalities	0	0	0	0
Injuries	3	3	1	7
PDO	29	28	17	74



Table 14: White Bluff Road at Johnston Street				
	2010	2011	2012	Total
Crashes	8	10	8	26
Fatalities	0	0	0	0
Injuries	4	3	1	8
PDO	4	7	7	18



Table 15: White Bluff Road at Stephenson Avenue				
	2010	2011	2012	Total
Crashes	12	25	19	56
Fatalities	0	0	0	0
Injuries	1	3	2	6
PDO	11	22	17	50



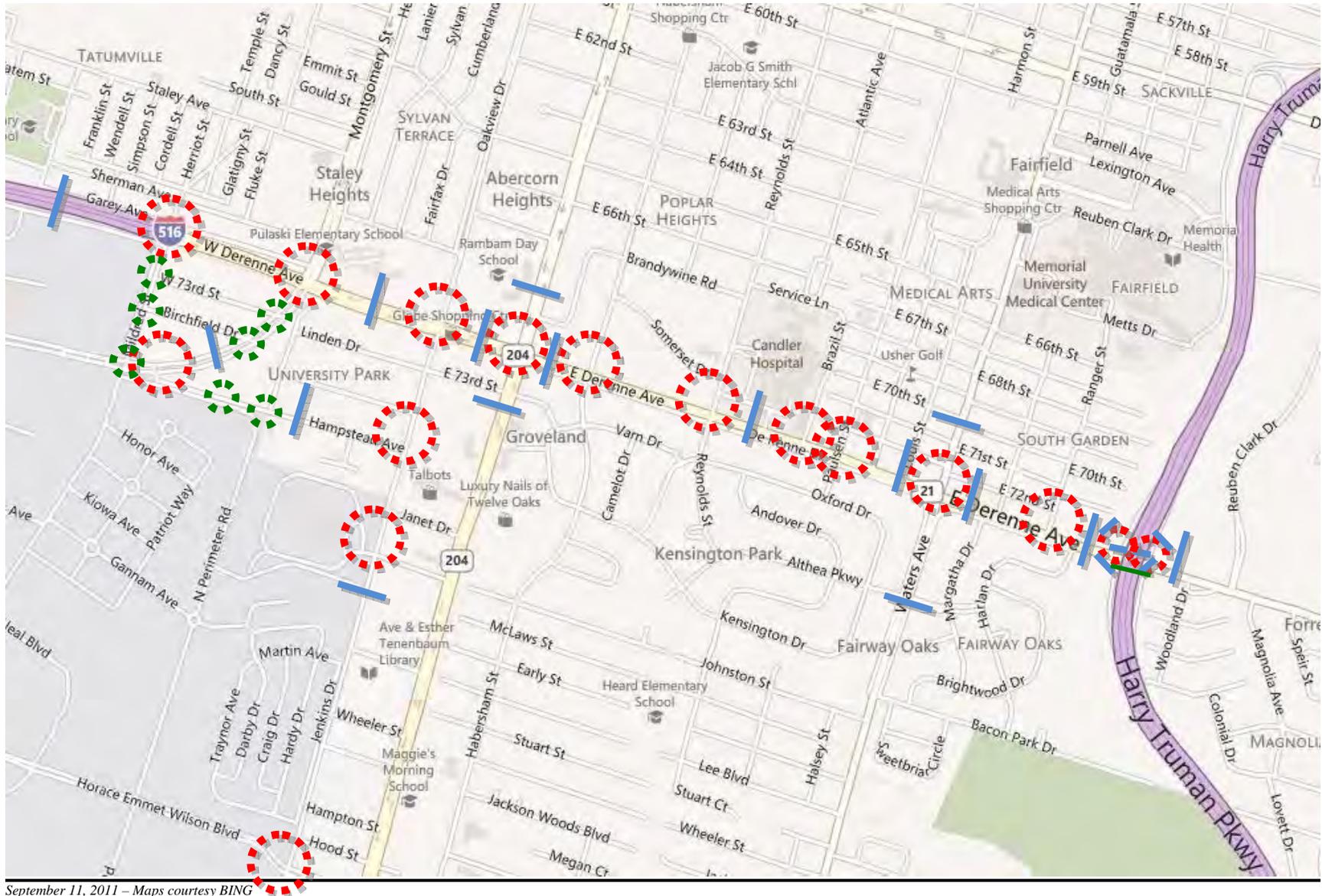
Table 16: Interstate 516 at Veterans Parkway				
	2010	2011	2012	Total
Crashes	14	28	28	70
Fatalities	0	0	0	0
Injuries	0	3	6	9
PDO	14	25	22	61



Table 17: Interstate 516 to DeRenne Avenue				
	2010	2011	2012	Total
Crashes	26	24	28	78
Fatalities	1	0	0	1
Injuries	1	0	7	8
PDO	24	24	21	69



TRAFFIC DIAGRAMS

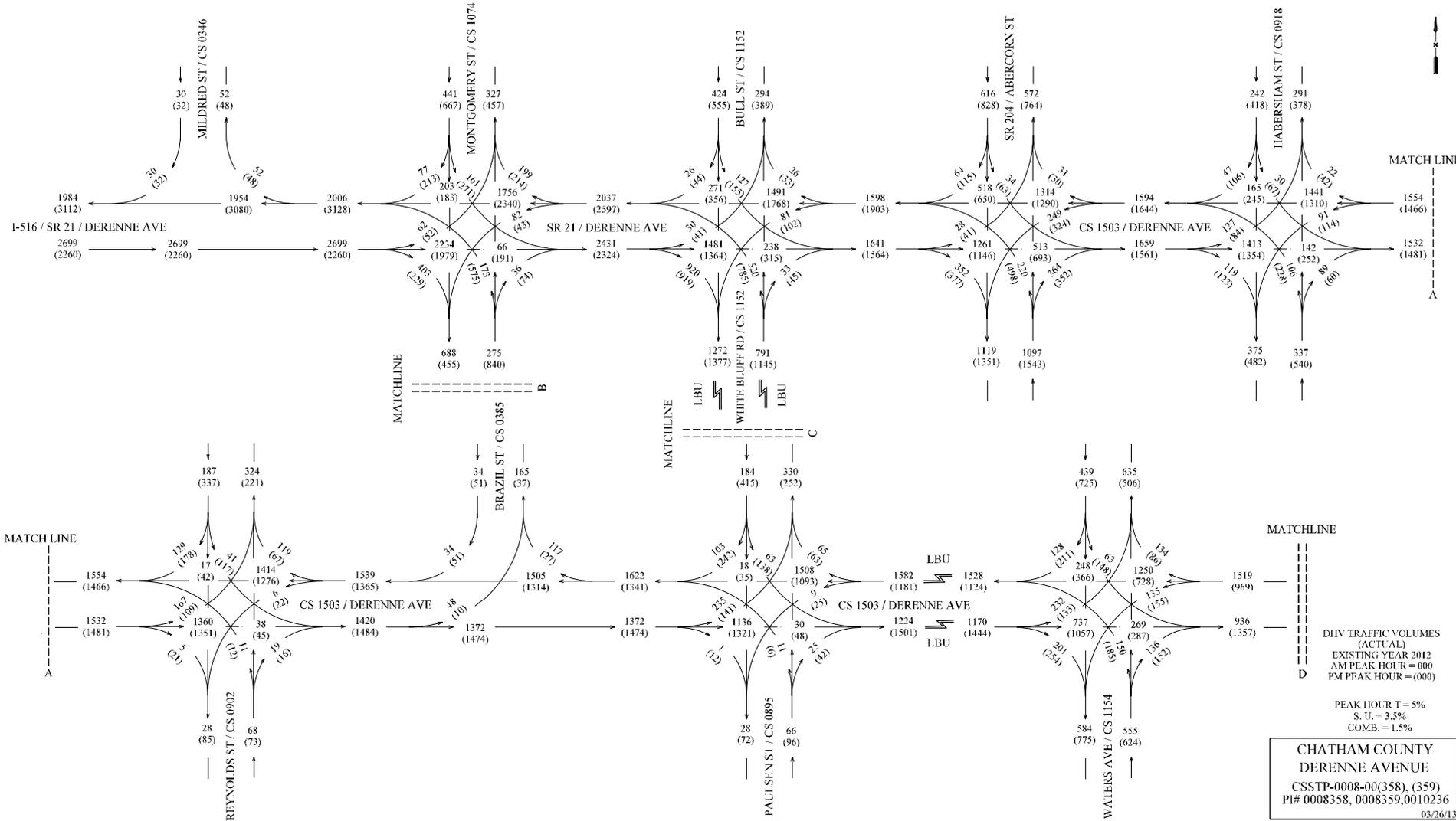


September 11, 2011 – Maps courtesy BING

Legend

-  24-hour tube count location (September 2012)
-  24-hour tube count location (January 2013)
-  Peak-hour turning movement count location (September 2012)
-  Peak-hour turning movement count location (January 2013)





DIV TRAFFIC VOLUMES
 (ACTUAL)
 EXISTING YEAR 2012
 AM PEAK HOUR = (000)
 PM PEAK HOUR = (000)

PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 03/26/13

Kimley-Horn
and Associates, Inc.
 2700 South Piedmont
 Chatham, North Carolina 28520
 (704) 333-5131

REVISION DATES

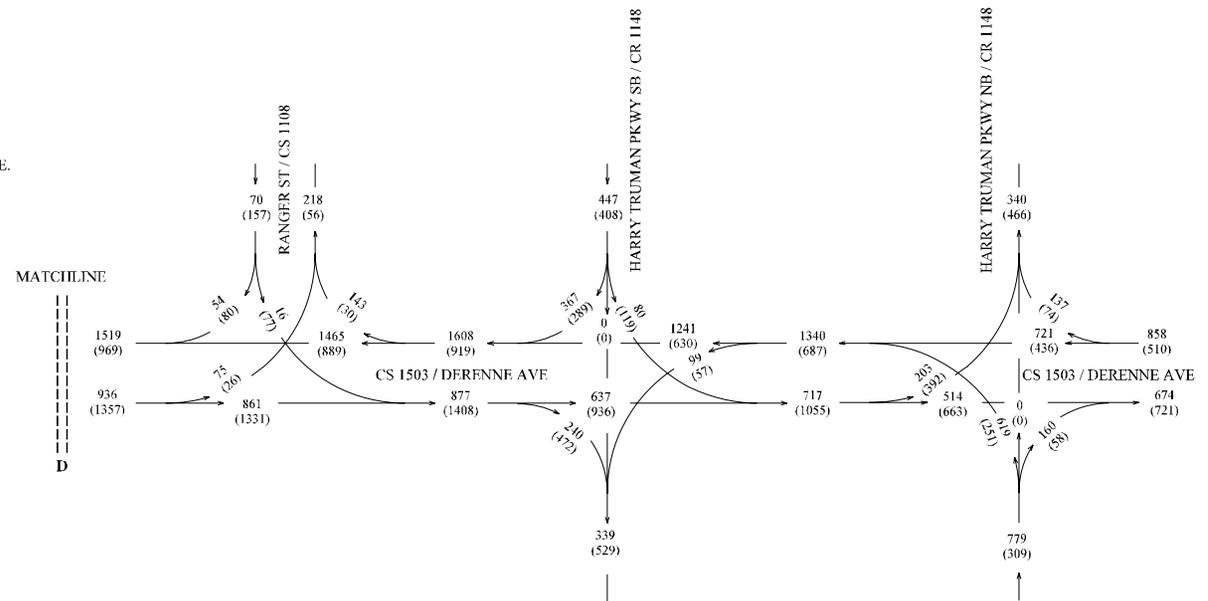
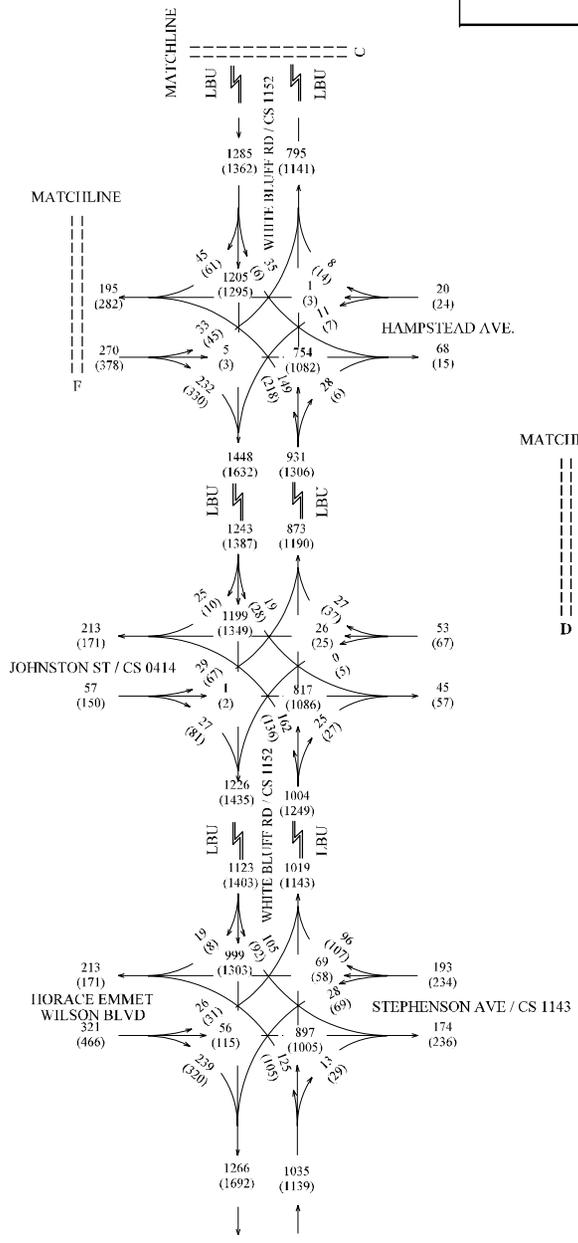
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION

OFFICE: PROGRAM DELIVERY

DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S. TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

EXISTING (2012) DIV ACTUAL
 SHEET 1 OF 3

DRAWING No.
1-1



DHV TRAFFIC VOLUMES
 (ACTUAL)
 EXISTING YEAR 2012
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)

PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
 CSSTP-0008-00(358), (359)
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**Kimley Horn
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 2810 South Blvd, Suite 440
 Charlotte, North Carolina 28203
 (704) 333-5191

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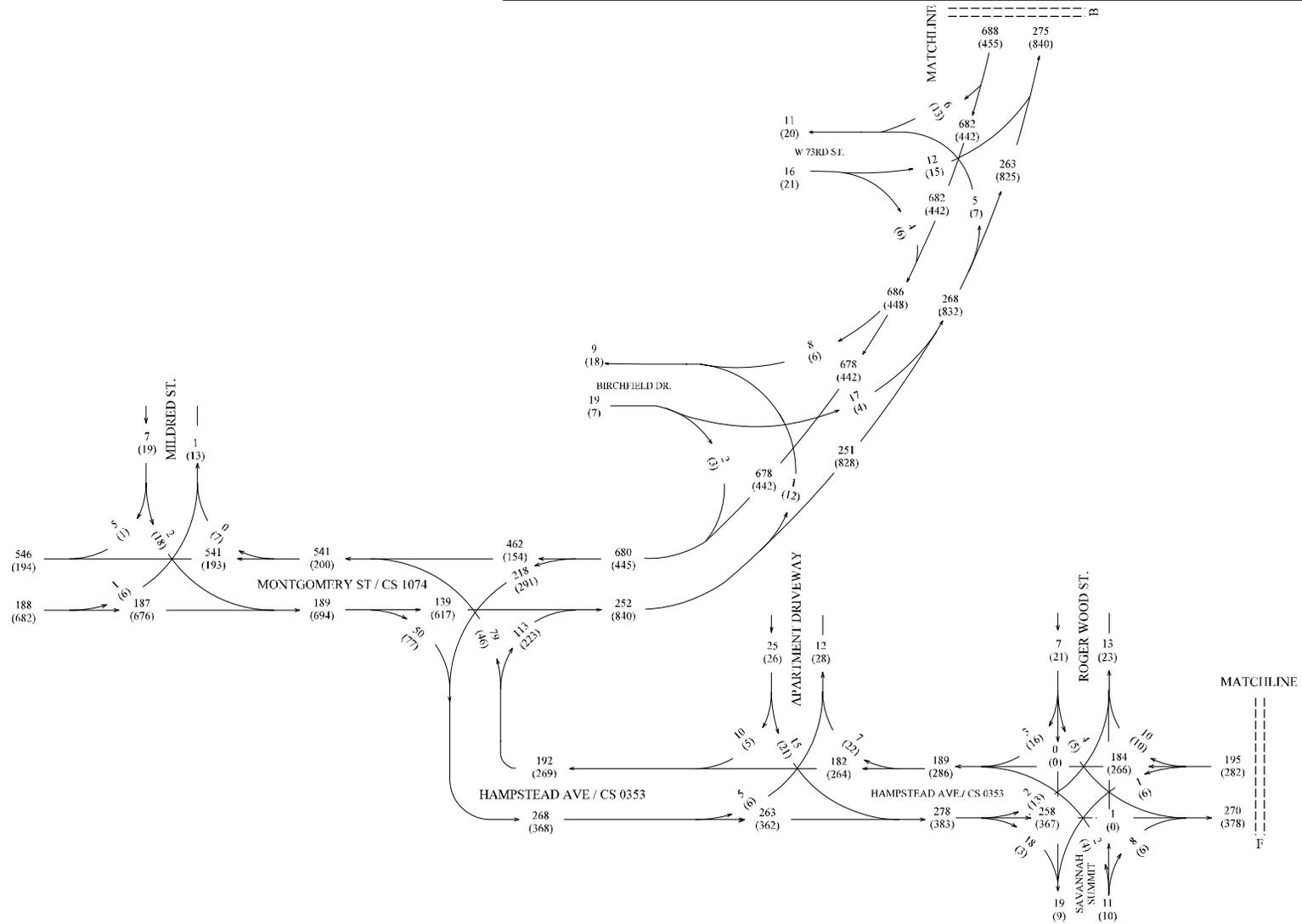
STATE OF GEORGIA
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OFFICE: PROGRAM DELIVERY

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 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

EXISTING (2012) DHV ACTUAL
 SHEET 2 OF 3

DRAWING No.
1-2



DIV TRAFFIC VOLUMES
(ACTUAL)
EXISTING YEAR 2012
AM PEAK HOUR = 000
PM PEAK HOUR = (000)

PEAK HOUR T = 5%
S. U. = 3.5%
COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
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3.26.13

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DEPARTMENT OF TRANSPORTATION

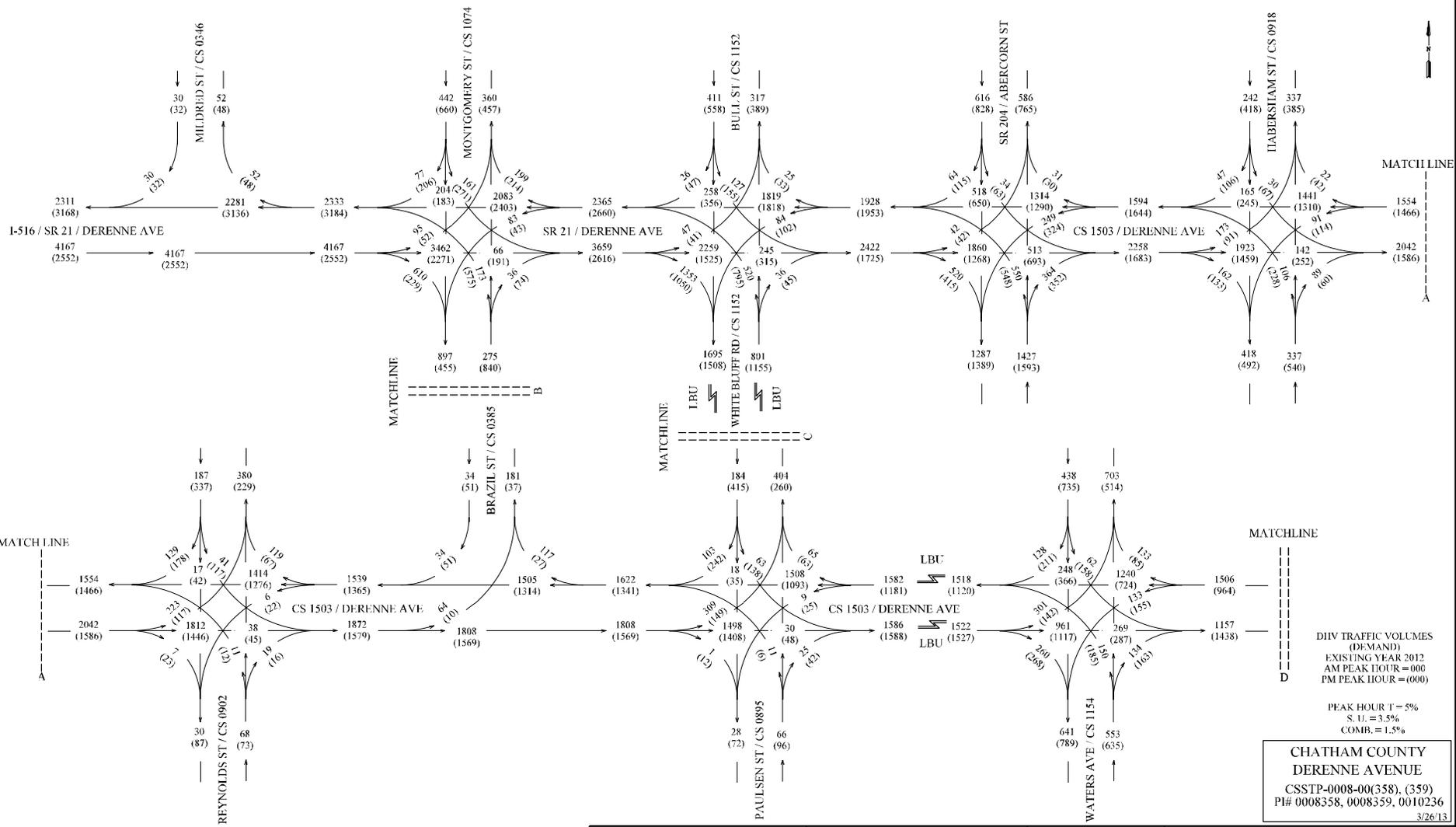
OFFICE: PROGRAM DELIVERY

DERENNE AVE (SR 21)
SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

EXISTING (2012) DHV ACTUAL

SHEET 3 OF 3

DRAWING NO.
1-3



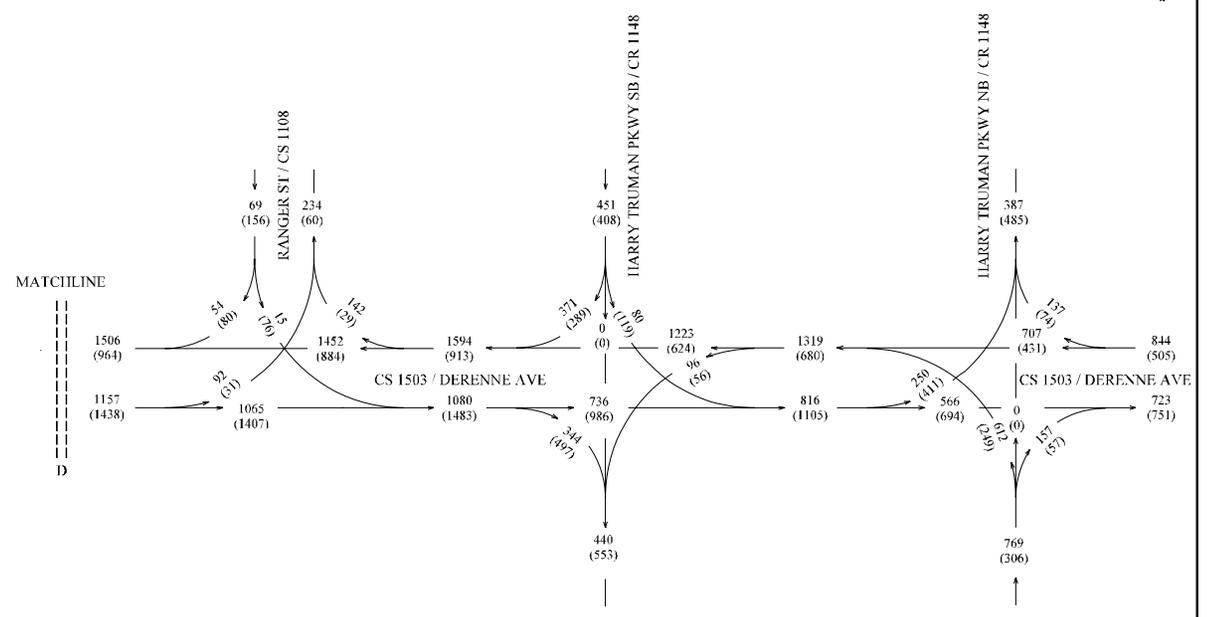
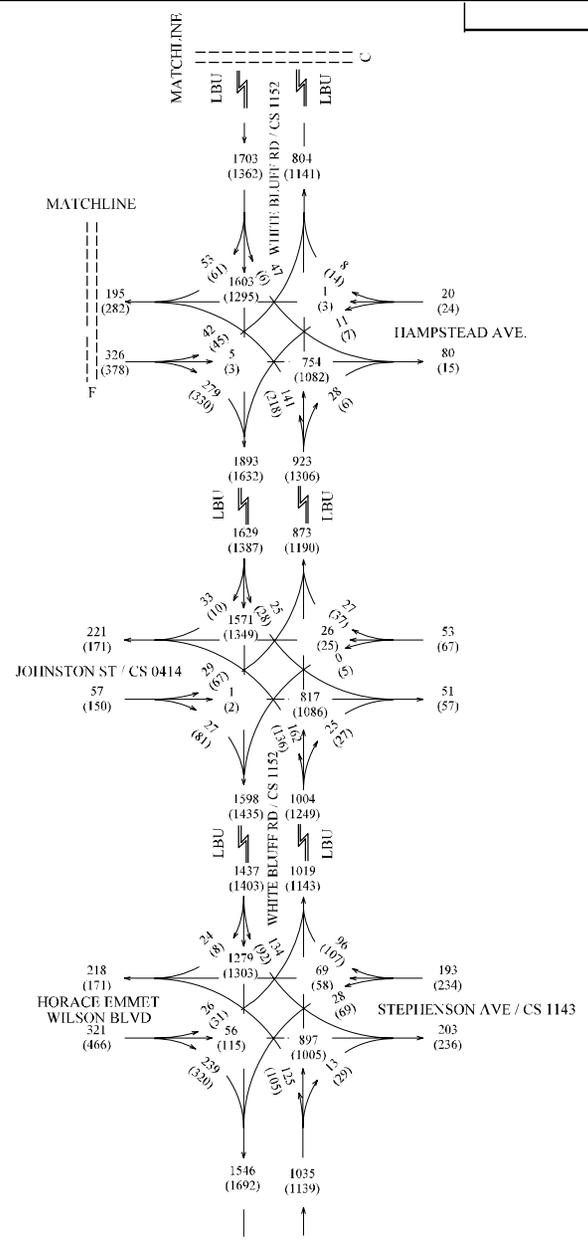
DHV TRAFFIC VOLUMES
(DEMAND)
EXISTING YEAR 2012
AM PEAK HOUR = 000
PM PEAK HOUR = (000)

PEAK HOUR T = 5%
S.L. = 3.5%
COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
PI# 0008358, 0008359, 0010236
3/26/13

<p>Kimley-Horn and Associates, Inc. 5000 South Blvd, Suite 440 Charlotte, North Carolina 28203 (704) 333-9131</p>	<p>REVISION DATES</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>													<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION PROGRAM DELIVERY</p> <p>OFFICE: DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143</p> <p>EXISTING (2012) DHV DEMAND SHEET 1 OF 3</p>	<p>DRAWING No. 1-4</p>

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



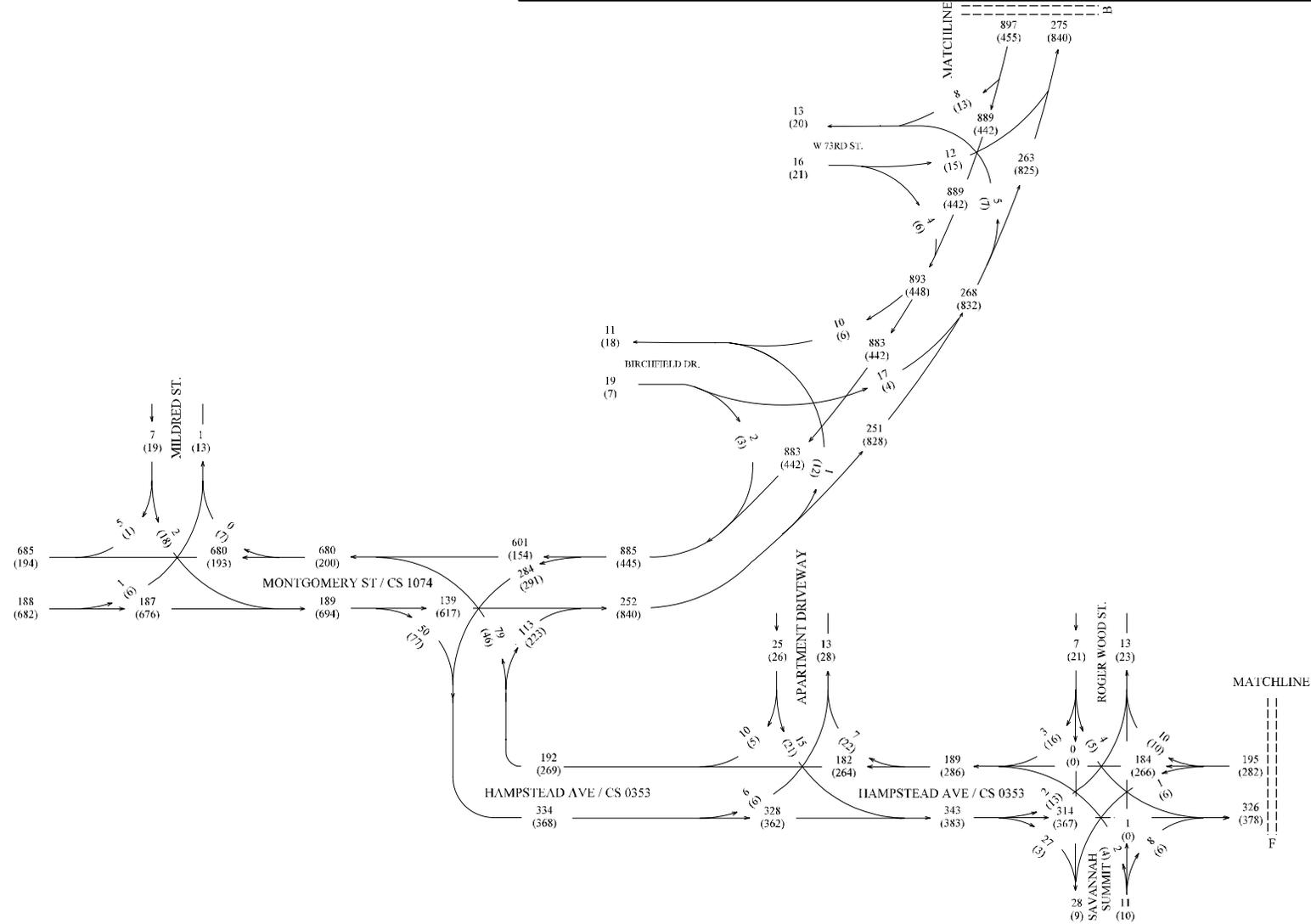
DHV TRAFFIC VOLUMES
(DEMAND)
EXISTING YEAR 2012
AM PEAK HOUR = 000
PM PEAK HOUR = (000)

PEAK HOUR T = 5%
S.U. = 3.5%
COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
PI# 0008358, 0008359, 0010236
3/26/13

<p>Kimley Horn and Associates, Inc. 2000 South Blvd, Suite 410 Chapel Hill, North Carolina 27603 704.333-5131</p>	<p>REVISION DATES</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table>																			<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION</p> <p>OFFICE: PROGRAM DELIVERY</p> <p>DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143</p> <p>EXISTING (2012) DHV DEMAND SHEET 2 OF 3</p>	<p>DRAWING NO. 1-5</p>

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		

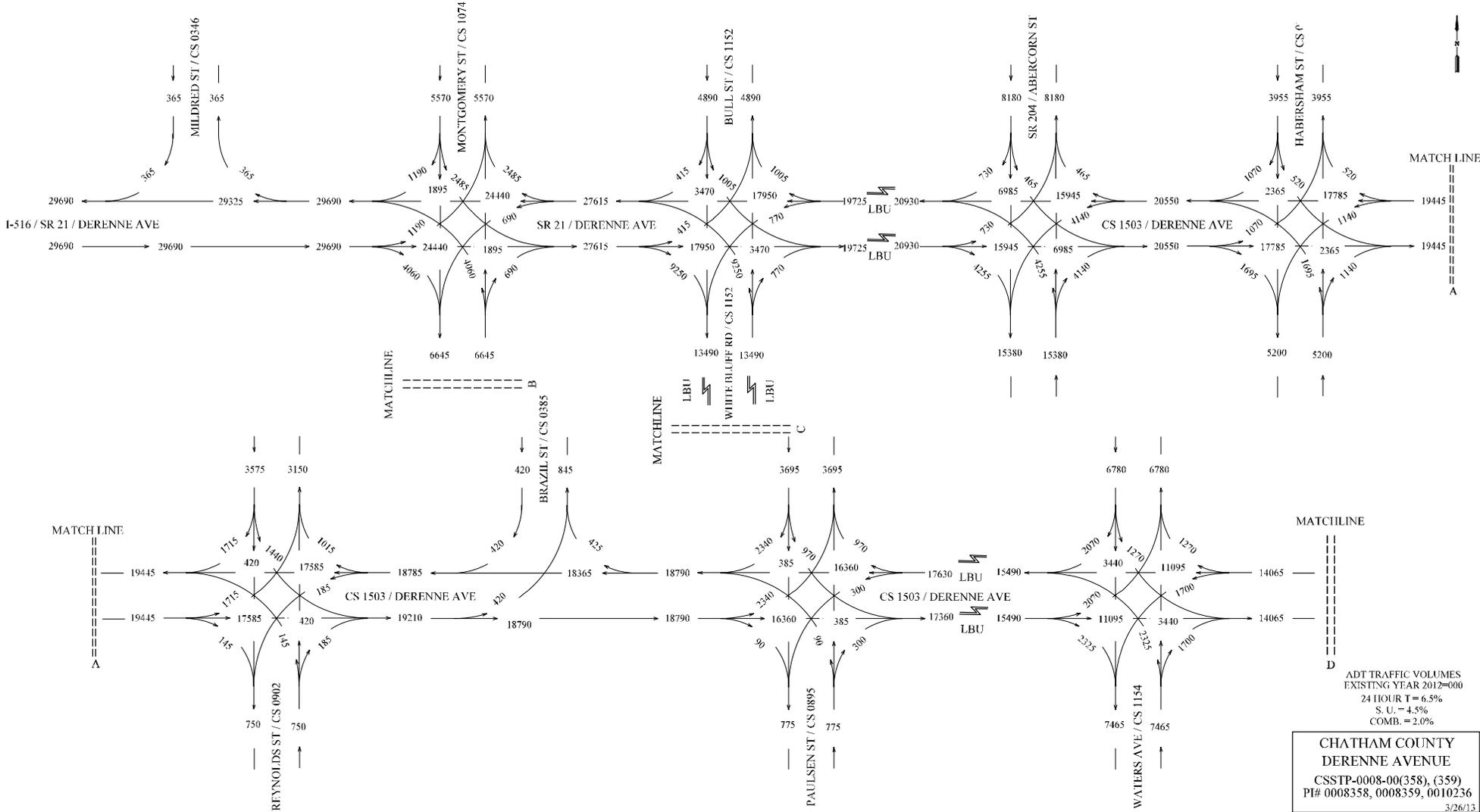


DHV TRAFFIC VOLUMES
(DEMAND)
EXISTING YEAR 2012
AM PEAK HOUR = 000
PM PEAK HOUR = 0000

PEAK HOUR T = 5%
S. U. = 3.5%
COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
PI# 0008358, 0008359, 0010236
3/26/13

<p>Kimley-Horn and Associates, Inc. 2000 South Blvd, Suite 440 Charlotte, North Carolina 28203 (704) 333-5131</p>	<p>REVISION DATES</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table>																<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION</p> <p>OFFICE: PROGRAM DELIVERY</p> <p>DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S. TRUMAN PKWY (CR 1148) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143</p> <p>EXISTING (2012) DHV DEMAND SHEET 3 OF 3</p>	<p>DRAWING NO. 1-6</p>



ADT TRAFFIC VOLUMES
 EXISTING YEAR 2012=000
 24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

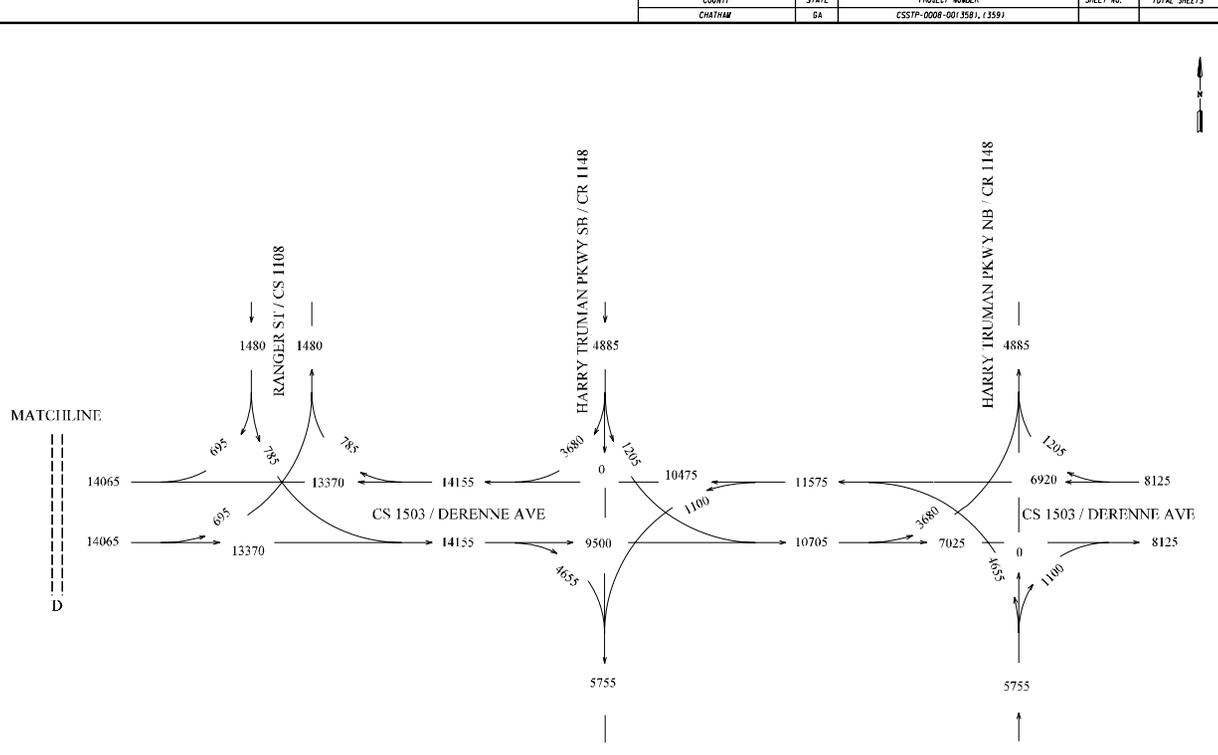
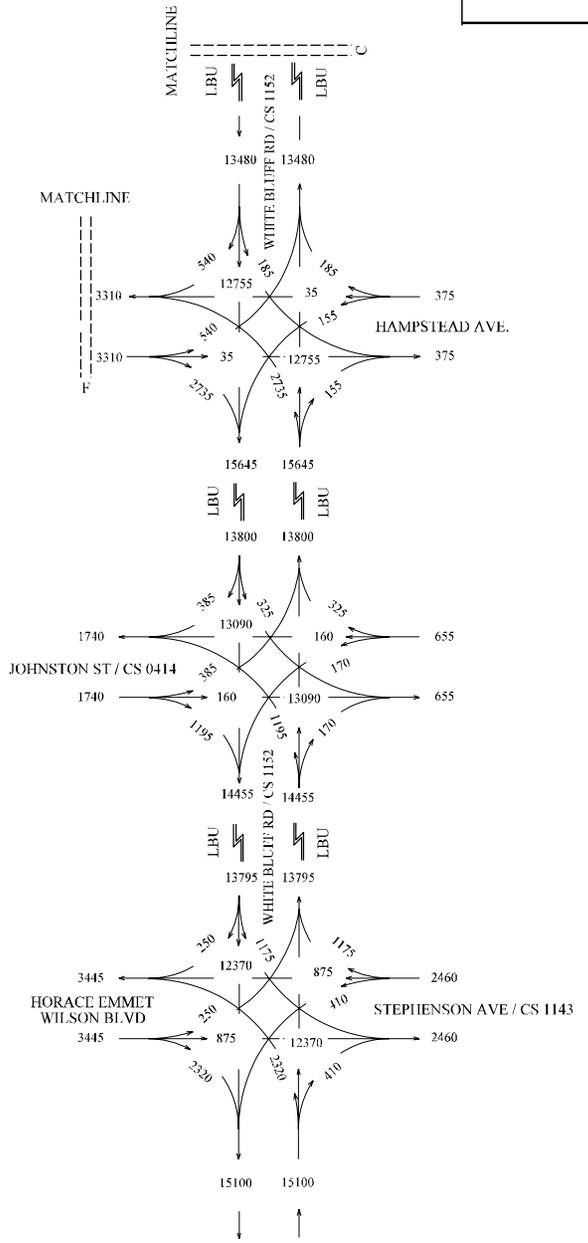
CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

Kimley-Horn and Associates, Inc.
 2500 South Blue Sky - 440
 Charlotte, North Carolina 28213
 (704) 333-5131

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S. TRUMAN PKWY (CR 114B)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 EXISTING (2012) ADT
 SHEET 1 OF 3

DRAWING No.
 1-7



ADT TRAFFIC VOLUMES
 EXISTING YEAR 2012=000
 24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

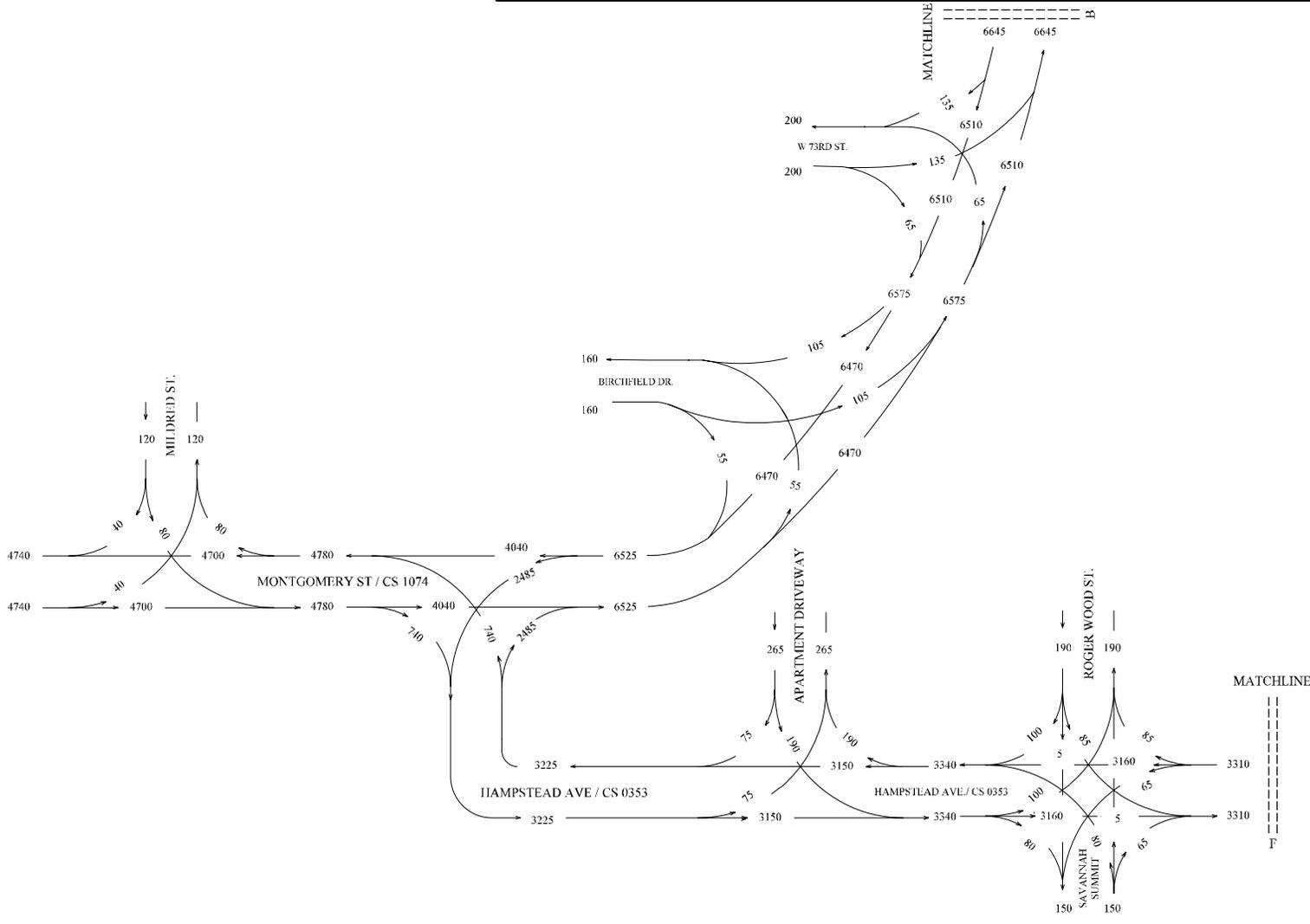
CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

Kimley Horn and Associates, Inc.
 2020 South Blvd, Suite 440
 Charlotte, North Carolina 28203
 (704) 333-9191

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 EXISTING (2012) ADT
 SHEET 2 OF 3

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



ADT TRAFFIC VOLUMES
 EXISTING YEAR 2012-000
 24 HOUR T=6.5%
 S.U.=4.5%
 COMB.=2.0%

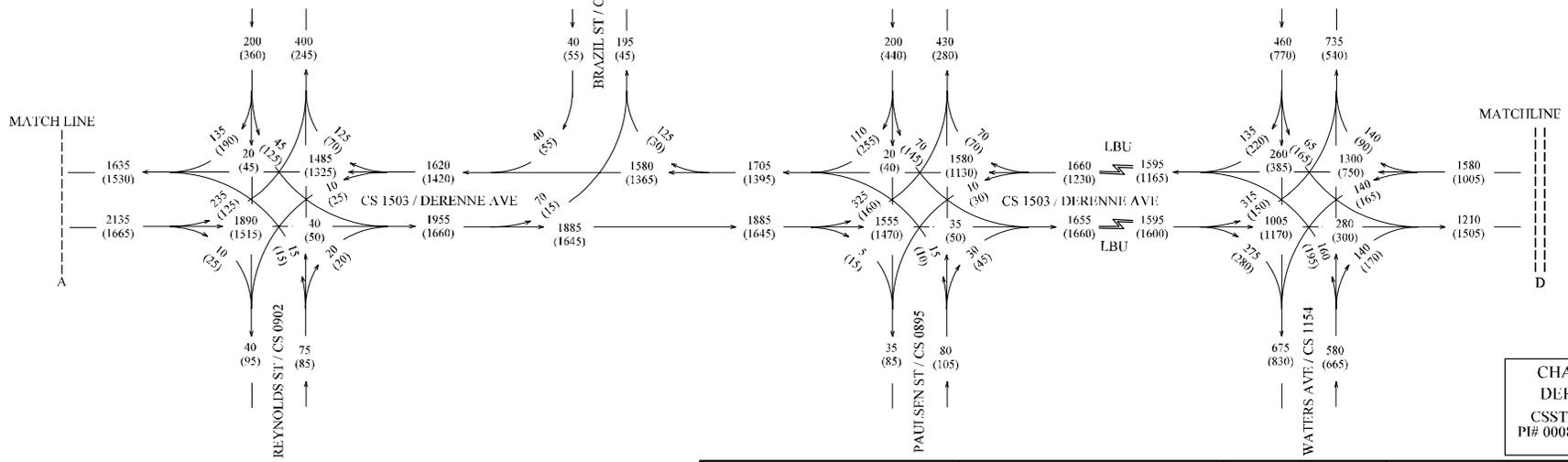
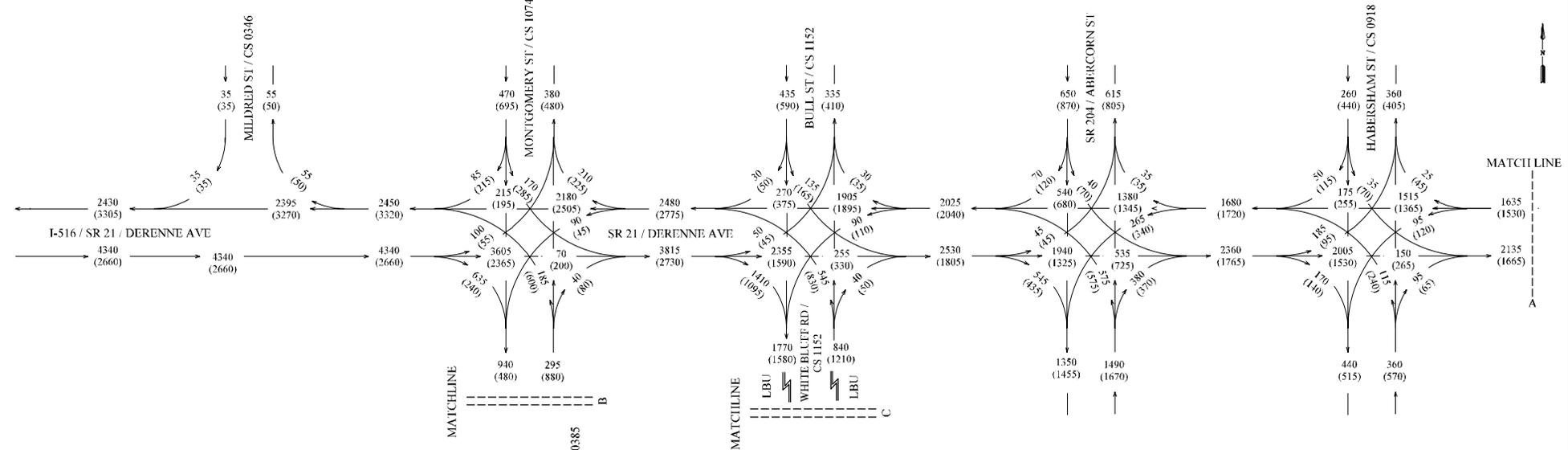
CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

**Kimley-Horn
and Associates, Inc.**
 2000 South Blvd, Suite 440
 Charlotte, North Carolina 28208
 (704) 333-1111

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 EXISTING (2012) AD1
 SHEET 3 OF 3

DRAWING No.
1-9



CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
PI# 0008358, 0008359, 0010236
3/26/13

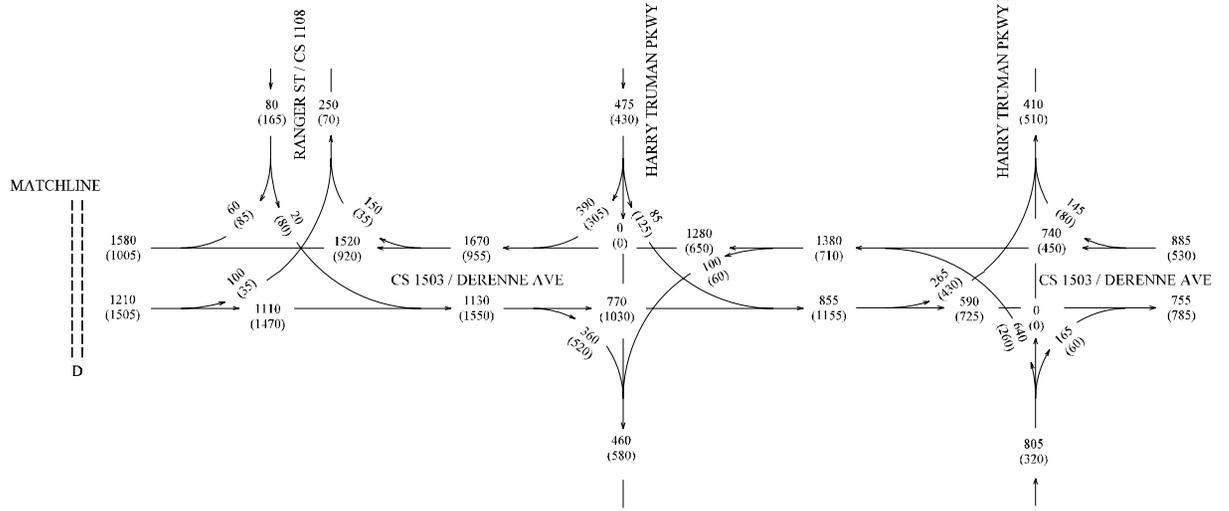
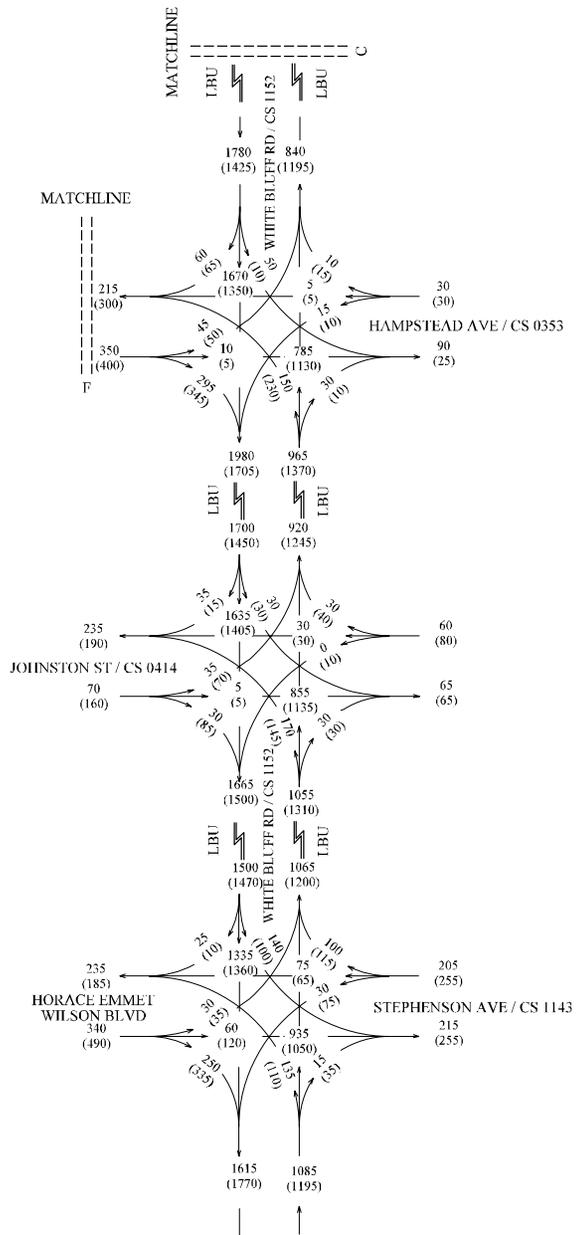
DHV TRAFFIC VOLUMES
BASE YEAR 2020
NO BUILD
AM PEAK HOUR = 000
PM PEAK HOUR = 000
PEAK HOUR τ = 5%
S. U. = 3.5%
COMB. = 1.5%



REVISION	DATE	DESCRIPTION

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
OFFICE:	PROGRAM DELIVERY
DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S TROWAN PKWY (CR 114B) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143	
BASE (2020) NO BUILD DHV	DRAWING No.
SHEET 1 OF 3	2-1

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



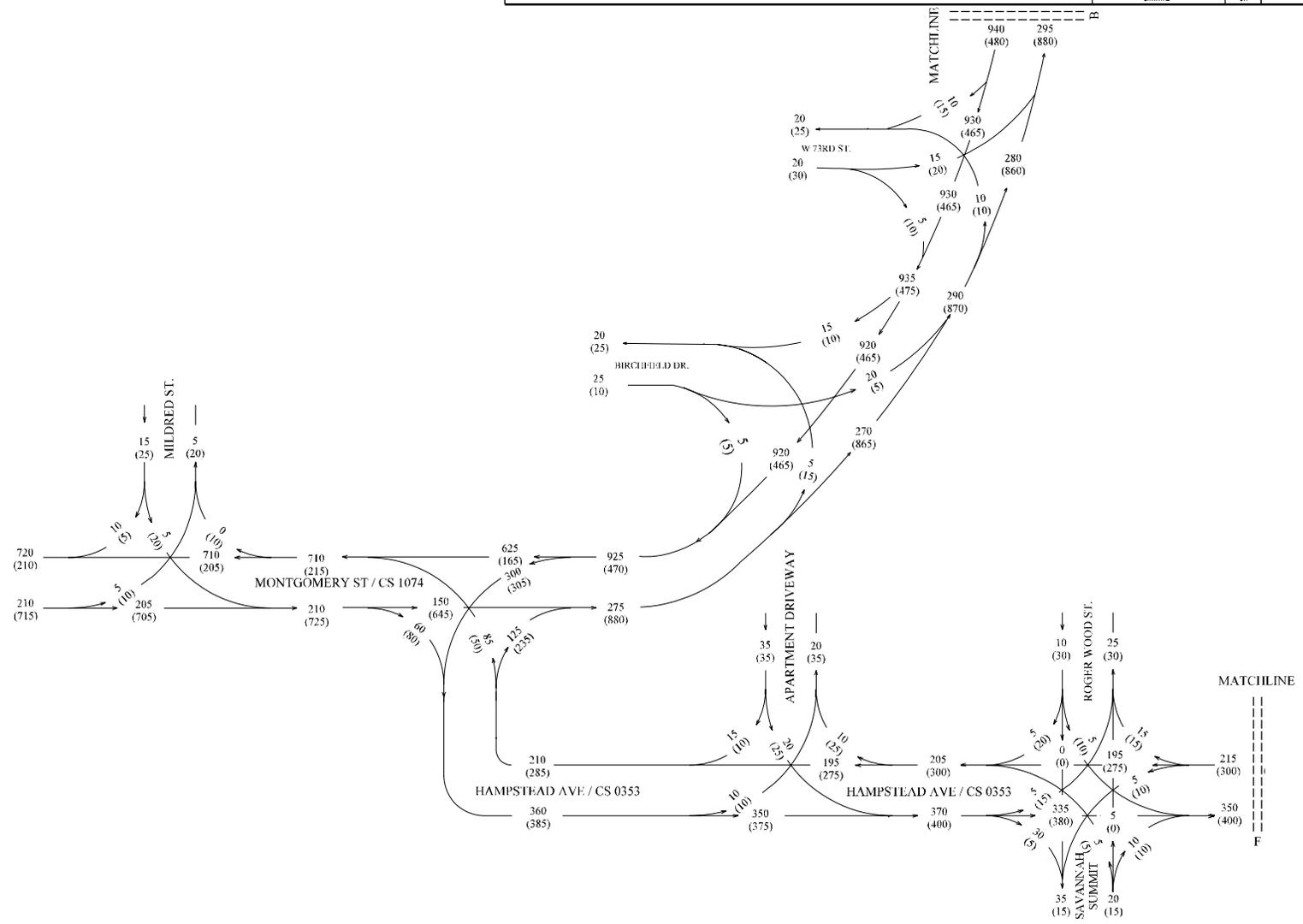
DHV TRAFFIC VOLUMES
 BASE YEAR 2020
 NO BUILD
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)

PEAK HOUR T = 5%
 S, U = 3.5%
 COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

**Kimley Horn
and Associates, Inc.**
 2000 South Blvd, Suite 440
 Charlotte, North Carolina 28203
 (704) 383-2101

REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
		OFFICE: PROGRAM DELIVERY	
		DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143	
		BASE (2020) NO BUILD DHV	
		SHEET 2 OF 3	
		DRAWING No. 2-2	



DHV TRAFFIC VOLUMES
 BASE YEAR 2020
 NO BUILD
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)

PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSIP-0008-00(358), (359)
 PI# 0008358, 008359, 0010236
 3/26/13

Kimley-Horn and Associates, Inc.
 2900 South Blvd, Suite 440
 Charlotte, North Carolina 28203
 (704) 383-9101

REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION

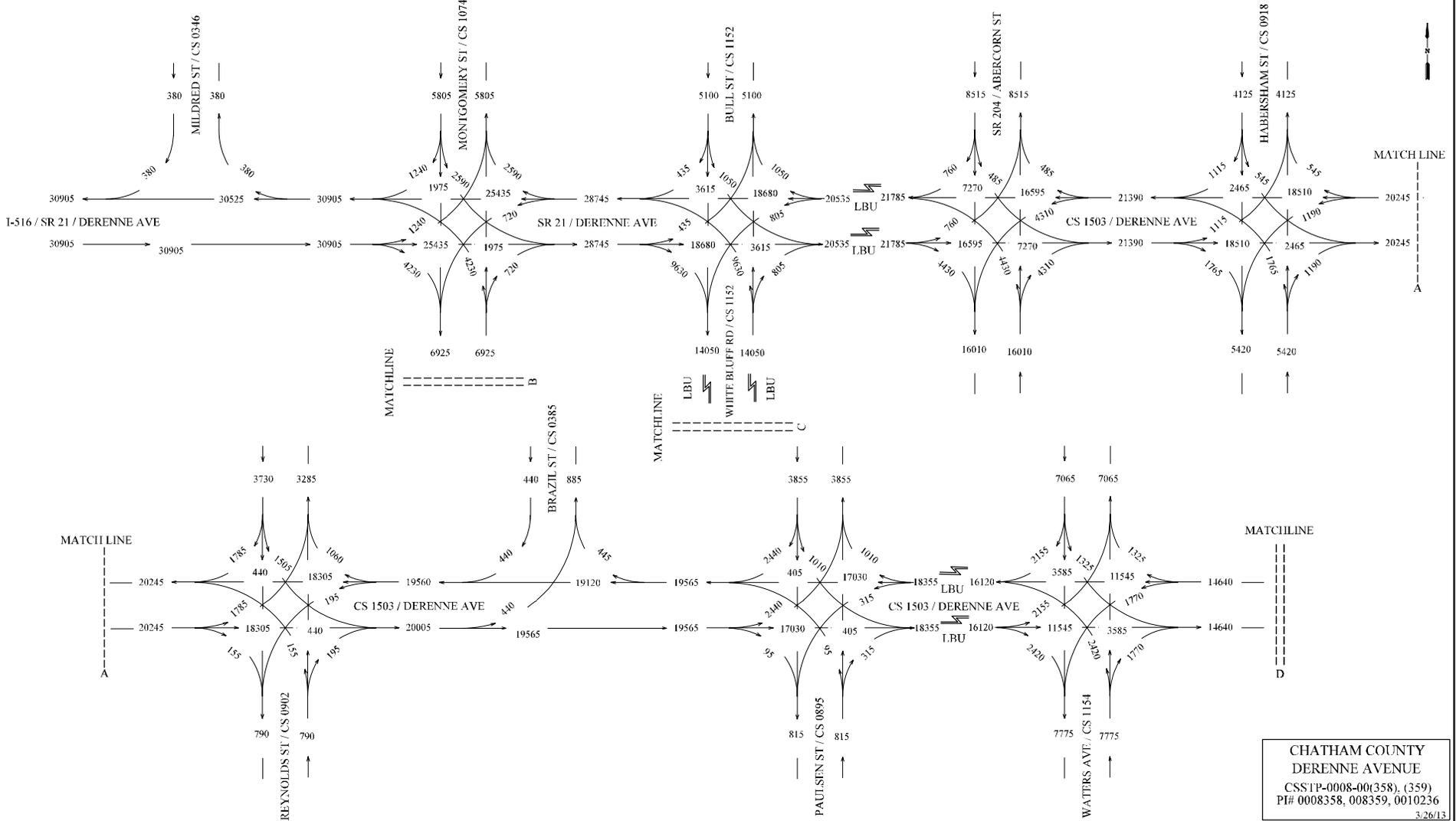
OFFICE: PROGRAM DELIVERY

DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

BASE (2020) NO BUILD DHV
 SHEET 3 OF 3

DRAWING No.
 2-3

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), 1,359(1)		



ADT TRAFFIC VOLUMES
 BASE YEAR 2020
 NO BUILD = 000

24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

Kimley-Horn and Associates, Inc.
 2000 South Blvd, Suite 110
 Charlotte, North Carolina 28203
 (704) 333-9131

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION

OFFICE: PROGRAM DELIVERY

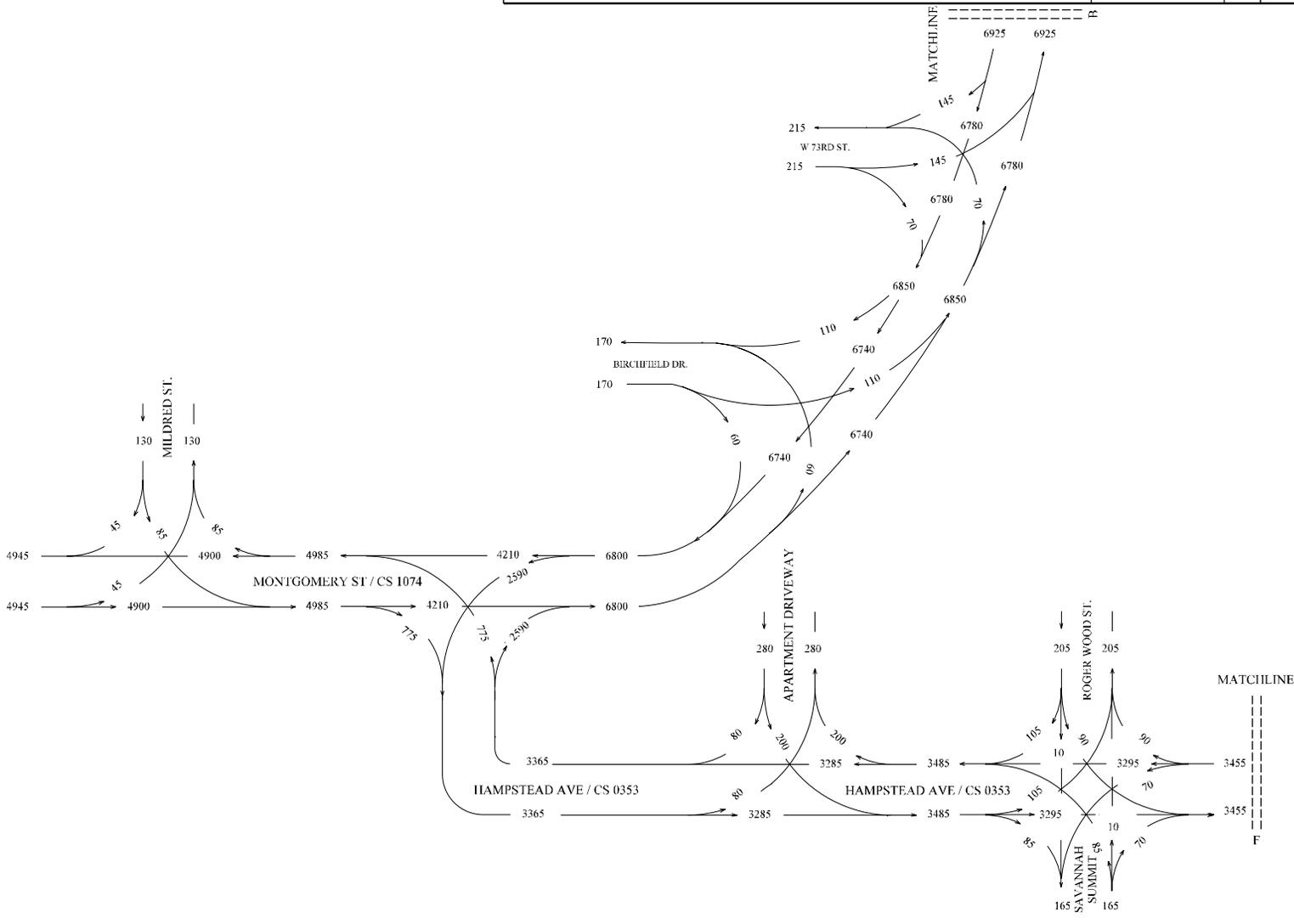
DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S. TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

BASE (2020) NO BUILD ADT
 SHEET 1 OF 3

DRAWING NO.
2-4

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 P# 0008358, 008359, 0010236
 3/26/13

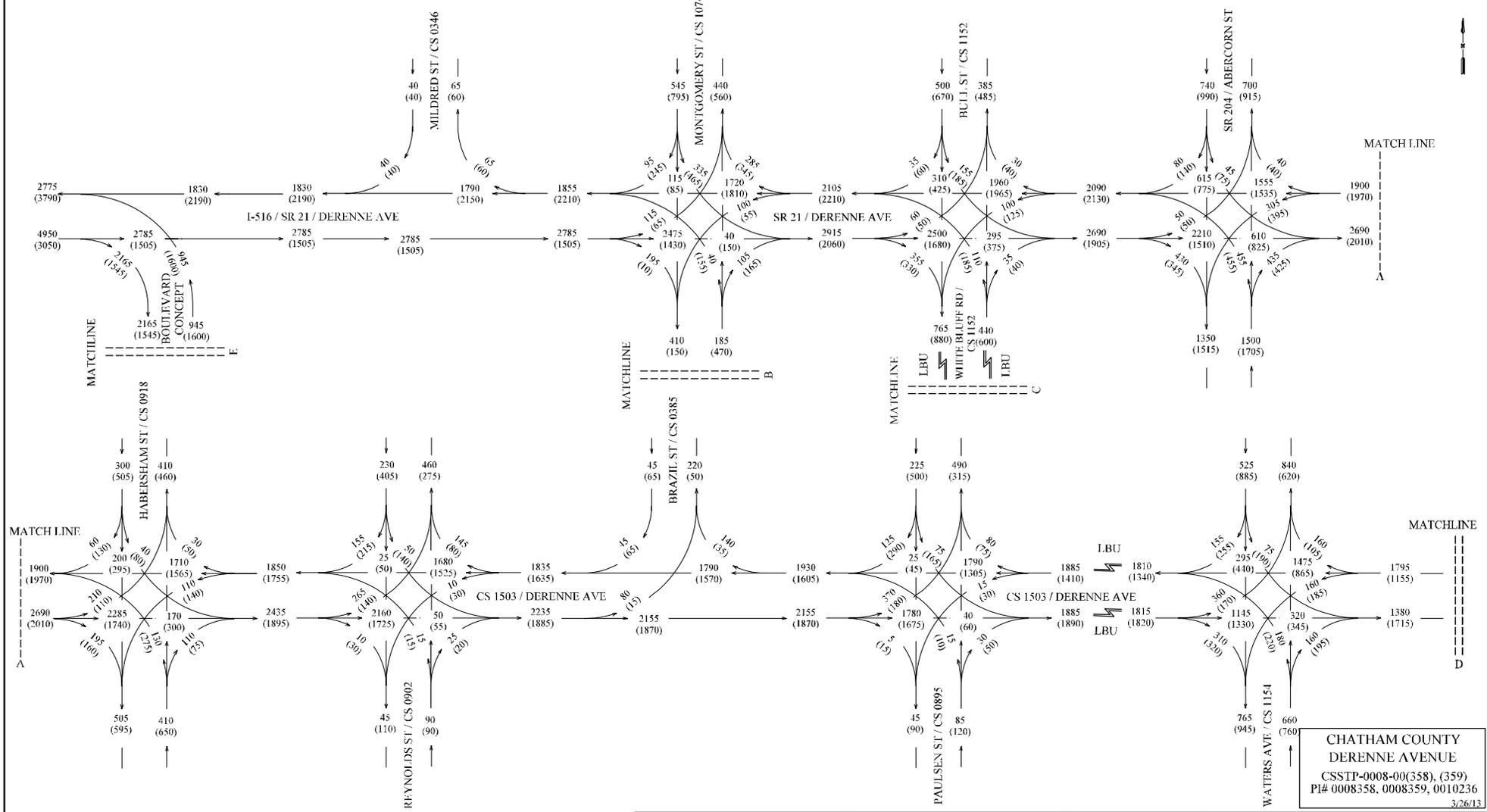
COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



ADT TRAFFIC VOLUMES
 BASE YEAR 2020
 NO BUILD - 000
 24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

 Kimley-Horn and Associates, Inc. <small>2020 South Blvd, Suite 400 Charlotte, North Carolina 28203 (704) 333-6191</small>	REVISION DATES <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table>																STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION PROGRAM DELIVERY OFFICE: DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S TRUBAN PKWY (CR 1148) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143 BASE (2020) NO BUILD ADT SHEET 3 OF 3	DRAWING No. 2-6



DHV TRAFFIC VOLUMES
 BASE YEAR 2020
 BUILD
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)
 PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%



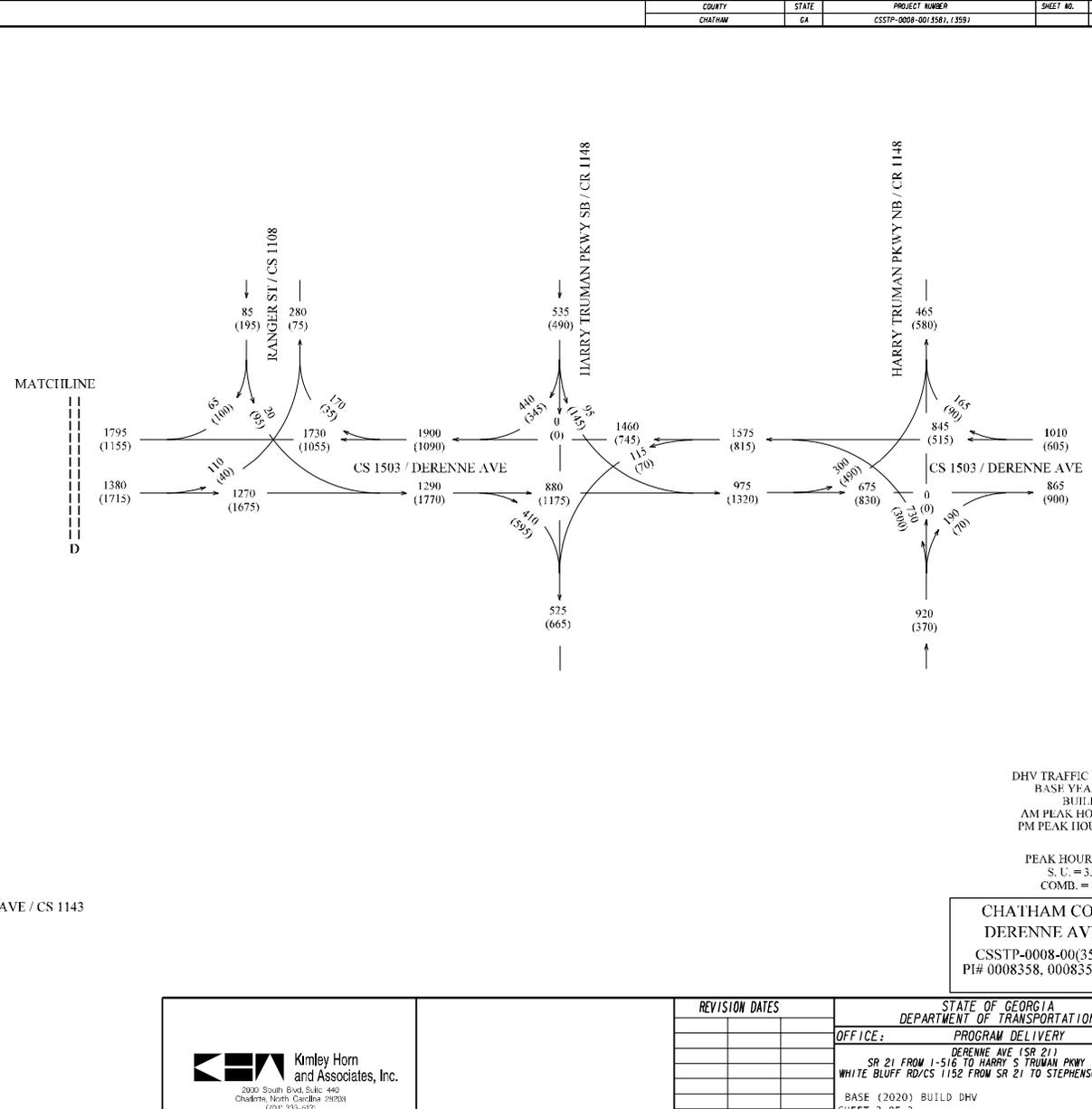
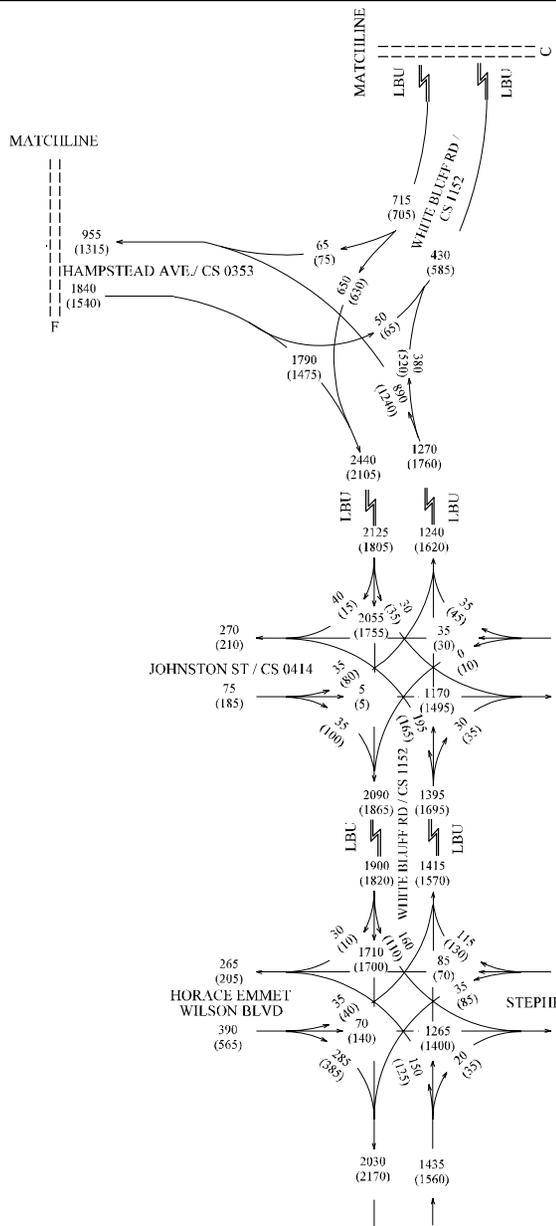
REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 114B)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 BASE (2020) BUILD DHV
 SHEET 1 OF 3

DRAWING No.
 2-7

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), 1359)		



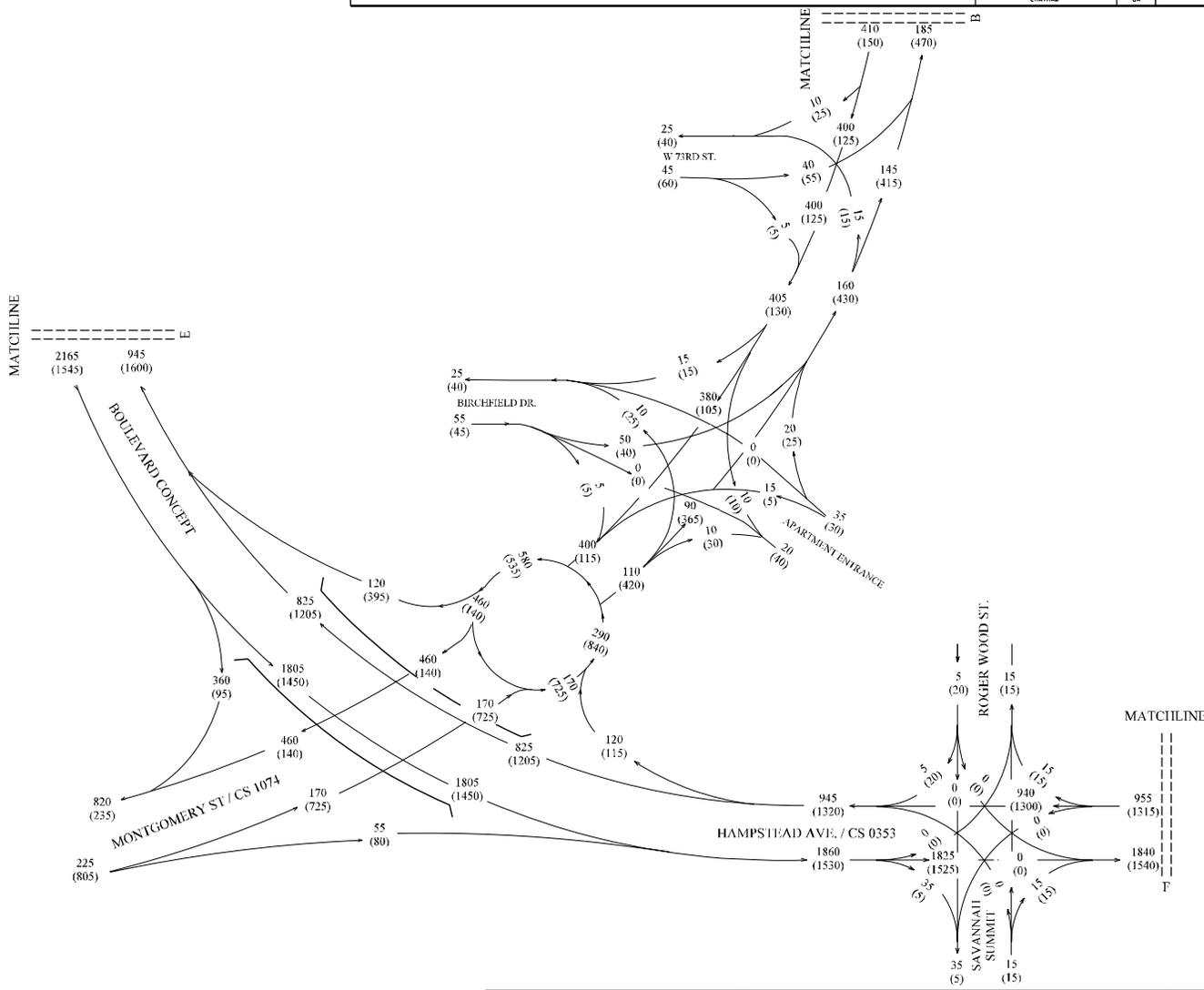
DHV TRAFFIC VOLUMES
 BASE YEAR 2020
 BUILD
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)

PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

<p>Kimley Horn and Associates, Inc. 2000 South Blvd, Suite 440 Chatham, North Carolina 29926 (704) 233-5131</p>	<p>REVISION DATES</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table>																<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION</p> <p>OFFICE: PROGRAM DELIVERY</p> <p>DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143</p> <p>BASE (2020) BUILD DHV SHEET 2 OF 3</p>
<p>DRAWING NO. 2-8</p>																	

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



DIV TRAFFIC VOLUMES
 BASE YEAR 2020
 BUILD
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)

 PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

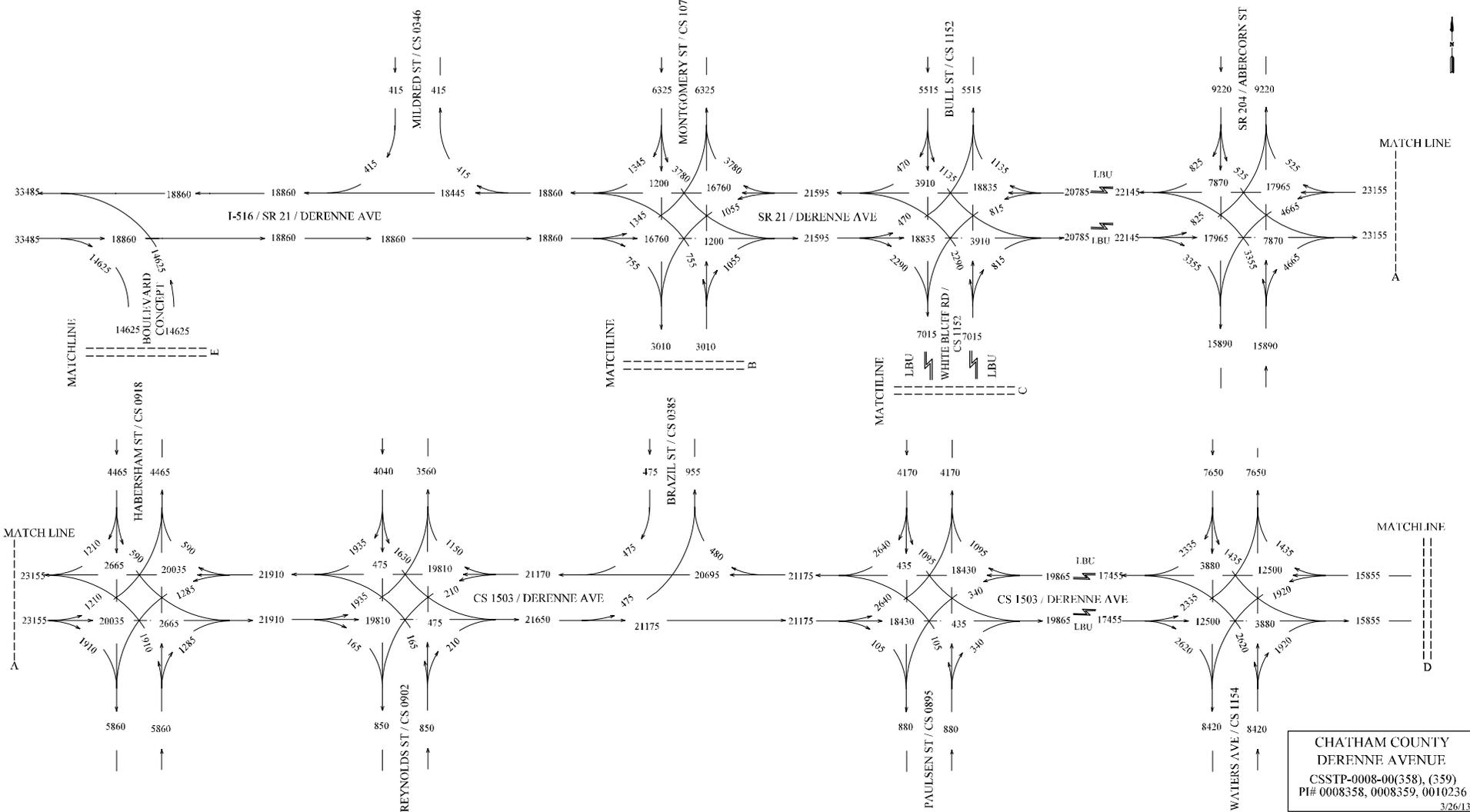
CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

Kimley-Horn
 and Associates, Inc.
 2000 South Blvd, Suite 110
 Charlotte, North Carolina 28203
 (704) 333-4131

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 BASE (2020) BUILD DHV
 SHEET 3 OF 3

DRAWING No. 2-9



ADT TRAFFIC VOLUMES
BASE YEAR 2020
BUILD=000

24 HOUR T = 6.5%
S. U. = 4.5%
COMB. = 2.0%

Kimley-Horn and Associates, Inc.
2000 South Blvd, Suite 400
Charlotte, North Carolina 28203
(704) 333-9131

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: PROGRAM DELIVERY

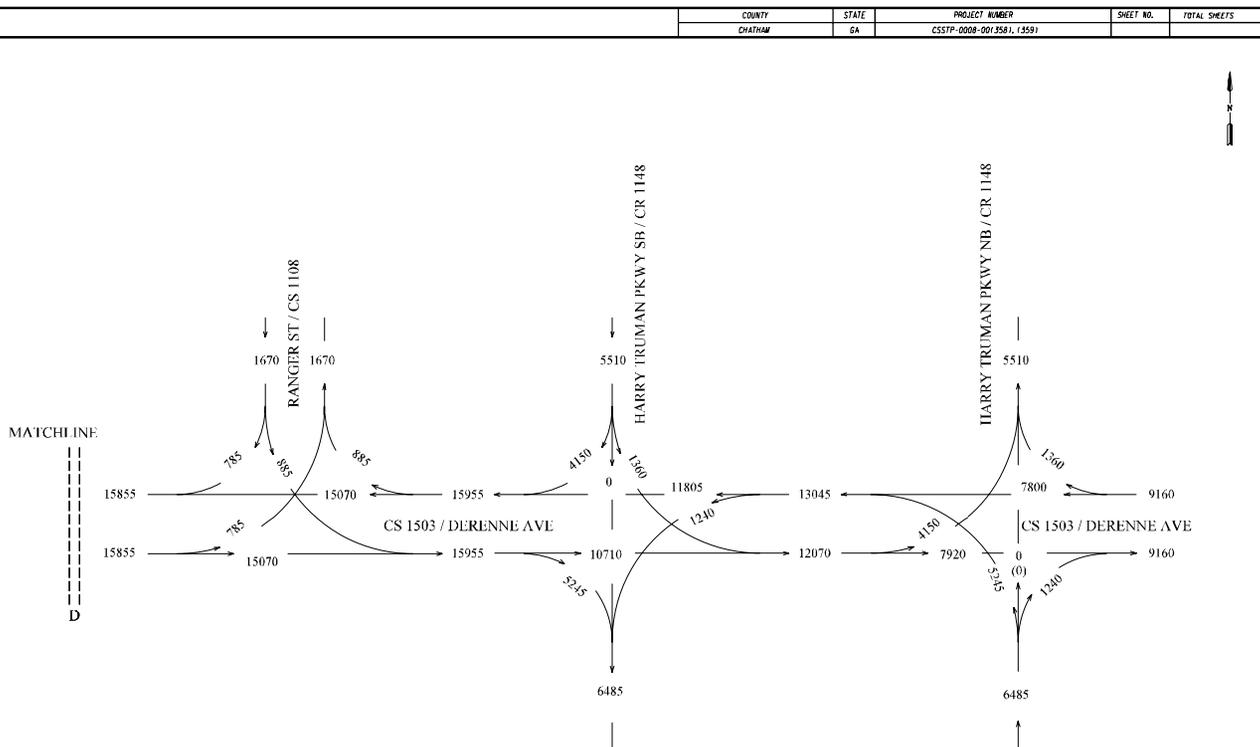
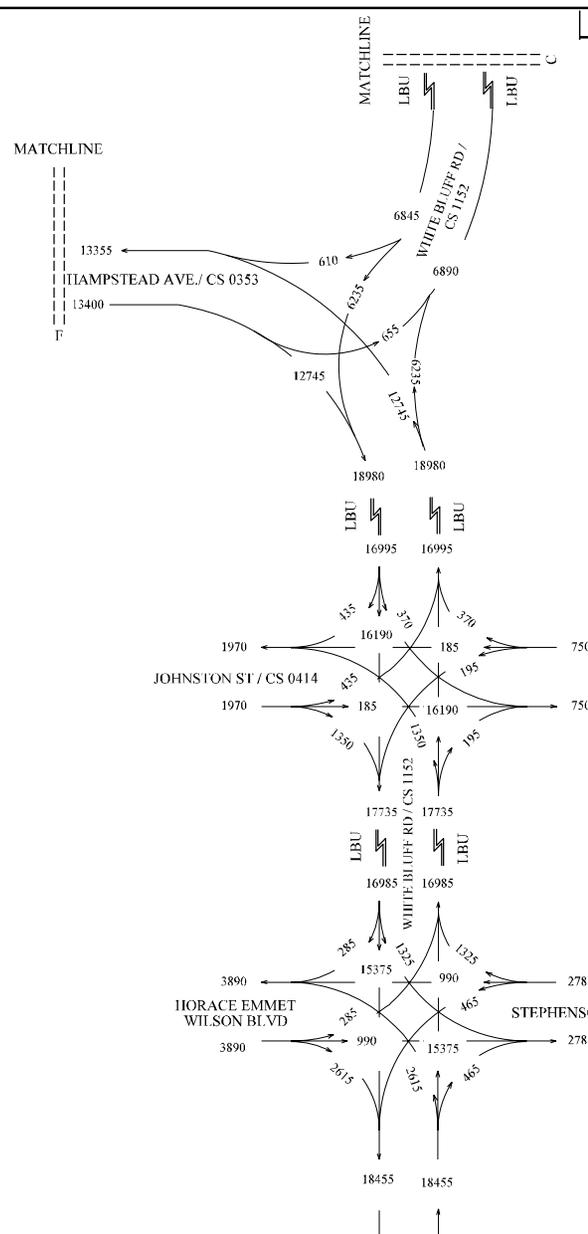
DERENNE AVE (SR 21)
SR 21 FROM I-516 TO HARRY S. TRUMAN PKWY (CR 1148)
WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

BASE (2020) BUILD ADT
SHEET 1 OF 3

DRAWING No.
2-10

CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
PI# 0008358, 0008359, 0010236
3/26/13

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



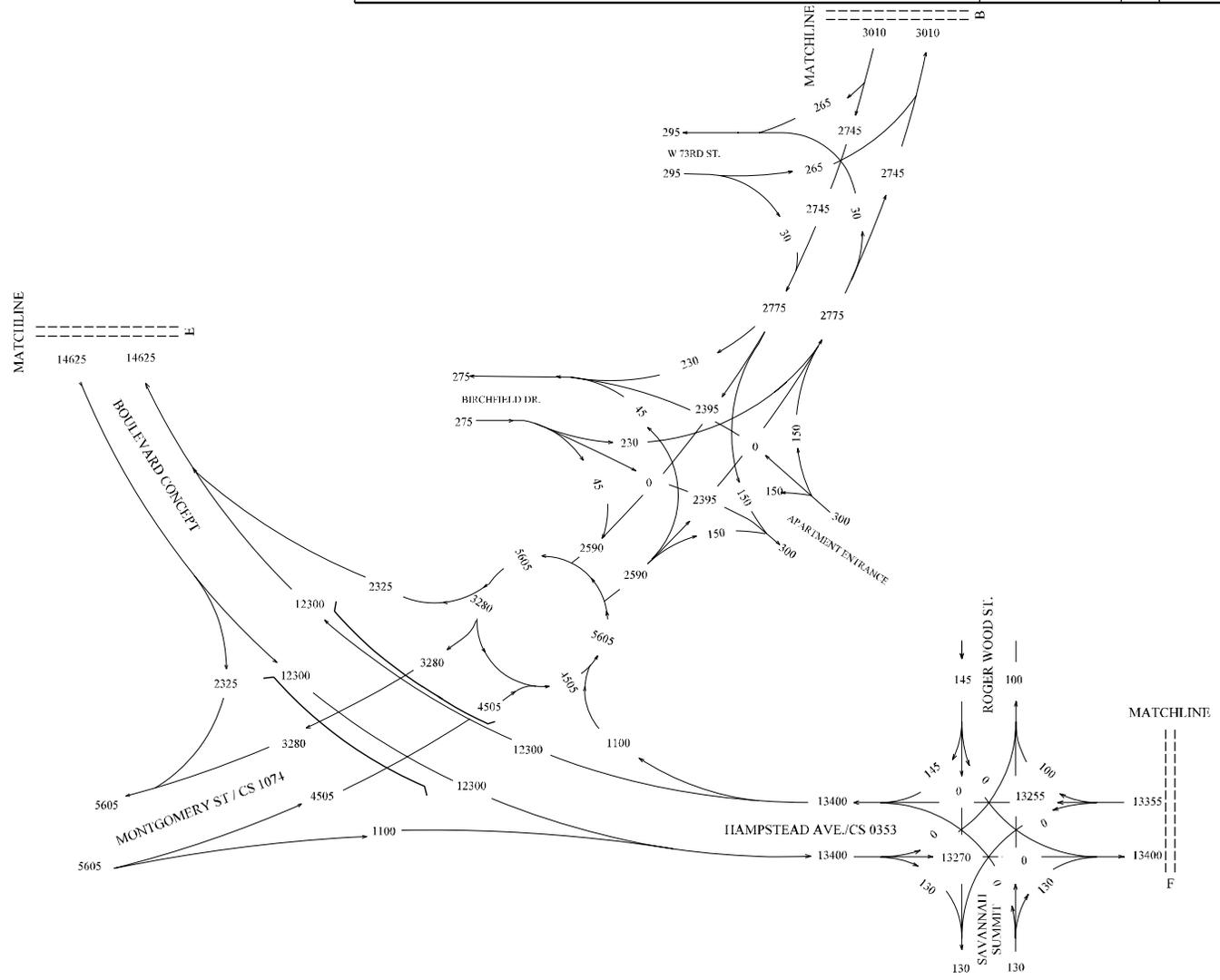
ADT TRAFFIC VOLUMES
 BASE YEAR 2020
 BUILD=000
 24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 008359, 0010236
 3/26/13

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-95 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1148
 BASE (2020) BUILD ADT
 SHEET 2 OF 3

DRAWING No.
 2-11



ADT TRAFFIC VOLUMES
 BASE YEAR 2020
 BUILD=000
 24 HOUR T=6.5%
 S.T.=4.5%
 COMB.=2.0%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 008359, 0010236
 3/26/13

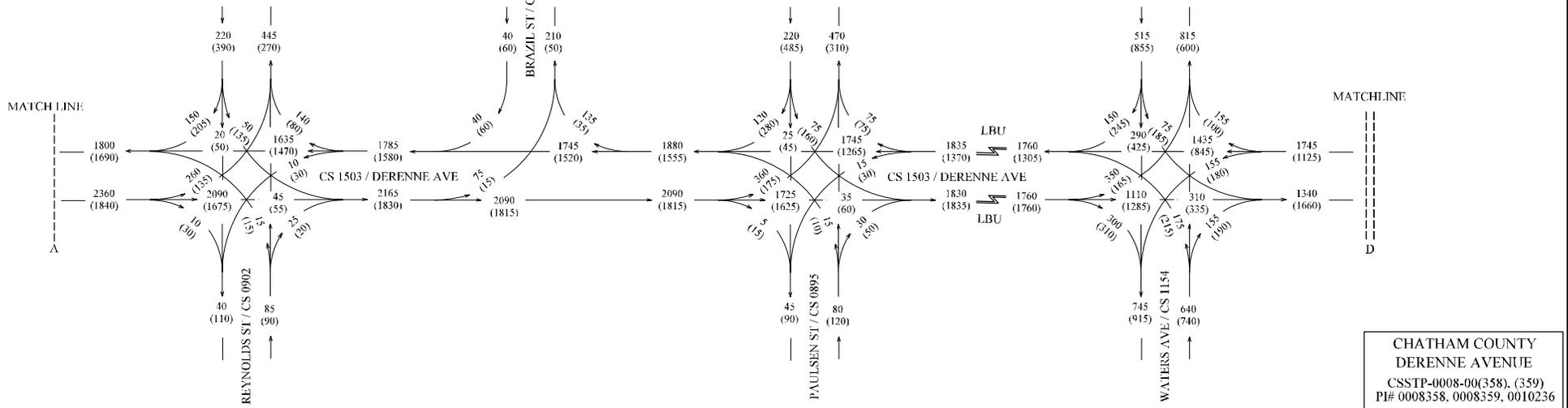
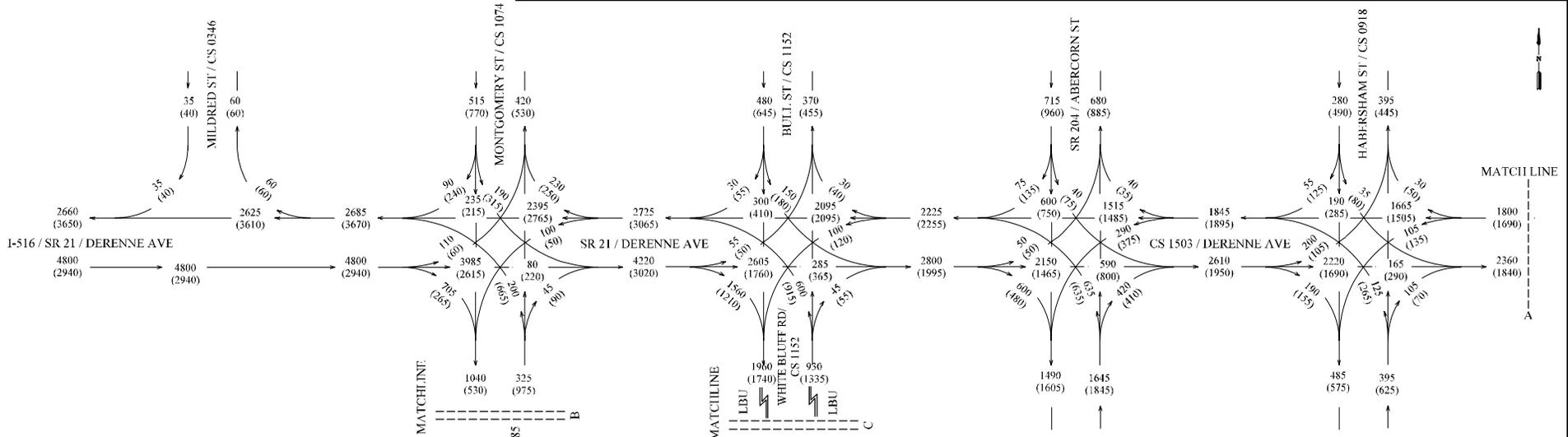
**Kimley-Horn
and Associates, Inc.**
 2300 South Blvd, Suite 440
 Charlotte, North Carolina 28203
 (704) 333-5131

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 BASE (2020) BUILD ADT
 SHEET 3 OF 3

DRAWING NO.
2-12

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
PI# 0008358, 0008359, 0010236
3/26/13

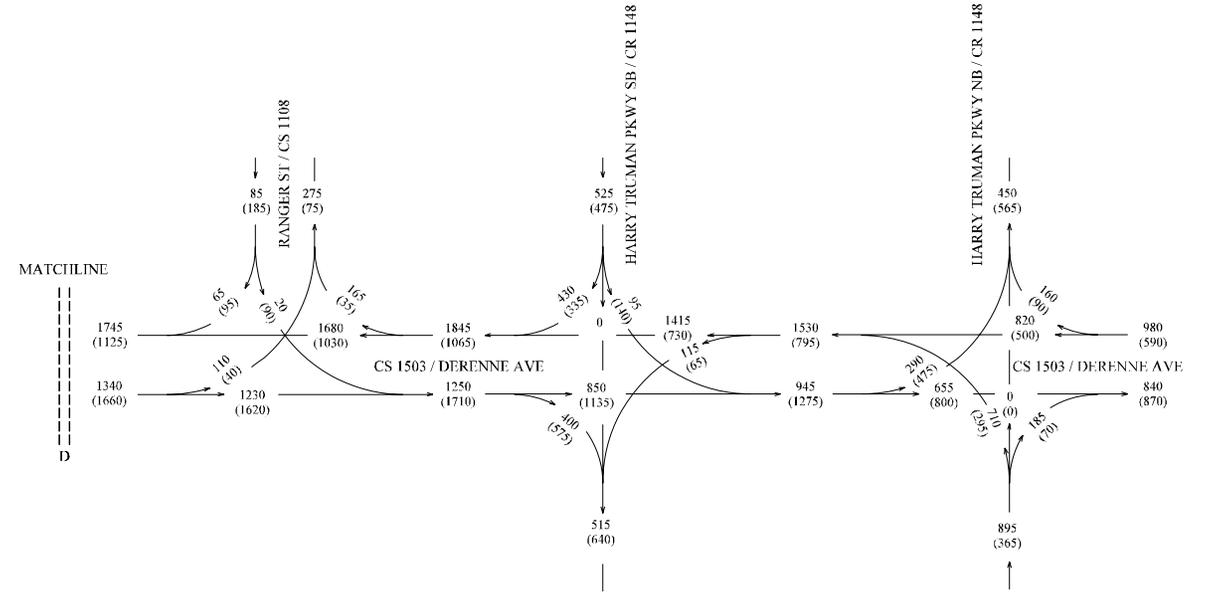
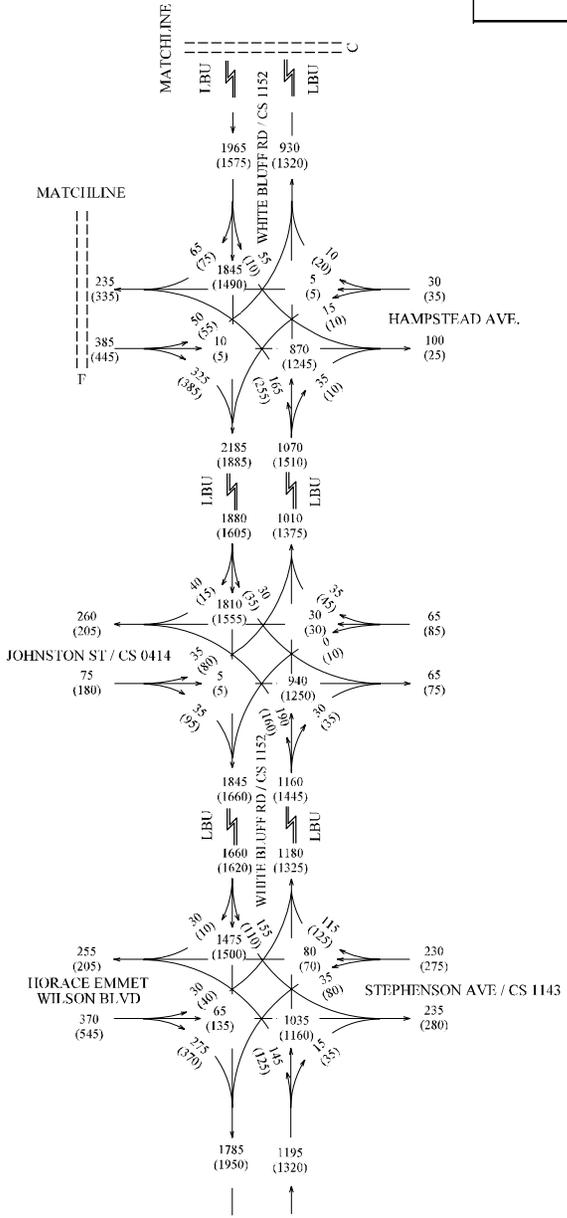
DHV TRAFFIC VOLUMES
DESIGN YEAR 2040
NO BUILD
AM PEAK HOUR = 000
PM PEAK HOUR = (000)
PEAK HOUR T = 5%
S. U. = 3.5%
COMB. = 1.5%



REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
DERENNE AVE (SR 21)
SR 21 FROM I-916 TO HARRY S TRUMAN PKWY (CR 114B)
WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
DESIGN (2040) NO BUILD DHV
SHEET 1 OF 3

DRAWING NO.
3-1



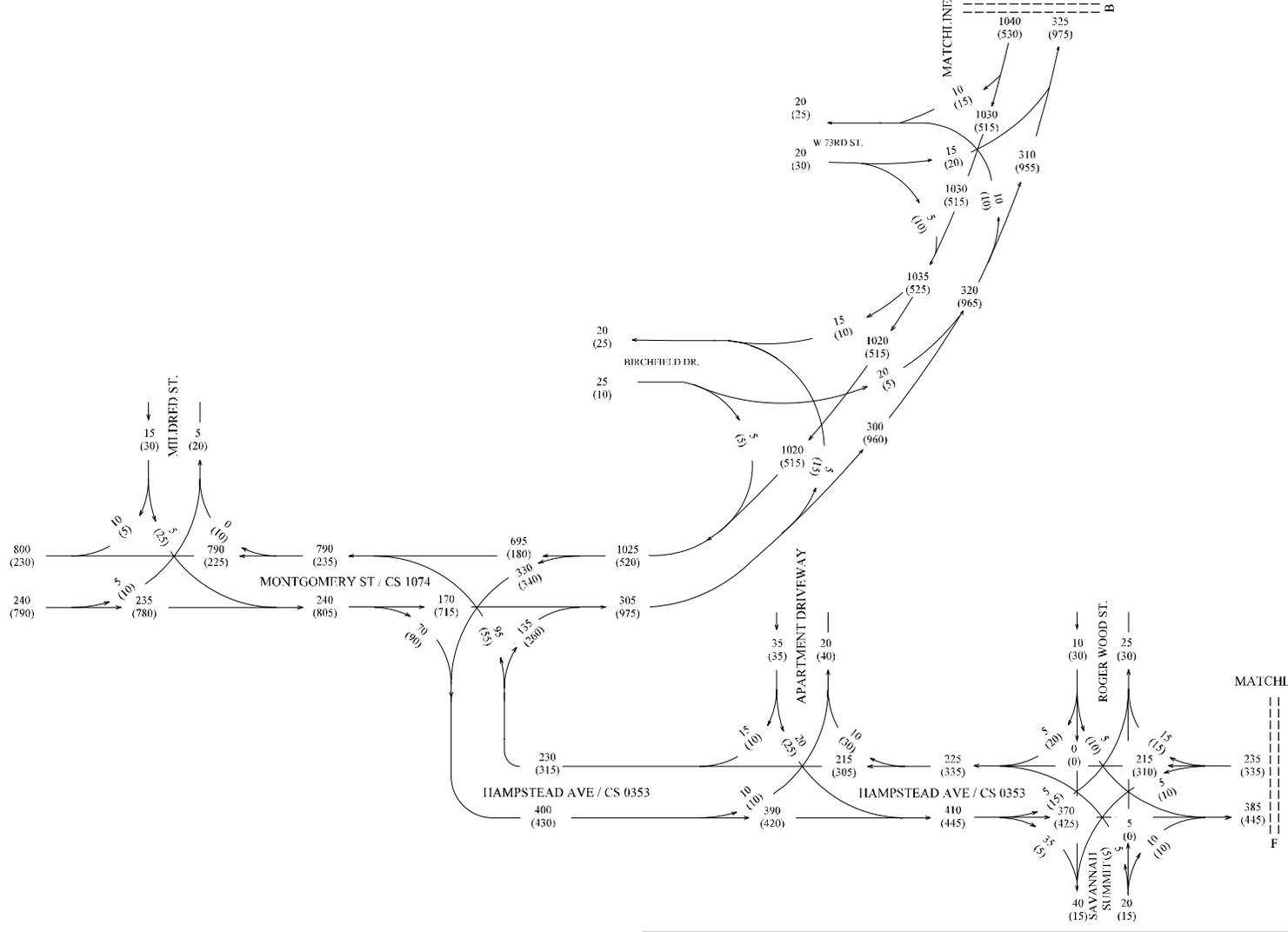
DIIV TRAFFIC VOLUMES
 DESIGN YEAR 2040
 NO BUILD
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)

PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

<p>Kimley Horn and Associates, Inc. 2300 South Dixie, Suite 440 Chamblee, North Carolina 28023 (704) 335-9331</p>	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
		OFFICE: PROGRAM DELIVERY
		DERENNE AVE (SR 21) SR 21 FROM I-516 TO HARRY S. TRUMAN PKWY (CR 1148) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
		DESIGN (2040) NO BUILD DHV SHEET 2 OF 3
		DRAWING No. 3-2

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



DIIV TRAFFIC VOLUMES
 DESIGN YEAR 2040
 NO BUILD
 AM PEAK HOUR = 000
 PM PEAK HOUR = 000

PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

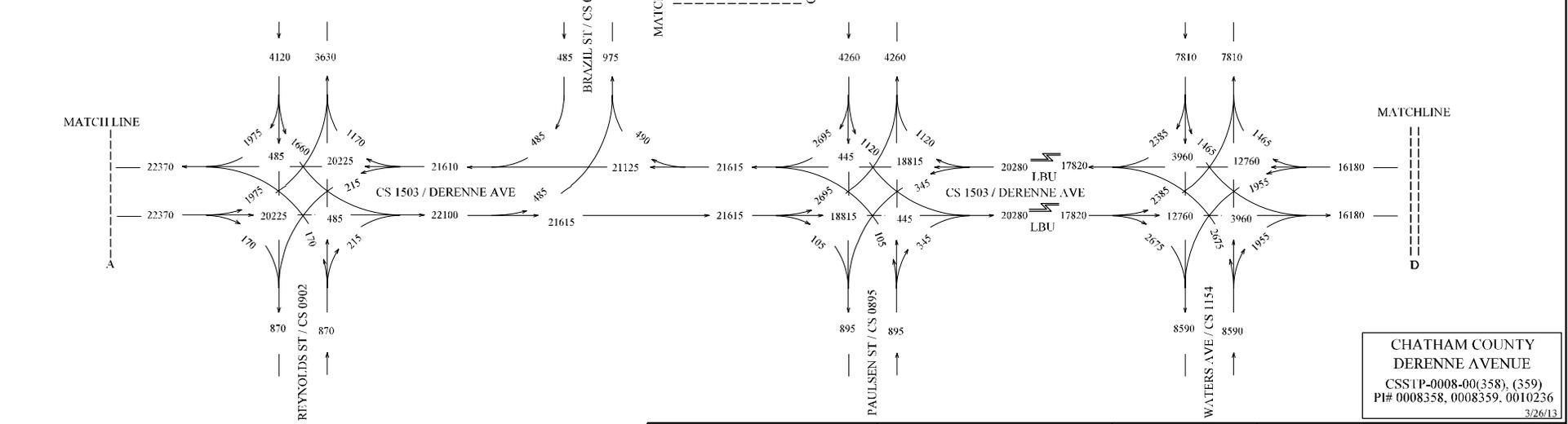
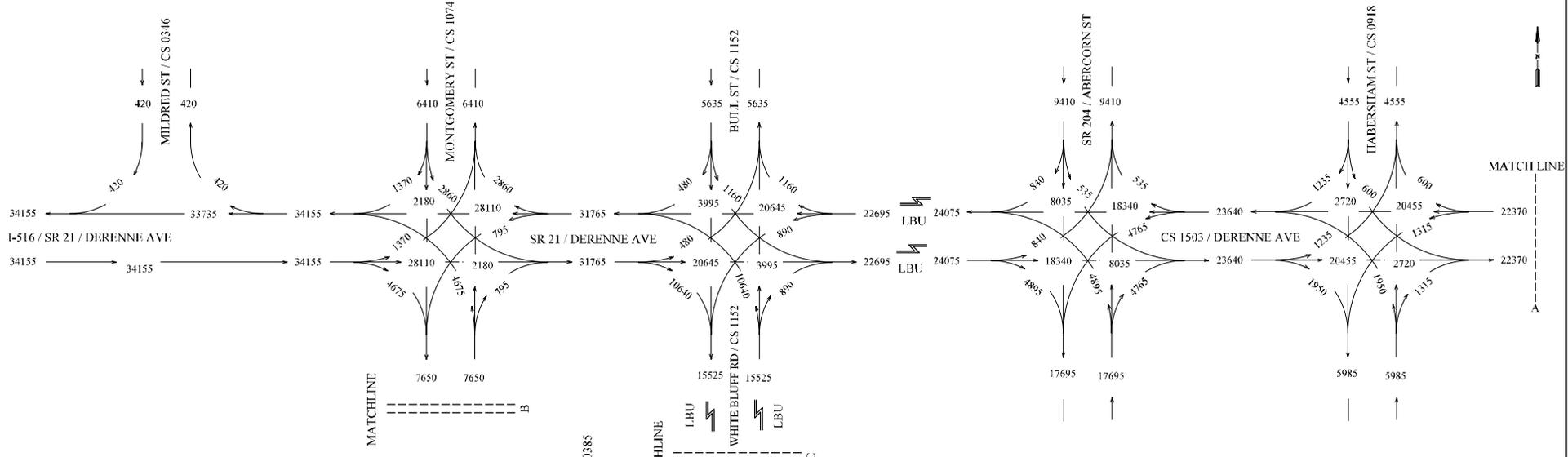
CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 DESIGN (2040) NO BUILD DHV
 SHEET 3 OF 3

DRAWING No.
 3-3

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



CHATHAM COUNTY
DERENNE AVENUE
CSSTP-0008-00(358), (359)
PI# 0008358, 0008359, 0010236
3/26/13

ADT TRAFFIC VOLUMES
DESIGN YEAR 2040
NO BUILD = 000

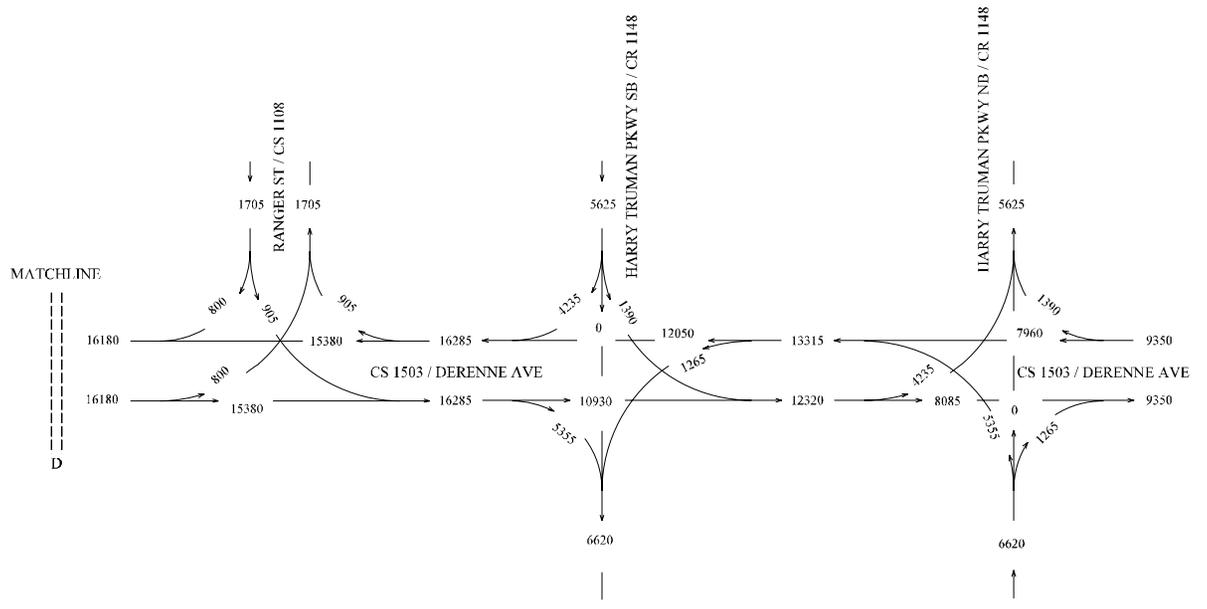
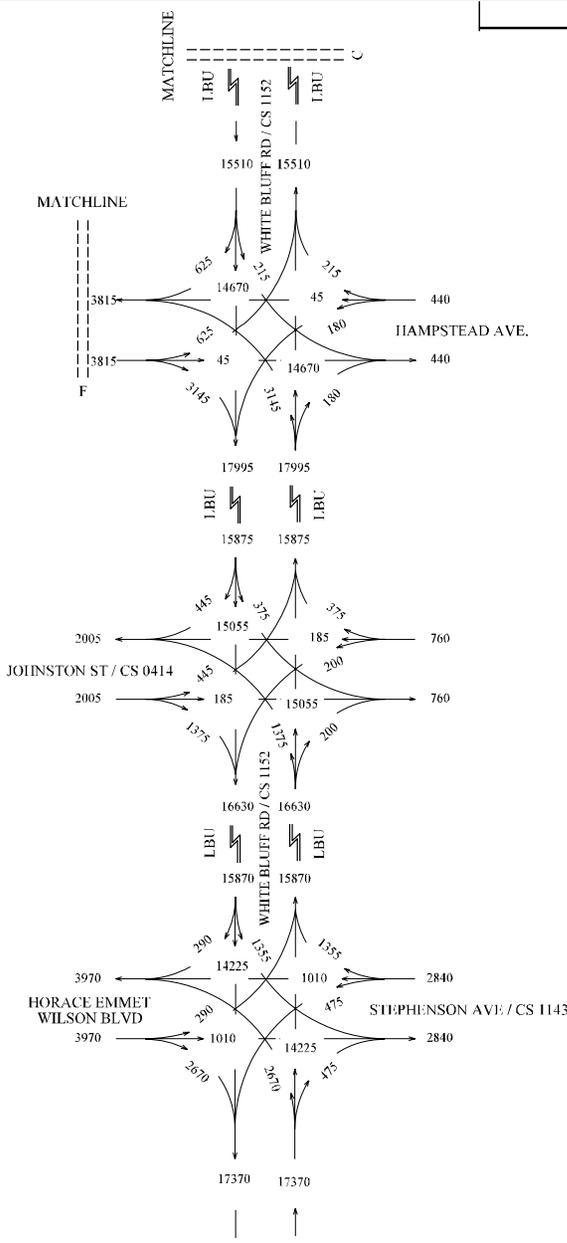
24 HOUR T = 6.5%
S. U. = 4.5%
COMB. = 2.0%

REVISION DATES

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
DERENNE AVE (SR 21)
SR 21 FROM I-516 TO HARRY S. TROMAN PKWY (CR 1148)
WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
DESIGN (2040) NO BUILD ADT
SHEET 1 OF 3

DRAWING No.
3-4

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-001(358), 1(359)		

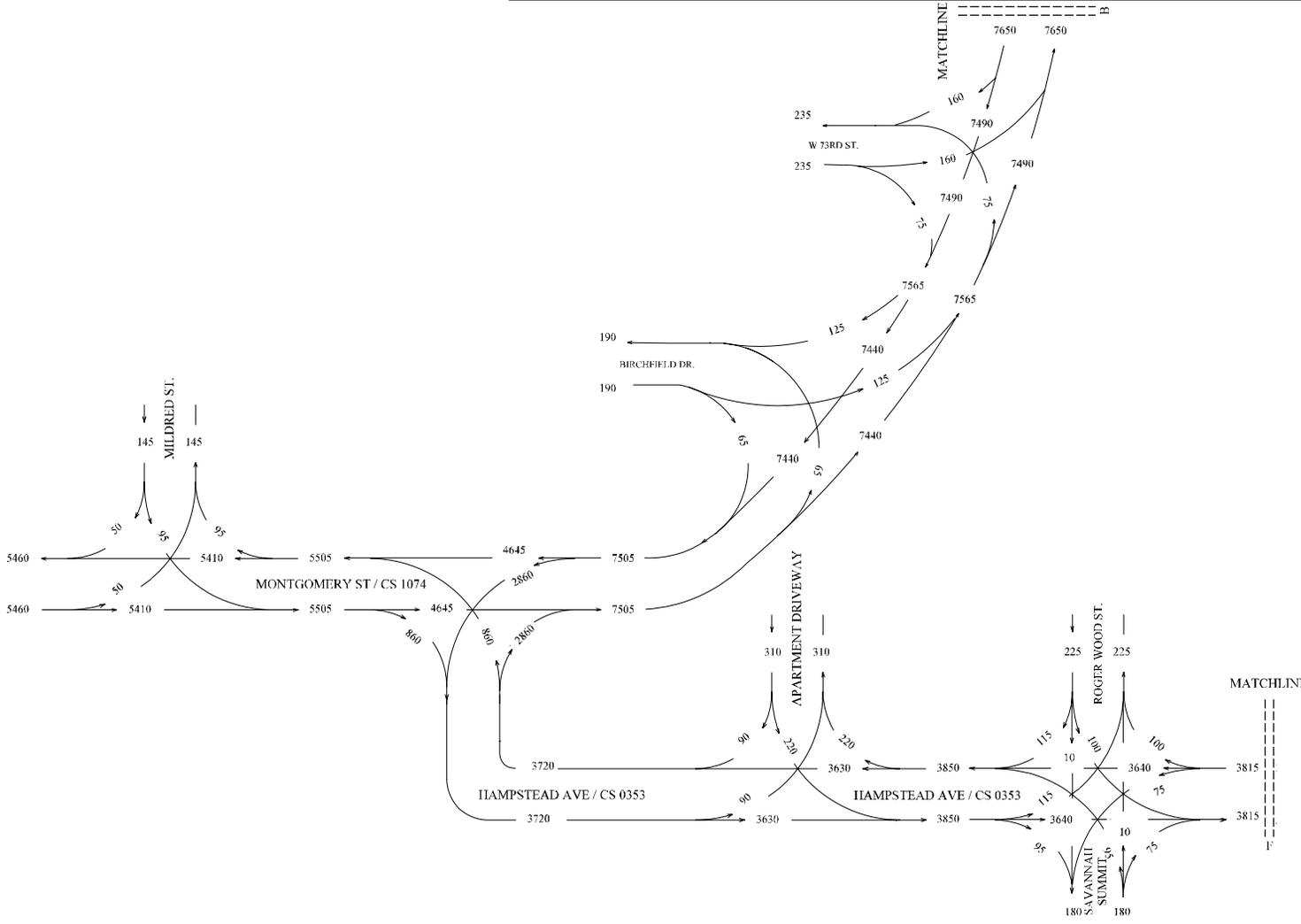


ADT TRAFFIC VOLUMES
 DESIGN YEAR 2040
 NO BUILD = 000
 24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

<p>Kimley Horn and Associates, Inc. 2000 South Blvd, Suite 440 Charlotte, North Carolina 28203 (704) 336-1151</p>	<p>REVISION DATES</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table>																			<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION</p>
<p>OFFICE: PROGRAM DELIVERY</p> <p>DERENNE AVE (SR 21) WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143</p> <p>DESIGN (2040) NO BUILD ADT SHEET 2 OF 3</p>	<p>DRAWING No. 3-5</p>																			

COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



ADT TRAFFIC VOLUMES
 DESIGN YEAR 2040
 NO BUILD = 000
 24 HOUR T = 6.5%
 S. C. = 4.5%
 COMB. = 2.0%

CHATHAM COUNTY
 DERENNE AVENUE
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 Cheshire, North Carolina 28025
 (704) 533-5151

REVISION DATES

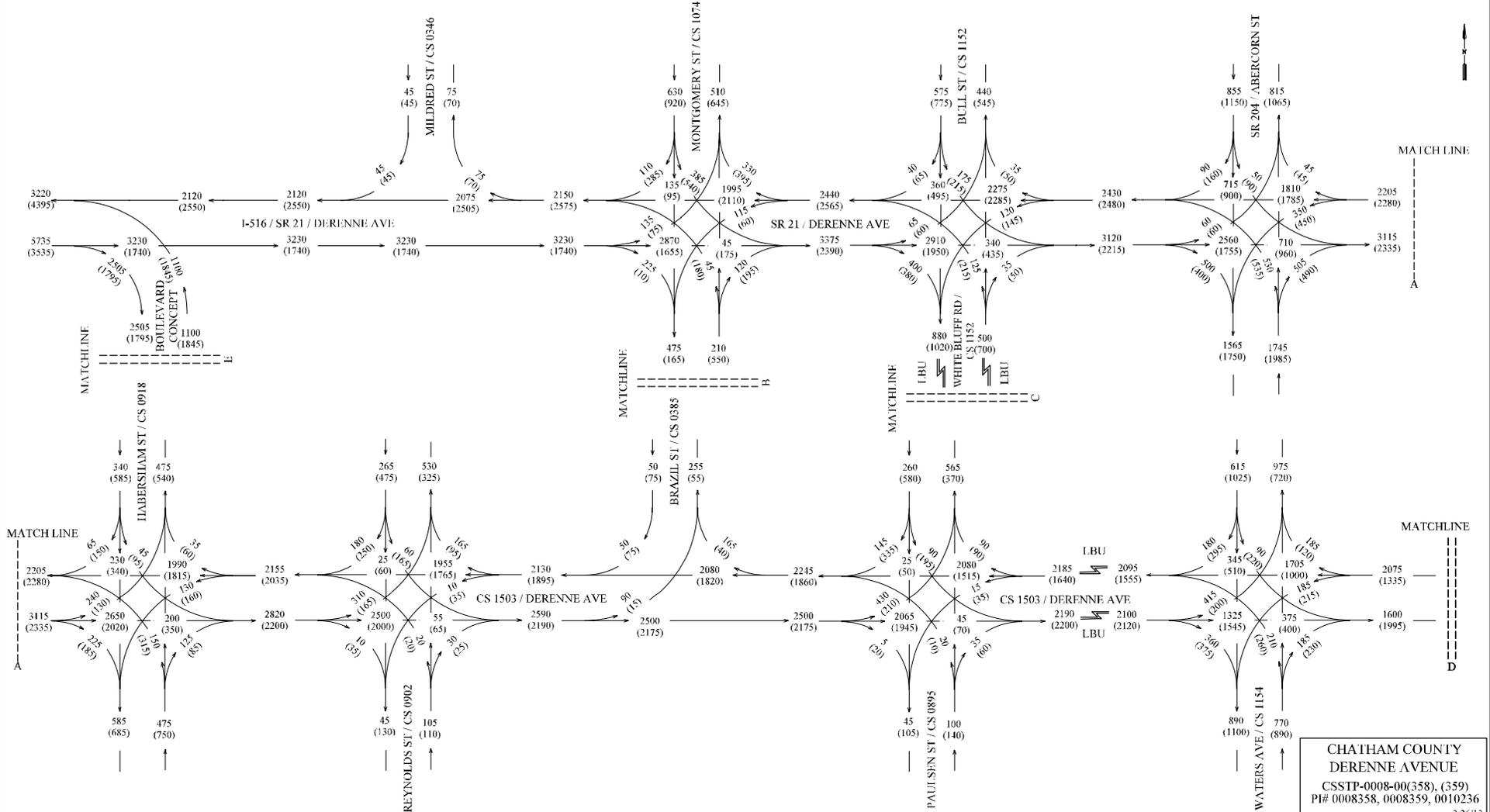
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION

OFFICE: PROGRAM DELIVERY

DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

DESIGN (2040) NO BUILD ADT
 SHEET 3 OF 3

DRAWING NO.
3-6



DIV TRAFFIC VOLUMES
 DESIGN YEAR 2040
 BUILD
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 PM PEAK HOUR = (000)
 PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

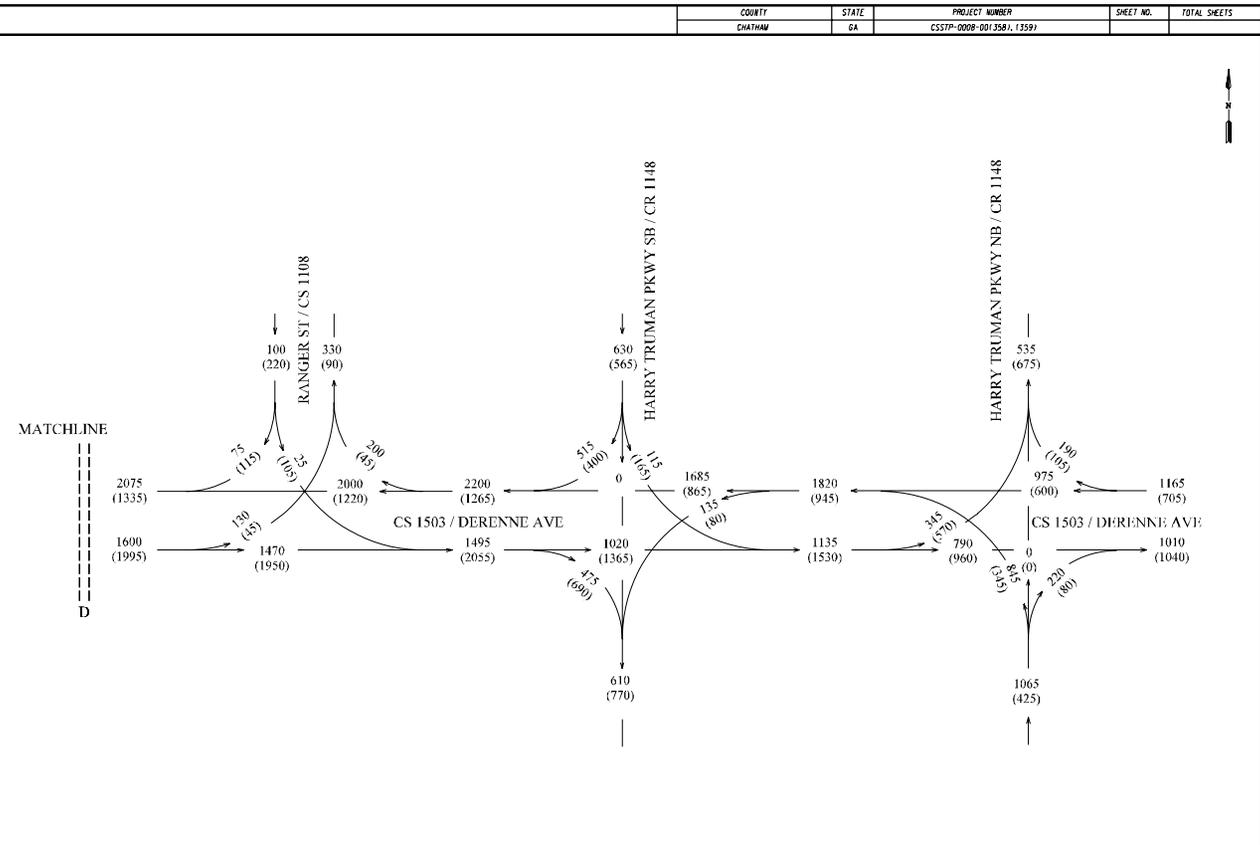
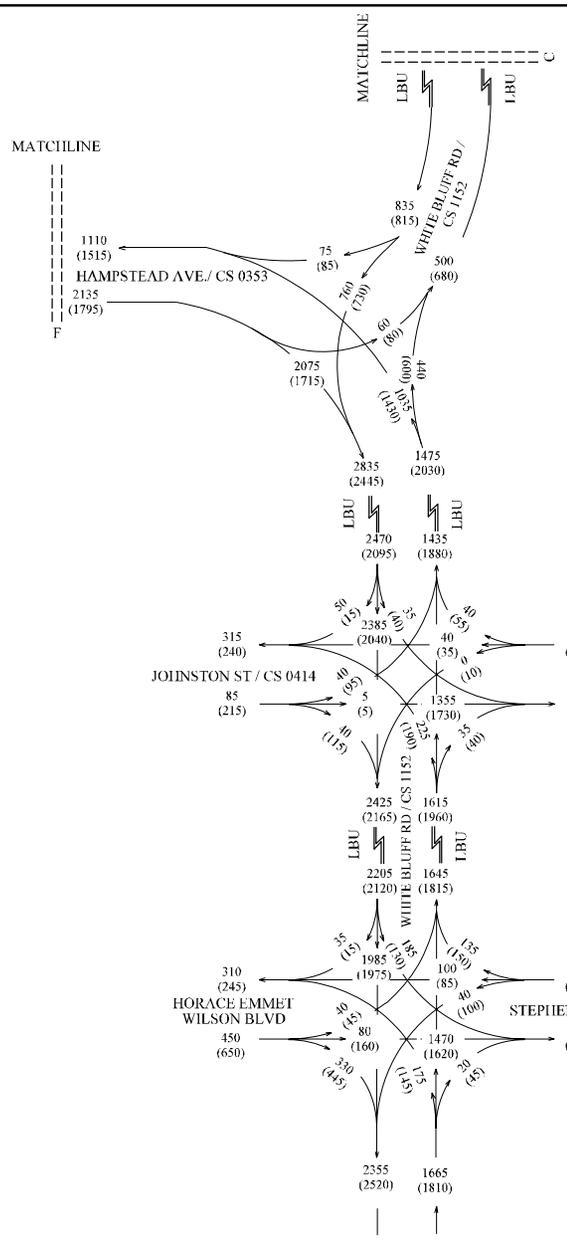


REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 114B)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 DESIGN (2040) BUILD DHV
 SHEET 1 OF 3

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3.26.13

DRAWING NO.
 3-7

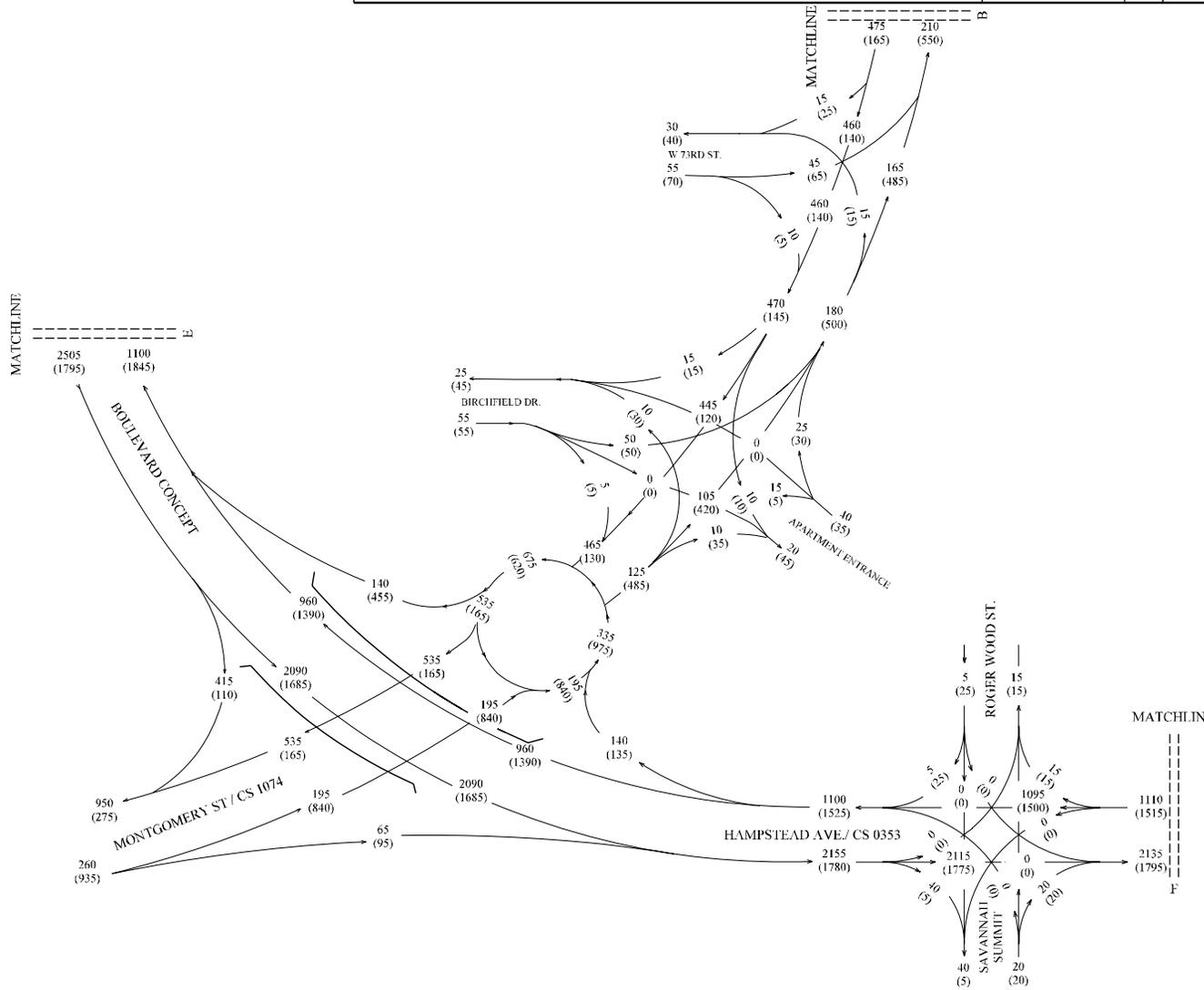


DIV TRAFFIC VOLUMES
DESIGN YEAR 2040
BUILD
AM PEAK HOUR = 000
PM PEAK HOUR = (000)

PEAK HOUR 1 = 5%
S. U. = 3.5%
COMB. = 1.5%

CHATHAM COUNTY
DERENNE AVENUE
PI# 0008358, 0008359, 0010236
3/26/13

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DIV TRAFFIC VOLUMES
 DESIGN YEAR 2040
 BUILD
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 PM PEAK HOUR = (000)

 PEAK HOUR T = 5%
 S. U. = 3.5%
 COMB. = 1.5%

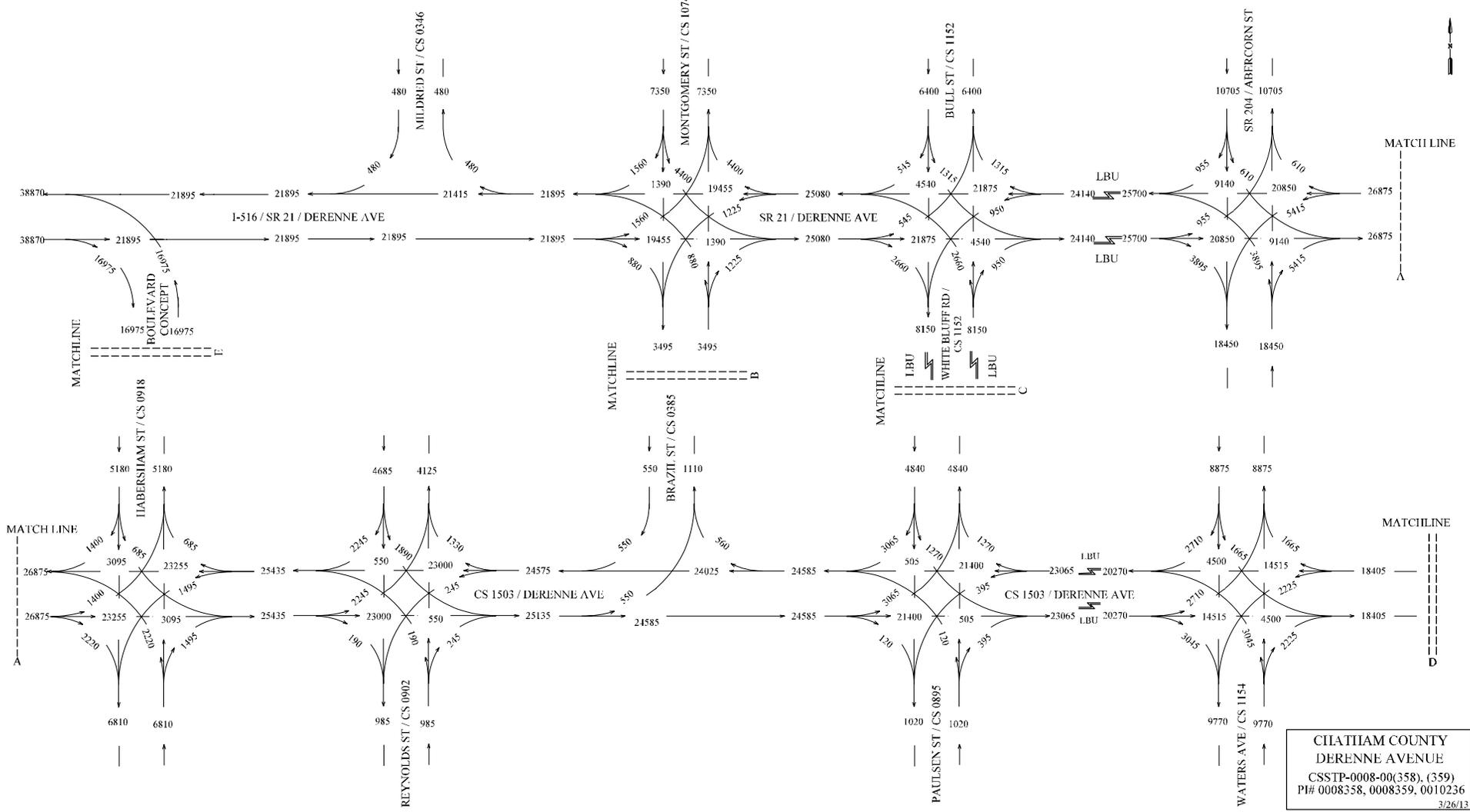
CHATHAM COUNTY
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2000 South 9th St, Suite 440
Chapel Hill, North Carolina 27513
(704) 353-5151

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STATE OF GEORGIA
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 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143
 DESIGN (2040) BUILD DHV
 SHEET 3 OF 3

DRAWING NO.
3-9



ADT TRAFFIC VOLUMES
 DESIGN YEAR 2040
 BUILD = 000

24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

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 Charlotte, North Carolina 28203
 (704) 363-6101

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION

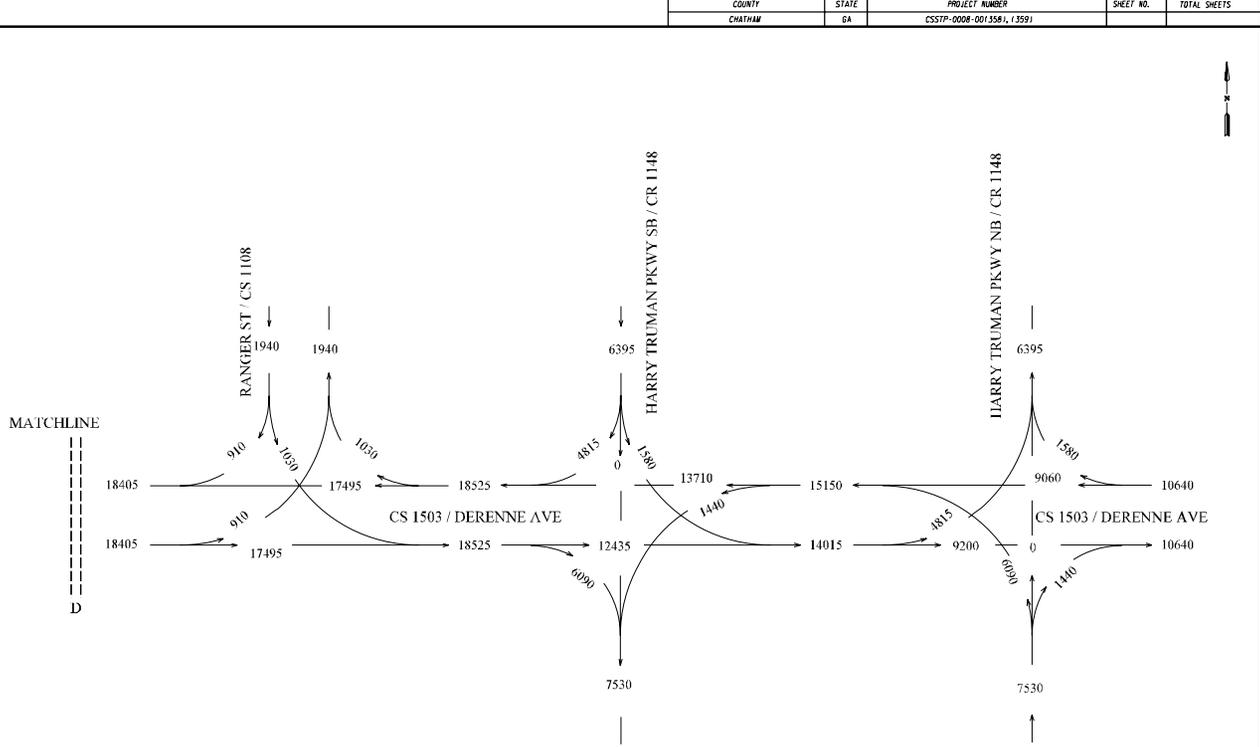
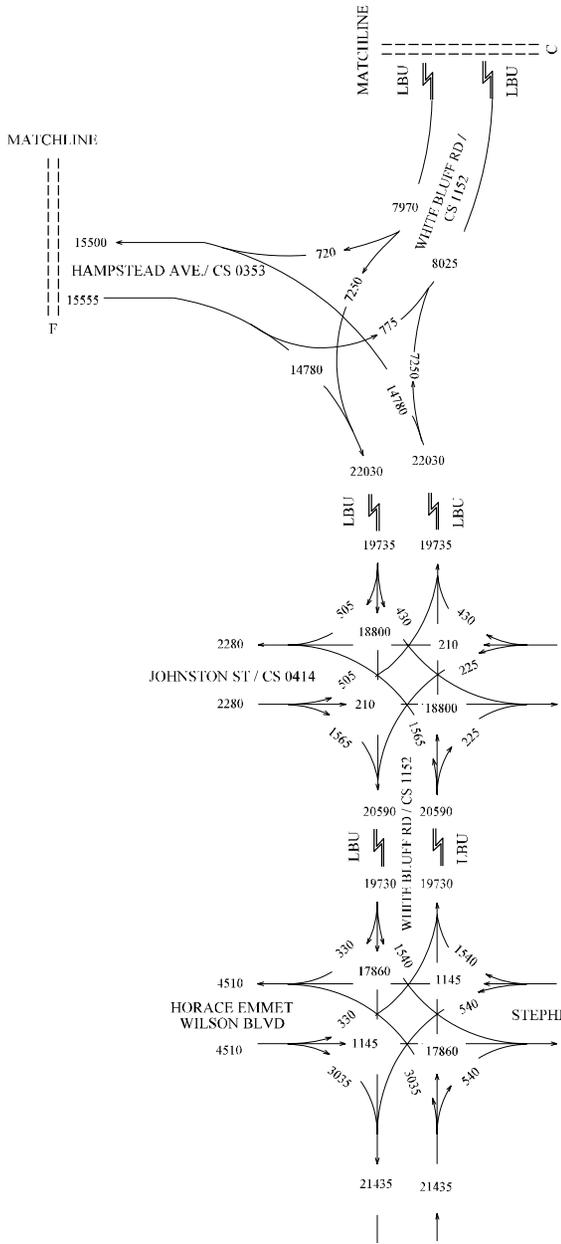
OFFICE: PROGRAM DELIVERY
 DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S. TRUMAN PKWY (CR 114B)
 WHITE BLUFF RD/CS 1152 FROM SR 21 TO STEPHENSON AVE/CS 1143

DESIGN (2040) BUILD ADT
 SHEET 1 OF 3

DRAWING No.
3-10

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
 3/26/13

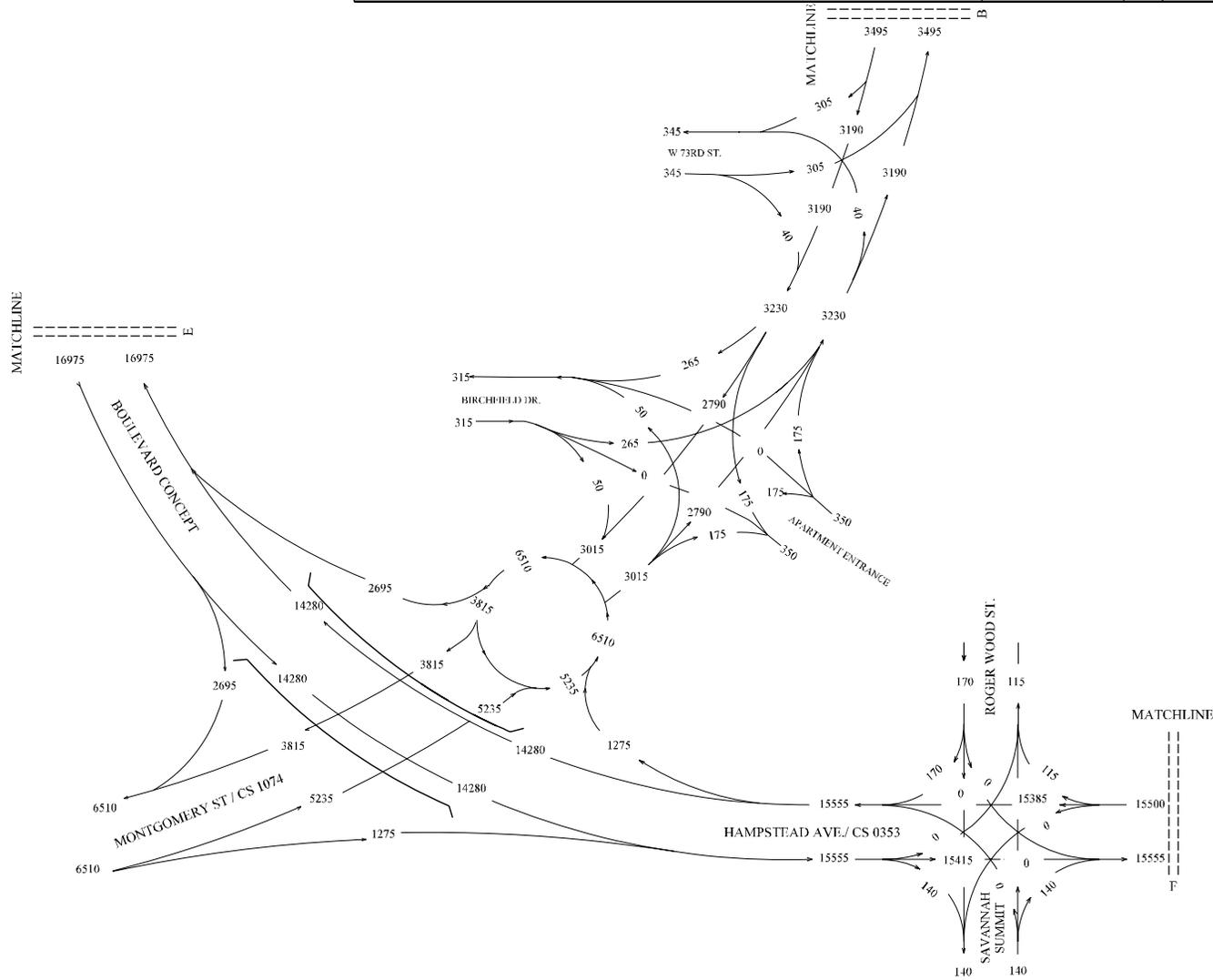
COUNTY	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CHATHAM	GA	CSSTP-0008-00(358), (359)		



ADI TRAFFIC VOLUMES
 DESIGN YEAR 2040
 BUILD = 000
 24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
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<p>DRAWING No. 3-11</p>																				



ADT TRAFFIC VOLUMES
 DESIGN YEAR 2040
 BUILD = 000
 24 HOUR T = 6.5%
 S. U. = 4.5%
 COMB. = 2.0%

CHATHAM COUNTY
 DERENNE AVENUE
 CSSTP-0008-00(358), (359)
 PI# 0008358, 0008359, 0010236
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**Kinley-Horn
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 2030 South Hill Street #40
 Charlotte, North Carolina 28209
 (704) 333-6131

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION

OFFICE: PROGRAM DELIVERY

DERENNE AVE (SR 21)
 SR 21 FROM I-516 TO HARRY S TRUMAN PKWY (CR 1148)
 WHITE BLUFF RD/CS 1132 FROM SR 21 TO STEPHENSON AVE/CS 1143

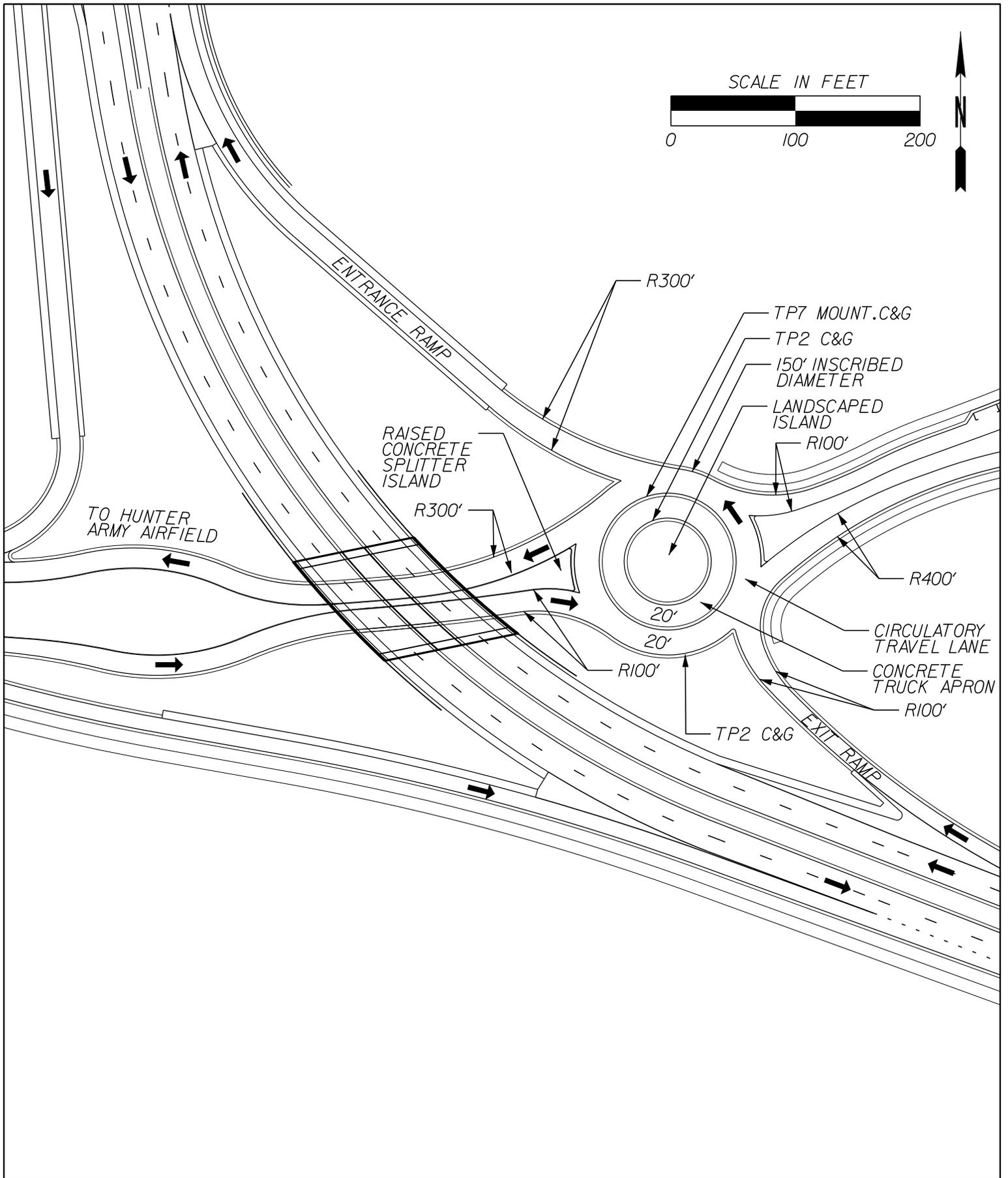
DESIGN (2040) BUILD ADT
 SHEET 3 OF 3

DRAWING No.
3-12

TRAFFIC CAPACITY ANALYSIS SUMMARY

Table 1: Level of Service Summary for Signalized Intersections							
Intersection	Peak Hour	2012 Existing		2020 No Build		2040 No Build	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
DeRenne Avenue & Montgomery Street	AM Peak	F	209.0	F	154.9	F	194.4
	PM Peak	E	67.3	E	77.6	F	114.5
DeRenne Avenue & Bull Street/White Bluff Road	AM Peak	F	165.6	F	153.2	F	192.6
	PM Peak	F	81.5	F	89.0	F	119.3
DeRenne Avenue & Abercorn Street	AM Peak	F	105.0	E	75.3	F	105.6
	PM Peak	E	59.3	E	65.9	F	89.9
DeRenne Avenue & Habersham Street	AM Peak	D	41.9	C	33.0	E	57.7
	PM Peak	D	38.2	D	39.6	E	61.5
DeRenne Avenue & Reynolds Street	AM Peak	B	18.1	B	10.7	B	11.7
	PM Peak	B	15.8	A	9.5	B	12.4
DeRenne Avenue & Paulsen Street	AM Peak	B	18.6	C	20.4	C	26.4
	PM Peak	C	20.5	C	20.3	C	25.7
DeRenne Avenue & Waters Avenue	AM Peak	D	55.0	E	61.6	E	78.8
	PM Peak	E	56.4	D	52.4	E	69.7
DeRenne Avenue & Truman Parkway SB Ramps	AM Peak	B	13.9	B	17.7	C	25.3
	PM Peak	B	10.6	A	9.4	B	12.6
DeRenne Avenue & Truman Parkway NB Ramps	AM Peak	B	19.8	C	20.1	C	22.1
	PM Peak	B	18.3	B	12.5	B	15.2
White Bluff Road at Hampstead Avenue	AM Peak	C	21.5	C	22.8	C	28.9
	PM Peak	B	19.6	C	20.7	C	24.7
White Bluff Road at Johnston Street	AM Peak	B	16.8	B	11.5	B	13.0
	PM Peak	B	16.3	B	12.2	B	13.6
White Bluff Road at Stephenson Avenue	AM Peak	C	28.1	C	26.5	C	28.7
	PM Peak	D	47.4	C	32.4	D	37.2

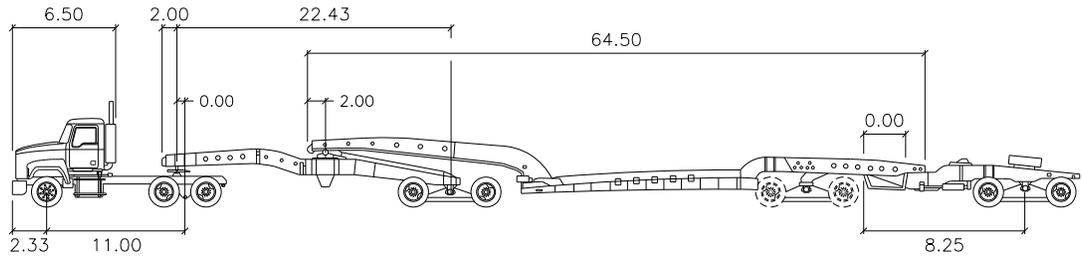
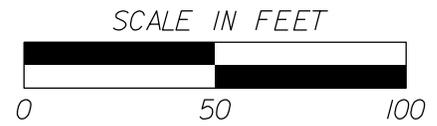
ROUNDBOUT DATA



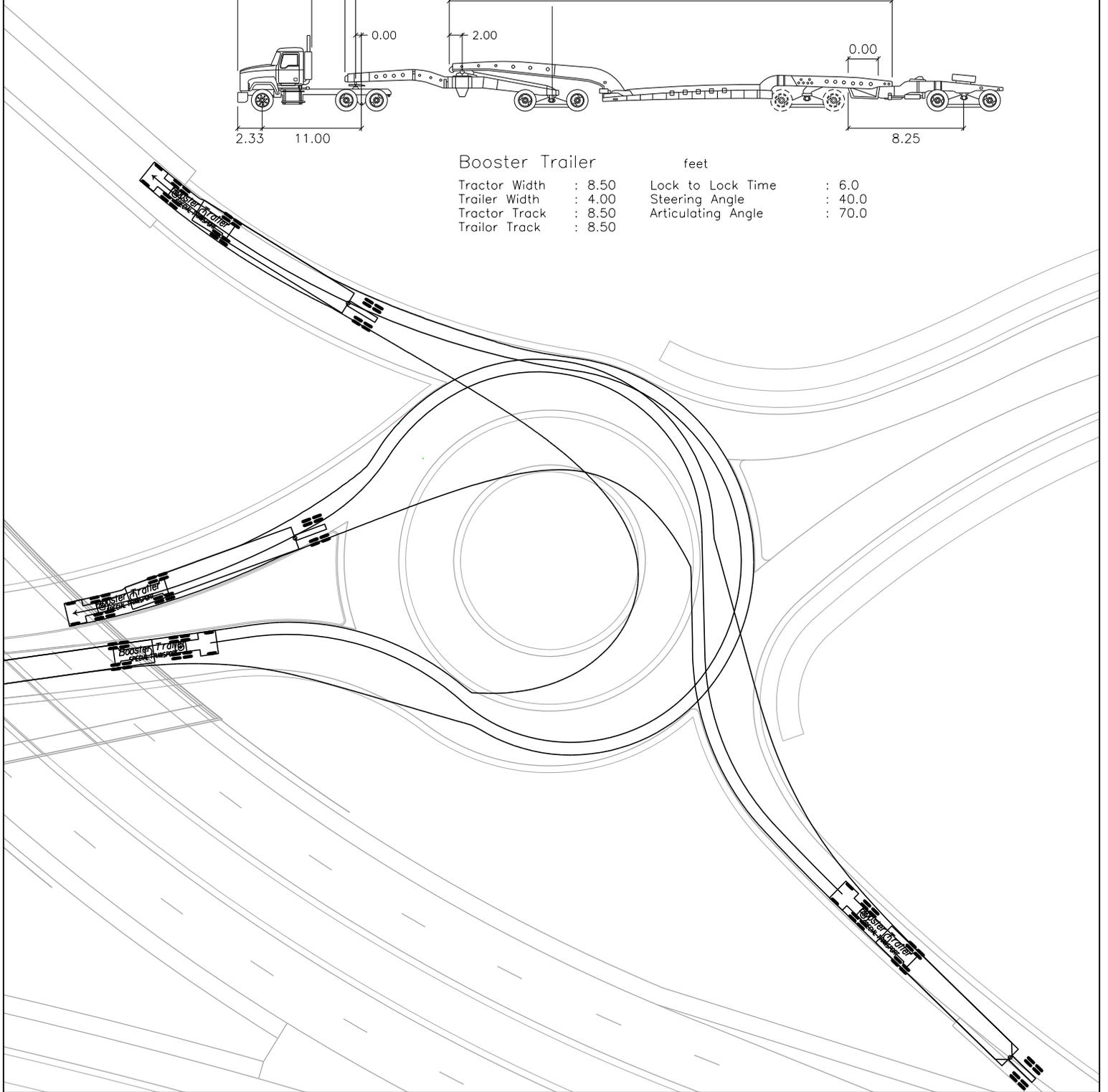
Kimley-Horn
and Associates, Inc.

ROUNDBABOUT EXHIBIT

JUNE 21, 2013



Booster Trailer		feet	
Tractor Width	: 8.50	Lock to Lock Time	: 6.0
Trailer Width	: 4.00	Steering Angle	: 40.0
Tractor Track	: 8.50	Articulating Angle	: 70.0
Trailer Track	: 8.50		



Kimley-Horn
and Associates, Inc.

ROUNDABOUT EXHIBIT

OCTOBER 2, 2013

3.2. Design Vehicles

In the design of any roadway facility, the designer should accommodate the largest vehicle that is likely to use that facility with considerable frequency or a design vehicle with special characteristics appropriate to a particular location in selecting design vehicles. For roundabouts, the largest infrequent vehicle should be selected.

3.2.1. Design Vehicle Types

The four general classes of design vehicles as defined by AASHTO are:

- **Passenger Cars** - Passenger automobiles of all sizes, including cars, sport/utility vehicles, minivans, vans, and pick-up trucks;
- **Buses** - Intercity (motor coaches), city transit, school, and articulated buses;
- **Trucks** - Single-unit trucks, truck tractor-semi-trailer combinations, and truck tractors with semi-trailers in combination with full trailers; and
- **Recreational Vehicles** - Motor homes (including those with boat trailers and pulling an automobile), automobiles pulling a camper trailer or a boat trailer.

Refer to the current AASHTO *Green Book* Chapter 2, Design Controls and Criteria, for further discussion on use of design vehicles and for detailed dimensions of design vehicles.

Table 3.1. lists minimum design vehicles for various roadway types. The appropriate design vehicle for a specific project location may be larger, refer to **Section 3.2.2 Local Input for Selecting a Design Vehicle** of this manual. For roundabouts, refer also to **Section 8.3.2 Design Vehicle**.

Turning Radii

The minimum turning path of the selected design vehicle is the primary factor in designing radii at intersections, radii of turning roadways, median opening geometry and commercial driveways. The turning radii can affect the cross-section width of a roadway. In other words, the larger the required turning radii to accommodate larger

Table 3.1 Minimum Design Vehicles and Typical Design Speeds.

Roadway Type	Minimum Design Vehicle	Typical Design Speed (mph)
Rural		
Interstate / Freeway	WB-67	70
Ramp		
Free-Flow	WB-67	35 (minimum) ⁽²⁾
Entrance / Exit	WB-67	35 (minimum) ⁽²⁾
Loop	WB-67	35 (minimum) ⁽²⁾
Primary Arterial⁽²⁾	WB-40 or WB-62	65
Minor Arterial⁽²⁾	SU	65
Collector⁽²⁾	SU	55
Local Road⁽²⁾		
Paved	S-BUS36	45
Gravel	S-BUS36	35
Urban		
Interstate / Freeway	WB-67	65
Ramp		
Free-Flow	WB-67	35 (minimum) ⁽¹⁾
Entrance / Exit	WB-67	35 (minimum) ⁽¹⁾
Loop	WB-40 or WB-62	35 (minimum) ⁽¹⁾
Primary Arterial⁽²⁾	WB-40 or WB-62	55
Minor Arterial⁽²⁾	WB-40 or BUS-40	45
Collector⁽²⁾	BUS-40 or SU	35
Residential/Local Road⁽²⁾	SU or P	35
<p>(1) Refer to Section 3.3.3 Freeway Exit and Entrance Ramps. (2) Refer to Section 3.2.2 Local Input for Selecting a Design Vehicle.</p> <p>Design Vehicle Type Symbols: BUS=Intercity Bus/Motor Coach, P=Passenger Car, S-BUS=School Bus, SU=Single-Unit Truck, WB=Semi Trailer</p>		

PROJECT MEMORANDUM

To: David Moyer, P.E.,
Georgia Department of Transportation

FROM: Mike Weiner, P.E.
Traffic Engineer - City of Savannah
and
Rob Hume, P.E.
Kimley-Horn and Associates, Inc.

Date: June 20, 2013

Re: Hunter Army Airfield Access
Roundabout Concept-

Purpose:

The purpose of this memo is to provide an overview of a roundabout intersection being considered as a possible future entrance configuration for the Montgomery Gate of Hunter Army Airfield in Savannah. This design concept emerged as a part of the City of Savannah's "Project DeRenne" (PI's 0008358, 0008359, and 0010236) and in coordination with the base's Chief Master Planner and at the time Garrison Commander. The roundabout would be a part of the local preferred concept referred to as The Boulevard (concept sketch and roundabout rendering attached). This memo explores the basic operational characteristics of a single-lane modern roundabout intersection at the ramp terminal and provides an overview of the projected operational performance of the subject intersection.

Background:

DeRenne Avenue (SR 21), located in Savannah, Georgia, is a heavily congested, major arterial extending from the eastern terminus of Interstate 516, eastward past. DeRenne Avenue is a six-lane divided roadway from I-516 to Abercorn Street and a five-lane roadway from Abercorn Street to the Harry S. Truman Parkway. Project DeRenne is the City of Savannah's process to develop a solution to the over 20 year regional traffic problem created by the interface between I-516 and DeRenne Avenue.

The City of Savannah, with their consultant team led by Kimley-Horn and Associates (KHA), started Project DeRenne in 2008, initiating the project with extensive data collection and public outreach. Since 2008, the project team has worked with the community to develop a locally preferred alternative (the Boulevard Option) to mitigate the traffic congestion and is partnering with GDOT to take this project through the PDP.

The Boulevard option creates a proposed new roadway directly from I-516 to intersect with White Bluff Road generally following the Hampstead Avenue alignment. Instead of allowing the roadway to "T" into

White Bluff Road, the new roadway realigns White Bluff, making the priority movements those traveling from White Bluff to the new roadway. The construction of the Boulevard realigns the primary entrance into Hunter Army Airfield from Montgomery Street to a new interchange with the proposed roundabout intersection for the northbound ramps of the interchange.

Traffic Volumes:

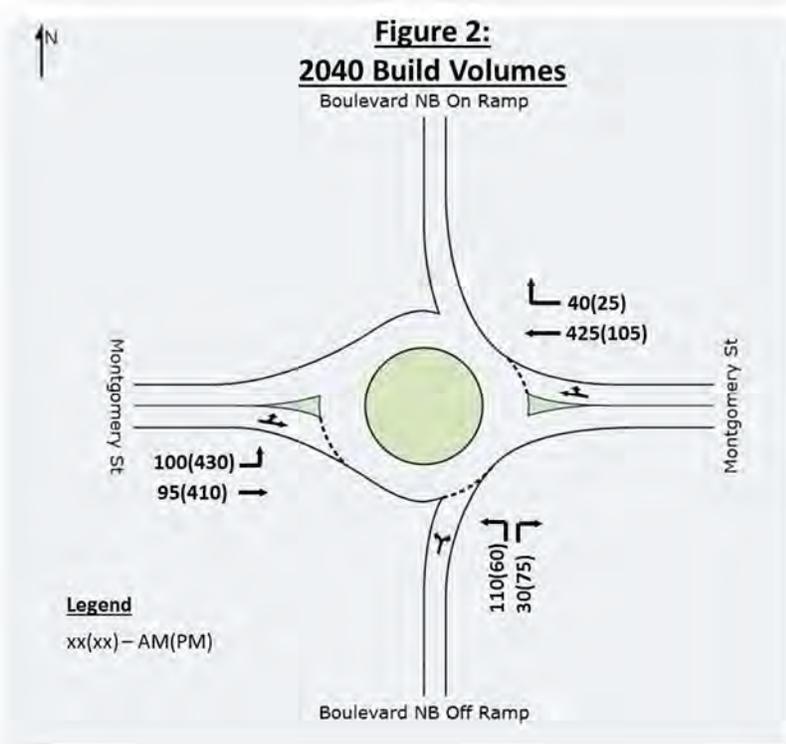
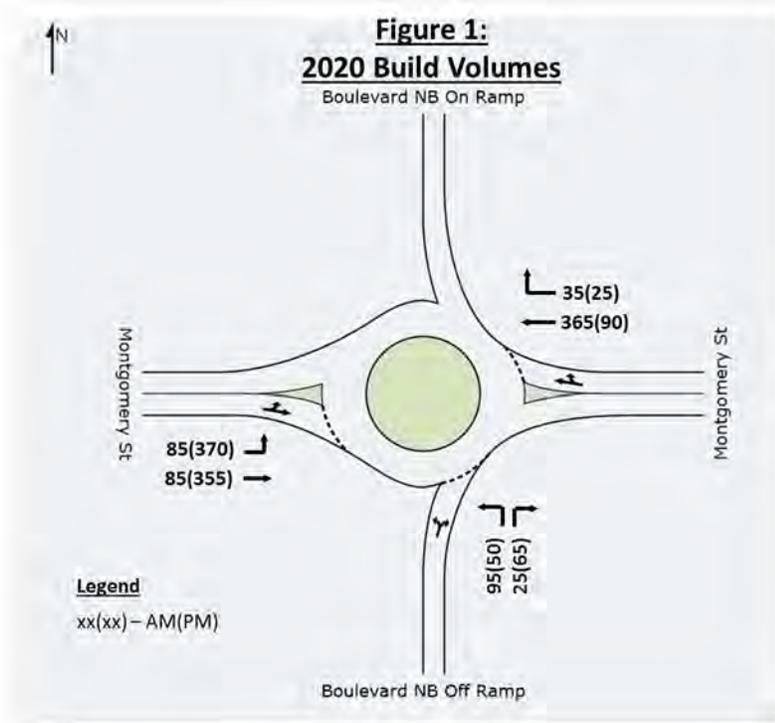
Due to congestion and extensive queueing along this corridor during the peak hours, the turning-movement counts collected in September 2012 did not fully capture the true demand on the system. To account for the latent demand on the system, observed peak-hour queue limits were compared to modeled peak-hour queue lengths, and the existing volumes were calibrated through an iterative process. The calibrated volumes were then balanced along the corridor per GDOT standards.

The projected 2020 and 2040 future build traffic volumes were developed by applying a 1.5% and a 0.75% annual growth rate, respectively, to the calibrated and balanced 2012 existing traffic volumes. The growth rates were developed utilizing Savannah's regional travel demand model and future growth assumptions. Once grown, the future traffic volumes were reassigned based on the proposed network and modified access due to the Boulevard Concept. The traffic reassignment was developed utilizing engineering judgement, recognizing existing travel patterns and understanding that additional traffic could potentially be attracted to this area due to increased capacity. The traffic volumes were approved by GDOT Office of Planning in April 2013.

Traffic that would enter the Airfield by traversing the roundabout would likely be those vehicles originating from east of the Airfield who are not coming from I-516. Traffic from I-516 would enter using the southbound exit ramp instead and bypass the roundabout. Traffic assignments were made regarding how much of the traffic from the north on Montgomery Street, east on DeRenne Avenue, and east on Hampstead Avenue based on current use of Montgomery Street to enter the Airfield. In addition, assignments to Montgomery Street were made regarding how much of this traffic is using Montgomery Street to bypass the congested intersection of DeRenne Avenue at White Bluff Road.

For exiting traffic, only those vehicles with I-516 as their destination would be required to traverse through the roundabout. Traffic assignments were again made regarding how much of the traffic making the northbound left from Montgomery Street onto I-516 is from the Airfield and how much of the traffic is from drivers bypassing the congested intersection of DeRenne Avenue at White Bluff Road.

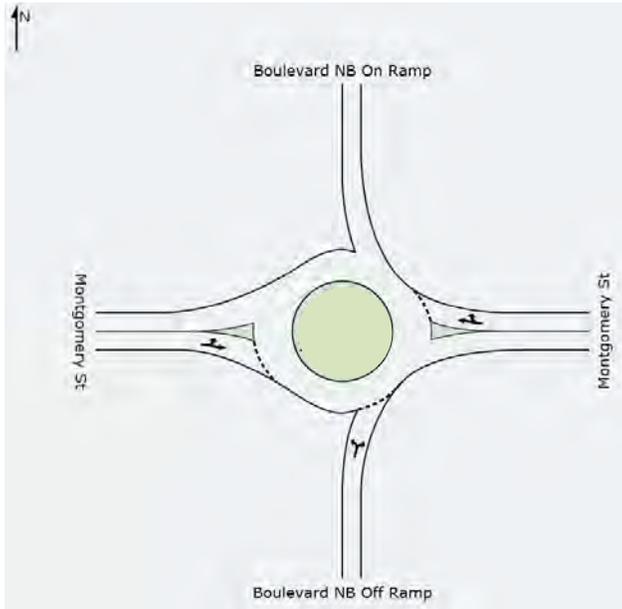
Based on these input variables and using the proposed roadway configuration under the proposed Boulevard alternative, traffic volumes accessing Hunter Army Airfield were assigned to the interchange depending upon their origin. Figures 1 and 2, on the next page, depict the projected 2020 and 2040 traffic volumes, respectively, at the roundabout ramp terminal.



Capacity Analysis

Intersection capacity analyses were performed with SIDRA Intersections version 5.1 under projected 2020 and 2040 future conditions during the AM and PM peak hours. The results of the analyses are summarized in Table 1 with more detailed results attached for reference.

Table 1. Intersection LOS w/ Average Vehicular Delay and Critical Movement Degree of Saturation – Single Lane Roundabout Configuration

Analysis Period	Single-lane		
	LOS	Av. Delay (s)	Critical DoS* (v/c)
2020 AM	A	8.2	0.45 (WB)
2020 PM	A	9.5	0.50 (EB)
2040 AM	A	8.5	0.54 (WB)
2040 PM	A	9.9	0.58 (EB)
Representative Sketch			

* From FHWA's publication *Roundabouts: An Informational Guide* (2000): "While there are no absolute standards for degree of saturation, the Australian design procedure suggests that the degree of saturation for an entry lane should be less than 0.85 for satisfactory operation. When the degree of saturation exceeds this range, the operation of the roundabout will likely deteriorate rapidly, particularly over short periods of time. Queues may form and delay begins to increase exponentially."

The results of the analysis indicate that the roundabout intersection is expected to operate at LOS A during both the AM and PM peak hours through 2040 projected traffic conditions. The unique configuration of the proposed roundabout, with only three points of entry and exit, along with the opposite peaks of traffic for the eastbound and westbound approaches, are major factors in the projected operational performance. The configuration and associated analysis suggests the long-term viability for the roundabout, and the unlikely possibility of oversaturation (measure of v/c) of the movements.

Conclusion:

Based on the results of the analysis, a single-lane, modern roundabout intersection at the proposed ramp terminal would be expected to operate acceptably under the projected 2020 and 2040 traffic conditions. No significant queues are anticipated to extend back into the roundabout or into the approaches. Furthermore, the unique configuration of the roundabout with only three points of entry and exit, along with the opposite peaks of traffic for the eastbound and westbound approaches, allow for additional traffic growth associated with Hunter Army Airfield without a significant degradation of operational performance.

INTERSECTION SUMMARY

Site: AM Peak Hour

Boulevard NB Ramps & Montgomery Roundabout
 2020 AM Peak Hour
 Roundabout

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	781 veh/h	937 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	0.449	
Practical Spare Capacity	89.2 %	
Effective Intersection Capacity	1738 veh/h	
Control Delay (Total)	1.77 veh-h/h	2.13 pers-h/h
Control Delay (Average)	8.2 sec	8.2 sec
Control Delay (Worst Lane)	12.2 sec	
Control Delay (Worst Movement)	13.5 sec	13.5 sec
Geometric Delay (Average)	6.9 sec	
Stop-Line Delay (Average)	1.3 sec	
Intersection Level of Service (LOS)	LOS A	
95% Back of Queue - Vehicles (Worst Lane)	3.1 veh	
95% Back of Queue - Distance (Worst Lane)	78.7 ft	
Total Effective Stops	467 veh/h	560 pers/h
Effective Stop Rate	0.60 per veh	0.60 per pers
Proportion Queued	0.37	0.37
Performance Index	13.5	13.5
Travel Distance (Total)	304.2 veh-mi/h	365.0 pers-mi/h
Travel Distance (Average)	2056 ft	2056 ft
Travel Time (Total)	9.6 veh-h/h	11.5 pers-h/h
Travel Time (Average)	44.3 sec	44.3 sec
Travel Speed	31.7 mph	31.7 mph
Cost (Total)	200.02 \$/h	200.02 \$/h
Fuel Consumption (Total)	14.8 gal/h	
Carbon Dioxide (Total)	140.6 kg/h	
Hydrocarbons (Total)	0.227 kg/h	
Carbon Monoxide (Total)	10.99 kg/h	
NOx (Total)	0.347 kg/h	

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	374,909 veh/y	449,891 pers/y
Delay	850 veh-h/y	1,020 pers-h/y
Effective Stops	223,994 veh/y	268,793 pers/y
Travel Distance	146,014 veh-mi/y	175,217 pers-mi/y
Travel Time	4,610 veh-h/y	5,533 pers-h/y
Cost	96,008 \$/y	96,008 \$/y
Fuel Consumption	7,125 gal/y	
Carbon Dioxide	67,485 kg/y	
Hydrocarbons	109 kg/y	
Carbon Monoxide	5,273 kg/y	
NOx	167 kg/y	

LANE SUMMARY

Site: AM Peak Hour

Boulevard NB Ramps & Montgomery Roundabout
 2020 AM Peak Hour
 Roundabout

Lane Use and Performance																
	Demand Flows			Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
	L veh/h	T veh/h	R veh/h													
South: Boulevard NB Off Ramp																
Lane 1	106	0	28	133	2.0	1029	0.130	100	12.2	LOS B	0.6	16.2	1600	-	0.0	0.0
Approach	106	0	28	133	2.0		0.130		12.2	LOS B	0.6	16.2				
East: Montgomery St																
Lane 1	0	415	40	455	2.0	1012	0.449	100	6.8	LOS A	3.1	78.7	1600	-	0.0	0.0
Approach	0	415	40	455	2.0		0.449		6.8	LOS A	3.1	78.7				
West: Montgomery St																
Lane 1	97	97	0	193	2.0	1643	0.118	100	8.6	LOS A	0.0	0.0	1600	-	0.0	0.0
Approach	97	97	0	193	2.0		0.118		8.6	LOS A	0.0	0.0				
Intersection				781	2.0		0.449		8.2	LOS A	3.1	78.7				

Level of Service (LOS) Method: Delay (HCM 2000).
 Roundabout LOS Method: Same as Signalised Intersections.
 Lane LOS values are based on average delay per lane.
 Intersection and Approach LOS values are based on average delay for all lanes.
 Roundabout Capacity Model: SIDRA Standard.
 SIDRA Standard Delay Model used.



INTERSECTION SUMMARY

Site: PM Peak Hour

Boulevard NB Ramps & Montgomery Roundabout
 2020 PM Peak Hour
 Roundabout

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	1085 veh/h	1302 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	0.501	
Practical Spare Capacity	69.5 %	
Effective Intersection Capacity	2164 veh/h	
Control Delay (Total)	2.85 veh-h/h	3.43 pers-h/h
Control Delay (Average)	9.5 sec	9.5 sec
Control Delay (Worst Lane)	15.7 sec	
Control Delay (Worst Movement)	19.3 sec	19.3 sec
Geometric Delay (Average)	8.2 sec	
Stop-Line Delay (Average)	1.2 sec	
Intersection Level of Service (LOS)	LOS A	
95% Back of Queue - Vehicles (Worst Lane)	1.2 veh	
95% Back of Queue - Distance (Worst Lane)	30.3 ft	
Total Effective Stops	705 veh/h	845 pers/h
Effective Stop Rate	0.65 per veh	0.65 per pers
Proportion Queued	0.16	0.16
Performance Index	18.3	18.3
Travel Distance (Total)	428.9 veh-mi/h	514.7 pers-mi/h
Travel Distance (Average)	2087 ft	2087 ft
Travel Time (Total)	13.6 veh-h/h	16.3 pers-h/h
Travel Time (Average)	45.1 sec	45.1 sec
Travel Speed	31.6 mph	31.6 mph
Cost (Total)	279.98 \$/h	279.98 \$/h
Fuel Consumption (Total)	20.5 gal/h	
Carbon Dioxide (Total)	194.6 kg/h	
Hydrocarbons (Total)	0.314 kg/h	
Carbon Monoxide (Total)	14.91 kg/h	
NOx (Total)	0.474 kg/h	

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	520,909 veh/y	625,091 pers/y
Delay	1,370 veh-h/y	1,644 pers-h/y
Effective Stops	338,182 veh/y	405,818 pers/y
Travel Distance	205,883 veh-mi/y	247,060 pers-mi/y
Travel Time	6,521 veh-h/y	7,825 pers-h/y
Cost	134,389 \$/y	134,389 \$/y
Fuel Consumption	9,861 gal/y	
Carbon Dioxide	93,398 kg/y	
Hydrocarbons	151 kg/y	
Carbon Monoxide	7,155 kg/y	
NOx	227 kg/y	

LANE SUMMARY

Site: PM Peak Hour

Boulevard NB Ramps & Montgomery Roundabout
 2020 PM Peak Hour
 Roundabout

Lane Use and Performance																
	Demand Flows			Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
	L veh/h	T veh/h	R veh/h													
South: Boulevard NB Off Ramp																
Lane 1	57	0	74	131	2.0	615	0.212	100	15.7	LOS B	1.2	30.3	1600	-	0.0	0.0
Approach	57	0	74	131	2.0		0.212		15.7	LOS B	1.2	30.3				
East: Montgomery St																
Lane 1	0	102	28	131	2.0	808	0.162	100	8.3	LOS A	0.8	21.5	1600	-	0.0	0.0
Approach	0	102	28	131	2.0		0.162		8.3	LOS A	0.8	21.5				
West: Montgomery St																
Lane 1	420	403	0	824	2.0	1643	0.501	100	8.7	LOS A	0.0	0.0	1600	-	0.0	0.0
Approach	420	403	0	824	2.0		0.501		8.7	LOS A	0.0	0.0				
Intersection				1085	2.0		0.501		9.5	LOS A	1.2	30.3				

Level of Service (LOS) Method: Delay (HCM 2000).
 Roundabout LOS Method: Same as Signalised Intersections.
 Lane LOS values are based on average delay per lane.
 Intersection and Approach LOS values are based on average delay for all lanes.
 Roundabout Capacity Model: SIDRA Standard.
 SIDRA Standard Delay Model used.



INTERSECTION SUMMARY

Site: AM Peak Hour

Boulevard NB Ramps & Montgomery Roundabout
 2040 AM Peak Hour
 Roundabout

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	906 veh/h	1087 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	0.539	
Practical Spare Capacity	57.7 %	
Effective Intersection Capacity	1680 veh/h	
Control Delay (Total)	2.15 veh-h/h	2.58 pers-h/h
Control Delay (Average)	8.5 sec	8.5 sec
Control Delay (Worst Lane)	12.4 sec	
Control Delay (Worst Movement)	13.7 sec	13.7 sec
Geometric Delay (Average)	6.9 sec	
Stop-Line Delay (Average)	1.6 sec	
Intersection Level of Service (LOS)	LOS A	
95% Back of Queue - Vehicles (Worst Lane)	4.1 veh	
95% Back of Queue - Distance (Worst Lane)	103.2 ft	
Total Effective Stops	571 veh/h	685 pers/h
Effective Stop Rate	0.63 per veh	0.63 per pers
Proportion Queued	0.43	0.43
Performance Index	16.1	16.1
Travel Distance (Total)	352.7 veh-mi/h	423.3 pers-mi/h
Travel Distance (Average)	2057 ft	2057 ft
Travel Time (Total)	11.2 veh-h/h	13.5 pers-h/h
Travel Time (Average)	44.7 sec	44.7 sec
Travel Speed	31.4 mph	31.4 mph
Cost (Total)	234.32 \$/h	234.32 \$/h
Fuel Consumption (Total)	17.4 gal/h	
Carbon Dioxide (Total)	164.9 kg/h	
Hydrocarbons (Total)	0.268 kg/h	
Carbon Monoxide (Total)	13.03 kg/h	
NOx (Total)	0.409 kg/h	

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	434,667 veh/y	521,600 pers/y
Delay	1,030 veh-h/y	1,236 pers-h/y
Effective Stops	274,043 veh/y	328,851 pers/y
Travel Distance	169,310 veh-mi/y	203,172 pers-mi/y
Travel Time	5,395 veh-h/y	6,474 pers-h/y
Cost	112,474 \$/y	112,474 \$/y
Fuel Consumption	8,358 gal/y	
Carbon Dioxide	79,158 kg/y	
Hydrocarbons	129 kg/y	
Carbon Monoxide	6,255 kg/y	
NOx	196 kg/y	

LANE SUMMARY

Site: AM Peak Hour

Boulevard NB Ramps & Montgomery Roundabout
 2040 AM Peak Hour
 Roundabout

Lane Use and Performance																
	Demand Flows			Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
	L veh/h	T veh/h	R veh/h													
South: Boulevard NB Off Ramp																
Lane 1	122	0	33	156	2.0	1004	0.155	100	12.4	LOS B	0.8	19.8	1600	-	0.0	0.0
Approach	122	0	33	156	2.0		0.155		12.4	LOS B	0.8	19.8				
East: Montgomery St																
Lane 1	0	483	45	528	2.0	980	0.539	100	7.3	LOS A	4.1	103.2	1600	-	0.0	0.0
Approach	0	483	45	528	2.0		0.539		7.3	LOS A	4.1	103.2				
West: Montgomery St																
Lane 1	114	108	0	222	2.0	1643	0.135	100	8.7	LOS A	0.0	0.0	1600	-	0.0	0.0
Approach	114	108	0	222	2.0		0.135		8.7	LOS A	0.0	0.0				
Intersection				906	2.0		0.539		8.5	LOS A	4.1	103.2				

Level of Service (LOS) Method: Delay (HCM 2000).
 Roundabout LOS Method: Same as Signalised Intersections.
 Lane LOS values are based on average delay per lane.
 Intersection and Approach LOS values are based on average delay for all lanes.
 Roundabout Capacity Model: SIDRA Standard.
 SIDRA Standard Delay Model used.

INTERSECTION SUMMARY

Site: PM Peak Hour

Boulevard NB Ramps & Montgomery Roundabout
 2040 PM Peak Hour
 Roundabout

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	1256 veh/h	1507 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	0.581	
Practical Spare Capacity	46.3 %	
Effective Intersection Capacity	2161 veh/h	
Control Delay (Total)	3.45 veh-h/h	4.14 pers-h/h
Control Delay (Average)	9.9 sec	9.9 sec
Control Delay (Worst Lane)	18.3 sec	
Control Delay (Worst Movement)	21.8 sec	21.8 sec
Geometric Delay (Average)	8.3 sec	
Stop-Line Delay (Average)	1.6 sec	
Intersection Level of Service (LOS)	LOS A	
95% Back of Queue - Vehicles (Worst Lane)	1.7 veh	
95% Back of Queue - Distance (Worst Lane)	42.8 ft	
Total Effective Stops	833 veh/h	1000 pers/h
Effective Stop Rate	0.66 per veh	0.66 per pers
Proportion Queued	0.17	0.17
Performance Index	21.6	21.6
Travel Distance (Total)	496.4 veh-mi/h	595.7 pers-mi/h
Travel Distance (Average)	2088 ft	2088 ft
Travel Time (Total)	15.9 veh-h/h	19.0 pers-h/h
Travel Time (Average)	45.4 sec	45.4 sec
Travel Speed	31.3 mph	31.3 mph
Cost (Total)	326.06 \$/h	326.06 \$/h
Fuel Consumption (Total)	23.9 gal/h	
Carbon Dioxide (Total)	226.1 kg/h	
Hydrocarbons (Total)	0.365 kg/h	
Carbon Monoxide (Total)	17.34 kg/h	
NOx (Total)	0.550 kg/h	

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	602,727 veh/y	723,273 pers/y
Delay	1,655 veh-h/y	1,987 pers-h/y
Effective Stops	399,952 veh/y	479,943 pers/y
Travel Distance	238,296 veh-mi/y	285,955 pers-mi/y
Travel Time	7,609 veh-h/y	9,131 pers-h/y
Cost	156,507 \$/y	156,507 \$/y
Fuel Consumption	11,458 gal/y	
Carbon Dioxide	108,516 kg/y	
Hydrocarbons	175 kg/y	
Carbon Monoxide	8,323 kg/y	
NOx	264 kg/y	

LANE SUMMARY

Site: PM Peak Hour

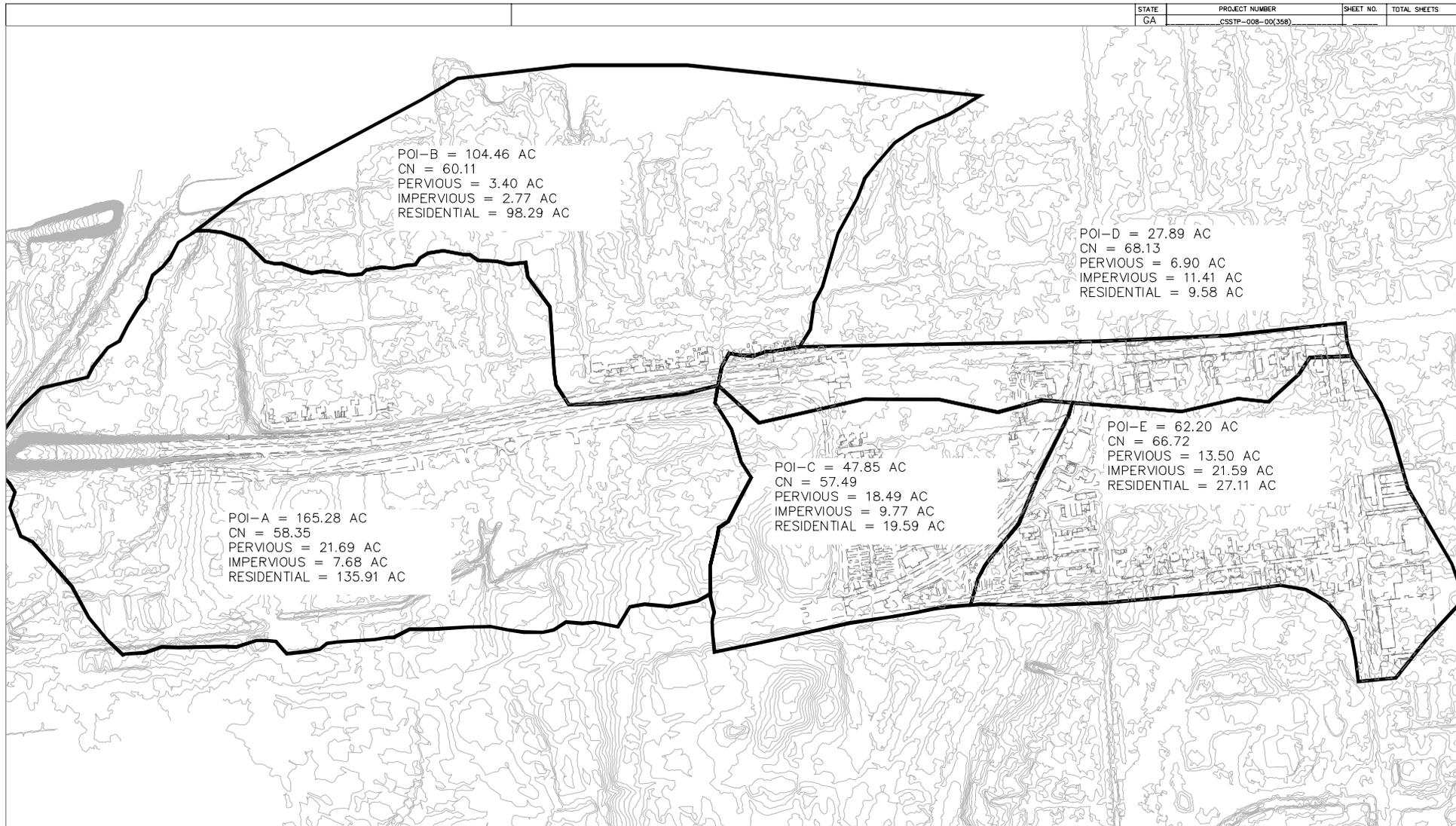
Boulevard NB Ramps & Montgomery Roundabout
 2040 PM Peak Hour
 Roundabout

Lane Use and Performance																
	Demand Flows			Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
	L veh/h	T veh/h	R veh/h													
South: Boulevard NB Off Ramp																
Lane 1	68	0	85	153	2.0	541	0.283	100	18.3	LOS B	1.7	42.8	1600	-	0.0	0.0
Approach	68	0	85	153	2.0		0.283		18.3	LOS B	1.7	42.8				
East: Montgomery St																
Lane 1	0	119	28	148	2.0	756	0.195	100	9.1	LOS A	1.1	26.9	1600	-	0.0	0.0
Approach	0	119	28	148	2.0		0.195		9.1	LOS A	1.1	26.9				
West: Montgomery St																
Lane 1	489	466	0	955	2.0	1643	0.581	100	8.7	LOS A	0.0	0.0	1600	-	0.0	0.0
Approach	489	466	0	955	2.0		0.581		8.7	LOS A	0.0	0.0				
Intersection				1256	2.0		0.581		9.9	LOS A	1.7	42.8				

Level of Service (LOS) Method: Delay (HCM 2000).
 Roundabout LOS Method: Same as Signalised Intersections.
 Lane LOS values are based on average delay per lane.
 Intersection and Approach LOS values are based on average delay for all lanes.
 Roundabout Capacity Model: SIDRA Standard.
 SIDRA Standard Delay Model used.

HYDROLOGY STUDY FOR MS-4 PERMIT

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSSTP-008-00(368)		

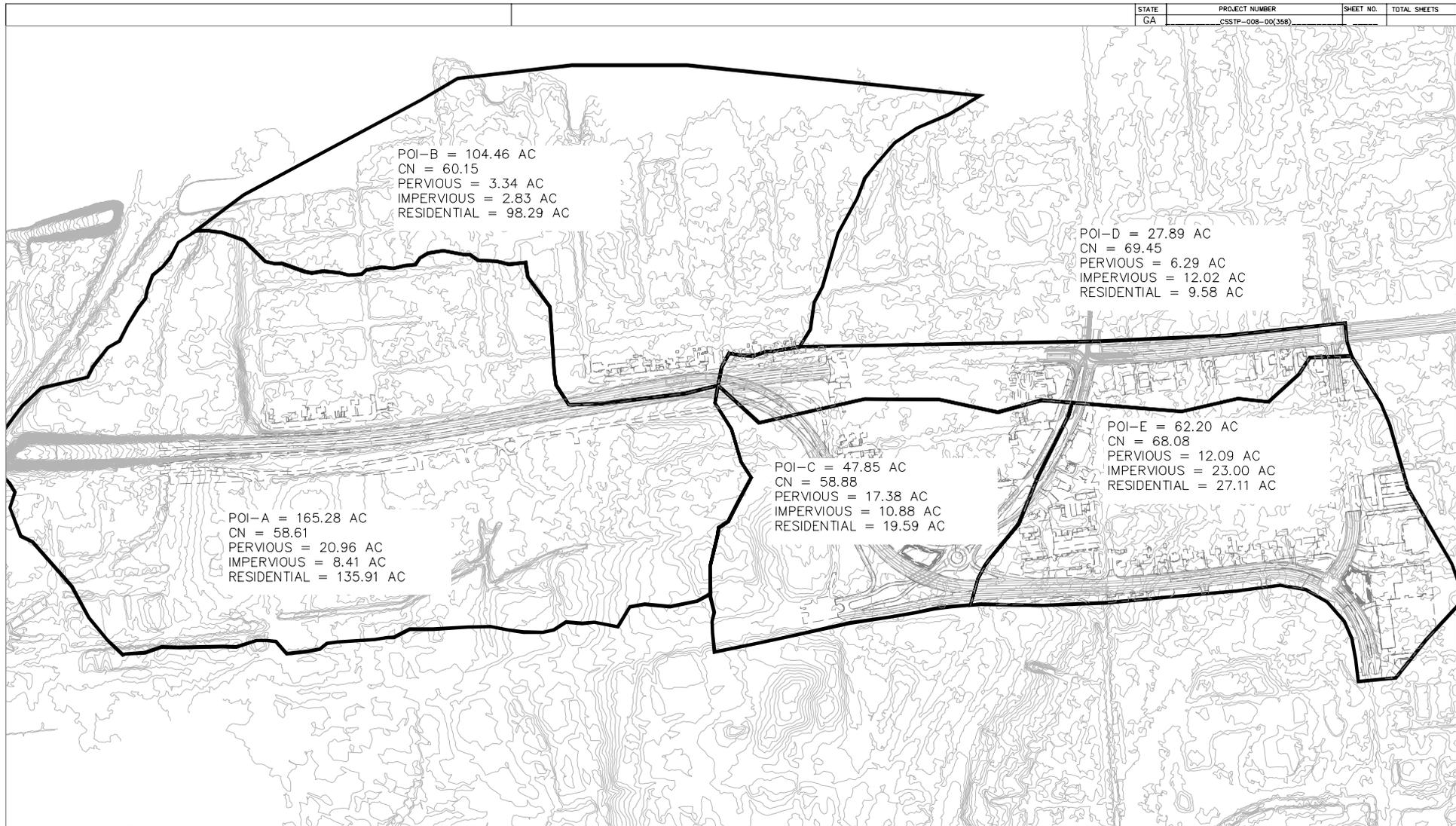


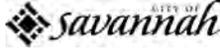
REVISION	DATE

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: _____
 PREDEVELOPMENT LAND COVER EXHIBIT

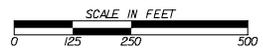
DRAWING No.
 A

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSSTP-008-00(368)		




 CITY OF *savannah*
 GEORGIA DEPARTMENT OF TRANSPORTATION

 Kimley-Horn and Associates, Inc.



REVISION DATES	STATE OF GEORGIA
	DEPARTMENT OF TRANSPORTATION
	OFFICE:
	POSTDEVELOPMENT LAND COVER EXHIBIT
	DRAWING No.
	B

**Pre vs. Post Runoff Analysis
Built Upon Area Calculation**

Project Information

Project Name: DeRenne Avenue MS4
 KHA Project #: 018281005
 Designed by: ECH Date: 7/18/2013
 Revised by: _____
 Revised by: _____
 Revised by: _____

Drainage Area Name	Area (ac)	Impervious Cover (ac)		Net Change in Impervious Coverage ¹ (ac)
		Existing	Proposed	
POI A	165.28	7.68	8.41	0.73
POI B	104.46	2.77	2.83	0.06
POI C	47.85	9.77	10.88	1.11
POI D	27.89	11.41	12.02	0.61
POI E	62.20	21.59	23	1.41

1. Impacts to drainage basins of less than one acre of additional impervious have been considered negligible impacts for this level of design.

Pre vs. Post Runoff Analysis Composite Curve Number (CN)

Project Information

Project Name: DeRenne Avenue MS4
 KHA Project #: 018281005
 Designed by: ECH Date: 7/18/2013
 Revised by: _____
 Revised by: _____
 Revised by: _____

SCS METHOD

Drainage Area Name	Drainage Location	Watershed Area (ac)	Cover/Soil Name (Type)	Cover Description	Hydrologic Soil Group	Curve Number (CN)	Area (ac)	Percent Area	Composite Curve Number (CN)
PRE-DEVELOPMENT									
EXISTING CONDITIONS	POI A	165.28		General Residential		60	135.91	82.2%	49.34
				Impervious		95	7.68	4.6%	4.41
				Pervious		35	21.69	13.1%	4.59
							165.28		58.35
EXISTING CONDITIONS	POI B	104.46		General Residential		60	98.29	94.1%	56.46
				Impervious		95	2.77	2.7%	2.52
				Pervious		35	3.40	3.3%	1.14
							104.46		60.11
EXISTING CONDITIONS	POI C	47.85		General Residential		60	19.59	40.9%	24.56
				Impervious		95	9.77	20.4%	19.40
				Pervious		35	18.49	38.6%	13.52
							47.85		57.49
EXISTING CONDITIONS	POI D	27.89		General Residential		60	9.58	34.3%	20.61
				Impervious		95	11.41	40.9%	38.87
				Pervious		35	6.90	24.7%	8.66
							27.89		68.13
EXISTING CONDITIONS	POI E	62.20		General Residential		60	27.11	43.6%	26.15
				Impervious		95	21.59	34.7%	32.98
				Pervious		35	13.50	21.7%	7.60
							62.20		66.72
POST-DEVELOPMENT									
PROPOSED CONDITIONS	POI A	165.28		General Residential		60	135.91	82.2%	49.34
				Impervious		95	8.41	5.1%	4.83
				Pervious		35	20.96	12.7%	4.44
							165.28		58.61
PROPOSED CONDITIONS	POI B	104.46		General Residential		60	98.29	94.1%	56.46
				Impervious		95	2.83	2.7%	2.57
				Pervious		35	3.34	3.2%	1.12
							104.46		60.15
PROPOSED CONDITIONS	POI C	47.85		General Residential		60	19.59	40.9%	24.56
				Impervious		95	10.88	22.7%	21.60
				Pervious		35	17.38	36.3%	12.71
							47.85		58.88
PROPOSED CONDITIONS	POI D	27.89		General Residential		60	9.58	34.3%	20.61
				Impervious		95	12.02	43.1%	40.94
				Pervious		35	6.29	22.6%	7.89
							27.89		69.45
PROPOSED CONDITIONS	POI E	62.20		General Residential		60	27.11	43.6%	26.15
				Impervious		95	23.00	37.0%	35.13
				Pervious		35	12.09	19.4%	6.80
							62.20		68.08

Proposed Conditions

Project Information

Project Name: DeRenne
 KHA Project #: 018281005
 Designed by: ECH Date: 7/18/2013
 Revised by: _____
 Revised by: _____

Hydrologic Site Parameters

Sub Area Location:	<u>POI C</u>	Predevelopment
Drainage Area (DA) =	<u>1.500</u> Acres	
Impervious Area (IA) =	<u>0.500</u> Acres	
Percent Impervious (I) =	<u>33.0%</u> %	
CN (Post-Development) =	<u>50.00</u>	
Tc (Post Development) =	<u>15.00</u> min	
Sub Area Location:	<u>POI C</u>	Postdevelopment
Drainage Area (DA) =	<u>1.500</u> Acres	
Impervious Area (IA) =	<u>1.500</u> Acres	
Percent Impervious (I) =	<u>100.0</u> %	
CN (Post-Development) =	<u>98.00</u>	
Tc (Post Development) =	<u>5.00</u> min	

Water Quality Volume Calculations - 1"- 6 hr Storm

Rv = $.05 + 0.009 \cdot I =$ 0.95
 P (Rainfall Depth) = 1.20 in
 WQv (Water Quality Volume) = 0.12 acre-ft
 WQv (Water Quality Volume) = 5173 cf
 WQv (Water Quality Volume) = 1.14 in
 CNm (Modified CN for 1-in, 6-hr Storm for SCS Method) = 99.48
 WQp (Water Quality Peak Flow from HydroCAD) = 0.74 cfs
 Water Quality Peak Time from HydroCAD = 3.18 hrs

Channel Protection Volume Calculations - 1 yr - 24 hr Storm

S (Potention Maximum Soil Retention) = 0.20 in
 P (Accumulated Rainfall for Storm Event) = 2.58 in
 Q (Accumulated Runoff Volume) = 2.35 in
 CPv (Channel Protection Volume) = 0.29 acre-ft
 CPv (Channel Protection Volume) = 12797 cf

Bioretention Design

Filter Area Calculation:

d_f (filter bed depth - 2.0' standard, 4.0' optimal) = 4.0 ft **OPTIMAL**
 k (permeability coefficient) = 0.50 ft/day
 h_f (average height of water above filter bed, 1.0' maximum) = 0.5 ft
 t_f (drain time - 1.0 day standard, 1.3 day optimal; + 3 hrs) = 1.425 days

A_f (surface area of ponding area) = $\frac{(WQ_v \cdot d_f)}{(k \cdot (h_f + d_f) \cdot t_f)}$
 $A_f = 6,453$ sf

Actual Surface Area (from Grading Plan) = 7,057 sf **BIORETENTION SURFACE AREA IS SUFFICIENT**

Dry Detention Volumes	Existing (af)	Proposed (af)	Difference (af)	Conceptual Design (af)
1 yr	0.040	0.388	0.348	0.677
25 yr	0.308	0.874	0.566	



Proposed Conditions

Project Information

Project Name: DeRenne
 KHA Project #: 018281005
 Designed by: ECH Date: 7/18/2013
 Revised by: _____
 Revised by: _____

Hydrologic Site Parameters

Sub Area Location:	<u>POI E</u>	Predevelopment
Drainage Area (DA) =	<u>2.000</u> Acres	
Impervious Area (IA) =	<u>0.500</u> Acres	
Percent Impervious (I) =	<u>33.0%</u> %	
CN (Post-Development) =	<u>45.00</u>	
Tc (Post Development) =	<u>15.00</u> min	
Sub Area Location:	<u>POI E</u>	Postdevelopment
Drainage Area (DA) =	<u>1.500</u> Acres	
Impervious Area (IA) =	<u>1.500</u> Acres	
Percent Impervious (I) =	<u>100.0</u> %	
CN (Post-Development) =	<u>98.00</u>	
Tc (Post Development) =	<u>5.00</u> min	

Water Quality Volume Calculations - 1" - 6 hr Storm

Rv = $.05 + 0.009 \cdot I =$ 0.95
 P (Rainfall Depth) = 1.20 in
 WQv (Water Quality Volume) = 0.12 acre-ft
 WQv (Water Quality Volume) = 5173 cf
 WQv (Water Quality Volume) = 1.14 in
 CNm (Modified CN for 1-in, 6-hr Storm for SCS Method) = 99.48
 WQp (Water Quality Peak Flow from HydroCAD) = 0.74 cfs
 Water Quality Peak Time from HydroCAD = 3.18 hrs

Channel Protection Volume Calculations - 1 yr - 24 hr Storm

S (Potention Maximum Soil Retention) = 0.20 in
 P (Accumulated Rainfall for Storm Event) = 2.58 in
 Q (Accumulated Runoff Volume) = 2.35 in
 CPv (Channel Protection Volume) = 0.29 acre-ft
 CPv (Channel Protection Volume) = 12797 cf

Bioretention Design

Filter Area Calculation:

d_f (filter bed depth - 2.0' standard, 4.0' optimal) = 4.0 ft **OPTIMAL**
 k (permeability coefficient) = 0.50 ft/day
 h_f (average height of water above filter bed, 1.0' maximum) = 0.5 ft
 t_f (drain time - 1.0 day standard, 1.3 day optimal; + 3 hrs) = 1.425 days

A_f (surface area of ponding area) = $\frac{(WQ_v \cdot d_f)}{(k \cdot (h_f + d_f) \cdot t_f)}$
 $A_f = 6,453$ sf

Actual Surface Area (from Grading Plan) = **8,301** sf **BIORETENTION SURFACE AREA IS SUFFICIENT**

Dry Detention Volumes	Existing (af)	Proposed (af)	Difference (af)	Conceptual Design (af)
1 yr	0.029	0.518	0.489	0.915
25 yr	0.328	1.165	0.837	

**PRELIMINARY PAVEMENT EVALUATION
SUMMARY REPORT**

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE CSSTP-0008-00(358) & (359) Chatham County
PI No. 0008358, 0008359 & 0010236
DeRenne Avenue
J. E. T. Fox

OFFICE Materials & Testing
Forest Park, Georgia

DATE February 27, 2014

FROM Charles A. Hasty, P.E., State Materials Engineer

TO Genetha Rice-Singleton, Office of Program Delivery
Attention: David Moyer, Project Manager

SUBJECT **Preliminary Pavement Evaluation Summary**
West DeRenne Avenue/Hampstead Avenue Connector
SR 21/West DeRenne Avenue from CS 346/Mildred Street to SR 204
East DeRenne Avenue from Abercorn Street to Harry S Truman Parkway

As requested, a Preliminary Pavement Evaluation Summary has been performed on the aforementioned projects. The results of this work are attached.

If additional information is needed, please contact Eugene Utsalo of the Geotechnical Environmental Pavement Bureau at (404) 608-4775.

CAH: EUU

Attachments

- Full-Depth Rigid Designs (2)
- Full-Depth Flexible Designs (2)
- Projects Location Map

cc: Karon Ivery, District Engineer, Jesup
Troy Pittman, Area Engineer, Savannah

File

PRELIMINARY PAVEMENT EVALUATION SUMMARY
For
CSSTP-0008-00(358), (359) & 0010236 Chatham County
PI No. 0008358, 0008359 & 0010236

1. LOCATION / DESCRIPTION

CSSTP-0008-00(358) is a proposed new alignment, off system, boulevard that will leave I-516 west of Mildred Street with a flyover bridge over I-516. It will go south with an overpass over Montgomery Street then will approximately follow the alignment of Hampstead Avenue until it intersects with White Bluff Road. CSSTP-0008-00(359) is proposed to consist of intersection and pedestrian improvements of East DeRenne Avenue from Abercorn Street to the Truman Parkway. The existing two left turn median are proposed to be replaced with a raised median and left turn lanes at intersections. Minor widening for radii and turn lanes is expected as part of the intersection improvements. Project 0010236 is proposed to consist of intersection and pedestrian improvements of West DeRenne Avenue/SR 21 from Mildred Street to Abercorn Avenue. The project proposes only minor widening for improved radii at intersections. The total lengths of these projects is 2.59 miles. The projects are located within the city limits of Savannah in Chatham County within the following mileposts:

<u>Milepost</u>	<u>Location</u>
0± to 0.7±	West DeRenne Avenue/SR 21
N/A	East DeRenne Avenue (CS 1503)

2. PAVEMENT CONDITION SUMMARY

0008358 – This project is mostly new proposed construction. No existing pavement evaluation was completed for this project as the existing pavement is not proposed to be retained due to changes in elevation and alignment. Please refer to Section 4: Full-Depth Section for the preliminary pavement recommendations.

0008359 - The existing pavement on East DeRenne Avenue is in good to fair visual condition. The existing pavement surface on this project is mostly asphaltic concrete. Thus, flexible pavement distresses were observed. Please see Sections 4 & 7 for preliminary pavement recommendations and distresses information respectively.

0010236 - The existing pavement on West DeRenne Avenue is in good to fair visual condition. The existing pavement on this project is all concrete. No COPACES information is available. Please refer to Section 4: Full-Depth Section for the preliminary pavement recommendations.

3. PAVEMENT RECOMMENDATION SUMMARY

The full-depth pavement recommendation is shown in Section 4: *Full-Depth Section*. No overlay and/or existing pavement rehabilitation recommendations are provided at this time. Overlay and/or existing pavement rehabilitation recommendations will be provided when a full-scale field work is completed and the existing pavement thicknesses are known.

4. FULL-DEPTH SECTION

The following full-depth flexible pavement section is recommendation for the proposed widening along East DeRenne Avenue. This pavement section is also recommended for the proposed new alignment of the West DeRenne/Hampstead Avenue Connector. A rigid pavement alternate is also provided for the Connector. This recommendation is preliminary and subject to change.

East DeRenne from Abercorn to Truman Parkway West DeRenne/Hampstead Avenue Connector				
Pay Item Number	Material	Course	Thickness	Spread Rate
402-3600	12.5 mm Superpave, Polymer-Modified	Surface	1.5 inches	165 lbs/yd ²
402-3190	19 mm Superpave	Binder	2 inches	220 lbs/yd ²
402-3121	25 mm Superpave	Asphalt Base	4 inches	440 lbs/yd ²
310-5120	Graded Aggregate Base	Base	12 inches	N/A

The following full-depth rigid pavement section is recommendation for the proposed widening along West DeRenne Avenue. This pavement section is also recommended as an alternative to the asphalt section above for the proposed new alignment of the West DeRenne/Hampstead Avenue Connector. This recommendation is preliminary and subject to change.

West DeRenne from Mildred Street to Abercorn West DeRenne/Hampstead Avenue Connector				
Pay Item Number	Material	Course	Thickness	Spread Rate
430-0200	Plain PC Concrete Pavement	Surface	10 inches	N/A
310-5080	Graded Aggregate Base	Base	8 inches	N/A

5. OVERLAY SECTIONS

No overlay recommendations are available at this time. The overlay or existing pavement recommendations will be provided when the complete pavement evaluation summaries are completed for these projects.

6. CORES

Cores have not been recovered on these projects. Therefore, no core information is available at this time.

7. PAVEMENT DISTRESSES

Except for the following, no other distresses were encountered during the field investigation of this project:

Load Cracking Levels 1 & 2 load cracks were observed along East DeRenne Avenue between Abercorn Street and the Truman Parkway.

Reflection Cracking Levels 1 & 2 cracks which appeared to be reflective were also observed along East DeRenne Avenue between Abercorn Street and the Truman Parkway. This will have to be confirmed by obtaining core samples to verify the presence of concrete pavement underneath the asphalt pavement.

8. COPACES

COPACES data are not available for city streets and concrete sections; therefore, this information is not included with this report.

9. OTHER INFORMATION

- The use of asphalt mixes recommended in this report meet the “Guidelines for Superpave and Other Mix Type Selection” established on March 18, 2011.
- This is a preliminary pavement evaluation request. No core samples were recovered during the field work of these projects.
- The pavement designs are based on traffic volumes that were provided by Kimley-Horn and Associates, Inc. and approved by the Office of Planning.

- The pavement design recommendations may be revised if updated traffic data is available at the time a complete pavement evaluation work is being performed.
- The final Soil Survey Summary has not been completed for this project. The attached design uses typical values for Chatham County.

Reported By: Eugene Utsalo, P.E.

Reviewed By:



A. J. Jubran, P. E.
State Pavement Engineer

Flexible Pavement Design Analysis

PI Number	0008358	County(s)	Chatham
Project Number	CSSTP-0008-00(358)	Design Name	DeRenne Avenue Connector
Project Description	West DeRenne Avenue/Hampstead Avenue Connector		

Traffic Data (AADTs are one-way)					Miscellaneous Data		
Initial Design Year	2020	Initial AADT, VPD	14,625	24 Hour Truck %	6.50	Lanes in one direction	2
Final Design Year	2040	Final AADT, VPD	16,975	SU Truck %	4.50	Curb & Gutter/Barrier	Yes
		Mean AADT, VPD	15,800	MU Truck %	2.00		

Design Data					
Lane Distribution Factor (%)	90.00	Soil Support Value	4.00	Single Unit ESAL	0.40
Terminal Serviceability Index	2.50	Regional Factor	1.70	Multiple Unit ESAL	1.50
		User Defined 18-KIP ESAL	0.00	Calculated 18-KIP ESAL	0.74
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
15,800	90.00	Single Unit Truck	4.50	0.40	256
		Multi Unit Truck	2.00	1.50	427
Total Daily ESALs					683
Total Design Period ESALs					4,985,900

Proposed Flexible Full Depth Pavement Structure				
Course	Material	Thickness (inches)	Structural Coefficient	Structural Value
Course 1	12.5 mm Superpave, Polymer Modified	1.50	0.4400	0.66
Course 2	19 mm Superpave	2.00	0.4400	0.88
Course 3	25 mm Superpave	1.00	0.4400	0.44
		3.00	0.3000	0.90
Course 4	Graded Aggregate Base	12.00	0.1600	1.92
Required SN	4.80	Proposed pavement is 0.05% Overdesigned		Proposed SN
				4.80

Design Remarks	Full-Depth Asphalt - Alternate 1
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Prepared By  2/17/2014 11:27 AM

 Pavement Test Engineer Date

Recommended By _____
 State Roadway Design Engineer Date

Approved By _____
 State Pavement Engineer Date

Flexible Pavement Design Analysis

PI Number	0008358	County(s)	Chatham
Project Number	CSSTP-0008-00(358)	Design Name	E DeRenne Ave FM Abercorn to Truman Pkwy
Project Description	West DeRenne Avenue/Hampstead Avenue Connector		

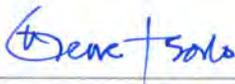
Traffic Data (AADTs are one-way)					Miscellaneous Data		
Initial Design Year	2020	Initial AADT, VPD	23,155	24 Hour Truck %	6.50	Lanes in one direction	2
Final Design Year	2040	Final AADT, VPD	26,875	SU Truck %	4.50	Curb & Gutter/Barrier	Yes
		Mean AADT, VPD	25,015	MU Truck %	2.00		

Design Data					
Lane Distribution Factor (%)	90.00	Soil Support Value	4.00	Single Unit ESAL	0.40
Terminal Serviceability Index	2.50	Regional Factor	1.70	Multiple Unit ESAL	1.50
		User Defined 18-KIP ESAL	0.00	Calculated 18-KIP ESAL	0.74
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
25,015	90.00	Single Unit Truck	4.50	0.40	406
		Multi Unit Truck	2.00	1.50	676
Total Daily ESALs					1,082
Total Design Period ESALs					7,898,600

Proposed Flexible Full Depth Pavement Structure				
Course	Material	Thickness (inches)	Structural Coefficient	Structural Value
Course 1	12.5 mm Superpave, Polymer Modified	1.50	0.4400	0.66
Course 2	19 mm Superpave	2.00	0.4400	0.88
Course 3	25 mm Superpave	1.00	0.4400	0.44
		3.00	0.3000	0.90
Course 4	Graded Aggregate Base	12.00	0.1600	1.92
Required SN	5.13	Proposed pavement is 6.39% Underdesigned		Proposed SN
				4.80

Design Remarks	Full-Depth for widening
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Prepared By  2/17/2014 11:39 AM
Pavement Test Engineer Date

Recommended By _____
State Roadway Design Engineer Date

Approved By _____
State Pavement Engineer Date

Rigid Pavement Design Analysis

PI Number	0008358	County(s)	Chatham		
Project Number	CSSTP-0008-00(358)	Design Name	West DeRenne from Mildred to Abercorn		
Project Description	West DeRenne Avenue/Hampstead Avenue Connector				
Section Location	W DeRenne Mainline			Type Section	JPCP
Begin Section Station	xx+xxx	End Section Station	xx+xxx	Section Length	0.6

Traffic Data (AADTs are one-way)					Miscellaneous Data		
Initial Design Year	2020	Initial AADT, VPD	22,145	24 Hour Truck %	6.50	Lanes in one direction	2
Final Design Year	2040	Final AADT, VPD	25,700	SU Truck %	4.50	Curb & Gutter/Barrier	Yes
		Mean AADT, VPD	23,923	MU Truck %	2.00	Interstate	No

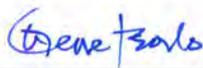
Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
23,923	90	Other Vehicles	93.50	0.004	81
		Single Unit Truck	4.50	0.500	485
		Multi Unit Truck	2.00	2.680	1,155
Total Daily ESALs					1,721
Total Design Period ESALs					12,563,300

Design Data							
Terminal Serviceability Index (P _t)	2.50	Working Stress (psi)	450	Modulus of Elasticity (psi)	3,200,000		
Soil Support Value	4.00	Subgrade Modulus (k)	190	Subbase Modulus (k ₁)	230	Subbase Modulus (k _{eff})	230
Trial Depth of PCC Pavement (inches)			10.00	Calculated Stress from Equation (psi)			485.31
% Overstressed		7.85	% Underdesigned		7.28	Balanced Thickness (inches)	
Non-Standard Value Comment							

Proposed Rigid Pavement Structure	
Material	Thickness (inches)
JPCP - Jointed Portland Cement Concrete Pavement	10.00
19 mm Superpave Asphaltic Concrete Interlayer	0.00
Graded Aggregate Base	8.00

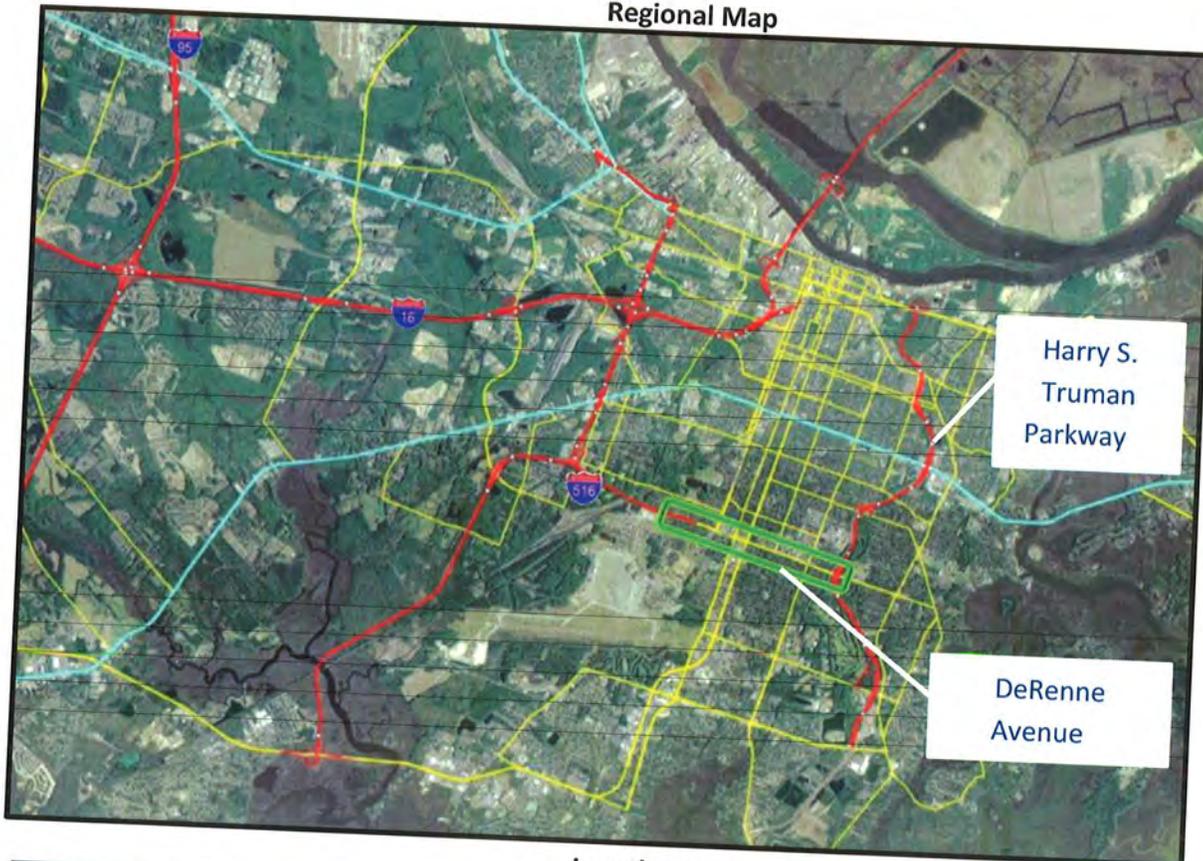
JPCP - Dowel Bar Size and Spacing
Refer to GDOT Standard 5046H: Joint Details for Portland Cement Concrete Paving

Design Remarks	Full-Depth for widening
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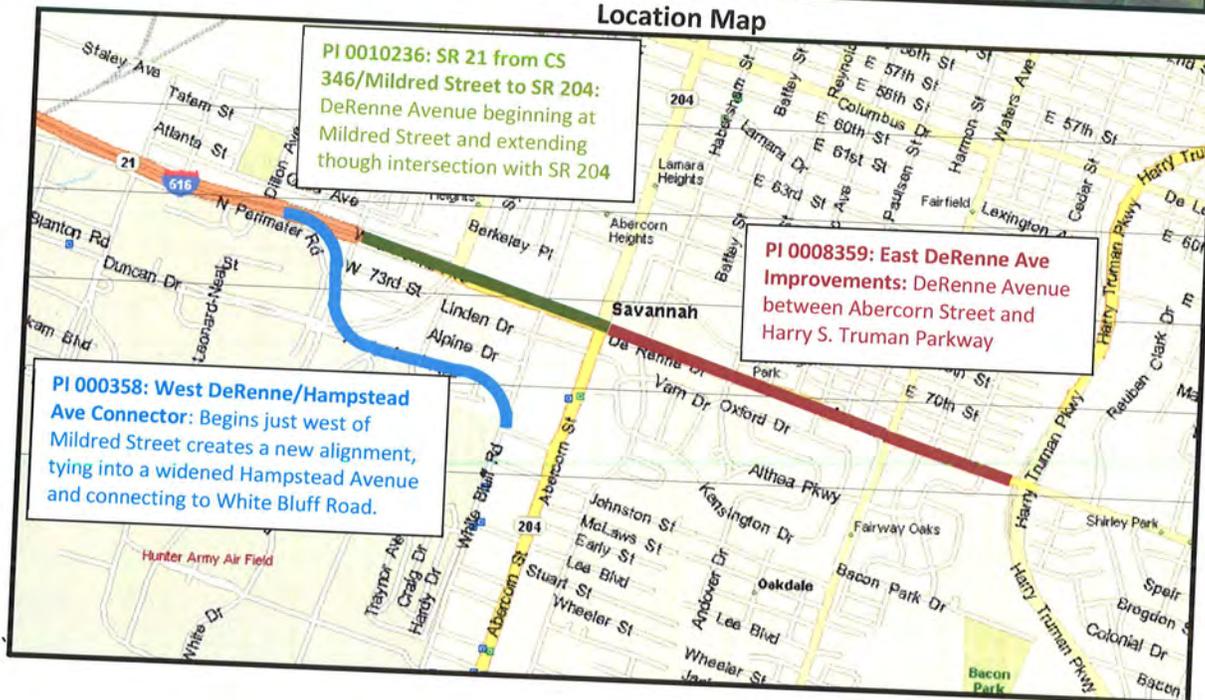
Prepared By		2/17/2014 11:33 AM
	Pavement Test Engineer	Date
Recommended By	State Roadway Design Engineer	Date
Approved By	State Pavement Engineer	Date

PROJECT LOCATION

Regional Map



Location Map



HIGHWAY SAFETY MANUAL CRASH REDUCTION FACTOR CALCULATIONS



Installing a raised median for East and West DeRenne.

CMF / CRF Details

CMF ID: 3034

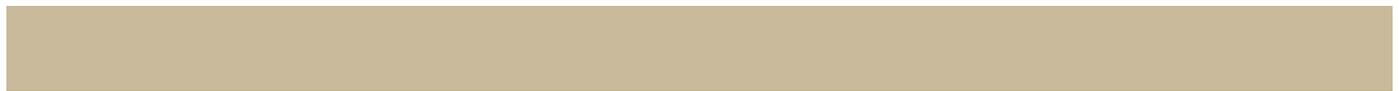
Install raised median

Description:

Prior Condition: no raised median

Category: Access management

Study: [Analyzing Raised Median Safety Impacts Using Bayesian Methods, Schultz et al., 2011](#)



Star Quality Rating:	 [View score details]
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Crash Modification Factor (CMF)

Value:	0.61
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)

Value:	39 (This value indicates a decrease in crashes)
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Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability	
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Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	Divided by Median
Speed Limit:	
Area Type:	
Traffic Volume:	10000 to 55000 <i>Average Daily Traffic (ADT)</i>
Time of Day:	All

<i>If countermeasure is intersection-based</i>	
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Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Development Details	
Date Range of Data Used:	1998 to 2008
Municipality:	
State:	UT
Country:	USA
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	Site-years
Before Sample Size Used:	32 Site-years
After Sample Size Used:	28 Site-years

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	01-04-2012
Comments:	

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute

a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.

MINUTES OF CONCEPT MEETINGS



Coordination Meeting with GDOT July 20, 2010

ATTENDEES:

Angela Alexander, GDOT
Tim Kassa, GDOT
Darrell Richardson, GDOT
Larry Bowman, GDOT
Mack Cravey, GDOT
Brad Saxon, GDOT
Tom Thomson, CORE MPO
Mark Wilkes, CORE MPO
Bob Scanlon, City of Savannah (COS)
Susan Broker, COS
Sean Brandon, COS
Heather Fish, COS
Diane Claybaugh, COS
Rob Hume, Kimley-Horn and Associates, Inc (KHA)
Gary Newton, KHA
Fran McCutcheon, KHA
Andy Pitman, Edwards-Pitman Environmental, INC (EP)
Josh Earhart, EP

General Discussion:

- I. Rob presented an overview of Project DeRenne highlighting the completed phases of the project (Phase I and II), public involvement to date, data collection, 5 day charrette, the Boulevard option, east and west DeRenne Avenue improvements, and the schedule moving forward.
- II. TIP Update:
 - a. Project DeRenne is listed in the recently adopted CORE FY2010-2014 TIP as a study. Now that the Mayor and Alderman have adopted a preferred alternative and

directed the project to move forward into engineering, the TIP needs to be updated to prioritize DeRenne as a project.

- b. The MPO and project team will work together to get the TIP amended to reflect three projects:
 - i. The Boulevard Option
 - ii. West DeRenne Avenue Improvements
 - iii. East DeRenne Avenue Improvements
- c. These three projects will utilize TIP numbers that were established for DeRenne in 2008 (PI 0008358, PI 0008359, and PI 0008360). PI 0008358 and 359 have approximately \$75,000 of L230 funds associated with them from 2008.
- d. These three projects will be listed in the TIP for engineering and right of way acquisition funded by SPLOST money.

III. PDP Process:

- a. Need and Purpose Statement: The project team is close to a first draft of the Need and Purpose statement and plans to send it to GDOT within the coming weeks.
- b. Concept Report: The concept report is in a draft form and the project team will be working with GDOT to finalize this document in the coming month.
- c. Value Engineering Study: Upon finalization of the concept, the project team will contact Lisa Meyers to make arrangements for the study.
- d. Project Framework Agreement (PFA): The PFA will not be required until a state funding source is identified.
- e. GDOT indicated that the City will need to be a Certified Local Government Provider. This is a new procedure for locally lead projects. Brad indicated that this could be accomplished and he would contact the City to help with this process. .
- f. Road ownership was discussed for the new Boulevard. It is unclear at this time if the new road will be a state road or a local road. The state roadway system currently utilizes GA21 to GA204, however could conceivably be rerouted to utilize the Boulevard to White Bluff to GA204. GDOT's preference at this time would be to leave DeRenne, from Mildred to Abercorn, the state route and have the Boulevard a local road. GDOT and the project team need to investigate this further.

IV. FHWA Coordination

- a. IMR vs IJR: GDOT is unsure whether implementation of the Boulevard will be considered an IMR or IJR. This will need to be included in coordinated discussion with FHWA.
- b. NEPA Documentation: The meeting with FHWA will also provide insight into whether an environmental assessment (EA) or environmental impact study (EIS) will be required.

V. ROW Coordination

- a. Hunter Army Airfield has proposed to the City of Savannah that instead of giving land for the project, they would prefer to grant the City an easement across the property for the construction of the roadway. An easement is a much easier process for Hunter and will take a substantially shorter time to complete the process. The team needs to determine whether this will be acceptable to GDOT and/or FHWA.
- b. HAAF noted in prior discussions that State roadways have been constructed on Department of Defense property, via an easement, in other locations. GDOT thinks that a portion of I-16 in Macon may have been constructed on an easement as well.
- c. GDOT is going to further research this possibility internally prior to coordinating with FHWA.
- d. Upon receiving resolution on the easement issue, the City will enter into an agreement with HAAF outlining each parties responsibilities moving forward.
- e. The City of Savannah would like to establish a ROW preservation corridor to assist residents and business who are interested in selling their property that may be impacted by the project in the future. For example, if an impacted resident must sell their property (job relocation, etc), the City could offer to purchase the property in advance of construction. Most importantly though, the City does not want to circumvent any critical procedures that could jeopardize future State or Federal funding.
- f. The City's preference would be for any advance ROW acquisition to be considered local match for any outside funding source, however the City may be willing to look into procedures allowing the purchase with local funds (not eligible for match), but only if that would be the only way to avoid jeopardizing outside funding.
- g. GDOT indicated that typically the only reason they would purchase property in advance would be for protective buys or hardship. Generally this process is via appraisal only (there are no negotiations involved in early acquisitions). If the property owner refuses the offer then the sale will not occur and will be postponed until the ROW acquisition phase.
- h. It was also pointed out that an impacted property (by construction) may not substantiate purchasing the entire parcel.
- i. GDOT suggested that the project team discuss early right of way acquisition and utilization of an easement across HAAF with FHWA to obtain additional clarification.

VI. Tatemville Wall

- a. As a part of the DeRenne resolution, City Council would like to pursue the construction of a sound wall along the border of I-516/DeRenne Avenue and the Tatemville neighborhood. Some structures on the residential properties adjacent to the roadway are less than 8 feet away from the edge of pavement.

- b. GDOT suggested that the project team investigate where the ROW for 516/DeRenne ends to ensure that all residential structures are located on private property and not in the ROW.
- c. The City does not view this project as a part of the Boulevard Option, but sees it as a separate, locally funded project.
- d. If lead locally, construction of this wall could possibly be accomplished through an encroachment permit at the district office.

VII. Points of Contact

- a. City of Savannah:
 - i. Susan Broker (sbroker@savannahga.gov)
 - ii. Mike Weiner (mweiner@savannahga.gov)
- b. GDOT:
 - i. Tim Kassa, Planning (tkassa@dot.ga.gov)
 - ii. Darrell Richardson, Design (drichardson@dot.ga.gov)
 - iii. Brad Saxon, Design (bsaxon@dot.ga.gov)
 - iv. Larry Bowman, Environmental (lbowman@dot.ga.gov)
 - v. Mack Cravey, ROW (mcravey@dot.ga.gov)
- c. Consultant Team:
 - i. Rob Hume, KHA (rob.hume@kimley-horn.com)
 - ii. Fran McCutcheon, KHA (fran.mccutcheon@kimley-horn.com)

VIII. Next Steps:

- a. The project team will coordinate with GDOT to set up a meeting with FHWA in Atlanta. This meeting will need to include design, ROW and environmental staff. This meeting will likely take several hours and accordingly will not fit as a part of the August 5th agenda.

FHWA COORDINATION MEETING – SAVANNAH STAFF EXEC. SUMMARY

Meeting Objectives

- 1) Provide an overview of Project DeRenne.
- 2) Confirm the anticipated level of environmental and interchange related documentation.
- 3) Discuss the draft Advance Right-of-Way Acquisition program to ensure the approach is in compliance with FHWA policies.

AGENDA

I. Introductions

FHWA attendees:

Carlos Figueroa-Transportation Engineer: Carlos.Figueroa@dot.gov

Jennifer Geirsch-Environmental Coordinator: Jennifer.Geirsch@dot.gov

Michele Lindberg- Realty Officer: Michele.Lindberg@dot.gov

Carlos Gonzalez- Transportation Planner: Carlos.Gonzalez@dot.gov

II. Background: Project DeRenne

III. Environmental Requirements

➤ West DeRenne

What we heard: Environmental Assessment (EA) seemed likely

➤ East DeRenne

What we heard: include this section in the EA for the Boulevard & West

IV. IJR / IMR

What we heard: pursue an IJR, modifying the terminus of I-516 would be unlikely

Next Steps: Pursue the IJR via Phase III however we feel it is worth limited further investigation with the FHWA administrator before abandoning the idea of shifting the terminus of the interstate

V. Draft Advance Right of Way Acquisition Program

What we heard:

- FHWA ROW would likely consider any advanced ROW acquisition affiliated with Project DeRenne to be subject to Federal policies for ROW acquisition such that - if it was an advance purchase of a total property (even if voluntary) URA would be required

- FHWA ROW could consider any advanced ROW acquisition affiliated with Project DeRenne to be an influence on the yet to be completed NEPA process.

Next Steps:

- Confirm with GDOT ROW that URA would be required for Advanced Acquisition.
- Obtain a better understanding as to how advance acquisition would influence the NEPA process.
- Update the memo and DRAFT Advanced Acquisition materials according to the findings.

VI. Tatemville Noise Wall

This topic was not covered due to time constraints.

VII. Project Funding

The City asked FHWA for assistance in identifying project.

VIII. Next Steps

This topic was not covered due to time constraints.

Other Related Items:

Need and Purpose:

With FHWA looking at all three projects as one NEPA process, how should the Need and Purpose be handled?

Next Steps:

- Confirm the best approach with GDOT Planning.

Concept Report:

With FHWA looking at all three projects as one NEPA process, how should the Concept Reports be handled?

Next Steps:

- Confirm the best approach with GDOT Planning.

GDOT Coordination:

The City was unofficially encouraged (not by FHWA) to call Todd Long prior to sending the formal letter requesting funding assistance from GDOT.

GDOT TEAM KICKOFF MEETING: PI008358, PI008359 & PI0010236

DATE: November 22, 2011

LOCATION: Video conference - Atlanta and Jesup offices

ATTENDEES:

Atlanta

David Moyer - GDOT
 Jeff Fletcher - GDOT
 Jonathon Cox - GDOT
 Andrew Casey - GDOT
 Ken Werho - GDOT
 Bill DuVall - GDOT
 Ken Thompson - GDOT
 Larry Bowman - GDOT
 Kaycee Mertz - GDOT
 Thomas Scruggs, GDOT

Stanley Hill, GDOT

Jesup

Teresa Scott - GDOT
 Mack Cravey - GDOT
 Stephen Thomas - GDOT
 Wykoda Wang - CORE MPO
 Susan Broker - City of Savannah
 Rob Hume - Kimley-Horn and Associates
 Fran McCutcheon, KHA

GENERAL DISCUSSION:

- I. Overview:
 - a. PI 008358 represents the Boulevard Option (new alignment).
 - b. PI 008359 represents East DeRenne Avenue Improvements (east of Abercorn Street, City maintained, on the NHS)
 - c. PI 0010236 represents West DeRenne Avenue Improvements (I-516 through intersection with Abercorn Street)
- II. Oversight Funding
 - a. GDOT and CORE need to confirm the precise status of oversight funds for each project. There is a 20% local match required on funds.
 - b. Some L230 funding is established for 0008358 and 0008359. There is no oversight funding currently established for 0010236.
 - c. Project oversight funding was summarized verbally in the meeting as follows:

PI	Name	Oversight Costs	Identified Funding	Required Local Portion
0008358	Boulevard	\$114,000	\$75,000	TBD
0008359	East	\$68,000	\$75,000	TBD
0010236	West	\$65,000		

- d. Once oversight funding has been resolved (and the PFA executed), CORE will update the TIP accordingly.
- III. PFA
 - a. It is anticipated that there will be three PFAs

- b. Construction funding will not likely be addressed in the first version of the PFA's
- c. It is anticipated that local funds (SPLOST) will be utilized for PE (all three projects).
- d. It is anticipated that local funds could be utilized for East and West DeRenne ROW.
- e. The addition of ROW for the Boulevard Option would likely exceed local funds
- f. Stephen Thomas indicated that responsibility for utility work associated with project construction should be noted in the PFA:
 - i. Utility work associated with East DeRenne should be a local responsibility (locally maintained road).
 - ii. Utility work associated with West DeRenne would typically be a GDOT responsibility (GDOT maintained road)
 - iii. Discussion of utility work associated with the Boulevard brought about discussion regarding the intended maintenance responsibility for the Boulevard. This discussion was tabled until later in the meeting.
- g. GDOT is going to initiate drafting the PFA's (Teresa Scott)
- h. The PFA will be revised as the projects progress and as new funding is identified.

IV. Overview

- a. The City's Consultant (Rob with Kimley-Horn) presented an overview of Project DeRenne highlighting the completed phases of the project (Phase I and II), public involvement to date, data collection, and the developed locally preferred alternatives (the Boulevard option, East and West DeRenne Avenue improvements).
- b. The presented draft Working Schedule for the project was questioned as being aggressive given the likely extent of the environmental process.
- c. The consultant noted that the schedule was prepared in advance of the draft cultural resources findings and did not reflect section 106 and/or section 4(f).

V. Environmental

- a. Based on previous coordination the City has had with FHWA, the City is proceeding with the assumption of preparing one environmental document for all three projects, assumed to be an EA.
- b. The City initiated the cultural resources survey of the project corridor and has preliminary findings from the environmental consultant, Edwards Pitman. (See the memo included in the meeting request) Most notable, there are some potential section 106 and/or section 4(f) eligible features that could be impacted by the Boulevard Concept. Most notably the Poplar Place and University Place neighborhoods - which appear eligible to be historic districts.
- c. It was asked what the former Montgomery Street ROW would likely be used for if the roadway was realigned as indicated in the concept rendering. Rob responded that the City (with strong input from both the University Place and Poplar Place neighborhoods) would like to see this area re-planned to strengthen and reconnect the neighborhoods.
- d. A question was asked regarding the utilization of Rogerwood Street for the extension of Montgomery to the Boulevard. This street is currently envisioned to be a two lane, undivided roadway that will form the 4th leg of the Montgomery and DeRenne intersection. This roadway

was originally envisioned as a two lane median divided boulevard, but strong community input encouraged that this roadway be as narrow as possible.

- e. GDOT noted that the schedule was aggressive considering there may be section 4(f) impacts. He would like to see the environmental take 24 to 27 months. He suggested a meeting with Edwards Pitman, the City, KHA and GDOT to discuss moving forward.
- f. It was also discussed that there could be historic structures impacted and that often relocation is problematic and not necessarily beneficial for mitigation.
- g. GDOT noted that the City should contact Hunter Army Airfield to determine what NEPA documentation will be required in order for Hunter to grant an easement to accommodate the Boulevard option. It could be beneficial to include Hunter's requirements in the project's EA to expedite the schedule.
- h. GDOT inquired as to the potential of contamination in the vicinity of the proposed projects. It was noted that no one was aware of any circumstances in the area that would be an obvious contributor, but that it would be reviewed as a part of the project.

VI. I-516 Flyover Bridge

- a. It is currently understood that DeRenne Avenue begins as I-516 ends just west of the intersection with Mildred Street, roughly 1500 feet west of the Montgomery Intersection.
- b. The opinion of the group was that the concept Boulevard's connection to I-516 would most likely require an IJR as opposed to an IMR.
- c. One idea that has been discussed is whether the terminus of I-516 could be shifted westward beyond the point of connection with the Boulevard concept; and whether this idea would simplify processes with GDOT and FHWA. The opinion of the group was that the process of redefining the limits of the interstate would likely entail as much overall effort as the potential IJR for the new interchange.
- d. Confirmation on the approach to the IJR (versus IMR) will require a meeting with FHWA and the Planning Office.

VII. Benefit to Cost Ratio:

- a. It was noted that GDOT's PDP no longer utilizes a B/C ratio.

VIII. Intersection of DeRenne and Abercorn Street

- a. GDOT inquired if the intersection with Abercorn Street is included in East or West DeRenne Avenue Improvements. The City stated it was included in West DeRenne Avenue since the character and operation of that intersection is more consistent with the function of West DeRenne. The character of DeRenne Avenue changes rather substantially west and east of Abercorn Street.

IX. Bridges

- a. The consultant pointed out the two bridge locations - the WB flyover to I-516 and Boulevard bridge over the entry road to Hunter Army Airfield (HAAF).
- b. The City would like to plan for aesthetic enhancement to the bridges. GDOT indicated that the City would be required to fund any additional costs beyond that of the standard required bridge.
- c. The structures group will review the preliminary layouts of the bridges at the PFPR.

- d. The City will forward GDOT the renderings of the proposed HAAF entry area.
- X. Lighting
 - a. No lighting plans have been developed at this time. The City would likely intend to light the Boulevard. GDOT noted lighting would most likely be low mast due to the proximity to the airfield.
 - b. Lighting would be required for the roundabouts envisioned at HAAF. GDOT recommended that Scott Zehngraff review the roundabout concept early to confirm its suitability in that application.
 - c. GDOT would typically fund the lighting infrastructure; the City will typically fund the power service.
- XI. Traffic
 - a. GDOT inquired if there are any known plans for ITS in this area (I-516/DeRenne). It was noted that any state and local efforts should be coordinated as the projects progress.
 - b. The traffic counts were collected in 2008 utilizing a combination of simultaneous turning movement counts at all of the project intersections during the peak periods as well as tube counts and queue observation and documentation.
 - c. The group generally concluded that it appears unlikely volumes and movements in the corridor have changed significantly since the counts were completed. As such the project can likely proceed utilizing the existing data, though confirmation counts may be appropriate before the final concept.
 - d. Traffic work for the project should be reviewed with Abby Ebodaghe.
- XII. Planning:
 - a. It was noted that a draft Need and Purpose had been prepared previously however a Project Justification Statement would now be required. The Project Justification Statement should be able to be derived from the Need and Purpose.
- XIII. VE Study
 - a. A VE Study will be required on the Boulevard.
 - b. It was unclear if a VE Study will be required for East and West DeRenne Improvements depending on the total costs.
 - c. The VE study will be handled by GDOT but funded with local funds. GDOT will hire the VE review consultant. The study will generally cost around \$40K.
 - d. David suggested that the draft concept be reviewed and comments addressed prior to a VE study being performed. The final concept would be established following the VE Study.
 - e. GDOT suggested that a preliminary profile be prepared prior to the VE study.
 - f. It was noted that the VE study is intended to identify big issues at this stage such that fine tuning can occur through the plan development.
- XIV. Utilities
 - a. At this time SUE is not planned by the City as the planned improvements along East and West DeRenne are envisioned to be contained with the existing curbs. The Boulevard

represents new alignment and utilities serving the existing neighborhoods are generally known.

- b. SUE may be considered in the future should circumstance warrant.

XV. State Route

- a. The group discussed maintenance responsibility for the Boulevard between State and local.
- b. In order for the Boulevard to become state maintained, an equivalent mileage of existing State facility would need to be shifted to local such that there would be no net increase in state system mileage.
- c. It was noted that Mike Henry would be the best first point of contact for discussions on this topic.

XVI. Initial Concept Meeting:

- a. This meeting does not constitute the Initial Concept Meeting. The meeting will be scheduled in early January.

XVII. Action Items

1. GDOT and MPO will confirm and document oversight funding
2. David to forward a letter to the City of Savannah (attention Bob Scanlon) confirming GDOT's participation in the project through assigning David as the project manager and are working towards a PFA.
3. Teresa to develop a PFA for each project
4. City to schedule a meeting with the GDOT, KHA and their environmental consultant to review their preliminary cultural resources survey findings and utilize that discussion to refine the anticipated project schedule.
5. City to coordinate with Hunter Army Airfield regarding their NEPA requirements.
6. GDOT to schedule a meeting with the City, Planning Office and FHWA to review/discuss the project IJR/IMR
7. City to forward renderings of HAAF entry area to GDOT
8. City to forward PDF of design concept to meeting attendees
9. David to determine the best means (possibly a meeting) to provide Abby project traffic analysis for review.
10. GDOT to plan coordination or a meeting with Scott Zingraff to review the roundabout concept with the City.
11. City will prepare a project justification statement for GDOT review
12. GDOT to initiate discussion with Mike Henry to discuss the potential of state route designation for the Boulevard
13. David will set up the initial concept meeting for all three projects

ENVIRONMENTAL COORDINATION MEETING: PI008358, PI008359 & PI0010236

DATE: December 13, 2011
LOCATION: Video conference - Atlanta and Jesup offices
ATTENDEES:

Atlanta

David Moyer – GDOT
Chad Carlson- GDOT OES
Tamaya Huff- GDOT OES
Michael Murdock, GDOT OES
Carla Benton-Hooks, GDOT OES
Zanda Crawford-GDOT OES
Rob Hume, Kimley-Horn and Associates (KHA)
Fran McCutcheon, KHA

Susan Thomas, Edwards Pittman Environmental (EPEI)
Katheryn Ferral-Graff- EPEI
Mark Grindstaff- EPEI
Josh Earhart- EPEI

Jesup

Teresa Scott - GDOT
Susan Broker - City of Savannah
Heather Fish- City of Savannah
Mike Weiner- City of Savannah

GENERAL DISCUSSION:

- I. Overview:
 - a. PI 008358 represents the Boulevard Option (new alignment).
 - b. PI 008359 represents East DeRenne Avenue Improvements (east of Abercorn Street, City maintained, on the NHS)
 - c. PI 0010236 represents West DeRenne Avenue Improvements (I-516 through intersection with Abercorn Street)
 - d. The City's Consultant (Rob with Kimley-Horn) presented an overview of Project DeRenne highlighting the previous phases of the project (Phase I and II), public involvement to date, data collection, and the developed locally preferred alternatives (the Boulevard option, East and West DeRenne Avenue improvements).
- II. Cultural Resources Study
 - a. Josh Earhart gave a brief overview of what EPEI (environmental consultant) has completed to date- including a draft historical resources survey report for the project corridor – noting that all findings are preliminary and have not been submitted, reviewed by GDOT. This survey was initiated by the City early knowing it would be beneficial toward developing the project schedule. Kathryn Ferral-Graff, EPEI historian, then provided an overview of key finding of the survey and noted the following:
 - i. This survey has not been reviewed by GDOT or SHPO; findings are preliminary.
 - ii. Out of the 46 resources identified, 8 are or are eligible for the national register. Out of these 8, 5 resources are neighborhood districts
 - iii. Hunter Army Airfield (HAAF) is not itself a historic resource – this is generally consistent with other bases. Items on base can be considered historic, but not the base itself. HAAF maintains an extensive historical summary (since 1992) that has been approved by SHPO. SHPO and HAAF have a programmatic agreement that each feature is designated historic or not individually. HAAF

updates this report annually. They are looking at the project map to determine if the locally preferred alternative could likely affect any of their identified historic resources.

- b. Additional discussion of the resources noted the following comments:
 - i. Bike/Ped facility on DeRenne Drive: DeRenne Drive is considered a part of the historic neighborhood districts; however the landscaping between DeRenne Drive and DeRenne Avenue is not.
 - ii. The historic oak trees on Hampstead Drive contribute the historical district designation. This area was originally a land grant.
 - iii. Roger Wood Street is a part of the Poplar Place historic district that is eligible for the National Register of Historic Places. These needs to be considered when determining if and how to connect this street to DeRenne Avenue (i.e. traffic volumes, etc).
- c. Hunter Army Airfield Coordination:
 - i. The city has had extensive coordination with Hunter during the public involvement process. The City is currently working on an MOU with HAAF acknowledging the critical role HAAF plays in the locally preferred alternative as well as HAAF desire for the project to be implemented.
- d. In summary, with the presented locally preferred alternative, there is potential for section 106 and/or 4(f) impacts associated with the University and Poplar Place neighborhoods. This should be considered when developing the project schedule.

III. Environmental Justice:

- a. One area of concern is the mobile home park located near the base entrance. David noted that it looks to be primarily abandoned, however, it may still qualify for EJ. The City noted there was coordination with the neighborhood regarding the concept and the associated impacts to this area. The City has documentation from this coordination.

IV. Schedule

- a. A baseline schedule needs to be completed to finalize the PFA.
- b. GDOT OES is currently under a directive to review priority 1 projects first. Project DeRenne is not currently a priority 1 project. David is going to investigate if Project DeRenne will be a priority 1 project.
- c. Air and Noise needs to ensure that the traffic for Project DeRenne that was collected in 2008 will still be valid. Traffic needs to be discussed with Abby Ebodaghe for confirmation. Otherwise, the schedule needs to include time for traffic counts.
- d. David will provide KHA and the City with the Microsoft Project template to develop a working schedule for his review.
- e. GDOT suggested starting the schedule with a March 1, 2012 date. This will allow for the PFA to be finalized.
- f. The OES department may be able to review the DeRenne reports sooner if Glen Bowman approves it. David is going to look into this.

V. Action Items

- a. David to determine the best means (possibly a meeting) to provide Abby project traffic analysis for review.
- b. KHA, EPEI and the City will draft a schedule for GDOT review.
- c. David will determine requirements for a Priority 1 project to see if Project DeRenne can be added to the list to expedite review.
- d. David will check with Glenn to see if OES can begin reviewing environmental studies.

INITIAL CONCEPT MEETING NOTES PI0008358, PI0008359 & PI0010236

DATE: August 9, 2012
LOCATION: City of Savannah Civic Center, O' Connor Room
ATTENDEES: Sign-in sheet attached
MEETING NOTES: Meeting notes are bulleted below the bold agenda headings

➤ **Welcome**

- Meeting started at 10:05 am. Telephone conference call in line activated along with a Live Meeting web link of all electronically displayed materials provided.
- David Moyer welcomed everyone, introduced City representatives and Kimley-Horn (KHA) as lead designer.
- Locally sponsored project.
- Please sign in, all comments heard at end of the presentation.
- Project will be designed in English units

➤ **Introductions**

- Attendees went around the room and introduced themselves. See sign-in sheet.

➤ **Project Identification and Introduction**

- David Moyer provided a brief introduction on the projects and PI numbers.
- David introduced Rob Hume to present a project overview. Rob discussed project limits, basic traffic data, and critical movements as background for the overall project

➤ **PI0008358: West DeRenne/Hampstead Avenue Connector (Boulevard Option)**

- The concept proposed to relieve I-516 congestion via an alternate connector to White Bluff Road.

➤ **PI0010236: SR 21 From CS 346/Mildred Street to SR 204**

- This segment is State maintained.

➤ **PI0008359: East DeRenne from Abercorn Street to Harry S. Truman Pkwy**

- This segment is on the National Highway System map and City maintained.

➤ **Functional Classification**

- Functional classifications noted.

➤ **Need and Purpose Statement**

- Need and Purpose covered in Project Identification and Introduction
- Traffic Projections
 - Jonathan Guy presented an overview of existing traffic and traffic projections.
 - The team is working with GDOT on evaluating the extensive 2008 data collected versus acquiring new 2012 count data.
 - 2030 traffic volumes were used in analyses completed to date – these may also need to be projected to future years (2040).
 - Jonathan discussed heavy turn movements patterns based on I-516 consolidating trips around Hunter Army Airfield. LOS, delay and queue lengths were covered.
 - Jonathan covered the traffic basis of the concepts that were developed for each of the projects.
- Typical Sections
 - Rob Hume provided an overview of the East and West DeRenne typical sections as well as I-516/DeRenne, bridge #2 (overpass), the connector roadway, bridge #1 (HAAF), Hampstead Avenue (The Boulevard).
- Design Criteria
 - It was noted that the Design Criteria was in the draft concept reports as well as in the meeting handouts.
 - Brad Saxon offered some noted items to check/review in the design tables.
- Proposed Project Description
 - Descriptions of individual projects summarized below:
- West DeRenne/Hampstead Avenue Connector - PI0008358
 - Rob Hume walked the group through the concept drawing.
 - The removal of Montgomery Boulevard in this concept was discussed. The project intent is to utilize Roger Wood as a north/south connector for neighborhood mobility (which is currently limited by peak hour queuing) and eliminate the Montgomery Boulevard ROW. The City intends to work closely with the neighborhood to develop an appropriate master plan making best use of the elimination of Montgomery Street for the benefit of the neighborhood.
 - Rob covered bike and pedestrian considerations and fact that Hunter is a significant regional bike destination.
 - Does the concept require an IMR or IJR? Where is the existing terminus of I-516? Is this an interchange modification or a new interchange to I-516? Victor Dang, FHWA Transportation Engineer indicated he felt it would be an IJR.
 - Rob talked about the concept's impact to both Hunter and the neighborhood and trying to balance the impacts between the two. The connector will impact future plans for the base (motor pool). Because the base is Department of Defense property, it is anticipated that the roadway would cross base property via an easement in lieu of

modifying the footprint of the base – this situation existing at several locations in Georgia.

- The proposed roundabout intersection was originally proposed by Hunter. Renderings used in the planning phase were displayed to illustrate the roundabout and bridge.
- Rob indicated that the proposed raised planted median (Savannah style boulevard) concept is an important context sensitive design element transitioning from interstate travel to urban arterial.
- The connection of Roger Wood to the Boulevard Concept was discussed. The current concept does not break the median at Roger Wood based on concerns stemming from the weave that would be created by traffic exiting HAAF, crossing two lanes to attempt to turn left onto Roger Wood and the limited distance to accomplish that maneuver.
- Rob pointed out the proposed signalized intersection with White Bluff in curve – which is not ideal, though it further emphasizes traffic calming and balancing priorities for pedestrians and bicyclist via the multi-use path connection to the signal. Desired pedestrian connectivity to Savannah Tech and the retirement home would be focused on this intersection as well.
- The group was asked for questions or comments about the concept. None were noted.

➤ **SR 21 From CS 346/Mildred Street to SR 204 - PI0010236**

- Rob Hume walked the group through the concept drawing.
- The concept as envisioned generally anticipates the Boulevard being implemented. Primary project elements include:
 - Implement a continuous median for access control and landscape.
 - Enhance the existing sidewalk system promoting pedestrian movements between the signalized intersections.
 - Intersection improvements primarily aimed at better pedestrian accommodation, including median ped refuge. (east/west bicycle travel is encouraged to utilize the multi-use path as a part of the Boulevard)
- The group was asked for questions or comments about the concept. None were noted.

➤ **East DeRenne from Abercorn Street to Harry S. Truman Pkwy**

- Rob Hume walked the group through the concept drawing.
- Traffic volumes and adjacent land use characteristics both change moving from west of Abercorn to east of Abercorn.
- The existing cross section is a 5-lane typical section. Westbound mid-block lefts are prevented by a continuous median separating DeRenne Drive. Eastbound mid-block lefts are generally limited by splitter islands that restrict mid-block access to right in right out only
- The proposed concept eliminates the two way left turn lane in favor of a raised planted median (Savannah style boulevard). The median would reinforce existing access control, and create the opportunity for ped refuge islands.

- In this concept median breaks are maintained at existing public street intersections and primary left turn lane locations.
 - The project would enhance the existing sidewalk system promoting pedestrian movements between the signalized intersections.
 - Intersection improvements are proposed primarily aimed at better pedestrian accommodation, including median ped refuge.
 - Bicycle accommodation is proposed to be added to DeRenne Drive between the Truman Parkway and Abercorn Street. The single loaded residential street parallel and immediately adjacent to DeRenne Avenue provides a good opportunity for shared lanes.
- **Structures:**
- Descriptions of individual bridges summarized below:
- **Proposed Bridge 1: Hunter Army Airfield Bridge**
- The bridge 1 concept is a single span structure, 88 feet wide (gutter to gutter), 118 feet long. This length approaches the maximum for a pre-stressed concrete beam bridge. The represented concept represents wrap around MSE walls. The bridge is envisioned by the City to represent a gateway to Hunter Army Airfield and as such would include or accommodate some form of aesthetic enhancements.
- **Proposed Bridge 2: I-516 Flyover Bridge**
- The bridge 2 concept is represented as pre-stressed concrete beams (the assumed preference). This beam arrangement utilizes straddle bents to accommodate the spans given the degree of curvature and existing highway/median configuration. Steel beam and post-tension box beams are being considered and may also be reviewed with GDOT. The concept bridge approaches utilize MSE walls. There will be a design balance review to determine where the bridge ends and the MSE walls begin on the approach to eastbound approach ramp to I-516. Consideration will be given to the adjacent Tatemville neighborhood who have previously expressed interest in a noise barrier. The bridge will represent a visual gateway into the City Savannah for many travelers and therefore the City would like to consider the overall aesthetic implications of any design.
 - Jonathan Guy gave an overview of merge analysis from Hunter onto the connector (3 to 2 lane), from the connector to the ramp (2 lane to 1 lane), and from the ramp onto I-516 (3 to 2 lane).
- **Design Variances and Exceptions**
- Median widths may require a variance. The minimum is 20 feet – 18 feet meets AASHTO but not GDOT. The existing median width for West DeRenne is currently 16 feet.
 - The maintenance jurisdiction of the Boulevard has not yet been resolved – which will dictate some design standards and potential for variances. Funding and other factors will impact whether it is on-system or not. The design goal of the project is to ensure the project is best positioned for State and/or Federal funding (construction and right-of-way) The project is currently listed as locally funded (SPLOST).

➤ **Right of Way Displacements/Relocations**

- Rob Hume provided an overview of the concept assessment of right-of-way needs and impacts to adjacent businesses, residential homes for the Boulevard Concept. 40 total impacted parcels; 16 displacements - 9 residential, 3 business, and 4 other (trailer park and self-storage).
- East and West DeRenne have only temporary and permanent easements represented in the draft concept Report, however recent design work has identified some ROW needed for the represented concept intersection improvements of DeRenne at Abercorn Street.

➤ **Utilities**

- With no GDOT funding for construction yet identified, the City of Savannah would be responsible for utilities. GDOT could take over responsibility if/when funding becomes available.
- David Moyer asked the utility providers in attendance to identify any major issues:
 - 24-inch water line on DeRenne
 - There is a major natural gas feed (8" high pressure) to a good portion of City along Mildred with other associated facilities in area. The team discussed the need to coordinate the gas with the project design but that it did not appear to be a major problem.
 - The City plans some storm water betterment improvements along the north side of East DeRenne

➤ **Alternatives Considered and Reasons for Rejection**

- Rob Hume provided an overview of the spectrum of solutions evaluated during the project planning process.
- This included a brief history of elevated freeway concept from I-516 to the Truman as well as the wholesale widening that were previously considered but aggressively rejected by the public.

➤ **Level of Environmental Analysis, Concerns and Permits Required**

- Edwards Pittman (EPI) is leading the environmental process.
- All projects are being processed under a single EA.
- To date the project team has looked at resources but have not assessed impacts.
- There are some environmental justice communities within the corridor, though this is being updated based on 2010 census.
- Extensive public involvement has been conducted to date, with additional meetings planned as part of the NEPA process.
- Ecology – small wetland and stream on base property.
- Archeology – one known site on HAAF, but not near the corridor.
- Air and noise – analysis has not begun and will be conducted with updated traffic.
- Historic/Resources – the survey report has been completed. Eight resources were identified but they have not yet been concurred with. They include:

1. University Place.
 2. Poplar Place.
 3. Savannah Globe.
 4. Tatemville.
 5. Sylvan Terrace.
 6. Manor Estates
 7. Casey Canal – outside project limits
 8. B’Nai B’rith Jacob Synagogue Eruv. The Rabbi checks the delineated boundary every Friday before the Sabbath. Likely not an impact for the design but it will require coordination during the process.
- EPI feels that the concept likely impacts 4(f) resources and believes there’s an adverse effect. 4(f) impacts require a review of avoidance alternatives. Susan Thomas discussed the balance between impacts to Hunter and neighborhood. Section 4(f) evaluation will be part of NEPA document. Mitigation measures will be part of dealing with adverse effects.
 - EPI feels that University Place and Poplar Place qualify as EJ communities.
 - Rob talked about the approach to Boulevard adjacent to Poplar Place. Neighbors along Hampstead Avenue have expressed a preference that the roadway is widened to North so that their homes are total acquisition. They want to avoid a diminished front yard and changed road character. The concept currently represents a symmetrical widening. Susan said that changing characteristic of road could be considered an adverse effect.
 - For a historic district it is not just the houses but also the yard, landscaping, trees, etc. There may be good opportunities for mitigation with the removal of Montgomery Street.
 - The proposed Tatemville noise wall is not a part of this project, though was an idea generated through prior project public involvement. With the last widening of I-516/DeRenne the separation between the travel lane and the ROW fence is approximately 7 feet. Many houses are within feet of the ROW fence. The City conducted a noise study and determined that the existing condition met current warrants and a 10 foot noise barrier was planned and designed. Construction of the wall will begin this fall. It was noted that the flyover concept could possibly generate noise that could require further mitigation. The City will look into at the potential impacts of the flyover and see if there are any anticipated impacts to the current design of the wall. The community has input regarding the construction (or modification) of the wall. This project will also investigate noise abatement alternatives for the flyover (pavement, barrier on the bridge).
 - Susan Broker provided an overview of the significant project public outreach to date. A resource center is established, project web site, newsletters, project advisory committee have all been established and maintained for this project.
 - Wetlands – an individual permit will not likely be required. Unclear at this time not sure if a 404 / Nationwide permit will be required.
 - NPDES - MS4 compliance will need to be addressed in the design. Recommend coordinating with the Casey Canal project

➤ **Project Development Schedule**

- David Moyer indicated that we are currently behind due to some delays with PFAs, etc. but hoped to make up ground. David Moyer indicated that this Initial Concept Team meeting could become a Concept Team meeting pending comments on the report.
- PIOH planned in December 2012 (original schedule). This may need to push based on VE approval and Concept meeting. If an additional concept meeting is required then it will likely push us out.
- Right-of-Way – 2015
- Construction – 2018
- TIP shows this as - 2015.
- It was brought up that it needs to be determined what level of effort is to be accomplished on the IJR before the Concept is complete. David will look into this with Brent Story.
- Victor indicated that an IJR will be required for this project. David will need to determine what level of effort is to be accomplished on the IJR before the Concept is complete. Victor will send an official letter stating the need for an IJR. The afternoon of the 10th of September may be a good time to meet with GDOT and FHWA.
- Needed traffic counts should be collected before Hunter will be deploying 2,500 to 3,000 troops sometime in the next three months. The ideal month to collect that data would appear to be September.

➤ **Public Hearing/Public Information Meeting**

- PIOH planned in December 2012 (original schedule). This may need to push based on VE approval and Concept meeting. If an additional concept meeting is required then it will likely push us out.

➤ **Other Projects in the Area**

- No other projects were noted in area that could impact these projects. There is an unfunded project in the long range to widen I-516.

➤ **Comments from Attendees**

- Hunter – project gives a better buffer than current condition. It will take some paper work to address the area south of Hampstead since this area has been leased to a property manager for the next 50 years. It is a 12 to 15 month process. Positive improvement to the base. Some minimal security concerns but nothing major.
- City – will be developing a neighborhood plan for the University Place and Poplar Place neighborhoods – should be considered in the mitigation plan for the EA. Traffic is currently strangling the neighborhood which the improvement could be made to show a benefit regardless of the impact to the neighborhood. Move as fast as we can.
- FHWA – IJR will be required. Full oversight project will be decided at a later date and Victor will follow up with David later about this. No federal funding is

associated with this project currently. Is there a means by which the City can purchase these homes ahead of time? – Victor will consult with Realty Services about this. Does MAP 21 accelerate this process or allow more flexibility? An approved concept report will likely be required prior to allowing purchase. MAP 21 takes affect October 21, 2012.

- Rob indicated that the concept report would likely be completed by October 2012.
- Traffic Safety and Design – no comment
- Planning – no Comments
- Right of Way – no new concerns. FHWA will help with new MAP 21 process and impacts on projects.
- GDOT District – No Comments
- GDOT Utilities – No Comments
- MPO – Will houses qualify under hardship clause? This would be based on individual circumstances – difficult to qualify for this. What funding source should be pursued? David Moyer said goal should be to get approved environmental document, start acquiring ROW and then consideration can be given to other funding options.

DRAFT



Project DeRenne concept Meeting Sign In sheet

Name	Organization	Email Address
Fran McCutcheon GREG SPELL (Barry DENMAN)	Kimley-Horn GA Public Works	fran.mccutcheon@kimley-horn.com GSPELL@GAPublicWorks.ME
Robert McGill	GA DOT	rmccell@dot.ga.gov
Teresa Scott	CoDOT	tscott@dot.ga.gov
Leslie Ogden	GDOT	logden@dot.ga.gov
George SNEAK	GDOT UTILITIES	GSNEAK@dot.ga.gov
Cesar Laureano	City of Savannah	claureano@savannahga.gov
Clay Rogers	COS WDS	crogers01@savannahga.gov
John Kopotic	GDOT	jkopotic@dot.ga.gov
Wykoda Wang	CORE MPO	wangw@thempc.org
Jeremy Cooper	LEVEL 3	Jeremy.Cooper@Level3.com
Kyle Wemett Lynette Allen	HAAF City of Sav	Kyle.j.wemett.civ@mail.mn lallen02@savannahga.gov
LaStone Alexander	GDOT / RW	laalexander@dot.ga.gov
Paul Teague	AGL	pteague@aglresources.com
Mike Weiner	COS	mweiner@savannahga.gov
Carol Moon	COS	CMOON@SAVANNAHGA.GOV.
JOSH EARHART	Edwards-Pitman Env	jeanhart@edwards-pitman.com
Susan Thomas	Edwards-Pitman Env.	s.thomas@edwards-pitman.com
Jonathan Guay	KHA	Jonathan.Guay@kimley-horn.com
DAVID STRICKLIJ	KHA	DAVID.STRICKLIJ@KIMLEY-HORN.COM



Project De Renne: Concept Meeting Sig-in Sheet

<u>Name</u>	<u>Organization</u>	<u>E-mail address</u>
Heather Fish	City of Savannah	Hfish@savannahga.gov
Susan Broker	City of Savannah	sbroker@savannahga.gov
BRAD SAXON	GOVT	bsaxon@dot.ga.gov
VICTOR DANG	FHWA	VICTOR.DANG@DOT.GOV
Trey Pittman	GOVT	trey.pittman@dot.ga.gov
David Moye	GOVT	dmoye@dot.ga.gov
ROS HUME	KIMLEY-HORN	ROS.HUME@KIMLEY-HORN.COM

IJR EARLY COORDINATION MEETING 0008358 DERENNE AVENUE

DATE: September 10, 2012 (2:30 pm)

LOCATION: 25CR1L2, GDOT Offices, Atlanta, Georgia

MEETING OBJECTIVES:

- 1) Establish the IJR study area and parameters for analysis;
- 2) Identify concerns or constraints; and
- 3) Confirm the approval process, schedule, and next steps.

AGENDA:

- **INTRODUCTIONS**
 - a. Attendees went around room and introduced themselves. (see sign-in sheet)
- **PROJECT DERENNE OVERVIEW**
 - a. Existing I-516/DeRenne Avenue operations
 - David Moyer provided a brief introduction of the projects and associated PI numbers.
 - David Introduced Rob Hume (consultant team project manager) to present a project overview. Rob discussed the project, limits, basic traffic data and critical movements as background for the project. The intent of the project is to reduce congestion on DeRenne Avenue by utilizing the proposed Boulevard to accommodate primarily north/south traffic that is utilizing the western segment of DeRenne Avenue to get access to and from I-516.
 - b. Current project status
 - Project Framework Agreement is in place for 0008358;
 - Initial Concept Meeting was held in Savannah, GA on August 9, 2012.
 - Value Engineering Study is currently underway (September 10-14th)
- **IJR TRAFFIC PROTOCOL SCOPE**
 - a. The group discussed the IJR traffic protocol scoping framework. See attached document for final IJR scope requirements.
- **PROCESS**
 - a. Review and approval process
 - A GDOT/FHWA initial feasibility determination needs to be completed for this project.

- b. Revise the project schedule to reflect FHWA full oversight
- c. Obtain required data and complete the IJR in accordance with scoping framework (attached).
- d. Provide FHWA a letter from the City of Savannah controlling future access to the Boulevard between I-516 and Hunter Army Airfield.
- e. Set up a meeting with Michelle Lindberg to discuss project ROW needs.

IJR TRAFFIC PROTOCOL SCOPING FRAMEWORK

PI 0008358

PURPOSE:

This document is intended to provide a framework to define the principle technical scope elements for the project IJR as determined at the September 10, 2012 scoping meeting.

1. PROPOSED STUDY AREA:

- Interchanges:
 - Veterans Parkway at I-516
- Intersections:
 - DeRenne Avenue at Montgomery Street
 - White Bluff Road/Bull Street at DeRenne Avenue
 - White Bluff Road at Hampstead Avenue

2. PROPOSED DATA COLLECTION AND SOURCES:

- Intersection Turning Movement Counts at Study Area Intersections
 - Collected by the City of Savannah in September 18, 2012
- Average Daily Traffic Volume and Classification Counts
 - Collected by the City of Savannah in September 18, 2012
- Crash Data
 - To be obtained from GDOT for years ranging from 2009-2011 for the study area intersections

3. PROPOSED ANALYSIS HORIZON YEARS

- 2012: Existing Conditions
- 2020: Base Year
- 2040: Design Year

4. PROPOSED TRAFFIC FORECASTING

- 2012 Turning Movement Counts
- 2035 Regional Travel Demand Model (RTDM) obtained from CORE MPO
- Forecast Methodology
 - The Regional Travel Demand Model should be utilized to develop the horizon year forecast for the study area roadway segments and intersections.

5. PROPOSED TRAFFIC SCENARIOS TO BE ANALYZED:

- AM and PM peak hours for the following:
 - Existing Conditions (2012)
 - Base Year (2020): No-Build
 - Base Year (2020): Build
 - Design Year (2040): No-Build
 - Design Year (2040): Build

6. PROPOSED OPERATIONAL ANALYSIS PROCEDURES/CRITERIA:

- Synchro 7.0 should be utilized for the intersection analysis.
- HCS will be utilized for the ramp, mainline, weaving, and merge/diverge analysis.
- VISSIM will be utilized in locations where conditions have reached a saturated traffic condition.
- Operational Criteria Measures of Effectiveness
 - Level of Service:
 - i. Intersections
 - ii. Ramps
 - iii. Mainline
 - iv. Merge/Diverge
 - v. Weaving
 - Queuing
 - i. 95th Percentile

7. PROPOSED CRASH ANALYSIS

- Study Area
 - Intersections (*same as Study Area above*)
 - Roadway Segments
- Term of evaluation- 2009 to 2011

8. PROPOSED ALTERNATIVE CONSIDERATIONS

- No- Build Scenario
- Build Scenario: PI 0008358
- Analysis for other scenarios is not required. Logical, rational reasons for why these alternatives were not advanced should be provided in the IJR. Applicable figures should be provided as well

PROJECT DERENNE, CHATHAM COUNTY

PI 0008358, WEST DERENNE/HAMPSTEAD AVENUE CONNECTOR
PI 0010236, SR 21 FROM CS 346/MILDRED STREET TO SR 204
PI 0008359, EAST DERENNE FROM ABERCORN STREET TO HARRY S. TRUMAN PARKWAY

ENVIRONMENTAL BRIEFING

DATE: September 10, 2012 (1:00 pm)
LOCATION: GDOT Office of Environmental Services,
16th Floor Large Conference Room, Atlanta, Georgia

MEETING NOTES:

1. PROJECT TEAM INTRODUCTION

Susan Thomas thanked the group for coming and asked the group to introduce themselves. The last time the project team met with GDOT Office of Environmental Services (OES) and Federal Highway Administration (FHWA) was in the fall of 2010. The purpose of this meeting was to provide an update to the environmental studies since that time.

2. PROJECT OVERVIEW

Rob Hume provided a brief history and overview of Project DeRenne. The project description, need and purpose, and preferred alternative were discussed. Project DeRenne includes three programmed projects:

PI 0008358 includes a planned interchange at the terminus of I-516, new roadway alignment (providing direct access to Hunter Army Airfield) that connects to existing Hampstead Avenue, widening of Hampstead Avenue from a two lane to a four lane median divided roadway to the intersection of White Bluff Road, which will be reconfigured (see the attached exhibit). These improvements are referred to as the Boulevard Option. These improvements will accommodate approximately 25,000 vehicles per day off of West DeRenne Avenue, substantially reducing congestion on DeRenne and I-516. This congestion is negatively affecting the businesses and neighborhoods in the area, and has for decades.

PI 0010236 includes pedestrian, access, intersection and streetscape improvements along West DeRenne Avenue, from the intersection with Montgomery Street (where I-516 terminates) through the intersection with Abercorn Street. This section of DeRenne Avenue is maintained by the Georgia Department of Transportation. East of Abercorn Street, DeRenne Avenue is maintained by the City of Savannah and is on the National Highway System.

PI 0008359 includes pedestrian access, intersection and streetscape improvements along East DeRenne Avenue between Abercorn Street and the Truman Parkway.

An exhibit showing the project area and preferred alternatives was presented to the group.

The three projects are being developed concurrently as one project and will be addressed in one NEPA document. The project is locally sponsored but is seeking federal construction funding to supplement the local SPLOST funding.

The Initial Concept Team Meeting was held in Savannah on August 9, 2012. The Value Engineering (VE) Study got underway at GDOT in Atlanta beginning on September 10, 2012.

4. ENVIRONMENTAL STUDIES UPDATE

A summary of the ecology, history, and community resource studies that have been conducted was presented to the group.

A diagram showing the location of federal and state waters was presented to the group. Based on the current findings, there are no ecological impacts expected. A PAR will not be required.

The Draft Historic Resources Survey Report has been reviewed by GDOT and the revised report is expected to be submitted to GDOT in the next week. The findings of the survey include seven eligible resources, one listed resource, and one Traditional Cultural Property (TCP). The boundaries of the resources were shown on the exhibit illustrating the preferred alternative.

The residents living in the project area are predominantly African-American and many would qualify as low-income. Specifically, the following neighborhoods are identified as environmental justice (EJ) communities: Tatenville, University Place, Poplar Place, and Sylvan Terrace. These neighborhoods are also recommended as historic districts eligible for listing on the National Register of Historic Places (NRHP).

5. NEPA DOCUMENTATION

An Environmental Assessment (DEA) is currently in progress. Section 4(f) resources, including eligible historic resources, are present along the corridor. The preferred alternative is anticipated to result in adverse Section 106 effects to and Section 4(f) use of the University Place Historic District and the Poplar Place Historic District. Therefore, a Section 4(f) Evaluation will be prepared for the preferred alternative.

The historian for the project will determine which residences in these historic districts qualify as contributing properties.

6. PROPERTY IMPACTS

The preferred alternative was developed through extensive public outreach and community input. The process began with a Charrette in which stakeholders (including Hunter Army Airfield), business owners, residences, and City representatives actively took part.

Residents in the Poplar Place neighborhood that live along the north side of Hampstead Avenue have expressed a desire for total displacement, rather than remaining with a smaller front yard on a higher volume roadway after construction. City leaders are interested to explore opportunities for advance acquisition under GDOT (and FHWA) regulations. GDOT right of way staff have reviewed the residences that are affected and have indicated that currently they would not likely meet the requirements for hardship. At this time, the preferred alternative is shown as a symmetrical widening – with ROW acquisition from both sides of Hampstead Avenue. It is likely that the widening cannot be placed entirely on the south side of Hampstead Avenue because of an existing multi-unit nursing home/elderly care facility adjacent to Hunter Army Airfield on Hampstead Avenue. Jennifer Giersch stated that the Advance Acquisition process would likely not apply to these residents if they do not qualify for hardship. OES has not knowingly allowed advance acquisition of historic resources in the past.

Access to the neighborhoods and Hunter Army Airfield would be affected with construction of the preferred alternative. The proposed access reconnections were discussed during the meeting. The preferred alternative is planned to include a combination of a 10 foot multi-use path and new bike facilities along DeRenne Drive (adjacent to DeRenne Avenue). These bicycle accommodations will connect the existing bike facilities on Hunter (which is open to the public use with permission from the Base) to the bike trail that is being developed along the Casey Canal at the east end of the project.

There is a draft Memorandum of Understanding between the Hunter Army Base and the City of Savannah that states the Base will endeavor to reserve the area of the base needed for the Boulevard Option and the City will keep the base informed of the project status. This MOU would assist with facilitating granting of the required roadway easement in the future.

Jennifer stated the Section 4(f) Evaluation will need to address the problems associated with taking more property from Hunter Army Airfield at the expense of the University Place neighborhood, which is an EJ community and 4(f) resource. The evaluation should contain data showing that the base is growing and that the additional property is needed should be demonstrated. Jonathan recommended consulting the Base Master Plan.

The approximate number of displacements expected to occur as a result of the preferred alternative include approximately 9 residences, 3 businesses, and 4 classified as “other,” as represented in the Draft Concept Report. The “other” category includes very old (many are vacated) mobile homes and a self-storage facility.

7. PUBLIC OUTREACH

With regard to scheduling the first PIOH, it would typically be conducted prior to the identification of a preferred alternative, but in this case the preferred alternative should be presented because the public played a major role in its development.

Jennifer recommended waiting until the alternatives that will be evaluated in the Section 4(f) Evaluation are identified. These alternatives can be presented to the public and this information will help inform the 4(f) evaluation.

Jennifer also recommended meeting with the SHPO to discuss the preferred alternative and potential mitigation strategies before the Assessment of Effects (AOE) is finalized.

8. PRELIMINARY MILESTONE SCHEDULE/PROJECT PROGRAMMING/TIP STATUS

Susan reviewed the current programming for the project. Local right-of-way funds are programmed for all three PI numbers in FY 2015. Construction funds have not yet been identified. The baseline schedule will be revised to allow for the FEA approval in the fall of 2014.

- DEA Approval
- Public Hearing
- FEA Approval – Fall 2014
- Right of Way Authorization – FY 2015
- Let for Construction – Long Range

9. ACTION ITEMS

- Move forward with Section 4(f) Evaluation once the SHPO has concurred with the findings of the historic resource survey report;
- Revise baseline schedule;
- Follow up with Hunter Army Airfield to obtain a copy of their master plan; and
- Set meeting with SHPO for project overview prior to AOE being submitted.

ATTENDEES:		
Name	Agency	Email
Jennifer Giersch	FHWA	Jennifer.giersch@dot.gov
Victor Dang	FHWA	Victor.dang@dot.gov
David Moyer	GDOT OPD	dmoyer@dot.ga.gov
Jonathan Cox	GDOT OES	jocox@dot.ga.gov
Rob Hume	Kimley-Horn	Rob.Hume@kimley-horn.com
Fran West	Kimley-Horn	Fran.west@kimely-horn.com
Josh Earhart	EPEI	jeahart@edwards-pitman.com
Susan Thomas	EPEI	stthomas@edwards-pitman.com
Others:		

FINAL CONCEPT TEAM MEETING NOTES
Chatham County, PI # 0008358, 0008359, 0010236

DATE: September 6, 2013
LOCATION: City of Savannah Civic Center, O' Connor Room
MEETING NOTES: Meeting notes are circle bulleted below bold agenda headings

➤ **Welcome**

- Meeting started at 10:05 am. A telephone conference call-in line was activate along with a Live Meeting web link to all electronically displayed materials.
- David Moyer welcomed everyone. A sign in sheet was sent around the room.
- The project is a local design project with the City of Savannah as project sponsor, and Kimley-Horn as Design Consultant. GDOT has oversight responsibilities at this point.
- Please hold all comments to the end of the presentation.
- The project will be designed in English units

➤ **Introductions**

- Attendees went around the room and introduced themselves. (see sign-in sheet).

➤ **Project Identification**

- David Moyer identified the three associated projects, their location and PI numbers.

➤ **Functional Classification**

- Functional classifications noted.

➤ **Need and Purpose Statement**

- David introduced Rob Hume (Kimley-Horn) to present a project overview and the Project Justification. Rob discussed project limits, basic traffic data, and critical movements as background for the overall project.
- Rob discussed actions that have taken place since the Initial Concept Team Meeting in August 2012:
 - IJR Scoping Meeting
 - Environmental studies
 - Value Engineering study
 - New traffic counts
 - GDOT approval of existing and future traffic volumes
 - PIOH in April 2013
 - Final Concept Report completed
 - Draft IJR completed

- Design refinement
- Hampstead alignment shift
- Roger Wood and Montgomery design modifications
- Summit Tower left-over access
- Bike link through White Bluff Rd and 73rd

➤ Traffic Projections

- Brady Finklea presented an overview of existing and future traffic projections and analysis.
- 2012, 2020 and 2040 traffic volumes were approved by GDOT Planning in April 2012.
- Brady explained how the traffic volume projections were generated from the raw counts.
- Brady discussed the abrupt transition from uninterrupted, free-flow conditions along I-516 to an interrupted, signalized arterial along DeRenne.
- The Boulevard Option shows improved LOS, delay and travel times versus the No Build conditions.
- The IJR will be submitted soon, pending any concept meeting design comments.

➤ Typical Sections

- Rob Hume provided an overview of the East and West DeRenne typical sections as well as I-516/DeRenne, bridge #2 (overpass), the connector roadway, bridge #1 (HAAF), Hampstead Avenue (The Boulevard).
- Ken Werho noted the need for a typical Section for the roundabout.

➤ Design Criteria

- Rob Hume provided an overview of the design criteria listed in the Concept Report.
- Ken Werho noted that all turning radii should accommodate a WB-67 vehicle template, including the roundabout. WB-62 is what is shown on the table.

➤ Proposed Project Description

- PI0008358: West DeRenne/Hampstead Avenue Connector (Boulevard Option)
 - The concept proposed to relieve I-516 congestion via an alternate connector to White Bluff Road.
- PI0010236: SR 21 From CS 346/Mildred Street to SR 204
 - This segment is State ROW, but City maintained.
 - Complete the partial raised median to control access.
 - Ped accommodations will be improved.
- PI0008359: East DeRenne from Abercorn Street to Harry S. Truman Pkwy
 - This segment is on the National Highway System map and City maintained.
 - The existing two-way-left-turn lane will be replaced with a raised, landscape median.

- Median breaks are maintained at existing public street intersections.
 - Ped accommodations will be improved, bike accommodations added.
 - Ken Werho asked how u-turns will be handled at median breaks.
- Structures:
- Rob Hume provided an overview of the structures as presented in the Concept Report.
- Design Variances and Exceptions
- Rob Hume provided an overview of the design variances/exceptions as presented in the Concept Report.
 - The City of Savannah is requesting a variance be approved for the design speed of the Boulevard between HAAF and White Bluff Rd. The project plans for a speed design of 40 mph with a posted limit of 35 mph. This is to be compatible with the existing residences (and driveway access) along Hampstead Avenue.
 - The Connector segment of the Boulevard (between I-516 and Montgomery Street) will be controlled access.
- Right of Way Displacements/Relocations
- Rob Hume provided an overview of the ROW needs and impacts as presented in the Concept Report.
 - Ken Werho asked if HAAF is agreeable to the ROW for the Boulevard to cross Hunter. HAAF has agreed (in a memorandum of understanding) to grant a permanent easement. This is consistent with other state road facilities crossing Department of Defense property in Georgia.
 - Ken Werho asked who will maintain the remnant land between the roadway easement and the neighborhood. This still needs to be worked out between the City and HAAF.
 - Ken Werho asked where the maintenance limits occur between GDOT and the City, and who is maintaining the flyover bridge. This has not been resolved yet, however David Moyer explained that he believes the entire Boulevard will be off GDOT system.
- Utilities
- Rob Hume explained that the utility companies involved with this project are as presented in the Concept Report.
 - Utility impacts are not fully known at this point.
 - The proposed 8' wide sidewalk may create conflicts with overhead utility poles along DeRenne – especially the larger poles at the eastern end of the project area.
 - It was discussed that the sidewalk may be able to transition to a narrower section in the vicinity of some of the utility conflicts.
 - ROW for utilities – it was noted that any permanent easements should include a utility clause which would allow a little more room for utility adjustments.

- David Moyer asked if, for the purposes of this project, we should consider the synagogue as a utility? Josh Earhart said no, that they want to be kept up to date and be coordinated with during construction.
 - There is overhead power distribution for most of the length of DeRenne Avenue.
 - There is overhead power transmission in the vicinity of the Truman Parkway (substation on the northeast corner of DeRenne/Truman).
 - Atlanta Gas Light (AGL) has a high pressure line coming down Mildred, coming down Roger Wood, feeding Midtown and Downtown. It seems as though it is being minimally impacted. AGL has no plans to upgrade this line.
 - Signal heights and power lines were discussed, and how GDOT has changed their minimum signal head clearances.
- Alternatives Considered and Reasons for Rejection
- The intersection improvement alternative was considered that would provide eastbound capacity improvements by adding an additional eastbound travel lane from Mildred St to White Bluff Rd. This would require a significant amount of ROW from commercial properties that would substantially alter and/or acquire the existing businesses. This alternative offers no improvement to the reciprocal northbound to westbound congestion.
 - The continuous flow intersection (CFI) alternative was considered at the intersection of White Bluff Rd and DeRenne Ave. A CFI typically improves intersections with conflicts between heavy left turns and opposing through volume. However, for this project, the conflict is between heavy northbound left-turns and crossing east/west through movements. Additionally, the laneage required would cause significant impact to adjacent land uses.
- Level of Environmental Analysis, Concerns and Permits Required
- Josh Earhart provided an overview of the environmental features of this project as presented in the Concept Report.
 - Specific submittals were discussed:
 - Ecology Draft Report submitted 6/13/13
 - History Survey Report gained SHPO concurrence 7/29/13
 - Noise Assessment Revised Draft Report submitted 9/3/13
 - Other environmental documentation is in progress, including:
 - Air assessment
 - Archaeology
 - History – Assessment of Effects
 - Individual Section 4(f) Evaluation
 - No PAR or IP is required for this project.
 - 84 linear feet of impact is expected to intermittent streams.
 - Within the study area, there are 7 eligible historic districts, 1 eligible individual resource and 1 traditional cultural property.
 - There are adverse Section 4(f) effects to University Place Historic District due to take within boundary and displacements.

- There are adverse Section 4(f) Effect to Kensington Park and Fairway Oaks Historic Districts due to noise impacts.
 - A total of 945 receivers were modeled along the corridor for noise impacts. 86 receivers were impacted based on approaching their FHWA Noise Abatement Criteria. No receivers were impacted due to a substantial increase in noise.
 - Anticipated Submittal of Draft EA with Individual Section4(f) Evaluation is in April 2014.
 - Baseline Environmental Approval of EA/FONSI is with Individual Section4(f) Evaluation in September 2015.
- **Project Development Schedule**
- Josh Earhart provided key project environmental schedule dates, including:
 - 2014 April - Anticipated Submittal of Draft EA with Individual Section4(f) Evaluation
 - 2015 September - Baseline Environmental Approval of EA/FONSI with Individual Section4(f) Evaluation
 - David Moyer provided key project development schedule dates, including:
 - 2015 September – PFPR
 - 2016 March – ROW Acquisition
 - 2017 November – FFPR
 - 2018 May – Project Let
- **Public Hearing/Public Information Meeting**
- The Public Information Open House (PIOH) was held in Savannah on April 23, 2013.
 - A Public Hearing Open House (PHOH) will be required.
- **Other Projects in the Area**
- Truman Parkway V (PI #0002921) – an extension of the existing parkway from Whitfield Avenue to Abercorn Street. The project is under construction and is not adjacent to this project.
 - I-516/Lynes Parkway Widening (PI #522850) – widen from four to six lanes from the Veterans Parkway to Mildred Street. This is identified in the latest CORE TIP as a Priority 1C Highway Project and is adjacent to this project. There is currently no funding for this project.
- **Comments from Attendees**
- No comments from the City of Savannah.
 - FHWA (Jennifer Giersch)
 - How are the LOS and delay at the intersections under the build scenario?
 - Need robust discussion of alternatives that address the need and purpose within the NEPA document. Show that there are no feasible and prudent alternatives and that the White Bluff connection presents the least possible impact.

- Discuss adjacent projects including long range I-516 widening.
- Jennifer would like the build condition slide from the presentation and/or the entire presentation.
- David Moyer to coordinate with Victor Dang.
- *Through coordination following the meeting, Victor Dang offered the following comments:*
 - *Verify with HAAF that they do not need a larger design vehicle than the WB-67.*
 - *Consider the need for continuity of width with the sidewalk along West DeRenne. Victor had concerns that visually impaired may come to expect the 8' sidewalk, then encounter an encroaching utility pole.*
 - *Victor requests that the traffic count locations be shown in the traffic data.*
 - *Ensure that the cost estimates are updated to reflect the VE changes.*
- MPO (Mark Wilkes)
 - Mark mentioned that the I-516 widening project is currently unfunded.
- No comments from GDOT Engineering Services
- GDOT Traffic Safety and Design
 - HAAF will be benefited by project.
- GDOT Planning
 - Emphasized that GDOT only has oversight obligation.
 - This is a locally led project for the time being.
- GDOT Utilities
 - Coordinate utility cost estimates with Teresa Scott.
- GDOT Engineering Services
 - A median spacing variance may be required for proposed median openings.

PUBLIC INVOLVEMENT AND SUPPORT



PROJECT DERENNE

SAVANNAH, GEORGIA

PUBLIC DESIGN CHARRETTE

SUMMARY WORKBOOK

JANUARY - 2010

CITY OF SAVANNAH
KIMLEY-HORN & ASSOCIATES

Savannah, Georgia

We would like to thank the hundreds of residents, business owners, landowners, civic leaders, and regional planning partners who have made Project DeRenne and this workbook such a success. Their time, input, and energy are greatly appreciated.

Project Advisory Committee Members

Melissa Bates, Poplar Place/University Place
Chris Blaine, Commercial Business West
Otis Brock, Savannah-Chatham County Public Schools
Susu Cox, Fairways Oaks/Greenview
Al Lang/Frances Curry, Commercial Business East
Will Ingram: Hunter Army Airfield
Jimmy Kicklighter, Memorial University Medical Center
Beth Kinstler, Magnolia Park/Blueberry Hill
Curtis Lewis, Commercial Business At-Large
Ellen Hatcher /Tom Kohler, Manor/Poplar-Lamara Heights
David Pinckney, South Garden
Debbie Hughes, Candler/St. Joseph Hospital
Dwayne Simpson, Kensington Park/Groveland
Darlene Wilson, Tatenville

Steering Committee**City of Savannah**

Susan Broker, City Manager's Office
Heather Fish, Citizen Office
Tara Polli, Citizen Office
Tara Bradley, Citizen Office Intern
Sean Brandon, Parking & Mobility Services
Taffanye Young, Community Planning & Development
MarRonde Lumpkin-Lotson, Economic Development
Allyne Tosca Owens, Economic Development
Bob Scanlon, Facilities Maintenance
Rochelle Small-Loney, Public Development
Dianne Clabaugh, Real Property
Mike Weiner, Traffic Engineering
Lise Sundra, Savannah Development & Renewal Authority

Chatham County

Leon Davenport, Chatham County Engineering

Metropolitan Planning Commission

Tom Thomson, Executive Director
Mark Wilkes, Transportation Services Director
Charlotte Moore, Director of Development Services

Georgia Department of Transportation

Kyle Mote, Urban Planning Engineer II
Jason Crane, Urban Planning Engineer II

Consultant Team**Kimley-Horn and Associates, Inc. / Urban Resource Group**

Rob Hume
Stephen Stansbery
Melinda Dyk
Matt Noonkester
Jonathan Guy
Erin Musiol
Kyle Baugh
Jonathan Whitehurst
Michael Abate

Charles McMillan: McMillan & Associates
Kathleen Rose: Rose & Associates Southeast, Inc.
Gerry Cowart: The Cowart Coleman Group
Shedrick Coleman: The Cowart Coleman Group
James Williams: James Williams Consulting, Inc.
Anne Roiser: K. Denny, PC
Mike Vaquer: The Vaquer Firm, LLC
Hank White: Coastline Consulting Services, Inc.



CHAPTER 1

INTRODUCTION 

Over the past several decades, DeRenne Avenue has evolved from a dirt path, to a neighborhood collector, to a regional arterial connecting two freeway facilities. The result is a street that is serving many functions including: a commuter corridor, a “main street”, neighborhood gateway, regional connector and an employment center. Balancing these competing needs is a challenge for DeRenne Avenue; in response, the City initiated a five-phase process to plan the future of DeRenne Avenue which is referred to as “Project DeRenne”.

The five phases of Project DeRenne are as follows:

- **Phase I** engaged the community through public outreach to identify community values and receive feedback from local citizens as well as analyze traffic and market data.
- **Phase II** includes the development of evaluation criteria and a preferred alternative for the corridor based on input from Phase I.
- **Phase III** will involve a detailed environmental review of related impacts and preliminary design of the selected alternative.
- **Phase IV** will include final design for the selected alternative.
- **Phase V** will implement the selected alternative.

Guiding Principles

One of the most significant products generated during Phase I of Project DeRenne are the project’s Guiding Principles. The Guiding Principles represent a summary of the core philosophy that will guide Project DeRenne irrespective of changes in goals, strategies, type of work, or leadership.

Incorporating all of the cumulative input received throughout Phase I, the Guiding Principles were refined and adopted by the Project Team, the Project Advisory Committee and the Steering Committee as the following six statements:

Neighborhood Preservation — Preserve the integrity of existing neighborhoods.

Local Land Use Initiatives — Promote implementation of adopted future land use initiatives and promote revitalization of existing commercial properties.

Beautification and Streetscape — Enhance visual appearance and promote a sense of place that is representative of the local Savannah character for those entering the corridor.

Modal Accommodations — Improve the modal accommodations for alternate travel modes and travel demand management.

Transportation and Safety — Improve current and future transportation operations and travel safety.

Economic Development — Promote a healthy and sustainable business environment where revitalization of existing commercial properties, redevelopment of strategic locations, & continued reinvestment in healthy businesses is encouraged.

Community Values

Several themes continually emerged at the design charrette, reflecting the priorities and values of charrette participants. Although not formalized, these themes also guided recommendations for Project DeRenne. They include the following:

Preserve Neighborhoods — Participants confirmed the sentiment expressed by residents, the Project Advisory Committee, and the Steering Committee during Phase I. Neighborhood preservation is a top priority.

Repurpose Existing Commercial — The study area is saturated with commercial development. Existing underutilized and vacant properties should be repurposed and revitalized before new commercial properties are approved.

Human Scale Development — The design and scale of development along DeRenne Avenue caters to the automobile. Charrette participants would like to see more distinct and memorable places, walkable places, and public spaces in the study area.

“The Forest City” — Participants would like to uphold the City’s designation as “The Forest City” by preserving mature live oak trees and enhancing and improving green areas in the study area.

Gateways — Participants expressed a desire to create recognizable entrances to the study area to help establish a unique identity and distinguish it from adjacent jurisdictions.

Historical Reference — Participants expressed a desire to build on Savannah’s heritage without competing with downtown Savannah and surrounding areas.

Study Area

DeRenne Avenue connects two controlled-access facilities (I-516 to the west and Truman Parkway to the east) and serves as an important east-west connection within the City of Savannah. The Project DeRenne study area centers on DeRenne Avenue from the western edge of Hunter Army Airfield to Timberline Drive east of Jenkins High School. The northern boundary of the study area follows a line approximately formed by Staley Avenue to the west and 67th Street to the east. The southern boundary lies approximately a half mile south of DeRenne Avenue.

The extents of the study area originated in previous plans, most recently the Coastal Region Metropolitan Planning Organization (CORE) Connections 2035 Long Range Transportation Plan (LRTP) adopted by the CORE Board on September 17, 2009. In addition, the 2008-2011 Transportation Improvement Program (TIP) identifies improvements to the DeRenne Avenue

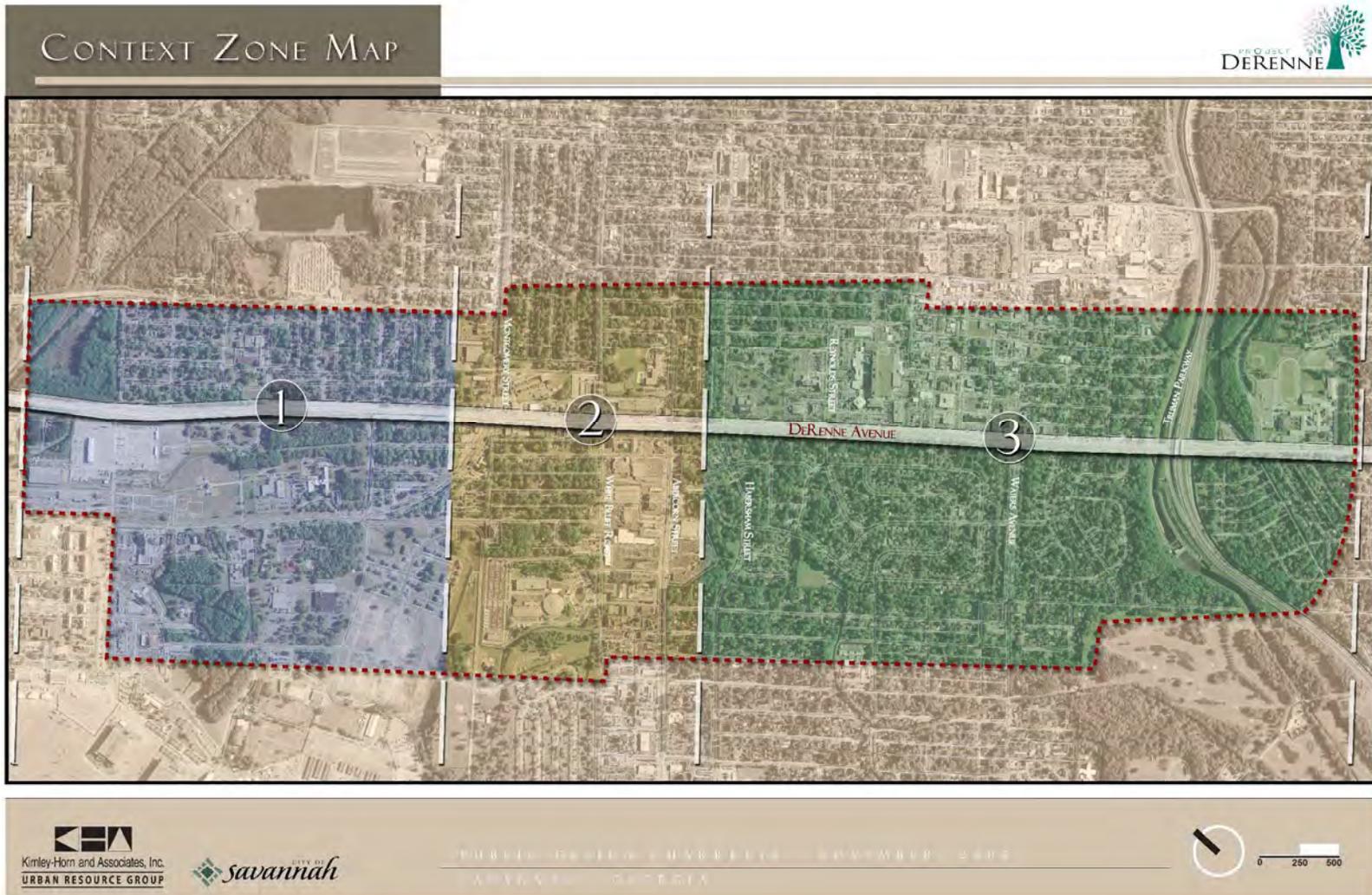
corridor between I-516’s terminus and the Truman Parkway as Project #0008358 and #0008359.

The corridor serves two roles: (1) providing local access to neighborhoods, commercial properties, and medical facilities and (2) providing regional mobility for motorists traveling between I-516, the Truman Parkway, and downtown. Several significant regional destinations are located along or adjacent to the corridor including the (including a level one trauma center), a technical college, and several public schools. Congestion along DeRenne Avenue is a significant problem negatively impacting the noted destinations and straining east-west mobility.

It should be noted that the study area extents to the north and south were selected based on land uses and market conditions. It is expected that planning will extend beyond this boundary when necessary to account for external forces impacting land use and transportation decisions within the study area. For purposes of this workbook, this area will be known as “the area of influence.” Likewise, potential impacts to areas just beyond the study area will be considered during the planning process.

Context Zones

Based upon traffic analyses and existing land use characteristics within the Project DeRenne study area, it was determined that the DeRenne Avenue corridor was best considered as three different “context zones”. The delineation among the three context zones occurs just west of Montgomery Street and just east of Abercorn Street. Maps showing the location of each context zone, as well as a description of each context zone and representative photos are provided on the following pages.



PROJECT DERENNE

Savannah, Georgia

Context Zone 1

Context Zone 1 encompasses the area from the westernmost project limit to just west of Montgomery Street, which includes the roadway segment designated as the federal highway, I-516. I-516 transitions from a four- to six-lane divided roadway at Mildred Street and this zone is characterized by high traffic volumes traveling at relatively high speeds (posted speed limit is 55 miles per hour). The adjacent land uses include the Hunter Army Airfield to the south and Tatenville, a single family residential neighborhood, to the north.



PROJECT DERENNE

Savannah, Georgia

Context Zone 2

Context Zone 2 encompasses the area from just west of Montgomery Street to just east of Abercorn Street. The roadway segment in this zone is designated as DeRenne Avenue, is owned by Georgia Department of Transportation, and is a six-lane divided roadway. The traffic volumes are similar to those in Context Zone 1; however, the three signalized intersections within Context Zone 2 eliminate the free-flow movement of traffic along DeRenne Avenue and high levels of congestion occur during the peak periods. The land uses in this zone directly adjacent to the corridor are primarily commercial with residential and institutional uses setback from DeRenne Avenue.



PROJECT DERENNE

Savannah, Georgia

Context Zone 3

Context Zone 3 encompasses the area from just east of Abercorn Street to the easternmost project limits. DeRenne Avenue is a five-lane roadway within this zone and carries approximately half of the traffic of Context Zone 1 and 2 because approximately half of the traffic traveling to/from I-516 comes from/goes to the south on White Bluff Road or Abercorn Street. The land uses adjacent to the corridor are primarily single family residential to the south and medical office to the north.



Premises of the Charrette Workbook

The Project DeRenne Charrette Workbook addresses general concerns and specific issues identified as part of Phase I as well as new issues that emerged during the course of the charrette. The Charrette Workbook catalogs the planning efforts, outlines the issues, and systematically presents recommendations to achieve the community's vision for the greater DeRenne Avenue area. To do this, the workbook evolved based on the following premises.

- This Charrette Workbook documents issues and concerns for the study area and provides a series of recommendations based on planning, analysis, and public input.
- The Charrette Workbook is not a formal policy document to be presented for adoption.
- The Charrette Workbook has been organized to provide a visual representation of local issues and specific recommendations to meet the community's needs. The workbook's design takes advantage of the sketches, graphics, maps, and diagrams developed during the charrette to more effectively convey ideas when text falls short.
- The Charrette Workbook is not intended to educate the reader on standard planning practices. Rather, the workbook focuses on the processes and results specific to the Project DeRenne charrette.

Components of the Workbook

Project DeRenne addresses transportation, land use, economic development, and urban design along DeRenne Avenue and in the neighborhoods, employment centers, and commercial areas within the study area. The components of the workbook are described in the following subsections.

Process and Framework

Following this introductory chapter, the workbook presents a brief overview of the planning process

and preliminary study area evaluation that forms the foundation of the issues and recommendations presented later in the workbook.

Planning Process: Intense collaboration provided the essence of a planning process tailored to the unique dynamics of the study area. The planning process is summarized here with a focus on the public design charrette.

Resource Maps: The actions and recommendations of Project DeRenne are rooted in a comprehensive evaluation of the study area. An overview of this evaluation is presented here in the form of various resource maps.

Issues and Recommendations

The issues and recommendations are presented according to one of seven interrelated elements. Given the overlap between the elements, some repetition is expected.

All issues identified and recommendations developed as part of Project DeRenne are assessed in terms of the guiding principles and community values.

General Development: General Development represents the preferred community development patterns and design principles favored by participants at the design charrette.

Transportation: Transportation means more than moving vehicles from the western edge of the study area to the eastern edge. Effective transportation balances the needs of all users, including bicyclists, pedestrian, transit users, and motorists. The issues and recommendations for transportation are presented here.

Economic Vitality: Land use and urban design improvements often require economic investment to be implemented. Issues and recommendations for encouraging targeted economic revitalization are presented here.

Neighborhoods: The unique neighborhoods throughout the study area face varying issues. These

issues and recommendations to ensure the vitality of neighborhoods are presented here.

Public Infrastructure: Public infrastructure forms the spine for built infrastructure. In a redeveloping corridor with an existing base of residential and economic activity, public infrastructure is a concern throughout the life of the project. Issues and recommendations related to public infrastructure are presented here.

Place-Making: Place-making creates more livable communities, identifiable character, and a higher quality of life by celebrating the uniqueness of a community. Place-making issues and recommendations, such as branding and image, building architecture, site design, billboards, and franchise architecture, are presented here.

Focus Areas: Focus area studies evaluate the relationship between land use, urban design, and transportation using the principles of urban form. Four focus areas provide study-in-detail recommendations for diverse activity centers. Recommendations include market realistic development programs and illustrative master plans that support catalyst projects in the study area.

Call to Action

The planning process has generated considerable interest in creating a desirable future for DeRenne Avenue and Midtown Savannah. Many individuals have shown interest in the process. The Call to Action sends out a charge for these active citizens as well as key staff members to champion the preferred alternative to completion.

Workbook Structure

Project DeRenne presents a context sensitive approach to transportation, land use, and urban design in Savannah. This new approach balances the competing interests of these disciplines with the evolution of the public planning process. The Charrette Workbook presents not only the

approach, but also a realistic future envisioned for midtown Savannah.

The heart of the workbook is the seven elements for which a series of general issues and specific projects and recommendations are presented. The relationships between projects and issues may create repetition, but it is in this repetition that overarching themes emerge. Issues and projects are presented in a consistent format throughout these chapters. Each chapter begins with a broad summary of existing conditions and an overview of the element's role in the DeRenne Avenue area. Following the summary page, each issue or project uses the same format:

- **Issue** — States the issue concisely
- **Observation** — Summarizes existing conditions as found and highlights particular problems
- **Discussion** — Expands upon the problem statement by identifying causal factors and expressing the problem's impact on the desired outcome for the study area
- **Recommendation** — Puts forth a specific directive to mitigate the problem

Where applicable, photos of existing conditions, sketches, diagrams, and maps are used to illustrate existing conditions and/or recommendations.



CHAPTER 2

PLANNING PROCESS 

Transparency and collaboration provided the core strategies for establishing trust among the participants of the planning process. The project team, including elected officials, the consultant team, and other participants in the planning process, began working together in Phase I and continued to do so as the process moved into the Phase II design charrette. This continuity resulted in a shared learning environment and timely communication among participants. Those most directly affected by the project (residents and business owners in the community) were treated respectfully and continually assured that their input mattered and would have an effect on the outcome.

Major elements of the planning process included:

Orientation and Kick-Off

At the outset of the charrette, there was an orientation and kick-off meeting with the public to discuss project history, project protocols, project approach, land use considerations, transportation, design standards and criteria, schedule, and deliverables. The focus of the meeting was to review the guiding principles established in Phase I, discuss the study approach, identify constraints and project needs, and establish the planning area for analysis.

Project Advisory Committee

The consultant team worked with the City of Savannah to establish a Project Advisory Committee (PAC) to provide direct oversight and counsel to the planning process. Those on the PAC represented a broad base of local interests, viewpoints, and concerns for the study area. This group quickly became the conduit between the consultant, City staff, elected officials, and citizens living in the study area for developing a successful plan. Members of the committee included representatives from adjacent neighborhoods, two area hospitals, Savannah-Chatham County Public Schools, Hunter Army Airfield, and business owners.

Steering Committee

The Steering Committee was established to assist the City of Savannah in guiding the planning process. The primary focus of the Steering Committee is to steer the project's next steps and identify key public outreach activities. The Steering Committee was comprised of a diverse group of professionals including representatives from Economic Development, Traffic Engineering, Community Planning & Development, Georgia Department of Transportation, and the Metropolitan Planning Commission. A complete list of Steering Committee members can be found on the Acknowledgements page of the workbook.

Corridor Design Charrette

The corridor design charrette occurred November 2nd to 6th, 2009, in the former NAPA Auto Parts building at 131 W. DeRenne Avenue. A design charrette provides an intensive workshop environment in which planning and design ideas are generated, filtered, and discussed openly by participants. A 15-member, multidisciplinary team of community planners, landscape architects, architects, transportation planners, engineers, and real estate market experts was assembled for the event. Locating the charrette design studio on the corridor allowed public access for more than 12 hours each day, infusing public participation and the community's direct involvement into the decision-making process. The on-site location also provided easy access to agencies, stakeholders, and information and allowed the project team to quickly assess existing conditions and changing dynamics along DeRenne Avenue.

The consultant team worked together with citizens and stakeholders to build consensus for a vision that would accommodate future growth in the study area. Over the course of the five-day event, more than 200 participants visited the temporary charrette studio to watch the design team in action, take part in key

focus group meetings, offer feedback, and put forward their vision for the project.

The opening reception was held on Monday, November 2. On this evening, the project team engaged the local citizenry by presenting the project history, previous planning efforts, and an overview of existing conditions. Perhaps most importantly, the evening allowed the project team to introduce the charrette concept and identify the events and times at which the public could interact with planners and engineers on a personal level.

Over the next three days, a series of focus group meetings were conducted to obtain public feedback on a variety of specific issues. In total, twelve (12) focus group meetings were facilitated on the following subjects:

- Traffic
- Bike and Pedestrian
- Transit
- Neighborhood Encroachment
- Neighborhood Needs
- Economic Investment
- Business Development/Commercial Property Owners
- Urban Design/Place-making
- Public Infrastructure
- Urban Design/Branding
- Focus Area Overview
- Transportation Solutions

A pin-up session was held every evening during which the consultant team pinned up the day's drawings and discussion notes to make them available for public feedback and criticism. As a result of these pin-up sessions, the design team received valuable feedback that led to the approval, refinement, or rejection of various concepts being contemplated for the study area. The short feedback loops allowed the team to make changes on the fly to general themes and specific recommendations.

The five days of activity were intense. From the time they walked through the studio door, participants

immersed themselves in the design process. Many of each evening's public meeting participants would come by the studio the next day to take part in informal citizen briefings. As each day progressed, land use, urban design, and transportation recommendations emerged for the study area.

Illustrative master plans also were prepared for four areas along the corridor, serving as catalyst projects to implement the changes recommended in the workbook.

Project Website

All information prepared in support of Project DeRenne was uploaded to a project website maintained by the City of Savannah: www.projectderenne.com. Information posted to the project website included: meeting advertisements, resource maps, the public design charrette schedule, imagery of concepts from the public design charrette, and draft report materials.

Final Presentation

All materials developed during the design charrette were taken back to the office and refined before they were presented to the public. The final presentation was given to a full house that included more than 115 participants at the same location on December 3. This meeting was used to discuss the consultant's recommendations and affirm that the plan realized the vision and goals for the community communicated by participants during the planning process. The consultant team presented illustrative master plans prepared for the focus areas, a transportation mobility plan that addressed traffic, connectivity, bicycle and pedestrian accommodations, and transit, a neighborhood improvement assessment, and a strategy for signage, branding, and place-making for the corridor. In addition, a clear case for two emerging transportation strategies was presented to the public. Comments from the meeting were used to revise the draft report.





CHAPTER 3

RESOURCE MAPS 

Before the corridor design charrette, the consultant team completed a comprehensive evaluation of the study area. This evaluation included a review of existing plans and policies, interviews with City staff and key stakeholders, and focus group meetings. A major component of the evaluation involves the collection and review of available data.

The data, courtesy of the Chatham County Metropolitan Planning Commission, was used to create a series of resource maps. These resource maps illustrate existing conditions of the built environment and serve as the foundation for recommendations made in later chapters of the workbook.

Resource maps found in this chapter include: Figure Ground, Block Patterns, Grey Infrastructure, Walking Sheds, Street Typology, and Zoning.

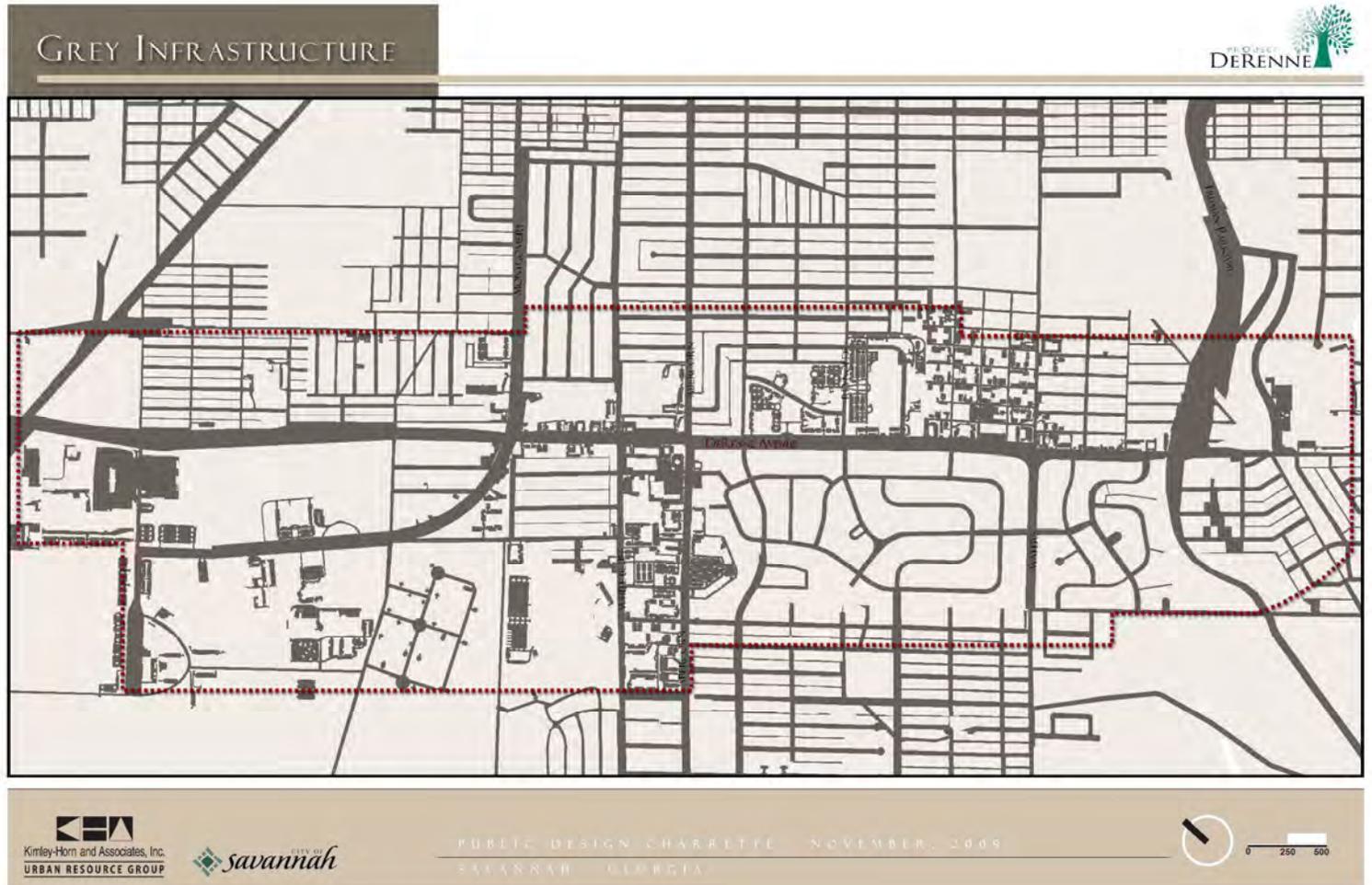
Figure Ground

A figure/ground diagram highlights existing buildings and structures in black and all other features such as ground spaces, streets, alleys, and vacant lots as grey or white. This map indicates the current state of the study area's urban fabric and building density. The smaller homes on smaller lots with rigid block structure reveal the presence of older, established neighborhoods. The larger buildings on smaller lots adjacent to established neighborhoods indicate the transition of some neighborhoods to commercial and medical office related uses.



Grey Infrastructure

The Grey Infrastructure map shows the existing streets and parking lots within the study area. The neighborhoods to the south have a curvilinear street pattern, while the majority of the study area north of DeRenne has a formal grid pattern. Most streets in the study area have medium to high connectivity, which is the ideal street pattern network because it offers multiple routes to a desired destination, promotes walkability, and improves pedestrian safety. Connectivity also offers flexibility for future redevelopment opportunities.



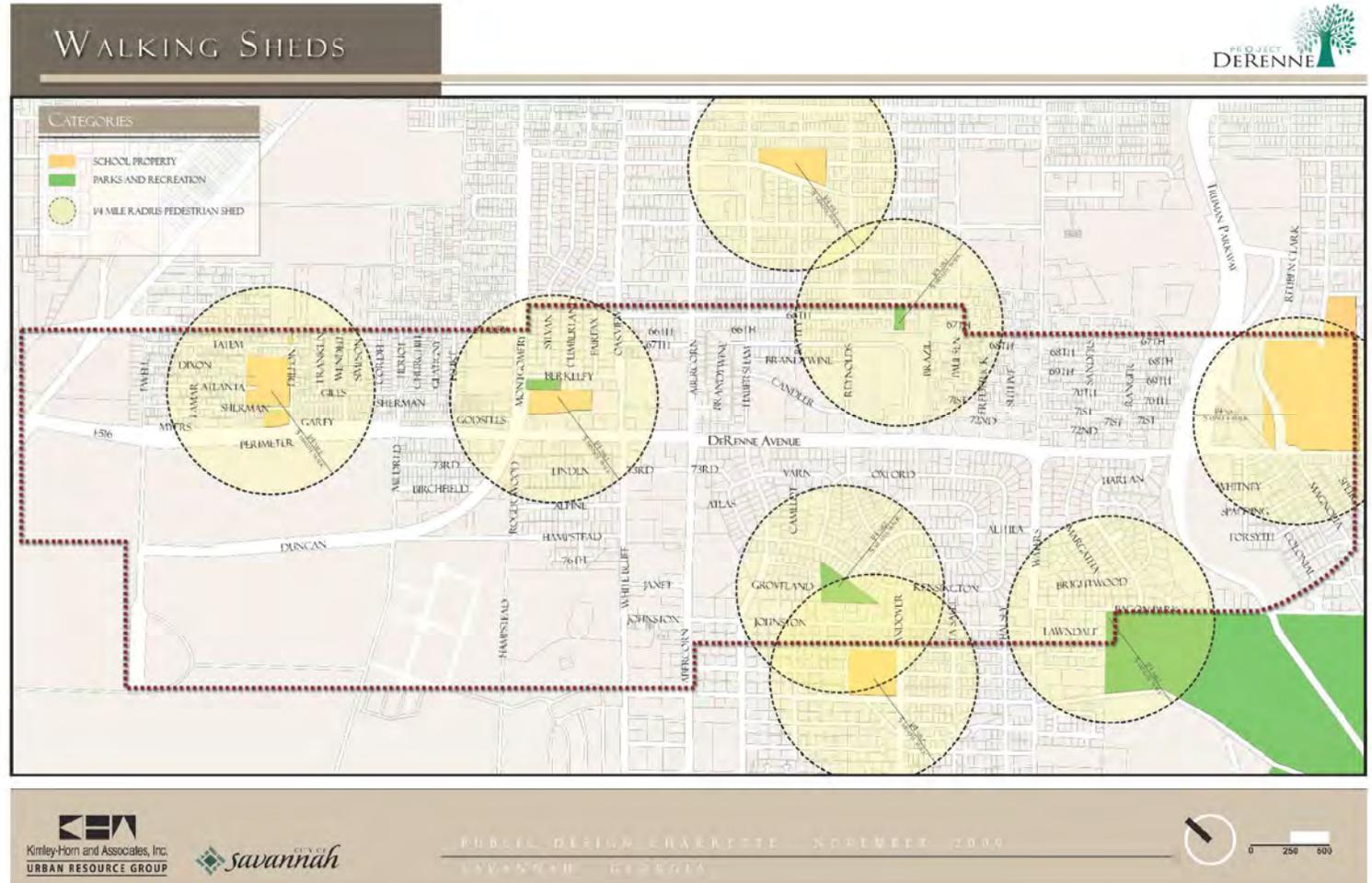
Walking Sheds

A walking shed is the basic building block of walkable neighborhoods. It is the area encompassed by the walking distance from a neighborhood center (such as a school or park) or civic amenity. Walking sheds are defined as the area covered by a 5-minute walk (1/4 mile or 1,320 feet).

Three neighborhood parks and recreation areas in the study area provide slightly less than seven acres of recreational open space for local residents. Additionally, Tatemville Park is located just outside of the study area to the north. Although a great facility with paved walking trails around a 20-acre lake, accessing the park is difficult.

Additionally, the school owns five properties in and around the study area, which provide opportunities for recreation and community events.

Overall, the study area lacks an organized open space system. As a result, residents are in need of additional facilities. Existing facilities need to be updated and linkage and access to existing facilities needs improvement.



Street Typology

The Street Typology map shows the classes of streets found in the study area. These classes are characterized by the service they are intended to provide. Thoroughfares, including Montgomery Street, White Bluff Road, Abercorn Street, and Waters Avenue (north of DeRenne) provide longer through travel between major trip generators. Neighborhood and commercial collectors collect traffic from the local roads and connect cities and towns with each other and to the arterials. Alleys provide access to the rear of lots or buildings. Local roads provide access to private property or low volume public facilities.





CHAPTER 4

GENERAL DEVELOPMENT 

Savannah, Georgia

A General Development Map was created during the charrette in order to compliment the existing and future land use maps found in the Chatham County-Savannah Tricentennial Plan. This map, and accompanying place type summary sheets, seek to define the distinct types of development patterns and characteristics desired in the community as opposed to simply focusing on land use. It also helps to promote sustainable development-measured by healthy neighborhoods, economic prosperity, and the efficient provision of infrastructure. It reinforces community-based initiatives to link development and quality-of-life and improve community cohesiveness and economic vitality.

Issue: Conventional land use designations, as found in the Tricentennial Plan, help Planning Staff determine the uses allowed on a piece of property. However, they do not provide additional guidance on the form and character of those uses. Without this detail, there is little guarantee to investors and property owners about the expectations for adjoining property. Uncertainty often translates to increased risks and therefore a reluctance by some to invest in an area.

Observation: Discussions with Planning Staff revealed a desire to amend the Unified Development Ordinance (UDO) to replace conventional land use categories with place types. Planning Staff has difficulties, under current regulations, ensuring that desired urban design principles are incorporated into proposed site plans. As a result, the community development patterns and design principles favored by City staff and residents, are rarely constructed when new development occurs. Participants at the charrette were supportive of the concept to provide more detail through the creation of place types.

Discussion: As part of the charrette, the consultant team inventoried existing land use and building

heights in the study area through the use of aerial photography and a windshield survey.

This information on existing conditions, combined with information received from participants at the charrette, was used to develop place types for the study area.

Place types identify the look or feel of a place and describe the qualities that set an area apart from other areas. Place types characterize a parcel beyond land use by identifying specific design qualities of the site. These design qualities include general development pattern, average residential density, average non-residential intensity, prevailing building height, open space elements, street pattern, typical street spacing, street connectivity, and typical street cross sections.

Place types are not meant to be synonymous with zoning districts nor should they be thought to replace the rules and requirements set forth in currently adopted ordinances.

The following place types were identified in the study area:

- Open Space
- Large Lot, Suburban Neighborhood
- Small Lot, Suburban Neighborhood
- Mobile Home Park
- Multi-Family Suburban Neighborhood
- High Rise Residential
- House of Worship
- Health Care Campus
- Light Industrial
- Military Base
- Suburban Commercial Center
- Suburban Education Center
- Suburban Office Center

Information about each place type can be found on the following pages.

By applying the preceding place-types, a General Development Map was created for the study area. The map represents the preferred community development patterns and design principles favored by the PAC and participants of the design charrette.

The Area of Influence Map expands on the General Development Map to include the massing of buildings. Cataloging building mass helps determine the character of the area. Additionally, it helps determine whether buildings are reaching their maximum development yield or whether redevelopment opportunities exist. In the study area, the majority of the buildings are single story, suggesting the utility of nonresidential sites is rarely maximized.

Recommendation: Consider incorporating the General Development Map into the City's future land use map and consider extending the place type concept to the remainder of the City during the Comprehensive Plan update.



OPEN SPACE

Open space includes active and passive land dedicated for permanent conservation. In the study area, open space includes active parks, buffers adjacent to Harry Truman Parkway and the CSX railroad, future greenway corridors, and common areas in suburban neighborhoods.

Form & Pattern

General Development Pattern	N/A
Residential Density	N/A
Non-Residential Intensity	N/A
Prevailing Building Height	N/A
Open Space Elements	Protected Natural Areas / Parks / Greenways / Floodways
Street Pattern	N/A
Typical Street Spacing	N/A
Street Connectivity	N/A
Typical Street Cross Section	N/A



Open Space adjacent to the Truman Parkway



Community park in the Kensington Park Neighborhood

LARGE LOT, SUBURBAN NEIGHBORHOOD

Large lot, suburban neighborhoods are formed as subdivisions with a relatively uniform housing type and density throughout. They are found in close proximity to suburban centers, which provide the rooftops necessary to support commercial and professional office uses. Homes are generally oriented interior to the site and buffered from surrounding development with transitional uses or landscaped areas. Large blocks and curvilinear streets make large lot, suburban neighborhoods traditionally auto-dependent.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	2 - 4 d.u./acre
Non-Residential Intensity	N/A
Prevailing Building Height	1 - 2 stories
Open Space Elements	Parks / Greenways / Stream Corridors
Street Pattern	Modified Grid
Typical Street Spacing	1,000 - 1,500 ft.
Street Connectivity	Medium
Typical Street Cross Section	Suburban Condition



Home in the Kensington Park Neighborhood



Street in the Fairway Oaks Neighborhood

SMALL-LOT RESIDENTIAL NEIGHBORHOOD

Small lot, suburban neighborhoods are formed as subdivisions with relatively uniform housing types and densities throughout. They are found in close proximity to suburban centers, which provide the rooftops necessary to support commercial and professional uses. Neighborhoods are generally compact with homes oriented toward the street. Rear alleyways serve some small lot, suburban neighborhoods in the study area. The design and scale of development in the neighborhoods — including small blocks and a traditional grid street pattern — encourages active living among the residents.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	3 - 9 d.u./acre
Non-Residential Intensity	N/A
Prevailing Building Height	1 - 2 stories
Open Space Elements	Parks / Greenways / Stream Corridors
Street Pattern	Formal Grid
Typical Street Spacing	600 - 1,000 ft.
Street Connectivity	High
Typical Street Cross Section	Urban Condition

MOBILE HOME PARK

Mobile home parks are predominantly characterized by single-wide mobile homes on individual lots clustered in an area owned and managed by a single entity.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	8 - 15 d.u./acre
Non-Residential Intensity	N/A
Prevailing Building Height	1 story
Open Space Elements	Protected Natural Areas / Greenways / Stream Corridors
Street Pattern	N/A
Typical Street Spacing	N/A
Street Connectivity	Low
Typical Street Cross Section	Suburban Condition



Home in the Tatenville Neighborhood



Home in the South Garden Neighborhood



Mobile home park in the Poplar Place Neighborhood



Mobile home park in the Poplar Place Neighborhood

MULTI-FAMILY SUBURBAN NEIGHBORHOOD

Multi-family suburban neighborhoods include complexes, communities, or stand-alone, infill buildings at the edge of single family suburban neighborhoods. They are found in close proximity to suburban centers, which provide the rooftops necessary to support commercial and professional office uses. Buildings in complexes or communities are oriented interior to the site and buffered from surrounding development by transitional uses or landscaped areas. Multi-family buildings in predominately single-family neighborhoods are small in scale and blend into the surrounding landscape. Multi-family buildings may include rental or fee-simple units.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	10 - 18 d.u./acre
Non-Residential Intensity	N/A
Prevailing Building Height	2 stories
Open Space Elements	Parks / Greenways / Stream Corridors
Street Pattern	Modified Grid
Typical Street Spacing	1,000 - 2,000 ft.
Street Connectivity	Medium
Typical Street Cross Section	Urban Condition



Multi-family building on East 67th Street



Multi-family building on Berkeley Place

HIGH RISE RESIDENTIAL

High-rise residential areas support the highest residential densities in the study area. They generally include one building surrounded by surface parking, which can easily be seen from most parts of the study area. Apartments, condominiums, and senior living centers could occupy a high-rise residential tower in the study area.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	20 - 100 d.u./acre
Non-Residential Intensity	N/A
Prevailing Building Height	12 - 20 stories
Open Space Elements	Parks / Stream Corridors
Street Pattern	Modified Grid
Typical Street Spacing	1,500 - 3,000 ft.
Street Connectivity	Medium
Typical Street Cross Section	Suburban Condition



Stillwell Tower within the Memorial Health University Medical Center Campus



Savannah Summit Apartment Homes on Hampstead Avenue

HOUSE OF WORSHIP

A house of worship represents a place of assembly for religious services and associated accessory uses. In the study area, a house of workshop may include churches, synagogues, temples, or religious enrichment centers.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.20 - 0.70 FAR
Prevailing Building Height	1-2 stories
Open Space Elements	Parks / Athletic Fields
Street Pattern	Traditional Grid
Typical Street Spacing	300 - 1,000 ft.
Street Connectivity	High
Typical Street Cross Section	Suburban Condition



Grace Primitive Baptist Church on Waters Avenue



Jewish Synagogue on Abercorn Street

HEALTH CARE CAMPUS

A health care campus includes various medical and medical-related uses, such as primary care, outpatient surgery, birthing centers, and other specialty services. They are relatively large in scale, and may include a hospital, teaching facilities, research and rehabilitation centers, and private medical office buildings. Buildings are typically oriented in a campus-setting, with large buildings connected via walkways, structured parking, and an internal network of streets for circulation.

Form & Pattern

General Development Pattern	Mixed Uses
Residential Density	N/A
Non-Residential Intensity	0.5 - 2.0 FAR
Prevailing Building Height	2 - 8 stories
Open Space Elements	Public Areas / Stream Corridors
Street Pattern	Modified Grid
Typical Street Spacing	600 -1,500 ft.
Street Connectivity	High
Typical Street Cross Section	Suburban Condition



Provident Building on Memorial Health University Medical Center Campus Drive



St. Joseph's/Candler Health System along DeRenne Avenue

LIGHT INDUSTRIAL

Light industrial centers provide basic jobs and keep people in the study area during normal work hours. Each center generally supports manufacturing and production uses, including warehouse, light manufacturing, medical research, and assembly operations. These areas are found in proximity to major thoroughfares and are generally buffered from surrounding development by transitional uses or landscaped areas that shield the view of structures, loading docks, or outdoor storage from adjacent properties.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.10 - 0.20 FAR
Prevailing Building Height	1-2 stories
Open Space Elements	Stream Corridors
Street Pattern	N/A
Typical Street Spacing	800 - 1,200 ft.
Street Connectivity	Medium
Typical Street Cross Section	Suburban Condition



Small warehouse bounded by 68th Street, Frederick Street, 67th Street, and Sutlive Street



Small warehouse bounded by 68th Street, Frederick Street, 67th Street, and Sutlive Street

MILITARY BASE

Hunter Army Air Field (HAAF) is located in the study area. It is a support complex to Fort Stewart (Third Infantry Division, Mechanized) and home to a major helicopter unit for the U.S. Coast Guard. Large buildings, air fields, military housing, and support services are all on the base. The HAAF serves as a premiere power projection station for the U.S. Army with a 11,375-foot runway that can accommodate any aircraft.

Form & Pattern

General Development Pattern	N/A
Residential Density	N/A
Non-Residential Intensity	N/A
Prevailing Building Height	N/A
Open Space Elements	N/A
Street Pattern	N/A
Typical Street Spacing	N/A
Street Connectivity	N/A
Typical Street Cross Section	N/A



Entrance to Hunter Army Airfield on Montgomery Street



View of Hunter Army Airfield from Interstate 516

SUBURBAN COMMERCIAL CENTER

Suburban commercial centers serve the daily needs of surrounding residential neighborhoods. They typically locate near high-volume roads, such as highways and arterials, and design themselves to be accessible primarily by automobile. Strip commercial development is the prevailing building style for suburban commercial centers in the study area. Large parking lots serve visitors coming to the center. Little or no street connectivity exists between adjacent centers.

Suburban commercial centers are generally categorized by the type of uses and magnitude of development. Common commercial centers in the study area include strip commercial, neighborhood-serving commercial centers, and big box development.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.20 - 1.00 FAR
Prevailing Building Height	1 - 7 stories
Open Space Elements	Stream Corridors
Street Pattern	N/A
Typical Street Spacing	1,000 - 1,500 ft.
Street Connectivity	N/A
Typical Street Cross Section	Suburban Condition



Abercorn Walk Shopping Center along Abercorn Street



Wendy's restaurant on Waters Avenue

SUBURBAN EDUCATION CENTER

A suburban education center includes all of the academic buildings, administrative offices, athletic fields, and other supporting infrastructure typically associated with an elementary school, middle school, high school, vocational school, community college, or neighborhood enrichment center. The center typically represents a traditional suburban prototype: one- or two-story buildings oriented interior to the site, large parking lot(s), internal circulation pattern conducive to parent drop-off/pick-up, athletic fields reserved for school use only, and wide buffers from surrounding uses.

Access to a campus is typically limited to driveways located near the front of the main building for security reasons.

Form & Pattern

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.20 - 0.35 FAR
Prevailing Building Height	1 - 2 stories
Open Space Elements	Athletic Fields / Playground / Stream Corridors
Street Pattern	N/A
Typical Street Spacing	1,200 - 1,500 ft.
Street Connectivity	N/A
Typical Street Cross Section	Suburban Condition



Jewish Education Alliance on Abercorn Street



Savannah Technical College on White Bluff Road

SUBURBAN OFFICE CENTER

Suburban commercial centers serve the daily needs of surrounding residential neighborhoods. They typically locate near high-volume roads, such as highways and arterials, and design themselves to be accessible primarily by automobile. Strip commercial development is the prevailing building style for suburban commercial centers in the study area. Large parking lots serve visitors coming to the center. Little or no street connectivity exists between adjacent centers.

Suburban commercial centers are generally categorized by the type of uses and magnitude of development. Common types of suburban commercial centers may include strip commercial, neighborhood-serving commercial center, and big box development.

Form & Pattern

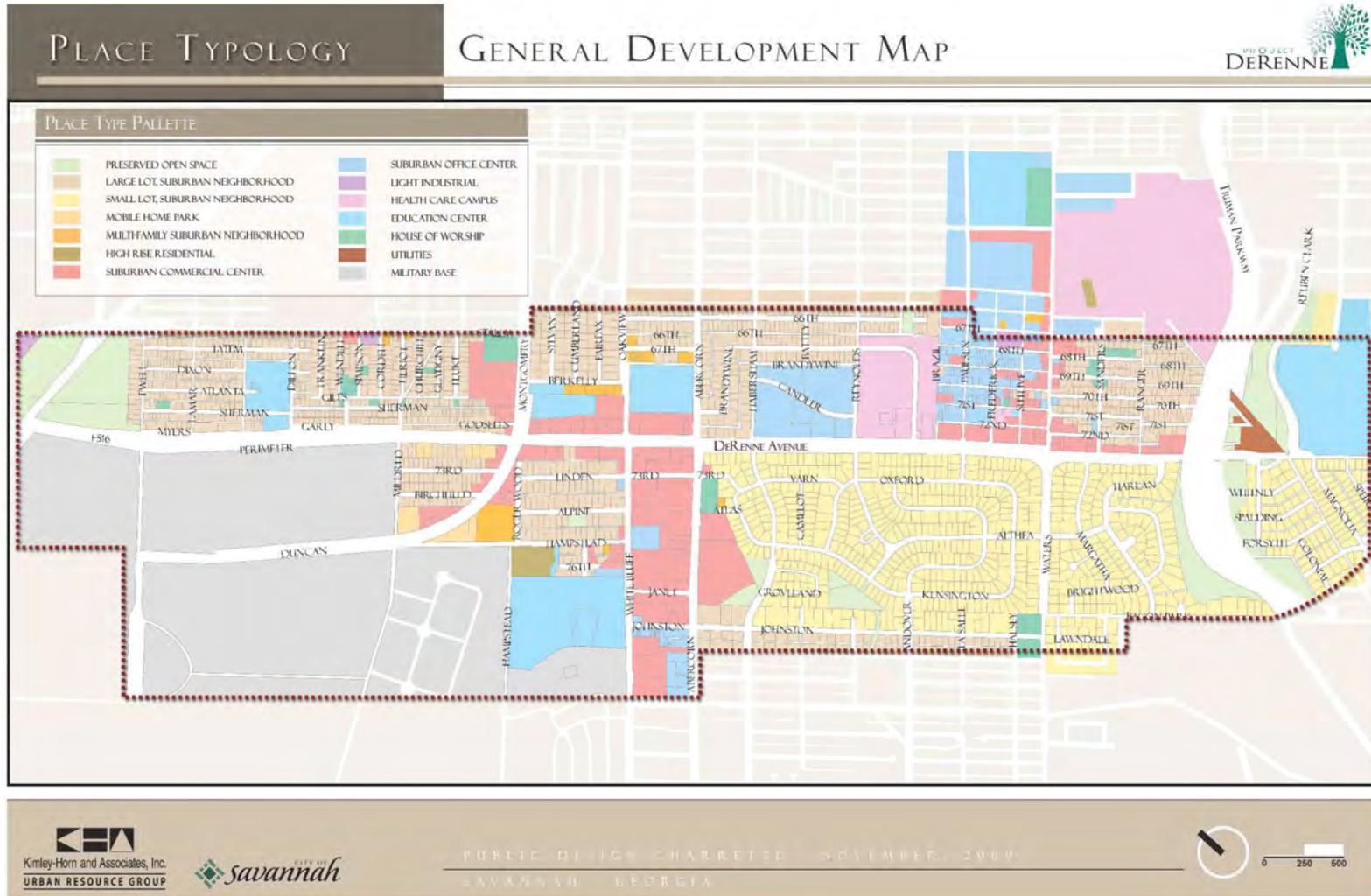
General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.20 - 0.30 FAR
Prevailing Building Height	1 - 4 stories
Open Space Elements	Parks / Stream Corridors
Street Pattern	Modified Grid
Typical Street Spacing	1,000 - 1,500 ft.
Street Connectivity	Medium
Typical Street Cross Section	Suburban Condition



Lewis Cancer & Research Pavilion on the corner of Candler Drive and Reynolds Street



Dentist offices on Paulsen Street





CHAPTER 5

TRANSPORTATION 

OVERVIEW

Savannah's historic success has been influenced significantly by its great transportation system. Its port, rail access, street cars, interconnected system of public squares, and broad tree-lined boulevards contributed to a diversity of interconnected travel with an emphasis on intent of design. This planned integration between travel modes became important especially given the environmental constraints of the area and the one-sided nature of travel movements that at the time were focused on north-south travel.

The original transportation systems worked well until the post war era when the City began to expand to the south and major transportation facilities like I-95, I-516, and later the Truman Parkway were constructed. The resulting development pattern of this burgeoning area of the community began to look much more like the rest of suburban America with an emphasis on separation of land uses. Similarly, a disconnect between travel modes, street hierarchy, and connectivity began to occur. The new priority in these areas was on moving traffic from residential areas to places of employment (just as in the past). However, now there is greater emphasis on residential commuters coming from the west and south than ever before: a trend that is not likely to change in the foreseeable future. As traffic engineers and planners struggled to respond to the changing circumstances, the connected system of streets, mix of uses and grand boulevards that served as the model for years were lost in the struggle to maintain travel times, combat congestion and improve safety.

The images on this page communicate how favorable Savannah's traditional transportation is when compared to the disconnected street pattern of the DeRenne study area. It also reveals a reliance on the arterial roadway system in the DeRenne vicinity to be all things to all people during all times of the day (something never intended for roadways like DeRenne Avenue).



Downtown Savannah (1 square mile)



DeRenne Avenue (1 square mile)

Auto mobility has dominated the design of recent roads within the study area and the result has been a scenario where the current road system and transportation funding cannot keep up with the pace of congestion. In addition, these wider roads once served as front doors to business and

neighborhoods. Their continued widening has impacted the viability and quality of environment for both. Finally, with each widening, less space has been dedicated to elements of street design for which Savannah is renowned: grand planted medians, and tree-lined pedestrian areas, characteristics that create an environment where both car and pedestrian can thrive.

REGIONAL CONTEXT

In addition to the degradation of street patterns, the regional context of DeRenne Avenue is also an important factor contributing to the pressures placed on the corridor. In the map below, which illustrates the major transportation facilities within

the Savannah region, interstates are drawn in red, major arterials are drawn in yellow, and DeRenne Avenue is highlighted by the green box. As shown, DeRenne Avenue is a surface arterial connecting two controlled access facilities (I-516 and the Truman Parkway) and serves as an important east-west connection within the City of Savannah. Due to the presence of the Hunter Army Airfield, which consumes approximately 5,400 acres between the Veterans Parkway and White Bluff Road, DeRenne Avenue is the only east-west connection available for approximately 4.5 miles south of the city. Therefore, DeRenne Avenue carries a disproportionate share of traffic traveling to/from the west from/to south of DeRenne Avenue compared to other east-west connections which



DeRenne Avenue Regional Context

have parallel routes to help spread the traffic.

Participants in the design charrette identified the following transportation issues in the study area:

- traffic congestion,
- vehicle crashes,
- traffic queues,
- auxiliary turn lanes,
- pedestrian network,
- bicycle network,
- pavement marking,
- driveways,
- emergency response, and
- street connectivity.

Each of these issues is discussed on the following pages.

All recommendations in this study seek to adhere to the Guiding Principles set forth by the Project Advisory Committee (PAC). The options discussed within this document are concepts that were developed during the weeklong public design charrette.

All recommendations found in this report seek to respond to the contributing factors, not just the symptoms, which have led to the current conditions on DeRenne Avenue.

TRAFFIC ISSUES

Issue: Traffic Congestion

Observation: Traffic congestion is one of the major challenges for DeRenne Avenue and was the catalyst for Project DeRenne. High traffic volumes and inadequate capacity have resulted in long queues at intersections and slow movement through and across the corridor. Based on the traffic analysis and observations performed as part of this study, critical areas of concern include the intersection and corridor operations between the intersections of Montgomery Street and Abercorn Street along DeRenne Avenue.

Intersections east of Abercorn Street operate within acceptable levels with the exception of Habersham Street in the morning peak hour and Waters Avenue during both peak hours. This difference in corridor operations west and east of Abercorn Street is highly influenced by the daily traffic volumes traveling along DeRenne Avenue. As shown in the figure below, projected 2030 daily traffic volumes west of Abercorn Street are approximately 54,000 vehicles per day (vpd) while east of Abercorn Street they drop to approximately 31,000 vpd.

Eastbound traffic on I-516 has been observed to queue over 1.5 miles back from the Montgomery

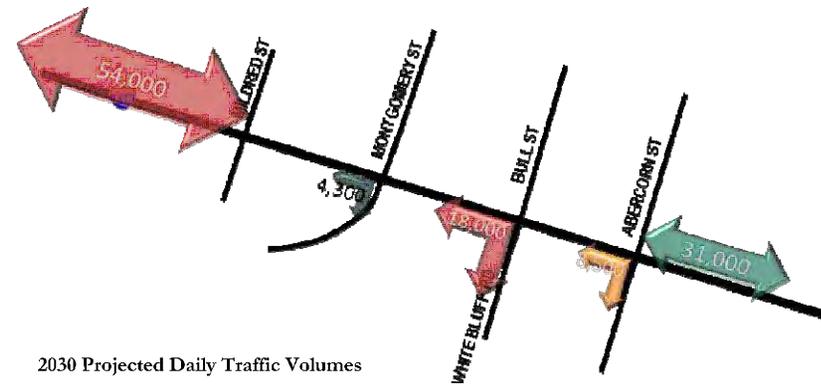
Street intersection during the morning peak period. Additionally, traffic on the northbound approach of White Bluff Road at DeRenne Avenue queues approximately 3/4 of a mile during the afternoon peak period. This is attributable to the high volume of traffic making a northbound left-turn at this intersection to access I 516 from points south of DeRenne Avenue.

Discussion: Traffic congestion and mobility relative to DeRenne Avenue have been discussed during the past decade with no resolution. In an attempt to reduce east-west congestion along DeRenne Avenue, the City re-timed the traffic signals in 2005. While this improved the progression of vehicles along DeRenne Avenue, it also increased queuing and delay on the intersecting north-south streets and did not fully alleviate congestion within the corridor.

Traffic congestion can be a sign of a robust and healthy corridor; however, if left un-checked it can become a deterrent and compromise the health, safety, and prosperity of a corridor. In some settings, traffic can get so bad that customers have trouble or are afraid to use certain driveways and side streets. In the worst of cases, congestion can contribute to the failure of businesses, their choice to relocate, and/or the decline of neighborhoods' value and residents' quality of life.

For DeRenne Avenue, traffic congestion and the resultant traffic queues are creating a grid-locked corridor primarily west of Abercorn Street and negatively impacting the vitality of businesses and mobility for area residents.

Contributing to the current and projected congestion is the traffic entering the DeRenne corridor from I-516. As previously discussed, the lack of alternate east-west connections between I-516 and Abercorn Street forces all traffic coming to/from the west to utilize DeRenne Avenue. As shown to the left, approximately half of this traffic is going to/coming from the south on either White Bluff Road or Abercorn Street, creating significant



2030 Projected Daily Traffic Volumes



Traffic congestion approaching and along DeRenne Avenue

Savannah, Georgia

pressure on the three westernmost intersections: Montgomery Street, White Bluff/Bull Street, and Abercorn Street. These same intersections are all operating at unacceptable levels of service. These intersections in effect “meter” the operations of the remainder of the corridor by only allowing so much traffic through the intersection in each traffic cycle. If a solution can be found for these locations, the rest of the corridor can be improved.

Recommendation:

- Implement a solution that addresses congestion at the worst intersections rather than a widening of the entire corridor.
- Implement a solution that allows for improved travel times through improved capacity, creation of alternate routes, and/or travel demand management.

Implement a solution that accommodates emergency response vehicles to and from hospitals.

Issue: Vehicle Crashes

Observation: Angle and rear end crashes are the most prevalent crashes occurring along the corridor. Over a four year period, the most crashes have occurred at Abercorn Street with 160+ rear end and 60 angle crashes (crashes that occur as a result of one vehicle turning into another). Other intersections with a high number of crashes include

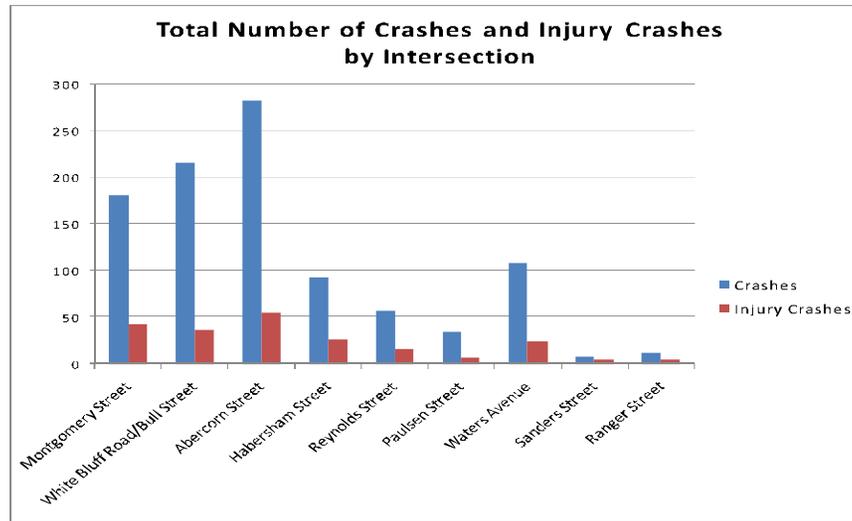


Rear-end collision on DeRenne Avenue

Montgomery Street and White Bluff Road/Bull Street. Over the past four years, 105 rear end crashes and 30 angle crashes have occurred at Montgomery Street. The White Bluff/Bull Street intersection experienced 111 rear end and 55 angle crashes over the same time frame. In addition to the rear end and angle crashes, the White Bluff/Bull Street intersection experienced a significant amount of sideswipe crashes.

As seen in the chart below, a large portion of the accidents occurred along the corridor occurred at the three western intersections; Montgomery Street, Bull Street/White Bluff Road, and Abercorn Street.

Over a four year period there were 1,519 crashes along DeRenne Avenue between I-516 and Truman Parkway. These crashes included 370 injury crashes and no fatalities. The top crash type along DeRenne Avenue is the rear end collision. Rear end crashes are typically attributed to driver inattention and “stop & go” driving conditions.



The volumes of traffic along DeRenne Avenue, combined with the traffic signals, vehicles in the two-way left-turn lanes, and numerous driveway openings, creates an atmosphere that is highly conducive to rear end collisions along the corridor.

The second highest type of collision is the angle collision. With this type of collision two or more vehicles (usually from opposite directions but not always) collide when one vehicle moves across the path of the other vehicle. This type of collision is common along roadways with a continuous center left turn lanes, as there are no restrictions to vehicular turning movements which can create unforeseen movements that catch opposing drivers by surprise. This type of collision is also prevalent along roadways with numerous driveway openings.

Discussion: Traffic safety along the DeRenne Avenue corridor is one of the key concerns noted by the public. A thorough examination of crash history and traffic patterns usually can predict key

locations where an improvement in traffic safety will benefit motorists and the community as a whole.

Several locations exist west of Abercorn Street where the median opening is not directly aligned with a driveway and in some cases, the median opening points turning vehicles in between two driveways.

Recommendation:

- Reduce the number of conflict points throughout the corridor by converting the continuous center left-turn lane to a landscaped median.
- Modify median openings to better align with a single driveway and eliminate confusion for drivers.
- Consolidate driveways at locations where multiple driveway openings are provided for a single parcel.
- Provide for adequate separation between driveways and street intersections.
- Provide adequate auxiliary turn lane storage. Improper or insufficient turn lane storage will create overflow into the adjacent through lane creating additional delay and safety concerns.

Issue: Auxiliary Turn Lanes

Observation: Inefficient auxiliary turn lanes are present throughout the corridor. The existing turn lanes provide minimal storage, do not effectively operate as intended, and interrupt the flow of pedestrian movements.

Discussion: Dedicated left- and right-turn lanes are to be provided in situations where traffic volumes and speeds are relatively high and conflicts are likely to develop at public road intersections and driveways between through and turning traffic. Auxiliary lanes are an asset in promoting safety and improved traffic flow in such situations.

Left-turn lanes, installed in the roadway center, are intended to remove turning vehicles from the through traffic flow. This reduces the frequency of rear-end collisions at locations where there is considerable left-turn ingress activity, such as major driveways and minor public road intersections. In general, auxiliary left turn lanes must be long enough to accommodate a safe deceleration distance and provide adequate storage for an expected peak hour turning traffic queue.

Auxiliary right-turn lanes are a prevalent feature in the corridor yet seem to be doing very little to effectively promote the progression of traffic. This is a result of their lack of appropriate taper and storage lengths. Given the relative urban context of the corridor this same space may be better used to improve through capacity or enhance the pedestrian realm through a greening of the street.



Typical Sub-standard acceleration lane on DeRenne Avenue

Also prevalent throughout the corridor are acceleration lanes. Acceleration lanes are typically located on the right side of a roadway and provide vehicles a section of pavement in which they can increase their speed and safely merge with through traffic. For these lanes to properly work, the acceleration lane provided must be long enough to allow a vehicle to accelerate to the speed of the adjacent roadway. There are several locations where substandard acceleration lanes are present

throughout the corridor (McDonalds, CVS, etc). When substandard lengths are provided, the benefit does not outweigh the detriment. In an urban context as present along DeRenne Avenue, the acceleration and deceleration lanes disrupt the continuity of the sidewalk, creating a gap in the pedestrian network as well as creating a safety concern for the pedestrian.

Recommendation:

- Provide adequate turn lane storage for left- and right-turn lanes at intersections.
- Where possible, provide for offset left-turn lanes.
- Repurpose existing/ineffective auxiliary right-turn lanes for other improvements in the corridor.

TRANSPORTATION ALTERNATIVES

While there are many important priorities for the corridor, from neighborhood preservation to economic revitalization, reducing traffic congestion is the catalyst for this project and core issue needing a solution due to its influence on each of the other priorities. During the charrette process, the full range of transportation strategies were considered for addressing the existing and projected traffic congestion along DeRenne Avenue. As shown to the right, these strategies included everything from implementing an elevated roadway (a solution with extreme impacts) to do nothing. Each strategy was considered as it applied within the three context zones and measured against its adherence to the project's Guiding Principles. Those that were clearly in violation of the Guiding Principles were dismissed and those that were not were considered further. Those strategies that were dismissed based on the Guiding Principles are indicated by the red "X" to the right.

The strategies that warranted further consideration within at least one context zone included strategic structure(s), traffic diversion, key lane addition(s),

TRANSPORTATION STRATEGIES	CONTEXT ZONE		
	1	2	3
ELEVATED ROADWAY	X	X	X
WHOLESALE WIDENING	X	X	X
STRATEGIC STRUCTURE	?	?	X
TRAFFIC DIVERSION	?	?	X
KEY LANE ADDITION	N/A	?	?
ROUNDBOUT	X	X	?
NEW BASE ACCESS	+	+	N/A
TRAVEL DEMAND MGMT	+	+	+
INCORPORATE TRANSIT	+	+	+
ADJUST SIGNAL TIMINGS	N/A	?	?
DO NOTHING	X	X	X

roundabout, and adjust signal timing. Those that were determined to be appropriate where feasible were new base access, travel demand management, and incorporation of transit.

Based on the results of the Charrette, three alternatives emerged for Context Zone 2 (Montgomery Street to Abercorn Street) and two alternatives emerged for Context Zone 3 (east of Abercorn Street). Because congestion is most severe within Context Zone 2, the focus of the alternatives developed for Context Zone 2 was on alleviating the noted congestion at the three critical intersections. Since most of the intersections within Context Zone 3 are projected to operate at acceptable levels of service during the peak periods, the focus for Context Zone 3 was to implement strategic lane reconfigurations where needed and repurpose existing pavement for a more appropriate function rather than significant capacity improvements. The following sections describe in more detail each of the options developed during the charrette by context zone.

CONTEXT ZONE 2 OPTIONS

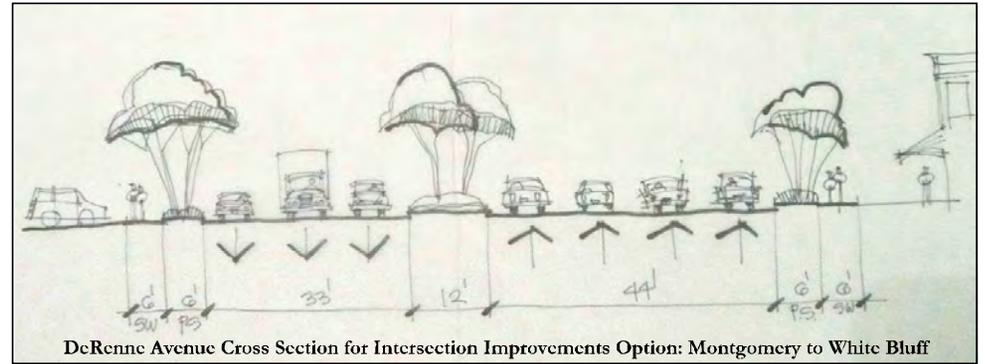
The "Intersection Improvements Option", the "Boulevard Option", and Do Nothing were the resulting options for Context Zone 2. The Intersection Improvements Option seeks to alleviate traffic congestion by focusing improvements at the critical intersections and connecting segments. The Boulevard Option adds capacity to the transportation network by adding a new facility. While the Do Nothing option would not address the main objective of this project (reduce traffic congestion) it is included as an option for the project.

The two developed potential solutions for Context Zone 2 seek to address at least one of the heavy movements contributing to congestion within the corridor: eastbound to southbound traffic and northbound to westbound traffic at White Bluff Road and Abercorn Street. Both the Intersection Improvements Option and Boulevard Option address to varying degrees the transportation-related issues presented earlier in this chapter and have differing impacts to land use, neighborhood preservation, and economic vitality.

The first approach examined the existing and future operations of the corridor to determine what necessary segment and intersections improvements would be needed to provide a measurable reduction in traffic congestion. This approach focused on the critical intersection movements, signal timings, as well as the operational capacity of the segments linking the intersections. The outcome was a comprehensive alternative that reduced traffic congestion but also created impacts and opportunities unique to this alternative.

The second approach expanded beyond the limits of the existing DeRenne Avenue corridor to see how the major traffic movements, particularly the northbound left-turn movement at White Bluff Road, could be mitigated utilizing a separate facility. This approach focused on providing additional capacity via a new roadway, minimizing the critical

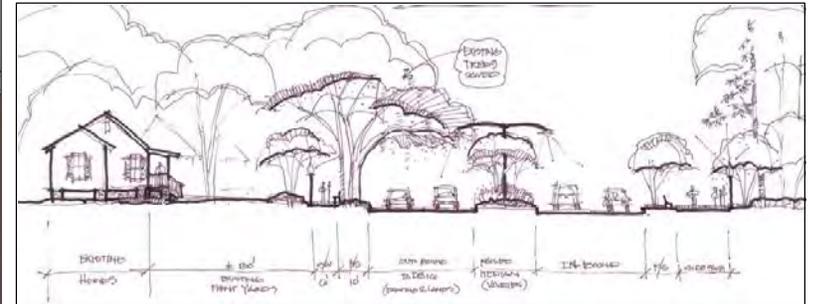
INTERSECTION IMPROVEMENT OPTION



DcRenne Avenue Cross Section for Intersection Improvements Option: Montgomery to White Bluff



BOULEVARD OPTION



Poplar Place Boulevard Cross Section



movement impacts at major intersections, and keeping DeRenne Avenue in its current right-of-way limits. The resultant was a comprehensive alternative that reduced traffic congestion but created impacts and opportunities separate from that of the Intersection Improvement Option.

INTERSECTION IMPROVEMENT OPTION

As mentioned earlier, the Intersection Improvement Option approached the issue of traffic congestion from the perspective of intersection and segment improvements.

With the current demand at the three major intersections (Montgomery Street, Bull Street/White Bluff Road, and Abercorn Street) exceeding operational capacity, additional through and/or auxiliary turn lane capacity is needed. It should be noted that the improvements included in the Intersection Improvement Option would require additional right-of-way beyond what is currently provided along DeRenne Avenue. The additional right-of-way required has the potential to require partial if not entire parcels adjacent to the roadway.

Montgomery Street Improvements

With queues measuring 1.5 miles for the eastbound approach of the intersection based on the current traffic demand, there is a need for additional through lane capacity for the eastbound movement. A rendering of the proposed intersection configuration at Montgomery Street under the Intersection Improvements Option is shown to the right. To maximize the capacity of the additional through lane, a dedicated eastbound right-turn lane is also included.

In addition to the added capacity, pedestrian improvements such as pedestrian refuge islands and diverter islands have also been incorporated into the intersection. Pedestrian refuge islands are intended to provide a protected area where pedestrians may wait outside the traveled way until vehicular traffic clears, allowing them to cross the street in two



stages if needed, thus reducing the time-at-risk for the pedestrian. They provide pedestrians a better view of oncoming traffic and to allow drivers to clearly see pedestrians. Pedestrian refuge islands are particularly useful to persons with mobility disabilities, very old or very young pedestrians who walk at slower speeds, and persons who are in wheelchairs.

As a part of the construction of the pedestrian refuge islands, diverter or channelizing islands are created. These islands help to normalize and stabilize traffic flow by channelizing the turning movements. They also prevent sporadic lane changes between the through and left-turn movements. This aids in the reduction of angle, left-turn, and rear end collision types.

Bull Street / White Bluff Road Improvements

Bull Street/White Bluff Road is the confluence of the major traffic movements of the corridor. To improve operations at the intersection, the additional through lane (added in advance of the

Montgomery intersection) carries through to this intersection and drops as a dedicated right-turn lane. The dedicated right-turn lane is channelized and flows unimpeded into a dedicated southbound through lane on White Bluff Road. This also allows for the existing right-turn lane to be restriped to a third eastbound through lane.



The intersection improvements also include the conversion of the shared southbound through/right-turn lane to a dedicated right-turn lane in order to allow the traffic in the eastbound free flow right turn lane to have a receiving lane without adding pavement. The existing inside left turn lane on the northbound approach of White Bluff Road currently only provides for 120 feet of dedicated left-turn lane storage. The storage length is increased to allow for proper loading to increase intersection efficiency.

As with the Montgomery Street intersection improvements, pedestrian improvements are proposed for the intersection. While full pedestrian refuge islands are not implemented, pedestrian offset islands are proposed. These offset islands are designed to prevent the left-turning traffic from the intersecting street from crossing to close or cutting the crosswalk.

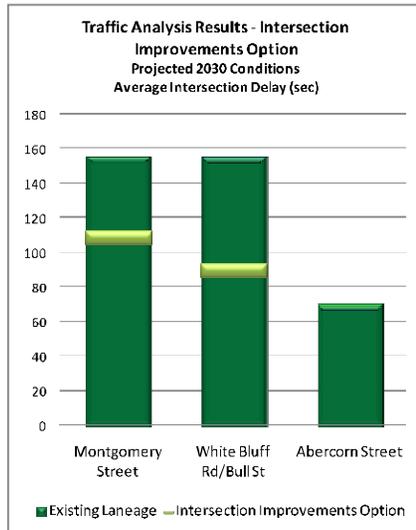
Abercorn Street Improvements

Unlike the previous two intersections, strategic lane additions were not anticipated to improve the overall intersection operations enough to warrant construction of a new lane. Therefore, no laneage additions or modifications are proposed. Instead, channelizing islands are proposed on all four approaches to the intersection in order to improve the pedestrian environment at the intersection. The islands will reduce the turbulence associated with the through and turning movements as well as reducing the potential safety and collision concerns.

In addition to the traffic safety and operational benefits to the channelizing islands, pedestrian benefits are also provided. The islands will provide for a pedestrian refuge thus reducing the time-at-risk associated with the crossing movement.

The table on the next page illustrates the average peak hour performance of the Intersection Improvement Option compared to the existing laneage and the corresponding reduction in delay (sec). At the Montgomery Street intersection, the Intersection Improvement Option is expected to yield an average reduction in delay by approximately 30% for the overall intersection. At the intersection





with Bull Street/White Bluff Road, the Intersection Improvement Option is expected to yield an average reduction in delay of 42% over the entire intersection. While other improvements are shown throughout the corridor, from a traffic operations perspective, they have minimal impact on reducing delay for the overall intersection.

BOULEVARD OPTION

The second approach to mitigating congestion along DeRenne Avenue expanded beyond the limits of the existing corridor to see how the major traffic movements, particularly the movement north to west, could be handled utilizing a separate facility. This approach focused on providing additional capacity via a new roadway, minimizing the critical movement impacts at major intersections, and keeping DeRenne Avenue in its current right-of-way limits. The resultant was a comprehensive alternative that is expected to significantly reduce traffic congestion. The concept of providing

additional capacity for DeRenne Avenue via a new roadway has been discussed for many years. The potential concept was a proposed new roadway directly from I-516 to intersect with White Bluff Road and Abercorn Street generally following the Hampstead Avenue alignment. The deficiency of this prior concept was in its inability to efficiently accommodate the critical movements impacting traffic on DeRenne, particularly the northbound left-turn. As discussed prior, the north to west movement and its reverse are the root cause of traffic congestion along DeRenne Avenue and the intersecting side streets.

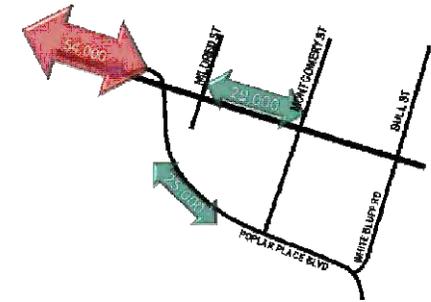
Simply constructing a new roadway does not always resolve traffic congestion; in some instances it can just displace a portion of the congestion to another location. To relieve traffic congestion along DeRenne Avenue a fundamental understanding of what movements require improvement is needed. As discussed previously, the critical movement at Montgomery Street is the eastbound through movement while at Bull Street/White Bluff Road it's the northbound left-turn and the eastbound right-turn movements. While other movements are just as important, their poor performance at these intersections is primarily influenced by these critical movements.

Where the Boulevard Option departs from past endeavors is the termination point and intersection configuration. The understanding of what critical movements needed resolution led to the realignment of White Bluff Road at the new proposed intersection of the proposed connector. As shown to the right, instead of allowing the roadway to "T" into White Bluff Road, the new roadway realigns White Bluff making the priority movements those traveling from White Bluff to the new roadway. This realignment converts the critical movements from turning movements to through movements as well as places them on the priority street in lieu of the secondary street. The remaining portion of White Bluff Road, north of the new roadway is realigned creating a new "T"

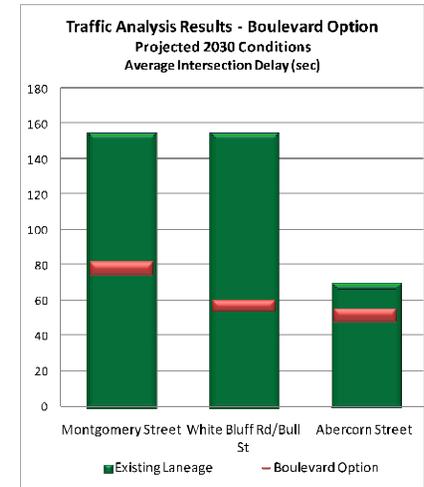
intersection. As part of this option, a new access to the Hunter Army Airfield would be created directly connecting to the new boulevard and Montgomery Street would be abandoned in its current alignment and straightened to generally follow the existing Rogerwood Road alignment.

It is expected that the Boulevard Option could effectively divert approximately half of the projected traffic volumes utilizing DeRenne Avenue. Based on 2030 traffic volume projections, DeRenne Avenue would carry 29,000 vpd and the proposed connector would carry 25,000 vpd.

The impact of splitting the traffic volumes has a profound impact on delay and traffic congestion at the three main intersections. The table to the right outlines the operational performance of DeRenne Avenue with the new boulevard in place compared to the existing laneage. As shown, the Boulevard Option provides an overall intersection reduction in delay of approximately 50% at Montgomery Street. At Bull Street/White Bluff Road, an overall intersection reduction in delay of approximately 65% is expected and at Abercorn Street, an overall intersection reduction in delay of 20% is possible due to anticipated diverted traffic to the new connection.



This option is expected to not only address the high volume of traffic entering DeRenne Avenue from I-516 and traveling to points south, but also address the high volume of traffic and queuing on White Bluff Road for movements traveling north to west.



The proposed connector, referred to as “Poplar Place Boulevard” for the purposes of the charrette, is envisioned to be constructed as a boulevard providing facilities not only for the motor vehicle but also for the pedestrian and bicyclist. Since the connector utilizes existing Flampstead Avenue right of way, attention to the interaction between the proposed boulevard and the homes was given.

The proposed typical section of the boulevard is a four-lane median divided roadway with sidewalks and/or a side-path along the north side of the boulevard. The side-path would create an increased buffer between the motor vehicles and the existing homes.

In conjunction with the implementation of a new roadway, pedestrian and traffic safety improvements along DeRenne Avenue are proposed as part of the Boulevard Option. These include median installation, pedestrian refuge islands, enhanced pavement markings, and pedestrian signal upgrades.

CONTEXT ZONE 3 OPTIONS

The two options for Context Zone 3 that emerged from the Charrette were installation of a landscaped median with strategic intersection improvements, The Median Option, and Do Nothing.

Currently, a five-lane section is present between Abercorn Street and the Truman Parkway. The existing two-way left-turn lane serves no functional purpose in between intersections since there are no driveways on the south side of DeRenne Avenue and all driveways to the north are configured with pork chop islands to prevent left-turns in. Additionally the existing two-way left-turn lane is allowing and encouraging its utilization for passing as well a de facto by-pass lane to extend the auxiliary turn lanes at intersections. Both of these movements are unsafe and create the potential for serious head-on crashes. Therefore, in order to enhance the aesthetic nature of DeRenne Avenue within Context Zone 3 and help reduce the number and type of collisions present in the corridor, a

landscaped median is proposed from Abercorn Street to the Truman Parkway. The median will also aid in the improvement of traffic flow by reducing the potential for sporadic turning movements by providing delineated taper areas into the dedicated turn lanes.

The Median Option will include breaks at all public streets or major consolidated access points. These breaks will include turn lanes within the median of sufficient length to accommodate projected peak hour turning movements. The as envisioned median will be wide enough to maintain a sufficient median nose at the turn lanes so as to accommodate pedestrian refuge and the potential for landscaping. This differs from the existing medians west of Abercorn that narrow to be monolithic concrete islands at the turn lane median noses preventing continuity of plantings.

Also included in the option for Context Zone 3 are pedestrian improvements including revised pavement markings (crosswalks), pedestrian signal heads, and refuge/channelizing islands at the signalized intersections east of Abercorn Street. Those intersections include Habersham Street, Reynolds Street, Paulsen Street, and the Truman interchange ramps.

Since the majority of the intersections east of Abercorn Street are anticipated to operate at acceptable levels in future conditions, only strategic improvements were recommended in Context Zone 3 at Waters Avenue and Truman Parkway southbound ramp. These are discussed in more detail in the following subsections.

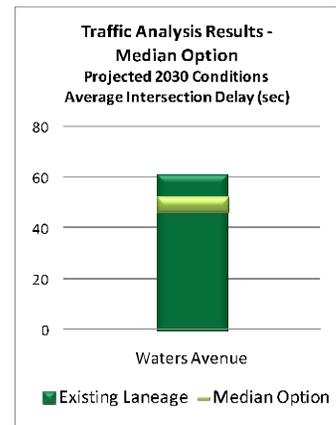
Waters Avenue Improvements

As referenced previously, the intersection of Waters Avenue is projected to operate below acceptable levels during both peak periods in future 2030 conditions. Fortunately, this intersection can be improved without major construction required. The southbound approach is currently striped as dual left-turn lanes, a through lane, and a dedicated right-turn lane. The conversion of the second

through lane to a dedicated right-turn lane will normalize traffic flow approaching, traveling through, and departing the intersection for the southbound movement.



For the northbound approach, the second through lane is restriped to provide for an additional left-turn lane. As with the southbound approach, the additional through lane does not provide tangible operational benefits to necessitate its retention.



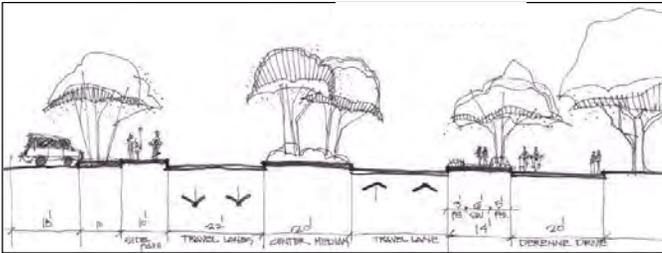
As shown in the graph to the left, the proposed restriping of lanes on Waters Avenue is expected to reduce delay at the intersection and yield an acceptable level of operation.

Truman Parkway Southbound Ramp Improvements

Although the intersection of DeRenne Avenue and the southbound Truman Parkway ramp is projected to continue operating at an acceptable level in future conditions, a citizen noted during the charrette that the southbound right-turn movement volume was much higher than the left-turn movement. Currently, the intersection is striped with a single right-turn lane and dual left-turn lanes. Traffic analysis software confirms that the intersection would operate more efficiently with dual right-turn lanes. Therefore, a restriping of this intersection, as shown below is included in the improvements to Context Zone 3.



M E D I A N O P T I O N



DeRenne Avenue Typical Cross Section: East of Abercorn Street



DeRenne Avenue: Habersham Street to Reynolds Street



DeRenne Avenue: Reynolds Street to Waters Avenue



DeRenne Avenue: Waters Avenue to Truman Parkway

SUSTAINABLE TRANSPORTATION

Beyond responding to traffic conditions, Project DeRenne seeks to identify initiatives which lead to a sustainable transportation solution for the community. This includes strategies to enhance accommodations for alternative travel modes (walking, biking and transit) as well as improvements in safety, access management, and connectivity. The following section describes these topics covered during the public design charrette.

Issue: Pedestrian Network

Observation: The pedestrian network throughout the study area is fragmented. Although sidewalks are present along DeRenne Avenue throughout the majority of the corridor, many segments are in need of repair, are less than the ideal width, and/or lack sufficient separation from the travel way.

Crosswalks are present throughout the corridor. However, they are faded and partially removed. All are in need of remarking.



Discussion: A cohesive and integrated pedestrian network is an integral part of the transportation system. It facilitates pedestrian travel, alleviates traffic congestion, promotes healthier lifestyles, increases social inclusion, and creates more livable places. Facilities are especially needed in areas with high concentrations of pedestrians such as schools, hospitals, shopping centers, and parks. Pedestrian accommodations include sidewalks, crosswalks, benches, enhanced lighting, and traffic calming devices.



Many transportation networks are out of balance with a priority placed on auto mobility leaving pedestrian accommodations second tier or an often forgotten mode of transportation. As mentioned earlier, the benefits of an integrated pedestrian network are many.

For those locations where sidewalk is missing throughout the corridor, it is often provided on at least one side of the street. However, the sidewalk that is present is in need of repair and improvement or of insufficient width. Best practices suggest that sidewalks should be a minimum of 5 feet in width to allow for two pedestrians to walk side by side comfortably. In locations where the sidewalk is located back of curb, a minimum of 6 feet should be provided to provide for an increased separation between the vehicular and pedestrian travel ways.

Signalized intersections are typically the safest locations for pedestrians to cross an intersecting street. Of the 14 intersecting streets in the corridor, nine are signalized. All of the signalized intersections have marked crosswalks and pedestrian signal heads on all approaches but few crosswalks are in good condition.

Recommendation:

- Re-mark existing crosswalks with high visibility pavement markings.
- Update the existing pedestrian signal heads with audible and/or count-down style LED pedestrian heads.
- Ensure handicapped wheel chair ramps are provided at all locations throughout the corridor.
- Implement a 10' shared use path along the north side of the corridor.
- Complete the existing pedestrian network by infilling the gaps in the sidewalk network.
- Repair and/or replace the aging sidewalk infrastructure with a minimum 5 ft sidewalk in locations with a planting strip and a minimum of 6ft where the sidewalk is placed back of curb.

Issue: Bicycle Network

Observation: Bike lanes are not present on DeRenne Avenue. Bicyclists are regularly observed riding on the sidewalk in lieu of the adjacent travel lane due to high traffic volumes and unsafe conditions. Accessing safer parallel routes (such as DeRenne Drive) is difficult if not impossible and in some cases requires traveling significant distances down side streets.



Bicyclists choose to use sidewalks because of traffic volumes along DeRenne Avenue

Discussion: As traffic congestion increases along DeRenne Avenue, many residents living in the adjacent neighborhoods are choosing to utilize alternative modes of transportation such as bikes and other modes to facilitate local trips. To further encourage the use of bicycles the City should work with business owners and the hospitals to provide bike racks.

For those choosing to ride a bike there are few dedicated facilities for them within the study area. Currently, Habersham Street is the only street with marked bike lanes in the corridor. With the lack of dedicated facilities in the corridor, many riders choose to utilize the sidewalks which can create conflicts between pedestrians and bicyclists. Alternately, riders utilize the secondary and neighborhood streets to maneuver through the study area. These streets are a safe, low volume alternative but often times increase the travel distance and time associated with a local trip.

PROJECT DERENNE

Savannah, Georgia

The Bicycle Network plan, located bottom right, outlines the proposed network of facilities proposed within the DeRenne Avenue corridor. The plan utilizes a system of existing bike lanes, existing side streets, proposed side paths, and proposed bike lanes to navigate the corridor.

The proposed bicycle network builds a system of routes that provides for both recreational enjoyment and destination transportation. Specific bicycle corridors have been identified to create a comprehensive system that connects the east and west sides of DeRenne Avenue. The proposed network connects hospitals, commercial properties, neighborhoods as well as recreational areas, and the planned greenway on the eastern end of the corridor.



Typical side path placement adjacent to a street

With the high traffic volumes on DeRenne Avenue, dedicated bike lanes are not recommended. Because of the high traffic volumes dedicated lanes would only be utilized by the most experienced of riders. The space necessary of such lanes could be better utilized by other elements of the street typical section. In addition, traffic signals are timed for automobile speeds and turning maneuvers, the cyclist is placed at further risk when sharing the road with the automobile.

Parallel streets such as DeRenne Drive provide bicyclists a lower volume street than DeRenne Avenue. While DeRenne Drive does provide riders with an alternative to riding with traffic on

DeRenne Avenue, connections to DeRenne Drive are limited to locations at higher volume intersecting streets. Because of the lack of connectivity, bicyclists have been cutting across medians and through other areas to access the side streets.

In lieu of installing dedicated bike lanes along DeRenne Avenue, a 10 foot shared use path is recommended along the north side of DeRenne Avenue. With sidewalks in need of maintenance in sections, a shared use path could be implemented to replace the sidewalks. A shared use path is typically constructed out of asphalt rather than concrete. The shared use path provides an active and safe place for both pedestrians and bicyclists. At 10 feet in width there is sufficient width for both pedestrians and bicyclists to be accommodated.

Recommendation:

- Complete and implement a bicycle master plan.
- Install a 10 ft shared use path on the north side of the corridor as indicated on the bicycle network map.
- Encourage businesses in conjunction with the City to provide bike racks.

Issue: Pavement Markings

Observation: Pavement markings in the study area are faded, broken, and in need of repair and replacement.

Discussion: As mentioned with the crosswalks, many of the lane lines, directional arrows, and delineator pavement markings have become faded and cracked throughout the corridor. The pavement markings in place have limited visibility under ideal conditions. Under night or limited light conditions, such as rain or fog, combined with the faded asphalt can create a situation where the pavement markings are invisible or difficult to see.



Recommendation:

- Develop a pavement re-marking plan for the DeRenne Avenue corridor.
- Thermoplastic pavement markings should be utilized throughout the corridor.
- Re-mark existing crosswalks with high visibility pavement markings.



Proposed Bicycle Network Map

Issue: Emergency Response

Observation: Existing congestion and vehicle queuing has been cited as contributing to delays in FMS response times.

Discussion: The DeRenne Avenue corridor is designated as a primary route for emergency response vehicles with destinations at Candler and Memorial Hospitals. With the need to maintain critical response times, congestion along the DeRenne Corridor is a concern. Emergency preemption has recently been installed at traffic signals along the corridor in an effort to improve and/or maintain the critical response times. Continued investment in emergency preemption equipment is encouraged.



Recommendation:

- Continued investment in emergency preemption equipment at all signalized intersections and response vehicles.

Issue: Connectivity

Observation: Many of the commercial operations along DeRenne Avenue have individual access points and single purpose parking lots. Each parcel functions independently from the other, with few parcels interconnecting. This has resulted in inefficient land use and sprawl along the corridor.

In addition to the lack of parcel connections throughout the corridor, there are also locations where street connections have been removed.

Discussion: Healthy neighborhoods and regions require an interconnected network of streets of varying sizes, providing transportation alternatives to its residents and visitors. DeRenne Avenue is

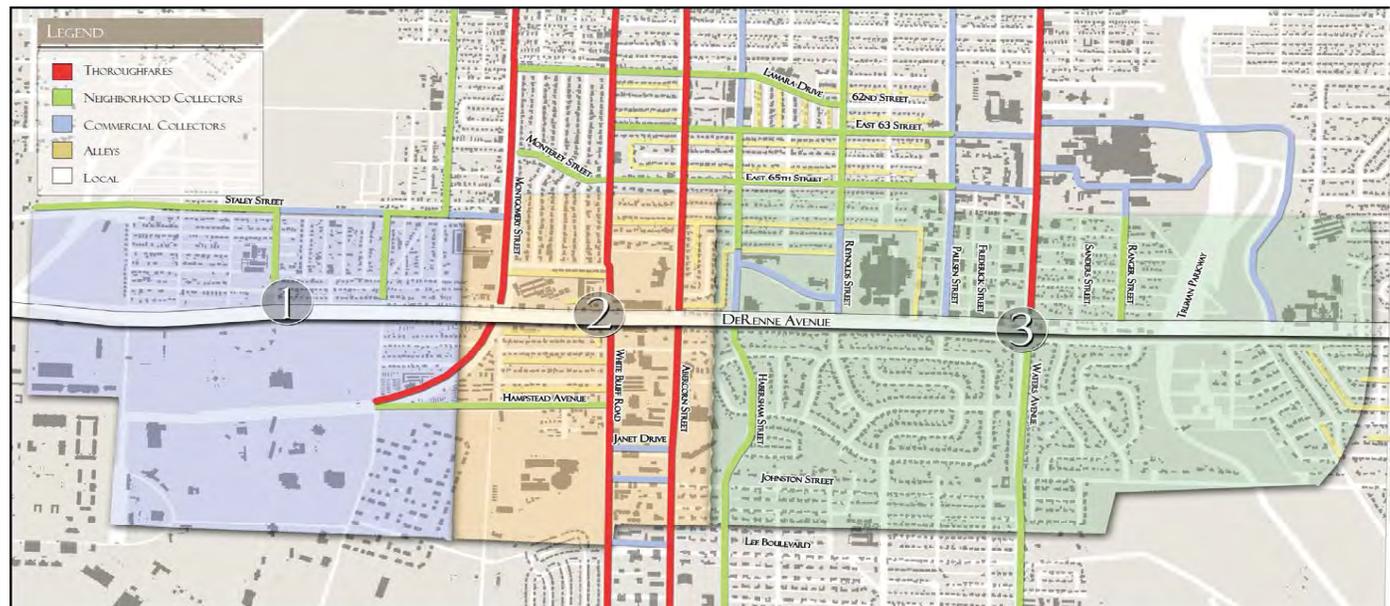
surrounded by a wide variety of uses, including neighborhoods, shopping centers, industrial uses and major employment centers. In many locations, it is difficult to move between destinations without accessing DeRenne Avenue, adding to the congestion and delays already experienced on the corridor due to through trips.

Like many other communities across the nation, residential and non-residential development patterns in Savannah lack internal vehicular and pedestrian connectivity. A network of well-connected streets will allow motorists options for accessing DeRenne Avenue and moving between the major arterials in the project area. The Street Typology Map shows the current and proposed collector street connections surrounding DeRenne

Avenue. The solid orange lines indicate the existing collector street network. As the map indicates, there is already an extensive network of collector streets providing connections and alternate entry points between major subdivisions and destinations. The dashed red line indicates the proposed collector streets.

Recommendation:

- Require cross access easements between adjacent, compatible land uses.
- Require interconnectivity between parcels as development occurs.
- Larger developments should include critical collector street connections between arterials.



SYSTEM ORGANIZATION

As part of this planning process, a mechanism that links transportation with development character was sought. A planning tool was desired to serve as a local representation of the complete streets-context sensitive solutions philosophy. However, the tool needed to be customized to the study area. The result was the Street Design Priority Matrix shown to the right. The matrix communicates the elements of each type of street and includes:

Travel Realm

- Number and width of travel lanes
- Traffic operations
- Design for large vehicles
- Access management
- Multi-modal intersection design

Pedestrian Realm

- Wide sidewalks with amenities
- Standard sidewalks with verge
- Multi-use paths
- Urban design features

Additional considerations include the need for connectivity and on-street parking and bicycle accommodations. The resulting priority matrix communicates the priorities for each street element as it relates to the place types of the community (i.e. Rural Living, Suburban Neighborhood, Suburban Commercial Center, etc) and should indicate those high priority items that should not be compromised during the design process. In essence, the matrix reinforces the relationship between transportation and land use by adding design and context to each corridor within a place type. The matrix describes the elements of street typology for the streets illustrated on the previous page as well as local streets not illustrated and details the multimodal building blocks that form a complete street.

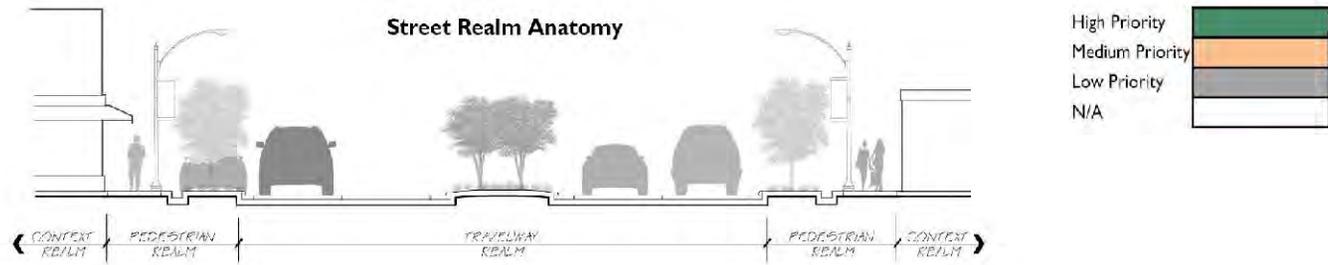
The classification of streets into several "functional" categories aids in communication among policy makers, planners, engineers, and

citizens for expanding the transportation system. The functional classification system groups streets according to the land use served (or to be served) and provides a general designation of the type of traffic each street is intended to serve. The street functional classification system primarily defines the street in terms of roadway design and character as well as operational features for the movement of vehicles.

Classifying the street system in the vicinity of the study area required close examination of roles that each street performs in the overall transportation system. Transportation planners review quantitative and qualitative classification criteria to develop the hierarchy of streets. The existing public street network in the study area is divided into several functional classifications, including arterials, collectors, and locals. *The Street Typology Map*

illustrates the functional classifications for the study area's roadway network.

	DeRenne Avenue							
	Zone 1	Zone 2	Zone 3	Thoroughfares	Neighborhood Collectors	Commercial Collectors	Locals	Alleys
TRAVEL REALM								
Number and width of travel lanes	High	Medium	Medium	High	Medium	Medium	Low	Low
Traffic operations	High	High	High	High	Medium	Medium	Low	Low
Design for large vehicles	High	High	High	High	Medium	Medium	Low	Low
Access management	High	High	High	High	Medium	Medium	Low	Low
Multimodal intersection design	High	High	High	High	Medium	Medium	Low	Low
PEDESTRIAN REALM								
Wide sidewalks with amenities	Medium	High	High	Medium	Medium	Medium	Low	Low
Standard sidewalks with verge	High	High	High	High	High	High	High	High
Multi-use paths	High	High	High	High	High	High	High	High
Urban design features	High	High	High	Influenced by Place Type Character				Low
OTHER ELEMENTS								
Interconnected street system	High	High	High	High	High	High	High	High
On-Street parking	Low	Low	Low	"Main Streets"	Limited	Delineated	Informal	Low
On-street bicycle accommodations	High	High	High	Influenced by system strategy and bicycle origin and destinations				Low
Gateway treatments	High	Low	High	Influenced by local context.				Low

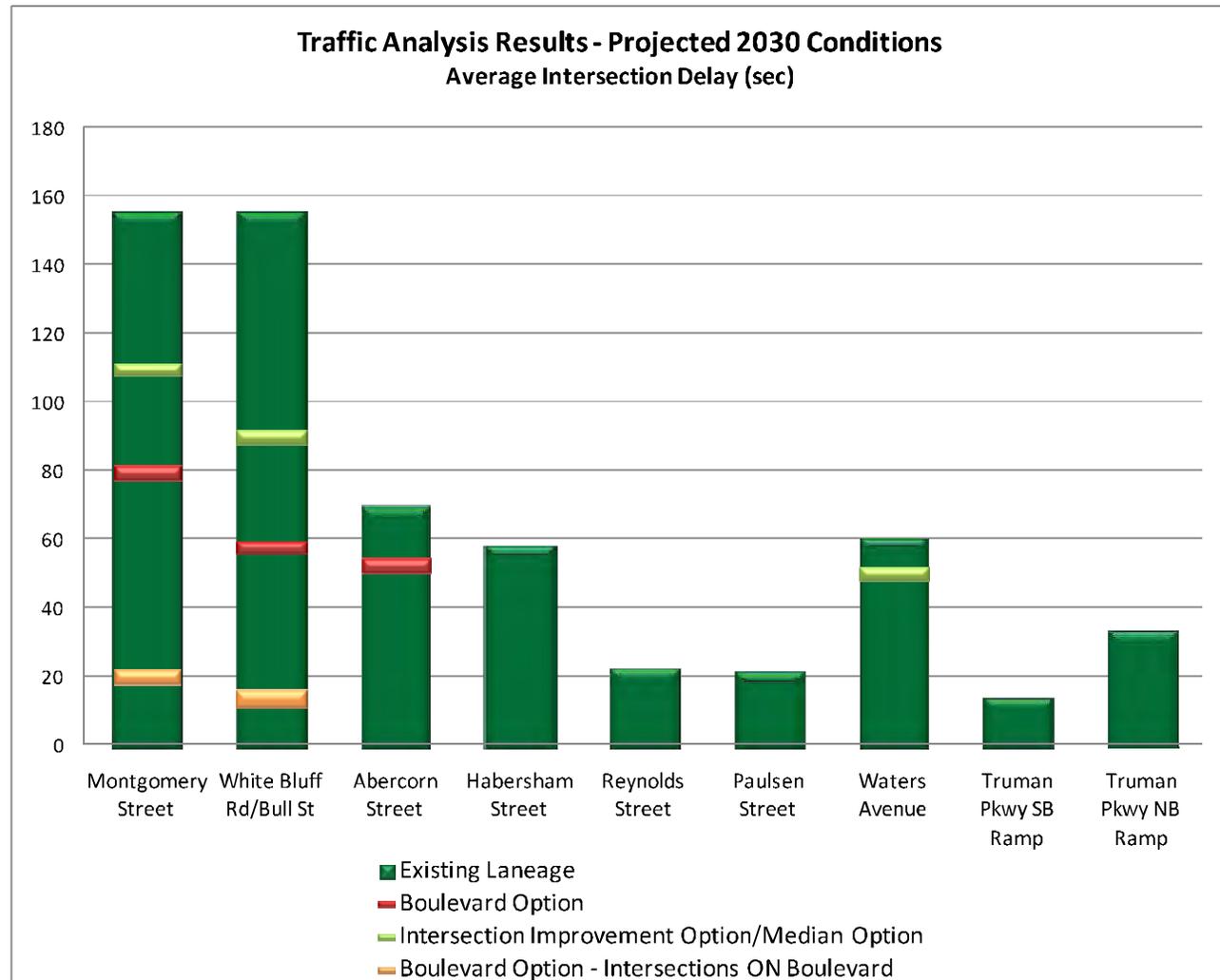


SUMMARY

The previous sections within this chapter have dealt with general and specific improvements to the DeRenne Corridor outlining access management strategies, intersection improvements, key connections, roadway aesthetics, and multimodal considerations. Each of these improvements is intended to reduce congestion and improve safety and aesthetics along the corridor.

Two different alternatives were developed during the design charrette that are expected to provide a reduction in traffic congestion at the critical intersections along the corridor. While the **Intersection Improvement Option** would reduce traffic congestion at Montgomery Street and White Bluff Road/Bull Street, it mainly addresses the eastbound movement and does not address the northbound left-turn movement at White Bluff Road. As such, northbound queuing on White Bluff Road and Abercorn would remain unaffected with the Intersection Improvement Option.

The **Boulevard Option** provides additional capacity for inbound and outbound travel. The graph at the right compares traffic impacts anticipated at the study intersections with the two options. The graph directly compares intersection delay for travel along DeRenne; however, vehicles utilizing the Boulevard would experience the additional benefit of avoiding the DeRenne intersections with Montgomery and White Bluff all together. Although there will be delay at the Boulevard's intersections with White Bluff and Montgomery, it is less than for vehicle utilizing DeRenne. This additional reduction in delay for the Boulevard Option is illustrated by the orange lines to the right. The orange bars represent the anticipated delay at the intersection of Montgomery Street and White Bluff Road at the boulevard, respectively.





CHAPTER 6

ECONOMIC VITALITY 

Economic Vitality as it relates to Project DeRenne is defined as an opportunity for a transformative change in how neighborhoods, infrastructure, and employment are considered. The traditional approach suggests a model where these interests are competing for space, priority, and protection from one another. This approach is evident in the current conditions along DeRenne Avenue where there is an inherent disconnect between neighborhoods, commercial centers, and employment nodes. The result is an inefficient use of space, lower revenues (public and private) and missed opportunities to improve the overall quality of life. These observations led to the following Guiding Principle on Economic Development:

“Promote a healthy and sustainable business environment where revitalization of existing commercial properties, redevelopment of strategic locations, and continued reinvestment in healthy business is encouraged.”

In order to improve the understanding of current conditions, a preliminary Market and Economic Assessment was conducted by Rose and Associates Southeast, Inc in December 2008. This report includes a documentation of existing supply for market segments that include residential, retail, and office. The assessment concludes that a mix of office, residential and small retail uses will create an opportunity for synergy in the corridor. Additionally, the establishment of a mixed-use center that includes public and private uses, including greenspace, would create a unique environment for shopping and dining giving the corridor a competitive edge in the area. Similarly, the market assessment suggests that the study area could support modest expansion of existing housing both in quantity as well as diversity. The additional diversity would support efforts to allow people to age in place without having to move, fill niches in the market for empty nesters and young professionals, and allow for the creation of additional affordable housing choices (for sale and for rent).

The forecasted future demand for nonresidential uses is clearly documented in the market assessment report. The demand has likewise been compared to existing supply including both building area and land area zoned appropriately for non-residential (commercial) uses. A comparison of the demand to supply ratio suggests that the existing inventory of commercially zoned property is theoretically enough to support the likely absorption for many years to come. This conclusion suggests that an emphasis should be placed on encouraging future non-residential development to occur on those parcels with existing commercial zoning. The result is a strategy that embraces the reuse/repurposing of existing commercial sites and the continued infill of commercially zoned vacant properties.

Participants in the design charrette identified the following issues associated with economic revitalization in the study area: commercial centers, “fix the street”, market capture, workforce, business recruitment, business retention, and small business development.

Issue: Commercial Centers

Observation: Many of the commercial operations in the study area are single story linear buildings with individual access points along DeRenne Avenue and single purpose parking lots.



Discussion: The existing linear development pattern results in a one dimensional use of property and reduces the value and accessibility of parcels behind the primary road frontage. This has the effect of limiting the synergy between uses and reduces the effective value and revenue potential for properties located behind this first tier of properties. The existing development pattern, building conditions, and traffic congestion has resulted in increased vacancies and reduces lease rates and lease terms when compared to more sustainable patterns elsewhere. Many have cited the existing building forms as incompatible with surrounding neighborhoods.



Recommendation:

- Discourage further encroachment of commercial uses into existing neighborhoods.
- Promote the creation of human scale development with improved connectivity between parcels.
- Encourage a multi-dimensional approach to development that doesn't rely on orientation to major thoroughfares thereby unlocking the value of adjacent parcels.
- Promote the consolidation of smaller properties as redevelopment occurs to improve the chances for coordinated and interconnected development.

- Create incentives for mixed-use development.
- Implement “best development practices” represented in Focus Area 3.
- Promote the repurposing/rehabilitation of existing commercial operations through locally managed incentives and programs.

Issue: “Fix the Street”

Observation: The corridor suffers from severe peak hour congestion and queuing. These conditions impact the accessibility to commercial parcels during peak travel times often rendering their only use to auto-oriented right-in-right-out access (hence the propensity for gas stations in the corridor). In addition, the corridor has poor accommodations for pedestrians and nearly no bicycle facilities. The result is a business environment that is crippled by traffic conditions but entirely dependent on an auto-centric customer base. Major intersections, typically the prime business locations in a community, remain vacant or are occupied by second tier tenants resulting in lower revenues for owners and lower tax revenues for the public. This condition contributes to the perception that the corridor is in decline rather than a vibrant place that entices private investment.



Discussion: A transportation solution that effectively creates trip choices for motorists should

be embraced. This includes not only improvements to traffic operations but also design strategies that provide for enhanced connectivity between businesses and neighborhoods by way of walking and bicycling. This approach will help diversify the customer base by connecting businesses with local customers from adjacent neighborhoods and employment centers as opposed to encouraging dependence on commuter traffic and customers from outside the region.

Recommendation:

Several actions may be taken to “fix the street,” including:

- Support efforts to improve traffic flow on DeRenne Avenue.
- Transform streets from traffic corridors into transportation corridors by creating streets that include provisions for pedestrians and bicyclists.
- Enhance the visual quality of the street through streetscape elements that include landscaping and lighting.

Issue: Market Capture

Observation: The majority of businesses in the study area, specifically along DeRenne Avenue, are dependent on commuter traffic and customers from outside the region to sustain their business operations. Conversely, many area residents travel outside the corridor for goods and services.

Discussion: A market exists in the study area for both higher and lower order of goods and services for local consumption. Participants at the design charrette expressed a desire to shop and work locally, but many of the retail and employment opportunities they desire are not available. Additionally, the severe peak hour congestion and limited pedestrian and bicycle accommodations, make it difficult for area residents to access existing businesses. Providing the right mix of goods,

services, and employment opportunities will help businesses by diversifying their customer base and benefit residents by providing the goods and services they desire within proximity to where they live. Additionally, improving connectivity and increasing trip choices will improve residents’ and employees the ability to shop locally.

Recommendation:

Several actions may be taken to improve market capture including:

- Collectively evaluate business interests and neighborhood needs to better align them to mutually support one another more effectively and efficiently.
- Enhance connectivity between businesses and neighborhoods by way of walking and bicycling.
- Support local efforts to effectively market the corridor and create a cohesive branding of the area.

Issue: Workforce

Observation: Many of the people who work in the large employment centers (i.e. St. Joseph’s/ Candler Hospital, Memorial University Medical Center, Hunter Army Airfield, and Savannah Technical College) live outside of the study area.

Discussion: There are two reasons why workforce issues exist in the study area: available housing supply and workforce availability. The large employment centers found in the study area create a demand for housing that is currently not being met within the study area. According to the market assessment, the study area could support a modest expansion in the number and type of housing available in the study area. Additionally, the available workforce is one of the major factors considered by businesses when determining where to locate. Businesses are looking for employees that are easily trainable and possess the skills,

experience, and education to perform required job duties.

Recommendation:

Several actions may be taken to address workforce issues including:

- Increase housing choice and supply in the study area.
- Conduct evaluations of the local workforce to determine educational abilities and skillsets.
- Partner with large employers to develop a workforce training program that develops the skillset(s) needed to meet local industry needs.
- Continue to support efforts by local institutions such as Savannah Tech and Savannah College of Art and Design to promote programs that are supportive of local workforce needs.

Issue: Business Recruitment

Observation: Although shopping centers along DeRenne Avenue have high occupancy rates, many contain second tier tenants. Additionally, turnover for businesses along DeRenne Avenue is high, with several nonresidential properties currently vacant. Many of the commercial centers can only maintain occupancy by offering lease rates that are much lower than other premier locations in the community and allowing extremely short-term lease agreements (ex: month to month). Finally, there are several undeveloped commercially zoned properties planned for future business opportunities available in the study area.

Discussion: Attracting new businesses to the community bolsters the tax base and helps support public investment in transportation improvements and revitalization efforts. Business growth also promotes positive publicity for communities and new businesses promote long-term economic stability and vitality and draw new visitors to the study area. These factors will enable DeRenne to

continue attracting desirable growth. New businesses that are willing to pay competitive lease rates for more lengthy terms will require the creation of new centers designed to attract local customers. The establishment of new businesses that take a form that is complementary of local employment centers and neighborhoods will likely yield more spending in the study area.

Recommendation:

Several actions may be taken to address concerns of business recruitment, including:

- Work with major employers to determine what supporting industries and uses would benefit their operations and employees.
- Develop and implement a marketing plan that includes both short-term and long-term marketing strategies.
- Make public investments that suggest this area of the city is a priority business investment location (transportation, gateways, etc).
- Consider developing an Annual Report or organizing biannual/quarterly meetings to promote awareness and discussion of ongoing marketing progress and efforts along the corridor.

Issue: Business Retention

Observation: Turnover for businesses along DeRenne Avenue is relatively high and several commercial properties in the study area are vacant.

Discussion: A late 1990’s study by Dr. David Birch at MIT/CoGenetics, Inc. determined that 80% of all U.S. job growth is generated by existing companies. Furthermore, a 2009 survey of Economic Development organization by FEDC revealed that 67% are focused on Business Retention and Expansion, while only 49% are focused on attraction, as 20,000 US economic development organizations are chasing fewer than

200 major business relocations annually. Therefore, the most cost effective strategy is business retention and expansion. This also supports recruitment efforts, as vibrant, happy customers are the best “champions” to assist in attracting new business.

Recommendation:

Several actions may be taken to address concerns of business retention, including:

- Create an ongoing coalition of stakeholders and organizations to communicate the various existing programs and services available to local businesses.
- Provide a “single point” resource to assist business with all facets of doing business, growing, and prospering along DeRenne Avenue. This will alleviate current private sector perceptions of economic development organizations such as “we never see them”; “we don’t really know what they do”; or “too many agencies and programs, its confusing”.
- Create an outreach and customer service program to reach residents that communicate the strengths, value and benefits of DeRenne Avenue businesses.
- Expand the Project DeRenne website to incorporate links to various agencies and resources as well as regular updates as to “what’s happening on DeRenne Avenue”.
- Support the efforts of the DeRenne Area Business Association (DABA).
- Adopt a Business Assistance Program to help support existing businesses in the community.

Issue: Small Business Development

Observation: The corridor includes a number of existing small businesses and remains an affordable place for small business investment including small-scale retail, restaurant, and service providers.

Discussion: Small business & entrepreneurial development – the Small Business Administration’s (SBA) recent quarterly report indicated that 99.7% of all employer firms are small business (as defined by SBA of under 500 employees www.sba.gov/size), pay 44% of the total US payroll and have created 64% of net new jobs over the past 15 years. Further, nearly 66% of all job growth during that period was Stage 1 (1-9 employees) companies. The US Economic Development Association recently commissioned a study which determined that small business incubators (Stage 1 companies) are the most effective means of creating jobs. With the exception of the largest basic employers along DeRenne Avenue, the remaining 295+/- businesses identified in and around the corridor are Stage 1 and Stage 2 small business interests, with fewer than 99 employees. The paradigm is shifting nationally from an attraction-based strategy to a small business strategy, as many communities engage in “economic gardening” growing businesses from within.

Recommendation:

Several actions may be taken to address concerns of small business development, including:

- Partner with local property owners and the Savannah Entrepreneurial Center to link business interests with property owners in creating an “affordable space” program in which the City or other organizations might

underwrite the gap between low cost space and market rate space for companies during their first year of business. This will assist in providing stability of commercial real estate occupancy and rents along DeRenne Avenue.

- Include a special focus on entrepreneurship and small business marketing in the marketing plan. This may include partnering with the Chamber of Commerce.
- Regularly measure the following indicators in the study area and seek to make improvements where possible:
 - Number of jobs created/retained
 - Number of housing units developed
 - Quality and quantity of available retail and office space
 - Vacancy and absorption rates for retail and office space
 - Crime rates
 - Number of (positive) press hits regarding Project DeRenne and the corridor
 - Private sector leverage and/or investment
 - Types and degrees of public-private interaction and/or partnership
 - Community engagement in the ongoing process
 - Perceptions of DeRenne Avenue (safety, accessibility, aesthetics, etc.)
- Promote mixed-use development in the corridor creating community attractions that captures the attention of the adjoining neighborhoods and employment centers. Ensure that these developments include space for small businesses.





CHAPTER 7

NEIGHBORHOODS 

Neighborhoods have long been a focus in the study area; first as building blocks for a community emerging around historic DeRenne Avenue and then as areas of concern amidst proposed road widenings and non-residential encroachment. Today, these neighborhoods represent some of the greatest opportunities to link development and quality-of-life and improve community cohesiveness and economic vitality.

Neighborhood leaders voiced their concerns for neighborhood preservation and reinvestment early and often in previous phases of Project DeRenne. And broad community support for neighborhood issues in the study area was reinforced through a series of public outreach activities. The Project Advisory Committee (PAC) for Project DeRenne reinforced neighborhood issues in the guiding principles developed for the study:

"Preserve the integrity of existing neighborhoods".

There are several neighborhoods located in the study area including: Tatemville, Poplar Place / University Place, Manor Estates / Poplar Lamara Heights, Kensington Park, South Garden, Fairway Oaks / Greenview, and Magnolia Park. The map to the right shows the relationship of these neighborhoods to DeRenne Avenue and major commercial and employment centers located in the study area.

Participants in the public design charrette identified several issues threatening the integrity of the neighborhoods in the study area: neighborhood encroachment, absentee landlords, new blight, lack of parks and open space, housing choices and available supply, jobs / housing proximity, and relocation of Pulaski Elementary School. Each of these issues is discussed on the following pages.



Issue: Neighborhood Encroachment

Observation: Several neighborhoods in the study area are being threatened by encroachment (either by road widening or non-residential development) or the perceived threat of encroachment.

Discussion: Neighborhood encroachment occurs for a variety of reasons. In Tatcumville, neighborhood encroachment is the result of widening DeRenne Avenue; most notably to the homes fronting Godsells Street east of Herriot Street. Previous right-of-way acquisition by the Georgia Department of Transportation (GDOT) for widening DeRenne Avenue leaves very little separation between the road and existing homes (between 3 & 10 feet in most cases). This is an unacceptable condition for mitigating noise, vibration, and visual impacts associated with living near the major thoroughfare. Participants at the public design charrette voiced support for a screen wall with landscaping to mitigate, in part, the intolerable condition.

Other neighborhoods in the study area are threatened by the encroachment of commercial and medical office uses; especially in close proximity to St. Joseph's Candler Hospital and Memorial Health University Medical Center or directly along the DeRenne Avenue Corridor. The South Garden Neighborhood is one example of this condition, which has seen various rezonings approved for non-residential uses and land speculation by outside investors. Residents in other neighborhoods — Kensington Park, Fairway Oaks, Greenview, Poplar Place, Manor Estates, and Poplar Lamara Heights — fear future issues with encroachment caused by their close proximity to employment centers or major transportation corridors noted in the study area.

Non residential encroachment in established neighborhoods is associated with a host of negative impacts for residents: increased cut-through traffic

and speeding problems, new truck traffic issues, extended vacancies (especially in areas with high levels of land speculation), parking overflow issues, hours of operation conflicts, and a loss of neighborhood cohesiveness.

Planning studies in support of Project DeRenne conclude that new land is not required to support commercial and office demand forecasted through 2020 (see the Market Assessment completed as a part of the Phase I report, Section V). Two strategies recommended to satisfy future demand and emerging markets trends/preferences include: 1) reuse or repurpose existing commercial and employment centers and 2) encourage infill development in existing commercial and office centers. Both strategies should eliminate demand for future neighborhood encroachment in the study area.

Recommendation: Several actions should be taken to address concerns of neighborhood encroachment in the study area, including:

- Plan, design, and construct a screen wall on the north side of DeRenne Avenue between Montgomery Street and Herriot Street. A theme for the screen wall (i.e., design, color, materials, and landscaping) should reinforce a gateway for the study area.
- The City of Savannah and the Metropolitan Planning Commission should work together to develop neighborhood plans for each of the neighborhoods located in the study area. These plans should capture community values, define neighborhood boundaries, inventory and evaluate neighborhood assets, identify projects or programs to address neighborhood concerns, and recommend projects or actions in an implementation matrix.
- Educate City leaders at the next annual retreat about the impacts incremental rezoning decisions can have on neighborhood integrity and cohesiveness.

- Amend the City's Zoning Ordinance to require a special use permit for any non-residential use proposed in a residential neighborhood. New requirements should advocate that the developer meet with residents of the neighborhood to discuss the proposed project. General reaction or concerns from the community meeting should be included in the official staff report that accompanies the development application.
- Establish neighborhood planning units in the study area that make recommendations on proposed development applications. Formal meetings with the community group should occur after the community meeting (see above) and before presentation(s) to Planning Commission. General reaction or concerns from the neighborhood planning unit should be included in the official staff report that accompanies the development application.
- Promote the creation of neighborhood associations (where still needed) to disseminate information, solicit feedback, and represent the neighborhood on matters related to neighborhood encroachment.

Issue: Housing Choice & Available Supply

Observation: Nearly all of the neighborhoods in the study area were developed for single-family detached homes. The lack of housing choice (both in type and price point) is a hindrance to local initiatives for neighborhood preservation and economic revitalization.

Discussion: Housing markets across the United States are shifting in response to changing demographic and socioeconomic characteristics, lifestyle choices, and market conditions. Demand is generally becoming more stratified, with many niche opportunities emerging to supplement more traditional housing types. Popular housing choices for current market conditions include single-family

detached, duplex, townhome, condominium, and apartment. Many new homes are being developed as part of mixed-use, walkable town centers.

Demand for more housing choice is driven by a desire to attract new demographic and socioeconomic groups to the study area. Young professionals, retirees, military families, and other members of "the creative class" generate demand for many of the shops, restaurants, and entertainment areas lacking in the study area. More than one of these target groups would be drawn to the study area with increased single-family attached housing options, including duplexes, townhomes, condominiums, and apartments.

In addition, many neighborhoods in the study area have aging populations. There are few options for local area residents to "age in place", allowing them to move from large single-family detached homes to other types of appropriate housing. New single-family attached homes could keep long-time residents in familiar neighborhoods or areas.

The type, location, and design preferences for single-family attached homes in the study area are discussed in this and others chapters of the workbook (see "Infill Development / Redevelopment" and "Jobs-Housing Balance" in Chapter 7 and focus area studies described in Chapter 10).

Recommendation: Local initiatives should begin to increase single-family attached housing options in the study area. The type, location, and design preferences for new duplexes, townhomes, condominiums, and apartments should follow recommendations set forth in this and other chapters of the workbook.

Issue: Infill Development / Redevelopment

Observation: There are vacant lots and abandoned buildings in some neighborhoods that represent great opportunities for residential infill development or redevelopment.

Discussion: New homes in existing neighborhoods offer opportunities to diversify housing choice, strengthen the character of the neighborhood, and increase property values. New home construction may also encourage existing homeowners to invest in or renovate their homes. Opportunities to develop, redevelop, or renovate homes in some neighborhoods of the study area are fast-approaching, as long-time residents begin to sell their homes and start retirement plans.

High-priority neighborhoods for residential infill development or redevelopment include South Garden, Tatenville, and Poplar Place / University Place (especially if Poplar Place Parkway is built, see Chapter 5). New development in these areas should respect the character of the surrounding neighborhood but bring new opportunities for economic revitalization and general neighborhood improvement. Small-scale, single-family attached homes (i.e., duplex, townhome, or condominiums) are appropriate next door to single-family detached homes to diversify housing choice in the study area.

New home construction should complement existing homes in the neighborhood. Careful attention applied to building scale, massing, orientation, materials, color, and other architectural design elements will successfully complete the neighborhood. The City, in partnership with the Savannah College of Art and Design, should develop architectural pattern books for South Garden, Tatenville, and Poplar Place / University Place to successfully rebuild the neighborhoods. The City's *Neighborhood Stabilization Grant Program* could be used to jumpstart development,

redevelopment, or renovation activities in the three neighborhoods.

Recommendation: Residential infill development or redevelopment should be encouraged in the South Garden, Tatenville, and Poplar Place / University Place Neighborhoods. This initiative should start with preparing architectural pattern books for all three neighborhoods. The City should also look for opportunities to jumpstart these activities; potentially using the *Neighborhood Stabilization Grant Program* or other appropriate funding sources.

Issue: Jobs-Housing Balance

Observation: Neighborhoods in the study area surround several large employment centers. However, most employees live outside the study area; contributing to congestion on DeRenne Avenue and lost opportunities for economic vitality (i.e., new homes or commercial and mixed-use centers) in the study area.

Discussion: Bringing jobs and housing in close proximity generates several benefits: reduced driving and congestion, new demand for non-traditional modes of transportation (i.e., bus, bicycle, and pedestrian), lower travel costs to commuters, more time at home with family, and higher quality-of-life. Achieving (or even defining) a jobs-housing balance target for the study area is not easy, especially since many households report having two or more workers (Source: U.S. Census Bureau, American Community Survey, 2007 – 2008).

Most participants at the public design charrette confirmed they travel outside the study area for one or more daily needs: employment, shopping, or housing. Limiting these trips would reduce congestion on DeRenne Avenue (and adjoining major thoroughfares) and keep more high-wage earners in the study area. New military families, military contract workers, doctors, researchers, and

professors in the study area would also generate demand for many of the shops, restaurants, and entertainment areas lacking in the study area.

Efforts to improve the jobs-housing balance begins with the City, which should initiate a housing needs / preferences study for workers at the largest employment centers in the study area — Hunter Army Air Field, St. Joseph's Candler Hospital, Memorial Health University Medical Center, and Savannah Technical College. Information captured in the study should include: socioeconomic and demographic data, demand (by employment category) for various housing types and price points, inventory of available housing supply in the study area, a housing gap analysis, sample development scenarios and proformas, and recommendations for improving the jobs-housing balance. A jobs-housing balance target for the study area should be set following completion of the housing needs / preferences study.

Implementing some of recommendations in the study may require changes to the City's Comprehensive Plan or local zoning or subdivision ordinances. Items under review may include the future land use map, density limitations, setbacks, building height, parking, and permitted uses.

Recommendation: The City should complete a housing needs / preferences study for improving the jobs-housing balance in the study area. Time and resources should also be allocated for implementation activities following completion of the study.

Issue: Absentee Landlords

Observation: Participants in the public design charrette expressed concern over the number of absentee landlords (both real and perceived) operating in some neighborhoods.

Discussion: Homeownership is often used as a sign of stability for neighborhoods. It is assumed people

who own property where they reside will keep it well-maintained. These activities, in turn, strengthen the character of the neighborhood and help stabilize property values. General and steady decline in neighborhood appearance and overall property values are sometimes associated with situations where absentee landlords own many properties but do not attend to their day-to-day upkeep.

Absentee landlords in the study area could be characterized as slum lords renting homes in disrepair, or land speculators allowing homes to decline while contemplating future investments. Since these business people are benefitting monetarily from their property in the neighborhood, they should be held responsible for the public performance of their investments. In addition, tenants (and homeowners) should be held responsible for their own behavior.

The rate that homes in the study area fall into disrepair may increase because of recent foreclosures. Neighborhood leaders should partner with the City to inventory, assess, and make recommendations on concerns with absentee landlords. Routine code enforcement should be used to address minor violations. The City's *Neighborhood Stabilization Grant Program* could be used to address long-term, or re-occurring, problems with absentee landlords in the neighborhoods.

Recommendation: Residents should inventory homes or properties in the neighborhood that are in decline. The City should then work with residents to contact absentee landlords about code violations and work to address them.

Issue: Park and Recreation Deficiencies

Observation: There is a general lack of parks, open space, and recreation activities throughout the study area.

Savannah, Georgia

Discussion: Neighborhood parks offer a range of facilities and activities (both active and passive) to surrounding residents. Examples may include pocket parks, playgrounds, natural areas, or athletic fields. Some parks include recreation centers that offer a variety of athletic, social, or cultural programs.



Homes should be located within a ¼-mile of a park and accessible via foot or bicycle. Parks in a neighborhood should not be interrupted by non-residential roads or other physical barriers. Greenways are often used to connect one or more neighborhood parks.

Participants at the public design charrette expressed a desire for more parks and recreation activities in the study area. Some neighborhoods, like South Garden, do not have a park or recreation facilities. Other neighborhoods have parks, but they represent “left-over” land in the neighborhood not particularly suitable for park or recreation uses (e.g., poor access, poor site conditions, limited or irregular size, and crime concerns). The largest park serving the study area, Tatemville Park, is accessible only by automobile and perceived to be unsafe, especially at night. Several participants at the event did not even know the park existed.

Recommendation: The City should develop a parks and recreation master plan for the study area, including recommendations for new neighborhood

parks, community parks, and recreation centers; an improvements / maintenance plan for existing park locations; and strategies for safe and efficient travel between home and park.

Issue: Neighborhood Brand & Identity

Observation: Some neighborhoods in the study area lack attractive signage, landscaping, and common open space. This is a missed opportunity to provide civic identity, and reinforce a sense of pride and presence in each neighborhood.



Discussion: The identity of a neighborhood is significantly influenced by its street pattern, lot size, building architecture, and open space. A branding of that identity creates image and reputation; both for residents in the neighborhood and those living throughout the study area. Certain design elements in the neighborhood — street signs, entrance signs, landscaping, and public art — reinforce its desired brand and identity.

Building a brand for each neighborhood in the study area should follow a seven-step process: neighborhood inventory and assessment, resident survey, neighborhood design workshop, detailed design documents, implementation strategy and schedule, funding evaluation, and construction. Size, color, scale, and materials chosen for branding

should unmistakably belong to the various neighborhoods.

Key participants for branding studies in the study area should include the City of Savannah and the Savannah College of Art and Design. These groups could provide funding (i.e., community grants, loans, or a capital budget line item) and / or design services.

Recommendation: Branding studies should be completed for each neighborhood in the study area. Expectations are for one study per year for the next seven years; with implementation beginning the year following each study. Participants in the public design charrette identified the following high-priority neighborhoods for branding studies: South Garden, Tatemville, Poplar Place / University Place, and Manor Estates / Poplar Lamara Heights.

The City should play an active role in facilitating the process and coordinating with the Savannah College of Art and Design for possible in-kind services (e.g., design studio or master thesis).

Issue: Reuse of Pulaski Elementary School

Observation: Pulaski Elementary School will relocate to Hunter Army Airfield in 2010. A new use and owner for the building is unknown at this time.



Discussion: The majority of students at Pulaski Elementary School live on Hunter Army Airfield. Dangerous walking conditions and problems accessing the site (e.g., congestion in the immediate area and internal circulation issues) support relocation of the school. Some participants at the public design charrette are concerned about the void left in the Manor Estates Neighborhood.

A new use and owner for the building should be identified using a transparent and collaborative process. Stakeholders include the Savannah-Chatham County Public School System, residents of Manor Estates Neighborhood, the Jewish Educational Alliance Center, and adjacent businesses. Items for discussion include:

- What is the most appropriate use for the site after the school is relocated to Hunter Army Airfield?
- Who is interested in the site? Are they willing to come to the table?
- Should the building be saved? Can it be saved, or retrofitted, to suit the new use?

The City may need to play a role in facilitating the discussion, or sponsor / complete studies in support of the process.

Recommendation: A series of public meetings should be held to inform key stakeholders and solicit opinions on reuse of the school. One or more studies may be needed to support the planning process. The City should play an active role in facilitating the process and bringing key stakeholders to the table.



CHAPTER 8

PLACE-MAKING 

Place making embodies the movement to create more livable communities, identifiable character, and a higher quality of life. The process of place-making celebrates the uniqueness of a community and identifies the physical improvements or planning initiatives necessary to implement the General Development Map (see Chapter 4). Place-making not only identifies the character of an area with architecture, streetscapes, and branding, but also connects the social fabric of those who live, work, and visit in an area.



Place-making rarely happens spontaneously. It is the result of deliberate actions by a community. This generally happens as an outcome of a community planning initiative or through complementary designs by private developers. The most successful communities create great places through a combination of public investments and partnerships with the private sector.

Specific place-making issues identified by design charrette participants include the need for additional public spaces, defining a sense of place, the need for some kind of design guidelines, and creating more opportunities for “green.”

Issue: Public Spaces

Observation: Few public spaces exist in the study area. Sites are designed to accommodate the automobile and lack human scale. Restaurants don’t have outdoor seating and most neighborhoods lack community gathering places or quality open space.

Discussion: Public spaces promote human contact, social activities, and community involvement. The best public spaces are safe, welcoming, and accommodating for a diversity of users; reflect local culture or history; and include visually interesting features. Also, in more formal settings these spaces can be programmed with events, and can become opportunities for local retailers and businesses to showcase their products and services. Examples include plazas, squares, parks, marketplaces, and public greens.

Recommendation:

Several actions may be taken to increase public spaces including:

- Identify strategic locations where neighborhoods/businesses could benefit from the creation of a public space.
- Encourage the creation of public spaces in new development and redevelopment plans. Refer to Focus Area 3 for features that could be included in these plans.
- Promote the use of human-proportioned architectural features and site design elements to encourage human activity.



Issue: Sense of Place

Observation: The study area lacks an identity or “sense of place.” Design charrette participants view the corridor as a place to travel through rather than a place with destinations. No gateway signage, directional signage, or community brand exist to distinguish the study area from other areas of the community.

As a result, many residents, visitors, and area employees don’t consider spending time or money in the corridor when better alternatives exist elsewhere in the community.

Discussion: The identity of a community comes from its environment, tradition, and culture. A branding of that identity represents the pride of community members, and a promise made to visitors for what to expect when they arrive. A brand distinguishes a community in the marketplace and should be apparent in every facet of the community.

Absent this reinforced identity, a corridor like DeRenne quickly becomes a forgettable place that

lacks investment by the community and property owners.

Recommendation:

Several actions may be taken to address the lack of identity in the DeRenne corridor, including:

- Create a uniform brand and marketing plan for the study area. This plan should be used consistently to provide the community with an easily recognizable identity. The resulting plan should distinguish the study area from historic downtown Savannah, possibly hinging on the slogan “Experience Something New.” The brand identity and marketing plan should highlight elements of the study area that make it unique, including its two regional hospitals, Hunter Army Airfield, and Savannah Technical College.
- Create recognizable entrances (gateways) to the study area to distinguish it from adjacent areas of the community and to communicate to drivers that you’ve entered a special place.
- Promote mixed use, compact development in the study area that includes well-designed places for people to gather that encourages people to spend time and money in the corridor.

Issue: Design Guidelines

Observation: Buildings and signage along the corridor vary in height, materials, and architectural character. Some buildings and signage are outdated or in disrepair, detracting from the visual appearance of the corridor.



Discussion: Overall site design is a critical component for quality development. Design guidelines should promote compatibility within a development and its surrounding environment, allow creativity and diversity of design, protect property values and neighborhood quality, and provide a safe and attractive environment for residents and visitors.

Quality design should integrate rather than detract from its surroundings. Often this means a change in the traditional “one-sided” orientation of buildings to instead include four-sided orientation and designs.

Recommendation:

Several actions may be taken to address design guidelines, including:

- Develop design guidelines that address site layout, tree preservation, architectural character, parking configurations, landscaping, screening, lighting, and signage.
- Encourage integration with adjacent uses including connectivity and improved accessibility by cars, pedestrians, and bicyclists.
- Promote programs for small businesses to improve the look and functionality of their property and place of business (façade improvements, enhanced landscaping, and maintenance of community character).

Issue: Green Imprint

Observation: Very few green areas exist along DeRenne Avenue and throughout the study area. Many sites were developed prior to the adoption of landscaping requirements. Minimal buffering and separation exists between residential neighborhoods and more intense land uses. While effort has been made by the City to protect the tree canopy, no detailed planting or protection requirements specific to the study area exist.

This is a stark contrast to the tree-lined public streets that dominate the community. The resulting contrast creates a visual disconnect between commercial development sites and the rest of the community.

Discussion: Well landscaped areas, sufficient buffers, healthy stands of trees, and greenspace contribute to quality community spaces. These areas make communities more sustainable and visually appealing while also attracting people and businesses to the area.

Recommendation:

Several actions may be taken to increase green areas throughout the study area, including:

- Amend land development regulations to strengthen landscaping, buffering, tree protection, and greenspace requirements.
- Require tree islands in new parking fields.
- Encourage retrofitting existing development with enhanced green space through incentives.
- Add street trees.
- Identify strategic streets which could benefit from enhanced streetscaping.



CHAPTER 9

FOCUS ARTS 

Focus areas are small sites within a study area that face unique challenges and present opportunities to demonstrate recommended best redevelopment and infill practices. Design in detail activities for focus areas are intended to serve as guidelines for future development activity along the corridor. Focus areas are a critical tool to help visualize how recommendations and improvements will take shape in the study area beyond the planning phase of the project.

The consultant team worked with the Project Advisory Committee to identify four key focus areas for further study. Together, these focus areas represent the most influential properties for implementing the community's vision and examining the opportunities associated with thematic challenges along the corridor. These challenges included redeveloping and repurposing existing commercially zoned properties in order to preserve existing neighborhoods, keeping Savannah green by maintaining and improving existing tree cover, and promoting complementary development styles that maintain character of the surrounding area.

Criteria considered when selecting sites included: a wide geographical distribution, areas that represented a broad variety of issues/opportunities in the community, and areas that addressed priorities and potential conflict locations within the community. Themes that emerged during the process of site selection included neighborhood encroachment, site utility, connectivity between neighborhoods and between neighborhoods and employment uses, establishment of public gathering places and neighborhood centers, and congestion.

The type of land uses or development patterns assumed in the site design study are for illustrative purposes only, and could vary significantly based on landowner interests, development approvals, or location of available infrastructure. However, property owners with similar vision, or with sites sharing characteristics, should consider the best

development practices highlighted in this chapter when developing their own land.

Focus Area Locations

The focus areas are shown in the Focus Area location map on page 2 of this chapter. Focus Area 1, indicated in blue on the Map, is located in the South Garden neighborhood on the eastern edge of the study area. It is bounded by DeRenne Avenue to the south, the Truman Parkway to the east, 66th Street to the north, and Waters Avenue to the west. Focus Area 2 (Orange) is the area between Candler Hospital and the South Garden neighborhood bounded by DeRenne Ave to the south, Waters Avenue to the east, 66th Street to the north, and Brazil Street to the west. Focus Area 3, delineated in pink on the Location Map is the commercial core of the study area. It is bounded by DeRenne Avenue to the north, Abercorn Street to the east, and White Bluff Road to the west. Focus Area 4 (yellow) is the area to the western limits of the study area and includes the Poplar Place neighborhood and the main gateway into Hunter Army Airfield: Montgomery Street. It is roughly bounded by DeRenne Avenue to the north, White Bluff Rad to the east, Savannah Technical Community College and Hunter Army Airfield to the south, and Mildred Street to the west.

Planning Process

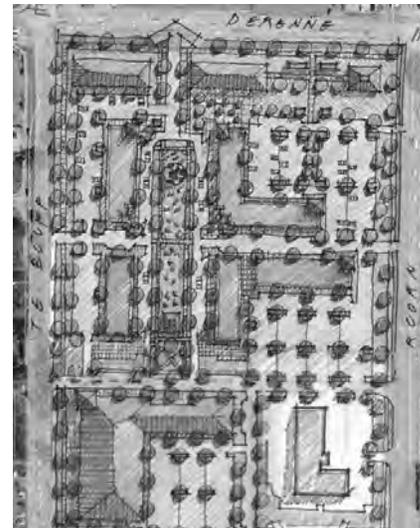
Site design studies were completed for all of the focus areas. They represent possible build-out scenarios for undeveloped (or underdeveloped) parcels that promote neighborhood preservation, economic vitality, and a sense of place in the study area. Each site design study included a market-realistic development program, illustrative master plan concept, and three dimensional perspective drawings. Drawings were done over aerial photography with printed property lines. All of the site design studies were prepared with input from participants at the public design charrette.

An inventory of existing conditions was completed for the focus areas using geographic information systems (GIS) data, aerial photography, field photos, and windshield surveys. This information was used to characterize the study area based on existing land use patterns and development conditions. Particular attention was paid to the surrounding and existing built environment. For example, the following conditions were noted: distribution of open space, existing neighborhood fabric, size and character of existing buildings, land use mix, character of streets, available travel modes, internal and external connections, location of parking and interface of properties vs. the public street.

A review was also conducted of locally adopted plans, programs, and policies prepared by the City of Savannah. This information was used to inventory existing development controls and identify potential "barriers" for implementing

development alternatives.

Based on the community input provided during the charrette, the existing conditions analysis, and the review of locally adopted plans, programs, and policies, site design studies were created for each focus area.



Savannah, Georgia

Site Design Studies

A summary of the site design studies completed for the four focus areas is provided on the following pages:

Focus Area 1: South Garden Neighborhood

The South Garden Neighborhood occupies 54 acres at the eastern edge of the study area, and was selected as a focus area because encroachment is threatening the integrity of the neighborhood. Commercial and medical office development is expanding into the neighborhood from points east of Waters Avenue, north of DeRenne Avenue, and south of Memorial Hospital.

Aging and limited housing stock pervades the neighborhood and residents are being forced to seek housing options elsewhere. Commercial and office interests are acquiring residential properties and allowing them to sit vacant as they await rezoning for non residential uses. When combined, tenure, vacancy, and rezoning are contributing to general neighborhood decline. Opportunities exist through redevelopment and infill to reverse neighborhood decline by combining single family residential with a healthy and vibrant neighborhood center that also supports small scale commercial and office development.



The neighborhood is anchored by a community green which serves as a center for pedestrian activity and creates a community resource that attracts new residential development.

PROJECT DeRENNE

Savannah, Georgia

Currently the site contains about 175 single family detached housing units, 32 multi-family housing units, and approximately 136,000 square feet of commercial and office uses.

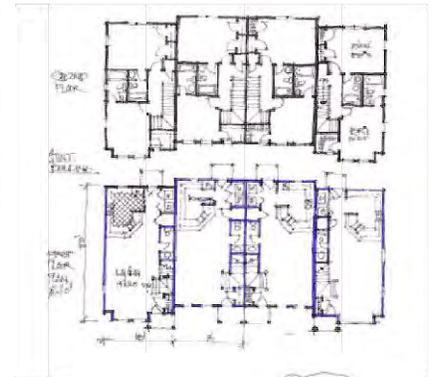
The focus area rendering introduces a broader range of housing choices in the neighborhood. Although it includes roughly the same number of single family detached housing units (169), infill development introduces approximately 50 single family attached

housing units, 24 townhomes, and more than doubles the available multi-family housing units (67). The focus area also includes amenities for the neighborhood residents including new walking trails and a neighborhood park.

The focus area rendering shows roughly 99,000 square feet of commercial and office uses, a mixture of existing uses and redevelopment opportunities. A wide landscape buffers shields these uses from

the neighboring residential properties.

By buffering commercial and office uses and reinvigorating single family development with the establishment of a new community park the proposed site design for the focus area demonstrates existing opportunities to preserve existing neighborhoods, keep Savannah green, and promote Savannah style architecture.



Elevation and typical floor plans of townhome and single family style development in Focus Area 1.

Savannah, Georgia

Focus Area 2: Medical Arts District

Focus Area 2, the Medical Arts District, occupies 43 acres just west of Focus Area 1. This focus area was chosen because of its proximity to both St. Joseph Candler Hospital and Memorial Hospital as well the South Garden neighborhood. The majority of the site is devoted to medical office uses, which support hospital operations. The current configuration and layout of these uses does not maximize the efficiency and utility of the neighborhood infrastructure. There is little connectivity between the hospitals and adjacent uses and neighborhoods.

Currently, there are four single family detached housing units, approximately 632,500 square feet of commercial and office uses, and roughly 6,000 square feet of industrial property in the study area.

The proposed site design for the focus area enhances the residential component of the neighborhood by introducing multifamily housing. Approximately 50 multi-family housing units were added to the western edge of the focus area. The site includes about 585,000 square feet of commercial and office uses, 244,000 square feet of which is existing and 341,000 is new.

By maximizing the existing street layout to support new commercial and office development with connections to existing and proposed residential, the focus area exhibits how connectivity can be enhanced in the study area. The proposed study area complements nearby residential areas and helps support existing employment centers while preserving the neighborhood fabric.



PROJECT DERENNE

Savannah, Georgia

Focus Area 3: Midtown Center

Midtown Center occupies approximately 22 acres near the center of the study area. This area was selected as a focus area because it contains several underutilized commercial properties. It is characterized by aging single story strip malls with poor aesthetic quality and low market rents. Transportation in the focus area is auto-centric, and human-scaled design is lacking. However, consolidated property ownership in the area improves the chances for redevelopment.

Currently the site contains approximately 290,000 square feet of commercial properties.

The focus area rendering concentrates on revitalization and redevelopment of aging commercial properties. A human scale is added to the development by introducing outdoor dining and pedestrian seating areas throughout. Additionally, the site provides a mix of uses with residential units above retail. These buildings look out onto a new town green which provides a public space for entertainment and enjoyment by community residents. The town green reestablishes a neighborhood center and serves as an attractive quality of life amenity for future residential and non-residential development. Pedestrian connections are also provided to link adjacent neighborhoods to the new park space.

In total, the focus area rendering includes approximately 60 second story residential units and about 201,000 square feet of commercial properties (54,000 square feet of existing commercial and 147,000 square feet of

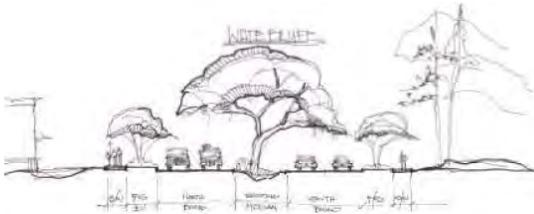


PROJECT DERENNE

Savannah, Georgia

new and redeveloped commercial properties). This new type of development emphasizes pedestrian activity and connection between local neighborhoods and commercial services.

By establishing a community green, and promoting two-story development that complements traditional Savannah-style architecture, the proposed focus area rendering attempts to improve the aesthetic quality of the neighborhood while maintaining viable commercial and non-residential services



Pedestrian-scale designed is maintained in all proposed redevelopment in this focus area. Covered walkways and detailed first-level facades are promoted throughout the focus area.



The proposed cross section for streets in this study area accommodates pedestrian, vehicular, and bicycle traffic while maintaining tree cover and promoting on-street frontage of non-residential uses.



Savannah, Georgia

Focus Area 4: Gateway Neighborhood

The Gateway Neighborhood occupies 75 acres at the western edge of the study area. The site is roughly bounded by DeRenne Avenue to the north, White Bluff Road to the east, Savannah Technical College to the south, and Hunter Army Airfield to the west.

This focus area was selected because the future of this area has been unknown for some time. I-516 which turns into DeRenne Avenue serves as a major gateway into the study area. Additionally, Montgomery Street serves as a primary gateway into Hunter Army Airfield and a secondary entrance into Savannah Technical College. Moving traffic and reducing congestion in this area is a priority. However, transportation projects have had impacts on the surrounding Poplar Place neighborhood. The Poplar Place neighborhood has been bisected by Montgomery Street and threatened by proposed transportation projects like the Hampstead Connector. Residents of the Poplar Place neighborhood have been skeptical to invest in their properties, leading to vacancies and declining property values in the area. The main goal of the focus area rendering was to demonstrate how reducing congestion may and preserving neighborhoods could be mutually beneficial.

Currently the focus area contains about 280 single family detached dwelling units and mobile homes (predominantly located in two mobile home parks), 110 multi family dwelling units, one high rise residential building, and about 142,000 square feet of commercial and office uses.

The focus area rendering offers solutions to improve traffic flow, while critical components of the neighborhood. Traffic



PROJECT DERENNE

Savannah, Georgia

Focus Areas

improvements include the addition of Poplar Place Boulevard, the realignment of Montgomery Street and White Bluff Road, a new bridge, and a new traffic signal. Specifics on the proposed transportation improvements are detailed in Chapter 5 section of the workbook.

Although these transportation improvements require the removal of some single family homes and mobile home parks, other improvements are proposed to strengthen the residential quality of life. These include a new neighborhood park and a neighborhood oriented commercial development designed to serve the community and enhance connection between residential and non residential uses in the focus area.

Other features of the rendering include new gateway monumentation on DeRenne Avenue and White Bluff Road to distinguish the study area from other areas in the City, commercial redevelopment along DeRenne Avenue, and infill development opportunities associated with Savannah Technical College.

In total, the rendering includes 130 single family detached dwelling units, 110 multi-family dwelling units, 43,500 square feet of commercial and office, and 30,000 square feet of institutional uses. The

existing high rise residential building would remain.

The proposed cross-section for Poplar Pace Boulevard is shown to the right. It addresses community desires to enhance pedestrian and non vehicular movement along the right-of-way, while also providing enhanced vehicular flow. The proposed cross-section also enhances the neighborhood by recommending median and side-walk plantings.

In addition to this cross-section, an example of the proposed Hunter Army Airfield gate is shown to the right. The gateway emphasizes the entrance to the airfield with an aesthetic that complements surrounding residential and non-residential architecture in the focus area.

Such improvements intend to draw attention to the strengths of the focus area while addressing critical neighborhood and regional transportation concerns.



City Council Resolution
Project DeRenne, June 3, 2010

City of Savannah
Savannah, Georgia

WHEREAS DeRenne Avenue represents a critical east-west transportation corridor within the City of Savannah and,

WHEREAS, DeRenne Avenue experiences high traffic volumes and significant levels of congestion between I-516 and Abercorn Street during the morning, noon and evening peak periods, and,

WHEREAS the citizens of Savannah and Chatham County have established a SPLOST fund dedicated to improving DeRenne Avenue, and,

WHEREAS the City organized Project DeRenne Project Advisory Committee has recommended the Project DeRenne-developed concept referred to as the Boulevard Option as the preferred alternative for improvements to DeRenne Avenue.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Alderman of the City of Savannah...that the City will adopt the Project DeRenne-developed concept referred to as the Boulevard Option and move planning forward to Phase III (engineering).

BE IT FURTHER RESOLVED that the City Manager of the City of Savannah shall develop a supporting property acquisition program accommodating the potential for voluntary parcel purchases of project impacted properties without jeopardizing project funding opportunities, and,

BE IT FURTHER RESOLVED that the City Manager of the City of Savannah will endeavor to prioritize the design and construction of an I-516 highway sound wall adjacent to the Tatemville neighborhood, and,

BE IT FURTHER RESOLVED that the Project DeRenne-developed concept referred to as the Median Option, applied east and west of Abercorn Street, will be designed with the Boulevard Option but will not take design or construction precedence over implementation of the Boulevard Option.

Approved: June 3, 2010

Otis S. Johnson

Honorable Otis S. Johnson, Ph.D.

3 June 2010

Date

Dyanne C. Reese

Dyanne Reese, Clerk of Council

June 3, 2010

Date

Project Advisory Committee Caveats to Plan



Below is a summary of the caveats expressed by the PAC members at the meeting on December 17, 2009 (updated at their meeting on February 2, 2010). These caveats have been expressed by the group as means to galvanize full group support for the expressed option:

- Based on the time and effort invested in the project to date by the PAC members, the City should keep the group intact and involved throughout the remaining design phases of the project to maintain communication with the stakeholder groups within the corridor and ensure that the final project is in keeping with the community's vision.

East of Abercorn – support the Median option with the following caveat:

- The planning and design of the project will need to address commercial signage such that the anticipated tree canopy does not block the signage. One idea to consider was low signage similar to Hilton Head.

West of Abercorn – support the Boulevard option with the following caveats:

- The City needs to make a written commitment to the existing property owners on the north side of Hampstead and impacted properties in University Place to assist and accommodate them by developing a means to ensure the property owners do not experience a decrease in property values based on the prospect of the boulevard and that the City assists property owners find solutions for voluntary buyouts and/or voluntary relocations in a timeframe before construction is planned.
- The City needs to make a written commitment to assist and accommodate the existing businesses directly impacted by the boulevard option by developing a means to ensure the business owners do not experience a decrease in property values based on the prospect of the Boulevard and realignment of Montgomery Street and find solutions for voluntary buyouts and/or voluntary relocations in a timeframe before construction is planned.
- The design of the project needs to accommodate an existing historical marker along White Bluff Road south of DeRenne Avenue.
- The planning and design of the project needs to accommodate Hunter Army Airfield operations and security.
- The planning and design of the project needs to incorporate an appropriate wall to be installed along the north side of DeRenne Avenue west of Montgomery Street to create a more substantial barrier between Taterville homes and vehicles traveling along DeRenne Avenue/I-516.

PROJECT MEMORANDUM

To: Project File

FROM: Rob Hume, P.E.
Kimley-Horn and Associates, Inc.

Date: March 23, 2012

Re: March 20, 2012, Poplar Place Neighborhood Meeting Summary

The Poplar Place Community held a neighborhood meeting on March 20, 2012, and asked that representatives of the City's Project DeRenne Team present a project history, project update and answer resident's questions. Detailed meeting notes were not taken, however the following represents a general summary of the meeting:

Poplar Place Community Meeting

Location: Tatemville Community Center

Time: 6:00

Project DeRenne Team Attendees:

Mayor Edna Jackson

Rochelle Small-Toney, City Manager

Stephanie Cutter, Assistant City Manager

Susan Broker, Project DeRenne Project Manager

Mike Wiener, Project DeRenne Project Manager

David Moyer, GDOT Project Manager

Rob Hume, Project DeRenne Consultant Project Manager

There were approximately 25-30 community members present; a sign in sheet is attached. Project DeRenne appeared to be the primary topic on the agenda.

Dr. Harris welcomed everyone to the neighborhood meeting and introduced the Project DeRenne team. Rochelle made several introductory comments. Susan Broker then gave an overview of Phase I and II of Project, followed by Rob Hume giving an overview of Phase III and addressing questions from the community.

Some of the principle questions and discussion included:

- A neighbor asked if they would be getting a noise wall.
 - The team explained that the volumes on DeRenne Avenue in the vicinity of their neighborhood are projected to be approximately half of what they are today which would result in a net decrease in DeRenne Avenue vehicular noise.
 - The project environmental process will study the potential of the Boulevard to generate unacceptable noise levels. A noise barrier could be a means to mitigate unacceptable noise levels.
- Why is the project taking so long?

- The team described that the project requires State and/or Federal funding which in turn requires that the project follow the State (PDP) and Federal (NEPA) processes. These processes are very detailed and require a series of built in review periods which cumulatively define the schedule.
- Why elaborate environmental process?
 - NEPA is a Federal process intended to safeguard all aspects (natural, cultural, etc.) of the existing environment in the vicinity of the project.
- Provide an understanding of Right of Way Acquisition process.
 - The team provided an overview of the procedures used for property acquisition associated with a public roadway project and distributed and made reference to a GDOT booklet on the topic.
- What is the timeline and schedule for Project DeRenne?
 - Phase III began in the fall of 2011 and is scheduled to take between 24 and 36 months depending on the findings of the NEPA Environmental Assessment (EA)
 - This concerned many of the residents who remain anxious to have the alignment confirmed and get to property acquisition and construction.
- Why are we redesigning the Concept we already supported?
 - The team explained the difference between the previously prepared “artist’s rendering” and the CAD generated concept design drawings prepared for GDOT
 - The team further explained that the design will continue to evolve through Phase III into a preliminary design with influence from the NEPA process as well as planned public involvement.
- What will happen in Phase III public involvement?
 - The team does not go away for the 2 to 3 year design period but instead will be conducting planned public meetings and scheduled public hearings to facilitate the design process and NEPA.
- Neighborhood leaders expressed a strong desire for the Boulevard alignment to widen Hampstead on the north side of the roadway, acquiring those properties in the process.
- Roger Wood Street was brought up by the team as a topic of strong prior neighborhood input.
 - Neighbors desire that the roadway remain as narrow as practical – similar to existing
 - Neighbors are concerned about additional traffic, or specifically cut-through traffic, utilizing Roger Wood. The team pointed out that the artist rendering includes a median within the Hampstead alignment that would prevent left turns into or out of Roger Wood.
- The neighbors expressed that we should all hold each other accountable to ensure this project moves forward and does not get stalled. This includes the City, the County, GDOT and the public.
- City leaders expressed the City Council established intent to seek a way for the City to augment the GDOT property acquisition program so neighbors aren’t left with unacceptable property impacts following state defined acquisition procedures.

Action items from the meeting included:

- Make GDOT property acquisition booklets available to all in attendance
- Promote that citizens can contact the Citizen’s office if they have individual questions about the property acquisition process to ease interim concerns and/or fears.
- Begin sharing quarterly updates (likely a newsletter) with enough detail as to the process and our progress to satisfy the curious – err on the side of more rather than less information.

Poplar Place Neigh. ORhood Association

Sign - 1 Sheet
Date March 20, 2012

Name	Address	Phone(s)	Email
Theresa Bentley	36 Alpine Ln	352-2089	GBentley@m6n.com
Christina King	7 Funder Ave.	355-5320	christking@aol.com
Alanna King	7 Funder Dr.	355-5320	
Sammi Kenty	36 Alpine Dr.	352-2082	
David & Maggie Blau	123 Hampstead Ave	352-0171	
Debbie Morrison	132 Hampstead Ave	355-5832	
Wm S. Johnson	18 hidden DR.	604-1436	NONE
Melissa Bates	122 Hampstead Ave	484-4938	
Sabrina Ingram	8 Hampstead Ave	351-6993-h	sabi525@bellsouth.net
James L Nincey	9 Linden Dr	352-1233	
Jeanette F. McDuffie	110 Alpine Drive	596-6213	mcduffiejeanette71@yahoo.com
Daniel Martey	112 Ludas Dr	412-0092	dmartey@aol.com
Virginia Morrison	132 Hampstead Ave.	308-5384	vmorriso@bellsouth.net

Poplar Place Neigh. Ormood Association

Sign - .1 Sheet
Date 3/20/13

Name	Address	Phone(s)	Email
Elizabeth Boles	121 Alpine Dr.	912-354-5571	l2bb@aol.com
Mary & Eddie Johnson	104 Linden Dr.	(912) 352-0826	johnson1179@bellsouth.net
Elmora Gadsen	117 Alpine, Dr	(912) 354-9858	elmora.gadsen@comcast.net
Frank Kearse Jr	130 Hampstead Ave	(912) 998 0696	kearse3691@yahoo.com
Theresa Smith	104 Hampstead Ave	(912) 441-2581	tscougare@hotmail.com
Edward Smith		(912) 844-4463	
Valerie Davis Annie Swan	126 HAMPSTEAD AVE SAVANNAH GA 31405	912-507-6030 912-507-2250	lunnarms@bellsouth.net
Maggie Allison	128 Hampstead Ave	(912) 352-0171	Emaggie@bellsouth.net
Pat Harris	100 Hampstead Ave	354-6944	pharris1@bellsouth.net

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. Nos. 0008358, 0008359, OFFICE: Environmental Services
0010236 DATE: April 26, 2013

FROM Glenn Bowman, P.E., State Environmental Administrator

TO Distribution Below

SUBJECT PUBLIC INFORMATION OPEN HOUSE SYNOPSIS

PROJECT No. & COUNTY: (see PI Nos), Chatham County

PROJECT DESCRIPTION: West DeRenne/Hampstead Connector,
SR 21 from CS 346/Mildred Street to SR 24,
East DeRenne from Abercorn Street to Truman Parkway

DATE: April 23, 2013

NUMBER IN ATTENDANCE: 165

FOR: 62

CONDITIONAL: 18

UNCOMMITTED: 10

AGAINST: 3

OFFICIALS IN ATTENDANCE: District 3 Alderman John Hall; District 4 Alderwoman Mary Ellen Sprague; Chatham County District 1 Commissioner Helen Stone; Chatham County District 5 Commissioner Usuf Shabazz; District 5 Alderwoman Dr. Estella Shabazz; Taffanye Young; Irene Hines

ADDITIONAL COMMENTS: Medians will adversely affect businesses; fair compensation for homeowners being displaced or where ROW is acquired; Need more left turn lanes and allow more U turns; more buffer between road and residences; study noise walls; roundabouts are not needed; will liquid petroleum trucks be allowed to use DeRenne Ave.; invest more in road improvements than landscaping/don't plant red tips /plant trees in the median/who will maintain landscaping; expanding the road will adversely affect quality of life; fix flooding issues along DeRenne Ave.; issue a toll for non-Chatham residents; pave dirt roads adjacent to DeRenne Ave.; no sidewalks within Fairway Oaks subdivision/build where red tips are located

PREPARED BY: Josh Earhart (Edwards-Pitman) for Paul Alimia

TELEPHONE No.: (770)333-9484 / (404) 631-1353

cc: Russell McMurry, P.E., David Moyer, Albert Shelby, Genetha Rice-Singleton, Karen Ivery, District 5 Planning and Programming Coordinator, District 5 Communications, Susan Broker, Heather Fish, Rob Hume

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. Nos. 0008358, 0008359, 0010236 **OFFICE:** Environmental Services
DATE: May 21, 2013

FROM: Glenn Bowman, P.E., State Environmental Administrator
TO: Distribution Below

SUBJECT: PI Nos. 0008358, 0008359, & 0010236, Chatham County, Summary of
Comments Received During the Public Comment Period –
April 23 – May 7, 2013

COMMENT TOTALS:

A total of 165 people attended the public information open house held on April 23, 2013 for the subject project on West DeRenne/Hampstead Connector, SR 21 from CS 346/Mildred Street to SR 24, and East DeRenne from Abercorn Street to Truman Parkway.

From those attending, 93 comment forms, 1 letter and 9 verbal statements were received. An additional 20 comments were received during the ten-day comment period following the public information open house, for a total of 123 comments. Some respondents did not indicate a support preference for this project. They are summarized as follows:

No. Opposed	No. In Support	Uncommitted	Conditional
<u>5</u>	<u>70</u>	<u>13</u>	<u>35</u>

MAJOR CONCERNS:

Respondents stated the following comments about the proposed project:

- the project will help traffic congestion;
- sidewalks should not be installed on DeRenne Drive in the Fairway Oaks neighborhood;
- there is a potential bottleneck at the new Hampstead Boulevard and White Bluff Road;
- for residents of Hampstead Avenue, there is concern about exiting and entering their driveways with higher traffic volumes;
- concern about purchasing of residences and adequate compensation for their properties;
- the proposed roundabout is not appropriate for the traffic volume for the project;
- concerns regarding loss of business due to installation of medians;
- concern of how bike lanes will connect with Truman Linear Trail Park;

Summary of Comments

PI Nos. 0008358, 0008359, 0010236, Chatham County

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- concern about increased traffic on Ranger Street, while there is already heavy traffic from Memorial Hospital employees and ambulances;
- the proposed project should be constructed soon;
- concern about commitment of government to complete the entire project;
- the project is needed and will benefit the area.

OFFICIALS:

Officials attending included the following:

Alderman John Hall, City of Savannah, District 3 Alderman;

Alderwoman Ellen Sprague, City of Savannah, District 4 Alderwoman;

Helen L. Stone, Chatham County, District 1 Commissioner;

Taffanye Young, City of Savannah, Bureau Chief of Community and Economic Development;

Irene Hines, Savannah Chatham County Public School System, District 5 Board Member;

Yusuf Shabazz, Chatham County, District 5 Commissioner;

Alderwoman Dr. Estella Shabazz, City of Savannah, District 5 Alderwoman.

MEDIA:

Mid-morning live segment – Aired April 23rd, 10:08 a.m., encouraged citizens to drop-in;
Attending the PIOH: Representatives from Savannah Morning News, WTOG, WJCL and WSAV;

Interviews provided by Susan Broker to all media representatives;

During the April 23rd, 11PM broadcasts, all three local news stations mentioned the website and commenting period.

Beginning, April 24, the project website was updated daily.

DISPOSITION OF COMMENTS:

The consultant team, Kimley-Horn and Edwards-Pitman Environmental, Inc., will respond to all comments on behalf of GDOT and City of Savannah.

Attachments

DISTRIBUTION:

Russell McMurry, P.E. w/ attachments

David Moyer, w/ attachments

Genetha Rice-Singleton, w/ attachments

Albert Shelby, w/ attachments

Karon Ivery, w/ attachments

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Maggie Yoder w/ attachments
Jill Nagel w/ attachments
Susan Broker, w/ attachments
Heather Fish, w/ attachments
Rob Hume, w/ attachments

Summary of Comments

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Area of Expertise: Design

COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
3	Sharrows should be marked on DeRenne Drive for existing bicycle and pedestrian use	The proposed concept design includes sharrow markings on DeRenne Drive. Wider sidewalks are proposed along DeRenne Avenue for pedestrians.
3	A buffer of plants between neighborhood and DeRenne Avenue for visual impacts	The design team will take your comment into consideration when developing the landscape plans.
4, 24, 68	Concern of how bikeway will connect with Truman Linear Trail Park	Project DeRenne improvements end at the existing bridge over the canal. The City is in coordination with Chatham County regarding the design of the trail and its connection to DeRenne Avenue.
5	There should not be a left turn from DeRenne Avenue to Ranger Street due to the amount of traffic volume onto a residential street	The proposed concept continues to accommodate a left turn from DeRenne Avenue to Ranger Street, however would prevent left turns from Ranger to DeRenne.
7	Speed limit should not exceed 30 mph on Hampstead Avenue	The current concept includes a posted speed limit of 35 MPH on the portion of the Boulevard that approximates the alignment of the current Hampstead Avenue.
7	Roadway buffers needed throughout the project between residential areas and high traffic areas	The design team will take your comment into consideration when developing the landscape plans.
7	Do not plant red tips	The design team will take your comment into consideration when developing the landscape plans.
9	Respondent was informed that the [project] design was the results of Kimley & Horn to make the change of the concept after the residents resolved that the concept would be a part of the design contingent to the environmental, proposed Roadway from Georgia Department of	We do not fully understand your comment. Please feel free to contact Heather Fish - Hfish@savannahga.gov – 912-651-6488 with any questions.

Summary of Comments

PI Nos. 0008358, 0008359, 0010236, Chatham County

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Area of Expertise: Design

	Transportation	
10	Add stop bar to Habersham Street crosswalks	The cross hatched markings to prevent blocking access to DeRenne Drive necessitate moving the stop bar.
12	A northbound right turn lane should be installed on Habersham Street	The need for a right-turn lane at this location will be reviewed when further developing the plans.
17, 96	Additional intersection modification to Derenne Avenue & Sanders Street and DeRenne Avenue & Ranger Street to address traffic congestion	The current concept design includes left turn lanes to store and process turns from DeRenne to both Sanders and Ranger, however eliminates the more challenging left turn movements out of both streets across the westbound traffic merging into the eastbound traffic.
21, 62, 93	Landscaping, current and new, needs to be maintained	The design team will take your comment into consideration when developing the landscape plans.
22	Will this project reduce congestion west of Abercorn intersection?	The Boulevard Concept would accommodate approximately ½ of the peak hour traffic currently utilizing DeRenne Avenue between I-516 and Abercorn Street. This reduction in traffic volume processing through the signals along that segment of DeRenne will allow for a considerable reduction in peak hour delay.
23	Turn lanes along DeRenne should be longer due to traffic volume	The development of the Boulevard concept would change traffic patterns in such a way that the signalized intersections will operate differently and as such, turn lane lengths will be redesigned to match the planned future turn patterns.
23	Landscaping should begin after construction is completed	Although it has not yet been planned, any landscaping associated with the project would typically occur at the conclusion of heavy construction or thereafter (depending on the season).
24	Support of the refuge islands and construction of medians on DeRenne Avenue	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
30, 46	Will transportation of natural gas be allowed on roadway	You are likely referring to public hearings that were held regarding the potential to transport liquefied natural gas (LNG) by truck along DeRenne Avenue. That is/was a separate public input process and

Summary of Comments

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Area of Expertise: Design

		is not in any way affiliated with Project DeRenne.
32	Eliminate the business bypass flyover design	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
40	Install Emergency Vehicle Only lane	An emergency vehicle only lane is not a proposed concept for DeRenne Avenue. The proposed Boulevard Option would reduce the amount of traffic on the most congested segments of DeRenne Avenue.
41	Concern about new intersection at Hampstead Avenue and White Bluff Road because it requires northbound and southbound traffic to shift directions	The Boulevard concept would redirect White Bluff Road such that it included a sweeping curve to align with the connector to I-516. In the center of that curve would be a traffic signal. Northbound traffic on White Bluff would take a right turn and southbound traffic would take a left turn at that signal. This would be a change in the current travel pattern, however would represent a minority of the movements as compared to the volume utilizing the Boulevard.
42	Get rid of multiple curb cuts	Existing and future access control will be considered and addressed when further developing the plans.
42, 62	Plant bushes and trees for scenery	The design team will take your comment into consideration when developing the landscape plans.
46	Unclear on how cars moving from Hampstead Street would reach Savannah Technical School	The proposed concept design would allow vehicles traveling from the west to access Savannah Tech utilizing the current access road on Hampstead Avenue or via the main entrance on White Bluff Road. Vehicles traveling from the east would be able to access Savannah Technical School utilizing the White Bluff Road entrance.
49	Prefer Boulevard design	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
52	Well planned and coordinated with	Thank you for your input regarding the proposed project. Your

Summary of Comments

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Area of Expertise: Design

	state agencies	interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
53, 87	Pave dirt roads near Mildred Street and DeRenne Avenue	The design team will take your comment into consideration when further developing the plans.
56	Agree with flyover design	Thank you for your input regarding the proposed project.
67, 80	Support the White Bluff Road design to remove traffic from DeRenne Avenue	Thank you for your input regarding the proposed project.
68, 82, 103	Put canopy shade trees in medians	The design team will take your comment into consideration when developing the landscape plans.
68	Irrigation should be installed in medians	The design team will take your comment into consideration when developing the landscape plans.
76	Flooding occurs with heavy rain on side street across from hospital	Thank you for your input regarding the proposed project.
80	The new Hampstead Avenue roadway limits access to residents and visitors of the Savannah Summit Apartments	The design team is currently investigating ways to develop access to Savannah Summit from westbound on Hampstead Avenue.
82	Would like to schedule a meeting with Fairway Oaks Greenview Board to discuss sidewalk location and red tips	The City of Savannah Citizen Office will contact Fairway Oaks Greenview Board to discuss the red tips and sidewalk location.
83	Would like to see the budget for the project looks expensive and hard to see how it improves things much	The project budget is available on the Coastal Region Metropolitan Planning Organization website. Project DeRenne Boulevard Concept, East DeRenne Avenue Improvements and West DeRenne Avenue Improvements are listed in the FY 2013-2016 Transportation Improvement Program. This document contains programmed costs for planning, engineering and right of way.
85	Travelled in the area for years, most dreaded part of the drive. From	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your

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Area of Expertise: Design

	utilities perspective: very dangerous area to work in.	comments will be made a part of the official record of the project.
	Be sure to make any path connectors, linking segments of E. DeRenne Drive bikeway through the intersections	The design team will take your comment into consideration when further developing the plans.
86	Make sure multi-use trails are 10-foot wide including through intersections	The multi-use paths will be designed to a 10' width where achievable .
89	The Fairway Oaks Neighborhood Association approved an earlier concept with serpentine wall with plantings and removal of red tips	The City of Savannah Citizen Office will contact Fairway Oaks Greenview Board to discuss the red tips and sidewalk location.
89, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 118, 119, 120, 121	Sidewalks and bike lanes should not be installed on DeRenne Drive in the Fairway Oaks subdivision	The City of Savannah Citizen Office will contact Fairway Oaks Greenview Board to discuss the red tips and sidewalk location.
90	Concern about accidents at I-16 and 516	The intersection of I-16 and I-516 is outside of the proposed project area. However, your comment has been forwarded to the Georgia Department of Transportation District Five Office for further consideration. If you have any additional questions regarding those intersections, please contact Karon Ivery, the District Five Engineer, at (912) 427-5711.
91	At Victory Drive South off ramp from Truman Parkway there is a "bow" closing down one lane, this should be fixed.	Victory Drive is outside of the proposed project area. However, your comment has been forwarded to the Georgia Department of Transportation District Five Office for further consideration. If you have any additional questions regarding those intersections, please contact Karon Ivery, the District Five Engineer, at (912) 427-5711.
92	Access to the businesses on the east side of White Bluff Road via U-turn at White Bluff Road and Hampstead	The design team will give consideration to the feasibility of U-turns from southbound to northbound White Bluff at the intersection with the Boulevard when further developing the plans.

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Area of Expertise: Design

	Avenue	
96	Making a left turn out of business is already difficult, but crossing lanes to get in left turn lane for a U-turn, because of the proposed median, will be even more difficult	In most locations along the corridor it is possible to utilize parallel streets (for example 72 nd Street) to access the closest signalized cross street to make a left turn onto DeRenne.
99, 101, 102	For residents on Hampstead Avenue, concern about exiting and entering driveway of proposed higher traffic roadway	The traffic signal located at the Boulevard intersection with White Bluff Road would routinely stop westbound traffic creating gaps in traffic flow.
101, 102	The City of Savannah honoring its agreement to compensate concerned residents on Hampstead Avenue	The City is committed to maintaining an open dialogue with residents living along Hampstead Avenue, as well as other residents, businesses, and properties impacted by the project.
103	Masthead poles and internally lit street signs should be used	The design team will take your comment into consideration when further developing the plans.
103	Wayfinding signs and "Next Signal" cross streets should be part of the proposed project	The design team will take your comment into consideration when further developing the plans.
103	Clear signage for new street grid created and avoid use of altered road names	The design team will take your comment into consideration when further developing the plans.
103	Landscaping compatible to other Savannah landscape and representative of older established areas	The design team will take your comment into consideration when developing the landscape plans.
103	Utility lines should be moved underground	The design team will take your comment into consideration when further developing the plans.
103	Residents along Hampstead Avenue should be allowed access to their	The potential of utilizing the existing alley for access has been investigated. For various reasons, including resident input, access

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Area of Expertise: Design

	properties through an alley due to hazards from New Hampstead Avenue	via the existing alley is not preferred.
103	Avoid creating new street names, i.e. White Bluff Extension	The design team will take your comment into consideration when further developing the plans.
103	Plant landscaping that is appropriate for the area and climate	The design team will take your comment into consideration when developing the landscape plans.
115, 116	A historically representative brick wall should be built between DeRenne Avenue and DeRenne Drive	A noise impact assessment is currently underway to determine noise impacts from the proposed project. As part of the noise assessment, the feasibility and reasonableness of noise abatement, including noise walls, will be analyzed.
122	A bridge over DeRenne Avenue would fix DeRenne area	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
123	For Hampstead Avenue, a frontage road should be installed, similar to DeRenne Drive	The design team will take your comment into consideration when further developing the plans.

Summary of Comments

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Area of Expertise: Right-of-Way

COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
29, 94	Do not want to relocate my house	Land acquisition for transportation purposes is strictly governed by numerous state and federal laws and regulations. Since it is not appropriate to discuss individual impacts and compensation in this format, the City of Savannah and/or GDOT Right-of-Way Office will send out letters under separate cover to those property owners who would be affected by land acquisition for the proposed project. For additional information, please contact the City of Savannah via Heather Fish - Hfish@savannahga.gov – 912-651-6488.
63, 84, 88	Options should be considered to adequately compensate affected personnel who are required to relinquish their land	

Summary of Comments

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Area of Expertise: Traffic Operations

COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
1	The proposed medians would increase traffic congestion	The medians along DeRenne Avenue are being proposed with the intent to also reduce the number of conflict points, improve overall traffic operation, and reduce the potential for related crash and injury along the corridor.
5, 104	Ranger Street is currently used by Memorial Hospital employees and ambulances and the proposed project will only increase traffic on the residential street	Three of the four movements currently allowed to and from Ranger Street are proposed to remain. The fourth is the left turn from Ranger Street to DeRenne Avenue. Traffic counts show this to be a relatively minor movement. The intent is to eliminate the more challenging left turn movement from Ranger Street across the westbound traffic merging into the eastbound traffic along DeRenne Avenue.
10	Pedestrian crosswalks should be set to work on a timer on Saturday and Jewish holidays	Your comment will be submitted to the City Traffic Engineer.
14	Concern about how the proposed project would help with traffic congestion turning south onto Abercorn for DeRenne Avenue westbound	The Boulevard Concept would accommodate approximately ½ of the peak hour traffic currently utilizing DeRenne Avenue between I-516 and Abercorn Street. This reduction in traffic volume processing through the signals along that segment of DeRenne (including Abercorn) will allow for a considerable reduction in peak hour delay.
21, 93	There should be U-turns allowed between Truman and Waters Avenue Westbound and Ranger Street and Truman Parkway Eastbound, since Truman Parkway intersections are currently dangerous and difficult and stoplights are not very visible	You are likely denoting that the signals at the Truman Parkway intersections are dangerous and it is difficult to see the traffic signals. The Truman Parkway is beyond the limit of this project; however your comment will be forwarded to the City Traffic Engineer.
21, 60, 93, 96, 104	Concerns regarding businesses due to installation of access to medians	The median would limit the number of left-turn and U-turn locations which also reduces the number of conflict points, improves overall traffic operation, and reduces the potential for related crash and injury

Summary of Comments

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Area of Expertise: Traffic Operations

		along the corridor. The current design of median openings provides access to all businesses within the project limits.
22, 27, 71	Traffic circles, or roundabouts, are not the best option for the amount of traffic anticipated or for larger vehicles	The proposed roundabout on Montgomery Street will be evaluated using the GDOT approved existing and future traffic volumes and the design of the traffic control feature will be accommodate large vehicle movements.
45, 95, 98, 101	There is a potential bottleneck where Hampstead Avenue (Boulevard) meets White Bluff Road	This intersection is needed to maintain access between the east/west flow of the Boulevard and the north/south movements along White Bluff Road.
61	What about ambulances going down DeRenne [Avenue] to Hospital	The proposed Boulevard Option would reduce the amount of traffic on the most congested segments of DeRenne Avenue, thus allowing more efficient flow to and from the Hospital along DeRenne Avenue.
63	Traffic will increase White Bluff Road and through Poplar Place neighborhood	The Boulevard concept would accommodate a larger volume of vehicles utilizing the alignment of Hampstead Avenue, however it would not be expected that there would be an appreciable increase in traffic moving through the internal streets of Poplar Place.
90	Concern about increased collisions at Hampstead Avenue from increased traffic and safety of nearby homes	The Boulevard concept roadways and associated traffic elements would be designed to meet or exceed GDOT standards for the projected traffic volumes and speeds.
96, 104	Traffic will increase on Waters Avenue and the neighborhoods once the proposed median is installed	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
98	Project will eventually result in congestion when drivers learn of new route	The project roadways and intersections are being evaluated using GDOT approved existing and future traffic volumes. The future traffic volumes account for future regional background growth and additional incremental growth created by the proposed improvements.
122	A bridge over DeRenne Avenue	Thank you for your input regarding the proposed project. Your interest

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Area of Expertise: Traffic Operations

	would fix DeRenne area	in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
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Area of Expertise: Planning

COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
2, 36, 39, 62, 67, 80, 90, 91	This project is necessary to improve traffic congestion	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
4, 62	Support of bike paths and sidewalks included in proposed project	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
6, 12, 16, 24	The proposed project should be constructed soon	The proposed project is currently scheduled for right-of-way acquisition to begin in Fiscal Year (FY) 2016, with construction following. This schedule may be subject to change as the project develops. Prior to construction, engineering design and environmental permitting must be completed.
38	Federal matching funds should be arranged to complete this project	The City intends to seek Federal funds to construct the proposed project improvements.
70	Be sure to complete the multi-use trail as they complete the entire project	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
97	The project is needed and will be a benefit to the area	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
73	Charge a toll for non-Chatham County residents	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
95	This does not provide a long term solution for the area	Thank you for your input regarding the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.

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Area of Expertise: Environmental

COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
3	A wall or buffer of plants is needed between neighborhoods and DeRenne Avenue and White Bluff Road for noise reduction	A noise impact assessment is currently underway to determine noise impacts from the proposed project. As part of the noise assessment, the feasibility and reasonableness of noise abatement, including noise walls, will be analyzed.
18	A noise buffer is needed along I-516 near Tatemville and Liberty City	A noise wall is currently under construction between Mildred Street and Montgomery Street along the north side of DeRenne Avenue. A noise impact assessment is currently underway to determine noise impacts from the proposed project. As part of the noise assessment, the feasibility and reasonableness of noise abatement, including noise walls, will be analyzed.
32	Undertake an economic impact study analysis of the affected area	Thank you for your comment. An economic impact study is not required during this phase of the project. A study may be conducted in coordination with planning and zoning efforts along the corridor at some point in future phases.
35, 95	This project will change the environment of the area and will alter the current quality of life	The city has conducted extensive outreach with citizens, businesses, and stakeholders such as Hunter Army Air Base. The Project Advisory Committee (PAC) included representatives from residential areas, businesses, and government entities affected by the project. Input from the PAC, and public outreach efforts, have aided in developing the proposed alternative.

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Area of Expertise: Environmental

39	Not sure if Boulevard concept will look and fit into the area	. The proposed alternative would construct new infrastructure within the existing area that achieves the Need and Purpose of the project with as minimal an impact as possible to the area.
39	I don't know how the bridges will fit into the area.	The proposed alternative would construct new infrastructure within the existing that achieves the Need and Purpose of the project with as minimal an impact as possible to the area.
90	Concern about increased noise levels at Hampstead Avenue from increased traffic	A noise impact assessment is currently underway to determine noise impacts from the proposed project. As part of the noise assessment, the feasibility and reasonableness of noise abatement, including noise walls, will be analyzed.
100	The proposed project should give preference to Poplar Place neighborhood since it is an eligible historic district.	Poplar Place, as well as six other resources, is considered potentially eligible for listing on the National Register. The survey report is currently in review, and the GDOT and the GA SHPO have not yet concurred with these determinations. All eligible historic resources, included Poplar Place, would be afforded certain considerations in compliance with federal regulations. The proposed alternative will be developed to minimize impacts to the Poplar Place neighborhood while achieving the project Need and Purpose.
101	Since the concept goes further south now, I guess the persons who live on Hampstead really would like the city to consider upholding the resolution that was made earlier with the neighbors.	The city is committed to maintaining an open dialogue with residents living along Hampstead Avenue, as well as other residents, businesses, and properties impacted by the project.
103	Noise walls should be installed on the western section of DeRenne Avenue and White Bluff Road	A noise impact assessment is currently underway to determine noise impacts from the proposed project. As part of the noise assessment, the feasibility and reasonableness of noise abatement, including noise walls, will be analyzed.
107	Installing sidewalks on	The City of Savannah Citizen Office will contact Fairway Oaks

Summary of Comments

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Area of Expertise: Environmental

	DeRenne Drive will decrease the historic appeal of the Fairway Oaks neighborhood	Greenview Board to discuss the red tips and sidewalk location.
114	Parcel 347 is a wetland	An ecology survey has been conducted for the project area, and no wetlands were identified on Parcel 347 within the area surveyed. That does not mean that wetlands may not exist in other areas of the parcel, but areas of Parcel 347 potentially impacted by the project were not identified as wetlands.

PFA's



September 12, 2012

Ms. Rochelle Small-Toney, City Manager
The City of Savannah
P.O. Box 1027
Savannah, Georgia 31402

Dear Ms. Small-Toney:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Griffin for the following project:

Chatham County, PI# 0008358

We look forward to working with you on the successful completion of the joint project.
Should you have any questions, please contact the Project Manager David Moyer at (404) 291-5880.

Sincerely,

A handwritten signature in black ink, appearing to read "Angela Robinson".

Angela Robinson,
Financial Management Administrator

AR:kp

Enclosure

c: Bob Rogers
Karon Ivery – District 5 Engineer
Maggie Yoder – District 5 Planning & Programming Engineer
Steven Thomas – District 5 Utilities Engineer
Jeff Baker – State Utilities Engineer

AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
CITY OF SAVANNAH
FOR
TRANSPORTATION FACILITY IMPROVEMENTS

DO NOT OBLIGATE

This Framework Agreement is made and entered into this 29th day of August, 2012 by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the City of Savannah, acting by and through its Mayor and City Council, hereinafter called the "LOCAL GOVERNMENT".

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

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

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

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

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

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

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

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

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

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

providing payment, which represents 100% of the DEPARTMENT's PE Oversight Estimate at the time of the Project Framework Agreement execution.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

15. The LOCAL GOVERNMENT, unless shown otherwise on Attachment A, shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way

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

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

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

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

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

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

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to

use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

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

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

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

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

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

DEPARTMENT OF
TRANSPORTATION

CITY OF SAVANNAH

BY: *[Signature]*
Commissioner

BY: *[Signature]*
Rochelle Small-Toney
City Manager

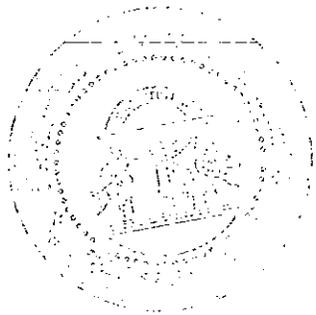
ATTEST:
[Signature]
Treasurer

Signed, sealed and delivered this 21st
day of may, 2012, in the
presence of:

[Signature]

Witness **SANDRA L. BROWN**
Notary Public, Chatham County, GA
My Commission Expires January 27, 2015

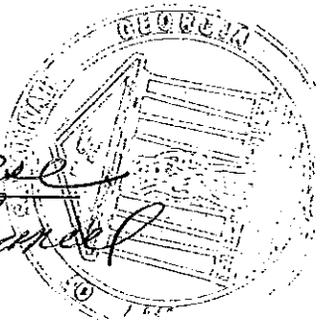
[Signature]
Notary Public



This Agreement approved by Local
Government, the 3rd day of
may, 2012

Attest

[Signature]
Name and Title
[Signature]
Clerk of Council



FEIN: 586000660

Attachment "A" Funding Sources and Distribution
 Project No.: 0008358 County: Chatham

Attach "Project Manager" Project Charging Form for Approval

Preliminary Engineering - Phase I				GDOT Oversight for PE (Phase I) ²				Preliminary Engineering Grand Total (Phase I) ²			
Percentage	PE Amount	Maximum PE Participation Amount (\$)	Participant	Percentage	Amount	Participant	Amount	Percentage	Amount	Participant	Amount
0%	\$0.00	\$0.00	Federal	53%	\$60,000.00	Federal	\$60,000.00	2%	\$60,000.00	Federal	\$60,000.00
0%	\$0.00	\$0.00	State	0%	\$0.00	State	\$0.00	0%	\$0.00	State	\$0.00
100%	\$3,500,000.00	N/A	Local	47%	\$54,000.00	Local	\$54,000.00	96%	\$3,554,000.00	Local	\$3,554,000.00
0%	\$0.00	\$0.00	Other	0%	\$0.00	Other	\$0.00	0%	\$0.00	Other	\$0.00
300%	\$3,500,000.00			100%	\$104,000.00			100%	\$3,654,000.00		

Right of Way - Phase II				Utility Phase IV			
Percentage	ROW Amount	Maximum ROW Participation Amount (\$)	Participant	Utility Funding By:	Amount	Participant	Amount
0%	\$0.00	\$0.00	Federal	LOCAL		LOCAL	
0%	\$0.00	\$0.00	State	LOCAL		LOCAL	
100%	\$7,500,000.00	N/A	Local	LOCAL		LOCAL	
0%	\$0.00	\$0.00	Other				
100%	\$7,500,000.00			100%			

Construction - Phase III				GDOT Oversight for CST (Phase III) ²			
Percentage	CST Amount	Maximum CST Participation Amount (\$)	Participant	Trussing (Phase V) Funding By:	Amount	Participant	Amount
0%	\$0.00	\$0.00	Federal	GDOT		GDOT	
0%	\$0.00	\$0.00	State				
100%	\$60,000,000.00	N/A	Local				
0%	\$0.00	\$0.00	Other				
100%	\$60,000,000.00			100%			

Grand Total Phases II through III			
Percentage	CST Amount	Maximum ROW Participation Amount (\$)	Participant
0%	\$0.00	\$0.00	Federal
0%	\$0.00	\$0.00	State
100%	\$71,054,000.00	N/A	Local
0%	\$0.00	\$0.00	Other
100%	\$71,114,000.00		

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

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

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

³The GDOT Oversight check shall be remitted to the District Planning and Programming Engineer along with the signed Project Framework Agreement (PFA).

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

D.O.T. 66

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE		OFFICE	Planning
		DATE	September 17, 2010
FROM	 Angela T. Alexander, State Transportation Planning Administrator		
TO	Todd I. Long, PE, PTOE, Director of Planning Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner		
SUBJECT	Preliminary Engineering Oversight for Project Managers/Project Delivery Staff		

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

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

GDOT Funds PE Oversight with Federal-Aid:

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

- 1) Projects on the National Highway System will use NHS funds (L050) to finance GDOT's PE oversight expenses
- 2) Projects *not* on the National Highway System but eligible for Surface Transportation Program (STP) funds, will follow one of the scenarios below:
 - a) Projects in urban areas between 5,000 and 199,999 in population will use L200 funds (with MPO approval, if applicable)
 - b) Projects in urban areas with a population greater than 200,000 will use L230 funds (with MPO approval)
 - c) Projects in rural areas with a population less than 5,000 will use L250 funds
 - d) The Department may, at the joint discretion of the Chief Engineer and Director of Planning, apply L240 funds to any federal-aid eligible project

- 3) Projects which have received an earmark in federal legislation, will use a portion of the earmark funding for GDOT's PE oversight expenses, pending MPO approval if applicable. (Note: earmark funded projects could receive PE oversight funding regardless of the funding being programmed within the first 4 active years of a currently approved TIP/STIP).
- 4) Projects funded with Safe Route to School (SRTS) funds will use SRTS funds to finance GDOT's PE oversight expenses, regardless of whether or not a subsequent phase of the project appears in the STIP/TIP.

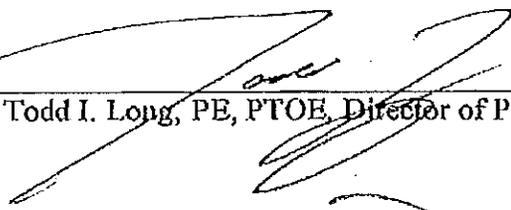
GDOT Requests Local Government/Project Sponsor to Fund PE Oversight:

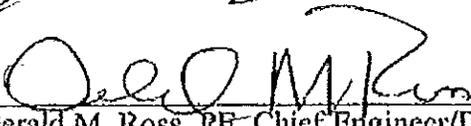
The Department will request that the local government fund PE oversight with 100% local funds under the following conditions:

- 1) A subsequent phase of the project is not programmed within the first 4 active years of the Currently approved TIP/STIP
- 2) The MPO has elected to not approve the use of L200 or L230 funds for GDOT's PE oversight expenses
- 3) The project is funded with CMAQ funds
- 4) The project is funded with an earmark identified in federal legislation and the local government/entity which secured the earmark (or MPO, if applicable) declines to allow GDOT to use a portion of the earmark for PE oversight expenses
- 5) The project is currently funded entirely with local funds; however, the local government intends to secure federal funding at a future date

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

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

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

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

GDOT Oversight Estimate for Locally Administered Project

Tuesday, November 15, 2011 1:01 PM

PI Number	<input type="text" value="0008358"/>	Project Number	<input type="text" value="CSSTP-0008-00(358)"/>
County	<input type="text" value="Chatham"/>	Project Length	<input type="text" value="0.790"/> Miles
Project Manager	<input type="text" value="Moyer, David"/>	Project Cost	<input type="text" value="\$ 60,000,000.00"/>
Project Type	<input type="text" value="Urban Interstate Interchange (Reconstruct/New)"/>		
Project Description	<input type="text" value="New Alignment Connector from West DeRenne to Hampstead Ave and White Bluff Rd."/>		
Expected Life of Project	<input type="text" value="3.00"/> Years		

Project Phase	Oversight Hours	Oversight Cost
1. Project Initiation	120	\$ 6,000.00
2. Concept Development	246	\$ 12,000.00
3. Database Preparation	326	\$ 11,000.00
4. Preliminary Design	707	\$ 32,000.00
5. Environmental	349	\$ 12,000.00
6. Final Design	767	\$ 33,000.00
Travel Expenses		\$ 8,000.00
Total Oversight Estimate	2,515	\$ 114,000.00
Percentage of Project Cost	0.19 %	

Note: The project cost is greater than \$10,000,000.00. Therefore, a Value Engineering study is required and the estimated cost for the oversight of this study is \$5,500.00 which is included in the Concept Development Phase.

C:\Documents and Settings\dmoyer\Desktop\0008358\0008358 Oversight Estimate 111511.xlsm

ATTACHMENT E

APPENDIX E--GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Name of Contracting Entity:

City of Savannah

Contract No. and Name:

PI# 0008358

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

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

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

48982
E-Verify / Company Identification Number

Rochelle D Small Toney
Signature of Authorized Officer or Agent

August 7, 2007
Date of Authorization

Rochelle D Small Toney
Printed Name of Authorized Officer or Agent

City Manager
Title of Authorized Officer or Agent

June 13, 2012
Date

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

13 DAY OF June, 2012

Sandra Brown
Notary Public

[NOTARY SEAL]

My Commission Expires
Sandra Brown
Notary Public, Chatham County, GA
My Commission Expires January 27, 2015

revised : 12/2011

ATTACHMENT F

TITLE VI INTRODUCTION

As a sub-recipient of federal funds from Georgia Department of Transportation, all municipalities are required to comply with Title VI of the Civil Rights Act of 1964 which provides that:

“No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected To discrimination under any program or activity receiving federal assistance under This title or carried out under this title.”

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

The provisions of Title VI apply to all contractors, subcontractors, consultants and suppliers. And is a condition for receiving federal funds. All sub recipients must sign Title VI assurances that they will not discriminate as stated in Title VI of the Civil Rights Act of 1964. In the event that the sub recipient distributes federal aid funds to second tier entity, the sub-recipient shall include Title VI language in all written documents and will monitor for compliance. If, these assurances are not signed, the City or County government may be subjected to the loss of federal assistance.

All sub recipients that receive federal assistance must also include Federal Highways Administrations 1273 in their contracts. The FHWA 1273 sets out guidance for ensuring non discrimination and encouraging minority participation and outreach. Enclosed you will find Title VI acknowledgment form and the Title VI assurances. The Title VI acknowledgment form and Title VI assurances must be signed by your local government official if it has not been signed.

TITLE VI ACKNOWLEDGEMENT FORM

The City of Savannah assures that no person shall on the grounds or race, color, national origin or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any City or County sponsored program or activity. The City of Savannah assures that every effort will be made to ensure non discrimination in all of its programs or activities, whether those programs are federally funded or not.

Assurance of compliance therefore falls under the proper authority of the City Council or the County Board of Commissioners. The Title VI Coordinator or Liaison is authorized to ensure compliance with provisions of this policy and with the Law, including the requirements of 23 Code of Federal Regulations (CFR) 200 and 49 CFR 21.

revised : 12/2011


City Manager
Official Name and Title

June 13, 2012
Date

Citations:

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

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

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



September 25, 2012

Ms. Rochelle Small-Toney, City Manager
The City of Savannah
P.O. Box 1027
Savannah, Georgia 31402

Dear Ms. Small-Toney:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Savannah for the following project:

Chatham County, PI# 0008359

We look forward to working with you on the successful completion of the joint project.
Should you have any questions, please contact the Project Manager David Moyer at (404) 291-5880.

Sincerely,

A handwritten signature in blue ink, appearing to read "Angela Robinson".

Angela Robinson,
Financial Management Administrator

AR:kp

Enclosure

- c: Bob Rogers
Karon Ivory -- District 5 Engineer
Maggie Yoder -- District 5 Planning & Programming Engineer
Steven Thomas -- District 5 Utilities Engineer
Jeff Baker -- State Utilities Engineer

**AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
CITY OF SAVANNAH
FOR
TRANSPORTATION FACILITY IMPROVEMENTS**

This Framework Agreement is made and entered into this 24th day of August, 2012, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the City of Savannah, acting by and through its Mayor and City Council, hereinafter called the "LOCAL GOVERNMENT".

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

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

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

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

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

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

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

revised : 12/2011

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

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

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

providing payment, which represents 100% of the DEPARTMENT's PE Oversight Estimate at the time of the Project Framework Agreement execution.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

15. The LOCAL GOVERNMENT, unless shown otherwise on Attachment A, shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way

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

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

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

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

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

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

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to

use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

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

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

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

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

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

DEPARTMENT OF
TRANSPORTATION

City of Savannah

BY: [Signature]
Commissioner

BY: [Signature]
Rochelle Small-Toney
City Manager

ATTEST: [Signature]
Treasurer

Signed, sealed and delivered this 21st
day of may, 2012, in the
presence of:

[Signature]
Witness

SANDRA L. BROWN
Notary Public, Chatham County, GA
My Commission Expires January 27, 2015

[Signature]
Notary Public



This Agreement approved by Local
Government, the 3rd day of
may, 2012.

Attest

[Signature]
Name and Title Clerk of Council



FEIN: 586000660

Attachment "A" Funding Sources and Distribution

Project No.: 0008359 County: Chatham

Attach "Project Manager" Project Charging Form for Approval

Preliminary Engineering - Phase I				Preliminary Engineering - Phase II				Preliminary Engineering Grand Total (Phase I) ²				
Percentage	PE Amount	Maximum PE Participation Amount (\$)	Participant	Percentage	PE Amount	Maximum PE Participation Amount (\$)	Participant	Percentage	Amount	Participant	Percentage	Amount
0%	\$0.00	\$0.00	Federal	80%	\$54,400.00	\$0.00	Federal	7%	\$54,400.00	Federal	7%	\$54,400.00
0%	\$0.00	\$0.00	State	0%	\$0.00	\$0.00	State	0%	\$0.00	State	0%	\$0.00
100%	\$750,000.00	N/A	Local	20%	\$13,600.00	\$0.00	Local	93%	\$763,600.00	Local	93%	\$763,600.00
0%	\$0.00	\$0.00	Other	0%	\$0.00	\$0.00	Other	0%	\$0.00	Other	0%	\$0.00
100%	\$750,000.00			100%	\$68,000.00			100%	\$68,000.00			\$818,000.00

Right of Way Phase II				Right of Way - Phase III			
Percentage	ROW Amount	Maximum ROW Participation Amount (\$)	Participant	Percentage	ROW Amount	Maximum ROW Participation Amount (\$)	Participant
0%	\$0.00	\$0.00	Federal	0%	\$0.00	\$0.00	Federal
0%	\$0.00	\$0.00	State	0%	\$0.00	\$0.00	State
100%	\$300,000.00	N/A	Local	100%	\$300,000.00	N/A	Local
0%	\$0.00	\$0.00	Other	0%	\$0.00	\$0.00	Other
100%	\$300,000.00			100%	\$300,000.00		

Construction - Phase III				Construction Oversight			
Percentage	CST Amount	Maximum CST Participation Amount (\$)	Participant	Percentage	Amount	Participant	Percentage
0%	\$0.00	\$0.00	Federal	0%	\$0.00	Federal	0%
0%	\$0.00	\$0.00	State	0%	\$0.00	State	0%
100%	\$6,550,000.00	N/A	Local	100%	\$6,550,000.00	Local	100%
0%	\$0.00	\$0.00	Other	0%	\$0.00	Other	0%
100%	\$6,550,000.00			100%	\$6,550,000.00		

Grand Total Phases II through III			
Percentage	CST Amount	Maximum ROW Participation Amount (\$)	Participant
1%	\$54,400.00	\$0.00	Federal
0%	\$0.00	\$0.00	State
99%	\$7,513,600.00	N/A	Local
0%	\$0.00	\$0.00	Other
100%	\$7,568,000.00		

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

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

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

³The GDOT Oversight check shall be remitted to the District Planning and Programming Engineer along with the signed Project Framework Agreement (PFA).

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

ATTACHMENT "B" Project Timeline

PI 0008359 – Chatham County/City of Savannah

Proposed Project Timeline

Environmental Phase									
Concept Phase									
Preliminary Plan Phase									
Right of Way Phase									

Deadlines for Responsible Parties	Execute Agreement	Sept/2012	Sept/2014	June/2015	Sept/2017
		(Approve Concept)	(Approve Env. Document)	(Authorize Right of Way funds)	(Authorize Const. funds)

Annual Reporting Requirements

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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE		OFFICE	Planning
		DATE	September 17, 2010
FROM	 Angela T. Alexander, State Transportation Planning Administrator		
TO	Todd I. Long, PE, PTOE, Director of Planning Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner		
SUBJECT	Preliminary Engineering Oversight for Project Managers/Project Delivery Staff		

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

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

GDOT Funds PE Oversight with Federal-Aid:

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

- 1) Projects on the National Highway System will use NHS funds (L050) to finance GDOT's PE oversight expenses
- 2) Projects *not* on the National Highway System but eligible for Surface Transportation Program (STP) funds, will follow one of the scenarios below:
 - a) Projects in urban areas between 5,000 and 199,999 in population will use L200 funds (with MPO approval, if applicable)
 - b) Projects in urban areas with a population greater than 200,000 will use L230 funds (with MPO approval)
 - c) Projects in rural areas with a population less than 5,000 will use L250 funds
 - d) The Department may, at the joint discretion of the Chief Engineer and Director of Planning, apply L240 funds to any federal-aid eligible project

- 3) Projects which have received an earmark in federal legislation, will use a portion of the earmark funding for GDOT's PE oversight expenses, pending MPO approval if applicable. (Note: earmark funded projects could receive PE oversight funding regardless of the funding being programmed within the first 4 active years of a currently approved TIP/STIP).
- 4) Projects funded with Safe Route to School (SRTS) funds will use SRTS funds to finance GDOT's PE oversight expenses, regardless of whether or not a subsequent phase of the project appears in the STIP/TIP.

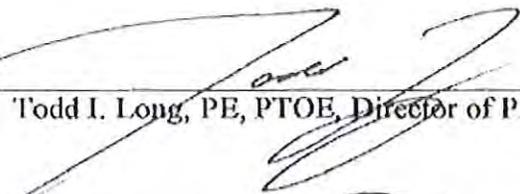
GDOT Requests Local Government/Project Sponsor to Fund PE Oversight:

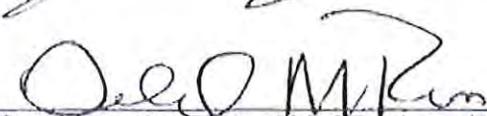
The Department will request that the local government fund PE oversight with 100% local funds under the following conditions:

- 1) A subsequent phase of the project is not programmed within the first 4 active years of the Currently approved TIP/STIP
- 2) The MPO has elected to not approve the use of L200 or L230 funds for GDOT's PE oversight expenses
- 3) The project is funded with CMAQ funds
- 4) The project is funded with an earmark identified in federal legislation and the local government/entity which secured the earmark (or MPO, if applicable) declines to allow GDOT to use a portion of the earmark for PE oversight expenses
- 5) The project is currently funded entirely with local funds; however, the local government intends to secure federal funding at a future date

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

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

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

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

GDOT Oversight Estimate for Locally Administered Project

Tuesday, November 15, 2011 12:38 PM

PI Number **Project Number**
County **Project Length** **Miles**
Project Manager **Project Cost**
Project Type
Project Description
Expected Life of Project **Years**

Project Phase	Oversight Hours	Oversight Cost
1. Project Initiation	69	\$ 3,000.00
2. Concept Development	119	\$ 5,000.00
3. Database Preparation	147	\$ 6,000.00
4. Preliminary Design	392	\$ 18,000.00
5. Environmental	308	\$ 11,000.00
6. Final Design	404	\$ 18,000.00
Travel Expenses		\$ 7,000.00
Total Oversight Estimate	1,439	\$ 68,000.00
Percentage of Project Cost	1.04 %	

ATTACHMENT E

APPENDIX E--GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Name of Contracting Entity: City of Savannah

Contract No. and Name: PI# 0008359

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

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

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

48982
E-Verify / Company Identification Number

Rochelle D Small Toney
Signature of Authorized Officer or Agent

August 7, 2007
Date of Authorization

Rochelle D Small Toney
Printed Name of Authorized Officer or Agent

City Manager
Title of Authorized Officer or Agent

June 13, 2012
Date

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

13 DAY OF June, 2012

Gandhi E Brown
Notary Public

[NOTARY SEAL]

My Commission Expires GANDHI E BROWN
Notary Public, Chatham County, GA
My Commission Expires January 27, 2015

revised : 12/2011

ATTACHMENT F

TITLE VI INTRODUCTION

As a sub-recipient of federal funds from Georgia Department of Transportation, all municipalities are required to comply with Title VI of the Civil Rights Act of 1964 which provides that:

“No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected To discrimination under any program or activity receiving federal assistance under This title or carried out under this title.”

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

The provisions of Title VI apply to all contractors, subcontractors, consultants and suppliers. And is a condition for receiving federal funds. All sub recipients must sign Title VI assurances that they will not discriminate as stated in Title VI of the Civil Rights Act of 1964. In the event that the sub recipient distributes federal aid funds to second tier entity, the sub-recipient shall include Title VI language in all written documents and will monitor for compliance. If, these assurances are not signed, the City or County government may be subjected to the loss of federal assistance.

All sub recipients that receive federal assistance must also include Federal Highways Administrations 1273 in their contracts. The FHWA 1273 sets out guidance for ensuring non discrimination and encouraging minority participation and outreach.

Enclosed you will find Title VI acknowledgment form and the Title VI assurances. The Title VI acknowledgment form and Title VI assurances must be signed by your local government official if it has not been signed.

TITLE VI ACKNOWLEDGEMENT FORM

The City of Savannah assures that no person shall on the grounds or race, color, national origin or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any City or County sponsored program or activity. The City of Savannah assures that every effort will be made to ensure non discrimination in all of its programs or activities, whether those programs are federally funded or not.

Assurance of compliance therefore falls under the proper authority of the City Council or the County Board of Commissioners. The Title VI Coordinator or Liaison is authorized to ensure compliance with provisions of this policy and with the Law, including the requirements of 23 Code of Federal Regulations (CFR) 200 and 49 CFR 21.

revised : 12/2011


City Manager
Official Name and Title

June 13, 2012
Date

Citations:

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

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

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

Keith Golden, P.E., Commissioner



GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

September 18, 2012

RECEIVED

SEP 28 2012

CITY MANAGER'S OFFICE

Ms. Rochelle Small-Toney, City Manager
The City of Savannah
P.O. Box 1027
Savannah, Georgia 31402

Dear Ms. Small-Toney:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Savannah for the following project:

Chatham County, PI# 0010236

We look forward to working with you on the successful completion of the joint project.
Should you have any questions, please contact the Project Manager David Moyer at (404) 291-5880.

Sincerely,

A handwritten signature in blue ink, appearing to read "Angela Robinson".

Angela Robinson,
Financial Management Administrator

AR:kp

Enclosure

c: Bob Rogers
Karon Ivery -- District 5 Engineer
Maggie Yoder -- District 5 Planning & Programming Engineer
Steven Thomas -- District 5 Utilities Engineer
Jeff Baker -- State Utilities Engineer

AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
CITY OF SAVANNAH
FOR
TRANSPORTATION FACILITY IMPROVEMENTS

DO NOT OBLIGATE

This Framework Agreement is made and entered into this 6th day of September, 2012 by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the City of Savannah, acting by and through its Mayor and City Council, hereinafter called the "LOCAL GOVERNMENT".

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

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

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

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

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

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

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

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

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

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

providing payment, which represents 100% of the DEPARTMENT's PE Oversight Estimate at the time of the Project Framework Agreement execution.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

revised : 12/2011

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

15. The LOCAL GOVERNMENT, unless shown otherwise on Attachment A, shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way

revised : 12/2011

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

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

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

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

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

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

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to

use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

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

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

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

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

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

DEPARTMENT OF TRANSPORTATION

City of Savannah

BY: [Signature]
Commissioner

BY: [Signature]
Rochelle Small-Toney
City Manager

ATTEST: [Signature]
Treasurer

Signed, sealed and delivered this 21st day of May, 2012, in the presence of:

[Signature]
Witness



SANDRA L. BROWN
Notary Public, Chatham County, GA
My Commission Expires January 27, 2015

[Signature]
Notary Public

This Agreement approved by Local Government, the 3rd day of May, 2012.

Attest

[Signature]
Name and Title Clerk of Council



FEIN: 586000660

Attachment "A" Funding Sources and Distribution
 Project No.: 0010236 County: Chatham

Attach "Project Manager" Project Charging Form for Approval

Preliminary Engineering - Phase I		Preliminary Engineering Grand Total (Phase I) ²	
Percentage	PE Amount	Participant	Amount
0%	\$0.00	Federal	\$0.00
0%	\$0.00	State	\$0.00
100%	\$700,000.00	Local Government	\$700,000.00
0%	\$0.00	Other	\$0.00
100%	\$700,000.00		\$700,000.00

Right of Way - Phase II		GDOT Oversight for PE (Phase I) ²		Utility Relocation - Phase IV	
Percentage	ROW Amount	Participant	Amount	Participant	Amount
0%	\$0.00	Federal	\$0.00	Federal	\$0.00
0%	\$0.00	State	\$0.00	State	\$0.00
100%	\$200,000.00	Local Government	\$65,000.00	Local	\$765,000.00
0%	\$0.00	Other	\$0.00	Other	\$0.00
100%	\$200,000.00		\$65,000.00		\$765,000.00

Construction - Phase III		Construction Oversight	
Percentage	CST Amount	Participant	Amount
0%	\$0.00	Federal	\$0.00
0%	\$0.00	State	\$0.00
100%	\$6,000,000.00	Local Government	\$65,000.00
0%	\$0.00	Other	\$0.00
100%	\$6,000,000.00		\$65,000.00

Grand Total Phases II through III		Grand Total Phases I through III	
Percentage	CST Amount	Participant	Amount
0%	\$0.00	Federal	\$0.00
0%	\$0.00	State	\$0.00
100%	\$6,000,000.00	Local	\$65,000.00
0%	\$0.00	Other	\$0.00
100%	\$6,000,000.00		\$65,000.00

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

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

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

³The GDOT Oversight check shall be remitted to the District Planning and Programming Engineer along with the signed Project Framework Agreement (PFA).

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

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

ATTACHMENT "B" Project Timeline

PI 0010236, Chatham County/City of Savannah

Proposed Project Timeline

Environmental Phase									
Concept Phase									
Preliminary Plan Phase									
Right of Way Phase									

Deadlines for Responsible Parties	Execute Agreement	Sept/2012 (Approve Concept)	Oct/2014 (Approve Env. Document)	June/2015 (Authorize Right of Way funds)	Sept/2017 (Authorize Const. funds)
--	--------------------------	---------------------------------------	--	--	--

Annual Reporting Requirements

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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE		OFFICE	Planning
		DATE	September 17, 2010
FROM	 Angela T. Alexander, State Transportation Planning Administrator		
TO	Todd I. Long, PE, PTOE, Director of Planning Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner		
SUBJECT	Preliminary Engineering Oversight for Project Managers/Project Delivery Staff		

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

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

GDOT Funds PE Oversight with Federal-Aid:

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

- 1) Projects on the National Highway System will use NHS funds (L050) to finance GDOT's PE oversight expenses
- 2) Projects *not* on the National Highway System but eligible for Surface Transportation Program (STP) funds, will follow one of the scenarios below:
 - a) Projects in urban areas between 5,000 and 199,999 in population will use L200 funds (with MPO approval, if applicable)
 - b) Projects in urban areas with a population greater than 200,000 will use L230 funds (with MPO approval)
 - c) Projects in rural areas with a population less than 5,000 will use L250 funds
 - d) The Department may, at the joint discretion of the Chief Engineer and Director of Planning, apply L240 funds to any federal-aid eligible project

- 3) Projects which have received an earmark in federal legislation, will use a portion of the earmark funding for GDOT's PE oversight expenses, pending MPO approval if applicable. (Note: earmark funded projects could receive PE oversight funding regardless of the funding being programmed within the first 4 active years of a currently approved TIP/STIP).
- 4) Projects funded with Safe Route to School (SRTS) funds will use SRTS funds to finance GDOT's PE oversight expenses, regardless of whether or not a subsequent phase of the project appears in the STIP/TIP.

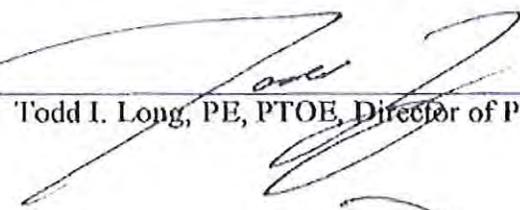
GDOT Requests Local Government/Project Sponsor to Fund PE Oversight:

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

- 1) A subsequent phase of the project is not programmed within the first 4 active years of the Currently approved TIP/STIP
- 2) The MPO has elected to not approve the use of L200 or L230 funds for GDOT's PE oversight expenses
- 3) The project is funded with CMAQ funds
- 4) The project is funded with an earmark identified in federal legislation and the local government/entity which secured the earmark (or MPO, if applicable) declines to allow GDOT to use a portion of the earmark for PE oversight expenses
- 5) The project is currently funded entirely with local funds; however, the local government intends to secure federal funding at a future date

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

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

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

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

GDOT Oversight Estimate for Locally Administered Project

Wednesday, March 21, 2012 2:41 PM

PI Number **Project Number**
County **Project Length** Miles
Project Manager **Project Cost**
Project Type
Project Description
Expected Life of Project Years

Project Phase	Oversight Hours	Oversight Cost
1. Procurement	69	\$ 3,000.00
2. Concept Development	114	\$ 5,000.00
3. Database Preparation	109	\$ 5,000.00
4. Preliminary Design	386	\$ 17,000.00
5. Environmental	308	\$ 11,000.00
6. Final Design	396	\$ 17,000.00
Travel Expenses		\$ 7,000.00
Total Oversight Estimate	1,383	\$ 65,000.00
Percentage of Project Cost	1.08 %	

ATTACHMENT E

APPENDIX E--GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Name of Contracting Entity: City of Savannah

Contract No. and Name: PI # 0010236

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

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

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

48982
E-Verify / Company Identification Number

Rochelle D Small Torrey
Signature of Authorized Officer or Agent

August 7, 2007
Date of Authorization

Rochelle D Small Torrey
Printed Name of Authorized Officer or Agent

City Manager
Title of Authorized Officer or Agent

June 13, 2012
Date

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

13 DAY OF June, 2012

Sandra A Brown
Notary Public

[NOTARY SEAL]

My Commission Expires January 27, 2015
Notary Public, Chatham County, GA

revised : 12/2011

ATTACHMENT F

TITLE VI INTRODUCTION

As a sub-recipient of federal funds from Georgia Department of Transportation, all municipalities are required to comply with Title VI of the Civil Rights Act of 1964 which provides that:

“No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected To discrimination under any program or activity receiving federal assistance under This title or carried out under this title.”

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

The provisions of Title VI apply to all contractors, subcontractors, consultants and suppliers. And is a condition for receiving federal funds. All sub recipients must sign Title VI assurances that they will not discriminate as stated in Title VI of the Civil Rights Act of 1964.

In the event that the sub recipient distributes federal aid funds to second tier entity, the sub-recipient shall include Title VI language in all written documents and will monitor for compliance. If, these assurances are not signed, the City or County government may be subjected to the loss of federal assistance.

All sub recipients that receive federal assistance must also include Federal Highways Administrations 1273 in their contracts. The FHWA 1273 sets out guidance for ensuring non discrimination and encouraging minority participation and outreach.

Enclosed you will find Title VI acknowledgment form and the Title VI assurances. The Title VI acknowledgment form and Title VI assurances must be signed by your local government official if it has not been signed.

TITLE VI ACKNOWLEDGEMENT FORM

The City of Savannah assures that no person shall on the grounds or race, color, national origin or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any City or County sponsored program or activity. The City of Savannah assures that every effort will be made to ensure non discrimination in all of its programs or activities, whether those programs are federally funded or not.

Assurance of compliance therefore falls under the proper authority of the City Council or the County Board of Commissioners. The Title VI Coordinator or Liaison is authorized to ensure compliance with provisions of this policy and with the Law, including the requirements of 23 Code of Federal Regulations (CFR) 200 and 49 CFR 21.


City Manager
Official Name and Title

June 13, 2012
Date

Citations:

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

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

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

October 7, 2014

David Moyer
Georgia Department of Transportation
Statesboro Area Office D5/A6
17213 U.S. Hwy 301 North
Statesboro, GA 30458

Subject: DeRenne Avenue Projects
Lighting

Dear Mr. Moyer:

The purpose of this letter is to summarize the City of Savannah's commitment to roadway lighting for Project DeRenne described for each of the individual projects listed below:

PI# 0008358 I-516 Eastern Terminus Interchange at DeRenne

At the current concept level of design, new lighting installation is anticipated as part of the I-516 Eastern Terminus Interchange at DeRenne and the interchange ramps with Montgomery Street. The City of Savannah agrees to fund the power and maintenance associated with the required lighting elements.

PI# 0010236 West DeRenne Avenue Improvements

At the current concept level of design, no new proposed lighting is anticipated as a part of the West DeRenne Avenue improvements. If during future design a need for new lighting is developed, the City of Savannah agrees to fund the power and maintenance associated with the required lighting elements.

PI# 0008359 East DeRenne Avenue Improvements

At the current concept level of design, no new proposed lighting is anticipated as a part of the East DeRenne Avenue improvements. If during future design a need for new lighting is developed, the City of Savannah agrees to fund the power and maintenance associated with the required lighting elements.

Very Truly Yours,

Mike Weiner
City of Savannah

VALUE ENGINEERING IMPLEMENTATION LETTER

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: CSSTP-0008-00(358)(359) **OFFICE:** Engineering Services
 Chatham County
 P.I. No.: 0008358, 0008359, 0010236
 DeRenne Avenue Corridor Improvements **DATE:** June 10, 2013

FROM: Lisa L. Myers, State Project Review Engineer *LLM*

TO: Genetha Rice-Singleton, State Program Delivery Engineer
 Attn.: David Moyer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

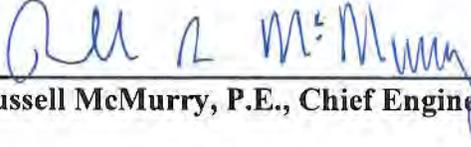
The VE Study for the above projects was held September 10-13, 2012. Responses were received on June 10, 2013. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project. Please note, if the implementation of a VE recommendation requires a Design Exception and/or Design Variance, the DE or DV must be requested separately.

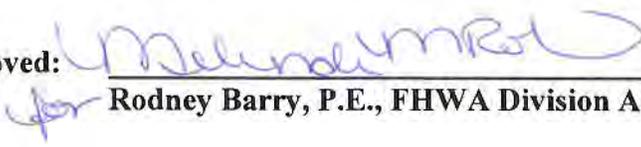
ALT #	Description	Potential Savings/ LCC	Implement	Comments
West DeRenne/Hampstead Ave. Connector: Boulevard Concept (PI No. 0008358)				
58-2	Replace proposed Right of Way (ROW) with parallel ROW and Construction Easement.	\$350,000	No	Hunter Airfield will allow the City to have long term use of impacted property for the implementation of the project at no cost. Other areas identified in this alternative involve properties with existing structures which require fee simple acquisition making permanent easement and this suggestion unfeasible.
58-3	Eliminate the first span and last 1 ½ spans of the curved bridge by extending the MSE Walls and adding MSE Walls at the end of the bridge.	Proposed = \$1,439,000 Actual = \$1,237,000	Yes, with modifications	At this time, it is expected that the first and last spans can be eliminated with the expanded use of MSE walls which will result in the revised savings (see attached calculations).
58-4	Construct Boulevard at grade and Montgomery Street over Boulevard with two lanes and sidewalks on both sides.	\$1,691,000	No	Approaches for the Montgomery Street bridge spanning over the Boulevard would extend both on to Hunter Airfield and into the adjacent neighborhood. The approach extending into Hunter Airfield would

				negatively impact the existing security gate configuration such that it would need to be relocated for a substantial expense of approximately \$4 million.
58-5	Change Boulevard/Hunter interchange to a signalized at-grade intersection.	\$4,398,000	No	New traffic volumes were requested and two operational scenarios were analyzed. The results of the analysis for this alternative would extend AM southbound queues between 1,831 - 2468 feet which exceeds the 1,600 feet distance from I-516 to this intersection. The PM eastbound queues would extend 619 - 1,348 feet which is well beyond the security gate into Hunter Airfield. Both of these conditions make this alternative unacceptable to consider. (See 5/17/13 letter from Savannah)
58-6	Maximize profile gradients.	\$818,000	Yes	This will be done.
58-9	Reduce median width to 4 feet along Hampstead Ave. connector.	\$422,000	No	The intent of the wide median is to transition (traffic calm) traffic flows between I-516 and the four lane median divided White Bluff Road. The median also promotes the character of a Savannah boulevard, a common cross section in Savannah and will be eligible for mitigation for the Section 4(f) and 106 impacts.. The City will bring this idea to the public during the PIOH for their official feedback, but based on the strong community input and consensus building, reducing the median width along Hampstead Avenue will not be supported.
58-9.1	Reduce the median width to 4 feet along the connector.	\$785,000	Yes	This will be done.
58-10	Shift Boulevard alignment east of Montgomery Street.	\$68,000	Yes	This will be done.
58-11	Narrow the outside shoulder to 4 feet and the inside shoulder to 6 feet for the ramp Bridge #1.	\$503,000	No	The Office of Bridge Design concurs that the use of 8'-0" outside shoulders is appropriate for this project which follows Department Policy 4265-10 that is based on factors such as traffic volume, truck traffic, drainage, and AASHTO guidelines.

58-12	Shift local roundabout and keep Montgomery Street open between the ramp roundabout and DeRenne Avenue.	\$524,000	Yes	This will be done.
58-13	Reduce the inner lane width from 12 feet to 11 feet for Boulevard between I-516 and the Hunter Interchange.	\$356,000	Yes	This will be done.
East DeRenne from Abercorn St. to Harry S. Truman Pkwy (PI No. 0008359)				
59-1	Reduce sidewalk widths to 6 feet on both sides	\$76,000	No	One of the goals of this project is to provide and/or enhance pedestrian accommodations along DeRenne Avenue for residents on the east and west side of the corridor to access the supportive retail. Any cost savings associated with narrowing the sidewalk will decrease the value and benefit of this pedestrian system.
59-5	Use entire width of corridor for East DeRenne Street	Design Suggestion	No	This idea was previously explored and was highly opposed by the public.
SR 21 from CS 346 to SR 204kwy (PI No. 0010236)				
36-2	Reduce sidewalk widths to 6 feet on both sides	\$27,000	No	One of the goals of this project is to provide and/or enhance pedestrian accommodations along DeRenne Avenue for residents on the east and west side of the corridor to access the supportive retail. Any cost savings associated with narrowing the sidewalk will decrease the value and benefit of this pedestrian system.
36-3	Reduce road width by eliminating the striped area on the southern leg of Montgomery Street.	\$48,000	No	36-3 will not be implemented because 58-12 was selected to be implemented instead.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved:  Date: 6/17/13
Russell McMurry, P.E., Chief Engineer

Approved:  Date: 7/8/13
for Rodney Barry, P.E., FHWA Division Administrator

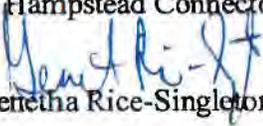
LLM/RLR/MJS
Attachments

- c: Melinda Roberson/Victor Dang/Kevin Korth - FHWA
Joe Carpenter/Paul Liles
Genetha Rice-Singleton/Albert Shelby/David Moyer
Andy Casey/Darrell Richardson/Jim Simpson
Marc Mastronardi
Ben Rabun/Bill Duvall
Keisha Jackson
Brad Saxon/Will Murphy/Troy Pittman/Slade Cole
Ken Werho
Robert Reid Jr/Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE CSSTP-0008-00(358), Chatham County OFFICE Program Delivery
CSSTP-0008-00(359),
P.I. No. 0008358, 0008359, 0010236
DeRenne Avenue from I-516 to Truman Parkway DATE 06/05/13
& Hampstead Connector

FROM  Genetha Rice-Singleton, State Program Delivery Engineer

TO Lisa Myers, State Project Review Engineer
Attention: Matt Sanders

SUBJECT **Value Engineering Study Report Responses**

The three projects referenced above propose to build a new alignment connector from DeRenne Avenue along Hampstead Avenue connecting to White Bluff Road and to also improve intersections, construct medians and turn lanes along DeRenne Avenue.

In the attached letter, Kimley Horn, the City of Savannah's design consultant for this project, has responded to the Value Engineering Study Report recommendations. Concurrences from the appropriate GDOT Offices are also attached.

The Office of Program Delivery concurs with Kimley Horn's implementation recommendations, as well as recommendations provided by the Office of Right of Way, the Office of Design, and the Office of Bridge Design.

If there are any questions please contact David Moyer of this Office at (404) 631-5880.

GRS:AVS:DGM

Attachments

Cc: Joe Carpenter, Director of Engineering

PROJECT MEMORANDUM

FILE: PI 0008358, 0008359, 0010236
City of Savannah, Chatham County
DeRenne Avenue Improvements

TO: David Moyer, P.E. - Georgia Department of Transportation

FROM: Rob Hume, P.E. -Kimley-Horn and Associates, Inc.

CC: Mike Weiner, P.E. - City of Savannah, Traffic Engineer
Susan Broker- City of Savannah, Citizen Office

Date: March 11, 2013 (updated May 29, 2013)

Re: Value Engineering Response

The Value Engineering Study for the above referenced project dated September 26, 2012, contained 16 recommendations requiring responses for three projects associated with Project DeRenne:

- PI 0008358 West DeRenne/Hampstead Avenue Connector: 11 Recommendations
- PI 0008359 East DeRenne-Abercorn to Harry S. Truman Parkway: 2 Recommendations
- PI 0010236 West DeRenne from Montgomery to Abercorn: 2 Recommendations

Below are the responses to the value engineering recommendations:

- **Idea 58-2:** Replace a portion of ROW with PE

Potential VE Savings: \$350,000

Recommendation: No, will not implement the recommendation

The City of Savannah has a Memorandum of Understanding with Hunter Army Airfield that will allow for the long term temporary use of needed base property for implementation of the project. This arrangement is at no cost to the project so there is no associated savings with reducing it or converting it. The other areas identified within the exhibit on sheet 2 of 4 of item 58-2 involve properties that have existing structures impacted by the project. It is assumed that impacts to the existing structures will require fee simple acquisition of the underlying parcels (all or portion) making a permanent easement infeasible.

- **Idea 58-3:** Eliminate the first span and last 1.5 spans of curved bridge. Expand the use of MSE

Potential VE Savings: \$1,439,000

Recommendation: Yes, will implement with modifications.

As the project moves out of the concept phase and into the Preliminary Design phase, MSE wall use will be expanded to reduce bridge deck area. At this point, it is expected that the

first and last spans can be eliminated with the expanded use of MSE walls. This will result in a revised savings of \$1,237,000 per the attached calculations. The final bridge and MSE wall limits will be determined during the Preliminary Plans phase with the development and approval of Preliminary Bridge Layouts and Preliminary Retaining Wall Layouts.

- **Idea 58-4:** Construct Boulevard at grade and Montgomery Street (2-12 foot lanes with sidewalks on both sides) over Boulevard

Potential VE Savings: \$1,691,000

Recommendation: No, will not implement the recommendation

The roadway approaches for the Montgomery bridge concept over the Boulevard would extend both on to Hunter Army Airfield (HAAF) and into the adjacent neighborhood. The approach extending into Hunter would impact their existing security gate configuration such that it would need to be relocated. Though possible, it would come with impacts to Hunter gate operations and would entail substantial expense (approximated by HAAF to be in the range of \$4 million dollars) as the gate has an array of imbedded security features.

- **Idea 58-5:** Change Boulevard and HAAF interchange to at grade intersection with signalization

Potential VE Savings: 4,398,000

Recommendation: No, will not implement the recommendation

An at grade intersection of the Boulevard with the HAAF entrance and Montgomery Street was analyzed for the 2020 base year traffic condition to explore the operational characteristics associated with Level of Service (LOS) and queuing. The analysis was performed for two operational scenarios and is briefly summarized below.

Scenario 1:

Assumptions:

- Boulevard Laneage (NB and SB Approaches) : Dual through lanes, single left turn lane, single right turn lane
- Montgomery Street and HAAF Entrance Laneage (WB and EB Approaches): Single through lane, left turn and right turn lane.
- Permitted and protected phasing for left turns along the Boulevard

Scenario 2:

Assumptions:

- Boulevard Laneage (NB and SB Approaches) Dual through lanes, single left turn lane, single right turn lane
- Montgomery Street Laneage (WB approach): Single through lane, left turn and right turn lane.
- HAAF Entrance Laneage (EB approach): Dual left turn lanes, single through lane, single right turn lane
- Protected phasing for left turns on the Boulevard and HAAF Entrance

Results:

	AM SB Queue	AM LOS (delay)	PM EB Queue	PM LOS (delay)
Scenario 1	1,831 ft	LOS D (40.4 s)	1,348 ft	LOS D (40.8s)
Scenario 2	2,468 ft	LOS D (53.7s)	619 ft	LOS D (40.2s)

Note: Southbound queue lengths extend toward I-516, eastbound queue lengths extend back onto HAAF.

The results of this analysis indicate AM southbound queues (for both scenarios) that extend between 1,831-2,468 feet back toward I-516. The distance from the intersection to I-516 is approximately 1,600 feet, so these queues would extend onto the Interstate during the AM peak hour. The PM eastbound queues resulting from this analysis extend between 619-1,348 feet, a distance which is well beyond the security gate of HAAF. Both of these queuing conditions would be unacceptable.

While reviewing the VE response memo (dated March 11, 2013), GDOT recommended that a Continuous Flow Intersection (CFI) be considered at this location. The City of Savannah has considered the CFI, however does not feel that a CFI at this location brings value to Project DeRenne and therefore does not warrant further study. The City believes that the implementation of a CFI would not improve level of service at this location, would eliminate HAAF's direct access to I-516, would require additional right-of-way (potentially from Section 4(f) resources), and would disrupt the planned Montgomery Street reconfiguration. Please refer to the memo from the City of Savannah to David Moyer, GDOT, dated May 17, 2013, for additional information (attached).

- **Idea 58-6:** Maximize Profile Grade

Potential VE Savings: \$818,000

Recommendation: **Yes, will implement the recommendation**

- **Idea 58-9.0:** Reduce median width along Hampstead Avenue

Potential VE Savings: \$422,000

Recommendation: **No, will not implement the recommendation**

Based on strong community input and consensus building, reducing the median width along Hampstead (approximately sta 210+00 – 231+00) will not be supported by the City of Savannah nor the public. The intent of the wide median is to transition (traffic calm) traffic flows between I-516 and 4 the lane median divided White Bluff Road. In addition, the median promotes the character of a Savannah boulevard, a common cross section in Savannah. However, the City will bring this idea to the public during the PIOH for their official feedback. It is also anticipated that the wide median along Hampstead will be eligible for mitigation for the Section 4(f) and 106 impacts.

- **Idea 58-9.1:** Reduce median width along Connector

Potential VE Savings: \$785,000

Recommendation: **Yes, implement the recommendation**

- **Idea 58-10:** Shift Boulevard alignment east of Montgomery Street

Potential VE Savings: \$68,000

Recommendation: **Yes, will implement the recommendation**

- **Idea 58-11:** Narrow the outside shoulder to 4 feet from 8 feet

Potential VE Savings: \$503,000

Recommendation: **No, will not implement the recommendation**

The bridge width for the bridges on this project is consistent with Department Policy 4265-10. The shoulder widths in the policy were developed by GDOT through an implemented Value Engineering study and based on factors such as traffic volume, truck traffic, roadway drainage and AASHTO guidelines. The use of the 8'-0" outside shoulders is appropriate for this project.

- **Idea 58-12:** Shift local roundabout and keep Montgomery Street open between ramp roundabout and DeRenne Avenue

Potential VE Savings: \$524,000

Recommendation: **Yes, will implement the recommendation**

- **Idea 58-13:** Reduce the inner lane width from 12 feet to 11 feet for Boulevard between I-516 and HAAF interchange

Potential VE Savings: \$356,000

Recommendation: **Yes, will implement the recommendation**

- **Idea 59-1:** Reduce sidewalk width to 6 feet on both sides of the project

Potential VE Savings: \$76,000

Recommendation: **No, will not implement the recommendation**

One of the goals of Project DeRenne is to provide and/or enhance pedestrian accommodations along DeRenne Avenue for residents on the east and west side of the corridor to access the supportive retail. Any cost savings associated with narrowing the sidewalk will decrease the value and benefit of this pedestrian system.

- **Idea 59-5:** Use entire width of corridor for East DeRenne Street

Potential Cost Increase of \$TBD

Recommendation: **No, will not implement the recommendation**

This idea was previously explored and was highly opposed by the public.

- **Idea 36-2:** Reduce sidewalk width to 6 feet on both sides of the project

Potential VE Savings: \$27,000

Recommendation: **No, will not implement the recommendation**

One of the goals of Project DeRenne is to provide and/or enhance pedestrian accommodations along DeRenne Avenue for residents on the east and west side of the corridor to access the supportive retail. Any cost savings associated with narrowing the sidewalk will decrease the value and benefit of this pedestrian system.

- **Idea 36-3:** Reduce road width of southern leg of Montgomery Street

Potential VE Savings: \$48,000

Recommendation: **No, will not implement the recommendation**

The intended implementation of Idea 58-12 negates the need for this recommendation

DEVELOPMENT AND RECOMMENDATION PHASE

**West DeRenne / Hampstead Ave. Connector
PI No. 0008358**

IDEA No.: 58-3	PAGE No.: 1 of 3	CREATIVE IDEA: Eliminate the first span and last two span of the curved bridge by extending the MSE walls and adding MSE walls at the end of the bridge.
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Comp By: ~~AG~~ Date: ~~9/12/12~~ Checked By: ~~DEW~~ Date: ~~9/12/12~~

REV: ~~PLS~~ 3/7/13

Original Concept:

Construct westbound Boulevard PSC Bulb-Tee beam bridge (six spans) 41.25 ft. X 684 ft. long over I-516 expressway with MSE walls on either side of the bridge.

~~REVISION~~
Proposed Change:

458

Construct westbound Boulevard PSC Bulb-Tee beam bridge 41.25 ft. X ~~684~~ ft. long (four spans) over I-516 expressway by extending MSE walls to the beginning of the bridge and adding MSE walls at the end of the bridge.

Justification:

Extending the walls and moving the begin station of the bridge to Sta. 21+49.00; moving back the end station of the bridge to ~~25+67.00~~; and adding MSE walls at the end of the bridge will result in construction cost savings. ~~267,000~~

LIFE CYCLE COST SUMMARY	CAPITAL COST	FUTURE COST	PRESENT WORTH
INITIAL COST - Original	5,199,000		
- Proposed	3,962,000 3,760,000		
- Savings	1,237,000		1,439,000
FUTURE COST - Savings			-0-
TOTAL PRESENT WORTH SAVINGS			1,439,000

1,237,000



CITY OF
savannah

TRAFFIC ENGINEERING
DEPARTMENT

May 17, 2013

David Moyer
600 West Peachtree Street
25th Floor
Atlanta, GA 30308

Re: PI 0008358, 0008359 & 0010236
Continuous Flow Intersection

It has been brought to my attention, that GDOT is requesting the City of Savannah to study the prospect of a Continuous Flow Interchange (CFI) at the intersection of Hunter Army Airfield's (HAAF) Montgomery gate access road (Duncan Drive) and the proposed Boulevard Concept (PI 0008358) alignment, as an extension of the VE study and recommendations. It is my understanding that this proposed CFI would take the place of the proposed bridge and roundabout at HAAF as shown on the current concept that was presented at the PIOH on April 23.

The City of Savannah does not feel that implementing a CFI at this location would bring value to this project, and subsequently does not need to be studied for the following reasons:

- It is my understanding that a CFI is considered to address heavy left turn movements on a main line roadway. When applied to Project DeRenne, the main line would be the Boulevard, with the minor streets being HAAF's entrance and Montgomery Street. Based on approved 2020 traffic volumes, the low volume of left turns off the Boulevard (120 vehicles/hour in AM and 115 vehicles/hour in PM) and onto HAAF would not warrant a CFI. In contrast, the volume of left turns exiting the base during the PM peak hour is significant at 725 vehicles. It would be our opinion that these left turning movements would not be handled any more efficiently with a CFI than they would with an at grade intersection given that the through movement from Montgomery Street onto HAAF is minimal at 115 vehicles during the PM peak hour. An at grade intersection (conventional signal controlled) was recommended and studied at this location as part of the VE study. This recommendation was rejected for a number of reasons, but primarily due to queuing on the Boulevard extending back to I-516.

- Implementation of a CFI at this location would significantly change the character of Montgomery Street, which is planned to be reduced from a 4 lane divided section to a 2 lane divided with on-street parking section. Montgomery Street is located between two neighborhoods that are Section 4(f) resources. Through Project DeRenne, the City is reconfiguring Montgomery Street to enhance the potential for redevelopment of the commercial properties based on the forecast decrease in traffic volume from removing a majority of the traffic that uses Montgomery Street to access the base. Implementing a CFI at this location would result in a larger intersection footprint, creating the need for additional right-of-way (potentially Section 4(f) impacts) and the potential to negate some of the traffic reduction on Montgomery Street (which is strongly supported by the adjacent residences).
- The City of Savannah has been in discussions with HAAF for the past 3 years pertaining to the Boulevard concept. Over these 3 years, HAAF and the City of Savannah have worked through multiple design issues pertaining to access and security and have both agreed on the concept as currently shown. In exchange for free-flow access to Interstate 516 (which is typical installations of this magnitude), HAAF and the Department of Defense have agreed to grant a permanent easement on base property to construct the Boulevard. Without cooperation from HAAF, this project would not be feasible.

In closure, we do not feel that the implementation of a CFI at this location brings value to Project DeRenne and therefore does not warrant further study. Implementation of a CFI would not improve level of service at this location, would eliminate HAAF's direct access to I-516, would require additional right-of-way (potentially from Section 4(f) resources), and would disrupt the planned Montgomery Street reconfiguration.

Please contact me if you have any questions.



Michael Weiner, P.E., PTOE
Traffic Engineering Director

Cc: Rob Hume, P.E - Kimley-Horn and Associates, Inc.
John L Sawyer, P.E., Public Works & Water Resources Bureau Chief

Sanders, Matt

From: Copeland, Howard (Phil)
Sent: Friday, March 29, 2013 2:13 PM
To: Moyer, David; Casey, Andy; Rabun, Ben; DuVall, Bill
Cc: Shelby, Albert
Subject: RE: 0008358, 0008359, 0010236 DRAFT VE Response Memo Review for concurrence

Follow Up Flag: Follow up
Flag Status: Completed

ROW concurs with comments applicable to Idea 58-2.

Howard P. Copeland
Georgia Department of Transportation
Right of Way Administrator
Office of Right of Way
600 West Peachtree Street
Room 1433
Atlanta, Georgia 30308
404-347-0227

From: Moyer, David
Sent: Friday, March 29, 2013 1:50 PM
To: Casey, Andy; Rabun, Ben; DuVall, Bill; Copeland, Howard (Phil)
Cc: Shelby, Albert
Subject: RE: 0008358, 0008359, 0010236 DRAFT VE Response Memo Review for concurrence

Andy, Bill, Phil

Please let me know if your offices concur with the attached VE Responses. Engineering services needs concurrence from the appropriate office before they will accept the responses.

Thank You,

David G. Moyer, P.E.
Associate Project Manager
Georgia Department of Transportation
Office of Program Delivery
600 West Peachtree Street
25th Floor
Atlanta, GA 30308
404-291-5880

From: Moyer, David
Sent: Thursday, March 14, 2013 1:49 PM
To: Casey, Andy; Rabun, Ben; DuVall, Bill; Copeland, Howard (Phil)
Cc: Shelby, Albert
Subject: 0008358, 0008359, 0010236 DRAFT VE Response Memo Review for concurrence

Sanders, Matt

From: Richardson, Darrell
Sent: Monday, April 15, 2013 8:31 AM
To: Moyer, David
Cc: Casey, Andy
Subject: RE: 0008358, 0008359, 0010236 DRAFT VE Response Memo Review for concurrence

David,

I offer the following recommendations from the **Office of Roadway Design**:

Idea 58-2 – agree with response

Idea 58-3 - agree with response(mostly bridge issue anyway)

Idea 58-4 – agree with response

Idea 58-5 – I disagree with response at this time. I do not see the scenario (alternate) of using a CFI in lieu of the grade separation (can look at 2-leg or 4-leg CFI). All that was analyzed conventional intersections with single or dual turn lanes. This effects many other responses and therefore can render the null if implemented.

Idea 58-6 - agree with response

Idea 58-9.0 – agree with response

Idea 58-9.1 – agree with response

Idea 58-10 – agree with response

Idea 58-11 – agree with response

Idea 58-12 – agree with response

Idea 58-13 – agree with response

Idea 59-1 – agree with response

Idea 59-5 – agree with response

Idea 36-2 – agree with response

Idea 36-3 – agree with response

*Darrell M. Richardson, P.E.
Assistant State Roadway Design Engineer
Georgia Department of Transportation
404-631-1705 (O)
404-895-5005 (M)*

From: Casey, Andy
Sent: Tuesday, April 02, 2013 9:38 AM
To: Richardson, Darrell
Subject: FW: 0008358, 0008359, 0010236 DRAFT VE Response Memo Review for concurrence

Darrell,

Take a look at these VE responses and let me know what you think.

Thanks,

C. Andy Casey, P.E.
State Roadway Design Engineer
Georgia Department of Transportation
600 West Peachtree Street - 27th Floor

Sanders, Matt

From: DuVall, Bill
Sent: Thursday, March 07, 2013 8:05 PM
To: David.Stricklin@kimley-horn.com
Cc: fran.west@kimley-horn.com; Rob.Hume@kimley-horn.com; Moyer, David
Subject: RE: VE Final Report: CSSTP-0008-00(358)(359) PI No. 0008358,0008359, & 0010236 Chatham (DeRenne Ave Corridor)

David,

I think your approach/response are adequate; please respond accordingly.

Bill

Bill DuVall, PE, MSCE

Assistant State Bridge Engineer

Office of Bridge Design

(404) 631-1883 work

(404) 895-4943 mobile

From: David.Stricklin@kimley-horn.com [mailto:David.Stricklin@kimley-horn.com]
Sent: Thursday, March 07, 2013 8:53 AM
To: DuVall, Bill
Cc: fran.west@kimley-horn.com; Rob.Hume@kimley-horn.com; Moyer, David
Subject: RE: VE Final Report: CSSTP-0008-00(358)(359) PI No. 0008358,0008359, & 0010236 Chatham (DeRenne Ave Corridor)

Bill –

I needed to check back with you regarding VE responses / resolution for this project. We received the following comment from Matt Sanders regarding one of our responses.

- *58-3: The Design team did answer "Yes, with modifications" and according to my previous directions any answer like this must include revised calculations to be included as an attachment or shown in the response itself. An estimate at this point is fine if this recommendation will be implemented in some form. Later, if nothing ever gets implemented related to the final bridge plans then the PM must do a Request for a VE Reversal Letter.*

Below in the string of e-mails is our original response. Attached are the bridge sheets that were provided to the VE team as reference. This project is still in the concept phase and of course Preliminary Layouts have not been done. We responded the way we did recognizing that it's reasonable to do bridge versus wall optimization, but limits really can't be fully nailed down until the project gets into preliminary design and Preliminary Layouts are done and approved. I guess at this point our options for a revised response include:

1. Implement as proposed in VE Study. In the end, we may not trade off as much as the VE team recommended (2.5 spans). What we end up with after approved preliminary layouts will likely be different.
2. Continue to use Implement with Modifications. We make up something for span trade off and submit revised cost savings estimate per Matt's comment. Again, what we end up with after approved preliminary layouts may be different.

My recommendation for a revised response is below. This wouldn't lock us into the full original recommendation in the study, but acknowledges we think we can do something.

VE Item 58-3 – “Eliminate the first span and last 1.5 spans of curved bridge. Expand use of MSE walls.”

Recommendation: Implement with modifications. As the project moves out of the concept phase and into the Preliminary Design phase, MSE wall use will be expanded to reduce bridge deck area. At this point, it is expected that the first and last spans can be eliminated with the expanded use of MSE walls. This will result in a revised savings of \$1,237,000 per the attached calculations. The final bridge and MSE wall limits will be determined during the Preliminary Plans phase with the development and approval of Preliminary Bridge Layouts and Preliminary Retaining Wall Layouts.

Do you have any comments or suggestions on how we should respond?

Thanks,
David

David L. Stricklin, Jr., P.E., S.E (IL)

Kimley-Horn and Associates, Inc.
817 West Peachtree St., NW
The Biltmore, Suite 601
Atlanta, GA 30308-1148

(404) 419-8783 direct phone
(404) 419-8701 fax
david.stricklin@kimley-horn.com

From: DuVall, Bill [<mailto:bduvall@dot.ga.gov>]
Sent: Tuesday, November 27, 2012 6:59 AM
To: Stricklin, David
Cc: West, Fran (McCutcheon); Hume, Rob
Subject: RE: VE Final Report: CSSTP-0008-00(358)(359) PI No. 0008358,0008359, & 0010236 Chatham (DeRenne Ave Corridor)

David,

The responses are acceptable to the Bridge Office, please proceed with the official submittal. If you have any further questions or comments please let me know.

Thanks,
Bill

Bill DuVall, PE, MSCE
Assistant State Bridge Engineer
Office of Bridge Design
(404) 631-1883 work
(404) 895-4943 mobile