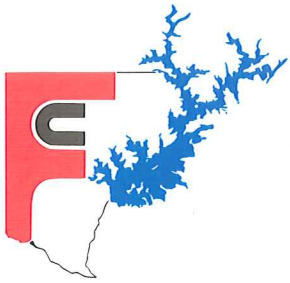


APPENDIX A - CORRESPONDENCE



Forsyth County Department of Engineering

March 30, 2009

Ms. Angela T. Alexander, Director
Division of Transportation Data and Planning
Georgia Department of Transportation
One Georgia Center
600 West Peachtree NW
Atlanta, Georgia 30308

Re: Proposed Interchange of McGinnis Ferry Road and SR 400

Dear Ms. Alexander:

The Forsyth County Board of Commissioners fully supports the development of the proposed interchange. We have developed an overlay zoning district and entered into a development services agreement with the developer of a regional mixed-use development adjacent to the proposed improvement. The overlay ordinance expresses the Board's desire for the Union Hill Road/Ronald Reagan Boulevard area to support regionally significant mixed use developments as reflected in the county's adopted future land use policies. The district encourages flexibility and innovation concerning mixed use projects blending residential, retail, office, commercial and recreational land uses in an approximately 160 acre area that would be in the northeast quadrant of the proposed interchange.

The development services agreement between the Forsyth County Board of Commissioners and the developer of one of the largest mixed projects in the district, TRG Forsyth LLC (Taubman), outlines the funding of infrastructure improvements and services required to support their proposed development. In order to access the approximately two million square feet of retail and commercial development, as well as nearly 1,000 residential units, the developer has agreed for Forsyth County to defer payment of \$2.75 million for property for public rights-of-way. Forsyth County has also agreed to reimburse the developer over \$1 million worth of engineering fees for water, sewer and transportation projects. Forsyth County has also contracted over \$12 million dollars of road improvements funded from our SPOLST VI Transportation Program and insuring adequate water and sewer services. The scheduled completion for this project is in September of 2009. These public and private sector projects are viewed as catalyst for future growth in south Forsyth adjacent to the SR 400 corridor.

Please do not hesitate to call with any questions you may have, or if you need additional information.

Sincerely,

John V. Cunard
Director



Moreland Altobelli Associates, Inc.
2211 Beaver Ruin Road, Suite 190
Norcross, Georgia 30071
Phone: 770-263-5945 Fax: 770-263-0166

MEETING MINUTES

Project: **McGinnis Ferry/SR 400 IJR**
Project No. CSHPP-0007-00(526)
P.I. No. 0007526
Meeting: **GDOT Review Meeting**
Location: **GDOT Planning Conference Room**
Prepared By: **William Ruhsam**
Prepared On: **07 February 2012**

Meeting Date	07 February 2012
MA Project No.	FOR081-IJR
CC:	Jason McCook (MA)

ATTENDEES	PHONE	E-MAIL
Bill Ruhsam	770 263 5945	bruhsam@maai.net
LN Manchi	770 263 5945	lmanchi@maai.net
Ulysses Mitchell	404 631 1746	umitchell@dot.ga.gov
Kyle Mote		kmote@dot.ga.gov
Katrina Lawrence		klawrence@dot.ga.gov
David Fairlie	770 263 5945	dfairlie@maai.net
Karla Poshedly	770 263 5945	kposhedly@maai.net

1. The meeting began with introductions.
2. Bill Ruhsam discussed the project status. The Interchange Feasibility Report (IFR) was approved by the Georgia Department of Transportation (GDOT) on March 7, 2010. The IFR dealt with a comparison of the No Build scenario to a new access point at McGinnis Ferry Road at SR 400. Since then, a new project framework agreement between GDOT and Forsyth County was executed in order to produce an approved Interchange Justification Report (IJR) and a Concept Report.
3. The project team has been reviewing and updating the information contained within the IFR related to development agreements.
4. The project team has reviewed the IFR study area and feels that it represents the area required to fully analyze the area needs and provide full planning and traffic analysis of IJR alternatives.
5. Ulysses Mitchell commented that the study area should include the entirety of the ramps on the downstream and upstream interchanges at SR 120 and SR 141. Bill Ruhsam responded that the study area maps would be altered to explicitly include the ramps, but that all operational analysis conducted in the IFR had included them and the IJR would also.
6. Bill Ruhsam said that the project team was analyzing the differences between the IFR No Build alternative—which used *Envision6*—and the IJR No Build alternative which will incorporate Plan 2040. The Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) were being examined with respect to the Atlanta Regional Commission travel demand model. The work was not complete at the time of the meeting.
7. The open to traffic date for the interchange was discussed. Bill Ruhsam proposed a 2018 open to traffic date as an appropriate time frame for a 2016 letting with two years of construction. Kyle Mote reminded the project team that the project was not in the RTP and therefore did not have a network year as yet; that the project team needed to ensure that whatever the open to



traffic year ended up being, it needed to be the network year or earlier. Ulysses Mitchell concurred with this. 2020 was selected as the network year for the interchange, with 2040 as the design year.

8. The potential funding of the final construction project was discussed. A project is included in the unfunded aspirations plan. In order to be entered into the RTP the IJR must be approved, the funding must be identified, and the project included in the next conformity update. The next update will take place in August. Moreland Altobelli (MA) will coordinate with the sponsor, Forsyth County, to achieve this goal. Bill Ruhsam said that if the project framework agreement schedule is maintained, it will be possible to deliver an approved concept report about the same time that the RTP is updated to include the project.
9. The needs of the study area were discussed. The two from the IFR are being included in the IJR: Economic Development and Additional Access to the Freeway System. An additional need is being investigated, dealing with the crash statistics of the area. All system roads are showing higher than average crash rates. The compilation of crash statistics was not complete as of the meeting date because McGinnis Ferry Road has missing data. The project team was liaising with Forsyth County to get crash reports on the segments missing data.
10. Kyle Mote requested that the functional classification of the roadways be included in the analysis tables.
11. LN Manchi discussed the level of stakeholder involvement that would be completed during the IJR. Contacts will be made with the local jurisdictions and the North Fulton Community Improvement District. There will also be a contact with the Atlanta Regional Commission to ensure they are aware of project progress.
12. Bill Ruhsam will confirm that the McGinnis Ferry interchange is contained within the North Fulton Comprehensive Transportation Plan.

The above represents our understanding of the items discussed. Please notify us of any discrepancies or questions as soon as possible.

Enc: AGENDA and SUPPORTING DOCUMENTS

Agenda

McGinnis Ferry at SR 400 Interchange Justification Report

**February 7, 2012
GDOT Office of Planning**

I. Introductions

II. Project Status

- Interchange Feasibility Report
- Project Framework Agreement

III. Project Update and IJR Preparation

- Review of Agreements
- Study Area
- Traffic Update with Plan 2040
- Build Year (2018)
- Environmental Scan

IV. Study Area Needs

1. Additional Access to Freeway (From IFR)
2. Economic Development (From IFR)
3. Safety (New for IJR)

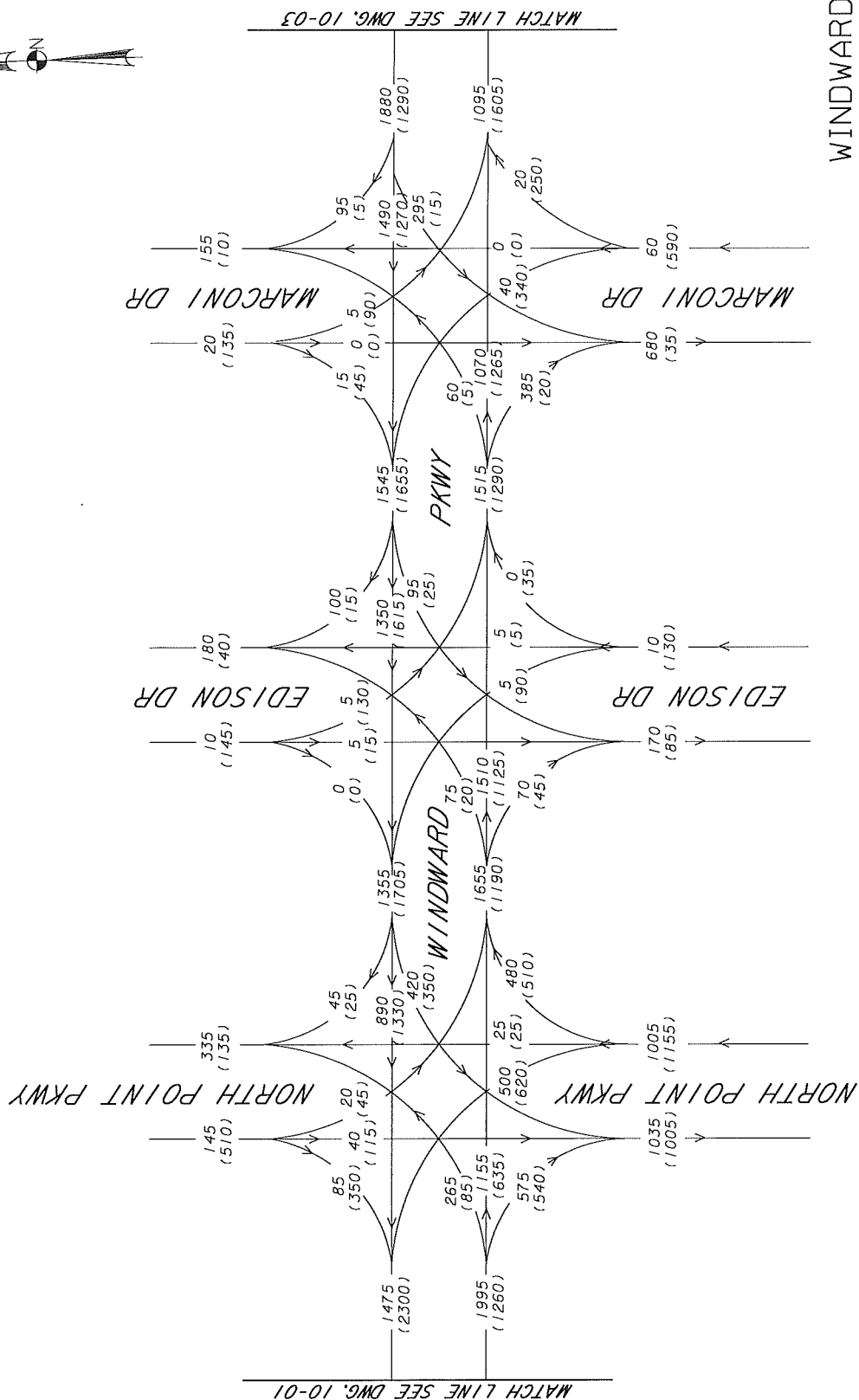
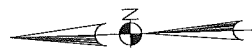
V. Alternatives Analysis

1. No Build
2. Diamond Interchange at McGinnis Ferry + CD System to McFarland
3. Diamond Interchange at McGinnis Ferry
4. Improvements to Windward Parkway and Area Roads
5. Improvements to McFarland Parkway and Area Roads
6. Combination of 4 & 5

VI. Anticipated Schedule

- March 9th delivery to Forsyth for review
- March 19th delivery to GDOT for review

APPENDIX B - TRAFFIC DIAGRAMS



WINDWARD PKWY

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SU = 4%

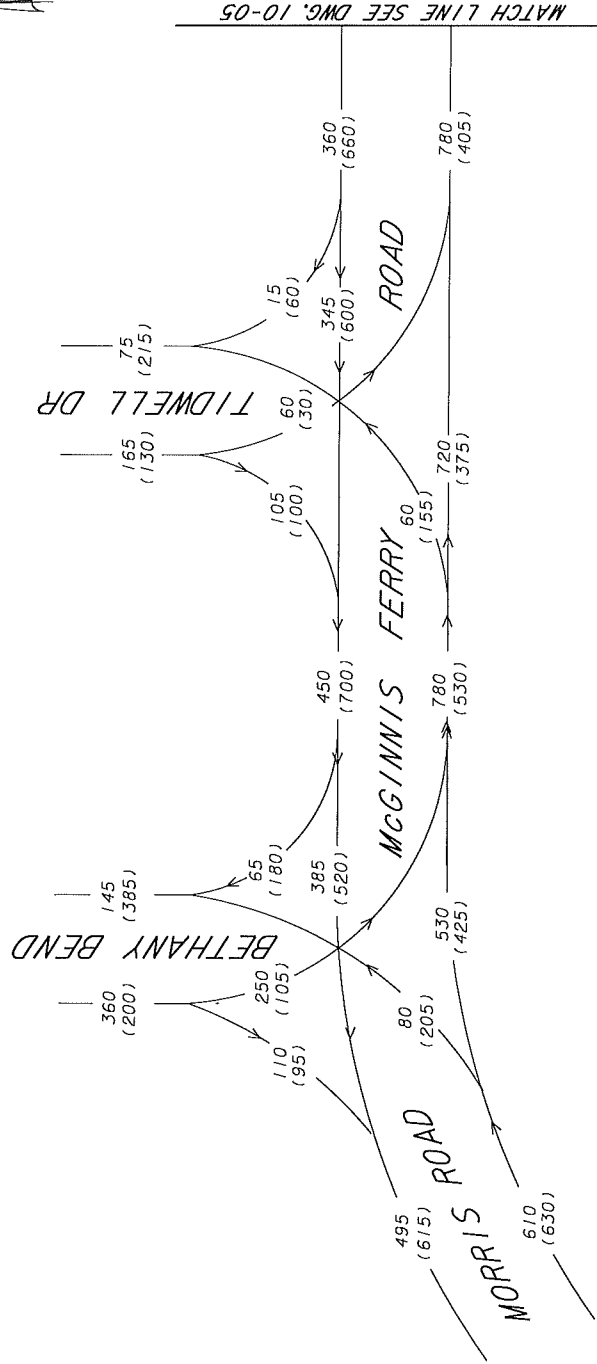
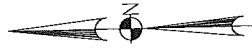
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MA
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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

WINDWARD PKWY @ GA 400
2011 EXISTING PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-02



MATCH LINE SEE DWG. 10-05

McGINNIS FERRY RD

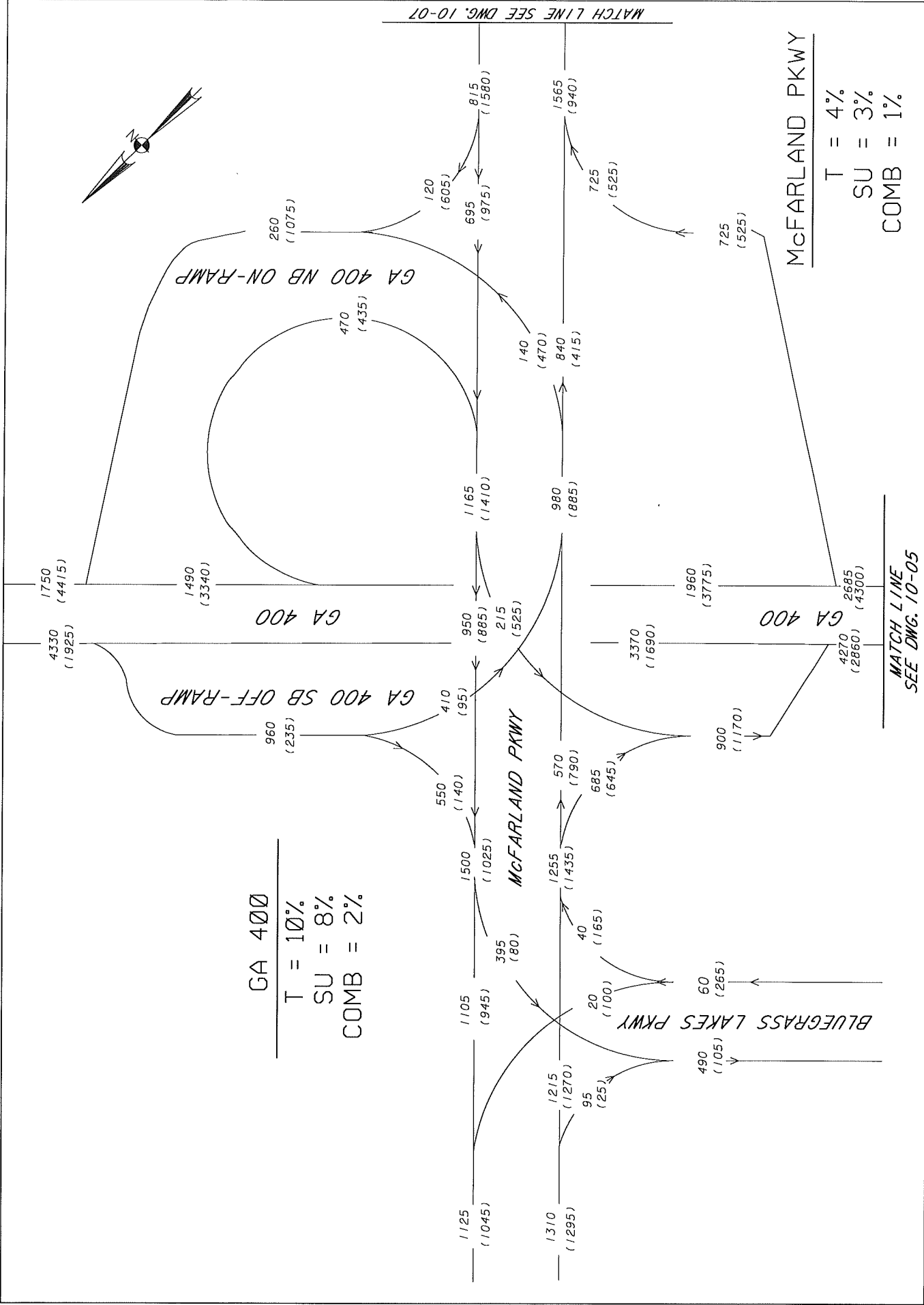
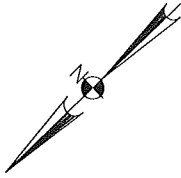
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COMB = 0%

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LEGEND
00 AM PEAK HOUR
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McGINNIS FERRY RD @ GA 400
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TRAFFIC FLOW DIAGRAM

DRAWING NO.
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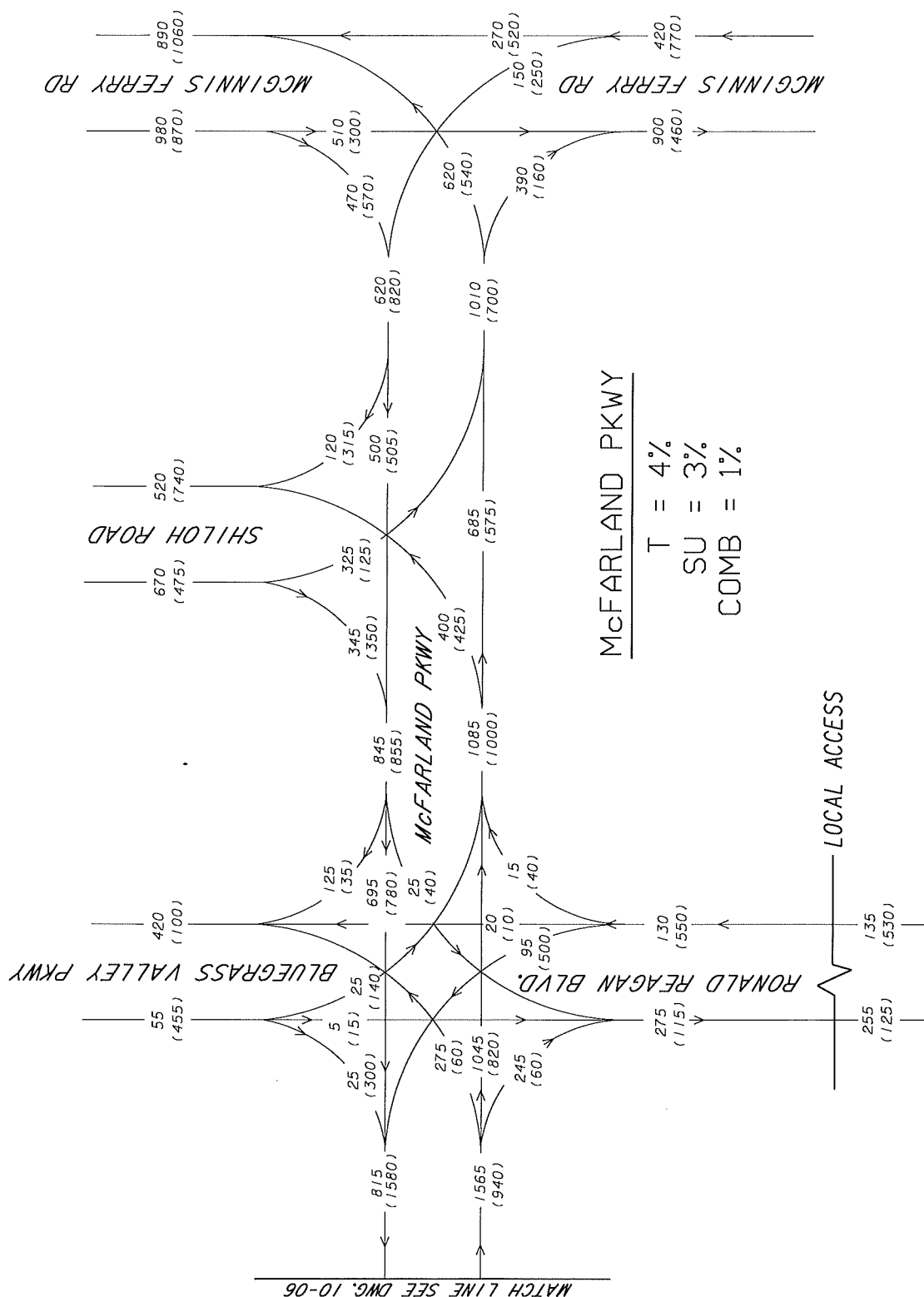
McFARLAND PKWY
T = 4%
SU = 3%
COMB = 1%

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LEGEND
00 AM PEAK HOUR
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McFARLAND PKWY @ GA 400
2011 EXISTING PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-06



McFARLAND PKWY

$\tau = 4\%$

3% = SU

COMB = 1%

MATCH LINE
SEE DWG. 10-05

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LEGEND

00 AM PEAK HOUR

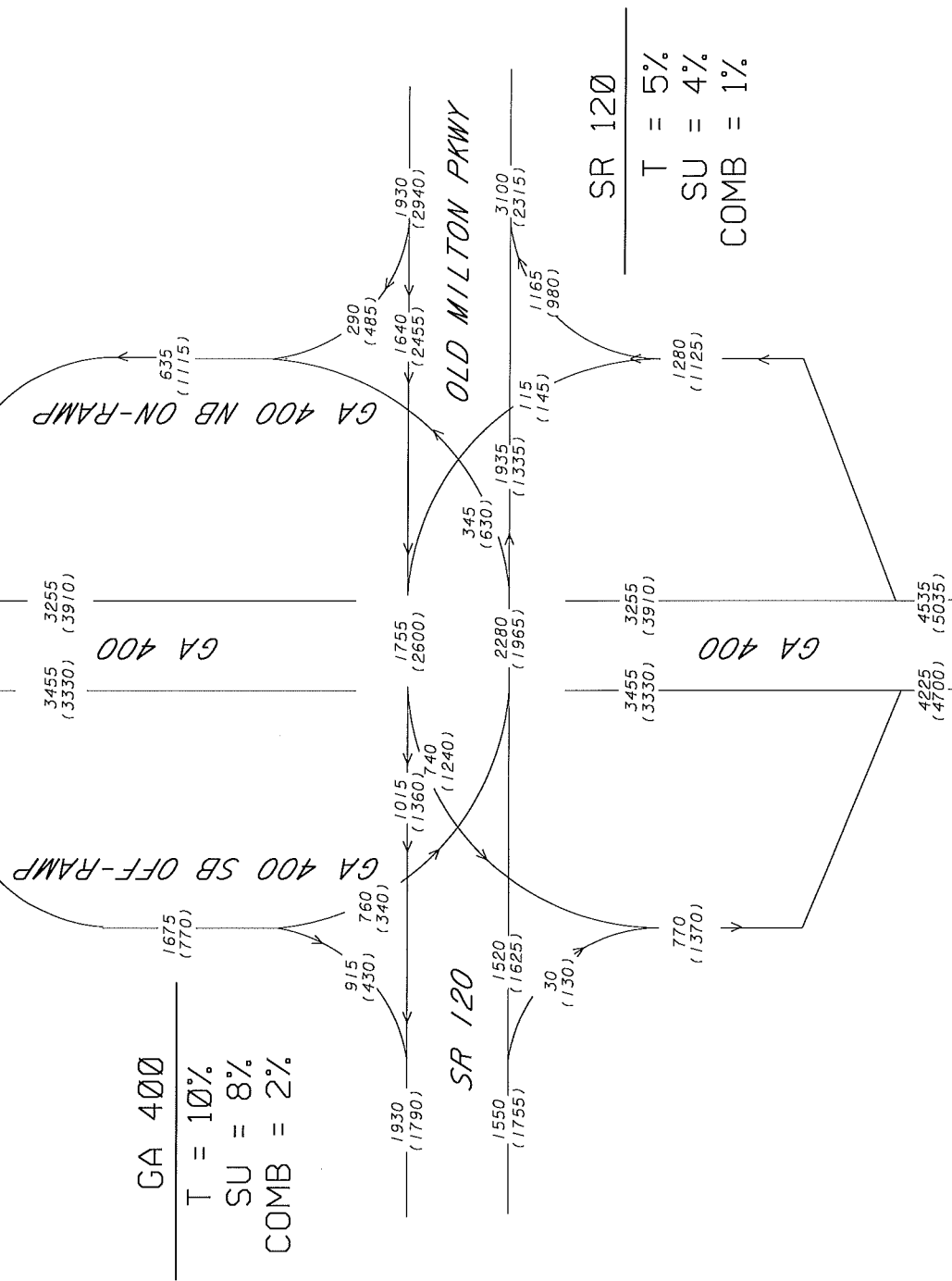
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2011 EXISTING PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-07



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SEE DWG. 10-01



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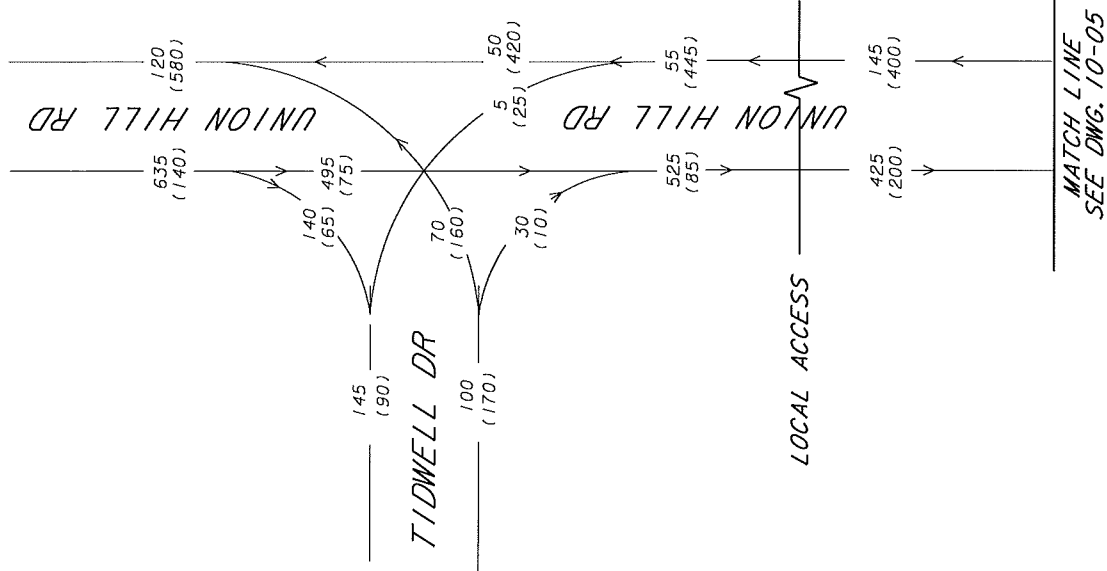
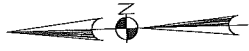
SR 120
T = 5%
SU = 4%
COMB = 1%

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LEGEND
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SR 120 @ GA 400
2011 EXISTING PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

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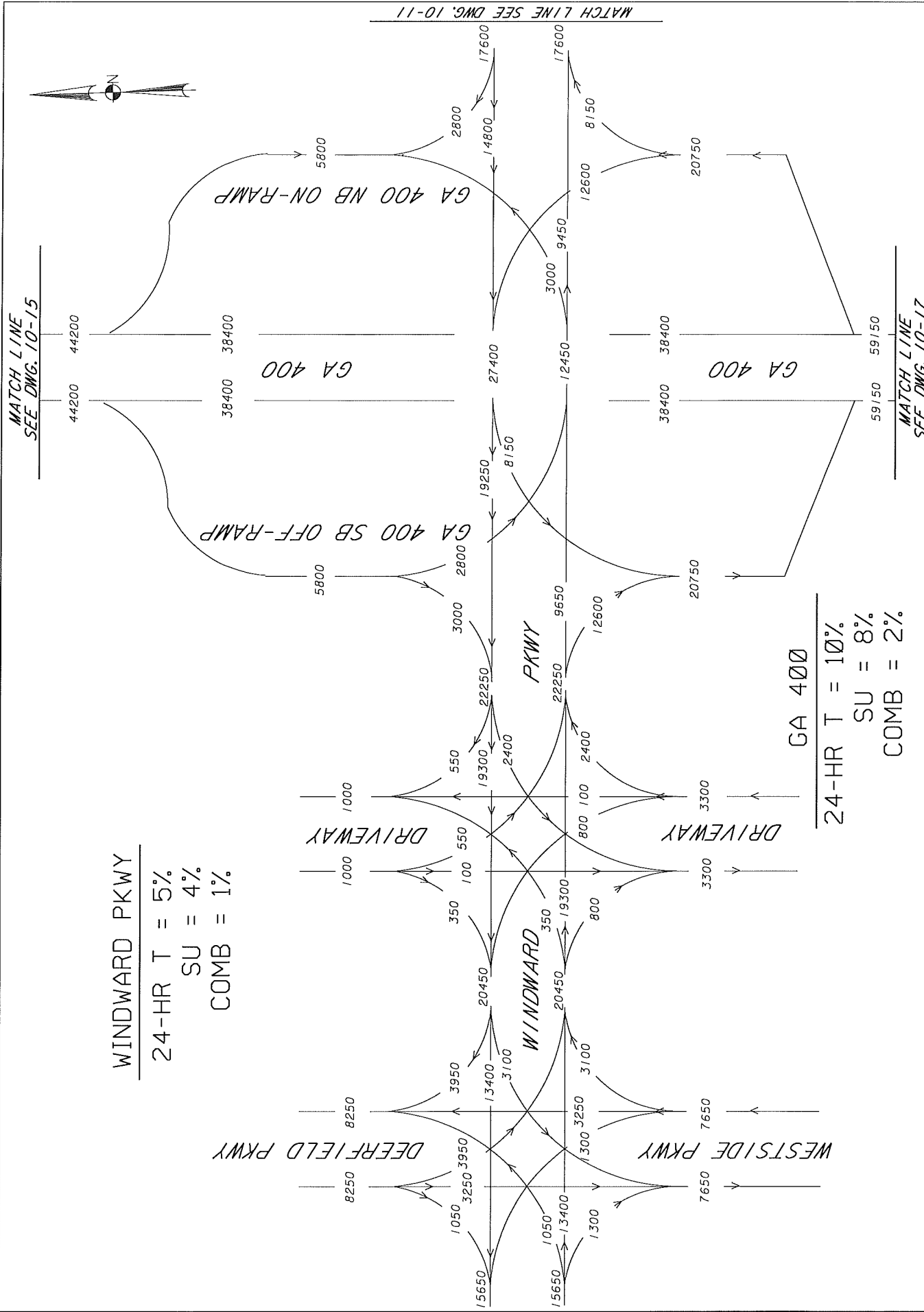
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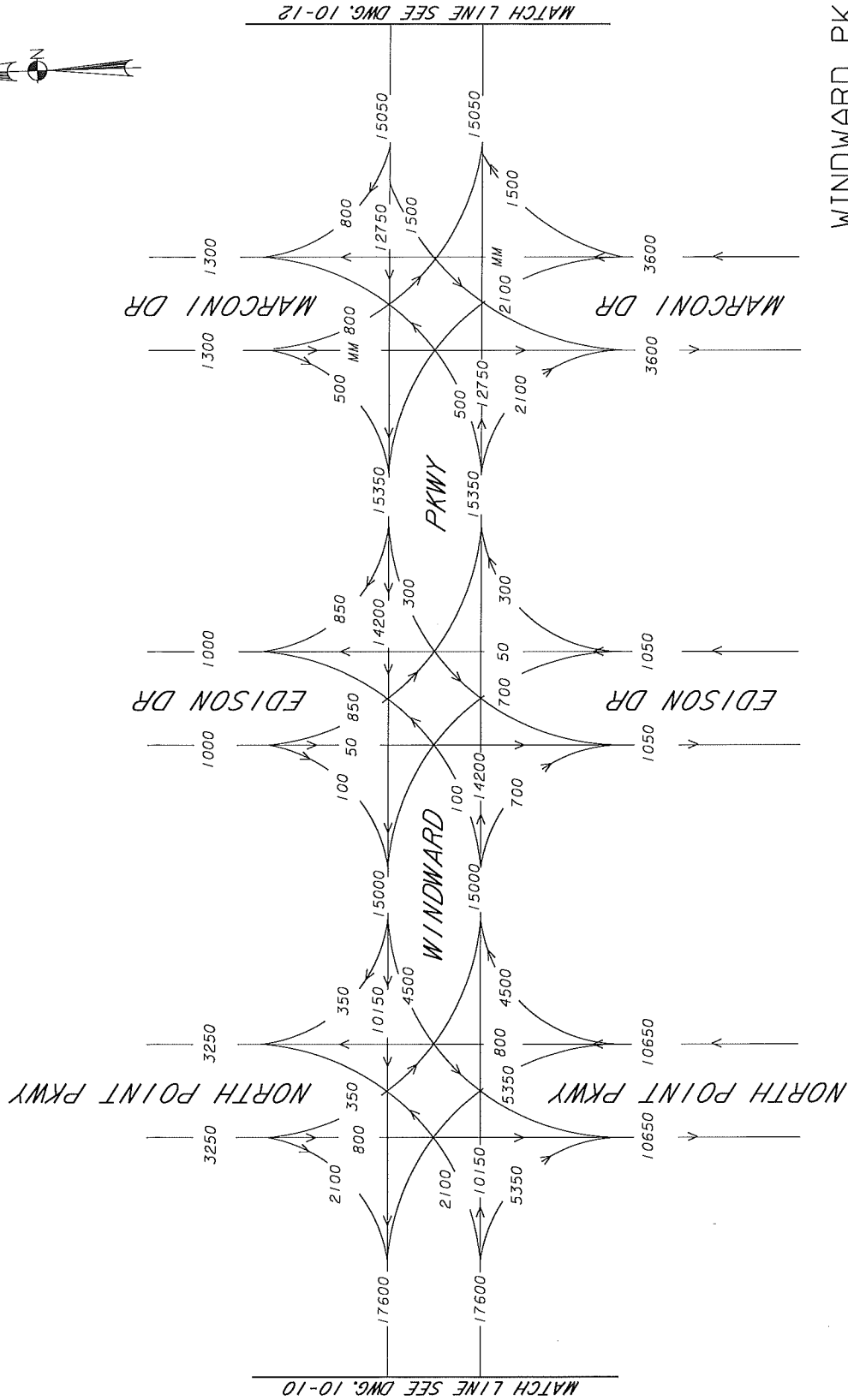
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UNION HILL RD AT TIDWELL DR
2011 EXISTING PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-09



<p>MA Moreland Associates, Inc. 2211 Beaver Run Road Suite 190 Norcross, Georgia 30071 Telephone (770) 263-5945</p>	<p>LEGEND 00 AVERAGE DAILY TRAFFIC</p>	<p>WINDWARD PKWY @ GA 400 2011 AVERAGE DAILY TRAFFIC TRAFFIC FLOW DIAGRAM</p>	<p>DRAWING NO. 10-10</p>
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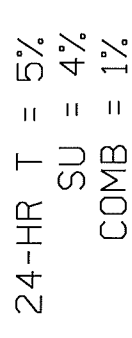
MA
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LEGEND

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WINDWARD PKWY @ GA 400
2011 AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-11

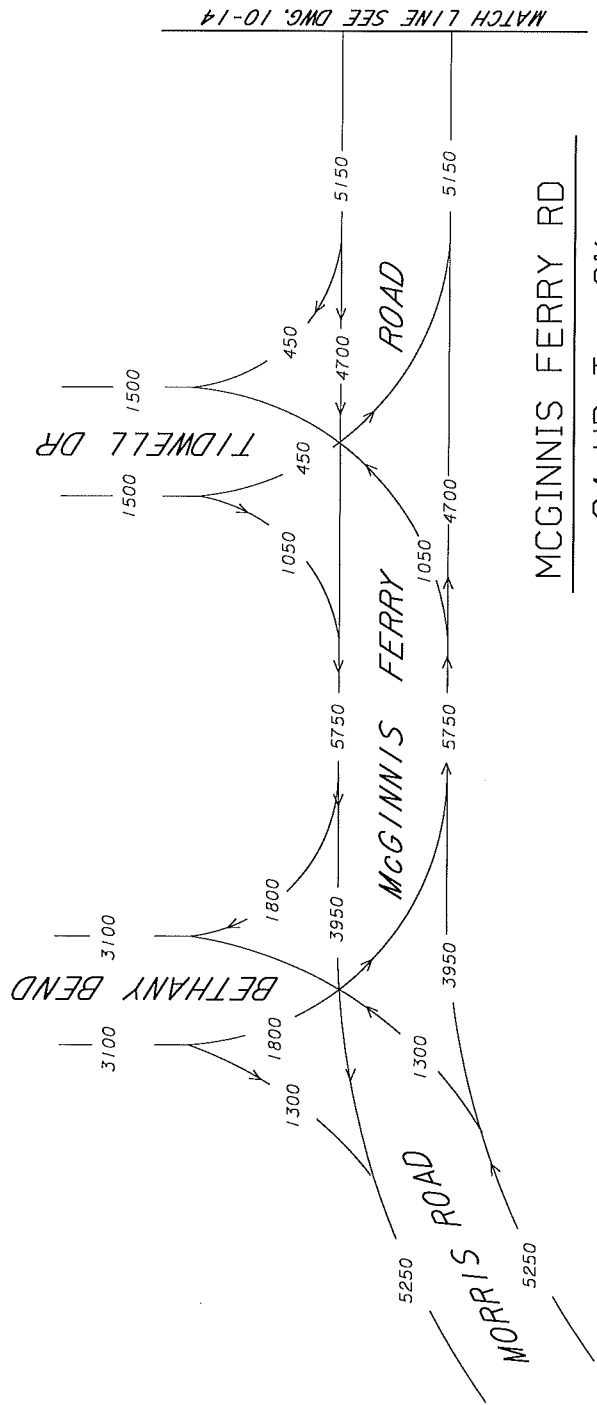
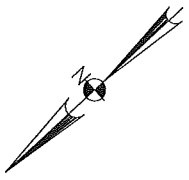


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WINDWARD PKWY @ GA 400
2011 AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
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SU = 2%
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LEGEND
ØØ AVERAGE DAILY TRAFFIC

MCGINNIS FERRY RD @ GA 400
2011 AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-13

MATCH LINE B
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GA 400

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SU = 8%

COMB = 2%

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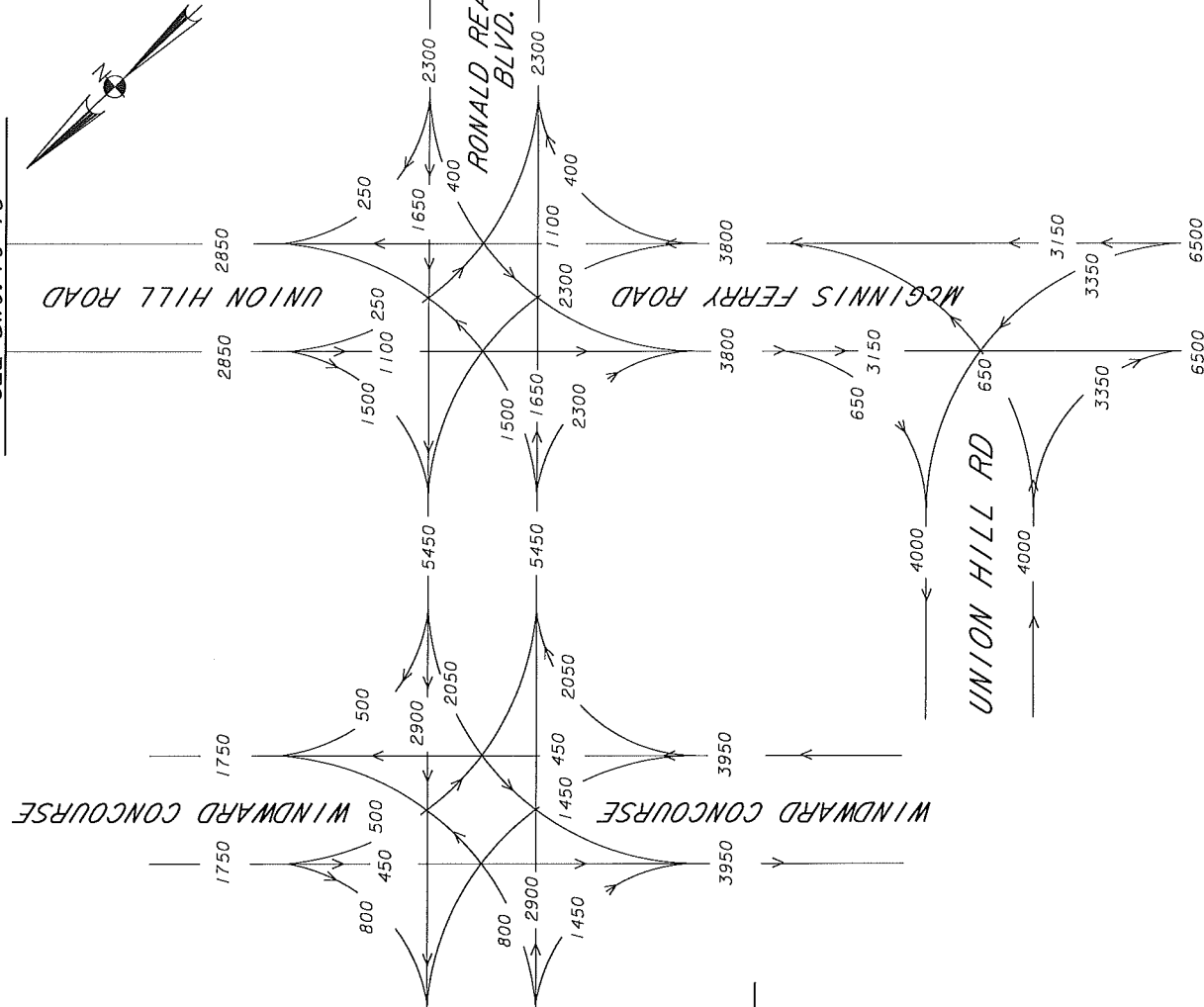
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GEORGIA 400

44200 44200

MATCH LINE
SEE DWG. 10-10

MATCH LINE SEE DWG. 10-13



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LEGEND
ØØ AVERAGE DAILY TRAFFIC

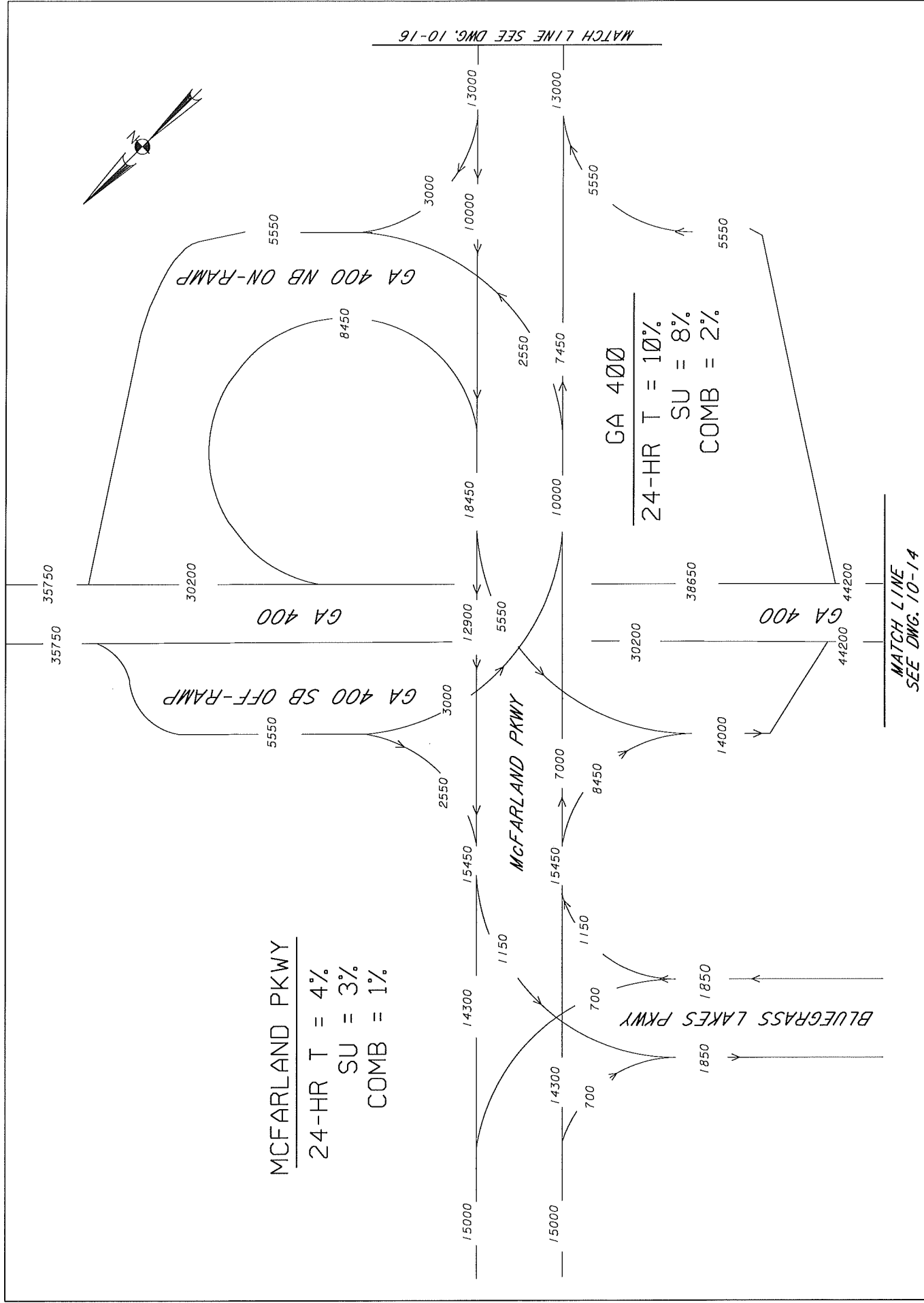
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2011 AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

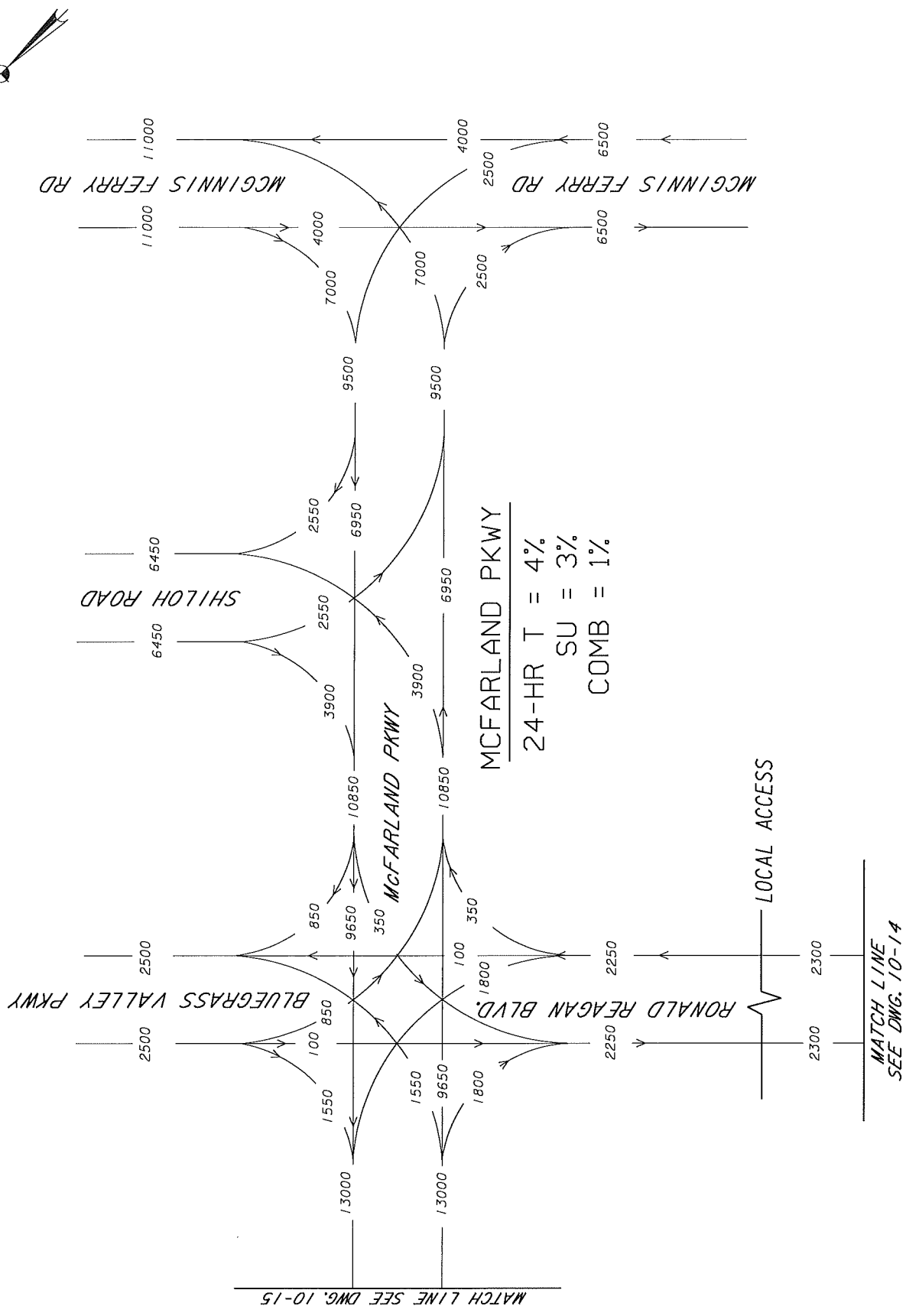
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10-14

MCFARLAND PKWY @ GA 400
2011 AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

LEGEND
00 AVERAGE DAILY TRAFFIC

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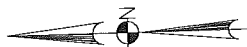


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10-16

McFARLAND PKWY @ GA 400
 2011 AVERAGE DAILY TRAFFIC
 TRAFFIC FLOW DIAGRAM

LEGEND
 00 AVERAGE DAILY TRAFFIC

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SU = 2%
COMB = 0%

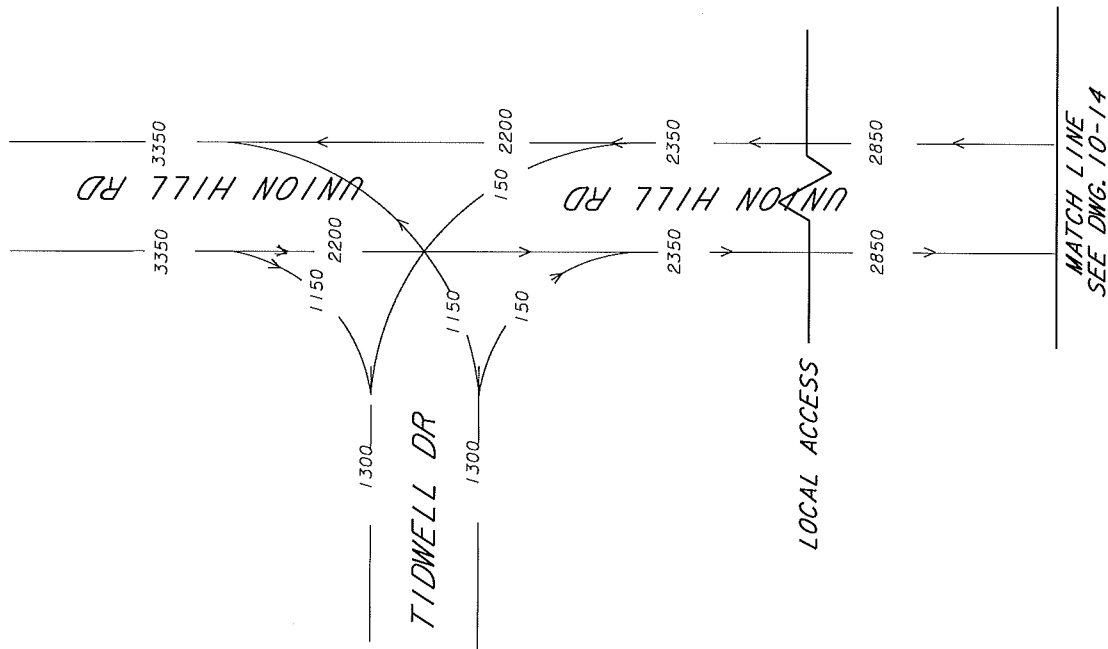
MA Moreland Altabelli Associates, Inc.
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LEGEND

ØØ AVERAGE DAILY TRAFFIC

SR 120 @ GA 400
2011 AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
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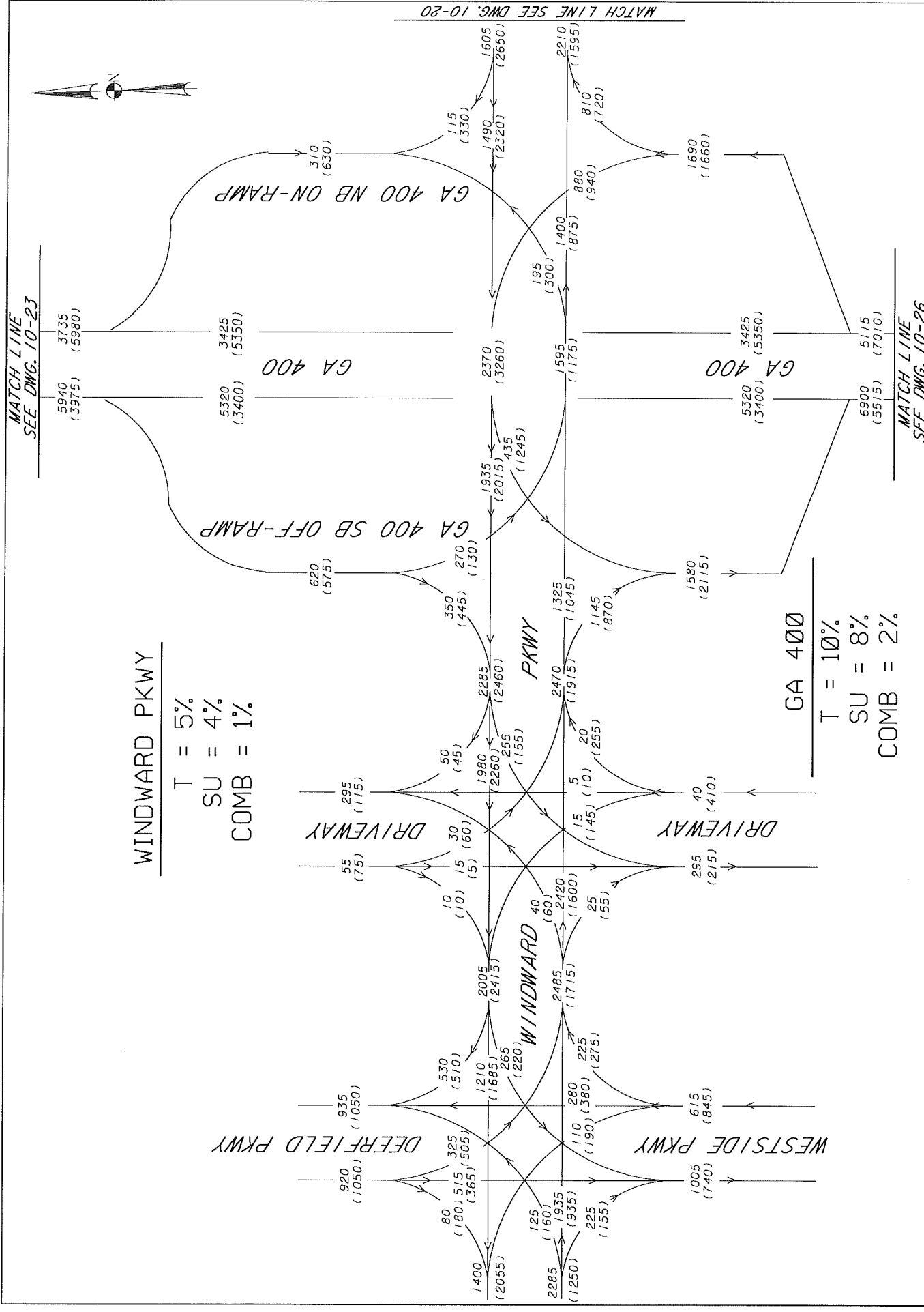
COMB = 0%

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LEGEND
00 AVERAGE DAILY TRAFFIC

UNION HILL RD AT TIDWELL DR
2011 AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-18



NA
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LEGEND

00 AM PEAK HOUR
(00) PM PEAK HOUR

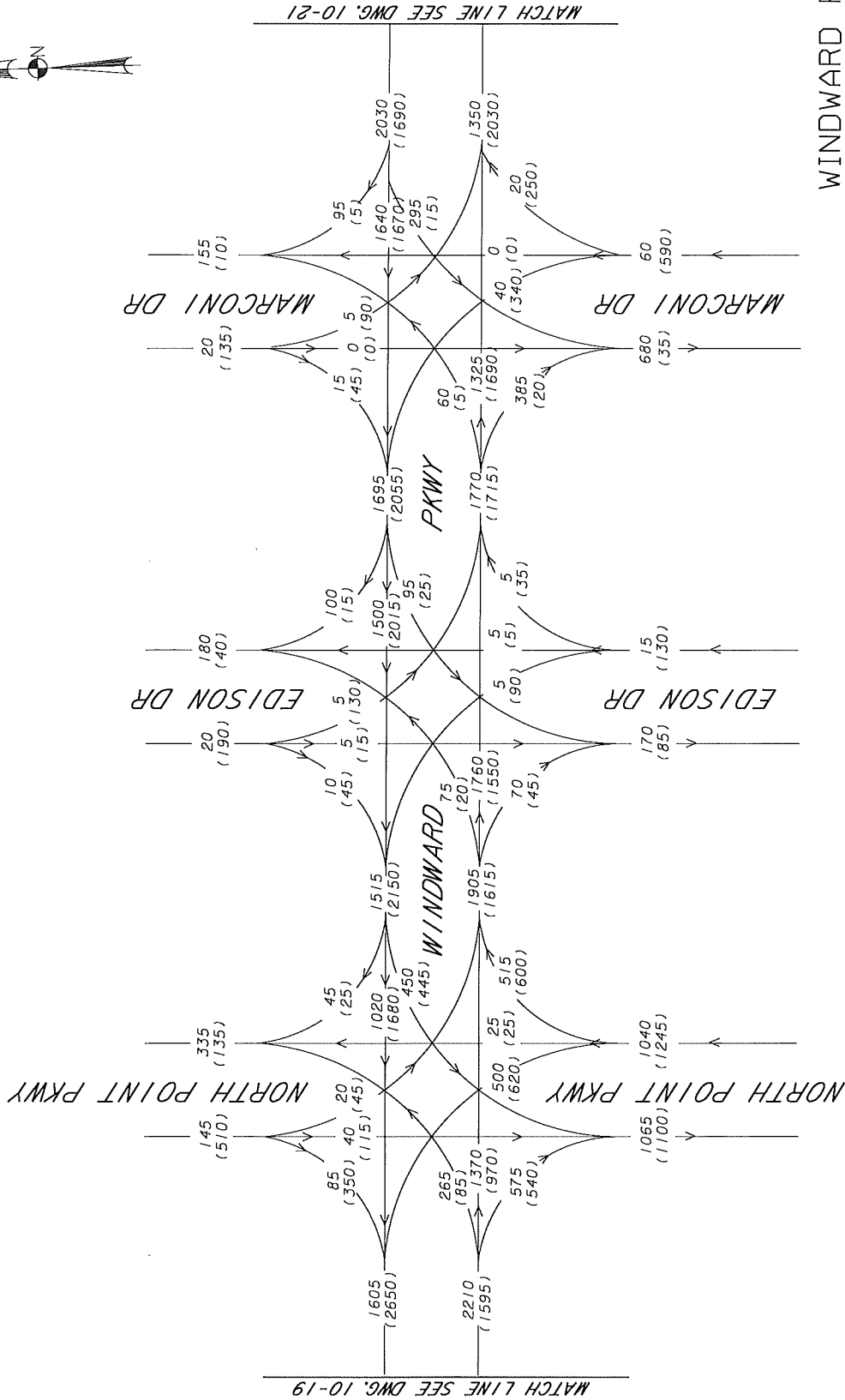
WINDWARD PKWY @ GA 400

2020 NO-BUILD PEAK HOUR TRAFFIC

TRAFFIC FLOW DIAGRAM

DRAWING NO.

10-19



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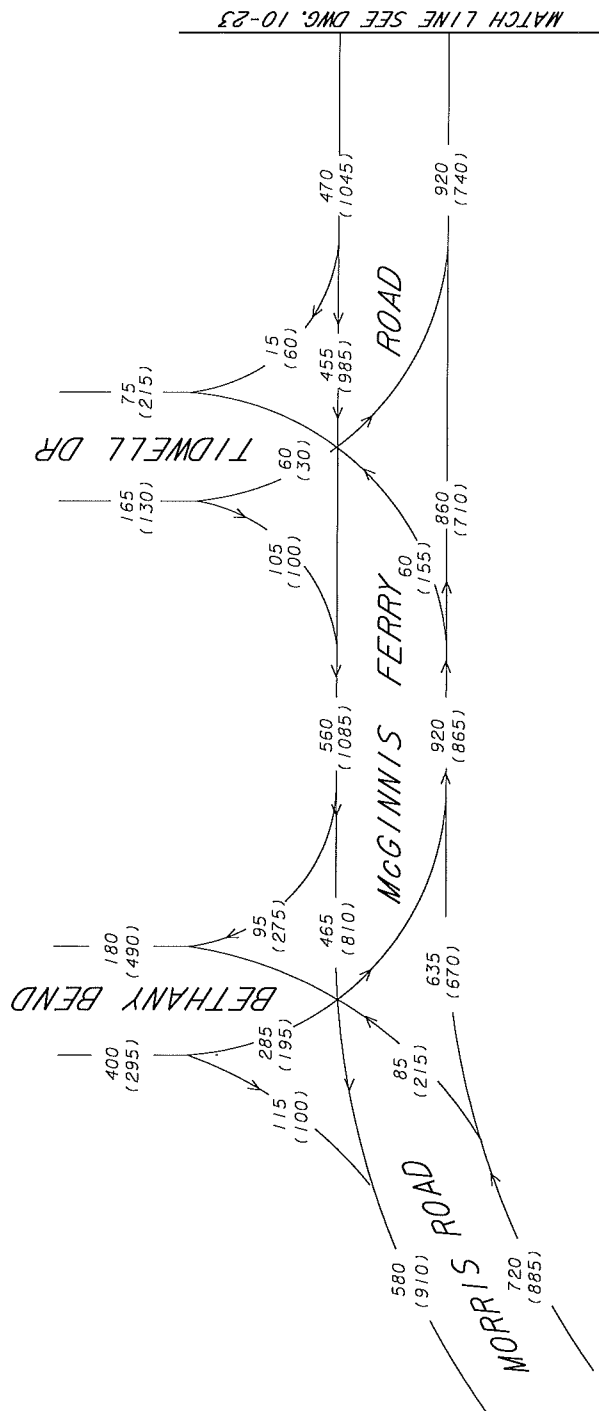
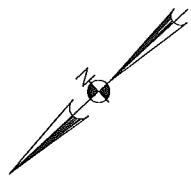
COMB = 1%

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LEGEND
ØØ AM PEAK HOUR
(ØØ) PM PEAK HOUR

WINDWARD PKWY @ GA 400
2020 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-20



McGINNIS FERRY RD

T = 2%
 SU = 2%
 COMB = 0%

MATCH LINE
SEE DWG. 10-24

5940
(3975)

3735
(5980)

GEORGIA 400

McGINNIS FERRY RD

GA 400

T = 10%
SU = 8%
COMB = 2%

5940
(3975)

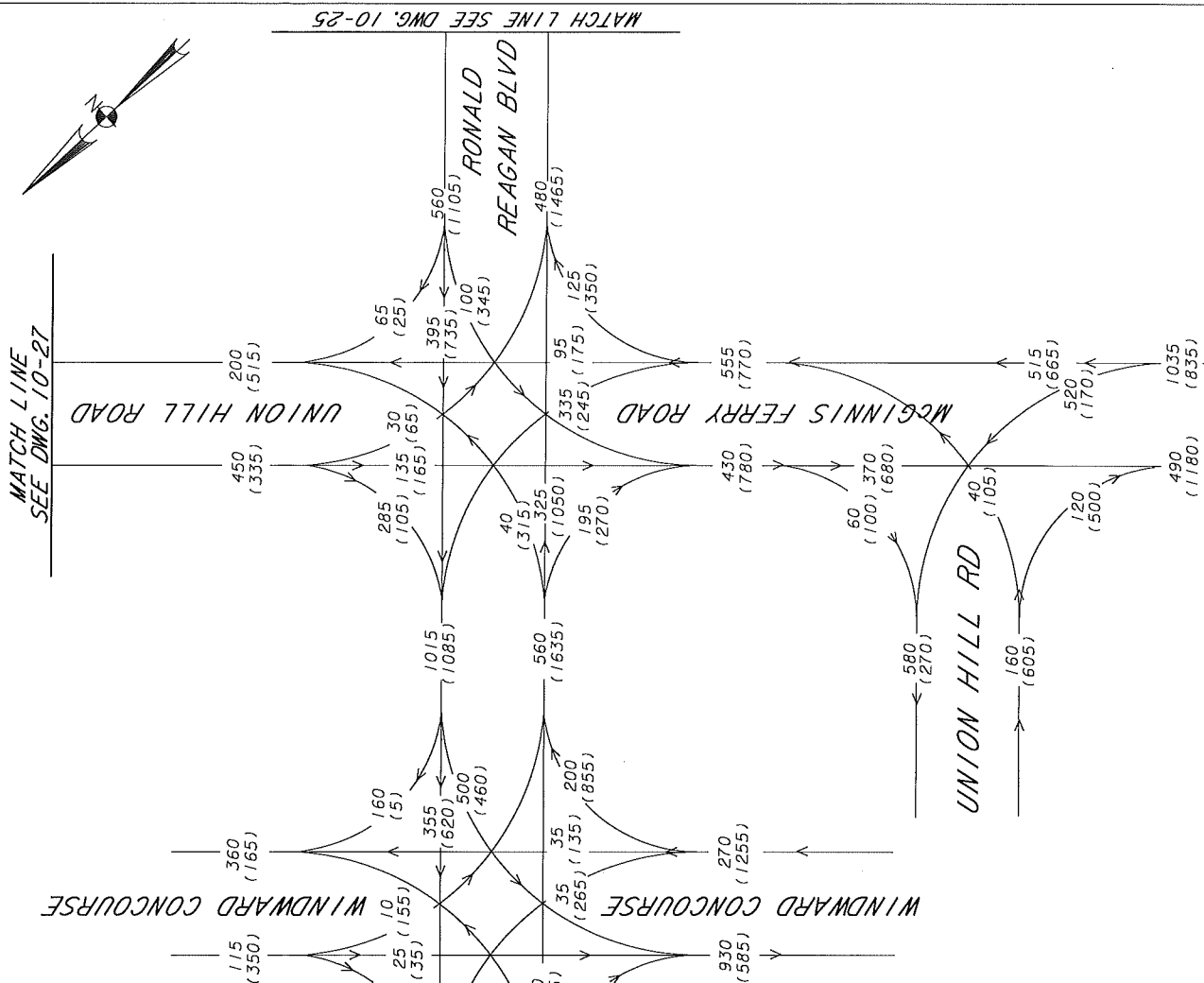
3735
(5980)

GEORGIA 400

MATCH LINE
SEE DWG. 10-19

McGINNIS FERRY RD

T = 2%
SU = 2%
COMB = 0%



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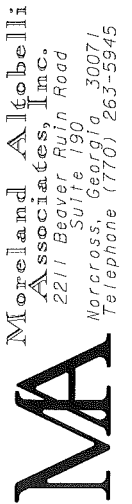
Moreland Altabelli
Associates, Inc.
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Suite 190
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Telephone (770) 263-5945

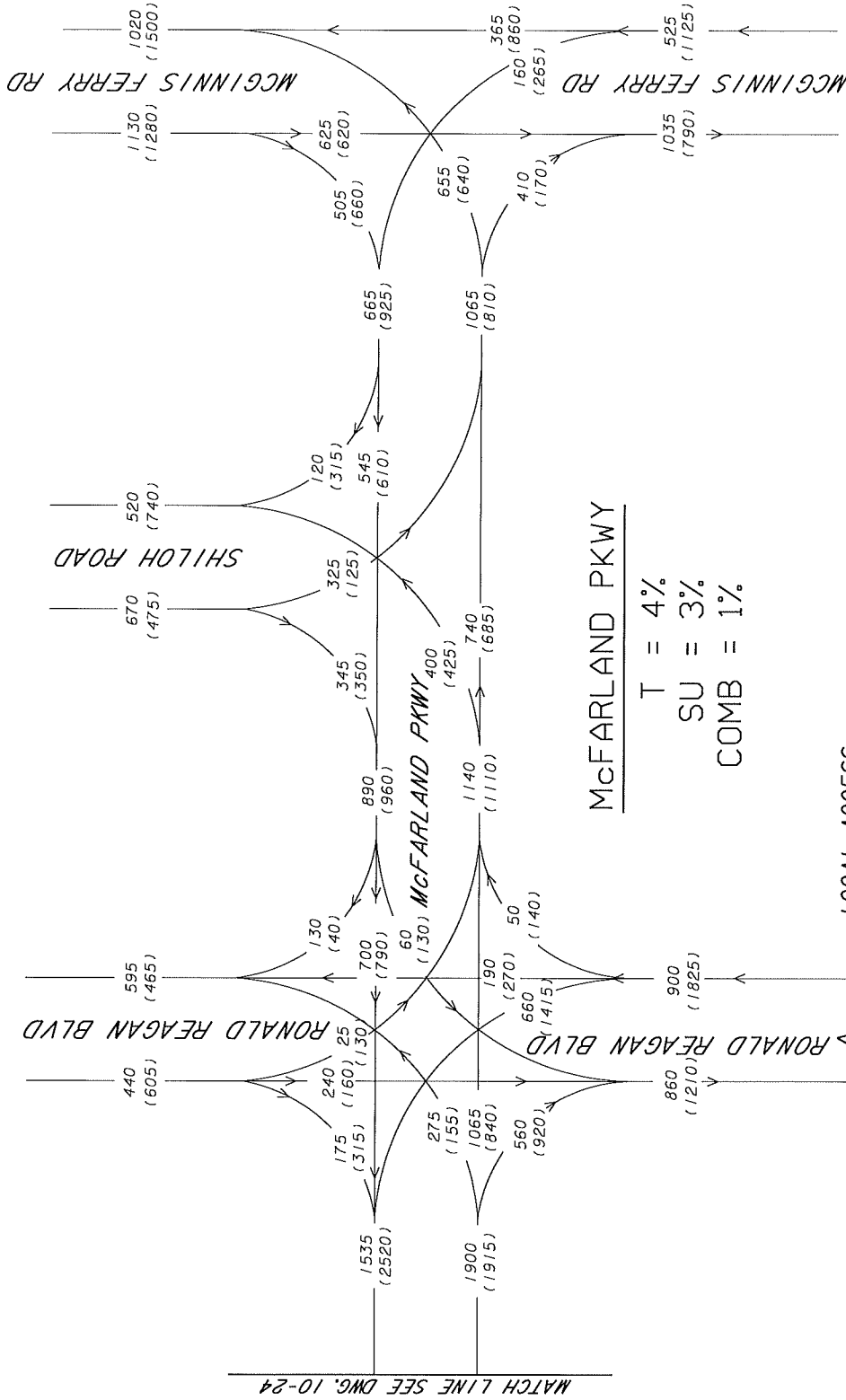
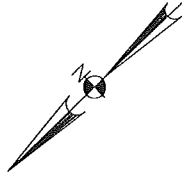
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(00) PM PEAK HOUR

McGINNIS FERRY RD @ GA 400
2020 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-23



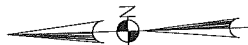


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10-25

McFARLAND PKWY @ GA 400
2020 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

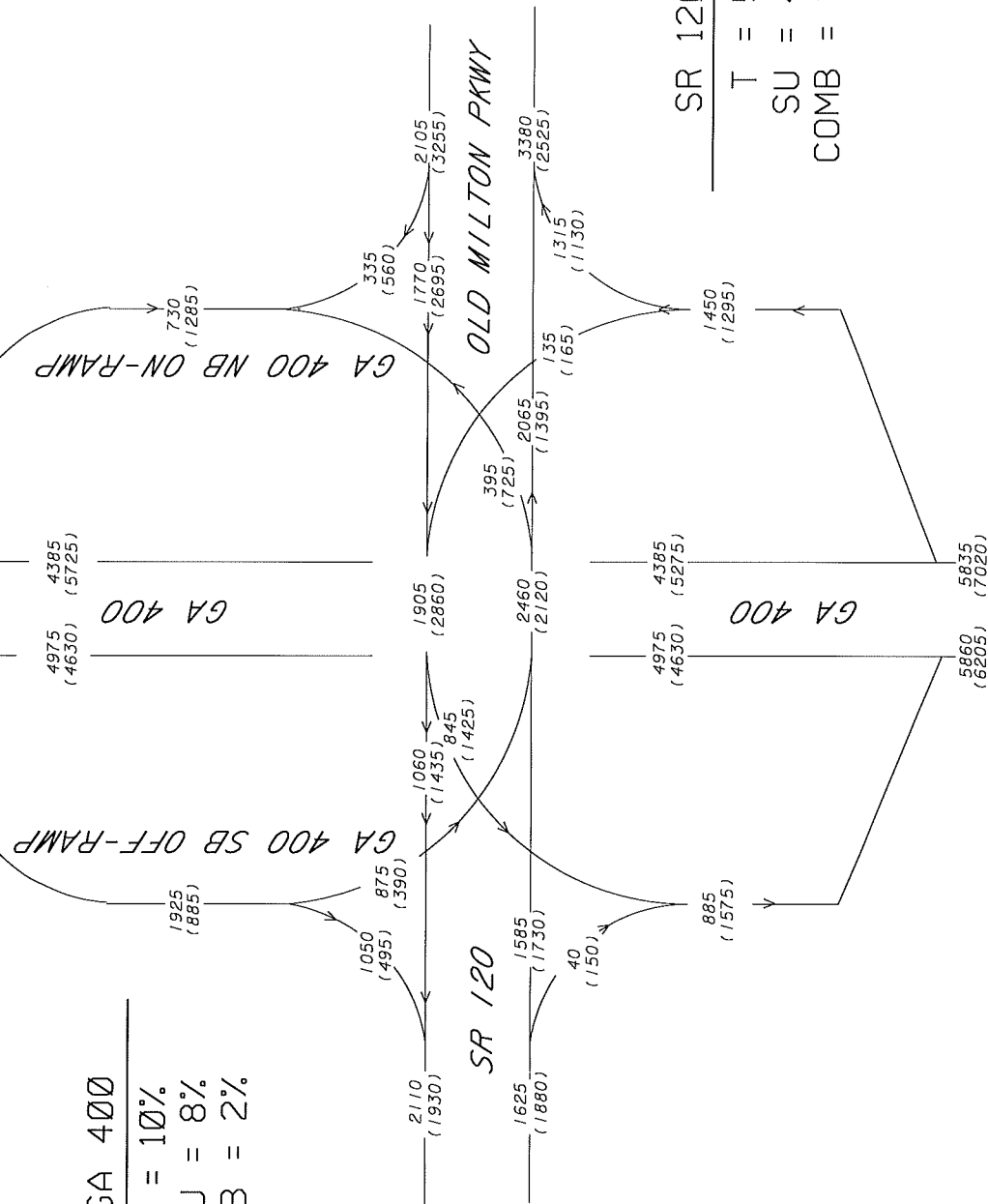
LEGEND
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MA
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GA 400
T = 10%
SU = 8%
COMB = 2%

SR 120	
T = 5%	
SU = 4%	
COMB = 1%	



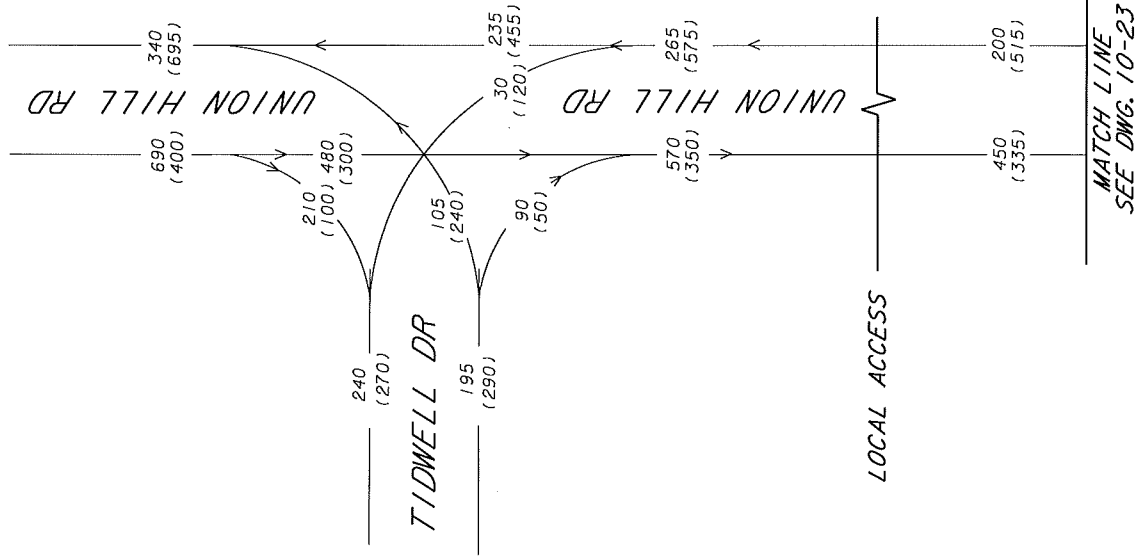
MA Moreland Altabelli Associates, Inc.
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Telephone (770) 263-5945

LEGEND

00 AM	PEAK	HOUR
(00)	PM	PEAK
		HOUR

SR 120 @ GA 400
2020 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-26



UNION HILL RD

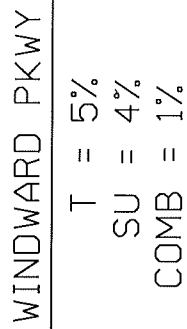
T = 3%
SU = 2%
COMB = 1%

MA
Moreland Altabelli
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Norcross, Georgia 30071
Telephone (770) 263-5945

LEGEND
ØØ AM PEAK HOUR
(ØØ) PM PEAK HOUR

UNION HILL RD AT TIDWELL DR
2020 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-27

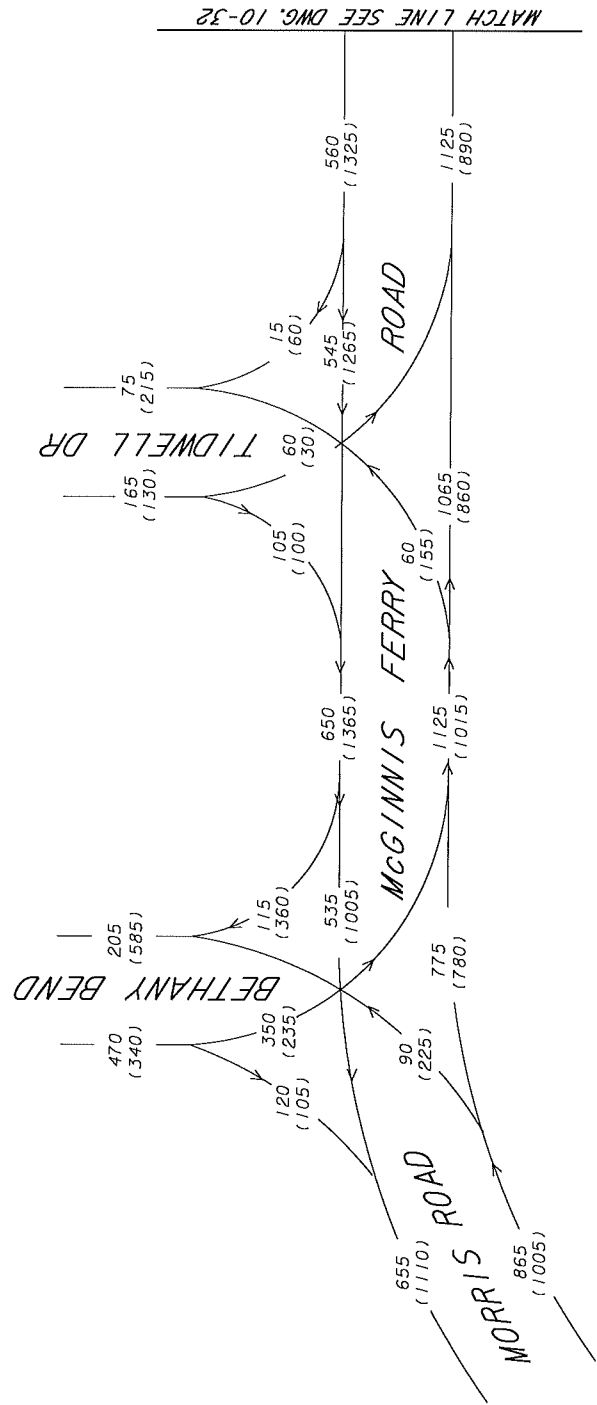
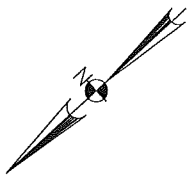


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(ØØ) PM PEAK HOUR

WINDWARD PKWY @ GA 400
2040 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-29



McGINNIS FERRY RD

T = 2%
SU = 2%
COMB = 0%

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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

McGINNIS FERRY RD @ GA 400
2040 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

MATCH LINE
SEE DWG. 10-33

GEORGIA 400

7245
(4850)

4555
(7295)

MATCH LINE SEE DWG. 10-31

McGINNIS FERRY RD

560
(1325)

1125
(890)

GA 400

T = 10%

SU = 8%

COMB = 2%

GEORGIA 400

7245
(4850)

4555
(7295)

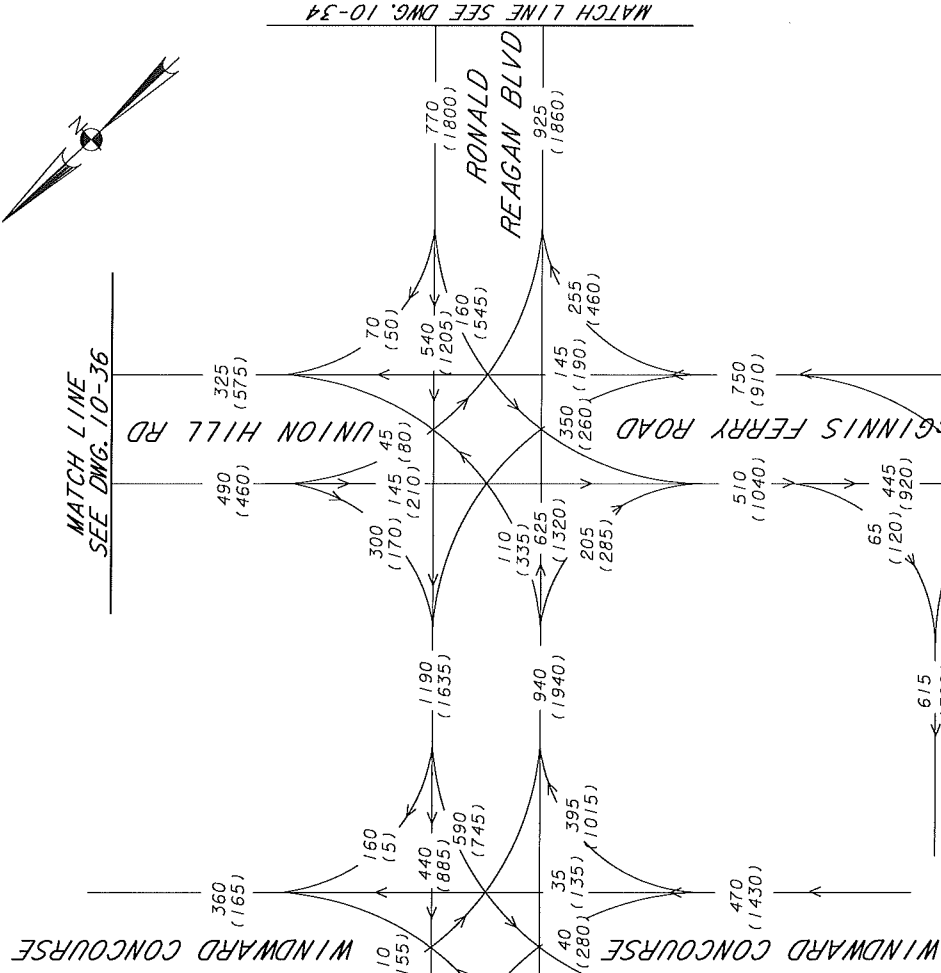
MATCH LINE
SEE DWG. 10-28

McGINNIS FERRY RD

T = 2%

SU = 2%

COMB = 0%

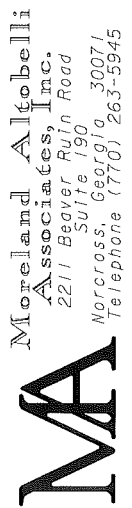


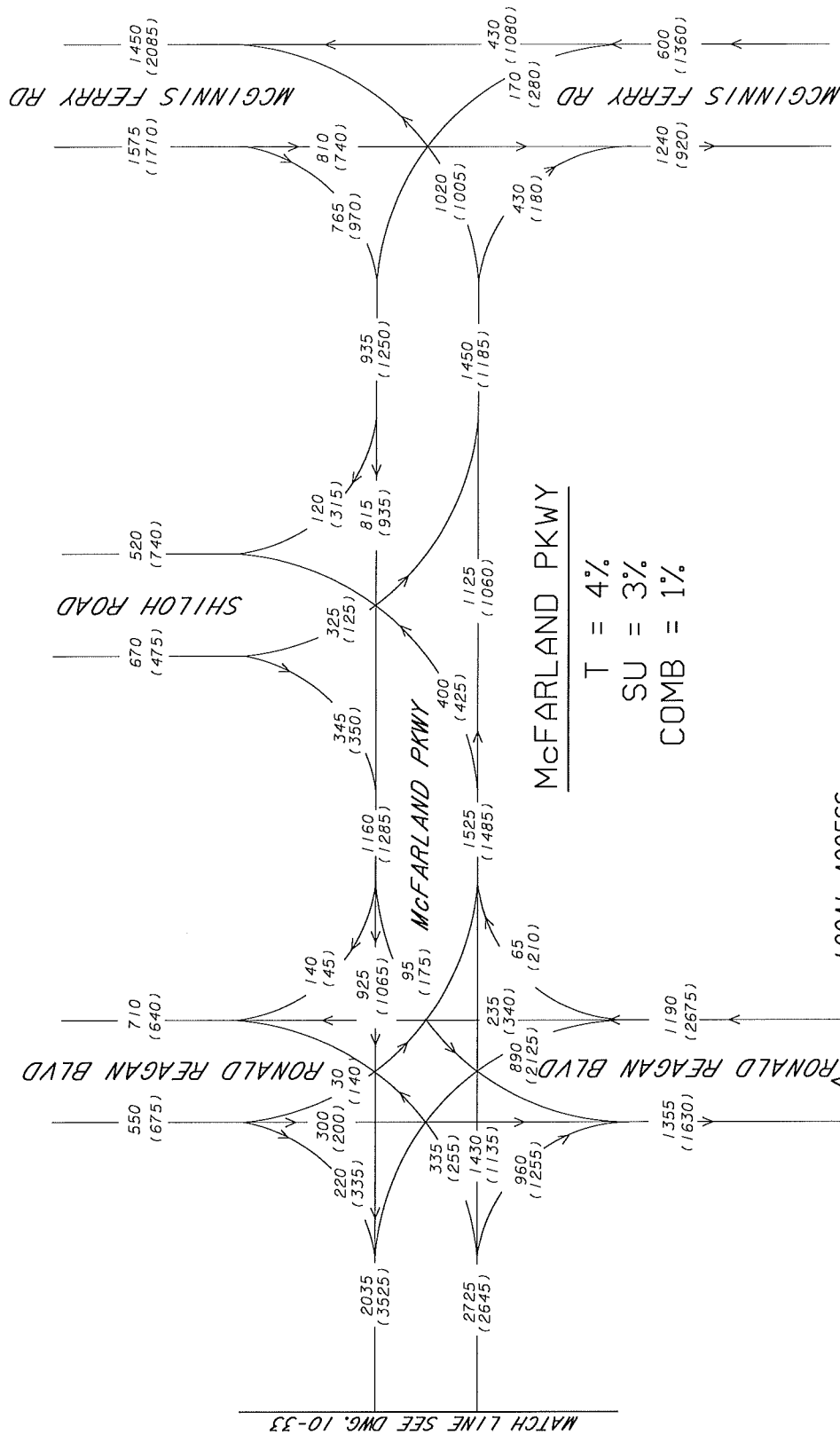
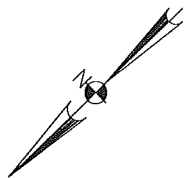
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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

McGINNIS FERRY RD @ GA 400
2040 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-32





T = 4%
 SU = 3%
 COMB = 1%

MATCH LINE
 SEE DWG. 10-32

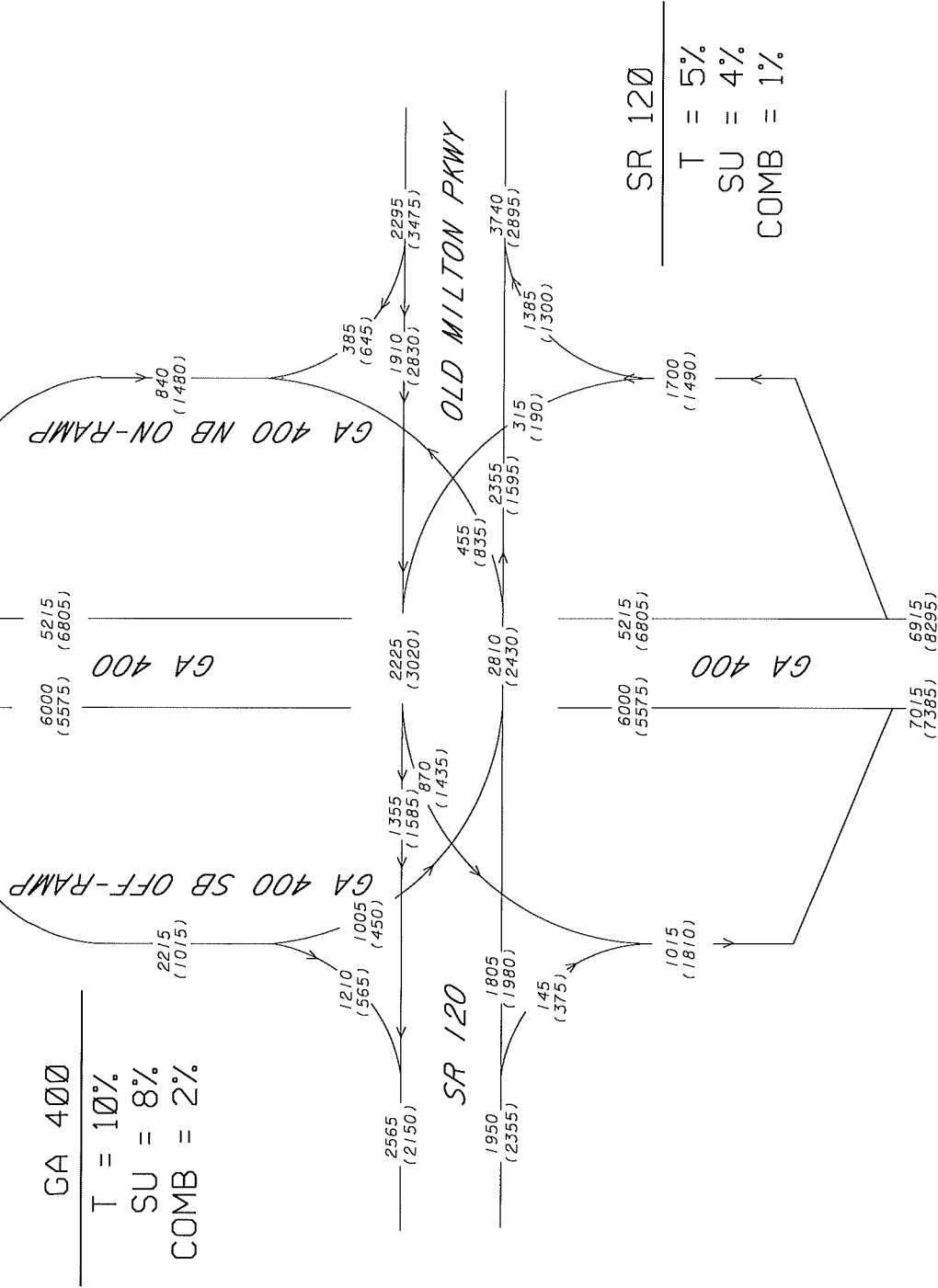
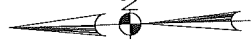
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LEGEND
 00 AM PEAK HOUR
 (00) PM PEAK HOUR

McFARLAND PKWY @ GA 400
 2040 NO-BUILD PEAK HOUR TRAFFIC
 TRAFFIC FLOW DIAGRAM

DRAWING NO.
 10-34

MATCH LINE
SEE DWG. 10-28

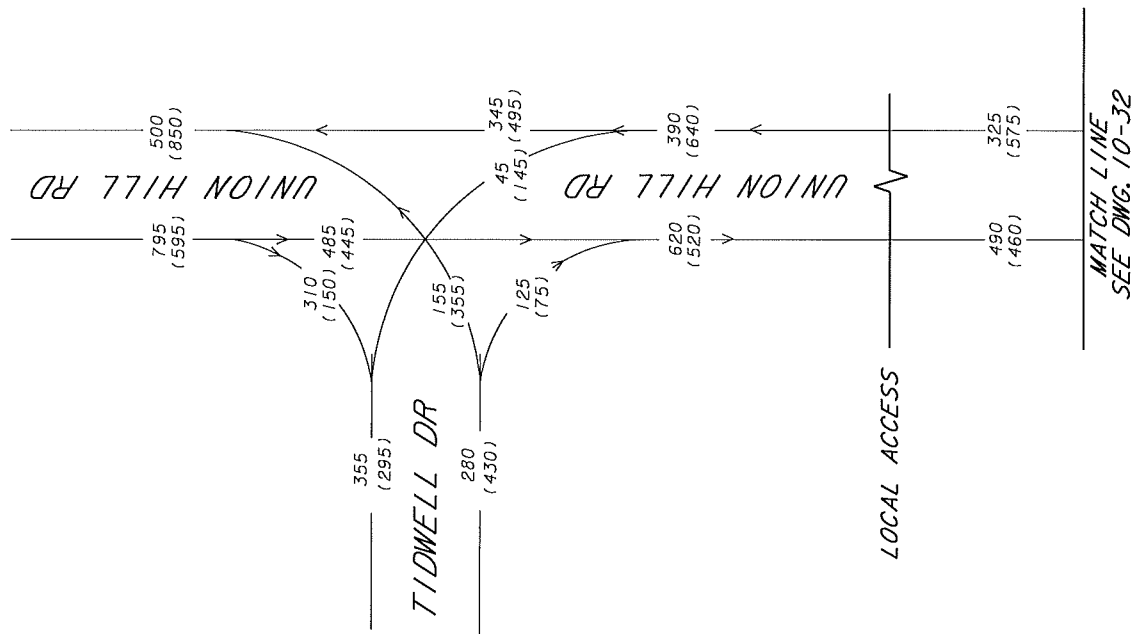
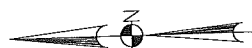


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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

SR 120 @ GA 400
2040 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-35



UNION HILL RD

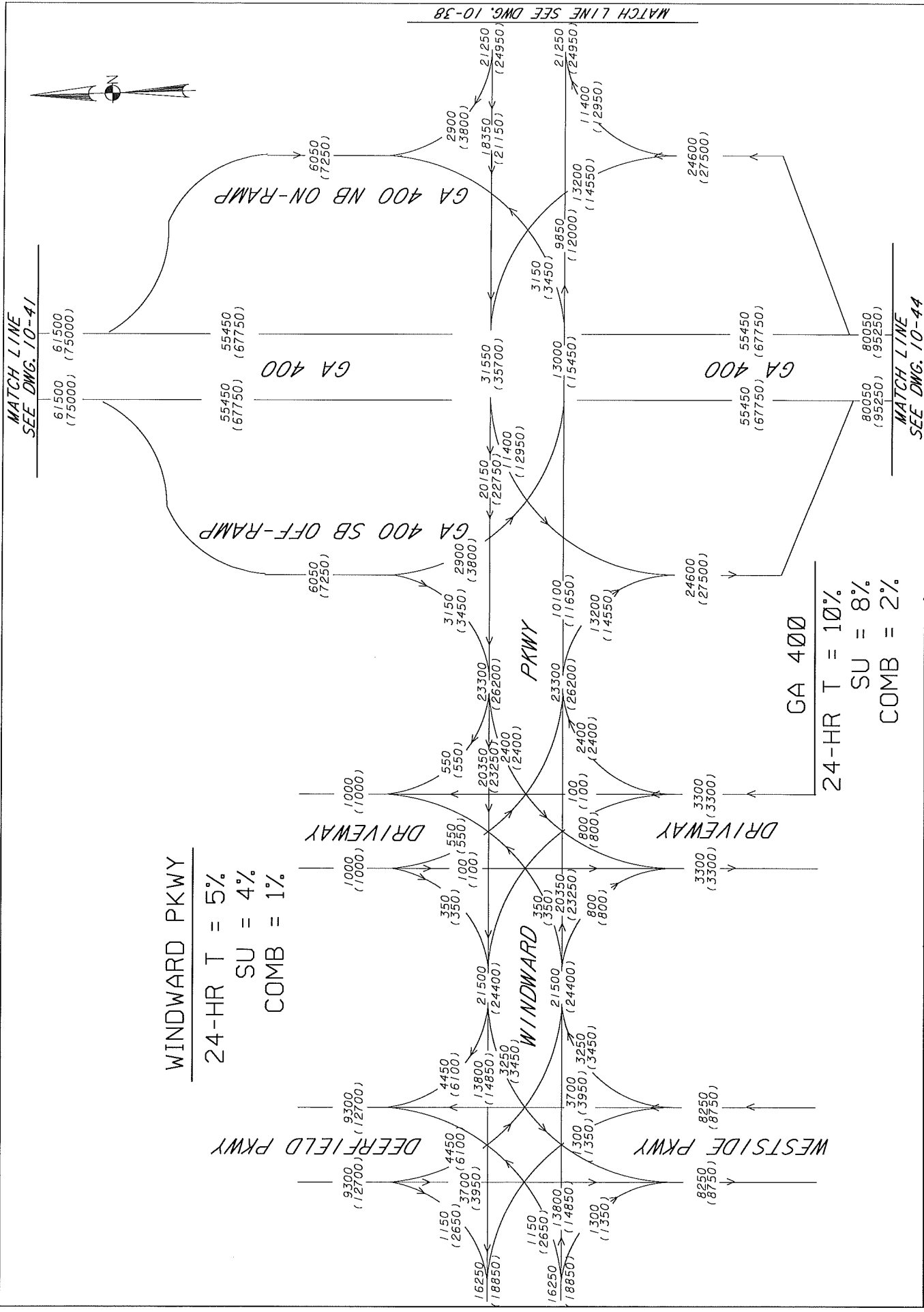
T = 3%
SU = 2%
COMB = 1%

UNION HILL RD AT TIDWELL DR
2040 NO-BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

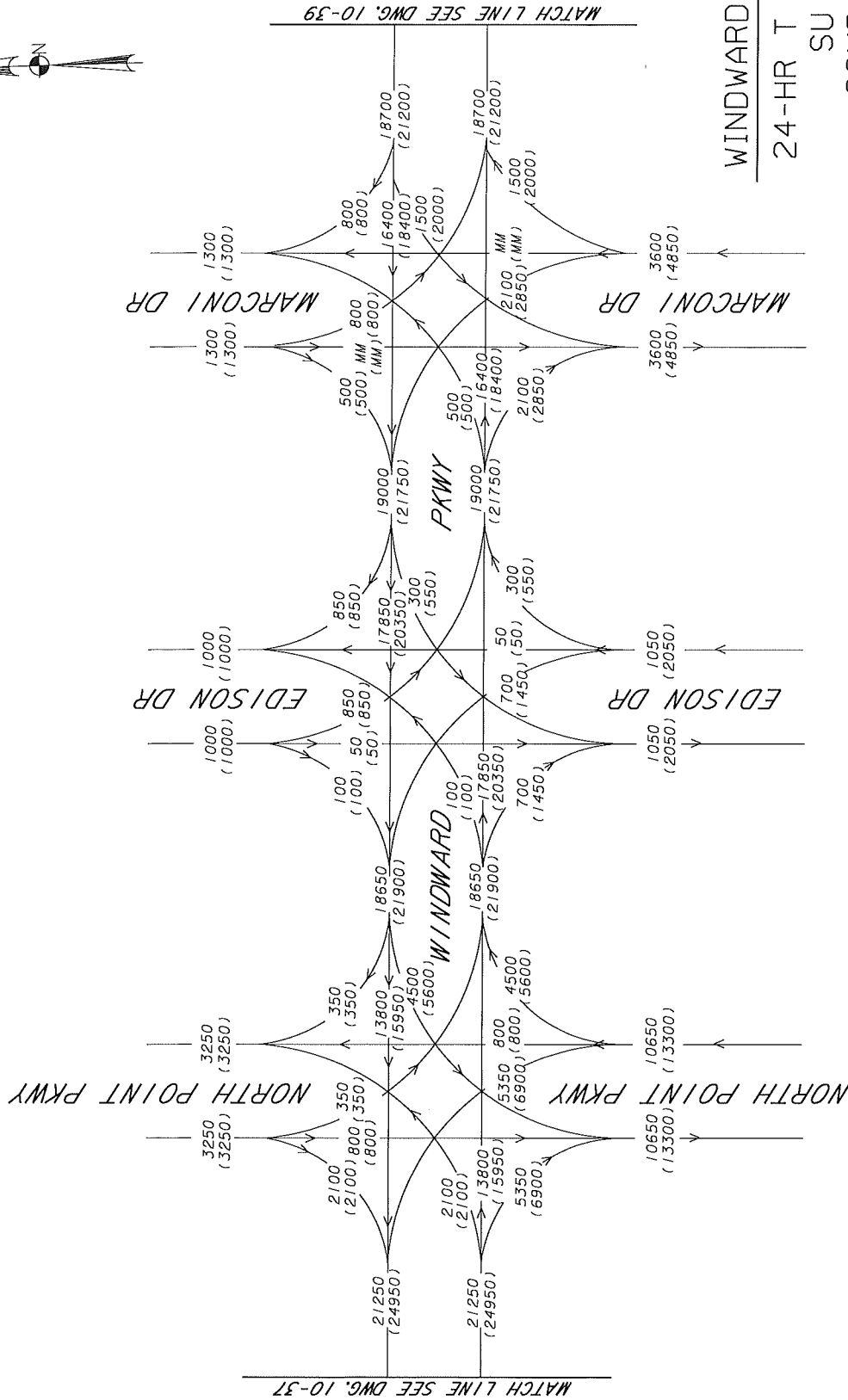
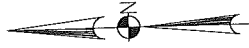
DRAWING NO.
10-36

LEGEND
ØØ AM PEAK HOUR
(ØØ) PM PEAK HOUR

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<p>DRAWING NO. 10-37</p>	<p>WINDWARD PKWY @ GA 400 2020/2040 NO-BUILD AVERAGE DAILY TRAFFIC TRAFFIC FLOW DIAGRAM</p>	<p>Moreland Altobelli Associates, Inc. 2211 Beaver Run Road Suite 190 Norcross, Georgia 30071 Telephone (770) 263-5945</p> <p>LEGEND 00 2020 ADT (00) 2040 ADT</p>
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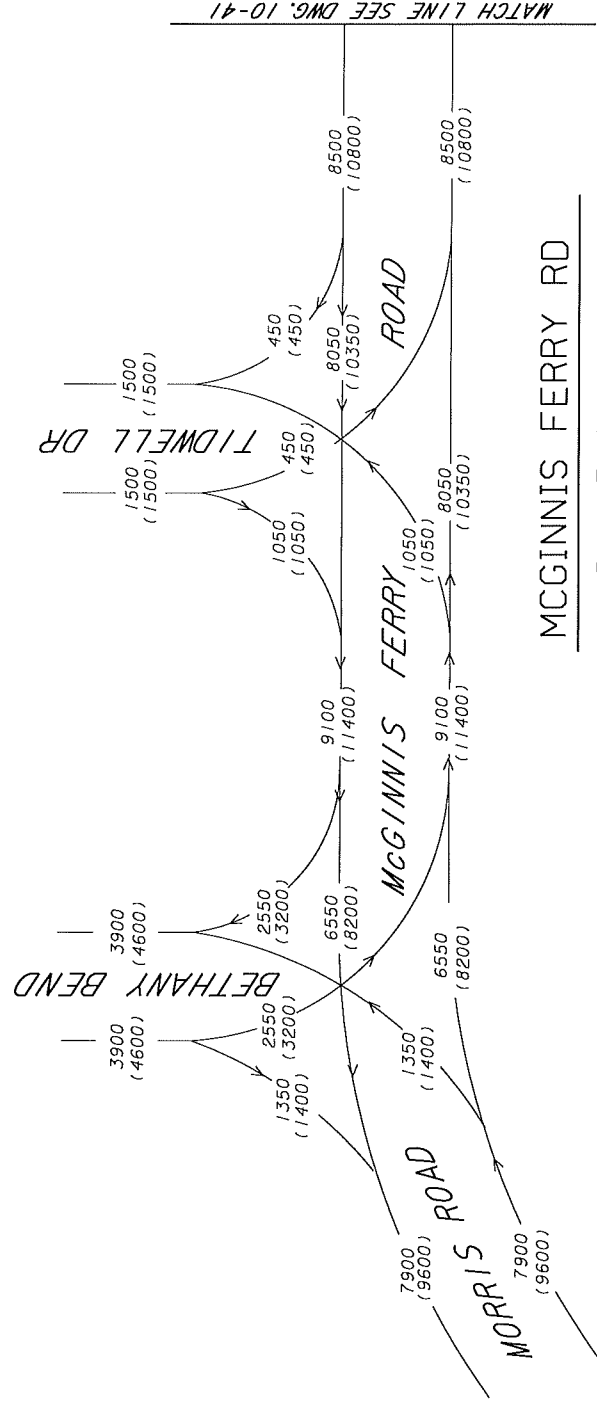
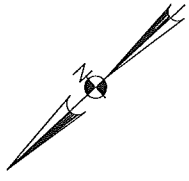
LEGEND

00 2020 ADT
(00) 2040 ADT

WINDWARD PKWY @ GA 400
2020/2040 NO-BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-38

DRAWING NO.
10-39



MCGINNIS FERRY RD

24-HR T = 2%
 SU = 2%
 COMB = 0%

MA

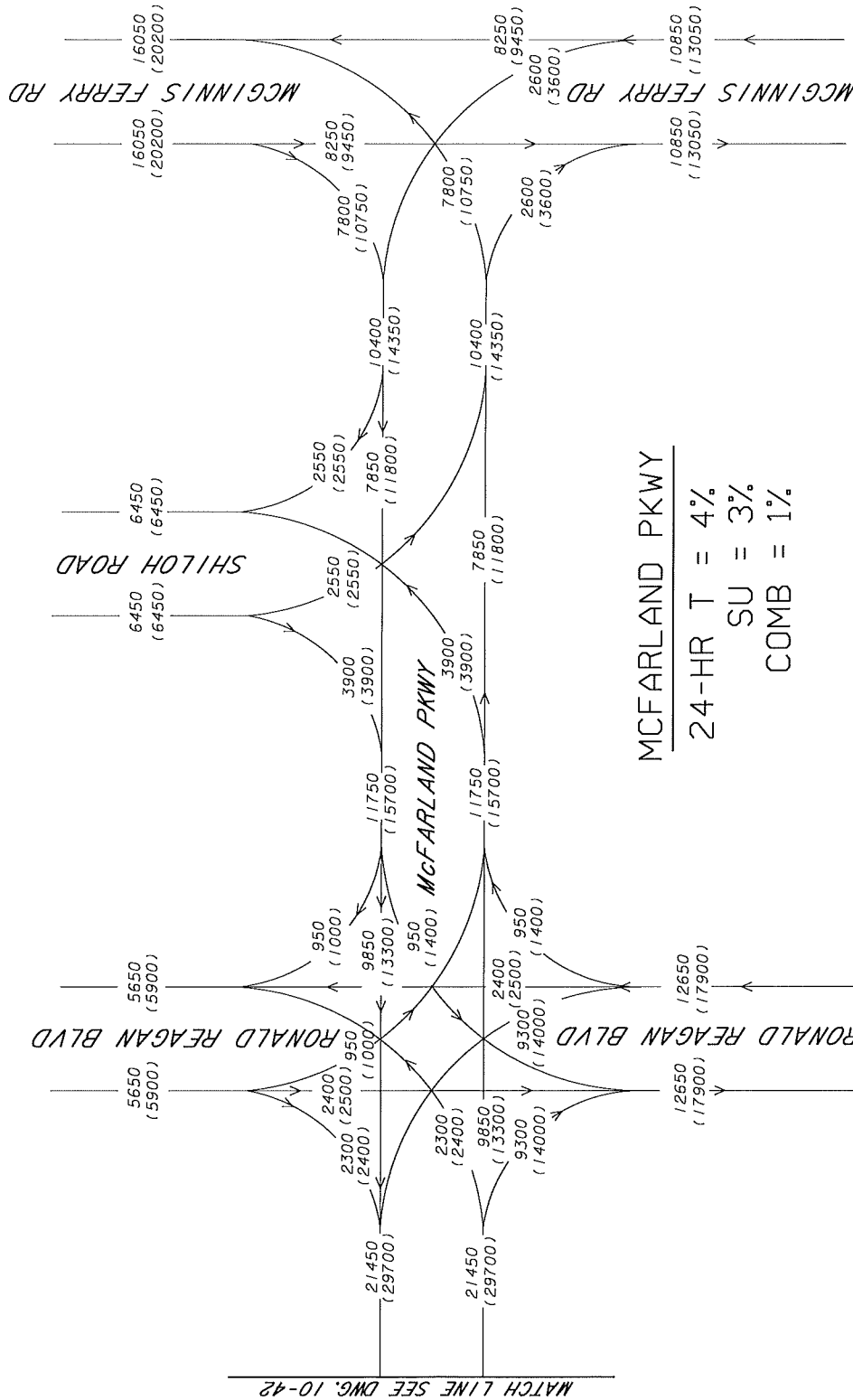
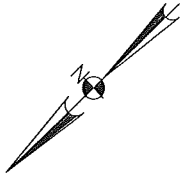
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LEGEND

00 2020 ADT
 (00) 2040 ADT

MCGINNIS FERRY RD @ GA 400
 2020/2040 NO-BUILD
 AVERAGE DAILY TRAFFIC
 TRAFFIC FLOW DIAGRAM

DRAWING NO.
 10-40



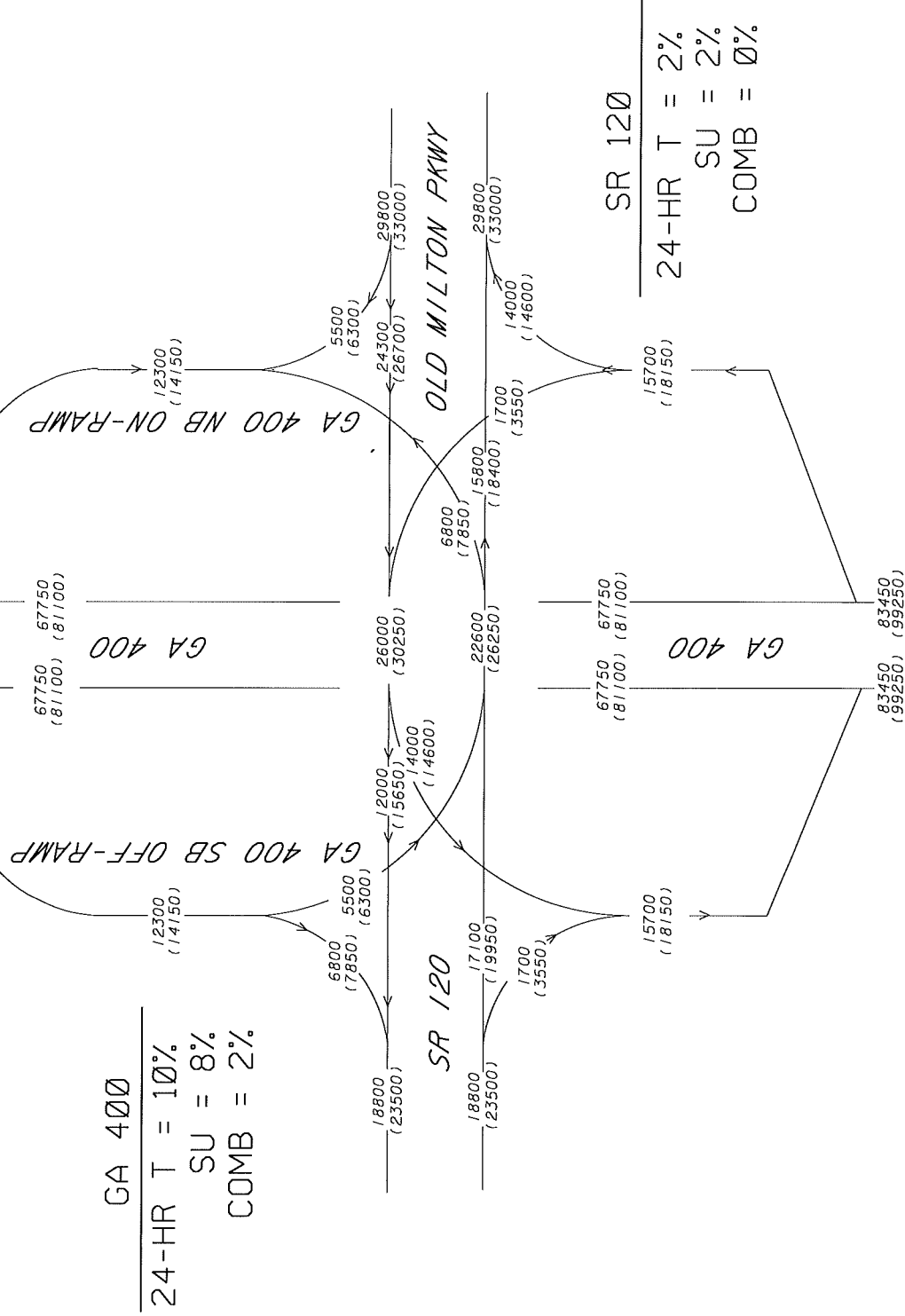
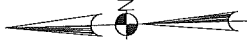
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LEGEND
ØØ 2020 ADT
(ØØ) 2040 ADT

McFARLAND PKWY @ GA 400
2020/2040 NO-BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-43

MATCH LINE
SEE DWG. 10-37

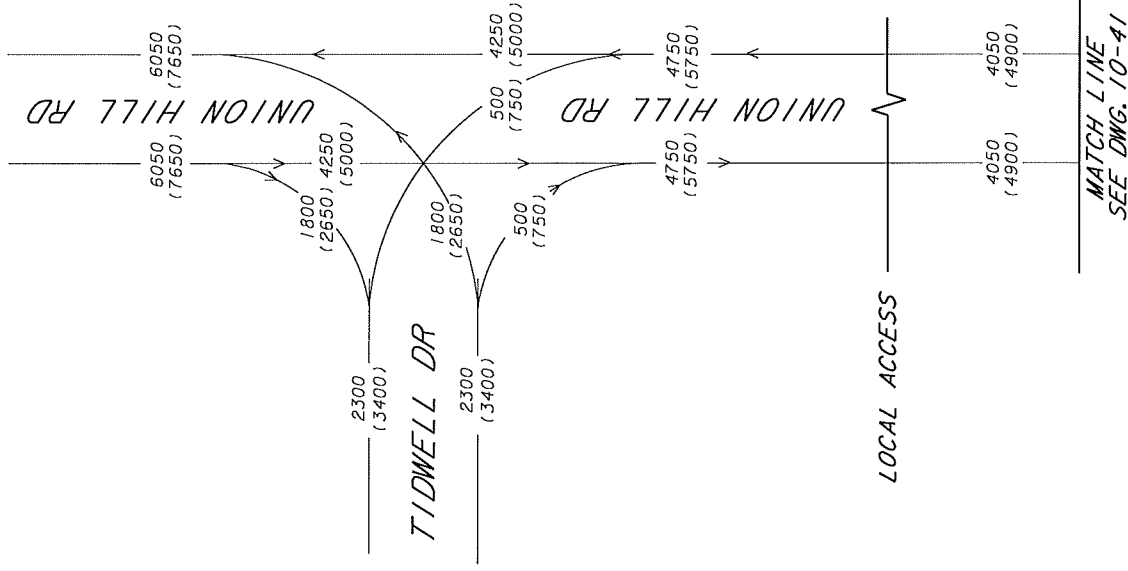


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LEGEND
00 2020 ADT
(00) 2040 ADT

SR 120 @ GA 400
2020/2040 NO-BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-44



UNION HILL RD

24-HR T = 2%

SU = 2%

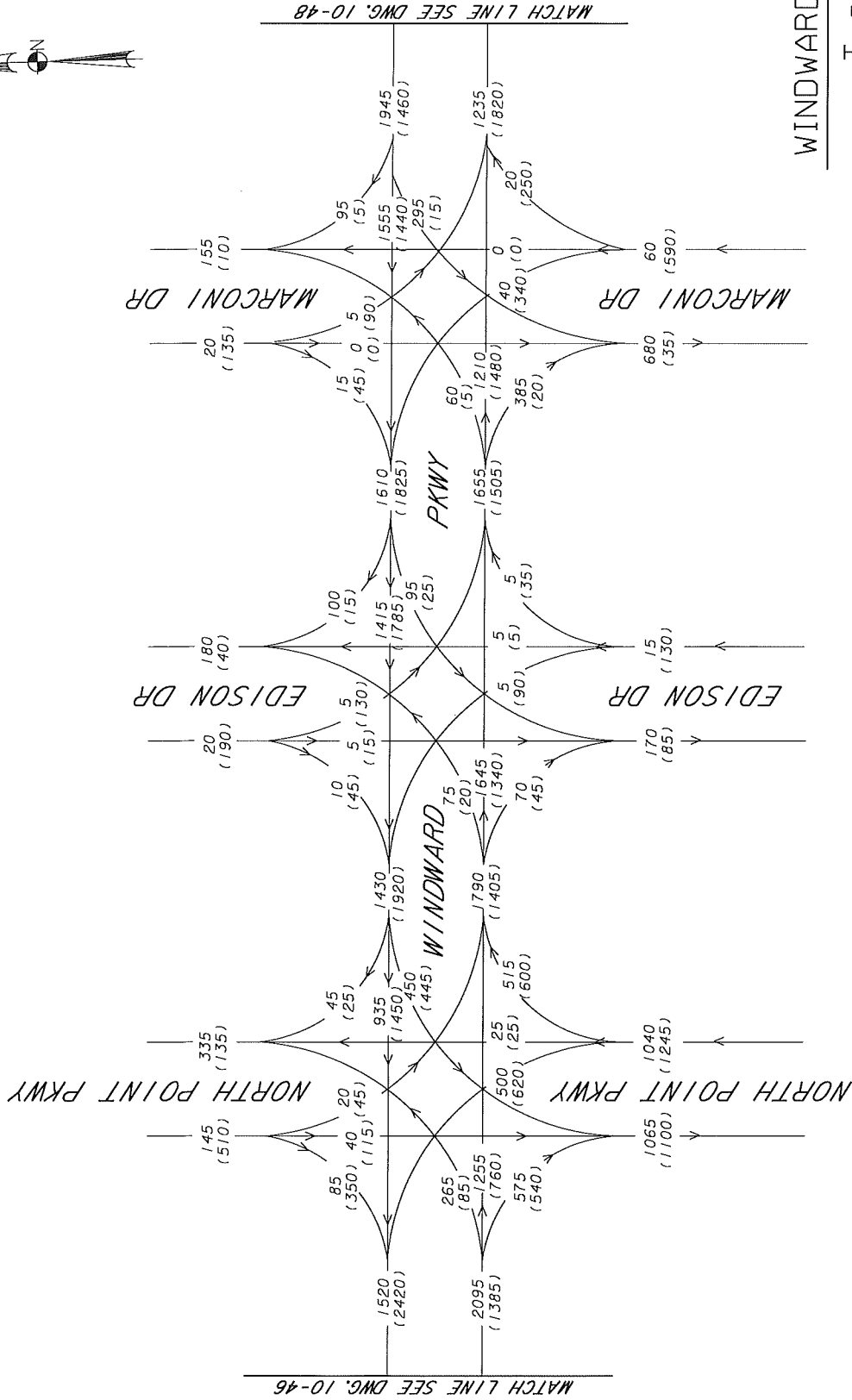
COMB = 0%

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LEGEND
00 2020 ADT
(00) 2040 ADT

UNION HILL RD AT TIDWELL DR
2020/2040 NO-BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-45



WINDWARD PKWY

T = 5%

SU = 4%

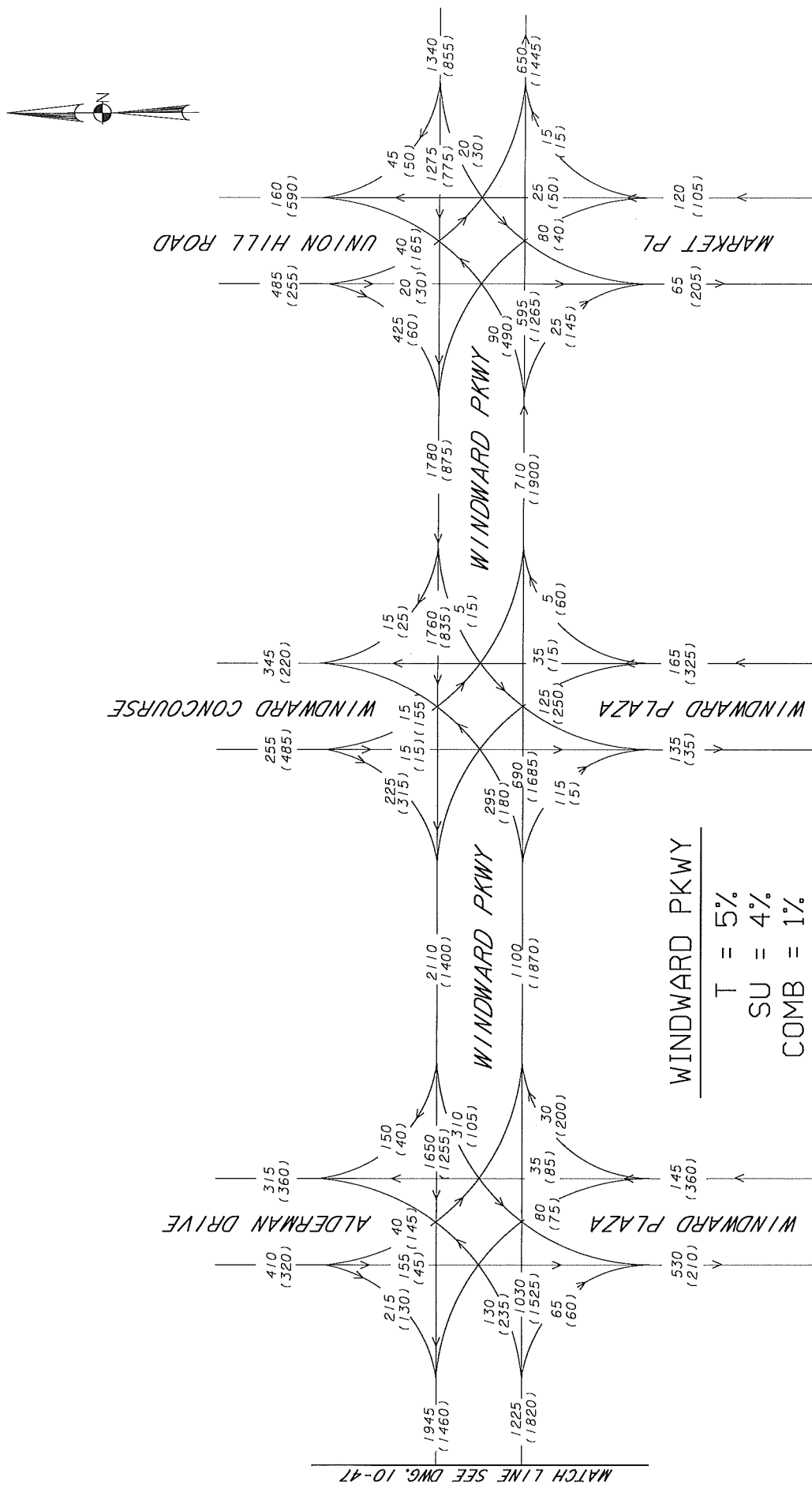
COMB = 1%

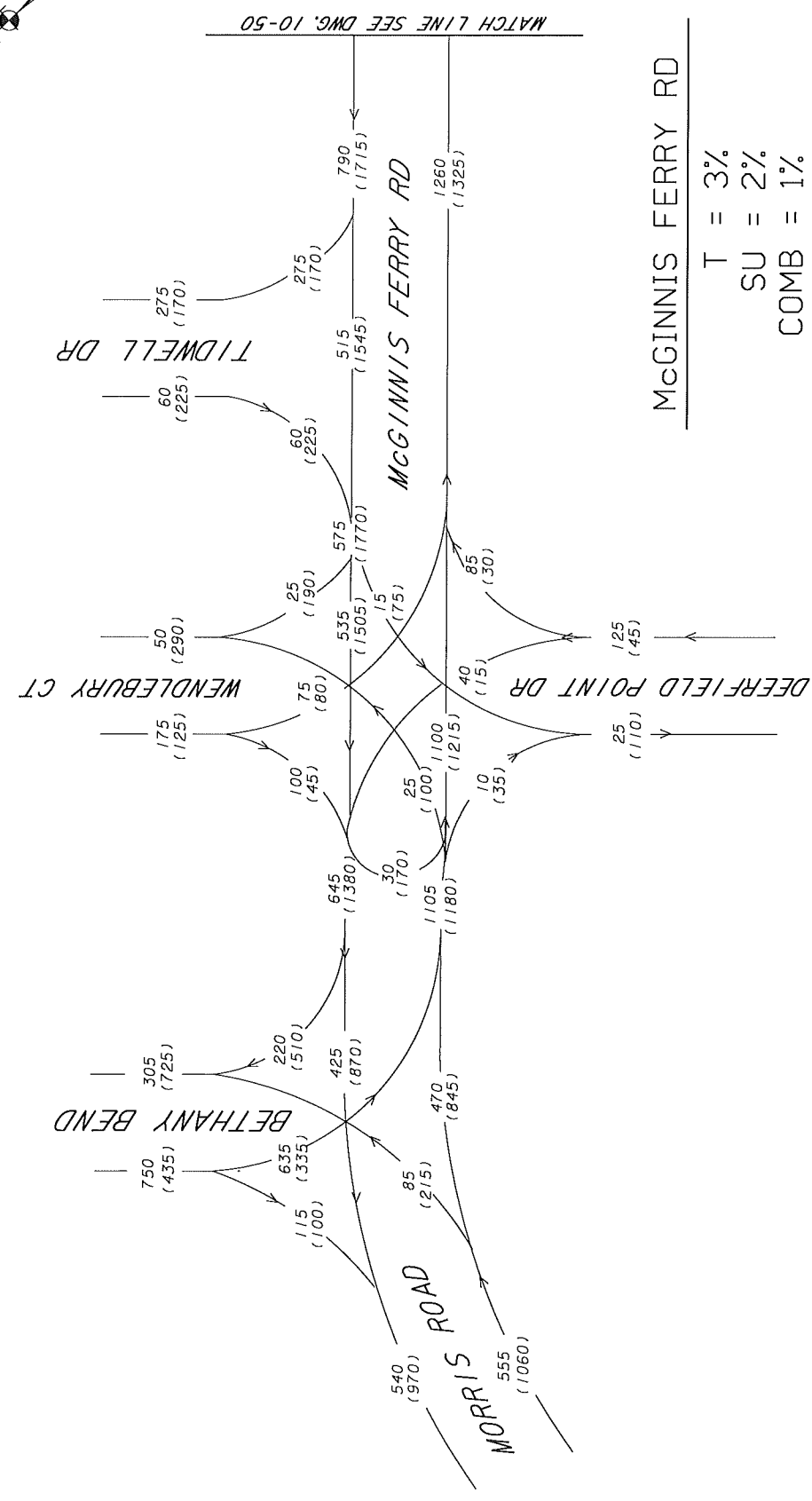
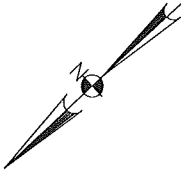
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LEGEND
00 AM PEAK HOUR
(000) PM PEAK HOUR

WINDWARD PKWY @ GA 400
2020 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-47





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LEGEND

00 AM PEAK HOUR

(00) PM PEAK HOUR

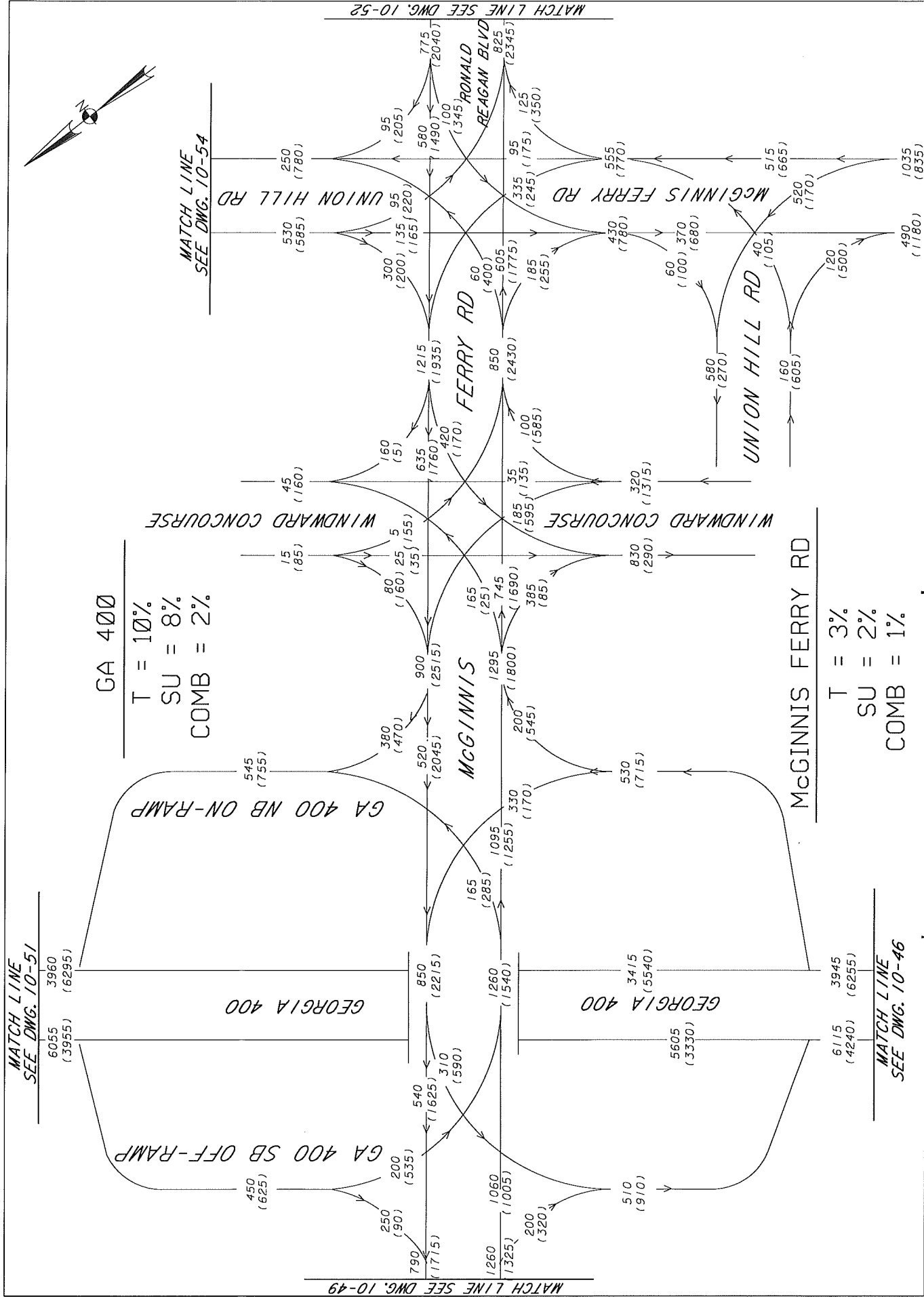
McGINNIS FERRY RD @ GA 400

2020 BUILD PEAK HOUR TRAFFIC

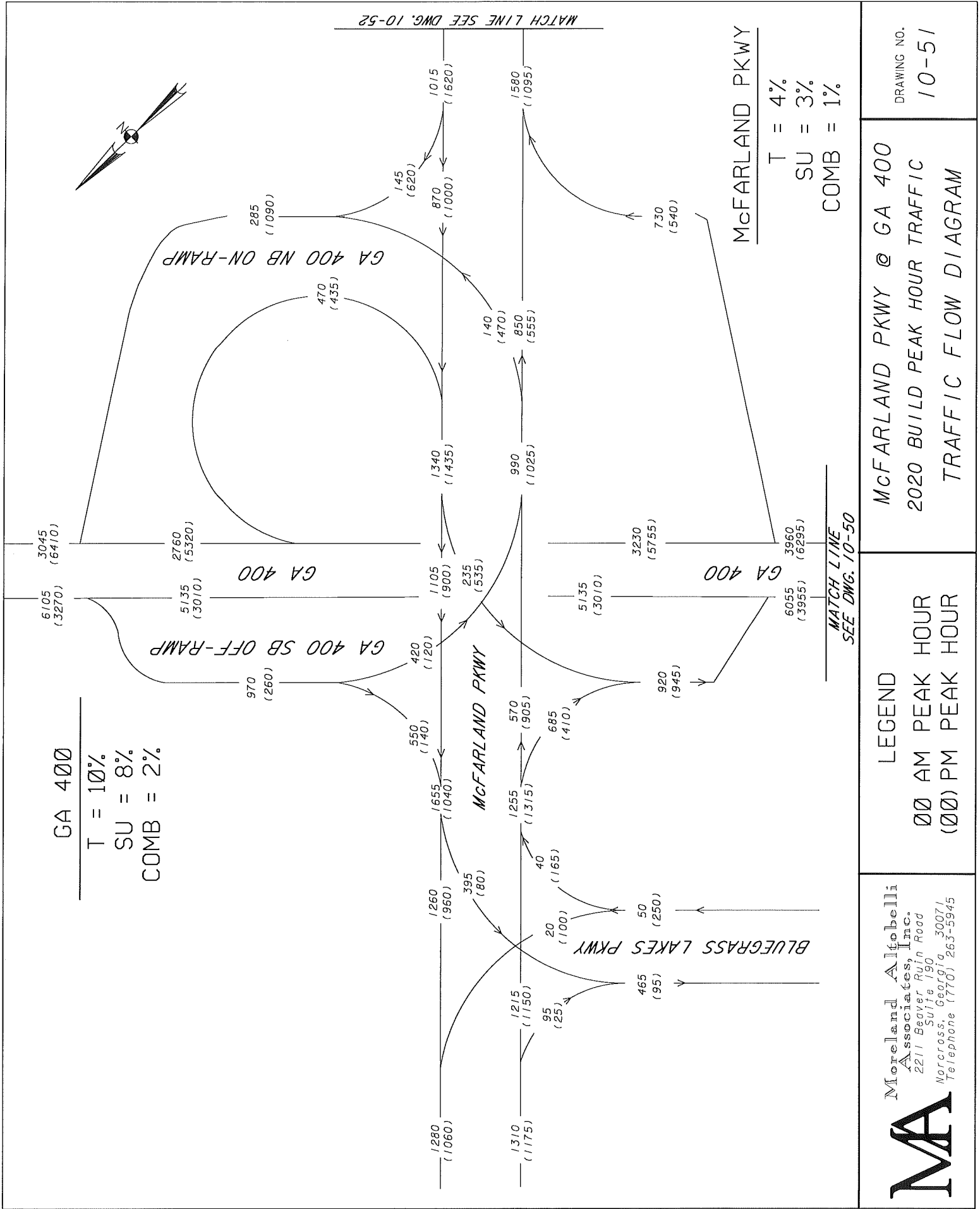
TRAFFIC FLOW DIAGRAM

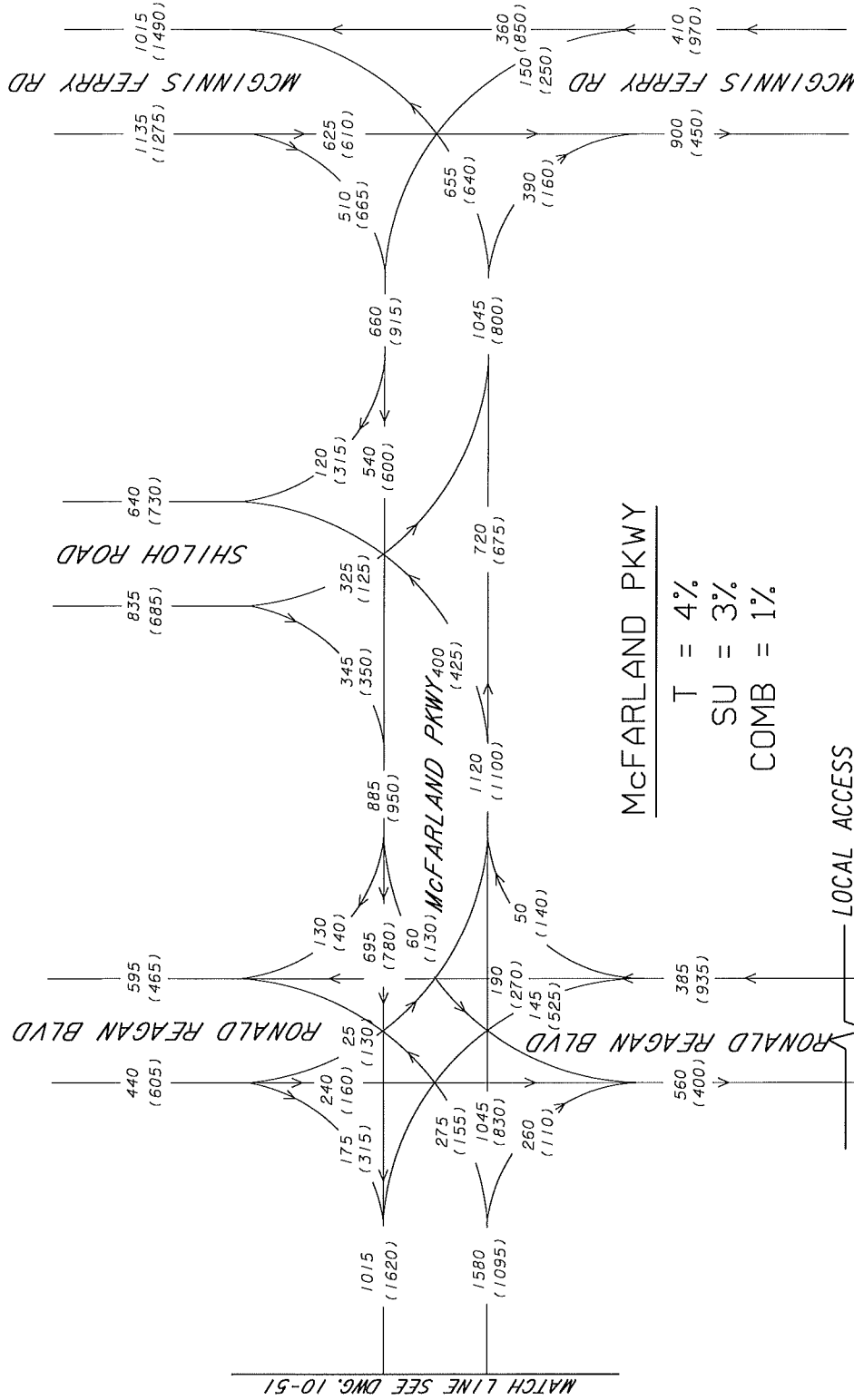
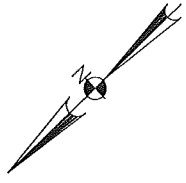
DRAWING NO.

10-49



<p>DRAWING NO. 10-50</p>	<p>McGINNIS FERRY RD @ GA 400 2020 BUILD PEAK HOUR TRAFFIC TRAFFIC FLOW DIAGRAM</p>	<p>LEGEND 00 AM PEAK HOUR (00) PM PEAK HOUR</p>	<p>MA Moreland Altabelli Associates, Inc. 2211 Beaver Run Road Suite 190 Norcross, Georgia 30071 Telephone (770) 263-5945</p>
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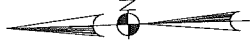
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LEGEND
 ØØ AM PEAK HOUR
 (ØØ) PM PEAK HOUR

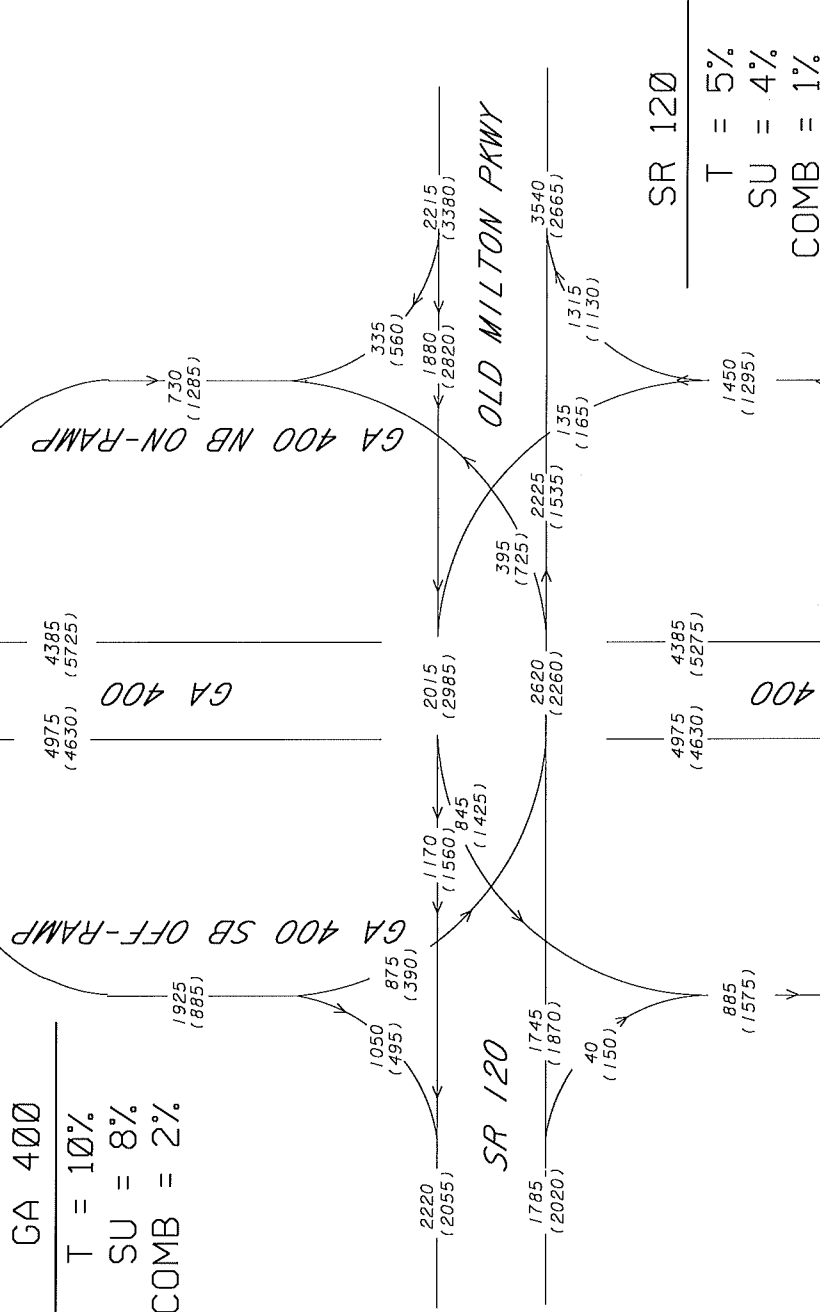
McFARLAND PKWY @ GA 400
2020 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-52

MATCH LINE
SEE DWG. 10-46



GA 400
T = 10%
SU = 8%
COMB = 2%

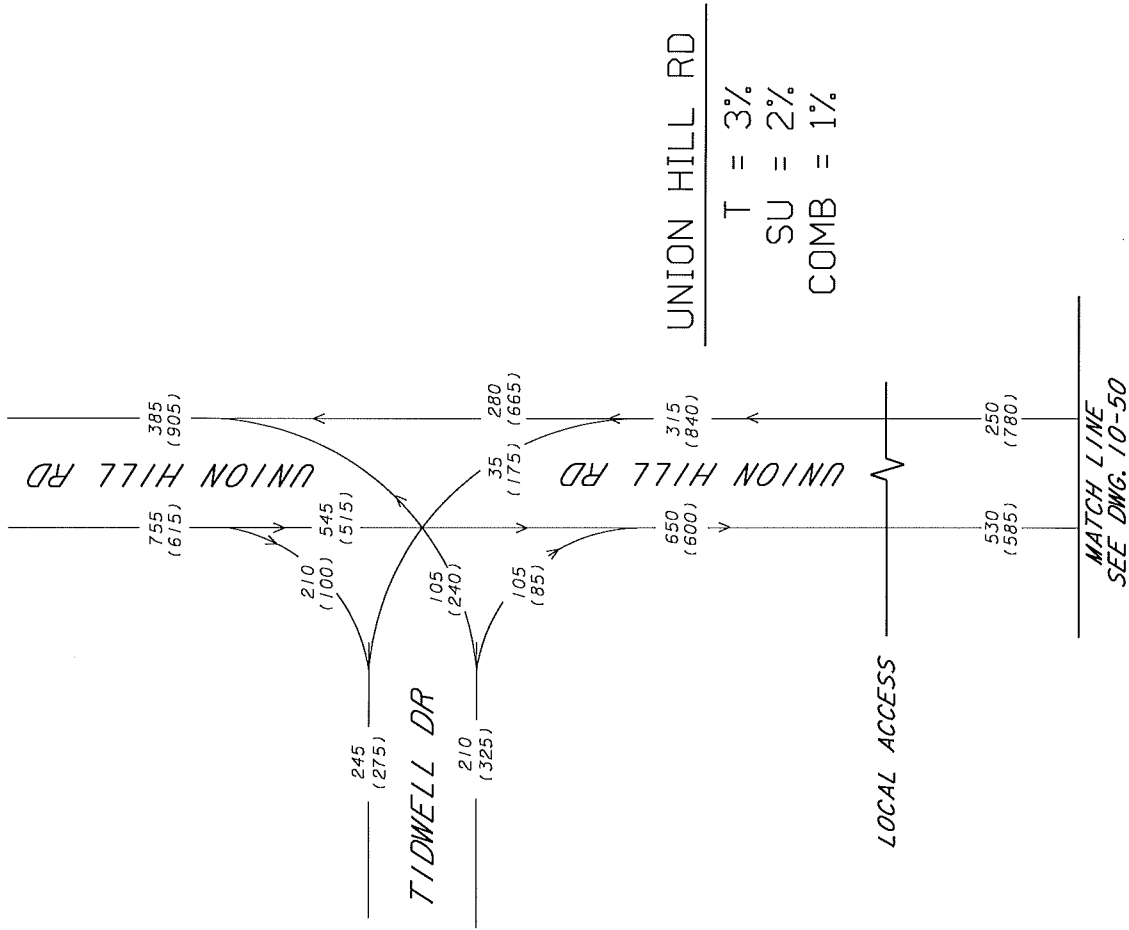
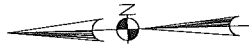


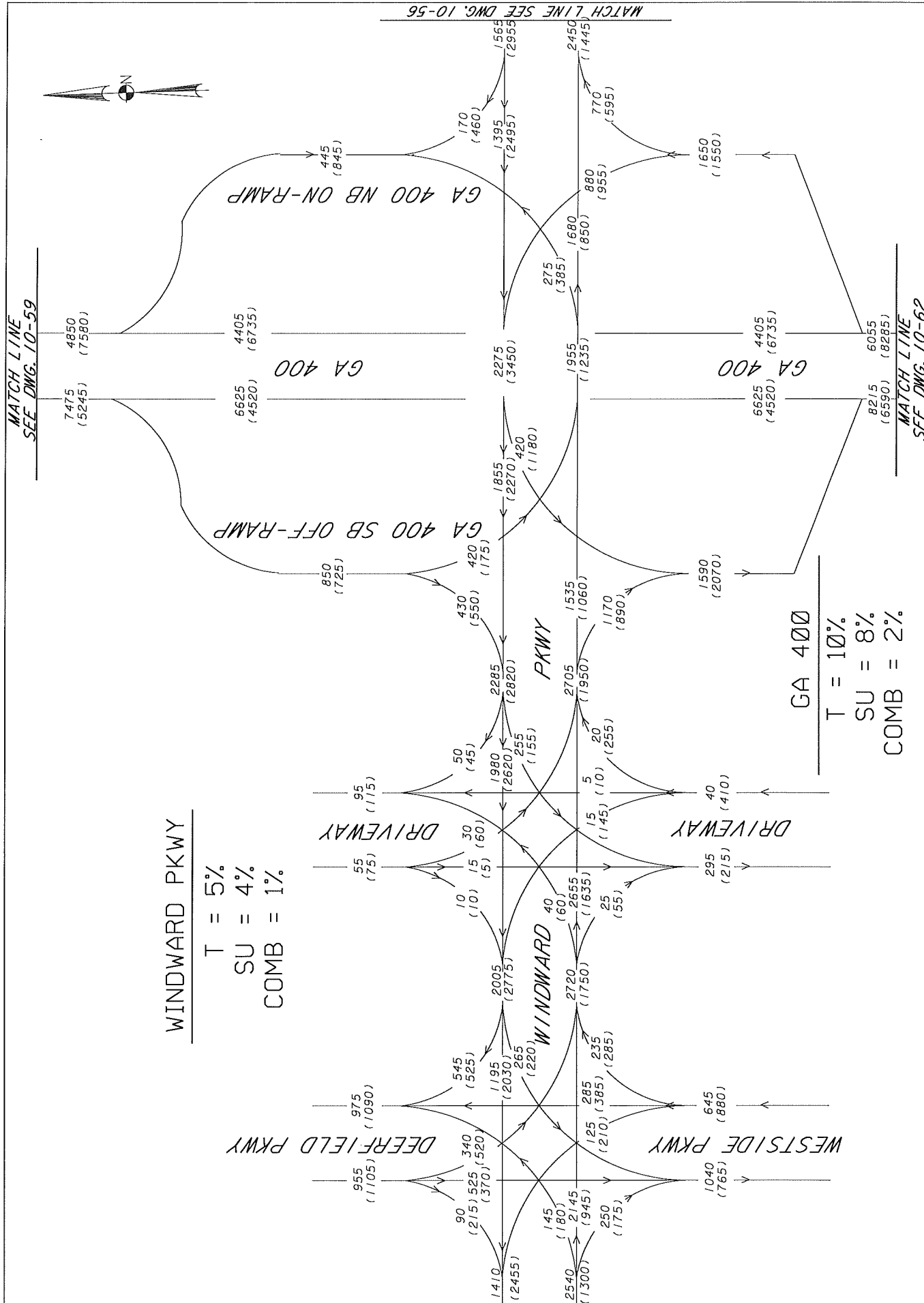
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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

SR 120 @ GA 400
2020 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-53





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LEGEND

00 AM PEAK HOUR
(00) PM PEAK HOUR

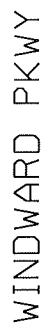
WINDWARD PKWY @ GA 400

2040 BUILD PEAK HOUR TRAFFIC

TRAFFIC FLOW DIAGRAM

DRAWING NO.

10-55


$$5\% = T$$
$$SU = 4\%$$
$$\text{COMB} = 1\%$$

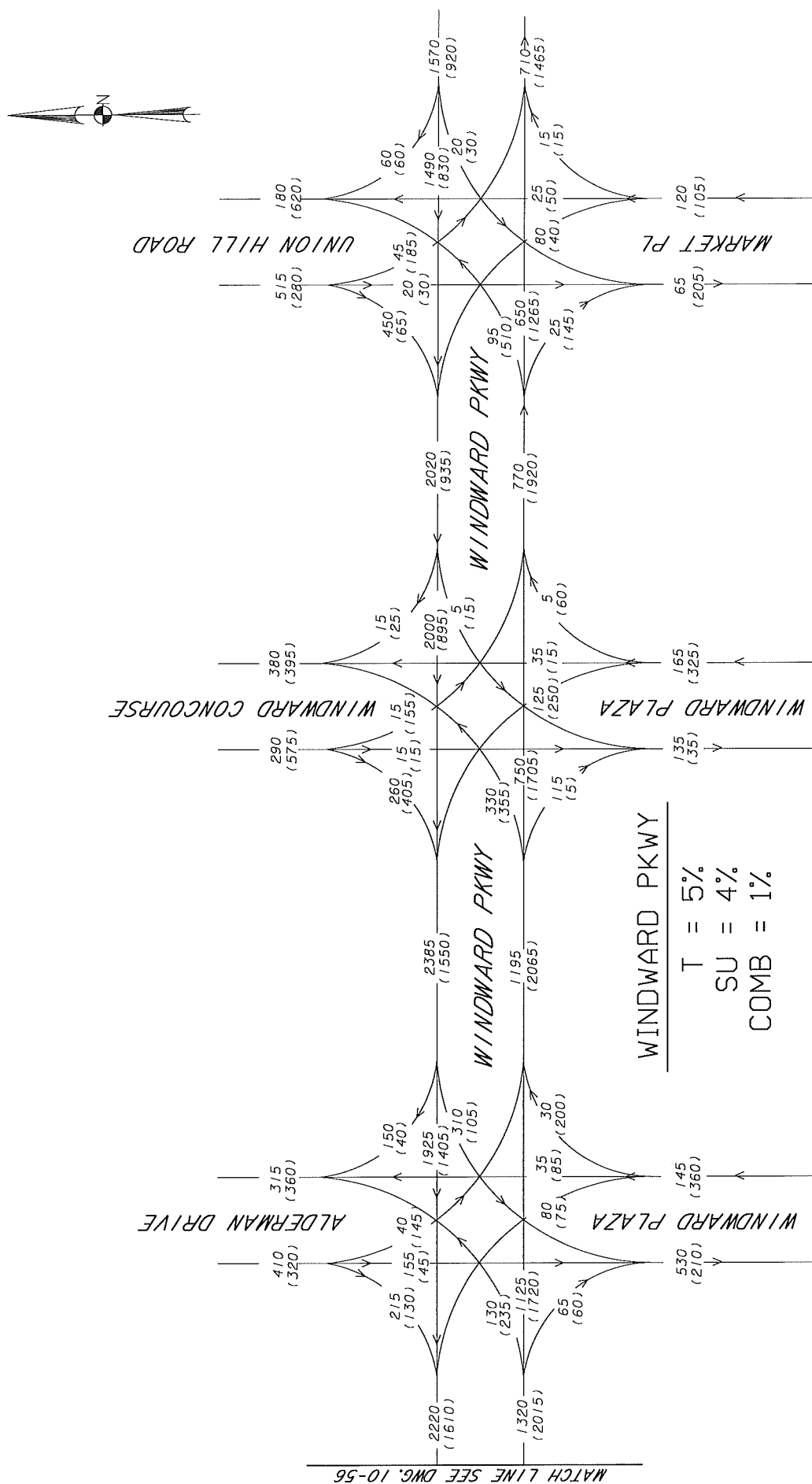
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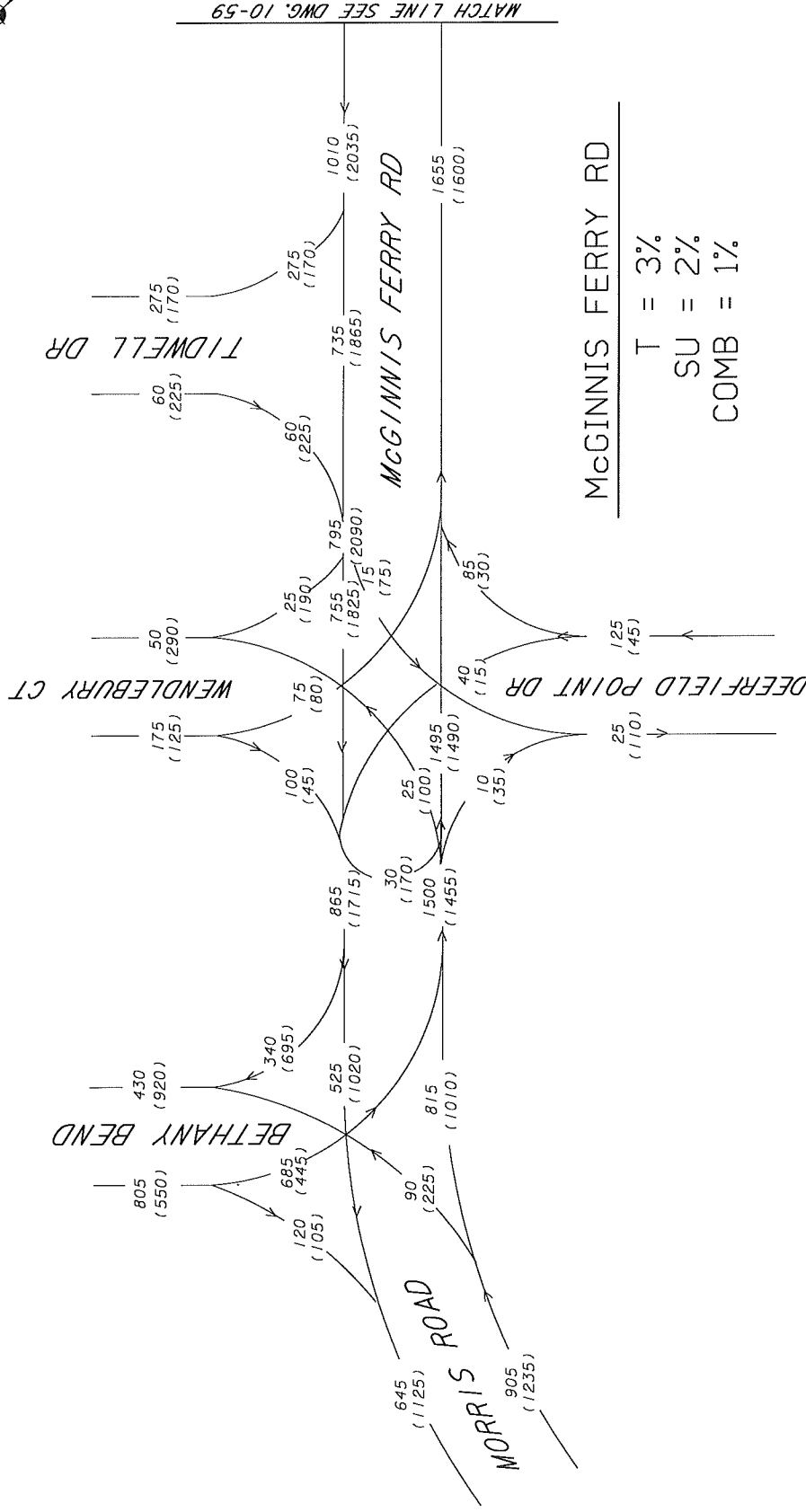
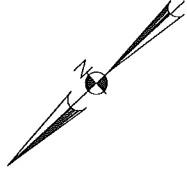
LEGEND

ØØ AM PEAK HOUR
(ØØ) PM PEAK HOUR

WINDWARD PKWY @ GA 400
2040 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-56





McGINNIS FERRY RD

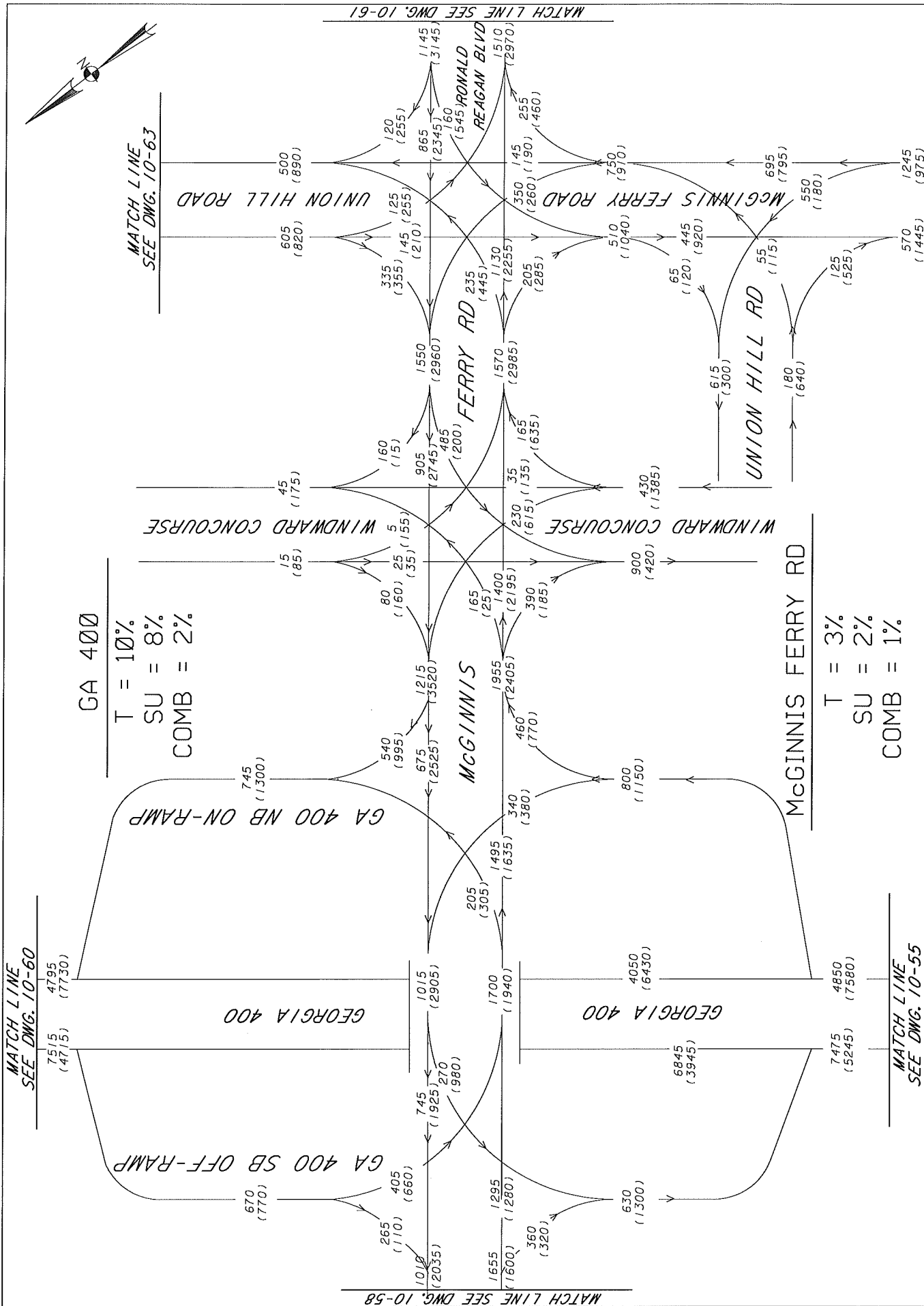
T = 3%
SU = 2%
COMB = 1%

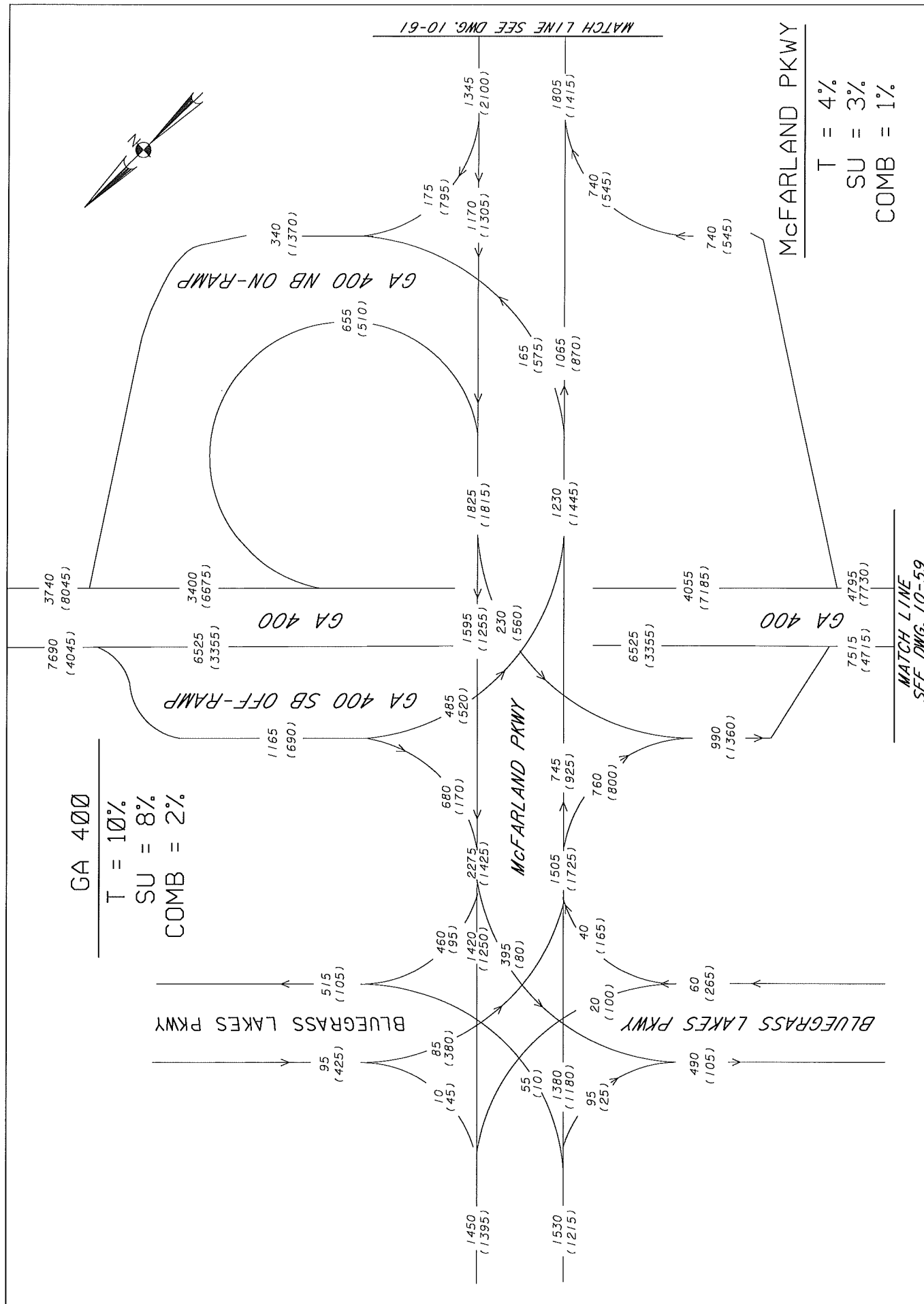
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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

McGINNIS FERRY RD @ GA 400
2040 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-58





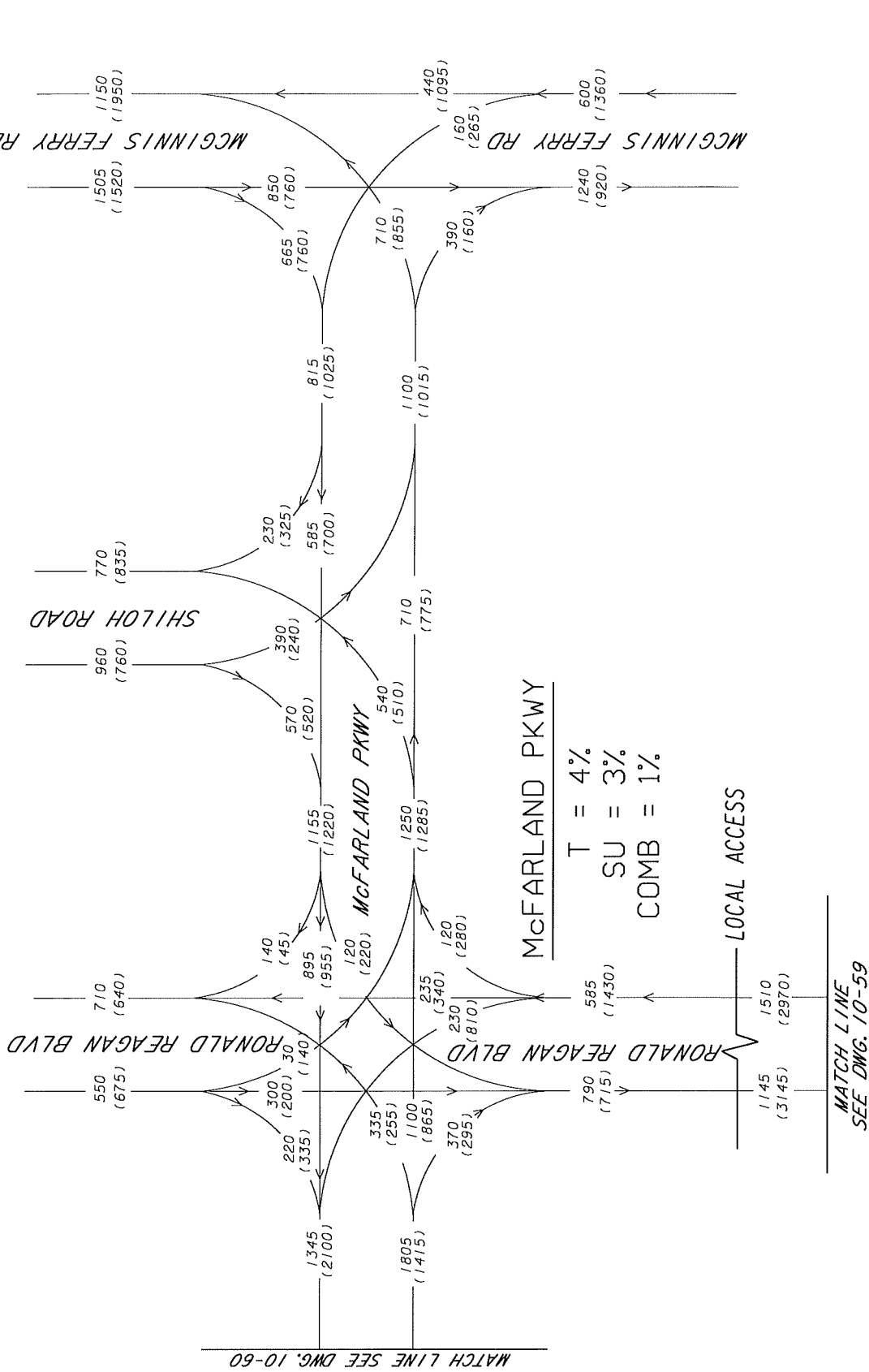
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LEGEND

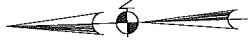
ØØ AM PEAK HOUR
(ØØ) PM PEAK HOUR

McFARLAND PKWY @ GA 400
2040 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

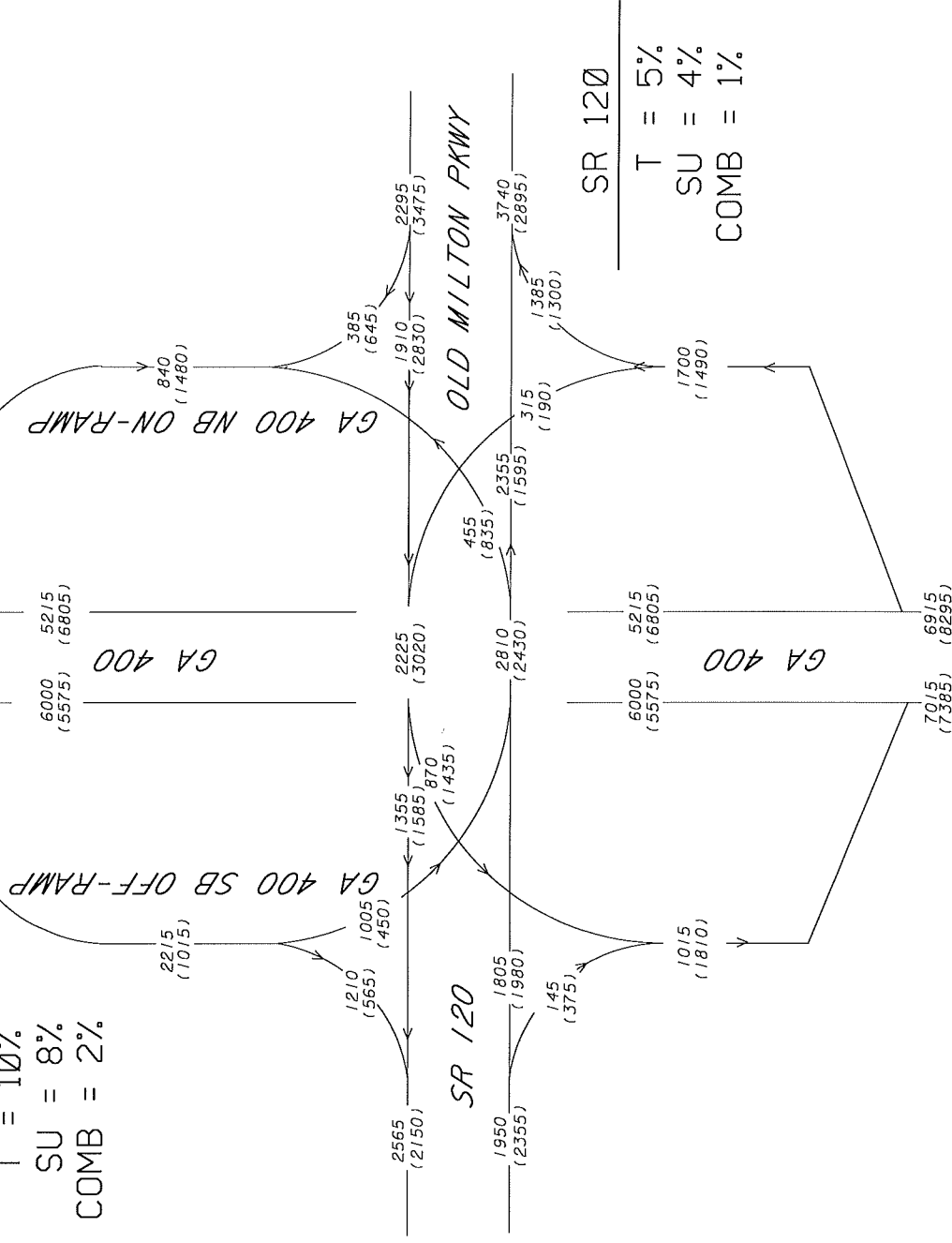
DRAWING NO.
10-60



MATCH LINE
SEE DWG. 10-55



GA 400
T = 10%
SU = 8%
COMB = 2%

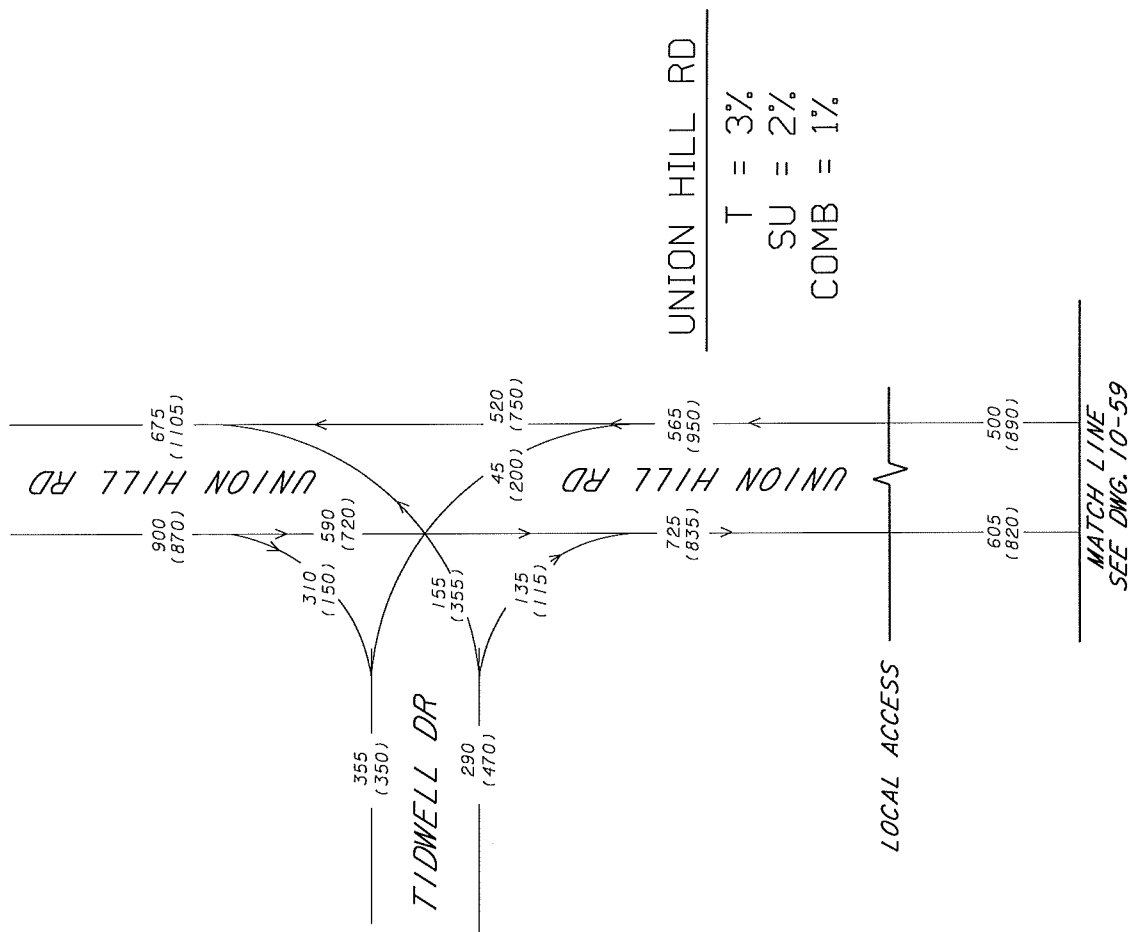


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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

SR 120 @ GA 400
2040 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-62

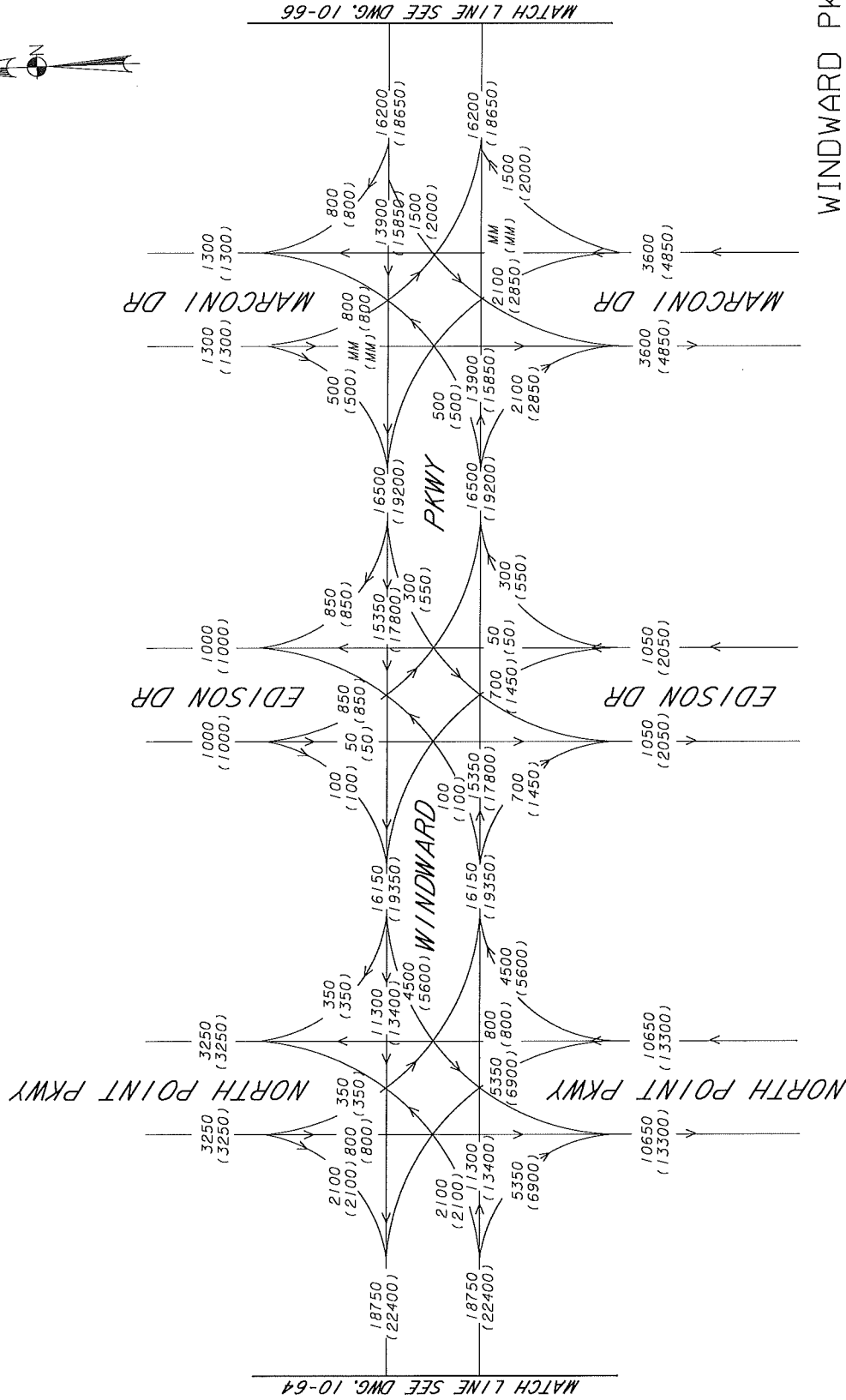
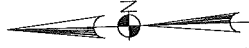


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LEGEND
ØØ AM PEAK HOUR
(ØØ) PM PEAK HOUR

UNION HILL RD AT TIDWELL DR
2040 BUILD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-63



WINDWARD PKWY

24-HR T = 5%

SU = 4%

COMB = 1%

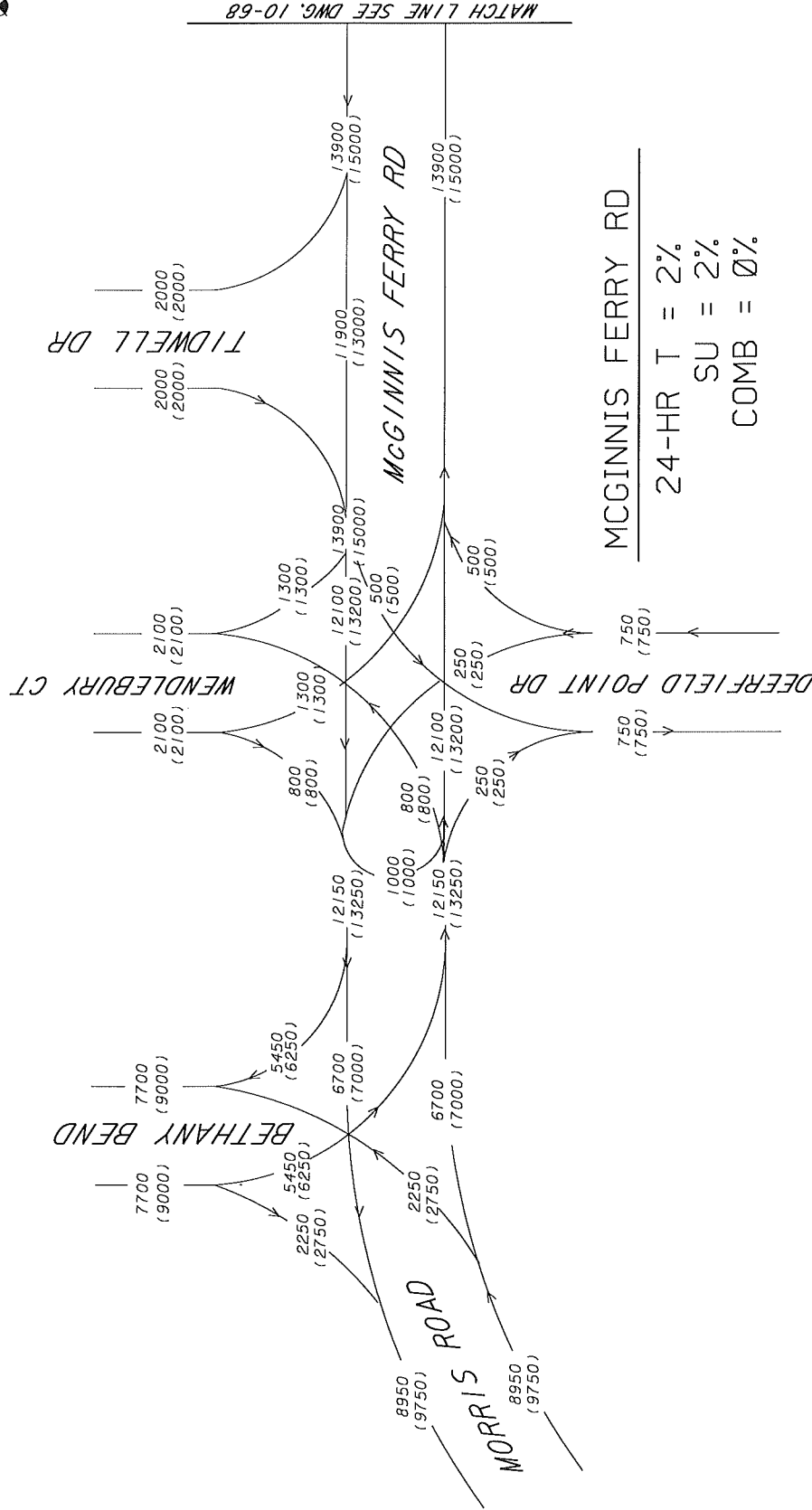
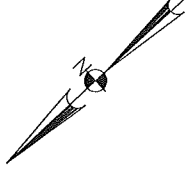
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LEGEND

00 2020 ADT
(00) 2040 ADT

WINDWARD PKWY @ GA 400
2020/2040 BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-65



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LEGEND
00 2020 ADT
(00) 2040 ADT

MCGINNIS FERRY RD @ GA 400
2020/2040 BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-67

MCFARLAND PKWY

24-HR T = 4%
 SU = 3%
 COMB = 1%

BLUEGRASS LAKES PKWY

GA 400 SB OFF-RAMP

GA 400 NB ON-RAMP

MCFARLAND PKWY

GA 400

24-HR T = 10%
 SU = 8%
 COMB = 2%

GA 400

MATCH LINE
 SEE DWG. 10-68

MATCH LINE SEE DWG. 10-70

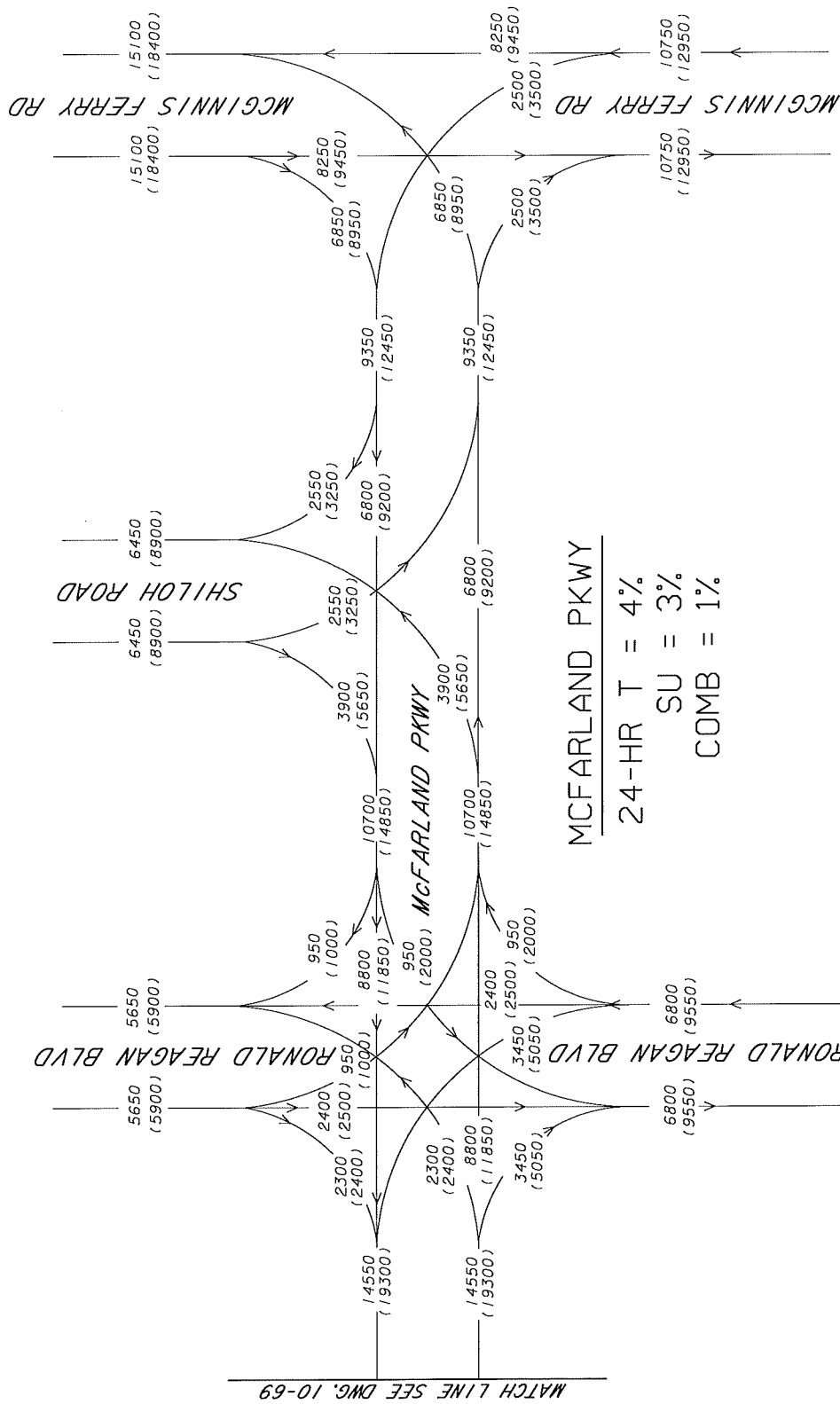
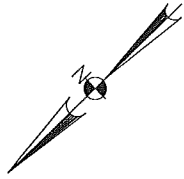
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LEGEND

00 2020 ADT
 (00) 2040 ADT

MCFARLAND PKWY @ GA 400
 2020/2040 BUILD
 AVERAGE DAILY TRAFFIC
 TRAFFIC FLOW DIAGRAM

DRAWING NO.
 10-69



MCFARLAND PKWY

24-HR T = 4%
 SU = 3%
 COMB = 1%

LOCAL ACCESS

MATCH LINE
 SEE DWG. 10-68

MATCH LINE SEE DWG. 10-69

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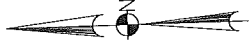
LEGEND

00 2020 ADT
 (00) 2040 ADT

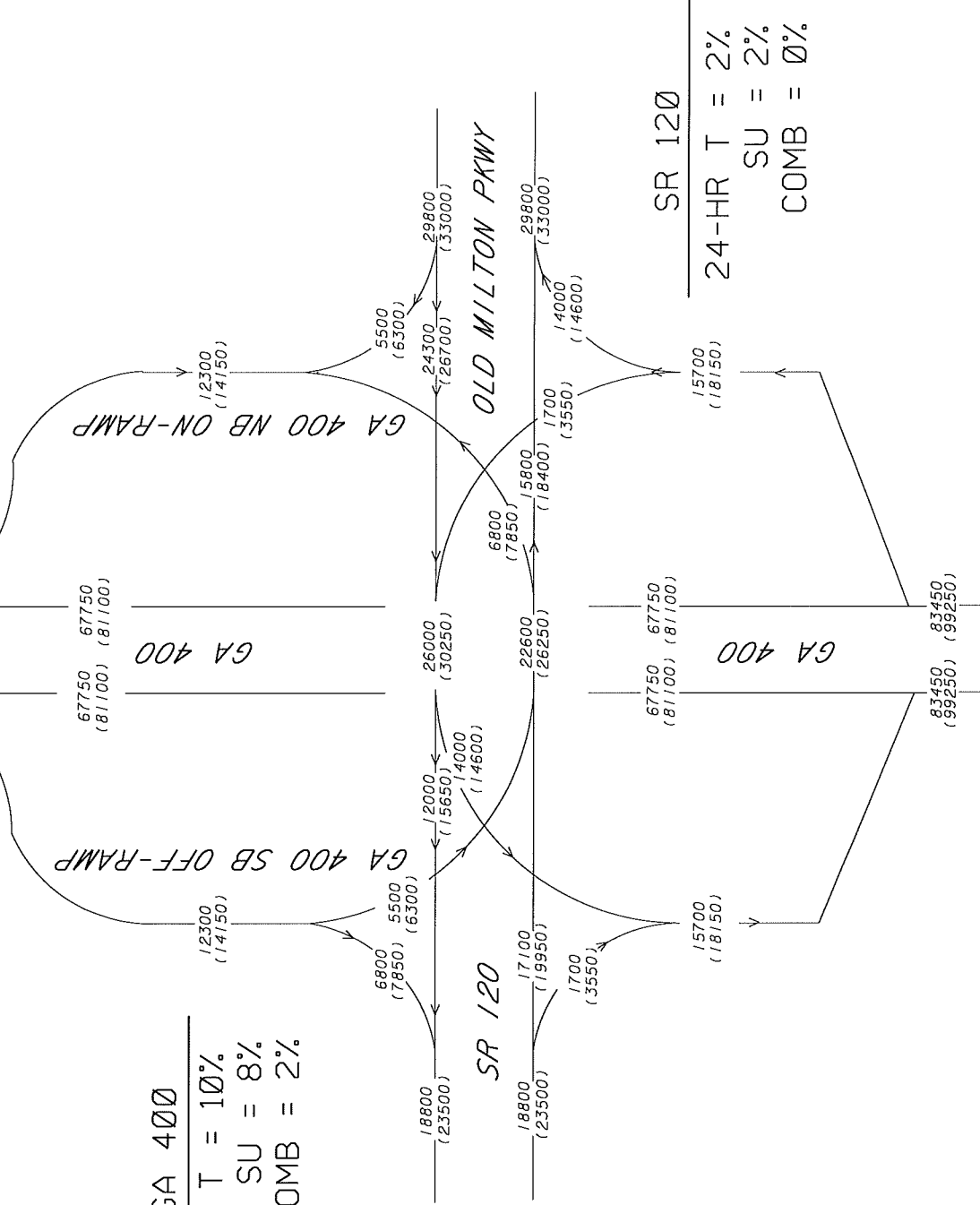
MCFARLAND PKWY @ GA 400
 2020/2040 BUILD
 AVERAGE DAILY TRAFFIC
 TRAFFIC FLOW DIAGRAM

DRAWING NO.
 10-70

MATCH LINE
SEE DWG. 10-64



GA 400
24-HR T = 10%
SU = 8%
COMB = 2%

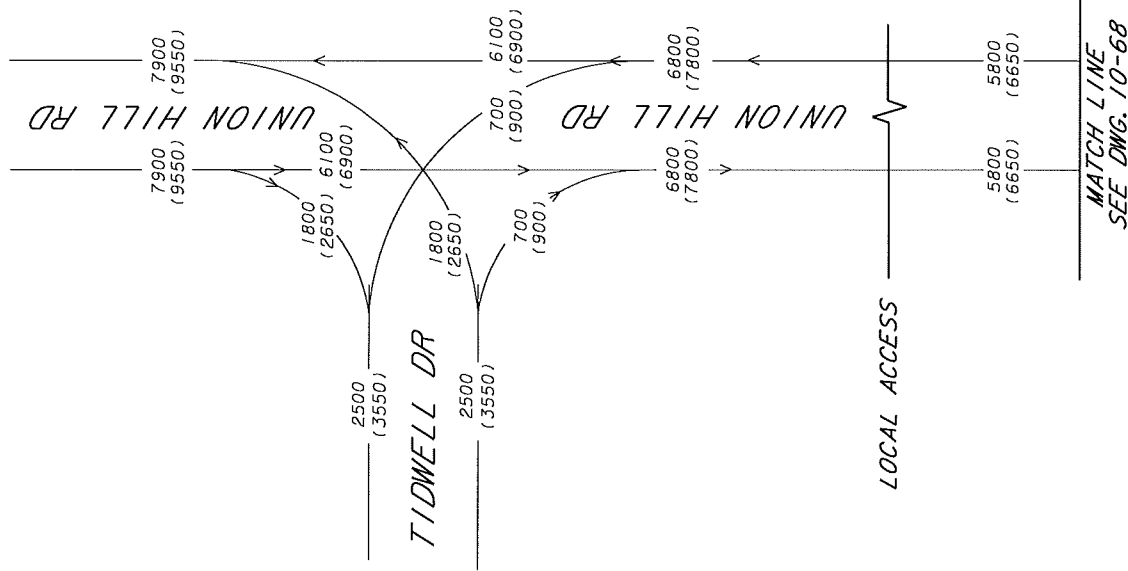
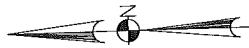


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LEGEND
00 2020 ADT
(00) 2040 ADT

SR 120 @ GA 400
2020/2040 BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-71



UNION HILL RD

24-HR T = 2%
SU = 2%
COMB = 0%

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LEGEND
00 2020 ADT
(00) 2040 ADT

UNION HILL RD AT TIDWELL DR
2020/2040 BUILD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

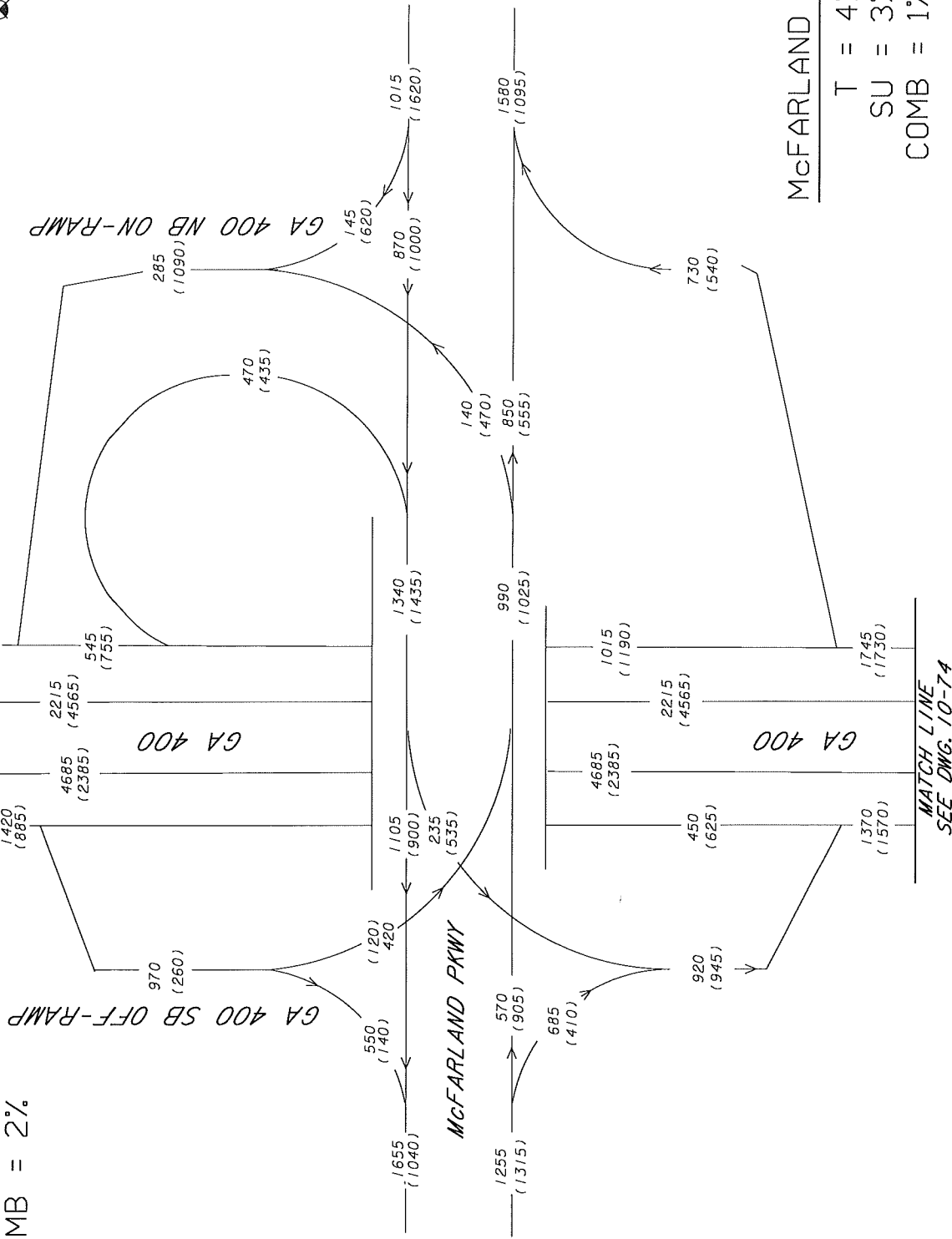
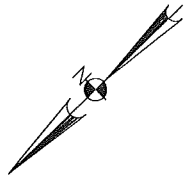
DRAWING NO.
10-72

GA 400

T = 10%

SU = 8%

COMB = 2%



McFARLAND PKWY

T = 4%

SU = 3%

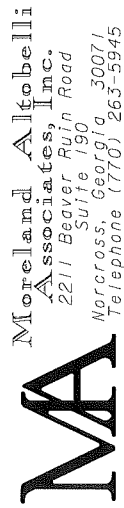
COMB = 1%

MA
Moreland Alkobeili
Associates, Inc.
2211 Beaver Run Road
Suite 190
Norcross, Georgia 30071
Telephone (770) 263-5945

LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

McFARLAND PKWY @ GA 400
2020 BUILD-CD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-73

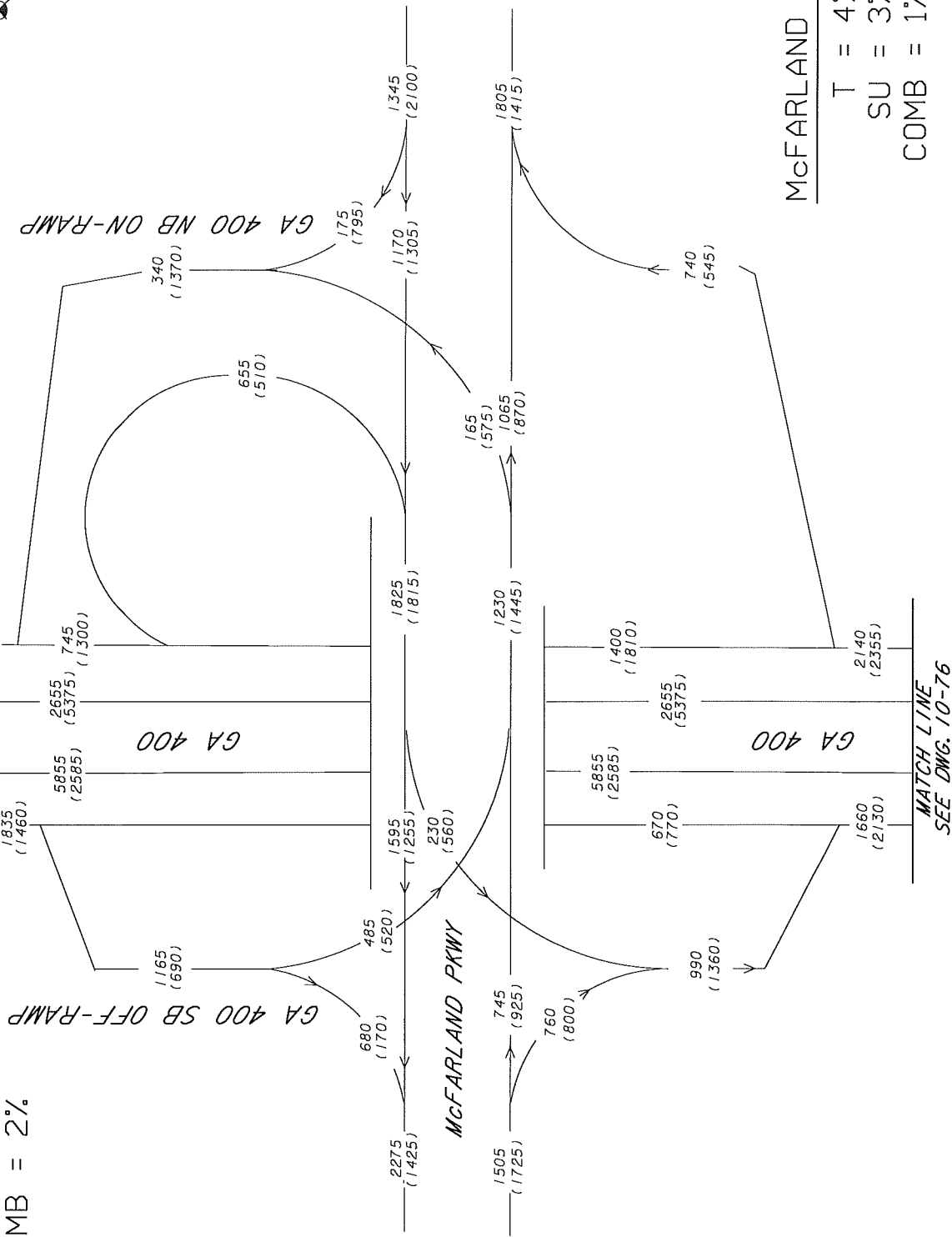
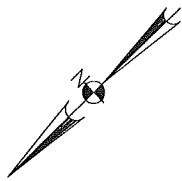


GA 400

T = 10%

SU = 8%

COMB = 2%



McFARLAND PKWY

T = 4%

SU = 3%

COMB = 1%

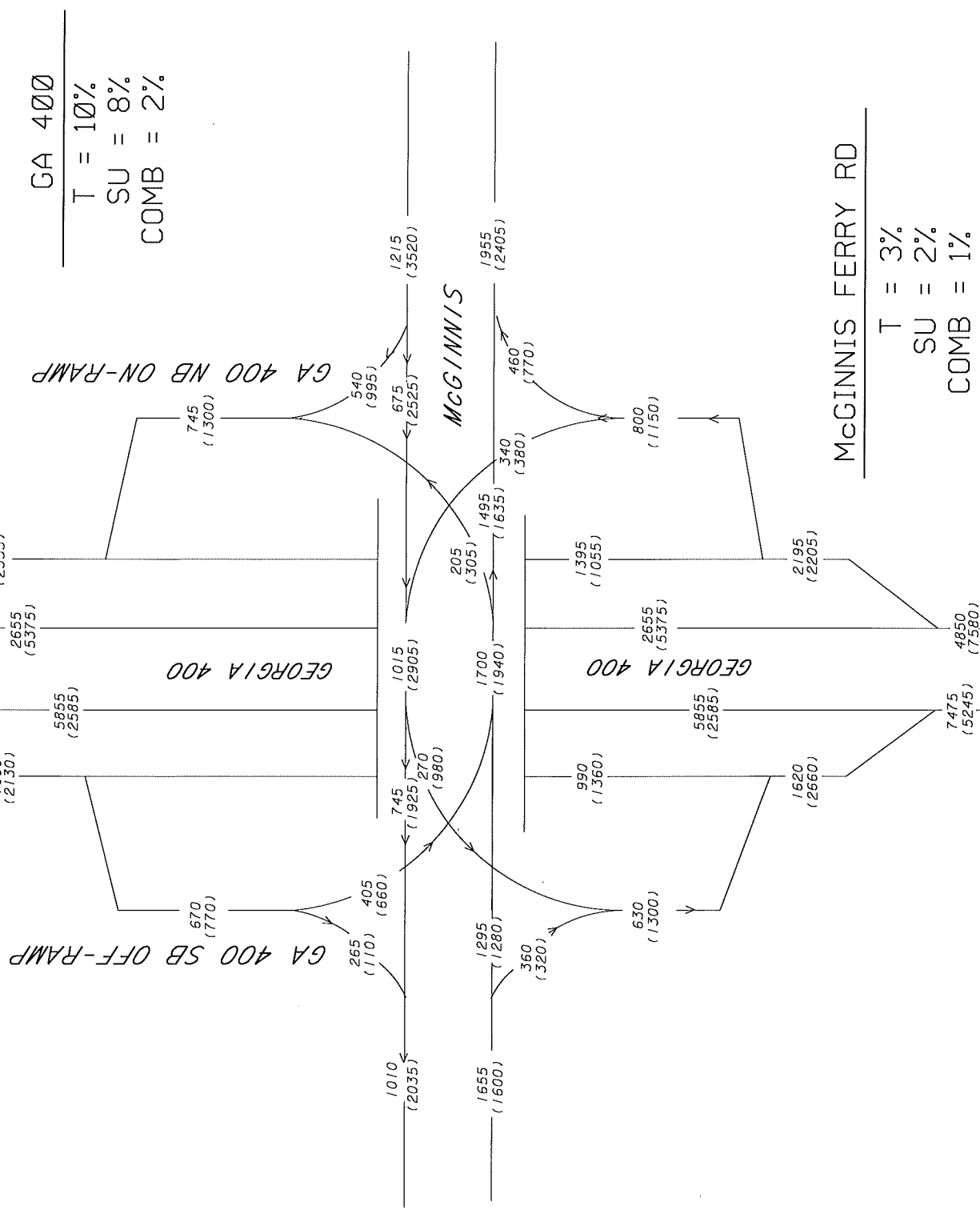
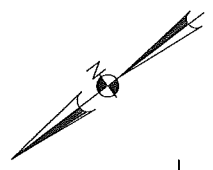
MA
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LEGEND
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(00) PM PEAK HOUR

McFARLAND PKWY @ GA 400
2040 BUILD-CD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-75

MATCH LINE
SEE DWG. 10-75



GA 400
T = 10%
SU = 8%
COMB = 2%

T = 3%
SU = 2%
COMB = 1%

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LEGEND
00 AM PEAK HOUR
(00) PM PEAK HOUR

McGINNIS FERRY RD @ GA 400
2040 BUILD-CD PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

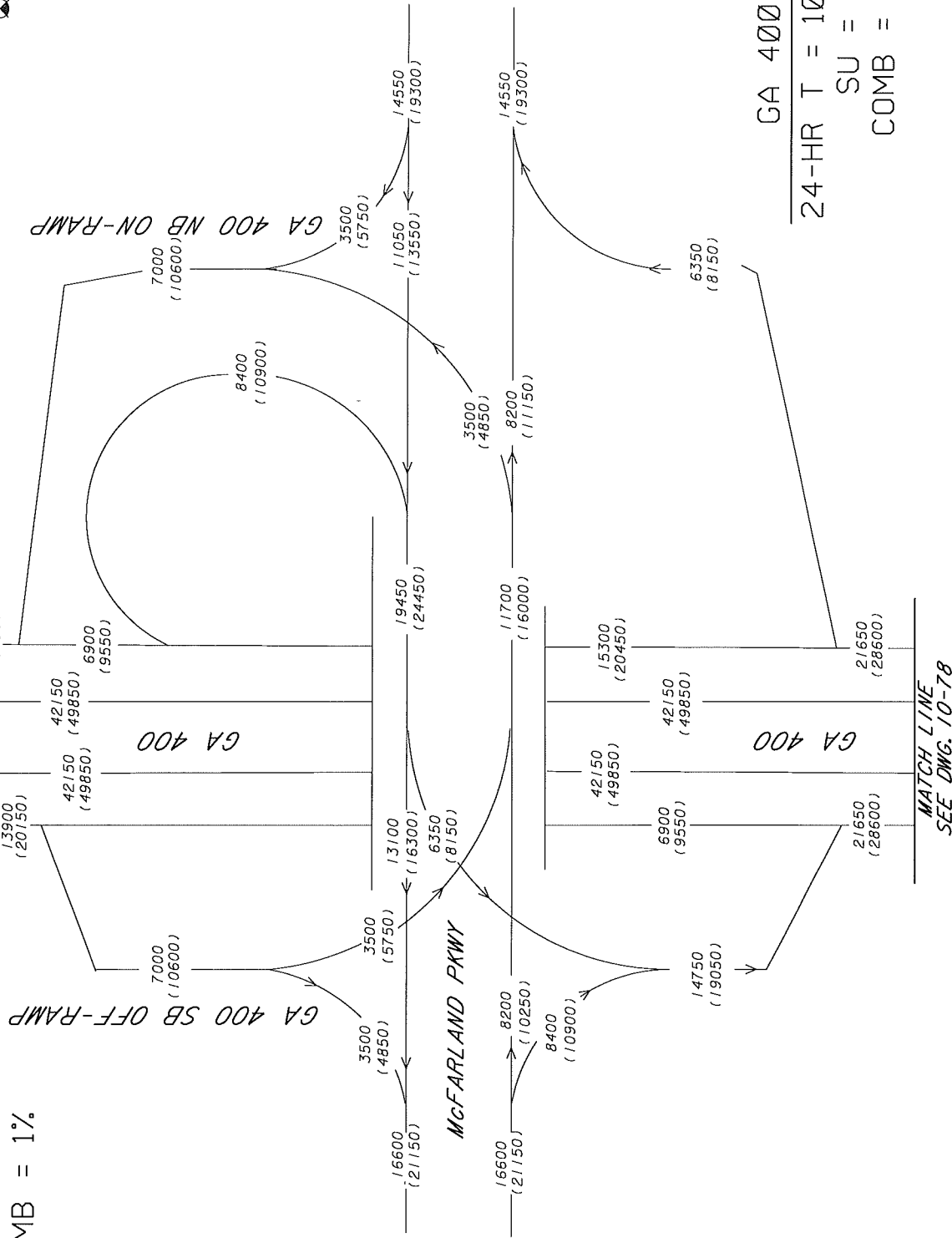
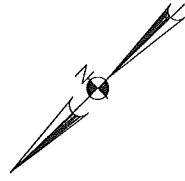
DRAWING NO.
10-76

MCFARLAND PKWY

24-HR T = 4%

SU = 3%

COMB = 1%



GA 400

24-HR T = 10%

SU = 8%

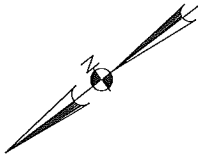
COMB = 2%

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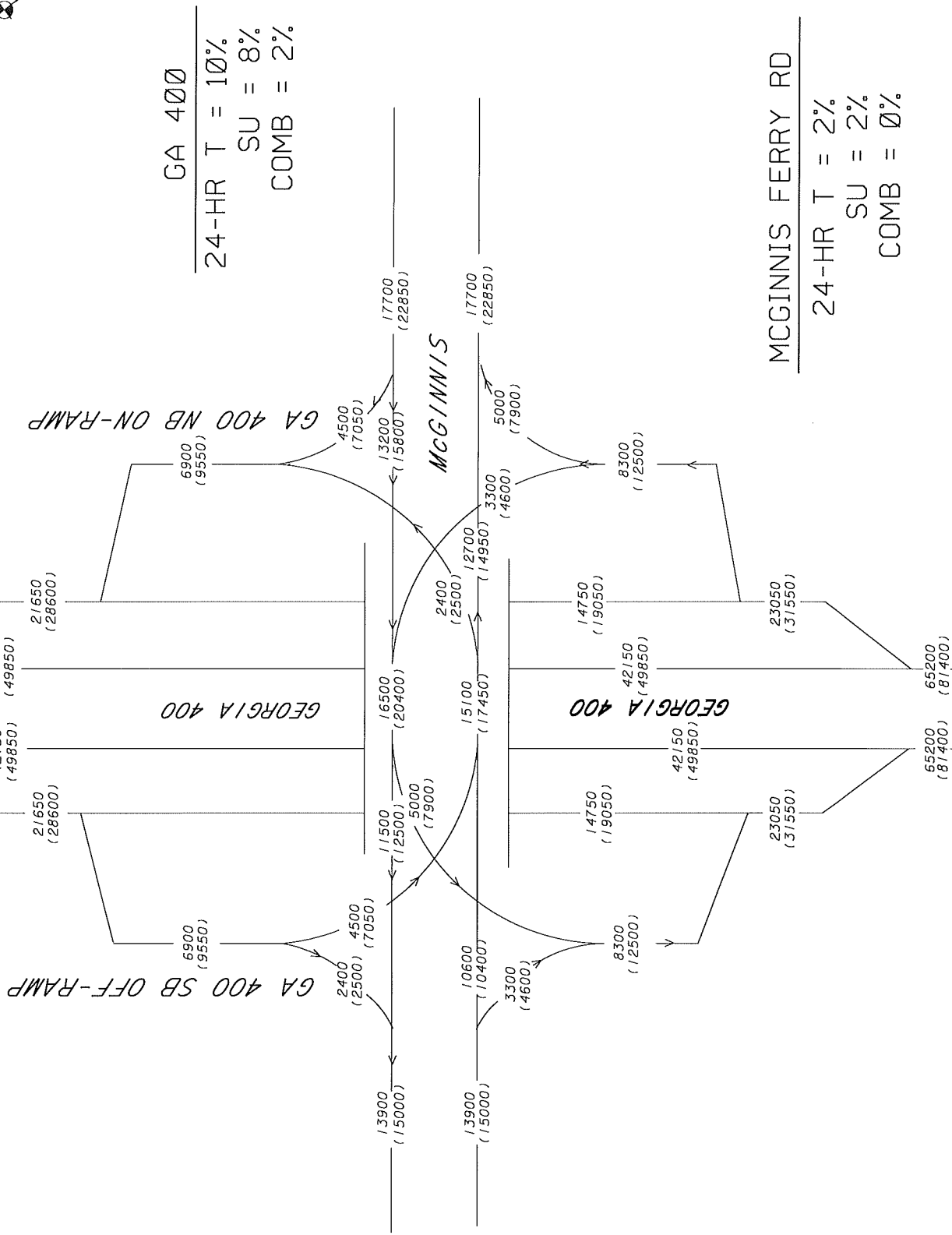
LEGEND
00 2020 ADT
(00) 2040 ADT

MCFARLAND PKWY @ GA 400
2020/2040 BUILD-CD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-77



MATCH LINE
SEE DWG. 10-77



MA
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LEGEND
00 2020 ADT
(00) 2040 ADT

MCGINNIS FERRY RD @ GA 400
2020/2040 BUILD-CD
AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NO.
10-78

APPENDIX C - OTHER SUPPORTING DOCUMENTS

Development Agreement between Forsyth County, Georgia and TRG Forsyth LCC

Fiscal Impact Analysis, Comparison of Premium and Standard Development Options for the Taubman Development in Forsyth County

Article IX, Ronald Reagan/Union Hill Overlay District

DEVELOPMENT AGREEMENT

between

FORSYTH COUNTY, GEORGIA

and

TRG FORSYTH LLC

December 4, 2008

Project: Ronald Reagan/Union Hill Overlay District Development

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DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT (this "Agreement"), dated as the 4th day of December, 2008, is made between **TRG Forsyth LLC**, a Delaware limited liability company ("Taubman") and Forsyth County, Georgia, a public body corporate and politic of the State of Georgia ("Forsyth County"), collectively the ("Parties").

ARTICLE I RECITALS

WHEREAS, Taubman currently owns, or is under contract to purchase, certain property located within an approximately 160-acre tract in Forsyth County, as more particularly described in **Exhibit A** (the "Site"); and

WHEREAS, Taubman intends to develop or cause the development of a regional retail mixed-use development generally in accordance with the Ronald Reagan/Union Hill Overlay District, which development shall integrate mutually supporting retail, office, hotel, residential and recreational components; and

WHEREAS, Taubman intends to develop or cause to be developed within that portion of the Site identified as Sub-Area 1 in the Ronald Reagan/Union Hill Overlay District (the "Overlay") with a Regional Retail Component; and

WHEREAS, the Forsyth County Board of Commissioners (the "Board") finds that the construction of the Regional Retail Component will result in substantial benefits to the welfare of Forsyth County and its inhabitants, and in the public purposes and governmental interests served, including, but not limited to, the real estate tax benefits, the sales tax benefits, the personal property tax benefits, and the employment benefits to the County, both during construction and on an on-going basis; and

WHEREAS, the feasibility of the Regional Retail Component is predicated on Forsyth County performing various public infrastructure systems improvements and providing certain economic incentives, including but not limited to constructing the Road Improvement (with related Utility Improvements) and reducing Taubman's sewer reservation fees, all as more particularly described herein; and

WHEREAS, in order to induce and further facilitate the successful construction of the Regional Retail Component, the Board wishes for Forsyth County to bear the costs associated with such public infrastructure system improvements and economic incentives required for construction of the Project;

AGREEMENT

NOW, THEREFORE, Forsyth County and Taubman, for and in consideration of the mutual promises, covenants, obligations and benefits of this Agreement, hereby agree as follows:

ARTICLE II GENERAL TERMS

Section 2.1 Definitions. Unless the context clearly requires a different meaning, the following terms are used herein with the following meanings:

“Board” means the Board of Commissioners of Forsyth County, Georgia.

“Build-Out Sewer Capacity” means the capacity of sewer service that the Project will require at build-out, which is anticipated to equal approximately 620,000 gallons of sewer service.

“County” means Forsyth County, Georgia, a political subdivision of the State of Georgia.

“Effective Date” means December 4, 2008, the effective date of this Agreement.

“Engineering Costs” means costs paid by Taubman for Engineering Design Services, which amount Taubman and Forsyth County agree is equal to One Million Dollars (\$1,000,000.00) for the purposes of this Agreement.

“Engineering Design Services” means technical consulting services related to the Forsyth County Bid 08-52-3150 Ronald Reagan Boulevard, a copy of the bid specifications for same is incorporated herein by reference, including but not limited to surveying, geotechnical analysis, drainage studies, utility studies, environmental evaluations, construction program planning and management, infrastructure studies, roadway and utility designs and associated construction documents. The Engineering Design Services resulted in creation of the Improvement Plans, as defined in this Agreement.

“Force Majeure” means any event or circumstance which is: (1) beyond the reasonable control of the party whose performance is required by this Agreement, and (2) not due to any act or omission of the party whose performance is required by this Agreement, and (3) orders or restraints of any kind of the governments of the United States or of the State of Georgia or any of their departments, agencies, officials, or authorities, and (4) caused by fire, earthquake, flood, explosion, war, acts of public enemies, invasion, mob violence, sabotage, lockouts, litigation, condemnation, riots or other civil disorder, national or local emergency, acts of God, unusual and unanticipated delays in transportation, unusual and unanticipated delays in obtaining lawful permits or consents to which the party is legally entitled, strike or labor dispute, severe unanticipated weather conditions (beyond normal occurrences) , or unanticipated unavailability of manufactured materials. Inability to fund a party’s obligations shall not be deemed to be within the definition of Force Majeure.

“Forsyth County” means Forsyth County, Georgia, a political subdivision of the State of Georgia.

“Gross Leasable Area” means the floor area of retail facilities as calculated in accordance with Section 21-9.8(M) of the Overlay. Impact fees shall be calculated pursuant to the Forsyth County Impact Fee Ordinance in place on the Effective Date. Forsyth County’s accommodation

with respect to Impact Fees is based upon Taubman's agreement to pay those amounts identified in Section 4.3(C) of this Agreement.

"Improvement Construction" means construction activities contemplated and controlled by Forsyth County Bid 08-52-3150 Ronald Reagan Boulevard, including change orders, revisions and addenda thereto including but not limited to the acquisition of easements for, and the construction of, the Jolly and Tharaldson sewer improvements as set forth in Exhibit C of the Temporary Easement Agreement.

"Improvement Plans" means those plans and specifications by PBS&J titled "Plan and Profile of Proposed Ronald Reagan Boulevard" and dated March 21, 2008, which plans have been reviewed and approved by Forsyth County and are incorporated herein by reference, for construction of the Improvement Construction.

"Latest Opening Date" means December 1, 2015.

"Law" means any local, state or federal legal requirement, including any statute, law, ordinance, rule, order, code or regulation, now or hereafter in effect.

"Loss" means any and all direct or indirect damages, demands, claims, payments, obligations, actions or causes of action, assessments, losses, liabilities, costs and expenses, including without limitation, penalties, interest on any amount payable to a third party, lost income and profits, and any legal or other expenses (including, without limitation, reasonable attorneys' fees and expenses) reasonably incurred in connection with investigating or defending any claims or actions, whether or not resulting in any liability.

"Mall Permit Application" means an application submitted to Forsyth County for a development permit for the Regional Retail Component, as that term is defined herein.

"Overlay" means the Ronald Reagan/Union Hill Overlay District, as adopted by the Board on April 3, 2008.

"Project" means the regional mixed-use development generally as depicted in the master plan attached to the Overlay.

"Project Right-of-Way" means Right-of-Way located on the Site owned by Taubman as of the date of this Agreement for the portion of the Improvement Construction associated with the physical extension of Ronald Reagan Boulevard between McFarland Parkway and its intersection with Georgia State Route 400, and the intersection of Union Hill Road and McGinnis Ferry Road in accordance with the Improvement Plans.

"Project Right-of-Way Costs" means the costs of purchasing Project Right-of-Way, fill dirt, temporary construction easements and permanent easements for the Project Road Improvement, which amount Taubman and Forsyth County agree is equal to Two Million Five Hundred Seventy Five Thousand Dollars (\$2,575,000.00).

"Project Road Improvement" means the portion of the Improvement Construction to be constructed on the Project Right-of-Way.

“Recreational Area” means an area of the Site that consists of approximately 22 acres of wetland; stream, floodplain and green space, as more particularly described in **Exhibit B**.

“Regional Retail Component” means a retail shopping center consisting of not less than 650,000 square feet of Gross Leasable Area including at least two anchor stores of comparable type and quality to Bloomingdales’, Nordstrom, Macy’s, Dillard’s, Neiman Marcus, or Saks Fifth Avenue. For the purposes of this Agreement, the Regional Retail Component shall be designed and constructed substantially in accordance with the Overlay.

“Right-of-Way” means an area of land acquired, or to be acquired, by Forsyth County to be improved with roads, sidewalks, landscaping, signage, utilities and other similar uses to be utilized by the public.

“Roadway Plans” means plans for the initial landscaping, street lighting, decorative landscaping, landscape irrigation systems and signage within the Right-of-Way for the Improvement Construction.

“Site” means the real property on which the Project will be located, as more particularly described in **Exhibit A** and as contemplated under the Overlay.

“SPLOST VI” means the Special Purpose Local Option Sales Tax that was approved by Forsyth County voters on February 5, 2008, and for which collections commenced July 1, 2008.

“Sub-Area 3 Multi-Family” means a multi-family residential development within Sub-Area 3 of the Overlay consisting of not more than 375 residential units.

“Temporary Easement Agreement” means the temporary easement agreement executed by TRG Forsyth LLC and Forsyth County, dated August 29, 2008, which has been recorded in book 5228, pages 121 – 136 of Forsyth County’s records.

“UDC” means the Unified Development Code of Forsyth County, Georgia.

Section 2.2 Singular and Plural. Words used herein in the singular, where the context so permits, also include the plural and vice versa. The definitions of words in the singular herein also apply to such words when used in the plural where the context so permits and vice versa.

ARTICLE III REPRESENTATIONS AND WARRANTIES

Section 3.1 Representations and Warranties of Taubman. Taubman hereby represents and warrants to Forsyth County that:

(A) Taubman has the requisite power and authority to execute and deliver this Agreement, to incur and perform its obligations hereunder, and to carry out the transactions contemplated by this Agreement.

(B) The execution, delivery, and performance of this Agreement has been duly authorized by all necessary action and proceedings by or on behalf of Taubman, and no

further corporate approvals or filings of any kind are required by or on behalf of Taubman as a condition to the valid execution, delivery, and performance by Taubman of this Agreement. This Agreement, when duly executed and delivered by each party hereto, will be a valid, binding and enforceable obligation of Taubman in accordance with its terms.

(C) Taubman will at all times possess (and will cause its contractors, subcontractors, agents and other Persons performing any activities relating to the Regional Retail Component by contract with or under Taubman's direction), all franchises, patents, copyrights, trademarks, trade names, licenses and permits, and rights in respect of the foregoing, adequate for the conduct of its business substantially as now conducted or as it is intended to be conducted with respect to the Regional Retail Component and as required by this Agreement, without known conflict with any rights of others.

(D) Taubman will obtain or cause to be obtained all necessary government approvals for all of its development activities at the Site, specifically including the Regional Retail Component, and will comply with all applicable laws. Taubman does, however, maintain and preserve all of its rights under law to contest any law or administrative action in the appropriate forum by an appropriate proceeding diligently prosecuted, provided that Taubman gives Forsyth County written notice of its intent to contest same. Any approval or obligation granted herein by Forsyth County is for the purposes of this Agreement only and does not affect or constitute a development approval required pursuant to any Law or ordinance.

Section 3.2 *Representations and Warranties of Forsyth County.* Forsyth County hereby represents and warrants to Taubman that:

(A) Forsyth County has the requisite power and authority to execute and deliver this Agreement, to incur and perform its obligations hereunder, and to carry out the transactions contemplated by this Agreement.

(B) The execution, delivery, and performance of this Agreement has been duly authorized by all necessary action and proceedings by or on behalf of Forsyth County, and no further approvals or filings of any kind, including any approval of or filing with any governmental authority, are required by or on behalf of Forsyth County as a condition to the valid execution, delivery, and performance by Forsyth County of this Agreement. This Agreement, when duly executed and delivered by each party hereto, will be a valid, binding and enforceable obligation of Forsyth County in accordance with its terms.

(C) The voters of Forsyth County approved SPLOST VI, and the SPLOST VI Resolution, which included funding for the Ronald Reagan Boulevard Extension.

Section 3.3 *Survival.* The parties agree that each separate representation and warranty in this Agreement shall survive the execution and delivery of this Agreement and the consummation of the transactions contemplated herein to the extent allowed by law.

ARTICLE IV SYSTEMS IMPROVEMENTS AND ECONOMIC INCENTIVES

Section 4.1 Description. To facilitate the construction of the Project, Forsyth County agrees to: (A) purchase the Project Right-of-Way, the Engineering Costs and undertake the Improvement Construction in accord with Forsyth County Bid 08-52-3150 Ronald Reagan Boulevard as amended to include the Jolly and Tharaldson sewer improvements as set forth in Exhibit C of the Temporary Easement Agreement, (B) provide approval for that certain Ad Valorem Tax Abatement Agreement that will be consummated between Taubman, the Forsyth County Board of Assessors and the Forsyth County Development Authority, and (C) reduce the sewer reservation fees applicable to the Project, as more particularly described herein.

Section 4.2 Improvement Construction.

(A) Construction.

(i) Not later than December 1, 2009, Forsyth County shall pay to Taubman the Engineering Costs, subject to the reimbursement provisions of Section 4.6 herein. Taubman shall be responsible for any design-related change orders necessitated by deficiencies, errors, or omissions in the Improvement Plans. Taubman shall not be responsible for design-related change orders unassociated with deficiencies, errors, or omissions in the Improvement Plans.

(ii) Within thirty (30) days of the issuance of a building permit for the Sub-Area 3 Multi-Family or December 15, 2010, whichever occurs earlier, Forsyth County shall pay to Taubman the Project Right-of-Way Costs. In the event that that no less than three Forsyth County Board members, with terms extending until December 31, 2012, ratify this Agreement in January 2009, the December 15 date referenced in the preceding sentence shall be extended until December 15, 2012.

(iii) Forsyth County shall pay all acquisition and construction costs associated with the Improvement Construction as defined herein, subject to the reimbursement provisions of Section 4.6 herein relative to Project Right-of-Way Costs.

(iv) Forsyth County agrees to take all action that may be necessary to support Taubman's Letter of Map Revision request ("LOMR"), which shall be submitted to the Federal Emergency Management Agency ("FEMA"), with Forsyth County as the applicant, for removing lands from the floodplain as identified by Taubman and in accordance with the Improvement Plans. Taubman will pay all resulting engineering, design costs and FEMA fees associated therewith, and will process, with Forsyth County's reasonable assistance, the LOMR documentation in order to expedite FEMA approval within a reasonable timeframe estimated to be within six (6) months of submission. Taubman shall provide Forsyth County with a reasonable opportunity to review all LOMR documentation prior to the submittal of such documentation to FEMA.

(v) Subsequent to completion of the Improvement Construction Taubman may, but shall not be obligated to, install and maintain at its own expense, supplemental street lighting, decorative landscaping, landscape irrigation systems, and signage (the "Supplemental Improvements") within the Right-of-Way of the Improvement Construction. Taubman shall obtain all required development permits prior to commencing any such installations, and otherwise comply with pertinent Forsyth County codes. In no event shall the Supplemental Improvements interfere with or damage any of the improvements and upgrades installed by Forsyth County. The Parties shall cooperatively integrate the designs of the Roadway Plans, if any, and the Supplemental Improvements.

(vi) Acting in good faith and in accordance with paragraph 2 of the Temporary Easement Agreement between the Parties and Sections 6.5(C) and 7.9 of this Agreement, Forsyth County shall provide Taubman with reasonable notice of, and reasonable opportunity to participate in (should Taubman choose to participate), all construction meetings and status report communications regarding Improvement Construction.

(vii) Forsyth County and Taubman recognize the importance to the Project's success of improvements to McGinnis Ferry Road, including the construction of a new interchange and improvements at Georgia State Route 400 and road improvements from Georgia State Route 400 to Union Hill Road/McGinnis Ferry Road, and ultimately to Sargent Road (the "Interchange and Improvements"). Forsyth County and Taubman shall cooperatively work toward achieving completion of the Interchange and Improvements at no cost to Taubman or Forsyth County.

(viii) Taubman understands and agrees that the Improvement Construction, including the Jolly and Tharaldson Sewer Improvements, is a Forsyth County project, and Forsyth County shall retain all discretion with respect to construction of the same, subject to the terms of the license agreement between the Parties, dated September 3, 2008, and the Temporary Easement Agreement between the Parties, dated August 29, 2008. Any dispute as to the reasonableness of any proposed change orders, revisions or addenda shall be resolved in accord with Section 7.11 of this Agreement.

(B) Road Capacity.

(i) During the term of this Agreement, in conjunction with submission of an application for zoning approval to the Forsyth County staff (a "Proposed Development") on any parcel which is not within the Site (an "Off-Site Parcel") but which is located within an off-site area of traffic influence ("Area of Influence") as shown in Exhibit C, Forsyth County agrees that it will provide Taubman with: (1) reasonable written notice of the submittal of such application for Proposed Developments within Off-Site Parcels and (2) a reasonable opportunity to provide Forsyth County with comments prior to the approval of such application. In no event shall Taubman's opportunity to provide comment with respect to a Proposed Development serve as a basis to deny, postpone,

defer, or otherwise delay any application for zoning from proceeding in the ordinary course.

(ii) Notice to Taubman shall not be required for any new development or redevelopment of an Off-Site Parcel where the Proposed Development adds less than: (1) forty thousand square feet (40,000 sf) of new or additional occupiable retail commercial building area, (2) eighty five thousand square feet (85,000 sf) of new or additional office building area, (3) one hundred seventy thousand square feet (170,000 sf) of new or additional light industrial building area, (4) 165 single family dwelling units, (5) 270 multi-family dwelling units, or (6) 250 additional hotel rooms, and such development or redevelopment is under the DRI thresholds in the aggregate. For mixed use development, the percent of the above thresholds shall be determined for each proposed land use. If the sum of the percentages is less than 100, notice to Taubman is not required.

(C) Public Safety Fees.

In addition to the Overlay regulations, the Site is governed by the requirements of two zoning actions previously approved by Forsyth County, ZA 2605 and ZA 3050. One of the zoning conditions attached to ZA 2605 (the "Public Safety Condition") requires Taubman to pay to three hundred thousand dollars (\$300,000) to Forsyth County in three equal installments based on development phasing (the "Public Safety Fee"). The Parties agree that the Public Safety Fee shall become due and payable in full upon the issuance of a permit for the Regional Retail Component. In the event that Taubman does not build the Regional Retail Component, or if Taubman takes any of the actions contemplated in Section 4.6 that will trigger Forsyth County's right to receive reimbursement, the Parties agree that the Public Safety Fee requirement will revert to that contemplated by the Public Safety Condition

Section 4.3 Tax Abatement Incentives. The Development Authority of Forsyth County (the "Authority") is hereby authorized to execute and deliver an inducement agreement between itself and Taubman, upon such terms and conditions as are negotiated and agreed upon between the Authority and Taubman, for a Tier 3 property tax abatement applicable to the Site and each separate development phase of the Project. This grant of authority notwithstanding, Forsyth County authorizes the abatement subject to the following limitations and conditions. For the ten year period following Taubman's submittal of a Mall Permit Application (the "Abatement Period"), each separate non-residential building and/or development unit within the Overlay ("Commercial Development") shall be eligible for a Tier 2 tax abatement as set forth in the Authority's current location/expansion incentive program. The tax abatement schedule for each Commercial Development may commence only after Forsyth County has issued a certificate of occupancy for that Commercial Development for which the abatement is sought. Tax abatement schedules may not commence prior to the submittal of a Mall Permit Application or after the expiration of the Abatement Period.

Section 4.4 Sewer Reservation Discount. Taubman shall reserve the Build-Out Sewer Capacity from Forsyth County. On or before December 31, 2009, Taubman or Taubman's designee may purchase up to 101,250 gallons of the Build-Out Sewer Capacity at \$19 per-gallon ("Full Price Capacity") for the development of the Sub-Area 3 Multi-Family. After December

31, 2009, the price for sewer to serve the Sub-Area 3 Multi-Family shall be Forsyth County's then-prevailing market rate. Within one hundred fifty (150) days of the execution of a sewer reservation agreement with Forsyth County, Taubman shall pay Forsyth County the amount of Four Hundred Fifty Thousand Dollars (\$450,000.00) in exchange for 30,000 gallons of sewer capacity (the "Initial Sewer Payment"), subject to the reimbursement provisions of Section 4.6 herein. Upon the submittal of a Mall Permit Application, Forsyth County shall provide Taubman with a \$4 per gallon rate discount for the remaining 488,750 gallons of sewer (the "Sewer Discount Rate"), which shall be more particularly set forth in the sewer reservation agreement attached hereto as Exhibit D. With the exception of the Initial Sewer Payment, the Sewer Discount Rate shall not apply to any sewer capacity purchase that precedes the submittal of a Mall Permit Application. The Sewer Discount Rate shall expire eight (8) years after the date of the Initial Sewer Payment. Taubman and Forsyth County shall execute said sewer reservation agreement within sixty (60) days of the Effective Date in a form substantially the same as that in Exhibit D.

Section 4.5 *Conveyance of Recreational Area.* Taubman shall convey the Recreational Area to Forsyth County by executing the deed attached hereto as Exhibit B either: (i) 30 days after it receives from Forsyth County all funds set forth in section 4.2(A) or (ii) December 1, 2009, whichever is earlier.

Section 4.6 *Reimbursement of Economic Incentives.* In reliance on the promises in this Agreement made by Forsyth County, Taubman agrees to perform or contract for, and oversee, the design and construction of the Regional Retail Component upon the portion of the Site depicted as Sub-Area 1 in the Overlay (the "Mall Site"). Not later than December 1, 2009, Taubman shall deliver to Forsyth County an irrevocable letter of credit, issued by a recognized financial institution of no less than \$1,120,000.00. In addition, upon Forsyth County's payment of the Project Right-of-Way Costs pursuant to Section 4.2(A)(ii) of this Agreement, but no earlier than December 1, 2009, Taubman shall provide Forsyth County with either a letter of credit reflecting a cumulative total of \$3,695,000.00 or a supplemental letter of credit equivalent in value to the Project Right-of-Way Costs. All letters of credit identified in this paragraph shall be subject to the following specific conditions: If: (a) Taubman does not open the Regional Retail Component to the public by the Latest Opening Date, (b) an application is submitted to rezone the Mall Site where said application thwarts Taubman's ability to construct the Regional Retail Component, (c) Taubman sells the Mall Site, or any portion thereof, to any third party where said conveyance thwarts Taubman's ability to perform its obligation to construct the Regional Retail Component, or (d) Taubman submits permit requests to Forsyth County that are not in substantial compliance with the Overlay's standards for the Mall Site, then Forsyth County's right to draw down the letter of credit shall immediately accrue, subject to the notice requirement set forth in this section. If Taubman's conduct triggers the right to draw down the letter of credit, Forsyth County shall be required to issue to Taubman a written demand for payment of \$1,120,000.00 (or \$3,695,000, if then applicable) and, if Taubman does not remit payment within 60 days of delivery of said written demand, Forsyth County shall be immediately entitled to present and draw down the full value of the letter of credit. In addition, upon the triggering of items (a), (b), (c) or (d), above, Taubman shall immediately forfeit the Sewer Discount Rate for any unpurchased sewer capacity and shall forfeit any uncommitted, previously reserved sewer as provided for in Exhibit D. If Taubman opens the Regional Retail Component to the public by or before the Latest Opening Date ("Grand Opening") or remits payment upon

demand equivalent to the value of the letter of credit to Forsyth County as required by this Section 4.6, Forsyth County shall issue a forfeiture letter to Taubman relinquishing its claim upon the letter of credit and return the letter of credit to the issuer within 60 days of the Grand Opening. The Parties may reset the Latest Opening Date to a later calendar date in a written amendment to this Agreement executed by both parties with the same formalities as are present in the execution of this Agreement.

ARTICLE V NOTICE

Section 5.1 *Delivery of Notices.* All notices, consents, approvals and other communications which may be or are required to be given by Taubman or Forsyth County under this Agreement shall be properly given only if made in writing and sent by (a) hand delivery, or (b) certified mail, return receipt requested, or (c) a nationally recognized overnight delivery service (such as Federal Express, UPS Next Day Air or DHL), or (d) by facsimile to the facsimile number listed below (provided that a copy of such notice is also delivered within 24 hours to the party by one of the other methods listed herein), with all postage and delivery charges paid by the sender and addressed to the other parties as applicable as set forth below. Said notice addresses are as follows:

If to Taubman:

TRG Forsyth LLC
Attention: Chris B. Heaphy, Esq.
200 E. Long Lake Road
PO Box 200
Bloomfield Hills, MI 48303-0200
Facsimile: 248-258-7586

With a copy to:

Alston & Bird LLP
Attention: Harold Buckley, Jr., Esq.
One Atlantic Center
1201 W. Peachtree Street
Atlanta, GA 30309
Facsimile: 404-253-8498

With a copy to:

Richard J. Burstein, Esq.
Honigman Miller Schwartz and Cohn LLP
38500 Woodward Avenue, Suite 100
Bloomfield Hills, MI 48304-5048
Facsimile: 248-566-8431

If to Forsyth County:

Forsyth County Office of the County Manager
Attention: County Manager
110 East Main Street
Cumming, Georgia 30040
Facsimile: 770-781-2199

With a copy to:

Jarrard & Davis, LLP
Attention: Kenneth E. Jarrard, Esq.
105 Pilgrim Village Drive, Suite 200
Cumming, GA 30040
Facsimile: 678-455-7149

Section 5.2 *Changes to Notified Parties.* Each party to this Agreement may change its address or notified parties by written notice in accordance with the delivery methods specified in Section 4.1 of this Agreement (effective five (5) days after the delivery of written notice thereof). Any communication of notice changes addressed and mailed in accordance with Section 4.1 will be deemed to be given when received. Any notice sent by electronic or facsimile transmission will be deemed to be given when receipt of such transmission is acknowledged via delivery report generated by the sender's facsimile machine. Any communication delivered in person will be deemed to be given when receipted for, or actually received, by the receiving party.

ARTICLE VI DEFAULT

Section 6.1 *Event of Default.* The term "Event of Default", wherever used in this Agreement, shall mean any one or more of the following events, without regard to any grace period or notice and cure period provided or referenced below with respect to any such events:

(A) Any representation or warranty made by any party in this Agreement or in any written statement or document related to the transactions contemplated by this Agreement is false in any material respect; or

(B) Any report, certificate or other document or instrument furnished by any party in relation to the transactions contemplated by this Agreement is false in any material respect, and the party knows such document is false, and fails to promptly report and correct such discrepancy; or

(C) Any failure of a party to this Agreement to comply with any material obligation set forth herein that is not cured within any applicable grace and/or notice and cure periods hereunder.

Section 6.2 *Notice of Default.* Upon the occurrence of an Event of Default, the non-defaulting party shall provide the defaulting party with written notice of such Event of Default pursuant to the provisions of Section 5.1 herein.

Section 6.3 *Default.* Unless the parties have executed a written agreement for the cure of an Event of Default, a party shall be in default under this Agreement ("Default") if it has not cured an Event of Default within One Hundred Twenty (120) days after receiving notice of the Event of Default pursuant to the provisions of Section 5.1 herein.

Section 6.4 *Forsyth County's Remedies.* If a Default occurs and is continuing, Forsyth County will be entitled to exercise any and all rights and remedies available under applicable law, including, by way of illustration and not of limitation, the following:

(A) To terminate this Agreement and, without limiting the foregoing, to discontinue funding hereunder; and

(B) To enter upon the Site or any portion thereof without thereby becoming liable to Taubman or any person in possession thereof holding under or claiming under or through Taubman, and achieve Road Completion.

Section 6.5 *Taubman's Remedies.*

(A) If a Default occurs and is continuing, Taubman will be entitled to exercise any and all rights and remedies available under applicable law, including, by way of illustration and not of limitation, the following:

(i) To terminate this Agreement;

(ii) To obtain specific performance of this Agreement or any element thereof;

(iii) To obtain injunctive relief relating to this Agreement or any element thereof; and

(B) To enter upon the Right-of-Way, or any portion thereof, without thereby becoming liable to Forsyth County and complete the Improvement Construction, or any portion thereof.

(C) Timely completion of the Improvement Construction is critical to the Project's financial feasibility; and the failure by the County's contractor to achieve completion of the Improvement Construction by September 22, 2009, shall result in substantial Losses to Taubman. Therefore, Forsyth County agrees to convey all liquidated damages it receives as a result of any delays in completion of the Improvement Construction to Taubman within thirty (30) days of such liquidated damages becoming due and final. Forsyth County will notify Taubman within ten (10) days of its having actual knowledge that the completion of the Improvement Construction may be delayed past September 22, 2009. In the event of a delay in such timely completion of the Improvement Construction, Taubman shall be allowed but not required to participate in all Forsyth County meetings that are scheduled to discuss strategies for timely completion of the Improvement Construction and the parties shall cooperatively create a plan for prompt completion of the Improvement Construction. Forsyth County shall provide Taubman with reasonable advance notification of such meetings. Taubman agrees that its sole financial remedy shall be in liquidated damages as set forth in this Paragraph for any losses occasioned by any failure to meet the September 22, 2009 substantial completion date.

ARTICLE VII MISCELLANEOUS

Section 7.1 *Term of Agreement.* This Agreement will expire on December 31, 2018 or the termination of the Agreement by either of the parties pursuant to a Default, whichever is earlier.

Section 7.2 *Invalidity.* In the event that any provision of this Agreement is held unenforceable in any respect, such unenforceability will not affect any other provision of this Agreement, provided, however, in the event the provision that is deemed to be unenforceable contains a material inducement or material consideration for the remaining terms of this Agreement, the entire Agreement shall be deemed null and void.

Section 7.3 *No Personal Liability.* It is understood and agreed that no present or future consultant, member, agent, partner, director, commissioner, officer or employee of the parties shall be personally liable hereunder or pursuant to any other agreement executed in connection herewith.

Section 7.4 *Governing Law.* This Agreement shall be governed by, and construed in accordance with, the laws of the State of Georgia. Any litigation or action between Taubman and Forsyth County, related to or arising under this Development Agreement shall be brought in the Superior Court of Forsyth County.

Section 7.5 *Amendments.* This Agreement may only be modified or amended in a writing executed by both of the parties hereto.

Section 7.6 *Prior Agreements.* This Agreement supersedes all prior discussions and agreements between Forsyth County and Taubman with respect to the economic incentives described herein, and constitutes the sole and entire agreement between the parties with respect thereto.

Section 7.7 *Successors and Assigns.* This Agreement shall be binding upon, and inure to the benefit of, Taubman and its successors-in-interest to the portion of the Site identified as Sub-Area 1 in the Overlay and assigns. Taubman may assign this Agreement to any entity in which Taubman or any organization in the Taubman family of organizations holds the majority of interests, directly or indirectly, without Forsyth County's consent. No other assignment of this Agreement may occur.

Section 7.8 *Force Majeure.* The obligations of the parties hereto shall be subject to extension by virtue of Force Majeure.

Section 7.9 *Additional Actions.* The parties agree to take all actions, including the execution and delivery of such documents, instruments, petitions, Project approvals and certifications that may be necessary or appropriate, from time to time, to carry out the terms, provisions and intent of this Agreement and to aid and assist each other in carrying out said terms, provisions and intent.

Section 7.10 *Change in Law.* In the event that state or federal laws or regulations enacted subsequent to the effective date of this Agreement and modifying such Agreement or the action or inaction of any other affected governmental jurisdiction to prevent or preclude compliance with one or more provisions of this Agreement or to require changes in plans, maps or permits approved by the County, the parties shall: (1) provide the other party with written notice of such state or federal restriction, provide a copy of such regulation or policy and a statement of conflict with the provisions of this Agreement, and (2) promptly meet and confer with the other party in a good faith and reasonable attempt to modify or suspend this Agreement to comply with such federal or state law or regulation.

Section 7.11 *Dispute Negotiation & Non-Binding Mediation.* If there is a Default by either party or any dispute or disagreement arises in connection with any interpretation of this Agreement, its performance or nonperformance, Taubman and Forsyth County shall make every effort to meet and settle the matter in good faith informally. If Taubman and Forsyth County are unable to achieve an amicable resolution to said dispute or disagreement, the matter will, upon written request of either party, be submitted to non-binding mediation before a mediator acceptable to both parties. The costs of mediation shall be shared equally by Forsyth County and Taubman. If the parties are unable to resolve the dispute during the course of mediation, each shall have the right to pursue the legal remedies set forth in this Agreement.

Section 7.12 *Non-Waiver.* The failure, delay or omission of any party to insist upon strict performance of any term of this Agreement shall not be deemed to be a waiver of any term of this Agreement.

Section 7.13 *Facsimile Signatures.* Signatures to this Agreement transmitted by telecopy shall be valid and effective to bind the party so signing. Each party agrees to promptly deliver an execution original to this Agreement with its actual signature to the other party, but a failure to do so shall not affect the enforceability of this Agreement, it being expressly agreed that each party to this Agreement shall be bound by its own telecopied signature and shall accept the telecopied signature of the other party to this Agreement.

Section 7.14 *Counterparts.* This Agreement may be executed in separate counterparts. It shall be fully executed when each party whose signature is required has signed at least one counterpart even though no one counterpart contains the signatures of all of the parties to this Agreement.

Section 7.15 *Headings.* Headings and captions are for convenience or reference only and shall not affect the construction or interpretation of any provision of this Agreement.

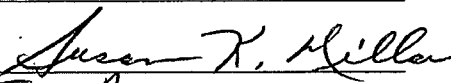
In Witness Whereof, the parties hereto have signed this Agreement under seal the day and year first above written.

TRG FORSYTH LLC, a Delaware limited liability company

By: 

Name: STEVEN EDER

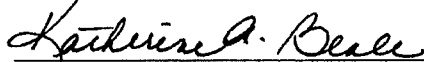
Title: AUTHORIZED SIGNATORY

Attest: 

Title: SR. ASSISTANT

[CORPORATE SEAL]

Sworn to and subscribed before me this 29th day of December, 2008



NOTARY PUBLIC

My commission expires: 10-13-2012

[SEAL]

KATHERINE A. BEALE
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Oct 13, 2012
ACTING IN COUNTY OF

Signatures continued on following page

Signatures continued from preceding page

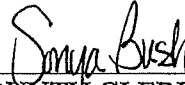
FORSYTH COUNTY, GEORGIA, a public
body corporate and politic of the State of Georgia

By: 

Name: CHARLES LAUGHINGHOUSE

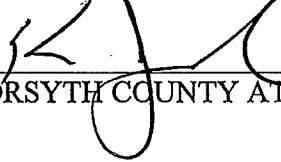
Title: CHAIRMAN

ATTEST:



COUNTY CLERK (Seal)

APPROVED AS TO FORM:



FORSYTH COUNTY ATTORNEY

Sworn to and subscribed before
me this 22 day of SEPTEMBER, 2008

NOTARY PUBLIC

My commission expires

[SEAL]

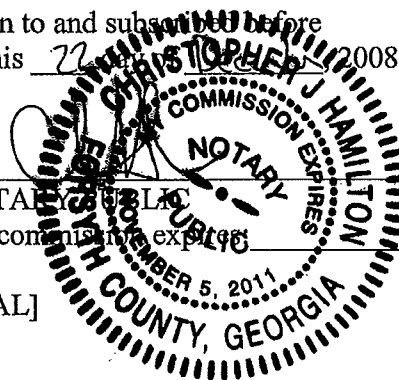


EXHIBIT A (1 of 2)

Site Description
Forsyth County, Georgia

All that tract or parcel of land lying and being in land lots 965, 966, 967, 978, 979, and 980 of the 2nd District, 1st Section, Forsyth County, Georgia, and being more particularly described as follows:

Beginning at a 1-inch crimp top pipe found at the corner common to land lots 907, 908, 965, and 966; Thence continuing with the north line of land lot 965, South 86 degrees 57 minutes 23 seconds East, a distance of 1260.59 feet to a point located at the corner common to land lots 908, 909, 964, and 965; Thence continuing with the east line of land lot 965, South 01 degrees 54 minutes 40 seconds West, a distance of 730.03 feet to a point located in the centerline of Big Creek; Thence departing said land lot line and continuing with said creek centerline the following ten courses:

South 33 degrees 02 minutes 37 seconds West, a distance of 220.95 feet to a point;
South 06 degrees 34 minutes 23 seconds West, a distance of 50.44 feet to a point;
South 42 degrees 11 minutes 33 seconds West, a distance of 189.08 feet to a point;
South 33 degrees 25 minutes 32 seconds West, a distance of 228.00 feet to a point;
South 31 degrees 27 minutes 36 seconds West, a distance of 155.12 feet to a point;
South 39 degrees 12 minutes 22 seconds West, a distance of 114.93 feet to a point;
South 55 degrees 34 minutes 36 seconds West, a distance of 290.29 feet to a point;
South 59 degrees 49 minutes 41 seconds West, a distance of 272.12 feet to a point;
South 60 degrees 26 minutes 46 seconds West, a distance of 267.42 feet to a point;
South 52 degrees 01 minutes 16 seconds West, a distance of 104.03 feet to a point;

Thence departing said creek centerline, North 07 degrees 50 minutes 50 seconds East, a distance of 552.44 feet to a point; Thence North 86 degrees 48 minutes 42 seconds West, a distance of 175.16 feet to a point; Thence North 88 degrees 42 minutes 59 seconds West, a distance of 117.38 feet to a point; Thence North 80 degrees 28 minutes 24 seconds West, a distance of 88.48 feet to a point; Thence North 82 degrees 54 minutes 12 seconds West, a distance of 377.35 feet to a point; Thence North 80 degrees 35 minutes 05 seconds West, a distance of 104.55 feet to a point; Thence North 79 degrees 49 minutes 46 seconds West, a distance of 126.89 feet to a point; Thence North 86 degrees 06 minutes 26 seconds West, a distance of 99.68 feet to a point; thence South 85 degrees 39 minutes 19 seconds West, a distance of 116.62 feet to a point; thence South 85 degrees 47 minutes 05 seconds West, a distance of 44.47 feet to a point; thence South 85 degrees 47 minutes 05 seconds West, a distance of 16.99 feet to a point; thence South 85 degrees 47 minutes 05 seconds West, a distance of 62.89 feet to a point; thence South 89 degrees 26 minutes 36 seconds West, a distance of 16.45 feet to a point; thence South 89 degrees 26 minutes 36 seconds West, a distance of 40.66 feet to a point; thence along a curve to the left, an arc length of 128.21 feet, said curve having a radius of 800.00 feet, with a chord distance of 128.07 feet, at South 24 degrees 00 minutes 17 seconds West; thence South 25 degrees 09 minutes 24 seconds West, a distance of 101.70 feet to a point; thence

EXHIBIT A (2 of 2)

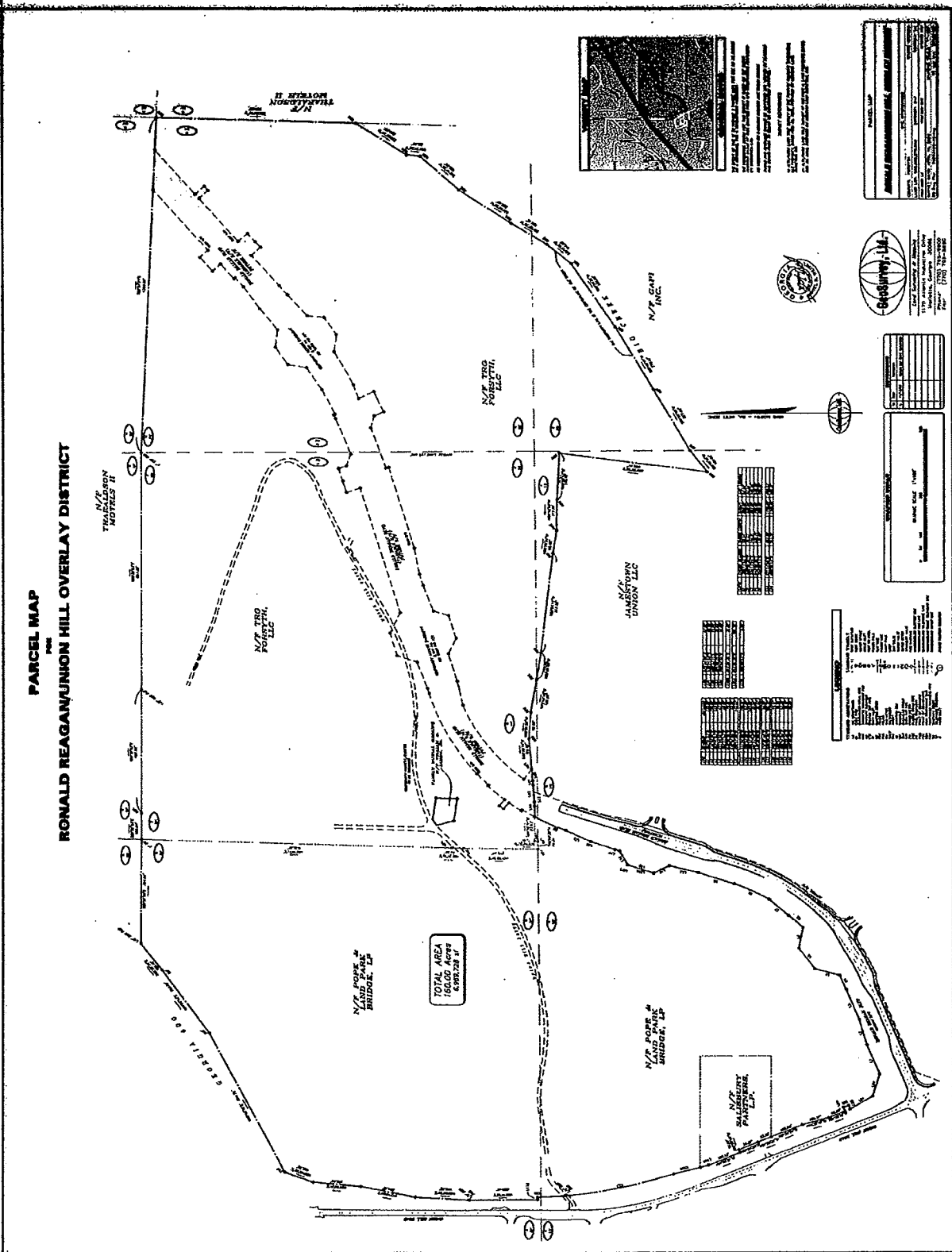


EXHIBIT B

Prepared by and when recorded return to:

Joel M. Krugel, Esq.
Honigman Miller Schwartz and Cohn LLP
38500 Woodward Avenue, Suite 100
Bloomfield Hills, MI 48304-5048

STATE OF GEORGIA

COUNTY OF FORSYTH

LIMITED WARRANTY DEED

THIS INDENTURE is made as of the ____ day of _____, 2009, by and between TRG FORSYTH LLC, a Delaware limited liability company ("Grantor"), and FORSYTH COUNTY, a political subdivision of the State of Georgia ("Grantee") ("Grantor" and "Grantee" to include their respective successors, legal representatives and assigns where the context requires or permits).

WITNESSETH:

GRANTOR has granted, bargained, aliened, conveyed and confirmed and does hereby grant, bargain, sell, alien, convey and confirm unto Grantee the following described real property:

ALL THAT TRACT OR PARCEL OR PARCEL of land being more particularly described on Exhibit "B-1" attached hereto and by this reference made a part hereof (the "Land"), together with any and all plants, trees, shrubbery, buildings, structures and improvements thereon (hereinafter collectively referred to as the "Property").

TO HAVE AND TO HOLD the Property, together with all and singular the rights, members and appurtenances thereto, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of Grantee forever in FEE SIMPLE, but subject to the following:

- (a) State or Federal regulations affecting the Property, its use or occupancy;
- (b) private, public and utility easements of record or that would be revealed by an accurate survey of the Property or inquiry of the utility companies servicing the Property, and roads and highways;
- (c) covenants, conditions, restrictions, reservations and exceptions of record; and
- (d) such taxes and assessments as may be a lien upon the Property but not due and payable as of the date of this Deed, and taxes and assessments which may be assessed or accrue subsequent to the date of this Deed.

Notwithstanding any warranty which may otherwise be implied from the use of any word, phrase, or clause herein, Grantor warrants title to the Property, subject to the matters referred to above, only against the lawful claims of any person claiming by, through or under Grantor, but not otherwise.

In addition, Grantee, by its receipt and acceptance of this Deed, covenants, agrees, and acknowledges that it takes title to the Property subject to the following restrictions relating to the use, occupancy, and improvement of the Property, which restrictions shall be effective from the date of this Deed, shall run with the land, and shall be enforceable against Grantee, its successors and assigns, as owner of the Property, and shall inure to the benefit of, and be enforceable by, Grantor, its successors and assigns:

- (1) Grantee agrees that the Property may be used for any governmental activity that Forsyth County may lawfully conduct, so long as the Property, irrespective of the use proposed by Forsyth County, shall be deemed by Forsyth County to satisfy all "open space" requirements under the Ronald Reagan/Union Hill Overlay District, as adopted by the Forsyth County Board of Commissioners on April 3, 2008 (the "Overlay") and that no additional areas of "open space" shall be required in connection with the Overlay, now or in the future – so long as the Forsyth County Ronald Reagan/Union Hill Overlay District remains in effect.
- (2) Grantee agrees that the Property shall be included in drainage plans for, and may be improved by Grantor with subsurface drainage facilities (excluding manholes, which may be above ground, and natural drainage swales) to facilitate stormwater runoff from the Overlay. Grantor and Grantee may execute easements to accommodate such drainage facilities, so long as said easements provide Grantee the right to encroach thereon to the fullest extent possible without interfering with the installation, maintenance or operation of the drainage facilities. Grantor shall be responsible for the maintenance, repair, replacement and reconstruction of any such drainage facilities. Grantor and Grantee agree to work together in good faith to minimize as much as possible the physical impact of the drainage facilities on the Property and Grantee's use thereof.
- (3) Grantee agrees that the Property shall be included in stormwater master plans for the Overlay, calculations of credits for on-site stormwater treatment within the Overlay, and calculations of post-development total suspended solids generated within the Overlay.
- (4) Grantee agrees that trees on the Property shall be included in calculations of tree units per acre as required by the Overlay, and in the event that Grantee engages in any tree removal that would conflict with the requirement of tree units per acre under the Overlay, that such action shall have no effect as to the compliance with tree units per acre requirement under the Overlay.

IN WITNESS WHEREOF, Grantor has signed and sealed this Deed, the day and year first above written.

GRANTOR:

Signed, sealed and delivered
in the presence of:

TRG FORSYTH LLC,
a Delaware limited liability company

Witness

By: _____

Its: Authorized Signatory

Notary Public
Commission Expiration Date:

(COMPANY SEAL)

(NOTARY SEAL)

EXHIBIT B-1

Property Description Proposed Lot, 22.154 Acres Forsyth County, Georgia

All that tract or parcel of land lying and being in land lots 965, 979, and 980 of the 2nd District, 1st Section, Forsyth County, Georgia, and being more particularly described as follows:

Commencing at a 1-inch crimp top pipe found at the corner common to land lots 907, 908, 965, and 966; Thence continuing with the north line of land lot 965, South 86 degrees 57 minutes 23 seconds East, a distance of 989.70 feet to a point located on the northwesterly proposed right-of-way of Ronald Reagan Boulevard (proposed variable right-of-way); Thence departing said proposed northwesterly right-of-way and continuing with said north line of land lot 965, South 86 degrees 57 minutes 23 seconds East, a distance of 149.93 feet to a point located on the southeasterly proposed right-of-way of Ronald Reagan Boulevard, said point being the **TRUE POINT OF BEGINNING**;

Thence departing said proposed southeasterly right-of-way and continuing with said north line of land lot 965, South 86 degrees 57 minutes 23 seconds East, a distance of 120.97 feet to a point located at the corner common to land lots 908, 909, 964, and 965; Thence continuing with the east line of land lot 965, South 01 degrees 54 minutes 40 seconds West, a distance of 730.03 feet to a point located in the centerline of Big Creek; Thence departing said land lot line and continuing with said creek centerline the following ten courses:

South 33 degrees 02 minutes 37 seconds West, a distance of 220.95 feet to a point;

South 06 degrees 34 minutes 23 seconds West, a distance of 50.44 feet to a point;

South 42 degrees 11 minutes 33 seconds West, a distance of 189.08 feet to a point;

South 33 degrees 25 minutes 32 seconds West, a distance of 228.00 feet to a point;

South 31 degrees 27 minutes 36 seconds West, a distance of 155.12 feet to a point;

South 39 degrees 12 minutes 22 seconds West, a distance of 114.93 feet to a point;

South 55 degrees 34 minutes 36 seconds West, a distance of 290.29 feet to a point;

South 59 degrees 49 minutes 41 seconds West, a distance of 272.12 feet to a point;

South 60 degrees 26 minutes 46 seconds West, a distance of 267.42 feet to a point;

South 52 degrees 01 minutes 16 seconds West, a distance of 104.03 feet to a point;

Thence departing said creek centerline,

North 07 degrees 50 minutes 50 seconds East, a distance of 552.44 feet to a point; Thence

North 07 degrees 40 minutes 33 seconds East, a distance of 240.66 feet to a point; Thence North

53 degrees 39 minutes 35 seconds East, a distance of 188.43 feet to a point; Thence North 40

degrees 43 minutes 28 seconds East, a distance of 100.61 feet to a point; Thence North 13

degrees 20 minutes 39 seconds East, a distance of 122.29 feet to a point; Thence North 87

degrees 25 minutes 32 seconds East, a distance of 202.23 feet to a point; Thence South 82

degrees 19 minutes 27 seconds East, a distance of 324.52 feet to a point; Thence North 50

degrees 48 minutes 56 seconds East, a distance of 241.03 feet to a point; Thence North 27

degrees 14 minutes 43 seconds West, a distance of 170.36 feet to a point; Thence North 13

degrees 24 minutes 24 seconds West, a distance of 39.13 feet to a point; Thence North 20

degrees 08 minutes 44 seconds West, a distance of 65.69 feet to a point; Thence North 22

degrees 51 minutes 24 seconds West, a distance of 52.02 feet to a point; Thence North 22

degrees 02 minutes 27 seconds West, a distance of 33.24 feet to a point; Thence North 17

degrees 13 minutes 09 seconds West, a distance of 31.40 feet to a point; Thence North 25 degrees 49 minutes 18 seconds West, a distance of 37.38 feet to a point; Thence North 14 degrees 43 minutes 31 seconds West, a distance of 36.62 feet to a point; Thence North 24 degrees 32 minutes 45 seconds West, a distance of 16.69 feet to a point located on the southeasterly proposed right-of-way of Ronald Reagan Boulevard; Thence continuing with said southeasterly proposed right-of-way the following seven courses: North 48 degrees 35 minutes 16 seconds East, a distance of 41.62 feet to a point; North 41 degrees 24 minutes 44 seconds West, a distance of 45.00 feet to a point; North 48 degrees 35 minutes 16 seconds East, a distance of 215.00 feet to a point; South 41 degrees 24 minutes 44 seconds East, a distance of 45.00 feet to a point; North 48 degrees 35 minutes 16 seconds East, a distance of 21.00 feet to a point; North 41 degrees 24 minutes 44 seconds West, a distance of 45.00 feet to a point; North 48 degrees 35 minutes 16 seconds East, a distance of 223.21 feet to a point, said point being the TRUE POINT OF BEGINNING.

Said tract of land contains 22.154 acres, more or less, and is the southeasterly portion of Lot Number 2, on the south side of Ronald Reagan Boulevard as depicted on the minor plat for Ronald Reagan / Union Hill Overlay District, Phase I, prepared by GeoSurvey dated April 18, 2008 and recorded November 19, 2008 in Forsyth County Book 124, Pages 79 - 85.

Exhibit C

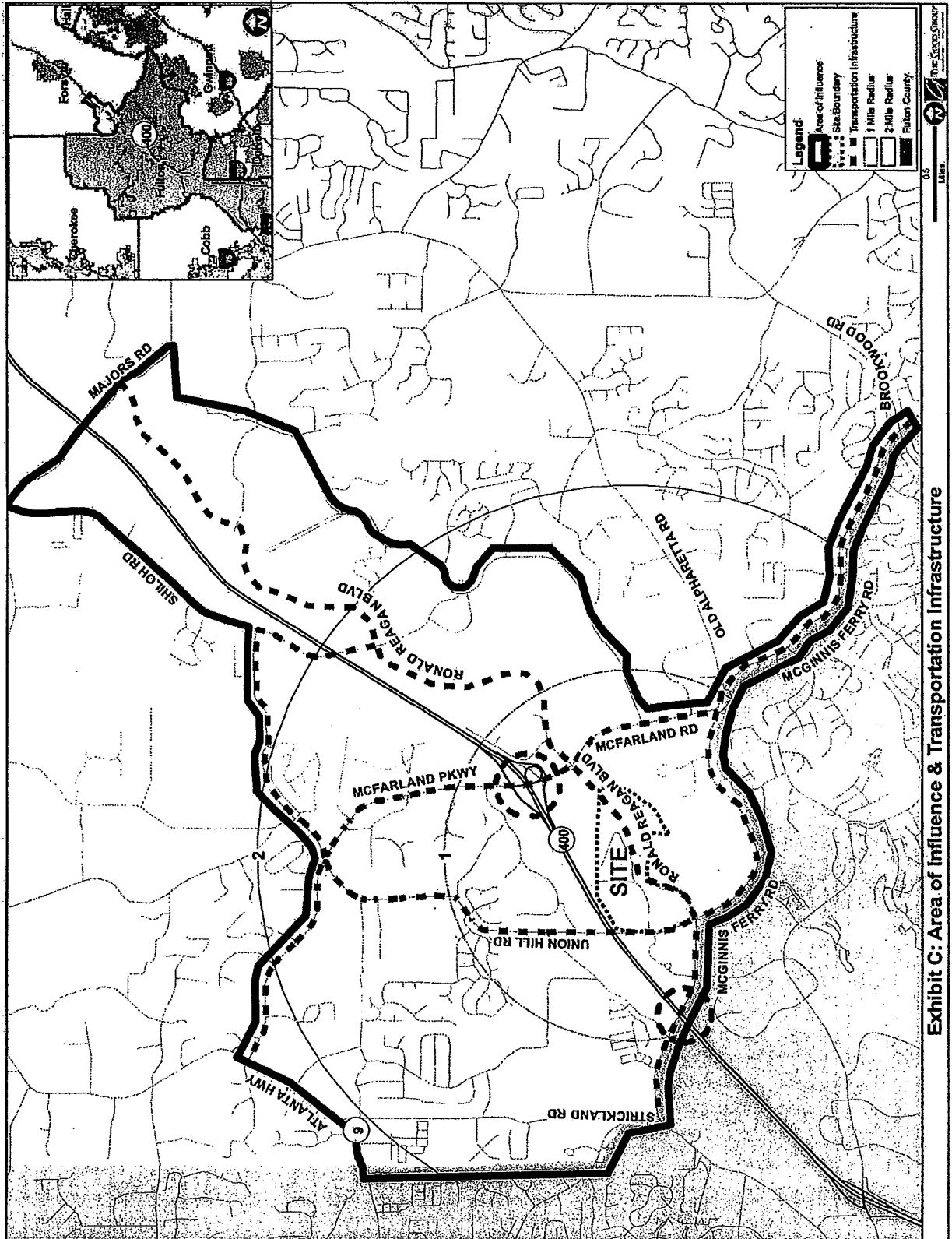


EXHIBIT D

AGREEMENT FOR RESERVED SEWER CAPACITY

THIS AGREEMENT FOR RESERVED SEWER SERVICE, made as of the _____ day of November, 2008 (the "Effective Date"), by and between FORSYTH COUNTY, a political subdivision of the State of Georgia, (herein called "Forsyth") and TRG FORSYTH LLC, a Delaware limited liability company, General Partner (herein called "Developer"); its successors and assigns.

WITNESSETH

WHEREAS, the parties hereto have entered into that Development Agreement Between Forsyth County, Georgia and TRG Forsyth LLC, dated November 20, 2008 (the "Development Agreement"); and

WHEREAS, Developer owns or controls certain property (herein called the "Developer Property") which is shown on Exhibit "D-1" attached hereto and which is located so as to be serviceable by sewer capacity to be supplied by Forsyth; and

WHEREAS, Forsyth desires to sell and reserve to Developer, and Developer desires to purchase and reserve from Forsyth 620,000 gallons per day of sewage treatment capacity subject to various price constraints as further detailed in the Development Agreement; and

WHEREAS, Forsyth has authority to enter into this Agreement under the provisions of Paragraph III of Section 11 of Article IX of the Constitution of Georgia.

NOW, THEREFORE, for mutual consideration and the covenants hereinafter set forth, Forsyth and Developer, intending to be legally bound hereby agree as follows:

1. In consideration of Developer's payment of \$10.00 and future guarantee and promise to pay to Forsyth Four Hundred Fifty Thousand Dollars (\$450,000.00) (the "Advance Payment"), Forsyth does hereby reserve to Developer 620,000 gallons per day of sewage treatment capacity (herein called the "Developer Reserved Capacity"). The Advance Payment also represents a tap-on fee for 30,000 gallons per day (GPD) of the Developer Reserved Capacity, thereby resulting in the Developer having 590,000 GPD of reserved but unpurchased sewer capacity. The terms of this Sewer Reservation shall be in accordance with and

subject to the terms of the Development Agreement, which is incorporated herein by reference, and to the extent any provision within this Sewer Reservation Agreement conflicts with the Development Agreement, the Development Agreement shall control. The right of the Developer to purchase additional allotments of the Developer Reserved Capacity is controlled by, and shall be subject to the financial terms and conditions of the Development Agreement. Developer shall have the right to assign portions of the Developer Reserved Capacity to owners, users and/or developers of parcels within the Developer Property.

2. Upon payment by Developer of the Advance Payment, Developer shall be entitled to tap onto and connect to, and Forsyth shall permit Developer's connection to Forsyth's sewage collection and treatment system for the treatment of 30,000 GPD of sewer. In addition, Forsyth shall ensure that there is sufficient capacity in its sewer treatment plants, sewer pump stations, and sewer lines to accommodate and reserve the Developer Reserved Capacity. Forsyth shall take no action, either affirmatively or by failing to act, that would prevent the Developer from using the full Developer Reserved Capacity at any time after the Developer, or its assignee, has paid the Advance Payment.

3. Forsyth shall construct and pay all costs for sewer system improvements required under the Development Agreement and the temporary easement agreement, dated August 29, 2008, executed by the parties to this Agreement. Developer shall pay, or cause to be paid, all costs associated with private party connections to the sewer improvements required under the Development Agreement. Any public sanitary sewer systems installed, or caused to be installed by the Developer shall be constructed in accordance with all applicable state and local laws, ordinances, regulations and rules and shall be subject to the review and approval of the plans and specifications by Forsyth and subject to inspection and approval by Forsyth of the installation of said systems. Upon completion by the Developer and approval by Forsyth of said sanitary sewer systems and easements according to Forsyth's requirements, such sewer systems and easements shall, within six (6) months after approval, be submitted to Forsyth for dedication and, upon acceptance by Forsyth, (which shall not be unreasonably withheld), shall become part of Forsyth's sewer system.

4. Forsyth acknowledges and agrees that Developer shall have no liability to Forsyth for the failure of any third party to do or perform any act, including, without limitation, any failure by a third party to pay the cost of Sewer Construction.

5. Forsyth and Developer understand and agree that there is presently a limited amount of sewer capacity available to Forsyth. Forsyth and Developer understand and agree that so long as the present sewer capacity shortfall exists, Developer will furnish status reports to Forsyth at the end of forty-eight (48) months from the date hereof and at twelve (12) month intervals thereafter which show the status of utilization of the Developer Reserved Capacity. These reports shall be in sufficient detail to show the status of contracts, closings, construction and occupancy dates. In the event that the reimbursement provisions of Section 4.6 of the Development Agreement are triggered, the Developer acknowledges that any reserved, but uncommitted sewer capacity under this Sewer Reservation Agreement shall be forfeit, and shall immediately revert to the ownership and control of Forsyth County with no affirmative action required by either Party.

6. If any phrase, clause, sentence, paragraph or section of this Agreement shall be declared or judged invalid or unconstitutional, such adjudication shall in no manner affect the other phrases, clauses, sentences, paragraphs or sections of this Agreement, which shall remain in full force and effect as if the phrase, clause, sentence, paragraph or section of the Agreement so declared or adjudicated invalid or unconstitutional was not originally a part hereof.

7. In the event that re-use water becomes available the Developer agrees to use re-use water on any common areas needing irrigation. The Developer also agrees to allow Forsyth to irrigate on any unused property within the Development provided that it does not interfere with the Development. The Developer may install re-use lines and take flow back for irrigation where appropriate as a condition of this sewer agreement.

Signatures begin on following page

IN WITNESS WHEREOF, the fully authorized officials of Forsyth County and the fully authorized officers of the Developer have respectively caused this Agreement to be entered into on behalf of Forsyth County and Developer and the seals of Forsyth County and Developer to be affixed hereto on the date and year first above written.

TRG FORSYTH LLC, a Delaware limited liability company

By: _____

Name: _____

Title: _____

Attest: _____

Title: _____

[CORPORATE SEAL]

Sworn to and subscribed before
me this ____ day of _____, 2008

NOTARY PUBLIC

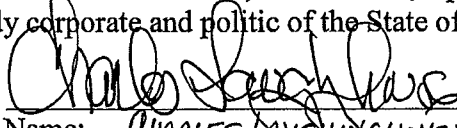
My commission expires: _____

[SEAL]

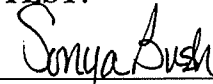
Signatures continued on following page

Signatures continued from preceding page

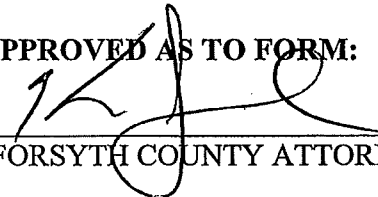
FORSYTH COUNTY, GEORGIA, a public
body corporate and politic of the State of Georgia

By: 
Name: CHARLES LAUGHINGHOUSE
Title: CHAIRMAN

ATTEST:


COUNTY CLERK (Seal)

APPROVED AS TO FORM:


FORSYTH COUNTY ATTORNEY

Sworn to and subscribed before
me this 22 day of October, 2008


NOTARY PUBLIC
My commission expires: _____

[SEAL]

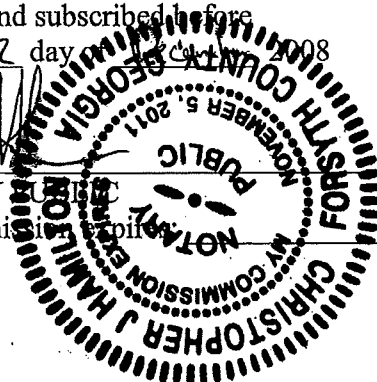


Exhibit D-1

Site Description Forsyth County, Georgia

All that tract or parcel of land lying and being in land lots 965, 966, 967, 978, 979, and 980 of the 2nd District, 1st Section, Forsyth County, Georgia, and being more particularly described as follows:

Beginning at a 1-inch crimp top pipe found at the corner common to land lots 907, 908, 965, and 966; Thence continuing with the north line of land lot 965, South 86 degrees 57 minutes 23 seconds East, a distance of 1260.59 feet to a point located at the corner common to land lots 908, 909, 964, and 965; Thence continuing with the east line of land lot 965, South 01 degrees 54 minutes 40 seconds West, a distance of 730.03 feet to a point located in the centerline of Big Creek; Thence departing said land lot line and continuing with said creek centerline the following ten courses:

South 33 degrees 02 minutes 37 seconds West, a distance of 220.95 feet to a point;
South 06 degrees 34 minutes 23 seconds West, a distance of 50.44 feet to a point;
South 42 degrees 11 minutes 33 seconds West, a distance of 189.08 feet to a point;
South 33 degrees 25 minutes 32 seconds West, a distance of 228.00 feet to a point;
South 31 degrees 27 minutes 36 seconds West, a distance of 155.12 feet to a point;
South 39 degrees 12 minutes 22 seconds West, a distance of 114.93 feet to a point;
South 55 degrees 34 minutes 36 seconds West, a distance of 290.29 feet to a point;
South 59 degrees 49 minutes 41 seconds West, a distance of 272.12 feet to a point;
South 60 degrees 26 minutes 46 seconds West, a distance of 267.42 feet to a point;
South 52 degrees 01 minutes 16 seconds West, a distance of 104.03 feet to a point;

Thence departing said creek centerline, North 07 degrees 50 minutes 50 seconds East, a distance of 552.44 feet to a point; Thence North 86 degrees 48 minutes 42 seconds West, a distance of 175.16 feet to a point; Thence North 88 degrees 42 minutes 59 seconds West, a distance of 117.38 feet to a point; Thence North 80 degrees 28 minutes 24 seconds West, a distance of 88.48 feet to a point; Thence North 82 degrees 54 minutes 12 seconds West, a distance of 377.35 feet to a point; Thence North 80 degrees 35 minutes 05 seconds West, a distance of 104.55 feet to a point; Thence North 79 degrees 49 minutes 46 seconds West, a distance of 126.89 feet to a point; Thence North 86 degrees 06 minutes 26 seconds West, a distance of 99.68 feet to a point; thence South 85 degrees 39 minutes 19 seconds West, a distance of 116.62 feet to a point; thence South 85 degrees 47 minutes 05 seconds West, a distance of 44.47 feet to a point; thence South 85 degrees 47 minutes 05 seconds West, a distance of 16.99 feet to a point; thence South 85 degrees 47 minutes 05 seconds West, a distance of 62.89 feet to a point; thence South 89 degrees 26 minutes 36 seconds West, a distance of 16.45 feet to a point; thence South 89 degrees 26 minutes 36 seconds West, a distance of 40.66 feet to a point; thence along a curve to the left, an arc length of 128.21 feet, said curve having a radius of 800.00 feet, with a chord distance of 128.07 feet, at South 24 degrees 00 minutes 17 seconds West; thence South 25 degrees 09 minutes 24 seconds West, a distance of 101.70 feet to a point; thence South 18 degrees 39 minutes 49 seconds West, a distance of 98.06 feet to a point; thence South 18 degrees 39 minutes 55 seconds West, a

distance of 15.43 feet to a point; thence South 61 degrees 23 minutes 40 seconds West, a distance of 61.86 feet to a point; thence South 18 degrees 17 minutes 38 seconds West, a distance of 100.00 feet to a point; thence South 25 degrees 55 minutes 59 seconds East, a distance of 62.90 feet to a point; thence South 14 degrees 04 minutes 29 seconds West, a distance of 110.51 feet to a point; thence South 18 degrees 17 minutes 38 seconds West, a distance of 140.62 feet to a point; thence along a curve to the right, an arc length of 144.46 feet, said curve having a radius of 697.00 feet, with a chord distance of 144.21 feet, at South 24 degrees 13 minutes 54 seconds West; thence South 40 degrees 46 minutes 58 seconds West, a distance of 92.78 feet to a point; thence along a curve to the right, an arc length of 72.26 feet, said curve having a radius of 686.00 feet, with a chord distance of 72.22 feet, at South 40 degrees 49 minutes 35 seconds West; thence North 78 degrees 09 minutes 01 seconds West, a distance of 79.51 feet to a point; thence South 52 degrees 21 minutes 43 seconds West, a distance of 99.92 feet to a point; thence South 15 degrees 04 minutes 51 seconds West, a distance of 93.52 feet to a point; thence along a curve to the right, an arc length of 58.46 feet, said curve having a radius of 686.00 feet, with a chord distance of 58.44 feet, at South 65 degrees 14 minutes 55 seconds West; thence South 67 degrees 41 minutes 23 seconds West, a distance of 123.86 feet to a point; thence South 73 degrees 58 minutes 01 seconds West, a distance of 100.60 feet to a point; thence South 67 degrees 41 minutes 23 seconds West, a distance of 120.00 feet to a point; thence North 72 degrees 34 minutes 00 seconds West, a distance of 87.02 feet to a point on the easterly right-of-way of Union Hill Road; thence along said easterly line, North 30 degrees 24 minutes 40 seconds West, a distance of 96.18 feet to a point; thence North 68 degrees 33 minutes 41 seconds East, a distance of 15.00 feet to a point; thence North 21 degrees 26 minutes 19 seconds West, a distance of 20.00 feet to a point; thence South 68 degrees 33 minutes 41 seconds West, a distance of 15.00 feet to a point; thence North 21 degrees 26 minutes 19 seconds West, a distance of 66.00 feet to a point; thence North 14 degrees 35 minutes 47 seconds West, a distance of 100.71 feet to a point; thence North 21 degrees 26 minutes 21 seconds West, a distance of 125.60 feet to a point; thence North 21 degrees 26 minutes 21 seconds West, a distance of 53.39 feet to a point; thence North 21 degrees 26 minutes 20 seconds West, a distance of 77.87 feet to a point; thence South 68 degrees 33 minutes 40 seconds West, a distance of 12.00 feet to a point; thence North 21 degrees 26 minutes 21 seconds West, a distance of 127.13 feet to a point; thence North 13 degrees 36 minutes 36 seconds West, a distance of 31.22 feet to a point; thence North 13 degrees 35 minutes 30 seconds West, a distance of 101.38 feet to a point; thence along a curve to the right, an arc length of 408.93 feet, said curve having a radius of 1740.00 feet, with a chord distance of 407.99 feet, at North 11 degrees 17 minutes 18 seconds West; thence with a compound curve to the right, an arc length of 103.41 feet, said curve having a radius of 1740.00 feet, with a chord distance of 103.39 feet, at North 02 degrees 51 minutes 12 seconds West; thence South 88 degrees 50 minutes 57 seconds West, a distance of 9.58 feet to a point; thence North 00 degrees 11 minutes 13 seconds East, a distance of 250.49 feet to a point; thence North 03 degrees 24 minutes 04 seconds East, a distance of 198.20 feet to a point; thence North 12 degrees 10 minutes 22 seconds East, a distance of 204.15 feet to a point; thence North 05 degrees 28 minutes 21 seconds East, a distance of 176.84 feet to a point; thence North 20 degrees 46 minutes 52 seconds East, a distance of 108.76 feet to a concrete monument found, located at the intersection of the easterly right-of-way of said Union Hill road with the southeasterly right-of-way of Georgia Highway 400 (variable right-of-way); Thence departing said right-of-way of Union Hill Road and continuing with said southeasterly

right-of-way of Georgia Highway 400 the following three courses: North 62 degrees 45 minutes 18 seconds East, a distance of 594.71 feet to a concrete monument found; North 54 degrees 05 minutes 13 seconds East, a distance of 293.98 feet to a concrete monument found; North 52 degrees 32 minutes 39 seconds East, a distance of 128.18 feet to a 1/2-inch rebar found located on the north line of land lot 967; Thence departing said right-of-way of Georgia Highway 400 and continuing with said north line of land lot 967, South 89 degrees 21 minutes 04 seconds East, a distance of 394.24 feet to a 1-inch iron pin found at the corner common to land lots 906, 907, 966, and 967; Thence continuing with the north line of land lot 966, South 89 degrees 38 minutes 53 seconds East, a distance of 570.00 feet to a 1/2-inch rebar found; Thence South 89 degrees 38 minutes 53 seconds East, a distance of 897.22 feet to a 1-inch crimp top pipe found, said 1-inch crimp top pipe found being the **TRUE POINT OF BEGINNING**.

Said tract of land contains 160.00 Acres.

South 18 degrees 39 minutes 49 seconds West, a distance of 98.06 feet to a point; thence South 18 degrees 39 minutes 55 seconds West, a distance of 15.43 feet to a point; thence South 61 degrees 23 minutes 40 seconds West, a distance of 61.86 feet to a point; thence South 18 degrees 17 minutes 38 seconds West, a distance of 100.00 feet to a point; thence South 25 degrees 55 minutes 59 seconds East, a distance of 62.90 feet to a point; thence South 14 degrees 04 minutes 29 seconds West, a distance of 110.51 feet to a point; thence South 18 degrees 17 minutes 38 seconds West, a distance of 140.62 feet to a point; thence along a curve to the right, an arc length of 144.46 feet, said curve having a radius of 697.00 feet, with a chord distance of 144.21 feet, at South 24 degrees 13 minutes 54 seconds West; thence South 40 degrees 46 minutes 58 seconds West, a distance of 92.78 feet to a point; thence along a curve to the right, an arc length of 72.26 feet, said curve having a radius of 686.00 feet, with a chord distance of 72.22 feet, at South 40 degrees 49 minutes 35 seconds West; thence North 78 degrees 09 minutes 01 seconds West, a distance of 79.51 feet to a point; thence South 52 degrees 21 minutes 43 seconds West, a distance of 99.92 feet to a point; thence South 15 degrees 04 minutes 51 seconds West, a distance of 93.52 feet to a point; thence along a curve to the right, an arc length of 58.46 feet, said curve having a radius of 686.00 feet, with a chord distance of 58.44 feet, at South 65 degrees 14 minutes 55 seconds West; thence South 67 degrees 41 minutes 23 seconds West, a distance of 123.86 feet to a point; thence South 73 degrees 58 minutes 01 seconds West, a distance of 100.60 feet to a point; thence South 67 degrees 41 minutes 23 seconds West, a distance of 120.00 feet to a point; thence North 72 degrees 34 minutes 00 seconds West, a distance of 87.02 feet to a point on the easterly right-of-way of Union Hill Road; thence along said easterly line, North 30 degrees 24 minutes 40 seconds West, a distance of 96.18 feet to a point; thence North 68 degrees 33 minutes 41 seconds East, a distance of 15.00 feet to a point; thence North 21 degrees 26 minutes 19 seconds West, a distance of 20.00 feet to a point; thence South 68 degrees 33 minutes 41 seconds West, a distance of 15.00 feet to a point; thence North 21 degrees 26 minutes 19 seconds West, a distance of 66.00 feet to a point; thence North 14 degrees 35 minutes 47 seconds West, a distance of 100.71 feet to a point; thence North 21 degrees 26 minutes 21 seconds West, a distance of 125.60 feet to a point; thence North 21 degrees 26 minutes 21 seconds West, a distance of 53.39 feet to a point; thence North 21 degrees 26 minutes 20 seconds West, a distance of 77.87 feet to a point; thence South 68 degrees 33 minutes 40 seconds West, a distance of 12.00 feet to a point; thence North 21 degrees 26 minutes 21 seconds West, a distance of 127.13 feet to a point; thence North 13 degrees 36 minutes 36 seconds West, a distance of 31.22 feet to a point; thence North 13 degrees 35 minutes 30 seconds West, a distance of 101.38 feet to a point; thence along a curve to the right, an arc length of 408.93 feet, said curve having a radius of 1740.00 feet, with a chord distance of 407.99 feet, at North 11 degrees 17 minutes 18 seconds West; thence with a compound curve to the right, an arc length of 103.41 feet, said curve having a radius of 1740.00 feet, with a chord distance of 103.39 feet, at North 02 degrees 51 minutes 12 seconds West; thence South 88 degrees 50 minutes 57 seconds West, a distance of 9.58 feet to a point; thence North 00 degrees 11 minutes 13 seconds East, a distance of 250.49 feet to a point; thence North 03 degrees 24 minutes 04 seconds East, a distance of 198.20 feet to a point; thence North 12 degrees 10 minutes 22 seconds East, a distance of 204.15

feet to a point; thence North 05 degrees 28 minutes 21 seconds East, a distance of 176.84 feet to a point; thence North 20 degrees 46 minutes 52 seconds East, a distance of 108.76 feet to a concrete monument found, located at the intersection of the easterly right-of-way of said Union Hill road with the southeasterly right-of-way of Georgia Highway 400 (variable right-of-way); Thence departing said right-of-way of Union Hill Road and continuing with said southeasterly right-of-way of Georgia Highway 400 the following three courses: North 62 degrees 45 minutes 18 seconds East, a distance of 594.71 feet to a concrete monument found; North 54 degrees 05 minutes 13 seconds East, a distance of 293.98 feet to a concrete monument found; North 52 degrees 32 minutes 39 seconds East, a distance of 128.18 feet to a 1/2-inch rebar found located on the north line of land lot 967; Thence departing said right-of-way of Georgia Highway 400 and continuing with said north line of land lot 967, South 89 degrees 21 minutes 04 seconds East, a distance of 394.24 feet to a 1-inch iron pin found at the corner common to land lots 906, 907, 966, and 967; Thence continuing with the north line of land lot 966, South 89 degrees 38 minutes 53 seconds East, a distance of 570.00 feet to a 1/2-inch rebar found; Thence South 89 degrees 38 minutes 53 seconds East, a distance of 897.22 feet to a 1-inch crimp top pipe found, said 1-inch crimp top pipe found being the **TRUE POINT OF BEGINNING**.

Said tract of land contains 160.00 Acres.

Comparison of Premium and Standard Development Options for the
Taubman Development in Forsyth County

Fiscal Impact Analysis

Study Objectives

- Review key assumptions and methodology of Economic Research Associates' (ERA) projections of impact
- Expand ERA analysis to include:
 - All costs and revenues relevant to Forsyth County
 - Impacts associated with new population from employment and new residential construction

Review of Assumptions

- Critical assumptions:
 - Retail sales per square foot
 - Assessed values of constructed property
 - Continuation of SPLOST
- Non-critical assumptions
 - Persons per new household
 - New employee commuting patterns
 - New students per new household

Review of Assumptions

- Scenarios to investigate sensitivity to critical assumptions
 - SPLOST not re-authorized in 2012
 - Higher standard development sales per sq. ft.
 - Lower premium development sales per sq. ft.
- Verified that results are not critical to other assumptions

Fiscal Impact Methodology

- Examine fiscal structure of Forsyth County
- Estimate demographic impacts
- Estimate drivers for “standard” and “premium” development

Fiscal Impact Methodology

- Calculate fiscal impacts for **standard** and **premium** using 2006 for base year
- Using ERA-supplied phasing schedule, develop 10- and 20-year projections
- Calculate present values for each scenario and time horizon
- Some results in terms of difference between **standard** and **premium** developments

Results

- Demographics in terms of:
 - Income
 - Employment
 - Population
- Fiscal impact summary by scenario:
 - Base Case (ERA assumptions)
 - SPLOST not re-authorized
 - Worst case

Elements of Each Scenario

- Base Case (ERA assumptions)
 - SPLOST is re-authorized continually
- SPLOST not re-authorized
 - Sales per square foot as specified by ERA
- Worst Case Scenario
 - No SPLOST re-authorization
 - Higher “Standard Development” retail sales
 - Lower (by 20%) “Premium Development” sales
- Presented as a lower-bound of possible futures

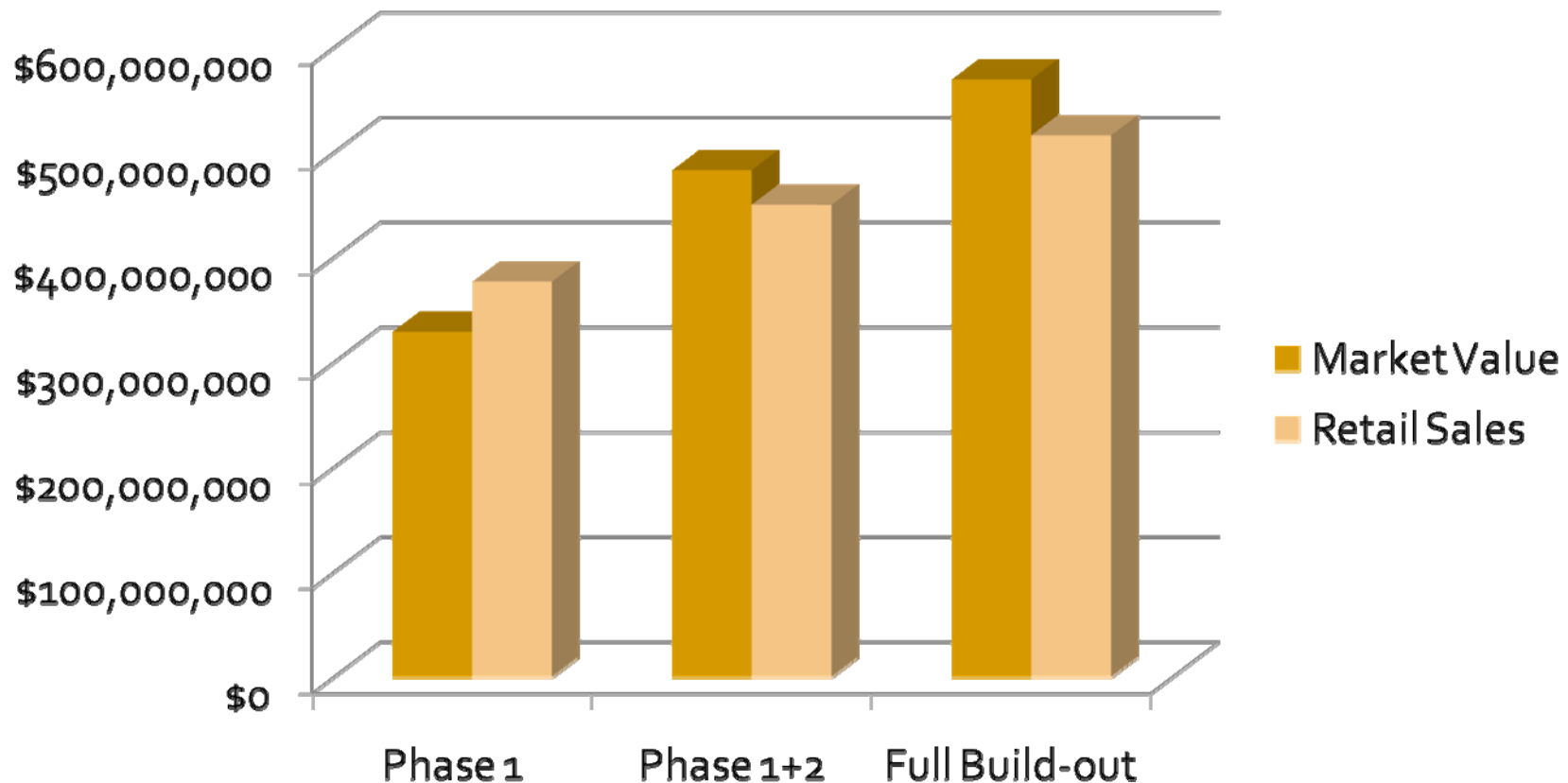
Demographics: Premium Only

	Phase I	Phase II	Phase III	Total
Employment	4,178	2,275	1,389	7,842
Population				
From Employment	3,913	2,130	1,301	7,344
From Residential Development	<u>750</u>	<u>600</u>	<u>400</u>	<u>1,750</u>
Total				
Population	4,663	2,730	1,701	9,094
Income				
To Resident Employees	\$148,440,643	\$107,971,929	\$73,374,250	\$329,786,821
To Residents of Development	<u>\$ 25,143,211</u>	<u>\$ 20,114,569</u>	<u>\$13,409,713</u>	<u>\$ 58,667,493</u>
Total Income	\$173,583,854	\$128,086,498	\$86,783,963	\$388,454,315

Demographics: Premium - Standard

	Phase I	Phase II	Phase III	Total
Employment	2,838	192	189	3,219
Population				
From Employment	2,658	180	177	3,015
From Residential Development	<u>0</u>	<u>600</u>	<u>400</u>	<u>1,000</u>
Total				
Population	2,658	780	577	4,015
Income				
To Resident Employees	\$99,259,100	\$22,693,371	\$8,214,250	\$130,166,721
To Residents of Development	<u>\$0</u>	<u>\$20,114,569</u>	<u>\$13,409,713</u>	<u>\$33,524,282</u>
Total Income	\$94,259,100	\$42,807,940	\$21,623,963	\$163,691,003

Base Case – Market Value & Retail Sales (Premium – Standard)



Project Overview: Base Case

Full Build

	Phase I	Phase I + II	out
Standard Development			
Market Value	\$111,349,500	\$255,805,000	\$345,157,500
Retail Sales	\$39,584,440	\$90,943,236	\$94,412,986
Premium Development			
Market Value	\$440,592,000	\$739,028,000	\$914,860,000
Retail Sales	\$416,693,760	\$541,199,400	\$610,793,610
Net (Premium – Standard)			
Market Value	\$329,242,500	\$483,223,000	\$569,702,500
Retail Sales	\$377,109,320	\$450,256,164	\$516,380,624

Project Overview: Property Taxes

Full Build

	Phase I	Phase I + II	out
Standard Development (Total)	2,809,571	6,258,834	8,073,662
County	727,468	1,620,568	2,090,473
School	2,082,103	4,638,265	5,983,189
Premium Development (Total)	11,183,993	16,668,304	19,758,853
County	2,895,815	4,315,840	5,116,061
School	8,288,178	12,352,464	14,642,792
Net (Premium – Standard Total)	8,374,422	10,409,470	11,685,190
County	2,168,347	2,695,272	3,025,588
School	6,206,075	7,714,198	8,659,603

Project Overview: Sales Taxes

Full Build

	Phase I	Phase I + II	out
Standard Development			
Total Sales			
Taxes	\$1,409,501	\$3,496,414	\$4,678,443
County Gov	\$914,940	\$2,012,651	\$2,189,599
School System	\$494,562	\$1,483,764	\$2,488,844
Premium Development			
Total Sales			
Taxes	\$12,414,814	\$16,365,718	\$18,598,399
Sales Taxes	\$8,058,739	\$10,623,361	\$12,064,646
School System	\$4,356,075	\$5,742,357	\$6,533,753
Net (Premium – Standard)			
Total Sales			
Taxes	\$11,005,312	\$12,869,304	\$13,919,956
Sales Taxes	\$7,143,799	\$8,610,710	\$9,875,047
School System	\$3,861,513	\$4,258,594	\$4,044,909

Focus on Education – Base Case

Full Build-out

	Standard	Premium	Net
New Students	771	1,349	578
Educational Costs	\$3,279,122	\$5,738,805	\$2,459,683
Property Taxes	\$6,086,402	\$14,759,016	\$8,672,614
ELOST	<u>\$2,488,844</u>	<u>\$6,533,753</u>	<u>\$4,044,909</u>
Total	\$8,575,246	\$21,292,768	\$12,717,523

Fiscal Impact Summary: Present Values (Premium – Standard)

Base Case		10-Year	20-Year
Forsyth County Government		\$96,645,866	\$179,361,633
Forsyth County School System		<u>\$86,748,096</u>	<u>\$153,674,647</u>
SPLOST Ends	Total	\$183,393,962	\$333,036,280
2013		10-Year	20-Year
Forsyth County Government		\$61,459,071	\$109,181,116
Forsyth County School System		<u>\$86,748,096</u>	<u>\$153,674,647</u>
Total		\$148,207,167	\$262,855,763
Worst Case		10-Year	20-Year
Forsyth County Government		\$48,993,873	\$88,241,518
Forsyth County School System		<u>\$71,211,590</u>	<u>\$124,370,938</u>
Total		\$120,205,463	\$212,612,456

Fiscal Impact Summary: Present Values (Premium)

Base Case		10-Year	20-Year
Forsyth County Government		\$155,408,216	\$340,811,078
		<u>\$121,950,733</u>	<u>\$223,637,725</u>
		\$277,358,949	\$564,448,804
Forsyth County School System			
SPLOST Ends	Total	10-Year	20-Year
2013		\$63,620,982	\$117,348,702
Forsyth County Government		<u>\$121,950,733</u>	<u>\$223,637,725</u>
Forsyth County School System		\$185,571,715	\$340,986,427
Total			
Worst Case		10-Year	20-Year
Forsyth County Government		\$53,799,491	\$98,814,566
Forsyth County School System		<u>\$110,396,038</u>	<u>\$201,832,861</u>
Total		\$164,195,530	\$300,647,426

Scenario Results – County

Difference between Premium and Standard Development



Scenario Results – School System

Difference between Premium and Standard Development



Some Considerations

- No scenarios are meant to imply that large surpluses will accumulate in Forsyth County budget
 - Some (LOST) will reduce resident's property taxes
 - Some (SPLOST) are earmarked for capital projects
- Assumes displacement is minimal

lot corrals are allowed.

- (6) Walls or fences, required or otherwise, when visible from the right-of-way shall complement the exterior materials of the primary structure on site. Tarps and banner signs shall not be attached to fencing material.
- (7) Chain link fencing is prohibited on SR 141/Peachtree Parkway frontage. Chain link fencing may be allowed along the sides and rear of property fronting SR 141/Peachtree Parkway if it is screened with evergreen trees, shrubs, and/or decorative fencing for the full length and height of the fence.

21.8-7 **Signage.** This section establishes minimum standards to promote and ensure a cohesive and unified identification program within the overlay district. A detailed signage plan is required to be submitted that addresses and conforms to all provisions set forth in this section. The signage plan shall address sign dimensions, materials, height, color scheme, lighting, and location of each sign on the building and on the ground. In addition to Ordinance 74 (Sign Ordinance), the following shall apply:

- (A) Freestanding sign structure/base materials shall match the principal building material.
- (B) Wall signs shall not cover architectural features or details, and not extend beyond the roof line or outer edges of the building.
- (C) Where there is more than one sign on a site, signs shall be complementary to each other in shape and related components and type of construction materials.
- (D) Any exterior light source shall be completely shielded and directed solely on the sign and not upon any other object or adjacent properties.
- (E) Wall mounted raceways shall be painted to match the adjoining wall surface.

ARTICLE IX, RONALD REAGAN/UNION HILL OVERLAY DISTRICT

21-9.1 **Purpose.** The purpose and intent of the Forsyth County Board of Commissioners (the "Commission") in establishing this overlay district is as follows:

- (A) To support flexibility and innovation for regional mixed-use developments encompassing more than 150 acres of land through the complementary integration of office, retail, restaurants, commercial, entertainment, hotel, residential, and recreational land uses;
- (B) To encourage pedestrian circulation, integrate open space, and create a regional retail and mixed-use development.
- (C) To enhance the long term economic viability of the southern portion of Forsyth County by encouraging regional retail and mixed-use development that increases the tax base and generates a substantial employment base;
- (D) To foster a more balanced relationship between commercial and residential growth to ensure a stable and healthy tax base in Forsyth County, and
- (E) To encourage an efficient and sustainable community development plan.

21-9.2 **Boundaries and Description of Area.** The boundaries of the approximate 164-acre Ronald Reagan/Union Hill Overlay District (the "Overlay") shall be as shown on the Official Overlay District Map of Forsyth County, as established and adopted pursuant to Section 9-1.4 of the Forsyth County Unified Development Code (the "UDC"). All property within the Overlay shall be developed simultaneously or in phases in accordance with this Article and generally in accordance with the master development plan for the Overlay attached hereto and incorporated herein by reference (the "Plan"). The Plan is intended to provide a conceptual context in which property within the Overlay may be developed in accordance with this Article. The reassignment of land uses for buildings depicted on the Plan shall not require a formal plan amendment unless such land use reassignment constitutes a major plan amendment, as set forth in Section 21-9.10 of this Article. Approval of a sketch plat, as set forth in Chapter 8, Article V of the UDC, or any other similar site plan approval shall not be required for new development within the Overlay.

21-9.3 **Relationship to Underlying Zoning and Other Regulations.** The provisions of this Article are supplemental to the zoning district in which the property is located. All properties within the boundaries of the Overlay shall meet the development requirements of the underlying CBD zoning district, or other zoning district if the CBD zoning district is changed for the property, or zoning conditions specific to the property or as such may be amended, and in addition shall meet all of the provisions of this Article. The provisions of this Article shall be the only overlay provisions applicable within the boundaries of the Overlay. In the event of a conflict or inconsistency between the provisions of this Article and any other provision of the UDC, applicable conditional use permits, the Forsyth County Tree Protection and Replacement Ordinance (the "Tree Ordinance"), the Forsyth County Sign

Ordinance (the “Sign Ordinance”) or applicable site-specific zoning conditions, this Article shall govern the development of the property within the boundaries of the Overlay.

21-9.4 **Sub-Area 1 (Regional Mixed-Use).** This sub-area is intended to provide a high density, regionally-marketed retail and mixed-use development as identified on the Plan.

(A) Permitted Uses

- (1) All uses permitted under CBD (Commercial Business District) zoning, subject to Section 21-9.8(O) of this Article.
- (2) Multi-family dwelling units, not to exceed 400 units, subject to the aggregate residential density restrictions set forth in section 21-9.8 of this Article. Each unit shall contain a minimum heated floor space of 900 square feet, except the one-bedroom units shall contain a minimum heated floor space of 600 square feet.
- (3) Ground level retail trade establishments in multi-story buildings otherwise occupied by residential or office uses.

(B) Building Height Limits

- (1) Buildings containing office, hotel and/or residential uses may also include parking uses and shall be limited to a maximum of twelve (12) occupiable stories, not to exceed a maximum height of 180 feet.
- (2) Parking decks shall be limited to a maximum height of eight (8) levels.

(C) Buffers and Setbacks

- (1) Setback and Visual Buffer from Georgia Highway 400.
A minimum building setback of sixty (60) feet from the right-of-way from Georgia Highway 400 must be maintained with the first forty (40) feet being a visual buffer. Grading, drainage, and tree plantings may be performed within the visual buffer as long as the disturbed area is replanted to Forsyth County Buffer Standards.
- (2) Minimum landscape strips and frontage planting strips required by the UDC shall not be required along or adjacent to property lines or lease lines. Landscape strips and frontage planting strips shall not be required along any property line or lease line where existing or proposed buildings are, or will be, constructed directly abutting both sides of a common property line or lease line. The purpose of this provision is to allow for a continuous building façade across property lines that would otherwise be interrupted by a landscape strip.
- (3) Minimum building setbacks required by the UDC shall not be required along or adjacent to property lines or lease lines. Building setbacks shall not be required along any property line or lease line where existing or proposed buildings are, or will be, constructed directly abutting both sides of a common property line or lease line. The purpose of this provision is to allow for a continuous building façade across property lines that would otherwise be interrupted by a building setback.

21-9.5 **Sub-Area 2 (Village Commercial and Mixed-Use).** This sub-area is intended to provide for a mix of community scale uses that may include office, hotel, commercial, retail, drug store, bank, restaurant, residential, and recreational land uses as identified on the Plan.

(A) Permitted Uses

- (1) All uses permitted under CBD (Commercial Business District) zoning, subject to Section 21-9.8(O) of this Article.
- (2) Ground level retail trade establishments in multi-story buildings otherwise occupied by residential or office uses.
- (3) Multi-family dwelling units, not to exceed 300 units, subject to the aggregate residential density restrictions set forth in section 21-9.8 of this Article. Each unit shall contain a minimum heated floor space of 900 square feet, except the one-bedroom units shall contain a minimum heated floor space of 600 square feet.

(B) Building Height Limits

- (1) Hotels on parcels located within 600 feet of Union Hill Road shall be limited to a maximum height of eight (8) occupiable stories, not to exceed a maximum height of 130 feet. All other buildings may include parking facilities and shall be limited to a maximum of six (6) occupiable stories, not to exceed a maximum height above grade of 90 feet, exclusive of any integrated parking levels.
- (2) Parking decks shall be limited to a maximum height of four (4) levels.

21-9.6 **Sub-Area 3 (Residential with Limited Commercial).** This sub-area is intended to maximize the diversity of housing choices within the Overlay by providing a more traditional multi-family residential community node with limited commercial to include retail, bank, drug store, restaurant, and/or office uses, as identified on the Plan.

(A) Permitted Uses

- (1) All uses permitted under CBD (Commercial Business District) zoning, subject to Section 21-9.8(O) of this Article.
- (2) Multi-family dwelling units, not to exceed 375 units, subject to the aggregate residential density restrictions set forth in section 21-9.8 of this Article. Each unit shall contain a minimum heated floor space of 900 square feet, except the one-bedroom units shall contain a minimum heated floor space of 600 square feet.

21-9.7 **Architectural Design Standards.** The architectural design standards established herein apply to all commercial development requiring a land disturbance permit. They are intended to achieve a base level of quality for architectural and landscape design that is responsive to its context and contributes to the overall character of the overlay district. The architectural criteria listed below establish minimum design standards for buildings within the overlay district in order to reduce the impacts of commercial development on adjacent properties. The highest quality of architectural design and innovation is encouraged. These standards replace the design criteria contained in UDC Chapters 11 and 12.

(A) Facades and Exterior Walls.

- (1) Front facades greater than one hundred (100) feet in length, measured horizontally, shall incorporate wall plane projections or recesses having a depth of at least two (2) percent of the length of the facade. No uninterrupted length of any facade shall exceed two hundred (200) horizontal feet.
- (2) Minimum Wall Articulation. Front facade design shall provide varying wall offsets and other architectural features to create horizontal (wall) and vertical building articulation. Along with the wall plane requirements in (1) above, at least one of the following treatments shall be incorporated:
 - (a) Change in texture or color.
 - (b) Change in pattern or material.
 - (c) An equivalent element that subdivides the wall into pedestrian scale proportions.

(B) Building Materials and Architectural Treatments. The following design standards, guidelines, and enhancements are established to create a sense of architectural consistency throughout the overlay district and to ensure high quality architectural design.

- (1) Exterior building materials on all commercial development shall consist of a minimum of twenty-five (25) percent per vertical wall plane of brick, natural or a decorative masonry unit pre-cast stone, and/or glass. If multiple establishments are contained within one contiguous structure, the percentage pertains to the entire facade rather than individual facade fronts.
- (2) Accent wall materials on all commercial development shall not exceed seventy-five (75) percent per vertical wall plane. Accent building materials include, but are not limited to, exterior finish insulation systems, stucco, and painted dimension wood. If multiple establishments are contained within one contiguous structure, the percentage pertains to the entire facade rather than individual facade fronts. Smooth and/or rib faced concrete masonry units, aluminum siding, vinyl siding, and corrugated steel are prohibited.
- (3) The principle entry area of a building, or if in a shopping center the mall entrances, shall be articulated and should express greater architectural detail than other portions of the building. Entries shall include at least one of the following or similar architectural elements:
 - (a) Overhangs
 - (b) Canopies
 - (c) Recesses/projections
 - (d) Columns
 - (e) Arcades
 - (f) Corniced parapets over the door
 - (g) Peaked roof forms
 - (h) Arches
 - (i) Glass entry

- (j) Integral planters or wing walls that incorporate landscaped areas and/or places for sitting
- (4) Freestanding accessory structures shall have architectural detailing and design elements consistent with the primary buildings of the development complex to provide a cohesive design.
- (5) Burglar bars, fiberglass awnings, and steel-roll down curtains are prohibited except at the structure's rear. Burglar bars are prohibited on the rear if visible from a public street. Burglar bars are also prohibited on the rear of an outparcel building if visible from the main structure.
- (C) Color. All exterior painted surfaces on commercial structures visible from the public right-of-way shall be painted in neutrals and earth tones. Neutrals refer to blacks, whites, beiges or grays while earth tones refer to browns, umbers, sienna, terracotta and brick tones. Fluorescent colors and those bright in intensity are prohibited. Glass, metal, natural stones, and sign faces are excluded from the color requirements.
- (D) Exterior Lighting. All lighting for commercial development shall be designed to integrate with the overall development character. Parking lot lighting shall be no more than thirty-five (35) feet in height.
 - (1) Lighting shall be architecturally integrated with neutral or earth tone colors.
 - (2) Lighting shall be unobtrusive and refrain from adverse impact of adjacent properties outside of the overlay district and public right-of-ways. See UDC 16-4.21 for fixture type and light spillage.
 - (3) Exposed neon and fluorescent lighting is not permitted except for open and closed signs.
 - (4) For drive-under canopies, the luminaries shall be recessed into the canopy ceiling so that the bottom of the luminaries does not extend below the ceiling.
 - (5) Promotional beacons, search lights, laser source lights, strobe lights or any similar light when projected above the horizon, and lighting used for causing sky glow to attract attention in excess of the lighting used to provide safety, security and utility are prohibited. Projects that want to integrate lines or rows of lights within a defined pedestrian plaza may seek administrative approval upon submission of lighting specifications. Such lights shall not be placed permanently on building exteriors.
- (E) Screening. The following standards shall apply:
 - (1) Accessory site features including, but not limited to, meters, meter boxes, electrical transformers, and other equipment located on the ground shall be screened from view from public rights-of-way or residential uses by placement behind the main building, 60% opaque fencing, berm and/or a vegetative screen planted according to County buffer standards.
 - (2) Flat roofs, roof mounted equipment and other accessories shall be screened from view from the public rights-of-way or residential uses by a parapet, gable roof, roof screen, or other architectural feature. Roof equipment and roof screens shall be finished to match the roof or parapet wall. When the relationship between building roofs and adjoining public streets and/or residential developments make screening of roof equipment impossible (e.g. road higher than roof), a parapet of no less than four feet in height shall be installed.
 - (3) Loading areas shall be screened from the public rights-of-way or residential uses by placement behind the main building or appropriately scaled wall or the use of landscape buffer that is no less than 5 feet in height.
 - (4) Walls or fences, required or otherwise, when visible from the public right-of-way shall complement the exterior materials of the primary structure on site. Tarps and banner signs shall not be attached to fencing material.
 - (5) Chain link fencing is prohibited on Ronald Reagan Boulevard and Union Hill Road frontage. Chain link fencing may be allowed along the sides and rear of property fronting Ronald Reagan Boulevard if it is screened with evergreen trees, shrubs, and/or decorative fencing for the full length and height of the fence.
- (F) Exemptions. The Planning Director may exempt all or parts of the design standards in this section for commissioned buildings by an architect for a site when the design constitutes a unique, one of a kind building that meets or exceeds the intent of these design standards, as demonstrated by architectural elevations.

21-9.8 **General Regulations**

- (A) At least fifteen percent (15%) of the area within the Overlay, exclusive of public roads, public rights-of-way, and interparcel access easements, shall be set aside as open space.
- (B) The following elements may be included in the calculations of open space within the Overlay:
 - (1) Any combination of primary and secondary conservation areas that together form a permanent, undivided or relatively undivided, undeveloped area.
 - (2) All buffers, setbacks and other areas not containing any buildings or pavements.
 - (3) Plazas, fountains, squares and other similar pedestrian amenities.
 - (4) Wetlands, creeks, streams and tributaries, drainage areas, detention ponds, and floodplain.
 - (5) Areas within multi-family residential developments designed and intended for the use and enjoyment of all residents or the use and enjoyment of the public.
- (C) Calculation of Minimum Parking and Loading Spaces
 - (1) All minimum parking and loading requirements for retail uses based on building floor area shall be calculated using Gross Leasable Area, as hereinafter defined.
 - (2) One off-street loading space shall be provided for the first 5,000 square feet of Gross Leasable Area or fractional part thereof for retail uses for which a loading space is required. One additional space shall be required for each additional 75,000 square feet of Gross Leasable Area or fractional part thereof for retail uses.
 - (3) All minimum parking and loading requirements for office uses based on building floor area shall be calculated using Gross Building Area, as hereinafter defined.
 - (4) One off-street loading space shall be provided for the first 5,000 square feet of Gross Building Area or fractional part thereof for office uses for which a loading space is required. One additional space shall be required for each additional 100,000 square feet of Gross Building Area or fractional part thereof for office uses.
 - (5) Unless otherwise approved by the Forsyth County planning director, loading spaces shall be a minimum of ten (10) feet wide, thirty (30) feet long, with fourteen (14) feet of height clearance.
 - (6) Shared parking may be provided at 3.5 spaces per 1,000 square feet of Gross Leasable Area or Gross Building Area, for retail or office uses, respectfully, as hereinafter defined, for any combination of different office and retail land uses within the Overlay (or any sub-area thereof) when such parking arrangement is supported by:
 - (a) Documentation from an acceptable industry publication (e.g., Institute of Transportation Engineers, Urban Land Institute, American Planning Association, etc.); or
 - (b) A study prepared by a traffic engineering firm that documents parking requirements and supports the use of shared parking.
- (D) Surface Parking Standards
 - (1) Any parking area exceeding twenty-five (25) spaces shall provide a minimum of ten percent (10%) of the total parking area as landscape islands. Landscape strips located between a parking area and a private street, driveway or public road shall count toward meeting this requirement
 - (2) At minimum, landscape islands shall be located at the end of every other Parking Bay and, on average, every 150 linear feet of continuous parking space width.
 - (3) Landscape islands for single parking bays shall contain a minimum of 150 square feet. Landscape islands for double parking bays shall require a minimum of 150-square-foot islands on each side or one continuous landscape island of 300 square feet on one side.
 - (4) Each parking landscape area shall contain turf grasses, shrubs, trees, or other landscape material in any combination, but must consist of at least two plant types. Landscape islands shall be located to effectively avoid large expanses of paving and contribute to orderly circulation of vehicular and pedestrian traffic.
 - (5) All trees planted in landscape islands and landscape areas shall be a minimum of three and one-half inches in caliper measured 36 inches above ground, shall be a minimum of ten feet in height, and shall be drought tolerant
- (E) Physical Relationships Between Buildings and Uses.
 - (1) Buffers shall not be required between non-residential uses (including multi-family residential uses) and single-family or multi-family residential uses internal or external

to the Overlay.

- (2) Minimum setbacks or other spatial separations required by the UDC shall not be required between buildings within the boundaries of the Overlay.
 - (3) Minimum building setbacks shall be 10 feet from a public road.
 - (4) Minimum building setbacks shall be 10 feet from common property lines shared with abutting properties that are zoned for residential development, which are outside of the boundaries of the Overlay with the exception of Sub-Area 3 in which the minimum building setbacks shall be 20 feet.
 - (5) Building setbacks shall not be required from private streets or driveways.
 - (6) Condominium developments and townhouse developments may be located on public roads or private streets. The developer shall build private streets to Forsyth County standards. Private streets built to county standards may be dedicated to the public at the developer's option.
- (F) Residential Density
- (1) Residential density within the Overlay shall not be calculated on a per acre basis. Notwithstanding any other provisions within this Article, residential development within the Overlay shall not exceed an aggregate total of 875 dwelling units.
 - (2) Buildings containing condominiums or apartments may include more than six (6) residential units.
- (G) Tree Replacement
- (1) To be consistent with section 2.11 of the Tree Ordinance, because the Plan exceeds the floor area threshold for Developments of Regional Impact:
 - (a) Eighteen (18) tree units per acre shall be provided within the Overlay;
 - (b) Developers shall not be required to replace Specimen Trees (as defined in the Tree Ordinance) that are removed during the initial development of a parcel within the Overlay.
 - (2) Calculations of tree units provided per acre shall include Specimen Trees, and non-specimen trees with a diameter at breast height of at least 18 inches, that are planted or preserved within the Overlay, including those within required buffers or open spaces.
 - (3) In order to provide sufficient growing area for planted trees, a minimum of 300 square feet of pervious root zone shall be provided for every large tree.
- (H) Stream Buffers
- (1) Unless a stream buffer encroachment is approved by the State of Georgia Environmental Protection Division and Forsyth County, a natural vegetative buffer shall be maintained for 50 feet, measured horizontally, on both banks (as applicable) of State waters as measured from the top of bank. With the exception of new tree plantings, this 50-foot vegetative buffer shall remain undisturbed.
 - (2) Unless a stream buffer encroachment is approved by the State of Georgia Environmental Protection Division and Forsyth County, an additional setback shall be maintained for an average of 30 feet, measured horizontally, beyond the undisturbed natural vegetative buffer. Land disturbance activities, including but not limited to grading, drainage, retaining walls, utilities, pervious trails, tree planting and landscaping shall be allowed within this additional setback so long as any disturbed area is stabilized. Stormwater shall not be discharged across any portion of the additional stream buffer setback with a width of less than 25 feet.
- (I) Wetland Buffers
- A 10-foot vegetative buffer shall be maintained adjacent to wetlands within the Overlay. Land disturbance activities, including but not limited to grading and tree planting, shall be Allowed within required wetland buffers so long as any disturbed area is replanted to Forsyth County Buffer Standards.
- (J) Specialized UDC Requirements for Large Retail Developments
- Requirements set forth in Chapter 12 and Chapter 18, Articles of the UDC specifically for individual retail establishments encompassing 40,000 square feet of floor area or greater, or encompassing 75,000 square feet or greater, shall not apply within the Overlay.
- (K) Maintenance Requirements
- (1) During any time a retail building exceeding 40,000 square feet is vacant after its initial opening (a "Vacant Retail Building") for a period of at least 90 days ("Vacancy

Period”), the owner of the building shall:

- (a) Maintain all on-site parking areas and landscaping in the same condition as they had been maintained prior to the vacancy;
 - (b) Operate all lighting in the parking lot and other external areas, exclusive of identification signs, in the same manner as they had been prior to the vacancy period;
 - (c) Remove all outdoor identification signs from the site;
 - (d) Keep the building free of graffiti and repair all other acts of vandalism; and
 - (e) Provide security patrols on the site to deter vandalism or other illegal activities.
 - (2) The owner of a retail building exceeding 40,000 square feet, regardless of the building’s occupancy status, shall be responsible for:
 - (a) Maintaining cleanliness of entire site by removing any trash, rubbish, or other debris from the premises;
 - (b) Maintaining landscaping and replacing dead or damaged plants; and
 - (c) Repair or replace building elements that are damaged, dilapidated or in disrepair (such as but not limited to broken windows).
 - (3) Should the owner of a Vacant Retail Building fail to maintain the building and premises during the Vacancy Period in accordance with the requirements of this Article, the owner shall be subject to citation by the appropriate County Code Enforcement Office and shall be subject to the maximum fine permitted for ordinance violations for each such violation.
- (L) Adaptive Reuse.
- (1) If an individual retail establishment 75,000 square feet or greater (“Establishment”) is vacated, the owner and/or lessee (the “Owner”) shall submit a written adaptive reuse and marketing plan (a “Reuse Plan”) to the planning director no later than the end of the 25th consecutive month of vacancy, unless events or circumstances beyond the Owner’s control prevent the submittal of the Reuse Plan.
 - (2) The Reuse Plan shall include the reason(s) for the continued vacancy, potential use types for the vacant Retail Establishment, a marketing plan to be executed for the facility and a schedule for the implementation of the marketing plan (a “Schedule”). The Owner shall execute the Reuse Plan in accordance with the Schedule, unless events or circumstances beyond the Owner’s control prevent adherence to the Schedule.
 - (3) If the Establishment remains vacant for 12 consecutive months after the Reuse Plan’s submittal date, the Owner shall provide the planning director with annual written status reports regarding its plans to redevelop and/or reuse the property and the reason(s) for the property’s continuing vacancy.
- (M) Calculation of Area for Retail and Office Uses
- (1) The area of retail uses within the Overlay shall be calculated using “Gross Leasable Area”, which shall mean the sum of the total horizontal areas of the several floors of all buildings on a lot, measured from the interior faces of exterior walls and from the center line of joint partitions and walls separating two (2) or more buildings. The term Gross Leasable Area shall exclude all outdoor dining areas, outdoor display areas that are accessory to enclosed retail stores, areas designed for permanent accessory uses such as public toilets, utility closets, mall food courts, mall management and security offices, mail distribution or delivery facilities, truck tunnels, enclosed parking areas, meter rooms, mall concourses, corridors not open to the public, rooftop mechanical structures, mechanical and equipment rooms and facilities, public and fire corridors, stairwells, elevators and escalators.
 - (2) The area of office uses within the Overlay shall be calculated using net rentable area in accordance with the “Standard Method of Measuring Floor Areas in Office Buildings ANSI/BOMA Z65.1 – 1996”, as adopted by The Building Owners and Managers Association (BOMA) International.
- (N) Signage.
- (1) A comprehensive signage plan setting forth details relative to sign types, numbers, materials, construction, lighting, heights, and areas shall be submitted to the planning director for review and approval prior to the issuance of sign permits for each development within the Overlay (or each phase thereof).
 - (2) Commercial Signs.

- (a) Wall Signs.
 - (i) Department store anchors over 80,000 square feet shall be allowed 3 signs (one per façade) up to 5% of the overall façade or a maximum of 600 square feet per sign.
 - (ii) The retail building connecting the department store anchors shall be allowed up to 8 signs up to 200 square feet per sign.
 - (iii) Office and hotel buildings over 5 stories are allowed 4 signs (one per façade) up to 5% of the overall façade area or a maximum of 600 square feet per sign, whichever is greater.
- (b) Marquee Signs. Signs within the Overlay are allowed a maximum projection of 12 feet from the building wall.
- (c) Monument Signs (fronting freeways and arterial/collector streets). No more than 2 signs may be located per entrance to a public street. Maximum sign area shall be limited to 300 square feet per side, not including wing walls. Signs shall be limited to a maximum height of 12 feet.
- (d) Monument Signs (fronting local roads and private streets). No more than 12 signs may be permitted within the Overlay. Maximum sign area shall be limited to 72 square feet per side. Signs shall be limited to a maximum height of 10 feet.
- (e) Pole Directional Signage. No more than 24 signs may be located within the Overlay. Maximum sign area shall be limited to 60 square feet per side. Signs shall be limited to a maximum height of 10 feet.
- (f) Light Pole Graphics. Four-sided signs may be located on poles to serve as directional aids. Maximum sign area shall be limited to 15 square feet per side. Signs shall be limited to a maximum height of 12 feet.
- (g) Georgia 400 Corridor Signage. A single pylon sign may be located along GA400. Maximum sign area shall be limited to 400 square feet. The sign shall be limited to a maximum height of 50 feet.
- (3) Residential. All residential development within the Overlay shall be allowed separate signage as permitted per the Residential Zoning Standards of the Sign Ordinance.
- (4) Notwithstanding any other provisions within this Article, the Office Residential Zoning Districts Performance Standards and Commercial or Industrial Zoning Districts in the Sign Ordinance shall not apply to the Overlay.
- (O) Prohibited Uses.

The following uses shall be prohibited within the Overlay.

 - (a) Convenience stores, with or without gasoline pumps.
 - (b) Gas stations.
 - (c) Adult novelty stores.
 - (d) Adult entertainment centers.
 - (e) Pawn shops.
 - (f) Tattoo parlors

21-9.9 **Applicability.** All properties within the boundaries of the Overlay shall be subject to the requirements of the UDC, the Sign Ordinance and the Tree Ordinance. Properties within Sub-Area 2 and Sub-Area 3 of the Overlay shall be subject to all requirements of this Article and the Plan. Sub-Area 1 may be developed in accordance with the Article and this Plan. The following provisions of this Article shall not apply to Sub-Area 1 of the Overlay if Sub-Area 1 does not conform to the Plan: Sections 21-.4(A)(2), 21-.4(B), 21-.4(C)(2), 21-.8(C)(6), 21-.8(D)(1), 21-.8(D)(2), 21-.8(D)(3), 21-.8(D)(4), 21-.8(E)(1), 21-.8(E)(3), 21-.8(E)(4), 21-.8(E)(5), 21-.8(E)(6), 21-.8(F), 21-.8(N), 21-.10(A), 21-.10(B) and 21-.10(C). Section 21-.8(F)(1) shall not apply to Sub-Area 1 if Sub-Area 1 does not conform to the Plan; and the maximum residential density on the balance of the Overlay shall be reduced to 675 units. The requirements of the UDC, this Article and the Tree Ordinance shall apply cumulatively to all properties within the Overlay so that each requirement is interpreted against the overall Plan, not any individual parcel or property.

21-9.10 **Administrative Interpretations.**

- (A) The planning director is hereby authorized to administratively grant minor Plan amendments for individual parcels within the Overlay. A minor Plan amendment shall be effective only for the parcel(s) for which the amendment was requested and shall not affect any other parcel within the Overlay.

- (B) Minor Plan amendments shall include, but are not limited to, adjusting lot lines and lease lines, reducing the size of individual uses, removing approved uses, modifying the layout of internal roads, relocating open space, reconfiguring building footprints and relocating buildings depicted on the Plan. Any proposed amendment to the Plan that is determined by the planning director to constitute a public interest that decreases the public open space by ten (10) percent or more, increases the density by ten (10) percent or more, or changes the Overlay boundaries shall be deemed a major amendment. The addition of proposed uses or the relocation of active amenities to a location closer to the Overlay boundaries than as shown on the Plan shall constitute major amendments. For all amendments to the Plan that are determined to be major amendments, the Board of Commissioners shall be required to hold a public hearing, but such hearing shall be limited specifically to testimony regarding whether the proposed amendment should or should not be approved.
- (C) The planning director may approve requests for minor Plan amendments based on the following considerations:
 - (1) Whether the amendment conforms to the policy and intent of the Forsyth County Comprehensive Plan;
 - (2) Whether the amendment would be suitable in view of the use and development of adjacent and nearby properties;
 - (3) Whether the amendment would have an adverse affect on the usability of adjacent and nearby property
 - (4) Whether the amendment would impose an excessive burden on streets, transportation facilities or utilities;
 - (6) Whether there are existing or changing conditions affecting the use and development of the property that support the approval of the amendment.
- (D) The planning director is not authorized to grant variances from the provisions of the underlying CBD zoning district. Deviations from the underlying CBD zoning district shall require the issuance of a variance pursuant to Article V and Article VI of the UDC.
- (E) In the event of a conflict or inconsistency between this Overlay, as interpreted by the planning director, and (1) any other provision of the UDC, (2) the Sign Ordinance, or (3) the Tree ordinance, this Article shall govern the development within the Overlay.

TABLE 21.3
 PERFORMANCE STANDARDS SUMMARY

Performance Standard	Sub-Area 1	Sub-Area 2	Sub-Area 3
Minimum dwelling unit size	600 sf (1 bedroom) 900 sf (all other units)	600 sf (1 bedroom) 900 sf (all other units)	600 sf (1 bedroom) 900 sf (all other units)
Maximum building height	12 stories or 180 feet	6 stories or 90 feet (office/res.) 8 stories or 130 feet (hotels)	As set forth in UDC.
Maximum parking deck height	8 levels	4 levels	As set forth in UDC.
Max. residential density. (Note 1)	400 units	300 units	375 units
GA 400 buffer	60 feet (includes 40-foot visual buffer)	n/a	n/a
Loading Spaces (retail)	1 space for first 5,000 sf 1 space for each additional 75,000 sf.	1 space for first 5,000 sf 1 space for each additional 75,000 sf.	1 space for first 5,000 sf 1 space for each additional 75,000 sf.
Loading Spaces (office)	1 space for first 5,000 sf 1 space for each additional 100,000 sf.	1 space for first 5,000 sf 1 space for each additional 100,000 sf.	1 space for first 5,000 sf 1 space for each additional 100,000 sf.
Loading Space Size	10 ft x 30 ft Min. 14-foot clearance	10 ft x 30 ft Min. 14-foot clearance	10 ft x 30 ft Min. 14-foot clearance
Pervious Root Zone (Large Trees)	300 sf	300 sf	300 sf

Performance Standard	Sub-Area 1	Sub-Area 2	Sub-Area 3
Min. Landscape Island size (Single Bay)	150 sf	150 sf	150 sf
Min. Landscape Island size (Double Bay)	300 sf	300 sf	300 sf
Landscape Island Location	Every other parking bay and avg. every 150 linear feet of parking width	Every other parking bay and avg. every 150 linear feet of parking width	Every other parking bay and avg. every 150 linear feet of parking width
Building Setbacks (Note 3)	10 feet from public road and residential development outside Overlay	10 feet from public road and residential development outside Overlay	10 feet from public road and residential development outside Overlay
Stream Buffer	50-ft vegetative buffer Avg. 30-ft additional setback	50-ft vegetative buffer Avg. 30-ft additional setback	50-ft vegetative buffer Avg. 30-ft additional setback
Wetland Buffer	10 feet	10 feet	10 feet
Shared Parking for Mixed-Uses of Retail and Office	3.5 spaces per 1,000 sf	3.5 spaces per 1,000 sf	3.5 spaces per 1,000 sf

Note 1 – Residential density within the Overlay shall not exceed a total of 875 units.

Note 2 –Setbacks and buffers do not apply to private streets, driveways, or lease lines/property lines within the Overlay.

Note 3 – The applicability of standards summarized in this table are subject to the provisions of section 21-9.10 of the Ronald Reagan/Union Hill Overlay District regulations.

APPENDIX D - BENEFIT COST RATIOS

GDOT Benefit-Cost Calculator

enter information in green cells

Project Information

ID	
Description	GA 400/McGinnis Ferry Road IJR - Alternative 2

Cost Estimate

Date of estimate	3/26/12
PE cost	\$ 2,406,907
ROW cost	\$ 11,236,438
UTILITY cost	\$ 700,000
CST cost	\$ 34,384,387
MITIGATION cost	\$ -
Total	\$ 48,727,732

Traffic in 2040

Source of traffic data	
Without project (nobuild)	
Annual VMT	55,604,875
Annual VHT	1,922,140
Average speed (mph)	29
With project (build)	
Annual VMT	66,058,375
Annual VHT	1,243,265
Average speed (mph)	53

Parameters	Default	Override	Used
Analysis year	2035	2040	2040
Discount rate	7.0%		7%
Design life (years)	25	20	20
Base year of cost estimate	N/A	2012	2012
Current CST program year	N/A	2020	2020
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%	4%	4%
Include GSP benefits	No	No	No

Costs

Total cost	\$ 48,727,732
Annualized cost	\$ 3,264,130

Auto Delay Costs

Nobuild	\$ 25,372,248
Build	\$ 16,411,098
Auto delay savings	\$ 8,961,150

Truck Delay Costs

Nobuild	\$ 5,585,739
Build	\$ 3,612,928
Truck delay savings	\$ 1,972,811

Fuel Costs

Nobuild	\$ 9,930,543
Build	\$ 11,797,447
Fuel cost savings	\$ (1,866,903)

Change in GSP

Auto delay cost adjustment	NA
Truck delay cost adjustment	NA
Fuel cost adjustment	NA
Total benefit adjustment	NA

Benefits in 2040	\$ 9,067,057
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Benefit-Cost Ratio	2.78
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Notes

Project evaluation is based on termini in proposed concept report; Cost estimate was prepared for concept report.

Benefit Input Calculations for Alternative 2			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT with Project			
Corridor Description of ALT 2-McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Windward Pkwy	1.61	0.41	95250
GA 400 from Windward Pkwy to NBCD	0.63	0.16	81400
NBCD from GA 400 to McGinnis Ferry Rd	0.34	0.09	31550
McGinnis Ferry Rd Exit Ramp	0.40	0.10	12500
McGinnis Ferry Rd to Mall	0.96	0.24	45700
		0.00	
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			67064
Corridor Length with Project (A to B in Miles)			3.94
Annual VMT With Project	Vehicles per day x 250 16,766,085	Travel Distance 3.94	VMT 66,058,375
Calculations of Annual VHT with Project			
Corridor Description of ALT 2-McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Windward Pkwy	1.61	0.41	54.30
GA 400 from Windward Pkwy to NBCD	0.63	0.16	66.70
NBCD from GA 400 to McGinnis Ferry Rd	0.34	0.09	55.00
McGinnis Ferry Rd Exit Ramp	0.40	0.10	45.00
McGinnis Ferry Rd to Mall	0.96	0.24	45.00
		0.00	
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under Build Scenario			53.13
Peak Travel Time through Corridor in Hours With Project (Total Length / Average Travel Speed)			0.07
Annual VHT With Project	Vehicles per day x 250 16,766,085	Peak Travel Time 0.07	VHT 1,243,265

Benefit Input Calculations for No-Build Scenario			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT without Project			
Corridor Description of McGinnis Ferry Rd IJR (No-Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	95250
Woodward Pkwy Exit Ramp	0.32	0.08	27500
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	49900
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	13300
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	39800
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			54381
Corridor Length without Project (A to B in Miles)			4.09
Annual VMT Without Project	Vehicles per day x 250 13,595,324	Travel Distance 4.09	VMT 55,604,875
Calculations of Annual VHT without Project			
Corridor Description of Sugarloaf Pkwy (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	54.30
Woodward Pkwy Exit Ramp	0.32	0.08	18.13
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	18.13
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	35.00
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	12.20
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under No-Build Scenario			28.93
Peak Travel Time through Corridor in Hours Without Project (Total Length / Average Travel Speed)			0.14
Annual VHT Without Project	Vehicles per day x 250 13,595,324	Peak Travel Time 0.14	VHT 1,922,140

SUMMARY OF PROJECT COSTS

Alt. 2 - McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

Non-Construction Costs

A.	Right-of-Way	\$11,236,438
B.	Reimbursable Utilities	\$700,000

Construction Costs

C.	Major Structures	\$7,598,872
D.	Grading and Earthwork	\$3,133,704
E.	Drainage	\$727,909
F..	Base and Paving	\$7,777,606
G.	Concrete Work	\$8,573,661
H.	Signing and Striping	\$1,185,308
I.	Guardrail	\$24,000
J.	Traffic Control & Mobilization	\$200,000
K.	Landscaping and Erosion Control	\$1,959,474
L.	Miscellaneous Construction Items	\$78,000
	Construction Cost Subtotal	\$31,258,534

Engineering & Construction; 10%	\$3,125,853
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	Total Construction Cost	\$34,384,387
	Professional Engineering	\$2,406,907
Total Project Costs		\$48,727,733

Forsyth & Fulton Counties

Detailed Cost Estimate - Alternative 2
McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

A.	Right-of-Way				\$11,236,438
B.	Reimbursable Utilities				\$700,000
C.	Major Structures				
	1. Class A Concrete	400 CY @	\$600.00	\$240,000	
	2. MSE Wall face 0-10 FT HT, Wall No. - 1	4,300 SF @	\$55.04	\$236,672	
	3. Bridge over GA 400	71,222 SF @	\$100.00	\$7,122,200	
			Subtotal		\$7,598,872
D.	Grading and Earthwork				
	1. Unclassified Excavation & Borrow	156,685 CY @	\$20.00	\$3,133,704	
			Subtotal		\$3,133,704
E.	Drainage				
	1. Pipe 54" H20'-25'	700 LF @	\$120.00	\$84,000	
	2. Pipe 36" H10'-15'	1,200 LF @	\$64.00	\$76,800	
	3. Pipe 48" H0-10"	700 LF @	\$64.00	\$44,800	
	4. Pipe 30" H 0'-10'	2,100 LF @	\$64.00	\$134,400	
	5. Pipe 30" H10'-15'	2,000 LF @	\$43.50	\$87,000	
	6. Catch Basins	45 EA	\$2,000.00	\$89,333	
	7. Class A concrete (Headwalls)	30 CY @	\$500.00	\$15,000	
	8. Riprap TP1 36"	100 SY @	\$56.00	\$5,600	
	9. Rural Drainage		Lump	\$190,975	
			Subtotal		\$727,909
F.	Base & Paving				
	1. Graded Aggregate Base 12"	161,118 TN @	\$20.00	\$3,222,362	
	2. Graded Aggregate Base 6"	0 TN @	\$20.00	\$0	
	3. Asphalt Concrete 12.5 mm Superpave 165#/SY (1-1/2")	7,979 TN @	\$75.00	\$598,413	
	4. Asphalt Concrete 19.0 mm Superpave 220#/SY (2")	6,000 TN @	\$75.00	\$449,980	
	5. Asphalt Concrete 25 mm Superpave 330#/SY (3")	32,171 TN @	\$75.00	\$2,412,856	
	6. Asphalt Concrete 25 mm Superpave 440#/SY (4")	11,995 TN @	\$75.00	\$899,588	
	7. Asphalt Leveling	1,740 TN @	\$82.00	\$142,641	
	8. Bitum Tack Coat	34,512 GL @	\$1.50	\$51,767	
			Subtotal		\$7,777,606
G.	Concrete Work				
	1. Plain Portland Cement, Class 3 Conc. 12"	177,644 SY @	\$38.00	\$6,750,489	
	2. Concrete Median Paving 7.5"	6,300 SY @	\$38.00	\$239,400	
	3. Driveways	100 SY @	\$30.00	\$3,000	
	4. Concrete Barrier	27,340 LF @	\$39.86	\$1,089,772	
	5. Concrete Curb & Gutter, 8" x 30" TP 2	16,700 LF @	\$10.00	\$167,000	
	6. Concrete Curb & Gutter, 8" x 30" TP 7	14,900 LF @	\$10.00	\$149,000	
	7. Sidewalk - 4"	7,000 SY @	\$25.00	\$175,000	
			Subtotal		\$8,573,661
H.	Signing and Striping				
	1. Interstate signs	6 EA @	\$62,000.00	\$372,000	
	2. Signs	150 EA @	\$100.00	\$15,000	
	3. Striping	29,550 LF @	\$2.65	\$78,308	
	4. Signals with Interconnect	6 EA @	\$120,000.00	\$720,000	
			Subtotal		\$1,185,308

L.	Guardrail			
	1. Guardrail, W Beam	800 LF @	\$15.00	\$12,000
	2. Guardrail, T Beam	200 LF @	\$38.50	\$7,700
	2. Anchors TP 12	2 EA @	\$1,650.00	\$3,300
	3. Anchors TP 1	2 EA @	\$500.00	\$1,000
		Subtotal		\$24,000
J.	Traffic Control			
	1. Traffic Control		Lump Sum	\$200,000
		Subtotal		\$200,000
K.	Landscaping and Erosion Control			
	1. Clearing & Grubbing	48.1 ac @	\$30,000.00	\$1,442,562
	2. Grassing	26.6 ac @	\$2,500.00	\$66,607
	3. Erosion Control			
	a. Temporary Grass	216 lbs @	\$1.00	\$216
	b. Temporary Mulch	144 TN @	\$150.00	\$21,638
	c. Silt Fence, TP A	12,873 LF @	\$3.00	\$38,619
	d. Silt Fence, TP C	30,037 LF @	\$4.00	\$120,148
	e. Maint. of Temp. Silt Fence, TP A	12,873 LF @	\$1.50	\$19,310
	f. Maint. of Temp. Silt Fence, TP C	30,037 LF @	\$1.50	\$45,056
	g. Sediment Basin, TP 1	1 EA @	\$6,000.00	\$6,000
	h. Maint. of Temp. Sediment Basin	1 EA @	\$3,500.00	\$3,500
	i. Permanent Grass Seed	541 lbs @	\$2.00	\$1,082
	j. Construction Exit	6 EA @	\$1,500.00	\$9,000
	k. Water Quality Sampling	18 mon.	\$100.00	\$1,800
	l. Water Quality Monitoring	18 mon.	\$1,000.00	\$18,000
	m. Erosion Control mats	50,000 SY @	\$2.50	\$125,000
	n. Miscellaneous Items		Lump Sum	\$40,937
		Subtotal		\$1,959,474
L.	Miscellaneous Items			
	1. Field Office TP 3	1 EA @	\$78,000.00	\$78,000
		Subtotal		\$78,000

GDOT Benefit-Cost Calculator

enter information in green cells

Project Information

ID	
Description	GA 400/McGinnis Ferry Road IJR - Alternative 3

Cost Estimate

Date of estimate	3/26/12
PE cost	\$ 1,167,184
ROW cost	\$ 11,236,438
UTILITY cost	\$ 700,000
CST cost	\$ 16,674,053
MITIGATION cost	\$ -
Total	\$ 29,777,675

Traffic in 2040

Source of traffic data	
Without project (nobuild)	
Annual VMT	55,604,875
Annual VHT	1,922,140
Average speed (mph)	29
With project (build)	
Annual VMT	70,295,625
Annual VHT	1,332,061
Average speed (mph)	53

Parameters	Default	Override	Used
Analysis year	2035	2040	2040
Discount rate	7.0%		7%
Design life (years)	25	20	20
Base year of cost estimate	N/A	2012	2012
Current CST program year	N/A	2020	2020
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%	4%	4%
Include GSP benefits	No	No	No

Costs

Total cost	\$ 29,777,675
Annualized cost	\$ 1,994,720

Auto Delay Costs

Nobuild	\$ 25,372,248
Build	\$ 17,583,205
Auto delay savings	\$ 7,789,043

Truck Delay Costs

Nobuild	\$ 5,585,739
Build	\$ 3,870,969
Truck delay savings	\$ 1,714,770

Fuel Costs

Nobuild	\$ 9,930,543
Build	\$ 12,554,183
Fuel cost savings	\$ (2,623,639)

Change in GSP

Auto delay cost adjustment	NA
Truck delay cost adjustment	NA
Fuel cost adjustment	NA
Total benefit adjustment	NA

Benefits in 2040	\$ 6,880,173
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Benefit-Cost Ratio	3.45
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Notes

Project evaluation is based on termini in proposed concept report; Cost estimate was prepared for concept report.

Benefit Input Calculations for Alternative 3			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT with Project			
Corridor Description of ALT 2-McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Windward Pkwy	1.61	0.41	95250
GA 400 from Windward Pkwy to McGinnis Ferry Rd	0.97	0.25	81400
McGinnis Ferry Rd Exit Ramp	0.40	0.10	12500
McGinnis Ferry Rd to Mall	0.96	0.24	45700
		0.00	
		0.00	
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			71366
Corridor Length with Project (A to B in Miles)			3.94
Annual VMT With Project		Vehicles per day x 250	Travel Distance
		17,841,529	3.94
			70,295,625
Calculations of Annual VHT with Project			
Corridor Description of ALT 2-McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Windward Pkwy	1.61	0.41	54.30
GA 400 from Windward Pkwy to McGinnis Ferry Road	0.97	0.25	66.70
McGinnis Ferry Rd Exit Ramp	0.28	0.07	45.00
McGinnis Ferry Rd to Mall	0.96	0.24	45.00
		0.00	
		0.00	
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under Build Scenario			52.77
Peak Travel Time through Corridor in Hours With Project (Total Length / Average Travel Speed)			0.07
Annual VHT With Project		Vehicles per day x 250	Peak Travel Time
		17,841,529	0.07
			1,332,061

Benefit Input Calculations for No-Build Scenario			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT without Project			
Corridor Description of McGinnis Ferry Rd IJR (No-Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	95250
Woodward Pkwy Exit Ramp	0.32	0.08	27500
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	49900
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	13300
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	39800
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			54381
Corridor Length without Project (A to B in Miles)			4.09
Annual VMT Without Project	Vehicles per day x 250	Travel Distance	VMT
	13,595,324	4.09	55,604,875
Calculations of Annual VHT without Project			
Corridor Description of Sugarloaf Pkwy (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	54.30
Woodward Pkwy Exit Ramp	0.32	0.08	18.13
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	18.13
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	35.00
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	12.20
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under No-Build Scenario			28.93
Peak Travel Time through Corridor in Hours Without Project (Total Length / Average Travel Speed)			0.14
Annual VHT Without Project	Vehicles per day x 250	Peak Travel Time	VHT
	13,595,324	0.14	1,922,140

SUMMARY OF PROJECT COSTS

Alt. 3 - McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

Non-Construction Costs

A.	Right-of-Way	\$11,236,438
B.	Reimbursable Utilities	\$700,000

Construction Costs

C.	Major Structures	\$4,896,672
D.	Grading and Earthwork	\$1,426,296
E.	Drainage	\$735,797
F..	Base and Paving	\$3,525,151
G.	Concrete Work	\$1,706,200
H.	Signing and Striping	\$1,185,308
I.	Guardrail	\$24,000
J.	Traffic Control & Mobilization	\$200,000
K.	Landscaping and Erosion Control	\$1,380,806
L.	Miscellaneous Construction Items	\$78,000
	Construction Cost Subtotal	\$15,158,230

Engineering & Construction; 10%	\$1,515,823
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	Total Construction Cost	\$16,674,053
	Professional Engineering	\$1,167,184
Total Project Costs		\$29,777,675

Forsyth & Fulton Counties

Detailed Cost Estimate - Alternative 3
McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

A.	Right-of-Way			\$11,236,438
B.	Reimbursable Utilities			\$700,000
C.	Major Structures			
	1. Class A Concrete	400 CY @	\$600.00	\$240,000
	2. MSE Wall face 0-10 FT HT, Wall No. - 1	4,300 SF @	\$55.04	\$236,672
	3. Bridge over GA 400	44,200 SF @	\$100.00	\$4,420,000
		Subtotal		\$4,896,672
D.	Grading and Earthwork			
	1. Unclassified Excavation & Borrow	71,315 CY @	\$20.00	\$1,426,296
		Subtotal		\$1,426,296
E.	Drainage			
	1. Pipe 54" H20'-25'	700 LF @	\$120.00	\$84,000
	2. Pipe 36" H10'-15'	1,200 LF @	\$64.00	\$76,800
	3. Pipe 48" H0-10"	700 LF @	\$64.00	\$44,800
	4. Pipe 30" H 0'-10'	2,100 LF @	\$64.00	\$134,400
	5. Pipe 30" H10'-15'	2,000 LF @	\$43.50	\$87,000
	6. Catch Basins	45 EA	\$2,000.00	\$89,333
	7. Class A concrete (Headwalls)	30 CY@	\$500.00	\$15,000
	8. Riprap TP1 36"	100 SY @	\$56.00	\$5,600
	9. Rural Drainage	Lump		\$198,864
		Subtotal		\$735,797
F.	Base & Paving			
	1. Graded Aggregate Base 12"	53,349 TN @	\$20.00	\$1,066,980
	2. Graded Aggregate Base 6"	0 TN @	\$20.00	\$0
	3. Asphalt Concrete 12.5 mm Superpave 165#/SY (1-1/2")	7,979 TN @	\$75.00	\$598,413
	4. Asphalt Concrete 19.0 mm Superpave 220#/SY (2")	6,000 TN @	\$75.00	\$449,980
	5. Asphalt Concrete 25 mm Superpave 330#/SY (3")	4,636 TN @	\$75.00	\$347,712
	6. Asphalt Concrete 25 mm Superpave 440#/SY (4")	11,995 TN @	\$75.00	\$899,588
	7. Asphalt Leveling	1,740 TN @	\$82.00	\$142,641
	8. Bitum Tack Coat	13,225 GL @	\$1.50	\$19,838
		Subtotal		\$3,525,151
G.	Concrete Work			
	1. Plain Portland Cement, Class 3 Conc. 12"	25,600 SY @	\$38.00	\$972,800
	2. Concrete Median Paving 7.5"	6,300 SY @	\$38.00	\$239,400
	3. Driveways	100 SY @	\$30.00	\$3,000
	4. Concrete Curb & Gutter, 8" x 30" TP 2	16,700 LF @	\$10.00	\$167,000
	5. Concrete Curb & Gutter, 8" x 30" TP 7	14,900 LF @	\$10.00	\$149,000
	6. Sidewalk - 4"	7,000 SY @	\$25.00	\$175,000
		Subtotal		\$1,706,200
H.	Signing and Striping			
	1. Interstate Signs	6 EA @	\$62,000.00	\$372,000
	2. Signs	150 EA @	\$100.00	\$15,000
	3. Striping	29,550 LF @	\$2.65	\$78,308
	4. Signals with Interconnect	6 EA @	\$120,000.00	\$720,000
		Subtotal		\$1,185,308

L.	Guardrail			
	1. Guardrail, W Beam	800 LF @	\$15.00	\$12,000
	2. Guardrail, T Beam	200 LF @	\$38.50	\$7,700
	2. Anchors TP 12	2 EA @	\$1,650.00	\$3,300
	3. Anchors TP 1	2 EA @	\$500.00	\$1,000
		Subtotal		\$24,000
J.	Traffic Control			
	1. Traffic Control		Lump Sum	\$200,000
		Subtotal		\$200,000
K.	Landscaping and Erosion Control			
	1. Clearing & Grubbing	33.9 ac @	\$30,000.00	\$1,018,320
	2. Grassing	19.6 ac @	\$2,500.00	\$48,930
	3. Erosion Control			
	a. Temporary Grass	153 lbs @	\$1.00	\$153
	b. Temporary Mulch	102 TN @	\$150.00	\$15,275
	c. Silt Fence, TP A	6,090 LF @	\$3.00	\$18,270
	d. Silt Fence, TP C	14,210 LF @	\$4.00	\$56,840
	e. Maint. of Temp. Silt Fence, TP A	6,090 LF @	\$1.50	\$9,135
	f. Maint. of Temp. Silt Fence, TP C	14,210 LF @	\$1.50	\$21,315
	g. Sediment Basin, TP 1	1 EA @	\$6,000.00	\$6,000
	h. Maint. of Temp. Sediment Basin	1 EA @	\$3,500.00	\$3,500
	i. Permanent Grass Seed	382 lbs @	\$2.00	\$764
	j. Construction Exit	6 EA @	\$1,500.00	\$9,000
	k. Water Quality Sampling	18 mon.	\$100.00	\$1,800
	l. Water Quality Monitoring	18 mon.	\$1,000.00	\$18,000
	m. Erosion Control mats	50,000 SY @	\$2.50	\$125,000
	n. Miscellaneous Items		Lump Sum	\$28,505
		Subtotal		\$1,380,806
L.	Miscellaneous Items			
	1. Field Office TP 3	1 EA @	\$78,000.00	\$78,000
		Subtotal		\$78,000

GDOT Benefit-Cost Calculator

enter information in green cells

Project Information

ID	
Description	GA 400/McGinnis Ferry Road IJR - Alternative 4

Cost Estimate

Date of estimate	3/26/12
PE cost	\$ 1,692,768
ROW cost	\$ 8,117,667
UTILITY cost	\$ 1,750,000
CST cost	\$ 24,182,394
MITIGATION cost	\$ -
Total	\$ 35,742,829

Traffic in 2040

Source of traffic data	
Without project (nobuild)	
Annual VMT	55,604,875
Annual VHT	1,922,140
Average speed (mph)	29
With project (build)	
Annual VMT	55,604,875
Annual VHT	1,580,244
Average speed (mph)	35

Parameters	Default	Override	Used
Analysis year	2035	2040	2040
Discount rate	7.0%		7%
Design life (years)	25	20	20
Base year of cost estimate	N/A	2012	2012
Current CST program year	N/A	2020	2020
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%	4%	4%
Include GSP benefits	No	No	No

Costs

Total cost	\$ 35,742,829
Annualized cost	\$ 2,394,309

Auto Delay Costs

Nobuild	\$ 25,372,248
Build	\$ 20,859,221
Auto delay savings	\$ 4,513,027

Truck Delay Costs

Nobuild	\$ 5,585,739
Build	\$ 4,592,189
Truck delay savings	\$ 993,550

Fuel Costs

Nobuild	\$ 9,930,543
Build	\$ 9,930,543
Fuel cost savings	\$ -

Change in GSP

Auto delay cost adjustment	NA
Truck delay cost adjustment	NA
Fuel cost adjustment	NA
Total benefit adjustment	NA

Benefits in 2040	\$ 5,506,577
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Benefit-Cost Ratio	2.30
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Notes

Project evaluation is based on termini in proposed concept report; Cost estimate was prepared for concept report.

Benefit Input Calculations for Alternative 4			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT with Project			
Corridor Description of ALT 4- McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
<i>GA 400 from SR 120 to Windward Pkwy Ramp</i>	1.13	0.28	95250
<i>Windward Pkwy Exit Ramp</i>	0.32	0.08	27500
<i>Windward Pkwy from GA 400 to Windward Concourse</i>	1.35	0.33	49900
<i>Windward Concourse from Windward Parkway to McGinnis Ferry Road</i>	0.48	0.12	13300
<i>McGinnis Ferry Rd from Windward Pkwy to Mall</i>	0.81	0.20	39800
		0.00	
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			54381
Corridor Length with Project (A to B in Miles)			4.09
Annual VMT With Project	Vehicles per day x 250	Travel Distance	VMT
	13,595,324	4.09	55,604,875
Calculations of Annual VHT with Project			
Corridor Description of ALT 2- McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Travel Speed*
<i>GA 400 from SR 120 to Windward Pkwy Ramp</i>	1.13	0.28	54.30
<i>Windward Pkwy Exit Ramp</i>	0.32	0.08	22.40
<i>Windward Pkwy from GA 400 to Windward Concourse</i>	1.35	0.33	22.40
<i>Windward Concourse from Windward Parkway to McGinnis Ferry Road</i>	0.48	0.12	35.00
<i>McGinnis Ferry Rd from Windward Pkwy to Mall</i>	0.81	0.20	35.00
		0.00	
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under Build Scenario			35.19
Peak Travel Time through Corridor in Hours With Project (Total Length / Average Travel Speed)			0.12
Annual VHT With Project	Vehicles per day x 250	Peak Travel Time	VHT
	13,595,324	0.12	1,580,244

Benefit Input Calculations for No-Build Scenario			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT without Project			
Corridor Description of McGinnis Ferry Rd IJR (No-Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	95250
Woodward Pkwy Exit Ramp	0.32	0.08	27500
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	49900
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	13300
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	39800
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			54381
Corridor Length without Project (A to B in Miles)			4.09
Annual VMT Without Project	Vehicles per day x 250	Travel Distance	VMT
	13,595,324	4.09	55,604,875
Calculations of Annual VHT without Project			
Corridor Description of Sugarloaf Pkwy (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	54.30
Woodward Pkwy Exit Ramp	0.32	0.08	18.13
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	18.13
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	35.00
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	12.20
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under No-Build Scenario			28.93
Peak Travel Time through Corridor in Hours Without Project (Total Length / Average Travel Speed)			0.14
Annual VHT Without Project	Vehicles per day x 250	Peak Travel Time	VHT
	13,595,324	0.14	1,922,140

SUMMARY OF PROJECT COSTS

Alt. 4- McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

Non-Construction Costs

A.	Right-of-Way	\$8,117,667
B.	Reimbursable Utilities	\$1,750,000

Construction Costs

C.	Major Structures	\$4,896,672
D.	Grading and Earthwork	\$2,873,007
E.	Drainage	\$611,892
F..	Base and Paving	\$6,237,793
G.	Concrete Work	\$4,473,613
H.	Signing and Striping	\$813,308
I.	Guardrail	\$24,000
J.	Traffic Control & Mobilization	\$200,000
K.	Landscaping and Erosion Control	\$1,775,710
L.	Miscellaneous Construction Items	\$78,000
	Construction Cost Subtotal	\$21,983,995

Engineering & Construction; 10%	\$2,198,399
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	Total Construction Cost	\$24,182,394
	Professional Engineering	\$1,692,768
Total Project Costs		\$35,742,829

Forsyth & Fulton Counties

Detailed Cost Estimate - Alternative 4
McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

A.	Right-of-Way			\$8,117,667
B.	Reimbursable Utilities			\$1,750,000
C.	Major Structures			
	1. Class A Concrete	400 CY @	\$600.00	\$240,000
	2. MSE Wall face 0-10 FT HT, Wall No. - 1	4,300 SF @	\$55.04	\$236,672
	3. Bridge over GA 400	44,200 SF @	\$100.00	\$4,420,000
		Subtotal		\$4,896,672
D.	Grading and Earthwork			
	1. Unclassified Excavation & Borrow	143,650 CY @	\$20.00	\$2,873,007
		Subtotal		\$2,873,007
E.	Drainage			
	1. Pipe 54" H20'-25'	700 LF @	\$120.00	\$84,000
	2. Pipe 36" H10'-15'	1,200 LF @	\$64.00	\$76,800
	3. Pipe 48" H0-10"	700 LF @	\$64.00	\$44,800
	4. Pipe 30" H 0'-10'	2,100 LF @	\$64.00	\$134,400
	5. Pipe 30" H10'-15'	2,000 LF @	\$43.50	\$87,000
	6. Catch Basins	45 EA	\$2,000.00	\$89,333
	7. Class A concrete (Headwalls)	30 CY@	\$500.00	\$15,000
	8. Riprap TP1 36"	100 SY @	\$56.00	\$5,600
	9. Rural Drainage	Lump		\$74,958
		Subtotal		\$611,892
F.	Base & Paving			
	1. Graded Aggregate Base 12"	114,875 TN @	\$20.00	\$2,297,495
	2. Graded Aggregate Base 6"	0 TN @	\$20.00	\$0
	3. Asphalt Concrete 12.5 mm Superpave 165#/SY (1-1/2")	9,245 TN @	\$75.00	\$693,380
	4. Asphalt Concrete 19.0 mm Superpave 220#/SY (2")	7,688 TN @	\$75.00	\$576,603
	5. Asphalt Concrete 25 mm Superpave 330#/SY (3")	17,825 TN @	\$75.00	\$1,336,880
	6. Asphalt Concrete 25 mm Superpave 440#/SY (4")	15,370 TN @	\$75.00	\$1,152,728
	7. Asphalt Leveling	1,740 TN @	\$82.00	\$142,641
	8. Bitum Tack Coat	25,378 GL @	\$1.50	\$38,067
		Subtotal		\$6,237,793
G.	Concrete Work			
	1. Plain Portland Cement, Class 3 Conc. 12"	98,427 SY @	\$38.00	\$3,740,213
	2. Concrete Median Paving 7.5"	6,300 SY @	\$38.00	\$239,400
	3. Driveways	100 SY @	\$30.00	\$3,000
	4. Concrete Curb & Gutter, 8" x 30" TP 2	16,700 LF @	\$10.00	\$167,000
	5. Concrete Curb & Gutter, 8" x 30" TP 7	14,900 LF @	\$10.00	\$149,000
	6. Sidewalk - 4"	7,000 SY @	\$25.00	\$175,000
		Subtotal		\$4,473,613
H.	Signing and Striping			
	1. Interstate Signs	0 EA @	\$62,000.00	\$0
	2. Signs	150 EA @	\$100.00	\$15,000
	3. Striping	29,550 LF @	\$2.65	\$78,308
	4. Signals with Interconnect	6 EA @	\$120,000.00	\$720,000
		Subtotal		\$813,308

L.	Guardrail			
	1. Guardrail, W Beam	800 LF @	\$15.00	\$12,000
	2. Guardrail, T Beam	200 LF @	\$38.50	\$7,700
	2. Anchors TP 12	2 EA @	\$1,650.00	\$3,300
	3. Anchors TP 1	2 EA @	\$500.00	\$1,000
		Subtotal		\$24,000
J.	Traffic Control			
	1. Traffic Control		Lump Sum	\$200,000
		Subtotal		\$200,000
K.	Landscaping and Erosion Control			
	1. Clearing & Grubbing	53.8 ac @	\$30,000.00	\$1,613,634
	2. Grassing	29.5 ac @	\$2,500.00	\$73,735
	3. Erosion Control			
	a. Temporary Grass	242 lbs @	\$1.00	\$242
	b. Temporary Mulch	161 TN @	\$150.00	\$24,205
	c. Silt Fence, TP A	5,451 LF @	\$3.00	\$16,354
	d. Silt Fence, TP C	0 LF @	\$4.00	\$0
	e. Maint. of Temp. Silt Fence, TP A	0 LF @	\$1.50	\$0
	f. Maint. of Temp. Silt Fence, TP C	0 LF @	\$1.50	\$0
	g. Sediment Basin, TP 1	1 EA @	\$6,000.00	\$6,000
	h. Maint. of Temp. Sediment Basin	1 EA @	\$3,500.00	\$3,500
	i. Permanent Grass Seed	605 lbs @	\$2.00	\$1,210
	j. Construction Exit	6 EA @	\$1,500.00	\$9,000
	k. Water Quality Sampling	18 mon.	\$100.00	\$1,800
	l. Water Quality Monitoring	18 mon.	\$1,000.00	\$18,000
	m. Erosion Control mats	0 SY @	\$2.50	\$0
	n. Miscellaneous Items		Lump Sum	\$8,031
		Subtotal		\$1,775,710
L.	Miscellaneous Items			
	1. Field Office TP 3	1 EA @	\$78,000.00	\$78,000
		Subtotal		\$78,000

GDOT Benefit-Cost Calculator

enter information in green cells

Project Information

ID	
Description	GA 400/McGinnis Ferry Road IJR - Alternative 5

Cost Estimate

Date of estimate	3/26/12
PE cost	\$ 1,491,576
ROW cost	\$ 6,671,232
UTILITY cost	\$ 1,100,000
CST cost	\$ 21,308,227
MITIGATION cost	\$ -
Total	\$ 30,571,035

Traffic in 2040

Source of traffic data	
Without project (nobuild)	
Annual VMT	55,604,875
Annual VHT	1,922,140
Average speed (mph)	29
With project (build)	
Annual VMT	94,579,875
Annual VHT	1,613,287
Average speed (mph)	59

Parameters	Default	Override	Used
Analysis year	2035	2040	2040
Discount rate	7.0%		7%
Design life (years)	25	20	20
Base year of cost estimate	N/A	2012	2012
Current CST program year	N/A	2020	2020
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%	4%	4%
Include GSP benefits	No	No	No

Costs

Total cost	\$ 30,571,035
Annualized cost	\$ 2,047,865

Auto Delay Costs

Nobuild	\$ 25,372,248
Build	\$ 21,295,388
Auto delay savings	\$ 4,076,860

Truck Delay Costs

Nobuild	\$ 5,585,739
Build	\$ 4,688,212
Truck delay savings	\$ 897,527

Fuel Costs

Nobuild	\$ 9,930,543
Build	\$ 16,891,137
Fuel cost savings	\$ (6,960,593)

Change in GSP

Auto delay cost adjustment	NA
Truck delay cost adjustment	NA
Fuel cost adjustment	NA
Total benefit adjustment	NA

Benefits in 2040 \$ (1,986,207)

Benefit-Cost Ratio (0.97)

Notes

Project evaluation is based on termini in proposed concept report; Cost estimate was prepared for concept report.

Benefit Input Calculations for Alternative 5			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT with Project			
Corridor Description of ALT 5- McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Windward Pkwy Ramp	1.61	0.31	95250
GA 400 from Windward Pkwy to McFarland Ramp	2.55	0.49	75000
McFarland Road Ramp	0.23	0.04	9300
McFarland Rd from GA 400 to Ronald Reagan Blvd	0.17	0.03	59400
Ronald Reagan Blvd from McFarland Road to Mall	0.60	0.12	35800
		0.00	
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			73318
Corridor Length with Project (A to B in Miles)			5.16
Annual VMT With Project	Vehicles per day x 250	Travel Distance	VMT
	18,329,433	5.16	94,579,875
Calculations of Annual VHT with Project			
Corridor Description of ALT 2- McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Windward Pkwy Ramp	1.61	0.31	54.30
GA 400 from Windward Pkwy to McFarland Ramp	2.55	0.49	66.70
McFarland Road Ramp	0.23	0.04	45.00
McFarland Rd from GA 400 to Ronald Reagan Blvd	0.17	0.03	45.00
Ronald Reagan Blvd from McFarland Road to Mall	0.60	0.12	45.00
		0.00	
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under Build Scenario			58.63
Peak Travel Time through Corridor in Hours With Project (Total Length / Average Travel Speed)			0.09
Annual VHT With Project	Vehicles per day x 250	Peak Travel Time	VHT
	18,329,433	0.09	1,613,287

Benefit Input Calculations for No-Build Scenario			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT without Project			
Corridor Description of McGinnis Ferry Rd IJR (No-Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	95250
Woodward Pkwy Exit Ramp	0.32	0.08	27500
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	49900
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	13300
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	39800
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			54381
Corridor Length without Project (A to B in Miles)			4.09
Annual VMT Without Project	Vehicles per day x 250 13,595,324	Travel Distance 4.09	VMT 55,604,875
Calculations of Annual VHT without Project			
Corridor Description of Sugarloaf Pkwy (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	54.30
Woodward Pkwy Exit Ramp	0.32	0.08	18.13
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	18.13
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	35.00
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	12.20
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under No-Build Scenario			28.93
Peak Travel Time through Corridor in Hours Without Project (Total Length / Average Travel Speed)			0.14
Annual VHT Without Project	Vehicles per day x 250 13,595,324	Peak Travel Time 0.14	VHT 1,922,140

SUMMARY OF PROJECT COSTS

Alt. 5 - McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

Non-Construction Costs

A.	Right-of-Way	\$6,671,232
B.	Reimbursable Utilities	\$1,750,000

Construction Costs

C.	Major Structures	\$4,896,672
D.	Grading and Earthwork	\$2,357,985
E.	Drainage	\$726,537
F..	Base and Paving	\$5,195,228
G.	Concrete Work	\$3,631,736
H.	Signing and Striping	\$813,308
I.	Guardrail	\$24,000
J.	Traffic Control & Mobilization	\$200,000
K.	Landscaping and Erosion Control	\$1,447,650
L.	Miscellaneous Construction Items	\$78,000
	Construction Cost Subtotal	\$19,371,116

Engineering & Construction; 10%	\$1,937,112
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	Total Construction Cost	\$21,308,227
	Professional Engineering	\$1,491,576
Total Project Costs		\$31,221,035

Forsyth & Fulton Counties

Detailed Cost Estimate - Alternative 5
McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

A.	Right-of-Way			\$6,671,232
B.	Reimbursable Utilities			\$1,750,000
C.	Major Structures			
	1. Class A Concrete	400 CY @	\$600.00	\$240,000
	2. MSE Wall face 0-10 FT HT, Wall No. - 1	4,300 SF @	\$55.04	\$236,672
	3. Bridge over GA 400	44,200 SF @	\$100.00	\$4,420,000
		Subtotal		\$4,896,672
D.	Grading and Earthwork			
	1. Unclassified Excavation & Borrow	117,899 CY @	\$20.00	\$2,357,985
		Subtotal		\$2,357,985
E.	Drainage			
	1. Pipe 54" H20'-25'	700 LF @	\$120.00	\$84,000
	2. Pipe 36" H10'-15'	1,200 LF @	\$64.00	\$76,800
	3. Pipe 48" H0-10"	700 LF @	\$64.00	\$44,800
	4. Pipe 30" H 0'-10'	2,100 LF @	\$64.00	\$134,400
	5. Pipe 30" H10'-15'	2,000 LF @	\$43.50	\$87,000
	6. Catch Basins	45 EA	\$2,000.00	\$89,333
	7. Class A concrete (Headwalls)	30 CY@	\$500.00	\$15,000
	8. Riprap TP1 36"	100 SY @	\$56.00	\$5,600
	9. Rural Drainage	Lump		\$189,603
		Subtotal		\$726,537
F.	Base & Paving			
	1. Graded Aggregate Base 12"	92,972 TN @	\$20.00	\$1,859,438
	2. Graded Aggregate Base 6"	0 TN @	\$20.00	\$0
	3. Asphalt Concrete 12.5 mm Superpave 165#/SY (1-1/2")	8,453 TN @	\$75.00	\$633,946
	4. Asphalt Concrete 19.0 mm Superpave 220#/SY (2")	6,631 TN @	\$75.00	\$497,358
	5. Asphalt Concrete 25 mm Superpave 330#/SY (3")	13,813 TN @	\$75.00	\$1,035,964
	6. Asphalt Concrete 25 mm Superpave 440#/SY (4")	13,257 TN @	\$75.00	\$994,304
	7. Asphalt Leveling	1,740 TN @	\$82.00	\$142,641
	8. Bitum Tack Coat	21,052 GL @	\$1.50	\$31,577
		Subtotal		\$5,195,228
G.	Concrete Work			
	1. Plain Portland Cement, Class 3 Conc. 12"	76,272 SY @	\$38.00	\$2,898,336
	2. Concrete Median Paving 7.5"	6,300 SY @	\$38.00	\$239,400
	3. Driveways	100 SY @	\$30.00	\$3,000
	4. Concrete Curb & Gutter, 8" x 30" TP 2	16,700 LF @	\$10.00	\$167,000
	5. Concrete Curb & Gutter, 8" x 30" TP 7	14,900 LF @	\$10.00	\$149,000
	6. Sidewalk - 4"	7,000 SY @	\$25.00	\$175,000
		Subtotal		\$3,631,736
H.	Signing and Striping			
	1. Interstate Signs	0 EA @	\$62,000.00	\$0
	2. Signs	150 EA @	\$100.00	\$15,000
	3. Striping	29,550 LF @	\$2.65	\$78,308
	4. Signals with Interconnect	6 EA @	\$120,000.00	\$720,000
		Subtotal		\$813,308

L.	Guardrail			
	1. Guardrail, W Beam	800 LF @	\$15.00	\$12,000
	2. Guardrail, T Beam	200 LF @	\$38.50	\$7,700
	2. Anchors TP 12	2 EA @	\$1,650.00	\$3,300
	3. Anchors TP 1	2 EA @	\$500.00	\$1,000
		Subtotal		\$24,000
J.	Traffic Control			
	1. Traffic Control		Lump Sum	\$200,000
		Subtotal		\$200,000
K.	Landscaping and Erosion Control			
	1. Clearing & Grubbing	44.0 ac @	\$30,000.00	\$1,320,882
	2. Grassing	24.6 ac @	\$2,500.00	\$61,537
	3. Erosion Control			
	a. Temporary Grass	198 lbs @	\$1.00	\$198
	b. Temporary Mulch	132 TN @	\$150.00	\$19,813
	c. Silt Fence, TP A	0 LF @	\$3.00	\$0
	d. Silt Fence, TP C	0 LF @	\$4.00	\$0
	e. Maint. of Temp. Silt Fence, TP A	0 LF @	\$1.50	\$0
	f. Maint. of Temp. Silt Fence, TP C	0 LF @	\$1.50	\$0
	g. Sediment Basin, TP 1	1 EA @	\$6,000.00	\$6,000
	h. Maint. of Temp. Sediment Basin	1 EA @	\$3,500.00	\$3,500
	i. Permanent Grass Seed	495 lbs @	\$2.00	\$991
	j. Construction Exit	6 EA @	\$1,500.00	\$9,000
	k. Water Quality Sampling	18 mon.	\$100.00	\$1,800
	l. Water Quality Monitoring	18 mon.	\$1,000.00	\$18,000
	m. Erosion Control mats	0 SY @	\$2.50	\$0
	n. Miscellaneous Items		Lump Sum	\$5,930
		Subtotal		\$1,447,650
L.	Miscellaneous Items			
	1. Field Office TP 3	1 EA @	\$78,000.00	\$78,000
		Subtotal		\$78,000

GDOT Benefit-Cost Calculator

enter information in green cells

Project Information

ID	
Description	GA 400/McGinnis Ferry Road IJR - Alternative 6 - use Windward Pkwy

Cost Estimate

Date of estimate	3/26/12
PE cost	\$ 1,794,376
ROW cost	\$ 8,552,461
UTILITY cost	\$ 2,150,000
CST cost	\$ 25,633,936
MITIGATION cost	\$ -
Total	\$ 38,130,773

Traffic in 2040

Source of traffic data	
Without project (nobuild)	
Annual VMT	55,604,875
Annual VHT	1,922,140
Average speed (mph)	29
With project (build)	
Annual VMT	55,604,875
Annual VHT	1,580,244
Average speed (mph)	35

Parameters	Default	Override	Used
Analysis year	2035	2040	2040
Discount rate	7.0%		7%
Design life (years)	25	20	20
Base year of cost estimate	N/A	2012	2012
Current CST program year	N/A	2020	2020
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%	4%	4%
Include GSP benefits	No	No	No

Costs

Total cost	\$ 38,130,773
Annualized cost	\$ 2,554,270

Auto Delay Costs

Nobuild	\$ 25,372,248
Build	\$ 20,859,221
Auto delay savings	\$ 4,513,027

Truck Delay Costs

Nobuild	\$ 5,585,739
Build	\$ 4,592,189
Truck delay savings	\$ 993,550

Fuel Costs

Nobuild	\$ 9,930,543
Build	\$ 9,930,543
Fuel cost savings	\$ -

Change in GSP

Auto delay cost adjustment	NA
Truck delay cost adjustment	NA
Fuel cost adjustment	NA
Total benefit adjustment	NA

Benefits in 2040	\$ 5,506,577
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Benefit-Cost Ratio	2.16
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Notes

Project evaluation is based on termini in proposed concept report; Cost estimate was prepared for concept report.

Benefit Input Calculations for Alternative 6			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT with Project			
Corridor Description of ALT 6- McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Windward Pkwy Ramp	1.13	0.28	95250
Windward Pkwy Exit Ramp	0.32	0.08	27500
Windward Pkwy from GA 400 to Windward Concourse	1.35	0.33	49900
Windward Concourse from Windward Parkway to McGinnis Ferry Road	0.48	0.12	13300
McGinnis Ferry Rd from Windward Pkwy to Mall	0.81	0.20	39800
		0.00	
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			54381
Corridor Length with Project (A to B in Miles)			4.09
Annual VMT With Project	Vehicles per day x 250	Travel Distance	VMT
	13,595,324	4.09	55,604,875
Calculations of Annual VHT with Project			
Corridor Description of ALT 2- McGinnis Ferry IJR (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Windward Pkwy Ramp	1.13	0.28	54.30
Windward Pkwy Exit Ramp	0.32	0.08	22.40
Windward Pkwy from GA 400 to Windward Concourse	1.35	0.33	22.40
Windward Concourse from Windward Parkway to McGinnis Ferry Road	0.48	0.12	35.00
McGinnis Ferry Rd from Windward Pkwy to Mall	0.81	0.20	35.00
		0.00	
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under Build Scenario			35.19
Peak Travel Time through Corridor in Hours With Project (Total Length / Average Travel Speed)			0.12
Annual VHT With Project	Vehicles per day x 250	Peak Travel Time	VHT
	13,595,324	0.12	1,580,244

Benefit Input Calculations for No-Build Scenario			
Project Name: McGinnis Ferry Rd IJR			
Calculations of Annual VMT without Project			
Corridor Description of McGinnis Ferry Rd IJR (No-Build Scenario)	Length (miles)	Proportions	Year 2040 Build ADT
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	95250
Woodward Pkwy Exit Ramp	0.32	0.08	27500
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	49900
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	13300
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	39800
		0.00	
		0.00	
		0.00	
Year 2040 Design Year ADT for Corridor			54381
Corridor Length without Project (A to B in Miles)			4.09
Annual VMT Without Project	Vehicles per day x 250	Travel Distance	VMT
	13,595,324	4.09	55,604,875
Calculations of Annual VHT without Project			
Corridor Description of Sugarloaf Pkwy (Build Scenario)	Length (miles)	Proportions	Travel Speed*
GA 400 from SR 120 to Woodward Pkwy Ramp	1.13	0.28	54.30
Woodward Pkwy Exit Ramp	0.32	0.08	18.13
Woodward Pkwy from GA 400 to Woodward Concourse	1.35	0.33	18.13
Woodward Concourse from Woodward Parkway to McGinnis Ferry Road	0.48	0.12	35.00
McGinnis Ferry Rd from Woodward Pkwy to Mall	0.81	0.20	12.20
		0.00	
		0.00	
		0.00	
* Travel Speed Determined from HCS analysis			
Average Travel Speed under No-Build Scenario			28.93
Peak Travel Time through Corridor in Hours Without Project (Total Length / Average Travel Speed)			0.14
Annual VHT Without Project	Vehicles per day x 250	Peak Travel Time	VHT
	13,595,324	0.14	1,922,140

SUMMARY OF PROJECT COSTS

Alt. 6 - McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

Non-Construction Costs

A.	Right-of-Way	\$8,552,461
B.	Reimbursable Utilities	\$2,150,000

Construction Costs

C.	Major Structures	\$4,896,672
D.	Grading and Earthwork	\$3,093,496
E.	Drainage	\$781,602
F..	Base and Paving	\$6,714,397
G.	Concrete Work	\$4,777,613
H.	Signing and Striping	\$813,308
I.	Guardrail	\$24,000
J.	Traffic Control & Mobilization	\$200,000
K.	Landscaping and Erosion Control	\$1,924,490
L.	Miscellaneous Construction Items	\$78,000
	Construction Cost Subtotal	\$23,303,578

Engineering & Construction; 10%	\$2,330,358
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	Total Construction Cost	\$25,633,936
	Professional Engineering	\$1,794,376
Total Project Costs		\$38,130,772

Forsyth & Fulton Counties

Detailed Cost Estimate - Alternative 6
McGinnis Ferry Rd from Bethany Bend to Ronald Reagan Blvd

A.	Right-of-Way			\$8,552,461
B.	Reimbursable Utilities			\$2,150,000
C.	Major Structures			
	1. Class A Concrete	400 CY @	\$600.00	\$240,000
	2. MSE Wall face 0-10 FT HT, Wall No. - 1	4,300 SF @	\$55.04	\$236,672
	3. Bridge over GA 400	44,200 SF @	\$100.00	\$4,420,000
		Subtotal		\$4,896,672
D.	Grading and Earthwork			
	1. Unclassified Excavation & Borrow	154,675 CY @	\$20.00	\$3,093,496
		Subtotal		\$3,093,496
E.	Drainage			
	1. Pipe 54" H20'-25'	700 LF @	\$120.00	\$84,000
	2. Pipe 36" H10'-15'	1,200 LF @	\$64.00	\$76,800
	3. Pipe 48" H0-10"	700 LF @	\$64.00	\$44,800
	4. Pipe 30" H 0'-10'	2,100 LF @	\$64.00	\$134,400
	5. Pipe 30" H10'-15'	2,000 LF @	\$43.50	\$87,000
	6. Catch Basins	45 EA	\$2,000.00	\$89,333
	7. Class A concrete (Headwalls)	30 CY@	\$500.00	\$15,000
	8. Riprap TP1 36"	100 SY @	\$56.00	\$5,600
	9. Rural Drainage	Lump		\$244,669
		Subtotal		\$781,602
F.	Base & Paving			
	1. Graded Aggregate Base 12"	124,252 TN @	\$20.00	\$2,485,034
	2. Graded Aggregate Base 6"	0 TN @	\$20.00	\$0
	3. Asphalt Concrete 12.5 mm Superpave 165#/SY (1-1/2")	9,719 TN @	\$75.00	\$728,913
	4. Asphalt Concrete 19.0 mm Superpave 220#/SY (2")	8,320 TN @	\$75.00	\$623,980
	5. Asphalt Concrete 25 mm Superpave 330#/SY (3")	19,274 TN @	\$75.00	\$1,445,540
	6. Asphalt Concrete 25 mm Superpave 440#/SY (4")	16,633 TN @	\$75.00	\$1,247,444
	7. Asphalt Leveling	1,740 TN @	\$82.00	\$142,641
	8. Bitum Tack Coat	27,230 GL @	\$1.50	\$40,845
		Subtotal		\$6,714,397
G.	Concrete Work			
	1. Plain Portland Cement, Class 3 Conc. 12"	106,427 SY @	\$38.00	\$4,044,213
	2. Concrete Median Paving 7.5"	6,300 SY @	\$38.00	\$239,400
	3. Driveways	100 SY @	\$30.00	\$3,000
	4. Concrete Curb & Gutter, 8" x 30" TP 2	16,700 LF @	\$10.00	\$167,000
	5. Concrete Curb & Gutter, 8" x 30" TP 7	14,900 LF @	\$10.00	\$149,000
	6. Sidewalk - 4"	7,000 SY @	\$25.00	\$175,000
		Subtotal		\$4,777,613
H.	Signing and Striping			
	1. Interstate Signs	0 EA @	\$62,000.00	\$0
	2. Signs	150 EA @	\$100.00	\$15,000
	3. Striping	29,550 LF @	\$2.65	\$78,308
	4. Signals with Interconnect	6 EA @	\$120,000.00	\$720,000
		Subtotal		\$813,308

L.	Guardrail			
	1. Guardrail, W Beam	800 LF @	\$15.00	\$12,000
	2. Guardrail, T Beam	200 LF @	\$38.50	\$7,700
	2. Anchors TP 12	2 EA @	\$1,650.00	\$3,300
	3. Anchors TP 1	2 EA @	\$500.00	\$1,000
		Subtotal		\$24,000
J.	Traffic Control			
	1. Traffic Control		Lump Sum	\$200,000
		Subtotal		\$200,000
K.	Landscaping and Erosion Control			
	1. Clearing & Grubbing	59.0 ac @	\$30,000.00	\$1,771,088
	2. Grassing	32.1 ac @	\$2,500.00	\$80,295
	3. Erosion Control			
	a. Temporary Grass	266 lbs @	\$1.00	\$266
	b. Temporary Mulch	177 TN @	\$150.00	\$26,566
	c. Silt Fence, TP A	0 LF @	\$3.00	\$0
	d. Silt Fence, TP C	0 LF @	\$4.00	\$0
	e. Maint. of Temp. Silt Fence, TP A	0 LF @	\$1.50	\$0
	f. Maint. of Temp. Silt Fence, TP C	0 LF @	\$1.50	\$0
	g. Sediment Basin, TP 1	1 EA @	\$6,000.00	\$6,000
	h. Maint. of Temp. Sediment Basin	1 EA @	\$3,500.00	\$3,500
	i. Permanent Grass Seed	664 lbs @	\$2.00	\$1,328
	j. Construction Exit	6 EA @	\$1,500.00	\$9,000
	k. Water Quality Sampling	18 mon.	\$100.00	\$1,800
	l. Water Quality Monitoring	18 mon.	\$1,000.00	\$18,000
	m. Erosion Control mats	0 SY @	\$2.50	\$0
	n. Miscellaneous Items		Lump Sum	\$6,646
		Subtotal		\$1,924,490
L.	Miscellaneous Items			
	1. Field Office TP 3	1 EA @	\$78,000.00	\$78,000
		Subtotal		\$78,000