ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. #0002409
STP00-0002-00(409)
GDOT District 4 - Tifton
Dougherty County
SR 520/Clark Ave FM
CS 1060/Turner Field Rd to Cordele Rd.
Reconstruction/Rehabilitation

OFFICE Design Policy & Support

DATE 10/13/2011

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED REVISED CONCEPT REPORT**

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

Attachment

DISTRIBUTION:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Ron Wishon, State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Michael Henry, Systems & Classification Branch Chief
Joe Sheffield, District Engineer
Brent Thomas, District Preconstruction Engineer
Tim Warren, District Utilities Engineer
Albert Shelby, Project Manager
BOARD MEMBER - 2nd Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

REVISED PROJECT CONCEPT REPORT

STP00-0002-00(409), Dougherty County
P.I. Number: 0002409
Federal Route Number: US 82
State Route Number: SR 300/SR 520 and SR 62

The change recommended is to select the "No Build Alternative". This recommendation is based on results of traffic capacity analyses using updated traffic volume data provided by the Department's Office of Planning.

Submitted for approval:

DATE 8-3-11 — C. Andy Carey
State Roadway Design Engineer

DATE 8-11-2011 — Bobby Hilliard
State Program Delivery Engineer

DATE 8-9-11 — Albert Shelby
Project Manager

Recommendation for Approval:

DATE 8-23-2011 — Glenn Bowman (Recommendation on file) LC
State Environmental Administrator

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 Statewide Transportation Improvement Program (STIP).

DATE 9-22-2011 — Cindy VanDyke (Recommendation on file) LC
State Transportation Planning Administrator

REVISED PROJECT CONCEPT REPORT

Need and Purpose:

Corridor Background

This section of SR 300/SR520/Clark Avenue between Turner Field and SR 62/Cordele Road currently is a 4-lane section of road with a center turn lane that has a total traffic volume of 24,250 vehicles per day (VPD) in the year 2009. SR 520/SR 300 is also known as the Georgia-Florida Pkwy and is a vital component of the Albany Metropolitan area's transportation system. This section of Clark Avenue is not part of State designated bike route; however the DARTS (Dougherty Area Regional Study) 2035 Transportation Plan identified this section of Clark Avenue as part of the locally proposed bicycle and pedestrian network. The DARTS 2035 Transportation Plan proposes an on-street bike corridor along the section of Clark Avenue between SR 62 and Blaylock Street. The 2035 plan also proposes extending the existing sidewalk at the Clark Avenue interchange to Mock Road.

The project was programmed June 2001 and is identified and included in the DARTS 2035 Long Range Transportation Plan which was adopted December 2009. It is also shown in the DARTS FY 2010-13 Transportation Improvement Program (TIP) as project H/R-95-8.

Land Use and Community Issues

Land use immediately along the project limits is mix of residential and commercial use areas. Commercial use is concentrated north of this section of SR300/Clark Avenue while residential use is concentrated on the south side of SR 300/Clark Avenue/

According to the 2000 census, in the city of Albany, 65% of the residents were classified by the census as African American. In the state of Georgia, the 2000 census reported 34.9% of the residence was classified as minorities. Approximately 76% residents of census tract 103.01, which is where the project is located, were classified by 2000 census as African Americans. The population of Dougherty County has decrease 0.5% from 96,354 residents in 2000 to 95,859 residents in 2009. Because they make up the greater portion of residents, many of the African American residents in the immediate project area would benefit from this project.

Safety

This section of SR 300 (from Turner Field Road to SR 62) is functionally classified as an Urban Principal Arterial. Table 1 provides a comparison of the crash rates on this section of the road with the state average for the similar functionally classified road for the year 2007-2009.

Table 1: Crash Data along Clark Ave (SR 520/SR 300)

Dougherty Co. MP 8.54-9.57						
	2007		2008		2009	
Urban Rural Arterial	SR 520	State	SR 520	State	SR 520	State
Crashes	44		37		30	
Crash Rate	501	787	421	649	352	466
Injury Rate	273	182	119	151	199	114
Fatalities	0		0		0	
Fatality Rate	0	1.53	0	1.06	0	1.13

The crash rates are not higher that the Georgia statewide average. However, the injury rate is higher than the statewide average in 2007 and 2009 for the section analyzed. There were no fatalities recorded.

Slightly more than half of all accidents identified each year were rear end crashes. Angle crashes were the second most common.

Table 2: Type of Crashes (2007-2009)

YEAR	Angle (%)	Rear End (%)	Side Swipe (%)	Not a Collision w/ another vehicle (%)	Head-On
2007	13/25%	28/54%	7/13%	4/8%	0/0%
2008	9/21%	21/49%	7/16%	5/12%	1/2%
2009	6/17%	16/45%	3/8%	7/19%	4/11%

Travel Demand and Operational Conditions

The volume of traffic on this section of SR 520/SR 300 has been steady over the past three years averaging just over 22,000 vpd. Table 3 lists current and future traffic.

Table 3: Current & Future Traffic

Roadway Segment	Existing AADT (2009)	Future AADT (2035)	Current LOS	Future LOS (No-Build)
SR 300 from Turner Field Rd to SR 62	24,500	35,189	C	D

Level of Service (LOS) is defined as a qualitative measure describing operational conditions within a traffic streams. There are six defined LOS tiers at which a roadway can operate. Each of the six tiers are identified by a letter, "A" represents the best operating conditions and LOS "F" represents the worst. If a roadway is operating at LOS "A", "B", or "C", that is considered acceptable operating conditions. If no improvements are made, the intersection of SR 300 will be operating at LOS "D" by the year 2030.

Logical Termini

The western terminus of this widening project is at Turner Field Road and the eastern Terminus is at SR 62/Cordele Road. The western Terminus is logical because traffic volumes drop by approximately 13% at Turner Field Road, and this project complements and adjacent project along Clark Avenue PI # 422560, which is the reconstruction of the liberty Expressway interchange at SR 300/Clark Avenue. The interchange reconstruction project will not add east-west through capacity to SR 300 under the interchange, however, the reconstructed interchange will add turn lanes that will provide a transition from the capacity being added via PI # 0002409 (the interchange reconstruction has independent utility from the SR 300 widening). The eastern terminus is logical due to the traffic volumes drop by approximately 42% at SR 62.

Projects in the Area

The following project is located within the area and is programmed in the Department's Construction Work Program and DARTS Long Range Plan.

PI Number	Project Description	Project Schedule
422560	SR 3 /Liberty Pkwy @ Clark Ave – Ramps and Turn Lanes/Albany	PE-Authorized-1995 ROW-Authorized-2006 CST-LR

Need and Purpose

The need exists to alleviate future traffic congestion to maintain a LOS C and reduce crash frequency on SR 520/SR300/ Clark Avenue and SR 62/Cordele Road. The injury rates for 2007 and 2009 along this section of SR 520/SR 300 exceed the statewide average for similar facilities, furthermore, with no added capacity, this section of SR 520/SR 300 is projected to operate at a future unacceptable LOS D. Traffic along this corridor is projected to grow at a rate of one percent (1%) over the next 20 years. Consequently, by the 2029 the proposed project corridor is expected to operate at a LOS D with 33,150 vehicles per day (VPD).

Project location:
The project is located along SR 300/ SR 520/US 82/Clark Avenue beginning at the intersection of Turner Field Road (Mile Post 8.81) and ending at the intersection of SR 62/SR 300/Cordele Road/Georgia-Florida Parkway (Mile Post 9.51). The work will extend east past the intersection of SR 62/SR 300 approximately one-half mile to tie the proposed typical section into the existing typical section at the intersection of North Cherokee Drive (Mile Post 10.06). The total length of project is 1.25 miles and is located 100% within the 2nd United States Congressional District of the State of Georgia and 100% within the City of Albany, Dougherty County.

Description of the approved concept
The proposed project would widen and reconstruct SR 300/SR 520/U`S 82/Clark Avenue from the intersection with Turner Field Road (Mile Post 8.81) eastward past the intersection with SR 62/SR300/Cordele Road/Georgia-Florida Parkway (Mile Post 9.51) to the intersection with North Cherokee Drive (Mile Post 10.06), a total length of 1.25 miles. The work would reconstruct the existing five-lane urban section (two, 12-foot travel lanes in each direction with a 14-foot Two-way, Left-turn Lane and curb-and-gutter only on 12-foot wide shoulders along both sides of the roadway) to a six-lane urban section (three, 12-foot travel lanes in each direction separated by a 20-foot raised median) with four-foot bike lanes, curb-and-gutter, and 16-foot shoulders along both sides of the roadway. An eight-foot sidewalk would be constructed on the eastbound shoulder; a five-foot sidewalk would be constructed on the westbound shoulder. To minimize impacts on developed property adjacent to the project corridor, the widening would occur to the north of the existing roadway at the western project limits, shift to the south side of the existing roadway to avoid impacts to an existing water tower located on the Miller Brewing Company property near the middle of the project, then shift back north to occur symmetrically about the existing roadway at the intersection of SR 62/SR 300/Cordele Road/Georgia-Florida Parkway near the eastern project limits.

PDP Classification: Major X Minor __

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

Functional Classification: Urban Principal Arterial

U. S. Route Number(s): US 82/Clark Avenue

State Route Number(s):
SR 300/SR 520/Clark Avenue
SR 62/SR 300 /Cordele Road/
Georgia-Florida Parkway

Traffic (AADT) as shown in the approved concept:
Base Year 2010: 32,000 Design Year (2030): 50,500

Updated traffic data (AADT):
Base Year (2015-No Build): 28,279 Design Year (2035 - No Build):34,503
(2015- Build): 29,345 (2035 - Build): 41,730

Approved Programmed/Schedule:
P.E. 2002 (Authorized) R/W: 2013/2012 Construction: 2016

VE Study Required: Yes (X) No ( ) Implementation letter Date: 02/17/2004

Benefit /Cost Ratio: 0.01

Is the project located in an Ozone Non-attainment area? Yes ( ) No (X)

Is the project located in a PM2.5 Non-Attainment area? Yes ( ) No (X)

Approve Features:	**Proposed Features:**
Clark Avenue Three, 12-foot wide travel lanes in each direction. A 20-foot wide raised median. 4-foot wide bicycle lane in each direction along Clark Avenue Pavement cross slope 2.0%. A new installation traffic signal is proposed at the intersection of School Street and Clark Avenue.	Clark Avenue No Build Alternative
Cordele Road One, 12-foot wide left-turn lane on northbound approach. Two, 12-foot wide right-turn lanes on southbound approach A 14-foot wide flush median.	Cordele Road No Build Alternative .

Reason for Change:
Clark Avenue/Cordele Road

The updated traffic data submitted by the Office of Planning shows a significant drop in traffic volumes along the SR 300/SR 520/US 82/Clark Avenue corridor. An analysis of the 2035 no-build traffic with the no-build alternative has resulted in a Level of Service of B during the am peak traffic period and C during the pm peak traffic period for all intersections.

An analysis of the vehicle-crash data along the project corridor obtained from the GDOT Accident Information System (AIS) for years 2007, 2008, and 2009 (see attachment table 4-1) indicates that crash rates for 2007 and 2008 are above state wide average. Table 4-1 also shows that injury rates for the corridor are above state wide average for the 3 years. Further investigation into the crash data presented in table 4-1 was conducted by reviewing the actual police reports for the reported vehicle crashes. The findings revealed that some of the reported crashes were recorded incorrectly and did not occur within the limits of the proposed project corridor (see attachment). Based on actual police reports, vehicle crashes, crash rates, and injury rates for years 2007 through 2009 along the project corridor are as shown on table 4-2. The data indicates crash rates along the project corridor are below state wide average while injury rates are above state wide averages for the three-year period. The review of the actual police reports shows that none of the crashes and associated injuries along the project corridor were attributed to roadway geometrics.

Potential Environmental Impacts of the Proposed Revision: No anticipated environmental impacts.

Has the Proposed Revision Been Reviewed By Environmental Staff? (X) Yes ( ) No

Environmental Responsibilities (Studies/Documents/Permits): GDOT

Updated Cost Estimate	
Base Construction Cost	$ 0.00
Engineering and Inspection	$ 0.00
Total Construction Cost	$ 0.00
Right of Way	$ 0.00
Utility (Reimbursable)	$ 0.00
Utility Contingencies	$ 0.00
Environmental Mitigation	$ 0.00

Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

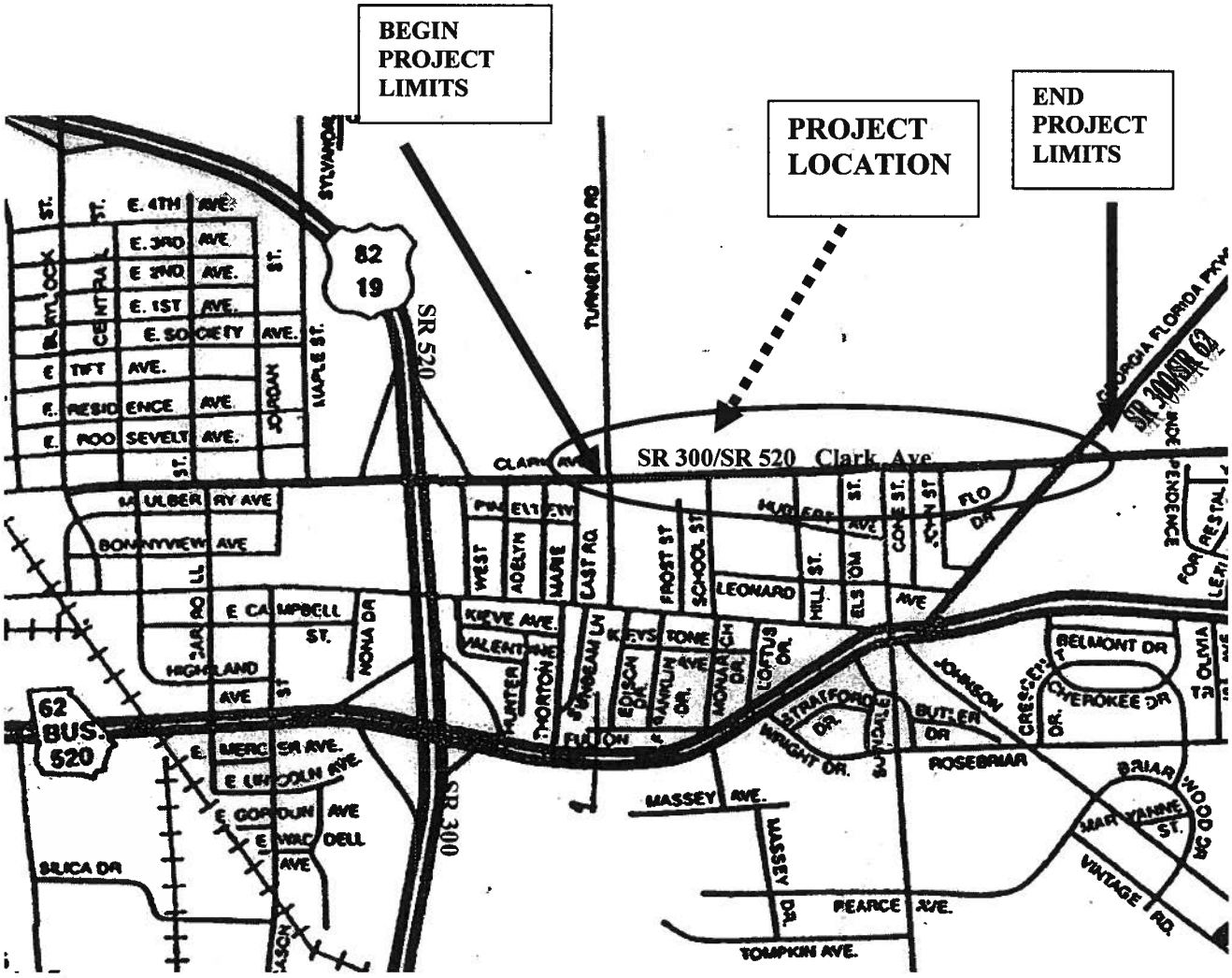
Attachments:

1. Location Sketch Map
2. Traffic Analysis Summaries
   - Summary 2030 traffic (7/11/2005)
   - Summary 2035 traffic (1/25/2011)
3. Traffic Diagrams
   - 2015/2035
4. Traffic Analysis – HCS Report
5. B/C Ratio
6. Vehicle Crash/Injury/Fatality Data
7. VE Study Implementation Letter

Concur: _____
Director of Engineering

Approve: _____ 10-11-2011
Chief Engineer Date

LOCATION SKETCH MAP
Clark Avenue



Traffic Analysis Summaries

CLARK AVE - 0002409 - INTERSECTION LEVEL OF SERVICE

TRAFFIC ANALYSIS USING HCS2000 PROGRAM

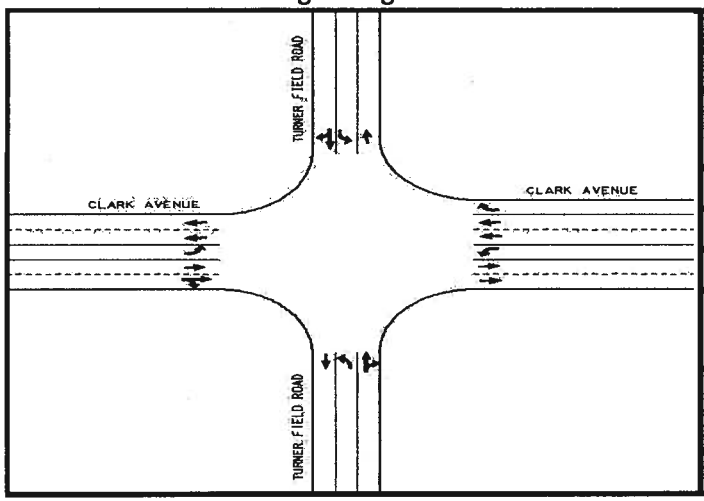
July 11, 2005

	2030 No Build - Using Projected Traffic Calculations			
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Signalized - With existing alignment				
Clark Ave & Turner Field Road	F	133.2	F	101.4
Clark Ave & School Road	F	151.3	F	151.8
Clark Ave & Mock Road	F	109.8	F	118.3
Clark Ave & SR 62	F	198.9	F	234

	2030 Build - Using Projected Traffic Calculations			
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Signalized - Proposed alignment				
Clark Ave & Turner Field Road	C	35	C	26.9
Clark Ave & School Road	C	25.8	C	25.7
Clark Ave & Mock Road	C	20.3	C	24.4
Clark Ave & SR 62	C	31.5	C	35

CLARK AVENUE - 0002409 INTERSECTION LEVEL OF SERVICE
TRAFFIC ANALYSIS USING HCS+ PROGRAM
Tuesday, January 25, 2011
TURNER FIELD ROAD

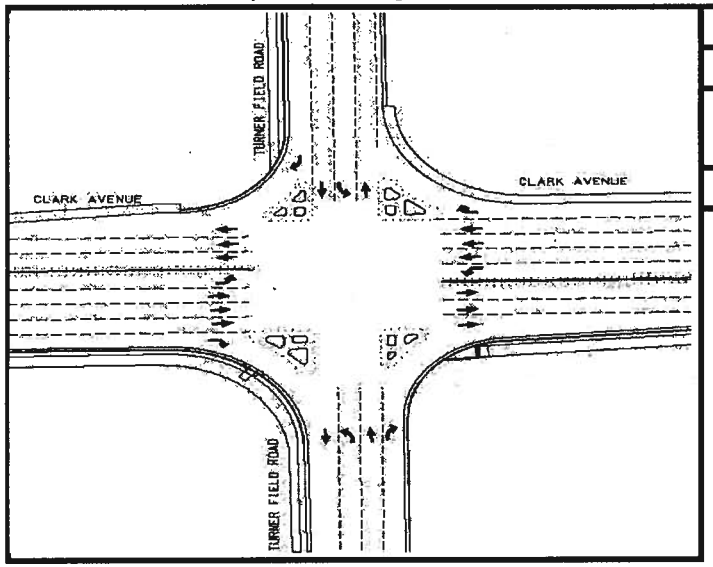
Existing Configuration:



2035 No Build - Using Projected Traffic Counts - Existing Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & Turner Field Rd	C	27.1	C	29.9

2035 Build - Using Projected Traffic Counts - Existing Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & Turner Field Rd	C	34.4	C	34

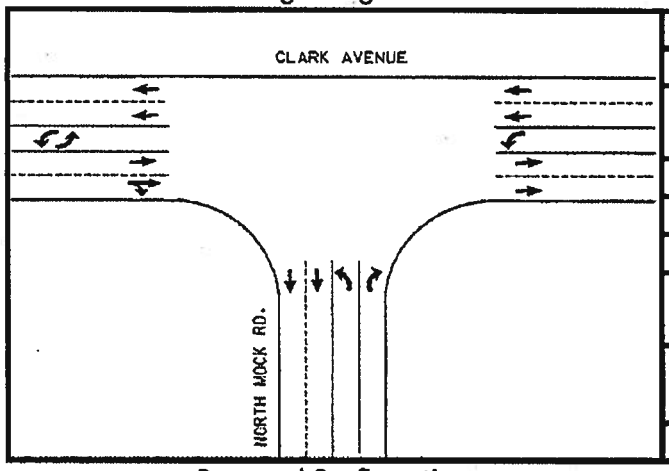
Proposed Configuration:



2035 Build - Using Projected Traffic Counts - Proposed Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & Turner Field Rd	B	19.2	B	19.1

CLARK AVENUE - 0002409 INTERSECTION LEVEL OF SERVICE
TRAFFIC ANALYSIS USING HCS+ PROGRAM
Tuesday, January 25, 2011
NORTH MOCK ROAD

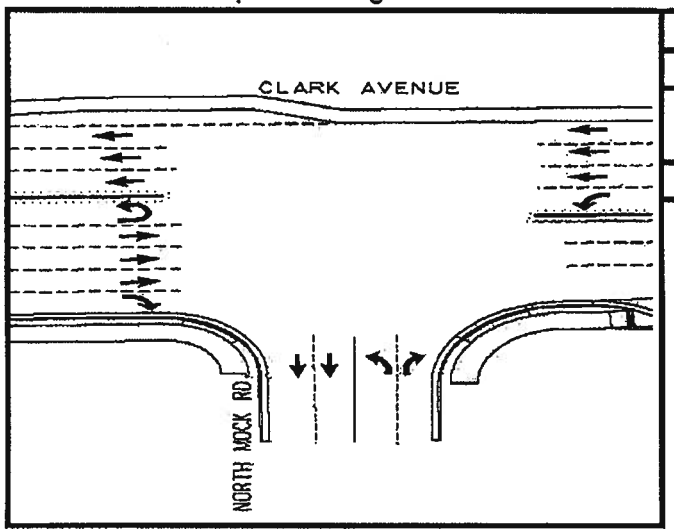
Existing Configuration:



2035 No Build - Using Projected Traffic Counts - Existing Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & North Mock Rd	A	9.9	A	9.5

2035 Build - Using Projected Traffic Counts - Existing Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & North Mock Rd	B	12	B	12.5

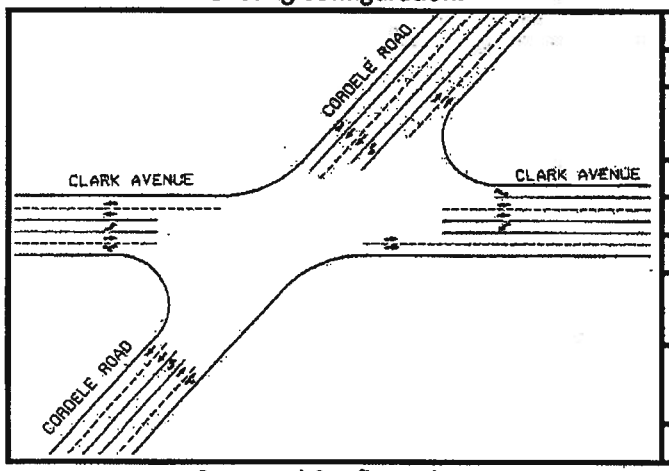
Proposed Configuration:



2035 Build - Using Projected Traffic Counts - Proposed Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & North Mock Rd	A	8.7	8.8	A

CLARK AVENUE - 0002409 INTERSECTION LEVEL OF SERVICE
TRAFFIC ANALYSIS USING HCS+ PROGRAM
Tuesday, January 25, 2011
CORDELE ROAD

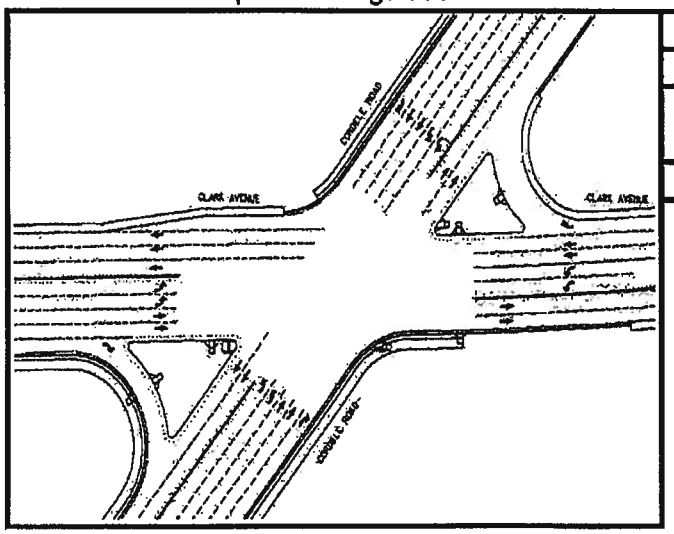
Existing Configuration:



2035 No Build - Using Projected Traffic Counts - Existing Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & Cordele Rd	C	26	C	29.3

2035 Build - Using Projected Traffic Counts - Existing Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & Cordele Rd	C	31.1	C	34.6

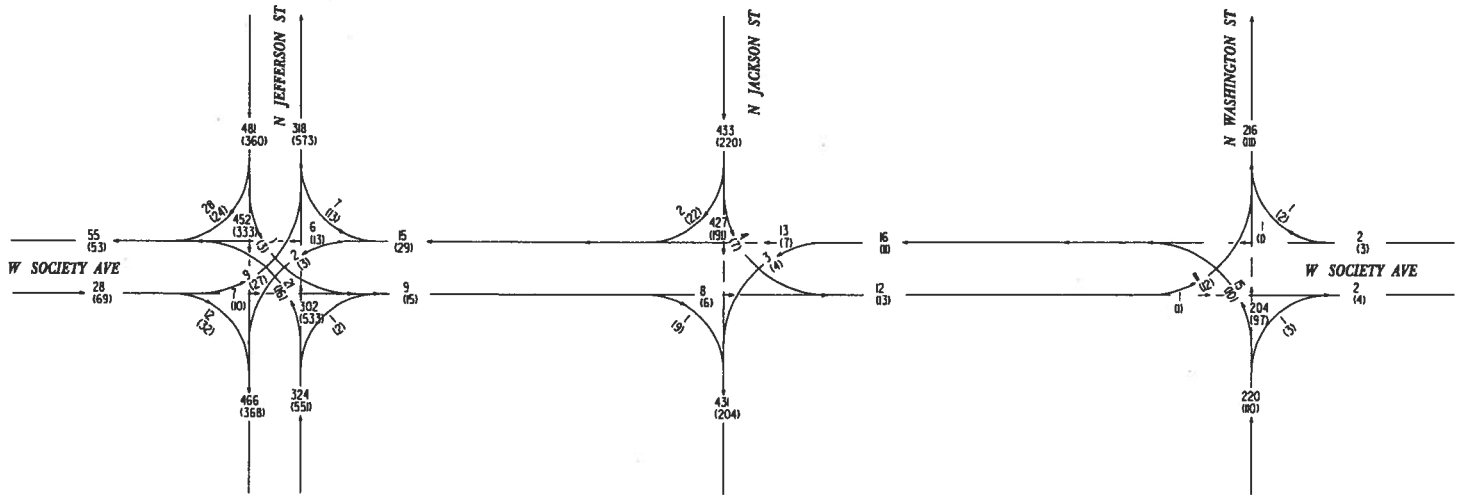
Proposed Configuration:



2035 Build - Using Projected Traffic Counts - Proposed Configuration				
	AM		PM	
Intersection	Level of Service	Intersection Delay (s)	Level of Service	Intersection Delay (s)
Clark Ave & Cordele Rd	B	19.4	B	19.9

Traffic Diagrams

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



N

LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING PEAK HOUR VOLUMES

JACOBS™

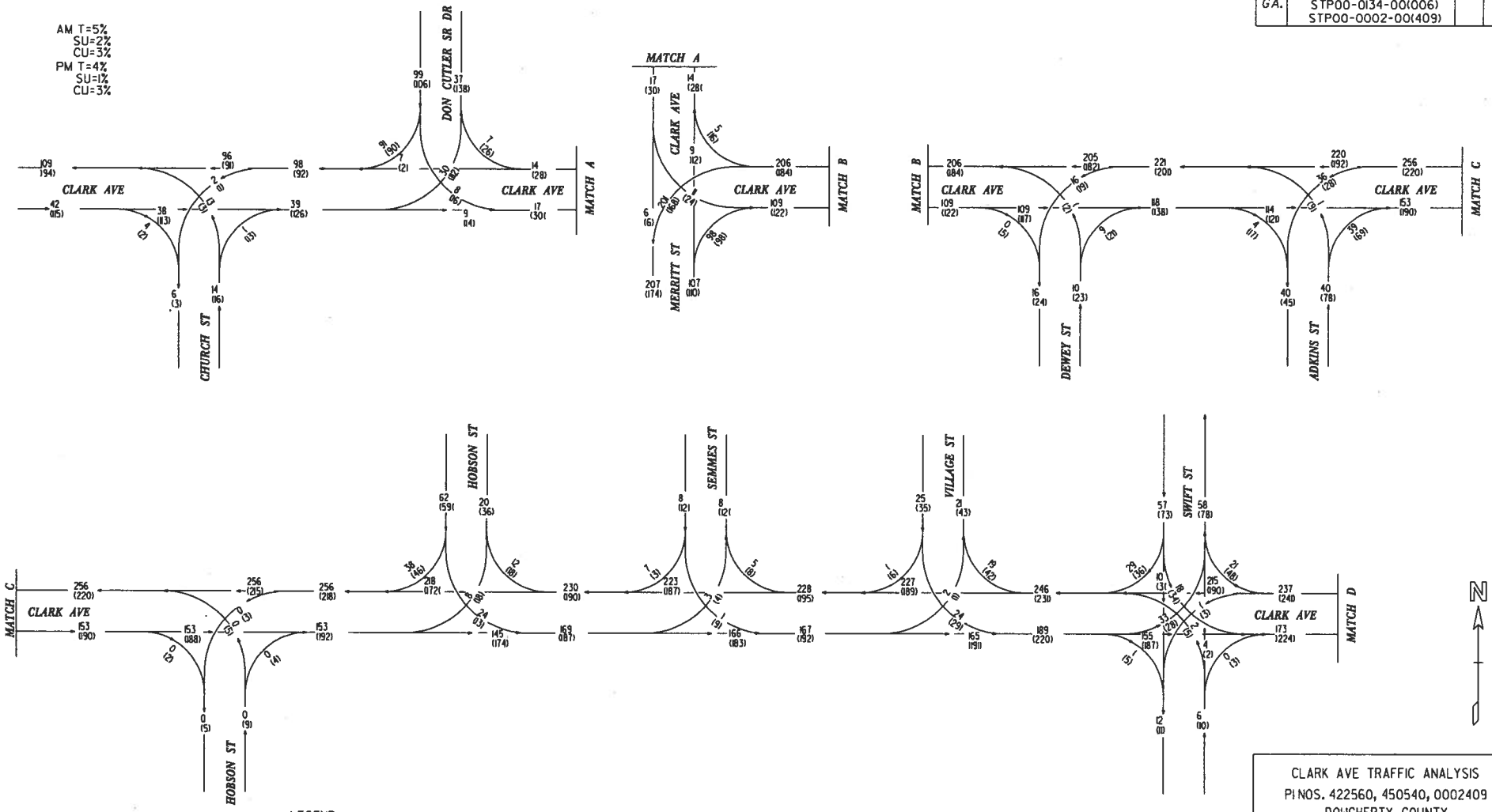
FIGURE 1

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		

AM T=5%
SU=2%
CU=3%
PM T=4%
SU=1%
CU=3%



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

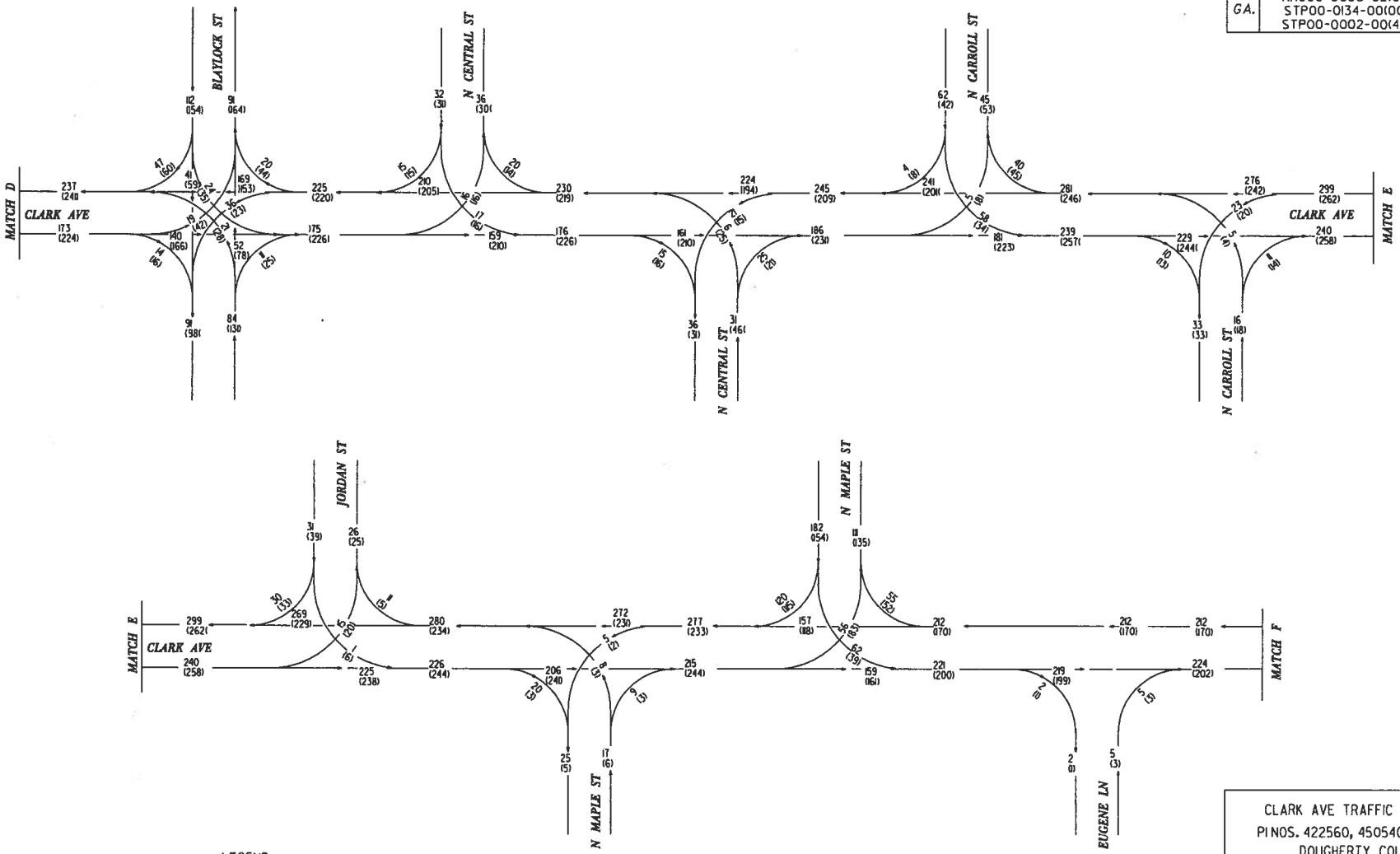
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING PEAK HOUR VOLUMES

JACOBS

FIGURE 2

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING PEAK HOUR VOLUMES

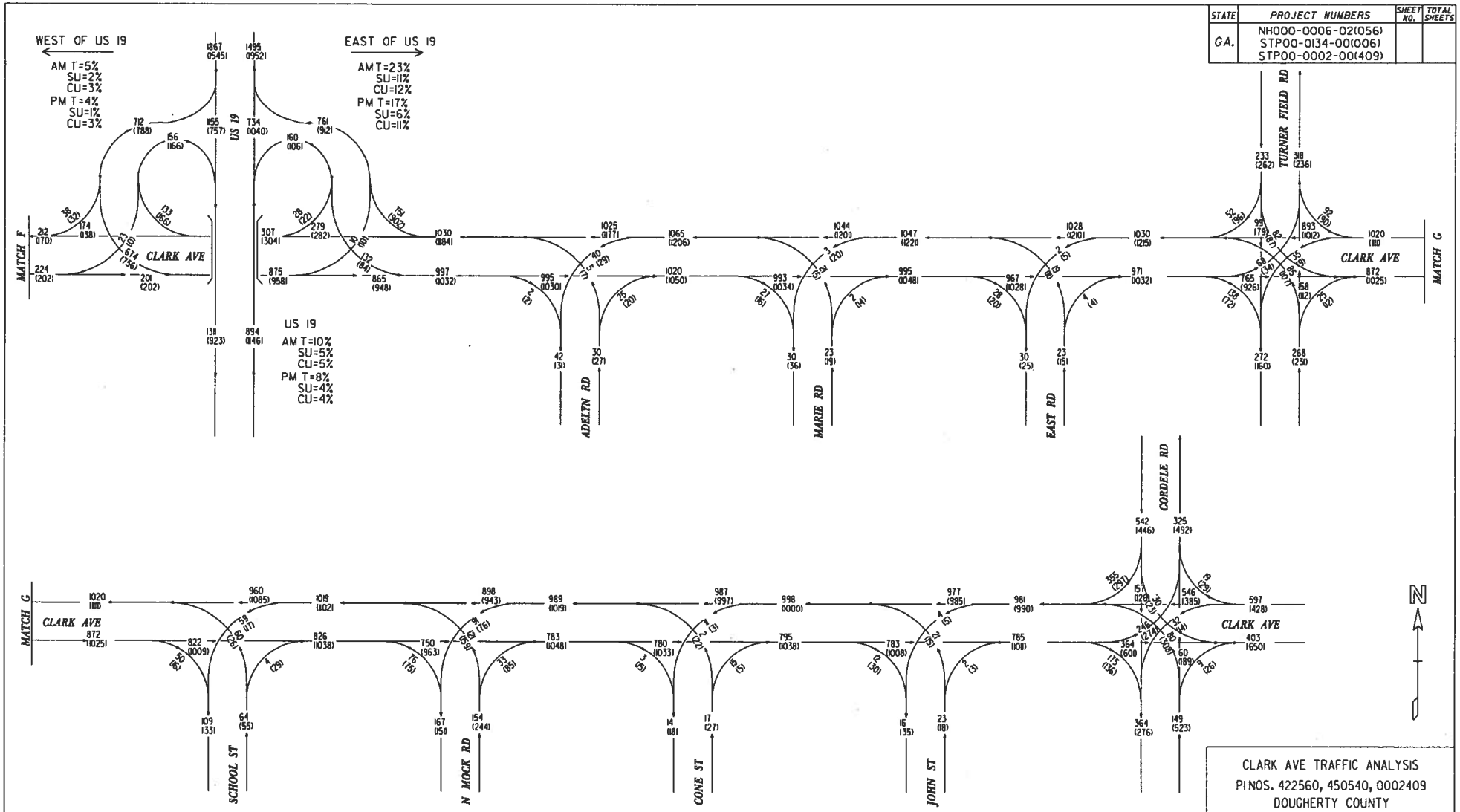
JACOBS™

FIGURE 3

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING PEAK HOUR VOLUMES

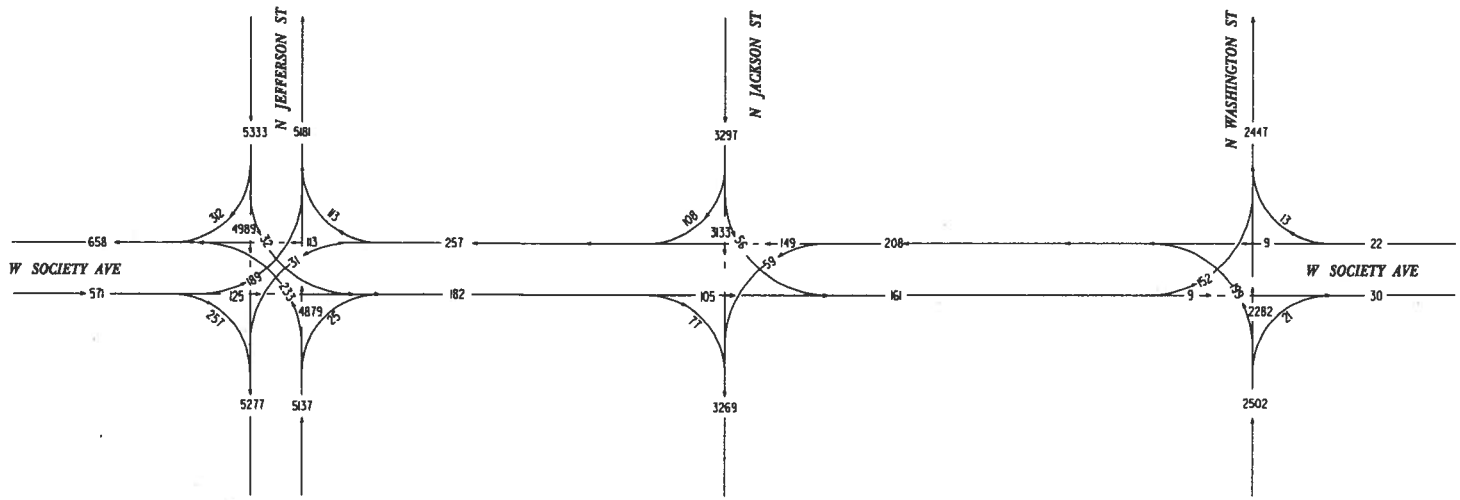
JACOBS

FIGURE 4

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



N

LEGEND

000-ADT VOLUME

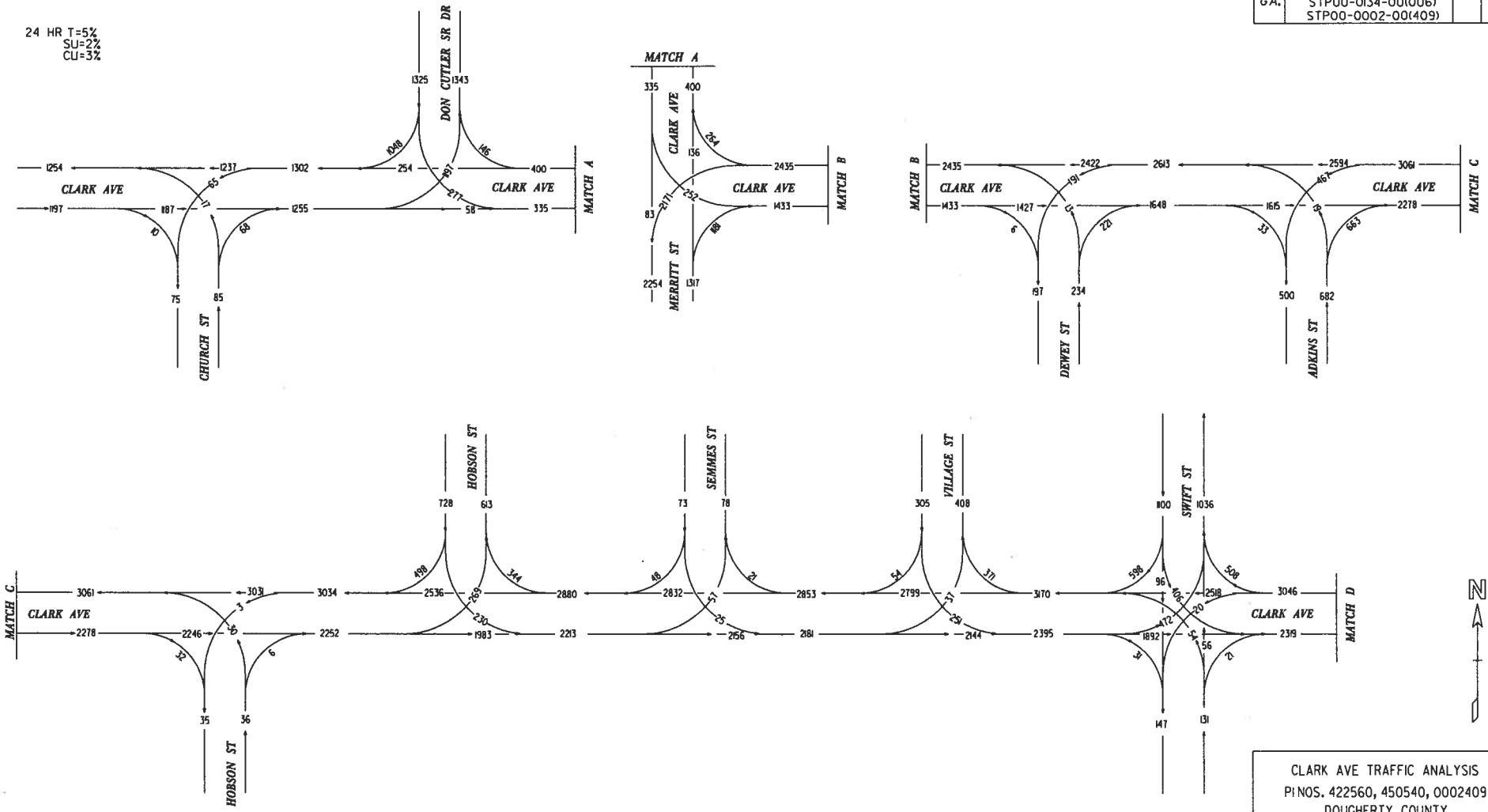
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING ADT VOLUMES

JACOBS™

FIGURE 5

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING ADT VOLUMES

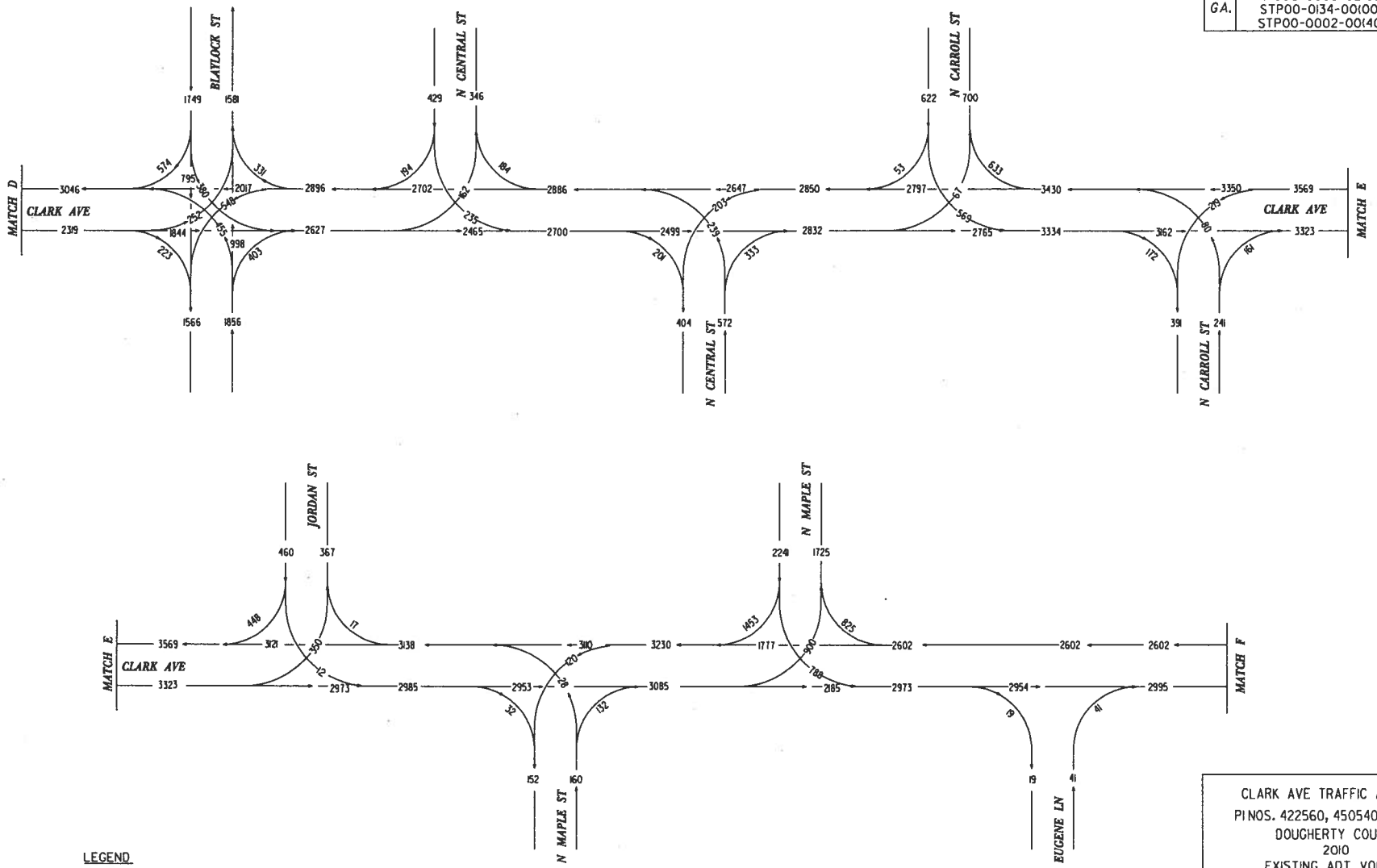
JACOBS

FIGURE 6

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING ADT VOLUMES

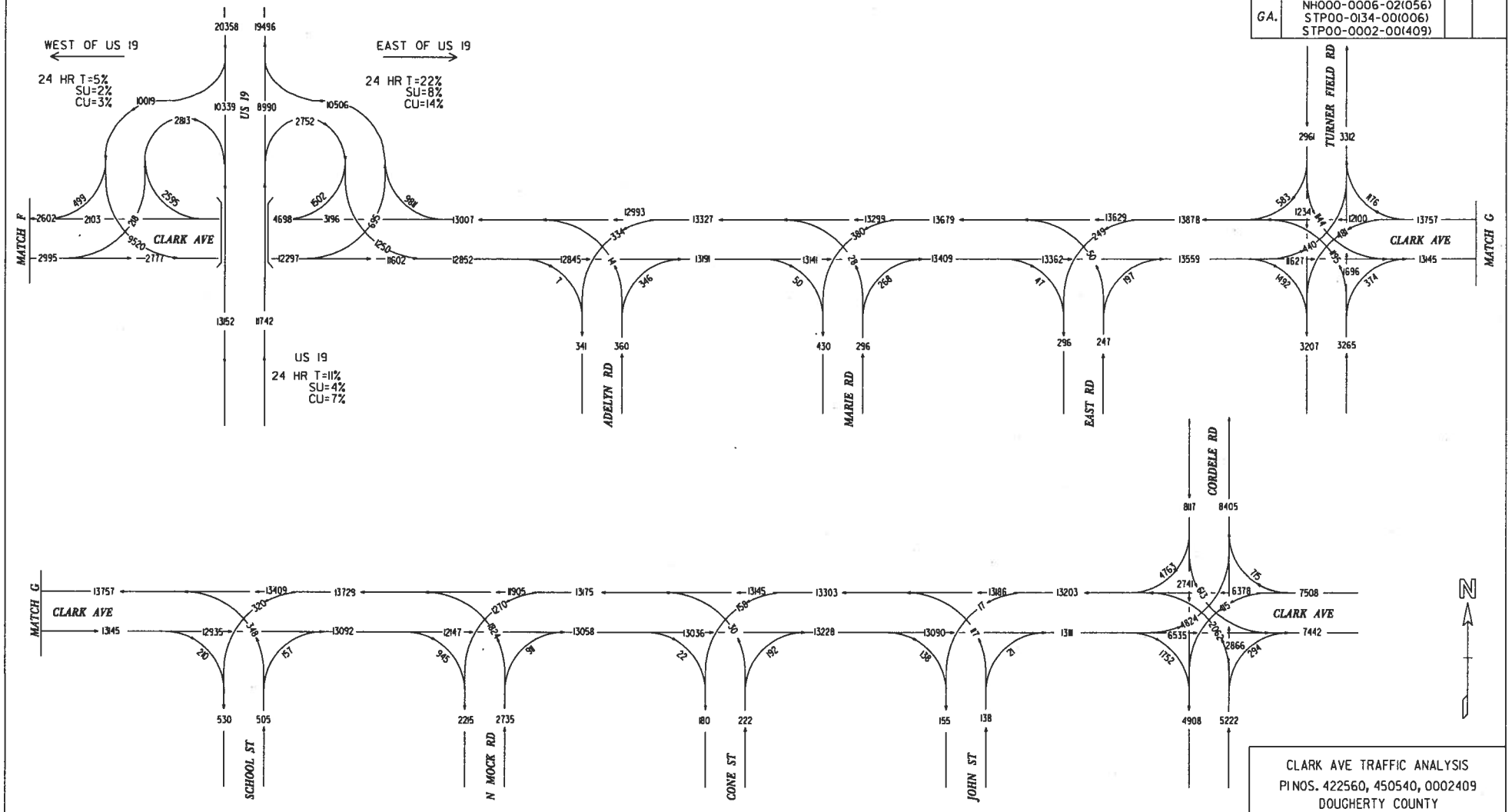
JACOBS™

FIGURE 7

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2010
EXISTING ADT VOLUMES

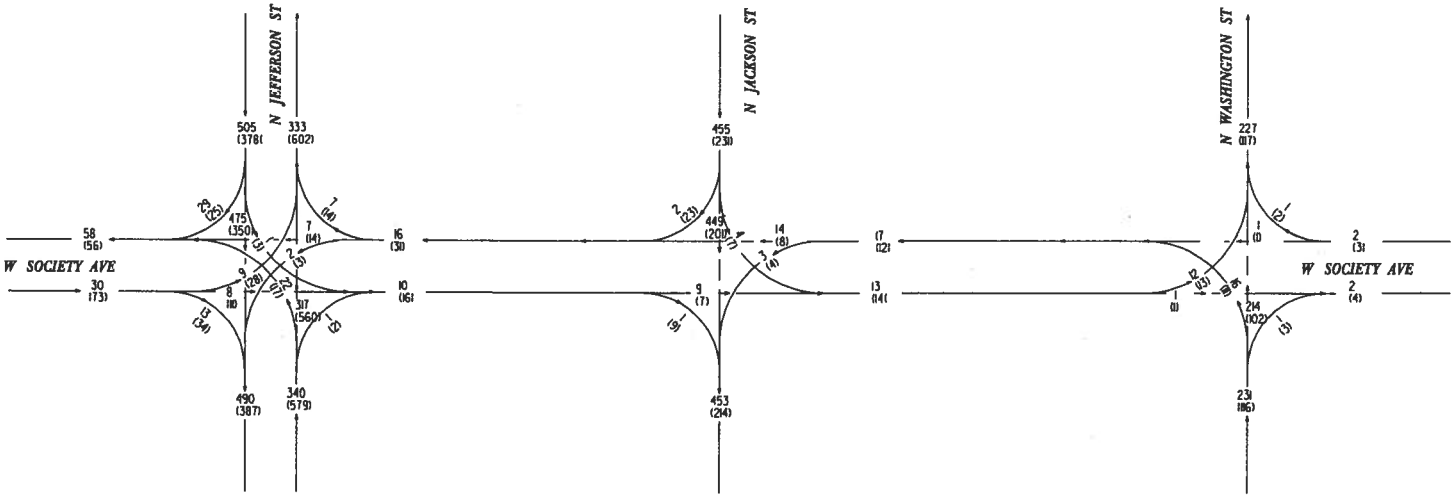
JACOBS

FIGURE 8

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



N

LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
PEAK HOUR VOLUMES

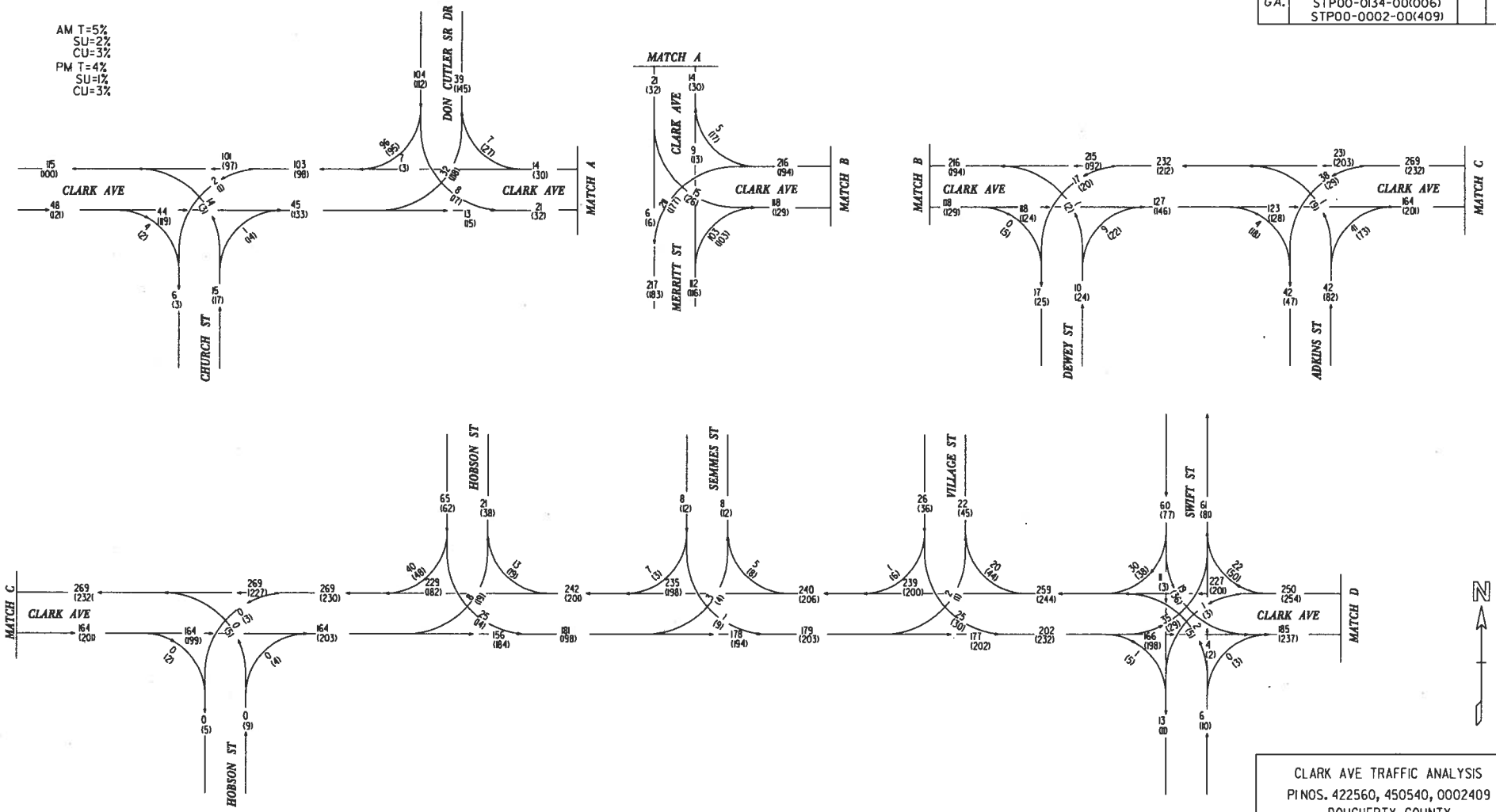
JACOBS™

FIGURE 9

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

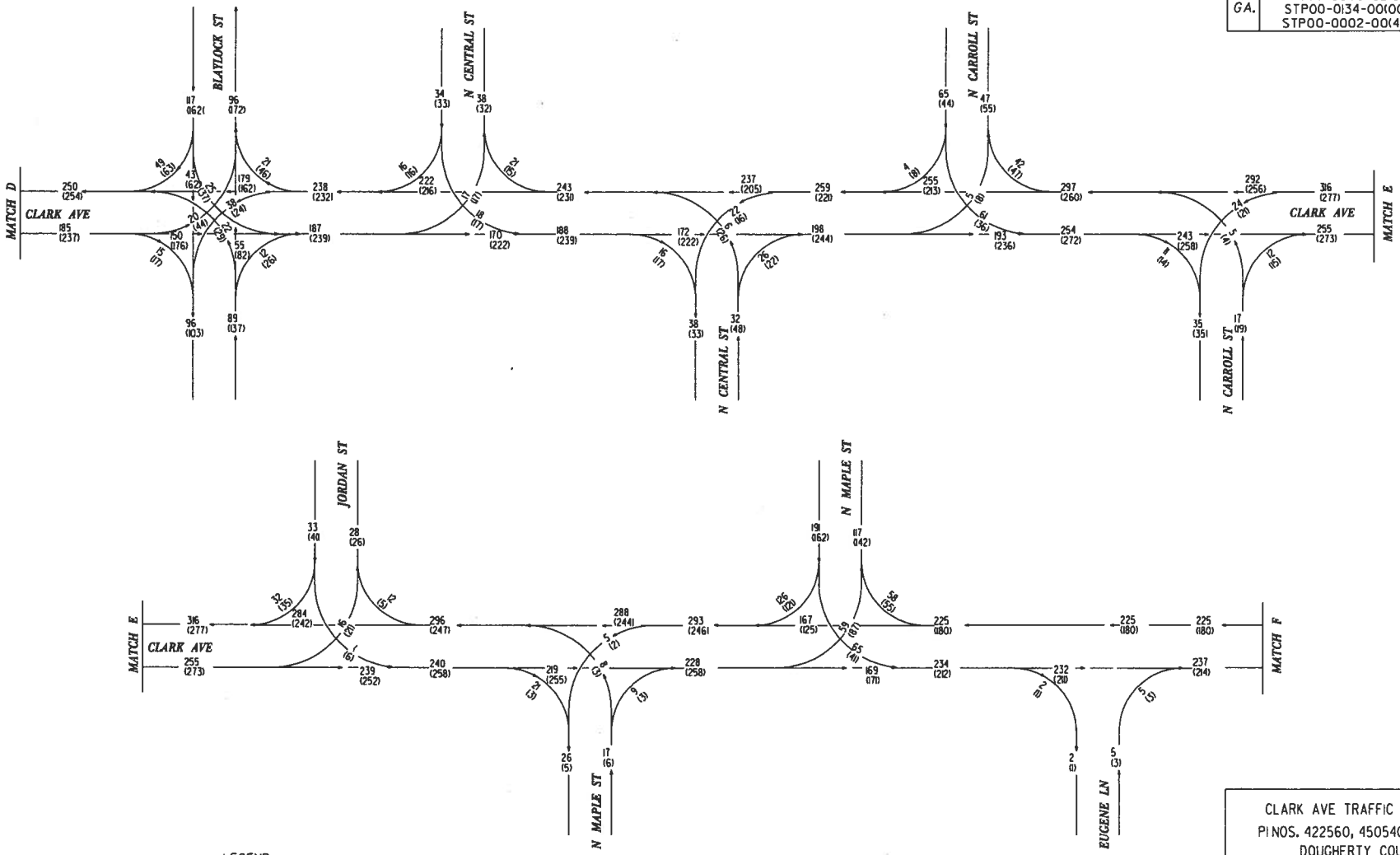
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
PEAK HOUR VOLUMES

JACOBS™

FIGURE 10

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

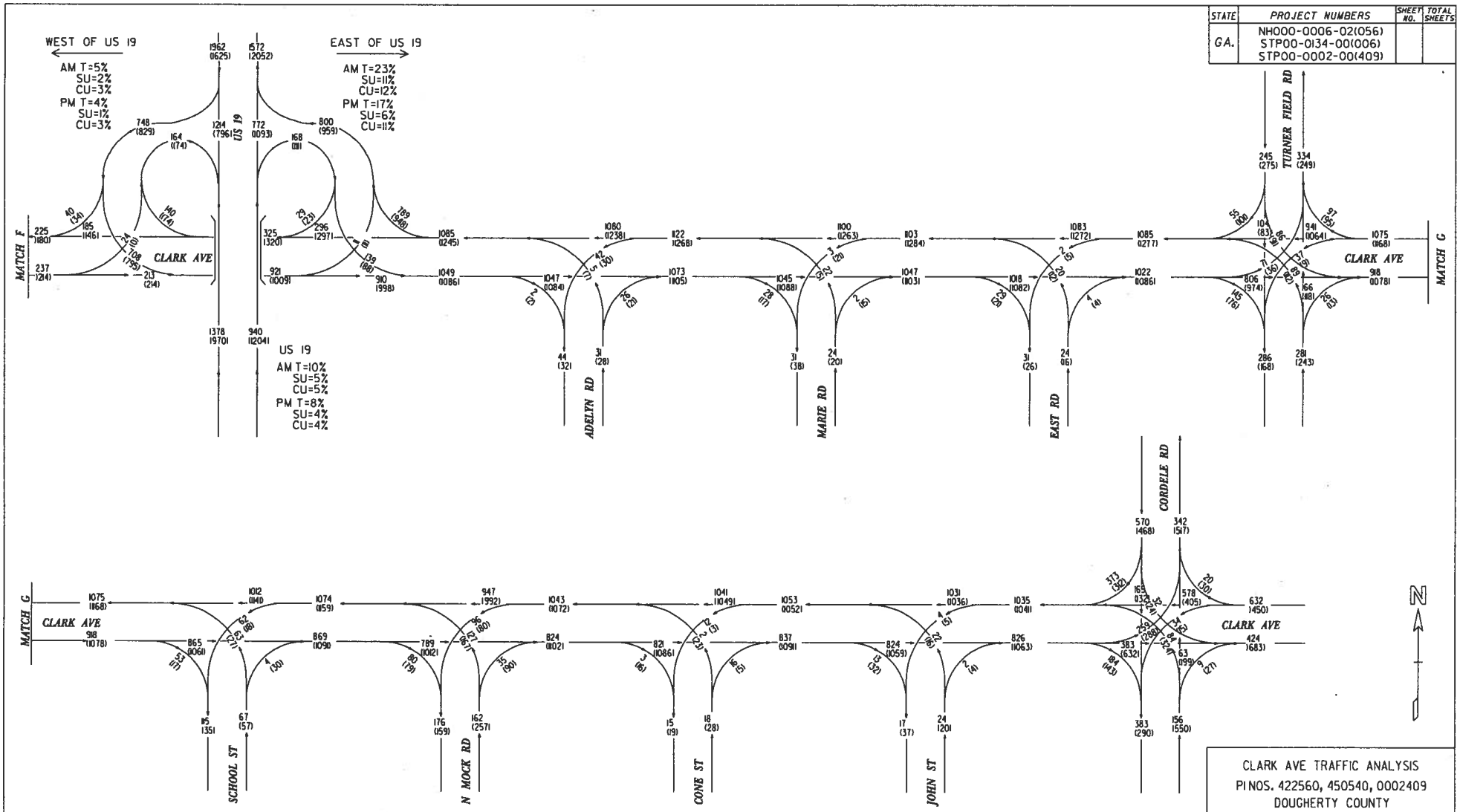
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
PEAK HOUR VOLUMES

JACOBS

FIGURE 11

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
PEAK HOUR VOLUMES

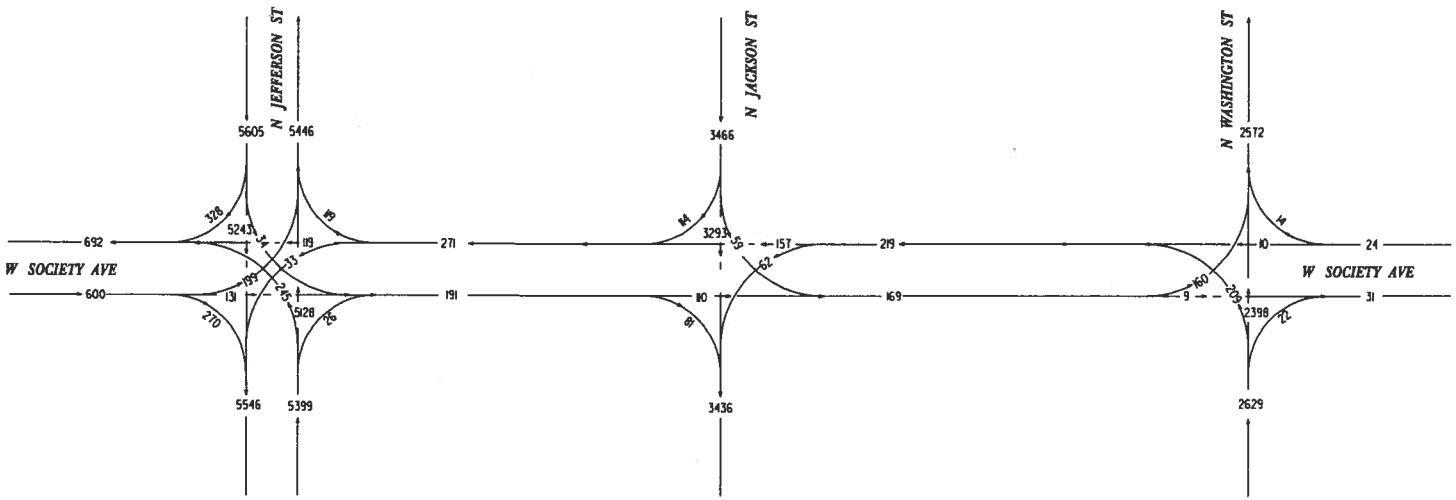
JACOBS

FIGURE 12

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
ADT VOLUMES

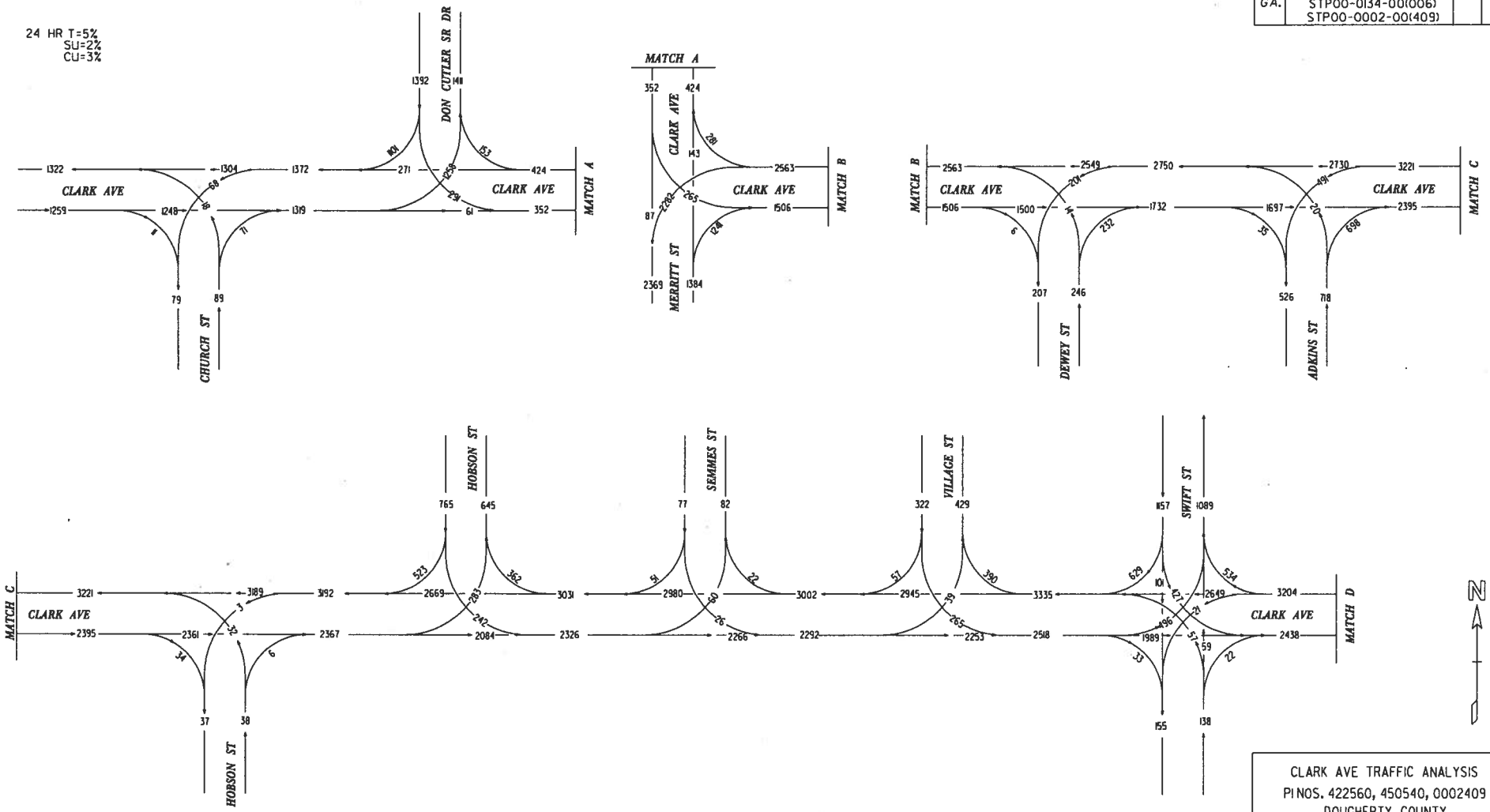
JACOBS

FIGURE 13

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
ADT VOLUMES

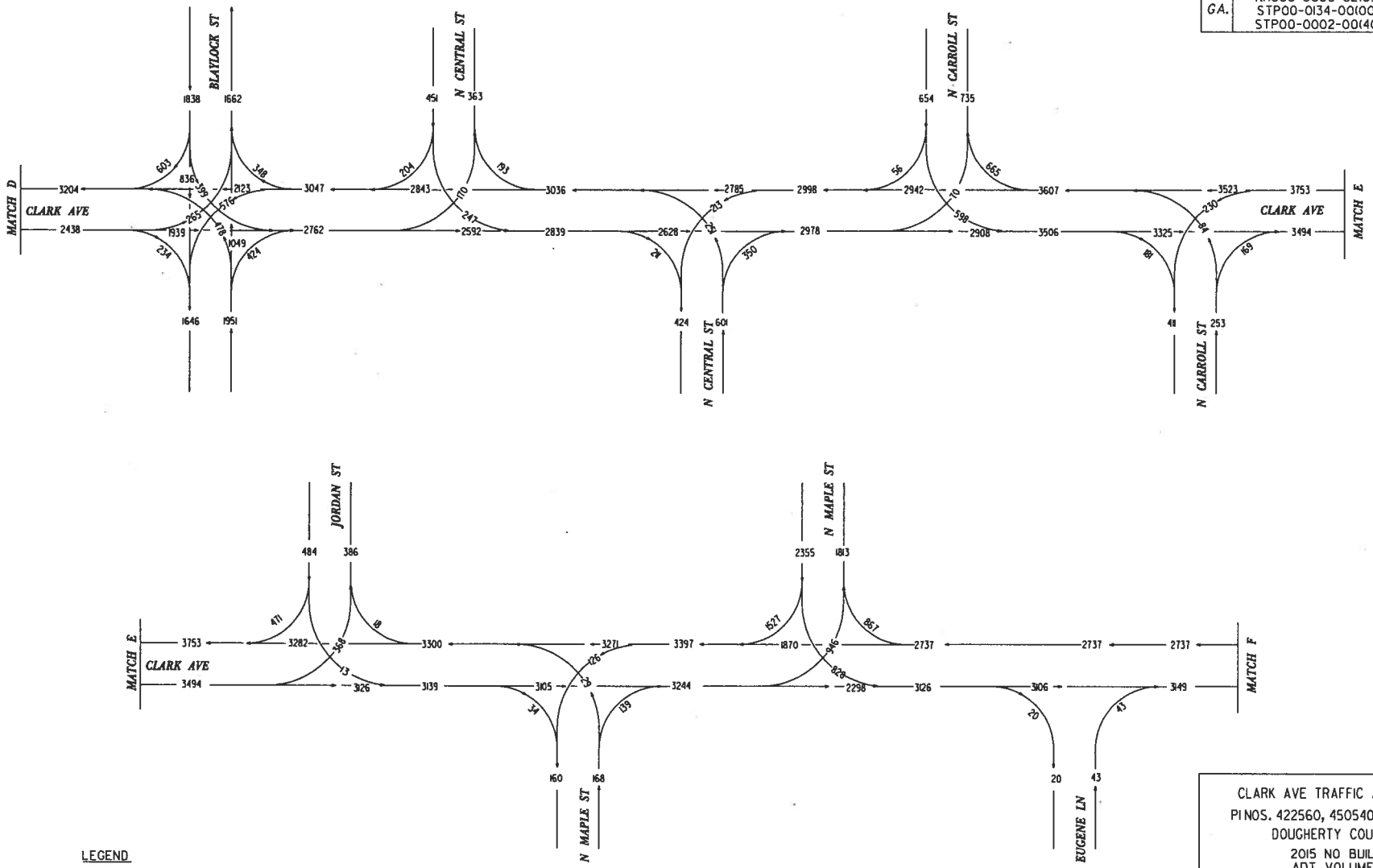
JACOBS

FIGURE 14

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

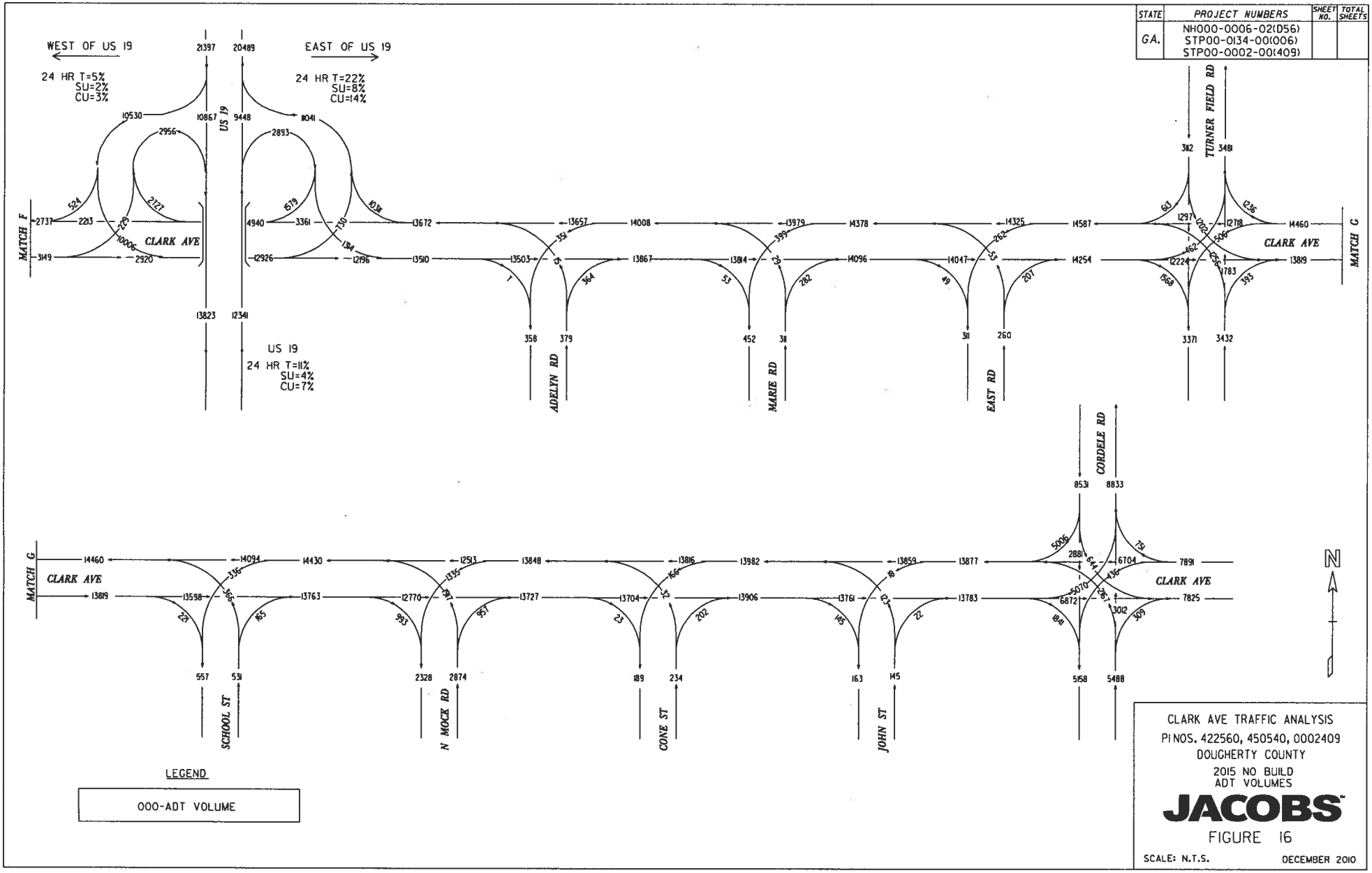
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
ADT VOLUMES

JACOBS™

FIGURE 15

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(D56) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 NO BUILD
ADT VOLUMES

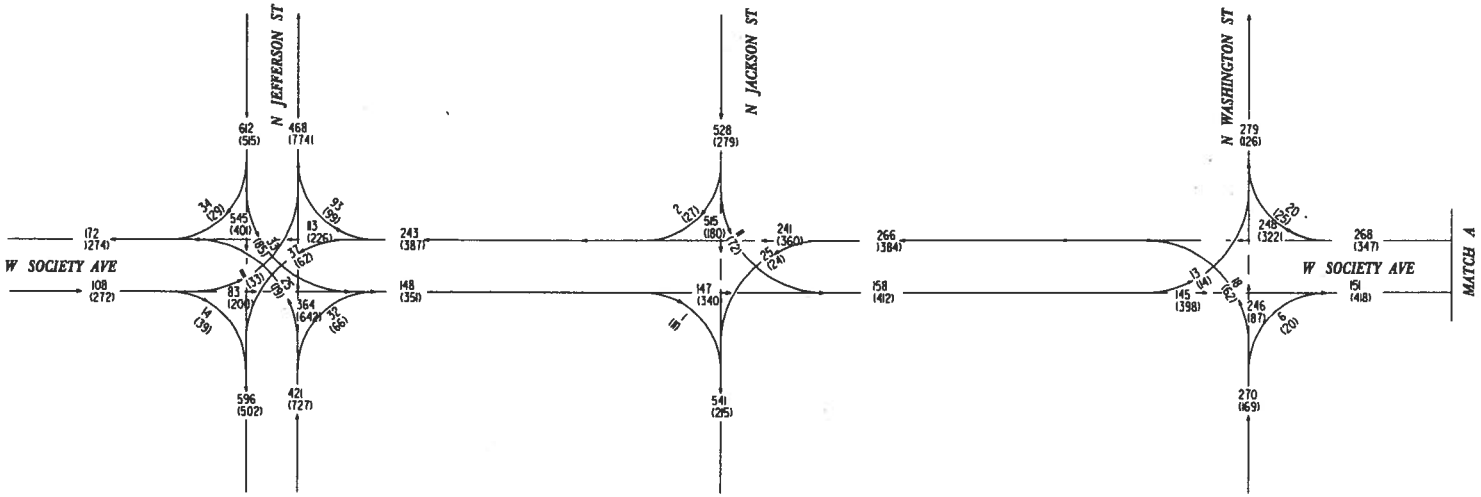
JACOBS™

FIGURE 16

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGENO

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 BUILO
PEAK HOUR VOLUMES

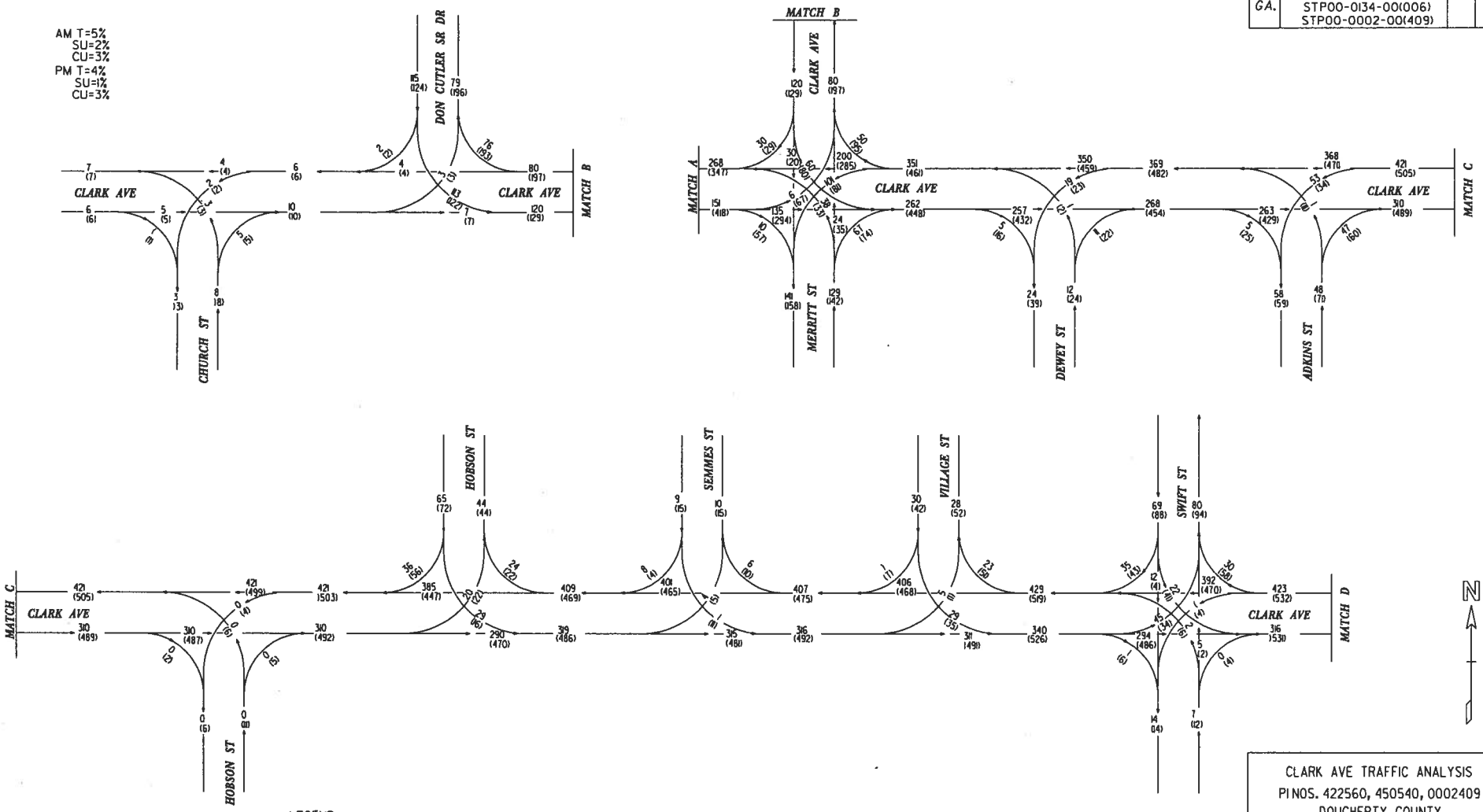
JACOBS™

FIGURE 17

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		

AM T=5%
SU=2%
CU=3%
PM T=4%
SU=1%
CU=3%



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

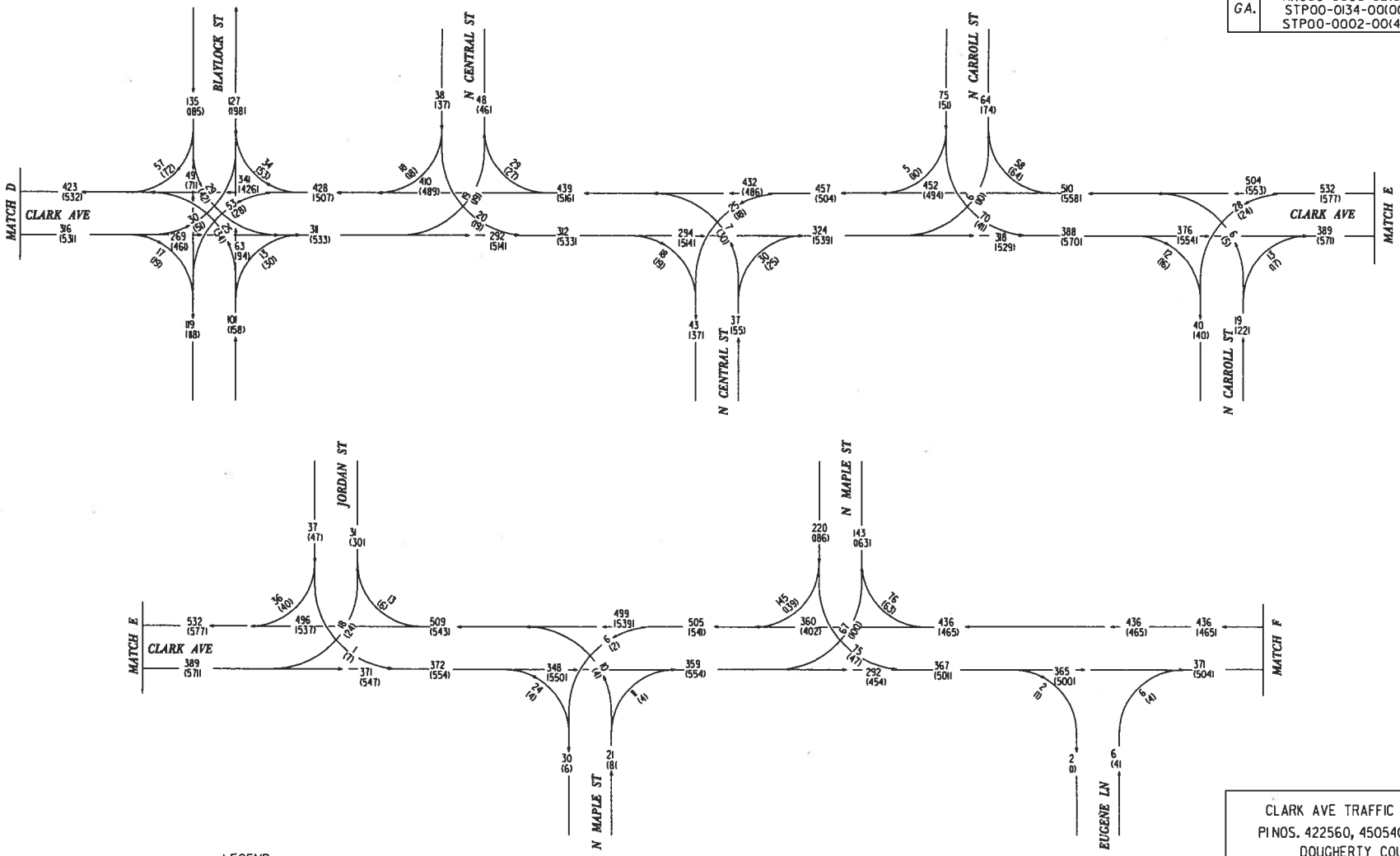
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 BUILD
PEAK HOUR VOLUMES

JACOBS™

FIGURE 18

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 BUILD
PEAK HOUR VOLUMES

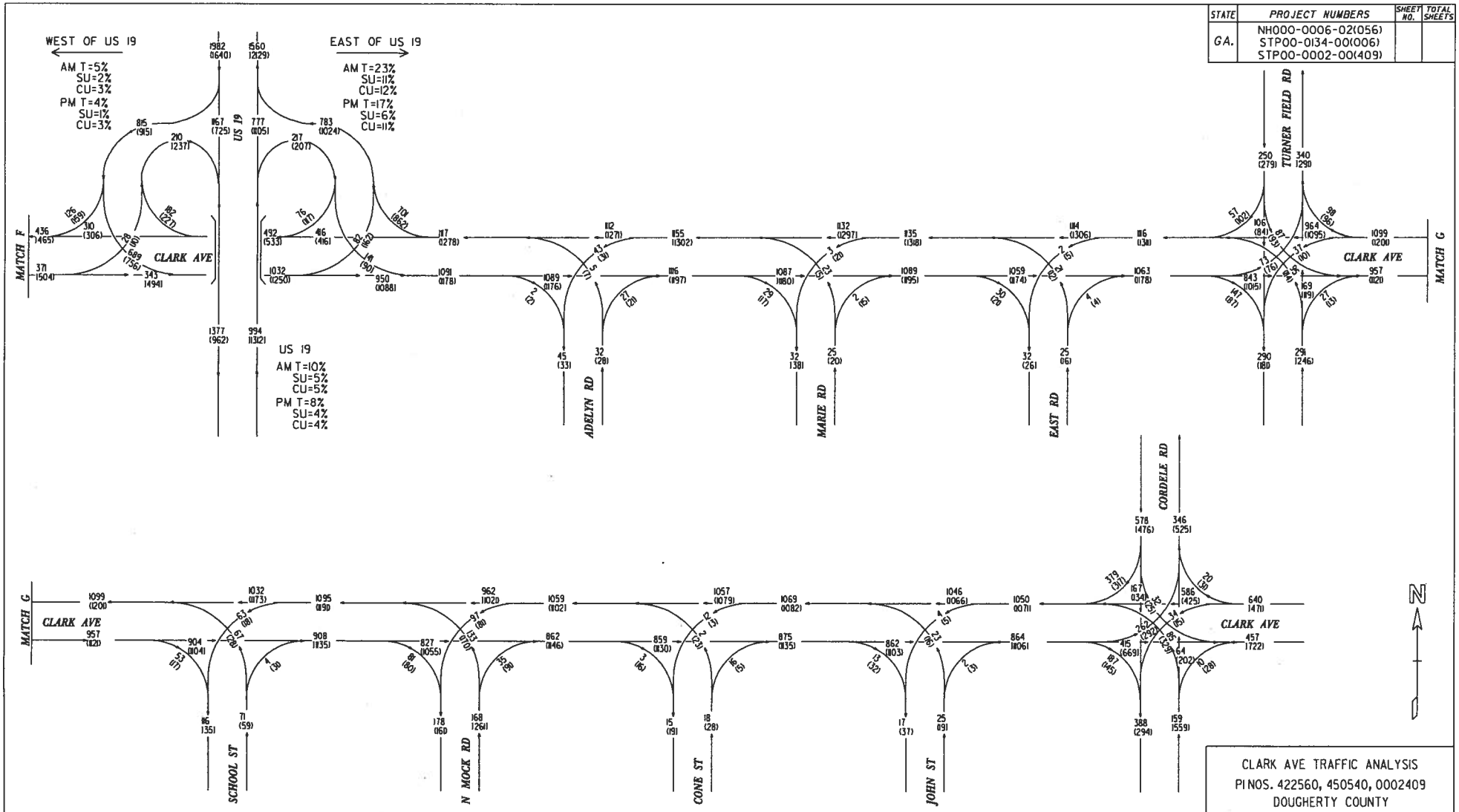
JACOBS™

FIGURE 19

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 BUILD
PEAK HOUR VOLUMES

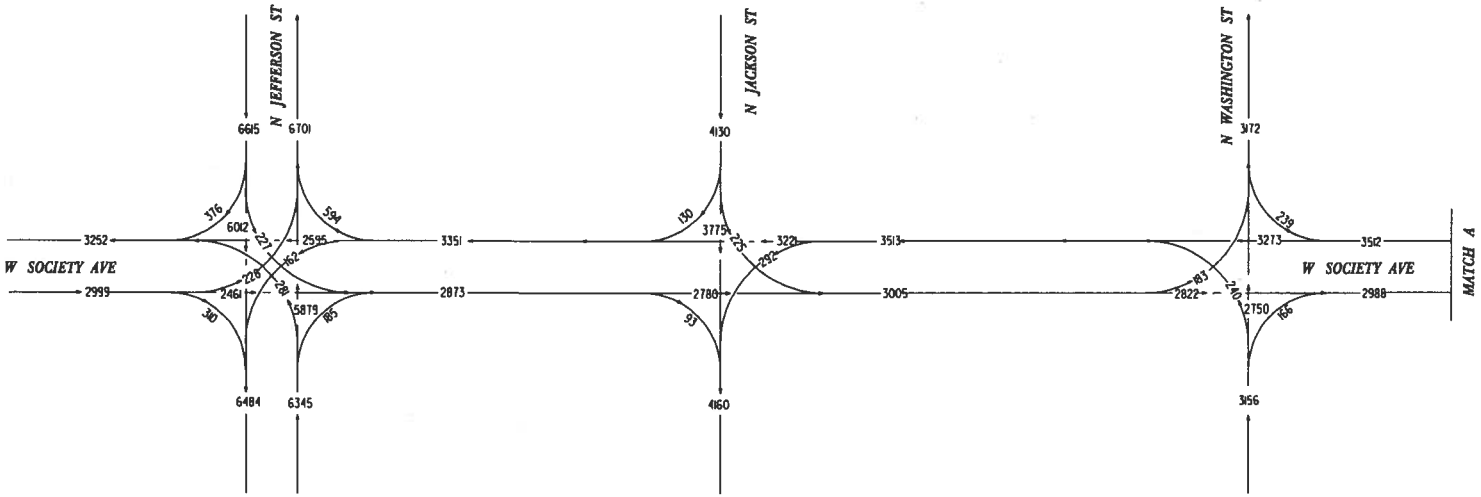
JACOBS™

FIGURE 20

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



N

LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 BUILD
ADT VOLUMES

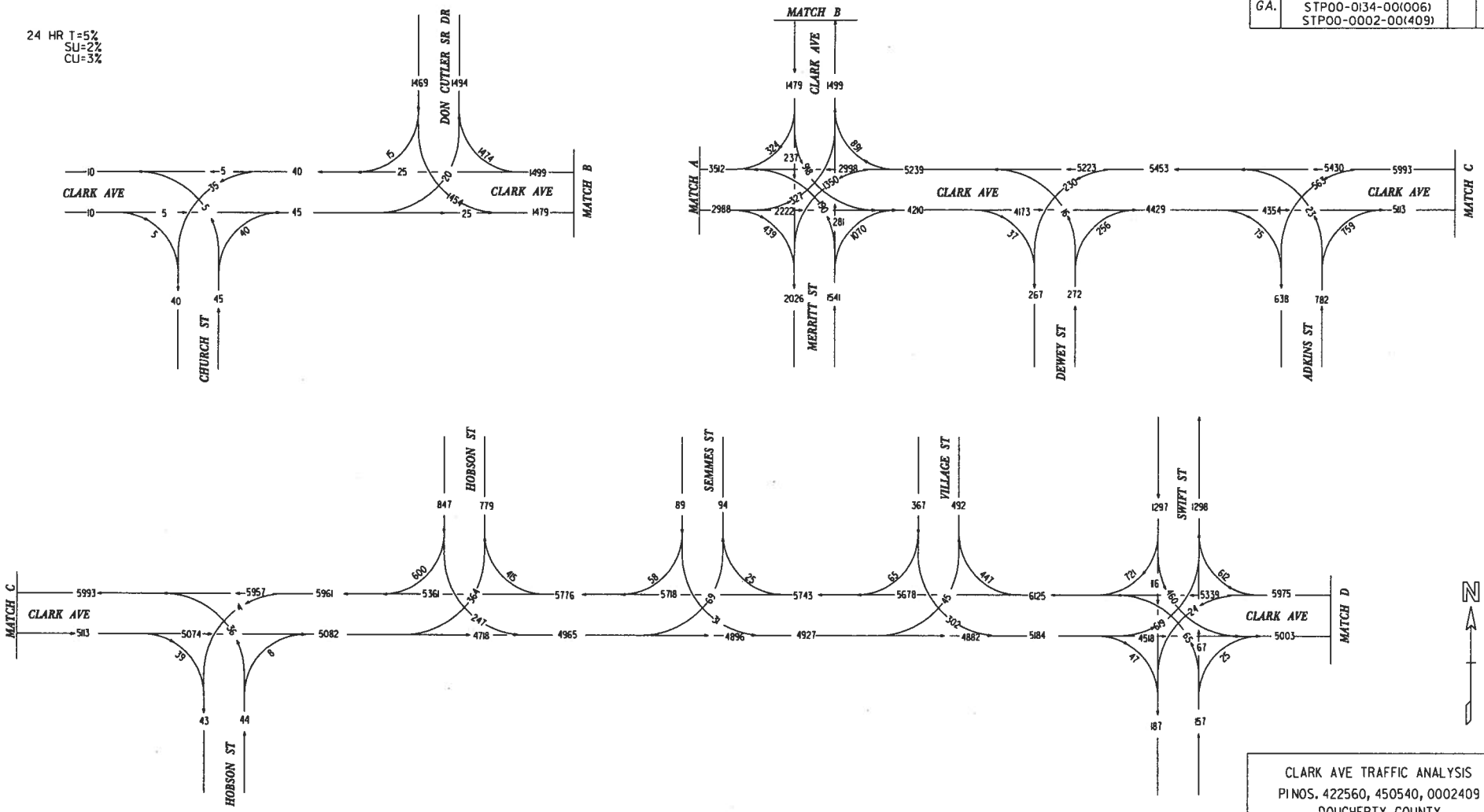
JACOBS™

FIGURE 21

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		

24 HR T=5%
SU=2%
CU=3%



LEGEND

000-ADT VOLUME

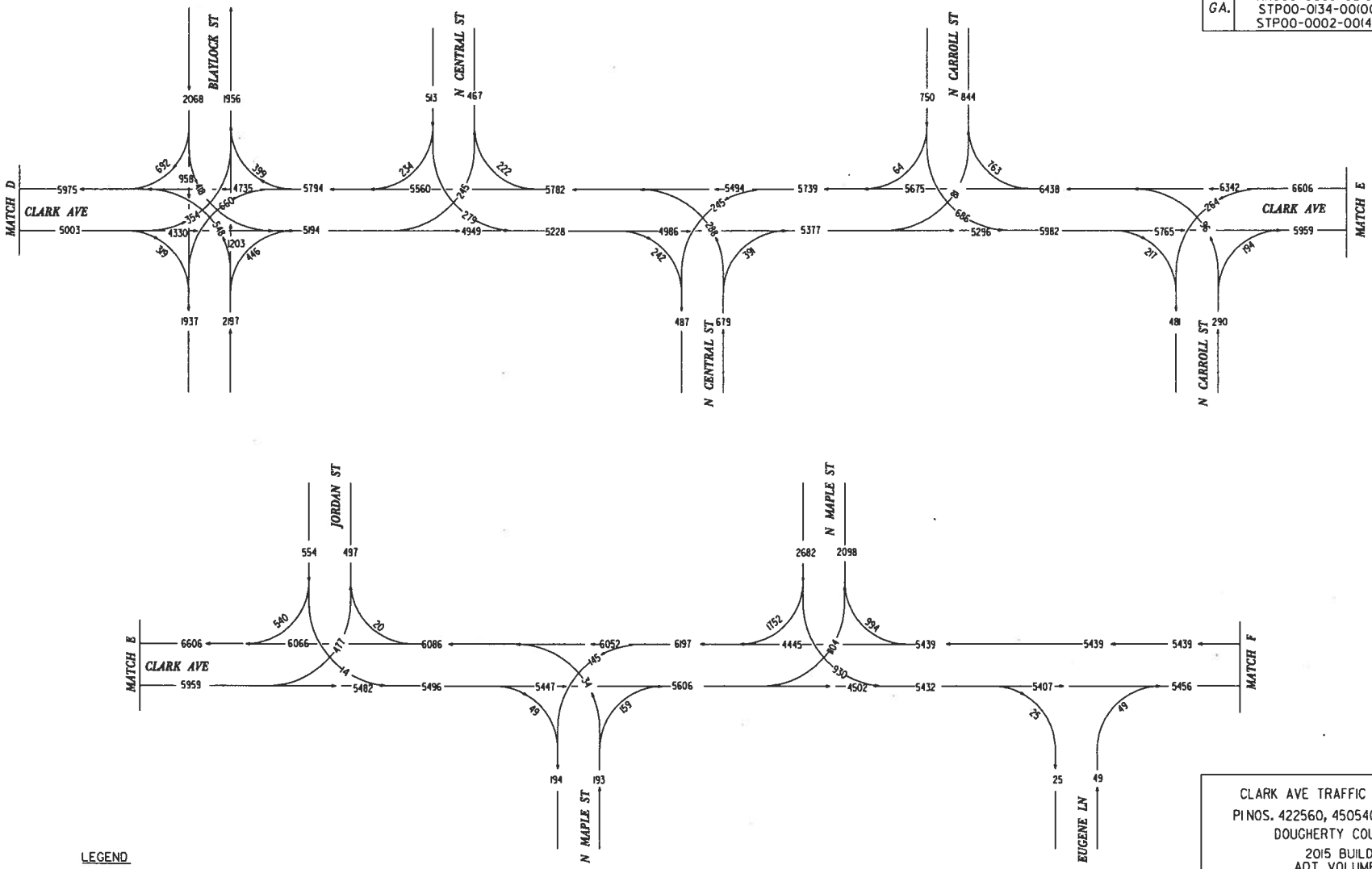
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 BUILD
ADT VOLUMES

JACOBS™

FIGURE 22

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

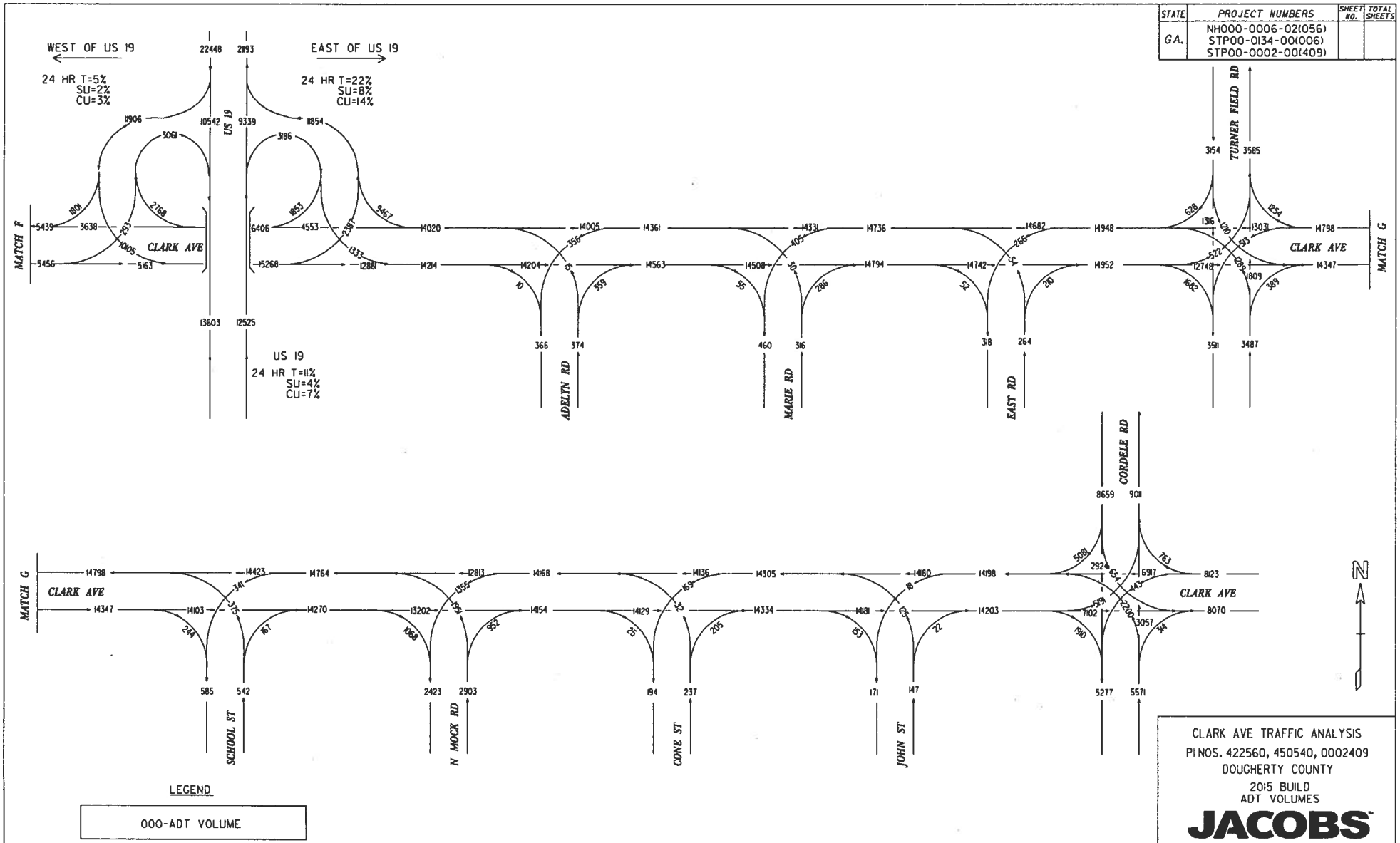
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, D002409
DOUGHERTY COUNTY
2015 BUILD
ADT VOLUMES

JACOBS™

FIGURE 23

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2015 BUILD
ADT VOLUMES

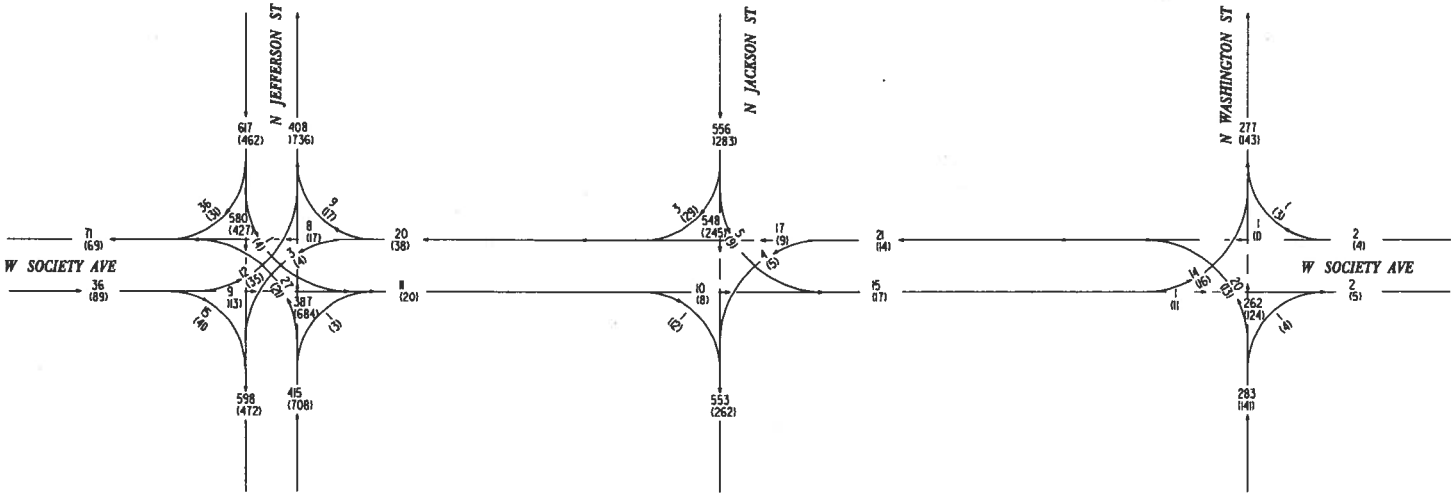
JACOBS

FIGURE 24

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
PEAK HOUR VOLUMES

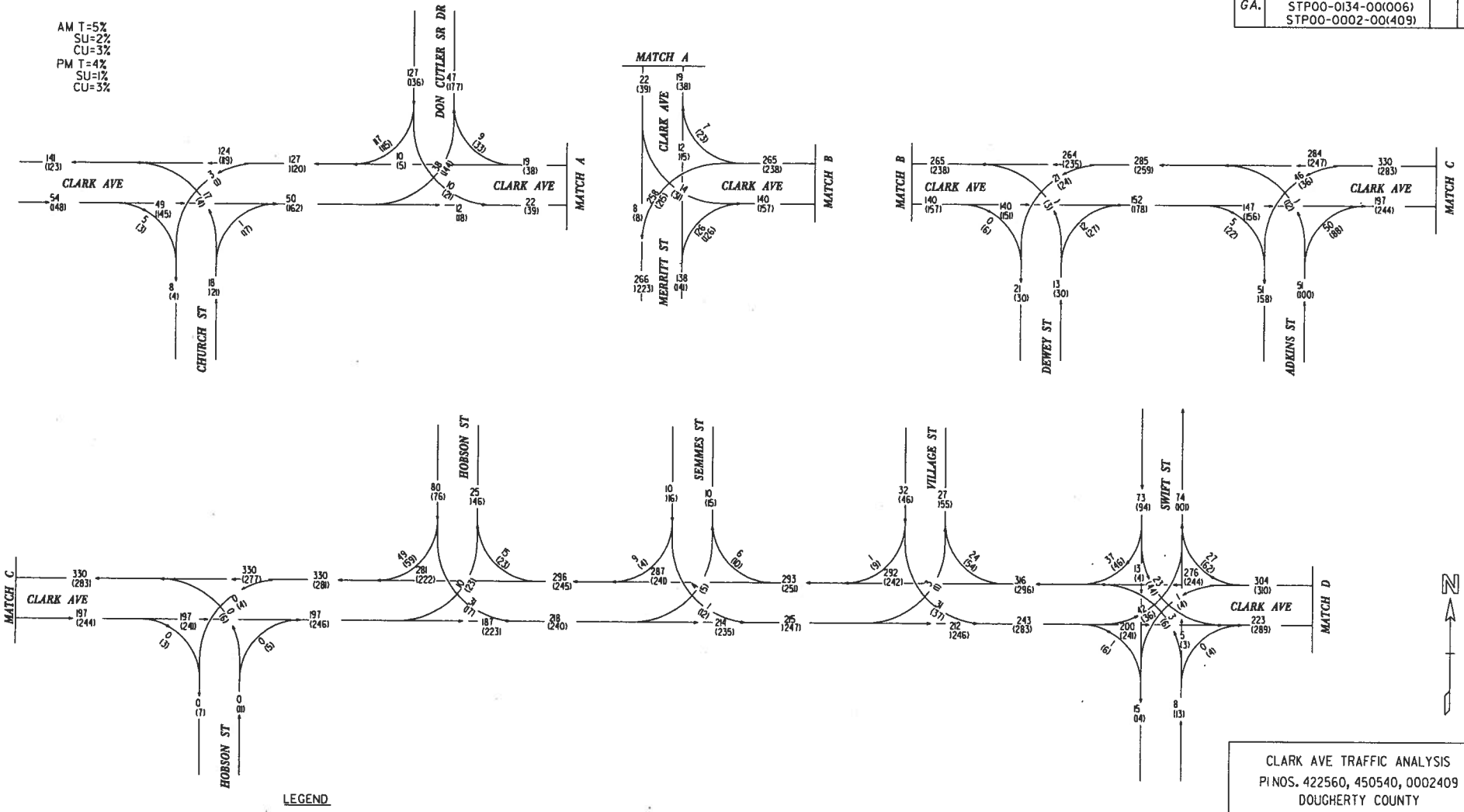
JACOBS™

FIGURE 25

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
PEAK HOUR VOLUMES

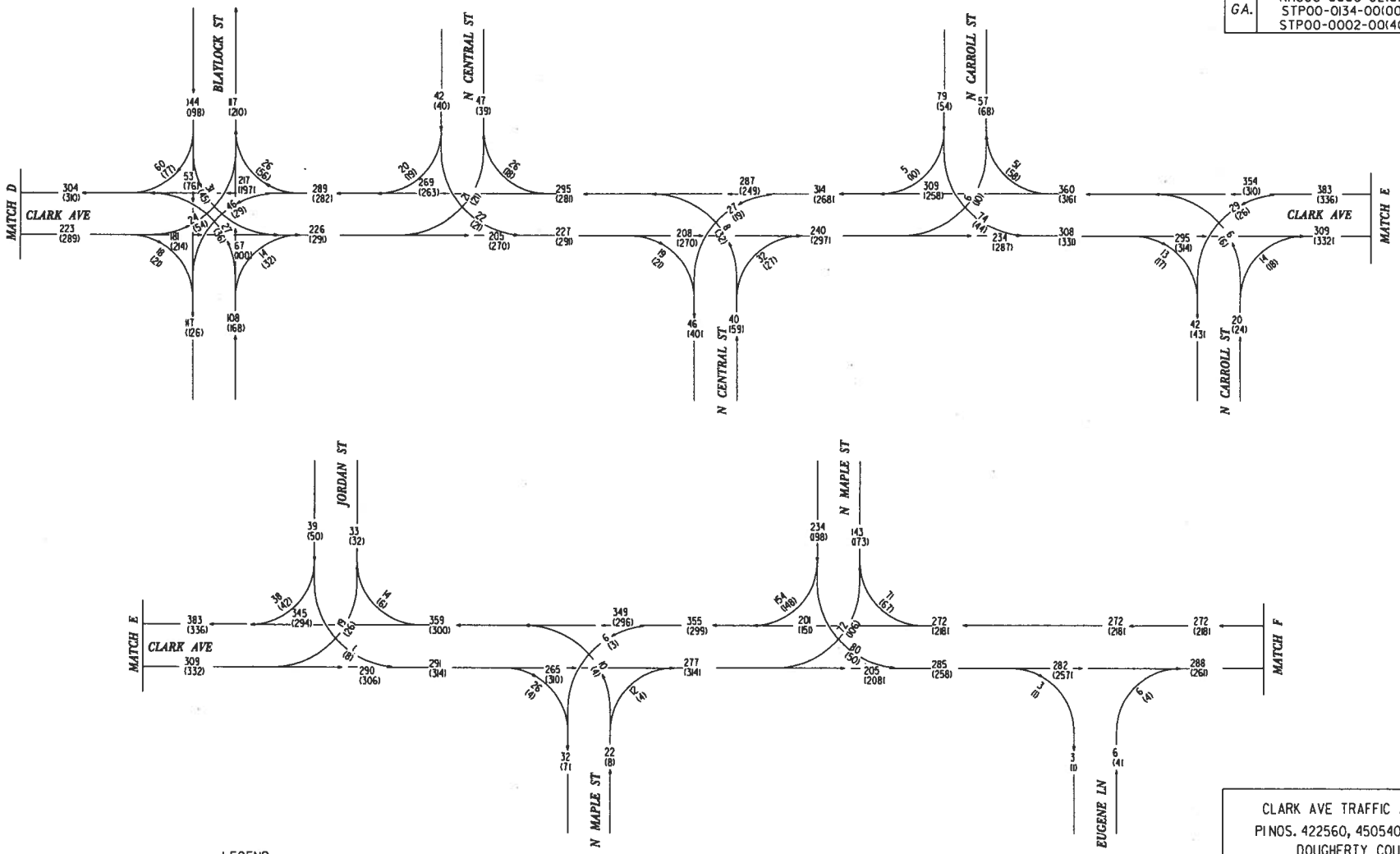
JACOBS™

FIGURE 26

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
PEAK HOUR VOLUMES

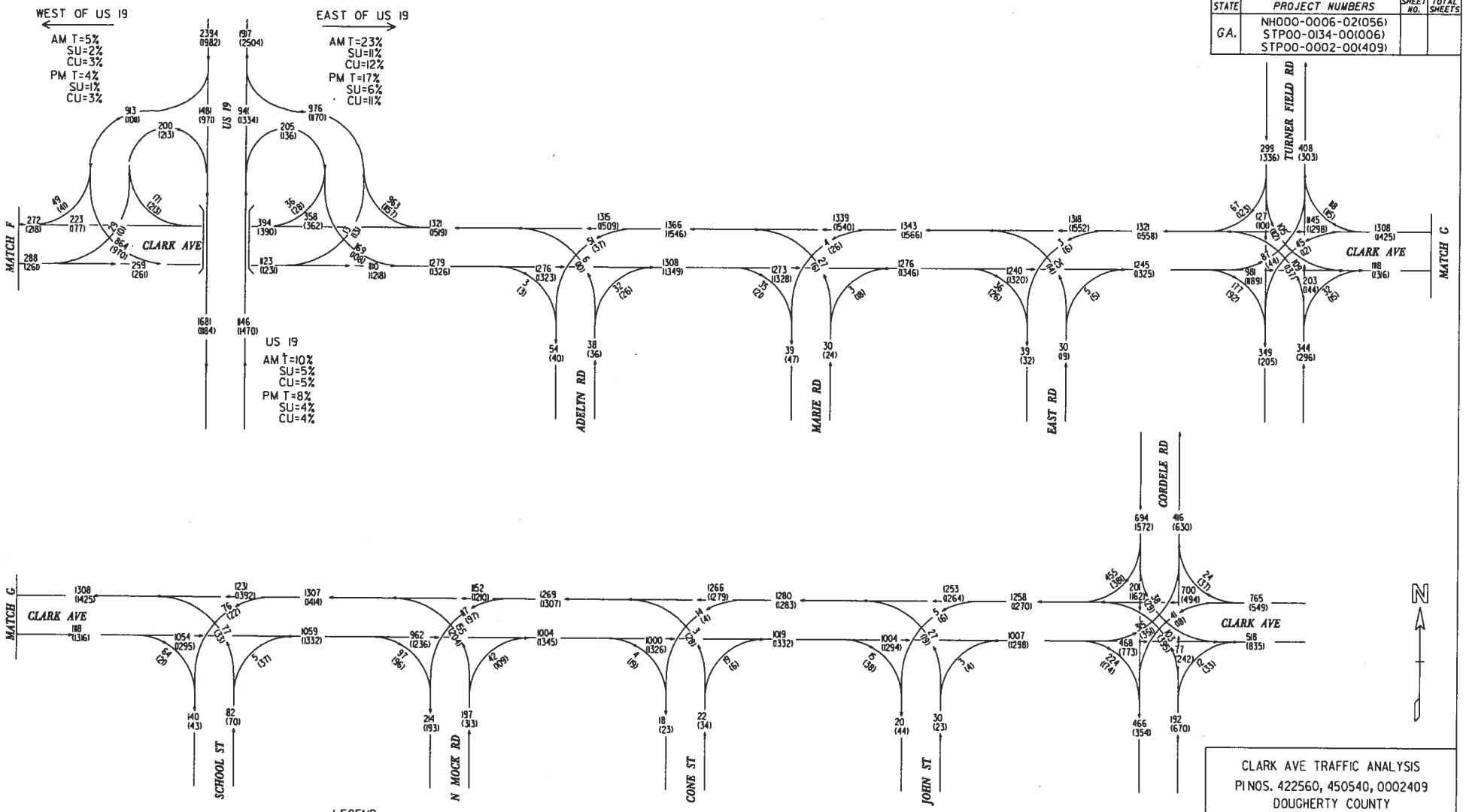
JACOBS™

FIGURE 27

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
PEAK HOUR VOLUMES

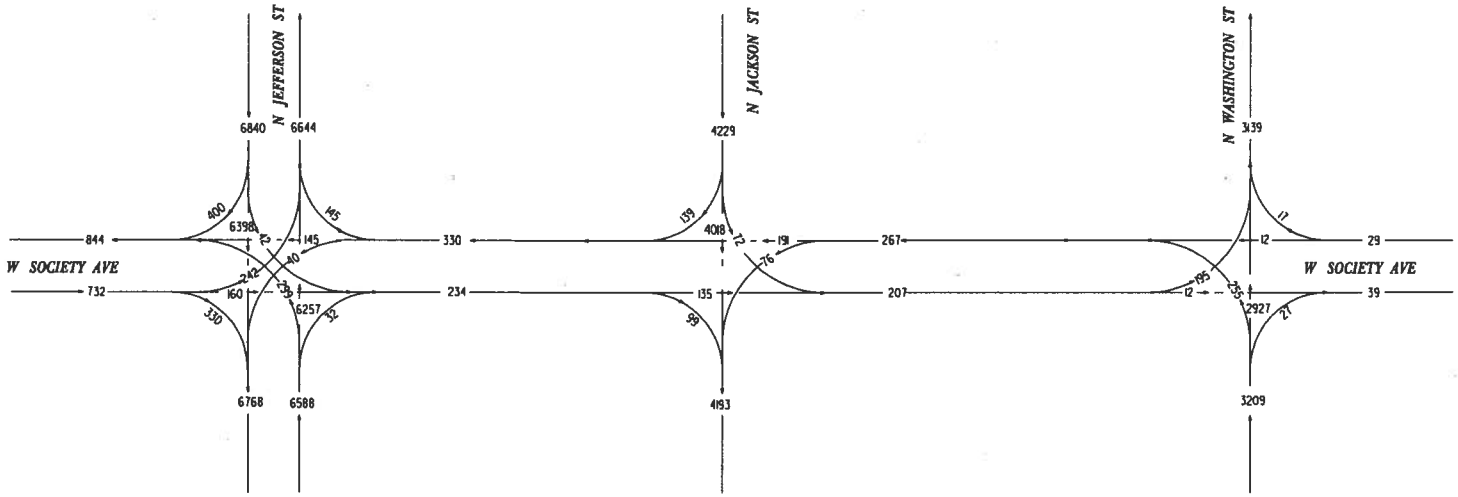
JACOBS

FIGURE 28

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



N

LEGEND

000-ADT VOLUME

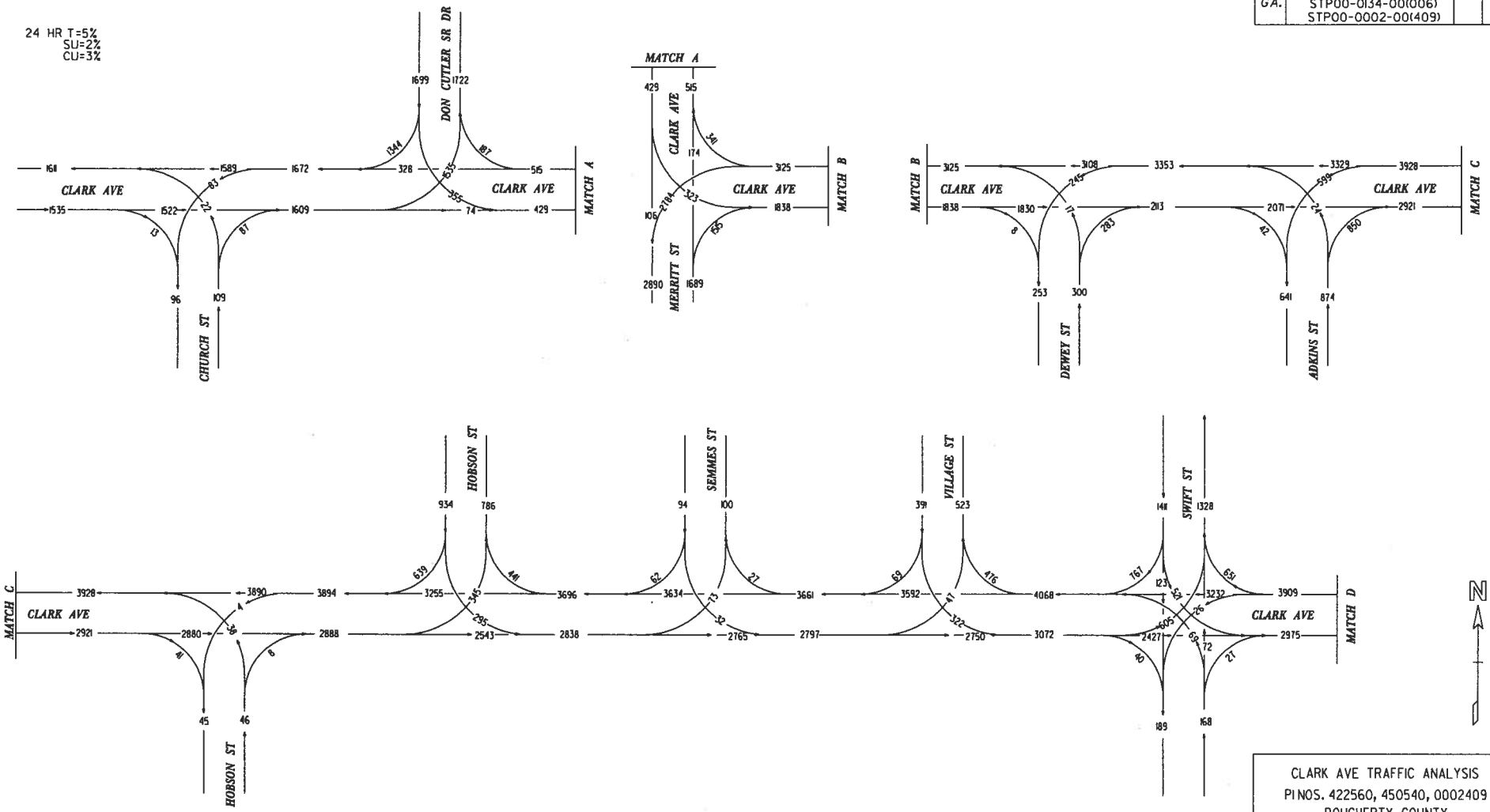
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
ADT VOLUMES

JACOBS™

FIGURE 29

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

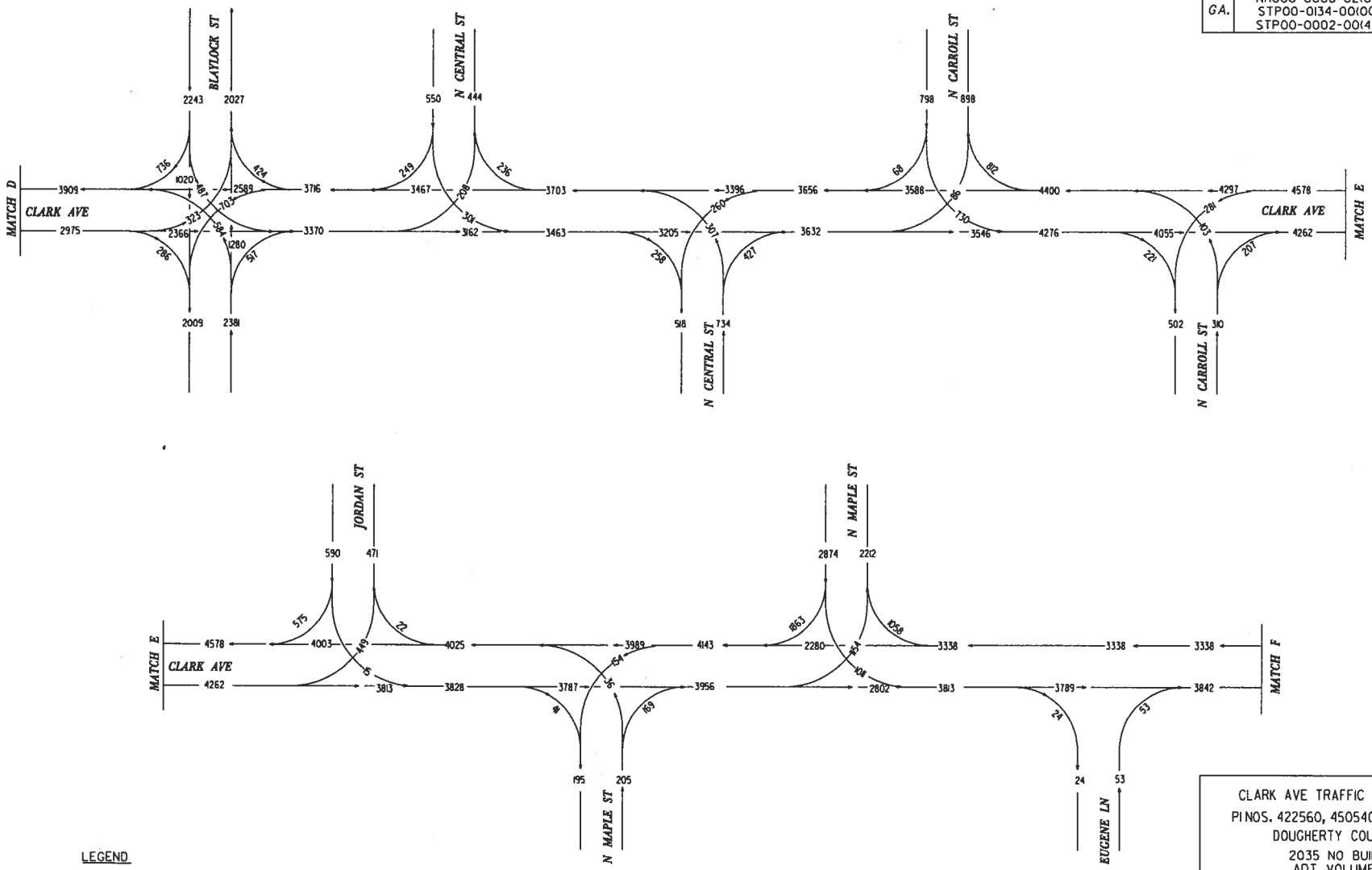
CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
ADT VOLUMES

JACOBS

FIGURE 30

SCALE: N.T.S. DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
ADT VOLUMES

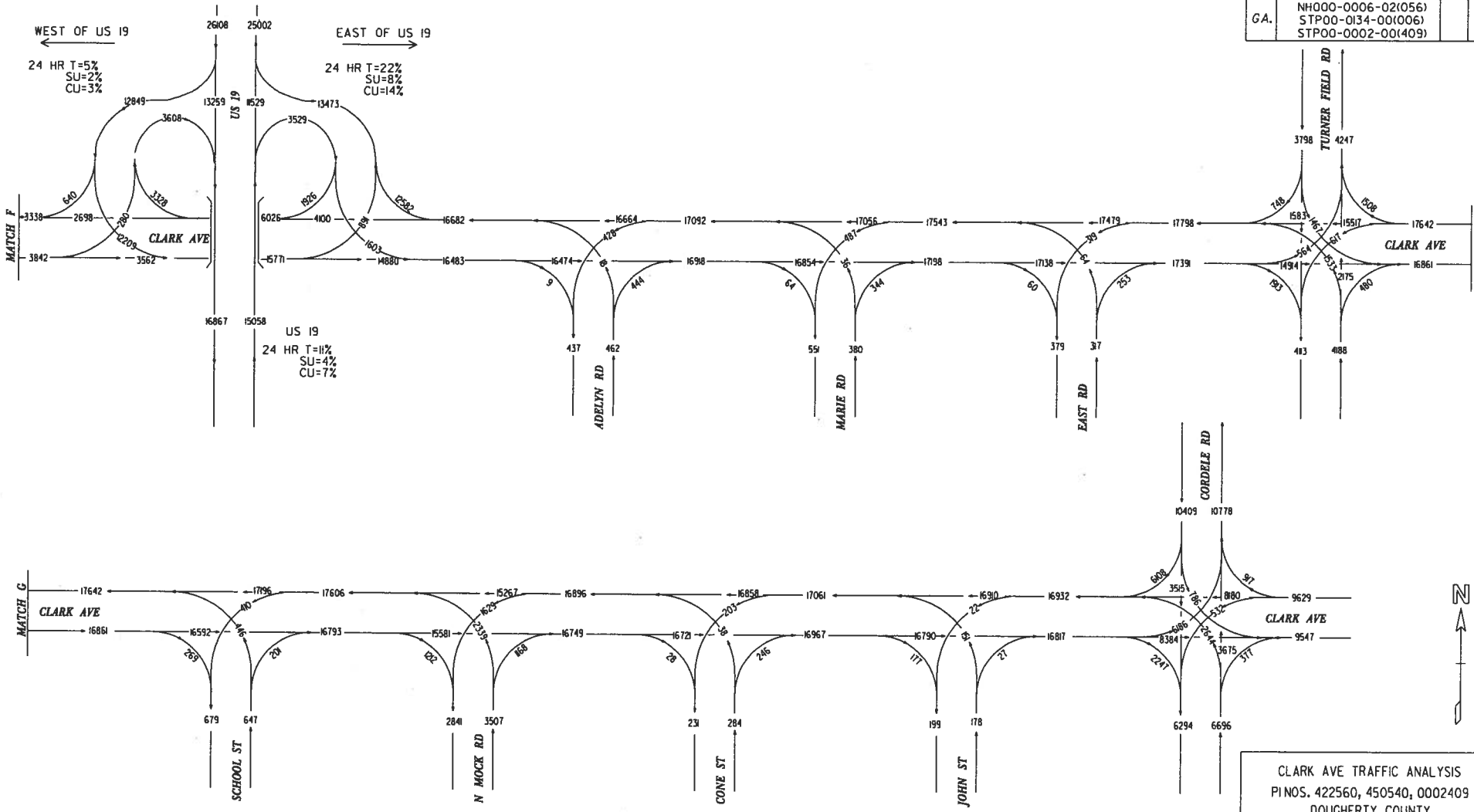
JACOBS

FIGURE 31

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 NO BUILD
ADT VOLUMES

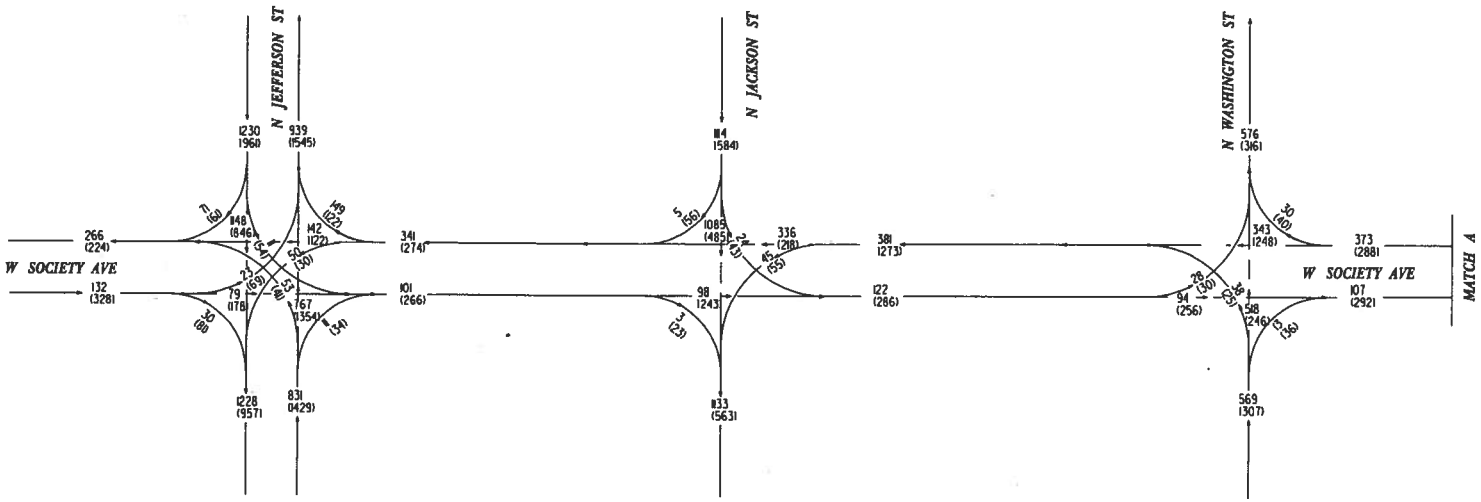
JACOBS

FIGURE 32

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



N

LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
PEAK HOUR VOLUMES

JACOBS™

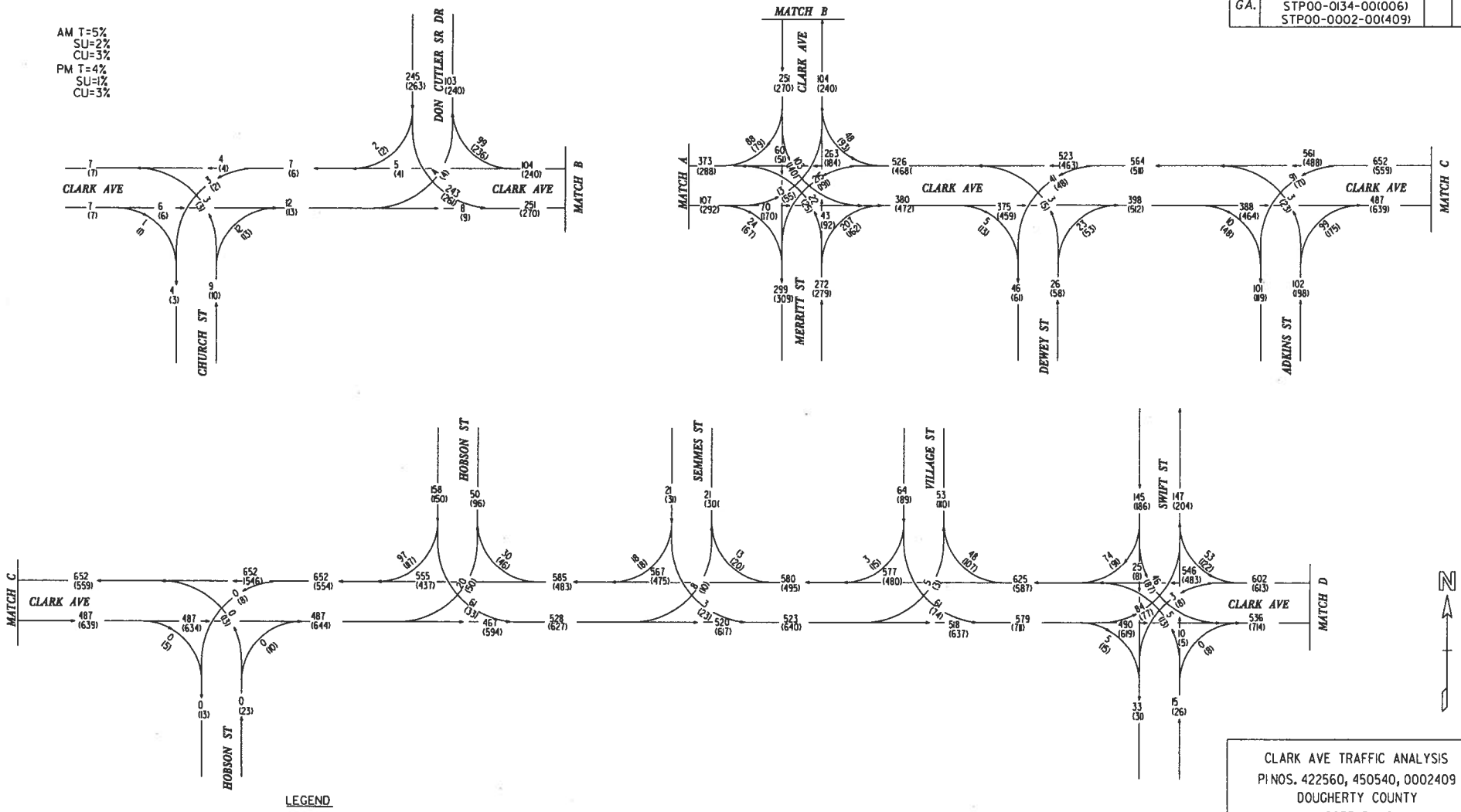
FIGURE 33

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		

AM T=5%
SU=2%
CU=3%
PM T=4%
SU=1%
CU=3%



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
PEAK HOUR VOLUMES

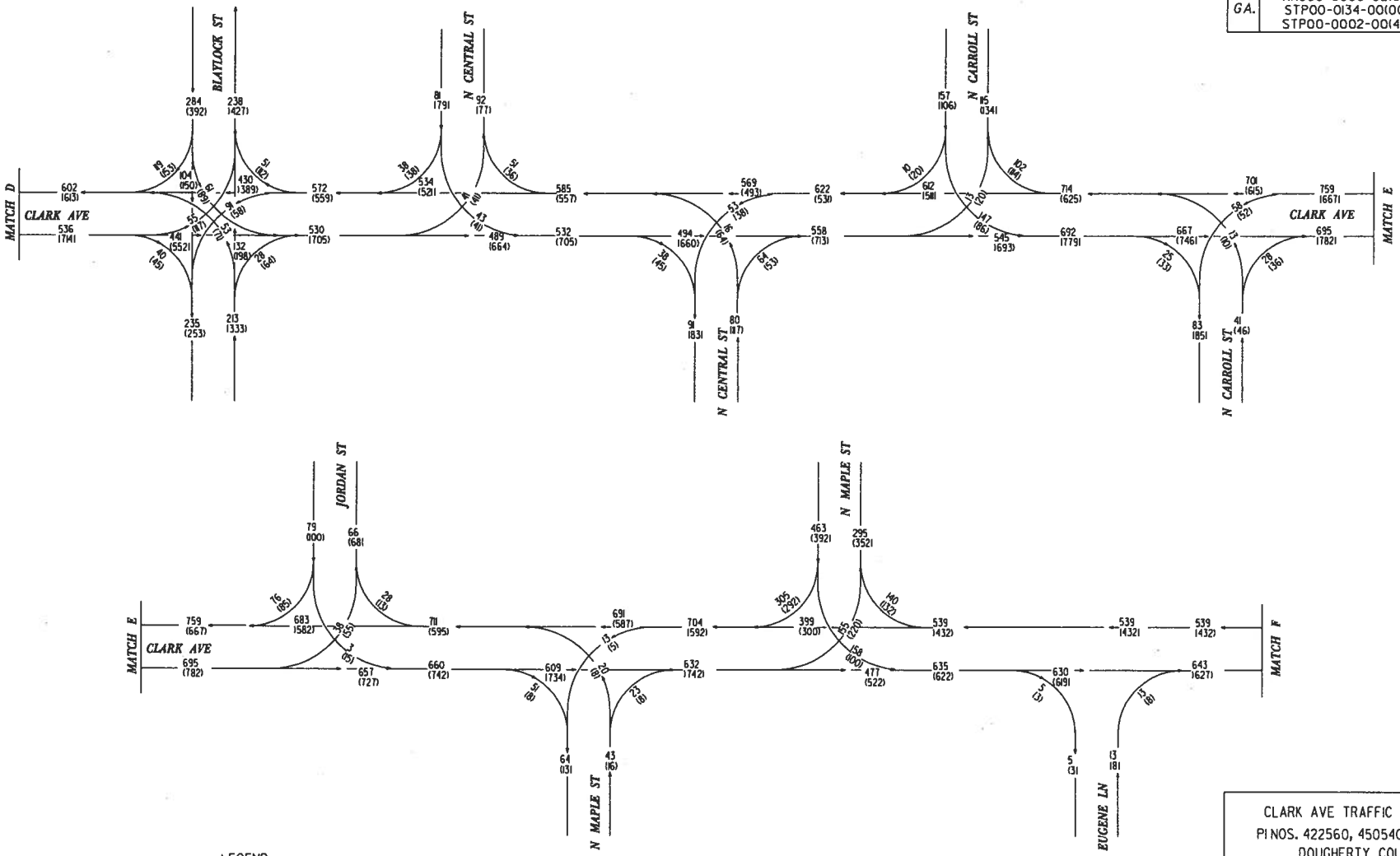
JACOBS™

FIGURE 34

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
PEAK HOUR VOLUMES

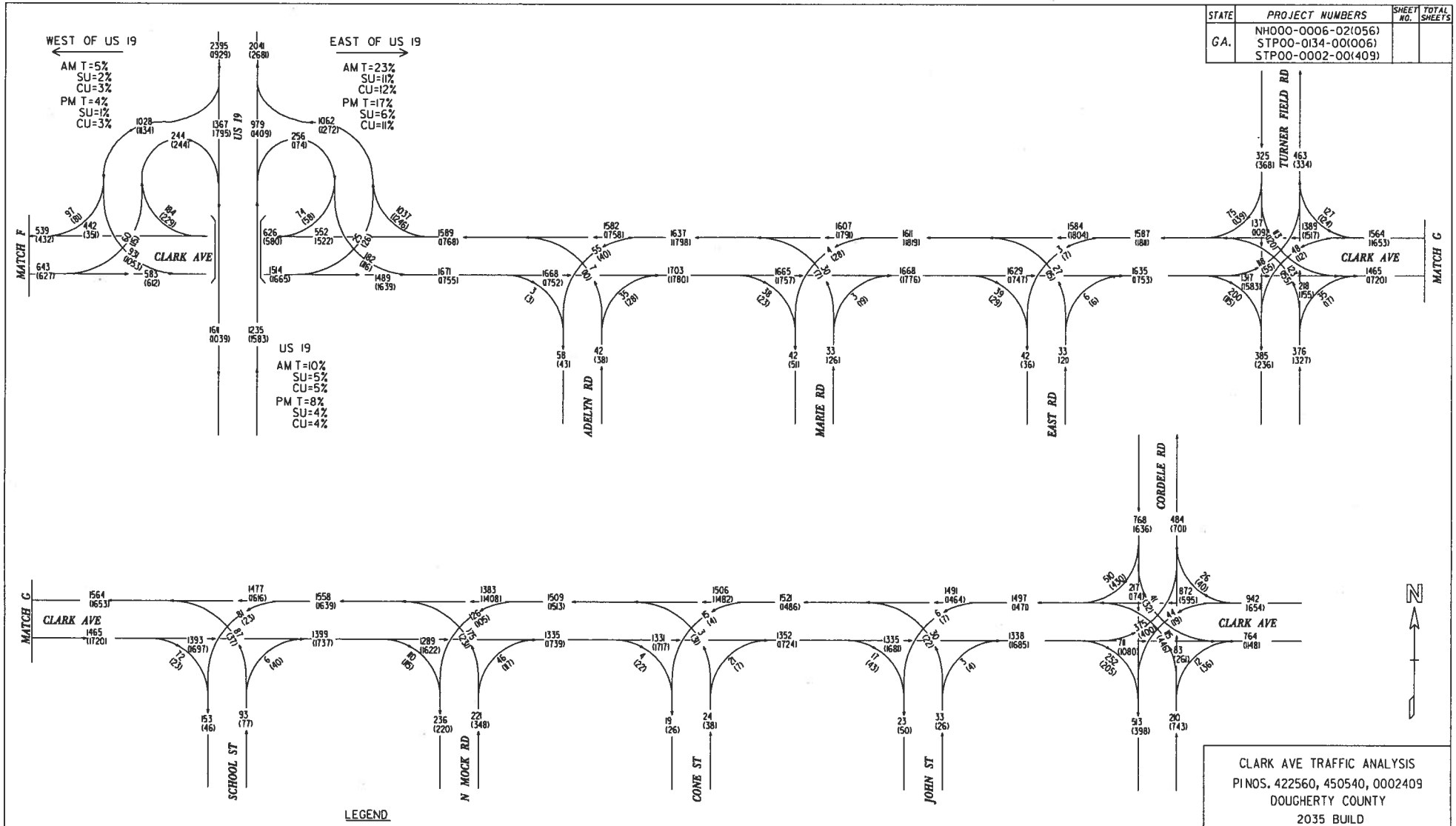
JACOBS

FIGURE 35

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
PEAK HOUR VOLUMES

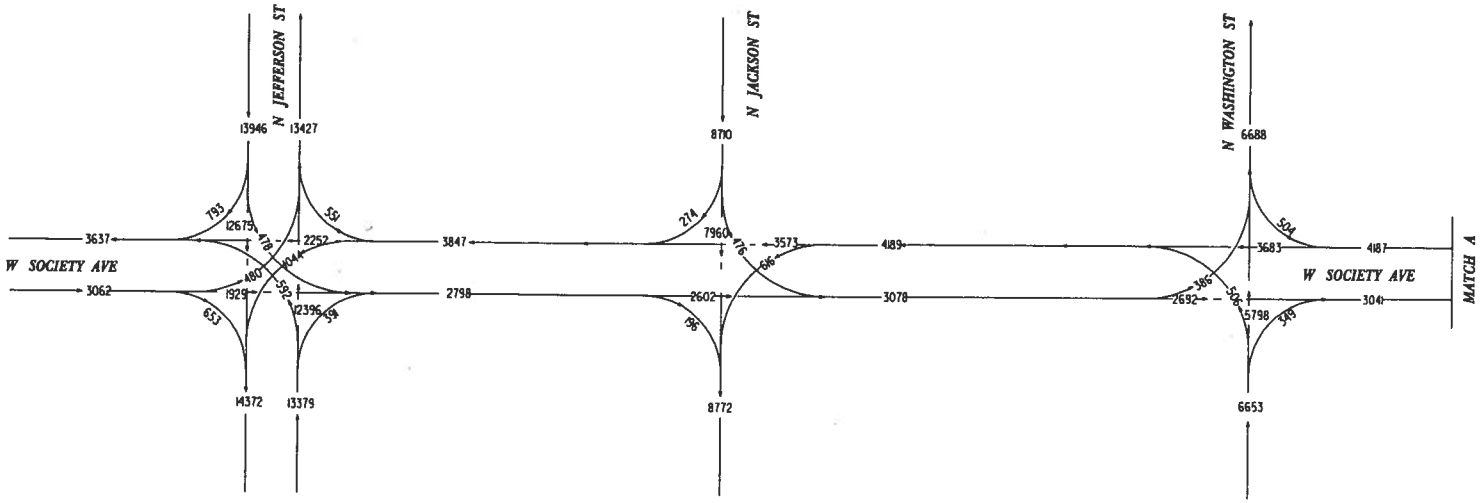
JACOBS

FIGURE 36

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



N

LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
ADT VOLUMES

JACOBS

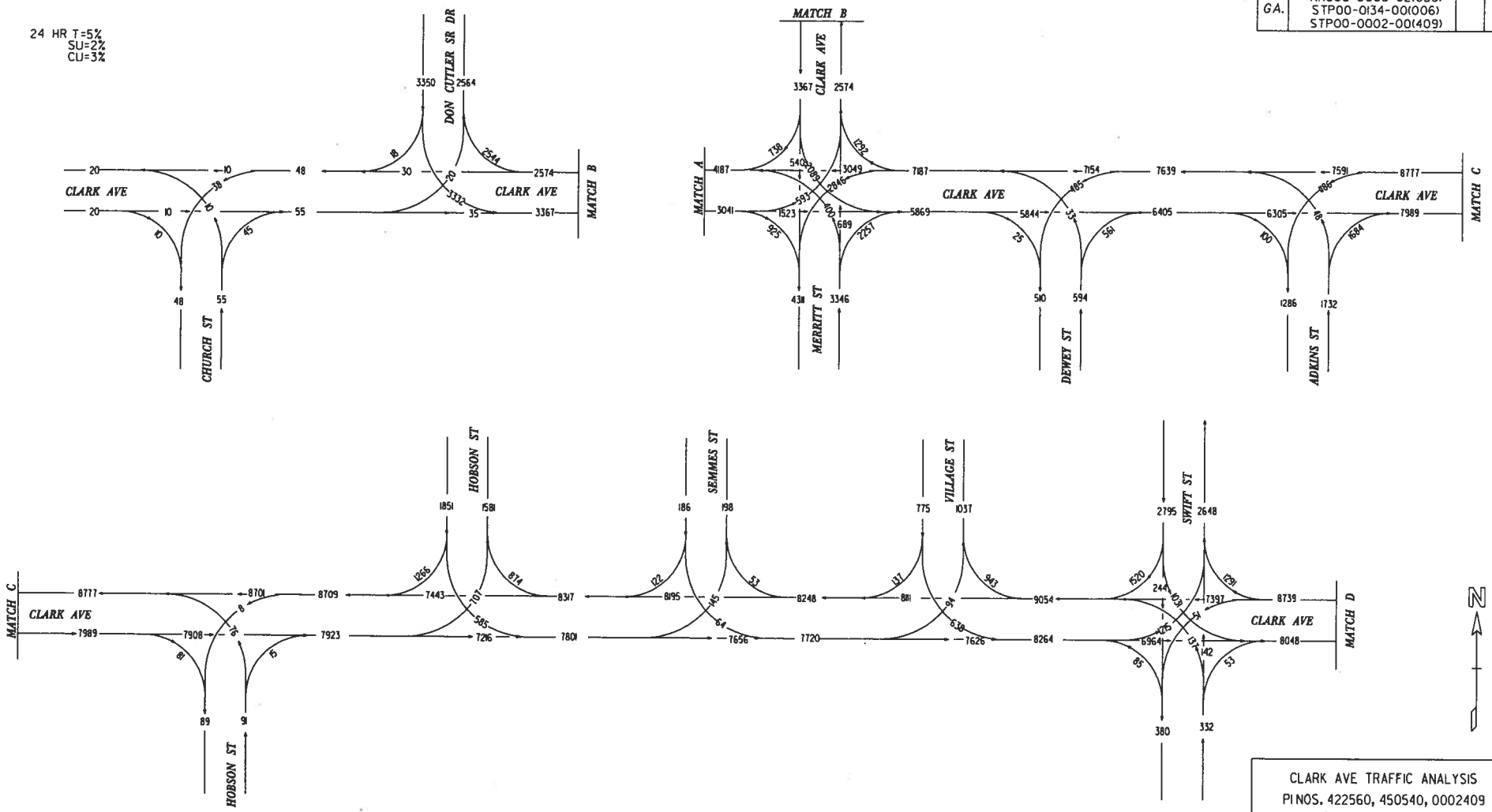
FIGURE 37

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		

24 HR T=5%
SU=2%
CU=3%



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
ADT VOLUMES

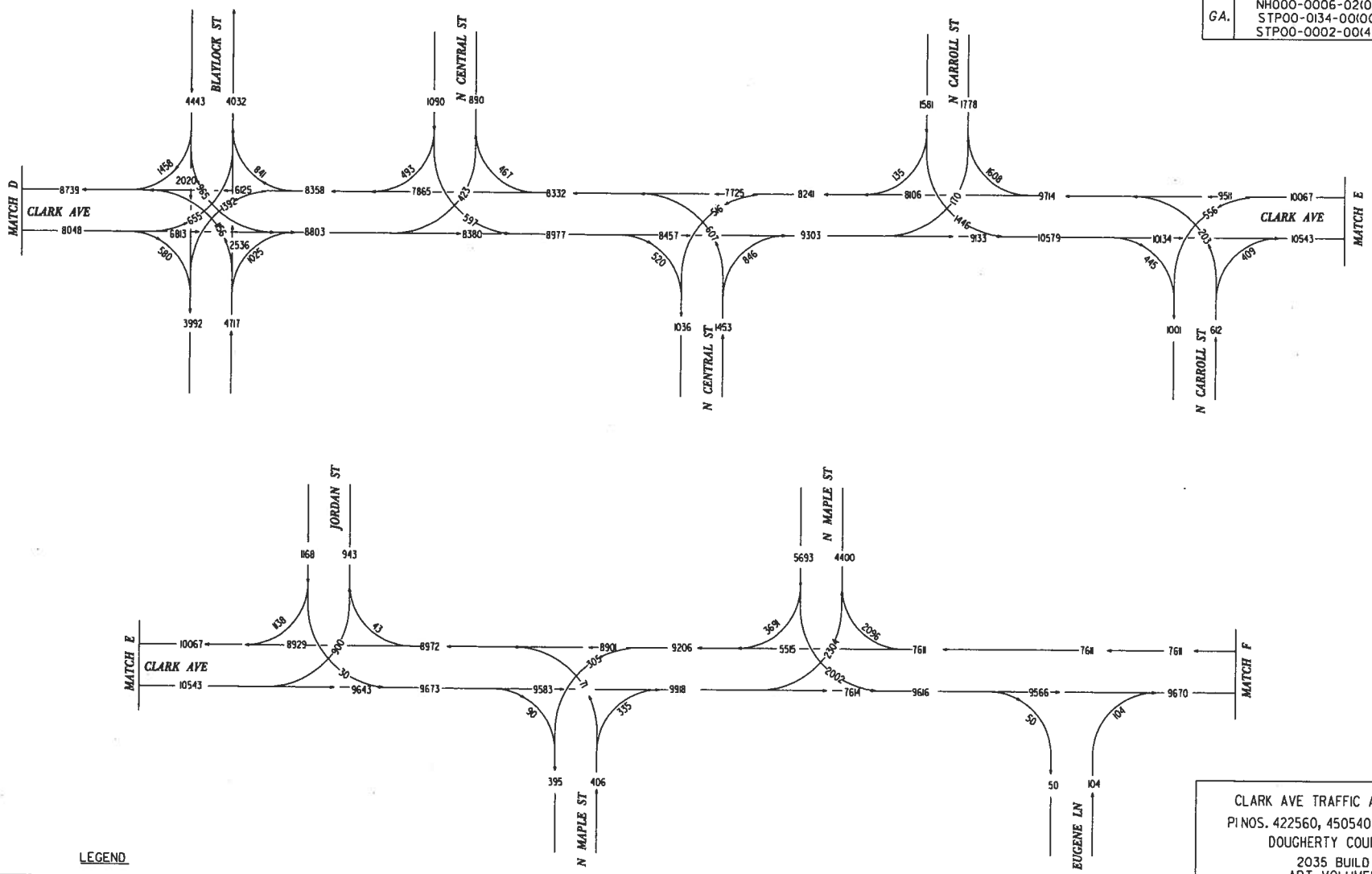
JACOBS

FIGURE 38

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
ADT VOLUMES

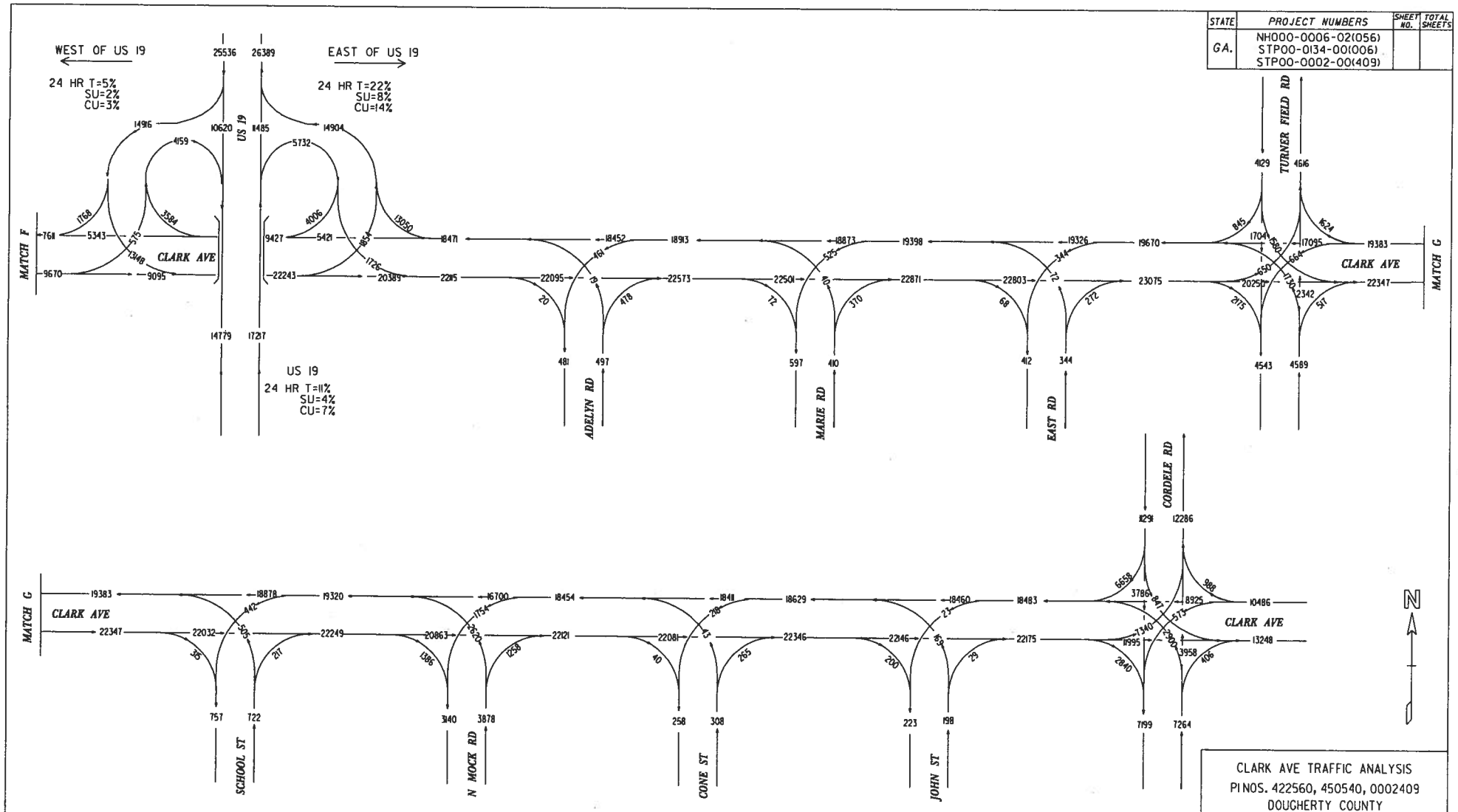
JACOBS

FIGURE 39

SCALE: N.T.S.

DECEMBER 2010

STATE	PROJECT NUMBERS	SHEET NO.	TOTAL SHEETS
GA.	NH000-0006-02(056) STP00-0134-00(006) STP00-0002-00(409)		



LEGEND

000-ADT VOLUME

CLARK AVE TRAFFIC ANALYSIS
PI NOS. 422560, 450540, 0002409
DOUGHERTY COUNTY
2035 BUILD
ADT VOLUMES

JACOBS

FIGURE 40

SCALE: N.T.S.

DECEMBER 2010

Traffic Analysis – HCS Report

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & Turner Field Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/20/2011*	Jurisdiction	
Time Period	*No Build AM*	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	1	1	0	1	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	87	981	177	45	1145	118	109	203	32	105	127	67
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type	3	3		3	3	3	3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0		0	0	
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 7.0	G = 60.0	G =	G =	G = 7.0	G = 20.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	95	1258		49	1245	128	118	256		114	211	
Lane Group Capacity	248	1610		244	1604	1022	241	332		205	321	
v/c Ratio	0.38	0.78		0.20	0.78	0.13	0.49	0.77		0.56	0.66	
Green Ratio	0.65	0.55		0.65	0.55	0.65	0.28	0.18		0.28	0.18	
Uniform Delay d_1	12.1	19.8		11.4	19.7	7.5	31.1	42.8		31.4	41.8	
Delay Factor k	0.11	0.33		0.11	0.33	0.11	0.11	0.32		0.15	0.23	
Incremental Delay d_2	1.0	2.6		0.4	2.5	0.1	1.6	10.6		3.3	4.9	
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Control Delay	13.1	22.4		11.9	22.2	7.6	32.7	53.5		34.8	46.7	
Lane Group LOS	B	C		B	C	A	C	D		C	D	
Approach Delay	21.7			20.5			46.9			42.5		
Approach LOS	C			C			D			D		
Intersection Delay	25.9			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/20/2011 1:22 PM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & Turner Field Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/20/2011*	Jurisdiction	
Time Period	*No Build PM*	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	1	1	0	1	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	44	1189	92	12	1298	115	137	144	15	112	101	123
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type	3	3		3	3	3	3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0		0	0	
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 7.0	G = 60.0	G =	G =	G = 7.0	G = 20.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	48	1392		13	1411	125	149	173		122	244	
Lane Group Capacity	207	1607		211	1604	1022	215	334		271	311	
v/c Ratio	0.23	0.87		0.06	0.88	0.12	0.69	0.52		0.45	0.78	
Green Ratio	0.65	0.55		0.65	0.55	0.65	0.28	0.18		0.28	0.18	
Uniform Delay d_1	13.5	21.5		12.5	21.8	7.5	35.7	40.6		30.9	42.9	
Delay Factor k	0.11	0.40		0.11	0.41	0.11	0.26	0.12		0.11	0.33	
Incremental Delay d_2	0.6	5.3		0.1	6.0	0.1	9.2	1.4		1.2	12.4	
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Control Delay	14.1	26.8		12.6	27.8	7.6	44.9	42.1		32.1	55.4	
Lane Group LOS	B	C		B	C	A	D	D		C	E	
Approach Delay	26.4			26.1			43.4			47.6		
Approach LOS	C			C			D			D		
Intersection Delay	29.9			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/20/2011 1:21 PM

SHORT REPORT

General Information		Site Information	
Analyst	Rishee Shah	Intersection	Clark Ave & Turner Field Rd
Agency or Co.	GDOT	Area Type	All other areas
Date Performed	1/20/2011	Jurisdiction	
Time Period	Build AM EXIST	Analysis Year	2035

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	1	1	0	1	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	118	1317	200	48	1389	127	123	218	35	113	137	75
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type	3	3		3	3	3	3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0		0	0	
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 7.0	G = 65.0	G =	G =	G = 7.0	G = 22.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 113.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	128	1649		52	1510	138	134	275		123	231	
Lane Group Capacity	195	1696		176	1692	1051	227	355		194	343	
v/c Ratio	0.66	0.97		0.30	0.89	0.13	0.59	0.77		0.63	0.67	
Green Ratio	0.66	0.58		0.66	0.58	0.66	0.28	0.19		0.28	0.19	
Uniform Delay d_1	17.4	23.1		17.1	20.9	7.0	32.3	43.1		32.5	42.2	
Delay Factor k	0.23	0.48		0.11	0.42	0.11	0.18	0.32		0.21	0.25	
Incremental Delay d_2	7.8	15.7		0.9	6.5	0.1	4.0	10.3		6.6	5.1	
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Control Delay	25.2	38.9		18.0	27.4	7.1	36.3	53.4		39.2	47.3	
Lane Group LOS	C	D		B	C	A	D	D		D	D	
Approach Delay	37.9			25.5			47.8			44.5		
Approach LOS	D			C			D			D		
Intersection Delay	34.4			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 11:38 AM

SHORT REPORT

General Information		Site Information	
Analyst	Rishee Shah	Intersection	Clark Ave & Turner Field Rd
Agency or Co.	GDOT	Area Type	All other areas
Date Performed	1/20/2011	Jurisdiction	
Time Period	Build PM EXIST	Analysis Year	2035

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	1	1	0	1	1	0
Lane Group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	55	1583	115	12	1517	124	155	155	17	120	109	139
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival Type	3	3		3	3	3	3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	75	0	0	75	0	0	5	0	0	75
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0		0	0	
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 6.0	G = 70.0	G =	G =	G = 7.0	G = 19.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 114.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	60	1764		13	1649	53	168	181		130	188	
Lane Group Capacity	172	1807		158	1806	1111	223	307		229	293	
v/c Ratio	0.35	0.98		0.08	0.91	0.05	0.75	0.59		0.57	0.64	
Green Ratio	0.69	0.61		0.69	0.61	0.70	0.25	0.17		0.25	0.17	
Uniform Delay d_1	14.9	21.2		15.4	19.3	5.2	40.4	43.9		34.8	44.3	
Delay Factor k	0.11	0.48		0.11	0.43	0.11	0.31	0.18		0.16	0.22	
Incremental Delay d_2	1.2	15.9		0.2	7.6	0.0	13.5	3.0		3.3	4.7	
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Control Delay	16.1	37.1		15.6	26.9	5.3	53.9	46.9		38.1	49.0	
Lane Group LOS	B	D		B	C	A	D	D		D	D	
Approach Delay	36.4			26.2			50.3			44.5		
Approach LOS	D			C			D			D		
Intersection Delay	34.0			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 11:38 AM

SHORT REPORT

General Information		Site Information	
Analyst	Rishee Shah	Intersection	Clark Ave & Turner Field Rd
Agency or Co.	GDOT	Area Type	All other areas
Date Performed	1/20/2011	Jurisdiction	
Time Period	Build AM Proposed	Analysis Year	2035

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	3	1	1	3	1	1	1	1	1	1	1
Lane Group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	118	1317	200	48	1389	127	123	218	35	113	137	75
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3	3	3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	50	0	0	35	0	0	10	0	0	20
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 7.0	G = 50.0	G =	G =	G = 7.0	G = 20.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 96.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	128	1432	163	52	1510	100	134	237	27	123	149	60
Lane Group Capacity	230	2192	989	244	2192	989	336	388	495	265	388	495
v/c Ratio	0.56	0.65	0.16	0.21	0.69	0.10	0.40	0.61	0.05	0.46	0.38	0.12
Green Ratio	0.63	0.52	0.63	0.63	0.52	0.63	0.31	0.21	0.31	0.31	0.21	0.31
Uniform Delay d_1	11.1	16.7	7.5	9.2	17.2	7.2	24.8	34.5	23.1	25.2	32.7	23.6
Delay Factor k	0.15	0.23	0.11	0.11	0.26	0.11	0.11	0.20	0.11	0.11	0.11	0.11
Incremental Delay d_2	3.0	0.7	0.1	0.4	0.9	0.0	0.8	2.8	0.0	1.3	0.6	0.1
PF Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	14.1	17.4	7.6	9.6	18.1	7.3	25.6	37.3	23.1	26.4	33.3	23.7
Lane Group LOS	B	B	A	A	B	A	C	D	C	C	C	C
Approach Delay	16.2			17.2			32.4			29.0		
Approach LOS	B			B			C			C		
Intersection Delay	19.2			Intersection LOS						B		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 11:36 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & Turner Field Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/20/2011*	Jurisdiction	
Time Period	*Build PM* Proposed	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	3	1	1	3	1	1	1	1	1	1	1
Lane Group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	55	1583	115	12	1517	124	155	155	17	120	109	139
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3	3	3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	30	0	0	30	0	0	5	0	0	40
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 6.0	G = 55.0	G =	G =	G = 7.0	G = 19.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 99.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	60	1721	92	13	1649	102	168	168	13	130	118	108
Lane Group Capacity	200	2338	1039	189	2338	1039	335	358	448	294	358	448
v/c Ratio	0.30	0.74	0.09	0.07	0.71	0.10	0.50	0.47	0.03	0.44	0.33	0.24
Green Ratio	0.65	0.56	0.66	0.65	0.56	0.66	0.29	0.19	0.28	0.29	0.19	0.28
Uniform Delay d_1	9.7	16.5	6.2	9.3	16.1	6.2	29.0	35.5	25.7	27.1	34.5	27.3
Delay Factor k	0.11	0.29	0.11	0.11	0.27	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Incremental Delay d_2	0.8	1.3	0.0	0.2	1.0	0.0	1.2	1.0	0.0	1.1	0.5	0.3
PF Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	10.5	17.8	6.2	9.4	17.1	6.3	30.2	36.5	25.7	28.2	35.0	27.6
Lane Group LOS	B	B	A	A	B	A	C	D	C	C	D	C
Approach Delay	17.0			16.4			33.0			30.3		
Approach LOS	B			B			C			C		
Intersection Delay	19.1			Intersection LOS						B		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 11:36 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & N. Mock Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/25/2011*	Jurisdiction	
Time Period	*No Build AM*	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2	0	1	2		1		1			
Lane Group		TR		L	T		L		R			
Volume (vph)		962	97	117	1152		155		42			
% Heavy Vehicles		2	2	2	2		2		2			
PHF		0.92	0.92	0.92	0.92		0.92		0.92			
Pretimed/Actuated (P/A)		A	A	A	A		A		A			
Startup Lost Time		2.0		2.0	2.0		2.0		2.0			
Extension of Effective Green		2.0		2.0	2.0		2.0		2.0			
Arrival Type		3		3	3		3		3			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0	25	0	0		0	0	10	0	0	
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour		0		0	0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 10.0	G = 50.0	G =	G =	G = 15.0	G =	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 87.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1124		127	1252		168		35			
Lane Group Capacity		2017		399	2609		305		528			
v/c Ratio		0.56		0.32	0.48		0.55		0.07			
Green Ratio		0.57		0.74	0.74		0.17		0.33			
Uniform Delay d_1		11.6		5.8	4.7		32.9		19.8			
Delay Factor k		0.15		0.11	0.11		0.15		0.11			
Incremental Delay d_2		0.3		0.5	0.1		2.1		0.1			
PF Factor		1.000		1.000	1.000		1.000		1.000			
Control Delay		11.9		6.3	4.8		35.1		19.8			
Lane Group LOS		B		A	A		D		B			
Approach Delay	11.9			5.0			32.4					
Approach LOS	B			A			C					
Intersection Delay	9.9			Intersection LOS						A		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/26/2011 10:34 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & N. Mock Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/25/2011*	Jurisdiction	
Time Period	*No Build PM*	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2	0	1	2		1		1			
Lane Group		TR		L	T		L		R			
Volume (vph)		1236	96	97	1210		204		109			
% Heavy Vehicles		2	2	2	2		2		2			
PHF		0.92	0.92	0.92	0.92		0.92		0.92			
Pretimed/Actuated (P/A)		A	A	A	A		A		A			
Startup Lost Time		2.0		2.0	2.0		2.0		2.0			
Extension of Effective Green		2.0		2.0	2.0		2.0		2.0			
Arrival Type		3		3	3		3		3			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0	25	0	0		0	0	30	0	0	
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour		0		0	0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 5.0	G = 50.0	G =	G =	G = 15.0	G =	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 79.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1420		105	1315		222		86			
Lane Group Capacity		2227		256	2604		336		461			
v/c Ratio		0.64		0.41	0.50		0.66		0.19			
Green Ratio		0.63		0.73	0.73		0.19		0.29			
Uniform Delay d_1		8.9		6.8	4.4		29.6		21.0			
Delay Factor k		0.22		0.11	0.11		0.24		0.11			
Incremental Delay d_2		0.6		1.1	0.2		4.8		0.2			
PF Factor		1.000		1.000	1.000		1.000		1.000			
Control Delay		9.5		7.8	4.6		34.4		21.2			
Lane Group LOS		A		A	A		C		C			
Approach Delay	9.5			4.8			30.7					
Approach LOS	A			A			C					
Intersection Delay	9.5			Intersection LOS						A		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/26/2011 8:59 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & N. Mock Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/25/2011*	Jurisdiction	
Time Period	*Build AM* Exist.	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2	0	1	2		1		1			
Lane Group		TR		L	T		L		R			
Volume (vph)		1289	110	126	1383		175		46			
% Heavy Vehicles		2	2	2	2		2		2			
PHF		0.92	0.92	0.92	0.92		0.92		0.92			
Pretimed/Actuated (P/A)		A	A	A	A		A		A			
Startup Lost Time		2.0		2.0	2.0		2.0		2.0			
Extension of Effective Green		2.0		2.0	2.0		2.0		2.0			
Arrival Type		3		3	3		3		3			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0	31	0	0		0	0	32	0	0	
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour		0		0	0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 10.0	G = 50.0	G =	G =	G = 15.0	G =	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 87.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1487		137	1503		190		15			
Lane Group Capacity		2021		300	2609		305		528			
v/c Ratio		0.74		0.46	0.58		0.62		0.03			
Green Ratio		0.57		0.74	0.74		0.17		0.33			
Uniform Delay d_1		13.6		11.2	5.3		33.4		19.5			
Delay Factor k		0.29		0.11	0.17		0.21		0.11			
Incremental Delay d_2		1.4		1.1	0.3		3.9		0.0			
PF Factor		1.000		1.000	1.000		1.000		1.000			
Control Delay		15.1		12.3	5.6		37.3		19.5			
Lane Group LOS		B		B	A		D		B			
Approach Delay	15.1			6.2			36.0					
Approach LOS	B			A			D					
Intersection Delay	12.0			Intersection LOS						B		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/26/2011 10:36 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & N. Mock Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/25/2011*	Jurisdiction	
Time Period	*Build PM* Exist	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2	0	1	2		1		1			
Lane Group		TR		L	T		L		R			
Volume (vph)		1622	115	105	1408		231		117			
% Heavy Vehicles		2	2	2	2		2		2			
PHF		0.92	0.92	0.92	0.92		0.92		0.92			
Pretimed/Actuated (P/A)		A	A	A	A		A		A			
Startup Lost Time		2.0		2.0	2.0		2.0		2.0			
Extension of Effective Green		2.0		2.0	2.0		2.0		2.0			
Arrival Type		3		3	3		3		3			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0	31	0	0		0	0	32	0	0	
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour		0		0	0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 5.0	G = 50.0	G =	G =	G = 15.0	G =	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* Cycle Length C = *79.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1854		114	1530		251		92			
Lane Group Capacity		2228		207	2604		336		461			
v/c Ratio		0.83		0.55	0.59		0.75		0.20			
Green Ratio		0.63		0.73	0.73		0.19		0.29			
Uniform Delay d_1		11.2		13.4	4.9		30.2		21.1			
Delay Factor k		0.37		0.15	0.18		0.30		0.11			
Incremental Delay d_2		2.8		3.1	0.4		8.9		0.2			
PF Factor		1.000		1.000	1.000		1.000		1.000			
Control Delay		14.1		16.5	5.3		39.1		21.3			
Lane Group LOS		B		B	A		D		C			
Approach Delay	14.1			6.0			34.3					
Approach LOS	B			A			C					
Intersection Delay	12.5			Intersection LOS						B		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/26/2011 9:02 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & N. Mock Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/25/2011*	Jurisdiction	
Time Period	*Build AM* Proposed	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		3	1	1	3		1		1			
Lane Group		T	R	L	T		L		R			
Volume (vph)		1289	110	126	1383		175		46			
% Heavy Vehicles		2	2	2	2		2		2			
PHF		0.92	0.92	0.92	0.92		0.92		0.92			
Pretimed/Actuated (P/A)		A	A	A	A		A		A			
Startup Lost Time		2.0	2.0	2.0	2.0		2.0		2.0			
Extension of Effective Green		2.0	2.0	2.0	2.0		2.0		2.0			
Arrival Type		3	3	3	3		3		3			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0	31	0	0		0	0	32	0	0	
Lane Width		12.0	12.0	12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour		0	0	0	0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 5.0	G = 50.0	G =	G =	G = 20.0	G =	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* Cycle Length C = *84.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1401	86	137	1503		190		15			
Lane Group Capacity		3020	1376	262	3503		421		528			
v/c Ratio		0.46	0.06	0.52	0.43		0.45		0.03			
Green Ratio		0.60	0.87	0.69	0.69		0.24		0.33			
Uniform Delay d_1		9.5	0.8	6.2	5.7		27.3		18.8			
Delay Factor k		0.11	0.11	0.13	0.11		0.11		0.11			
Incremental Delay d_2		0.1	0.0	1.9	0.1		0.8		0.0			
PF Factor		1.000	1.000	1.000	1.000		1.000		1.000			
Control Delay		9.6	0.8	8.1	5.8		28.1		18.9			
Lane Group LOS		A	A	A	A		C		B			
Approach Delay	9.1			6.0			27.4					
Approach LOS	A			A			C					
Intersection Delay	8.7			Intersection LOS						A		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/26/2011 9:05 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & N. Mock Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/25/2011*	Jurisdiction	
Time Period	*Build PM* Proposed	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		3	1	1	3		1		1			
Lane Group		T	R	L	T		L		R			
Volume (vph)		1622	115	105	1408		231		117			
% Heavy Vehicles		2	2	2	2		2		2			
PHF		0.92	0.92	0.92	0.92		0.92		0.92			
Pretimed/Actuated (P/A)		A	A	A	A		A		A			
Startup Lost Time		2.0	2.0	2.0	2.0		2.0		2.0			
Extension of Effective Green		2.0	2.0	2.0	2.0		2.0		2.0			
Arrival Type		3	3	3	3		3		3			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0	31	0	0		0	0	32	0	0	
Lane Width		12.0	12.0	12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour		0	0	0	0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 5.0	G = 50.0	G =	G =	G = 15.0	G =	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 79.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1763	91	114	1530		251		92			
Lane Group Capacity		3211	1363	217	3725		336		461			
v/c Ratio		0.55	0.07	0.53	0.41		0.75		0.20			
Green Ratio		0.63	0.86	0.73	0.73		0.19		0.29			
Uniform Delay d_1		8.2	0.8	6.4	4.0		30.2		21.1			
Delay Factor k		0.15	0.11	0.13	0.11		0.30		0.11			
Incremental Delay d_2		0.2	0.0	2.4	0.1		8.9		0.2			
PF Factor		1.000	1.000	1.000	1.000		1.000		1.000			
Control Delay		8.4	0.8	8.7	4.1		39.1		21.3			
Lane Group LOS		A	A	A	A		D		C			
Approach Delay	8.0			4.4			34.3					
Approach LOS	A			A			C					
Intersection Delay	8.8			Intersection LOS						A		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/26/2011 9:05 AM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & Cordele Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/20/2011*	Jurisdiction	
Time Period	*No Build AM*	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	2	2	1	1	2	1
Lane Group	L	TR		L	T	R	L	T	R	L	T	R
Volume (vph)	315	468	224	41	700	24	103	77	12	38	201	455
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	60	0	0	7	0	0	3	0	0	100
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 15.0	G = 40.0	G =	G =	G = 7.0	G = 25.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =

Duration of Analysis (hrs) = *0.25* Cycle Length C = *103.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	342	687		45	761	18	112	84	10	41	218	386
Lane Group Capacity	429	1149		457	1142	784	556	861	676	462	861	676
v/c Ratio	0.80	0.60		0.10	0.67	0.02	0.20	0.10	0.01	0.09	0.25	0.57
Green Ratio	0.57	0.39		0.57	0.39	0.50	0.35	0.24	0.43	0.35	0.24	0.43
Uniform Delay d_1	14.8	25.1		10.9	26.0	13.3	22.7	30.3	17.0	22.3	31.5	22.3
Delay Factor k	0.34	0.19		0.11	0.24	0.11	0.11	0.11	0.11	0.11	0.11	0.17
Incremental Delay d_2	10.1	0.9		0.1	1.5	0.0	0.2	0.0	0.0	0.1	0.2	1.2
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	25.0	26.0		11.0	27.5	13.3	22.9	30.3	17.0	22.4	31.6	23.5
Lane Group LOS	C	C		B	C	B	C	C	B	C	C	C
Approach Delay	25.6			26.3			25.6			26.2		
Approach LOS	C			C			C			C		
Intersection Delay	26.0			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved *HCS+™ Version 5.4* Generated: 1/25/2011 3:24 PM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & Cordele Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/20/2011*	Jurisdiction	
Time Period	*No Build PM*	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	2	2	1	1	2	1
Lane Group	L	TR		L	T	R	L	T	R	L	T	R
Volume (vph)	351	773	174	18	494	37	395	242	33	29	162	381
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 6.0	G = 40.0	G =	G =	G = 7.0	G = 26.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 95.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	382	1029		20	537	40	429	263	36	32	176	414
Lane Group Capacity	412	1243		224	1238	850	677	971	600	410	971	600
v/c Ratio	0.93	0.83		0.09	0.43	0.05	0.63	0.27	0.06	0.08	0.18	0.69
Green Ratio	0.53	0.42		0.53	0.42	0.54	0.39	0.27	0.38	0.39	0.27	0.38
Uniform Delay d_1	26.7	24.4		13.8	19.5	10.5	25.1	27.1	18.7	18.2	26.4	24.8
Delay Factor k	0.44	0.37		0.11	0.11	0.11	0.21	0.11	0.11	0.11	0.11	0.26
Incremental Delay d_2	27.0	4.8		0.2	0.2	0.0	1.9	0.2	0.0	0.1	0.1	3.4
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	53.7	29.2		14.0	19.7	10.5	27.1	27.2	18.8	18.3	26.5	28.2
Lane Group LOS	D	C		B	B	B	C	C	B	B	C	C
Approach Delay	35.9			18.9			26.7			27.2		
Approach LOS	D			B			C			C		
Intersection Delay	29.3			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 3:25 PM

SHORT REPORT

General Information		Site Information	
Analyst	Rishee Shah	Intersection	Clark Ave & Cordele Rd
Agency or Co.	GDOT	Area Type	All other areas
Date Performed	1/20/2011	Jurisdiction	
Time Period	Build AM Exist	Analysis Year	2035

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	2	2	1	1	2	1
Lane Group	L	TR		L	T	R	L	T	R	L	T	R
Volume (vph)	375	711	252	44	872	23	115	83	12	41	217	510
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	68	0	0	6	0	0	3	0	0	139
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 16.0	G = 55.0	G =	G =	G = 7.0	G = 25.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 115.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	408	973		48	948	18	125	90	10	45	236	403
Lane Group Capacity	417	1413		409	1407	895	456	771	606	396	771	606
v/c Ratio	0.98	0.69		0.12	0.67	0.02	0.27	0.12	0.02	0.11	0.31	0.67
Green Ratio	0.64	0.48		0.64	0.48	0.57	0.30	0.22	0.38	0.30	0.22	0.38
Uniform Delay d_1	21.4	23.3		10.2	23.1	11.0	29.1	36.1	22.1	28.6	37.7	29.4
Delay Factor k	0.48	0.26		0.11	0.25	0.11	0.11	0.11	0.11	0.11	0.11	0.24
Incremental Delay d_2	38.3	1.4		0.1	1.3	0.0	0.3	0.1	0.0	0.1	0.2	2.8
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	59.6	24.8		10.3	24.4	11.0	29.4	36.2	22.1	28.7	38.0	32.2
Lane Group LOS	E	C		B	C	B	C	D	C	C	D	C
Approach Delay	35.1			23.5			31.8			33.9		
Approach LOS	D			C			C			C		
Intersection Delay	31.1			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 3:31 PM

SHORT REPORT

General Information		Site Information	
Analyst	Rishee Shah	Intersection	Clark Ave & Cordele Rd
Agency or Co.	GDOT	Area Type	All other areas
Date Performed	1/20/2011	Jurisdiction	
Time Period	Build PM Exist	Analysis Year	2035

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	1	2	2	1	1	2	1
Lane Group	L	TR		L	T	R	L	T	R	L	T	R
Volume (vph)	400	1080	205	19	595	40	446	261	36	32	174	430
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3		3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	56	0	0	11	0	0	10	0	0	117
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 7.0	G = 65.0	G =	G =	G = 15.0	G = 20.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 119.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	435	1336		21	647	32	485	284	28	35	189	340
Lane Group Capacity	457	1611		211	1606	1104	647	596	399	350	596	399
v/c Ratio	0.95	0.83		0.10	0.40	0.03	0.75	0.48	0.07	0.10	0.32	0.85
Green Ratio	0.63	0.55		0.63	0.55	0.70	0.32	0.17	0.25	0.32	0.17	0.25
Uniform Delay d_1	29.0	22.4		13.5	15.7	5.6	32.3	44.8	33.9	28.5	43.5	42.4
Delay Factor k	0.46	0.37		0.11	0.11	0.11	0.30	0.11	0.11	0.11	0.11	0.38
Incremental Delay d_2	30.1	3.8		0.2	0.2	0.0	4.9	0.6	0.1	0.1	0.3	16.1
PF Factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	59.1	26.2		13.7	15.9	5.6	37.2	45.4	34.0	28.6	43.8	58.5
Lane Group LOS	E	C		B	B	A	D	D	C	C	D	E
Approach Delay	34.3			15.3			40.0			51.7		
Approach LOS	C			B			D			D		
Intersection Delay	34.6			Intersection LOS						C		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 3:25 PM

SHORT REPORT

General Information		Site Information	
Analyst	*Rishee Shah*	Intersection	*Clark Ave & Cordele Rd*
Agency or Co.	*GDOT*	Area Type	*All other areas*
Date Performed	*1/20/2011*	Jurisdiction	
Time Period	*Build AM* Proposed	Analysis Year	*2035*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Lane Group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	375	711	252	44	872	23	115	83	12	41	217	510
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3	3	3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	68	0	0	6	0	0	3	0	0	139
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 7.0	G = 40.0	G =	G =	G = 7.0	G = 21.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 87.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	408	773	200	48	948	18	125	90	10	45	236	403
Lane Group Capacity	746	1352	910	685	1352	910	578	856	564	746	856	564
v/c Ratio	0.55	0.57	0.22	0.07	0.70	0.02	0.22	0.11	0.02	0.06	0.28	0.71
Green Ratio	0.57	0.46	0.57	0.57	0.46	0.57	0.36	0.24	0.36	0.36	0.24	0.36
Uniform Delay d_1	11.4	17.2	9.0	9.1	18.7	8.0	18.9	25.7	18.1	18.3	26.8	24.2
Delay Factor k	0.15	0.17	0.11	0.11	0.27	0.11	0.11	0.11	0.11	0.11	0.11	0.28
Incremental Delay d_2	0.9	0.6	0.1	0.0	1.6	0.0	0.2	0.1	0.0	0.0	0.2	4.3
PF Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	12.3	17.8	9.1	9.1	20.4	8.0	19.0	25.7	18.2	18.3	27.0	28.5
Lane Group LOS	B	B	A	A	C	A	B	C	B	B	C	C
Approach Delay	14.9			19.6			21.7			27.3		
Approach LOS	B			B			C			C		
Intersection Delay	19.4			Intersection LOS						B		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 11:36 AM

SHORT REPORT

General Information		Site Information	
Analyst	Rishee Shah	Intersection	Clark Ave & Cordele Rd
Agency or Co.	GDOT	Area Type	All other areas
Date Performed	1/20/2011	Jurisdiction	
Time Period	Build PM Proposed	Analysis Year	2035

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Lane Group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	400	1080	205	19	595	40	446	261	36	32	174	430
% Heavy Vehicles	2	23	2	2	23	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3	3	3	3	3	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	50	0	0	10	0	0	10	0	0	100
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08
Timing	G = 6.0	G = 35.0	G =	G =	G = 6.0	G = 14.0	G =	G =
	Y = 3	Y = 3	Y =	Y =	Y = 3	Y = 3	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 73.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	435	1174	168	21	647	33	485	284	28	35	189	359
Lane Group Capacity	714	1410	954	917	1410	954	612	680	499	634	680	499
v/c Ratio	0.61	0.83	0.18	0.02	0.46	0.03	0.79	0.42	0.06	0.06	0.28	0.72
Green Ratio	0.60	0.48	0.60	0.60	0.48	0.60	0.32	0.19	0.32	0.32	0.19	0.32
Uniform Delay d_1	7.5	16.5	6.4	8.5	12.7	5.9	24.6	25.9	17.4	17.5	25.2	22.1
Delay Factor k	0.20	0.37	0.11	0.11	0.11	0.11	0.34	0.11	0.11	0.11	0.11	0.28
Incremental Delay d_2	1.5	4.4	0.1	0.0	0.2	0.0	7.1	0.4	0.0	0.0	0.2	5.0
PF Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	9.0	20.9	6.5	8.5	12.9	5.9	31.6	26.3	17.5	17.5	25.4	27.1
Lane Group LOS	A	C	A	A	B	A	C	C	B	B	C	C
Approach Delay	16.6			12.5			29.2			26.0		
Approach LOS	B			B			C			C		
Intersection Delay	19.9			Intersection LOS						B		

Copyright © 2008 University of Florida, All Rights Reserved HCS+™ Version 5.4 Generated: 1/25/2011 11:35 AM

B/C Ratio

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

OFFICE: Planning

DATE: May 2nd, 2011

FROM Cindy L. VanDyke, State Transportation Planning Administrator

TO Bobby Hilliard, P.E., Transportation Engineering Administrator

ATTN Albert Shelby, Project Manager

SUBJECT Benefit/Cost Calculation for Concept Report – SR520/Clarke Ave from CS1060/Turner Field Rd to Cordele Rd – PI 0002409

The Office of Planning is providing the Benefit/Cost Calculation for Project ID No. 0002409 as requested and in accordance with the Plan Development Process Manual of Guidance. Based on the May 2, 2011 review, the Benefit/Cost for this project is 0.01, as calculated in the attached documentation.

Please note that this B/C ratio is provided for incorporation into the project's concept report. The B/C ratio should not be used to determine the project's importance or need. A project's need is articulated in the need and purpose statement. A project's importance can be determined based on the project's schedule in theConstruction Work Program and/or STIP.

If any changes occur to the proposed concept, please notify this office immediately. If you have any questions, please callMarco Trigueros at (404) 631-1780.

CLV:mat

cc: Genetha Rice-Singleton

Enclosure

GDOT Benefit-Cost Equations

1. Annualized Cost

$$A = P \times \frac{i}{1-(1+i)^{(-n)}}$$

where

A	annualized cost
P	total cost (PE + ROW + CST)
n	design life
i	discount rate

2. Auto Delay Savings

$$DC_A = (VHT_{NB} - VHT_B) \times (1 - T) \times Value_A$$

where

DC_A	auto delay cost savings
VHT_{NB}	vehicle hours traveled in 2035 - no build
VHT_B	vehicle hours of travel in 2035 - build
T	percent of traffic consisting of trucks
$Value_A$	value of time for autos

3. Truck Delay Savings

$$DC_T = (VHT_{NB} - VHT_B) \times T \times Value_T$$

where

DC_T	truck delay cost savings
VHT_{NB}	vehicle hours traveled in 2035 - no build
VHT_B	vehicle hours of travel in 2035 - build
T	percent of traffic consisting of trucks
$Value_T$	Value of time for trucks

4. Fuel Cost Savings

$$FC = (VMT_{NB} - VMT_B) \times \left(\frac{Fuel\ Price}{FuelEconomy}\right)$$

where

FC	fuel cost savings
VMT_{NB}	vehicle hours of travel in 2035 - no build
VMT_B	vehicle hours of travel in 2035 - build

5. Change in gross state product

$$GSP = (DC_A \times 0.0000071) + (DC_T \times .0000701)$$

where

GSP	Change in GSP
DC_A	auto delay cost savings
DC_T	truck delay cost savings

6.a Benefits with no GSP component

$$Benefits = DC_A + DC_T + FC$$

where

DC_A	auto delay cost savings
DC_T	truck delay cost savings
FC	fuel cost savings

6.b. Benefits with GSP component

$$Benefits = 0.7 \times (FC_A + DC_A) + GSP$$

where

FC_A	auto fuel cost savings
DC_A	auto delay cost savings

7. Benefit-Cost Ratio

$$B/C = \frac{Benefits}{AnnualizedCost}$$

GDOT Benefit-Cost Calculator

enter information in green cells

Project Information

ID	0002409
Description	SR 300/SR520/Clark Ave from Turner Field Rd to Sr 62/Cordele Rd

Cost Estimate

Date of estimate		10/15/10
PE cost	$	671,303
ROW cost	$	3,163,500
UTILITY cost	$	299,000
CST cost	$	10,292,502
Total	$	14,426,306

Traffic in 2035

Source of traffic data	Design traffic provided by PE consultant. Analysis in CORSIM network analysis of both 1 hour peak AM and 1 hour peak PM periods
Without project (nobuild)	
Annual VMT	2,675,270
Annual VHT	88,450
Average speed (mph)	30
With project (build)	
Annual VMT	2,637,310
Annual VHT	91,870
Average speed (mph)	29

Parameters	Default	Override	Used
Analysis year	2035	2035	2035
Discount rate	4.0%		4%
Design life (years)	25	20	20
Base year of cost estimate	N/A	2010	2010
Current CST program year	N/A	2015	2015
Fuel price ($/gallon)	3.22		3.22
Fuel economy (mpg)	18.03		18.03
Value of auto travel ($/hr)	13.75		13.75
Value of truck travel ($/hr)	72.65		72.65
Percent trucks	12%	23%	23%
Include GSP benefits	No		No

Costs		
Total cost	$	14,426,306
Annualized cost	$	810,135
Auto Delay Costs		
Nobuild	$	936,464
Build	$	972,674
Auto delay savings	$	-
Truck Delay Costs		
Nobuild	$	1,477,955
Build	$	1,535,102
Truck delay savings	$	-
Fuel Costs		
Nobuild	$	477,780
Build	$	471,000
Fuel cost savings	$	6,779
Change in GSP		NA
Auto delay cost adjustment		NA
Truck delay cost adjustment		NA
Fuel cost adjustment		NA
Total benefit adjustment		NA
Benefits in 2035	$	6,779
Benefit-Cost Ratio		0.01

Notes

Due to good performance of network under no build conditions, it is anticipated that latent demand could be accomodated. Therefore, build traffic was used to evaluate future no build conditions.

Crash Data Analysis

for the year

2007, 2008, and 2009

Crash Data along Clark Avenue - SR 300
Dougherty County
MP 8.81 - MP 10.06.

Crash Data as presented in GDOT
Accident Information System (AIS)

Table 4-1

	2007		2008		2009	
Urban Principal Arterial	SR 300	**State**	SR 300	**State**	SR 300	**State**
Crashes	42		41		32	
Crash Rate	467	**445**	456	**430**	367	**461**
Injuries	22		12		24	
Injury Rate	244	**113**	133	**108**	275	**119**
Fatalities	0		0		0	
Fatality Rate	0	**1.49**	0	**1.33**	0	**1.25**

Crash Data based on the actual crashes
within the project corridor from review of accident reports

Table 4-2

	2007		2008		2009	
Urban Principal Arterial	SR 300	**State**	SR 300	**State**	SR 300	**State**
Crashes	22		32		22	
Crash Rate	244	**445**	356	**430**	244	**461**
Injuries	10		12		17	
Injury Rate	111	**113**	133	**108**	189	**119**
Fatalities	0		0		0	
Fatality Rate	0	**1.49**	0	**1.33**	0	**1.25**

ACCIDENT RATE CALCULATION for year(s) 2007,2008,2009

Year	County	Rt Type	Route Num	Low Milelog	High Milelog	ADT	Distance	Vehicle Miles
2007	Dougherty	1	052000	8.81	9.19	22,870	0.38	8,691
2007	Dougherty	1	052000	9.19	9.6	24,250	0.41	9,943
2007	Dougherty	1	052000	9.6	10.06	13,090	0.46	6,021

Total Vehicle Miles: 24,654	Total Accidents: 42	Accident Rate: 467
Average ADT: 19,724	Total Injuries: 22	Injury Rate: 244
Length in Miles: 1.25	Total Fatalities: 0	Fatality Rate: 0.00

NOTE: Rates are per 100 Million Vehicle Miles

Year	County	Rt Type	Route Num	Low Milelog	High Milelog	ADT	Distance	Vehicle Miles
2008	Dougherty	1	052000	8.81	9.19	22,870	0.38	8,691
2008	Dougherty	1	052000	9.19	9.6	24,250	0.41	9,943
2008	Dougherty	1	052000	9.6	10.06	13,090	0.46	6,021

Total Vehicle Miles: 24,654	Total Accidents: 41	Accident Rate: 456
Average ADT: 19,724	Total Injuries: 12	Injury Rate: 133
Length in Miles: 1.25	Total Fatalities: 0	Fatality Rate: 0.00

NOTE: Rates are per 100 Million Vehicle Miles

Year	County	Rt Type	Route Num	Low Milelog	High Milelog	ADT	Distance	Vehicle Miles
2009	Dougherty	1	052000	8.81	9.19	22,184	0.38	8,430
2009	Dougherty	1	052000	9.19	9.6	23,522	0.41	9,644
2009	Dougherty	1	052000	9.6	10.06	12,697	0.46	5,841

Total Vehicle Miles: 23,915	Total Accidents: 32	Accident Rate: 367
Average ADT: 19,132	Total Injuries: 24	Injury Rate: 275
Length in Miles: 1.25	Total Fatalities: 0	Fatality Rate: 0.00

NOTE: Rates are per 100 Million Vehicle Miles

Crash Rate & Injury Rate Calculation

$$R = \frac{A}{VMT}$$

R = crash rate
A = Number of Accident
VMT = Vehicle-mile of travel in Millions

$$VMT = \frac{ADT \times (\text{Section Length}) \times (\text{No of day in time period})}{10^6}$$

$$VMT = \frac{(19,724)(1.25)(365)}{10^6} = 8.9991$$

$$R = \left(\frac{A}{8.9991}\right)(100).$$

7

STAEDTLER® No. 937 811E Engineer's Computation Pad

* Accident NOT on the project.

Analysis Report 1

Total Accidents: 115 Total Vehicles: 240 Total Injuries: 58 Total Fatalities: 0

Accident Analysis Report 1

AccidentId	Date	Time	County	Rt TP	Rt No	Mile	IntRt TP	InterRt	Ramp	Inj	Fatal	Collision	Loc Impact	Harmful Event	Light	Surf	D1	D2	VM1	VM2
76030081	12/03/2007	07:50:PM	Dougherty	State	052000	8.81	3	106001		5	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	E	W	06	01
70950423	02/05/2007	08:37:AM	Dougherty	State	052000	8.81	3	106001		4	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	S	05	01
75740288	12/03/2007	07:51:AM	Dougherty	State	052000	8.90				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	05	04
73810525	08/09/2007	07:52:AM	Dougherty	State	052000	9.05				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
73290059	07/06/2007	08:57:AM	Dougherty	State	052000	9.12				0	0	1-Angle	2-On Shoulder	11-Motor Vehicle in	3-Dawn	Dry	E	E	05	05
* 71950187	04/27/2007	11:36:AM	Dougherty	State	052000	9.17	3	120201	NOP	1	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	S	05	05
70410757	01/07/2007	12:07:PM	Dougherty	State	052000	9.17	3	120201		1	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	01	05
* 73290251	07/30/2007	09:27:AM	Dougherty	State	052000	9.17	NOP			0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	01
75740323	12/07/2007	01:25:PM	Dougherty	State	052000	9.17				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	04
74660343	10/13/2007	02:13:PM	Dougherty	State	052000	9.17				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	05
* 72720156	06/18/2007	02:01:PM	Dougherty	State	052000	9.17	3	120201	NOP	1	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	N	W	05	02
75240189	11/03/2007	03:22:AM	Dougherty	State	052000	9.18				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	W	W	11	06
* 72710554	05/17/2007	09:20:AM	Dougherty	State	052000	9.18	NOP			0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	04
70410752	01/05/2007	04:00:PM	Dougherty	State	052000	9.18				0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	06	05
74660495	10/28/2007	08:35:PM	Dougherty	State	052000	9.18				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	E	E	05	05
75240396	11/30/2007	08:28:PM	Dougherty	State	052000	9.32				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	E	E	05	04
75740283	12/14/2007	06:25:AM	Dougherty	State	052000	9.36				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	5-Dark-Not Lighte	Dry	E	W	05	05
* 72720029	06/03/2007	09:27:AM	Dougherty	State	052000	9.42	NOP		3	1	0	6-Not A Collision	1-On Roadway	01-Overturn	1-Daylight	Dry	S		06	
74390540	09/14/2007	02:27:PM	Dougherty	State	052000	9.43				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	05
* 71580446	03/24/2007	09:17:AM	Dougherty	State	052000	9.43	NOP			1	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	04
70930177	02/16/2007	10:15:PM	Dougherty	State	052000	9.43	3	120201		0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	S	E	01	05
* 75740409	12/16/2007	06:59:PM	Dougherty	State	052000	9.43	3	120201	NOP	0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	W	E	01	05
* 73810536	08/02/2007	06:30:PM	Dougherty	State	052000	9.43	3	120201	NOP	0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	N	E	02	05
* 73800079	08/09/2007	01:21:PM	Dougherty	State	052000	9.44	NOP			0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	04
75240204	11/06/2007	06:35:PM	Dougherty	State	052000	9.56				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	5-Dark-Not Lighte	Dry	E	E	05	05
74390648	09/25/2007	01:10:PM	Dougherty	State	052000	9.57				0	0	6-Not A Collision	2-On Shoulder	25-Utility Pole	1-Daylight	Dry	N		01	
74660423	10/23/2007	03:22:PM	Dougherty	State	052000	9.57				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	04
* 72710497	05/11/2007	08:28:AM	Dougherty	State	052000	9.57	1	006200	NOP	0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	S	05	05
* 70410682	01/28/2007	05:41:PM	Dougherty	State	052000	9.57		NOP		1	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	04

Accident Analysis Report 1

AccidentId	Date	Time	County	Rt TP	Rt No	Mile	IntRt TP	InterRt	Ramp	Inj	Fatal	Collision	Loc Impact	Harmful Event	Light	Surf	D1	D2	VM1	VM2
* 74390651	09/25/2007	03:31:PM	Dougherty	State	052000	9.60	Nop			0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	06	05
* 71950183	04/28/2007	12:52:PM	Dougherty	State	052000	9.60	Nop			0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	02	05
* 75240355	11/22/2007	05:41:PM	Dougherty	State	052000	9.61	Nop			0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
* 73810521	08/08/2007	02:11:PM	Dougherty	State	052000	9.77	Nop			1	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	E	E	05	04
75740341	12/09/2007	11:16:PM	Dougherty	State	052000	9.82				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	E	E	05	04
73820017	08/17/2007	10:28:PM	Dougherty	State	052000	9.83				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Wet	E	E	01	01
72720068	06/07/2007	01:37:PM	Dougherty	State	052000	9.83	1	030000		0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	S	S	02	02
* 75740370	12/12/2007	04:38:PM	Dougherty	State	052000	9.83	1	030000	Nop	0	0	3-Rear End	5-Ramp	11-Motor Vehicle in	1-Daylight	Dry	W	W	02	02
75740424	12/18/2007	08:39:PM	Dougherty	State	052000	9.83	1	030000		0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	W	S	05	05
* 75740287	12/03/2007	10:12:AM	Dougherty	State	052000	9.83	1	030000	Nop	0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	S	S	05	04
* 75740499	12/28/2007	07:12:PM	Dougherty	State	052000	9.84	Nop			1	0	3-Rear End	5-Ramp	11-Motor Vehicle in	4-Dark-Lighted	Wet	N	N	02	02
* 73810491	08/05/2007	02:42:PM	Dougherty	State	052000	9.87	Nop			0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	W	01	05
* 73810539	08/10/2007	06:31:PM	Dougherty	State	052000	10.06	3	086001	Nop	2	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	01	05
80270221	01/15/2008	06:48:AM	Dougherty	State	052000	8.81				1	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	2-Dusk	Dry	E	E	05	05
82470604	06/20/2008	03:34:PM	Dougherty	State	052000	8.81				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	04
81680482	04/17/2008	08:50:PM	Dougherty	State	052000	8.81	3	106001		1	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	S	W	05	05
84440279	10/04/2008	06:05:PM	Dougherty	State	052000	8.81	3	106001		0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	N	04	10
82470535	06/11/2008	01:46:PM	Dougherty	State	052000	8.81	3	106001		0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	W	01	05
81140571	03/01/2008	06:14:AM	Dougherty	State	052000	8.81	3	106001		4	0	1-Angle	1-On Roadway	11-Motor Vehicle in	5-Dark-Not Lighte	Dry	S	W	05	05
82470520	06/09/2008	07:47:AM	Dougherty	State	052000	8.82				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
83310193	07/19/2008	04:52:PM	Dougherty	State	052000	8.82				3	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
81150052	03/24/2008	09:19:AM	Dougherty	State	052000	8.82				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
81140755	03/22/2008	04:00:PM	Dougherty	State	052000	8.83				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
80800432	02/14/2008	02:53:PM	Dougherty	State	052000	8.87				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
85000051	11/14/2008	08:03:AM	Dougherty	State	052000	9.06	3	087901		0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	E	E	02	05
84440368	10/15/2008	05:13:PM	Dougherty	State	052000	9.08				1	0	4-Sideswipe - Sam	1-On Roadway	07-Pedalcycle	1-Daylight	Dry	W	W	09	05
* 83310214	07/21/2008	10:40:AM	Dougherty	State	052000	9.41	Nop			0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	06	05
85570202	12/11/2008	01:47:PM	Dougherty	State	052000	9.42				1	0	3-Rear End	1-On Roadway	13-Other Object (No	1-Daylight	Wet	E	E	05	04
* 80800343	02/24/2008	06:20:PM	Dougherty	State	052000	9.43	3	120201	Nop	0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	03
81140664	03/11/2008	05:44:PM	Dougherty	State	052000	9.43	3	120201	Nop	0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	E	01	05
* 81140655	03/11/2008	05:41:PM	Dougherty	State	052000	9.43	Nop			0	0	3-Rear End	1-On	11-Motor	1-	Wet	E	E	05	04

Accident Analysis Report 1

AccidentId	Date	Time	County	Rt TP	Rt No	Mile	IntRt TP	InterRt	Ramp	Inj	Fatal	Collision	Loc Impact	Harmful Event	Light	Surf	D1	D2	VM1	VM2
													Roadway	Vehicle in	Daylight					
83310119	07/08/2008	06:05:AM	Dougherty	State	052000	9.43				0	0	3-Rear End	1-On Roadway	13-Other Object (No	4-Dark-Lighted	Dry	W	W	06	04
85570264	12/17/2008	11:33:PM	Dougherty	State	052000	9.43				1	0	6-Not A Collision	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	E	E	06	05
84090276	09/05/2008	06:00:PM	Dougherty	State	052000	9.43	3	120201		0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	N	E	02	05
85000141	11/27/2008	12:15:PM	Dougherty	State	052000	9.45				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	N	W	01	05
* 81680498	04/18/2008	05:41:PM	Dougherty	State	052000	9.46 Nop				0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	06	05
* 84990516	11/06/2008	06:53:AM	Dougherty	State	052000	9.48 Nop				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	3-Dawn	Dry	W	W	05	04
84990512	11/05/2008	07:23:PM	Dougherty	State	052000	9.54				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	3-Dawn	Icy	W	W	05	04
83310118	07/08/2008	06:28:AM	Dougherty	State	052000	9.59				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	04
80800290	02/29/2008	10:15:PM	Dougherty	State	052000	9.66				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	E	W	05	01
81680349	04/04/2008	05:05:PM	Dougherty	State	052000	9.78				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	06	05
81680333	04/02/2008	08:35:AM	Dougherty	State	052000	9.80				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	05
81680463	04/15/2008	07:29:AM	Dougherty	State	052000	9.81				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
80800424	02/15/2008	08:27:PM	Dougherty	State	052000	9.83				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	E	E	05	05
81680475	04/16/2008	09:11:PM	Dougherty	State	052000	9.83	1	030000		0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	N	S	01	05
81140728	03/20/2008	06:11:PM	Dougherty	State	052000	9.83	1	030000		0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	05
83470389	08/22/2008	07:39:PM	Dougherty	State	052000	9.83				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	E	E	05	05
84090255	09/09/2008	06:40:AM	Dougherty	State	052000	9.83	1	030000		0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	3-Dawn	Dry	E	E	07	04
* 85570348	12/30/2008	07:15:AM	Dougherty	State	052000	9.83	1	030000 Nop		0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	S	W	05	05
85570105	12/01/2008	06:15:PM	Dougherty	State	052000	9.83	1	030000		0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Dry	S	W	02	05
83310246	07/26/2008	11:16:PM	Dougherty	State	052000	9.83	1	030000		0	0	2-Head On	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Wet	E	W	01	05
82100329	05/21/2008	06:28:PM	Dougherty	State	052000	9.95				0	0	3-Rear End	1-On Roadway	13-Other Object (No	1-Daylight	Dry	W	W	05	04
* 80800345	02/23/2008	12:43:PM	Dougherty	State	052000	10.05 Nop				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	06	05
* 81150097	03/31/2008	01:37:PM	Dougherty	State	052000	10.06 Nop				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
90570287	01/13/2009	10:37:AM	Dougherty	State	052000	8.81				0	0	3-Rear End	2-On Shoulder	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	05
90790107	02/14/2009	03:26:PM	Dougherty	State	052000	8.81	3	106001		4	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	E	N	01	05
* 92370421	05/13/2009	12:56:PM	Dougherty	State	052000	8.81	3	106001 Nop		1	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	N	05	05
94120028	09/22/2009	08:53:AM	Dougherty	State	052000	8.81	3	106001		2	0	3-Rear End	1-On Roadway	13-Other Object (No	1-Daylight	Dry	W	W	05	05
94120227	09/20/2009	06:04:AM	Dougherty	State	052000	8.81	3	106001		1	0	5-Sideswipe - Opp	1-On Roadway	11-Motor Vehicle in	4-Dark-Lighted	Wet	S	E	05	05
94940161	10/29/2009	01:26:PM	Dougherty	State	052000	8.81				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
91190357	03/17/2009	08:02:AM	Dougherty	State	052000	8.82				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	05	04
92760295	06/07/2009	12:38:PM	Dougherty	State	052000	8.82				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	04

Accident Analysis Report 1

AccidentId	Date	Time	County	Rt TP	Rt No	Mile	IntRt TP	InterRt	Ramp	Inj	Fatal	Collision	Loc Impact	Harmful Event	Light	Surf	D1	D2	VM1	VM2
94120193	09/30/2009	03:44:PM	Dougherty	State	052000	8.82				0	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	02	02
94940179	10/27/2009	08:04:AM	Dougherty	State	052000	8.82				1	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	05	04
94940185	10/27/2009	12:01:AM	Dougherty	State	052000	8.84				0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	05	03
93210009	07/03/2009	04:38:PM	Dougherty	State	052000	8.85				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	W	W	05	05
93200479	07/11/2009	12:52:PM	Dougherty	State	052000	9.06	3	087901		2	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	N	E	05	05
94940191	10/27/2009	08:20:AM	Dougherty	State	052000	9.06	3	087901		0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	05	05
94940145	10/30/2009	04:05:PM	Dougherty	State	052000	9.42				1	0	3-Rear End	1-On Roadway	13-Other Object (No	1-Daylight	Dry	E	E	05	04
93200432	07/17/2009	03:34:PM	Dougherty	State	052000	9.43				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	E	E	05	05
* 93200474	07/11/2009	03:03:PM	Dougherty	State	052000	9.43	3	120201	NOP	0	0	5-Sideswipe - Opp	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	N	05	01
* 93200448	07/15/2009	11:42:PM	Dougherty	State	052000	9.43	NOP			0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	5-Dark-Not Lighte	Dry	E	E	05	05
* 90790018	02/25/2009	06:48:PM	Dougherty	State	052000	9.49	NOP			3	0	4-Sideswipe - Sam	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	N	N	06	05
94120259	09/15/2009	05:33:PM	Dougherty	State	052000	9.52	3	088301		2	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Wet	W	W	05	05
94100281	09/04/2009	05:20:PM	Dougherty	State	052000	9.62				0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	02
93190504	07/22/2009	05:31:PM	Dougherty	State	052000	9.76				0	0	3-Rear End	1-On Roadway	10-Parked Motor Veh	1-Daylight	Dry	E	E	05	04
94120198	09/30/2009	10:33:AM	Dougherty	State	052000	9.81				0	0	1-Angle	1-On Roadway	13-Other Object (No	1-Daylight	Dry	W	E	01	04
90790063	02/19/2009	12:35:PM	Dougherty	State	052000	9.82				1	0	3-Rear End	1-On Roadway	13-Other Object (No	1-Daylight	Dry	E	E	05	04
92370146	05/01/2009	07:18:PM	Dougherty	State	052000	9.82				2	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	05
* 91190199	03/02/2009	03:17:PM	Dougherty	State	052000	9.82	NOP			0	0	6-Not A Collision	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	S	S	05	05
* 90570135	01/25/2009	07:52:PM	Dougherty	State	052000	9.83	NOP			0	0	3-Rear End	1-On Roadway	13-Other Object (No	4-Dark-Lighted	Dry	W	W	05	04
* 94940162	10/29/2009	08:51:AM	Dougherty	State	052000	9.83	1	030000	NOP	0	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	S	W	01	05
94930462	10/01/2009	10:03:AM	Dougherty	State	052000	9.83	1	030000		1	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	S	02	05
* 92390348	05/27/2009	08:05:AM	Dougherty	State	052000	9.83	1	030000	NOP	2	0	1-Angle	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	S	W	05	05
* 93200192	07/20/2009	01:37:PM	Dougherty	State	052000	9.86	NOP			1	0	3-Rear End	1-On Roadway	13-Other Object (No	1-Daylight	Dry	W	W	05	04
* 94120111	09/26/2009	12:20:PM	Dougherty	State	052000	10.02	NOP			0	0	3-Rear End	1-On Roadway	11-Motor Vehicle in	1-Daylight	Dry	E	E	05	04

VE Study

Implementation Letter

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: STP00-0002-00(409) Dougherty
NH000-0006-02(056)
P.I. Nos.: 0002409 & 422560
SR 520/Clark Ave. and Ramp Improvements

OFFICE: Engineering Services

DATE: February 17, 2011

FROM: Ronald E. Wishon, State Project Review Engineer REW

TO: Bobby K. Hilliard, PE, State Program Delivery Engineer
Attn.: Albert Shelby

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above projects was held November 1-4, 1010. Responses were received on February 16, 2011. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
A-1	Instead of full depth reconstruction, rehabilitate and resurface existing pavement where feasible	$1,126,000	No	If the mill and inlay alternative is implemented, the rehabbed pavement would be 47% under-designed. The mill and inlay would be a temporary treatment, not a long-term solution. The existing pavement would not last until the next rehab cycle.
A-2	Remove full depth pavement under raised concrete median and use raised grass median instead	$670,000	No	The pavement under the proposed median will be used for staging traffic during construction.
A-2.1	Reduce full depth pavement thickness under median	$177,000	No	The constructability concerns and the expense of implementing a shallower median section in between two full depth sections would negate any materials savings shown by the VE Team. The pavement under the proposed median will be used for staging traffic.
A-4	Reduce depth of pavement section on ramp shoulders	$43,000	No	Traffic counts indicated a high 24-hour truck percentage of 22%.

A-7	Reduce depth of pavement section on Cordele Road	$269,000	Yes	This will be done, pending approval by the Pavement Design Committee.
A-7.1	Implement mill and inlay on Cordele Road	Proposed = $669,000 Actual = $374,640	Yes, partially	Due to adjustment to the roadway profile grade, 56% of the existing pavement (Sta. 411+50 to Sta. 422+50) will be milled and overlaid. The remaining pavement (44%) will be full depth. The savings have been adjusted accordingly.
B-1	Use 12 ft shoulder on both sides of Clark Ave.	$318,000	No	The 16 ft wide shoulder is required to provide adequate width for an 8 ft wide shared use path and for utility relocations. There are several utilities (Bellsouth, Alltel, Albany Water, Gas and Light, Georgia Power, Distribution, Mega Power transmission and Mediacom) along the corridor. Note: Sections of the shoulder on the north side will be reduced by the implementation of B-6.
B-4	Shift SR 300/Clark Ave. alignment north in the vicinity of the water tower	$273,000	No	The proposed alignment provides Miller Brewing Company with adequate access for their vehicles to enter the property to access the water tower and eliminates the possible cost to cure for loss of parking.
B-6	Implement rural section on north side of Clark Ave. from Sta. 28+00 to Sta. 93+00	$486,000	Yes	This will be done.
C-3	Eliminate 6 inch GAB extension beyond the curb and gutter	$35,000	Yes	This will be done.
D-1	Use spillways in lieu of catch basins in areas with ditches	$75,100	Yes	This will be done.
D-2	Use roadside ditches/bioswales in lieu of detention ponds	$101,400	Yes	This will be done.

D-4	Use modified rural section in select area	$121,000	No	The VE recommendation assumed that permanent easement would be converted to ROW at the same cost. Using more accurate cost figures, and better calculations of clear zone, this recommendation would require a minimum of 6 relocations, along with additional ROW and easement. These additional costs would negate the proposed savings.
E-1	Reduce the median width from 16 feet to 6 feet	$510,000	No	The 16 ft wide median provides enough width to develop the left-turn lanes at the intersection approaches. Based on the design speed of 45 mph, projected traffic volume and 24 hour truck percentage, the 16 ft wide median provides better separation of opposing traffic.
G-1	Eliminate the sidewalk on the north side	$159,000	Yes	This will be done. Rural shoulders will be implemented on the north side of the project in accordance with recommendation B-6. There are two landowners along this section of the project (C&J Investments and Miller Brewing Company), and there are no plans to develop the property. Sidewalk will be provided along the south side of the roadway.
G-2	Use asphalt sidewalk in lieu of concrete	$263,000	No	Due to long term maintenance costs and the need to provide uniform concrete sidewalks along the corridor, this recommendation will not be implemented.
G-4	Use alternate detail for under-bridge pier protection	$111,000	Yes	This will be done.

The Office of Engineering Services concurs with the Project Manager's responses. The Project Manager has indicated that the applicable offices (OMR and/or Roadway Design) have concurred with his responses.

Approved: _____ **Date:** 4/8/2004

Gerald M. Ross, PE, Chief Engineer

REW/LLM
Attachments
c: Ben Buchan
Bobby Hilliard/Stanley Hill/Albert Shelby
Russell McMurry/Chuck Hasty/Neil O'Brien/Rishee Shah/Peter Eze
Amber Phillips
Joe Sheffield/Tony Cravey/Scott Chambers/Geno Hasty
Brent Thomas/Bill Cooper/Tim Warren/Van Mason
Ken Werho
Lisa Myers
Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-006-2(56), Dougherty County
SR 3/Liberty Expressway @ Clark AV – Ramps & Turn Lanes
STP00-0002-00(409), Dougherty County
Clark Avenue from Turner Field Road to Cordele Road
P.I. Numbers 422560 & 0002409

OFFICE Program Delivery

DATE February 14, 2011

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

TO Ron Wishon, State Review Engineer

SUBJECT **Value Engineering Study Report Responses**

This Office has received and reviewed the Value Engineering Study Final Report dated November 16, 2010. The study has developed eighteen alternatives. The following are the alternatives with Program Delivery's recommendations for each after consultation with the Subject Matter Expert offices. If there are questions or concerns, please contact the Project Manager, Albert Shelby, at 404-631-1758.

Section A – AC Pavement

A-1: Re-use existing pavement
(Coordinated with OMR)
No, will not implement.
The preferred full-depth section is 9.5 inches and not 10.5 inches, which will reduce the savings of the mill-and-inlay alternative.
Also, if the mill-and-inlay alternative is selected, the rehabbed pavement will be about 47% under-designed. The VE Team uses the implied assumption that the currently existing pavement will not significantly deteriorate anymore and will be suitable to rehab 3 more times. That doesn't seem to be a realistic assumption. The argument that an aged road that is already in poor condition, 47% under-designed, and with 14% Trucks will last at least another 30 years seems to be difficult to defend. The mill-and-inlay is just a temporary treatment, not a long-term solution. The existing pavement probably will not last until the next rehab and reconstruction will be required at that time, which will create two different maintenance cycles because the inside and outside lanes will have two different structures.

A-2: Remove full depth pavement section under the median
(Coordinated with Roadway Design)
No, will not implement. The median needs to be used for staging traffic during construction.

A-2.1: Reduce full depth pavement thickness under the median
(Coordinated with OMR and Roadway Design)
No, will not implement. The constructability concerns and expense of implementing a shallower median section in-between two full depth sections would negate any materials savings shown by the VE team. The median pavement will be used for staging traffic. When constructing the asphalt layers that would be the maintenance of traffic pavement, the shoulder will be removed and paved over. Separate slivers of pavement depths will require different excavation depths, causing the median section to be shored to remain standing and then shoring removal for the layers to be placed.

A-4: Reduce depth of pavement section on ramp shoulder
(Coordinated with Roadway Design)
No, will not implement due to high 24-hour truck percentage of 22% according to the December 2010 traffic counts received.

A-7: Reduce depth of pavement section on Cordele Road
(Coordinated with OMR and Roadway Design)
Yes, will implement, pending pavement design approval.

A-7.1: Implement mill and inlay on Cordele Road
(Coordinated with Roadway Design)
Yes, will implement partially. Due to the adjustment to the roadway profile grade, 56% of the existing pavement (sta. 411+50 to sta. 422+50) will be milled and overlaid as recommended. The rest of the pavement (44%) will be full depth. The 56% implementation amounts to a savings of $374,640.00.

Section B – Right of Way

B-1: Narrow the shoulder to 12 feet
(Coordinated with Roadway Design)
No, will not implement. The 16-foot wide shoulder is required to provide adequate width for an 8-foot wide shared use path and utility relocations. (Note: The positive response to recommendation B-6 will eliminate the 16-foot wide urban shoulder on the north side of Clark Avenue.) The utilities are Bellsouth: Alltel: Albany Water, Gas and Light; Georgia Power Distribution; Mega Power transmission and Mediacom.

B-4: Shift Clark Ave. alignment north near water tower
(Coordinated with Roadway Design)
No, will not implement. GDOT is trying to provide Miller Brewing Company with adequate access for their vehicles to ingress and egress the property to access the water tower and to eliminate possible cost to cure for loss of parking.

B-6: Implement rural section on north side of Clark Ave. Sta. 28+00 to 93+00
(Coordinated with Roadway Design)
Yes, will implement.

Section C – Aggregate Base

C-3: Eliminate the 6 inch graded base extension
(Coordinated with Roadway Design)
Yes, will implement.

Section D – Storm Drainage

D-1: Use spillways in lieu of catch basins in areas of ditches
(Coordinated with Roadway Design)
Yes, will implement.

D-2: Use roadside ditches / bioswales in lieu of detention ponds
(Coordinated with Roadway Design)
Yes, will implement.

D-4: Use modified rural section in select area
(Coordinated with Roadway Design)
No, will not implement. The VE recommendation in the report assumed that the permanent easement would be converted to required right of way and that the cost for each is the same. The permanent easement cost estimate submitted to the VE team used a price per square foot cost that is half of the price per square foot of required right of way. The additional cost to convert permanent easement to required right of way is $35,903.05. The VE report recommendation did not provide dimensions for the modified rural section. This office assumes the modified rural section will meet clear zone distance requirements. This office developed a typical section for the modified rural section (see attachment). The modified rural section will require 43 feet of right of way from the edge of pavement and additional 10-foot of easement to tie in the slopes. Using this typical section will require additional required right of way and easement at a cost of $69,400.07. It will also require the relocation of a minimum of 6 mobile homes at a cost of $240,000. The additional cost for right of way and relocation of trailers will be $309,400.07. This cost is higher than the proposed savings in the VE Report recommendation.

Section E – Concrete Median

E-1: Reduce median width from 16 ft. to 6 ft.
(Coordinated with Roadway Design)
No, will not implement. The 16-foot wide median provides enough width to develop the left-turn lane at the intersection approaches. The 6-foot wide median would have to be tapered out to a sufficient width to develop the left-turn lane at the approaches of each intersection. Based on the design speed of 45 mph, projected traffic volume, and 24 hour truck percentage, the 16-foot wide median provides better separation of opposing traffic and a consistent roadway corridor width.

Section G – Concrete Sidewalk

G-1: Eliminate the sidewalk on the north side
(Coordinated with Roadway Design)
Yes, will implement, in conjunction with B-6.

G-2: Use asphalt sidewalks in lieu of concrete
(Coordinated with Roadway Design and District 4 Area Construction)
No, will not implement due to long term maintenance costs and the need to provide uniform concrete sidewalks along the corridor.
The District recommends that the sidewalks on this project should be constructed with concrete based on several reasons:
Constructability: Asphalt sidewalks would require multiple operations (GAB,asphalt) and would require specialized equipment to pave such a narrow width and would increase the cost and decrease any potential savings.
Aesthetics: Concrete sidewalks would be consistent with surrounding sidewalks.

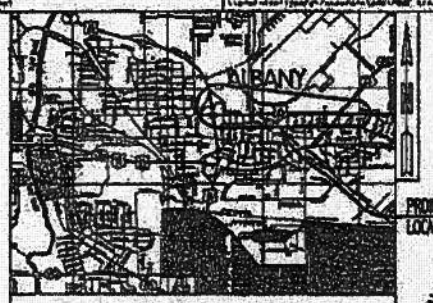
G-4: Use alternate detail for under –bridge pier protection
(Coordinated with Roadway Design)
Yes, will implement.

S.H.
BKH:SH:avs
Attachment

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PLAN AND PROFILE OF PROPOSED

SR-3/LIBERTY EXPRESSWAY AT CLARK AVE, RAMPS AND TURN LANES IMPROVEMENTS
AND
CLARK AVE WIDENING FROM TURNER FIELD RD TO SR-300/SR 62 CORDELE RD
NH000-0006-02(056) & STP00-0002-00(409)



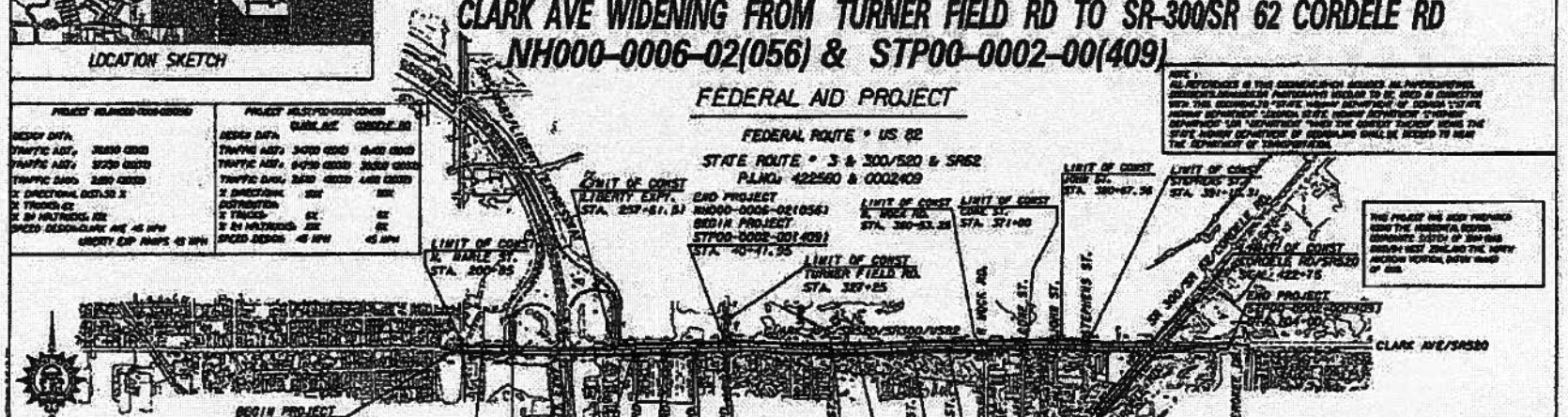
LOCATION SKETCH

FEDERAL AID PROJECT

FEDERAL ROUTE # US 82

STATE ROUTE # S 3 & 300/520 & SR62

P.I.NO: 422560 & 0002409



LOCATION & DESIGN APPROVAL DATE:

FUNCTIONAL CLASS:
CLARK AVE/SR300/SR520: URBAN PRINCIPAL ARTERIAL
LIBERTY EXPY/SR3: URBAN FREEWAY & EXPRESSWAY

THIS PROJECT IS 100 % IN DOUGHERTY COUNTY AND IS 100% IN CONGRESSIONAL DISTRICT NO. 2

PROJECT DESIGNATION: EXCEPT DESIGNED IN ENGLISH UNITS.

SCALE IN FEET: 0 400 800 1200 2400

COUNTY: DOUGHERTY
COUNTY NO: 095

LENGTH OF PROJECTS	COUNTY ROADWAY (Project No. NH000-0006-02(056)) MILES	COUNTY No. 095 (Project No. STP00-0002-00(409)) MILES
NET LENGTH OF ROADWAY	0.65	1.204
NET LENGTH OF BRIDGES	N/A	N/A
NET LENGTH OF PROJECT	0.65	1.204
NET LENGTH OF EXCEPTIONS	N/A	N/A
GROSS LENGTH OF PROJECT	0.65	1.204

PREPARED BY:
RECOMMENDED FOR SUBMISSION BY: REAL O'BRIEN, DESIGN GROUP MANAGER
QA/QC REVIEW COMPLETED: ASSISTANT OFFICE HEAD
SUBMITTED BY: STATE ROADWAY DESIGN ENGINEER
DATE: CHIEF ENGINEER

PLANS COMPLETED
REVISIONS