

Appendix

Meridian Centre Boulevard Extension Study



Prepared For
The Town Of Brighton

Prepared By
Stantec Consulting Services Inc

Sponsor By
Genesee Transportation Council

July 2007

Appendix - Meridian Centre Boulevard Extension
Town Of Brighton
July 2007

Appendixes

Appendix A - Trip Generation Calculations

Appendix B - GTC Regional Travel Forecasting Model and Results

Appendix C – Synchro 7 - Traffic Analysis CD Files

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Appendix A

Trip Generation Calculations

Summary of Multi-Use Trip Generation
 Average Weekday Driveway Volumes
 March 29, 2007

Land Use	Size	24 Hour Two-Way Volume	AM Pk Hour Enter	AM Pk Hour Exit	PM Pk Hour Enter	PM Pk Hour Exit
Elderly Housing - Attached	160 Occupied Dwelling Units	557	6	6	11	6
Medical-Dental Office Building	58 Th.Gr.Sq.Ft.	2096	114	30	58	158
Total		2653	120	36	69	164

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation
 Saturday and Sunday Driveway Volumes
 March 29, 2007

Land Use	Size	Saturday			Sunday		
		24 Hr	Peak Hour	24 Hr	Peak Hour	24 Hr	Peak Hour
		2-Way Vol.	Enter	Exit	2-Way Vol.	Enter	Exit
Elderly Housing - Attached	160 Occupied Dwelling Units	402	0	0	432	0	0
Medical-Dental Office Building	58 Th.Gr.Sq.Ft.	520	120	90	90	12	11
Total		922	120	90	522	12	11

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation
 Average Weekday Driveway Volumes
 February 09, 2007

Land Use	Size	24 Hour Two-Way Volume	AM Pk Hour Enter	Hour Exit	PM Pk Hour Enter	Hour Exit
Single Family Detached Housing						
	50 Dwelling Units	550	11	33	36	21
Low-Rise Apartment	225 Occupied Dwelling Units	1540	22	84	90	48
Residential Condominium / Townhouse						
	70 Dwelling Units	474	7	32	30	15
Residential Condominium / Townhouse						
	67 Dwelling Units	457	6	31	29	14
Rental Townhouse	106 Dwelling Units	0	24	50	39	37
Total		3021	70	230	224	135

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation
 Saturday and Sunday Driveway Volumes
 February 09, 2007

Land Use	Size	Saturday			Sunday		
		24 Hr 2-Way Vol.	Peak Hour Enter	Hour Exit	24 Hr 2-Way Vol.	Peak Hour Enter	Hour Exit
Single Family Detached Housing	50 Dwelling Units	549	30	25	432	27	24
Low-Rise Apartment	225 Occupied Dwelling Units	1585	69	59	1357	65	58
Residential Condominium / Townhouse	70 Dwelling Units	681	34	29	576	32	34
Residential Condominium / Townhouse	67 Dwelling Units	670	34	29	567	32	33
Rental Townhouse	106 Dwelling Units	0	0	0	0	0	0
Total		3485	167	142	2932	156	149

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Average Vehicle Trip Generation
 For 183 Dwelling Units of Single Family Detached Housing
 March 27, 2007

	24 Hour Two-Way Volume	7-9 AM Pk Hour		4-6 PM Pk Hour	
		Enter	Exit	Enter	Exit
Average Weekday	1751	35	102	117	68

	24 hour Two-Way Volume	Peak Hour	
		Enter	Exit
Saturday	1848	93	79
Sunday	1607	84	73

Note: A zero indicates no data available.
 Source: Institute of Transportation Engineers
 Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

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Appendix B

GTC Regional Travel Forecasting Model and Results

Meridian Centre Boulevard Extension Modeling

(Requested by Stantec)

Relating to UPWP Project:

- Meridian Centre Boulevard Extension Study (Task 6631)

Considerations/Variables for Modeling:

- Design (Scenario) Years
 - 2005
 - 2025
- Additional Proposed Improvements
 - Check Alignment of new I-390 Off-Ramp to B-HTL Rd. and include in 2005
 - Senator Keating Blvd. extended east to connect with S. Winton Rd.
 - I-590 / Winton Rd. Interchange Improvements
 - Meridian Centre Blvd. extension west to connect with S. Clinton Ave.
- Land Use Modifications (2005, 2025)
 - Incorporation of Existing and Planned/Proposed Land Use as provided by Stantec
- Select Link & TAZ Analysis
 - Identify Meridian Centre Blvd. Extension & TAZ 400 local traffic

Scenario Details:

2005_RevBASE_C (or 2006) – Existing, Revised Base Year, Constrained
- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
(completed in 2006)

2005_RevBASE_U (or 2006) – Existing, Revised Base Year, Un-constrained
- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
(completed in 2006)

2005_SelectLink_Meridian – Existing, Revised Base Year with Meridian Centre Blvd.
extended for Select Link Analysis
- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
(completed in 2006)
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

2005_SelectLink_TAZ – Existing, Revised Base Year with Meridian Centre Blvd. extended
for Select TAZ Analysis
- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
(completed in 2006)
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

2025_RevBASE_C – Future, Revised Base Year, Constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements

2025_RevBASE_U – Future, Revised Base Year, Un-constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements

2025_Meridian_C – Future, Revised Base Year with Meridian Centre Blvd. extended, Constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

2025_Meridian_U – Future, Revised Base Year with Meridian Centre Blvd. extended, Un-constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

Note: Constrained Model Scenarios are run with a normal number of iterations

Un-constrained Model Scenarios are run with a single iteration

- *this methodology was agreed upon to attempt to isolate the traffic that is diverted as a result of congestion on Interstates, specifically I-390 at the East and West Henrietta Rd. exits*

Land Use Modifications

2005 Model Land Use

TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	16	Retail Employment	0
Manufacturing Employment	91	Manufacturing Employment	4
Other Employment	709	Other Employment	440
Total Employment	816	Total Employment	444
HH's with 0 Vehicles	101	HH's with 0 Vehicles	0
HH's with 1 Vehicle	61	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	0
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
Total Households	162	Total Households	0

2005 Land Use (per Stantec Calculations)

TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	32	Retail Employment	0
Manufacturing Employment	180	Manufacturing Employment	13
Other Employment	1,404	Other Employment	1,380
Total Employment	1,616	Total Employment	1,393
HH's with 0 Vehicles	0	HH's with 0 Vehicles	0
HH's with 1 Vehicle	241	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	0
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
Total Households	241	Total Households	0

2025 Model Land Use

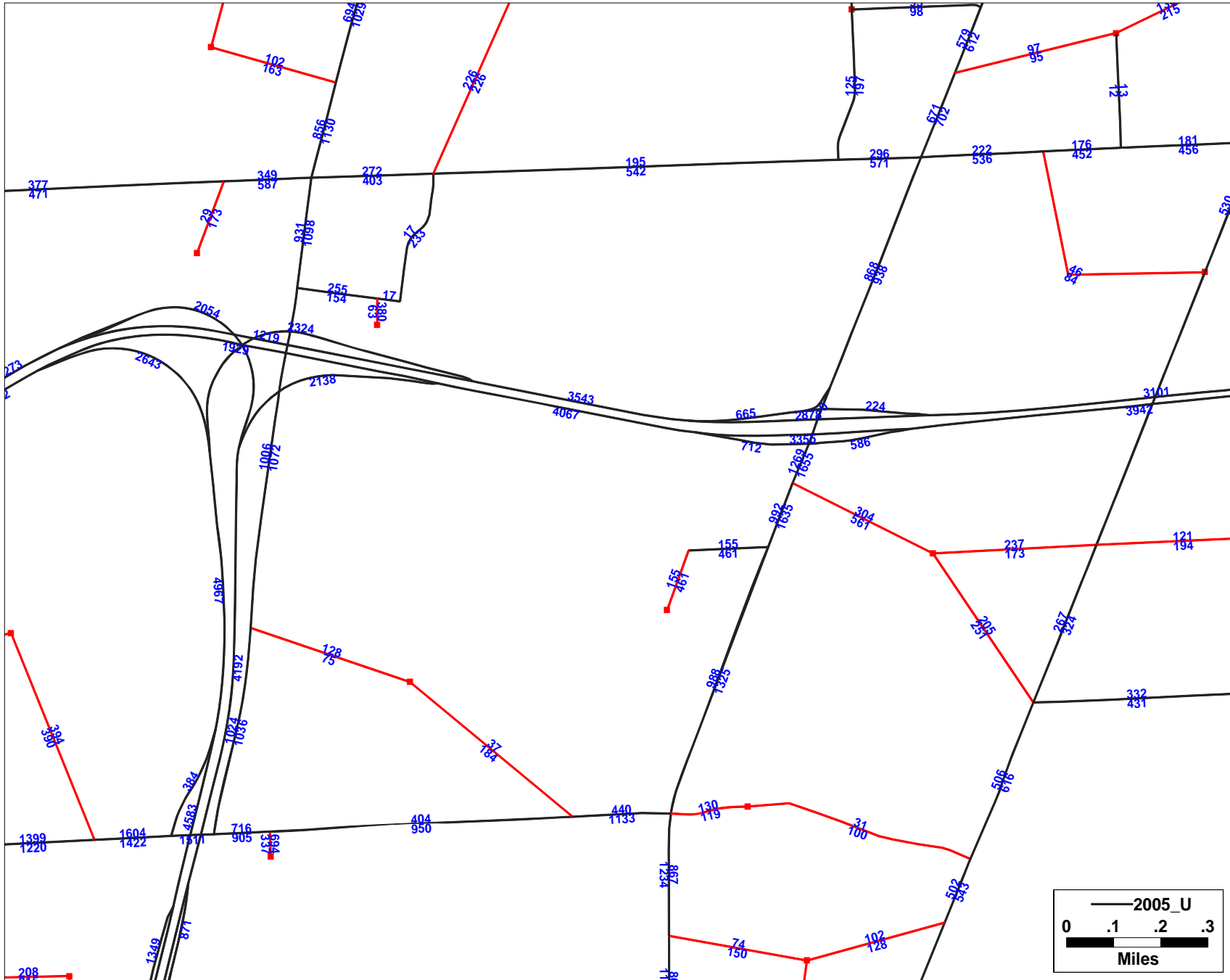
TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	17	Retail Employment	0
Manufacturing Employment	90	Manufacturing Employment	4
Other Employment	750	Other Employment	466
Total Employment	857	Total Employment	470
HH's with 0 Vehicles	106	HH's with 0 Vehicles	0
HH's with 1 Vehicle	63	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	0
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
Total Households	169	Total Households	0

2025 Land Use (per Stantec Calculations)

TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	32	Retail Employment	0
Manufacturing Employment	180	Manufacturing Employment	22
Other Employment	1,404	Other Employment	2,521
Total Employment	1,616	Total Employment	2,543
HH's with 0 Vehicles	0	HH's with 0 Vehicles	0
HH's with 1 Vehicle	319	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	447
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
Total Households	319	Total Households	447

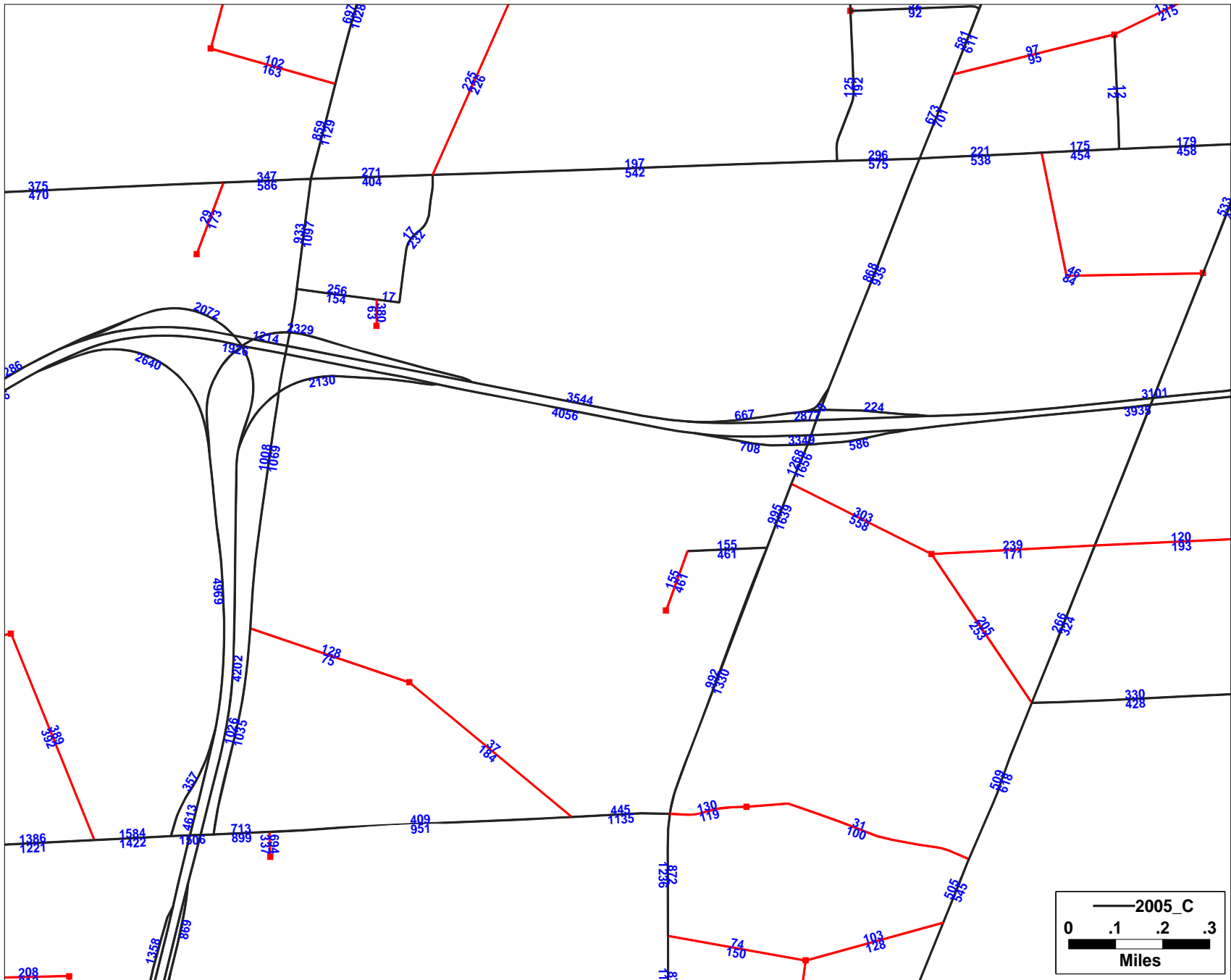
2005 (Unconstrained)

(PM Peak Hour Volumes)



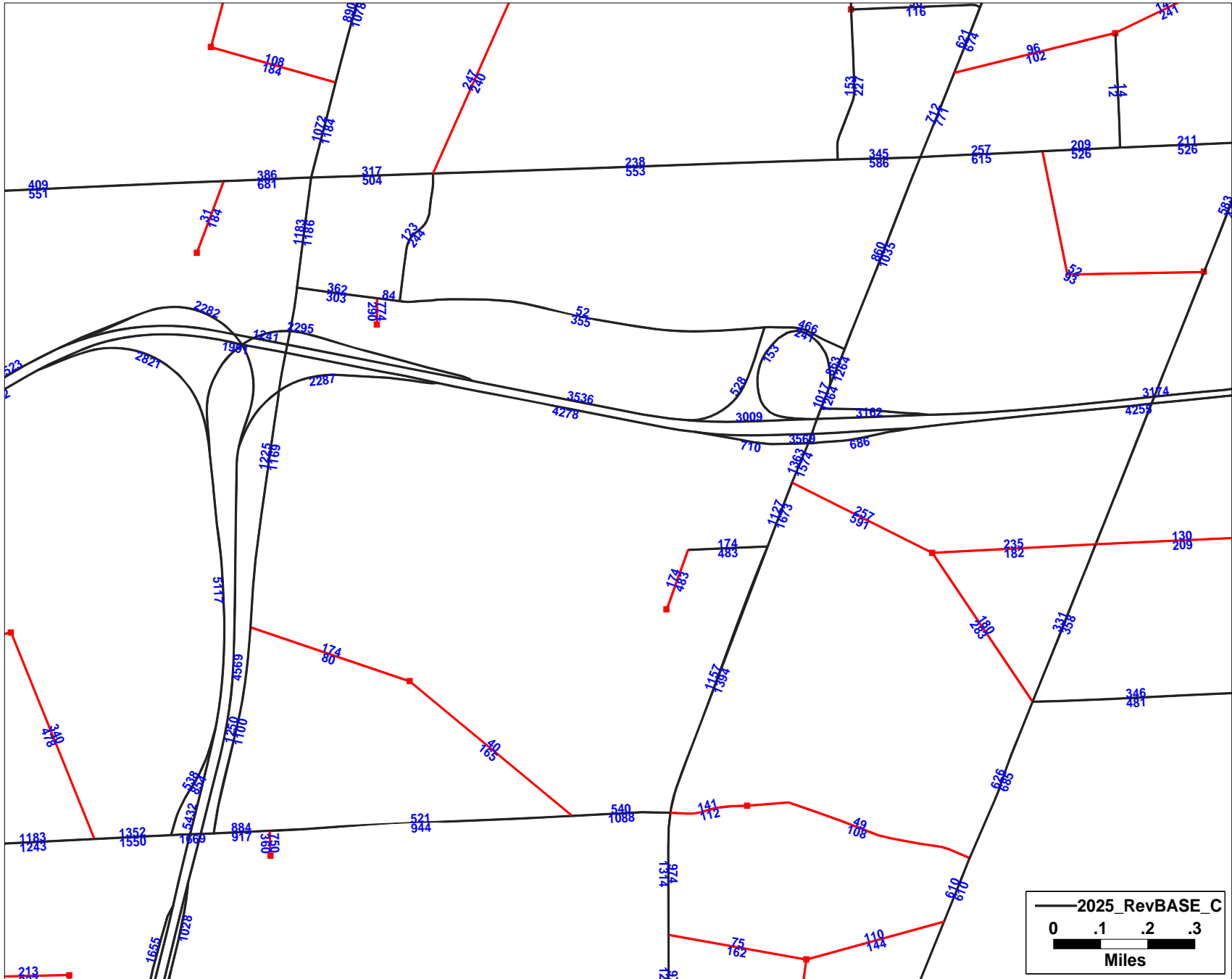
2005 (Constrained)

(PM Peak Hour Volumes)



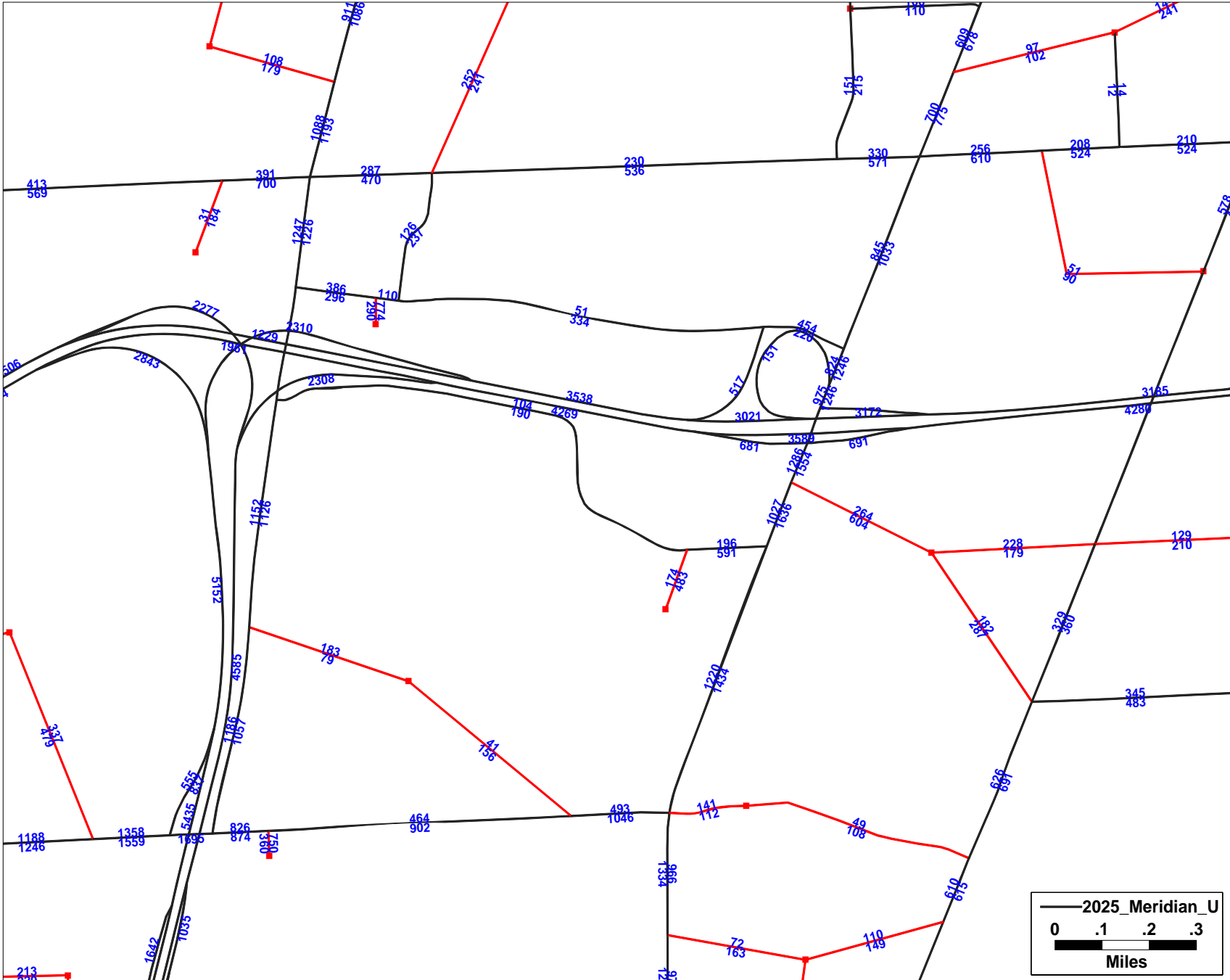
2025 (Constrained)

(PM Peak Hour Volumes)



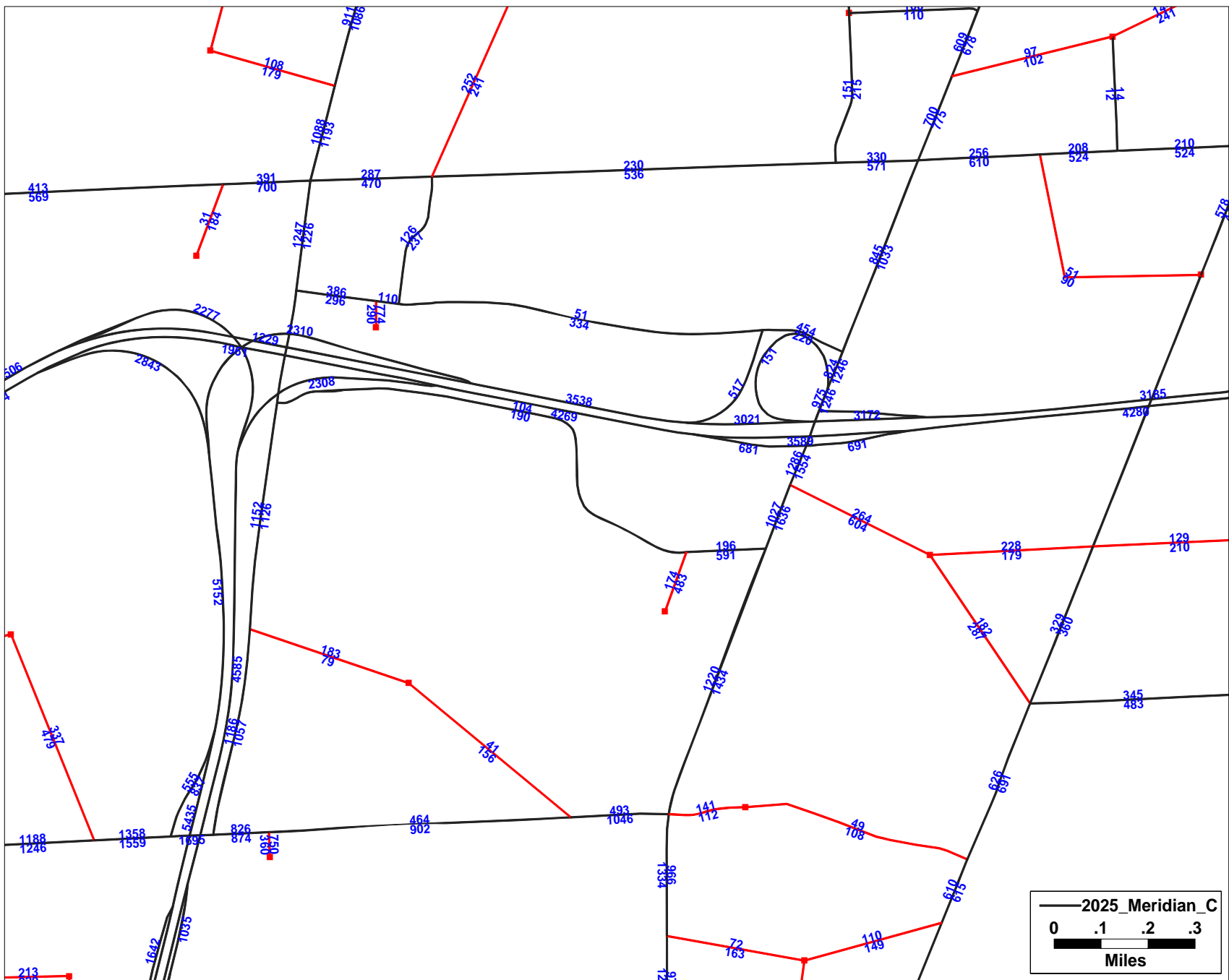
2025 with Meridian Centre Blvd. Extension (Unconstrained)

(PM Peak Hour Volumes)



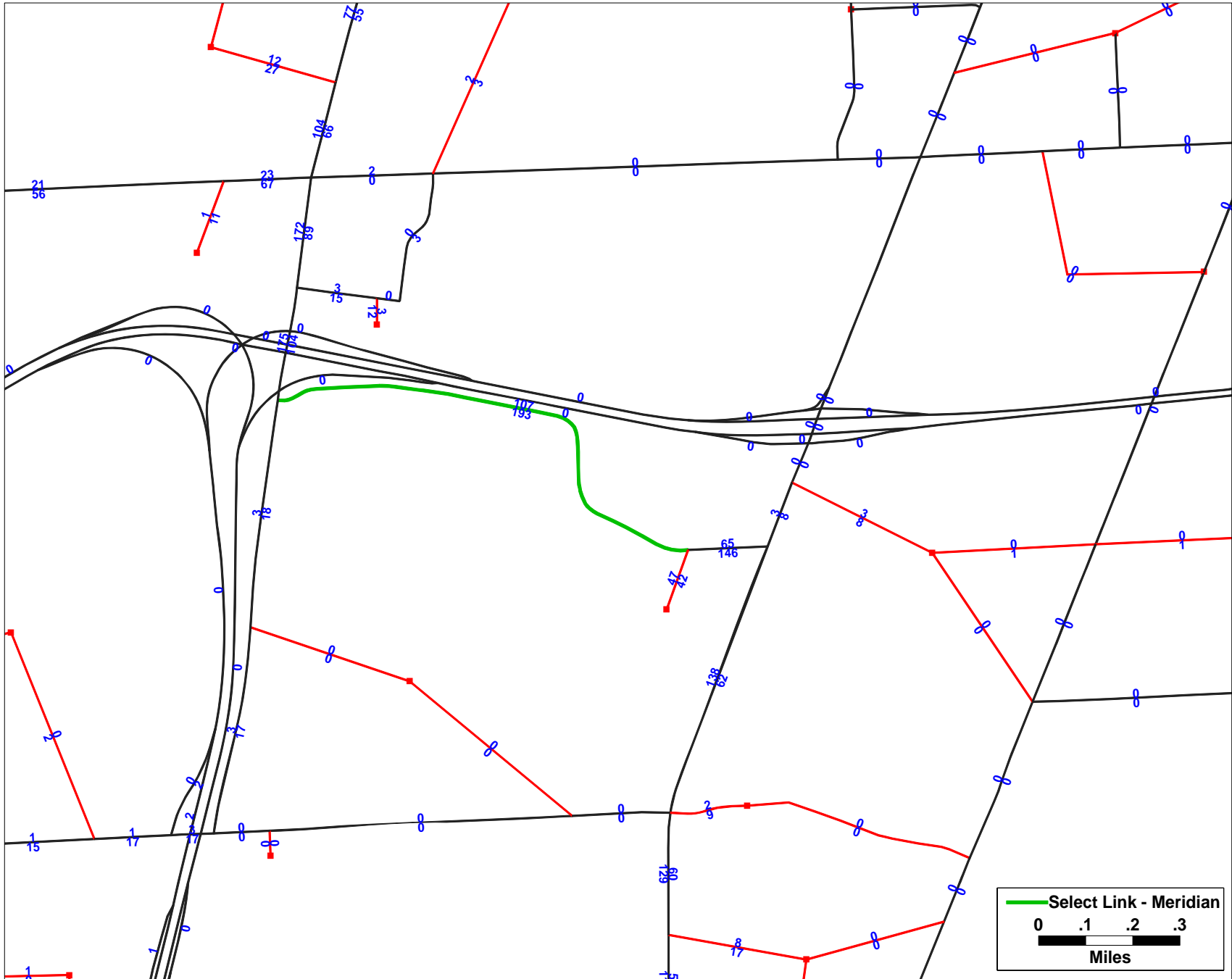
2025 with Meridian Centre Blvd. Extension (Constrained)

(PM Peak Hour Volumes)

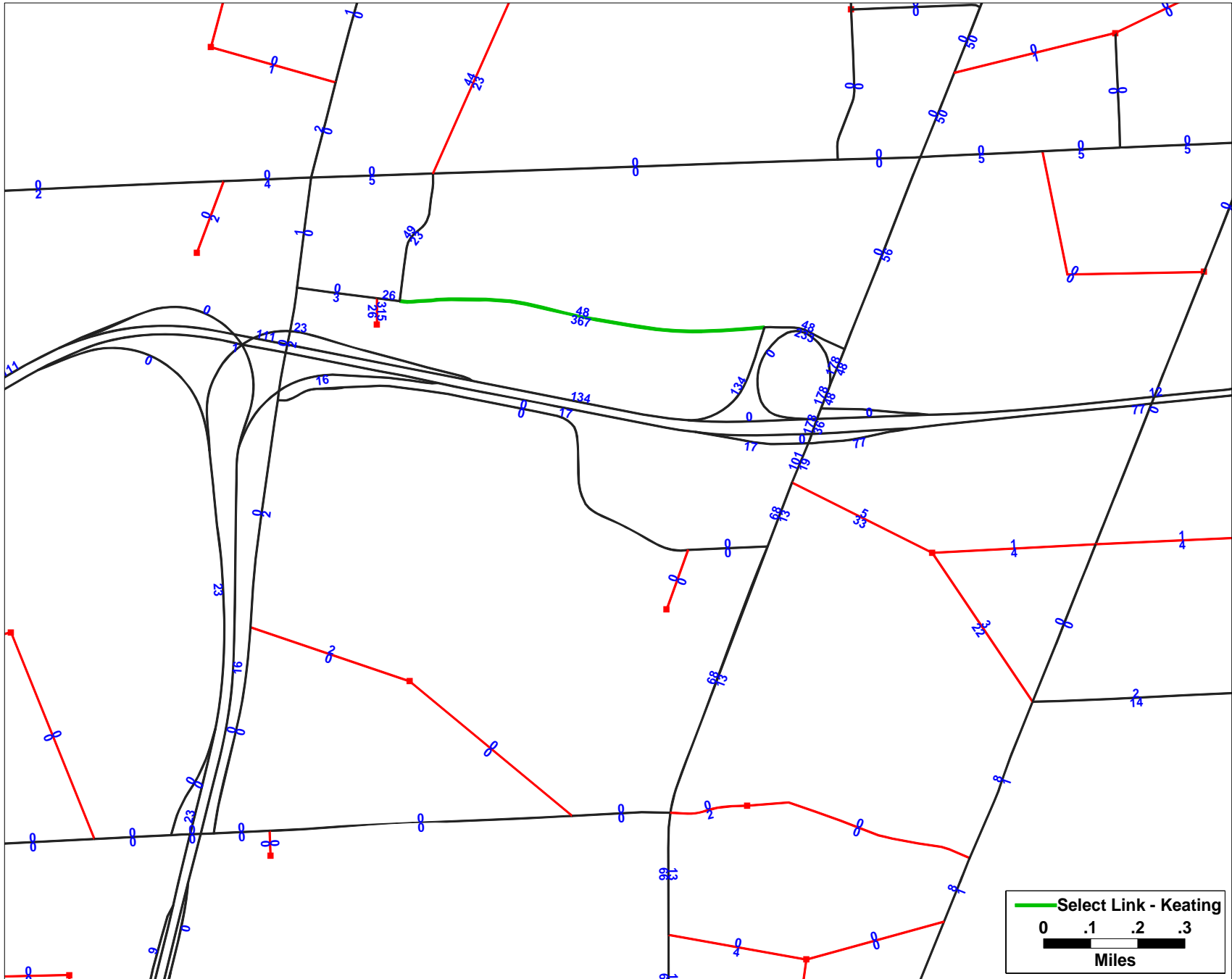


2025 Select Link - Meridian Centre Blvd. Extension (No Other Modifications)

(PM Peak Hour Volumes)

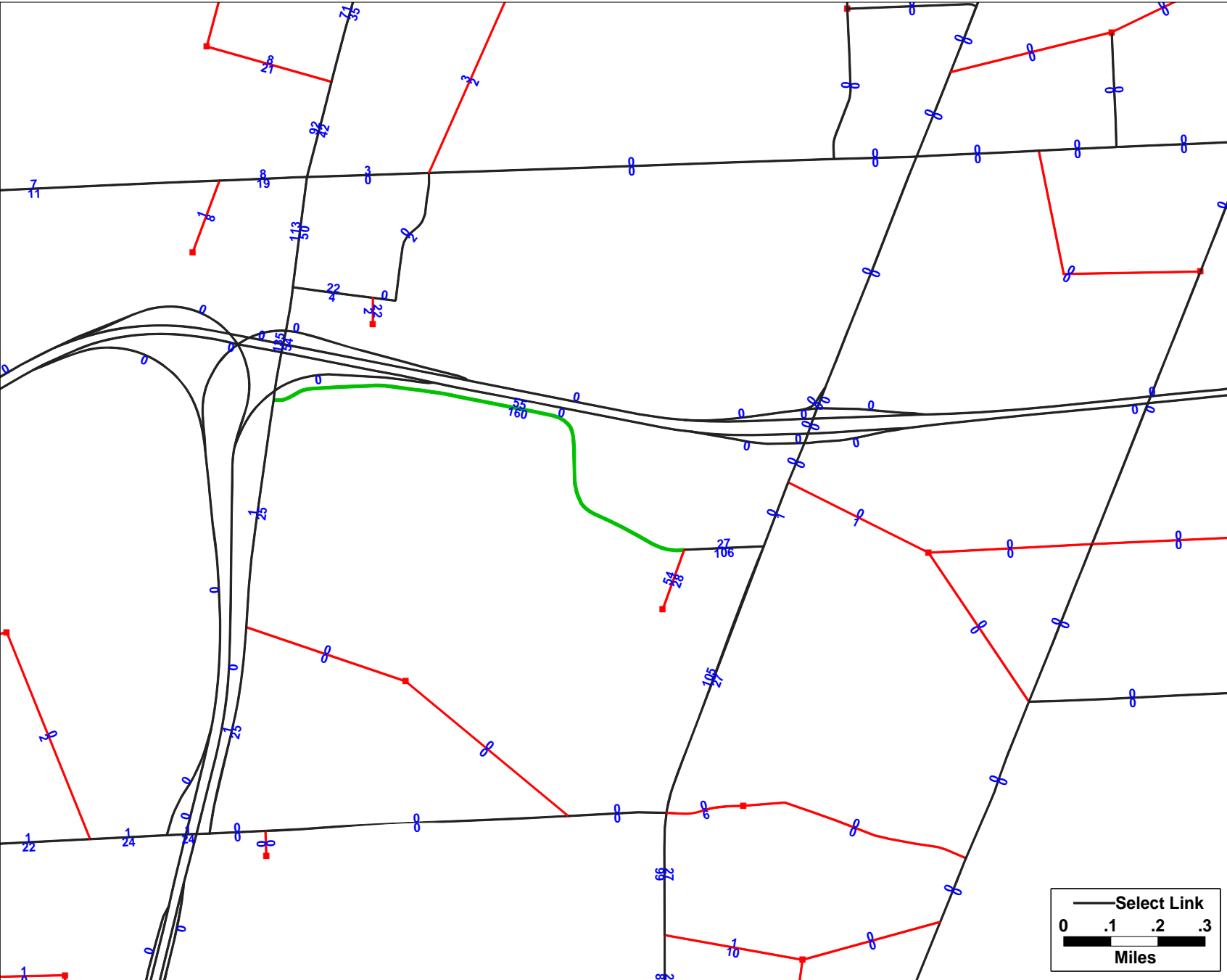


2025 Select Link - Sen. Keating Blvd. (PM Peak Hour Volumes)



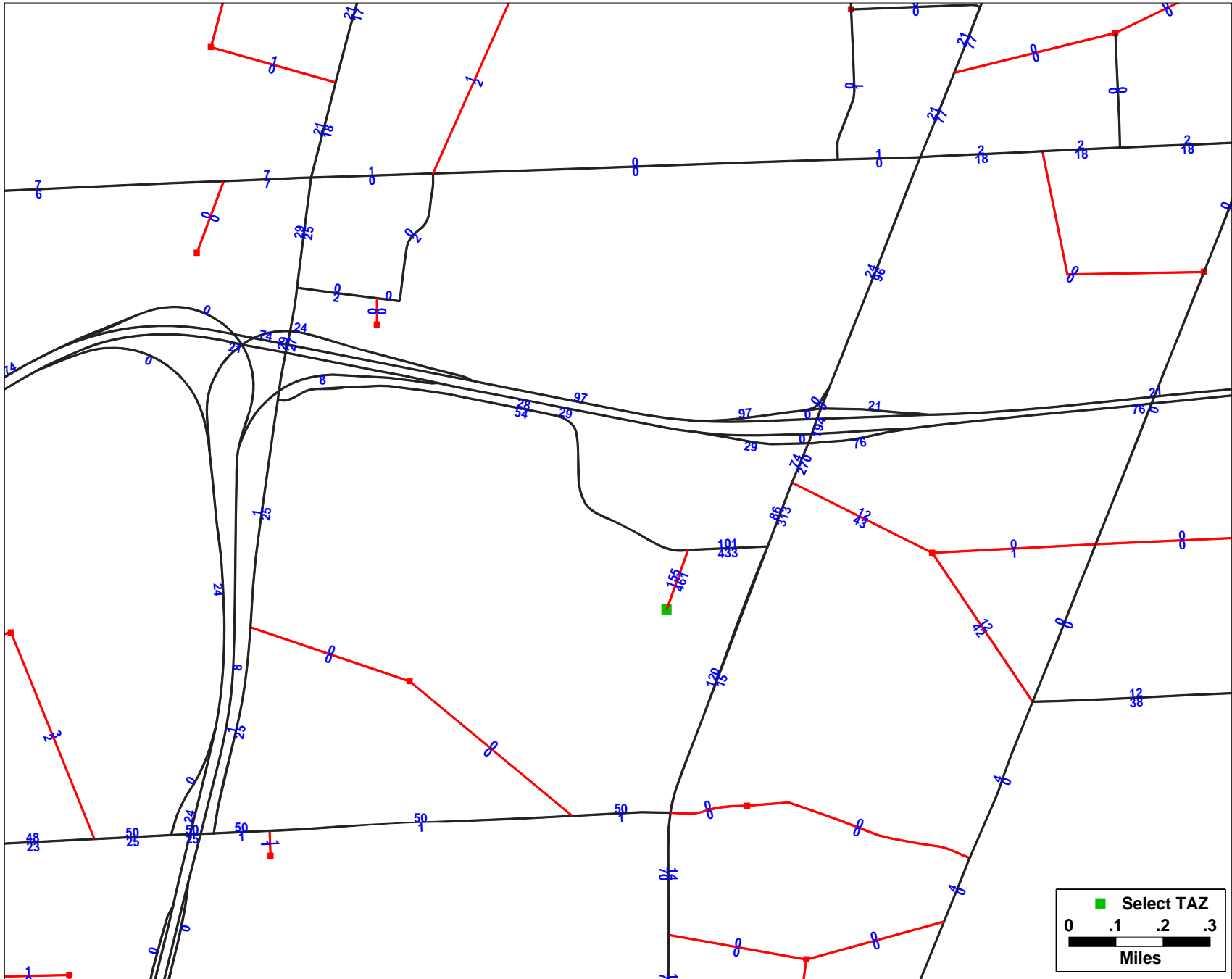
2005 Select Link - Meridian Centre Blvd. Extension

(PM Peak Hour Volumes)



2005 Select TAZ - Meridian Centre Blvd. Extension

(PM Peak Hour Volumes)



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Appendix C

Synchro 7 - Traffic Analysis CD Files

Available Upon Request