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Monument Academy South Residential Rezone
Updated Traffic Impact Study
EPC PCD File No.: P262

(LSC #S254260)

September 10, 2026

Please update to PUD263

submit complete report; figures 1-13 not included, counts missing, and syncro reports missing.

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

COLORADO LICENSED
JEFFREY C. HODSDON
31684
9-10-26
PROFESSIONAL ENGINEER

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

_____ _____

Date

Monument Academy South Residential Rezone Traffic Impact Study

Prepared for:
Matt and Bill Dunston
1230 Scarsbrook Court
Monument, CO 80132-8487

SEPTEMBER 10, 2026

LSC Transportation Consultants, Inc.
Prepared by: Jeffrey C. Hodsdon, P.E.

LSC #S254260

EPC PCD File No.: P262

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September 10, 2026

Matt and Bill Dunston
1230 Scarsbrook Ct
Monument, CO 80132-8487

RE: Monument Academy South
Residential Rezone
Updated Traffic Impact Study
El Paso County, CO
EPC PCD File No.: P262
LSC #S254260

Dear Messrs. Dunston,

LSC Transportation Consultants, Inc. has prepared this Traffic Impact Study to accompany the rezoning applications for two parcels of land (35 total acres) located southeast of the intersection of State Highway (SH) 83/Walker Road. in unincorporated El Paso County, Colorado. The site location is shown in Figure 1. The properties are proposed for rezoning for residential development. These parcels are located just west and south of the Monument Academy Charter School (East Campus).

Access would be to Pinehurst Circle and Jane Lundeen Drive. No direct access is proposed to SH 83 or Walker Road.

This report has been prepared for submittal to El Paso County and CDOT.

REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on major thoroughfares adjacent to the site, including surface conditions, functional classification, widths, pavement markings, traffic-control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes;
- Weekday peak-hour turning-movement traffic counts (AM, school-PM, and PM) at the following "study-area" intersections:
    - State Highway 83/Highway 105/Walker Road
    - State Highway 83/Pinehurst Circle
    - Walker Road/Jane Lundeen Drive
    - Jane Lundeen Drive/Pinehurst Circle
    - Pinehurst Circle/Monument Academy site access

- Estimated average daily traffic (ADT) volumes on the study-area roadway segments;
- Projections of short-term baseline (2026) and 20-year background traffic volumes on the study-area roadways adjacent to the site;
- The proposed site land use and access plan;
- Estimates of average weekday and weekday peak-hour trip generation for the proposed development and the estimated directional distribution of site-generated vehicle trips on roadways and intersections adjacent to and in the vicinity of the site;
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the study-area intersections;
- Intersection level of service (LOS) analysis at the study-area intersections; generalized daily traffic-volume "level of service" (or comparison to El Paso County's *Engineering Criteria Manual* design ADT by classification) on the study-area streets;
- Findings regarding any potential roadway improvements, including evaluation of short-term and long-term projected intersection volumes to determine potential requirements for any new auxiliary right-/left-turn lanes at the proposed site-access points and/or study-area intersections, based on the criteria in El Paso County's *Engineering Criteria Manual* (*ECM*) and CDOT's *State Highway Access Code*.

PRIOR TRAFFIC REPORTS

The following previous traffic reports have been utilized/referenced when preparing this report.

- Walden Preserve Filing No. 5 (SF2211)
- Monument Academy Charter School (PPR199)
- Monument Academy Minor Subdivision (MS2010)

LAND USE AND ACCESS

The proposed rezone to multiple residential zone districts includes two parcels of land – Tracts A and B MA SUB. (Monument Academy Subdivision) plus two smaller parcels east of Tract B and the school.

Tract A

As shown in Figure 1, the 15.35-acre site is located west of Jane Lundeen Drive, south of Walker Road, and east of State Highway 83 (El Paso County parcel ID 6115011001).

Table 1 below shows the proposed zoning and land uses by ITE land use category for the north and south parts of Tract A and Tract B:

Table 1: Proposed Zoning and Land Uses

ITE Land Uses			
Code	**Description**	**Value**	**Units [1]**
Tract A - North Portion- - Proposed Zoning: RM-12			
215	Single-Family (Attached) Housing	55	DU
220	Multi-Family Housing (Low-Rise)	30	DU
	Total	**85**	**DU**
Tract A - South Portion - - Proposed Zoning: RS-5000			
210	Single-Family (Detached) Housing	23	DU
215	Single-Family (Attached) Housing	23	DU
	Total	**46**	**DU**
Tract B - Proposed Zoning: PUD			
210	Single-Family (Detached) Housing	29	DU
[1] DU = dwelling units			
August 12, 2026			

Tract A access is proposed to Jane Lundeen Drive at three locations and one access to Pinehurst Circle is also proposed as shown in Figure 2. The north access is proposed as a right-in/right-out (RIRO), while the middle and south access points to Jane Lundeen are proposed to be full-movement.

Three Tract A accesses to Jane Lundeen Drive are proposed:

- Full-movement – located approximately 330 feet south of proposed north RIRO access
- Full-movement – located approximately 317 feet north of Pinehurst/Jane Lundeen (The spacing of this access point to Jane Lundeen will be subject to approval of a deviation. This deviation will be applied for later - at the subdivision stage of development rather than with this rezone application).
- Right-in/right-out (RIRO) access point to Jane Lundeen – proposed for a location approximately 504 feet south of Walker /Jane Lundeen (This will be subject to approval of a deviations. This deviation will be applied for later - at the subdivision stage of development rather than with this rezone application).

One access point is proposed to Pinehurst Circle located approximately 252 feet west of Jane Lundeen Drive. This access would be a left-in-only for eastbound traffic turning into the site from the adjacent one-way section of Pinehurst Circle. This access will also be subject to approval of a deviation, which will also be applied for later - at the subdivision stage of development rather than with this rezone application.

While no specific plans have been prepared at this rezone stage, this report assumes these access points would be subdivision **public street** connections.

Please provide the TIS Supplement referenced in the highlighted section.

Tract B

As shown in Figure 1, the 19.9-acre Tract B parcel is located south of Pinehurst Circle and east of State Highway 83 (El Paso County parcel ID 6115010031). Approximately 29 single-family dwelling units are anticipated for the Tract B site.

Primary access for Tract B is proposed to Pinehurst Circle as a new south leg of the Jane Lundeen Drive roundabout. A secondary access to Pinehurst Circle is also planned. This access would be located southeast of the Monument Academy southeast access. The specific location of this access and necessary analysis at the PUD-level will be addressed in a TIS Supplement (to this report) for Tract B PUD Zoning, which will be submitted shortly once a few design-level details at the Tract B access points are completed. . These new connections are proposed to be full-movement intersections. The Tract B access plan is shown in Figure 2.

Previous Land Use Assumptions

Previously, land-use assumptions for Tracts A and B with the original Monument Academy TIS were based on rezoning shown in the Black Forest Master Plan at the time the school TIS was prepared (2018):

- The Monument Academy TIS assumed Tracts A and B would be developed with a more intense mix of retail and office uses. Appendix Table 1 from the MA TIS is attached, for reference.
- Prior traffic reports included long term background traffic that may be generated by future development of land northeast of Walker Road/SH 83. A mix of future residential and commercial uses were assumed. These same estimated background trips have been assumed in this report.

ROADWAY AND TRAFFIC CONDITIONS AND MTCP CLASSIFICATION

Study Area Roadway System

Figure 1 shows the roads adjacent to and in the vicinity of the site. Adjacent roads serving the site are identified below, followed by a brief description of each:

State Highway 83 (SH 83) runs north-to-south from Interquest Parkway to downtown Denver and is classified as a two-lane "R-A – Regional Highway." Adjacent to the site, the posted speed limit on SH 83 is 60 miles per hour (mph) south of Highway 105/Walker Road and 65 mph north of this intersection. Auxiliary left-turn deceleration lanes, right-turn deceleration lanes, and right-turn acceleration lanes exist on both the northbound and southbound approaches at its intersection with Highway 105/Walker Road. SH 83 is owned and maintained by CDOT.

Highway 105 is classified by El Paso County as a two-lane, Rural Principal Arterial that extends east-to-west from Jackson Creek Parkway to SH 83. The posted speed limit on Highway 105

adjacent to the site is 50 mph. Auxiliary turn lanes currently exist at its signalized intersection with SH 83. East of Highway 105, Highway 105 is renamed Walker Road. Highway 105 is owned and maintained by El Paso County.

Walker Road is classified by El Paso County as a two-lane, Rural Major Collector (2045 *Major Transportation Corridors Plan* (*MTCP)* Roadway Plan) that extends east from SH 83 to Meridian Road. Generally, the Walker Road posted speed limit is 45 mph east of State Highway 83. The posted speed limit on Walker Road is 35 mph in the westbound direction beginning about 600 feet east of Jane Lundeen Drives. No posted speed limit signs were observed in the eastbound direction east of State Highway 83. Walker Road is owned and maintained by El Paso County.

Jane Lundeen Drive extends north-to-south for 0.3 miles from Walker Road to Pinehurst Circle. The roadway has been constructed with an urban, non-residential collector cross section. Auxiliary turn lanes currently exist on the northbound approach at its roundabout intersection with Walker Road. No auxiliary turn lanes currently exist on the southbound approach at its roundabout intersection with Pinehurst Circle. A new northbound leg to the current roundabout T-intersection of Jane Lundeen Drive/Pinehurst Circle will be constructed as part of this development, which would create a four-leg roundabout intersection. The posted speed limit on Jane Lundeen Drive is 30 mph, and curb-and-gutter is present. Ownership of Jane Lundeen Drive has not been accepted by El Paso County at the time of this application.

Pinehurst Circle is a primarily a rural, two-lane paved Rural Local roadway extending generally east-to-west for 1.8 miles from SH 83 to Walden Way. The posted speed limit on Pinehurst Circle is 30 mph. The section of Pinehurst Circle between SH 83 and the roundabout at Jane Lundeen Drive is one way eastbound. Pinehurst Circle is owned and maintained by El Paso County.

The portion of Pinehurst Circle adjacent to the project site has not been accepted by EPC at the time of this application.

Please refer to Figure 3 for existing intersection laneage, traffic control, peak-hour volumes, and average daily traffic volumes.

Existing Traffic Volumes

Vehicular intersection turning-movement counts were conducted at the following intersections. Counts were conducted during the following periods - the morning peak, mid-afternoon "school" peak, and late-afternoon peak traffic periods. Figure 3 shows peak-hour volumes based on the turning-movement volume data (raw-count data sheets are attached), as well as estimated weekday (AWT) traffic volumes:

- State Highway 83/Highway 105/Walker Road
  - Tuesday, May 13, 2025 from 6:30 a.m. – 8:30 a.m.
  - Tuesday, May 13, 2025 from 3:00 p.m. – 6:00 p.m.
- Jane Lundeen Drive/Walker Road
  - Wednesday, October 15, 2025 from 6:30 a.m. – 8:30 a.m.
  - Wednesday, October 15, 2025 from 3:00 p.m. – 6:00 p.m.

- Jane Lundeen Drive/Pinehurst Circle
    - Wednesday, October 15, 2025 from 6:30 a.m. – 8:30 a.m.
    - Wednesday, October 15, 2025 from 3:00 p.m. – 6:00 p.m.
- State Highway 83/Pinehurst Circle
    - Tuesday, May 13, 2025 from 6:30 a.m. – 8:30 a.m.
    - Tuesday, May 13, 2025 from 3:00 p.m. – 6:00 p.m.

Existing Level of Service

Existing intersection level of service is summarized on Figure 3. Please refer to the level of service section for LOS definitions, methodology, and complete details.

Existing Vehicle Queuing Observations

During May 2025 data collection (morning peak hour), queues on the westbound approach at Walker/SH 83 were observed backing into the Jane Lundeen/Walker Roundabout during a 15—20-minute period of time starting at 7:35 am. Queues were observed backing into the outermost circulating lane, but not the inner circulating lane) around the north side of the circle. Also, for about 8—10 minutes, queues extended back onto the Jane Lundeen northbound approach. While some non-school motorists likely incur associated delay, the effect of queue spillback did not appear to be particularly problematic, as northbound motorists appeared to wait to enter the roundabout to avoid blockage of eastbound through traffic. Based on traffic crash/accident information LSC was able to obtain, no crashes have been reported at the intersection of Jane Lundeen Drive/Walker Road during the past three years.

Crash History Data

Three years of reported crash data (2022-2025) were obtained and reviewed by LSC at the study-area intersections.

State Highway 83/Highway 105/Walker Road

Seven crashes were reported at this intersection from 2022-2025. Two of the crashes involved injuries, while none resulted in a fatality. No correctable crash patterns were identified in the crashes recorded.

Jane Lundeen Drive/Walker Road

No crashes were reported at the intersection of Jane Lundeen Drive/Walker Road during the past three years.

Jane Lundeen Drive/Pinehurst Circle

No crashes were reported at the intersection of Jane Lundeen Drive/Pinehurst Circle during the past three years.

State Highway 83/Pinehurst Circle

No crashes were reported at the intersection of State Highway 83/Pinehurst Circle during the past three years.

Existing Pedestrian and Bicycle Facilities

Currently, sidewalks exist on the east side of Jane Lundeen Drive between the roundabouts at Walker Road and Pinehurst Circle. That sidewalk then continues along the north side of Pinehurst Circle for about 500 feet between the roundabout and the Monument Academy school access. **Sidewalk is required on the west side of Jane Lundeen Drive, per approved CDR201.**

Bicycle facilities do not currently exist on the study-area roadways.

2026 Short Term Baseline Traffic Volumes

Figure 4 shows the estimated 2026 short-term baseline turning movements at the study-area intersections:

- State Highway 83/Highway 105/Walker Road
- State Highway 83/Pinehurst Circle
- Jane Lundeen Drive/Walker Road
- Jane Lundeen Drive/Pinehurst Circle

These volumes represent existing traffic volumes from Figure 3 plus projected future trips from currently undeveloped, platted lots in Walden Preserve Filing No. 5. As of November 2025, there were 45 residential lots that were under construction or vacant in this adjacent subdivision east of Tract B. ITE Land Use Code "210 – Single-Family (Detached) Housing" was used to estimate projected future traffic from these 45 single-family dwelling units, which were then added to existing traffic counts to establish short-term baseline traffic volumes.

Baseline volumes also reflect minor adjustments to the count data presented in Figure 3.

SIGHT DISTANCE ANALYSIS

Sight distance for Tract A access points will be evaluated with the future applications for SDP and final plat. Sight distance for the Tract B access points will be addressed in a TIS Supplement (to this report) for Tract B PUD Zoning, which will be submitted with the Tract B PUD submittal.

Please provide the TIS Supplement referenced in the highlighted section.

TRIP GENERATION

Estimates of the vehicle trips projected to be generated by the proposed Tract A and Tract B residential rezones and planned subdivisions/development (following rezoning application approval) have been made using the nationally published trip-generation rates from *Trip Generation, 12th Edition, 2025* by the Institute of Transportation Engineers (ITE).

Table 2 below presents a **summary** of the estimated Tract A and B site trip generation. A detailed trip-generation estimate, including ITE rates for the proposed land uses, is presented in Table 3 (attached).

Table 2: Estimated Site Vehicle-Trip Generation Summary

Tract A (131 Dwelling Units)			
Analysis Period	**In**	**Out**	**Total**
Morning Peak Hour	21	62	83
School Afternoon Peak Hour	34	29	63
Afternoon Peak Hour	29	47	76
Daily/24-Hour	470	279	940
Tract B (29 Dwelling Units)			
Analysis Period	**In**	**Out**	**Total**
Morning Peak Hour	6	15	21
School Afternoon Peak Hour	14	9	23
Afternoon Peak Hour	17	10	27
Daily/24-Hour	146	146	293

Tract A

Approximately 131 residential dwelling units are envisioned for Tract A. Table 2 above shows this estimated site vehicle-trip generation for Tract A is as follows:

- 24-hour daily – 940 total vehicle trips, with about half entering and half exiting the site
- AM peak hour – 21 entering trips and 62 exiting trips
- School-PM peak hour – 34 entering trips and 29 exiting trips
- PM peak hour – 47 entering trips and 32 exiting trips

Tract B

Approximately 29 single-family detached dwelling units are proposed for Tract B. Estimated site vehicle-trip generation for Tract B is as follows:

- 24-hour daily – 293 total vehicle trips, with about half entering and half exiting the site
- AM peak hour – 6 entering trips and 15 exiting trips
- School-PM peak hour – 14 entering trips and 9 exiting trips
- PM peak hour – 17 entering trips and 10 exiting trips

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Directional Distribution

The directional-distribution estimate of site-generated vehicle trips to the study-area roads and intersections is a necessary component in determining the site's traffic impacts. Figure 5 shows the percentages of the site-generated vehicle trips projected to be oriented to and from the site's major approaches. Estimates have been based on the following factors: the area traffic impact studies, the traffic-count data, the proposed land use, the area roadway system serving the site, and the site's geographic location relative to the Monument and El Paso County/Colorado Springs areas.

Site-Generated Traffic

Site-generated traffic volumes have been estimated at the following study-area intersections:

- State Highway 83/Highway 105/Walker Road
- State Highway 83/Pinehurst Circle
- Jane Lundeen Drive/Walker Road
- Jane Lundeen Drive/Pinehurst Circle

These site-generated volumes have been calculated by applying directional-distribution percentages estimated by LSC (from Figure 5) to the trip-generation estimates (from Table 3).

Tract A

Figure 6 shows the projected site-generated traffic volumes for the average weekday and weekday morning and afternoon peak hours for Tract A only.

Tract B

Figure 7 shows the projected site-generated traffic volumes for the average weekday and weekday morning and afternoon peak hours for Tract B only.

2026 Short-Term Total Traffic Volumes

Figure 8 shows the sum of short-term baseline traffic volumes (from Figure 4), site-generated volumes from Tract A (shown in Figure 6), and site-generated volumes from Tract B (shown in Figure 7). These volumes represent the projected short-term total traffic following development of the site.

2045 Background Traffic Volumes

Long-term background traffic volumes are estimates by LSC. Estimated site-generated traffic for the Tract A and Tract B residential developments is **not** included in 2045 background traffic volumes.

The following 20-year growth factors were applied to through volumes on SH 83, per data published on CDOT's Online Transportation Information System (OTIS):

- 1.37 – south of Highway 105/Walker Road
- 1.42 – south of Highway 105/Walker Road

Several currently-vacant parcels in the vicinity of the site were also considered when estimating additional long-term background traffic:

- North leg of Jane Lundeen/Walker roundabout – 150 single-family dwelling units and 30,000 square feet of retail space
- Walker Road, east of Jane Lundeen – 1.50 growth factor for potential residential growth east of the roundabout
- North and south of Highway 105, west of SH 83 – several vacant lots that are zoned RR-5
- Northeast corner of Jane Lundeen/Pinehurst roundabout – trips shown in the Monument Academy TIS (originally anticipated to be a YMCA fitness center)
- Estimated trips using the Monument Academy north access to Jane Lundeen Drive.

Please refer to Figure 9 for estimated long-term background volumes at the study-area intersections.

2045 Total Traffic Volumes

Figure 10 shows the sum of 2045 background traffic volumes (from Figure 9) plus site-generated traffic volumes (from Figure 6 and Figure 7).

LEVEL OF SERVICE ANALYSIS

Intersection Level of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 4 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 4: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections Average Control Delay (seconds per vehicle)	Unsignalized Intersections Average Control Delay (seconds per vehicle)(1)
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if v/c ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

LOS values have been included in each figure for each turning movement/approach during the weekday morning and afternoon peak hours for the proposed site-access intersections and off-site intersections in the study area:

- Figure 3: Existing Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 4: 2026 Short-Term Baseline Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 8: 2026 Short-Term Baseline + Site Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 9: 2045 Background Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 10: 2045 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

LOS calculations for long-term scenarios were based upon the recommended lane geometries and traffic controls outlined in the figures above.

State Highway 83/Highway 105/Walker Road

Short Term

If **no** modifications are made to existing signal timings or lane geometries during the short-term scenarios, the following turning movements currently operate at and are projected to remain at LOS E or worse, with or without the addition of site-generated traffic:

- Westbound-through/right – LOS F during AM peak hour

All other movements at this intersection currently operate at and are projected to remain at LOS D or better during all short-term peak hours with the addition of site-generated traffic (without any signal-timing or lane-geometry modifications).

Note: If a second westbound-through lane were to be constructed, all individual turning movements would operate at LOS D or better during the short-term AM and PM peak hours. With minor signal-timing modifications (3 seconds of green time shifted from the northbound-through/southbound-

through phases on SH 83 to the eastbound-through/westbound-through phases on Walker/Highway 105), all individual turning movements would operate at LOS D or better during the short-term school PM peak hour with the addition of site-generated traffic.

With the addition of a second westbound through approach lane, the westbound departure leg would need to be expanded to provide two receiving lanes. Depending on the design (to be determined later), the eastbound approach laneage, and possibly the westbound left-turn lane and east-leg departure lane may need adjustment/realignment.

Long Term

Based on existing signal timings and lane geometries, the signalized intersection of SH 83/Highway 105/Walker Road is projected to operate at LOS E overall during the 2045 AM peak hour without the addition of site-generated traffic. Overall, this intersection would operate at LOS E during all three long-term total peak hours, assuming no modifications to existing signal timings or lane geometries.

As shown in Figure 10, all individual turning movements at this intersection are projected to operate at LOS D or better during all long-term peak hours with 1 westbound-through lane, 1 westbound-through/right lane, 1 westbound-left lane, 2 eastbound-through lanes (plus eastbound turn lanes), and minor signal timing modifications.

Roundabout (Alternative LOS)

If the intersection of SH 83/Highway 105/Walker Road were to be converted to a roundabout during the long term, all individual turning movements would operate at LOS D or better, with or without the addition of site-generated traffic. Please refer to the proposed roundabout laneage shown on Figure 9 and Figure 10 for more details.

Jane Lundeen Drive/Walker Road

Short Term

All movements at this intersection currently operate at and are projected to remain at LOS A during all short-term peak hours, with the addition of site-generated traffic.

Long Term

All movements at this intersection are projected to operate at LOS A for all long-term peak hours with the addition of site-generated traffic.

Jane Lundeen Drive/Pinehurst Circle

All movements at this intersection are projected to operate at LOS A during all long-term peak hours with the addition of site-generated traffic. Although queues extend back on Pinehurst Circle from the school access to the roundabout at Jane Lundeen Drive, these queues are brief (limited to only 5-10 minutes during school pick-up procedures during the school-PM peak period).

Tract A Site Access to Jane Lundeen Drive

North Site Access (RIRO)

All movements at the proposed north RIRO access to Tract A are projected to operate at LOS A during all short-term and long-term peak hours with the addition of site-generated traffic.

Middle Site Access (Full-Movement)

All movements at the proposed middle full-movement site access to Tract A are projected to operate at LOS D or better during all short-term peak hours.

During the long term, the eastbound single-lane approach is projected to operate at LOS F based on the long-term AM peak and school-PM peak analysis scenarios. All other individual turning movements/single-lane approaches are projected to operate at LOS C or better during all peak hours.

Despite this LOS F individual movement level of service, analysis results show a v/c ratio to be below 1.00 for all turning movements/approaches during all long-term buildout traffic scenarios.

Delay for the side street is projected to be in the F range during the busiest 15 minutes during Monument Academy parent drop-off and pick up. Motorists exiting the residential development will likely learn to avoid departing during these “sharp” school peak times. Drivers departing during these periods would have a good “indirect” left turn option by turning right onto Jane Lundeen drive south, complete a U-turn in the roundabout.

In response to County staff initial review comments, a “Intersection LOS Mitigation Alternatives” section has been added to this report to present alternatives for which LOS would be D or better for the site access intersections on Jane Lundeen Drive.

South Site Access (to Jane Lundeen Drive) (Full-Movement)

All movements at the proposed south full-movement site access to Tract A are projected to operate at LOS C or better during all short-term and long-term peak hours.

Tract B Site Access to Pinehurst Circle

West Site Access (at the Pinehurst Roundabout)

Currently, the intersection of Jane Lundeen Drive/Pinehurst Circle is a 3-leg roundabout. A new south leg (northbound approach) will be constructed with Tract B development.

All movements at this intersection are projected to operate at LOS A during all long-term peak hours with the addition of site-generated traffic. Although queues extend back on Pinehurst Circle from the school access to the roundabout at Jane Lundeen Drive, these queues are brief (limited to only 5-10 minutes during school pick-up procedures during the school-PM peak period).

East Site Access (Full-Movement)

Assuming a secondary access for Tract B will be constructed, all movements at the following proposed east Tract B site access are projected to operate at LOS A during all peak hours.

Intersection LOS Mitigation Alternatives

State Highway 83/Highway 105/Walker Road

Short-Term

As shown in Figure 8, if a second westbound-through lane were to be constructed, all individual turning movements would operate at LOS D or better during the short-term AM and PM peak hours. With minor signal-timing modifications (3 seconds of green time shifted from the northbound through/southbound-through phases on SH 83 to the eastbound through/westbound-through phases on Walker/Highway 105), all individual turning movements would operate at LOS D or better during the short-term school PM peak hour with the addition of site-generated traffic.

With the addition of a second westbound through approach lane, the westbound departure leg would need to be expanded to provide two receiving lanes. Depending on the design (to be determined later), the eastbound approach laneage, and possibly the westbound left-turn lane and east-leg departure lane may need adjustment/realignment.

Long-Term

As shown in Figure 10, all individual turning movements at this intersection are projected to operate at LOS D or better during all long-term peak hours with 1 westbound-through lane, 1 westbound-through/right lane, 1 westbound-left lane, 2 eastbound-through lanes, and minor signal timing modifications.

Jane Lundeen Drive/Proposed Tract A Middle Site Access

In response to County staff initial review comments, LSC has completed supplemental analysis of alternatives that would result in LOS to D or better at this access intersection.

The following options are shown to achieve this result:

1) Force an eastbound (exiting) right turn out of Tract A during school peak times, using traffic regulatory signage. The concept involves an "indirect left turn," whereby exiting residents, after turning right instead of left onto Jane Lundeen, would drive south to the Pinehurst Roundabout and make a U turn to reverse direction and head north and proceed up to the Walker roundabout.
2) Reconstruct this intersection as a modern roundabout (if feasible).

These two options have been analyzed to determine if level of service could be improved at the middle site-access intersection on Jane Lundeen. See Table 5 which shows the specific alternatives analyzed.

The alternatives A, B, and C have been first analyzed assuming future approval of a deviation request for the north access (right-in/right-out) (which will be applied for later - at the subdivision stage of development rather than with this rezone application) Alternatives D, E, and F assume County-denial of a future deviation request for the north access (right-in/right-out).

Eastbound-left turns were assumed prohibited, in several alternatives, during both AM and school PM peak times using signage. Alternatives C and F present analysis of a roundabout at the middle site access.

Table 5: Summary of Alternative Intersections Configurations on Jane Lundeen Drive

Figure	Alternative	North Access	Middle Access	South Access
11	A	RIRO	TWSC, no EBL *	TWSC
11	B	RIRO	TWSC, no EBL *	TWSC, no EBL *
11	C	RIRO	Roundabout	TWSC, no EBL *
12	D	Delete	TWSC, no EBL *	TWSC
12	E	Delete	TWSC, no EBL *	TWSC, no EBL *
12	F	Delete	Roundabout	TWSC, no EBL *
* No EBL turns allowed during school peak times (using signage)				

Alternatives Assuming a Right-in/Right-out North Access

➢ Alternative A

Without any turn restrictions during school peak times, the eastbound approach at the south access would operate at LOS F during AM peak hour. All other turning movements and single-lane approaches at the study-area intersections along Jane Lundeen Drive would operate at LOS C or better using the laneage configurations described in alternative A. See Figure 11 for more details. As the LOS E is shown at the south access in this alternative, an Alternative B has been included to address this LOS below D.

➢ Alternative B

This alternative assumes eastbound-left turns would be restricted during school peak times at **both** the middle and south accesses. All turning movements and single-lane approaches at all study-area intersections along Jane Lundeen Drive would operate at LOS C or better using the laneage configurations described in alternative B. See Figure 11 for more details.

➢ Alternative C

This alternative presents analysis assuming a modern roundabout instead of TWSC at the **middle** site access. Note: this alternative also assumes eastbound-left turns restricted during school peak times at the **south** accesses. All turning movements and single-lane approaches at all study-area intersections along Jane Lundeen Drive would operate at LOS C or better using the laneage configurations described in alternative B. See Figure 11 for more details.

Alternatives Assuming No North Access

Alternatives in this scenario assume the absence of the north (RIRO) access, presumably due to subsequent denial of a required deviation that will be requested later. This scenario reflects a shift of most trips otherwise assigned to the north RIRO access in the preferred scenario (**with** this access) to the middle access.

➢ Alternative D

All turning movements and single-lane approaches at the study-area intersections along Jane Lundeen Drive would operate at LOS C or better using the laneage configurations described in alternative D, except the eastbound approach at the south access (analysis shows LOS E during AM peak hour). See Figure 12 for more details. As LOS E is shown at the south access in this alternative, an Alternative E has been included to address this LOS-below-D condition.

➢ Alternative E

For this alternative, eastbound-left turns were assumed restricted during school peak times at both the middle and south accesses. All turning movements and single-lane approaches at all study-area intersections along Jane Lundeen Drive would operate at LOS C or better using the laneage configurations described in alternative E. See Figure 12 for more details.

➢ Alternative F

This alternative assumes a modern roundabout instead of TWSC at the middle site access. Note: this alternative also assumes eastbound-left turns restricted during school peak times at the **south** accesses. All turning movements and single-lane approaches at all study-area intersections along Jane Lundeen Drive would operate at LOS C or better using the laneage configurations described in alternative F. See Figure 12 for more details.

Other Alternatives

As the projected levels of service are primarily due to the sharp peak periods of the adjacent school traffic, potential measures that could be taken by the school to reduce Tract A access delay and potentially result in better LOS without the need to implement the above-described alternatives include:

- Further staggering of school start and end times
- Metering of the parent drop-off/pick-up traffic at the egress point from the school parking lot/pick-up/drop-off loop to create frequent gaps in the traffic stream on northbound Jane Lundeen Drive

Potentially, coordinating these gaps with the traffic signal phases at SH 83 (which somewhat affects the **entering** school traffic stream on **southbound** Jane Lundeen Drive) could improve the effectiveness of this strategy.

VEHICLE QUEUEING ANALYSIS

A SimTraffic queueing analysis was performed to estimate the maximum and 95th-percentile queues at the intersection of **SH 83/Highway 105/Walker Road** during the morning, school-PM, and afternoon peak hours.

“Upstream block time” represents the percent of time during the peak hour in which the entry point for a turn lane upstream of the subject intersection is blocked by a queue in the adjacent through lane. “Storage block time” is the proportion of time in which the turn lane’s queue exceeds the available storage length and left-turning vehicles overspill the turn lane in the model and into the adjacent through lane.

“Maximum queue” represents the maximum queue length observed for each individual lane during the 15-minute analysis period. SimTraffic records the maximum back of queue observed

for every two-minute period. In SimTraffic, a vehicle is considered queued whenever it is behind another vehicle traveling at less than 10 feet/second (approximately 7 mph) or at a stop bar. The maximum observed queue may not occur during the same interval in which the highest upstream block time (percent) or storage block time (percent) occurs. SimTraffic reports have reported the highest value for each metric for each turn lane/approach, regardless of whether or not they occur in the same 15-minute interval.

Reported queue length for auxiliary turn lanes in SimTraffic is generally limited by the turn-lane length. SimTraffic simply reports the maximum observed queue length during simulations. The reported 95th-percentile queue is also part of the results.

Analysis has been run to estimate the queue length that the westbound approach at SH 83/Highway 105/Walker Road will extend back through the roundabout at Jane Lundeen Drive. There are about 580 feet between the stop line on the westbound approach on Walker Road and the west circulating lane within the Walker/Jane Lundeen roundabout. Queues less than 580 feet would not extend back into the roundabout.

Existing Conditions

As discussed above in the "Existing Conditions" section, queue backups on the westbound approach at Walker/SH 83 were observed during May 2025 data collection (morning peak hour). Queues were observed backing into the outermost circulating lane, but not the inner circulating lane around the north side of the circle which resulted in an "upstream" queue on the Jane Lundeen northbound approach in the outside (No. 2) entry/approach lane. The queues did not appear to block the eastbound departure lane on the east leg as most drivers on the northbound approach paused at the yield line to avoid blocking eastbound "straight-through" traffic.

Short Term – Existing Laneage with Existing Signal Timings

Results from the SimTraffic simulations indicate that all queues on the eastbound and westbound approaches at the signalized intersection of SH 83/Highway 105/Walker Road would be accommodated during most short-term peak periods with the addition of site-generated traffic. Minor upstream block times or storage block times were reported for the westbound approach during the short-term AM peak hour, with 95th-percentile queues exceeding available stacking for the existing westbound-left and westbound-through/right-turn lanes. Queues in this approach would block vehicles from entering the westbound-left and westbound-through/right-turn lanes approximately 13 and 17 percent of the time during the busiest 15-minute interval of the school AM peak hour, respectively. Otherwise, storage block time would be minimal (0-2 percent storage block times during the remainder of the school PM peak hour). Constructing a second westbound-through lane would be required to alleviate queue spillback during the short term.

Long Term – Recommended Laneage (with Modified Signal Timings)

The following queuing analysis results assume the following modifications would be made to the existing laneage on Walker Road and Highway 105 approaching SH 83, assuming minor signal-timing modifications would be implemented:

- 1 westbound-left turn lane (current condition)
- 2 westbound-through turn lanes
- 2 eastbound-through turn lanes

Westbound Approach

Results from the SimTraffic simulations indicate that westbound queue spillback extending back on Walker Road between SH 83 and the roundabout at Jane Lundeen Drive would be mitigated during all peak hours with the recommended intersection approach-lane modifications shown in Figure 10. No upstream block times or storage block times were reported for the westbound approach during the long term.

Eastbound Approach

Results from the SimTraffic simulations indicate that westbound queues extending back on Highway 105 east of SH 83 would be mitigated during all peak hours with the recommended turn-lane and minor signal timing modifications shown in Figure 10.

STREET CLASSIFICATIONS

Road classifications for major roadways are shown on the 2045 Roadway Plan in the County *MTCP*. Also, *ECM* Tables 2-4 through 2-7 list design average daily traffic (ADT) thresholds for roadway functional classifications. Determination of functional classification is based on several factors.

Please refer to Figure 13 for a summary of proposed roadway classifications for roadways in the study area with the addition of site-generated traffic.

Walker Road

The long-term projected ADT on Walker Road between SH 83 and Jane Lundeen Drive is 9,898 vpd. Figure 22 of El Paso County's *Major Transportation Corridors Plan (MTCP)* shows Walker Road as a **Rural Major Collector**. However, in the vicinity of the Jane Lundeen roundabout and between the SH 83 and Jane Lundeen intersection, Walker should be treated as "Urban" because the roadway is built with curb and gutter. If this segment of Walker is considered an "Urban Non-Residential Collector" through this section, the projected volumes will not exceed the associated 20,000 VPD max ADT.

Jane Lundeen Drive

The long-term projected ADT on Jane Lundeen Drive south of the roundabout at Walker Road is 3,159 vpd. As such, the projected buildout/20-year volume on Jane Lundeen Drive will not exceed the design ADT of 20,000 vpd for an Urban Non-Residential Collector.

Tract A (Preliminary)

Based on projected ADTs shown on Figure 10, and other considerations, the proposed entry/access roads for Tract A would likely be classified as follows:

- Tract A north site access drive – private access drive or possibly Urban Local
- Tract A middle site access street/drive – Urban Local, potentially a private street.
- Tract A south site access street/drive – Urban Local, potentially a private street.

Tract B

The proposed subdivision roads within Tract B will be classified as "Rural Local.

ROADWAY IMPROVEMENTS

MTCP-Identified Roadway Improvements

State whether the MTCP or other approved corridor study calls for the construction of improvements in the immediate area.

The following roadway improvement projects within the immediate area/study area have been identified as being needed by the year 2045 per Figure 27 of El Paso County's 2024 *MTCP*. A copy of the 2045 *MTCP* is here.

Highway 105 (Project # 508)

The segment of Highway 105 from Martingale Road to SH 83 is planned to be improved to a 2-lane Rural Principal Arterial by 2045. Previous LSC studies have shown four intersection-approach through lanes at the SH 83 intersection during long-term analysis. In order to achieve acceptable LOS at the SH 83/Highway 105/Walker Road intersection, the eastbound and westbound approaches would need 2 through lanes during the long term. The westbound departure leg would need two receiving lanes.

Walker Road (Project # 154)

The segment of Walker Road from SH 83 to Steppler Road is shown as a 2-lane Rural Major Collector on the 2045 Roadway Plan. In order to achieve acceptable LOS at the SH 83/Highway 105/Walker Road intersection, Highway 105 would need 2 through lanes per direction during the

long term. Note: As Walker Road has already been upgraded in the vicinity of the Jane Lundeen roundabout and between the SH 83 and Jane Lundeen intersection, Walker should be treated as "Urban" because the roadway is built with curb and gutter. In order to achieve acceptable LOS at the SH 83/Highway 105/Walker Road intersection, the eastbound and westbound approaches would need 2 through lanes during the long term. The westbound departure leg would need to be expanded to provide two receiving lanes.

ECM Requirements for Auxiliary Turn Lanes

Appendix B.8 List ECM criteria for stacking, storage, and taper for every affected auxiliary lane and access and state whether this access can be met. If it cannot be met, state the required modifications so that it can be met.

Left-Turn Deceleration Lanes

According to the El Paso County *Engineering Criteria Manual* (*ECM*), exclusive left-turn lanes shall be provided for any access on "Minor Arterials and lower classifications" with a projected peak-hour ingress turning volume of 25 vehicles per hour (vph) or greater.

Right-Turn Deceleration Lane

Per Section 2.3.7.D.1 of the *ECM* for Minor Arterials and lower classifications, exclusive right-turn lanes shall be provided for any access with a projected peak-hour ingress turning volume of 50 vehicles per hour (vph) or greater.

Right-Turn Acceleration Lanes

Right-turn acceleration lanes are generally not required on Minor Arterials and lower classifications roadways, per Section 2.3.7.D.2 of the *ECM*.

Auxiliary-Turn-Lane Needs Evaluation and Recommendations

Tract A – North Site Access (RIRO)

Left turns would not be permitted into or out of the site, as the proposed north site access on Jane Lundeen Drive would be restricted to right-in/right-out movement.

The projected southbound-right turn volume at this intersection is not projected to exceed the 50-vph minimum right-turn volume thresholds prescribing a turn lane outlined in the *ECM* upon site buildout. As such, a southbound-right deceleration lane would **not** be required on Jane Lundeen Drive approaching this proposed site access.

Tract A – Middle Site Access (Full-Movement)

Fewer than 25 vehicles are projected to turn northbound-left from Jane Lundeen Drive onto the middle site access. As such, a northbound-left deceleration lane would **not** be required.

Fewer than 50 vehicles are projected to turn southbound-right from Jane Lundeen Drive onto the middle site access. As such, a southbound-right deceleration lane would **not** be required.

Tract A – South Site Access (Full-Movement)

Fewer than 25 vehicles are projected to turn northbound-left from Jane Lundeen Drive onto the south site access. As such, a northbound-left deceleration lane would **not** be required.

Fewer than 50 vehicles are projected to turn southbound-right from Jane Lundeen onto the south site access. As such, a southbound-right deceleration lane would **not** be required.

Tract A – Southwest Site Access (Left-In Only)

Greater than 25 vehicles are projected to turn northbound-left from Jane Lundeen Drive onto the south site access. As such, the *ECM* prescribes a 325-foot eastbound-left deceleration lane would be required (based on criteria for a 35-mph design speed):

- 135 feet of full-width lane
- 140-foot approach taper
- 50 feet of storage length

Please refer to the deviation request included with this submittal, which addresses the **potential** request to waive this turn-lane requirement at the site-development or platting stage based on unique site-specific conditions.

Right turns would not be permitted into or out of the site, as the proposed southwest site access on Pinehurst Circle would be restricted to left-in movement only.

Tract B – West Site Access (Roundabout)

Currently, the intersection of Jane Lundeen Drive/Pinehurst Circle is a 3-leg roundabout. A new south leg (northbound approach) will be constructed with Tract B development. All approaches would be single-lane approaches once the fourth leg is added to this intersection.

Tract B – East Site Access (Full-Movement)

Fewer than 25 vehicles are projected to turn westbound-left from Pinehurst Circle onto the east site access. As such, a westbound-left deceleration lane would **not** be required.

Fewer than 50 vehicles are projected to turn eastbound-right from Pinehurst Circle onto the east site access. As such, an eastbound-right deceleration lane would **not** be required.

The specific location of this access is anticipated to be 150 feet southeast of the school access. Necessary analysis of this access location and associated PUD/design level details are in-progress. Once completed, these details will be addressed in a TIS Supplement to follow this report.

State Highway 83/Highway 105/Walker Road

The only laneage modifications or signal-timing adjustments that would be required during the short term to ensure that short-term LOS and queues would both be acceptable is constructing a second westbound-through turn lane. The westbound departure leg would need two receiving lanes. Constructing a second westbound-through lane would be required to mitigate the existing and projected short-term side-street levels of service and alleviate queue spillback into the roundabout during the short term. While these are **existing deficiencies** (primarily the effect of to peak school traffic volumes), this development or potentially other nearby developments if occurring ahead of these developments, would likely be responsible for constructing these improvements (or depending on the relative impact of individual development projects, possibly escrowing funds as fair share participation toward later completion of them). This will likely be determined with the CDOT access permit process (which would occur at the subdivision stage or site-development phase of the EPC process)

Note: While the applicant cannot control or dictate school schedules or operations, it is notable that staggering of school start times to spread out school-peak-period traffic demand could potentially have a significant effect and improve level of service/reduce queuing.

If the intersection of SH 83/Highway 105/Walker Road were to remain signalized during the long term, the following laneage modifications would be required in order for LOS to operate at an acceptable level and for queues to be mitigated (based on existing signal timings):

- Construct a second westbound-through turn lane
- Construct a second eastbound-through turn lane
- The eastbound and westbound departure legs would need two receiving lanes. On the east leg, the widening to two through lanes would only be needed between the intersection and the point at which there are already two lanes on the approach to the Walker/Jane Lundeen roundabout.

The level of service section included evaluation of this intersection as a modern roundabout. The above findings and recommendations for auxiliary turn lanes would change for a roundabout.

This project may be subject to “cost recovery” for future improvements at this intersection if constructed by other developments **and/or** CDOT may require pro-rata share participation in future improvements (potentially in the form of an escrow). Also, there is the potential that intersection improvements, although within CDOT ROW, may be added to the list of “eligible

Please address CDOT's Traffic Comments regarding CO 83 & Walker:

• Based on the 2050 traffic projections with the new land use, improvements at CO 83 & Walker are required. Both the eastbound and westbound directions require the addition of the through lanes. The length of the additional through lanes must be long enough to diminish the "false capacity" created with the added lanes and operations of the roundabout to the east of CO 83 will need to be included in the analysis.
• An alternative to a traffic signal may be a roundabout, though more analysis would be needed.

improvements" under the EPC Roadway Improvement Fee Program. These improvements may include new or improved auxiliary turn lanes, traffic-control upgrades/change (roundabout), etc. This could be addressed at the Preliminary Plan/Platting stage.

TRACT A AND B ROADWAY CLASSIFICATIONS

Tract A streets will also likely be Urban Local or Local (Low Volume). This can be confirmed at the Preliminary Plan/Platting stage. The classification the Tract B internal roadways will be Rural Local.

COUNTY ROAD IMPROVEMENT FEE PROGRAM

Transportation Impact Fees

This development would be required to participate in the Roadway Improvement Fee Program. Estimates of fees would be included at the plat stage.

MULTI-MODAL TRANSPORTATION AND TDM OPPORTUNITIES

No multi-modal transportation improvement projects have been identified as being needed by the year 2045 per Figure 27 of El Paso County's 2024 *MTCP*.

DEVIATIONS

The proposed north right-in/right out access point to Jane Lundeen and the south left-in-only access to Tract A from Pinehurst Circle will be subject to approval of deviations. Also, the spacing of the proposed south full-movement shown approximately 317 feet north of Pinehurst/Jane Lundeen intersection will also be subject to approval of a deviation.

These deviations will be applied for later - at the subdivision stage of development rather than with this rezone application.

FINDINGS AND CONCLUSIONS

- Tract A is projected to generate about:
  - Average weekday – 940 new driveway vehicle-trips (half entering, half exiting)
  - AM peak hour – 21 entering vehicles and 62 exiting vehicles
  - School-PM peak hour – 34 entering vehicles and 29 exiting vehicles
  - PM peak hour – 47 entering vehicles and 32 exiting vehicles
- Tract B is projected to generate about:
  - Average weekday – 293 new driveway vehicle-trips (half entering, half exiting)
  - AM peak hour – 6 entering vehicles and 15 exiting vehicles
  - School-PM peak hour – 14 entering vehicles and 9 exiting vehicles
  - PM peak hour – 17 entering vehicles and 10 exiting vehicles

- Please refer to the "Level of Service" section above for analysis of existing conditions, and short- and long-term projected conditions. The levels of service analysis for Walker Road/SH 83/Highway 105 includes results based on current laneage/traffic control and with recommended lane improvements.
- Please refer to the "Queuing Analysis" section above for more details.
- No auxiliary turn lanes would be required at any of the proposed site access intersections, with the possible exception of the Tract A Left-In only access. Please refer to the "Auxiliary Turn-Lane Analysis" section for evaluation details.
- Upgrades with additional east/west (side street) laneage are projected to be needed to improve levels of service and address queuing during the school peak parent drop off and pick up times. An alternative could include replacing the signalized intersection with a modern roundabout. Also note: although the applicant cannot control or dictate school schedules or operations, it is notable that staggering of school start times to spread out school-peak-period traffic demand could potentially have a significant effect and improve level of service/reduce queuing.

* * * * *

Please contact me if you have any questions regarding this report.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By Jeffrey C. Hodsdon, P.E.
Principal

JCH/JAB:jas

Enclosures: Table 3
Figure 1 - Figure 13
Traffic Count Reports
Synchro LOS Reports
Sidra LOS Reports
Queue Reports

Table 3

TRANSPORTATION
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Table 3: Detailed Trip Generation Estimate

ITE Land Uses				Trip Generation Rates [2]							Total Trips Generated						
				Average Weekday	A.M. Peak Hour		School P.M. Peak Hour		P.M. Peak Hour		Average Weekday [3]	A.M. Peak Hour [4]		School P.M. Peak Hour		P.M. Peak Hour [4]	
Code	Description	Value	Units [1]		In	Out	In	Out	In	Out		In	Out	In	Out	In	Out
Tract A - North Portion- - Proposed Zoning: RM-12																	
215	Single-Family (Attached) Housing	55	DU	6.55	0.17	0.50	0.20	0.21	0.30	0.22	360	9	28	11	12	16	12
220	Multi-Family Housing (Low-Rise)	30	DU	6.55	0.11	0.34	0.23	0.19	0.33	0.20	196	3	10	7	6	10	6
	Total	**85**	**DU**							**Total**	**557**	**12**	**38**	**18**	**17**	**26**	**18**
Tract A - South Portion - - Proposed Zoning: RS-5000																	
210	Single-Family (Detached) Housing	23	DU	10.11	0.19	0.52	0.48	0.30	0.58	0.36	233	4	12	11	7	13	8
215	Single-Family (Attached) Housing	23	DU	6.55	0.17	0.50	0.20	0.21	0.30	0.22	151	4	12	5	5	7	5
	Total	**46**	**DU**							**Total**	**383**	**8**	**24**	**16**	**12**	**20**	**13**
Tract B - Proposed Zoning: PUD																	
210	Single-Family (Detached) Housing	29	DU	10.11	0.19	0.52	0.48	0.30	0.58	0.36	293	6	15	14	9	17	10

[1] DU = dwelling units

August 12, 2026

Figures 1-13

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Traffic Counts

TRANSPORTATION
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Synchro Level of Service Reports

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Sidra Level of Service Reports

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Sidra Reports

Jane Lundeen + Walker

LANE LEVEL OF SERVICE

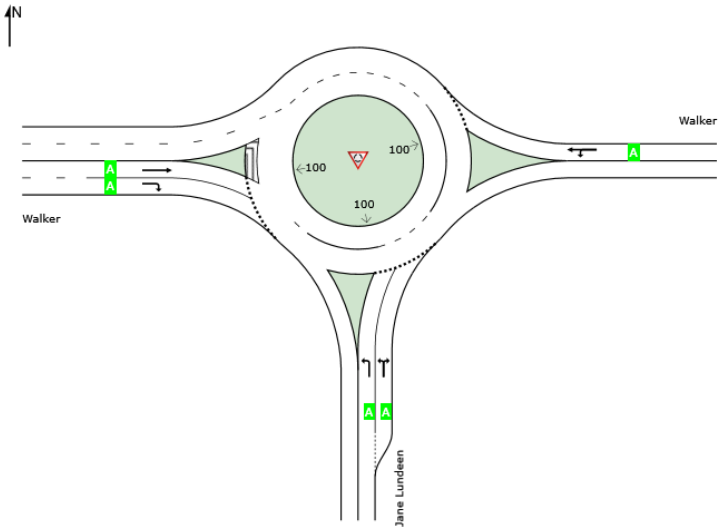
Lane Level of Service

Site: 101 [2025 Existing AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2025 Existing AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	146	3.0	146	3.0	1229	0.119	100	3.9	LOS A	0.5	12.2	Full	1600	0.0	0.0
Lane 2[d]	154	3.0	154	3.0	1295	0.119	100	3.7	LOS A	0.5	11.9	Short	235	0.0	NA
Approach	300	3.0	300	3.0		0.119		3.8	LOS A	0.5	12.2				
East: Walker															
Lane 1[d]	141	3.0	141	3.0	1052	0.134	100	4.6	LOS A	0.5	12.9	Full	1600	0.0	0.0
Approach	141	3.0	141	3.0		0.134		4.6	LOS A	0.5	12.9				
West: Walker															
Lane 1	69	3.0	69	3.0	1362	0.051	100	2.9	LOS A	0.2	5.1	Full	1600	0.0	0.0
Lane 2[d]	201	3.0	201	3.0	1362	0.148	100	3.6	LOS A	0.6	16.5	Full	1600	0.0	0.0
Approach	270	3.0	270	3.0		0.148		3.4	LOS A	0.6	16.5				
All Vehicles	711	3.0	711	3.0		0.148		3.8	LOS A	0.6	16.5				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	146	-	146	3.0	1229	0.119	100	NA	NA
Lane 2	148	5	154	3.0	1295	0.119	100	0.0	1
Approach	295	5	300	3.0		0.119			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	128	141	3.0	1052	0.134	100	NA	NA
Approach	13	128	141	3.0		0.134			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	69	-	69	3.0	1362	0.051	100	NA	NA
Lane 2	-	201	201	3.0	1362	0.148	100	NA	NA
Approach	69	201	270	3.0		0.148			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	711	3.0	0.148

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec

There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

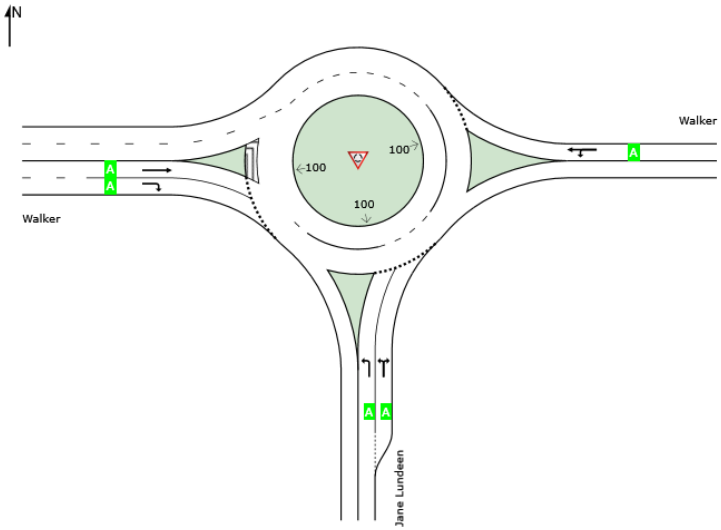
Lane Level of Service

Site: 101 [2025 Existing School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2025 Existing School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	134	3.0	134	3.0	1122	0.119	100	4.2	LOS A	0.5	12.0	Full	1600	0.0	0.0
Lane 2[d]	142	3.0	142	3.0	1189	0.119	100	4.0	LOS A	0.5	11.7	Short	235	0.0	NA
Approach	276	3.0	276	3.0		0.119		4.1	LOS A	0.5	12.0				
East: Walker															
Lane 1[d]	143	3.0	143	3.0	1082	0.132	100	4.5	LOS A	0.5	12.8	Full	1600	0.0	0.0
Approach	143	3.0	143	3.0		0.132		4.5	LOS A	0.5	12.8				
West: Walker															
Lane 1[d]	162	3.0	162	3.0	1375	0.118	100	3.3	LOS A	0.5	12.8	Full	1600	0.0	0.0
Lane 2	133	3.0	133	3.0	1375	0.096	100	3.1	LOS A	0.4	10.2	Full	1600	0.0	0.0
Approach	295	3.0	295	3.0		0.118		3.2	LOS A	0.5	12.8				
All Vehicles	714	3.0	714	3.0		0.132		3.8	LOS A	0.5	12.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	134	-	134	3.0	1122	0.119	100	NA	NA
Lane 2	130	12	142	3.0	1189	0.119	100	0.0	1
Approach	264	12	276	3.0		0.119			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	4	140	143	3.0	1082	0.132	100	NA	NA
Approach	4	140	143	3.0		0.132			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	162	-	162	3.0	1375	0.118	100	NA	NA
Lane 2	-	133	133	3.0	1375	0.096	100	NA	NA
Approach	162	133	295	3.0		0.118			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	714	3.0	0.132

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec

There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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Project: G:\Shared drives\CS - 2020-current\2025\S254260 - Mon Acad S Residential\Sidra\Walker + Jane Lundeen.sip9

LANE LEVEL OF SERVICE

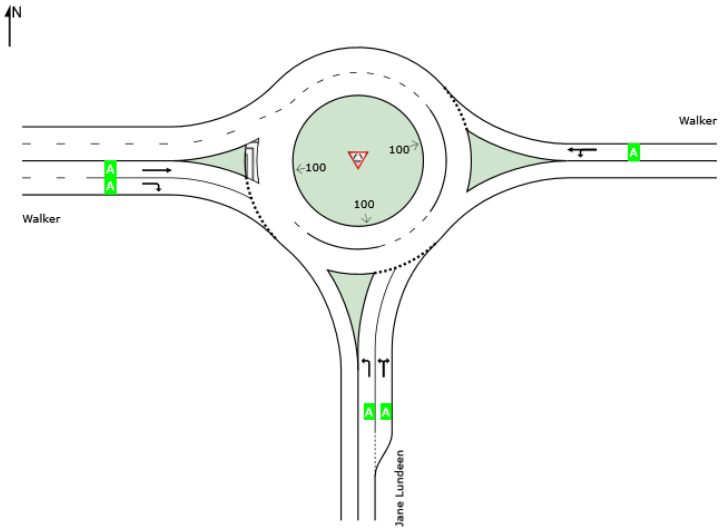
Lane Level of Service

Site: 101 [2025 Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2025 Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	42	3.0	42	3.0	1185	0.035	100	3.3	LOS A	0.1	3.3	Full	1600	0.0	0.0
Lane 2[d]	44	3.0	44	3.0	1252	0.035	100	3.1	LOS A	0.1	3.2	Short	235	0.0	NA
Approach	86	3.0	86	3.0		0.035		3.2	LOS A	0.1	3.3				
East: Walker															
Lane 1[d]	98	3.0	98	3.0	1277	0.076	100	3.4	LOS A	0.3	7.3	Full	1600	0.0	0.0
Approach	98	3.0	98	3.0		0.076		3.4	LOS A	0.3	7.3				
West: Walker															
Lane 1[d]	106	3.0	106	3.0	1378	0.077	100	3.0	LOS A	0.3	8.0	Full	1600	0.0	0.0
Lane 2	43	3.0	43	3.0	1378	0.031	100	2.8	LOS A	0.1	3.1	Full	1600	0.0	0.0
Approach	149	3.0	149	3.0		0.077		2.9	LOS A	0.3	8.0				
All Vehicles	333	3.0	333	3.0		0.077		3.1	LOS A	0.3	8.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	42	-	42	3.0	1185	0.035	100	NA	NA
Lane 2	43	1	44	3.0	1252	0.035	100	0.0	1
Approach	84	1	86	3.0		0.035			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	96	98	3.0	1277	0.076	100	NA	NA
Approach	1	96	98	3.0		0.076			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	106	-	106	3.0	1378	0.077	100	NA	NA
Lane 2	-	43	43	3.0	1378	0.031	100	NA	NA
Approach	106	43	149	3.0		0.077			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	333	3.0	0.077

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec

There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

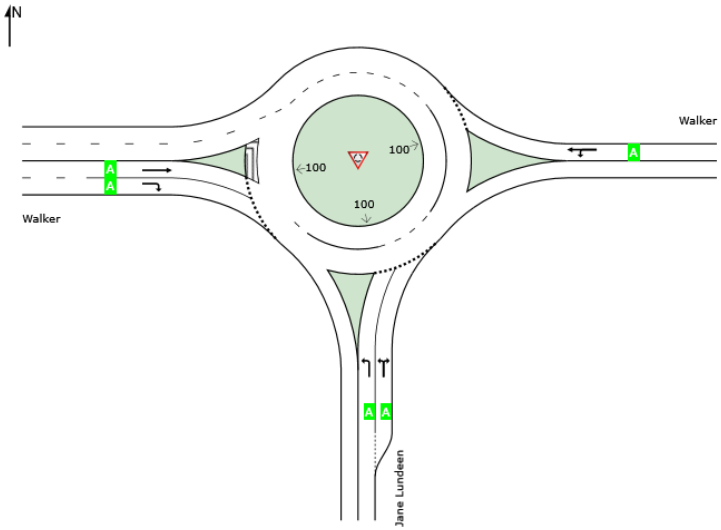
Lane Level of Service

Site: 101 [ST Baseline PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [ST Baseline PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	42	3.0	42	3.0	1149	0.036	100	3.4	LOS A	0.1	3.4	Full	1600	0.0	0.0
Lane 2[d]	44	3.0	44	3.0	1216	0.036	100	3.2	LOS A	0.1	3.3	Short	235	0.0	NA
Approach	86	3.0	86	3.0		0.036		3.3	LOS A	0.1	3.4				
East: Walker															
Lane 1[d]	98	3.0	98	3.0	1277	0.076	100	3.4	LOS A	0.3	7.3	Full	1600	0.0	0.0
Approach	98	3.0	98	3.0		0.076		3.4	LOS A	0.3	7.3				
West: Walker															
Lane 1[d]	137	3.0	137	3.0	1378	0.100	100	3.1	LOS A	0.4	10.6	Full	1600	0.0	0.0
Lane 2	43	3.0	43	3.0	1378	0.031	100	2.8	LOS A	0.1	3.1	Full	1600	0.0	0.0
Approach	181	3.0	181	3.0		0.100		3.0	LOS A	0.4	10.6				
All Vehicles	364	3.0	364	3.0		0.100		3.2	LOS A	0.4	10.6				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	42	-	42	3.0	1149	0.036	100	NA	NA
Lane 2	43	1	44	3.0	1216	0.036	100	0.0	1
Approach	84	1	86	3.0		0.036			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	96	98	3.0	1277	0.076	100	NA	NA
Approach	1	96	98	3.0		0.076			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	137	-	137	3.0	1378	0.100	100	NA	NA
Lane 2	-	43	43	3.0	1378	0.031	100	NA	NA
Approach	137	43	181	3.0		0.100			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	364	3.0	0.100

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

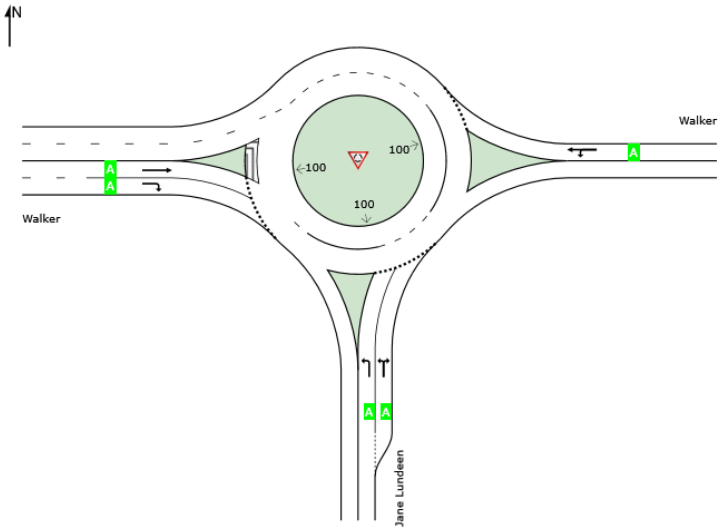
Lane Level of Service

Site: 101 [ST Baseline School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [ST Baseline School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	139	3.0	139	3.0	1121	0.124	100	4.3	LOS A	0.5	12.5	Full	1600	0.0	0.0
Lane 2[d]	147	3.0	147	3.0	1188	0.124	100	4.1	LOS A	0.5	12.2	Short	235	0.0	NA
Approach	286	3.0	286	3.0		0.124		4.2	LOS A	0.5	12.5				
East: Walker															
Lane 1[d]	152	3.0	152	3.0	1073	0.142	100	4.6	LOS A	0.5	13.8	Full	1600	0.0	0.0
Approach	152	3.0	152	3.0		0.142		4.6	LOS A	0.5	13.8				
West: Walker															
Lane 1[d]	163	3.0	163	3.0	1375	0.119	100	3.3	LOS A	0.5	12.9	Full	1600	0.0	0.0
Lane 2	115	3.0	115	3.0	1375	0.084	100	3.1	LOS A	0.3	8.8	Full	1600	0.0	0.0
Approach	278	3.0	278	3.0		0.119		3.2	LOS A	0.5	12.9				
All Vehicles	716	3.0	716	3.0		0.142		3.9	LOS A	0.5	13.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	139	-	139	3.0	1121	0.124	100	NA	NA
Lane 2	135	12	147	3.0	1188	0.124	100	0.0	1
Approach	274	12	286	3.0		0.124			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	4	148	152	3.0	1073	0.142	100	NA	NA
Approach	4	148	152	3.0		0.142			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	163	-	163	3.0	1375	0.119	100	NA	NA
Lane 2	-	115	115	3.0	1375	0.084	100	NA	NA
Approach	163	115	278	3.0		0.119			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	716	3.0	0.142

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec

There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

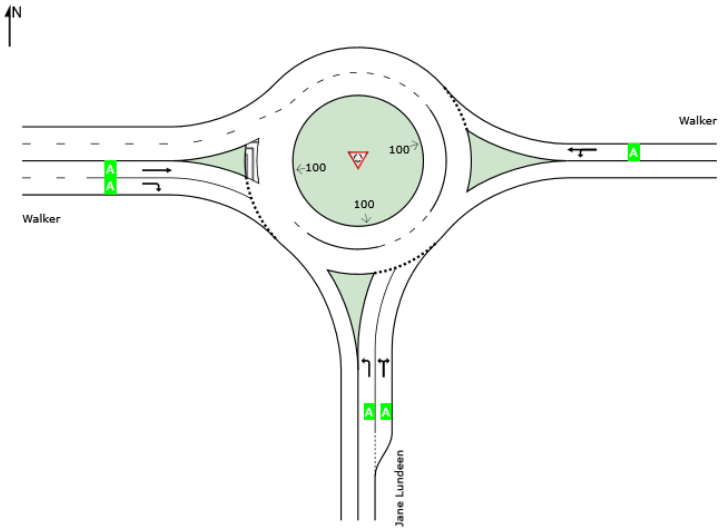
Lane Level of Service

Site: 101 [ST Baseline AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [ST Baseline AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	158	3.0	158	3.0	1234	0.128	100	3.9	LOS A	0.5	13.4	Full	1600	0.0	0.0
Lane 2[d]	167	3.0	167	3.0	1300	0.128	100	3.8	LOS A	0.5	13.0	Short	235	0.0	NA
Approach	325	3.0	325	3.0		0.128		3.8	LOS A	0.5	13.4				
East: Walker															
Lane 1[d]	167	3.0	167	3.0	1029	0.163	100	5.0	LOS A	0.6	15.9	Full	1600	0.0	0.0
Approach	167	3.0	167	3.0		0.163		5.0	LOS A	0.6	15.9				
West: Walker															
Lane 1	65	3.0	65	3.0	1362	0.048	100	2.9	LOS A	0.2	4.8	Full	1600	0.0	0.0
Lane 2[d]	198	3.0	198	3.0	1362	0.145	100	3.6	LOS A	0.6	16.2	Full	1600	0.0	0.0
Approach	263	3.0	263	3.0		0.145		3.4	LOS A	0.6	16.2				
All Vehicles	756	3.0	756	3.0		0.163		3.9	LOS A	0.6	16.2				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	158	-	158	3.0	1234	0.128	100	NA	NA
Lane 2	160	7	167	3.0	1300	0.128	100	0.0	1
Approach	318	7	325	3.0		0.128			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	154	167	3.0	1029	0.163	100	NA	NA
Approach	13	154	167	3.0		0.163			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	65	-	65	3.0	1362	0.048	100	NA	NA
Lane 2	-	198	198	3.0	1362	0.145	100	NA	NA
Approach	65	198	263	3.0		0.145			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	756	3.0	0.163

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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Project: G:\Shared drives\CS - 2020-current\2025\S254260 - Mon Acad S Residential\Sidra\2026-08-August\Jane Lundeen + Walker\Models\Jane Lundeen + Walker.sip9.sip9

LANE LEVEL OF SERVICE

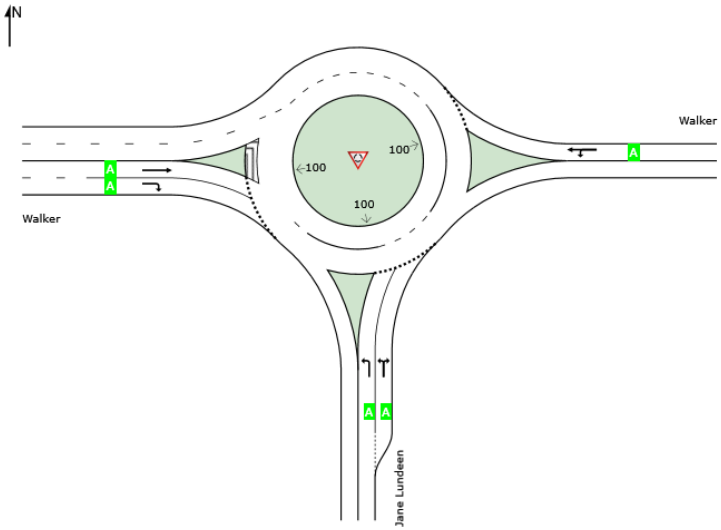
Lane Level of Service

Site: 101 [ST Baseline + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [ST Baseline + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	195	3.0	195	3.0	1234	0.158	100	4.2	LOS A	0.7	17.0	Full	1600	0.0	0.0
Lane 2[d]	205	3.0	205	3.0	1300	0.158	100	4.0	LOS A	0.6	16.5	Short	235	0.0	NA
Approach	400	3.0	400	3.0		0.158		4.1	LOS A	0.7	17.0				
East: Walker															
Lane 1[d]	167	3.0	167	3.0	967	0.173	100	5.3	LOS A	0.7	16.8	Full	1600	0.0	0.0
Approach	167	3.0	167	3.0		0.173		5.3	LOS A	0.7	16.8				
West: Walker															
Lane 1	65	3.0	65	3.0	1362	0.048	100	2.9	LOS A	0.2	4.8	Full	1600	0.0	0.0
Lane 2[d]	210	3.0	210	3.0	1362	0.154	100	3.6	LOS A	0.7	17.4	Full	1600	0.0	0.0
Approach	275	3.0	275	3.0		0.154		3.5	LOS A	0.7	17.4				
All Vehicles	842	3.0	842	3.0		0.173		4.1	LOS A	0.7	17.4				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	195	-	195	3.0	1234	0.158	100	NA	NA
Lane 2	191	14	205	3.0	1300	0.158	100	0.0	1
Approach	386	14	400	3.0		0.158			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	154	167	3.0	967	0.173	100	NA	NA
Approach	13	154	167	3.0		0.173			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	65	-	65	3.0	1362	0.048	100	NA	NA
Lane 2	-	210	210	3.0	1362	0.154	100	NA	NA
Approach	65	210	275	3.0		0.154			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	842	3.0	0.173

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec

There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

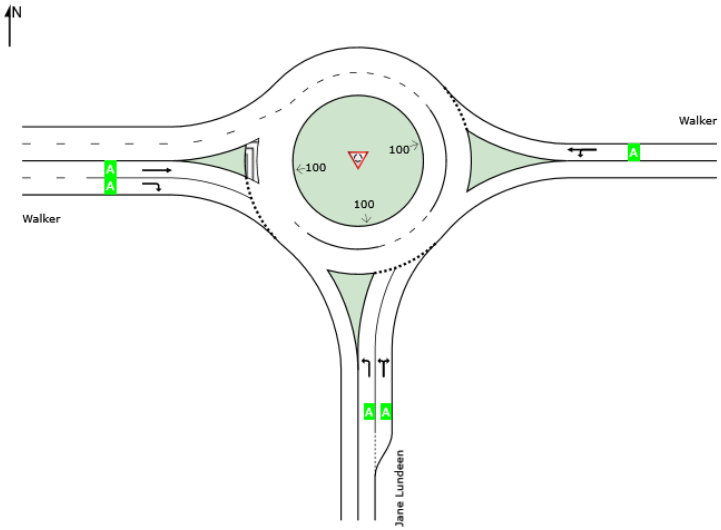
Lane Level of Service

Site: 101 [ST Baseline + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [ST Baseline + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	158	3.0	158	3.0	1121	0.141	100	4.4	LOS A	0.6	14.5	Full	1600	0.0	0.0
Lane 2[d]	167	3.0	167	3.0	1188	0.141	100	4.2	LOS A	0.5	14.1	Short	235	0.0	NA
Approach	325	3.0	325	3.0		0.141		4.3	LOS A	0.6	14.5				
East: Walker															
Lane 1[d]	152	3.0	152	3.0	1039	0.146	100	4.8	LOS A	0.6	14.2	Full	1600	0.0	0.0
Approach	152	3.0	152	3.0		0.146		4.8	LOS A	0.6	14.2				
West: Walker															
Lane 1[d]	163	3.0	163	3.0	1375	0.119	100	3.3	LOS A	0.5	12.9	Full	1600	0.0	0.0
Lane 2	139	3.0	139	3.0	1375	0.101	100	3.2	LOS A	0.4	10.8	Full	1600	0.0	0.0
Approach	302	3.0	302	3.0		0.119		3.2	LOS A	0.5	12.9				
All Vehicles	779	3.0	779	3.0		0.146		4.0	LOS A	0.6	14.5				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	158	-	158	3.0	1121	0.141	100	NA	NA
Lane 2	151	16	167	3.0	1188	0.141	100	0.0	1
Approach	309	16	325	3.0		0.141			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	4	148	152	3.0	1039	0.146	100	NA	NA
Approach	4	148	152	3.0		0.146			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	163	-	163	3.0	1375	0.119	100	NA	NA
Lane 2	-	139	139	3.0	1375	0.101	100	NA	NA
Approach	163	139	302	3.0		0.119			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	779	3.0	0.146

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec

There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

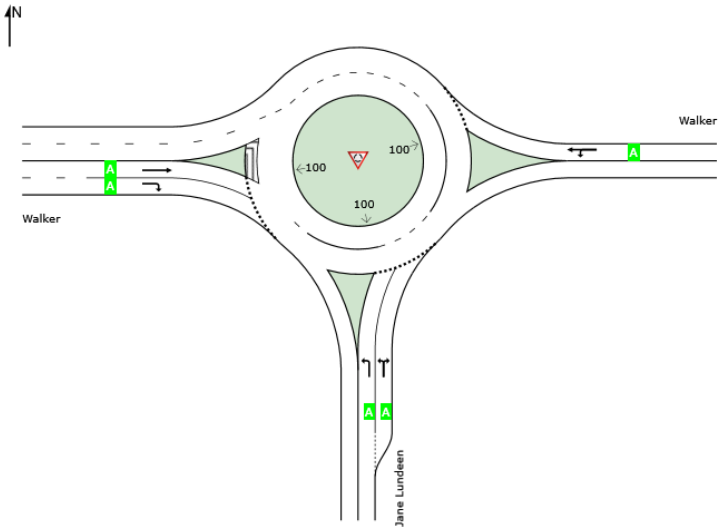
Lane Level of Service

Site: 101 [ST Baseline + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	South	East	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [ST Baseline + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	42	3.0	42	3.0	1149	0.036	100	3.4	LOS A	0.1	3.4	Full	1600	0.0	0.0
Lane 2[d]	44	3.0	44	3.0	1216	0.036	100	3.2	LOS A	0.1	3.3	Short	235	0.0	NA
Approach	86	3.0	86	3.0		0.036		3.3	LOS A	0.1	3.4				
East: Walker															
Lane 1[d]	98	3.0	98	3.0	1277	0.076	100	3.4	LOS A	0.3	7.3	Full	1600	0.0	0.0
Approach	98	3.0	98	3.0		0.076		3.4	LOS A	0.3	7.3				
West: Walker															
Lane 1[d]	137	3.0	137	3.0	1378	0.100	100	3.1	LOS A	0.4	10.6	Full	1600	0.0	0.0
Lane 2	43	3.0	43	3.0	1378	0.031	100	2.8	LOS A	0.1	3.1	Full	1600	0.0	0.0
Approach	181	3.0	181	3.0		0.100		3.0	LOS A	0.4	10.6				
All Vehicles	364	3.0	364	3.0		0.100		3.2	LOS A	0.4	10.6				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	42	-	42	3.0	1149	0.036	100	NA	NA
Lane 2	43	1	44	3.0	1216	0.036	100	0.0	1
Approach	84	1	86	3.0		0.036			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	96	98	3.0	1277	0.076	100	NA	NA
Approach	1	96	98	3.0		0.076			

West: Walker

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	137	-	137	3.0	1378	0.100	100	NA	NA
Lane 2	-	43	43	3.0	1378	0.031	100	NA	NA
Approach	137	43	181	3.0		0.100			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	364	3.0	0.100

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

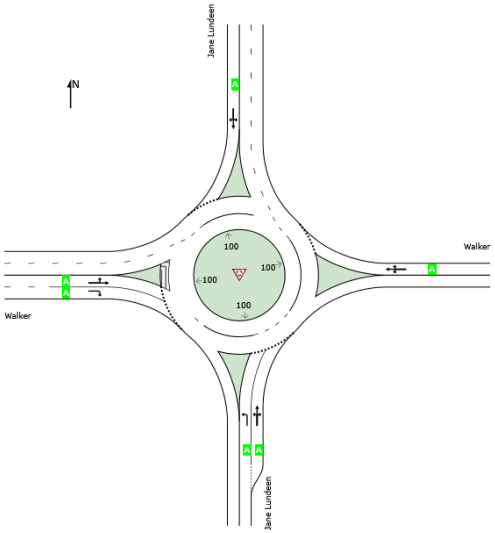
Lane Level of Service

Site: 101 [2045 BG AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	176	3.0	176	3.0	1122	0.157	100	4.6	LOS A	0.6	16.4	Full	1600	0.0	0.0
Lane 2[d]	187	3.0	187	3.0	1189	0.157	100	4.3	LOS A	0.6	16.0	Short	235	0.0	NA
Approach	363	3.0	363	3.0		0.157		4.4	LOS A	0.6	16.4				
East: Walker															
Lane 1[d]	261	3.0	261	3.0	942	0.277	100	6.6	LOS A	1.1	29.1	Full	1600	0.0	0.0
Approach	261	3.0	261	3.0		0.277		6.6	LOS A	1.1	29.1				
North: Jane Lundeen															
Lane 1[d]	210	3.0	210	3.0	784	0.268	100	7.6	LOS A	1.0	26.1	Full	1600	0.0	0.0
Approach	210	3.0	210	3.0		0.268		7.6	LOS A	1.0	26.1				
West: Walker															
Lane 1	152	3.0	152	3.0	1221	0.125	100	4.0	LOS A	0.5	13.2	Full	1600	0.0	0.0
Lane 2[d]	333	3.0	333	3.0	1221	0.272	100	5.3	LOS A	1.3	33.8	Full	1600	0.0	0.0
Approach	485	3.0	485	3.0		0.272		4.9	LOS A	1.3	33.8				
All Vehicles	1319	3.0	1319	3.0		0.277		5.5	LOS A	1.3	33.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	176	-	-	176	3.0	1122	0.157	100	NA	NA
Lane 2	175	1	11	187	3.0	1189	0.157	100	0.0	1
Approach	351	1	11	363	3.0		0.157			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	245	1	261	3.0	942	0.277	100	NA	NA
Approach	16	245	1	261	3.0		0.277			

North: Jane Lundeen

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	100	100	210	3.0	784	0.268	100	NA	NA
Approach	10	100	100	210	3.0		0.268			

West: Walker

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	62	90	-	152	3.0	1221	0.125	100	NA	NA
Lane 2	-	-	333	333	3.0	1221	0.272	100	NA	NA
Approach	62	90	333	485	3.0		0.272			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1319	3.0	0.277

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

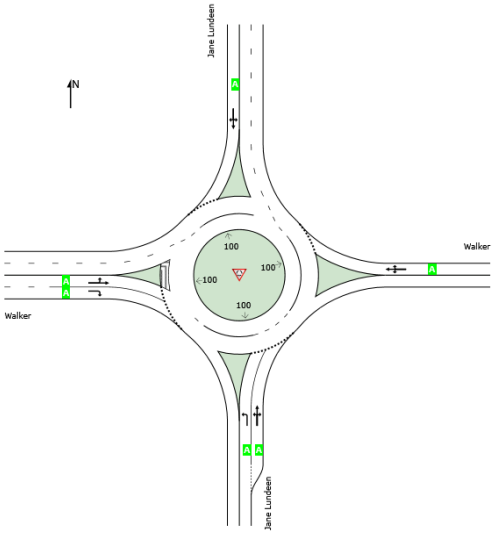
Lane Level of Service

Site: 101 [2045 BG School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	189	3.0	189	3.0	847	0.223	100	6.6	LOS A	0.9	22.7	Full	1600	0.0	0.0
Lane 2[d]	204	3.0	204	3.0	915	0.223	100	6.2	LOS A	0.9	22.2	Short	235	0.0	NA
Approach	393	3.0	393	3.0		0.223		6.3	LOS A	0.9	22.7				
East: Walker															
Lane 1[d]	217	3.0	217	3.0	854	0.254	100	6.9	LOS A	1.0	25.2	Full	1600	0.0	0.0
Approach	217	3.0	217	3.0		0.254		6.9	LOS A	1.0	25.2				
North: Jane Lundeen															
Lane 1[d]	125	3.0	125	3.0	799	0.156	100	6.1	LOS A	0.6	14.2	Full	1600	0.0	0.0
Approach	125	3.0	125	3.0		0.156		6.1	LOS A	0.6	14.2				
West: Walker															
Lane 1[d]	435	3.0	435	3.0	1357	0.320	100	4.9	LOS A	1.7	44.7	Full	1600	0.0	0.0
Lane 2	163	3.0	163	3.0	1357	0.120	100	3.4	LOS A	0.5	13.0	Full	1600	0.0	0.0
Approach	598	3.0	598	3.0		0.320		4.5	LOS A	1.7	44.7				
All Vehicles	1333	3.0	1333	3.0		0.320		5.6	LOS A	1.7	44.7				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	189	-	-	189	3.0	847	0.223	100	NA	NA
Lane 2	186	1	17	204	3.0	915	0.223	100	0.0	1
Approach	375	1	17	393	3.0		0.223			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	211	1	217	3.0	854	0.254	100	NA	NA
Approach	5	211	1	217	3.0		0.254			

North: Jane Lundeen

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	11	1	113	125	3.0	799	0.156	100	NA	NA
Approach	11	1	113	125	3.0		0.156			

West: Walker

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	143	291	-	435	3.0	1357	0.320	100	NA	NA
Lane 2	-	-	163	163	3.0	1357	0.120	100	NA	NA
Approach	143	291	163	598	3.0		0.320			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1333	3.0	0.320

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

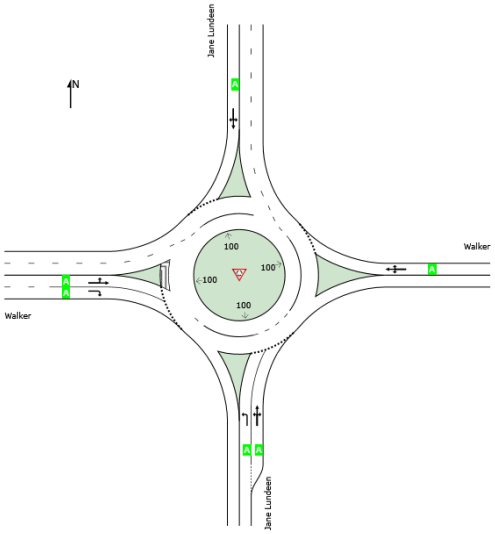
Lane Level of Service

Site: 101 [2045 BG PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	92	3.0	92	3.0	838	0.110	100	5.4	LOS A	0.4	10.2	Full	1600	0.0	0.0
Lane 2[d]	99	3.0	99	3.0	905	0.110	100	5.0	LOS A	0.4	10.0	Short	235	0.0	NA
Approach	191	3.0	191	3.0		0.110		5.2	LOS A	0.4	10.2				
East: Walker															
Lane 1[d]	262	3.0	262	3.0	976	0.269	100	6.3	LOS A	1.1	28.4	Full	1600	0.0	0.0
Approach	262	3.0	262	3.0		0.269		6.3	LOS A	1.1	28.4				
North: Jane Lundeen															
Lane 1[d]	151	3.0	151	3.0	917	0.165	100	5.5	LOS A	0.6	15.7	Full	1600	0.0	0.0
Approach	151	3.0	151	3.0		0.165		5.5	LOS A	0.6	15.7				
West: Walker															
Lane 1[d]	444	3.0	444	3.0	1353	0.328	100	5.1	LOS A	1.8	46.3	Full	1600	0.0	0.0
Lane 2	92	3.0	92	3.0	1353	0.068	100	3.1	LOS A	0.3	6.9	Full	1600	0.0	0.0
Approach	536	3.0	536	3.0		0.328		4.8	LOS A	1.8	46.3				
All Vehicles	1141	3.0	1141	3.0		0.328		5.3	LOS A	1.8	46.3				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	92	-	-	92	3.0	838	0.110	100	NA	NA
Lane 2	92	1	6	99	3.0	905	0.110	100	0.0	1
Approach	184	1	6	191	3.0		0.110			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	6	253	3	262	3.0	976	0.269	100	NA	NA
Approach	6	253	3	262	3.0		0.269			

North: Jane Lundeen

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	1	137	151	3.0	917	0.165	100	NA	NA
Approach	13	1	137	151	3.0		0.165			

West: Walker

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	190	254	-	444	3.0	1353	0.328	100	NA	NA
Lane 2	-	-	92	92	3.0	1353	0.068	100	NA	NA
Approach	190	254	92	536	3.0		0.328			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1141	3.0	0.328

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

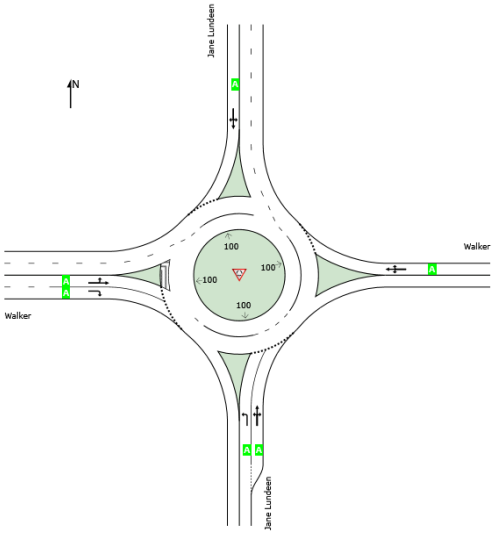
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	213	3.0	213	3.0	1122	0.190	100	4.9	LOS A	0.8	20.5	Full	1600	0.0	0.0
Lane 2[d]	225	3.0	225	3.0	1189	0.190	100	4.6	LOS A	0.8	19.9	Short	235	0.0	NA
Approach	438	3.0	438	3.0		0.190		4.8	LOS A	0.8	20.5				
East: Walker															
Lane 1[d]	261	3.0	261	3.0	885	0.295	100	7.2	LOS A	1.2	30.7	Full	1600	0.0	0.0
Approach	261	3.0	261	3.0		0.295		7.2	LOS A	1.2	30.7				
North: Jane Lundeen															
Lane 1[d]	111	3.0	111	3.0	736	0.151	100	6.5	LOS A	0.5	13.4	Full	1600	0.0	0.0
Approach	111	3.0	111	3.0		0.151		6.5	LOS A	0.5	13.4				
West: Walker															
Lane 1	152	3.0	152	3.0	1345	0.113	100	3.5	LOS A	0.5	12.1	Full	1600	0.0	0.0
Lane 2[d]	345	3.0	345	3.0	1345	0.256	100	4.6	LOS A	1.3	32.6	Full	1600	0.0	0.0
Approach	497	3.0	497	3.0		0.256		4.2	LOS A	1.3	32.6				
All Vehicles	1307	3.0	1307	3.0		0.295		5.2	LOS A	1.3	32.6				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	213	-	-	213	3.0	1122	0.190	100	NA	NA
Lane 2	206	1	18	225	3.0	1189	0.190	100	0.0	1
Approach	418	1	18	438	3.0		0.190			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	245	1	261	3.0	885	0.295	100	NA	NA
Approach	16	245	1	261	3.0		0.295			

North: Jane Lundeen

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	1	100	111	3.0	736	0.151	100	NA	NA
Approach	10	1	100	111	3.0		0.151			

West: Walker

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	62	90	-	152	3.0	1345	0.113	100	NA	NA
Lane 2	-	-	345	345	3.0	1345	0.256	100	NA	NA
Approach	62	90	345	497	3.0		0.256			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1307	3.0	0.295

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

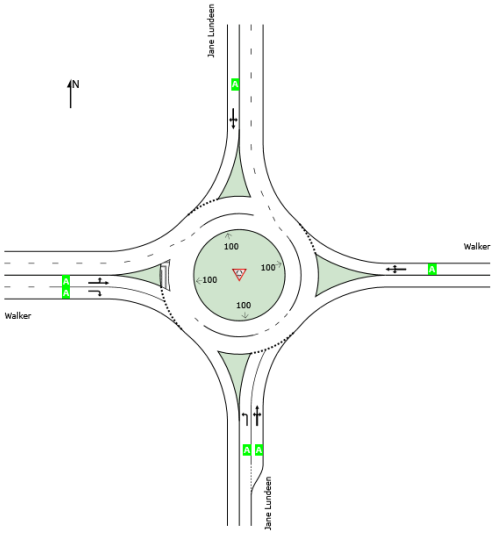
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	208	3.0	208	3.0	847	0.245	100	6.8	LOS A	1.0	25.4	Full	1600	0.0	0.0
Lane 2[d]	225	3.0	225	3.0	915	0.245	100	6.4	LOS A	1.0	24.8	Short	235	0.0	NA
Approach	433	3.0	433	3.0		0.245		6.6	LOS A	1.0	25.4				
East: Walker															
Lane 1[d]	217	3.0	217	3.0	827	0.262	100	7.2	LOS A	1.0	25.9	Full	1600	0.0	0.0
Approach	217	3.0	217	3.0		0.262		7.2	LOS A	1.0	25.9				
North: Jane Lundeen															
Lane 1[d]	125	3.0	125	3.0	774	0.162	100	6.3	LOS A	0.6	14.6	Full	1600	0.0	0.0
Approach	125	3.0	125	3.0		0.162		6.3	LOS A	0.6	14.6				
West: Walker															
Lane 1[d]	435	3.0	435	3.0	1357	0.320	100	4.9	LOS A	1.7	44.7	Full	1600	0.0	0.0
Lane 2	187	3.0	187	3.0	1357	0.138	100	3.6	LOS A	0.6	15.2	Full	1600	0.0	0.0
Approach	622	3.0	622	3.0		0.320		4.5	LOS A	1.7	44.7				
All Vehicles	1396	3.0	1396	3.0		0.320		5.7	LOS A	1.7	44.7				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	208	-	-	208	3.0	847	0.245	100	NA	NA
Lane 2	202	1	22	225	3.0	915	0.245	100	0.0	1
Approach	410	1	22	433	3.0		0.245			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	211	1	217	3.0	827	0.262	100	NA	NA
Approach	5	211	1	217	3.0		0.262			

North: Jane Lundeen

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	11	1	113	125	3.0	774	0.162	100	NA	NA
Approach	11	1	113	125	3.0		0.162			

West: Walker

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	143	291	-	435	3.0	1357	0.320	100	NA	NA
Lane 2	-	-	187	187	3.0	1357	0.138	100	NA	NA
Approach	143	291	187	622	3.0		0.320			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1396	3.0	0.320

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

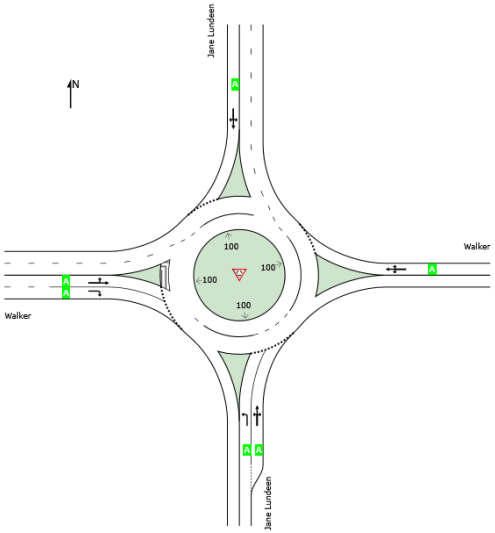
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1	114	3.0	114	3.0	838	0.136	100	5.6	LOS A	0.5	12.9	Full	1600	0.0	0.0
Lane 2[d]	123	3.0	123	3.0	905	0.136	100	5.3	LOS A	0.5	12.6	Short	235	0.0	NA
Approach	237	3.0	237	3.0		0.136		5.4	LOS A	0.5	12.9				
East: Walker															
Lane 1[d]	262	3.0	262	3.0	940	0.279	100	6.7	LOS A	1.1	29.3	Full	1600	0.0	0.0
Approach	262	3.0	262	3.0		0.279		6.7	LOS A	1.1	29.3				
North: Jane Lundeen															
Lane 1[d]	150	3.0	150	3.0	883	0.170	100	5.7	LOS A	0.6	16.0	Full	1600	0.0	0.0
Approach	150	3.0	150	3.0		0.170		5.7	LOS A	0.6	16.0				
West: Walker															
Lane 1[d]	444	3.0	444	3.0	1353	0.328	100	5.1	LOS A	1.8	46.3	Full	1600	0.0	0.0
Lane 2	127	3.0	127	3.0	1353	0.094	100	3.3	LOS A	0.4	9.8	Full	1600	0.0	0.0
Approach	571	3.0	571	3.0		0.328		4.7	LOS A	1.8	46.3				
All Vehicles	1220	3.0	1220	3.0		0.328		5.4	LOS A	1.8	46.3				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	114	-	-	114	3.0	838	0.136	100	NA	NA
Lane 2	111	1	11	123	3.0	905	0.136	100	0.0	1
Approach	225	1	11	237	3.0		0.136			

East: Walker

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	6	253	3	262	3.0	940	0.279	100	NA	NA
Approach	6	253	3	262	3.0		0.279			

North: Jane Lundeen

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	1	136	150	3.0	883	0.170	100	NA	NA
Approach	13	1	136	150	3.0		0.170			

West: Walker

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	190	254	-	444	3.0	1353	0.328	100	NA	NA
Lane 2	-	-	127	127	3.0	1353	0.094	100	NA	NA
Approach	190	254	127	571	3.0		0.328			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1220	3.0	0.328

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Walker				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

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Project: G:\Shared drives\CS - 2020-current\2025\S254260 - Mon Acad S Residential\Sidra\2026-08-August\Jane Lundeen + Walker\Models\Jane Lundeen + Walker.sip9.sip9

Sidra Reports

Jane Lundeen + Pinehurst

LANE LEVEL OF SERVICE

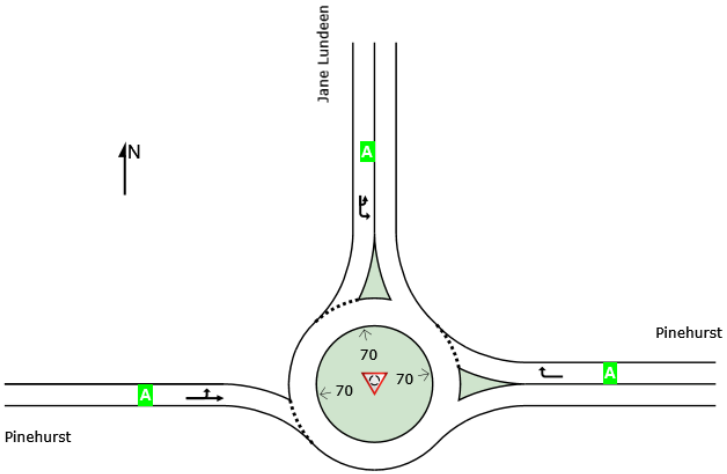
Lane Level of Service

Site: 101 [2025 Existing AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2025 Existing AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	591	3.0	591	3.0	1338	0.442	100	5.2	LOS A	3.2	82.5	Full	800	0.0	0.0
Approach	591	3.0	591	3.0		0.442		5.2	LOS A	3.2	82.5				
North: Jane Lundeen															
Lane 1[d]	384	3.0	384	3.0	1343	0.286	100	4.1	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	384	3.0	384	3.0		0.286		4.1	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	295	3.0	295	3.0	886	0.333	100	7.7	LOS A	1.6	41.7	Full	300	0.0	0.0
Approach	295	3.0	295	3.0		0.333		7.7	LOS A	1.6	41.7				
All Vehicles	1271	3.0	1271	3.0		0.442		5.4	LOS A	3.2	82.5				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst

Mov. From E To Exit:	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	591	591	3.0	1338	0.442	100	NA	NA
Approach	591	591	3.0		0.442			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	383	384	3.0	1343	0.286	100	NA	NA
Approach	1	383	384	3.0		0.286			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	293	295	3.0	886	0.333	100	NA	NA
Approach	2	293	295	3.0		0.333			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1271	3.0	0.442

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [2025 Existing School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	536	3.0	536	3.0	1340	0.400	100	4.8	LOS A	2.7	69.7	Full	800	0.0	0.0
Approach	536	3.0	536	3.0		0.400		4.8	LOS A	2.7	69.7				
North: Jane Lundeen															
Lane 1[d]	339	3.0	339	3.0	1343	0.253	100	3.9	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	339	3.0	339	3.0		0.253		3.9	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	123	3.0	123	3.0	930	0.132	100	5.1	LOS A	0.6	14.2	Full	300	0.0	0.0
Approach	123	3.0	123	3.0		0.132		5.1	LOS A	0.6	14.2				
All Vehicles	998	3.0	998	3.0		0.400		4.6	LOS A	2.7	69.7				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst									
Mov. From E To Exit:	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	536	536	3.0		1340	0.400	100	NA	NA
Approach	536	536	3.0			0.400			

North: Jane Lundeen									
Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	338	339	3.0	1343	0.253	100	NA	NA
Approach	1	338	339	3.0		0.253			

West: Pinehurst									
Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	121	123	3.0	930	0.132	100	NA	NA
Approach	1	121	123	3.0		0.132			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	998	3.0	0.400

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

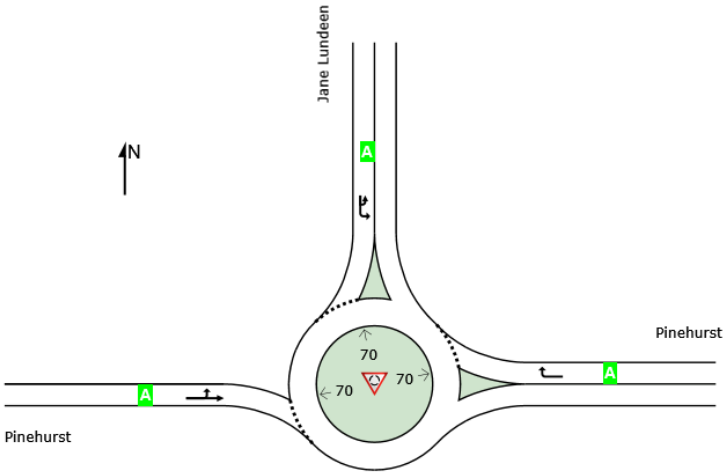
Lane Level of Service

Site: 101 [2025 Existing School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE LEVEL OF SERVICE

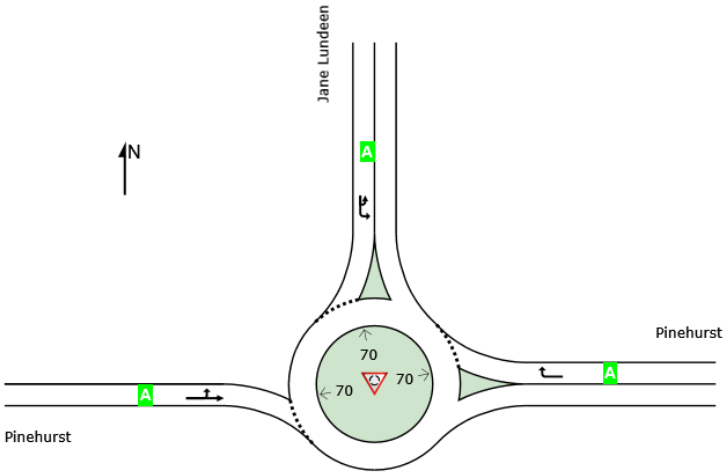
Lane Level of Service

Site: 101 [2025 Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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

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LANE SUMMARY

Site: 101 [2025 Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	117	3.0	117	3.0	1340	0.087	100	3.1	LOS A	0.4	10.0	Full	800	0.0	0.0
Approach	117	3.0	117	3.0		0.087		3.1	LOS A	0.4	10.0				
North: Jane Lundeen															
Lane 1[d]	84	3.0	84	3.0	1343	0.063	100	3.0	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	84	3.0	84	3.0		0.063		3.0	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	33	3.0	33	3.0	1226	0.027	100	3.1	LOS A	0.1	2.9	Full	300	0.0	0.0
Approach	33	3.0	33	3.0		0.027		3.1	LOS A	0.1	2.9				
All Vehicles	234	3.0	234	3.0		0.087		3.1	LOS A	0.4	10.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst

Mov. From E To Exit:	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	117	117	3.0	1340	0.087	100	NA	NA
Approach	117	117	3.0		0.087			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	83	84	3.0	1343	0.063	100	NA	NA
Approach	1	83	84	3.0		0.063			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	32	33	3.0	1226	0.027	100	NA	NA
Approach	1	32	33	3.0		0.027			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	234	3.0	0.087

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

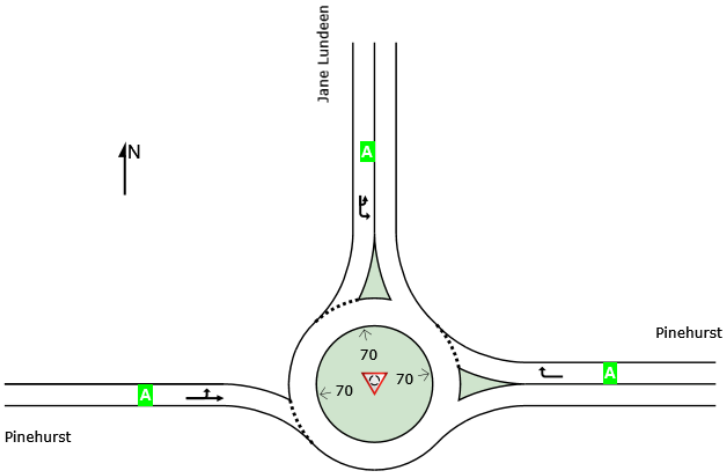
Lane Level of Service

Site: 101 [2026 Baseline AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2026 Baseline AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	611	3.0	611	3.0	1338	0.457	100	5.3	LOS A	3.4	87.6	Full	800	0.0	0.0
Approach	611	3.0	611	3.0		0.457		5.3	LOS A	3.4	87.6				
North: Jane Lundeen															
Lane 1[d]	388	3.0	388	3.0	1343	0.289	100	4.1	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	388	3.0	388	3.0		0.289		4.1	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	305	3.0	305	3.0	882	0.346	100	7.9	LOS A	1.7	43.6	Full	300	0.0	0.0
Approach	305	3.0	305	3.0		0.346		7.9	LOS A	1.7	43.6				
All Vehicles	1304	3.0	1304	3.0		0.457		5.5	LOS A	3.4	87.6				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst									
Mov. From E To Exit:	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	611	611	3.0		1338	0.457	100	NA	NA
Approach	611	611	3.0			0.457			

North: Jane Lundeen									
Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	387	388	3.0	1343	0.289	100	NA	NA
Approach	1	387	388	3.0		0.289			

West: Pinehurst									
Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	302	305	3.0	882	0.346	100	NA	NA
Approach	2	302	305	3.0		0.346			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1304	3.0	0.457

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

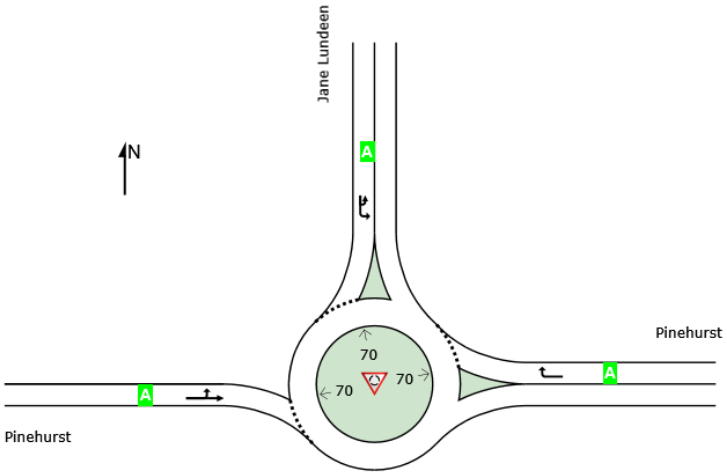
Lane Level of Service

Site: 101 [2026 Baseline School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
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Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2026 Baseline School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	551	3.0	551	3.0	1340	0.411	100	4.9	LOS A	2.8	72.9	Full	800	0.0	0.0
Approach	551	3.0	551	3.0		0.411		4.9	LOS A	2.8	72.9				
North: Jane Lundeen															
Lane 1[d]	354	3.0	354	3.0	1343	0.263	100	4.0	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	354	3.0	354	3.0		0.263		4.0	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	139	3.0	139	3.0	916	0.152	100	5.4	LOS A	0.6	16.6	Full	300	0.0	0.0
Approach	139	3.0	139	3.0		0.152		5.4	LOS A	0.6	16.6				
All Vehicles	1044	3.0	1044	3.0		0.411		4.7	LOS A	2.8	72.9				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst									
Mov. From E To Exit:	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	551	551	3.0		1340	0.411	100	NA	NA
Approach	551	551	3.0			0.411			

North: Jane Lundeen									
Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	352	354	3.0	1343	0.263	100	NA	NA
Approach	1	352	354	3.0		0.263			

West: Pinehurst									
Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	138	139	3.0	916	0.152	100	NA	NA
Approach	1	138	139	3.0		0.152			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1044	3.0	0.411

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [2026 Baseline PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	117	3.0	117	3.0	1340	0.087	100	3.1	LOS A	0.4	10.0	Full	800	0.0	0.0
Approach	117	3.0	117	3.0		0.087		3.1	LOS A	0.4	10.0				
North: Jane Lundeen															
Lane 1[d]	84	3.0	84	3.0	1343	0.063	100	3.0	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	84	3.0	84	3.0		0.063		3.0	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	33	3.0	33	3.0	1226	0.027	100	3.1	LOS A	0.1	2.9	Full	300	0.0	0.0
Approach	33	3.0	33	3.0		0.027		3.1	LOS A	0.1	2.9				
All Vehicles	234	3.0	234	3.0		0.087		3.1	LOS A	0.4	10.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst

Mov. From E To Exit:	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	117	117	3.0	1340	0.087	100	NA	NA
Approach	117	117	3.0		0.087			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	83	84	3.0	1343	0.063	100	NA	NA
Approach	1	83	84	3.0		0.063			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	32	33	3.0	1226	0.027	100	NA	NA
Approach	1	32	33	3.0		0.027			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	234	3.0	0.087

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

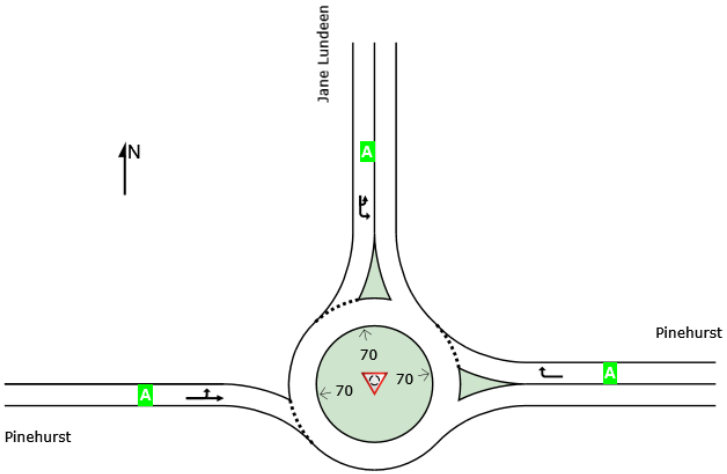
Lane Level of Service

Site: 101 [2026 Baseline PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE LEVEL OF SERVICE

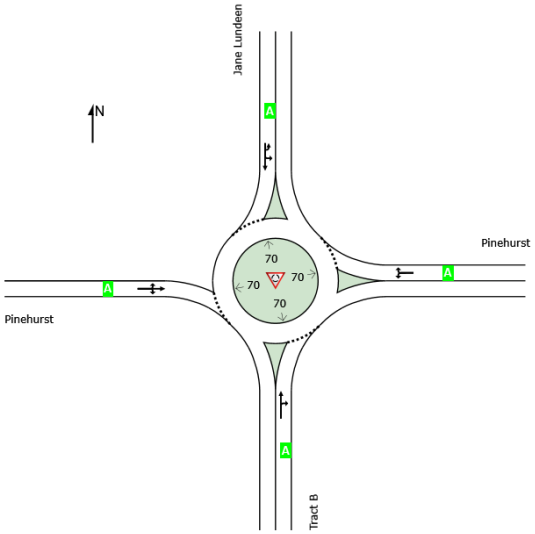
Lane Level of Service

Site: 101 [2026 Baseline + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2026 Baseline + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	14	3.0	14	3.0	621	0.023	100	6.0	LOS A	0.1	2.1	Full	300	0.0	0.0
Approach	14	3.0	14	3.0		0.023		6.0	LOS A	0.1	2.1				
East: Pinehurst															
Lane 1[d]	617	3.0	617	3.0	1313	0.470	100	6.5	LOS A	3.5	90.5	Full	800	0.0	0.0
Approach	617	3.0	617	3.0		0.470		6.5	LOS A	3.5	90.5				
North: Jane Lundeen															
Lane 1[d]	401	3.0	401	3.0	1341	0.299	100	4.2	LOS A	1.7	44.6	Full	600	0.0	0.0
Approach	401	3.0	401	3.0		0.299		4.2	LOS A	1.7	44.6				
West: Pinehurst															
Lane 1[d]	316	3.0	316	3.0	868	0.363	100	8.2	LOS A	1.8	46.2	Full	300	0.0	0.0
Approach	316	3.0	316	3.0		0.363		8.2	LOS A	1.8	46.2				
All Vehicles	1348	3.0	1348	3.0		0.470		6.2	LOS A	3.5	90.5				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	1	14	3.0		621	0.023	100	NA	NA
Approach	13	1	14	3.0			0.023			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	616	617	3.0		1313	0.470	100	NA	NA
Approach	1	616	617	3.0			0.470			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	398	2	401	3.0	1341	0.299	100	NA	NA
Approach	1	398	2	401	3.0		0.299			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	7	305	4	316	3.0	868	0.363	100	NA	NA
Approach	7	305	4	316	3.0		0.363			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1348	3.0		0.470						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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Project: G:\Shared drives\CS - 2020-current\2025\S254260 - Mon Acad S Residential\Sidra\2026-08-August\Jane Lundeen + Pinehurst\Models\Pinehurst + Jane Lundeen.sip9

LANE LEVEL OF SERVICE

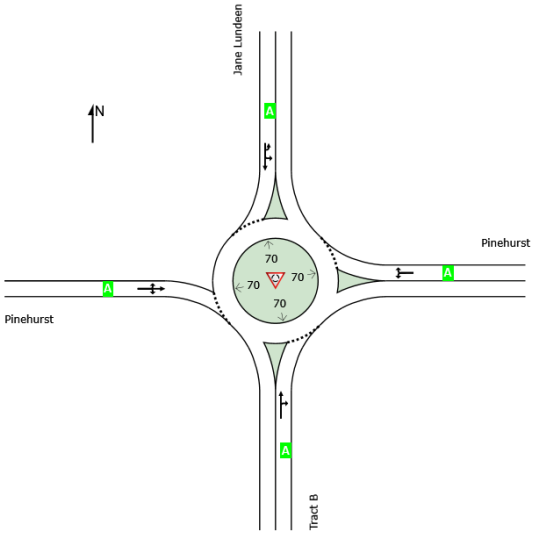
Lane Level of Service

Site: 101 [2026 Baseline + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2026 Baseline + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	773	0.013	100	4.8	LOS A	0.0	1.3	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.013		4.8	LOS A	0.0	1.3				
East: Pinehurst															
Lane 1[d]	556	3.0	556	3.0	1320	0.422	100	5.9	LOS A	2.9	75.1	Full	800	0.0	0.0
Approach	556	3.0	556	3.0		0.422		5.9	LOS A	2.9	75.1				
North: Jane Lundeen															
Lane 1[d]	365	3.0	365	3.0	1341	0.272	100	4.1	LOS A	1.5	39.1	Full	600	0.0	0.0
Approach	365	3.0	365	3.0		0.272		4.1	LOS A	1.5	39.1				
West: Pinehurst															
Lane 1[d]	157	3.0	157	3.0	903	0.174	100	5.7	LOS A	0.8	19.3	Full	300	0.0	0.0
Approach	157	3.0	157	3.0		0.174		5.7	LOS A	0.8	19.3				
All Vehicles	1089	3.0	1089	3.0		0.422		5.2	LOS A	2.9	75.1				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0		773	0.013	100	NA	NA
Approach	9	1	10	3.0			0.013			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	555	556	3.0		1320	0.422	100	NA	NA
Approach	1	555	556	3.0			0.422			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	360	5	365	3.0	1341	0.272	100	NA	NA
Approach	1	360	5	365	3.0		0.272			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	6	143	8	157	3.0	903	0.174	100	NA	NA
Approach	6	143	8	157	3.0		0.174			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1089	3.0		0.422						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

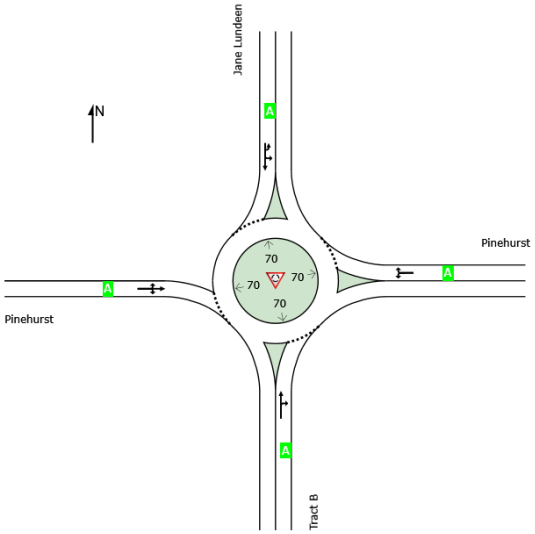
Lane Level of Service

Site: 101 [2026 Baseline + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2026 Baseline + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	3	3.0	3	3.0	1183	0.002	100	3.1	LOS A	0.0	0.2	Full	300	0.0	0.0
Approach	3	3.0	3	3.0		0.002		3.1	LOS A	0.0	0.2				
East: Pinehurst															
Lane 1[d]	118	3.0	118	3.0	1338	0.088	100	3.2	LOS A	0.4	10.1	Full	800	0.0	0.0
Approach	118	3.0	118	3.0		0.088		3.2	LOS A	0.4	10.1				
North: Jane Lundeen															
Lane 1[d]	85	3.0	85	3.0	1341	0.064	100	3.0	LOS A	0.3	7.1	Full	600	0.0	0.0
Approach	85	3.0	85	3.0		0.064		3.0	LOS A	0.3	7.1				
West: Pinehurst															
Lane 1[d]	34	3.0	34	3.0	1223	0.028	100	3.2	LOS A	0.1	3.0	Full	300	0.0	0.0
Approach	34	3.0	34	3.0		0.028		3.2	LOS A	0.1	3.0				
All Vehicles	240	3.0	240	3.0		0.088		3.1	LOS A	0.4	10.1				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	3	3.0	1183	0.002	100	NA	NA
Approach	1	1	3	3.0		0.002			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	117	118	3.0	1338	0.088	100	NA	NA
Approach	1	117	118	3.0		0.088			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	83	1	85	3.0	1341	0.064	100	NA	NA
Approach	1	83	1	85	3.0		0.064			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	32	1	34	3.0	1223	0.028	100	NA	NA
Approach	1	32	1	34	3.0		0.028			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	240	3.0	0.088

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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Project: G:\Shared drives\CS - 2020-current\2025\S254260 - Mon Acad S Residential\Sidra\2026-08-August\Jane Lundeen + Pinehurst\Models\Pinehurst + Jane Lundeen.sip9

LANE LEVEL OF SERVICE

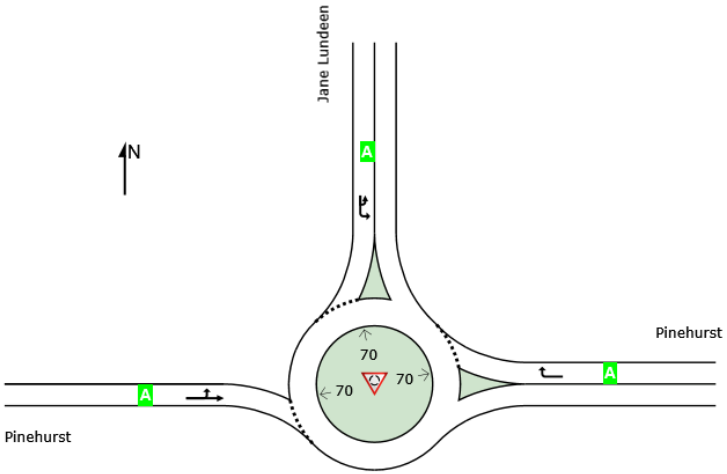
Lane Level of Service

Site: 101 [2045 BG AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	620	3.0	620	3.0	1274	0.487	100	7.4	LOS A	3.7	93.8	Full	800	0.0	0.0
Approach	620	3.0	620	3.0		0.487		7.4	LOS A	3.7	93.8				
North: Jane Lundeen															
Lane 1[d]	395	3.0	395	3.0	1343	0.294	100	4.2	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	395	3.0	395	3.0		0.294		4.2	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	350	3.0	350	3.0	876	0.400	100	8.7	LOS A	2.1	53.0	Full	300	0.0	0.0
Approach	350	3.0	350	3.0		0.400		8.7	LOS A	2.1	53.0				
All Vehicles	1365	3.0	1365	3.0		0.487		6.8	LOS A	3.7	93.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst									
Mov. From E To Exit:	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	620	620	3.0		1274	0.487	100	NA	NA
Approach	620	620	3.0			0.487			

North: Jane Lundeen									
Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	394	395	3.0	1343	0.294	100	NA	NA
Approach	1	394	395	3.0		0.294			

West: Pinehurst									
Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	48	302	350	3.0	876	0.400	100	NA	NA
Approach	48	302	350	3.0		0.400			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1365	3.0	0.487

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

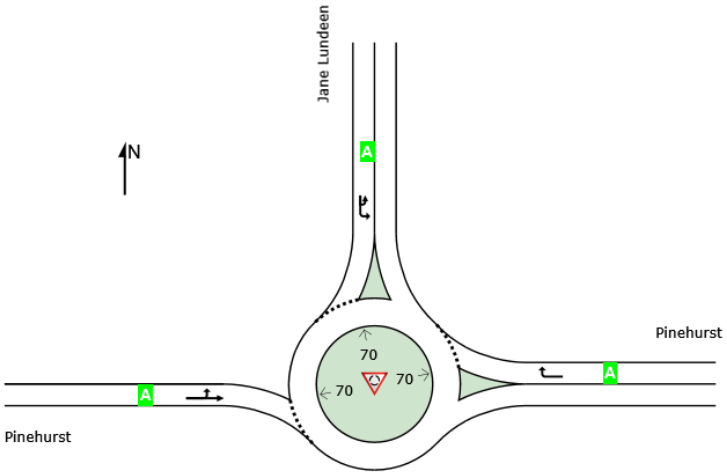
Lane Level of Service

Site: 101 [2045 BG School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	572	3.0	572	3.0	1328	0.431	100	5.7	LOS A	3.1	78.4	Full	800	0.0	0.0
Approach	572	3.0	572	3.0		0.431		5.7	LOS A	3.1	78.4				
North: Jane Lundeen															
Lane 1[d]	327	3.0	327	3.0	1343	0.244	100	3.9	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	327	3.0	327	3.0		0.244		3.9	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	164	3.0	164	3.0	942	0.174	100	5.5	LOS A	0.8	19.6	Full	300	0.0	0.0
Approach	164	3.0	164	3.0		0.174		5.5	LOS A	0.8	19.6				
All Vehicles	1064	3.0	1064	3.0		0.431		5.1	LOS A	3.1	78.4				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst

Mov. From E To Exit:	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	572	572	3.0	1328	0.431	100	NA	NA
Approach	572	572	3.0		0.431			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	326	327	3.0	1343	0.244	100	NA	NA
Approach	1	326	327	3.0		0.244			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	155	164	3.0	942	0.174	100	NA	NA
Approach	10	155	164	3.0		0.174			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1064	3.0	0.431

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

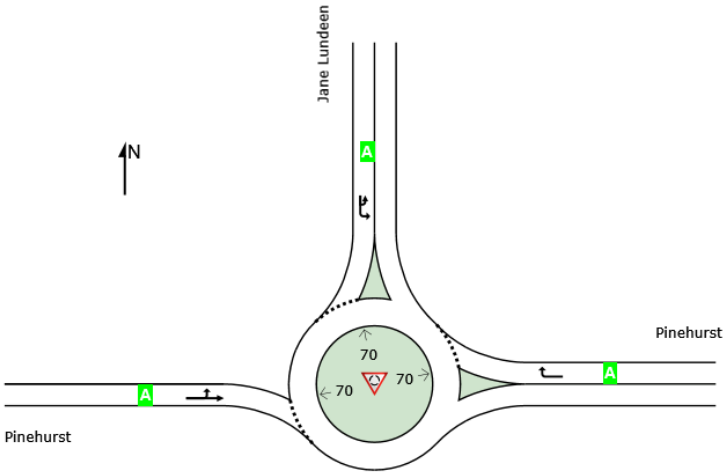
Lane Level of Service

Site: 101 [2045 BG PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

	Approaches			Intersection
	East	North	West	
LOS	A	A	A	A



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Pinehurst															
Lane 1[d]	133	3.0	133	3.0	1297	0.103	100	3.5	LOS A	0.5	11.9	Full	800	0.0	0.0
Approach	133	3.0	133	3.0		0.103		3.5	LOS A	0.5	11.9				
North: Jane Lundeen															
Lane 1[d]	116	3.0	116	3.0	1343	0.086	100	3.1	LOS A	0.0	0.0	Full	600	0.0	0.0
Approach	116	3.0	116	3.0		0.086		3.1	LOS A	0.0	0.0				
West: Pinehurst															
Lane 1[d]	106	3.0	106	3.0	1185	0.089	100	3.8	LOS A	0.4	9.9	Full	300	0.0	0.0
Approach	106	3.0	106	3.0		0.089		3.8	LOS A	0.4	9.9				
All Vehicles	355	3.0	355	3.0		0.103		3.5	LOS A	0.5	11.9				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

East: Pinehurst									
Mov. From E To Exit:	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	133	133	3.0		1297	0.103	100	NA	NA
Approach	133	133	3.0			0.103			

North: Jane Lundeen									
Mov. From N To Exit:	U N	L2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	115	116	3.0	1343	0.086	100	NA	NA
Approach	1	115	116	3.0		0.086			

West: Pinehurst									
Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	31	74	106	3.0	1185	0.089	100	NA	NA
Approach	31	74	106	3.0		0.089			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	355	3.0	0.103

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
East: Pinehurst				

Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

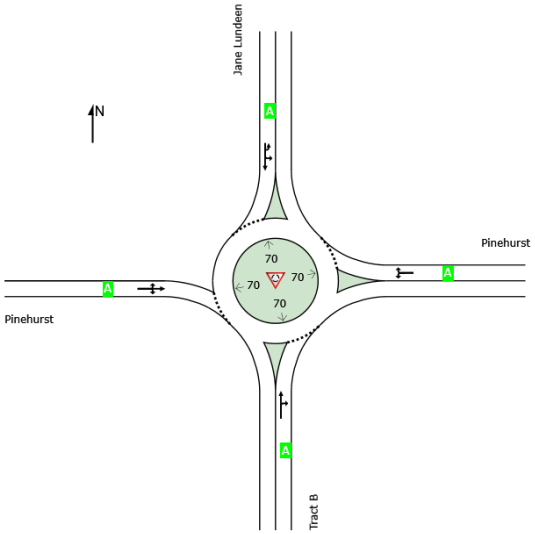
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	14	3.0	14	3.0	657	0.021	100	5.7	LOS A	0.1	2.0	Full	300	0.0	0.0
Approach	14	3.0	14	3.0		0.021		5.7	LOS A	0.1	2.0				
East: Pinehurst															
Lane 1[d]	626	3.0	626	3.0	1247	0.502	100	7.9	LOS A	3.8	97.2	Full	800	0.0	0.0
Approach	626	3.0	626	3.0		0.502		7.9	LOS A	3.8	97.2				
North: Jane Lundeen															
Lane 1[d]	304	3.0	304	3.0	1341	0.227	100	3.8	LOS A	1.2	30.6	Full	600	0.0	0.0
Approach	304	3.0	304	3.0		0.227		3.8	LOS A	1.2	30.6				
West: Pinehurst															
Lane 1[d]	363	3.0	363	3.0	966	0.376	100	7.8	LOS A	2.0	51.1	Full	300	0.0	0.0
Approach	363	3.0	363	3.0		0.376		7.8	LOS A	2.0	51.1				
All Vehicles	1307	3.0	1307	3.0		0.502		6.9	LOS A	3.8	97.2				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	1	14	3.0	657	0.021	100	NA	NA
Approach	13	1	14	3.0		0.021			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	624	626	3.0	1247	0.502	100	NA	NA
Approach	1	624	626	3.0		0.502			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	298	5	304	3.0	1341	0.227	100	NA	NA
Approach	1	298	5	304	3.0		0.227			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	55	305	4	363	3.0	966	0.376	100	NA	NA
Approach	55	305	4	363	3.0		0.376			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1307	3.0	0.502

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	773	0.013	100	4.8	LOS A	0.0	1.3	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.013		4.8	LOS A	0.0	1.3				
East: Pinehurst															
Lane 1[d]	578	3.0	578	3.0	1306	0.442	100	6.4	LOS A	3.2	80.8	Full	800	0.0	0.0
Approach	578	3.0	578	3.0		0.442		6.4	LOS A	3.2	80.8				
North: Jane Lundeen															
Lane 1[d]	339	3.0	339	3.0	1341	0.253	100	4.0	LOS A	1.4	35.4	Full	600	0.0	0.0
Approach	339	3.0	339	3.0		0.253		4.0	LOS A	1.4	35.4				
West: Pinehurst															
Lane 1[d]	184	3.0	184	3.0	929	0.198	100	5.8	LOS A	0.9	22.5	Full	300	0.0	0.0
Approach	184	3.0	184	3.0		0.198		5.8	LOS A	0.9	22.5				
All Vehicles	1111	3.0	1111	3.0		0.442		5.5	LOS A	3.2	80.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0		773	0.013	100	NA	NA
Approach	9	1	10	3.0			0.013			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	577	578	3.0		1306	0.442	100	NA	NA
Approach	1	577	578	3.0			0.442			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	333	5	339	3.0	1341	0.253	100	NA	NA
Approach	1	333	5	339	3.0		0.253			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	160	8	184	3.0	929	0.198	100	NA	NA
Approach	16	160	8	184	3.0		0.198			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1111	3.0		0.442						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

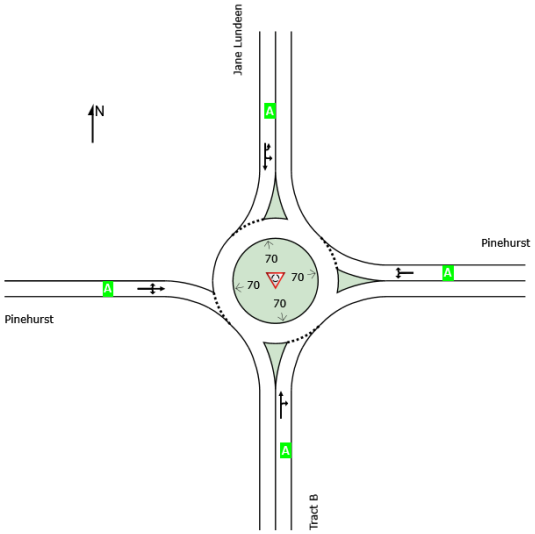
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE LEVEL OF SERVICE

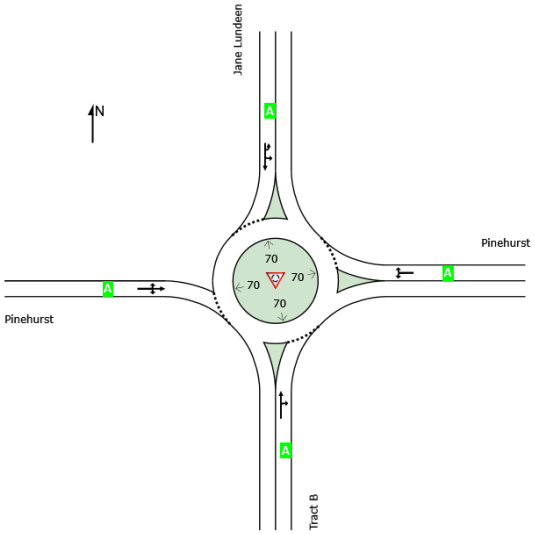
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	1035	0.010	100	3.6	LOS A	0.0	1.0	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.010		3.6	LOS A	0.0	1.0				
East: Pinehurst															
Lane 1[d]	138	3.0	138	3.0	1273	0.108	100	3.6	LOS A	0.5	12.5	Full	800	0.0	0.0
Approach	138	3.0	138	3.0		0.108		3.6	LOS A	0.5	12.5				
North: Jane Lundeen															
Lane 1[d]	129	3.0	129	3.0	1341	0.096	100	3.2	LOS A	0.4	11.1	Full	600	0.0	0.0
Approach	129	3.0	129	3.0		0.096		3.2	LOS A	0.4	11.1				
West: Pinehurst															
Lane 1[d]	159	3.0	159	3.0	1167	0.137	100	4.2	LOS A	0.6	15.8	Full	300	0.0	0.0
Approach	159	3.0	159	3.0		0.137		4.2	LOS A	0.6	15.8				
All Vehicles	436	3.0	436	3.0		0.137		3.7	LOS A	0.6	15.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0		1035	0.010	100	NA	NA
Approach	9	1	10	3.0			0.010			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	137	138	3.0		1273	0.108	100	NA	NA
Approach	1	137	138	3.0			0.108			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	121	6	129	3.0	1341	0.096	100	NA	NA
Approach	1	121	6	129	3.0		0.096			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	40	79	41	159	3.0	1167	0.137	100	NA	NA
Approach	40	79	41	159	3.0		0.137			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	436	3.0	0.137							

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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Sidra Reports

Jane Lundeen + Pinehurst
(A,B,C,D,E,F)

LANE LEVEL OF SERVICE

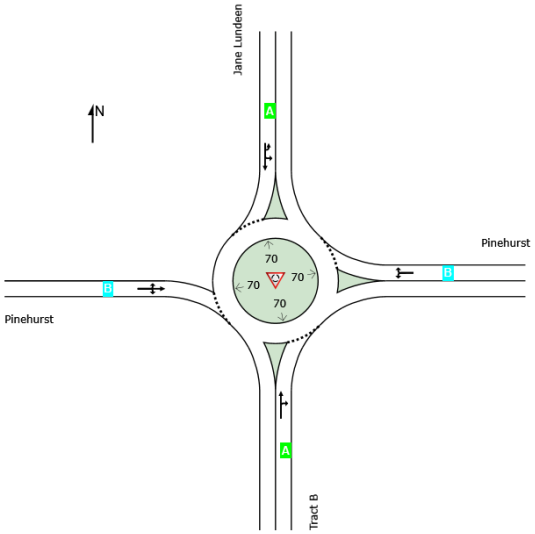
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	15	3.0	15	3.0	552	0.028	100	6.8	LOS A	0.1	2.5	Full	300	0.0	0.0
Approach	15	3.0	15	3.0		0.028		6.8	LOS A	0.1	2.5				
East: Pinehurst															
Lane 1[d]	801	3.0	801	3.0	1177	0.681	100	12.1	LOS B	6.8	173.4	Full	800	0.0	0.0
Approach	801	3.0	801	3.0		0.681		12.1	LOS B	6.8	173.4				
North: Jane Lundeen															
Lane 1[d]	468	3.0	468	3.0	1341	0.349	100	4.5	LOS A	2.2	56.0	Full	600	0.0	0.0
Approach	468	3.0	468	3.0		0.349		4.5	LOS A	2.2	56.0				
West: Pinehurst															
Lane 1[d]	356	3.0	356	3.0	808	0.441	100	10.0	LOS B	2.7	68.1	Full	300	0.0	0.0
Approach	356	3.0	356	3.0		0.441		10.0	LOS B	2.7	68.1				
All Vehicles	1641	3.0	1641	3.0		0.681		9.4	LOS A	6.8	173.4				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	14	1	15	3.0	552	0.028	100	NA	NA
Approach	14	1	15	3.0		0.028			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	800	801	3.0	1177	0.681	100	NA	NA
Approach	1	800	801	3.0		0.681			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	70	396	2	468	3.0	1341	0.349	100	NA	NA
Approach	70	396	2	468	3.0		0.349			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	38	314	4	356	3.0	808	0.441	100	NA	NA
Approach	38	314	4	356	3.0		0.441			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1641	3.0	0.681

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

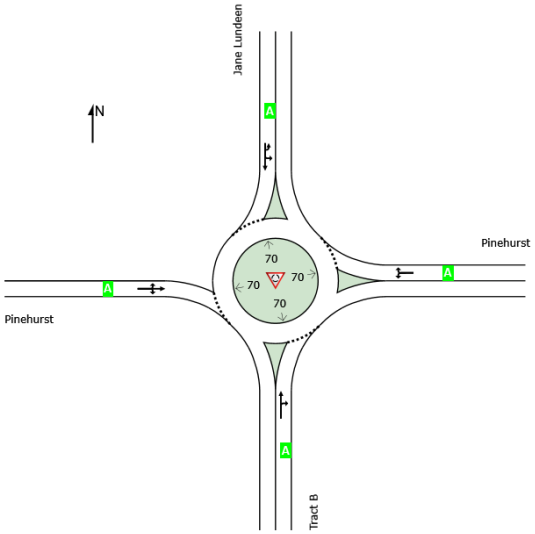
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	750	0.014	100	4.9	LOS A	0.1	1.3	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.014		4.9	LOS A	0.1	1.3				
East: Pinehurst															
Lane 1[d]	578	3.0	578	3.0	1248	0.463	100	7.3	LOS A	3.3	84.0	Full	800	0.0	0.0
Approach	578	3.0	578	3.0		0.463		7.3	LOS A	3.3	84.0				
North: Jane Lundeen															
Lane 1[d]	354	3.0	354	3.0	1341	0.264	100	4.0	LOS A	1.5	37.4	Full	600	0.0	0.0
Approach	354	3.0	354	3.0		0.264		4.0	LOS A	1.5	37.4				
West: Pinehurst															
Lane 1[d]	197	3.0	197	3.0	915	0.215	100	6.1	LOS A	1.0	24.7	Full	300	0.0	0.0
Approach	197	3.0	197	3.0		0.215		6.1	LOS A	1.0	24.7				
All Vehicles	1138	3.0	1138	3.0		0.463		6.1	LOS A	3.3	84.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0		750	0.014	100	NA	NA
Approach	9	1	10	3.0			0.014			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	577	578	3.0		1248	0.463	100	NA	NA
Approach	1	577	578	3.0			0.463			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	30	319	5	354	3.0	1341	0.264	100	NA	NA
Approach	30	319	5	354	3.0		0.264			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	160	8	197	3.0	915	0.215	100	NA	NA
Approach	29	160	8	197	3.0		0.215			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1138	3.0		0.463						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

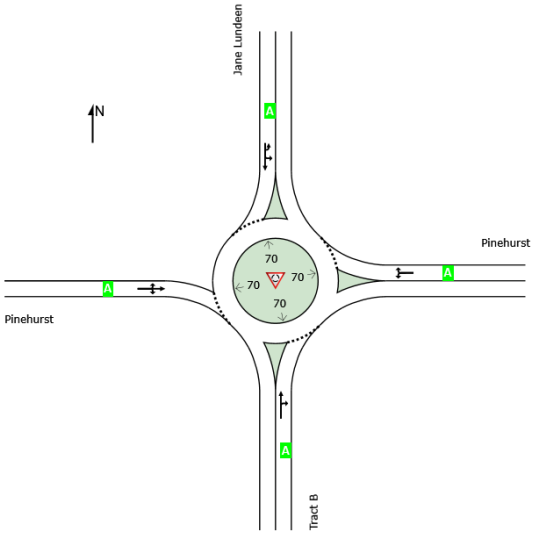
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	986	0.010	100	3.7	LOS A	0.0	1.0	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.010		3.7	LOS A	0.0	1.0				
East: Pinehurst															
Lane 1[d]	135	3.0	135	3.0	1202	0.112	100	3.9	LOS A	0.5	12.8	Full	800	0.0	0.0
Approach	135	3.0	135	3.0		0.112		3.9	LOS A	0.5	12.8				
North: Jane Lundeen															
Lane 1[d]	139	3.0	139	3.0	1341	0.104	100	3.2	LOS A	0.5	12.1	Full	600	0.0	0.0
Approach	139	3.0	139	3.0		0.104		3.2	LOS A	0.5	12.1				
West: Pinehurst															
Lane 1[d]	161	3.0	161	3.0	1154	0.139	100	4.3	LOS A	0.6	16.1	Full	300	0.0	0.0
Approach	161	3.0	161	3.0		0.139		4.3	LOS A	0.6	16.1				
All Vehicles	445	3.0	445	3.0		0.139		3.8	LOS A	0.6	16.1				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	986	0.010	100	NA	NA
Approach	9	1	10	3.0		0.010			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	133	135	3.0	1202	0.112	100	NA	NA
Approach	1	133	135	3.0		0.112			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	113	6	139	3.0	1341	0.104	100	NA	NA
Approach	20	113	6	139	3.0		0.104			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	73	79	8	161	3.0	1154	0.139	100	NA	NA
Approach	73	79	8	161	3.0		0.139			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	445	3.0	0.139

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

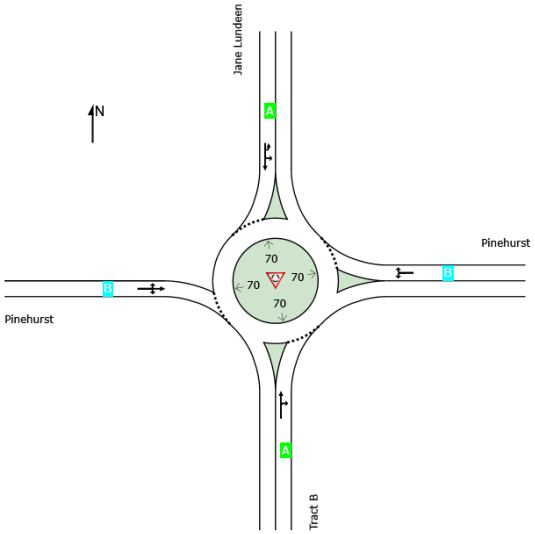
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	21	3.0	21	3.0	516	0.040	100	7.4	LOS A	0.1	3.5	Full	300	0.0	0.0
Approach	21	3.0	21	3.0		0.040		7.4	LOS A	0.1	3.5				
East: Pinehurst															
Lane 1[d]	608	3.0	608	3.0	1084	0.561	100	10.1	LOS B	4.1	103.7	Full	800	0.0	0.0
Approach	608	3.0	608	3.0		0.561		10.1	LOS B	4.1	103.7				
North: Jane Lundeen															
Lane 1[d]	525	3.0	525	3.0	1341	0.391	100	4.7	LOS A	2.6	67.1	Full	600	0.0	0.0
Approach	525	3.0	525	3.0		0.391		4.7	LOS A	2.6	67.1				
West: Pinehurst															
Lane 1[d]	362	3.0	362	3.0	760	0.477	100	11.3	LOS B	3.1	78.9	Full	300	0.0	0.0
Approach	362	3.0	362	3.0		0.477		11.3	LOS B	3.1	78.9				
All Vehicles	1515	3.0	1515	3.0		0.561		8.5	LOS A	4.1	103.7				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	19	1	21	3.0		516	0.040	100	NA	NA
Approach	19	1	21	3.0			0.040			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	607	608	3.0		1084	0.561	100	NA	NA
Approach	1	607	608	3.0			0.561			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	127	396	2	525	3.0	1341	0.391	100	NA	NA
Approach	127	396	2	525	3.0		0.391			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	52	305	5	362	3.0	760	0.477	100	NA	NA
Approach	52	305	5	362	3.0		0.477			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1515	3.0	0.561							

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	755	0.014	100	4.9	LOS A	0.1	1.3	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.014		4.9	LOS A	0.1	1.3				
East: Pinehurst															
Lane 1[d]	578	3.0	578	3.0	1257	0.460	100	7.2	LOS A	3.3	83.5	Full	800	0.0	0.0
Approach	578	3.0	578	3.0		0.460		7.2	LOS A	3.3	83.5				
North: Jane Lundeen															
Lane 1[d]	357	3.0	357	3.0	1341	0.266	100	4.0	LOS A	1.5	37.9	Full	600	0.0	0.0
Approach	357	3.0	357	3.0		0.266		4.0	LOS A	1.5	37.9				
West: Pinehurst															
Lane 1[d]	187	3.0	187	3.0	911	0.205	100	6.0	LOS A	0.9	23.4	Full	300	0.0	0.0
Approach	187	3.0	187	3.0		0.205		6.0	LOS A	0.9	23.4				
All Vehicles	1132	3.0	1132	3.0		0.460		6.0	LOS A	3.3	83.5				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0		755	0.014	100	NA	NA
Approach	9	1	10	3.0			0.014			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	577	578	3.0		1257	0.460	100	NA	NA
Approach	1	577	578	3.0			0.460			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	33	319	5	357	3.0	1341	0.266	100	NA	NA
Approach	33	319	5	357	3.0		0.266			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	19	160	8	187	3.0	911	0.205	100	NA	NA
Approach	19	160	8	187	3.0		0.205			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1132	3.0		0.460						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

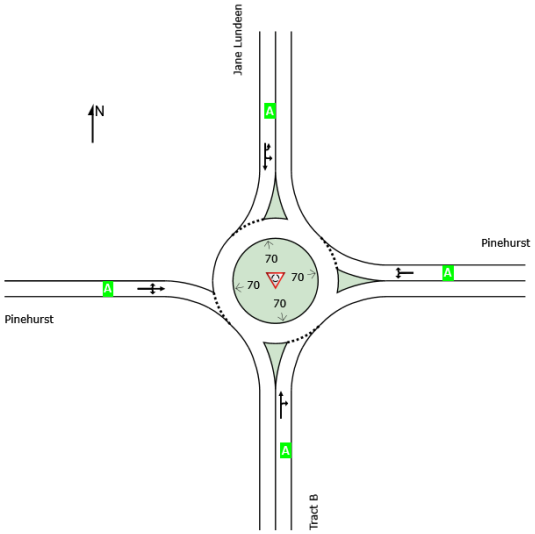
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE LEVEL OF SERVICE

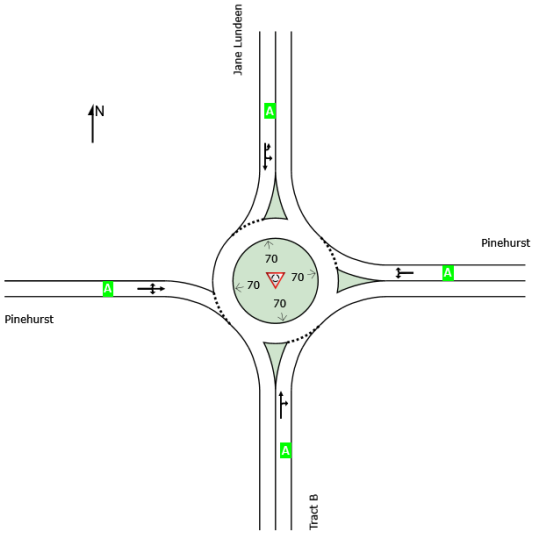
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
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Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	1021	0.010	100	3.6	LOS A	0.0	1.0	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.010		3.6	LOS A	0.0	1.0				
East: Pinehurst															
Lane 1[d]	135	3.0	135	3.0	1241	0.108	100	3.7	LOS A	0.5	12.4	Full	800	0.0	0.0
Approach	135	3.0	135	3.0		0.108		3.7	LOS A	0.5	12.4				
North: Jane Lundeen															
Lane 1[d]	198	3.0	198	3.0	1341	0.148	100	3.4	LOS A	0.7	18.1	Full	600	0.0	0.0
Approach	198	3.0	198	3.0		0.148		3.4	LOS A	0.7	18.1				
West: Pinehurst															
Lane 1[d]	128	3.0	128	3.0	1082	0.119	100	4.3	LOS A	0.5	13.2	Full	300	0.0	0.0
Approach	128	3.0	128	3.0		0.119		4.3	LOS A	0.5	13.2				
All Vehicles	472	3.0	472	3.0		0.148		3.8	LOS A	0.7	18.1				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	1021	0.010	100	NA	NA
Approach	9	1	10	3.0		0.010			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	133	135	3.0	1241	0.108	100	NA	NA
Approach	1	133	135	3.0		0.108			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	113	65	198	3.0	1341	0.148	100	NA	NA
Approach	20	113	65	198	3.0		0.148			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	43	77	8	128	3.0	1082	0.119	100	NA	NA
Approach	43	77	8	128	3.0		0.119			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	472	3.0	0.148

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

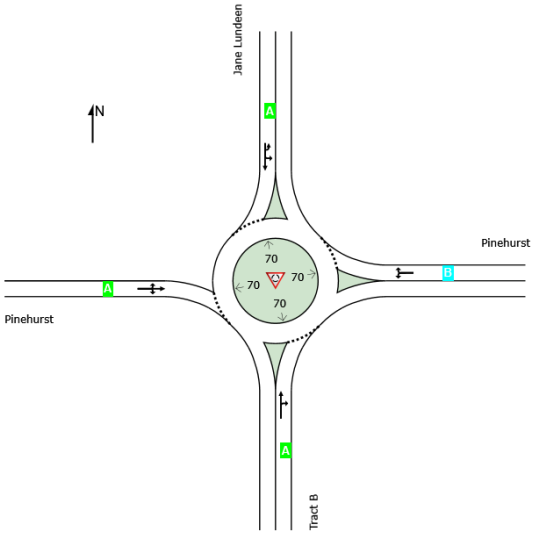
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	15	3.0	15	3.0	568	0.027	100	6.6	LOS A	0.1	2.5	Full	300	0.0	0.0
Approach	15	3.0	15	3.0		0.027		6.6	LOS A	0.1	2.5				
East: Pinehurst															
Lane 1[d]	801	3.0	801	3.0	1210	0.662	100	11.2	LOS B	6.6	169.3	Full	800	0.0	0.0
Approach	801	3.0	801	3.0		0.662		11.2	LOS B	6.6	169.3				
North: Jane Lundeen															
Lane 1[d]	443	3.0	443	3.0	1341	0.330	100	4.4	LOS A	2.0	51.5	Full	600	0.0	0.0
Approach	443	3.0	443	3.0		0.330		4.4	LOS A	2.0	51.5				
West: Pinehurst															
Lane 1[d]	356	3.0	356	3.0	830	0.429	100	9.6	LOS A	2.5	64.1	Full	300	0.0	0.0
Approach	356	3.0	356	3.0		0.429		9.6	LOS A	2.5	64.1				
All Vehicles	1615	3.0	1615	3.0		0.662		9.0	LOS A	6.6	169.3				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	14	1	15	3.0	568	0.027	100	NA	NA
Approach	14	1	15	3.0		0.027			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	800	801	3.0	1210	0.662	100	NA	NA
Approach	1	800	801	3.0		0.662			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	45	396	2	443	3.0	1341	0.330	100	NA	NA
Approach	45	396	2	443	3.0		0.330			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	38	314	4	356	3.0	830	0.429	100	NA	NA
Approach	38	314	4	356	3.0		0.429			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1615	3.0	0.662

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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Project: G:\Shared drives\CS - 2020-current\2025\S254260 - Mon Acad S Residential\Sidra\2026-08-August\Jane Lundeen + Pinehurst\Models\Pinehurst + Jane Lundeen (C).sip9

LANE LEVEL OF SERVICE

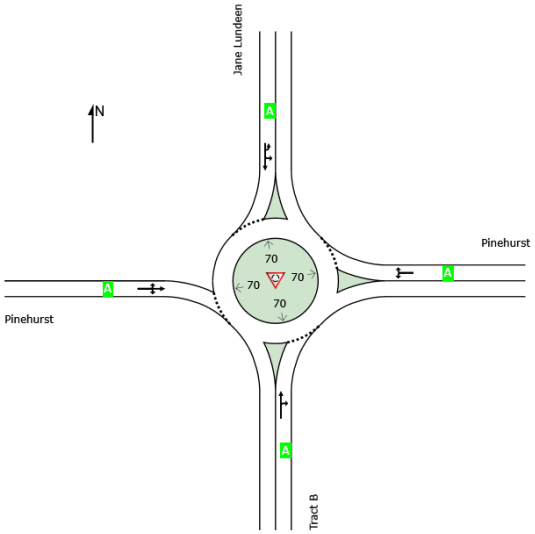
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	760	0.014	100	4.9	LOS A	0.1	1.3	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.014		4.9	LOS A	0.1	1.3				
East: Pinehurst															
Lane 1[d]	578	3.0	578	3.0	1264	0.457	100	7.1	LOS A	3.2	83.1	Full	800	0.0	0.0
Approach	578	3.0	578	3.0		0.457		7.1	LOS A	3.2	83.1				
North: Jane Lundeen															
Lane 1[d]	342	3.0	342	3.0	1341	0.255	100	4.0	LOS A	1.4	35.8	Full	600	0.0	0.0
Approach	342	3.0	342	3.0		0.255		4.0	LOS A	1.4	35.8				
West: Pinehurst															
Lane 1[d]	197	3.0	197	3.0	926	0.213	100	6.0	LOS A	1.0	24.4	Full	300	0.0	0.0
Approach	197	3.0	197	3.0		0.213		6.0	LOS A	1.0	24.4				
All Vehicles	1127	3.0	1127	3.0		0.457		5.9	LOS A	3.2	83.1				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0		760	0.014	100	NA	NA
Approach	9	1	10	3.0			0.014			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	577	578	3.0		1264	0.457	100	NA	NA
Approach	1	577	578	3.0			0.457			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	18	319	5	342	3.0	1341	0.255	100	NA	NA
Approach	18	319	5	342	3.0		0.255			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	160	8	197	3.0	926	0.213	100	NA	NA
Approach	29	160	8	197	3.0		0.213			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1127	3.0		0.457						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

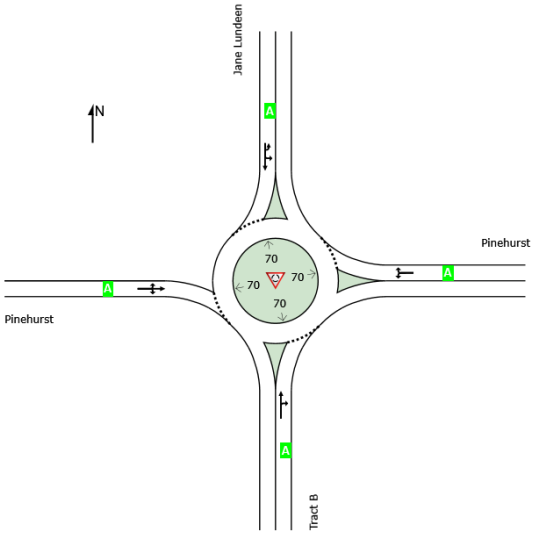
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
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LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
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Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	987	0.010	100	3.7	LOS A	0.0	1.0	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.010		3.7	LOS A	0.0	1.0				
East: Pinehurst															
Lane 1[d]	135	3.0	135	3.0	1200	0.112	100	3.9	LOS A	0.5	12.8	Full	800	0.0	0.0
Approach	135	3.0	135	3.0		0.112		3.9	LOS A	0.5	12.8				
North: Jane Lundeen															
Lane 1[d]	139	3.0	139	3.0	1341	0.104	100	3.2	LOS A	0.5	12.1	Full	600	0.0	0.0
Approach	139	3.0	139	3.0		0.104		3.2	LOS A	0.5	12.1				
West: Pinehurst															
Lane 1[d]	160	3.0	160	3.0	1154	0.138	100	4.3	LOS A	0.6	16.0	Full	300	0.0	0.0
Approach	160	3.0	160	3.0		0.138		4.3	LOS A	0.6	16.0				
All Vehicles	444	3.0	444	3.0		0.138		3.8	LOS A	0.6	16.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	987	0.010	100	NA	NA
Approach	9	1	10	3.0		0.010			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	133	135	3.0	1200	0.112	100	NA	NA
Approach	1	133	135	3.0		0.112			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	113	6	139	3.0	1341	0.104	100	NA	NA
Approach	20	113	6	139	3.0		0.104			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	75	77	8	160	3.0	1154	0.138	100	NA	NA
Approach	75	77	8	160	3.0		0.138			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	444	3.0	0.138

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

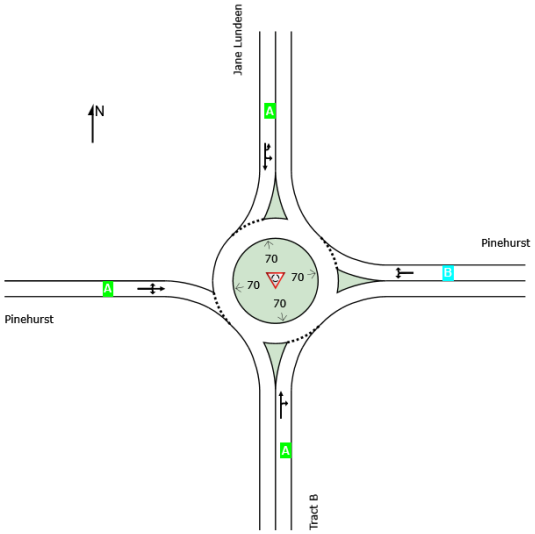
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	15	3.0	15	3.0	698	0.022	100	5.4	LOS A	0.1	2.1	Full	300	0.0	0.0
Approach	15	3.0	15	3.0		0.022		5.4	LOS A	0.1	2.1				
East: Pinehurst															
Lane 1[d]	801	3.0	801	3.0	1180	0.679	100	12.0	LOS B	6.8	173.0	Full	800	0.0	0.0
Approach	801	3.0	801	3.0		0.679		12.0	LOS B	6.8	173.0				
North: Jane Lundeen															
Lane 1[d]	253	3.0	253	3.0	1341	0.188	100	3.6	LOS A	0.9	24.3	Full	600	0.0	0.0
Approach	253	3.0	253	3.0		0.188		3.6	LOS A	0.9	24.3				
West: Pinehurst															
Lane 1[d]	356	3.0	356	3.0	1020	0.349	100	7.1	LOS A	1.9	47.5	Full	300	0.0	0.0
Approach	356	3.0	356	3.0		0.349		7.1	LOS A	1.9	47.5				
All Vehicles	1425	3.0	1425	3.0		0.679		9.2	LOS A	6.8	173.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	14	1	15	3.0		698	0.022	100	NA	NA
Approach	14	1	15	3.0			0.022			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	800	801	3.0		1180	0.679	100	NA	NA
Approach	1	800	801	3.0			0.679			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	67	183	2	253	3.0	1341	0.188	100	NA	NA
Approach	67	183	2	253	3.0		0.188			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	38	314	4	356	3.0	1020	0.349	100	NA	NA
Approach	38	314	4	356	3.0		0.349			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1425	3.0		0.679						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

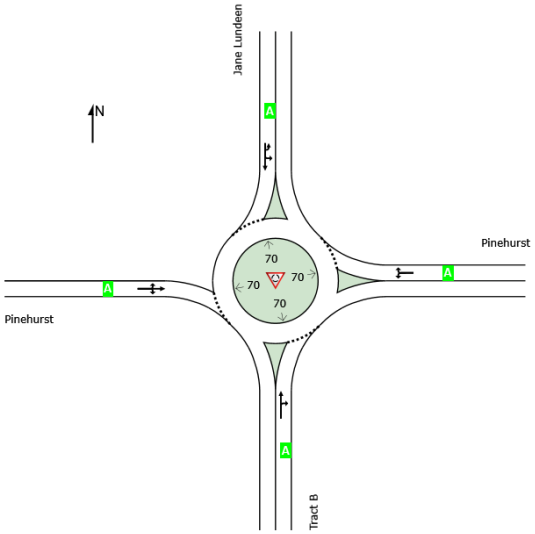
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	632	0.016	100	5.9	LOS A	0.1	1.5	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.016		5.9	LOS A	0.1	1.5				
East: Pinehurst															
Lane 1[d]	578	3.0	578	3.0	1248	0.463	100	7.3	LOS A	3.3	84.0	Full	800	0.0	0.0
Approach	578	3.0	578	3.0		0.463		7.3	LOS A	3.3	84.0				
North: Jane Lundeen															
Lane 1[d]	354	3.0	354	3.0	1341	0.264	100	4.0	LOS A	1.5	37.4	Full	600	0.0	0.0
Approach	354	3.0	354	3.0		0.264		4.0	LOS A	1.5	37.4				
West: Pinehurst															
Lane 1[d]	354	3.0	354	3.0	915	0.387	100	8.3	LOS A	2.0	51.6	Full	300	0.0	0.0
Approach	354	3.0	354	3.0		0.387		8.3	LOS A	2.0	51.6				
All Vehicles	1295	3.0	1295	3.0		0.463		6.7	LOS A	3.3	84.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	632	0.016	100	NA	NA
Approach	9	1	10	3.0		0.016			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	577	578	3.0	1248	0.463	100	NA	NA
Approach	1	577	578	3.0		0.463			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	30	319	5	354	3.0	1341	0.264	100	NA	NA
Approach	30	319	5	354	3.0		0.264			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	317	8	354	3.0	915	0.387	100	NA	NA
Approach	29	317	8	354	3.0		0.387			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1295	3.0	0.463

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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LANE LEVEL OF SERVICE

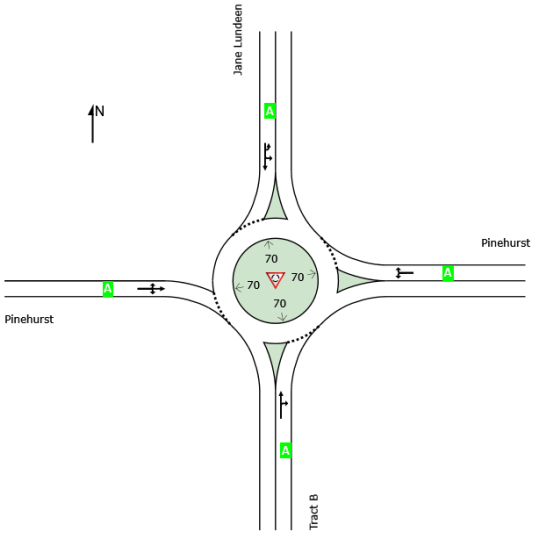
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	987	0.010	100	3.7	LOS A	0.0	1.0	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.010		3.7	LOS A	0.0	1.0				
East: Pinehurst															
Lane 1[d]	135	3.0	135	3.0	1200	0.112	100	3.9	LOS A	0.5	12.8	Full	800	0.0	0.0
Approach	135	3.0	135	3.0		0.112		3.9	LOS A	0.5	12.8				
North: Jane Lundeen															
Lane 1[d]	139	3.0	139	3.0	1341	0.104	100	3.2	LOS A	0.5	12.1	Full	600	0.0	0.0
Approach	139	3.0	139	3.0		0.104		3.2	LOS A	0.5	12.1				
West: Pinehurst															
Lane 1[d]	160	3.0	160	3.0	1154	0.138	100	4.3	LOS A	0.6	16.0	Full	300	0.0	0.0
Approach	160	3.0	160	3.0		0.138		4.3	LOS A	0.6	16.0				
All Vehicles	444	3.0	444	3.0		0.138		3.8	LOS A	0.6	16.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	987	0.010	100	NA	NA
Approach	9	1	10	3.0		0.010			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	133	135	3.0	1200	0.112	100	NA	NA
Approach	1	133	135	3.0		0.112			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	113	6	139	3.0	1341	0.104	100	NA	NA
Approach	20	113	6	139	3.0		0.104			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	75	77	8	160	3.0	1154	0.138	100	NA	NA
Approach	75	77	8	160	3.0		0.138			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	444	3.0	0.138

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

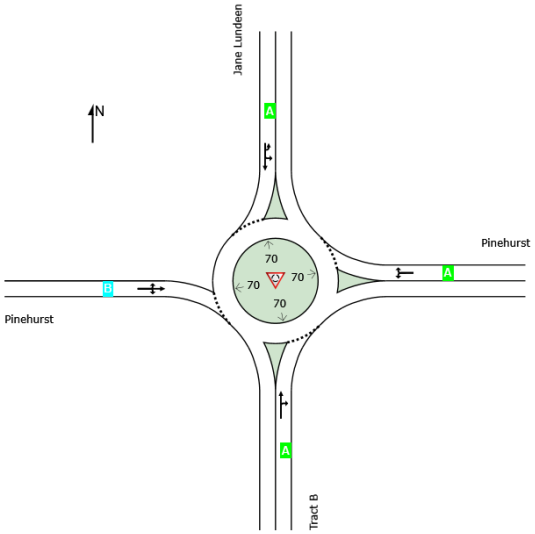
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	15	3.0	15	3.0	549	0.028	100	6.9	LOS A	0.1	2.5	Full	300	0.0	0.0
Approach	15	3.0	15	3.0		0.028		6.9	LOS A	0.1	2.5				
East: Pinehurst															
Lane 1[d]	603	3.0	603	3.0	1171	0.515	100	8.6	LOS A	3.7	95.9	Full	800	0.0	0.0
Approach	603	3.0	603	3.0		0.515		8.6	LOS A	3.7	95.9				
North: Jane Lundeen															
Lane 1[d]	473	3.0	473	3.0	1341	0.352	100	4.5	LOS A	2.2	56.9	Full	600	0.0	0.0
Approach	473	3.0	473	3.0		0.352		4.5	LOS A	2.2	56.9				
West: Pinehurst															
Lane 1[d]	356	3.0	356	3.0	804	0.443	100	10.1	LOS B	2.7	68.8	Full	300	0.0	0.0
Approach	356	3.0	356	3.0		0.443		10.1	LOS B	2.7	68.8				
All Vehicles	1448	3.0	1448	3.0		0.515		7.6	LOS A	3.7	95.9				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	14	1	15	3.0		549	0.028	100	NA	NA
Approach	14	1	15	3.0			0.028			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	602	603	3.0		1171	0.515	100	NA	NA
Approach	1	602	603	3.0			0.515			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	75	396	2	473	3.0	1341	0.352	100	NA	NA
Approach	75	396	2	473	3.0		0.352			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	38	314	4	356	3.0	804	0.443	100	NA	NA
Approach	38	314	4	356	3.0		0.443			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1448	3.0	0.515							

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

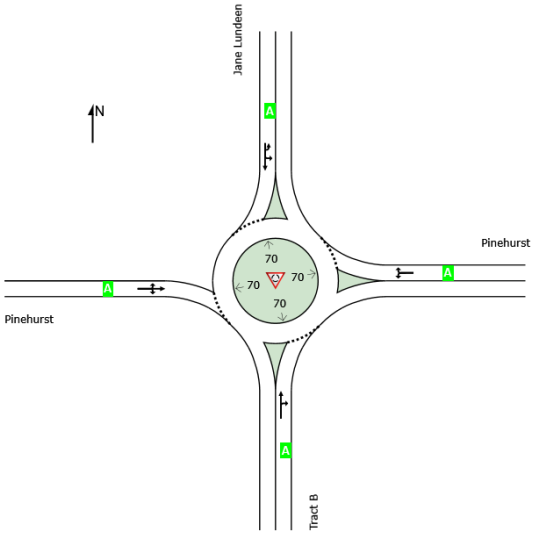
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	747	0.014	100	4.9	LOS A	0.1	1.3	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.014		4.9	LOS A	0.1	1.3				
East: Pinehurst															
Lane 1[d]	578	3.0	578	3.0	1244	0.465	100	7.4	LOS A	3.3	84.3	Full	800	0.0	0.0
Approach	578	3.0	578	3.0		0.465		7.4	LOS A	3.3	84.3				
North: Jane Lundeen															
Lane 1[d]	357	3.0	357	3.0	1341	0.266	100	4.0	LOS A	1.5	37.9	Full	600	0.0	0.0
Approach	357	3.0	357	3.0		0.266		4.0	LOS A	1.5	37.9				
West: Pinehurst															
Lane 1[d]	197	3.0	197	3.0	911	0.216	100	6.1	LOS A	1.0	24.8	Full	300	0.0	0.0
Approach	197	3.0	197	3.0		0.216		6.1	LOS A	1.0	24.8				
All Vehicles	1142	3.0	1142	3.0		0.465		6.1	LOS A	3.3	84.3				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	747	0.014	100	NA	NA
Approach	9	1	10	3.0		0.014			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	577	578	3.0	1244	0.465	100	NA	NA
Approach	1	577	578	3.0		0.465			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	33	319	5	357	3.0	1341	0.266	100	NA	NA
Approach	33	319	5	357	3.0		0.266			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	160	8	197	3.0	911	0.216	100	NA	NA
Approach	29	160	8	197	3.0		0.216			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1142	3.0	0.465

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

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Project: G:\Shared drives\CS - 2020-current\2025\S254260 - Mon Acad S Residential\Sidra\2026-08-August\Jane Lundeen + Pinehurst\Models\Pinehurst + Jane Lundeen (E).sip9

LANE LEVEL OF SERVICE

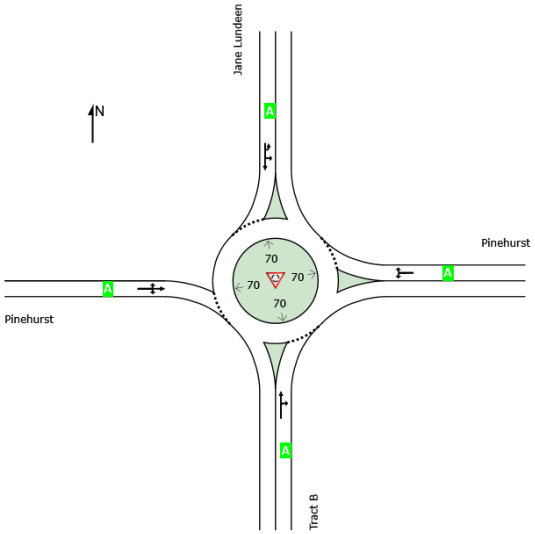
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	987	0.010	100	3.7	LOS A	0.0	1.0	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.010		3.7	LOS A	0.0	1.0				
East: Pinehurst															
Lane 1[d]	135	3.0	135	3.0	1200	0.112	100	3.9	LOS A	0.5	12.8	Full	800	0.0	0.0
Approach	135	3.0	135	3.0		0.112		3.9	LOS A	0.5	12.8				
North: Jane Lundeen															
Lane 1[d]	139	3.0	139	3.0	1341	0.104	100	3.2	LOS A	0.5	12.1	Full	600	0.0	0.0
Approach	139	3.0	139	3.0		0.104		3.2	LOS A	0.5	12.1				
West: Pinehurst															
Lane 1[d]	160	3.0	160	3.0	1154	0.138	100	4.3	LOS A	0.6	16.0	Full	300	0.0	0.0
Approach	160	3.0	160	3.0		0.138		4.3	LOS A	0.6	16.0				
All Vehicles	444	3.0	444	3.0		0.138		3.8	LOS A	0.6	16.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	987	0.010	100	NA	NA
Approach	9	1	10	3.0		0.010			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	133	135	3.0	1200	0.112	100	NA	NA
Approach	1	133	135	3.0		0.112			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	113	6	139	3.0	1341	0.104	100	NA	NA
Approach	20	113	6	139	3.0		0.104			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	75	77	8	160	3.0	1154	0.138	100	NA	NA
Approach	75	77	8	160	3.0		0.138			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	444	3.0	0.138

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

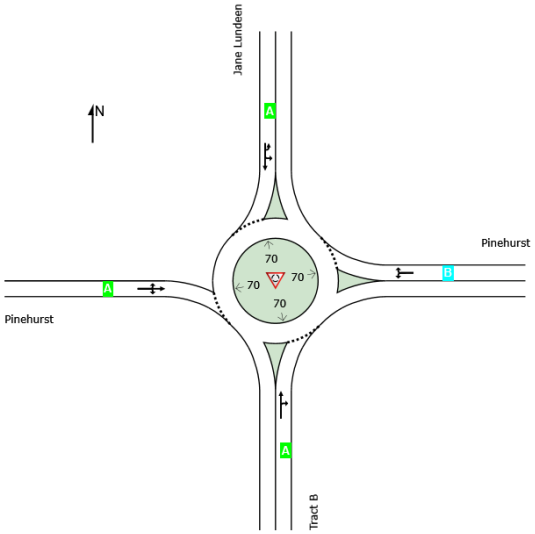
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	15	3.0	15	3.0	568	0.027	100	6.6	LOS A	0.1	2.5	Full	300	0.0	0.0
Approach	15	3.0	15	3.0		0.027		6.6	LOS A	0.1	2.5				
East: Pinehurst															
Lane 1[d]	801	3.0	801	3.0	1210	0.662	100	11.2	LOS B	6.6	169.3	Full	800	0.0	0.0
Approach	801	3.0	801	3.0		0.662		11.2	LOS B	6.6	169.3				
North: Jane Lundeen															
Lane 1[d]	443	3.0	443	3.0	1341	0.330	100	4.4	LOS A	2.0	51.5	Full	600	0.0	0.0
Approach	443	3.0	443	3.0		0.330		4.4	LOS A	2.0	51.5				
West: Pinehurst															
Lane 1[d]	356	3.0	356	3.0	830	0.429	100	9.6	LOS A	2.5	64.1	Full	300	0.0	0.0
Approach	356	3.0	356	3.0		0.429		9.6	LOS A	2.5	64.1				
All Vehicles	1615	3.0	1615	3.0		0.662		9.0	LOS A	6.6	169.3				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	14	1	15	3.0	568	0.027	100	NA	NA
Approach	14	1	15	3.0		0.027			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	800	801	3.0	1210	0.662	100	NA	NA
Approach	1	800	801	3.0		0.662			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	45	396	2	443	3.0	1341	0.330	100	NA	NA
Approach	45	396	2	443	3.0		0.330			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	38	314	4	356	3.0	830	0.429	100	NA	NA
Approach	38	314	4	356	3.0		0.429			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1615	3.0	0.662

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

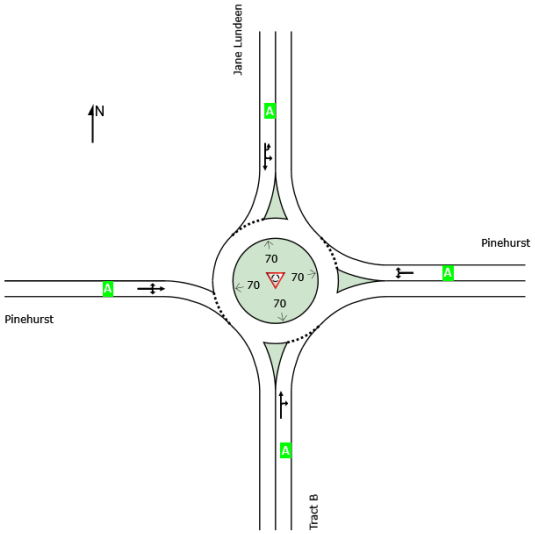
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	760	0.014	100	4.9	LOS A	0.1	1.3	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.014		4.9	LOS A	0.1	1.3				
East: Pinehurst															
Lane 1[d]	578	3.0	578	3.0	1264	0.457	100	7.1	LOS A	3.2	83.1	Full	800	0.0	0.0
Approach	578	3.0	578	3.0		0.457		7.1	LOS A	3.2	83.1				
North: Jane Lundeen															
Lane 1[d]	342	3.0	342	3.0	1341	0.255	100	4.0	LOS A	1.4	35.8	Full	600	0.0	0.0
Approach	342	3.0	342	3.0		0.255		4.0	LOS A	1.4	35.8				
West: Pinehurst															
Lane 1[d]	197	3.0	197	3.0	926	0.213	100	6.0	LOS A	1.0	24.4	Full	300	0.0	0.0
Approach	197	3.0	197	3.0		0.213		6.0	LOS A	1.0	24.4				
All Vehicles	1127	3.0	1127	3.0		0.457		5.9	LOS A	3.2	83.1				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)										
South: Tract B										
Mov. From S To Exit:	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0		760	0.014	100	NA	NA
Approach	9	1	10	3.0			0.014			
East: Pinehurst										
Mov. From E To Exit:	L2 S	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	577	578	3.0		1264	0.457	100	NA	NA
Approach	1	577	578	3.0			0.457			
North: Jane Lundeen										
Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	18	319	5	342	3.0	1341	0.255	100	NA	NA
Approach	18	319	5	342	3.0		0.255			
West: Pinehurst										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	160	8	197	3.0	926	0.213	100	NA	NA
Approach	29	160	8	197	3.0		0.213			
	Total	%HV	Deg.Satn (v/c)							
All Vehicles	1127	3.0		0.457						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

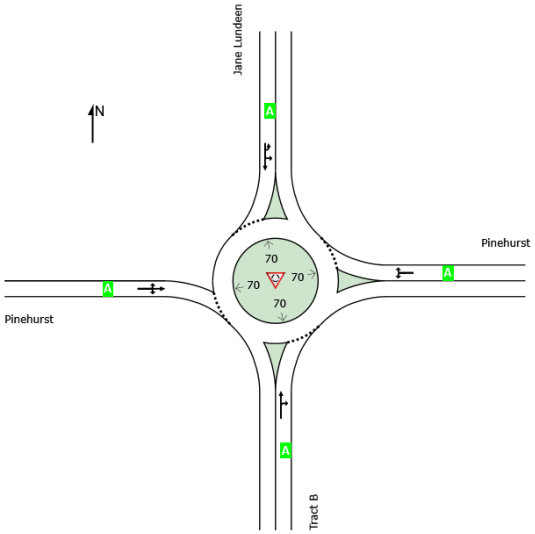
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Tract B															
Lane 1[d]	10	3.0	10	3.0	987	0.010	100	3.7	LOS A	0.0	1.0	Full	300	0.0	0.0
Approach	10	3.0	10	3.0		0.010		3.7	LOS A	0.0	1.0				
East: Pinehurst															
Lane 1[d]	135	3.0	135	3.0	1200	0.112	100	3.9	LOS A	0.5	12.8	Full	800	0.0	0.0
Approach	135	3.0	135	3.0		0.112		3.9	LOS A	0.5	12.8				
North: Jane Lundeen															
Lane 1[d]	139	3.0	139	3.0	1341	0.104	100	3.2	LOS A	0.5	12.1	Full	600	0.0	0.0
Approach	139	3.0	139	3.0		0.104		3.2	LOS A	0.5	12.1				
West: Pinehurst															
Lane 1[d]	160	3.0	160	3.0	1154	0.138	100	4.3	LOS A	0.6	16.0	Full	300	0.0	0.0
Approach	160	3.0	160	3.0		0.138		4.3	LOS A	0.6	16.0				
All Vehicles	444	3.0	444	3.0		0.138		3.8	LOS A	0.6	16.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Tract B

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	1	10	3.0	987	0.010	100	NA	NA
Approach	9	1	10	3.0		0.010			

East: Pinehurst

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	133	135	3.0	1200	0.112	100	NA	NA
Approach	1	133	135	3.0		0.112			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	113	6	139	3.0	1341	0.104	100	NA	NA
Approach	20	113	6	139	3.0		0.104			

West: Pinehurst

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	75	77	8	160	3.0	1154	0.138	100	NA	NA
Approach	75	77	8	160	3.0		0.138			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	444	3.0	0.138

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Tract B				
Lane 1	0.0	0.0	0.0	0.0
East: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Pinehurst				
Lane 1	0.0	0.0	0.0	0.0

Sidra Reports

Jane Lundeen + middle access (C, F)

LANE LEVEL OF SERVICE

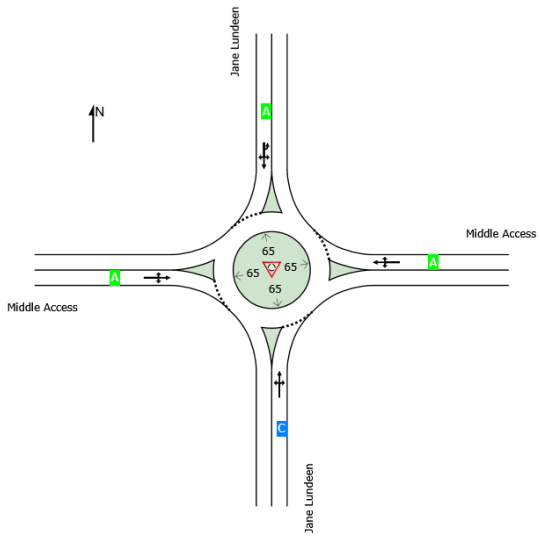
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1[d]	999	3.0	999	3.0	1178	0.848	100	19.4	LOS C	21.9	561.3	Full	700	0.0	0.0
Approach	999	3.0	999	3.0		0.848		19.4	LOS C	21.9	561.3				
East: Middle Access															
Lane 1[d]	4	3.0	4	3.0	464	0.008	100	7.9	LOS A	0.0	0.7	Full	300	0.0	0.0
Approach	4	3.0	4	3.0		0.008		7.9	LOS A	0.0	0.7				
North: Jane Lundeen															
Lane 1[d]	753	3.0	753	3.0	1335	0.564	100	6.2	LOS A	5.2	134.1	Full	800	0.0	0.0
Approach	753	3.0	753	3.0		0.564		6.2	LOS A	5.2	134.1				
West: Middle Access															
Lane 1[d]	55	3.0	55	3.0	594	0.093	100	7.1	LOS A	0.3	8.8	Full	300	0.0	0.0
Approach	55	3.0	55	3.0		0.093		7.1	LOS A	0.3	8.8				
All Vehicles	1811	3.0	1811	3.0		0.848		13.5	LOS B	21.9	561.3				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jane Lundeen											
Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	3	944	51	999	3.0		1178	0.848	100	NA	NA
Approach	3	944	51	999	3.0			0.848			
East: Middle Access											
Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	1	4	3.0		464	0.008	100	NA	NA
Approach	1	1	1	4	3.0			0.008			
North: Jane Lundeen											
Mov. From N To Exit:	U N	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	90	658	3	753	3.0	1335	0.564	100	NA	NA
Approach	1	90	658	3	753	3.0		0.564			
West: Middle Access											
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	1	25	55	3.0		594	0.093	100	NA	NA
Approach	29	1	25	55	3.0			0.093			
	Total	%HV	Deg.Satn (v/c)								
All Vehicles	1811	3.0	0.848								

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
East: Middle Access				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Middle Access				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

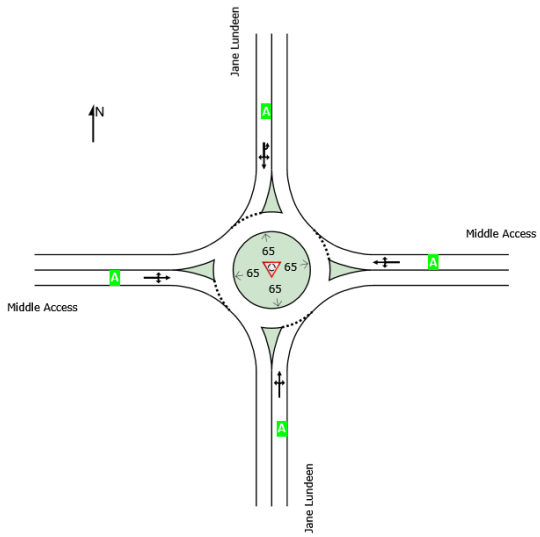
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1[d]	764	3.0	764	3.0	1314	0.582	100	7.7	LOS A	5.5	140.7	Full	700	0.0	0.0
Approach	764	3.0	764	3.0		0.582		7.7	LOS A	5.5	140.7				
East: Middle Access															
Lane 1[d]	87	3.0	87	3.0	575	0.151	100	8.1	LOS A	0.6	14.5	Full	300	0.0	0.0
Approach	87	3.0	87	3.0		0.151		8.1	LOS A	0.6	14.5				
North: Jane Lundeen															
Lane 1[d]	445	3.0	445	3.0	1327	0.336	100	5.0	LOS A	2.0	52.4	Full	800	0.0	0.0
Approach	445	3.0	445	3.0		0.336		5.0	LOS A	2.0	52.4				
West: Middle Access															
Lane 1[d]	29	3.0	29	3.0	833	0.035	100	4.7	LOS A	0.1	3.5	Full	300	0.0	0.0
Approach	29	3.0	29	3.0		0.035		4.7	LOS A	0.1	3.5				
All Vehicles	1326	3.0	1326	3.0		0.582		6.7	LOS A	5.5	140.7				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jane Lundeen											
Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	8	756	1	764	3.0		1314	0.582	100	NA	NA
Approach	8	756	1	764	3.0			0.582			
East: Middle Access											
Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	1	83	87	3.0		575	0.151	100	NA	NA
Approach	2	1	83	87	3.0			0.151			
North: Jane Lundeen											
Mov. From N To Exit:	U N	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	437	7	445	3.0	1327	0.336	100	NA	NA
Approach	1	1	437	7	445	3.0		0.336			
West: Middle Access											
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	17	1	12	29	3.0		833	0.035	100	NA	NA
Approach	17	1	12	29	3.0			0.035			
	Total	%HV	Deg.Satn (v/c)								
All Vehicles	1326	3.0	0.582								

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
East: Middle Access				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Middle Access				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

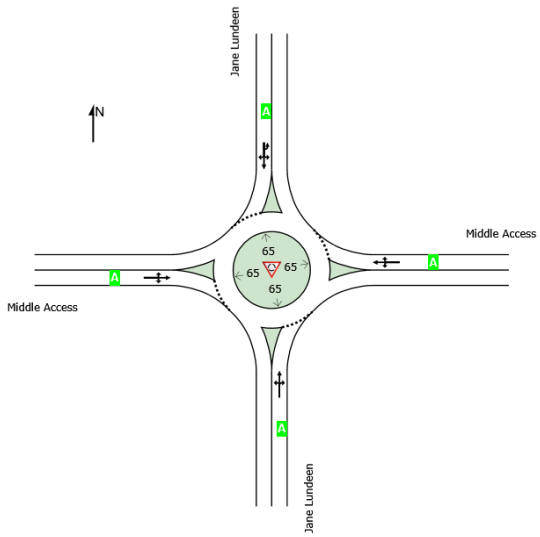
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1[d]	379	3.0	379	3.0	1311	0.289	100	4.9	LOS A	1.6	41.9	Full	700	0.0	0.0
Approach	379	3.0	379	3.0		0.289		4.9	LOS A	1.6	41.9				
East: Middle Access															
Lane 1[d]	38	3.0	38	3.0	887	0.043	100	4.5	LOS A	0.2	4.3	Full	300	0.0	0.0
Approach	38	3.0	38	3.0		0.043		4.5	LOS A	0.2	4.3				
North: Jane Lundeen															
Lane 1[d]	257	3.0	257	3.0	1324	0.194	100	4.0	LOS A	1.0	25.0	Full	800	0.0	0.0
Approach	257	3.0	257	3.0		0.194		4.0	LOS A	1.0	25.0				
West: Middle Access															
Lane 1[d]	26	3.0	26	3.0	1027	0.025	100	3.7	LOS A	0.1	2.5	Full	300	0.0	0.0
Approach	26	3.0	26	3.0		0.025		3.7	LOS A	0.1	2.5				
All Vehicles	700	3.0	700	3.0		0.289		4.5	LOS A	1.6	41.9				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jane Lundeen											
Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	362	7	379	3.0		1311	0.289	100	NA	NA
Approach	10	362	7	379	3.0			0.289			
East: Middle Access											
Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	36	38	3.0		887	0.043	100	NA	NA
Approach	1	1	36	38	3.0			0.043			
North: Jane Lundeen											
Mov. From N To Exit:	U N	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	10	236	10	257	3.0	1324	0.194	100	NA	NA
Approach	1	10	236	10	257	3.0		0.194			
West: Middle Access											
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	1	14	26	3.0		1027	0.025	100	NA	NA
Approach	10	1	14	26	3.0			0.025			
	Total	%HV	Deg.Satn (v/c)								
All Vehicles	700	3.0	0.289								

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
East: Middle Access				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Middle Access				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

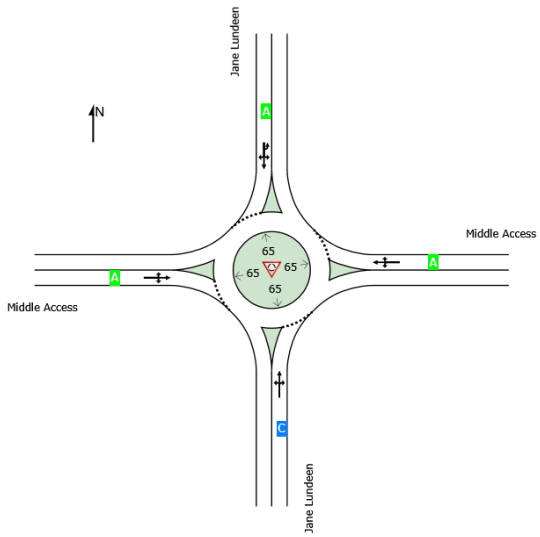
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1[d]	999	3.0	999	3.0	1176	0.849	100	19.5	LOS C	22.4	573.8	Full	700	0.0	0.0
Approach	999	3.0	999	3.0		0.849		19.5	LOS C	22.4	573.8				
East: Middle Access															
Lane 1[d]	4	3.0	4	3.0	463	0.008	100	7.9	LOS A	0.0	0.7	Full	300	0.0	0.0
Approach	4	3.0	4	3.0		0.008		7.9	LOS A	0.0	0.7				
North: Jane Lundeen															
Lane 1[d]	754	3.0	754	3.0	1335	0.565	100	6.2	LOS A	5.3	134.5	Full	800	0.0	0.0
Approach	754	3.0	754	3.0		0.565		6.2	LOS A	5.3	134.5				
West: Middle Access															
Lane 1[d]	57	3.0	57	3.0	594	0.095	100	7.2	LOS A	0.4	9.0	Full	300	0.0	0.0
Approach	57	3.0	57	3.0		0.095		7.2	LOS A	0.4	9.0				
All Vehicles	1813	3.0	1813	3.0		0.849		13.6	LOS B	22.4	573.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jane Lundeen											
Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	3	944	51	999	3.0		1176	0.849	100	NA	NA
Approach	3	944	51	999	3.0			0.849			
East: Middle Access											
Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	1	4	3.0		463	0.008	100	NA	NA
Approach	1	1	1	4	3.0			0.008			
North: Jane Lundeen											
Mov. From N To Exit:	U N	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	90	658	4	754	3.0	1335	0.565	100	NA	NA
Approach	1	90	658	4	754	3.0		0.565			
West: Middle Access											
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	30	1	25	57	3.0		594	0.095	100	NA	NA
Approach	30	1	25	57	3.0			0.095			
	Total	%HV	Deg.Satn (v/c)								
All Vehicles	1813	3.0	0.849								

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
East: Middle Access				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Middle Access				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1[d]	764	3.0	764	3.0	1314	0.582	100	7.7	LOS A	5.5	140.7	Full	700	0.0	0.0
Approach	764	3.0	764	3.0		0.582		7.7	LOS A	5.5	140.7				
East: Middle Access															
Lane 1[d]	87	3.0	87	3.0	575	0.151	100	8.1	LOS A	0.6	14.5	Full	300	0.0	0.0
Approach	87	3.0	87	3.0		0.151		8.1	LOS A	0.6	14.5				
North: Jane Lundeen															
Lane 1[d]	447	3.0	447	3.0	1327	0.337	100	5.0	LOS A	2.1	52.8	Full	800	0.0	0.0
Approach	447	3.0	447	3.0		0.337		5.0	LOS A	2.1	52.8				
West: Middle Access															
Lane 1[d]	29	3.0	29	3.0	833	0.035	100	4.7	LOS A	0.1	3.5	Full	300	0.0	0.0
Approach	29	3.0	29	3.0		0.035		4.7	LOS A	0.1	3.5				
All Vehicles	1328	3.0	1328	3.0		0.582		6.8	LOS A	5.5	140.7				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	8	756	1	764	3.0	1314	0.582	100	NA	NA
Approach	8	756	1	764	3.0		0.582			

East: Middle Access

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	2	1	83	87	3.0	575	0.151	100	NA	NA
Approach	2	1	83	87	3.0		0.151			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	437	9	447	3.0	1327	0.337	100	NA	NA
Approach	1	1	437	9	447	3.0		0.337			

West: Middle Access

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	17	1	12	29	3.0	833	0.035	100	NA	NA
Approach	17	1	12	29	3.0		0.035			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1328	3.0	0.582

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
East: Middle Access				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Middle Access				
Lane 1	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

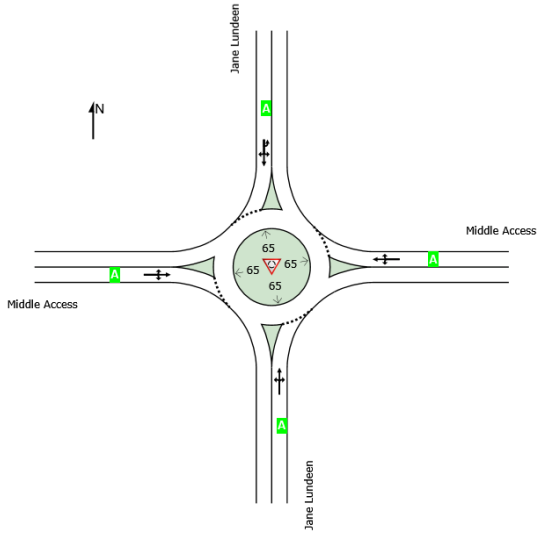
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE LEVEL OF SERVICE

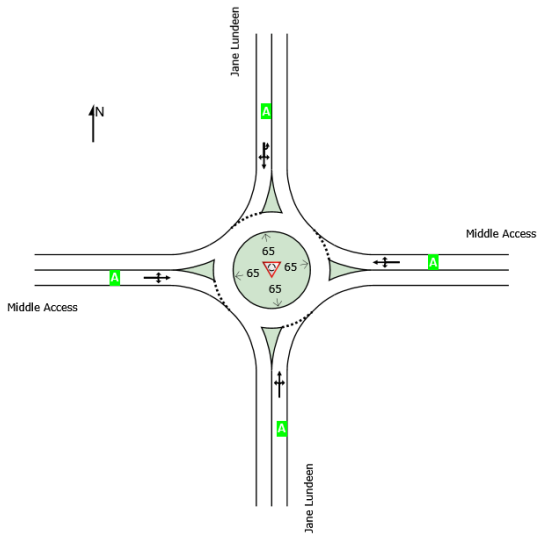
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Jane Lundeen															
Lane 1[d]	379	3.0	379	3.0	1309	0.289	100	4.9	LOS A	1.6	42.0	Full	700	0.0	0.0
Approach	379	3.0	379	3.0		0.289		4.9	LOS A	1.6	42.0				
East: Middle Access															
Lane 1[d]	38	3.0	38	3.0	886	0.043	100	4.5	LOS A	0.2	4.3	Full	300	0.0	0.0
Approach	38	3.0	38	3.0		0.043		4.5	LOS A	0.2	4.3				
North: Jane Lundeen															
Lane 1[d]	260	3.0	260	3.0	1324	0.196	100	4.0	LOS A	1.0	25.4	Full	800	0.0	0.0
Approach	260	3.0	260	3.0		0.196		4.0	LOS A	1.0	25.4				
West: Middle Access															
Lane 1[d]	27	3.0	27	3.0	1027	0.026	100	3.7	LOS A	0.1	2.7	Full	300	0.0	0.0
Approach	27	3.0	27	3.0		0.026		3.7	LOS A	0.1	2.7				
All Vehicles	704	3.0	704	3.0		0.289		4.5	LOS A	1.6	42.0				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Jane Lundeen

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	362	7	379	3.0	1309	0.289	100	NA	NA
Approach	10	362	7	379	3.0		0.289			

East: Middle Access

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	36	38	3.0	886	0.043	100	NA	NA
Approach	1	1	36	38	3.0		0.043			

North: Jane Lundeen

Mov. From N To Exit:	U N	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	10	236	13	260	3.0	1324	0.196	100	NA	NA
Approach	1	10	236	13	260	3.0		0.196			

West: Middle Access

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	12	1	14	27	3.0	1027	0.026	100	NA	NA
Approach	12	1	14	27	3.0		0.026			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	704	3.0	0.289

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length	Percent Opng in Lane	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Flow Rate	Capacity	Deg. Satn	Min. Delay	Merge Delay

	ft	%	veh/h	pcu/h	sec	sec	veh/h	veh/h	v/c	sec	sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
East: Middle Access				
Lane 1	0.0	0.0	0.0	0.0
North: Jane Lundeen				
Lane 1	0.0	0.0	0.0	0.0
West: Middle Access				
Lane 1	0.0	0.0	0.0	0.0

Sidra Reports

SH 83 + Walker

LANE LEVEL OF SERVICE

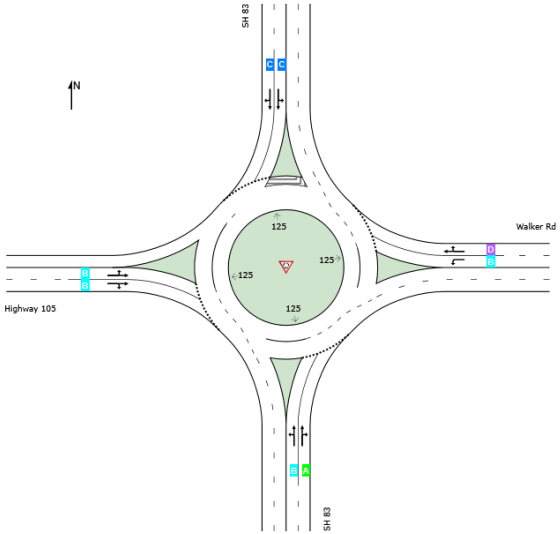
Lane Level of Service

Site: 101 [2045 BG AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: SH 83															
Lane 1	330	3.0	330	3.0	764	0.433	100	10.3	LOS B	2.3	59.5	Full	1600	0.0	0.0
Lane 2[d]	359	3.0	359	3.0	830	0.433	100	9.7	LOS A	2.3	58.9	Full	1600	0.0	0.0
Approach	689	3.0	689	3.0		0.433		10.0	LOS B	2.3	59.5				
East: Walker Rd															
Lane 1	296	3.0	296	3.0	679	0.435	100	11.4	LOS B	2.2	57.2	Full	570	0.0	0.0
Lane 2[d]	648	3.0	648	3.0	744	0.871	100	31.7	LOS D	13.0	332.1	Full	1600	0.0	0.0
Approach	943	3.0	943	3.0		0.871		25.3	LOS D	13.0	332.1				
North: SH 83															
Lane 1	281	3.0	281	3.0	507	0.554	100	18.2	LOS C	2.8	72.1	Full	1600	0.0	0.0
Lane 2[d]	281	3.0	281	3.0	507	0.554	100	18.2	LOS C	2.8	72.1	Full	1600	0.0	0.0
Approach	561	3.0	561	3.0		0.554		18.2	LOS C	2.8	72.1				
West: Highway 105															
Lane 1	294	3.0	294	3.0	608	0.484	100	13.7	LOS B	2.5	65.2	Full	1100	0.0	0.0
Lane 2[d]	324	3.0	324	3.0	669	0.484	100	12.7	LOS B	2.6	65.4	Full	1100	0.0	0.0
Approach	618	3.0	618	3.0		0.484		13.1	LOS B	2.6	65.4				
All Vehicles	2812	3.0	2812	3.0		0.871		17.5	LOS C	13.0	332.1				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: SH 83

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	184	146	-	330	3.0	764	0.433	100	NA	NA
Lane 2	-	269	90	359	3.0	830	0.433	100	NA	NA
Approach	184	415	90	689	3.0		0.433			

East: Walker Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	296	-	-	296	3.0	679	0.435	100	NA	NA
Lane 2	-	535	113	648	3.0	744	0.871	100	NA	NA
Approach	296	535	113	943	3.0		0.871			

North: SH 83

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	132	148	-	281	3.0	507	0.554	100	NA	NA
Lane 2	-	203	77	281	3.0	507	0.554	100	NA	NA
Approach	132	352	77	561	3.0		0.554			

West: Highway 105

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	68	226	-	294	3.0	608	0.484	100	NA	NA
Lane 2	-	124	200	324	3.0	669	0.484	100	NA	NA
Approach	68	350	200	618	3.0		0.484			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2812	3.0	0.871

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker Rd				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Highway 105				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [2045 BG School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: SH 83															
Lane 1	373	3.0	373	3.0	766	0.487	100	11.4	LOS B	3.0	75.9	Full	1600	0.0	0.0
Lane 2[d]	405	3.0	405	3.0	832	0.487	100	10.7	LOS B	3.0	75.7	Full	1600	0.0	0.0
Approach	778	3.0	778	3.0		0.487		11.1	LOS B	3.0	75.9				
East: Walker Rd															
Lane 1	338	3.0	338	3.0	683	0.494	100	12.7	LOS B	2.8	72.9	Full	570	0.0	0.0
Lane 2[d]	535	3.0	535	3.0	747	0.715	100	19.2	LOS C	6.7	170.8	Full	1600	0.0	0.0
Approach	872	3.0	872	3.0		0.715		16.7	LOS C	6.7	170.8				
North: SH 83															
Lane 1	310	3.0	310	3.0	509	0.609	100	20.3	LOS C	3.4	86.5	Full	1600	0.0	0.0
Lane 2[d]	310	3.0	310	3.0	509	0.609	100	20.3	LOS C	3.4	86.5	Full	1600	0.0	0.0
Approach	620	3.0	620	3.0		0.609		20.3	LOS C	3.4	86.5				
West: Highway 105															
Lane 1	320	3.0	320	3.0	549	0.583	100	18.1	LOS C	3.3	85.6	Full	1100	0.0	0.0
Lane 2[d]	355	3.0	355	3.0	608	0.583	100	16.6	LOS C	3.4	86.7	Full	1100	0.0	0.0
Approach	675	3.0	675	3.0		0.583		17.3	LOS C	3.4	86.7				
All Vehicles	2945	3.0	2945	3.0		0.715		16.1	LOS C	6.7	170.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: SH 83

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	225	148	-	373	3.0	766	0.487	100	NA	NA
Lane 2	-	215	190	405	3.0	832	0.487	100	NA	NA
Approach	225	363	190	778	3.0		0.487			

East: Walker Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	338	-	-	338	3.0	683	0.494	100	NA	NA
Lane 2	-	448	87	535	3.0	747	0.715	100	NA	NA
Approach	338	448	87	872	3.0		0.715			

North: SH 83

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	100	210	-	310	3.0	509	0.609	100	NA	NA
Lane 2	-	233	77	310	3.0	509	0.609	100	NA	NA
Approach	100	443	77	620	3.0		0.609			

West: Highway 105

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	74	246	-	320	3.0	549	0.583	100	NA	NA
Lane 2	-	128	227	355	3.0	608	0.583	100	NA	NA
Approach	74	374	227	675	3.0		0.583			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2945	3.0	0.715

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker Rd				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Highway 105				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

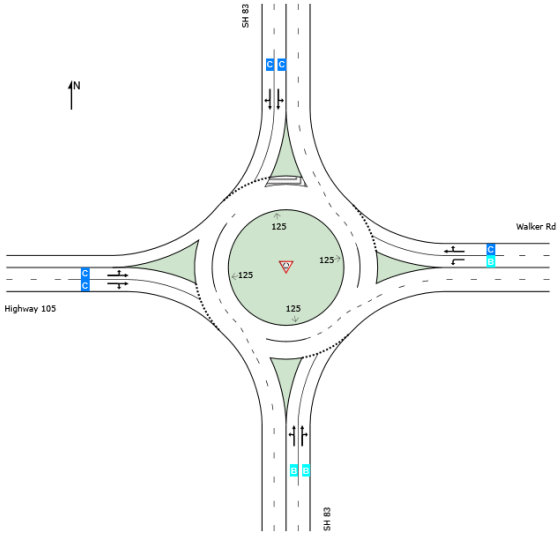
Lane Level of Service

Site: 101 [2045 BG School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE LEVEL OF SERVICE

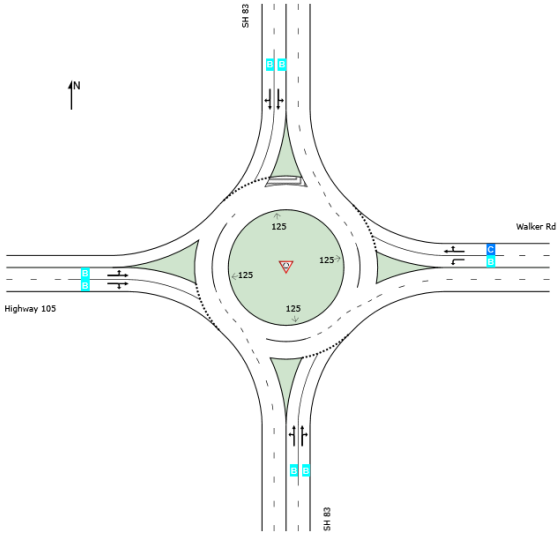
Lane Level of Service

Site: 101 [2045 BG PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: SH 83															
Lane 1	522	3.0	522	3.0	879	0.595	100	12.7	LOS B	5.3	135.3	Full	1600	0.0	0.0
Lane 2[d]	563	3.0	563	3.0	946	0.595	100	12.0	LOS B	5.3	135.8	Full	1600	0.0	0.0
Approach	1085	3.0	1085	3.0		0.595		12.4	LOS B	5.3	135.8				
East: Walker Rd															
Lane 1	189	3.0	189	3.0	511	0.369	100	12.9	LOS B	1.5	38.5	Full	570	0.0	0.0
Lane 2[d]	347	3.0	347	3.0	569	0.610	100	18.6	LOS C	3.5	89.1	Full	1600	0.0	0.0
Approach	536	3.0	536	3.0		0.610		16.6	LOS C	3.5	89.1				
North: SH 83															
Lane 1	329	3.0	329	3.0	648	0.508	100	13.6	LOS B	2.9	73.8	Full	1600	0.0	0.0
Lane 2[d]	329	3.0	329	3.0	648	0.508	100	13.6	LOS B	2.9	73.8	Full	1600	0.0	0.0
Approach	658	3.0	658	3.0		0.508		13.6	LOS B	2.9	73.8				
West: Highway 105															
Lane 1	276	3.0	276	3.0	610	0.453	100	12.9	LOS B	2.3	58.0	Full	1100	0.0	0.0
Lane 2[d]	304	3.0	304	3.0	672	0.453	100	11.9	LOS B	2.3	57.9	Full	1100	0.0	0.0
Approach	580	3.0	580	3.0		0.453		12.4	LOS B	2.3	58.0				
All Vehicles	2860	3.0	2860	3.0		0.610		13.4	LOS B	5.3	135.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: SH 83

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	294	228	-	522	3.0	879	0.595	100	NA	NA
Lane 2	-	365	198	563	3.0	946	0.595	100	NA	NA
Approach	294	593	198	1085	3.0		0.595			

East: Walker Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	189	-	-	189	3.0	511	0.369	100	NA	NA
Lane 2	-	286	61	347	3.0	569	0.610	100	NA	NA
Approach	189	286	61	536	3.0		0.610			

North: SH 83

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	64	265	-	329	3.0	648	0.508	100	NA	NA
Lane 2	-	258	71	329	3.0	648	0.508	100	NA	NA
Approach	64	523	71	658	3.0		0.508			

West: Highway 105

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	64	213	-	276	3.0	610	0.453	100	NA	NA
Lane 2	-	69	235	304	3.0	672	0.453	100	NA	NA
Approach	64	282	235	580	3.0		0.453			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2860	3.0	0.610

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker Rd				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Highway 105				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

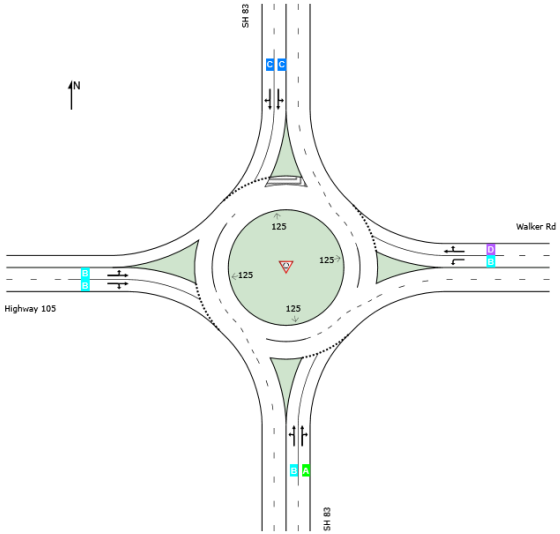
Lane Level of Service

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: SH 83															
Lane 1	331	3.0	331	3.0	758	0.437	100	10.5	LOS B	2.4	60.6	Full	1600	0.0	0.0
Lane 2[d]	360	3.0	360	3.0	824	0.437	100	9.8	LOS A	2.3	60.0	Full	1600	0.0	0.0
Approach	691	3.0	691	3.0		0.437		10.1	LOS B	2.4	60.6				
East: Walker Rd															
Lane 1	319	3.0	319	3.0	679	0.470	100	12.2	LOS B	2.6	66.0	Full	570	0.0	0.0
Lane 2[d]	658	3.0	658	3.0	744	0.884	100	33.4	LOS D	13.9	354.6	Full	1600	0.0	0.0
Approach	977	3.0	977	3.0		0.884		26.4	LOS D	13.9	354.6				
North: SH 83															
Lane 1	281	3.0	281	3.0	490	0.574	100	19.5	LOS C	2.9	74.9	Full	1600	0.0	0.0
Lane 2[d]	281	3.0	281	3.0	490	0.574	100	19.5	LOS C	2.9	74.9	Full	1600	0.0	0.0
Approach	562	3.0	562	3.0		0.574		19.5	LOS C	2.9	74.9				
West: Highway 105															
Lane 1	297	3.0	297	3.0	593	0.501	100	14.4	LOS B	2.7	68.2	Full	1100	0.0	0.0
Lane 2[d]	328	3.0	328	3.0	654	0.501	100	13.3	LOS B	2.7	68.5	Full	1100	0.0	0.0
Approach	624	3.0	624	3.0		0.501		13.8	LOS B	2.7	68.5				
All Vehicles	2855	3.0	2855	3.0		0.884		18.4	LOS C	13.9	354.6				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: SH 83

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	184	147	-	331	3.0	758	0.437	100	NA	NA
Lane 2	-	268	92	360	3.0	824	0.437	100	NA	NA
Approach	184	415	92	691	3.0		0.437			

East: Walker Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	319	-	-	319	3.0	679	0.470	100	NA	NA
Lane 2	-	544	114	658	3.0	744	0.884	100	NA	NA
Approach	319	544	114	977	3.0		0.884			

North: SH 83

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	133	148	-	281	3.0	490	0.574	100	NA	NA
Lane 2	-	204	77	281	3.0	490	0.574	100	NA	NA
Approach	133	352	77	562	3.0		0.574			

West: Highway 105

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	68	228	-	297	3.0	593	0.501	100	NA	NA
Lane 2	-	128	200	328	3.0	654	0.501	100	NA	NA
Approach	68	356	200	624	3.0		0.501			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2855	3.0	0.884

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker Rd				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Highway 105				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

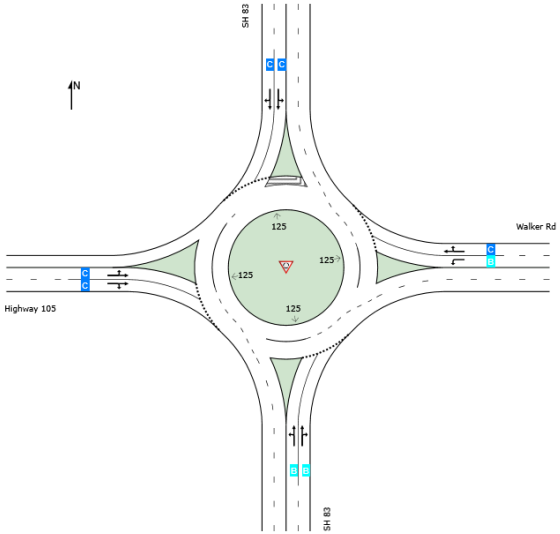
Lane Level of Service

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site School PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: SH 83															
Lane 1	374	3.0	374	3.0	751	0.498	100	11.8	LOS B	3.1	78.5	Full	1600	0.0	0.0
Lane 2[d]	407	3.0	407	3.0	817	0.498	100	11.1	LOS B	3.1	78.5	Full	1600	0.0	0.0
Approach	781	3.0	781	3.0		0.498		11.5	LOS B	3.1	78.5				
East: Walker Rd															
Lane 1	351	3.0	351	3.0	684	0.513	100	13.1	LOS B	3.1	78.3	Full	570	0.0	0.0
Lane 2[d]	543	3.0	543	3.0	748	0.726	100	19.8	LOS C	6.9	177.8	Full	1600	0.0	0.0
Approach	893	3.0	893	3.0		0.726		17.2	LOS C	6.9	177.8				
North: SH 83															
Lane 1	311	3.0	311	3.0	500	0.623	100	21.2	LOS C	3.5	89.1	Full	1600	0.0	0.0
Lane 2[d]	311	3.0	311	3.0	500	0.623	100	21.2	LOS C	3.5	89.1	Full	1600	0.0	0.0
Approach	623	3.0	623	3.0		0.623		21.2	LOS C	3.5	89.1				
West: Highway 105															
Lane 1	327	3.0	327	3.0	540	0.606	100	19.2	LOS C	3.6	91.2	Full	1100	0.0	0.0
Lane 2[d]	363	3.0	363	3.0	599	0.606	100	17.7	LOS C	3.6	92.6	Full	1100	0.0	0.0
Approach	691	3.0	691	3.0		0.606		18.4	LOS C	3.6	92.6				
All Vehicles	2988	3.0	2988	3.0		0.726		16.8	LOS C	6.9	177.8				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: SH 83

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	225	149	-	374	3.0	751	0.498	100	NA	NA
Lane 2	-	213	194	407	3.0	817	0.498	100	NA	NA
Approach	225	362	194	781	3.0		0.498			

East: Walker Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	351	-	-	351	3.0	684	0.513	100	NA	NA
Lane 2	-	452	90	543	3.0	748	0.726	100	NA	NA
Approach	351	452	90	893	3.0		0.726			

North: SH 83

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	103	209	-	311	3.0	500	0.623	100	NA	NA
Lane 2	-	234	77	311	3.0	500	0.623	100	NA	NA
Approach	103	443	77	623	3.0		0.623			

West: Highway 105

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	74	253	-	327	3.0	540	0.606	100	NA	NA
Lane 2	-	136	227	363	3.0	599	0.606	100	NA	NA
Approach	74	390	227	691	3.0		0.606			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2988	3.0	0.726

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker Rd				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Highway 105				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE LEVEL OF SERVICE

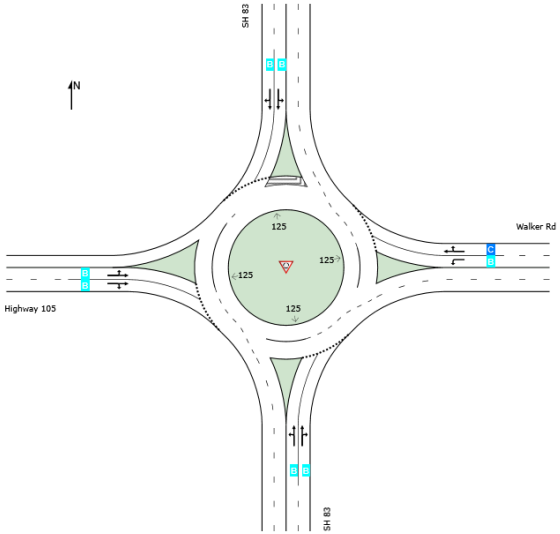
Lane Level of Service

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

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



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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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LANE SUMMARY

Site: 101 [2045 BG + Site PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: SH 83															
Lane 1	526	3.0	526	3.0	875	0.601	100	12.9	LOS B	5.4	138.8	Full	1600	0.0	0.0
Lane 2[d]	567	3.0	567	3.0	943	0.601	100	12.2	LOS B	5.5	139.5	Full	1600	0.0	0.0
Approach	1093	3.0	1093	3.0		0.601		12.6	LOS B	5.5	139.5				
East: Walker Rd															
Lane 1	210	3.0	210	3.0	492	0.427	100	14.7	LOS B	1.8	47.0	Full	570	0.0	0.0
Lane 2[d]	364	3.0	364	3.0	549	0.662	100	21.5	LOS C	4.0	102.6	Full	1600	0.0	0.0
Approach	574	3.0	574	3.0		0.662		19.0	LOS C	4.0	102.6				
North: SH 83															
Lane 1	331	3.0	331	3.0	626	0.528	100	14.5	LOS B	3.0	77.4	Full	1600	0.0	0.0
Lane 2[d]	331	3.0	331	3.0	626	0.528	100	14.5	LOS B	3.0	77.4	Full	1600	0.0	0.0
Approach	661	3.0	661	3.0		0.528		14.5	LOS B	3.0	77.4				
West: Highway 105															
Lane 1	259	3.0	259	3.0	595	0.436	100	12.7	LOS B	2.1	53.6	Full	1100	0.0	0.0
Lane 2[d]	286	3.0	286	3.0	656	0.436	100	11.8	LOS B	2.1	53.5	Full	1100	0.0	0.0
Approach	546	3.0	546	3.0		0.436		12.2	LOS B	2.1	53.6				
All Vehicles	2874	3.0	2874	3.0		0.662		14.2	LOS B	5.5	139.5				

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.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (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.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: SH 83

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	294	232	-	526	3.0	875	0.601	100	NA	NA
Lane 2	-	361	205	567	3.0	943	0.601	100	NA	NA
Approach	294	593	205	1093	3.0		0.601			

East: Walker Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	210	-	-	210	3.0	492	0.427	100	NA	NA
Lane 2	-	299	65	364	3.0	549	0.662	100	NA	NA
Approach	210	299	65	574	3.0		0.662			

North: SH 83

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	67	263	-	331	3.0	626	0.528	100	NA	NA
Lane 2	-	260	71	331	3.0	626	0.528	100	NA	NA
Approach	67	523	71	661	3.0		0.528			

West: Highway 105

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	101	158	-	259	3.0	595	0.436	100	NA	NA
Lane 2	-	86	200	286	3.0	656	0.436	100	NA	NA
Approach	101	245	200	546	3.0		0.436			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	2874	3.0	0.662

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Walker Rd				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: SH 83				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Highway 105				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

SimTraffic Queuing Reports

State Highway 83 + Highway 105/Walker
Short-Term Total + Long-Term Total

TRANSPORTATION
CONSULTANTS, INC.

Intersection: 1: SH 83 & Walker Rd, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	61	133	124	197	71	131	50	147
Average Queue (ft)	23	82	79	127	42	81	21	87
95th Queue (ft)	65	146	133	216	75	141	50	158
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	56	103	102	234	80	142	59	122
Average Queue (ft)	22	69	69	131	45	79	32	72
95th Queue (ft)	57	126	106	231	90	151	66	147
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	51	204	528	558	97	173	90	148
Average Queue (ft)	29	130	256	397	58	114	48	95
95th Queue (ft)	59	208	625	689	106	193	91	169
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)			13	17				
Queuing Penalty (veh)			64	87				
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	37	160	353	510	85	137	56	117
Average Queue (ft)	20	77	143	252	50	89	28	83
95th Queue (ft)	43	159	374	506	96	149	61	130
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)			2	2				
Queuing Penalty (veh)			4	3				
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	77	204	528	570	106	184	93	185
Average Queue (ft)	24	90	137	227	49	91	32	84
95th Queue (ft)	57	171	389	501	93	163	71	153
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)			4	5				
Queuing Penalty (veh)			17	23				
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #1

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	R	L	T
Maximum Queue (ft)	67	161	119	136	104	106	11	26	199
Average Queue (ft)	33	89	69	81	50	65	2	9	119
95th Queue (ft)	80	165	119	141	99	113	17	29	208
Link Distance (ft)		698	566	566		765			528
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	265				455		400	435	
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	R	L	T
Maximum Queue (ft)	63	181	148	361	126	120	32	86	215
Average Queue (ft)	32	107	106	210	66	72	5	32	140
95th Queue (ft)	66	189	163	371	121	132	29	82	258
Link Distance (ft)		698	566	566		765			528
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	265				455		400	435	
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	49	144	153	290	80	145	46	201
Average Queue (ft)	25	99	85	125	46	76	20	130
95th Queue (ft)	62	161	150	259	86	143	48	210
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	52	136	138	139	111	119	46	175
Average Queue (ft)	25	94	85	86	58	73	19	105
95th Queue (ft)	58	144	139	149	105	130	52	186
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	R	L	T
Maximum Queue (ft)	84	190	164	363	143	154	43	90	238
Average Queue (ft)	29	97	86	126	55	71	2	20	123
95th Queue (ft)	67	167	147	267	105	130	16	57	219
Link Distance (ft)		698	566	566		765			528
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	265				455		400	435	
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 1: SH 83 & Walker Rd, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	58	80	56	88	67	106	40	137
Average Queue (ft)	32	43	26	57	37	68	18	85
95th Queue (ft)	65	97	59	102	73	114	47	153
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	64	73	42	133	76	96	31	171
Average Queue (ft)	32	38	18	68	44	55	15	92
95th Queue (ft)	73	79	48	126	77	101	40	188
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	64	80	68	118	92	156	41	235
Average Queue (ft)	37	51	34	65	58	101	12	134
95th Queue (ft)	67	91	70	119	100	170	42	239
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	67	90	46	141	80	141	30	180
Average Queue (ft)	32	48	20	67	41	67	11	111
95th Queue (ft)	65	88	48	129	82	146	31	182
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	TR	L	T	L	T
Maximum Queue (ft)	77	105	69	158	102	170	58	235
Average Queue (ft)	33	45	25	64	45	73	14	105
95th Queue (ft)	68	90	58	120	85	141	40	198
Link Distance (ft)		698	566	566		765		528
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	265				455		435	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: SH 83 & Walker Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	L	T	T
Maximum Queue (ft)	80	122	129	171	140	147	111	106	100	55	146	101
Average Queue (ft)	42	73	81	114	90	98	68	62	49	32	89	49
95th Queue (ft)	87	133	135	178	146	153	116	100	96	57	154	115
Link Distance (ft)		684	684	554	554	554		753	753		514	514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			435		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	L	T	T
Maximum Queue (ft)	70	120	113	184	114	134	95	98	98	77	146	93
Average Queue (ft)	38	81	63	110	76	81	56	68	52	43	89	41
95th Queue (ft)	71	132	116	183	122	139	97	106	100	81	151	99
Link Distance (ft)		684	684	554	554	554		753	753		514	514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			435		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	76	168	210	279	222	237	125	128	119	48	101	144
Average Queue (ft)	38	83	143	182	145	168	81	89	82	7	61	89
95th Queue (ft)	75	171	224	325	226	251	132	142	131	39	102	145
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	SB
Directions Served	T
Maximum Queue (ft)	121
Average Queue (ft)	54
95th Queue (ft)	115
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	L	T	T
Maximum Queue (ft)	58	107	136	204	136	174	106	99	89	76	137	105
Average Queue (ft)	31	75	79	125	93	102	57	66	54	46	97	52
95th Queue (ft)	62	124	139	197	150	178	107	110	102	94	149	111
Link Distance (ft)		684	684	554	554	554		753	753		514	514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			435		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	88	175	210	287	222	237	133	136	127	48	106	159
Average Queue (ft)	37	78	92	133	101	112	65	71	59	2	45	91
95th Queue (ft)	75	142	172	238	176	200	116	118	112	19	88	150
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	SB
Directions Served	T
Maximum Queue (ft)	123
Average Queue (ft)	49
95th Queue (ft)	111
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	72	190	176	188	126	152	145	122	104	11	68	177
Average Queue (ft)	45	131	80	121	78	94	87	84	64	2	31	124
95th Queue (ft)	81	197	163	189	129	165	138	128	116	16	66	185
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #1

Movement	SB
Directions Served	T
Maximum Queue (ft)	140
Average Queue (ft)	81
95th Queue (ft)	149
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	77	155	134	271	166	196	166	135	105	43	70	204
Average Queue (ft)	39	115	82	169	108	131	109	88	68	8	37	140
95th Queue (ft)	78	171	149	292	173	199	172	137	115	39	77	210
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	SB
Directions Served	T
Maximum Queue (ft)	188
Average Queue (ft)	114
95th Queue (ft)	199
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	79	163	125	262	158	182	156	121	99	26	63	209
Average Queue (ft)	36	123	73	179	90	104	99	75	60	5	32	128
95th Queue (ft)	81	181	139	313	158	201	169	117	112	32	67	199
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	SB
Directions Served	T
Maximum Queue (ft)	183
Average Queue (ft)	93
95th Queue (ft)	175
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	81	178	155	199	120	137	157	113	114	20	50	192
Average Queue (ft)	40	126	92	134	79	82	97	66	56	3	28	123
95th Queue (ft)	82	191	163	207	132	143	166	112	114	22	61	197
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #4

Movement	SB
Directions Served	T
Maximum Queue (ft)	144
Average Queue (ft)	87
95th Queue (ft)	158
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	95	199	183	296	177	203	175	148	128	58	76	232
Average Queue (ft)	40	124	81	151	89	103	98	78	62	4	32	129
95th Queue (ft)	81	186	155	262	152	184	163	126	115	28	68	199
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	SB
Directions Served	T
Maximum Queue (ft)	217
Average Queue (ft)	94
95th Queue (ft)	173
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	L	T	T
Maximum Queue (ft)	106	136	99	140	111	108	93	84	74	41	146	114
Average Queue (ft)	52	87	28	89	76	67	47	49	41	21	94	64
95th Queue (ft)	97	148	74	142	117	110	90	87	82	48	154	130
Link Distance (ft)		684	684	554	554	554		753	753		514	514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			435		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	84	138	100	177	117	154	64	92	77	10	50	139
Average Queue (ft)	45	88	36	98	76	85	39	60	48	1	26	83
95th Queue (ft)	91	147	96	179	120	160	67	97	87	15	56	138
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #2

Movement	SB
Directions Served	T
Maximum Queue (ft)	94
Average Queue (ft)	40
95th Queue (ft)	94
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 1: SH 83 & Walker Rd, Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	L	T	T
Maximum Queue (ft)	97	147	101	170	155	185	200	105	110	54	168	139
Average Queue (ft)	65	94	40	99	97	115	120	68	60	29	109	68
95th Queue (ft)	105	160	112	164	164	200	210	119	116	61	174	133
Link Distance (ft)		684	684	554	554	554		753	753		514	514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			435		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	L	T	T
Maximum Queue (ft)	93	170	121	177	123	154	116	94	88	50	138	99
Average Queue (ft)	48	96	49	107	88	90	48	57	47	21	91	60
95th Queue (ft)	98	180	124	185	128	160	108	96	89	52	149	122
Link Distance (ft)		684	684	554	554	554		753	753		514	514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			435		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, All Intervals

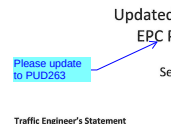
Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	118	177	162	208	163	198	209	115	117	10	72	168
Average Queue (ft)	53	91	38	98	84	89	64	59	49	0	24	94
95th Queue (ft)	100	160	104	169	136	165	144	101	95	7	55	156
Link Distance (ft)		684	684	554	554	554		753	753			514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265						455			400	435	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SH 83 & Walker Rd, All Intervals

Movement	SB
Directions Served	T
Maximum Queue (ft)	150
Average Queue (ft)	58
95th Queue (ft)	122
Link Distance (ft)	514
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

V1_Traffic Impact Study.pdf Markup Summary

Bret Dilts - DPW Engineering (2)



Subject: Engineer
Page Label: 1
Author: Bret Dilts - DPW Engineering
Date: 10/7/2026 2:18:18 PM
Status:
Color:
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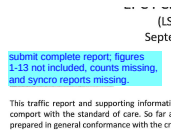
Space:

Please update to PUD263



Subject: Engineer
Page Label: 1
Author: Bret Dilts - DPW Engineering
Date: 10/8/2026 8:35:56 AM
Status:
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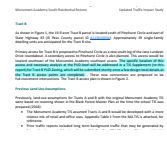
submit complete report; figures 1-13 not included, counts missing, and syncro reports missing.

Laura Besler (7)



Subject: Highlight
Page Label: 9
Author: Laura Besler
Date: 10/9/2026 9:52:08 AM
Status:
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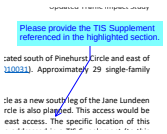
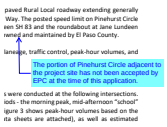
The specific location of this access and necessary analysis at the PUD-level will be addressed in a TIS Supplement (to this report) for Tract B PUD Zoning, which will be submitted shortly once a few design-level details at

the Tract B access points are completed.



Subject: Callout
Page Label: 9
Author: Laura Besler
Date: 10/9/2026 10:17:33 AM
Status:
Color:
Layer:
Space:

Please provide the TIS Supplement referenced in the highlighted section.



Subject: Callout
Page Label: 10
Author: Laura Besler
Date: 10/9/2026 10:15:20 AM
Status:
Color:
Layer:
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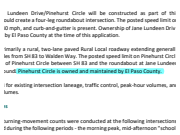
The portion of Pinehurst Circle adjacent to the project site has not been accepted by EPC at the time of this application.



Subject: Highlight
Page Label: 10
Author: Laura Besler
Date: 10/9/2026 10:15:16 AM
Status:
Color:
Layer:
Space:

Pinehurst Circle is owned and maintained by El Paso County.

Subject: Highlight
Page Label: 12
Author: Laura Besler
Date: 10/9/2026 10:17:19 AM
Status:
Color:
Layer:
Space:

Sight distance for the Tract B access points will be addressed in a TIS Supplement (to this report) for Tract B PUD Zoning, which will be submitted with the Tract B PUD submittal.

Subject: Callout
Page Label: 12
Author: Laura Besler
Date: 10/9/2026 10:17:44 AM
Status:
Color:
Layer:
Space:

Please provide the TIS Supplement referenced in the highlighted section.

Subject: Callout
Page Label: 29
Author: Laura Besler
Date: 10/9/2026 10:48:18 AM
Status:
Color:
Layer:
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Please address CDOT's Traffic Comments regarding CO 83 & Walker:

• Based on the 2050 traffic projections with the new land use, improvements at CO 83 & Walker are required. Both the eastbound and westbound directions require the addition of the through lanes. The length of the additional through lanes must be long enough to diminish the “false capacity” created with the added lanes and operations of the roundabout to the east of CO 83 will need to be included in the analysis.
• An alternative to a traffic signal may be a roundabout, though more analysis would be needed.