ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0000411
STP00-0000-00(411)
Walton County
GDOT District 1 - Gainesville
SR 83 Connector

OFFICE Design Policy & Support

DATE January 8, 2013

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:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Ben Rabun, State Bridge Engineer
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Jeff Baker, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Ken Thompson, Statewide Location Bureau Chief
Bayne Smith, District Engineer
Brent Cook, District Preconstruction Engineer
Neil Kantner, District Utilities Engineer
Kim Coley, District Planning & Programming Engineer
Otis Clark, Project Manager
BOARD MEMBER - 7th Congressional District
FHWA – attn: Rodney Barry, Georgia Division Administrator

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

SR 83 Connector

Project Number: STP-0000-00(411)
County: Walton County
P. I. Number: 0000411
Federal Route Number: -
State Route Number: SR 83

Submitted for approval:

DATE 3/7/11 — HOFSTADTER & ASSOC.
Design Consultant Name and Firm Name

DATE 3/8/11 — [signature]
Local Government

DATE 3/9/2011 — Bobby Hilliard
Office Head (Project Manager's Office)

DATE 3/8/11 — Tim Matthews
Project Manager

Recommendation for approval:

DATE 5/17/11 — GENETHA RICE-SINGLETON*
Program Control Administrator

DATE _____ — _____
State Environmental Administrator

DATE 4/26/11 — KATHY ZAHUL*
State Traffic Engineer

DATE 4/26/11 — RON WISHON*
Project Review Engineer

DATE 4/26/11 — SAL PIRZAD*
FOR State Utilities Engineer

DATE 4/22/11 — TODD MCDUFFIE* / ALLEN FERGUSON*
District Engineer / District Utilities Engineer

DATE _____ — _____
State Transportation Financial Management Administrator

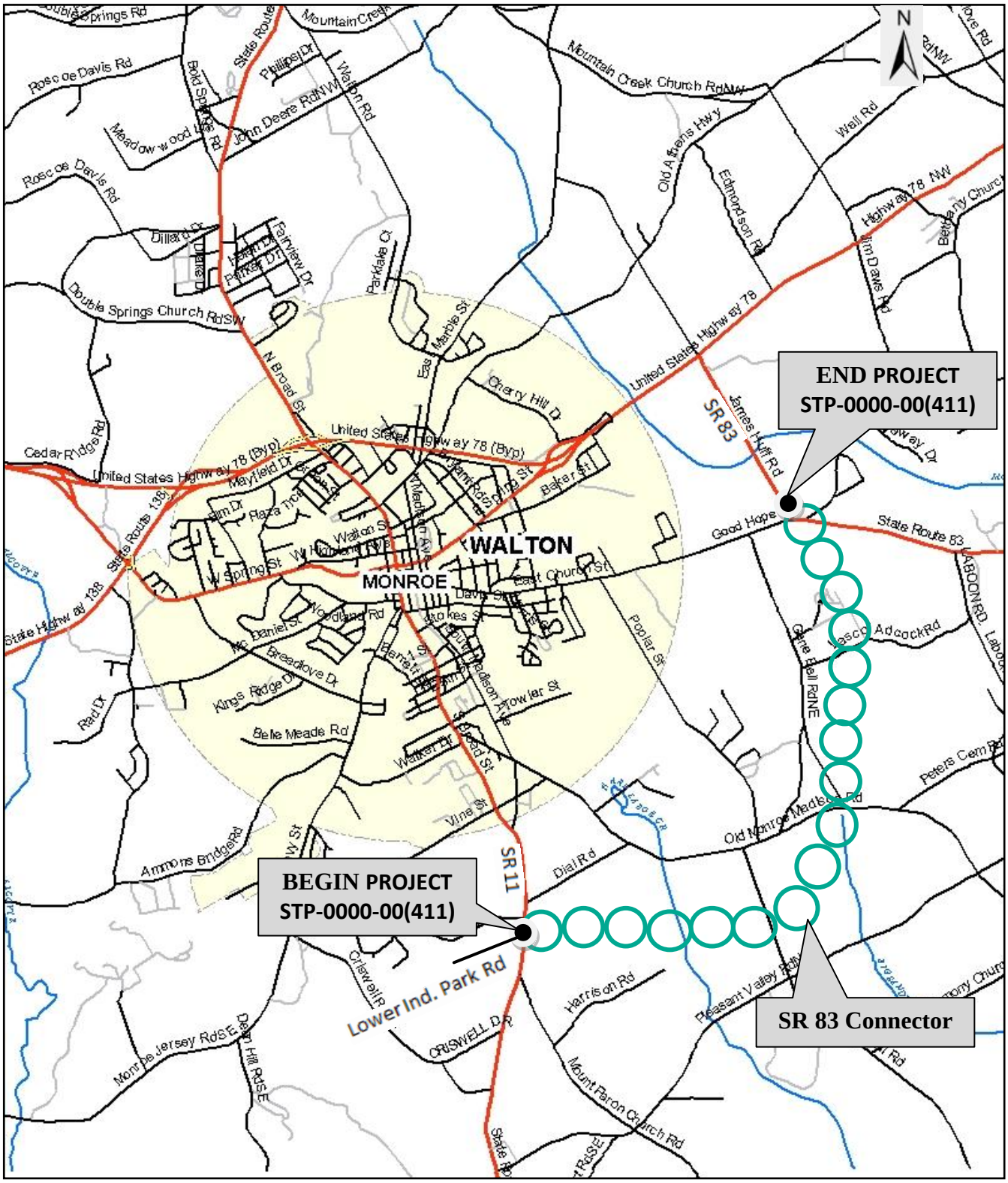
* - RECOMMENDATION ON FILE

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

DATE 5-3-11 — [signature]
State Transportation Planning Administrator

* It is Planning's understanding that the proposed concept is not consistent with the currently adopted TIP/STIP. This office is working with ARC to reflect the revised (shortened) limits within the upcoming Plan 2040 RTP/TIP scheduled for adoption this Summer (2011)

Project Location Map



Need and Purpose:

The SR 83 Connector is needed to remove truck traffic out of and around the downtown historic district of the City of Monroe. Within the city limits, there are nine separate historic districts and five individual buildings currently listed on the National Register of Historic Places (NRHP). Additionally, the crash data exceeds the State Wide Average for accident rates on similar facilities. The City of Monroe desires economic development within the city and the county. The alternate route is needed to make Walton County a more desirable location for industry, as demonstrated within the City of Monroe and Walton County future land uses plans.

The purpose of the project is to provide an alternative route for truck traffic that currently uses SR 11 through the City of Monroe's historic district from I-20 heading north to SR 316 and/or I-85. The proposed bypass would allow trucks and commuters using SR 11 from Interstate 20 (I-20) and SR 316 an alternative to the already congested downtown. Eliminating the truck traffic through Downtown Monroe would thereby renew some of the roadway capacity that would help promote economic development for the city and additionally minimize the extent of stop and go conditions which in turn would help in reducing the incidence and severity of crashes related to the truck traffic. The City of Monroe envisions the historic downtown to be a downtown business district that is desirable to small businesses, which is pedestrian friendly and would draw local residents or visitors to the area. As previously stated, the land use immediately adjacent to the corridor is listed as an employment center on the Walton County Future Land Use Map. Getting the trucks out of the downtown streets and onto a route that is efficient for truck movement could be desirable for industry or warehousing which would bring economic growth to the City as well as the County. Returning downtown Monroe to a commercial business district and maintain the historic nature of the area could stimulate the economy by attracting visitors and promote a pedestrian friendly environment.

Logical Termini

Logical termini are defined as rational endpoints for a transportation improvement and rational endpoints for a review of environmental impacts. The most common termini are points of major traffic generation, especially intersecting roadways. To ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated should (1) connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and (3) not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The connector is located on the east side of the City of Monroe. Termini for the proposed projects consist of SR 11 as the southern terminus and SR 83 as the northern terminus. The proposed termini are logical for the proposed project because of the overall need to alleviate traffic congestion caused by truck and commuter traffic in historic downtown Monroe would be met by this connector. The proposed roadway would alleviate truck traffic in the developed historic downtown of the City of Monroe, while facilitating the movement of through traffic efficiently around the city.

In order to restrict truck traffic from entering the historic downtown Monroe, an alternate route approximately 0.5 mile south of the city limits is proposed. At the south end, the proposed project would tie into SR 11 at the Walton County Industrial Park, close to Dial Road, because it avoids any conflict with the existing railroad line that crosses SR 11. A proposed signal would be installed at the existing "T" intersection of SR 11 and Lower Industrial Park Road. The proposed connector would be the east leg of the intersection. The tie in is approximately 2.5 miles south of downtown Monroe.

The north end of the connector terminates at SR 83. However, truck traffic that is bypassing downtown Monroe would continue through the SR 83 intersection at James Huff Road and reach US 78. The access at the interchange of US 78 and SR 11 would provide the connectivity between the SR 83 Connector back to SR 11 thereby help restricting trucks from travelling through the historic downtown Monroe and hence validates the logical termini at the north end. The proposed connector is anticipated to reduce the daily volumes on SR 11 by approximately 50 percent in the open year and design year.

SR 83 Connector will have an independent project utility and would not require any additional improvements on the existing roadway network to accommodate the project needs. The results of the capacity analysis summary at the north end of SR 83 Connector are summarized in following tables.

2017 Segment Level Analysis Summary

Segment	No-Build	Build
James Huff Rd, between SR 83 and US 78	C	D
US 78, between James Huff Rd and SR 10	C	C
US 78, between SR 10 and SR 11	B	B

2037 Segment Level Analysis Summary

Segment	No-Build	Build
James Huff Rd, between SR 83 and US 78	D	D
US 78, between James Huff Rd and SR 10	D	E
US 78, between SR 10 and SR 11	C	D

The proposed SR 83 Connector would tie to existing James Huff Rd, north of SR 83. The results of segment level capacity analysis indicate that James Huff Road would operate at LOS D or better during the open year (2017) and design year (2037). The SR 83 Connector would utilize US 78 to get back onto SR 11 and hence US 78 was analyzed to evaluated the traffic operations. US 78 between James Huff Road and SR 11 would operate at LOS D during the open year (2017) and would operate between LOS D and LOS E during the design year (2037). The LOS D or better for the most part along the existing roadway networks clearly indicates the available capacity to handle the SR 83 Connector traffic and the traffic operations would not be worsen over the no-build conditions, with the construction of the proposed SR 83 Connector.

The following tables summarizes the results of intersection capacity analysis at the intersections of US 78 at James Huff Road, US 78 eastbound (EB) ramps at SR 11, and US 78 westbound (WB) ramps at SR 11.

Signalized Intersection Summary

Intersection	2017 No-Build				2017 Build			
	AM		PM		AM		PM	
	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
SR 10 / US 78 at James Huff Rd	8.7	A	10.6	B	14.8	B	19.4	B

Intersection	2037 No-Build				2037 Build			
	AM		PM		AM		PM	
	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
SR 10 / US 78 at James Huff Rd	11.3	B	14.5	B	22	C	47.8	D

2017 Un-signalized Intersection LOS Summary

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		No-Build	Build	No-Build	Build
SR 11 at US 78 EB Ramp	Southbound Left	A	A	B	B
	Eastbound Approach	F*	F*	F*	F*
SR 11 at US 78 WB Ramp	Northbound Left	B	B	B	B
	Westbound Approach	F*	F*	F*	F*

2037 Un-signalized Intersection LOS Summary

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		No-Build	Build	No-Build	Build
SR 11 at US 78 EB Ramp	Southbound Left	B	B	C	C
	Eastbound Approach	F*	F*	F*	F*
SR 11 at US 78 WB Ramp	Northbound Left	E	D	D	C
	Westbound Approach	F*	F*	F*	F*

Note: * Indicates high delay movements based on HCM

The signalized intersection of US 78 at James Huff Road would operate at LOS B or better under open year build and no-build conditions. This intersection would operate at LOS B and LOS D or better during the design year. The change in LOS from B to D is due to the additional traffic from SR 83 Connector and the analysis clearly indicates that the existing intersection would have adequate capacity to handle the additional traffic that would be generated with the construction of the proposed SR 83 Connector.

The SR 83 Connector traffic would tie back to SR 11 utilizing the interchange of US 78 and SR 11. The capacity analysis indicates that the turning movement along SR 11 would operate at LOS B or better during the open year build and no-build conditions. The eastbound and westbound ramp approaches would however operate at failing LOS F under no-build and build conditions. The primary cause of LOS F at these approaches can be attributed to due to lack of available gaps along SR 11. This condition would exist under the design year conditions also.

Reviewing the overall operations, this project would benefit SR 11 by renewing the roadway capacity with the elimination of truck traffic. The goal of this project is to complete a connector around the historic downtown Monroe. Although improvements may need to be made to SR 11 at some point in the future, that need would not be induced by this project nor is it part of the project's need. The completion of the proposed roadway would reduce the amount of required additional improvements to the downtown SR 11 corridor by reducing traffic in this area. The proposed project is not dependent on other projects. The proposed project is viable by itself, but along with other projects and other possible future improvements to the area, the SR 83 Connector would benefit from increase operation of roadways. Construction of the proposed connector would not preclude the construction of other projects programmed for the area.

Description of the proposed project:

Project STP00-0000-00(411), P.I. No. 0000411 proposes to construct a new location, 4.7 -mile connector that would provide an alternate around the historic downtown City of Monroe. The connector would begin at State Route (SR) 11 approximately 0.5 mile south of the city limits, extend east of the city, and end at SR 83. Physical construction would terminate at SR 83; however, the connector would tie into the existing intersection of James Huff Road and SR 10/US 78. The proposed typical section along the SR 83 Connector would consist of two 12-foot lanes (one travel lane in each direction) with 10-foot outside shoulders (6.5 feet paved). At intersection locations, single 12-foot right- and left-turn lanes would be provided. The existing segment of James Huff Road/SR 83 would remain as a two-lane roadway for approximately 0.73 miles from SR 83 at SR 83 Connector and would remain as a four-lane roadway with 12-foot travel lanes with a combination of a raised and depressed median for approximately 0.48 miles, north of the two-lane section, leading to SR 83 at SR 10/US 78.

The Atlanta Regional Commission (ARC) adopted the Envision 6 Regional Transportation Plan (RTP) for the Atlanta metropolitan area in September 2007. The plan addresses current and expected travel demands on the region's transportation system through the year 2030. The RTP is the direct result of a comprehensive, cooperative, and continuous process conducted by ARC, local governments, and Georgia DOT in cooperation with the Federal Highway and Federal Transit Administrations. The Envision 6 RTP recommends constructing the Monroe Bypass to the east of the City of Monroe in Walton County, and the project is programmed in the Fiscal Year (FY) 2008–2013 Transportation Improvement Program under reference number WA-003.

In addition, the proposed project was identified as a need in the Northeast Georgia Regional Development Center's Joint City-County Comprehensive Plan 2006-2026 for Walton County (approved August 2007). According to the plan, the proposed Monroe Bypass (now the SR 83 Connector) would improve increasing congestion in downtown Monroe due to truck and commuter traffic.

Is the project located in a PM 2.5 Non-attainment area? __X__ Yes ____ No

Is the project located in an Ozone Non-attainment area? __X__ Yes ____ No

The proposed SR 83 Connector is a two lane undivided roadway between SR 11 South end and SR 83 with an approximate project length of 4.7 miles. This project is planned as a four lane roadway based on Atlanta Regional Commission's (ARC) travel demand model (Envision 6) that begins at SR 11 South end and ends at SR 11 North end with an approximate project length of 10 miles. Refer "Attachment 10" for the confirming plans schematics.

PDP Classification: Major **__X__** Minor _____

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

Functional Classification: Rural Minor Arterial

U. S. Route Number(s): __-_____ **State Route Number(s): SR 83**

Traffic along SR 83 Connector (AADT):

- Open Year (2017): 10,540 Vehicles per Day
- Design Year (2037): 16,550 Vehicles per Day
- 24 Hour Truck: 20%

Existing design features: All of the existing design features will not be applicable since SR 83 Connector is a new alignment project.

- Typical Section: N/A
- Posted speed: N/A
- Maximum super-elevation rate for curve: N/A
- Maximum grade: N/A
- Width of right-of-way: N/A
- Major structures: N/A
- Major interchanges or intersections along the project: N/A
- Existing length of roadway segment: N/A

Proposed Design Features:

- Proposed typical section: Consist of two 12-foot lanes with 6.5-foot paved shoulder, 3.5-foot grassed shoulder and ditch. Shoulders will include 16-inch rumble strip. One 12-foot right and left turn lanes will be added at intersecting roads.

- Proposed Design Speed Mainline 55 mph
- Proposed Maximum grade Mainline 4 %, Maximum grade allowable 4 %
- Proposed Maximum grade Side Street 8 %, Maximum grade allowable 8 %
- Proposed Maximum grade driveway: 11 % for commercial, 28% for Residential
- Minimum Radius Allowable: 1060 Ft
- Proposed Minimum Radius: 1330 ft
- Maximum Allowable Super-Elevation Rate: 6%
- Proposed Maximum Super-Elevation Rate : 4.3%
- Right-of-Way
  - Width: Varies 150-200 ft
  - Easements: Temporary (X), Permanent (X), Utility (X), Other ( ).
  - Type of access control: Full (X), Partial (X), By Permit ( ), Other ( ).
  - Number of parcels: 26 Number of displacements:
    - Business: None
    - Residences: 1
    - Mobile homes: None
    - Other: None
- Structures:
  - Bridges : Bridge Culverts
  - Retaining walls: None
  - Box Culverts: Special Design Box culverts would be required at the following mile post locations along SR 83 Connector.

    - Mile post 0.49
    - Mile post 0.54
    - Mile post 0.99
    - Mile post 1.18
    - Mile post 2.11
    - Mile post 2.16
    - Mile post 2.78
    - Mile post 3.38
    - Mile post 3.41
    - Mile post 3.80
    - Mile post 4.14
    - Mile post 4.17

    (It is assumed that Mile post begins at SR 11 (South end))

- Major intersections and interchanges: SR 11 at SR 83 Connector and SR 83 at SR 83 Connector
- Traffic control during construction: Maintain existing roads while constructing the new roadway

- Design Exceptions to controlling criteria anticipated:

	UNDETERMINED	YES	NO
HORIZONTAL ALIGNMENT:	( )	( )	(X)
LANE WIDTH:	( )	( )	(X)
SHOULDER WIDTH:	( )	( )	(X)
VERTICAL GRADES:	( )	( )	(X)
CROSS SLOPES:	( )	( )	(X)
STOPPING SIGHT DISTANCE:	( )	( )	(X)
SUPERELEVATION RATES:	( )	( )	(X)
VERTICAL ALIGNMENT:	( )	( )	(X)
SPEED DESIGN:	( )	( )	(X)
VERTICAL CLEARANCE:	( )	( )	(X)

BRIDGE WIDTH:	( )	( )	(X)
BRIDGE STRUCTURAL CAPACITY:	( )	( )	(X)
LATERAL OFFSET TO OBSTRUCTION:	( )	( )	(X)

- Design Variances: Side road intersection angle
  Intersection: Good Hope Road at SR 83 Connector (Skew Angle – 64.9 Degree)
- Environmental concerns : Potential historic resources, wetlands (Section 404 Individual Permit)
- Anticipated level of environmental analysis:
  - Are Time Savings Procedures appropriate? Yes ( ), No (X),
  - Categorical exclusion ( ),
  - Environmental Assessment/Finding of No Significant Impact (FONSI) (X), or
  - Environmental Impact Statement (EIS) ( ).
- Utility involvements: Georgia Power Distribution, City of Monroe, MEAG, Comcast, Airstream, GAS Pipeline
- VE Study Anticipated Yes (x) No ( )
- Benefit/Cost Ratio 7.76 (20 year design life)

Project Cost Estimate and Funding Responsibilities

	PE	ROW	UTILITY	CST*	MITIGATION
By Whom	City of Monroe	GDOT	City of Monroe	GDOT	GDOT
$ Amount	$1,125,960	$6,075,826	$500,000	$12,096,560	$557,130

*CST Cost includes: Construction, Engineering and Inspection, Fuel Cost Adjustment, and Asphalt Cement Cost Adjustment

Project Activities Responsibilities:

- Design : City of Monroe
- Right-of-Way Acquisition: Georgia Department of Transportation
- Relocation of Utilities: City of Monroe
- Letting to contract : Georgia Department of Transportation
- Supervision of construction : Georgia Department of Transportation
- Providing material pits : Contractor
- Providing detours : Contractor

Coordination

- Concept meeting data and brief summary: Concept meeting was held on December 15, 2010. Refer to Attachment 8 for detailed meeting minutes from the concept meeting.
- PAR meetings, dates and results: TBD
- FEMA, USCG, and/or TVA: None expected
- Public involvement: PIOH and PHOH will be held as part of public outreach. Public input will be evaluated and incorporated into the project as appropriate
- Local government comments:
- Other projects in the area:
    - Georgia Department of Transportation (DOT) project STP-0000-00 (415) is the proposed widening of approximately 10 miles of SR 10/US 78 to six lanes from Gwinnett County to SR 10 Business route in the City of Monroe. Status: Engineering phase (2016), right of way, utilities and Construction phases under long range
    - Georgia DOT project STP-0000-00 (412) consists of the proposed addition of westbound ramps and upgrades at the US 78 and Spring Street interchange. Status: Engineering phase funds authorized in 2003, Right of way and Construction phases under long range
    - Georgia DOT project STP00-0000-00(419), the proposed widening of CR 460/Vine Street from SR 11 to Pannell Road, with a new location section to Poplar Street, for a total distance of approximately 3.5 miles. Status: Engineering and Construction under long range, right of way and utilities phases under local government plans
    - Georgia DOT project STP00-0000-00(420), the proposed widening of CR 455/Jersey-Monroe Road from Youth Jersey Road to SR 11, for a total distance of approximately 7.9 miles. Status: Engineering and Construction under long range, right of way and utilities phases under local government plans
    - Georgia DOT project CSSTP-0007-00(217), the proposed construction of a bypass around the City of Social Circle with a project length of 2.8 miles. Status: Engineering under final design, right of way authorization complete in 2010, utilities and construction phases to be completed in 2012
    - Georgia Department of Transportation (DOT) project STP00-0000-00(414), proposed widening of approximately 12 miles of SR 138 from Miller Bottom Road to SR 10 / US 78. Status: Engineering, Right of way, utilities and Construction phases under long range
- Railroads – N/A
- Other coordination to date – N/A

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: Begin: 04-15-11, End: 10-15-13
- Time to complete right of way plans: Begin: 11-05-13, End: 03-05-14
- Time to complete the Section 404 Permit: Begin: 03-17-14, End: 03-16-15
- Time to complete final construction plans: Begin: 09-08-15, End: 02-08-16
- Time to complete to purchase right of way: Begin: 03-06-14, End: 09-07-15
- List other major items that will affect the project schedule: N/A

Other alternates considered:

Five alternates including the preferred alternate were considered for the project. The alternates and details of the alternatives are as follows.

- No-build scenario
- Alignment north of Old Monroe Madison Hwy – This alternative includes a crossing to the north of Pannell Road and requires a series of minimum radius reverse curves. The alignment crosses Poplar Street, Blassingame Road, and Gene Bell Road and ties into the existing intersection of SR 83 and Good Hope Road. This alignment would impact 42 parcels and require 6 displacements. Due to the number of parcels impacted and displaced, this alternative was not selected as the preferred.
- Alignment that ties back with Old Monroe Madison Hwy, that would require widening of Old Monroe Madison Hwy – This alternative includes a new alignment of the SR 83 connector from SR 11 to Old Monroe Madison west of Poplar Street and from Old Monroe Madison west of Gene Bell Road to existing SR 83 intersection with Good Hope Road. The existing section of Old Monroe Madison between Polar Street and Gene Bell Road would required widening to accommodate the require shoulder and turn lanes. The widening of Old Monroe Madison would cause an adverse impact to one history properties on Old Monroe Madison. Due to the impact to historic resources, this alternative was not selected as the preferred.
- Alignment south of the preferred alignment – This alternative includes a new alignment from SR 11 to SR 83 which runs south of Dial Road, Pannell Road, and Old Monroe Madison. The proposed alignment would tie into the existing intersection of SR 83 and Good Hope Road. This southern alignment would have an adverse impact to 3 historic properties near Pannell Road. Due to the impact to historic resources, this alternative was not selected as the preferred.

Comments:

Attachments:

1. Cost Estimate
   a) *Construction including Engineering and Inspection*
   b) *Right-of-Way*
   c) *Utilities*
   d) *Environmental Mitigation (EPD, etc.)*
2. Typical sections
3. Accident summaries
4. Traffic diagrams
5. Capacity analysis summary
6. Summary of signal warrant studies
7. Land Use and Environmental Justice
8. Minutes of Concept meeting
9. Project Framework Agreement (PFA's)
10. Conforming plan's network schematics showing thru lanes
11. Other items referred to in the body of the report
    a) Design Traffic Approval Letter
12. Benefit Cost Analysis

Concur: _____
Director of Engineering

Approve: _____ 12/19/12
for Division Administrator, FHWA

Approve: _____ Date: 12-31-12
Chief Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. STP00-0000-00(411), Walton
SR 83 Connector
P.I. No. 0000411

OFFICE Program Delivery

DATE 2/10/2012

FROM **Bobby K. Hilliard, P.E., State Program Delivery Engineer**

TO Ronald E. Wishon, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Tim Matthews, P.E.

MNGT LET DATE 11/15/2013

MNGT R/W DATE 12/15/2012

PROGRAMMED COST (TPro W/OUT INFLATION)		**LAST ESTIMATE UPDATE**
CONSTRUCTION	$15,103,556.00	DATE 4/30/2010
RIGHT OF WAY	$ 7,075,826.00	DATE 4/30/2010
UTILITIES	$ 450,000.00	DATE 4/30/2010

REVISED COST ESTIMATES

CONSTRUCTION*	$12,096,559.76
RIGHT OF WAY	$6,075,826.00
UTILITIES	$0.00

* Costs contain 5% engineering

REASON FOR COST INCREASE: No Cost increase. Locals to do 100% utilities in revised PFA on 1/6/11.

CONTINGENCY SUMMARY

Construction Cost Estimate:	$10,349,841.79	(Base Estimate)
Engineering and Inspection:	$ 517,492.09	(Base Estimate x 5 %)
Total Liquid AC Adjustment	$ 1,229,225.88	(From attached worksheet)
Construction Total:	$12,096,559.76	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Costs
_____	_____
_____	_____

Attachments

cc:

PROJ. NO.: MLP00-0087-00(045)
P.I. NO. 222410
DATE: 1/17/2012

Base Construction Cost		$	10,349,841.79
E & I	5%	$	517,492.09
Construction Contingency	0%	$	-
Subtotal Construction Cost		$	10,867,333.88
Liquid AC Adjustment (50 % cap)		$	1,229,225.88
Total Construction Cost		$	12,096,559.76

DETAILED COST ESTIMATE

Georgia Department of Transportation

Job: 0000411

JOB NUMBER: *0000411* **FED/STATE PROJECT NUMBER**

SPEC YEAR: *01*

DESCRIPTION: *SR 83 CONNECTOR*

ITEMS FOR JOB 0000411

1 - ROADWAY ITEMS

Line Numbe	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0005	150-1000	1.000	LS	$300,000.00	TRAFFIC CONTROL - PI.0000411	$300,000.00
0078	150-1000	1.000	LS	$1,151,150.00	TRAFFIC CONTROL - SUBSTITUTE FOR BOX CULVERT, 1771 LF	$1,151,150.00
0010	201-1500	1.000	LS	$744,137.00	CLEARING & GRUBBING - PI.0000411	$744,137.00
0015	210-0100	1.000	LS	$2,218,112.00	GRADING COMPLETE - PI.0000411	$2,218,112.00
0020	310-1101	92584.000	TN	$13.78	GR AGGR BASE CRS, INCL MATL	$1,275,536.25
0025	402-3121	34658.000	TN	$50.22	RECYL AC 25MM SP,GP1/2,BM&HL	$1,740,571.55
0030	402-3130	12456.000	TN	$57.01	RECYL AC 12.5MM SP,GP2,BM&HL	$710,128.27
0035	402-3190	22384.000	TN	$53.68	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	$1,201,498.36
0040	413-1000	16200.000	GL	$2.01	BITUM TACK COAT	$32,579.33
0045	441-0104	51.000	SY	$39.01	CONC SIDEWALK, 4 IN	$1,989.51
0050	550-1360	980.000	LF	$52.13	STM DR PIPE 36",H 1-10	$51,087.75
0055	550-4236	22.000	EA	$926.33	FLARED END SECT 36 IN, ST DR	$20,379.29
0060	634-1200	50.000	EA	$89.77	RIGHT OF WAY MARKERS	$4,488.37
0065	641-1200	2000.000	LF	$15.70	GUARDRAIL, TP W	$31,391.16
0070	641-5001	6.000	EA	$630.97	GUARDRAIL ANCHORAGE, TP 1	$3,785.82
0075	641-5012	6.000	EA	$1,836.54	GUARDRAIL ANCHORAGE, TP 12	$11,019.27
0079	643-0010	50582.000	LF	$3.82	FIELD FENCE WOVEN WIRE	$193,457.94
					SUBTOTAL FOR ROADWAY ITEMS:	**$9,691,311.87**

2 - EROSION CONTROL ITEMS

Line Numbe	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0140	150-1000	1.000	LS	$552,000.00	TRAFFIC CONTROL - SUBSTITUTE FOR EROSION CONTROL-0000411	$552,000.00
					SUBTOTAL FOR EROSION CONTROL ITEMS:	**$552,000.00**

3 - SIGNING & MARKING ITEMS

Line Numbe	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0080	636-1020	1800.000	SF	$11.96	HWY SGN,TP1MAT,REFL SH TP3	$21,536.57
0085	636-1029	540.000	SF	$15.25	HWY SGN,TP2 MATL,REFL SH TP 3	$8,233.82
0090	636-1033	360.000	SF	$18.78	HWY SIGNS, TP1MAT,REFL SH TP 9	$6,761.26
0095	636-2070	5670.000	LF	$6.26	GALV STEEL POSTS, TP 7	$35,485.30
0100	653-0130	6.000	EA	$79.71	THERM PVMT MARK, ARROW, TP 3	$478.28
0105	653-1501	55641.000	LF	$0.26	THERMO SOLID TRAF ST 5 IN, WHI	$14,674.76
0110	653-1502	55641.000	LF	$0.23	THERMO SOLID TRAF ST, 5 IN YEL	$12,710.07
0115	653-1704	396.000	LF	$3.78	THERM SOLID TRAF STRIPE,24",WH	$1,496.44
0120	653-1804	858.000	LF	$1.85	THERM SOLID TRAF STRIPE, 8",WH	$1,583.57
0125	654-1001	100.000	EA	$4.23	RAISED PVMT MARKERS TP 1	$422.96
0130	654-1003	632.000	EA	$3.39	RAISED PVMT MARKERS TP 3	$2,140.00
0135	682-9010	1.000	EA	$1,006.89	SVC POLE RISER	$1,006.89
					SUBTOTAL FOR SIGNING & MARKING ITEMS:	**$106,529.92**

TOTALS FOR JOB 0000411

ITEMS COST:	**$10,349,841.79**
COST GROUP COST:	**$0.00**
ESTIMATED COST:	**$10,349,841.79**
CONTINGENCY PERCENT:	**0.00**
ENGINEERING AND INSPECTION:	**0.00**
ESTIMATED COST WITH CONTINGENCY AND E&I:	**$10,349,841.79**

CONFIDENTIALITY NOTICE: This document may contain confidential and/or privileged information. Any unauthorized duplication, disclosure, distribution/ retransmission or taking of any action in reliance upon the material in this document is strictly forbidden.

PROJ. NO.	MLP00-0087-00(045)
P.I. NO.	222410
DATE	1/17/2012

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Jan-12	$ 3.297
DIESEL		$ 3.818
LIQUID AC		$ 578.00

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

LIQUID AC ADJUSTMENTS

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

Asphalt

Price Adjustment (PA)			**1205095.32**	**$**	**1,205,095.32**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$ 924.80		
Monthly Asphalt Cement Price month project let (APL)			$ 578.00		
Total Monthly Tonnage of asphalt cement (TMT)			3474.9		

ASPHALT	Tons	%AC	AC ton
Leveling	0	5.0%	0
12.5 OGFC	0	5.0%	0
12.5 mm	12456	5.0%	622.8
9.5 mm SP	0	5.0%	0
25 mm SP	34658	5.0%	1732.9
19 mm SP	22384	5.0%	1119.2
	69498		**3474.9**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$ 24,130.56**	**$**	**24,130.56**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$ 924.80		
Monthly Asphalt Cement Price month project let (APL)			$ 578.00		
Total Monthly Tonnage of asphalt cement (TMT)			69.58063494		

Bitum Tack Gals	gals/ton	tons
16200	232.8234	69.5806349

PROJ. NO.	MLP00-0087-00(045)		CALL NO.
P.I. NO.	222410		
DATE	1/17/2012		

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	924.80	
Monthly Asphalt Cement Price month project let (APL)			$	578.00	
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	**$ 1,229,225.88**

Preliminary Right of Way Cost Estimate

Date: 01/27/2011
Project: STP00-0000-00(411) SR 83 Connector **P.I. Number:** 0000411
Existing/Required R/W: Varies (150'-200' typ.) **No. Parcels:** 26
Project Termini: SR 11 south of Monroe to SR 83
Project Description: SR 83 Connector between south city limit to SR 83

Land:

Commercial
0 s.f @ $ 1.15/s.f. = $ 0

Industrial
0 s.f @ $ /s.f. = $ 0

Residential
0 s.f @ $0.57/s.f. = $ 0

Agricultural
4,963,200 s.f @ $0.46/s.f. = $ 2,283,072

TOTAL **$ 2,283,072**

Improvements:

Residences = $ 106,858
Misc. Improvements = $20,000
TOTAL **$ 126,858**

Relocation:

Commercial 0 @ $25,000/parcel = $ 0
Residential 1 @ $40,000/parcel = $ 40,000
TOTAL **$ 40,000**

Damages:

Proximity - $
Consequential - $
Cost to Cure - $
TOTAL $

SUB-TOTAL: **$ 2,449,930**

Net Cost		$	2,449,930
Scheduling Contingency	55 %	$	1,347,462
Adm/Court Cost	60 %	$	2,278,435
TOTAL		$	6,075,826

Total Cost $ 6,075,826

Prepared By: _____ Reviewed / Approved: _____

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

REVISED: 01-27-11

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE **STP-0000-00(411) Walton County**
P.I. No. 0000411
SR 83 CONNECTOR BETWEEN
SOUTH CITY LIMIT TO SR 83

OFFICE **Gainesville**

DATE **March 02, 2011**

FROM **Allen Ferguson**
District Utilities Engineer

TO **Robert Mahoney, District Preconstruction Engineer**
ATTN **Neil Kantner**

SUBJECT **PRELIMINARY UTILITY COST (ESTIMATE)**

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

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
City of Monroe (Electrical Distribution)	$150,000	-
City of Monroe (Electrical Service)	$200,000	-
City of Monroe (Water)	$75,000	-
City of Monroe (Gas)	$75,000	-
TOTAL	**$500,000.00**	**$0**

If you have any questions, please contact Allen Ferguson at 770-532-5510.

RAF

C: Jeff Baker, State Utilities Engineer
Angie Robinson, Office of Financial Management
Rob Mabry, Area Engineer
File

ARCADIS U.S., Inc.
2849 Paces Ferry Road
Suite 400
Atlanta
Georgia 30339
Tel 770.431.8666
Fax 770.435.2666

ARCADIS U.S., Inc.

MEMO

To:
Tim Matthews
Georgia Department of Transportation

Copies:
-

From:
Douglas P. Tilt, P.E.

Date:
February 18, 2011

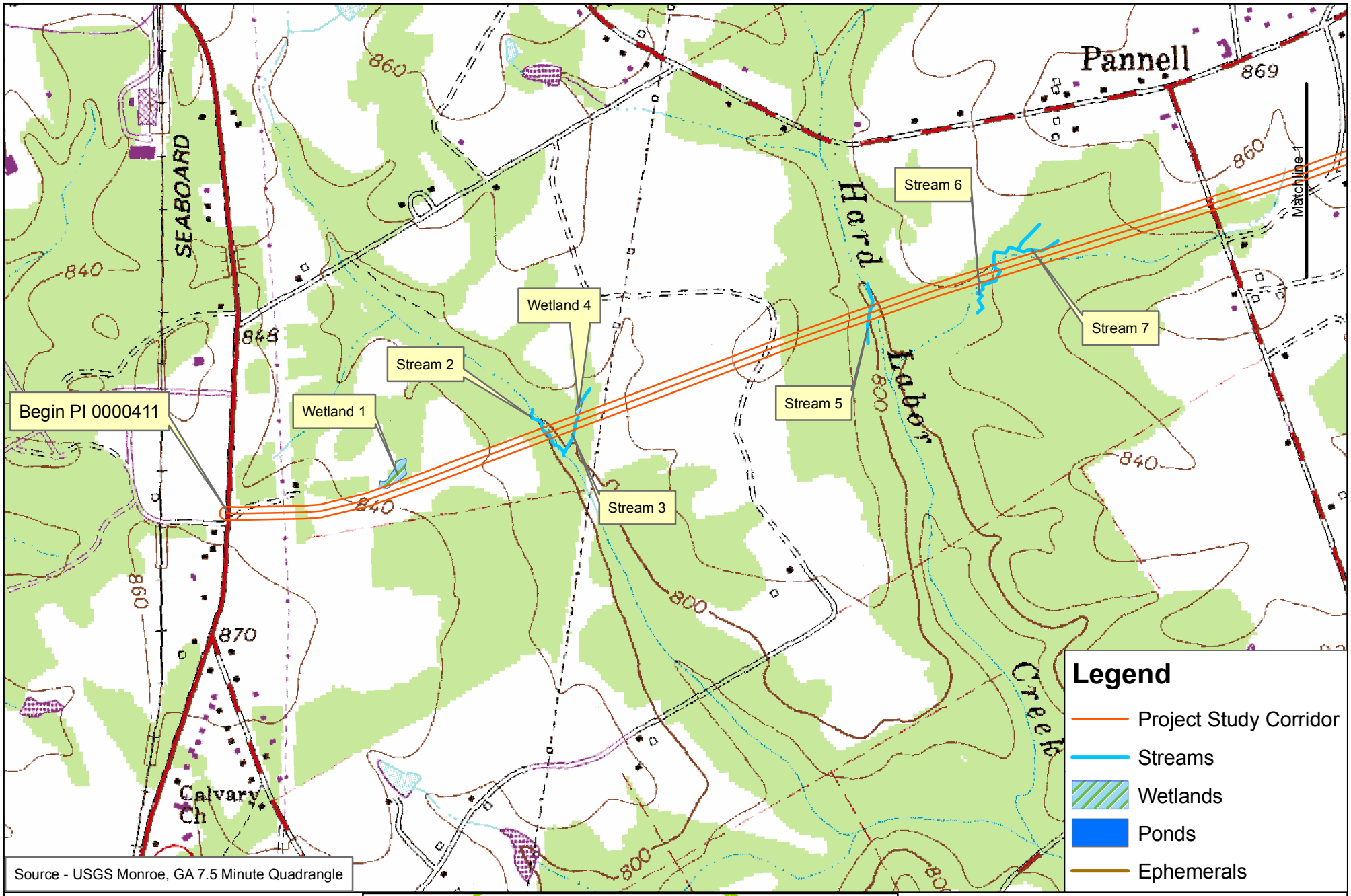
ARCADIS Project No.:
GA063152

Subject:
Mitigation Cost- SR 83 Connector P.I 0000411

The scope of this memorandum is to summarize the mitigation cost for the Departments' approval as part of the SR 83 Connector, P.I 0000411.

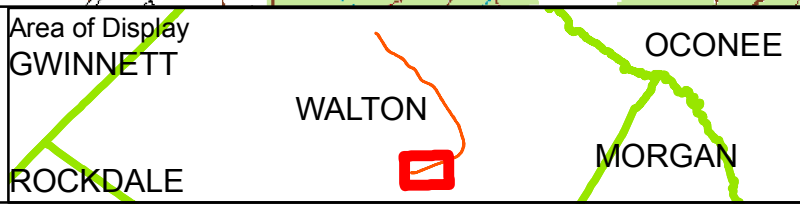
Resource Type	Cost ($) per Credit	Number of Credits	Total Cost ($)
Wetland	$7500	5.714	$42,855
Stream	$75	6,857	$514,275
		Total	**$557,130**

The mitigation cost estimates shown above are based on attached maps that show the location of the resources along the study corridor. These are based on preliminary analysis, a detailed estimate will be provided upon the completion of Phase 2 ecology assessment.



Source - USGS Monroe, GA 7.5 Minute Quadrangle

Figure 4a: Waters of the US Map
SR 11/Monroe East Bypass
Walton County, GA
PI No 0000411



1 inch = 1,000 feet

Keeping Georgia on the Move

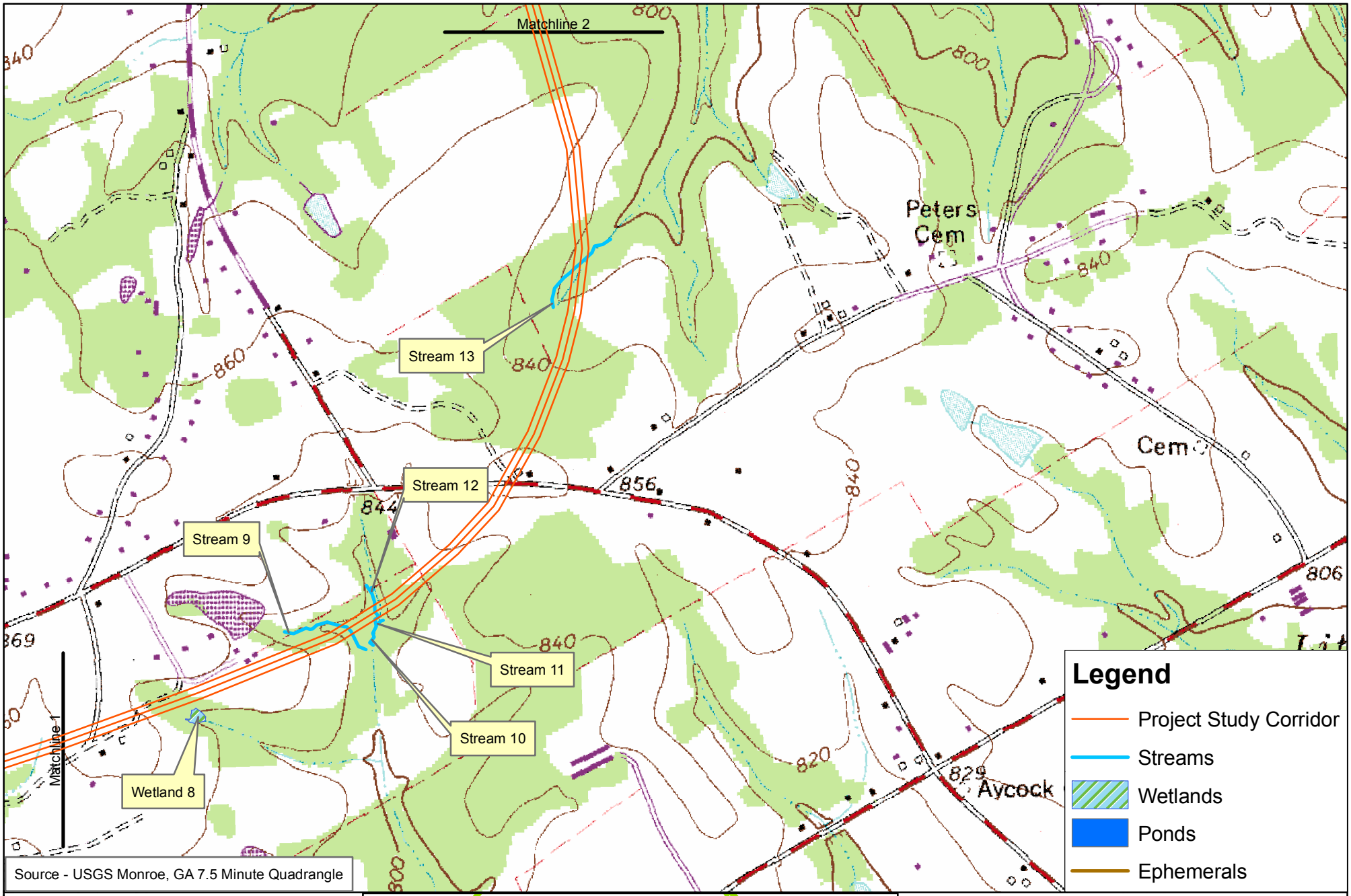


Figure 4b: Waters of the US Map
SR 11/Monroe East Bypass
Walton County, GA
PI No 0000411

1 inch = 1,000 feet

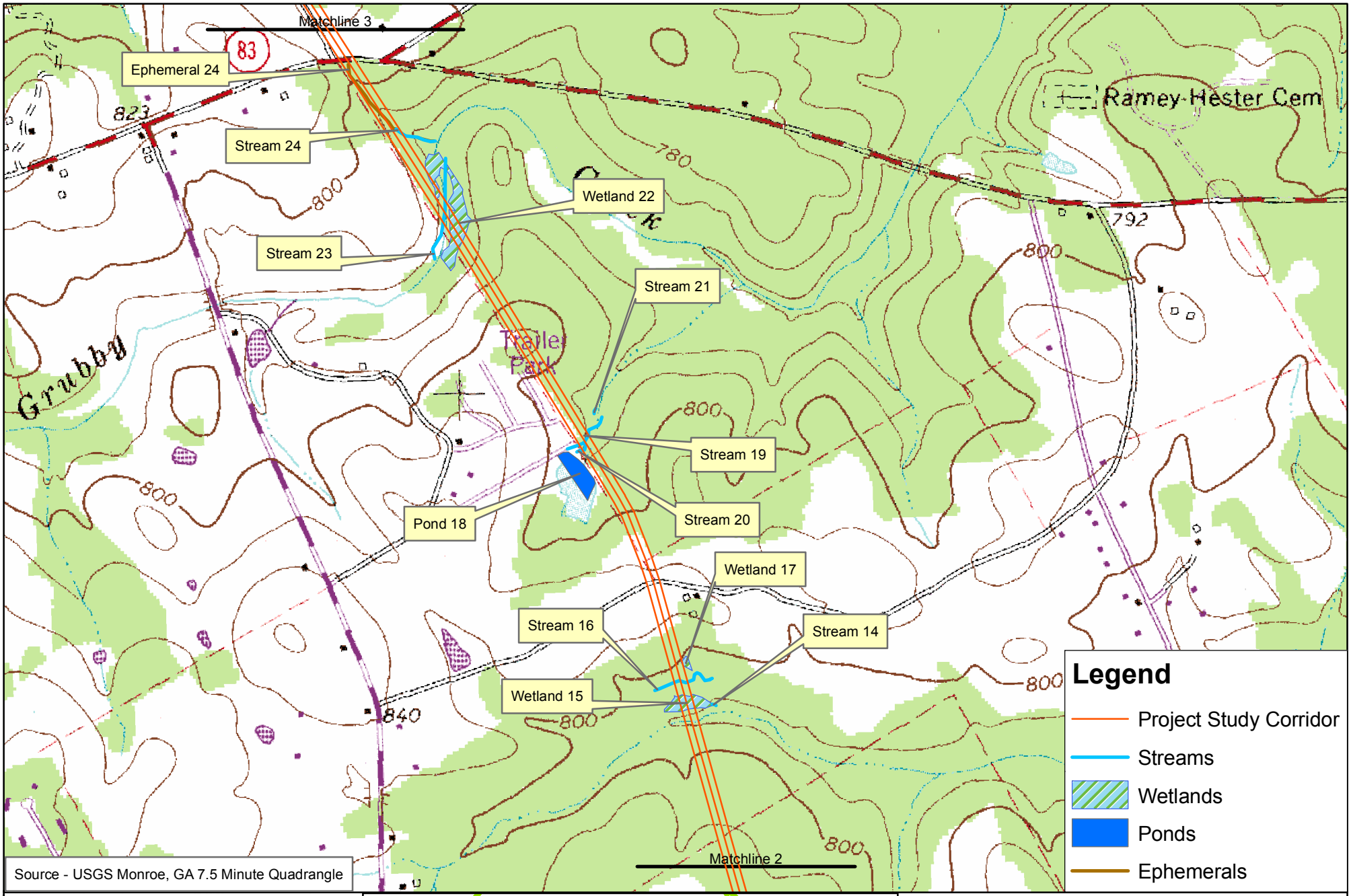
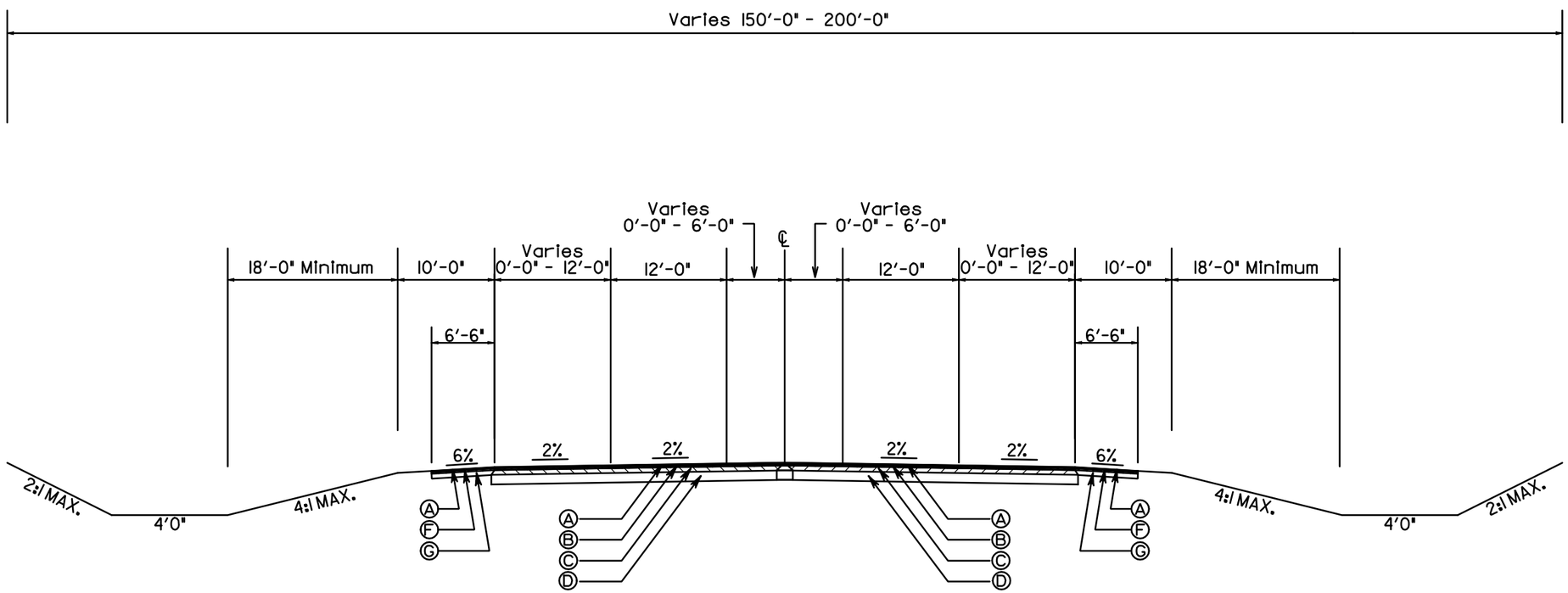


Figure 4c: Waters of the US Map
SR 11/Monroe East Bypass
Walton County, GA
PI No 0000411

1 inch = 1,000 feet

STATE	PROJECT NUMBER
GA.	STP-0000-00(411)

ATTACHMENT 2: TYPICAL SECTION



REQUIRED PAVEMENT

- (A) 165 LB/SY RECYCLED ASPH. CONC. 12.5mm SUPERPAVE
- (B) 330 LB/SY RECYCLED ASPH. CONC. 19mm SUPERPAVE
- (C) 660 LB/SY RECYCLED ASPH. CONC. 25mm SUPERPAVE
- (D) 12" GRADED AGGREGATE BASE
- (F) 220 LB/SY RECYCLED ASPH. CONC. 19mm SUPERPAVE
- (G) 6" GRADED AGGREGATE BASE

ARCADIS

TYPICAL SECTION
ALONG SR 83 CONNECTOR

PLOT DRIVER: $PLOTDRIVER$
Filename: $FILE$
Time: $TIME$
Job Name: PRF
User Name: $USER$
Date: $DATE$

ATTACHMENT 3: Accident Summary

Crash data information, such as crash rates, fatality rates, and injury rates, were developed for the project area. The crash data between 2004 and 2008 provided by GDOT was used estimate the crash rates by type of crash. The limits of the crash data analysis begin just south of Dial Rd and ends just north of the US 78 / SR 10 westbound ramps. The estimated crash rates along existing SR 11 corridor were compared with corresponding statewide averages. Table 12 provides the crash data summary and comparison to the statewide accident rates between years 2004 and 2008.

The overall crash rate between 2004 and 2007 is at least 85 percent of the state average with a significant increase in the year 2006.The injury rate is approximately 90% of the state average between 2004 and 2007. The fatality rate for year 2004 is 4.5 times the corresponding state average and no fatalities were reported between 2005 and 2008. The overall crash rates for the year 2008 are lower than the statewide averages, however these rates are consistent with the 4 year average rates along SR 11. Vehicle types and mix utilizing the corridor drive the crash frequency and operational concerns in any area. In the existing conditions a significant portion of trucks use SR 11 via downtown Monroe as a truck route. Trucks typically have significant impacts to congestion issues which in turn has the potential to result in increased vehicle conflicts. The proposed connector would significantly reduce the number of trucks in downtown Monroe and thereby would reduce the extent of congestion and result in potential reduction in crash frequency and rates.

Table 12 Crash Data

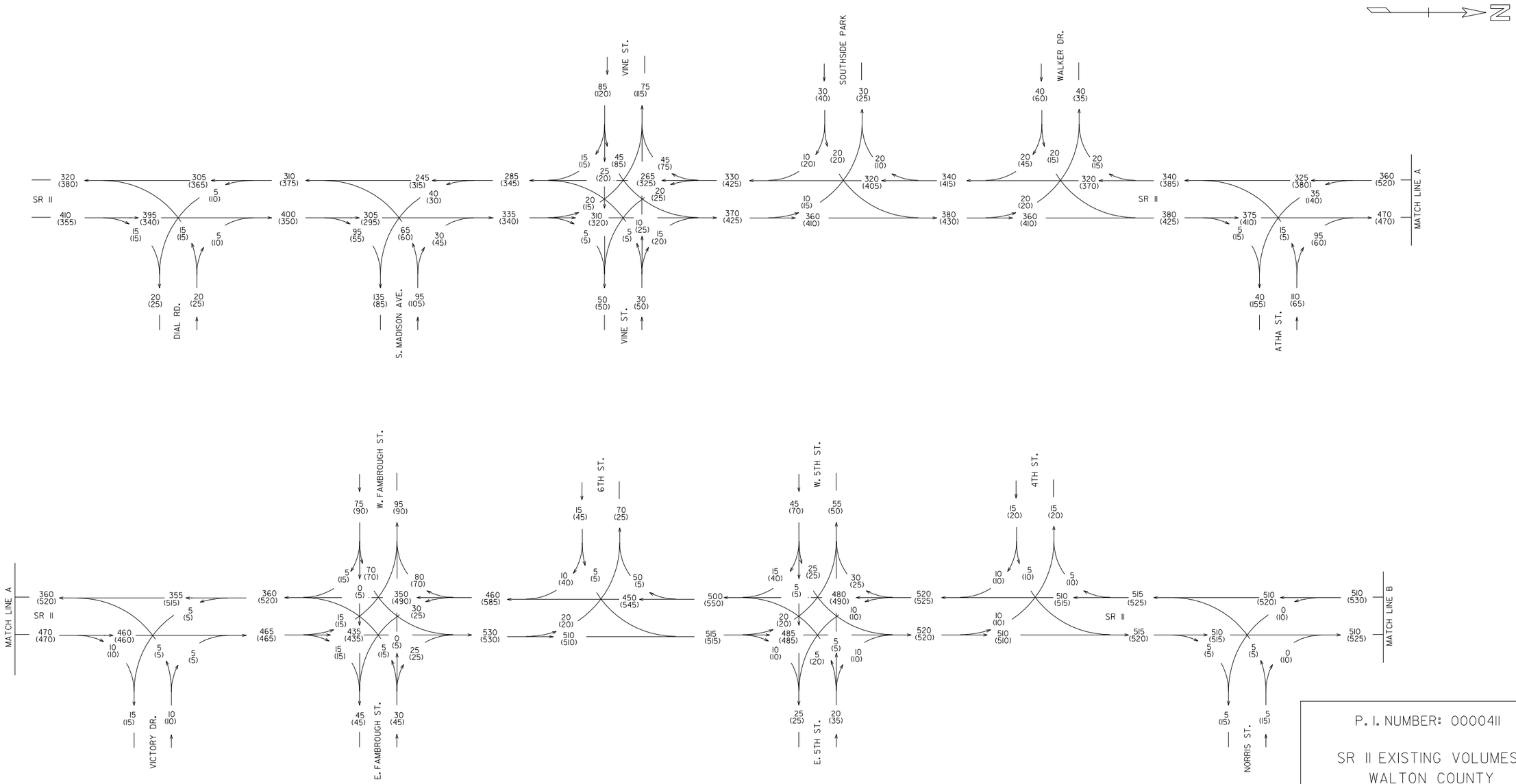
SR 11 - Mile Post 8.5 - 12.5

Year	*ADT*	*Accidents*	*Injuries*	*Fatalities*	*Accident Rate*	*Injury Rate*	*Fatality Rate*	*Accident Rate*	*Injury Rate*	*Fatality Rate*
		Total Number within project limits			Average Rate within project limits			Statewide Average Rate for Principal Arterial, Non-Freeway, NHS, Urban		
2004	14323	69	28	1	330	134	4.78	342	142	1.07
2005	14323	62	31	0	296	148	0.00	363	151	1.43
2006	14589	99	45	0	465	211	0.00	298	120	1.33
2007	13707	68	32	0	340	160	0.00	445	174	1.49
2008	13285	73	26	0	376	134	0.00	430	167	1.33

ATTACHMENT 4: Traffic Diagrams

GEORGIA DEPARTMENT OF TRANSPORTATION

EXISTING 2011 PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 EXISTING VOLUMES
WALTON COUNTY

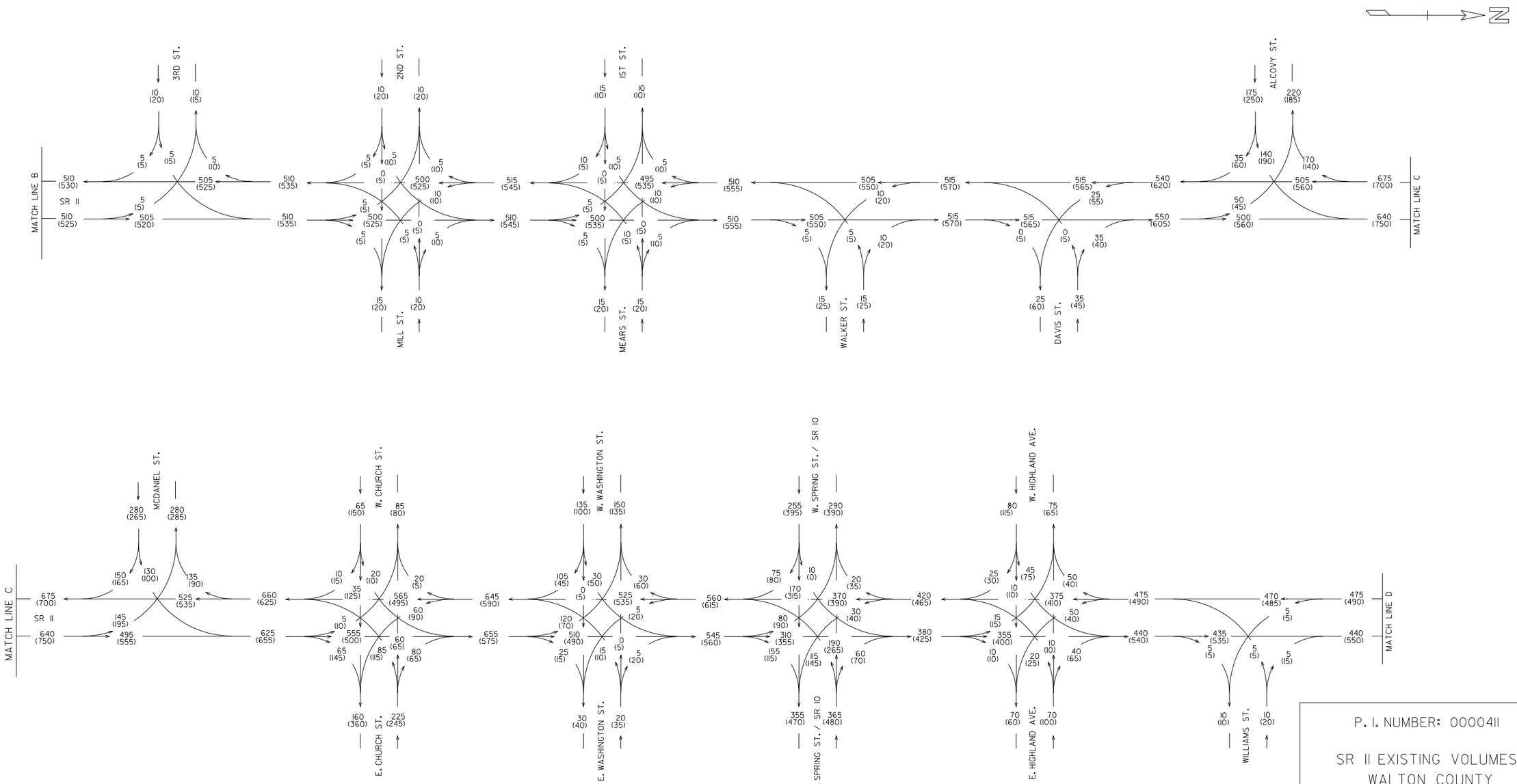
2011 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

EXISTING 2011 PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 EXISTING VOLUMES
WALTON COUNTY

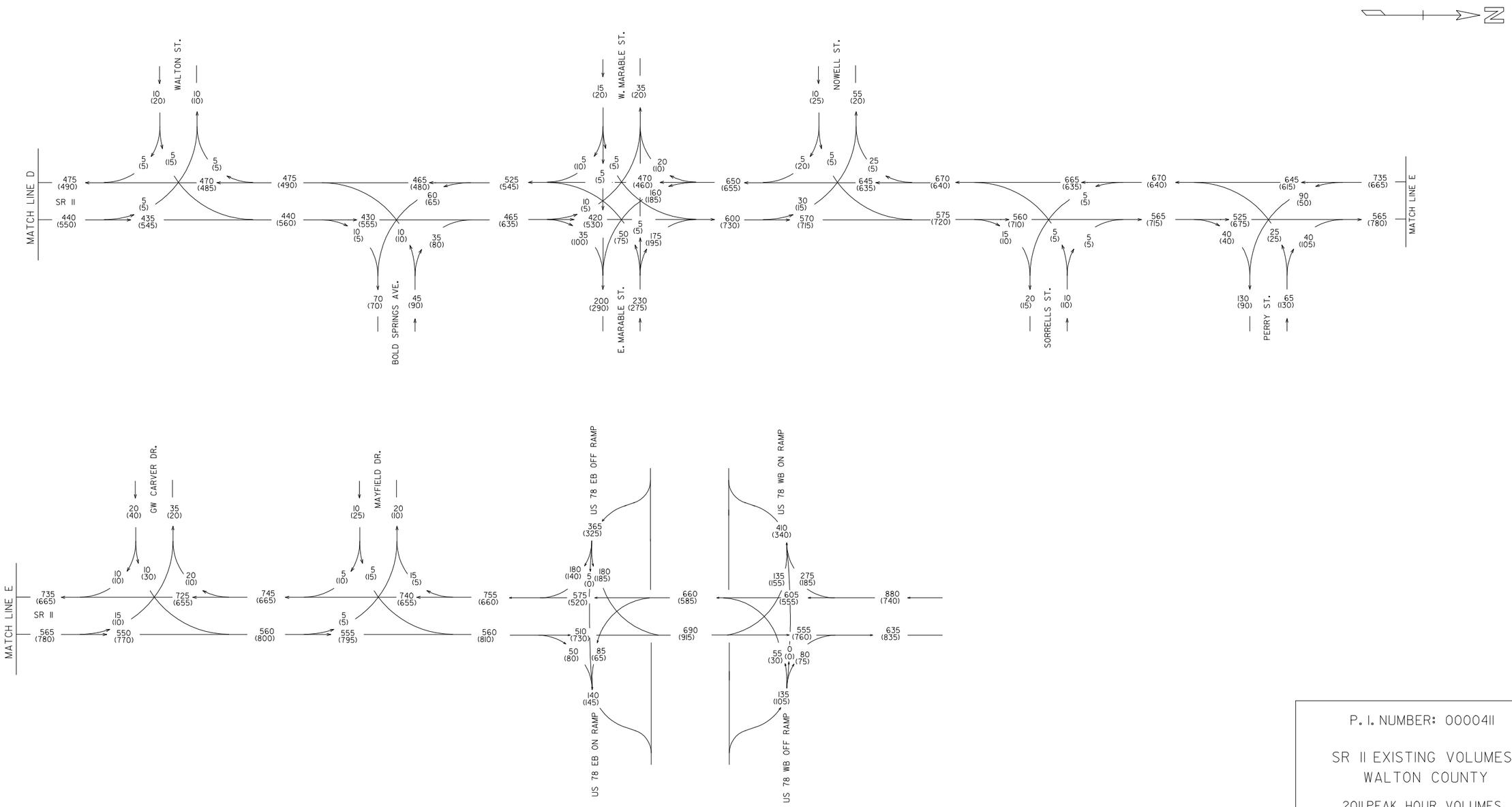
2011 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

EXISTING 2011 PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 EXISTING VOLUMES
WALTON COUNTY

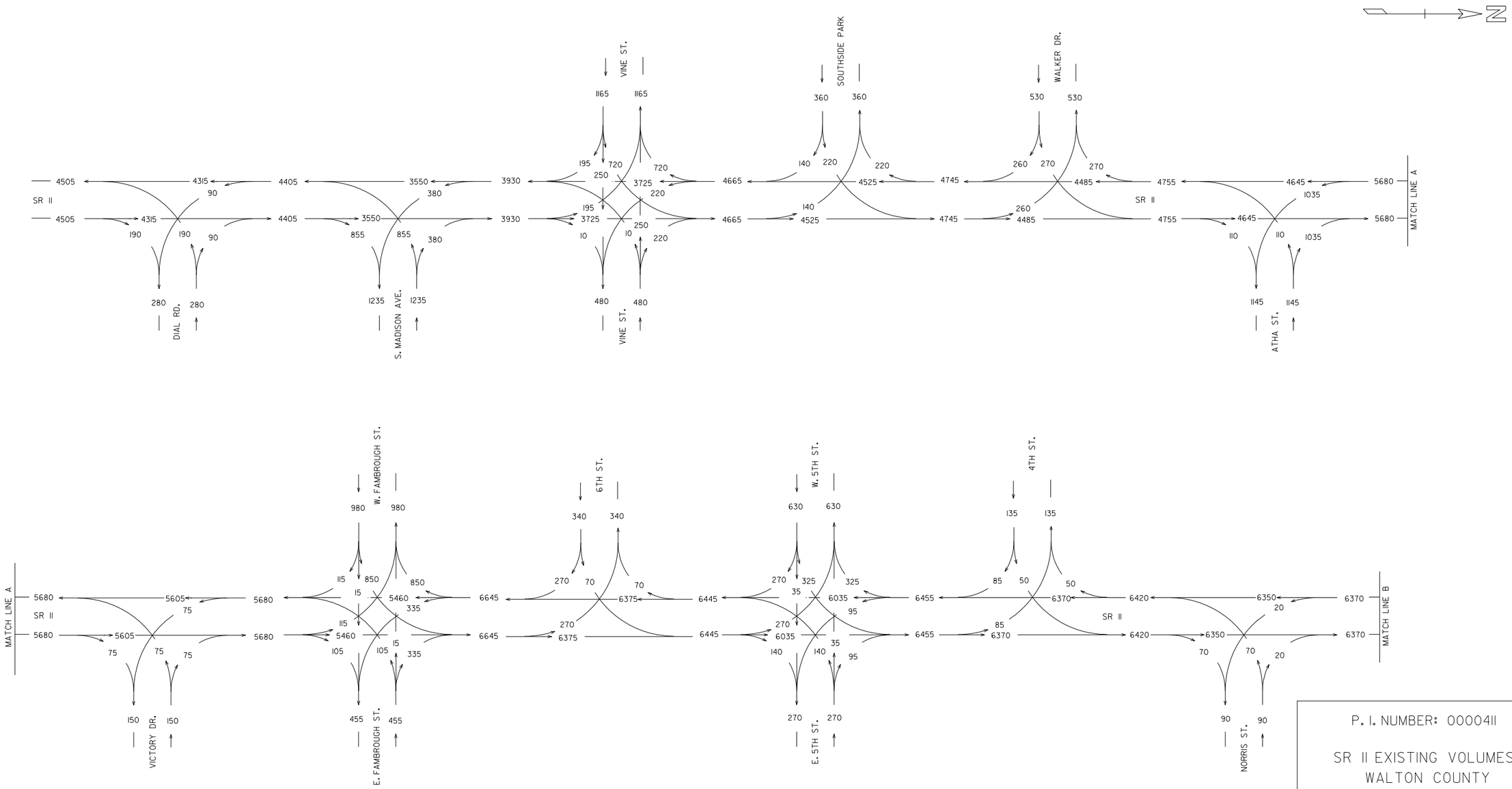
2011 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

EXISTING 2011 DAILY VOLUMES



P. I. NUMBER: 0000411

SR 11 EXISTING VOLUMES
WALTON COUNTY

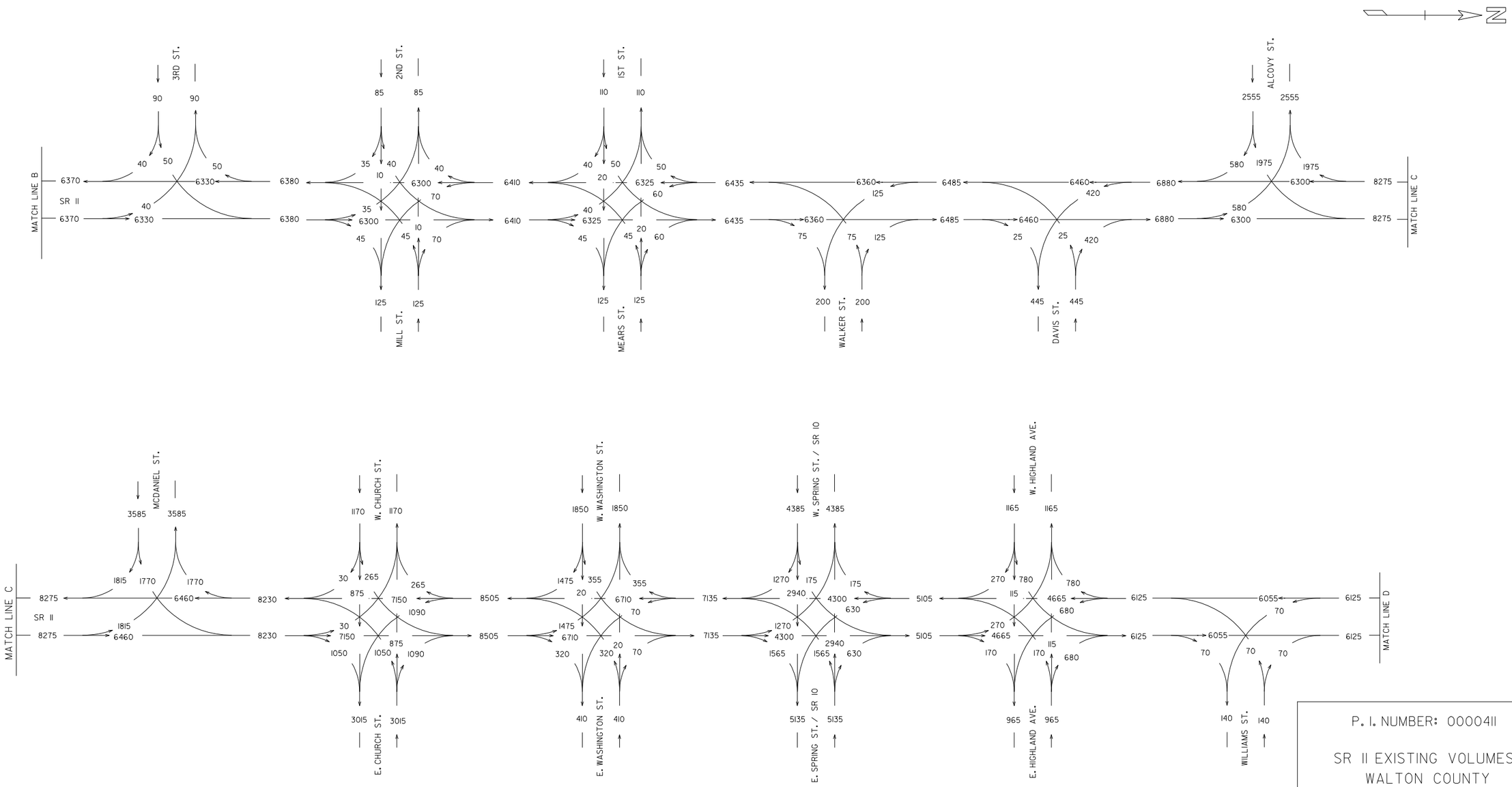
2011 ADT

24 HOUR T= 15.0%
S.U = 7%
COMB. = 8%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

EXISTING 2011 DAILY VOLUMES



P. I. NUMBER: 0000411

SR 11 EXISTING VOLUMES
WALTON COUNTY

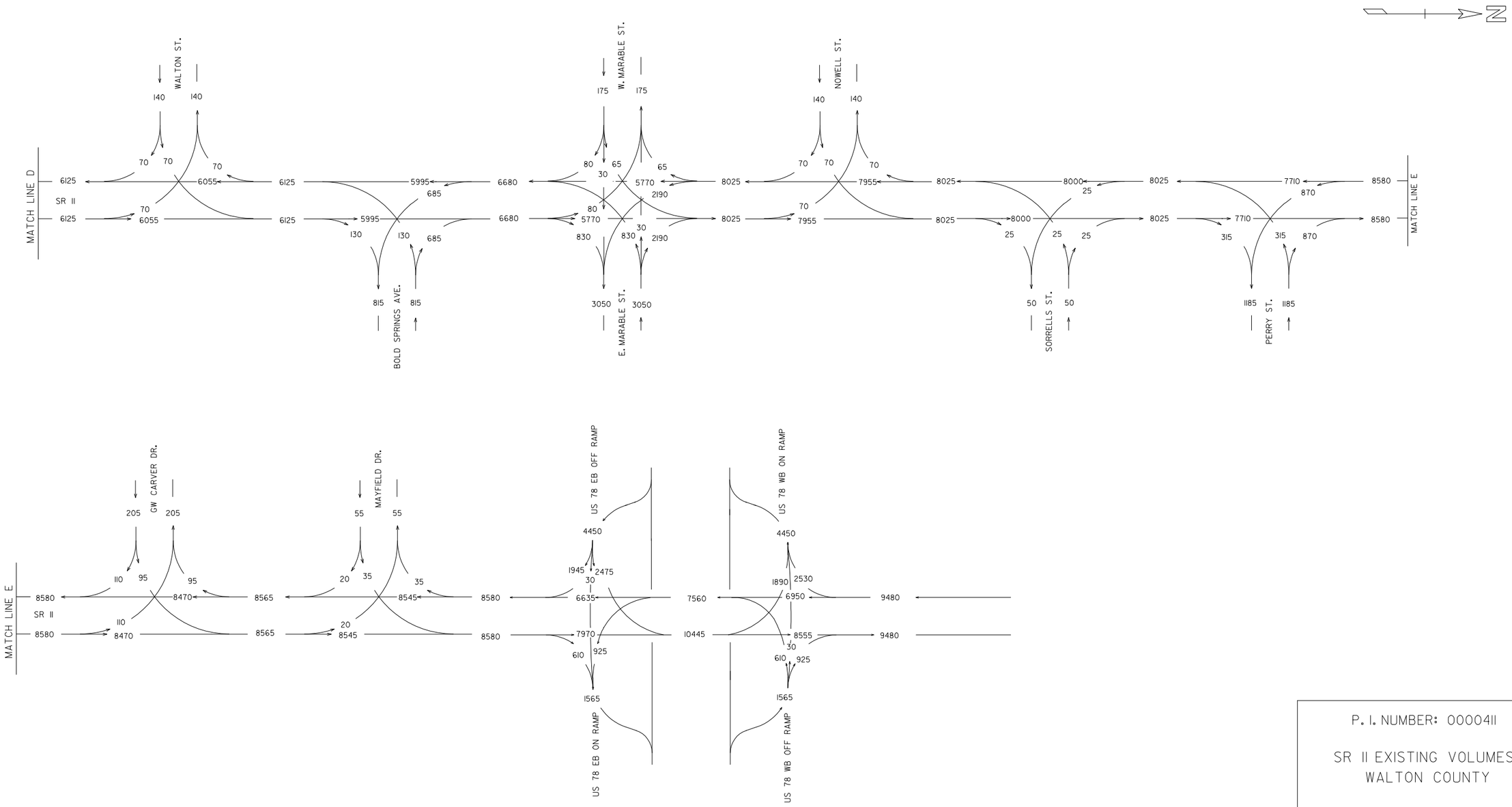
2011 ADT

24 HOUR T= 15.0%
S.U = 7%
COMB. = 8%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

EXISTING 2011 DAILY VOLUMES



P. I. NUMBER: 0000411

SR 11 EXISTING VOLUMES
WALTON COUNTY

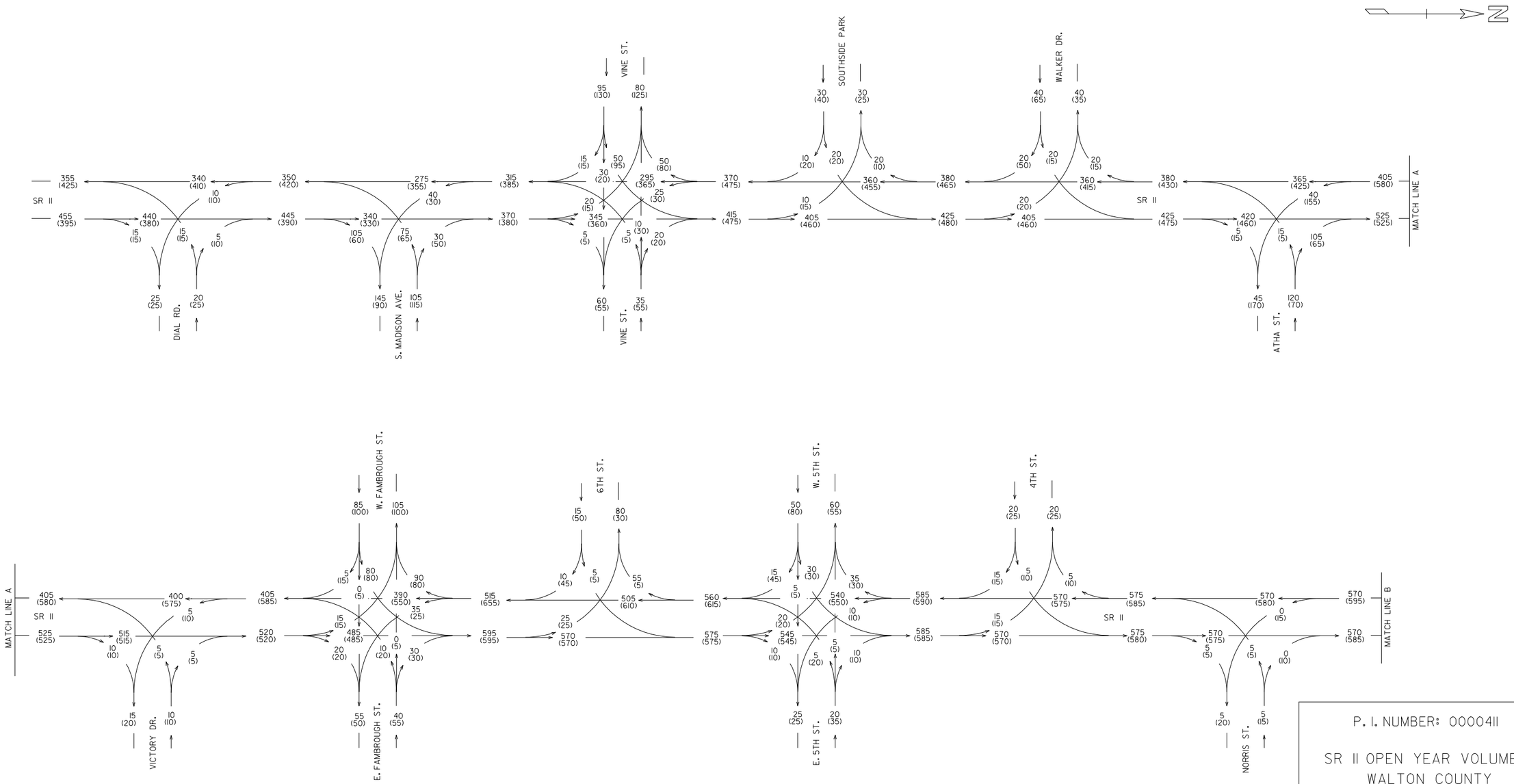
2011 ADT

24 HOUR T= 15.0%
S.U = 7%
COMB. = 8%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

OPEN YEAR (2017) PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 OPEN YEAR VOLUMES
WALTON COUNTY

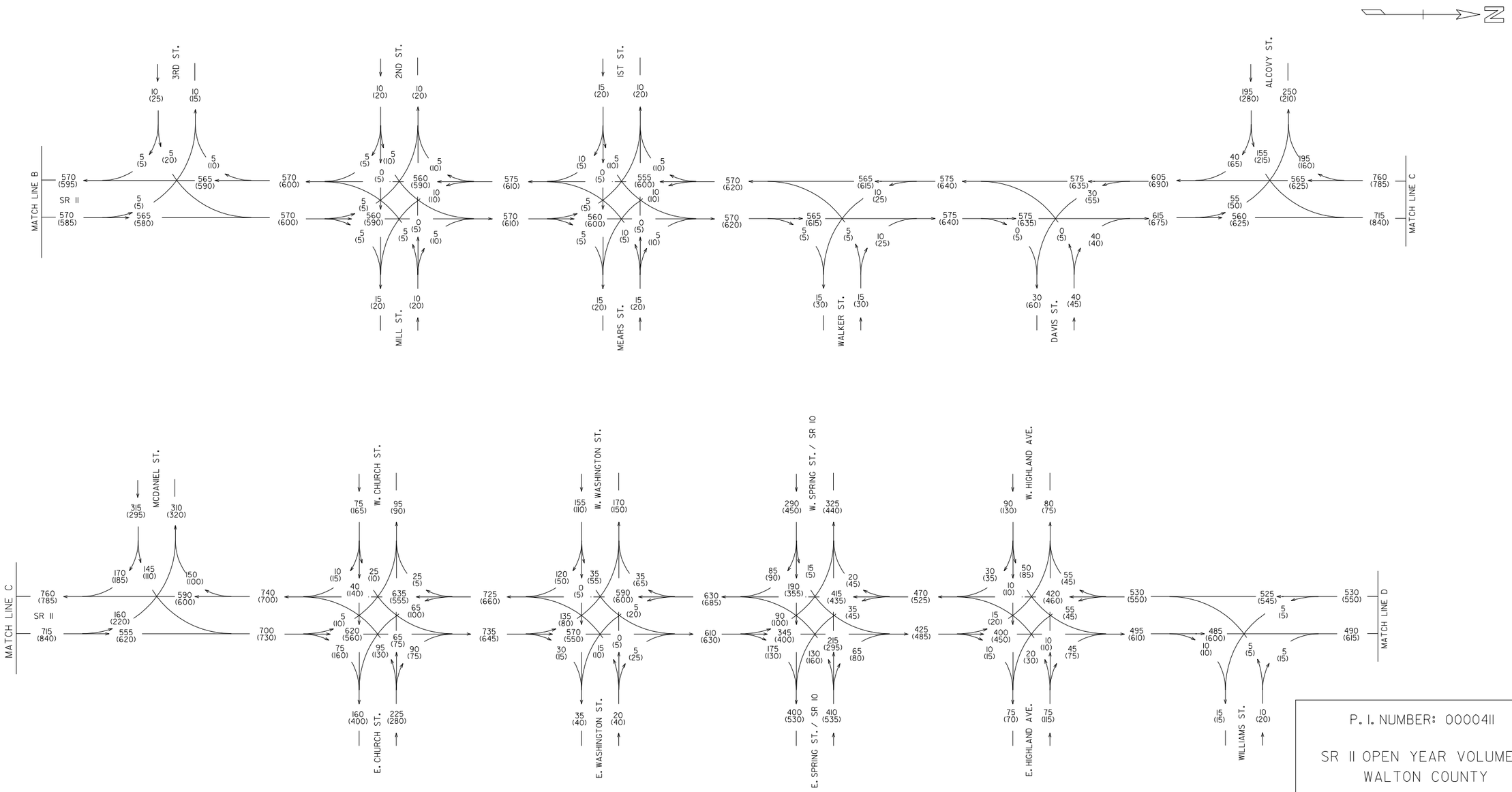
2017 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

OPEN YEAR (2017) PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 OPEN YEAR VOLUMES
WALTON COUNTY

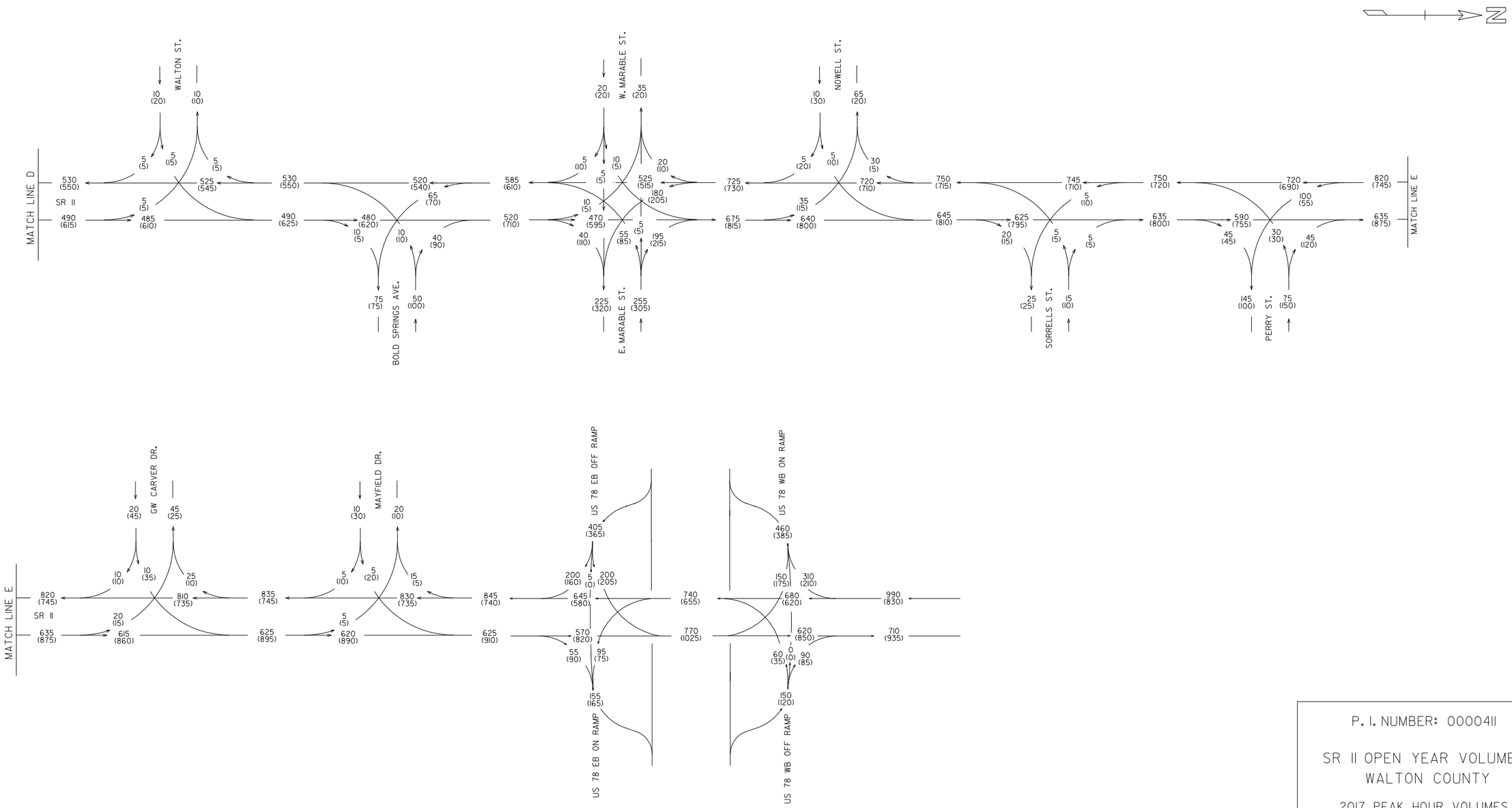
2017 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

OPEN YEAR (2017) PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 OPEN YEAR VOLUMES
WALTON COUNTY

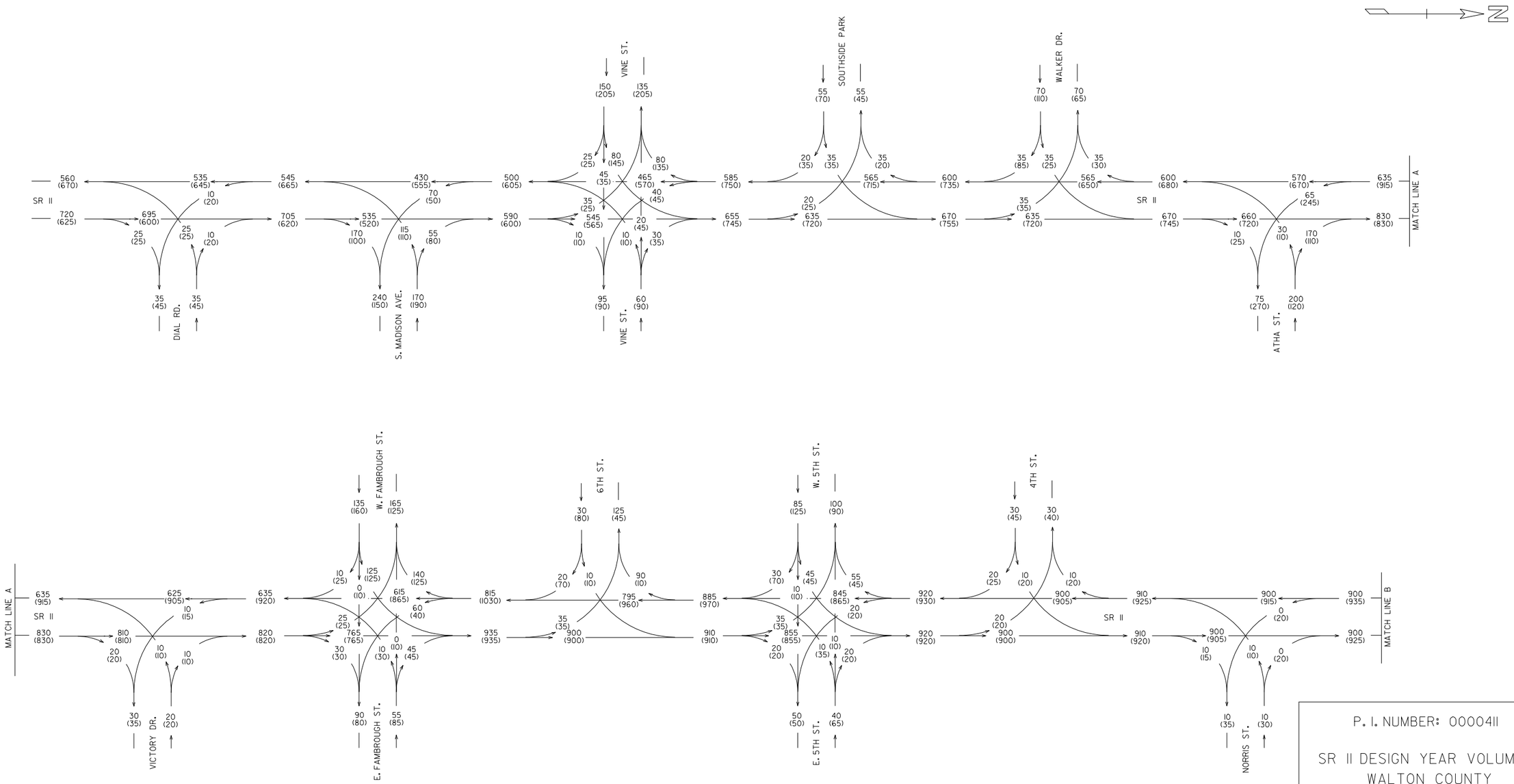
2017 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

DESIGN YEAR (2037) PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 DESIGN YEAR VOLUMES
WALTON COUNTY

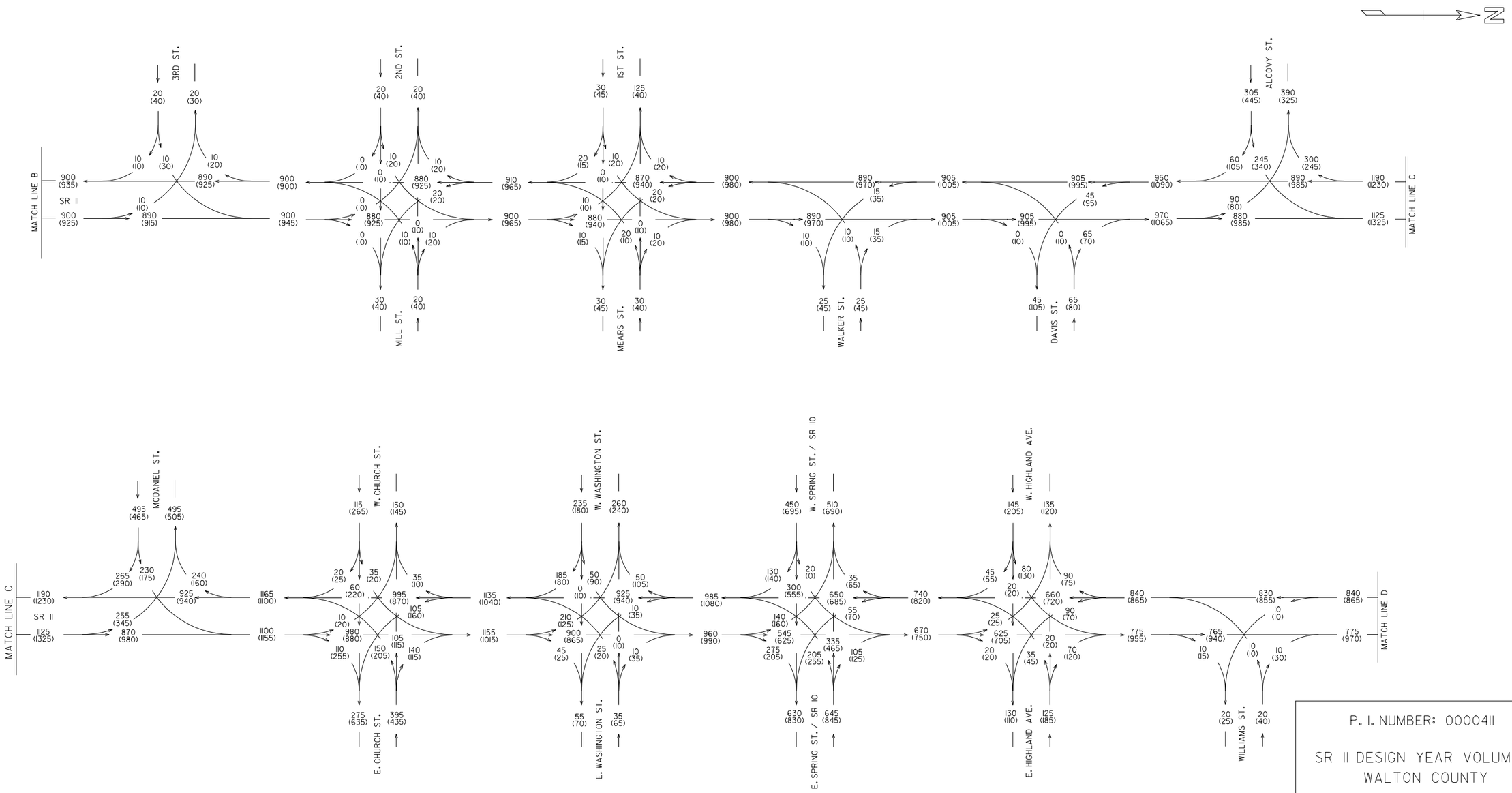
2037 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

DESIGN YEAR (2037) PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 DESIGN YEAR VOLUMES
WALTON COUNTY

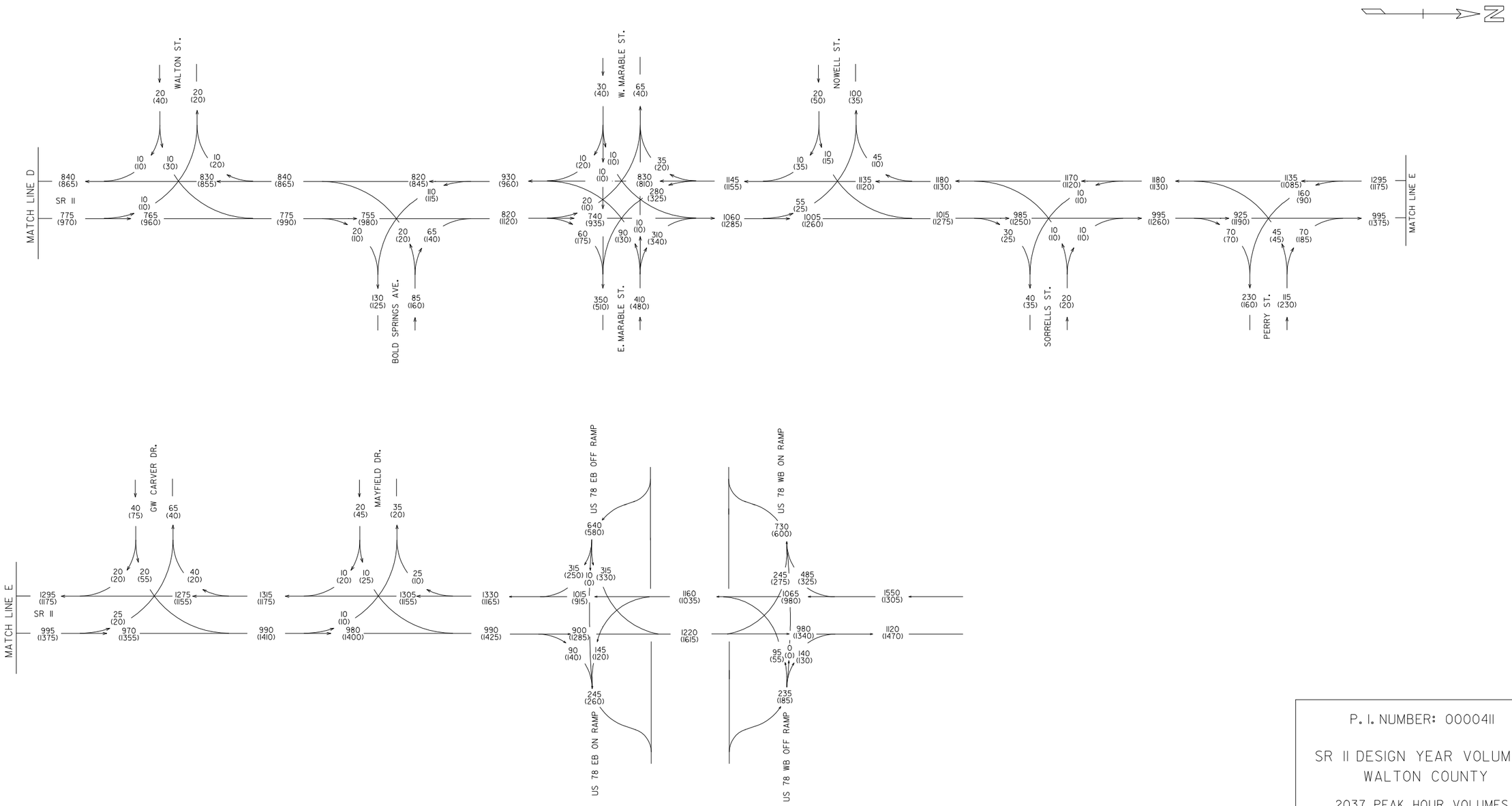
2037 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

DESIGN YEAR (2037) PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 11 DESIGN YEAR VOLUMES
WALTON COUNTY

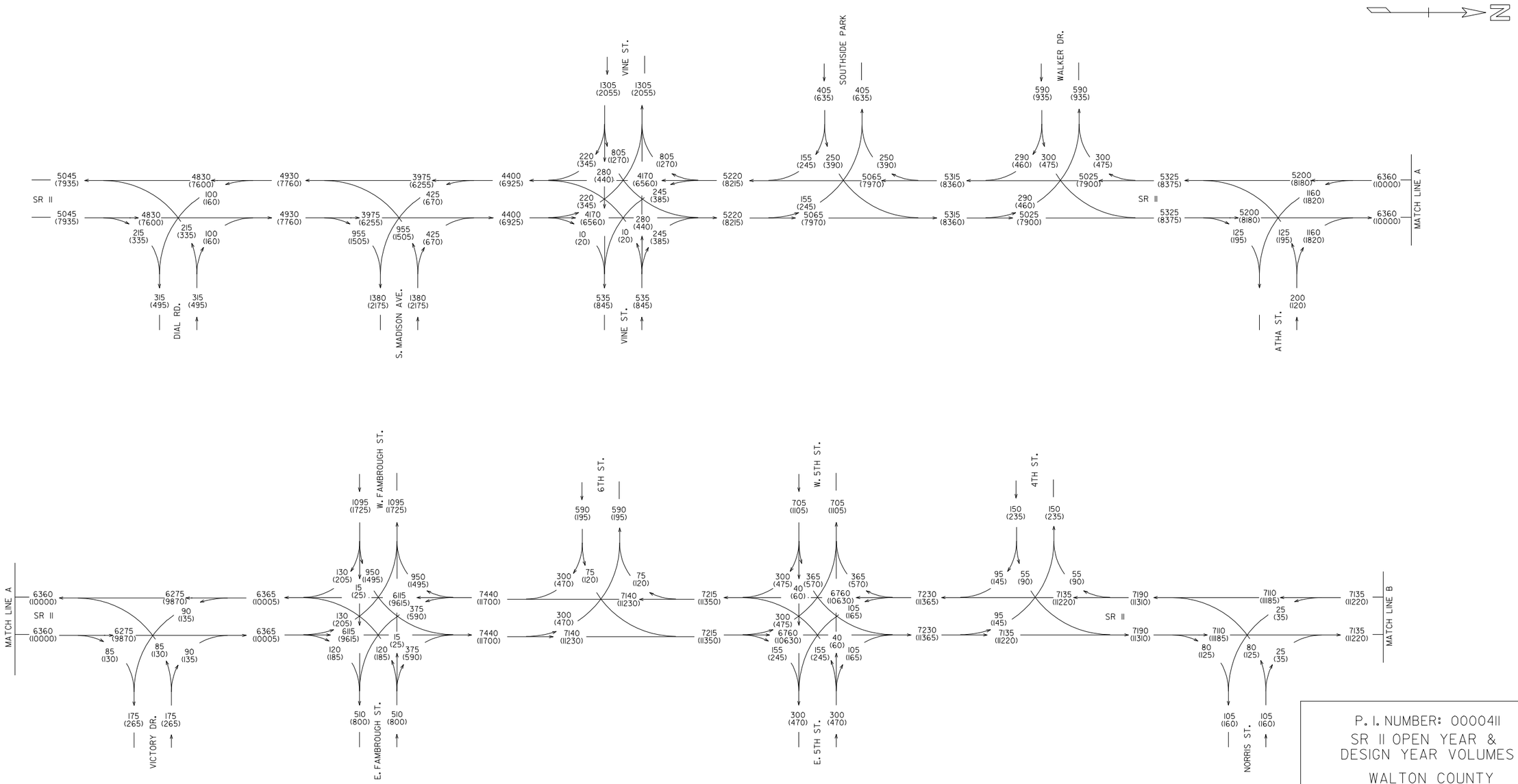
2037 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

OPEN YEAR (2017) & DESIGN YEAR (2037) DAILY VOLUMES



P. I. NUMBER: 0000411
SR 11 OPEN YEAR &
DESIGN YEAR VOLUMES
WALTON COUNTY

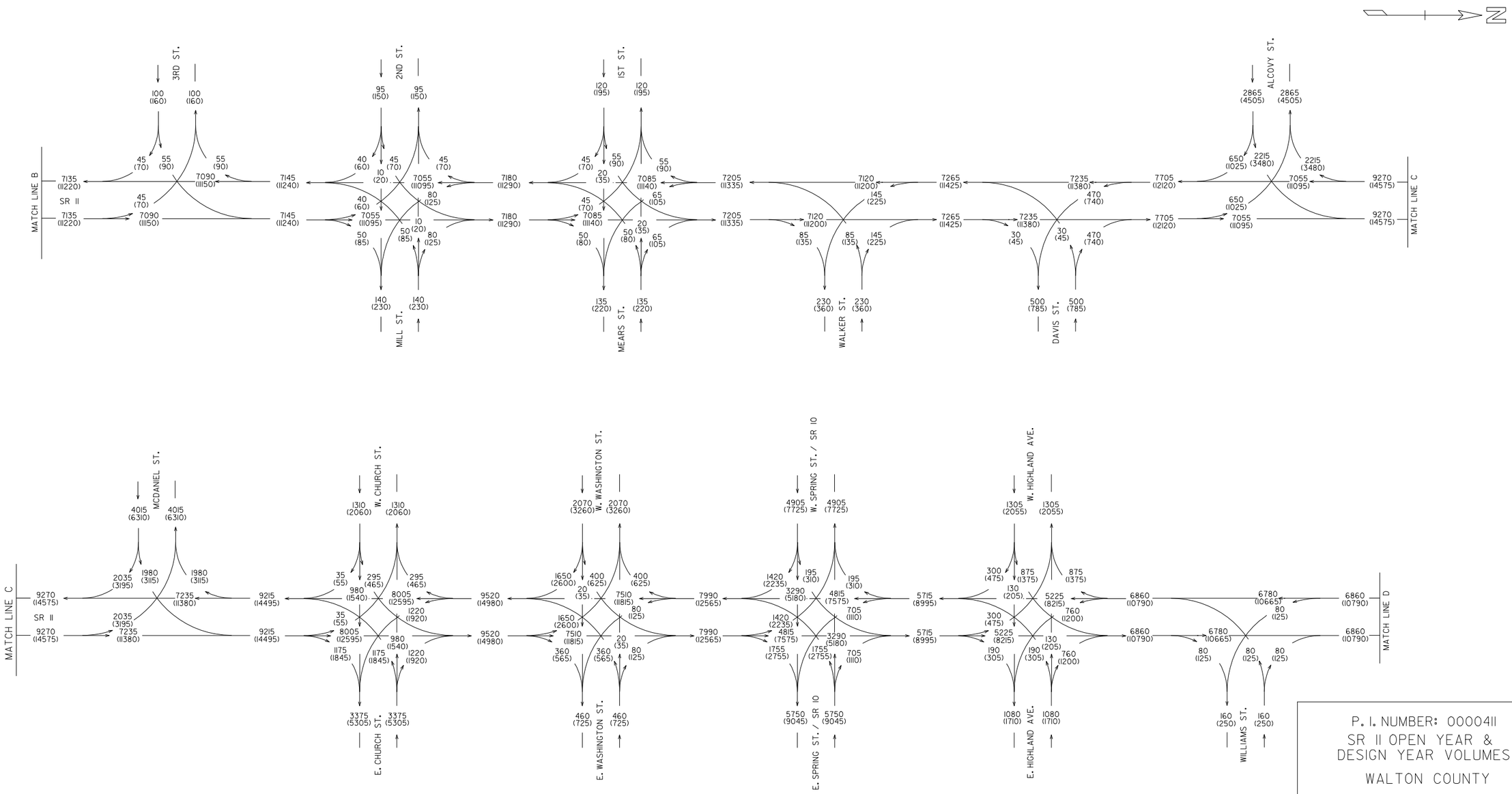
2017 & 2037 ADT

24 HOUR T= 15.0%
S.U = 7%
COMB. = 8%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

OPEN YEAR (2017) & DESIGN YEAR (2037) DAILY VOLUMES



P. I. NUMBER: 0000411

SR 11 OPEN YEAR & DESIGN YEAR VOLUMES

WALTON COUNTY

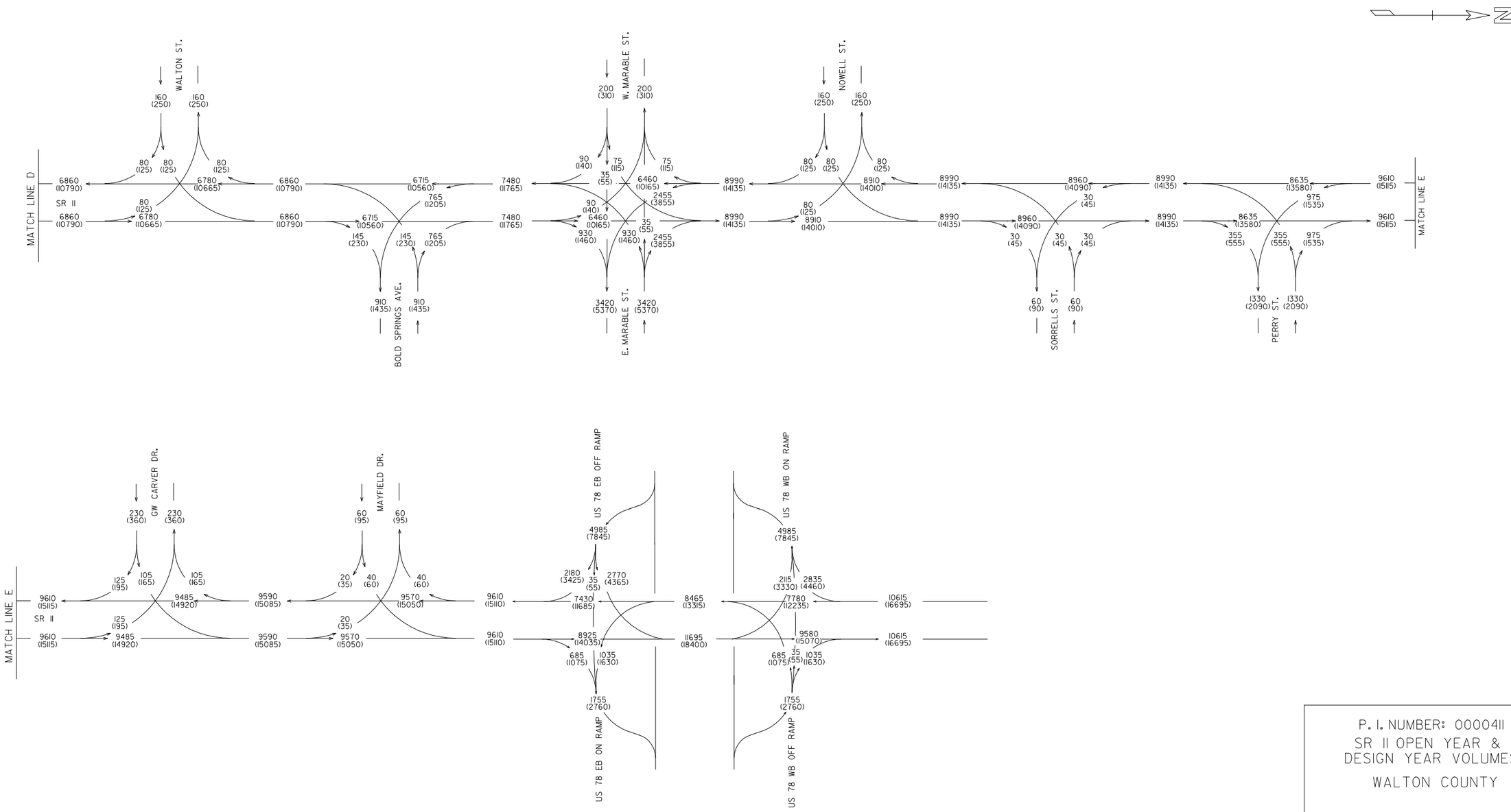
2017 & 2037 ADT

24 HOUR T= 15.0%
S.U = 7%
COMB. = 8%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

OPEN YEAR (2017) & DESIGN YEAR (2037) DAILY VOLUMES



P. I. NUMBER: 0000411
SR 11 OPEN YEAR &
DESIGN YEAR VOLUMES

WALTON COUNTY

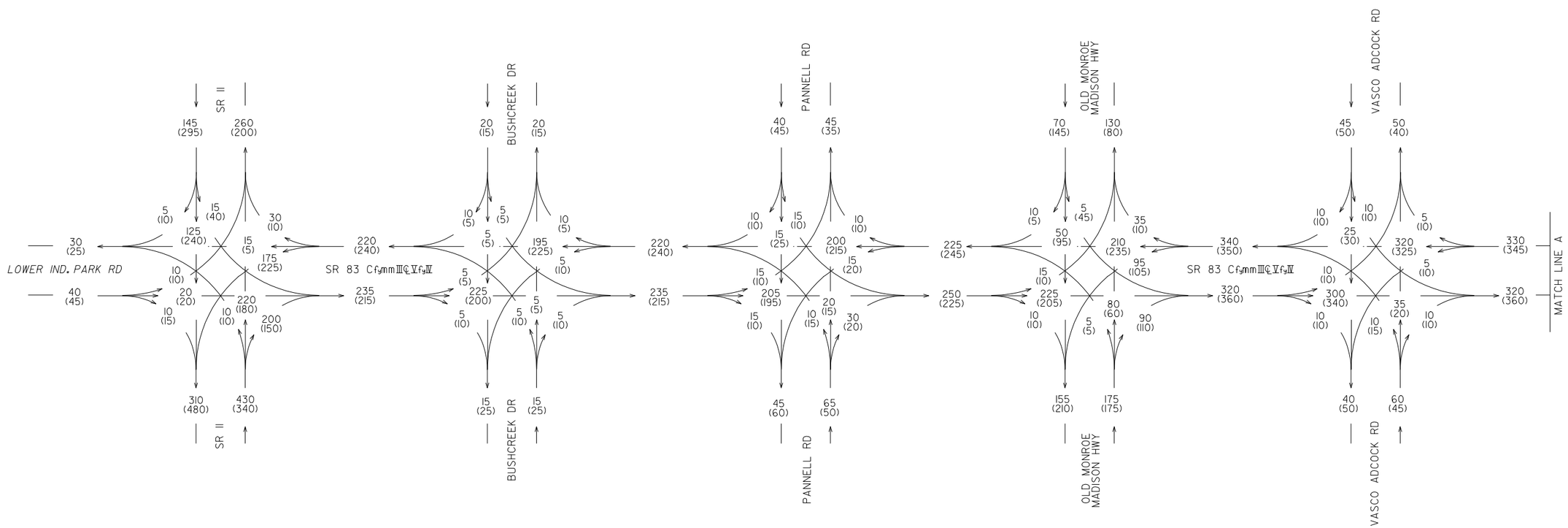
2017 & 2037 ADT

24 HOUR T= 15.0%
S.U = 7%
COMB. = 8%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

2017 PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 83 CONNECTOR
WALTON COUNTY

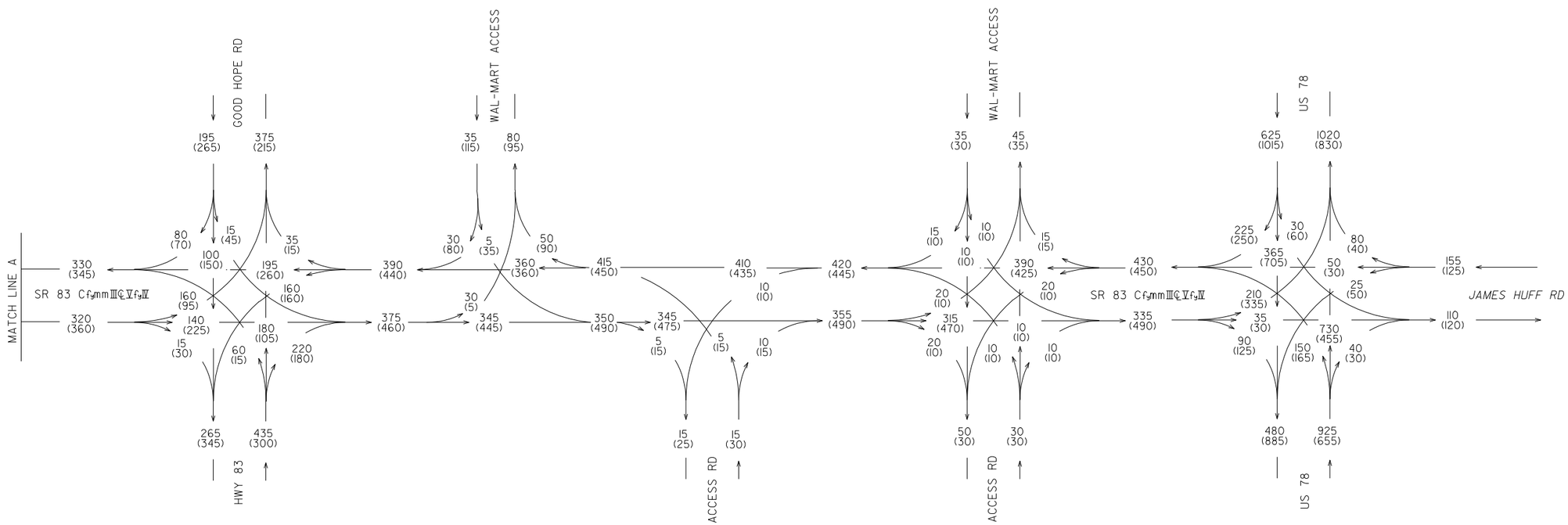
2017 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

2017 PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 83 CONNECTOR
WALTON COUNTY

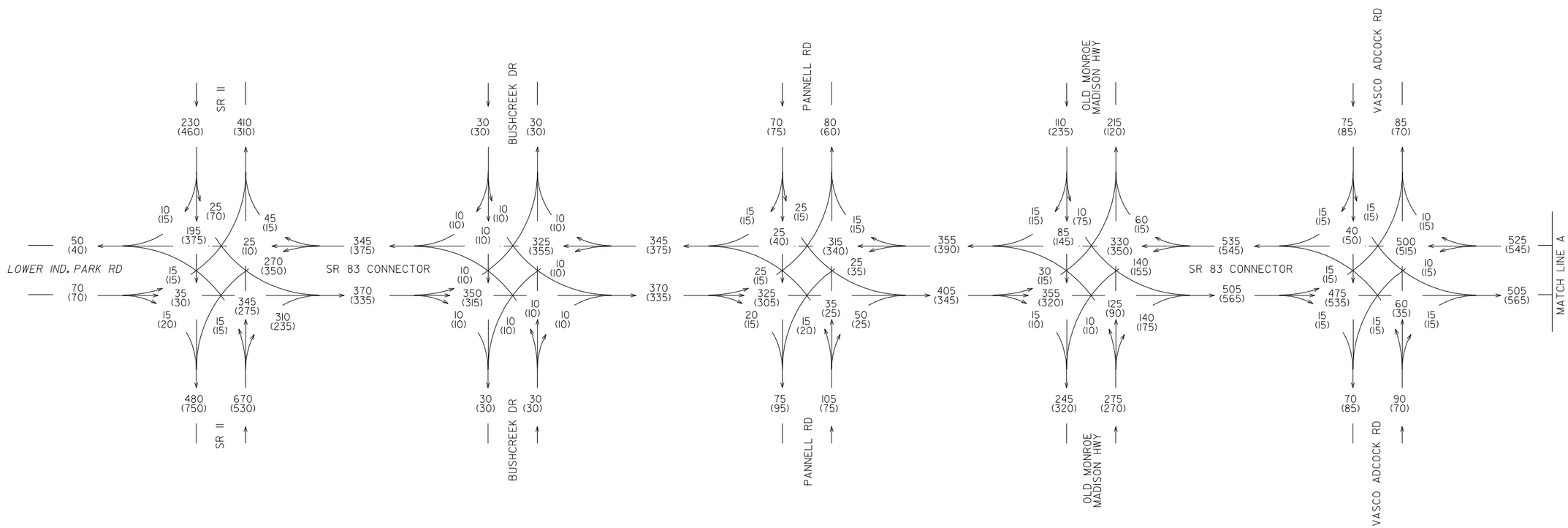
2017 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

2037 PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 83 CONNECTOR
WALTON COUNTY

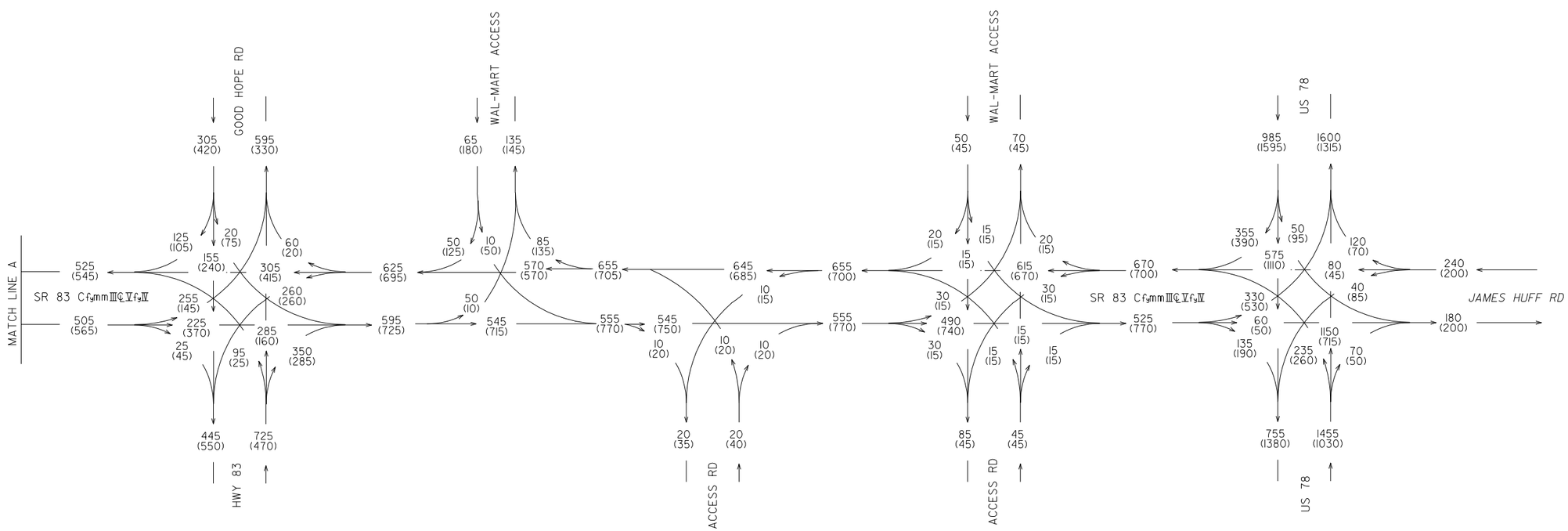
2037 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

2037 PEAK HOUR VOLUMES



P. I. NUMBER: 0000411

SR 83 CONNECTOR
WALTON COUNTY

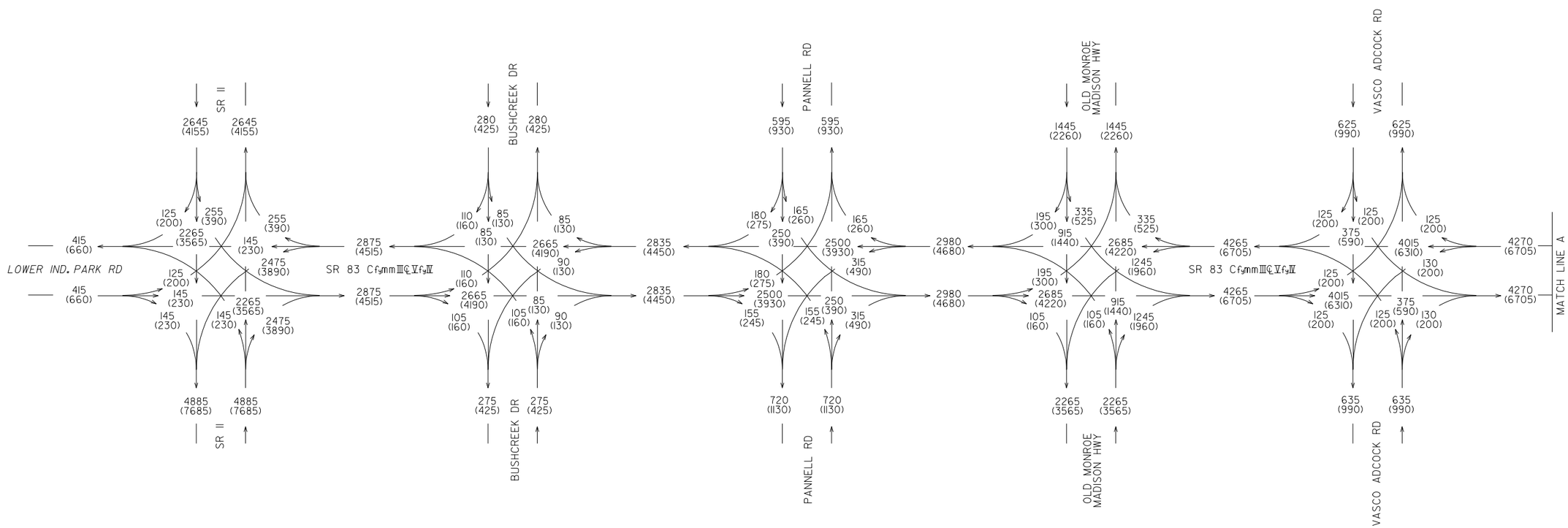
2037 PEAK HOUR VOLUMES
AM = 000
PM = (000)

T = 15.0%

ARCADIS
12/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

2017 (2037) DAILY VOLUMES



P. I. NUMBER: 0000411

SR 83 CONNECTOR
WALTON COUNTY

2017 (2037) DAILY VOLUMES

24 HR. T = 20%

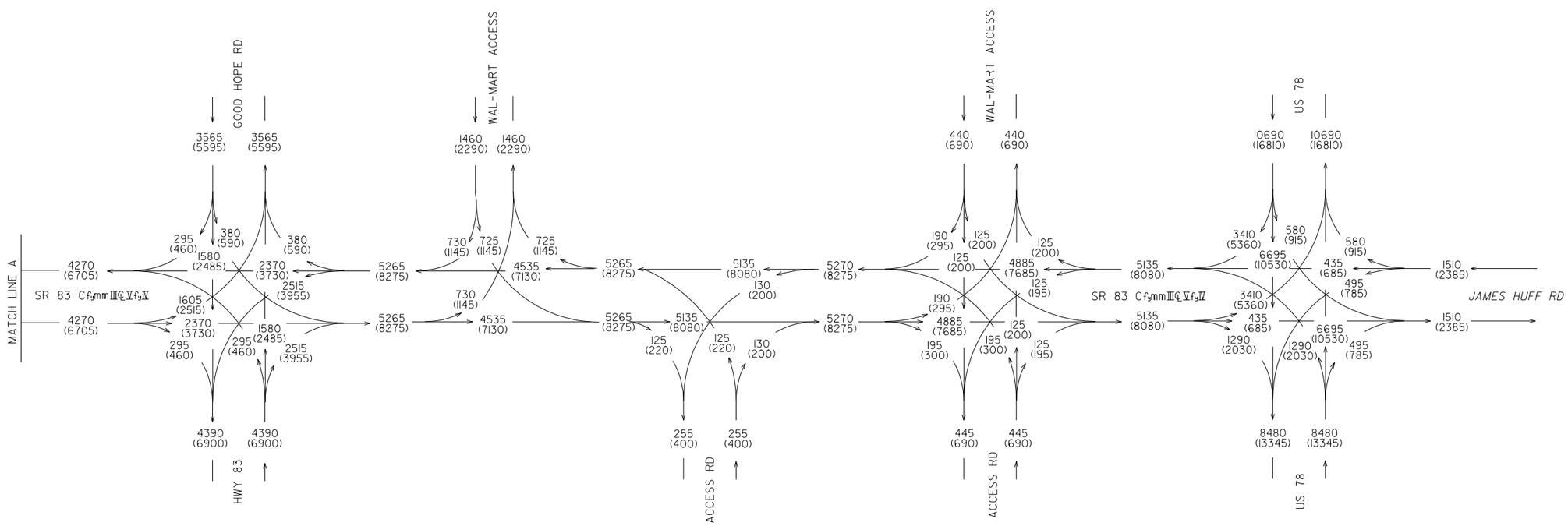
S.U. = 10%

COMB. = 10%

ARCADIS
11/2011

GEORGIA DEPARTMENT OF TRANSPORTATION

2017 (2037) DAILY VOLUMES



P. I. NUMBER: 0000411

SR 83 CONNECTOR
WALTON COUNTY

2017 (2037) DAILY VOLUMES

24 HR. T = 20%

S.U. = 10%

COMB. = 10%

ARCADIS
12/2011

ATTACHMENT 5: Capacity Analysis Summary

Existing Conditions:

Current traffic (Year 2010) on SR 11 through the city of Monroe ranges from 9,010 vehicles per day (vpd) to 18,960 vpd. Heavy vehicle, including trucks, RV's and buses currently make up 15 percent of the traffic on SR 11. The directional peak hour traffic along SR 11 ranges from 410 vehicles per hour (vph) to 810 vph.

Capacity analysis was performed for the existing conditions and rated for operational effectiveness using a level of service (LOS). LOS is a standard means of classifying traffic conditions associated with various traffic volume levels and traffic flow conditions. There are six LOS at which a roadway can operate, represented by the letters A through F. A LOS of A is when volumes are well below capacity and traffic is flowing freely. At LOS B, traffic flow is steady but the presence of other vehicles begins to be noticeable. A LOS of C allows for steady traffic flow, but speeds and maneuverability are more closely controlled by the higher volumes. A LOS of D is approaching an unsteady flow in which speed and maneuverability are severely restricted. At LOS E, traffic flow is reduced to a slow but relatively uniform speed, traffic volume is equal to or nearly equal to capacity, and maneuverability is extremely difficult. The lowest LOS of F is when the volume greatly exceeds the capacity and lengthy delays occur.

The results of segment level and intersection level capacity analysis are summarized in Table 1 and 2. All signalized intersections along SR 11 and SR 11 in the downtown Monroe operate at Level of Service (LOS) D or better.

Table 1 Corridor Operational Analysis Summary – SR 11 Existing Conditions

SR 11 Roadway Segment	LOS
Dial Road and Alcovy Street	D
Alcovy Street and Marable Street	D
Marable Street and US 78 Interchange	D

Table 2 SR 11 Signalized Intersection Operational Analysis Summary – Existing Conditions

Signalized Intersection	Existing Year (2010)			
	AM		PM	
	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
Alcovy Street at SR 11	10.0	B	15.4	B
Church Street at SR 11	13.7	B	17.8	B
Washington Street at SR 11	6.1	A	5.6	A
Spring Street / SR 10 at SR11	22.5	C	36.1	D
Highland Avenue at SR 11	7.8	A	10.8	B
Marable Street at SR 11	10.5	B	15.4	B
Average Arterial Level of Service	**D**		**D**	

Future Conditions:

Traffic Volumes

Future year traffic is projected to range from 10,090 vpd to 21,230 vpd on SR 11 in the year 2017. By the year 2037 traffic is projected to range from 15,870 vpd to 33,390 vpd on SR 11. Heavy vehicle, including trucks, RV's and buses is anticipated to make up 15 percent of the traffic on SR 11.

The proposed connector, would function as a bypass for the city of Monroe, would reduce SR 11 traffic by up to 10,500 vpd in the year 2017 and up to 16,500 vpd in the year 2037. This reduction in pass-by traffic through the central business district of Monroe will allow for continued economic development within the central business district to grow in a manner consist with the current land use and development patterns of the City of Monroe. In addition, the new roadway would provide a by-pass for through traffic at an improved level of service and would maintain current freight and commercial transportation growth in this region of the state.

The proposed connector is anticipated to be opened for traffic in the year 2017 (Open Year) and additionally the project would be designed to accommodate traffic growth through 2037 (Design Year). Table 3 below shows the average annual daily traffic (AADT) along the SR 83 Connector for the open and design years.

Table 3 Open Year and Design Year Traffic along SR 83 Connector

SR 83 Connector Roadway Segment	Average Annual Daily Traffic (AADT)	
	Open Year (2017)	Design Year (2037)
SR 11 (S) and Old Monroe Madison Highway	5960	9320
Old Monroe Madison Highway and Good Hope Road / Highway 83	8540	13,410
Good Hope Road / Highway 83 and US 78 / SR 10	10,540	16,550

Capacity Analysis/Level of Service (LOS)

SR 11 and the proposed connector were divided into segments for capacity analysis. Roadways are rated for operational effectiveness using a level of service (LOS

Tables 4 through 7 shows the summary of the capacity analysis based on the segment level and signalized intersection level for the critical peak hour and travel direction along SR 11 between Dial Rd and US 78 with and without the SR 83 Connector.

Table 4 Corridor Operational Analysis Summary – SR 11 Without SR 83 Connector

SR 11 Roadway Segment	2017 LOS	2037 LOS
Dial Road and Alcovy Street	D	E
Alcovy Street and Marable Street	E	F
Marable Street and US 78 Interchange	E	F

Table 5 SR 11 Signalized Intersection Operational Analysis Summary – Without SR 83 Connector

Signalized Intersection	2017				2037			
	AM		PM		AM		PM	
	Delay (Sec/ Veh)	LOS	Delay (Sec/ Veh)	LOS	Delay (Sec/ Veh)	LOS	Delay (Sec/ Veh)	LOS
Alcovy Street at SR 11	11.5	B	20.0	C	92.1	F	145.1	F
Church Street at SR 11	16.6	B	23.1	B	123.5	F	187.1	F
Washington Street at SR 11	6.4	A	5.9	C	17.6	B	26.5	C
Spring Street / SR 10 at SR11	28.7	C	55.0	A	132.9	F	239.9	F
Highland Avenue at SR 11	7.7	A	10.2	D	9.9	A	16.3	B
Marable Street at SR 11	11.3	B	18.7	B	58.8	E	180.3	F
Average Arterial Level of Service	**D**		**E**		**F**		**F**	

Table 6 Corridor Operational Analysis Summary – SR 11 With SR 83 Connector

SR 11 Roadway Segment	2017 LOS	2037 LOS
Dial Road and Alcovy Street	D	D
Alcovy Street and Marable Street	D	E/F
Marable Street and US 78 Interchange	D	E

Table 7 SR 11 Signalized Intersection Operational Analysis Summary – With SR 83 Connector

Signalized Intersection	2017				2037			
	AM		PM		AM		PM	
	Delay (Sec/ Veh)	LOS	Delay (Sec/ Veh)	LOS	Delay (Sec/ Veh)	LOS	Delay (Sec/ Veh)	LOS
Alcovy Street at SR 11	11.3	B	14.9	B	19.5	B	28.8	C
Church Street at SR 11	14.8	B	17.5	B	26.6	C	59.7	E
Washington Street at SR 11	8.3	A	7.6	A	9.0	A	8.5	A
Spring Street / SR 10 at SR11	22.3	C	26.6	C	54.1	D	74.5	E
Highland Avenue at SR 11	9.5	A	12.2	B	11.0	B	15.5	B
Marable Street at SR 11	12.2	B	15.7	B	24.7	C	57.2	E
Average Arterial Level of Service	**C**		**D**		**E**		**E/F**	

Based on the projected traffic volumes along SR 11 under the no-build scenario, a significant portion of SR 11 will operate at LOS F due to demand exceeding the available capacity. The results of the segment LOS analysis along SR 11 clearly indicate that the proposed SR 83 Connector would help alleviate traffic congestion in the open and design years as compared to the No-build conditions. The primary benefits of the SR 83 Connector are the elimination of truck traffic and reduction in the pass-by trips along SR 11 with an alternate route around downtown Monroe, which would renew the capacity for the passenger cars that have origin and destination in the vicinity of Downtown Monroe.

The intersection capacity analysis at signalized intersections indicates that SR 11 would operate at LOS D or better with or without the SR 83 Connector in the open year, however it is important to review the closely spaced signals as an arterial corridor system. The arterial level of service indicates that SR 11 would operate at LOS E and LOS D with and without the SR 83 Connector respectively. In the design year no-build conditions most intersections along SR 11 operate at LOS F or worse during the morning and afternoon peak hours as compared to LOS E or better under build conditions. The signal delays along SR 11 in the vicinity of downtown Monroe for the design year are approximately 787 sec/veh and 185sec/veh for the no-build and build conditions respectively. It is evident that the presence of traffic signals, combined with the number of access points in the vicinity of the Downtown Monroe and the presence of significant portion of trucks in the vehicular mix has a profound effect especially under No-build conditions as compared to the build conditions. Providing an alternative route for trucks with the construction of the SR 83 Connector would help renew the limited capacity available in downtown Monroe in addition to having the potential to reduce crashes with the reduction in extent of congestion and truck to vehicle mix.

An operational LOS analysis was conducted for the roadway segments and intersections along the proposed connector to determine LOS in the open year 2017 and the design year 2037. Intersection capacity analysis was performed at one proposed single lane roundabout and one existing signalized intersection along the SR 83 Connector. Tables 8 and 9 summarize the results of the capacity analysis along the SR 83 Connector.

Table 8 Corridor Operational Analysis Summary – SR 83 Connector

Segment	2017 LOS	2037 LOS
SR 11 (S) and Old Monroe Madison Highway	C	C
Old Monroe Madison Highway and Good Hope Road / Highway 83	C	D
Good Hope Road / Highway 83 and US 78 / SR 10	D	D

Table 9 Intersection Operational Analysis Summary – Along SR 83 Connector

Intersection	2017				2037			
	AM		PM		AM		PM	
	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
SR 11 (S) at SR 83 Connector – Single Lane Roundabout	5.5	A	6.7	A	10.7	B	14.7	B
SR 10 / US 78 at SR 83 Connector – Signalized Intersection	14.8	B	19.4	B	22.0	C	47.8	D

Operational analysis results show that the proposed two lane SR 83 Connector would operate at an acceptable LOS D or better in the open and design years. The intersection capacity analysis indicates that the proposed signalized intersections along SR 83 Connector operate at level of service of D or better during the open and design year peak hours.

In addition to the operational analysis of the proposed connector, a benefit/cost (B/C) analysis for the SR 11 corridor through downtown City of Monroe was also completed to document the reduction of AADT on SR 11 through downtown and the benefits provided to SR 11 with the construction of the connector. A B/C analysis generally weighs the construction cost of a project against the benefit it will have for motorist (e.g. travel time savings, fuel savings). Utilizing the design year 2037 AADT for SR 11 and SR 83 Connector an analysis was completed for both the build and no-build conditions to determine the reduction in travel time through the corridor. Reduction in travel time can be defined as the difference between the peak hour travel time through the corridor without the proposed improvement and the peak hour travel time through the corridor with the proposed improvement. The reduction in travel time yields a 9.3 B/C

Without the construction of the proposed connector, the design year 2037 peak hour traffic volume in the peak direction along existing SR 11 would range between 600 and 1,550 vehicles/hour. The calculated travel time for vehicles traveling along SR 11between the north and south ends of the study area without the connector would be approximately 20 minutes.

With the construction of the proposed connector, the design year 2037 peak hour traffic volume in the peak direction along existing SR 11 would be approximately 750 vehicles/hour. The peak hour traffic volume in the peak direction along SR 83 Connector would range between 340 and 770 vehicles per hour. The calculated travel time for vehicles traveling along SR 11 and along SR 83 Connector, between the north and south ends of the study, are approximately 8 minutes and 12 minutes approximately. The travel time for motorists along SR 11 would be reduced by approximately 50 percent with the completion of the proposed connector. The system level summary of reduction in traffic volumes and resultant travel time savings along SR 11 and SR 83 Connector are summarized in Table 10 and 11.

Table 10 Design Year Volume and Travel Time Comparison along SR 11 / SR 83 Connector

Corridor / Scenario	Maximum Directional Volume (VPH)	Percent Reduction in Traffic along SR 11 Over No-Build
SR 11 / No-Build Condition	1550	-
SR 11 / Build Condition	750	50%
SR 83 Connector / Build Condition	770	

Table 11 Design Year Travel Time Comparison along SR 11 / SR 83 Connector

Corridor / Scenario	Maximum Directional Volume (VPH)	Percent Reduction in Traffic along SR 11 Over No-Build
SR 11 / No-Build Condition	20	-
SR 11 / Build Condition	12	50%
SR 83 Connector / Build Condition	8	

Note: Travel time section is between SR 11 south end and US 78 at SR 11

ATTACHMENT 6: Summary of Signal Warrant Studies

Intersection 1: N. Broad Street (SR 11 South End) at SR 83 Connector

Analysis Year: 2017

Warrant 1- Eight-Hour Vehicular Volume (Condition A) Evaluation

Intersection	Projected ADT Year 2017		Hourly Volume* (During 8 hours)		Required Hourly Volume		Warrant Meet?
	Major	Minor	Major	Minor	Major	Minor	
SR 11 South End @ SR 83 Connector	7530	2620	470	160	500	150	NO

*Hourly Volume=ADT*6.25% (ITE Manual of Traffic Signal Design, 2nd Edition)

Warrant 1- Eight-Hour Vehicular Volume (Condition B) Evaluation

Intersection	Projected ADT Year 2017		Hourly Volume* (During 8 hours)		Required Hourly Volume		Warrant Meet?
	Major	Minor	Major	Minor	Major	Minor	
SR 11 South End @ SR 83 Connector	7530	2620	470	160	750	75	NO

*Hourly Volume=ADT*6.25% (ITE Manual of Traffic Signal Design, 2nd Edition)

Warrant 3 - Peak Hour Evaluation

Intersection	Peak Hour Volume		Warrant Meet?
	Major	Minor	
SR 11 South End @ SR 83 Connector	635	230	YES

Signal Recommended: NO

It is recommended to build a single-lane roundabout at this intersection.

Intersection 2: Good Hope Rd / Hwy 83 at SR 83 Connector

Analysis Year: 2017

Warrant 1- Eight-Hour Vehicular Volume (Condition A) Evaluation

Intersection	Projected ADT Year 2017		Hourly Volume* (During 8 hours)		Required Hourly Volume		Warrant Meet?
	Major	Minor	Major	Minor	Major	Minor	
Good Hope Rd / Hwy 83 @ SR 83 Connector	9535	1960	600	120	500	150	No

*Hourly Volume=ADT*6.25% (ITE Manual of Traffic Signal Design, 2nd Edition)

Warrant 1- Eight-Hour Vehicular Volume (Condition B) Evaluation

Intersection	Projected ADT Year 2017		Hourly Volume* (During 8 hours)		Required Hourly Volume		Warrant Meet?
	Major	Minor	Major	Minor	Major	Minor	
Good Hope Rd / Hwy 83 @ SR 83 Connector	9535	1960	600	120	750	75	No

*Hourly Volume=ADT*6.25% (ITE Manual of Traffic Signal Design, 2nd Edition)

Warrant 3 - Peak Hour Evaluation

Intersection	Peak Hour Volume		Warrant Meet?
	Major	Minor	
Good Hope Rd / Hwy 83 @ SR 83 Connector	800	195	YES

Signal Recommended: NO

ATTACHMENT 7: Land Use and Environmental Justice

The project corridor lies within or adjacent to three 2000 U.S. Census block groups. Table 1 provides a breakdown of persons living at or below the poverty level within each 2000 U.S. Census block group within or adjacent to the proposed SR 83 Connector corridor compared to Walton County as a whole and the City of Monroe.

Table 1- Income Levels

Population	State of Georgia	Walton County	Monroe, GA Urban Cluster	Census Tract 1103 Block Group 1	Census Tract 1103 Block Group 3	Census Tract 1107 Block Group 1
Total Population*	7,959,649	59,866	12,318	2,119	1,808	2,491
Persons with income in 1999 below poverty level	1,033,793	5,829	83	317	280	2,657
Percent of population living below poverty level	13.0%	9.7%	3.9%	17.5%	11.2%	21.6%

Source: U.S. Census Bureau, Census 2000 Summary File 3 – Sample Data, based on data from Table P87

Table 2 presents the racial composition of each 2000 U.S. Census block group within or adjacent to the proposed SR 83 Connector compared to Walton County as a whole and the City of Monroe.

Table 2- Racial Composition

Race	State of Georgia	Walton County	Monroe, GA Urban Cluster	Census Tract 1103 Block Group 1	Census Tract 1103 Block Group 3	Census Tract 1107 Block Group 1
Total population	8,186,453	60,687	12,849	2,124	1,808	2,772
White alone	5,327,175	50,572	7,353	1,077	999	2,235
Black or African American alone	2,342,110	8,690	5,132	999	793	492
American Indian and Alaska Native alone	23,688	155	20	0	0	0
Asian alone	171,463	478	43	0	0	0
Native Hawaiian and other Pacific Islander alone	3,866	11	0	0	0	0
Some other race alone	193,934	265	113	37	7	38
Two or more races	124,217	516	188	11	9	7
% Minority	34.9%	16.7%	42.8%	49.3%	44.7%	19.4%

Source: U.S. Census Bureau, Census 2000 Summary File 3 – Sample Data, Table P6

Based on the tables above, the project is located within an area that appears to have high minority populations and within a low income area. Right-of-way acquisition would be required for this project. Impacts to low income and minority populations should be taken into consideration as design progresses.

ARCADIS U.S., Inc.
2849 Paces Ferry Road
Suite 400
Atlanta
Georgia 30339
Tel 770.431.8666
Fax 770.435.2666

ATTACHMENT 8 – Concept Team Meeting Minutes

MEETING REPORT

Subject:
Concept Team Meeting Minutes

Department:
Transportation

ARCADIS Project No.:
GA063152

Place/Date of Meeting:
GDOT District 1
12/15/10

Report No.:
1

Minutes by:
Doug Tilt

Issue Date:
1/18/11

Participants:
See Attached Sign in Sheet

---

1. **Need and Purpose:** The need and purpose was discussed and noted that the office of planning has reviewed and approved the Need and Purpose
2. **Logical Termini:** The logical termini was discussed and location was agreed upon. It is not anticipated that a logical termini report will be needed.
3. **Conformance to Plan:** It was noted the current STIP still notes the Monroe by pass and a change would be need to revise the plan for the connector. The City of Monroe will need to update the TIP with ARC.
4. **Project background** was discussed by representatives at the meeting. It was specifically noted that this concept meeting was in regards to the current Monroe Connector. While not related to this concept approval background of the Monroe By-Pass project was discussed.
5. **Benefit Cost Analysis** was discussed and noted that the project has 9.29 B/C ratio.
6. **Location of environmental resources** where identified from previous studies and field work. These included streams and potentially eligible historic resources adjacent to the proposed alignment.
7. **Public Involvement:** A new PIOH and PHOH will be required for the Monroe Connector project.
8. **Alternatives Considered:** The alternatives (alignments to the north and alignment to the south were discussed. It was noted that these alignments would have additional right of way impacts (which are to be enumerated in the concept report) and would have impact to eligible historic resources.
9. **Design Criteria**: It was recommended that the design speed be changed to the posted speed.

10. **Horizontal and Vertical Alignment:** It was noted that the alignment near the northern termini of the project should be design to allow construction without a road closure or temporary widening.
11. **Typical Section:** There was a request to provide right of way for a potential future project which would provide a four lane divided facility. It was noted the federal funding could not be used to provide for right of way beyond the purpose and need of this project.
12. **VE Study:** A VE study will be required and should occur early in the preliminary design stage of the project.
13. **PAR:** A question was raised regarding the need for a PAR prior to concept approval. GDOT will discuss and advise if the PAR could occur after concept approval.
14. **Environmental permits/studies required:** It is anticipated that an EA will be required for this project. It was noted that an individual permit will be required due to the stream impacts. It was stated that environmental document and special studies would need to be redone due to the change in GDOT requirements and time since the previous studies where complete.
15. **Project Framework Agreement** is in place. GDOT will review the PFA and determine who is responsible for the Mitigation cost.
16. **Right-of-way:** A variable 150' to 200' right of way will be provided. There will be 26 impacted parcels with 1 residential displacement. The PFA indicates that GDOT will be responsible for right of way cost. The PFA will be reviewed to determine who will perform the acquisition..
17. **Structural needs:** It was noted that 5 box culverts will be required.
18. **Maintenance of Traffic:** Since this project is largely new alignment, the MOT for this project will have limited impact to existing traffic. It was requested that impacts to cross streets should be reviewed during detailed design to ensure it is feasible to construct under traffic.
19. **Preliminary Capacity Analysis:** It was noted that the design traffic has been approved by GDOT. It was also requested that a roundabout be analyzed at the SR 11/Monroe Connector intersection.
20. **Preliminary construction cost estimate**: Additional detail is required for the utility cost estimate. The right of way cost estimate is also to be submitted to GDOT for review and approval. Detailed Mitigation cost estimate is also to be provided.
21. **Project Schedule**: The project schedule was discussed. The project schedule will be finalized after determination if the PAR is required prior to concept approval or after.
22. **Utilities:** SUE will not be provided for this project. There was request for additional detail on the cost estimate, but the utility companies present indicated that cost was accurate.

During the review of the concept report the following specific comments were provided.

23. Comments to the concept report include:
    a. General Comments
        i. Use latest concept report template
        ii. Update header
    b. Page 1
        i. Revise project name to state "East Monroe Connector Between SR 11 & SR 83
        ii. Remove "(Submit to "Concept Reports" in Outlook
    c. Page 2
        i. Correct Begin and End project flags
    d. Page 5

i. At SR 11 to State Route Numbers
ii. Add Existing Traffic as N/A
iii. Remove existing design features and state this project is a new alignment

e. Page 6
   i. Add 3 section of proposed design features clarifying the 1)turn lane improvements to existing SR 11; 2)new alignment of Connector; 3)turn lane improvements to existing SR 83
   ii. Remove SR 10/US 78 as Major Intersection
   iii. Add SR 11 and Connector and SR 83 at Connector as “Major intersection”

f. Page 7
   i. Under design variances, specify which intersection will require a side road intersection angle variance and list the angle
   ii. Under utility involvement, remove Airstream, Gas Pipeline and Add Windstream and Walton EMC
   iii. Add PE cost of the City of Monroe.
   iv. GDOT will check the PFA and determine if GDOT or City of Monroe is responsible for Mitigation.

g. Page 8
   i. In the public involvement section remove TBD and PIOH and PHOH
   ii. In the schedule section:
      1. Change time for environmental from 24 months to 30 months
      2. Change Section 404 permit from 6 months to 12 months
      3. Add VE Study

h. Page 9
   i. Add more detail to alternatives considered.

i. Page 10
   i. Add updated cost in CES
   ii. Add detailed utility cost estimate (specify the number of poles)
   iii. Add detailed mitigation cost estimate

j. Attachments
   i. Typical Section
      1. Provide 2 typical sections (section with no turn lanes, section with turn lanes)
      2. Check Pavement
      3. Change 12’ ditch to 4’ ditch
   ii. Signal Warrant
      1. It is unlikely that a signal will be permitted with only the peak hour warrant being met.
      2. Evaluate the possibility of a roundabout at the southern end of the project.
      3. It is recommended GDOT Traffic Ops that “design speed” be the same as the “posted speed”

SIGN-IN SHEET

Concept Team Meeting

PROJECT: STP 00-0000-00(411) **DATE: December 15, 2010**

PI#: 0000411

COUNTY: Walton

NAME	OFFICE	EMAIL	PHONE
Jonathan Dills	GDOT/D1/DESIGN	jdills@dot.ga.gov	770-718-5012
Floyd Potter	Hofstadter Assoc.	FloydCHofstadter.com	478-757-1169
DOUG TILT	ARCADIS	doug.tilt@arcadis-usa.com	770-431-8666
CARL HOFSTADTER	HOFSTADTER & ASSOC.	CARLHOFSTADTER@GMAIL.COM	478-757-1169
Julian Jackson	City of Monroe	cityman@monroeGA.gov	770-266-5110
Greg Thompson	City of Monroe	gthompson@monroe.ga.gov	770-267-7536
Bruce Williamson	House Rep. 111	hbw.williamson@gmail.com	770-833-9545 cell
Rudy Power	Transportation Bd		404 317-3310
Todd McDuffie	GDOT	tmcduffie@dot.ga.gov	770 532 5526
Tim Matthews	GDOT/Program Delivery	tmatthews@dot.ga.gov	404-631-1568
John Allman	Walton County	jallman@co.walton.ga.us	770/266-1585
Bruce Nicholson	KCZ	brnicholson@dot.ga.gov	770-550-1015
ROBERT N. MAHONEY	GDOT	RMAHONEY@DOT.GA.GOV	770-532-5520
Kim Coley	GDOT	kcoley@dot.ga.gov	770·532·5530
Kesha Wynn	GDOT	kwynn@dot.ga.gov	706-583-2644
Kevin DeWitt	GDOT	kdewitt@dot.ga.gov	706-582-2644
RUSSELL MADDOX	GDOT	RMADDOX@dot.ga.gov	706-340-7539
TERRY ALLGOOD	WALTON EMC	tallgood@waltonemc.com	770-601-2795
Nathaniel O'Kelley	GDOT Utilities	nokelley@dot.ga.gov	770-532-5510
Brent Cook	GDOT - Traffic Ops	bcook@dot.ga.gov	770.582.5563
Michael D. Johnson	GDOT - Traffic Ops	mjohnson@dot.ga.gov	770-718-5040
Neil A. Kantner	GDOT - D1 Design	nkantner@dot.ga.gov	770-532-5522

Appendix 9: Project Framework Agreement (PFA's)

RECEIVED
DEC 10 2007
DEPT. OF TRANSPORTATION
DISTRICT 1

Department of Transportation

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

GENA L. ABRAHAM
COMMISSIONER
(404) 656-5206

GERALD M. ROSS, P.E.
CHIEF ENGINEER
(404) 656-5277

BUDDY GRATTON, P.E.
DEPUTY COMMISSIONER
(404) 656-5212

EARL L. MAHFUZ
TREASURER
(404) 656-5224

December 3, 2007

The Honorable Greg Thompson, Mayor
City of Monroe
P. O. Box 1249
Monroe, Georgia 30655

Dear Mayor Thompson:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Monroe for the following project:

PROJECT#: STP-0000-00(411) Walton County, P.I. #0000411

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 Robert Mahoney at (770)532-5520.

Sincerely,

James T. Simpson

James T. Simpson,
Financial Management Administrator

JTS: rm
Enclosure
c: Bob Rogers
Russell McMurray - District 1
Jeff Baker – Utilities

AGREEMENT

BETWEEN

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

AND

CITY OF MONROE

FOR

SR 11 MONROE BYPASS

This Framework Agreement is made and entered into this 29th day of November, 2007 by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and **City of Monroe**, acting by and through its Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

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

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain poritions 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 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 shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design), utility relocations, right of way acquisitions and construction, as specified in Attachment A, attached hereto and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT and eligible for reimbursment by the DEPARTMENT shall not be considered reimbursible to the LOCAL GOVERNMENT until the LOCAL GOVERNMENT receives a written notice to proceed for each phase of the PROJECT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities, right of way acquisitions or construction as specified in Attachment A.

3. 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 Preconstruction Engineering Activities.

4. The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance and the continual operations of any and all sidewalks and the grass strip between the curb and gutter and the sidewalk within the PROJECT limits.

5. 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 (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 construction or right of way, as applicable.

6. The LOCAL GOVERNMENT shall certify that they have read and understands the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, AND FEDERAL AUDIT REQUIREMENTS" and will comply in full with said provisions.

7. The LOCAL GOVERNMENT shall accomplish all of the design activities for the PROJECT. The design activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process, 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, the DEPARTMENT's Plan Presentation Guide, PROJECT schedules, and applicable guidelines of the DEPARTMENT. The LOCAL GOVERNMENT responsibility for design shall include, but is not limited to the following items:

a. Prepare the PROJECT concept report 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 modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of design due to public input, environmental requirements, or right of way considerations.

b. Develop the PROJECT base year (year facility is expected to be open to traffic) and design year (base year plus 20 years) traffic volumes. This shall include average daily traffic (ADT) and morning (am) and evening (pm) peak hour volumes. The traffic shall show all through and turning movement volumes at intersections for the ADT and peak hour volumes and shall indicate the percentage of trucks expected on the facility.

c. Validate (check and update) the approved PROJECT concept and prepare a PROJECT Design Book for approval by the DEPARTMENT prior to the beginning of preliminary plans.

d. Prepare environmental studies, documentation, and reports for the PROJECT that show the PROJECT is in compliance with the provisions of the National Environmental Protection Act and Georgia Environmental Protection Act, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, underground storage tanks (UST), and hazardous waste site studies required as well as any environmental reevaluations required. The LOCAL GOVERNMENT shall

submit to the DEPARTMENT all environmental documents and reports for review and approval by the DEPARTMENT and the FHWA.

e. Prepare all public hearing and public information displays and conduct all required public hearings and public information meetings in accordance with DEPARTMENT practice.

f. Perform all surveys, mapping, soil investigation studies and pavement evaluations needed for design of the PROJECT.

g. Perform all work required to obtain project permits, including, but not limited to, US Army Corps of Engineers 404 and Federal Emergency Management Agency (FEMA) approvals. These efforts shall be coordinated with the DEPARTMENT.

h. Prepare the PROJECT drainage design including erosion control plans and the development of the hydraulic studies for the Federal Emergency Management Agency Floodways and acquisition of all necessary permits associated with the drainage design.

i. Prepare traffic studies, preliminary construction plans including a cost estimate for the Preliminary Field Plan Review, preliminary and final utility plans, preliminary and final right of way plans, staking of the required right of way, and final construction plans including a cost estimate for the Final Field Plan Review, erosion control plans, lighting plans, traffic handling plans, and construction sequence plans and specifications including special provisions for the PROJECT.

j. Provide certification, by a Georgia Registered Professional Engineer, that the construction plans have been prepared under the guidance of the

professional engineer and are in accordance with AASHTO and DEPARTMENT guidelines.

k. Failure of the LOCAL GOVERNMENT to follow the DEPARTMENT's Plan Development Process will jeopardize the use of Federal funds in some or all of the categories outlined in this Agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding.

8. All Primary Consultant firms 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.

9. The PROJECT construction and right of way plans shall be prepared in English units.

10. All drafting and design work performed on the project shall be done utilizing Microstation and CAiCE software respectively, and shall be organized as per the Department's guidelines on electronic file management.

11. 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.

12. 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 design of the bridge(s) and prepare any required hydraulic and hydrological studies. The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

13. The LOCAL GOVERNMENT shall follow the DEPARTMENT's procedures for identification of existing and proposed utility facilities on the PROJECT. These procedures, in part, require all requests for existing, proposed, or relocated facilities to flow through the DEPARTMENT's Project Liaison and the District Utilities Engineer.

14. The LOCAL GOVERNMENT shall address all railroad concerns, comments, and requirements to the satisfaction of the DEPARTMENT.

15. If the right of way phase is 100% local funding with no Federal or State reimbursement, upon the DEPARTMENT's approval of the project right of way plans, verification that the approved environmental document is current, which shall

mean that the approval of the environmental document occurred within six (6) months of the approval notice by the DEPARTMENT's for project right of way plans, and delivery of a written notice to proceed, the LOCAL GOVERNMENT may proceed with the acquisition of the necessary right of way for the PROJECT. If the right of way phase involves federal and/or state funding reimbursement, upon the Department's approval of the project right of way plans, the Local Government may proceed with all pre-acquisition right of way activities, however, property negotiation and acquisition cannot commence until right of way funding authorization is approved. Right of way acquisition shall be 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 and in accordance with the "Contract for the Acquisition of Right of Way" to be prepared by the Office of Right of Way and executed between the LOCAL GOVERNMENT and the DEPARTMENT prior to the commencement of any right of way activities. 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. In the event the LOCAL GOVERNMENT is to receive reimbursement of all or part of the acquisition funding, reimbursable right of way costs are to include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. All required right of way shall be obtained and cleared of

obstructions, including underground storage tanks, prior to advertising the PROJECT for bids. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the approved right of way plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to purchase the required right of way.

16. Upon completion and approval of the PROJECT plans, certification that all needed rights of way have been obtained and cleared of obstructions, and certification that all needed permits for the PROJECT have been obtained by the LOCAL GOVERNMENT the PROJECT shall be let for construction. The DEPARTMENT, unless shown otherwise on Attachment A, shall be solely responsible for securing and awarding the construction contract for the PROJECT.

17. The LOCAL GOVERNMENT shall review and make recommendations concerning all shop drawings prior to submission to the DEPARTMENT. 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 diskettes and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if required. 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 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 designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors or deficiencies within 30 days shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays 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.

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.

RECOMMENDED:

Russell R McMurry
District Engineer

Director of Preconstruction

Chief Engineer

DEPARTMENT OF TRANSPORTATION

BY: Buddy Nix
Commissioner

Deputy

ATTEST:

Treasurer

REVIEWED AS TO LEGAL FORM:

Sadie S Bayless 9.11.07
Office of Legal Services

City of Monroe

BY: Greg Thompson
Greg Thompson
Mayor

Signed, sealed and delivered this 9th day of August, 2007, in the presence of:

Beverly Johnson
Witness

Renee L Prather
Notary Public

RENEE L. PRATHER NOTARY PUBLIC WALTON COUNTY GEORGIA EXPIRES AUG. 16, 2009

This Agreement approved on the 12th day of December, 2006.

William J Johnson
City/County Clerk (as appropriate)

FEIN: 58.6000626

ATTACHMENT "A"
Project Number: STP-0000-00(411) – Walton County

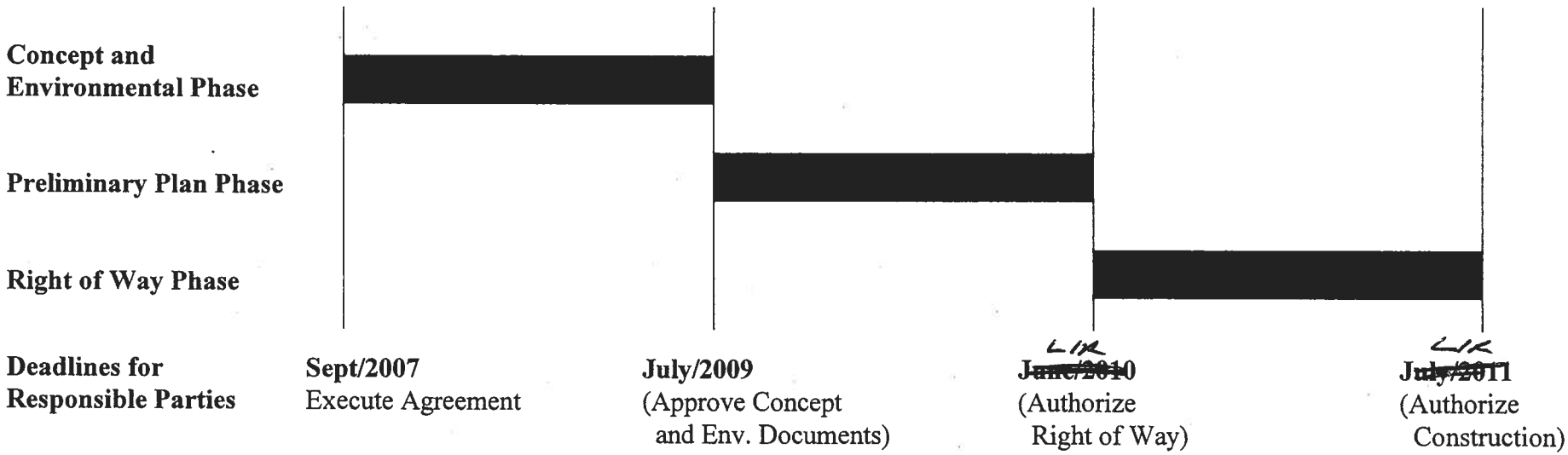
Project	Work	Preliminary Engineering		Right of Way		Construction		Utilities
(PI#, Project #Description)	Type	Funding	Design	Funding of Real Property	Acquisition & Administrative Cost by	Funding	Letting by	Relocation Costs by
0000411 SR 11/Monroe E. Bypass from South city limits North to US 78 to SR 11 Walton County	L230 Roadway Project	100% City of Monroe	Local	$19,565,600 GDOT	GDOT	$60,206,190 GDOT	GDOT	City of Monroe

Note: 1. Maximum allowable GDOT reimbursible amount may be shown above in lieu of percentages when applicable. Local Government will only be reimbursed the percentage of the accured invoiced amounts up to but not to exceed the maximum amount indicated.

2. Cash participation limits may be shown above in lieu of percentages when applicable.

ATTACHMENT "B"
0000411 – Walton County

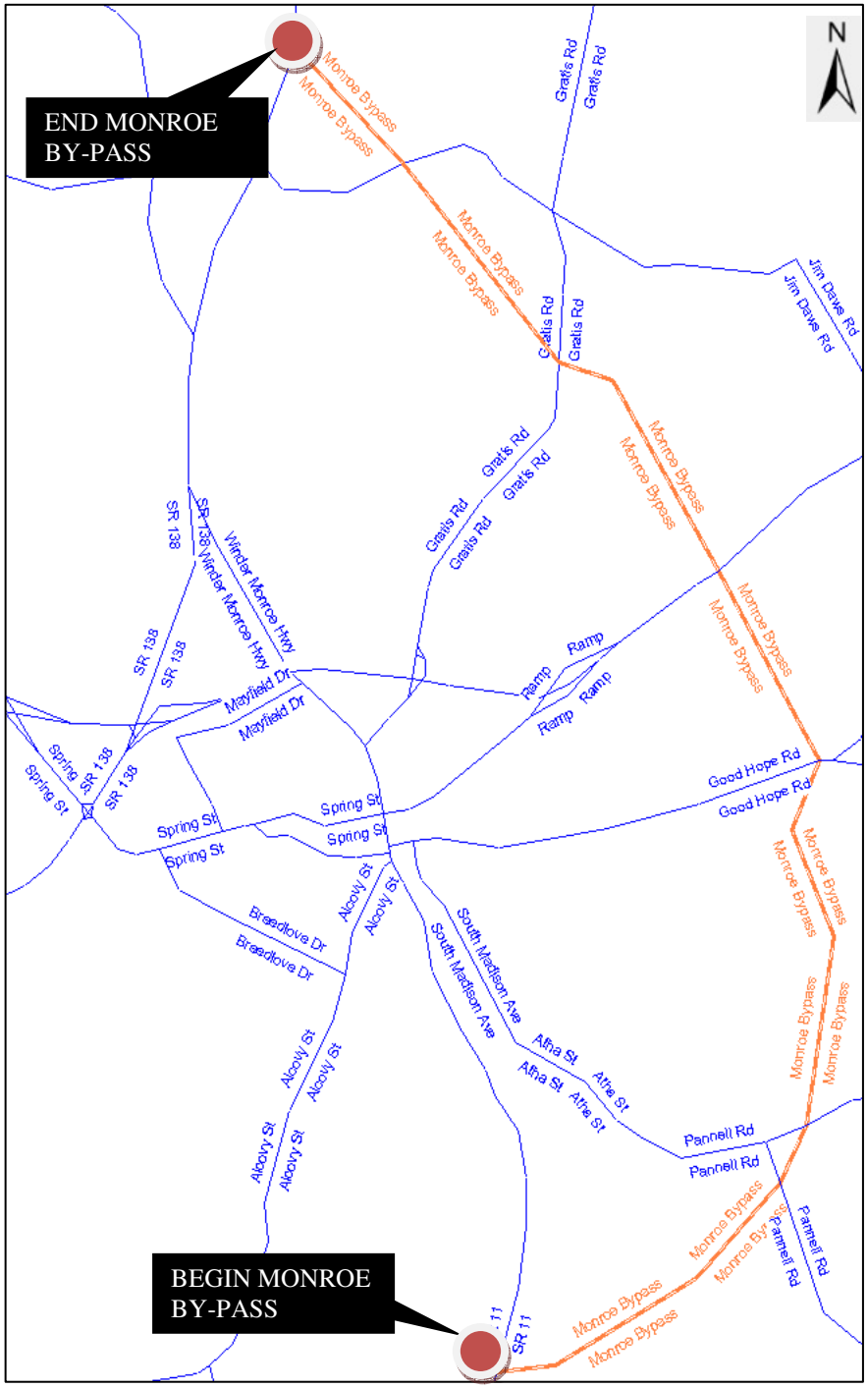
Proposed Project Schedule



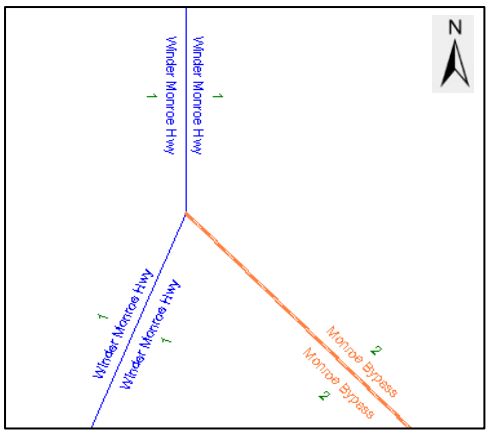
Annual Reporting Requirements

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.

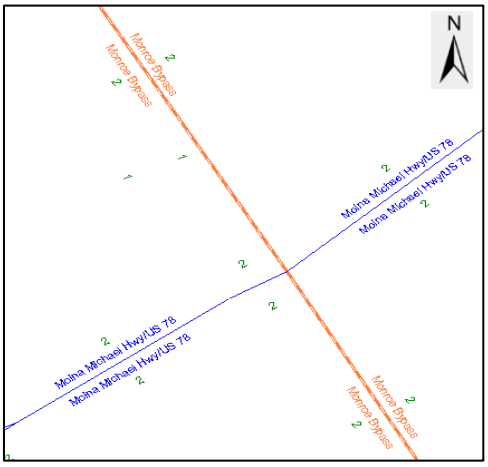
ATTACHMENT 10: Conforming plan's network schematics showing thru lanes



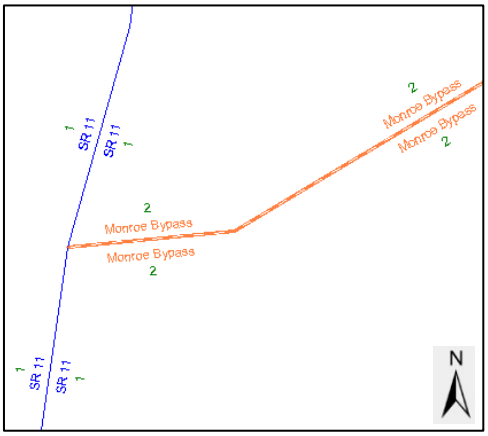
SR 11 NORTH END AT MONROE BY-PASS



US 78 AT MONROE BY-PASS



SR 11 SOUTH END AT MONROE BY-PASS



Source: ARC's Regional Travel Demand Model – Envision 6

ATTACHMENT 11: Design Traffic Approval Letter

Department of Transportation
State of Georgia

FILE STP00-0000-00(411), Walton County
P.I. # 0000411

OFFICE Planning

DATE August 13, 2010

FROM Angela Alexander, State Transportation Planning Administrator

TO Todd McDuffie, District Engineer
Attention: Jonathan Dills

SUBJECT Updated Design Traffic Review for SR 11/Monroe E BYP FM SO. CITY LIMITS NORTH TO US 78.

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

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

ATA/RFN

ATTACHMENT 12: Benefit Cost Analysis

The travel time for motorists along SR 11 would be reduced by approximately 50 percent with the completion of the proposed connector. A weighted average of the travel time along SR 11 and SR 83 Connector was used in performing the benefit cost analysis. The benefit to cost ratio is estimated to be 7.76 thereby justifying the need for this project. Table 7 below shows the breakdown of the total project cost to the total congestion benefit.

Table 7: Benefit Cost Analysis Summary

STP-0000-00(411) P. I. Number: 0000411 Walton County SR 83 Connector from SR 11 to US 78 / SR 10	
Congestion Benefit = Tb + CMb + Fb	
Person Time Savings Benefit (Tb)	
*Db (hrs)	0.18
ADT	15,870
Tb ($s)	$96,053,175
Commercial or Truck Time Savings Benefit (CMb)	
Db (hrs)	0.18
% Truck Traffic	0.15
ADT	15,870
CMb	$76,110,536
Fuel Savings Benefit (Fb)	
ADT	15,870
Fb ($s)	($1,214,675)
Total Congestion Benefit	$170,949,036
Total Project Cost	$22,028,487
B/C Ratio	7.76

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