WAHOO CITY COUNCIL AGENDA
Tuesday, May 26, 2026 - 7:00 PM
Wahoo Public Library, 637 N Maple St, Wahoo, NE 68066

NOTICE IS HEREBY GIVEN that the Mayor and Council of the City of Wahoo meet on the second and fourth Tuesdays of each month at the Wahoo Public Library, 637 N Maple Street Wahoo, Nebraska, at 7:00 p.m. Notice of special meetings shall be given by posting a notice thereof on the bulletin board in City Hall, U.S. Post Office, and FirstBank of Nebraska, at least 24 hours before the special meeting. All Council meetings are open to the public and the agenda, which is kept continually current, is available for public inspection at the office of the City Clerk at City Hall during normal business hours.

Individuals requiring physical or sensory accommodations, individual interpreter service, Braille, large print or recorded material, please contact the ADA Coordinator at City Hall, 637 N Maple St, Wahoo, Nebraska, 68066, telephone 402-443-3222 as far in advance as possible, but no later than 48 hours before the scheduled event.

Pledge of Allegiance

Announcement of the Open Meetings Act

Call to order and roll call

Proclamation

Audience comments on items not listed on the agenda

Department head reports

Consent Agenda

1. Acceptance of excused absence of Mayor or Council member(s)

2. Approval of the May 12, 2026, minutes of the City Council

3. Approval of claims

Public hearing and associated action items

1. Public Hearing regarding an application for an amendment liquor license for Pizza Hut

2. Public Hearing regarding the approval of a rezone application for Krumel Industrial Subdivision from TA - Transitional Ag and C-3 Highway Commercial to C-2 and I-2 Ordinance No 2499

    2.A. Approval of the first reading and possible waiver of the required three readings of Ordinance No 2499 regarding the proposed rezone for Krumel

Industrial Subdivision

2.B. Consideration of a waiver of the Expressway Corridor Design Standards changing it from 1/4 mile to 1/8 mile within the Krumel Industrial Subdivision.

3. Public Hearing regarding the approval of the Final Plat for Krumel Industrial Subdivision.

4. Final Plat for Roberts' 2nd addition, 2nd replat

4.A. Approval of Ordinance No 2500 a vacation of the Public Alley Contiguous to the North Line of Block 1 Robert's 2nd Addition.

4.B. Approval of the Final Plat of Robert's 2nd Addition Replat

4.C. First reading and possible waiver of the required three readings of Ordinance No 2501 the dedication of Public Alley contiguous to the north line of Lot 1 Block 1 Roberts 2nd Addition Replat and the extension of the existing East Public Alley.

5. Public Hearing Regarding a Conditional Use Permit application for a Used Car Lot 130 S Walnut as requested by Damon Hladik

5.A. Approval of first reading and possible waiver of the required three readings of Ordinance No 2502 regarding the application for a Conditional Use Permit.

Action items not requiring a public hearing

1. Acceptance of a request for reasonable accommodation

2. Authorization for the Mayor to sign a Subordination Agreement for a Owner-Occupied Housing Rehab Loan to take a second position behind a primary lender on a lien against a property

3. Approval of the 2nd and possible waiver of a third reading of Ordinance No 2498 for an amendment to the Municipal Code regarding multi-day event permits.

4. Approval of the first reading of Ordinance No 2503 an amendment to the Municipal Code to prevent child sex offenders from living within a 500 foot radius of schools or child care facilities.

5. Approval of a Resolution authorizing the reimbursement of expenses related to the West Utility Corridor project with the proceeds of Utility Revenue Bonds expected to be issued for the project

6. Acceptance of bids received for abatement of asbestos at City Hall and award of contract to Jamco

Mayor's comments on items not listed on the agenda

Council Comments on items not listed on the agenda

Adjourn

Upcoming planned meeting dates and agenda deadlines

Wahoo Public Library **Wahoo, Nebraska** **May 12, 2026**

The Council met in Regular session in the Wahoo Public Library, in compliance with the agenda posted at City Hall, Post Office, and First Bank of Nebraska, and the City of Wahoo website, with each Council member being notified of the agenda prior to the meeting. The meeting was called to order by Mayor Gerald D. Johnson at 7:00 PM and opened with the Pledge of Allegiance. The public was informed of the location of posting of the Open Meetings Law. Roll call was taken with the following Council members: Ryan Ideus: Present, Stuart Krejci: Present, Patrick Nagle: Present, Chris Rappl: Present, Shane Sweet: Present, Carl Warford: Absent.

City Administrator Harrell spoke about the upcoming improvements for fiber to the home internet access in Wahoo. This project is set to happen this summer.

Council Member Krejci motioned, and Council Member Rappl seconded to approve the consent agenda which included acceptance of excused absence Council Member Warford, approval of the April 28, 2026, minutes of the City Council, approval of a job description and pay scale for a Natural Gas Distribution Operator Intern, approval of the Mayor's Appointment of John Miyoshi to the Board of Adjustments for a one-year term starting July 2027, approval of the following claims:

BLD - Blue Valley Public Safety $1,295.00, Eakes $142.02, Heartland Office $1,040.00, K&S Mechanical $1,582.50, Simons $137.28,
COM – Reditech $4,337.77,
EDU – Benchmark $427.45, Jonas, Caden $2,389.60, Southeast Library Systems $75.00, Southeast Community College $1,370.00
INS – LARM $4,935.37
LIB – Amazon $365.37, Cengage $22.10, Ingram $429.08, Jackson Services $165.62, Lincoln Journal Star $396.79, Midwest Tape $498.03,
MED - Bound Tree $304.17, One Billing Solutions $4,760.05, Samsara $1,890.00, Stryker $150.80, Teleflex $2,660.00,
MEM - International Code Council $170.00, NFPA $225.00,
MISC - Don Johnson $1,000.00, First Interstate Bank $1,600.00, Hire Right $130.70, Mitten Remodeling $1,155.88, Stuchlik, Ken $107.14,
POS – Revolving Fund $127.90
PRO - Bromm Lindahl $900.00, JEO $19,201.25, One Call Concept $40.16,
SUB – Caselle $1,394.40
SUP – Bomgaars $2,815.35
UNI - $969.83, Sayler $123.00,
UTL - Butler Public Power $42.11, Charter $340.00, Paper Tiger $674.55, Verizon $160.04, Wahoo Utilities $5,420.36, Waste Connection $262.82,
VEH – O'Reily $17.33, Sid Dillion $ 2,929.18

Roll call vote Krejci, yes; Rappl, yes; Nagle, yes; Sweet, yes; Warford, yes; Ideus, yes. Motion carried

City Attorney Lausterer explained the process for a reasonable accommodation. Council Member Krejci motioned, and Council Member Sweet seconded to accept the request for reasonable accommodation and to refer the application to the reviewing authority. Roll call vote Krejci, yes; Sweet, yes; Warford, absent and not voting; Ideus, yes; Rappl, yes; Nagle, yes. Motion carried.

City Attorney Lausterer spoke about the current municipal code regarding the allowing of sex offenders to live within 500 feet of a school or childcare facility and what enforcement of a change in the code could look like.

Chase Landry, 544 W 8th, spoke to his request that this topic be brought to the Council for consideration. He stated that the State of Nebraska has allowed municipalities to implement these restrictions since 2006. Citizens were present and spoke in favor of an Ordinance that would restrict sexual predators from living withing 500 feet of a school or childcare facility. Council is generally in favor of an Ordinance and directed staff to draft an Ordinance for their consideration.

Council Member Krejci introduced Ordinance No 2498 entitled: AN ORDINANCE OF THE CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA, TO AMEND TITLE XI: ADMINISTRATION OF THE WAHOO MUNICIPAL CODE BY THE AMENDMENT OF CHAPTER 95: PUBLIC WAYS AND PROPERTY, SECTION 95.100-95.112. This is an amendment to the municipal code to address multi-day event permit applications. Council Member Krejci motioned, and Council Member Ideus seconded to approve the first reading of said ordinance. Roll call vote Krejci, yes; Warford, absent and not voting; Ideus, yes; Sweet, yes, Rappl, yes; Nagle, yes. Motion carried.

Council Member Ideus motioned, and Council Member Rappl seconded to approve Resolution 2026-10 an amendment to the Master Fee Scheduled regarding multi day events.

RESOLUTION NO. 2026-10

CITY OF WAHOO MASTER FEE RESOLUTION

WHEREAS, it is necessary for the staff of the City of Wahoo to provide services, materials and products, permits, and facilities for use by the public, that will be reimbursed by said members of the public, and,

WHEREAS, it is necessary for the Mayor and City Council of the City of Wahoo to establish and adopt, by resolution, a schedule of appropriate fees and charges as are necessary to recover City costs in providing City services, materials, permits, and products,

WHEREAS, it is desirable to maintain a Master Fee Schedule which provides a compilation of fees and charges assessed by the departments of the City of Wahoo, as attached herein,

WHEREAS, the City did, on March 11, 2021 adopt a Master Fee Scheduled, containing Attachments 1 to 9 as follows:

Attachment 1: General Fund Fees and Charges
Attachment 2: Police Department Fees and Charges
Attachment 3: Street Department Fees and Charges
Attachment 4: Cemetery Fees and Charges
Attachment 5: Park and Recreation Fees and Charges
Attachment 6: Rescue Squad Fees and Charges
Attachment 7: Wahoo Public Library Fees and Charges
Attachment 8: Building Department Fees and Charges
Attachment 9: Zoning Department Fees and Charges

WHEREAS, it is necessary to update particular Attachments to adopt changes to said fees and charges, specifically Attachment 1: General Fund Fees and Charges.

THEREFORE, BE IT RESOLVED by the Mayor and Council of the City of Wahoo that the following amendments to Attachment 1: General Fund Fees and Charges are hereby adopted and are to be incorporated into the City of Wahoo's Master Fee Resolution, and

BE IT FURTHER RESOLVED that the effective date of this amendment shall be May 12, 2026.

ATTACHMENT 1 TO MASTER FEE RESOLUTION
GENERAL FUND FEES AND CHARGES

§10.20 PUBLIC RECORDS

Photocopies	$.25 per page

For copying records which cannot be reproduced by the City of Wahoo's copying equipment, the actual cost, including staff time, of preparing the records will be charged

§112.01 OCCUPATION TAXES:

Liquor License Occupation tax

Alcoholic Beverages (Based on License Class, except non-profits):

Class A, Beer Only, On Premise Consumption	$100
Class B, Beer Only, Off Premise Consumption	$100
Class C, Alcoholic Liquor, On and Off Premise Consumption	$300
Class D, Alcoholic Liquor, Off Premise Consumption	$200
Class I, Alcoholic Liquor, On Premise Consumption	$250
Non-Profits	$50

Liquor License

Alcoholic Beverages (Based on License Class):

Class A, Beer Only, On Premise Consumption	$100
Class B, Beer Only, Off Premise Consumption	$100
Class C, Alcoholic Liquor, On and Off Premise Consumption	$300
Class D, Alcoholic Liquor, Off Premise Consumption	$200
Class I, Alcoholic Liquor, On Premise Consumption	$250
Class Z, Micro Distillery	$250

§110.51 Sidewalk Café permit	$100.00 per year (May 1 – April 30)
§113.10 Beer Garden license	$100.00 per year (May 1 – April 30)

Contractors

Electricians, yearly licensing, per year	$60
New Application Fee	$25
HVAC Contractor (mechanical), yearly licensing, per year	$60
New Application Fee	$25
Plumbers, yearly licensing, per year	$60
New Application Fee	$25
Tree Contractor, yearly licensing, per year	$30
New Application Fee	$25
Lawn Sprinkler installers, yearly licensing	$30
New Application Fee	$25
Late Fee for all contractors (April 1-July 1)	$20

§110.20 Peddlers, Itinerant Merchants, and Solicitors

Per day	$10
Per year	$100

§116 Mobile Food Vendors

Application fee: One-year, renewable January 1 of each year	$100
Renewal of one year permit	$50
One-day permit	$50

Miscellaneous:

Bowling Alley:	
First two alleys or less, per year	$25
For each additional alley, per year	$10
Buses, per year	$10
Fire Insurance Companies, per year	$5
Railroad Companies, per year	$25
Trailer Camps, first 2 lots, per year	$10
Each additional lot, per year	$5

§110.10 Fireworks permit

Fireworks applications accepted January 1 to April 1	
Application fee (non-refundable)	
If sale location is in NRC, C-1 or C-2 Zoning District	$50.00
If sale location is in other Zoning District	$100.00
Cash bond (refunded after cleanup of site)	$500.00
Occupation tax (per day)	$60

§110.01 Tobacco License

Tobacco licenses — $10.00 per year (January 1 – December 31)

114.01 Bingo License

Bingo License — $10.00 per year (October 1 – September 30)

§112.03 Electric Utility

Occupation tax for use of public right-of-way — .002 per kilowatt hour

§112.06 Natural Gas Utility

Occupation tax for use of public right-of-way

Residential, Commercial and Industrial Customers:

a) $.025 per CCF from October 1 to March 31
b) $.060 per CCF from April 1 to September 30

City Power Plant Generation

a) $.03 per CCF all year

§112.04 Lodging Tax

Occupation tax on charges for lodging — 4%

§112.26 Telecommunication Tax

Occupation tax on charges for telecommunications services — 4%

§50.12 Solid Waste Haulers permit — $200.00 per year (March 1 – February 28)

Occupation tax of 5% of charge for service provided.

§95.102 Event permit

Single Day Events	$10
Multi-Day Events	$10/day not to exceed $100 annually
Late fee for permits submitted after 14 days prior to event	$10

§36.06 Filing fee for elected office — 1% of annual salary

(no fee for offices with salary less than $500 per year)

ATV Registration

Vehicle Registration	$100 per year (Jan 1- Dec 31)
Replacement Registration Sticker	$25
Dealer Registration Sticker	$300 per year (Jan 1- Dec 31)

UTV Registration

Vehicle Registration	$100 per year (Jan 1- Dec 31)
Replacement Registration Sticker	$25
Dealer Registration Sticker	$300 per year (Jan 1- Dec 31)

Golf Cart Registration

Vehicle Registration	$100 per year (Jan 1- Dec 31)
Replacement Registration Sticker	$25
Dealer Registration Sticker	$300 per year (Jan 1- Dec 31)

Roll call vote Ideus, yes; Rappl, yes; Nagle, yes; Warford, absent and not voting; Sweet, yes; Krejci, yes. Motion carried.

Council Member Krejci motioned, and Council Member Ideus seconded to approve an agreement with JEO Consulting for the Downtown Revitalization Plan Process. Roll call vote Krejci, yes; Ideus, yes; Sweet, yes; Warford, absent and not voting; Rappl, yes; Nagle, yes. Motion carried.

Council Member Sweet motioned, and Council Member Krejci seconded to table approval of an agreement with NE Department of Economic Development for the CCCFF Planning Grant. Roll call vote Sweet, yes; Krejci, yes; Ideus, yes; Warford, absent and not voting; Rappl, yes; Nagle, yes. Motion carried.

The meeting was adjourned at 7:47pm

Approved:

_____ _____

Christina Fasel, City Clerk Gerald D. Johnson, Mayor

GL Account and Title	Vendor Name	Description	Invoice Number	Invoice Date	Net Invoice Amount	Amount Paid
GENERAL FUND						
101-01-550.315 GAS & DIESEL - REIMBURSEABLE						
101-01-550.315 GAS & DIESEL - REIMBURSEABLE	Breunig Supply Co.	2126 gal gas @ 3.456	2166	04/01/2026	7,347.46	.00
101-01-550.315 GAS & DIESEL - REIMBURSEABLE	Breunig Supply Co.	1401 gal diesel @ 4.19 per gal	2166	04/01/2026	5,870.19	.00
101-01-550.315 GAS & DIESEL - REIMBURSEABLE	Breunig Supply Co.	1715 gal unleaded @ 4.3753 pergal	2233	05/08/2026	7,503.64	.00
101-01-550.315 GAS & DIESEL - REIMBURSEABLE	Breunig Supply Co.	797 gal diesel @ 4.89 per gal	2233	05/08/2026	3,897.33	.00
Total 101-01-550.315 GAS & DIESEL - REIMBURSEABLE:					24,618.62	.00
101-01-550.340 GAS, OIL, FUEL - CAR & EQUIP						
101-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	City Car - 28.42 gal gas used - April 2026	37532	05/19/2026	100.89	.00
Total 101-01-550.340 GAS, OIL, FUEL - CAR & EQUIP:					100.89	.00
101-01-550.410 EDUCATION & TRAINING EXPENSE						
101-01-550.410 EDUCATION & TRAINING EXPENSE	Wonderful Life Project	training	38	05/19/2026	146.90	.00
101-01-550.410 EDUCATION & TRAINING EXPENSE	Wonderful Life Project	training	39	05/19/2026	83.33	.00
Total 101-01-550.410 EDUCATION & TRAINING EXPENSE:					230.23	.00
101-01-923.060 CONSULTANTS - OTHER						
101-01-923.060 CONSULTANTS - OTHER	Wahoo Utilities	Reimbursement of Dave Henke's time	51626	05/16/2026	82.50	.00
Total 101-01-923.060 CONSULTANTS - OTHER:					82.50	.00
101-01-940.705 COMPUTER EQUIPMENT						
101-01-940.705 COMPUTER EQUIPMENT	PSP Solutions, LLC	new laptop computer and docking station for City Clerk	009707	05/21/2026	1,725.00	.00
Total 101-01-940.705 COMPUTER EQUIPMENT:					1,725.00	.00
Total GENERAL FUND:					26,757.24	.00
POLICE FUND						
102-01-550.340 GAS, OIL, FUEL - CAR & EQUIP						
102-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	PD - 336.299 gal gas - April 2026	37537	05/19/2026	1,193.86	.00
Total 102-01-550.340 GAS, OIL, FUEL - CAR & EQUIP:					1,193.86	.00
102-01-550.360 UTILITIES-ELEC./TELE./GARBAGE						
102-01-550.360 UTILITIES-ELEC./TELE./GARBAGE	AT&T Mobility	Department Issued Phones	267360387910	05/11/2026	246.92	.00
Total 102-01-550.360 UTILITIES-ELEC./TELE./GARBAGE:					246.92	.00
Total POLICE FUND:					1,440.78	.00
STREET FUND						
103-01-550.310 MATERIALS & SUPPLIES						
103-01-550.310 MATERIALS & SUPPLIES	O'Reilly Automotive, Inc.	Oil Filter for mower	5646-331257	05/11/2026	2.89	.00
Total 103-01-550.310 MATERIALS & SUPPLIES:					2.89	.00

GL Account and Title	Vendor Name	Description	Invoice Number	Invoice Date	Net Invoice Amount	Amount Paid
103-01-550.340 GAS, OIL, FUEL - CAR & EQUIP						
103-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	Street - 120.853 gal diesel used - April 2026	37538	05/19/2026	493.08	.00
103-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	Street - 217.56 gal gas used - April 2026	37538	05/19/2026	772.33	.00
Total 103-01-550.340 GAS, OIL, FUEL - CAR & EQUIP:					1,265.41	.00
103-01-550.360 UTILITIES-ELEC./TELE./GARBAGE						
103-01-550.360 UTILITIES-ELEC./TELE./GARBAGE	Charter Communications	Acct #156543701 Street Dept internet	156543701051	05/14/2026	150.00	.00
Total 103-01-550.360 UTILITIES-ELEC./TELE./GARBAGE:					150.00	.00
103-01-554.630 BUILDING MAINTENANCE						
103-01-554.630 BUILDING MAINTENANCE	Summit Fire Protection	annual inspection of fire extinguisher and 6 new extinguishers	4023832	04/15/2026	908.25	.00
Total 103-01-554.630 BUILDING MAINTENANCE:					908.25	.00
103-01-554.650 EQUIPMENT MAINTENANCE						
103-01-554.650 EQUIPMENT MAINTENANCE	John Deere Financial	ROW mower shaft & blades	5238402	05/01/2026	1,622.16	.00
Total 103-01-554.650 EQUIPMENT MAINTENANCE:					1,622.16	.00
103-01-554.660 STORM SEWER MAINTENANCE						
103-01-554.660 STORM SEWER MAINTENANCE	Martin Marietta Materials	Rip rap for culvert repair 13th and Chestnut Street	49129547	04/30/2026	1,351.09	.00
103-01-554.660 STORM SEWER MAINTENANCE	Wahoo Concrete Products	inlet top repair 4th and sycamore	112749	04/22/2026	220.75	.00
Total 103-01-554.660 STORM SEWER MAINTENANCE:					1,571.84	.00
103-01-554.680 RESURFACING & STREET MAINT.						
103-01-554.680 RESURFACING & STREET MAINT.	Wahoo Utilities	Reimbursement of Dave Henke's time	51626	05/16/2026	27.50	.00
Total 103-01-554.680 RESURFACING & STREET MAINT.:					27.50	.00
103-01-940.720 OTHER EQUIPMENT						
103-01-940.720 OTHER EQUIPMENT	Johnson's Cycle & Auto	Polaris Ranger 500 ATV	5766	05/21/2026	5,999.00	.00
Total 103-01-940.720 OTHER EQUIPMENT:					5,999.00	.00
Total STREET FUND:					11,547.05	.00
CEMETERY FUND						
104-01-550.340 GAS, OIL, FUEL - CAR & EQUIP						
104-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	Cem - 65.112 gal gas used - April 2026	37538	05/19/2026	231.15	.00
Total 104-01-550.340 GAS, OIL, FUEL - CAR & EQUIP:					231.15	.00
104-01-550.360 UTILITIES-ELEC./TELE./GARBAGE						
104-01-550.360 UTILITIES-ELEC./TELE./GARBAGE	Omaha Public Power Distri	Cemetery electrical service charge	MAY2026	05/11/2026	39.28	.00
Total 104-01-550.360 UTILITIES-ELEC./TELE./GARBAGE:					39.28	.00
104-01-550.510 ASPHALT/GRAVEL/CONCRETE						
104-01-550.510						

GL Account and Title	Vendor Name	Description	Invoice Number	Invoice Date	Net Invoice Amount	Amount Paid
ASPHALT/GRAVEL/CONCRETE	Wahoo Concrete Products	concrete for foundations	112757	04/24/2026	742.88	.00
Total 104-01-550.510 ASPHALT/GRAVEL/CONCRETE:					742.88	.00
104-01-554.620 LAND MAINTENANCE						
104-01-554.620 LAND MAINTENANCE	ArborVentures LLC	removal of tree struck by lightning at cemetery	8400	04/23/2026	1,000.00	.00
Total 104-01-554.620 LAND MAINTENANCE:					1,000.00	.00
104-01-940.720 OTHER EQUIPMENT						
104-01-940.720 OTHER EQUIPMENT	Johnson's Cycle & Auto	Polaris Ranger 500 ATV	5766	05/21/2026	5,000.00	.00
Total 104-01-940.720 OTHER EQUIPMENT:					5,000.00	.00
Total CEMETERY FUND:					7,013.31	.00
FIRE FUND						
106-01-550.340 GAS, OIL, FUEL - CAR & EQUIP						
106-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	Fire - 12.88 gal gas - April 2026	37531	05/19/2026	45.72	.00
106-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	Fire - 46.677 gal Diesel - April 2026	37531	05/19/2026	190.44	.00
Total 106-01-550.340 GAS, OIL, FUEL - CAR & EQUIP:					236.16	.00
Total FIRE FUND:					236.16	.00
LIBRARY FUND						
108-01-550.360 UTILITIES-ELEC./TELE./GARBAGE						
108-01-550.360 UTILITIES-ELEC./TELE./GARBAGE	Charter Communications	Acct # 116378301 Library Internet	116378301050	05/01/2026	124.98	.00
Total 108-01-550.360 UTILITIES-ELEC./TELE./GARBAGE:					124.98	.00
108-01-550.560 BOOKS						
108-01-550.560 BOOKS	Cengage Learning Inc.	Books	999102664013	05/01/2026	22.96	.00
108-01-550.560 BOOKS	Cengage Learning Inc.	Books	999102673765	05/06/2026	33.62	.00
108-01-550.560 BOOKS	Cengage Learning Inc.	Books	999102682208	05/08/2026	88.56	.00
108-01-550.560 BOOKS	Ingram	books	96365123	05/05/2026	37.39	.00
108-01-550.560 BOOKS	Ingram	books	96365124	05/05/2026	35.16	.00
108-01-550.560 BOOKS	Ingram	books	96396520	05/06/2026	20.10	.00
108-01-550.560 BOOKS	Ingram	books	96396521	05/06/2026	18.86	.00
108-01-550.560 BOOKS	Ingram	books	96396522	05/06/2026	18.52	.00
108-01-550.560 BOOKS	Ingram	books	96396523	05/06/2026	13.50	.00
108-01-550.560 BOOKS	Ingram	books	96405981	05/06/2026	93.03	.00
108-01-550.560 BOOKS	Ingram	books	96556892	05/13/2026	23.56	.00
108-01-550.560 BOOKS	Ingram	books	96556893	05/13/2026	24.76	.00
108-01-550.560 BOOKS	Ingram	books	96586611	05/14/2026	102.75	.00
108-01-550.560 BOOKS	Ingram	books	96682961	05/19/2026	13.98	.00
108-01-550.560 BOOKS	Ingram	books	96682962	05/19/2026	41.55	.00
Total 108-01-550.560 BOOKS:					588.30	.00
108-01-554.630 BUILDING MAINTENANCE						
108-01-554.630 BUILDING MAINTENANCE	Jackson Services, Inc.	Library Mats	5814768	05/19/2026	27.86	.00
108-01-554.630 BUILDING MAINTENANCE	Prairie Mechanical Corpora	tri-annual maintenance	96570	05/18/2026	1,520.00	.00

GL Account and Title	Vendor Name	Description	Invoice Number	Invoice Date	Net Invoice Amount	Amount Paid
Total 108-01-554.630 BUILDING MAINTENANCE:					1,547.86	.00
Total LIBRARY FUND:					2,261.14	.00
DEBT SERVICE FUND						
110-01-930.210 INTEREST EXPENSE						
110-01-930.210 INTEREST EXPENSE	BOKF, NA Corporate Trust	Go VP Bonds 2023	MAY2026	05/26/2026	25,421.25	.00
Total 110-01-930.210 INTEREST EXPENSE:					25,421.25	.00
110-06-923.090 PMT TO DEVELOPER-TIF						
110-06-923.090 PMT TO DEVELOPER -TIF	JEO Building Co.	TIF Payment	2026	05/15/2026	26,252.93	.00
110-06-923.090 PMT TO DEVELOPER -TIF	MBH LANDHOLDINGS LL	TIF Payment	2026	05/15/2026	19,452.58	.00
110-06-923.090 PMT TO DEVELOPER -TIF	Omaha Steel Castings Co	TIF Payment	2026	05/15/2026	66,281.64	.00
110-06-923.090 PMT TO DEVELOPER -TIF	Wahoo State Bank	TIF payment property taxes	2026	05/15/2026	10,587.22	.00
Total 110-06-923.090 PMT TO DEVELOPER-TIF:					122,574.37	.00
Total DEBT SERVICE FUND:					147,995.62	.00
SOLID WASTE FUND						
114-01-554.620 LAND MAINTENANCE						
114-01-554.620 LAND MAINTENANCE	Todd Valley Farms, Inc.	grass seed pine street lot	71440	05/06/2026	254.00	.00
Total 114-01-554.620 LAND MAINTENANCE:					254.00	.00
Total SOLID WASTE FUND:					254.00	.00
BUILDING & ZONING FUND						
115-01-546.110 SALARIES & WAGES						
115-01-546.110 SALARIES & WAGES	Wahoo Utilities	Reimbursement of Dave Henke's time	51626	05/16/2026	55.00	.00
Total 115-01-546.110 SALARIES & WAGES:					55.00	.00
115-01-550.340 GAS, OIL, FUEL - CAR & EQUIP						
115-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	BZ - 29.001 gal gas - April 2026	37536	05/16/2026	102.95	.00
Total 115-01-550.340 GAS, OIL, FUEL - CAR & EQUIP:					102.95	.00
Total BUILDING & ZONING FUND:					157.95	.00
ECONOMIC DEVELOPMENT						
116-01-921.910 SPECIAL DEVELOPMENT EXPENSE						
116-01-921.910 SPECIAL DEVELOPMENT EXPENSE	Wahoo Area Economic Dev	Monthly office support	MAY2026	05/01/2026	7,500.00	.00
Total 116-01-921.910 SPECIAL DEVELOPMENT EXPENSE:					7,500.00	.00
Total ECONOMIC DEVELOPMENT:					7,500.00	.00
1/2 CENT SALES TAX - CAP IMPR						
119-01-940.740 STRUCTURES, BLDG & IMPROV.						
119-01-940.740 STRUCTURES, BLDG & IMPROV.	JEO Consulting Group, Inc.	Highland Park improvemnts through				

GL Account and Title	Vendor Name	Description	Invoice Number	Invoice Date	Net Invoice Amount	Amount Paid
		2/27/26	172276	03/10/2026	6,900.00	.00
119-01-940.740 STRUCTURES, BLDG & IMPROV.	JEO Consulting Group, Inc.	Highland Park improvemnts through 5/1/26	173776	05/11/2026	3,255.00	.00
Total 119-01-940.740 STRUCTURES, BLDG & IMPROV.:					10,155.00	.00
Total 1/2 CENT SALES TAX - CAP IMPR:					10,155.00	.00
EMS						
121-01-550.340 GAS, OIL, FUEL - CAR & EQUIP						
121-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	EMS - 16.166 gal gas used	37535	05/19/2026	57.38	.00
121-01-550.340 GAS, OIL, FUEL - CAR & EQUIP	CITY OF WAHOO	EMS - 238.17 gas diesel used - April 2026	37535	05/19/2026	971.74	.00
Total 121-01-550.340 GAS, OIL, FUEL - CAR & EQUIP:					1,029.12	.00
121-01-550.355 MEDICAL SUPPLIES						
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86088163	02/05/2026	301.74	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86089689	02/06/2026	1.79	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86089690	02/06/2026	213.55	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86107551	02/20/2026	97.16	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86121843	03/04/2026	602.08	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86126772	03/09/2026	456.34	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86131885	03/12/2026	19.79	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86142985	03/23/2026	229.94	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86151222	03/30/2026	300.66	.00
121-01-550.355 MEDICAL SUPPLIES	BoundTree Medical LLC	Medical supplies	86201796	05/11/2026	367.59	.00
121-01-550.355 MEDICAL SUPPLIES	Stryker Sales LLC	medical supplies	9212339726	05/18/2026	122.67	.00
Total 121-01-550.355 MEDICAL SUPPLIES:					2,713.31	.00
Total EMS:					3,742.43	.00
Grand Totals:					219,060.68	.00

Dated: _____

Mayor: _____

City Council: _____

_____

_____

_____

_____

_____

City Recorder: _____

Nebraska Liquor Control

301 Centennial Mall South - 1st Floor PO Box 95046 Lincoln NE 68508

Application Copy

File Number: 153320

AMENDMENT TYPE	APPLICATION DATE RECEIVED
Manager Change Amendment	2026-02-23
CURRENT MANAGER NAME	CURRENT MANAGER EMAIL
NEW MANAGER NAME	NEW MANAGER EMAIL

QUESTIONS

Class A Beer On Sale Only

1. Per Nebraska Revised Statute 53-103.18 - Manager, defined: Manager means a person appointed by a corporation or limited liability company to oversee the daily operation of the business licensed in Nebraska. A manager shall meet all the requirements of the Nebraska Liquor Control Act as though he or she were the applicant, including residency.

   What is the premises manager's name?

   David Staab

2. What is the manager's address?

   3103 Brentwood Blvd, Grand Island

3. What is the manager's phone number?

   308-390-3874

4. What is the manager's email address? An email will be sent to them to obtain their personal information.

   dstaab@staabmgt.com

5. What county is the manager registered to vote in?

   The manager must be a resident of the state of Nebraska. If the manager is not registered to vote they can complete their voter registration here - https://www.nebraska.gov/apps-sos-voter-registration/

   Hall

6. Is the manager married?

   Yes
   Jill Staab

7. Do you have prior experience or training in selling, serving or managing alcohol sales?

8. Do you qualify under Nebraska Liquor Control Act (53-131.01) and do you intend to supervise, in person, the management of the business?

   Yes

9. READ CAREFULLY. ANSWER COMPLETELY AND ACCURATELY

   Has the new manager, or their spouse, EVER been convicted of or plead guilty to any charge?

   *The Commission must be notified of any arrests and/or convictions that may occur after the date of this application.

   Yes
   (document uploaded)

APPLICANT

DECLARATION

☐ I (We) the applicant(s) agree and consent

I declare under penalty of perjury that I have read the contents of this amendment application and, to the best of my knowledge, believe all statements made in this amendment application are true, correct, and complete.

MANAGER AMENDMENT

NEBRASKA LIQUOR CONTROL COMMISSION
301 CENTENNIAL MALL SOUTH
PO BOX 95046
LINCOLN, NE 68509-5046
PHONE: (402) 471-2571
FAX: (402) 471-2814
EMAIL: lcc.frontdesk@nebraska.gov
WEBSITE: www.lcc.nebraska.gov

MANAGER INFORMATION

Last Name: David First Name: Staab MI: W

Home Address: 3103 Brentwood Blvd

City: Grand Island County: Hall Zip Code: 68801

Home Phone Number: 308-390-3874

Email address: dstaab@staabmgt.com

Are you married? If yes, complete spouse's information (Even if a spousal affidavit has been submitted)

☒ YES ☐ NO

Spouse's information

Spouses Last Name: Staab First Name: Jill MI: K

*If the manager is married; their spouse must also meet the same requirements
*The spouse of the manager may submit the Affidavit of non-participation if they have no involvement in the business whatsoever. Affidavit of Non-Participation means your spouse will not have anything to do with the business holding the liquor license. They will not tend bar, make sales, serve patrons, stock shelves, write checks, sign invoices, represent themselves as the owner or in any way participate in the day-to-day operations of this business in any capacity.

1. **READ CAREFULLY. ANSWER COMPLETELY AND ACCURATELY.**

Has any officer, member, owner, or manager named in this application; or their spouse, EVER been convicted of or plead guilty to any charge?

Charge means any charge alleging a felony, misdemeanor, violation of a federal or state law; a violation of a local law, ordinance or resolution. List the nature of the charge, where the charge occurred and the year (& month if known) of the conviction or plea. This question includes traffic violations other than speeding. PLEASE NOTE: NOTIFICATION IS REQUIRED TO THE LIQUOR COMMISSION IF ANY ARRESTS OR CONVICTIONS OCCUR AFTER THE SUBMISSION OF THIS APPLICATION.

☒ YES ☐ NO

If yes, please explain below or attach a separate page.

Name of Applicant	Date of Conviction (mm/yyyy)	Where Convicted (City & State)	Description of Charge	Disposition
David Staab	1986	Aurora, NE	DUI	Guilty
David Staab	1987	Siuox Falls, SD	DUI	Guilty
David Staab	1982	Lincoln, NE	Reckless Dr 1st	Guilty
David Staab	2010	ST Paul, NE	Speeding	Guilty
David Staab	2011	Valentine, NE	Speeding	Guilty

2. Have you or your spouse ever been approved or made application for a liquor license in Nebraska or any other state?

■ YES ☐ NO

IF YES, list the name of the premise(s):

_____

3. Do you, as a manager, qualify under Nebraska Liquor Control Act (§53-131.01) and do you intend to supervise, in person, the management of the business?

■ YES ☐ NO

ORDINANCE NO. 2499

AN ORDINANCE OF THE CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA, TO AMEND THE OFFICIAL ZONING MAP OF THE CITY OF WAHOO, NEBRASKA, BY CHANGING THE PRESENT ZONING OF THE FOLLOWING DESCRIBED REAL ESTATE, TO WIT:

A PART OF THE WEST HALF OF THE NORTHWEST QUARTER IN SECTION 35, TOWNSHIP 15 NORTH RANGE 7 EAST WAHOO, NEBRASKA

FROM C3 – GERNERAL COMMERCIAL AND TA - TRANSITIONAL AGRICULTURAL DISTRACT TO C2 – HIGHWAY COMMERCIAL AND I-2 – HEAVY INDUSTRIAL; THAT THE WAHOO COMPREHENSIVE PLAN, ADOPTED BY THE MAYOR AND COUNCIL OF THE CITY OF WAHOO, NEBRASKA, AS OF JULY 23, 2010, AS IT PERTAINS TO THE AREA TO BE REZONED, AS AFORENOTED, SHOWS THE FUTURE LAND USE TO BE LOW DENSITY RESIDENTIAL; TO AUTHORIZE THE MAYOR AND THE CLERK OF THE CITY OF WAHOO, NEBRASKA, TO AMEND THE COMPREHENSIVE PLAN AND THE OFFICIAL ZONING MAP OF THE CITY OF WAHOO, PURSUANT TO THIS ORDINANCE; TO PROVIDE FOR THE SEVERABILITY OF ANY SECTION, CLAUSE, PROVISION OR PORTION FOUND UNCONSTITUTIONAL OR INVALID; TO REPEAL ALL ORDINANCES IN CONFLICT HEREWITH; TO PROVIDE FOR THE PUBLICATION OF THIS ORDINANCE IN PAMPHLET FORM AND THE EFFECTIVE DATE THEREOF; AND TO PROVIDE THAT THIS ORDINANCE SHALL NOT BE MADE A PART OF THE MUNICIPAL CODE OF THE CITY OF WAHOO, NEBRASKA.

WHEREAS, JEO Investments, is the owner of the above described real estate, and,

WHEREAS, the Mayor and Council of the City of Wahoo, Nebraska, pursuant to Ordinance No. 1886, have adopted zoning for the City of Wahoo, Nebraska, and for that area beyond the corporate limits of the City of Wahoo, but within one mile thereof, said Ordinance known as the Wahoo Zoning Ordinance, and,

WHEREAS, said Wahoo Zoning Ordinance does provide for the Official Zoning Map of the City of Wahoo, Nebraska, and,

WHEREAS, said Wahoo Zoning Ordinance does provide for various zoning districts within the City of Wahoo, Nebraska, and within one mile of the corporate limits of the City of Wahoo, Nebraska, and,

WHEREAS, said Official Zoning Map does indicate that the above described real estate is zoned C3 – General Commercial District and TA – Transitional Agricultural, and,

WHEREAS, the owner of said real estate, as above noted, has requested, in writing, that the Mayor and Council of the City of Wahoo, Nebraska, amend the Official Zoning Map of the City of Wahoo, to indicate that the above described real estate be zoned C3-PUD – General Commercial with Planned Unit Development Overly District, and,

WHEREAS, said written request for zoning change was submitted to the City of Wahoo Planning Commission, and,

WHEREAS, said Planning Commission did submit in writing its recommendation as to said zoning changes, and,

WHEREAS, a notice of said change of zoning, said notice being not less than 18 inches in height and 24 inches in width with a white or yellow background and black letters not less than 1 ½ inches in height, was posted upon the above described real estate such that it was easily visible from the street nearest said real estate, said notice having been posted at least ten (10) days prior to the date of this hearing, and,

WHEREAS, the Mayor and Council of the City of Wahoo, Nebraska have held a public hearing on said request for change of zoning,

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF WAHOO, NEBRASKA, AS FOLLOWS:

Section 1. That the findings herein above made should be, and they hereby are made a part of this Ordinance as wholly as if set out at length herein.

Section 2. That the Official Zoning Map of the City of Wahoo, Nebraska, be amended, as to the following described real estate, to wit:

A PART OF THE WEST HALF OF THE NORTHWEST QUARTER IN SECTION 35, TOWNSHIP 15 NORTH RANGE 7 EAST WAHOO, NEBRASKA

from C3 – General Commercial and TA – Transitional Agricultural district to C2 – Highway Commercial and I-2 Heavy Industrial Zoning.

Section 3. That the Mayor of the City of Wahoo, Nebraska, and the Clerk of the City of Wahoo, Nebraska, be authorized to amend the Official Zoning Map of the City of Wahoo, Nebraska, pursuant to this Ordinance.

Section 4. That should any section, paragraph, sentence or word of this Ordinance hereby adopted be declared for any reason to be invalid, it is the intent of the Mayor and Council of the City of Wahoo, Nebraska, that it would have passed all other portions of this Ordinance independent of the elimination herefrom of any such portion as may be declared invalid.

Section 5. That all Ordinances and parts of Ordinances passed and approved prior to the passage, approval, and publication of this Ordinance, in conflict herewith, are hereby repealed.

Section 6. That this Ordinance shall be published within the first fifteen days after its passage and approval in pamphlet form within the City of Wahoo, Nebraska, and shall be effective on the fifteenth day from and after its passage, approval, and publication according to law.

Section 7. That this Ordinance shall not be made a part of the Municipal Code of the City of Wahoo, Nebraska.

PASSED AND APPROVED this 26th day of May 2026.

CITY OF WAHOO, NEBRASKA

By: _____
Gerald D. Johnson, Its Mayor

ATTEST:

_____
Christina Fasel, City Clerk

(SEAL)

CITY OF WAHOO
APPLICATION FOR CHANGE OF ZONING

Applicant's Name JEO Investments, Inc.

Applicant's Address 1937 N Chestnut St. Wahoo, NE 68066

Phone Number(s): 402-443-7455

Address or location of property to be rezoned A portion of the southeast corner of U.S. Highway 77 and Old Highway 77

Legal description of property to be rezoned A part of the west half of the northwest quarter in Section 35, Township 15 North Range 7 East, Wahoo, Nebraska

Area of property (Sq Ft or Acres) 48.89 acres

Current use of property Agricultural

Proposed use of property Industrial and Highway Commercial

Present zoning C-3 (AHO)(GCO) & Ag (AHO)(GCO) Requested zoning C-2 (AHO)(GCO) & I-2 (AHO)(GCO)

Current zoning and use of adjoining properties:

North: C-2 & C-3 (AHO) (GCO) South: I-2 (AHO)(GCO)

East: AG (AHO)(GCO) West: I-2 (AHO)(GCO)

Designated use of property on Future Land Use Map and Wahoo Comprehensive plan: Flex and Industrial

Applicant must furnish a survey plat of property proposed to be rezoned, and site plan showing existing and proposed structures, easements, water courses, curb cutbacks, etc.

Under the provisions of the City of Wahoo Zoning Regulations, the undersigned hereby applies for a change of zoning. This application authorizes representatives of the City of Wahoo to enter the above property for purposes of inspection, examination, and investigation related to this application, and posting of signs as required by Zoning Regulations.

Date: 11/3/25 Signed: _____

Owner or authorized agent

Address: 1937 N Chestnut St. Wahoo, NE 68066

Phone: 402-443-7455

FEE: $ $250.00 Receipt # 30896 - 11/3/2025

Publication fees will be billed to applicant

Date of Hearing (Planning Commission) 5/7/2026, 20___. Approved _____ Denied _____

Date of Hearing (City Council) 5/26/2026, 20___. Approved _____ Denied _____

_____

Zoning Administrator

(Rev. 3/27/2018)

JUSTIFICATION:

Questions 1 through 10 must be answered completely. Use additional sheets if needed.

1. Explain how this request is compatible with the future land use elements of the Wahoo, Nebraska Comprehensive Plan.

2. What type of development does the Wahoo, Nebraska comprehensive Plan recommend for this general area?

3. Can soil conditions support the kinds of development in the proposed zoning district? What is the soil classification of the area?

4. Is the proposed zoning district in the floodplain hazard area as delineated under the federal flood insurance program?

5. Provide reasons to support the need for the proposed zoning in this area.

6. How would the proposed district conform with adjacent zoning districts?

7. What is the general character of the area? Describe

8. What type of sewer and water system will be used?

9. Does the change affect any proposed public projects?

10. How will the proposed zoning district affect traffic in the area?

Rezone Justification – Krumel Industrial Subdivision

1. Explain how this request is compatible with the future land use elements of the Wahoo, Nebraska Comprehensive Plan.

Krumel Industrial Subdivision will be a combination of C-2 and I-2 zoning consistent with the Future Land Use designation of Flex and Industrial along the important transportation corridors of U.S. Highway 77 and Old Highway 77.

2. What type of development does the Wahoo, Nebraska comprehensive Plan recommend for this general area?

The 2017 Comprehensive Plan considered this area to be served by flex and industrial uses. The proposed subdivision is consistent with that vision. The subdivision will be a mix uses intended for highway traffic, flex industrial uses, and heavier industrial uses, all designed to provide important services and job creation opportunities.

3. Can soil conditions support the kinds of development in the proposed zoning district? What is the soil classification of the area?

A soil survey report is attached. A full geotechnical report has been commissioned to begin once crops are harvested in the project area and will be submitted prior to final plat.

4. Is the proposed zoning district in the floodplain hazard area as delineated under the federal flood insurance program?

N/A

5. Provide reasons to support the need for the proposed zoning in this area.

This project will facilitate the transition from service-adjacent agricultural uses to highway commercial and industrial development and services along the Highway 77 corridor.

A parallel zoning amendment request proposes to reduce the width of the Design Corridor Overlay from ¼ mile to 1/8 mile from the U.S. Highway 77 corridor east of Old Highway 77. This is appropriate as to not burden industrial development with the expense associated with the design regulations, but still protect the intent and design priority immediately adjacent to this important transportation corridor in Wahoo.

6. How would the proposed district conform with adjacent zoning districts?

The subdivision will be a continuation of adjacent commercial and industrial zoning districts.

7. What is the general character of the area? Describe

The current character of the area is transitional agricultural land.

8. What type of sewer and water system will be used?

Sewer and water will be designed and constructed to the City's specifications and connected to the existing Department of Utilities systems.

9. Does the change affect any proposed public projects?

No.

10. How will the proposed zoning district affect traffic in the area?

A traffic study has been commissioned and will be reviewed and approved by NDOT. A draft of the study is included herein.

Plotted By: CHARLES MCFARLAND
Sheet Size: ANSI A (8.50 X 11.00 INCHES) Plot Scale: 0.3869:1

LEGEND

- MONUMENT FOUND-5/8" REBAR (UNLESS NOTED OTHERWISE)
- MONUMENT SET-5/8" X 24" REBAR WITH A PLASTIC CAP STAMPED "BORCHERS L.S. 766"
- CALCULATED POINT
- D DEEDED DISTANCE
- G GOVERNMENT DISTANCE
- M MEASURED DISTANCE
- P PLATTED DISTANCE
- R RECORDED DISTANCE
- R1 RECORDED DISTANCE-SIMONDS 2010
- R2 RECORDED DISTANCE-BORCHERS 2016
- R3 RECORDED DISTANCE-CHARLES 2006

OWNER / DEVELOPER:
JEO INVESTMENTS INC.
ROB BRIGHAM
1937 N CHESTNUT STREET
WAHOO, NE 68066

ENGINEER / SURVEYOR:
JEO CONSULTING GROUP
ISAAC KREIKEMEIER AND JOSH BORCHERS
1937 N CHESTNUT STREET
WAHOO, NE 68066

"PRELIMINARY PLAT"
KRUMEL INDUSTRIAL SUBDIVISION

A PART OF THE WEST HALF OF THE NORTHWEST QUARTER IN SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST
WAHOO, NEBRASKA

ZONING INFORMATION

EXISTING ZONING:
EAST OF OLD HIGHWAY 77: TRANSITION ZONE
WEST OF OLD HIGHWAY 77: HEAVY INDUSTRIAL (I-2)

PROPOSED ZONING:
LOTS 1-9: HIGHWAY COMMERCIAL (C-2)
LOTS 10-11: HEAVY INDUSTRIAL (I-2)

BUILDING SETBACK RESTRICTIONS

HIGHWAY COMMERCIAL DISTRICT (C-2)

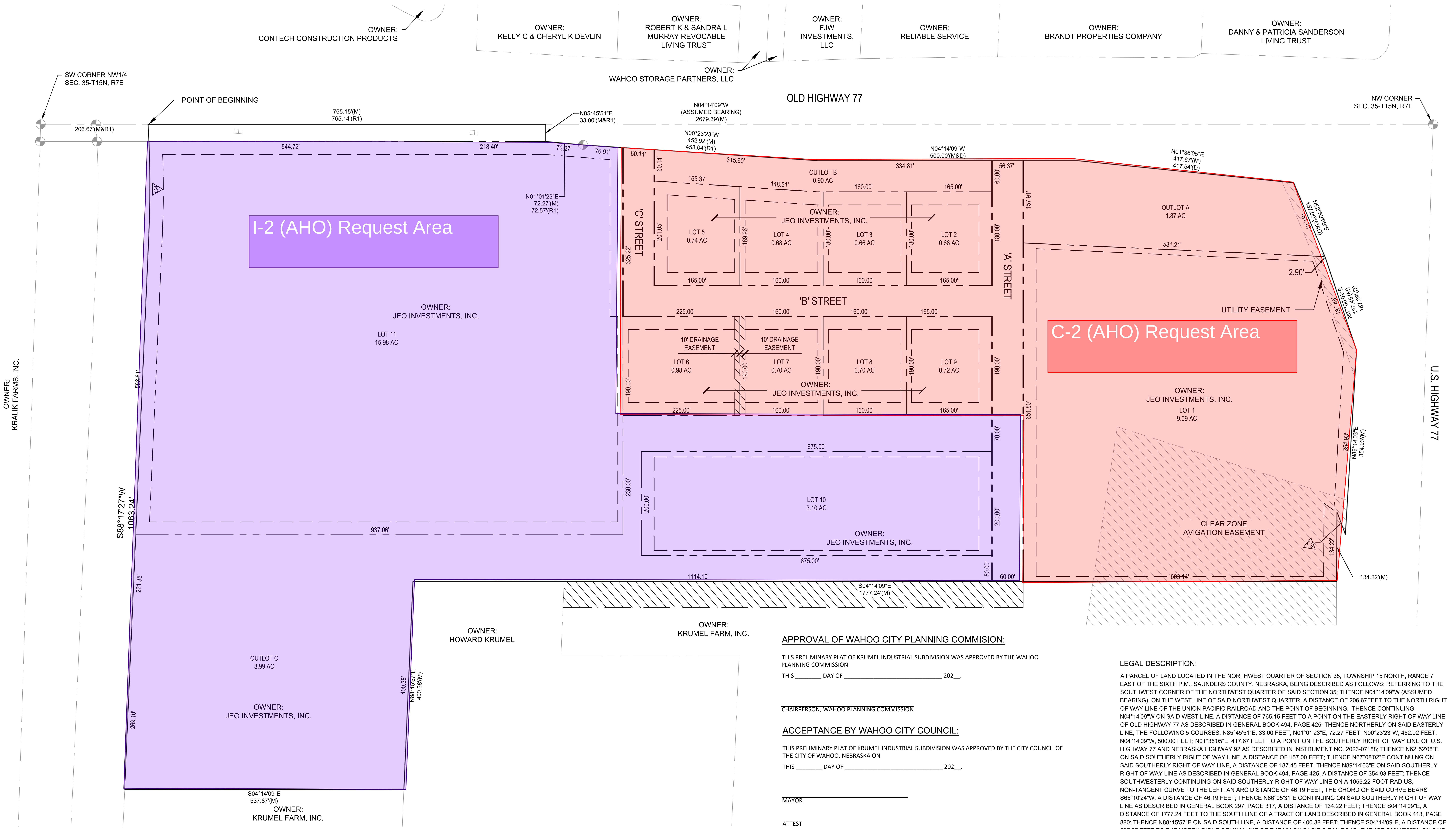
FRONT YARD	25 FEET
SIDE YARD	10 FEET
REAR YARD	20 FEET

HEAVY INDUSTRIAL (I-2)

FRONT YARD	25 FEET
SIDE YARD	10 FEET
REAR YARD	10 FEET

VICINITY SKETCH
SAUNDERS COUNTY
NEBRASKA
R7E
T15N

GRAPHIC SCALE
0 25 50 100 200
UNIT OF MEASURE IS



CURVE DATA TABLE

CURVE #	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD LENGTH
C1	46.19'	1055.22'	002°30'29"	23.10'	S65°10'24"W	46.19'
C2	217.89'	2095.80'	005°57'24"	109.04'	S85°25'54"W	217.79'

APPROVAL OF WAHOO CITY PLANNING COMMISION:

THIS PRELIMINARY PLAT OF KRUMEL INDUSTRIAL SUBDIVISION WAS APPROVED BY THE WAHOO PLANNING COMMISSION

THIS ________ DAY OF ______________________________ 202__.

____
CHAIRPERSON, WAHOO PLANNING COMMISSION

ACCEPTANCE BY WAHOO CITY COUNCIL:

THIS PRELIMINARY PLAT OF KRUMEL INDUSTRIAL SUBDIVISION WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF WAHOO, NEBRASKA ON

THIS ________ DAY OF ______________________________ 202__.

____
MAYOR

ATTEST ______________________________
CITY CLERK

ACCEPTANCE BY WAHOO CITY ENGINEER:

THIS PRELIMINARY PLAT OF KRUMEL INDUSTRIAL SUBDIVISION WAS REVIEWED AND APPROVED BY THE WAHOO CITY ENGINEER ON

THIS ________ DAY OF ______________________________ 202___.

____
WAHOO CITY ENGINEER

LEGAL DESCRIPTION:

A PARCEL OF LAND LOCATED IN THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST OF THE SIXTH P.M., SAUNDERS COUNTY, NEBRASKA, BEING DESCRIBED AS FOLLOWS: REFERRING TO THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 35; THENCE N04°14'09"W (ASSUMED BEARING), ON THE WEST LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 206.67FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD AND THE POINT OF BEGINNING; THENCE CONTINUING N04°14'09"W ON SAID WEST LINE, A DISTANCE OF 765.15 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF OLD HIGHWAY 77 AS DESCRIBED IN GENERAL BOOK 494, PAGE 425; THENCE NORTHERLY ON SAID EASTERLY LINE, THE FOLLOWING 5 COURSES: N85°45'51"E, 33.00 FEET; N01°01'23"E, 72.27 FEET; N00°23'23"W, 452.92 FEET; N04°14'09"W, 500.00 FEET; N01°36'05"E, 417.67 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY 77 AND NEBRASKA HIGHWAY 92 AS DESCRIBED IN INSTRUMENT NO. 2023-07188; THENCE N62°52'08"E ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 157.00 FEET; THENCE N67°08'02"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 187.45 FEET; THENCE N89°14'03"E ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 494, PAGE 425, A DISTANCE OF 354.93 FEET; THENCE SOUTHWESTERLY CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE ON A 1055.22 FOOT RADIUS, NON-TANGENT CURVE TO THE LEFT, AN ARC DISTANCE OF 46.19 FEET, THE CHORD OF SAID CURVE BEARS S65°10'24"W, A DISTANCE OF 46.19 FEET; THENCE N86°05'31"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 297, PAGE 317, A DISTANCE OF 134.22 FEET; THENCE S04°14'09"E, A DISTANCE OF 1777.24 FEET TO THE SOUTH LINE OF A TRACT OF LAND DESCRIBED IN GENERAL BOOK 413, PAGE 880; THENCE N88°15'57"E ON SAID SOUTH LINE, A DISTANCE OF 400.38 FEET; THENCE S04°14'09"E, A DISTANCE OF 537.87 FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD; THENCE S88°17'27"W ON SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 1063.24 FEET TO A POINT OF CURVATURE; THENCE WESTERLY CONTINUING ON SAID NORTH RIGHT OF WAY LINE, ON A 2095.80 FOOT RADIUS CURVE TO THE LEFT, AN ARC DISTANCE OF 217.89 FEET TO THE POINT OF BEGINNING, THE CHORD OF SAID CURVE BEARS S85°25'54"W, A DISTANCE OF 217.79 FEET, CONTAINING 48.89 ACRES, MORE OR LESS.

Drawing Name: 0.dwg
File Path: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\7 Design\2 Drawings\1_Sheets\PRELIM PLAT

JEO CONSULTING GROUP

1937 N CHESTNUT ST
WAHOO, NE 68066
800.723.8567 | jeo.com

JEO CONSULTING, INC.
ORGANIZATION CERTIFICATE OF AUTHORIZATION NUMBER: CA-0069

PRELIMINARY
NOT FOR CONSTRUCTION
30%
DATE:
09.22.2025

[09.22.2025]
Isaac Kreikenmeier - Civil Engineer
E-20028

ISSUE

MARK	DATE	DESCRIPTION
-	00/00/0000	XX

KRUMEL INDUSTRIAL SUBDIVISION

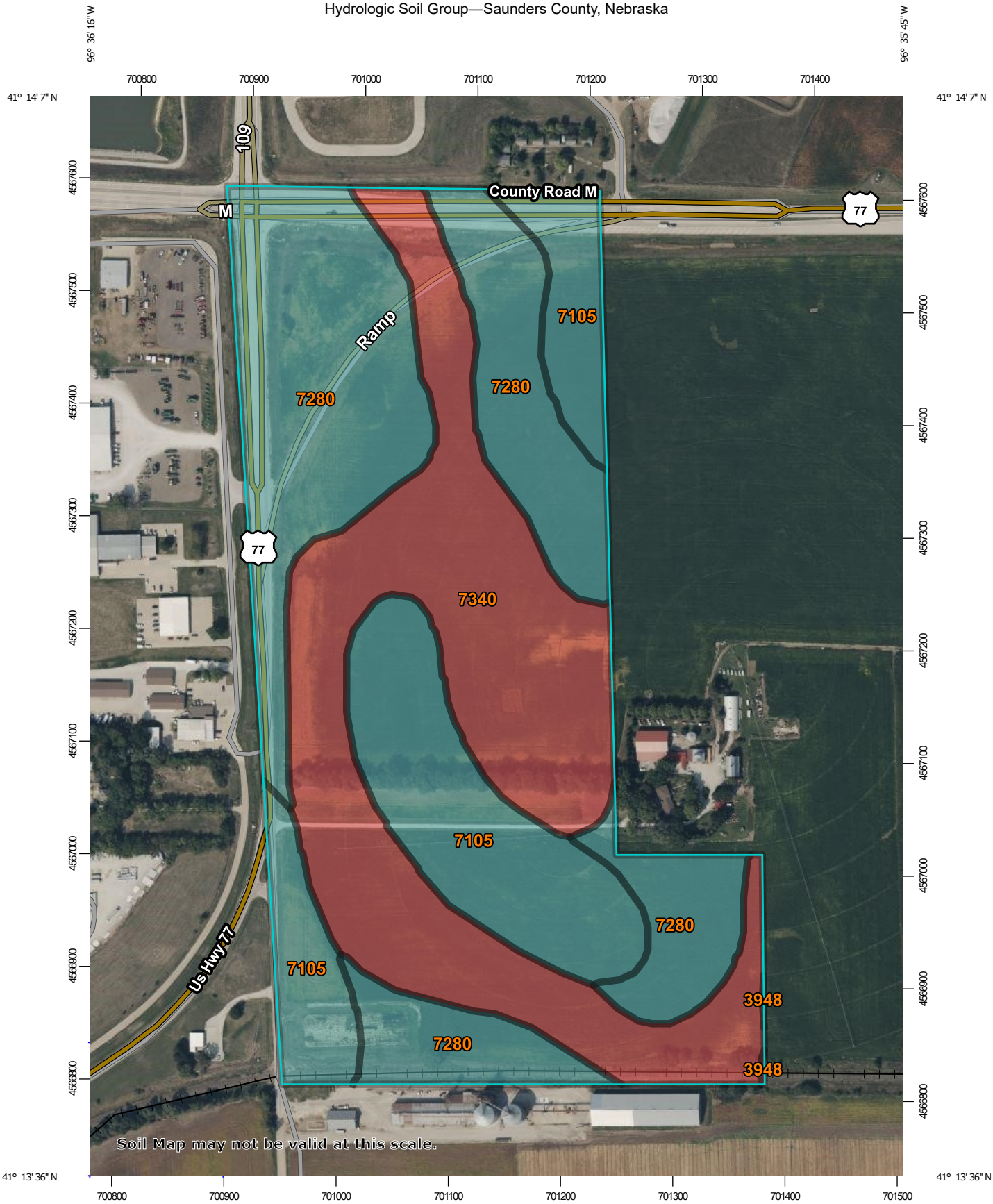
JEO INVESTMENTS, INC.
1937 N CHESTNUT STREET
WAHOO, NE 68066

JEO PROJECT NO.:	[242471.00]
DRAWN BY:	[BEG]
QAQC:	[IK]

811
Know what's below. Call before you dig.

US SURVEY FEET (sFT)

PRELIMINARY PLAT



Map Scale: 1:4,670 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saunders County, Nebraska
Survey Area Data: Version 22, Aug 28, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
3948	Fillmore silt loam, terrace, occasionally ponded	D	0.0	0.0%
7105	Yutan silty clay loam, terrace, 2 to 6 percent slopes, eroded	C	15.9	23.0%
7280	Tomek silt loam, 0 to 2 percent slopes	C	26.5	38.3%
7340	Filbert silt loam, 0 to 1 percent slopes	D	26.7	38.6%
Totals for Area of Interest			**69.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

"PRELIMINARY PLAT"
KRUMEL INDUSTRIAL SUBDIVISION

A PART OF THE WEST HALF OF THE NORTHWEST QUARTER IN SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST
WAHOO, NEBRASKA

LEGEND
- MONUMENT FOUND-5/8" REBAR (UNLESS NOTED OTHERWISE)
- MONUMENT SET-5/8" X 24" REBAR WITH A PLASTIC CAP STAMPED "BORCHERS L.S. 766"
- CALCULATED POINT
- D DEEDED DISTANCE
- G GOVERNMENT DISTANCE
- M MEASURED DISTANCE
- P PLATTED DISTANCE
- R RECORDED DISTANCE
- R1 RECORDED DISTANCE-SIMONDS 2010
- R2 RECORDED DISTANCE-BORCHERS 2016
- R3 RECORDED DISTANCE-CHARLES 2006

OWNER / DEVELOPER:
JEO INVESTMENTS INC.
ROB BRIGHAM
1937 N CHESTNUT STREET
WAHOO, NE 68066

ENGINEER / SURVEYOR:
JEO CONSULTING GROUP
ISAAC KREIKEMEIER AND JOSH BORCHERS
1937 N CHESTNUT STREET
WAHOO, NE 68066

ZONING INFORMATION

EXISTING ZONING:
EAST OF OLD HIGHWAY 77: TRANSITION ZONE
WEST OF OLD HIGHWAY 77: HEAVY INDUSTRIAL (I-2)

PROPOSED ZONING:
LOTS 1-9: HIGHWAY COMMERCIAL (C-2)
LOTS 10-11: HEAVY INDUSTRIAL (I-2)

BUILDING SETBACK RESTRICTIONS

HIGHWAY COMMERCIAL DISTRICT (C-2)

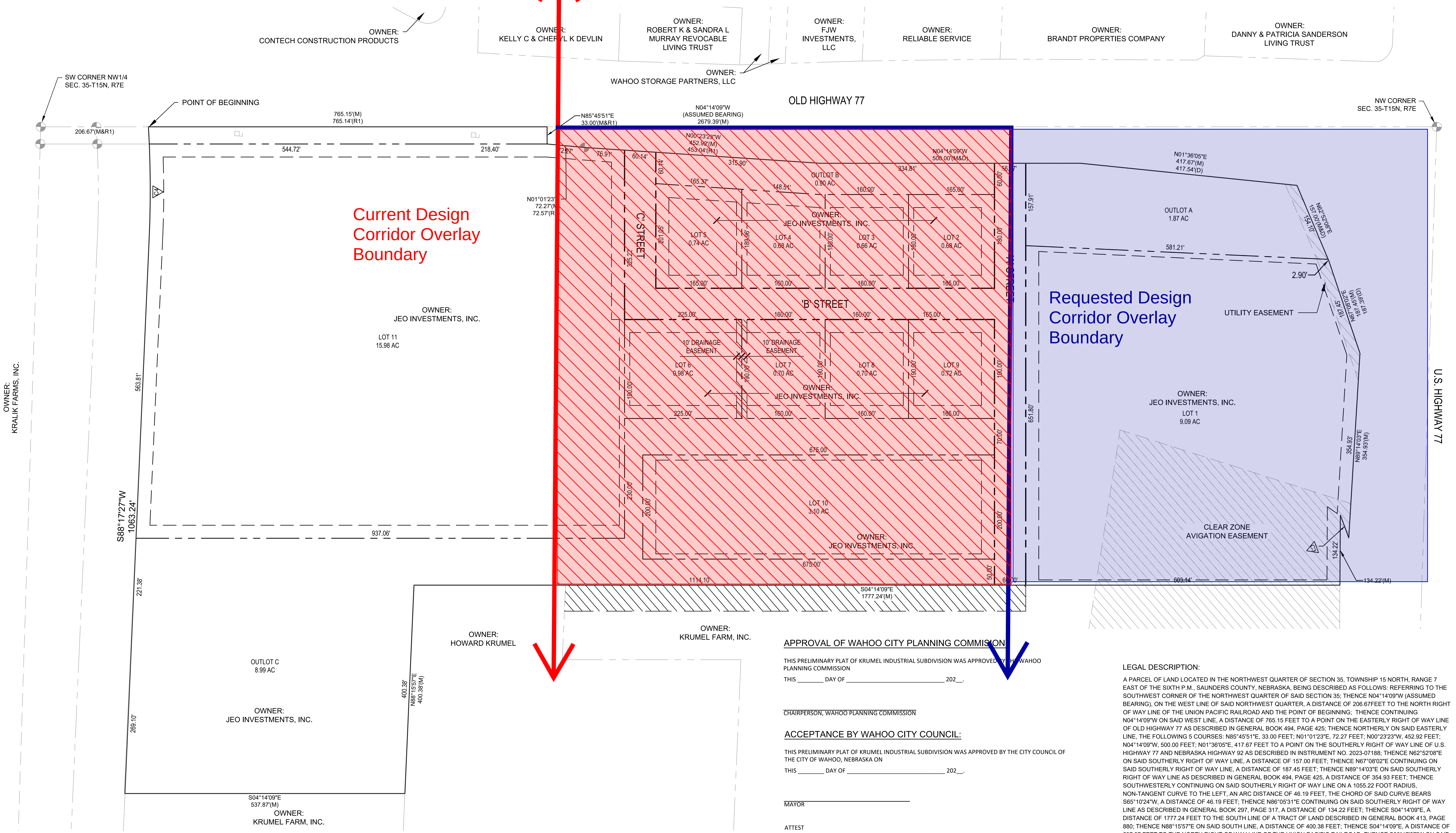
FRONT YARD	25 FEET
SIDE YARD	10 FEET
REAR YARD	20 FEET

HEAVY INDUSTRIAL (I-2)

FRONT YARD	25 FEET
SIDE YARD	10 FEET
REAR YARD	10 FEET

VICINITY SKETCH
SAUNDERS COUNTY
NEBRASKA
R7E
T15N

GRAPHIC SCALE
0 25 50 100 200
UNIT OF MEASURE IS



CURVE DATA TABLE

CURVE #	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD LENGTH
C1	46.19'	1055.22'	002°30'29"	23.10'	S65°10'24"W	46.19'
C2	217.89'	2095.80'	005°57'24"	109.04'	S85°25'54"W	217.79'

APPROVAL OF WAHOO CITY PLANNING COMMISION

THIS PRELIMINARY PLAT OF KRUMEL INDUSTRIAL SUBDIVISION WAS APPROVED BY THE WAHOO PLANNING COMMISSION

THIS _________ DAY OF _________________________________ 202__.

CHAIRPERSON, WAHOO PLANNING COMMISSION

ACCEPTANCE BY WAHOO CITY COUNCIL:

THIS PRELIMINARY PLAT OF KRUMEL INDUSTRIAL SUBDIVISION WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF WAHOO, NEBRASKA ON

THIS _________ DAY OF _________________________________ 202__.

MAYOR

ATTEST

CITY CLERK

ACCEPTANCE BY WAHOO CITY ENGINEER:

THIS PRELIMINARY PLAT OF KRUMEL INDUSTRIAL SUBDIVISION WAS REVIEWED AND APPROVED BY THE WAHOO CITY ENGINEER ON

THIS _________ DAY OF _________________________________ 202___.

WAHOO CITY ENGINEER

LEGAL DESCRIPTION:

A PARCEL OF LAND LOCATED IN THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST OF THE SIXTH P.M., SAUNDERS COUNTY, NEBRASKA, BEING DESCRIBED AS FOLLOWS: REFERRING TO THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 35; THENCE N04°14'09"W (ASSUMED BEARING), ON THE WEST LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 206.67FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD AND THE POINT OF BEGINNING; THENCE CONTINUING N04°14'09"W ON SAID WEST LINE, A DISTANCE OF 765.15 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF OLD HIGHWAY 77 AS DESCRIBED IN GENERAL BOOK 494, PAGE 425; THENCE NORTHERLY ON SAID EASTERLY LINE, THE FOLLOWING 5 COURSES: N85°45'51"E, 33.00 FEET; N01°01'23"E, 72.27 FEET; N00°23'23"W, 452.92 FEET; N04°14'09"W, 500.00 FEET; N01°36'05"E, 417.67 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY 77 AND NEBRASKA HIGHWAY 92 AS DESCRIBED IN INSTRUMENT NO. 2023-07188; THENCE N62°52'08"E ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 157.00 FEET; THENCE N67°08'02"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 187.45 FEET; THENCE N89°14'03"E ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 494, PAGE 425, A DISTANCE OF 354.93 FEET; THENCE SOUTHWESTERLY CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE ON A 1055.22 FOOT RADIUS, NON-TANGENT CURVE TO THE LEFT, AN ARC DISTANCE OF 46.19 FEET, THE CHORD OF SAID CURVE BEARS S65°10'24"W, A DISTANCE OF 46.19 FEET; THENCE N86°05'31"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 297, PAGE 317, A DISTANCE OF 134.22 FEET; THENCE S04°14'09"E, A DISTANCE OF 1777.24 FEET TO THE SOUTH LINE OF A TRACT OF LAND DESCRIBED IN GENERAL BOOK 413, PAGE 880; THENCE N88°15'57"E ON SAID SOUTH LINE, A DISTANCE OF 400.38 FEET; THENCE S04°14'09"E, A DISTANCE OF 537.87 FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD; THENCE S88°17'27"W ON SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 1063.24 FEET TO A POINT OF CURVATURE; THENCE WESTERLY CONTINUING ON SAID NORTH RIGHT OF WAY LINE, ON A 2095.80 FOOT RADIUS CURVE TO THE LEFT, AN ARC DISTANCE OF 217.89 FEET TO THE POINT OF BEGINNING, THE CHORD OF SAID CURVE BEARS S85°25'54"W, A DISTANCE OF 217.79 FEET, CONTAINING 48.89 ACRES, MORE OR LESS.

JEO CONSULTING GROUP
1937 N CHESTNUT ST
WAHOO, NE 68066
800.723.8567 | jeo.com

JEO CONSULTING, INC.
ORGANIZATION CERTIFICATE OF AUTHORIZATION NUMBER: CA-0069

PRELIMINARY
NOT FOR CONSTRUCTION
30%
DATE:
09.22.2025

[09.22.2025]
Isaac Kreikemeier - Civil Engineer
E-20028

ISSUE

MARK	DATE	DESCRIPTION
-	00/00/0000	XX

KRUMEL INDUSTRIAL SUBDIVISION

JEO INVESTMENTS, INC.
1937 N CHESTNUT STREET
WAHOO, NE 68066

JEO PROJECT NO.:	[242471.00]
DRAWN BY:	[BEG]
QAQC:	[IK]

811
Know what's below. Call before you dig.

US SURVEY FEET (sFT)

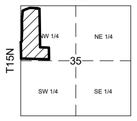
PRELIMINARY PLAT

0

Plotted By: CHARLES MCFARLAND
Sheet Size: ANSI A (8.50 X 11.00 INCHES) Plot Scale: 0.3869:1
Drawing Name: 0.dwg
File Path: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\7 Design\2 Drawings_Sheets\PRELIM PLAT

VICINITY SKETCH

SAUNDERS COUNTY
NEBRASKA

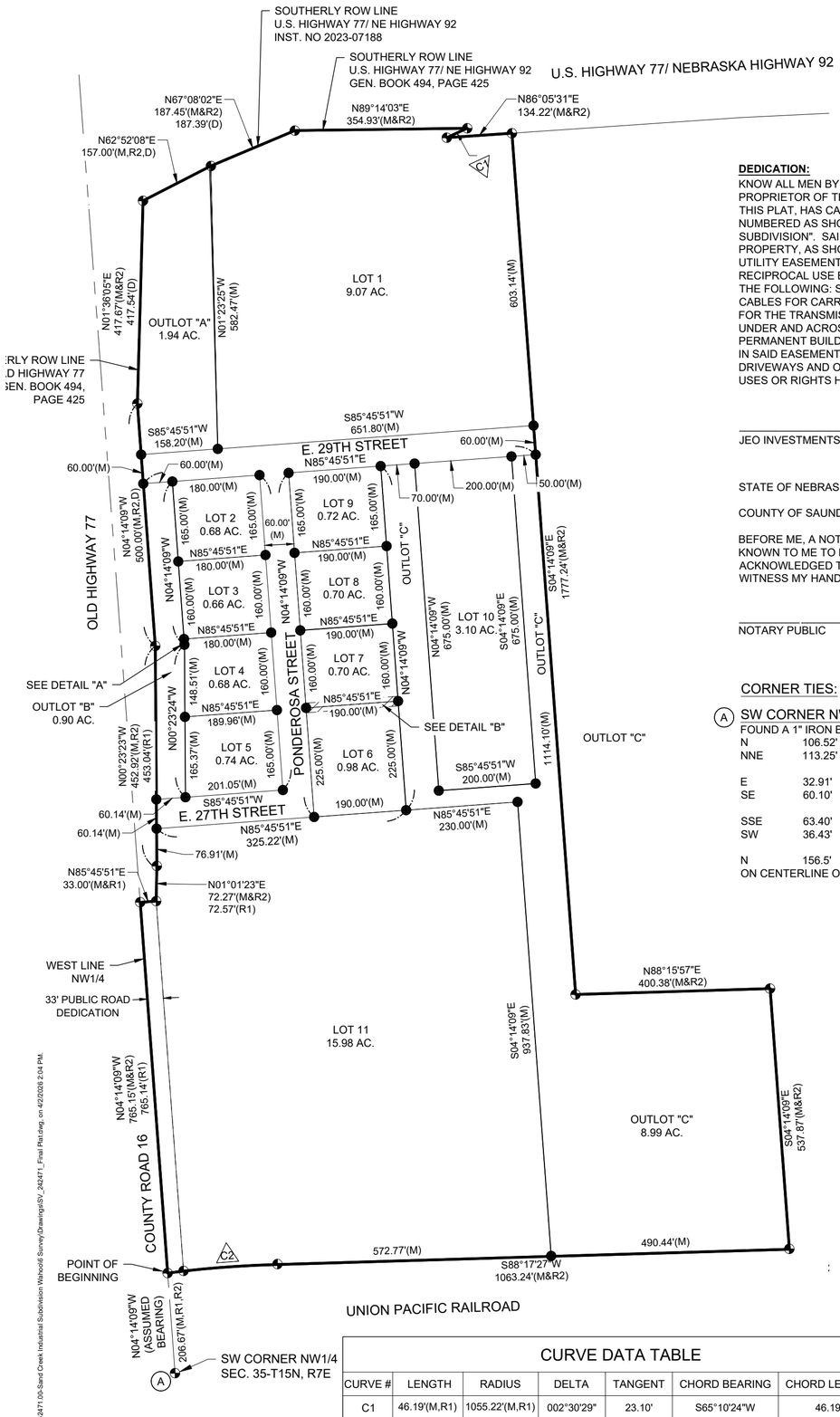


LEGEND

- MONUMENT FOUND (5/8" REBAR W/ PLASTIC CAP STAMPED "BORCHERS PLS 766" UNLESS NOTED)
- MONUMENT SET (5/8" X 24" REBAR W/ PLASTIC CAP STAMPED "BORCHERS PLS 766")
- CALCULATED POINT
- M MEASURED DISTANCE
- R1 ERICKSON 1980
- R2 BORCHERS 2026

"FINAL PLAT"
KRUMEL INDUSTRIAL SUBDIVISION

A PART OF THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST SAUNDERS COUNTY, NEBRASKA



DEDICATION:

KNOW ALL MEN BY THESE PRESENTS: THAT JEO INVESTMENTS, INC., BEING THE OWNER AND PROPRIETOR OF THE LAND DESCRIBED WITHIN THE PERIMETER DESCRIPTION AND EMBRACED WITHIN THIS PLAT, HAS CAUSED SAID LAND TO BE SUBDIVIDED INTO STREETS AND LOTS, TO BE NAMED AND NUMBERED AS SHOWN, SAID SUBDIVISION TO BE HEREAFTER KNOWN AS "KRUMEL INDUSTRIAL SUBDIVISION". SAID OWNER HEREBY RATIFIES AND APPROVES OF THE DISPOSITION OF THEIR PROPERTY, AS SHOWN ON THIS PLAT. SAID OWNER HEREBY DEDICATES TO THE PUBLIC FOR PERPETUAL UTILITY EASEMENTS TO THE CITY OF WAHOO, AND ANY OTHER PUBLIC OR PRIVATE UTILITY FOR RECIPROCAL USE BY THE LICENSEES OF SAID SUBDIVISION, TO BUILD, ERECT, MAINTAIN AND OR REPAIR THE FOLLOWING: SEWER LINES, WATER LINES, DRAINAGE FACILITIES, NATURAL GAS LINES, WIRES AND CABLES FOR CARRYING TRANSMISSION OF ELECTRICAL CURRENT FOR LIGHT, HEAT AND POWER, AND FOR THE TRANSMISSION AND RECEPTION OF SIGNALS AND SOUNDS OF ALL KINDS ON, OVER, THROUGH, UNDER AND ACROSS ALL STRIPS OF LAND LABELED AS UTILITY EASEMENTS ON THIS PLAT. NO PERMANENT BUILDINGS, FENCES, TREES, RETAINING WALLS OR LOOSE ROCK WALLS SHALL BE PLACED IN SAID EASEMENT WAYS, BUT THE SAME MAY BE USED FOR GARDENS, SHRUBS, LANDSCAPING, DRIVEWAYS AND OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS HEREIN GRANTED.

_____
JEO INVESTMENTS, INC.

STATE OF NEBRASKA)
) SS
COUNTY OF SAUNDERS)

BEFORE ME, A NOTARY PUBLIC QUALIFIED IN SAID COUNTY, PERSONALLY CAME, _____
KNOWN TO ME TO BE THE IDENTICAL PERSON WHO SIGNED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THE EXECUTION THEREOF TO BE HIS VOLUNTARY ACT AND DEED.
WITNESS MY HAND AND NOTARIAL SEAL ON _____ DAY OF _____, 202___.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

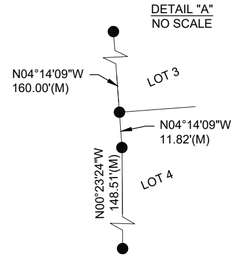
CORNER TIES:

(A) SW CORNER NW1/4 SECTION 35-T15N-R7E
FOUND A 1" IRON BAR, 0.5' DEEP.

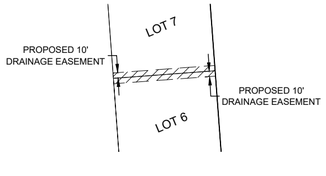
N	106.52'	TO A MAG NAIL FOUND IN ASPHALT ON SECTION LINE
NNE	113.25'	TO A 5/8" REBAR WITH A PLASTIC CAP STAMPED "LS 618" FOUND FLUSH WITH THE GROUND (N12°43'07"E)
E	32.91'	TO A 5/8" REBAR FOUND 0.2' DEEP (N87°34'03"E)
SE	60.10'	TO A 5/8" REBAR WITH A PLASTIC CAP STAMPED "LS 618" FOUND FLUSH WITH THE GROUND (S37°13'11"E)
SSE	63.40'	TO A 5/8" REBAR FOUND 1.0' DEEP (S31°03'33"E)
SW	36.43'	TO A 5/8" X 24" REBAR WITH A PLASTIC CAP STAMPED "RM 2025" SET FLUSH WITH THE GROUND (S44°51'32"W)
N	156.5'	TO THE CENTERLINE OF RAILROAD TRACKS

ON CENTERLINE OF NORTH-SOUTH COUNTY ROAD

DETAIL "A"
NO SCALE

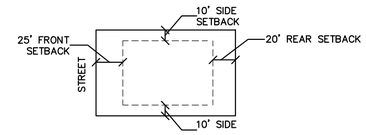


DETAIL "B"
NO SCALE

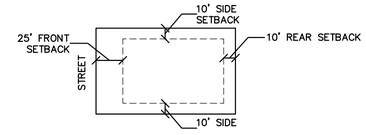


CURVE DATA TABLE						
CURVE #	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD LENGTH
C1	46.19'(M,R1)	1055.22'(M,R1)	002°30'29"	23.10'	S65°10'24"W	46.19'
C2	217.89'(M,R1)	2095.80'(M,R1)	005°57'24"	109.04'	S85°25'54"W	217.79'

DETAIL OF TYPICAL BUILDING
SETBACKS AND UTILITY EASEMENTS
LOTS 1-9
ZONING DISTRICT: HIGHWAY COMMERCIAL DISTRICT (C-2)



DETAIL OF TYPICAL BUILDING
SETBACKS AND UTILITY EASEMENTS
LOTS 10, 11
ZONING DISTRICT: HEAVY INDUSTRIAL (I-2)



APPROVAL OF THE CITY COUNCIL OF WAHOO, NEBRASKA:
THIS PLAT OF "KRUMEL INDUSTRIAL SUBDIVSION" WAS APPROVED AND ACCEPTED BY THE CITY COUNCIL OF THE CITY OF WAHOO, NEBRASKA THIS _____DAY OF _____, 2026.

_____ _____ _____
MAYOR CITY CLERK

SAUNDERS COUNTY TREASURER:
I HEREBY CERTIFY THAT THE RECORDS IN MY OFFICE SHOW NO TAXES ARE DELINQUENT UPON THE LAND DESCRIBED IN THE PERIMETER DESCRIPTION AS APPEARS ON THIS PLAT AS OF THE _____ DAY OF _____ , 2026.

_____
TREASURER

SAUNDERS COUNTY SURVEYOR'S APPROVAL:
I HEREBY APPROVE THE NUMBERING OF THE LOTS IN "KRUMEL INDUSTRIAL SUBDIVISION", LOCATED IN THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST OF THE SIXTH P.M., SAUNDERS COUNTY, NEBRASKA, ON THIS _____ DAY OF _____, 2026.

_____
SAUNDERS COUNTY SURVEYOR

APPROVAL OF THE CITY PLANNING COMMISSION OF WAHOO, NEBRASKA:
THIS PLAT OF "KRUMEL INDUSTRIAL SUBDIVISION" WAS APPROVED BY THE CITY PLANNING COMMISSION OF WAHOO, NEBRASKA THIS _____ DAY OF _____, 2026.

_____
CHAIRMAN

PERIMETER DESCRIPTION:

A PARCEL OF LAND LOCATED IN THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST OF THE SIXTH P.M., SAUNDERS COUNTY, NEBRASKA, BEING DESCRIBED AS FOLLOWS: REFERRING TO THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 35; THENCE N04°14'09"W (ASSUMED BEARING), ON THE WEST LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 206.67FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD AND THE POINT OF BEGINNING; THENCE CONTINUING N04°14'09"W ON SAID WEST LINE, A DISTANCE OF 765.15 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF OLD HIGHWAY 77 AS DESCRIBED IN GENERAL BOOK 494, PAGE 425; THENCE NORTHERLY ON SAID EASTERLY LINE, THE FOLLOWING 5 COURSES: N85°45'51"E, 33.00 FEET; N01°01'23"E, 72.27 FEET; N00°23'23"W, 452.92 FEET; N04°14'09"W, 500.00 FEET; N01°36'05"E, 417.67 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY 77 AND NEBRASKA HIGHWAY 92 AS DESCRIBED IN INSTRUMENT NO. 2023-07188; THENCE N62°52'08"E ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 157.00 FEET; THENCE N67°08'02"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 187.45 FEET; THENCE N89°14'03"E ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 494, PAGE 425, A DISTANCE OF 354.93 FEET; THENCE SOUTHWESTERLY CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE ON A 1055.22 FOOT RADIUS, NON-TANGENT CURVE TO THE LEFT, AN ARC DISTANCE OF 46.19 FEET, THE CHORD OF SAID CURVE BEARS S65°10'24"W, A DISTANCE OF 46.19 FEET; THENCE N86°05'31"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 297, PAGE 317, A DISTANCE OF 134.22 FEET; THENCE S04°14'09"E, A DISTANCE OF 1777.24 FEET TO THE SOUTH LINE OF A TRACT OF LAND DESCRIBED IN GENERAL BOOK 413, PAGE 880; THENCE N88°15'57"E ON SAID SOUTH LINE, A DISTANCE OF 400.38 FEET; THENCE S04°14'09"E, A DISTANCE OF 537.87 FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD; THENCE S88°17'27"W ON SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 1063.24 FEET TO A POINT OF CURVATURE; THENCE WESTERLY CONTINUING ON SAID NORTH RIGHT OF WAY LINE, ON A 2095.80 FOOT RADIUS CURVE TO THE LEFT, AN ARC DISTANCE OF 217.89 FEET TO THE POINT OF BEGINNING, THE CHORD OF SAID CURVE BEARS S85°25'54"W, A DISTANCE OF 217.79 FEET, CONTAINING 48.89 ACRES, MORE OR LESS.

SURVEYOR'S STATEMENT:
I JOSHUA D. BORCHERS, A PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT "KRUMEL INDUSTRIAL SUBDIVISION" HAS BEEN SURVEYED BY ME OR UNDER MY SUPERVISION AND THAT THE PERIMETER DESCRIPTION OF THE BOUNDARY OF "KRUMEL INDUSTRIAL SUBDIVISION" IS AS STATED IN THE PERIMETER DESCRIPTION. PERMANENT MONUMENTS WILL BE SET AT ALL LOT CORNERS ONCE CONSTRUCTION OF IMPROVEMENTS ARE COMPLETE.

_____
JOSHUA D. BORCHERS, P.L.S. 766 DATE

JEO CONSULTING GROUP
1-800-723-8567

PART OF THE W1/2 NW1/4
SEC. 35-R15N-R7E OF THE SIXTH P.M.
SAUNDERS COUNTY, NEBRASKA

FINAL PLAT
KRUMEL INDUSTRIAL SUBDIVISION

PROJECT NO.	242471
DATE	4/2/2026
DRAWN BY	AWH
FILE NAME	SV_242471_Final Plat.dwg
FIELD BOOK	WAHOO 170
FIELD CREW	NF
SURVEY FILE NO.	2026-072
REVISIONS	△ △

1 OF 1

J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\6 Survey\Drawings\SV_242471_Final Plat.dwg, on 4/2/2026 2:04 PM, AWH

April 3, 2026

Melissa Harrell
City of Wahoo
608 N. Linden St.
Wahoo, NE 68066

RE: Krumel Industrial Subdivision Final Plat, Change of Zoning, and Annexation Request

Dear Ms. Harrell,

Attached herein are the Final Plat materials for the Krumel Industrial Subdivision development, located at U.S. Highway 77 and Old Highway 77. A rezone request from the site's current C-3 and TA classification to a C-2 and I-2 classification was submitted along with the Preliminary Plat materials for ultimate consideration and action tied to the Final Plat. As a function of the rezone we request an amendment to the boundary of the Gateway Corridor Design Overlay District for the area within the City's jurisdiction east of Old Highway 77.

Also included is a letter for the formal request for annexation of the proposed site accompanying the consideration and action of the Final Plat.

Included within are 90% plans for the subdivision. Final plans and specifications will be provided upon their completion.

On behalf of JEO Investments, I thank you for your consideration. I look forward to working with you on this and other projects.

Sincerely,

Kevin Andersen,
Senior Client Advisor

Enclosures

cc: Travis Beavers
City of Wahoo Planning Commission
Wahoo City Council

ENGINEERING ■ ARCHITECTURE ■ SURVEYING ■ PLANNING

Sand Creek Industrial Subdivision Traffic Impact Study

Wahoo, NE

JEO Project No. 242471.00

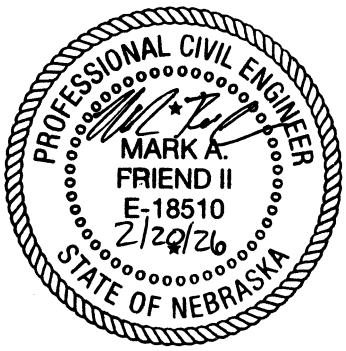
Prepared for:
JEO Investments

Prepared by:

JEO Consulting Group

Date:

February 20, 2026



JEO CONSULTING GROUP INC ■ JEO ARCHITECTURE INC
2000 Q Street, Suite 500 l Lincoln, Nebraska 68503 l p: 402.435.3080 l f: 402.435.4110
www.jeo.com

Table of Contents

List of Figures

List of Tables

List of Appendices

1.0 Introduction

This report documents the results of the traffic impact study conducted for the proposed Sand Creek Industrial Subdivision located in northeast Wahoo, Nebraska. The scope and methodology of this study was developed by JEO Consulting Group in coordination with the developer and the Nebraska Department of Transportation (NDOT).

1.1 Objective

The primary objective of this traffic study was to evaluate impacts to the adjacent street network associated with the site development located east of Old Hwy 77, south of the intersection of US Highway 77 (US-77) & Nebraska Highway 109 (N-109) / Old Hwy 77. This included capacity analyses for the intersection of US-77 & N-109 and the two site drive intersections with Old Hwy 77, auxiliary turn lane warrant analysis for the two site drive intersections, and an access assessment.

1.2 Project Description

The Sand Creek Industrial Subdivision is proposed to be constructed in northeast Wahoo, near the roundabout intersection of US-77 & N-109 / Old Hwy 77. On opening day, assumed as year 2028, the site is proposed to include a mix of general light industrial, manufacturing, warehouses, a construction equipment rental store, an automobile care center, an automobile parts and service center, and a convenience store / gas station.

There are two proposed accesses to the site. The north site drive is located across from Commercial Park Road at its intersection with Old Hwy 77. The south site drive is located approximately 715’ south of the north site drive.

The site development area is shown in red on the Vicinity Map in Figure 1. A preliminary site plan is provided in Appendix A.

1.3 Report Organization

The remainder of this report is organized as follows:

- 2.0 Existing Conditions
- 3.0 Future Peak Hour Volumes
- 4.0 Future Traffic Operations Analysis
- 5.0 Conclusion and Recommendations

Figure 1 – Vicinity Map

2.0 Existing Conditions

The following section summarizes existing study area conditions including current street and intersection geometrics, peak hour volumes, and traffic operations.

2.1 Street Network and Geometrics

The study area includes US-77, N-109, Old Hwy 77, and Commercial Park Road.

2.1.1 US-77

Starting at the west end of the study area, US-77 operates as a four-lane divided highway with a 15' raised median. It should be noted that while US-77 is a north/south highway, it operates east/west locally to the proposed development. Approximately 1000' west of the US-77 & N-109 / Old Hwy 77 intersection, it tapers down to a two-lane divided highway. 2000' east of the US-77 & N-109 / Old Hwy 77, it transitions to a two-lane undivided hwy. It is classified as an "Expressway" according to the NDOT National Functional Classification Map. The posted speed limit within the study area is 50 mph.

2.1.2 N-109

N-109 is a north/south, two-lane undivided highway. It is classified as a "Major Collector" according to the NDOT National Functional Classification Map. The posted speed limit within the study area is 65 mph.

2.1.3 Old Hwy 77

Starting at the south end of the study area, Old Hwy 77 begins as a two-lane undivided street and then transitions to a two-lane divided street with a striped median north of Commercial Park Road. It is classified as a "Major Collector" according to the NDOT National Functional Classification Map. The posted speed limit within the study area is 45 mph.

2.1.4 Commercial Park Road

Commercial Park Road is classified as "Local" according to the NDOT National Functional Classification Map with one lane of travel in each direction. It parallels and acts as a frontage road to Old Hwy 77. While there is no posted speed limit, it is assumed that the speed limit is 25 mph within the study area.

2.1.5 US-77 & N-109 / Old Hwy 77 Roundabout

The intersection of US-77 & N-109 / Old Hwy 77 is a roundabout with single lanes on all approaches and a single circulating lane. Existing adjacent land uses near the intersection vary, with commercial/retail uses in the southwest and northeast quadrants of the intersection. Additionally, the Wahoo Municipal Airport is located in the northeast quadrant. Lake Wanahoo is located in the northwest quadrant. In the southeast quadrant of the intersection at the proposed location of the Sand Creek Industrial Subdivision development, existing land use is agricultural. There are no sidewalks or pedestrian crosswalks on any of the approaches.

2.1.6 Old Hwy 77 & Commercial Park Road Intersection

The intersection of Old Hwy 77 & Commercial Park Road is unsignalized with stop-control on the eastbound Commercial Park Road approach. The northbound approach has a 50' auxiliary left-turn lane. Existing adjacent land uses near the intersection are primarily commercial/retail to the west and agricultural to the east. There are no sidewalks or pedestrian crosswalks on any of the approaches.

All existing lane configurations and traffic control at the existing study intersections are summarized in Figure 2.

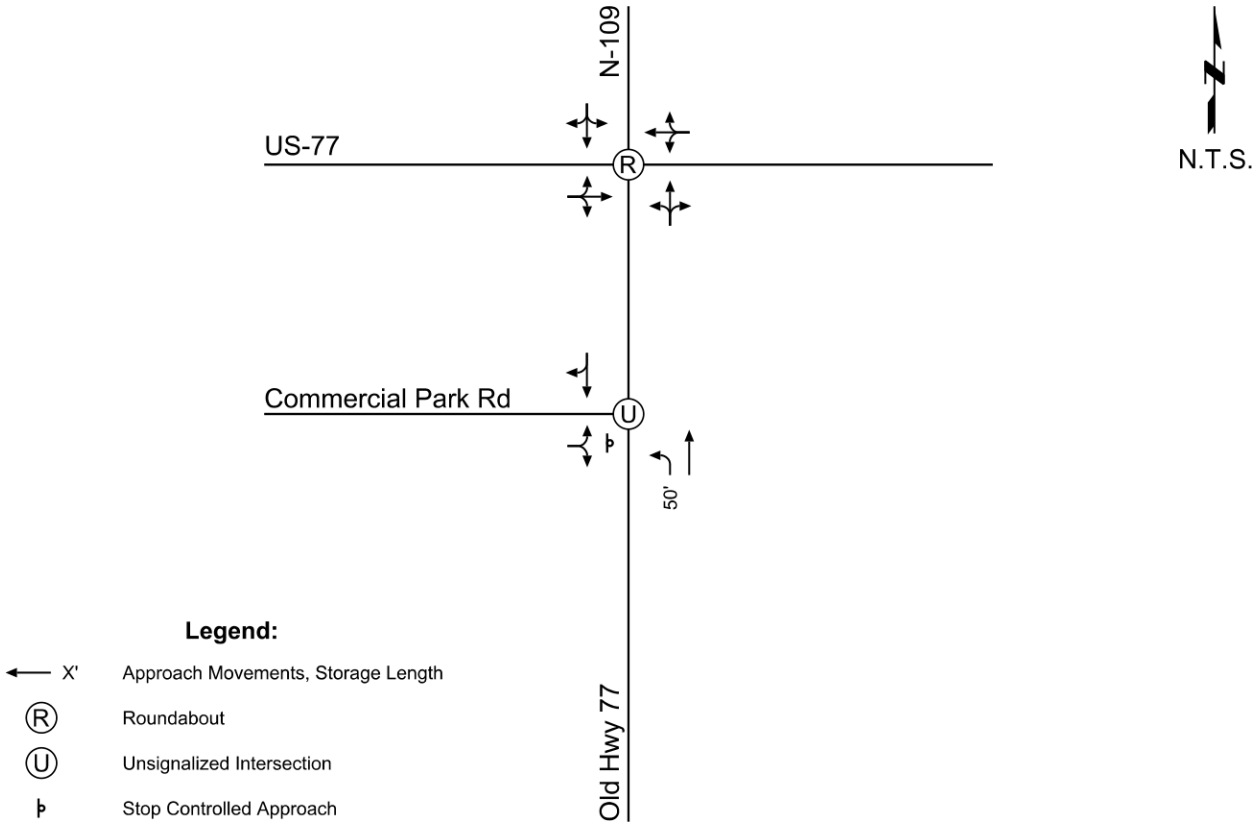


Figure 2 – Existing Lane Geometrics and Traffic Control

2.2 Peak Hour Volumes

Turning movement volume data was collected by JEO at the study intersections using Miovision Scout cameras on Thursday, August 28th, 2025. The existing system AM peak hour was 7:15 – 8:15 and the system PM peak hour was 4:00 – 5:00. Resulting existing AM and PM peak hour volumes are shown in Figure 3. Collected traffic count data can be found in Appendix B.

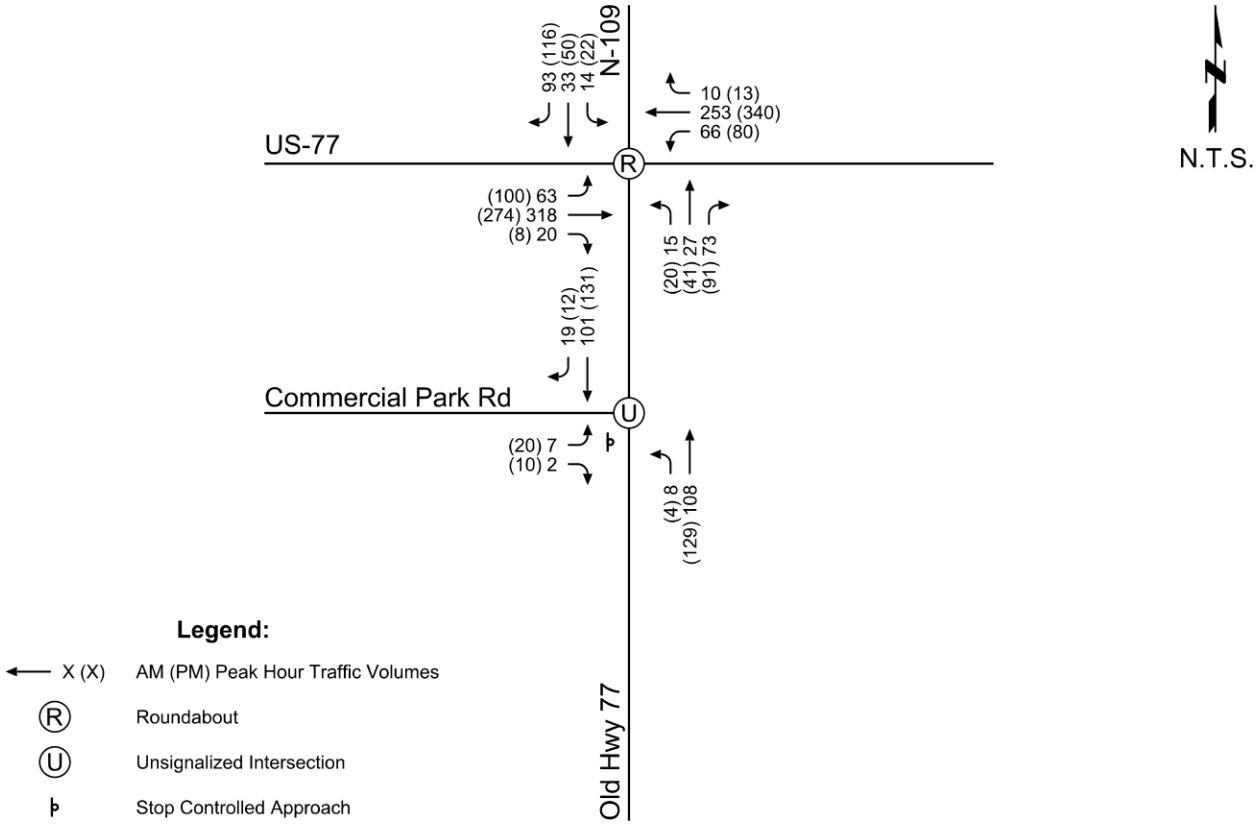


Figure 3 – Existing AM & PM Peak Hour Volumes

2.3 Peak Hour Capacity Analysis

The existing peak hour volumes were analyzed using the unsignalized intersection capacity analysis procedures outlined in the Highway Capacity Manual (HCM 7th edition). The efficiency of each movement was then given a grade or Level of Service (LOS). The LOS indicates how well the intersection operates during peak hour time periods. LOS A represents free flow movement with very little to no delay, while LOS F represents congested flow at, or over the capacity of the intersection. Further details regarding LOS methodology can be found in Table 1.

The existing weekday AM and PM peak hour traffic conditions were analyzed using the existing lane configurations and peak hour volumes shown previously in Figure 2 and Figure 3, respectively. Capacity analysis results of existing conditions are summarized in Figure 4. As shown, all movements at the study intersections currently operate at LOS B or better. 95th-percentile queues are negligible, with the largest queue of 2.9 vehicles on the eastbound approach (AM peak hour) and 2.7 vehicles on the westbound (PM peak hour) approach at the intersection of US-77 & N-109 / Old Hwy 77. Intersection operations analysis reports can be found in Appendix C.

Table 1 – Level of Service Interpretation

Level of Service	Description	Stop-Controlled and Roundabout Intersection Delay (seconds per vehicle)
A	Free-flow operations. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	< 10
B	Reasonably free flow. The ability to maneuver within the traffic stream is only slightly restricted.	>10 and < 15
C	At or near free flow. Freedom to maneuver within the traffic stream is noticeably restricted.	>15 and < 25
D	Speeds begin to decline slightly. Freedom to maneuver within the traffic stream is noticeably limited.	>25 and < 35
E	At capacity. Maneuverability within the traffic stream is extremely limited.	>35 and < 50
F	Breakdown. Vehicles are jammed. Generally, queues form behind the breakdown condition.	> 50

Source: Highway Capacity Manual, 7th Edition, A Guide for Multimodal Mobility Analysis, Transportation Research Board, Washington, D.C.

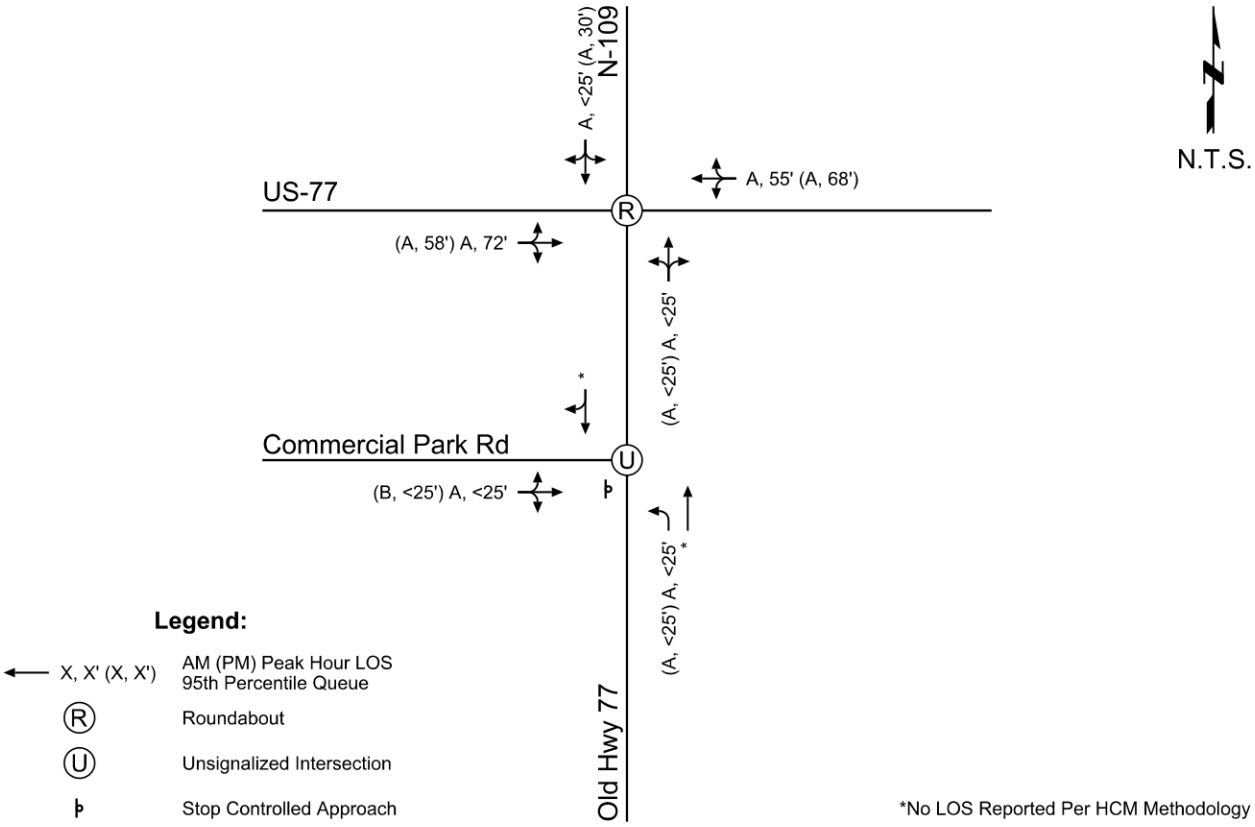


Figure 4 – Existing AM & PM Peak Hour LOS

3.0 Future Peak Hour Volumes

This section of the report presents the projected future peak hour volumes associated with opening day (2028) and the horizon year (2038).

3.1 Background Peak Hour Volumes

Existing (2025) peak hour volumes were projected to the years 2028 and 2038 using growth rates developed from NDOT's database of historical traffic volumes. During this analysis, it was discovered that the Average Annual Daily Traffic (AADT) along Old Hwy 77 has been declining since the implementation of the US-77 Wahoo bypass. To take a conservative approach, a 0.50% growth rate was used along Old Hwy 77. It should be noted that all movements at the Old Hwy 77 & Commercial Park Road intersection were also grown with a 0.50% growth rate. These resulting growth rates are summarized in Table 2 and have been approved for use on this project by NDOT. Opening day (2028) and horizon year (2038) background peak hour volumes are shown in Figure 5 and Figure 6, respectively.

Table 2 – Background Traffic Annual Growth Rates

Location	Annual Growth Rate
US-77	1.45%
N-109	1.25%
Old Hwy 77	0.50%

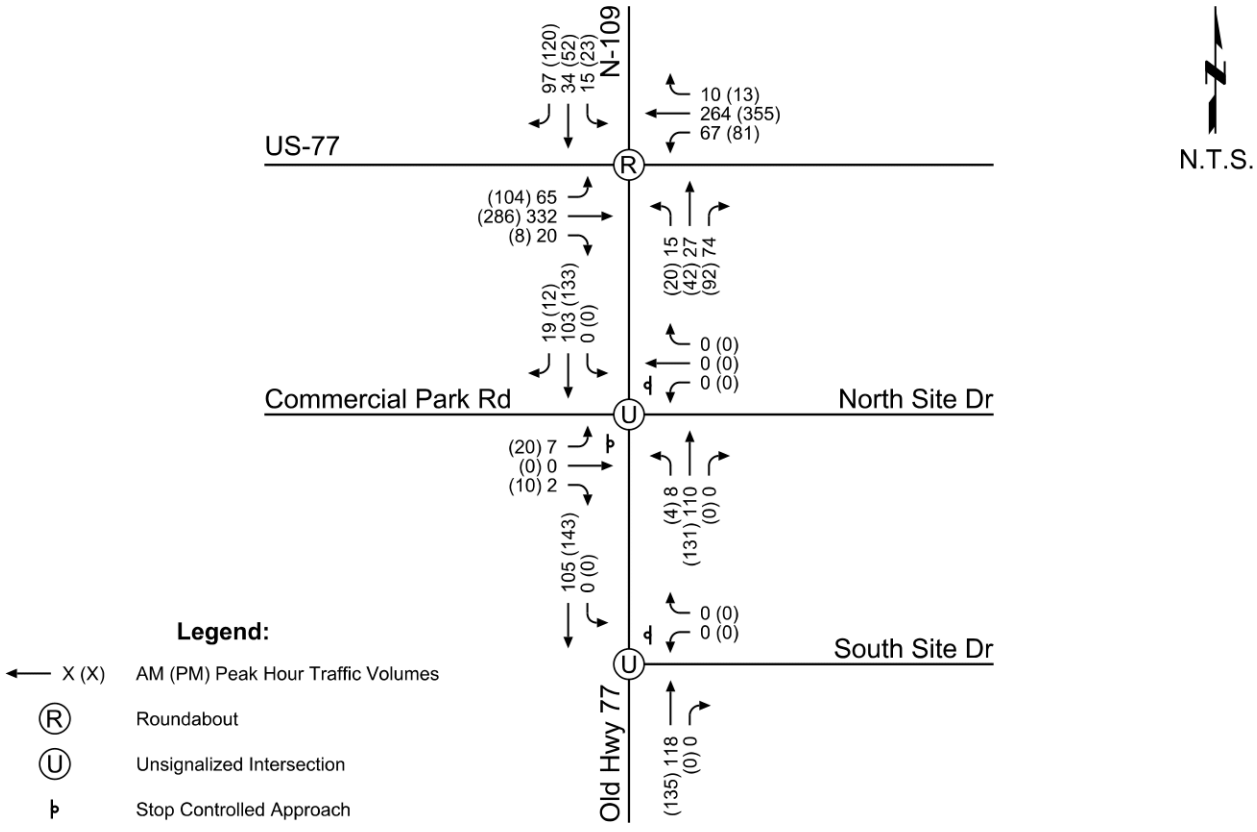


Figure 5 – Opening Day (2028) Background AM & PM Peak Hour Volumes

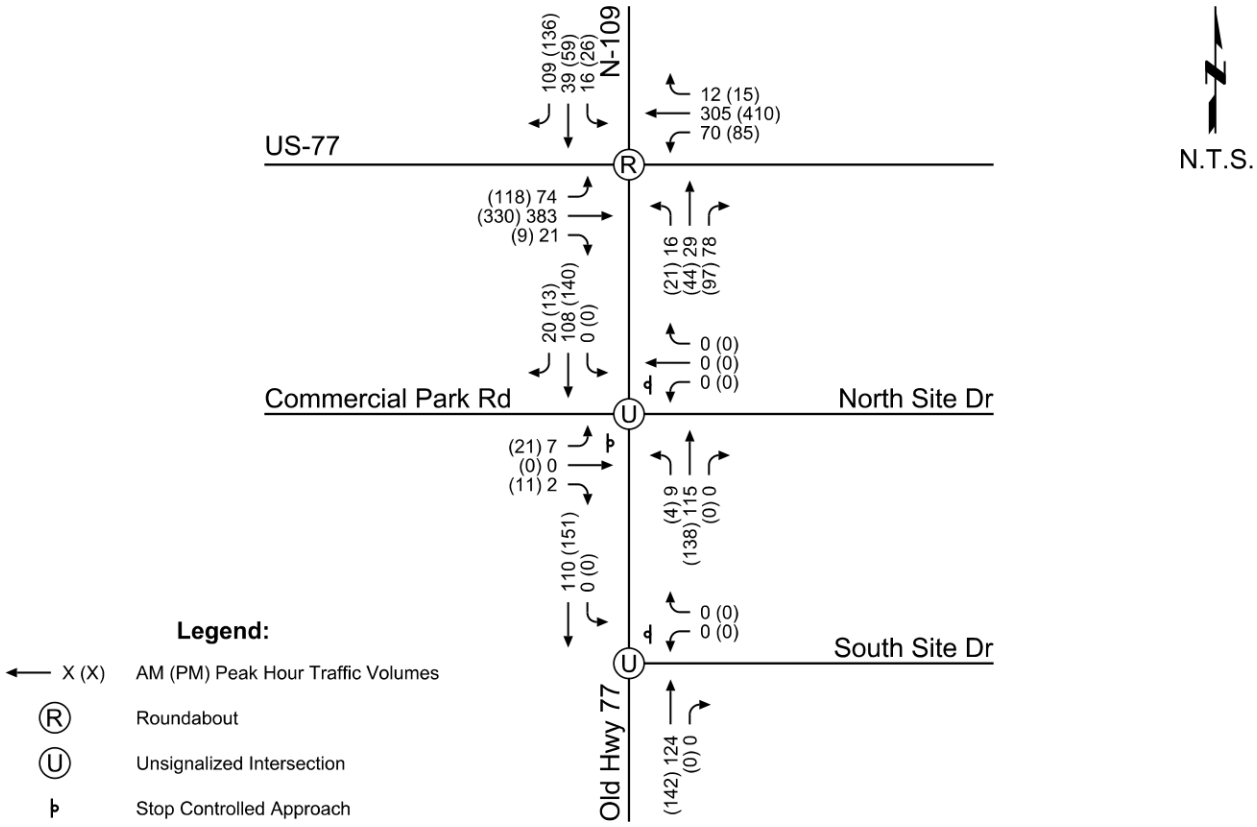


Figure 6 – Horizon Year (2038) Background AM & PM Peak Hour Volumes

3.2 Trip Generation, Trip Distribution and Traffic Assignment

To analyze the site's impacts on the adjacent street network, estimated trips entering and exiting the site were generated using methodology from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition.

Per correspondence with the developer's engineer, the new site is expected to include a mix of general light industrial, manufacturing, warehouses, a construction equipment rental store, an automobile care center, an automobile parts and service center, and a convenience store / gas station. For most lots, the size of each building is estimated at 50% of the total lot area, which is the maximum building to lot size ratio that is allowed in the zoning regulations for this area. The one exception to this is the general light industrial building, which is proposed to be approximately 160,000 square feet.

A summary of the estimated trips generated by each proposed land use during the AM and PM peak hours is tabulated in Table 3 and Table 5. Additionally, a pass-by rate was applied to the trips generated by the convenience store / gas station based on methodology from the ITE Trip Generation Manual, 12th Edition and summarized in Table 4 and Table 6. Pass-by trips are defined not as new trips to the area, but existing trips within the roadway network that now stop at the development along the way to their ultimate destination. For this reason, they don't need added to the network, just adjusted within the network.

Table 3 – AM Peak Hour Site Trip Generation

ITE Land Use Code	Usage	Trip Generation			Directional Distribution		AM Trips		
		Size	Unit	Average Rate / Equation	In	Out	Total	Inbound	Outbound
110	General Light Industrial	160	1000 SF GFA*	T = 0.48(X)	86%	14%	77	66	11
140	Manufacturing	69.70	1000 SF GFA*	T = 0.51(X)	75%	25%	36	27	9
150	Warehouse	18.08	1000 SF GFA*	T = 0.12 (X)	77%	23%	2	2	0
150	Warehouse	18.08	1000 SF GFA*	T = 0.12 (X)	77%	23%	2	2	0
150	Warehouse	18.73	1000 SF GFA*	T = 0.12 (X)	77%	23%	2	2	0
150	Warehouse	26.79	1000 SF GFA*	T = 0.12 (X)	77%	23%	3	2	1
811	Construction Equipment Rental Store	25.27	1000 SF GFA*	-	-	-	-	-	-
942	Automobile Care Center	18.73	1000 SF GFA*	T = 3.87(X)	66%	34%	72	48	24
943	Automobile Parts and Service Center	28.75	1000 SF GFA*	T = 1.91(X)	72%	28%	55	40	15
945	Convenience Store / Gas Station	18	Fuel Pumps	T = 23.21 (X)	50%	50%	418	209	209
						Total:	667	398	269
						Total with Pass-By Reduction:	416	273	144

*GFA: Gross Floor Area
Note: Numbers are rounded, therefore, sums may not align exactly.

Table 4 – AM Peak Hour Pass-By Trips

ITE Land Use Code	Usage	Vehicle Pass-By Rate	PM Vehicle Pass-By Trips		
			Total	Inbound	Outbound
945	Convenience Store / Gas Station	60%	251	125	126

Table 5 – PM Peak Hour Site Trip Generation

ITE Land Use Code	Usage	Trip Generation			Directional Distribution		PM Trips		
		Size	Unit	Average Rate / Equation	In	Out	Total	Inbound	Outbound
110	General Light Industrial	160	1000 SF GFA*	T = 0.49(X)	24%	76%	78	19	59
140	Manufacturing	69.70	1000 SF GFA*	T = 0.84(X)-29.93	29%	71%	29	8	21
150	Warehouse	18.08	1000 SF GFA*	T = 0.15(X)	28%	72%	3	1	2
150	Warehouse	18.08	1000 SF GFA*	T = 0.15(X)	28%	72%	3	1	2
150	Warehouse	18.73	1000 SF GFA*	T = 0.15(X)	28%	72%	3	1	2
150	Warehouse	26.79	1000 SF GFA*	T = 0.15(X)	28%	72%	4	1	3
811	Construction Equipment Rental Store	25.27	1000 SF GFA*	T = 0.99(X)	28%	72%	25	7	18
942	Automobile Care Center	18.73	1000 SF GFA*	T = 4.90(X)	46%	54%	92	42	50
943	Automobile Parts and Service Center	28.75	1000 SF GFA*	T = 2.06(X)	39%	61%	59	23	36
945	Convenience Store / Gas Station	18	Fuel Pumps	T = 21.08(X)	50%	50%	379	190	189
						Total:	675	293	382
						Total with Pass-by Reduction:	463	187	276

*GFA: Gross Floor Area
Note: Numbers are rounded, therefore, sums may not align exactly.

Table 6 – PM Peak Hour Pass-By Trips

ITE Land Use Code	Usage	Vehicle Pass-By Rate	PM Vehicle Pass-By Trips		
			Total	Inbound	Outbound
945	Convenience Store / Gas Station	56%	212	106	106

Internal to the development, trips were distributed to each site drive based on each lot's location within the site and its proximity to each driveway.

Pass-by and primary site trips were then distributed to the local roadway network, but in slightly different ways. As pass-by trips already exist on the local network, they were distributed based on existing traffic volumes. These pass-by trips are shown in Figure 7.

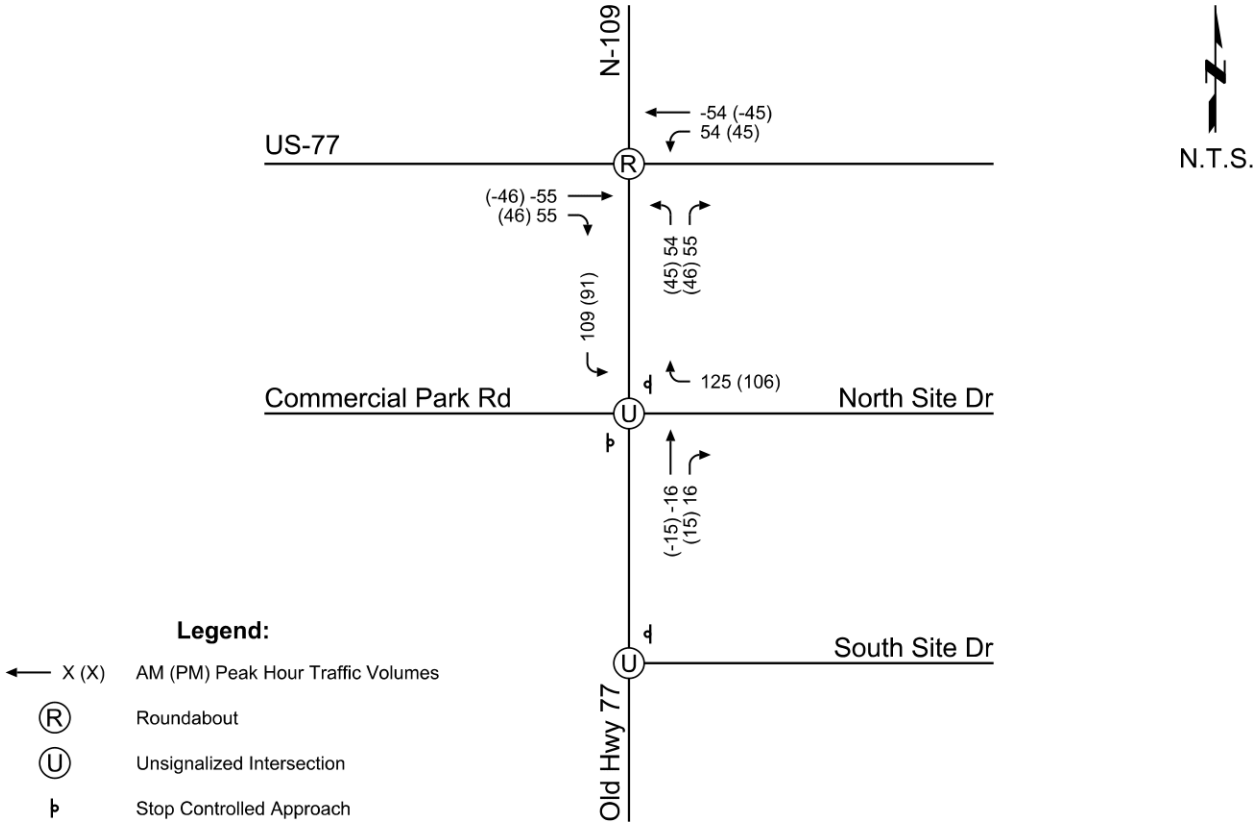


Figure 7 – AM & PM Peak Hour Pass-By Site Trips

Primary trips were assigned to the roadway network based on existing traffic and land use patterns. Distribution percentages are shown in Figure 8, with assigned volumes in Figure 9. It should be noted that these are primary trips that have the project site as their trip destination/origin and are not stopping on their way to another destination. This is the reason for similar distributions between Old Hwy 77 and the US-77 bypass.

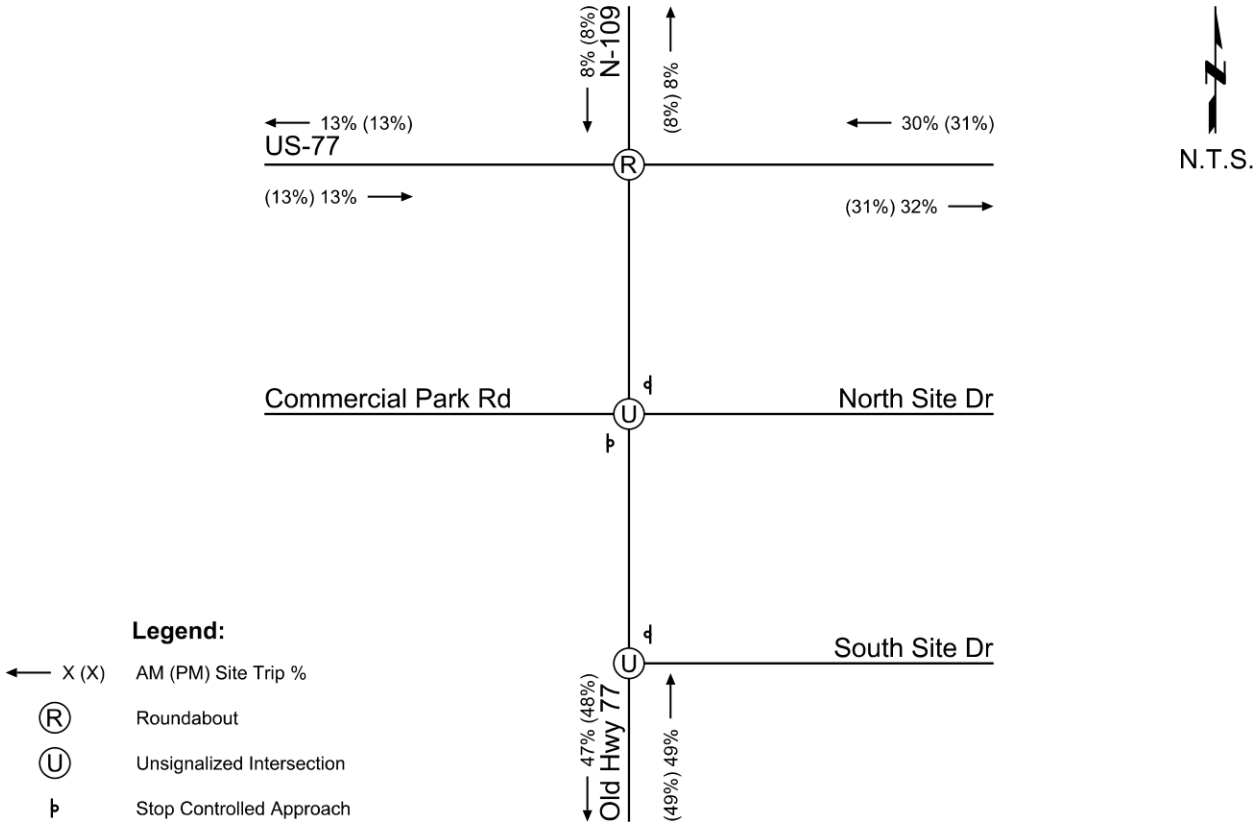


Figure 8 – Site Distribution Percentages

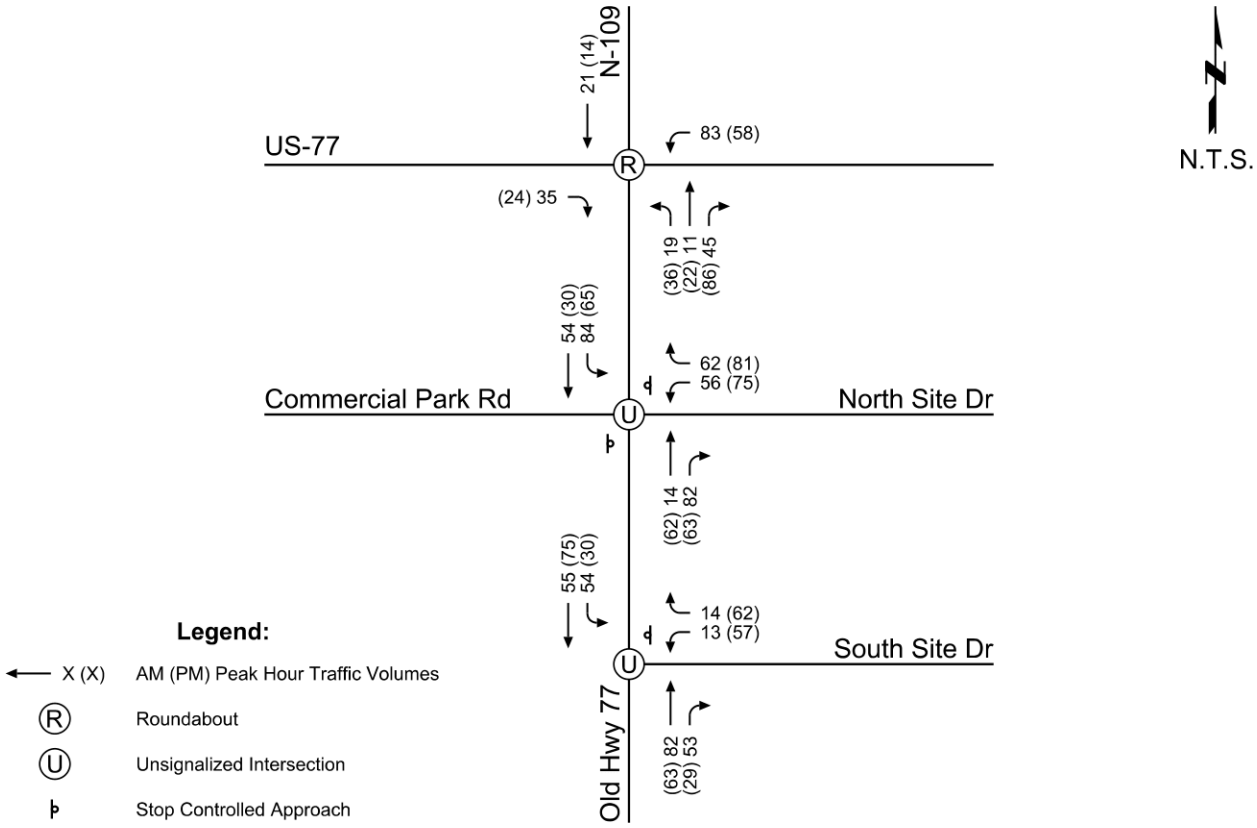


Figure 9 – AM & PM Peak Hour Primary Site Trips

These primary trips were then combined with the pass-by trips (previously generated) to produce the total site trips generated by the development. These are shown in Figure 10.

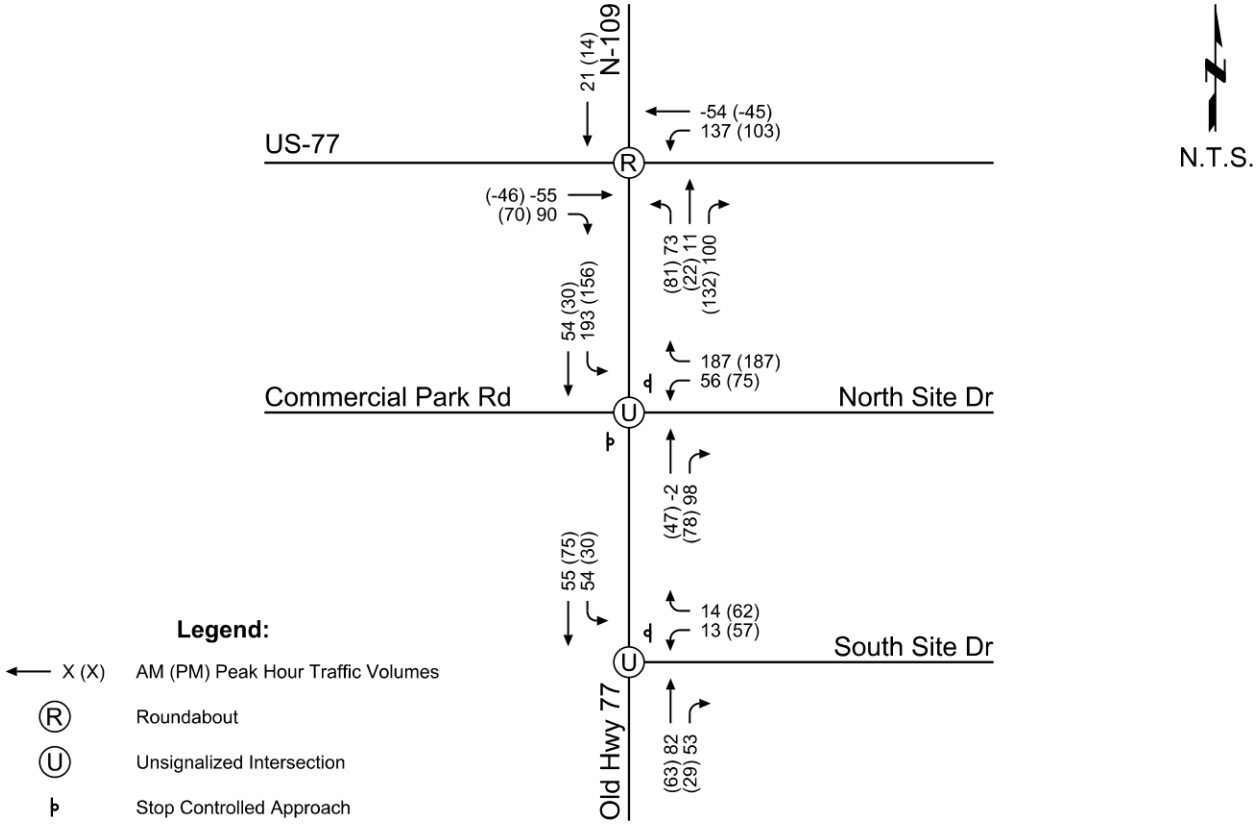


Figure 10 – Opening Day (2028) AM & PM Total Site Trips

3.3 Background Plus Site Trip Peak Hour Volumes

The generated site trips were then added to the opening day (2028) and horizon year (2038) background peak hour volumes to derive background plus site AM & PM peak hour volumes. The projected opening day (2028) and horizon year (2038) background plus site AM & PM peak hour volumes are shown in Figure 11 and Figure 12, respectively.

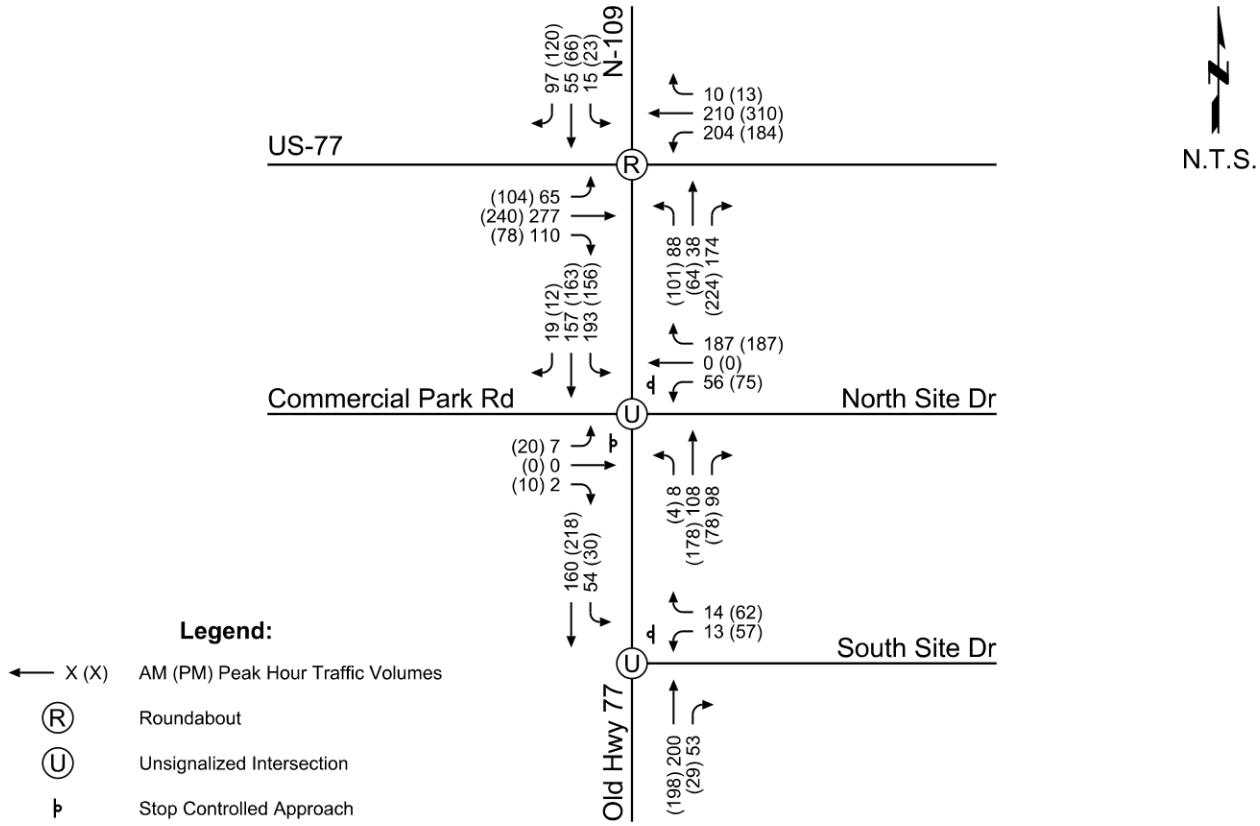


Figure 11 – Opening Day (2028) Background Plus Site Trip AM & PM Peak Hour Volumes

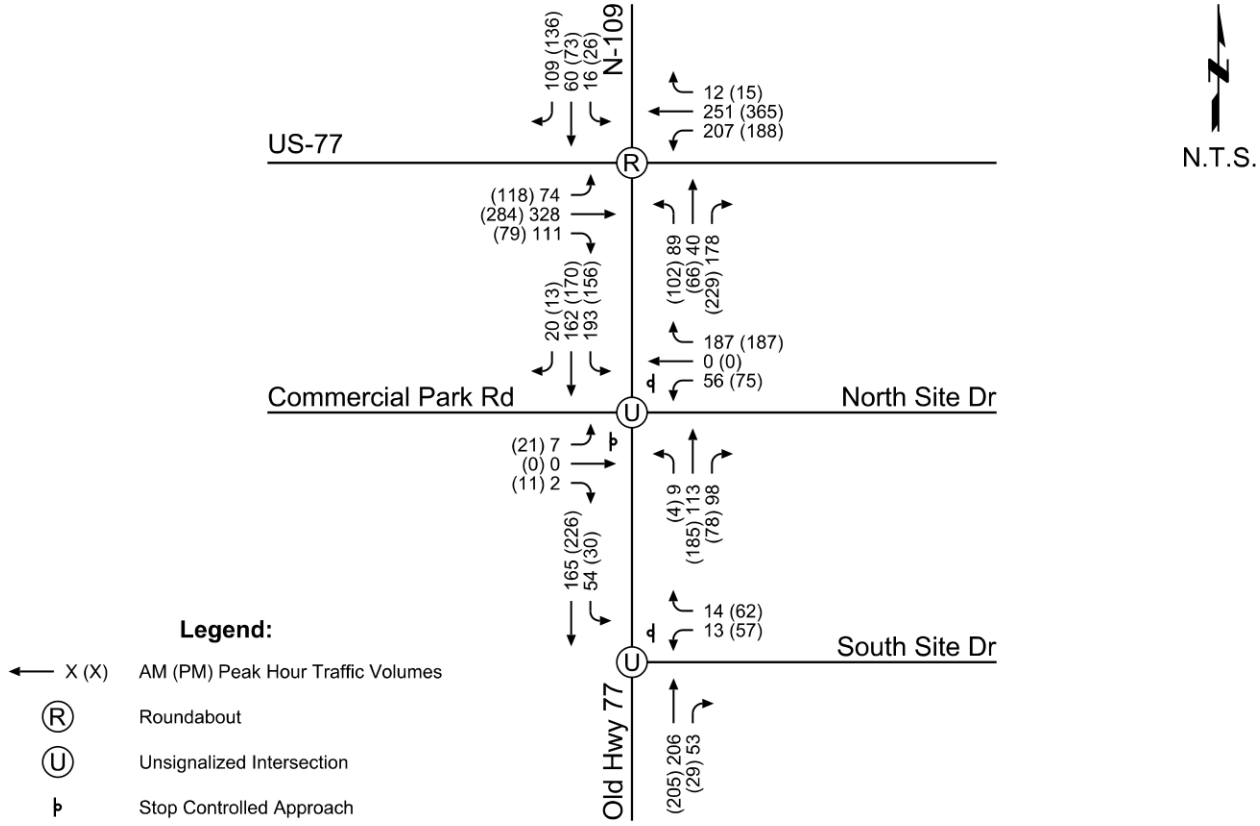


Figure 12 – Horizon Year (2038) Background Plus Site Trip AM & PM Peak Hour Volumes

4.0 Future Traffic Operations Analysis

Future traffic volumes developed in the previous section were then used to analyze the traffic operations of the street network under future year scenarios.

4.1 Future Background Peak Hour Capacity Analysis

Future background peak hour volumes were used to analyze how the existing street network would function in future years without the addition of site trips from the development. Figure 13 and Figure 14 summarize the results of this analysis. All movements operate at LOS A, except for the eastbound movement at Old Hwy 77 & Commercial Park Road which operates at LOS B in the PM peak hour under both years. 95th-percentile queues are expected to be minimal, with the largest queue of 3.5 vehicles on the westbound approach to the US-77 & N-109 / Old Hwy 77 intersection during the PM peak in year 2038. Intersection operations analysis reports can be found in Appendix C.

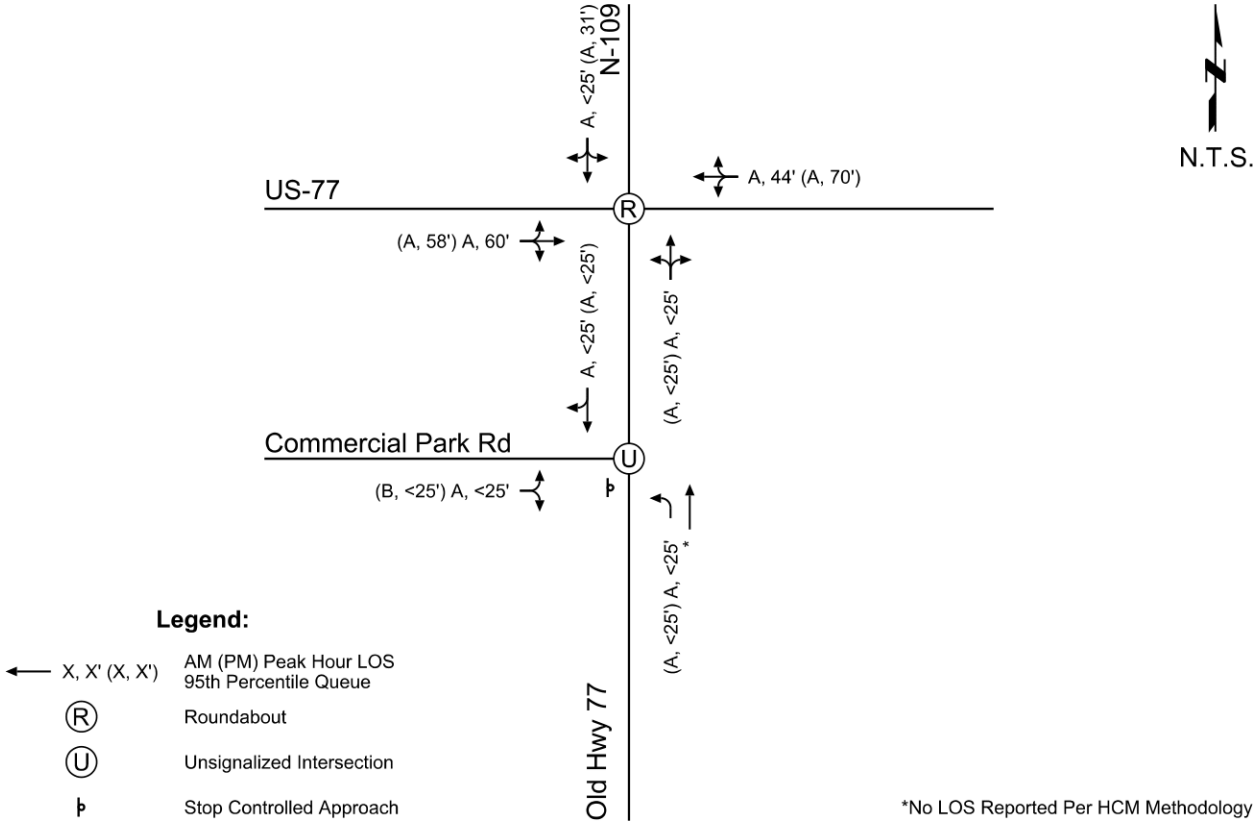


Figure 13 – Opening Day (2028) Future Background LOS

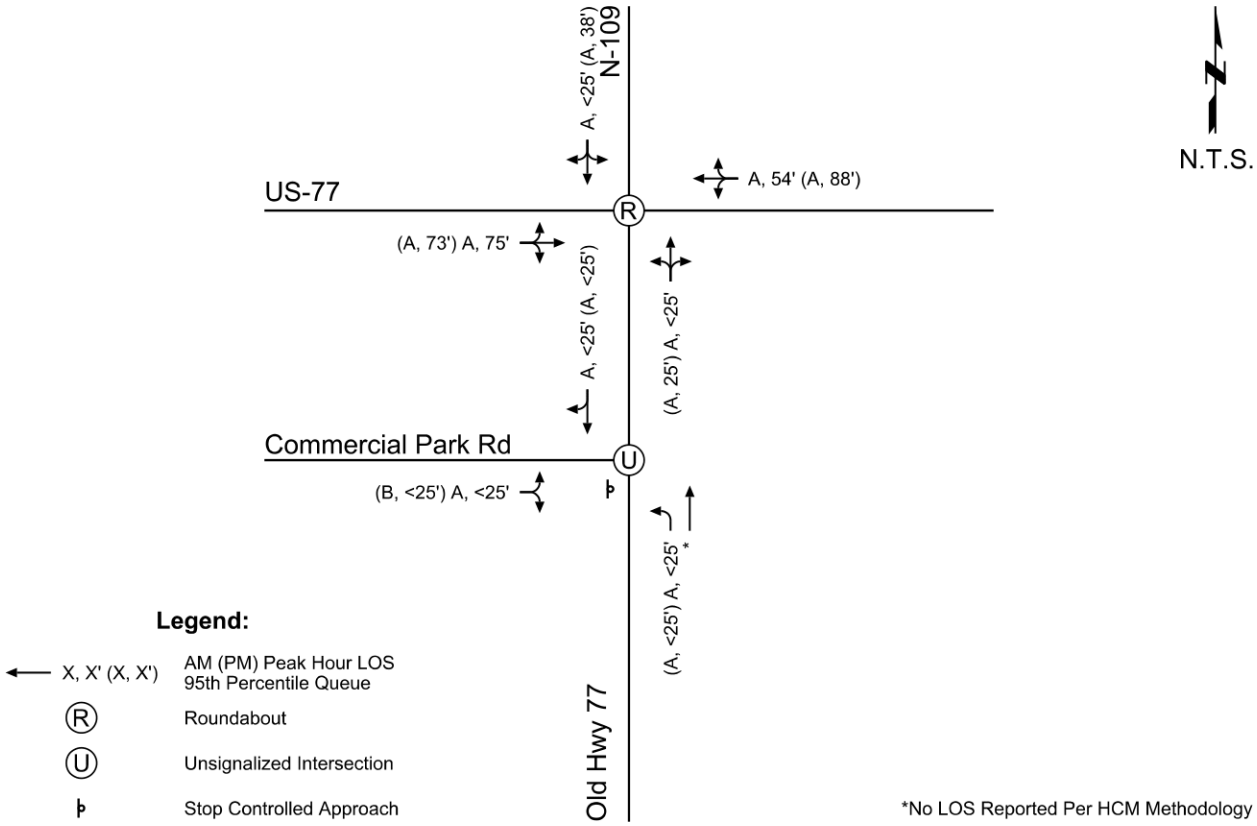


Figure 14 – Horizon Year (2038) Future Background LOS

4.2 Future Background Plus Site Trip Peak Hour Capacity Analysis

Future background plus site trip peak hour volumes were analyzed for opening day (2028) and horizon year (2038) conditions. The only geometric changes for this analysis includes the addition of the two access drives for the development. These driveways comprise of a single lane in each direction. At the Old Hwy 77 intersections with these site driveways, no turn lanes have been added. Capacity analysis results are summarized in Figure 15 and Figure 16. As shown, all movements at the intersection of US-77 & N-109 / Old Hwy 77 and Old Hwy 77 & South Site Drive are expected to operate at LOS B, or better. At the intersection of Old Hwy 77 & Commercial Park Road / North Site Drive, the stop-controlled approaches on the side streets experience LOS C, which is common for stop-controlled approaches to major through streets. Additionally, 95th-percentile queues increase with the largest queue expected to be 7.8 vehicles on the westbound approach to the US-77 & N-109 / Old Hwy 77 intersection during the PM peak in year 2038. The largest expected 95th-percentile queue of the two site drives is at the North Site Drive with a queue of 3.4 vehicles in 2028 and 3.5 vehicles in 2038. Intersection operations analysis reports can be found in Appendix C.

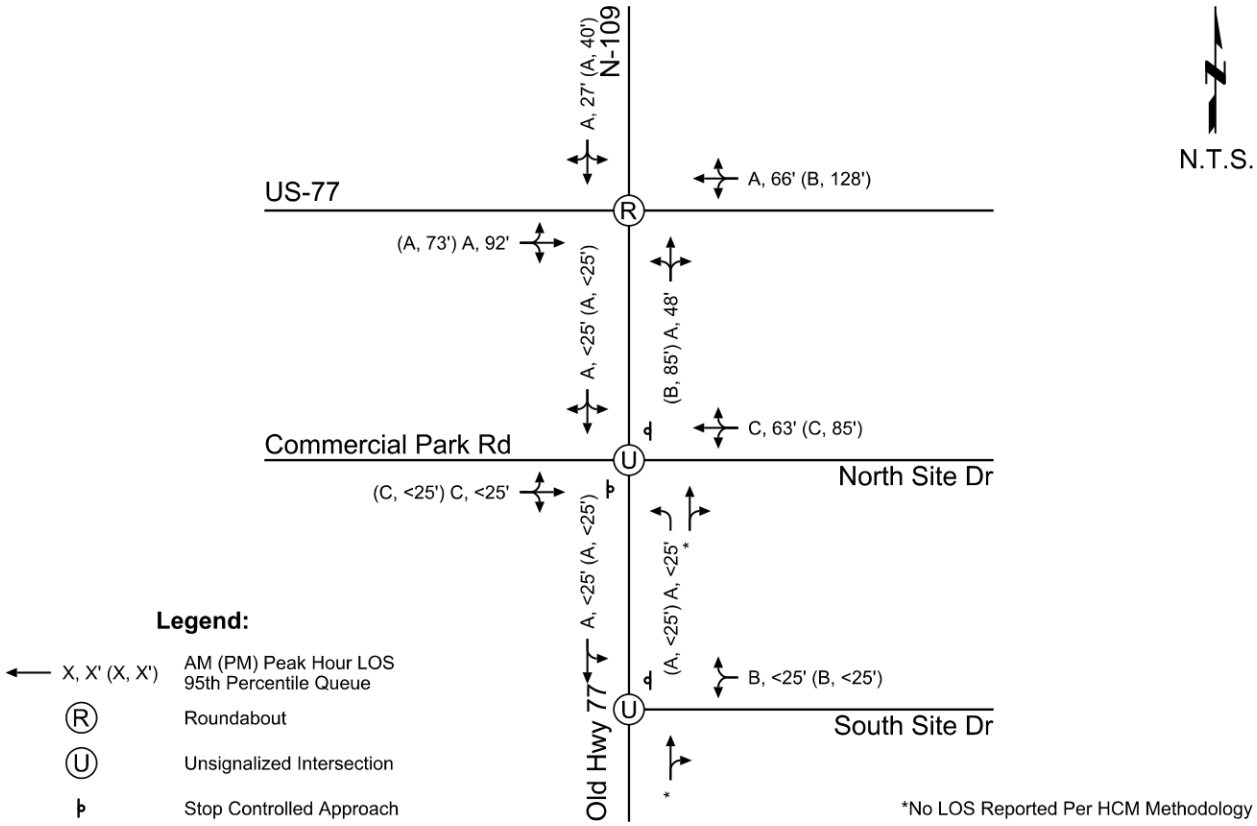


Figure 15 – Opening Day (2028) Future Background Plus Site Trip LOS

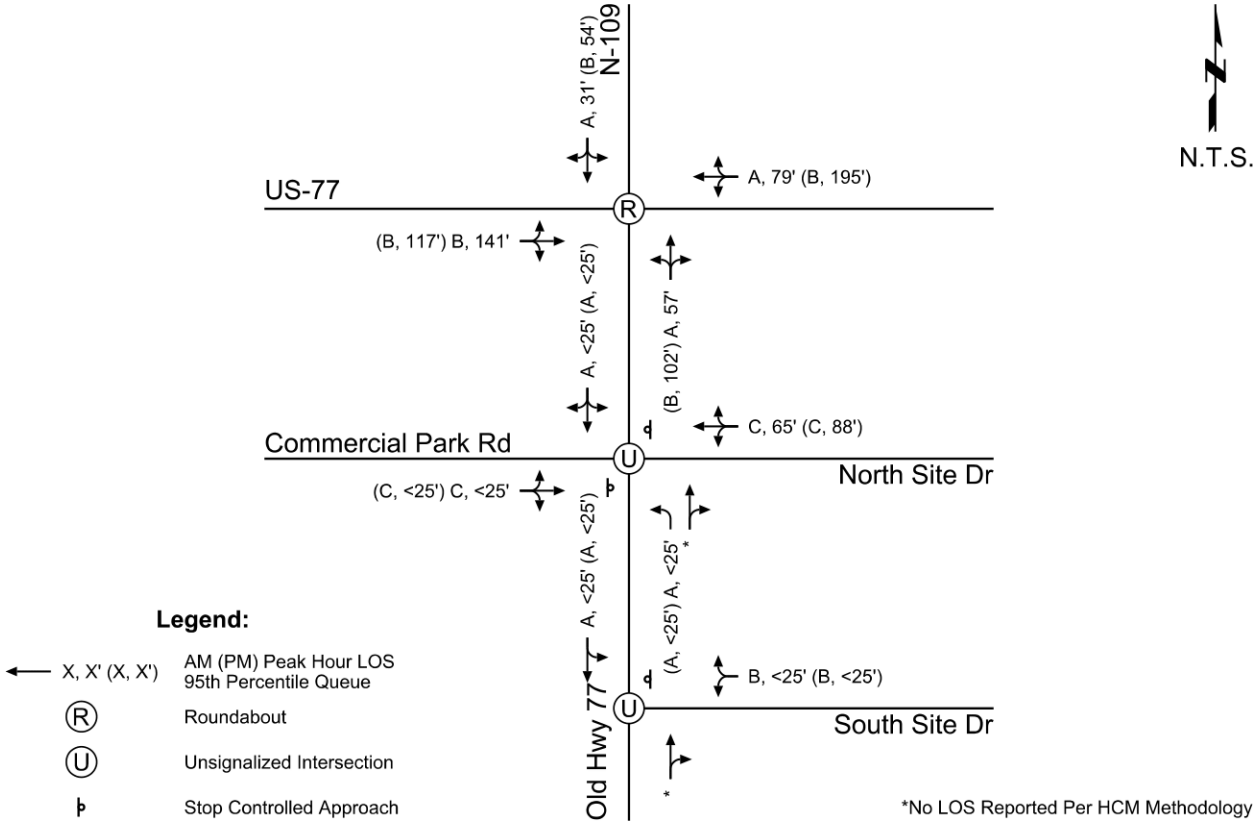


Figure 16 – Horizon Year (2038) Future Background Plus Site Trip LOS

4.3 Turn Lane Warrant Analysis

Peak hour volumes previously shown in Figure 11 and Figure 12 were evaluated in accordance with methodology found in the National Cooperative Highway Research Program (NCHRP) Report 457 to determine the need for major road left-turn and right-turn lanes at the two site drive intersections. A summary of the turn lane warrant analysis is shown in Table 7 indicating the first year a turn lane is warranted or not warranted at all. NCHRP turn lane warrant graphs are included in Appendix D.

Table 7 – Turn Lane Warrant Summary

Location	Movement			
	Northbound Left-Turn	Southbound Left-Turn	Northbound Right-Turn	Southbound Right-Turn
North Site Drive	Not Warranted	Warranted 2028	Not Warranted	Not Warranted
South Site Drive	-	Not Warranted	Not Warranted	-

4.4 Future Buildout Traffic Operations Analysis

Background plus site trip peak hour volumes were analyzed under a scenario that implements the warranted turn lane presented in Section 4.3. Analysis results showing the addition of a southbound left-turn lane at the North Site Drive intersection are displayed in Figure 17 and Figure 18. As shown, the intersections continue to operate with similar LOS. Additionally, 95th-percentile queues are similar to the results without the turn lane. Intersection operations analysis reports can be found in Appendix C. However, it should be noted that since there are no changes in intersection geometrics or traffic volumes at the US-77 & N-109 / Old Hwy 77 and Old Hwy 77 & South Site Drive intersections, output reports for this scenario are not included in Appendix C under “Future Buildout Conditions”. See output sheets for the “Future Background Plus Site Trip Conditions” for more detailed information on how these intersections function under the future buildout conditions.

It is recognized that the addition of a southbound left-turn lane at the North Site Drive intersection does not contribute much to improved operations. However, the addition of this turn lane does contribute to increasing overall safety. As noted in NCHRP 457, the presence of a left-turn lane separates slower left-turning vehicles from the faster through vehicles by providing them with their own lane to slow down and wait for a break in opposing traffic. According to NDOT’s list of approved crash modification factors (CMFs), the presence of a southbound left-turn lane at the North Site Drive intersection decreases the crash potential of that intersection by 27%.

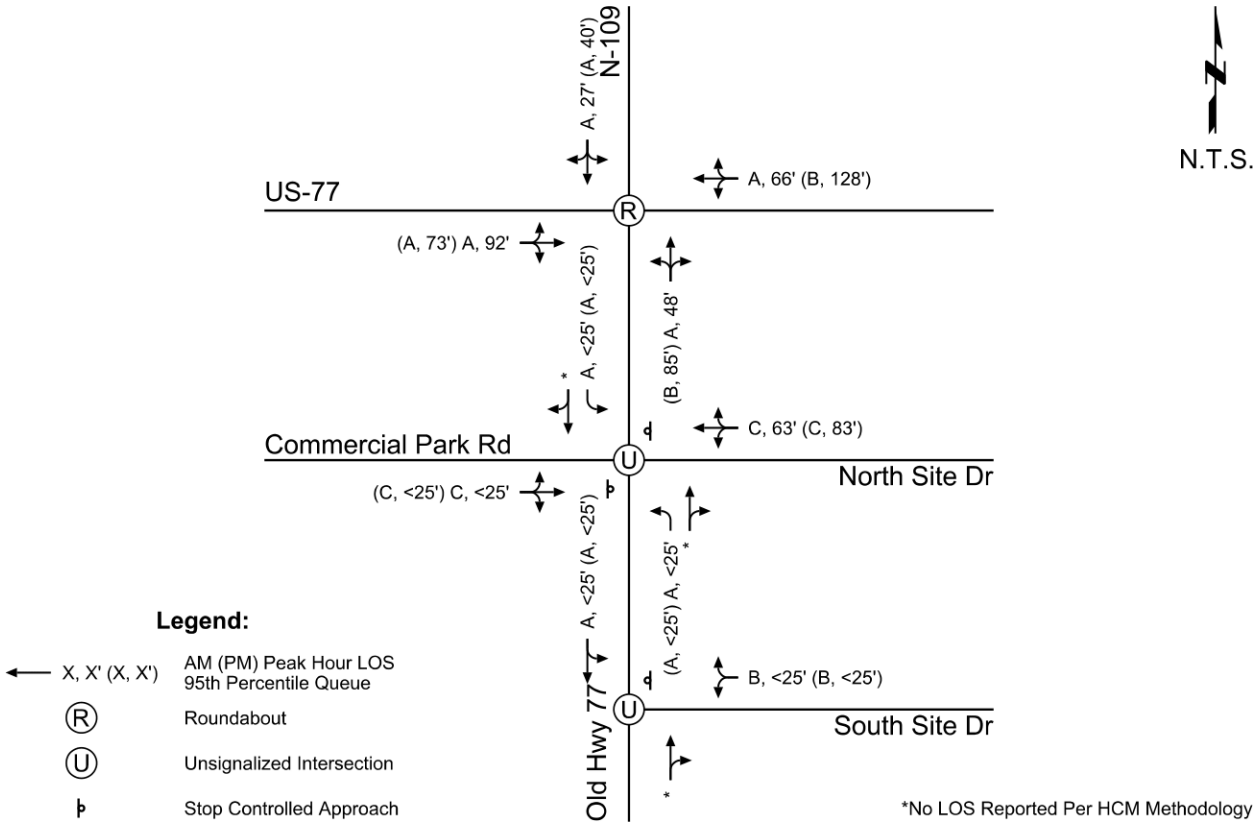


Figure 17 – Opening Day (2028) Future Buildout LOS

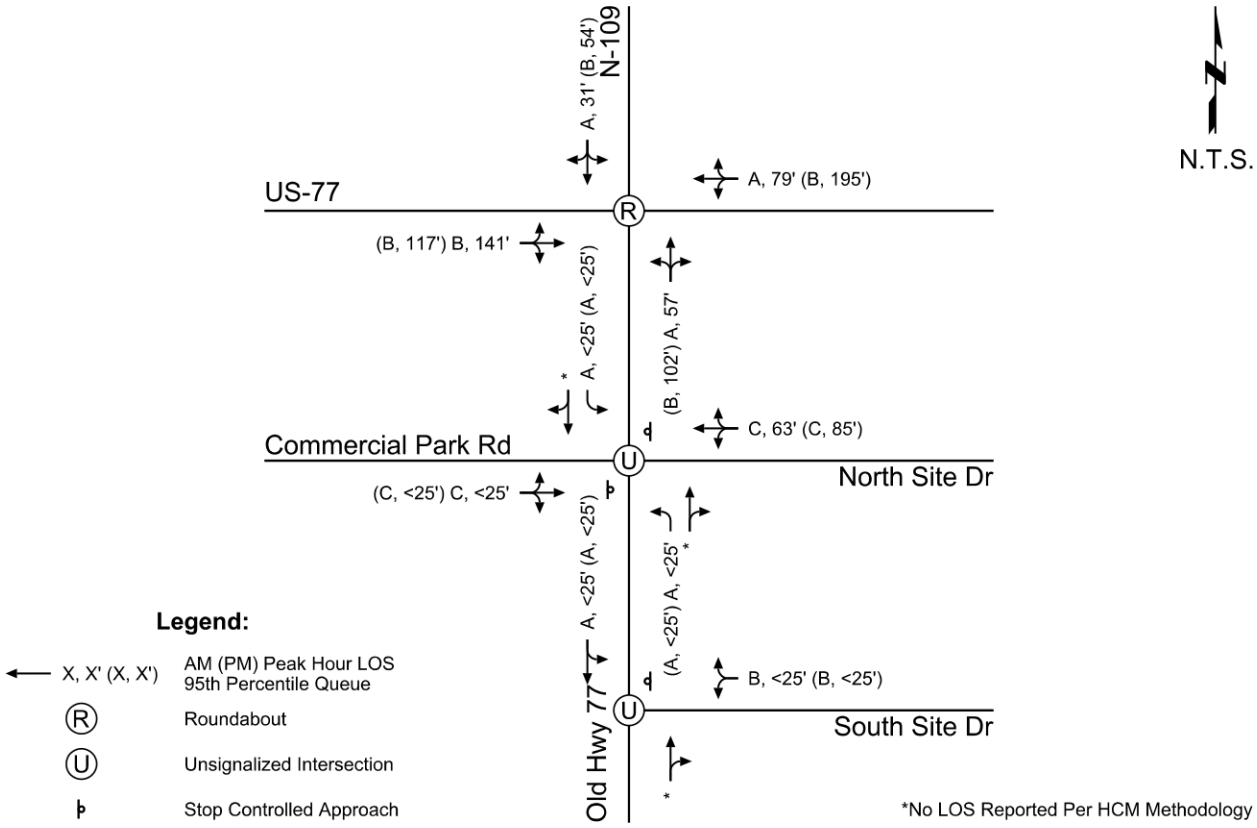


Figure 18 – Horizon Year (2038) Future Buildout LOS

4.5 Access Management

The locations of the two proposed site drives were reviewed to confirm compliance with NDOT's access control policy. For access points located on a public road intersecting a divided highway, the minimum distance from the edge of the nearest through lane of the highway to the nearest edge of the access road is 220'. Measured from the roundabout plans at US-77 & N-109 / Old Hwy 77, there is over 300' between the south edge of the splitter island on the south leg of the roundabout to the nearest edge of the proposed location of North Site Drive. This meets the required minimum distance desired by NDOT. The applicable sheet from NDOT's access control policy is included in Appendix E.

5.0 Conclusions and Recommendations

Based on the results of the traffic study analyses, the following conclusions and recommendations are provided:

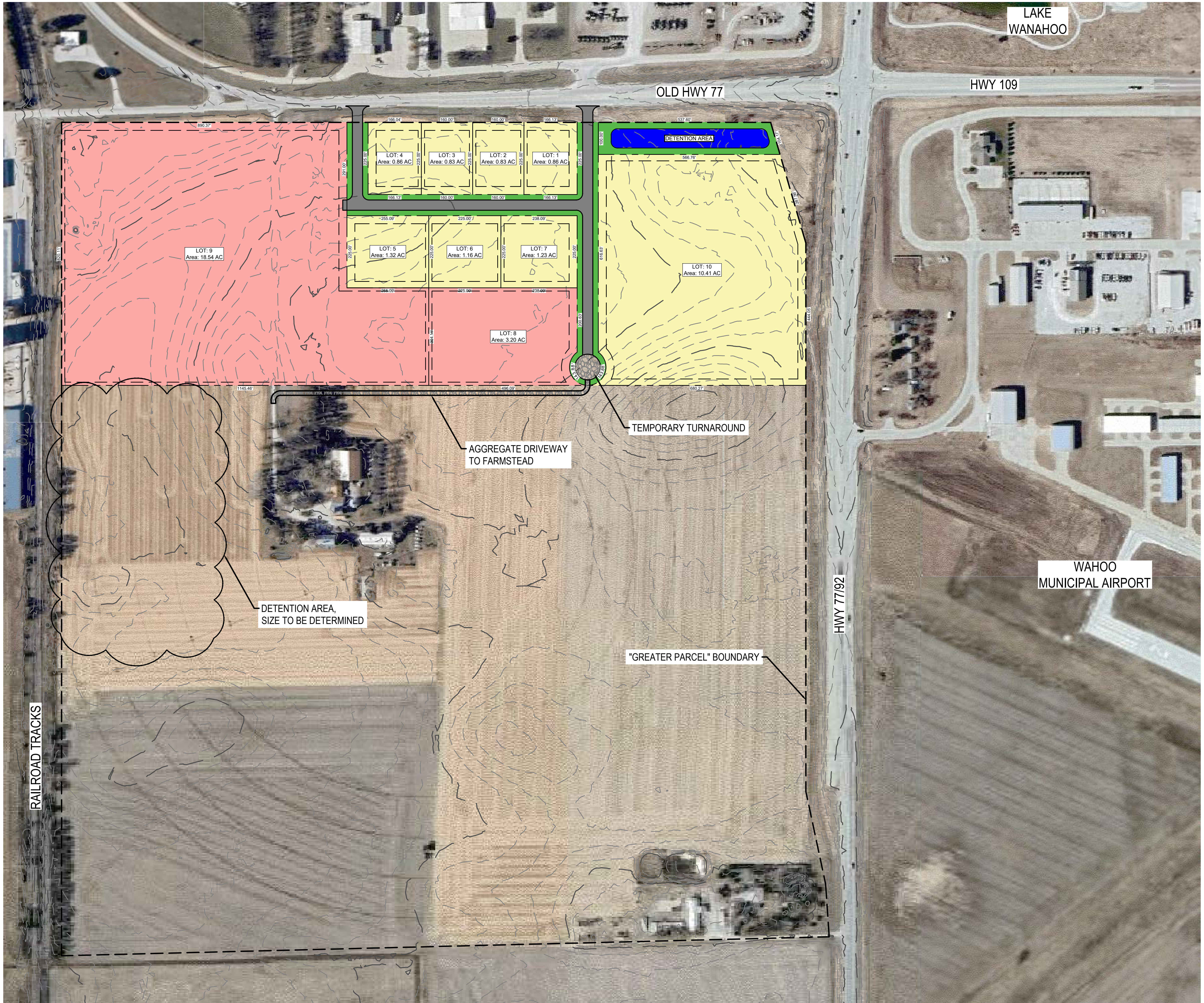
1. There are no major impacts to traffic operations of the existing street network with the increase in traffic associated with the development. All movements at the roundabout intersection of US-77 & N-109 / Old Hwy 77 are expected to operate at LOS B, or better, with the increase in traffic volumes generated by the site.

2. A southbound left-turn lane should be constructed on Old Hwy 77 at the North Site Drive intersection. Although any major improvement to traffic operations is not anticipated, separating out the left-turning traffic from through traffic improves safety and limits instances of rear end crashes. According to NDOT's approved list of CMFs, the crash potential at the intersection decreases by 28%. 95th-percentile queue lengths for the southbound left-turn movements at the two site drive intersections are expected to be less than one vehicle.

3. The site drive approaches to Old Hwy 77 should be single lane approaches. Traffic operations results show that the North Site Drive approach is expected to operate at LOS C under Opening Day (2028) and Horizon Year (2038) conditions. At the South Site Drive approach, traffic operations are expected to operate at LOS B for both time periods. 95th-percentile queues are minimal with the largest queue of about four vehicles on the westbound approach of North Site Drive to Old Hwy 77. These results are common for the stop-controlled approaches at TWSC intersections. Additionally, multiple lanes on stop-controlled approaches create potential safety issues such as obstructed sightlines and ambiguity in determining right-of-way.

4. At the request of NDOT, development discussions should be had between the developer, NDOT, and the City of Wahoo about sidewalk connectivity between the development and the existing sidewalk network as the proposed convenience store / gas station could be a potential generator for pedestrian trips to the development.

APPENDIX A:
Preliminary Site Plan



GRAPHIC SCALE
0 75 150 300
UNIT OF MEASURE IS FEET

JEO CONSULTING GROUP
1-800-723-8567

	COMMERCIAL LOTS (8)
	INDUSTRIAL LOTS (2)
	PROPOSED PAVEMENT
	PROPOSED DETENTION

NOTE:

1. ALL ROADWAY CONNECTIONS TO EXISTING ROADS ARE CONCEPTUAL AND WILL REQUIRE APPROVALS.
2. CONTOURS SHOWN ARE TAKEN FROM AVAILABLE LIDAR DATA. NO FIELD WORK OR ELEVATION CONFIRMATION HAS BEEN COMPLETED OR SHOWN ON THIS EXHIBIT.

811 Know what's below. Call before you dig.

2024 CONCEPTUAL DEVELOPMENT
WAHOO, NE

KRUML CONCEPTUAL DEVELOPMENT
EXHIBIT A

PRELIMINARY
NOT FOR CONSTRUCTION
0%
DATE:
3/31/2025

PROJECT NO.	PROJECT NO.
DATE	3/31/2025
DRAWN BY	TCK
FILE NAME	Kruml_ConceptualDev_2025-03-31.dwg
FIELD BOOK	FIELD BOOK
FIELD CREW	FIELD CREW
SURVEY FILE NO.	SURVEY FILE #
PLAN IN HAND INITIALS / DATE	PIH INI / PIH DATE
70 PERCENT REVIEW INITIALS / DATE	70% INI / 70% DATE
95 PERCENT REVIEW INITIALS / DATE	95% INI / 95% DATE
REVISIONS	

APPENDIX B:
Traffic Data Collection Sheets

US-77 & N-109 / Old US-77 Roundabout - TMC

Thu Aug 28, 2025
Full Length (12 AM-12 AM (+1))
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

Leg	US-77					US-77					Old US-77					N-109					
Direction	Eastbound					Westbound					Northbound					Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-08-28 12:00AM	0	1	0	0	**1**	1	7	0	0	**8**	0	0	1	0	**1**	0	0	1	0	**1**	**11**
12:15AM	2	2	0	0	**4**	0	3	0	0	**3**	0	0	0	0	**0**	0	0	0	0	**0**	**7**
12:30AM	0	2	0	0	**2**	3	9	0	0	**12**	0	1	2	0	**3**	0	0	3	0	**3**	**20**
12:45AM	1	2	0	0	**3**	1	2	1	0	**4**	0	0	1	0	**1**	0	0	1	0	**1**	**9**
Hourly Total	3	7	0	0	**10**	5	21	1	0	**27**	0	1	4	0	**5**	0	0	5	0	**5**	**47**
1:00AM	2	5	0	0	**7**	0	7	0	0	**7**	0	0	0	0	**0**	0	0	1	0	**1**	**15**
1:15AM	0	0	0	0	**0**	1	4	0	0	**5**	0	0	0	0	**0**	0	3	0	0	**3**	**8**
1:30AM	0	1	0	0	**1**	0	4	0	0	**4**	0	2	1	0	**3**	0	0	1	0	**1**	**9**
1:45AM	1	2	0	0	**3**	1	2	0	0	**3**	0	0	2	0	**2**	0	0	0	0	**0**	**8**
Hourly Total	3	8	0	0	**11**	2	17	0	0	**19**	0	2	3	0	**5**	0	3	2	0	**5**	**40**
2:00AM	1	2	0	0	**3**	0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	**4**
2:15AM	0	2	0	0	**2**	0	2	0	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	**4**
2:30AM	0	3	0	0	**3**	0	2	0	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	**5**
2:45AM	0	1	0	0	**1**	0	2	0	0	**2**	0	0	0	0	**0**	0	0	0	0	**0**	**3**
Hourly Total	1	8	0	0	**9**	0	6	0	0	**6**	0	1	0	0	**1**	0	0	0	0	**0**	**16**
3:00AM	0	4	0	0	**4**	0	6	0	0	**6**	0	0	1	0	**1**	0	0	0	0	**0**	**11**
3:15AM	0	5	0	0	**5**	1	5	0	0	**6**	0	0	2	0	**2**	0	0	0	0	**0**	**13**
3:30AM	0	7	0	0	**7**	0	5	0	0	**5**	0	0	2	0	**2**	0	0	0	0	**0**	**14**
3:45AM	0	9	0	0	**9**	2	5	0	0	**7**	1	0	3	0	**4**	0	0	0	0	**0**	**20**
Hourly Total	0	25	0	0	**25**	3	21	0	0	**24**	1	0	8	0	**9**	0	0	0	0	**0**	**58**
4:00AM	1	6	0	0	**7**	0	5	0	0	**5**	1	0	0	0	**1**	0	0	0	0	**0**	**13**
4:15AM	0	6	5	0	**11**	3	5	1	0	**9**	0	0	5	0	**5**	0	2	0	0	**2**	**27**
4:30AM	0	8	8	0	**16**	6	13	0	0	**19**	0	2	3	0	**5**	1	0	1	0	**2**	**42**
4:45AM	2	10	3	1	**16**	4	8	0	0	**12**	1	0	4	0	**5**	1	0	2	0	**3**	**36**
Hourly Total	3	30	16	1	**50**	13	31	1	0	**45**	2	2	12	0	**16**	2	2	3	0	**7**	**118**
5:00AM	0	15	0	0	**15**	0	20	1	0	**21**	0	0	3	0	**3**	0	0	3	0	**3**	**42**
5:15AM	2	24	1	0	**27**	3	18	1	0	**22**	0	0	11	0	**11**	0	0	9	0	**9**	**69**
5:30AM	12	23	2	0	**37**	1	25	0	0	**26**	0	3	12	0	**15**	2	1	4	0	**7**	**85**
5:45AM	5	32	4	0	**41**	7	29	0	0	**36**	0	4	7	0	**11**	1	2	4	0	**7**	**95**
Hourly Total	19	94	7	0	**120**	11	92	2	0	**105**	0	7	33	0	**40**	3	3	20	0	**26**	**291**
6:00AM	4	43	3	0	**50**	5	43	0	0	**48**	1	1	16	0	**18**	4	3	11	0	**18**	**134**
6:15AM	5	55	1	0	**61**	7	39	2	0	**48**	1	4	13	0	**18**	5	5	13	0	**23**	**150**
6:30AM	8	61	4	0	**73**	8	48	2	0	**58**	2	6	20	0	**28**	1	2	13	0	**16**	**175**
6:45AM	11	53	4	0	**68**	14	35	2	0	**51**	0	9	20	0	**29**	2	9	13	0	**24**	**172**
Hourly Total	28	212	12	0	**252**	34	165	6	0	**205**	4	20	69	0	**93**	12	19	50	0	**81**	**631**
7:00AM	8	67	3	0	**78**	6	36	0	0	**42**	1	5	21	0	**27**	10	13	12	0	**35**	**182**
7:15AM	14	75	2	0	**91**	14	54	1	0	**69**	3	11	24	0	**38**	4	5	29	0	**38**	**236**
7:30AM	13	105	6	0	**124**	19	84	5	0	**108**	2	4	8	0	**14**	3	16	24	0	**43**	**289**
7:45AM	17	76	6	0	**99**	18	61	2	0	**81**	3	4	27	0	**34**	2	6	26	0	**34**	**248**
Hourly Total	52	323	17	0	**392**	57	235	8	0	**300**	9	24	80	0	**113**	19	40	91	0	**150**	**955**
8:00AM	19	62	6	0	**87**	15	54	2	0	**71**	7	8	14	0	**29**	5	6	14	0	**25**	**212**
8:15AM	18	86	0	0	**104**	16	60	3	0	**79**	1	4	19	0	**24**	3	5	18	0	**26**	**233**
8:30AM	26	74	1	0	**101**	17	63	5	0	**85**	2	9	23	0	**34**	5	6	18	0	**29**	**249**
8:45AM	21	56	2	0	**79**	14	61	2	0	**77**	2	15	18	0	**35**	2	11	20	0	**33**	**224**
Hourly Total	84	278	9	0	**371**	62	238	12	0	**312**	12	36	74	0	**122**	15	28	70	0	**113**	**918**
9:00AM	19	52	3	0	**74**	8	43	4	0	**55**	3	1	18	0	**22**	6	9	10	0	**25**	**176**
9:15AM	22	63	3	0	**88**	11	57	3	0	**71**	3	7	22	0	**32**	3	4	11	0	**18**	**209**
9:30AM	12	51	3	0	**66**	11	48	4	0	**63**	2	2	15	0	**19**	2	6	9	0	**17**	**165**
9:45AM	14	48	3	0	**65**	10	52	2	0	**64**	4	3	17	0	**24**	4	6	24	0	**34**	**187**
Hourly Total	67	214	12	0	**293**	40	200	13	0	**253**	12	13	72	0	**97**	15	25	54	0	**94**	**737**
10:00AM	10	62	4	0	**76**	11	44	3	0	**58**	3	4	14	0	**21**	3	7	14	0	**24**	**179**
10:15AM	14	56	1	0	**71**	7	39	5	0	**51**	4	4	16	0	**24**	6	5	12	0	**23**	**169**
10:30AM	15	55	5	0	**75**	16	47	1	0	**64**	1	5	10	0	**16**	5	8	12	0	**25**	**180**
10:45AM	15	55	1	0	**71**	10	48	4	0	**62**	1	6	16	0	**23**	2	7	15	0	**24**	**180**

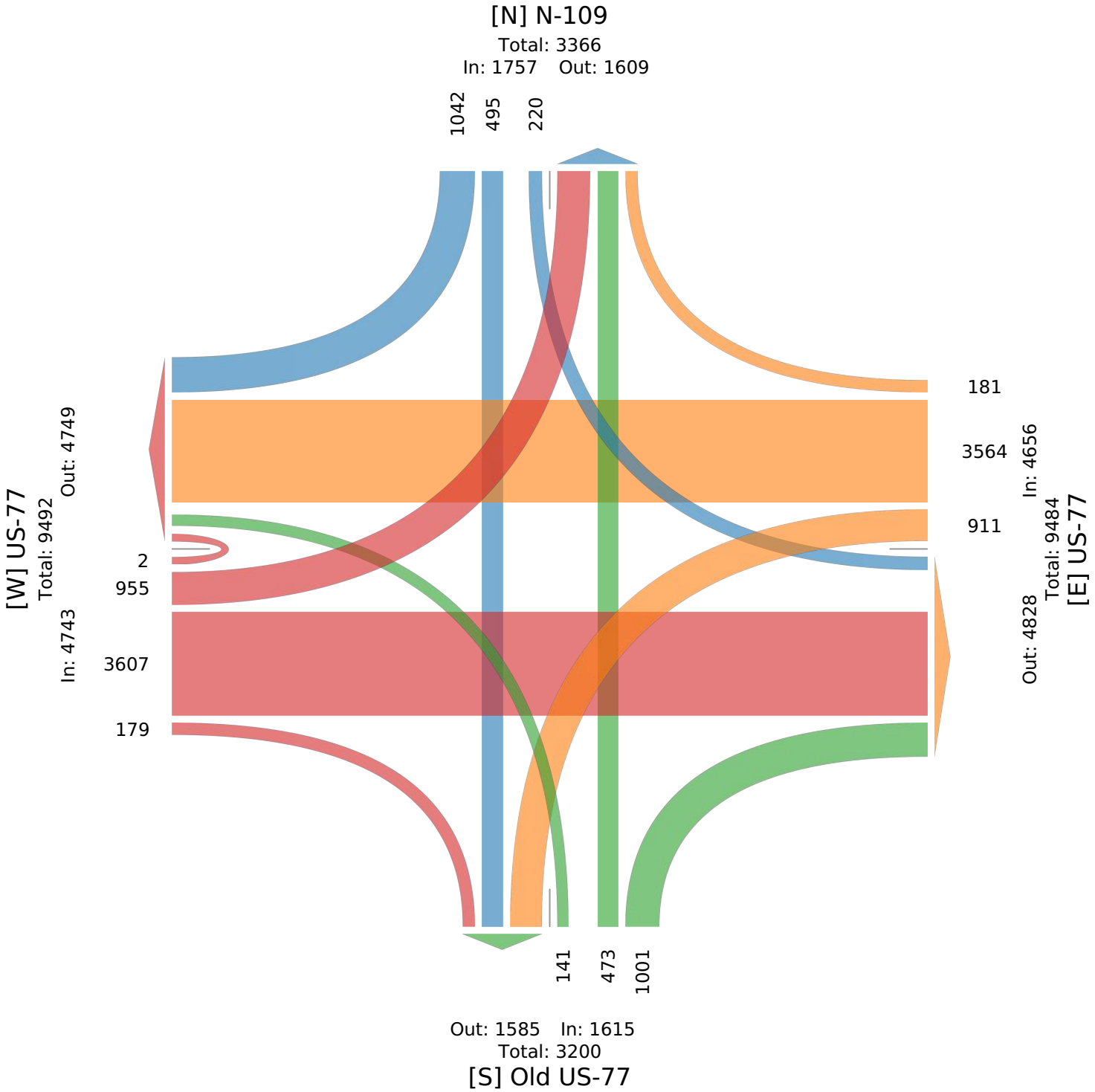
Leg	US-77					US-77					Old US-77					N-109					
Direction	Eastbound					Westbound					Northbound					Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
Hourly Total	54	228	11	0	**293**	44	178	13	0	**235**	9	19	56	0	**84**	16	27	53	0	**96**	**708**
11:00AM	18	57	4	0	**79**	22	51	4	0	**77**	3	10	11	0	**24**	2	10	14	0	**26**	**206**
11:15AM	6	48	8	0	**62**	13	41	2	0	**56**	3	6	15	0	**24**	2	2	22	0	**26**	**168**
11:30AM	20	53	3	0	**76**	16	56	2	0	**74**	5	1	20	0	**26**	4	8	16	0	**28**	**204**
11:45AM	16	48	2	0	**66**	9	47	4	0	**60**	1	10	9	0	**20**	2	13	26	0	**41**	**187**
Hourly Total	60	206	17	0	**283**	60	195	12	0	**267**	12	27	55	0	**94**	10	33	78	0	**121**	**765**
12:00PM	23	45	2	0	**70**	9	34	2	0	**45**	4	9	18	0	**31**	7	11	27	0	**45**	**191**
12:15PM	10	56	0	0	**66**	15	37	4	0	**56**	1	8	15	0	**24**	5	3	19	0	**27**	**173**
12:30PM	12	35	2	0	**49**	11	53	2	0	**66**	2	5	13	0	**20**	3	12	18	0	**33**	**168**
12:45PM	14	56	2	0	**72**	13	52	4	0	**69**	1	12	15	0	**28**	5	10	13	0	**28**	**197**
Hourly Total	59	192	6	0	**257**	48	176	12	0	**236**	8	34	61	0	**103**	20	36	77	0	**133**	**729**
1:00PM	14	49	3	0	**66**	10	55	1	0	**66**	3	5	15	0	**23**	6	9	13	0	**28**	**183**
1:15PM	13	55	4	0	**72**	17	35	5	0	**57**	1	15	17	0	**33**	3	7	17	0	**27**	**189**
1:30PM	14	49	3	0	**66**	20	58	1	0	**79**	4	8	12	0	**24**	8	5	17	0	**30**	**199**
1:45PM	12	75	4	0	**91**	13	59	1	0	**73**	2	14	16	0	**32**	2	3	21	0	**26**	**222**
Hourly Total	53	228	14	0	**295**	60	207	8	0	**275**	10	42	60	0	**112**	19	24	68	0	**111**	**793**
2:00PM	15	55	6	0	**76**	14	47	6	0	**67**	2	8	11	0	**21**	2	9	16	0	**27**	**191**
2:15PM	3	48	2	0	**53**	24	59	2	0	**85**	2	6	10	0	**18**	4	8	9	0	**21**	**177**
2:30PM	15	51	6	0	**72**	24	52	1	0	**77**	1	8	18	0	**27**	4	6	15	0	**25**	**201**
2:45PM	12	55	8	0	**75**	15	65	2	0	**82**	5	12	22	0	**39**	4	20	12	0	**36**	**232**
Hourly Total	45	209	22	0	**276**	77	223	11	0	**311**	10	34	61	0	**105**	14	43	52	0	**109**	**801**
3:00PM	12	48	4	0	**64**	20	68	2	0	**90**	4	11	13	0	**28**	1	10	14	0	**25**	**207**
3:15PM	20	69	4	0	**93**	17	74	6	0	**97**	2	13	14	0	**29**	1	10	22	0	**33**	**252**
3:30PM	11	75	4	0	**90**	21	59	2	0	**82**	4	22	28	0	**54**	5	12	14	0	**31**	**257**
3:45PM	17	50	0	0	**67**	23	83	6	0	**112**	3	14	12	0	**29**	5	10	27	0	**42**	**250**
Hourly Total	60	242	12	0	**314**	81	284	16	0	**381**	13	60	67	0	**140**	12	42	77	0	**131**	**966**
4:00PM	27	69	1	0	**97**	21	72	2	0	**95**	4	10	20	0	**34**	4	11	32	0	**47**	**273**
4:15PM	26	67	2	0	**95**	18	95	5	0	**118**	4	15	26	0	**45**	2	10	28	0	**40**	**298**
4:30PM	30	71	4	0	**105**	18	91	4	0	**113**	8	8	26	0	**42**	10	14	28	0	**52**	**312**
4:45PM	17	67	1	0	**85**	23	82	2	0	**107**	4	8	19	0	**31**	6	15	28	0	**49**	**272**
Hourly Total	100	274	8	0	**382**	80	340	13	0	**433**	20	41	91	0	**152**	22	50	116	0	**188**	**1155**
5:00PM	22	73	2	0	**97**	24	88	7	0	**119**	3	6	17	0	**26**	4	9	16	0	**29**	**271**
5:15PM	25	70	1	0	**96**	19	99	6	0	**124**	4	10	16	0	**30**	6	11	21	0	**38**	**288**
5:30PM	23	71	0	0	**94**	22	73	2	0	**97**	5	8	17	0	**30**	6	11	20	0	**37**	**258**
5:45PM	16	66	0	0	**82**	19	76	4	0	**99**	1	9	12	0	**22**	3	10	13	0	**26**	**229**
Hourly Total	86	280	3	0	**369**	84	336	19	0	**439**	13	33	62	0	**108**	19	41	70	0	**130**	**1046**
6:00PM	25	63	4	0	**92**	22	58	5	0	**85**	0	9	12	0	**21**	0	9	20	0	**29**	**227**
6:15PM	17	38	0	0	**55**	14	48	4	0	**66**	0	5	12	0	**17**	3	10	12	0	**25**	**163**
6:30PM	20	54	1	0	**75**	12	39	1	0	**52**	2	8	9	0	**19**	2	6	13	0	**21**	**167**
6:45PM	13	54	0	0	**67**	8	50	3	0	**61**	3	4	7	0	**14**	3	12	12	0	**27**	**169**
Hourly Total	75	209	5	0	**289**	56	195	13	0	**264**	5	26	40	0	**71**	8	37	57	0	**102**	**726**
7:00PM	13	39	2	0	**54**	9	45	2	0	**56**	0	6	9	0	**15**	1	9	11	0	**21**	**146**
7:15PM	10	38	0	0	**48**	12	29	1	0	**42**	0	6	16	0	**22**	3	7	13	0	**23**	**135**
7:30PM	10	26	2	1	**39**	13	30	0	0	**43**	0	0	11	0	**11**	1	5	13	0	**19**	**112**
7:45PM	6	21	1	0	**28**	9	39	3	0	**51**	0	5	3	0	**8**	0	1	7	0	**8**	**95**
Hourly Total	39	124	5	1	**169**	43	143	6	0	**192**	0	17	39	0	**56**	5	22	44	0	**71**	**488**
8:00PM	11	35	0	0	**46**	7	21	0	0	**28**	0	3	4	0	**7**	2	2	10	0	**14**	**95**
8:15PM	9	26	1	0	**36**	7	24	2	0	**33**	0	3	5	0	**8**	1	0	8	0	**9**	**86**
8:30PM	8	16	1	0	**25**	4	16	3	0	**23**	0	0	6	0	**6**	1	2	7	0	**10**	**64**
8:45PM	4	17	0	0	**21**	3	26	0	0	**29**	0	2	3	0	**5**	1	4	2	0	**7**	**62**
Hourly Total	32	94	2	0	**128**	21	87	5	0	**113**	0	8	18	0	**26**	5	8	27	0	**40**	**307**
9:00PM	5	12	0	0	**17**	4	17	1	0	**22**	1	7	3	0	**11**	2	0	3	0	**5**	**55**
9:15PM	1	11	1	0	**13**	4	18	0	0	**22**	0	4	5	0	**9**	0	2	6	0	**8**	**52**
9:30PM	6	11	0	0	**17**	0	15	0	0	**15**	0	0	1	0	**1**	0	1	2	0	**3**	**36**
9:45PM	1	12	0	0	**13**	2	24	1	0	**27**	0	2	2	0	**4**	1	3	5	0	**9**	**53**
Hourly Total	13	46	1	0	**60**	10	74	2	0	**86**	1	13	11	0	**25**	3	6	16	0	**25**	**196**
10:00PM	4	12	0	0	**16**	2	16	1	0	**19**	0	5	11	0	**16**	0	0	3	0	**3**	**54**
10:15PM	4	16	0	0	**20**	3	15	3	0	**21**	0	4	8	0	**12**	0	1	0	0	**1**	**54**
10:30PM	1	4	0	0	**5**	1	15	1	0	**17**	0	1	1	0	**2**	0	1	3	0	**4**	**28**
10:45PM	1	13	0	0	**14**	3	9	0	0	**12**	0	1	1	0	**2**	1	0	1	0	**2**	**30**

Leg Direction	US-77 Eastbound					US-77 Westbound					Old US-77 Northbound					N-109 Southbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
Hourly Total	10	45	0	0	**55**	9	55	5	0	**69**	0	11	21	0	**32**	1	2	7	0	**10**	**166**
11:00PM	3	9	0	0	**12**	4	11	0	0	**15**	0	0	0	0	**0**	0	0	1	0	**1**	**28**
11:15PM	1	4	0	0	**5**	2	11	2	0	**15**	0	1	2	0	**3**	0	0	1	0	**1**	**24**
11:30PM	2	7	0	0	**9**	1	10	1	0	**12**	0	0	1	0	**1**	0	4	1	0	**5**	**27**
11:45PM	3	11	0	0	**14**	4	13	0	0	**17**	0	1	1	0	**2**	0	0	2	0	**2**	**35**
Hourly Total	9	31	0	0	**40**	11	45	3	0	**59**	0	2	4	0	**6**	0	4	5	0	**9**	**114**
Total	955	3607	179	2	**4743**	911	3564	181	0	**4656**	141	473	1001	0	**1615**	220	495	1042	0	**1757**	**12771**
% Approach	20.1%	76.0%	3.8%	0%	**-**	19.6%	76.5%	3.9%	0%	**-**	8.7%	29.3%	62.0%	0%	**-**	12.5%	28.2%	59.3%	0%	**-**	-
% Total	7.5%	28.2%	1.4%	0%	**37.1%**	7.1%	27.9%	1.4%	0%	**36.5%**	1.1%	3.7%	7.8%	0%	**12.6%**	1.7%	3.9%	8.2%	0%	**13.8%**	-
Lights	908	3008	158	2	**4076**	852	2978	162	0	**3992**	119	456	941	0	**1516**	188	480	976	0	**1644**	11228
% Lights	95.1%	83.4%	88.3%	100%	**85.9%**	93.5%	83.6%	89.5%	0%	**85.7%**	84.4%	96.4%	94.0%	0%	**93.9%**	85.5%	97.0%	93.7%	0%	**93.6%**	87.9%
Articulated Trucks	26	502	13	0	**541**	27	483	13	0	**523**	15	6	22	0	**43**	22	7	39	0	**68**	1175
% Articulated Trucks	2.7%	13.9%	7.3%	0%	**11.4%**	3.0%	13.6%	7.2%	0%	**11.2%**	10.6%	1.3%	2.2%	0%	**2.7%**	10.0%	1.4%	3.7%	0%	**3.9%**	9.2%
Buses and Single-Unit Trucks	21	97	8	0	**126**	32	103	6	0	**141**	7	11	38	0	**56**	10	8	27	0	**45**	368
% Buses and Single-Unit Trucks	2.2%	2.7%	4.5%	0%	**2.7%**	3.5%	2.9%	3.3%	0%	**3.0%**	5.0%	2.3%	3.8%	0%	**3.5%**	4.5%	1.6%	2.6%	0%	**2.6%**	2.9%

*L: Left, R: Right, T: Thru, U: U-Turn

US-77 & N-109 / Old US-77 Roundabout - TMC
Thu Aug 28, 2025
Full Length (12 AM-12 AM (+1))
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



US-77 & N-109 / Old US-77 Roundabout - TMC

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

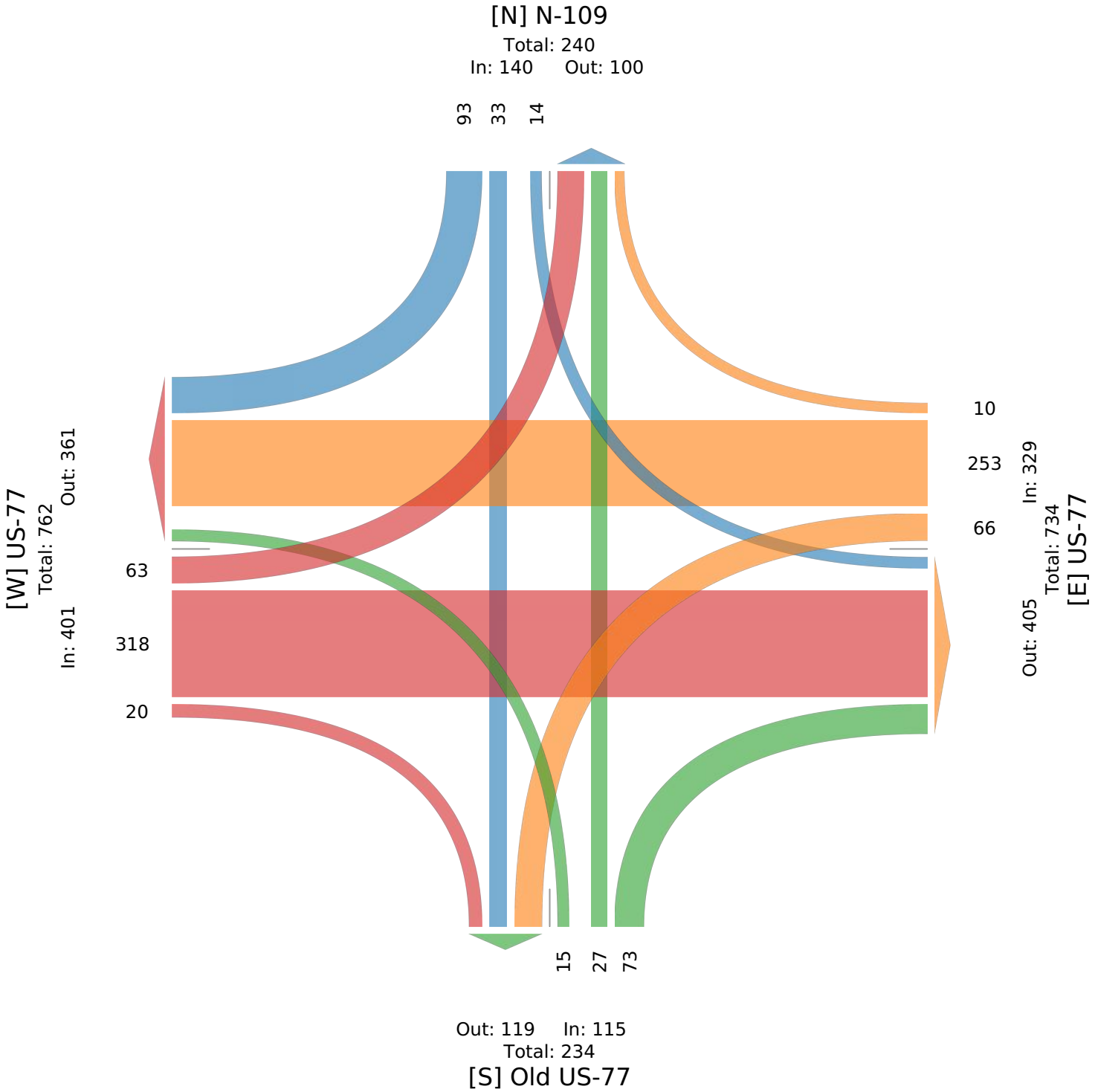
Thu Aug 28, 2025
AM Peak (Aug 28 2025 7:15AM - 8:15 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

Leg	US-77					US-77					Old US-77					N-109					
Direction	Eastbound					Westbound					Northbound					Southbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
2025-08-28 7:15AM	14	75	2	0	**91**	14	54	1	0	**69**	3	11	24	0	**38**	4	5	29	0	**38**	**236**
7:30AM	13	105	6	0	**124**	19	84	5	0	**108**	2	4	8	0	**14**	3	16	24	0	**43**	**289**
7:45AM	17	76	6	0	**99**	18	61	2	0	**81**	3	4	27	0	**34**	2	6	26	0	**34**	**248**
8:00AM	19	62	6	0	**87**	15	54	2	0	**71**	7	8	14	0	**29**	5	6	14	0	**25**	**212**
Total	63	318	20	0	**401**	66	253	10	0	**329**	15	27	73	0	**115**	14	33	93	0	**140**	**985**
% Approach	15.7%	79.3%	5.0%	0%	**-**	20.1%	76.9%	3.0%	0%	**-**	13.0%	23.5%	63.5%	0%	**-**	10.0%	23.6%	66.4%	0%	**-**	-
% Total	6.4%	32.3%	2.0%	0%	**40.7%**	6.7%	25.7%	1.0%	0%	**33.4%**	1.5%	2.7%	7.4%	0%	**11.7%**	1.4%	3.4%	9.4%	0%	**14.2%**	-
PHF	0.829	0.757	0.833	-	**0.808**	0.868	0.753	0.500	-	**0.762**	0.536	0.614	0.676	-	**0.757**	0.700	0.516	0.802	-	**0.814**	0.852
Lights	59	279	19	0	**357**	60	213	8	0	**281**	12	25	68	0	**105**	12	32	84	0	**128**	871
% Lights	93.7%	87.7%	95.0%	0%	**89.0%**	90.9%	84.2%	80.0%	0%	**85.4%**	80.0%	92.6%	93.2%	0%	**91.3%**	85.7%	97.0%	90.3%	0%	**91.4%**	88.4%
Articulated Trucks	2	33	1	0	**36**	3	30	2	0	**35**	3	1	1	0	**5**	1	1	4	0	**6**	82
% Articulated Trucks	3.2%	10.4%	5.0%	0%	**9.0%**	4.5%	11.9%	20.0%	0%	**10.6%**	20.0%	3.7%	1.4%	0%	**4.3%**	7.1%	3.0%	4.3%	0%	**4.3%**	8.3%
Buses and Single-Unit Trucks	2	6	0	0	**8**	3	10	0	0	**13**	0	1	4	0	**5**	1	0	5	0	**6**	32
% Buses and Single-Unit Trucks	3.2%	1.9%	0%	0%	**2.0%**	4.5%	4.0%	0%	0%	**4.0%**	0%	3.7%	5.5%	0%	**4.3%**	7.1%	0%	5.4%	0%	**4.3%**	3.2%

*L: Left, R: Right, T: Thru, U: U-Turn

US-77 & N-109 / Old US-77 Roundabout - TMC
Thu Aug 28, 2025
AM Peak (Aug 28 2025 7:15AM - 8:15 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



US-77 & N-109 / Old US-77 Roundabout - TMC

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

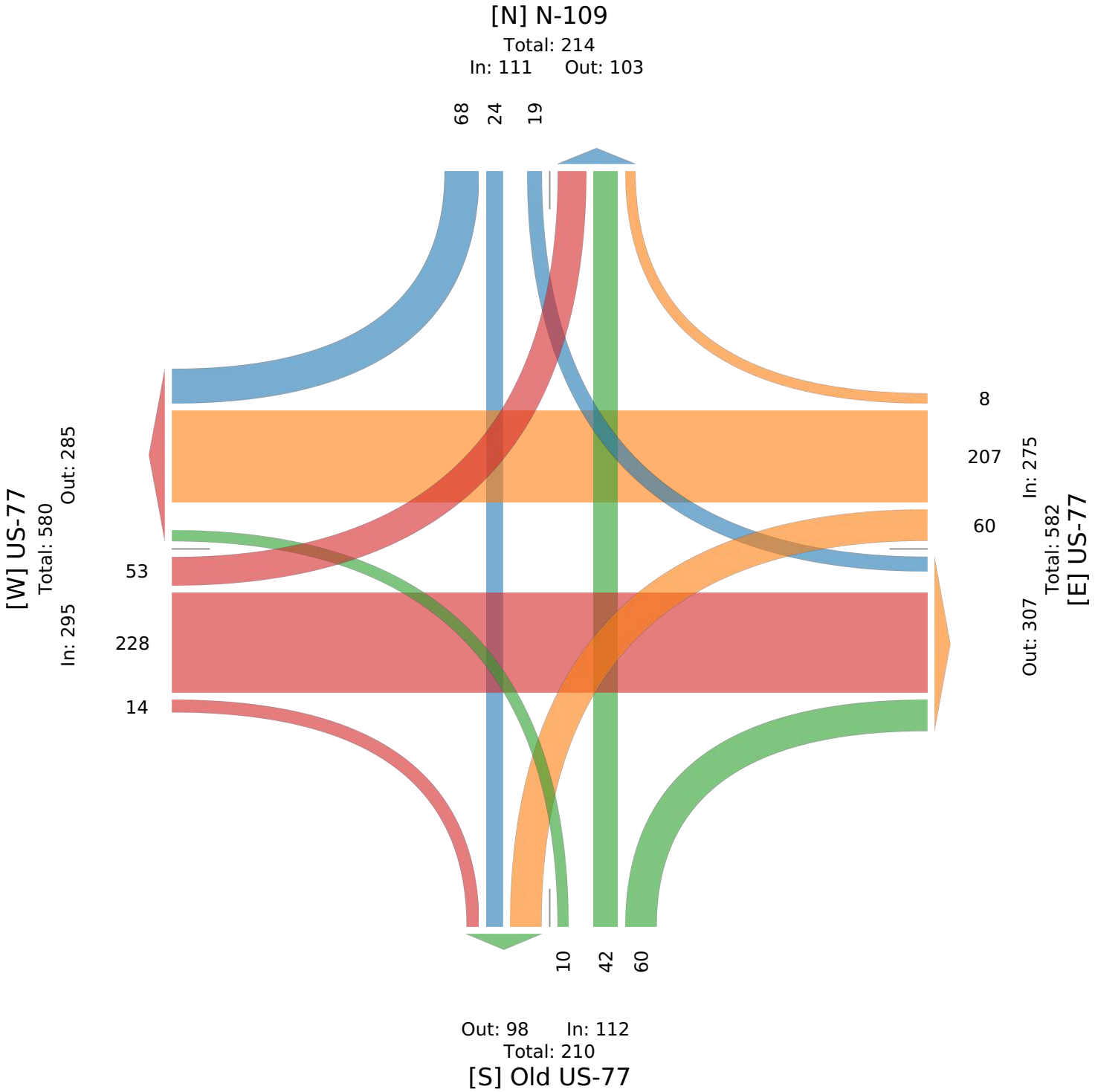
Thu Aug 28, 2025
Midday Peak (Aug 28 2025 1PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

Leg	US-77					US-77					Old US-77					N-109					
Direction	Eastbound					Westbound					Northbound					Southbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
2025-08-28 1:00PM	14	49	3	0	**66**	10	55	1	0	**66**	3	5	15	0	**23**	6	9	13	0	**28**	**183**
1:15PM	13	55	4	0	**72**	17	35	5	0	**57**	1	15	17	0	**33**	3	7	17	0	**27**	**189**
1:30PM	14	49	3	0	**66**	20	58	1	0	**79**	4	8	12	0	**24**	8	5	17	0	**30**	**199**
1:45PM	12	75	4	0	**91**	13	59	1	0	**73**	2	14	16	0	**32**	2	3	21	0	**26**	**222**
Total	53	228	14	0	**295**	60	207	8	0	**275**	10	42	60	0	**112**	19	24	68	0	**111**	**793**
% Approach	18.0%	77.3%	4.7%	0%	**-**	21.8%	75.3%	2.9%	0%	**-**	8.9%	37.5%	53.6%	0%	**-**	17.1%	21.6%	61.3%	0%	**-**	-
% Total	6.7%	28.8%	1.8%	0%	**37.2%**	7.6%	26.1%	1.0%	0%	**34.7%**	1.3%	5.3%	7.6%	0%	**14.1%**	2.4%	3.0%	8.6%	0%	**14.0%**	-
PHF	0.946	0.760	0.875	-	**0.810**	0.750	0.877	0.400	-	**0.870**	0.625	0.700	0.882	-	**0.848**	0.594	0.667	0.810	-	**0.925**	0.893
Lights	50	182	13	0	**245**	56	169	7	0	**232**	10	39	56	0	**105**	16	22	64	0	**102**	684
% Lights	94.3%	79.8%	92.9%	0%	**83.1%**	93.3%	81.6%	87.5%	0%	**84.4%**	100%	92.9%	93.3%	0%	**93.8%**	84.2%	91.7%	94.1%	0%	**91.9%**	86.3%
Articulated Trucks	2	34	0	0	**36**	1	27	1	0	**29**	0	1	2	0	**3**	1	1	3	0	**5**	73
% Articulated Trucks	3.8%	14.9%	0%	0%	**12.2%**	1.7%	13.0%	12.5%	0%	**10.5%**	0%	2.4%	3.3%	0%	**2.7%**	5.3%	4.2%	4.4%	0%	**4.5%**	9.2%
Buses and Single-Unit Trucks	1	12	1	0	**14**	3	11	0	0	**14**	0	2	2	0	**4**	2	1	1	0	**4**	36
% Buses and Single-Unit Trucks	1.9%	5.3%	7.1%	0%	**4.7%**	5.0%	5.3%	0%	0%	**5.1%**	0%	4.8%	3.3%	0%	**3.6%**	10.5%	4.2%	1.5%	0%	**3.6%**	4.5%

*L: Left, R: Right, T: Thru, U: U-Turn

US-77 & N-109 / Old US-77 Roundabout - TMC
Thu Aug 28, 2025
Midday Peak (Aug 28 2025 1PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



US-77 & N-109 / Old US-77 Roundabout - TMC

Thu Aug 28, 2025
PM Peak (Aug 28 2025 4PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

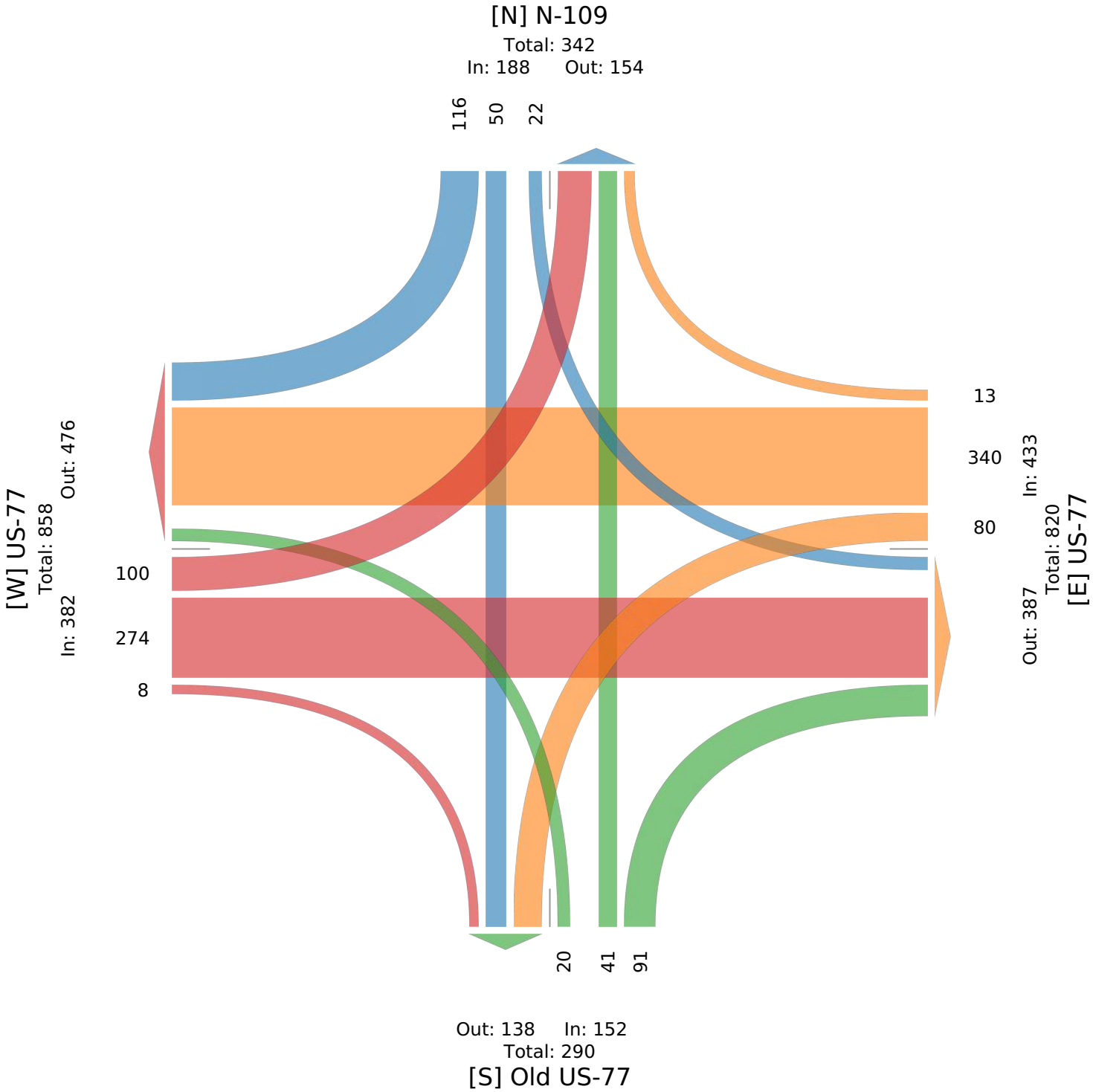
Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

Leg	US-77					US-77					Old US-77					N-109					
Direction	Eastbound					Westbound					Northbound					Southbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
2025-08-28 4:00PM	27	69	1	0	**97**	21	72	2	0	**95**	4	10	20	0	**34**	4	11	32	0	**47**	**273**
4:15PM	26	67	2	0	**95**	18	95	5	0	**118**	4	15	26	0	**45**	2	10	28	0	**40**	**298**
4:30PM	30	71	4	0	**105**	18	91	4	0	**113**	8	8	26	0	**42**	10	14	28	0	**52**	**312**
4:45PM	17	67	1	0	**85**	23	82	2	0	**107**	4	8	19	0	**31**	6	15	28	0	**49**	**272**
Total	100	274	8	0	**382**	80	340	13	0	**433**	20	41	91	0	**152**	22	50	116	0	**188**	**1155**
% Approach	26.2%	71.7%	2.1%	0%	**-**	18.5%	78.5%	3.0%	0%	**-**	13.2%	27.0%	59.9%	0%	**-**	11.7%	26.6%	61.7%	0%	**-**	-
% Total	8.7%	23.7%	0.7%	0%	**33.1%**	6.9%	29.4%	1.1%	0%	**37.5%**	1.7%	3.5%	7.9%	0%	**13.2%**	1.9%	4.3%	10.0%	0%	**16.3%**	-
PHF	0.833	0.965	0.500	-	**0.910**	0.870	0.895	0.650	-	**0.917**	0.625	0.683	0.875	-	**0.844**	0.550	0.833	0.906	-	**0.904**	0.925
Lights	95	244	8	0	**347**	80	313	13	0	**406**	19	40	89	0	**148**	19	49	109	0	**177**	1078
% Lights	95.0%	89.1%	100%	0%	**90.8%**	100%	92.1%	100%	0%	**93.8%**	95.0%	97.6%	97.8%	0%	**97.4%**	86.4%	98.0%	94.0%	0%	**94.1%**	93.3%
Articulated Trucks	0	24	0	0	**24**	0	19	0	0	**19**	1	0	0	0	**1**	1	0	3	0	**4**	48
% Articulated Trucks	0%	8.8%	0%	0%	**6.3%**	0%	5.6%	0%	0%	**4.4%**	5.0%	0%	0%	0%	**0.7%**	4.5%	0%	2.6%	0%	**2.1%**	4.2%
Buses and Single-Unit Trucks	5	6	0	0	**11**	0	8	0	0	**8**	0	1	2	0	**3**	2	1	4	0	**7**	29
% Buses and Single-Unit Trucks	5.0%	2.2%	0%	0%	**2.9%**	0%	2.4%	0%	0%	**1.8%**	0%	2.4%	2.2%	0%	**2.0%**	9.1%	2.0%	3.4%	0%	**3.7%**	2.5%

*L: Left, R: Right, T: Thru, U: U-Turn

US-77 & N-109 / Old US-77 Roundabout - TMC
Thu Aug 28, 2025
PM Peak (Aug 28 2025 4PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1329255, Location: 41.234634, -96.602779

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



Old US-77 & Commercial Park Rd. TMC - TMC

Thu Aug 28, 2025
Full Length (6:30 AM-6:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

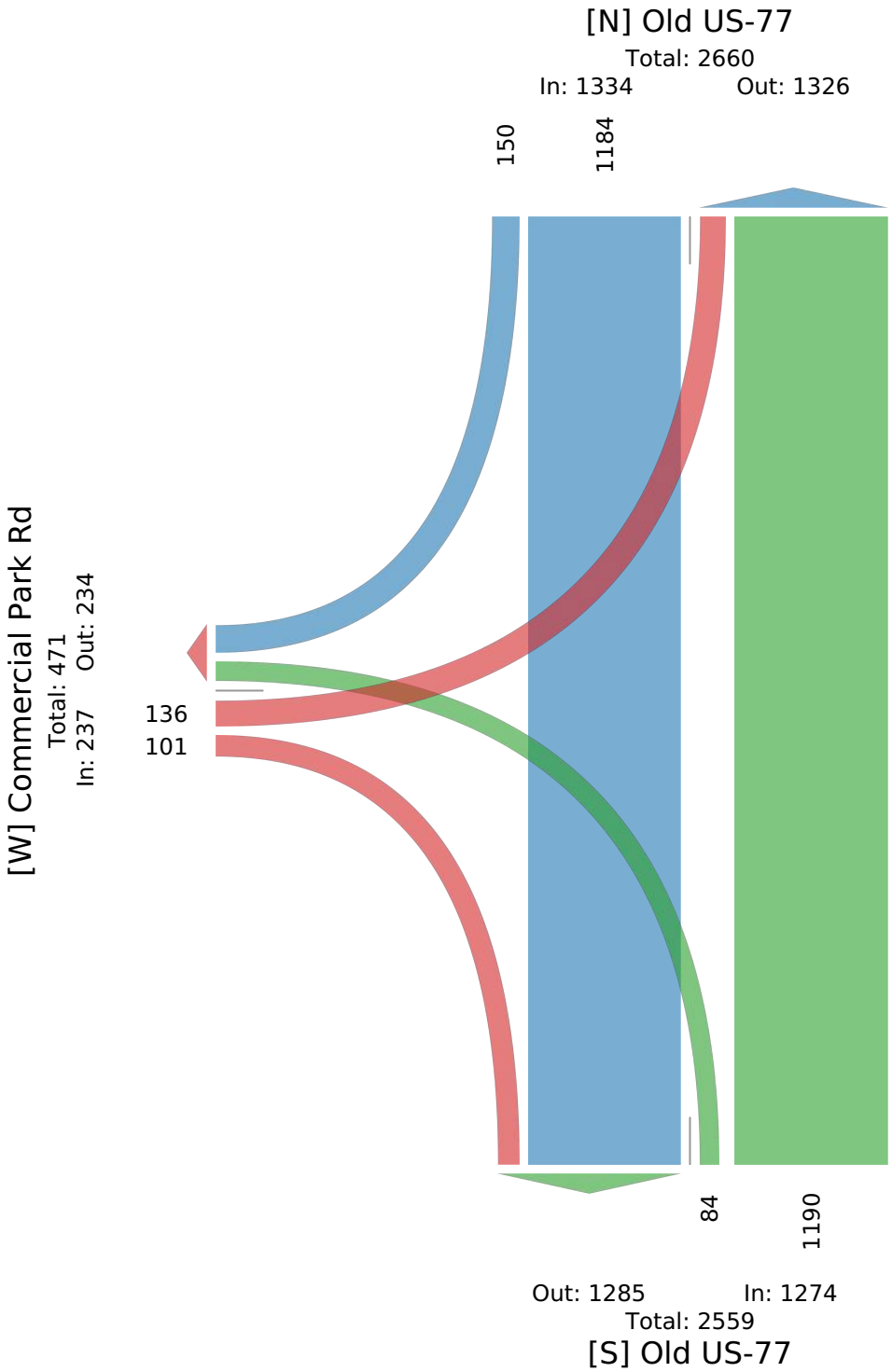
Leg	Commercial Park Rd				Old US-77				Old US-77				
Direction	Eastbound				Northbound				Southbound				
Time	L	R	U	**App**	L	T	U	**App**	T	R	U	**App**	**Int**
2025-08-28 6:30AM	1	0	0	**1**	6	28	0	**34**	11	3	0	**14**	**49**
6:45AM	0	0	0	**0**	4	29	0	**33**	21	6	0	**27**	**60**
Hourly Total	1	0	0	**1**	10	57	0	**67**	32	9	0	**41**	**109**
7:00AM	0	0	0	**0**	1	30	0	**31**	18	4	0	**22**	**53**
7:15AM	2	0	0	**2**	1	34	0	**35**	17	4	0	**21**	**58**
7:30AM	0	0	0	**0**	4	13	0	**17**	32	9	0	**41**	**58**
7:45AM	4	1	0	**5**	1	31	0	**32**	29	2	0	**31**	**68**
Hourly Total	6	1	0	**7**	7	108	0	**115**	96	19	0	**115**	**237**
8:00AM	1	1	0	**2**	2	30	0	**32**	23	4	0	**27**	**61**
8:15AM	1	2	0	**3**	3	21	0	**24**	21	0	0	**21**	**48**
8:30AM	3	1	0	**4**	2	30	0	**32**	18	4	0	**22**	**58**
8:45AM	6	1	0	**7**	3	31	0	**34**	27	3	0	**30**	**71**
Hourly Total	11	5	0	**16**	10	112	0	**122**	89	11	0	**100**	**238**
9:00AM	2	3	0	**5**	2	17	0	**19**	16	4	0	**20**	**44**
9:15AM	4	1	0	**5**	1	27	0	**28**	17	1	0	**18**	**51**
9:30AM	2	0	0	**2**	1	22	0	**23**	17	2	0	**19**	**44**
9:45AM	4	1	0	**5**	3	16	0	**19**	20	1	0	**21**	**45**
Hourly Total	12	5	0	**17**	7	82	0	**89**	70	8	0	**78**	**184**
10:00AM	0	1	0	**1**	0	20	0	**20**	20	2	0	**22**	**43**
10:15AM	0	0	0	**0**	1	26	0	**27**	10	3	0	**13**	**40**
10:30AM	3	1	0	**4**	2	13	0	**15**	25	4	0	**29**	**48**
10:45AM	3	0	0	**3**	1	19	0	**20**	19	0	0	**19**	**42**
Hourly Total	6	2	0	**8**	4	78	0	**82**	74	9	0	**83**	**173**
11:00AM	4	4	0	**8**	1	20	0	**21**	31	5	0	**36**	**65**
11:15AM	5	1	0	**6**	0	22	0	**22**	18	5	0	**23**	**51**
11:30AM	4	2	0	**6**	1	21	0	**22**	24	3	0	**27**	**55**
11:45AM	0	2	0	**2**	3	18	0	**21**	21	2	0	**23**	**46**
Hourly Total	13	9	0	**22**	5	81	0	**86**	94	15	0	**109**	**217**
12:00PM	4	10	0	**14**	2	30	0	**32**	22	2	0	**24**	**70**
12:15PM	2	4	0	**6**	5	22	0	**27**	17	1	0	**18**	**51**
12:30PM	3	7	0	**10**	7	15	0	**22**	22	4	0	**26**	**58**
12:45PM	2	2	0	**4**	3	25	0	**28**	20	5	0	**25**	**57**
Hourly Total	11	23	0	**34**	17	92	0	**109**	81	12	0	**93**	**236**
1:00PM	2	4	0	**6**	4	21	0	**25**	18	5	0	**23**	**54**
1:15PM	4	3	0	**7**	1	32	0	**33**	22	7	0	**29**	**69**
1:30PM	5	1	0	**6**	1	17	0	**18**	20	8	0	**28**	**52**
1:45PM	3	2	0	**5**	0	29	0	**29**	17	4	0	**21**	**55**
Hourly Total	14	10	0	**24**	6	99	0	**105**	77	24	0	**101**	**230**
2:00PM	3	1	0	**4**	4	19	0	**23**	26	3	0	**29**	**56**
2:15PM	2	3	0	**5**	3	16	0	**19**	33	2	0	**35**	**59**
2:30PM	3	3	0	**6**	3	25	0	**28**	32	3	0	**35**	**69**
2:45PM	6	10	0	**16**	2	33	0	**35**	40	5	0	**45**	**96**
Hourly Total	14	17	0	**31**	12	93	0	**105**	131	13	0	**144**	**280**
3:00PM	7	4	0	**11**	0	23	0	**23**	32	5	0	**37**	**71**
3:15PM	2	4	0	**6**	0	25	0	**25**	27	4	0	**31**	**62**
3:30PM	4	1	0	**5**	0	52	0	**52**	36	3	0	**39**	**96**
3:45PM	1	2	0	**3**	1	26	0	**27**	32	1	0	**33**	**63**
Hourly Total	14	11	0	**25**	1	126	0	**127**	127	13	0	**140**	**292**
4:00PM	2	4	0	**6**	2	31	0	**33**	30	3	0	**33**	**72**
4:15PM	4	1	0	**5**	1	41	0	**42**	28	3	0	**31**	**78**
4:30PM	9	4	0	**13**	1	31	0	**32**	32	4	0	**36**	**81**
4:45PM	5	1	0	**6**	0	26	0	**26**	41	2	0	**43**	**75**
Hourly Total	20	10	0	**30**	4	129	0	**133**	131	12	0	**143**	**306**
5:00PM	4	3	0	**7**	0	21	0	**21**	32	3	0	**35**	**63**

Leg	Commercial Park Rd				Old US-77				Old US-77				
Direction	Eastbound				Northbound				Southbound				
Time	L	R	U	**App**	L	T	U	**App**	T	R	U	**App**	**Int**
5:15PM	7	3	0	**10**	0	23	0	**23**	30	1	0	**31**	**64**
5:30PM	3	0	0	**3**	0	28	0	**28**	31	0	0	**31**	**62**
5:45PM	0	1	0	**1**	0	22	0	**22**	29	0	0	**29**	**52**
Hourly Total	14	7	0	**21**	0	94	0	**94**	122	4	0	**126**	**241**
6:00PM	0	1	0	**1**	0	21	0	**21**	36	0	0	**36**	**58**
6:15PM	0	0	0	**0**	1	18	0	**19**	24	1	0	**25**	**44**
Hourly Total	0	1	0	**1**	1	39	0	**40**	60	1	0	**61**	**102**
Total	136	101	0	**237**	84	1190	0	**1274**	1184	150	0	**1334**	**2845**
% Approach	57.4%	42.6%	0%	**-**	6.6%	93.4%	0%	**-**	88.8%	11.2%	0%	**-**	-
% Total	4.8%	3.6%	0%	**8.3%**	3.0%	41.8%	0%	**44.8%**	41.6%	5.3%	0%	**46.9%**	-
Lights	123	94	0	**217**	78	1121	0	**1199**	1108	138	0	**1246**	2662
% Lights	90.4%	93.1%	0%	**91.6%**	92.9%	94.2%	0%	**94.1%**	93.6%	92.0%	0%	**93.4%**	93.6%
Articulated Trucks	5	1	0	**6**	1	33	0	**34**	33	6	0	**39**	79
% Articulated Trucks	3.7%	1.0%	0%	**2.5%**	1.2%	2.8%	0%	**2.7%**	2.8%	4.0%	0%	**2.9%**	2.8%
Buses and Single-Unit Trucks	8	6	0	**14**	5	36	0	**41**	43	6	0	**49**	104
% Buses and Single-Unit Trucks	5.9%	5.9%	0%	**5.9%**	6.0%	3.0%	0%	**3.2%**	3.6%	4.0%	0%	**3.7%**	3.7%

*L: Left, R: Right, T: Thru, U: U-Turn

Old US-77 & Commercial Park Rd. TMC - TMC
Thu Aug 28, 2025
Full Length (6:30 AM-6:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



Old US-77 & Commercial Park Rd. TMC - TMC

Thu Aug 28, 2025
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

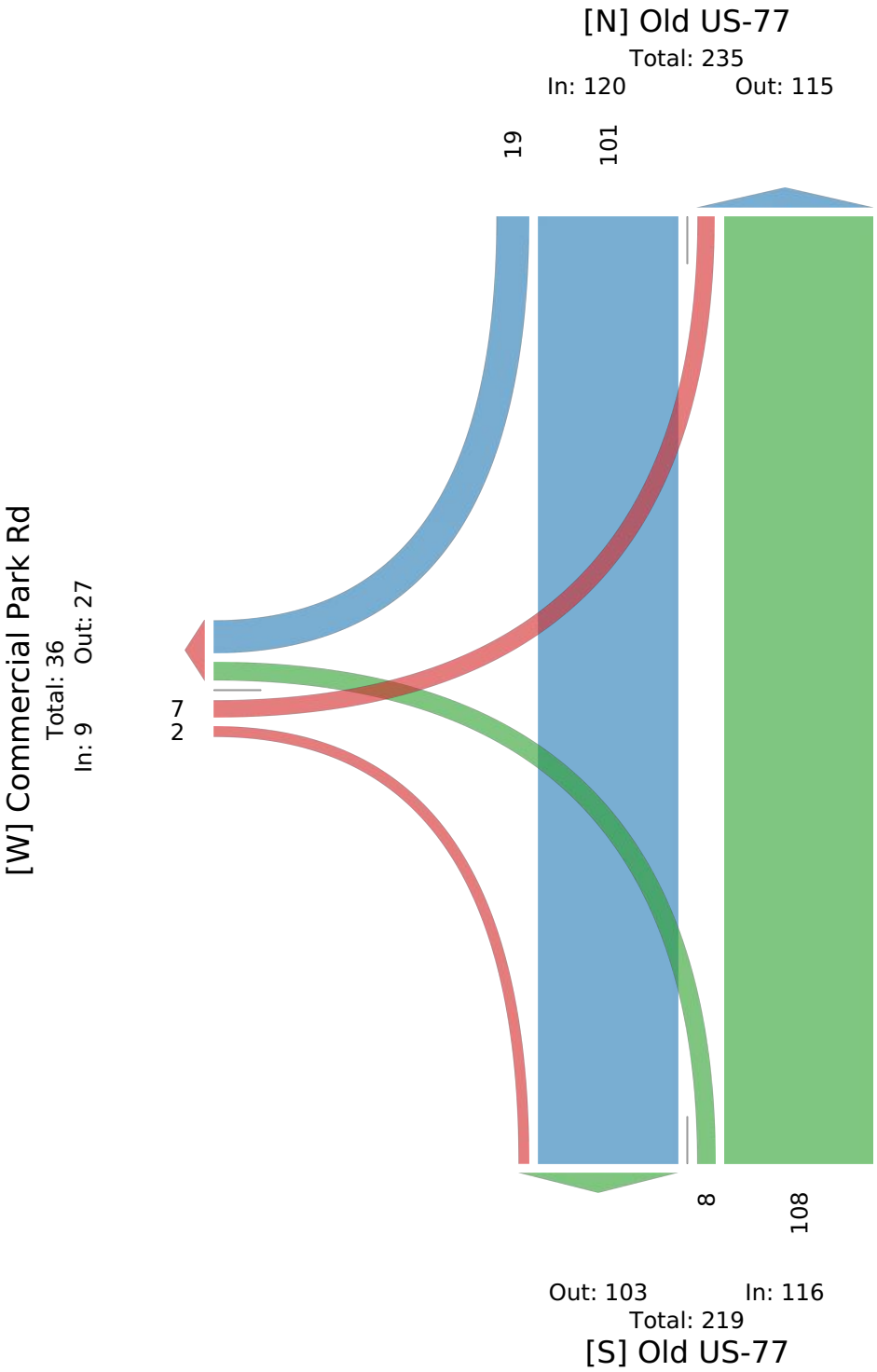
Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

Leg Direction	Commercial Park Rd Eastbound				Old US-77 Northbound				Old US-77 Southbound				
Time	L	R	U	**App**	L	T	U	**App**	T	R	U	**App**	**Int**
2025-08-28 7:15AM	2	0	0	**2**	1	34	0	**35**	17	4	0	**21**	**58**
7:30AM	0	0	0	**0**	4	13	0	**17**	32	9	0	**41**	**58**
7:45AM	4	1	0	**5**	1	31	0	**32**	29	2	0	**31**	**68**
8:00AM	1	1	0	**2**	2	30	0	**32**	23	4	0	**27**	**61**
Total	7	2	0	**9**	8	108	0	**116**	101	19	0	**120**	**245**
% Approach	77.8%	22.2%	0%	**-**	6.9%	93.1%	0%	**-**	84.2%	15.8%	0%	**-**	-
% Total	2.9%	0.8%	0%	**3.7%**	3.3%	44.1%	0%	**47.3%**	41.2%	7.8%	0%	**49.0%**	-
PHF	0.438	0.500	-	**0.450**	0.500	0.794	-	**0.829**	0.789	0.528	-	**0.732**	0.901
Lights	6	2	0	**8**	8	100	0	**108**	93	18	0	**111**	227
% Lights	85.7%	100%	0%	**88.9%**	100%	92.6%	0%	**93.1%**	92.1%	94.7%	0%	**92.5%**	92.7%
Articulated Trucks	0	0	0	**0**	0	4	0	**4**	3	1	0	**4**	8
% Articulated Trucks	0%	0%	0%	**0%**	0%	3.7%	0%	**3.4%**	3.0%	5.3%	0%	**3.3%**	3.3%
Buses and Single-Unit Trucks	1	0	0	**1**	0	4	0	**4**	5	0	0	**5**	10
% Buses and Single-Unit Trucks	14.3%	0%	0%	**11.1%**	0%	3.7%	0%	**3.4%**	5.0%	0%	0%	**4.2%**	4.1%

*L: Left, R: Right, T: Thru, U: U-Turn

Old US-77 & Commercial Park Rd. TMC - TMC
Thu Aug 28, 2025
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



Old US-77 & Commercial Park Rd. TMC - TMC

Thu Aug 28, 2025
Midday Peak (12:30 PM - 1:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

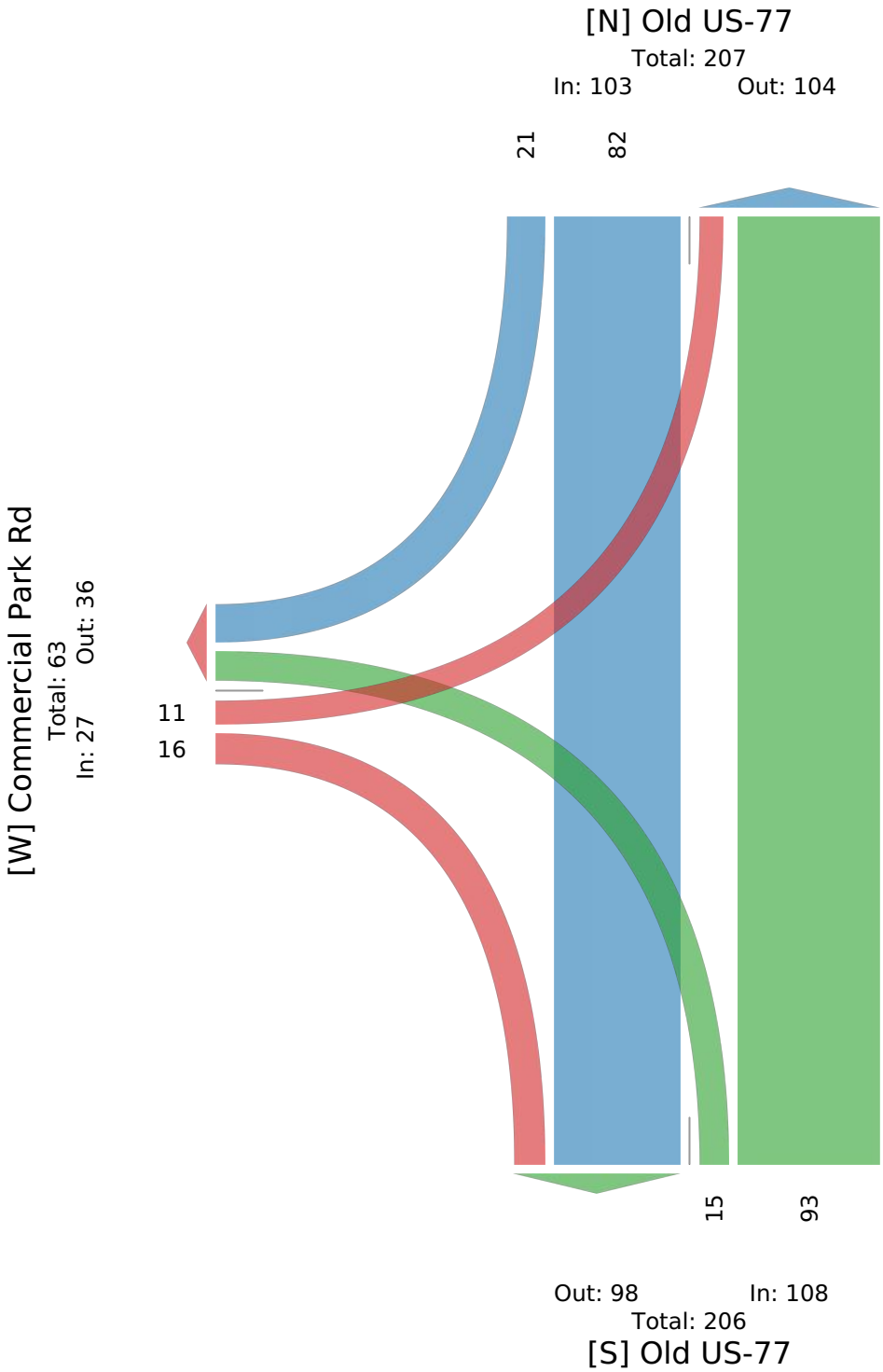
Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

Leg	Commercial Park Rd				Old US-77				Old US-77				
Direction	Eastbound				Northbound				Southbound				
Time	L	R	U	**App**	L	T	U	**App**	T	R	U	**App**	**Int**
2025-08-28 12:30PM	3	7	0	**10**	7	15	0	**22**	22	4	0	**26**	**58**
12:45PM	2	2	0	**4**	3	25	0	**28**	20	5	0	**25**	**57**
1:00PM	2	4	0	**6**	4	21	0	**25**	18	5	0	**23**	**54**
1:15PM	4	3	0	**7**	1	32	0	**33**	22	7	0	**29**	**69**
Total	11	16	0	**27**	15	93	0	**108**	82	21	0	**103**	**238**
% Approach	40.7%	59.3%	0%	**-**	13.9%	86.1%	0%	**-**	79.6%	20.4%	0%	**-**	-
% Total	4.6%	6.7%	0%	**11.3%**	6.3%	39.1%	0%	**45.4%**	34.5%	8.8%	0%	**43.3%**	-
PHF	0.688	0.571	-	**0.675**	0.536	0.727	-	**0.818**	0.932	0.750	-	**0.888**	0.862
Lights	10	14	0	**24**	14	89	0	**103**	74	20	0	**94**	221
% Lights	90.9%	87.5%	0%	**88.9%**	93.3%	95.7%	0%	**95.4%**	90.2%	95.2%	0%	**91.3%**	92.9%
Articulated Trucks	1	0	0	**1**	0	2	0	**2**	2	0	0	**2**	5
% Articulated Trucks	9.1%	0%	0%	**3.7%**	0%	2.2%	0%	**1.9%**	2.4%	0%	0%	**1.9%**	2.1%
Buses and Single-Unit Trucks	0	2	0	**2**	1	2	0	**3**	6	1	0	**7**	12
% Buses and Single-Unit Trucks	0%	12.5%	0%	**7.4%**	6.7%	2.2%	0%	**2.8%**	7.3%	4.8%	0%	**6.8%**	5.0%

*L: Left, R: Right, T: Thru, U: U-Turn

Old US-77 & Commercial Park Rd. TMC - TMC
Thu Aug 28, 2025
Midday Peak (12:30 PM - 1:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



Old US-77 & Commercial Park Rd. TMC - TMC

Thu Aug 28, 2025
PM Peak (2:45 PM - 3:45 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

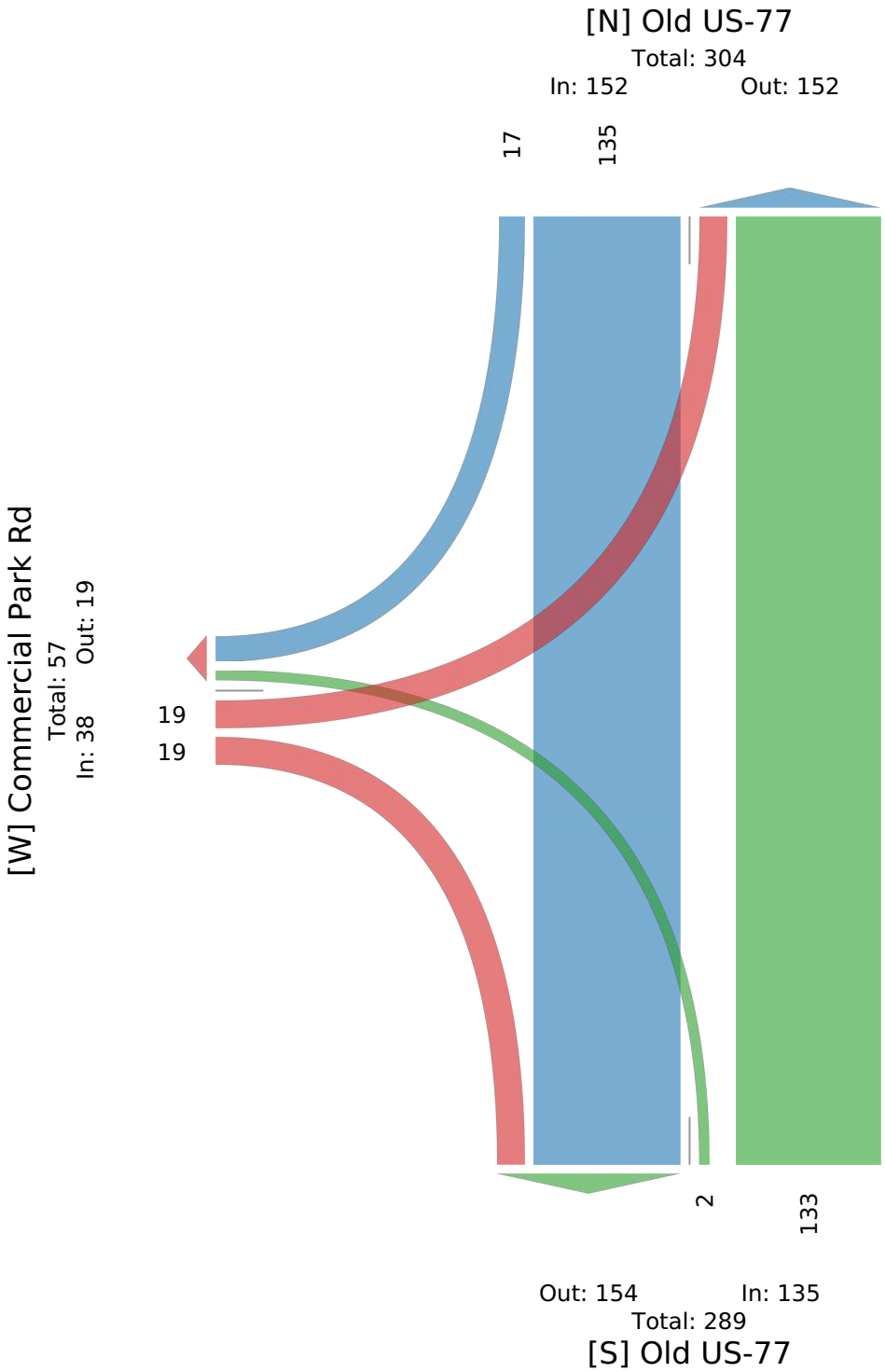
Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US

Leg	Commercial Park Rd				Old US-77				Old US-77				
Direction	Eastbound				Northbound				Southbound				
Time	L	R	U	**App**	L	T	U	**App**	T	R	U	**App**	**Int**
2025-08-28 2:45PM	6	10	0	**16**	2	33	0	**35**	40	5	0	**45**	**96**
3:00PM	7	4	0	**11**	0	23	0	**23**	32	5	0	**37**	**71**
3:15PM	2	4	0	**6**	0	25	0	**25**	27	4	0	**31**	**62**
3:30PM	4	1	0	**5**	0	52	0	**52**	36	3	0	**39**	**96**
Total	19	19	0	**38**	2	133	0	**135**	135	17	0	**152**	**325**
% Approach	50.0%	50.0%	0%	**-**	1.5%	98.5%	0%	**-**	88.8%	11.2%	0%	**-**	-
% Total	5.8%	5.8%	0%	**11.7%**	0.6%	40.9%	0%	**41.5%**	41.5%	5.2%	0%	**46.8%**	-
PHF	0.679	0.475	-	**0.594**	0.250	0.639	-	**0.649**	0.844	0.850	-	**0.844**	0.846
Lights	17	19	0	**36**	2	127	0	**129**	127	15	0	**142**	307
% Lights	89.5%	100%	0%	**94.7%**	100%	95.5%	0%	**95.6%**	94.1%	88.2%	0%	**93.4%**	94.5%
Articulated Trucks	0	0	0	**0**	0	1	0	**1**	4	1	0	**5**	6
% Articulated Trucks	0%	0%	0%	**0%**	0%	0.8%	0%	**0.7%**	3.0%	5.9%	0%	**3.3%**	1.8%
Buses and Single-Unit Trucks	2	0	0	**2**	0	5	0	**5**	4	1	0	**5**	12
% Buses and Single-Unit Trucks	10.5%	0%	0%	**5.3%**	0%	3.8%	0%	**3.7%**	3.0%	5.9%	0%	**3.3%**	3.7%

*L: Left, R: Right, T: Thru, U: U-Turn

Old US-77 & Commercial Park Rd. TMC - TMC
Thu Aug 28, 2025
PM Peak (2:45 PM - 3:45 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1330724, Location: 41.232374, -96.602707

Provided by: JEO Consulting (NE)
2000 Q Street, Ste 500, Lincoln, NE, 68503, US



APPENDIX C:
Intersection Operations Analysis Reports

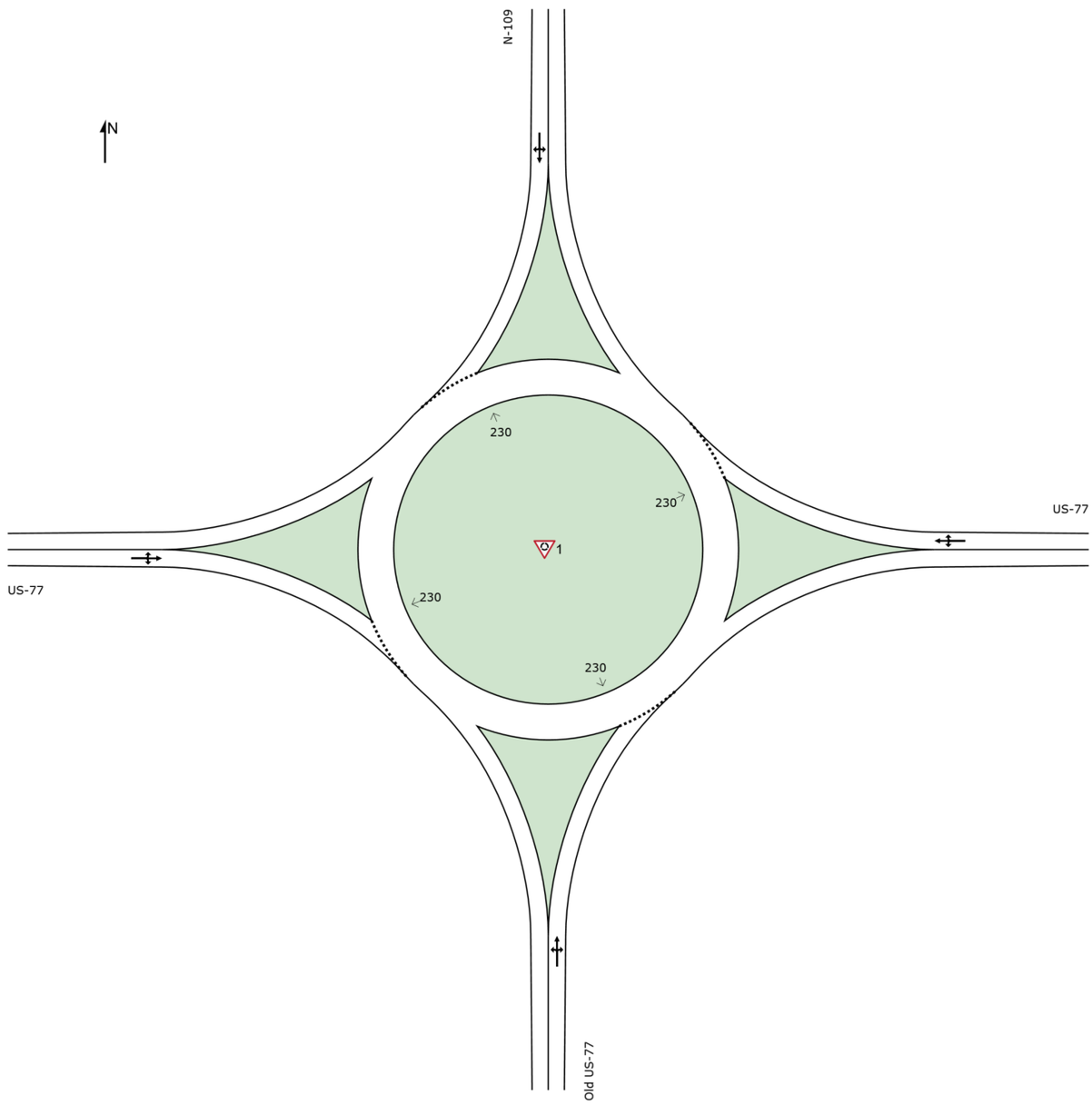
Existing Conditions

SITE LAYOUT

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 2:50:32 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Existing Conditions\US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

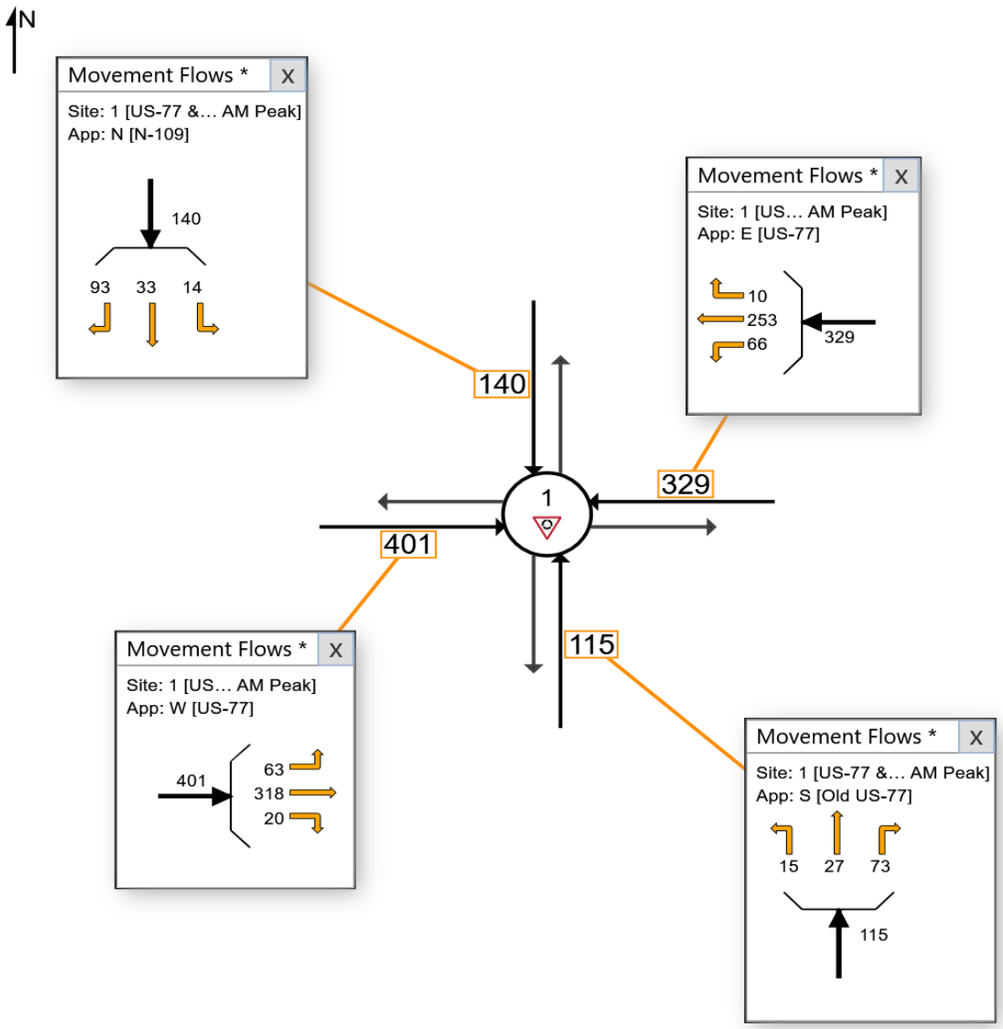
Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

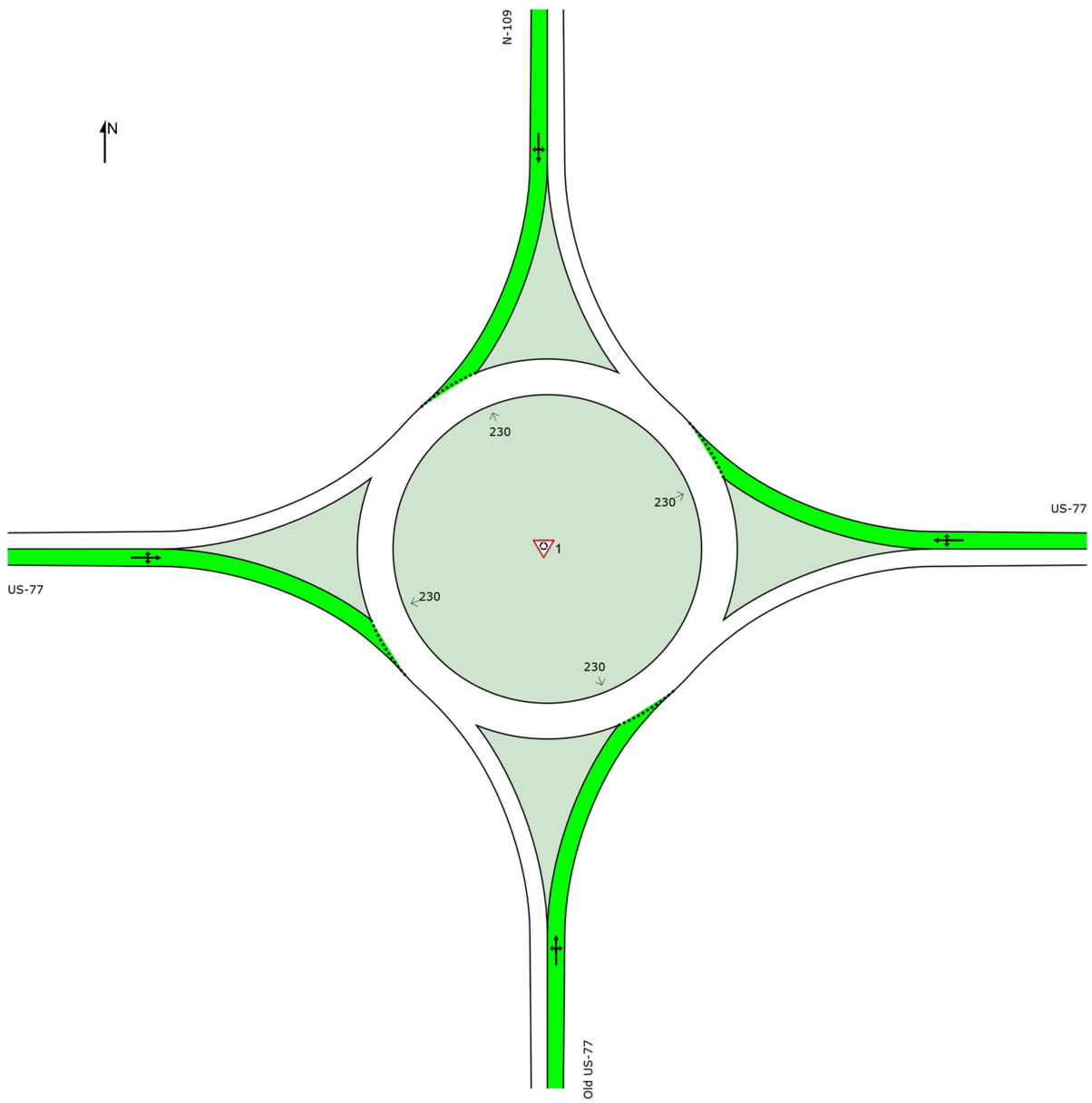
Lane Level of Service

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Processed: Friday, September 5, 2025 12:38:03 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Existing Conditions\US-77 & N-109.sipx

MOVEMENT SUMMARY

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	18	20.0	18	20.0	0.188	8.8	LOS A	0.7	19.4	0.57	0.46	0.57	33.8
8	T1	All MCs	32	7.4	32	7.4	0.188	6.9	LOS A	0.7	19.4	0.57	0.46	0.57	29.8
18	R2	All MCs	86	6.9	86	6.9	0.188	6.8	LOS A	0.7	19.4	0.57	0.46	0.57	36.2
Approach			135	8.7	135	8.7	0.188	7.1	LOS A	0.7	19.4	0.57	0.46	0.57	34.2
East: US-77															
1	L2	All MCs	78	9.1	78	9.1	0.371	6.8	LOS A	2.0	54.6	0.38	0.19	0.38	34.6
6	T1	All MCs	298	15.8	298	15.8	0.371	7.3	LOS A	2.0	54.6	0.38	0.19	0.38	35.7
16	R2	All MCs	12	20.0	12	20.0	0.371	7.6	LOS A	2.0	54.6	0.38	0.19	0.38	37.0
Approach			387	14.6	387	14.6	0.371	7.2	LOS A	2.0	54.6	0.38	0.19	0.38	35.5
North: N-109															
7	L2	All MCs	16	14.3	16	14.3	0.212	7.7	LOS A	0.9	22.8	0.55	0.43	0.55	37.5
4	T1	All MCs	39	3.0	39	3.0	0.212	6.2	LOS A	0.9	22.8	0.55	0.43	0.55	39.3
14	R2	All MCs	109	9.7	109	9.7	0.212	7.0	LOS A	0.9	22.8	0.55	0.43	0.55	39.1
Approach			165	8.6	165	8.6	0.212	6.9	LOS A	0.9	22.8	0.55	0.43	0.55	39.0
West: US-77															
5	L2	All MCs	74	6.3	74	6.3	0.442	7.7	LOS A	2.6	71.5	0.43	0.22	0.43	29.5
2	T1	All MCs	374	12.3	374	12.3	0.442	8.2	LOS A	2.6	71.5	0.43	0.22	0.43	35.8
12	R2	All MCs	24	5.0	24	5.0	0.442	7.6	LOS A	2.6	71.5	0.43	0.22	0.43	36.0
Approach			472	11.0	472	11.0	0.442	8.1	LOS A	2.6	71.5	0.43	0.22	0.43	34.7
All Vehicles			1159	11.6	1159	11.6	0.442	7.5	LOS A	2.6	71.5	0.45	0.27	0.45	35.4

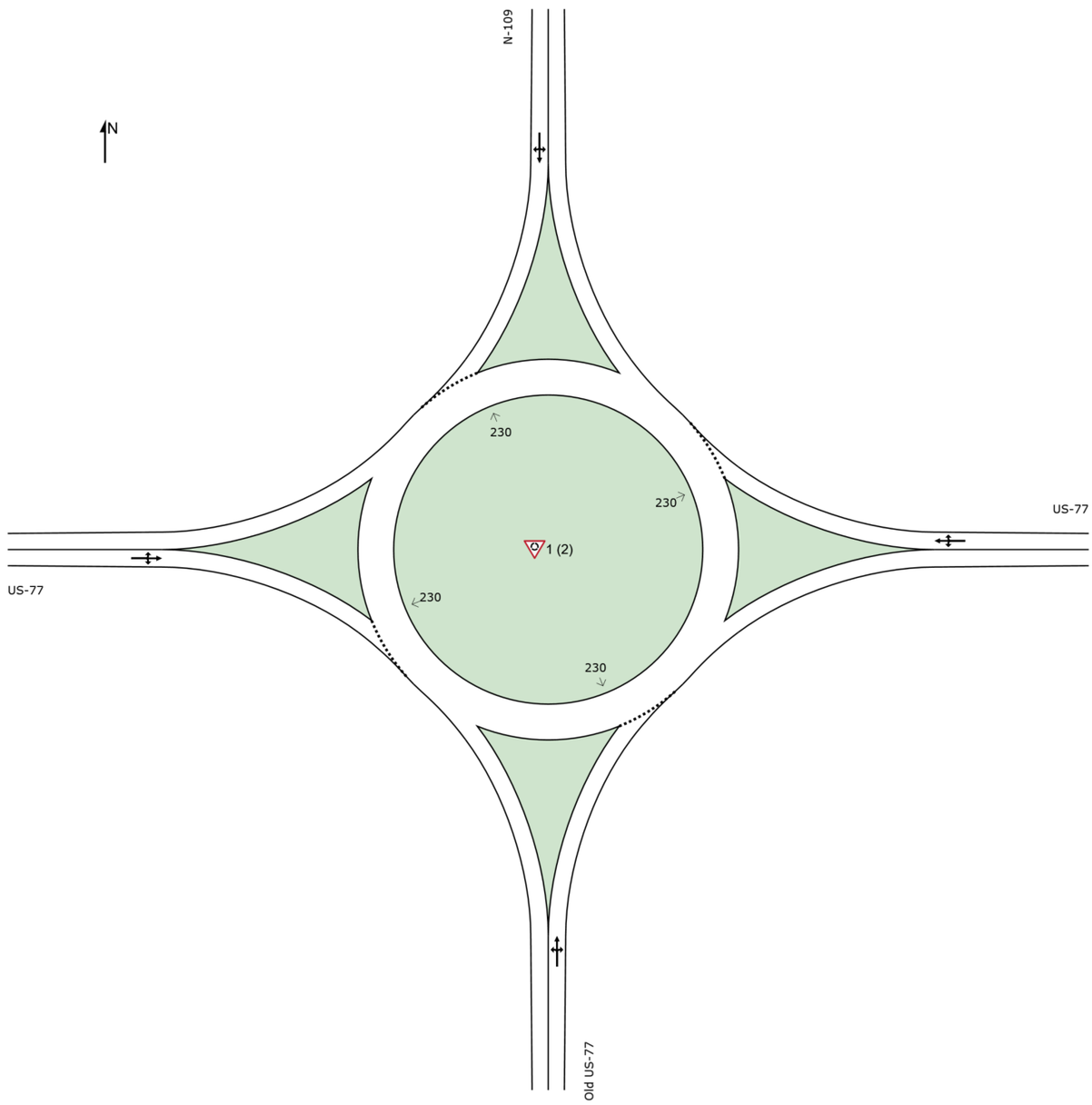
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 2:52:42 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Existing Conditions\US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

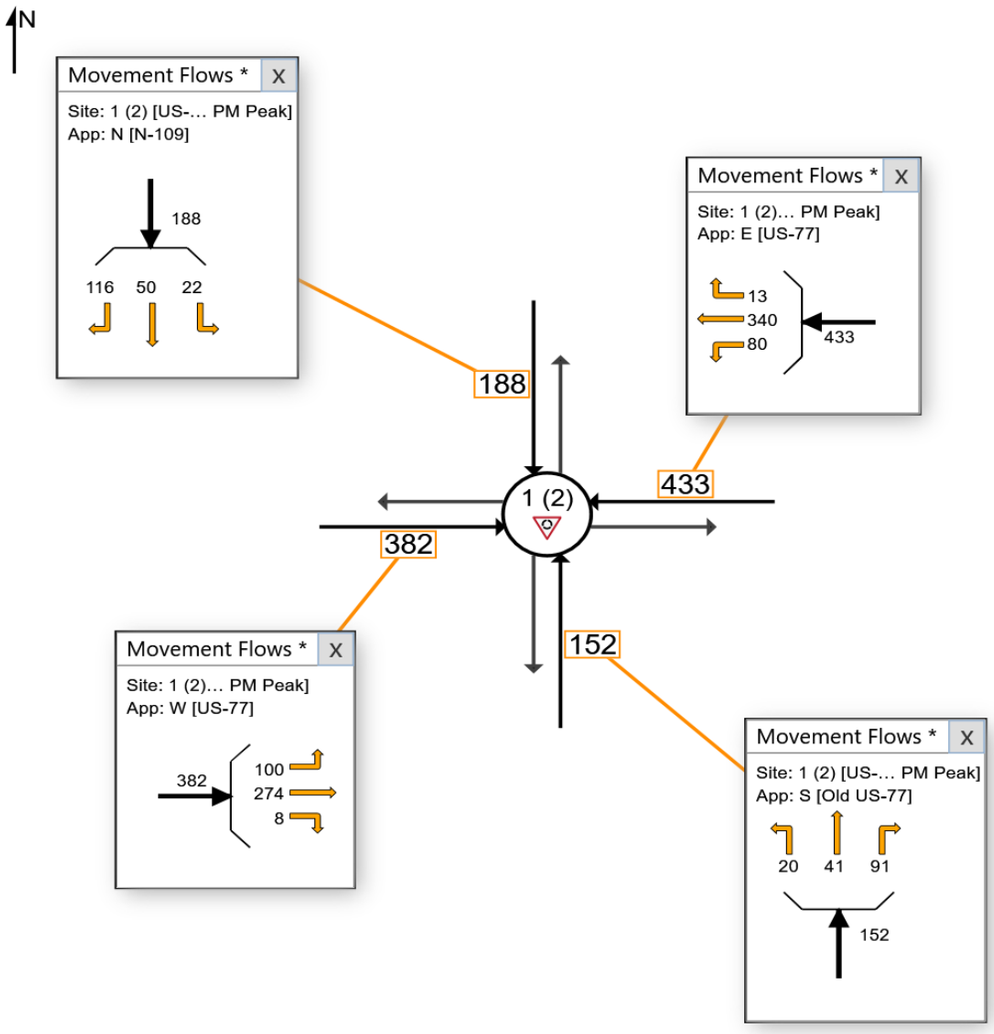
Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

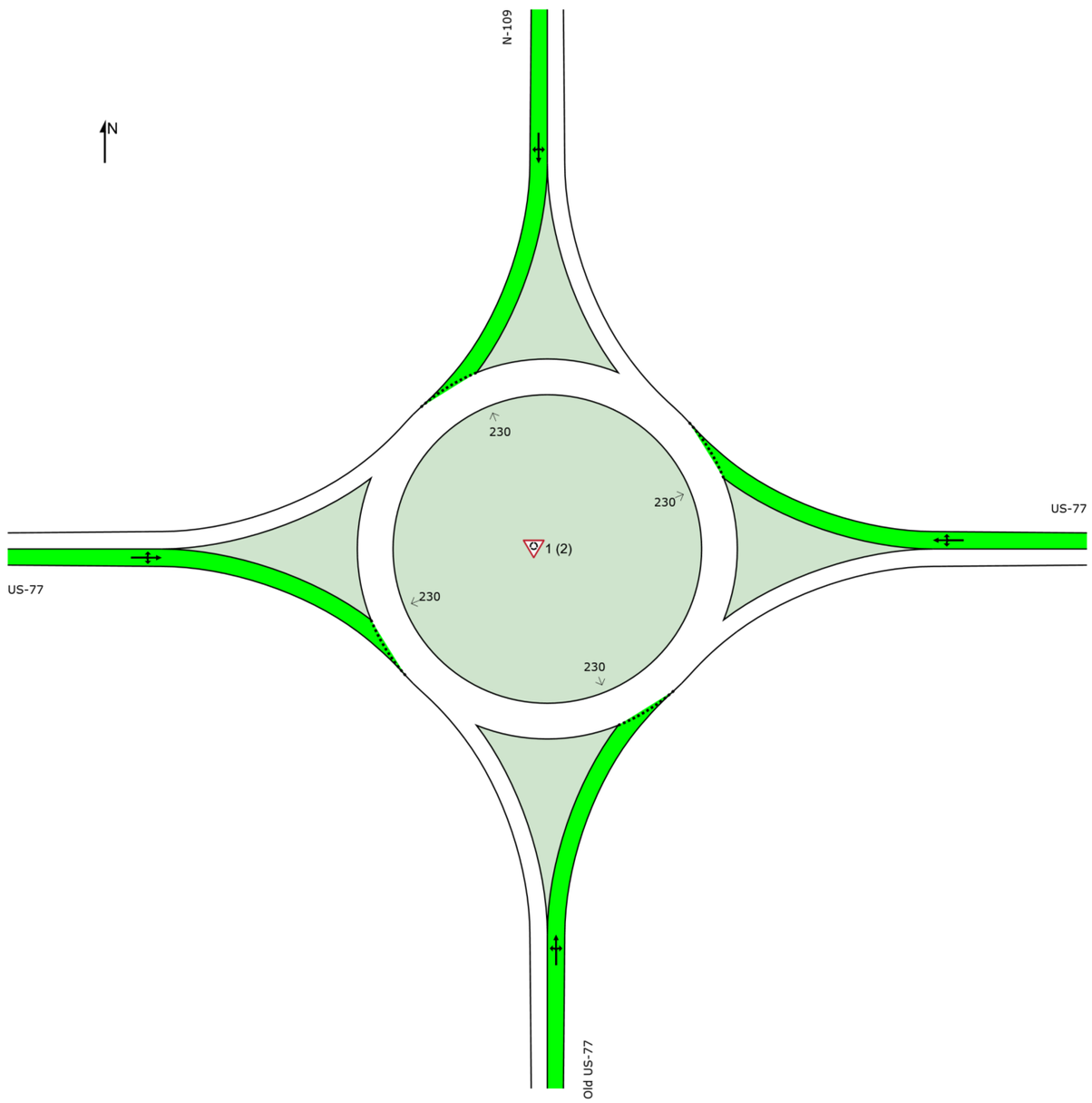
Lane Level of Service

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

MOVEMENT SUMMARY

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	22	5.0	22	5.0	0.198	6.7	LOS A	0.8	21.7	0.55	0.43	0.55	36.1
8	T1	All MCs	44	2.4	44	2.4	0.198	6.4	LOS A	0.8	21.7	0.55	0.43	0.55	30.2
18	R2	All MCs	98	2.2	98	2.2	0.198	6.3	LOS A	0.8	21.7	0.55	0.43	0.55	37.1
Approach			163	2.6	163	2.6	0.198	6.4	LOS A	0.8	21.7	0.55	0.43	0.55	34.8
East: US-77															
1	L2	All MCs	86	0.0	86	0.0	0.433	7.4	LOS A	2.6	68.0	0.47	0.26	0.47	35.5
6	T1	All MCs	366	7.9	366	7.9	0.433	8.1	LOS A	2.6	68.0	0.47	0.26	0.47	36.3
16	R2	All MCs	14	0.0	14	0.0	0.433	7.4	LOS A	2.6	68.0	0.47	0.26	0.47	37.7
Approach			466	6.2	466	6.2	0.433	7.9	LOS A	2.6	68.0	0.47	0.26	0.47	36.2
North: N-109															
7	L2	All MCs	24	13.6	24	13.6	0.266	8.9	LOS A	1.1	29.6	0.60	0.48	0.60	37.0
4	T1	All MCs	54	2.0	54	2.0	0.266	7.2	LOS A	1.1	29.6	0.60	0.48	0.60	38.7
14	R2	All MCs	125	6.0	125	6.0	0.266	7.8	LOS A	1.1	29.6	0.60	0.48	0.60	39.0
Approach			202	5.8	202	5.8	0.266	7.7	LOS A	1.1	29.6	0.60	0.48	0.60	38.6
West: US-77															
5	L2	All MCs	108	5.0	108	5.0	0.388	7.0	LOS A	2.1	57.7	0.43	0.23	0.43	29.6
2	T1	All MCs	295	11.0	295	11.0	0.388	7.5	LOS A	2.1	57.7	0.43	0.23	0.43	35.9
12	R2	All MCs	9	0.0	9	0.0	0.388	6.6	LOS A	2.1	57.7	0.43	0.23	0.43	36.0
Approach			411	9.2	411	9.2	0.388	7.4	LOS A	2.1	57.7	0.43	0.23	0.43	34.0
All Vehicles			1242	6.7	1242	6.7	0.433	7.5	LOS A	2.6	68.0	0.49	0.31	0.49	35.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	2	8	108	101	19
Future Vol, veh/h	7	2	8	108	101	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	14	0	0	7	8	5
Mvmt Flow	8	2	9	124	116	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	270	127	138	0	-	0
Stage 1	127	-	-	-	-	-
Stage 2	143	-	-	-	-	-
Critical Hdwy	6.54	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	695	929	1458	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	690	929	1458	-	-	-
Mov Cap-2 Maneuver	690	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	856	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.99	0.52	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1458	-	732	-	-
HCM Lane V/C Ratio	0.006	-	0.014	-	-
HCM Control Delay (s/veh)	7.5	-	10	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	10	4	129	131	12
Future Vol, veh/h	20	10	4	129	131	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	14	0	0	7	8	5
Mvmt Flow	21	11	4	136	138	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	288	144	151	0	-	0
Stage 1	144	-	-	-	-	-
Stage 2	144	-	-	-	-	-
Critical Hdwy	6.54	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	677	908	1443	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	675	908	1443	-	-	-
Mov Cap-2 Maneuver	675	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.09	0.23	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1443	-	739	-	-
HCM Lane V/C Ratio	0.003	-	0.043	-	-
HCM Control Delay (s/veh)	7.5	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

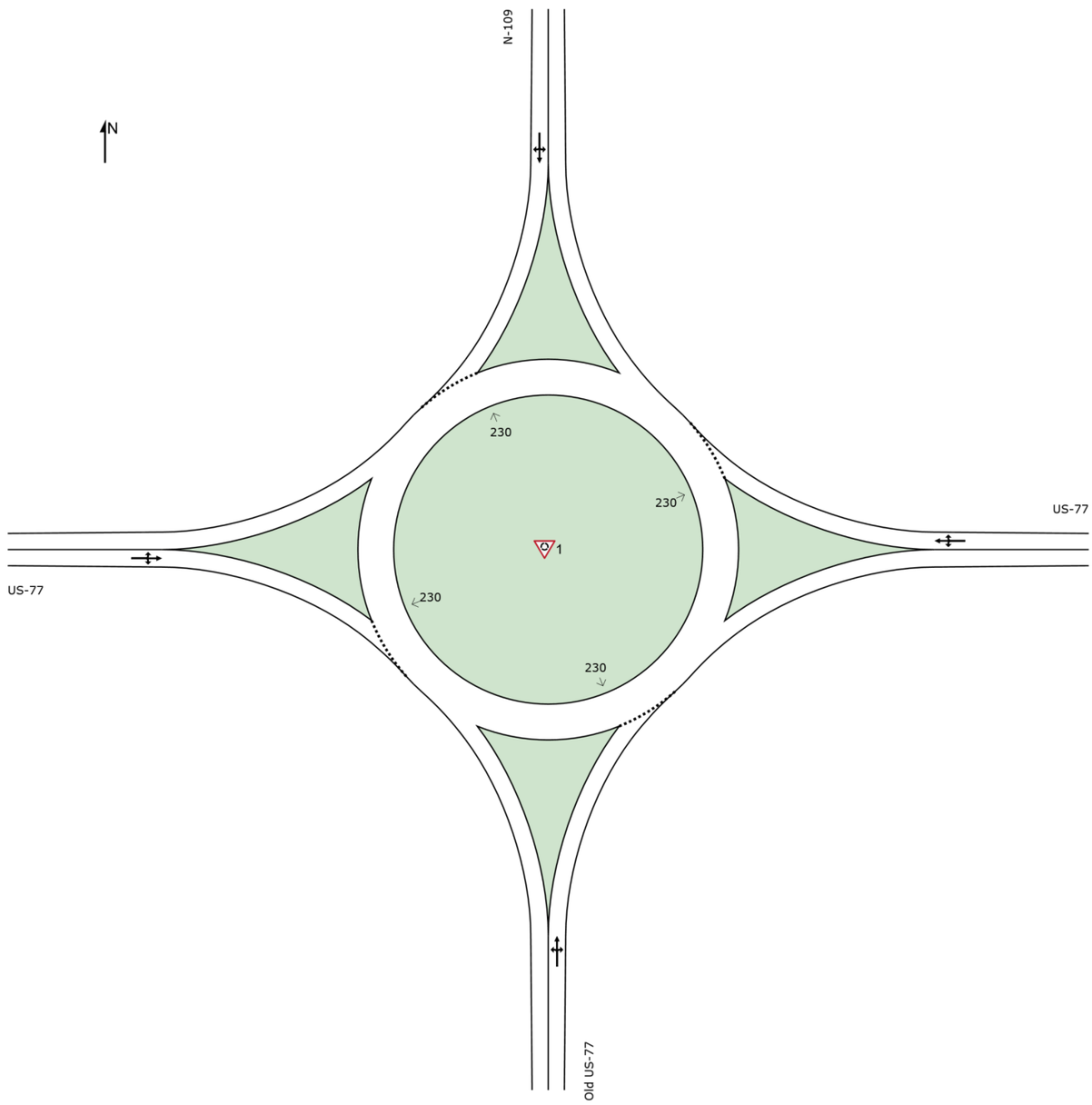
Opening Day (2028) Future Background Conditions

SITE LAYOUT

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 2:59:12 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2028 Opening Day \Background\Year 2028 US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

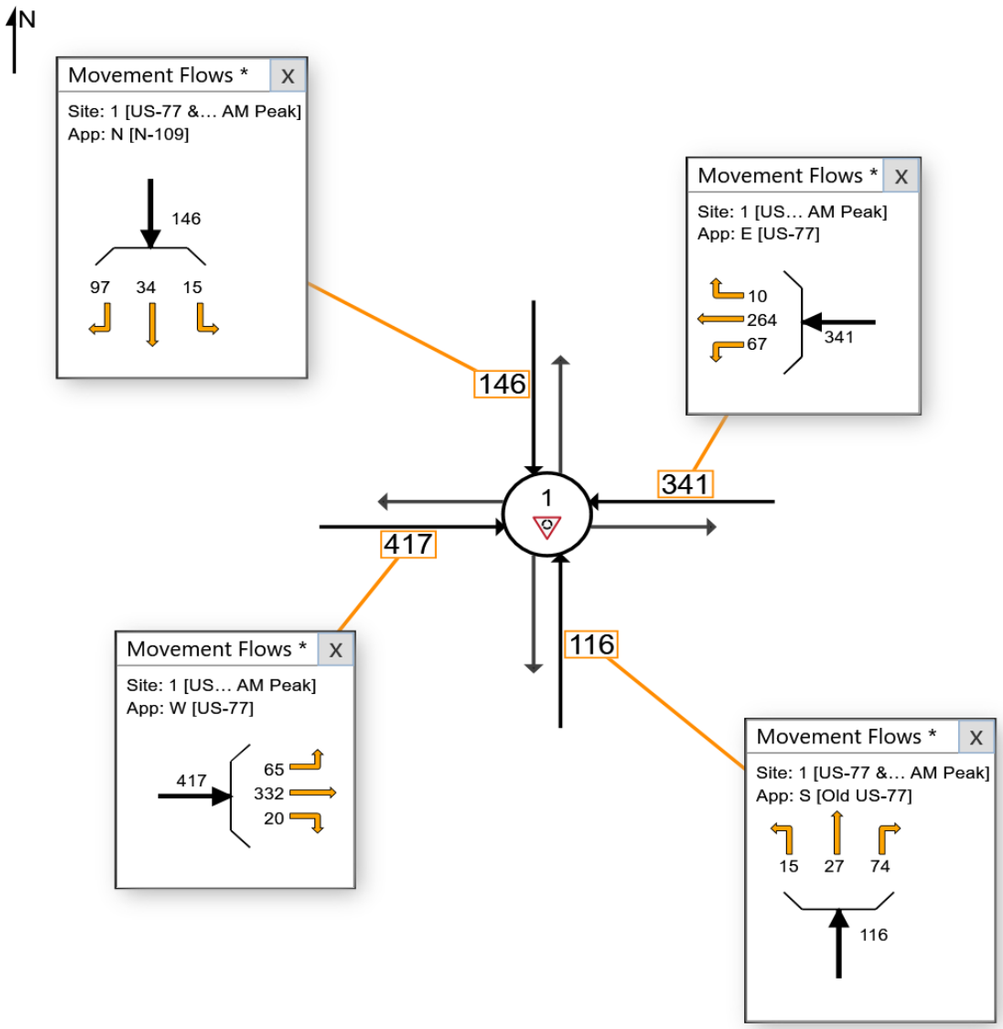
Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

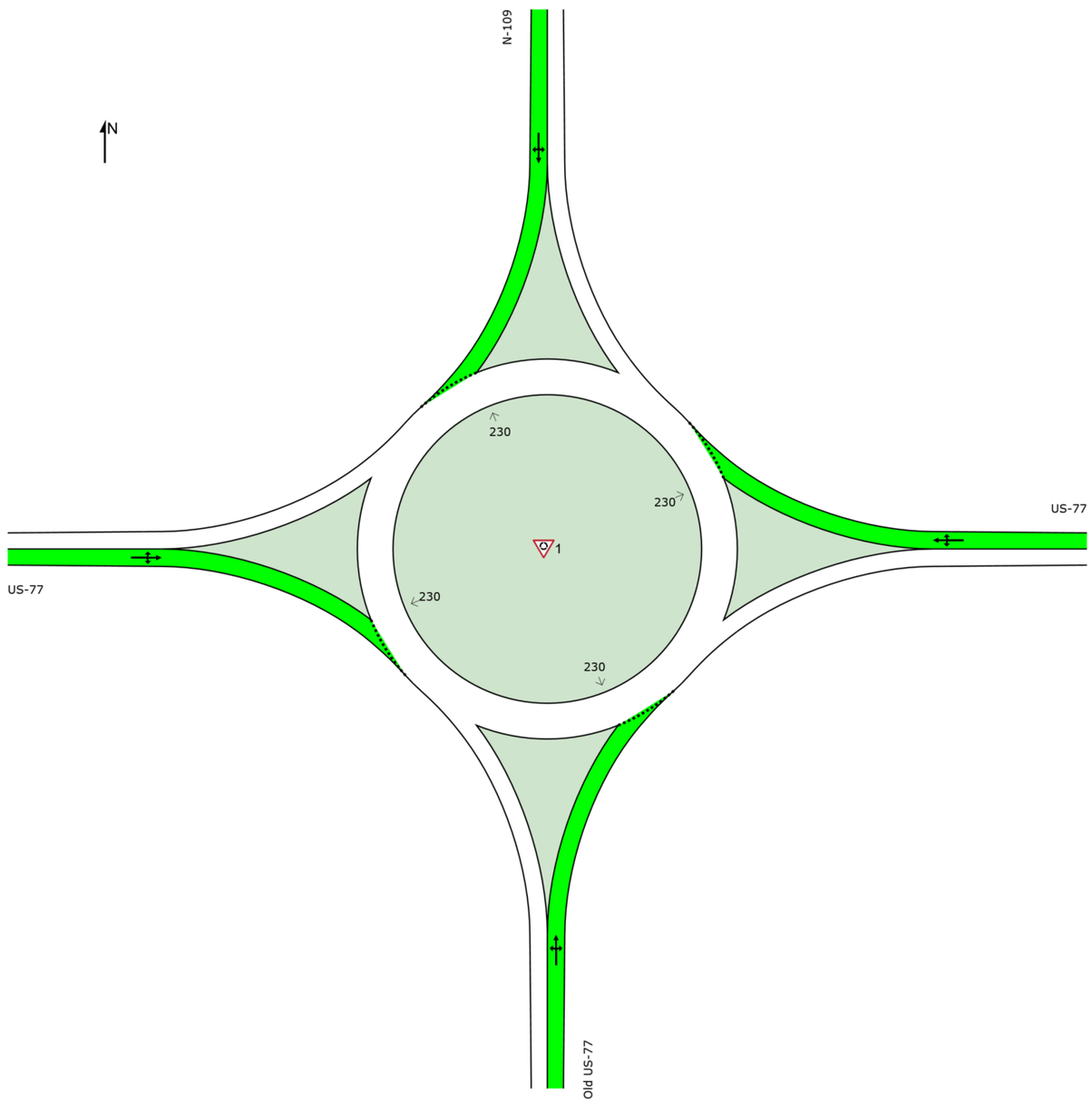
Lane Level of Service

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Processed: Monday, October 27, 2025 2:55:21 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2028 Opening Day \Background\Year 2028 US-77 & N-109.sipx

MOVEMENT SUMMARY

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	16	3.0	16	3.0	0.152	5.9	LOS A	0.6	16.2	0.53	0.41	0.53	36.6
8	T1	All MCs	29	3.0	29	3.0	0.152	5.9	LOS A	0.6	16.2	0.53	0.41	0.53	30.4
18	R2	All MCs	80	3.0	80	3.0	0.152	5.9	LOS A	0.6	16.2	0.53	0.41	0.53	37.3
Approach			126	3.0	126	3.0	0.152	5.9	LOS A	0.6	16.2	0.53	0.41	0.53	35.4
East: US-77															
1	L2	All MCs	73	3.0	73	3.0	0.313	5.9	LOS A	1.7	44.3	0.34	0.16	0.34	36.1
6	T1	All MCs	287	3.0	287	3.0	0.313	5.9	LOS A	1.7	44.3	0.34	0.16	0.34	38.0
16	R2	All MCs	11	3.0	11	3.0	0.313	5.9	LOS A	1.7	44.3	0.34	0.16	0.34	38.7
Approach			371	3.0	371	3.0	0.313	5.9	LOS A	1.7	44.3	0.34	0.16	0.34	37.7
North: N-109															
7	L2	All MCs	16	3.0	16	3.0	0.178	5.8	LOS A	0.8	19.6	0.51	0.37	0.51	40.0
4	T1	All MCs	37	3.0	37	3.0	0.178	5.8	LOS A	0.8	19.6	0.51	0.37	0.51	40.0
14	R2	All MCs	105	3.0	105	3.0	0.178	5.8	LOS A	0.8	19.6	0.51	0.37	0.51	40.8
Approach			159	3.0	159	3.0	0.178	5.8	LOS A	0.8	19.6	0.51	0.37	0.51	40.5
West: US-77															
5	L2	All MCs	71	3.0	71	3.0	0.387	6.8	LOS A	2.3	59.8	0.38	0.19	0.38	30.2
2	T1	All MCs	361	3.0	361	3.0	0.387	6.8	LOS A	2.3	59.8	0.38	0.19	0.38	37.7
12	R2	All MCs	22	3.0	22	3.0	0.387	6.8	LOS A	2.3	59.8	0.38	0.19	0.38	36.7
Approach			453	3.0	453	3.0	0.387	6.8	LOS A	2.3	59.8	0.38	0.19	0.38	36.2
All Vehicles			1109	3.0	1109	3.0	0.387	6.2	LOS A	2.3	59.8	0.40	0.23	0.40	37.1

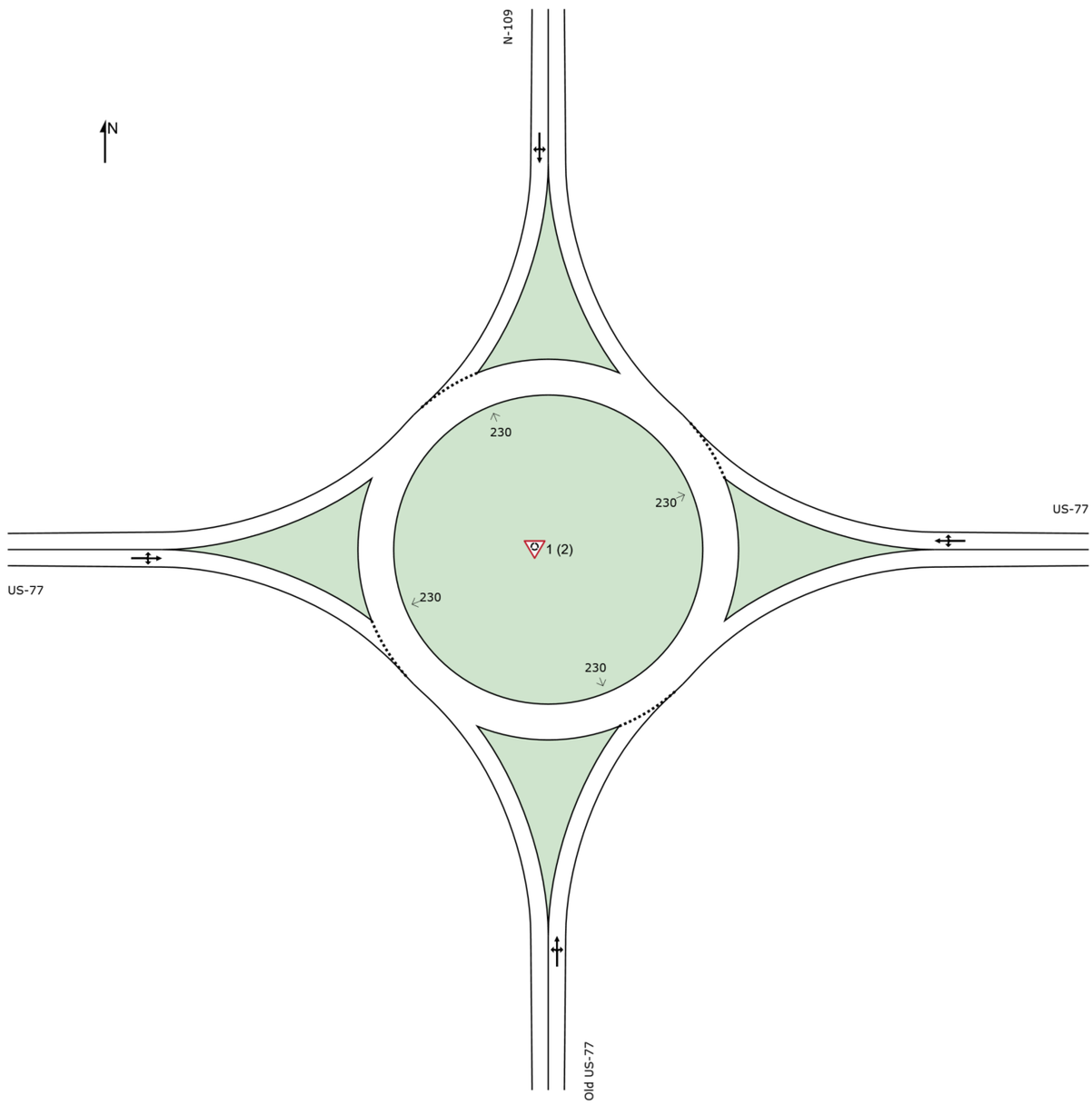
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 3:00:22 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2028 Opening Day \Background\Year 2028 US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

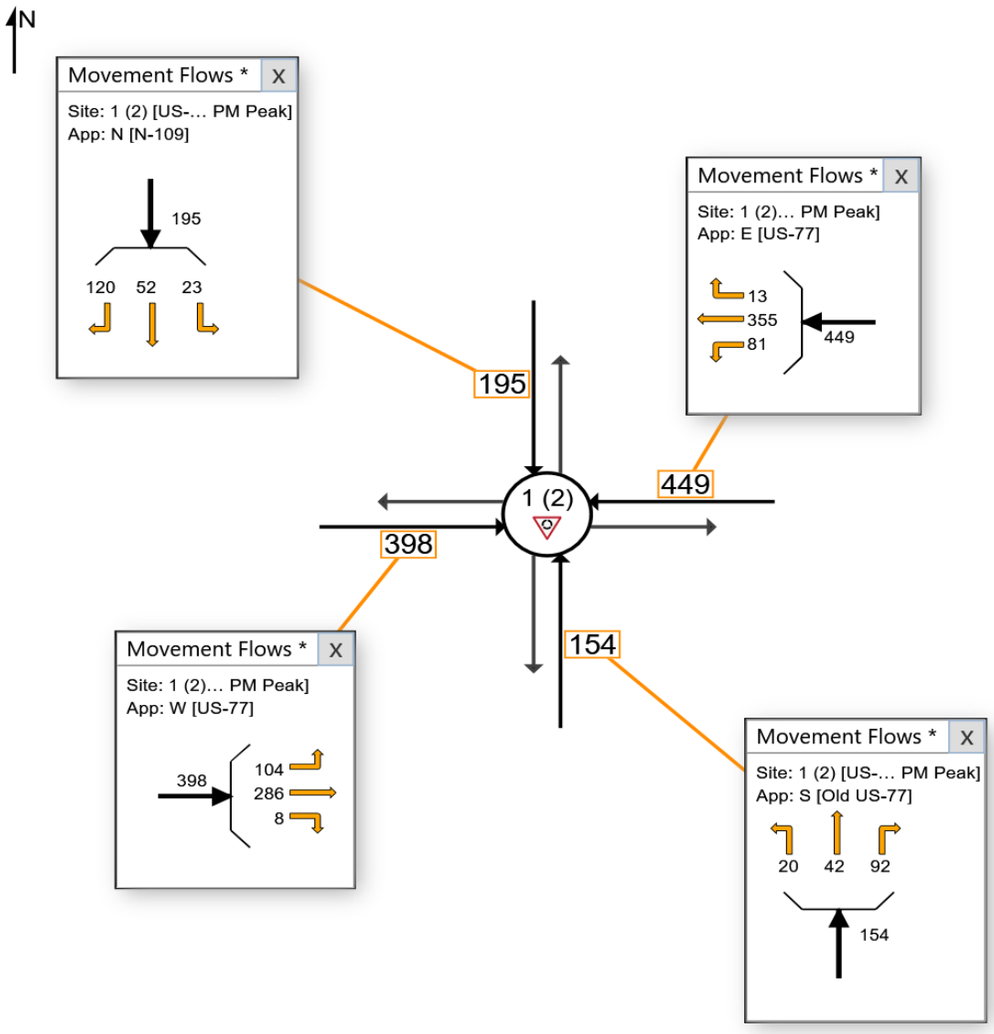
Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

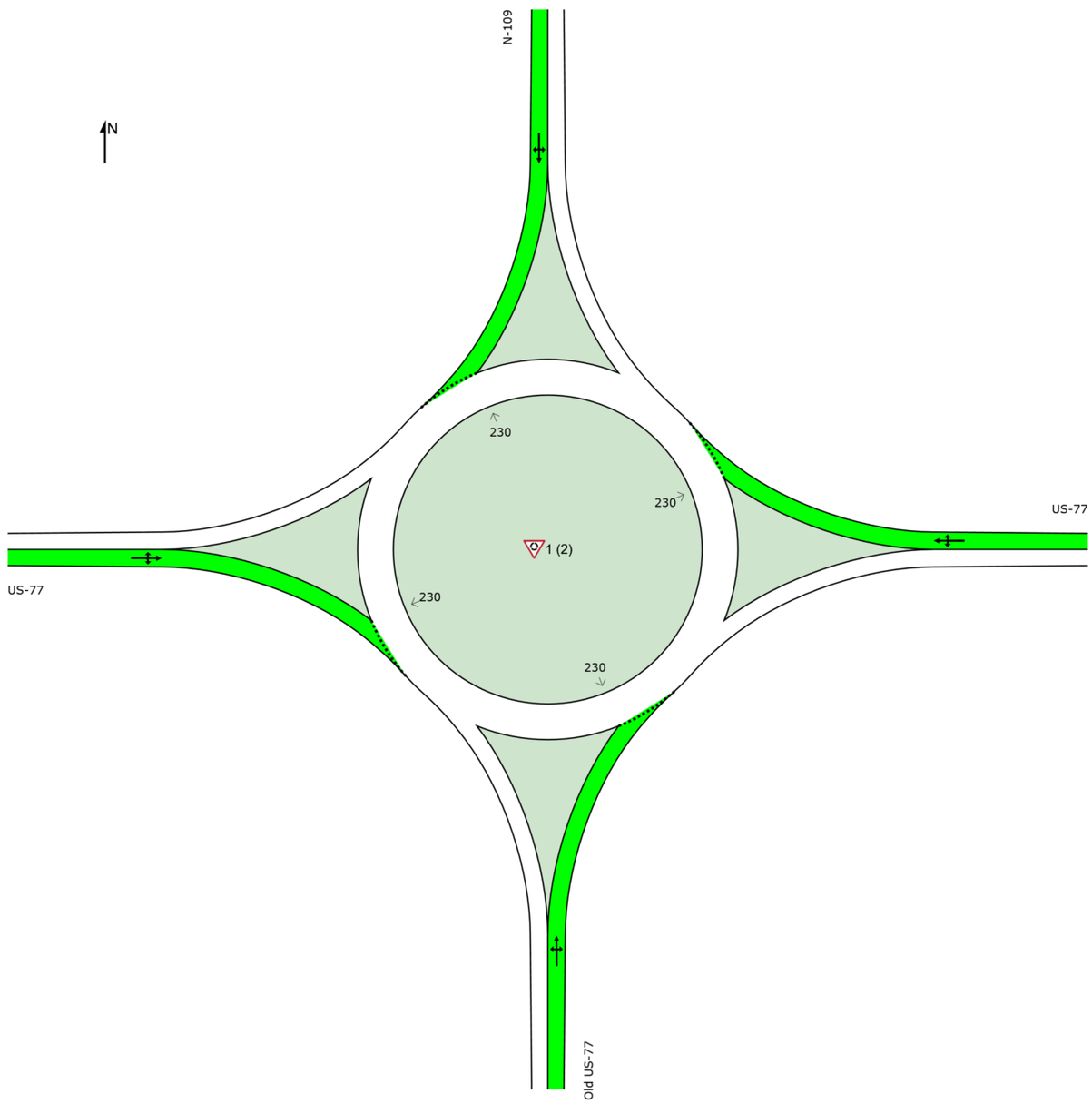
Lane Level of Service

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

MOVEMENT SUMMARY

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	22	3.0	22	3.0	0.203	6.5	LOS A	0.9	22.3	0.55	0.43	0.55	36.3
8	T1	All MCs	46	3.0	46	3.0	0.203	6.5	LOS A	0.9	22.3	0.55	0.43	0.55	30.2
18	R2	All MCs	100	3.0	100	3.0	0.203	6.5	LOS A	0.9	22.3	0.55	0.43	0.55	37.0
Approach			167	3.0	167	3.0	0.203	6.5	LOS A	0.9	22.3	0.55	0.43	0.55	34.7
East: US-77															
1	L2	All MCs	88	3.0	88	3.0	0.442	7.9	LOS A	2.7	70.4	0.49	0.27	0.49	35.1
6	T1	All MCs	386	3.0	386	3.0	0.442	7.9	LOS A	2.7	70.4	0.49	0.27	0.49	36.9
16	R2	All MCs	14	3.0	14	3.0	0.442	7.9	LOS A	2.7	70.4	0.49	0.27	0.49	37.6
Approach			488	3.0	488	3.0	0.442	7.9	LOS A	2.7	70.4	0.49	0.27	0.49	36.6
North: N-109															
7	L2	All MCs	25	3.0	25	3.0	0.270	7.6	LOS A	1.2	30.6	0.60	0.48	0.60	38.7
4	T1	All MCs	57	3.0	57	3.0	0.270	7.6	LOS A	1.2	30.6	0.60	0.48	0.60	38.7
14	R2	All MCs	130	3.0	130	3.0	0.270	7.6	LOS A	1.2	30.6	0.60	0.48	0.60	39.4
Approach			212	3.0	212	3.0	0.270	7.6	LOS A	1.2	30.6	0.60	0.48	0.60	39.1
West: US-77															
5	L2	All MCs	113	3.0	113	3.0	0.387	7.1	LOS A	2.3	58.0	0.44	0.24	0.44	29.8
2	T1	All MCs	311	3.0	311	3.0	0.387	7.1	LOS A	2.3	58.0	0.44	0.24	0.44	37.1
12	R2	All MCs	9	3.0	9	3.0	0.387	7.1	LOS A	2.3	58.0	0.44	0.24	0.44	36.2
Approach			433	3.0	433	3.0	0.387	7.1	LOS A	2.3	58.0	0.44	0.24	0.44	34.8
All Vehicles			1300	3.0	1300	3.0	0.442	7.4	LOS A	2.7	70.4	0.50	0.32	0.50	36.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	2	0	0	0	8	110	0	0	103	19
Future Vol, veh/h	7	0	2	0	0	0	8	110	0	0	103	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	0	2	0	0	0	9	120	0	0	112	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	259	259	122	249	270	120	133	0	0	120	0	0
Stage 1	122	122	-	137	137	-	-	-	-	-	-	-
Stage 2	137	137	-	112	133	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	692	644	926	703	635	929	1446	-	-	1462	-	-
Stage 1	879	793	-	864	781	-	-	-	-	-	-	-
Stage 2	864	781	-	891	785	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	688	640	926	697	631	929	1446	-	-	1462	-	-
Mov Cap-2 Maneuver	688	640	-	697	631	-	-	-	-	-	-	-
Stage 1	879	793	-	859	777	-	-	-	-	-	-	-
Stage 2	859	777	-	889	785	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10	0	0.51	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1446	-	-	729	-	1462	-	-
HCM Lane V/C Ratio	0.006	-	-	0.013	-	-	-	-
HCM Control Delay (s/veh)	7.5	-	-	10	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	0	10	0	0	0	4	131	0	0	133	12
Future Vol, veh/h	20	0	10	0	0	0	4	131	0	0	133	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	0	11	0	0	0	4	142	0	0	145	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	302	302	151	296	309	142	158	0	0	142	0	0
Stage 1	151	151	-	151	151	-	-	-	-	-	-	-
Stage 2	151	151	-	145	158	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	648	609	893	655	604	903	1416	-	-	1434	-	-
Stage 1	849	770	-	849	770	-	-	-	-	-	-	-
Stage 2	849	770	-	856	765	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	646	607	893	645	602	903	1416	-	-	1434	-	-
Mov Cap-2 Maneuver	646	607	-	645	602	-	-	-	-	-	-	-
Stage 1	849	770	-	846	768	-	-	-	-	-	-	-
Stage 2	846	768	-	845	765	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.3	0	0.22	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1416	-	-	712	-	1434	-	-
HCM Lane V/C Ratio	0.003	-	-	0.046	-	-	-	-
HCM Control Delay (s/veh)	7.6	-	-	10.3	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	118	0	0	105
Future Vol, veh/h	0	0	118	0	0	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	128	0	0	114

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	242	128	0	0	128	0
Stage 1	128	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	744	919	-	-	1451	-
Stage 1	895	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	744	919	-	-	1451	-
Mov Cap-2 Maneuver	744	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	908	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1451	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	135	0	0	143
Future Vol, veh/h	0	0	135	0	0	143
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	147	0	0	155

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	302	147	0	0	147	0
Stage 1	147	-	-	-	-	-
Stage 2	155	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	687	898	-	-	1429	-
Stage 1	878	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	687	898	-	-	1429	-
Mov Cap-2 Maneuver	687	-	-	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1429	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

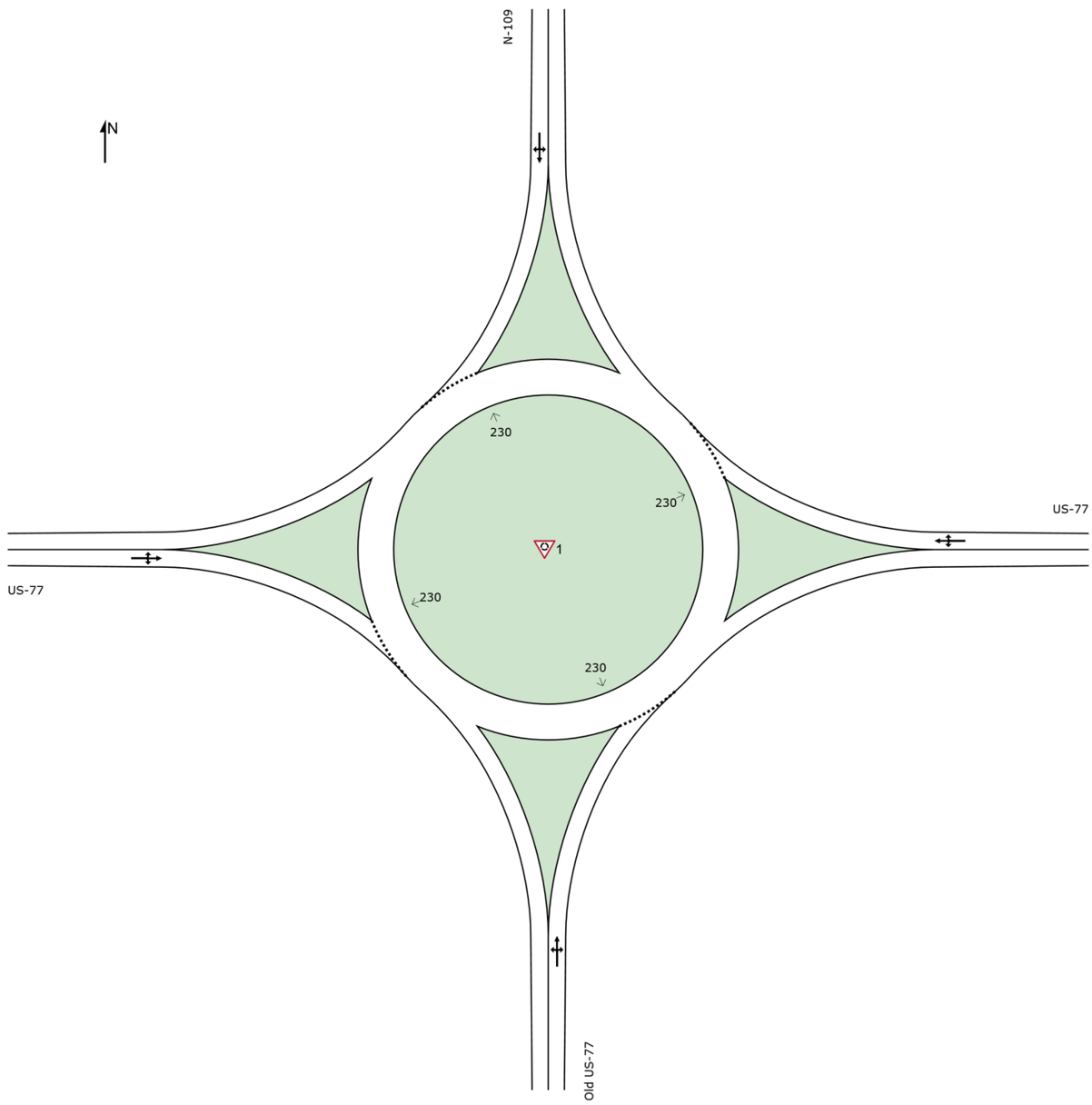
Horizon Year (2038) Future Background Conditions

SITE LAYOUT

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 3:04:20 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2038 Horizon Year \Background\Year 2038 US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

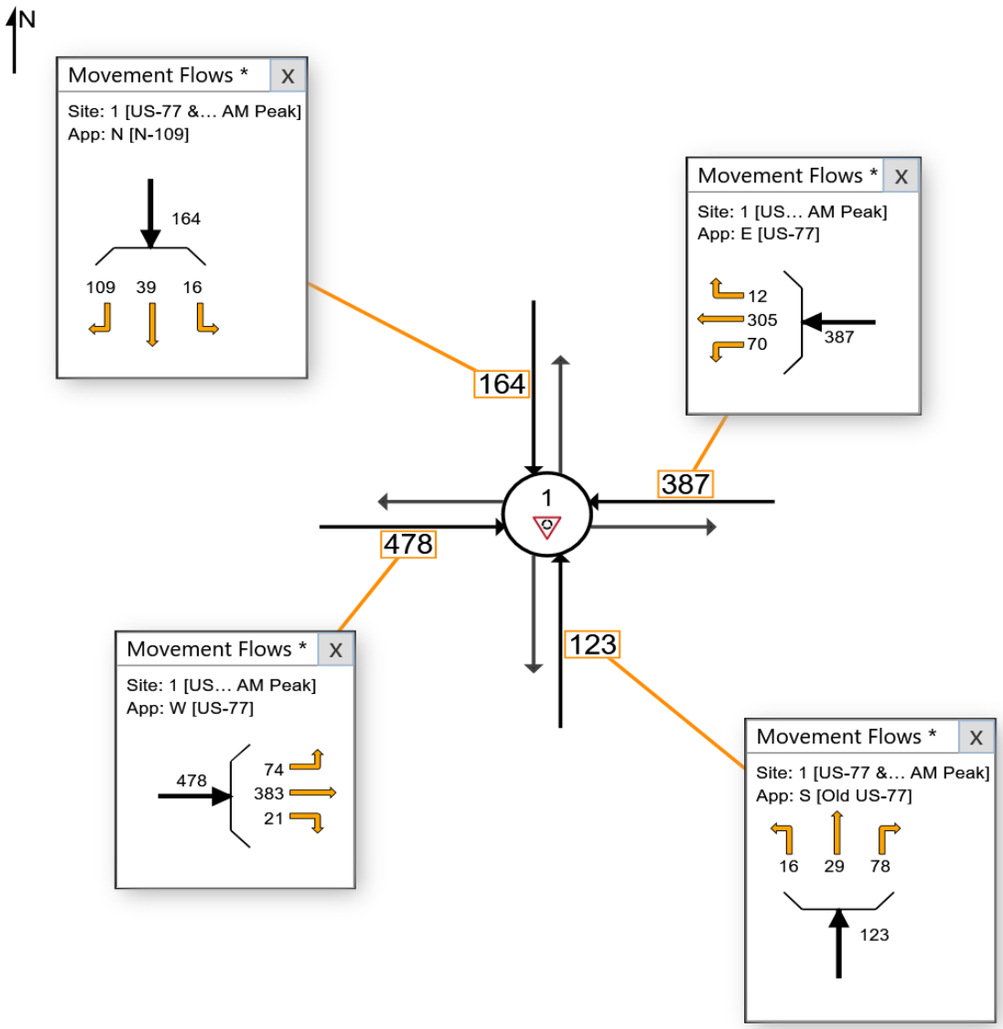
Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

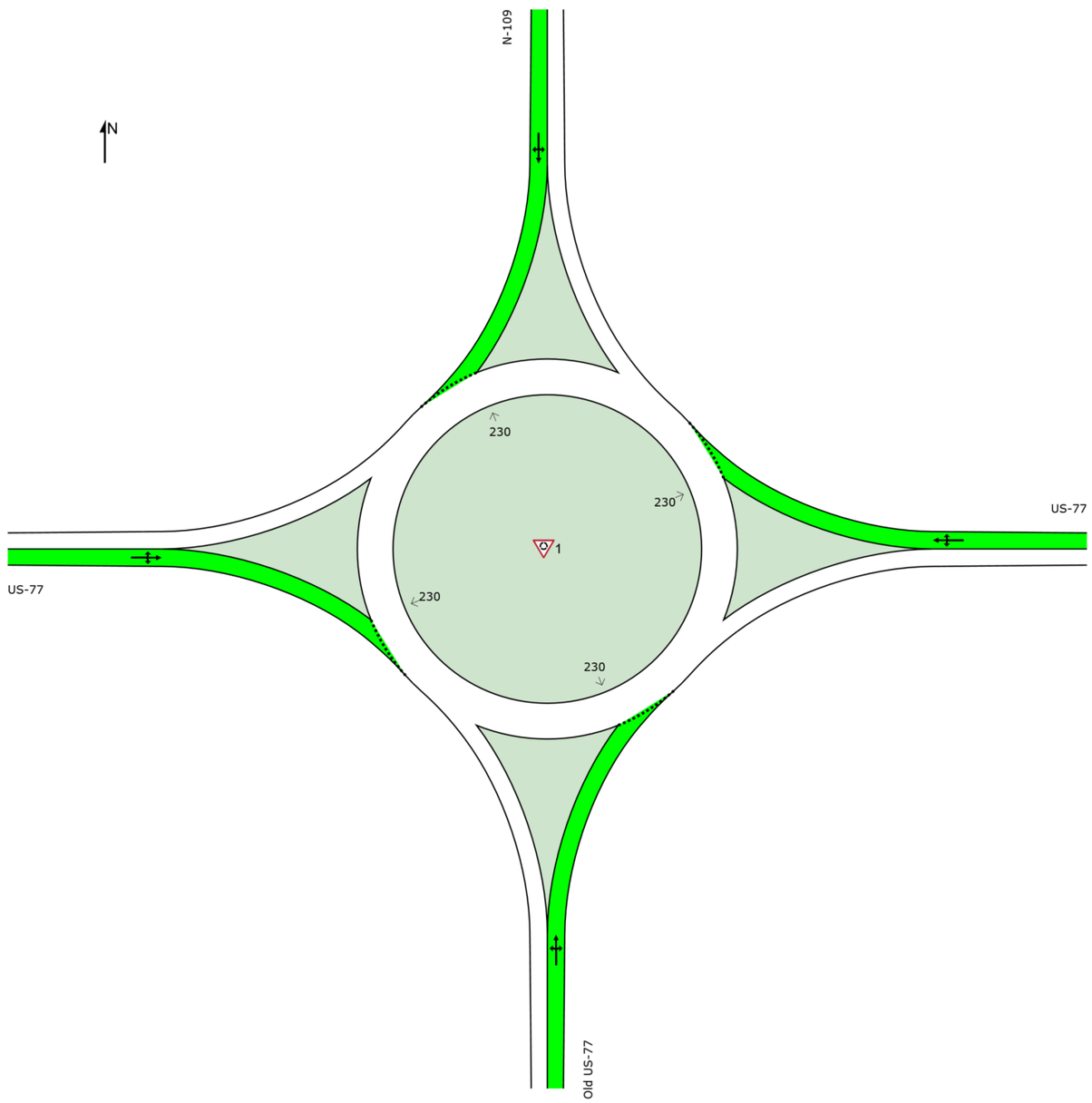
Lane Level of Service

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Processed: Tuesday, September 30, 2025 6:36:13 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2038 Horizon Year \Background\Year 2038 US-77 & N-109.sipx

MOVEMENT SUMMARY

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	17	3.0	17	3.0	0.174	6.5	LOS A	0.7	18.3	0.57	0.46	0.57	36.3
8	T1	All MCs	32	3.0	32	3.0	0.174	6.5	LOS A	0.7	18.3	0.57	0.46	0.57	30.1
18	R2	All MCs	85	3.0	85	3.0	0.174	6.5	LOS A	0.7	18.3	0.57	0.46	0.57	37.0
Approach			134	3.0	134	3.0	0.174	6.5	LOS A	0.7	18.3	0.57	0.46	0.57	35.0
East: US-77															
1	L2	All MCs	76	3.0	76	3.0	0.360	6.5	LOS A	2.1	53.7	0.38	0.19	0.38	35.9
6	T1	All MCs	332	3.0	332	3.0	0.360	6.5	LOS A	2.1	53.7	0.38	0.19	0.38	37.7
16	R2	All MCs	13	3.0	13	3.0	0.360	6.5	LOS A	2.1	53.7	0.38	0.19	0.38	38.4
Approach			421	3.0	421	3.0	0.360	6.5	LOS A	2.1	53.7	0.38	0.19	0.38	37.4
North: N-109															
7	L2	All MCs	17	3.0	17	3.0	0.210	6.4	LOS A	0.9	23.4	0.54	0.42	0.54	39.6
4	T1	All MCs	42	3.0	42	3.0	0.210	6.4	LOS A	0.9	23.4	0.54	0.42	0.54	39.6
14	R2	All MCs	118	3.0	118	3.0	0.210	6.4	LOS A	0.9	23.4	0.54	0.42	0.54	40.4
Approach			178	3.0	178	3.0	0.210	6.4	LOS A	0.9	23.4	0.54	0.42	0.54	40.1
West: US-77															
5	L2	All MCs	80	3.0	80	3.0	0.448	7.7	LOS A	2.9	74.7	0.43	0.22	0.43	29.8
2	T1	All MCs	416	3.0	416	3.0	0.448	7.7	LOS A	2.9	74.7	0.43	0.22	0.43	37.2
12	R2	All MCs	23	3.0	23	3.0	0.448	7.7	LOS A	2.9	74.7	0.43	0.22	0.43	36.3
Approach			520	3.0	520	3.0	0.448	7.7	LOS A	2.9	74.7	0.43	0.22	0.43	35.8
All Vehicles			1252	3.0	1252	3.0	0.448	7.0	LOS A	2.9	74.7	0.44	0.26	0.44	36.8

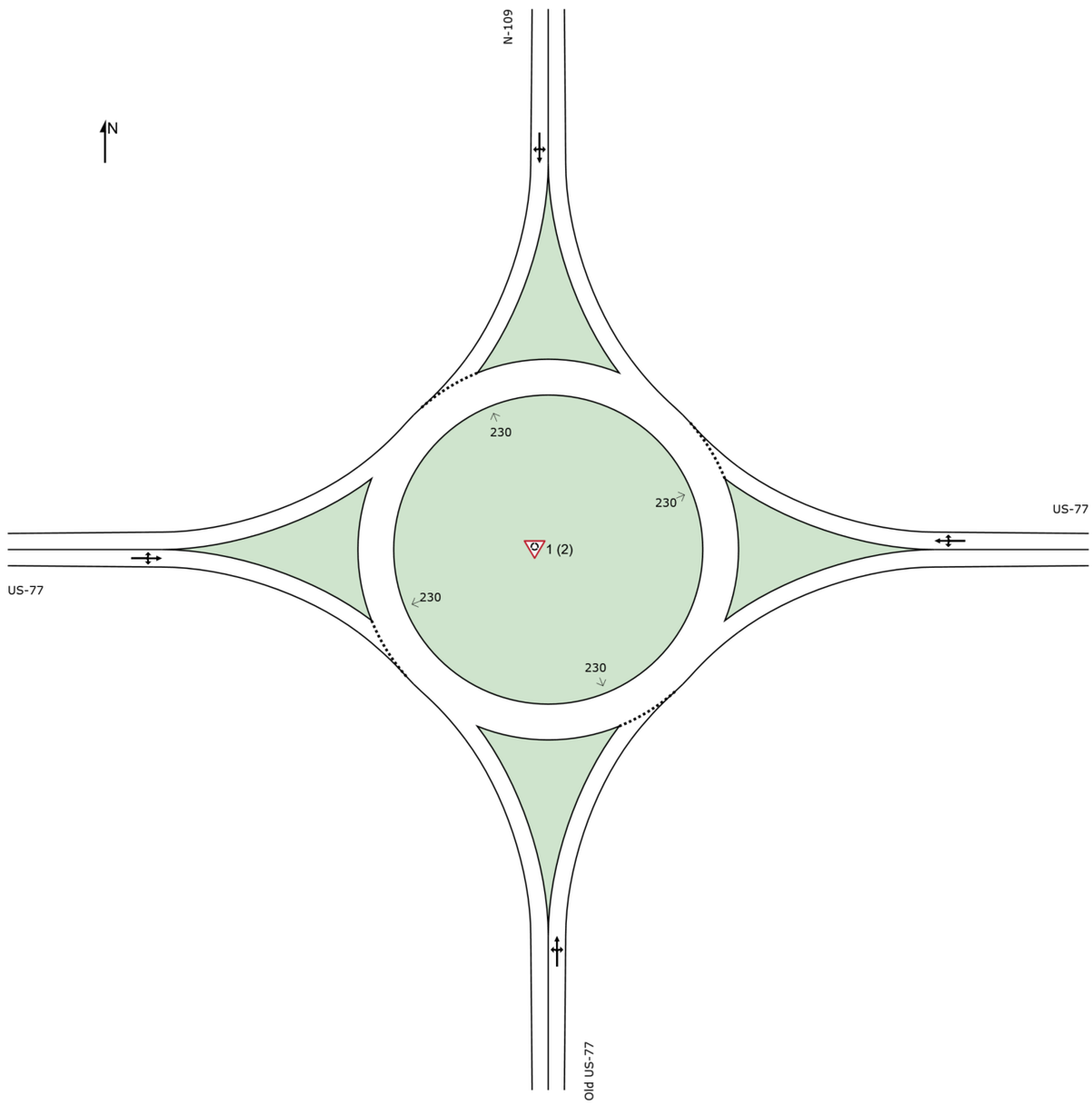
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

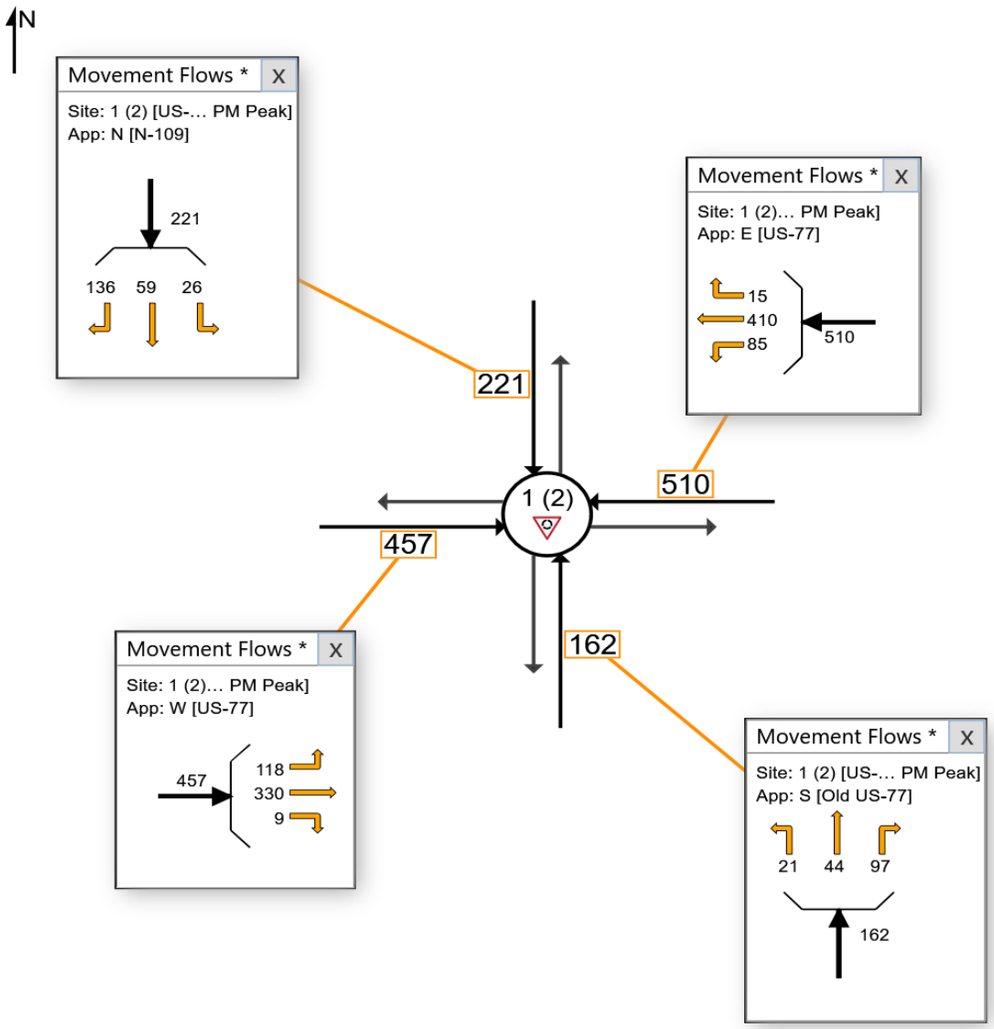
Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

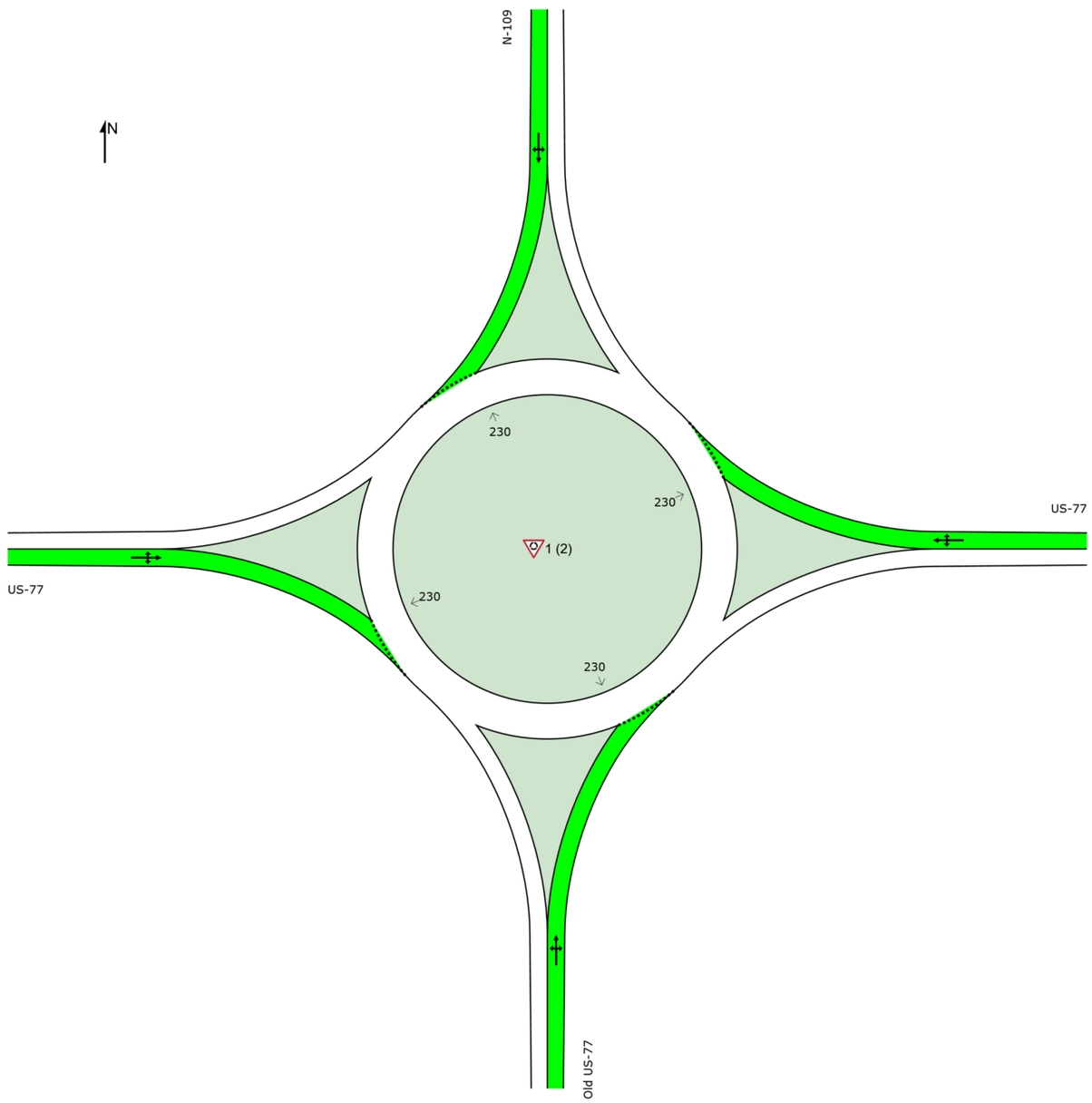
Lane Level of Service

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

MOVEMENT SUMMARY

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	23	3.0	23	3.0	0.229	7.2	LOS A	1.0	25.0	0.59	0.48	0.59	35.9
8	T1	All MCs	48	3.0	48	3.0	0.229	7.2	LOS A	1.0	25.0	0.59	0.48	0.59	29.9
18	R2	All MCs	105	3.0	105	3.0	0.229	7.2	LOS A	1.0	25.0	0.59	0.48	0.59	36.6
Approach			176	3.0	176	3.0	0.229	7.2	LOS A	1.0	25.0	0.59	0.48	0.59	34.4
East: US-77															
1	L2	All MCs	92	3.0	92	3.0	0.512	9.1	LOS A	3.4	88.2	0.56	0.32	0.56	34.6
6	T1	All MCs	446	3.0	446	3.0	0.512	9.1	LOS A	3.4	88.2	0.56	0.32	0.56	36.3
16	R2	All MCs	16	3.0	16	3.0	0.512	9.1	LOS A	3.4	88.2	0.56	0.32	0.56	36.9
Approach			554	3.0	554	3.0	0.512	9.1	LOS A	3.4	88.2	0.56	0.32	0.56	36.0
North: N-109															
7	L2	All MCs	28	3.0	28	3.0	0.329	8.9	LOS A	1.5	37.7	0.65	0.54	0.65	37.8
4	T1	All MCs	64	3.0	64	3.0	0.329	8.9	LOS A	1.5	37.7	0.65	0.54	0.65	37.8
14	R2	All MCs	148	3.0	148	3.0	0.329	8.9	LOS A	1.5	37.7	0.65	0.54	0.65	38.6
Approach			240	3.0	240	3.0	0.329	8.9	LOS A	1.5	37.7	0.65	0.54	0.65	38.3
West: US-77															
5	L2	All MCs	128	3.0	128	3.0	0.452	8.1	LOS A	2.8	72.7	0.50	0.28	0.50	29.5
2	T1	All MCs	359	3.0	359	3.0	0.452	8.1	LOS A	2.8	72.7	0.50	0.28	0.50	36.5
12	R2	All MCs	10	3.0	10	3.0	0.452	8.1	LOS A	2.8	72.7	0.50	0.28	0.50	35.7
Approach			497	3.0	497	3.0	0.452	8.1	LOS A	2.8	72.7	0.50	0.28	0.50	34.4
All Vehicles			1467	3.0	1467	3.0	0.512	8.5	LOS A	3.4	88.2	0.56	0.36	0.56	35.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	2	0	0	0	9	115	0	0	108	20
Future Vol, veh/h	7	0	2	0	0	0	9	115	0	0	108	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	0	2	0	0	0	10	125	0	0	117	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	273	273	128	262	284	125	139	0	0	125	0	0
Stage 1	128	128	-	145	145	-	-	-	-	-	-	-
Stage 2	145	145	-	117	139	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	678	632	919	689	624	923	1438	-	-	1455	-	-
Stage 1	873	788	-	856	775	-	-	-	-	-	-	-
Stage 2	856	775	-	885	780	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	673	628	919	683	619	923	1438	-	-	1455	-	-
Mov Cap-2 Maneuver	673	628	-	683	619	-	-	-	-	-	-	-
Stage 1	873	788	-	850	770	-	-	-	-	-	-	-
Stage 2	850	770	-	883	780	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.1	0	0.55	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	716	-	1455	-	-
HCM Lane V/C Ratio	0.007	-	-	0.014	-	-	-	-
HCM Control Delay (s/veh)	7.5	-	-	10.1	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	0	11	0	0	0	4	138	0	0	140	13
Future Vol, veh/h	21	0	11	0	0	0	4	138	0	0	140	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	23	0	12	0	0	0	4	150	0	0	152	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	318	318	159	311	325	150	166	0	0	150	0	0
Stage 1	159	159	-	159	159	-	-	-	-	-	-	-
Stage 2	159	159	-	152	166	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	633	597	883	640	591	894	1406	-	-	1425	-	-
Stage 1	841	764	-	841	765	-	-	-	-	-	-	-
Stage 2	841	765	-	848	759	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	631	595	883	629	590	894	1406	-	-	1425	-	-
Mov Cap-2 Maneuver	631	595	-	629	590	-	-	-	-	-	-	-
Stage 1	841	764	-	839	762	-	-	-	-	-	-	-
Stage 2	839	762	-	836	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.41	0	0.21	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1406	-	-	700	-	1425	-	-
HCM Lane V/C Ratio	0.003	-	-	0.05	-	-	-	-
HCM Control Delay (s/veh)	7.6	-	-	10.4	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	124	0	0	110
Future Vol, veh/h	0	0	124	0	0	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	135	0	0	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	254	135	0	0	135	0
Stage 1	135	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	732	911	-	-	1443	-
Stage 1	889	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	732	911	-	-	1443	-
Mov Cap-2 Maneuver	732	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1443	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	142	0	0	151
Future Vol, veh/h	0	0	142	0	0	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	154	0	0	164

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	318	154	0	0	154	0
Stage 1	154	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	673	889	-	-	1420	-
Stage 1	871	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	673	889	-	-	1420	-
Mov Cap-2 Maneuver	673	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	863	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1420	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

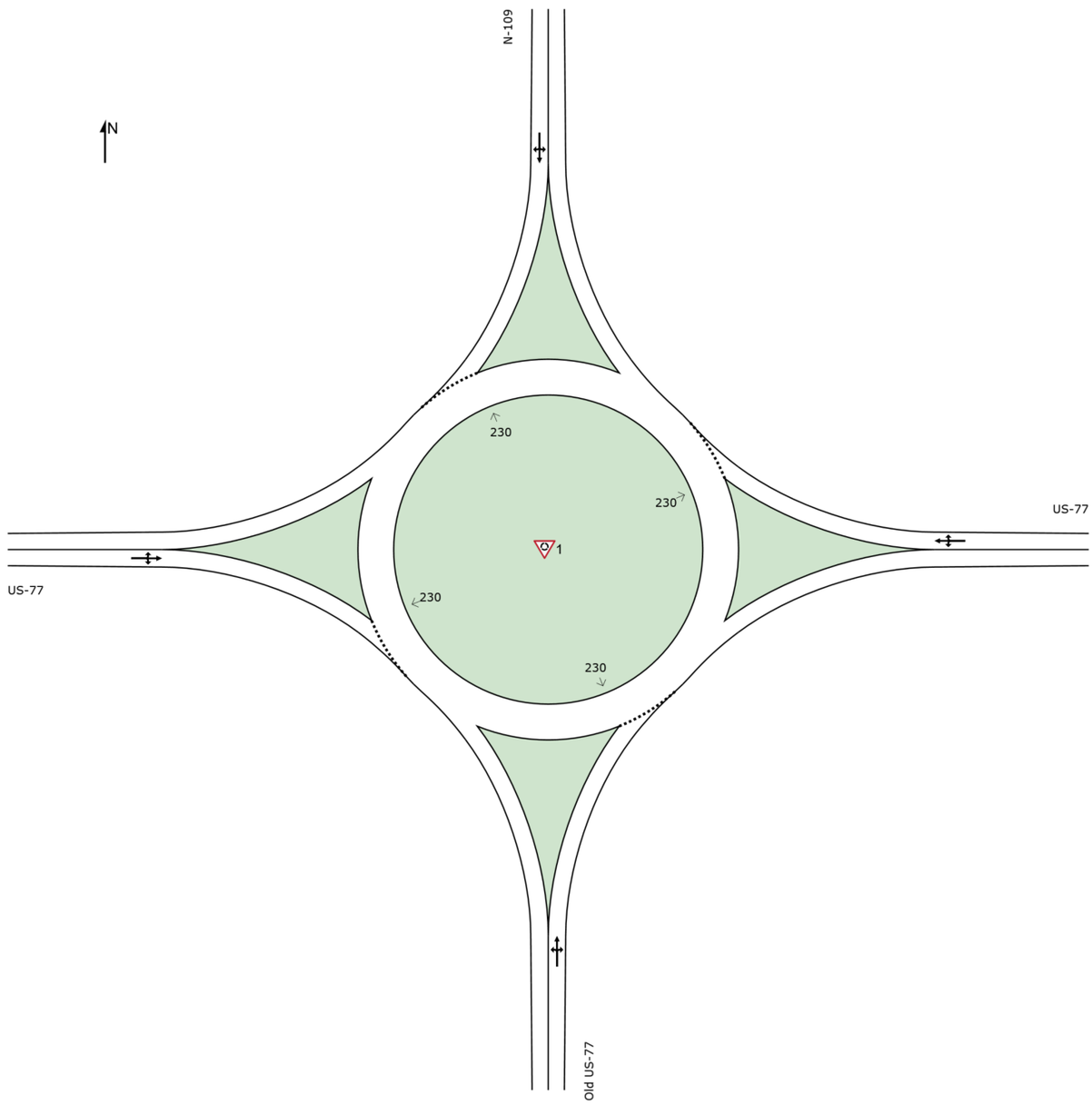
Opening Day (2028) Future Background Plus Site Trip Conditions

SITE LAYOUT

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 2:54:43 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2028 Opening Day \Year 2028 US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

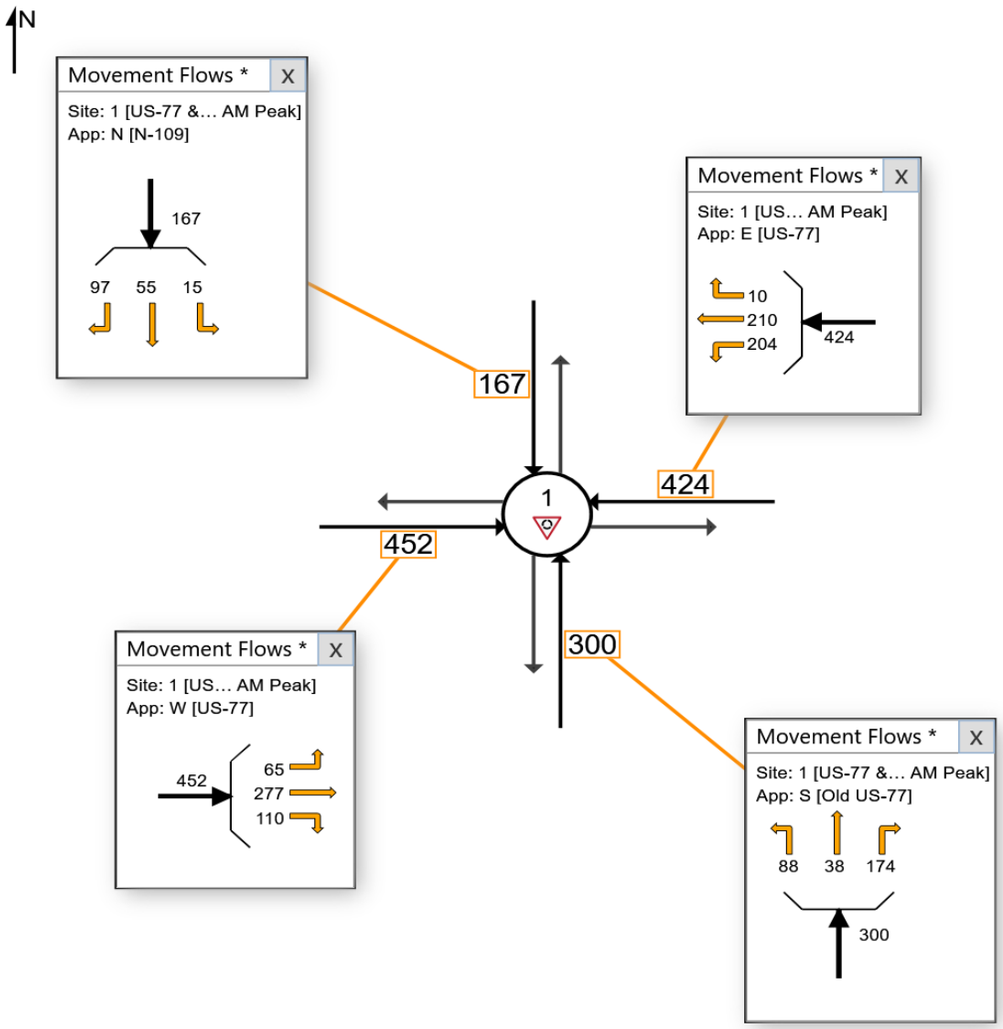
Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

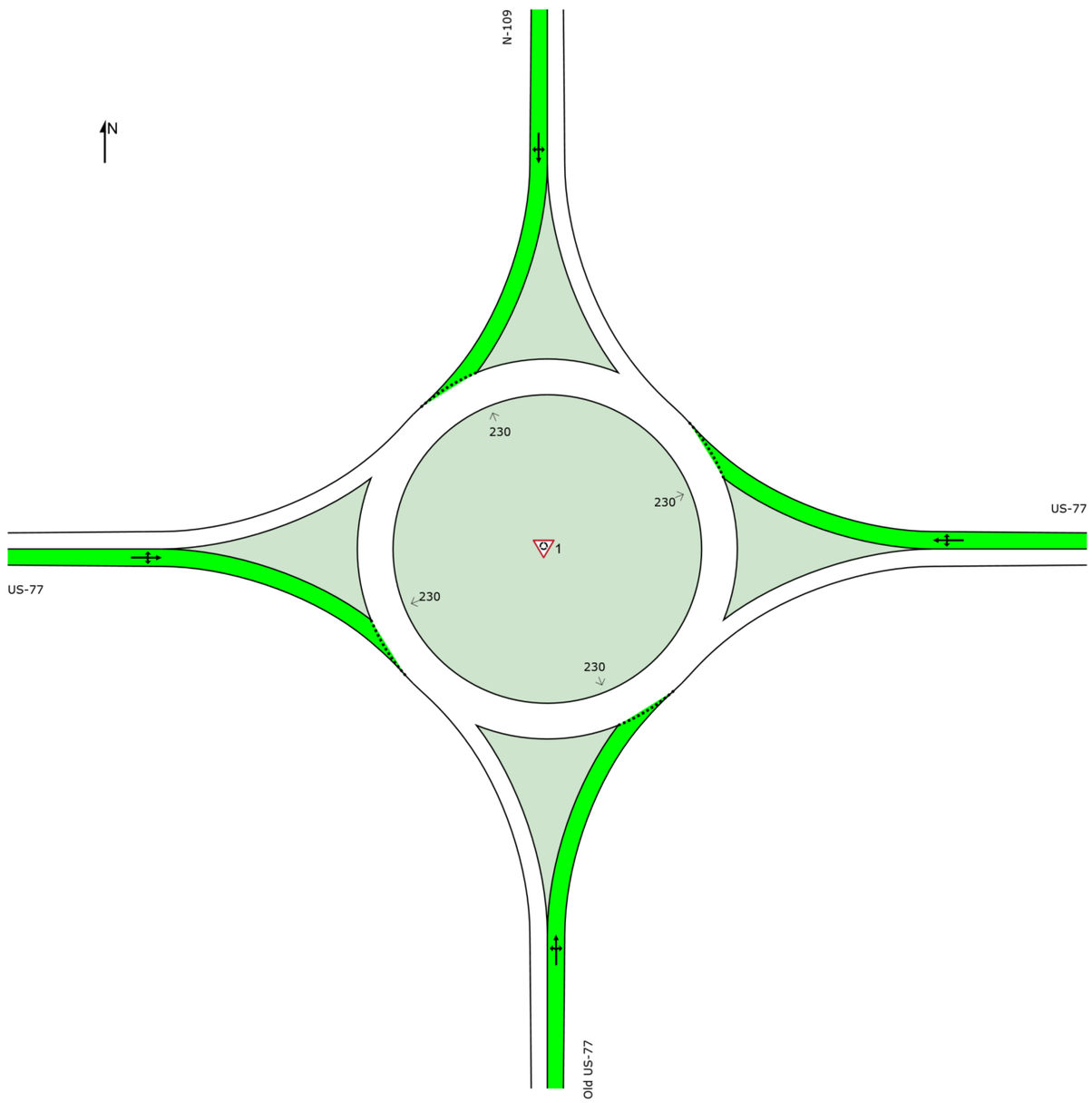
Lane Level of Service

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Processed: Wednesday, December 10, 2025 2:56:43 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2028 Opening Day \Year 2028 US-77 & N-109.sipx

MOVEMENT SUMMARY

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	96	3.0	96	3.0	0.370	8.2	LOS A	1.9	47.6	0.60	0.44	0.60	34.7
8	T1	All MCs	41	3.0	41	3.0	0.370	8.2	LOS A	1.9	47.6	0.60	0.44	0.60	29.1
18	R2	All MCs	189	3.0	189	3.0	0.370	8.2	LOS A	1.9	47.6	0.60	0.44	0.60	35.3
Approach			326	3.0	326	3.0	0.370	8.2	LOS A	1.9	47.6	0.60	0.44	0.60	34.2
East: US-77															
1	L2	All MCs	222	3.0	222	3.0	0.430	7.9	LOS A	2.6	66.0	0.51	0.30	0.51	34.1
6	T1	All MCs	228	3.0	228	3.0	0.430	7.9	LOS A	2.6	66.0	0.51	0.30	0.51	35.8
16	R2	All MCs	11	3.0	11	3.0	0.430	7.9	LOS A	2.6	66.0	0.51	0.30	0.51	36.4
Approach			461	3.0	461	3.0	0.430	7.9	LOS A	2.6	66.0	0.51	0.30	0.51	35.0
North: N-109															
7	L2	All MCs	16	3.0	16	3.0	0.244	7.6	LOS A	1.0	26.6	0.61	0.51	0.61	38.8
4	T1	All MCs	60	3.0	60	3.0	0.244	7.6	LOS A	1.0	26.6	0.61	0.51	0.61	38.8
14	R2	All MCs	105	3.0	105	3.0	0.244	7.6	LOS A	1.0	26.6	0.61	0.51	0.61	39.6
Approach			182	3.0	182	3.0	0.244	7.6	LOS A	1.0	26.6	0.61	0.51	0.61	39.2
West: US-77															
5	L2	All MCs	71	3.0	71	3.0	0.505	9.8	LOS A	3.6	91.5	0.63	0.46	0.71	29.1
2	T1	All MCs	301	3.0	301	3.0	0.505	9.8	LOS A	3.6	91.5	0.63	0.46	0.71	36.1
12	R2	All MCs	120	3.0	120	3.0	0.505	9.8	LOS A	3.6	91.5	0.63	0.46	0.71	35.2
Approach			491	3.0	491	3.0	0.505	9.8	LOS A	3.6	91.5	0.63	0.46	0.71	34.6
All Vehicles			1460	3.0	1460	3.0	0.505	8.6	LOS A	3.6	91.5	0.58	0.41	0.61	35.2

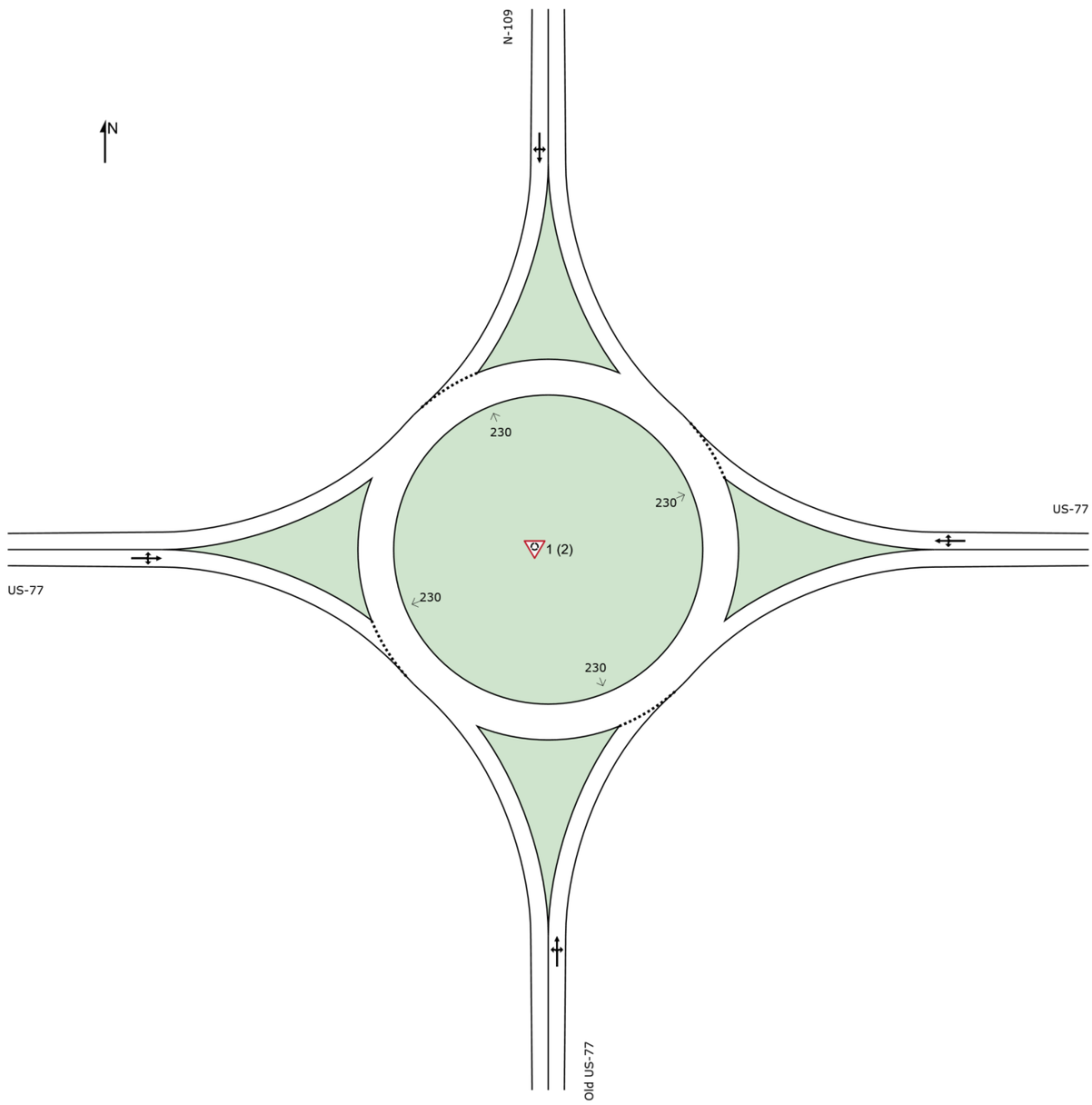
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 2:57:55 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2028 Opening Day \Year 2028 US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

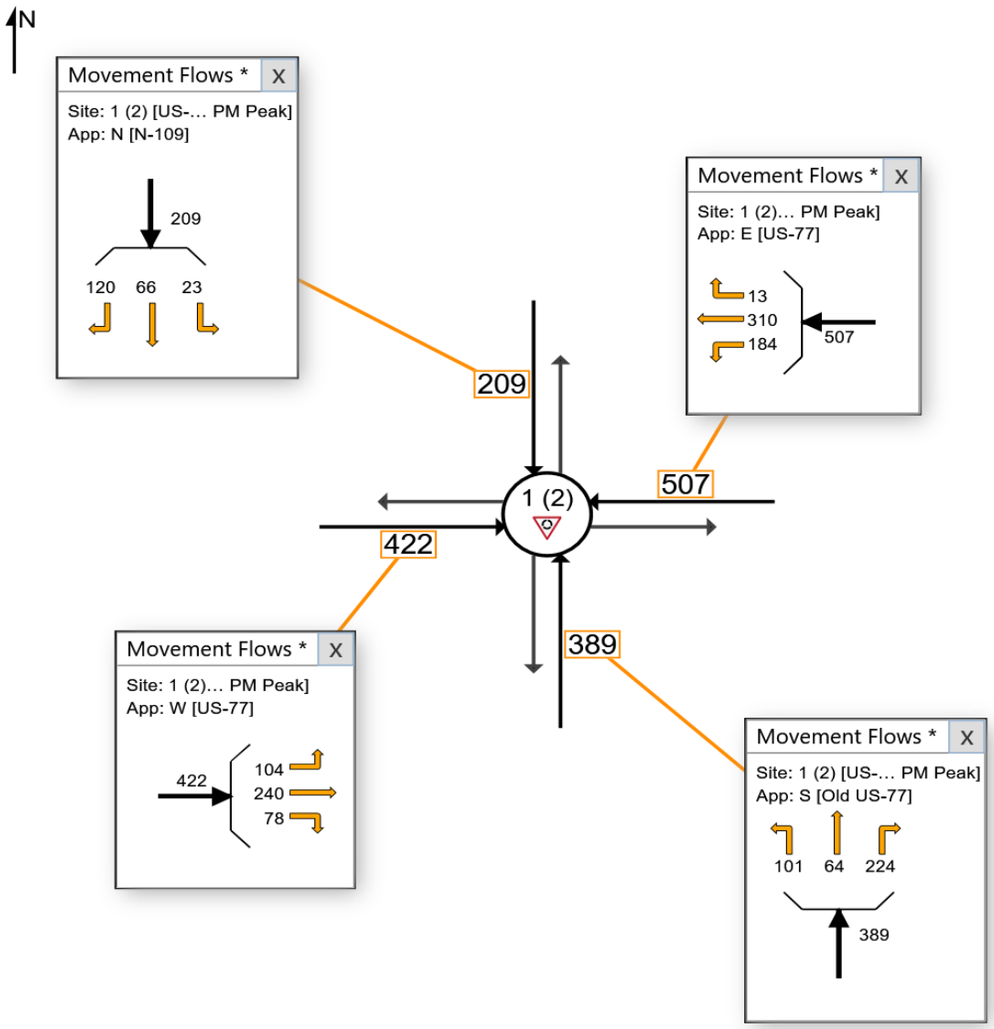
Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

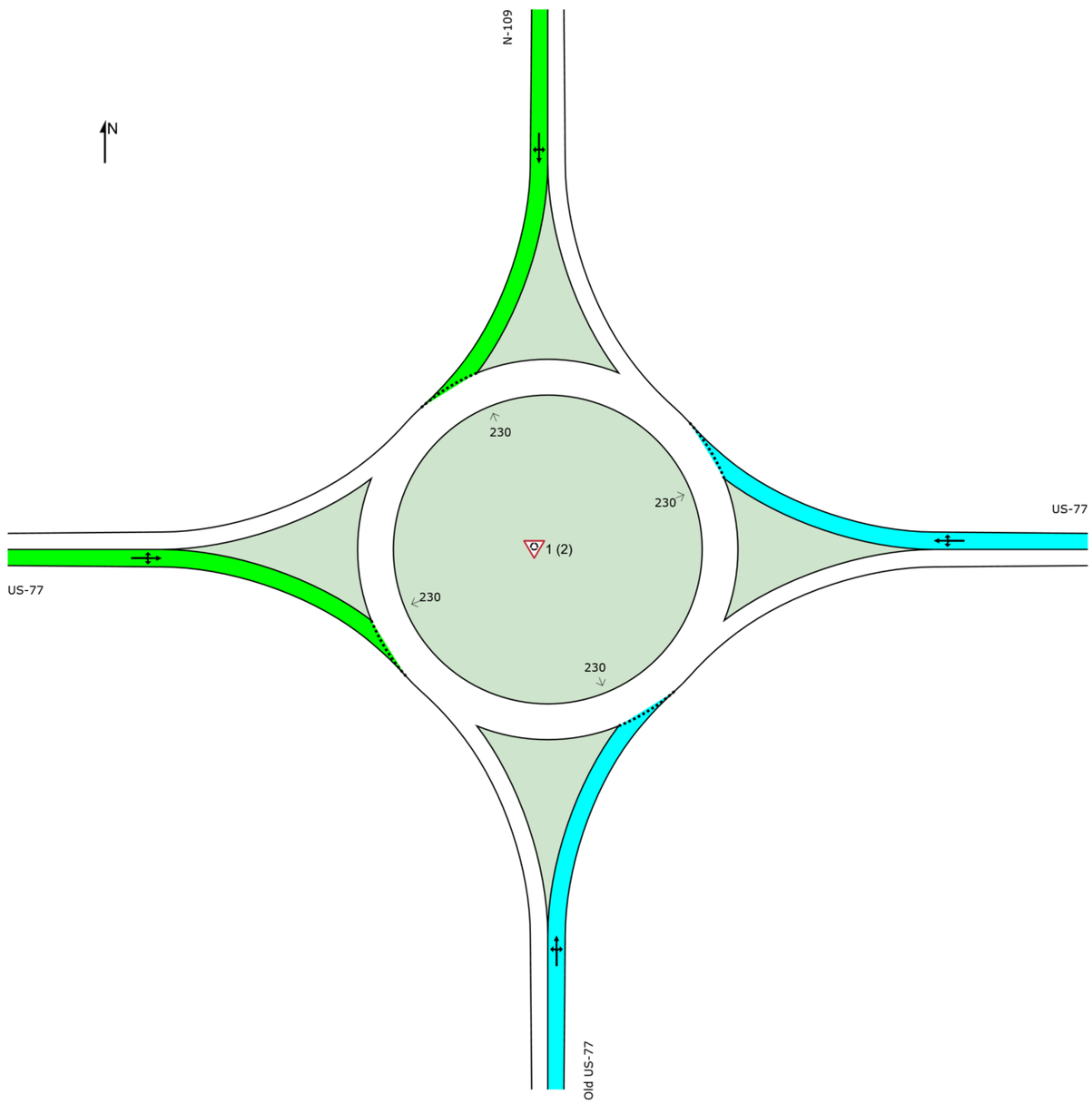
Lane Level of Service

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	A	A	B



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

MOVEMENT SUMMARY

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	110	3.0	110	3.0	0.485	10.3	LOS B	3.3	85.0	0.67	0.56	0.83	33.8
8	T1	All MCs	70	3.0	70	3.0	0.485	10.3	LOS B	3.3	85.0	0.67	0.56	0.83	28.5
18	R2	All MCs	243	3.0	243	3.0	0.485	10.3	LOS B	3.3	85.0	0.67	0.56	0.83	34.4
Approach			423	3.0	423	3.0	0.485	10.3	LOS B	3.3	85.0	0.67	0.56	0.83	33.1
East: US-77															
1	L2	All MCs	200	3.0	200	3.0	0.563	10.9	LOS B	5.0	128.4	0.67	0.52	0.86	33.1
6	T1	All MCs	337	3.0	337	3.0	0.563	10.9	LOS B	5.0	128.4	0.67	0.52	0.86	34.7
16	R2	All MCs	14	3.0	14	3.0	0.563	10.9	LOS B	5.0	128.4	0.67	0.52	0.86	35.2
Approach			551	3.0	551	3.0	0.563	10.9	LOS B	5.0	128.4	0.67	0.52	0.86	34.1
North: N-109															
7	L2	All MCs	25	3.0	25	3.0	0.341	9.8	LOS A	1.6	40.0	0.68	0.61	0.74	37.3
4	T1	All MCs	72	3.0	72	3.0	0.341	9.8	LOS A	1.6	40.0	0.68	0.61	0.74	37.3
14	R2	All MCs	130	3.0	130	3.0	0.341	9.8	LOS A	1.6	40.0	0.68	0.61	0.74	38.0
Approach			227	3.0	227	3.0	0.341	9.8	LOS A	1.6	40.0	0.68	0.61	0.74	37.7
West: US-77															
5	L2	All MCs	113	3.0	113	3.0	0.471	9.2	LOS A	2.9	73.0	0.61	0.41	0.62	29.1
2	T1	All MCs	261	3.0	261	3.0	0.471	9.2	LOS A	2.9	73.0	0.61	0.41	0.62	36.0
12	R2	All MCs	85	3.0	85	3.0	0.471	9.2	LOS A	2.9	73.0	0.61	0.41	0.62	35.2
Approach			459	3.0	459	3.0	0.471	9.2	LOS A	2.9	73.0	0.61	0.41	0.62	33.9
All Vehicles			1660	3.0	1660	3.0	0.563	10.1	LOS B	5.0	128.4	0.66	0.51	0.77	34.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	2	56	0	187	8	108	98	193	157	19
Future Vol, veh/h	7	0	2	56	0	187	8	108	98	193	157	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	0	2	61	0	203	9	117	107	210	171	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	735	842	181	778	799	171	191	0	0	224	0	0
Stage 1	601	601	-	188	188	-	-	-	-	-	-	-
Stage 2	135	241	-	590	611	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	334	300	859	312	317	871	1376	-	-	1339	-	-
Stage 1	486	488	-	811	743	-	-	-	-	-	-	-
Stage 2	866	704	-	492	483	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	210	245	859	255	260	871	1376	-	-	1339	-	-
Mov Cap-2 Maneuver	210	245	-	255	260	-	-	-	-	-	-	-
Stage 1	400	402	-	806	738	-	-	-	-	-	-	-
Stage 2	660	700	-	404	398	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.87	17.05	0.29	4.28
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1376	-	-	252	560	922	-	-
HCM Lane V/C Ratio	0.006	-	-	0.039	0.472	0.157	-	-
HCM Control Delay (s/veh)	7.6	-	-	19.9	17.1	8.2	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.5	0.6	-	-

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	0	10	75	0	187	4	178	78	156	163	12
Future Vol, veh/h	20	0	10	75	0	187	4	178	78	156	163	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	0	11	82	0	203	4	193	85	170	177	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	725	810	184	761	774	236	190	0	0	278	0	0
Stage 1	523	523	-	245	245	-	-	-	-	-	-	-
Stage 2	202	287	-	516	529	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	339	313	856	321	328	801	1378	-	-	1279	-	-
Stage 1	535	529	-	757	702	-	-	-	-	-	-	-
Stage 2	797	673	-	540	525	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	215	266	856	269	279	801	1378	-	-	1279	-	-
Mov Cap-2 Maneuver	215	266	-	269	279	-	-	-	-	-	-	-
Stage 1	456	450	-	754	700	-	-	-	-	-	-	-
Stage 2	593	670	-	454	447	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.18	20.54	0.12	3.89
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	286	511	837	-	-
HCM Lane V/C Ratio	0.003	-	-	0.114	0.557	0.133	-	-
HCM Control Delay (s/veh)	7.6	-	-	19.2	20.5	8.2	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	3.4	0.5	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	14	200	53	54	160
Future Vol, veh/h	13	14	200	53	54	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	14	15	217	58	59	174

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	538	246	0	0	275	0
Stage 1	246	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	503	790	-	-	1282	-
Stage 1	792	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	477	790	-	-	1282	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	718	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.3	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	601	454	-
HCM Lane V/C Ratio	-	-	0.049	0.046	-
HCM Control Delay (s/veh)	-	-	11.3	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	62	198	29	30	218
Future Vol, veh/h	57	62	198	29	30	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	62	67	215	32	33	237

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	533	231	0	0	247	0
Stage 1	231	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	506	806	-	-	1313	-
Stage 1	805	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	491	806	-	-	1313	-
Mov Cap-2 Maneuver	491	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	726	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	12.38	0	0.94
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	617	218	-
HCM Lane V/C Ratio	-	-	0.21	0.025	-
HCM Control Delay (s/veh)	-	-	12.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

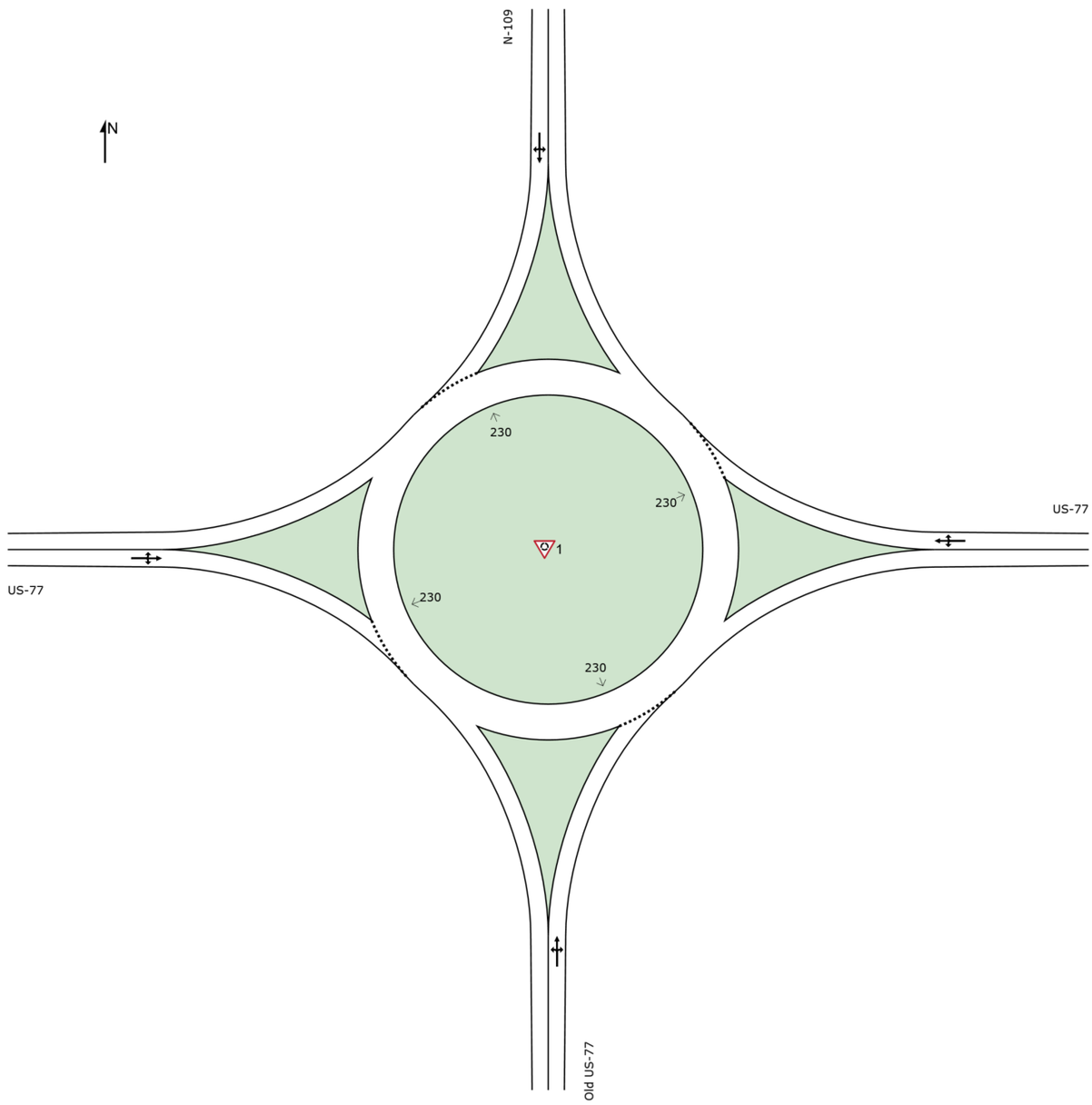
Horizon Year (2038) Future Background Plus Site Trip Conditions

SITE LAYOUT

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 3:01:48 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2038 Horizon Year \Year 2038 US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

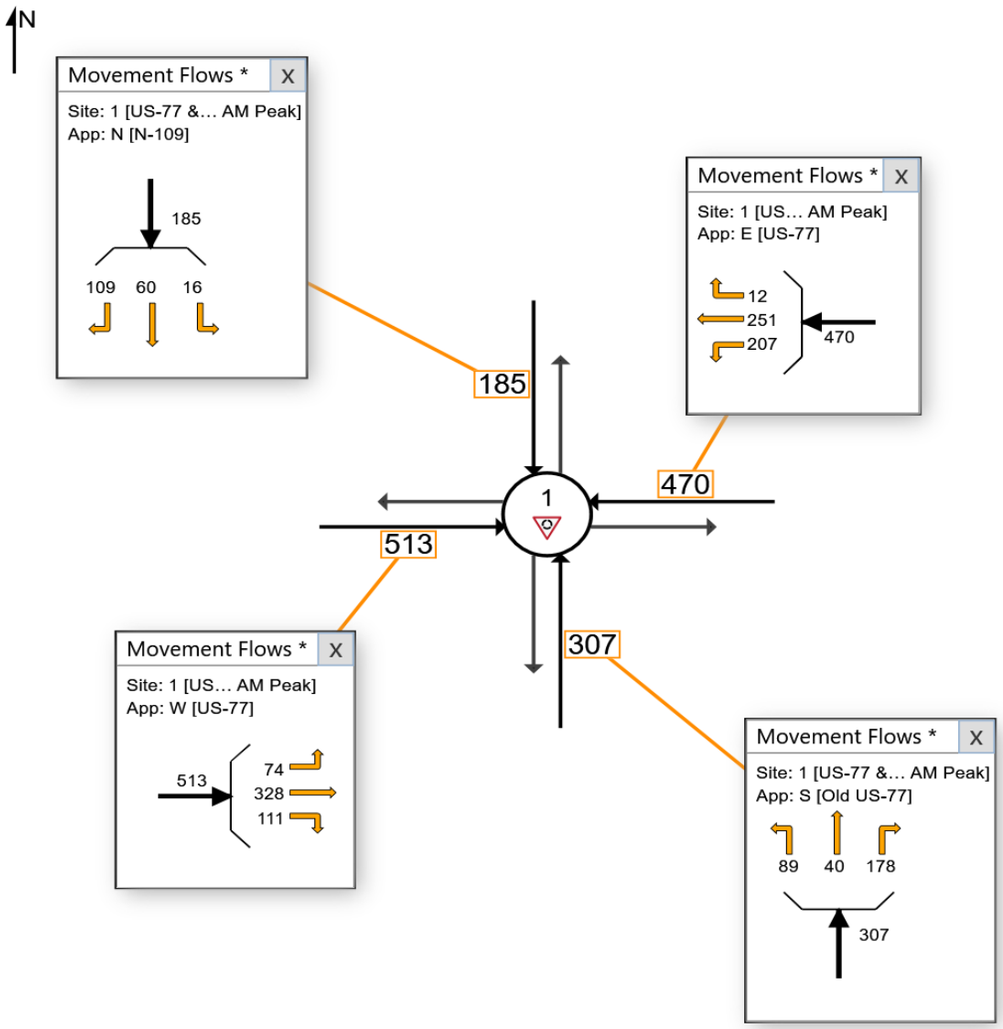
Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

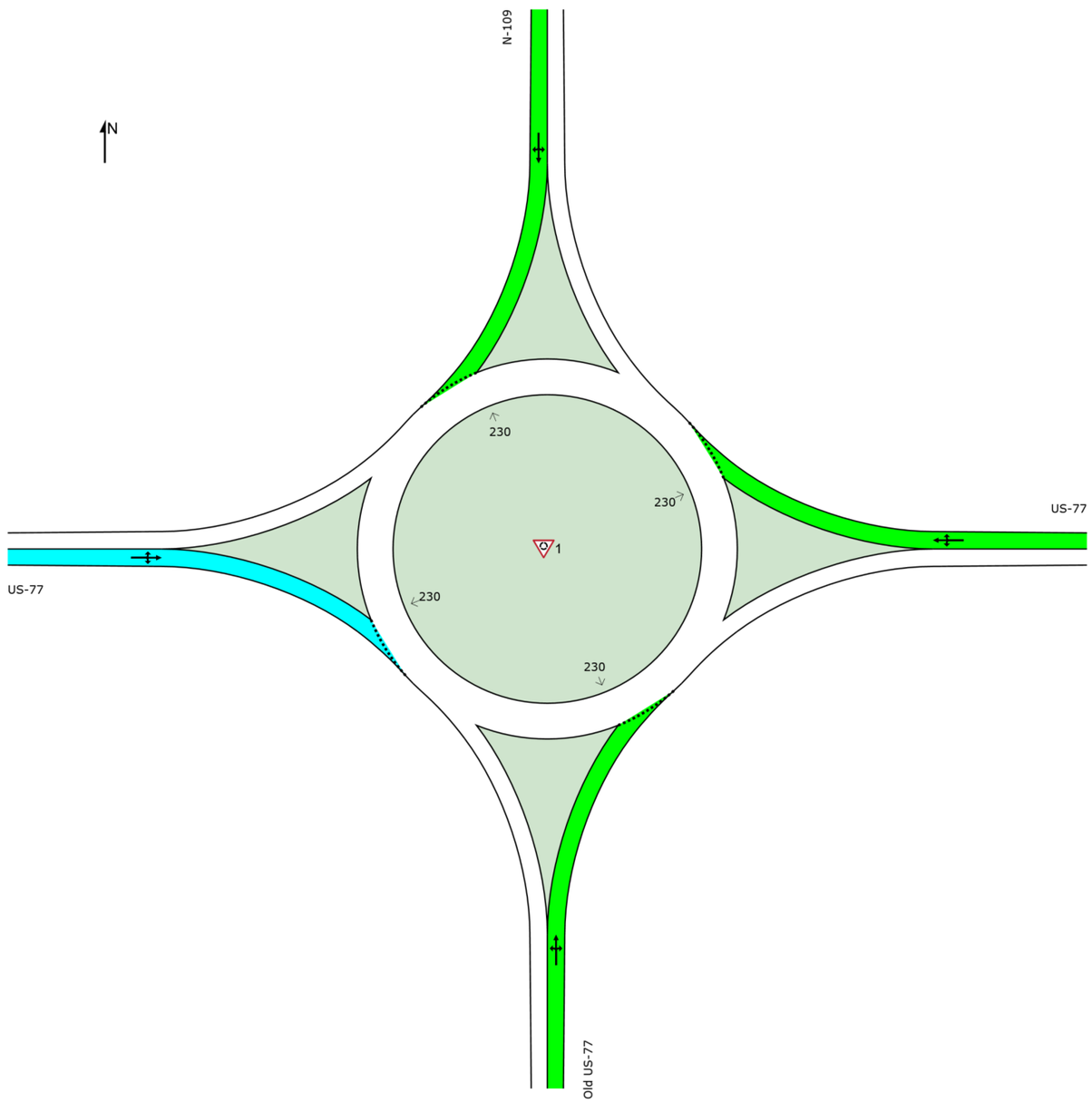
Lane Level of Service

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	B	A



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Processed: Monday, October 27, 2025 3:12:36 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2038 Horizon Year \Year 2038 US-77 & N-109.sipx

MOVEMENT SUMMARY

Site: [1] US-77 & N-109 AM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	97	3.0	97	3.0	0.406	9.3	LOS A	2.2	56.5	0.65	0.53	0.72	34.2
8	T1	All MCs	43	3.0	43	3.0	0.406	9.3	LOS A	2.2	56.5	0.65	0.53	0.72	28.7
18	R2	All MCs	193	3.0	193	3.0	0.406	9.3	LOS A	2.2	56.5	0.65	0.53	0.72	34.8
Approach			334	3.0	334	3.0	0.406	9.3	LOS A	2.2	56.5	0.65	0.53	0.72	33.7
East: US-77															
1	L2	All MCs	225	3.0	225	3.0	0.483	8.8	LOS A	3.1	78.5	0.56	0.34	0.56	33.8
6	T1	All MCs	273	3.0	273	3.0	0.483	8.8	LOS A	3.1	78.5	0.56	0.34	0.56	35.5
16	R2	All MCs	13	3.0	13	3.0	0.483	8.8	LOS A	3.1	78.5	0.56	0.34	0.56	36.1
Approach			511	3.0	511	3.0	0.483	8.8	LOS A	3.1	78.5	0.56	0.34	0.56	34.7
North: N-109															
7	L2	All MCs	17	3.0	17	3.0	0.285	8.5	LOS A	1.2	31.4	0.64	0.55	0.64	38.2
4	T1	All MCs	65	3.0	65	3.0	0.285	8.5	LOS A	1.2	31.4	0.64	0.55	0.64	38.2
14	R2	All MCs	118	3.0	118	3.0	0.285	8.5	LOS A	1.2	31.4	0.64	0.55	0.64	39.0
Approach			201	3.0	201	3.0	0.285	8.5	LOS A	1.2	31.4	0.64	0.55	0.64	38.6
West: US-77															
5	L2	All MCs	80	3.0	80	3.0	0.579	11.5	LOS B	5.5	140.6	0.70	0.56	0.93	28.5
2	T1	All MCs	357	3.0	357	3.0	0.579	11.5	LOS B	5.5	140.6	0.70	0.56	0.93	35.2
12	R2	All MCs	121	3.0	121	3.0	0.579	11.5	LOS B	5.5	140.6	0.70	0.56	0.93	34.3
Approach			558	3.0	558	3.0	0.579	11.5	LOS B	5.5	140.6	0.70	0.56	0.93	33.8
All Vehicles			1603	3.0	1603	3.0	0.579	9.8	LOS A	5.5	140.6	0.64	0.48	0.73	34.6

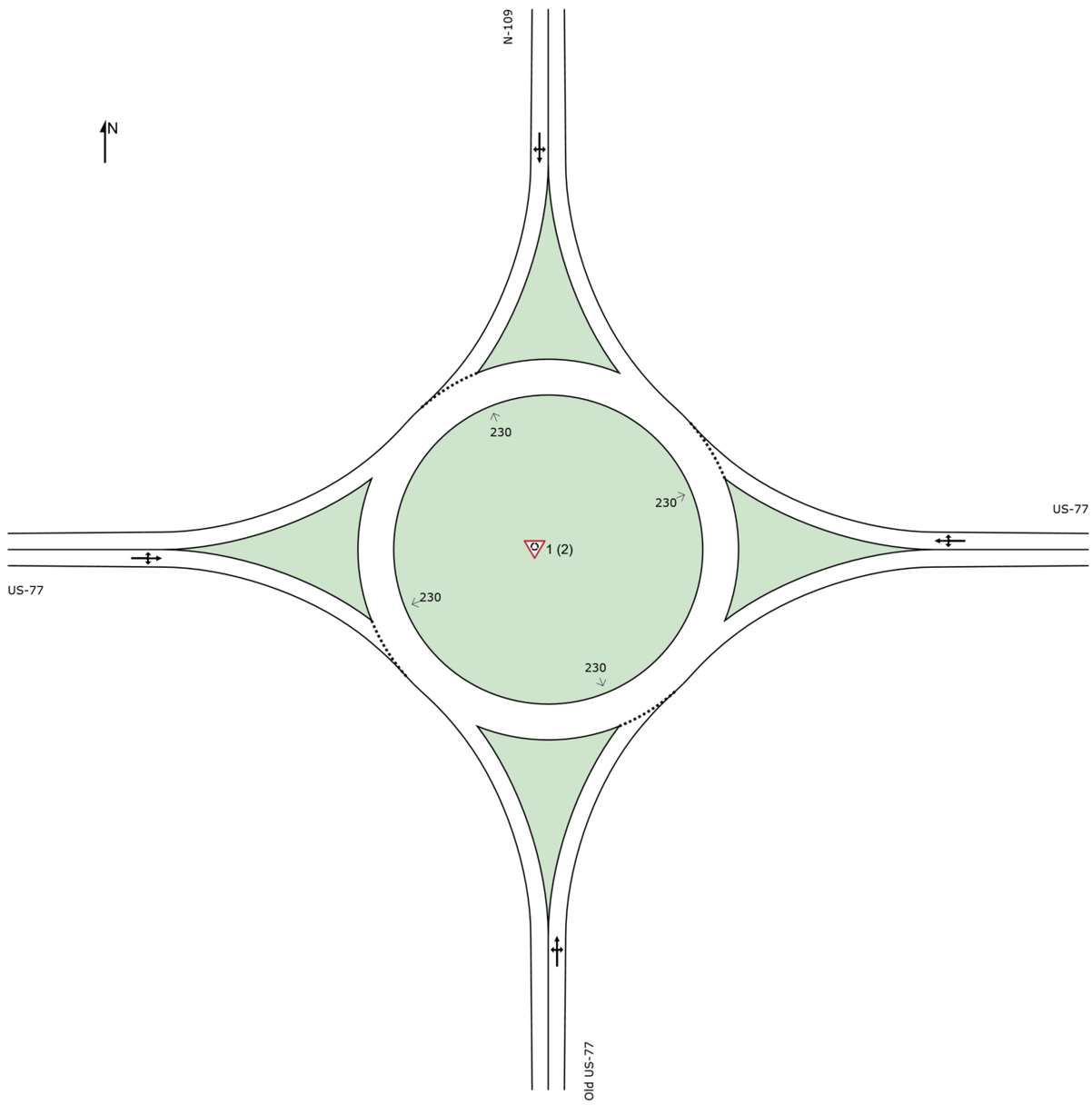
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Created: Wednesday, December 10, 2025 3:03:12 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2038 Horizon Year \Year 2038 US-77 & N-109.sipx

MOVEMENT FLOWS FOR SITE (INPUT)

Approach movement input flow rates by movement class (vehicles per 60 mins)

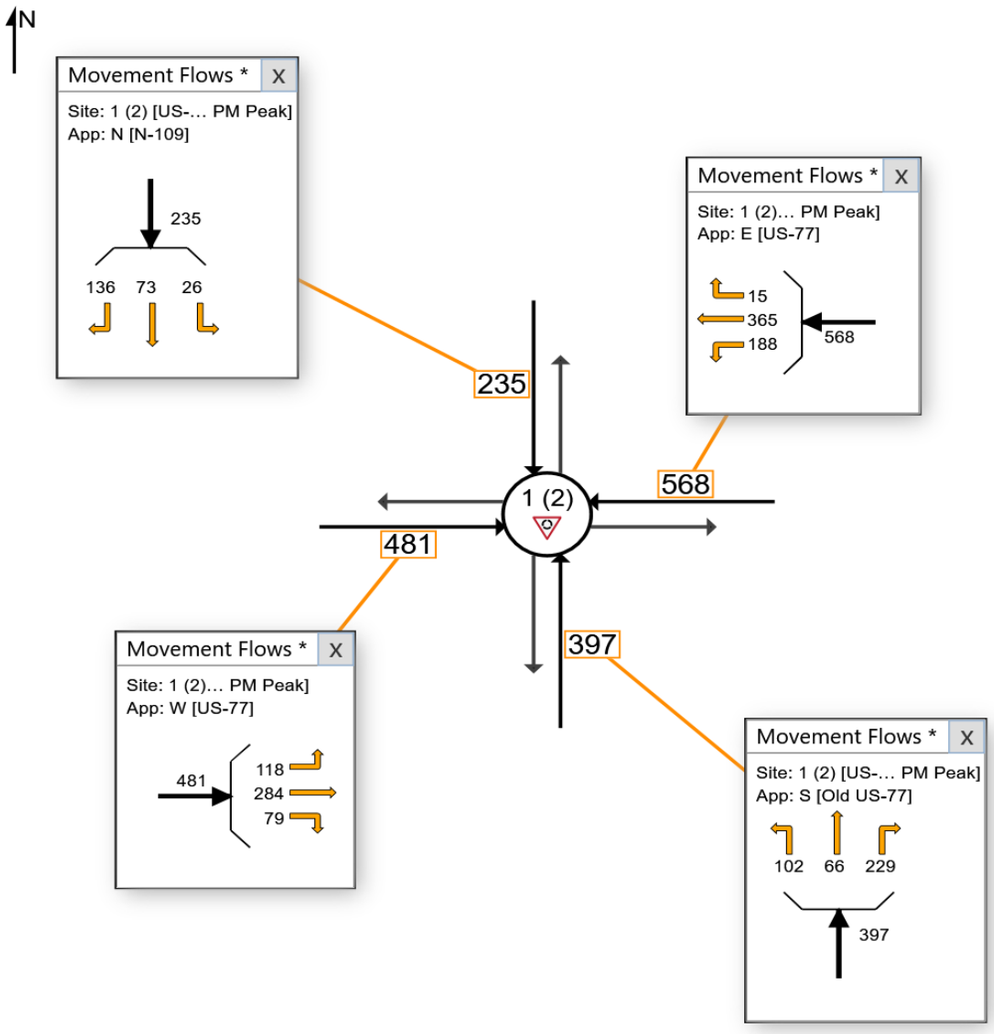
Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Use the button below to open or close all popup boxes. Click value labels to open selected ones.
Click and drag popup boxes to move to preferred positions.

Close All Popups

All Movement Classes (*)



LEVEL OF SERVICE

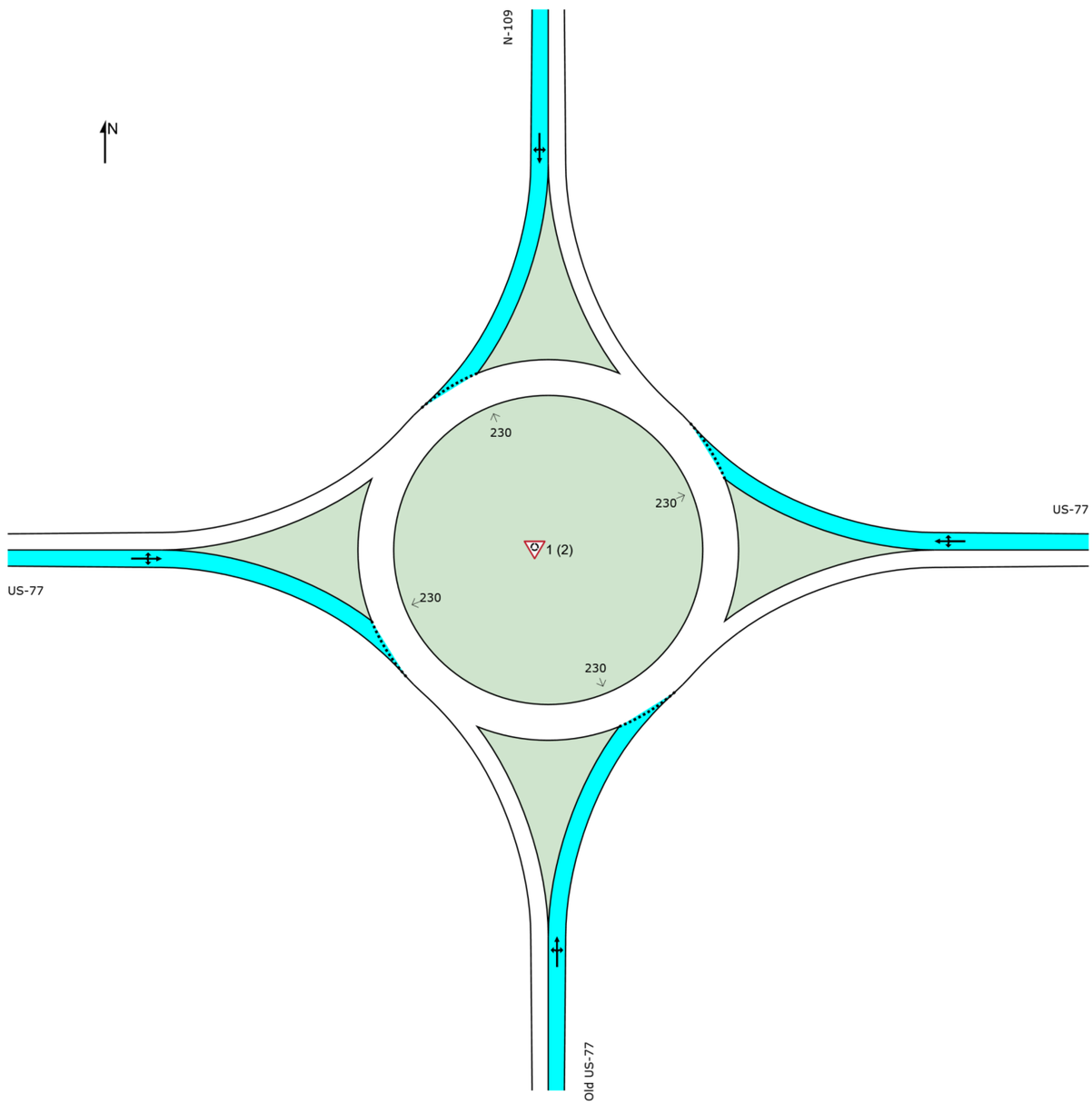
Lane Level of Service

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)

Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

	Approaches				Intersection
	South	East	North	West	
LOS	B	B	B	B	B



Colour code based on Level of Service

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Organisation: JEO CONSULTING GROUP | Licence: PLUS / 1PC | Processed: Monday, October 27, 2025 3:12:37 PM
Project: J:\Projects\242471.00-Sand Creek Industrial Subdivision Wahoo\5 Study and Report\3 Supporting Docs\Analysis\Year 2038 Horizon Year \Year 2038 US-77 & N-109.sipx

MOVEMENT SUMMARY

Site: [1 (2)] US-77 & N-109 PM Peak (Existing Conditions)
Output produced by SIDRA INTERSECTION Version: 10.0.6.236

Roundabout with 1-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 2B-22
Roundabout Guide (TRB 2010) example number: A-1
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Old US-77															
3	L2	All MCs	111	3.0	111	3.0	0.532	11.9	LOS B	4.0	102.3	0.73	0.67	1.01	33.0
8	T1	All MCs	72	3.0	72	3.0	0.532	11.9	LOS B	4.0	102.3	0.73	0.67	1.01	27.9
18	R2	All MCs	249	3.0	249	3.0	0.532	11.9	LOS B	4.0	102.3	0.73	0.67	1.01	33.6
Approach			432	3.0	432	3.0	0.532	11.9	LOS B	4.0	102.3	0.73	0.67	1.01	32.4
East: US-77															
1	L2	All MCs	204	3.0	204	3.0	0.644	13.2	LOS B	7.6	195.2	0.76	0.66	1.14	32.2
6	T1	All MCs	397	3.0	397	3.0	0.644	13.2	LOS B	7.6	195.2	0.76	0.66	1.14	33.7
16	R2	All MCs	16	3.0	16	3.0	0.644	13.2	LOS B	7.6	195.2	0.76	0.66	1.14	34.2
Approach			617	3.0	617	3.0	0.644	13.2	LOS B	7.6	195.2	0.76	0.66	1.14	33.2
North: N-109															
7	L2	All MCs	28	3.0	28	3.0	0.412	11.8	LOS B	2.1	53.5	0.72	0.69	0.90	36.1
4	T1	All MCs	79	3.0	79	3.0	0.412	11.8	LOS B	2.1	53.5	0.72	0.69	0.90	36.2
14	R2	All MCs	148	3.0	148	3.0	0.412	11.8	LOS B	2.1	53.5	0.72	0.69	0.90	36.8
Approach			255	3.0	255	3.0	0.412	11.8	LOS B	2.1	53.5	0.72	0.69	0.90	36.5
West: US-77															
5	L2	All MCs	128	3.0	128	3.0	0.546	10.7	LOS B	4.6	117.1	0.67	0.53	0.85	28.5
2	T1	All MCs	309	3.0	309	3.0	0.546	10.7	LOS B	4.6	117.1	0.67	0.53	0.85	35.2
12	R2	All MCs	86	3.0	86	3.0	0.546	10.7	LOS B	4.6	117.1	0.67	0.53	0.85	34.4
Approach			523	3.0	523	3.0	0.546	10.7	LOS B	4.6	117.1	0.67	0.53	0.85	33.2
All Vehicles			1827	3.0	1827	3.0	0.644	12.0	LOS B	7.6	195.2	0.72	0.63	0.99	33.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	2	56	0	187	9	113	98	193	162	20
Future Vol, veh/h	7	0	2	56	0	187	9	113	98	193	162	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	0	2	61	0	203	10	123	107	210	176	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	749	855	187	791	813	176	198	0	0	229	0	0
Stage 1	607	607	-	196	196	-	-	-	-	-	-	-
Stage 2	142	249	-	596	617	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	327	294	853	306	312	865	1369	-	-	1333	-	-
Stage 1	482	485	-	804	737	-	-	-	-	-	-	-
Stage 2	858	699	-	489	480	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	204	240	853	249	254	865	1369	-	-	1333	-	-
Mov Cap-2 Maneuver	204	240	-	249	254	-	-	-	-	-	-	-
Stage 1	397	399	-	798	732	-	-	-	-	-	-	-
Stage 2	652	694	-	401	394	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	20.26	17.4	0.31	4.22
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1369	-	-	246	551	906	-	-
HCM Lane V/C Ratio	0.007	-	-	0.04	0.479	0.157	-	-
HCM Control Delay (s/veh)	7.6	-	-	20.3	17.4	8.2	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.6	0.6	-	-

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	0	11	75	0	187	4	185	78	156	170	13
Future Vol, veh/h	21	0	11	75	0	187	4	185	78	156	170	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	23	0	12	82	0	203	4	201	85	170	185	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	741	826	192	776	790	243	199	0	0	286	0	0
Stage 1	531	531	-	252	252	-	-	-	-	-	-	-
Stage 2	210	295	-	524	538	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	331	306	847	313	321	793	1367	-	-	1271	-	-
Stage 1	530	524	-	750	696	-	-	-	-	-	-	-
Stage 2	790	667	-	535	521	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	208	259	847	262	272	793	1367	-	-	1271	-	-
Mov Cap-2 Maneuver	208	259	-	262	272	-	-	-	-	-	-	-
Stage 1	450	446	-	747	694	-	-	-	-	-	-	-
Stage 2	586	665	-	448	442	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.59	21.2	0.11	3.81
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1367	-	-	281	501	817	-	-
HCM Lane V/C Ratio	0.003	-	-	0.124	0.568	0.133	-	-
HCM Control Delay (s/veh)	7.6	-	-	19.6	21.2	8.3	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	3.5	0.5	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	14	206	53	54	165
Future Vol, veh/h	13	14	206	53	54	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	14	15	224	58	59	179

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	549	253	0	0	282	0
Stage 1	253	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	495	784	-	-	1275	-
Stage 1	787	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	469	784	-	-	1275	-
Mov Cap-2 Maneuver	469	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	713	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.39	0	1.96
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	593	444	-
HCM Lane V/C Ratio	-	-	0.05	0.046	-
HCM Control Delay (s/veh)	-	-	11.4	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	62	205	29	30	226
Future Vol, veh/h	57	62	205	29	30	226
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	62	67	223	32	33	246

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	549	239	0	0	254	0
Stage 1	239	-	-	-	-	-
Stage 2	311	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	495	798	-	-	1305	-
Stage 1	799	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	480	798	-	-	1305	-
Mov Cap-2 Maneuver	480	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	12.54	0	0.92
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	606	211	-
HCM Lane V/C Ratio	-	-	0.213	0.025	-
HCM Control Delay (s/veh)	-	-	12.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

Opening Day (2028) Future Buildout Conditions

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	2	56	0	187	8	108	98	193	157	19
Future Vol, veh/h	7	0	2	56	0	187	8	108	98	193	157	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	0	2	61	0	203	9	117	107	210	171	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	735	842	181	778	799	171	191	0	0	224	0	0
Stage 1	601	601	-	188	188	-	-	-	-	-	-	-
Stage 2	135	241	-	590	611	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	334	300	859	312	317	871	1376	-	-	1339	-	-
Stage 1	486	488	-	811	743	-	-	-	-	-	-	-
Stage 2	866	704	-	492	483	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	251	859	261	266	871	1376	-	-	1339	-	-
Mov Cap-2 Maneuver	214	251	-	261	266	-	-	-	-	-	-	-
Stage 1	410	412	-	806	738	-	-	-	-	-	-	-
Stage 2	660	700	-	414	407	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.54	16.8	0.29	4.28
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1376	-	-	257	566	1339	-	-
HCM Lane V/C Ratio	0.006	-	-	0.038	0.467	0.157	-	-
HCM Control Delay (s/veh)	7.6	-	-	19.5	16.8	8.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.5	0.6	-	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	0	10	75	0	187	4	178	78	156	163	12
Future Vol, veh/h	20	0	10	75	0	187	4	178	78	156	163	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	22	0	11	82	0	203	4	193	85	170	177	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	725	810	184	761	774	236	190	0	0	278	0	0
Stage 1	523	523	-	245	245	-	-	-	-	-	-	-
Stage 2	202	287	-	516	529	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	339	313	856	321	328	801	1378	-	-	1279	-	-
Stage 1	535	529	-	757	702	-	-	-	-	-	-	-
Stage 2	797	673	-	540	525	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	219	271	856	274	284	801	1378	-	-	1279	-	-
Mov Cap-2 Maneuver	219	271	-	274	284	-	-	-	-	-	-	-
Stage 1	464	459	-	754	700	-	-	-	-	-	-	-
Stage 2	593	670	-	462	456	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	18.92	20.21	0.12	3.89
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	291	516	1279	-	-
HCM Lane V/C Ratio	0.003	-	-	0.112	0.551	0.133	-	-
HCM Control Delay (s/veh)	7.6	-	-	18.9	20.2	8.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	3.3	0.5	-	-

Horizon Year (2038) Future Buildout Conditions

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	2	56	0	187	9	113	98	193	162	20
Future Vol, veh/h	7	0	2	56	0	187	9	113	98	193	162	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	0	2	61	0	203	10	123	107	210	176	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	749	855	187	791	813	176	198	0	0	229	0	0
Stage 1	607	607	-	196	196	-	-	-	-	-	-	-
Stage 2	142	249	-	596	617	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	327	294	853	306	312	865	1369	-	-	1333	-	-
Stage 1	482	485	-	804	737	-	-	-	-	-	-	-
Stage 2	858	699	-	489	480	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	209	246	853	255	261	865	1369	-	-	1333	-	-
Mov Cap-2 Maneuver	209	246	-	255	261	-	-	-	-	-	-	-
Stage 1	406	409	-	798	732	-	-	-	-	-	-	-
Stage 2	652	694	-	411	404	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.91	17.12	0.31	4.22
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1369	-	-	251	558	1333	-	-
HCM Lane V/C Ratio	0.007	-	-	0.039	0.473	0.157	-	-
HCM Control Delay (s/veh)	7.6	-	-	19.9	17.1	8.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.5	0.6	-	-

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	0	11	75	0	187	4	185	78	156	170	13
Future Vol, veh/h	21	0	11	75	0	187	4	185	78	156	170	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	23	0	12	82	0	203	4	201	85	170	185	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	741	826	192	776	790	243	199	0	0	286	0	0
Stage 1	531	531	-	252	252	-	-	-	-	-	-	-
Stage 2	210	295	-	524	538	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	331	306	847	313	321	793	1367	-	-	1271	-	-
Stage 1	530	524	-	750	696	-	-	-	-	-	-	-
Stage 2	790	667	-	535	521	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	213	265	847	267	277	793	1367	-	-	1271	-	-
Mov Cap-2 Maneuver	213	265	-	267	277	-	-	-	-	-	-	-
Stage 1	459	454	-	747	694	-	-	-	-	-	-	-
Stage 2	586	665	-	457	451	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.3	20.82	0.11	3.81
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1367	-	-	286	507	1271	-	-
HCM Lane V/C Ratio	0.003	-	-	0.121	0.562	0.133	-	-
HCM Control Delay (s/veh)	7.6	-	-	19.3	20.8	8.3	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	3.4	0.5	-	-

APPENDIX D:
Auxiliary Turn Lane Warrant Graphs

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	220
Opposing volume (V_O), veh/h:	169

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	672
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

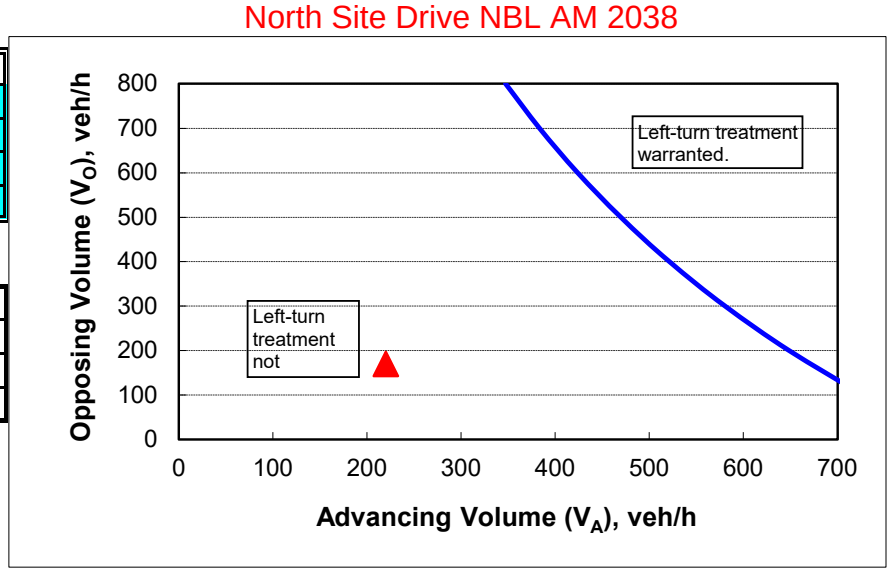


Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

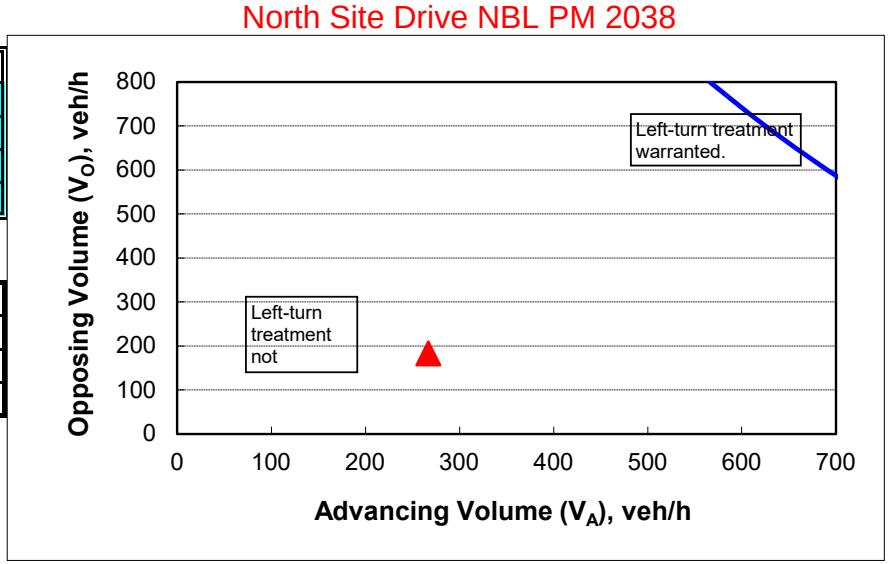
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	267
Opposing volume (V_O), veh/h:	183

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1078
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

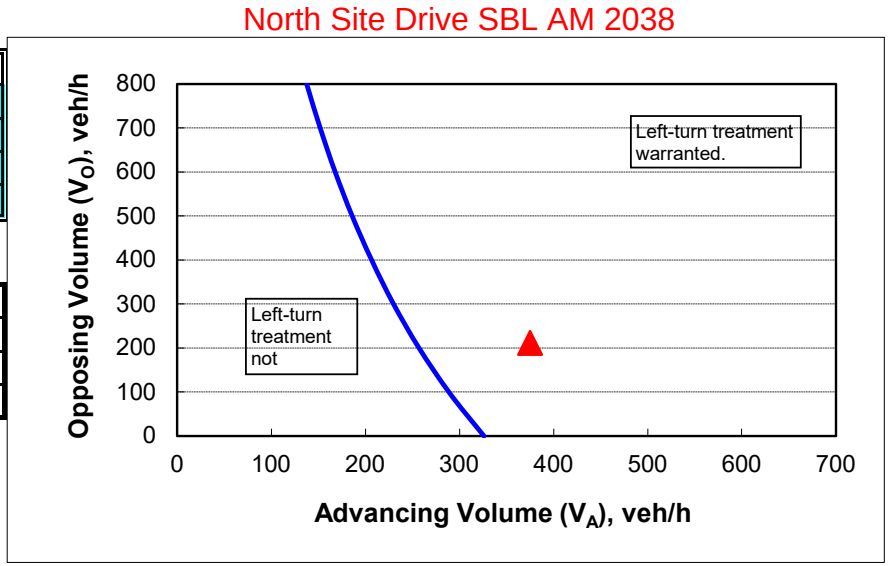
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	51%
Advancing volume (V_A), veh/h:	375
Opposing volume (V_O), veh/h:	211

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	254
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

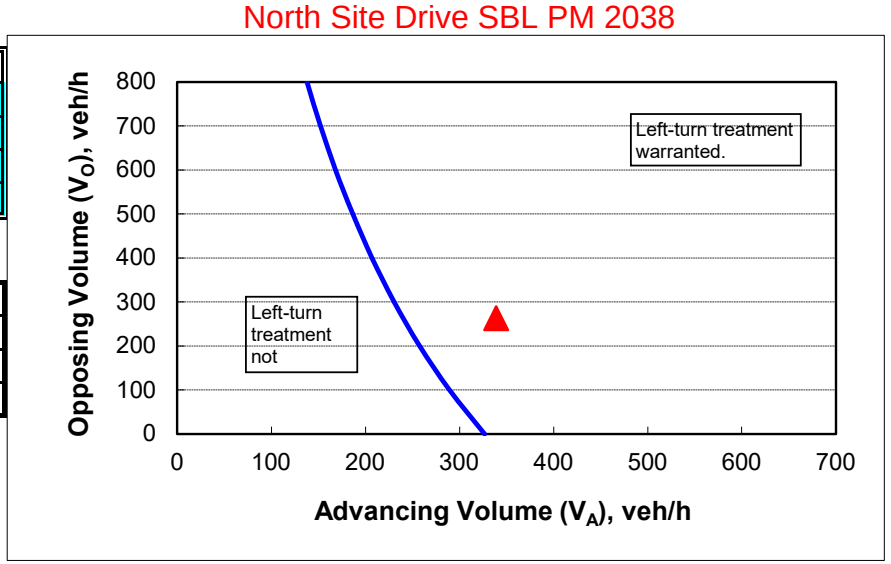
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	46%
Advancing volume (V_A), veh/h:	339
Opposing volume (V_O), veh/h:	263

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	240
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

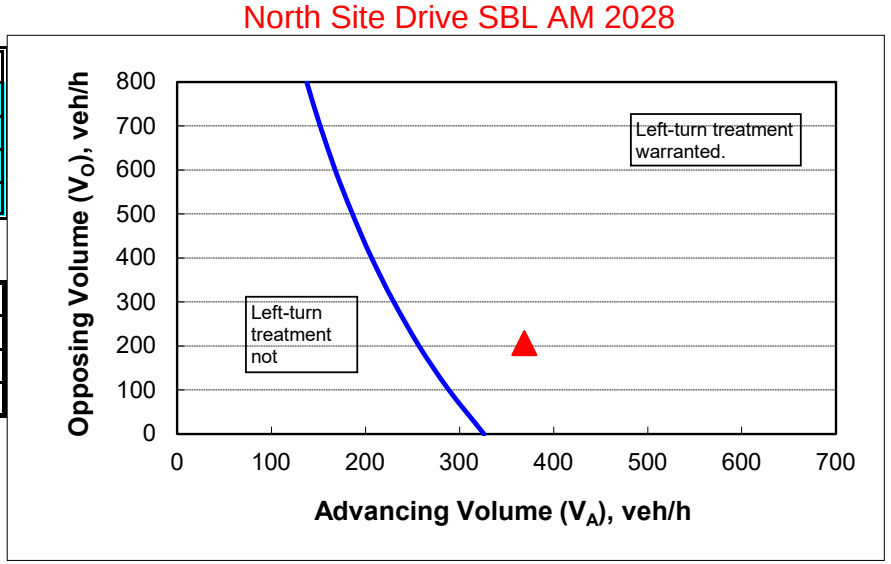
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	52%
Advancing volume (V_A), veh/h:	369
Opposing volume (V_O), veh/h:	206

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	255
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

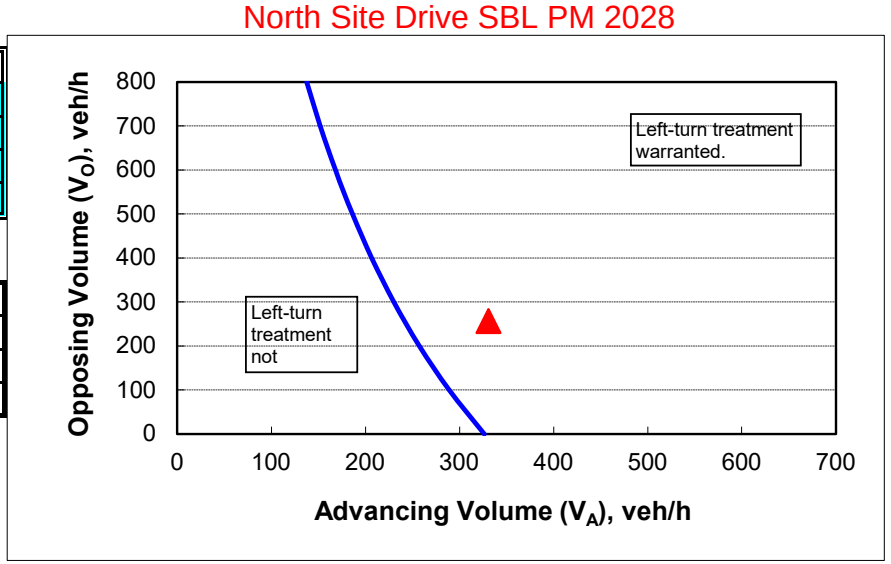
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	47%
Advancing volume (V_A), veh/h:	331
Opposing volume (V_O), veh/h:	256

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	242
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	220
Right-turn volume, veh/h:	98

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	194
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

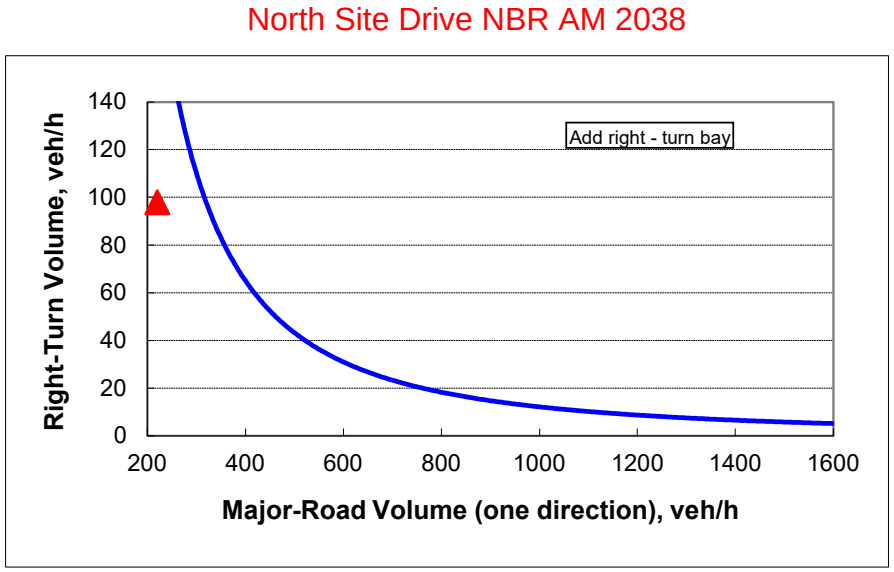


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	267
Right-turn volume, veh/h:	78

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	136
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

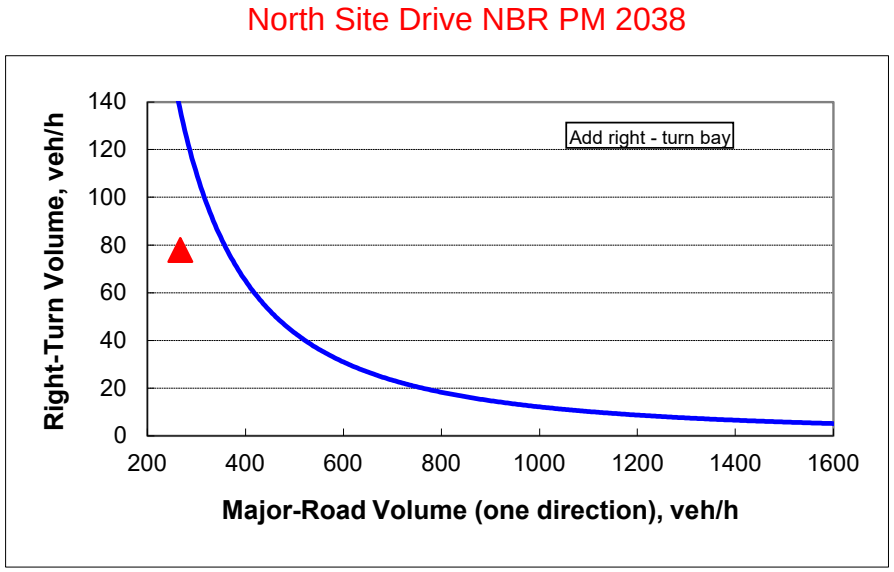


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	375
Right-turn volume, veh/h:	20

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	73
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

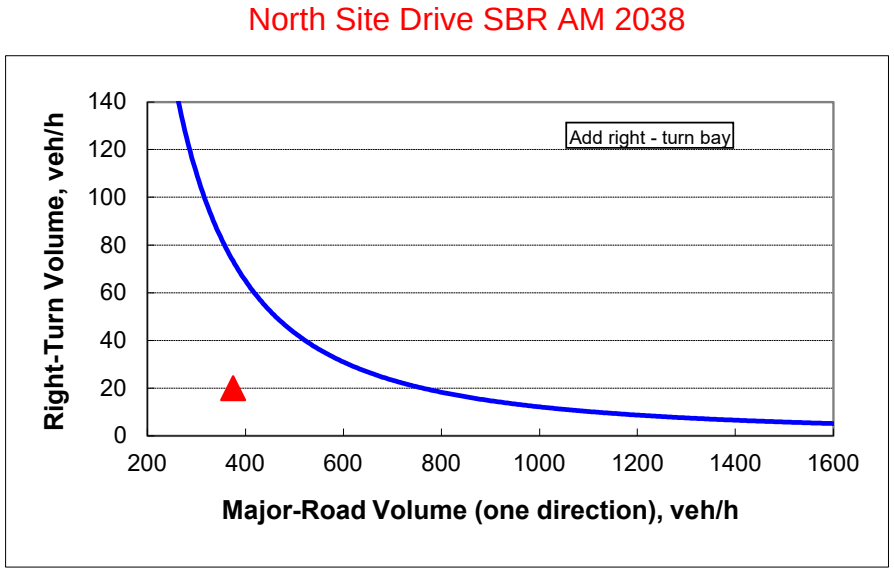


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	339
Right-turn volume, veh/h:	13

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	88
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

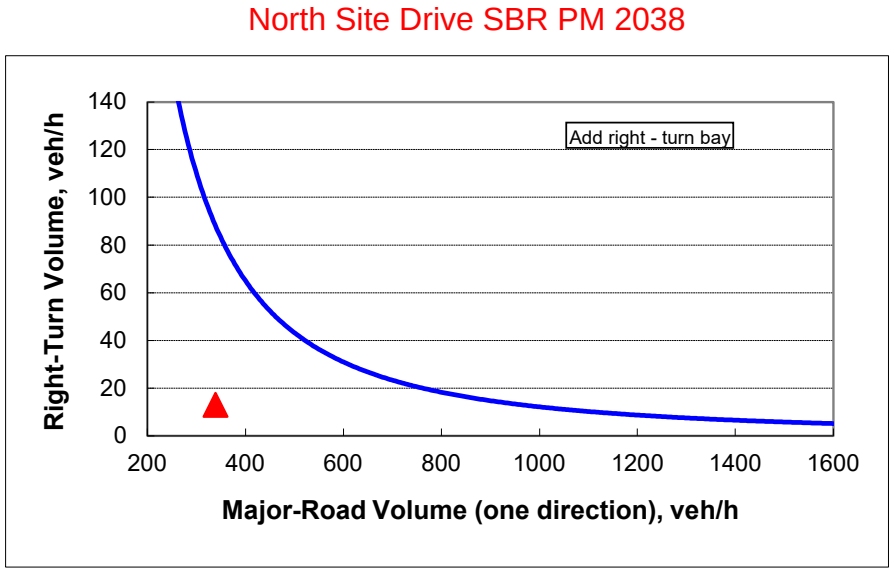


Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	25%
Advancing volume (V_A), veh/h:	219
Opposing volume (V_O), veh/h:	259

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	279
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

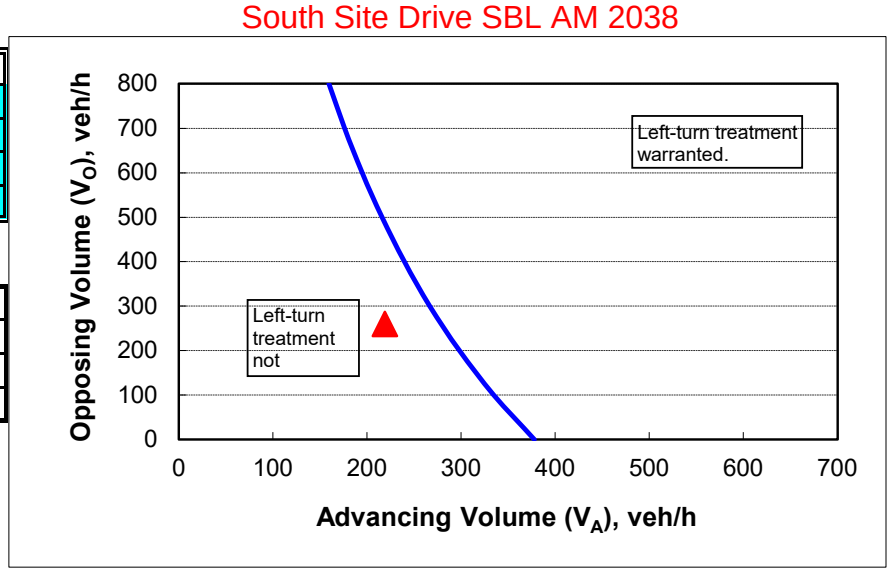


Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

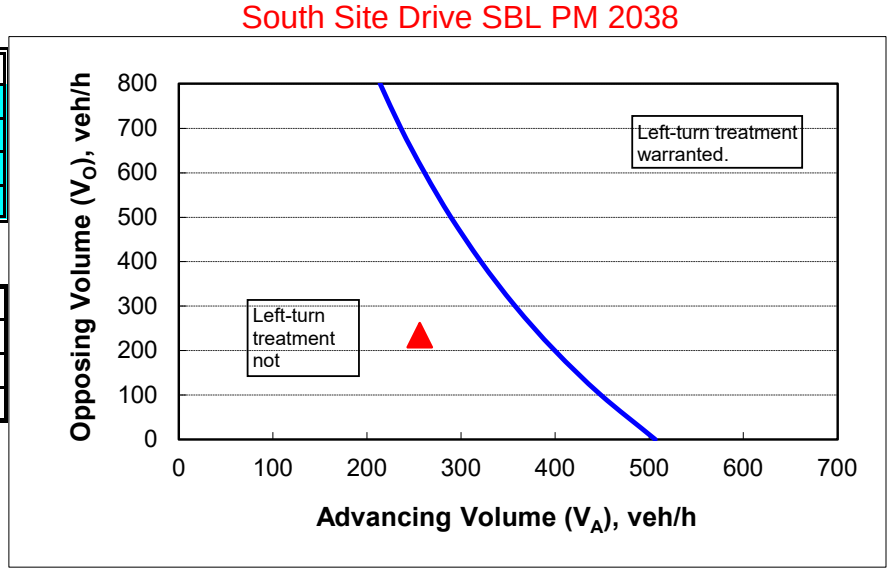
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	12%
Advancing volume (V_A), veh/h:	256
Opposing volume (V_O), veh/h:	234

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	384
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	259
Right-turn volume, veh/h:	53

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	144
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

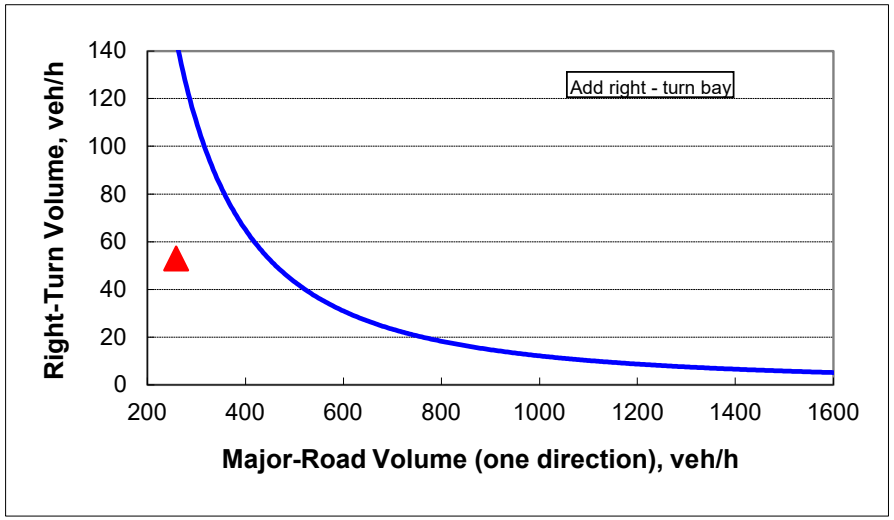


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

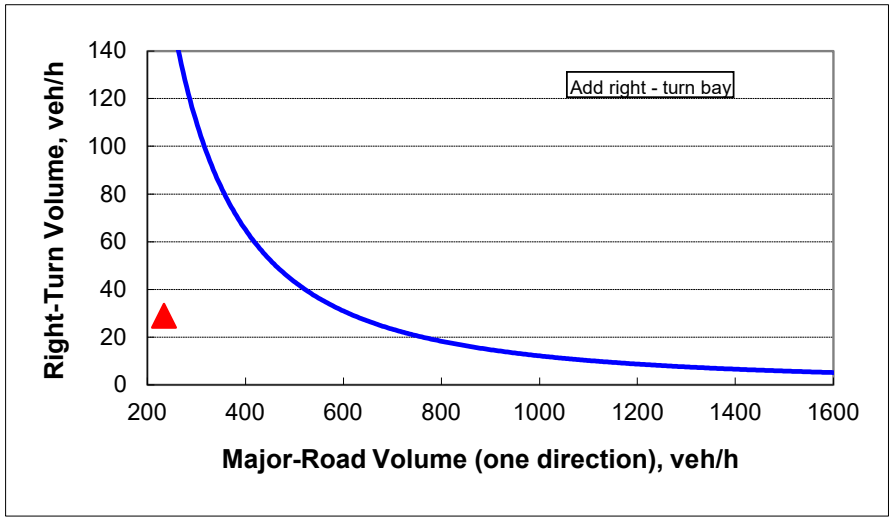
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	234
Right-turn volume, veh/h:	29

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	174
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



APPENDIX E:
NDOT Access Control Policy

Figure 008.01

DIVIDED HIGHWAY

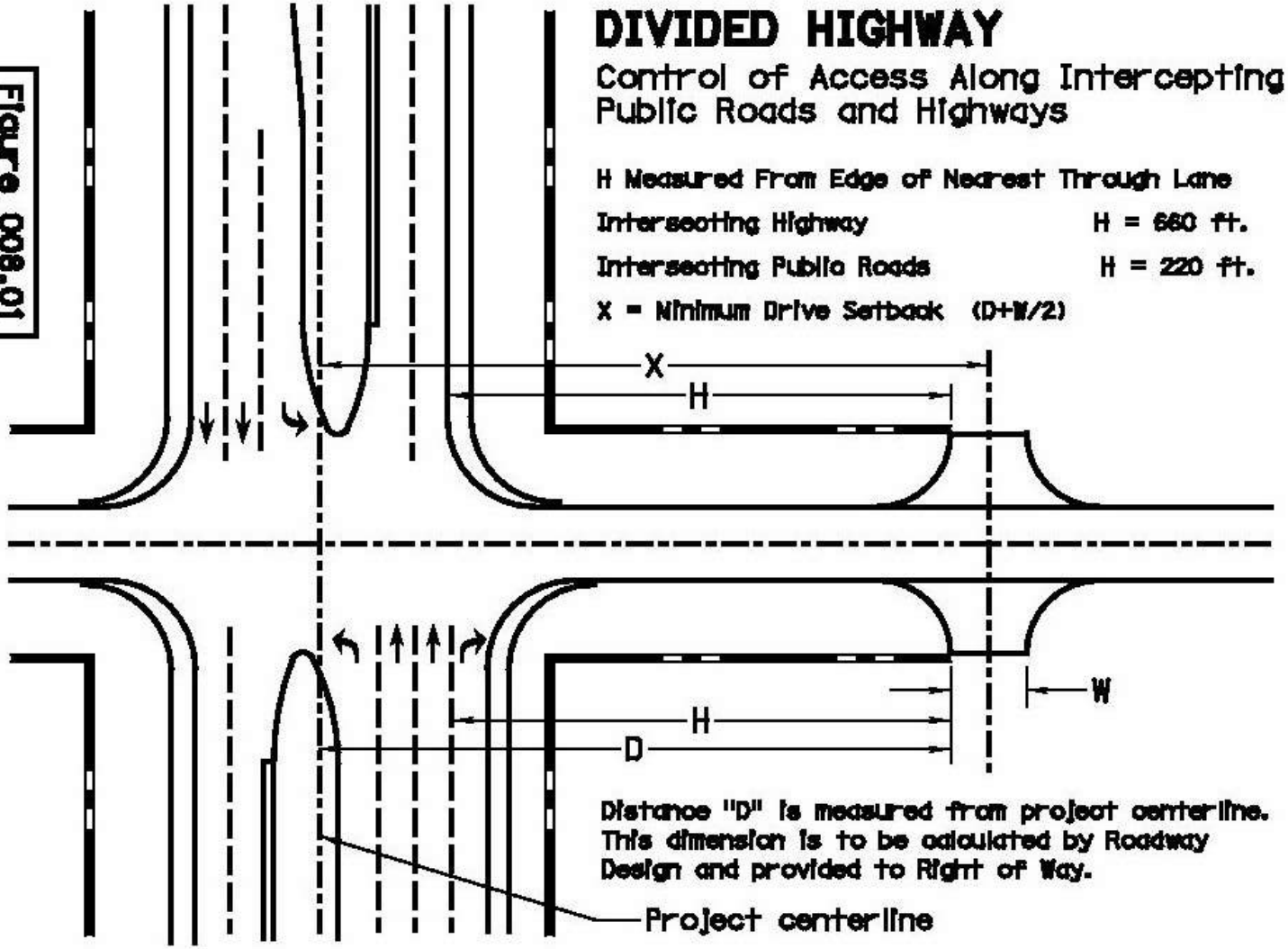
Control of Access Along Intercepting Public Roads and Highways

H Measured From Edge of Nearest Through Lane

Intersecting Highway H = 660 ft.

Intersecting Public Roads H = 220 ft.

X = Minimum Drive Setback (D+W/2)



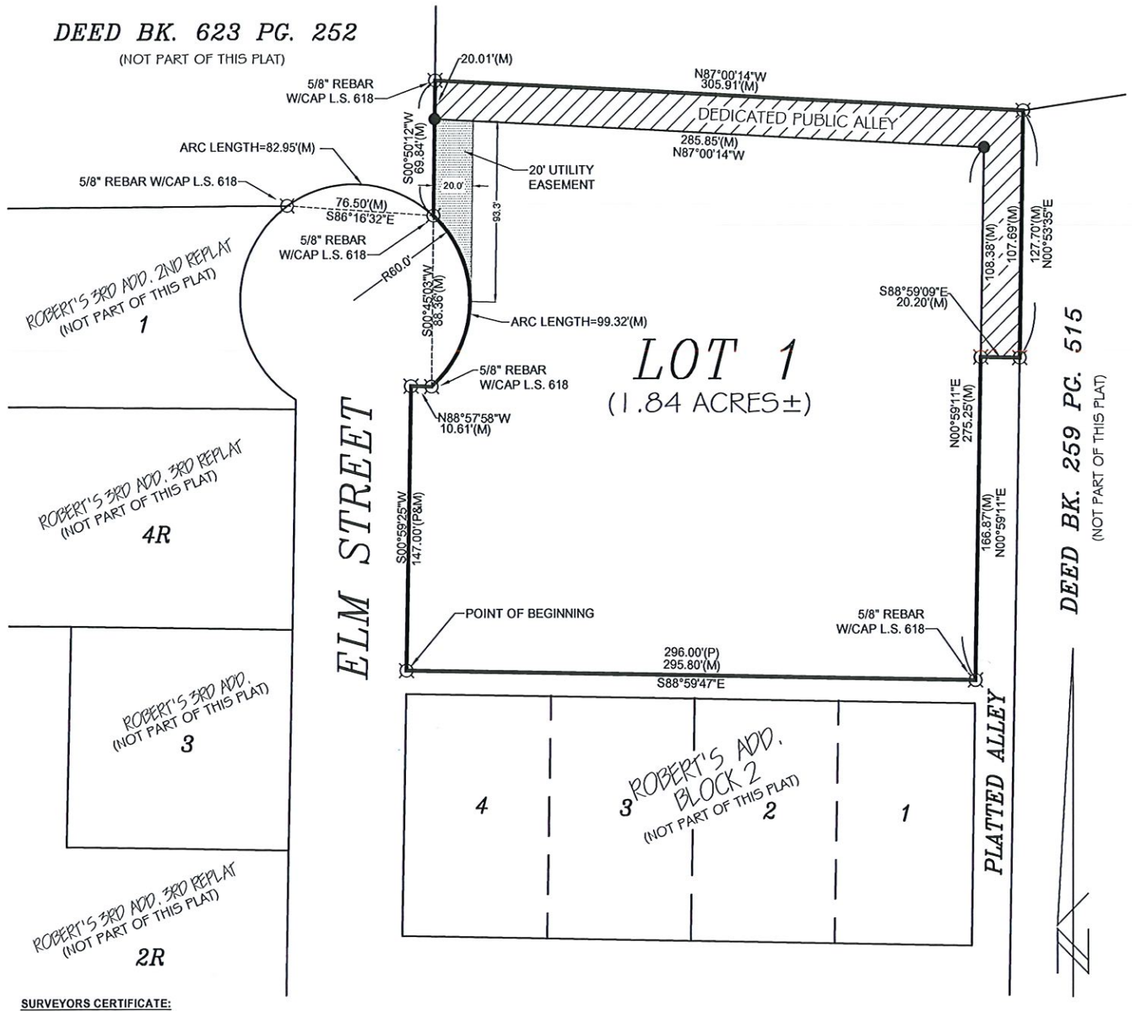
Distance "D" is measured from project centerline. This dimension is to be calculated by Roadway Design and provided to Right of Way.

LEGAL DESCRIPTION:

A PARCEL OF LAND LOCATED IN THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 15 NORTH, RANGE 7 EAST OF THE SIXTH P.M., SAUNDERS COUNTY, NEBRASKA, BEING DESCRIBED AS FOLLOWS: REFERRING TO THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 35; THENCE N04°14'09"W (ASSUMED BEARING), ON THE WEST LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 206.67FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD AND THE POINT OF BEGINNING; THENCE CONTINUING N04°14'09"W ON SAID WEST LINE, A DISTANCE OF 765.15 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF OLD HIGHWAY 77 AS DESCRIBED IN GENERAL BOOK 494, PAGE 425; THENCE NORTHERLY ON SAID EASTERLY LINE, THE FOLLOWING 5 COURSES: N85°45'51"E, 33.00 FEET; N01°01'23"E, 72.27 FEET; N00°23'23"W, 452.92 FEET; N04°14'09"W, 500.00 FEET; N01°36'05"E, 417.67 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY 77 AND NEBRASKA HIGHWAY 92 AS DESCRIBED IN INSTRUMENT NO. 2023-07188; THENCE N62°52'08"E ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 157.00 FEET; THENCE N67°08'02"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 187.45 FEET; THENCE N89°14'03"E ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 494, PAGE 425, A DISTANCE OF 354.93 FEET; THENCE SOUTHWESTERLY CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE ON A 1055.22 FOOT RADIUS, NON-TANGENT CURVE TO THE LEFT, AN ARC DISTANCE OF 46.19 FEET, THE CHORD OF SAID CURVE BEARS S65°10'24"W, A DISTANCE OF 46.19 FEET; THENCE N86°05'31"E CONTINUING ON SAID SOUTHERLY RIGHT OF WAY LINE AS DESCRIBED IN GENERAL BOOK 297, PAGE 317, A DISTANCE OF 134.22 FEET; THENCE S04°14'09"E, A DISTANCE OF 1777.24 FEET TO THE SOUTH LINE OF A TRACT OF LAND DESCRIBED IN GENERAL BOOK 413, PAGE 880; THENCE N88°15'57"E ON SAID SOUTH LINE, A DISTANCE OF 400.38 FEET; THENCE S04°14'09"E, A DISTANCE OF 537.87 FEET TO THE NORTH RIGHT OF WAY LINE OF THE UNION PACIFIC RAILROAD; THENCE S88°17'27"W ON SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 1063.24 FEET TO A POINT OF CURVATURE; THENCE WESTERLY CONTINUING ON SAID NORTH RIGHT OF WAY LINE, ON A 2095.80 FOOT RADIUS CURVE TO THE LEFT, AN ARC DISTANCE OF 217.89 FEET TO THE POINT OF BEGINNING, THE CHORD OF SAID CURVE BEARS S85°25'54"W, A DISTANCE OF 217.79 FEET, CONTAINING 48.89 ACRES, MORE OR LESS.

FINAL PLAT
"ROBERTS' 2ND ADDITION REPLAT"

A REPLAT OF LOTS 1 THROUGH 4, BLOCK 1, ROBERTS' 2ND ADDITION, THE VACATED ALLEY CONTIGUOUS TO THE NORTH LINE OF BLOCK 1, ROBERTS' 2ND ADDITION AND A PORTION OF THE SW1/4 OF SECTION 34, TOWNSHIP 15 NORTH, RANGE 7 EAST OF THE 6TH PRINCIPAL MERIDIAN SAUNDERS COUNTY, NEBRASKA.



DEDICATION:

KNOW ALL MEN BY THESE PRESENTS: THAT ERIC K. ROUMPH AND RENEE M. MCFEE, HUSBAND AND WIFE, BEING THE OWNERS AND PROPRIETORS OF THE REAL ESTATE DESCRIBED IN THE SURVEYORS CERTIFICATE AND EMBRACED WITHIN THIS PLAT, DO HEREBY REPLAT SAID REAL ESTATE INTO ONE LOT AND A DEDICATED PUBLIC ALLEY AS SHOWN ON THE ATTACHED PLAT, TO BE HEREINAFTER KNOWN AS LOT 1, ROBERTS' 2ND ADDITION REPLAT. SAID OWNERS HEREBY DEDICATES TO THE PUBLIC FOR PERPETUAL PUBLIC USE OF ALL ALLEYS AS SHOWN ON THE PLAT. SAID OWNER ALSO GRANTS A 20' WIDE UTILITY EASEMENT, AS SHOWN ON THE PLAT, TO THE CITY OF WAHOO FOR ALL UTILITIES. SAID DEDICATION IS MADE WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS THEREOF. SAID OWNERS HEREBY RATIFIES AND APPROVES OF THE DISPOSITION OF THEIR PROPERTY AS SHOWN ON THIS PLAT.

ERIC K. ROUMPH

RENEE M. MCFEE

ACKNOWLEDGE OF NOTARY:

STATE OF NEBRASKA)
) SS.
COUNTY OF SAUNDERS)

ON THIS 9th DAY OF March, 2026 BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, QUALIFIED IN SAID COUNTY, PERSONALLY CAME ERIC K. ROUMPH AND RENEE M. MCFEE, KNOWN TO ME TO BE THE IDENTICAL PERSONS WHOSE NAME IS AFFIXED TO THE FOREGOING PLAT AND DEDICATION, ACKNOWLEDGE THE EXECUTION OF THE SAME TO BE THEIR VOLUNTARY ACT AND DEED. WITNESS MY HAND AND NOTARIAL SEAL THE DAY AND YEAR ABOVE WRITTEN.

NOTARY PUBLIC

MY COMMISSION EXPIRES 7/24/28.

NATASHA BADGETT
Commission Number 866314
My Commission Expires
July 24, 2028

CONSENT OF LIENHOLDER:

WE, FIRST NATIONAL BANK OF OMAHA, BEING LIEN HOLDERS OF THOSE CERTAIN LEINS ON LOTS 3 AND 4, BLOCK 1, ROBERTS' 2ND ADDITION TO WAHOO, SAUNDERS COUNTY, NEBRASKA RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, SAUNDERS COUNTY, NEBRASKA AS INSTRUMENT #2021-04-494, DO HEREBY CONSENT TO THE FINAL PLAT OF ROBERTS' 2ND ADDITION REPLAT.

FIRST NATIONAL BANK OF OMAHA

NAME & TITLE Miranda Nightengale, Sr. Manager — DATE 4/29/26

ACKNOWLEDGEMENT OF NOTARY:

STATE OF NEBRASKA)
) SS.
COUNTY OF Douglas)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 29th DAY OF April, 2026 BY Miranda Nightengale, Sr. Mngr. OF FIRST NATIONAL BANK OF OMAHA.

MY COMMISSION EXPIRES ON THE 22 DAY OF December, 2029.

NOTARY PUBLIC

GENERAL NOTARY - State of Nebraska
AMY S SORENSON
My Comm. Exp. December 22, 2029

TREASURER:

I HEREBY CERTIFY THAT THE RECORDS IN MY OFFICE SHOW NO TAXES DELINQUENT ON THE LAND ENCOMPASSED BY THE DESCRIPTION IN THE SURVEYORS CERTIFICATE WHICH APPEARS ON THIS PLAT.

COUNTY TREASURER

Seal — SAUNDERS COUNTY, NEBRASKA

COUNTY SURVEYOR:

I HEREBY APPROVE THE NUMBERING OF THE LOT IN ROBERTS' 2ND ADDITION REPLAT, LOCATED IN THE CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA, THIS 1st DAY OF March, 2026.

COUNTY SURVEYOR

WAHOO PLANNING COMMISSION:

THIS PLAT OF ROBERTS' 2ND ADDITION REPLAT WAS APPROVED BY THE PLANNING COMMISSION OF THE CITY OF WAHOO AT ITS MEETING ON THE _____ DAY OF _____, 20___.

CHAIRPERSON

WAHOO CITY COUNCIL:

THIS PLAT OF ROBERTS' 2ND ADDITION REPLAT WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF WAHOO AT ITS MEETING ON THE _____ DAY OF _____, 20___.

MAYOR

ATTEST: _____
CITY CLERK

WAHOO CITY ENGINEER:

THE PLAT OF ROBERTS' 2ND ADDITION REPLAT WAS REVIEWED AND APPROVED BY THE WAHOO CITY ENGINEER ON THIS _____ DAY _____, 20___.

WAHOO CITY ENGINEER

SURVEYORS CERTIFICATE:

I HEREBY CERTIFY THAT I HAVE CAUSED TO BE SURVEYED THE SUBDIVISION TO BE KNOWN AS ROBERTS 2ND ADDITION REPLAT, A REPLAT OF LOTS 1, 2, 3 & 4, BLOCK 1, ROBERTS' 2ND ADDITION TO THE CITY OF WAHOO, THE VACATED ALLEY CONTIGUOUS TO THE NORTH LINE OF BLOCK 1, ROBERTS' 2ND ADDITION TO THE CITY OF WAHOO AND A PORTION OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 15 NORTH, RANGE 7 EAST OF THE 6TH P.M., SAUNDERS COUNTY, NEBRASKA, BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 4, ROBERTS' 2ND ADDITION TO THE CITY OF WAHOO; THENCE S88°59'47"E (ASSUMED BEARING), ON THE SOUTH LINE OF BLOCK 1, ROBERTS' 2ND ADDITION, A DISTANCE OF 295.80 FEET TO THE SOUTHEAST CORNER OF BLOCK 1, ROBERTS' 2ND ADDITION; THENCE N00°59'11"E, ON THE EAST LINE OF BLOCK 1, ROBERTS' 2ND ADDITION AND IT'S NORTHERLY EXTENSION THEREOF, A DISTANCE OF 166.87 FEET TO POINT ON THE NORTH LINE OF ROBERTS' 2ND ADDITION; THENCE S88°59'09"E, ON SAID NORTH LINE, A DISTANCE OF 20.20 FEET TO THE NORTHEAST CORNER OF ROBERTS' 2ND ADDITION, SAID POINT ALSO BEING ON THE WEST LINE OF THE TRACT CONVEYED BY THE DEED RECORDED IN DEED BOOK 259, PAGE 515; THENCE N00°53'35"E, ON THE WEST LINE OF SAID TRACT, A DISTANCE OF 127.70 FEET TO THE NORTHWEST CORNER OF SAID TRACT; THENCE N87°00'14"W, A DISTANCE OF 305.91 FEET TO A POINT ON THE EAST LINE OF THE TRACT CONVEYED BY THE DEED RECORDED IN DEED BOOK 623, PAGE 252; THENCE S00°50'12"W, ON THE EAST LINE OF SAID TRACT, A DISTANCE OF 69.84 FEET TO A POINT ON THE EAST LINE OF ELM STREET; THENCE SOUTHERLY, ON THE EAST LINE OF ELM STREET, ON THE ARC OF A 60.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CHORD BEARING OF S00°45'03"W AND A CHORD DISTANCE OF 88.36 FEET, A DISTANCE OF 99.32 FEET TO A POINT ON THE NORTH LINE OF BLOCK 1, ROBERTS' 2ND ADDITION; THENCE N88°57'58"W, ON THE NORTH LINE OF BLOCK 1, ROBERTS' 2ND ADDITION, A DISTANCE OF 10.61 FEET TO THE NORTHWEST CORNER OF BLOCK 1, ROBERTS' 2ND ADDITION; THENCE S00°59'25"W, ON THE WEST LINE OF BLOCK 1, ROBERTS' 2ND ADDITION, A DISTANCE OF 147.00 FEET TO THE POINT OF BEGINNING, CONTAINING A COMPUTED AREA OF 2.03 ACRES MORE OR LESS.

I, JEREMY A. CHARLES, NEBRASKA PROFESSIONAL LAND SURVEYOR No. 618, DULY REGISTERED UNDER THE LAND SURVEYOR'S REGULATION ACT, DO HEREBY STATE THAT I HAVE PERFORMED A SURVEY OF THE LAND DEPICTED ON THE ACCOMPANYING PLAT; THIS IS A TRUE AND ACCURATE PLAT OF A SURVEY PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION. PERMANENT MARKERS HAVE BEEN FOUND OR SET AT ALL CORNERS AS SHOWN ON THE PLAT AND ARE DESCRIBED IN THE LEGEND. ALL BEARINGS SHOWN ON THE PLAT ARE ASSUMED AND WERE USED FOR DESCRIPTIVE PURPOSES ONLY, THEY SHOULD NOT BE RELIED ON TO DETERMINE CARDINAL DIRECTIONS. ALL DIMENSION ARE CHORD MEASUREMENTS AND ARE IN FEET AND DECIMALS OF A FOOT.

SIGNED THIS 1ST DAY OF MARCH, 2026.

JEREMY A. CHARLES L.S. 618

NEBRASKA PROFESSIONAL PLS-618 LAND SURVEYOR JEREMY A. CHARLES

- ⊠ PIN FOUND (5/8" REBAR UNLESS OTHERWISE NOTED)
- ● PIN SET (5/8" x 24" REBAR W/CAP)
- ⚠ TEMPORARY POINT
- M = MEASURED DISTANCE
- R = RECORDED DISTANCE
- P = PLAT DISTANCE

REGISTER OF DEEDS RECORDING STAMP

CHARLES SURVEYING LLC.
JEREMY A. CHARLES
21 N. 3RD CIRCLE
MEAD NE 68041
(402) 443-6955

FINAL PLAT	scale: 1"=50'
	date: 3/01/2026
	drawn by: JC
ROBERTS' 2ND ADD. REPLAT	field wk: JC/CB
	sheet: 1 of 1

Outlook

FW: Auto Invaders LLC Dealership Lot and Office 130 Lot 7-8 BLK 36 Renderings

From Travis Beavers <beavers@wahoo.ne.us>
Date Tue 5/26/2026 2:05 PM
To Christina Fasel <fasel@wahoo.ne.us>

From: Dennon Hladik <dennonhladik@gmail.com>
Sent: Tuesday, May 26, 2026 1:47 PM
To: Travis Beavers <beavers@wahoo.ne.us>
Subject: Re: Auto Invaders LLC Dealership Lot and Office 130 Lot 7-8 BLK 36 Renderings

Good afternoon Travis,
Here is an updated image, the exact structure of where the cars mainly will face is still undecided.
The sign will NOT be in this location, but this is the rough idea.

On Wed, Mar 18, 2026 at 10:30 PM Dennon Hladik <dennonhladik@gmail.com> wrote:

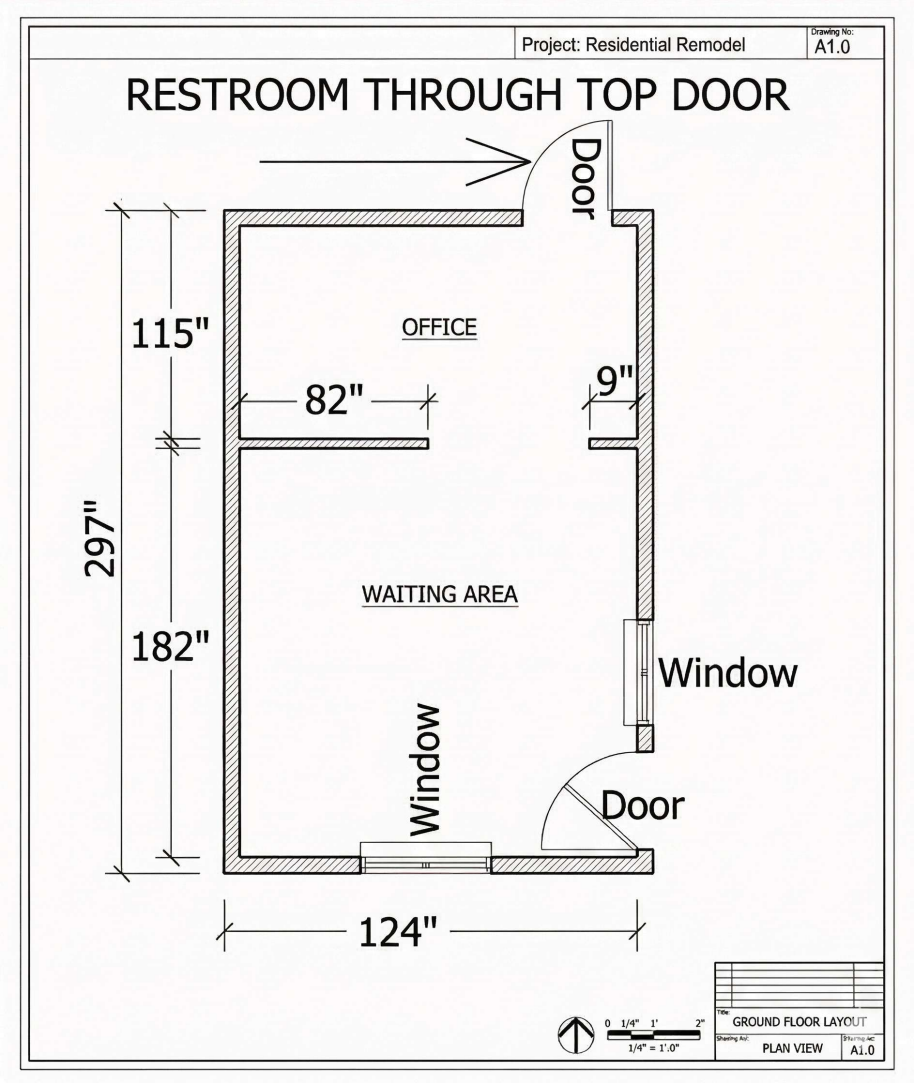
> Good morning Travis,
>
> Attached are some renderings of the proposed plan for the lot.

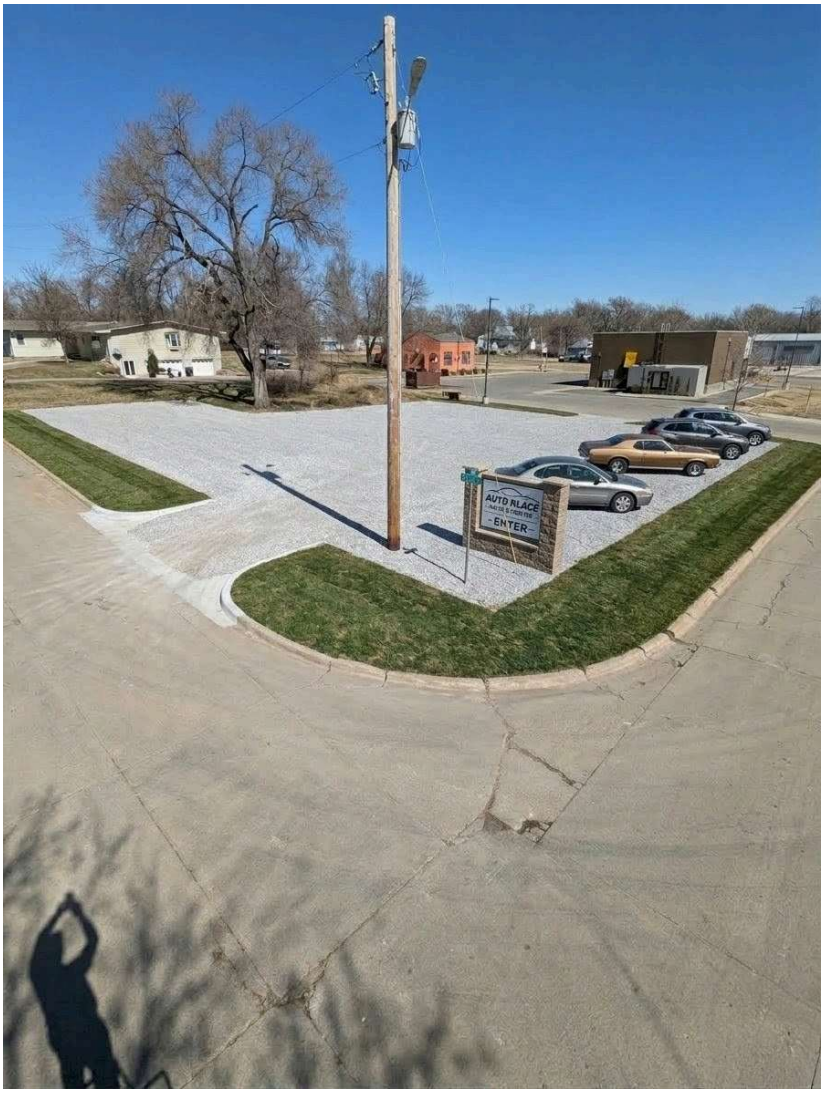
The concrete slab is 24' by 21' in dimension. We will clean up the concrete, caulk any cracks, and paint the handicap lines as required. Regarding the signage, the sign will resemble the attached image, though the specific wording will vary.
I have also attached images of the office location and the internal layout.

Please let me know if you have any questions or need further details.

Best regards,

Dennon Hladik


Project: Residential Remodel
Drawing No: A1.0
RESTROOM THROUGH TOP DOOR
Door
115"
OFFICE
82"
9"
297"
WAITING AREA
182"
Window
Window
Door
124"
0 1/4" 1' 2"
1/4" = 1'-0"
Title: GROUND FLOOR LAYOUT
Sheeting Act: PLAN VIEW
Drawing No: A1.0


AUTO PLACE
ENTER

CITY OF WAHOO
APPLICATION FOR CONDITIONAL USE PERMIT

Name: Demon J Hladik

Address or Location: Lots 7-8 Block # 36 South Wahoo Addition (Behind Runza) with office at 130 S Walnut St, Wahoo, NE, 68066

Current zoning of property NRC

Under the provisions of Article 6 of the City of Wahoo Zoning Regulations, the undersigned hereby applies for a Conditional Use Permit to Run a Used car dealer ship

on the property described as: Lot 7-8 Block 36

Proposed development of the property is shown on plans attached hereto. Type and proposed use is as follows:
Grading & crushed concrete with an approved dealership signage

This application authorizes representatives of the City of Wahoo to enter the above property for purposes of inspection, examination, and investigation related to this application, and posting of signs as required by zoning regulations.

Date: 3/13/26

Signed _____ Applicant

Address: 654 w 16th St
Wahoo, NE, 68066

Phone: 531-248-7137

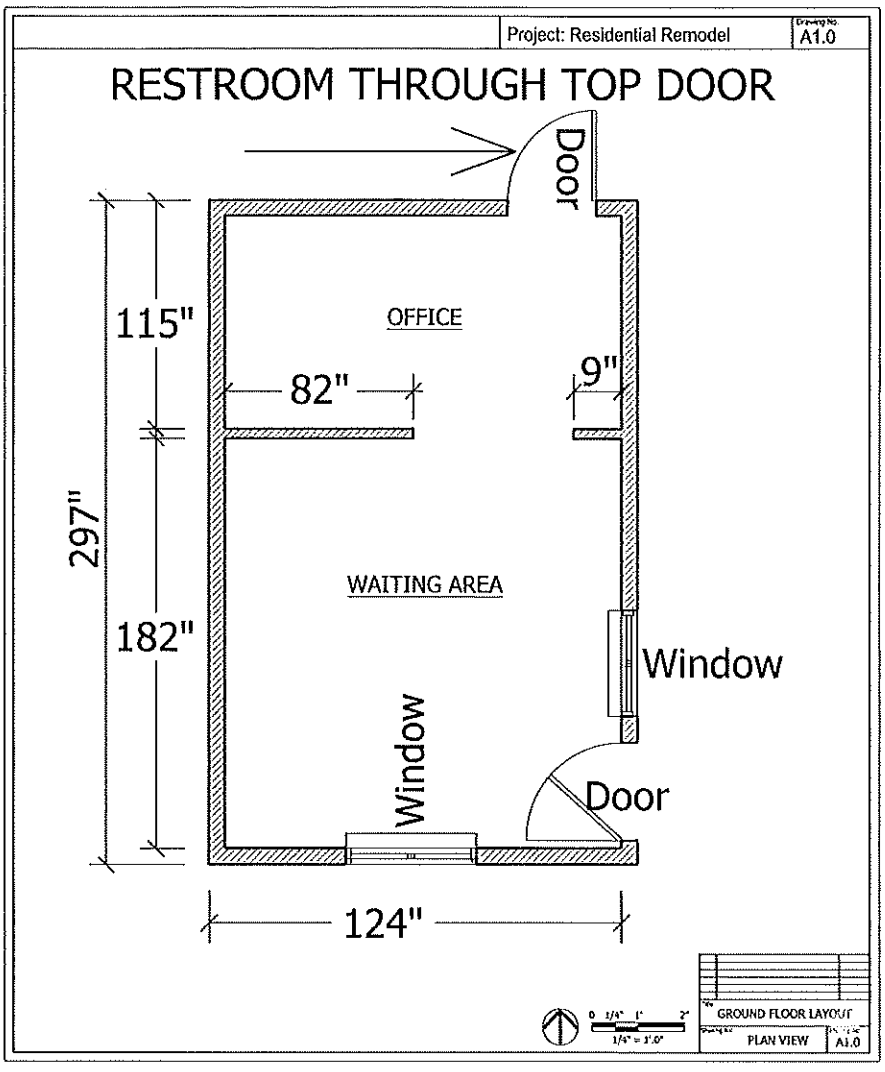
FEE: $ 250 Receipt # 31195

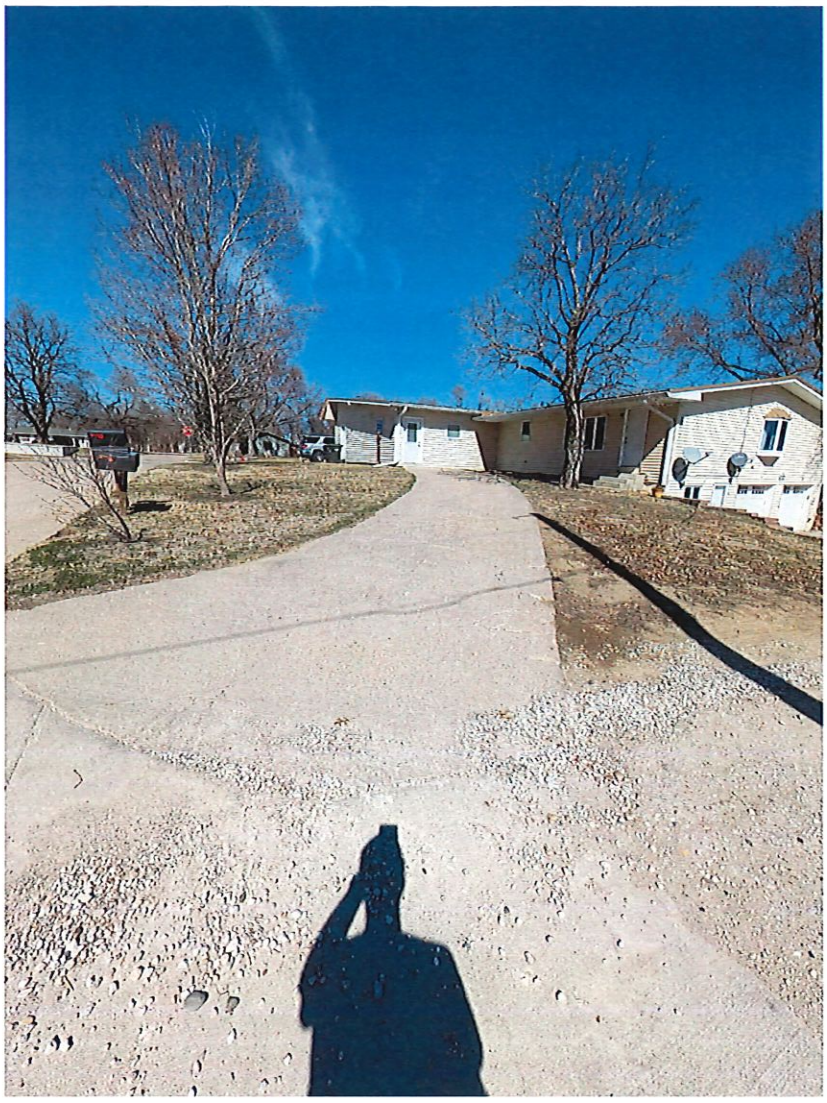
Publication fees will be billed to applicant

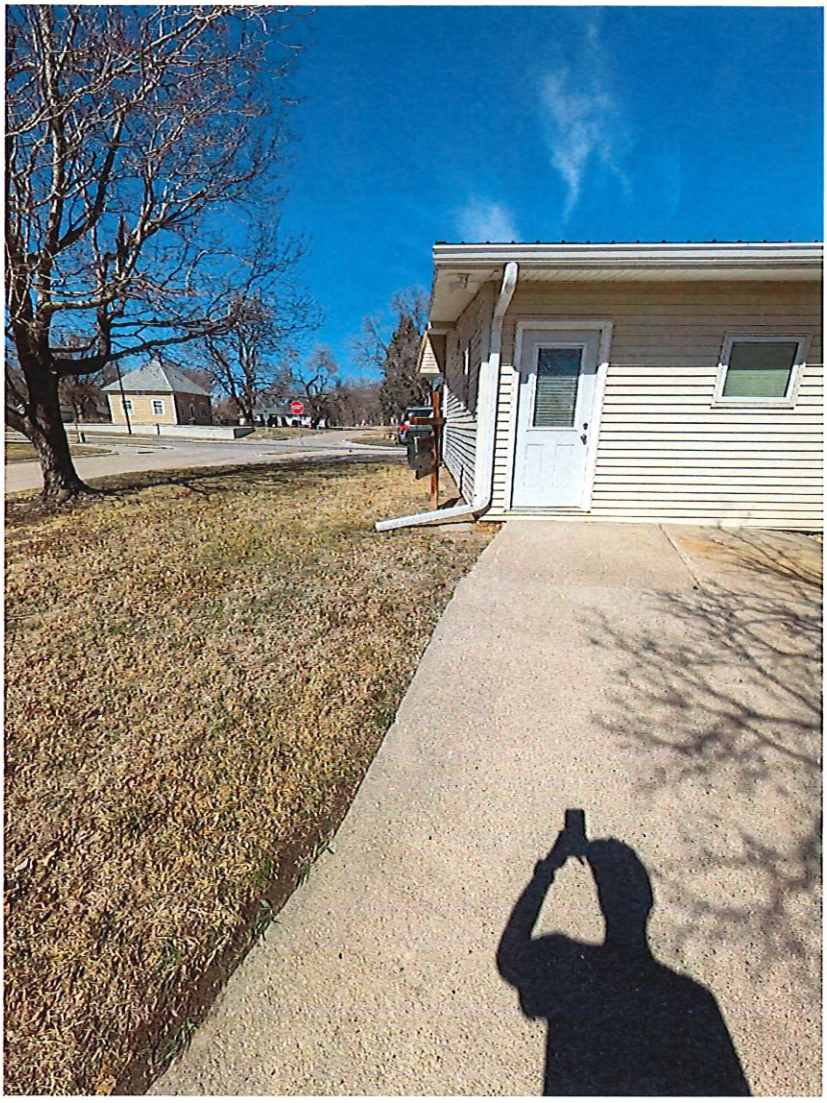
Date of Hearing (Planning Commission) May 7th, 2026. Approved ____ Denied ____

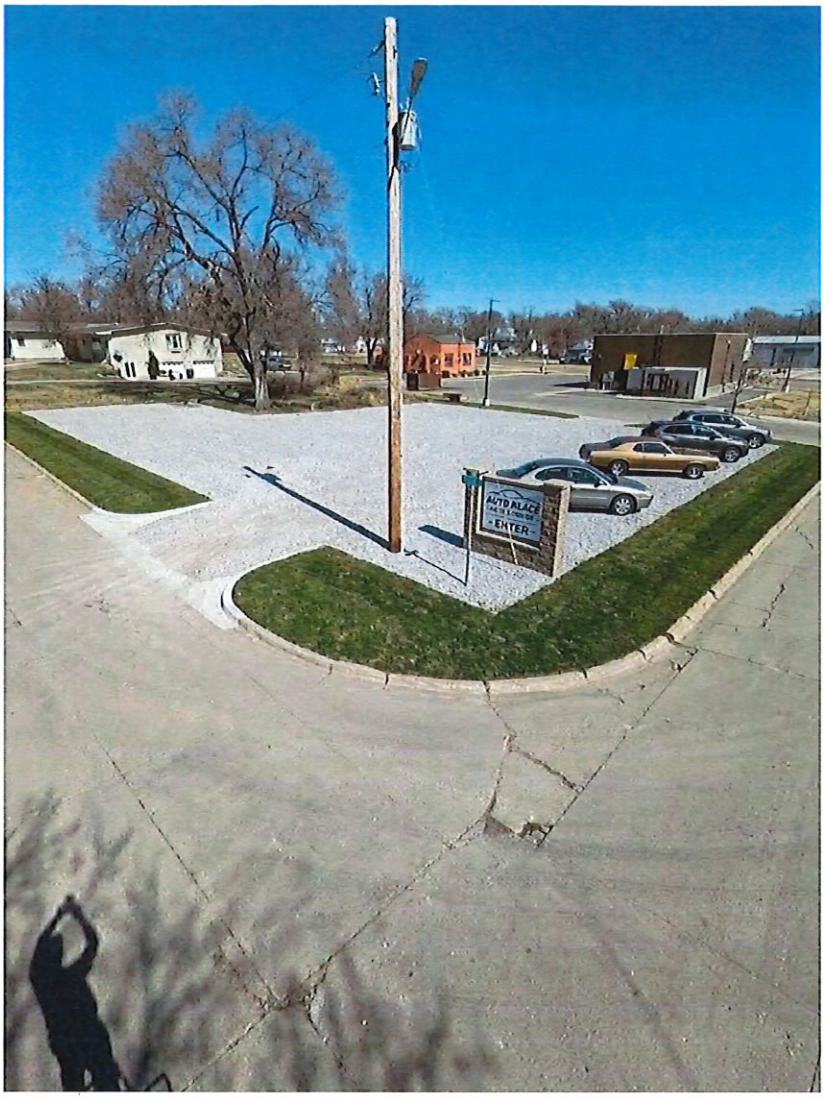
Date of Hearing (City Council) May 26th, 2026. Approved ____ Denied ____

_____
Zoning Administrator


Project: Residential Remodel
Drawing No.
A1.0
RESTROOM THROUGH TOP DOOR
Door
OFFICE
115"
82"
9"
297"
WAITING AREA
182"
Window
Window
Door
124"
GROUND FLOOR LAYOUT
PLAN VIEW
A1.0






AUTO PLACE
- ENTER -

ORDINANCE NO. 2500

AN ORDINANCE OF THE CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA, TO AMEND THE OFFICIAL ZONING MAP OF THE CITY OF WAHOO, NEBRASKA, PERTAINING TO THE FOLLOWING-DESCRIBED REAL ESTATE, TO WIT:

LOTS 7-8 BLOCK 36 SOUTH WAHOO ADDITION

BY ALLOWING THEREON A PERMITTED CONDITIONAL USE, THAT BEING ERECTION OF POLE SIGN, AND ESTABLISH CONDITIONS FOR SAID USE;TO PROVIDE THAT THE MAYOR AND THE APPROPRIATE DEPARTMENT, WHETHER ONE OR MORE OF THE CITY OF WAHOO, NEBRASKA, ARE AUTHORIZED AND DIRECTED TO IMPLEMENT THIS ORDINANCE; TO PROVIDE FOR THE SEVERABILITY OF ANY SECTION, CLAUSE, OR PROVISION OR PORTION FOUND UNCONSTITUTIONAL OR INVALID; TO PROVIDE FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT HEREWITH; TO PROVIDE FOR THE PUBLICATION OF THIS ORDINANCE IN PAMPHLET FORM AND THE EFFECTIVE DATE THEREOF; AND TO PROVIDE THAT THIS ORDINANCE SHALL NOT BE MADE A PART OF THE ZONING ORDINANCE OF THE CITY OF WAHOO, NEBRASKA.

WHEREAS , Jansa Rentals LLC is the owner of the following described real estate, commonly known as 130 S Walnut Street st to wit:

LOTS 7-8 BLOCK 36 SOUTH WAHOO ADDITION CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA

and,

WHEREAS, the Mayor and Council of the City of Wahoo, Nebraska, pursuant to Ordinance No. 1886, have adopted zoning for the City of Wahoo, Nebraska, said ordinance cited and known as the Wahoo Zoning Ordinance, and,

WHEREAS, said Wahoo Zoning Ordinance does provide for the Official Zoning Map of the City of Wahoo, Nebraska, and,

WHEREAS, said Wahoo Zoning Ordinance does provide for various zoning districts within the City of Wahoo, Nebraska, and its extraterritorial jurisdiction, and,

WHEREAS, said Official Zoning Map does indicate that the above-described real estate is zoned NRC – Neighborhood Residential Commercial, and,

WHEREAS, Damon J Haldik, on behalf of Jansa Rentals LLC, has requested, in writing, that the Mayor and Council of the City of Wahoo, Nebraska, amend the Official Zoning Map of the City of Wahoo, Nebraska, to allow upon the above-described real estate, as a Permitted Conditional Use, a car lot, and,

WHEREAS, said written request for a Permitted Conditional Use was submitted to the City of Wahoo Planning Commission, and,

WHEREAS, pursuant to Article 6, CONDITIONAL USE PERMIT, Section 6.3 of the Wahoo Zoning Ordinance, notice of said Application for Permitted Conditional Use was given as therein provided, and,

WHEREAS, said City of Wahoo Planning Commission held a public hearing on May 7, 2026, and did submit in writing its recommendations as to said Permitted Conditional Use, and,

WHEREAS, pursuant to Article 6, CONDITIONAL USE PERMIT, Section 6.5 of the Wahoo Zoning Ordinance, the Mayor and the Council of the City of Wahoo, Nebraska, did find that the proposed use of the above-described real estate, as aforenoted, was in compliance with the standards as noted in said section, and

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF WAHOO, NEBRASKA, AS FOLLOWS:

1. That the findings here and above made should be and are hereby made a part of this Ordinance as fully as if set out at length herein.

2. That the Official Zoning Map of the City of Wahoo, Nebraska, be amended, as to the following-described real estate, to wit:

   LOTS 7-8 BLOCK 36 SOUTH WAHOO ADDITION TO CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA,

   to allow, as a Permitted Conditional Use thereon, a car lot, subject to the following:

   a. Parking area for vehicles for sale will be kept back from the curb

   b. Grass will be maintained between curb and parking area

   c. Parking area for vehicles will be well maintained and kept weeds free.

3. That the Mayor and the appropriate Department, whether one or more, of the City of Wahoo, Nebraska, are hereby authorized and directed to implement this Ordinance.

4. That should any section, paragraph, sentence or word of this Ordinance hereby adopted be declared for any reason to be invalid, it is the intent of the Mayor and Council of the City of Wahoo, Nebraska, that it would have passed all other portions of this Ordinance independent of the elimination herefrom of any such portion as may be declared invalid.

5. That all Ordinances and parts of Ordinances passed and approved prior to the passage, approval, and publication of this Ordinance, in conflict herewith, are hereby repealed.

6. That this Ordinance shall be published in pamphlet form and shall be in full force and take effect from and after its passage and approval, provided it has been published, as aforenoted, within the first fifteen (15) days after its passage and approval.

7. That this Ordinance shall not be made a part of the Zoning Ordinance of the City of Wahoo, Nebraska.

PASSED AND APPROVED this 26th Day of May 2026.

CITY OF WAHOO, NEBRASKA

By: _____
Gerald D Johnson, Its Mayor

ATTEST:

_____
Christina Fasel, Its Clerk

(SEAL)

WAHOO
402.443.3222 | 608 N. Linden, Suite B, P.O. Box 398, Wahoo, NE, 68066 | wahoo.ne.us

Date: May 21, 2026

To: Mayor and Council

From: Christina Fasel, City Clerk

Re: Request for Reasonable Accommodation

I have received a request for reasonable accommodation from an individual requesting that he be allowed to have three chickens.

Municipal Code allows for individuals with a disability or handicap to request a reasonable accommodation to rules, standards or practices to eliminate regulatory barriers and provide a person with a disability or handicap with equal opportunity to use and enjoy a dwelling and/or otherwise receive services or participate in programs or activities provided by the City.

An application request shall include the applicants information, a statement from the applicant describing the basis for the claim that the individual is considered disabled or handicapped, a statement as to why the requested accommodation is financially, therapeutically, or otherwise necessary to afford a handicapped or disabled person equal opportunity to use and enjoy a dwelling and/or to otherwise receive services or participate in programs provided by the city, and documentation supporting the necessity for the accommodation.

The application that I have received includes the applicant's information and a letter from the applicant that asks for a variance to allow for the possession of three chickens that he already owns.

I would recommend not accepting this request as it is incomplete.

WAHOO

402.443.3222 | 608 N. Linden, Suite B, P.O. Box 398, Wahoo, NE, 68066 | wahoo.ne.us

Date: May 15, 2026

TO: Mayor and Council

FROM: Melissa Harrell, City Administrator

RE: Housing Rehab Loan – Subordination Agreement

I have received a request from the administrator of our Owner-Occupied Housing Rehab Loan program at SENDD for approval of a subordination agreement that would place our lien for the Housing Rehab Loan in a second position behind the primary lender. In the interests of protection of personal information, I am not providing the address or any details of the individual to you. I have sent all information to Jovan for his review and to address any liability or risk concerns in the documents.

When this individual received the Housing Rehab Loan, the loan amount was $24,999, and it was filed as a lien against the property for the following five years. Over time, this loan is forgiven, with 1/60th of the loan forgiven each month. Ownership and residency are required for five years for the loan to be completely forgiven. Currently this owner has approximately 25 months remaining on the lien, and provided they remain the owner/resident of the property during this time, the terms of the loan will be satisfied. They are seeking this approval to allow them to refinance their first lien against the property.

SENDD is recommending approval of this as am I. Please direct any questions you may have on this to me prior to the Council meeting. Again, to protect personal information I will not be sharing any additional information about the applicant.

ORDINANCE NO.2498

AN ORDINANCE OF THE CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA, TO AMEND TITLE XI: ADMINISTRATION OF THE WAHOO MUNICIPAL CODE BY THE AMENDMENT OF CHAPTER 95: PUBLIC WAYS AND PROPERTY, SECTION 95.100-95.112; TO PROVIDE THAT THE MAYOR AND THE APPROPRIATE DEPARTMENT, WHETHER ONE OR MORE, OF THE CITY OF WAHOO, NEBRASKA, ARE AUTHORIZED AND DIRECTED TO IMPLEMENT THIS ORDINANCE; TO PROVIDE FOR THE SEVERABILITY OF ANY SECTION, CLAUSE, OR PROVISION OR PORTION OF THIS ORDINANCE FOUND UNCONSTITUTIONAL OR INVALID; TO PROVIDE FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT HEREWITH; TO PROVIDE THAT THIS ORDINANCE SHALL BE PUBLISHED WITHIN THE FIRST FIFTEEN (15) DAYS AFTER ITS PASSAGE AND APPROVAL, IN PAMPHLET FORM, IN THE CITY OF WAHOO, NEBRASKA, AND SHALL BE IN FULL FORCE AND TAKE EFFECT FROM AND AFTER ITS PASSAGE, APPROVAL, AND PUBLICATION, AS PROVIDED BY LAW, AND AS PROVIDED HEREIN; AND THAT IT IS THE INTENTION OF THE MAYOR AND COUNCIL OF THE CITY OF WAHOO, NEBRASKA, AND IT IS HEREBY ORDAINED, THAT THE PROVISIONS OF THIS ORDINANCE SHALL BECOME AND BE MADE A PART OF WAHOO MUNICIPAL CODE, AND THE SECTIONS OF THIS ORDINANCE MAY BE RENUMBERED TO ACCOMPLISH SUCH INTENTION.

WHEREAS, on January 24, 2002, the Mayor and Council of the City of Wahoo, Nebraska, did adopt the Wahoo Municipal Code, and,

WHEREAS, the Mayor and Council of the City of Wahoo, Nebraska, deem it in the best interests of the citizens of the City of Wahoo, Nebraska, that the Wahoo Municipal Code be amended to provide changes to Business Regulations specifically relating to Professional Licenses,

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF WAHOO, NEBRASKA, as follows:

1. That the findings hereinabove should be and are hereby made a part of this Ordinance as fully as if set out at length herein.

2. That Chapter 95, Public Ways and Property, of Title IX, GENERAL REGULATIONS, of the Wahoo Municipal Code, shall be amended to provide changes, which shall read as follows:

EVENT PERMIT AND REGULATIONS FOR USE OF CITY STREETS

§ 95.100 DEFINITIONS.

Unless the context otherwise requires, the definitions of terms as used in this chapter shall be as follows:

EVENT. Any parade, march, ceremony, show, exhibition, pageant or procession of any kind, sponsored run or walk event, block party, or any similar display, in or upon any city street.

EVENT PERMIT. A permit as required by this chapter.

PERSON. Includes a firm, partnership, association or persons, corporation, organization or any other group acting as a unit, as well as an individual.

(Ord. 2047, passed 9-23-10)

§ 95.101 PERMIT REQUIRED.

No person shall engage in, participate in, aid, form or start any event, unless an event permit has been obtained from the City of Wahoo.
(Ord. 2047, passed 9-23-10)

§ 95.102 PERMIT APPLICATION; PROCEDURE FOR FILING.

Any person seeking issuance of an event permit shall file an application with the City Clerk on forms provided by the City of Wahoo.

(A) *Filing period*. An application for an event permit for all events except those described below shall be filed with the City Clerk not less than seven fourteen days before the date on which the event is proposed to be conducted:

(1) Not less than 14 days before the date of a sponsored walk or run event;

(2) Not less than 30 days for an event that requires a liquor license, security, or other approval by the City Council, as deemed necessary by the Chief of Police and Mayor of the City of Wahoo.

(B) *Contents*. The application for an event permit shall set forth the following information:

(1) The date when the event is to be conducted;

(2) The route to be traveled, the starting point and the termination point, or the location of the event;

(3) The hours when such event will start and terminate including set up, take down and the times of the actual event;

(4) The location of the event including route, pre and post staging areas, or areas to be blocked off from public use;

(5) The time at which units of the event will begin pre-event staging at any such area or areas;

(6) The location of streets or parking areas of any staging areas for such event;

(7) The approximate number of persons who attend the event and in the case of a parade, the type of animals and the description of the vehicles which will constitute such parade;

(8) Any additional information which the City Clerk shall find reasonably necessary to make a fair determination as to whether a permit should issue;

(9) The name, address and telephone number of the person who will be the event chairman and who will be responsible for its conduct;

(10) The name, address and telephone number of the person seeking to conduct such event, or if the event is proposed to be conducted for, on behalf of, or by an organization, the name, address and telephone number of the headquarters of the organization, and of the authorized and responsible heads of such organization;

(11) If the event is designed to be held by, and on behalf of or for, any person other than the applicant, the applicant for such permit shall file with the a communication in writing from the person proposing to hold the event, authorizing the applicant to apply for the permit on his behalf;

(C) *Late applications*. The City Clerk where good cause is shown therefore shall have the authority to consider any application under this chapter which is filed less than the dates described in division (A) before the date such event is proposed to be conducted.

(D) *Fee*. There shall be paid at the time of filing the application for an event permit a fee of $10 for a single day event, or a fee of $10 per day not to exceed $100 annually for events that span multiple days, excepting all events sponsored by the City of Wahoo.

(E) *Late Fee*. There shall be paid at the time of filing a late application a late fee of $10

(F) *Liability insurance*. All applicants shall present a certificate of insurance, covering the City of Wahoo as an additional insured. A statement of pending coverage shall be presented with the

application. The certificate may be presented after approval of a permit is given but must be presented prior to the event. If the certificate is not presented, the Chief of Police shall revoke the permit and the event shall be cancelled. The following limits are required:

General Aggregate	$1,000,000
Bodily Injury/Property Damage	$1,000,000 each occurrence
Personal Injury Damage	$1,000,000 each occurrence
Contractual Liability	$1,000,000 each occurrence
Products Liability & Completed Operations	$1,000,000 each occurrence
Fire Damage	$100,000 any one fire
Medical Expense	$5,000 any one person

(Ord. 2047, passed 9-23-10)

§ 95.103 PERMIT APPLICATION STANDARDS.

The City Clerk shall issue a permit as provided for under this chapter when, from a consideration of the application and from such other information as may otherwise be obtained, he finds that:

(A) The conduct of the event will not substantially interrupt the safe and orderly movement of other traffic contiguous to its route;

(B) The conduct of the event will not require the diversion of so great a number of police officers of the city to properly police the line of movement and the areas contiguous thereto as to prevent normal police protection to the city;

(C) The conduct of such event will not require the diversion of so great a number of ambulances as to prevent normal ambulance service to portions of the city other than that to be occupied by the proposed line of march and areas contiguous thereto;

(D) The concentration of persons, animals and vehicles at the event or at the assembly points of the event (in the case of a parade) will not unduly interfere with proper fire and police protection of, or ambulance service to, areas contiguous to such assembly areas;

(E) The conduct of such event will not interfere with the movement of firefighting equipment in route to a fire;

(F) The conduct of the event is not reasonably likely to cause injury to persons or property, to provoke disorderly conduct or create a disturbance;

(G) The event is scheduled appropriately, with substantial time for set up, take down, and staging;

(H) The event is not to be held for the sole purpose of advertising any product, goods, or event, and is not designed to be held purely for private profit.

(Ord. 2047, passed 9-23-10)

§ 95.104 PERMIT APPLICATION NOTICE OF REJECTION.

The City Clerk shall act upon the application for an event permit within reasonable time after the filing thereof.

(Ord. 2047, passed 9-23-10)

§ 95.105 PERMIT APPLICATION; NOTICE TO CITY AND OTHER OFFICIALS.

Immediately upon the issuance of an event permit, the City Clerk shall send a copy thereof to the following:

(A) Mayor;
(B) City Administrator;
(C) Street Supervisor;
(D) Fire Chief; and
(E) Parks and Recreation Director.
(Ord. 2047, passed 9-23-10)

§ 95.106 PERMIT APPLICATION APPROVAL.

An application shall be considered approved after the City Clerk has signed the area designated for approval on the application. However, ~~if~~ permit applications for events that will span multiple days must be approved~~approval of a permit requires consideration~~ by the Mayor and Council. T~~t~~he application shall be considered approved only after action has been taken by the Council to approve the request, and the application has been signed by the Mayor.
(Ord. 2047, passed 9-23-10)

§ 95.107 PERMIT REVOCATION.

The City Administrator or Chief of Police shall have the authority to revoke an event permit issued under this chapter upon application of the standards for issuance as set forth in this chapter.
(Ord. 2047, passed 9-23-10)

§ 95.108 APPEAL PROCEDURE.

Any person aggrieved shall have the right to appeal the denial of an event permit to the City Council. The appeal must be filed within ten days after receipt of a notice of denial.
(Ord. 2047, passed 9-23-10)

§ 95.109 ALTERNATIVE PERMIT.

The City Clerk and/or Mayor and City Council, in denying an application for an event permit, shall be empowered to authorize the conduct of the event on a date, at a time, or over a route different from that named by the applicant. An applicant desiring to accept an alternate permit shall, within ten days after notice of the action of the City Clerk and/or Mayor and City Council~~,~~ file a written notice of acceptance with the City Clerk. An alternate event permit shall conform to the requirements of and shall have the effect of an event permit under this chapter.
(Ord. 2047, passed 9-23-10)

§ 95.110 DUTIES OF PERMITTEE.

A permittee under this chapter shall comply with all permit directions and conditions and with all applicable laws and ordinances.
(Ord. 2047, passed 9-23-10)

§ 95.111 PUBLIC CONDUCT DURING EVENTS.

Provisions relating to the conduct of the public during an event shall be as follows:

(A) *Interference*. No person shall unreasonably hamper, obstruct, or impede, or interfere with any event or event assembly or with any person, vehicle or animal participating or used in an event.

(B) *Driving through events*. No driver of a vehicle, street or trackless trolley shall drive between the vehicles or persons comprising an event when such vehicles or persons are in motion and are conspicuously designated as an event, such as a parade.

(C) *Parking on route*. The Chief of Police shall have the authority, when reasonably necessary, to prohibit or restrict the parking of vehicles along a highway or part thereof constituting a part of the

route or location of an event. The Chief of Police shall post signs to such effect, and it is unlawful for any person to park or leave unattended any vehicle in violation thereof. No person shall be liable for parking on a street unposted in violation of this chapter.

(Ord. 2047, passed 9-23-10)

§ 95.112 EXCEPTIONS.

This chapter shall not apply to:

(A) Funeral processions;

(B) Students going to and from school classes or participating in educational activities; provided that such conduct is under the immediate direction and supervision of the proper school authorities;

(C) A governmental agency acting within the scope of its functions.

(Ord. 2047, passed 9-23-10)

3. That the Mayor and the appropriate Department, whether one or more of the City of Wahoo, Nebraska, are hereby authorized and directed to implement this Ordinance.

4. That should any section, paragraph, sentence, or word of this Ordinance hereby adopted be declared for any reason be invalid, it is the intent of Mayor and Council of the City of Wahoo, Nebraska, that it would have passed all other portions of this Ordinance independent of the elimination herefrom of any such portion as may be declared invalid.

5. That all ordinances or parts of ordinances passed and approved prior to the passage, approval, and publication of this Ordinance and in conflict herewith, are hereby repealed.

6. That this Ordinance shall be published within the first fifteen (15) days after its passage and approval in pamphlet form within the City of Wahoo, Nebraska, and shall be effective on the fifteenth (15th) day from and after its passage and approval as provided by law.

7. That the provisions of this Ordinance shall become and be made a part of the Wahoo Municipal Code and the sections of this Ordinance may be renumbered to accomplish such intention.

PASSED AND APPROVED this 12- day of May, 2026

CITY OF WAHOO, NEBRASKA

By: _____
Gerald D. Johnson, Its Mayor

ATTEST:

_____
Christina Fasel, Its Clerk
(SEAL)

ORDINANCE NO. 2501

AN ORDINANCE OF THE CITY OF WAHOO, SAUNDERS COUNTY, NEBRASKA, TO APPROVE AN ORDINANCE PROHIBIT INDIVIDUALS WHO HAVE A BEEN COVICTED AS A SEXUAL OFFENDER FROM LIVING WITHIN 500 FEET OF A SCHOOL OF CHILD CARE FACILITY WITHIN THE CORPORATE LIMITS OF THE CITY OF WAHOO UNDER TERMS SPECIFICIED HEREIN; TO PROVIDE THAT THE MAYOR AND THE APPROPRIATE DEPARTMENT, WHETHER ONE OR MORE, OF THE CITY OF WAHOO, NEBRASKA, ARE AUTHORIZED AND DIRECTED TO IMPLEMENT THIS ORDINANCE; TO PROVIDE FOR THE SEVERABILITY OF ANY SECTION, CLAUSE, OR PROVISION OR PORTION OF THIS ORDINANCE FOUND UNCONSTITUTIONAL OR INVALID; TO PROVIDE FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT HEREWITH; TO PROVIDE THAT THIS ORDINANCE SHALL BE PUBLISHED WITHIN THE FIRST FIFTEEN (15) DAYS AFTER ITS PASSAGE AND APPROVAL IN PAMPHLET FORM, AND SHALL BE IN FULL FORCE AND TAKE EFFECT FROM AND AFTER ITS PASSAGE AND APPROVAL, AS PROVIDED BY LAW, AND AS PROVIDED HEREIN; AND THAT IT IS THE INTENTION OF THE MAYOR AND COUNCIL OF THE CITY OF WAHOO, NEBRASKA, AND IT IS HEREBY ORDAINED, THAT THE PROVISIONS OF THIS ORDINANCE SHALL NOT BECOME AND BE MADE A PART OF THE WAHOO MUNICIPAL CODE OF THE CITY OF WAHOO, NEBRASKA.

WHEREAS, a number of citizens of the City of Wahoo, Nebraska, have requested the City to adopt regulations prohibition of individuals who have been convicted as a sexual offender from living withing 500 feet of a school or child care facility within the corporate limits of the City of Wahoo, Nebraska, and,

WHEREAS, Neb. Rev. Stat. § 29-4017 gives cities the authority to adopt ordinances relating to regulate individuals who have a history of child sexual abuse convictions from living withing 500 feet of a school or child care facility within the corporate limits, and,

WHERAS, the Mayor and Council of the City of Wahoo, Nebraska, deem the adoption of this Ordinance to be in the best interests of the citizens of the City of Wahoo, Nebraska, and,

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF WAHOO, NEBRASKA, AS FOLLOWS:

1. That the findings herein above made should be and are hereby made a part of this Ordinance as fully as if set out at length herein.

2. That Title XIII: GENERAL OFFENCES Code; Chapter 130 GENERAL OFFENSES; Section 130.07-130.10 shall read as follows:

§ 130.07 FINDINGS AND INTENT RESTRICTIONS REGARDING SEX OFFENDERS

A. The Nebraska Legislature has found that certain sex offenders present a high risk to commit repeat offenses and has enabled municipalities to restrict such persons' place of residency as provided in the Sexual Predator Residency Restriction Act, being Neb. RS 29-4015 et seq.

§ 130.08 DEFINITIONS

A. The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:
Child care facility shall mean a facility licensed pursuant to the child care licensing act of the State of Nebraska.
Reside shall mean to sleep, live, or dwell at a place, which may include more than one location, and may be mobile or transitory.
Residence shall mean a place where an individual sleeps, lives or dwells, which may include more than one location, and may be mobile or transitory.
School shall mean a public, private, denominational, or parochial school which meets the requirements for state accreditation or approval.
Sex offender shall mean an individual who has been convicted of a crime listed un-der Neb. Rev. Stat. §29-4003 and who is required to register as a sex offender pur-suant to the Sex Offender Registration Act, Neb. Rev. Stat. §29-4001 to §29-4713, inclusive, or any amendments thereto.

§ 130.09 RESIDENCY RESTRICTIONS

A. It is unlawful for any sex offender to reside within 500 feet from a school or child care facility. For purposes of determining the minimum distance separation, the require-ment shall be measured by following a straight line from the outer property line of the residence to the nearest outer property line of the school or child care facility.

§ 130.10 RESIDENCY RESTRICTIONS

A. This article shall not apply to a sex offender who:
    1. Resides within a prison or correctional or treatment facility;
    2. Established a residence before July 1, 2006, and has not moved from that residence; or
    3. Established a residence after July 1, 2006, and the school or child care fa-cility triggering the restriction was established after the initial date of the sexual pred-ator's residence at that location.

3. That the Mayor and the appropriate department, whether one or more of the City of Wahoo, Nebraska, are hereby authorized and directed to implement this Ordinance, to include, but not be limited to, the filing of a certified copy of this Ordinance with the Saunders County Register of Deeds.

4. That should any section, paragraph, sentence, or word of this Ordinance hereby adopted be declared for any reason be invalid, it is the intent of the Mayor and Council of the City of Wahoo, Nebraska, that it would have passed all other portions of this Ordinance independent of the elimination herefrom of any such portion as may be declared invalid.

5. That all Ordinances or parts of Ordinances passed and approved prior to the passage, approval and publication of this Ordinance and in conflict herewith, are hereby repealed.

6. That this Ordinance shall be published within the first fifteen days after its passage and approval, in pamphlet form, and shall be in full force and be effective on June 1, 2023, from and after its passage and approval, and publication, as provided herein.

7. That it is the intention of the Council and Mayor of the City of Wahoo, and it is hereby ordained that the provisions of this Ordinance shall become and be made a part of the Wahoo Municipal Code of the City of Wahoo, Nebraska, and the sections of this Ordinance may be renumbered to accomplish such intention.

PASSED AND APPROVED this ____ day of _____.

CITY OF WAHOO, NEBRASKA

BY: _____
Gerald D. Johnson, Its Mayor

ATTEST:

_____
Christina Fasel, Its Clerk
(SEAL)

1st reading:
2nd reading:
3rd reading:

RESOLUTION NO. _____

BE IT RESOLVED by the Mayor and Council of the City of Wahoo, Nebraska, as follows:

Section 1. The Mayor and Council hereby find and determine that it is necessary and appropriate to declare an official intent to issue tax-exempt bond anticipation notes or bonds by the City and, in addition, the City's reasonable expectations to reimburse certain expenditures with the proceeds of such notes or bonds as proposed to be issued by the City in connection with the construction of electric, water and natural gas improvements related to the West Utility Corridor project (the "Project"), now being or to be constructed in and for the City of Wahoo, Nebraska; together with engineering, legal, financing and other related project costs.

Section 2. This resolution shall stand as a statement of the official intent of the City under Regulation Section 1.150-2 and for such purpose the following information is hereby given:

(a) A general functional description of the project for which expenditures may be made and reimbursement from tax-exempt bond anticipation notes or bond proceeds provided is the construction of electric, water and natural gas improvements related to the West Utility Corridor project, now being or to be constructed in the City of Wahoo, Nebraska, all as set out in Section 1 herein.

(b) The principal amount of notes or bonds expected to be issued by the City for that portion of improvements pertaining to this reimbursement resolution is estimated to be an amount not to exceed $3,500,000.

PASSED AND APPROVED this 26th day of May, 2026.

ATTEST: _____
Mayor

_____
City Clerk

[SEAL]

WAHOO Bid Tab Sheet

DATE May 21, 2026 at 2 p.m.

PROJECT City Hall Asbestos Abatement

LOCATION 605 N Broadway, Wahoo NE 68066

Contractor	Bond	Insurance	License	Total Bid	Deduct	Bid w/ deduct
Jamco	5%	x	x	67,310.00	2,450.00	64,860.00
Bockman Inc	5%	x	x	69,425.00	6,200.00	63,225.00
ESA						
ESI						
AAC Remediation	5%	x	x	80,340.00	6,600.00	73,740.00
McGill	Ck 5,000	x	x	87,000.00	2,000.00	85,000.00
GPAC	5%	x	x	118,480.00	11,200.00	107,280.00

QUOTE SUBMITTAL (Due by 2:00 p.m., Thursday, May 21, 2026) (distributed in Addendum 2)

Scope of the Work: 1.1. Removal of asbestos laden materials from the building at 605 North Broadway, Wahoo, Nebraska

Work to be completed no later than September 8, 2026.

Quoted Price for removal $ 67,310.00

Deduct from Bid for removal of items by the City (Owner) prior to Contractor's work beginning

$ 2,450.00

Name of individual from your company who attended pre-bidding meeting: Matt Timmerman

Acknowledgement of Receipt of Addendum 1 (5/4/2026): MT (initial)
Acknowledgement of Receipt of Addendum 2 (5/17/2026): MT (initial)

The undersigned, if awarded the contract, hereby agrees to commence the work according to the terms in the "Asbestos Removal Quote Information".

COMPANY: Jamco Abatement Services Inc

ADDRESS: 460 Lakehurst Dr Waterloo, NE 68069

CONTACT NAME and TITLE: Matt Timmerman President

CONTACT PHONE: 402-578-4804

SIGNATURE: _____ DATE: 5/20/2026

Must also provide:

- ☐ Evidence of licensing with the State of Nebraska
- ☐ Certificate of Liability Insurance
- ☐ Bid Bond
- ☐ Performance Bond

Acceptance of proposal by the City of Wahoo:

_____ _____

Gerald D. Johnson, Mayor DATE

ATTEST: _____

Christina Fasel, City Clerk

WAHOO
402.443.3222 | 608 N. Linden, Suite B, P.O. Box 398, Wahoo, NE, 68066 | wahoo.ne.us

ASBESTOS REMOVAL QUOTE INFORMATION

For CITY OF WAHOO, at 605 N BROADWAY, WAHOO, NEBRASKA

ADDENDUM 2:

1. CLARIFICATION OF ASBESTOS TO BE REMOVED

The asbestos to be removed from the structure shall include any building materials which include (>1%) asbestos, which are identified in the "Asbestos Survey" report prepared by Bockmann, Inc. in November 2021 on pages 5 and 6.

2. CLARIFICATION OF DEMOLITION

The demolition to be included in the work should only include the demolition needed to satisfactorily remove asbestos. Future remodeling of this facility anticipates full removal of ceilings and replacement of HVAC vents and ductwork, but unless needed for removal of asbestos, these items are not necessary to remove.

3. CARPETING REMOVAL

Prior to the Contractor beginning work, the City (Owner) will remove all carpeting from the portion of the building located north of the restrooms on the main floor of the building. The flooring in this area does not contain any asbestos materials but it is understood that removal of the carpet prior to the asbestos abatement will assist the Contractor in cleaning the containment space.

4. BID DEDUCT ITEM

The City is requesting a deduct bid amount that would reflect savings to the City that could be deducted from the original bid IF the following items were removed prior to the Contractor beginning the asbestos removal process:

1. All walls that currently do not reach the ceiling located in the portion of the building north of the restrooms on the main floor of the building
2. Elevated floor and counter space located in the portion of the building north of the restrooms on the main floor of the building

This area was reviewed and clarified with all in attendance at the pre-bid meeting.

5. INDEPENDENT THIRD-PARTY CLEARANCE INSPECTION

The City of Wahoo (Owner) will contract and pay for the initial final visual and air sampling clearance inspection for each containment area, limited to a maximum of three (3) containment areas. If the Contractor utilizes more than three containment areas OR any clearance inspection fails, the Contractor shall be responsible for the cost of the initial testing for any more than three containment areas and shall be responsible for the cost of any re-testing where the clearance inspection failed.

WAHOO
402.443.3222 | 608 N. Linden, Suite B, P.O. Box 398, Wahoo, NE, 68066 | wahoo.ne.us

ASBESTOS REMOVAL QUOTE INFORMATION

For CITY OF WAHOO, at 605 N BROADWAY, WAHOO, NEBRASKA

ADDENDUM 2:

1. CLARIFICATION OF ASBESTOS TO BE REMOVED

The asbestos to be removed from the structure shall include any building materials which include (>1%) asbestos, which are identified in the "Asbestos Survey" report prepared by Bockmann, Inc. in November 2021 on pages 5 and 6.

2. CLARIFICATION OF DEMOLITION

The demolition to be included in the work should only include the demolition needed to satisfactorily remove asbestos. Future remodeling of this facility anticipates full removal of ceilings and replacement of HVAC vents and ductwork, but unless needed for removal of asbestos, these items are not necessary to remove.

3. CARPETING REMOVAL

Prior to the Contractor beginning work, the City (Owner) will remove all carpeting from the portion of the building located north of the restrooms on the main floor of the building. The flooring in this area does not contain any asbestos materials but it is understood that removal of the carpet prior to the asbestos abatement will assist the Contractor in cleaning the containment space.

4. BID DEDUCT ITEM

The City is requesting a deduct bid amount that would reflect savings to the City that could be deducted from the original bid IF the following items were removed prior to the Contractor beginning the asbestos removal process:

1. All walls that currently do not reach the ceiling located in the portion of the building north of the restrooms on the main floor of the building
2. Elevated floor and counter space located in the portion of the building north of the restrooms on the main floor of the building

This area was reviewed and clarified with all in attendance at the pre-bid meeting.

5. INDEPENDENT THIRD-PARTY CLEARANCE INSPECTION

The City of Wahoo (Owner) will contract and pay for the initial final visual and air sampling clearance inspection for each containment area, limited to a maximum of three (3) containment areas. If the Contractor utilizes more than three containment areas OR any clearance inspection fails, the Contractor shall be responsible for the cost of the initial testing for any more than three containment areas and shall be responsible for the cost of any re-testing where the clearance inspection failed.

6. CONTRACT AND INSURANCE – AMENDMENT FOR ADDITIONAL INSURED LANGUAGE

6.1 Contract Terms

6.1.1 The "Asbestos Removal Quote Information" will serve as the terms of the contract. To this end, the terms of the Quote Submittal shall supersede all other documents and agreements between the parties.

6.2 Contract Agreement

6.2.1 Submitting a completed and signed "Quote Submittal" form will serve as the agreement for the contract for the awarded contractor.

6.3 Insurance Required

6.3.1 Contractors must submit a copy of their certificate of liability insurance carrying a minimum of $1,000,000.00 of liability insurance and workers' compensation insurance.

6.3.2 Insurance policy shall not exclude the work to be completed in this contract.

6.3.3 The City of Wahoo shall be listed as an additional insured on the contractor's insurance.

7. START DATE, COMPLETION DATE, AND DELAYS (Amendment to language changed in Addendum 1)

8.1 Start Date

8.1.1 The awarded contractor will be advised following Council approval (expected May 26, 2026) and may start the work **after July 1, 2026**.

8.1.2 The contractor shall advise the City 48- hours prior to their intended start time.

8.2 Completion Date

8.2.1 The entire scope of this project shall be completed by September 8, 2026. Completion date may be extended by the City Administrator.

8.3 Delays

8.3.1 With a written request from the contractor, the City Administrator may grant extensions for the completion date, if unsuitable weather or any force majeure should halt progress during the demolition period.

8. PAYMENT– AMENDMENT TO ORIGINAL CONTRACT

9.1 Payment

9.1.1 The contractor will be paid in one lump sum when the scope of the work is completed in accordance with all items under Section Three (3) - Work Requirements for the Contractor; and the required inspections have been completed, and the third-party clearance report has been received and approved by the Wahoo City Council. As an alternative, the Contractor may submit ONE request for Progress Payment, followed by a Final Payment request at completion of the work, for approval and payment. Retainage of no more than 20% will be withheld which will be released to the Contractor in the Final Payment following final acceptance of all work and third-party clearance.

9. BID BOND AND PERFORMANCE BOND – AMENDMENT TO ORIGINAL CONTRACT

12.1 Bid Bond

12.1.1 A Bid must be accompanied by Bid security made payable to Owner in an amount of five percent (5%) of Bidder's maximum Bid price and in the form of a Bid bond issued by a surety company, or in the form of a certified check. Such Bid bond must be included in the Bid

proposal. The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider the Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of damages-form bond.

12.2 Performance Bond

12.2.1 Contractors shall furnish a performance bond, in an amount at least equal to the Contract Price, as security for the faithful performance of Contractor's obligations under the Contract. This bond must remain in effect until one year after the date when final payment becomes due or until completion of the correction period, whichever is later. This bond must be submitted to the Owner prior the execution of the Contract. Contractor shall obtain the required bond from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the project is located, to issue bonds in the required amounts.

State of Nebraska

Department of Health and Human Services
Division of Public Health

Jamco Abatement Services, Inc.

Matthew Timmerman, President

460 Lakehurst Dr, Waterloo, NE

Asbestos Business Entity

License #: BEL-362 **Expiration:** 02/05/2027

Status: Active

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/25/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER INSPRO, a Marsh & McLennan Agency LLC, Company 4000 Pine Lake Road Lincoln NE 68506	**CONTACT NAME:** Marcia M. Fidler, CIC, CISR **PHONE (A/C, No, Ext):** 402 829-4841 **FAX (A/C, No):** **E-MAIL ADDRESS:** Marcia.Fidler@MarshMMA.com
INSURED JAMCOABATE Jamco Abatement Services, Inc. 460 Lakehurst Dr. Waterloo NE 68069	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** INSURER A : ARCH SPECIALTY INSURANCE COMPA — 21199 INSURER B : AMERICAN INTERSTATE INSURANCE — 31895 INSURER C : CINCINNATI INSURANCE COMPANY — 10677 INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 474700961 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:			12EMP0552310	3/1/2026	3/1/2027	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
C	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY			ENP 0739288	3/1/2026	3/1/2027	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
A	**UMBRELLA LIAB** OCCUR X **EXCESS LIAB** X CLAIMS-MADE DED RETENTION $			12EMX0552410	3/1/2026	3/1/2027	EACH OCCURRENCE AGGREGATE $	$ 2,000,000 $ 2,000,000 $
B	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N / N/A **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below			SVWCNE3348752026	3/1/2026	3/1/2027	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
A A C	Professional Pollution Installation Floater			12EMP0552310 12EMP0552310 ENP 0739288	3/1/2026 3/1/2026 3/1/2026	3/1/2027 3/1/2027 3/1/2027		1,000,000 1,000,000 50,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Blue Team Holdings LLC is listed as Additional Insured with respect to General Liability, Auto and Umbrella as required by written agreement. Waiver of Subrogation applies for General Liability and Workers Compensation. General Liability is primary and non-contributory.

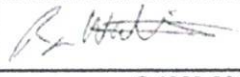
CERTIFICATE HOLDER

Jamco Abatement Services Inc
460 Lakehurst Dr
Waterloo, NE 68069

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



AIA Document A310™ – 2010

Bid Bond

CONTRACTOR:
(Name, legal status and address)
Jamco Abatement Services, Inc.
460 Lakehurst Dr.
Waterloo, NE 68069

SURETY:
(Name, legal status and principal place of business)
Nationwide Mutual Insurance Company
1100 Locust St, Dept. 2006
Des Moines, IA 50391

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)
City of Wahoo
608 N. Linden, Suite B
Wahoo, NE 68066

BOND AMOUNT: Five Percent of the Bid Submitted (5%)

PROJECT:
(Name, location or address, and Project number, if any)
Asbestos Removal for City of Wahoo at 605 N Broadway, Wahoo, Nebraska

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 21st day of May, 2026

(Witness)

(Witness)

Jamco Abatement Services, Inc.
(Principal) *(Seal)*
(Title) President

Nationwide Mutual Insurance Company
(Surety) *(Seal)*
(Title) Miah Kienholz, Attorney-in-Fact

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

Init.
/

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation

hereinafter referred to severally as the "Company" and collectively as "the Companies" does hereby make, constitute and appoint:
CONNOR LEMON; DAVID STEINKRAUS; JACK OLSON; JARED WILLIS; JEFFREY S KEHR; KATE GREENWALD; KORTNEY TEST; KYLE MCGUIRE; LUCAS TYLER SIEL; MIAH KIENHOLZ; REBECCA A KEMPSTON; TIM LAUDENBACK;

each in their individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf on the date thereof any and all: (i)bonds and undertakings; (ii) Proposal Bonds; (ii) Letters of Surety; (iv) Consent of Surety; and (v) other obligatory instruments of similar nature, in penalties not exceeding the sum of

UNLIMITED

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all act of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman o the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the 23rd day of October, 2025.

Antonio C. Albanese, **Vice President** of Nationwide Mutual Insurance Company

ACKNOWLEDGMENT

STATE OF OHIO COUNTY OF FRANKLIN: ss
On this 23rd day of October, 2025, before me came the above-named officer for the Company aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Company aforesaid, that the seal affixed hereto is the corporate seal of said Company, and the said corporate seal and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Company.

Karen L. Kam
Notary Public, State of Ohio
No. 2018-RE-719796
Commission Expires July 7, 2028

Notary Public
My Commission Expires
July 7, 2028

CERTIFICATE

I, Lezlie F. Chimienti, Assistant Secretary of the Company, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Antonio C. Albanese was on the date of the execution of the foregoing power of attorney the d elected officer of the Company, and the corporate seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority of sai board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of said Company this 21st day of May, 2026.

Assistant Secretary

BDJ 1(10-25)00