

COMPAMD 2016-02, Greenbriar Downs  
Submittal No. 4

---

## Attachment “E”

### Part Four, Land Development Traffic Assessment

# Greenbriar Downs

( fka WCI C.R. 210 Land)

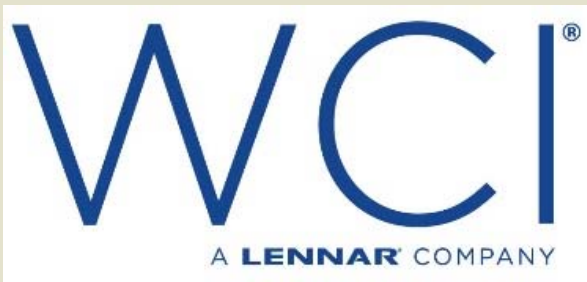
Comprehensive Plan Amendment  
Application

Part Four

---

Land Development  
Traffic Assessment

**Prepared for:**



**And**



**Greenbriar Downs  
Comprehensive Plan  
Amendment  
Land Development Traffic  
Assessment**

**St. Johns County, Florida**

**Prepared by:**



**8515 Baymeadows Way, Suite 401  
Jacksonville, FL 32256  
904.422.6923**

Project # 1046-170-001  
Revised Date: 06/14/2018

---

## Table of Contents

---

	Introduction	1
	Trip Generation	1
	Study Area	1
	Planned Roadway Improvements	2
	Existing Conditions	2
	Trip Distribution and Assignment	2
	Segment Analysis	3
	Summary and Conclusions	6
	<b>Figures</b>	
Figure 01	Location Map	
Figure 02	Study Area Map	
Figure 03	Phase 1 – Residential Project Traffic Distribution and Assignment	
Figure 04	Phase 1 – Commercial/Retail Project Traffic Distribution and Assignment	
Figure 05	Phase 2 – Residential Project Traffic Distribution and Assignment	
Figure 06	Phase 2 – commercial/Retail Project Traffic Distribution and Assignment	
	<b>Tables</b>	
Table 01	Trip Generation Phase 1	
Table 02	Trip Generation Phase 2	
Table 03	Study Roadway Link – Existing Conditions	
Table 04	Phase 1 Project Traffic Distribution/Assignment and Segment Analysis	
Table 05	Phase 2 Project Traffic Distribution/Assignment and Segment Analysis	
	<b>Appendix</b>	
Appendix A	Greenbriar Downs – General Site Plan (Source: Prosser, Inc.)	
Appendix B	Methodology Document	
Appendix C	St. Johns County “Transportation Analysis Spreadsheet” 07/01/2017	
Appendix D	St. Johns County Projects List	
Appendix E	Z-Data Variables	
Appendix F	Greenbriar Down South Parcel – Travel Demand Model Plots	

## Introduction

This Land Development Traffic Assessment (LDTA) was prepared in support of the Comprehensive Plan Amendment (CPA) Application for the proposed Greenbriar Downs mixed-use development. The proposed development is anticipated to be developed in two (2) phases. Phase 1 development is anticipated to include 200 Senior Adult Housing – Detached units and 80,000 SF of neighborhood commercial/retail land uses. Phase 2 development is anticipated to include 202 Senior Adult Housing – Detached units, 416 Senior Adult Housing – Attached units and 80,000 SF of neighborhood commercial/retail. A grand total of 818 (402 Senior Adult Housing – Detached, 416 Senior Adult Housing – Attached) residential units and 160,000 SF of neighborhood commercial/retail land uses are anticipated to be developed under the project build-out conditions.

The proposed residential development will be located between Longleaf Pine Parkway and CR 2209 (St. Johns Parkway) on northside of CR 210W east of the future Veterans Parkway Extension (future CR 223). The non-residential component will be located on the southeast quadrant of the Veterans Parkway/Longleaf Pine Parkway intersection.

Access to the proposed Phase 1 residential development will be provided via CR 210. Access to Phase 2 residential development will be provided via CR 210 and the future northern section of Veterans Parkway Extension. Access to the non-residential development will be provided via Knights Lane, Veterans Parkway Extension and Longleaf Pine Parkway. **Figure 01** shows the project location. A copy of the preliminary site plan provided by Prosser, Inc. is included as **Attachment A**.

The study methodology that was discussed and agreed upon (April 24<sup>th</sup>, 2018) by St. Johns County Staff was adopted for the proposed Greenbriar Downs Land Development Traffic Assessment (LDTA). A copy of the Methodology Document is included as **Attachment B**.

As stated in this methodology document, the latest version of ITE Trip Generation Manual, 10<sup>th</sup> Edition was used to estimate the PM peak trips anticipated to be generated from the proposed development and the currently adopted Northeast Regional Planning Model (NERPM\_ABv3) travel demand forecasting model was used to determine the project traffic distribution for the proposed development. Additionally, the proposed CR 2209 between CR 210 and SR 16 (SR 16/CR 16A intersection) was also included in the travel demand model.

## Trip Generation

The PM peak hour trip generation for the proposed residential and commercial/retail development were estimated using the rates and equations included in the Trip Generation Manual, 10<sup>th</sup> Edition, published by the Institute of Transportation Engineers (ITE). No internal capture reduction was applied. Pass-by trip rates for commercial/retail land use obtained from the User's Guide and Handbook of the Trip Generation Manual, 10<sup>th</sup> Edition, published by the ITE and percent new trips table of the St. Johns County Land Development Code.

Attached **Tables 01** and **02** summarizes the PM peak trip generation and pass-by trips for the proposed development under each of the two (2) project phases. As shown in these tables, following is a summary of the trips anticipated to be generated by the proposed development:

- Phase 1 residential development is anticipated to generate a total of 82 PM peak gross trips and Phase 1 commercial/retail development is anticipated to generate a total of 461 PM peak trips (304 PM peak net external and 157 pass-by trips)

- Phase 2 residential development (cumulative) is anticipated to generate a total of 244 PM peak gross trips and Phase 2 commercial/retail development (cumulative) is anticipated to generate a total of 769 PM peak trips (580 PM peak net external and 189 pass-by trips)

### **Study Area**

As per Article XI of the St. Johns County Land Development Code, since the proposed development is anticipated to generate more than 50 PM peak hour trips, the LDTA should include all roadway links within a 4-mile radius of proposed development. All the roadway links within a four-mile radius of the proposed development are listed in **Table 03**. All the study area roadway links with its link IDs within 4-mile radius of the proposed development are shown in **Figure 02**.

### **Planned Roadway Improvements**

FDOT's 5 Five-Year Work Program, St. Johns County's CIP and other developments developer's agreements were reviewed to include any planned roadway improvements within the study area. The following improvements were included in the travel demand model and the analysis:

- SR 9B Extension: I-95 to CR 2209/St. Johns Parkway (FDOT)
- Race Track Road: Widen from 2 to 4 lanes from East of Veterans Parkway to CR 2209/Saint Johns Parkway
- Race Track Road: Widen from 2 to 4 lanes from CR 2209/Saint Johns Parkway to Bartram Park Boulevard
- CR 2209: New four-lane divided roadway between CR 210 and SR 16 Connector (SilverLeaf Plantation DRI's transportation mitigation)
- SR 16 Connector: New two-lane roadway between CR 2209 and SR 16/CR 16A Intersection (SilverLeaf Plantation DRI transportation mitigation)

The following improvements are proposed by other approved development's development agreements. However, these proposed improvements were not included in the model and analysis:

- Race Track Road: Widen from 2 to 4 lanes from Bartram Park Boulevard to Bartram Spring Parkway (Bartram Park DRI and Durbin Creek National)
- Race Track Road: Widen from 4 to 6 lanes from Bartram Park Boulevard to US 1/Philips Highway (Durbin Creek National)
- CR 210: Widen from 2 to 4 lanes from Greenbriar Road to Cimarrone Boulevard (Shearwater/Ashford Mills DRI)

### **Existing Conditions**

The existing conditions data for the study area roadway links was taken directly from the *St. Johns County Transportation Analysis Spreadsheet*, dated July 01, 2017. Previously mentioned **Table 03** also shows the existing conditions for the study area roadway links. A copy of the *St. Johns County Transportation Analysis Spreadsheet* dated July 01, 2017 is included as **Attachment C**.

### **Trip Distribution and Assignment**

The Northeast Regional Planning Model (NERPM\_ABv3) travel demand forecasting model, provided by the North Florida Transportation Planning Organization (NFTPO), which was prepared as part of the TPO's 2040 Long Range Transportation Plan update, was used to develop project traffic distribution for the proposed development. A reasonableness check of area and facility type coding in the model on study links within the project transportation impact area was performed and no adjustments to these variables were required. The model was also verified to ensure all planned and programmed improvements within the transportation study area identified from the following sources are included in the model.

- St. Johns County Master Transportation Plan – St. Johns County Highway Projects List
- Construction of developer committed improvements consistent with requirements of approved Development Orders and Developer Agreements in conjunction with the assumption that the approved land uses in the development are built

The following planned and programmed improvements and were included in the model:

- SR 9B Extension: I-95 to CR 2209/St. Johns Parkway (FDOT)
- Race Track Road: Widen from 2 to 4 lanes from East of Veterans Parkway to CR 2209/St. Johns Parkway
- Race Track Road: Widen from 2 to 4 lanes from CR 2209/Saint Johns Parkway to Bartram Park Boulevard
- CR 2209: New four-lane divided roadway between CR 210 and SR 16 Connector (SilverLeaf Plantation DRI's transportation mitigation)
- SR 16 Connector: New two-lane roadway between CR 2209 and SR 16/CR 16A Intersection (SilverLeaf Plantation DRI transportation mitigation)

The following model network refinements were made as these projects are currently NOT funded for construction:

- The roadway section of CR 223 between CR 210 and Long Leaf Pine Parkway that was included in the model was removed
- The proposed Outer Beltway (Toll Road proposed by FDOT) was also removed
- The segment of Longleaf Pine Parkway between Roberts Road and Tollerton Avenue was modified from a four-lane section to a two-lane section
- The segment of Veterans Parkway between Longleaf Pine Parkway and N. Durbin Parkway was modified from a four-lane section to a two-lane section
- The segment of Race Track Road between Bartram Park Boulevard and Bartram Springs Boulevard was modified from a four-lane section to two-lane section

The model refinements further included the addition of the proposed development and addition/modification of the following approved developments in the model:

- Aberdeen DRI
- Ashford Mills DRI
- Bartram Park DRI
- Durbin Crossing DRI
- RiverTown DRI
- SilverLeaf Plantation DRI

No additional transportation improvement projects/mitigation related to the above listed developments were added except those related to the SilverLeaf Plantation DRI. **Attachment D** includes a copy of the St. Johns County Highway Projects List and SR 9B plans from FDOT. **Attachment E** includes details of the Zdata Variables used to determine the project traffic distribution.

Separate travel demand model runs were performed to determine the project traffic distribution and assignment for each phase of the proposed residential and commercial/retail developments. **Table 04** shows Phase 1 project trip distribution and the PM peak hour project traffic assignment on each roadway segments within a 4-mile radius of the project boundary. **Table 05** shows Phase 2 (Cumulative) project

traffic distribution and PM peak hour project traffic assignment on each roadway segments within a four-mile radius of the project boundary. **Figures 03** and **04** show project traffic distribution and assignment for the proposed Phase 1 residential and commercial/retail development. **Figures 05 and 06** show project traffic distribution and assignment for the proposed Phase 2 residential and commercial/retail development. **Attachment F** includes copies of the travel demand model plots.

### **Segment Analysis**

Previously stated **Tables 04** and **05** summarize the impact of the proposed mixed-use development on the study area roadway links under Phase 1 and Phase 2 (Cumulative) conditions. As per Appendix A – St. Johns County Traffic Impact Study Methodology and Procedures of the St. Johns County Land Development Code, a study area roadway segment is considered impacted if residential development contributes one percent (1%) or more of the maximum service volume of the adopted service standard or non-residential development contributes one percent (1%) or more of the maximum service volume of the adopted service standard on the directly accessed roadway segment and three percent (3%) or more for all the project study area roadway segments.

As shown in previously stated **Table 04** the following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Phase 1 residential development (development contributes 1% or more of the maximum service volume of the adopted level of service standard).

- Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard
- Link 34.2: CR 210 – Cimarrone Boulevard to CR 2209
- Link 157: St. Johns Parkway – CR 210 to Future SR 9B Connection

The following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Greenbriar Downs Phase 1 commercial/retail development (non-residential development contributes 1% or more of the maximum service volume of the adopted level of service standard on the directly accessed roadway segment and 3% or more for all the other roadway segments).

- Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway
- Link 152.1: Veterans Parkway – Residential Project Entrance to Longleaf Pine Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue
- Link 156: Longleaf Pine Parkway – Tollerton Avenue to St. Johns Parkway
- Link 158: St. Johns Parkway – Future SR 9B Connection to Longleaf Pine Pkwy

Also, as shown in this table, the following links are anticipated to be adversely impacted under the proposed Phase 1 residential development (the roadway link impacted by the development related traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard).

- Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard

The following links are anticipated to be adversely impacted (the roadway link impacted by non-residential development traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard) under the proposed Phase 1 commercial/retail development.

- Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway

- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue

As shown in previously stated **Table 05** the following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Phase 2 (Cumulative) residential development (development contributes 1% or more of the maximum service volume of the adopted level of service standard).

- Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard
- Link 152.1: Veterans Parkway – Residential Project Entrance to Longleaf Pine Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue
- Link 156: Longleaf Pine Parkway – Tollerton Avenue to St. Johns Parkway
- Link 158: St. Johns Parkway – Future SR 9B Connection to Longleaf Pine Parkway

The following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Greenbriar Downs Phase 2 (Cumulative) commercial/retail development (non-residential development contributes 1% or more of the maximum service volume of the adopted level of service standard on the directly accessed roadway segment and 3% or more for all the other roadway segments).

- Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway
- Link 152.1: Veterans Parkway – Residential Project Entrance to Longleaf Pine Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 154: Longleaf Pine Parkway – Roberts Road to Veterans Parkway
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue
- Link 156: Longleaf Pine Parkway – Tollerton Avenue to St. Johns Parkway
- Link 158: St. Johns Parkway – Longleaf Pine Parkway to Race Track Road

Also, as shown in this table, the following links are anticipated to be adversely impacted under the proposed Phase 2 (Cumulative) residential development (the roadway link impacted by the development related traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard).

- Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue

The following links are anticipated to be adversely impacted (the roadway link impacted by non-residential development traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard) under the proposed Phase 2 commercial/retail development.

- Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 154: Longleaf Pine Parkway – Roberts Road to Veterans Parkway
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue

However, it should be noted that the adversely impacted roadway segments Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard, Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway, Link 154: Longleaf Pine Parkway – Roberts Road to Veteran Parkway and Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue are currently deficient (existing traffic plus vested development traffic plus reserved development traffic exceeds 100% of the maximum service volume of the adopted level of service standard) under project no-build conditions.

It should also be noted that the Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard is proposed to be widened from 2 to 4 lanes by the Ashford Mills DRI (mitigation projects) and this link may not be adversely impacted.

### **Summary and Conclusions**

This Land Development Traffic Assessment (LDTA) was prepared in support of the Comprehensive Plan Amendment for the proposed Greenbriar Downs mixed-use development.

The proposed development is anticipated to be developed in two (2) phases. Phase 1 development is anticipated to include 200 Senior Adult Housing – Detached units and 80,000 SF of neighborhood commercial/retail land uses. Phase 2 development is anticipated to include 202 Senior Adult Housing – Detached units, 416 Senior Adult Housing – Attached units and 80,000 SF of neighborhood commercial/retail. A grand total of 818 (402 Senior Adult Housing – Detached, 416 Senior Adult Housing – Attached) residential units and 160,000 SF of neighborhood commercial/retail land uses are anticipated to be developed under the project build-out conditions.

Access to the proposed Phase 1 residential development will be provided via CR 210. Access to Phase 2 residential development will be provided via CR 210 and the future northern section of Veterans Parkway Extension. Access to the non-residential development will be provided via Knights Lane, Veterans Parkway Extension and Longleaf Pine Parkway.

The Northeast Regional Planning Model (NERPM\_ABv3) travel demand forecasting model, provided by the North Florida Transportation Planning Organization (NFTPO), which was prepared as part of the TPO's 2040 Long Range Transportation Plan update, was used to develop project traffic distribution for the proposed development.

The following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Phase 1 residential development (development contributes 1% or more of the maximum service volume of the adopted level of service standard).

- □ Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard
- □ Link 34.2: CR 210 – Cimarrone Boulevard to CR 2209
- □ Link 157: St. Johns Parkway – CR 210 to Future SR 9B Connection

The following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Greenbriar Downs Phase 1 commercial/retail development (non-residential development contributes 1% or more of the maximum service volume of the adopted level of service standard on the directly accessed roadway segment and 3% or more for all the other roadway segments).

- □ Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway
- □ Link 152.1: Veterans Parkway – Residential Project Entrance to Longleaf Pine Parkway
- □ Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- □ Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue
- □ Link 156: Longleaf Pine Parkway – Tollerton Avenue to St. Johns Parkway
- □ Link 158: St. Johns Parkway – Future SR 9B Connection to Longleaf Pine Pkwy

The following links are anticipated to be adversely impacted under the proposed Phase 1 residential development (the roadway link impacted by the development related traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard).

- □ Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard

The following links are anticipated to be adversely impacted (the roadway link impacted by non-residential development traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard) under the proposed Phase 1 commercial/retail development.

- Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue

The following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Phase 2 (Cumulative) residential development (development contributes 1% or more of the maximum service volume of the adopted level of service standard).

- Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard
- Link 152.1: Veterans Parkway – Residential Project Entrance to Longleaf Pine Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue
- Link 156: Longleaf Pine Parkway – Tollerton Avenue to St. Johns Parkway
- Link 158: St. Johns Parkway – Future SR 9B Connection to Longleaf Pine Parkway

The following study area roadway segments are anticipated to be impacted due to the traffic generated by the proposed Greenbriar Downs Phase 2 (Cumulative) commercial/retail development (non-residential development contributes 1% or more of the maximum service volume of the adopted level of service standard on the directly accessed roadway segment and 3% or more for all the other roadway segments).

- Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway
- Link 152.1: Veterans Parkway – Residential Project Entrance to Longleaf Pine Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 154: Longleaf Pine Parkway – Roberts Road to Veterans Parkway
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue
- Link 156: Longleaf Pine Parkway – Tollerton Avenue to St. Johns Parkway
- Link 158: St. Johns Parkway – Longleaf Pine Parkway to Race Track Road

The following links are anticipated to be adversely impacted under the proposed Phase 2 (Cumulative) residential development (the roadway link impacted by the development related traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard).

- Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue

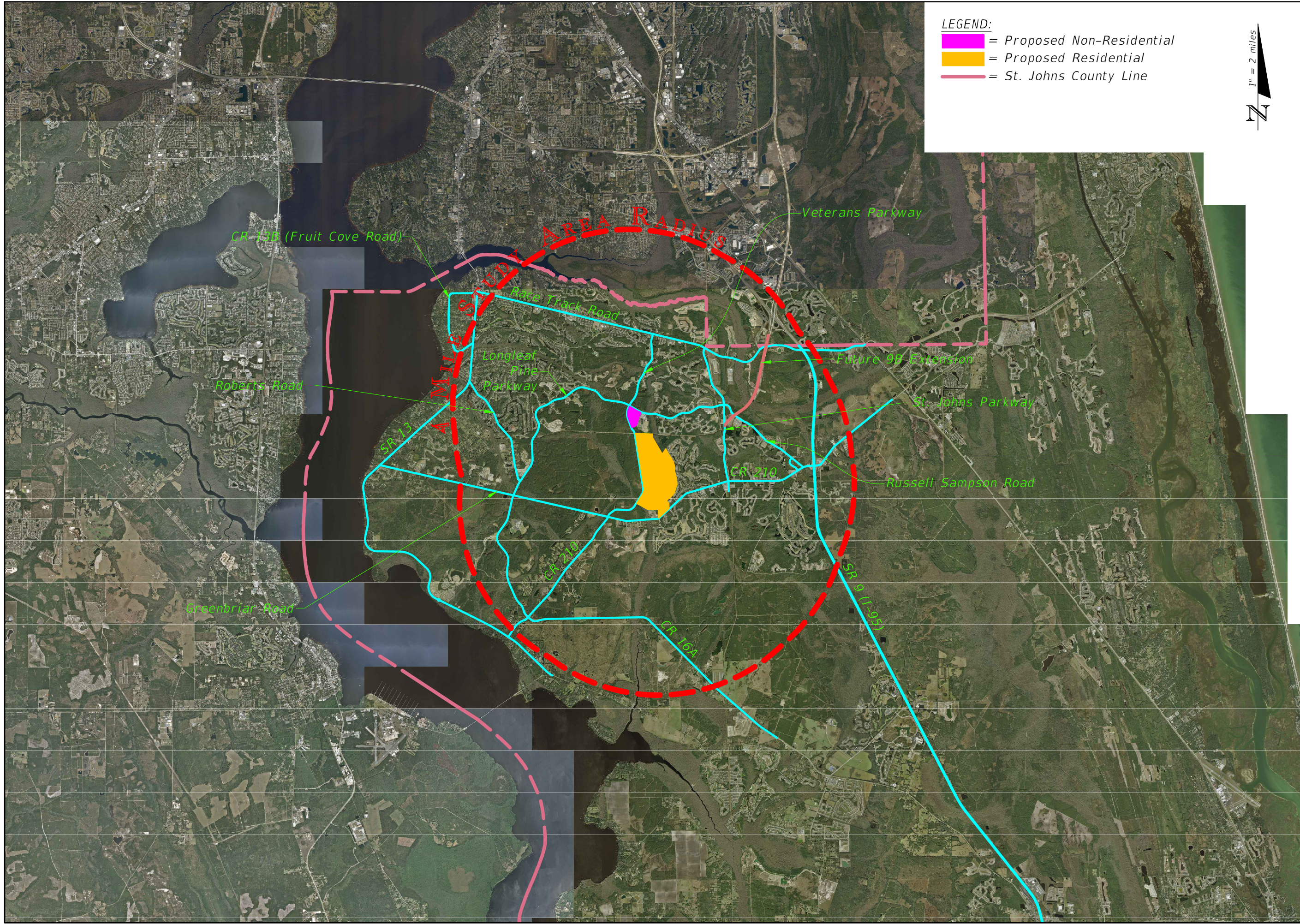
The following links are anticipated to be adversely impacted (the roadway link impacted by non-residential development traffic and existing traffic plus vested development traffic plus reserved development traffic plus project traffic exceeds 100% of the maximum service volume of the adopted level of service standard) under the proposed Phase 2 commercial/retail development.

- Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway
- Link 152.2: Veterans Parkway – Longleaf Pine Parkway to Race Track Road
- Link 154: Longleaf Pine Parkway – Roberts Road to Veterans Parkway
- Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue

However, it should be noted that the adversely impacted roadway segments Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard, Link 80: Russell Sampson Road – CR 210 to St. Johns Parkway, Link 154: Longleaf Pine Parkway – Roberts Road to Veteran Parkway and Link 155: Longleaf Pine Parkway – Veterans Parkway to Tollerton Avenue are currently deficient (existing traffic plus vested development traffic plus reserved development traffic exceeds 100% of the maximum service volume of the adopted level of service standard) under project no-build conditions.





It should also be noted that the Link 34.1: CR 210 – Greenbriar Road to Cimarrone Boulevard is proposed to be widened from 2 to 4 lanes by the Ashford Mills DRI (mitigation projects) and this link may not be adversely impacted.

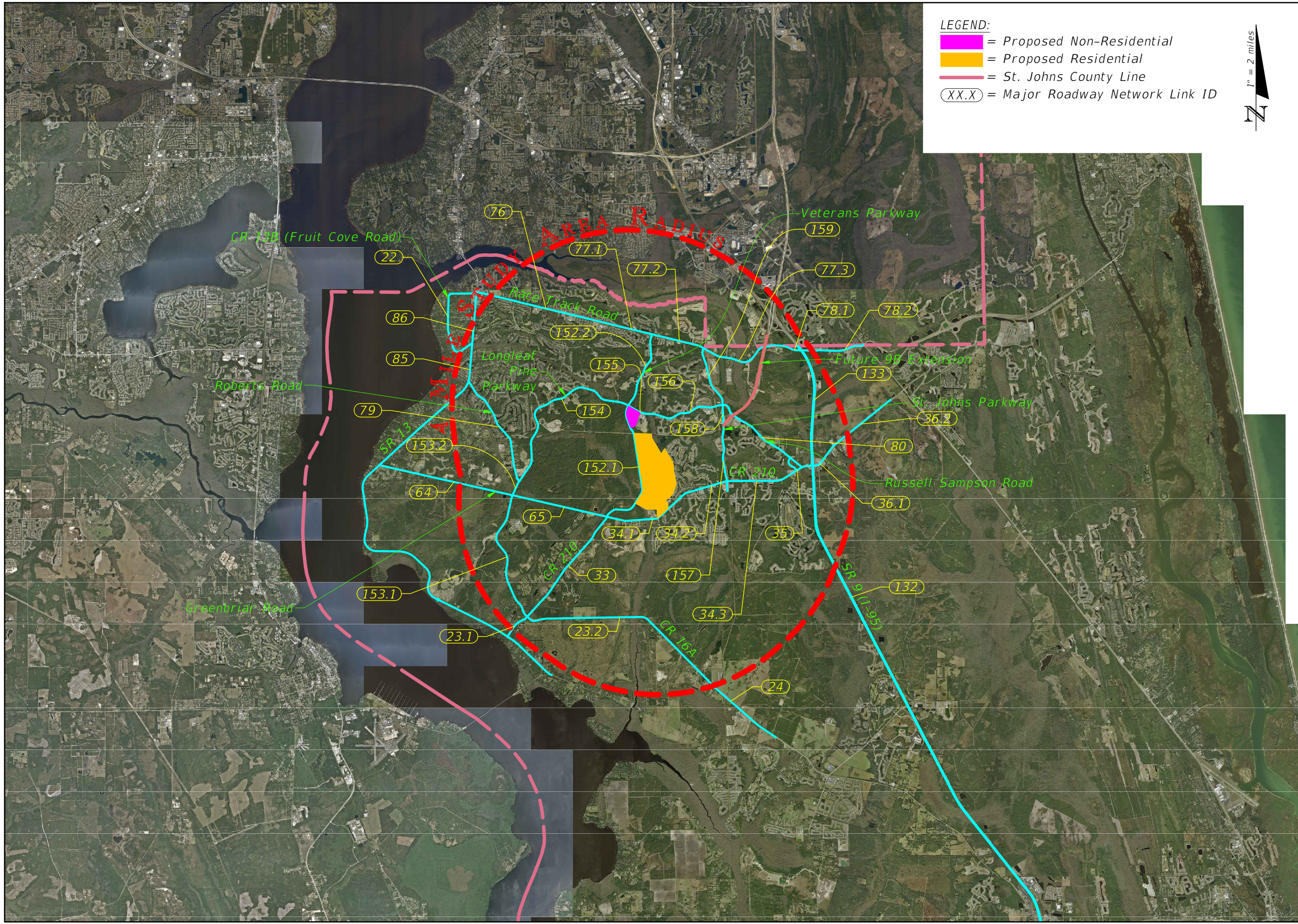
This LDTA is based on the Transportation Analysis Spreadsheet (TAS) dated 07/01/2017 that is currently available on the County's webpage. The applicant is submitting coincident with the update to the CPA a concurrency application for the residential component of the project and will submit a Concurrency Application and an updated LDTA (if an updated TAS becomes available at the time of the Concurrency Application, the results may vary) for the commercial/retail component at the appropriate time. If any roadway segment(s) are identified to be adversely impacted based on the updated TAS at the time of the commercial/retail Concurrency Application, a project proportionate share will be estimated. The Greenbriar Downs development will comply with concurrency requirements as consistent with Section 163.3180, Florida Statutes, including any provisions of the St. Johns County Land Development Code, consistent therewith to mitigate Greenbriar Downs development related transportation adverse impacts.



**LEGEND:**  
 = Proposed Residential  
 = Proposed Non-Residential  
 = St. Johns County Line



**LEGEND:**  
 = Proposed Non-Residential  
 = Proposed Residential  
 = St. Johns County Line  
 = Major Roadway Network Link ID



STUDY AREA MAP

GREENBRIAR DOWNS - CPA LDTA  
 ST. JOHNS COUNTY, FLORIDA

8515 Baymeadows Way  
 Suite 401  
 Jacksonville, FL 32256  
 Phone: (904) 422-6923  
 Email: chindaluri@trafficsolutions.com



LEGEND:

[Pink Box] = Proposed Non-Residential

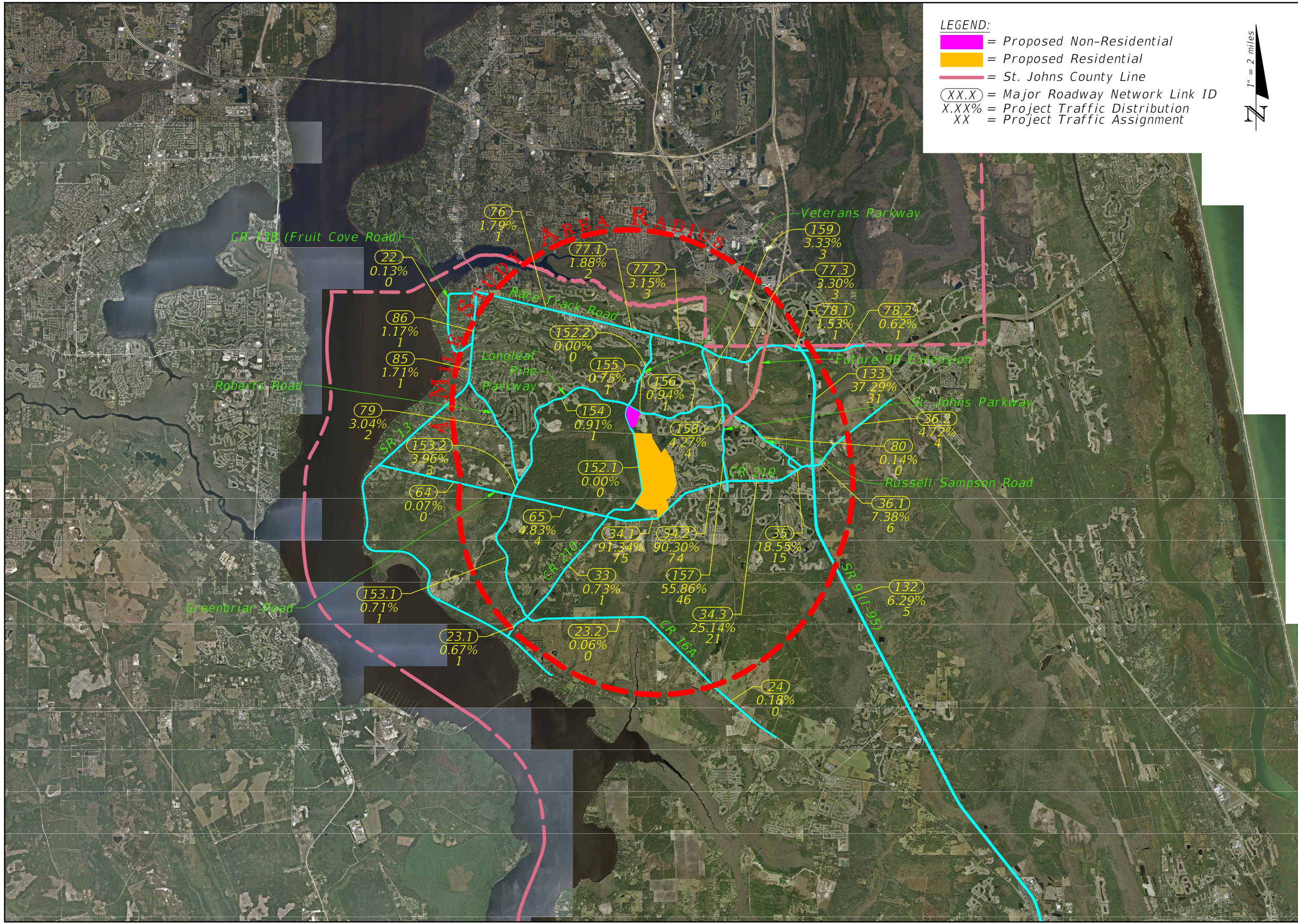
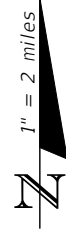
[Yellow Box] = Proposed Residential

[Red Dashed Line] = St. Johns County Line

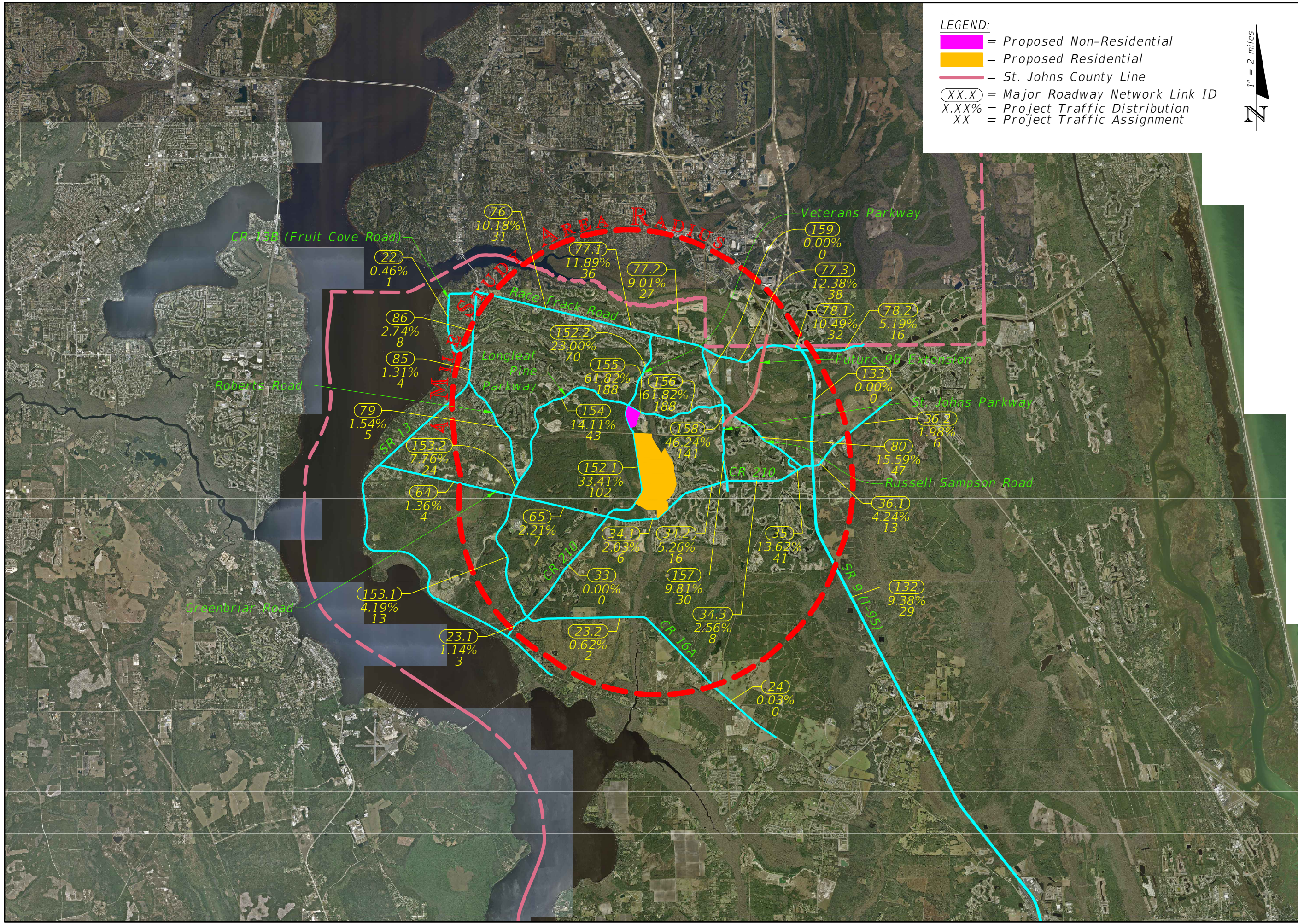
(XX.X) = Major Roadway Network Link ID

X.XX% = Project Traffic Distribution

XX = Project Traffic Assignment

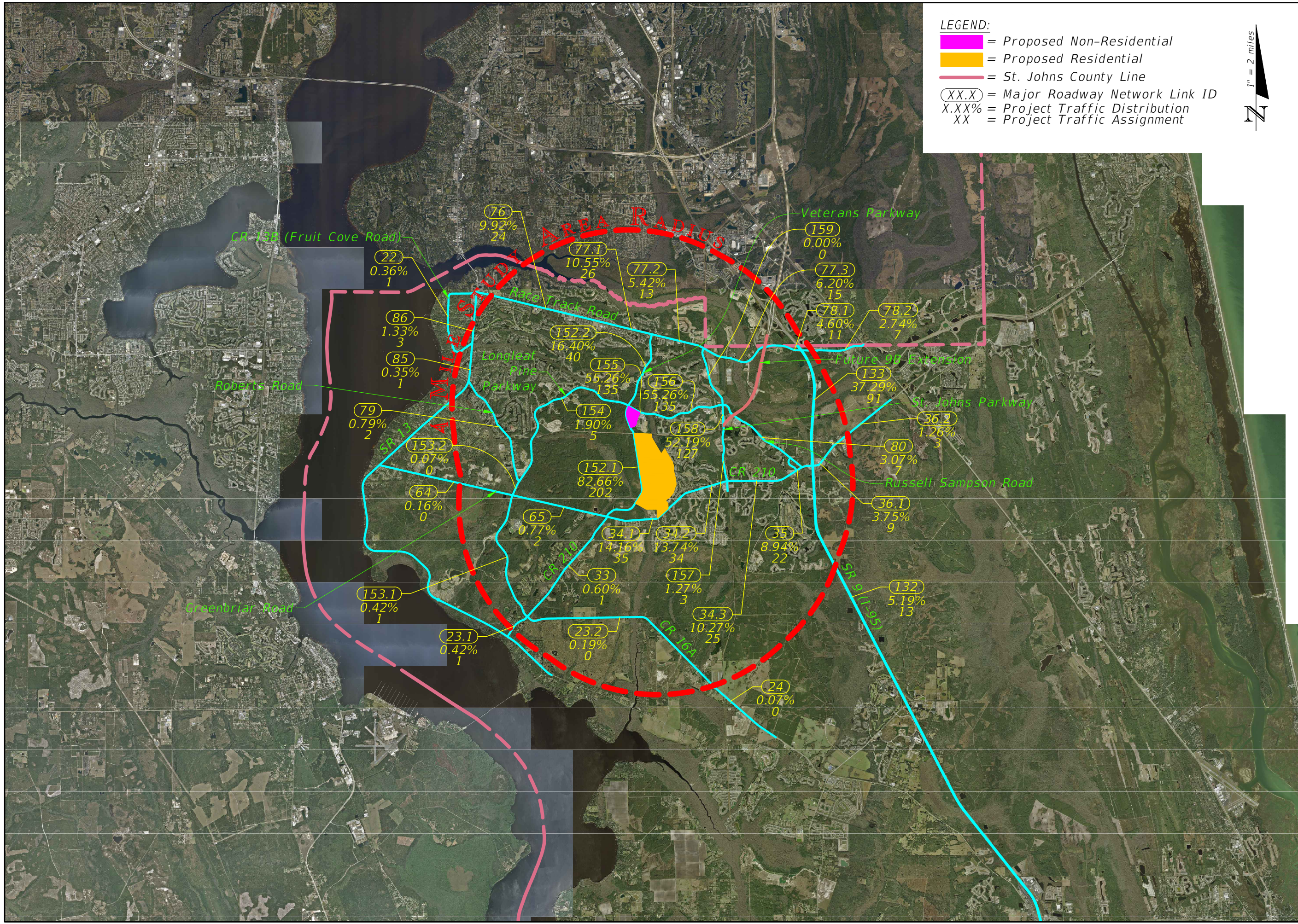


- LEGEND:**
- = Proposed Non-Residential
  - = Proposed Residential
  - = St. Johns County Line
  - XX.X = Major Roadway Network Link ID
  - X.XX% = Project Traffic Distribution
  - XX = Project Traffic Assignment

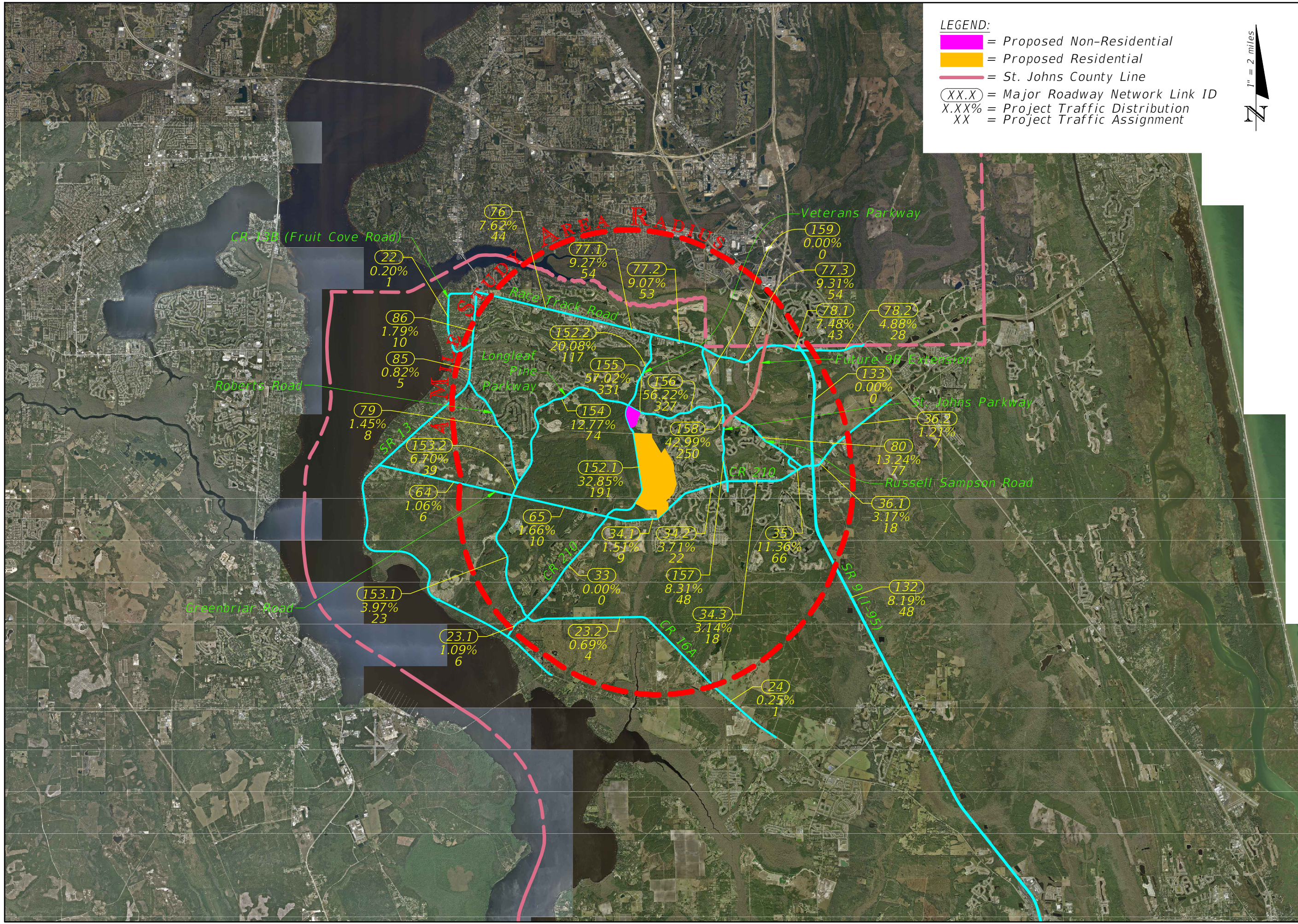


**LEGEND:**

- = Proposed Residential
- = Proposed Non-Residential
- = St. Johns County Line
- XX.X = Major Roadway Network Link ID
- X.XX% = Project Traffic Distribution
- XX = Project Traffic Assignment



- LEGEND:**
- = Proposed Non-Residential
  - = Proposed Residential
  - = St. Johns County Line
  - XX.X = Major Roadway Network Link ID
  - X.XX% = Project Traffic Distribution
  - XX = Project Traffic Assignment



**Table 1**  
**PM Peak Trip Generation (Phase 01)**  
**Greenbriar Downs CPA LDTA, St. Johns County, FL**

ITE Land Use Code	Description	Quantity	Units	Rate or Equation	Gross Trips			Pass-by				Net External Trips			
					Total	Entering	Exiting	Percentage	Trips	10% of Adj	Max Allowed	Total	Entering	Exiting	
251	Office/Professional	200	D	0.2	2	50	32	0.00%				2	50	32	
20	Residential Single-Family	0.000		0.4	461	221	240	34.00%	15	15	15	304	146	15	
					<b>543</b>	<b>271</b>	<b>272</b>	<b>28.91%</b>	<b>157</b>			<b>386</b>	<b>196</b>	<b>190</b>	
												<b>Total Net Ext Residential</b>	<b>82</b>	<b>50</b>	<b>32</b>
												<b>Total Net Ext Non-Residential</b>	<b>304</b>	<b>146</b>	<b>158</b>

Source: ITE Trip Generation Manual, 10th Edition

Table 2  
 PM Peak Trip Generation  
 Greenbriar Downs CPA LDTA, St. Johns County, FL

ITE Land Use Code	Description	Quantity	Units	Rate or Equation	Gross Trips			Pass-by			Net External Trips				
					Total	Entering	Exiting	Percentage	Trips	10% of Adj	Max Allowed	Total	Entering	Exiting	
251	Residential Single-Family	402	D	0.0000000000002	142	55	0.00				142	55			
252	Residential Medium-Density	416	D	0.02400000000026	102	46	0.00				102	46			
20	Residential Medium-Density	160,000	D	0.0400000000002	6,400	400	34.00	261	100	100	5,100	200	302		
					<b>1,013</b>	<b>512</b>	<b>501</b>	<b>25.77%</b>	<b>261</b>			<b>825</b>	<b>422</b>	<b>403</b>	
										<b>Total Net Ext Residential</b>			<b>244</b>	<b>143</b>	<b>101</b>
										<b>Total Net Ext Non-Residential</b>			<b>581</b>	<b>279</b>	<b>302</b>

Source: ITE Trip Generation Manual, 10th Edition



**Table 04**  
**Roadway Link Analysis - Phase 01**  
**Greenbriar Downs CPA LDTA, St. Johns County, FL**

MRN Link ID	Roadway	From/To	Residential Project Traffic Distribution	Non-Residential Project Traffic Distribution	82 Residential Project Traff Assignment	304 Non-Residential Project Traff Assignment	Build-Out Total Traffic	BO Total Traffic % of MSV	BO Total Traffic > 100% of MSV	Residential Project Traff % of MSV	Non-Residential Project Traff % of MSV	Residential Project Traff > 1% of MSV	Non-Residential Project Traff > 3% of MSV	Residential Traffic Significant and Adverse	Non-Residential Traffic Significant and Adverse
22	CR 13B (Fruit Cove Rd)	SR 13 to SR 13	0.13%	0.46%	0	1	222	19.26%	No	0.00%	0.09%	No	No	No	No
23.1	CR 16A	SR 13 to CR 210	0.67%	1.14%	1	3	1,347	93.53%	No	0.07%	0.21%	No	No	No	No
23.2	CR 16A	CR 210 to Leo Maguire Rd.	0.06%	0.62%	0	2	928	70.84%	No	0.00%	0.15%	No	No	No	No
24	CR 16A	Leo Maguire Rd. to SR 16	0.18%	0.03%	0	0	937	71.49%	No	0.00%	0.00%	No	No	No	No
33	CR 210	CR 16A to Greenbriar Rd.	0.73%	0.00%	1	0	1,283	97.94%	No	0.08%	0.00%	No	No	No	No
<b>34.1</b>	<b>CR 210</b>	<b>Greenbriar Rd. to Cimarrone Blvd.</b>	<b>91.34%</b>	<b>2.03%</b>	<b>75</b>	<b>6</b>	<b>3,226</b>	<b>224.03%</b>	<b>Yes</b>	<b>5.21%</b>	<b>0.42%</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
34.2	CR 210	Cimarrone Blvd. to CR 2209	90.30%	5.26%	74	16	3,393	94.76%	No	2.07%	0.45%	Yes	No	No	No
34.3	CR 210	CR 2209 to Leo Maguire Parkway	25.14%	2.56%	21	8	4,781	116.88%	Yes	0.51%	0.20%	No	No	No	No
35	CR 210	Leo Maguire Parkway to SR 9 (I-95)	18.55%	13.62%	15	41	6,221	115.42%	Yes	0.28%	0.76%	No	No	No	No
36.1	CR 210	SR 9 (I-95) to C.E. Wilson Road	7.38%	4.24%	6	13	4,052	115.11%	Yes	0.17%	0.37%	No	No	No	No
36.2	CR 210 W.	C.E. Wilson Road to Alternate CR 210	4.72%	1.98%	4	6	3,431	107.22%	Yes	0.13%	0.19%	No	No	No	No
64	Greenbriar Rd.	SR 13 to Longleaf Pine Pkwy	0.07%	1.36%	0	4	775	53.78%	No	0.00%	0.28%	No	No	No	No
65	Greenbriar Rd.	Longleaf Pine Pkwy to CR 210	4.83%	2.21%	4	7	1,013	70.32%	No	0.28%	0.49%	No	No	No	No
76	Race Track Rd.	SR 13 to Bishop Estates Rd.	1.79%	10.18%	1	31	3,468	91.99%	No	0.03%	0.82%	No	No	No	No
77.1	Race Track Rd.	Bishop Estates Rd. to Veterans Pkwy	1.88%	11.89%	2	36	3,684	102.91%	Yes	0.06%	1.01%	No	No	No	No
77.2	Race Track Rd.	Veterans Pkwy to St. Johns Pkwy	3.15%	9.01%	3	27	2,779	77.64%	No	0.08%	0.75%	No	No	No	No
77.3	Race Track Rd.	St. Johns Pkwy to Bartram Park Blvd	3.30%	12.38%	3	38	3,417	95.43%	No	0.08%	1.06%	No	No	No	No
78.1	Race Track Rd.	Bartram Park Blvd to Bartram Springs Pkwy	1.53%	10.49%	1	32	4,283	267.69%	Yes	0.06%	2.00%	No	No	No	No
78.2	Race Track Rd.	Bartram Springs Pkwy to SR 5 (US 1)	0.62%	5.19%	1	16	2,642	73.80%	No	0.03%	0.45%	No	No	No	No
79	Roberts Rd.	SR 13 to Longleaf Pine Pkwy	3.04%	1.54%	2	5	2,055	142.71%	Yes	0.14%	0.35%	No	No	No	No
80	Russell Sampson Rd.	CR 210 to St. Johns Pkwy	0.14%	15.59%	0	47	2,266	157.36%	Yes	0.00%	3.26%	No	Yes	No	Yes
85	SR 13	Roberts Rd. to CR 13B (Fruit Cove Rd S.)	1.71%	1.31%	1	4	3,262	91.12%	No	0.03%	0.11%	No	No	No	No
86	SR 13	CR 13B (Fruit Cove Rd S.) to Race Track Rd.	1.17%	2.74%	1	8	3,156	88.14%	No	0.03%	0.22%	No	No	No	No
132	SR 9 (I-95)	International Golf Pkwy. to CR 210	6.29%	9.38%	5	29	9,930	108.05%	Yes	0.05%	0.32%	No	No	No	No
133	SR 9 (I-95)	CR 210 to Duval Co. Line	37.29%	0.00%	31	0	12,233	133.11%	Yes	0.34%	0.00%	No	No	No	No
152.1	Veterans Pkwy	CR 210 to Longleaf Pine Parkway	0.00%	33.41%	0	102	102	6.38%	No	0.00%	6.38%	No	Yes	No	No
152.2	Veterans Pkwy	Longleaf Pine Pkwy to Race Track Rd	0.00%	23.00%	0	70	1,664	104.00%	Yes	0.00%	4.38%	No	Yes	No	Yes
153.1	Longleaf Pine Pkwy	CR 210/16A to Greenbriar Rd	0.71%	4.19%	1	13	1,141	39.62%	No	0.03%	0.45%	No	No	No	No
153.2	Longleaf Pine Pkwy	Greenbriar Rd to Roberts Rd	3.96%	7.76%	3	24	1,495	46.41%	No	0.09%	0.75%	No	No	No	No
154	Longleaf Pine Pkwy	Roberts Rd to Veterans Pkwy	0.91%	14.11%	1	43	1,681	116.74%	Yes	0.07%	2.99%	No	No	No	No
<b>155</b>	<b>Longleaf Pine Pkwy</b>	<b>Veterans Pkwy to Tollerton Ave</b>	<b>0.75%</b>	<b>61.82%</b>	<b>1</b>	<b>188</b>	<b>1,933</b>	<b>127.17%</b>	<b>Yes</b>	<b>0.07%</b>	<b>12.37%</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>
156	Longleaf Pine Pkwy	Tollerton Ave to St. Johns Pkwy	0.94%	61.82%	1	188	2,322	72.11%	No	0.03%	5.84%	No	Yes	No	No
157	St. Johns Pkwy	CR 210 to Future SR 9B Connection	55.86%	9.81%	46	30	2,073	57.91%	No	1.28%	0.84%	Yes	No	No	No
158	St. Johns Pkwy	Future SR 9B Connection to Longleaf Pine Pkwy	4.27%	46.24%	4	141	2,300	64.25%	No	0.11%	3.94%	No	Yes	No	No
159	St. Johns Pkwy	Longleaf Pine Pkwy to Race Track Rd	3.33%	0.00%	3	0	1,872	52.29%	No	0.08%	0.00%	No	No	No	No

Link 34.1 and Link 155: Directly Accessed Links

**Table 05**  
**Roadway Link Analysis - Phase 2 (Cumulative)**  
**Greenbriar Downs CPA LDTA, St. Johns County, FL**

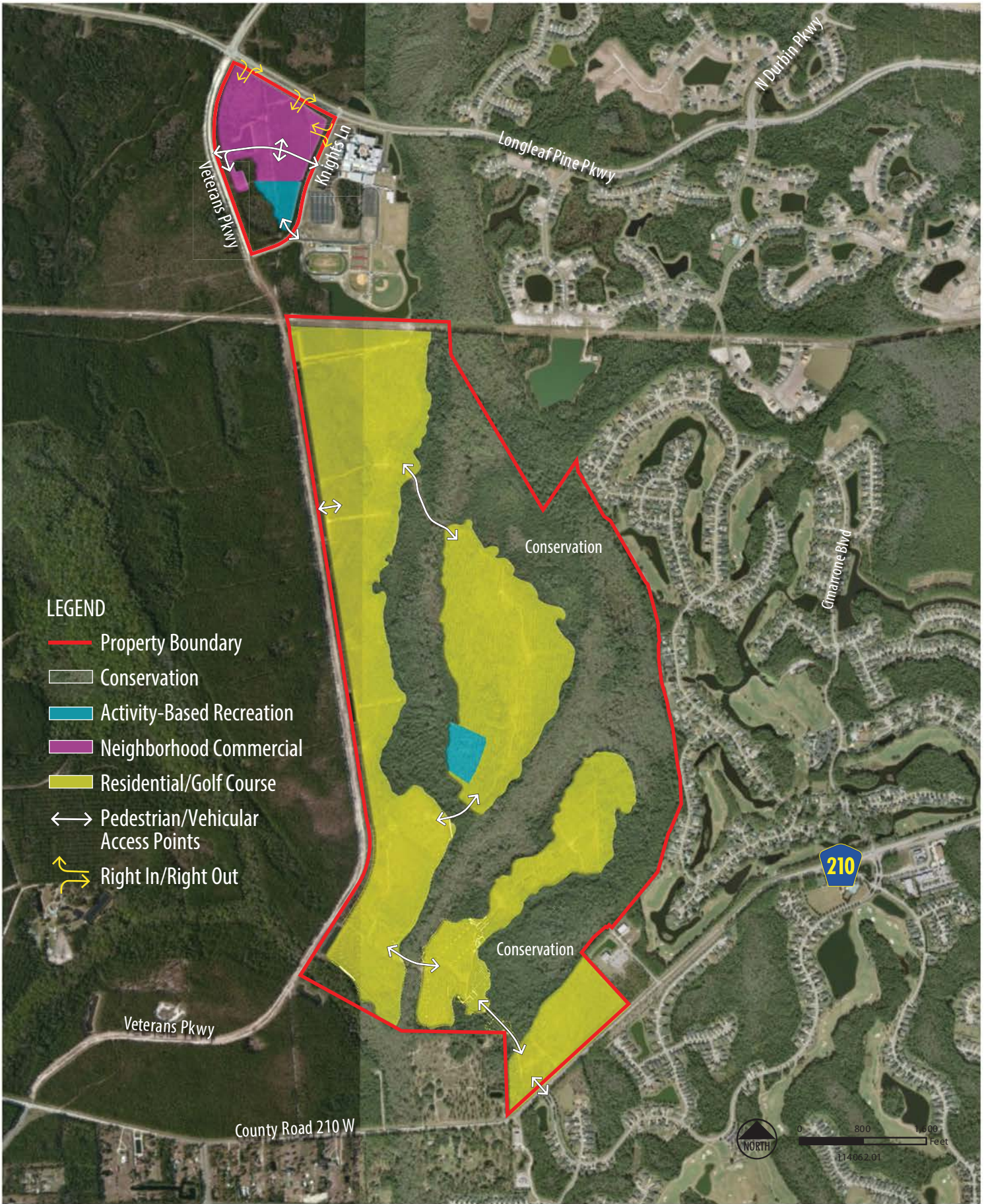
MRN Link ID	Roadway	From/To	Residential Project Traffic Distribution	Non-Residential Project Traffic Distribution	244 Residential Project Traff Assignment	581 Non-Residential Project Traff Assignment	Build-Out Total Traffic	BO Total Traffic % of MSV	BO Total Traffic > 100% of MSV	Residential Project Traff % of MSV	Non-Residential Project Traff % of MSV	Residential Project Traff > 1% of MSV	Non-Residential Project Traff > 3% of MSV	Residential Traffic Significant and Adverse	Non-Residential Traffic Significant and Adverse
22	CR 13B (Fruit Cove Rd)	SR 13 to SR 13	0.36%	0.20%	1	1	223	19.35%	No	0.09%	0.09%	No	No	No	No
23.1	CR 16A	SR 13 to CR 210	0.42%	1.09%	1	6	1,350	93.74%	No	0.07%	0.42%	No	No	No	No
23.2	CR 16A	CR 210 to Leo Maguire Rd.	0.19%	0.69%	0	4	930	70.99%	No	0.00%	0.31%	No	No	No	No
24	CR 16A	Leo Maguire Rd. to SR 16	0.07%	0.25%	0	1	938	71.56%	No	0.00%	0.08%	No	No	No	No
33	CR 210	CR 16A to Greenbriar Rd.	0.60%	0.00%	1	0	1,283	97.94%	No	0.08%	0.00%	No	No	No	No
<b>34.1</b>	<b>CR 210</b>	<b>Greenbriar Rd. to Cimarrone Blvd.</b>	<b>14.16%</b>	<b>1.51%</b>	<b>35</b>	<b>9</b>	<b>3,189</b>	<b>221.46%</b>	<b>Yes</b>	<b>2.43%</b>	<b>0.63%</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
34.2	CR 210	Cimarrone Blvd. to CR 2209	13.74%	3.71%	34	22	3,359	93.81%	No	0.95%	0.61%	No	No	No	No
34.3	CR 210	CR 2209 to Leo Maguire Parkway	10.27%	3.14%	25	18	4,795	117.22%	Yes	0.61%	0.44%	No	No	<b>No</b>	No
35	CR 210	Leo Maguire Parkway to SR 9 (I-95)	8.94%	11.36%	22	66	6,253	116.01%	Yes	0.41%	1.22%	No	No	<b>No</b>	No
36.1	CR 210	SR 9 (I-95) to C.E. Wilson Road	3.75%	3.17%	9	18	4,060	115.34%	Yes	0.26%	0.51%	No	No	No	No
36.2	CR 210 W.	C.E. Wilson Road to Alternate CR 210	1.26%	1.21%	3	7	3,431	107.22%	Yes	0.09%	0.22%	No	No	No	No
64	Greenbriar Rd.	SR 13 to Longleaf Pine Pkwy	0.16%	1.06%	0	6	777	53.92%	No	0.00%	0.42%	No	No	No	No
65	Greenbriar Rd.	Longleaf Pine Pkwy to CR 210	0.77%	1.66%	2	10	1,014	70.39%	No	0.14%	0.69%	No	No	No	No
76	Race Track Rd.	SR 13 to Bishop Estates Rd.	9.92%	7.62%	24	44	3,504	92.94%	No	0.64%	1.17%	No	No	No	No
77.1	Race Track Rd.	Bishop Estates Rd. to Veterans Pkwy	10.55%	9.27%	26	54	3,726	104.09%	Yes	0.73%	1.51%	No	No	No	No
77.2	Race Track Rd.	Veterans Pkwy to St. Johns Pkwy	5.42%	9.07%	13	53	2,815	78.64%	No	0.36%	1.48%	No	No	No	No
77.3	Race Track Rd.	St. Johns Pkwy to Bartram Park Blvd	6.20%	9.31%	15	54	3,445	96.22%	No	0.42%	1.51%	No	No	<b>No</b>	No
78.1	Race Track Rd.	Bartram Park Blvd to Bartram Springs Pkwy	4.60%	7.48%	11	43	4,304	269.00%	Yes	0.69%	2.69%	No	No	No	No
78.2	Race Track Rd.	Bartram Springs Pkwy to SR 5 (US 1)	2.74%	4.88%	7	28	2,660	74.30%	No	0.20%	0.78%	No	No	No	No
79	Roberts Rd.	SR 13 to Longleaf Pine Pkwy	0.79%	1.45%	2	8	2,058	142.92%	Yes	0.14%	0.56%	No	No	No	<b>No</b>
80	Russell Sampson Rd.	CR 210 to St. Johns Pkwy	3.07%	13.24%	7	77	2,303	159.93%	Yes	0.49%	5.35%	No	Yes	No	Yes
85	SR 13	Roberts Rd. to CR 13B (Fruit Cove Rd S.)	0.35%	0.82%	1	5	3,263	91.15%	No	0.03%	0.14%	No	No	No	No
86	SR 13	CR 13B (Fruit Cove Rd S.) to Race Track Rd.	1.33%	1.79%	3	10	3,160	88.25%	No	0.08%	0.28%	No	No	No	No
132	SR 9 (I-95)	International Golf Pkwy. to CR 210	5.19%	8.19%	13	48	9,957	108.35%	Yes	0.14%	0.52%	No	No	No	No
133	SR 9 (I-95)	CR 210 to Duval Co. Line	37.29%	0.00%	91	0	12,293	133.76%	Yes	0.99%	0.00%	No	No	No	No
152.1	Veterans Pkwy	CR 210 to Longleaf Pine Parkway	82.66%	32.85%	202	191	393	24.56%	No	12.63%	11.94%	Yes	<b>Yes</b>	<b>No</b>	<b>No</b>
152.2	Veterans Pkwy	Longleaf Pine Pkwy to Race Track Rd	16.40%	20.08%	40	117	1,751	109.44%	Yes	2.50%	7.31%	Yes	Yes	Yes	<b>Yes</b>
153.1	Longleaf Pine Pkwy	CR 210/16A to Greenbriar Rd	0.42%	3.97%	1	23	1,151	39.97%	No	0.03%	0.80%	No	No	No	No
153.2	Longleaf Pine Pkwy	Greenbriar Rd to Roberts Rd	0.07%	6.70%	0	39	1,507	46.79%	No	0.00%	1.21%	No	No	No	No
154	Longleaf Pine Pkwy	Roberts Rd to Veterans Pkwy	1.90%	12.77%	5	74	1,716	119.17%	Yes	0.35%	5.14%	No	Yes	No	Yes
<b>155</b>	<b>Longleaf Pine Pkwy</b>	<b>Veterans Pkwy to Tollerton Ave</b>	<b>55.26%</b>	<b>57.02%</b>	<b>135</b>	<b>331</b>	<b>2,210</b>	<b>145.39%</b>	<b>Yes</b>	<b>8.88%</b>	<b>21.78%</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
156	Longleaf Pine Pkwy	Tollerton Ave to St. Johns Pkwy	55.26%	56.22%	135	327	2,595	80.59%	No	4.19%	10.16%	Yes	Yes	No	No
157	St. Johns Pkwy	CR 210 to Future SR 9B Connection	1.27%	8.31%	3	48	2,048	57.21%	No	0.08%	1.34%	No	No	No	No
158	St. Johns Pkwy	Future SR 9B Connection to Longleaf Pine Pkwy	52.19%	42.99%	127	250	2,532	70.73%	No	3.55%	6.98%	Yes	Yes	No	No
159	St. Johns Pkwy	Longleaf Pine Pkwy to Race Track Rd	0.00%	0.00%	0	0	1,869	52.21%	No	0.00%	0.00%	No	No	No	No

Link 34.1 and Link 155: Directly Accessed Links

# ***Attachment A***

---

Greenbriar Downs General Site Plan  
Source: Prosser, Inc.



P:\114062.01\GIS\Middlebourne\_Aerial\_8x11.mxd

Source: SJC, Bing, Prosser

# Greenbriar Downs

## Generalized Site Plan

June 14, 2018



114062.02

# ***Attachment B***

---

LDTA Methodology Document

**To: Ms. Jan Trantham**  
St. Johns County  
Growth Management Department  
4040 Lewis Speedway  
St. Augustine, FL 32084

From: Rajesh K. Chindalur, P.E., PTOE  
**Project: Greenbriar Downs – Concurrency LDTA**  
Client: WCI Lennar  
Project No.: 1010-170-010  
Date: 04/24/2018

**Greenbriar Downs**  
**Concurrency Land Development Traffic Assessment – Study Methodology**

Chindalur Traffic Solutions, Inc. (CTSi) has been retained by WCI Lennar to prepare a Land Development Traffic Assessment (LDTA) study in support of the Concurrency Application for the proposed Greenbriar Downs development’s residential component. The residential component of the proposed development will be located between Longleaf Pine Parkway and CR 2209 (St. Johns Parkway) on northside of CR 210W east of the future Veterans Parkway Extension (future CR 223). The non-residential component will be located on the southeast quadrant of the Veterans Parkway/Longleaf Pine Parkway intersection in St. Johns County, Florida. A concurrency application for the non-residential component of the development will be applied at a later date.

The proposed residential development is anticipated to be developed in two (2) phases. Phase 1 development is anticipated to include 200 Senior Adult Housing - Detached dwelling units and Phase 2 development is anticipated to include 202 Senior Adult Housing - Detached dwelling units plus 416 Senior Adult Housing – Attached dwelling units (Build-Out total of 818 Senior Adult Housing - 404 detached and 416 attached).

Access to the proposed Phase 1 residential development will be provided via CR 210 and Phase 2 residential development will include a secondary access via the future northern section of Veterans Parkway Extension (future CR 223).

**Attachment A** shows the general site plan (provided by Prosser, Inc.). This document summarizes the methodology that will be used in preparing the Concurrency LDTA for the proposed Greenbriar Downs development.

**Trip Generation:** The PM peak hour trips for the proposed development will be estimated using the rates and equations included in the Trip Generation Manual, 10th Edition, published by the Institute of Transportation Engineers (ITE).

**Study Area Roadway Links:** All the roadway segments within a maximum of four (4) miles from the project site boundaries will be include in the analysis. **Table 01** summarizes the roadway characteristics of all the roadway links that are included with in the project 4 mile study area. The roadway characteristics were obtained from the latest St. Johns County’s, Roadway Links Status Report, dated 07/01/2017 (**Attachment B**).

**Planned Roadway Improvements:** FDOT's 5 Five-Year Work Program, St. Johns County's CIP and other developments developer's agreements will be reviewed and include any planned roadway improvements within the study area. The following improvements will be included in the travel demand model and the analysis:

- □ SR 9B Extension: I-95 to CR 2209/St. Johns Parkway (FDOT)
- □ Race Track Road: Widen from 2 to 4 lanes from East of Veterans Parkway to Bartram Park Boulevard

**Trip Distribution:** The currently adopted travel demand model NERPM\_ABv3 (North Florida Regional Travel Demand Model) that was developed as part of the North Florida TPO's long range transportation plan will be used to determine the project traffic distribution percentages. The year 2025 interim year model data set will be used to develop the project traffic distribution of the proposed Phase 1 and Phase 2 development.

**Peak Hour Project Traffic Assignment:** Peak hour project traffic under Phase 1 and Phase 2 development conditions will be assigned to the roads within the study area using distribution percentages obtained from NERPM\_ABv3 model runs. Peak hour project traffic will be assigned to all segments impacted by development traffic at a level equal to or greater than one percent (1.0%) of the maximum service volume of the adopted Level of Service standard up to a maximum radius of four (4) miles from the project site boundaries.

**Segment Analysis:** Future conditions build-out traffic for each link with the project impact area will include existing peak hour traffic, concurrency reserved traffic, exempt development traffic provided in the latest St. Johns County Transportation Analysis Spreadsheet and the peak hour project traffic from the proposed development. Study area roadway segments impact analysis will be prepared to determine any of the failing roadway segments. The intended plan of development will comply with concurrency requirements as mandated by Section 163.3180, Florida Statutes, including any provisions of the St. Johns County Land Development Code, consistent therewith.

**Intersection Analysis:** Intersection analyses are required when the PM peak hour traffic volume on one or more links forming a leg of a major, signalized intersection exceeds 90% of the maximum service volume of the adopted level of service standard. Intersection capacity analysis of the study area intersection that meet the above stated criteria will be provided as an addendum after the initial concurrency application submittal.

A traffic analysis report summarizing the above analysis procedure will be prepared and submitted to St. Johns County for review and approval.

Ms. Jan Trantham  
St. Johns County, FL

---

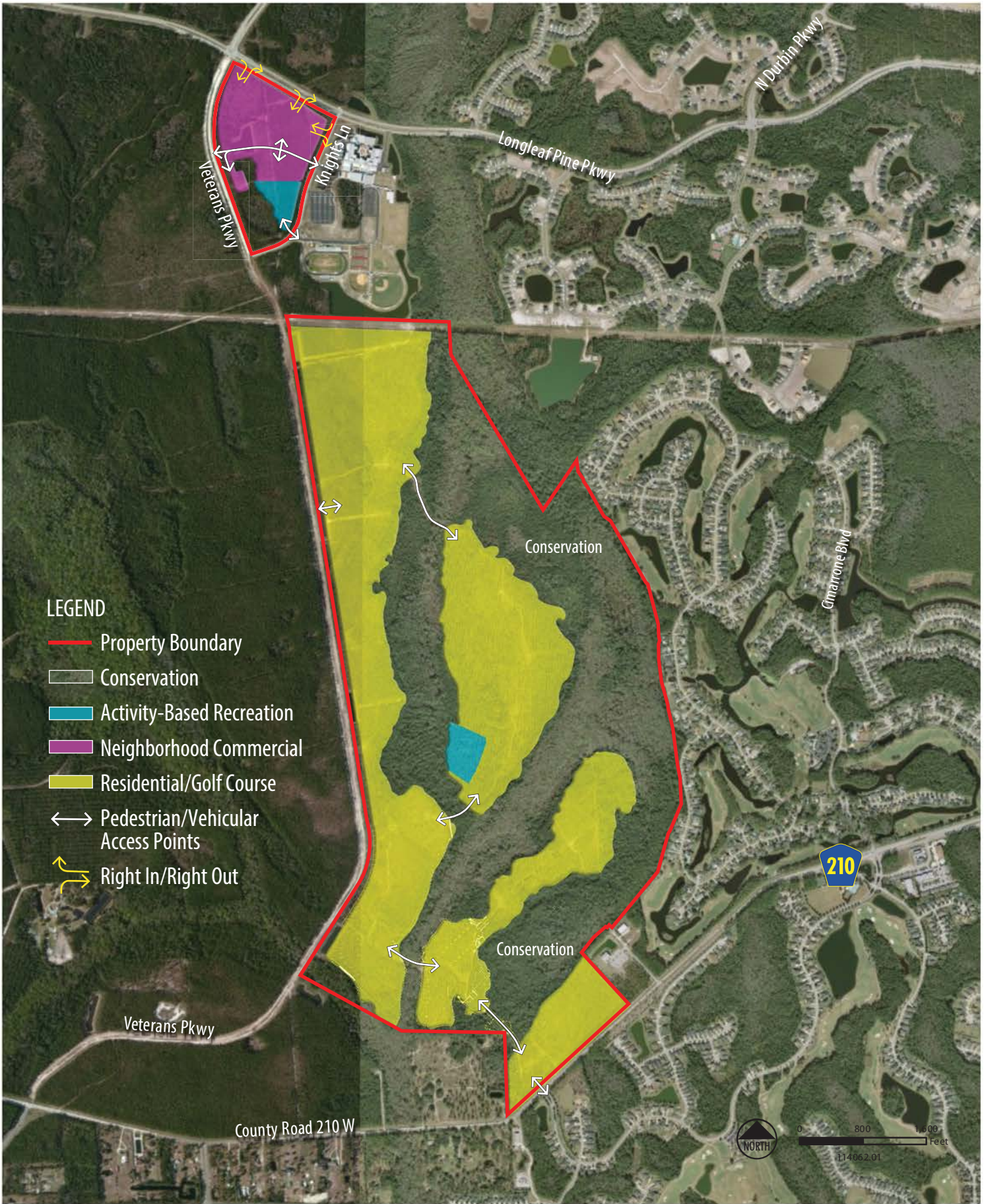
If you have any questions or comments, please give me a call at (904) 422 6923

Sincerely,  
Chindalur Traffic Solutions, Inc.

A handwritten signature in black ink, appearing to read 'R. Chindalur', with several horizontal lines drawn through the bottom of the signature.

Rajesh K. Chindalur, P.E., PTOE  
8515 Baymeadows Way, Suite 401, Jacksonville, FL 32256  
(904) 422-6923 | [Chindalur@ctrfficsolutions.com](mailto:Chindalur@ctrfficsolutions.com)

cc: Mr. Scott Keiling (WCI Lennar, Jacksonville, FL)  
Ms. Staci Rewis (Gunster, Inc., Jacksonville, FL)



P:\114062.01\GIS\Middlebourne\_Aerial\_8x11.mxd

Source: SJC, Bing, Prosser

# Greenbriar Downs

## Generalized Site Plan

June 14, 2018



114062.02

**Table 3**  
**Study Area Roadway Links**  
**Greenbriar Downs CPA LDTA, St. Johns County, FL**

MRID	Roadway	Segment	Length (mi)	Design	Speed (mph)	ADT	ADT/Day	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year	ADT/Year
22	R13	R13	2.0	D	23	16	3	10200	0.103	2	120	221	12						1350
23.1	R16	R13/R210	2.0	D	0.5	1	26	1022	0.102	100	2	30	1343	33					1440
23.2	R16	R210/M	2.0	D	4.23	1	3.6	10524	0.0	333	1	5.6	26						1310
24	R16	M/Rd	2.0	D	2.53	1	314	10533	0.0	41	22	4	3	1.5					1310
33	R210	R16/Rd	2.0	D	3.00	1	262	10233	0.0	04	1	45	122						1310
34.1	R210	Rd	2.0	D	2.26	1	16.3	1021	0.04	1531	43	15.1	3145	214					1440
34.2	R210	Rd	4.0	D	0.1	1	25.3	1032	0.03	2364	3	46	3303	225					350
34.3	R210	M	4.0	D	1.22	1	31643	10441	0.06	3050	35	156	452	116					400
35	R210	M	6.0	D	0.1	1	44.5	1052	0.04	415	220	1	6165	1143					530
36.1	R210	Rd	4.0	D	0.40	1	25446	10350	0.00	220	0	663	4033	1145					3520
36.2	R210	Rd	4.0	D	1.0	1	15613	10415	0.0	1610	6	44	3421	106					3200
64	Rd	R13	2.0	D	3.0	1	4.5	10434	0.01	441	1	311	421	53.51					440
65	Rd	R210	2.0	D	2.25	1	660	1035	0.04	1	2	25	1002	656					440
66	Rd	R13/Rd	4.0	D	3.0	1	30204	10252	0.00	21	6	64	3436	114					300
67	Rd	Rd	4.0	D	1.02	1	26204	10526	0.100	2610	13	6	3646	1015					350
68	Rd	Rd	4.0	D	1.23	1	204	10445	0.04	16	3	6	24	60					350
69	Rd	Rd	4.0	D	1.44	1	2211	11101	0.02	232	266	3	336	42					350
70	Rd	Rd	2.0	D	1.4	1	141	104	0.11	222	11	16	4250	265.63					600
71	Rd	Rd	4.0	D	0.0	1	2022	1052	0.00	14	2	652	2625	332					350
72	Rd	R13	2.0	D	2.6	1	1316	10233	0.05	1255	2	64	204	142.22					440
73	R13	Rd	4.0	D	0.6	1	2500	10200	0.00	2616	52	5	325	0					350
74	R13	Rd	4.0	D	1.1	1	26535	10200	0.00	2436	4	662	314						350
132	R5	R210	6.0	D	5.6	1	5500	10200	0.00	4	15	0	6	10.6					100
133	R5	R210	6.0	D	2.2	1	100500	10200	0.00	226	15	21	12202	132					100
152.1	Rd	R210	2.0	D		1		10000	0.00					0.00					600
152.2	Rd	Rd	2.0	D	1.5	1	1040	101	0.110	1141	113	340	154	63					600
153.1	Rd	R210/Rd	4.0	D	3.03	1	405	1052	0.0	33	30	04	12	313					200
153.2	Rd	Rd	4.0	D	0.36	1	00	10606	0.06	5	52	55	146	45.5					220
154	Rd	Rd	2.0	D	4.0	1	44	1133	0.0	53	101	3	163	113.6					440
155	Rd	Rd	2.0	D	0.63	1	103	1152	0.103	105	124	545	144	1144					520
156	Rd	Rd	4.0	D	1.63	1	12	1135	0.102	130	3	642	133	66.24					220
157	Rd	R210	4.0	D	0.5	1	1016	11052	0.04	120	11	5		55					350
158	Rd	Rd	4.0	D	0.0	1	103	11061	0.10	1235	131		2155	60.20					350
159	Rd	Rd	4.0	D	1.40	1	11461	1101	0.02	115	11	54	16	52.21					350

01201

***Attachment C***

---

St. Johns County – TAS  
Dated 07/01/2017









***Attachment D***

---

St. Johns County Projects  
List & SR 9B Plan Sheets

# St Johns County Highway Project List

Proj #	Project Name	Description	Document Source	Funding Source	Projected Completion Yr
1	Bartram Park Boulevard	Construct 4 Lanes from St. Augustine Road to Race Track Road	DO	Private	2007
2	Clay-St. Johns Connector	Construct New Bridge from Westbank to Eastbank of St. Johns River	L RTP	FDOT, Toll	By 2030
3	Clay-St. Johns Connector	Construct 4 Lanes from St. Johns River to I-95	L RTP	FDOT, Toll	By 2030
4	Clay-St. Johns Connector	New Interchange at I-95/Auxiliary Lanes from Connector to CR 210	L RTP	FDOT, Toll	By 2030
5	Corona Road	Construct an exclusive right turn bay at SR A1A	CIP	SJC	2007
6	CR 13/204	Pave shoulders on CR 13 and CR 204 from US 1 to Hasting City Limits	CIP	FDOT, SJC	2006
7	CR 16A	Intersection Improvements at CR 210	DO, CIS	Private, SJC	2010
8	CR 16A	Intersection Improvements at SR 16	DO, CIS	Private	2010
9	CR 16A	Pave shoulder and guardrail from SR 16 to CR 210	CIP	SJC	2007
10	CR 16A	Widen 2 to 4 Lanes between SR 16 and SR 13	CIP	Unfunded	
11	CR 16A Extension	Construct 2 Lanes from CR 16A to Leo Maguire Parkway Extension	DO, CIS	Private	2015
12	CR 16A Extension	Construct 2 Lanes from Leo Maguire Parkway Ext. to SilverLeaf Plantation Academic Village	DO	Private	2017
13	CR 16A Extension	Construct 4 Lanes from CR 2209 to SilverLeaf Plantation Academic Village	DO, CIS	Private	2010
14	CR 210	Widen 2 to 4 Lanes from Greenbriar Road to Cimarrone Boulevard	DO, CIS	Private	2010
15	CR 210 West	Widen 4 to 6 Lanes from Russell Sampson Road to CE Wilson Road	DO, TIP, CIS	Private	2009
16	CR 210 West	Widen 2 to 6 Lanes from CE Wilson Road to curve	DO, TIP, CIS	Private	2008
17	CR 210 West	Widen 2 to 4 Lanes from curve to US 1	DO, TIP, CIS	Private	2008
18	CR 210 West/US 1	New Interchange at CR 210 and US 1	DO, FDOT, TIP, CIS	Private, FDOT, SJC	2011
19	CR 210 East	Widen 2 to 4 Lanes from Intracoastal Waterway to Mickler Road	DO	Private	2010
20	CR 2209 South	Construct 4 Lanes from CR 208 to SR 16	CIP	Unfunded	2017
21	CR 2209 Central	Construct 4 Lanes from SR 16 to International Golf Parkway	DO, CIP	Private, SJC	2010
22	CR 2209 Central	Construct 6 Lanes from International Golf Parkway to CR 210	DO, CIS	Private	2010
23	CR 2209 North	Construct 4 Lanes from Race Track Rd to CR 210	DO, TIP, CIS, CIP	Private, SJC	2007
24	CR 223	Construct 4/2 Lanes from CR 210 to Race Track Road	DO	Private	2007
25	CR 244	Construct 2/4 Lanes from CR16A to CR 2209	DO, TIP, L RTP	Private, SJC	2007
26	CR 305 Extension	Construct 2 of 4 Lanes from SR 206 to CR 13	CIP	SJC	2012
27	CR 5A	Add continuous turn lane from SR 207 to US 1	TCP	Unfunded	By 2015
28	CR 5A / Kings Estate Road	Intersection Improvements	CIS, CIP	SJC	2006
29	CR A1A / Beach Boulevard	Construct a fully actuated mast arm traffic signal at "A" Street.	CIP	SJC	2006
30	Holmes Boulevard	Pave shoulders from SR 207 to King Street	CIP	SJC	2009
31	I-95 / CR 210	Reconstruct Interchange at CR 210	DO, FDOT, TIP, CIS	Private, FDOT, SJC	2010
32	International Golf Pkwy	Intersection Improvements at SR 16	DO, CIS	Private	2011
33	International Golf Pkwy	Widen 2 to 4 Lanes from Royal Pines Pkwy to SR 16	DO, TIP, CIS	Private	2007
34	International Golf Pkwy	Widen 4 to 6 Lanes from Royal Pines Pkwy to SR 16	DO, CIS	Private	2011
35	International Golf Pkwy	Widen 4 to 6 Lanes from South Francis Road to I-95	DO	Private	2014
36	International Golf Pkwy	Widen 2 to 3 Lanes West of US 1 Intersection	DO, CIS	Private	2009
37	Kenton Morrison & SR 16	Realignment from Four Mile Road to SR 16; Intersection Improvements on SR 16	CIP	SJC	2006
38	Landrum Lane	Construct a fully actuated traffic signal at Palm Valley Road	CIP	SJC	2006
39	Leo Maguire Pkwy Ext	Construct 4 Lanes from CR 16 A to Silverleaf Plantation Parcel 7	DO, CIS	Private	2015
40	Leo Maguire Pkwy Ext	Construct 4 Lanes from Silverleaf Plantation Parcel 7 to end of existing Leo Maguire Pkwy	DO, CIS	Private	2010
41	Leo Maguire Pkwy	Construct a fully actuated traffic signal at CR-210 West	CIP	SJC	2006
42	Mickler Road	Widen 2 to 4 Lanes from CR 210 to SR A1A	CIP, TCP	Unfunded	
43	Nocatee Pkwy	Construct 4 Lanes from West Interchange to US 1	DO, TIP	Private	2010
44	Nocatee Pkwy / CR 210	Widen 2 to 4/6 Lanes from US 1 to Intracoastal Waterway	DO, TIP, CIS	Private	2007
45	Pacetti Road - CR 13A	Widen 2 to 4 Lanes from Samara Lakes to SR 16	DO	Private	2007
46	Palm Valley Road	Construct Roundabout at Mickler Road	CIP	Private, SJC	2006
47	Race Track Road	Widen 2 to 4 Lanes from Julington Creek Plantation to 0.5 Miles E. of I-95	DO, TIP, CIP	Private, SJC	2011
48	Race Track Road Extension	Construct 4 Lane Limited Access from SR9B to CR 210	L RTP	Unfunded	By 2030
49	Rolling Hills Extension	Extension of the existing Rolling Hills Road to Dobbs Road	CIP	SJC	2009
50	Roscoe Boulevard	Intersection Improvements at Roscoe and Canal Boulevards	CIP	SJC	2007
51	Roscoe Boulevard	Intersection Improvements at Roscoe Boulevard and Landrum Lane	CIP	Unfunded	
52	Russell Sampson Road	Construct 2 Lanes from CR 210 to St. Johns Forest Entrance	DO, TIP, CIS, CIP	Private, SJC	2008
53	South Francis Road	Widening from International Golf Parkway to SR 16, Intersection Improvements at SR 16	DO, CIP	Private, SJC	2006
54	SR 13	Pave Shoulders/Resurface Existing Lanes from CR 13 to SR 16	FDOT, TIP	FDOT	2007
55	SR 16	Widen 2 to 4 Lanes from Clay County Line to West Mall Entrance	TCP	Unfunded	By 2015
56	SR 16	Intersection Improvements at SR 13/CR 13	DO, CIS	Private	2010
57	SR 16	Widen 2 to 4 Lanes from Six Mile Creek Parcel to CR 16A	DO	Private	2012
58	SR 16	Widen 2 to 4 Lanes from CR16A to International Golf Parkway	DO, CIS	Private	2011
59	SR 16	Improve 0.4 miles of Roadway East of International Golf Parkway	DO, CIS	Private	2010
60	SR 16	Widen 2 to 4 Lanes from International Golf Parkway to CR 2209	DO	Private	2014
61	SR 16	Widen 2 to 4 Lanes from CR 2209 to South Francis Road	DO	Private	2012
62	SR 16	Widen 2 to 4 Lanes from Turnbull Entrance to West Mall Entrance	DO	Private	2010
63	SR 16	Widen 2 to 4 Lanes from West Mall Entrance to Whisper Ridge PUD	DO	Private	2009
64	SR 16 Connector	Construct 4 Lane Connector from SR 16 to CR 2209	DO, CIS	Private	2015
65	SR 207	Widen 2 to 4 Lanes and Reconstruct from Cracker Branch to W of I-95	FDOT	FDOT	2006
66	SR 207	Intersection Improvements at Holmes Boulevard/Rolling Hills Drive	DO	Private	2008
67	SR 207	Intersection Improvements at SR 312	DO	Private	2008
68	SR 313 (SR 312 Extension)	SR 312 Extension from SR 207 to SR 16	TIP, CIP	FDOT	2011
69	SR 313 (SR 312 Extension)	Construct 2 of 4 Lanes from SR 16 to US 1	TIP	FDOT	By 2030
70	SR 9B Extension	Construct 6 Lanes from CR 2209 to the Duval County Line	L RTP	FDOT	By 2030
71	SR 9B Extension	Construct 6 Lanes from Duval County Line to I-95	FDOT, L RTP	FDOT	By 2030
72	SR A1A	Widen 2 to 4 Lanes & Reconstruct from Mickler Road to Beginning of 4-Lane Roadway	FDOT, TIP, TCP	FDOT	By 2015
73	St. Augustine Airport	T-Hangar Construction, Reconst/Repair/Overlay Runways and Taxiways, Expand Terminal, Extend Aviation Apron, Environmental, Preservation & Safety Projects, New Fuel Facility	FDOT, TIP	FDOT	2011
74	US 1	Widen 4 to 6 Lanes from Wildwood Drive to Lewis Point Road	TCP	Unfunded	By 2015
75	US 1	Widen 4 to 6 Lanes from SR 312 to SR 207	TCP	Unfunded	By 2015
76	US 1	Widen 4 to 6 Lanes from CR 210 East to Duval County Line	L RTP	Unfunded	By 2030
77	West King St Improvements	Widen 2 to 3 Lanes from Holmes Boulevard to North McLaughlin Street	CIP	SJC	2011
78	West King St Improvements	Widen 2 to 3 Lanes from North McLaughlin Street to Palmer Street	CIP	SJC	2011
79	West King St Improvements	Corridor Improvements from Palmer Street to US 1	CIP	SJC	2011
80	Woodlawn Road	Intersection Improvements and fully actuated mast arm traffic signal at Lewis Speedway	TIP, CIP	SJC	2007

# St Johns County Bicycle and Pedestrian Project List

Proj #	Project Name	Description	Document Source	Funding Source	Projected Completion Yr
1	Bishop Estates	Two Pedestrian Crossings on Bishop Estates Road	CIP	SJC	2006
2	CR A1A/Beach Boulevard	Bike Lanes and Resurfacing from SR312 north to Pope Road	CIP	FDOT, SJC	2006
3	Davis Pond Boulevard	Construct Sidewalk along Davis Pond Blvd approx. 2800 ft.	CIP	SJC	2006
4	Greenbriar Road	Sidewalk from Switzerland Point Middle School to SR 13	CIP	SJC	2007
5	Harris Street	Sidewalk from Main Street to Wilson Road	FDOT	FDOT	2008
6	Hastings Main Street	Sidewalk Restoration on North Main Street from SR 207 to E. St. Johns Avenue	CIP	SJC	2006
7	Palm Valley Road	Sidewalk from the Woodlands Subdivision to SR A1A	CIP	SJC	2006
8	Pope Road	Sidewalk on the north side of Pope Road/Mizell Rd. from SR A1A to SR 312	CIP	SJC	2007
9	Race Track Road	Sidewalk from the Oaks Subdivision to the Durbin Creek Elementary School	CIP	SJC	2006
10	Roberts Road	Sidewalk from Duck Blind Dr to Tiger Creek Parkway	CIP	SJC	2007
11	SR 207	Bike Trail along abandoned RR parallel to SR 207 from Armstrong Rd to SW of I-95	TIP, FDOT	FDOT	2010
12	Vaill Point Road Sidewalk	US 1 to park located to the east of Vaill Point Road	CIP	SJC	2006

## Acronyms / Definitions

CIP	St. Johns County Capital Improvement Program	Private	Privately Funded
CIS	St. Johns County Capital Improvement Schedule	SJC	St. Johns County Funding
DO	Development Order/Agreement	TCP	St. Johns County Traffic Circulation Plan
FDOT	Florida Department of Transportation Work Program or Funding	TIP	First Coast MPO Transportation Improvement Program
L RTP	First Coast MPO Long Range Transportation Plan	Toll	Toll Revenues



REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PUBLIC EXHIBIT	SHEET NO.  1
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				9B	ST. JOHNS	431418-2-22-01		

dcombs 12/4/2013 3:37:59 PM P:\112\112021.01-FDOT-SR 9B PD&E\REPORTS\Public Exhibit\PLAIRD01.dgn



# SILVERLEAF

NOTICE OF PROPOSED CHANGE

## PROPOSED MAP H MASTER DEVELOPMENT PLAN

July 1, 2015

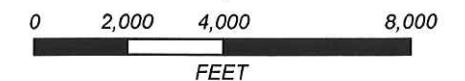
### LEGEND



- Town Center / Mixed Use
- Mixed Use
- Residential Low Density
- Residential Medium Density
- Residential High Density
- School Site
- Community Recreation
- Utility
- Roadways
- Open Space / Uplands  
(SUBJECT TO FINAL JURISDICTIONAL DETERMINATION)
- Open Space / Wetlands  
(SUBJECT TO FINAL JURISDICTIONAL DETERMINATION)
- Fire / EMS
- Wildlife Underpass
- Wildlife Crossing
- Roundabout
- Approx. former timber tram road

Note: The location, configuration, acreages and use on development parcels, roads, lakes, etc., are conceptual in nature and subject to further refinement upon submission of final development plans.

Note: The approximate location of the former timber tram road to the immediate north and south of the existing bridge shall be a Historic Conservation Area with pedestrian access. An interpretive sign will be installed at the bridge crossing.

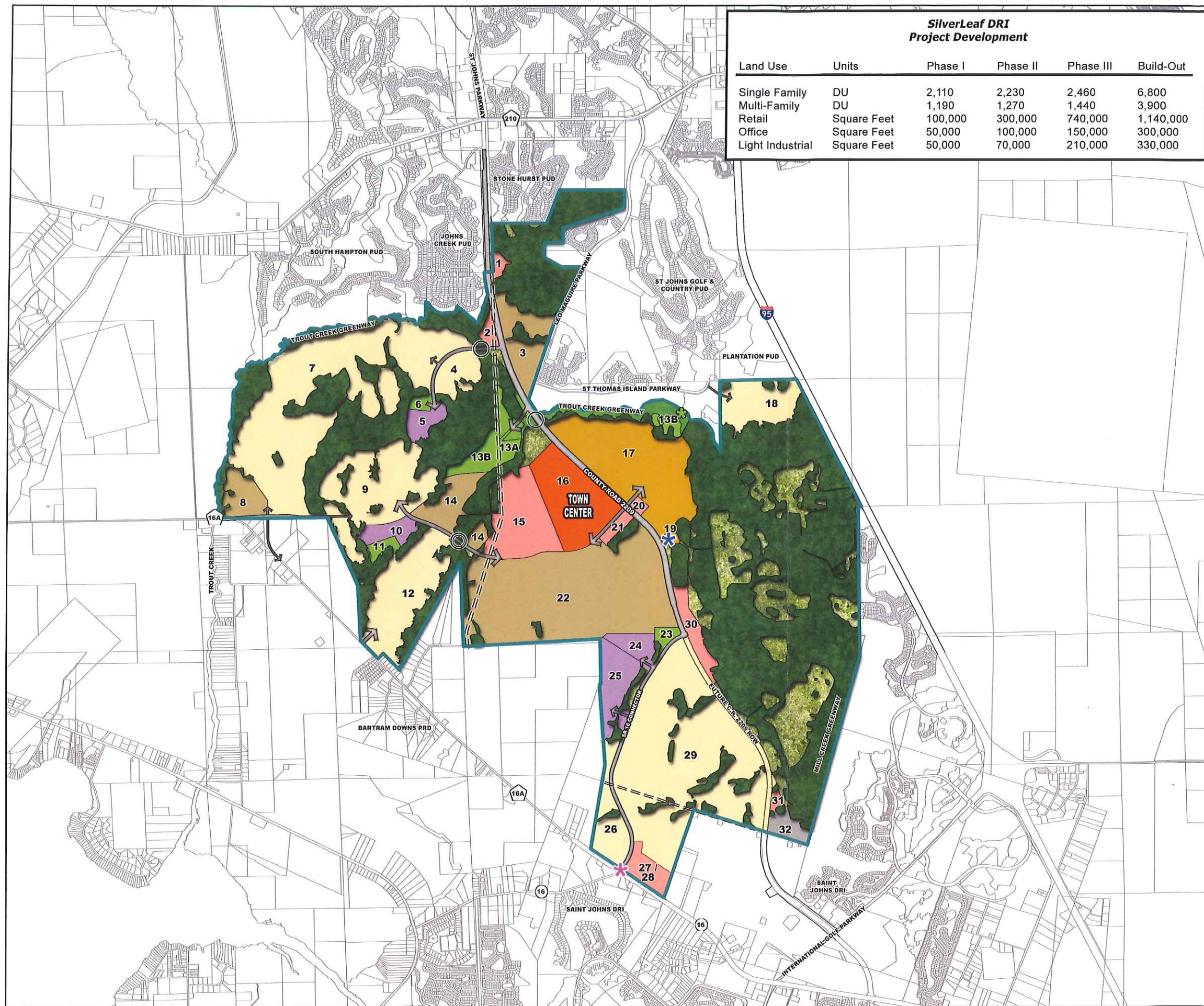


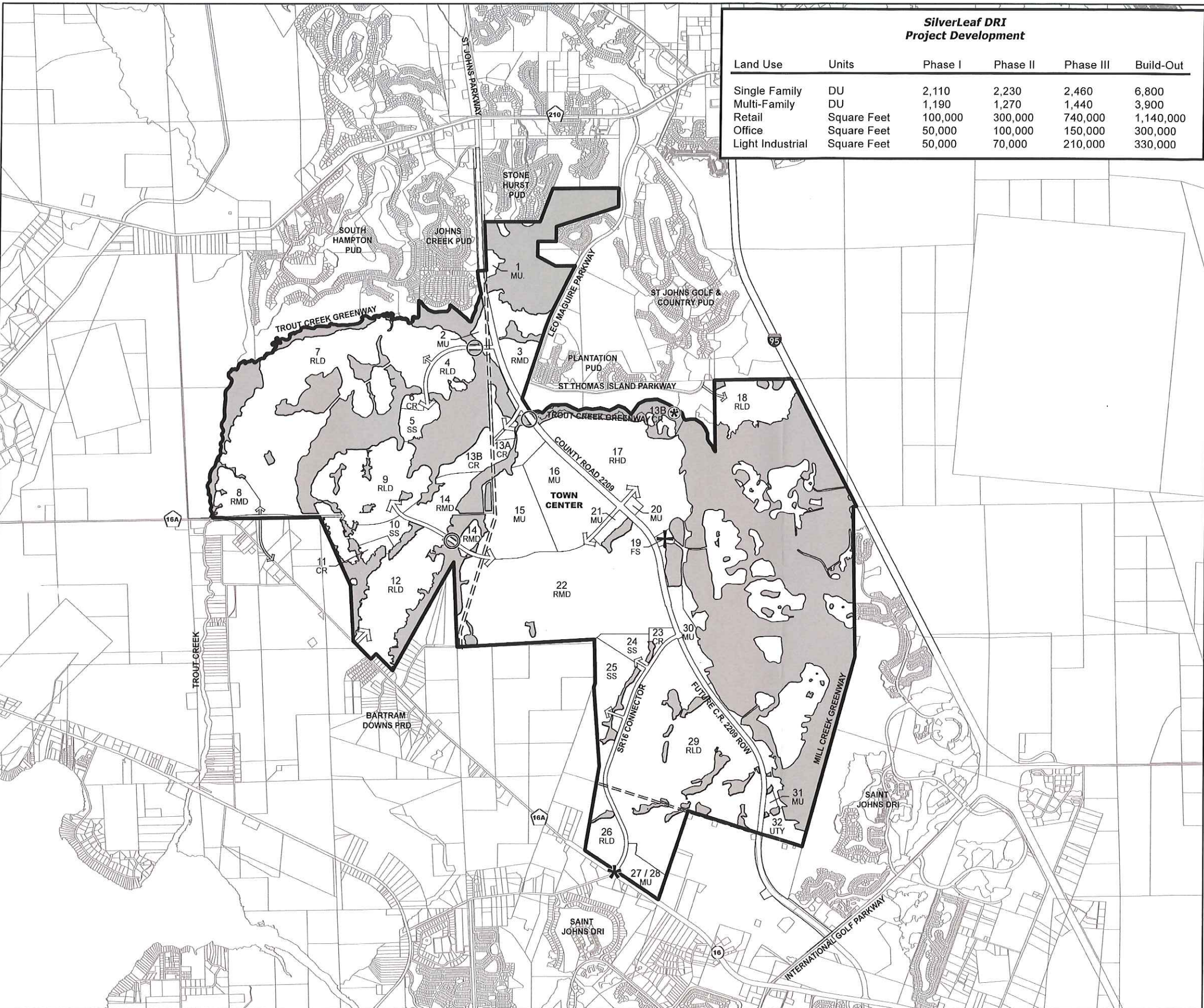
### PROJECT TEAM

- Whites Ford Timber, LLC - Owners
- ETM Inc - Engineers & Planners
- Whittington Law, PLLC - Legal Counsel
- Davidson Advisory Services Inc. - Real Estate Consultant
- Kimley-Horn & Associates - Transportation Consultant
- Carter Environmental Services - Environmental Consultant
- LG2 Environmental Solutions - Archeological Historic Consultant
- Robert M. Angas Associates, Inc. - Land Surveyors

Source: ETM, St. Johns County

SilverLeaf DRI Project Development					
Land Use	Units	Phase I	Phase II	Phase III	Build-Out
Single Family	DU	2,110	2,230	2,460	6,800
Multi-Family	DU	1,190	1,270	1,440	3,900
Retail	Square Feet	100,000	300,000	740,000	1,140,000
Office	Square Feet	50,000	100,000	150,000	300,000
Light Industrial	Square Feet	50,000	70,000	210,000	330,000





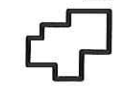
# SILVERLEAF

NOTICE OF PROPOSED CHANGE

## PROPOSED MAP H MASTER DEVELOPMENT PLAN

July 1, 2015

### LEGEND

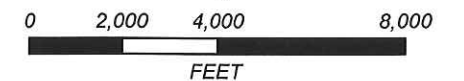


SilverLeaf

- MU - Mixed Use
- RLD - Residential Low Density
- RMD - Residential Medium Density
- RHD - Residential High Density
- SS - School Site
- CR - Community Recreation
- UTY - Utility
- Open Space / Wetlands (SUBJECT TO FINAL JURISDICTIONAL DETERMINATION)
- Fire / EMS
- Wildlife Underpass
- Wildlife Crossing
- Roundabout
- Approx. former timber tram road

Note: The location, configuration, acreages and use on development parcels, roads, lakes, etc., are conceptual in nature and subject to further refinement upon submission of final development plans.

Note: The approximate location of the former timber tram road to the immediate north and south of the existing bridge shall be a Historic Conservation Area with pedestrian access. An interpretive sign will be installed at the bridge crossing.



### PROJECT TEAM

- Whites Ford Timber, LLC - Owners
- ETM Inc - Engineers & Planners
- Whittington Law, PLLC - Legal Counsel
- Davidson Advisory Services Inc. - Real Estate Consultant
- Kimley-Horn & Associates - Transportation Consultant
- Carter Environmental Services - Environmental Consultant
- LG2 Environmental Solutions - Archeological Historic Consultant
- Robert M. Angas Associates, Inc. - Land Surveyors

Source: ETM, St. Johns County

## ***Attachment E***

---

### Z-Data Variables for Travel Demand Model Runs

Appendix - E

Greenbriar Downs - Phase 1 and Phase 2 (Cumulative)  
Documentation of ZDATA Variables Used for Project Traffic Distribution

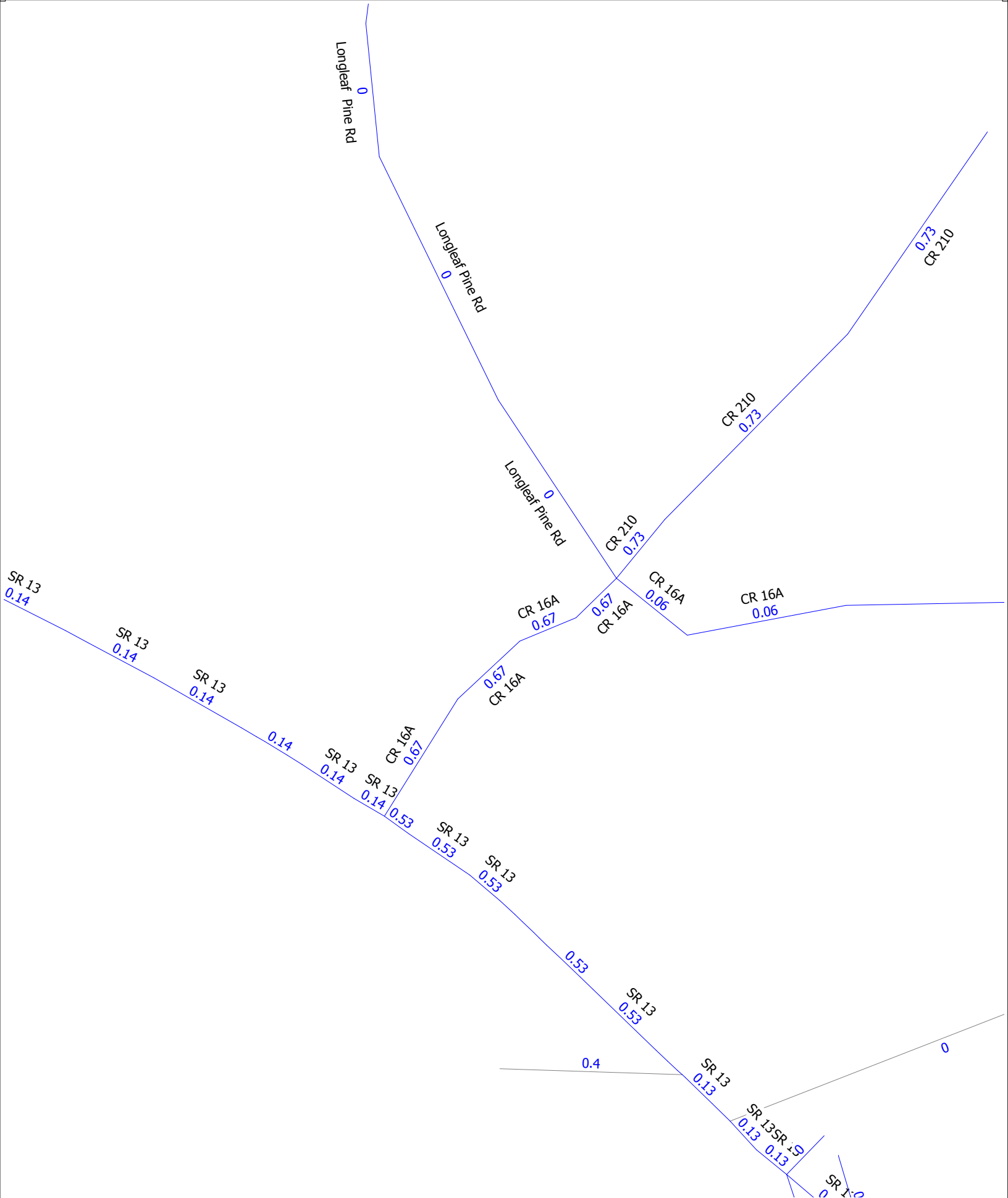
New TAZ File Columns	Notes	Development	Production Variables					Attraction Variables									School Enroll. 33-38
			Residential	Hotel-Motel	Industrial	Manufacturing	Retail	Service						Empl. Sum 21-26	Empl. Sum 27-32		
			Households 9-13	Rooms 59-63	Empl. 9-14		Empl. 15-20	Office Empl.	18 Hole Golf	Movie Theater	Ele School	Mid School	High School			Hotel Empl.	
<b>Revised Data Set Variables (For Phase 1 Greenbriar Downs LDTA)</b>																	
126		00000000000000000000	00000000000000000000	200	-	-	-	-	-	-	-	-	-	-	-	-	-
126		00000000000000000000	00000000000000000000		-	-	-	200	-	-	-	-	-	-	-	-	200
<b>Revised Data Set Variables (For Phase 2 Greenbriar Downs LDTA)</b>																	
126		00000000000000000000	00000000000000000000	1	-	-	-	-	-	-	-	-	-	-	-	-	-
126		00000000000000000000	00000000000000000000		-	-	-	400	-	-	-	-	-	-	-	-	400
<b>Revised Data Set Variables (Existing and Previously Approved Developments)</b>																	
126		00000000000000000000	00000000000000000000		-	-	-	-	-	-	-	-	-	130	130	130	1,800
122		00000000000000000000	00000000000000000000	616	-	-	-	339	36	-	-	-	-	36	375	-	-
55		00000000000000000000	00000000000000000000	2	-	-	-	-	239	-	25	-	-	264	264	800	-
561		00000000000000000000	00000000000000000000		-	-	-	678	71	-	-	-	-	71	749	-	-
5	D	00000000000000000000	00000000000000000000		-	-	-	795	-	-	-	-	-	-	795	-	-
5	D	00000000000000000000	00000000000000000000		-	-	-	153	-	-	-	-	-	-	153	-	-
555	D	00000000000000000000	00000000000000000000	2:53	114	-	-	720	1,844	-	-	-	-	31	1,875	2,595	-
20	D	00000000000000000000	00000000000000000000	2:53	165	-	-	720	1,844	-	-	-	-	45	1,889	2,609	-
123		00000000000000000000	00000000000000000000	1:466	-	-	-	147	98	-	-	-	-	98	245	-	-
1240		00000000000000000000	00000000000000000000	1:032	-	-	-	103	69	-	85	-	-	154	257	1,000	-
123		00000000000000000000	00000000000000000000	2:01	-	-	-	150	96	-	25	-	-	121	271	800	-
1265		00000000000000000000	00000000000000000000	2:30	-	-	-	446	72	-	-	-	-	72	518	-	-
1251		00000000000000000000	R00000000000000000000	2:32	-	54	28	232	-	-	-	-	-	352	666	4,513	-

***Attachment F***

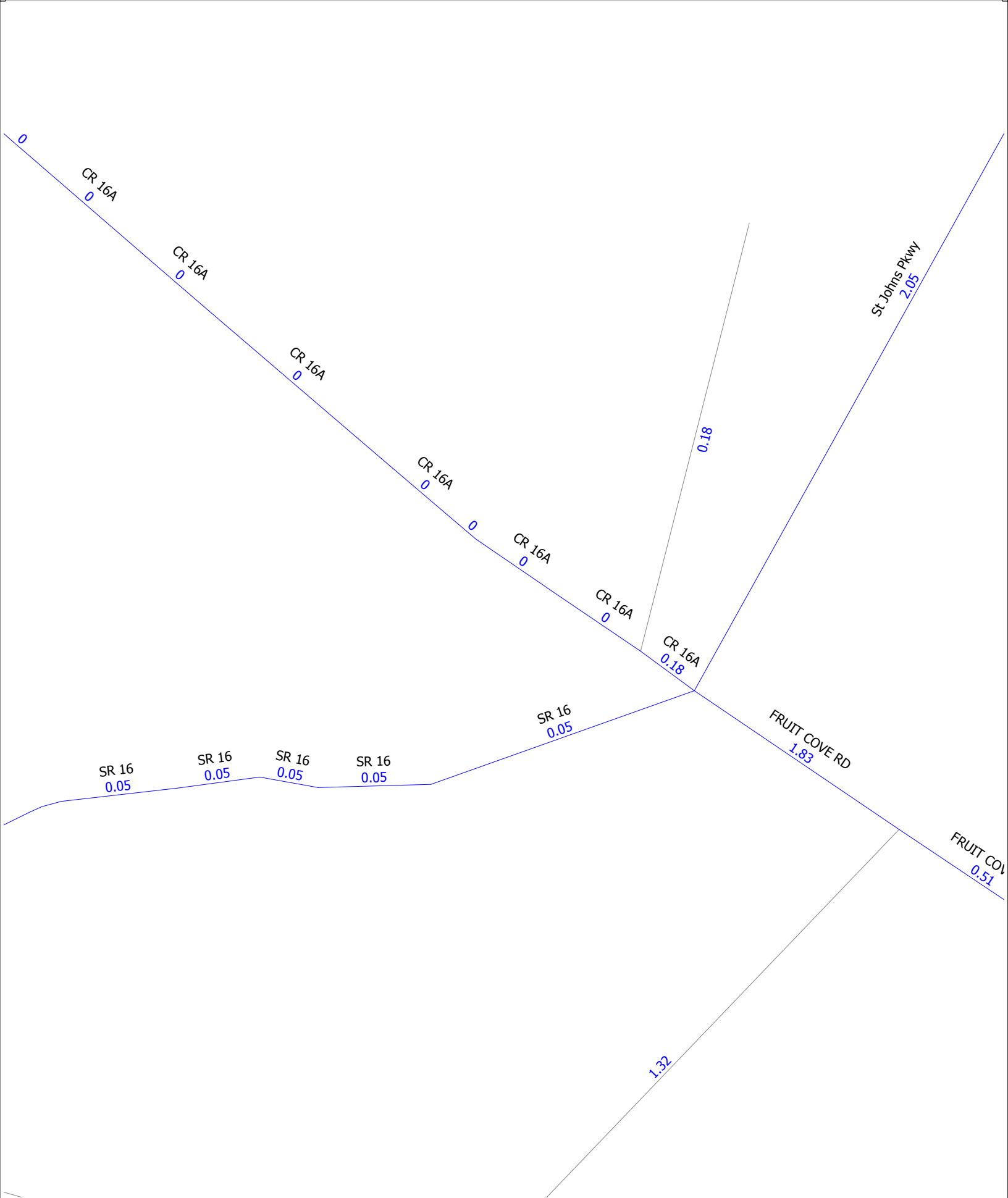
---

Greenbriar Downs  
Travel Demand Model Plots

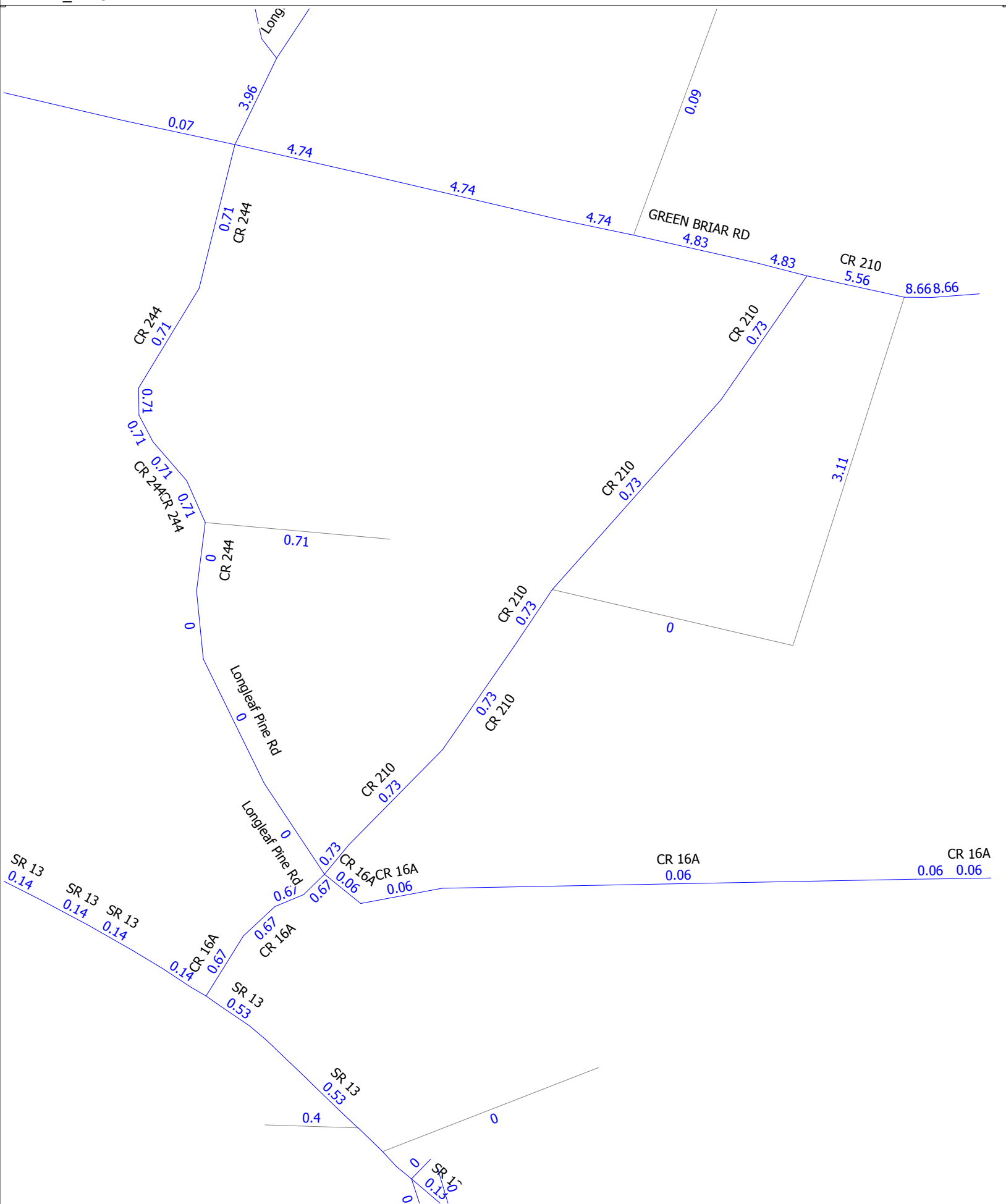




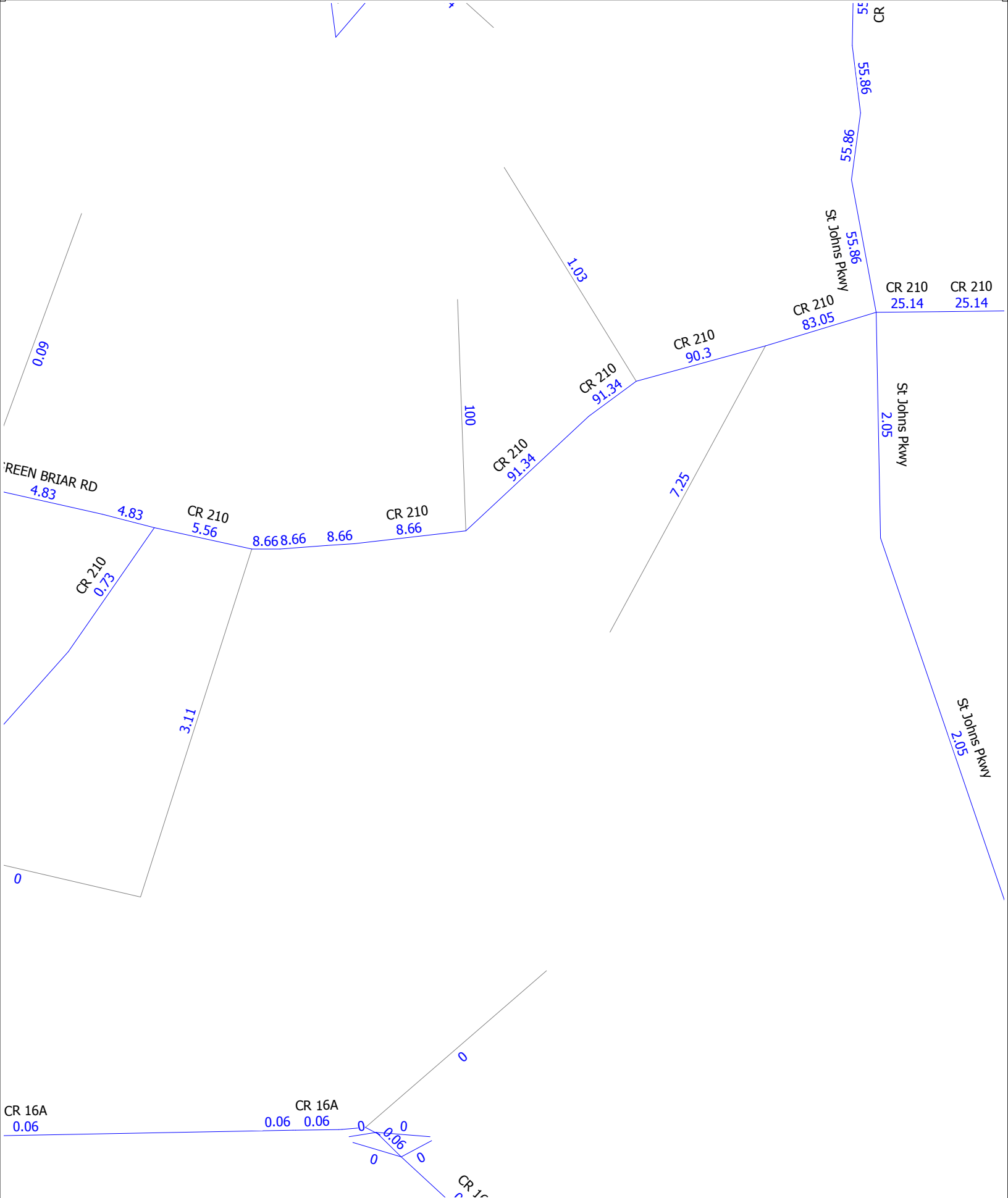




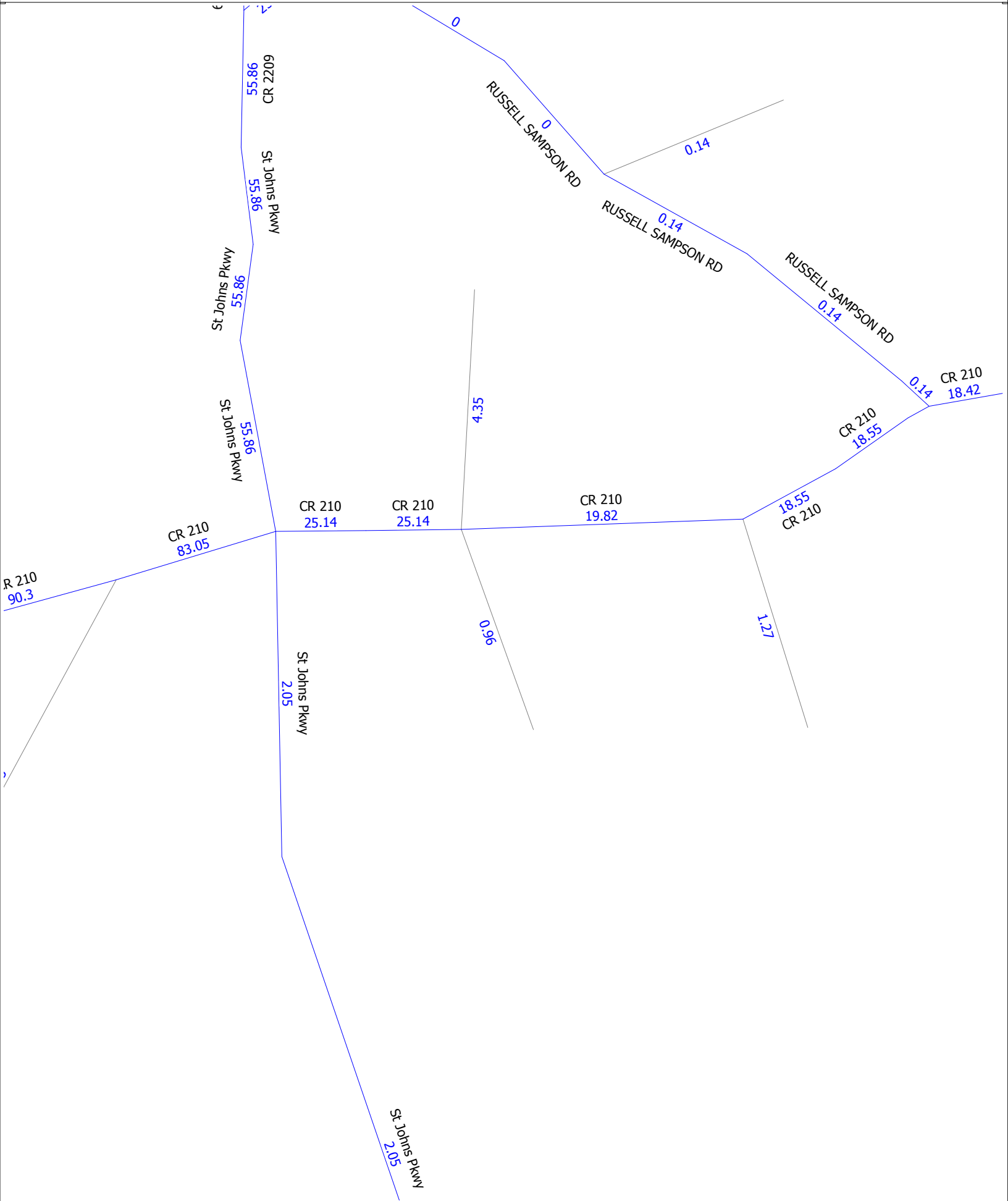
Greenbriar Downs  
Phase 1 - Residential Project Traffic Distribution  
NERPM\_ABv3

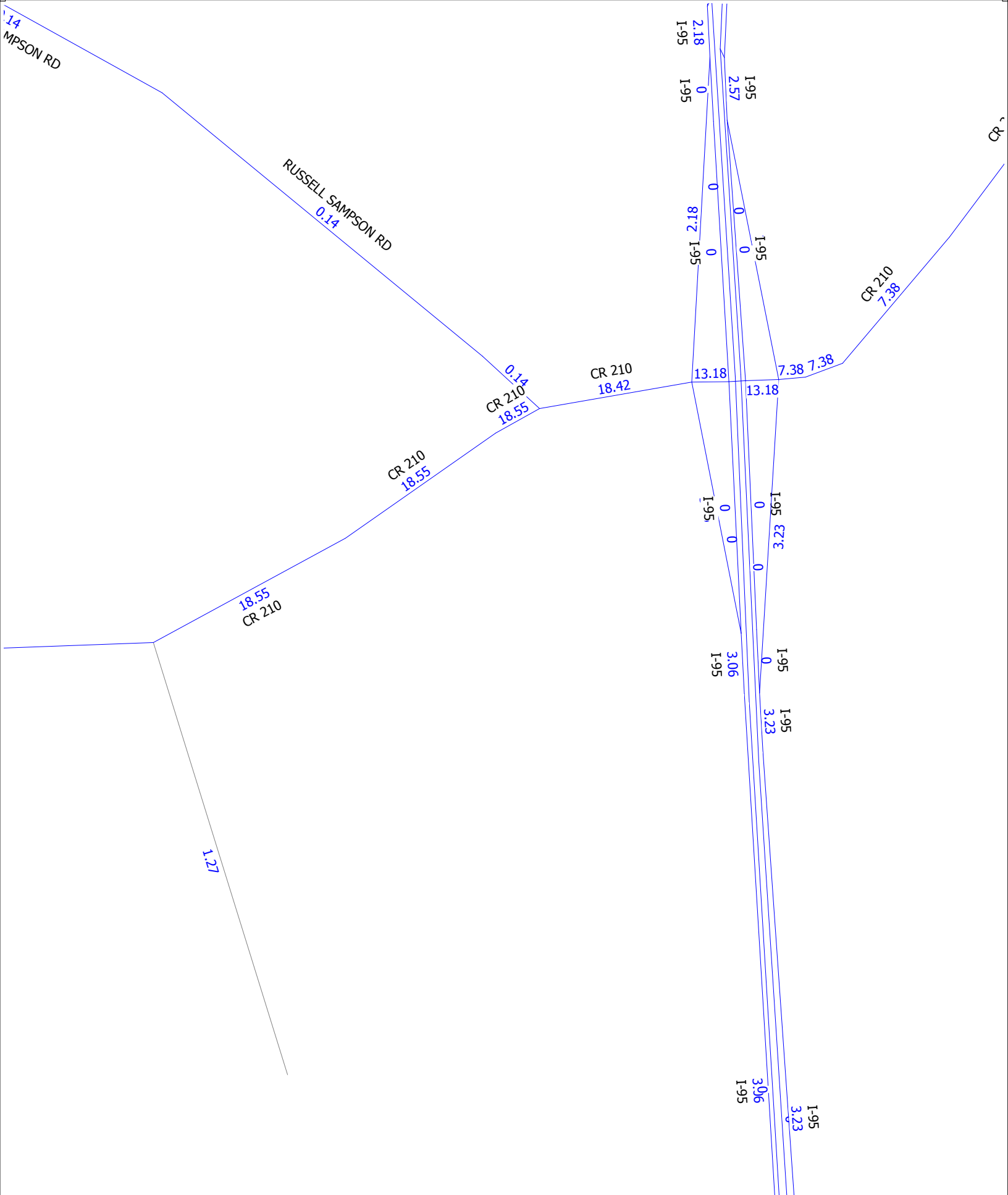


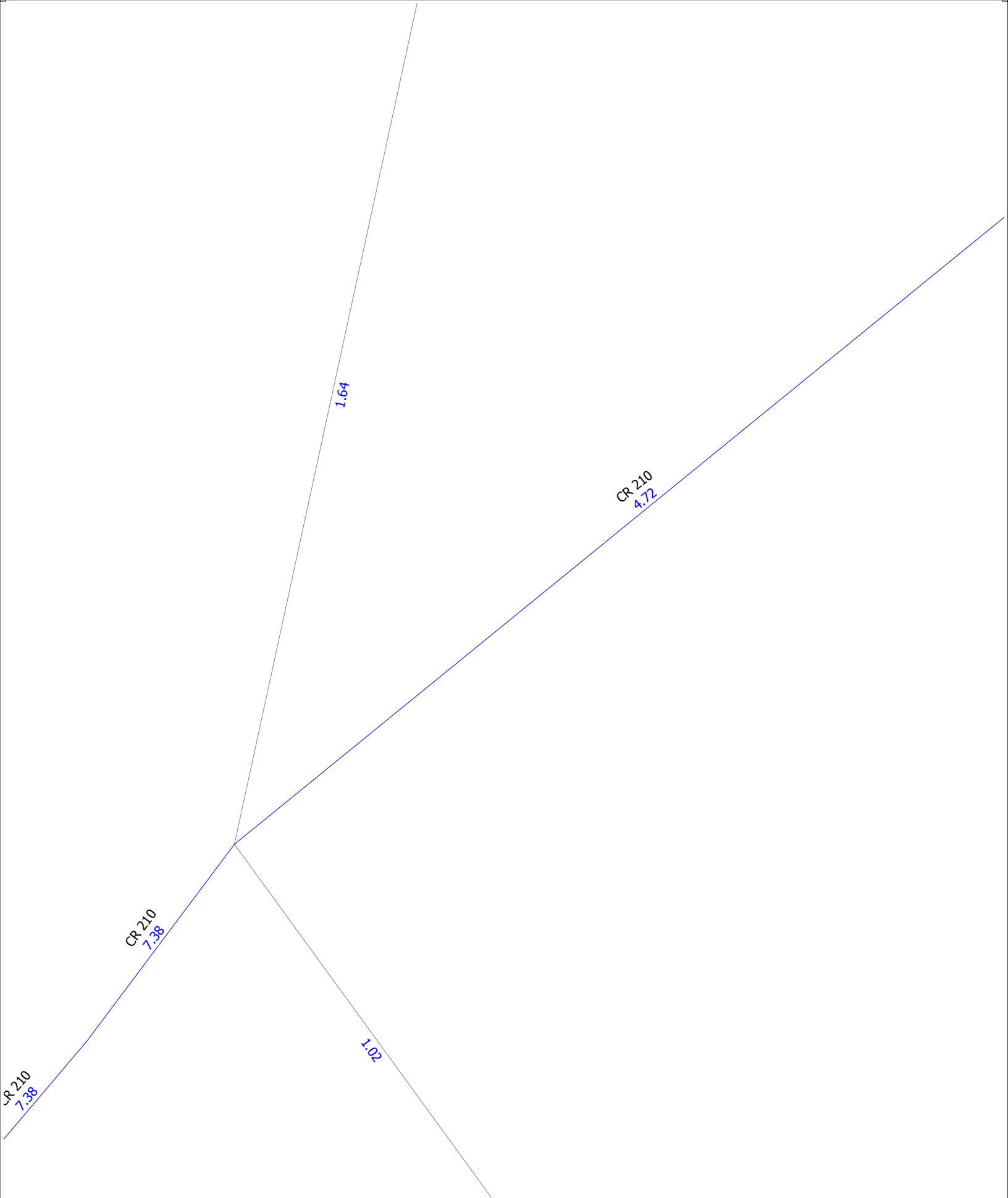
Greenbriar Downs  
Phase 1 - Residential Project Traffic Distribution  
NERPM\_ABv3

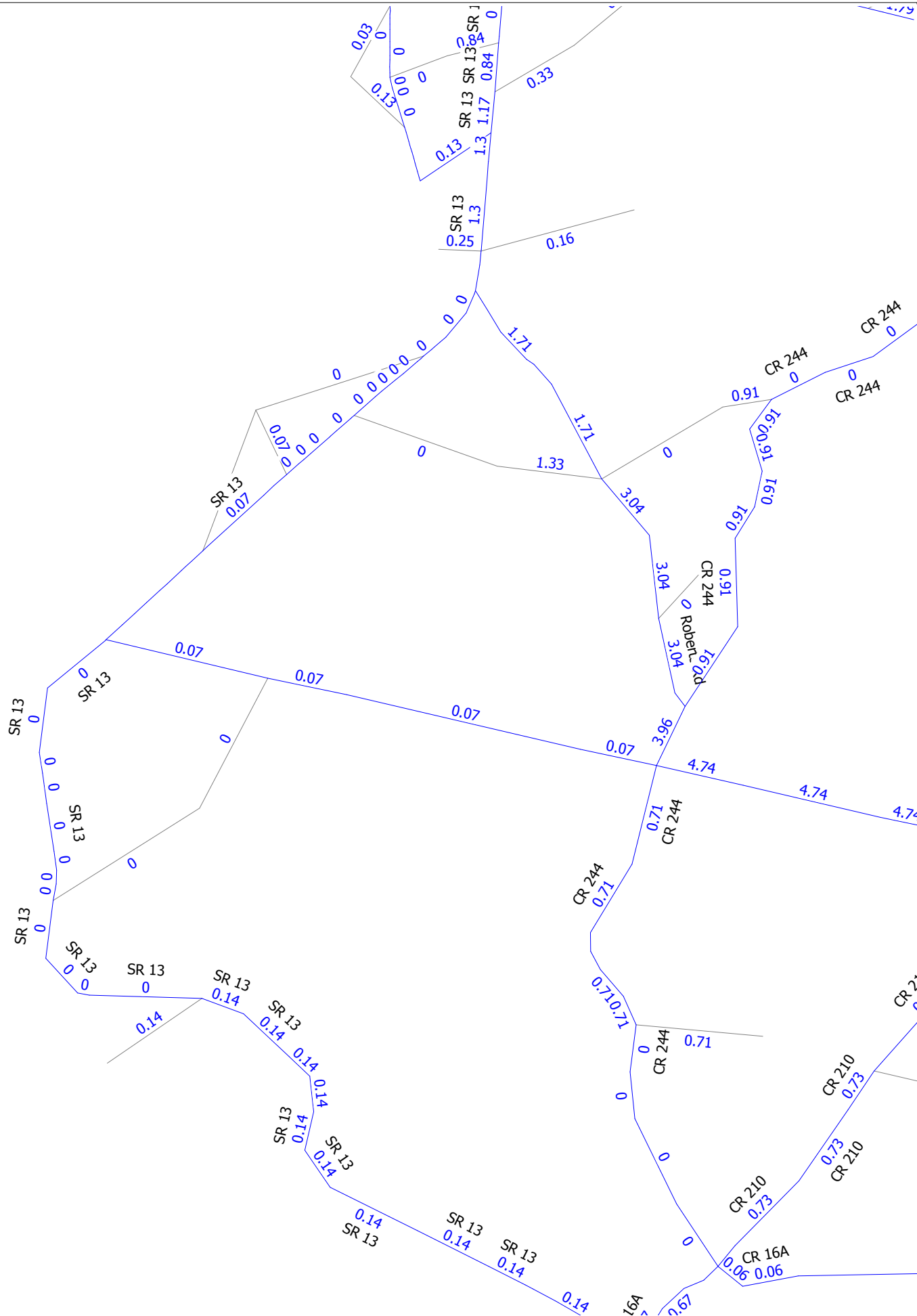


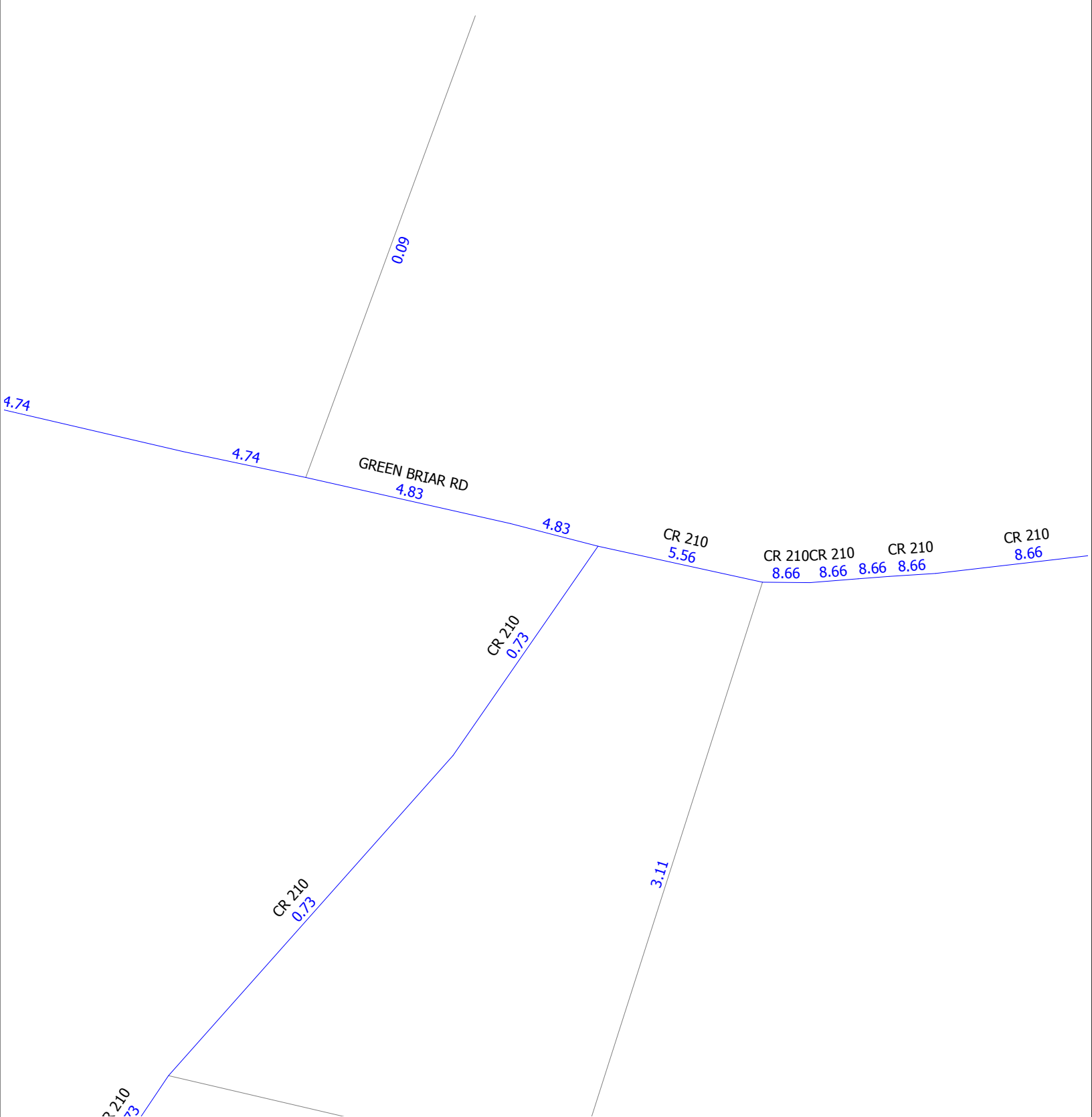
Greenbriar Downs  
Phase 1 - Residential Project Traffic Distribution  
NERPM\_ABv3



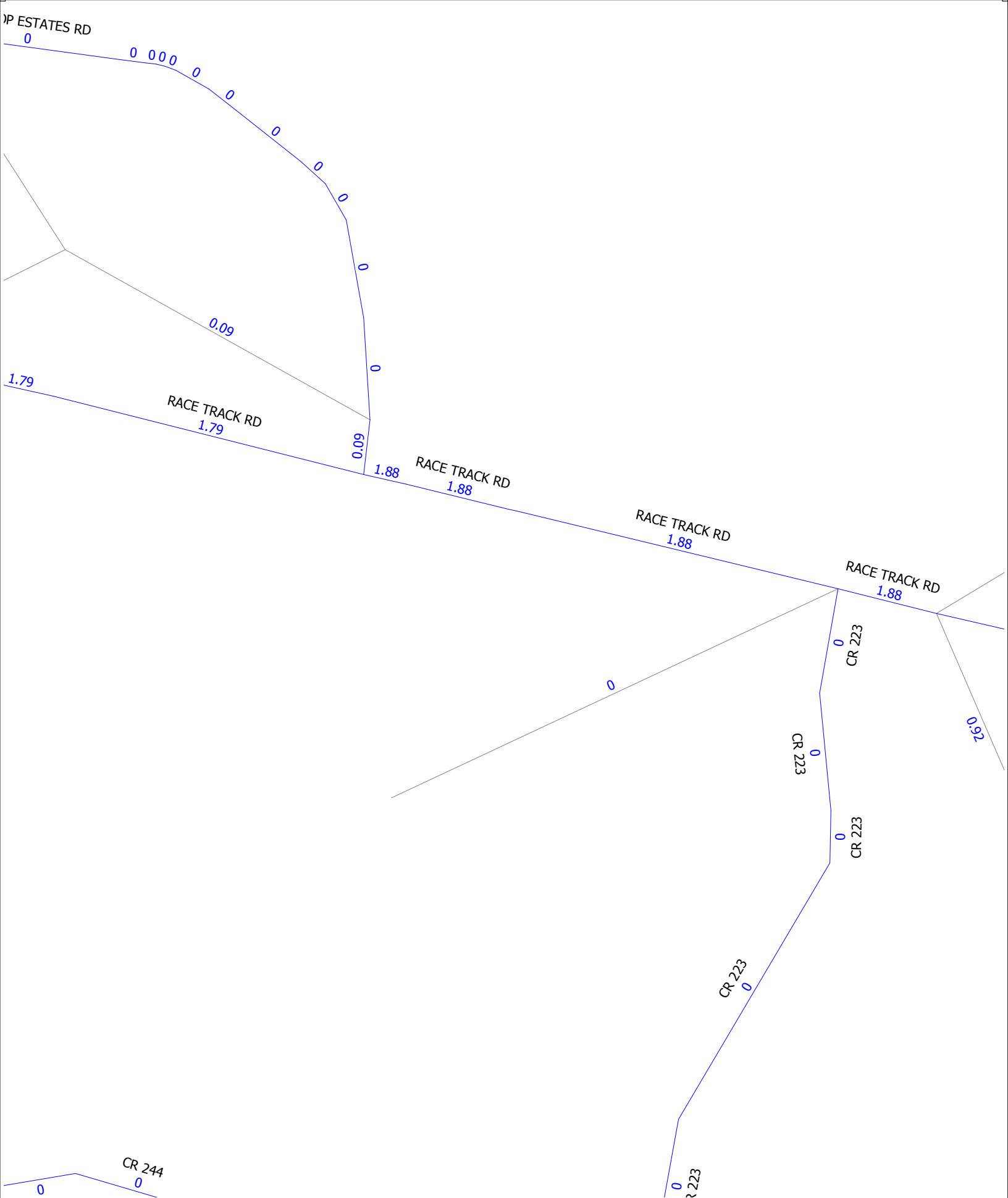


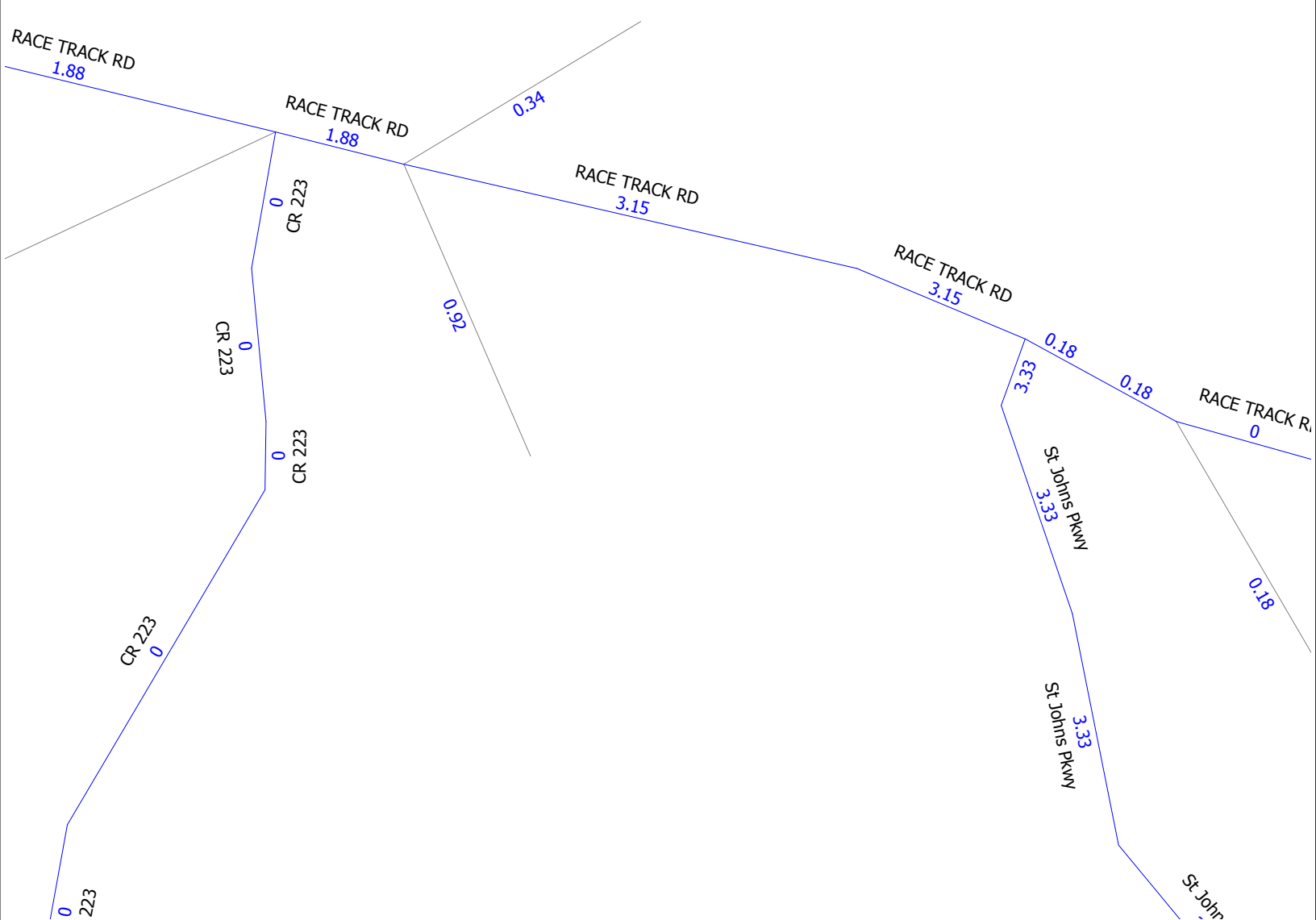


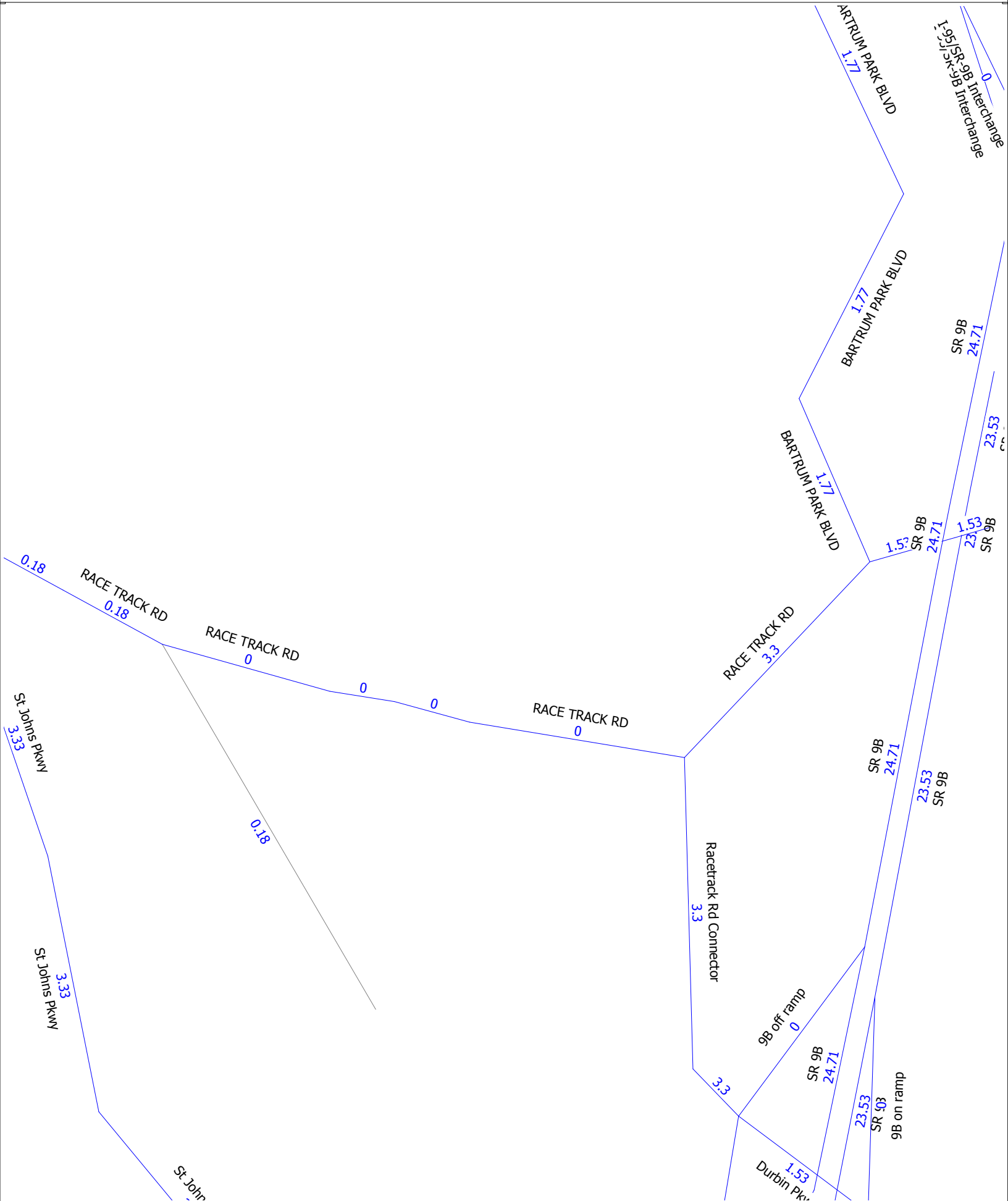


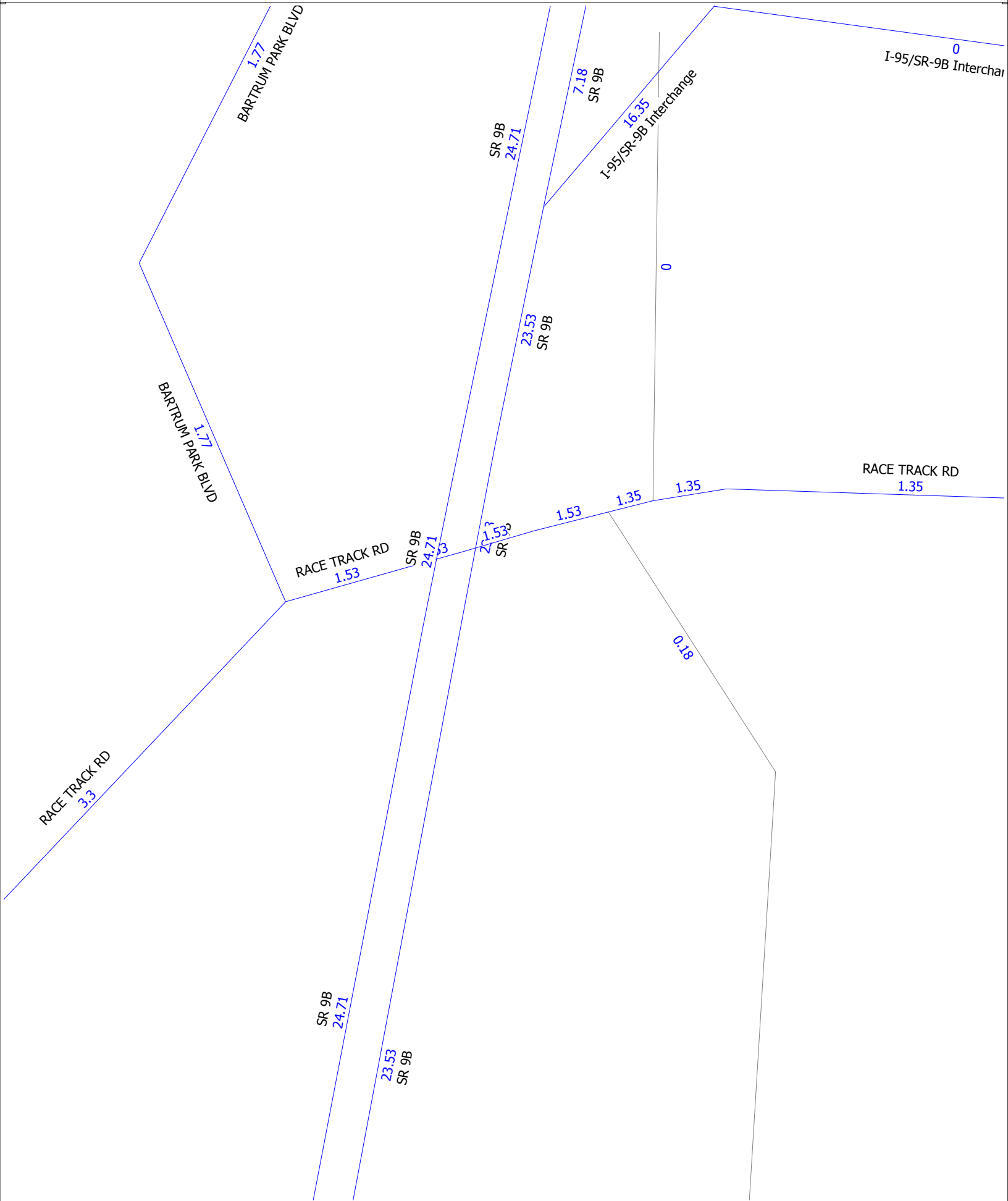


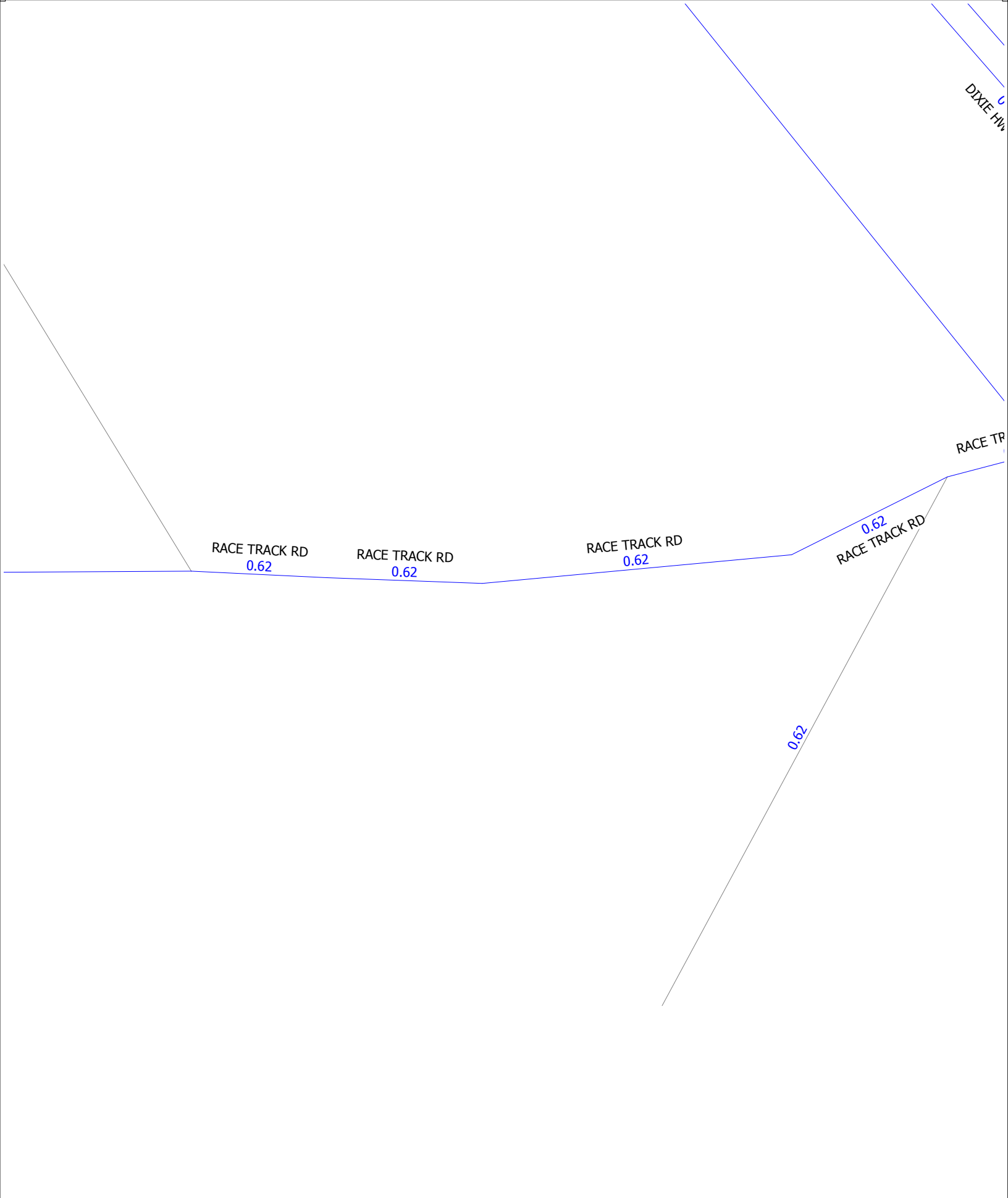




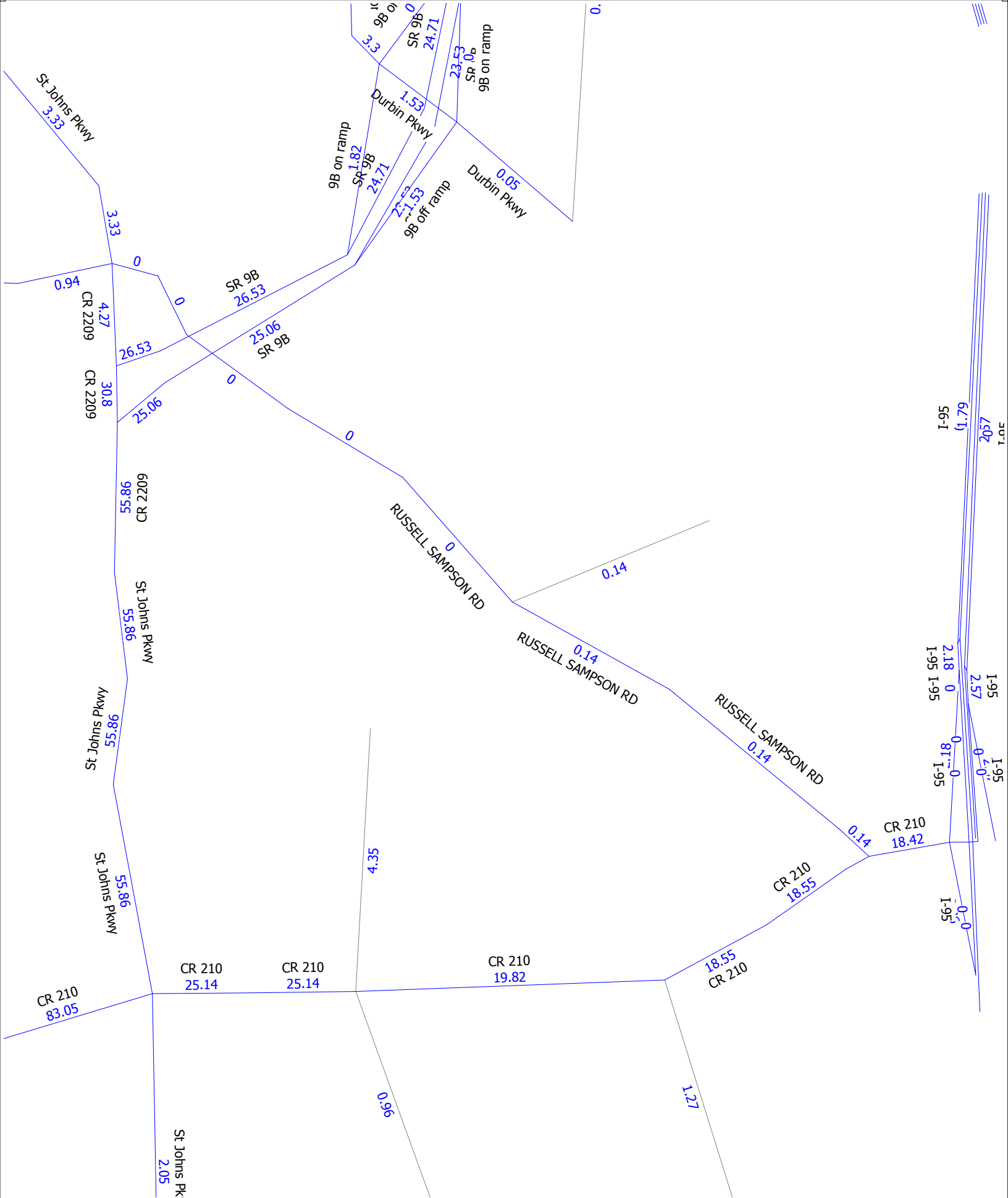




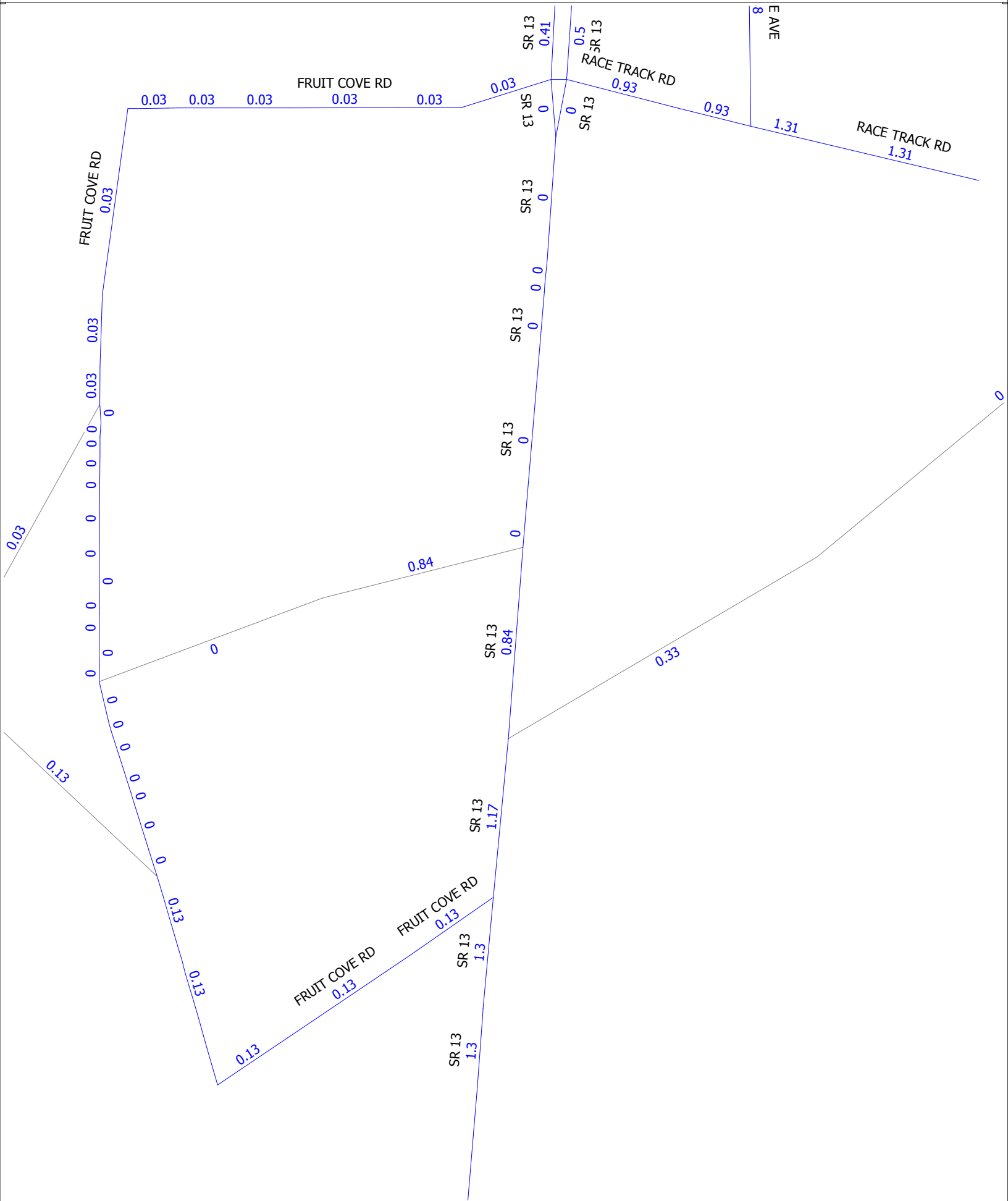






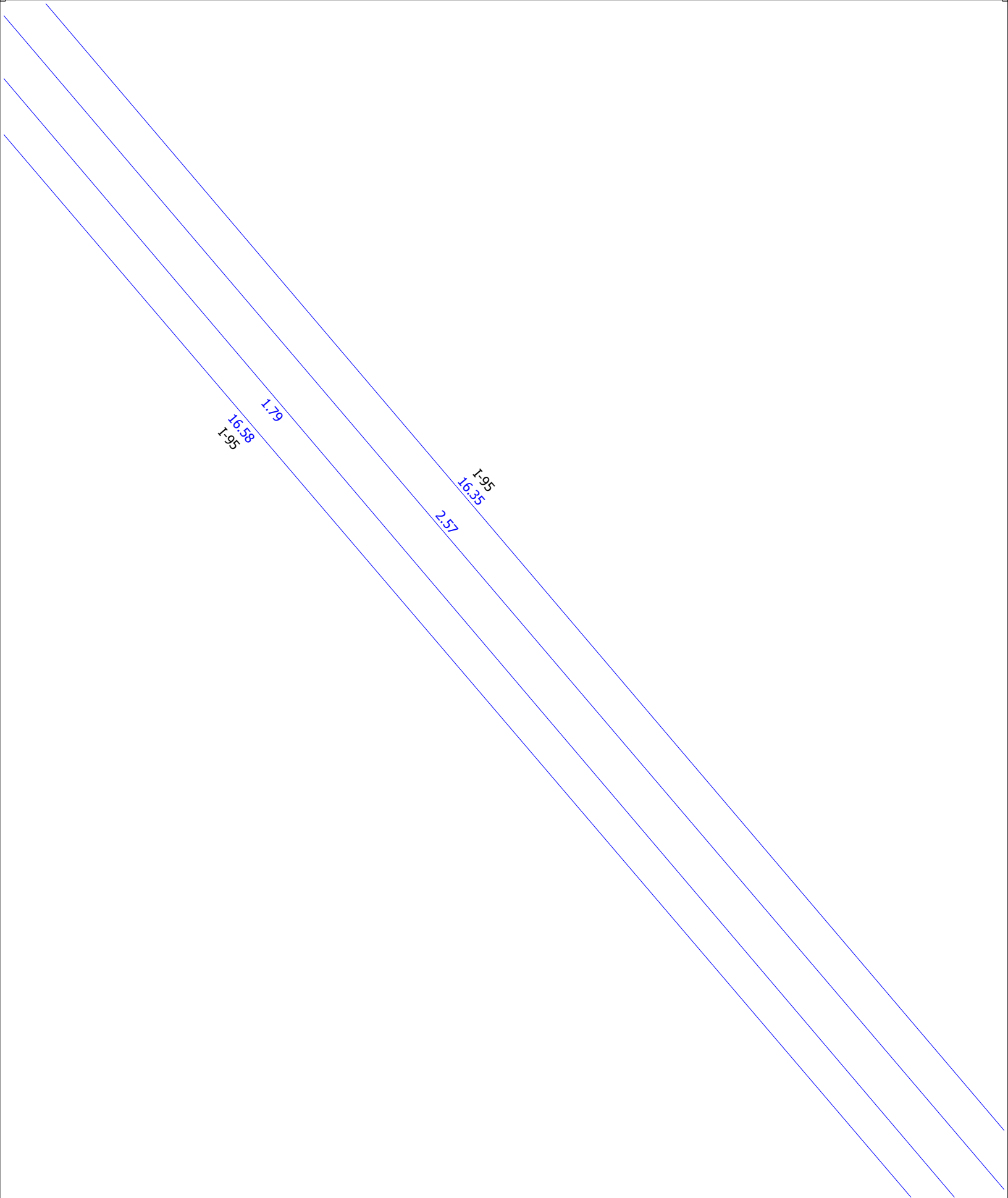




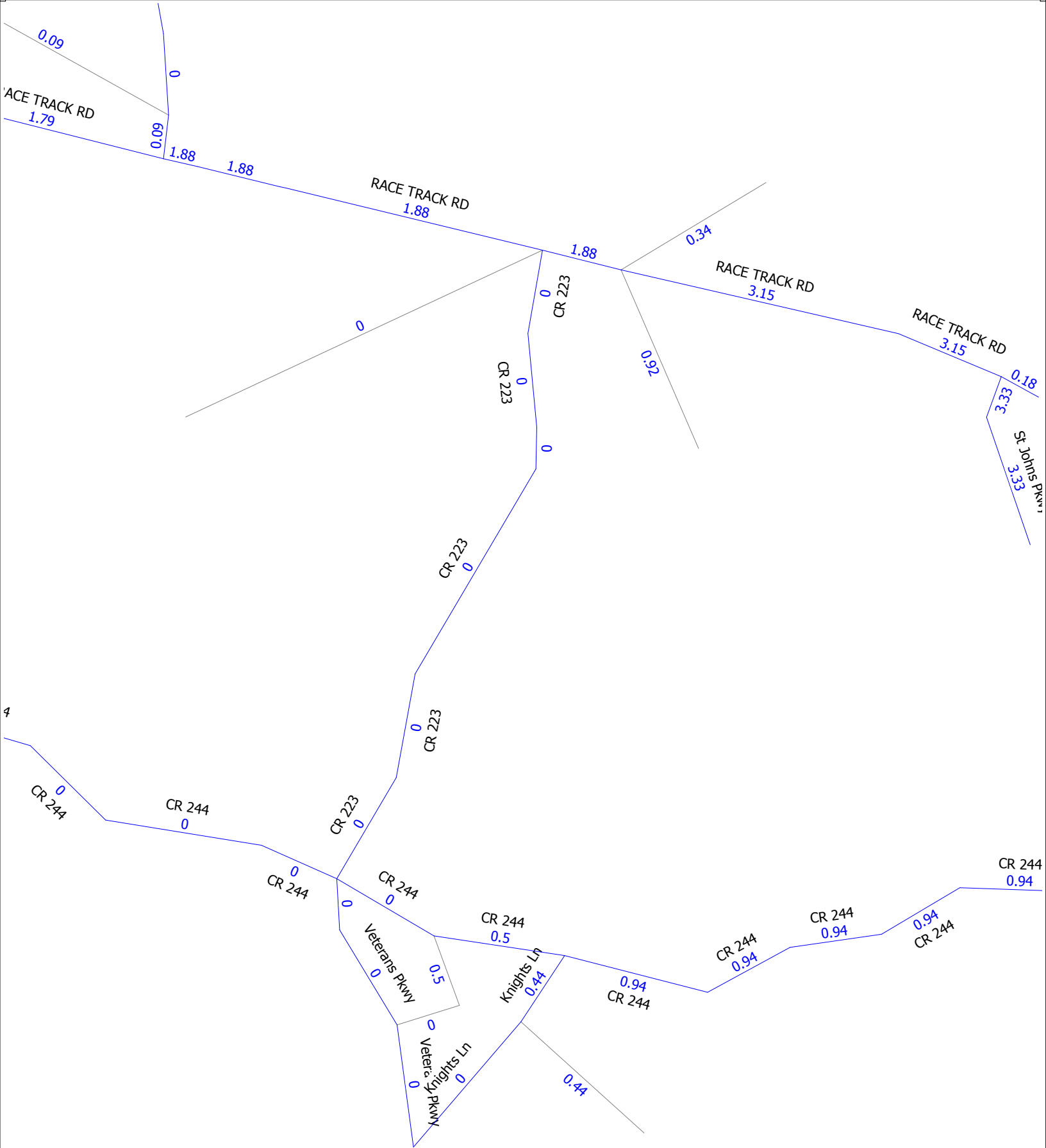


Greenbriar Downs  
Phase 1 - Residential Project Traffic Distribution  
NERPM\_ABv3

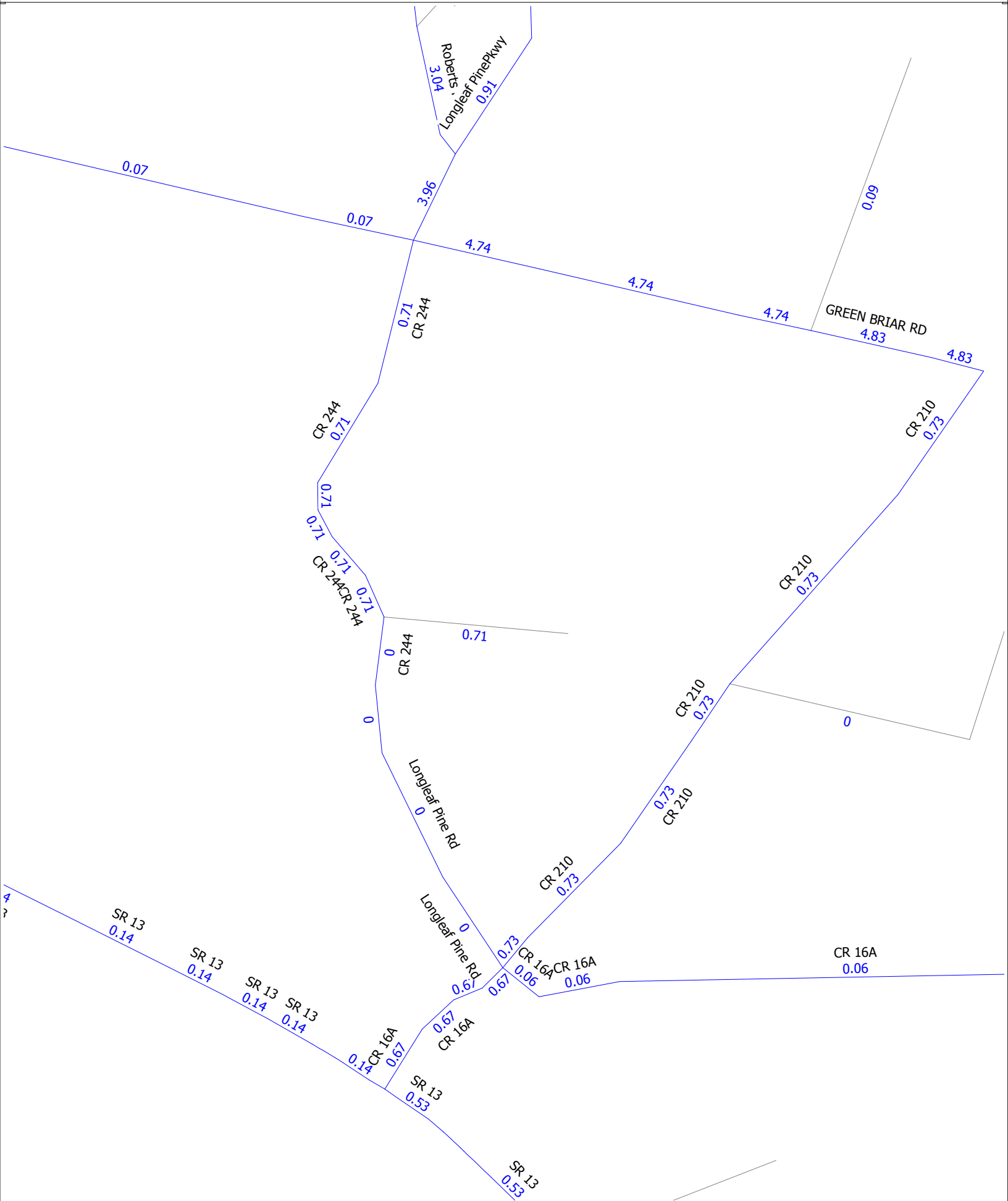


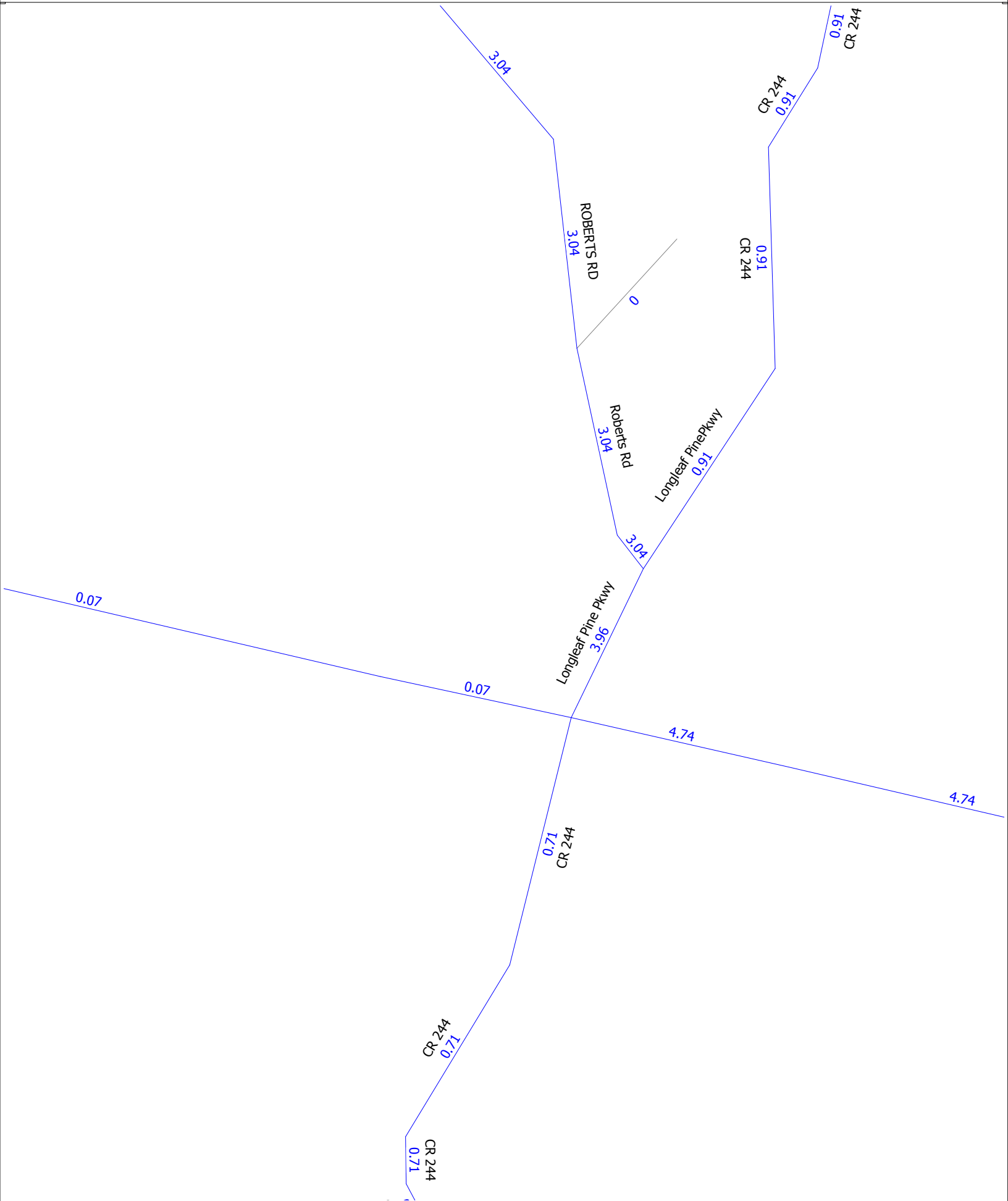


Greenbriar Downs  
Phase 1 - Residential Project Traffic Distribution  
NERPM\_ABv3

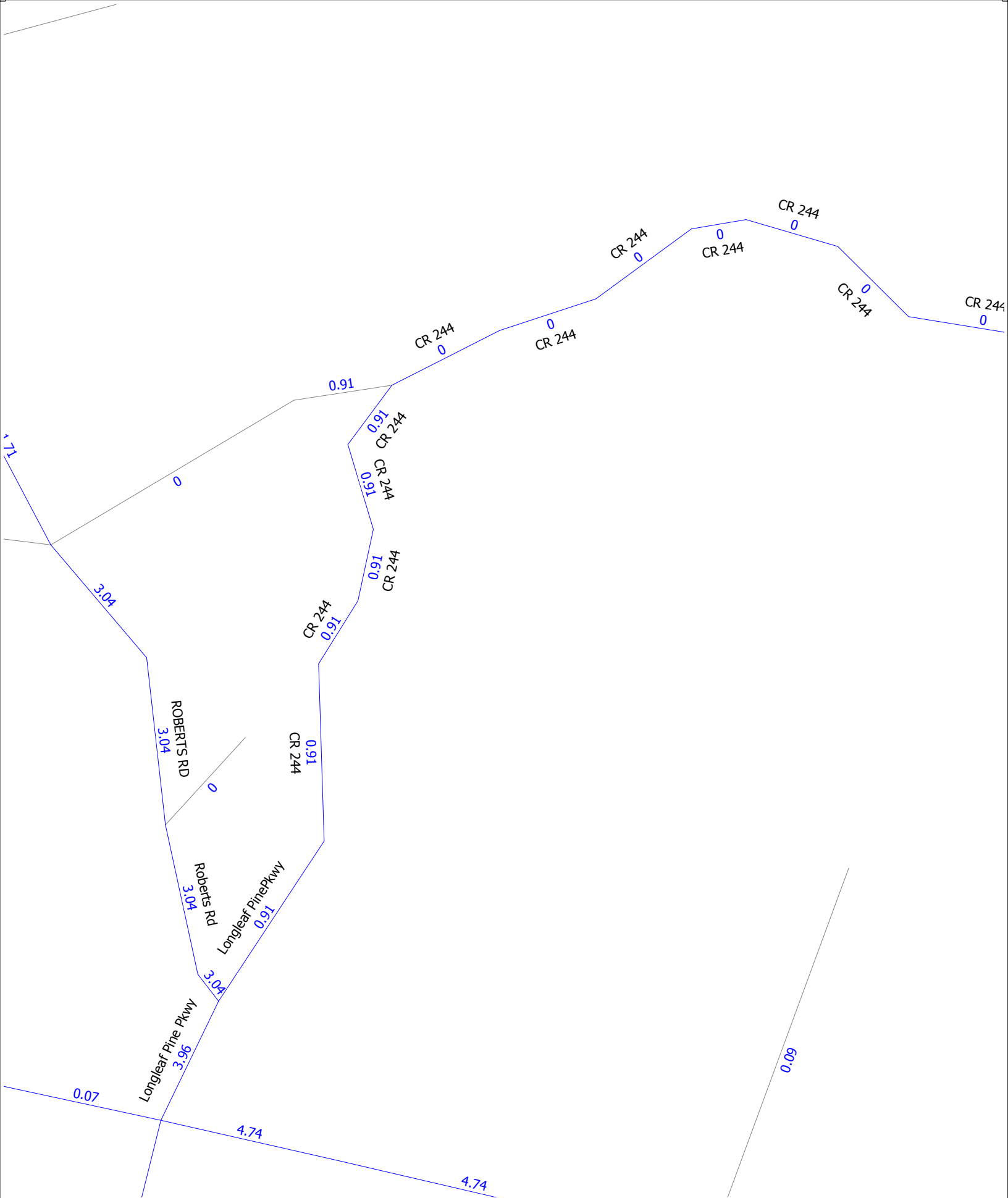


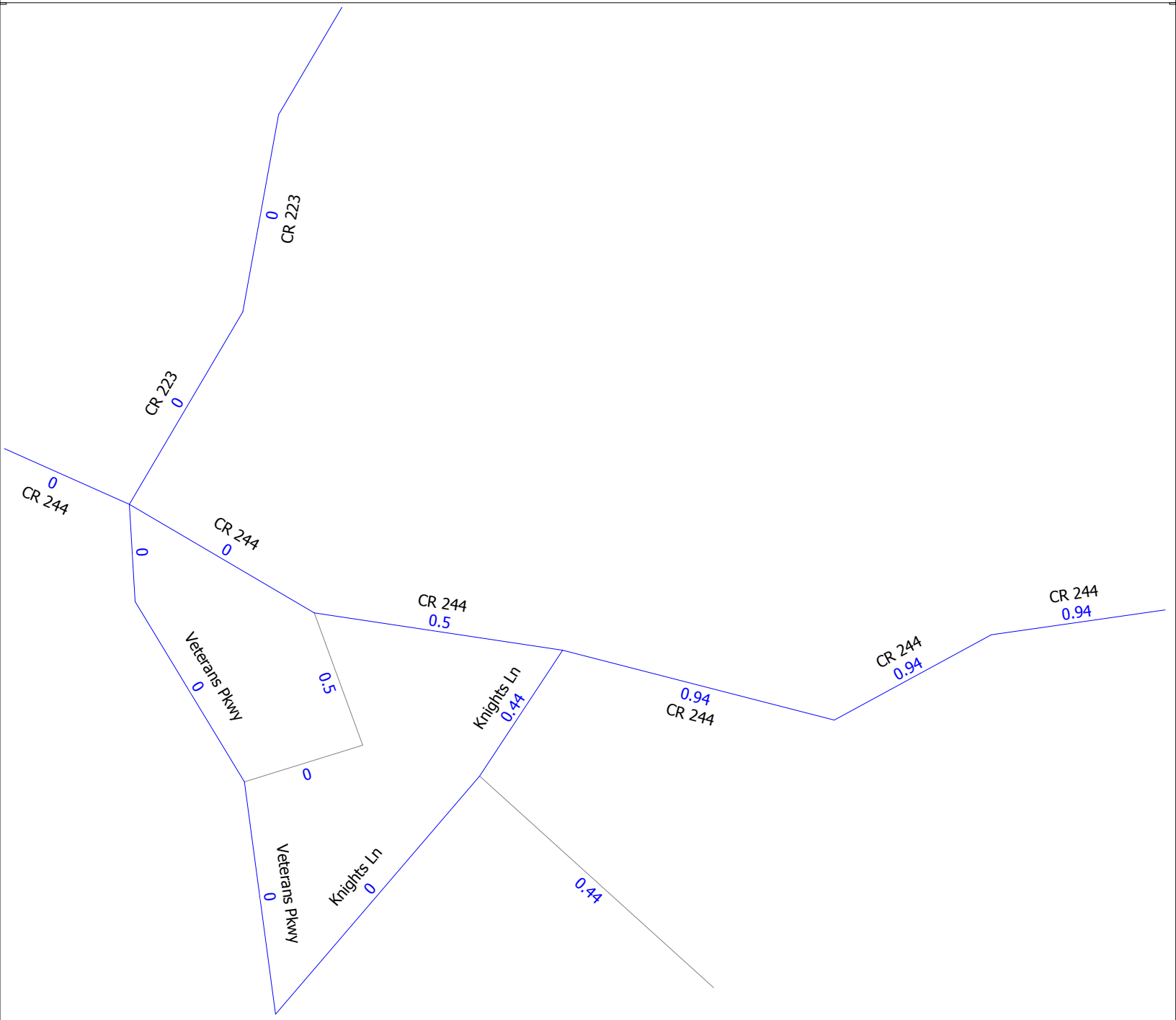
Greenbriar Downs  
Phase 1 - Residential Project Traffic Distribution  
NERPM\_ABv3



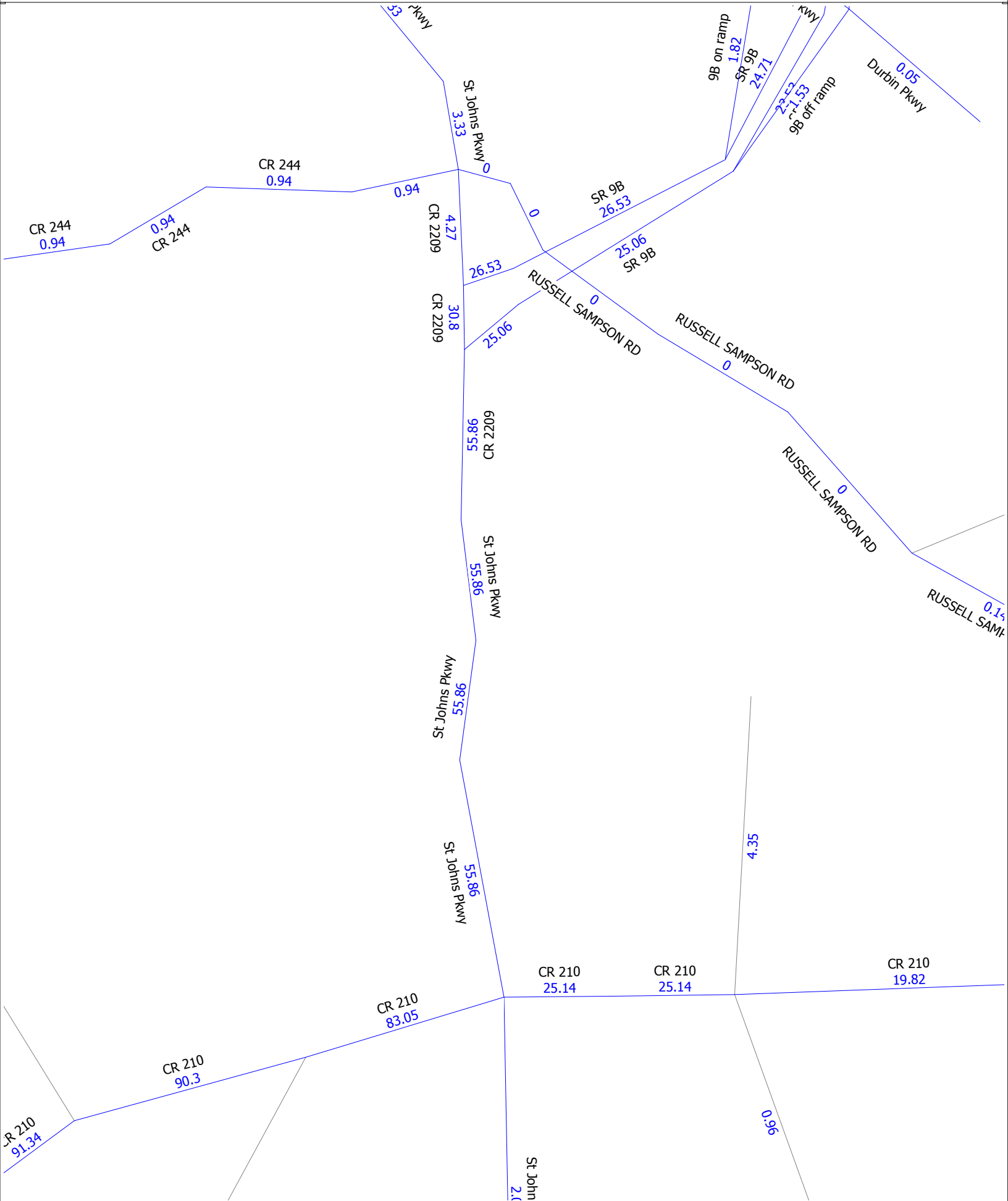


Greenbriar Downs  
Phase 1 - Residential Project Traffic Distribution  
NERPM\_ABv3



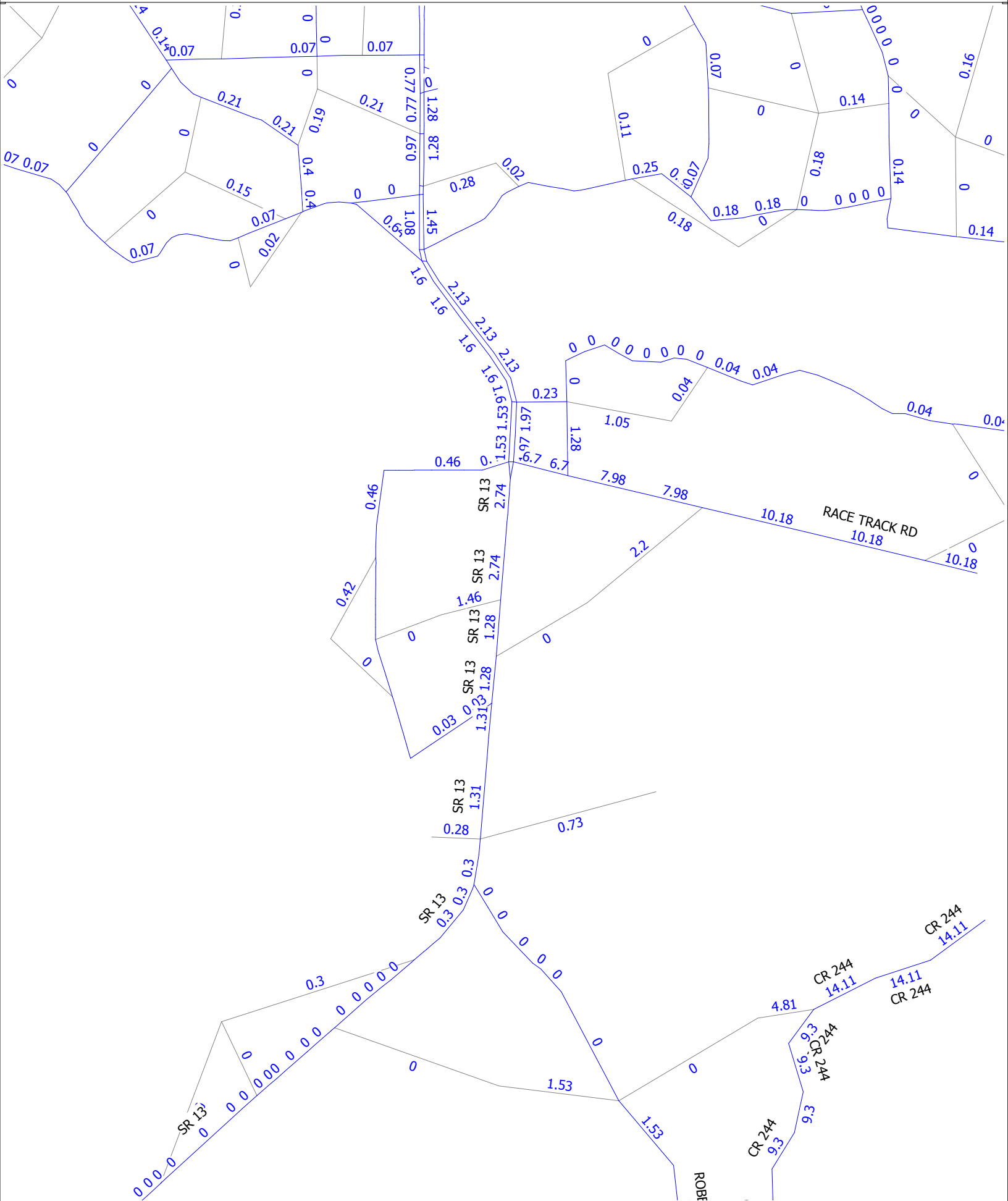


Greenbriar Downs  
 Phase 1 - Residential Project Traffic Distribution  
 NERPM\_ABv3





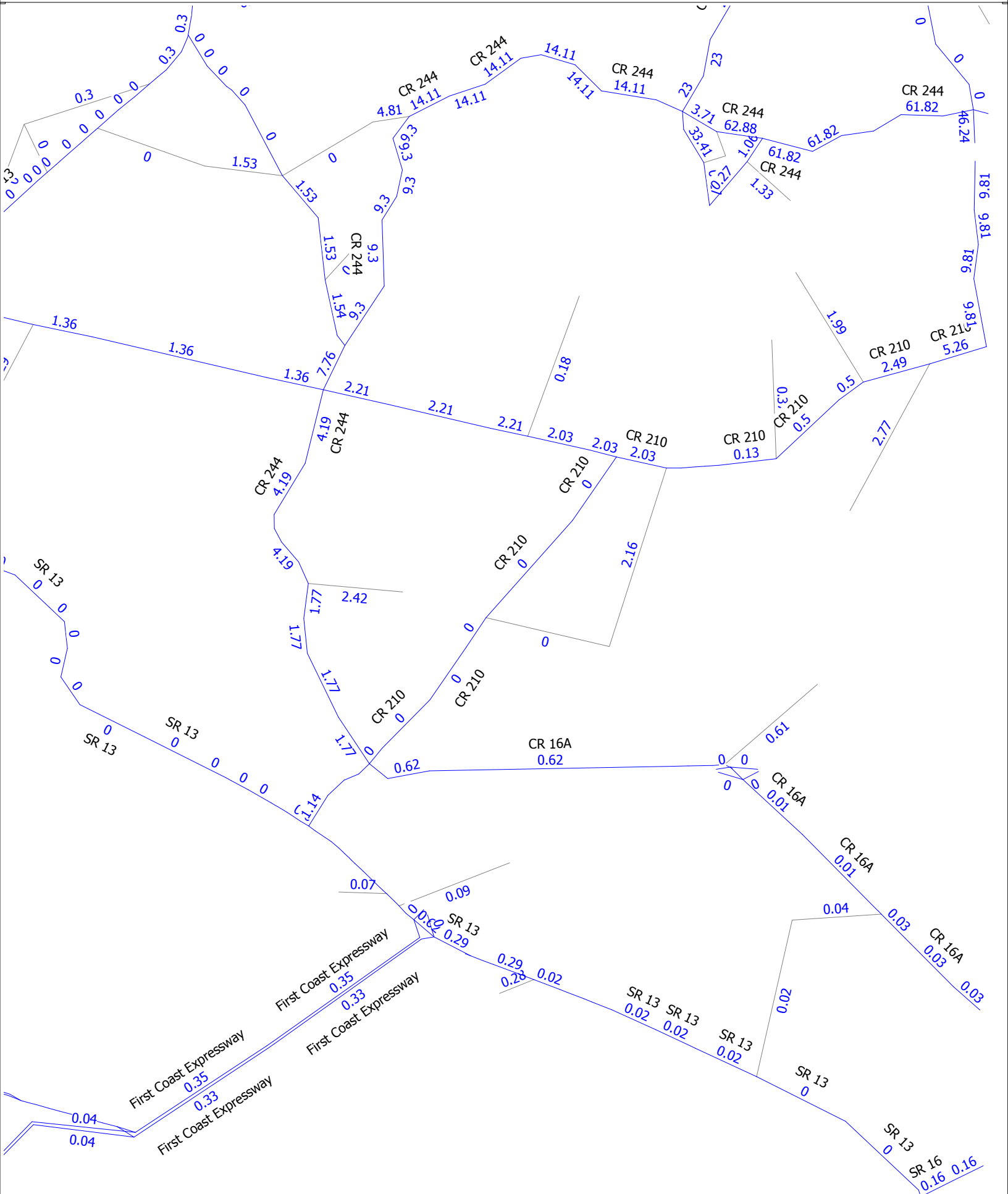
Greenbriar Downs  
 Phase 1 - Non-Residential Project Traffic Distribution  
 NERPM\_ABv3



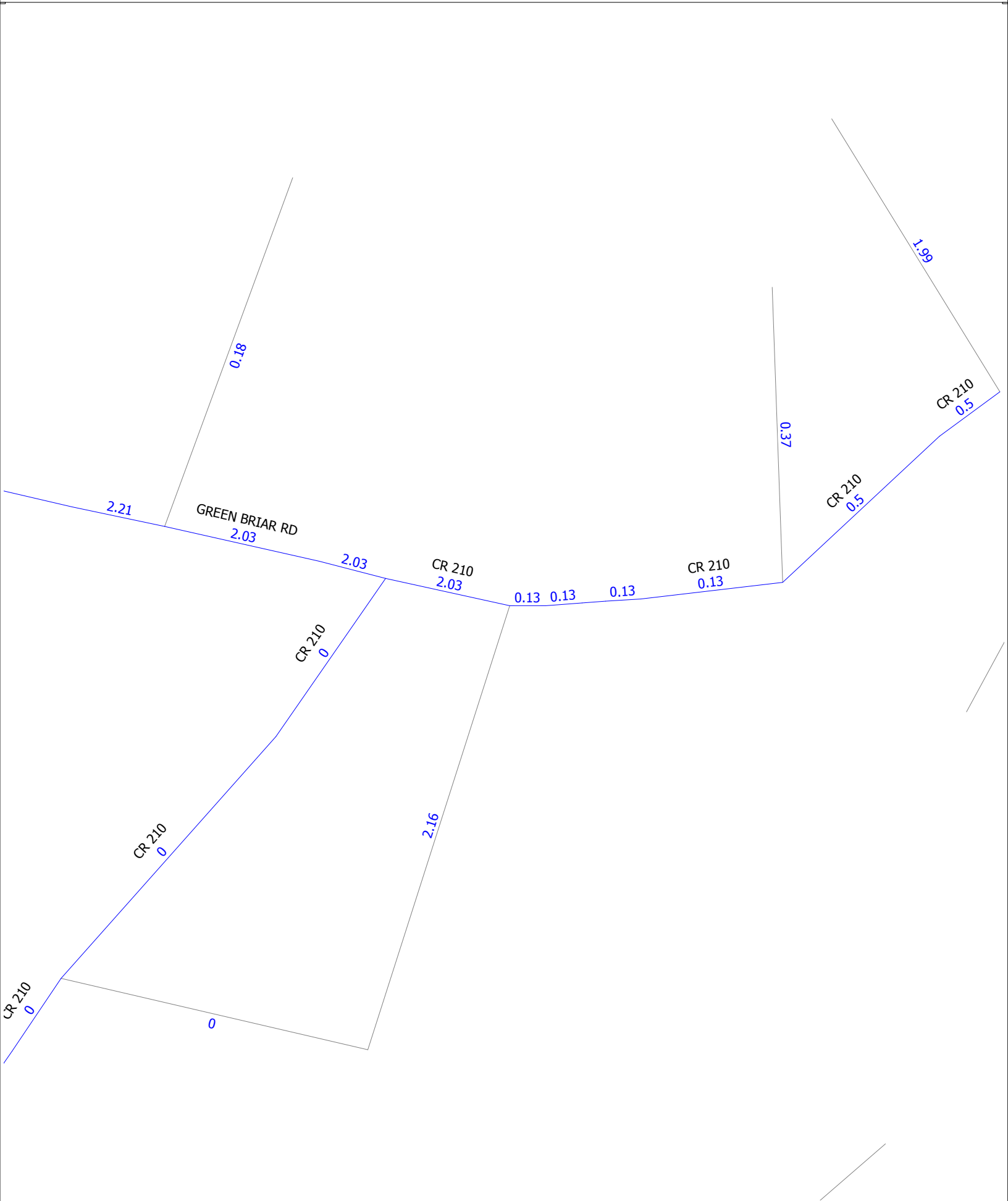




Greenbriar Downs  
Phase 1 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3

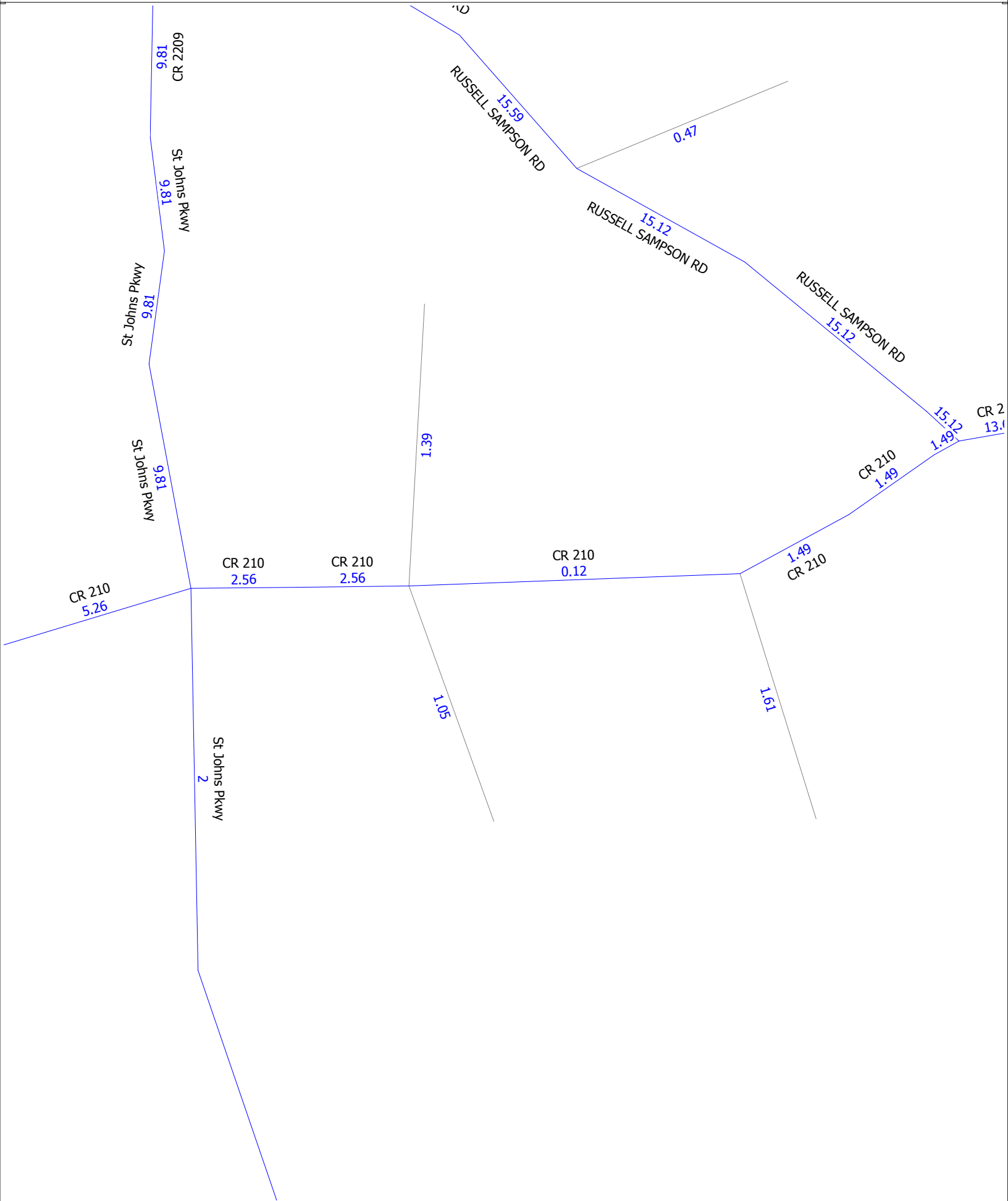


Greenbriar Downs  
Phase 1 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3



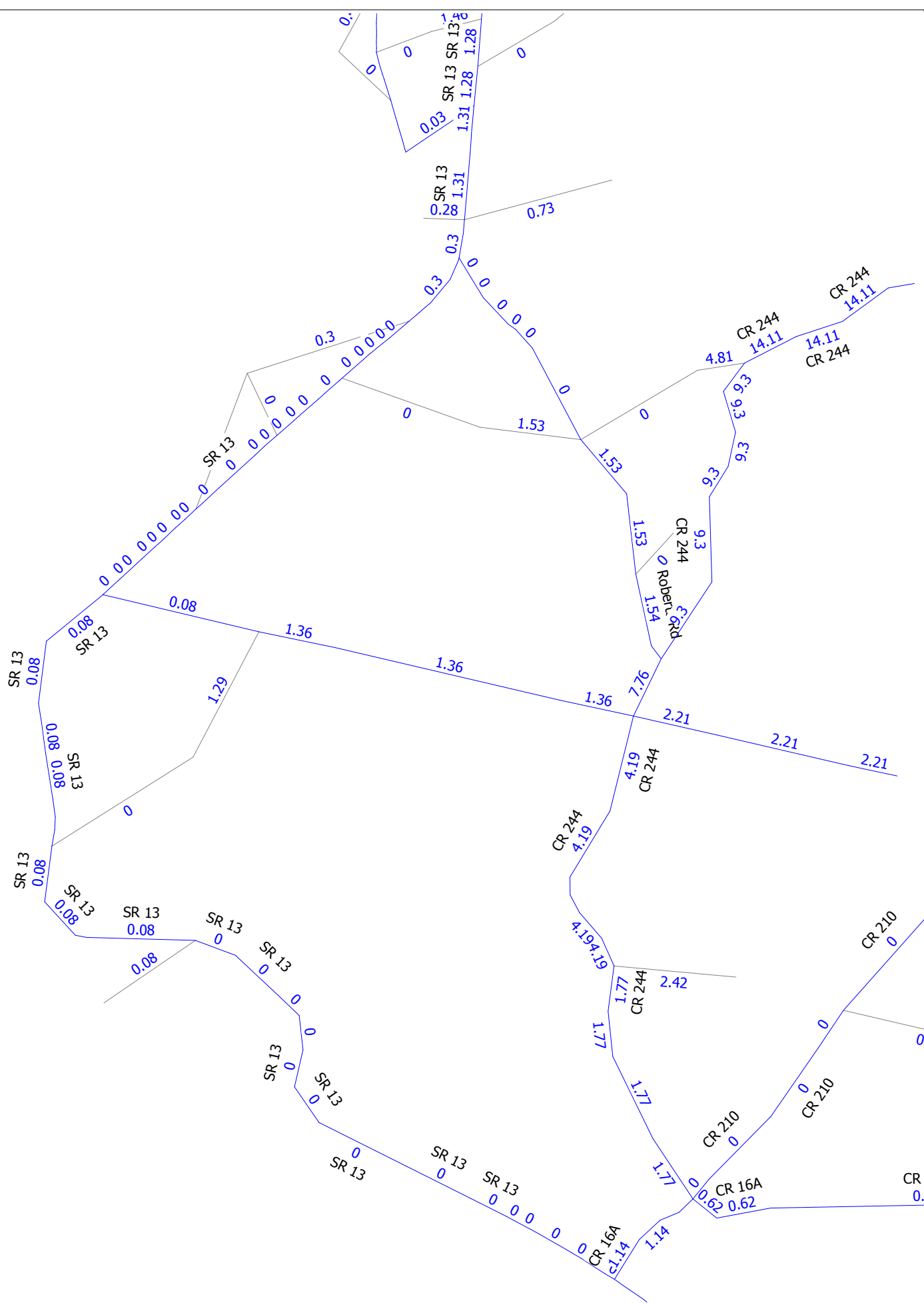


Greenbriar Downs  
Phase 1 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3



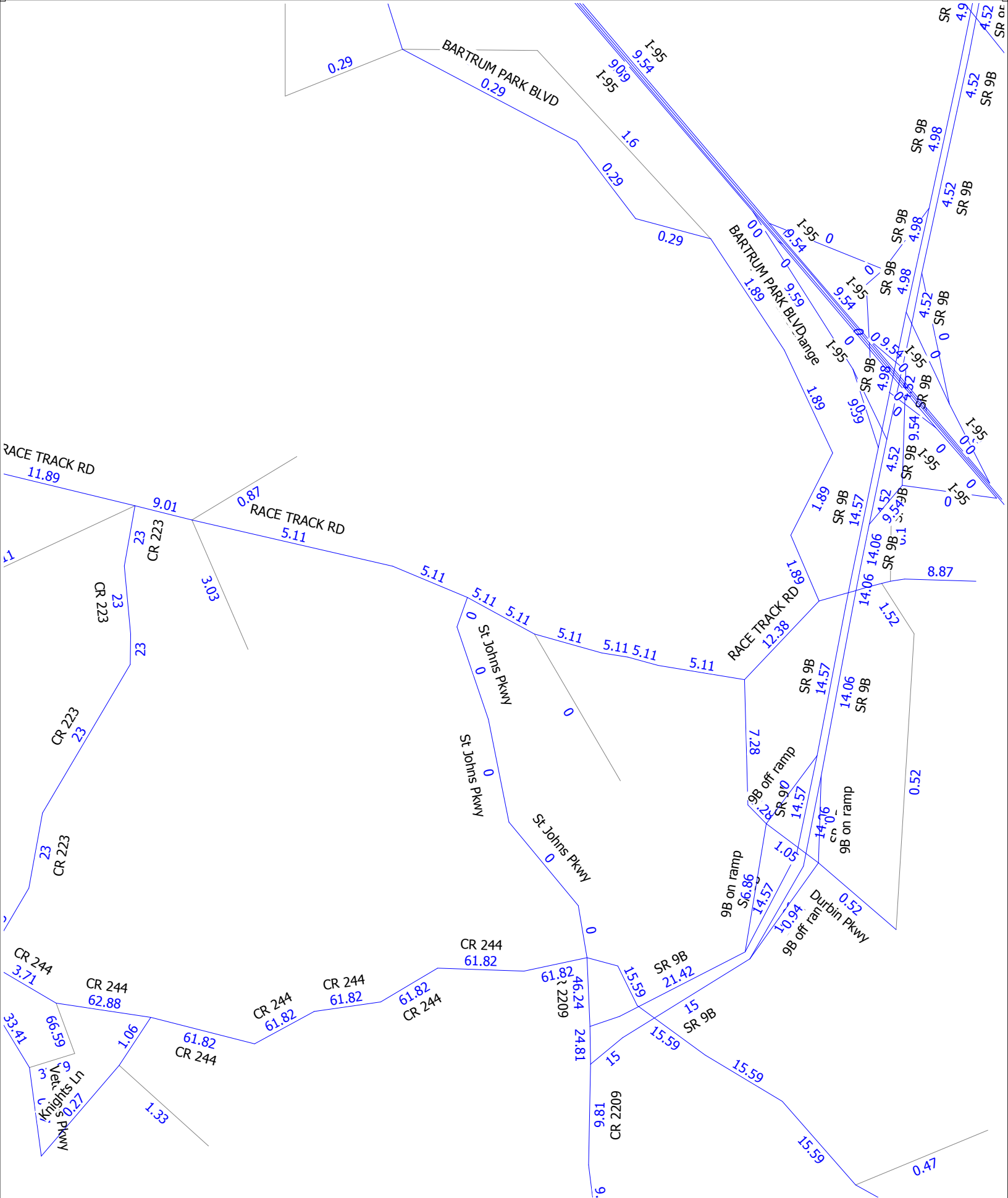


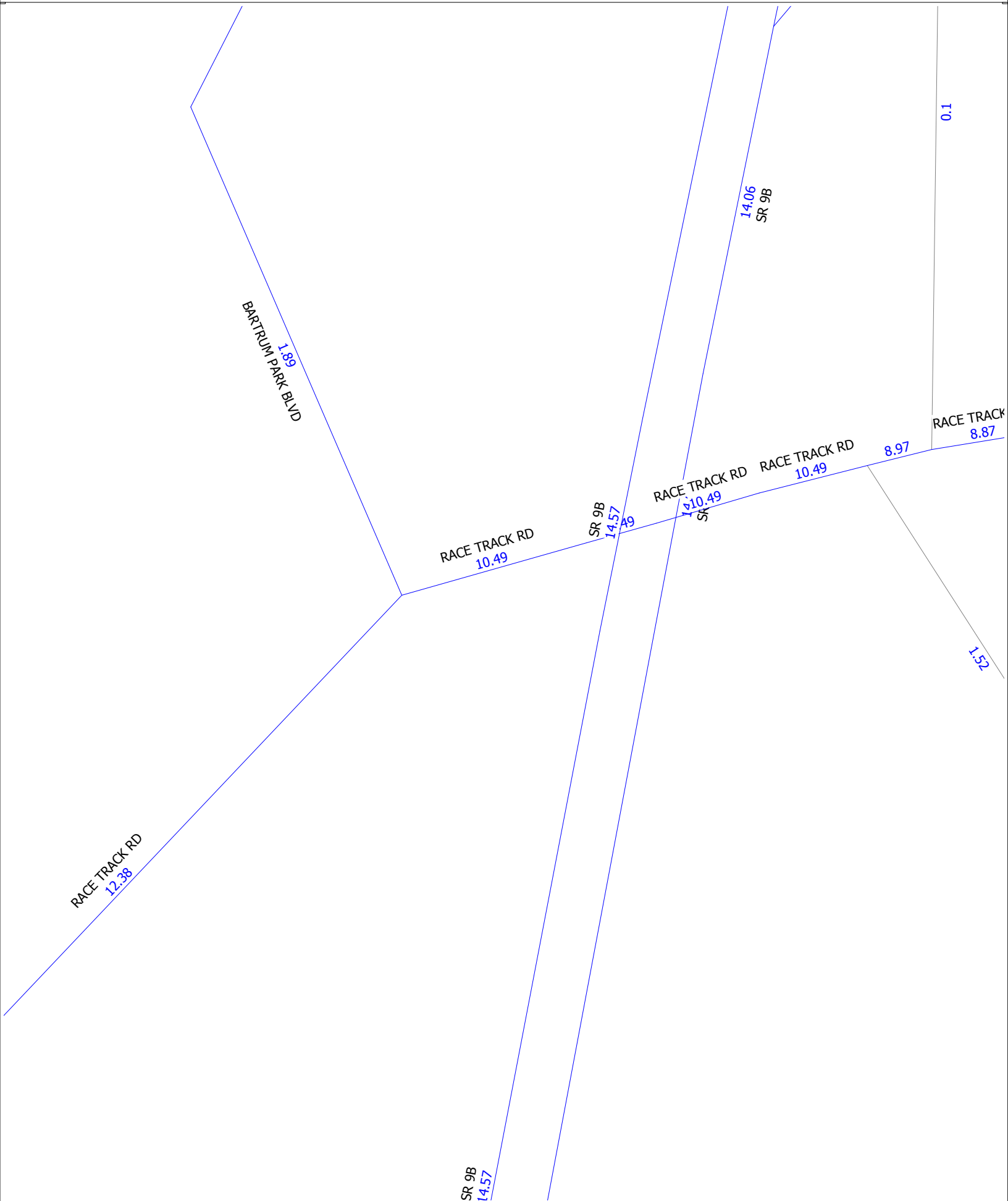




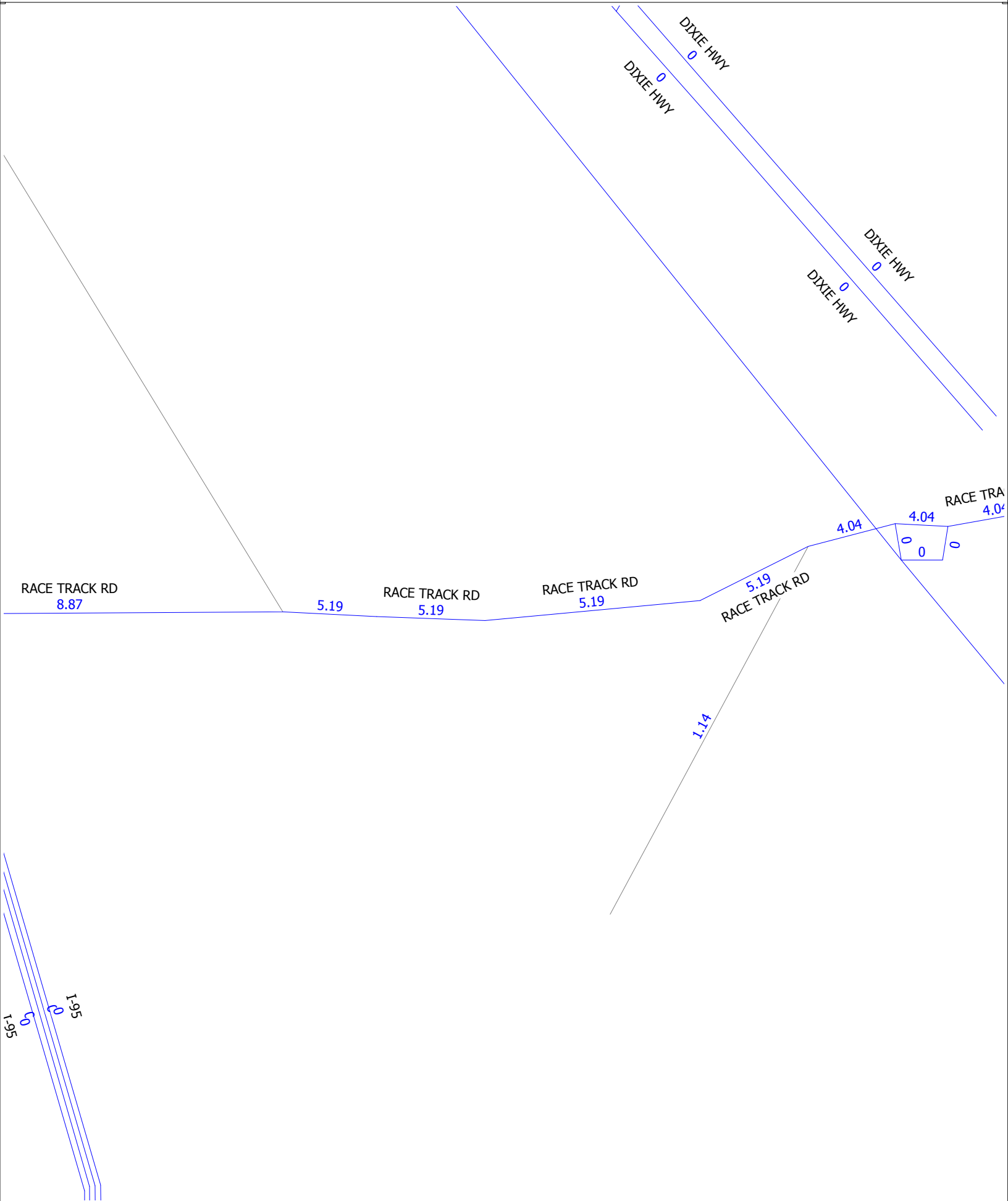


Greenbriar Downs  
Phase 1 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3

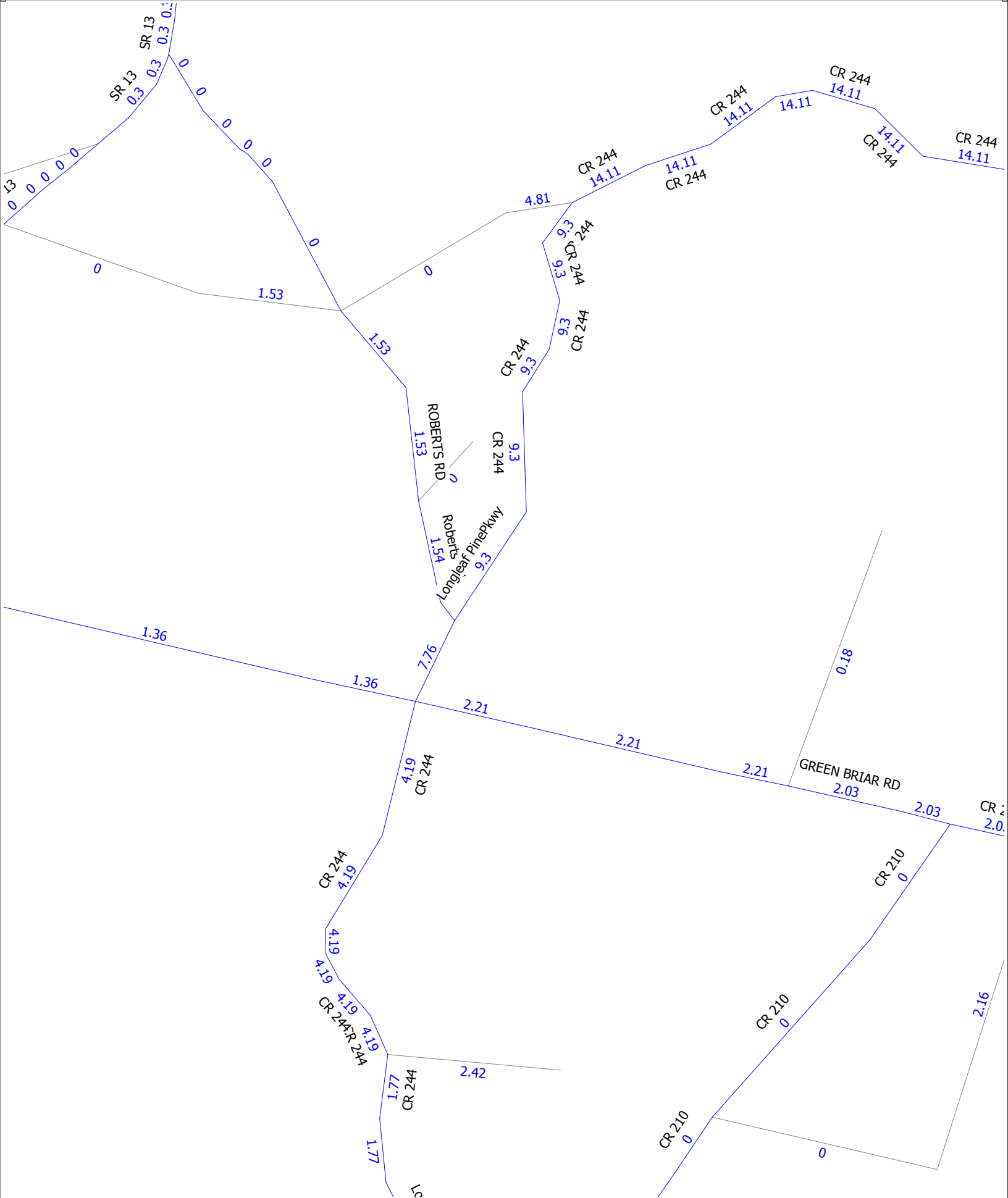




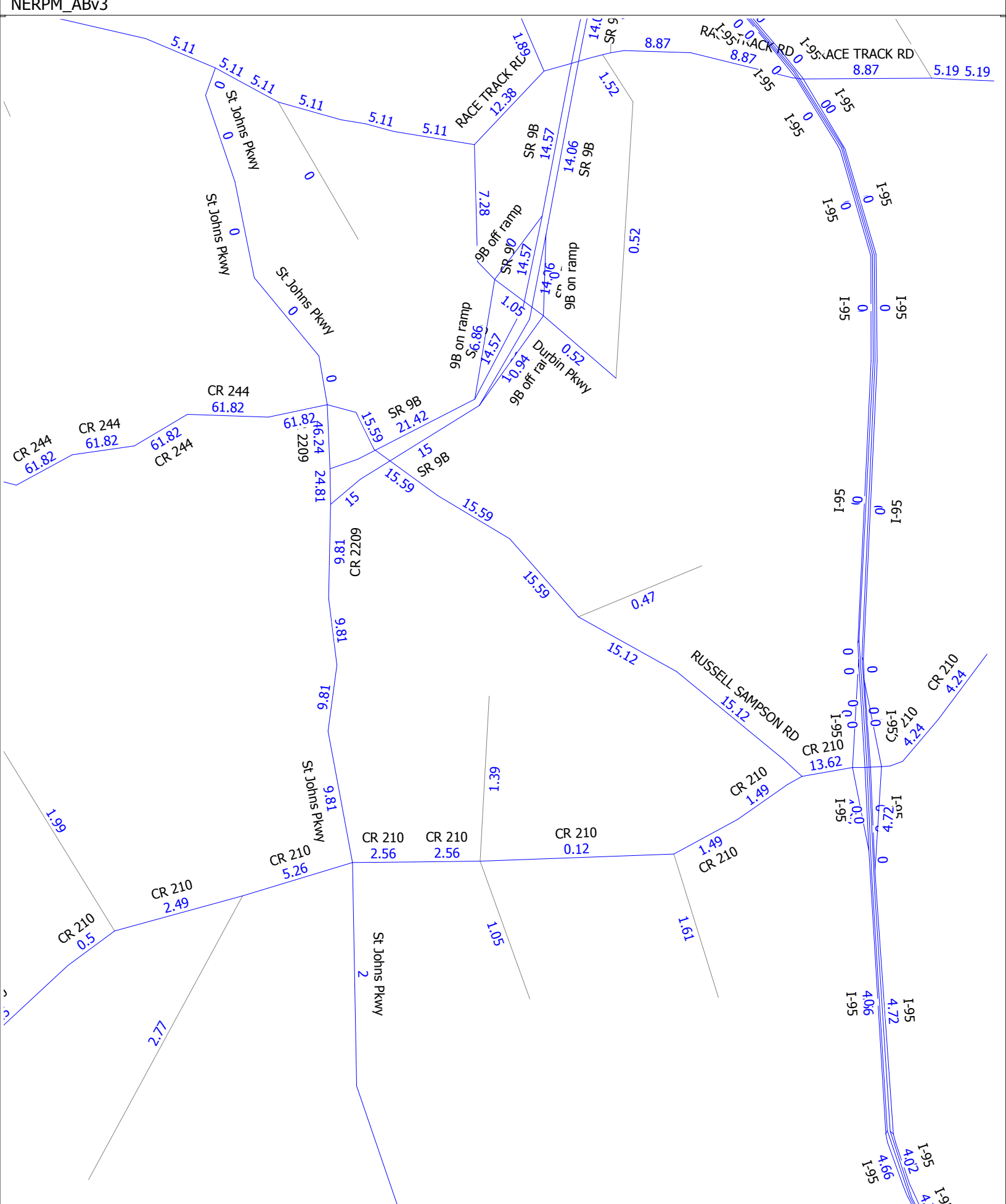
Greenbriar Downs  
Phase 1 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3



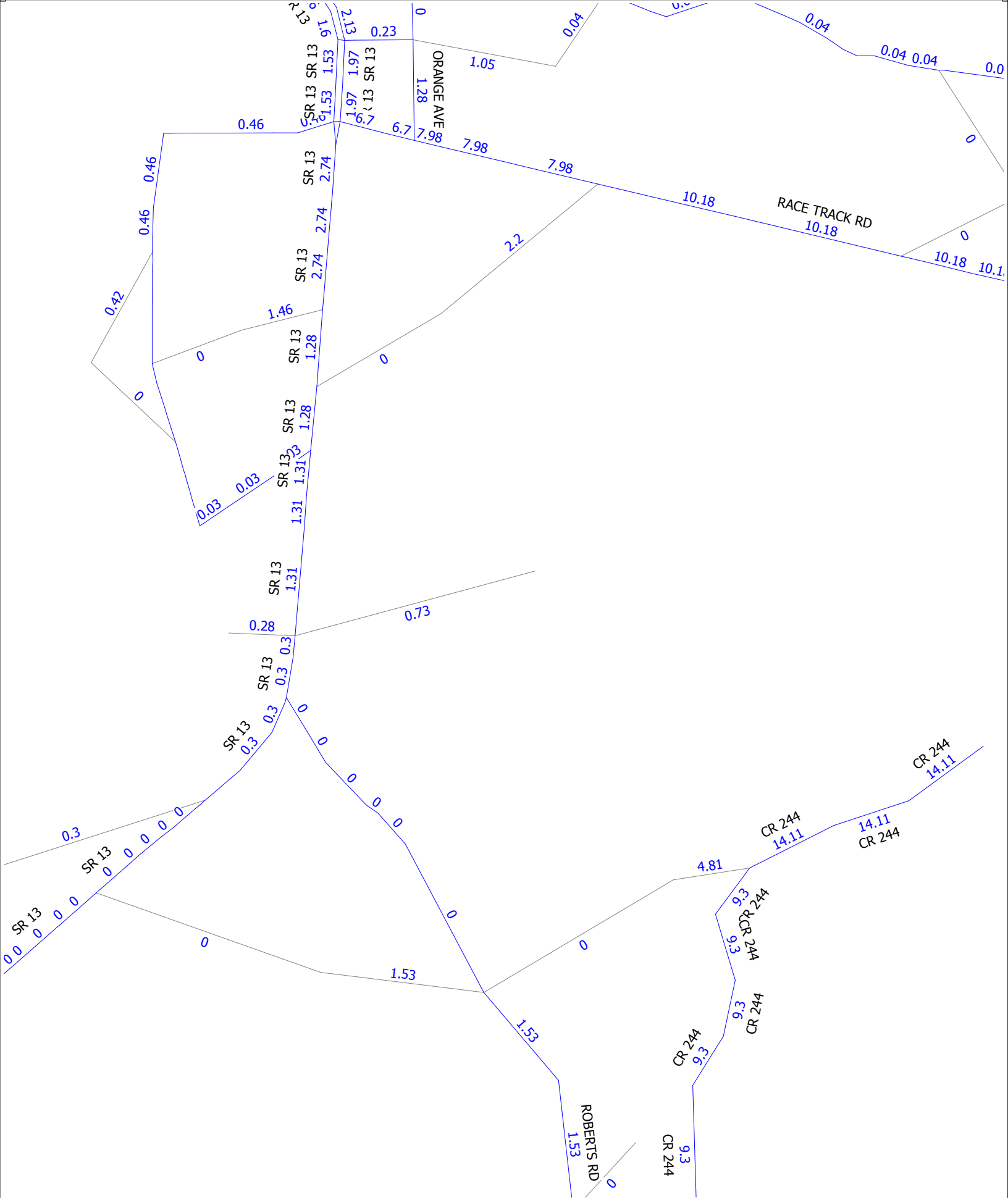
Greenbriar Downs  
Phase 1 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3



Greenbriar Downs  
 Phase 1 - Non-Residential Project Traffic Distribution  
 NERPM\_ABv3

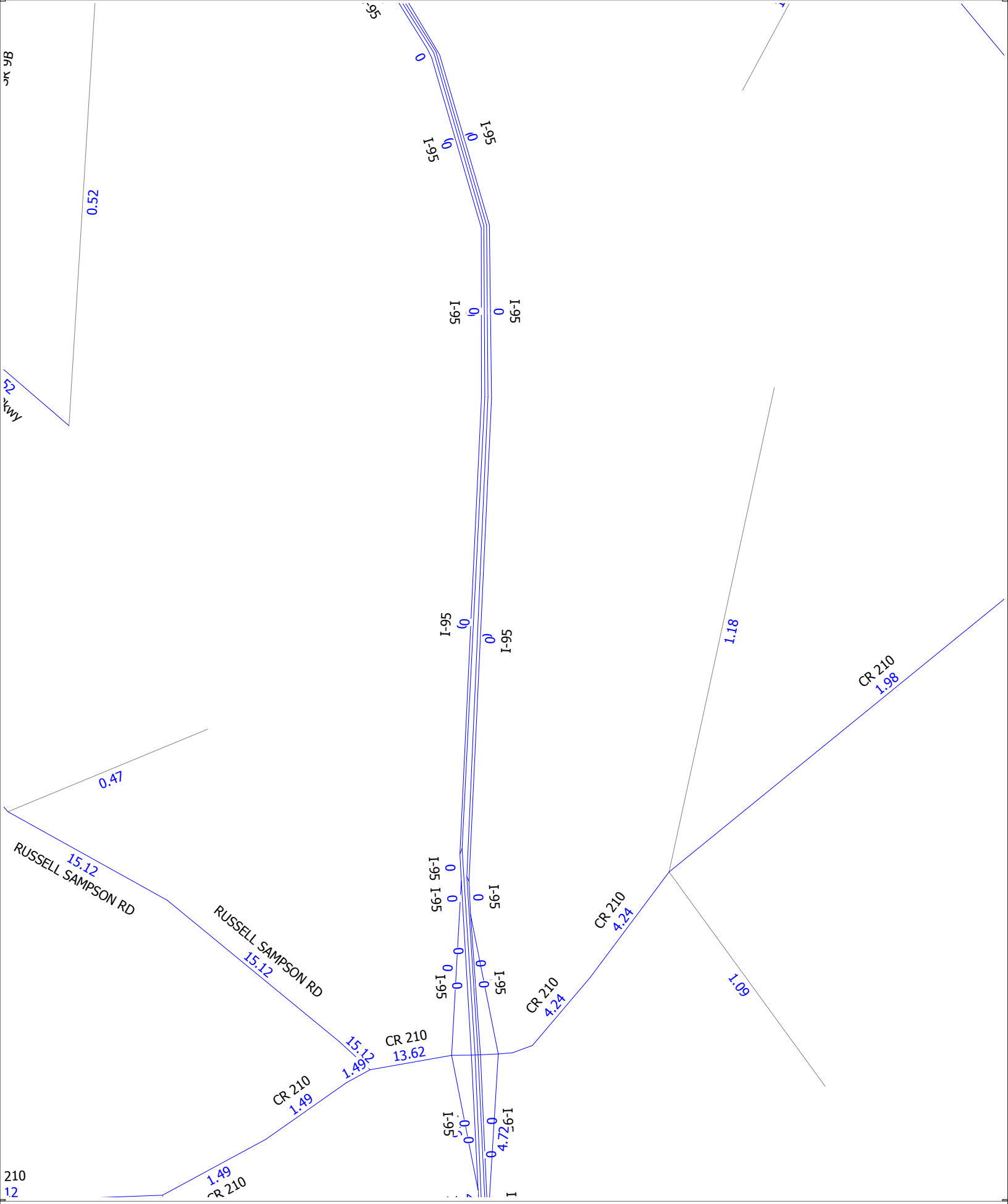


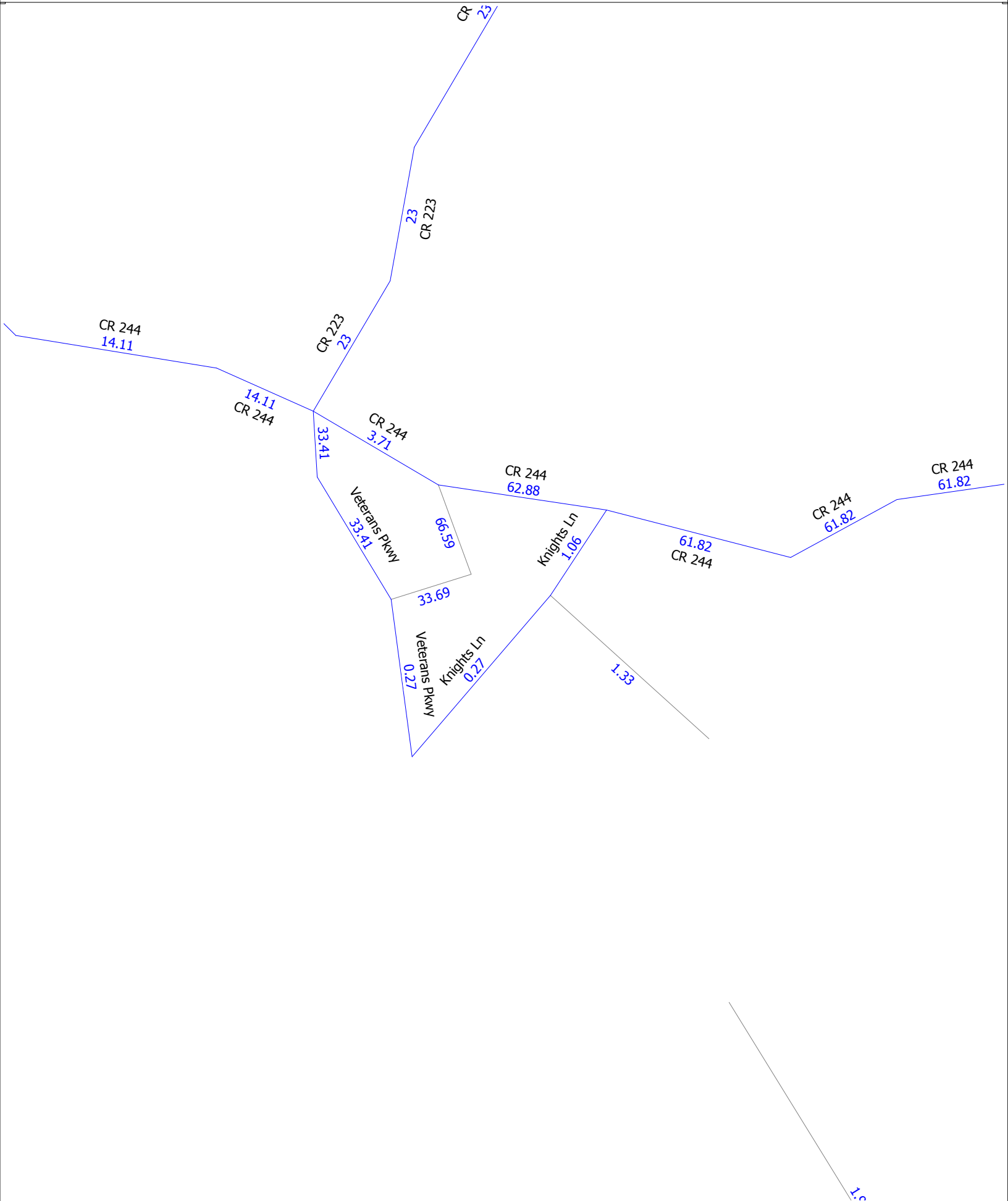
Greenbriar Downs  
 Phase 1 - Non-Residential Project Traffic Distribution  
 NERPM\_AbV3





Greenbriar Downs  
 Phase 1 - Non-Residential Project Traffic Distribution  
 NERPM\_ABv3





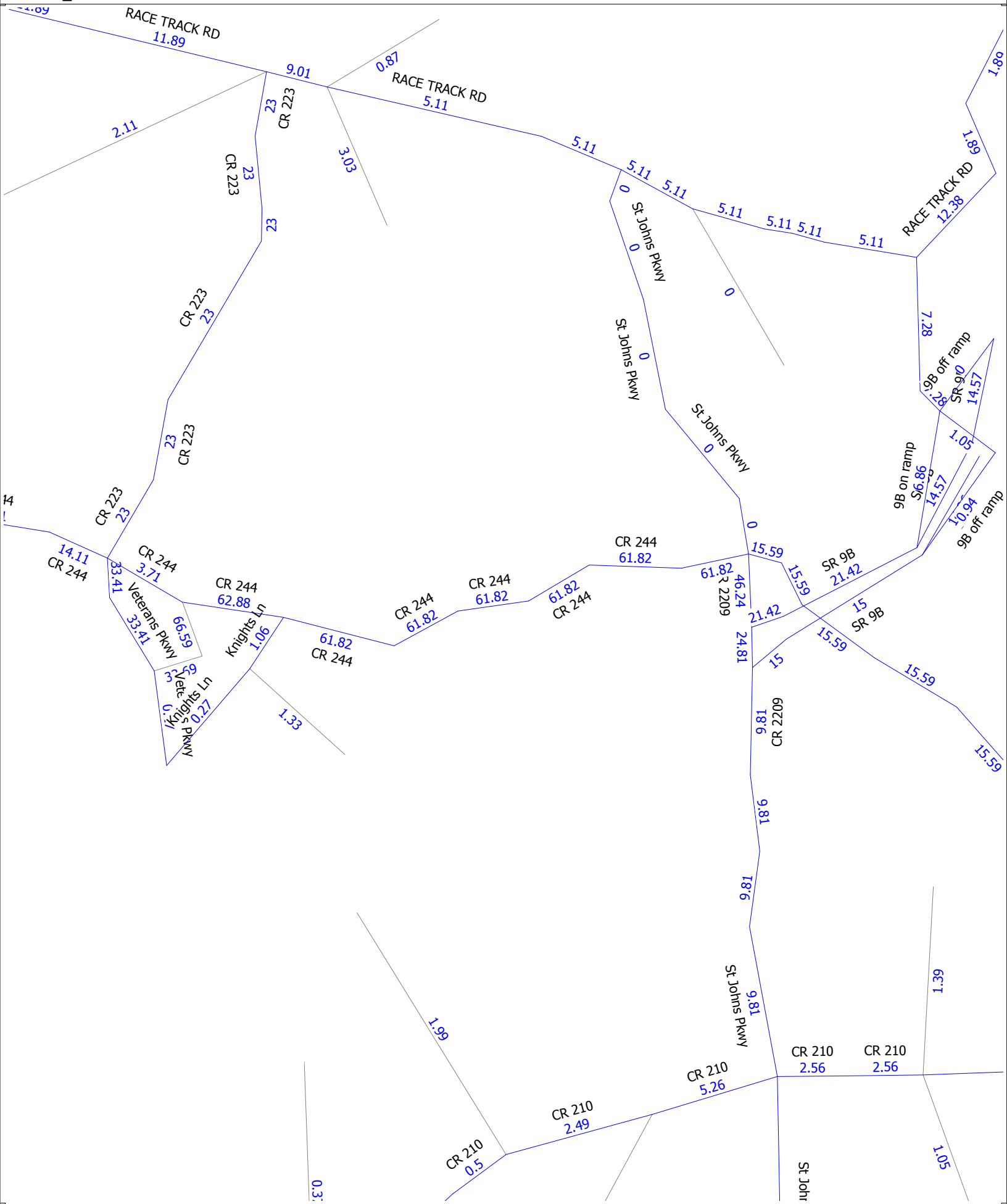




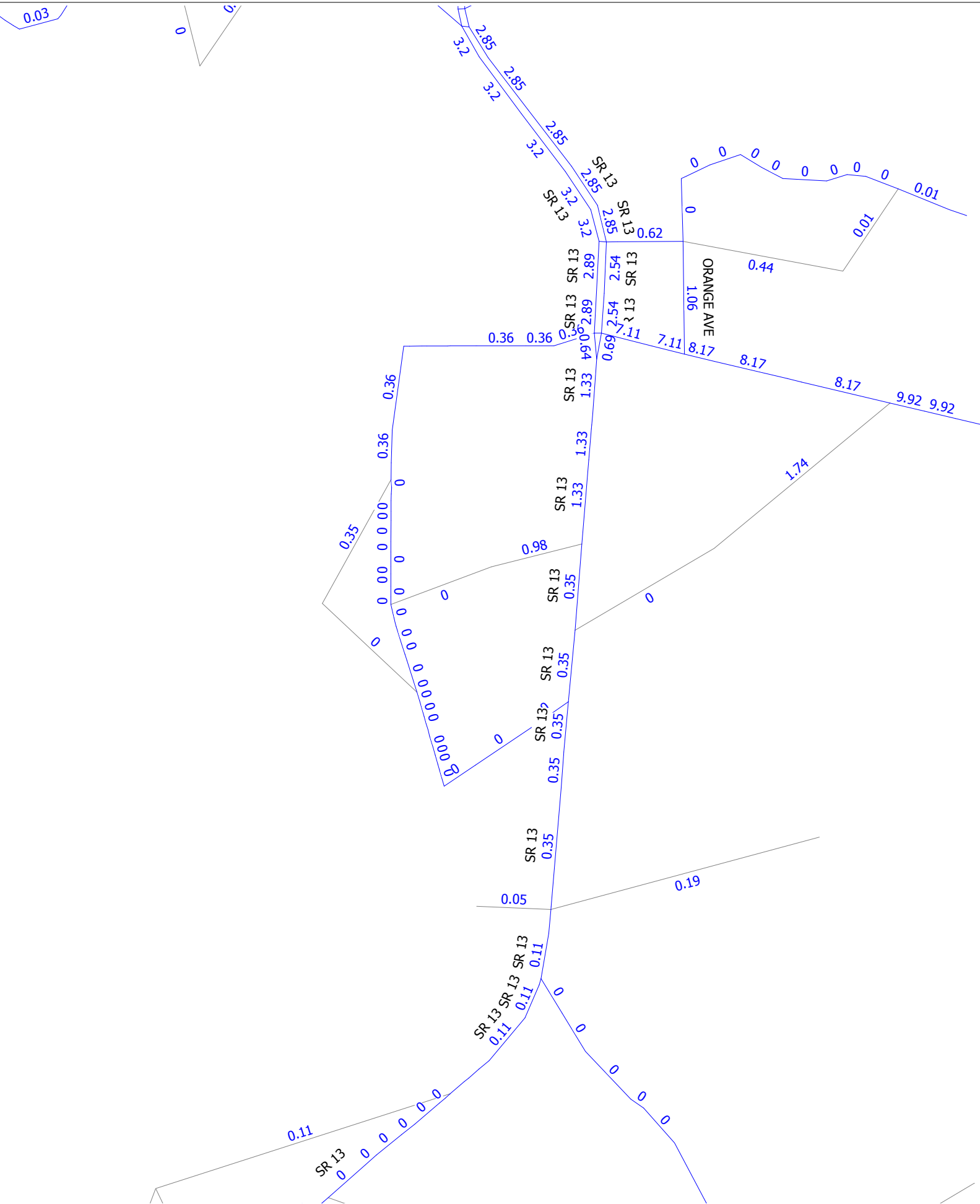
# Greenbriar Downs

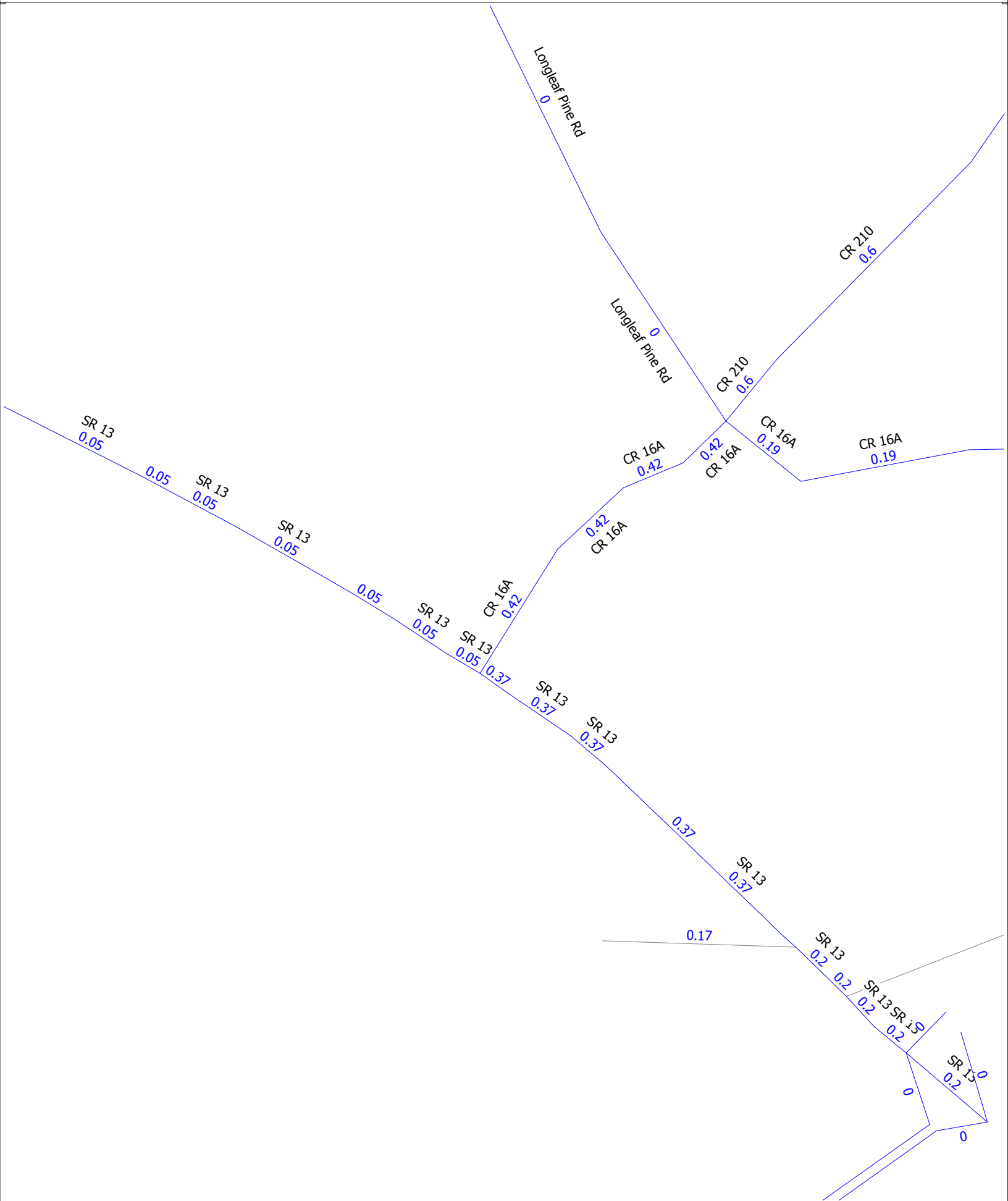
## Phase 1 - Non-Residential Project Traffic Distribution

### NERPM\_ABv3

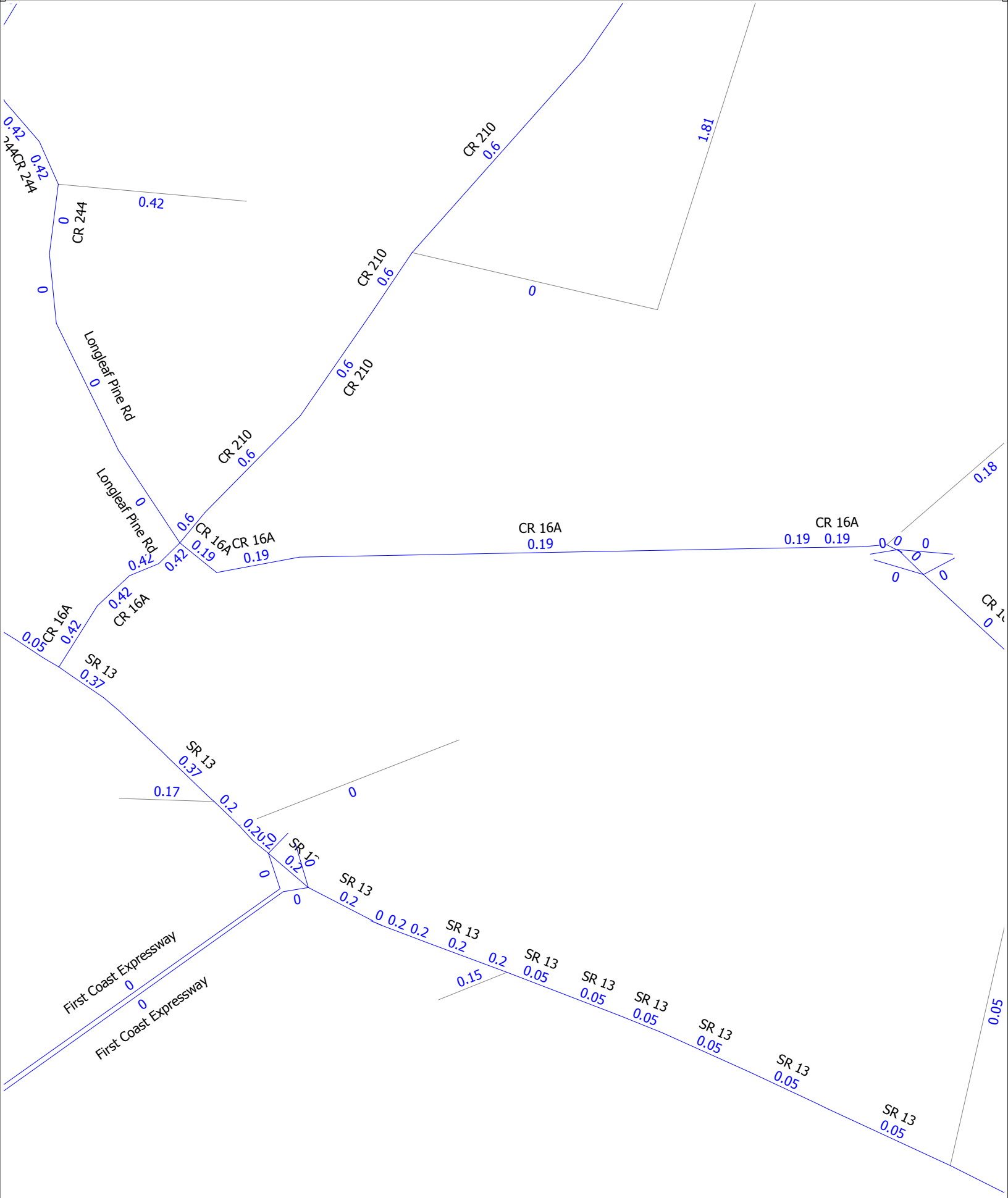


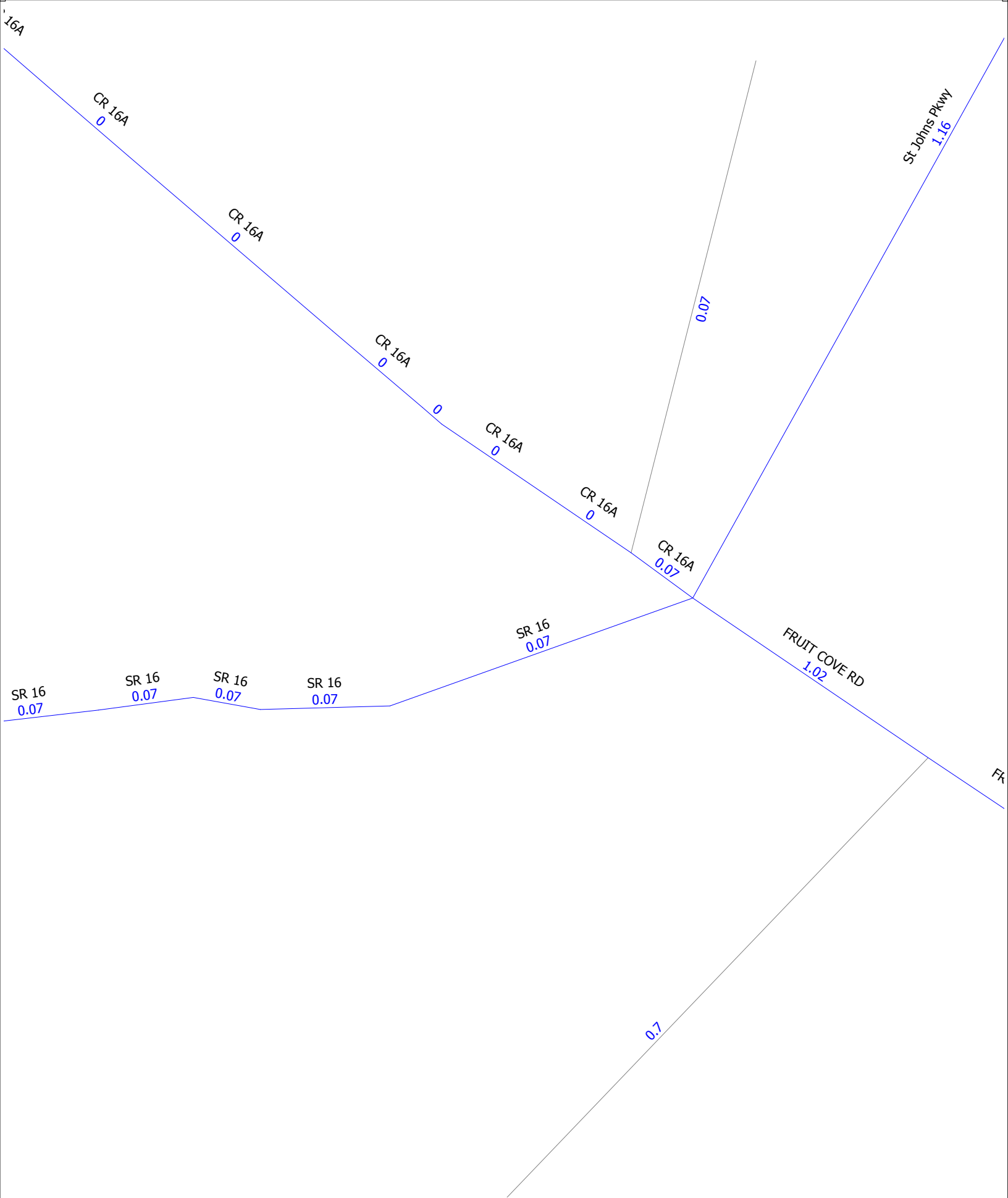






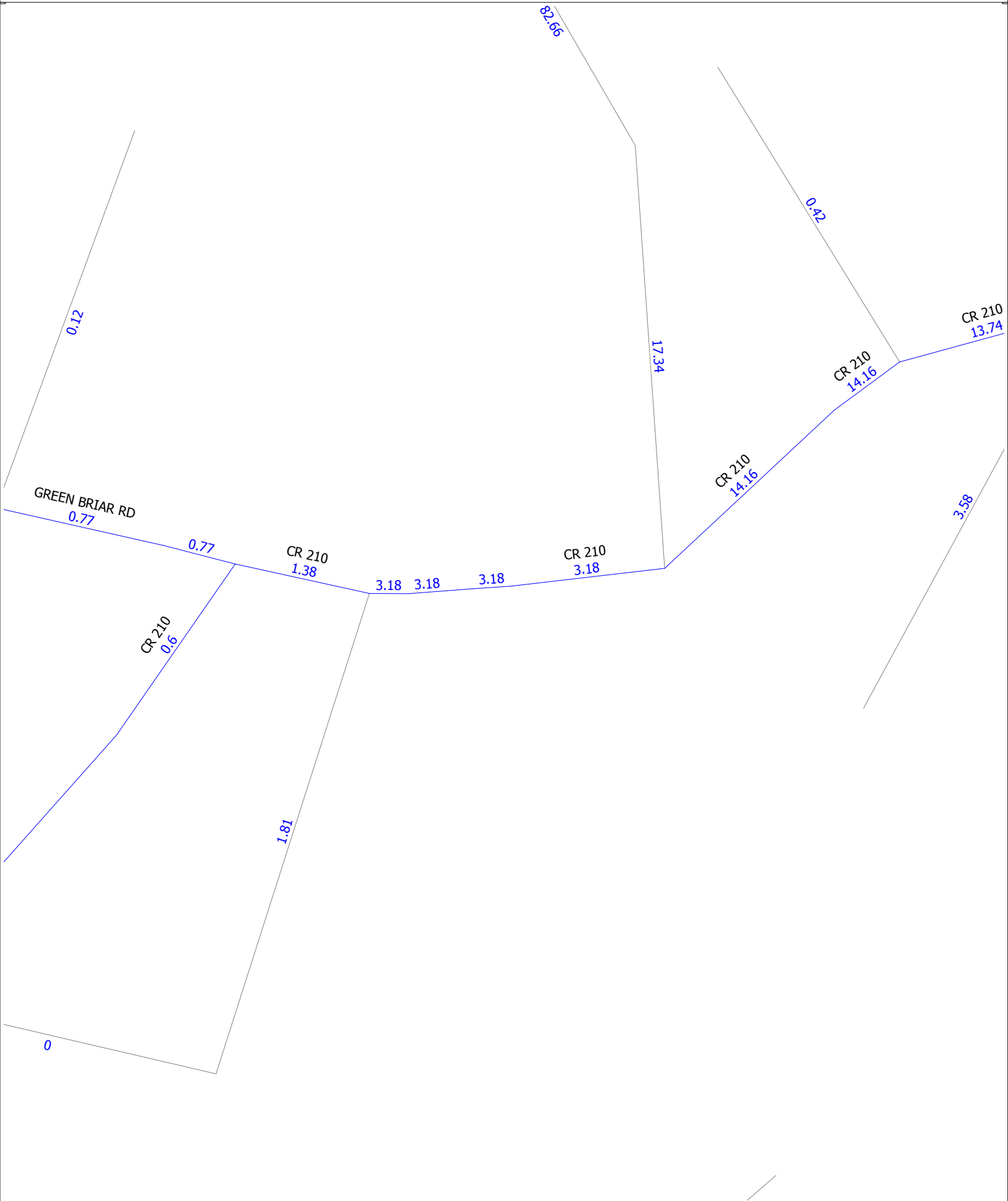
Greenbriar Downs  
Phase 2 - Residential Project Traffic Distribution  
NERPM\_ABv3



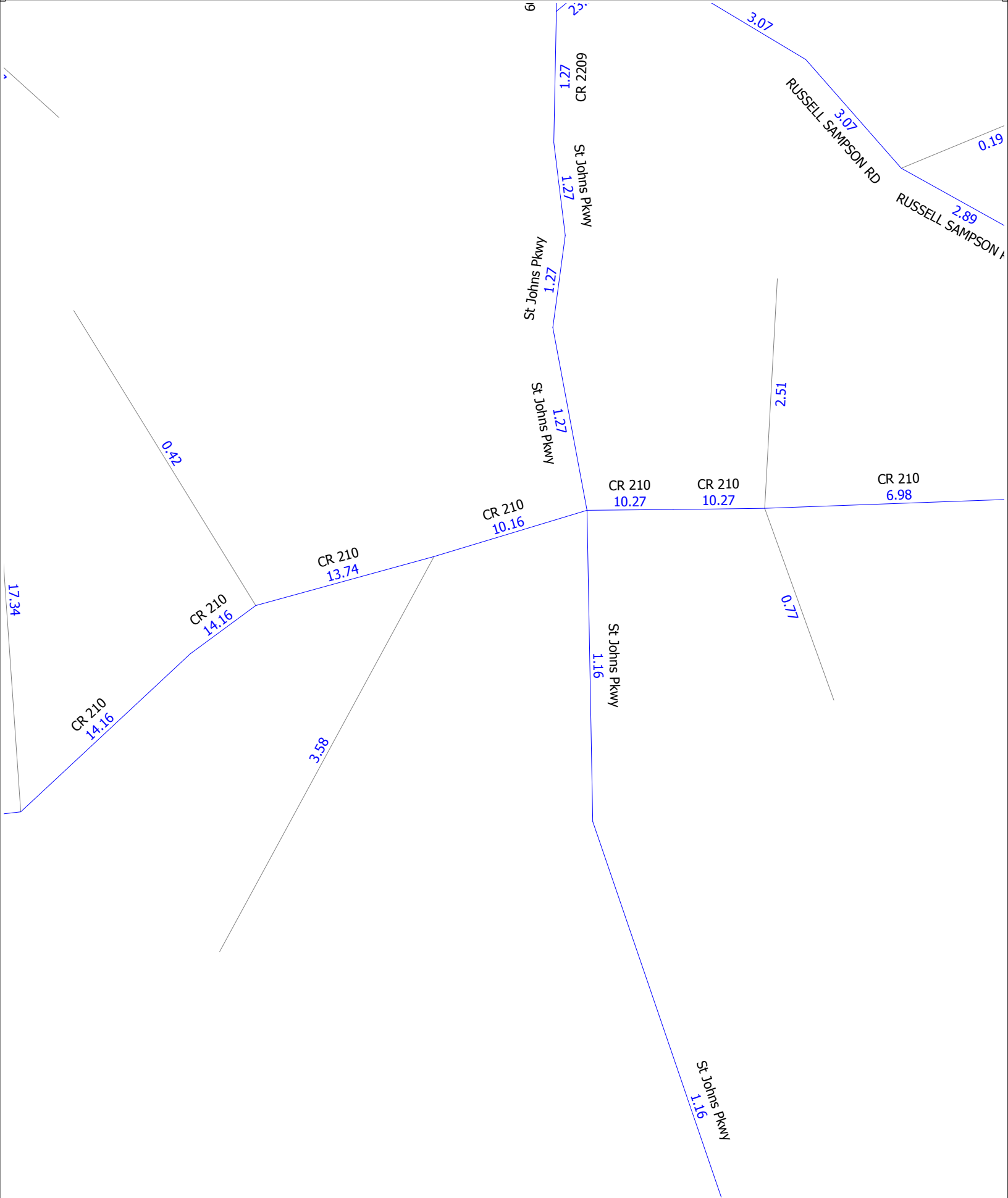


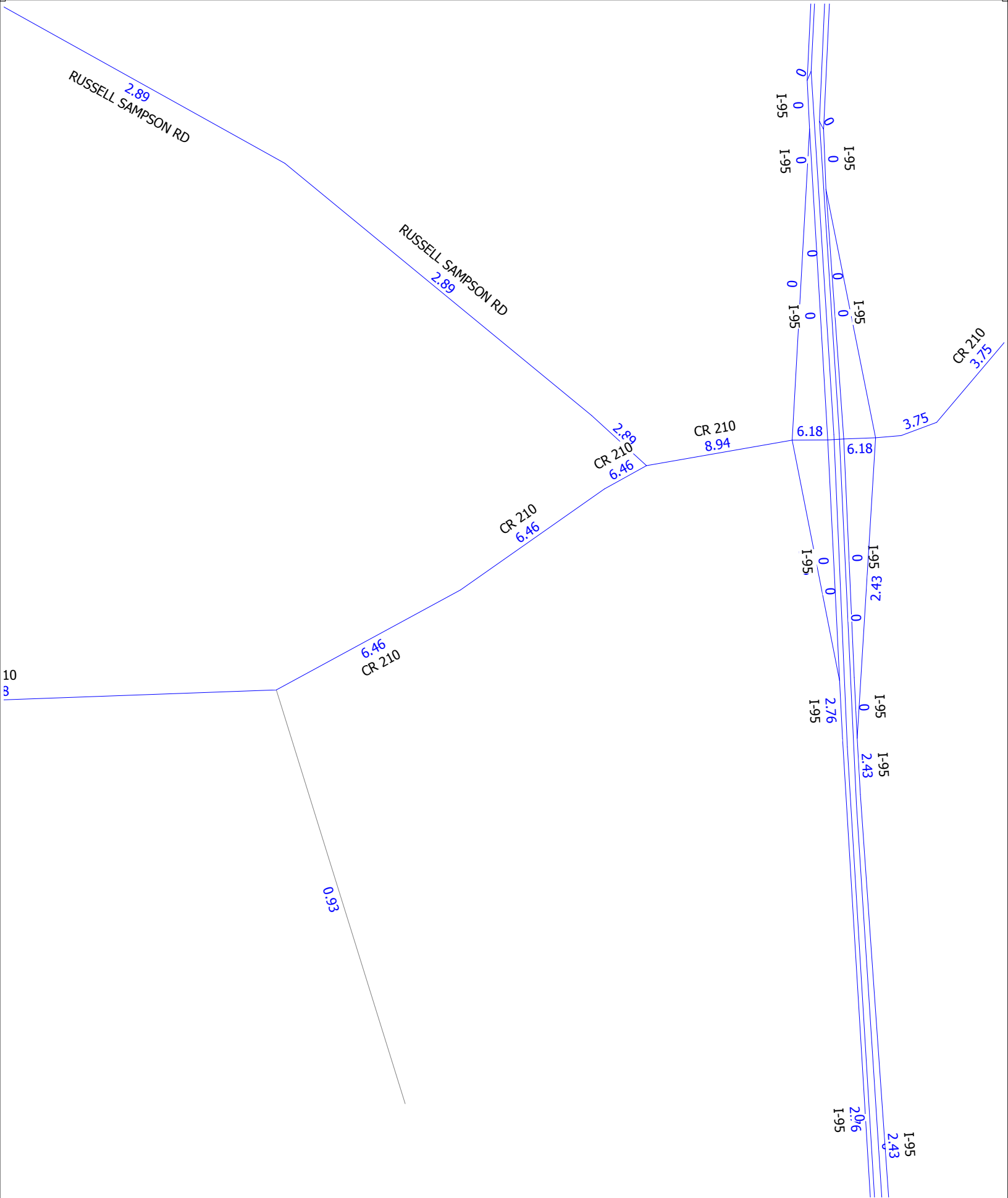


Greenbriar Downs  
Phase 2 - Residential Project Traffic Distribution  
NERPM\_ABv3

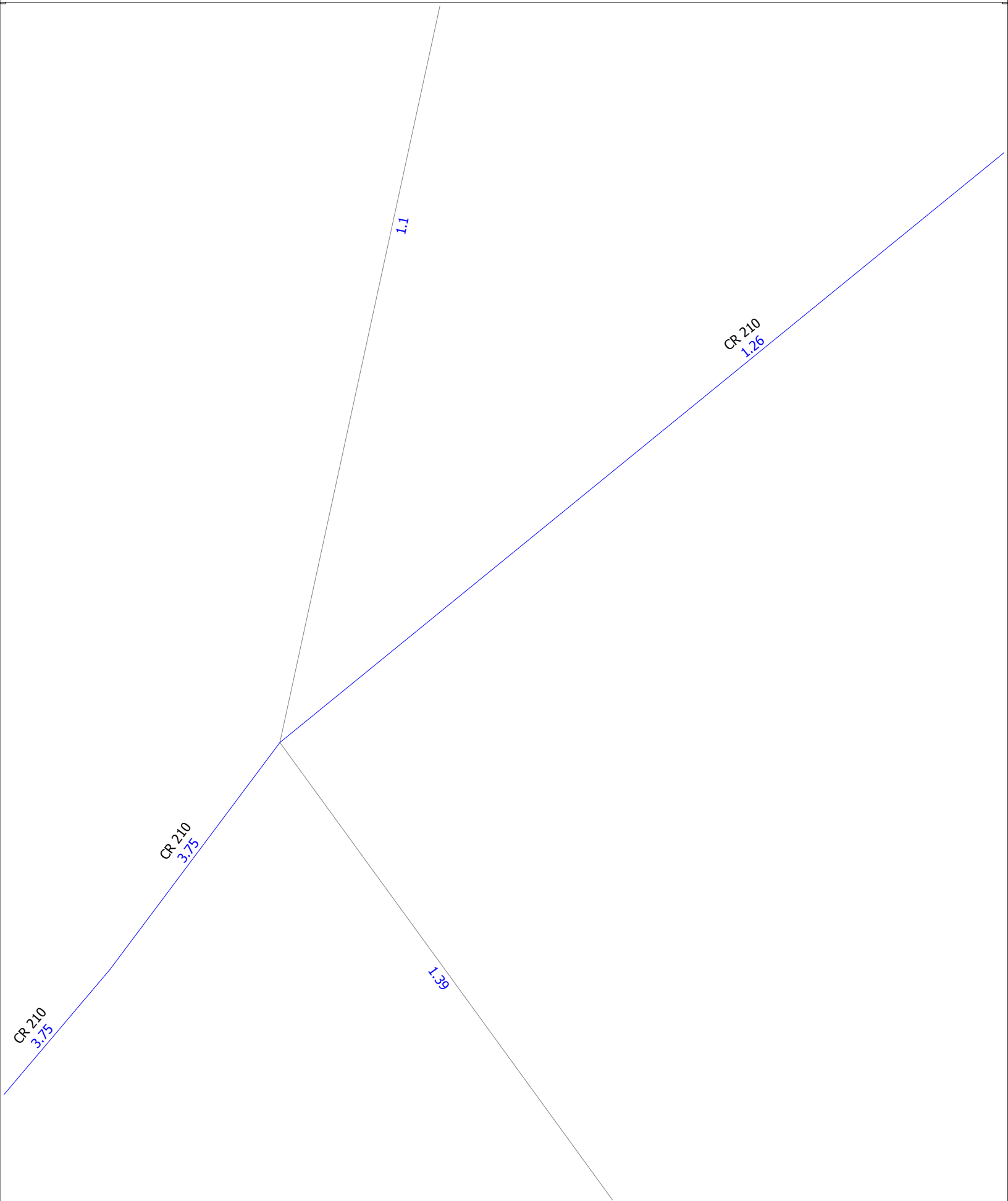


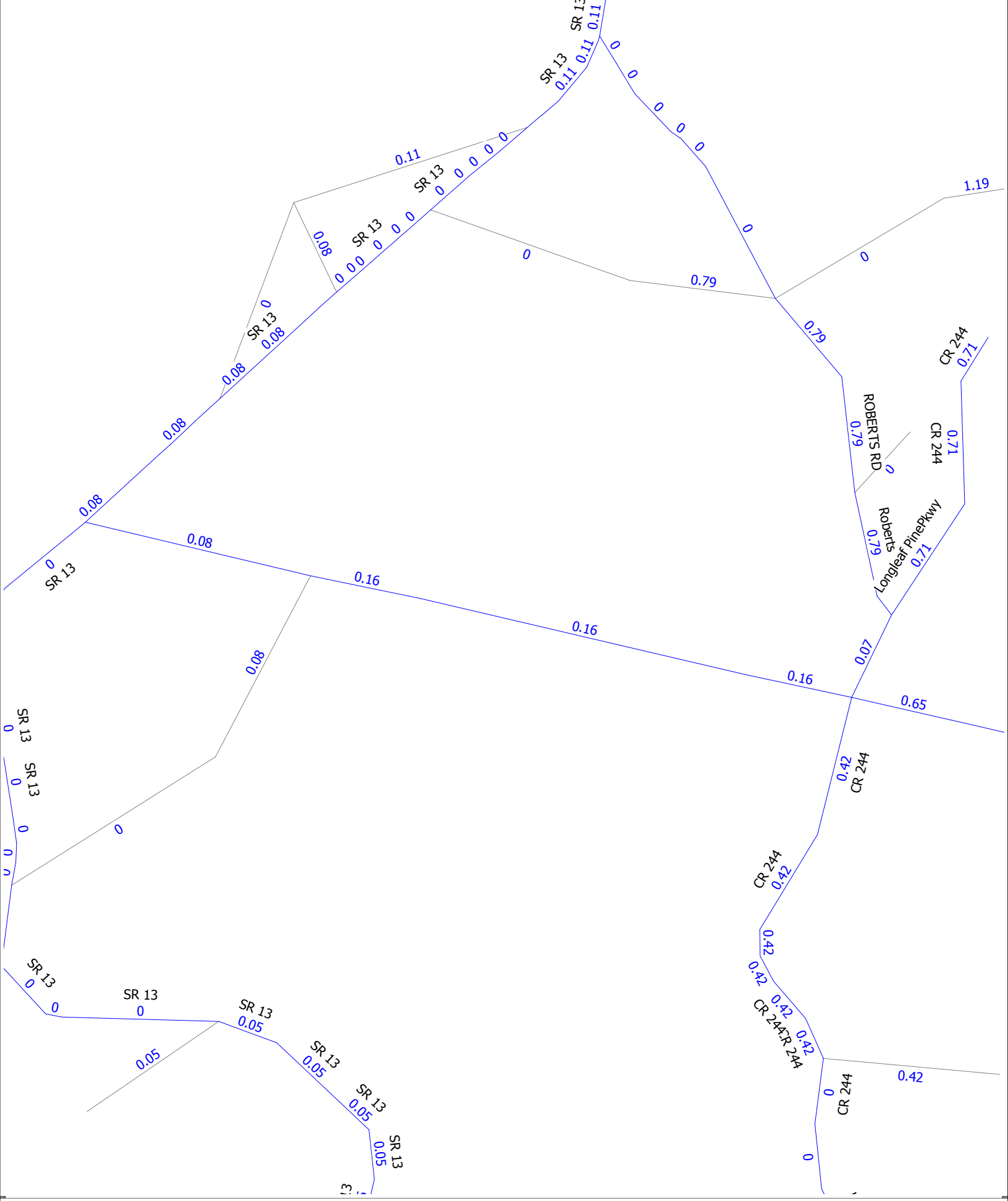
Greenbriar Downs  
Phase 2 - Residential Project Traffic Distribution  
NERPM\_ABv3





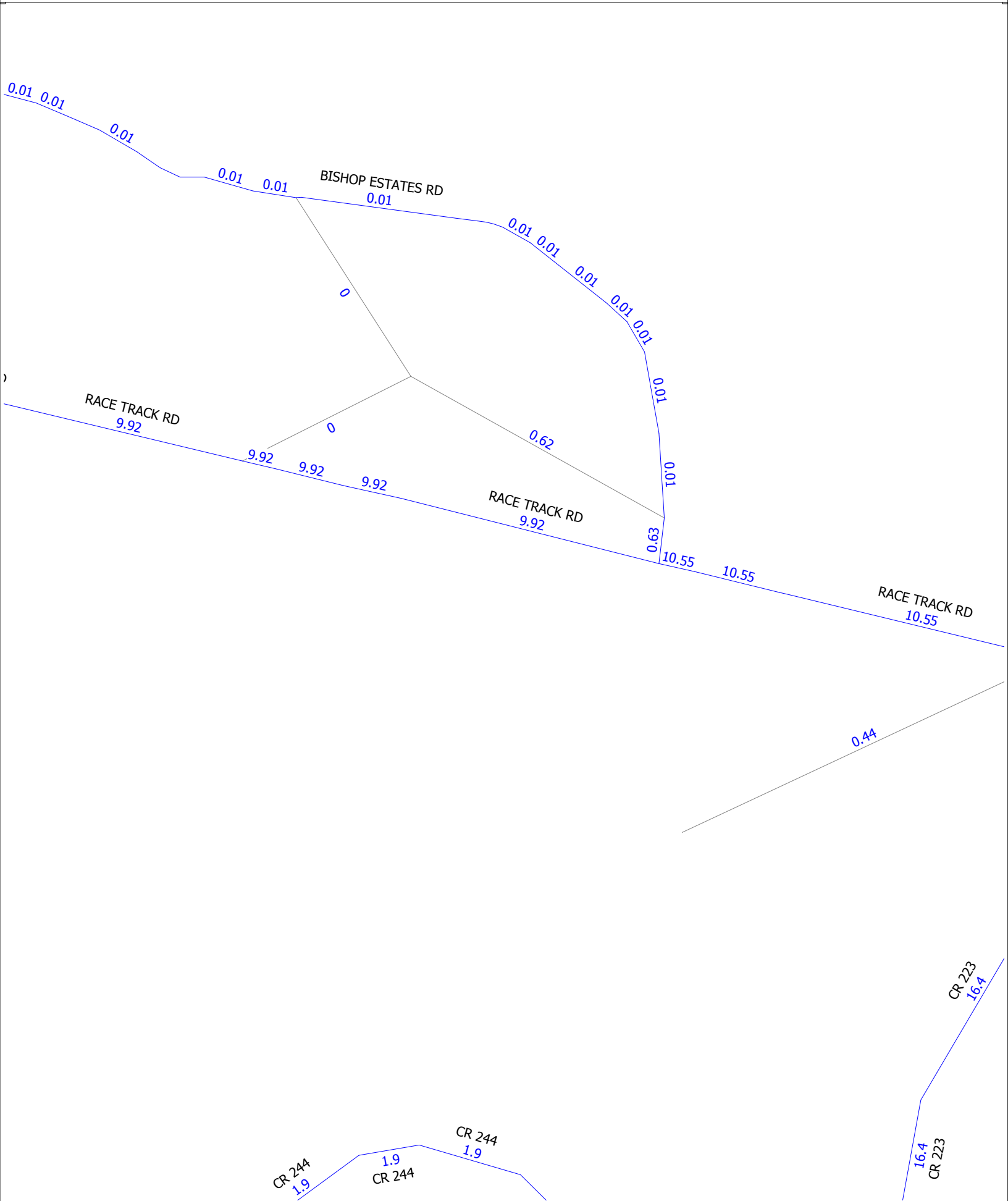


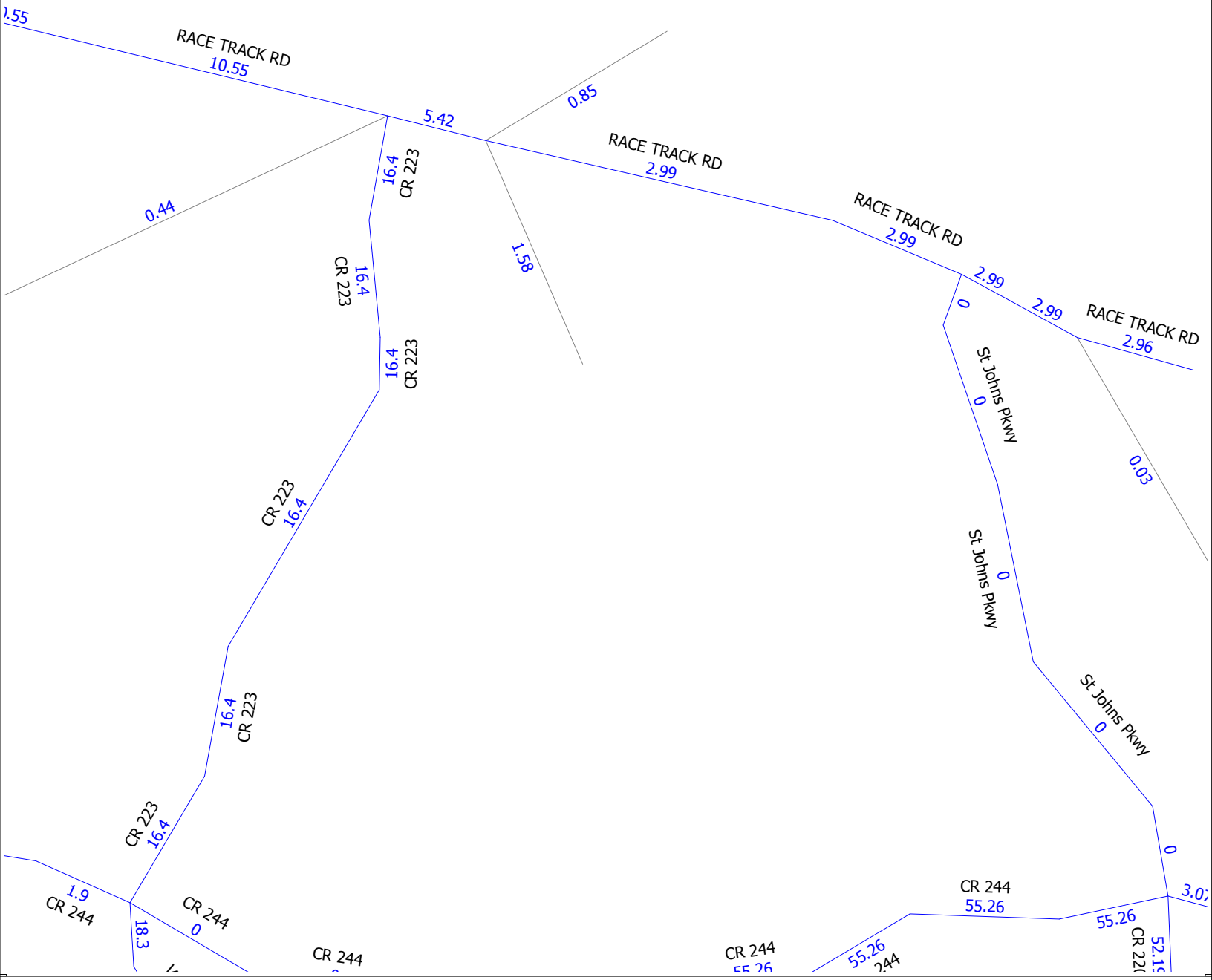




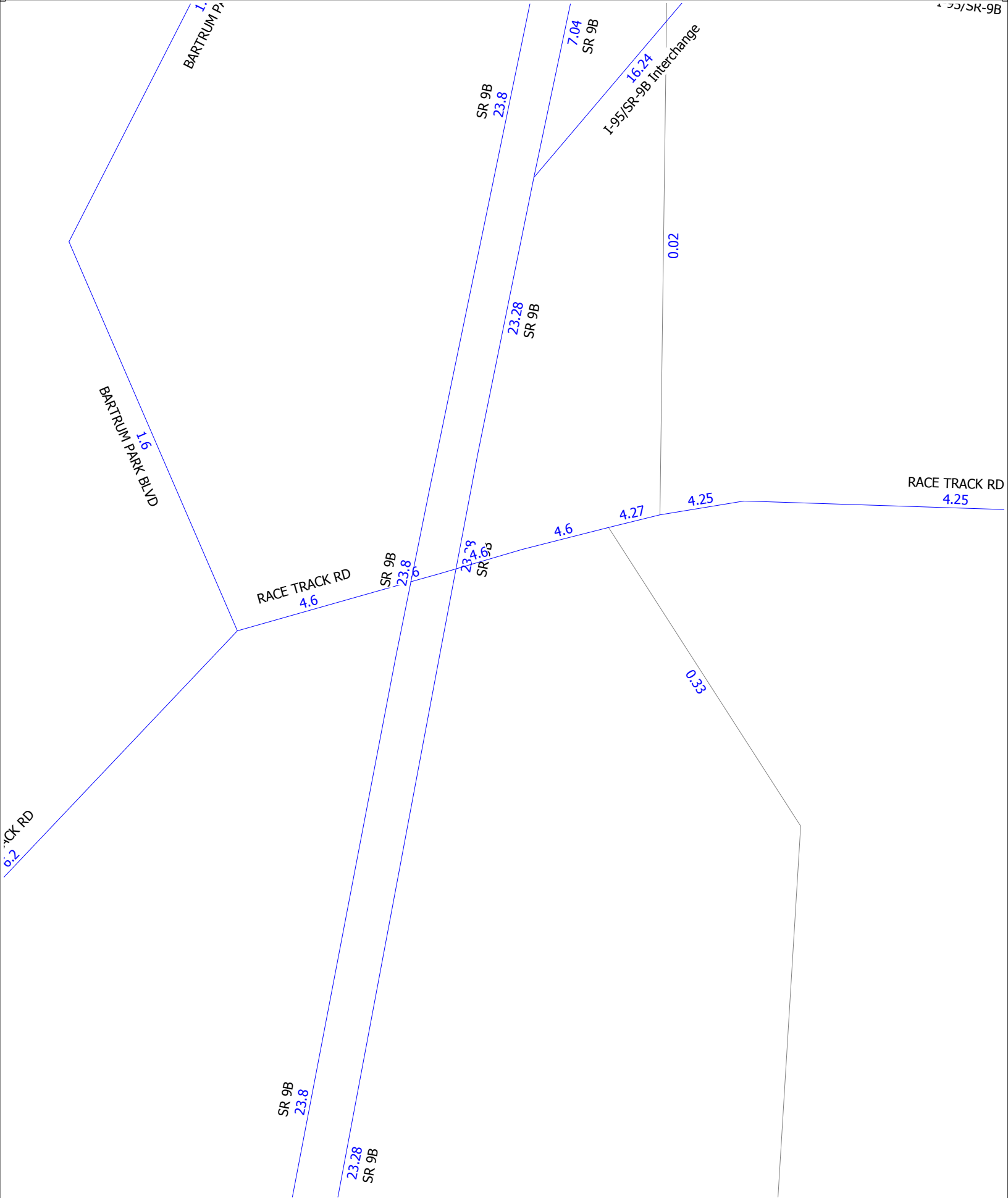


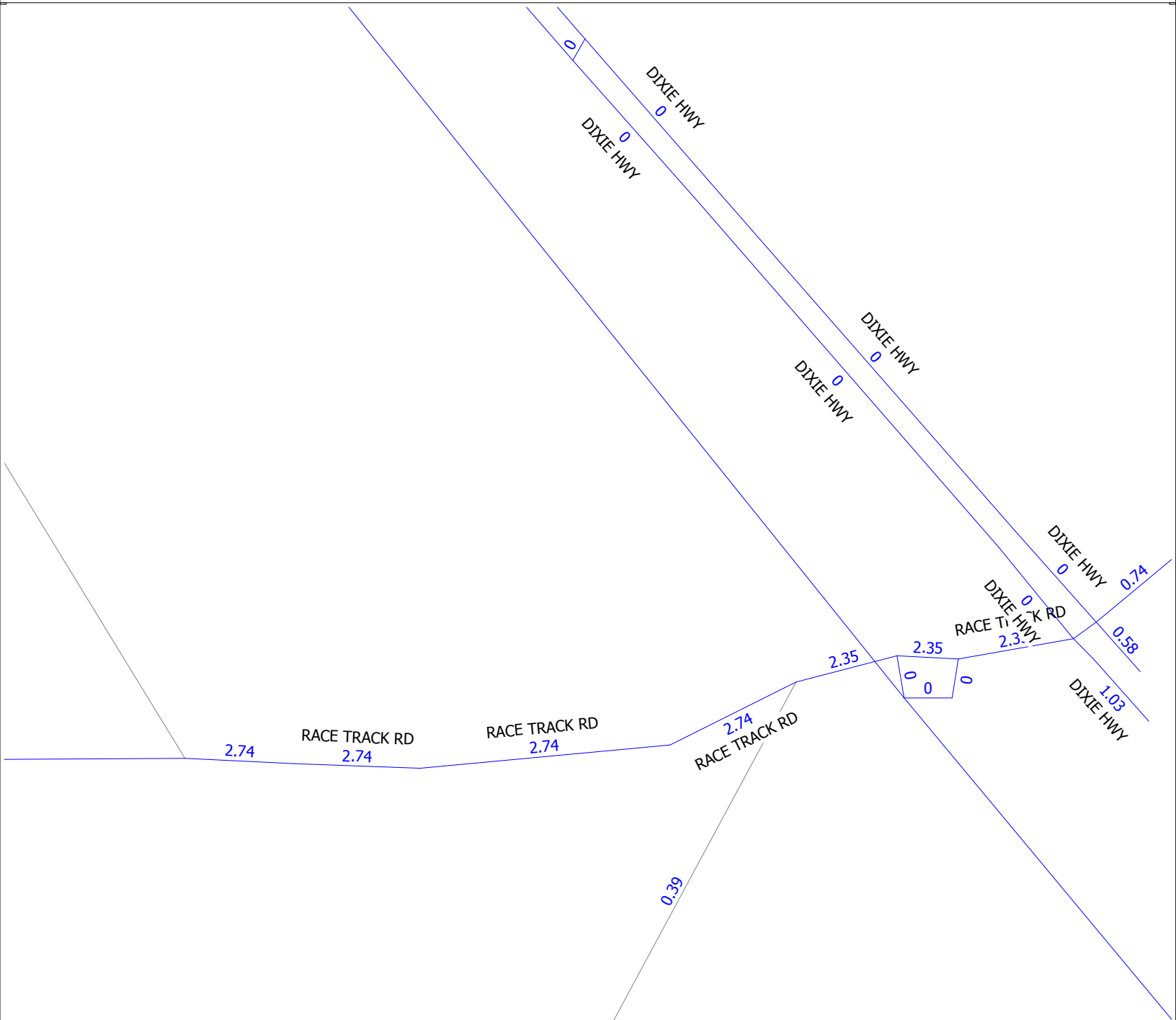
Greenbriar Downs  
Phase 2 - Residential Project Traffic Distribution  
NERPM\_ABv3





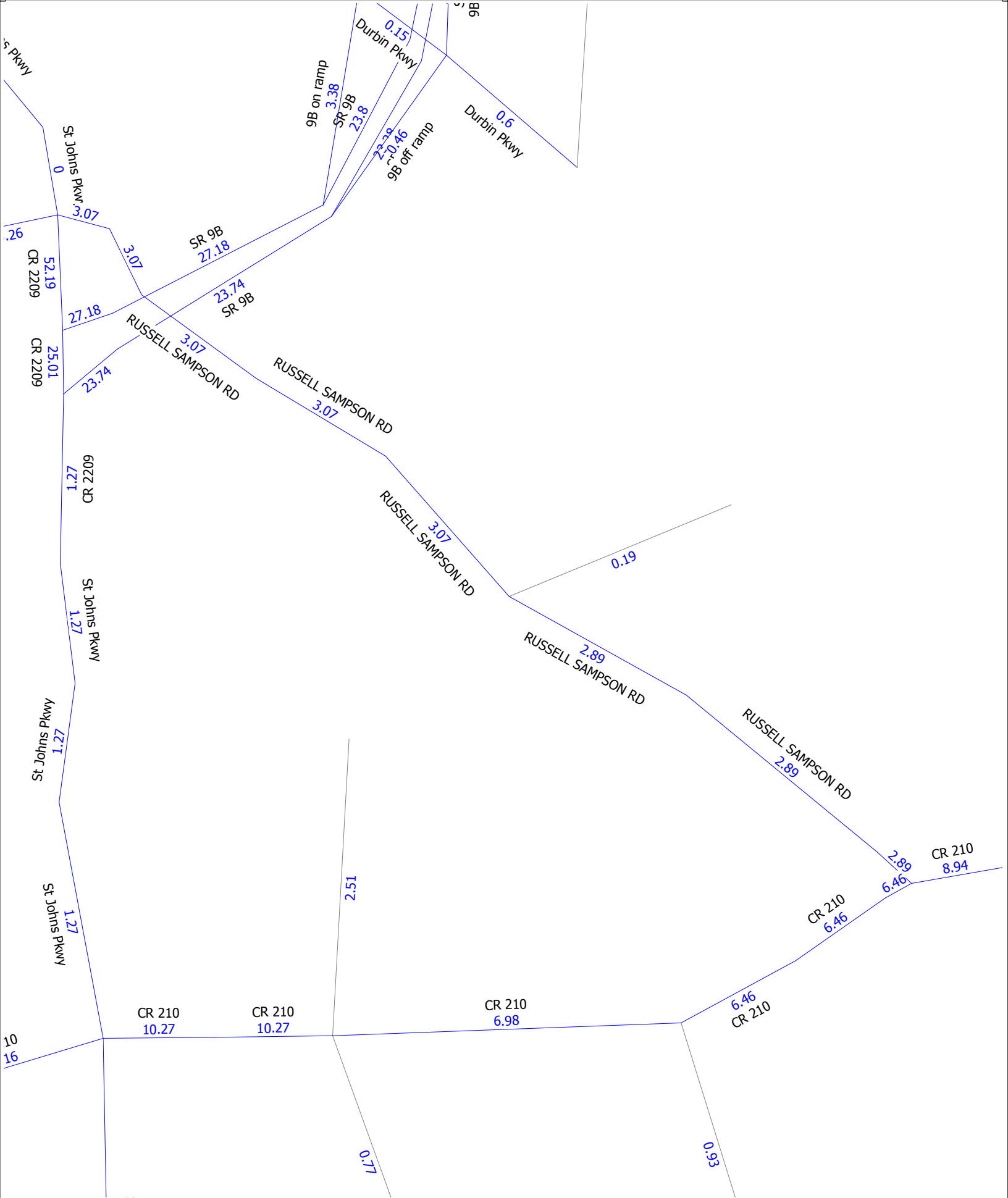






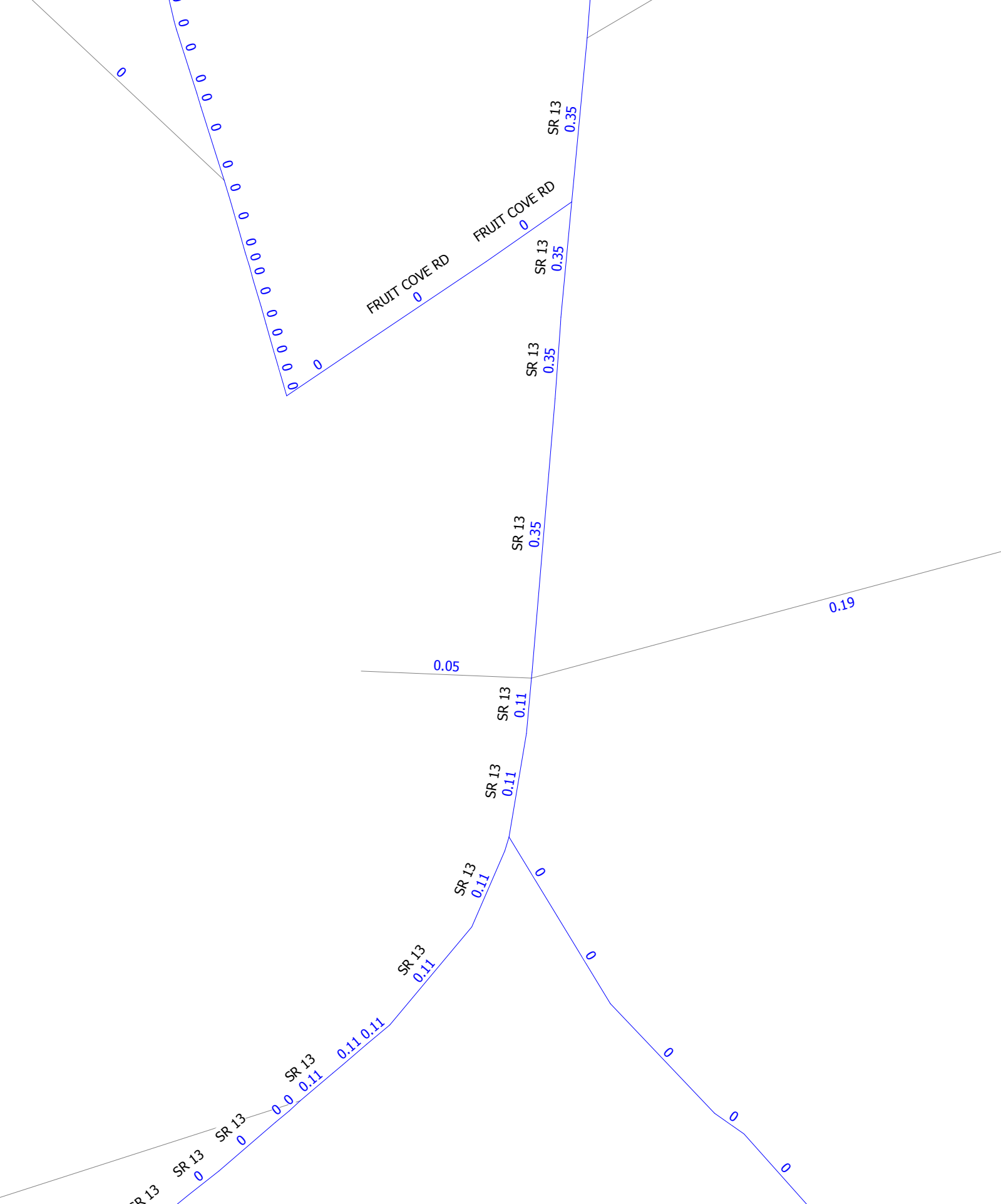


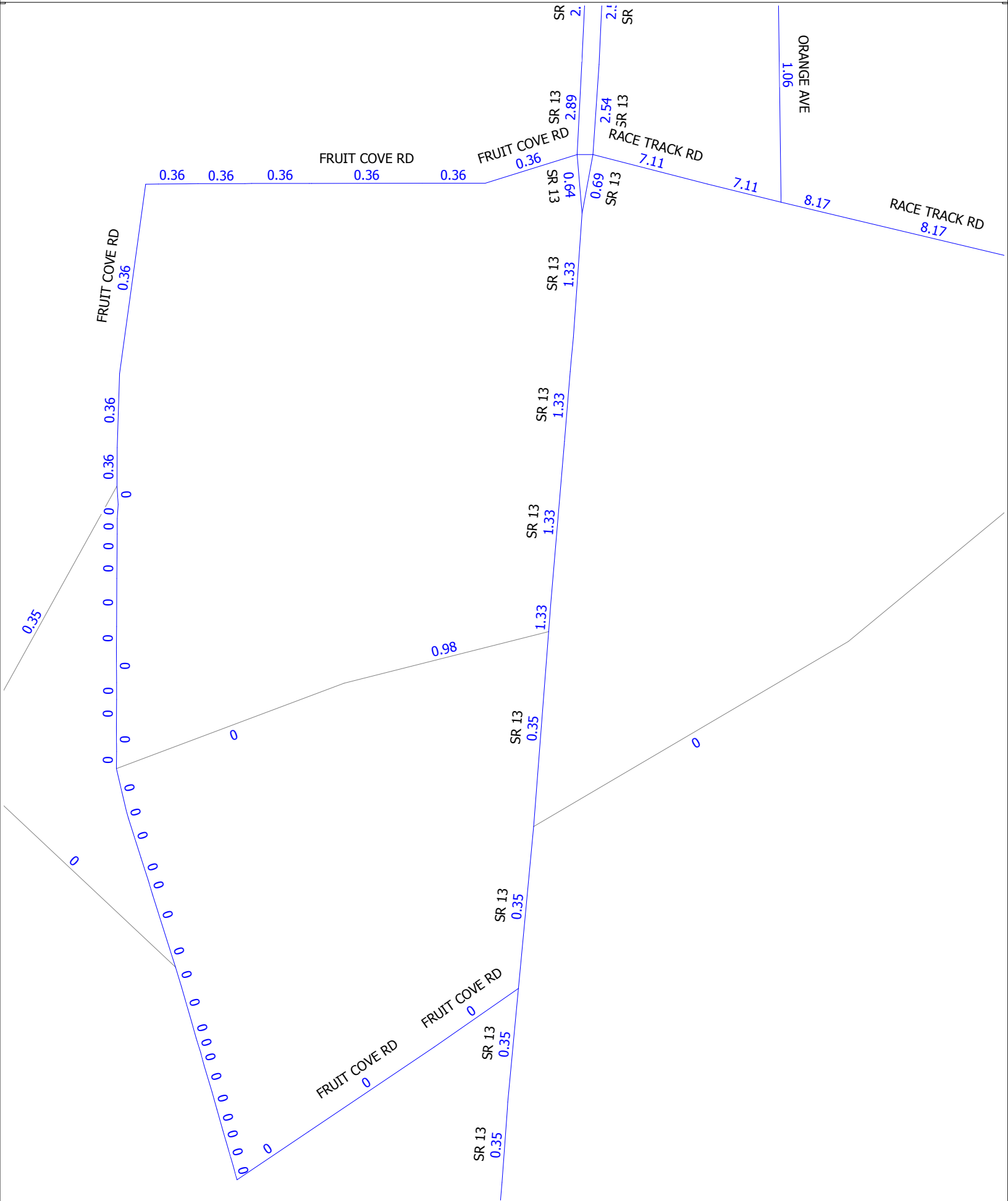
Greenbriar Downs  
 Phase 2 - Residential Project Traffic Distribution  
 NERPM\_ABv3

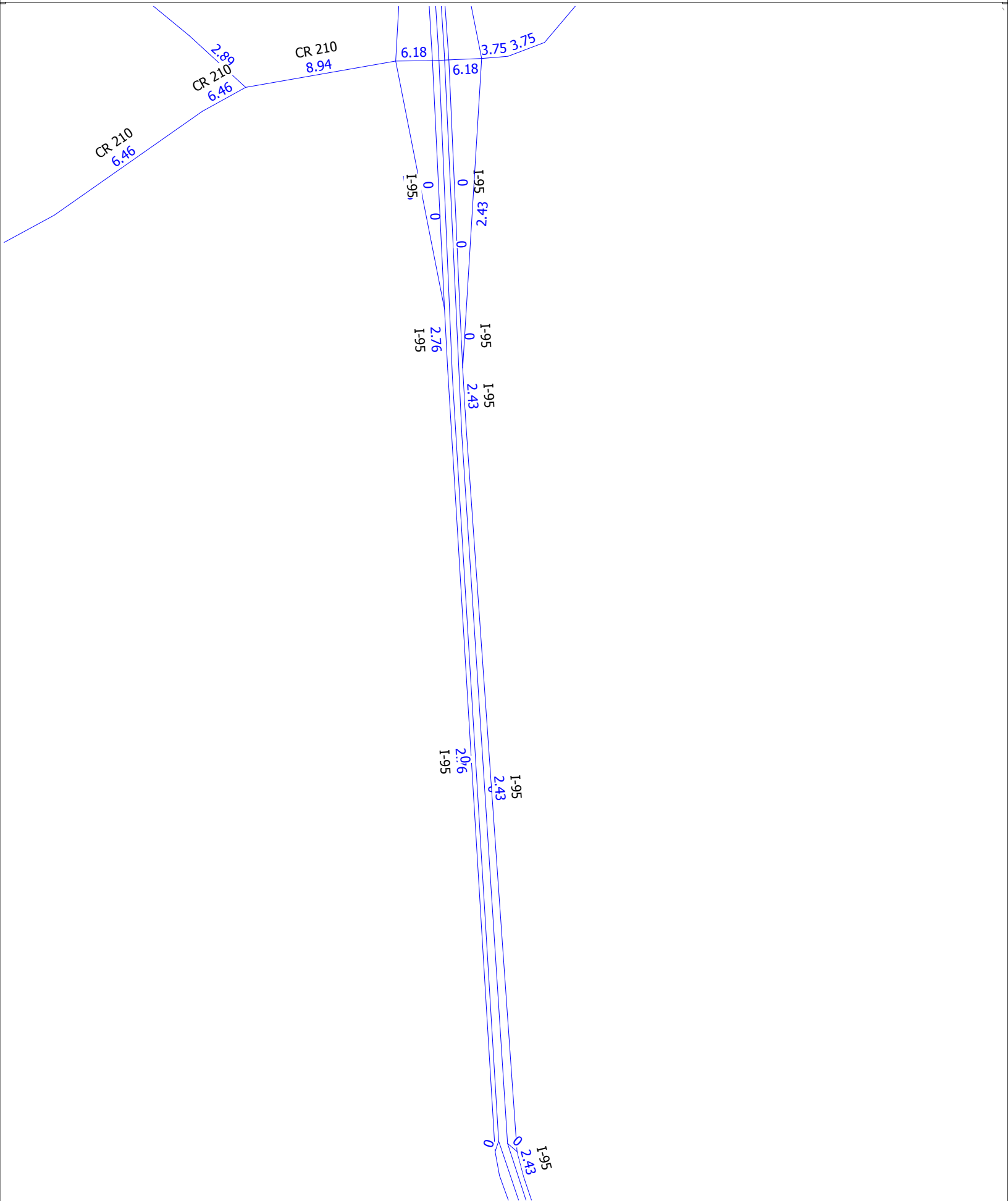


Greenbriar Downs  
Phase 2 - Residential Project Traffic Distribution

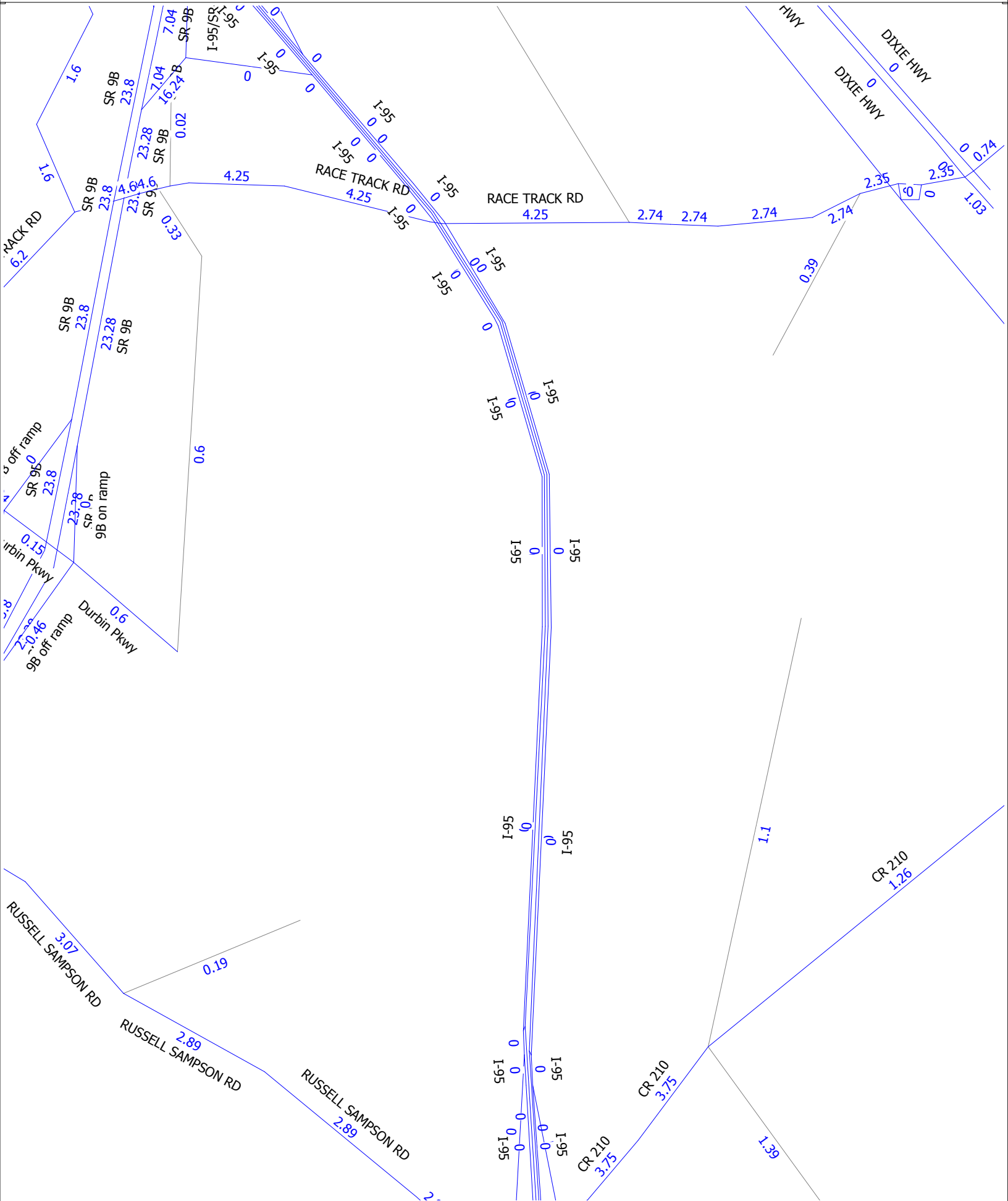
NERPM\_Abv3



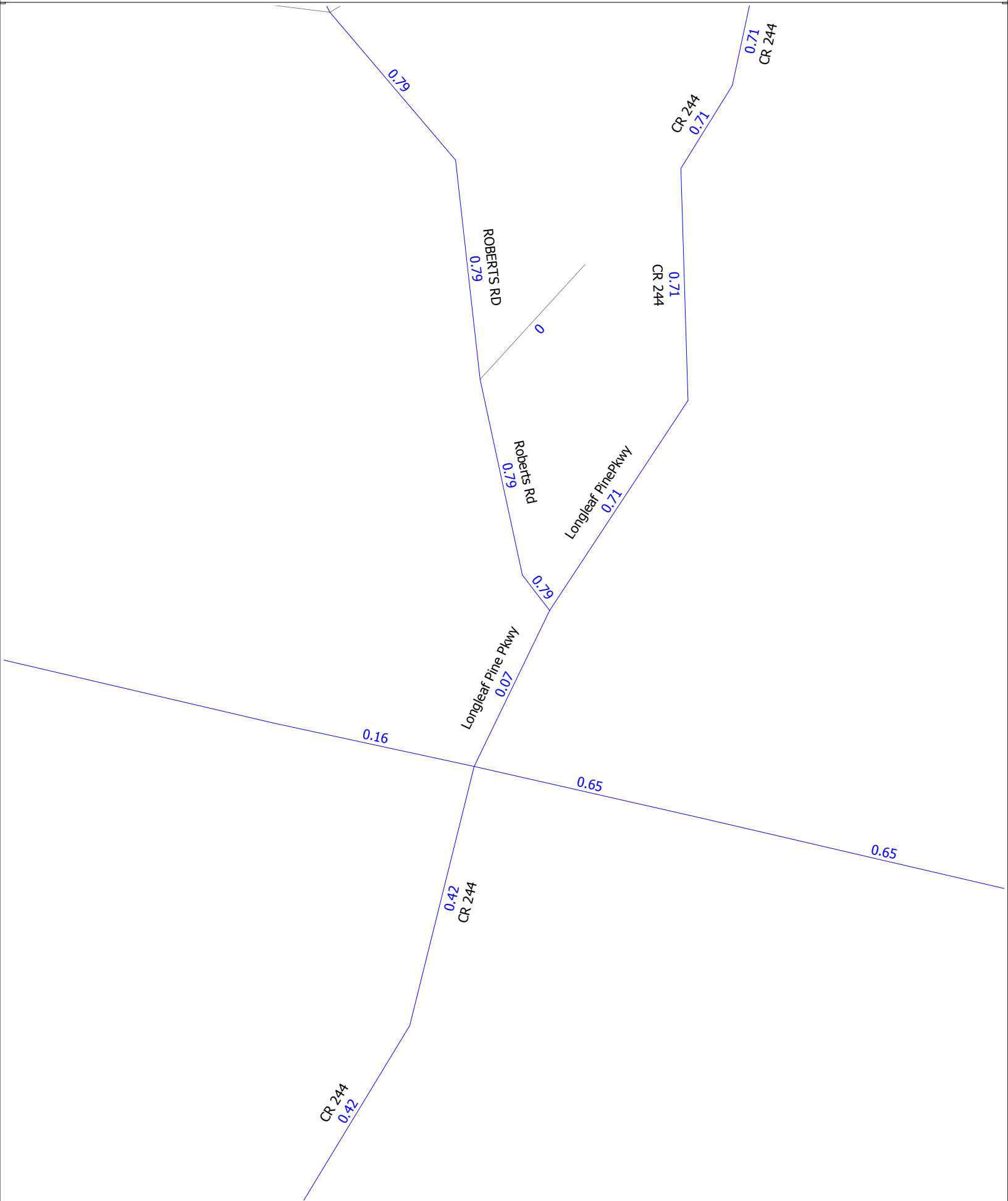


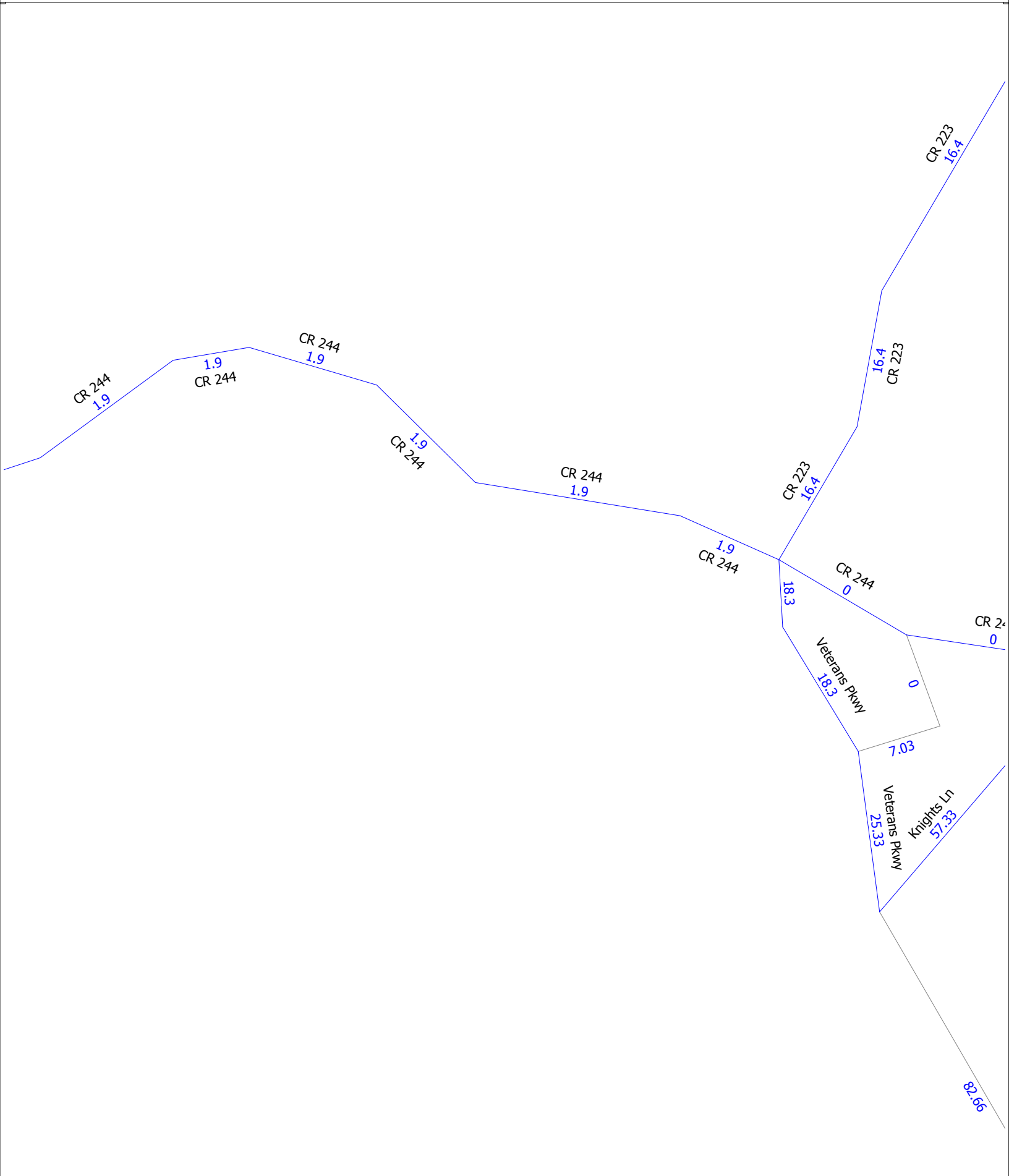


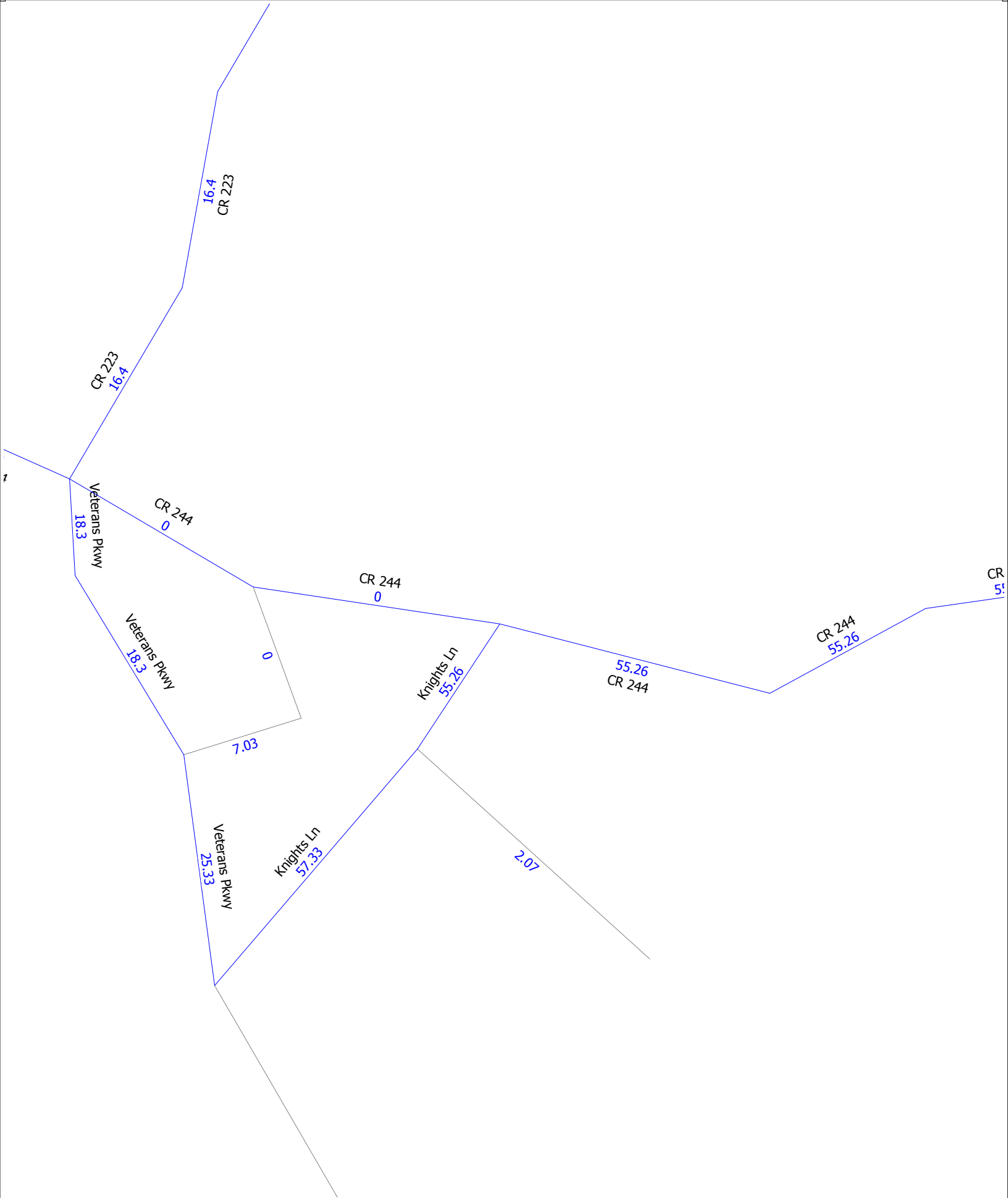
Greenbriar Downs  
 Phase 2 - Residential Project Traffic Distribution  
 NERPM\_ABv3

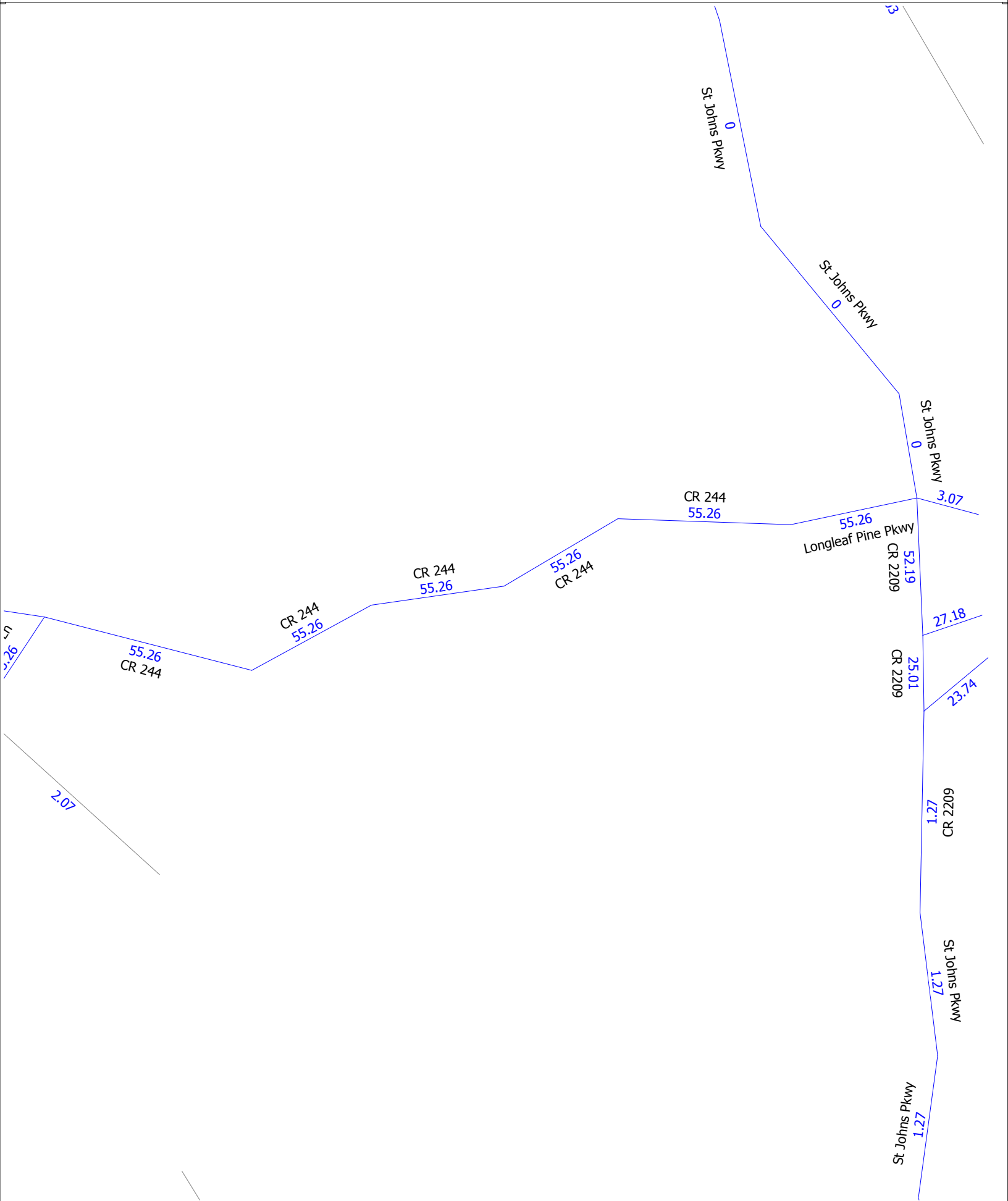




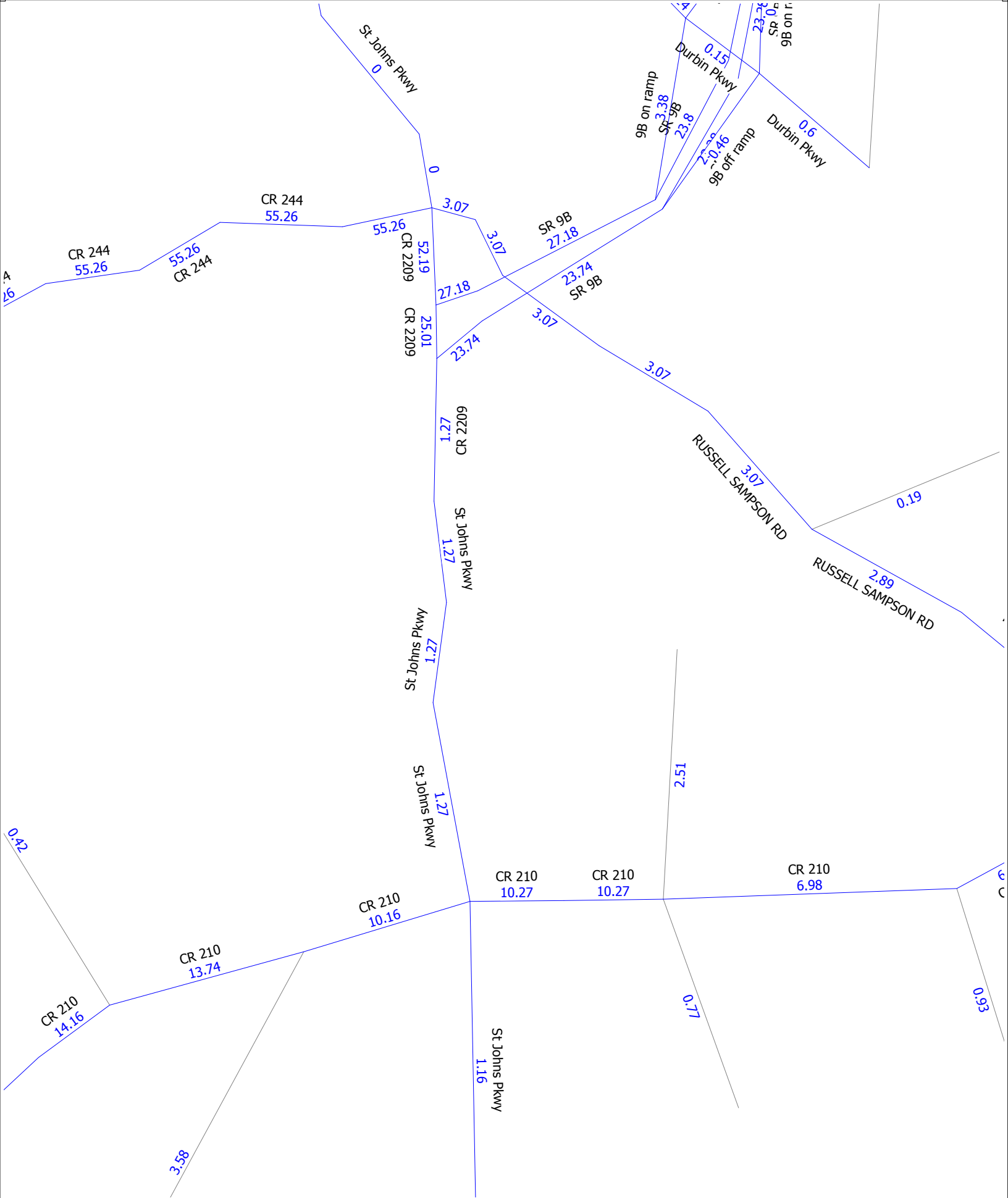


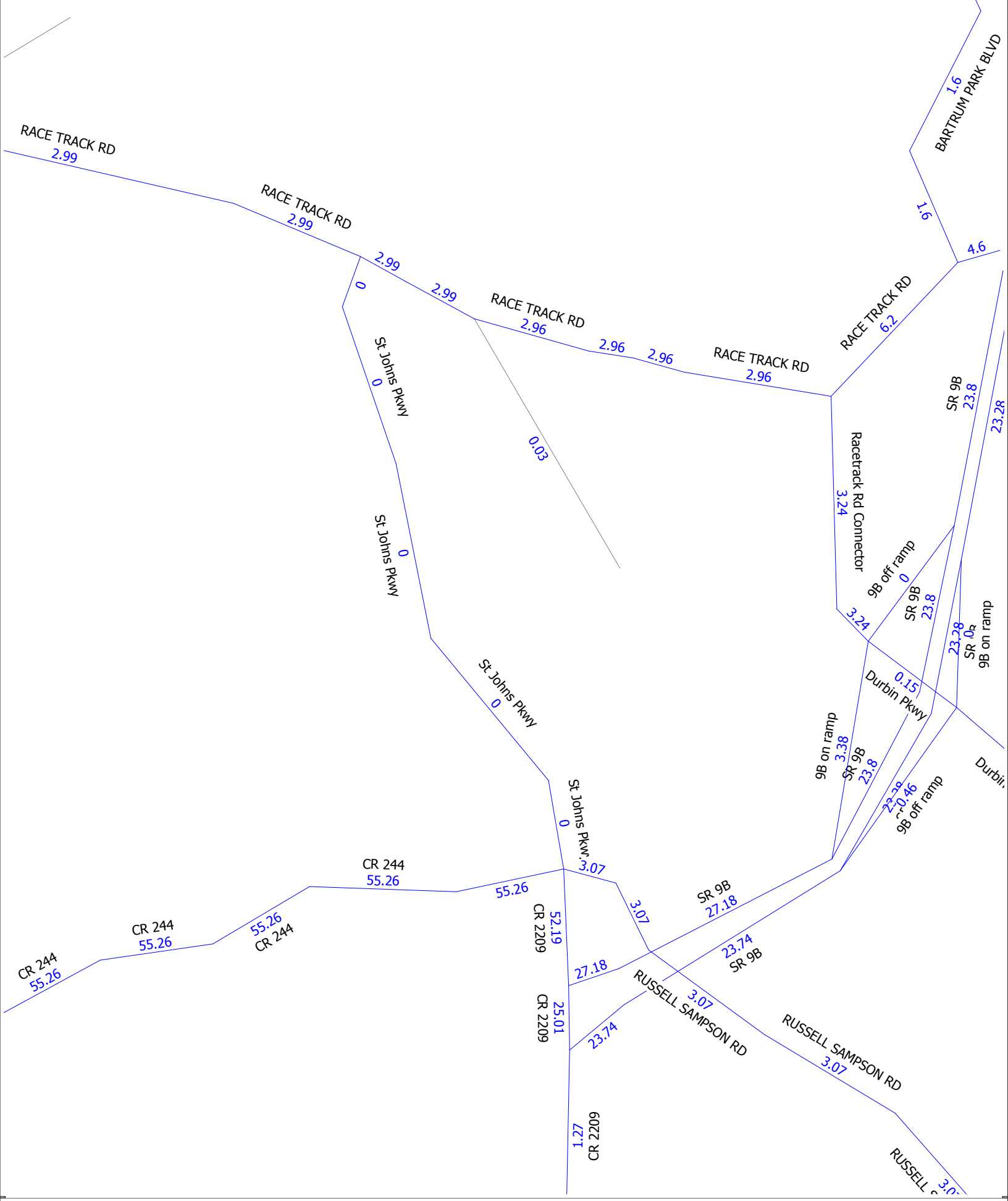




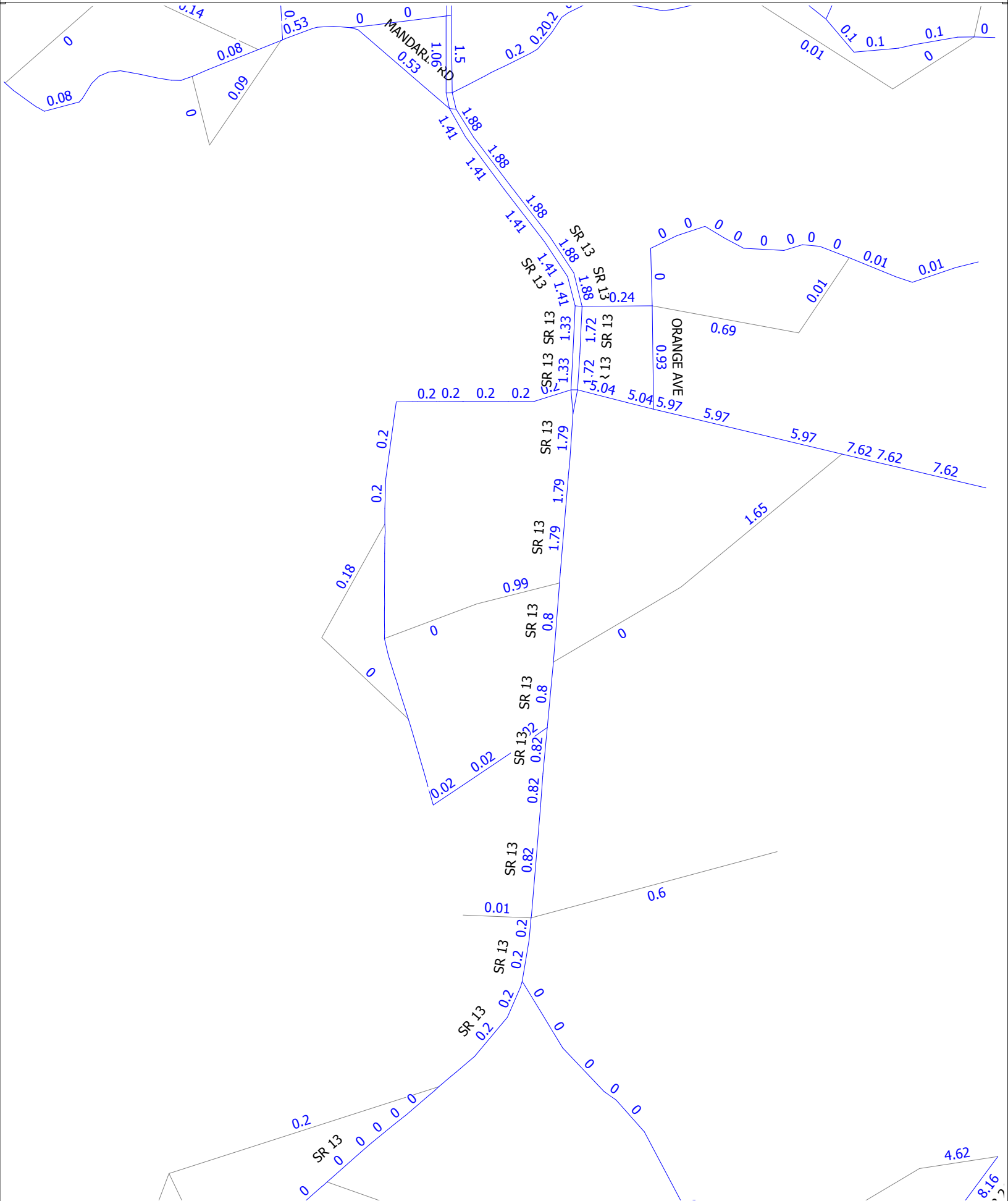


Greenbriar Downs  
Phase 2 - Residential Project Traffic Distribution  
NERPM\_ABv3



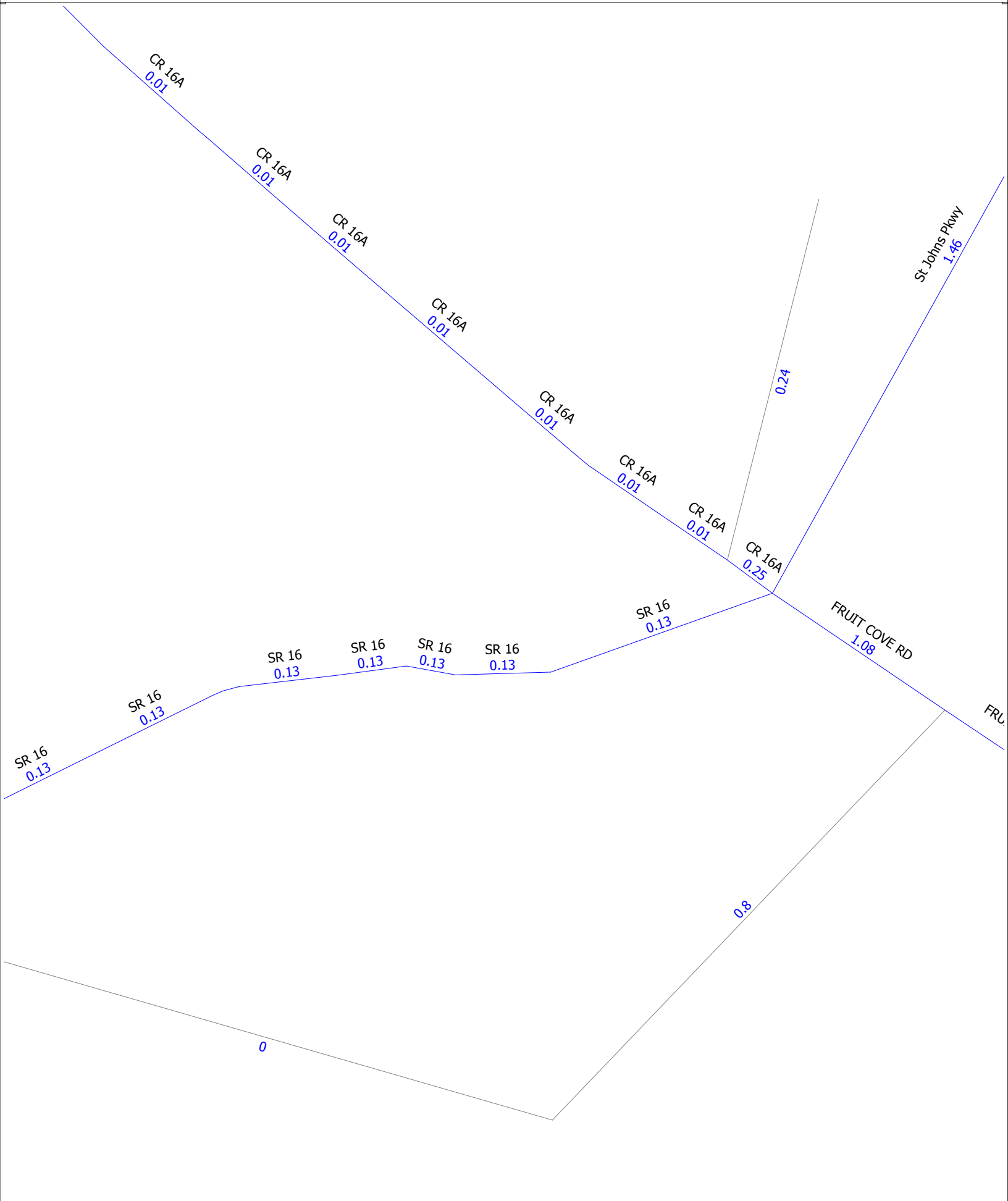


Greenbriar Downs  
Phase 2 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3

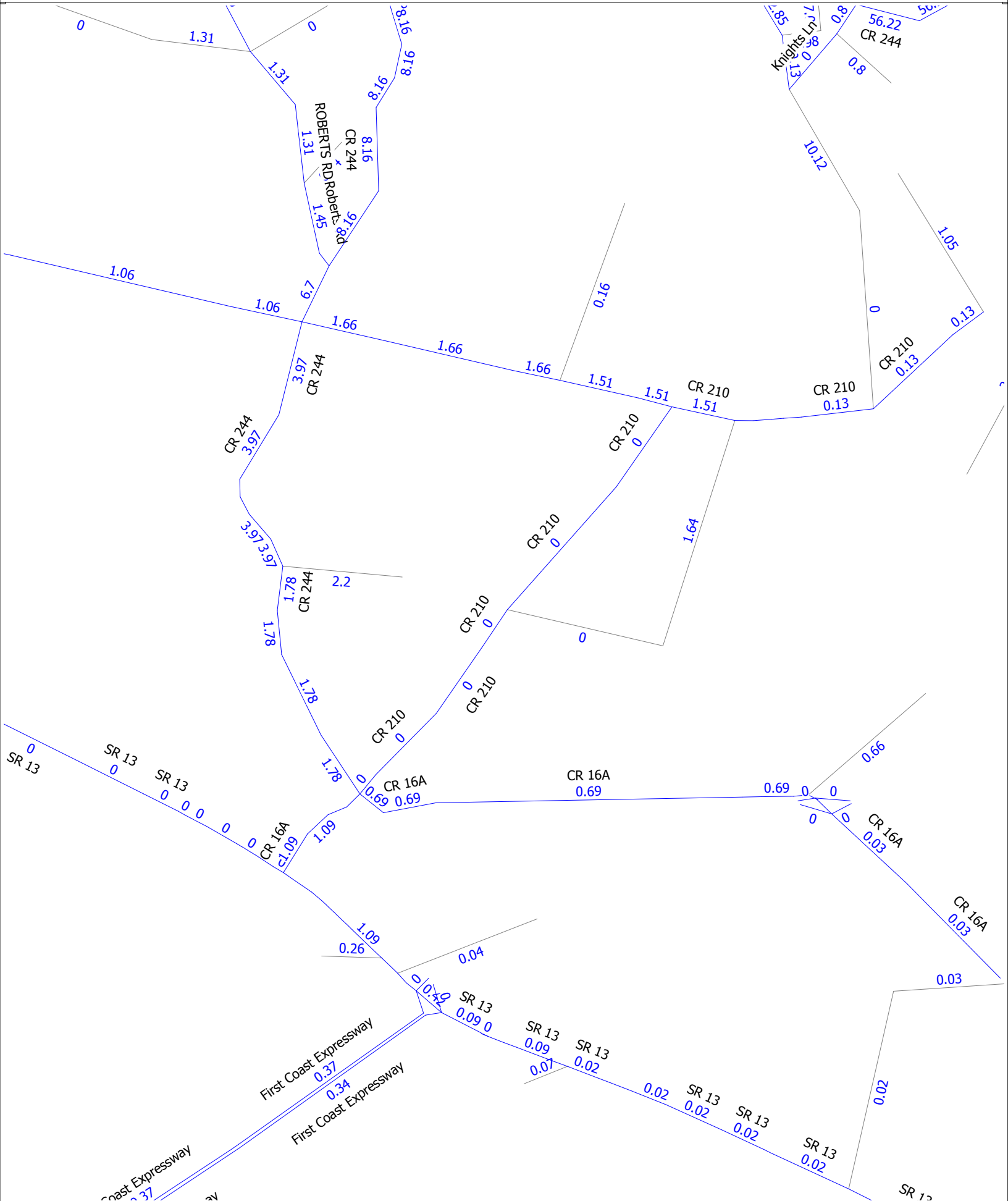




Greenbriar Downs  
Phase 2 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3



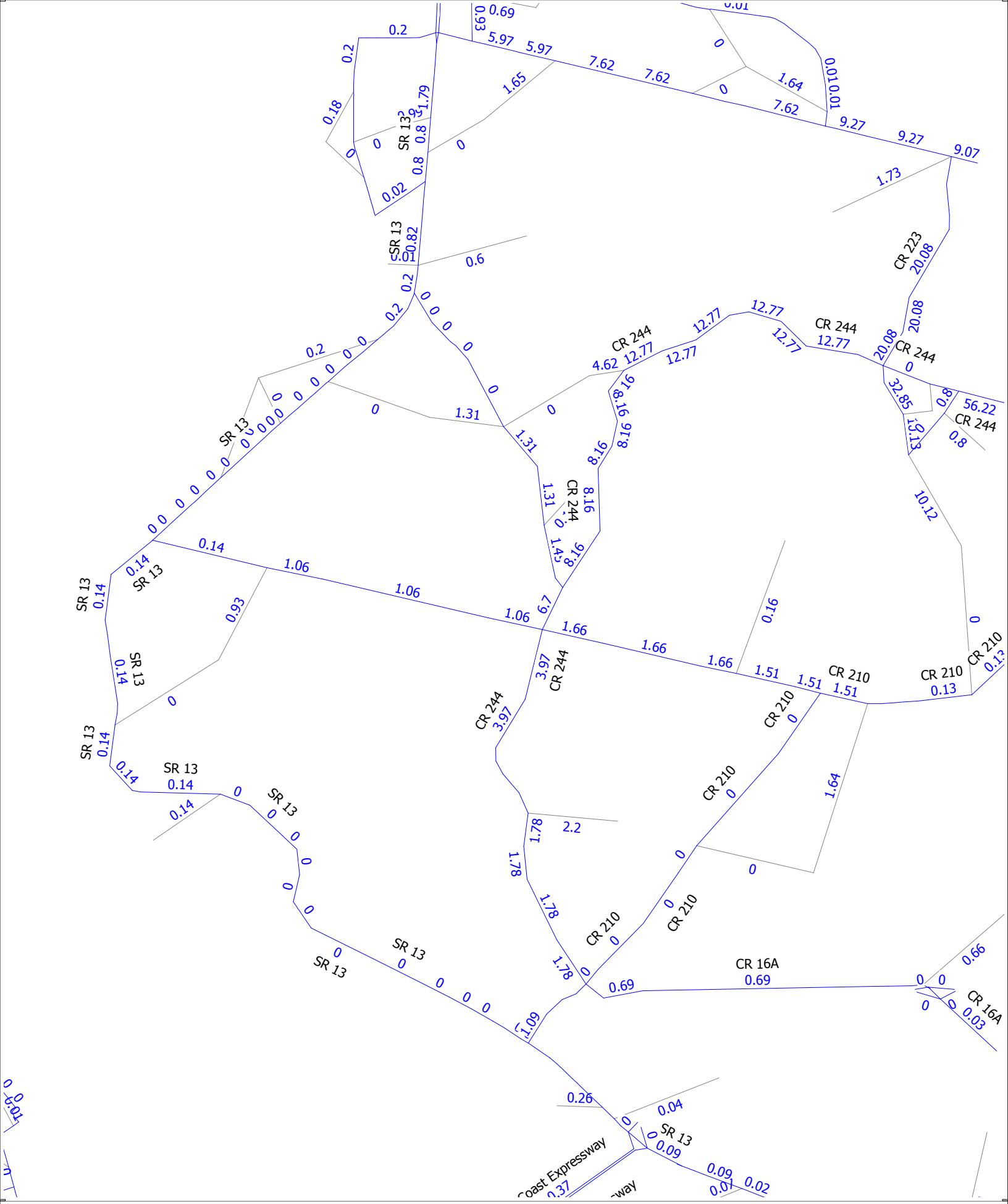
Greenbriar Downs  
 Phase 2 - Non-Residential Project Traffic Distribution  
 NERPM\_ABv3



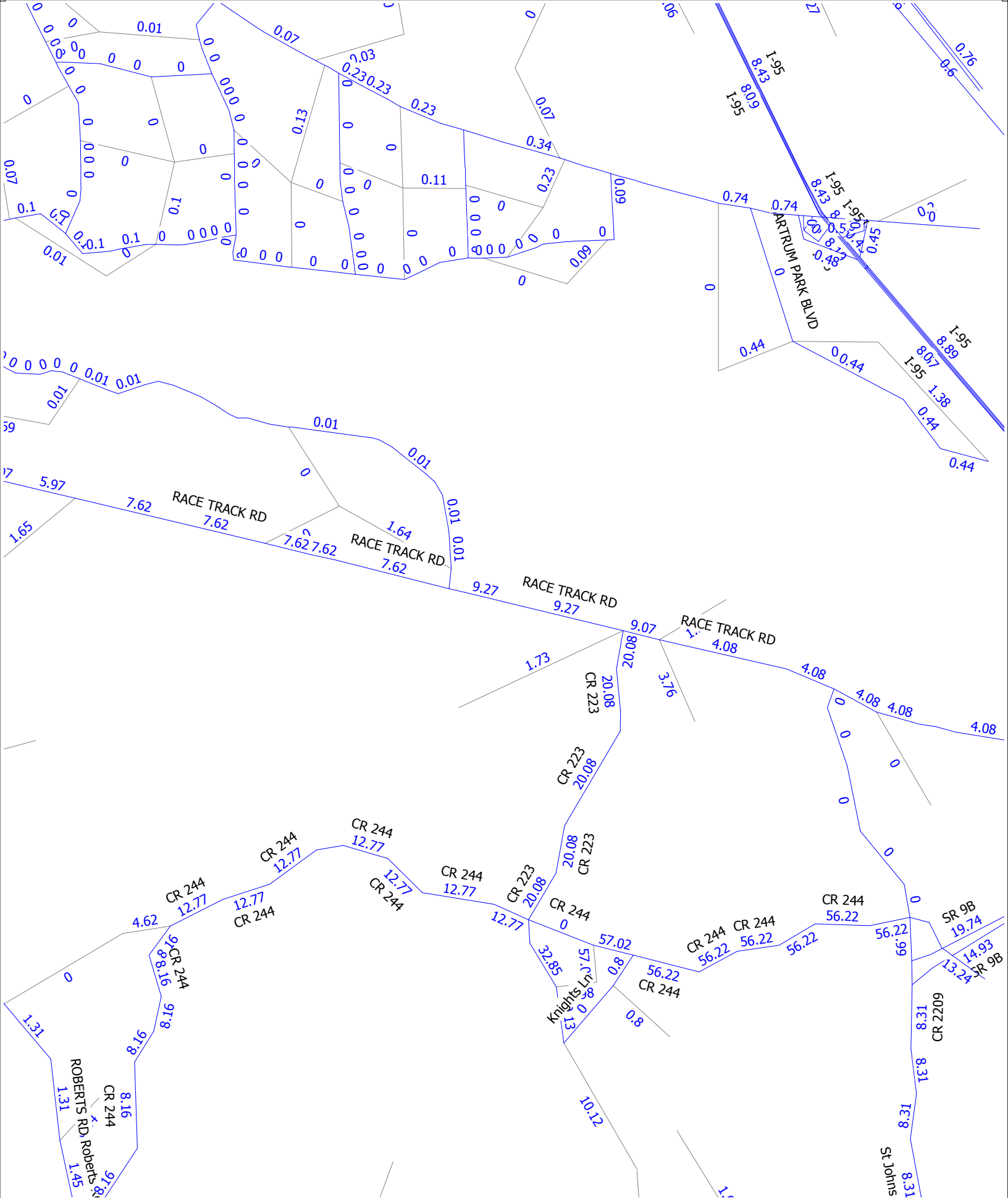


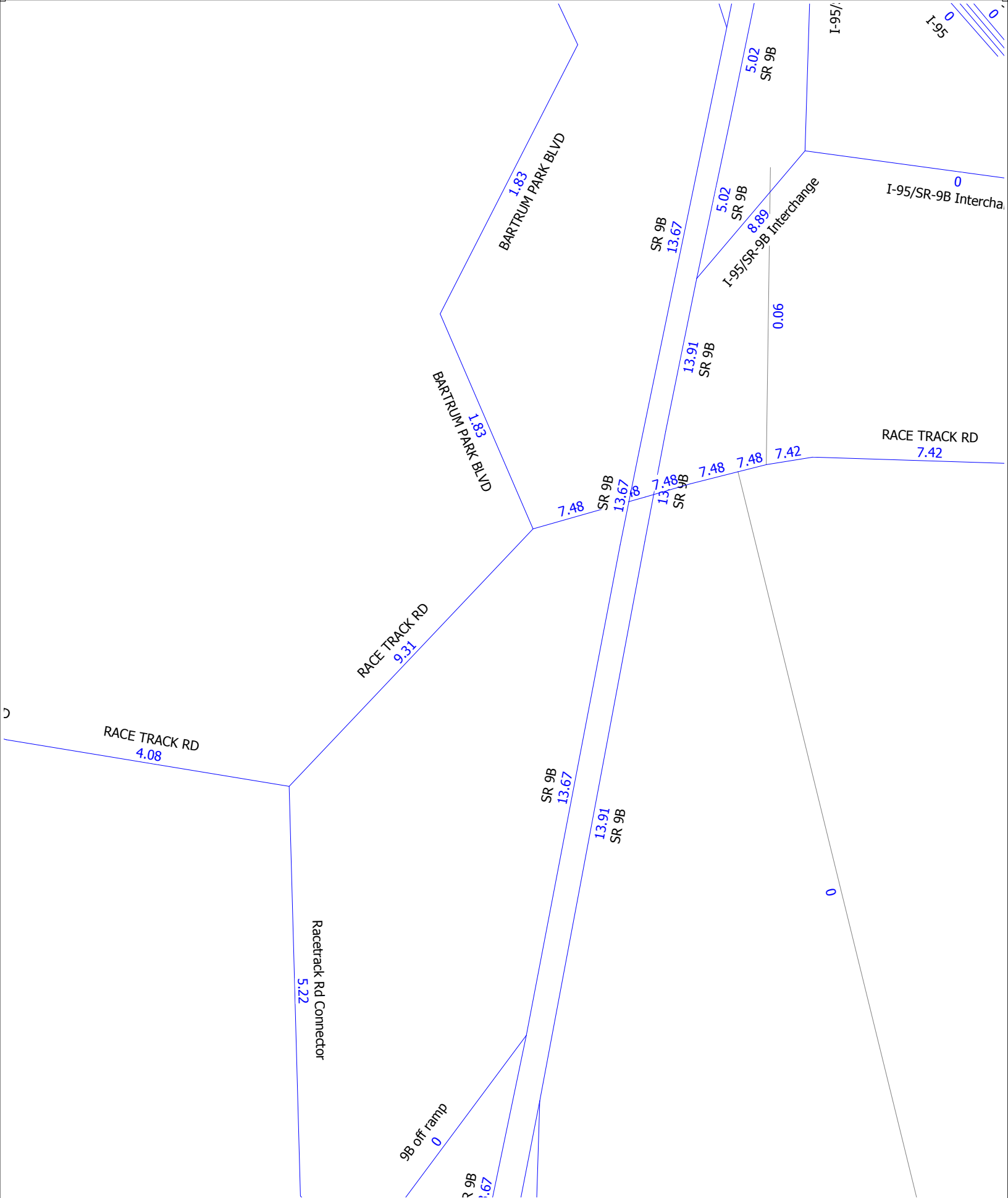




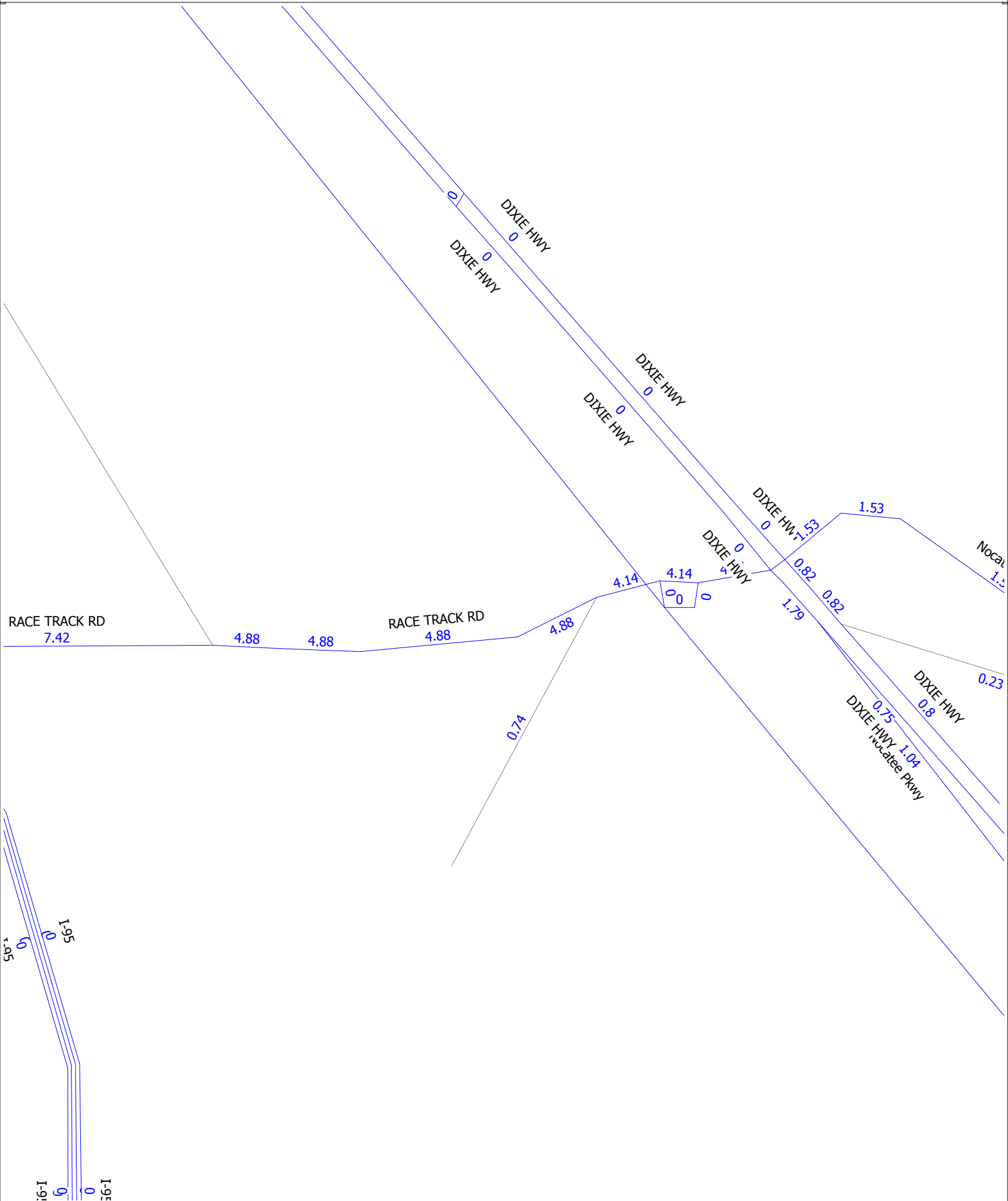


Greenbriar Downs  
Phase 2 - Non-Residential Project Traffic Distribution  
NERPM\_AbV3





Greenbriar Downs  
Phase 2 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3









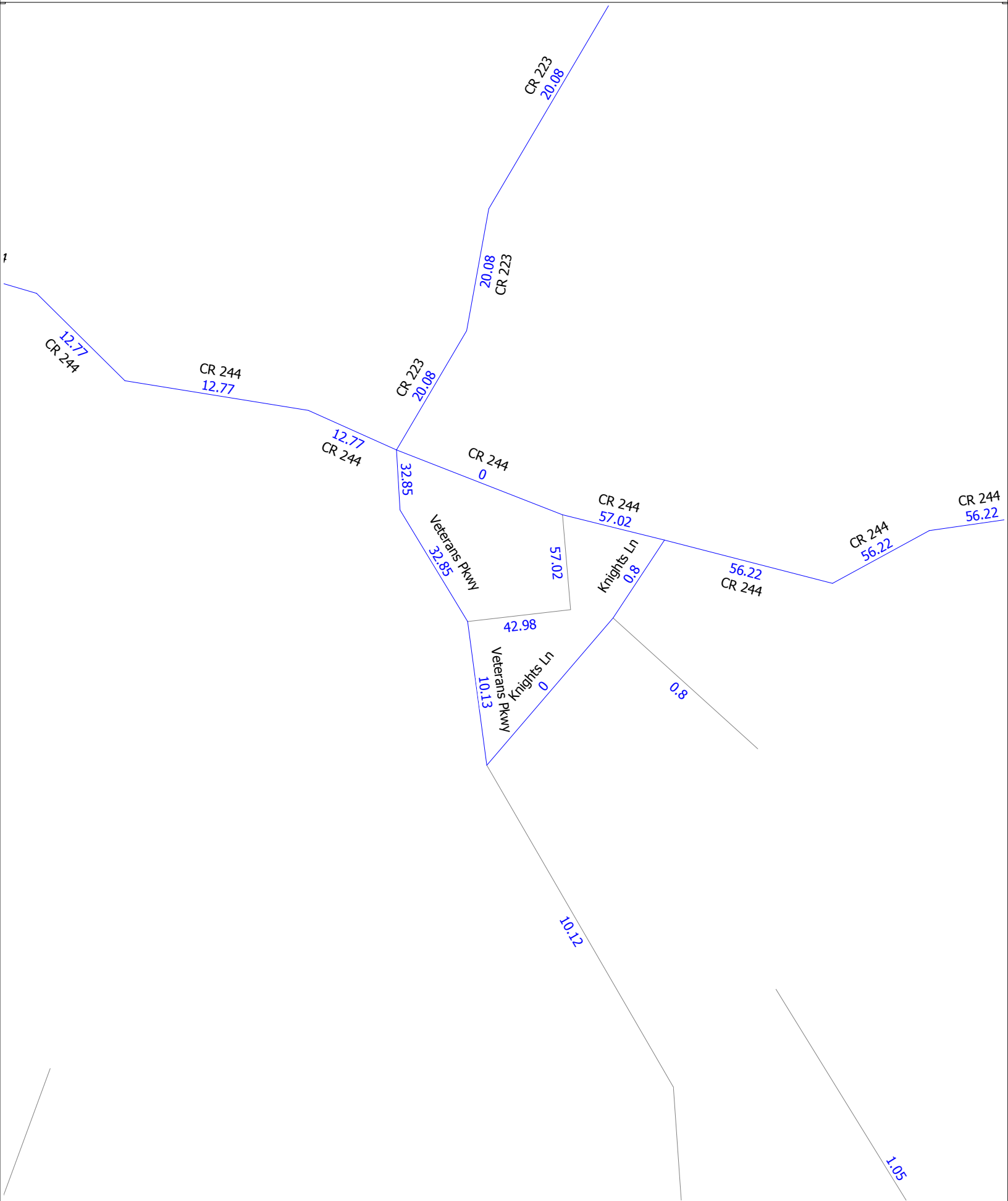








Greenbriar Downs  
Phase 2 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3





Greenbriar Downs  
Phase 2 - Non-Residential Project Traffic Distribution  
NERPM\_ABv3

